1966 FISHER BODY SERVICE MANUAL

FOR ALL BODY STYLES

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all 1966 Fisher Body Styles. All information, illustrations, and specifications contained in this publication are based on the latest product information available at the time of publication approval. The right is reserved to make changes at any time without notice.

Arrangement of the material is shown by the table of contents on the right-hand side of this page. Black tabs on the first page of each section can be seen on the edge of the book below the section title. A more detailed table of contents precedes each section, and an alphabetical index is included in the back of the manual.

FISHER BODY DIVISION
PART NO. 4226635

LITHO IN U.S.A.
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MANUAL DESCRIPTION

INTRODUCTION

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all 1966 Fisher Body Styles. This information is current as of time of publication approval.

INDEX

The preceding page contains a "Table of Contents" which lists the section number and subject title of each main body area section. The first page in each main body area section has an index to the subjects included in that section. An alphabetic index covering the entire manual is located in section 13.

PAGE AND FIGURE NUMBERS

All page numbers and figure numbers consist of two sets of digits separated by a dash. The digits preceding the dash identify the main body area section. The digits following the dash represent the consecutive page number or figure number within the particular body area section.

REFERENCE TABS

The first page of each section is marked with a ready-reference black tab corresponding with the table of contents page.

TEXT

Unless otherwise specified, each service procedure covers all body styles. Procedures covering specific styles are identified by the style number, body series number, body type letter or similar designation. A description of these designations is covered in this section under "Model Identification".

ILLUSTRATIONS

Where possible, illustrations are placed in close proximity to the accompanying text and should be used as part of the text.

BODY NUMBER PLATE

The body number plate identifies the body style, body assembly plant, body number, trim combination number, paint code and time built code (Fig. 1-1). On Corvair styles, the body number plate is attached to the left side of the motor compartment cross rail. On Cadillac styles, the plate is located on the left upper portion of the horizontal surface of the cowl. On all other cars, the plate is located on the left upper portion of the vertical surface of the dash firewall.

MODEL IDENTIFICATION

INTRODUCTION

Due to the wide variety of body styles available, certain body styles have been grouped in this publication as an aid to identification. These group designations may be used individually or in various combinations. An explanation of the principal categories follows:

BODY STYLE NUMBER

The body style number consists of five digits as they appear on the body number plate. (Refer to previous section for body number plate location.) The body style number is used to include or exclude a specific style (ex. on 16637, use . . . . . .; on all styles, except the 68069 style, use . . . . . .).

BODY STYLE NUMBER SERIES

The body style number series may be used to indicate three possibilities:

Division - first digit and four zeros (ex. 10000 Chevrolet; 20000 Pontiac).

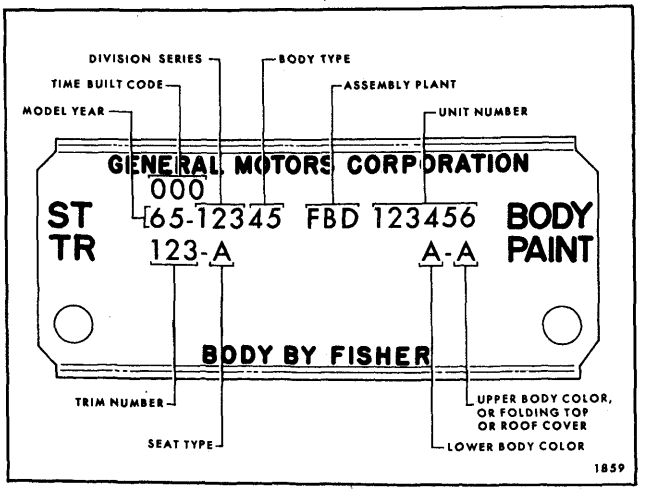

Fig. 1-1—Body Number Plate

Division and Car Line - first two digits and three zeros (ex. 33000 Oldsmobile F 85; 45000 Buick LeSabre).

Division, Car Line and Style Group - First three digits and two zeros (ex. 25200 Catalina; 25600 Star Chief).

BODY STYLE NUMBER SUFFIX

The last two digits of the body style number indicate body type as follows:

07 - 2 door sport coupe with pillar post
11 - 2 door sedan with pillar post
17 - 2 door sport coupe hardtop
23 - 4 door sedan with auxiliary center seat
33 - 4 door sedan with auxiliary center seat and center partition window
35 - 4 door station wagon two seat
37 - 2 door coupe hardtop
39 - 4 door sedan hardtop
45 - 4 door station wagon three seat
47 - 2 door sport coupe hardtop
55 - 4 door station wagon two seat with skylight
57 - 2 door sport coupe hardtop
65 - 4 door station wagon three seat with skylight
67 - 2 door convertible coupe
69 - 4 door sedan with pillar post (some models equipped with door window frames)
80 - 2 door pick-up delivery
87 - 2 door sport coupe hardtop

BODY TYPE NAME

Body type names are used for group classification as follows (style number suffix shown in brackets):

Closed Style
Two door sedan (11)
Two door sport coupe (07)
Four Door sedan (69)
Limousine (23, 33)

Hard Top
Sport coupe hardtop (17, 47, 57, 87)
Coupe hardtop (37)
Sedan hardtop (39)

Station Wagon
Station wagon two seat (35 less skylight; 55 with skylight)
Station wagon three seat (45 less skylight; 65 with skylight)

Convertible Coupe (67)

Sedan Delivery (80)

BODY TYPE LETTER

Basic body types can be identified by generic group classifications as follows:

"A" - Chevrolet 13000 Series
Pontiac 23-24000 Series
Oldsmobile 33000 Series
Buick 43-44000 Series

"B" - Chevrolet 15-16000 Series
Pontiac 25-26000 Series
Oldsmobile 35000 Series
Buick 45-46000 Series

"C" - Oldsmobile 384-386-39800 Series
Buick 482-48400 Series
Cadillac 68000 Series

"D" - Cadillac 69000 Series

"E" - Oldsmobile 394-39600 Series
Buick 49000 Series

"X" - Chevrolet 11000 Series

"Z" - Chevrolet 10000 Series

ADHESIVE CAULKING
All A-B-C-E-Z Styles

DESCRIPTION

This concept of glass installation incorporates a synthetic self-curing rubber adhesive caulking compound that adheres to both glass and window opening pinchweld flange in place of the rubber channel that was formerly used. Applied to the glass while in a soft state the material begins to cure soon after exposure to air. Due to this fast curing characteristic, installation of the glass into the body opening must quickly follow application of material to glass. This method of glass installation is used on stationary glass, such as windshield glass, back glass, station wagon quarter glass and skylights. Reference to specific procedures applicable to the individual glass assemblies may be found in the appropriate section of the manual.

Adhesive caulking GM Kit Part #4226000, which is designed for a short method windshield installation, has some of the materials needed to remove and replace a stationary glass and can be obtained through regular service parts channels.

GM Kit Part #4226000 consists of:

A. One tube of Adhesive Caulking Material

B. One nozzle (cut for the short method)

C. Steel music wire (.020 thickness)

D. Adhesive Caulking Primer (for priming old caulking material on pinchweld flanges).

The other materials that are needed to complete an installation are available as service parts or at local supply shops.

Additional materials required:

A. Caulking gun (standard household type reworked as follows).

1. Widen end-slot of caulking gun with a file to accept dispensing end of tube.

2. Grind down plunger disc on rod so that disc will fit into large end of tube.

B. Two pieces of wood for wire handles.

C. Black weatherstrip adhesive.

D. Paint Finish Primer - service part, used only on the extended method.

E. Rubber glass spacers.

SERVICE PROCEDURES

This type of glass installation requires an entirely different removal and installation service procedure. There are two methods of removal and installation. They are called the short method and the extended method. The extended method requires the removal of all adhesive caulking material from the glass and the opening. The short method requires the removal of all adhesive caulking material from the glass only and the removal

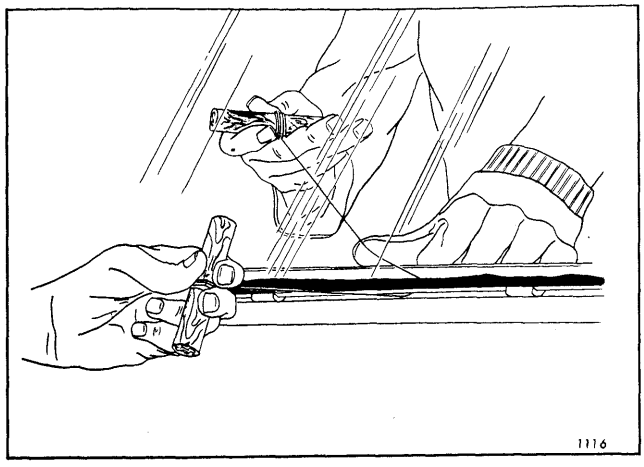

Fig. 1-2—Cutting Adhesive Material

of a minimum of adhesive caulking material when cutting the glass from the body opening. No loose pieces of adhesive material or sealing strip material should be left around the opening. The short method installation is used on a windshield installation only.

IMPORTANT: When the glass is originally installed a sponge or rubber type filler sealing strip is applied to the inside surface of the glass prior to application of adhesive caulking material. For service replacements the sealing strips are not required and are not available as a service part. When replacing a glass, using the short method, the sealing strip must be trimmed from the adhesive material in the body opening for a good appearance.

Removal

The glass removal procedure will be the same for the extended or short method.

1. Place protective coverings around area of glass being removed.

2. Remove garnish moldings, escutcheons, reveal moldings, wiper arm assemblies, cowl air intake grille, rear view mirror support and instrument panel items (instrument panel cover) as required.

NOTE: Reveal molding removal is covered in Exterior Molding Section.

3. Secure one end of steel music wire to a piece of wood (for handle) (Fig. 1-2). With the aid of a pair of long nose pliers insert the other end of wire through caulking material at lower inside corner of windshield along side of glass surface; then, secure that end of wire to another piece of wood (for handle).

4. With the aid of a helper, carefully cut (pull steel wire) through caulking material, up one side of glass across top, down opposite side and across bottom of glass (Fig. 1-2). Make sure inside wire is held close to plane of glass to prevent cutting an excessive amount of adhesive caulking material from the glass opening. This can be accomplished by holding the inside wire close to the plane of the glass with one hand while pulling the wire with the other hand. Keep tension on wire throughout cutting operation to prevent "kinks" in wire.

5. After cutting the adhesive material entire perimeter of glass, carefully remove glass.

Installation

NOTE: If the original glass is to be re-used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

IMPORTANT: Do not use oil base solvent. Any oil will prevent adhesion of new caulking material to glass.

1. Align glass to opening; mark glass to body with tape for proper alignment of glass to opening at time of installation.

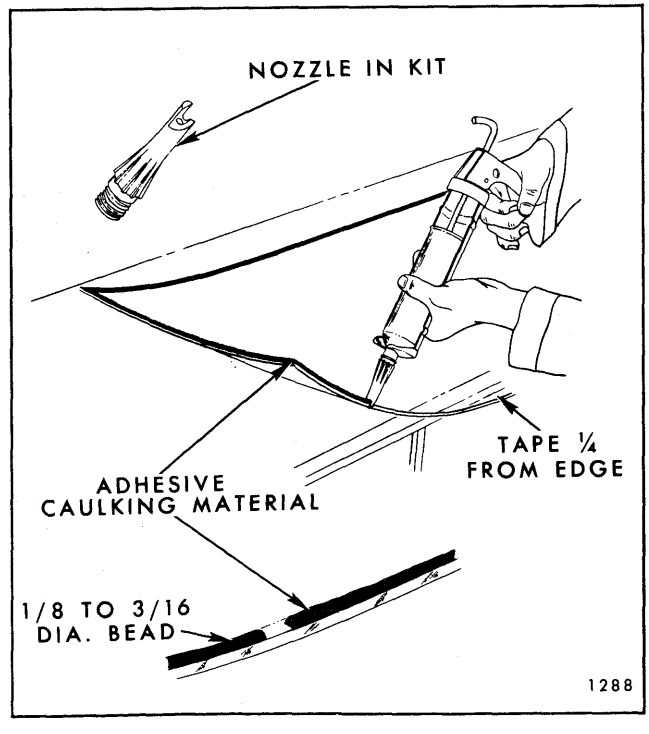

Fig. 1-3—Adhesive Glass Installation Short Method

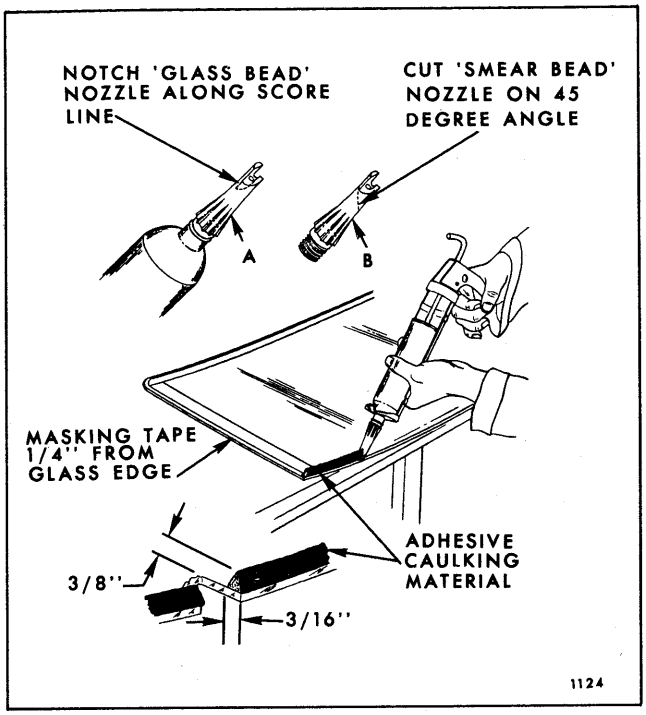

Fig. 1-4—Adhesive Glass Installation Extended Method

2. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer over original adhesive caulking material that remains on pinchweld flange. Additional brisk application of primer on flat rubber spacers is necessary to insure a good bond of material to spacers.

CAUTION: Do not allow primer to drop on painted surfaces or trim parts.

NOTE: If the glass opening is freshly painted due to collision work, etc., apply paint finish primer to painted pinchweld flange. Paint finish primer is available as a service part.

3. If short method installation is required, the nozzle furnished with the kit, is pre-cut to dispense the proper size bead of caulking material (Fig. 1-3).

4. If extended method is required, cut off tip of one nozzle along score line (Fig. 1-4). This glass bead nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle (Fig. 1-4). This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.

5. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened cloth. Dry glass with a clean dry cloth.

6. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle.

7. Positioning the gun and nozzle as shown in Figure 1-4, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.

NOTE: Material begins to cure after 15 minutes exposure to air, therefore, perform following steps immediately and install glass in opening as soon as possible.

8. Remove "glass bead" nozzle and insert "smear bead" nozzle. Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

9. Install glass in opening using tape marks as a guide.

10. Watertest windshield immediately using cold water spray. If any waterleaks are encountered, use flat-bladed tool or stick and work caulking material into leak point to correct leak. This operation is usually performed most effectively from outside the body.

CAUTION: Do not run a heavy stream of water directly on caulking material while the material is still soft.

11. Install previously removed hardware and trim parts.

WATERLEAK CORRECTION OF ADHESIVE CAULKED GLASS

Adhesive caulked glass installation waterleaks can be corrected in the following manner without removing and reinstalling the glass.

NOTE: The following procedure is applicable only with the use of adhesive caulking material and primer furnished in Kit Part #4226000 or equivalent.

1. Remove reveal moldings in area of leak.

2. Mark location of leak(s).

IMPORTANT: If leak is between adhesive caulking material and body or between material and glass carefully push outward on glass in area of leak to determine extent of leak. This operation should be performed while water is being applied to leak area. Mark extent of leak area.

3. From outside body clean any dirt or foreign material from leak area with water; then dry area with air hose.

4. Using a sharp knife, trim off uneven edge of adhesive caulking material (see Operation "A" Fig. 1-5) at leak point and 3 to 4 inches on both sides of leak point or beyond limits of leak area.

5. Using a small brush, apply adhesive caulking material primer over trimmed edge of adhesive caulking material and over adjacent painted surface (see Operation "B" Fig. 1-5).

6. Apply adhesive caulking material, as shown in Operation "C" (Fig. 1-5), at leak point and 3 to 4 inches on both sides of leak point or beyond limits of leak area.

7. Immediately after performing step 6, use flat stick or other suitable flat-bladed tool to work adhesive caulking material well into leak point and into joint of original material and body to effect a watertight seal along entire length of material application (See Operation "D" Fig. 1-5).

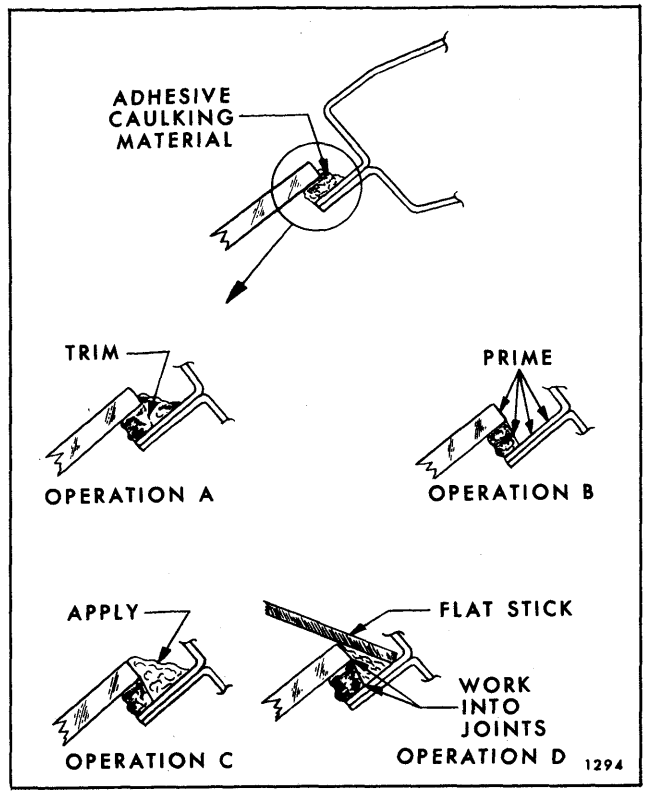

Fig. 1-5—Adhesive Glass Waterleak Correction

8. Spray watertest to assure that leak has been corrected. DO NOT run a heavy stream of water directly on freshly applied adhesive caulking material.

TRIM CLEANING PROCEDURE

INTRODUCTION

This procedure has been prepared to assist service personnel in cleaning automotive upholstery, floor carpets, headlining and folding tops using the latest approved methods for removing soil and stain.

GENERAL INSTRUCTIONS

There are four general types of trim materials used in automotive bodies:

1. Fabrics that may be either plain fabrics (broadcloth), or pattern fabrics which are manufactured with natural or synthetic (nylon, rayon.,) fibers.

2. Genuine leather.

3. Coated fabrics (vinyl or mylar).

4. Polyurethane foam.

Dust and dirt particles that accumulate on the upholstery of a car should be removed every few weeks, or oftener if the car is given constant hard use. This is done with a whisk broom or vacuum cleaner.

CAUTION: Do not use a whisk broom on fabrics having raised tapestry patterns since damage to the fine threads may result. On polyurethane foam material, use soft bristle brush - do not use a whisk broom or vacuum cleaner.

Before attempting to remove spots or stains from upholstery fabrics, determine as accurately as possible:

1. Nature and age of the spot or stain.

2. The effect of stain removing agents on the color structure and general appearance of the fabric.

For best results, stains should be removed from upholstery as soon as possible after they have been made. If they are allowed to stand for some time, they often become set and removal becomes more difficult - frequently, impossible.

There are three basic types of acceptable cleaners available to car owners:

1. Volatile cleaners (colorless liquids).
2. Detergents.
3. Neutral soap (nonalkaline).

Many types of these cleaners can be obtained through GM Dealer or other reputable supply houses.

The volatile cleaners have great solvent powers for grease, oils and general road grime. Detergents generally loosen up stains satisfactorily; however, the use of improper type detergents involves risk of damage to the color or finish of fabrics.

CLEANING FABRICS WITH VOLATILE CLEANERS

Care should be taken not to use too much solvent and to apply it only with clean cloths. It is the solvent that does the work - so only a minimum of pressure should be applied.

1. Brush away all loose particles of dirt and soil.
2. Dampen a clean cloth (cheese cloth may be used) with the volatile cleaner. Open the cloth and allow a portion of the cleaner to evaporate so that the cloth is just slightly damp.
3. Using very light pressure and a circular lifting motion, rub the stained area, starting at the outer edge and working toward the center until the entire area has been covered. Change to a clean portion of the cloth every few strokes.
4. Using a clean white blotter, blot stained area to remove any excess cleaner. Change to a new portion of the blotter each time stained area is blotted. The blotting action should be repeated until no stain is transferred to the blotter surface.
5. Before proceeding, wait several minutes to allow most of the volatile cleaner to evaporate. DO NOT saturate stained area. This will avoid the danger of the cleaner penetrating to the padding under the upholstery. Certain cleaners will deteriorate sponge rubber which is often used in padding.
6. It may be necessary to repeat steps 2, 3, 4 and 5 several times before the stain has been satisfactorily removed. Each time a clean cloth should be used.
7. If a ring should form on the fabric when removing a stain, the entire area of the trim assembly should be cleaned as described in the preceding steps.
8. The cleaned upholstery should be allowed to dry completely before using.

Some volatile cleaners are toxic and harmful; therefore, the following safety precautions should be used.

1. Always use in a well ventilated area. Car windows and garage doors must be open when such cleaners are used.
2. Avoid prolonged or repeated breathing of vapors from cleaner.
3. Avoid prolonged or repeated contact with the skin.
4. Keep away from eyes and mouth.
5. Some cleaners are flammable, and every precaution and care must be exercised in handling these cleaners.
6. Always follow directions specified by the manufacturer of the product used (label directions).

CLEANING FABRICS WITH DETERGENTS

1. Make a solution of the detergent in lukewarm water, working up thick, frothy suds.
2. With a clean cloth or sponge, dampened with lukewarm water, apply suds only to the surface of the upholstery using light to medium pressure. Repeat several times, applying more suds with a clean portion of the cloth or sponge.
3. With a second clean cloth, dampened with lukewarm water, rub over the area with medium pressure to remove excess detergent and loose material.
4. With a clean dry cloth, wipe off all excess moisture. A vacuum cleaner may also be used.
5. Allow the upholstery to dry partially; then, repeat the above treatment, if necessary, to remove stain.

6. When the upholstery is satisfactorily cleaned, allow to dry completely before using.

PRECAUTIONS FOR CLEANING FABRICS

1. Solutions containing water are not recommended for general cleaning of broad cloth. Water has great destructive powers on the high face or high gloss finish of broad cloth, causing the nap to curl and roughen to such an extent that the finish is destroyed or made very unsightly. However, in some cases where it is necessary to use a solution containing water to remove a stain, the resultant disturbance to the finish of the material may be preferable to the stain.
2. Do not use as a cleaning solvent, any gasoline which is colored or which contains tetraethyl lead.
3. Do not use solvents such as acetone, lacquer thinners, enamel reducers or nail polish remover, as a cleaning solvent.
4. Do not use laundry soaps, bleaches or reducing agents, such as the following: chloride of lime, javelle water, hydrogen peroxide, sodium hydrosulphite, potassium permanganate, chlorine or chlorine water, sulphurous acid (sulphur dioxide), sodium thiosulphate (photographers' hypo). The use of these agents tends to weaken fabric and to change its color.
5. Do not use too much cleaning fluid; some interior trim assemblies are padded with rubber, and volatile cleaners are generally solvents for rubber. The application of too much cleaner may destroy these rubber pads or leave a solvent ring.

CLEANING GENUINE LEATHER AND COATED FABRICS

Care of genuine leather and coated fabrics is a relatively simple but important matter. The surface should be wiped occasionally with a dry cloth, and whenever dirt accumulates, the following cleaning instructions should be used:

1. Lukewarm water and a neutral soap should be used. Apply a thick suds to the surface, worked up on a piece of gauze or cheesecloth.

NOTE: When cleaning coated fabrics, a nonflammable detergent may be substituted for neutral soap.

2. The operation should be repeated, using only a damp cloth and no soap.
3. The surface should then be wiped dry with a soft cloth.

Polishes and cleaners used for auto body finishes, volatile cleaners, furniture polishes, oils, varnishes or household cleaning and bleaching agents should never be used.

CLEANING POLYURETHANE FOAM HEADLINING MATERIAL

Normal soilage such as dirt and finger prints can be removed with a cleaning solution of approximately two ounces of white detergent powder mixed in a gallon of water. Immerse a clean cellulose sponge in cleaning solution. Wring the sponge out thoroughly leaving suds only; then, clean soiled area carefully. Rinse off the cleaned area with sponge and clean water - DO NOT soak the cleaned area.

Soilage such as cements, sealers, and grease can be removed by first cleaning the soiled area with a detergent solution as described above - DO NOT RINSE. Leaving suds on the soiled area, clean area with a clean cloth that has been dipped in a good volatile upholstery cleaner and thoroughly wrung out (naphtha cleaner is recommended). Then clean soiled area again with detergent suds and rinse as described above.

CLEANING FOLDING TOP AND FABRIC ROOF COVER MATERIAL

The top should be washed frequently with neutral soap suds, lukewarm water and a brush with soft bristles. Rinse top with sufficient quantities of clear water to remove all traces of soap.

IMPORTANT: Care must be exercised to keep the soaps and cleaners from running onto body finish, as it may cause streaks if allowed to run down and dry.

If the top requires additional cleaning after using soap and water, a mild foaming cleanser can be used. Rinse the whole top with water, then apply a mild foaming type cleanser to the entire top. Scrub with a small, soft bristle hand brush, adding water as necessary until the cleanser foams to a soapy consistency. Remove the first accumulated soilage with a cloth or sponge before it can be ground into the top material. Apply additional cleanser to the area and scrub until the top is clean. After the entire top has been cleaned, rinse the top generously with clear water to remove all traces of cleanser. If desired, the top can be supported from the underside during the scrubbing operations.

After cleaning a convertible top, always be sure the top is thoroughly dry before it is lowered. Lowering the top while it is still wet or damp may cause mildew and unsightly wrinkles.

Do not use volatile cleansers, household bleaching agents, or cleansers containing bleaching agents on the top material.

CLEANING FLOOR CARPETS

Thoroughly brush or vacuum the floor carpet. In many instances, the floor carpet may require no further cleaning. If carpet is extremely soiled, remove carpet from car and thoroughly vacuum to remove loose dirt; then, with a foaming type upholstery cleaner, clean approximately one square foot of carpet at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet, use an air hose to "fluff" the carpet pile, then dry the carpet. After the carpet is completely dried, use an air hose to again fluff the carpet pile.

NOTE: If the carpet is not extremely soiled, the carpet may be cleaned in the car by applying a sparing amount of foaming type upholstery cleaner with a brush.

If oil or grease spots are still present on the carpet, they may be removed by using a volatile cleaner; however, the cleaner must be used very sparingly since it may have a tendency to remove some of the dye coloring.

REMOVAL OF SPECIFIC STAINS FROM AUTOMOTIVE UPHOLSTERY

Some types of stains and soilage including blood, ink, chewing gum, etc., require special consideration for most satisfactory results. For these and other stains, specific instructions are outlined in succeeding paragraphs. It must be expected, particularly where water treatment is specified, that discoloration and finish disturbance may occur. In some cases, fabric disturbance may be considered preferable to the stain itself. By following the procedures outlined with normal care and caution, reasonably satisfactory results can be expected.

Battery Acid

Apply ordinary household ammonia water with a brush or cloth to the affected area, saturating it thoroughly. Permit the ammonia water to remain on the spot about a minute, so that it will have ample time to neutralize the acid. Then rinse the spot by rubbing with a clean cloth saturated with cold water.

This treatment will suffice for both old and new stains. However, no type of treatment will repair damage to fibers resulting from the action of the acids on the fibers - particularly after the spot has dried.

Blood

DO NOT use hot water or soap and water on blood stains since they will set the stain, thereby making its removal practically impossible.

Rub the stain with a clean cloth saturated with cold water until no more of the stain will come out. Care must be taken so that clean portions of cloth are used for rubbing the stain.

This treatment should remove all of the stain. If it does not, apply a small amount of household ammonia water to the stain with a cloth or brush. After a lapse of about one minute, continue to rub the stain with a clean cloth dipped in clear water.

If the stain remains after the use of water and ammonia, a thick paste of corn starch and cold water may be applied to the stained area. Allow the paste to remain until it has dried and absorbed the stain. Then pick off the dry starch. Brush the surface to remove starch particles that remain. For bad stains, several applications of starch paste may be necessary.

Candy

Candy stains, other than candy containing chocolate, can be removed by rubbing the affected area with a cloth soaked with very hot water. If the stain is not completely removed, rub area lightly (after drying) with a cloth wet with volatile cleaner. This will usually remove the stain.

Candy stains resulting from cream and fruit-filled chocolates can be removed more easily by rubbing with a cloth soaked in lukewarm soapsuds (mild neutral soap) and scraping, while wet with a dull knife. This treatment is followed with a rinsing by rubbing the spot with a cloth dipped in cold water.

Stains resulting from chocolate or milk chocolate can be removed by rubbing the stain with a cloth wet with lukewarm water. After the spot is dry, rub it lightly with a cloth dipped in a volatile cleaner. Using a clean white blotter, blot area to remove excess cleaner and chocolate stain. Repeat blotting action until stain is no longer transferred to surface of blotter.

Chewing Gum

Harden the gum with an ice cube, and scrape off particles with a dull knife. If gum cannot be removed completely by this method, moisten it with

a volatile cleaner and work it from the fabric with a dull knife, while gum is still moist.

Fruit, Fruit Stains, Liquor and Wine

Practically all fruit stains can be removed by treatment with very hot water. Wet the stain well by applying hot water to the spot with a clean cloth. Scrape all excess pulp, if present, off the fabric with a dull knife; then, rub vigorously with a cloth wet with very hot water. If the stain is very old or deep, it may be necessary to pour very hot water directly on the spot, following this treatment with the scrapping and rubbing. Direct application of hot water to fabrics is not recommended for general use since discoloration may result.

If the above treatments do not remove stain, allow fabric to dry thoroughly; then, rub lightly with a clean cloth dipped in a volatile cleaner. This is the only further treatment recommended.

Soap and water are not recommended since they will probably set the stain and cause a permanent discoloration. Drying the fabric by means of heat (such as the use of an iron) is not recommended.

Grease and Oil

If grease has been spilled on the material, as much as possible should be removed by scraping with a dull knife or spatula before further treatment is attempted.

Grease and oil stains may be removed by rubbing lightly with a clean cloth saturated with a volatile cleaner. Be sure all motions are toward the center of the stained area, to decrease the possibility of spreading the stain. Use a clean white blotter, blot area to remove excess cleaner and loosened grease or oil. Repeat blotting action until grease or oil stain is no longer transferred to blotter.

Ice Cream

The same procedure is recommended for the removal of ice cream stains as that used in removing fruit stains.

If the stain is persistent, rubbing the spot with a cloth wet with warm soapsuds (mild neutral soap) may be used to some advantage after the initial treatment with hot water. This soap treatment should be followed with a rinsing, by rubbing with a clean cloth wet with cold water. After this dries, rubbing lightly with a cloth wet with volatile cleaner will clear up the last of the stain by removing fatty or oil matter.

Nausea

Sponge with a clean cloth, dipped in clear cold water. After most of the stain has been removed in this way, wash lightly with soap (mild neutral), using a clean cloth and lukewarm water. Then rub with another clean cloth dipped in cold water. If any of the stain remains after this treatment, gently rub clean with a cloth moistened with a volatile cleaner.

Shoe Polish and Dressings

On types of shoe dressings which contain starch, dextrine or some water soluble vehicle, allow the polish to dry; then, brush the spot vigorously with a brush. This will probably be all the treatment that is necessary. If further treatment is required, moisten the spot with cold water and after it has dried, repeat the brushing operation.

Paste or wax type shoe polishes may require using a volatile cleaner. Rub the stain gently with a cloth wet with a volatile cleaner until the polish is removed. Use a clean portion of the cloth for each rubbing operation and rub the stained area from outside to center. Blot stained area to remove as much of the cleaner as possible.

Tar

Remove as much of the tar as possible with a dull knife. Moisten the spot lightly with a volatile cleaner, and again remove as much of the tar as possible with a dull knife. Follow this operation by rubbing the spot lightly with a cloth wet with the cleaner until the stain is removed.

Urine

Sponge the stain with a clean cloth saturated with lukewarm soapsuds (mild neutral soap) and then rinse well by rubbing the stain with a clean cloth dipped in cold water. Then saturate a clean cloth with a solution of one part household ammonia water and five parts water. Apply the cloth to the stain and allow solution to remain on affected area for one minute; then, rinse by rubbing with a clean wet cloth.

Lipstick

The compositions of different brands of lipsticks vary, making the stains very difficult to remove. In some instances, a volatile cleaner may remove the stain. If some stain remains after repeated applications of the volatile cleaner, it is best to leave it rather than try other measures.

UNDERBODY ALIGNMENT
All Corvair Styles

GENERAL BODY CONSTRUCTION

The body design used on the 10000 series is of an integral, all steel, welded construction, commonly known as "unitized" body construction. The overall rigidity of the body is drawn from each of the individual metal components which, when welded together, comprise the body shell assembly. Panels forming the underbody area incorporate attachment provisions for the power train and the suspension systems. These panels, therefore, contribute the greatest amount of strength to the body assembly.

UNDERBODY GENERAL SERVICE INFORMATION

The underbody assembly is comprised of frame side rails, frame cross rails, floor pan cross bars, inner and outer rocker panels and other floor panel components. The underbody is of all-welded construction. The slightest misalignment in the underbody can affect door, front compartment lid, and engine compartment lid fits. Most important, however, underbody misalignment can influence the suspension system, thereby causing many of the problems that arise from a suspension misalignment. It is essential, therefore, that underbody alignment be exact to within 1/16" of the specified dimensions.

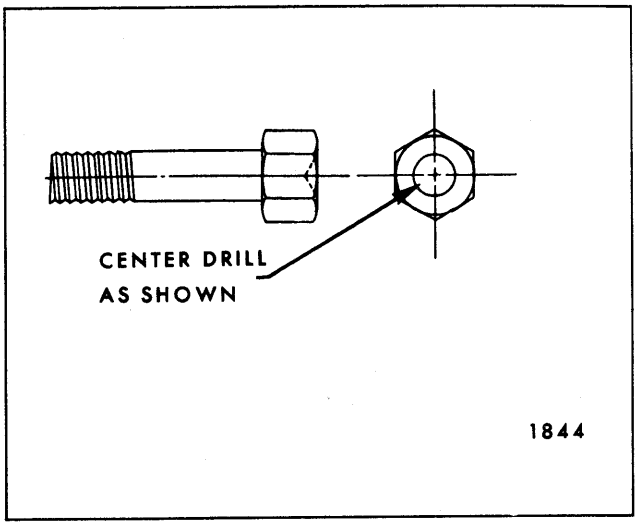

Fig. 1-6—Tram Gage Centering Bolt

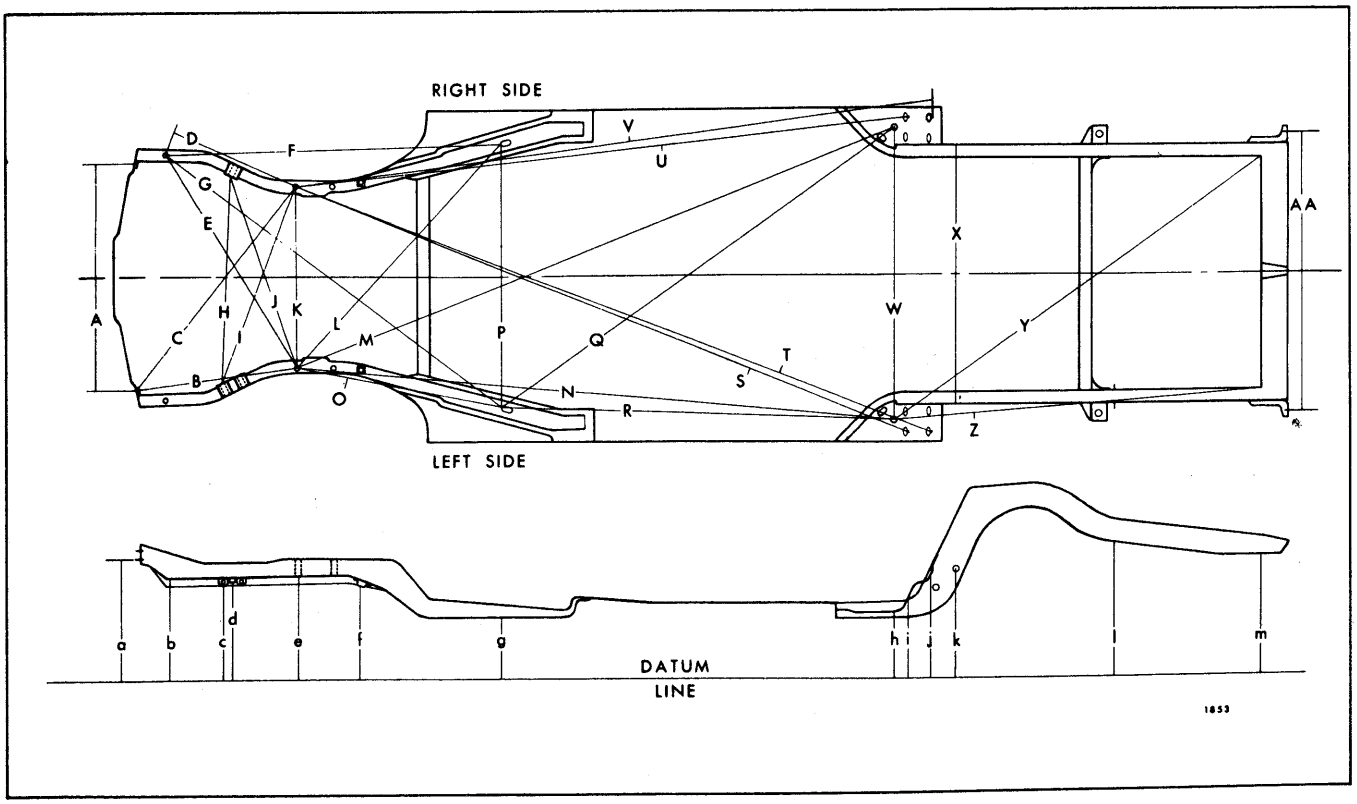

Fig. 1-7—Underbody Vertical Alignment Ref. Points

In the event of collision damage it is important that underbody alignment be thoroughly checked and, if necessary, realigned in order to accurately establish suspension, steering and engine mounting locations. There are many classifications of tools that may be employed to correct the average collision damage situation including frame straightening machines, lighter external pulling equipment and standard body jacks.

Frame tools are not considered as essential equipment for average collision repair operations; however, there will be many situations with this unitized type of construction as with other types of frame construction, where frame equipment will be required. There are also areas of repair where, even though not essential, frame equipment may prove beneficial.

IMPORTANT: Since each individual underbody component contributes directly to the over-all strength of the body, it is essential that proper welding, sealing and rust proofing techniques be observed during service operations. Underbody components should be rust-proofed whenever body repair operations, which destroy or damage the original rust-proofing, are completed. Particularly critical are the enclosed box areas. When rust-proofing critical under body components, it is essential that a good quality type of air dry primer be used (such as corrosion resistant zinc chromate). It is not advisable to use combination type of primer surfacers.

To assist in checking alignment of the underbody components, repairing minor underbody damage or locating replacement parts, the following underbody dimensions and alignment checking information is presented.

ALIGNMENT CHECKING INFORMATION

Body Tram Gauge

An accurate method of determining the alignment of the underbody utilizes a measuring tram gauge. The tram gauge required to perform all recommended measuring checks properly must be capable of extending to a length of 102". At least one of the vertical pointers must be capable of a maximum reach of 18".

Dimensions shown in the upper portion of Figure 1-7 are calculated on a horizontal plane parallel to the plane of the underbody. Precision measurements can be made only if the tram gauge is also parallel to the plane of the underbody. This can be controlled by setting the vertical pointers on the tram gauge according to the dimensions shown in the lower portion of Figure 1-7.

A proper tramming tool is essential for analyzing and determining the extent of collision misalignment present in underbody construction.

To facilitate centering the tram gauge pointers at the suspension locations, special centering bolts (same size and thread as original attaching bolts) may be prepared as shown in Figure 1-6. Use center of bolt thread diameter for centering drill point. Depth of drilled-out cone should be the same for all centering bolts being used as a "set".

Underbody Alignment Reference Point Dimensions—(Fig. 1-7)

Dimensions to gauge holes and other unthreaded holes are measured to dead center of the holes and flush to the adjacent surface metal. Dimensions to body front tie down slots are measured to the front centerline edge of the slot (see Fig. 1-8). Dimensions to bolt or bolt hole locations are measured to the dead center of the thread diameter of the bolt or bolt hole, unless specified otherwise.

The following reference points are key locations and should be used wherever possible as a basis for checking other reference points:

1. Front suspension front attaching bolt holes or bolt heads.
2. 3/4 inch master gauge hole in motor compartment side rail-to-rocker panel brace.
3. Rear suspension control arm lower and upper outer attaching bolt holes (upper edge of holes).

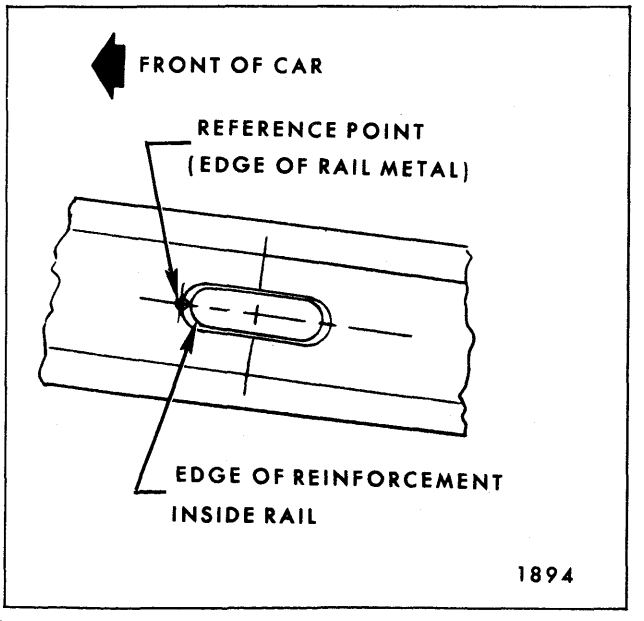

Fig. 1-8—Front Body-Tie Down Slot

Horizontal Dimensions (Fig. 1-7)

Fig. Ref.	Dimension	Location
A	33-7/8	Center of front bumper lower attaching bolt holes.
B	24-3/8	Directly below center of front bumper lower attaching bolt hole and front suspension front attaching bolt head or bolt hole on same side of body.
C	39-1/16	Directly below center of front bumper lower attaching bolt hole and front suspension front attaching bolt hole or bolt head on opposite side of body.
D	15-7/8	3/4" hole in front compartment side rail and front suspension front attaching bolt hole or bolt head on same side of body.
E	35-9/16	3/4" hole in front compartment side rail and front suspension front attaching bolt hole or bolt head on opposite side of body.
F	46	3/4" hole in front compartment side rail and body tie down slot on same side of body (use front center of slot of side rail metal - See Fig. 1-8).

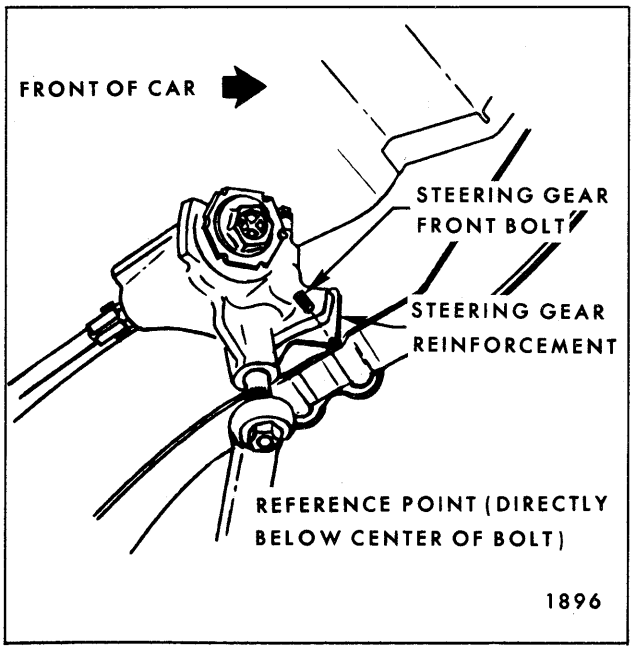

Fig. 1-9—Ref. Point at Steering Gear Reinforcement

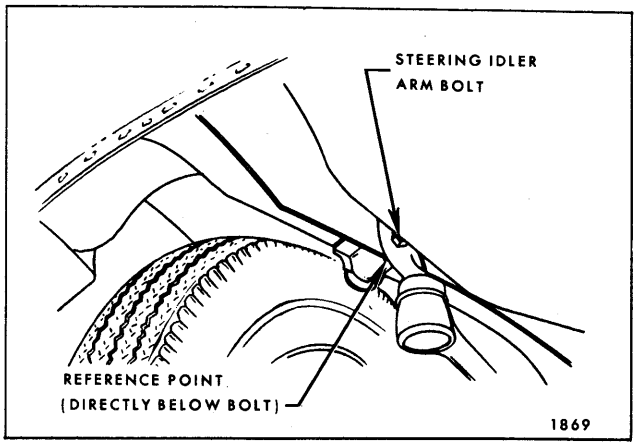

Fig. 1-10—Ref. Point at Steering Idler Arm

Fig. Ref.	Dimension	Location
G	59-29/32	3/4" hole in front compartment side rail and body tie down slot on opposite side of body (use front center of slot of side rail metal - See Fig. 1-8).
H	31-7/8	Lower inner edge of steering gear reinforcement directly below center of steering gear front attaching bolt hole (Fig. 1-9) and lower inner edge of front compartment right side rail directly below center of steering gear idler arm support lower attaching bolt hole (Fig. 1-10).
I	31-15/16	Lower inner edge of steering gear reinforcement directly below center of steering gear front attaching bolt hole (Fig. 1-9) and front suspension front attaching bolt hole or bolt head on opposite side of body.
J	31-1/32	Lower inner edge of front compartment right side rail directly below center of steering gear idler arm support lower attaching bolt hole (Fig. 1-10) and front suspension front attaching bolt hole or bolt head on opposite side of body.
K	27-9/16	Front suspension front attaching bolt hole or bolt head.
L	45-23/32	Front suspension front attaching bolt hole or bolt head and body

Fig. Ref.	Dimension	Location
		front tie down slot on opposite side of body (use front center of slot of side rail metal - See Fig. 1-8).
M	96-1/8	Front suspension front attaching bolt hole or bolt head on opposite side of body and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace.
N	89-9/16	Front suspension front attaching bolt hole or bolt head and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace on same side of body.
O	31-3/8	Front suspension front attaching bolt hole or bolt head and body front tie down slot on same side of body (use front center of slot of side rail metal - See Fig. 1-8).
P	40-3/16	Body front tie down slot (use front center of slot of side rail metal - See Fig. 1-8).
Q	72	Body front tie down slot (use front center of slot of side rail metal - See Fig. 1-8) and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace on opposite side of body.
R	58-13/32	Body front tie down slot (use front center of slot of side rail metal - See Fig. 1-8) and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace on same side of body.
S	98-1/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm lower outer attaching bolt hole (upper edge of hole) on opposite side of body.
T	101-3/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm upper outer attaching bolt hole (upper edge of hole) on opposite side of body.
U	91-3/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm lower outer attaching bolt hole (upper edge of hole) on same side of body.
V	94-7/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm upper outer attaching bolt hole (upper edge of hole) on same side of body.
W	44	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace.
X	38-15/16	Outside edge of motor compartment side rail directly below transmission support upper attaching bolt. **NOTE:** This dimension is constant rearward to motor compartment rear cross rail.
Y	67-1/2	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace and lower edge of joint of motor compartment side rail and motor compartment rear cross rail on opposite side of body.
Z	55-1/32	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace and lower edge of joint of motor compartment side rail and motor compartment rear cross rail on same side of body.
AA	41-5/32	Rear bumper lower attaching holes.

Vertical Dimensions (Fig. 1-7)

Fig. Ref.	Dimension	Location
a	15-3/16	Center of front bumper lower attaching bolt holes.
b	12-9/32	Front edge of 3/4" diameter paint hole.

Fig. Ref.	Dimension	Location
c	11-19/32	Lower inner edge of steering gear reinforcement directly below center of front attaching bolt hole (Fig. 1-9).
d	11-17/32	Lower inner edge of front compartment right side rail directly below center of steering idler arm support lower attaching bolt hole (Fig. 1-10).
e	12-13/32	Front suspension front attaching hole (front suspension removed).
	11-13/16	Front suspension front attaching bolt (suspension installed).
f	10-1/4	Front suspension rear attaching hole (front suspension removed).
	9-3/4	Front suspension rear attaching bolt (suspension installed).
g	6	Lower surface of front compartment side rail at body front tie down slot (front center of slot). Fig. 1-8.
h	6-13/16	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace.
i	8-3/8	Rear suspension control arm lower outer attaching bolt hole (upper edge of hole).
j	12-3/8	Rear suspension control arm upper outer attaching bolt hole (upper edge of hole).
k	13-13/32	Transmission support upper attaching bolt hole or bolt head.
l	8	Lower surface of motor compartment side rail at a point 1 inch rearward of rear edge of motor compartment corner reinforcement.
m	15-3/32	Lower surface of motor compartment side rail adjacent to front edge of motor compartment rear cross rail.

UNDERBODY ALIGNMENT
Chevy II Styles

GENERAL BODY CONSTRUCTION

Description

Chevy II series bodies are of unitized construction with provisions for the attachment of an independent front end skirt assembly. The front end skirt assembly incorporates attachment provisions for the front end sheet metal, front suspension system, engine and other mechanical components. The removable front end skirt assembly is covered in detail in the "FRONT END SKIRT ASSEMBLY" section of the chassis manual

The body is of integral all steel, welded construction. The over-all rigidity of the body is drawn from each of the individual metal components which, when welded together, comprise the body shell assembly. Panels forming the cowl and dash and underbody incorporate attachment provisions for the front end skirt assembly and rear suspension system. These panels, therefore, contribute the greatest amount of strength to the body assembly.

UNDERBODY GENERAL SERVICE INFORMATION

Since each individual underbody component contributes directly to the over-all strength of the body, it is essential that proper welding, sealing and rust-proofing techniques be observed during service operations. Underbody components should be rust-proofed whenever body repair operations, which destroy or damage the original rust-proofing, are completed. When rust-proofing critical underbody components, it is essential that a good quality type of air dry primer be used (such as corrosion resistant zinc chromate). It is not advisable to use combination type primer surfacers.

ALIGNMENT CHECKING PROCEDURE

The underbody is comprised of body dash front braces, body floor pan cross braces, body compartment pan side rails, inner and outer rocker panels and other floor panel components. The underbody is of all welded construction. Misalignment in the underbody can affect front fender, door,

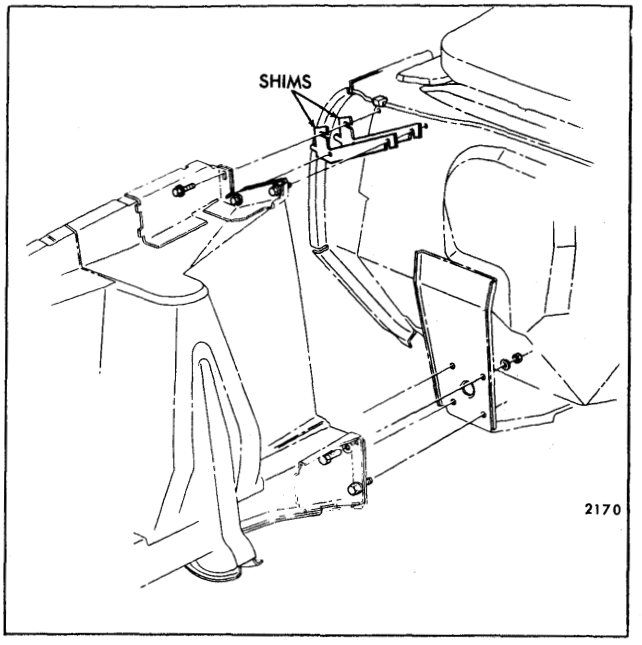

Fig. 1-11—Skirt-to-Dash Mounting

rear compartment lid and glass opening alignment, station wagon tail gate and back body opening alignments. Most important, however, underbody misalignment can influence the suspension system, thereby causing many of the problems that arise from a suspension misalignment. It is essential, therefore, that underbody alignment be exact to within 1/16" of the specified dimensions.

In the event of collision damage, it is important that underbody alignment be thoroughly checked and, if necessary, realigned in order to accurately establish proper dimensions. There are many classifications of tools that may be employed to correct the average collision damage situation including frame straightening machines, lighter external pulling equipment and standard body jacks.

NOTE: Minor misalignment of the front end assembly to the body may be corrected by adding or removing shims at the upper skirt-to-dash attaching surface. Figure 1-11 shows both upper and lower attachment and the installed position of the shims. Shims are available in 1/32" and 1/8" thickness.

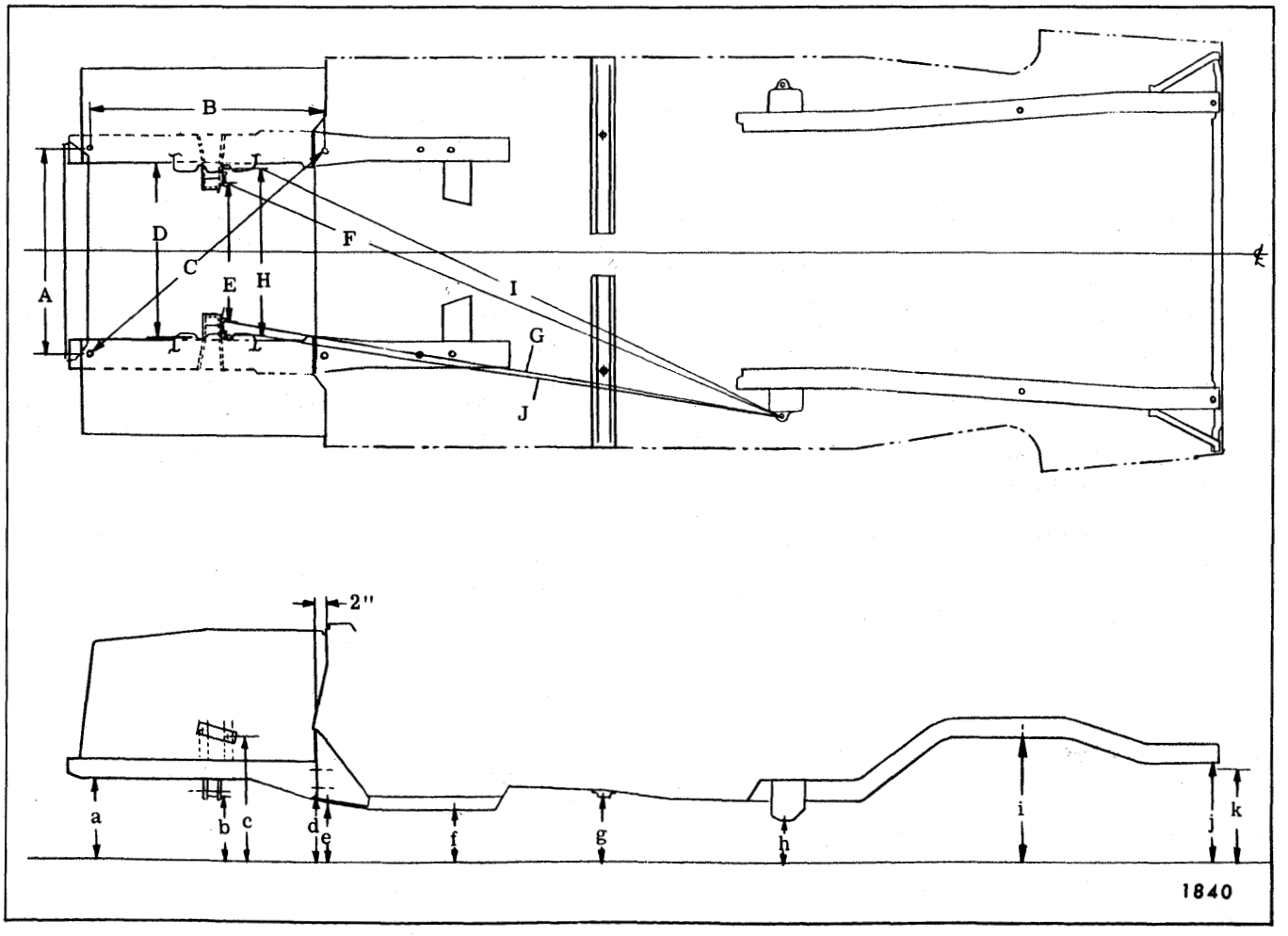

Fig. 1-12—Horizontal and Vertical Dimensions (Front Skirt Assembly)

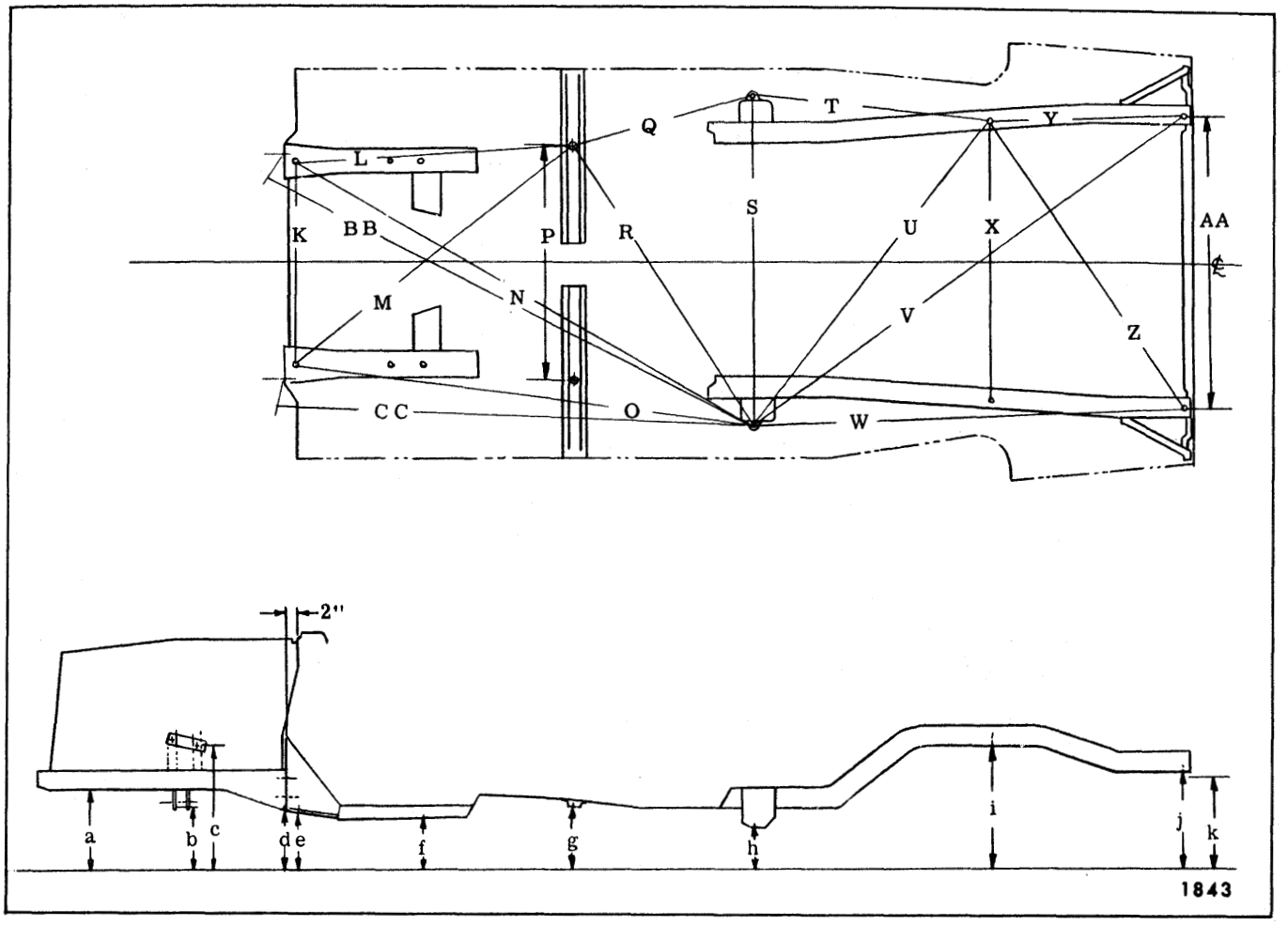

Fig. 1-13—Horizontal and Vertical Dimensions (Body Assembly)

CAUTION: Do not change skirt assembly-to-dash shimming in an effort to adjust the door-to-fender gap or any other sheet metal appearance item. These shims regulate the front end assembly relationship to the body and should only be used to correct dimensions as shown in Figures 1-12 and 1-13.

To assist in checking alignment of the underbody components, repairing minor underbody damage or locating replacement parts, the following underbody dimensions and alignment checking information is presented.

Body Tram Gage

An accurate method of determining the alignment of the underbody utilizes a measuring tram gage. The tram gage required to perform all recommended measuring checks properly must be capable of extending to a length of 91". At least one of the vertical pointers must be capable of a maximum reach of 17".

Horizontal dimensions shown in the upper portion of Figures 1-12 and 1-13 are calculated on a plane parallel to the plane of the underbody. Precision measurements can be made only if the tram gage is properly adjusted so as to remain parallel to the plane of the underbody during measuring operations.

A proper tramming tool is essential for analyzing and determining the extent of collision misalignment present in underbody construction.

Principles of Tramming

In the upper portion of 1-12 and 1-13 all reference locations shown are symmetrical about the centerline of the vehicle. For example, when performing a cross-check of the body floor pan area, dimension "N" should measure the same distance in both diagonal directions of the cross-check operation. Cross checking operations are used to determine the relationship between two locations on the underbody.

To measure the distance accurately between any two reference points on the underbody, two specifications are required:

a. The horizontal dimension between the two points to be trammed.

b. The vertical dimension from the datum line to the points to be trammed. As an example, the diagonal measurement (calculated on a horizontal plane) between reference points of dimension line "N", shown in Figure 1-13, is 78 25/32 inches. The specifications from the datum line have a vertical height difference of 3 5/16 inches between the forward location of dimension "N" (at vertical dimension "e") and the rearward location of dimension "N" (at vertical dimension "h"). The vertical pointer used at the forward location should be positioned so as to extend 3 5/16 inches further from the tram bar than the pointer used at the rearward location. With the proper settings the tram bar will be on a plane parallel to that of the body plane. The exception to this would be when one of the reference locations is included in the misaligned area; then the parallel plane between the body and the tram bar may not prevail. After completion of the repairs, the tram gage should be set at the specified dimension to check the accuracy of the repair operation.

Car Preparation

Preparing the car for the underbody alignment check involves the following:

1. Place the car on level surface.

2. The weight of the car should be supported at the wheel locations.

3. A visual damage inspection should be made to eliminate needless measuring. Obviously damaged or misaligned areas can often be located by sight.

Tramming Sequence

The tramming sequence will vary depending upon the nature and location of the misaligned area.

Prior to performing any tramming operation, the accuracy of reference points to be used must be determined. A measurement that originates from a reference point which is included in a damaged area will produce untrue results and confuse the evaluation of the underbody condition. Unlike the conventional type of frame design, the unitized type of body construction seldom develops the condition of "diamond" in the floor pan area as a result of front or rear end collisions. Therefore, underbody alignment checking can usually originate from the body floor pan area. If inspection indicates that these locations have been disturbed and are not suitable for measuring, one of the undamaged suspension locations should be used as a beginning reference point. If a rare situation should exist where all of these locations are not suitable as reference points, repair operations should begin with the body floor pan area. All other underbody components should be aligned progressively from this area.

Underbody Alignment Reference Point Dimensions (Figures 1-12, 1-13, and 1-14)

Dimensions to gage holes and other unthreaded holes are measured to dead center of the holes and flush to the adjacent surface metal. Dimensions to bolt or bolt hole locations are measured to the dead center of the thread diameter of the bolt or bolt hole.

Figure 1-12 specifies dimension reference locations required for alignment of front end skirt assembly and for alignment of front end skirt assembly to body assembly. Figure 1-13 specifies dimension reference locations required for alignment of underbody assembly. Figure 1-14 specifies cowl and dash reference locations required to check the skirt assembly attaching hole locations.

Horizontal Dimensions (Front End Skirt Assembly)

Fig. Ref.	Dimension	Location
A	30 5/32	15/32" gage hole at front of skirt side rails.

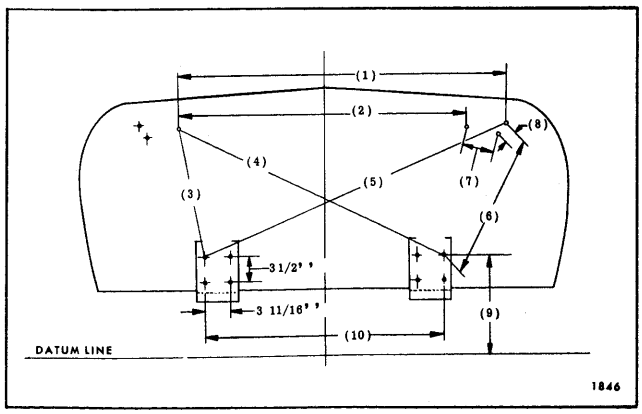

Fig. 1-14—Front View of Cowl and Dash

Fig. Ref.	Dimension	Location
B	35	15/32" gage hole at front of skirt side rail to forward gage hole in dash front brace on same side of body.
C	46 3/16	15/32" gage hole at front of skirt side rail to forward gage hole in dash front brace on opposite side of body.
D	25 29/32	Skirt panel inner surface adjacent to front suspension upper control arm attaching points. (See Fig. 1-16).
E	20 7/8	Front suspension lower control arm adjusting cam guide (outer edge of inner flange - See Fig. 1-15).
F	90 19/32	Front suspension lower control arm adjusting cam guide (outer edge of inner flange - See Fig. 1-15) to gage hole in lower flange of rear spring front support on opposite side of body.

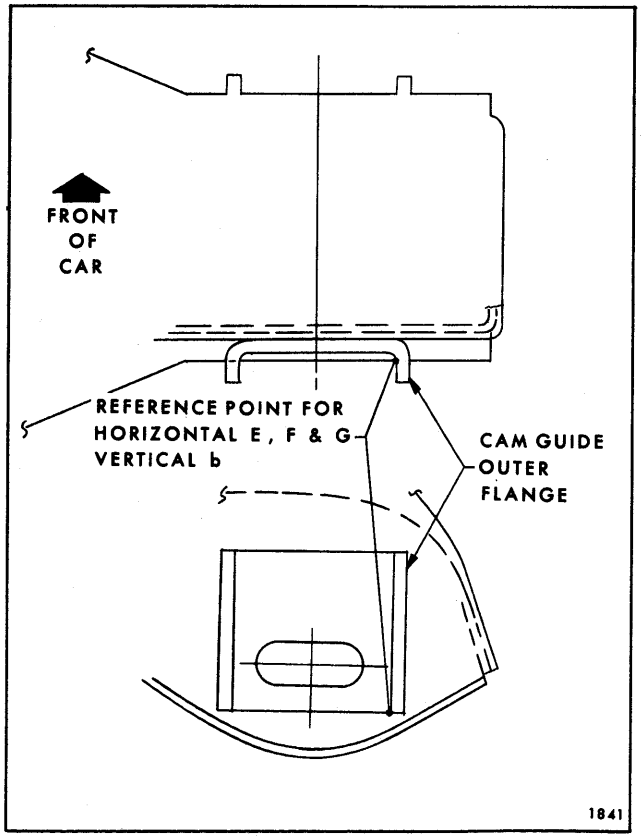

Fig. 1-15—Lower Control Arm Adjusting Cam Guide

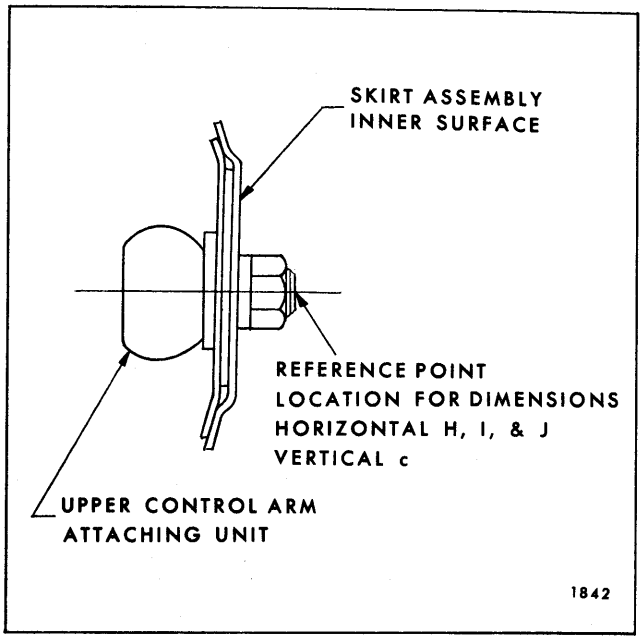

Fig. 1-16—Upper Control Arm Rear Attaching Stud

Fig. Ref.	Dimension	Location
G	84 7/8	Front suspension lower control arm adjusting cam guide (outer edge of inner flange - See Fig. 1-15) to gage hole in lower flange of rear spring front support on same side of body.
H	24 1/2	Front suspension upper control arm rear attaching stud - center of thread end (See Fig. 1-16).
I	90 13/32	Front suspension upper control arm rear attaching stud - center of thread end (See Fig. 1-16) to gage hole in lower flange of rear spring front support on opposite side of body.
J	83 5/8	Front suspension upper control arm rear attaching stud - center of thread end (See Fig. 1-16) to gage hole in lower flange of rear spring front support on same side of body.

Horizontal Dimensions (Body Assembly)

K	30 5/32	Forward gage hole in dash front brace.
L	41 3/4	Forward gage hole in dash front brace to 11/32" gage hole in

Fig. Ref.	Dimension	Location
		floor pan cross brace on same side of body.
M	53 1/16	Forward gage hole in dash front brace to 11/32" gage hole in floor pan cross brace on opposite side of body.
N	78 25/32	Forward gage hole in dash front brace to gage hole in lower flange of rear spring front support on opposite side of body.
O	69	Forward gage hole in dash front brace to gage hole in lower flange of rear spring front support on same side of body.
P	35 17/32	11/32" gage hole in floor pan cross brace.
Q	27 15/32	11/32" gage hole in floor pan cross brace to gage hole in lower flange of rear spring front support on same side of body.
R	49 19/32	11/32" gage hole in front pan cross brace to gage hole in lower flange of rear spring front support on opposite side of body.
S	48	Gage hole in lower flange of rear spring front support.
T	35 1/2	Gage hole in lower flange of rear spring front support to 1/4" gage hole in compartment pan side rail at center of kickup area on same side of body.
U	56 3/4	Gage hole in lower flange of rear spring front support to 1/4" gage hole in compartment pan side rail at center of kick-up area on opposite side of body.
V	79 1/16 (Sedan & Coupe)	Gage hole in lower flange of rear spring front support to rear bumper attaching bolt or bolt hole on opposite side of body.
	82 31/32 (Sta. Wag.)	
W	64 17/32 (Sedan & Coupe)	Gage hole in lower flange of rear spring front support to rear bumper attaching bolt or bolt hole on same side of body.
	69 9/32 (Sta. Wag.)	
X	40 13/16	1/4" unthreaded gage hole in compartment pan side rail at center of kick-up area.
Y	29 3/32 (Sedan & Coupe)	1/4" unthreaded gage hole in compartment pan side rail at center of kick-up area to rear bumper attaching bolt or bolt hole on same side of body.
	38 15/16 (Sta. Wag.)	
Z	51 1/4 (Sedan & Coupe)	1/4" unthreaded gage hole in compartment pan side rail at center of kick-up area to rear bumper attaching bolt or bolt hole on opposite side of body.
	54 3/32 (Sta. Wag.)	
AA	43 7/16	Rear bumper attaching bolt or bolt hole.
BB	80 7/8	Front face of dash lower attaching pad directly under centerline of outer holes in attaching pad (See Fig. 1-17) to gage hole in lower flange of rear spring front support on opposite side of body.
CC	70 5/32	Front face of dash lower attaching pad directly under centerline of outer holes in attaching pad (See Fig. 1-17) to gage hole in lower flange of rear spring front support on same side of body.

Vertical Dimensions (Complete Underbody) (See Figure 1-13 and 1-12)

a	11 9/16	15/32" gage hole at front of skirt side rail.
b	9 3/16	Lowest point of front suspension lower control arm adjusting cam guide (See Fig. 1-15).
c	18 5/16	Center of front suspension upper control arm rear attaching stud center of thread end (See Fig. 1-16).

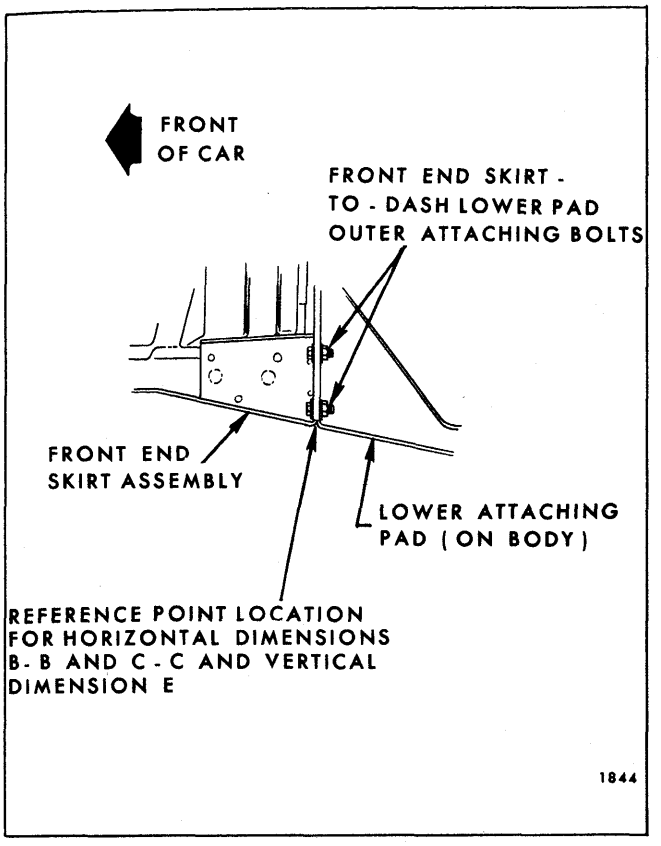

Fig. 1-17—Front End Skirt-to-Dash Lower Attaching Pad

Fig. Ref.	Dimension	Location
d	9 11/32	Joint of front end skirt assembly and dash lower attaching pad on line even with bottom surface of both members (See Fig. 1-17).
e	9 1/16	Lower surface of dash front brace at center of forward gage hole.
f	7 23/32	Lower surface of dash front brace at rear gage hole.
g	9 13/32	Lower surface of floor pan cross brace at 11/32" gage hole.
h	5 3/4	Lower surface of rear spring front support at gage hole in lower flange.
i	17 13/32	Lower surface of compartment pan side rail at 1/4" unthreaded gage hole at center of kick-up area.
j	13 7/8 (Sedan & Coupe)	Lower surface of compartment pan side rail spring support reinforcement at rear bumper attaching bolt hole (See Fig. 1-18).
	12 1/32 (Sta. Wag.)	
k	13 11/32 (Sedan & Coupe)	Center of lower surface of rear bumper attaching bolt head (See Fig. 1-18).
	11 15/32 (Sta. Wag.)	

Cowl and Dash Dimensions

All dimensions are between attaching holes for front end skirt assembly.

Fig. Ref.	Dimension	Location
(1)	46 11/16	Inner threaded hole in upper attaching surface to outer threaded hole on opposite side of dash.
(2)	41 3/32	Inner threaded hole in upper attaching surface to inner threaded hole on opposite side of dash.

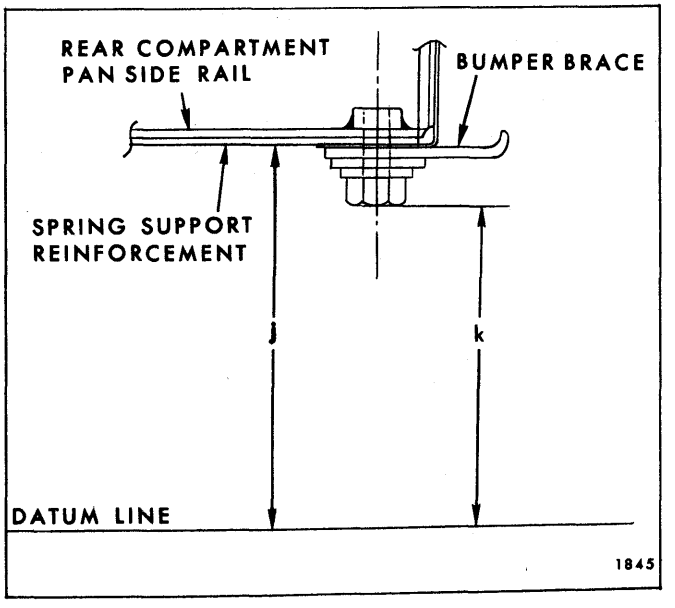

Fig. 1-18—Rear Bumper Attaching Bolt

Fig. Ref.	Dimension	Location
*(3)	18 3/4	Inner threaded hole in upper attaching surface to upper outer hole in lower attaching pad on same side of dash.
*(4)	41 3/4	Inner threaded hole on upper attaching surface to upper outer hole in lower attaching pad on opposite side of dash.
*(5)	47	Upper outer hole in lower attaching pad to outer threaded hole in upper attaching surface on opposite side of dash.
*(6)	21 1/32	Upper outer hole in lower attaching pad to outer threaded hole in upper attaching surface on same side of dash.
(7)	4 11/16	Between the two innermost threaded holes in upper attaching surface on same side of dash.
(8)	1 7/8	Between the two outermost threaded holes in upper attaching surface on same side of dash.

***NOTE:** When checking dimensions 3, 4, 5 or 6 the upper pointer should be extended 2" longer than the lower pointer.

SECTION 2

LUBRICATION

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DESCRIPTION

The movable mechanical parts of the body are lubricated at the factory to insure proper and quiet operation. If additional lubrication is required, the following specified materials or their equivalents should be used at the locations listed.

INSTRUMENT PANEL COMPARTMENT DOOR HINGE

Wipe off dirt and apply a sparing amount of dripless oil to the hinge frictional points. Operate door and wipe off excess lubricant.

FRONT DOOR HINGE HOLD-OPEN ASSEMBLY

Wipe off dirt and apply a light coat of Lubriplate at points indicated (Fig. 2-1). The hinge pins should be lubricated with engine oil.

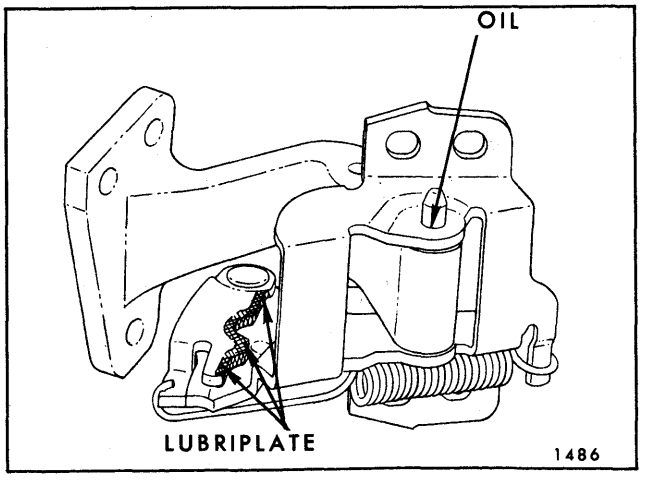

Fig. 2-1—Front Door Hinge Hold-Open Assembly

REAR DOOR HINGE HOLD-OPEN ASSEMBLY

Wipe off dirt and apply a light coat of Lubriplate to frictional points (Fig. 2-2). Wipe off excess lubricant.

DOOR LOCK FORK BOLT AND ROTARY BOLT

Wipe off dirt and apply a thin coat of stick-type lubricant and oil (Figs. 2-3 and 2-4).

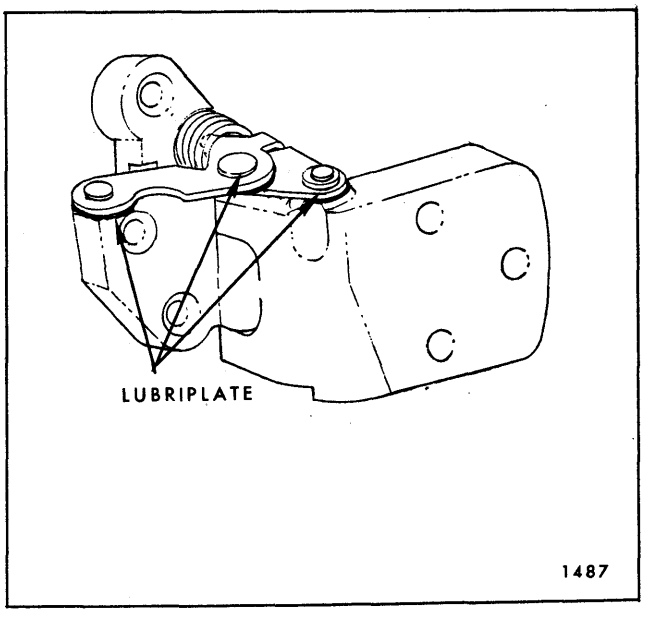

Fig. 2-2—Rear Door Hinge Hold-Open Assembly

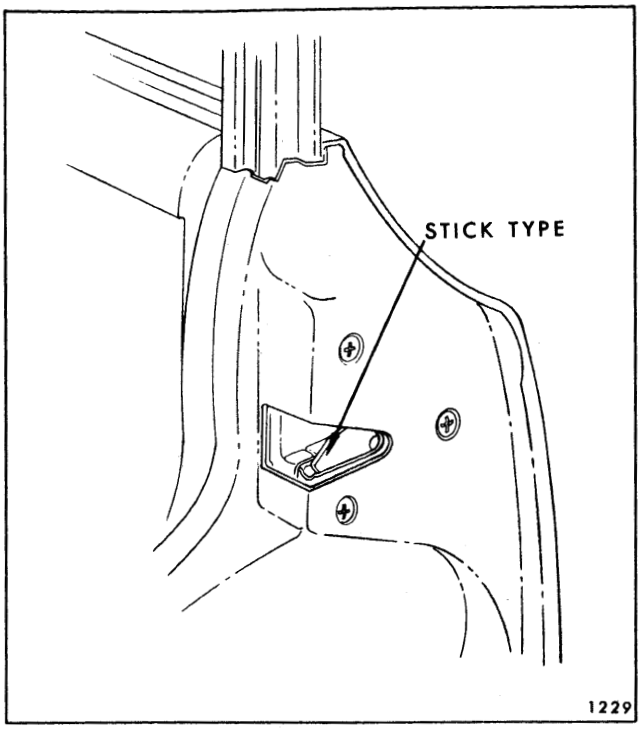

Fig. 2-3—Door Lock Fork Bolt And Rotary Bolt

DOOR LOCK STRIKER

Wipe off dirt and apply a thin coat of stick-type lubricant to top surface of striker teeth at areas indicated (Fig. 2-5).

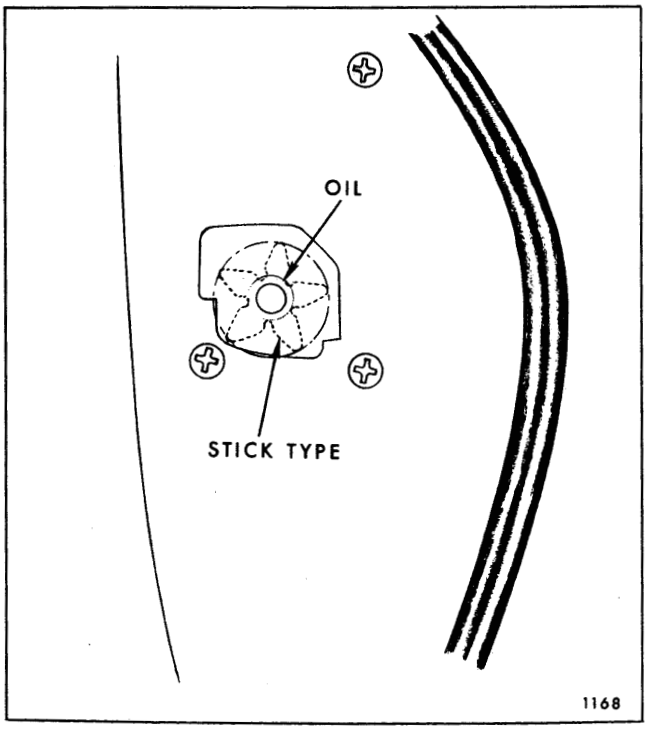

Fig. 2-4—Door Lock Fork Bolt And Rotary Bolt

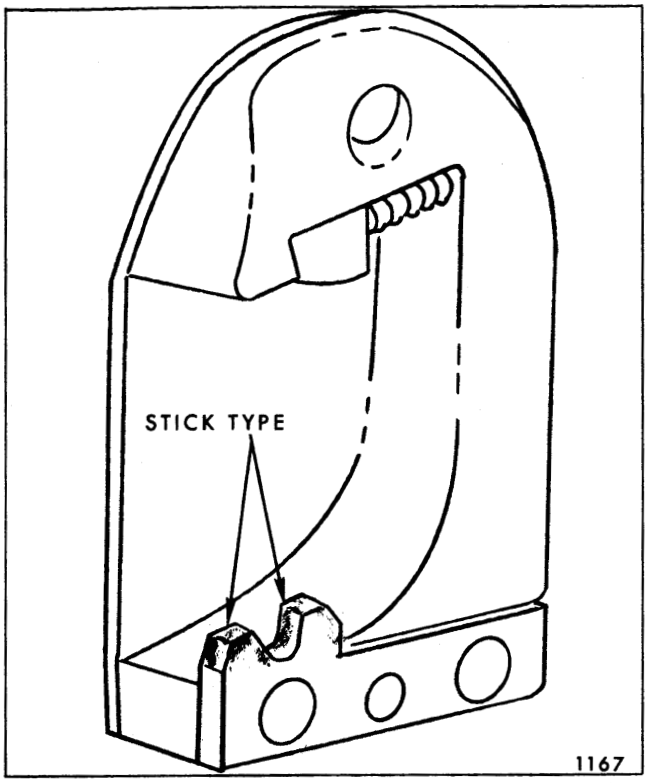

Fig. 2-5—Door Lock Striker

DOOR JAMB SWITCH

Wipe off dirt and apply a thin coat of Lubriplate to end surface of switch plunger and remove excess lubricant.

DOOR LOCK OUTSIDE HANDLE

Apply a thin coat of Lubriplate to surface of lock cylinder shaft contacting bell crank (Fig. 2-6).

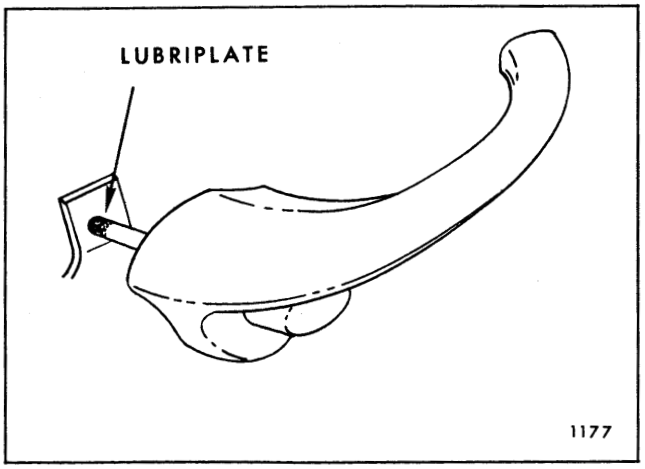

Fig. 2-6—Door Lock Outside Handle

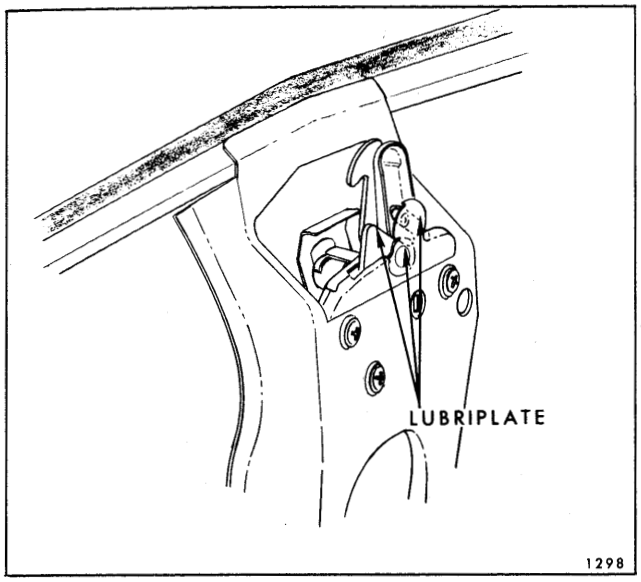

Fig. 2-7—Front Compartment Lid Lock

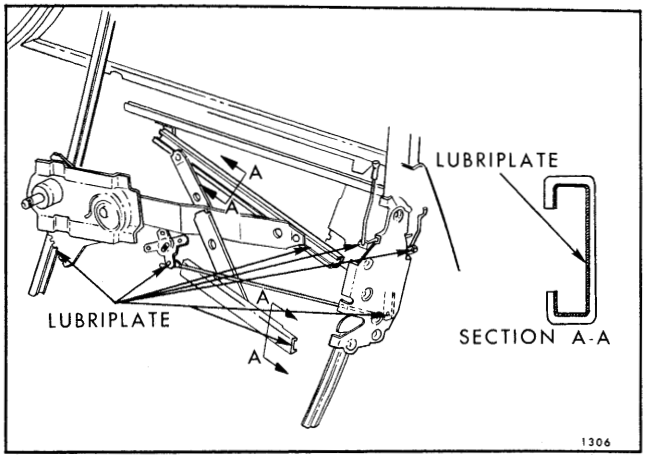

Fig. 2-8—Door Window Regulator And Cams On Styles With Upper Frames

DOOR LOCKING MECHANISM AND LOCK PARTS

Apply Lubriplate to pivot points at ends of connecting rods and moving parts of lock.

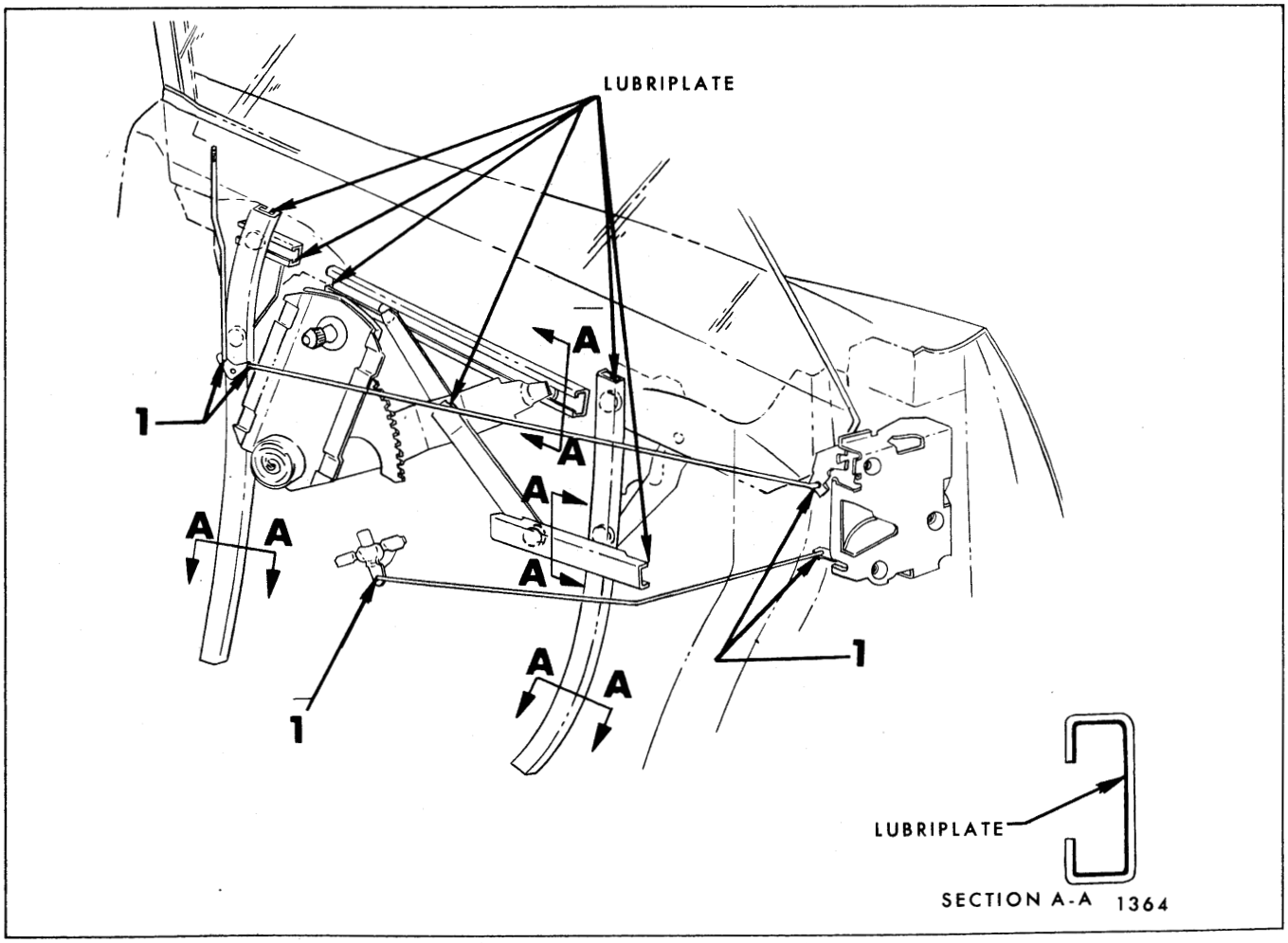

Fig. 2-9—Door Window Regulator And Cams On Styles Without Upper Frames

FRONT COMPARTMENT LID LOCK

On front compartment lid lock apply a thin coat of Lubriplate to contact point as indicated (Fig. 2-7).

DOOR WINDOW REGULATOR AND CAMS—STYLES WITH UPPER FRAMES

Apply a coat of Lubriplate to areas indicated, (Fig. 2-8). Lubrication of front and rear doors with upper frames is typical.

DOOR WINDOW REGULATOR CAMS AND GUIDES—STYLES WITHOUT UPPER FRAMES

Apply a coat of Lubriplate to areas indicated. (Fig. 2-9). Lubrication of front and rear doors without upper frames is typical.

REAR QUARTER WINDOW REGULATOR CAMS AND GUIDES

Apply a coat of Lubriplate to regulator, cams and guides. Lubrication shown is typical of points to be lubricated on other quarter window regulators etc. (Fig. 2-10).

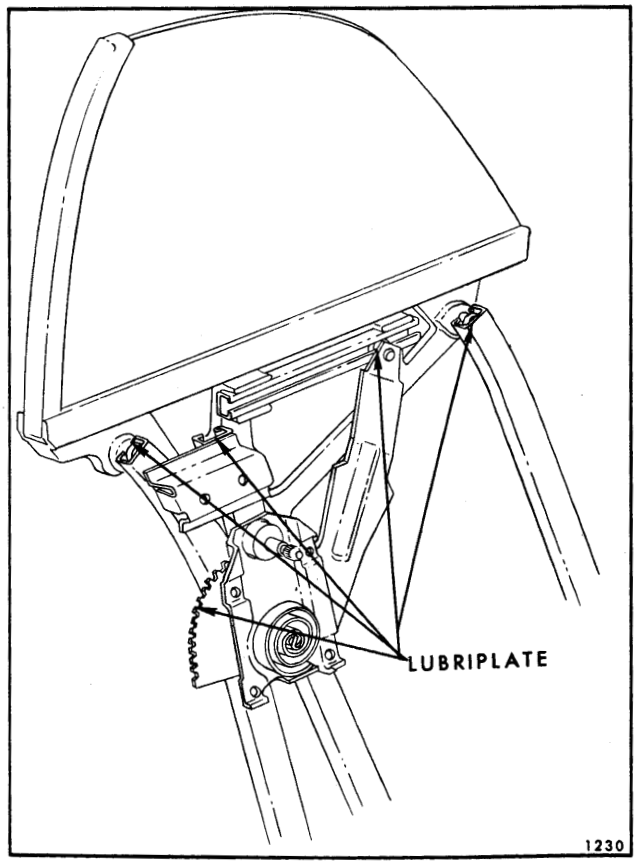

Fig. 2-10—Rear Quarter Window Regulator Cams And Guides

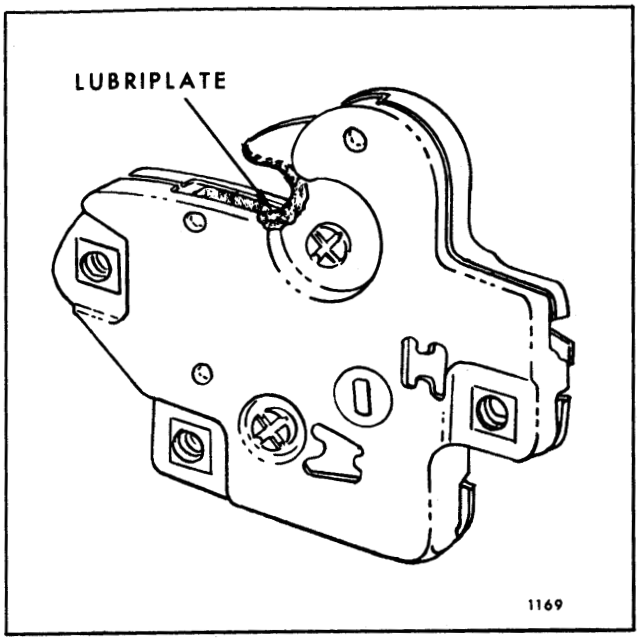

Fig. 2-11—Rear Compartment Lid Lock

REAR COMPARTMENT LID LOCK

Apply a thin coat of Lubriplate to lock bolt (Fig. 2-11).

REAR COMPARTMENT HINGES AND TORQUE RODS

Apply Lubriplate and or dripless oil to frictional points as required. Wipe off excess lubricant.

TAIL GATE WINDOW REGULATOR AND CAMS (station wagon)

Apply Lubriplate to areas indicated (Fig. 2-12).

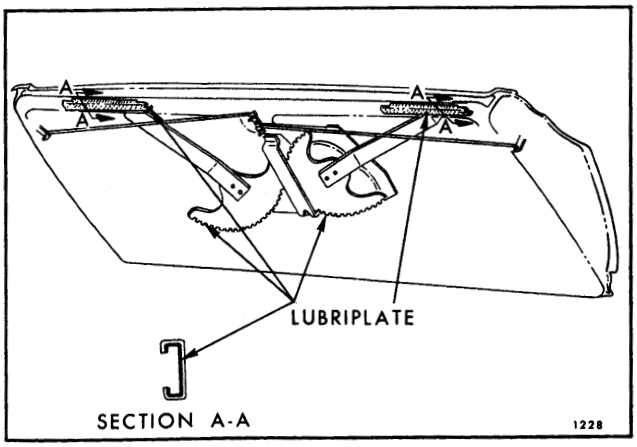

Fig. 2-12—Tail Gate Window Regulator And Cams (Station Wagon)

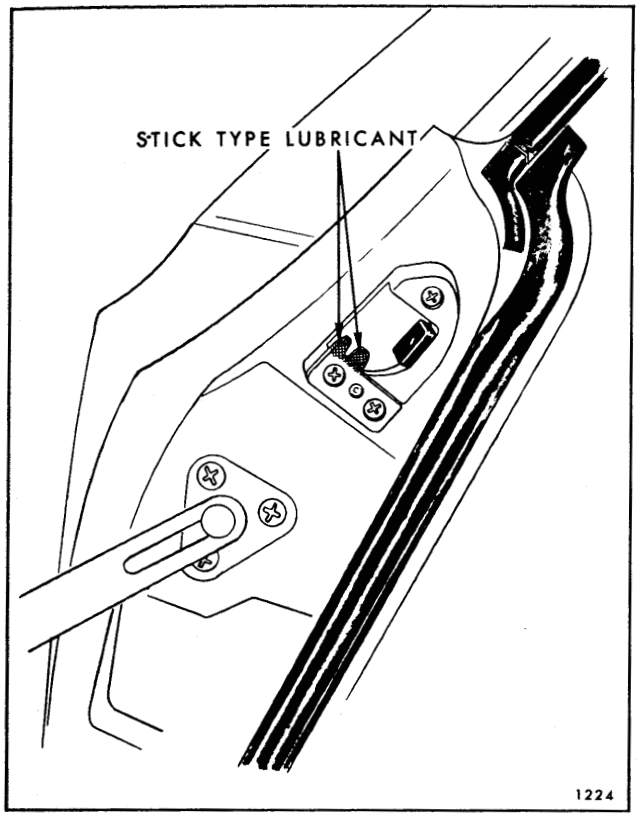

Fig. 2-13—Tail Gate Lock Striker Station Wagon

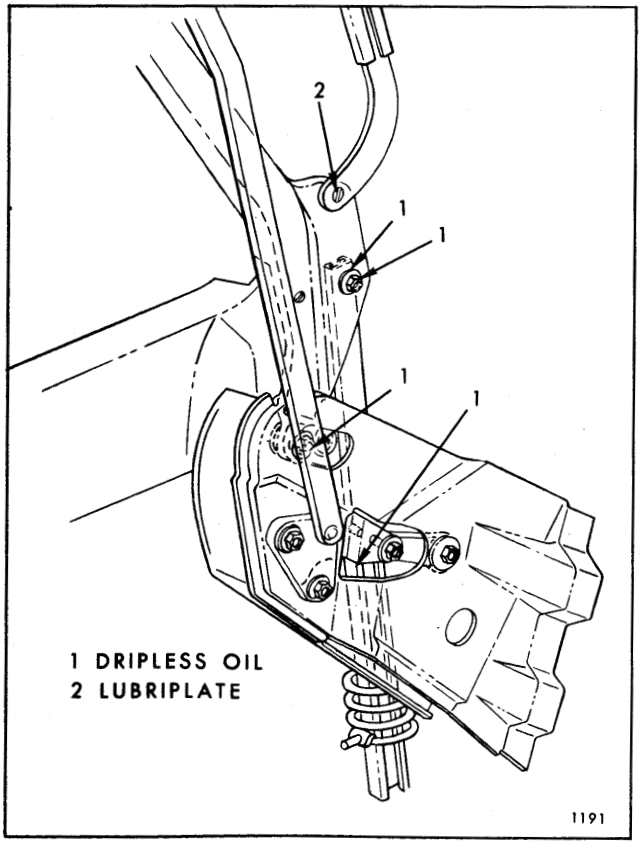

Fig. 2-14—Convertible Top Linkage - "Z" Styles

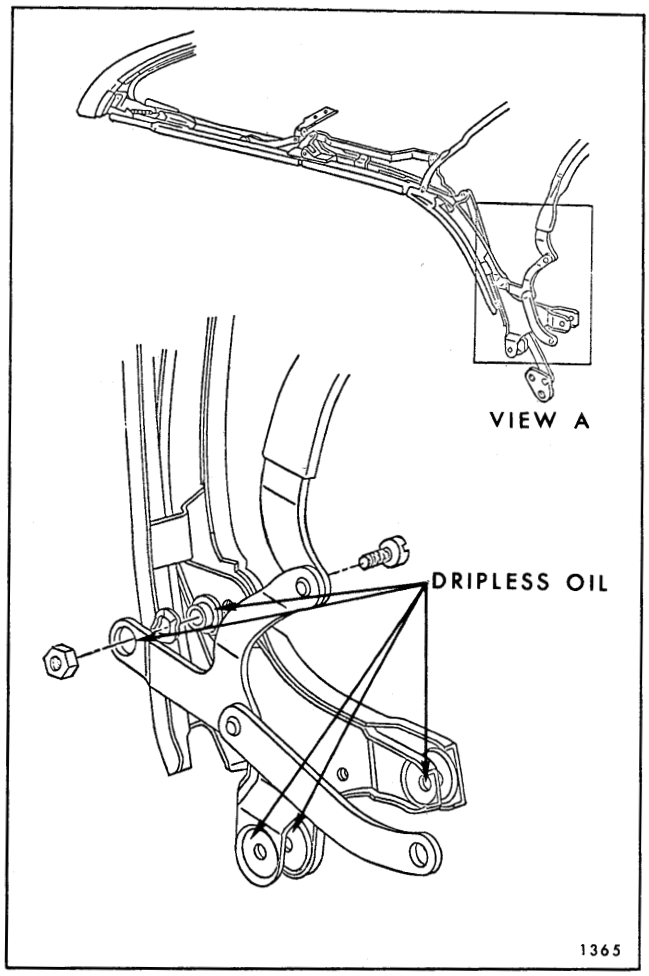

Fig. 2-15—Convertible Top Linkage - "B And C" Styles

TAIL GATE LOCK STRIKER (station wagon)

Apply a thin coat of stick-type lubricant to surface of striker teeth. After lubrication, close tailgate several times and remove excess lubricant (Fig. 2-13).

TAIL GATE HINGES (station wagon)

Apply a sparing amount of dripless oil to frictional parts, work tail gate several times and remove excess lubricant.

GAS TANK FILLER DOOR HINGE

Apply a few drops of dripless oil to frictional points of door hinge, work door several times and remove excess lubricant.

FOLDING SEAT LINKAGE

Wipe off dirt and apply a sparing amount of dripless oil to all frictional areas. Work linkage several times and wipe off excess lubricant.

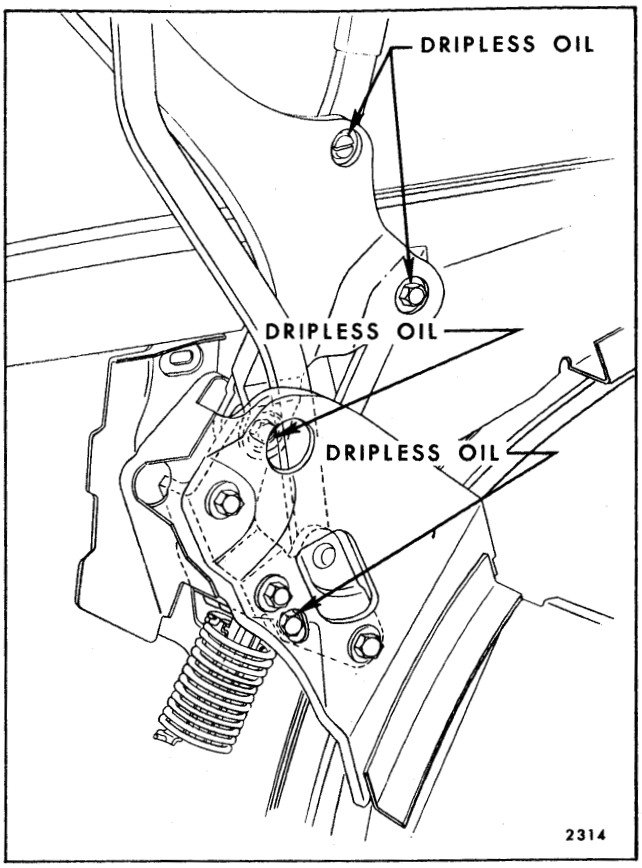

Fig. 2-16—Convertible Top Linkage - "A" Styles (Manual Type Shown)

FRONT SEAT ADJUSTER MECHANISM (Manually and Electrically Operated)

Thoroughly wipe off old lubricant. Apply a thin coat of lubriplate to jack screws and tracks. Operate seat to limits of all positions. Apply a small amount of dripless oil to linkage and wipe off excess lubricant.

CONVERTIBLE TOP LINKAGE

Apply Lubriplate or dripless oil to points indicated (Figs. 2-15, 2-16 and 2-14). Wipe off excess lubricant to prevent soiling trim.

SECTION 3
FRONT END

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BODY VENTILATION ALL STYLES EXCEPT "E" BODY STYLES

The body ventilation system incorporates the use of a shroud top air intake grille, which may be attached by screws or an integral part of the shroud upper panel. The air entering the shroud top air intake grille flows through a duct which guides the air into the body through a shroud side duct panel air outlet assembly. The door in the outlet assembly regulates the flow of air and is adjusted by the use of a cable and knob control.

Water entering the shroud top air intake grille flows down the shroud side duct panel and is discharged through openings in the rocker panels.

SHROUD SIDE FINISHING PANEL

Removal and Installation:

1. Remove sill plate and screws securing finishing panel and grille to outlet (Fig. 3-1).
2. Slide finishing panel rearward disengaging panel from front body hinge pillar pinchweld flange and remove panel assembly.
3. To install, reverse removal procedure.

SHROUD SIDE AIR OUTLET

Removal and Installation:

1. Remove shroud side finishing panel.
2. Remove screws securing outlet to shroud panel, disengage control cable from outlet and remove outlet (Fig. 3-2).
3. To install, apply a bead of medium-bodied sealer to shroud panel completely around inside perimeter of opening and reverse removal procedure (Fig. 3-3).

SHROUD SIDE FINISHING PANEL AND AIR OUTLET DUCT ASSEMBLY

Removal and Installation:

1. With a flat-bladed tool (screw driver or equivalent), pry the outlet grille from the assembly. (Fig. 3-5).

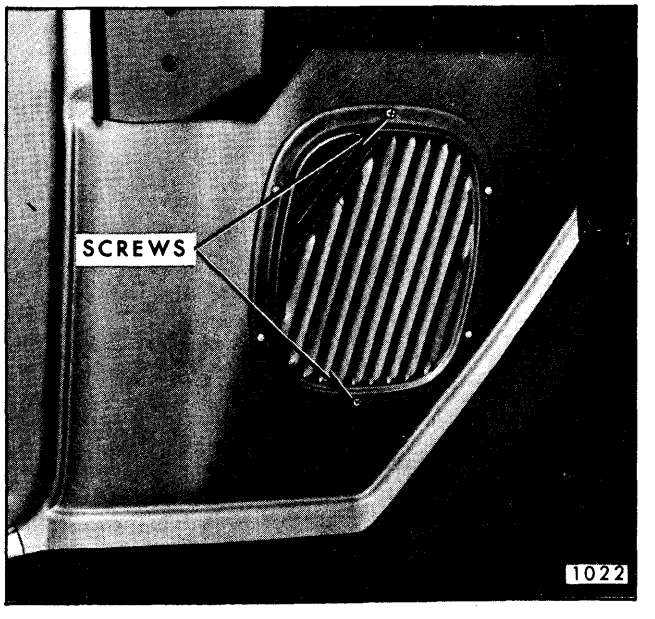

Fig. 3-1—Shroud Side Finishing Panel

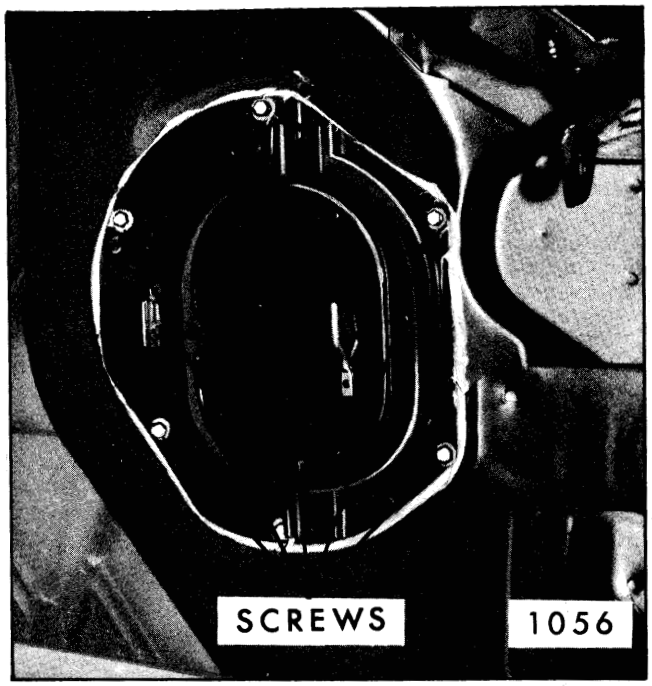

Fig. 3-2—Shroud Side Air Outlet Duct

2. Remove screws attaching duct assembly to shroud.
3. Remove sill plate.
4. Remove finishing panel to hinge pillar attaching screw (Fig. 3-5) and remove assembly.
5. To install, apply a generous bead of medium-bodied sealer to flange of duct assembly (Fig. 3-5) and reverse removal procedure.

SHROUD SIDE AIR OUTLET DOOR

Removal and Installation:

1. Remove outlet grille and outlet duct assembly (Fig. 3-4).

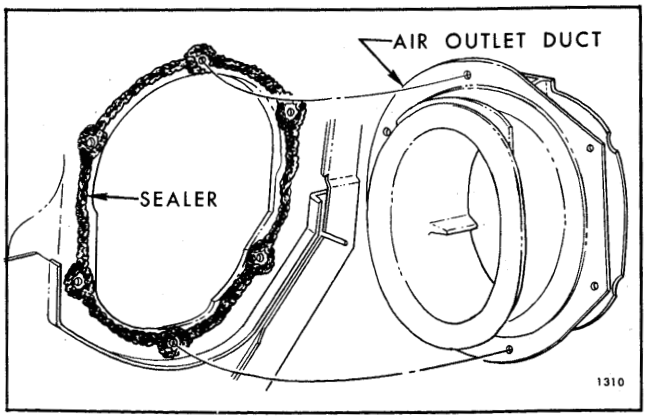

Fig. 3-3—Shroud Side Air Outlet Duct Sealing

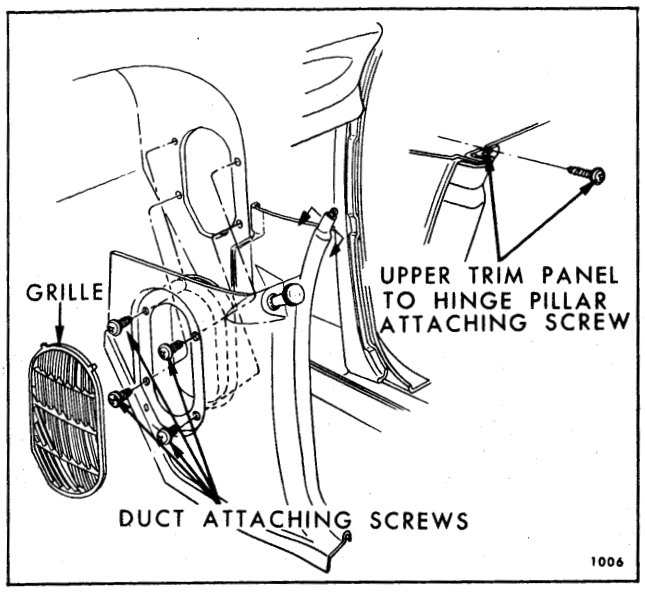

Fig. 3-4—Shroud Side Finishing Panel

2. Disconnect control cable from door (Fig. 3-5).
3. Press down on upper door hinge pin (Fig. 3-5) and remove door assembly.
4. To install, reverse removal procedure.

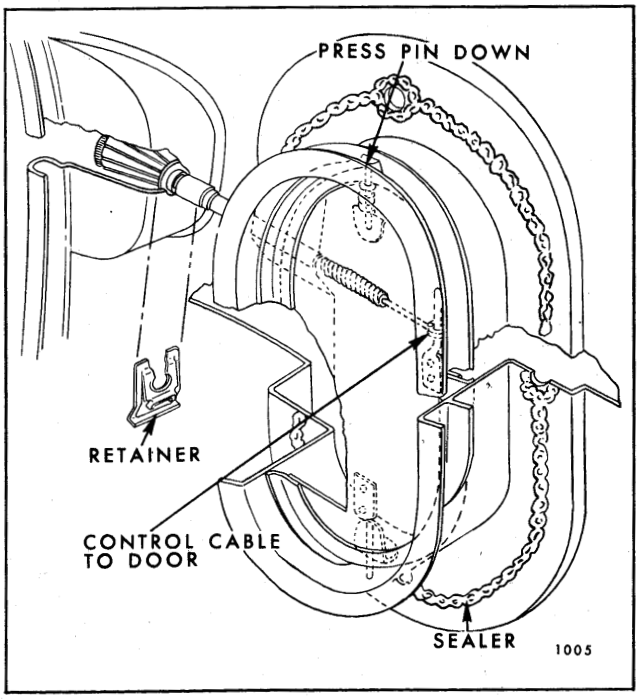

Fig. 3-5—Air Outlet Duct Assembly

SHROUD SIDE AIR OUTLET DOOR CONTROL CABLE

Removal and Installation:

1. Remove outlet grille and outlet duct assembly.
2. Disconnect cable on door.
3. Remove retainer securing control assembly to finishing panel (Fig. 3-5) and remove control assembly.
4. To install, reverse removal procedure.

BODY VENTILATION "E" BODY STYLES

The 1966 "E" body styles incorporate the same air inlet principles as the other 1966 styles. The exhausting air on the Buick "E" body is routed out through pressure relief valves located in the rear compartment shelf and rear plenum chamber (Fig. 3-6). Air passes through a grille in the rear compartment shelf trim panel down through the pressure relief valve and out of the rear plenum chamber grille.

The exhausting air on the Oldsmobile "E" body is routed out under the rear seat, up back of the rear seat back and out through pressure relief valves. (Fig. 3-7). Air passes through the pressure relief valves into the rear plenum chamber and out through the plenum chamber grille.

Water entering the rear plenum chamber is drained out through attached hoses that extend through the floor pan or rear quarter filler panel.

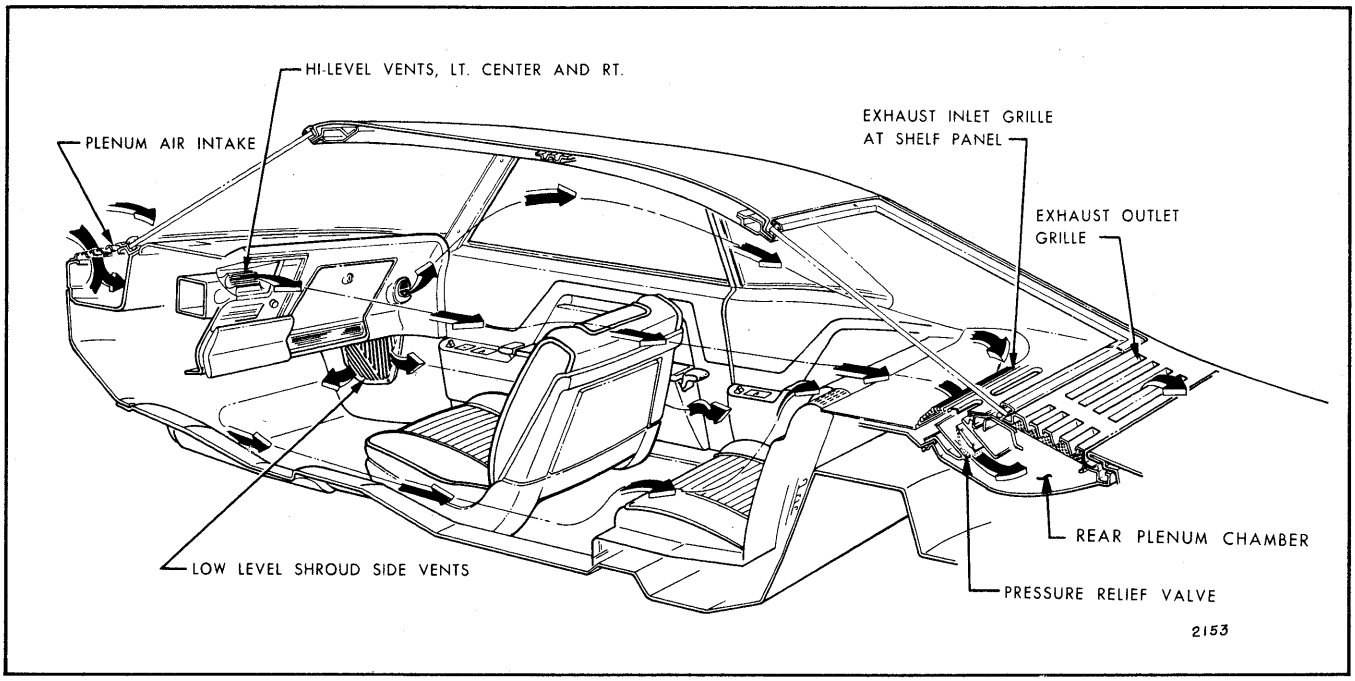

Fig. 3-6—Body Ventilation Buick "E" Body

WINDSHIELD GLASS—ADHESIVE CAULKED TYPE

DESCRIPTION

The windshield glass is retained in the opening by adhesive caulked material. Procedures covering the removal and replacement of the glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to windshield removal and installation will be covered in this section.

WINDSHIELD GLASS INSTALLATION (SHORT METHOD)

1. Remove glass as outlined in General Information Section.

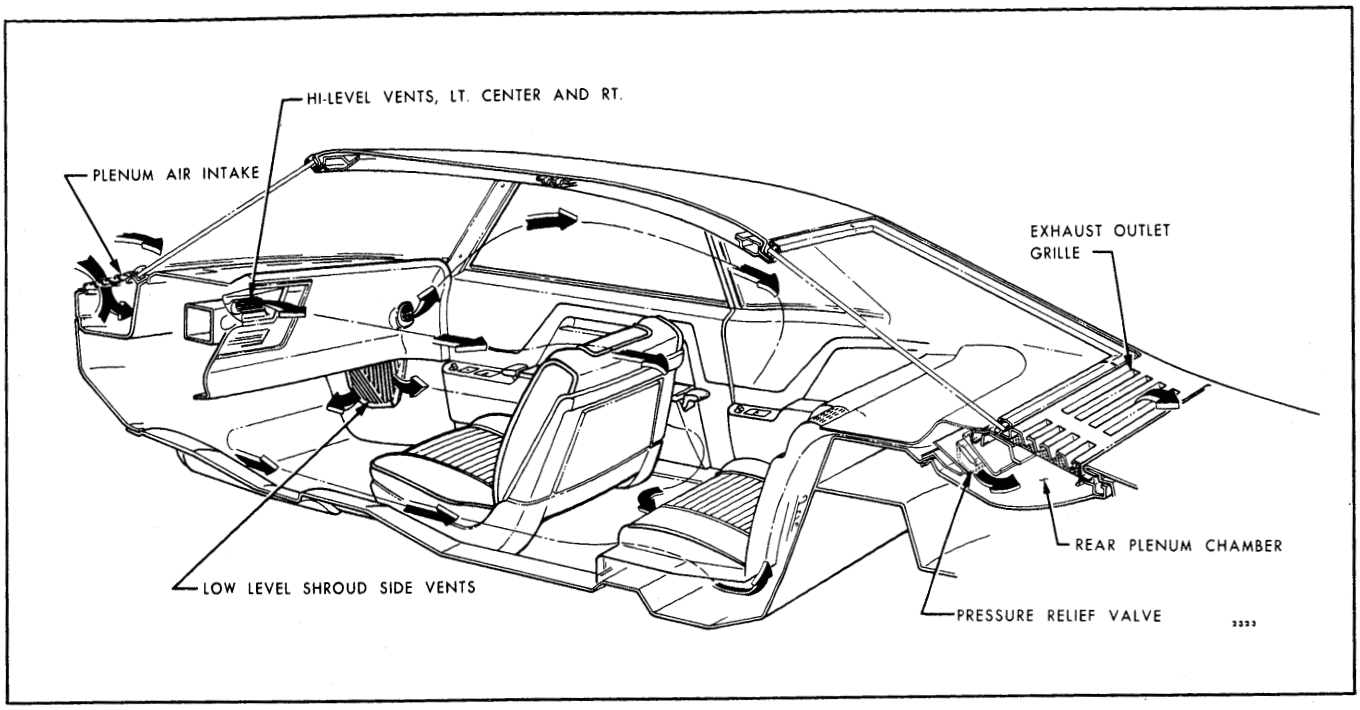

Fig. 3-7—Body Ventilation Oldsmobile "E" Body

2. Inspect reveal molding retaining clips for damage. If upper end of clip is bent away from body metal more than 1/32", replace or reform the clip. Be sure reveal molding clip screws are sealed.

3. If the original glass is to be re-used, remove all remaining traces of old caulking material with toluene or thinner dampened cloth.

4. Using black weatherstrip adhesive, cement three rubber spaces to lower windshield opening at location "A", Figure 3-8.

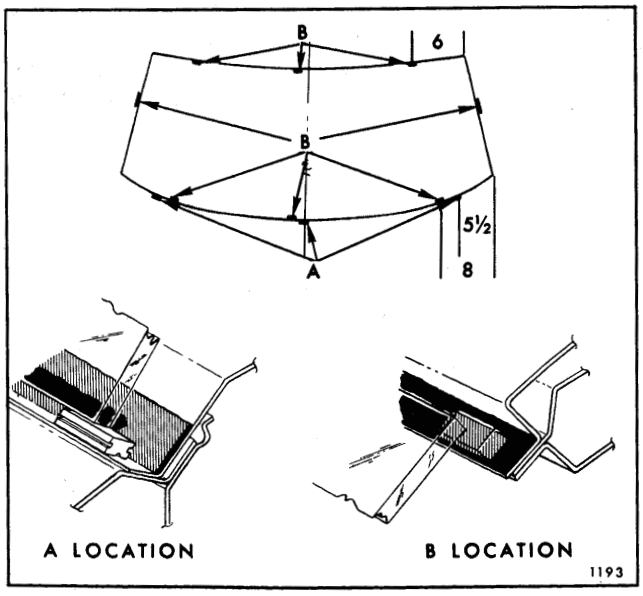

Fig. 3-8—Glass Spacers

5. Place glass in opening, shim glass with spacers as necessary to properly align glass to opening. The glass should overlap the pinch-weld flange 3/8". Mark glass to windshield pillars with tape to assist in proper alignment at time of installation (Fig. 3-9).

6. Apply 1" wide masking tape to inside of windshield glass 1/4" inboard from edge of glass, across the top and down each side, to facilitate cleanup after installation.

7. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer on the freshly cut material in the opening.

CAUTION: Do not allow primer to drop on painted surfaces or trim.

8. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a

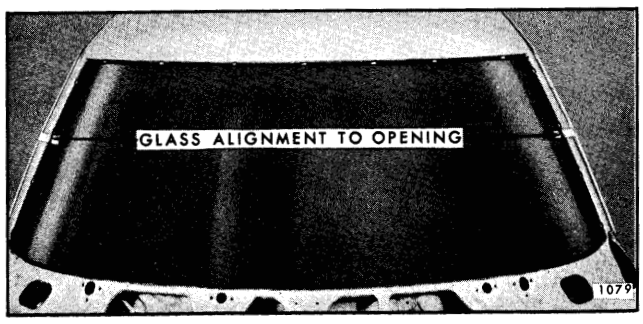

Fig. 3-9—Glass Alignment

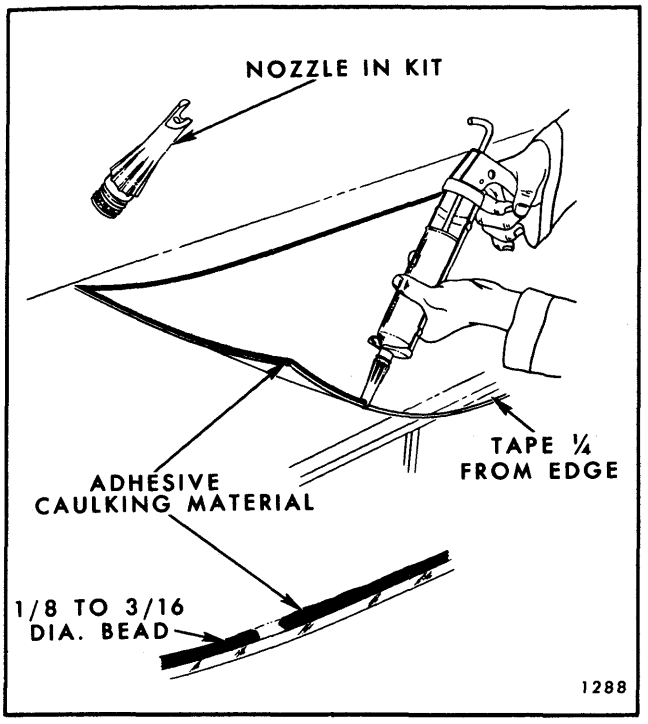

Fig. 3-10—Adhesive Caulking Material Application - Short Method

clean, water dampened cloth. Dry glass with a clean dry cloth.

9. Apply a smooth continuous bead of adhesive caulking material to inside surface of glass next to edge completely around glass (Fig. 3-10). Material should be 1/8" to 3/16" in diameter.

IMPORTANT: The operation of installing glass into the opening should be completed within 15 minutes from start of application of material to glass.

10. With aid of helper, lift glass with one hand on outside of glass and one hand on inside of glass. Carefully move glass up to windshield opening maintaining glass in a horizontal position. While one man holds glass in this position, the second man can reach around the windshield pillar and hold glass; then, first man can reach around windshield pillar (Fig. 3-11). Carefully position glass into opening, making certain that glass is properly centered in opening and positioned on lower spacers. Use tape previously applied on windshield pillar to properly align glass (Fig. 3-9).

11. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the windshield glass.

12. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.

13. Watertest windshield immediately using cold water spray.

14. Remove masking tape from inside of glass.

15. Install reveal moldings, inside garnish moldings and previously removed parts.

WINDSHIELD GLASS INSTALLATION (EXTENDED METHOD)

1. Remove glass as outlined in General Information Section, remove major portion of adhesive caulking material from body pinchweld flange.

2. Inspect reveal molding retaining clips for damage. If upper end of clip is bent away from body metal more than 1/32", replace or reform the clip. Be sure reveal molding clip screws are sealed.

3. Using black weatherstrip adhesive cement three rubber spacers (#4421823 or equivalent) to upper windshield flange and two rubber spacers (#4421823 or equivalent) to windshield pillars at rabbet (View "B", Fig. 3-8). Cement three rubber spacers (#4459429 or equivalent) to lower windshield flange (View "B", Fig. 3-8). Cement three rubber spacers (#4871330 or equivalent) to lower windshield opening (View "A", Fig. 3-8).

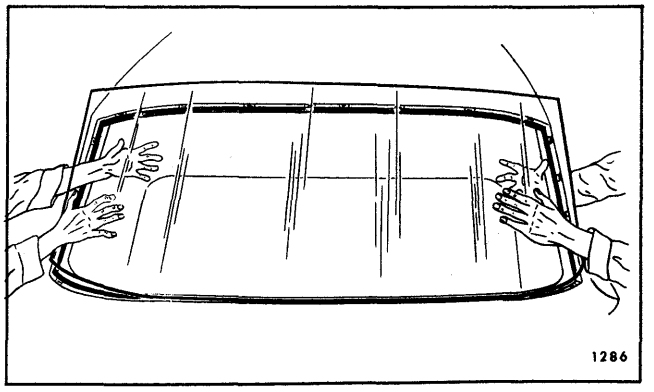

Fig. 3-11—Windshield Installation

4. Position replacement windshield glass in body opening. Carefully check relationship of glass to body opening. The distance between the inside surface of the glass and body should not be less than 3/16". The glass should have 3/8" overlap around the entire opening. Where necessary to obtain proper spacing, use shim spacers as required. Mark position of glass on glass and windshield pillars with masking tape, for proper alignment of glass to opening at time of installation (Fig. 3-9). Remove glass and place on a protected bench or holding fixture.

5. If original glass is to be installed, remove old caulking material from glass with sharp scraper or razor blade. Remove remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use oil base solvent. Any oil will prevent adhesion of new caulking material to glass.

6. Apply 1" wide masking tape to inside of windshield glass 1/4" inboard from edge of glass, across the top and down each side, to facilitate cleanup after installation.

7. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer over original adhesive caulking material that remains on pinchweld flange. Additional brisk application of primer on flat rubber spacers if necessary to insure a good bond of material to spacers.

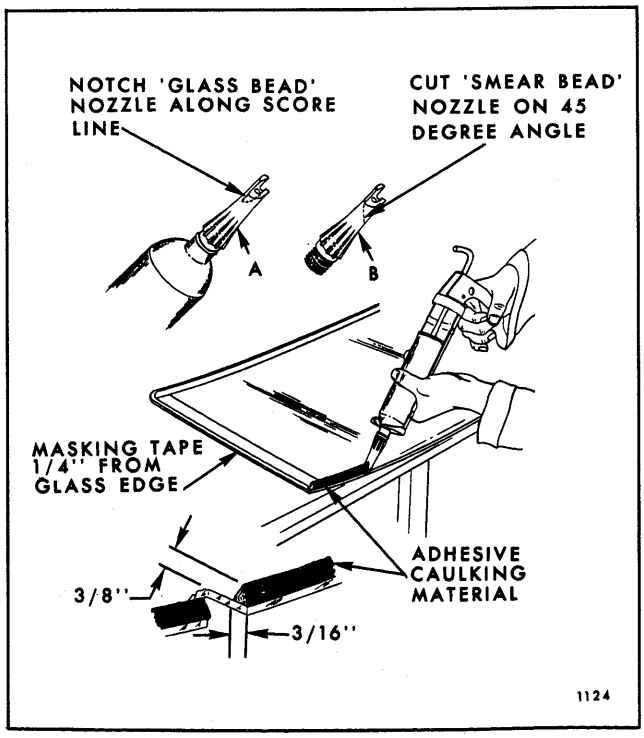

Fig. 3-12—Adhesive Caulking Installation - Extended Method

CAUTION: Do not allow primer to drop on painted surfaces or trim parts.

NOTE: If the windshield opening is freshly painted due to collision work, etc., apply paint finish primer to painted pinchweld flange. Paint finish primer is available as a service part.

8. Cut off tip of one nozzle along score line (Fig. 3-12). This "glass bead" nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle (Fig. 3-12). This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.

9. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened cloth. Dry glass with a clean dry cloth.

10. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle.

11. Positioning the gun and nozzle as shown in Figure 3-12 carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.

NOTE: Material begins to cure after 15 minutes exposure to air, therefore, perform following steps immediately and install glass in opening as soon as possible.

12. Remove "glass bead" nozzle and insert "smear bead" nozzle (nozzle cut on 45° angle in step #8). Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

13. Install glass as outlined in steps 10 through 15 of short method installation.

WINDSHIELD GLASS—RUBBER CHANNEL—ALL "X" STYLES

REMOVAL

1. Place protective covering over hood, front fenders, instrument panel and front seat assembly.

2. Remove rear view mirror support.

3. Remove windshield wiper arm assembly.

4. On inside of body loosen lip of rubber channel from pinchweld flange along top and sides of windshield as follows: With palm of hand, apply pressure to glass near edge (Fig. 3-13). At the same time use a blunt putty knife or other suitable tool and carefully assist rubber channel over pinchweld flange.

5. After windshield rubber channel is free from pinchweld flange, with aid of helper, carefully lift windshield assembly from body opening and place it on a protected bench.

NOTE: The windshield reveal moldings are installed in the rubber channel and are to be removed prior to removing rubber channel from the glass.

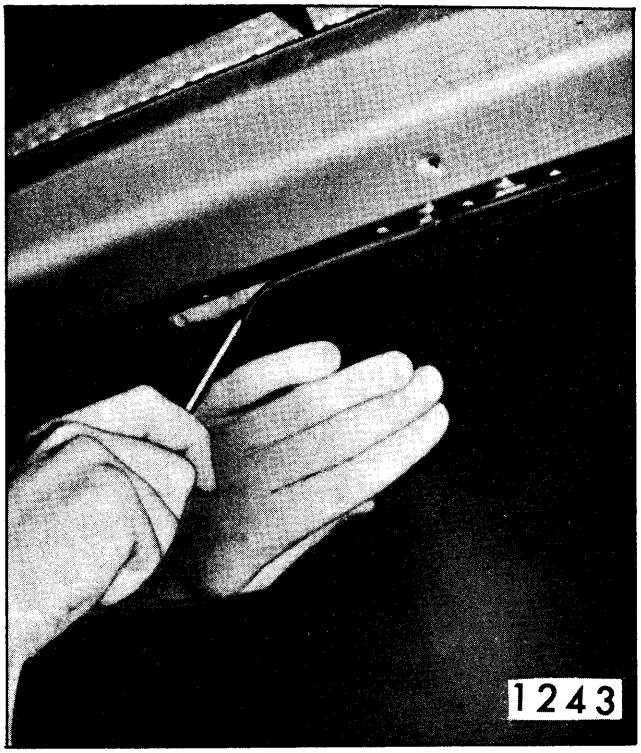

Fig. 3-13—Windshield Glass Removal

INSTALLATION

It is important that the body windshield opening be checked thoroughly before installation of the replacement windshield glass. The procedure below outlines the method which may be used to check the windshield opening.

1. Check windshield rubber channel for any irregularities.

2. Clean off old sealer around windshield opening and check entire body opening flange for any irregularities.

3. Install five windshield checking blocks J-8942 or equivalent (Fig. 3-14) to pinchweld flange at the following locations. Position one block over lower pinchweld flange on each side of body approximately twelve inches inboard from the lower outer corner of the opening. Position one block in center on lower pinchweld flange. Position final blocks on upper pinchweld flange midway between center block and each outboard block on lower retaining flange.

4. With aid of helper carefully position replacement glass on blocks in windshield opening.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation. Edge chips can lead to future breaks.

5. With windshield glass supported and centered in body opening by checking blocks, check relationship of glass to body opening around entire perimeter of glass. Figure 3-15 shows a typical section taken through the glass channel and body opening. Check glass to body relationships as follows:

   a. The inside surface of the glass should be a uniform distance from pinchweld flange. The dimension should be from 1/4" to 5/16".

   b. The outer edge of glass should be a uniform distance from body metal, measured in the

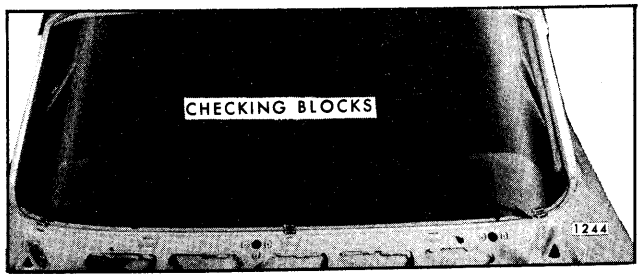

Fig. 3-14—Windshield Glass Checking Blocks

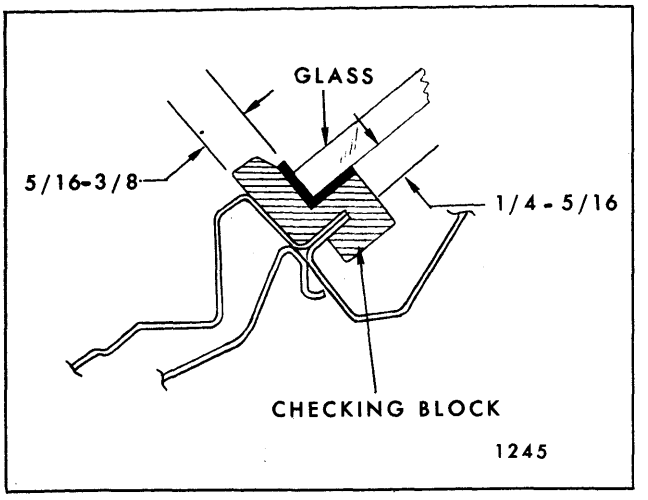

Fig. 3-15—Correct Position Of Checking Blocks

plane of the glass. This dimension should be from 5/16" to 3/8".

6. Mark any sections of body to be re-formed, remove glass and re-form opening as required.

7. Re-check windshield opening as outlined above. Then MARK THE CENTER LINE ON THE GLASS AND BODY so that glass can be accurately centered in opening when installed.

8. Install windshield.

   a. Clean out old sealer in glass cavity of windshield rubber channel and around base of rubber channel.

   b. Install rubber channel to glass and install reveal moldings in rubber channel.

   c. Insert a strong cord in pinchweld cavity of rubber channel completely around windshield. Tie ends of cord and tape to inside surface of glass at bottom center of glass (Fig. 3-16).

   d. Apply a ribbon of medium-bodied sealer completely around base of rubber channel as indicated in Figure 3-17, Item #1.

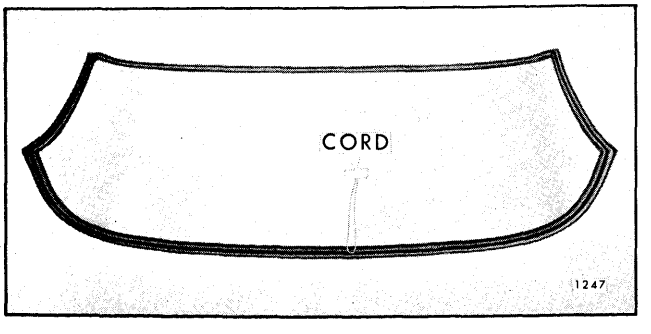

Fig. 3-16—Windshield Installation

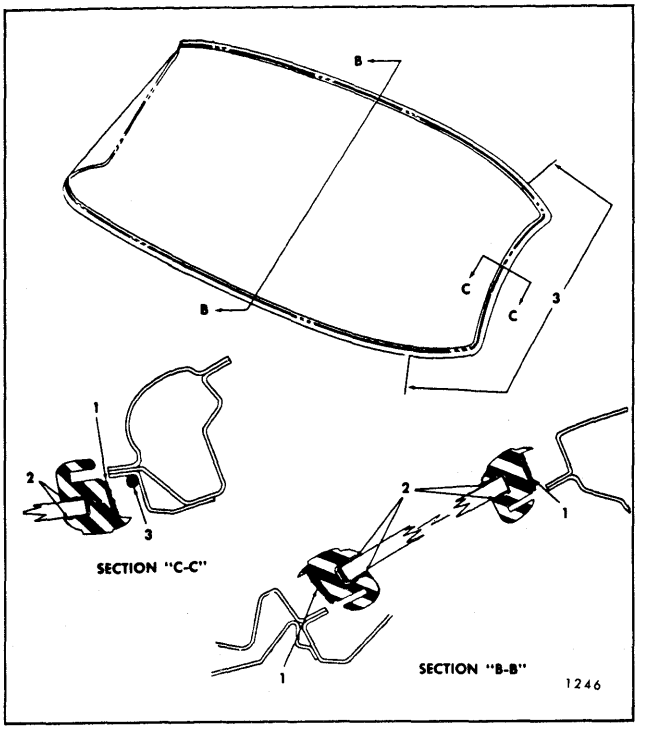

Fig. 3-17—Sealing Of Windshield Glass And Channel

   e. Apply a bead of medium-bodied sealer, approximately 1/4" in diameter to corner of windshield opening rabbet around each side of windshield for distance indicated in Figure 3-17, Item #3.

   f. With aid of helper, carefully position and center windshield assembly in windshield opening.

CAUTION: Do not position glass by tapping or hammering at any time.

   g. When the glass and channel are properly positioned in opening, slowly pull ends of cord, starting at lower center of windshield, to seat lip of rubber channel over pinchweld flange. Cord should be pulled first across bottom of windshield, then up each side and finally across top of windshield.

   h. Using a pressure type applicator, seal inner and outer lips of rubber channel to glass with an approved weatherstrip adhesive as indicated in Figure 3-17, Item #2. Seals are to extend completely around rubber channel.

   i. Clean off excess sealer from windshield glass with mineral spirits.

   j. Reinstall all previously removed parts and remove protective coverings.

WATERLEAK CORRECTION

In many instances minor waterleaks around the windshield may be corrected by performing the following operations.

1. Leaks between rubber channel and glass.

   a. Using a pressure applicator (plews oiler or equivalent) with a narrow tip, apply an approved weatherstrip adhesive (black) between glass and rubber channel on the outside of the glass completely around perimeter of glass.

2. Leaks between rubber channel and body.

   a. Use a pressure applicator with a narrow tip. Working from outside of body, apply medium-bodied sealer under outer lip of rubber channel around entire perimeter of body opening.

INSTRUMENT PANEL

INSTRUMENT PANEL COVER
ALL CHEVROLET STYLES

The instrument panel cover is secured to the instrument panel by studs and nuts or screws (Figs. 3-18, 3-19, 3-20 and 3-21). The studs are an integral part of the cover assembly.

Removal and Installation:

1. Remove windshield side garnish moldings where necessary.
2. Loosen or remove any necessary instrument panel items, glove box etc.
3. From underside of instrument panel, remove attaching screws and nuts and carefully remove cover assembly (Figs. 3-18, 3-19, 3-20 and 3-21).
4. To install, reverse removal procedure.

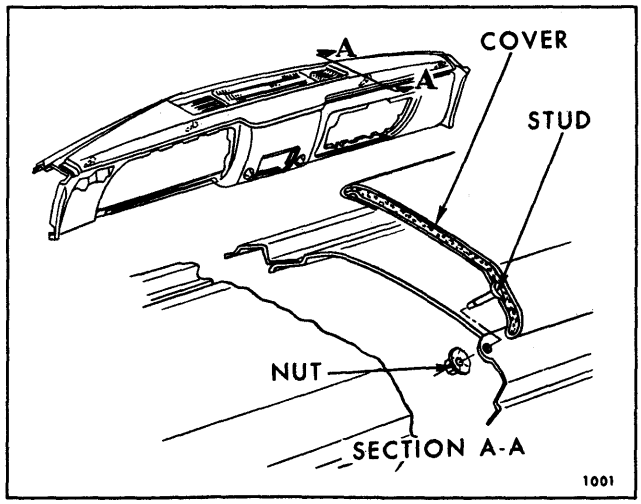

Fig. 3-18—Instrument Panel Cover

INSTRUMENT PANEL ASSEMBLY
ALL CHEVROLET AND PONTIAC STYLES
(10000, 11000, 13000, 15000, 16000, 23000, 25000, 26000 SERIES)
ALL BUICK "A" STYLES
43000 AND 44000 SERIES STYLES

Instrument Panel Compartment Door

Removal and Installation

The instrument compartment door hinges and stops are an integral part of the door or attached by screws. The hinges and door assemblies are attached to the instrument panel by screws. To remove the door assemblies, remove attaching screws securing hinge to instrument panel (Figs. 3-22, 3-23, 3-24, 3-25) lift door, rotate counterclockwise to remove stop from opening in panel.

To install, reverse removal procedure.

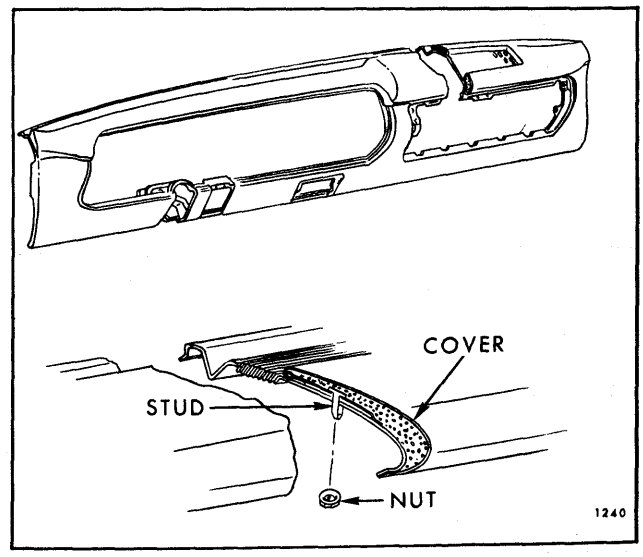

Fig. 3-19—Instrument Panel Cover

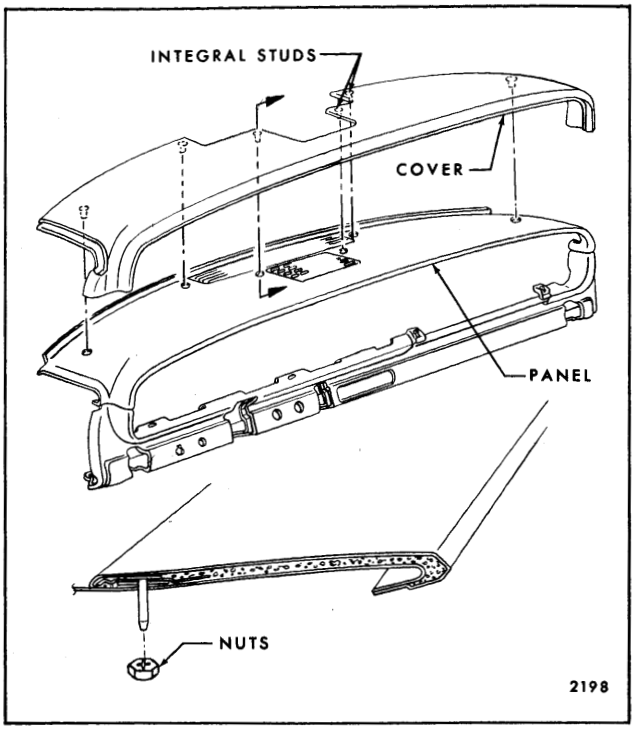

Fig. 3-20—Instrument Panel Cover

Adjustments

1. To move door up or down, shim between hinge and instrument panel or loosen door-to-hinge screws and position door as desired.

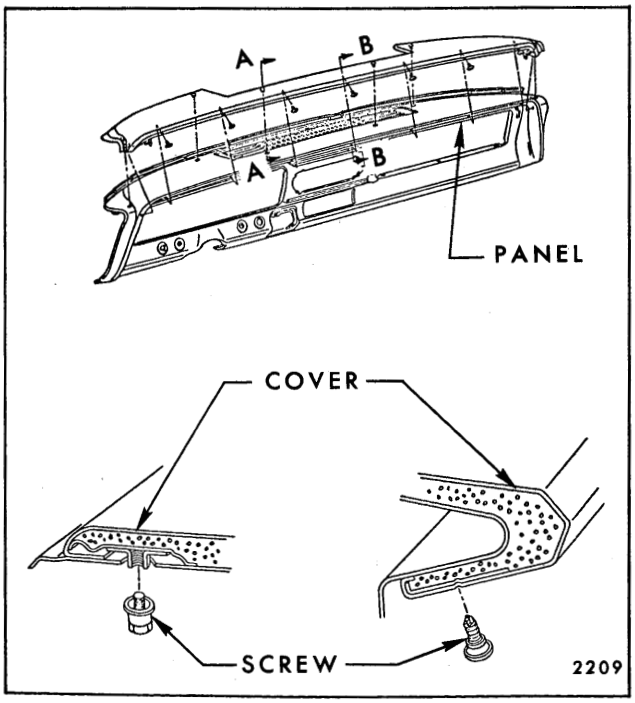

Fig. 3-21—Instrument Panel Cover

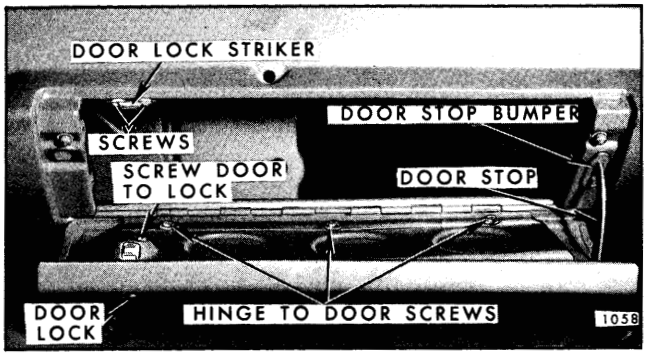

Fig. 3-22—Instrument Panel Compartment Door

2. To move door in or out, loosen hinge-to-instrument panel and position door as desired.

3. To move door right or left, loosen hinge-to-instrument panel screws and position door as desired.

4. Striker plates are adjustable on the instrument panel by loosening the attaching screws and positioning the striker plate as desired (Figs. 3-22, 3-23, 3-24 and 3-25).

Instrument Panel Door Locks

Removal and Installation

1. Open compartment door, remove screw attaching lock to door inner panel and remove lock assembly (Figs. 3-22, 3-23, 3-24 and 3-25).

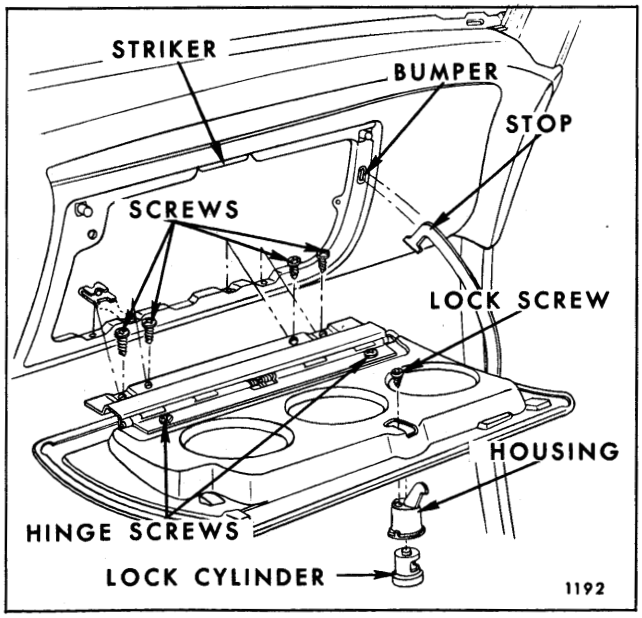

Fig. 3-23—Instrument Panel Compartment Door

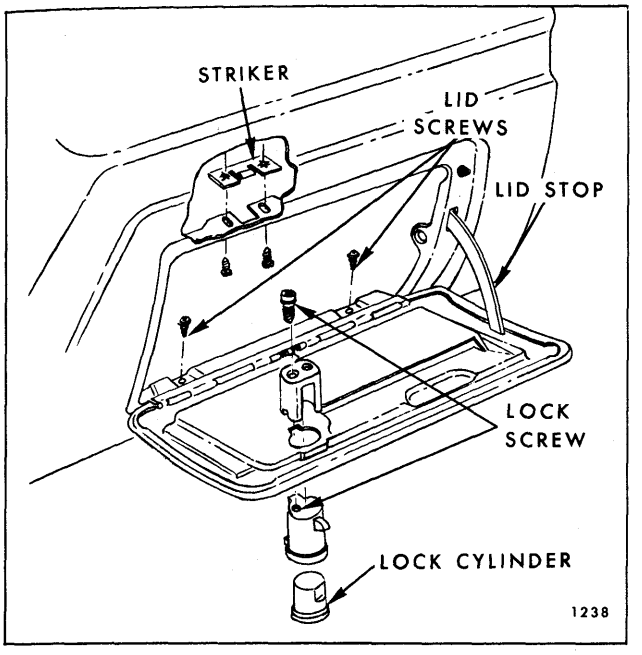

Fig. 3-24—Instrument Panel Compartment Door

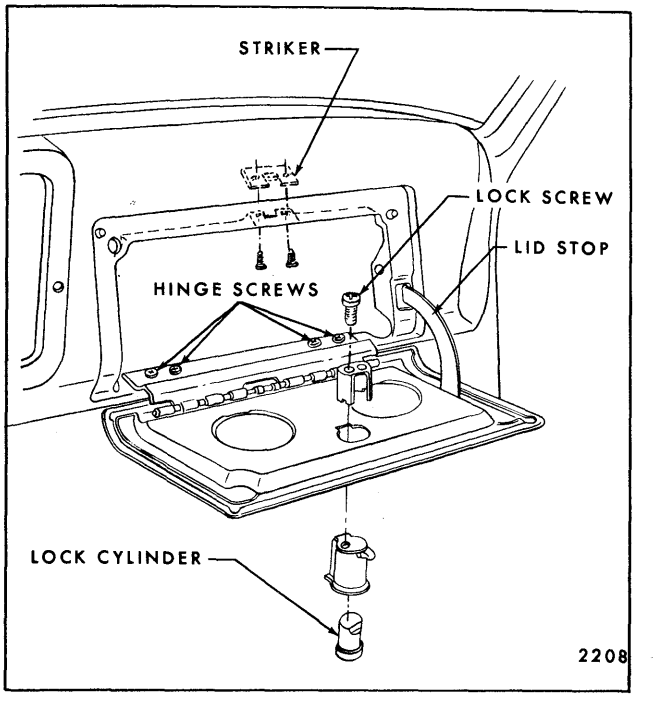

Fig. 3-25—Instrument Panel Compartment Door

2. To install, reverse removal procedure.

FRONT COMPARTMENT—CORVAIR

DESCRIPTION

Each front compartment lid hinge assembly employs the use of an individual torque rod which acts as a counterbalance and hold-open for the lid. Notches are provided in the torque rod retainer for adjustment of the rods.

The front compartment lid lock assembly is a side action snap-bolt mechanism equipped with a safety latch and is attached to a support on the front end panel. The end of the lock assembly acts as a guide by entering the striker when the lid is closed.

A single section cement-on type front compartment weatherstrip is used on all styles.

FRONT COMPARTMENT LID

Removal and Installation:

1. Open lid and place protective covering over surfaces of front compartment opening to prevent damage to painted surfaces.

2. Scribe (pencil) location of hinge straps on lid inner panel.

3. With aid of a helper remove hinge to lid attaching bolts from each hinge and remove lid (See Fig. 3-26).

4. To install, align hinges to lid within scribe marks and reverse removal procedure.

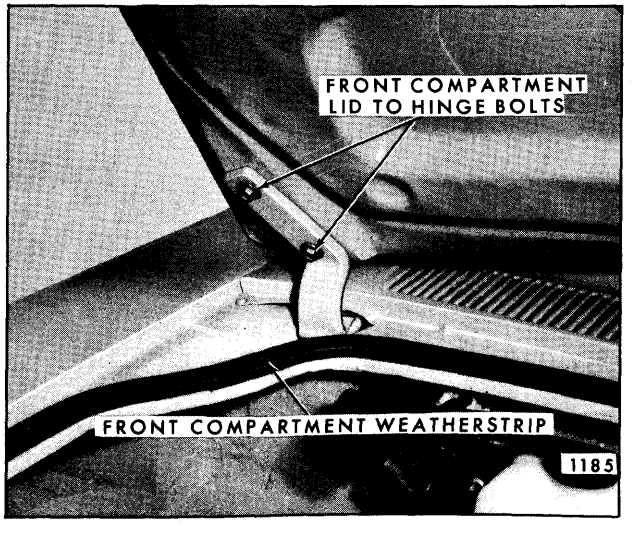

Fig. 3-26—Front Compartment Weatherstrip And Front Compartment Lid Attaching Bolts

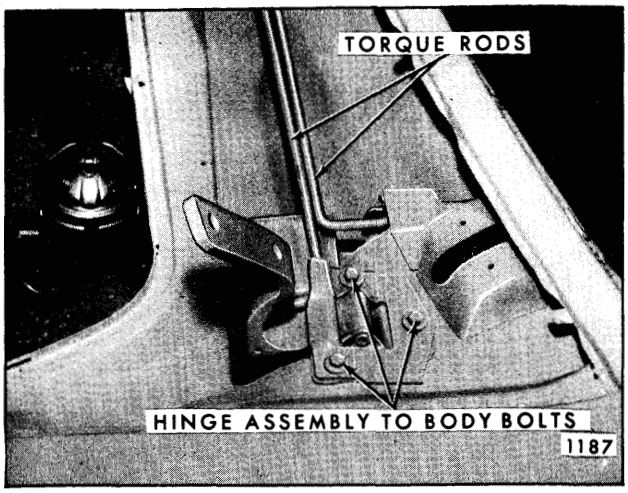

Fig. 3-27—Front Compartment Lid Hinge Removal

Adjustments

1. To adjust front compartment lid forward or rearward or from side to side in body opening, loosen hinge to upper shroud attaching bolts at each hinge and adjust lid as required; tighten bolts (see Fig. 3-27).

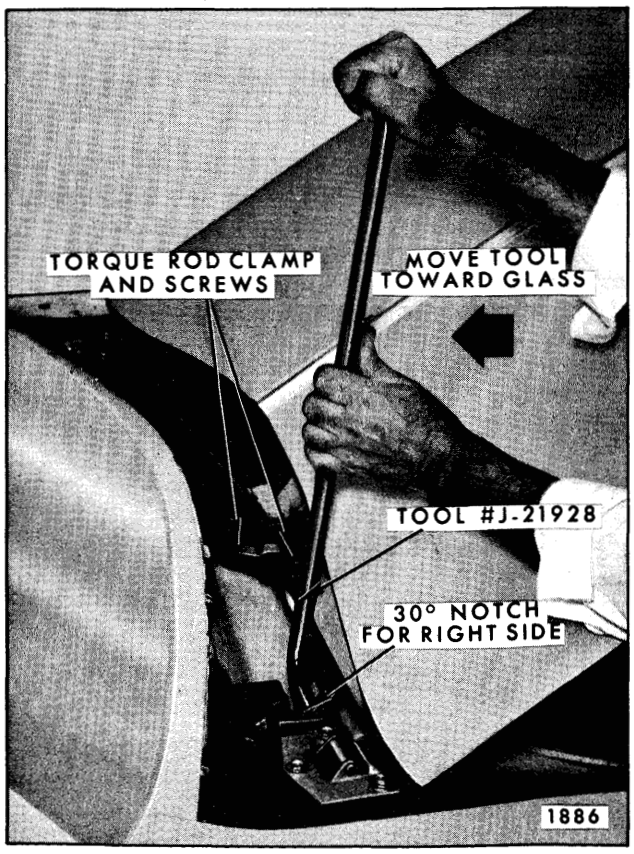

Fig. 3-28—Torque Rod Removal - Right Side

2. To adjust the lid up or down at one or both sides, install shims between the hinge strap and lid as follows:

   a. To raise rear edge of lid at hinge area, place shim between hinge strap and lid inner panel at rear attaching bolt (Fig. 3-26).

   b. To lower rear edge of lid at hinge area, place shim between hinge strap and lid inner panel at front attaching bolt (Fig. 3-26).

3. Check front compartment lid lock engagement with striker.

FRONT COMPARTMENT LID TORQUE RODS

The torque rod removal and installation tool, J-21928 is designed to remove, replace or reset tension for one or both rods without removing the front compartment lid. This double-ended tool is designed with a different end for right and left side of body.

Removal and Installation:

1. Install protective covering over compartment lid and lower part of windshield.

2. Open compartment lid and prop same in a full open position.

3. Remove windshield wiper arms.

4. Remove shroud top air intake grille.

5. Remove torque rod clamp to shroud, located to right of center of shroud (Fig. 3-28).

6. Install tool J-21928 (Fig. 3-28) to lid torque rod on right side of body. Securely grasp tool and move it toward windshield to disengage rod from retaining notch. Carefully disengage tool from rod.

7. In like manner remove rod on left side of body (Fig. 3-29).

NOTE: Front compartment lid hinge assembly removal should be made only after torque rods are removed.

8. To install, apply a coat of No. 630AAW Lubriplate or equivalent to torque rod end that contacts hinge roller and reverse removal procedure, locating torque rods in the same

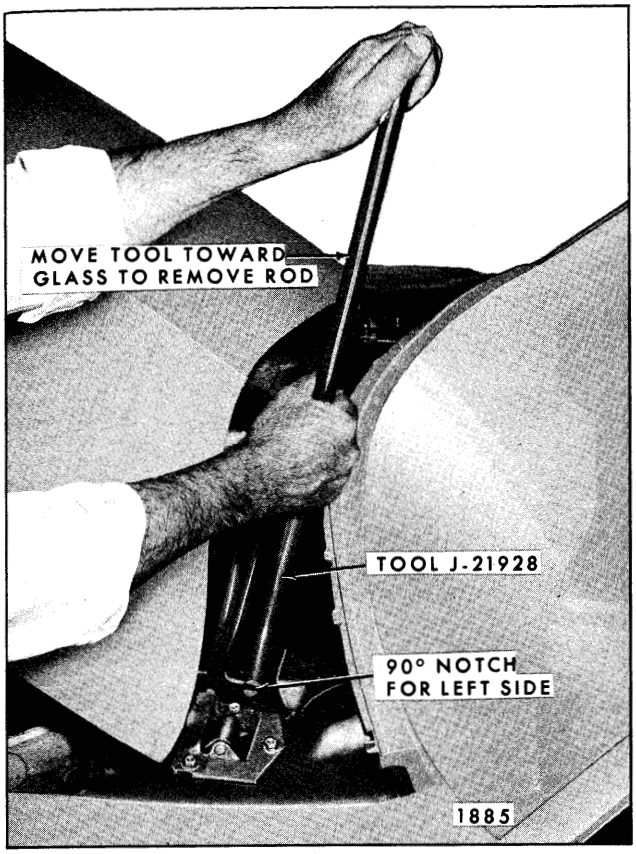

Fig. 3-29—Torque Rod Removal - Left Side

notch in retainer as they were before removal. Check tension on lid. If additional tension is required reset torque rod.

FRONT COMPARTMENT LID LOCK CYLINDER ASSEMBLY

The front compartment lid lock cylinder is attached to the front end panel molding which is secured to the front end panel by studs and nuts (See Fig. 3-30).

Removal and Installation:

1. Remove front end panel molding assembly as explained in the "Exterior Molding" section of this manual (see index).

2. Remove lock cylinder retainer and remove lock cylinder from molding.

3. To install, reverse removal procedure. Make certain that molding is properly sealed to front end panel.

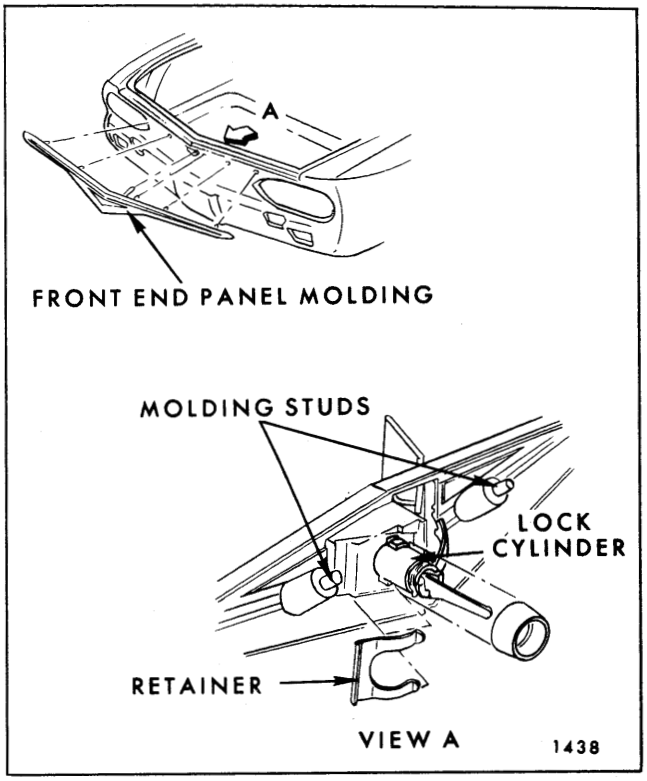

Fig. 3-30—Front Compartment Lid Lock Removal

FRONT COMPARTMENT LID LOCK ASSEMBLY

Removal and Installation:

1. Remove front end panel molding and lid lock cylinder assembly.

2. Remove screws (Fig. 3-31) securing lock to lid lock support and remove lock assembly.

3. To install, reverse removal procedure.

NOTE: If lock does not properly engage in striker opening, the lock may be adjusted forward by installing emergency spacer(s) between lock and support.

FRONT COMPARTMENT LID LOCK STRIKER

Removal and Installation:

1. Mark (pencil) location of front compartment lid lock striker on striker support.

2. Remove striker retainer plate attaching bolts and remove retainer plate and striker (Fig. 3-32).

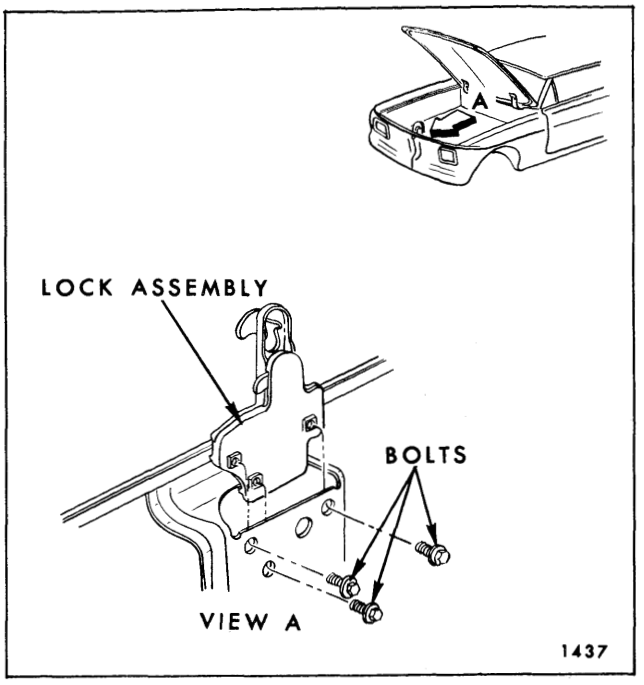

Fig. 3-31—Front Compartment Lid Lock

3. To install, position striker within scribe marks and reverse removal procedure. Check striker for proper engagement with lock.

Adjustments

1. To adjust striker up, down, right or left, loosen retainer plate attaching bolts (while holding plate in position), adjust striker as required and tighten bolts.

NOTE: Since upper end of lid lock acts as a guide by entering the striker when the lid is closed, make certain the front compartment lid is properly aligned in the body opening prior to making any striker adjustments.

FRONT COMPARTMENT LID GUTTER WEATHERSTRIP

Removal

1. Separate "butt" ends of weatherstrip at front of compartment opening.

2. With a flat-bladed tool, carefully disengage weatherstrip from its cemented foundation in gutter around entire perimeter of front compartment and remove weatherstrip.

Installation

1. Remove excess cement from gutter around entire front compartment opening to insure a smooth cementing surface.

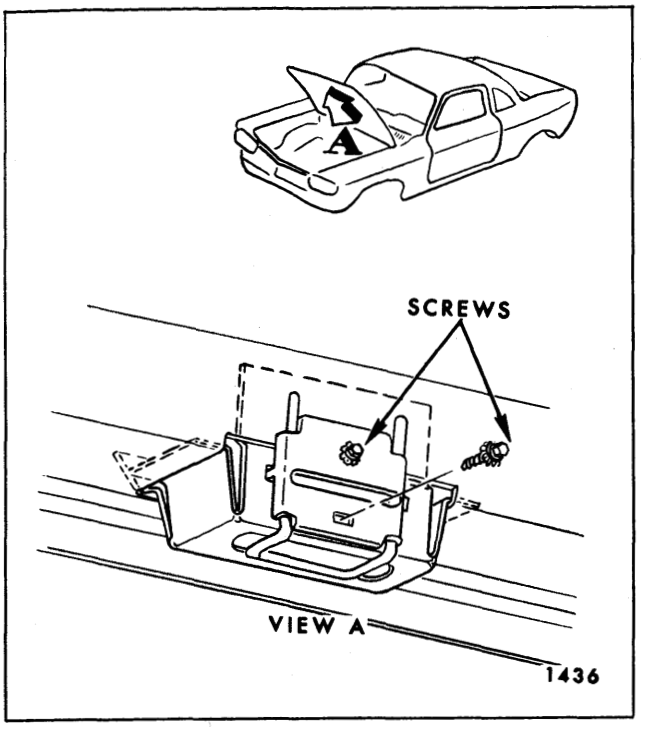

Fig. 3-32—Front Compartment Lid Lock Striker

2. Brush an approved weatherstrip cement along base of gutter around entire perimeter of gutter.

NOTE: Apply a sufficient amount of weatherstrip cement along lower inboard corner of gutter so that after installation of weatherstrip, cement will spread and completely fill area.

3. Center weatherstrip at area between lid hinges using color or tape identification mark at center of weatherstrip as guide.

4. Using a flat-bladed tool, such as a putty knife with rounded corners, insert weatherstrip into gutter across top, down sides and across front of compartment opening in that order. Roll or press weatherstrip to insure a good seal and proper retention of weatherstrip.

5. If installing a new weatherstrip, trim ends of weatherstrip to form "butt" joint at front of opening. Brush weatherstrip cement on both ends of weatherstrip and secure ends together to form a "butt" joint.

6. Allow sufficient time for cement to set before closing front compartment lid.

SECTION 4
HEADLINING

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HEADLINING—CLOTH AND VINYL COATED ALL STYLES—EXCEPT "55 AND 65" STATION WAGONS

DESCRIPTION

The headlining assembly is formed to the contour of the roof panel by concealed listing wires. The listing wires are retained to the headlining by listing wire pockets which are part of the headlining assembly.

Depending upon the body type and style, the listing wires are attached to the side roof rails by either inserting wires directly into holes in side rail or into a clip which is screwed into the side rail. (See View "A and B" in Fig. 4-1.)

On all styles except Corvair equipped with a vinyl coated headlining, the listing wires are further attached to the roof panel by tabs on the front to rear longitudinal roof bow. (See View "D" in Fig. 4-1.)

When pinchweld finishing lace is used at the windshield and back window or back body opening, the headlining is attached by means of cement at those areas.

Where garnish moldings are utilized the headlining is tacked or stapled in addition to being cemented at the windshield and back window or back body opening (View "E", Fig. 2155 and Fig. 4-2).

The headlining is retained along the side roof rails by cementing or the use of a pronged retainer. Depending upon the style, garnish moldings or pinchweld finishing lace is also used to assist in retaining the headlining. The side roof rail garnish moldings are secured to the pinchweld flange by clips that are located in the molding. (See Figs. 4-3 and 4-4.)

On styles where a upper quarter trim panel is utilized, the headlining is tacked or stapled to a trim stick in the roof extension area (See Fig. 4-2). The upper quarter trim is retained by clips (See Fig. 4-2). On "E" Body Styles the upper quarter trim is further retained by cementing the forward edge to the side roof rail. On styles where the headlining covers the entire roof extension area, the headlining is retained along the rear compartment shelf by a pronged retainer (See Fig. 4-5).

REMOVAL

1. Place protective coverings over seat cushions and backs.

2. Prior to removing headlining, remove following hardware and trim assemblies if present.

   a. Windshield side and upper garnish moldings or finishing lace.

   b. Rear view mirror support.

   c. Sun shade supports.

   d. Dome or rear quarter courtesy lamps.

   e. Coat hooks.

   f. Side roof rail moldings or finishing lace.

   g. Back window garnish moldings or finishing lace.

   h. Center pillar finishing moldings.

   i. Rear quarter trim, where necessary.

   j. Upper quarter trim finishing panel (on styles so equipped).

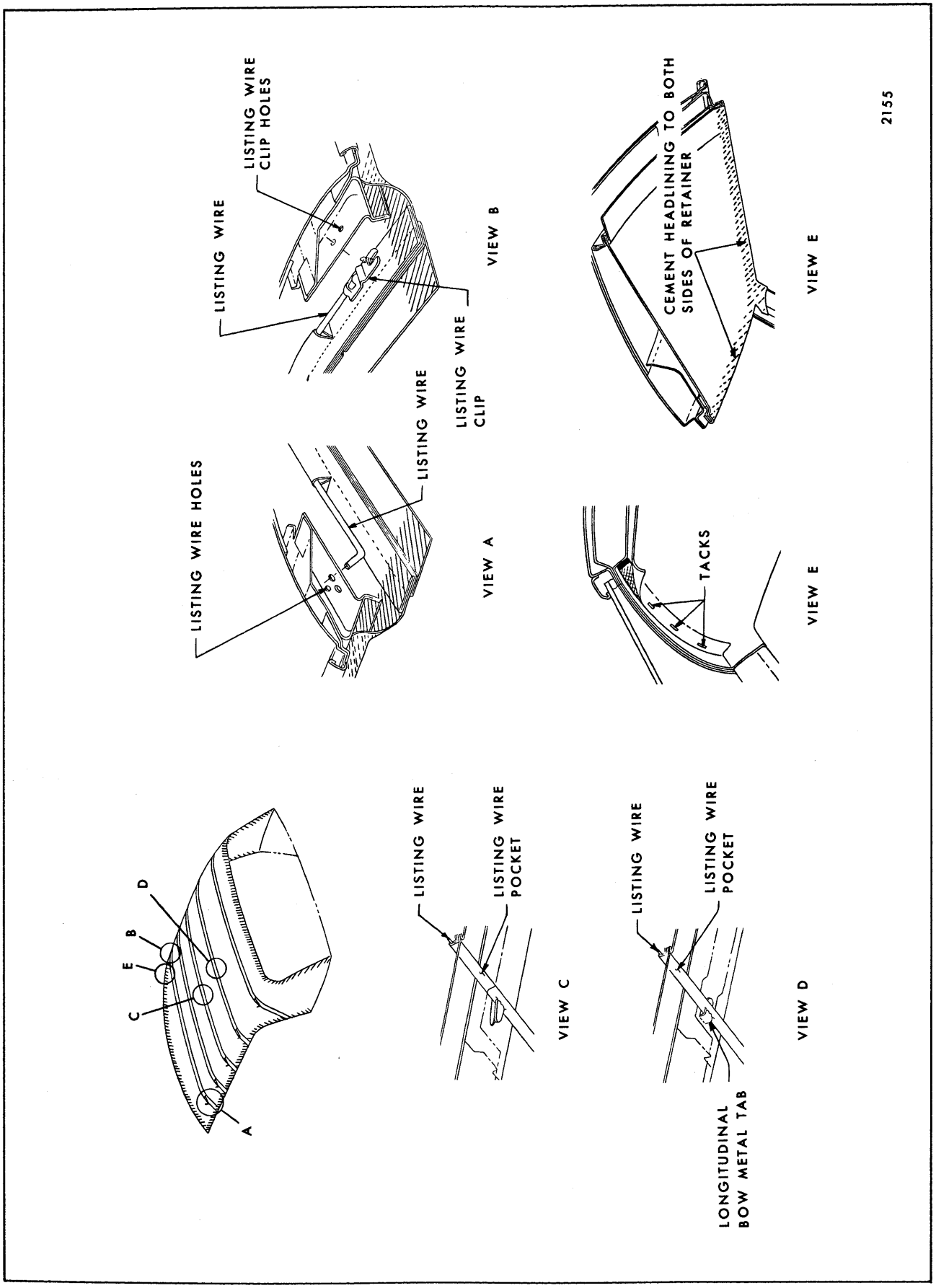

Fig. 4-1—Vinyl and Cloth Headlining Installation

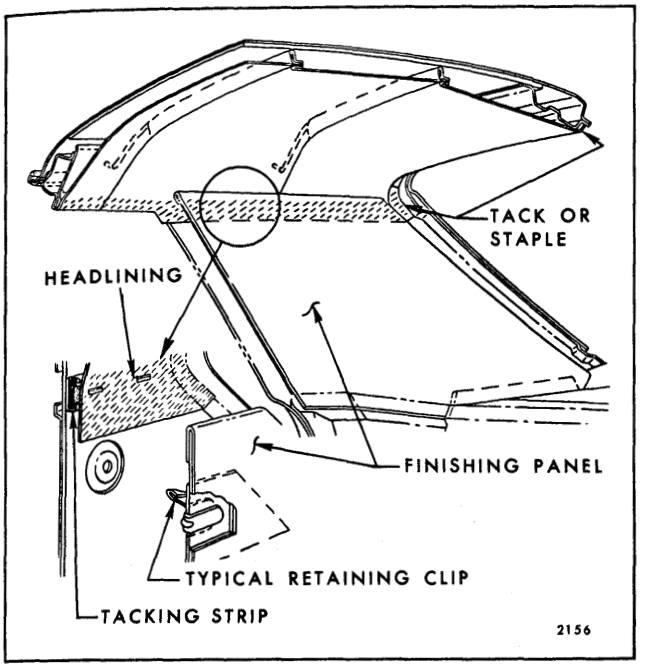

Fig. 4-2—Upper Quarter Trim Installation

k. Back body opening garnish moldings or finishing lace.

3. Carefully remove tacks or staples securing headlining at windshield and back window opening or back body opening.

4. On styles using pronged retainers, use headlining inserting tool, J-2772 or similar wide-bladed tool and carefully disengage headlining from pronged retainers where present.

5. Carefully detach cemented edge of headlining around entire perimeter.

6. Starting at front of body, carefully disengage No. 1 and No. 2 listing wires from side roof

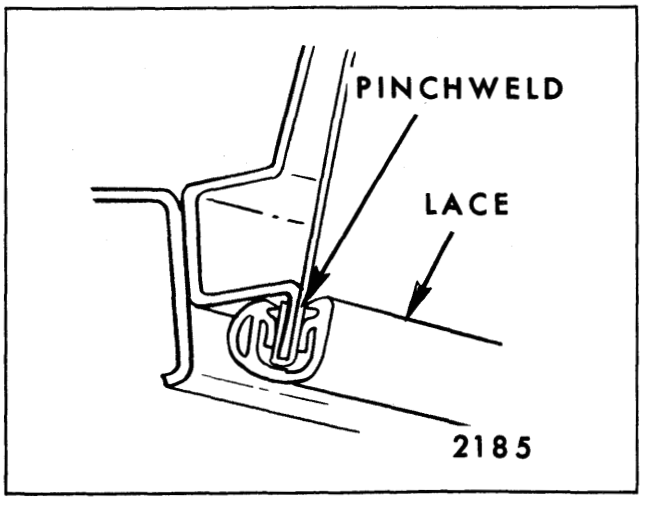

Fig. 4-3—Pinchweld Finishing Lace

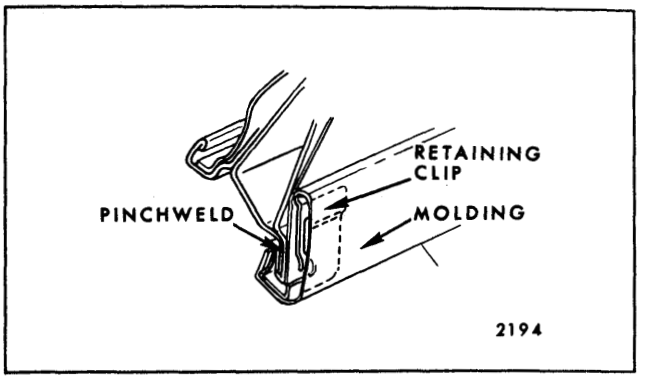

Fig. 4-4—Side Roof Rail Garnish Moldings

inner rails and supporting tabs on longitudinal (front to rear) bow on styles so equipped (View "D" in Fig. 4-1). In like manner, working from rear of body, disengage listing wires from side roof rails and supporting tabs on longitudinal bow. Exercise care to keep headlining material clean by gathering or folding headlining with listing wires on outside.

7. At No. 3 listing wire, bend down tab securing listing wire (View "C" in Fig. 4-1) and remove headlining assembly from body.

IMPORTANT: Note in which holes listing wires are installed in side roof rails. Listing wires should be placed in same hole when replacing headlining.

8. If replacing headlining, remove listing wires from pockets of old headlining.

IMPORTANT: Listing wires removed from old headlining must be installed in corresponding pockets of new headlining.

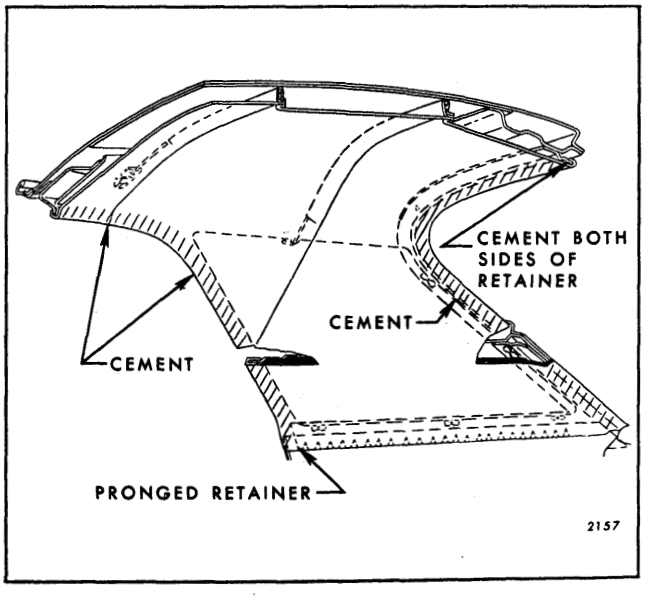

Fig. 4-5—Headlining Installation at Roof Extension

INSTALLATION

1. If previously removed, install listing wires into corresponding pockets of new headlining assembly.
2. Apply approved trim cement to headlining attaching surface at windshield, side roof rail and back window or back body opening. On styles that utilize pinchweld finishing lace be certain cement is applied to both sides of retainer at windshield and back window or back body opening. (View "E", Fig. 4-1 and Fig. 4-5)
3. Lift headlining assembly into body and install No. 3 listing wire and listing wire pocket over metal tab at roof bow (View "C", Fig. 4-1). Bend up tab to secure listing wire to bow. Make certain headlining is centered in body.
4. When new headlining is being installed on styles equipped with longitudinal bow (except cloth headlining) slit listing wire pockets at each tab location on longitudinal bow (approximately 1-1/2" in length). Working rearward from No. 3 listing wire, install listing wires in side roof rails and over tabs on longitudinal bow. In like manner, working forward, install No. 2 and No. 1 listing wires. (View "D", Fig. 4-1)

NOTE: Listing wires may be adjusted up or down by utilizing appropriate holes in side roof rails. Listing wires should rest tight against roof panel after installation. (Views "A" and "B" in Fig. 4-1)

5. Stretch and secure headlining at windshield and back window or back body opening. Stretch and secure headlining at rear quarters and side roof rails. Permanently attach material removing draws and wrinkles and replace all previously removed inside hardware and trim assemblies.

HEADLINING—POLYURETHANE FOAM AND FLOCKED HEADLININGS

DESCRIPTION

The polyurethane foam headlining assembly and the flocked headlining assembly consist of five individual sections.

The headlining sections are secured in place by retainers formed to the contour of the roof panel. Plastic moldings are snapped over the retainers and cover the retainers and edges of the headlining sections. Windshield, back window and side roof rail garnish moldings, also assist in holding the headlining in place.

When necessary, the headlining sections may be individually removed and replaced.

REMOVAL (ONE OR MORE SECTIONS)

1. Place protective coverings over seat cushions and backs.
2. Remove side roof rail moldings. If removing front section of headlining, remove windshield upper and side garnish moldings, sunshade support assemblies and rear view mirror support. If removing rear section, remove back window garnish moldings, side roof rail garnish moldings and rear quarter trim assembly to gain access to headlining at side roof rail area. If center sections are removed, where required, remove dome lamps, coat hooks, and coat hook spacers if present.
3. With flat-bladed tool, carefully pry one end of plastic molding from retainer and remove (View "C", Fig. 4-6). Remove plastic moldings from both retainers securing section of headlining being removed.
4. When removing individual sections, use flat-bladed tool and carefully pry one edge of headlining section from retainer and remove from body.
5. If removing headlining section at back window, remove tacks or staples securing section at back window opening.
6. When retainers are required to be removed, remove screws securing retainer to roof (View "D", Fig. 4-6). Retainer spacers are installed between the metal retainers and roof (View "D", Fig. 4-6).

INSTALLATION:

1. If retainers were removed, make certain that retainer spacer shown in View "D", of Figure 4-6 is installed prior to installing retainers.

NOTE: Retainers should be tight against roof panel after installation.

2. Install headlining sections by positioning one edge in retainer and centering section in relation to other sections and side roof rails;

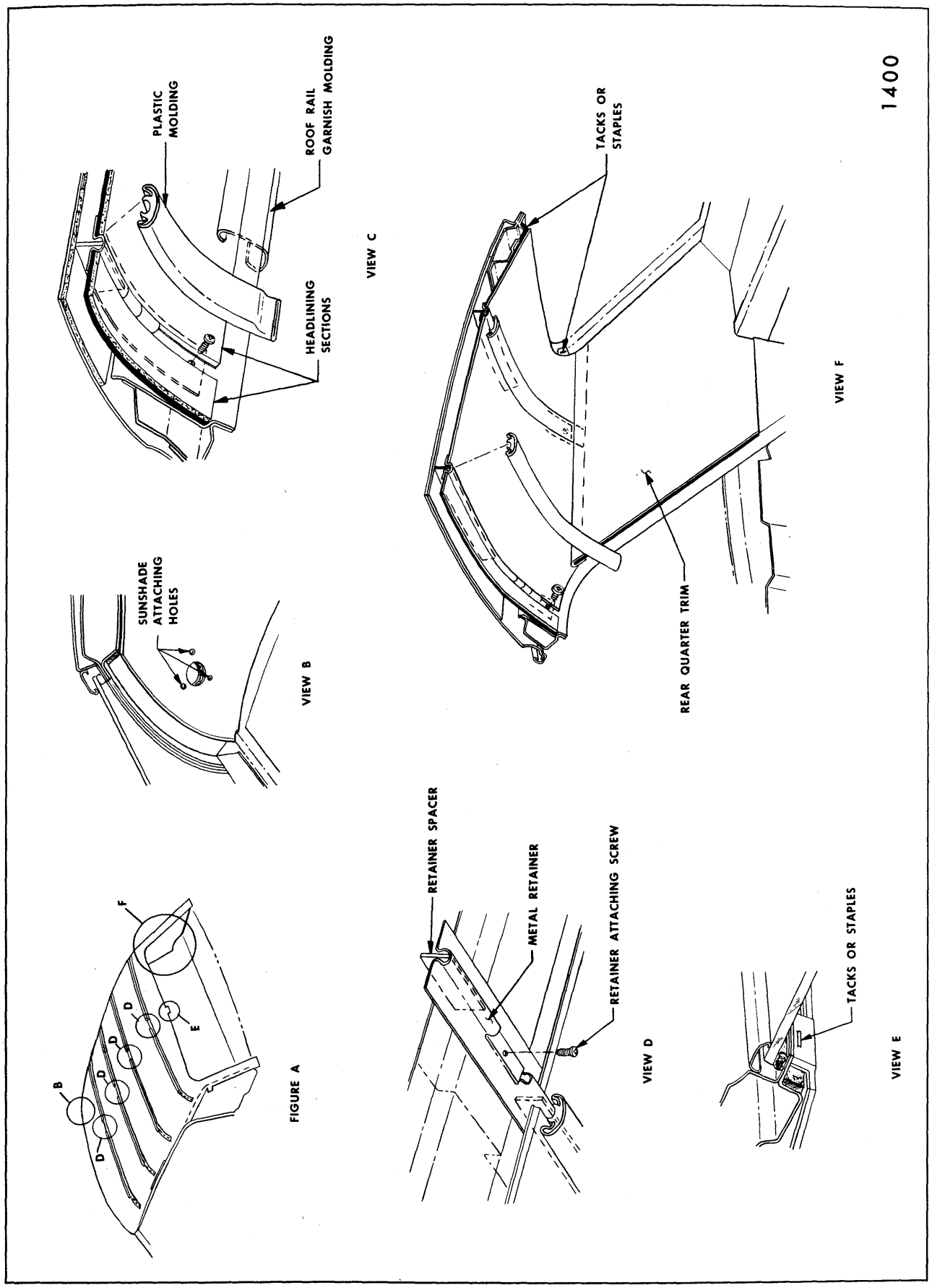

Fig. 4-6—Polyurethane Foam Headlining and Flocked Headlining Installation

then carefully snap remaining edge in other retainer. Snap plastic molding over retainers (View "C", Fig. 4-6).

3. If installing rear section of headlining assembly, position forward edge of section in retainer. Center and align section in relation to side roof rails and back window opening and stay tack section in place. Recheck alignment; then starting at center of back window area, permanently tack section to tacking strips at back window opening (View "F", Fig. 4-6).

4. If installing front section of headlining assembly, position appropriate edge in retainer. Center headlining section in relation to other sections, side roof rails, and sunshade support attaching holes (View "B", Fig. 4-6). Install sunshade supports.

NOTE: Forward edge of front section and rearward edge of rear section are also secured in place by windshield or back window garnish moldings.

5. Install all previously removed hardware and remove protective coverings.

NOTE: When installing side roof rail moldings, make certain edge of headlining section is covered by side roof rail moldings.

HEADLINING—"55 AND 65" STATION WAGON STYLES

DESCRIPTION

The "55 and 65" station wagon styles use two separate headlining assemblies and may be removed and replaced separately.

The front headlining is formed to the contour of the roof panel by concealed listing wires (View "A", Fig. 4-7). The ends of the listing wires are installed into holes in the side roof inner rails (View "B"), and may be adjusted up and down or fore and aft.

The headlining material is cemented to metal retainers and side roof rail pinchweld flanges (View "B", "C" and "D", Fig. 4-7). Escutcheons, moldings, and finishing lace cover the edges and assist in holding the material in place.

The rear headlining is formed to the contour of the roof panel by concealed listing wires (View "E", Fig. 4-7). The ends of the listing wires are installed into clips which are secured to the side roof inner rails by screws (View "F", Fig. 4-7). The edges of the material are cemented to the retainer flanges (View "G", Fig. 4-7). Finishing lace and moldings cover the edges and assist in holding the material in place.

CAUTION: Clean hands are essential when working with headlining material.

FRONT HEADLINING ASSEMBLY

Removal

1. Place protective covers over front seat cushion and back.

2. Prior to removal of the front headlining, remove the following items:

   a. Sunshade supports.

   b. Rear view mirror support.

   c. Windshield upper corner escutcheons.

   d. Center lock pillar upper finishing plates.

   e. Side skylight front upper garnish molding.

   f. Coat hooks.

   g. Courtesy lamps.

   h. Front skylight center division garnish molding.

   i. Front headlining finishing lace.

   j. Rear of headlining finishing lace.

   k. Finishing lace over front and rear doors.

3. Starting at front, carefully detach all cemented edges of headlining material from retainers and flanges.

4. Bend down tab at front listing wire (View "H", Fig. 4-7); remove listing wires from inner rails. Gather or roll headlining with listing wires on outside to keep headlining clean and remove old headlining assembly.

IMPORTANT: Note into which holes ends of listing wires are installed in side roof rails. Listing wires should be placed in same holes when replacing headlining. If replacing headlining remove listing wires from pockets of old headlining.

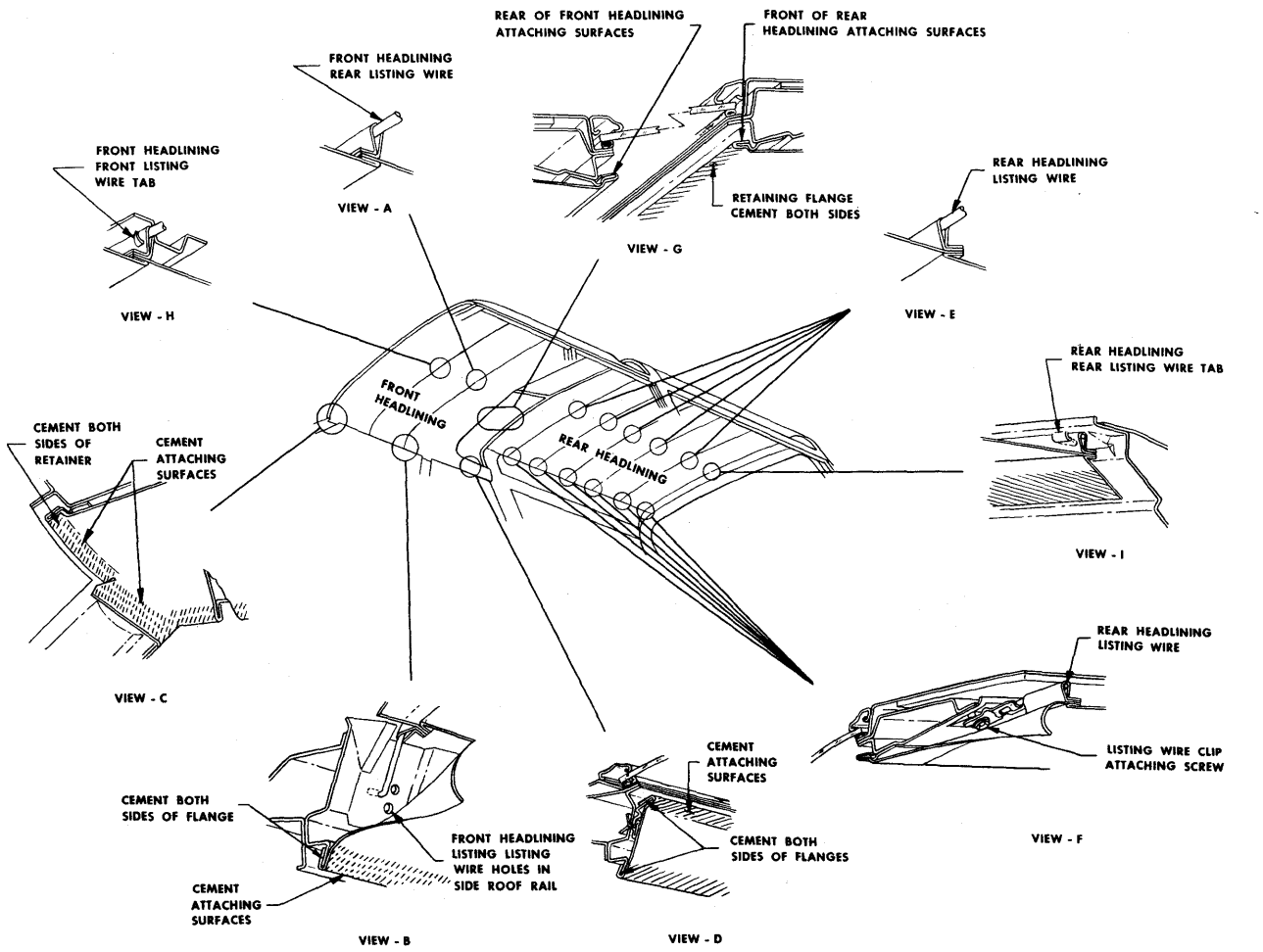

Fig. 4-7—Headlining Installation "55" and "65" Styles

Installation

1. If previously removed, install listing wires into pockets of headlining.

IMPORTANT: Listing wires removed from old headlining must be installed in corresponding pockets of replacement headlining.

2. Apply approved trim cement to headlining attaching surfaces.

3. Apply approved trim cement to metal retainers and flanges.

4. Lift headlining into body, install listing wires into holes in side roof rail, center headlining to roof, hook front listing wire over tab on roof bow and bend down tab (View "H", Fig. 4-7).

NOTE: Listing wires should rest tight against roof panel. Working from front to rear, attach headlining to retainers and flanges while stretching and removing wrinkles. Reinstall all previously removed parts.

REAR HEADLINING ASSEMBLY

Removal

1. Place protective covering over seats and floor.

2. Prior to removing headlining, remove the following items:

   a. Sunshade supports.

   b. Front skylight center division garnish molding.

   c. Side skylight front upper garnish molding.

   d. Rear roof headlining trim finish molding.

   e. All finishing lace around perimeter of headlining.

3. Carefully detach headlining at cemented edges.

4. Starting at front remove listing wires from roof inner rails (View "F", Fig. 4-7).

5. At rear listing wire bend down tab securing wire to bow (View "I", Fig. 4-7).

6. Gather or roll headlining with listing wires on outside to keep headlining clean and remove headlining assembly from car.

Installation

1. If previously removed, install listing wires into pockets of new headlining assembly.

IMPORTANT: Listing wires removed from old headlining must be installed in corresponding pockets of new headlining.

2. Apply approved trim cement to attaching surfaces of headlining material.

3. Apply approved trim cement to retaining flanges of roof panel.

4. Lift headlining into body, install center of rear listing wire over hook at rear bow and bend over tab (View "I", Fig. 4-7).

5. Working forward install remainder of listing wires into clips and secure clips to roof (View "F", Fig. 4-7).

6. Listing wires must rest tight against the roof. If necessary adjust listing wires by moving clips at attaching screws.

7. Attach entire perimeter of headlining to retaining flanges, removing wrinkles by stretching the material as required.

8. Replace previously removed parts.

SECTION 5
ROOF
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FABRIC ROOF COVER (ALL STYLES EXCEPT STATION WAGONS)

DESCRIPTION

The roof panel fabric cover is a vinyl coated fabric covering applied to the roof panel. The fabric covering is made in sections which are dielectrically joined at the seams.

On certain styles a pad is located between the fabric cover and roof panel. The pad is cemented to the roof panel with nitrile type non-staining cement. The roof panel fabric is cemented around the perimeter only and not to the pad.

On other styles the roof panel fabric is cemented to the entire surface of the roof panel with nitrile type non-staining cement.

The roof panel cover is attached at the windshield and back window opening by drive nails or staples. Drive nails are used at the belt line of the rear quarter area. A flexible retainer secures the fabric cover inside the right and left drip moldings.

NOTE: On certain styles where roof panel moldings are utilized, the fabric roof cover is not secured at the windshield opening or inside the roof drip moldings. The retainers utilized to retain the roof panel moldings also secure the fabric roof cover.

Prior to and during removal and installation of fabric roof cover, review Figure 5-1, 5-2, 5-3, 5-4 and 5-5.

Figures 5-1 and 5-2 are applicable for all styles. Figure 5-4 is to be referred to when working on styles not equipped with roof panel moldings. Figure 5-3 is applicable only to styles equipped with a pad. Figure 5-5 should be referred to when working on styles equipped with roof panel moldings.

REMOVAL

1. The following parts must be removed prior to removing the roof panel fabric cover:
   a. Windshield assembly. (except styles equipped with roof panel moldings)
   b. Roof drip molding scalps. (except styles equipped with roof panel moldings)
   c. Back window assembly.

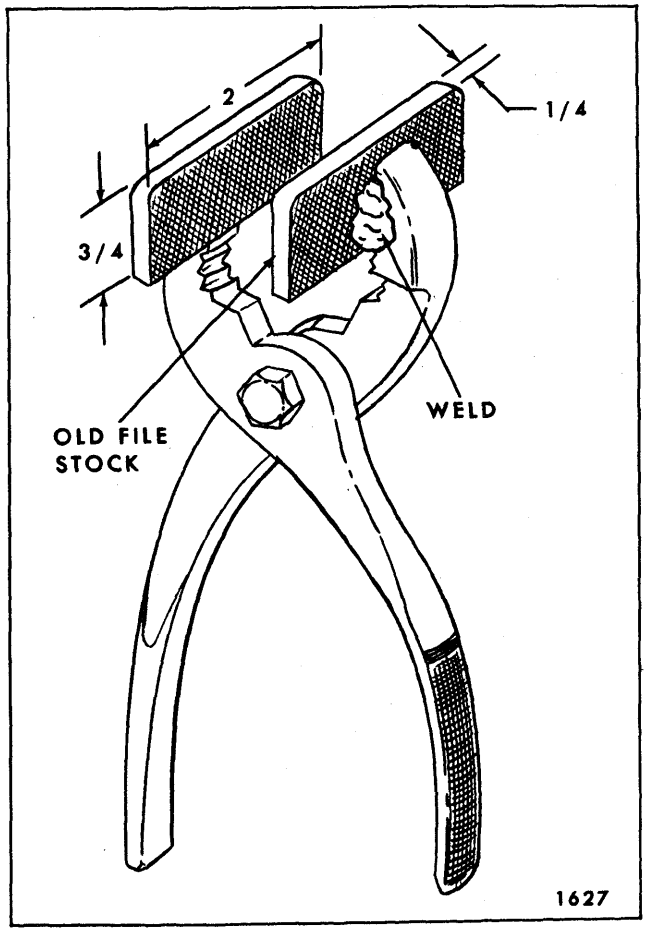

Fig. 5-1—Fabric Cover Pliers

d. Rear quarter belt reveal moldings and rear end belt reveal moldings.

e. Rear extension panel emblem and/or nameplate assembly.

f. All roof panel moldings and molding retainers (on styles so equipped). (View "B", Fig. 5-5).

2. Clean off all excess adhesive caulking material from windshield and back window openings.

3. Remove drive nails and/or staples from edge of fabric cover at windshield, back window openings, and at roof panel extension (at belt).

NOTE: Drive nails can best be removed by first driving a screwdriver or suitable tool under the heads of the nails to loosen them. Diagonal cutters or similar tool can then be used to grasp nails and twist them out. Unnecessary enlargement of holes in roof panel should be avoided.

4. Remove flexible retainers securing fabric cover inside right and left drip moldings. (View "C", Fig. 5-4). The retainers may be removed by inserting tip of screwdriver or similar tool under retainer at front of drip molding. While exerting slight outward force on drip molding with pliers, disengage fingers of retainer from drip molding flange. Do not damage drip molding. New retainers are to be used when replacing fabric cover.

NOTE: On styles equipped with roof panel moldings, front and side retainers are to be removed by first removing spring clips from weld-on studs. (View "B", Fig. 5-5).

5. Prior to removing fabric cover, application of heat to cemented areas will permit easier loosening of cemented edges.

CAUTION: Heat may be applied by lamps held 18" (minimum) from fabric only until fabric is warm. If lamps are held too close or fabric cover is heated over 200°F, the fabric may lose its grain, blister, or become very shiny.

6. Loosen cemented edges of fabric roof cover at windshield, side roof rails, back window, and rear quarter areas; then, carefully remove fabric cover from remaining cemented area of roof panel.

IMPORTANT: On styles where a pad is present, exercise care when removing fabric cover so pad will not be damaged.

7. On styles equipped with pad, inspect padding and, if necessary, replace damaged area. Padding may be removed by applying xylol solvent such as 3M Adhesive Cleaner, or equivalent to affected area. Allow solvent to dissolve adhesive and remove padding. Exercise care to avoid softening of roof panel paint finish.

8. Replace pad by cementing pad to roof panel with nitrile vinyl trim adhesive.

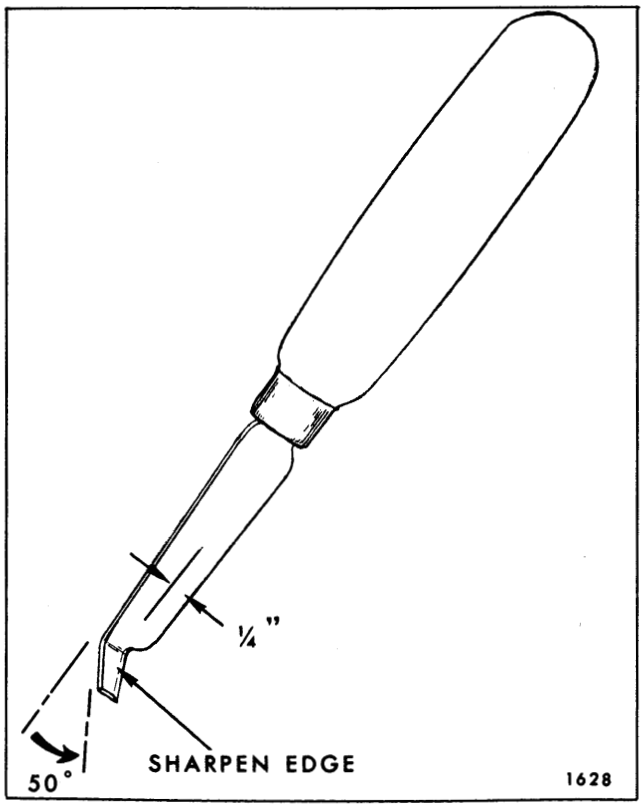

Fig. 5-2—Fabric Cover Trimming Knife

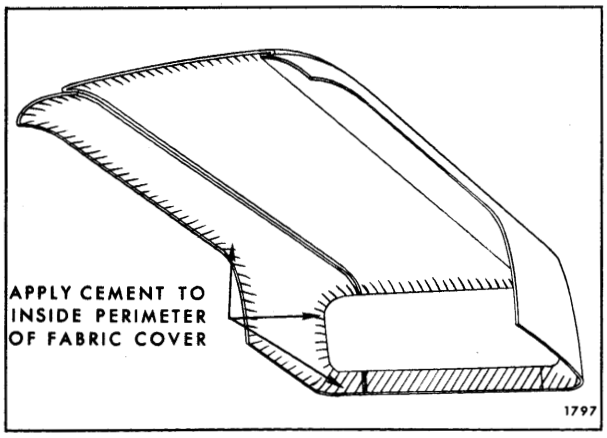

Fig. 5-3—Cementing Fabric Cover with Pad

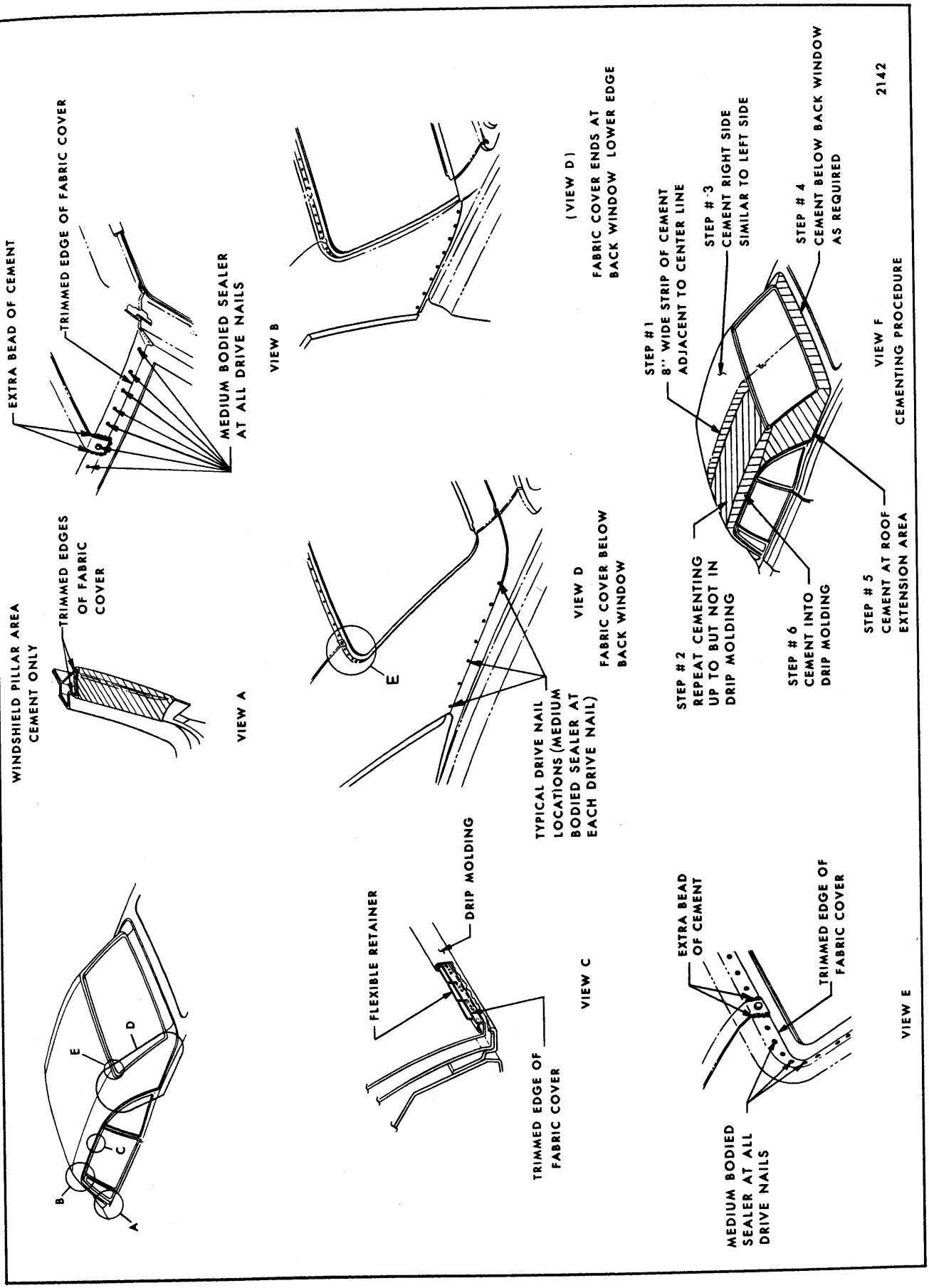

Fig. 5-4—Fabric Roof Cover Installation - Styles without Roof Panel Molding

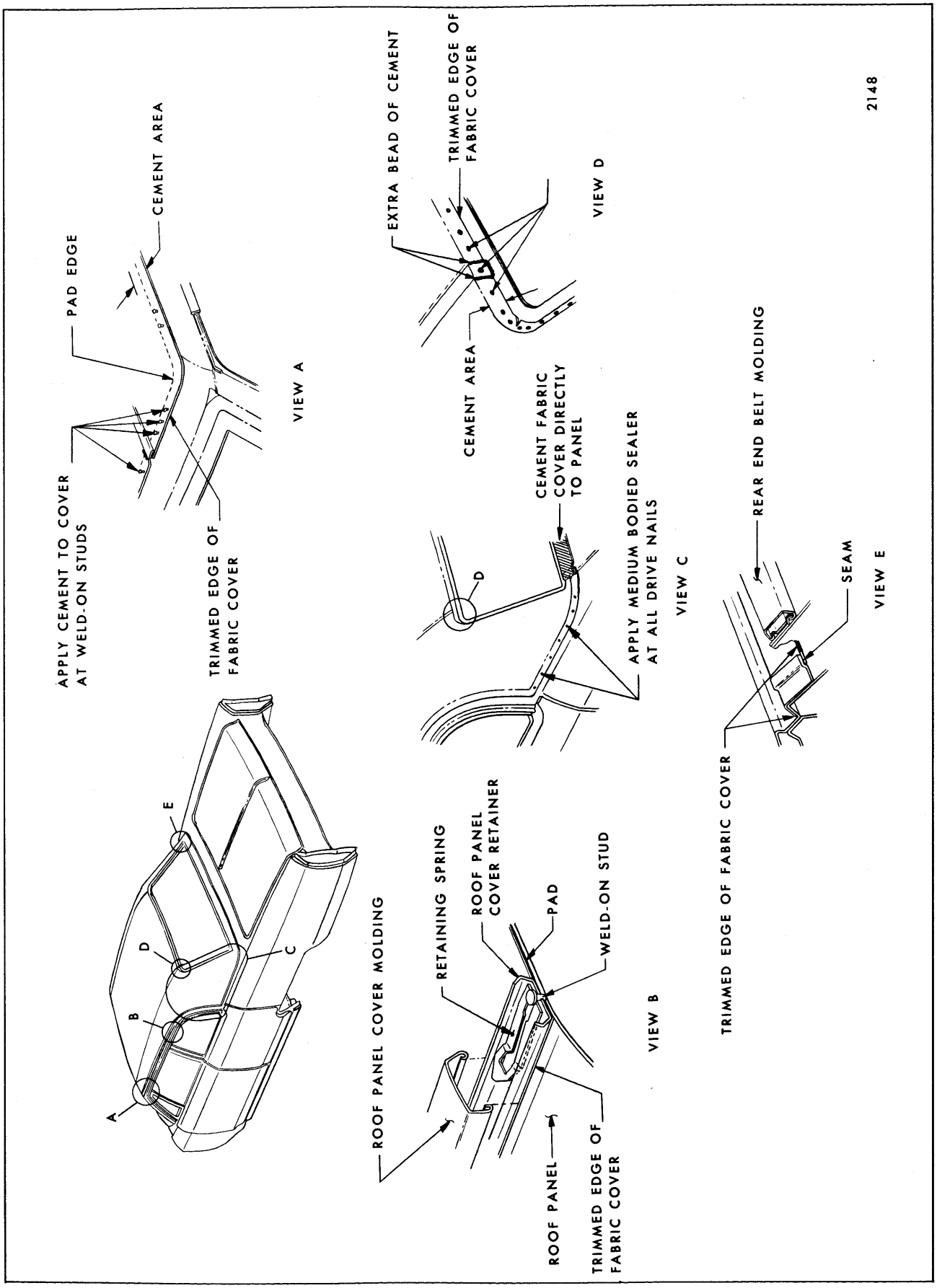

Fig. 5-5—Fabric Roof Cover Installation - Styles with Roof Panel Moldings

INSTALLATION

1. Check all cementing surfaces on body to insure a smooth surface. Cementing surface must be smooth to prevent "highlighting" of excess cement through fabric cover after new cover has been installed. Clean off old cement as required.

NOTE: A xylol solvent such as 3M Adhesive Cleaner or equivalent, should be used to remove or smooth out excess old cement. Apply solvent and allow to soak before rubbing.

CAUTION: Be certain to follow manufacturer's directions when using cleaner.

2. On styles equipped with roof panel moldings, completely mask off area of roof panel which is not covered by fabric cover. Extend tape over windshield upper reveal molding so solvent will not contact paint or adhesive caulking material. On all other styles, mask portion of windshield and back window opening where adhesive caulk material will be later applied.

3. Where possible, install new cover at room temperature (approximately 72°), to permit easier fitting and removing of wrinkles from new cover assembly.

NOTE: Where new cover is installed at temperatures below 72°, fabricated pliers as shown in Figure 5-1 will aid in removing wrinkles.

4. Determine center line of roof panel by marking center points on windshield and back window opening with tape or equivalent.

5. Fold cover lengthwise, precisely at center location. Mark center location at front and rear of cover.

6. Lay cover on roof panel and align to correspond with center line of roof panel. Determine proper material overhang at windshield and back window openings. (Approximately 2" overhang at seam area at back window and windshield opening).

7. a. On styles where pad is not present, apply an 8" wide strip of nitrile non-staining vinyl trim adhesive (such as 3M Vinyl Trim Adhesive, Permalastic Vinyl Trim Adhesive or equivalent) to the roof panel adjacent to center line of fabric roof cover.

   b. On styles equipped with pad, apply nitrile type trim adhesive to one side of exposed roof panel where fabric roof cover is attached. Make certain that cement overlaps pad approximately 1" (Fig. 5-3).

IMPORTANT: Application of nitrile vinyl trim adhesive should be as thin as possible, as an excess amount of cement may result in trapped solvents (blisters) between fabric cover and roof panel. Application of neoprene type adhesive should also be as thin as possible as an excess amount of cement may result in "highlights" (cement build-up). For these reasons, a mohair roller or equivalent should be used to apply a thin coat of cement to fabric cover and roof panel; however, if necessary, a brush may be used. Exercise care when applying cement on lining side (inner layer) of cover to prevent cement from contacting vinyl side.

NOTE: If nitrile non-staining cement is not available, neoprene type non-staining weatherstrip cement (3M Weatherstrip Cement or equivalent) may be used.

8. a. On styles without pad apply an 8" wide strip of cement to fabric roof cover.

   b. On styles equipped with pad, install drive nail at seam areas only in back window opening. Apply cement to outer perimeter of fabric roof cover that will contact the portion of roof panel only that cement has previously been applied. Allow to dry.

NOTE: Allow approximately 15 minutes for cement to dry.

9. Apply cemented portion of fabric roof cover to cemented portion of roof panel making absolutely certain center of cover aligns with center of windshield and back window opening.

10. Repeat 7a and 8a until cover is completely cemented up to but not in drip moldings or weld-on studs for roof panel molding retainers.

NOTE: Make certain that cover is completely free of wrinkles and seams are straight. Fabric cover pliers (see Fig. 5-1) may be used in aiding removal of wrinkles.

NOTE: When installing fabric cover to inside of drip molding, a small thin-edged piece of plastic or similar material may be used to insert cover in place inside drip rails. Exercise care so damage will not occur to cover when performing this operation.

11. Cut relief notches in fabric cover at radius of windshield and back window opening and at all weld-on studs that are present. On styles where roof panel moldings are used, cut relief notches along front and sides of cover to accommodate weld-on studs. After notches have been cut cement fabric cover at these areas.

12. Using hammer and flat end punch install drive nails at top of windshield and back window openings. (View "B" and "E" Fig. 5-4 shows typical drive nail installation). Drive nails are not to be used at weld-on studs on roof panel on styles equipped with roof panel moldings.

    NOTE: When installing drive nails it is best to first use an awl or similar tool to initiate a hole in metal. Drive nails should be spaced approximately 2" apart on styles with felt pad and 3" apart for other styles in a straight area, and 1" apart at a radius. Strike drive nails only hard enough to seat them. Installation of drive nails should also be as low as possible in windshield and back window opening. This will aid in preventing cutting edge of fabric cover due to a missed hammer blow when drive nails are installed.

13. On styles where fabric cover extends below back window opening, install cover in the following manner.

    a. Align seam on cover with coach weld joints on rear compartment front panel.

    b. Cement the cover to the rear compartment front panel (between coach weld joints only) in the same manner as outlined in original installation.

14. Cement fabric at left roof extension area in the same manner as described in steps 7a, b and 8a, b. Pull fabric down and rearward and fasten (cement only) into back window opening. When operation is completed, fabric cover should be free of all wrinkles and draws in this area.

15. Repeat step 14 on right side.

16. Make sure that fabric cover is completely cemented around back window opening.

17. Using flat end punch and hammer, install drive nails at side of back window opening and roof extension area (belt).

18. On styles equipped with roof panel moldings, position roof panel cover retainers over weld-on studs and install retaining clips.

19. On styles where roof panel cover extends down windshield pillar, cement fabric roof cover to windshield pillar in same manner as outlined in original installation.

20. On styles equipped with roof panel moldings, trim fabric cover along roof panel molding retainers. (View "B", Fig. 5-5). Trimming tool (J-21092) or suitable small knife may be used to trim cover. (See Fig. 5-2). Do Not Damage Paint Finish. At front corners, raise cemented edge of cover and using scissors or sharp knife cut radius so roof panel moldings cover cut edge. Recement fabric cover to roof panel. (See View "A", Fig. 5-5). Remove masking tape from roof panel.

21. On all styles trim material along belt line at roof extension area. On styles where fabric cover extends below back window, trim cover along rear end belt molding area. If it is necessary to trim material from outer edge of fabric cover around windshield or back window opening, raise cemented edge and cut as required. Edge of fabric cover should exist as shown in View "B" and "E", Fig. 5-4. Do Not Damage Paint Finish.

22. On styles not equipped with roof panel moldings perform the following operations.

    a. Cement fabric cover into drip moldings.

    b. Using fabric cover trimming tool (J-21092), or suitable small knife, trim fabric cover just under lip of roof drip molding. (View "C", Fig. 5-4). A tool may be fabricated to trim material along side roof rail drip moldings as illustrated in Figure 5-2.

    c. Prior to installing flexible retainers in side roof rail drip moldings, spread them slightly to insure a tight fit.

    d. Install flexible retainer starting at radius area above rear door or quarter window. Working toward rear of body, carefully insert retainer into drip molding so that fingers are under drip molding flange. (See View "C", Fig. 5-4). Use fibre or wood block with slight concave end to push retainer downward. DO NOT DAMAGE RETAINER.

23. Apply medium bodied sealer at the following locations:

    1. Each drive nail.

    2. All relief notches cut in fabric cover except at roof panel molding areas.

24. Remove masking tape from windshield and back window opening.

25. Install all previously removed moldings and assemblies.

    NOTE: Normally minor creases or fold marks will gradually disappear after cover assembly has been in service.

IMPORTANT: If nitrile adhesive is used, fabric cover should be allowed to dry approximately four hours after installation. If fabric cover is subjected to extreme direct sunlight or heat immediately after installation, blistering due to trapped solvents may occur.

26. Use mineral spirits, kerosene or equivalent to remove windshield and back window adhesive caulking material from fabric cover.

IMPORTANT: Do not apply excessive pressure when wiping cover as damage may occur to fabric cover.

FABRIC ROOF COVER (STATION WAGON STYLES)

The procedure for removal and installation of the fabric cover on station wagon styles is divided into two sections. The roof panel fabric cover procedure is followed by the tailgate fabric cover procedure.

NOTE: The roof panel fabric cover assembly is ordered as a separate service part. The fabric used on the tailgate is ordered as "yardage material" in the normal manner.

DESCRIPTION

The roof panel fabric cover is cemented to the entire surface of the roof panel and tailgate with nitrile type non-staining cement. In addition to cement, the fabric cover is attached at the windshield by drive nails and in the tailgate opening by two screws at the seams. Drive nails are used at the belt line of the back body opening pillar. A flexible retainer secures the fabric cover inside the right and left drip moldings.

Prior to and during removal and installation of fabric roof cover, review Fig. 5-1, 5-2 and 5-6.

REMOVAL

1. The following parts must be removed prior to removing the roof panel fabric cover:

   a. Windshield pillar drip molding.

   b. Windshield assembly.

   c. Back body opening upper and side reveal moldings.

   d. Roof drip molding scalps.

   e. Back body pillar cover finishing molding retainers.

   f. Tailgate upper glass run channel.

2. Clean off all excess adhesive caulking material from windshield opening.

3. Remove screws, drive nails and/or staples from edge of fabric cover at windshield, and at back body pillar.

NOTE: Drive nails can best be removed by first driving a screwdriver or suitable tool under the heads of the nails to loosen them. Diagonal cutters or similar tool can then be used to grasp nails and twist them out. Unnecessary enlargement of holes in roof panel should be avoided.

4. Remove flexible retainers securing fabric cover inside right and left drip moldings. (See Section A-A, Fig. 5-6). The retainers may be removed by inserting tip of screwdriver or similar tool under retainer at front of drip molding. While exerting slight outward force on drip molding with pliers, disengage fingers of retainer from drip molding flange. DO NOT DAMAGE DRIP MOLDING.

NOTE: New flexible retainers should be used when replacing fabric cover.

5. Prior to removing fabric cover, application of heat to cemented areas will permit easier loosening of cemented edges.

CAUTION: Heat may be applied by lamps held 18" (minimum) from fabric only until fabric is warm. If lamps are held too close or fabric cover is heated over 200°F, the fabric may lose its grain, blister, or become very shiny.

6. Loosen cemented edges of fabric roof cover at windshield area, drip moldings, back body opening, and back body pillar areas; then, carefully remove fabric cover from remaining cemented area of roof panel.

INSTALLATION

1. Check all cementing surfaces on body to insure a smooth surface. Cementing surface must be smooth to prevent "highlighting" of excess cement through fabric cover after new cover has been installed. Clean off old cement as required.

NOTE: A xylol solvent such as 3M Adhesive Cleaner or equivalent, should be used to remove or smooth out excess old cement. Apply solvent and allow to soak before rubbing.

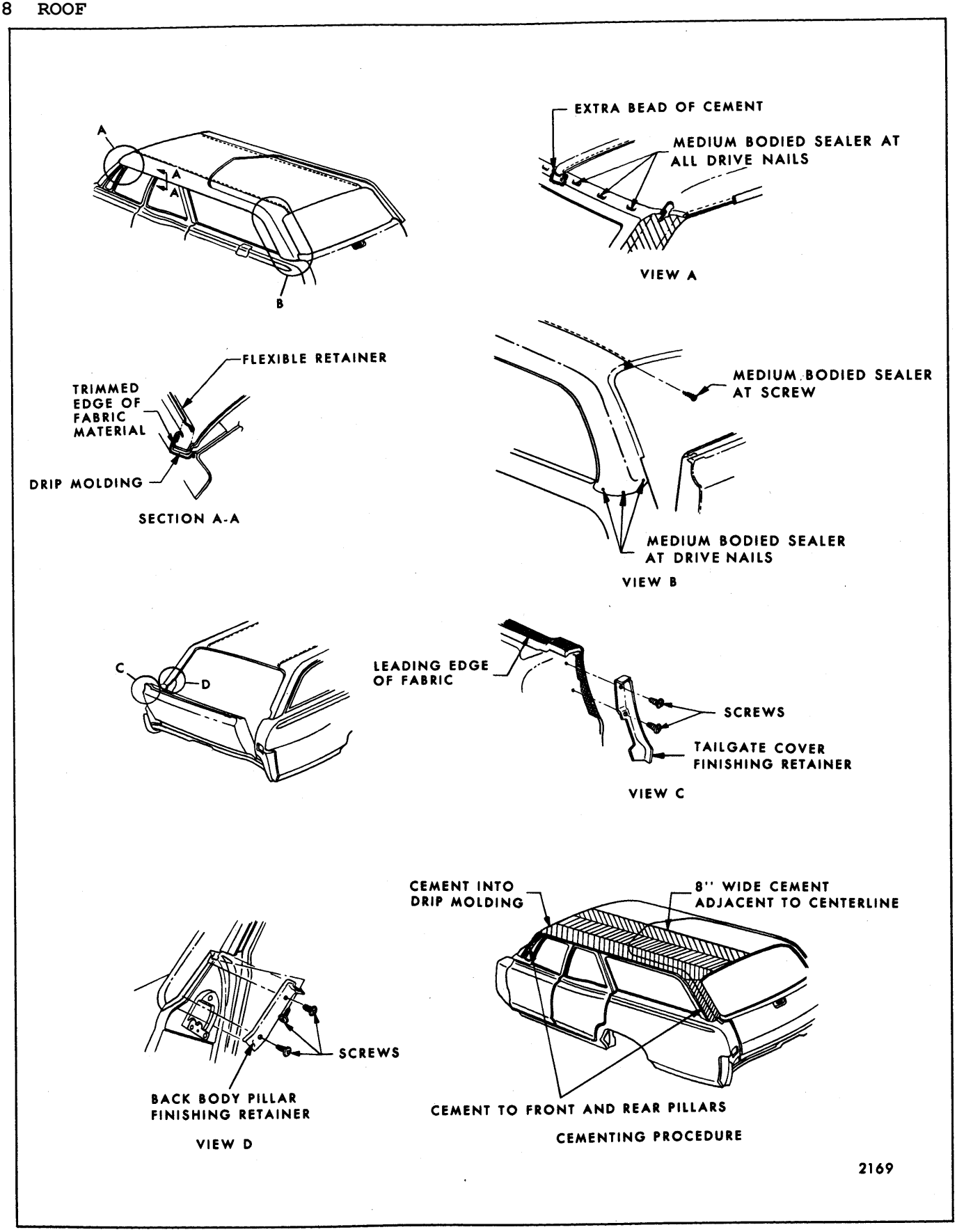

Fig. 5-6—Fabric Roof Cover Installation - Station Wagon Styles

CAUTION: Be certain to follow manufacturer's directions when using cleaner.

2. Mask painted surfaces below belt line, windshield pinchweld flange, instrument panel, and back body opening to protect painted surfaces.

CAUTION: Avoid prolonged contact of saturated masking materials to painted surfaces or paint etching may result.

3. Where possible, install new cover at room temperature (approximately 72°F), to permit easier fitting and removing of wrinkles from new cover assembly.

NOTE: Where new cover is installed at temperatures below 72°F, pliers fabricated as shown in Figure 5-1, will aid in removing wrinkles.

4. Determine center line of roof panel by marking center points on windshield and back body opening with chalk or equivalent.

5. Fold cover lengthwise, precisely at center location. Mark center location at front and rear of cover.

6. Lay cover on roof panel and align to correspond with center line of roof panel. Determine proper material overhang at windshield and back body openings. (Approximately 2" overhang at seam area at back body and windshield opening).

7. Using a mohair roller or brush, apply an 8" wide strip of nitrile non-staining vinyl trim adhesive (such as 3M Vinyl Trim Adhesive, Permalastic Vinyl Trim Adhesive or equivalent) to the roof panel adjacent to center line of fabric roof cover.

IMPORTANT: Application of nitrile vinyl trim adhesive should be as thin as possible, as an excess amount of cement may result in trapped solvents (blisters) between fabric cover and roof panel. Application of neoprene type adhesive should also be as thin as possible as an excess amount of cement may result in "highlights" (cement build-up). For these reasons, a mohair roller or equivalent should be used to apply a thin coat of cement to fabric cover and roof panel; however, if necessary, a brush may be used. Exercise care when applying cement on lining side (inner layer) of cover to prevent cement from contacting vinyl side.

NOTE: If nitrile non-staining cement is not available, neoprene type non-staining weatherstrip cement (3M Super Weatherstrip Cement or equivalent) may be used.

8. Apply an 8" wide strip of cement to fabric roof cover.

NOTE: Allow approximately 15 minutes for cement to dry.

9. Apply cemented portion of fabric roof cover to cemented portion of roof panel making absolutely certain center of cover aligns with center of windshield and back body opening.

10. Repeat 7, 8 and 9 until cover is completely cemented up to and in drip moldings. Make certain that cover is completely free of wrinkles and seams are straight. Fabric cover pliers (See Fig. 5-1) may be used in aiding removal of wrinkles.

NOTE: When installing fabric cover to inside of drip molding, a small thin edged piece of plastic, or similar material, may be used to insert cover in place inside drip molding. Exercise care to prevent damage to cover when performing this operation.

11. Cement fabric cover to windshield pillar and back body pillar area in the same manner as original installation. At windshield and back body openings cement cover into opening.

12. Using hammer and flat end punch install drive nails at windshield opening.

NOTE: When installing drive nails it is best to first use an awl or similar tool to initiate a hole in the metal. Drive nails should be spaced approximately 3" apart in a straight area, and 1" apart at a radius. Strike drive nails only hard enough to seat them. Installation of drive nails should also be low as possible in windshield opening. This will aid in preventing cutting edge of fabric cover due to a missed hammer blow when drive nails are installed.

13. Install drive nails at belt line of back body pillar area and screws in back body opening. Do not use awl for punching holes at belt line. Use existing holes or drill.

14. Trim off material at windshield opening, windshield pillar, back body opening, and back body pillar.

15. Using fabric cover trimming tool (J-21092), or suitable small knife, trim fabric cover just under lip of roof drip molding (Section A-A, Figure 5-6). A tool may be fabricated to trim material along roof drip rail moldings as illustrated in Figure 5-2.

16. Prior to installing flexible retainers in side

roof rail drip moldings, spread them slightly to insure a tight fit.

17. Install flexible retainer starting at front end of drip molding. Working toward rear of body, carefully insert inner edge of retainer into drip molding and snap fingers of retainer under drip molding flange. Use fibre or wood block with slight concave end to push retainer downward. DO NOT DAMAGE RETAINER.

18. Apply medium bodied sealer at the following locations at each drive nail and at 2 screws at seam area in back body opening.

19. Remove all masking tape.

20. Install all previously removed moldings and assemblies.

NOTE: Normally minor creases or fold marks will gradually disappear after cover assembly has been in service.

IMPORTANT: If nitrile adhesive is used, fabric cover should be allowed to dry approximately four hours after installation. If fabric cover is subjected to extreme direct sunlight or heat immediately after installation, blistering due to trapped solvents may occur.

TAIL GATE FABRIC COVER

DESCRIPTION

The tail gate fabric cover is a vinyl coated fabric of one section and is cemented to the surface of tailgate.

REMOVAL

1. The following parts must be removed prior to removing the tailgate fabric cover.

   a. Tail gate belt reveal molding.

   b. Tail gate window lower reveal molding.

   c. Tail gate cover finishing retainer.

2. Prior to removing fabric cover, application of heat to cemented areas will permit easier loosening of cemented edges.

CAUTION: Heat may be applied by lamps held 18" (minimum) from fabric only until fabric is warm. If lamps are held too close or fabric cover is heated over 200°F, the fabric may lose its grain, blister, or become very shiny.

3. Loosen cemented edges of fabric cover on tail gate, then carefully remove cover from remaining cemented area.

INSTALLATION

1. Check cementing surfaces on body to insure a smooth surface. Cementing surface must be smooth to prevent "highlighting" of excess cement through fabric cover after new cover has been installed. Clean off old cement as required.

NOTE: A xylol solvent such as 3M Adhesive Cleaner or equivalent, should be used to remove or smooth out excess old cement. Apply solvent and allow to soak before rubbing.

CAUTION: Be certain to follow manufacturer's directions when using cleaner.

2. Mask area below fabric break line on tailgate to protect painted surfaces.

CAUTION: Avoid prolonged contact of saturated masking materials to painted surfaces or paint etching may result.

2. To permit easier fitting and removing of wrinkles from new cover assembly, where possible, install new cover at room temperature (approximately 72°).

3. Position and install fabric cover on tailgate as follows:

   a. Place fabric cover on protected surface with inner layer of material exposed.

   b. Apply adhesive material to entire inner surface of fabric roof cover.

   c. Apply adhesive material to exposed surface of tail gate panel including inner flange.

   d. Position fabric to top leading edge of tail gate panel and work material down to molding attaching holes. (See View "C", Fig. 5-6).

   e. Wrap fabric around flange on tailgate.

   f. Trim off excess material on tail gate flange. (View "C", Fig. 5-6).

4. Install all previously removed moldings and assemblies.

IMPORTANT: If nitrile adhesive is used, fabric cover should be allowed to dry approximately four hours after installation. If fabric cover is subjected to extreme direct sunlight or heat immediately after installation, blistering due to trapped solvents may occur.

5. Remove all masking tape.

FRONT AND SIDE SKYLIGHT WINDOWS ("55" AND "65" STYLES)

DESCRIPTION

The front and side skylight window glass are retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a skylight window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to skylight window glass removal and installation, will be covered in this section.

REMOVAL

1. Remove glass as outlined in General Information Section. If the original glass is to be reused, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use an oil base solvent. Any traces of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around glass opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of clip is bent away from body metal more than 1/16 of an inch, either reform or replace clip. Check all clip screws and tighten as required. Place protective covering over interior trim below window opening.

2. Using black weatherstrip adhesive, cement flat rubber spacers #4848472 or equivalent (.18 x .5 x 1.0) to window opening pinchweld flanges at "X" locations as shown in Circle "A" in Figure 5-7.

NOTE: Use sufficient adhesive to obtain a watertight seal beneath spacer, however, do not allow excessive squeeze-out. Weatherstrip adhesive is not compatible with the replacement adhesive material and waterleaks may develop at locations where these two materials are used together to form a seal.

3. Using black weatherstrip adhesive, cement rectangular spacers #4404196 or equivalent (.30 x .44 x 1.0) to window opening rabbet at "Y" locations shown in Section "B-B" in Figure 5-7.

4. If the front skylight is being installed, attach glass handling suction cups to outer surface of glass and position glass in body opening (See Fig. 5-8).

   If side skylight is being installed, carry glass to body with aid of a helper as shown in Figure 5-9.

   Supporting glass with one hand, extend other arm into body and back through window opening as shown in Figure 5-10 and lower glass into position.

5. Check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange should be equal with a minimum overlap of 3/16". Overlap across top may be varied by changing lower glass support spacers. Both .30 thick (#4404196 or equivalent) and .34 thick (#4871330 or equivalent) rectangular spacers are available as service parts.

6. Check relationship of glass contour to body opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, correction can be made by any one of the following methods:

   a. Reposition flat spacers.

   b. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange or by allowing bead on glass to exceed 3/8" height at gap areas.

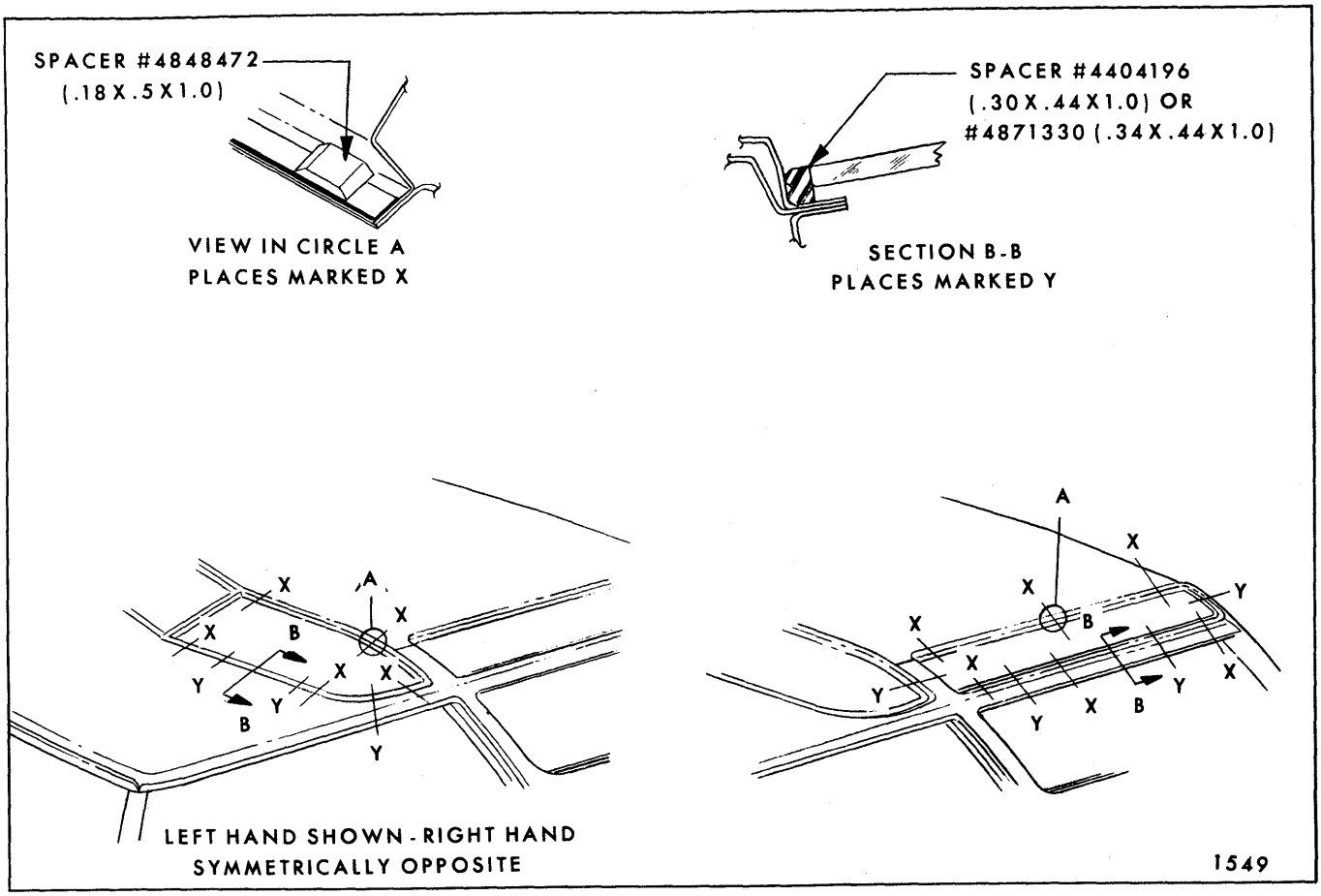

Fig. 5-7—Front and Side Skylight Rubber Spacer Installation

c. Change glasses - another glass may fit opening better.

d. Rework pinchweld flange.

7. After final adjustments have been made and glass is in proper position, apply pieces of masking tape over edges of glass and body (see View "A" in Fig. 5-8 or 5-10, depending on window being installed). Tape on glass can be aligned with tape on body to guide glass into opening during installation.

8. Apply one inch masking tape completely around inner surface of glass 1/4" inboard from outer edge (see Fig. 5-11). Removal of tape after glass installation will aid in clean-up and give a smooth even edge to adhesive material.

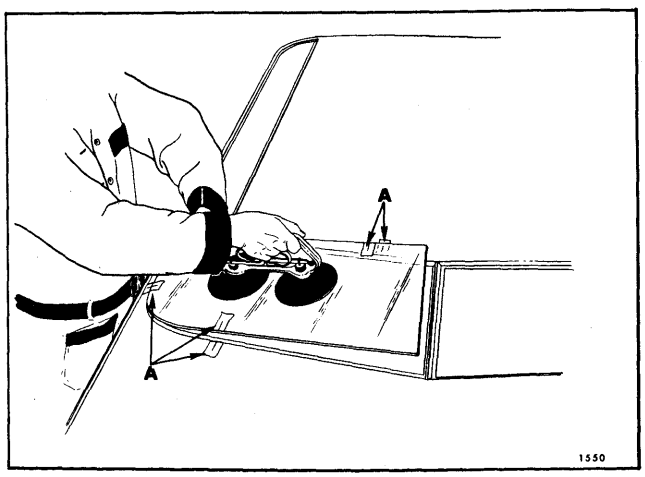

Fig. 5-8—Glass Suction Cup Usage

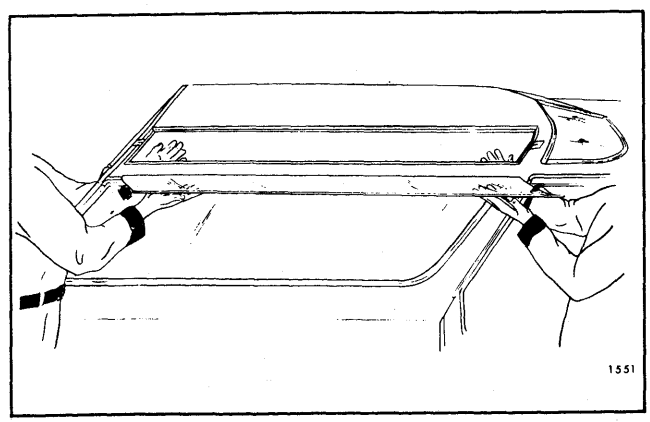

Fig. 5-9—Side Skylight Window Installation

9. Using a clean lint-free cloth liberally dampened with Adhesive Caulking Primer or equivalent (supplied in kit #4226000), briskly rub primer over original adhesive material remaining on pinchweld flange. Perform the following steps while allowing primer to dry for 5 to 10 minutes.

NOTE: If the pinchweld flange has been repainted, prime pinchweld flange with Paint Surface Primer (or equivalent). Paint Surface Primer is available as a service part.

CAUTION: Use extreme care to avoid spilling any primer solution on trim or painted surfaces. Wipe any spills immediately as primers will etch trim or interior paint finishes on contact.

10. Wipe surface of glass to which bead of adhesive material will be applied (between applied masking tape and edge of glass) with a clean water-dampened cloth. Dry glass with a clean cloth.

11. Positioning gun and nozzle as shown in Figure 5-11, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around edge of glass.

NOTE: Adhesive caulking material begins to cure after 15 minutes exposure to air; therefore, perform the following steps immediately and install glass in opening as quickly as possible.

12. Install glass in opening, focus attention on tape guides previously applied to obtain proper positioning.

NOTE: When installing front skylight, position outer lower corner first as shown in Figure 5-8, and lower glass into opening.

13. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the skylight glass.

14. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges

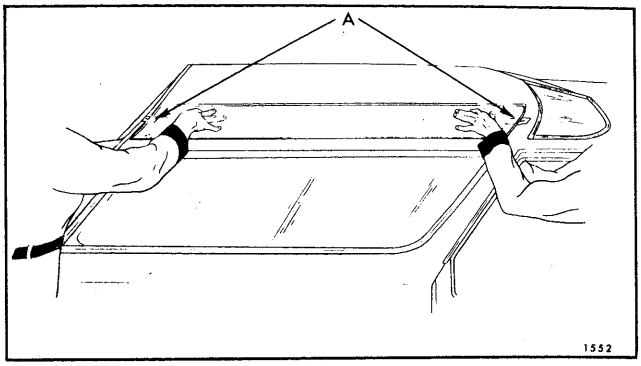

Fig. 5-10—Side Skylight Window Installation

to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.

15. Watertest installation immediately using cold water spray.

16. Remove masking tape from inside of glass.

17. Install reveal moldings, inside garnish moldings and previously removed parts.

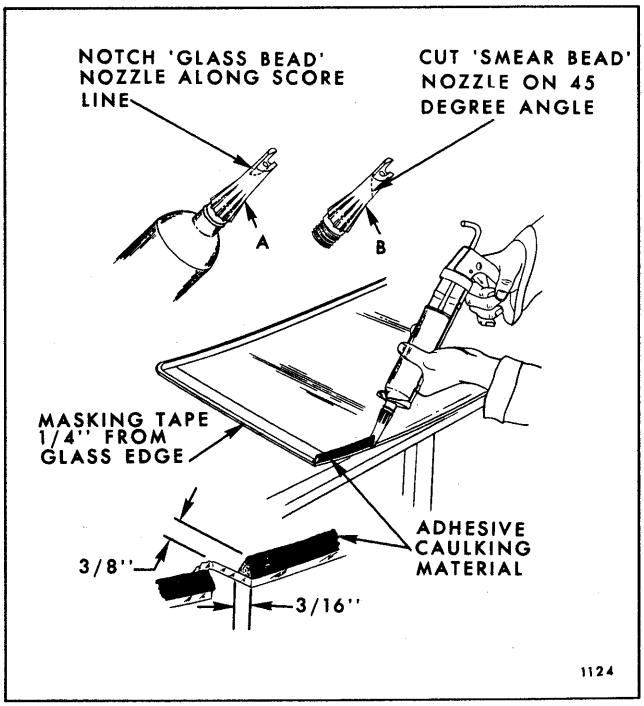

Fig. 5-11—Adhesive Caulking Material Application - Extended Method

SECTION 6
FOLDING TOP

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FOLDING TOP TRIM ASSEMBLY (COMPLETE)

All convertible top trim cover assemblies incorporate a spring-loaded top material hold-down cable along the right and left side roof rails. The cables are installed through a retaining pocket in the top material and are fastened at the front and rear side rails by attaching screws. The cables are designed to hold the top material tight against the side roof rail stay pads, thus minimizing air leakage between the top material and the stay pads.

All dropping back curtain assemblies incorporate, as an integral part of the back curtain upper valance, an elastic webbing. The elastic webbing is located in the upper corners of the back curtain. The elastic webbing reduces tension on the zipper assembly at the radius, providing improved zipper operation.

On certain styles the back curtain assemblies incorporate a hard, curved glass back window. This back window is dielectrically bonded to the vinyl back curtain material and is not serviced as a separate item. On other styles, the back curtain incorporates a pliable plastic window.

REMOVAL OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. Place protective covers on all exposed panels which may be contacted during procedure.

2. Remove rear seat cushion and back.

CAUTION: Disconnect rear seat speaker wire if present.

3. Remove right and left folding top compartment side trim panels.

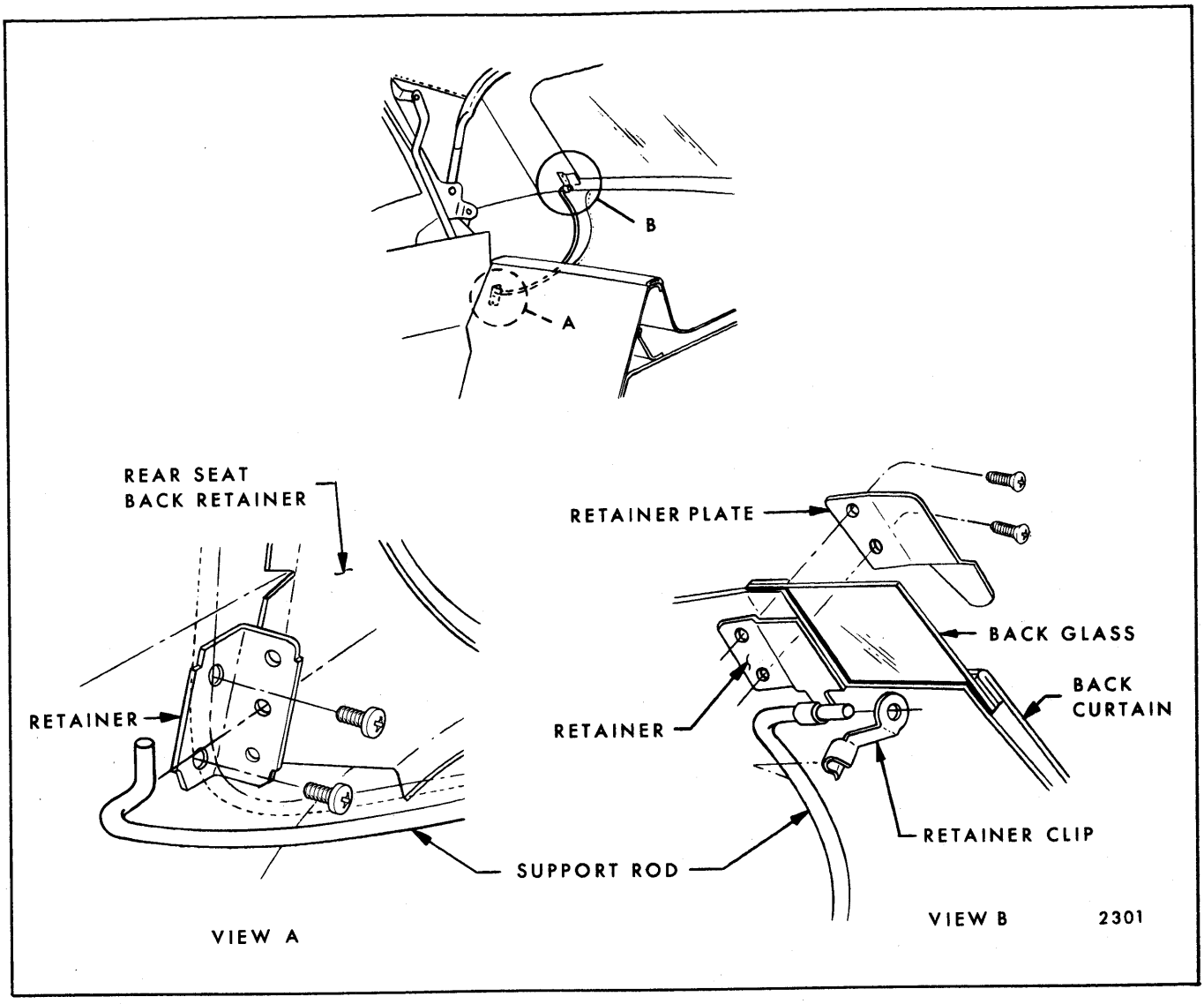

Fig. 6-1—"B & C" Body Back Glass Support Rod Attachments

4. Remove right and left side roof rail rear weatherstrip attaching screws: then remove weatherstrips from rails.

5. Detach folding top quarter flaps from side roof rear rails.

6. On styles equipped with back glass support rods, disengage right and left rods from back curtain (Fig. 6-1).

7. Lower top to "stacked" position.

8. Remove remaining side roof rail weatherstrip attaching screws; then remove weatherstrips from rails.

9. Remove front roof rail front and rear weatherstrips.

10. Detach top material from front roof rail (Fig. 6-2).

11. Detach top material flaps from side roof front rail (Fig. 6-2).

12. Raise top and lock to windshield header.

13. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (See Views "A and B" in Fig. 6-3.)

14. Pull both hold-down cables forward until cables are completely removed from top material retaining pockets.

15. At underside of front bow, remove screws securing listing pocket retainer to bow (Fig. 6-4).

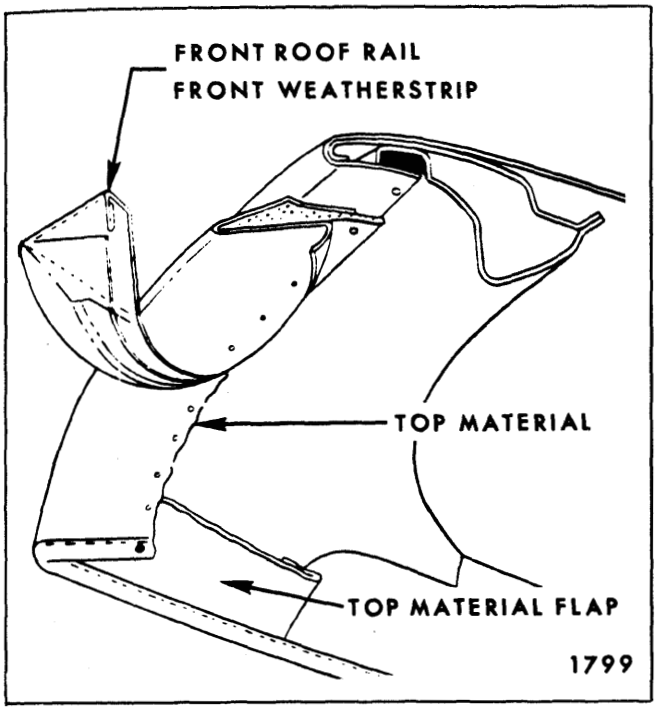

Fig. 6-2—Top Material At Front Roof Rail

16. Push top material upward sufficiently until retainer is disengaged from bow; then remove retainer from listing pocket.

17. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-5).

18. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-6).

19. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel

20. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-7). Reference marks should be transferred to new back curtain when step 6 of installation procedure is performed.

NOTE: Reference marks must be made below upper edge of rear trim stick.

21. To establish relationship of old top material to its position on rear trim sticks. Cut selvage end of top material off flush with lower edge of trim sticks.

CAUTION: When cutting top material, be careful not to cut lower selvage edge of back curtain assembly.

22. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 6-8). Reference marks for trim sticks should be transferred to new top material when step 28 of installation procedure is performed.

23. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow. Detach top material from rear roof bow and from trim sticks, then remove top cover assembly (Fig. 6-9).

24. Lock top to windshield header. Install radius end of each adjustable spacer stick to fit against center roof bow. Install opposite end of spacer stick so that metal plate fits under rear roof bow. Spacer sticks should be installed along inboard edge of side stay pad (Fig. 6-10).

NOTE: The approximate dimension for location of spacer sticks, measuring outboard from centerline dimple of rear roof bow, is 19-3/4" for "B & C" Body Styles, 15-1/2" for "Z" Body Styles and 19-11/16" for "A" Body Styles. (See Dimension "Y" in Fig. 6-10.)

While exerting rearward pressure on rear bow to draw side stay pads taut, extend spacer sticks until they fit snugly between center bow and rear roof bow, then tighten wing nuts.

25. Spacer sticks may be fabricated as shown in Figure 6-11.

26. Temporarily tie or tape rear bow to rear side roof rails. (See Fig. 6-10.) Detach nylon webbing, side stay pads and back curtain assembly from rear bow.

27. Remove rear trim stick with attached back curtain assembly and top compartment bag from body and place on clean, protected surface.

28. Remove right and left nylon webbing from rear trim stick on styles so equipped.

29. Using chalk, or other suitable material, mark ends of rear quarter trim sticks on vinyl surface of back curtain material (Fig. 6-12). Reference marks for trim sticks should be

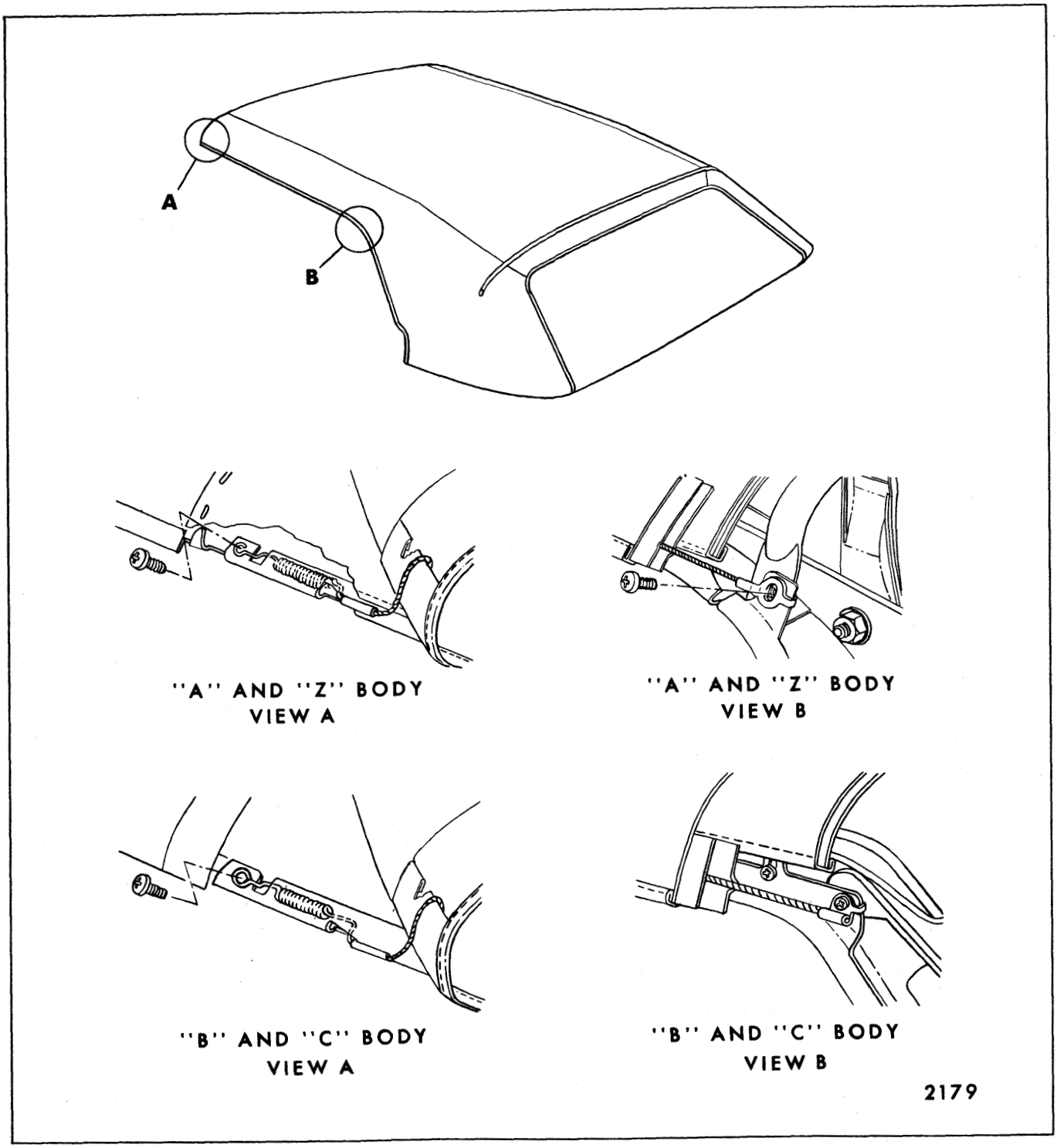

Fig. 6-3—Convertible Top Material Hold Down Cable

transferred to new back curtain material when step 6 of installation procedure is performed.

30. Remove back curtain assembly from rear and rear quarter trim sticks.

31. Remove side stay pads. Stay pads are attached to front roof rail and front and rear bows with tacks; to center bow with screws.

INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. If new top is being installed but it was impossible to perform step 24 of removal procedure, pre-set spacer sticks to shortest length and install between center and rear roof bow (Fig. 6-10). Adjust sticks so that

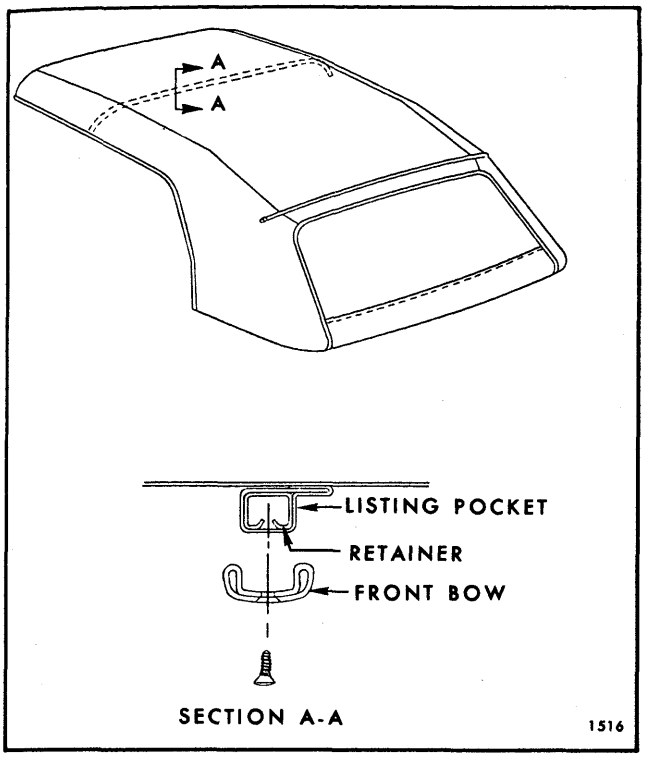

Fig. 6-4—Listing Pocket Retainer

dimension "X" in Figure 6-10 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 14-7/8" on "B & C" Styles, 16-5/8" on "Z" Styles and 16-1/64" on "A" Styles. Tie or tape rear bow to rear side roof rails.

NOTE: In all cases, above dimension may be changed slightly within tolerances to correspond

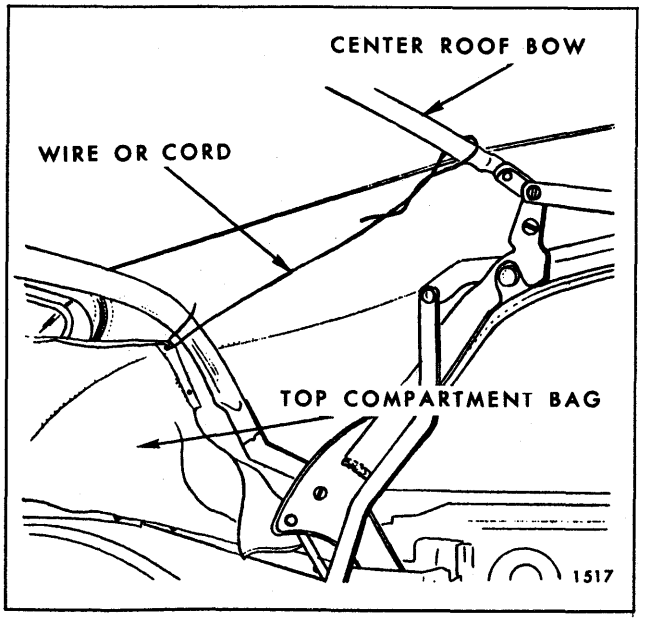

Fig. 6-5—Top Compartment Bag Tied To Center Bow

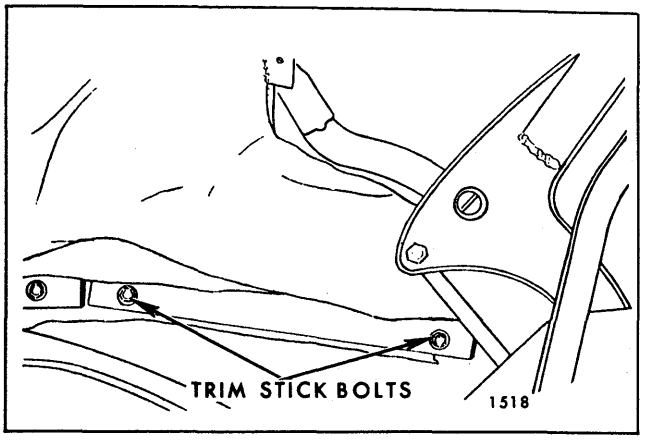

Fig. 6-6—Rear Quarter Trim Stick

with new top after tryout. Dimension should be equal on both right and left sides.

2. Tack side stay pads in conventional manner to rear roof bow and stay tack pads to front roof rail. Make sure inboard edge of pad is properly aligned within depressions in bow and rail. Stay tack pad to front bow. Install pad to center bow with screws. Make sure inboard edge of pad is properly aligned within depression in bow. Install stay pad wadding in conventional manner using an approved trim cement. (Fig. 6-13 for "A" Body, Fig. 6-14 for "B" Body, Fig. 6-15 for "C" Body and Fig. 6-16 for "Z" Body.)

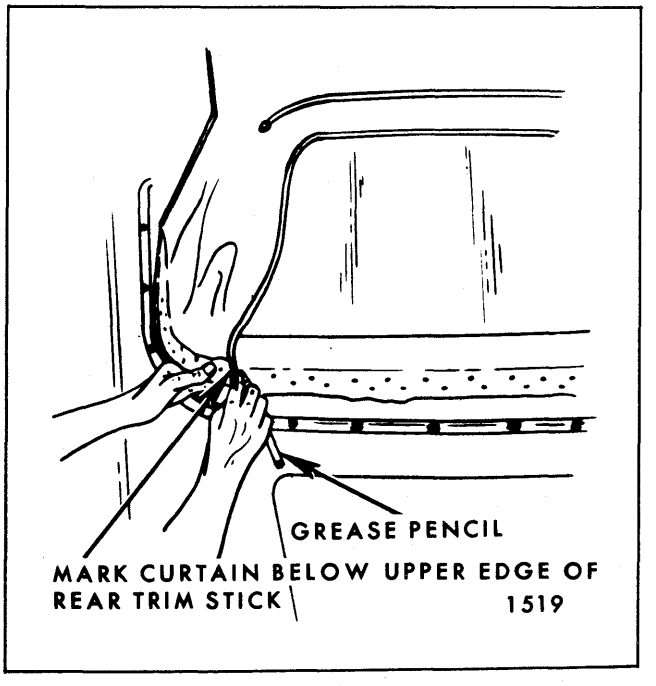

Fig. 6-7—Locating Edge of Top Material

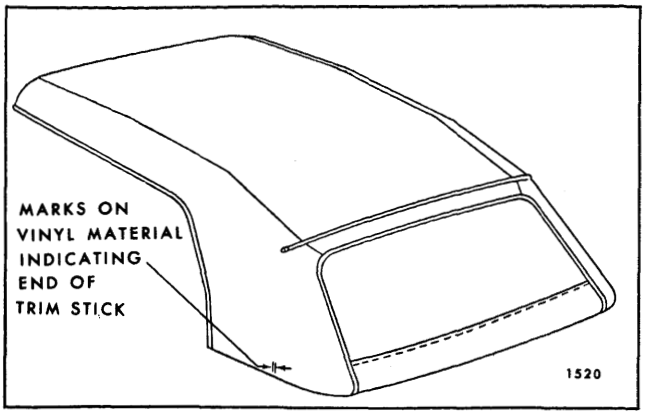

Fig. 6-8—Marking Top Material

3. Trim salvage end of side stay pads just forward of rear rolled edge of rear roof bow (Fig. 6-13 for "A" Body, Fig. 6-14 for "B" Body, Fig. 6-15 for "C" Body and Fig. 6-16 for "Z" Body).

4. Distance from center of center bow to rolled forward upper edge of rear roof bow is 14-7/8" for "B & C" Styles, 16-5/8" for "Z" Styles and 16-1/64" for "A" Styles.

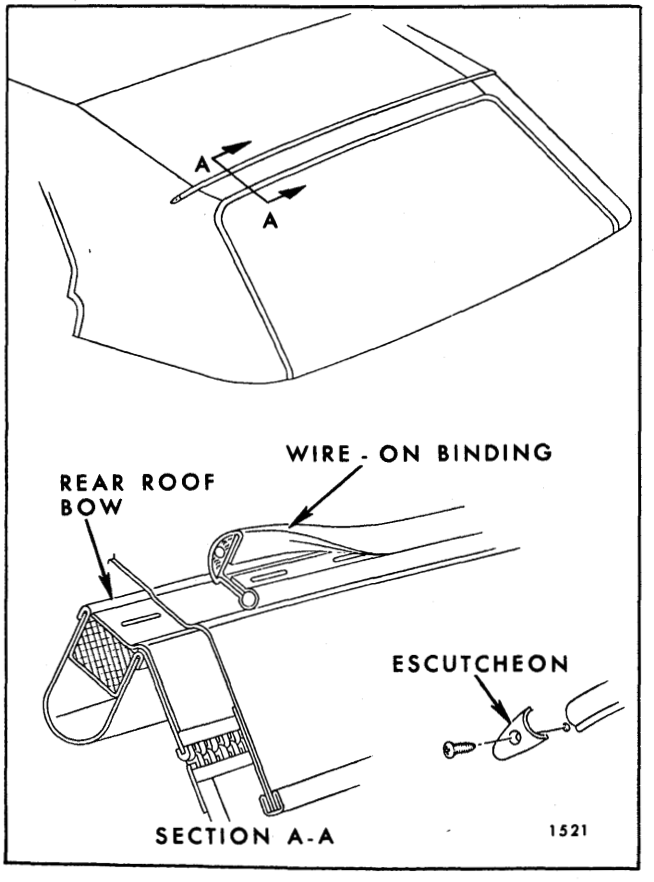

Fig. 6-9—Rear Roof Bow Wire-On Binding

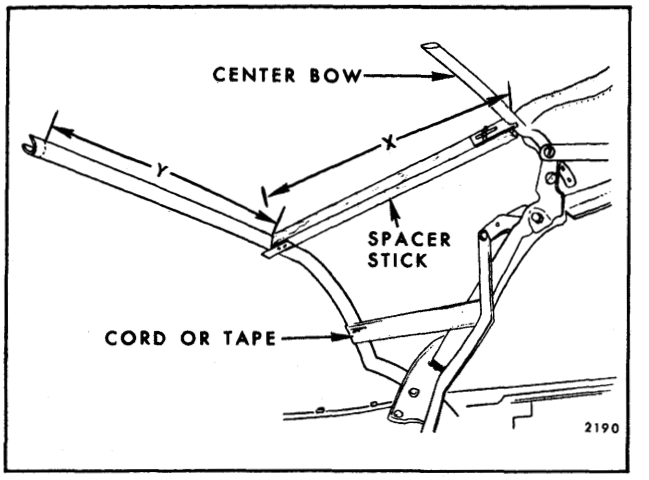

Fig. 6-10—Spacer Stick Installation

NOTE: Dimension may vary ±1/4" after back curtain has been completely installed. Readjust spacer sticks and side roof rail pads as required if rear bow does not come within this position range.

5. Place new back curtain assembly on clean covered work bench with interior surface of back window facing down.

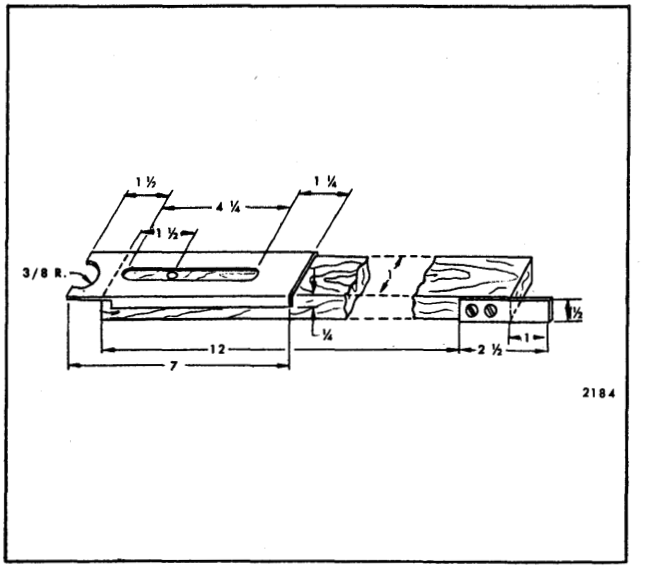

Fig. 6-11—Spacer Stick Dimensions

MATERIAL PER STICK

Wood - 1/2 x 1 x 14-1/2
Steel - 1/32 x 1/2 x 2-1/2
Steel - 1/32 x 1-1/2 x 7
2 Screw #6 x 1/2"
Bolt 1/4 - 20 UNC - 2A x 1"
Wingnut 1/4 x 20 UNC - 2B
2 Washers 1/4" I.D.

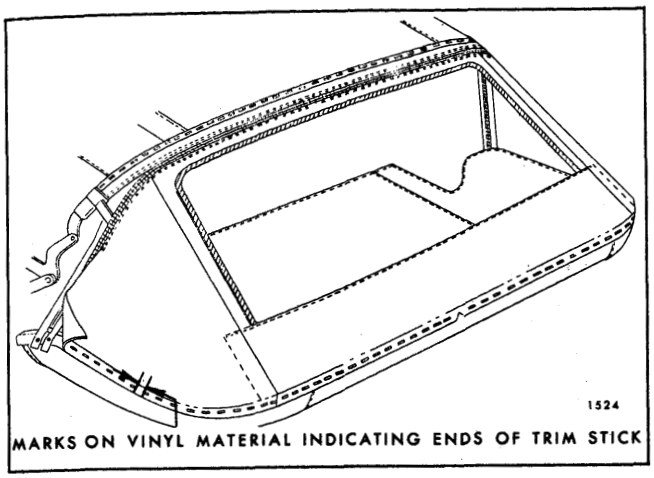

Fig. 6-12—Marking Back Curtain

6. Carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See steps 20 and 29 of removal procedure.) In addition, mark trim stick bolt hole locations on new back curtain assembly.

IMPORTANT: Where a grease pencil or similar material is used for marking back curtain, marks must be below trim stick so that they will not show after curtain is installed in body.

7. Center and position back curtain assembly to rear trim stick over attached top compartment bag.

NOTE: Notch in back curtain material at lower edge indicates centerline of back curtain assembly (Fig. 6-17). In addition, back curtain lower

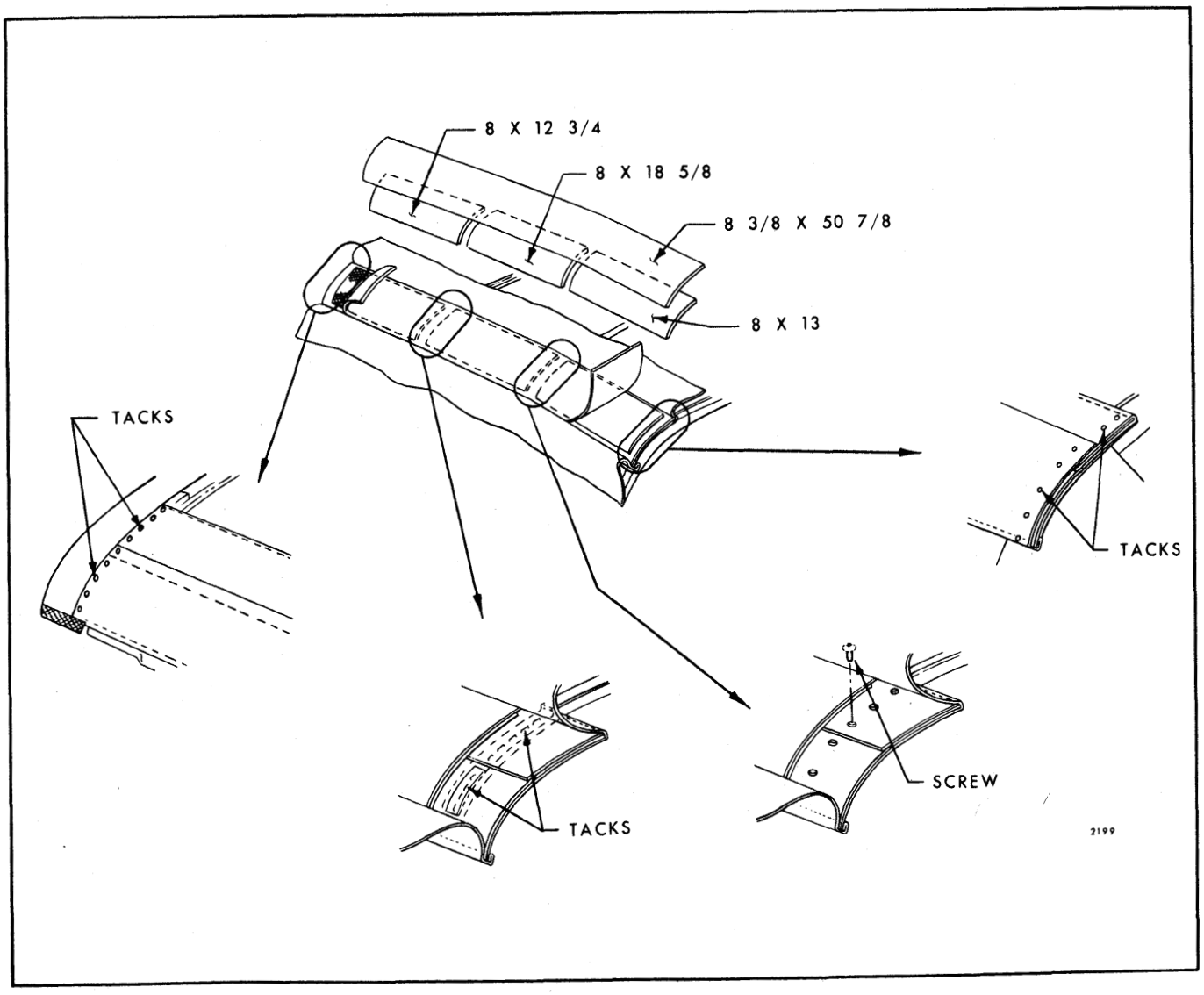

Fig. 6-13—"A" Body Side Stay Pad Installation

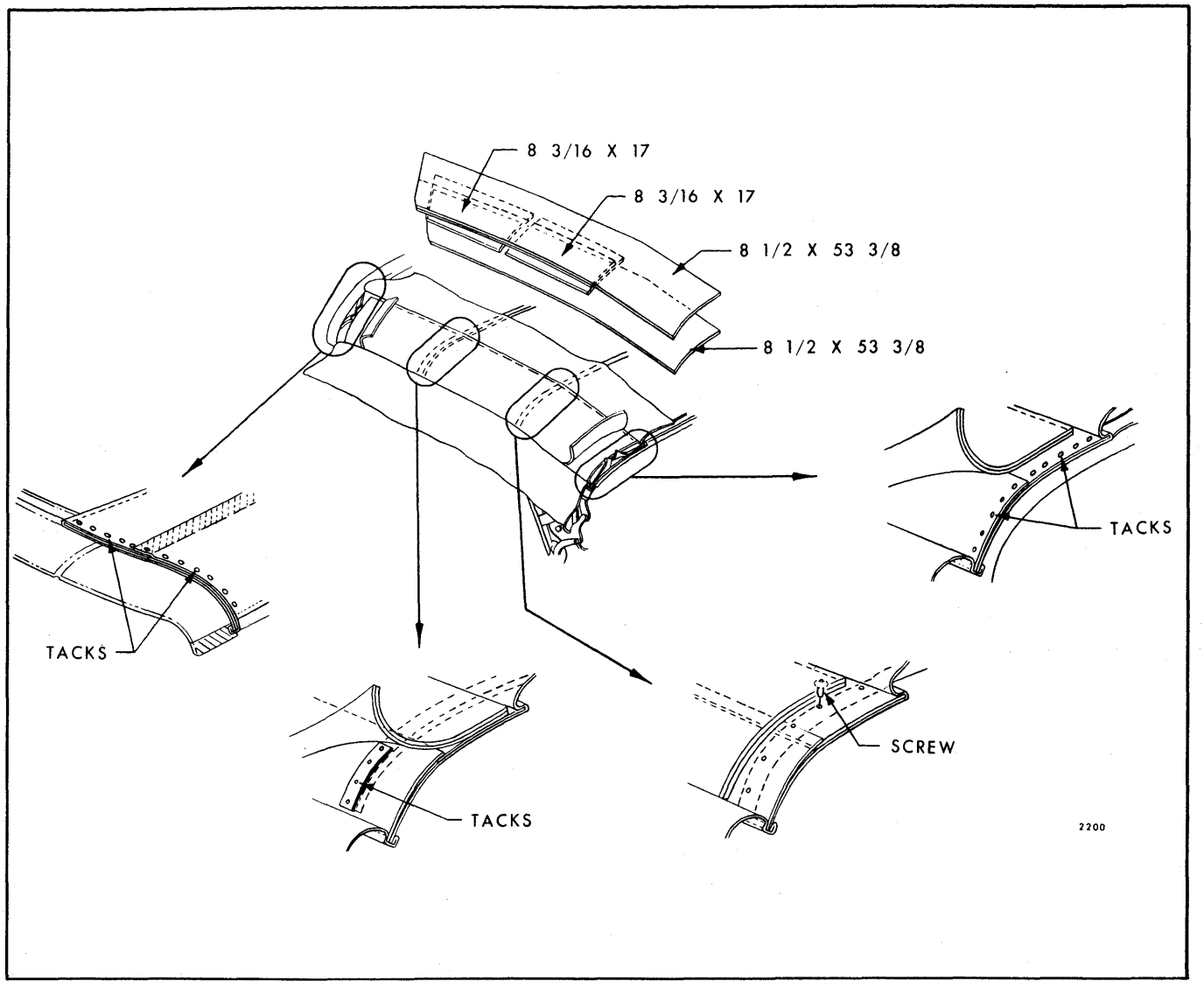

Fig. 6-14—"B" Body Side Stay Pad Installation

edge should extend approximately 1/2" below lower edge of trim sticks.

8. Tack curtain to rear and rear quarter trim sticks (Fig. 6-17). On "A & Z" Body Styles only, tack zipper tape on right side to forward edge of rear quarter trim stick (Fig. 6-18).

NOTE: Zipper stop should be above upper edge of rear quarter trim stick. Zipper tape should not be pulled taut after back curtain has been installed to rear roof bow as zipper assembly may show through top material after top has been properly installed.

9. Tack remainder of back curtain material to rear quarter trim stick.

10. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim sticks; then pierce or punch back curtain assembly for each trim stick bolt.

11. On all "B, C & A" Styles, tack nylon webbing to rear trim stick. Forward edge of webbing should be even with edge of rear trim stick. New webbing may be cut from a piece of non-staining type webbing 2" x 24" for "A" Bodies and 2" x 27" for "B & C" Bodies. Excess webbing should be trimmed off at rear trim stick, 1/2" above back curtain lower edge.

12. Inspect mastic type trim stick fillers to body below pinchweld for sufficient seal at bolt holes (Fig. 6-19).

13. On "B & C" Styles with dropping back curtains, fasten back curtain assist straps to rear roof bow; then secure back curtain assembly with

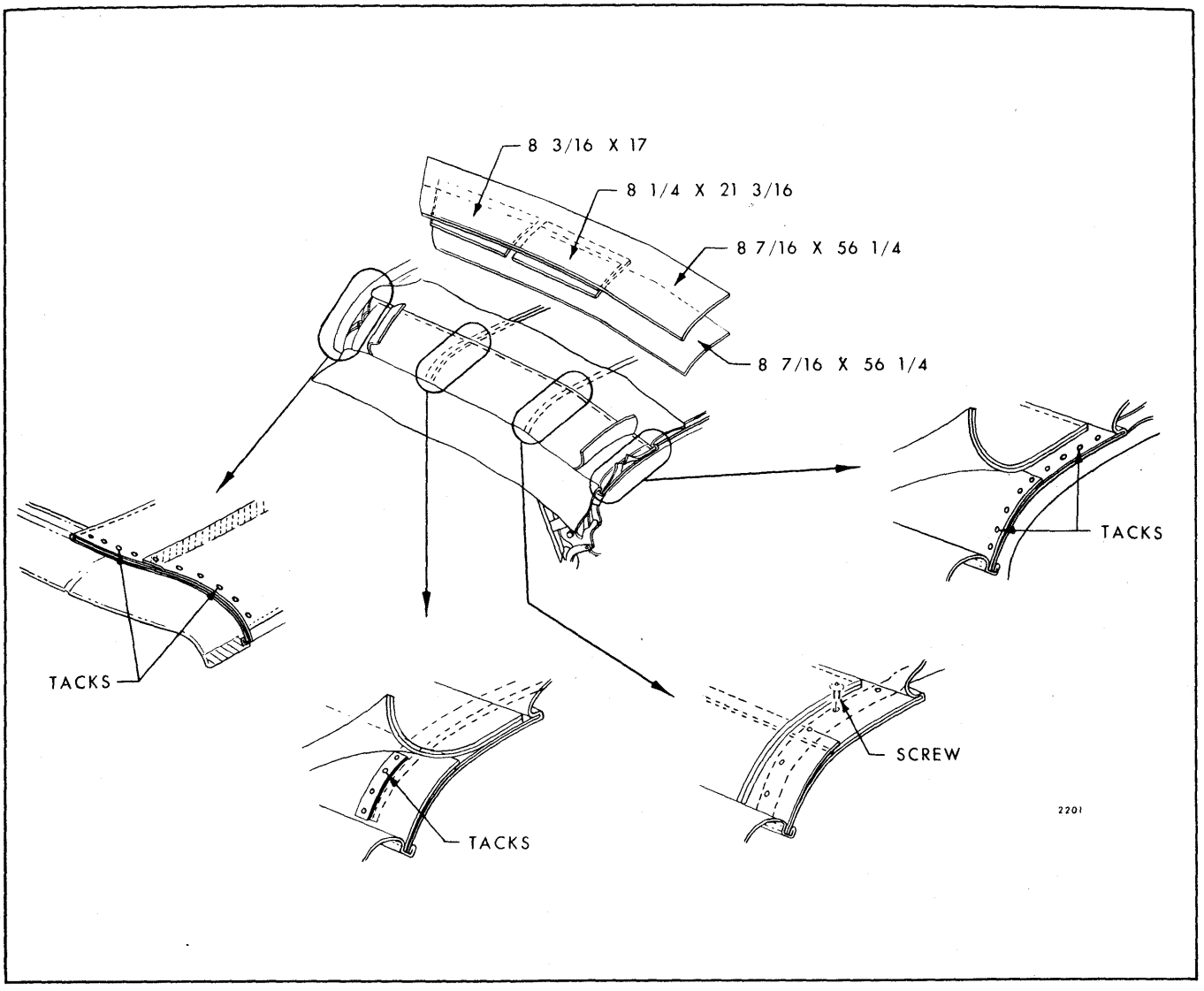

Fig. 6-15—"C" Body Side Stay Pad Installation

three or four tacks to rear bow to prevent accidental damage to back light. On all other styles secure back curtain with tacks to rear roof bow to prevent damage.

14. Install rear trim stick with attached back curtain assembly into body.

NOTE: Make sure that all trim stick bolts are driven completely in to represent finished condition.

15. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain material (Fig. 6-20). Fold any excess back curtain upper valance material rearward and tack to rear bow.

IMPORTANT: Do not cut off excess upper valance material as material may unravel.

16. Check contour of back curtain assembly at rear roof bow and at pinchweld molding.

17. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required (Fig. 6-21).

18. Where required, adjust side stay pads; then tack side stay pads to front roof rail and front bow. Attach side stay pads to center bow with screws. Trim selvage end of side stay pads at front roof rail. Install stay pad top covering material in conventional manner using nitrile or neoprene type trim cement.

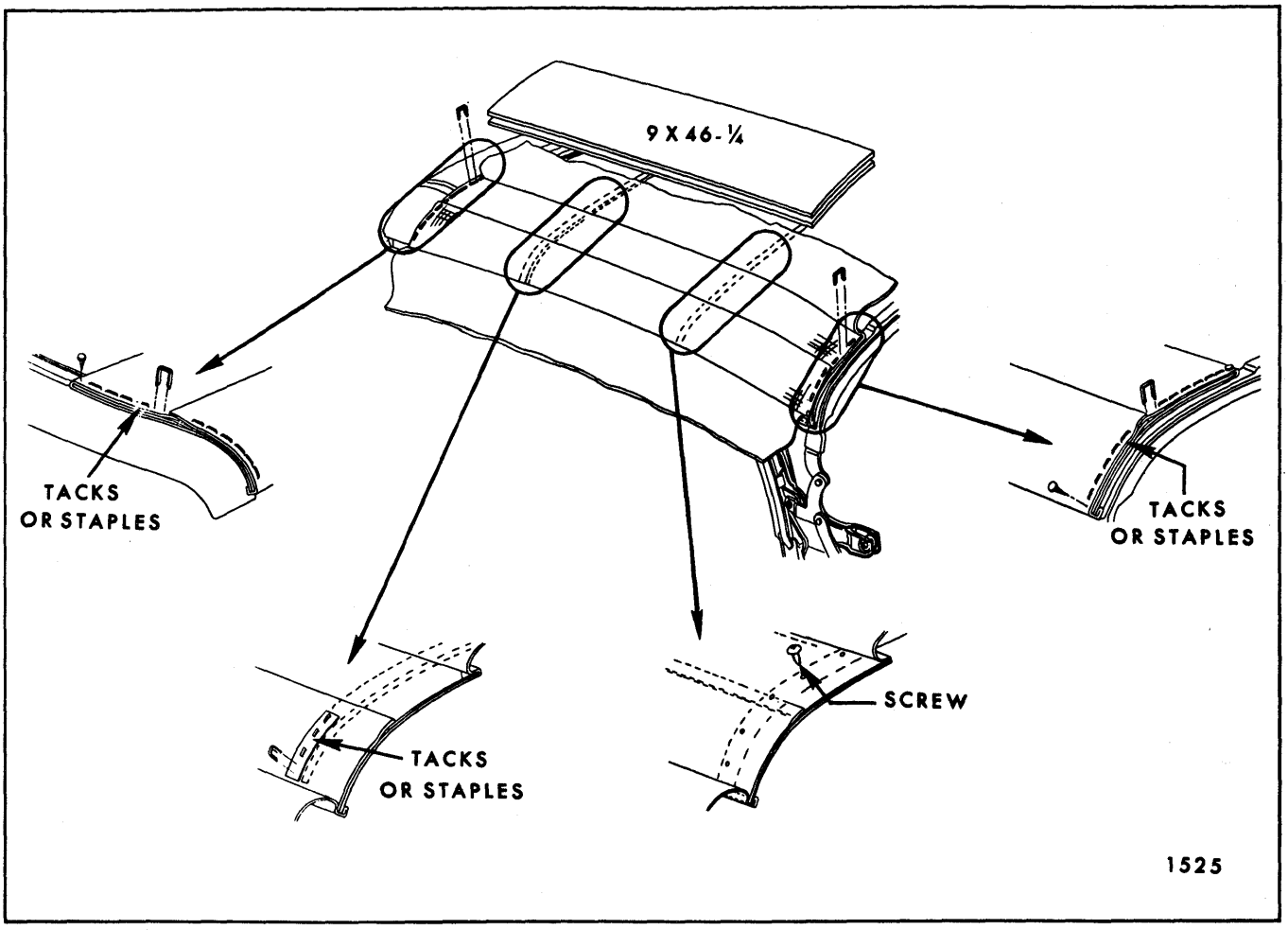

Fig. 6-16—"Z" Body Side Stay Pad Installation

19. On "B, C & A" Styles only, tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

CAUTION: Do not cut back curtain or side stay pad material.

20. Detach rear trim stick with attached back curtain assembly from body.

21. Lay out new top material on clean protected surface with outer layer of material exposed.

22. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 5-1/4" on "B & C" and 4-1/4" on "A & Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 6-22)

23. Fold new top material in half so that inner lining of top material is exposed (Fig. 6-23). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 6-23). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

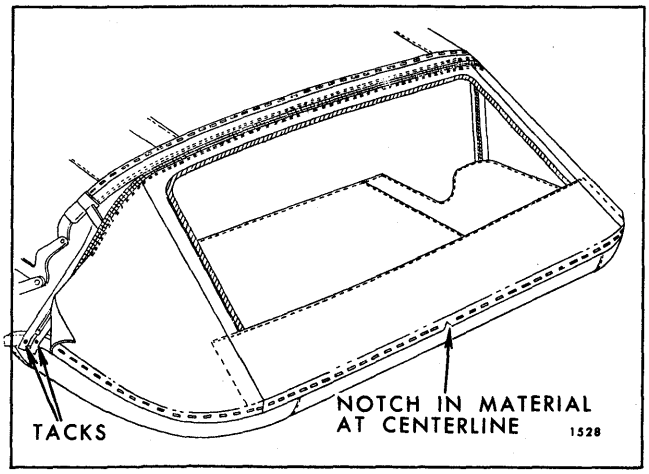

Fig. 6-17—Back Curtain Installation

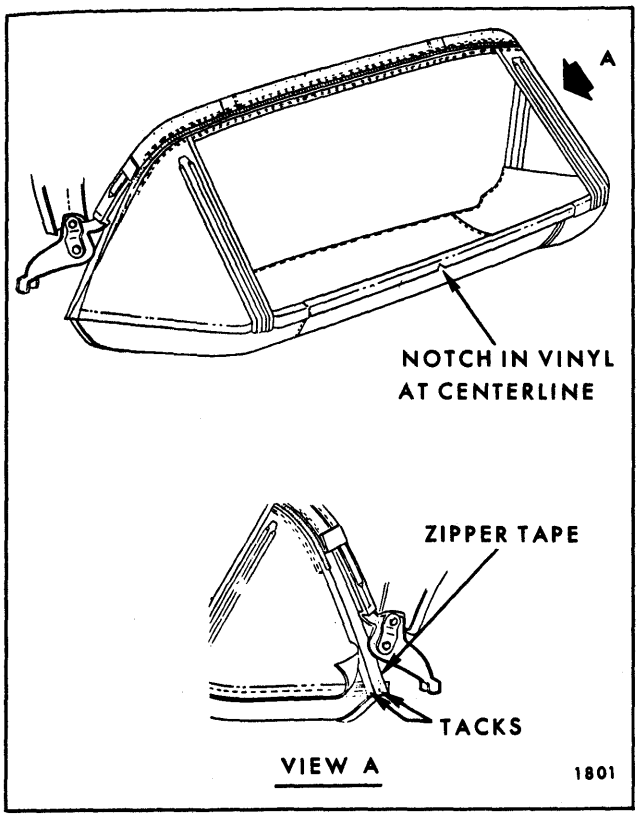

Fig. 6-18—Back Curtain Installation

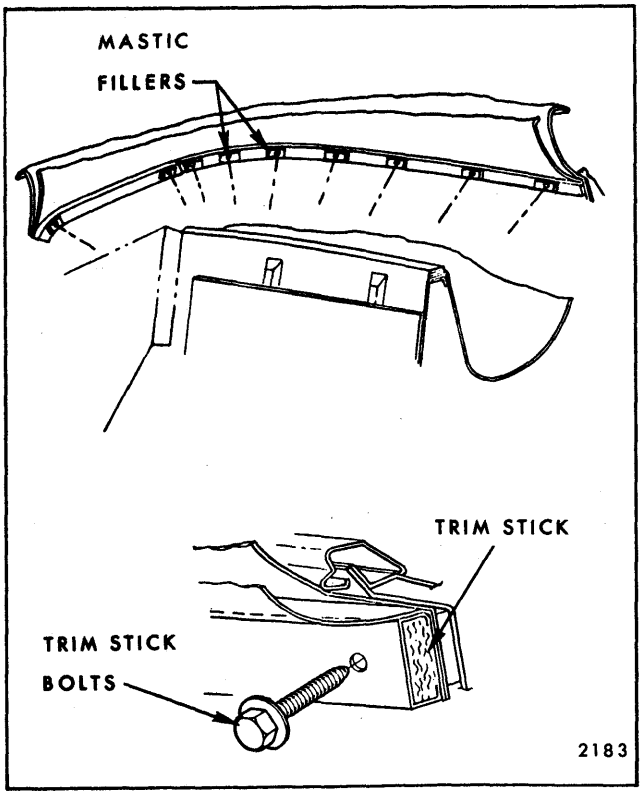

Fig. 6-19—Checking Trim Stick Fillers

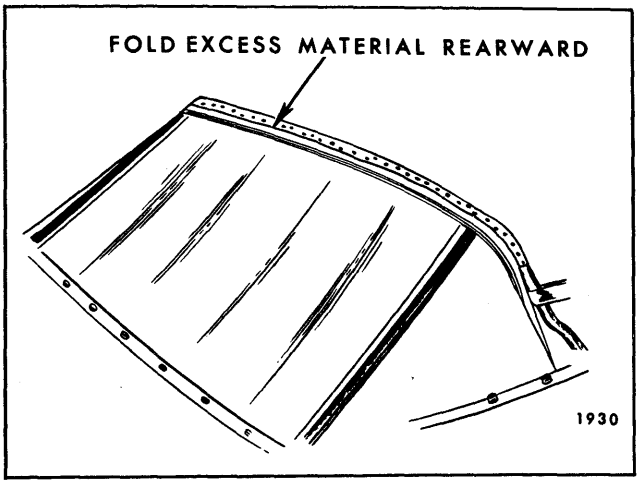

Fig. 6-20—Back Curtain Installed

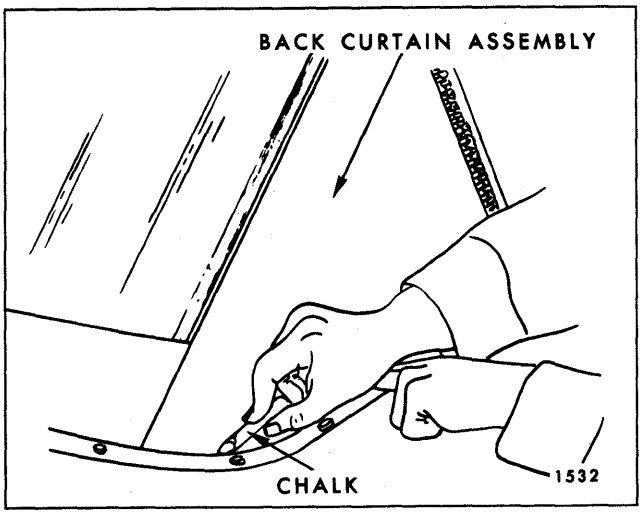

Fig. 6-21—Marking Back Curtain

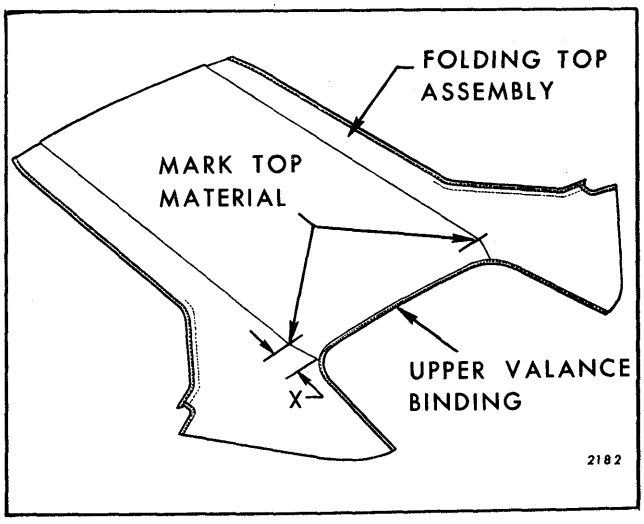

Fig. 6-22—Marking Top Material

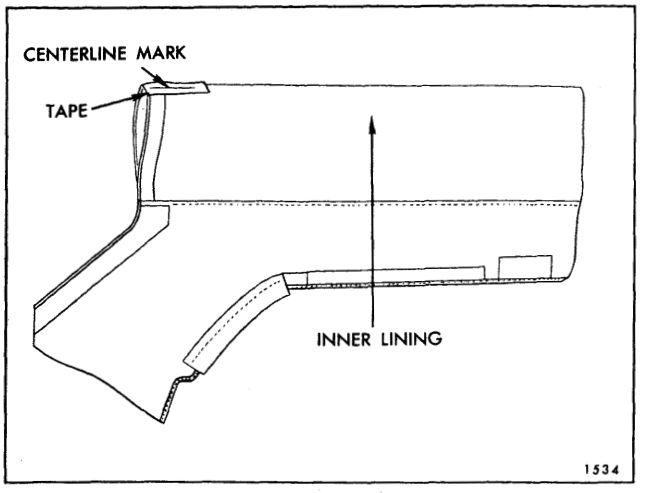

Fig. 6-23—Marking Folding Top Material

IMPORTANT: Be sure mark will be visible inside of body after new top is installed on convertible top framework.

24. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape (Fig. 6-24).

25. Remove rear bow spacer sticks and positioning tape or cord.

26. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (±1/4") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow.

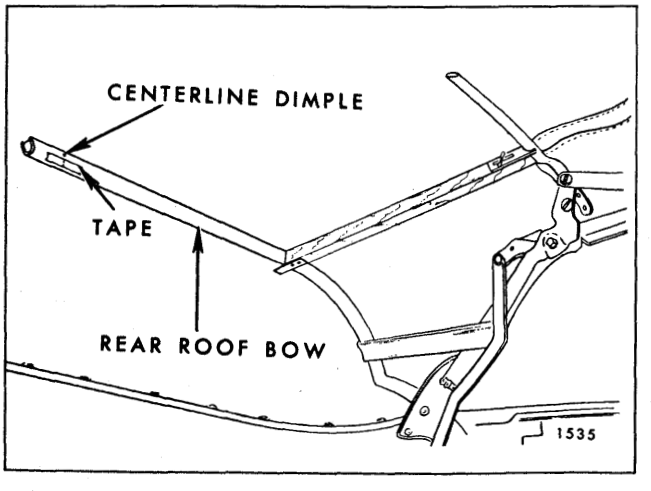

Fig. 6-24—Marking Rear Roof Bow

27. Remove top trim material.

28. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark edges of trim sticks on vinyl surface of new top material. (See steps 21 and 22 of removal procedure).

29. Position top trim on framework and center assembly both fore and aft and side to side.

30. Install listing pocket retainer into listing pocket.

31. Center retainer in listing pocket; then, install retainer into front bow.

NOTE: Retainer should be evenly centered between side roof rail stay pads.

32. Install front bow to listing pocket retainer attaching screws (Fig. 6-25).

33. On right side of top material, at front of

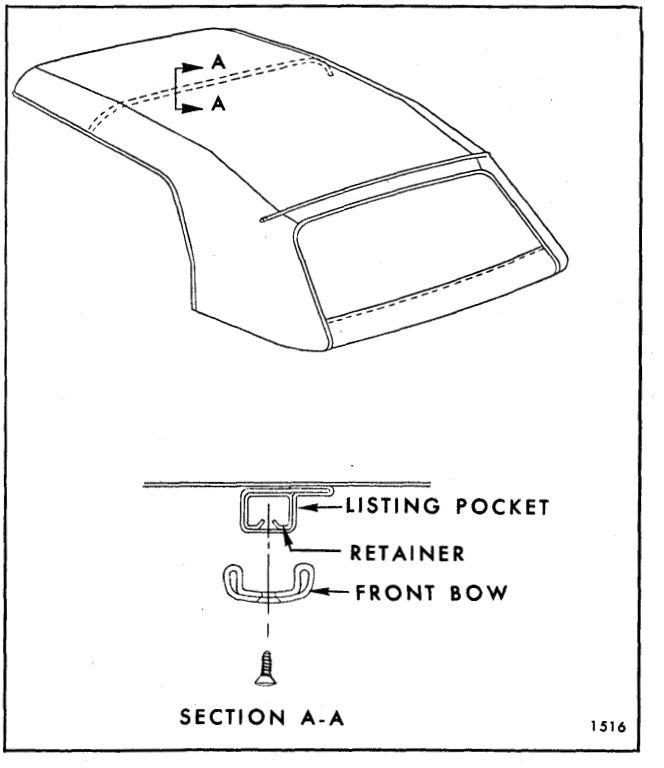

Fig. 6-25—Listing Pocket Retainer

hold-down cable pocket, install cable through pocket in top assembly.

NOTE: Welding rod or similar material may be bent at one end to form a hook. Then at rear of hold-down pocket, slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at front of pocket. Install rear end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at rear end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

34. After cables have been inserted in hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails (Fig. 6-3).

35. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (± 1/4") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow. (See Fig. 6-26).

36. Using nitrile cement or neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rear rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

NOTE: Material may have to be stretched from side to side to insure proper fit of top material flaps to side roof rear rails and to remove wrinkles from top material along rear roof bow.

37. Using an awl or other suitable tool, pierce flaps for side roof rail rear weatherstrip attaching screws. Install side roof rail rear weatherstrips to help maintain position of quarter flaps while adhesive is drying.

38. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 6-26 shows top material installed to rear trim stick at inboard edge.

39. Cut or punch hole in top material for each trim stick attaching bolt.

40. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.

41. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.

42. Where required, re-mark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks and/or by retacking top material to rear and/or rear quarter trim sticks.

NOTE: In extreme cases, adjustment of top material at rear or rear quarter trim sticks may have to be performed several times before desired fit of top material is obtained.

43. Remove trim sticks with attached top material from top compartment well. Back curtain should extend 1/2" below trim sticks. (See step 7 of installation procedure). In addition, top material must extend 1/2" to 5/8" below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.

44. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.

45. Re-check side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also re-check centerline mark on inner surface of top material at rear bow.

46. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.

47. While pulling top material slightly rearward, stay tack top material along rear roof bow.

IMPORTANT: Tacks must be installed along a straight line in center of rear bow. (See Fig. 6-27). Tacks outboard of deck seams should be restricted to distance not to exceed 6", which is

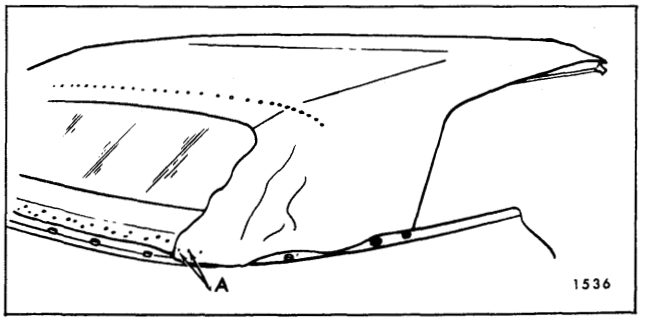

Fig. 6-26—Tacking Top Material

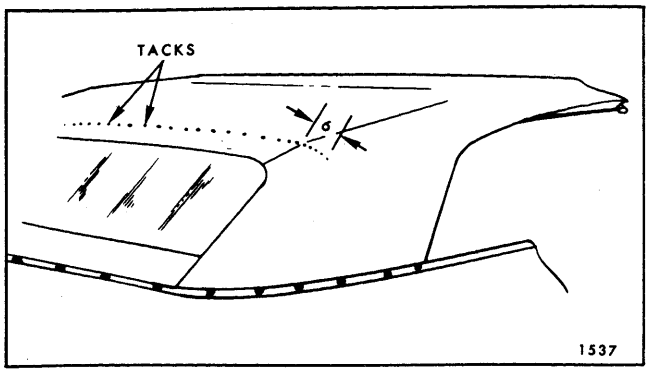

Fig. 6-27—Tacking Outboard Of Seams

length wire-on binding extends past seam (Fig. 6-27).

48. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail (Fig. 6-28).

49. Unlock top from windshield header and apply nitrile cement or neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding surface of top material. Pull top trim material slightly forward so that pencil marks are on underside of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (Fig. 6-29).

50. Apply nitrile cement or neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails. (See Fig. 6-30).

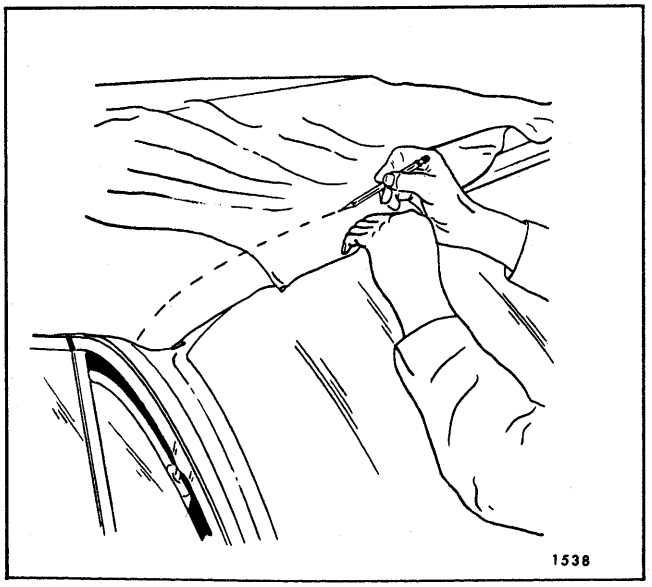

Fig. 6-28—Marking Top Material At Front Roof Rail

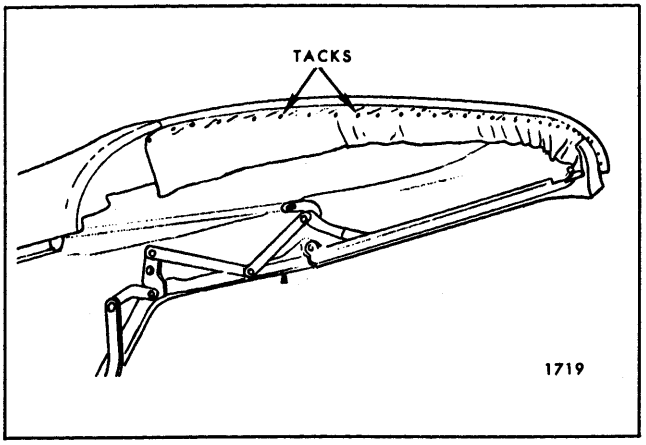

Fig. 6-29—Installation Of Top Material To Front Roof Rail

51. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim unlock top from header and reposition top trim by pulling trim further forward. Stay tack and re-check top appearance).

52. Complete tacking of top trim to front roof rail and trim off excess material.

53. Permanently tack top material to rear roof bow. Apply bead of neoprene-type weatherstrip adhesive around each tack head, and into two

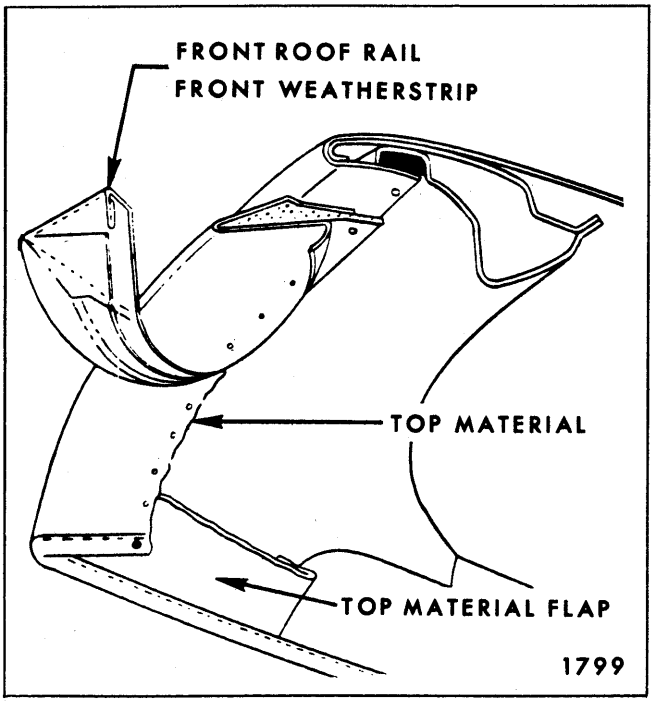

Fig. 6-30—Top Material At Front Roof Rail

holes pierced into top material for wire-on binding clip escutcheons.

NOTE: Any tack holes made in top material as a result of stay tacking material to rear roof bow should also be sealed using neoprene-type weatherstrip adhesive.

54. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material, back window and material or pads.

55. On styles so equipped, connect back curtain support rod to back curtain.

FOLDING TOP TRIM—LESS BACK CURTAIN

REMOVAL OF FOLDING TOP TRIM COVER

1. Place protective covers on all exposed panels which may be contacted during procedures.

2. Remove rear cushion and back.

CAUTION: Disconnect rear seat speaker wire if present.

3. Remove right and left folding top compartment side trim panels.

4. Remove right and left side roof rail rear weatherstrip attaching screws; then remove weatherstrips from rails.

5. Detach folding top quarter flaps from side roof rear rails.

6. Lower to "stacked" position.

7. Remove right and left side roof rail front weatherstrip attaching screws; then remove weatherstrip from rails.

8. Remove front roof rail front and rear weatherstrips.

9. Detach top material from front roof rail.

10. Detach top material flaps from side roof front rail (Fig. 6-30).

11. Raise top and lock to windshield header.

12. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (See Views "A and B" in Fig. 6-31).

13. Pull both hold-down cables forward until cables are completely removed from top material retaining pockets.

14. At underside of front bow, remove screws securing listing pocket retainer to bow (Fig. 6-32).

15. Push top material upward sufficiently until retainer is disengaged from bow; then, remove retainer from listing pocket.

16. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-33).

17. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-34).

18. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

19. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-35).

NOTE: Reference marks must be made below upper edge of rear trim sticks.

20. To establish relationship of old top material to its position on rear trim sticks, cut selvage end of top material off flush with lower edge of trim sticks.

CAUTION: When cutting top material, be careful not to cut lower selvage edge of back curtain assembly.

21. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material as shown in Figure 6-36. Reference marks for trim sticks should be transferred to new top material when step 8 of installation procedure is performed.

22. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow. Detach top material from rear roof bow and from trim sticks, then remove top cover assembly (Fig. 6-37).

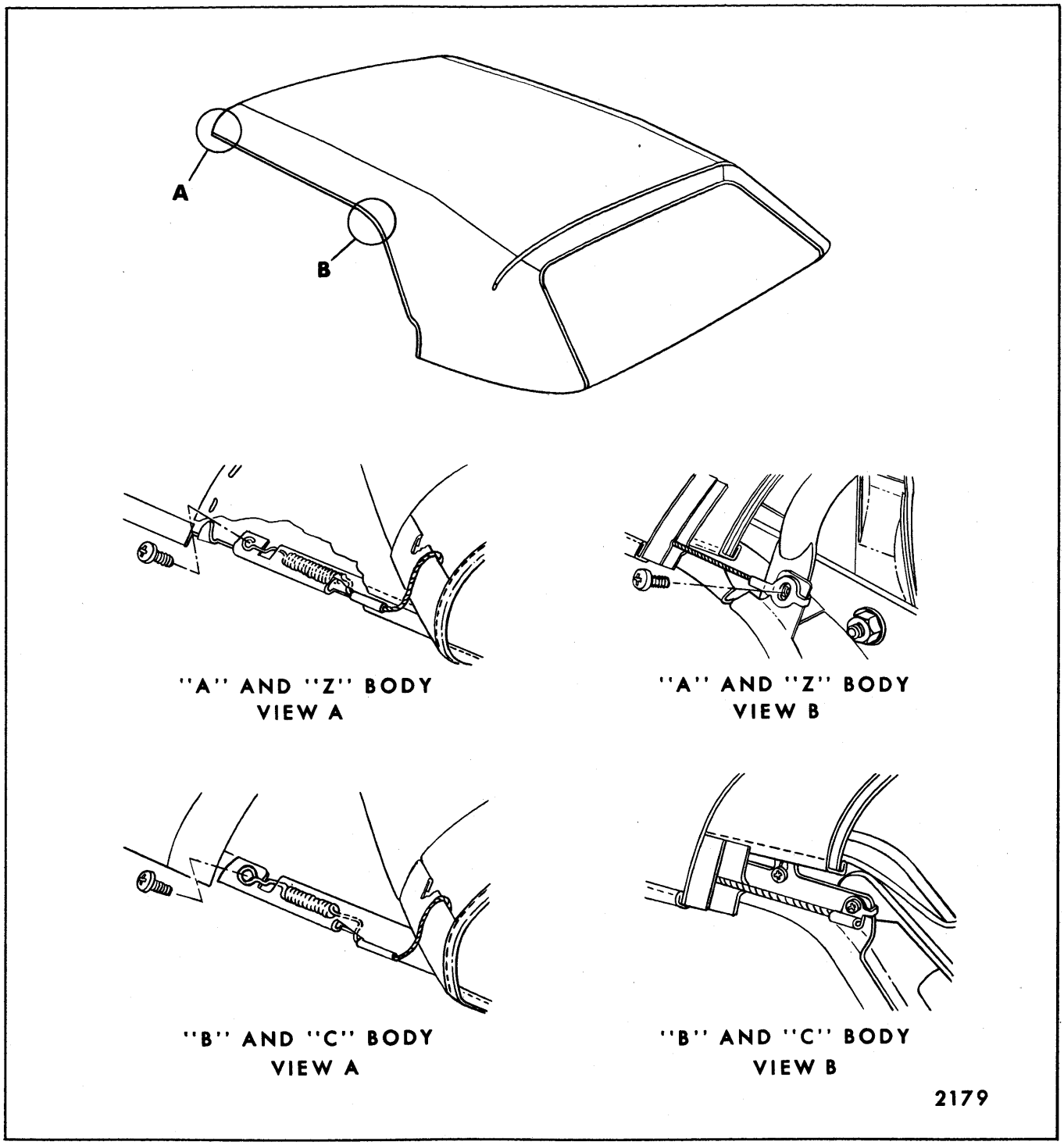

Fig. 6-31—Convertible Top Material Hold Down Cable

INSTALLATION OF FOLDING TOP TRIM COVER

1. Prior to installation of new top trim material, check contour of back curtain and side stay pad assemblies. Where required, adjust back curtain and/or stay pads.
2. Lay out new top material on clean protected surface with outer layer of material exposed.
3. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 5-1/4" on "B & C" and 4-1/4" on "A & Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 6-38).

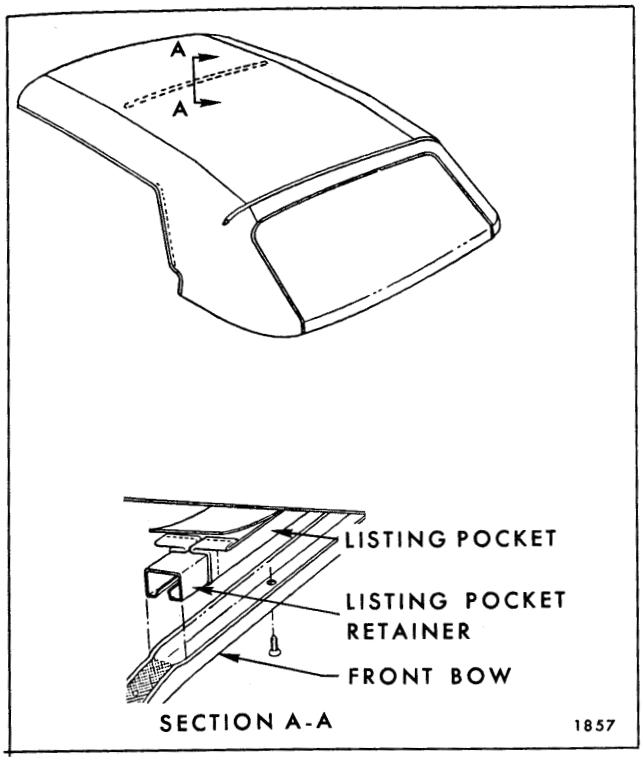

Fig. 6-32—Listing Pocket Retainer

4. Fold new top material in half so that inner lining of top material is exposed (Fig. 6-39). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 6-39). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

IMPORTANT: Be sure mark will be visible

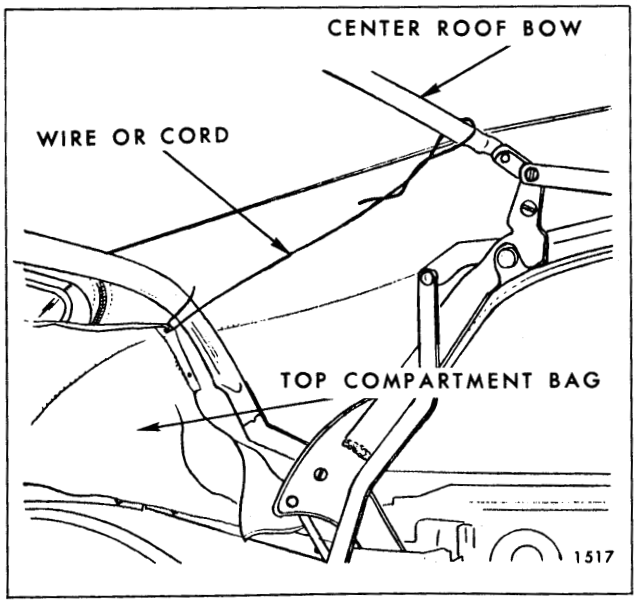

Fig. 6-33—Top Compartment Bag Tied To Center Rail

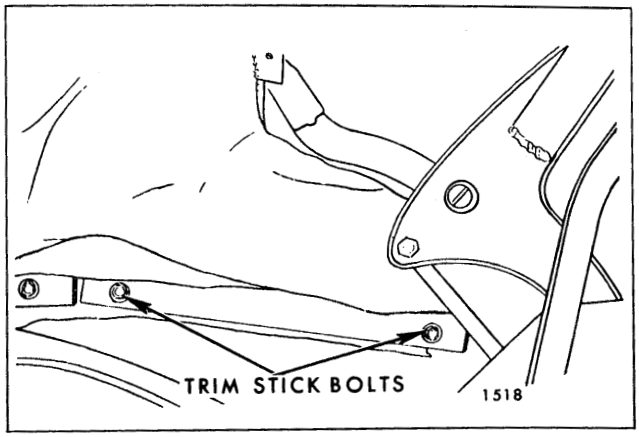

Fig. 6-34—Rear Quarter Trim Stick

inside of body after new top is installed on convertible top framework.

5. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape (Fig. 6-40).

6. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (±1/4") depending upon position of rear roof

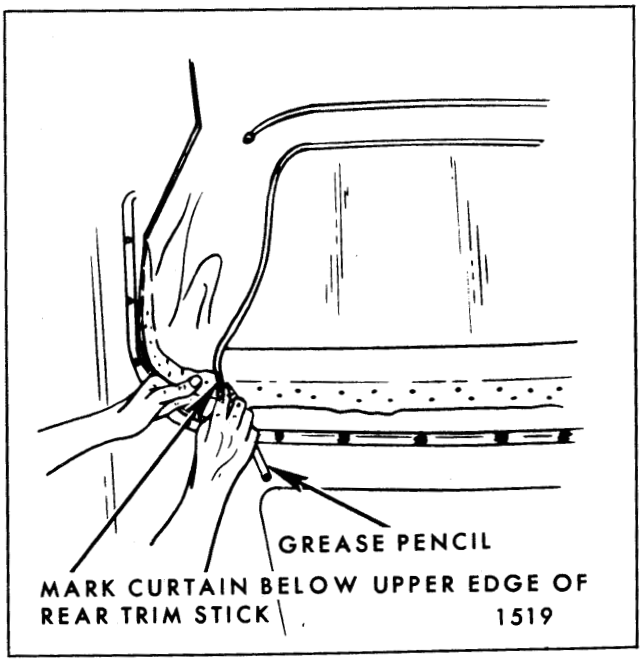

Fig. 6-35—Locating Edge Of Top Material

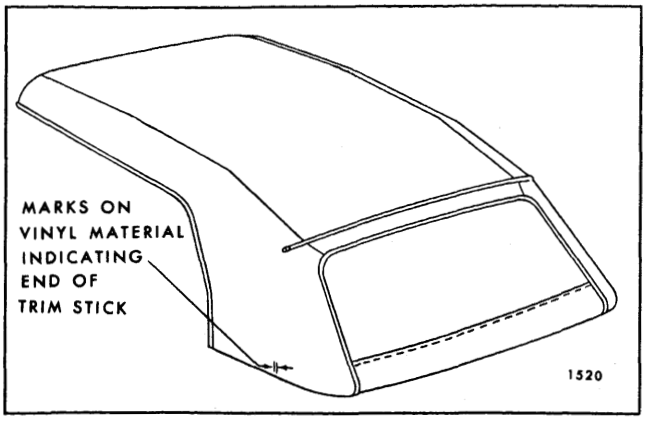

Fig. 6-36—Marking Top Material

bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow.

7. Remove top trim material.

8. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark

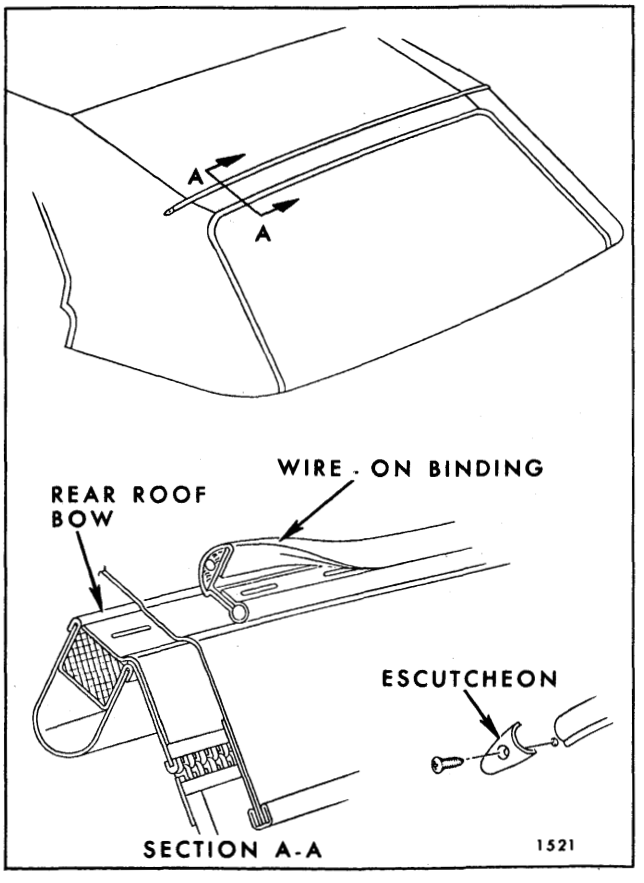

Fig. 6-37—Rear Roof Bow Wire-On Binding

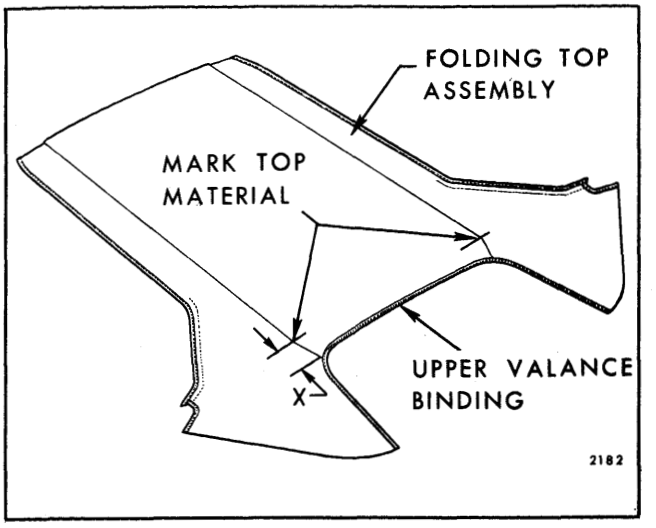

Fig. 6-38—Marking Top Material

edges of trim sticks on vinyl surface of new top material. (See steps 20 and 21 of removal procedure).

9. Position top trim on framework and center assembly both fore and aft and side to side.

10. Install listing pocket retainer into listing pocket.

11. Center retainer in listing pocket; then install retainer into front bow.

NOTE: Retainer should be evenly centered between side roof rail stay pads.

12. Install front bow to listing pocket retainer with attaching screws (Fig. 6-32).

13. On right side of top material, at front of hold-down cable pocket, install cable through pocket in top assembly.

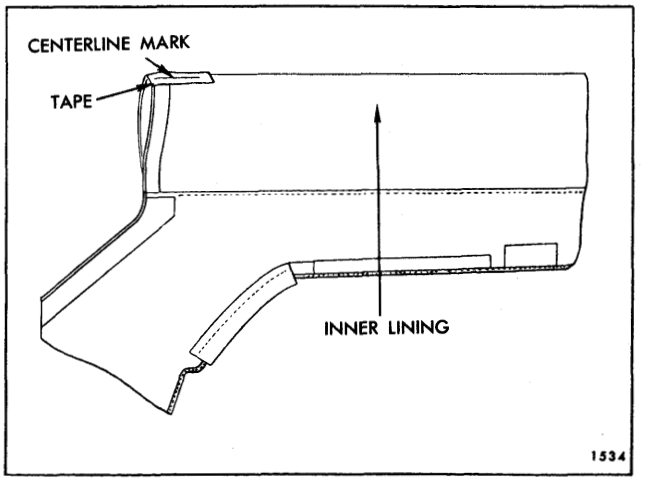

Fig. 6-39—Marking Folding Top Material

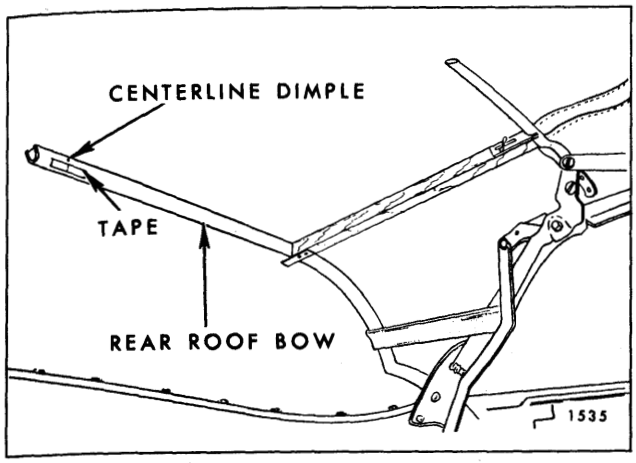

Fig. 6-40—Marking Rear Roof Bow

NOTE: Welding rod or similar material may be bent at one end to form a hook. Then at rear of hold-down pocket slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at front of pocket. Install rear end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at rear end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

14. After cables have been inserted in hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails (Fig. 6-31).

15. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (±1/4") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow. (Fig. 6-40).

16. Using nitrile cement or neoprene-type weatherstip adhesive, fasten rear quarter flaps to side roof rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

NOTE: Material may have to be stretched from side to side to insure proper fit of top material flaps to side roof rear rails and to remove wrinkles from top material along rear roof bow.

17. Using an awl or other suitable tool, pierce flaps for side roof rail rear weatherstrip attaching screws. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.

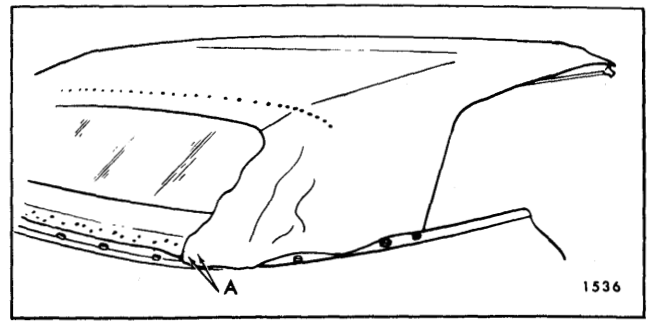

Fig. 6-41—Tacking Top Material

18. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 6-41 shows top material installed to rear trim stick at inboard edge.

19. Cut or punch hole in top material for each trim stick attaching bolt.

20. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.

21. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.

22. Where required, re-mark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks and/or by retacking top material to rear and/or rear quarter trim sticks.

NOTE: In extreme cases, adjustment of top material at rear or rear quarter trim sticks may have to be performed several times before desired fit of top material is obtained.

23. Remove trim sticks with attached top material from top compartment well. Top material must extend 1/2" to 5/8" below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.

24. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.

25. Re-check side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also re-check centerline mark on inner surface of top material at rear bow.

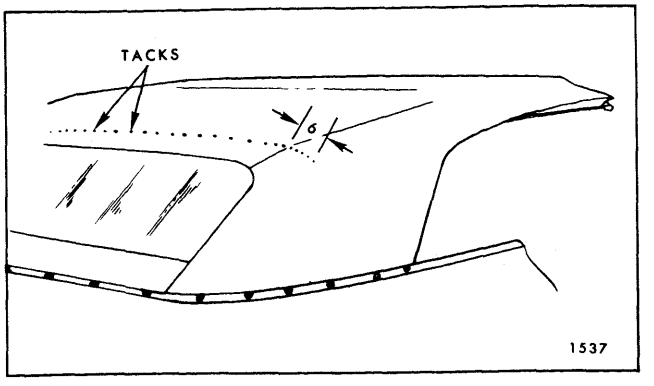

Fig. 6-42—Tacking Outboard Of Seams

26. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.

27. While pulling top material slightly rearward, stay tack top material along rear roof bow.

IMPORTANT: Tacks must be installed along a straight line in center of rear bow. (See Fig. 6-42). Tacks outboard of deck seams should be restricted to distance not to exceed six inches, which is length wire-on binding extends past seam (Fig. 6-42).

28. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail (Fig. 6-43).

29. Unlock top from windshield header and apply nitrile cement or neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding surface of top material. Pull top trim material slightly forward so that pencil marks are on underside of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (Fig. 6-44).

30. Apply nitrile cement or neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails. (See Fig. 6-30).

31. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim unlock top from header and reposition top trim by pulling trim further forward. Stay tack and recheck top appearance).

32. Complete tacking of top trim to front roof rail and trim off excess material.

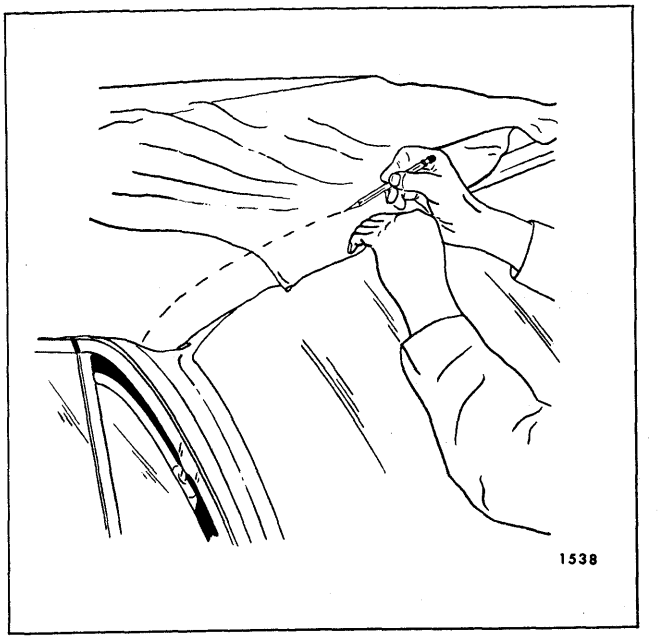

Fig. 6-43—Marking Top Material At Front Roof Rail

33. Permanently tack top material to rear roof bow. Apply bead of neoprene-type weatherstrip adhesive around each tack head, and into two holes pierced into top material for wire-on binding clip escutcheons.

NOTE: Any tack holes made in top material as a result of stay tacking material to rear roof bow should also be sealed using neoprene-type weatherstrip adhesive.

34. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material, back window and material or pads.

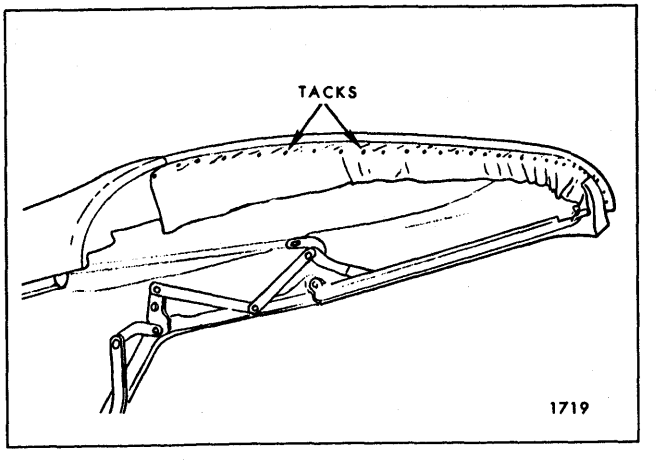

Fig. 6-44—Installation Of Top Material To Front Roof Rail

BACK CURTAIN ASSEMBLY (COMPLETE)

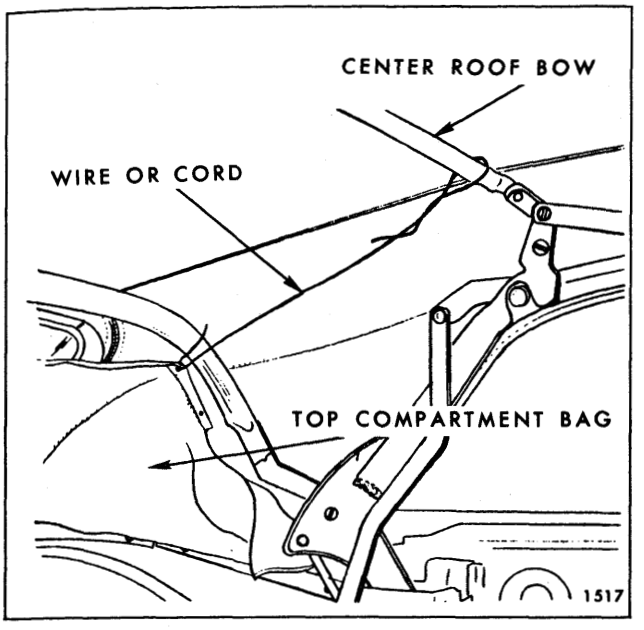

Fig. 6-45—Top Compartment Bag Tied To Center Rail

REMOVAL PROCEDURE

1. Place protective covers on all exposed panels which may be contacted during procedure.

2. Remove following trim and hardware items:

   a. Rear seat cushion and back.

   CAUTION: Disconnect rear seat speaker wire if present.

   b. Folding top compartment side trim panel assemblies.

   c. Side roof rail rear weatherstrip; then loosen folding top quarter flaps from rails.

3. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-45).

4. On styles equipped with back curtain support rods disengage rods from back curtain (Fig. 6-46).

5. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-47).

6. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

7. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-48). Reference marks should be transferred to new back curtain when step 3 of installation procedure is performed.

   NOTE: Reference marks must be made below upper edge of rear trim stick.

8. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 6-49).

9. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow (Fig. 6-50).

10. Detach folding top trim from rear roof bow and from rear and rear quarter trim sticks.

11. Carefully slide top trim forward exposing tacked edge of back curtain at rear roof bow.

12. On styles equipped with dropping back curtain detach nylon webbing and back curtain from rear roof bow; then remove back curtain assembly with attached trim sticks and top compartment bag from body and place on a clean, protected surface. On all other styles remove back curtain from rear roof bow.

13. Remove right and left nylon webbing from rear trim stick. (All styles except "Z". Body).

14. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (Fig. 6-51). Reference marks for trim sticks should be transferred to new back curtain material when step 3 of installation procedure is performed.

15. Remove back curtain assembly from rear and rear quarter trim sticks.

INSTALLATION PROCEDURE

1. Preset spacer sticks to shortest length and install between center and rear roof bow (Fig. 6-52). Adjust sticks so that dimension "X" in Figure 6-52 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 14-7/8" on "B &

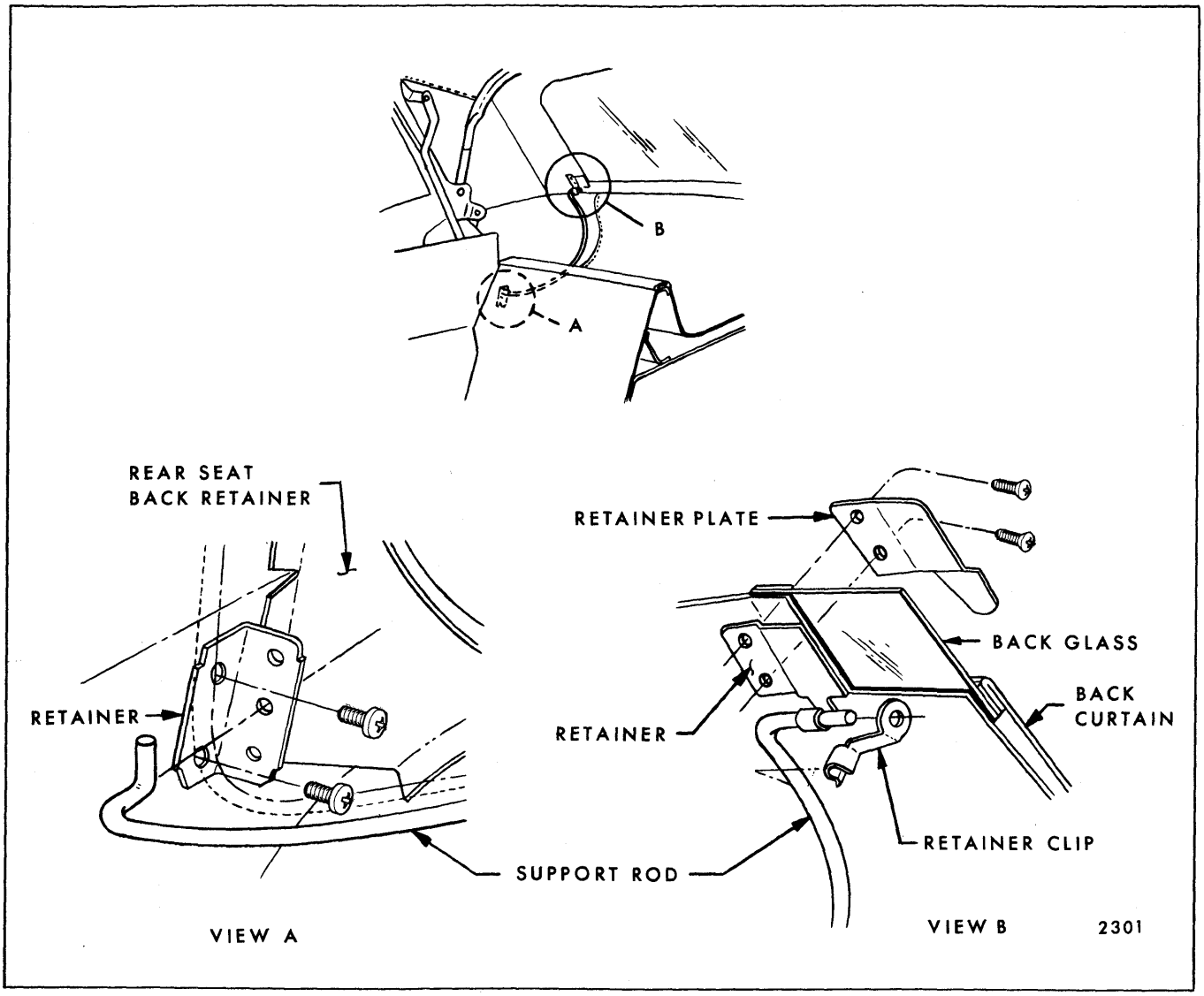

Fig. 6-46—"B & C" Body Back Glass Support Rod Attachments

C'' Styles, 16-5/8" on "A'' Styles and 16-1/64" on "Z'' Styles.

NOTE: Dimension may vary ±1/4" after back curtain has been completely installed.

Tie or tape rear bow to rear side roof rails.

2. Place new back curtain assembly on clean covered work bench with interior surface of back window facing down.

3. Carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See steps 7 and 14 of removal procedure). In addition, mark trim stick bolt hole locations on new back curtain assembly.

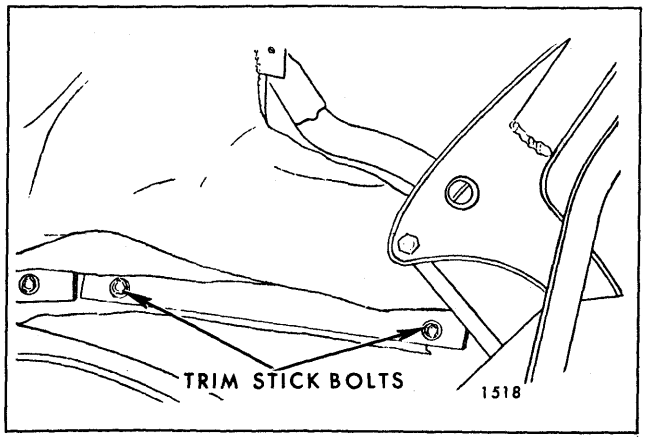

Fig. 6-47—Rear Quarter Trim Stick

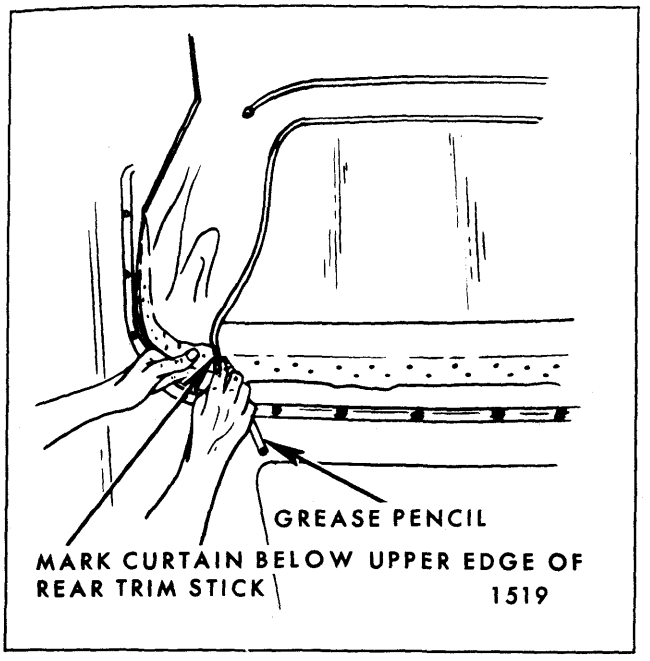

Fig. 6-48—Locating Edge Of Top Material

IMPORTANT: Where a grease pencil or similar material is used for marking back curtain, marks must be below trim stick so that they will not show after curtain is installed in body.

4. Center and position back curtain assembly to rear trim stick over attached compartment bag.

NOTE: Notch in back curtain material at lower edge indicates centerline of back curtain assembly. (See Fig. 6-53). In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

5. Tack curtain to rear and rear quarter trim sticks (Fig. 6-53). On "A & Z" Body Styles tack zipper tape on right side to forward edge of rear quarter trim stick (Fig. 6-54).

NOTE: Zipper stop should be above upper edge of rear quarter trim stick. Zipper tape should not be pulled taut after back curtain has been installed to rear roof bow as zipper assembly

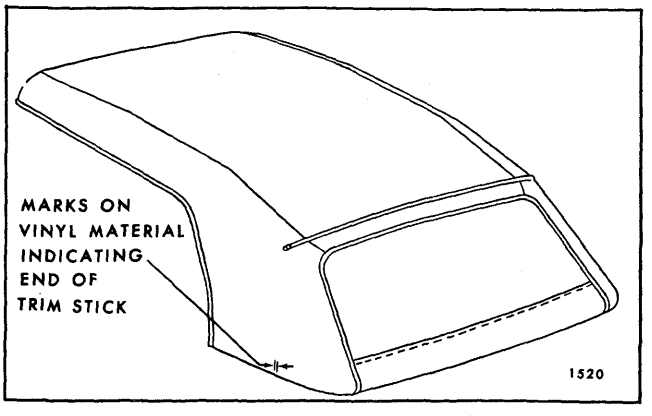

Fig. 6-49—Marking Top Material

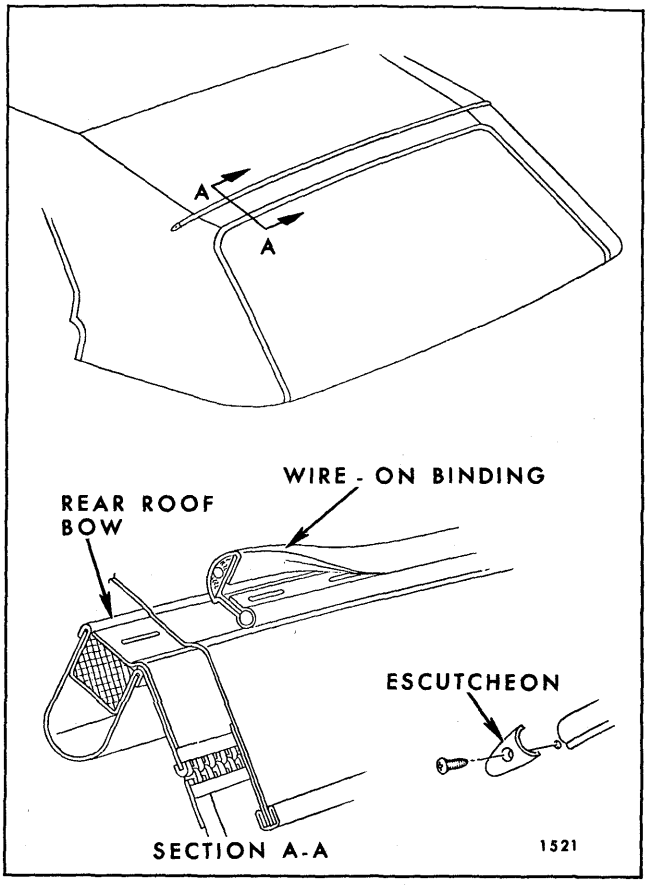

Fig. 6-50—Rear Roof Bow Wire-On Binding

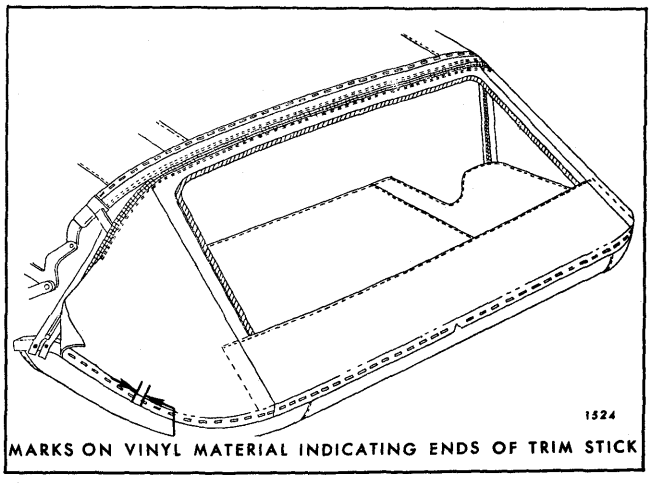

Fig. 6-51—Marking Back Curtain

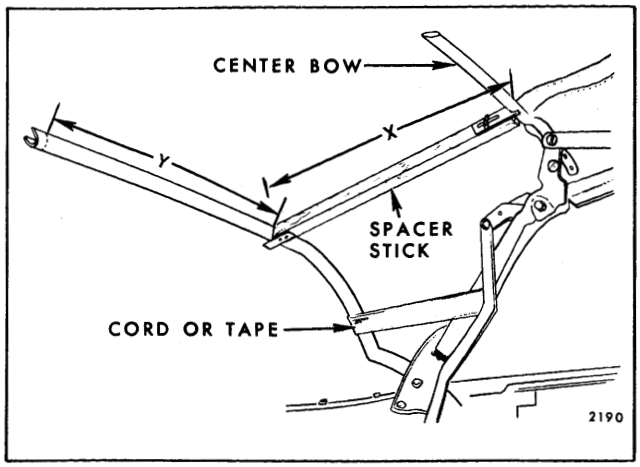

Fig. 6-52—Spacer Stick Installation

may show through top material after top has been properly installed.

6. Tack remainder of back curtain material to rear quarter trim stick.

7. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim sticks; then pierce or punch back curtain assembly for each trim stick bolt.

8. On "B, C & A" Styles tack nylon webbing to rear trim stick. Forward edge of webbing should be even with edge of rear trim stick.

9. Inspect mastic type trim stick fillers at body below pinchweld for sufficient seal at bolt holes (Fig. 6-55).

10. On "B & C" Styles with dropping back curtain, fasten back curtain assist straps to rear roof bow. On all styles secure back curtain

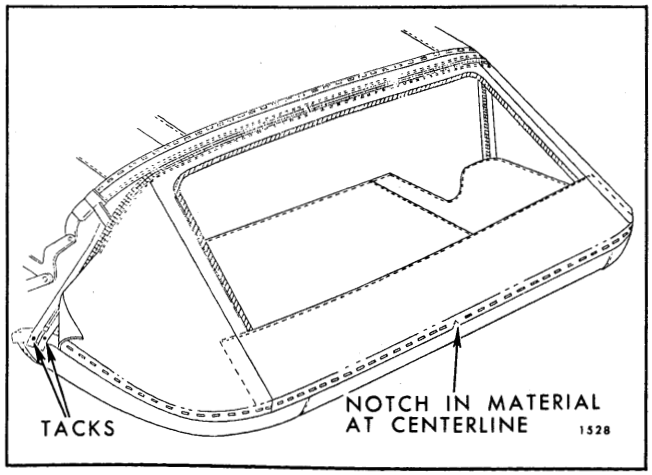

Fig. 6-53—Back Curtain Installation

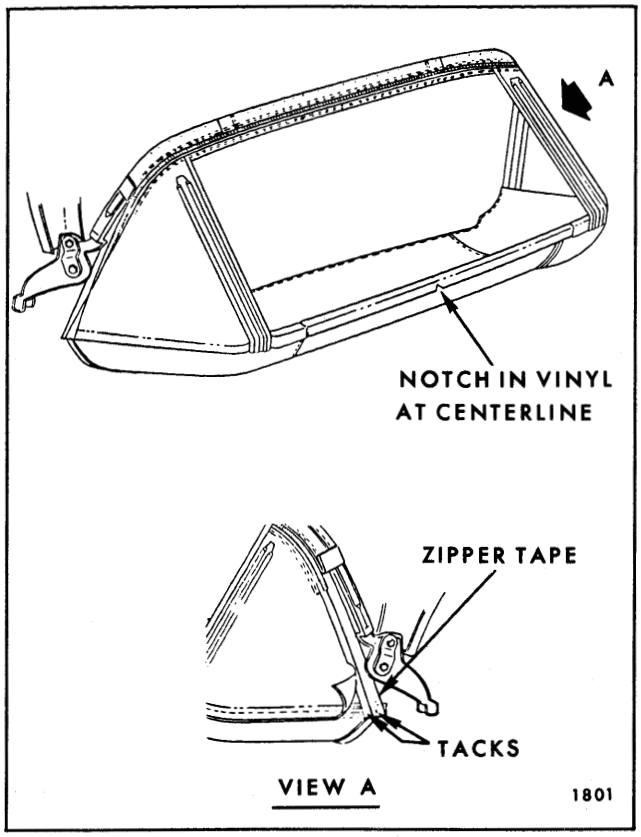

Fig. 6-54—Back Curtain Installation

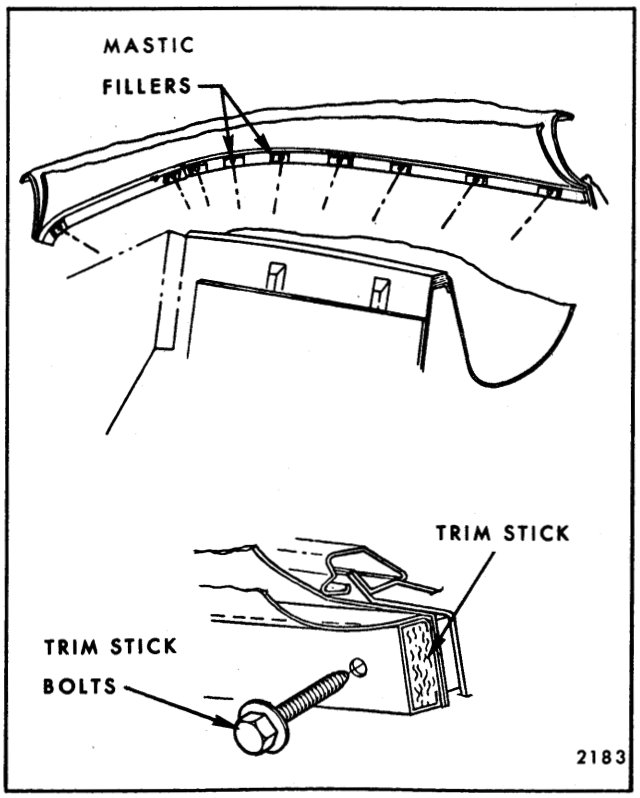

Fig. 6-55—Checking Trim Stick Fillers

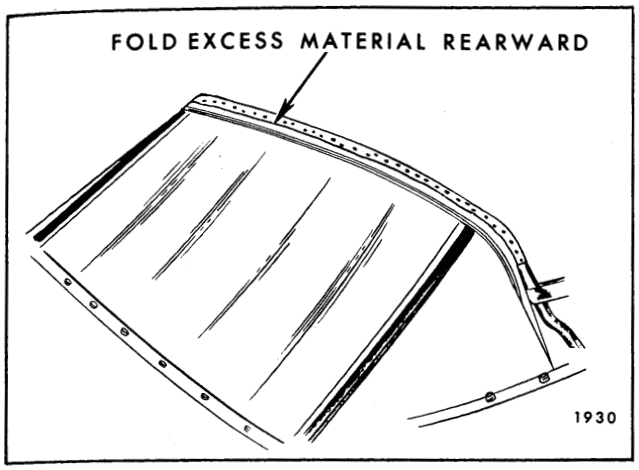

Fig. 6-56—Back Curtain Installed

assembly with a sufficient number of tacks to rear bow to prevent accidental damage to back window.

11. Install rear trim stick with attached back curtain assembly into body.

NOTE: Make sure that all trim stick bolts are driven completely in to represent finished condition.

12. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain material. Fold any excess back curtain upper valance material rearward and tack to rear bow (Fig. 6-56).

IMPORTANT: DO NOT CUT OFF EXCESS UPPER VALANCE MATERIAL AS MATERIAL MAY UNRAVEL.

13. Check contour of back curtain assembly to rear roof bow and at pinchweld molding.

14. Where required, place reference chalk mark on outer surface of back curtain along pinch-

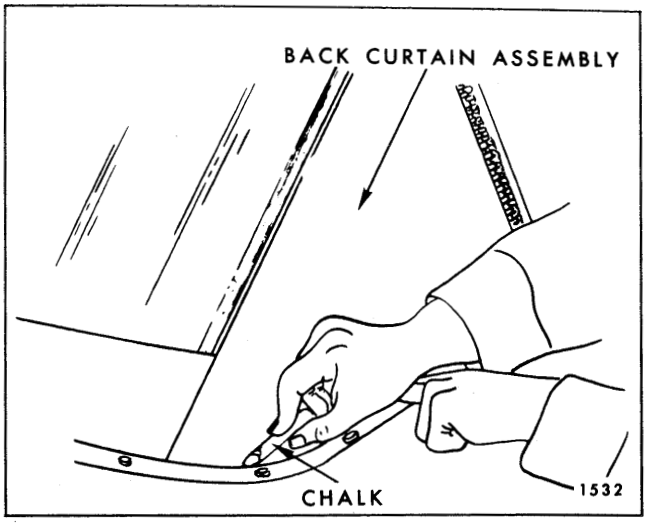

Fig. 6-57—Marking Back Curtain

weld finishing molding. Re-adjust back curtain assembly as required (Fig. 6-57).

15. On "B, C & A" Styles, tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

CAUTION: Do not cut back curtain or side stay pad material.

16. Detach rear trim stick with attached back curtain assembly from body and install top trim cover assembly.

NOTE: Extra care in positioning new curtain at same location on trim stick as old curtain and aligning of trim stick attaching bolt holes in top material with holes in trim stick will allow reinstallation of top material to its original position with a minimum of refitting.

17. Install all previously removed trim and hardware.

BACK CURTAIN ZIPPER REPLACEMENT
All Styles Equipped With Dropping Back Curtain

If only the back curtain zipper is being replaced, use the Removal and Installation procedure for "Back Curtain Assembly (Complete)" and perform the following additional operations after the back curtain assembly has been removed from body (after step 15 of removal procedure).

1. Using chalk or similar material, on old zipper tape mark location of zipper in relation to edges of back window and upper valance webbing.

2. Cut stitches securing zipper tape to back curtain assembly and to upper valance webbing.

3. Transfer reference marks to new zipper assembly.

4. Sew new zipper tape to back curtain material and upper valance webbing.

NOTE: Zipper tape may be stapled to back

curtain and upper valance webbing to aid in holding zipper in proper position during sewing operation.

5. Install back curtain assembly as described under Installation procedure for "Back Curtain Assembly (Complete)".

HYDRO-LECTRIC SYSTEM—ALL EXCEPT "Z" BODY

DESCRIPTION

The high pressure hydro-lectric unit used in the convertible bodies, consists of a 12 volt reversible type motor, a rotor-type pump, two hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. On the "A" Series the unit is installed in the body directly behind rear seat back. (Fig. 6-58). On the "B & C" Series the unit is installed in the body beneath the rear seat back panel (Fig. 6-59).

Figure 6-60 illustrates and identifies the individual parts of the motor and pump assembly.

NOTE: When servicing the motor assembly or pump end plate assembly, it is extremely important that the small motor shaft "O" ring seal is properly installed over the motor armature shaft and into the pump end plate assembly prior to installing the pump rotors or the motor shaft drive ball.

MOTOR AND PUMP ASSEMBLY

Removal

1. Operate folding top to full "up" position.
2. Disconnect positive battery cable.
3. a. On "A" Styles, place protective covering over rear seat cushion and back.

   b. On "B & C" Styles, remove rear seat cushion and back.
4. Working inside body, detach front edge of folding top compartment bag from rear seat back panel.
5. On "A" Body Styles, working on inside of body over rear seat back, remove pump and motor shield attaching screws and remove shield.
6. Remove clips securing wire harness and hydraulic hose to rear seat back panel. (Figs. 6-58 and 6-59).
7. a. On "A" Body Styles disconnect motor leads from wire harness and ground attaching screws (Fig. 6-58).

   b. On "B & C" Body Styles at rear seat back panel, disconnect wiring harness and remove ground wire attaching screw (Fig. 6-59).
8. To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan. (Figs. 6-59 and 6-58).
9. Place absorbent rags below hose connections and end of reservoir.
10. With a straight-bladed screwdriver, vent reservoir by removing filler plug; then install plug.

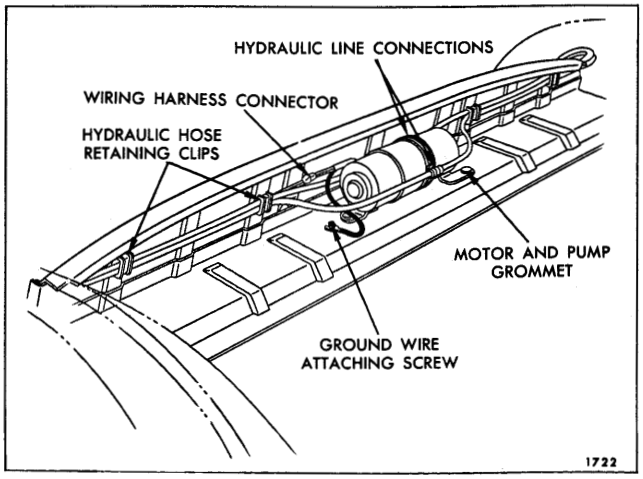

Fig. 6-58—Motor And Pump Assembly

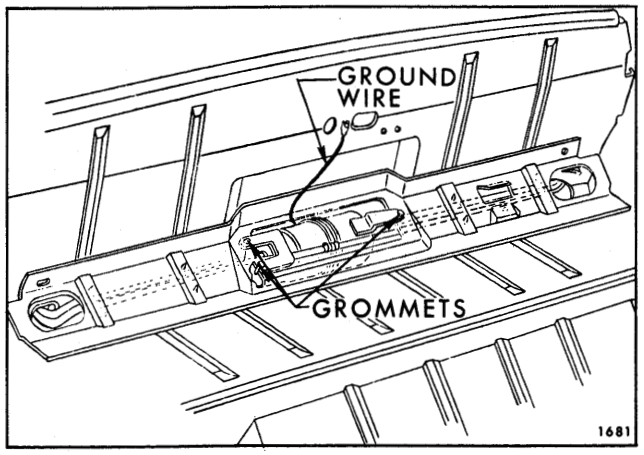

Fig. 6-59—Hydro-Lectric Motor And Pump Assembly

NOTE: Venting reservoir is necessary in this "sealed-in" unit to equalize air pressure in reservoir to that of the atmosphere. This operation prevents the possibility of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.

11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid. (Figs. 6-58 and 6-59). Use a cloth to absorb any leaking fluid, then remove unit from rear compartment.

Installation

1. If a replacement unit is being installed, fill reservoir unit with specified Delco No. 11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super No. 11 or its equivalent). See "Filling of Hydro-Lectric Reservoir".

2. Connect hydraulic hoses, engage attaching grommets in panel and connect wiring.

3. Connect battery and operate top through its up and down cycles until all air has been "bled" from hydraulic circuit. See "Filling of Hydro-Lectric Reservoir".

4. Check connections for leaks and recheck fluid level in reservoir.

5. Install all previously removed parts.

RESERVOIR TUBE

Disassembly From Motor and Pump Assembly

1. Remove motor and pump assembly from body.

2. Scribe a line across pump end plate and reservoir tube to insure a correct assembly of parts. See Fig. 6-61.

3. With a straight-bladed screwdriver, remove reservoir filler plug. Note sealing ring around plug.

4. Drain fluid from reservoir into a clean container.

5. With suitable tool, remove bolt from end of assembly and remove reservoir tube. Note sealing rings around bolt and between end of reservoir tube and pump cover plate assembly.

Assembly To Motor and Pump Assembly

1. Position sealing ring on pump and assembly reservoir tube to pump according to scribe marks.

NOTE: Bracket assembly on tube should be located at outer end when tube is assembled to pump.

2. Install and tighten attaching bolt.

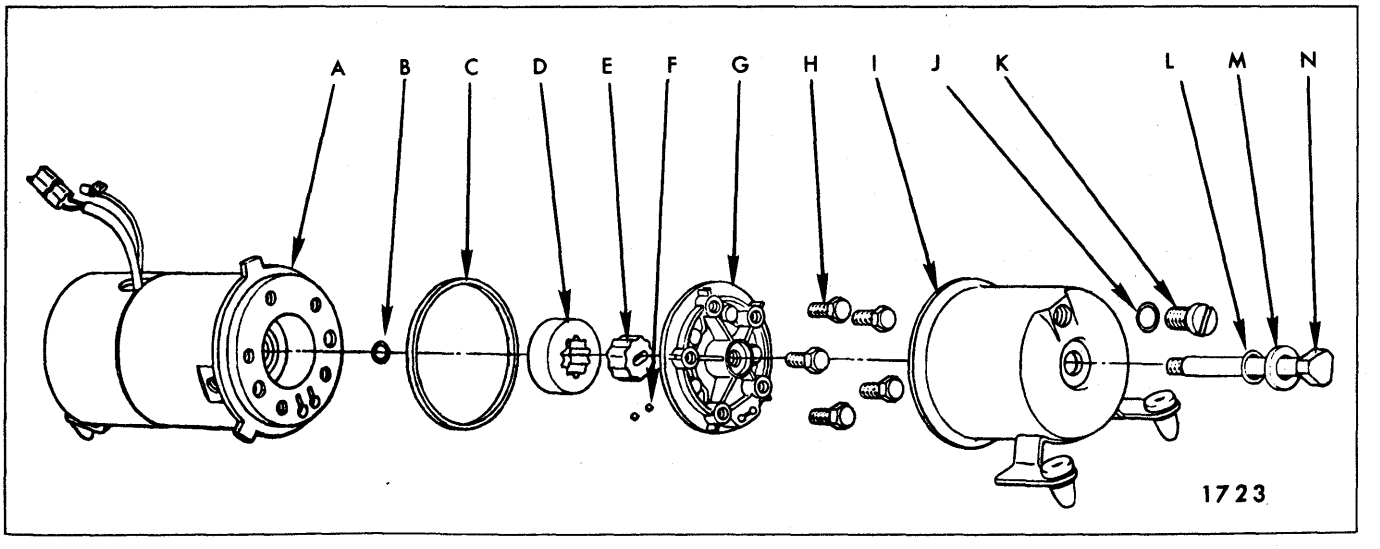

Fig. 6-60—Hydro-Lectric Motor And Pump Disassembled

A. Motor Assembly
B. Motor Shaft "O" Ring Seal
C. Reservoir Seal
D. Outer Pump Rotor
E. Inner Pump Rotor
F. Fluid Control Valve Balls
G. Pump Cover Plate Assembly
H. Pump Cover Attaching Screws
I. Reservoir Tube And Bracket Assembly
J. Reservoir Filler Plug "O" Ring Seal
K. Reservoir Filler Plug
L. Reservoir End Plate Attaching Bolt "O" Ring Seal
M. Reservoir End Plate Attaching Bolt Washer
N. Reservoir End Plate Attaching Bolt

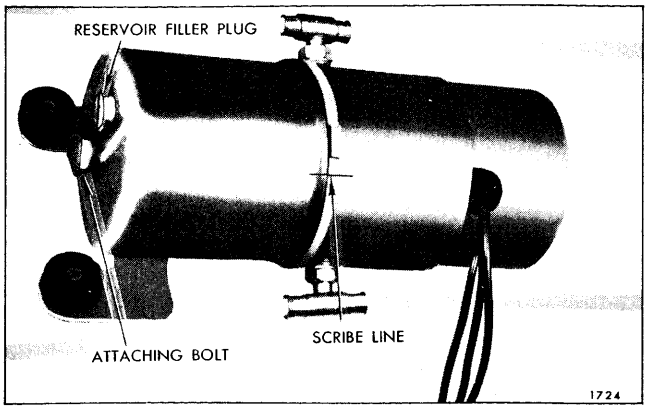

Fig. 6-61—Hydro-Lectric Motor And Pump Assembly

3. Place unit in horizontal position and fill with fluid until fluid level is within 1/4" of lower edge of filler plug hole.

4. Make sure that sealing ring is on filler plug before installing filler plug.

OPERATION OF FOLDING TOP

When the control switch is actuated to the "up" position, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control switch knob is actuated to the "down" position, the feed wire is connected to the dark green motor lead and the motor and pump assembly operate in a reversed direction to force the hydraulic fluid through the hoses to the top of the cylinders. The fluid forces the piston rods in the cylinders downward, thus lowering the top. The fluid in the bottom of the cylinders returns to the pump for recirculation to the top of the cylinders.

OPERATION OF PUMP ASSEMBLY

The rotor type pump assembly is designed to deliver a maximum pressure in the range of 340 psi to 380 psi. The operation of the pump assembly when raising the top is as follows:

1. Raising the Top. When the red motor lead is energized the motor drive shaft turns the rotors clockwise as indicated by the large arrow in Figure 6-62. The action of the pump rotors forces the fluid under pressure to the bottom of each cylinder forcing the piston upward. This action causes the fluid above the piston in each cylinder to be forced into the pump, which recirculates the fluid to the bottom of the cylinders. The additional fluid required to fill the cylinder due to piston rod displacement is drawn from the reservoir.

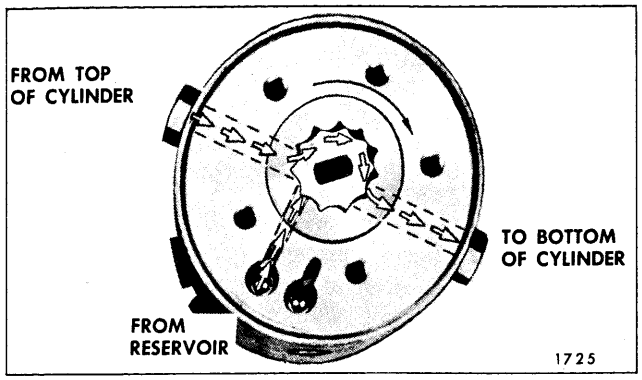

Fig. 6-62—Operation Of Pump To Raise Top

2. Lowering the Top. When the green motor lead is energized the motor drive shaft turns the rotors counterclockwise as indicated by the large arrow in Figure 6-63. The action of the pump rotors forces the fluid under pressure to the top of each cylinder. This action causes the fluid below the piston in each cylinder to be forced into the pump which recirculates the fluid to the top of each cylinder. The surplus hydraulic fluid die to piston rod displacement flows into the reservoir.

FLUID CONTROL VALVE

The fluid control valve consists of a rocker arm installed in the pump cover plate, and two steel balls. Figure 6-64 shows the top surface of the pump cover plate. The dotted lines indicate the cavities on the bottom side of the cover plate. The cavities are designed to permit fluid flow between

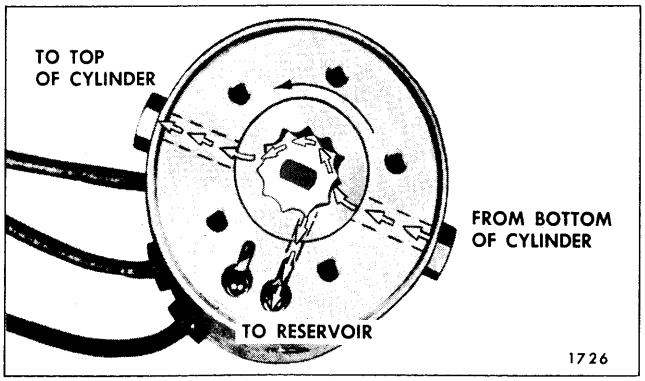

Fig. 6-63—Operation Of Pump To Lower Top

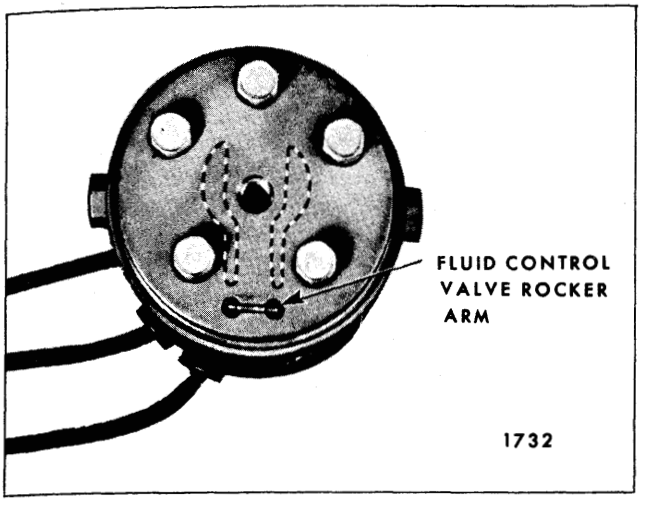

Fig. 6-64—Pump Cover Plate

pump rotors and the reservoir. Figure 6-65 and Figure 6-66 illustrates the operation of the fluid control valve.

MECHANICAL CHECKING PROCEDURE

If there is a failure in the hydro-lectric system and the cause is not evident the mechanical operation of the top should first be checked. If the folding top assembly appears to have a binding action, disconnect the top lift cylinder piston rods from the top linkage and then manually raise and lower the top. The top should travel through its up and down cycle without any evidence of binding action. If a binding action is noted when the top is being locked at the header, check the alignment of the door windows, ventilators and rear quarter windows with relation to the side roof rail weatherstrips. Make all necessary adjustments for correct top alignment. See "Folding Top Adjustments". If a failure continues to exist after a check for mechanical failure has been completed, the hydro-lectric system should then be checked for electrical or hydraulic failures.

ELECTRICAL CHECKING PROCEDURE

If a failure in the hydro-lectric system continues to exist after the mechanical operation has been checked, the electrical system should then be checked. A failure in the electrical system may be caused by a low battery, breaks in wiring, faulty connections, mechanical failure of an electrical component, or wires or components shorting to one another or to body metal. Before beginning checking procedures, check battery according to recommended procedure.

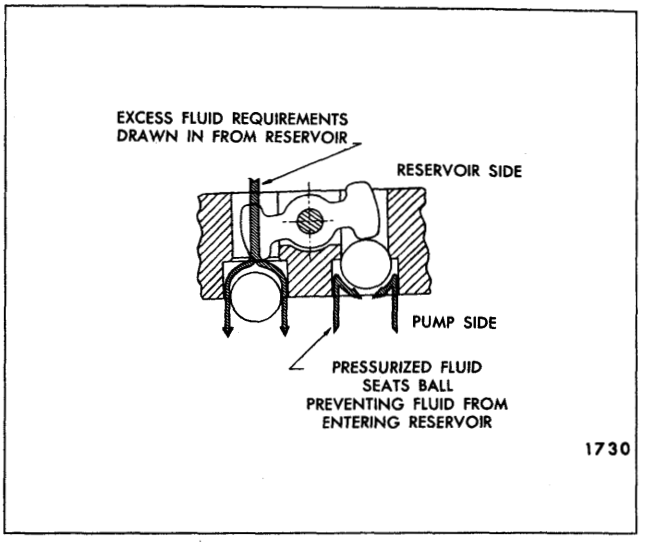

Fig. 6-65—Fluid Control Valve,

1. Check for Current at Folding Top Control Switch.

a. Disengage terminal block from rear of switch.

b. Connect light tester to central feed terminal of switch terminal block.

c. Ground light tester ground lead to body metal.

d. If light tester does not light, there is an open or short circuit between power source and switch.

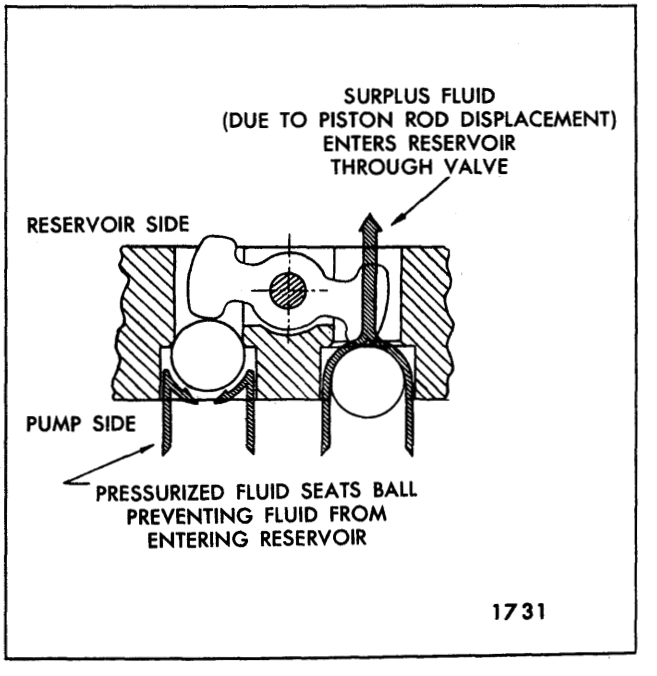

Fig. 6-66—Fluid Control Valve

2. Checking the Folding Top Control Switch.

If there is current at the feed wire terminal of the terminal block, operation of switch can be checked as follows:

a. Place a #12 jumper wire on switch terminal block between center terminal (feed) and one motor wire terminal. If motor operates with jumper wire, but did not operate with switch, switch is defective.

b. Connect jumper wire between center terminal and other motor wire terminal on switch terminal block. If motor operates with jumper wire, but did not operate with switch, switch is defective.

3. Checking Switch to Motor Lead Wires.

If switch is found to be operating properly, the switch to motor lead wires can be checked as follows: See Figure 6-67.

a. Disconnect green switch-to-motor wire from motor lead in rear compartment.

b. Connect a light tester to green switch-to-motor wire terminal.

c. Ground light tester ground lead to body metal.

d. Actuate switch to "down" position. If tester does not light, there is an open or short circuit in wire.

e. Disconnect red switch-to-motor wire from motor lead.

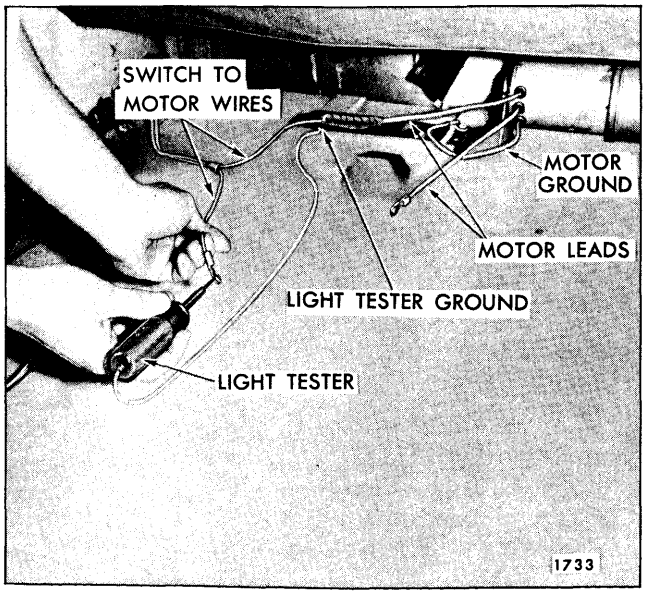

Fig. 6-67—Checking Motor Wiring

f. Connect light tester to red switch-to-motor wire terminal.

g. Actuate switch to "up" position. If tester does not light, there is an open or short circuit in wire.

4. Checking the Motor Unit.

If a light tester indicates current at the motor lead terminals of the switch-to-motor wires, but motor unit does not operate from switch, a final check of the motor unit can be made as follows:

a. Check connection of motor ground wire to body metal. (See Figs. 6-58 and 6-59.)

b. Connect a #12 jumper wire from battery positive pole to motor lead terminal that connects to green switch-to-motor wire. The motor should operate to lower top.

c. Connect jumper wire to motor lead terminal that connects to red switch-to-motor wire. The motor should operate to raise top.

d. If motor fails to operate on either or both of these checks, it should be repaired or replaced.

e. If motor operates with jumper wire but will not operate from switch-to-motor wires, the trouble may be caused by reduced current resulting from damaged wiring or poor connections.

HYDRAULIC CHECKING PROCEDURE

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in hydraulic system, obstructions or kinks in hydraulic hoses or faulty operation of a cylinder or pump.

1. Checking Hydraulic Fluid Level in Reservoir

a. Operate top to raised position.

b. On "A" body styles, at rear compartment, remove pump and motor shield.

c. On "B & C" body styles perform the following operations:

(1) Detach front edge of folding top compartment bag from rear seat back panel.

(2) Remove clips securing hydraulic hose to rear seat back panel.

(3) Disengage pump attaching grommets from compartment pan brace.

d. Place absorbent rags below reservoir at filler plug.

e. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within 1/4 inch of lower edge of filler plug hole.

f. If fluid is low, add Delco #11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super #11 or its equivalent) to bring to specified level. See "Filling of Hydro-Lectric Reservoir".

g. Install filler plug.

h. On "A" body styles, install pump and motor shield.

i. On "B & C" body styles install motor and pump assembly and all previously removed parts.

2. Checking Operation of Lift Cylinders.

a. On all styles remove rear seat cushion and folding top compartment side panel assemblies. On "B & C" body styles remove rear seat back.

b. Operate folding top control switch and observe lift cylinders during "up" and "down" cycles for these conditions:

(1) If movement of cylinder is uncoordinated or sluggish when the motor is actuated, check hydraulic hoses from motor and pump to cylinder for kinks.

(2) If one cylinder rod moves slower than the other, cylinder having slower moving rod is defective and should be replaced.

(3) If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See "Checking the Pressure of the Pump".

NOTE: To insure proper operation of the lift cylinders, the top lift cylinder rods should be cleaned and lubricated at least twice a year. To perform these operations, raise top to "up" position and wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation and/or accumulated grime. With another clean cloth, apply a light film of brake fluid to the piston rods to act as a lubricant.

CAUTION: Exercise care so that brake fluid does not come in contact with any painted or trimmed parts of the body.

3. Checking Pressure at the Pump

a. Remove motor and pump assembly from rear compartment.

b. Install plug in one port, and pressure gauge in port to be checked. See Figure 6-68.

c. Actuate motor with applied terminal voltage within range of 9.5 volts to 11.0 volts. Pressure gauge should show a pressure between 340 psi and 380 psi.

d. Check pressure in other port.

NOTE: A difference in pressure readings may exist between the pressure port for top of cylinders and pressure port for bottom of cylinders. This condition is acceptable if both readings are within the limit of 340 psi and 380 psi.

e. If the pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

FOLDING TOP LIFT CYLINDER

Removal and Installation

1. Lock top to windshield header.

2. Disconnect positive battery cable to prevent accidental operation of motor and pump, particularly when hydraulic hoses are disconnected from cylinder.

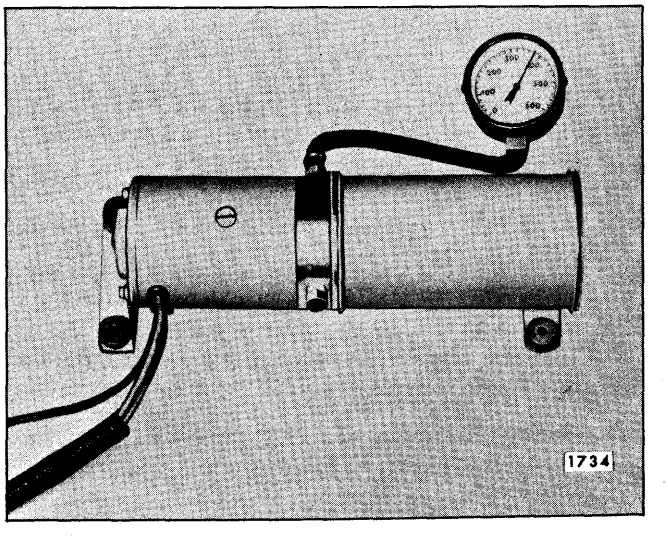

Fig. 6-68—Checking Pump Pressure

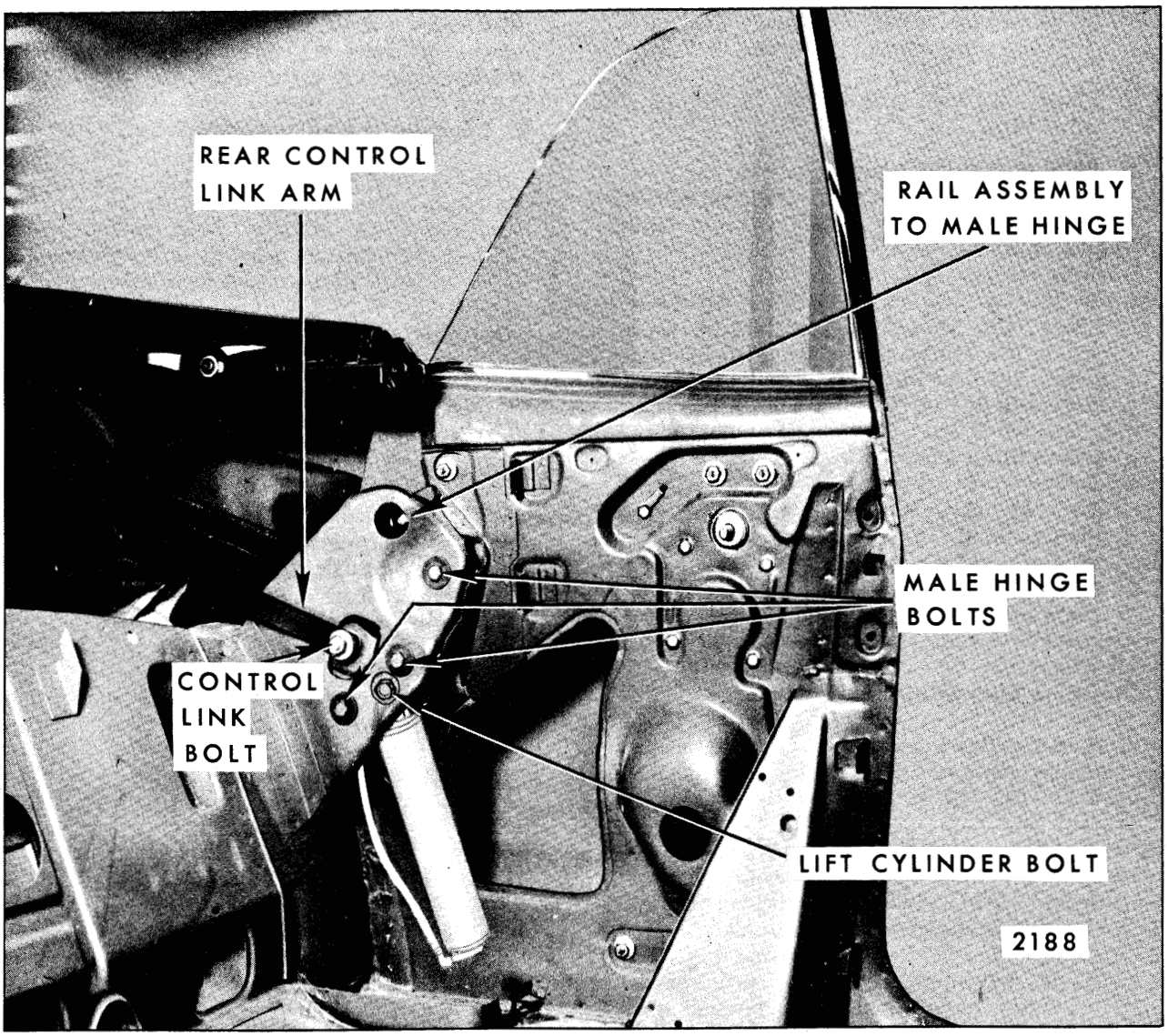

Fig. 6-69—"A" Body Hydraulic Lift Cylinder Attachment

3. Remove rear seat cushion and seat back.
4. Remove folding top compartment side trim panel assembly on side affected.
5. Remove clips securing hydraulic hose to rear seat back panel.
6. Remove attaching nut, bolt, bushing and washer from upper end of cylinder rod, Figures 6-69 and 6-70.
7. Remove inner and outer bolt securing cylinder to male hinge (Fig. 6-70).
8. Carefully move cylinder to inboard side of top compartment brace, exposing upper and lower hydraulic hose to cylinder connections.
9. Prior to disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid.
10. Disconnect hydraulic connections from old cylinder and transfer to new cylinder assembly.
11. Install new cylinder to male hinge.

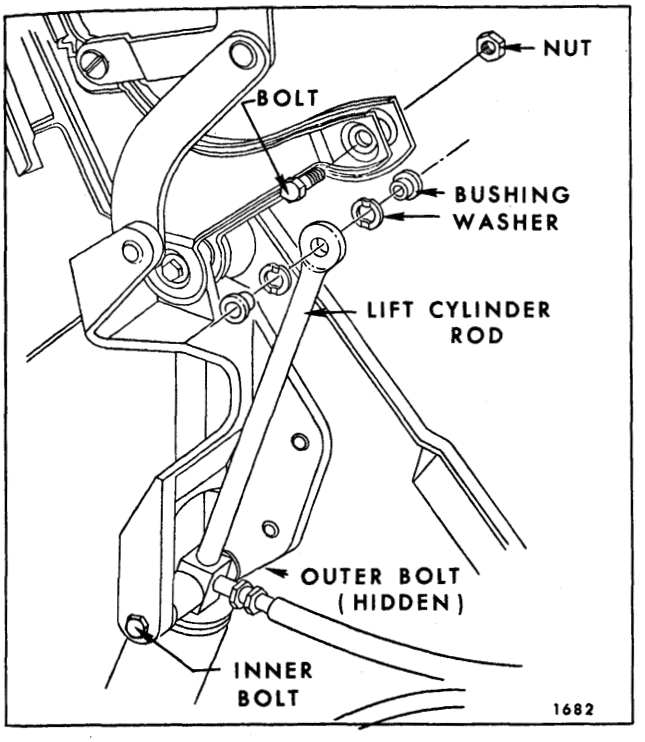

Fig. 6-70—"B and C" Body Hydraulic Lift Cylinder Attachment

12. Connect positive battery cable to battery terminal.

13. Using power, raise cylinder piston rod to extended position.

14. Attach upper end of cylinder rod to folding top linkage using previously removed nut, bolt, bushing and washer.

15. Operate folding top assembly down and up several times; then check and correct level of hydraulic fluid in reservoir. See "Filling of Hydro-Lectric Reservoir".

16. Install hydraulic hose to rear seat back panel with clips and install all previously removed trim and hardware.

FILLING OF HYDRO-LECTRIC RESERVOIR

This procedure virtually eliminates discharge or spillage of hydraulic fluid and possible trim damage while filling and bleeding system.

1. Filler Plug Adapter.

   a. Drill 1/4 inch diameter hole through center of spare reservoir filler plug.

   b. Install two inch length of metal tubing (1/4" O.D. x 3/16" I.D.) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection. See Figure 6-71.

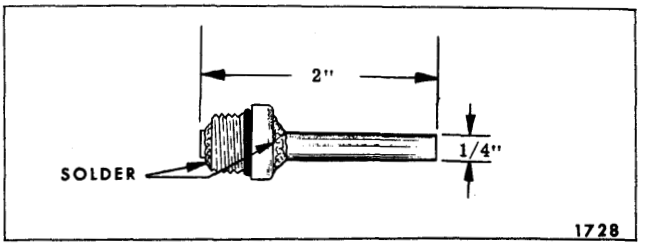

Fig. 6-71—Reservoir Filler Plug Adapter

2. Filling and Bleeding Reservoir.

   a. On "A" body styles, with top in raised position, remove folding top compartment bag material from rear seat back panel and remove pump and motor shield.

   b. On "B & C" body styles perform the following:

      (1) Remove rear seat cushion and back.

      (2) Working from inside of body, detach front edge of folding top compartment bag from rear seat back panel.

      (3) Remove clips securing hydraulic hose to rear seat back panel.

      (4) To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from compartment pan brace.

   c. Place absorbent rags below reservoir at filler plug. Using a straight-bladed screwdriver, slowly remove filler plug from reservoir.

IMPORTANT: When installing new or overhauled motor and pump assembly, as a bench operation, fill reservoir to specified level with hydraulic fluid. This operation is necessary as pump must be primed prior to operation to avoid drawing excessive amount of air into hydraulic system.

   d. Install filler plug adapter to reservoir and attach four or five foot length of 3/16 inch I.D. rubber tubing or hose to filler plug tubing.

   e. Install opposite end of hose into a container of GM Hydraulic Brake Fluid Super #11 or equivalent. (Fig. 6-72 shows typical set-up.)

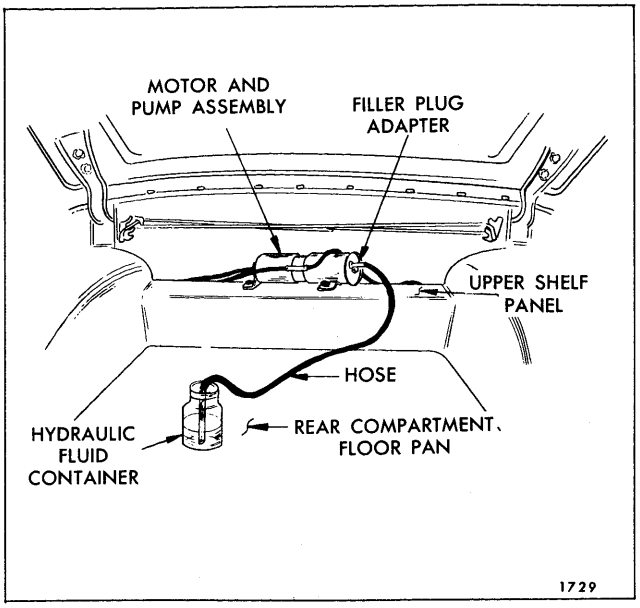

Fig. 6-72—Filling Reservoir

NOTE: Container should be placed in rear compartment area of body, below level of fluid in the reservoir. In addition, sufficient fluid must be available in container to avoid drawing air into hydraulic system.

f. Operate top to down or stacked position. After top is fully lowered, continue to operate motor and pump assembly (approximately 15 to 20 seconds), or until noise level of pump is noticeably reduced. Reduction in pump noise level indicates that hydraulic system is filling with fluid.

g. Operate top several times or until operation of top is consistently smooth in both up and down cycles.

h. Remove hose from filler plug tubing and remove filler plug adapter from reservoir.

i. Check level of fluid in reservoir and reinstall original filler hole plug.

NOTE: Fluid level should be within 1/4 inch of lower edge of filler plug hole.

ACTUATOR ASSEMBLY—All "Z" Body Styles EQUIPPED WITH ELECTRICALLY OPERATED FOLDING TOPS

REMOVAL

1. Remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected.
2. Lock top to windshield header.
3. Fully raise all door and rear quarter windows.
4. Disconnect drive cable from actuator assembly.
5. Remove bolts securing side roof rear rail to sector gear (Fig. 6-73).
6. Mark location of control link adjusting plate on folding top compartment brace (Fig. 6-73).
7. Remove control link adjusting plate attaching bolts.
8. Mark location of female hinge attaching bolt washers on folding top compartment brace (Fig. 6-73).
9. Remove female hinge attaching bolts and remove actuator assembly from body.

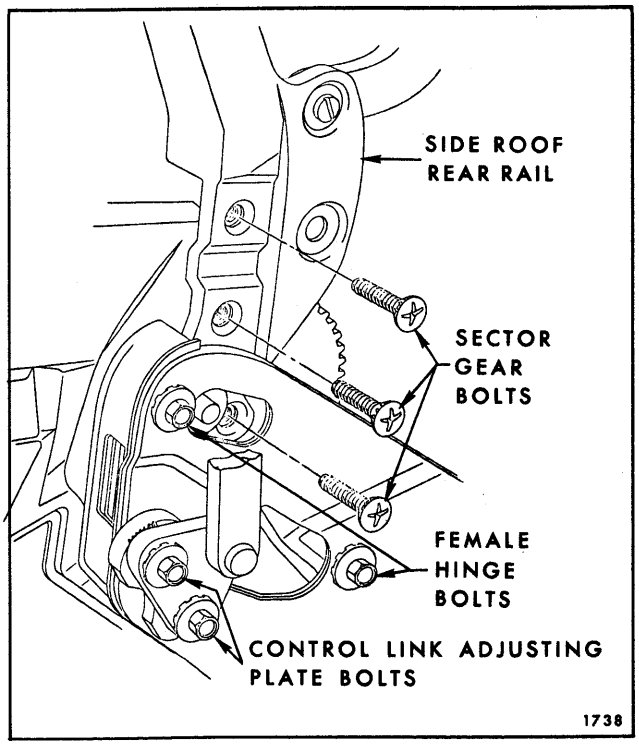

Fig. 6-73—Actuator Attachment

INSTALLATION

1. Install female hinge attaching bolts to new actuator assembly, using washer scribe marks as guide (Fig. 6-73).

2. Install control link adjusting plate attaching bolts, using scribe mark of control link as guide (Fig. 6-73).

IMPORTANT: Be sure female hinge and control link attaching bolts are tight and top is locked to windshield header.

3. Manually move sector gear until all attaching bolts can be easily installed; then tighten sector gear attaching bolts (Fig. 6-73).

NOTE: New actuator assembly should now be "in phase" with opposite lift assembly.

4. Connect drive cable to actuator assembly.

5. Unlock top from windshield header.

6. Operate top to down or "stacked" position.

IMPORTANT: Care should be exercised when operating top during first test cycle to be sure that both actuators are synchronized or "in phase". Operation of top when actuators are "out of phase" may cause damage to side roof rails, actuators or convertible top material.

7. If electric lift units are "out of phase", proceed as follows:

   a. Remove compartment bag material from rear seat back panel.

   b. Disconnect both drive cables from motor assembly (Fig. 6-74).

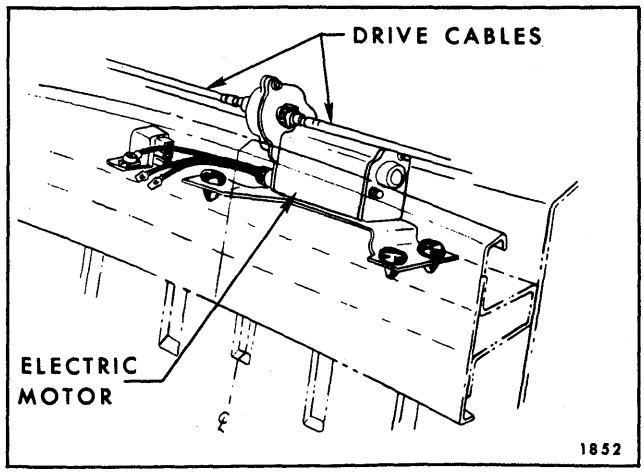

Fig. 6-74—Folding Top Electric Motor and Cables

   c. Manually raise top above windshield header.

   d. Lock top to windshield header.

   e. Connect drive cables to motor.

   f. Operate top through one or two complete cycles.

NOTE: The above procedure may be repeated on an "as required" basis if top does not appear to be "in phase" after test cycle.

   g. Install compartment bag material to rear seat back panel.

8. Install folding top compartment side trim panel and rear seat back and cushion assembly.

INOPERATIVE FOLDING TOP IN DOWN ("STACKED") POSITION

1. Working over rear seat back, detach top compartment bag material from rear seat back panel.

2. Disconnect both drive cables from motor assembly (Fig. 6-74).

3. With aid of helper, manually raise folding top assembly and lock to windshield header.

4. To replace an actuator assembly see "Folding Top Actuator Assembly" removal and installation procedure.

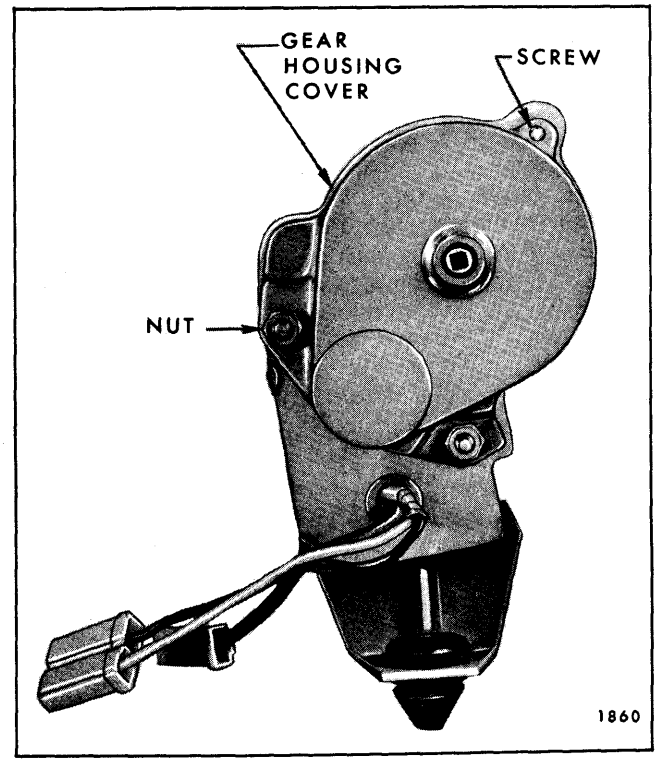

Fig. 6-75—Folding Top Lift Assembly

TOP LIFT ASSEMBLY

Disassembly and Assembly

1. Working over rear seat back, detach top compartment bag material from rear seat back panel.

2. Disconnect both drive cables from motor assembly.

3. Remove nuts, washers and screw securing gear housing cover to motor assembly (Fig. 6-75).

4. Disassemble folding top lift assembly as shown in Figure 6-76.

5. To assemble, reverse disassembly procedure.

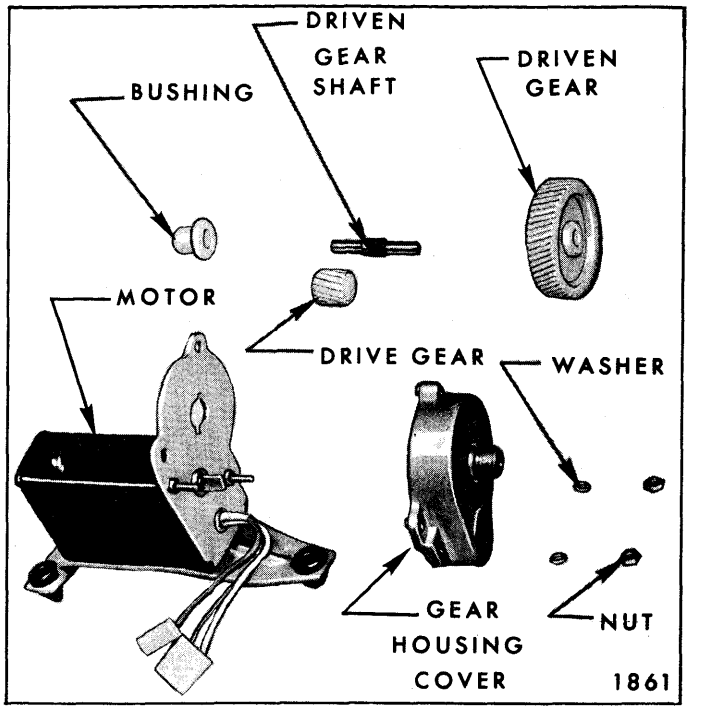

Fig. 6-76—Folding Top Lift Disassembled

FOLDING TOP MANUAL LIFT ASSEMBLY ALL CONVERTIBLE BODIES WITH MANUALLY—OPERATED FOLDING TOPS

DESCRIPTION

The manual lift assembly incorporates a dual-action heavy duty spring which helps compensate for the weight of the folding top mechanism when the top is at or near the full up or full folded positions. When the top is in the up position, the spring is under compression; when it is in the folded or stacked position, the spring is under tension.

CAUTION: Do not attempt to detach lift assembly when spring is under tension or compression.

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected.

2. Move top to midway position to relieve the manual lift springs. If both lift assemblies are to be serviced, have helper support folding top or place supporting props under front roof rail.

3. Remove attaching nut, bolt, bushing and washer from upper end of lift assembly.

4. Remove inner and outer bolt securing lift assembly to male hinge; then remove assembly from body (Fig. 6-77 for "A" body and Fig. 6-78 for "Z" body).

5. To install manual lift assembly, reverse removal procedure. Operate folding top assembly down and up several times to insure proper operation.

FOLDING TOP CATCH CLIPS

The folding top catch clips snap over the folding top side roof center rails when the top is being lowered to the folded or stacked position. The catch clips prevent the spring-loaded manual lift arms from raising the top from this position. In order to raise the top, both catch clips must be disengaged from the side roof center rails. Each catch clip is attached to the folding top compartment side panels by two screws. Any adjustments made to change stack height of the folding top

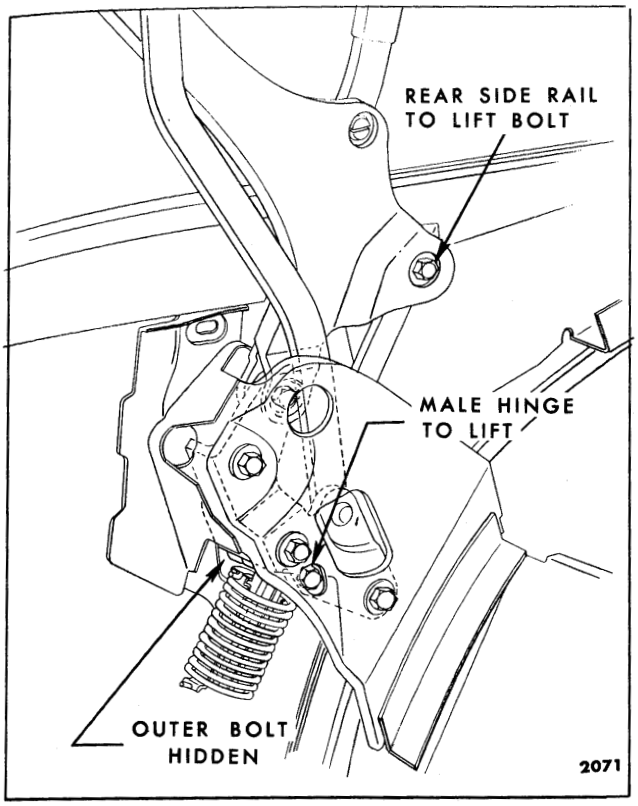

Fig. 6-77—"A" Body Manual Lift Assembly

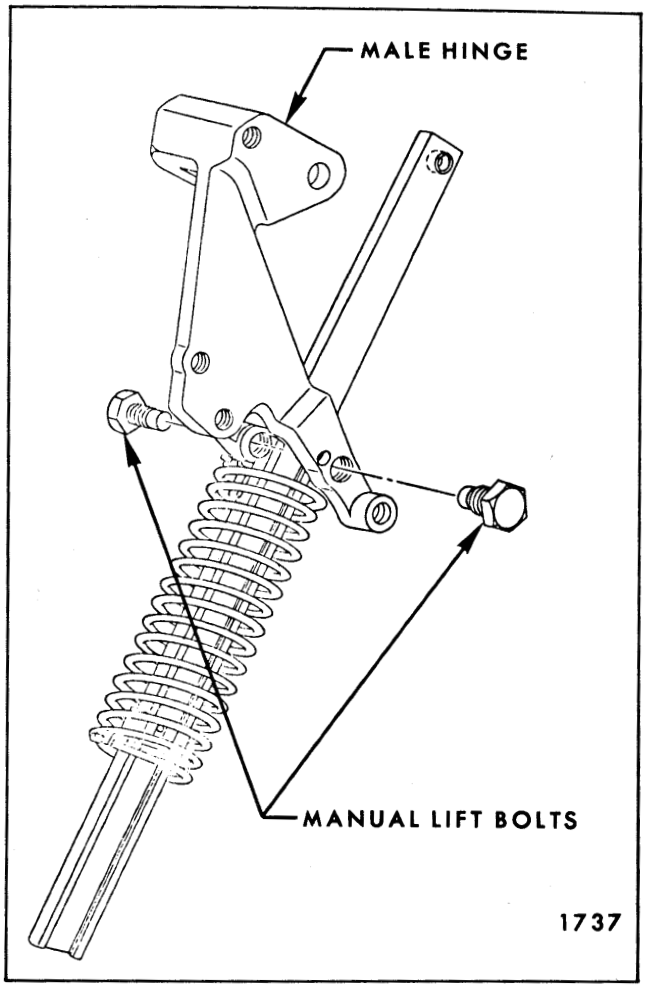

Fig. 6-78—Manual Lift Attachment

(See "Folding Top Adjustments") require corresponding adjustments to the catch clips.

FOLDING TOP ADJUSTMENTS—"A" Body

DESCRIPTION

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

CAUTION: When operating a manually-operated folding top, hands must be kept clear of side roof rail hinges and connecting linkages.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL WEDGE PLATE

The folding top front roof rail wedge plates are designed to contact the sunshade support and striker assembly thus aligning the front roof rail to the striker so that both side roof rail locks will easily engage with the strikers. In addition, the wedge plates act as a spacer between the front roof rail and windshield header when top is in the locked position.

If the front roof rail wedge plates do not contact the sunshade support and striker assemblies when top is locked to the windshield header, the right wedge plate may be adjusted as follows:

NOTE: The left wedge plate functions as a locator and is not adjustable.

1. Raise top assembly to half-open position.
2. Loosen wedge plate attaching screws (Fig. 6-79).

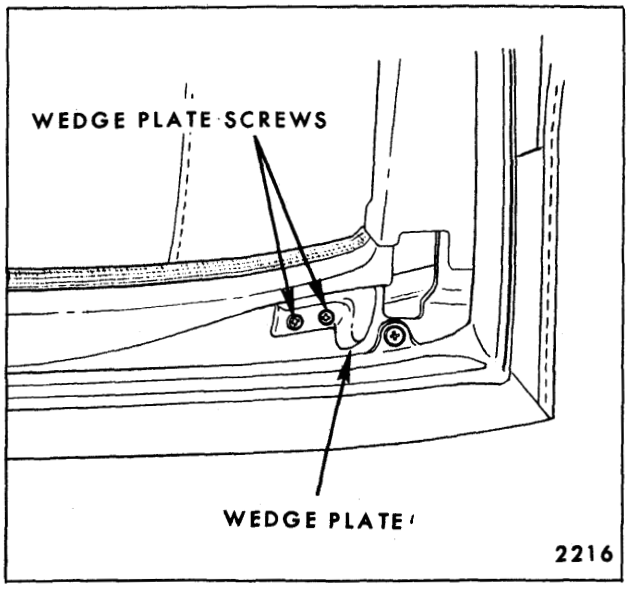

Fig. 6-79—Front Roof Rail Wedge Plate

3. Adjust wedge plate in or out sufficiently so that wedge plate will strike assembly when top is locked to windshield header.

4. Tighten attaching screws.

5. Lock top to windshield header.

6. Readjust wedge plate until desired adjustment is obtained.

NOTE: The sunshade support and striker assembly is not adjustable.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or too far rearward, the front roof rail may be adjusted as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.

2. Loosen lock assembly attaching screws on side roof front rail and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary. (See View "A", Fig. 6-80.)

NOTE: If additional adjustment is required, it can be made at folding top male hinge.

3. When front roof rail is properly adjusted, tighten lock assembly and install weatherstrip attaching screws.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.

2. With top in a half-open position, remove lock attaching screws; then remove lock assembly from front roof rail. (See View "A", Fig. 6-80).

3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook clockwise.

2. To reduce or decrease locking action, turn lock hook counterclockwise.

ADJUSTMENT OF TOP CONTROL LINK

1. With top in "up" position, if joint between front and center side roof rail is too high or too low, proceed as follows:

   a. Remove folding top compartment side trim panel.

   b. Loosen one bolt securing control link sufficiently to permit adjustment of link (See Fig. 6-81).

   c. Adjust side roof rail up or down allowing link to move up or down over serrations on support as required; then tighten bolt.

   d. Reinstall folding top compartment side trim panel.

ADJUSTMENT OF TOP AT MALE HINGE

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:

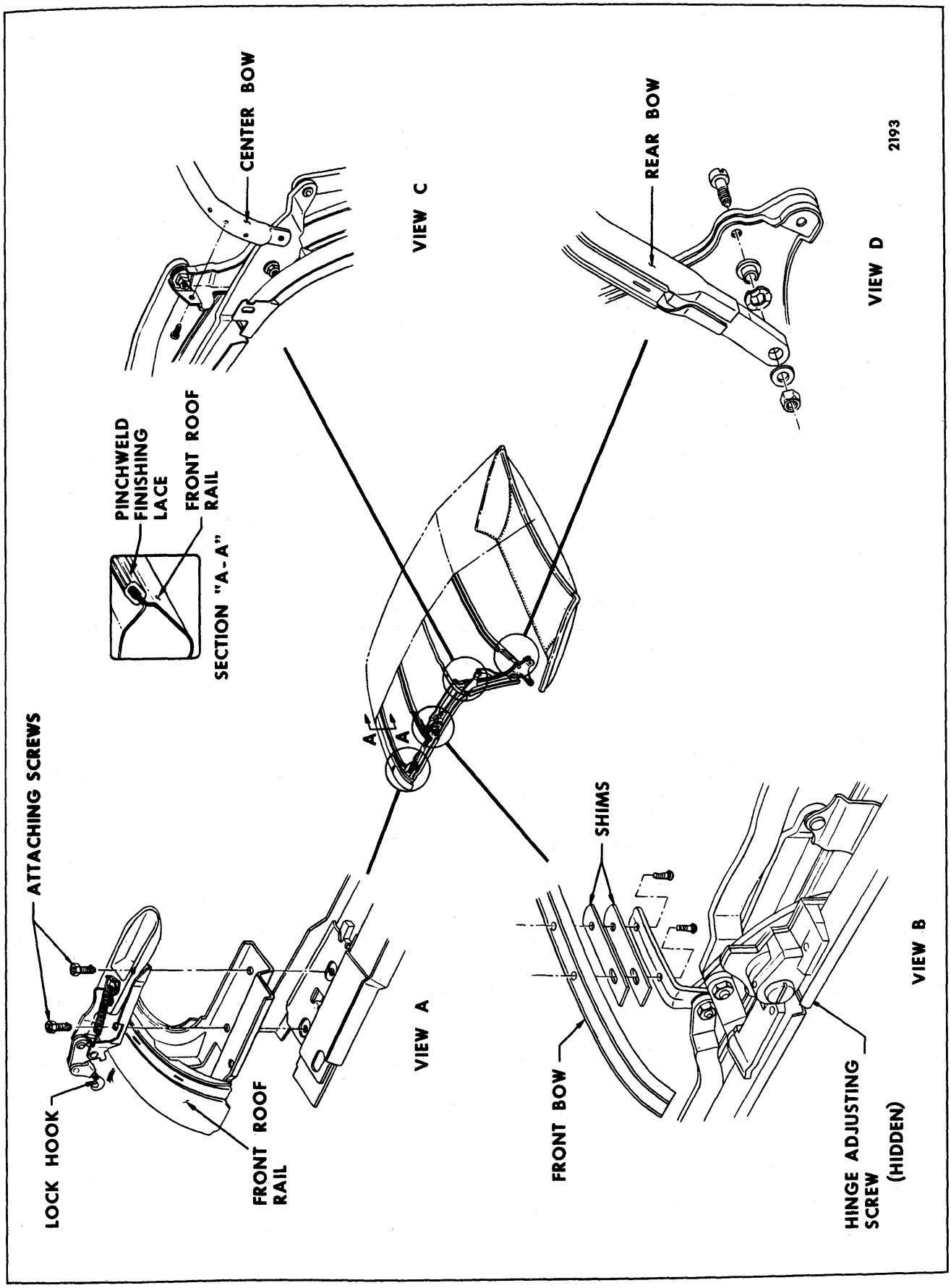

Fig. 6-80—"A" Body Folding Top Adjustments

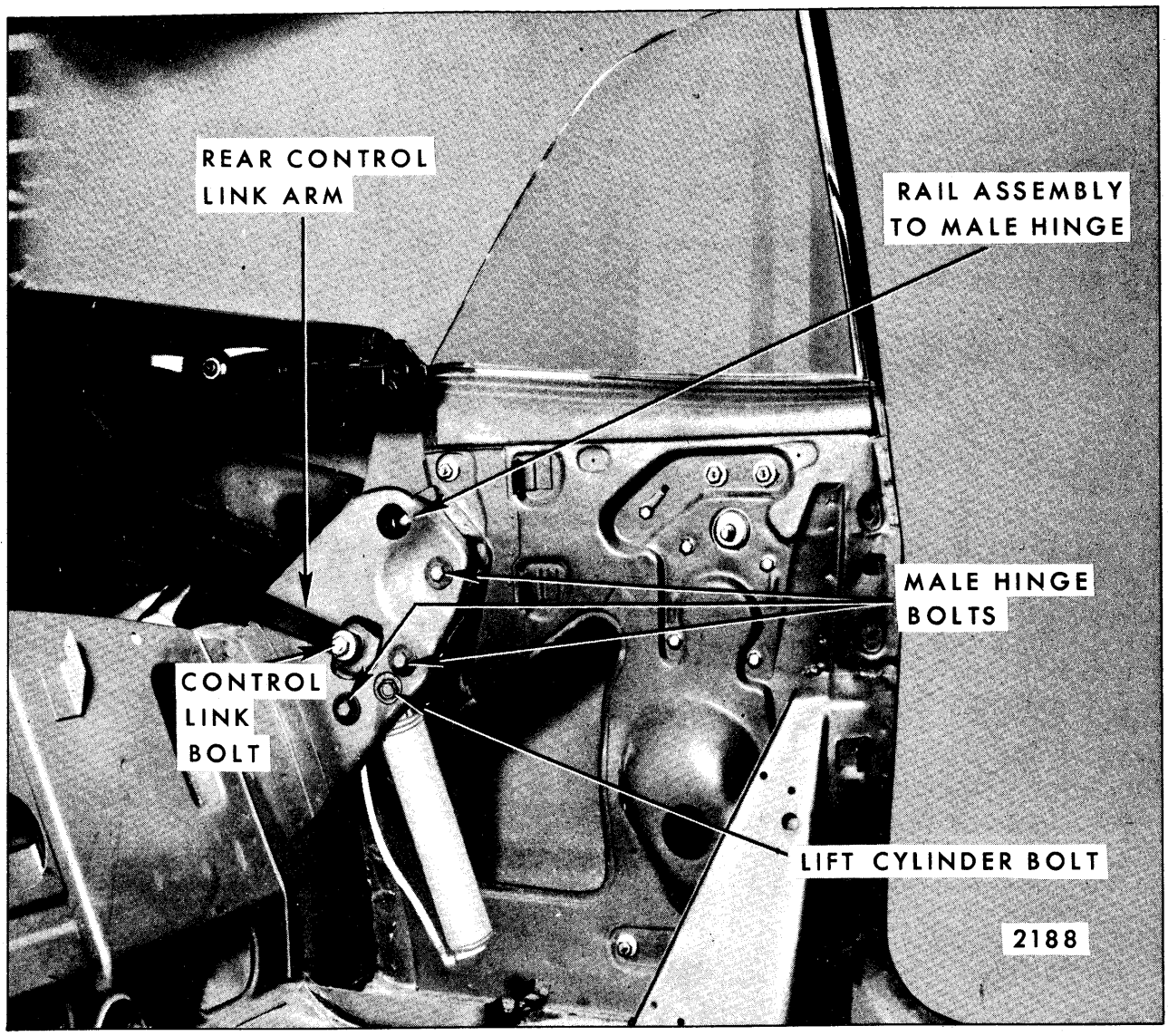

Fig. 6-81—"A" Body Convertible Top Linkage Attachments

a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.

b. Loosen male hinge assembly (Fig. 6-81).

c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window, then tighten bolts.

d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit at top material at rear quarter trim stick; then tighten trim stick attaching bolts.

e. On styles equipped with manually operated folding tops adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware").

2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:

a. Scribe location of male hinge attaching

bolt washers and control link on folding top compartment brace.

b. Loosen male hinge assembly (see Fig. 6-81).

c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rail and rear quarter window.

d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.

e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

f. On styles equipped with manually-operated folding tops, adjust folding top catch clips as required. (See "Manually Operated Folding Top Hardware").

3. If top does not stack properly when top is in down position proceed as follows:

a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.

b. Loosen male hinge assembly.

c. Rotate male hinge forward to lower stack height or rearward to raise stack height (Fig. 6-81).

NOTE: When rotating male hinge be certain position of rear rail to male hinge is maintained (Fig. 6-81).

d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.

e. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required (see "Manually Operated Folding Top Hardware").

TROUBLE SHOOTING CHART

The following procedure describes and illustrates various types of folding top misalingment conditions, their apparent causes and the recommended procedure for their correction.

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise. (See View "A" in Fig. 6-80).
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail. (View "A" in Fig. 6-80).
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise. (See View "A" in Fig. 6-80).
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misalinged.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (see View "A" in Fig. 6-80).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward. (Fig. 6-81).
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward. (See View "A" in Fig. 6-80).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward. (Fig. 6-81).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward. (Fig. 6-81).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward and/or shim side roof rail rear weatherstrip forward as required (Fig. 6-81).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward. (Fig. 6-81).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required. (Fig. 6-81).
I. Sag at front to center side roof rail joint.	1. Control link misaligned.	Adjust control link downward. (Fig. 6-81).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise. (See View "B" in Fig. 6-80).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link misaligned.	Adjust control link upward. (Fig. 6-81).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise. (See View "B" in Fig. 6-80).
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned male hinge assembly.	Rotate male hinge forward or rearward as required. (Fig. 6-81).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 15-5/8" $\pm$ 1/16". The dimension is measured at approximate centerline of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.
	5. On manual tops, due to improperly adjusted catch slips.	Adjust catch clips downward as required.

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned male hinge assembly.	Rotate male hinge assembly rearward as required. (Fig. 6-81).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 15-5/8" ± 1/16". The dimension is measured at approximate centerline of body.
	3. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips upward as required.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron. (See View "B" in Fig. 6-80).
	2. Excessive width in top material.	If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material.
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron. (See View "B" in Fig. 6-80).
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center or rear quarter trim stick.	Retack top material as required.
P. Wind whistle or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required or when installing only one shim, use attaching screw part #4412844 (1/4 - 20 x 5/8" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

FOLDING TOP ADJUSTMENTS—"B & C" Body

DESCRIPTION

The folding top linkage consists of three sections of right and left side roof rails and a front roof rail connected by bolts, hinges, and a series of connecting links and bows. The top linkage is attached to the body at the rear quarter area by a male hinge. The hinge is attached directly to the quarter panel brace. The front roof rail is locked at the windshield header by two hook type locks which are an integral part of the two locking handles.

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL GUIDE

If the front roof rail guides do not properly engage with the striker assemblies when the top is in an "up" or raised position, the guides may be adjusted laterally as follows:

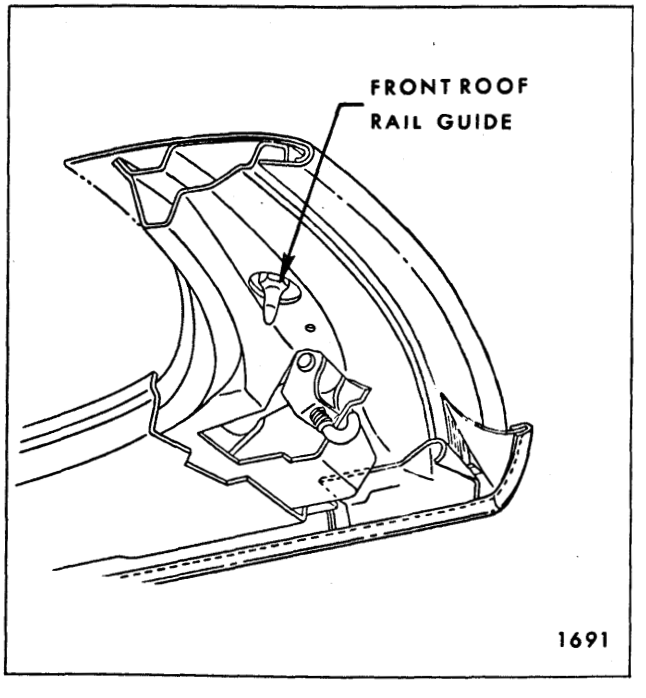

Fig. 6-82—Guide Adjustment

1. Raise top assembly to half-open position.
2. Loosen guide sufficiently to permit adjustment (Fig. 6-82).
3. Shift guide to desired position; then tighten guide.

NOTE: The sunshade support and striker assembly is not adjustable. In addition, adjustment of guide is limited. If additional adjustment is required, particularly fore and aft movement of the front roof rail, it can be obtained by adjusting the front roof rail and/or folding top male hinge.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or does not move forward enough to allow the guide studs on the front roof rail to enter holes in the striker assemblies, proceed as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen side roof rail lock attaching screws and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary (Fig. 6-83).

NOTE: If additional adjustment is required, it can be made at the folding top male hinge.

3. When front roof rail is properly adjusted, tighten lock attaching screws and install weatherstrip attaching screws.

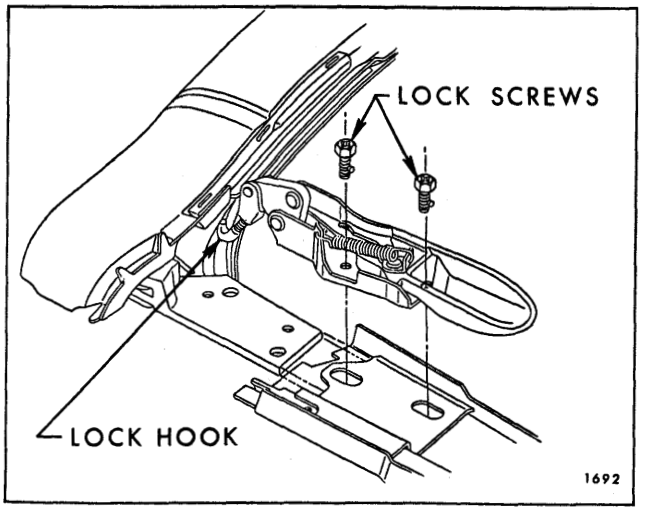

Fig. 6-83—Lock Attachment

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-open position, remove lock attaching screws; then, remove lock assembly from front roof rail (Fig. 6-83).
3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as as follows:

1. To tighten or increase locking action, turn lock hook clockwise.
2. To reduce or decrease locking action, turn lock hook counterclockwise.

ADJUSTMENT OF TOP CONTROL LINK ADJUSTING PLATE

1. With top in up position, if joint between front and center side roof rail is too high or too low, proceed as follows:
   a. Remove folding top compartment side trim panel.
   b. Scribe location of control link adjusting plate on folding top compartment brace.
   c. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (Fig. 6-84).
   d. Without changing fore and aft location of adjusting plate, adjust side roof rail up or down allowing adjusting plate to move up or down over serrations on support as required; then tighten bolts.
2. If top assembly does not stack properly when top is in down position, proceed as follows:
   a. Scribe location of control link adjusting plate on folding top compartment brace.
   b. Loosen bolts securing control link adjusting plate sufficiently to permit adjustment of plate.
   c. Without changing the up or down location of adjusting plate, move adjusting plate forward or rearward (horizontally) over serrations as required to obtain desired height; then tighten bolts.

NOTE: If top cannot be fully lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

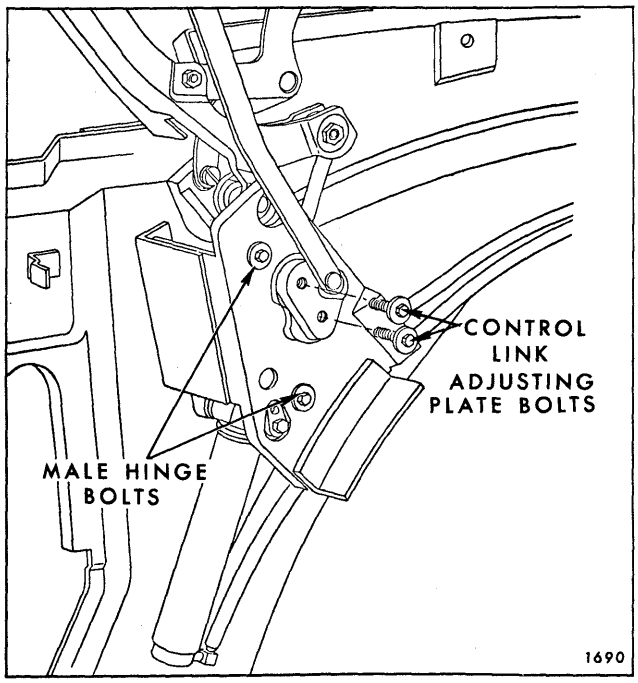

Fig. 6-84—Male Hinge Attachment

ADJUSTMENT OF TOP AT MALE HINGE SUPPORT

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary, adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:
   a. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.

b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-84).

c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window; then tighten bolts.

d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit of top material at rear quarter trim stick area. If necessary, adjust trim stick; then tighten trim stick attaching bolts.

e. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described. (See steps #1 and 2 under "Adjustment of Top Control Link Adjusting Plate").

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:

a. Mark location of male hinge attaching bolt washers and control link on folding top compartment brace.

b. Loosen male hinge assembly attaching bolts (Fig. 6-84).

c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rails and rear quarter windows.

d. Tighten attaching bolts, while maintaining proper alignment of vertical scribe marks.

e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

f. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described. (See steps #1 and 2 under "Adjustment of Top Control Link Adjusting Plate").

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

TROUBLE SHOOTING CHART

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise.
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise.
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (Fig. 6-85).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-84).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward (Fig. 6-85).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-84).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-84).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-84) and/or shim side roof rail rear weatherstrip forward as required.
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward (Fig. 6-84).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail weatherstrip downward as required.
I. Sag at front of center side roof rail joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate downward (Fig. 6-84).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise (Fig. 6-85).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate upward (Fig. 6-84).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise (Fig. 6-85).
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate rearward or forward as required (Fig. 6-84).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back panel rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 21-1/8" $\pm$1/16". The dimension is measured at approximate centerline of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate forward (Fig. 6-84).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinch-weld finishing molding is 21-1/8" ± 1/16". The dimension is measured at approximate centerline of body.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron (Fig. 6-85).
	2. Excessive width in top material.	If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material.
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron (Fig. 6-85).
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center of rear quarter trim stick.	Retack top material as required.
P. Wind whistles or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
	2. Front roof rail contour does not conform to windshield header.	Contour of front roof rail may be changed slightly by reforming rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required or when installing only one shim, use attaching screw part #4413016 (1/4 - 20 x 7/16" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish) or equivalent.

When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish) or equivalent.

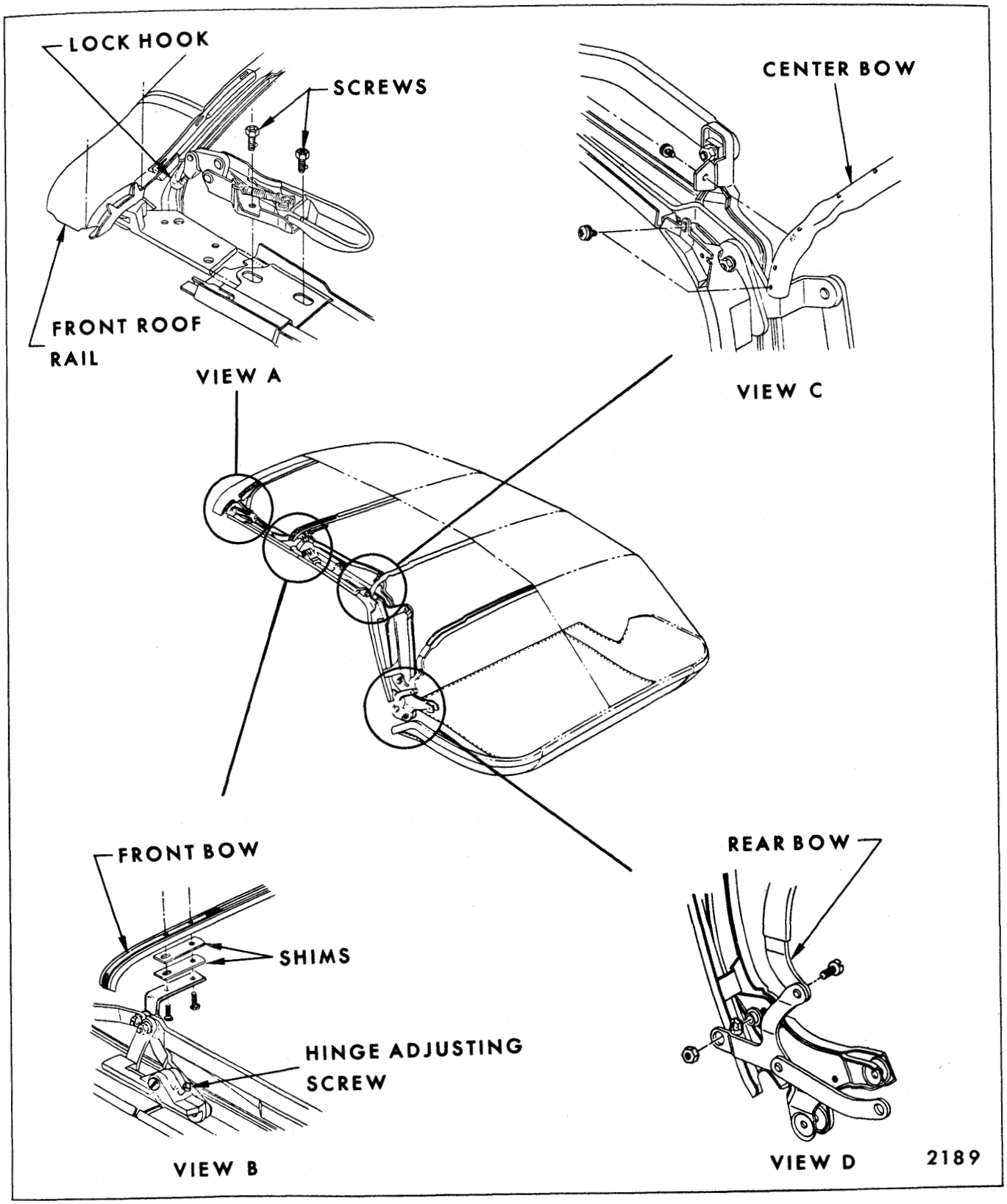

Fig. 6-85—"B and C" Body Folding Top Adjustments

a. Remove folding top compartment side trim panel.

b. Scribe location of control link adjusting plate on folding top compartment brace.

FOLDING TOP ADJUSTMENTS—"Z" Body

DESCRIPTION

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

CAUTION: When operating a manually-operated folding top, hands must be kept clear of side roof rail hinges and connecting linkages.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL WEDGE PLATE

The folding top front roof rail wedge plates are designed to contact the side of the sunshade support and striker assembly thus aligning the front roof rail to the striker so that both side roof rail locks will easily engage with the strikers. In addition, the wedge plates act as a spacer between the front roof rail and windshield header when top is in the locked position.

If the front roof rail wedge plates do not contact the sunshade support and striker assemblies when top is locked to the windshield header, the wedge plates may be adjusted as follows:

1. Raise top assembly to half-open position.
2. Remove wedge plate by removing inboard and outboard attaching screws (Fig. 6-86).
3. Using a file, slot inboard screw hole in wedge plate.
4. Install wedge plate and attaching screws.

NOTE: Do not tighten screws.

5. Move wedge plate in or out sufficiently so wedge plate will contact side of striker assembly when top is locked to windshield header. Tighten attaching screws.
6. Lock top to windshield header.

NOTE: The sunshade support and striker assembly is not adjustable.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or too far rearward, the front roof rail may be adjusted as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen side roof front rail lock attaching screws and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary (Fig. 6-87).

NOTE: If additional adjustment is required, it can be made at folding top male hinge.

3. When front roof rail is properly adjusted, tighten attaching screws and install weatherstrip attaching screws.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-open position, remove lock attaching screws; then remove lock assembly from front roof rail (Fig. 6-87).
3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook clockwise (Fig. 6-88).
2. To reduce or decrease locking action, turn lock hook counterclockwise (Fig. 6-87).

ADJUSTMENT OF TOP CONTROL LINK ADJUSTING PLATE

1. With top in "up" position, if joint between front and center side roof rail is too high or too low, proceed as follows:

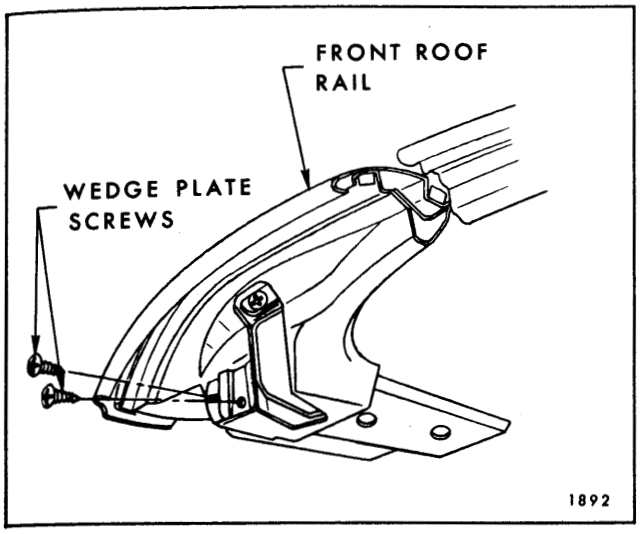

Fig. 6-86—Front Roof Rail Wedge Plate

c. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (Fig. 6-88).

d. Without changing fore and aft location of adjusting plate, adjust side roof rail up or down allowing adjusting plate to move up or down over serrations on support as required; then tighten bolts.

2. If top assembly does not stack properly when top is in down position, proceed as follows:

a. Loosen rear quarter trim stick attaching bolts on side to be adjusted.

b. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.

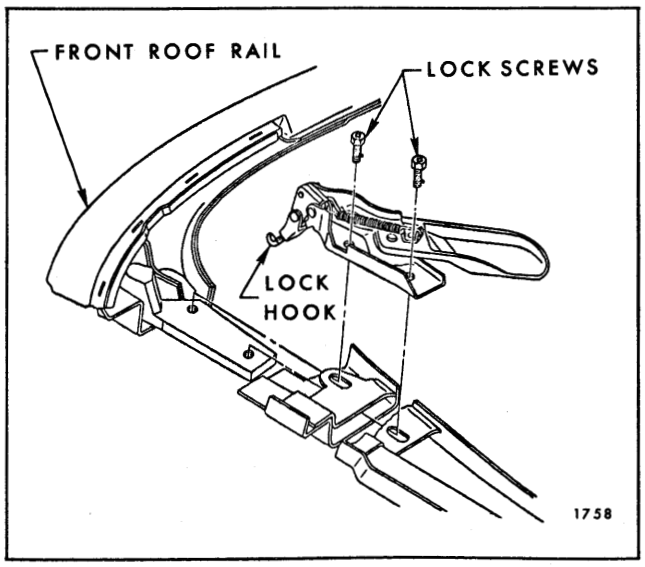

Fig. 6-87—Front Roof Rail Adjustment

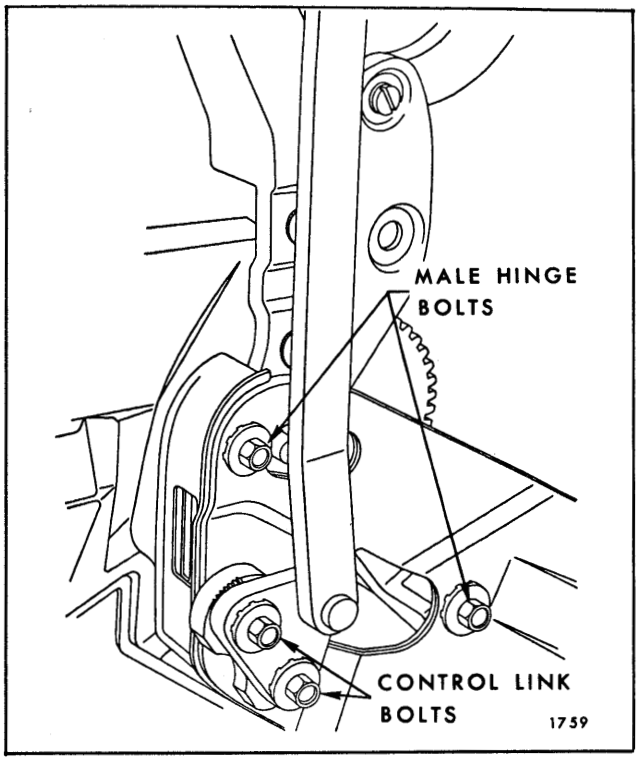

Fig. 6-88—Male Hinge Adjustment

c. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

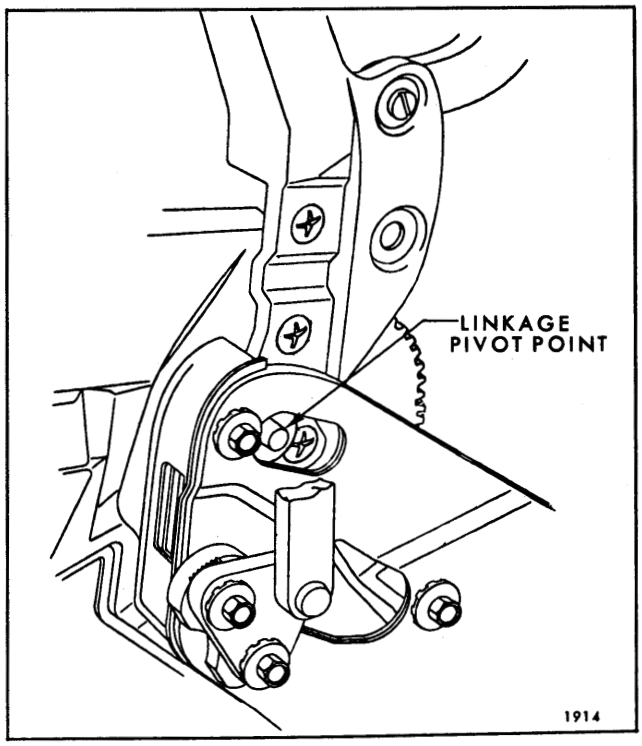

Fig. 6-89—Linkage Pivot Point

d. Rotate male hinge assembly forward or rearward around linkage pivot point, as required; then tighten attaching bolts (Fig. 6-89).

e. On styles equipped with manually operated folding top, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

f. Lock top to windshield header; then check fit of top material at rear quarter trim stick. Adjust trim stick as required and tighten attaching bolts.

ADJUSTMENT OF TOP AT MALE HINGE

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary, adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:

   a. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.

   b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

   c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window; then tighten bolts.

   IMPORTANT: If male hinge has been allowed to rotate around linkage pivot point, check stack height. Where required, re-adjust male hinge for proper stack height.

   d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit of top material at rear quarter trim stick; then tighten trim stick attaching bolts.

   e. Check top assembly for proper stack height. Where required, adjust control link adjusting plate as previously described. (See Step #2 under "Adjustment of Top Control Link Adjusting Plate".)

   f. On styles equipped with manually operated folding tops adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

2. If side roof rail is too high or two low at rear quarter window area, proceed as follows:

   a. Scribe location of male hinge attaching bolt washers and control link on folding top compartment brace.

   b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

   c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rail and rear quarter window.

   IMPORTANT: If male hinge has been allowed to rotate, around linkage pivot point, check stack height. Where required, re-adjust male hinge for proper stack height.

   d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.

   e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

   f. Check top assembly for proper stack height. Where required, adjust control link adjusting plate as previously described. (See Step #2 under "Adjustment of Top Control Link Adjusting Plate".)

   g. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

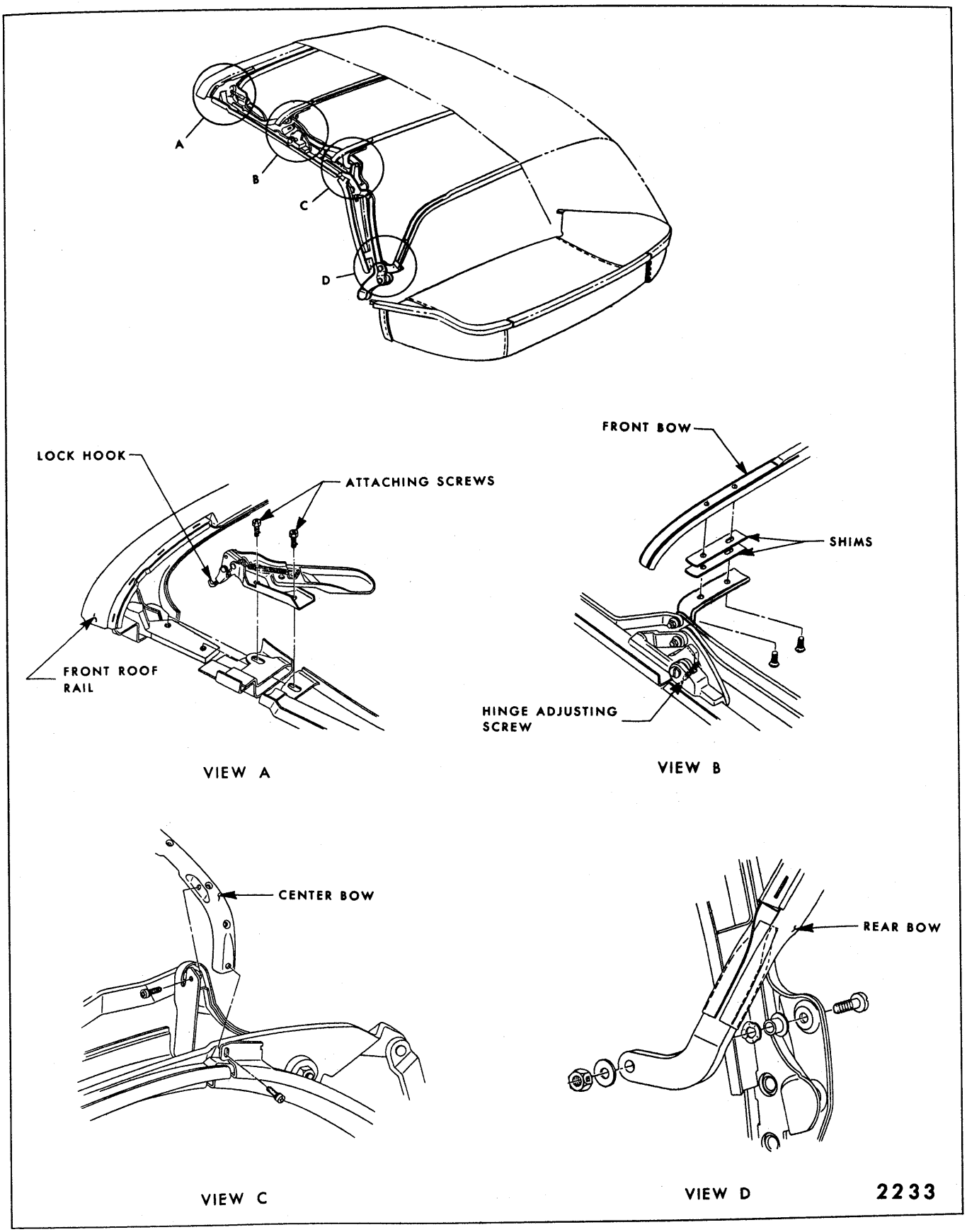

Fig. 6-90—"Z" Body Folding Top Adjustments

TROUBLE SHOOTING CHART

The following procedure describes and illustrates various types of folding top misalignment conditions, their apparent causes and the recommended procedure for their correction.

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise. (View "A" in Fig. 6-90.)
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail. (View "A" in Fig. 6-90.)
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise. (View "A" in Fig. 6-90.)
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (View "A" in Fig. 6-90).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-88).
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward. (View "A" in Fig. 6-90.)
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-88).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-88).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward and/or shim side roof rail rear weatherstrip forward as required (Fig. 6-88).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward (Fig. 6-88).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required (Fig. 6-88).
I. Sag at front to center side roof rail joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate downward (Fig. 6-88).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise. (View "B" in Fig. 6-90.)

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate upward (Fig. 6-90).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise. (View "B" in Fig. 6-90.)
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned male hinge.	Rotate male hinge rearward around pivot point as required (Fig. 6-89).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 13" $\pm$ 1/16". The dimension is measured at approximate center line of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.
	5. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips downward as required.
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned male hinge.	Rotate male hinge forward around pivot point as required (Fig. 6-89).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing moding is 13" $\pm$ 1/16". The dimension is measured at approximate center line of body.
	3. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips upward as required.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron. (View "B" in Fig. 6-90).
	2. Excessive width in top material.	If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material.
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron. (See View "B" in Fig. 6-90).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center or rear quarter trim stick.	Retack top material as required.
P. Wind whistle or water-leak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required or when installing only one shim, use attaching screw part #4413016 (1/4 - 20 x 7/16" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish). When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

SECTION 7
DOORS

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INTRODUCTION

This section of the manual contains the service operations that are necessary for the removal, installation, adjustment and sealing of door assemblies and individual door hardware components. The procedures are arranged in the sequence that they would be performed when servicing a door, such as, trim removal, parts replacement or adjustment, and resealing. To locate specific procedures, refer to the "Door Index".

Hardware items are divided into three categories. Those which are common to all doors are found under "Front and Rear Doors" which also includes door and side roof rail weatherstrips. Items which are peculiar to front or rear doors are found under "Front Doors" or "Rear Doors" respectively.

Body series or style references in the procedures are explained under "General Information" in Section I of this manual.

FRONT AND REAR DOOR

PULL HANDLES

Door pull handles are secured to the door with screws which are inserted through either the handle hinges or handle escutcheons into the door inner panel. On some styles, the handles are additionally retained to the door trim assembly with screws or studs which are installed from the outboard side of the door trim assembly. On these latter styles it is necessary to remove the door trim assembly in order to remove the door pull handle.

NOTE: On all styles it is necessary to remove screws inserted through the handle into the door inner panel in order to remove the door trim assembly.

Styles with pull handles that can be removed independent of the door trim assembly are as follows:

a. Cadillac 68000-68100-68300-68400 Series

b. Buick 48437-67 Styles

c. Buick 49487 Style with standard trim

Styles with pull handles that are assembled to the door trim assembly and can only be removed in a bench operation are as follows:

a. Pontiac 26239 Style

b. Cadillac 68200 Series

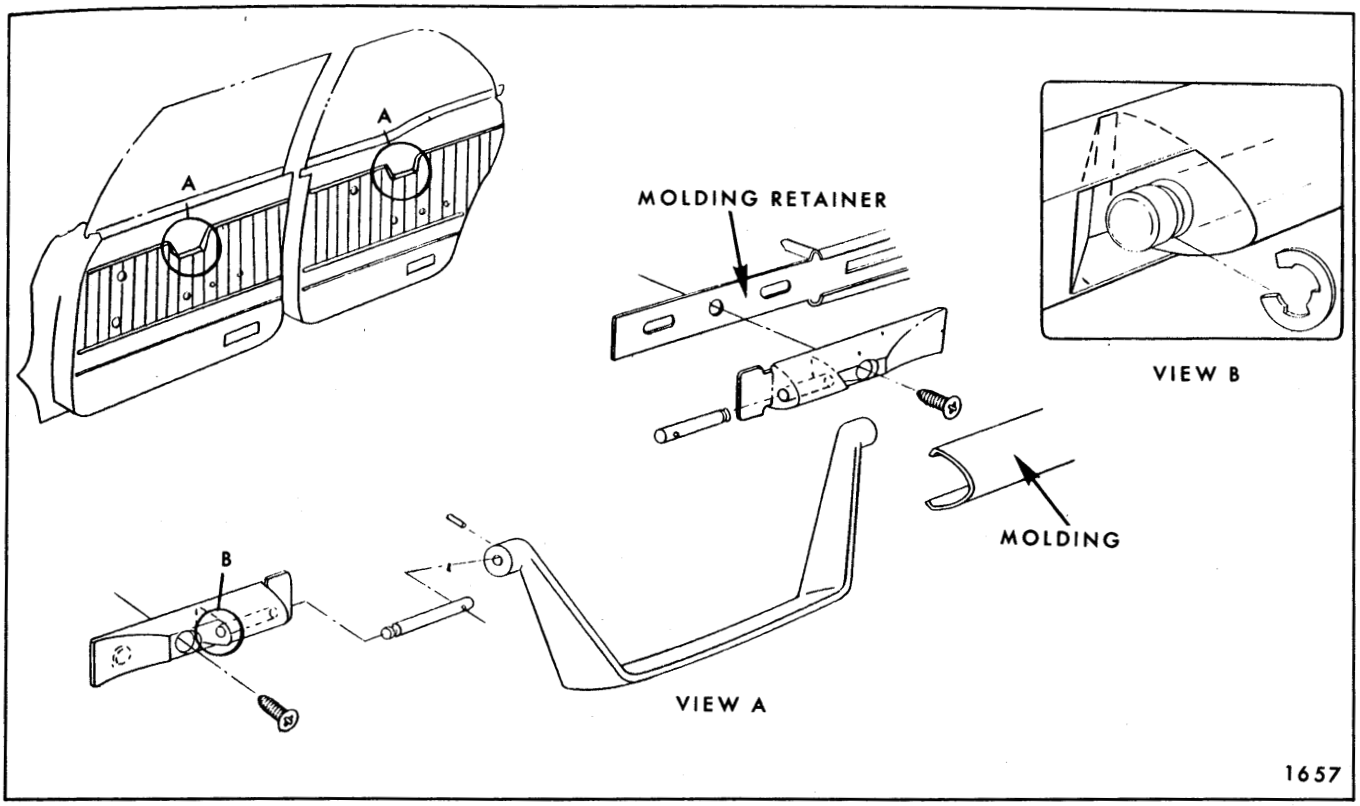

Fig. 7-1—Door Pull Handle Installation - 26239 Style

c. Oldsmobile "C & E" Body Series

d. Buick 48439-69 Styles

e. Buick 49487 with custom trim

Figures 7-1, 7-2, 7-3, 7-4, 7-5, 7-6 and 7-7 are typical of the various types of attachment.

FRONT AND REAR DOOR ARM RESTS

There are two basic types of arm rests; those which are applied to the door after trim pad installation, such as shown in Figure 7-8, and those which are assembled to the trim pad prior to trim pad installation as shown in Figure 7-9.

To remove the applied type shown in Figure 7-8, merely remove the screws inserted through the arm rest base into the door inner panel. To remove the type assembled to the trim pad, remove the trim pad as described in a following procedure and remove the arm rest screws or stud nuts from the outboard side of the trim pad in a bench operation.

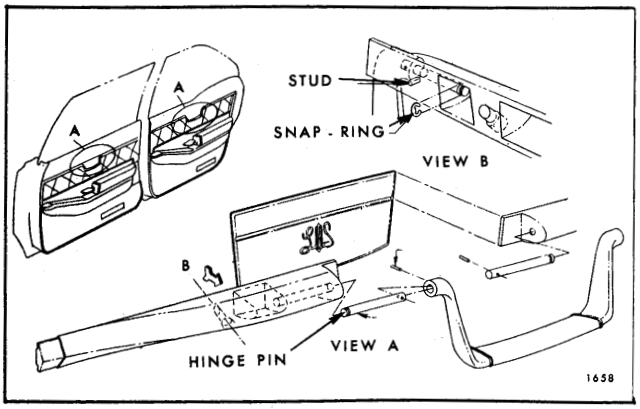

Fig. 7-2—Door Pull Handle Assembly - 38669 Style

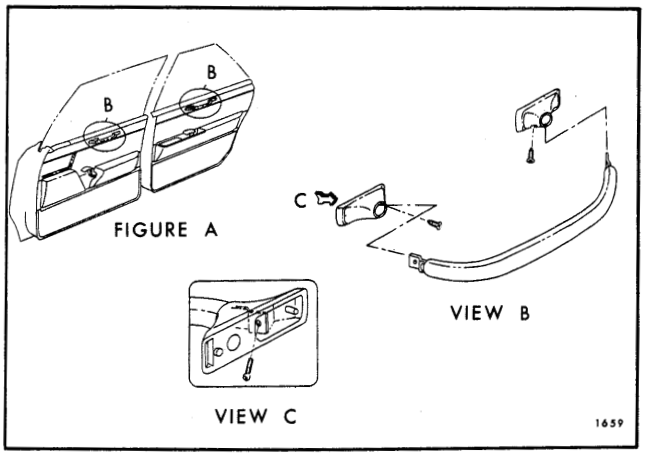

Fig. 7-3—Door Pull Handle Installation - 68200 Series Shown - Other 68000 Series Similar

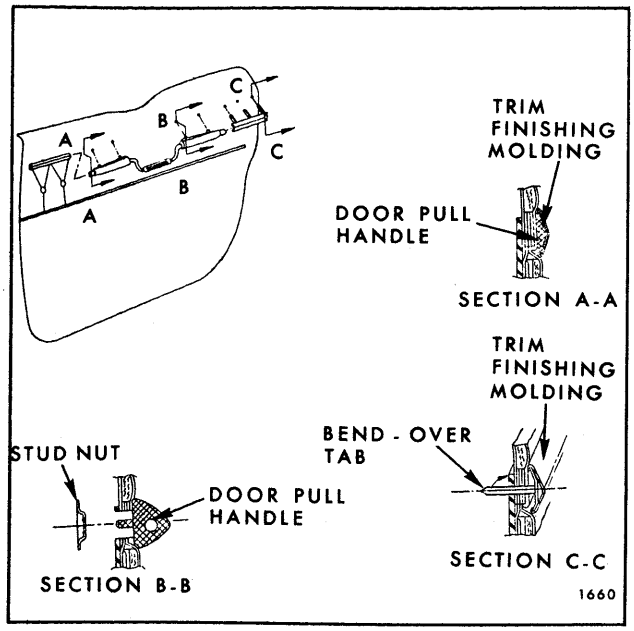

Fig. 7-4—Door Pull Handle Installation - 38000 Series Shown - 39000 Series Similar

Figure 7-6 illustrates the arm rest assembly and pull handle build-up on the 49487 Style with custom trim. Retention of this assembly to trim pad is similar to that shown in Figure 7-9.

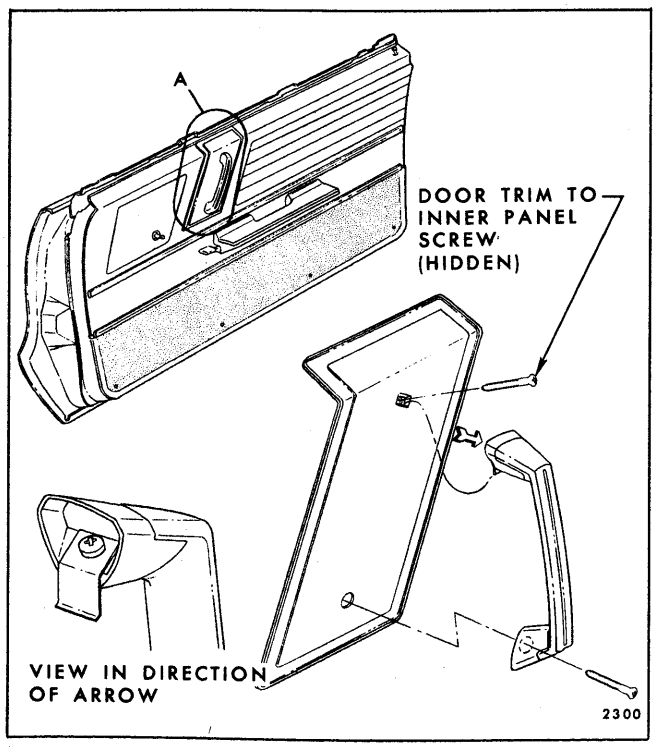

Fig. 7-5—Door Pull Handle Removal - 49487 Style with Standard Trim

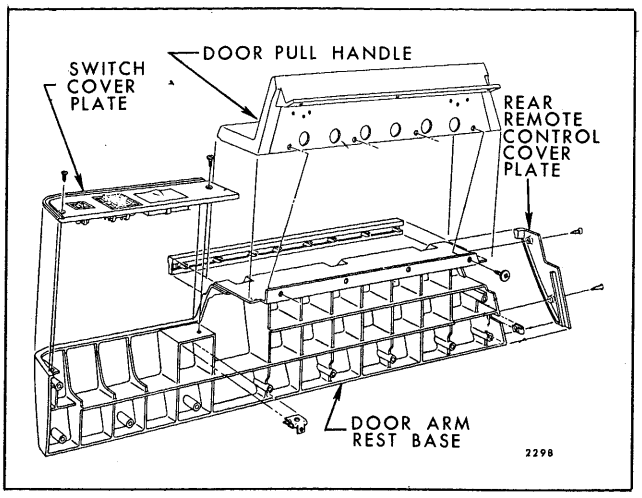

Fig. 7-6—Door Arm Rest and Pull Handle - 49487 Style with Custom Trim

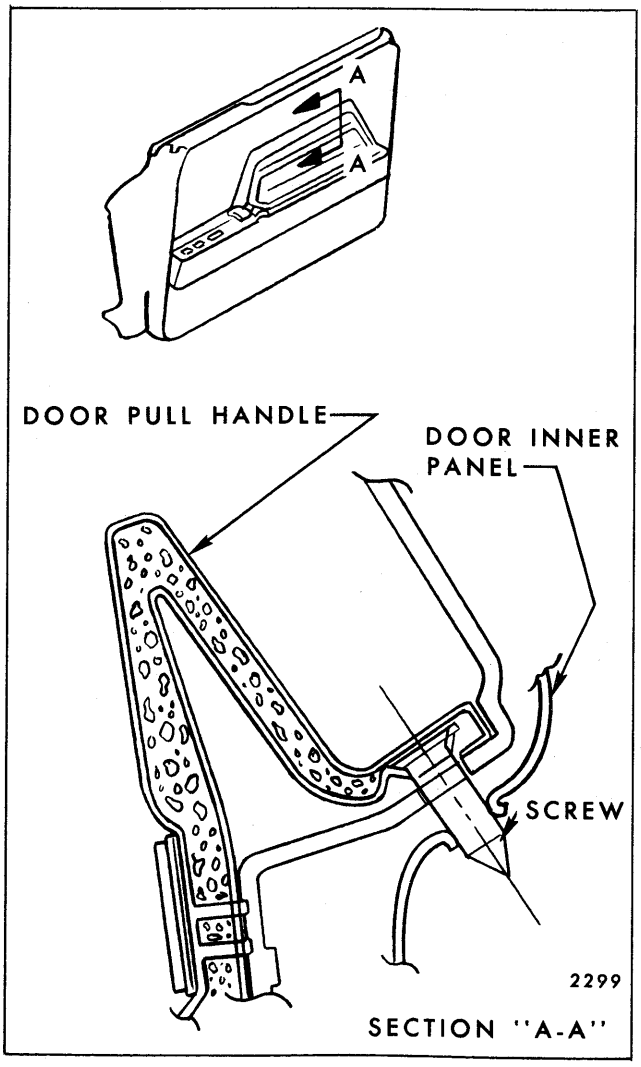

Fig. 7-7—Door Pull Handle Retention - 49487 Style with Custom Trim

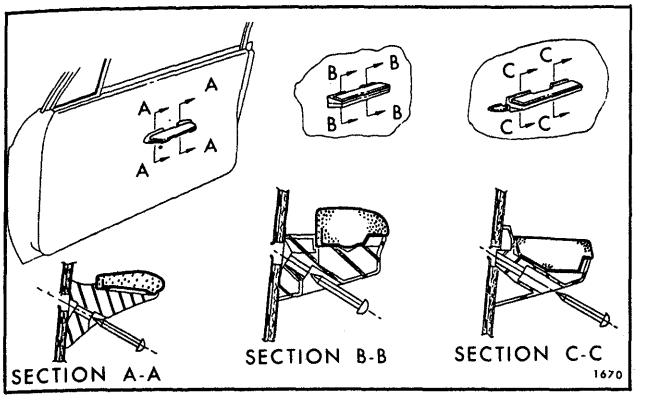

Fig. 7-8—Typical Applied-Type Door Arm Rests

FRONT AND REAR DOOR INSIDE HANDLES

To remove manually operated ventilator and door window inside handles, and door lock remote control handles which are not partially covered by the door arm rest, proceed as follows:

1. Depress door trim assembly sufficiently to permit insertion of tool J-7797 between handle and bearing plate (Fig. 7-10).

2. Push tool to disengage handle retaining spring from spindle and remove bearing plate and handle from door.

3. To install, engage retaining spring on handle and position handle to door at same angle as opposite side door handle; then, press handle until spring engages spindle.

To remove "paddle" type door handles, proceed as follows:

1. On styles with "applied" type door arm rests as shown in Figure 7-8, Section "C-C", remove arm rest as previously described. Then, remove screw securing handle to remote control spindle and remove handle.

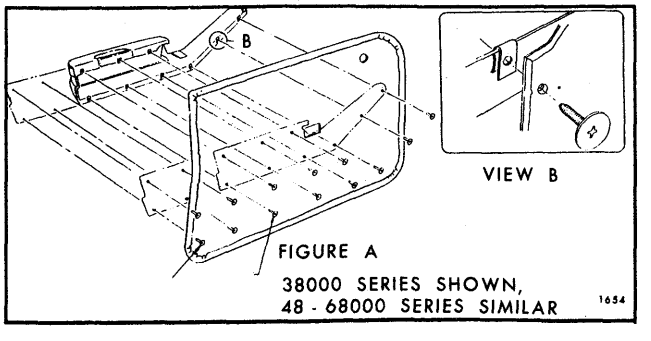

Fig. 7-9—Arm Rest to Door Trim Pad Installation

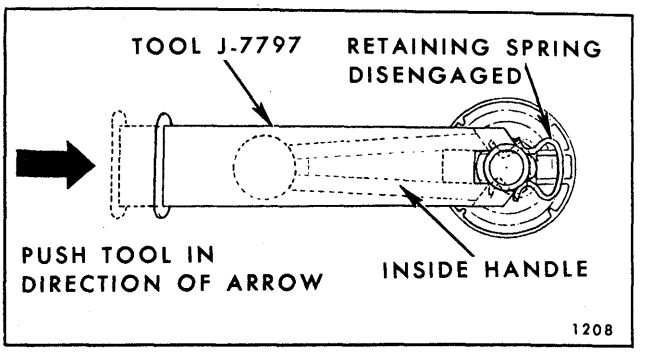

Fig. 7-10—Door Inside Handle Removal

2. On styles with arm rests that are a component part of the door trim assembly as shown in Figure 7-9, it is necessary to remove remote control cover plate (Fig. 7-11) to gain access to remote control handle screw.

NOTE: On 49487 Styles with dual remote control handles, remove switch cover plate to gain access to front handle and remote control cover plate at rear for access to rear handle (Fig. 7-6).

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "B-C & E" STYLES

The door trim assembly is secured to the door by the trim support return flange which hangs over the door inner panel across the top, and by a combination of retaining nails and screws down the sides and across the bottom.

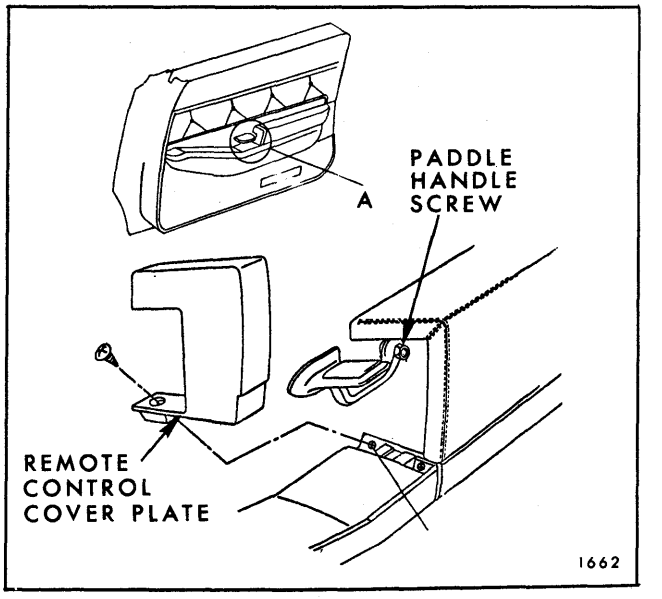

Fig. 7-11—Remote Control Handle and Cover Plate - Front Door Shown - Rear Door Typical

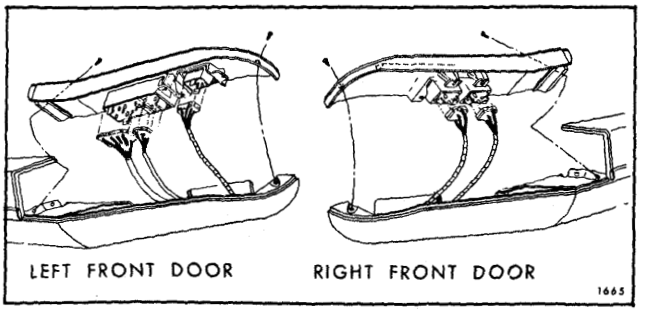

Fig. 7-12—Front Door Arm Rest Switch Cover Assembly

Removal and Installation:

1. Remove all door inside handles as previously described.

2. Remove inside locking rod knob.

3. On styles with door pull handles, remove screws inserted through handle into door inner panel. On some styles, removal of screws removes handle. On other styles, handle will still be retained to trim pad. Refer to "Door Pull Handles" for specific types of retention.

   a. On 26239 Style, screws are hidden by door upper finishing moldings. To expose screws, pry moldings off retainers using a flat-blade tool (Fig. 7-1).

   b. On 49487 Style with custom trim, screws are accessible but partially hidden behind door pull handle (Section "A-A", Fig. 7-7).

   c. On Buick "C" two-door Styles and "E" styles with standard trim, remove pull handle to gain access to trim finishing panel screw hidden under handle (Fig. 7-5).

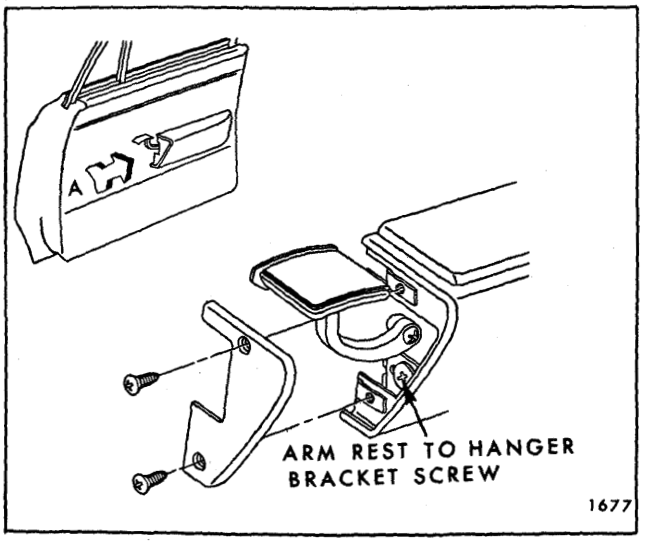

Fig. 7-13—Front Door Arm Rest Base Cap - 68200 Series

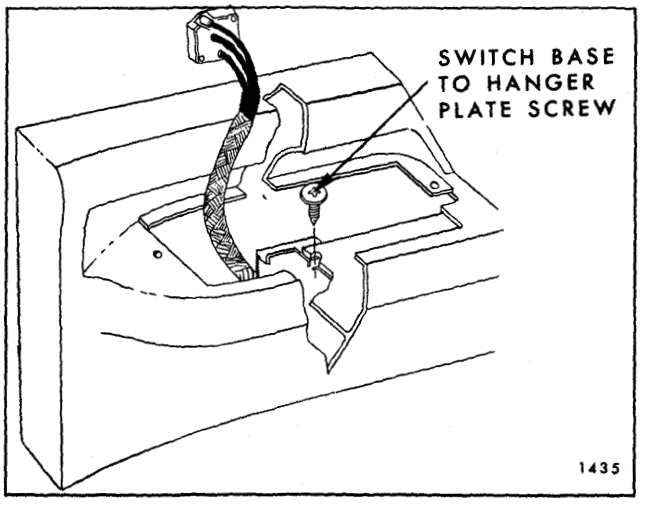

Fig. 7-14—Door Trim Pad Removal - 68200 Series

4. On styles with switch plate located in arm rest as shown in Figure 7-12, remove exposed screws and disconnect switches from wire harness connectors.

5. Remove all exposed screws present under switch plate cover and/or directly under remote control spindle. These screws secure the trim pad to the door hanger plate. (Figs. 7-13 and 7-14 show typical hanger plate attachments.)

6. On styles equipped with arm rest cup, remove screw from cup.

7. Remove all screws present, down sides and along bottom of door trim pad.

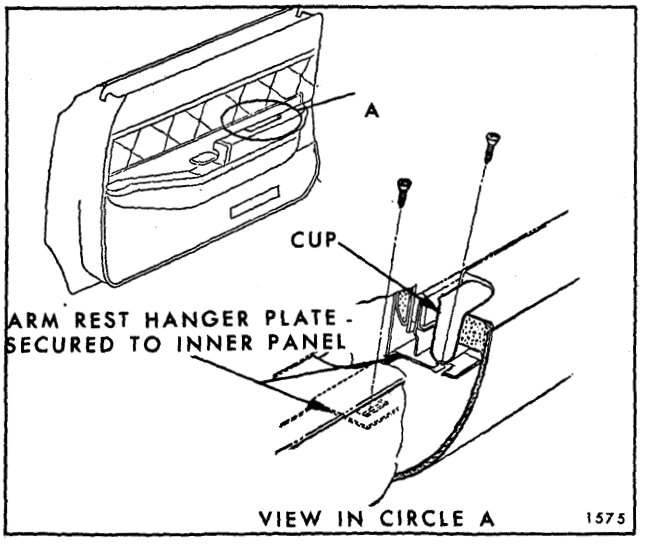

Fig. 7-15—Door Arm Rest Cup Attachment

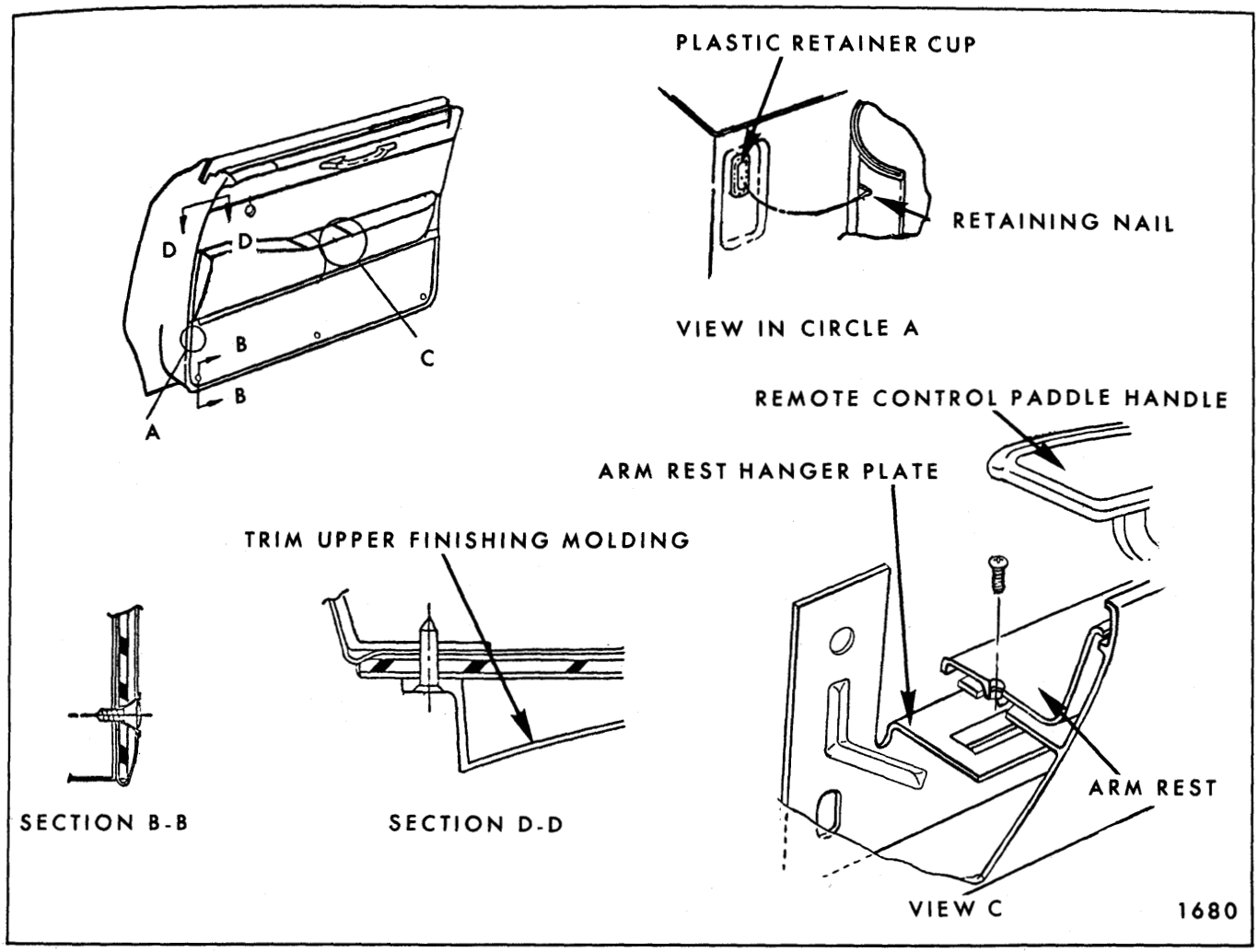

Fig. 7-16—Door Trim Pad Removal

8. Starting at a lower corner, insert tool J-6335 between door inner panel and trim assembly. Working upward, carefully disengage retaining nails from plastic cups inserted in door inner panel. (Fig. 7-16, View "A").

   NOTE: Use care not to damage inner panel water deflector.

9. Lift trim assembly upward to disengage it from door inner panel and remove trim assembly.

   NOTE: On styles equipped with vacuum door locks and electric window switches located on trim pad, disconnect harness or vacuum hoses at switch on selector valve.

10. To install, reverse removal procedure.

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "A" STYLES

There are two types of door trim pads utilized on all "A" bodies. On certain styles the front and rear door trim pad is secured to the door inner panel by trim pad retainers at top, retaining clips along both sides and screws at the bottom. Trim pad retainers are attached to the door inner panel by screws. The retaining clips (along sides) are pressed into plastic retainers or cups which fit into slots in the door inner panel. (Fig. 7-17).

On other styles the hang-on door trim pad is used. This trim pad is further secured by attaching screws along the bottom edge and by retaining nails inserted into plastic retaining cups located in the door inner panel.

Removal and Installation:

1. Remove door inside handles and arm rest assembly.
2. At bottom of door, remove screws securing trim assembly to door inner panel.
3. On styles utilizing hang-on type door trim pad, proceed as follows:
   a. With a clean rubber mallet, tap along side of trim pad to help free nails from retainers.
   b. Starting at bottom of trim pad, carefully insert tool J-6335, or a suitable flat-bladed tool, between door trim assembly and door inner panel at retaining nail locations and disengage nails from retainers. Remove door trim pad from door. (See Fig. 7-18).
4. On other styles proceed as follows:
   a. Remove attaching screws along bottom of door trim pad.
   b. Carefully insert tool J-6335, or a suitable flat-bladed tool, between door trim assembly and door inner panel at retaining clip locations and disengage clips from retaining plugs. (See Fig. 7-17).

      NOTE: Broken or damaged retaining clips should be replaced.

   c. Pull top edge of trim pad down slightly to disengage it from the trim pad retainer and remove trim pad from door.
5. On all styles, to install, reverse removal procedure. Exercise care not to disturb inner panel water deflector.

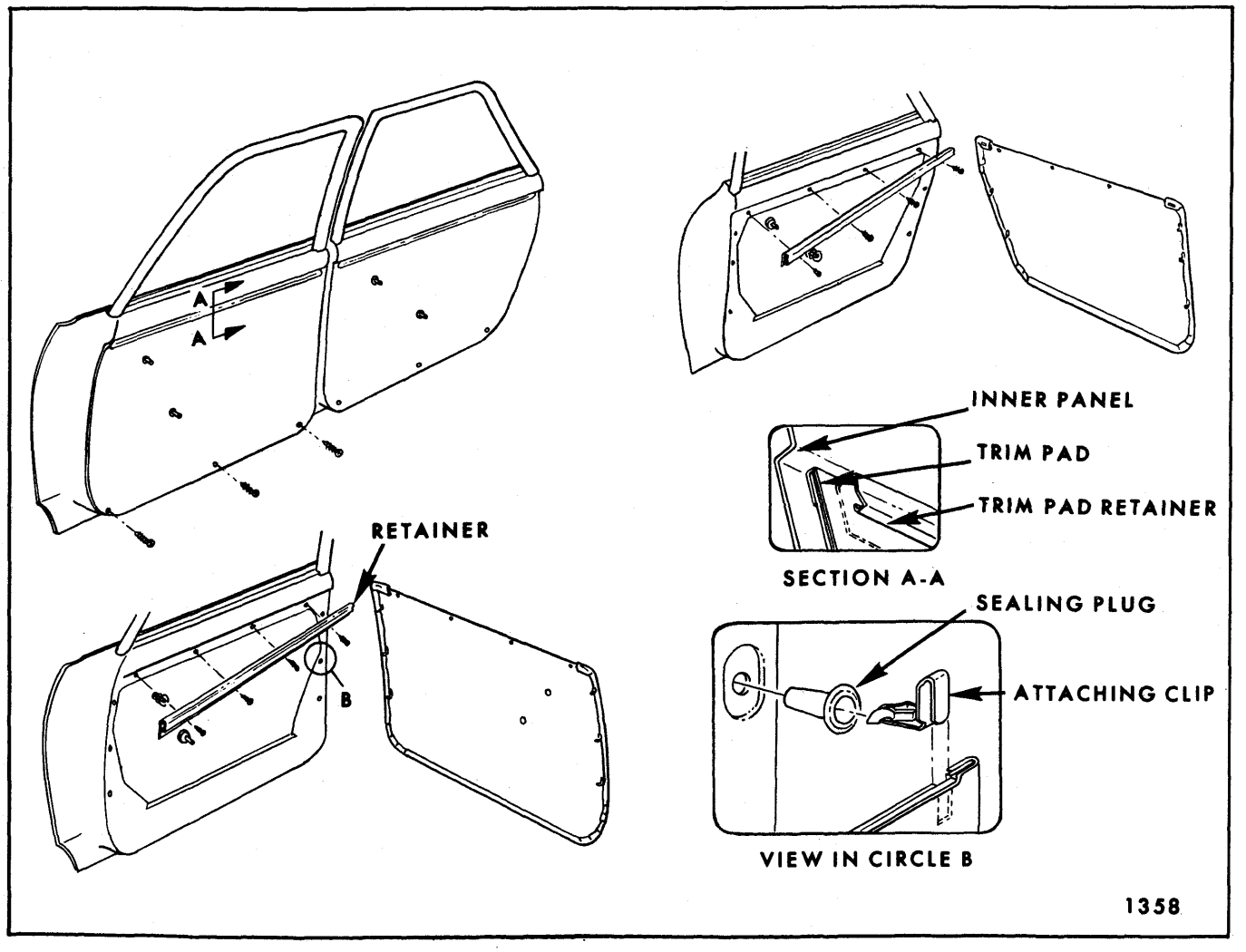

Fig. 7-17—Door Trim Pad Removal

CAUTION: Retaining nails must not pierce back of plastic retainers as waterleaks may develop. For this reason, it is important that PROPER LENGTH repair tab nails (1/2") are used when replacing broken trim retaining nails.

NOTE: If plastic retainers are loose and will not remain engaged in door inner panel, install a 1/2" x 3/4" piece of cloth-backed waterproof body tape over retaining hole in inner panel. Make two slits in tape to form an "X" pattern. Check retainer for a snug fit and if still loose, repeat above operation by installing a second piece of tape over the existing repair. This same procedure can be used to repair waterleaks which develop around perimeter of retainer.

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "X" STYLES

Both the front and rear door trim assemblies are secured to the door inner panel by trim pad retainers at top and bottom of trim pad and by retaining clips along both sides. The retainers are secured to the door inner panel by screws. The retaining clips are pressed into plastic retainers or cups which fit into slots in the door inner panel.

Removal and Installation:

1. Remove door inside handles and arm rest assembly.
2. Carefully insert tool J-6335, or a suitable flat-bladed tool, between door trim assembly and

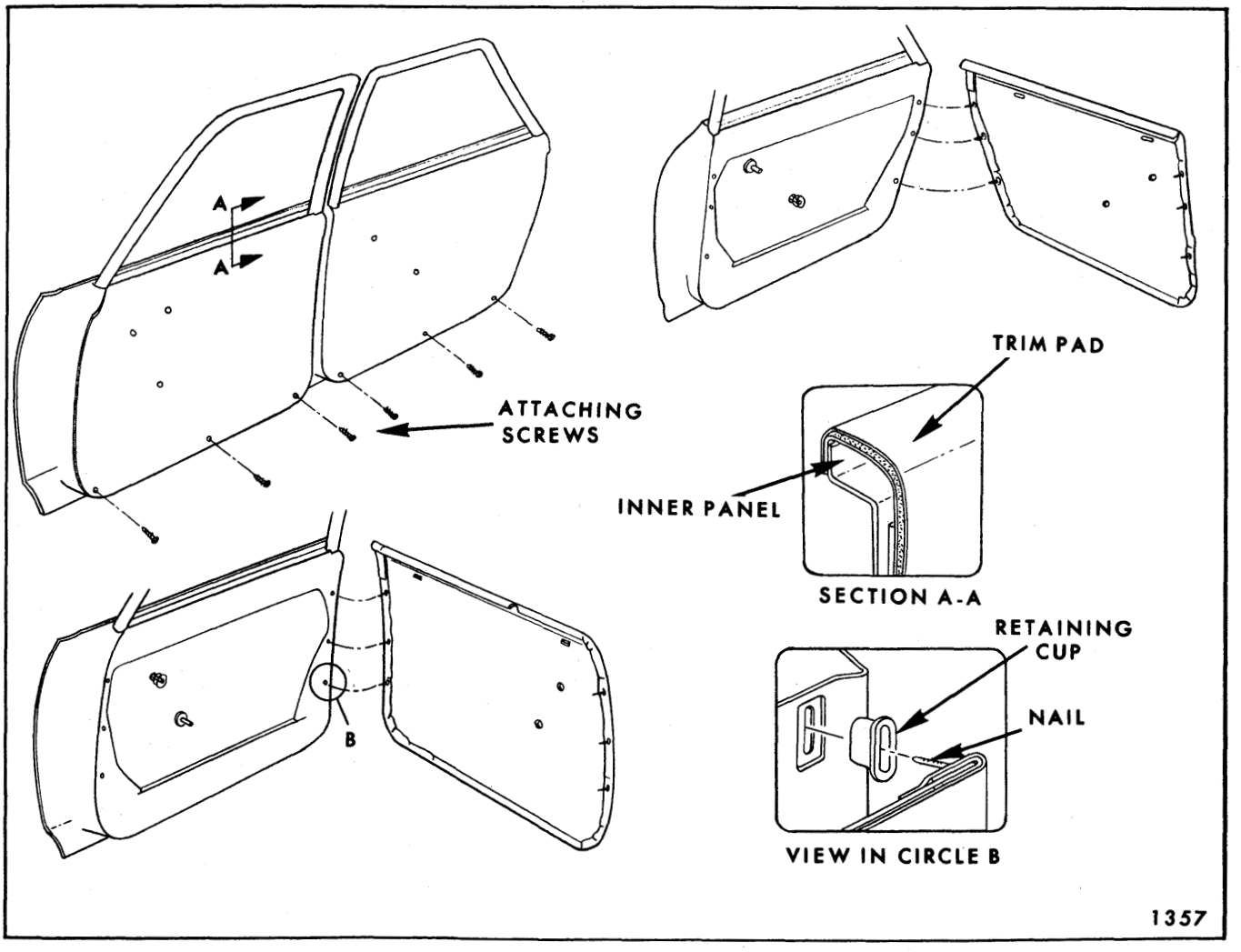

Fig. 7-18—Hang-On Door Trim Pads

door inner panel at retaining clip locations and disengage clips from retaining plugs. (See Figure 7-19).

NOTE: Broken or damaged retaining clips should be replaced.

3. Pull top edge of trim down and slightly inboard to disengage it from the top retainer and then lift trim pad upwards to disengage it from the bottom retainer and remove assembly from door.

   CAUTION: Exercise care not to buckle trim pad.

4. To install, reverse removal procedure.

   NOTE: Exercise care not to disturb inner panel water deflector.

5. If plastic retaining plugs are loose and will not remain engaged in door inner panel, install a 1/2, x 3/4" piece of cloth-backed waterproof body tape over retaining plug hole and door inner panel. (See Fig. 7-19). Make two slits in tape to form an "X" pattern. Check retainer for a snug fit and, if still loose, repeat above operation by installing a second piece of tape over the existing repair. This same procedure can be used to repair waterleaks which develop around perimeter of retainer.

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "Z" STYLES

Both front and rear door trim pads are retained by clips across the top and down the sides and by screws across the bottom. The clips are attached to the reverse side of the trim pad and are installed into plastic sealing plugs inserted in piercings in the door inner panel. The screws are installed from the exposed side of the trim pad and are readily accessible for removal.

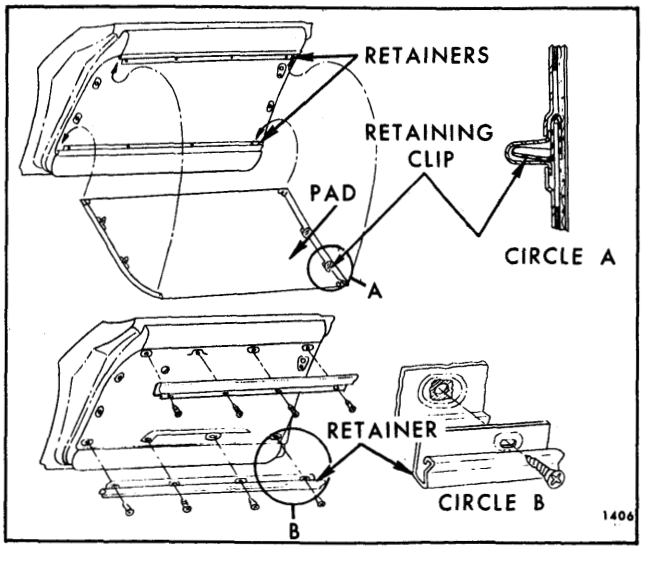

Fig. 7-19—Door Trim Pad Removal

Removal and Installation:

1. Apply masking tape as protective covering to door inner panel painted surfaces adjacent to top and front edges of trim pad.

2. Remove door inside handles and door arm rest as previously described.

3. Carefully insert tool J-6335, or an equivalent flat-bladed tool, between door trim assembly and door inner panel at retaining clip locations and disengage clips from plastic sealing plugs. (Fig. 7-20).

4. Remove screws from across bottom and remove trim pad from door.

5. To install, reverse removal procedure.

FRONT AND REAR DOOR WEATHERSTRIPS—ALL STYLES

Both the front and rear doors use nylon fasteners to retain the door weatherstrips. The fasteners are a component part of the weatherstrip and secure the weatherstrip to the door by engaging piercings

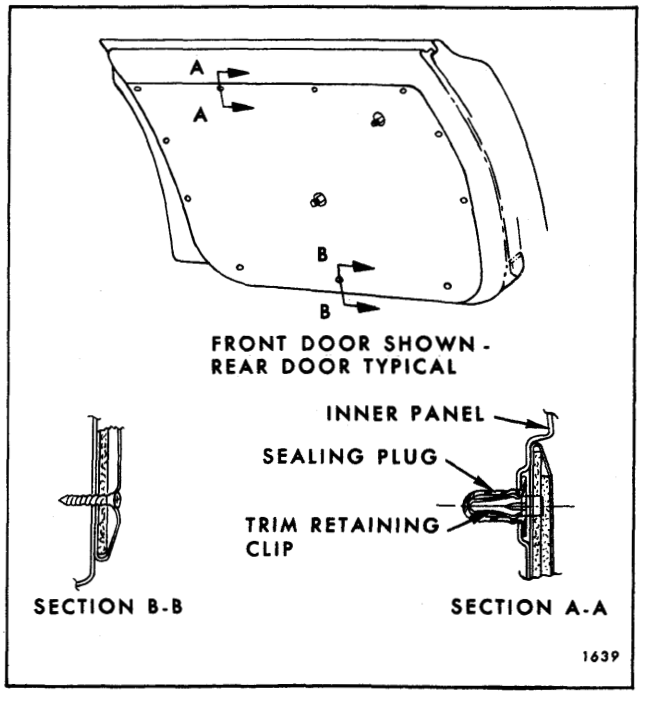

Fig. 7-20—Door Trim Pad Retention

in the door panels. The serrations of the fastener retain the fastener in the piercing and also seal the openings from water entry. (Fig. 7-21).

On "B" Body Sedan Styles, nylon fasteners are used around the entire perimeter of the door. On "A" and "X" Closed Styles, nylon fasteners are used below the belt line only. Weatherstrip adhesive retains the weatherstrip around the door upper frame above the beltline (Fig. 7-22).

In addition to the nylon fastener, "B" Body Sedan Styles use a limited amount of weatherstrip adhesive at the beltline. All styles other than closed styles use plastic fasteners at the belt.

To disengage nylon fasteners from door panel piercings use tool J-21104 or equivalent (Fig. 7-21). This tool permits removal of the weatherstrip without damaging the serrations on the fasteners so that the weatherstrip can be reinstalled if desired.

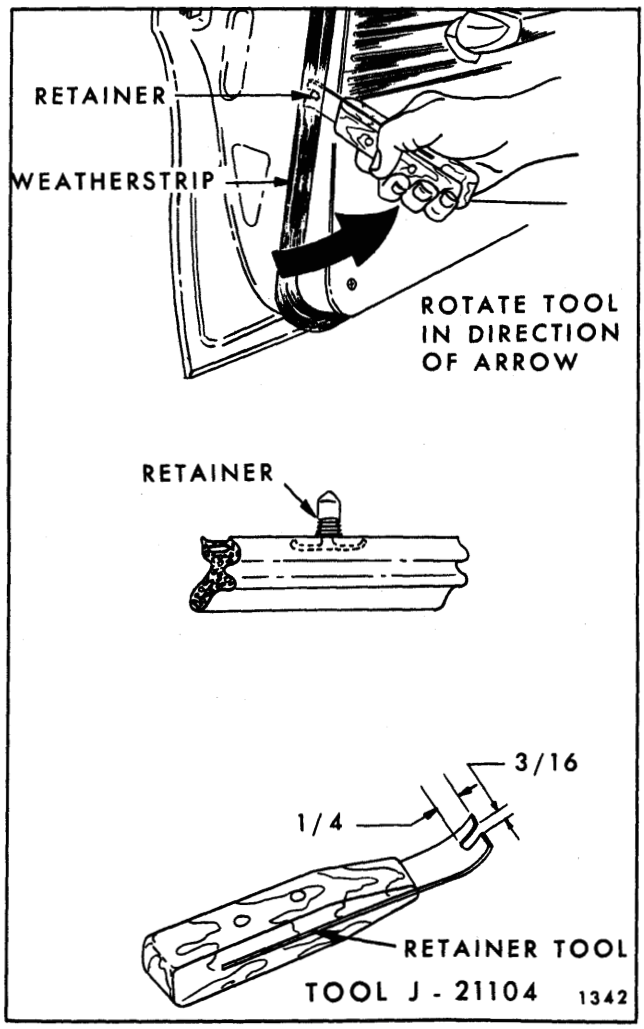

Fig. 7-21—Door Weatherstrip Removal

Although a replacement door weatherstrip will include the nylon fasteners, individual fasteners are available as a service part.

Removal

1. On all hardtop and convertible styles, remove exposed plastic fasteners at beltline. On all "E" Styles and "B-C 39" and "C-69" Style rear doors, remove door trim assembly to gain access to fastener under trim pad (Fig. 7-23).

2. On sedan styles, use a flat-blade tool to break cement bond between door and weatherstrip. On "B" Body Sedan Styles, weatherstrip adhesive is used for a distance of 9" at beltline (Figs. 7-24 and 7-25). On "A & X" Sedan Styles, weatherstrip is retained by weatherstrip adhesive completely around door upper frame (Fig. 7-22).

3. On all styles, use tool J-21104 or equivalent to disengage weatherstrip from door where weatherstrip is retained by nylon fasteners. Nylon fastener usage is below the beltline on all styles, and above the belt only on "B" Body Sedan Styles.

Installation:

1. If previously removed weatherstrip is to be reinstalled, inspect nylon fasteners and replace those that are damaged.

2. Clean off all old weatherstrip adhesive from door.

3. On styles without door upper frames, position weatherstrip to door and install plastic fasteners at front and rear ends of weatherstrip.

4. On sedan styles with door upper frames, position color-coded section of weatherstrip to door as follows:

   a. On front doors, color code should be located at rear upper corner of door upper frame (Fig. 7-24).

   b. On rear doors, color coded section should begin at beltline of door lock pillar and extend upward (Fig. 7-25).

5. Tap nylon fasteners into door piercings using a hammer and blunt caulking tool.

6. On "A and X" Sedan Styles, apply a bead of black weatherstrip adhesive to gutter of door upper frame as shown in section "A-A",

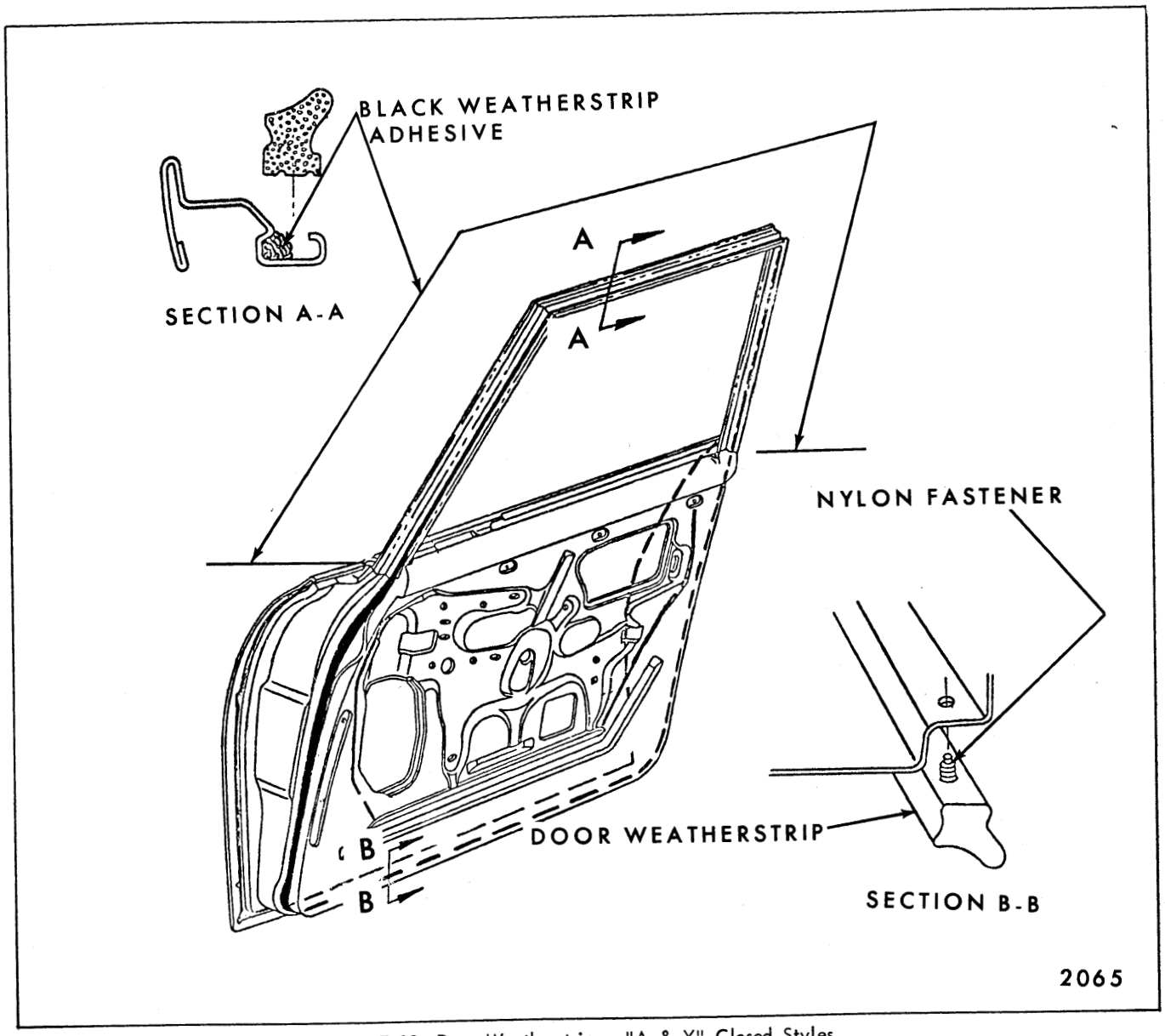

Fig. 7-22—Door Weatherstrip - "A & X" Closed Styles

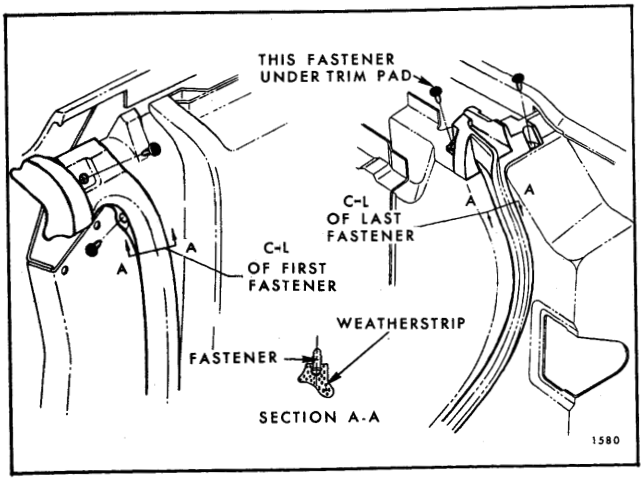

Fig. 7-23—Door Weatherstrip - "B-C 39" Rear Door Shown - "E" Front Door Similar

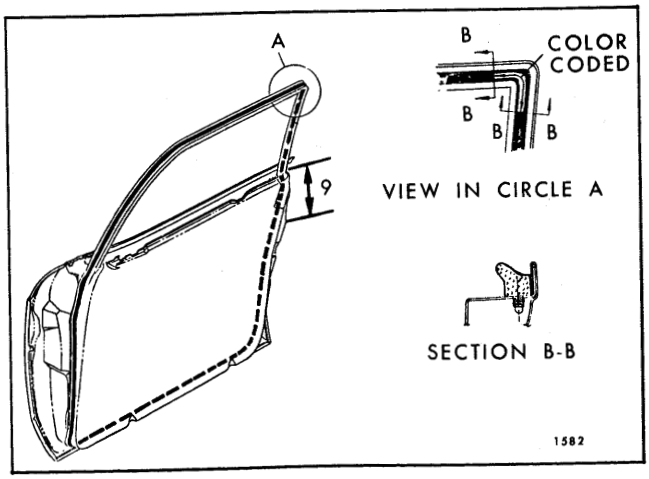

Fig. 7-24—Front Door Weatherstrip

Figure 7-22. Allow adhesive to become tacky, then, install weatherstrip.

7. After all fasteners have been installed on sedan styles, apply weatherstrip adhesive between door and weatherstrip outboard surface at the following locations:

   a. For 5" around rear upper corner of front door upper frame (Circle "A", Figure 7-24) and 9" down door lock pillar starting at beltline.

   b. On sedan rear doors, 9" down both door lock pillar and door hinge pillars starting at beltline (Fig. 7-25).

   c. On door lock pillar on hardtop styles starting at beltline and extending down 2".

   NOTE: If weatherstrip becomes damaged at fastener location and will not retain fastener, remove fastener and secure weatherstrip to door with weatherstrip adhesive. If more than two consecutive fastener locations become damaged, replace weatherstrip.

Although weatherstrip adhesive is specified only at specific locations, it can be used at any point where additional retention is required.

DOOR BOTTOM DRAIN HOLE SEALING STRIPS

Door bottom drain slot sealing strips (dust barriers) are attached to door inner panels over door bottom drain slots to prevent entry of dust and cold air at these locations (Fig. 7-26).

To remove sealing strips, use a flat-blade tool to pry retaining plugs from door inner panel piercings.

To install, insert a blunt pointed tool, such as dull ice pick or scratch awl, into strip retaining plugs and push plugs into door panel piercings.

DOOR BOTTOM AUXILIARY SEALING STRIP—(ALL CADILLAC STYLES AND PONTIAC "B" STYLES)

The door bottom auxiliary sealing strip is secured to the door inner panel with weatherstrip adhesive. The strip is installed after water deflector installation and prior to trim installation. As shown in section "A-A", Figure 7-27, the upper edge of the strip is aligned with the water deflector drain slot. The rolled, semi-bulbublar section of the sealing strip extends down below the door trim pad when the trim is installed and fills the opening between the door and door sill plate.

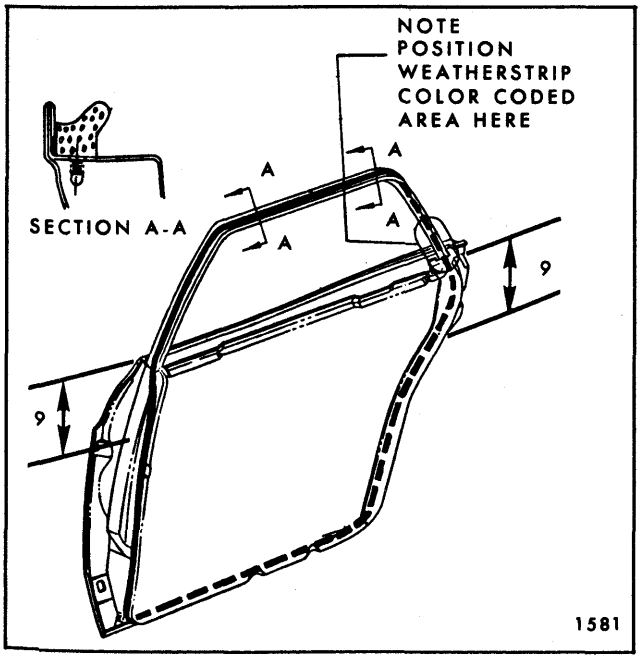

Fig. 7-25—Rear Door Weatherstrip

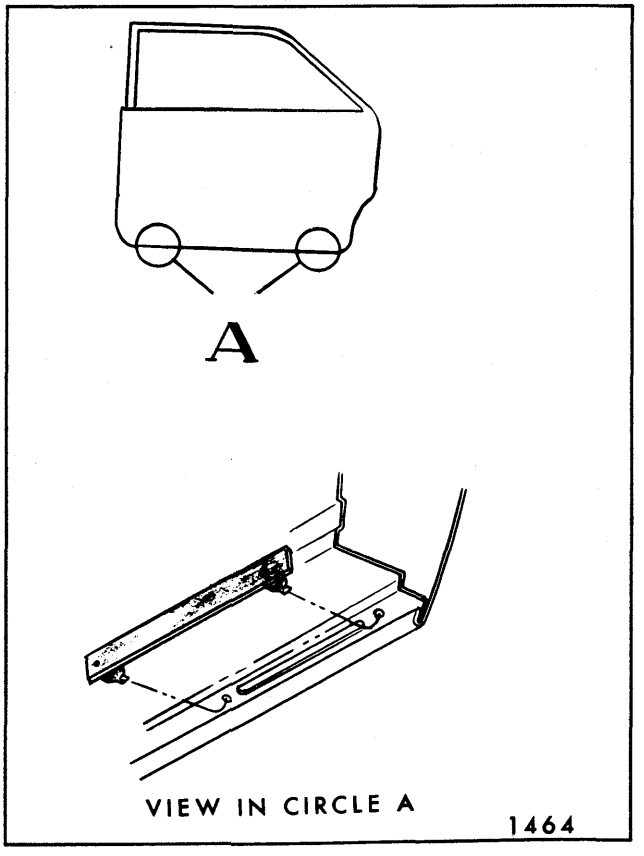

Fig. 7-26—Door Bottom Drain Hole Sealing Strips

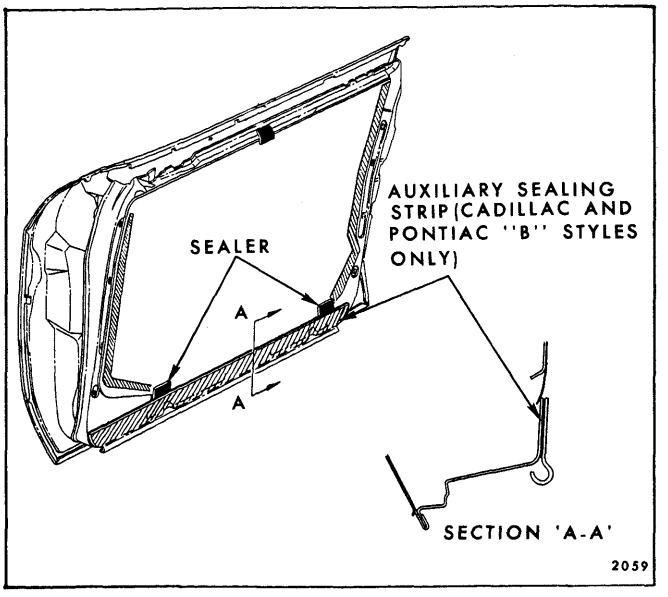

Fig. 7-27—Door Inner Panel Sealing

FRONT AND REAR DOOR WATER DEFLECTORS

A waterproof paper deflector is used to seal the door inner panel and prevent entry of water into body. The deflector is secured by a string loaded sealing material along both front and rear edges and by the application of waterproof sealing tape at front and rear lower corners. Whenever work is performed on front or rear doors where the paper water deflector has been disturbed, the deflector must be properly sealed and taped to the inner panel to prevent serious waterleaks. It is important that all service personnel performing door hardware adjustments or sealing operations be aware of the importance of using the specified material and recommended removal and installation or replacement procedures. For service sealing, body caulking compound is recommended if additional sealing material is required.

When access to the inner panel is required to perform service operations, the deflector may be completely or partially detached from the inner panel. If the existing water deflector is damaged, so that it will not properly seal the door, replacement of the deflector is required.

The following procedure covers complete removal and installation of the water deflector. If only partial removal of the deflector is required, perform only those steps which are necessary to expose the required area of the door inner panel.

Removal

1. Remove door trim assembly.
2. Remove waterproof body tape securing top of water deflector to door inner panel.
3. Using a flat blade tool such as a putty knife, carefully break cement bond between water deflector and door inner panel down both sides of deflector. Make certain tool blade is between inner panel and string that is imbedded in sealer (Fig. 7-27).
4. When seal has been broken down both sides of deflector, carefully remove tape from inner panel at lower corners of water deflector. Disengage water deflector from inner panel drain slot and remove deflector. On Cadillac Styles and Pontiac "B" Styles it will be necessary to partially remove door bottom auxiliary sealing strip to permit removal of tape at bottom of deflector (Fig. 7-27).

Installation:

1. Inspect water deflector and, where necessary, repair any tears or holes with waterproof body tape applied to both sides of deflector.
2. If a new water deflector is to be installed, use old water deflector as a template. Trim new deflector to proper size and cut holes for door inside hardware. If old sealer does not effect a satisfactory seal, apply a bead of body caulking compound (approximately 3/16" diameter) to inner panel at unsealed areas.
3. Position water deflector to door inner panel and insert lower edge of deflector in retaining slot. Then firmly roll or press edges of deflector to obtain a good bond between deflector and door inner panel.

   NOTE: On styles using polyethylene coated paper, black shiny side should be against inner panel.
4. Seal lower corners of deflector by re-applying previously removed tape or new pieces of 2" or 2 1/2" water proof body tape.
5. On styles with door inner panel hardware attachments that are outboard of water deflector, seal attaching bolt head and panel piercing with body caulking compound.

SPRING CLIPS

A spring clip is used to secure remote control connecting rods and inside locking rod connecting

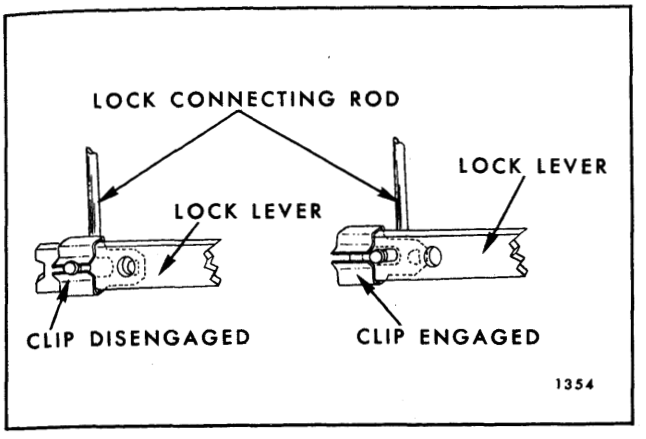

Fig. 7-28—Door Lock Spring Clip

links to door levers. A slot in the clip provides for disengagement of the clips, thereby, facilitating detachment of linkage.

To disengage a spring clip, use a screwdriver, or other suitable tool, to slide clip out of engagement (See Fig. 7-28).

FRONT AND REAR DOOR OUTSIDE HANDLE ASSEMBLY—ALL STYLES

Removal and Installation:

1. Raise door window. Remove door trim assembly and detach upper rear corner of inner panel water deflector sufficiently to gain access to door outside handle attaching screws (Fig. 7-29).
2. Remove screws through access hole and door handle and gaskets from outside of body.

   NOTE: On 68069 and 68169 Styles it is necessary to remove rear door ventilator regulator

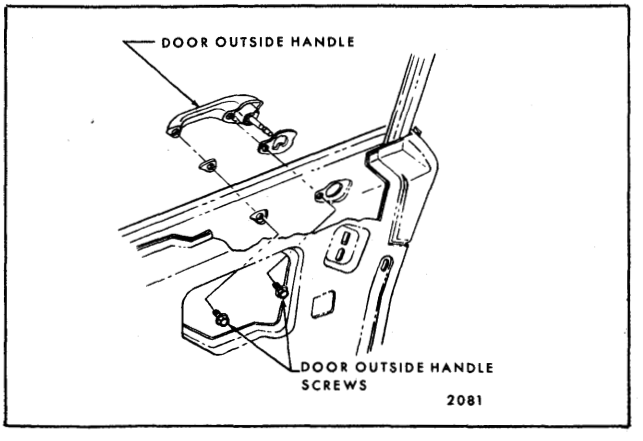

Fig. 7-29—Door Outside Handle Removal

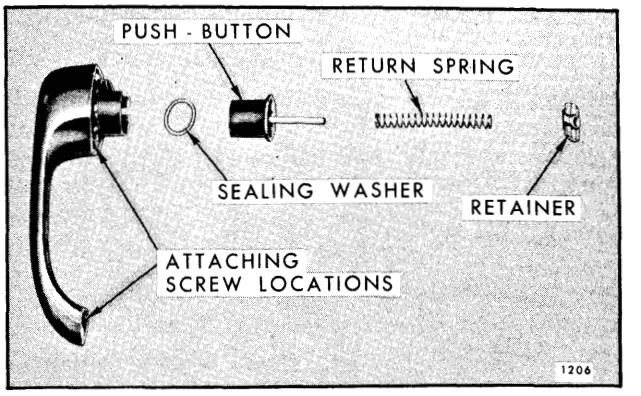

Fig. 7-30—Front Door Outside Handle

as described in the rear door section in order to remove rear door outside handle.

3. To install, reverse removal procedure.

DOOR OUTSIDE HANDLE DISASSEMBLY—ALL STYLES

1. Remove door outside handle as previously described.
2. Depress retainer slightly and turn 1/4 turn either direction. Remove retainer, spring, push button and shaft, and sealing washer from handle (Fig. 7-30 for front door handles, Fig. 7-31 for rear door handles).

   NOTE: Parts are serviced as shown in the illustrations; separate components for the front door handle, and a push button, spring, and retainer assembly for the rear door handle except on "E" Body Styles. On "E" Styles the front door push button, spring, and retainer are serviced as an assembly.

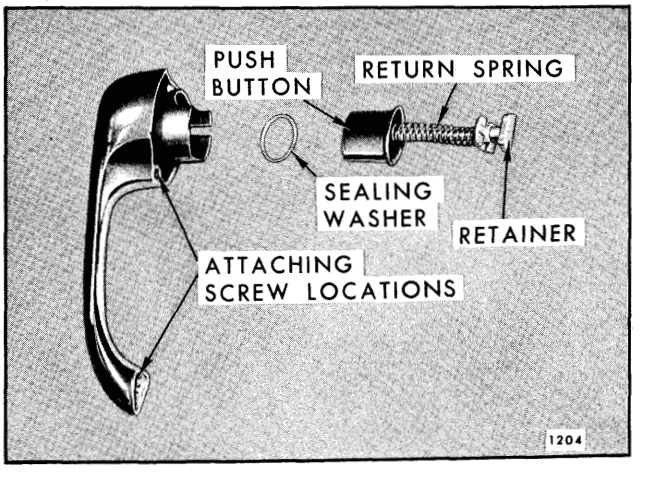

Fig. 7-31—Rear Door Outside Handle

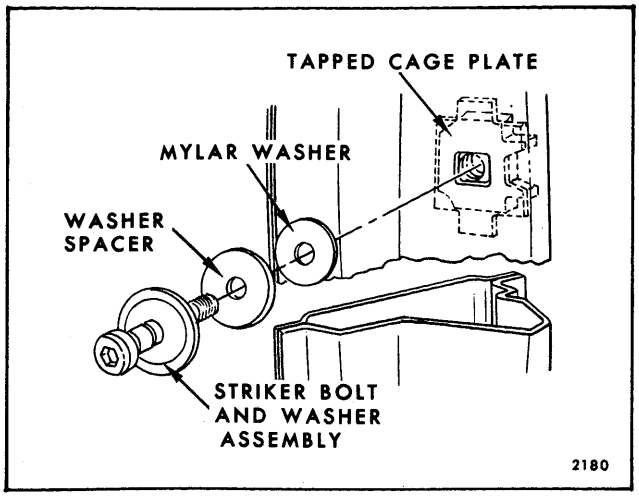

Fig. 7-32—Door Lock Striker Installation

FRONT AND REAR DOOR LOCK STRIKERS—ALL STYLES EXCEPT "X" BODY

The front and rear door lock striker consists of a single metal bolt and washer assembly that is threaded into a tapped, floating cage plate located in the body lock pillar. With this design, the door is secured in the closed position when the door lock fork-bolt snaps-over and engages the striker bolt.

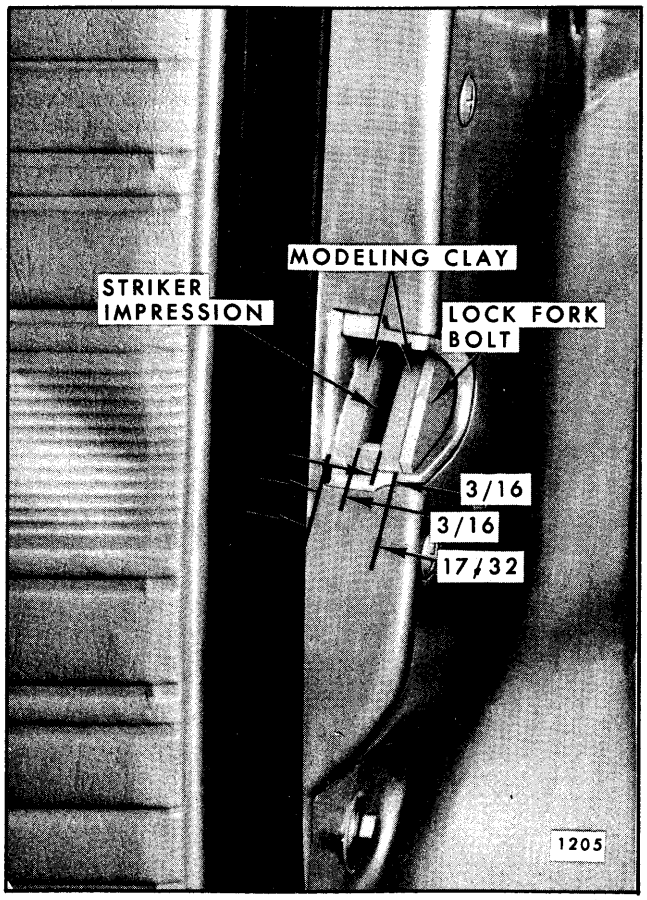

Fig. 7-33—Lock to Striker Engagement

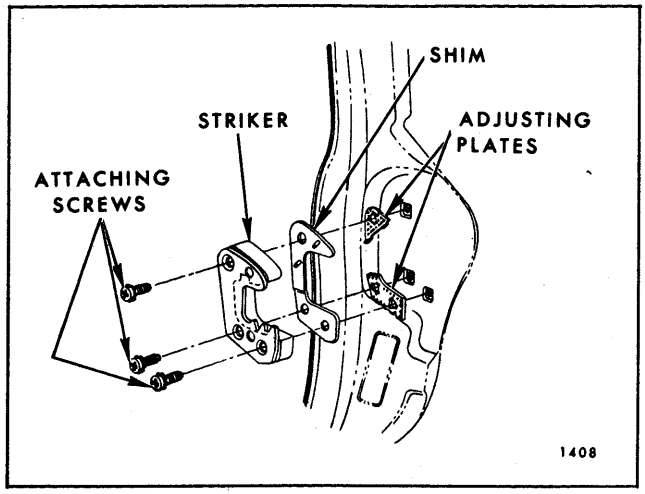

Fig. 7-34—Door Lock Striker Installation

Removal and Installation:

1. Mark position of striker on body lock pillar using a pencil.
2. Insert a 5/16" wrench into hex-head fitting in head of striker bolt and remove striker (Fig. 7-32).
3. To install, reverse removal procedure. Make certain striker is positioned within pencil mark. Also, make certain that paint protecting plastic washer is installed (Fig. 7-32).

IMPORTANT: Whenever a door has been removed and reinstalled or realigned, the door should not be closed completely until a visual check is made to determine if lock fork-bolt will correctly engage with striker.

Adjustments

1. To adjust striker up or down, or in or out, loosen striker bolt and shift striker as required; then tighten striker.
2. To determine if striker fore or aft adjustment is required, proceed as follows:
   a. Make certain door is properly aligned.
   b. Apply modeling clay or body caulking compound to lock bolt opening as shown in Figure 7-33.
   c. Close door only as far as necessary for striker bolt to form an impression in clay

or caulking compound as shown in Figure 7-33.

CAUTION: Do not close door completely. Complete door closing will make clay removal very difficult.

d. Measure the impression in the clay as follows: Striker head should be centered fore and aft as shown. Although 3/16" is shown as desired measurement on both sides of striker head, a tolerance of plus or minus 1/32" is allowed. The following spacers are available as service parts and can be used individually or in combination to achieve the desired alignment.

5/64" spacer - Part #4469196

5/32" spacer - Part #4469197

1/4 " spacer - Part #4469194

5/16" spacer - Part #4469195

FRONT AND REAR DOOR LOCK STRIKERS—"X" BODY STYLES

As shown in Figure 7-34, the door lock striker is secured to the center pillar or body lock pillar by cross-recessed attaching screws. By loosening the screws the striker can be adjusted up-or-down or in-or-out. By adding or subtracting shims, the striker can be adjusted fore or aft.

Removal and Installation:

1. With a pencil, mark position of striker on body pillar.
2. Remove door lock striker attaching screws and remove striker and adjusting plates from pillar (Fig. 7-34).
3. Prior to installation, seal all striker plate attaching screw clearance holes with body caulking compound.
4. Apply a 1/8" bead of body caulking compound around entire back surface of striker plate.
5. Place striker and adjusting plates within scribe marks on pillar and install striker plate attaching screws.

CAUTION: Whenever a door has been removed and installed or realigned, the door SHOULD NOT be closed completely until a visual check is made to determine if lock extension will engage in striker notch. A single shim is installed behind the striker assembly in production (Fig. 7-34).

This shim can be removed or additional shims (available as service parts) can be installed if required. Removal or addition of shims provides fore or aft adjustment of the striker. To adjust striker up or down and in or out, proceed as follows:

Loosen striker plate attaching screws and shift striker and adjusting plates as required and tighten attaching screws (Fig. 7-34).

SIDE ROOF RAIL WEATHERSTRIP AND RETAINER

The side roof rail weatherstrip is cemented to a side roof rail weatherstrip retainer, which, in turn, is secured with screws to the side roof rail. The adhesive that retains the weatherstrip also protects against water entry between the retainer and weatherstrip. A saturated polyurethane foam sealing strip prevents water entry between the retainer and side roof rail.

Removal—("17-37-39-57 and C-69" Styles)

1. Remove plastic fasteners at front and screw at rear of side roof rail weatherstrip. On "C-69" styles, plastic fasteners are used at front of front door side rail weatherstrip and screw at rear of rear door side rail weatherstrip (Fig. 7-35 for "17-37-39 and 57" Styles, Fig. 7-36 for "C-69" Styles).
2. While carefully pulling weatherstrip out of retainer, simultaneously break cement bond between weatherstrip and weatherstrip retainer using a flat-blade tool.
3. With weatherstrip removed, screws securing weatherstrip retainer to side roof rail are exposed. Remove screws to remove side roof rail weatherstrip retainer (Fig. 7-39).

Removal—(Chev, "47" Style, Buick—Oldsmobile "87" Styles)

1. At front of weatherstrip, disengage plastic fasteners from front body hinge pillar (Fig. 7-37 and 7-38).
2. Remove screw inserted through weatherstrip into side roof rail at rear of weatherstrip where it joins quarter window run channel.
3. Starting at front body hinge pillar, carefully pull weatherstrip out of retainer while simultaneously using a flat blade tool to break cement bond between retainer and weatherstrip.

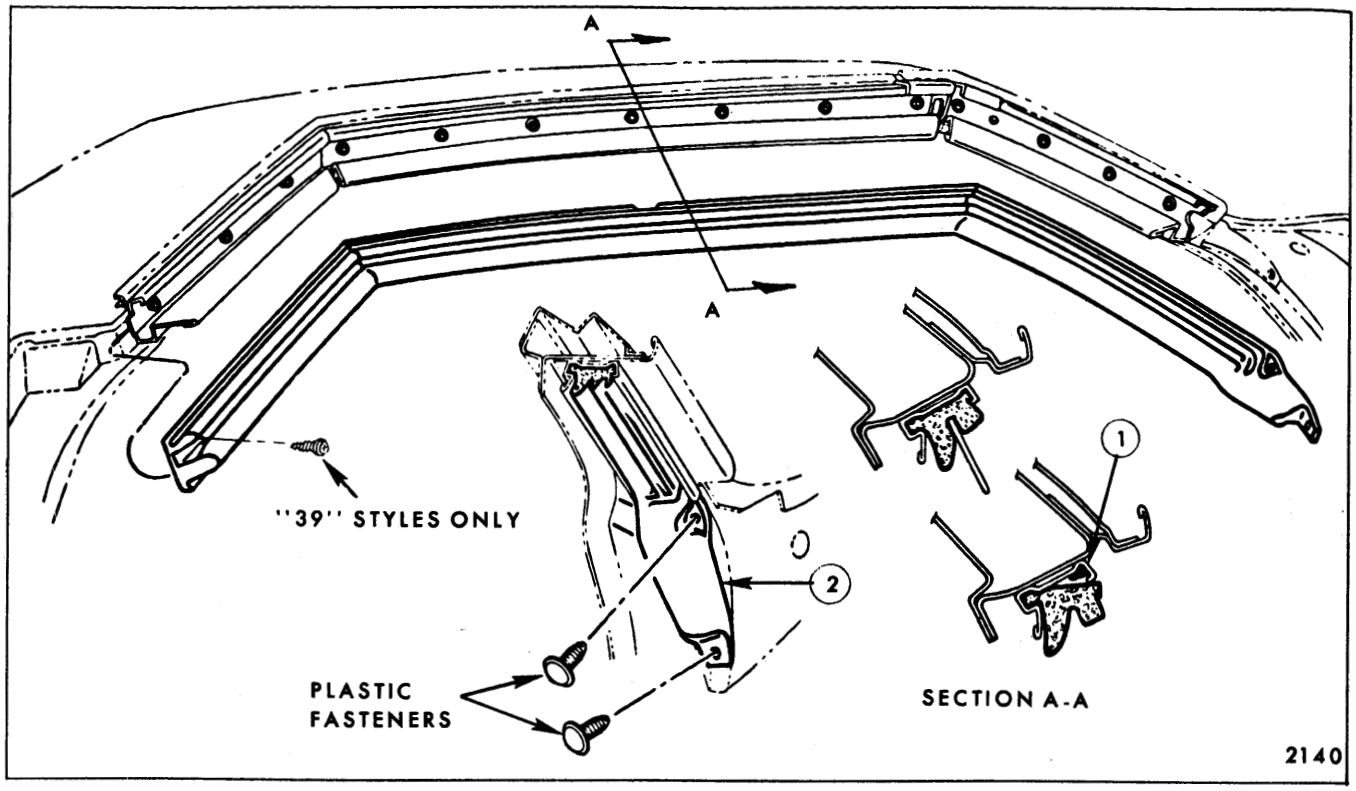

Fig. 7-35—Side Roof Rail Weatherstrip - "17-37-39 and 57" Styles

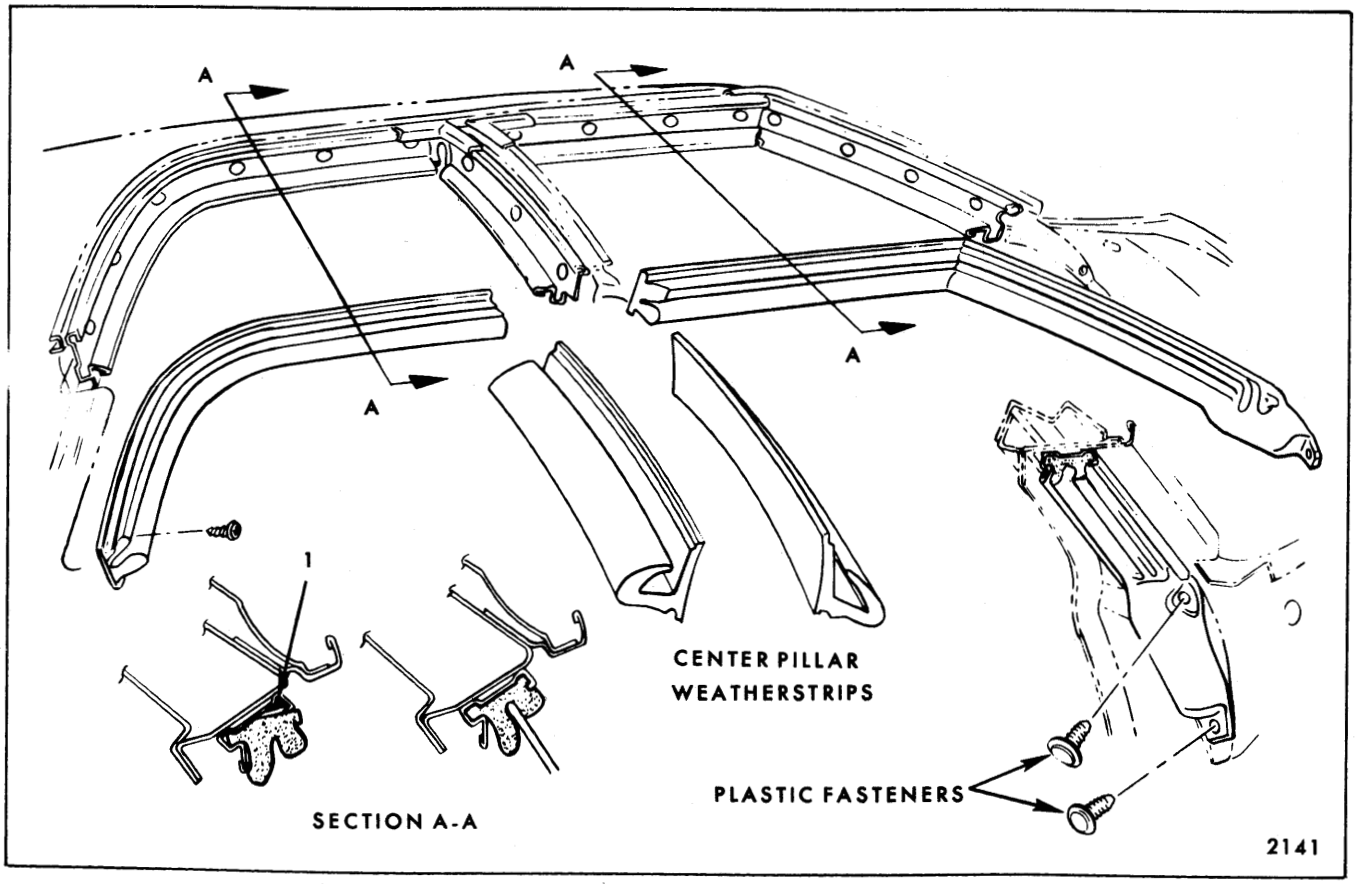

Fig. 7-36—Side Roof Rail and Center Pillar Weatherstrips - "C-69" Styles

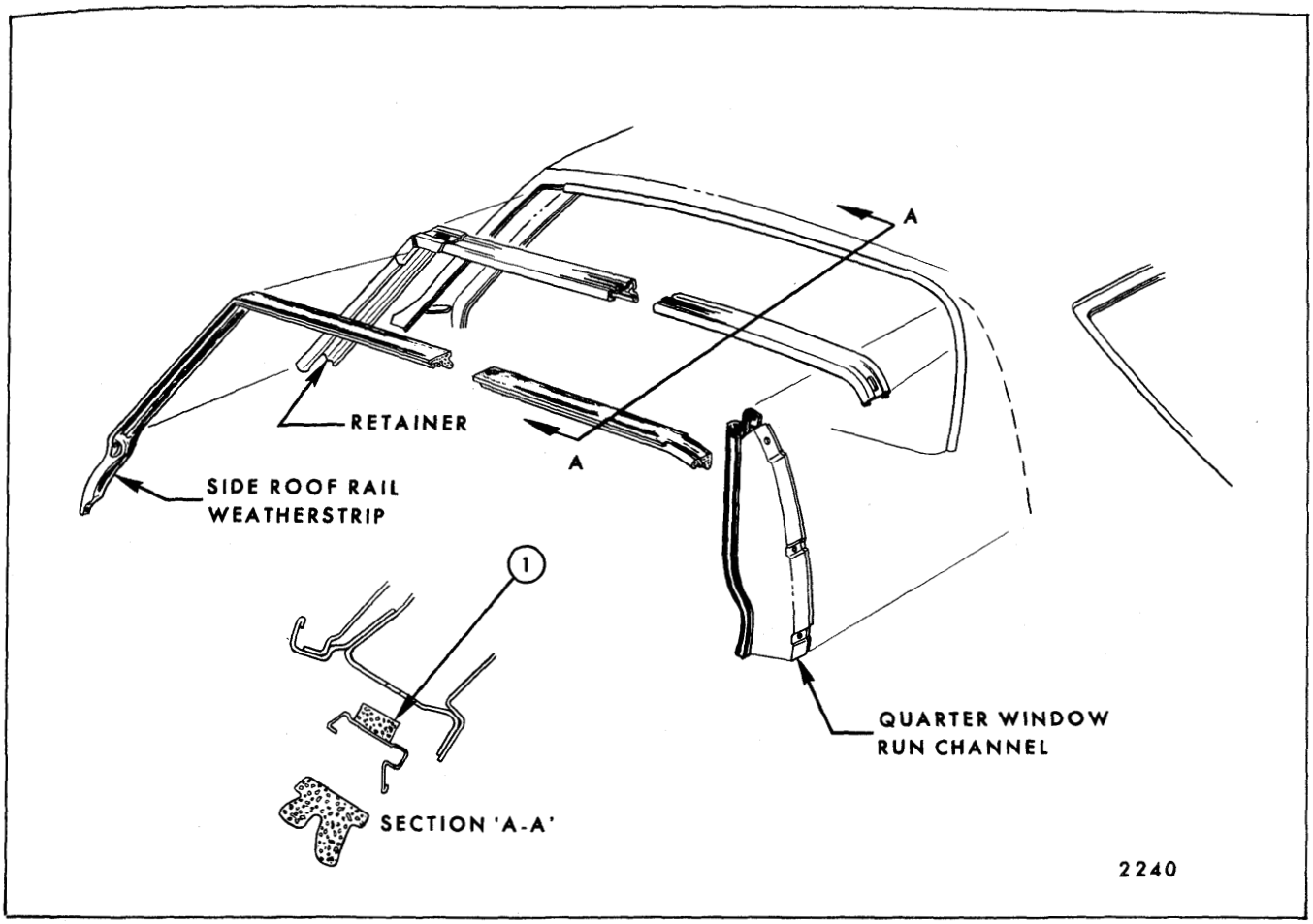

Fig. 7-37—Side Roof Rail Weatherstrip and Retainer - "B-47" Styles

4. On "87" Styles only, carefully break cement bond at butt joint of weatherstrip and quarter window rear run channel and remove weatherstrip.

5. If retainer is to be removed, remove attaching screws and pull retainer forward.

Installation (All Styles)

1. If retainer were removed, remove and discard saturated polyurethane foam sealing strip from side roof rail weatherstrip retainer and/or side roof rail. ("1", Fig. 7-38 and 7-37 "E & B" Styles shown, others similar).

2. Scrape off any excess black weatherstrip adhesive from weatherstrip retainer.

3. Apply a continuous bead of a pumpable type body caulking compound to surface of retainer that mates with side roof rail ("1", Fig. 7-39). Apply bead outboard of attaching screw holes.

4. Position retainer to body and install attaching screws. Prior to installing weatherstrip, reinstall door glass stabilizer clip(s) in retainer using retainer screws for retention. (Fig. 7-39 for all styles except "C-69", Fig. 7-36 for clip locations on "C-69" Styles). At front door opening, install clip just forward of front door window upper rear corner. On "C-69" Style rear doors, install clip just rearward of rear door window front upper corner.

5. Apply a bead of black weatherstrip adhesive to outboard flange of weatherstrip retainer ("1", Fig. 7-35 & 7-36). Extend adhesive down front body hinge pillar to seal lower front end of weatherstrip that is retained with plastic fasteners ("2", Fig. 7-35).

6. Position front end of weatherstrip to body and install plastic fasteners. Then, using a flat-blade tool, begin engaging weatherstrip with retainer as shown in Section "A-A", Figures 7-35 and 7-36). Engage inboard lip of weatherstrip first, then, outboard lip.

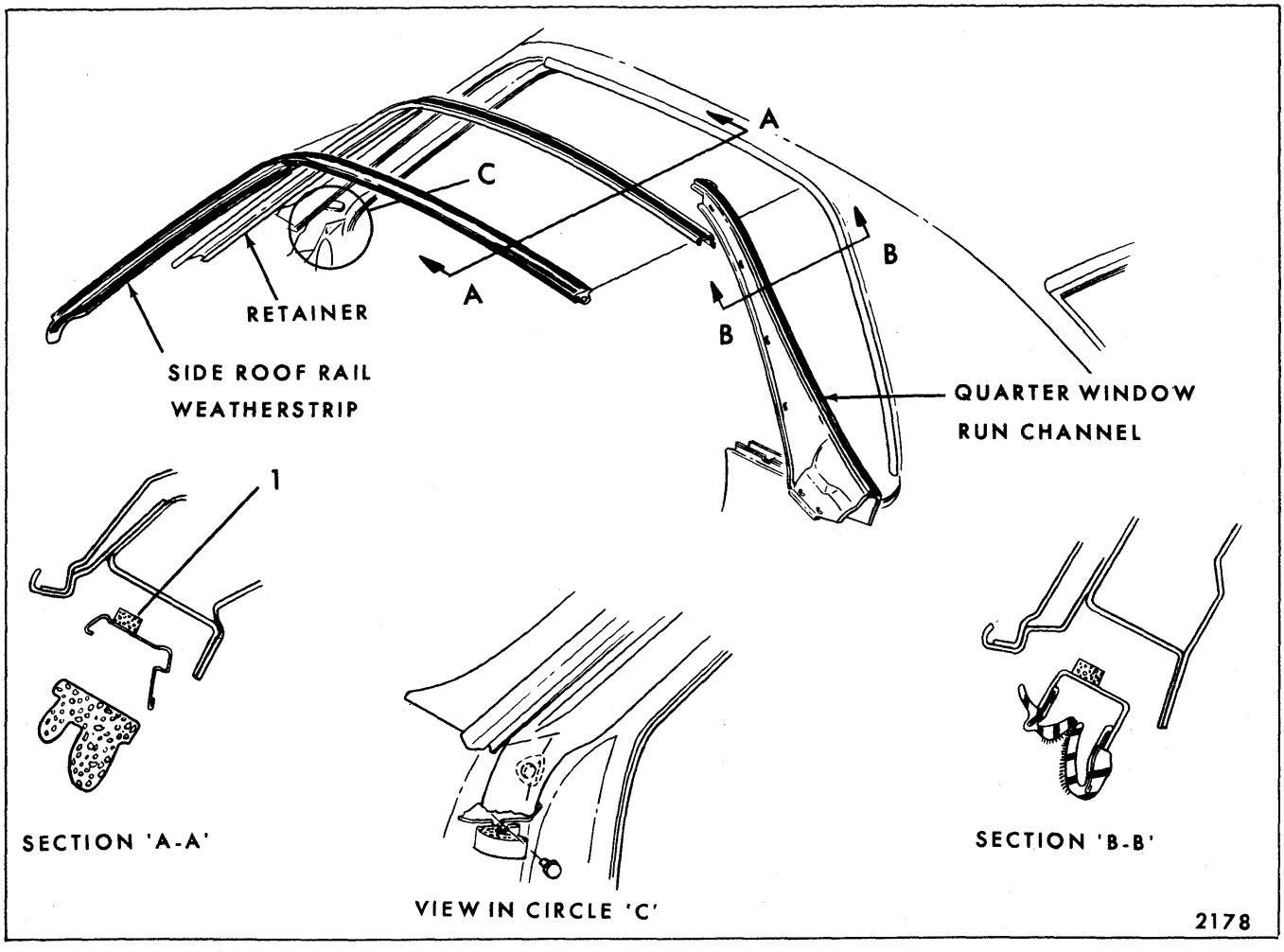

Fig. 7-38—Side Roof Rail Weatherstrip and Retainer - "E" Styles

7. After weatherstrip has been installed along length of retainer on "39" and "C-69" Style, install screw at rear end of weatherstrip (Figs. 7-35 and 7-36).

SIDE ROOF RAIL WEATHERSTRIP ADJUSTMENT

The side roof rail weatherstrip can be adjusted either inboard or outboard to effect a proper seal with the door or quarter window. To reposition the weatherstrip, disengage the inboard edge of weatherstrip from retainer and loosen retainer attaching screws. Adjust retainer as required and tighten screws. For proper relationship of weatherstrip to door window, refer to "Front Door Window Adjustments".

CENTER PILLAR WEATHERSTRIPS C-69 STYLES

The center pillar weatherstrips are retained with adhesive in retainers that are screwed to the center pillar. In addition, the weatherstrips are retained at the top by a barb in the retainer that engages the weatherstrip. Due to the presence of the barb, a center pillar weatherstrip cannot be removed by sliding it out at the bottom of the retainer. Instead, it must be worked out of the retainer with a flat-blade tool. Starting at the lower end and working upward, disengage weatherstrip from retainer outboard flange.

Although the weatherstrip cannot be slid out of the retainer, it is installed by engaging the upper end of the strip with the lower end of the retainer and sliding the strip upward. Prior to installing weatherstrip, apply a bead of black weatherstrip adhesive to outboard flange of retainer to secure weatherstrip when it is installed.

NOTE: The center pillar weatherstrips can be adjusted inboard or outboard to achieve a better seal with the door window. To reposition the weatherstrip, remove weatherstrip from retainer and adjust retainer in or out as required.

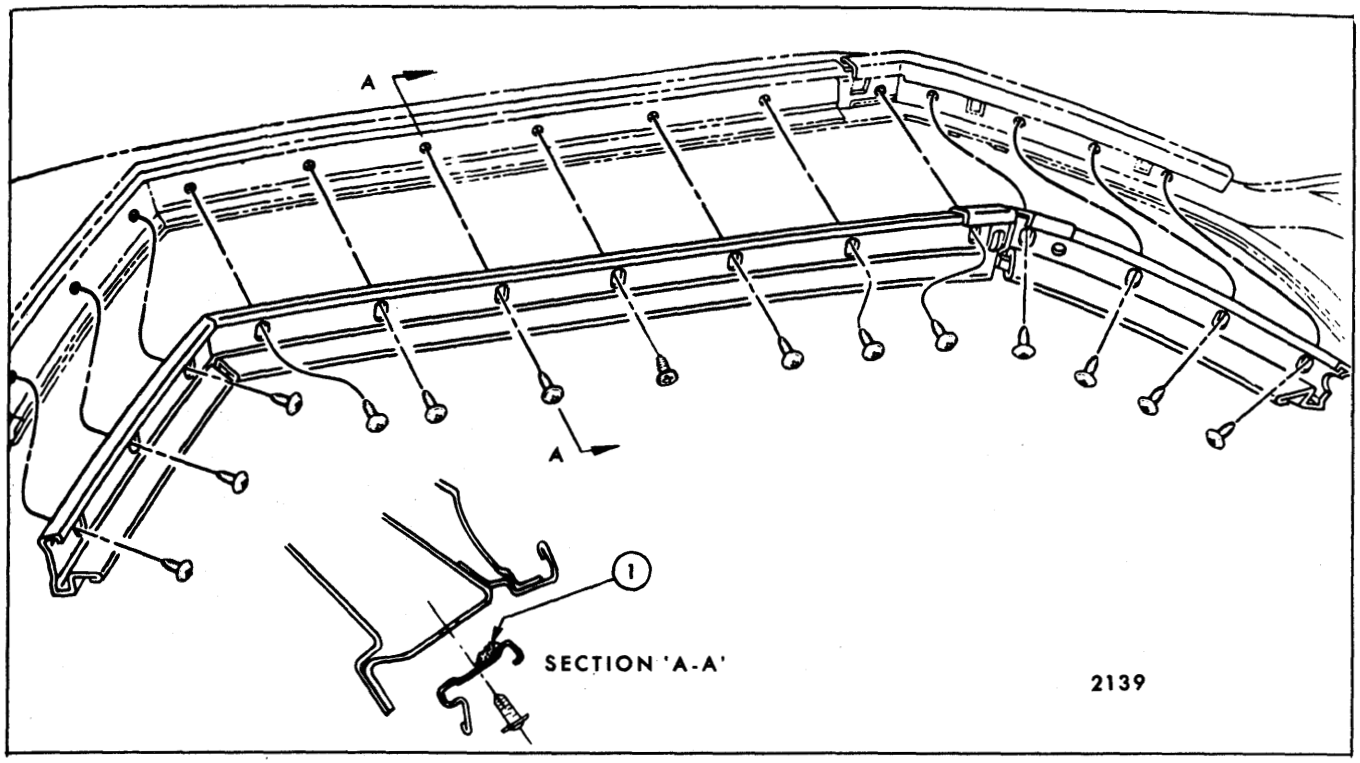

Fig. 7-39—Side Roof Rail Weatherstrip Retainer - "17-37-39 and 57" Styles

FRONT DOORS

DESCRIPTION

All doors fall into two basic categories, closed styles (those with door upper frames) and hard top or convertible styles (those without door upper frames). Although front doors utilize the same fundamental hardware, the presence or lack of a door upper frame usually determines the removal or installation sequence of any particular part.

Any work performed on door hardware usually requires removal of trim pad and inner panel water deflector. The procedures for these items are covered in "Front and Rear Doors" (see index).

Unless otherwise stated, the front door service procedures listed here pertain to all body styles.

Illustrations 7-40, 7-41, 7-42, 7-43, 7-44, 7-45, 7-46, 7-47, 7-48 and 7-49, are typical of front doors with the trim assembly and inner panel water deflector removed. These figures identify the component parts of the front door assembly (by style), their relationship and various attaching points.

FRONT DOOR HINGES

Hinges are the swing-in type on "A-X & Z" Body Styles and the swing-out type on "B-C & E" Body Styles. Both upper and lower hinges on "Z" Body Styles and upper hinges only on "A & Z" Body Styles are constructed of die cast aluminum. The lower hinges on "A & X" Bodies and both upper and lower hinges on "E" Bodies are constructed of malleable iron. An integral check is incorporated into the upper hinge on "E" Body Styles; a two stage hold-open is incorporated into lower hinges of "A-B-C & E" Body Styles; and, an integral check and single stage hold-open feature is used on lower hinge of "X & Z" Body Styles.

CAUTION: Use only the recommended procedures for adjusting front doors. Hinges will break under strain of bending in any attempt to short-cut adjustments. Care should also be exercised when removing or replacing a door assembly.

Removal and Installation

The front door assembly can be removed with or without the hinges attached. If only the door

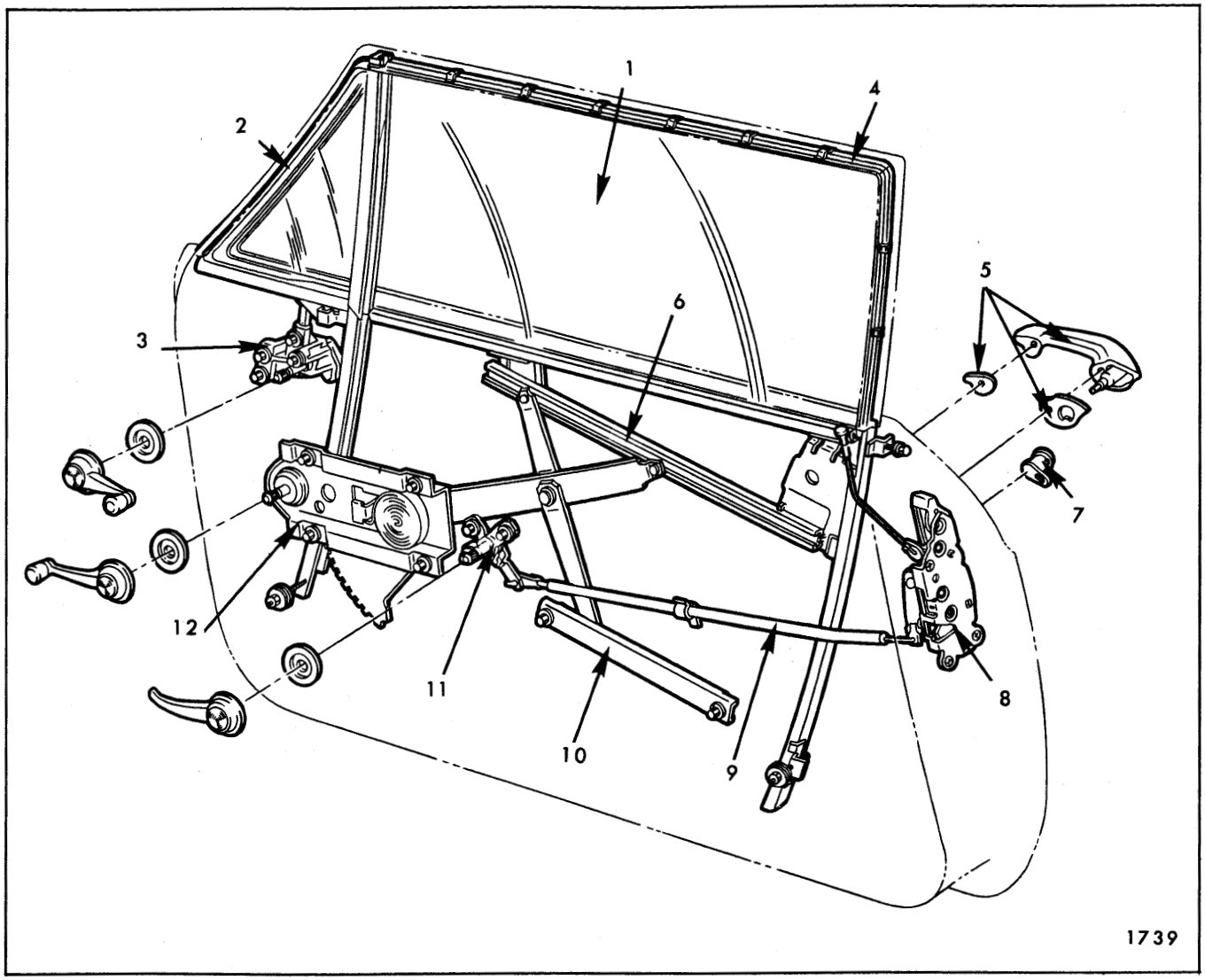

Fig. 7-40—Front Door Hardware - "B" Closed Styles

1. Window Assembly
2. Ventilator Assembly
3. Ventilator Regulator
4. Window Glass Run Channel
5. Door Outside Handle and Sealing Gaskets
6. Lower Sash Channel Cam
7. Lock Cylinder
8. Door Lock
9. Remote Control Connecting Rod
10. Inner Panel Cam
11. Remote Control
12. Window Regulator

assembly is to be serviced, it is recommended that the door be removed from the hinges. If the hinges must be serviced, remove the door and hinges from the body as an assembly and remove the hinges from the door in a bench operation.

1. Mark (pencil) hinge location on door or body pillar, dependant on how door will be removed (with or without hinges).

2. On doors equipped with power operated windows and/or vacuum door locks, remove trim pad and water deflector sufficiently to disconnect harness assembly(s) and remove same from door. On Pontiac-Oldsmobile-Buick styles equipped with electric ventilators, disconnect door wire harness at jumper wire connector, not at motor. On Cadillac styles with electric ventilators, disconnect harness at motor.

NOTE: On all styles, removal of door from body (without hinges attached) can be accomplished without loosening front fender. On "A-E & X" Body Styles, however, removal of hinges necessitates loosening of front fender.

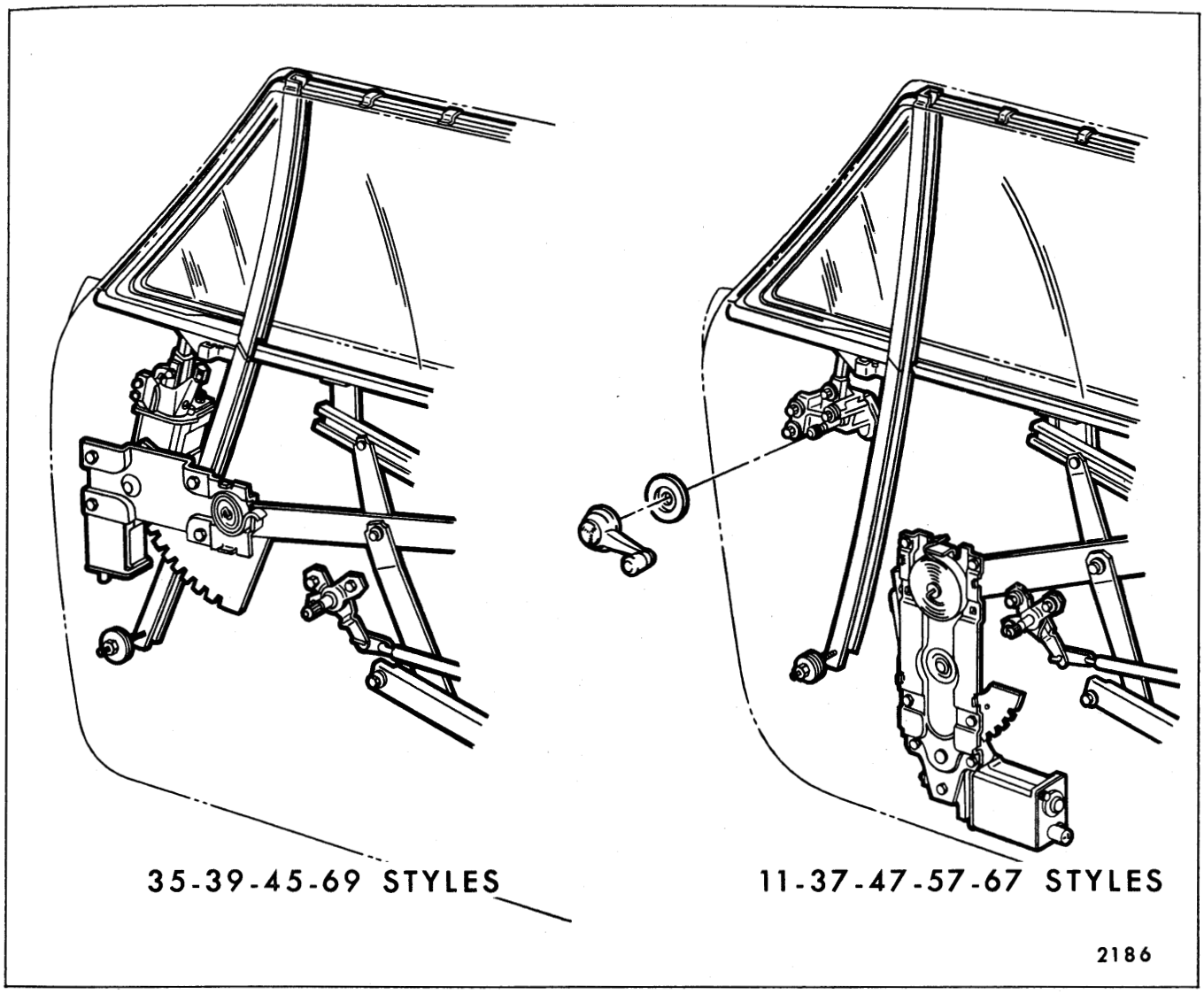

Fig. 7-41—Front Door Hardware Electrical Options - "B & C" Styles
NOTE: Electric ventilator available on both closed and hardtop styles, but not on all styles or all models.

3. To remove door, proceed as follows:

   a. Without hinges attached:

      (1) With aid of a helper (to support door) remove upper and lower hinge to door attaching bolts (or screws) and remove door from body (see Fig. 7-50 - "A" Body, Fig. 7-51 "B-C & E" Body, Fig. 7-52 - "X" Body and Fig. 7-53 - "Z" Body).

   b. With hinges attached:

      (1) On "B-C & Z" Body Styles, remove hinge to body attaching bolts and remove door (see Fig. 7-53).

      NOTE: On 68000 Series, it is necessary to remove the cowl air intake grille to gain access to the upper hinge to body attaching bolts.

      (2) On "A-E & X" Styles, loosen front fender as required:

         a. On "A" Body Styles, remove the front fender to cowl attaching bolt(s) and the first two or three (closest to cowl panel) fender to fender reinforcement attaching bolts. One or more of these latter bolts also serve as hood hinge attaching bolts.

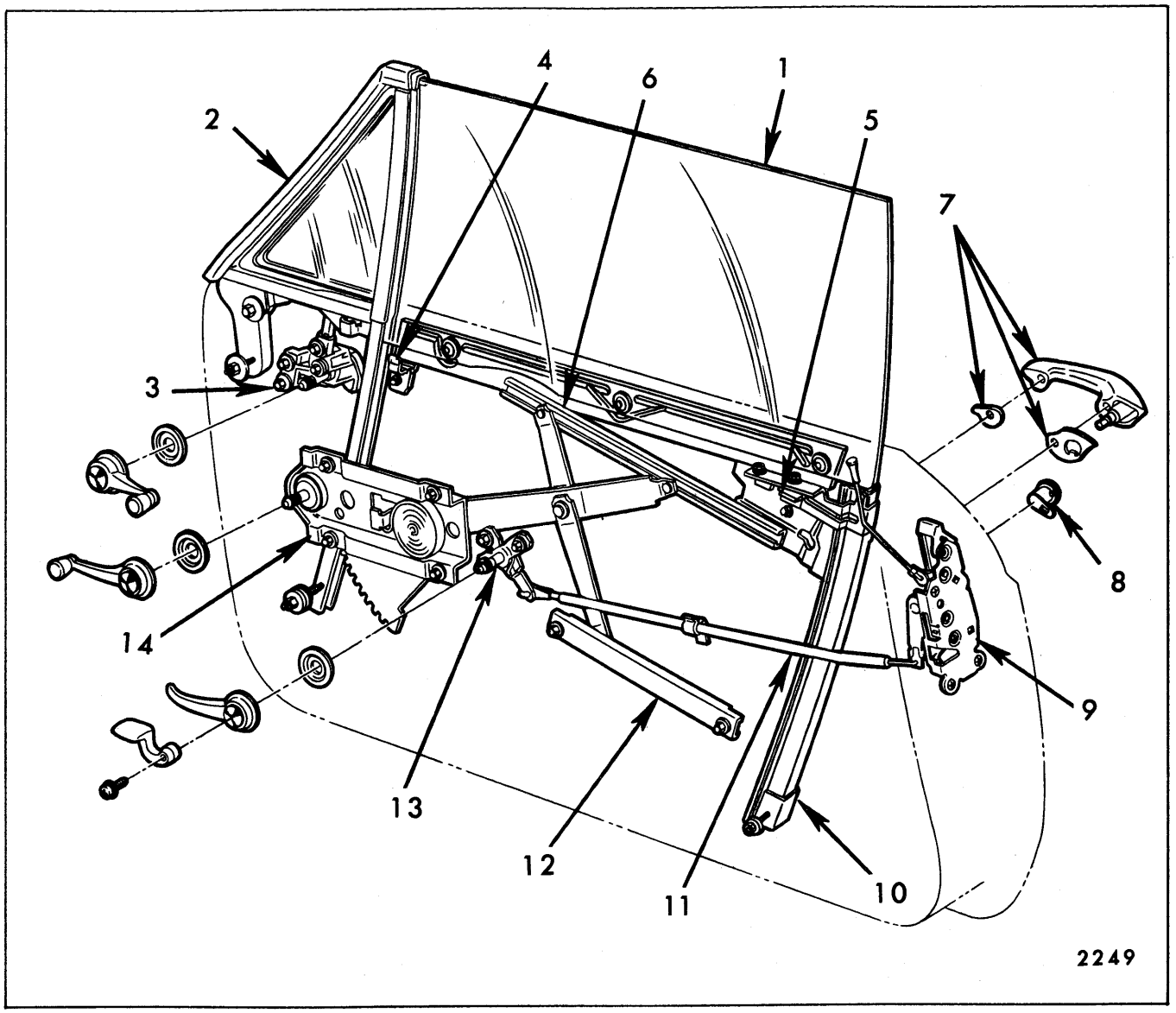

Fig. 7-42—Front Door Hardware - "B & C" "37-47-57 and 67" Styles Shown - "39" and "C-69" Styles Similar

1. Window Assembly
2. Ventilator Assembly
3. Ventilator Regulator
4. Window Front Upper Stop
5. Window Rear Upper Stop
6. Lower Sash Channel Cam (Welded to Window Lower Sash)
7. Outside Handle and Sealing Gaskets
8. Lock Cylinder
9. Door Lock
10. Window Glass Run Channel
11. Remote Control to Lock Connecting Rod
12. Inner Panel Cam
13. Remote Control
14. Window Regulator

Remove fender to rocker panel attaching bolt(s) and the first four or five fender to fender skirt attaching bolts. Prop rear of fender away from body with wooden blocks (see Fig. 7-54).

NOTE: The number of fender bolts that must be loosened to gain adequate fender clearance is determined by the style involved. Tool J-21550, however, is designed for adjustment of front door hinge to body attaching bolts. Usage of this tool alleviates the need of loosening the front fender (see Fig. 7-55).

b. On "E" Body Styles, loosen lower attachment of front fender and prop fender away from body with a wooden block (see Fig. 7-56).

c. On "X" Body Styles, remove the first six top fender bolts (number one being

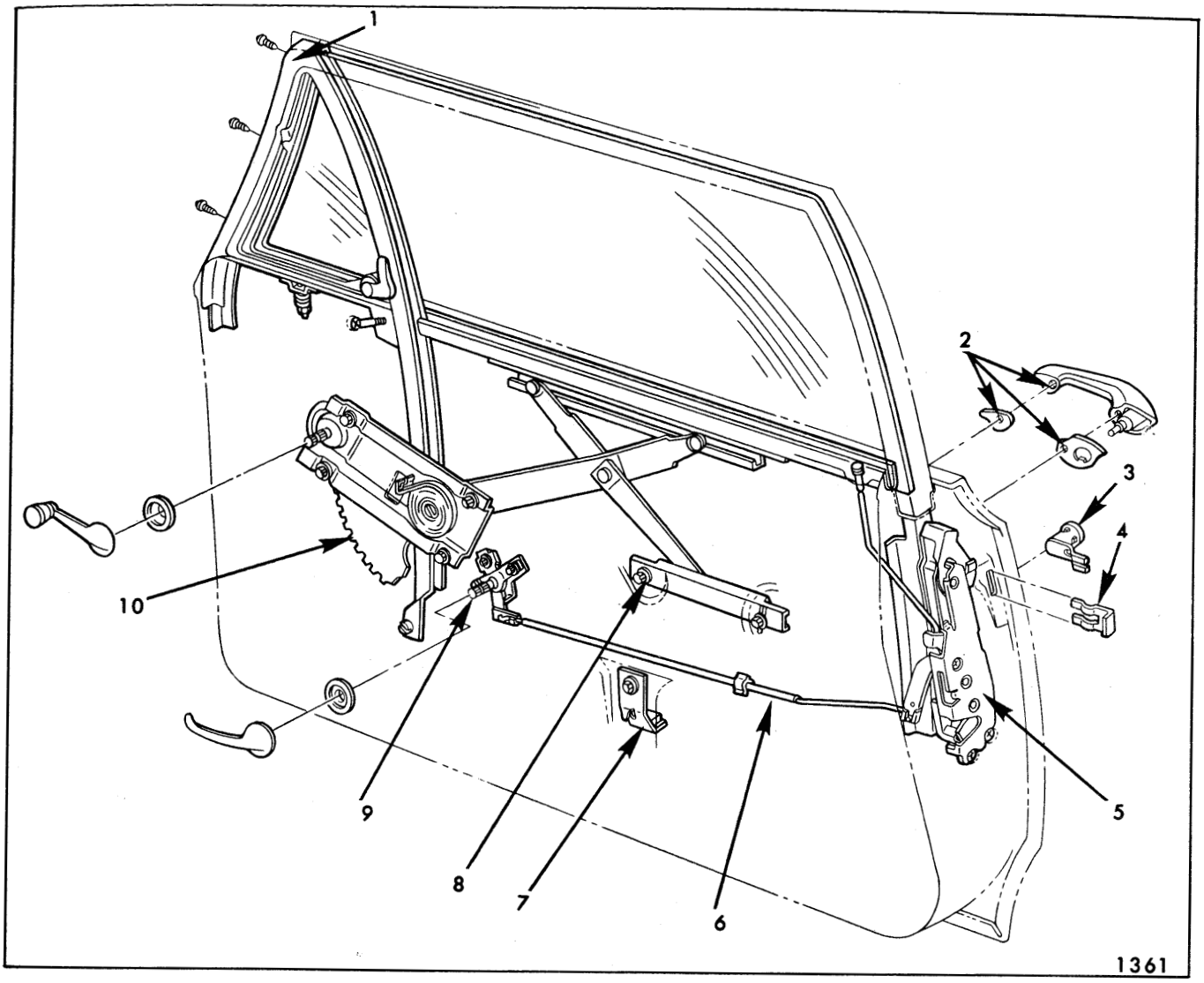

Fig. 7-43—Front Door Hardware - "A & X" Closed Styles

1. Ventilator
2. Outside Handle and Sealing Gaskets
3. Cylinder
4. Lock Cylinder Retainer
5. Lock
6. Remote Control Connecting Rod
7. Window Lower Stop
8. Inner Panel Cam
9. Remote Control
10. Window Regulator

on the cowl and working toward the front bumper). Also remove one lower fender bolt (below body hinge pillar panel, just forward of rocker panel). Hold rear of fender away from the body with a wooden block. (see Figs. 7-57 and 7-58).

(3) With aid of a helper to support door, remove upper and lower hinge to body attaching bolts (or screws) and remove door from body.

4. To install, reverse removal procedure. Align hinges within scribe marks and tighten attaching bolts or screws. Prior to installation of doors, that were removed with hinges attached, apply a coat of heavy-bodied sealer to surfaces of hinges that contact body to prevent squeaks and avoid waterleaks at attaching locations.

FRONT DOOR ADJUSTMENTS

Door adjustments are provided through the use of floating anchor plates in the door and front body hinge pillars. When checking the door for alignment, and prior to making any adjustments, remove striker from body lock pillar to allow door to hang free on its hinges. Loosen front fender as required.

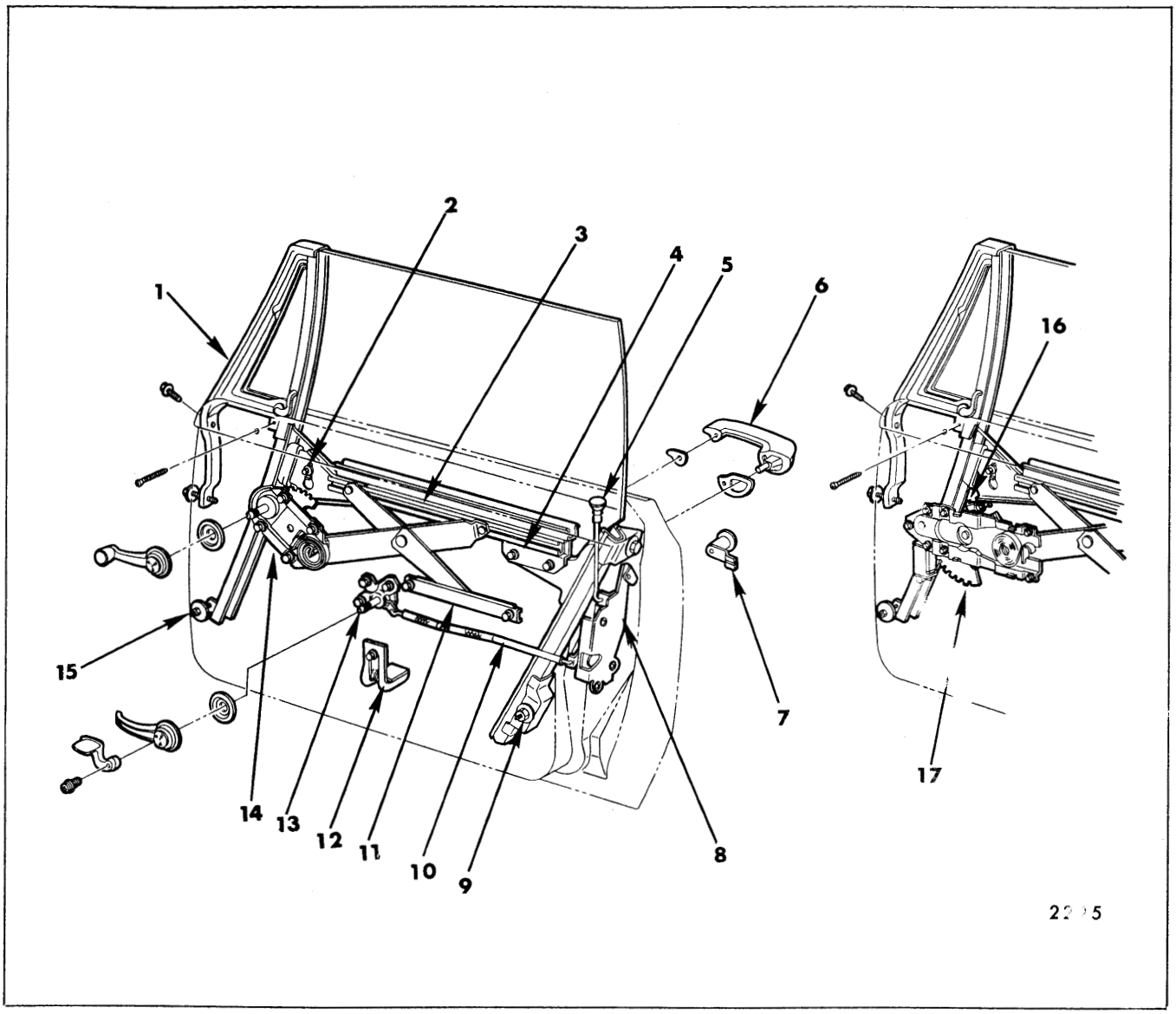

Fig. 7-44—Front Door Hardware - "A-39" Styles

1. Ventilator Front Frame
2. Window Front Up-Stop
3. Sash Channel Cam
4. Rear Guide
5. Lock to Locking Lever Rod
6. Outside Handle and Sealing Gaskets
7. Locking Cylinder
8. Lock
9. Rear Glass Run Channel
10. Remote Control Connecting Rod
11. Inner Panel Cam
12. Window Lower Stop
13. Remote Control
14. Window Regulator (Manual)
15. Ventilator Division Channel
16. Regulator Sector Gear Stop (Electric Only)
17. Window Regulator (Electric)

1. Adjustment provided at body hinge pillars:

   Up or down on all body styles, in or out on "X & Z" Body Styles and fore or aft on "A-B-C and E" Body Styles.

2. Adjustment provided at door hinge pillars:

   Fore or aft on "X & Z" Body Styles, in or out on "A-B-C & E" Body Styles and a slight amount of up or down on "A-B & C" Bodies.

When all door adjustments have been accomplished, reinstall lock striker and check lock extension to striker engagement as described in "Door Lock Striker Adjustments".

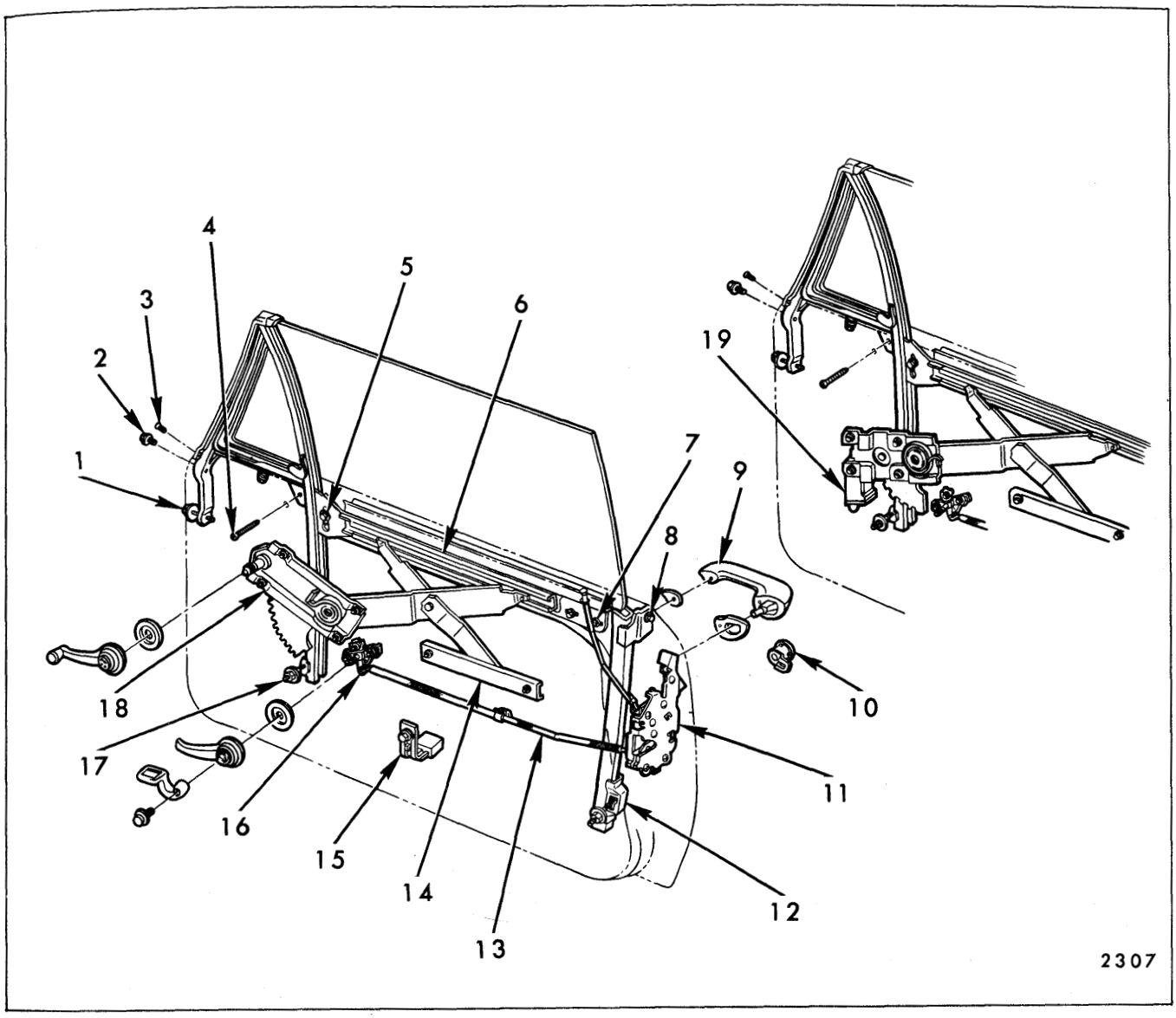

Fig. 7-45—Front Door Hardware - "A-17 and 67" Styles

1. Ventilator Frame Lower Adjusting Stud and Nut
2. Ventilator Frame Upper Attaching Bolt
3. Ventilator Frame to Inner Panel Screw
4. Ventilator to Door Inner Panel Attaching Screw
5. Window Front Up-Stop
6. Window Sash Channel Cam
7. Window Rear Guide
8. Glass Rear Run Channel Upper Bolt
9. Outside Handle Assembly
10. Lock Cylinder
11. Lock
12. Glass Rear Run Channel Lower Adjusting Stud and Nut
13. Lock to Remote Control Connecting Rod
14. Inner Panel Cam
15. Window Lower Stop
16. Remote Control
17. Ventilator Division Channel Lower Adjusting Stud and Nut
18. Window Regulator (Manual)
19. Window Regulator (Electric)

FRONT DOOR WINDOW INNER PANEL CAM

All styles equipped with a door window double arm regulator utilize an inner panel cam. This cam houses the lower roller of the regulator balance arm (see Fig. 7-40).

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.
2. Remove attaching bolts (two) and slide cam out of engagement with regulator balance arm roller.

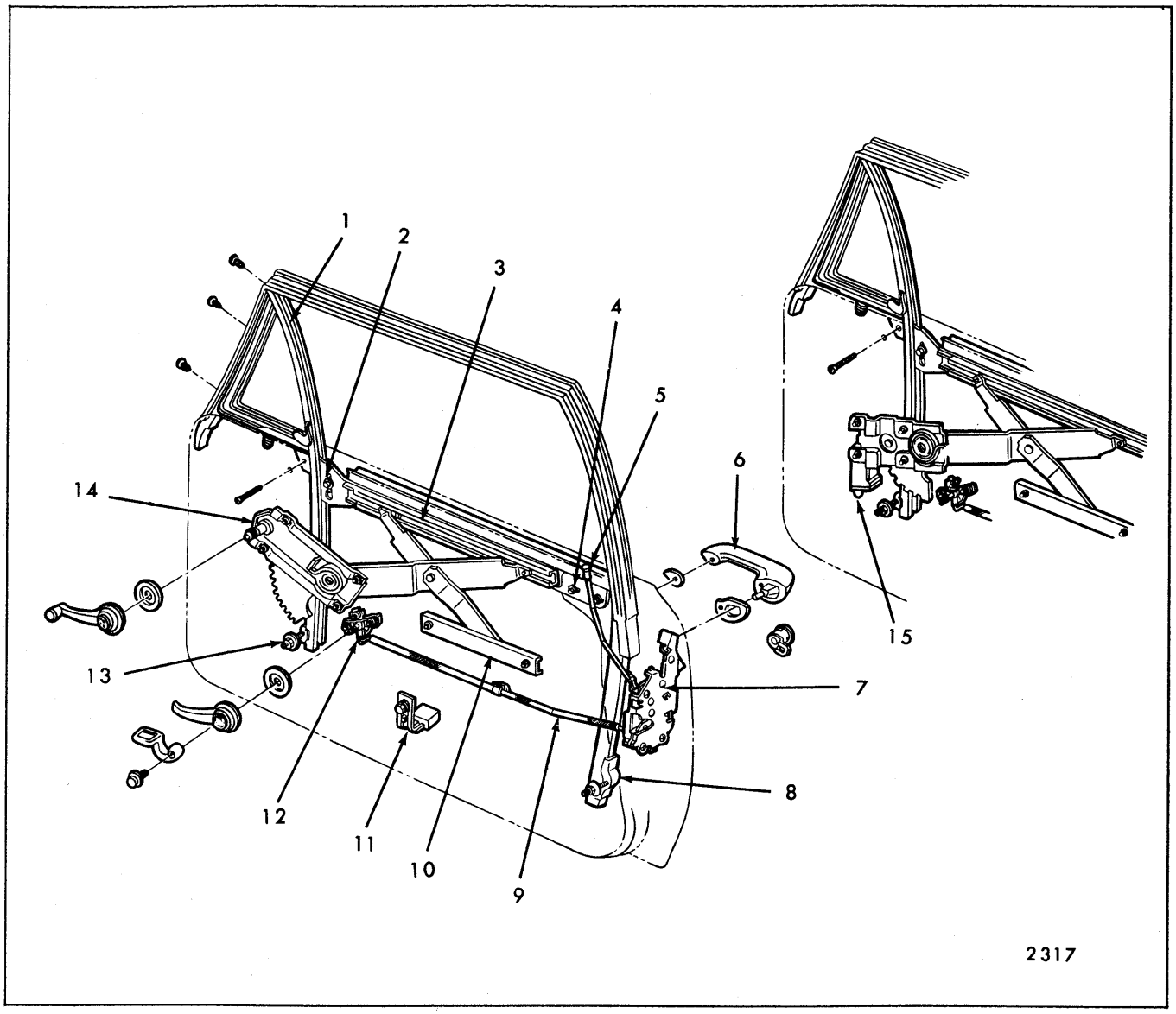

Fig. 7-46—Front Door Hardware "A-07" Styles

1. Ventilator Assembly
2. Window Front Up-Stop
3. Sash Channel Cam
4. Rear Guide
5. Lock to Locking Lever Rod
6. Outside Handle and Sealing Gaskets
7. Lock
8. Rear Glass Run Channel
9. Remote Control Connecting Rod
10. Inner Panel Cam
11. Window Lower Stop
12. Remote Control
13. Ventilator Division Channel
14. Window Regulator (Manual)
15. Window Regulator (Electric)

NOTE: One end of the inner panel cam is adjustable up or down to correct a rotated door window.

FRONT DOOR LOCK REMOTE CONTROL AND CONNECTING ROD

The remote control is secured to the door inner panel by three attaching bolts. On some styles the remote is attached to the inboard surface of the inner panel and on other styles, to the outboard surface. The removal and installation is, however, the same for either method of attachment (Fig. 7-59).

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.

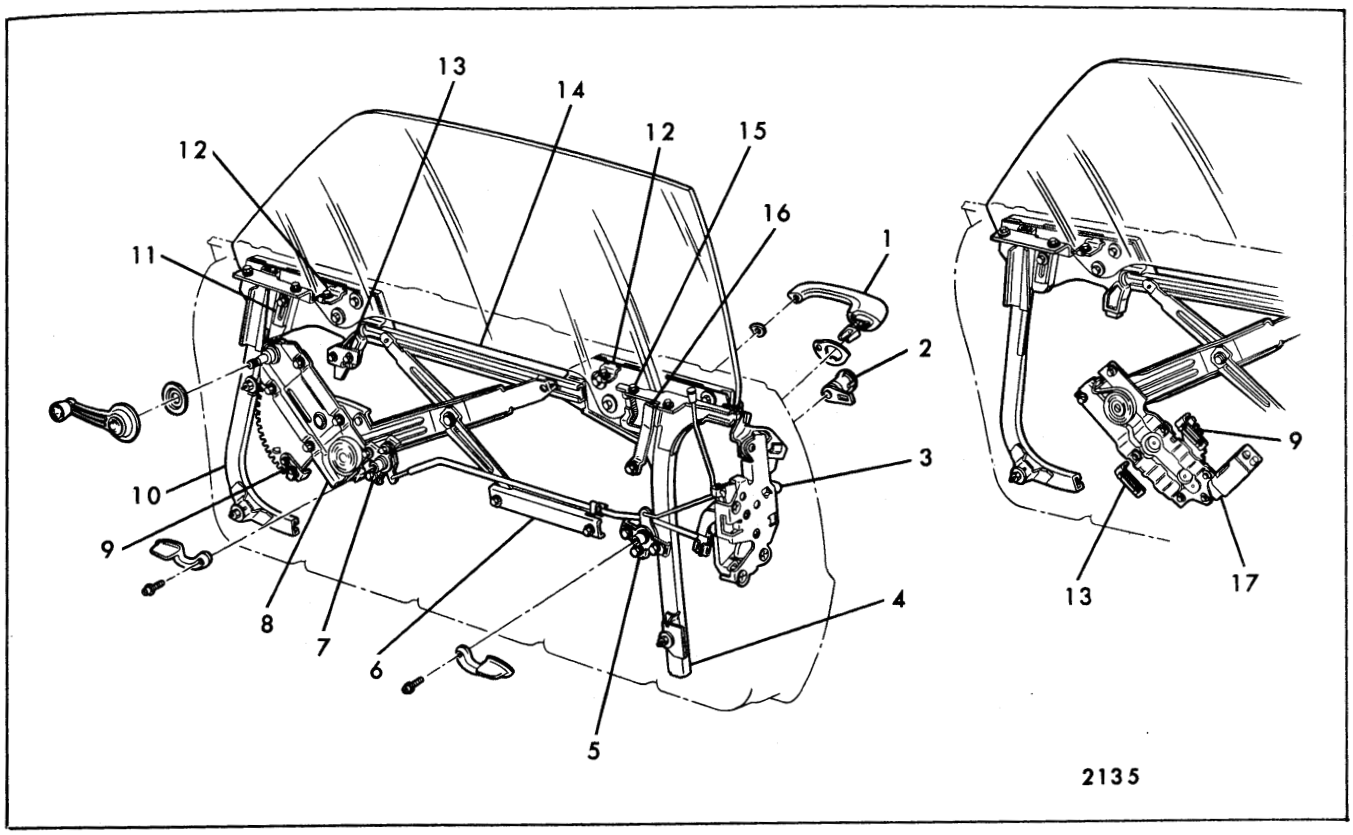

Fig. 7-47—Front Door Hardware "E" Styles

1. Outside Handle
2. Lock Cylinder
3. Lock
4. Window Rear Guide Channel
5. Rear Remote Control (Optional)
6. Inner Panel Cam
7. Front Remote Control
8. Window Regulator (Manual)
9. Window Regulator Sector Gear Stop (Up-Travel)
10. Window Front Guide Channel
11. Window Front Up-Stop
12. Trim Pad Adjusting Plate
13. Window Regulator Sector Gear Stop (Down-Travel)
14. Window Glass Lower Sash Channel Cam
15. Window Glass Stabilizer
16. Window Rear Up-Stop
17. Window Regulator (Electric)

NOTE: Some "E" Body Styles are equipped with two remote controls, one front and one rear. Attachment for both, however, is the same.

2. Remove bolts securing remote to door inner panel ("2", Fig. 7-59).

3. Pivot remote inboard slightly, to disengage connecting rod, and remove remote from door.

4. To install, reverse removal procedure.

NOTE: Connecting rod can be removed at this point by disconnecting spring clip from lock.

FRONT DOOR LOCK ASSEMBLY AND VACUUM ACTUATOR

All styles except "X" Body Styles use the fork bolt lock design. The "X" Body Styles use the rotary bolt type. Both types include a safety interlock feature. Where necessary, striker spacers should be used to insure satisfactory lock and striker engagement.

Removal and Installation

1. Raise door window; remove trim pad and detach inner panel water deflector.

2. Working through large access hole, disengage remote control to lock connecting rod at lock

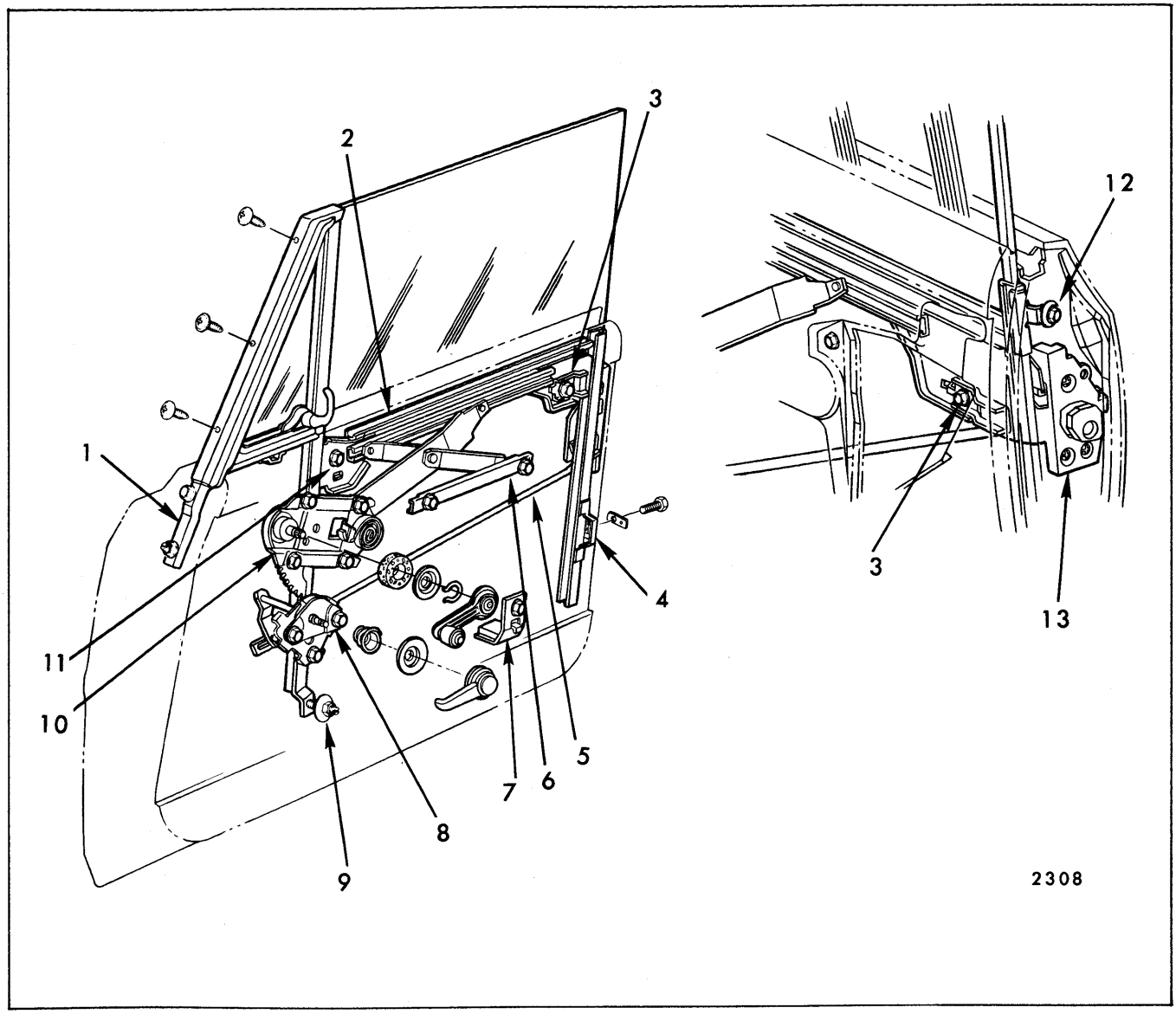

Fig. 7-48—Front Door Hardware "X-37" Styles

1. Ventilator Front Frame
2. Sash Channel Cam
3. Window Rear Up-Stop
4. Rear Glass Run Channel Lower Attachment
5. Remote Control Connecting Rod
6. Inner Panel Cam
7. Window Lower Stop
8. Remote Control Assembly
9. Ventilator Division Channel
10. Regulator
11. Window Front Up-Stop
12. Rear Glass Run Channel Upper Attachment
13. Lock

as specified under "Door Lock Spring Clips" in the preceding Front and Rear Door section.

NOTE: On some styles, it may be necessary to loosen the rear glass run channel to gain sufficient clearance to remove lock.

3. On styles with vacuum lock actuators, disconnect vacuum hoses from actuators.

4. Remove three screws securing lock to door lock pillar panel and remove lock assembly, with lock to locking lever rod attached, from body (see Fig. 7-60 - "A" Body shown, other styles similar). If vacuum actuator is to be serviced, remove in bench operation.

NOTE: The design of the lock to locking lever rod attaching clip does not allow disengagement of rod from lock with lock in an installed position. This rod can be removed from lock as a bench operation after removal of lock assembly.

5. To install, reverse removal procedure.

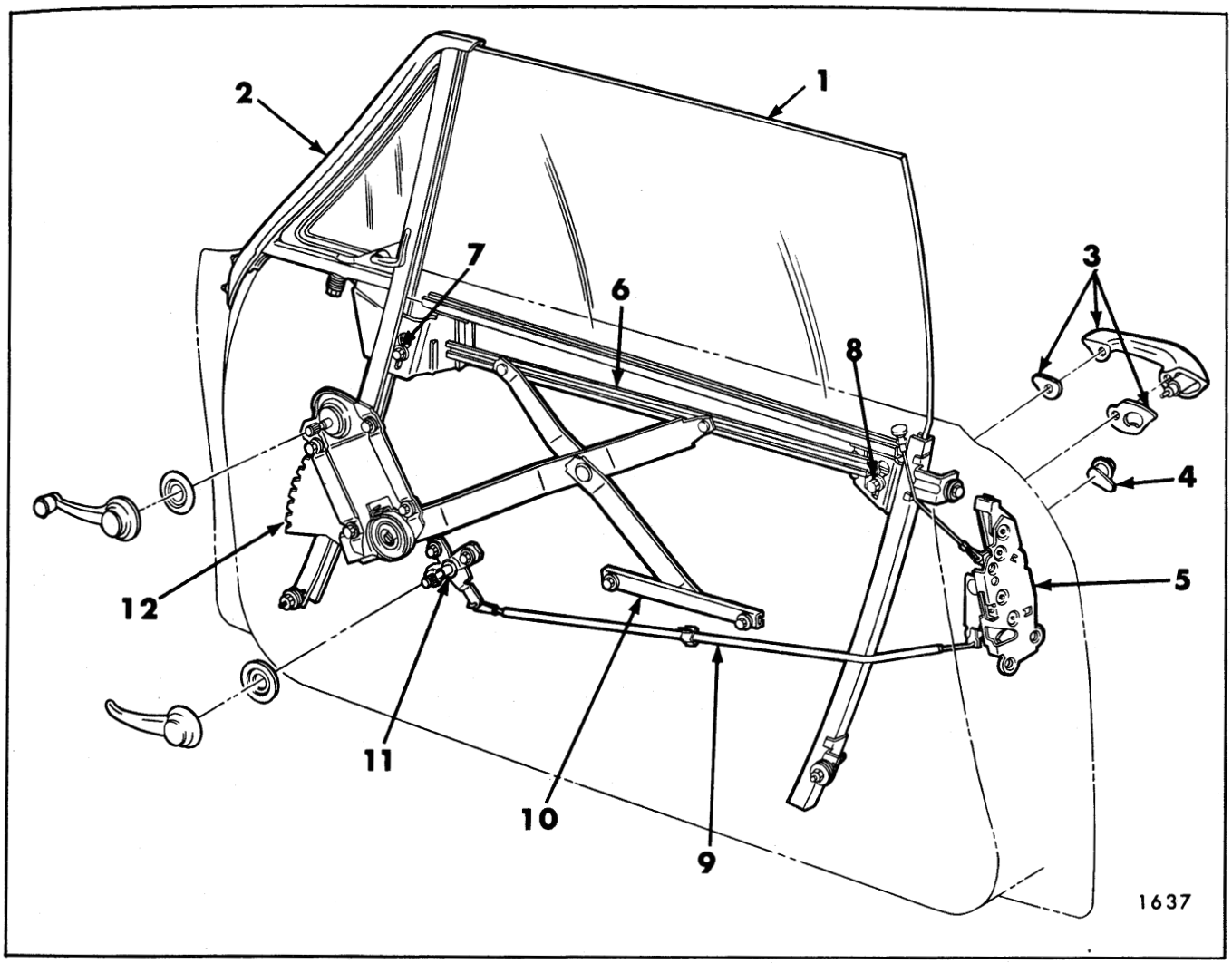

Fig. 7-49—Front Door Hardware "Z-37 and 67" Styles - "39" Similar

1. Window Assembly
2. Ventilator Assembly
3. Door Outside Handle and Sealing Gaskets
4. Lock Cylinder
5. Door Lock
6. Lower Sash Channel Cam
7. Front Up-Travel Stop
8. Rear Up-Travel Stop
9. Remote Control Connecting Rod
10. Inner Panel Cam
11. Remote Control
12. Window Regulator

NOTE: The complete vacuum system and trouble-shooting procedure is covered elsewhere in this manual - see index.

FRONT DOOR LOCK CYLINDER ASSEMBLY—ALL STYLES EXCEPT CHEVROLET FOUR-DOOR STYLES

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.
2. With a screwdriver, or other suitable tool, slide lock cylinder retaining clip (on door outer panel) out of engagement and remove lock cylinder (see Fig. 7-61).
3. To install, reverse removal procedure.

FRONT DOOR LOCK CYLINDER ASSEMBLY—CHEVROLET "B" FOUR-DOOR STYLES

Removal and Installation

1. Perform steps 1 and 2 of the preceding "Front Door Lock Cylinder Assembly" procedure.

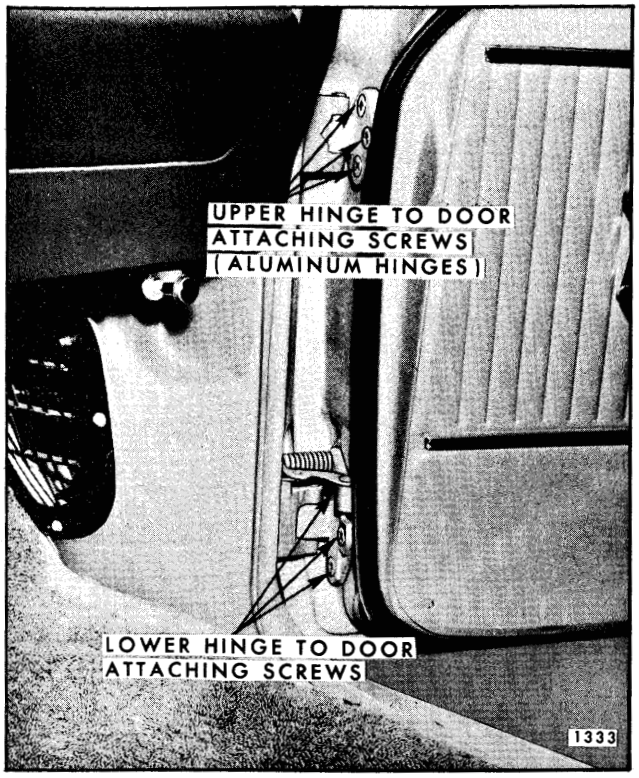

Fig. 7-50—Front Door Hinge Attachment - "A" Styles

2. Disengage spring clip securing lock cylinder to lock connecting rod at lock ("B", Fig. 7-62). Refer to "Front and Rear Door" section for spring clip disengagement.

3. Disengage lock cylinder to lock connecting rod at lock cylinder and remove lock cylinder and sealing gasket from outside of door.

4. To install, reverse removal procedure.

Disassembly and Assembly

1. Remove lock cylinder from door.

2. With a flat-bladed tool, remove retaining clip and pawl (Fig. 7-63).

3. To assemble, reverse disassembly procedure.

NOTE: The lock cylinder housing scalp used in production is usually damaged when removed and must be replaced by a new scalp available as a service part. The service lock cylinder housing scalp is secured by tabs.

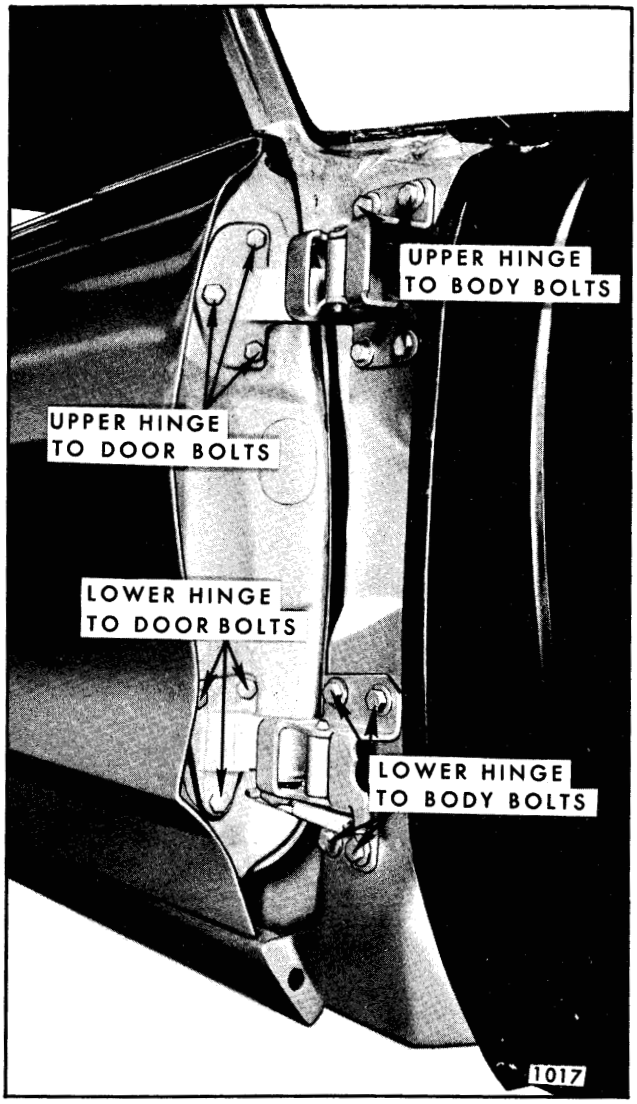

Fig. 7-51—Front Door Hinge Attachment - "B-C and E" Styles

FRONT DOOR VENTILATOR REGULATOR-MANUAL AND ELECTRIC— ALL "B & C" STYLES

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to regulator attachments.

2, On Pontiac, Oldsmobile and Buick styles equipped with electric ventilator regulators, disconnect door wire harness at ventilator jumper harness connector, not at ventilator

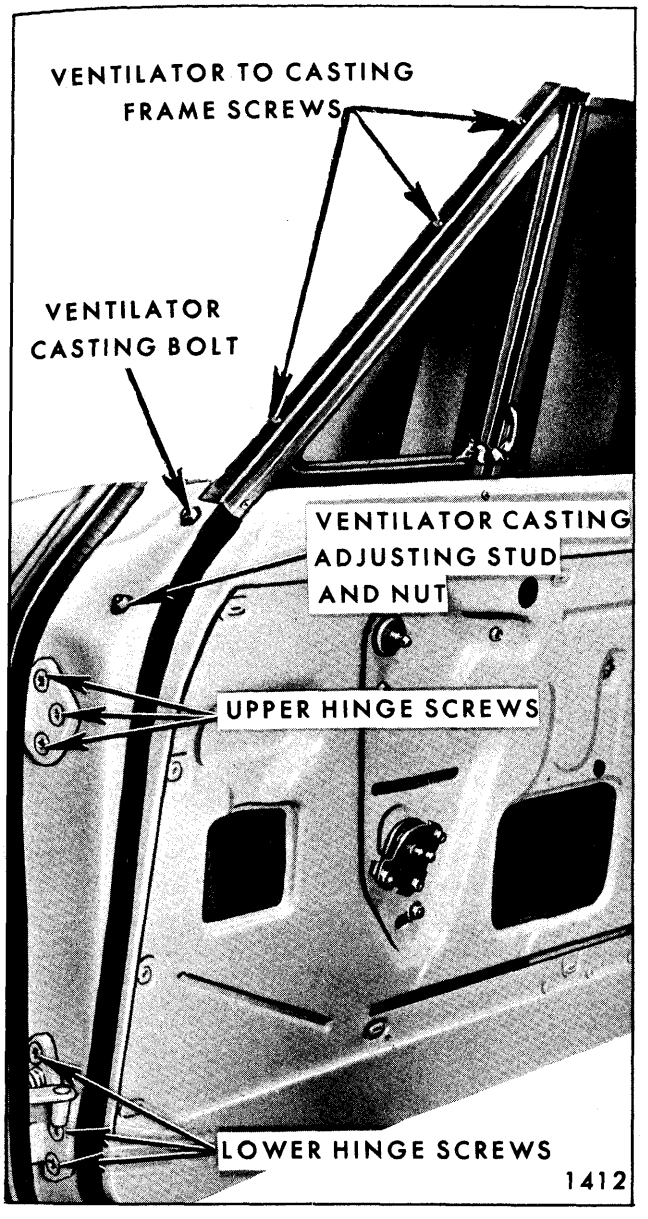

Fig. 7-52—Front Door Hinges and Ventilator - "X" Styles

motor. On Cadillac styles with electric ventilator, disconnect harness at motor.

3. Remove ventilator T-shaft attaching bolt "3" and ventilator regulator to inner panel attaching bolts "4" (Fig. 7-59).

4. Pull regulator down to disengage from ventilator T-shaft and remove regulator through access hole.

5. To install, reverse removal procedure. Check operation of ventilator prior to installing water deflector.

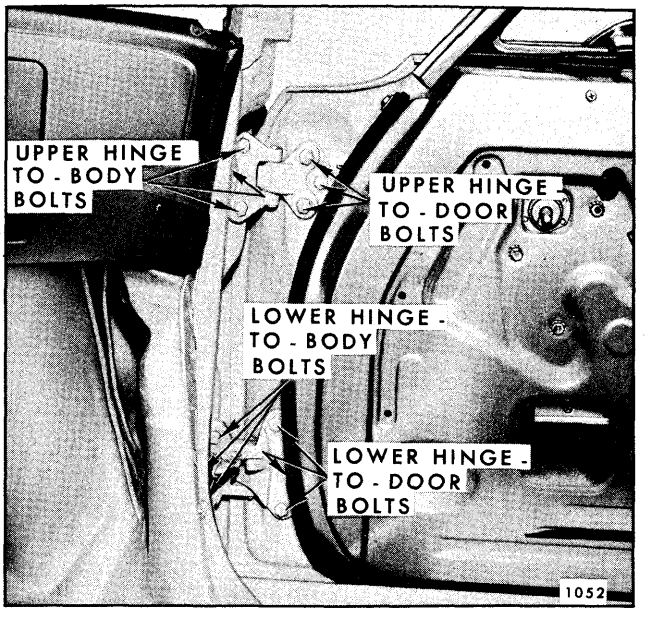

Fig. 7-53—Front Door Hinges - "Z" Styles

FRONT DOOR VENTILATOR ASSEMBLY "B-11-35-45 AND 69" STYLES

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.

2. Remove ventilator regulator as previously described.

3. Lower door window. Remove screws securing ventilator lower frame to door inner panel and to door outer panel (Fig. 7-64).

4. Remove division channel lower adjusting stud nut (Fig. 7-64).

5. Remove ventilator upper attaching screws along door upper frame (Fig. 7-64). Disengage upper front end of glass run channel from door upper frame to permit rearward movement and removal of vent from door frame.

6. Lower ventilator assembly sufficiently to tilt assembly inward, then lift ventilator assembly upward and remove from door.

7. To install, reverse removal procedure. Prior to installation, inspect saturated polyurethane foam sealing material along length of door upper frame contacted by ventilator (Fig. 7-65). If material is damaged, replace with

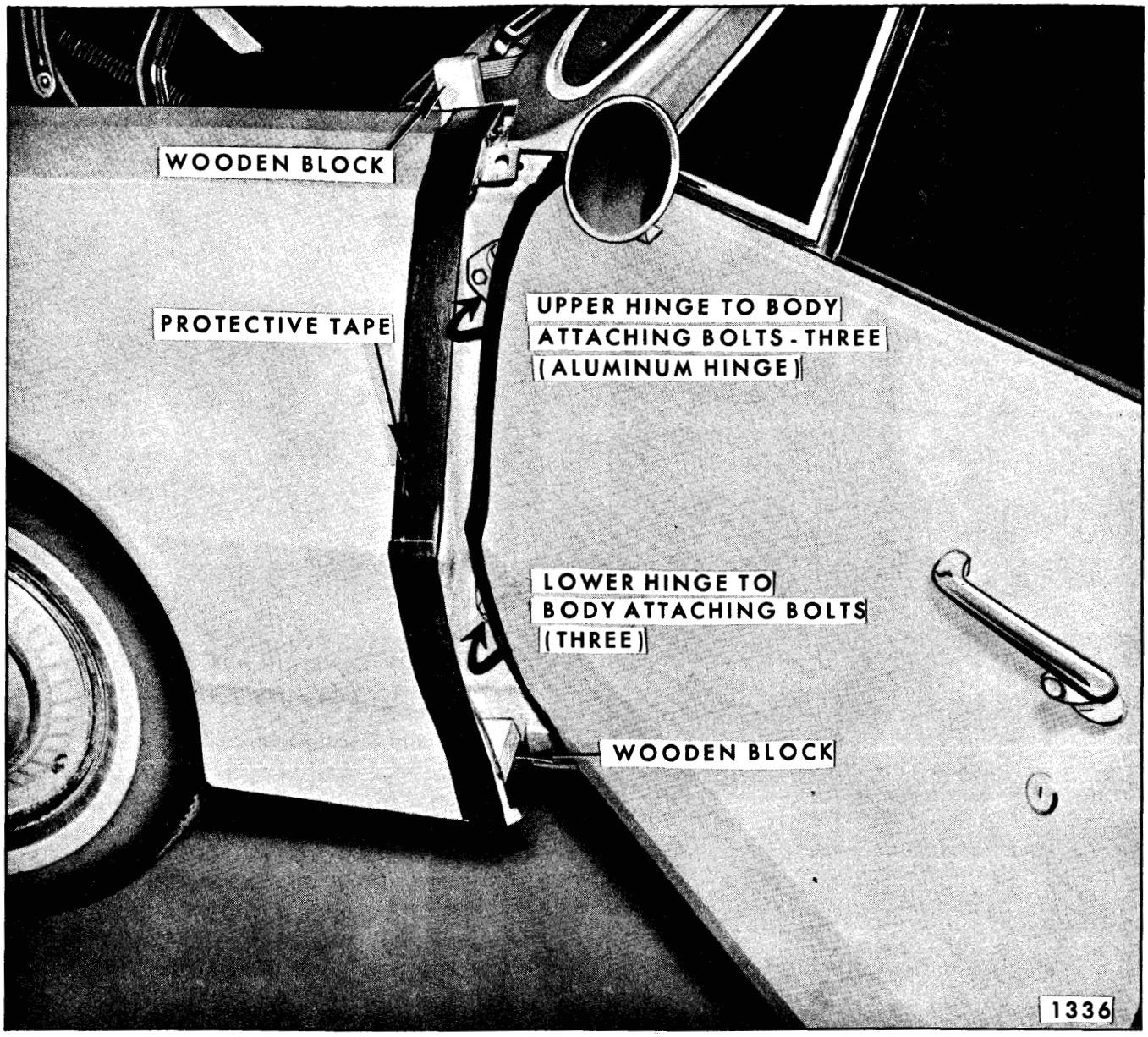

Fig. 7-54—Front Door Hinge Attachment - "A" Styles

new sealing strip or its equivalent. This is furnished in 5 foot sections under part #4480378 (Saturated Polyurethane Foam).

FRONT DOOR VENTILATOR ASSEMBLY— "A & X" CLOSED STYLES

The front door ventilator assembly is a manually operated friction type unit on all styles.

Removal and Installation

1. Raise door window. Remove door trim pad and detach inner panel water deflector.
2. On "A" Body Styles, remove door window glass run channel lower rear retainer attaching screw and remove retainer through large access hole. Figure 7-66 is typical of retainer retention except on "07" Styles. For "07" Styles, see Fig. 7-67.
3. On "X" Body Styles, remove door lock remote control assembly and connecting rod.
4. Remove ventilator division channel lower adjusting stud and nut and ventilator to door inner panel attaching screw.
5. Remove window lower stop. Lower window completely and slide it as far rearward as

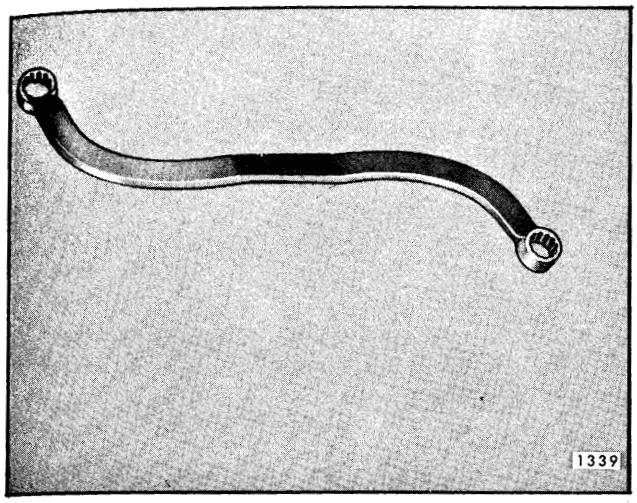

Fig. 7-55—"A" Body Front Door Hinge Tool J-21550

possible (see Fig. 7-67 for "A" Body Styles and 7-68 for "X" Body Styles).

6. Remove ventilator to door upper frame attaching screws (see Fig. 7-68 for "X" Bodies and View "A" in Fig. 7-69 for "A" Bodies).
7. On "A" Body Styles, remove glass run channel from ventilator division channel (above belt line).

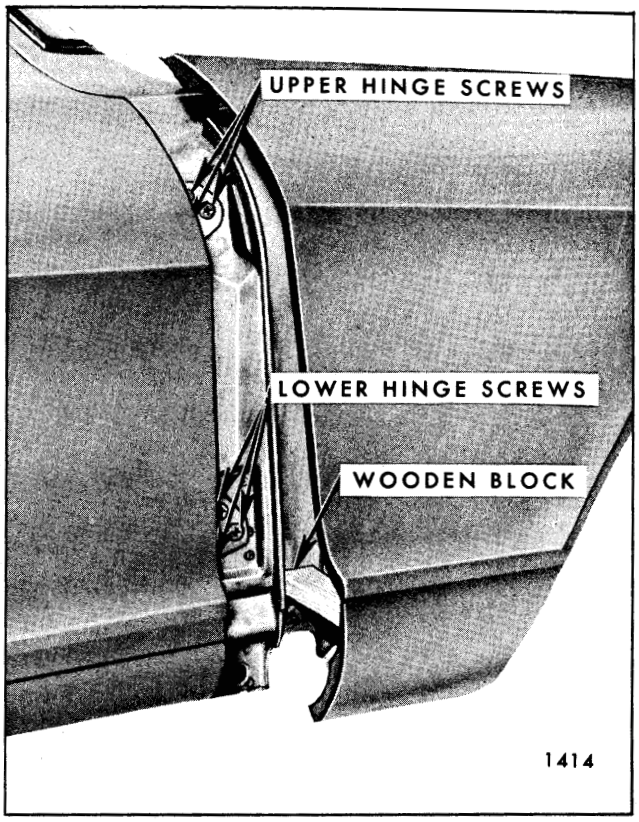

Fig. 7-57—Front Door Hinge Removal - "X" Styles

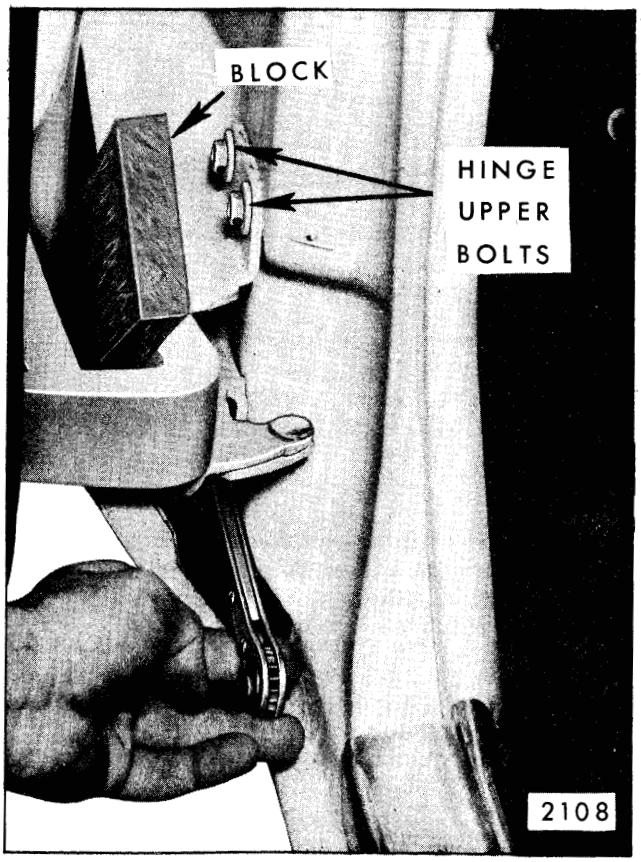

Fig. 7-56—Door Hinge Attachment - "E" Styles

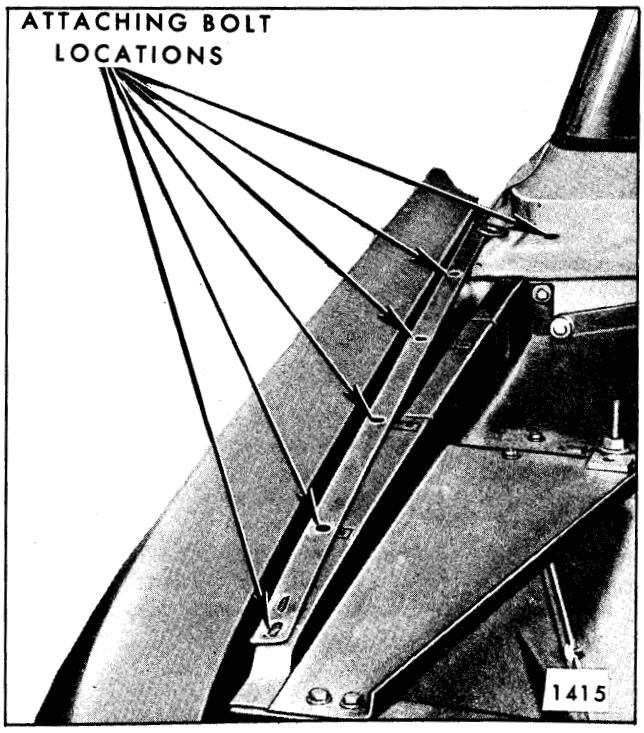

Fig. 7-58—Loosening Front Fender - "X" Styles

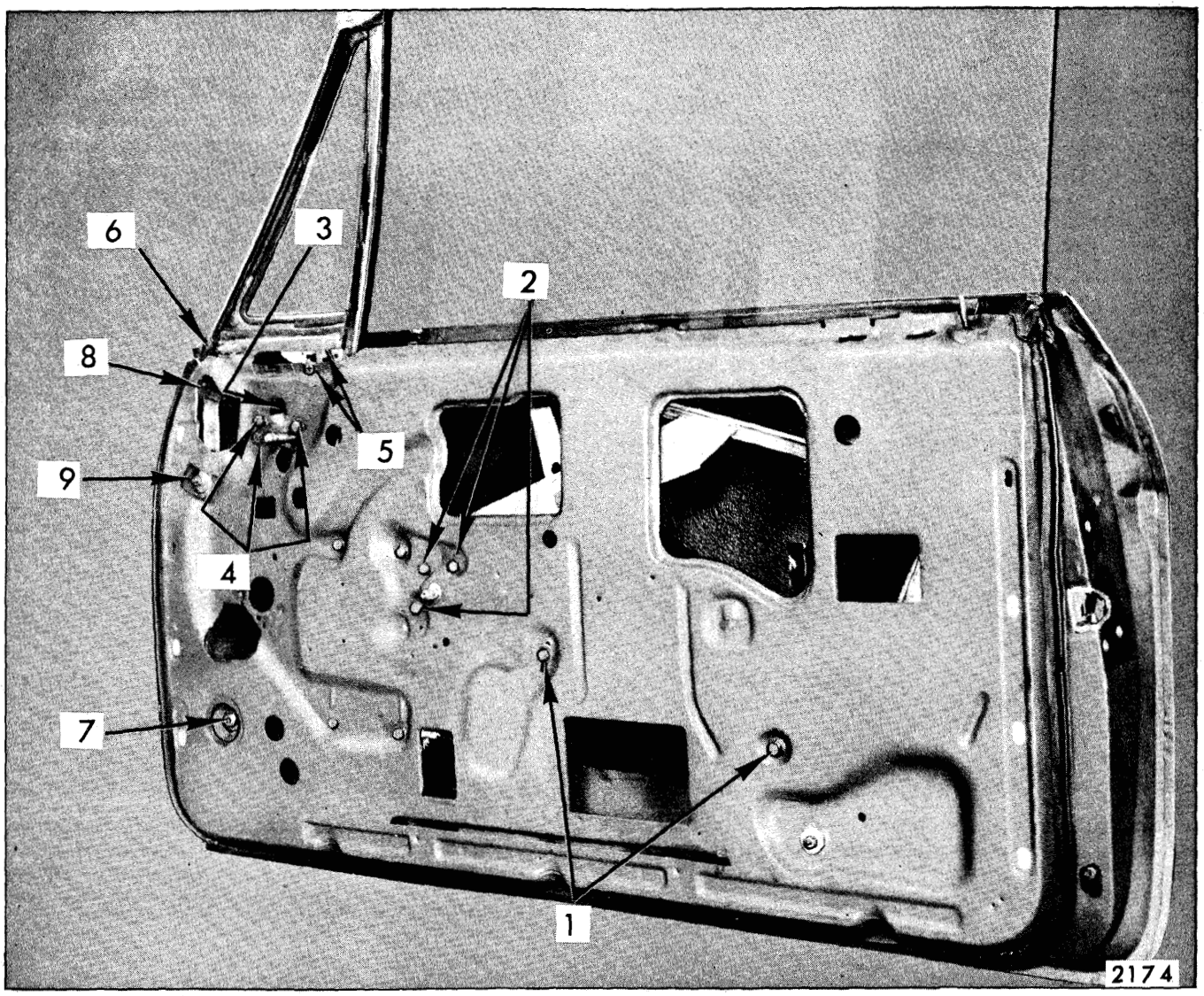

Fig. 7-59—Front Door Hardware Attachment - "B & C" Styles

1. Inner Panel Cam Bolts
2. Remote Control Bolts
3. Ventilator "T" Shaft Bolt
4. Ventilator Regulator Bolt
5. Ventilator Frame Screws
6. Ventilator to Door Pillar Seal
7. Ventilator Division Channel Adjusting Stud
8. Ventilator Frame Bolt
9. Ventilator Frame Adjusting Stud

8. Lift ventilator rearward and upward until lower forward corner of assembly is free of door upper frame (see View "B" in Fig. 7-69).

9. On "A" Styles, rotate ventilator assembly in an outboard movement and remove unit outboard of door upper frame (see View "C" in Fig. 7-69).

10. On "X" Styles, lift ventilator inboard and upward and remove from door.

CAUTION: After ventilator has been removed, door glass should be held or otherwise suitably supported to prevent damage.

11. To install, reverse removal procedure. Check operation of ventilator and door window assembly, and where required, adjust ventilator assembly as described under "Front Door Ventilator Adjustments".

Adjustments

1. A slight fore or aft adjustment of the ventilator division channel is available at the lower

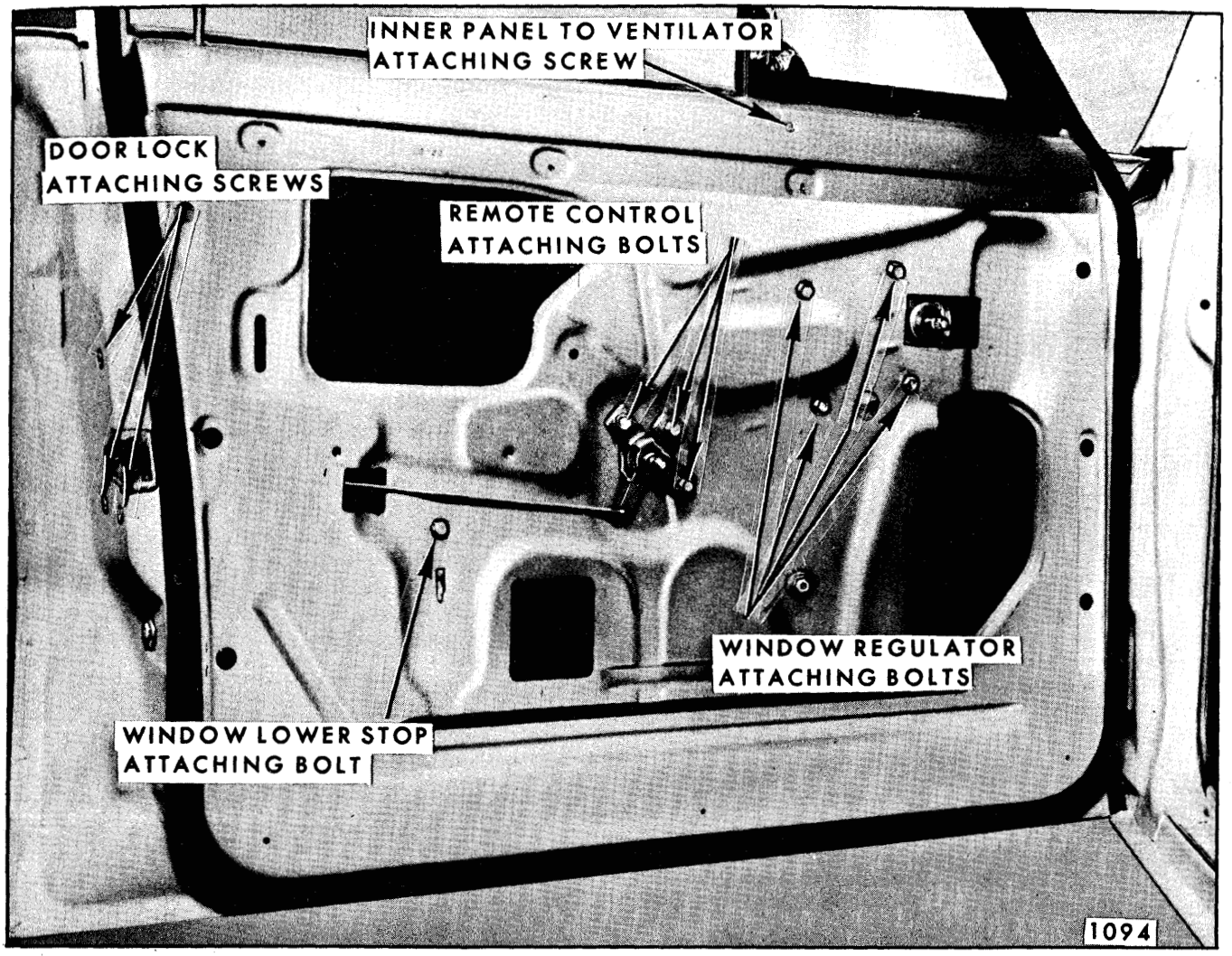

Fig. 7-60—Front Door Hardware - "A" Styles

adjusting stud and nut by loosening attaching nut and sliding nut in slot provided (see Fig. 7-69). The division channel can also be positioned in or out by loosening nut and turning stud in or out as required and tightening nut.

2. The effort required to open or close the ventilator can be set by straightening retaining washer tab and tightening or loosening the adjusting nut. Tightening the adjusting nut will increase operating effort and loosening adjusting nut will decrease operating effort. When the desired adjustment has been obtained, bend down washer tab to lock nut in position (See Fig. 7-70).

NOTE: This adjustment should be performed as a bench operation.

FRONT DOOR VENTILATOR-MANUAL AND ELECTRIC—ALL "B & C" "37-39-47-57 AND 67" AND "C-69" STYLES

Removal and Installation

1. Raise door window. Remove door trim assembly and inner panel water deflector.

2. Remove screws securing ventilator lower frame to door outer panel return flange and to door inner panel ("5", Fig. 7-59).

3. At front of ventilator assembly, break cement bond between door weatherstrip and ventilator assembly ("6", Fig. 7-59).

4. Remove ventilator division channel lower adjusting stud nut ("7", Fig. 7-59).

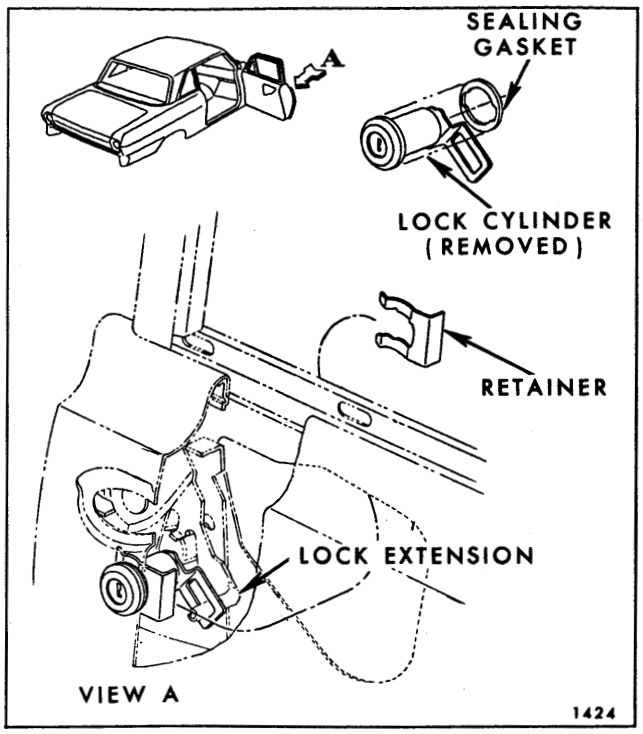

Fig. 7-61—Front Door Lock Cylinder Removal - "X" Styles Shown - Others Similar

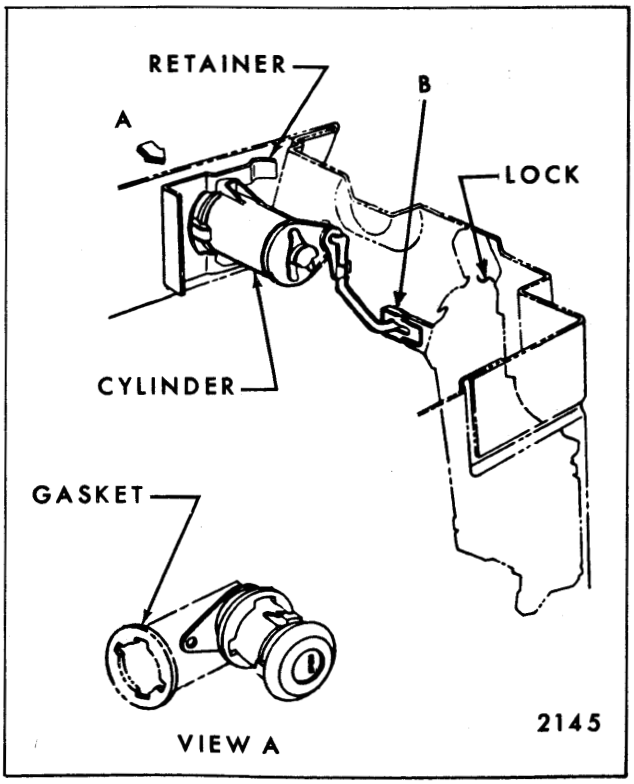

Fig. 7-62—Front Door Lock Cylinder Removal - Chevrolet "B" Four-Door Styles

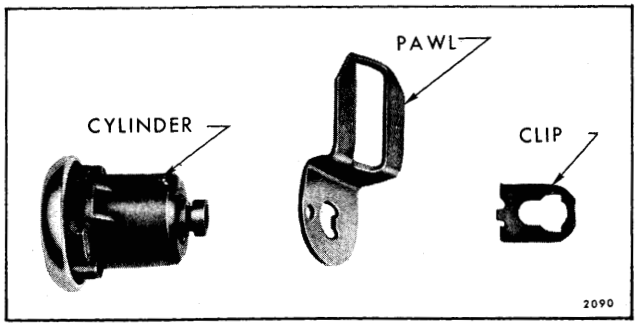

Fig. 7-63—Door Lock Cylinder Assembly

5. Remove ventilator regulator as previously described.

6. Remove ventilator lower frame attaching bolt "8" and ventilator lower frame adjusting stud nut "9" (Fig. 7-59).

7. Lift ventilator assembly upward approximately 6" and remove ventilator lower frame adjusting stud from ventilator at upper front access hole.

8. Lift ventilator upward and remove from door.

9. To install, reverse removal procedure. Adjust ventilator for proper operation and alignment with side roof rail weatherstrip as described below.

FRONT DOOR VENTILATOR ADJUSTMENTS—ALL "B & C" "37-39-47-57 AND 67" AND "C-69" STYLES

The front door ventilator assembly can be adjusted up-or-down, in-or-out at the top, and slightly fore-or-aft. To perform any ventilator adjustments it is first necessary to remove the door trim assembly and inner panel water deflector to expose ventilator attachments. Then, remove or loosen the following attachments.

a. Remove ventilator lower frame to inner panel and ventilator lower frame to outer panel screws ("5", Fig. 7-59).

b. Loosen ventilator lower frame attaching bolt "8".

c. Loosen ventilator lower frame adjusting stud nut "9" and ventilator division channel lower adjusting stud nut "7".

d. Loosen ventilator regulator attaching bolts "4".

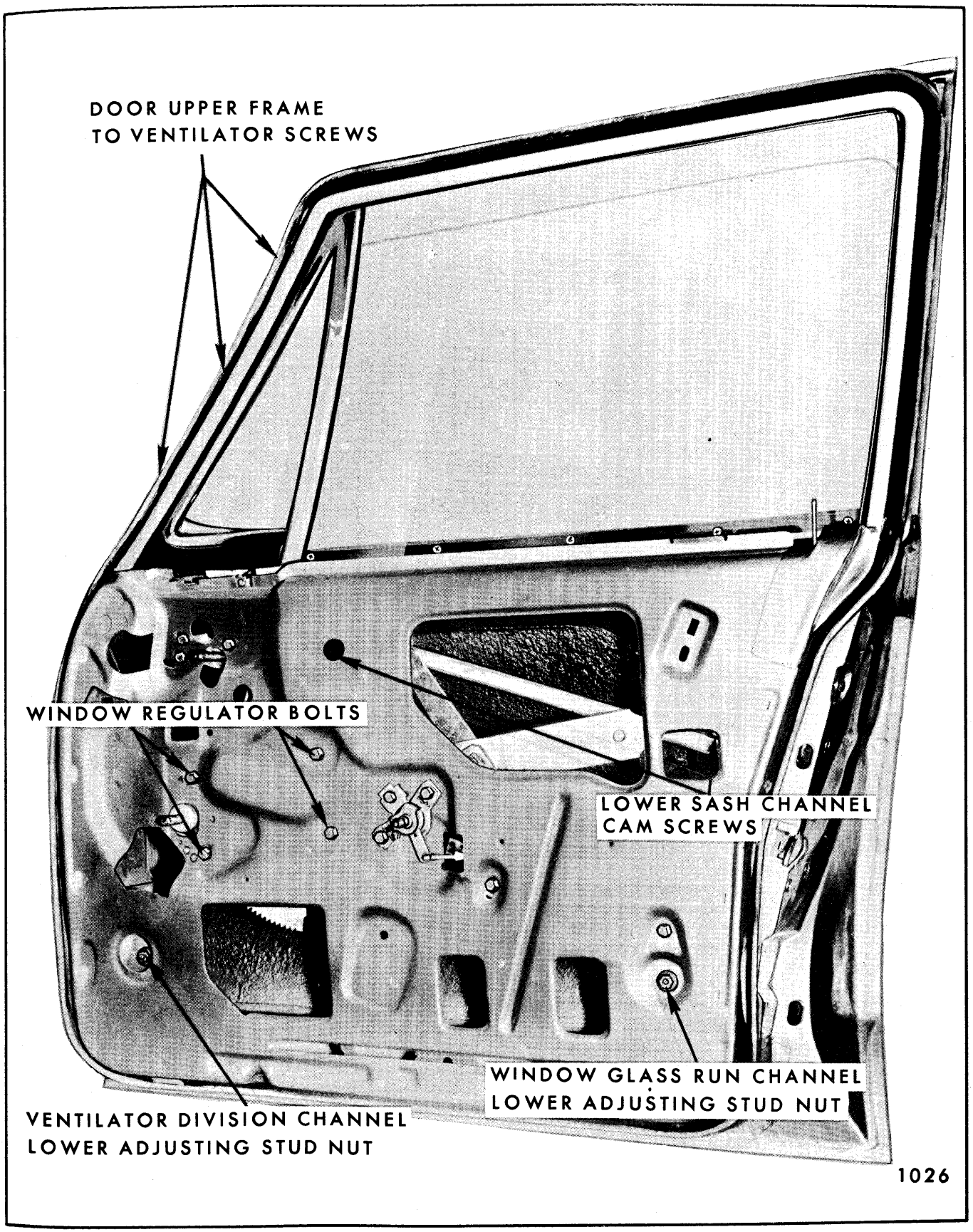

Fig. 7-64—Door Ventilator and Regulator Attachment - "B & C" Closed Styles

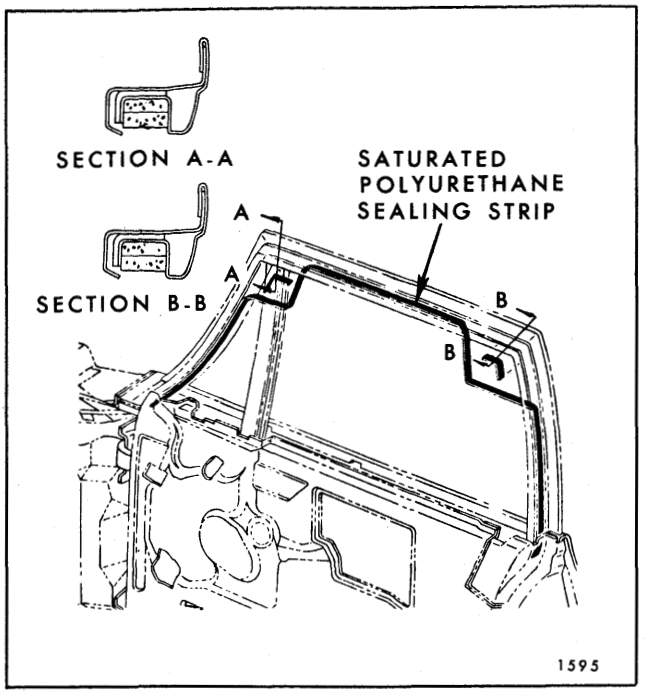

Fig. 7-65—Front Door Window Glass Run Channel Sealing - "B & C" Closed Styles

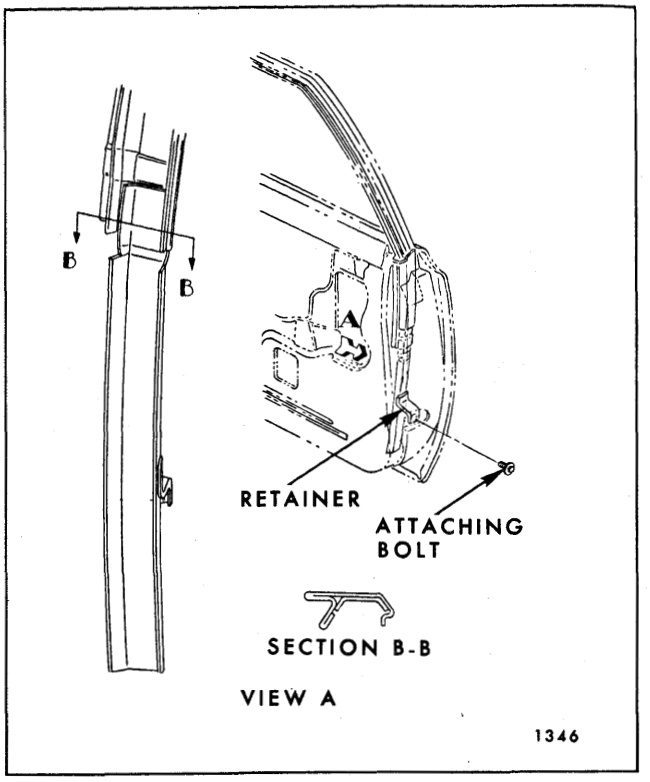

Fig. 7-66—Door Window Glass Run Channel Lower Rear Retainer - "A" Styles

1. To adjust the top of the ventilator assembly in-or-out, adjust the ventilator lower frame and ventilator division channel adjusting studs as required, then tighten the stud nuts.

2. To position ventilator fore-or-aft or up-or-down to obtain proper alignment with side roof rail weatherstrip, shift loosened ventilator to desired position and tighten attaching nuts and bolts.

3. To eliminate flutter (play) of ventilator window, tighten ventilator T-shaft attaching bolt.

4. To obtain a better seal between division pillar weatherstrip and rear edge of ventilator glass, shim front edge of ventilator regulator outboard. Install shims between regulator and door inner panel.

5. To adjust ventilator window up-or-down within ventilator frame, loosen ventilator T-shaft attaching bolt. Adjust ventilator window up-or-down as desired, then, tighten T-shaft bolt.

FRONT DOOR VENTILATOR CASTING—"X-37" STYLES

The front door ventilator casting is used on all "37" Styles and is secured to the front door assembly by one attaching bolt and one adjusting stud and nut. The front facing of the ventilator frame is secured to the ventilator casting by five attaching screws.

Removal and Installation

1. Remove ventilator casting to door hinge pillar panel attaching bolt and lower adjusting stud nut.

2. Remove five ventilator casting to ventilator frame attaching screws and remove assembly from door.

3. A slight fore and aft adjustment of the ventilator casting can be obtained at the lower adjusting stud and nut.

FRONT DOOR VENTILATOR ASSEMBLY—"A-X & Z" HARDTOP AND CONVERTIBLE STYLES

The front door ventilator assembly is a manually operated friction type unit.

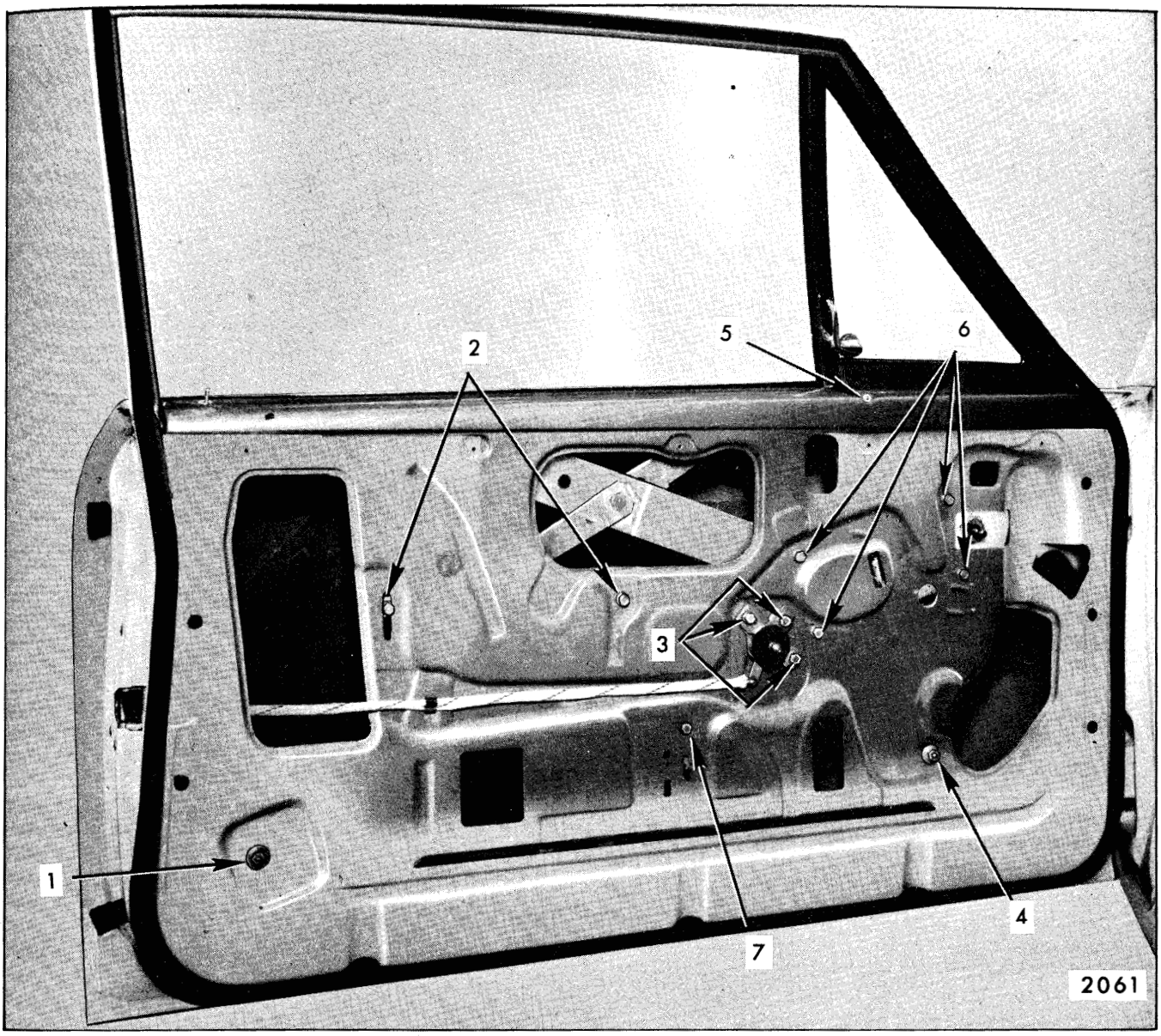

Fig. 7-67—Front Door Hardware - "A-07" Style

1. Rear Glass Run Channel Lower Retainer Adjusting Stud and Nut
2. Inner Panel Cam Bolts
3. Remote Control Bolts
4. Ventilator Division Channel Lower Adjusting Stud and Nut
5. Ventilator to Inner Panel Attaching Screw
6. Window Regulator Bolts
7. Window Lower Stop Attaching Bolt

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.

2. On "A-39" Styles, remove front door window - see index.

3. Remove ventilator division channel lower adjusting stud nut and ventilator to door inner panel attaching screw(s) (See Fig. 7-71).

NOTE: On "A-39" Styles, ventilator to door inner and outer panel return flange attaching screws must be removed. This additional screw is what necessitates removal of door window.

4. On all "A" Body Styles (except "A-39"), remove door window lower stop and completely lower window. Lower door window on all other styles.

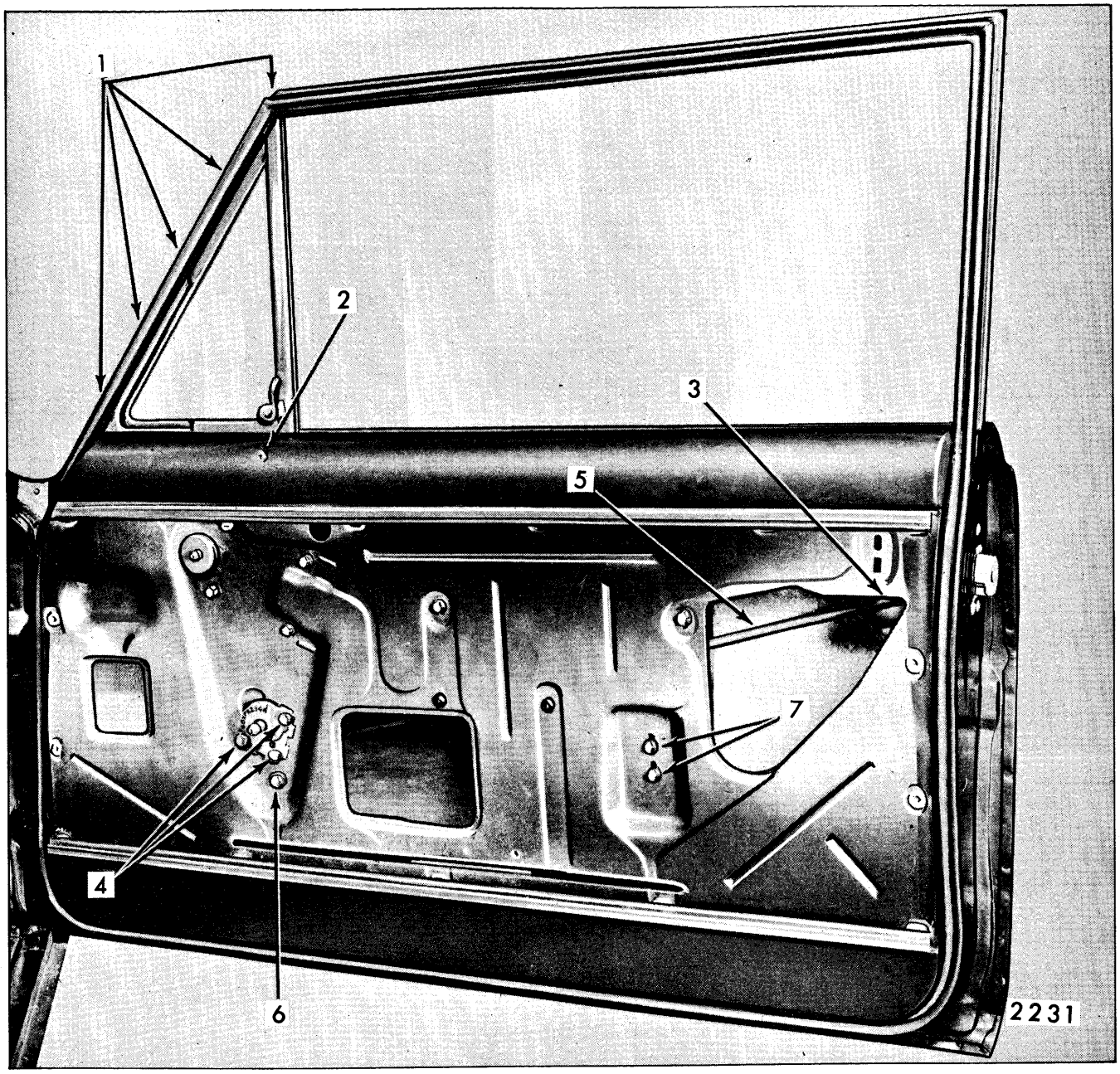

Fig. 7-68—Front Door Hardware Attachment - "X" Styles

1. Window Frame To Ventilator Attaching Screws
2. Ventilator To Door Inner Panel Attaching Screw
3. Spring Clip (Hidden)
4. Remote Control Attaching Bolts
5. Door Lock Connecting Rod
6. Ventilator Division Channel Lower Adjusting Stud And Nut
7. Window Lower Stop Adjusting Stud And Nut

5. On "X" Body Styles, remove front door ventilator casting.

6. On "A & Z" Body Styles, on door hinge pillar, remove ventilator frame lower attaching bolt, ventilator front frame attaching screw(s) and ventilator frame lower adjusting stud nut (see Fig. 7-71).

7. On "Z" Body Styles, loosen rear glass run channel upper attaching screw and remove run channel lower adjusting stud nut. Move door glass as far rearward as possible.

8. Push ventilator lower adjusting stud free of inner panel and rotate top edge of ventilator rearward until front frame clears hinge pillar (see Fig. 7-71).

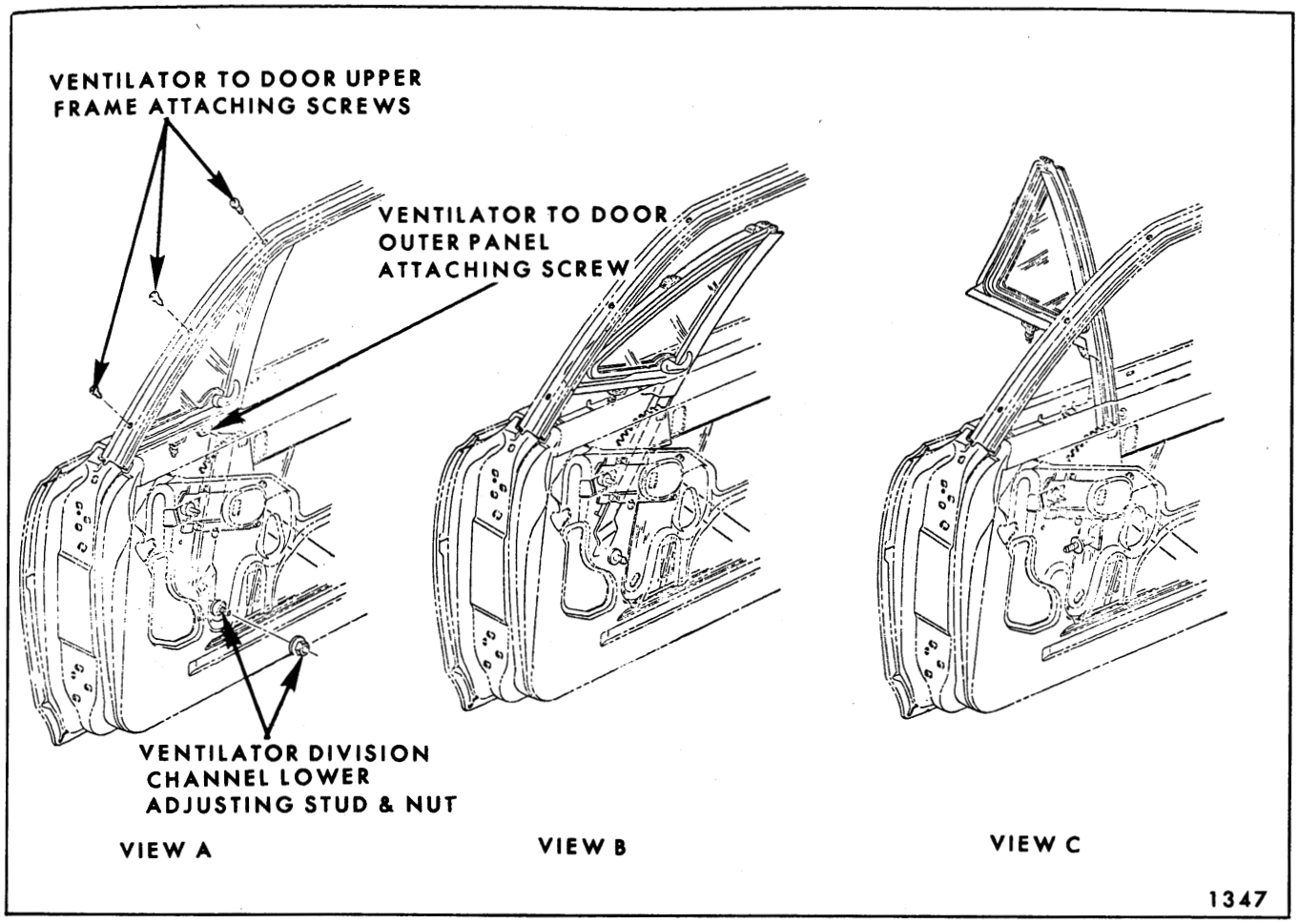

Fig. 7-69—Front Door Ventilator Removal

9. Turn ventilator 90 degrees, as shown in Figure 7-71, and remove assembly from body.

   CAUTION: After ventilator has been removed, door glass should be held or otherwise suitably supported to prevent damage.

10. To install, reverse removal procedure.

Adjustments

1. A slight fore and aft adjustment of ventilator division channel is available at lower adjusting stud and nut by loosening attaching nut and sliding stud in slot provided. The division channel can also be positioned in or out by loosening nut and turning stud in or out as required and tightening nut.

2. The effort required to open or close the ventilator can be set by straightening retaining washer tab and tightening or loosening the adjusting nut. Tightening increases effort and loosening decreases effort. When desired adjustment has been obtained, bend down washer tab to lock nut in position (see Fig. 7-70).

   NOTE: This adjustment should be performed as a bench operation.

3. The ventilator frame lower adjusting stud and nut provides in or out adjustment by use of an oversize attaching hole and fore or aft adjustment by turning stud in or out as required.

FRONT DOOR VENTILATOR ASSEMBLY—WEATHERSTRIP—"A-B & C" STYLES

Removal and Installation

1. Remove front door ventilator assembly.

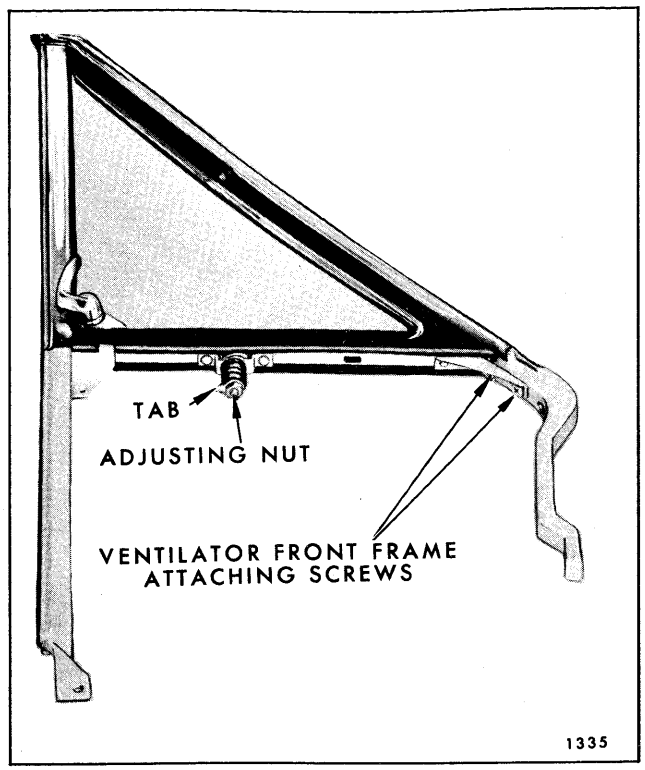

Fig. 7-70—Front Door Ventilator Assembly - "A" Style Shown - "X & Z" Similar

2. Remove ventilator glass and sash channel from ventilator frame by opening glass approximately 60° and pushing glass downward slightly to disengage glass unit from ventilator frame at upper pivot point; then, upward to disengage lower T-shaft from frame. (Fig. 7-72).

3. Remove ventilator division channel upper rubber bumper attaching screw.

4. Remove two attaching screws securing ventilator casting to frame and separate ventilator casting from frame so that the ventilator weatherstrip can be removed (Fig. 7-72).

5. To install, reverse removal procedure. Prior to installation, apply a ribbon of medium bodied sealer between ventilator weatherstrip and casting.

FRONT DOOR WINDOW ASSEMBLY—"B-11-35-45 AND 69" STYLES

The front door window assembly consists of a frameless piece of solid tempered safety plate glass pressed into a thin-section lower sash channel. When cycled, the glass operates within the ventilator division glass run channel and window glass run channel.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.

2. On "35-45 and 69" Styles only, remove front door ventilator as previously described.

3. Remove glass run channel lower adjusting stud nut (Fig. 7-73).

4. On "11" Styles, operate window to approximately 3" down from "full-up" position and remove lower sash channel cam attaching screws.

5. On "35-45 and 69" Styles, lower window to "full-down" position and remove lower sash channel cam attaching screws through lower access holes.

6. On "11" Styles, remove glass from door by simultaneously pivoting glass (front edge down and rear edge up) and lifting glass upward and outboard of door upper frame. On "35-45 and 69" Styles, remove glass by lifting it upward and outboard of door upper frame.

7. To install, reverse removal procedure. Check window for proper operation before installing water deflector.

FRONT DOOR WINDOW ADJUSTMENTS—"B-11-35-45 AND 69" STYLES

Adjustments have been provided to relieve a binding door glass due to misalignment of the glass run channels. The glass can also be adjusted to correct a rotated (cocked) door window assembly. To perform the following adjustments, remove door trim assembly and detach inner panel water deflector, where necessary, to gain access to the hardware attaching points.

Adjustments

1. To adjust lower portion of ventilator division channel for proper alignment with door window assembly, lower door window and loosen ventilator adjusting stud nut. Turn adjusting stud in or out or position lower end of channel fore or aft as required; then tighten adjusting stud nut (Fig. 7-64).

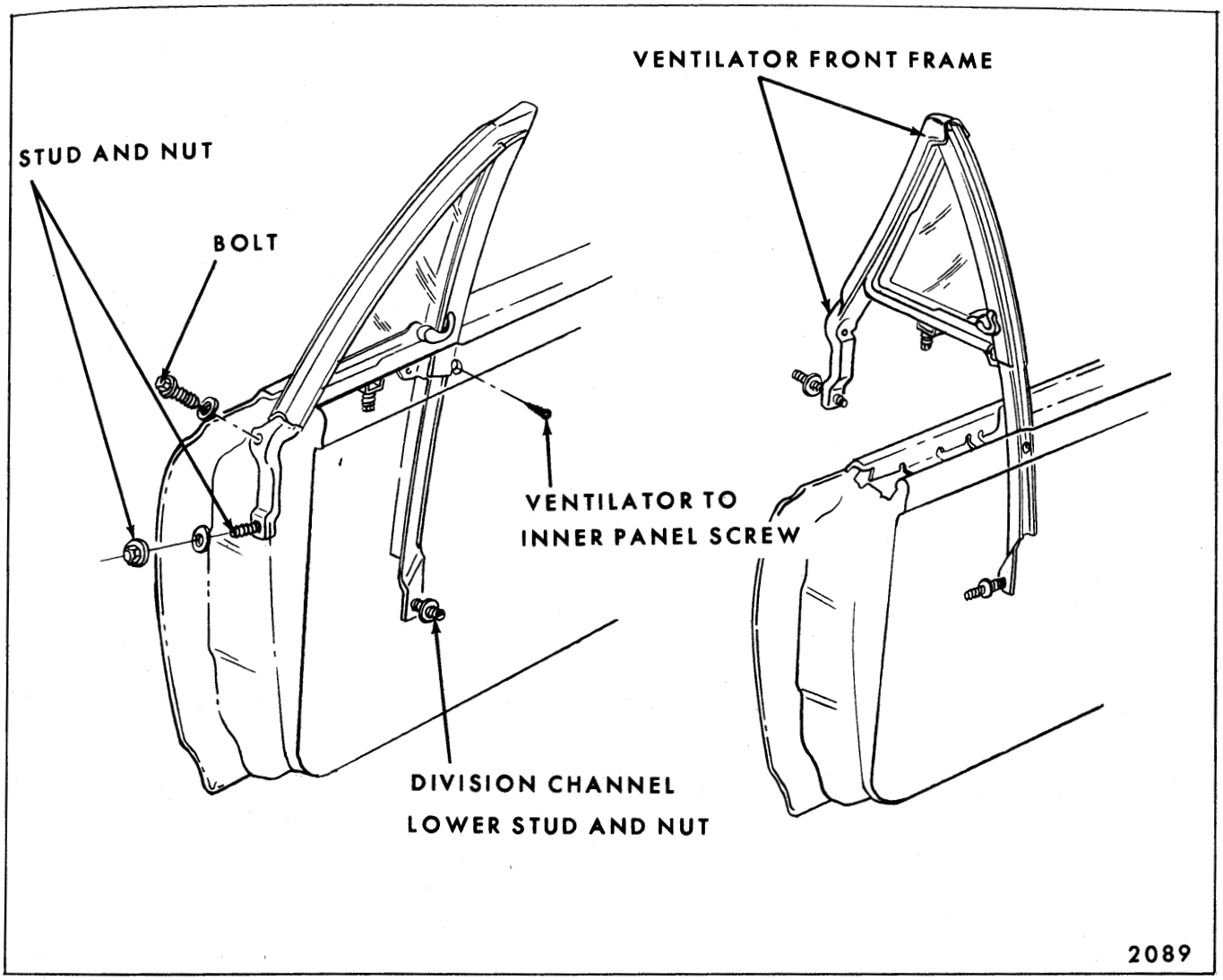

Fig. 7-71—Front Door Ventilator Removal - "A" Style Shown - "X & Z" Similar

2. To adjust lower section of door window rear glass run channel in-or-out for proper alignment with door window, first raise door window. Then, loosen rear run channel lower adjusting stud nut. Adjust channel as required and tighten nut (Fig. 7-64).

NOTE: Adjustments 1 and 2 must be coordinated to provide a properly operating front door window assembly.

3. The door window inner panel cam is adjustable at the front and can correct a rotated (cocked) front door window (Fig. 7-64).

FRONT DOOR WINDOW ASSEMBLY— "A & X" CLOSED STYLES

The front door window is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design, the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation or removal procedure as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

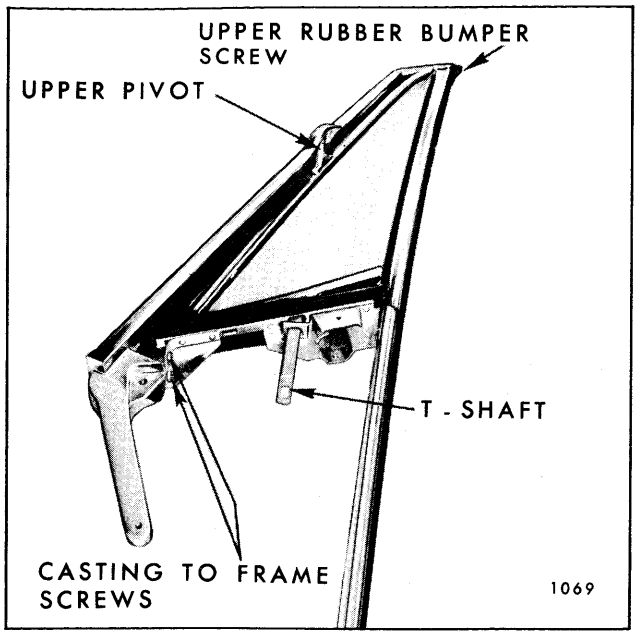

Fig. 7-72—Front Door Ventilator - "B & C" Styles

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On styles so equipped, remove inner panel cam.
3. Remove glass run channel lower rear retainer, front door ventilator assembly and inner belt strip (draft strip).
4. Raise door window to a position of almost fully closed. On styles equipped with a double arm regulator, rotate balance arm close to lift arm.
5. Move door window forward to disengage regulator arm roller(s) from window lower sash channel cam and remove door glass outboard of door upper frame on "A" Body Styles and inboard of door upper frame on "X" Body Styles (see Fig. 7-74 for "A" Bodies and Fig. 7-75 for "X" Bodies).
6. To install, reverse removal procedure.

Adjustments

A slight amount of fore or aft adjustment is available at the ventilator division channel lower adjusting stud and nut as explained under "Front Door Ventilator Assembly - Adjustments". On some styles, a rotated glass can be corrected by adjustment of the inner panel cam as explained under "Front Door Window Inner Panel Cam".

FRONT DOOR WINDOW ASSEMBLY— ALL "B & C" STYLES EXCEPT CLOSED

The front door window assembly consists of a solid tempered safety plate glass window and a bolted-on lower sash channel assembly which includes a welded-on sash channel cam. With this design, the door glass and sash channel are removed from the door as a unit and replacement glasses installed in bench operations.

Figure 7-76 is an exploded view of the front door window assembly and identifies the various components and their assembly sequence.

CAUTION: When installing glass to sash channel bolts, torque to 60 inch pounds (5 foot pounds). Also, when replacing door glass, replace glass spacers.

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Operate glass to "full-up" position and remove front up-travel stop from lower sash channel (Fig. 7-77).
3. Operate window to half-down position and remove rear up-stop (Fig. 7-77).
4. With window in full-up position, remove glass run channel upper attaching bolts and lower adjusting stud nut (Fig. 7-77). Disengage run channel from window assembly and remove through access hole.
5. Remove inner panel cam bolts (Fig. 7-77). Disengage cam from regulator lift arm roller and remove cam.
6. With front upper corner of window inboard of ventilator division channel, rotate window assembly counter-clockwise until lower sash channel cam is parallel with belt line. Then move window assembly rearward to disengage regulator lift arm roller from lower sash channel cam and remove window from door.
7. To install, reverse removal procedure. Adjust window for proper alignment as described in the following procedure.

Adjustments

To perform any door window adjustments it is necessary to remove the door trim assembly and inner panel water deflector to expose the adjustment provisions.

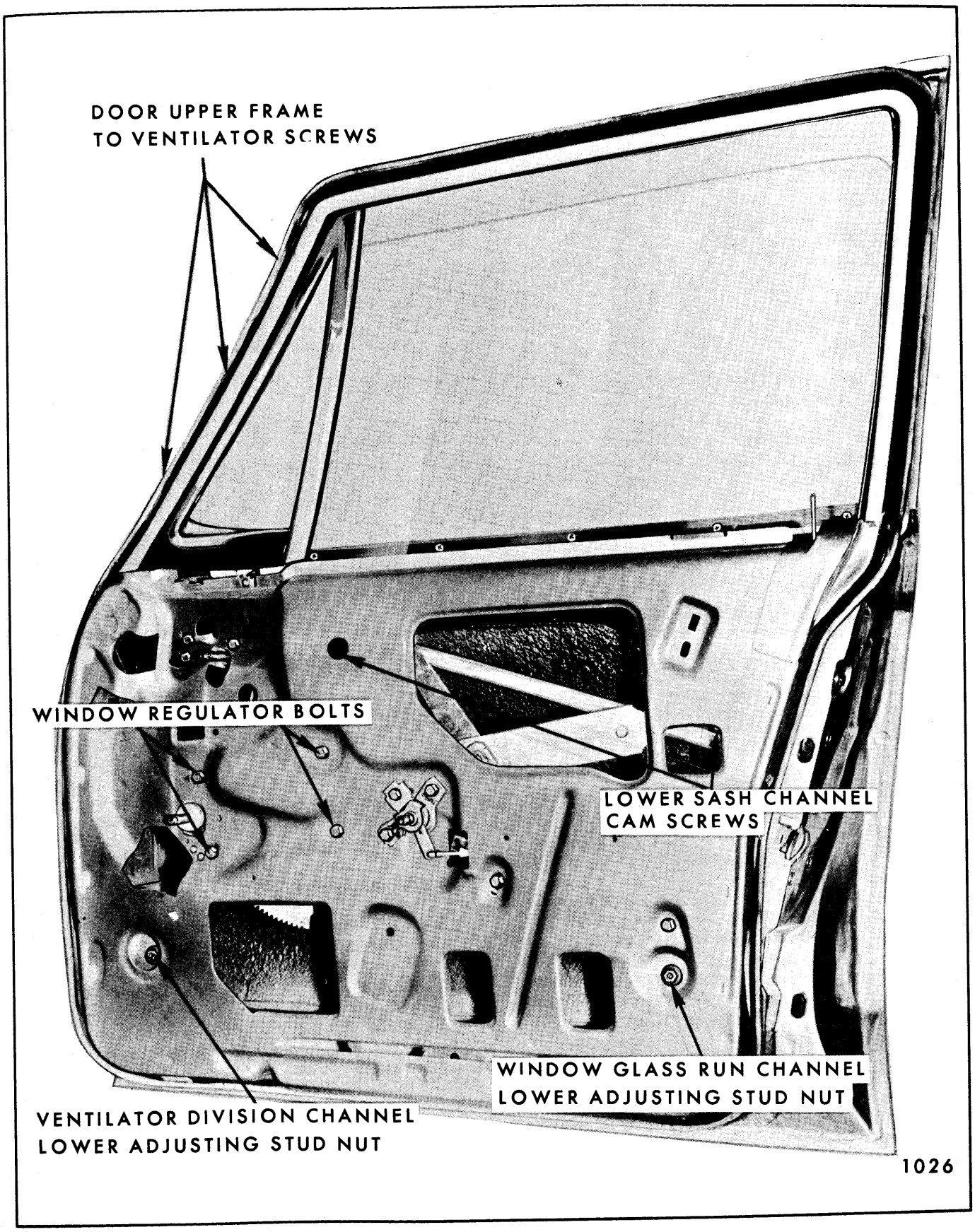

Fig. 7-73—Door Ventilator and Regulator Attachment - "B & C" Closed Styles

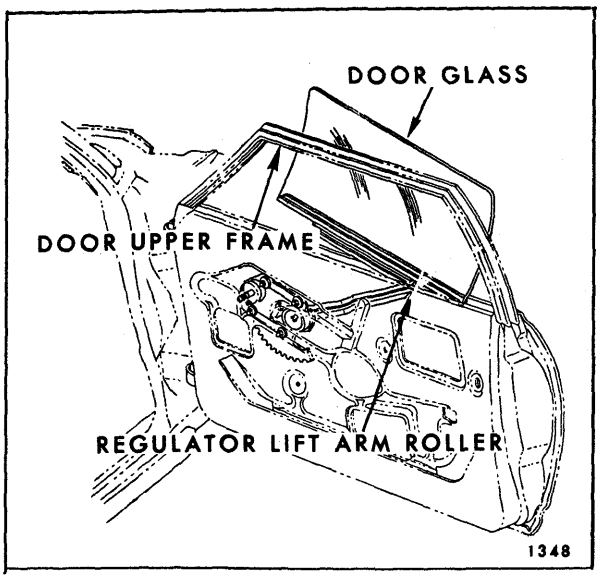

Fig. 7-74—Front Door Window Removal - "A" Styles

1. To correct a rotated window condition (glass cocked in opening), loosen inner panel cam attaching bolts (Fig. 7-77) and adjust front end of cam up or down as required.

   NOTE: If cam adjustment does not correct condition, loosen glass to sash channel attaching bolt nuts (Fig. 7-76) and reposition glass on sash channel. The sequence for making this adjustment is to first obtain flush alignment between lower sash channel and outer strip assembly at the belt line. Then, loosen glass bolt nuts and adjust glass.

2. To adjust upper rear edge of glass in-or-out in relation to side roof rail weatherstrip, loosen glass run channel lower adjusting stud nut and upper attaching bolts (Fig. 7-77).

   a. To adjust top edge of glass inboard, position top edge of run channel inboard and adjust lower adjusting stud outboard.

   b. To adjust top edge of glass outboard, position top edge of run channel outboard and adjust lower adjusting stud inboard.

      IMPORTANT: When adjusting glass in relation to side roof rail, position glass so that in closed position it is sufficiently high and inboard to tuck under weatherstrip outer lip as shown in Figure 7-78.

3. To adjust window up-travel, operate window to full-up position and loosen window front and rear upper stops (Fig. 7-77). Operate window to desired position and tighten stop bolts while forcing stops against welded-in stops on door inner panel.

FRONT DOOR WINDOW LOWER SASH CHANNEL CAM—ALL "E & Z" BODY STYLES

Removal and Installation

1. Remove door trim pad and detach inner panel water deflector.

2. Position window to expose cam attaching screws. On either style, glass will be approximately 3" from full-up position (see Fig. 7-79 for "E" Bodies and Fig. 7-80 for "Z" Bodies).

3. On "Z" Body Styles, remove one front and one rear cam to sash channel attaching screws. On "E" Body Styles, remove two attaching screws at rear (see Fig. 7-79), lower door window and remove two attaching screws at front.

4. Supporting glass with on hand, disengage cam from regulator rollers and remove cam. Lower glass to door bottom.

5. To install, reverse removal procedure.

FRONT DOOR WINDOW GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES (DRAFT STRIPS)

Draft strips are used to form a belt seal between door inner and outer panels and glass assembly. The construction and attachment of these strips vary with the body style involved, as follows:

"B & C" Hard Top and Convertible Styles - Inverted lip inner ("J" strip) Rubber outer

"B & C" Closed Styles - Multifilament pile inner (pile) - Rubber outer

"A-07-17-39 and 67" Styles - "J" strip inner - pile outer

"A-11-69-35-55-65 and 80" Styles - pile inner - Rubber outer

"X-37" Styles - "J" strip inner - pile outer

"X-11-69 and 35" Styles - pile inner - Rubber outer

"E" - All Styles - "J" strip inner - pile outer

"Z" - All Styles - pile inner - pile outer

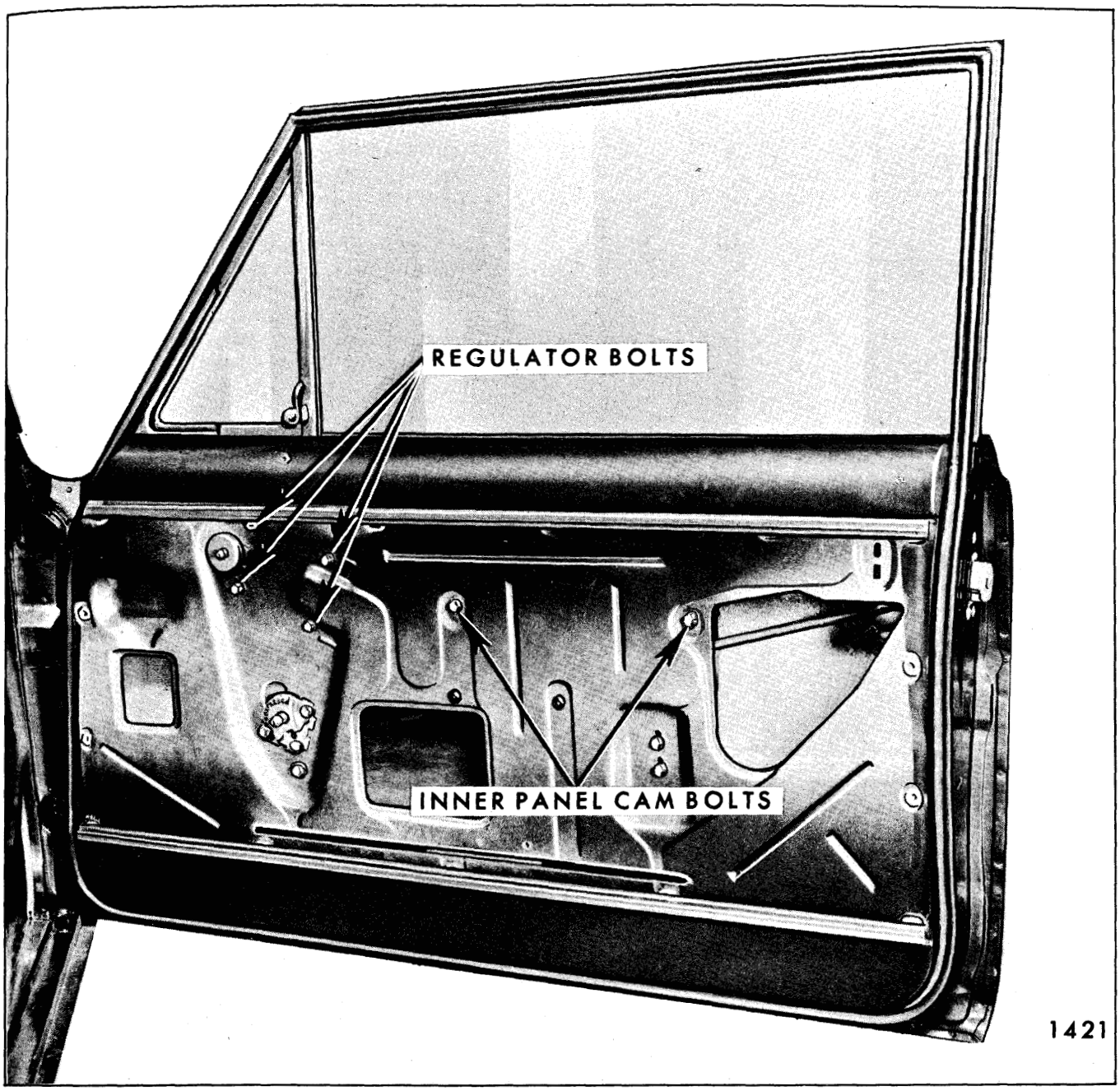

Fig. 7-75—Front Door Hardware - "X" Styles

On all "B & C", "E & A" Bodies equipped with deluxe trim, the inner draft strip is attached to the door trim pad. All "B & C" outer draft strips are attached with screws but need not be removed to facilitate door window removal. All "X-E" and the remaining "A" Body Style inner draft strips are attached by clips. All "A-X-E" and "Z" outer draft strips are attached with a combination of clips and screws (usually one at each end, front and rear).

On those styles equipped with a rubber lip outer draft strip, only the inner draft strip need be removed to facilitate door glass removal. On all other styles, however, both inner and outer draft strips must be removed preceding door glass removal.

Removal and Installation

NOTE: This procedure covers only draft strips attached directly to either the door inner or

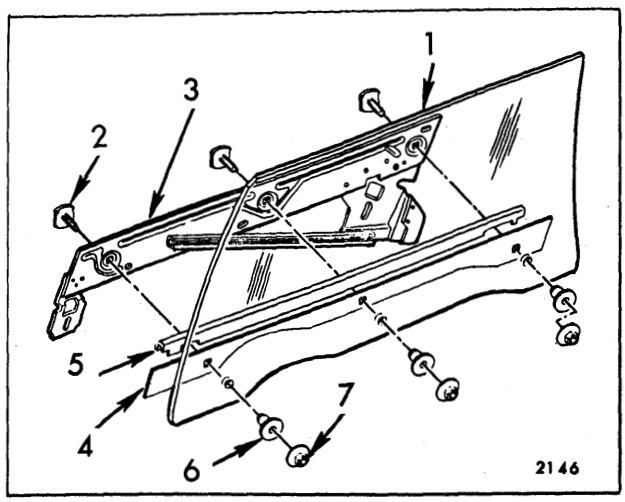

Fig. 7-76—Front Door Window Assembly - All "37-39-47-57 and 67" and "C-69" Styles

1. Door Window Glass
2. Glass to Lower Sash Channel Attaching Bolts (Center Bolt Not Used on "39" Styles)
3. Lower Sash Channel Assembly
4. Sash Channel Lower Filler
5. Sash Channel Upper Filler
6. Glass to Sash Channel Spacers
7. Glass to Sash Channel Nuts

outer panels. When the draft strip is attached to a trim pad, it is removed as part of the trim assembly.

1. The door window must be low enough to provide adequate clearance between top edge of glass and draft strip to be removed. If simply lowering window will not accomplish this needed clearance, proceed as follows:

   a. On styles equipped with a bolted-on lower stop, remove stop and lower window to bottom of door.

   b. On styles equipped with a welded-on lower stop, remove stop bumper to gain the required clearance.

   c. If additional clearance is still needed, remove door window lower sash channel cam and lower glass to bottom of door.

2. Remove draft strip attaching screws.

   NOTE: On most outer draft strips, the forward attaching screw is hidden beneath the ventilator division channel. This will require either removal or loosening of ventilator assembly to gain access.

3. Apply cloth-backed tape as a protective cover to painted surfaces adjacent to strip assembly to be removed.

4. Insert a flat blade tool (slotted to fit over tang of clip) between door panel return flange and strip assembly at clip locations (Fig. 7-81). Carefully pry clips from slots in panel and remove strip assembly.

5. To install, position strip assembly so that tang of clips start into slots in door panel, then press at each clip location and engage clips.

   Prior to installing strip assembly, reform clip tangs to assure positive retention when installed.

   NOTE: To make strip assembly removal tool, make a 1/4" wide by 3/8" deep slot in a J-2772 headlining inserting tool or equivalent.

FRONT DOOR WINDOW SASH CHANNEL GUIDE PLATE—"A-17-39 AND 67" STYLES

The guide plate is attached to the window sash channel by two bolts and acts in the dual capacity of window guide and rear up-travel stop.

Removal and Installation

1. Raise door window to a position almost fully closed (see Fig. 7-82).

2. Remove door trim pad and detach inner panel water deflector sufficiently to gain access to guide plate attaching bolts.

3. Remove two bolts securing guide plate to glass lower sash channel and remove guide plate (see Fig. 7-82).

4. To install, reverse removal procedure. Fore and aft adjustment of the guide plate is provided by usage of elongated attaching holes.

   NOTE: Figure 7-82 is for "17 and 67" Styles. Refer to Figure 7-87 for "39" Styles.

FRONT DOOR WINDOW UP-TRAVEL STOPS—"A-E-X & Z" HARDTOP AND CONVERTIBLE STYLES

On "A-Z & X" Body Styles, the rear up-travel stop is attached (single bolt) to glass sash channel and contacts a welded-on support (flange) on door inner panel. The front up-travel stop is attached (single bolt) to an extension in the glass

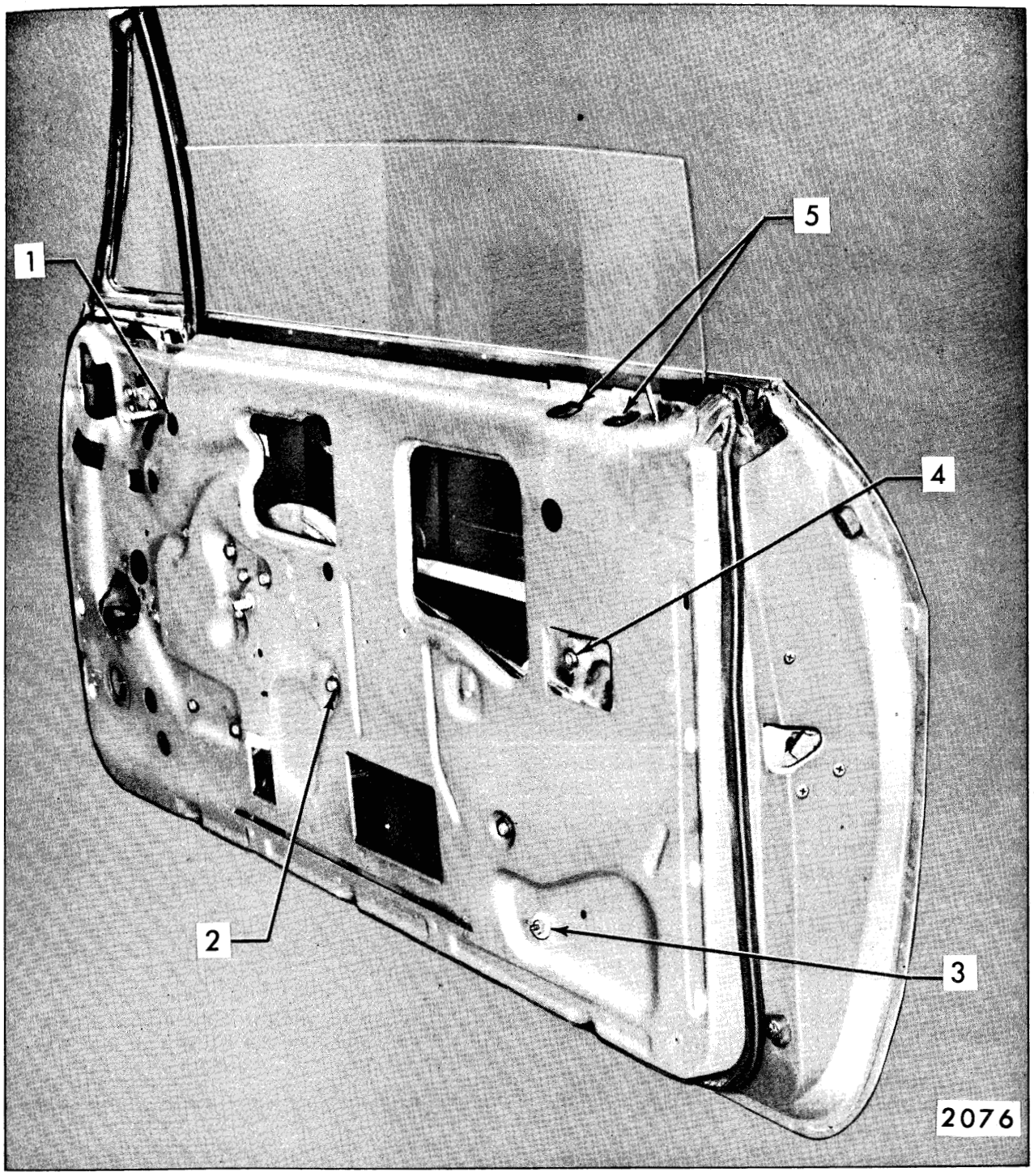

Fig. 7-77—Front Door Window Removal - "B & C" Hardtop Styles

1. Front Up-Stop Access Hole
2. Inner Panel Cam Bolts
3. Glass Run Channel Adjusting Stud and Nut
4. Rear Up-Stop Bolt
5. Glass Run Channel Upper Bolts

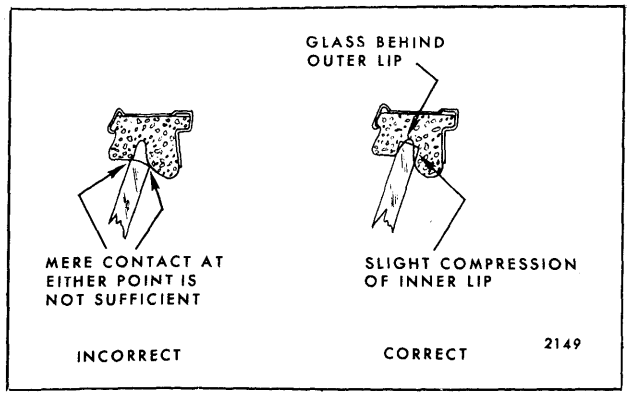

Fig. 7-78—Window to Side Roof Rail Weatherstrip Alignment

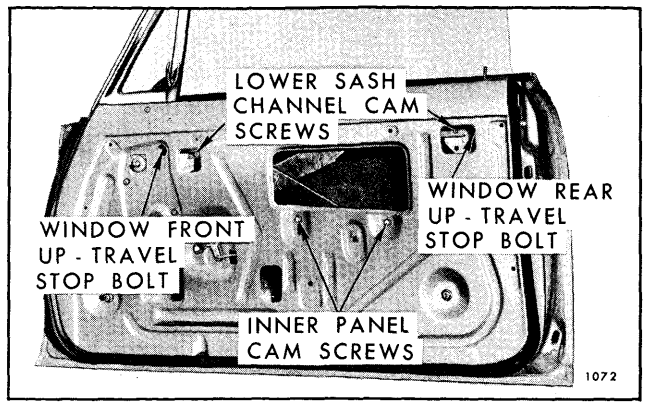

Fig. 7-80—Front Door Hardware - "Z" Styles

sash channel and contacts ventilator stationary stop (finger). Both up-stops are adjustable up or down.

On "E" Body Styles, the front door window is equipped with two up-stops, one front and one rear. Both stops are attached to the glass lower sash channel with single bolts that are accessible through the door inner panel (see Fig. 7-83).

FRONT DOOR WINDOW ASSEMBLY— "A-17 AND 67" STYLES

The front door window is a solid tempered safety plate glass that fits into a lower sash channel which incorporates a welded-on cam. With this design, the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

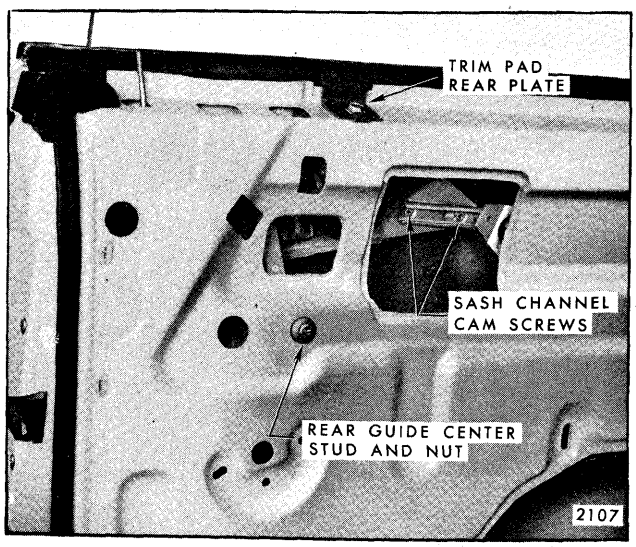

Fig. 7-79—Door Window Attachment

CAUTION: Use care to make certain glass does not strike hard objects. Edge chips or deep scratches can cause solid tempered safety plate glass to shatter. Do not attempt to grind or drill glass.

Figure 7-84 is an exploded view of "17 and 67" Style front door window assemblies. Chevrolet uses a single sash channel cam while Pontiac, Oldsmobile and Buick use a double sash channel cam. This difference is due to a variance in belt line heights but does not materially affect glass removal and installation procedures.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On styles not equipped with a hang-on door trim pad, remove glass run inner strip assembly.
3. Raise door window and remove door window lower sash channel guide plate and front up-travel stop.

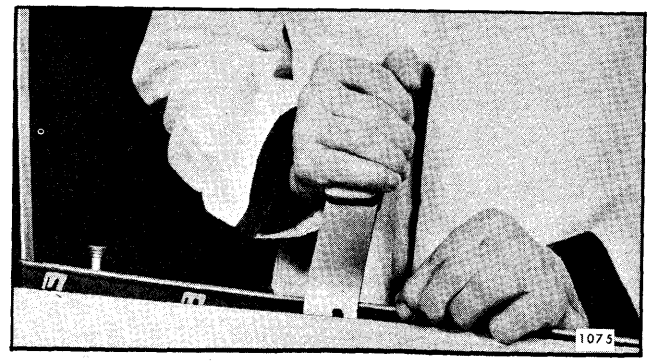

Fig. 7-81—Glass Run Channel Inner - Outer Strip Assembly Removal - "A-X & Z" Styles

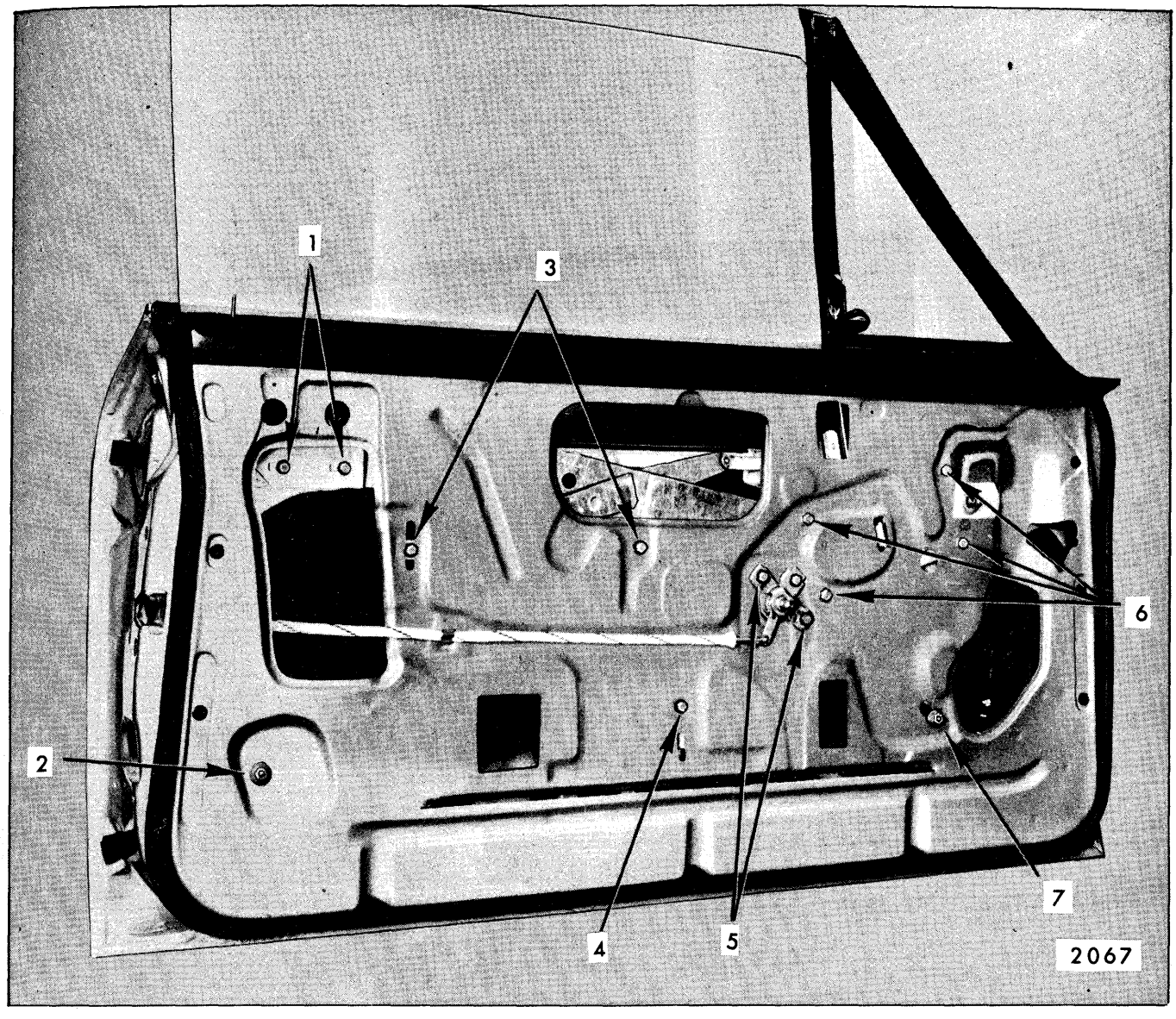

Fig. 7-82—Front Door Hardware - "A-17 and 67" Styles

1. Sash Channel Guide Plate Bolts
2. Glass Run Channel Lower Adjusting Stud and Nut
3. Inner Panel Cam Bolts
4. Window Lower Stop Bolt
5. Remote Control Bolts
6. Window Regulator Bolts
7. Ventilator Division Channel Lower Adjusting Stud and Nut

4. Remove inner panel cam.

5. Lower window slightly and tilt rear edge of glass up until lower sash channel clears door lock pillar at belt line (see Fig. 7-85 for Chevrolet styles and 7-86 for Pontiac, Oldsmobile and Buick styles).

6. Slide window rearward to disengage regulator lift and balance arm rollers from sash channel cam(s) and remove assembly from door.

7. To install, proceed as follows:

   a. On Chevrolet styles, the regulator lift arm roller is installed into the sash channel cam preceding the balance arm roller.

   b. On Pontiac, Oldsmobile and Buick styles, the regulator lift arm roller is installed into the rear sash channel cam simultaneously with the balance arm roller being installed into the front sash channel cam (see Fig. 7-86).

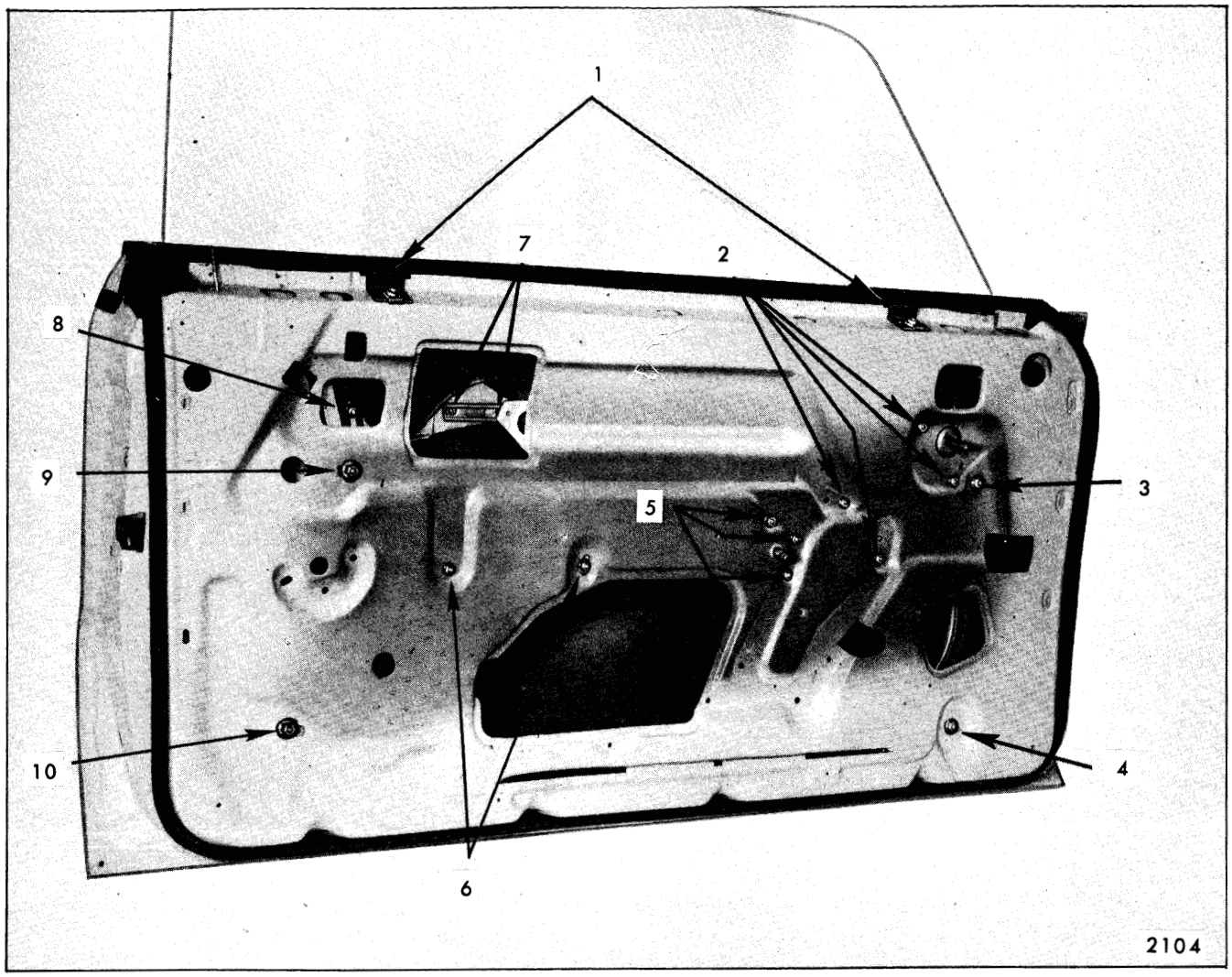

Fig. 7-83—Front Door Hardware - "E" Styles

1. Trim Pad Adjusting Plates
2. Window Regulator Attaching Bolts
3. Front Guide Center Adjusting Stud and Nut
4. Front Guide Lower Adjusting Stud and Nut
5. Remote Control (Standard) Attaching Bolts
6. Inner Panel Cam Attaching Bolts
7. Glass Sash Channel Rear Attaching Screws
8. Window Rear Up-Travel Stop
9. Rear Guide Center Adjusting Stud and Nut
10. Rear Guide Lower Adjusting Stud and Nut

c. Install previously removed hardware and cycle window to insure proper operation prior to installing inner panel water deflector and door trim pad.

Adjustments

The front door window is adjustable fore or aft at guide plate; up or down at up-travel stops; in a rotation manner at inner panel cam; up or down and in or out at rear edge by adjusting rear glass run channel.

The rear run channel lower adjusting stud provides in or out adjustment. This attachment, however, is located on the door inner panel and requires removal of trim pad to gain access (see Fig. 7-62).

FRONT DOOR WINDOW ASSEMBLY— "A-39" STYLES

The front door window is a solid tempered safety plate glass that fits into a lower sash channel which incorporates a welded on cam. With this design,

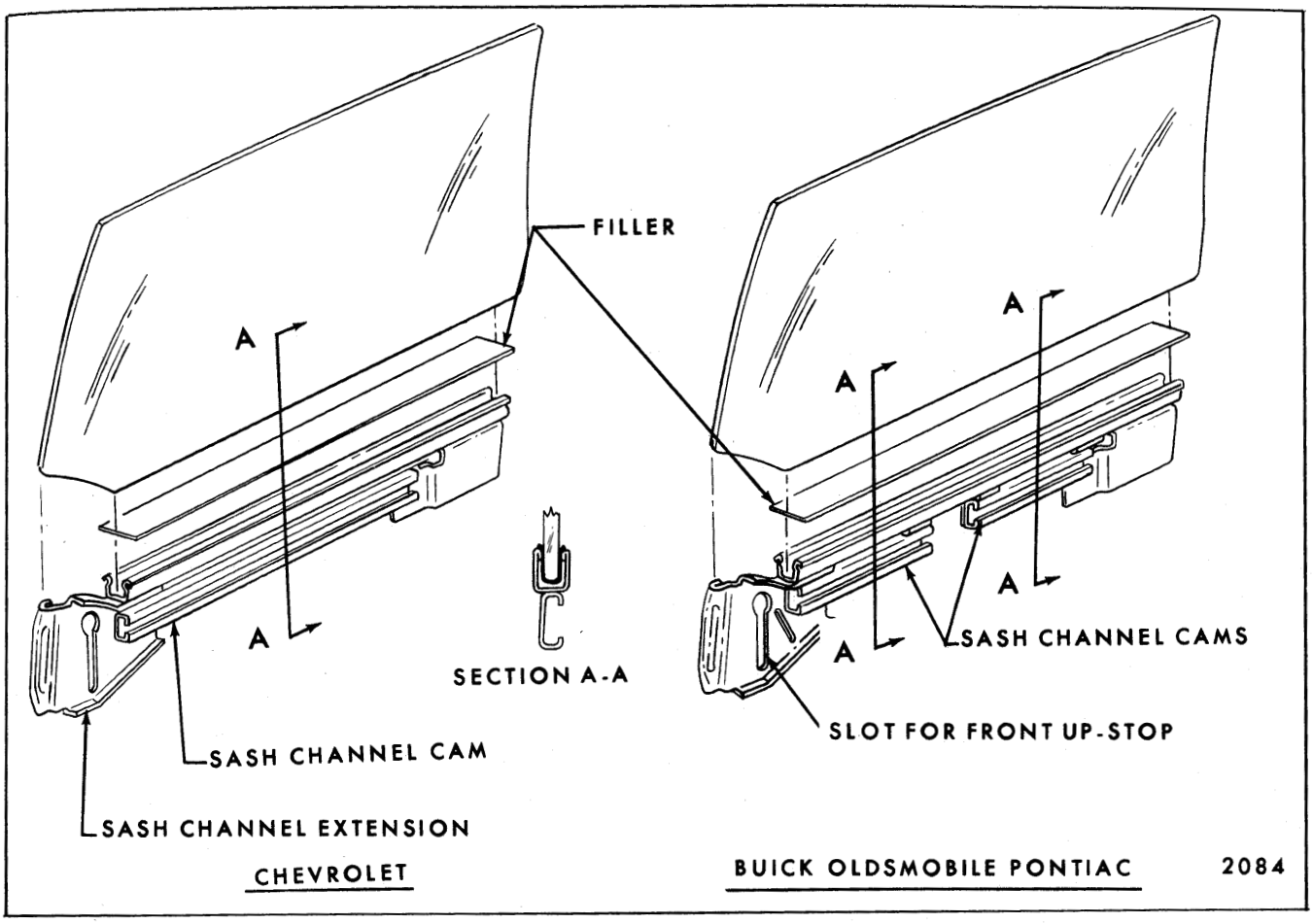

Fig. 7-84—Front Door Window Assembly - "A-17 and 67" Style

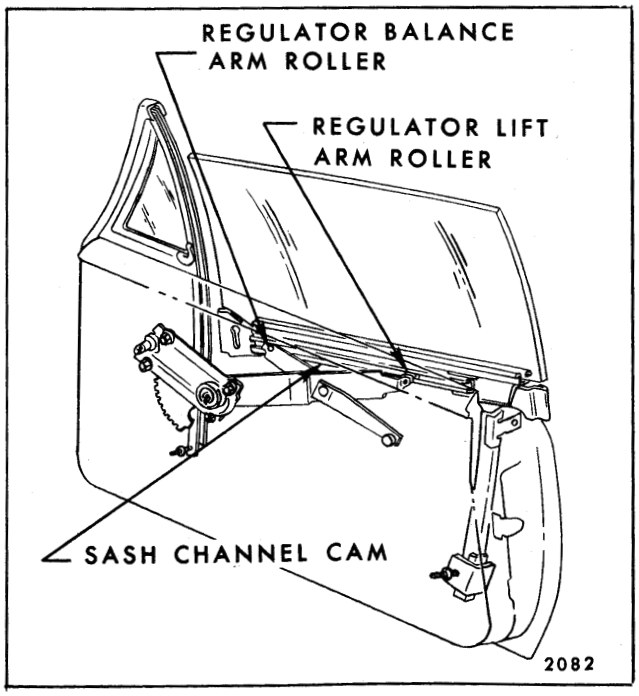

Fig. 7-85—Front Door Window Installation - Chevrolet "A-17 and 67" Styles

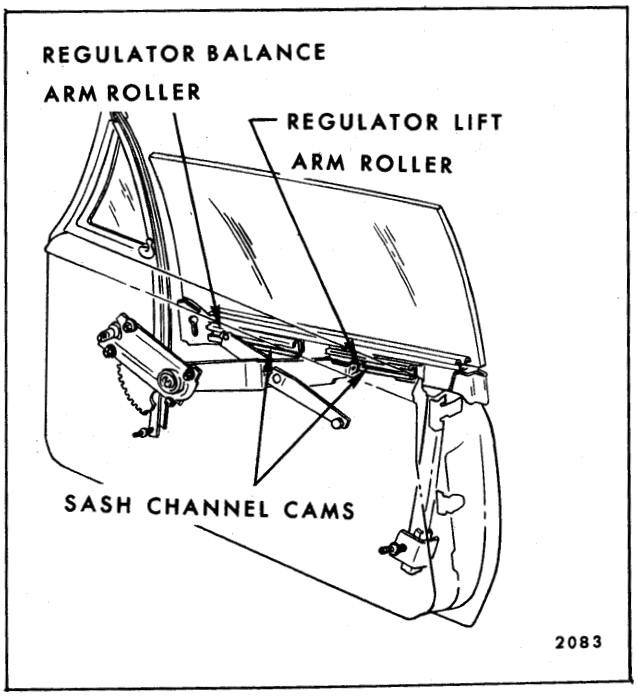

Fig. 7-86—Front Door Window Installation - Buick, Oldsmobile, Pontiac "A-17 and 67" Styles

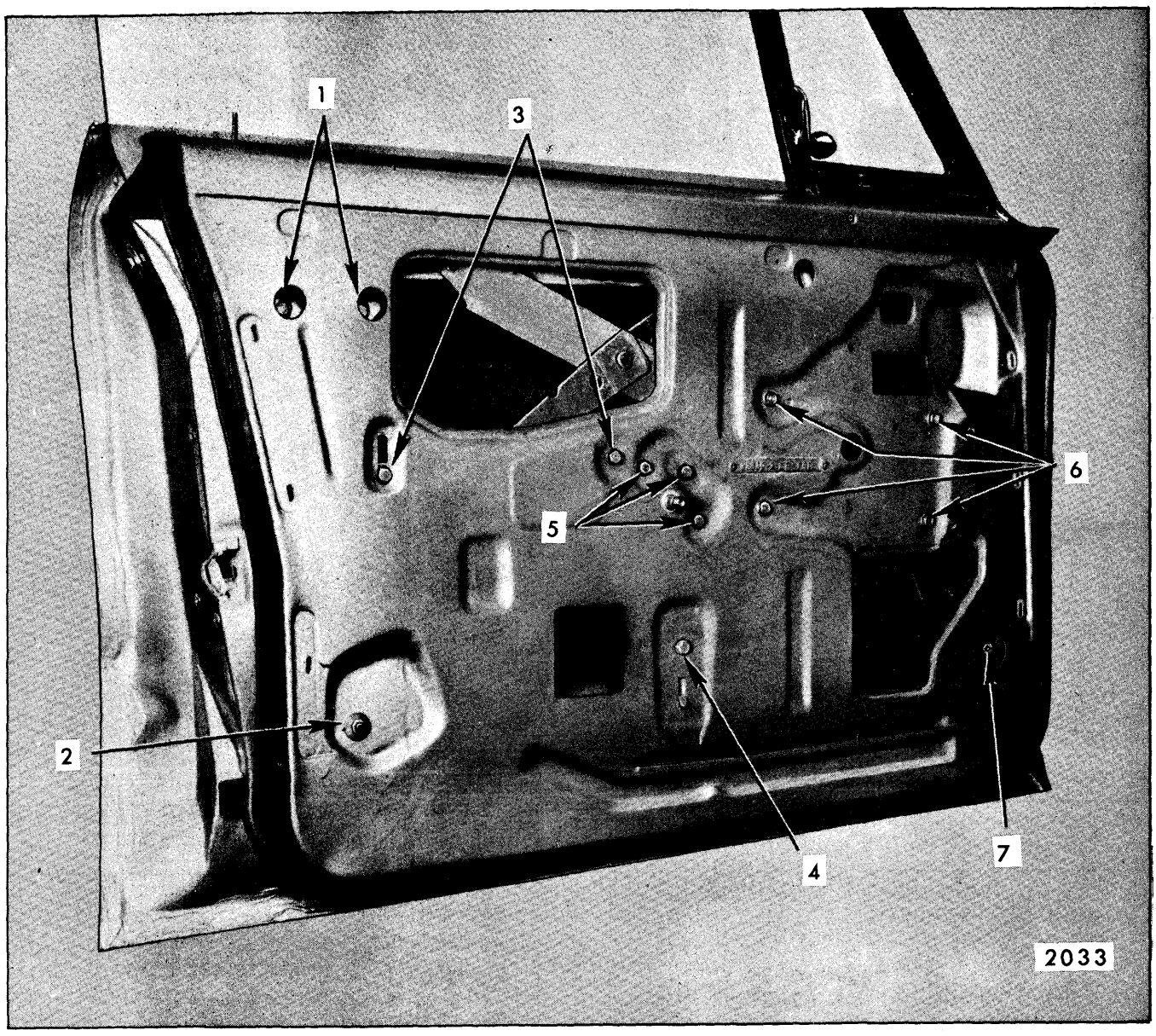

Fig. 7-87—Front Door Hardware - "A-39" Style

1. Sash Channel Guide Plate Bolts
2. Glass Run Channel Lower Adjusting Stud and Nut
3. Inner Panel Cam Bolts
4. Window Lower Stop Bolt
5. Remote Control Bolts
6. Window Regulator Bolts
7. Ventilator Division Channel Lower Adjusting Stud and Nut

the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Use care to make certain glass does not strike hard objects. Edge chips or deep scratches can cause solid tempered safety plate glass to shatter. Do not attempt to grind or drill glass.

Removal and Installation

1. Remove door trim pad and detach inner panel water deflector.
2. On styles not equipped with a hang-on door trim pad, remove inner strip assembly (draft strip).
3. Raise door window. Remove sash channel guide plate, front up-stop and inner panel cam (see Fig. 7-87).
4. Lower window slightly and tilt rear edge of glass up until lower sash channel clears door lock pillar at belt line.

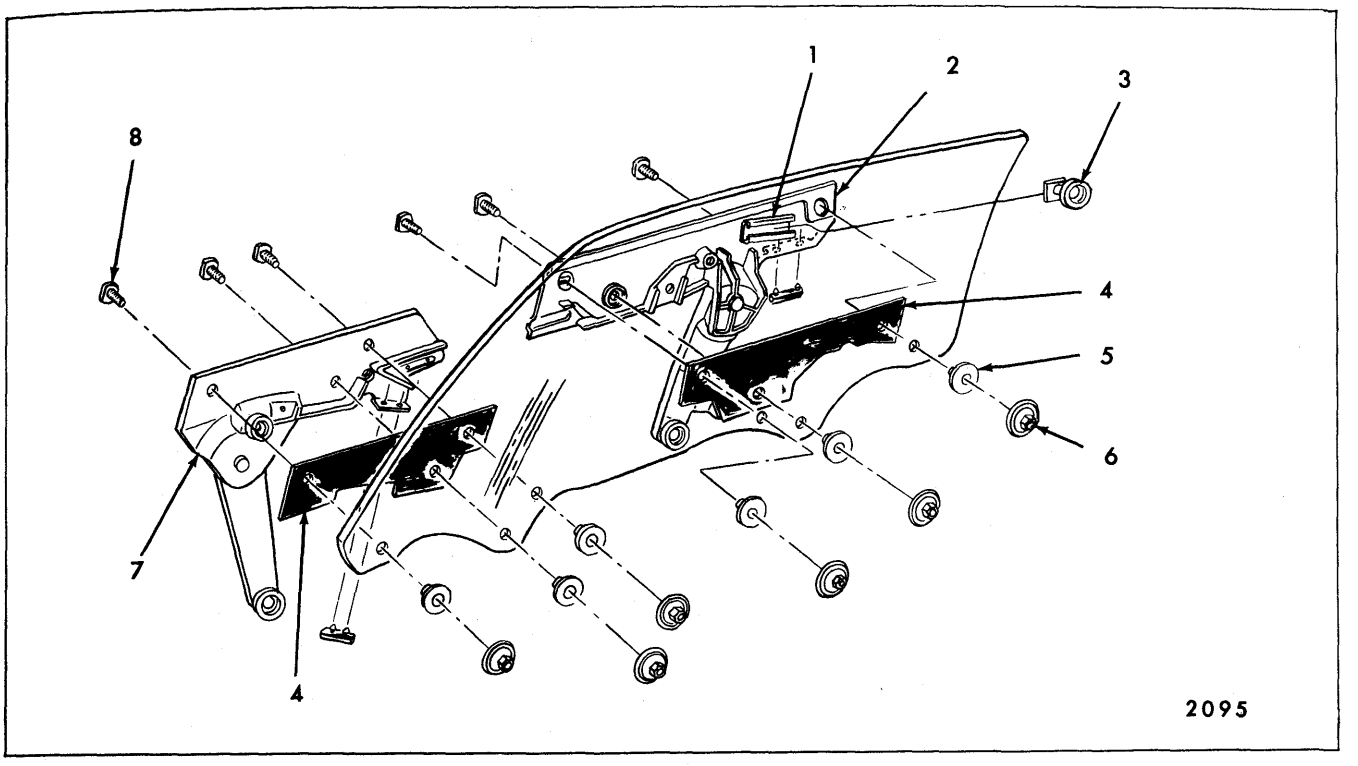

Fig. 7-88—Front Door Window Assembly

1. Sash Channel Plate Rear Cam
2. Rear Sash Channel
3. Cam Roller
4. Glass Filler
5. Spacer
6. Nut
7. Front Sash Channel
8. Bolt

5. Slide window rearward to disengage regulator lift and balance arm rollers from sash channel cam and remove assembly from door.

6. To install, reverse removal procedure. Cycle window to insure proper operation prior to installation of water deflector and trim pad.

NOTE: Front door window adjustments for "A-39" Styles are the same as outlined for "A-17 and 67" Styles with one exception. A regulator sector gear stop (window down-travel) is additionally used on "39" Styles. This stop is attached to the inner panel and can be adjusted to raise or lower the window height in the down position. The stop is used only on power operated (electric) windows.

FRONT DOOR WINDOW ASSEMBLY—49487 STYLES

The front door window assembly consists of a frameless piece of solid tempered safety plate glass and bolt-on front and rear lower sash channel assemblies. With this design the window is removed from the door as an assembly and glass replacements made as bench operations.

Figure 7-88 identifies the components of the door window assembly.

NOTE: When installing glass to sash channel nuts and washers, torque to 60 inch lbs. (5 foot lbs.).

CAUTION: Solid tempered safety plate glass will shatter if it is ground, drilled, chipped or deeply scratched. (see Fig. 7-88).

Removal and Installation

1. Raise door window, remove trim pad and detach inner panel water deflector.

2. Remove front and rear up-stops and lower sash channel cam.

3. Remove glass run channel outer strip and molding assembly (see exterior molding section of manual).

4. Raise glass straight up and remove assembly from body.

NOTE: If necessary, loosen upper attachments of front and rear glass guide channels.

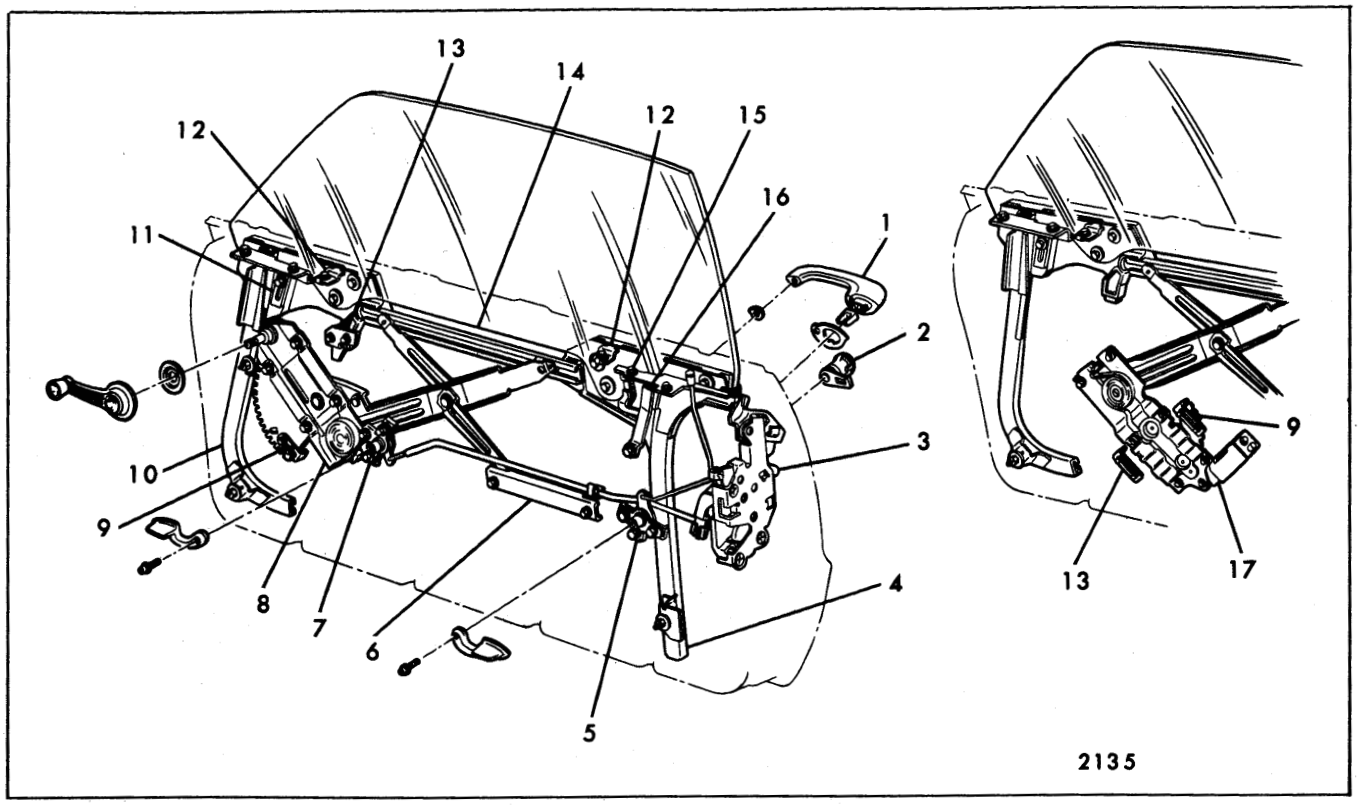

Fig. 7-89—Front Door Hardware - "E" Styles

1. Outside Handle
2. Lock Cylinder
3. Lock
4. Window Rear Guide Channel
5. Rear Remote Control (Optional)
6. Inner Panel Cam
7. Front Remote Control
8. Window Regulator (Manual)
9. Window Regulator Sector Gear Stop (Up-Travel)
10. Window Front Guide Channel
11. Window Front Up-Stop
12. Trim Pad Adjusting Plate
13. Window Regulator Sector Gear Stop (Down-Travel)
14. Window Glass Lower Sash Channel Cam
15. Window Glass Stabilizer
16. Window Rear Up-Stop
17. Window Regulator (Electric)

5. To install, reverse removal procedure.

Adjustments

A rotated glass can be corrected by adjustment of inner panel cam. Up or down adjustment is available at front and rear up-travel stops. In or out adjustment is available at front and rear guides. In addition, the regulator is equipped with two sector gear stops, one controlling up-travel of glass and one down-travel. Each stop is attached to the inner panel with two bolts and both are adjustable. (see Fig. 7-89).

The recommended sequence of total glass adjustment is as follows:

a. Turn front and rear guide center adjusting studs outboard (clockwise) until bearing surface is completely out of engagement with door inner panel.

b. Adjust upper attachments of front and rear guide to proper outboard positions (relationship of glass to side rail weatherstrip).

c. Adjust rear guide upper attachments for proper fore or aft positions.

d. Adjust glass up-travel stops.

e. Adjust front and rear guide lower adjusting studs for proper glass operation.

f. Turn center adjusting studs (both guides) back into contact with door inner panel.

g. Adjust sector gear stops.

FRONT DOOR WINDOW ASSEMBLY—"X-37" STYLES

The front door window glass is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation or removal procedure as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Lower door window and remove front and rear up-travel stops (see Fig. 7-90).
3. Remove front door ventilator casting and ventilator assembly.
4. Remove window down-travel stop.
5. Lower window to full down position.
6. Slide window forward, while tilting front edge upward, to disengage regulator lift arm from lower sash channel cam and remove window from door.
7. To install, reverse removal procedure. After installation of window assembly, lubricate entire length of lower sash channel cam and inner panel cam with Lubriplate or equivalent.

FRONT DOOR WINDOW ADJUSTMENTS—"X-37" STYLES

1. To adjust the window in or out or fore or aft at front section, lower door window and loosen ventilator division channel lower adjusting stud and nut. Turn adjusting stud in or out or position lower end of channel for or aft as required and tighten stud nut.
2. To adjust the window in or out at rear section, loosen rear run channel lower attaching nut. Adjust channel as required, and tighten nut.
3. Up or down adjustment is available at the lower stop assembly and additionally at the up-travel stops.

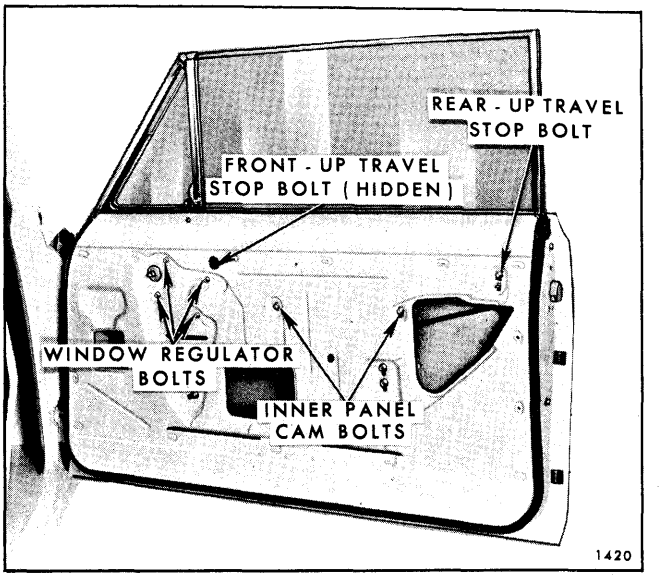

Fig. 7-90—Front Door Window Hardware Attachments - "X-37" Style

FRONT DOOR WINDOW ASSEMBLY—"Z-37-39 AND 67" STYLES

The front door window assembly consists of a frameless piece of solid tempered safety plate glass pressed into a thin-section lower sash channel. When cycled, the glass operates within the ventilator division run channel and the window rear run channel. Guide plates welded to the front and rear of the sash channel also operate in the run channels and give stability to the glass in the full up position.

NOTE: Because these guide plates are not adjustable, it is imperative that replacement door glasses be installed flush with the guide plates at the front and rear of the glass. If glass is too far forward or rearward in relation to guide plates, window assembly will be tight within the run channels.

CAUTION: Handle glass with care. Edge chips can cause solid tempered safety plate glass to shatter. Do not attempt to grind glass.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector. Operate window to almost full-up position.
2. Working through front and rear upper access holes, remove bolts securing front and rear up-travel stops to lower sash channel and remove stops.

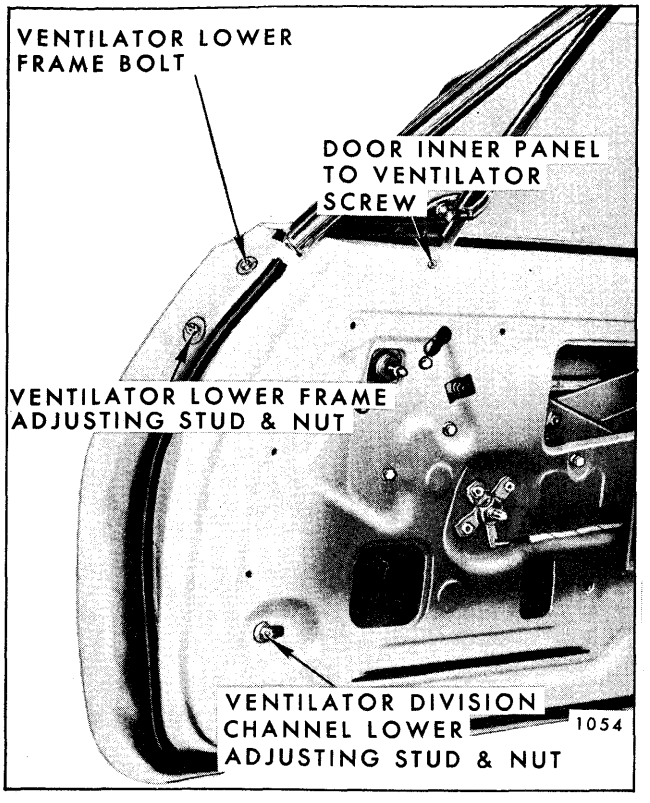

Fig. 7-91—Front Door Ventilator Attachments - "Z" Styles

3. Lower glass to approximately 3" down from full-up position and remove lower sash channel cam attaching screws.

4. Supporting glass with one hand, disengage cam from regulator rollers and remove cam. Lower glass to door bottom.

5. Remove both inner and outer strip assemblies at belt as described under "Glass Run Channel Inner and Outer Strip Assemblies"

6. Loosen ventilator attaching screws and adjusting stud nuts at points described below and illustrated in Figure 7-91.

   a. Ventilator division channel lower adjusting stud nut.

   b. Door inner panel to ventilator attaching screw.

   c. Ventilator adjusting stud nut and ventilator attaching bolt located on door hinge pillar.

7. Lift window assembly and remove it from between door panels at belt line.

8. To install, reverse removal procedure. Adjust window as described below. Adjust ventilator as described under "Front Door Ventilator Adjustments."

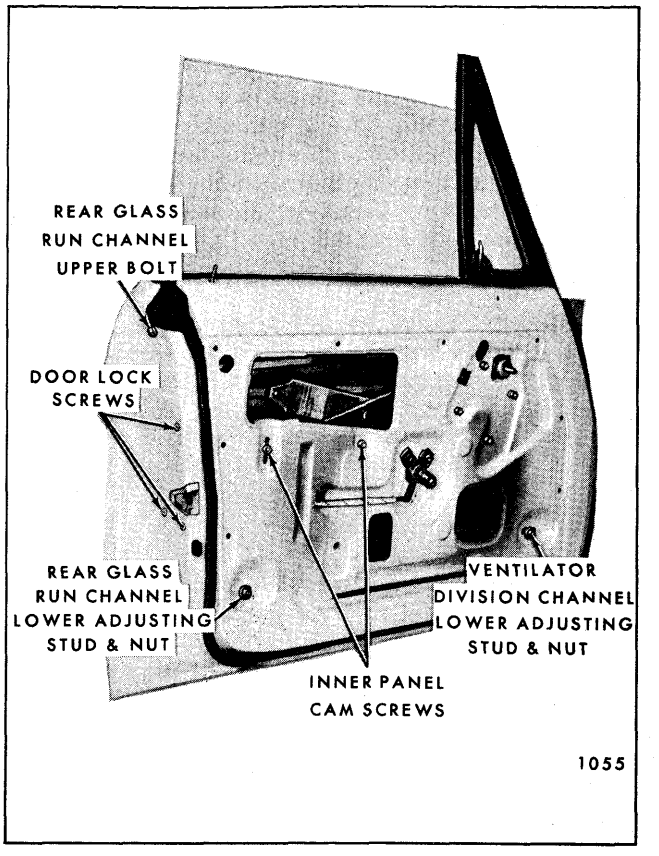

Fig. 7-92—Front Door Hardware - "Z" Styles

FRONT DOOR WINDOW ADJUSTMENTS—"Z" STYLES

To adjust the front door window up or down, loosen the front and rear up-travel stops and operate window to desired position. Then, position and tighten adjustable stops on sash channel against welded-on stops on front and rear run channels.

To rotate the glass in the opening (lower or raise front edge of glass) loosen the inner panel cam attaching screws. Raise or lower adjustable end of cam as required and tighten cam screws.

To adjust rear edge of glass in or out at the belt line, loosen the rear glass run channel upper attaching screw (Fig. 7-92) and adjust the run channel in or out as required.

To adjust the top edge of glass in or out in relation to side roof rail, loosen lower adjusting stud nuts of vent division channel and rear glass run channel (Fig. 7-92). Adjust studs in or out as required, then tighten stud nuts.

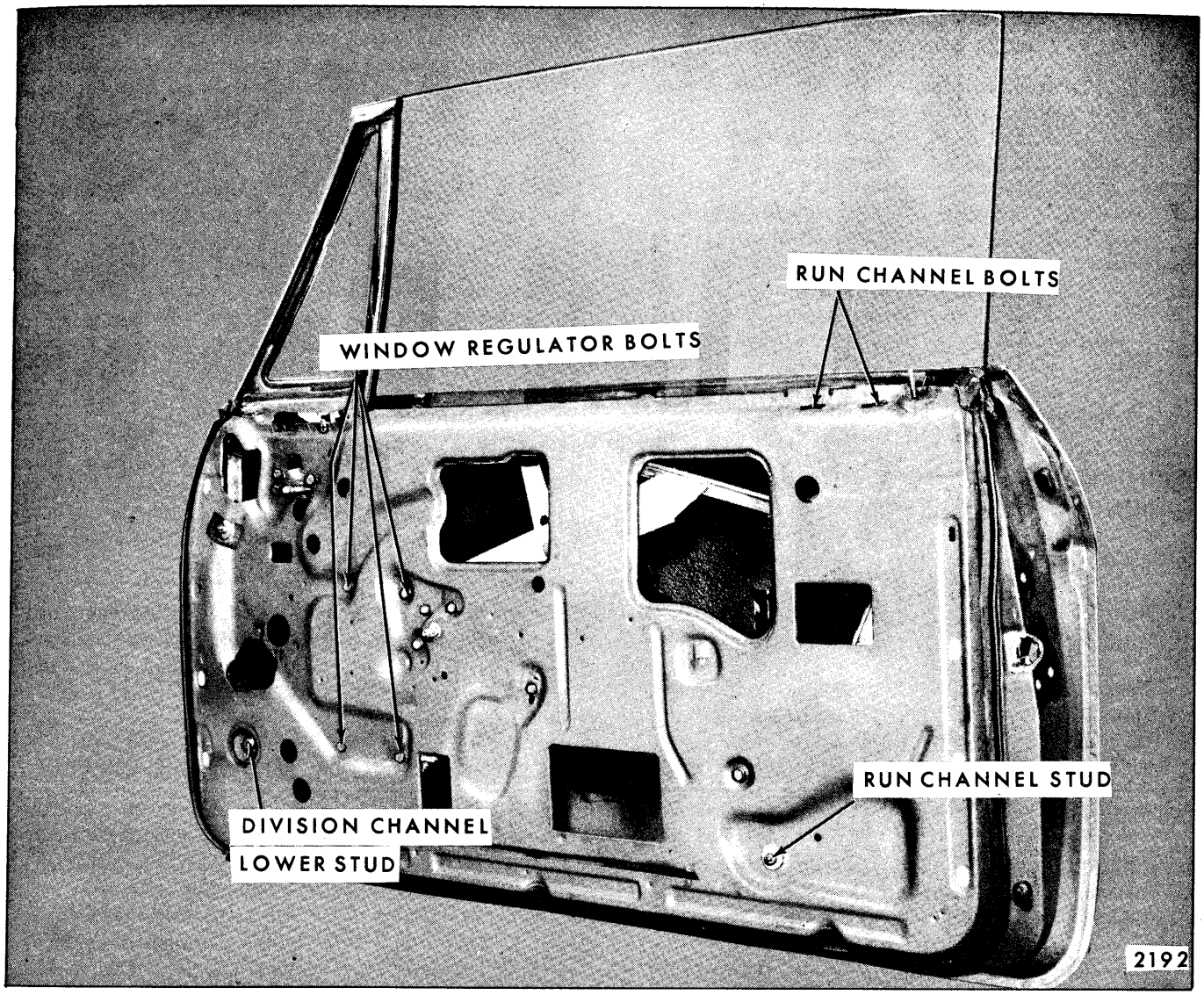

Fig. 7-93—Window Regulator Removal - "B & C" Hardtop Styles

Slight fore and aft adjustment is available by adjusting the vent division channel and rear glass run channel fore or aft at the lower adjusting stud locations (Fig. 7-92).

FRONT DOOR WINDOW REGULATOR—MANUAL AND ELECTRIC—ALL "B & C" STYLES EXCEPT CLOSED STYLES

Removal and Installation

1. Remove front door window assembly as previously described.
2. On two-door styles, remove ventilator division channel lower adjusting stud and nut (Fig. 7-93).
3. On styles equipped with electric window regulators, disconnect wire harness connector at window regulator motor.
4. Remove window regulator attaching bolts (Fig. 7-93).
5. Remove regulator through large access hole. On electric styles it will be necessary to press lower end of ventilator division channel outboard to permit removal.
6. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR—ELECTRIC—"B-35-45 AND 69" STYLES

Removal and Installation

1. Remove front door window and ventilator as previously described.
2. On styles equipped with electric window regulators, disconnect wire harness connector at window regulator motor.
3. Remove window regulator attaching bolts (Fig. 7-93) and remove regulator through access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR—MANUAL—"11-35-45 AND 69" STYLES

Removal and Installation

1. Remove front door trim assembly and inner panel water deflector.
2. Operate window to "full-up" position and secure in place with pieces of cloth-backed body tape applied over door frame.
3. Remove inner panel cam as previously described.
4. Remove ventilator division channel lower adjusting stud and nut and window regulator attaching bolts (Fig. 7-93).
5. Press ventilator division channel outboard to permit disengagement of regulator spindle from inner panel, then run regulator balance arm roller and lift arm roller out of lower sash channel cam at front. Remove regulator through large access hole.
6. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC—ALL "A-E-X & Z" STYLES

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On two-door styles, remove inner panel cam.
3. On closed styles, raise door window. Secure window in full up position by installing a twelve to fifteen inch piece of body tape (2" or 2 1/2" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of the window regulator.
4. On "A-E & X" hard top styles, prop window in a full-up position. On "Z" Body Styles, remove door window and ventilator assembly.
5. Remove ventilator division channel lower adjusting stud and nut. On electric styles, disconnect wire harness from regulator motor.
6. Remove regulator attaching bolts and remove regulator as follows:
   a. On all "A" Styles except "17 and 67" Styles work regulator rearward to disengage lift arm from window lower sash channel cam and remove regulator from door (see Fig. 7-60 and 7-67).
   b. On "A-17 and 67" Styles, slide regulator forward to disengage lift and balance arm rollers from lower sash channel cam(s) and remove regulator through center access hole.
   c. On 49487 Styles, remove regulator through large access hole (Fig. 7-94).
   d. On "X" Body Styles, slide regulator downward and rearward and remove assembly through forward loading hole.
   e. On "Z" Body Styles, remove regulator through large access hole (see Fig. 7-95).
7. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector and trim.

FRONT DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

The electric motor assembly which powers the electrically operated window regulators is a twelve volt, reversible direction motor with an internal circuit breaker and a self-locking gear drive. The motor is secured to the regulator assembly with bolts.

Removal and Installation

1. Remove front door window electric regulator and clamp assembly in a vise (Fig. 7-96).

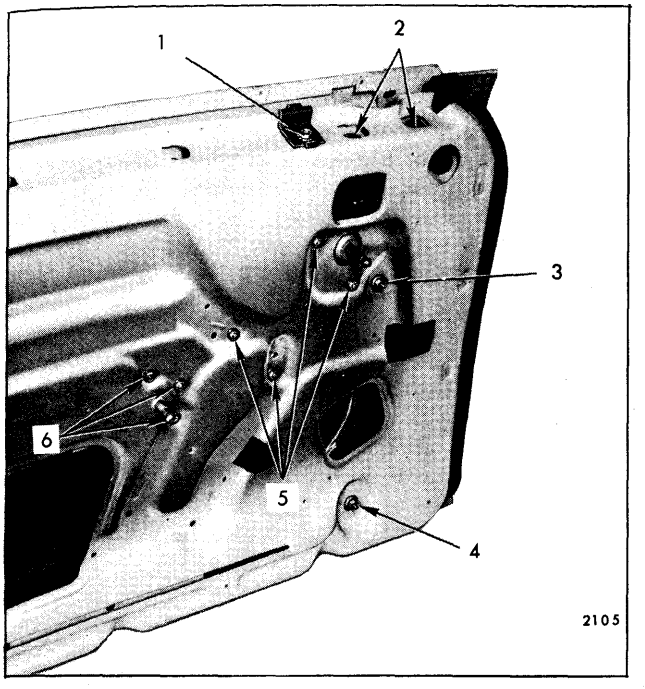

Fig. 7-94—Front Door Hardware—"E" Styles

1. Trim Pad Adjusting Plate (Front)
2. Window Front Guide Channel Upper Bolts
3. Window Front Guide Channel Center Adjusting Stud and Nut
4. Window Front Guide Channel Lower Adjusting Stud and Nut
5. Window Regulator Bolts
6. Front (Standard) Remote Bolts

NOTE: The position of regulator assembly in vise will vary with type of regulator and position of lift arm.

2. Drill a 1/4" hole through regulator back plate and sector gear. The exact point of this hole will be dependent on the position of the regulator lift arm.

IMPORTANT: DO NOT drill into the motor housing, part of which is indicated by the dotted line illustrated in Figure 7-96. In addition, locate hole sufficient distance from edge of sector gear to insure proper retention of sector gear to back plate.

3. Install a 3/16" bolt through hole in regulator back plate and sector gear and install a nut on the bolt. DO NOT tighten nut.

CAUTION: Be sure to perform steps 2 and 3 before attempting to remove motor from regulator assembly. The regulator lift arm is under tension from the regulator counterbalance spring and can cause SERIOUS INJURY if motor is removed from regulator without locking the sector gear in position with a nut and bolt.

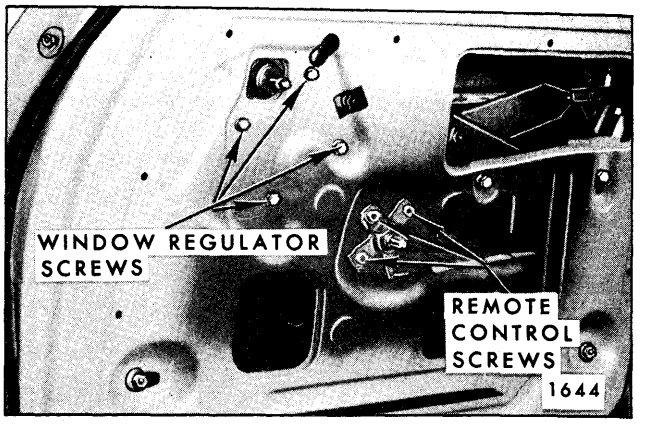

Fig. 7-95—Front Door Hardware - "Z" Styles

4. Remove regulator motor attaching bolts and remove motor from regulator assembly. (Fig. 7-96).

NOTE: Clean off any steel chips from regulator sector gear and motor pinion gear.

5. To install, reverse removal procedure. If difficulty is encountered in lining up motor attaching holes with regulator assembly, the regulator lift arm may be moved into position manually so that motor pinion gear will mesh with teeth on regulator sector gear. After installation of front door window assembly, cycle electric regulator several times before installing inner panel water deflector and door trim pad.

NOTE: Be sure to remove temporary nut and bolt securing regulator back plate to regulator sector gear before installing assembly into door.

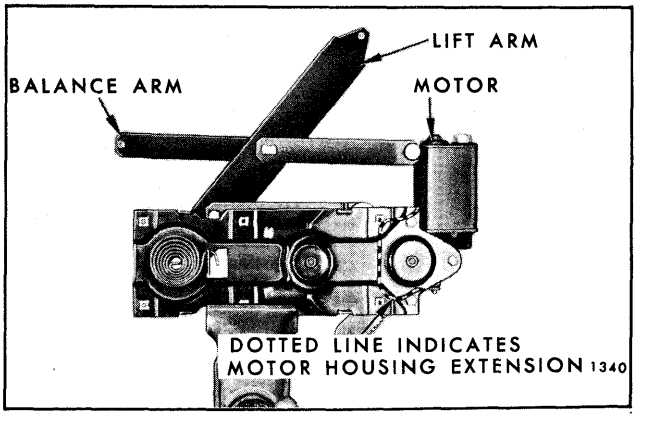

Fig. 7-96—Door Window Regulator and Electric Motor Assembly

FRONT DOOR WINDOW GLASS RUN CHANNEL—ALL "B & C" STYLES EXCEPT CLOSED

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. With window in full-up position, remove window glass run channel upper attaching bolts and lower adjusting stud nut (Fig. 7-93).
3. Disengage lower adjusting stud from inner panel slot and remove run channel through access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW GLASS RUN CHANNEL—"B-11-35-45 AND 69" STYLES

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Lower window to approximately half-down position and tie or tape window so that front edge of window remains engaged in ventilator division channel.
3. Remove glass run channel upper attaching bolt (at belt) and lower adjusting stud nut (Fig. 7-97).
4. From outside door, insert a sharp pointed right angle tool (reveal) molding clip disengaging tool J-21549 or equivalent) between outer edge of glass run channel and door upper frame as shown in Figure 7-98.
5. Beginning at front end of run channel, slide tool rearward until a clip is contacted, then engage point of tool under clip and carefully pry inboard to release clip tangs from door frame.
6. Repeat step 5 at each clip location until run channel is completely disengaged from door frame.
7. Remove glass run channel from door by carefully lowering upper end of channel down into door (rearward of glass) while simultaneously directing lower end (adjusting stud end) of channel out through the rectangular (4" x 6") access hole in lower center of door inner panel.
8. To install, reverse removal procedure. Begin installation above belt at door upper frame upper rear corner.

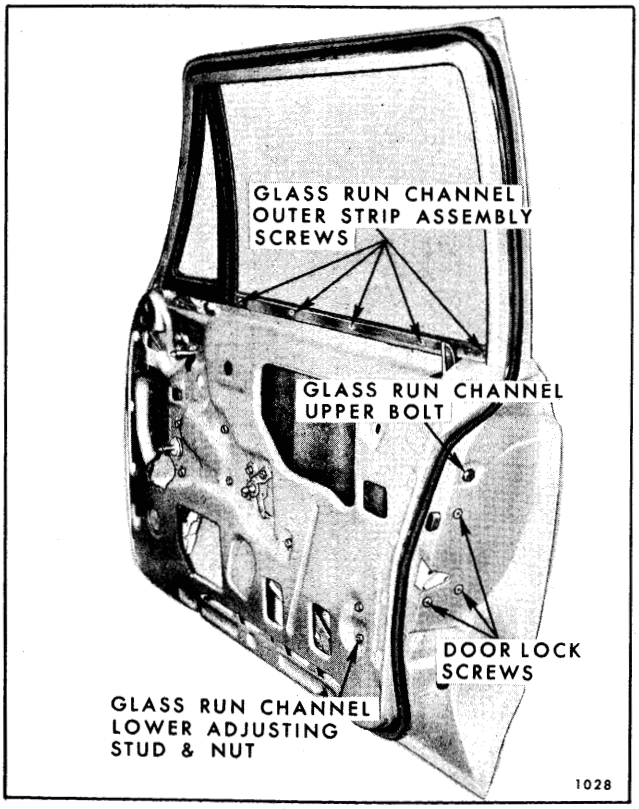

Fig. 7-97—Door Hardware Attachments - "B" Closed Styles

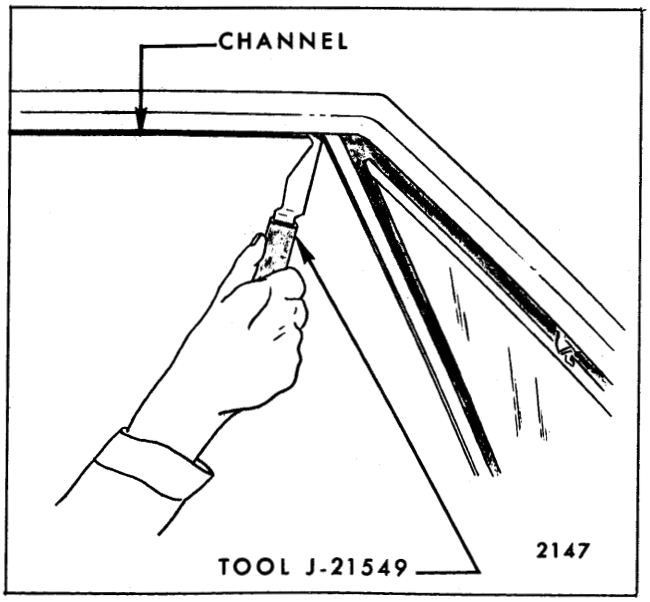

Fig. 7-98—Door Window Glass Run Channel Removal

NOTE: Prior to installation, inspect run channel clips and saturated polyurethane foam sealing strips in door upper frame (Fig. 7-65). Reform distorted clips to insure adequate retention.

Replace damaged sealing strips with Service Part which is available in five foot lengths (Part #4480378 or equivalent).

FRONT DOOR WINDOW REAR GLASS RUN CHANNEL—"A-17-39 AND 67" STYLES

Removal and Installation

1. Raise door window. Remove trim pad and detach inner panel water deflector.
2. Remove front door window guide plate.
3. Remove run channel upper attaching bolt (lock pillar) and lower adjusting stud nut (inner panel - see Fig. 7-82 for "17 and 67" Styles and Fig. 7-87 for "39" Styles).
4. Swing run channel down and forward and remove from door.
5. To install, reverse removal procedure.

NOTE: For adjustments of rear run channel, see "Front Door Window Assembly - "17 and 67" Styles - Adjustments".

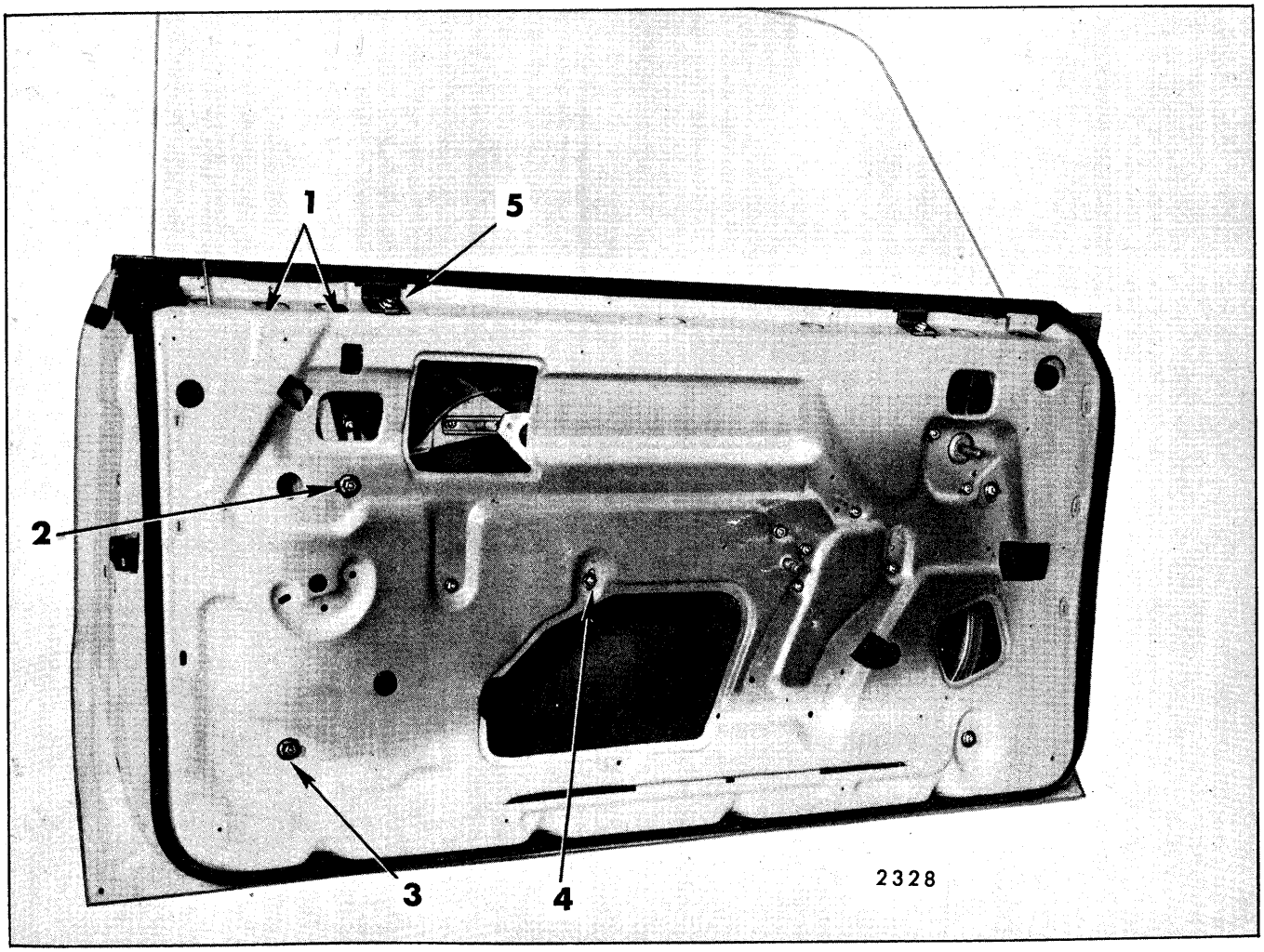

Fig. 7-99—Front Door Hardware - 49487 Style

1. Window Rear Guide Upper Bolts
2. Window Rear Guide Center Adjusting Stud and Nut
3. Window Rear Guide Lower Adjusting Stud and Nut
4. Inner Panel Cam
5. Rear Trim Pad Adjusting Plate

FRONT DOOR WINDOW FRONT GUIDE CHANNEL—49487 STYLES

Removal and Installation

1. Raise door window. Remove trim pad and detach inner panel water deflector.
2. Remove front door window assembly.
3. Remove center and lower adjusting stud nuts and upper two attaching bolts and remove guide assembly (see Fig. 7-94).
4. To install, reverse removal procedure.

Adjustments - see door window adjustments.

FRONT DOOR WINDOW REAR GUIDE CHANNEL—49487 STYLES

Removal and Installation

1. Raise door window. Remove trim pad and detach inner panel water deflector.
2. Remove front door window assembly.

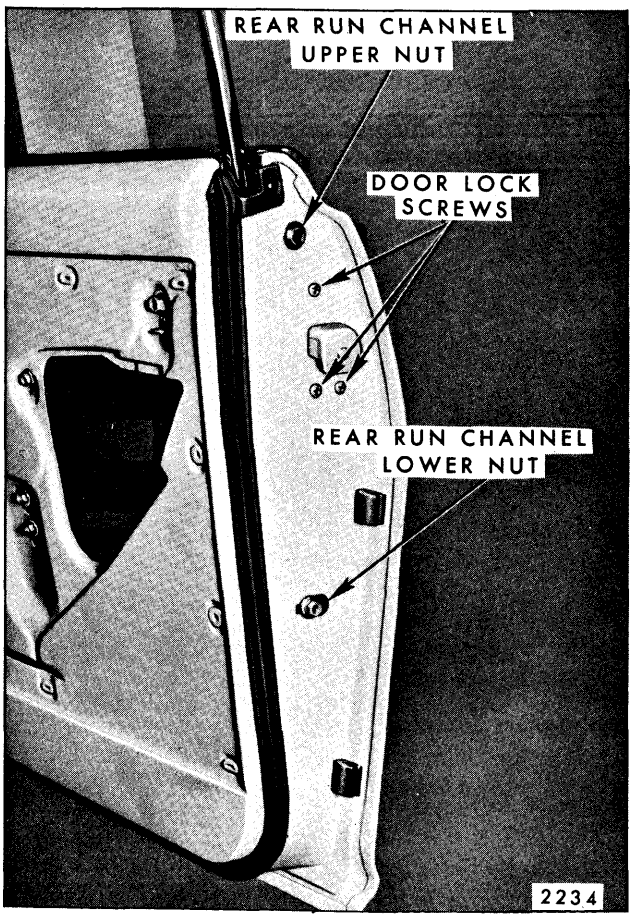

Fig. 7-100—Door Lock Pillar - "X-37" Style

3. Remove center and lower adjusting stud nuts and upper two attaching bolts and remove guide assembly (see Fig. 7-99).
4. To install, reverse removal procedure.

Adjustments - see door window adjustments.

FRONT DOOR WINDOW GLASS RUN CHANNELS—"X-37" STYLES

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove door ventilator and window assembly.
3. Remove bolts securing run channel to lock pillar panel and remove from door.
4. To install, reverse removal procedure (see Fig. 7-100).

FRONT DOOR WINDOW GLASS RUN CHANNELS—"X-11-35 AND 69" STYLES

Removal and Installation

1. Remove door trim pad and detach inner panel water deflector.
2. Remove front door window.
3. Press (finger pressure) sides of run channel together and remove assembly from door upper frame (see View "A" for "11" Styles and View "B" for "35 and 69" Styles in Fig. 7-101).
4. To install, reverse removal procedure.

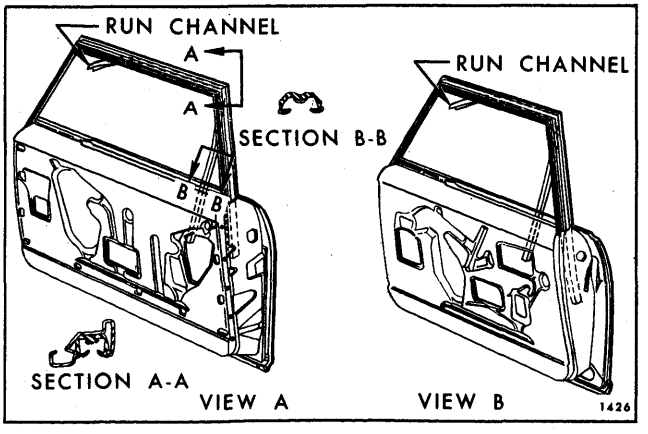

Fig. 7-101—Front Door Glass Run Channel Assembly - "X" Closed Styles

FRONT DOOR WINDOW REAR GLASS RUN CHANNEL—"Z" BODY STYLES

1. Lower door window and remove door trim pad and inner panel water deflector.
2. Remove glass run channel upper attaching screw and lower adjusting stud nut.
3. Disengage run channel from rear edge of glass and remove run channel through large access hole.
4. To install, reverse removal procedure.

DOOR WEDGE PLATES—"67" STYLES

Door wedge plates are used on convertible styles to give additional support to the door when it is in the closed position. One plate is installed to the body lock pillar and the other to the door lock pillar (Fig. 7-102). The plates should contact each other to the extent of a 1/32" interference when the door is closed. Body side wedge plate shims are available as a service part so that this interference can be obtained.

FRONT DOOR LOCK SELECTOR VALVES—ALL CADILLAC STYLES AND BUICK, OLDSMOBILE "B-C & E" STYLES

The vacuum door lock system is operated by selector valves located in the front door trim assemblies. When either valve is actuated upward, all door locks simultaneously unlock. When either valve is actuated downward, all door locks lock. Vacuum is supplied to the selector valve in the red color-coded hose and is present at all times at both valves. Only when the selector valve is actuated is vacuum supplied to the balance of the system (Fig. 7-103).

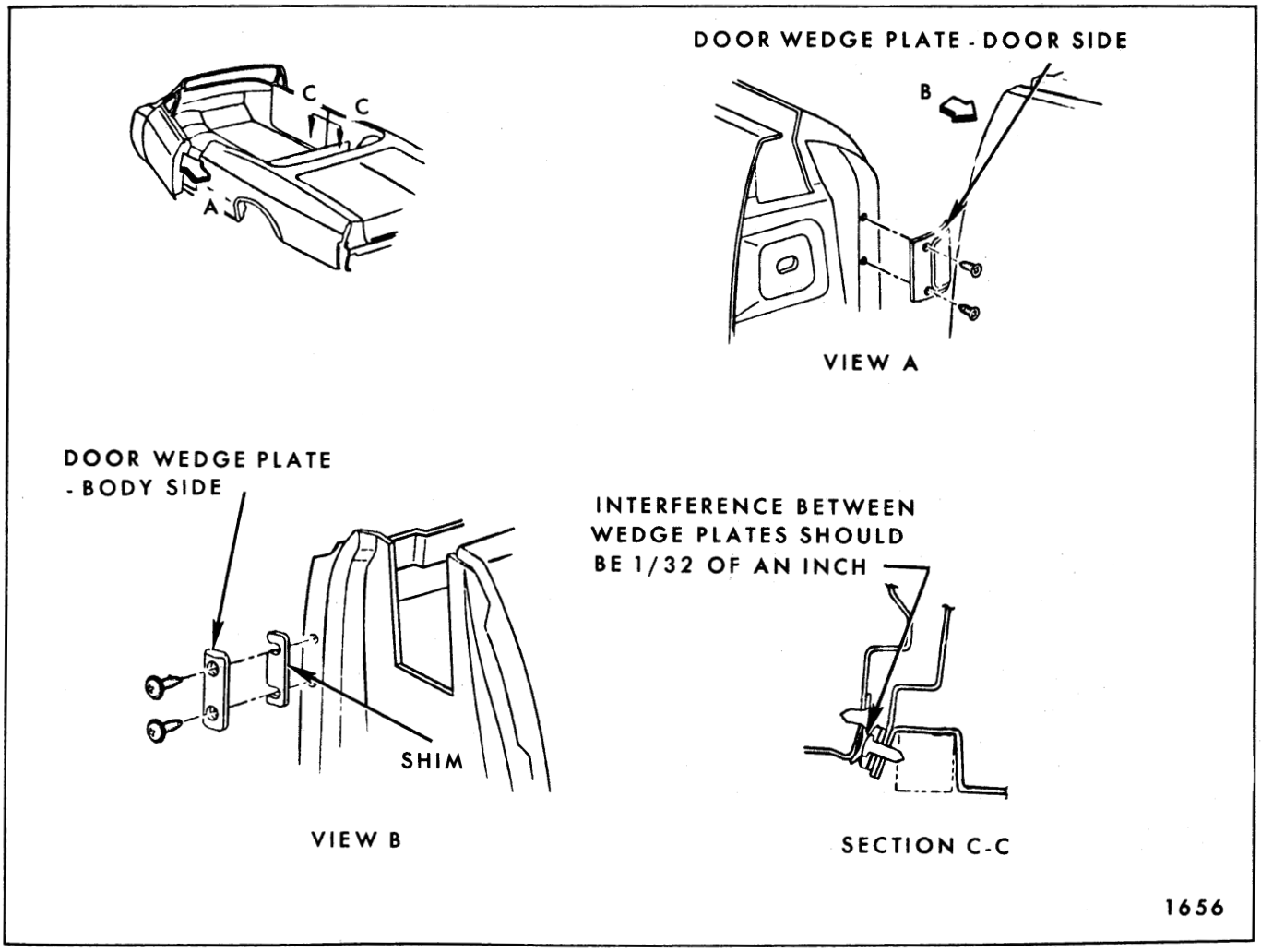

Fig. 7-102—Door Wedge Plates - "67" Styles

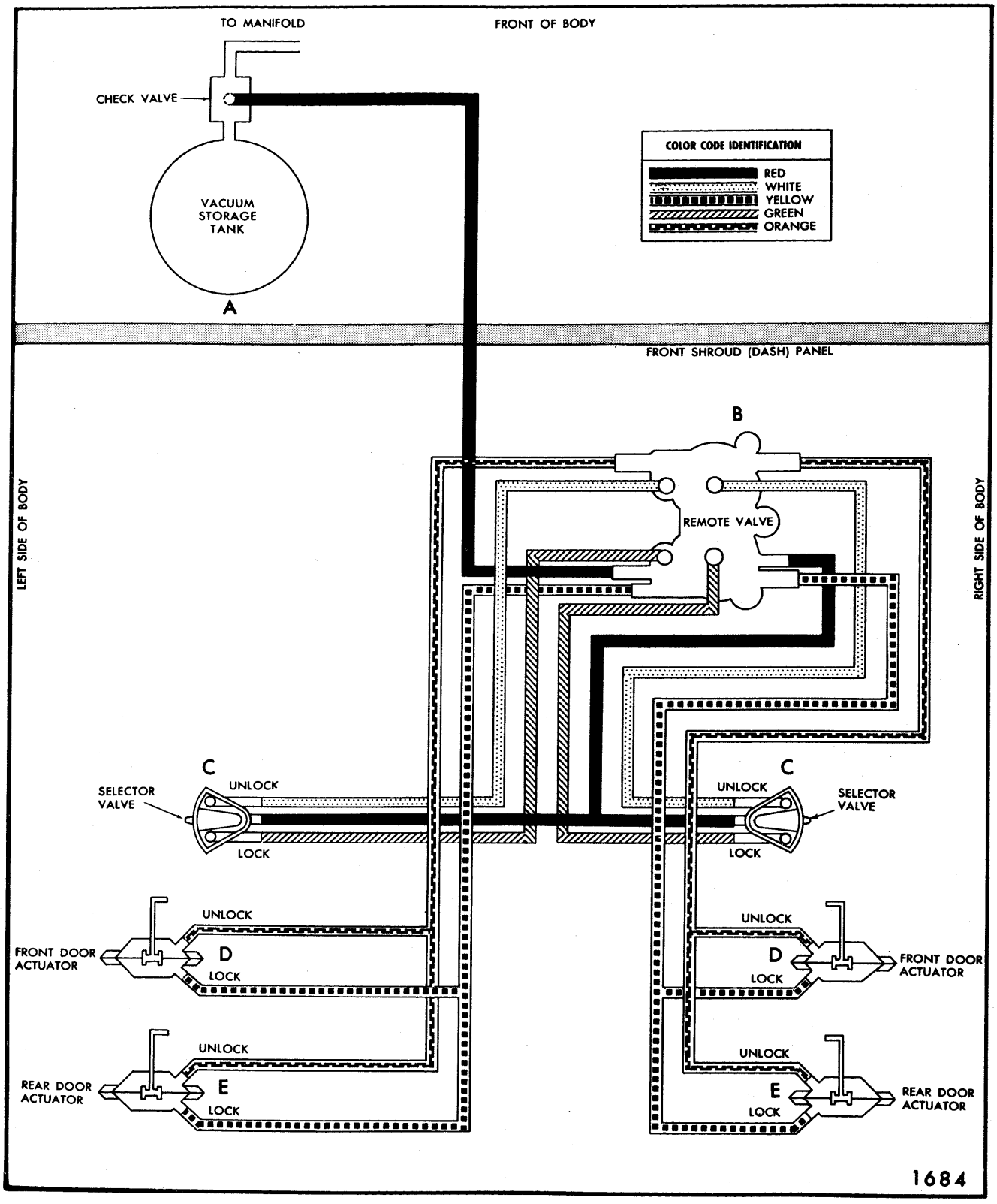

Fig. 7-103—Vacuum Door Lock System - Buick, Oldsmobile, Cadillac

Removal and Installation

1. Remove door trim pad and carefully disconnect vacuum hose from selector valve.
2. Carefully disengage valve assembly from door trim assembly.
3. To install, reverse removal procedure. When installing vacuum hoses to selector valve, hose color codes must be installed to the proper connection on the selector valve for proper valve operation. Check all operations of door lock vacuum system prior to installing door trim and inside hardware.

VACUUM DOOR LOCK SYSTEM OPERATION—PONTIAC "A & B" STYLES

The vacuum system is operated from the left front door inside locking rod. The rod is directly linked to a sliding control valve attached to the left front door lock (Fig. 7-104). By manually raising or depressing the inside locking rod, as would be required to lock or unlock any door, the vacuum system simultaneously locks or unlocks all doors.

Since operation of the system must be done manually at the left front door, the control valve is only required at that location. For the same reason, only vacuum lock actuators are provided at the remaining door locks.

VACUUM DOOR LOCK ACTUATOR—ALL STYLES WITH VACUUM LOCKS

The actuators that operate the locks are double acting vacuum diaphragms. Vacuum is supplied to either side of the diaphragm to lock or unlock the door lock assemblies. The diaphragm moves a rod that operates the locking lever of the lock to the desired position. All vacuum hoses and their corresponding actuator ports are color-coded to assure correct hose-to-actuator installation. The orange coded vacuum hose provides the unlocking cycle of the door assembly and the yellow coded vacuum hose provides the locking cycle of the door lock assembly.

As the actuator is attached to the door lock with screws which are inaccessible with the lock installed, it is necessary to remove the door lock in order to remove the actuator. Once the door lock is removed, the actuator can be removed in a bench operation (Fig. 7-105 for front doors, Fig. 7-106 for rear doors.

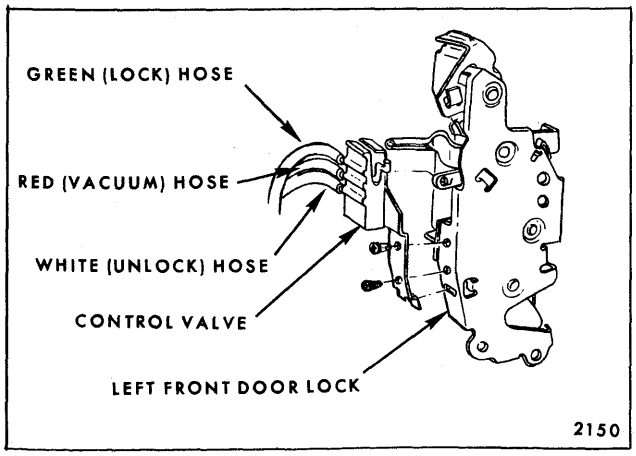

Fig. 7-104—Vacuum Door Lock Control Valve - Pontiac Style

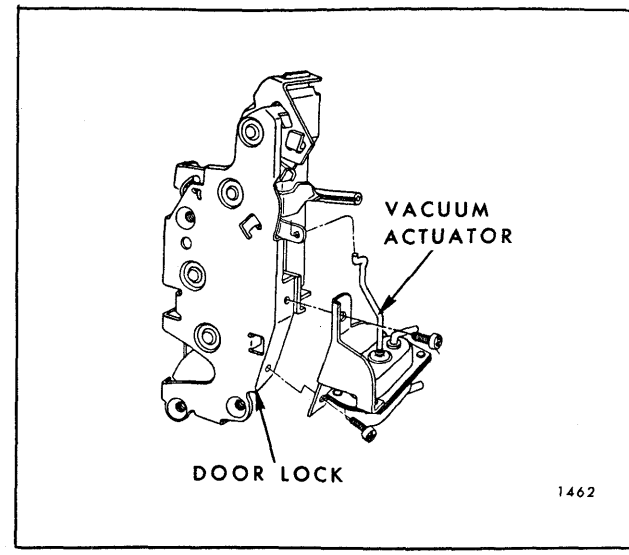

Fig. 7-105—Front Door Vacuum Actuator

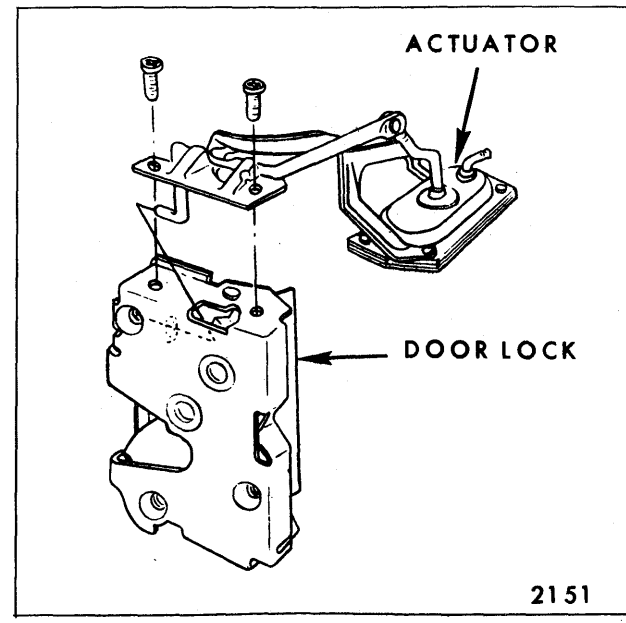

Fig. 7-106—Rear Door Vacuum Lock Actuator

LEFT FRONT DOOR LOCK VACUUM CONTROL VALVE—PONTIAC "A & B" STYLES

The vacuum control valve is attached to the left front door lock with screws which are inaccessible with the lock installed in the door (Fig. 7-104). To remove the valve it is necessary to disconnect the vacuum hoses and remove the lock and control valve from the door as an assembly. The valve can then be removed in a bench operation.

To install the valve, reverse the removal procedure. Connect color-coded hoses to matching color-coded ports on the valve.

For operation of the valve, refer to the preceding "operation" description.

VACUUM DOOR LOCK TRANSFER VALVE—PONTIAC "A & B" STYLES

The transfer valve is a dual diaphragm valve that receives the main lock or unlock vacuum signal from the door lock control valve and then creates its own vacuum signal to momentarily open the proper ports in the remote control.

As there is no neutral position to the door lock control valve, vacuum is constantly surging through the valve, through either the white or green hoses (Fig. 7-107). If it were not interrupted, this vacuum would be constant throughout the entire system and would have to be over-ridden to operate the system from either the lock to unlock, or from the unlock to the lock cycle. This interruption is accomplished by the transfer valve. The valve itself has a dual diaphragm, one side of which is actuated by a transfer of vacuum from one side of the valve to the other (white to green or green to white). This action (depressing one of the diaphragms) creates a secondary vacuum which is relayed to the remote control valve through one of the connecting hoses, either the green or white depending on whether the action is to lock or unlock. This secondary vacuum from the transfer valve momentarily opens the proper ports in the remote control assembly and permits the main vacuum in the red hose to momentarily surge through the remote control and operate the remainder of the locks.

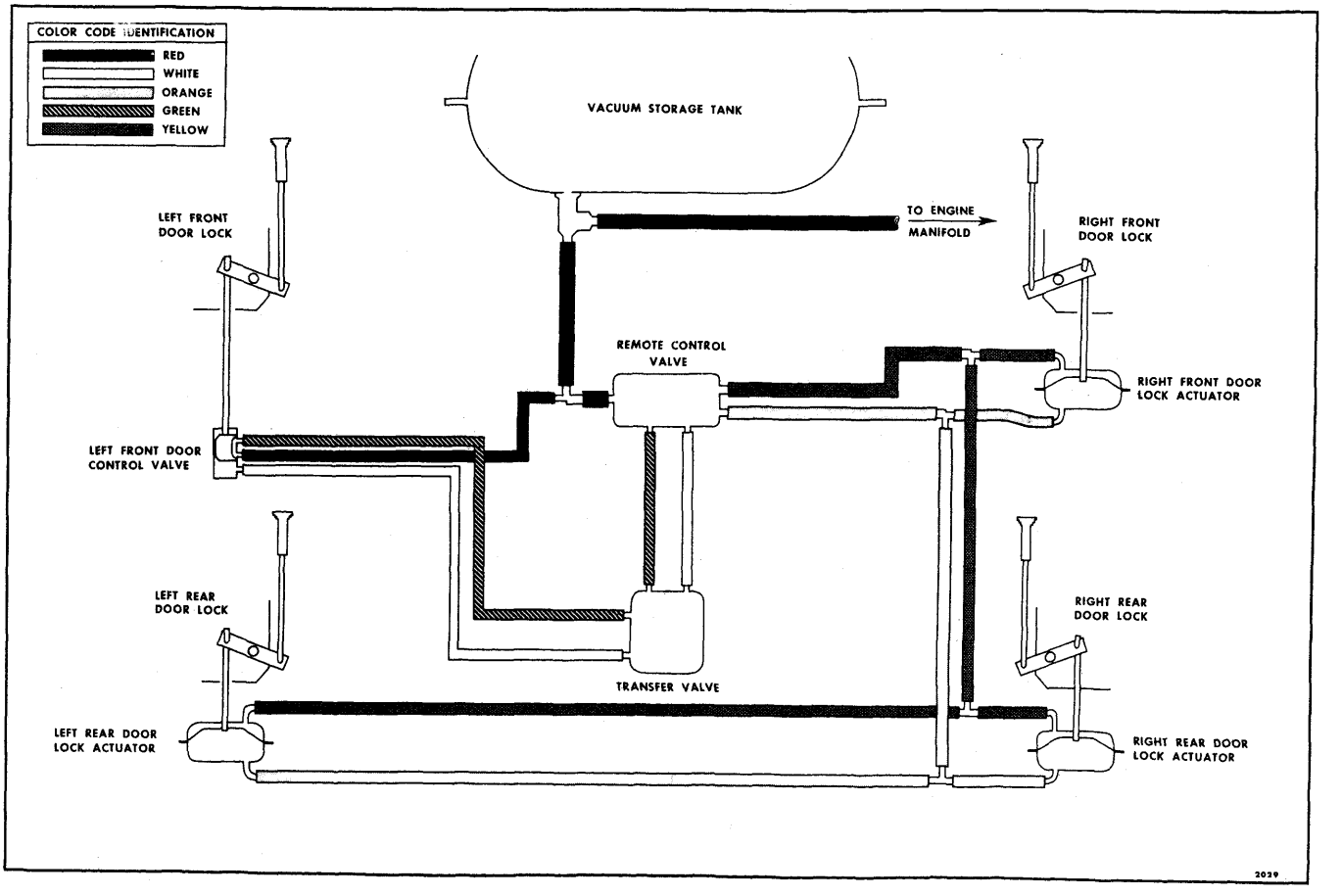

Fig. 7-107—Vacuum Door Lock System - Pontiac Styles

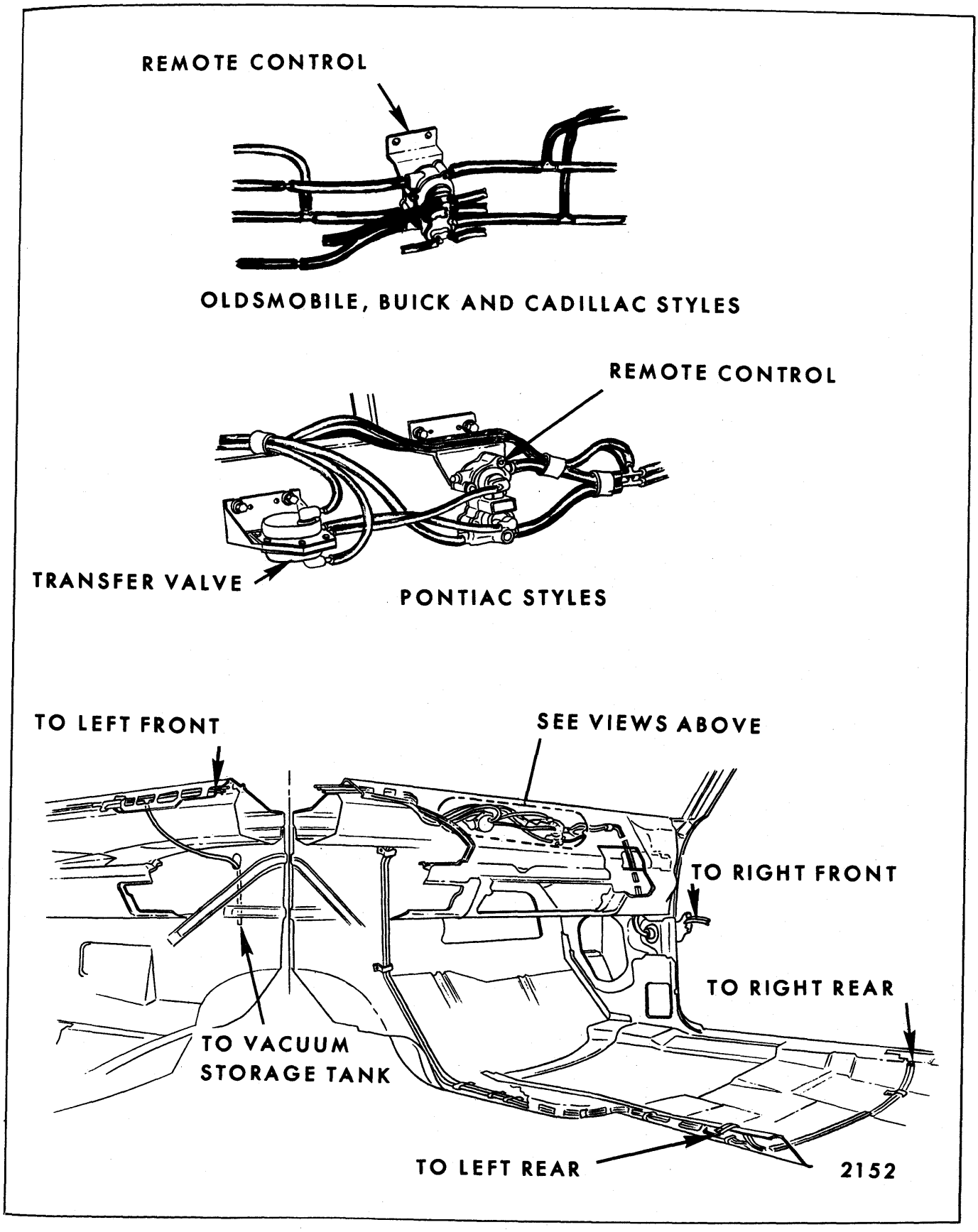

Fig. 7-108—Vacuum Door Lock Hose Routing

As shown in Fig. 7-108 the transfer valve is located next to the remote control assembly under the instrument panel on the right side of the body. The upper and lower hoses (white and green) shown in the insert in Fig. 7-108 connect the valve to the door lock control valve. The middle pair carry the secondary signal to the remote control

VACUUM DOOR LOCK REMOTE CONTROL ASSEMBLY—ALL STYLES WITH VACUUM DOOR LOCKS

The function of the remote control assembly is to momentarily release the interrupted main vacuum in the red hose into the entire system upon receipt of the secondary vacuum signal from the transfer valve or selector valve. A lock signal received from the transfer valve or selector valve through the green hose will open the ports to momentarily introduce vacuum into the yellow (lock) hoses. Conversely, an unlock signal received through the white hose will introduce vacuum into the orange (unlock) hoses.

The remote control valve is located under the instrument panel on the right side (Fig. 7-108). All ports and hoses are color-coded for ease of hose installation (Fig. 7-109).

DOOR LOCK VACUUM STORAGE TANK

The door lock vacuum storage tank is mounted in the engine compartment and is connected to the engine manifold by a hose (Fig. 7-104). A check valve at the tank connector maintains the vacuum in the tank. The storage tank supplies vacuum at all times to the remote valve and door lock control valve. The tank should provide a minimum of three complete cycles of operation (lock and unlock) immediately after the engine has been shut off.

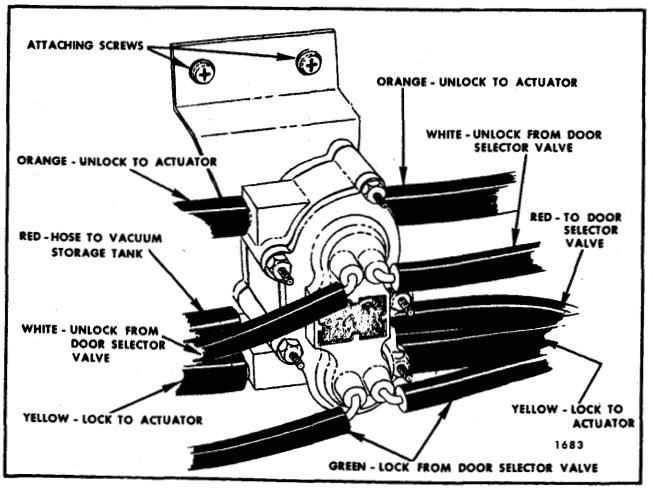

Fig. 7-109—Vacuum Lock Remote Control Valve

VACUUM DOOR LOCK TROUBLE DIAGNOSIS PROCEDURE

When an external air leak in the vacuum locking system is not severe enough to be heard, the leak-down testing device shown in Figure 7-110 will aid in determing which part is leaking. This device can be easily constructed from common items that are normally available. The following chart lists the necessary components. The item numbers are referenced to Figure 7-110.

Although several transparent glass containers may be satisfactory for use as a testing device, a quart jar with a metal cap that can be sealed is recommended.

Item	Description	ID	OD	Length	Quan.
1	Quart Glass Container	-	-	-	1
2	Metal Cap	-	-	-	1
3	Cap Sealing Ring	-	-	-	1
4	Cap Ports	3/16"	1/4"	2 1/2"	2
5	Hose Port	3/16"	1/4"	2 1/2"	1
6	Hose	7/32"	3/8"	2"	2
7	Hose	5/32"	5/16"	1"	1
8	Glass Tube	1/8"	5/16" to 3/8"	4"	1

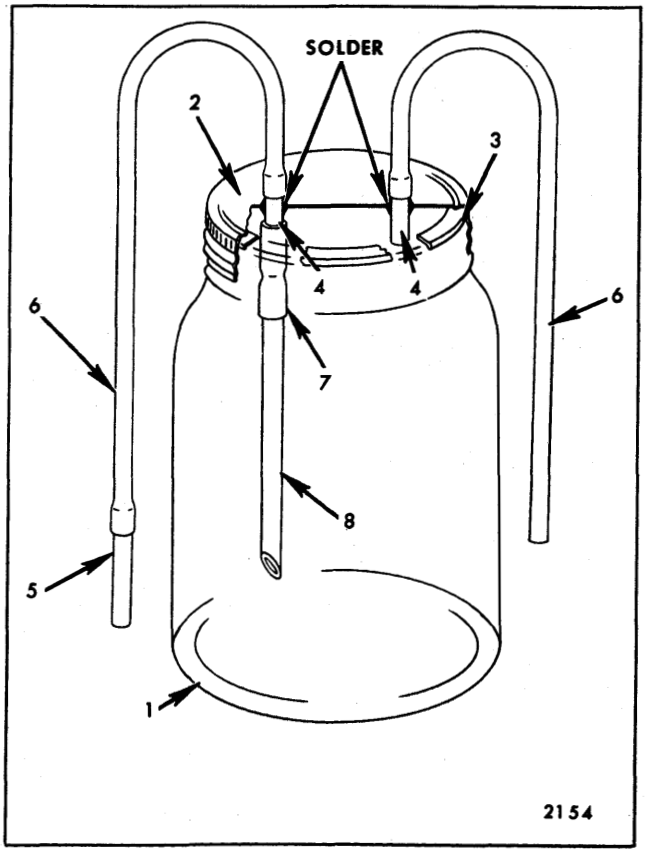

Fig. 7-110—Leak-Down Testing Device

Install ports in cap by drilling 2 holes and inserting ports half-way through cap. Solder ports to cap to make an air-tight seal.

NOTE: There cannot be any air leaks in leak-down testing device to check a vacuum system. The lower end of the glass tube in the jar should be cut on a 45° angle. If glass tubing is not available, plastic tubing may be substituted provided it has the specified inside diameter.

a. Installation of Testing Device Into Vacuum System:

The testing device is installed between the vacuum storage tank and the remote control valve. To install testing device, proceed as follows:

1. Add water to jar until level is approximately 1" above lower end of tube.
2. Raise hood and remove storage tank to remote control valve hose (red) from storage tank check valve.
3. Install hose from testing device (hose without port) to bottom of check valve on storage tank.
4. Install other hose (with attached port) on testing device to hose leading to remote control valve.
5. Set testing device in an upright position.

b. Recharging Vacuum Storage Tank

Vacuum will usually have been depleted after four or five cycles of lock operation, or after testing device has been installed. To recharge storage tank to normal vacuum (22-24 inches of mercury), proceed as follows:

1. Turn testing device on its side until glass tube is out of water.
2. Start engine and run for approximately 1 minute.
3. Turn engine off and return testing device to a normal upright position.

   NOTE: If water rises in glass tube, quickly pinch-off hose leading from testing device to remote control valve. If hose is not pinched, and then disconnected, water rising up tube will enter vacuum lock system components. Condition is the result of a defective storage tank which must be replaced, provided hose connections check out satisfactory.
4. Allow 15 to 30 seconds for water in testing device to stop bubbling. The waiting period is necessary due to different pressures in the system on both sides of testing device. The bubbling is the result of these pressures trying to equalize themselves. The storage tank may be recharged as often as required when checking vacuum system for an external air leak.

   CAUTION: Be certain to turn testing device on its side each time system is recharged. If this is not done, water in jar may be drawn up into vacuum system components.

c. Determining Size of Air Leak from Bubbles in Testing Device:

If bubbles appear in water at a rate of approximately one every fifteen seconds or faster, an air leak is present at either the remote control valve, transfer valve, or door control or selector valve. This assumes, of course, that the hoses are properly connected and free of defects. The faster bubbles appear in the water, the more severe is the air leak. In most cases, where the air leak rate is slower than one bubble every fifteen seconds, the vacuum loss is usually insufficient to affect the operation of the vacuum locking system.

d. Isolating a Leaking Vacuum Part (External Leak) Using the Leak-Down Testing Device:

After a specific part has been isolated as a leaking component, first check the hose color-coded red that attaches to that part. Make sure hose is properly installed to the port and that hose is not split.

When the testing device has been properly installed and storage tank recharged, watch glass tube in testing device and proceed as follows:

Pontiac Styles:

1. If water rises in glass tube, storage tank is leaking. Replace vacuum storage tank.
2. If bubbles appear in water, an air leak is present at the remote control valve, transfer valve, or door control valve.
3. If bubbles appear, remove left front door hinge pillar conduit and pinch red color-coded hose leading to left front door control valve. This will eliminate door control valve and transfer valve from system.
4. Check testing device. If bubbles continue, remote control valve is leaking and should be replaced. If bubbles stop, leak is in door control valve or transfer valve.

5. If bubbles stopped in step 4, release red hose and pinch green hose leading from door control valve to transfer valve. (Prior to pinching hose, depress left front door inside locking rod knob to lock position). If bubbling continues in testing device, leak is in door control valve. If bubbling stops, leak is in transfer valve.

Buick-Oldsmobile-Cadillac Styles:

1. If water rises in glass tube, storage tank is leaking. Replace vacuum storage tank.

2. If bubbles appear in water, an air leak is present in either the remote control valve or in one of the door lock selector valves.

3. Remove right and left front door hinge pillar conduits.

4. Pinch right and left vacuum hose color coded red.

   NOTE: This has eliminated the right and left door lock selector valves from vacuum system.

5. Check testing device. If bubbles continue to appear in water, the remote control valve is leaking. (If bubbles stop, see step 6).

6. If bubbles stop forming in testing device, air leak is at either door valve. Discontinue pinching left valve hose at hinge pillar.

7. Check testing device. If bubbles appear in water, left door valve is leaking. (If no bubbles appear, see step 8).

   NOTE: Before replacing a door lock selector valve, tighten screws on back of valve, then recheck valve. If valve continues to leak, replace left door lock selector valve assembly.

8. If no bubbles appear in testing device after discontinuing pinching of left valve hose, then air leak is at right door valve. This may be shown by discontinuing pinching of right valve hose at hinge pillar. Bubbles will appear immediately in water of testing device.

e. Isolating a Vacuum Part with an Internal Leak—(Pontiac Styles Only)

(Vacuum in lock actuators preventing operation of system)

An internal leak in either the transfer valve or remote control valve will allow vacuum to surge through the entire system and will prevent actuation of the system to a new lock or unlock position. If vacuum is present in the door lock actuators at all times, proceed as follows:

1. If system cannot be operated from lock to unlock, disconnect the white hose leading from the transfer valve to the remote control valve (hose can be disconnected at either end). If system cannot be operated from unlock to lock, disconnect green hose.

2. Actuate left front door inside locking rod knob up and down. If vacuum does not resist operation, the transfer valve is defective and should be replaced. If vacuum is still present in the lock actuators, however, and resists rod movement, the remote control valve is defective and should be replaced.

VACUUM DOOR LOCK DIAGNOSIS CHART (Ref. Fig. 7-107) PONTIAC STYLES

CONDITION	PROBABLE CAUSES	REPAIR
A. System Inoperative	1. Hoses crossed at vacuum supply tank	Reverse hoses
	2. Main vacuum hose (red) or both white and green hoses pinched between door control valve or remote control valve	Trace hoses and relieve pinching where found
	3. Leaking component	Isolate defective part with leak-down testing device as previously described

CONDITION	PROBABLE CAUSES	REPAIR
B. All doors can be locked but not unlocked, or unlocked but not locked. (Vacuum constant in door lock actuators.)	1. Defective door control valve, transfer valve, or remote control valve	Isolate defective part by using leak-down tester or "internal leak" check for transfer valve and remote control in step "E" above
C. Moving door valve to lock or unlock produces opposite action in remaining doors	1. White and green hoses reversed at door control valve or transfer valve	Match color-coded hoses with corresponding color-coded port
	2. Orange and yellow hoses (unlock and lock) reversed at remote control valve	
D. Moving door valve to lock or unlock produces opposite action in one door lock	1. Orange and yellow hoses (unlock and lock) reversed at door lock actuator	Match color-coded hoses with corresponding color-coded ports at affected door lock actuator
E. One door lock lags behind others	Lock or linkage binding	Check linkage for freedom of movement and lubricate lock
F. System will not hold vacuum for 48 hours	Excessive leakage in system	Isolate leaking component with leak-down testing device as described previously in this procedure.
G. System inoperative with door closed, but operative with door open	Hoses being pinched at front body hinge pillar	Reposition hose to eliminate kink

VACUUM DOOR LOCK DIAGNOSIS CHART (Ref. Fig. 7-103) BUICK, OLDSMOBILE & CADILLAC STYLES

CONDITION	APPARENT CAUSE	REPAIR
A. System inoperative	1. Hoses crossed at vacuum supply tank.	Reverse hoses at vacuum supply tank.
	2. Vacuum supply hose pinched at remote valve.	Straighten hose at "B" (Red).
	3. Door valve supply hose pinched at remote valve.	Straighten hose at "B" (Red).
	4. Vacuum supply hose disconnected at tank, remote valve, or engine.	Install hose at "A" or "B" (Red).
	5. Remote valve diaphragm leaking.	Replace remote valve at "B".

CONDITION	APPARENT CAUSE	REPAIR
B. All doors can be locked but not unlocked.	1. Main supply hose crossed lock supply hose at remote valve.	Reverse hoses at remote "B" (Red and Green).
	2. Unlock selector hose or supply hose disconnected at remote valve.	Hook up hose at remote "B" (White).
C. All doors can be unlocked but not locked.	1. Main supply hose crossed with unlock supply hose on remote valve.	Reverse hoses at remote "B" (Red and White).
	2. Lock selector hose or supply hose disconnected at remote.	Hook up hose at remote "B" (Green).
D. Moving either door valve to lock or unlock produces the opposite action of all locks.	1. Door lock selector valve hoses (small) crossed at remote valve.	Reverse selector hoses at remote valve "B" (White and Green), or reverse selector hoses at each door lock selector valve "C" (White and Green).
	2. Actuator supply hoses (large) crossed at remote valve.	Reverse hoses at remote "B" (Orange and yellow).
E. Moving one of the door valves to lock or unlock produces the opposite action of the lock.	1. Valve selector hoses crossed at one door valve.	Reverse small hoses at affected door valve "C" (White and Green).
	2. Door selector valve reversed in trim assembly.	Reverse affected door selector valve in trim assembly "C".
F. System inoperative from one door valve.	Vacuum supply hose pinched or disconnected at affected door valve.	Connect hose or check for pinching at: 1. Affected door valve "C". 2. Front door conduit on side affected "E".
G. System will not lock from one door valve, or system will not unlock from one door valve.	Lock or unlock selector valve hose pinched or disconnected from affected door valve.	Connect hose or check for pinching at: 1. Affected door valve "C" (White or green). 2. Front door conduit on that side "E".
H. Lock movement on any one door not synchronized with other door(s).	Hoses crossed at affected door lock actuator.	At Front Door Reverse hoses at lock actuator "D" (Orange and Yellow). At Rear Door Reverse hoses at lock actuator in door "F" (Orange and Yellow). Or reverse hoses at tubing center pillar "G".

CONDITION	APPARENT CAUSE	REPAIR
I. One door lock lags behind others when locked or unlocked.	Lock or linkage binding.	Front Door 1. Lubricate lock and check inside locking control rod for freedom of movement. 2. Check drive link for freedom of movement in lock trip lever. Rear Door 1. Lubricate lock and check inside locking control rod and linkage for freedom of movement. 2. Check clearance of lock and actuator to door hardware. Coupe 1. Lubricate lock and check inside locking control rod for freedom of movement. 2. Check freedom of movement of actuator and lock.
J. One door lock will not lock or unlock.	Actuator hoses pinched or disconnected.	Front Door 1. Check for pinched hoses at front door, conduit on side affected. 2. Check for hose disconnected at affected actuator. (Orange or Yellow). Rear Door 1. Check for pinched hose at rear door conduit and at center pillar. 2. Check for kinked or flattened hoses under front door carpet support plate. 3. Check for disconnected hose at metal tubing or at actuator (Orange or Yellow).
K. System will not hold vacuum for 48 hours.	1. Excessive leakage in any one of the following units can be the cause: a. Remote valve b. Door valves (2) c. Storage tank and check valve. d. That part of the harness assembly that contacts these components.	1. Actuate system through several lock and unlock cycles, and recheck leakage. 2. Isolate leaking component and replace. **IMPORTANT:** If a door valve is found to be leaking, tighten screws on back of valve, then recheck valve. If valve continues to leak, replace valve.

CONDITION	APPARENT CAUSE	REPAIR
L. Lock(s) inoperative with front door closed but operates with door open.	Door valve vacuum supply hose pinched at front body hinge pillar on side affected.	Check for pinched hose of affected door at conduit.
M. Door selector valve leaks.	Pinch vacuum supply hose (Red) at affected valve. If air leak stops, valve is defective.	Replace affected selector valve. **IMPORTANT:** If selector valve leaks, first tighten screws on back of valve, then recheck valve. If valve continues to leak, replace valve assembly.
N. Storage tank leaks.	Turn engine off and disconnect manifold to storage tank supply hose at tank check valve; then pinch storage tank to remote valve supply hose. Actuate either door lock selector to equalize pressure in balance of system. If air continues to leak, tank is defective.	Replace vacuum storage tank.
O. Actuator assembly inoperative.	Connect hose or check for pinched hose at front door hinge pillar conduit "E", at rear door hinge pillar conduit "H" or at remote control valve "B", then actuate door lock selector valve. If actuator does not operate, actuator is defective.	Replace actuator assembly.
P. Remote valve leaks.	Check remote valve for pinched or disconnected hose(s). If balance of system is checked and found to be in satisfactory condition, replace remote valve with new part. If system then operates properly, original remote valve was defective.	Replace remote control valve assembly.

REAR DOORS

DESCRIPTION

The procedures included in this section concern operations applicable to rear doors only. Procedures for the removal of trim, inside and outside door handles, and door weatherstrips, which are similar for both front and rear doors, are found in the "Front and Rear Door" section.

Illustrations 7-111, 7-112, 7-113, 7-114, 7-115, 7-116, 7-117 identify the individual hardware components and their relation to each other on the various style rear doors.

REAR DOOR HINGES—ALL STYLES

As the rear door hinges are secured with screws to both the door and center pillar, the door can be removed by either removing the door from the hinges or by removing the door and hinges as an assembly from the center pillar.

Removal

1. With a pencil, mark location of hinges on door or center pillar depending on removal method being used.

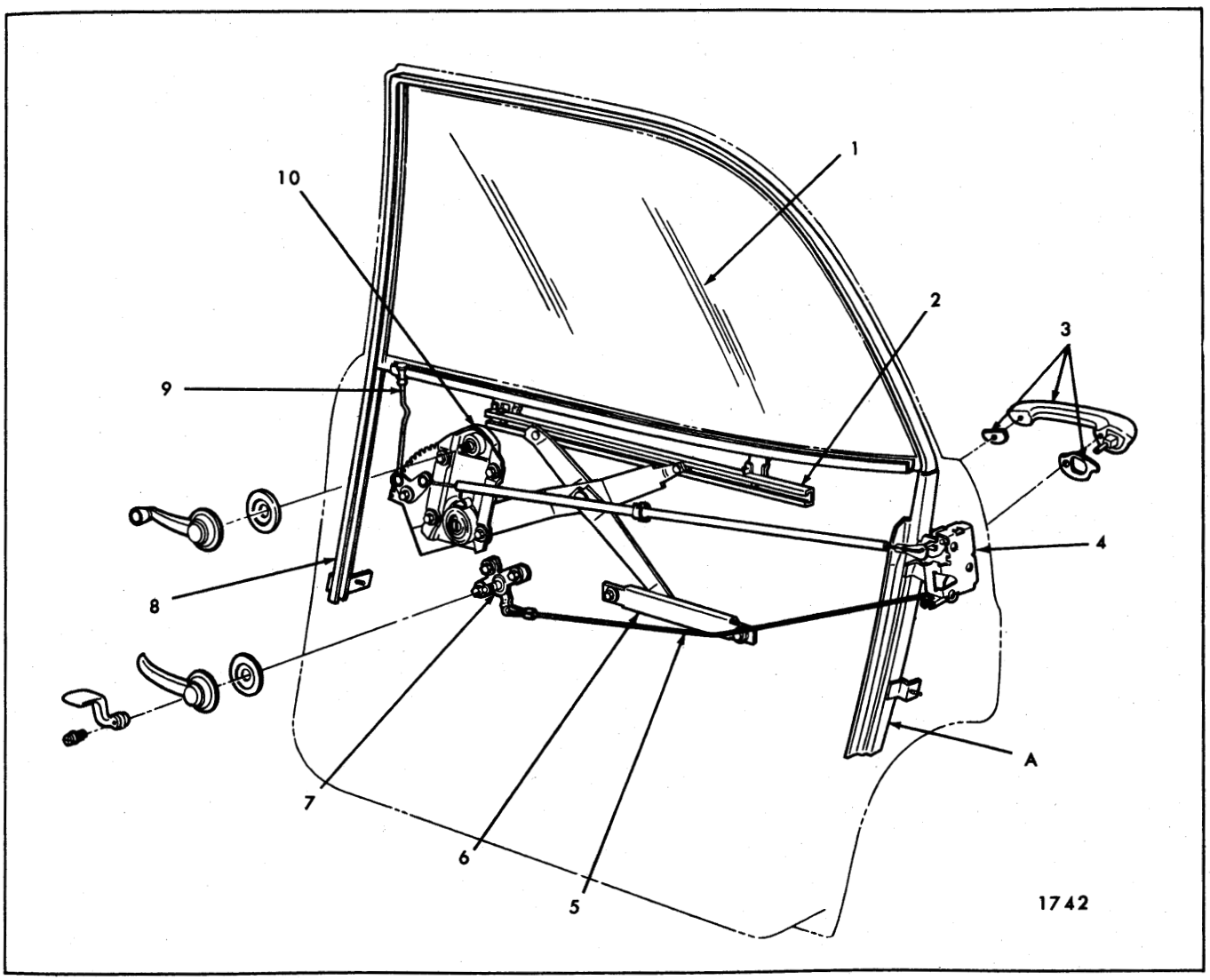

Fig. 7-111—Rear Door Hardware - "B" Closed Styles

1. Window Assembly
2. Lower Sash Channel Cam
3. Outside Handle and Sealing Gaskets
4. Door Lock
5. Remote Control Connecting Rod
6. Inner Panel Cam
7. Remote Control
8. Glass Run Channel (Extends Completely Around Window to Point "A")
9. Inside Locking Rod
10. Window Regulator

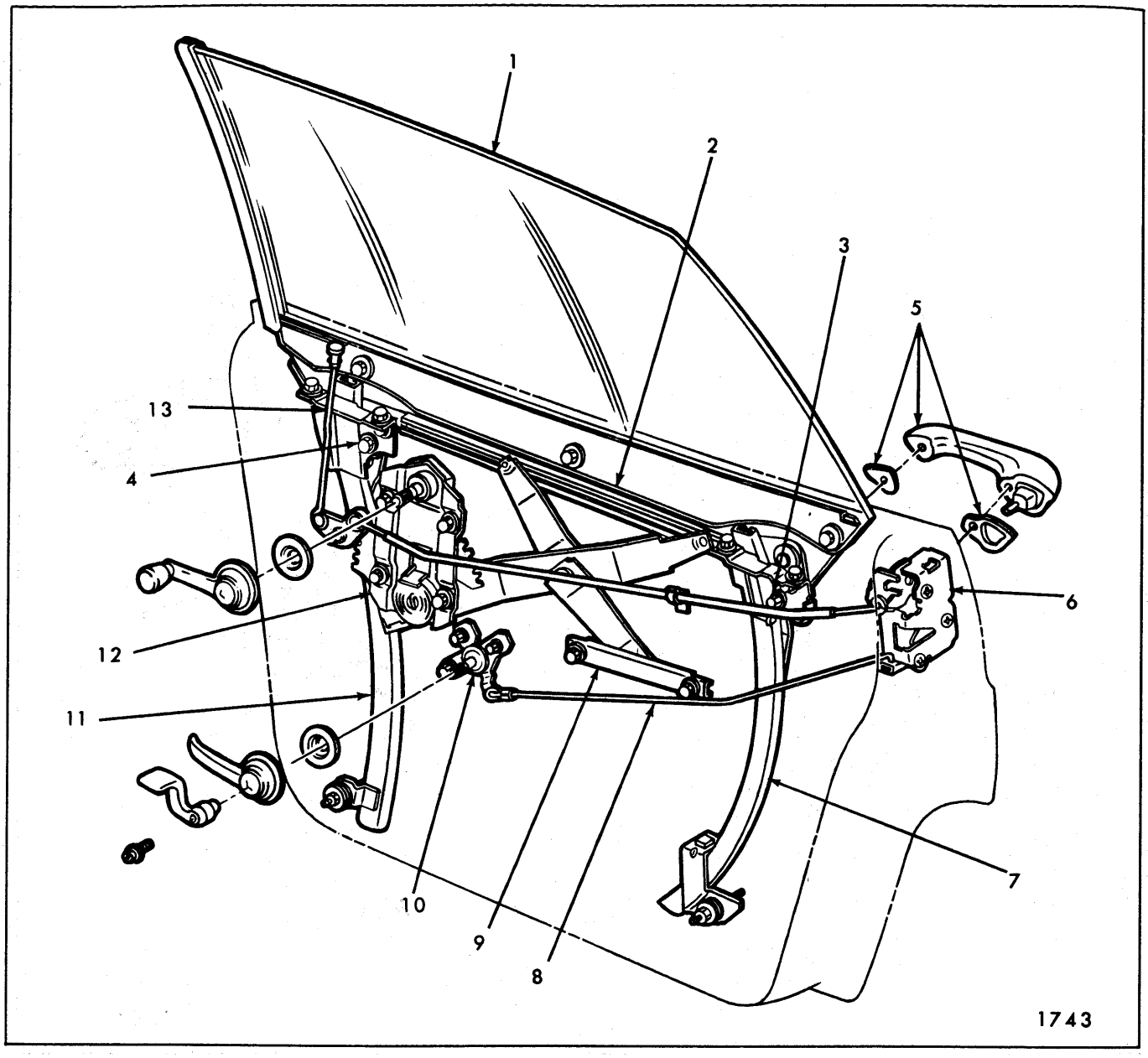

Fig. 7-112—Rear Door Hardware - "B-C 39" and "C-69" Except 68069 and 68169 Styles

1. Window Assembly
2. Lower Sash Channel Cam
3. Window Rear Upper Stop
4. Window Front Upper Stop
5. Outside Handle and Sealing Gaskets
6. Door Lock
7. Window Rear Guide
8. Remote Control Connecting Rod
9. Inner Panel Cam
10. Remote Control
11. Window Front Guide
12. Window Regulator
13. Inside Locking Rod

2. On styles equipped with electric window regulators or vacuum operated locks, proceed as follows:

   a. Remove door trim assembly and inner panel water deflector.

   b. Disconnect wire harness connector from regulator motor and/or vacuum hoses from lock actuator.

   c. Remove electrical conduit from door, then remove wire harness and/or vacuum hoses from door through conduit access hole.

3. With door properly supported, remove upper and lower hinge attaching screws from door or center pillar (Fig. 7-118 or 7-119) depending on removal method being used. Then, remove door from body.

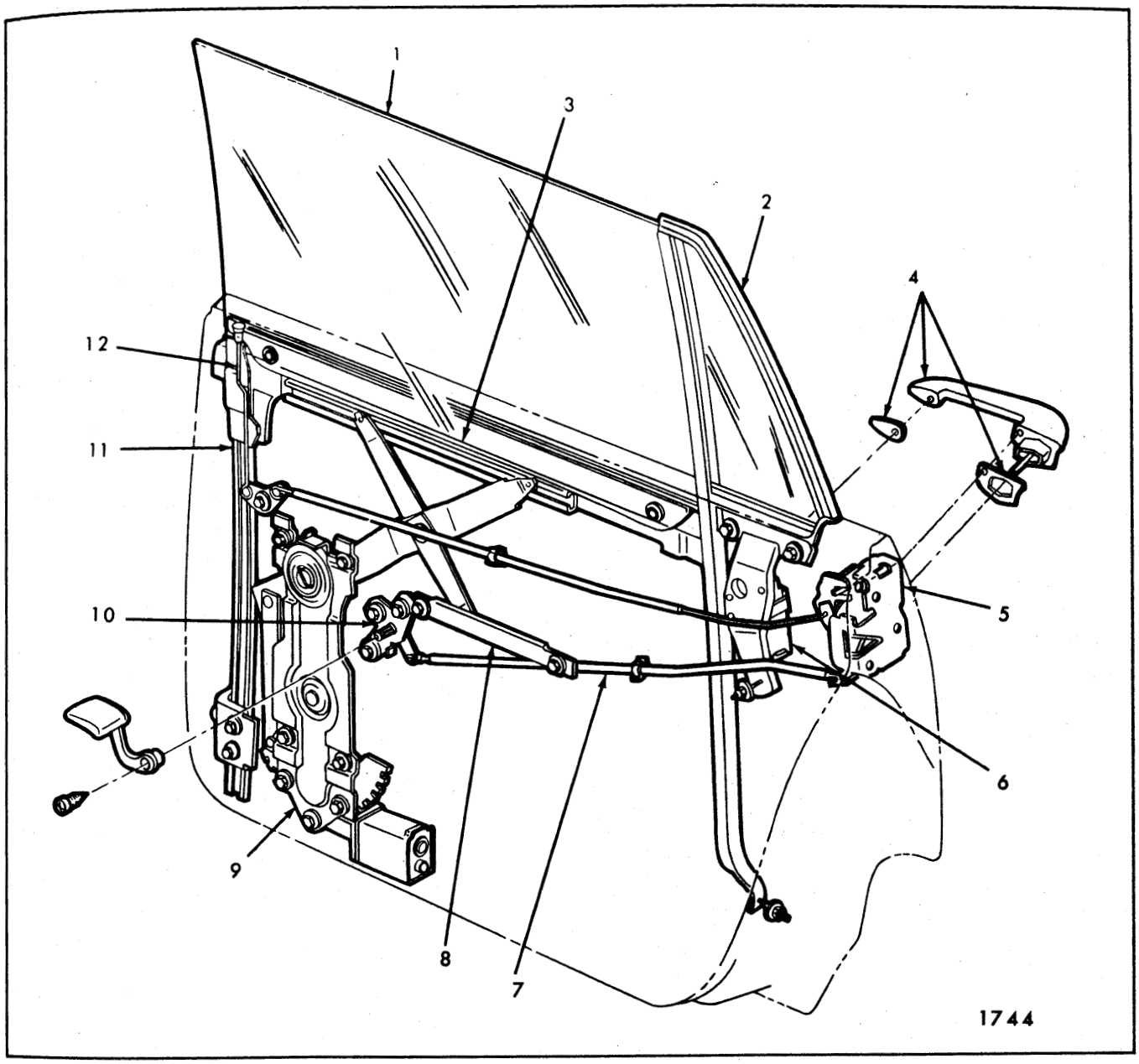

Fig. 7-113—Rear Door Hardware - 68069-68169 Styles

1. Window Assembly
2. Ventilator Assembly
3. Lower Sash Channel Cam
4. Outside Handle and Sealing Gaskets
5. Door Lock
6. Ventilator Regulator (Power Operated)
7. Remote Control Connecting Rod
8. Inner Panel Cam
9. Window Regulator (Power Operated)
10. Remote Control
11. Window Front Guide
12. Inside Locking Rod

Installation

1. Clean off old sealer at hinge attaching areas.
2. Apply a coat of heavy-bodied sealer to surface of hinge that mates with door or center pillar.
3. With aid of a helper, lift door into position and loosely install hinge screws. Align hinges within pencil marks previously made and tighten hinge screws.
4. Install all previously removed parts and check door for proper alignment.

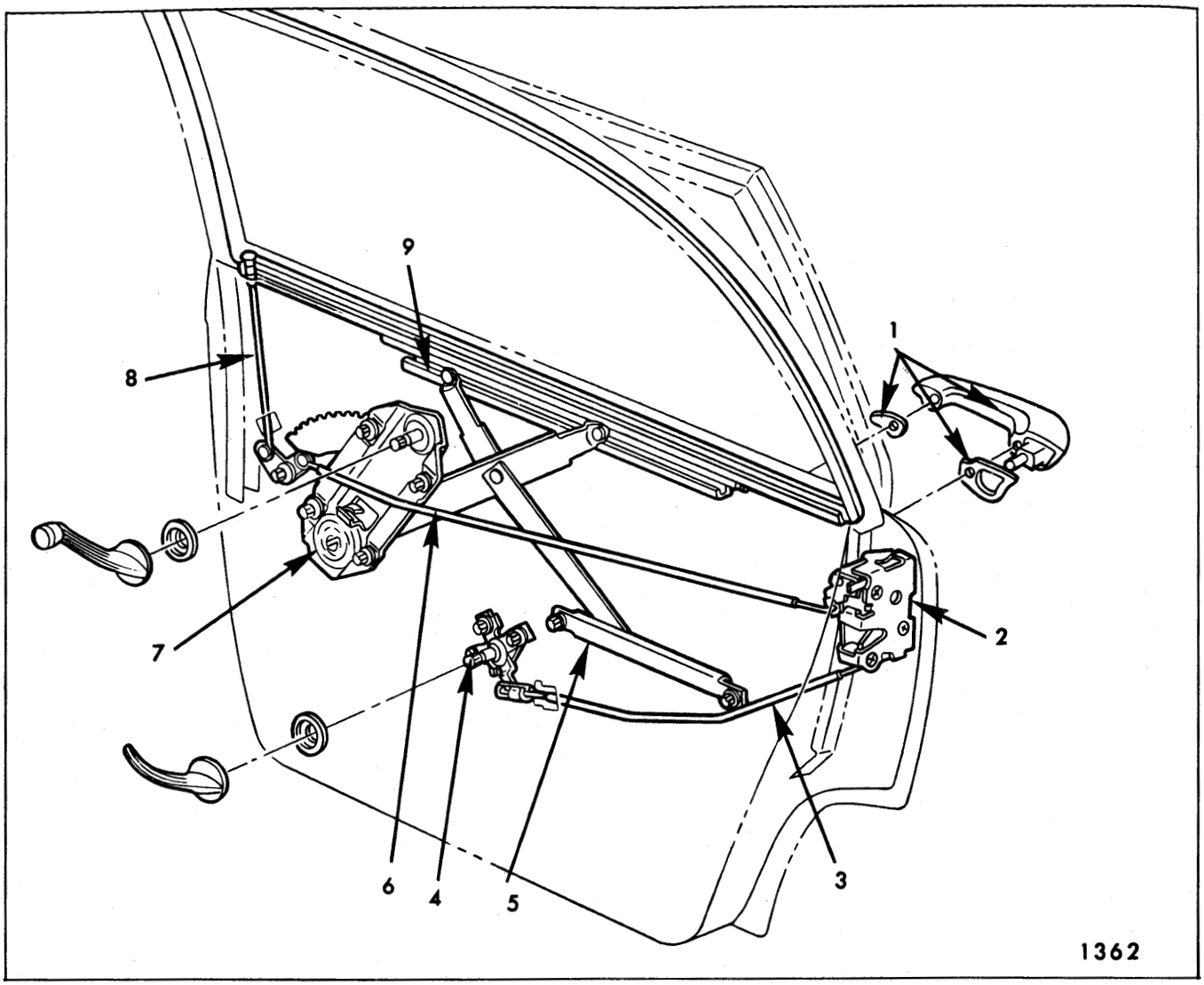

Fig. 7-114—Rear Door Hardware - "A" Closed Styles

1. Outside Handle and Sealing Gaskets
2. Lock Assembly
3. Remote Control Connecting Rod
4. Remote Control
5. Inner Panel Cam
6. Lock to Locking Lever Rod
7. Window Regulator
8. Inside Locking Rod
9. Window Lower Sash Channel Cam

Adjustments

In-or-out and up-or-down adjustment is available at the door side hinge attaching screws. Fore-or-aft and a slight up-or-down adjustment is available at the body side (center pillar) hinge attaching screws except on "X" Styles.

CAUTION: On "B-C & Z" Styles, part or all of the upper hinge is made of die-cast aluminum. Therefore, when making adjustments do not subject hinge to excessive strain that could cause hinge to fail.

REAR DOOR LOCK REMOTE CONTROL

The remote control is secured to the door inner panel by three attaching bolts. On some styles it is mounted on the inboard surface of the door inner panel, and, on others, on the outboard surface. Figure 7-120 identifies "B" style installation, other styles are similar.

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

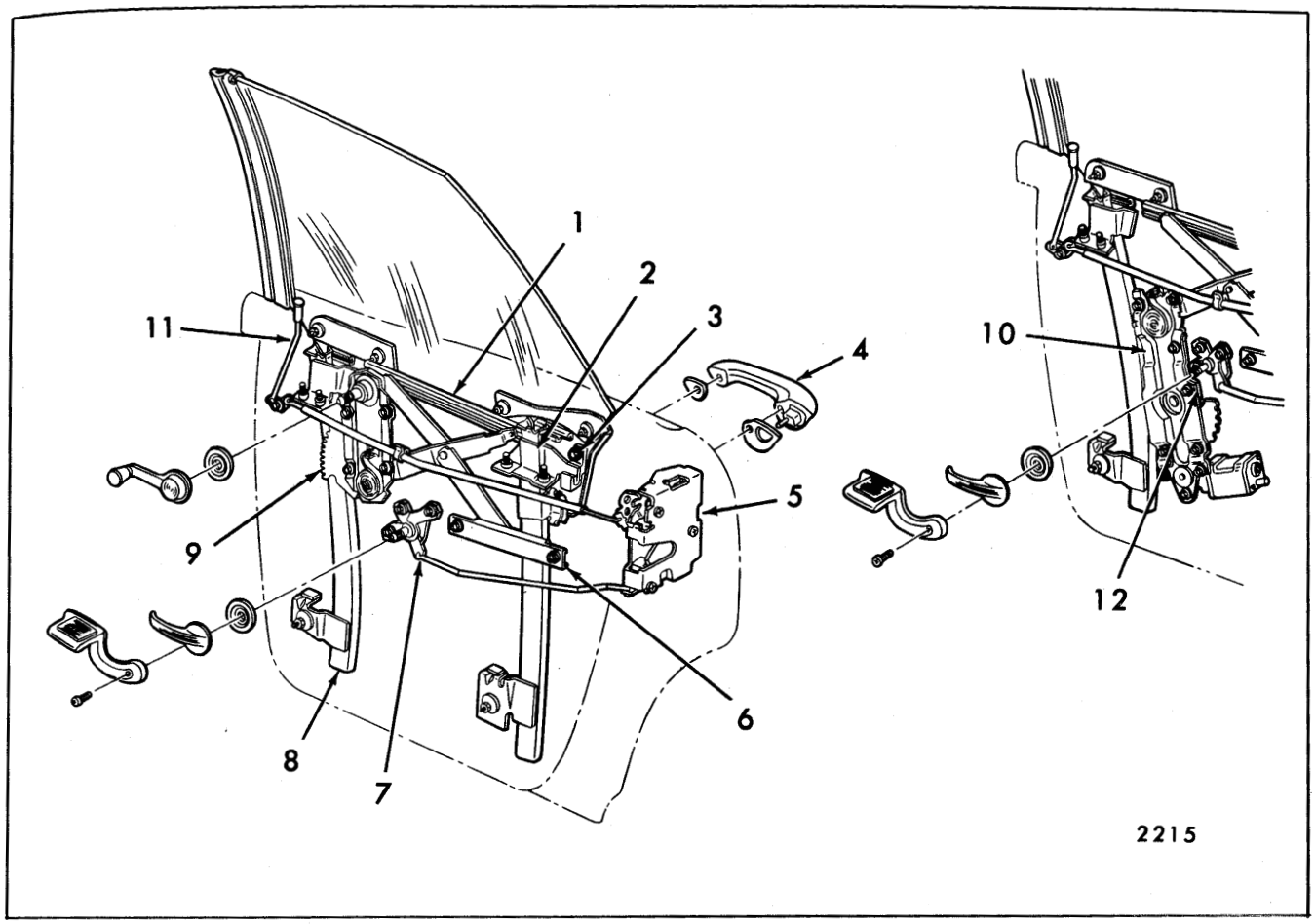

Fig. 7-115—Rear Door Hardware - "A-39" Styles

1. Sash Channel Cam
2. Rear Guide
3. Rear Up-Stop
4. Outside Handle and Sealing Gaskets
5. Lock
6. Inner Panel Cam
7. Remote Control
8. Front Guide
9. Regulator (Manual)
10. Regulator (Electric)
11. Inside Locking Rod
12. Sector Gear Stop

2. Remove remote control attaching bolts (Fig. 7-120).

3. Pivot remote to disengage it from remote control to lock connecting rod and remove remote control from door.

4. To install, reverse removal procedure. Make certain anti-rattle clip on lock connecting rod is properly positioned.

REAR DOOR LOCK ASSEMBLY— "B-35-45 AND 69" STYLES

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

2. Remove door lock remote control.

3. Remove inside locking rod to lock connecting rod link attaching bolt (Fig. 7-120).

4. Remove lock attaching screws (Fig. 7-121 hardtop style shown, closed styles similar).

5. Disengage connecting rods from clips on door lock (for clip disengagement refer to "Door Lock Spring Clips" in Front and Rear door section) and remove lock from door.

6. To install, reverse removal procedure. Check lock for proper operation prior to installing water deflector.

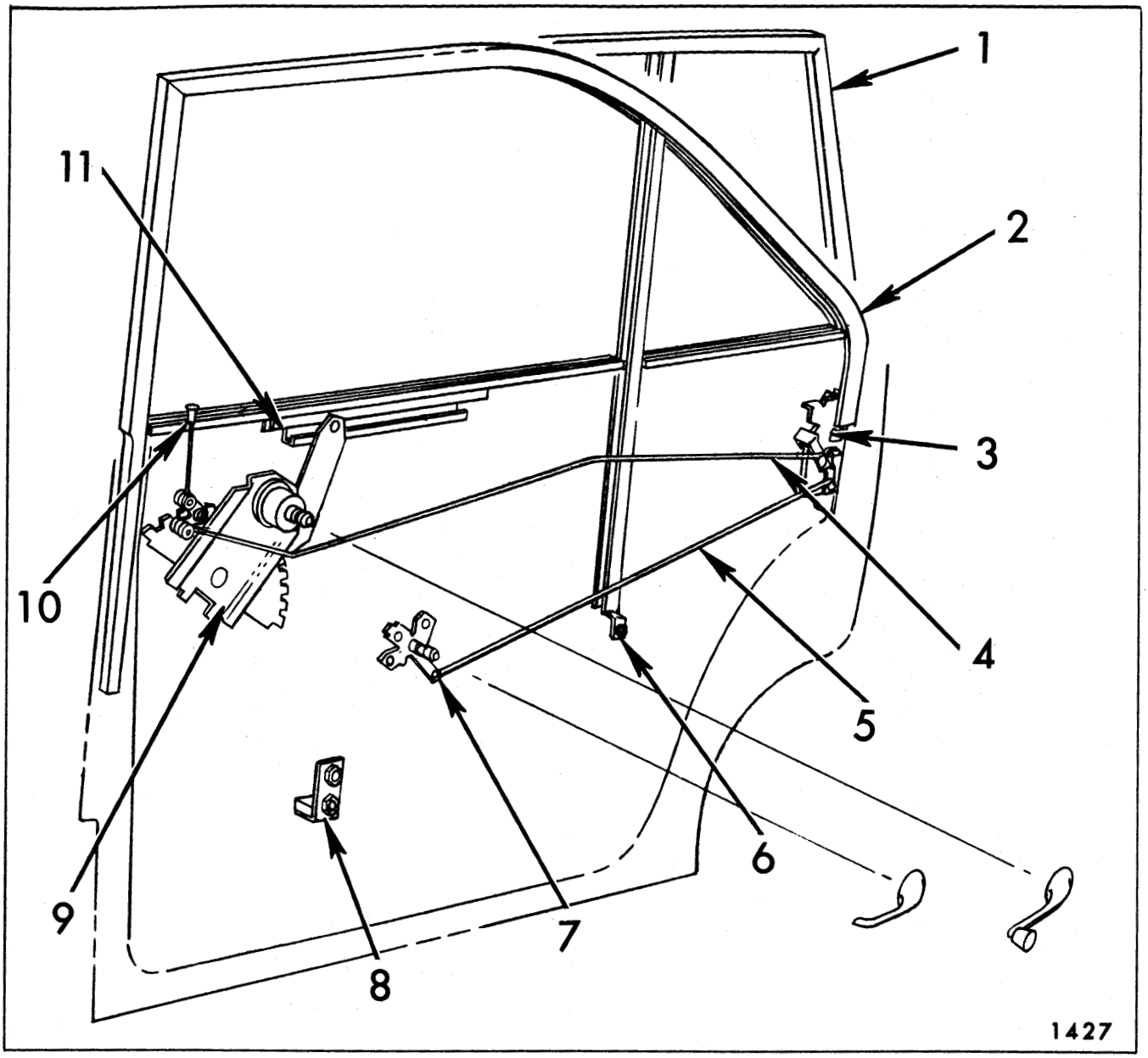

Fig. 7-116—Door Hardware - "X-35 and 69" Styles

1. Upper Frame - "35" Styles
2. Upper Frame - "69" Styles
3. Lock Assembly
4. Lock to Locking Lever Rod
5. Remote Control Connecting Rod
6. Ventilator Division Channel
7. Remote Control Assembly
8. Window Lower Stop
9. Window Regulator Assembly
10. Inside Locking Rod
11. Window Lower Sash Channel Cam

REAR DOOR LOCK ASSEMBLY AND VACUUM ACTUATOR—ALL EXCEPT "B-35-45 AND 69" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Operate glass to full-up position.
3. Working through access hole, disengage lock connecting rods from spring clips on door lock (for clip disengagement refer to "Door Lock Spring Clips" in Front and Rear Door Section).
4. Remove door lock attaching screws (Fig. 7-121) and remove lock from door.

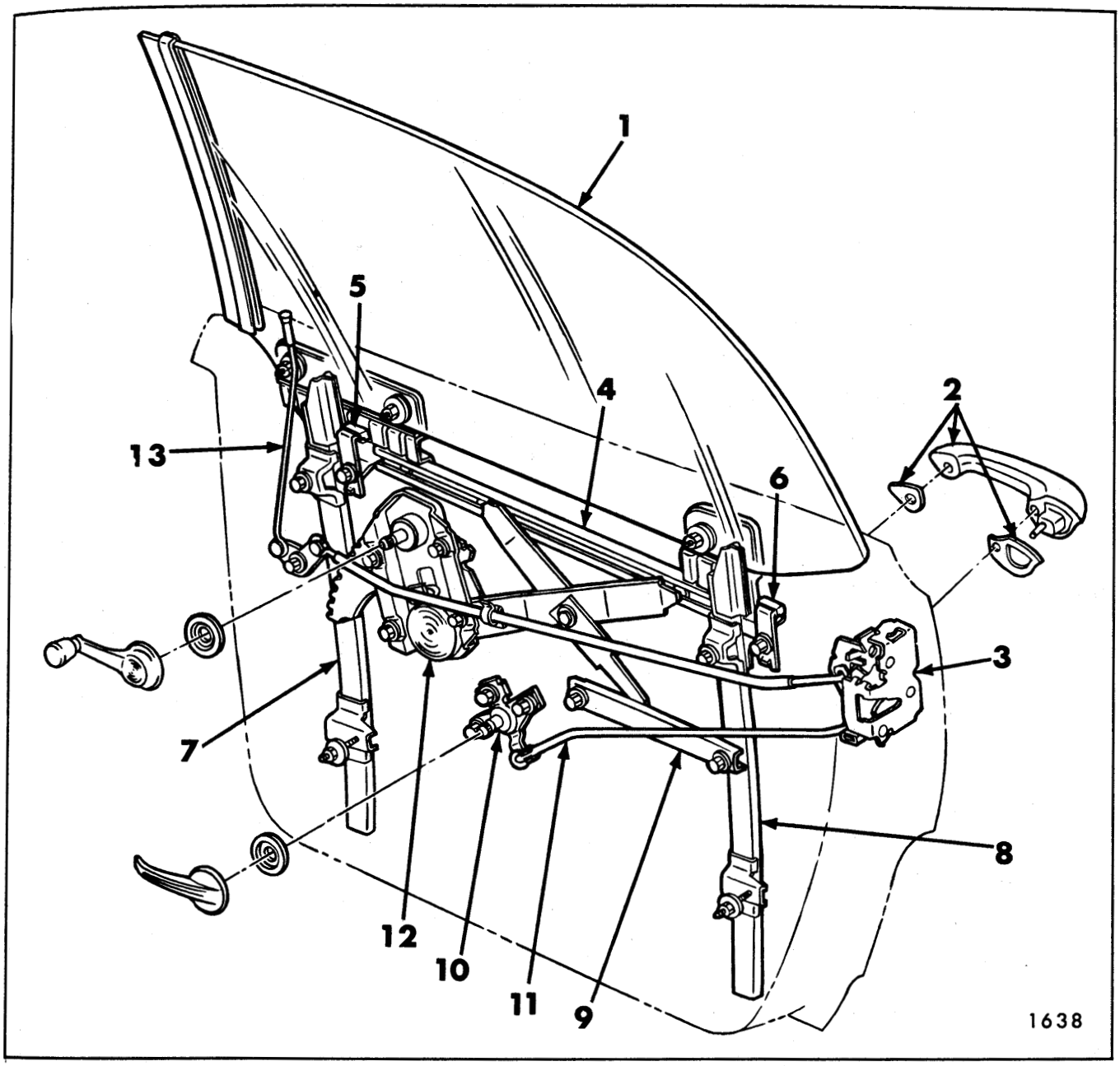

Fig. 7-117—Rear Door Hardware - "Z-39" Styles

1. Window Assembly
2. Outside Handle and Sealing Gaskets
3. Door Lock
4. Lower Sash Channel Cam
5. Front Up-Travel Stop
6. Rear Up-Travel Stop
7. Window Front Guide
8. Window Rear Guide
9. Inner Panel Cam
10. Remote Control
11. Remote Control Connecting Rod
12. Window Regulator
13. Inside Locking Rod

5. To install, reverse removal procedure.

NOTE: On styles equipped with vacuum lock actuators (except 68069-169 Styles), disconnect vacuum hoses from actuator and remove lock and actuator as an assembly. Vacuum actuator is attached to lock with screws which can be removed only in a bench operation (Fig. 7-122).

On 68069-169 Styles, remove vacuum actuator and link assembly screws (Fig. 7-123 and 7-124) and allow vacuum actuator to hang loose during lock removal

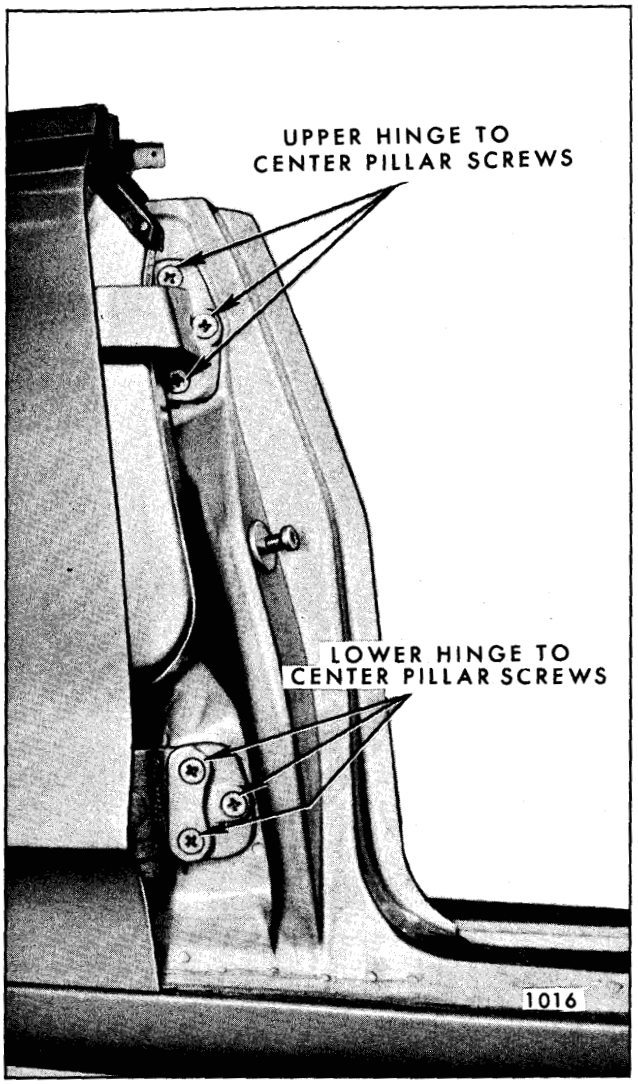

Fig. 118—Rear Door Hinge Attachment - "B" Style Shown - Others Similar

REAR DOOR LOCK VACUUM ACTUATOR—68069 AND 68169 STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Disconnect inside locking rod from door lock spring clip (Refer to Front and Rear Door section under "Door Lock Spring Clips" for disengagement).
3. Remove inside locking to lock connecting rod link bolt (Fig. 7-123).
4. Disconnect vacuum hoses from vacuum actuator.

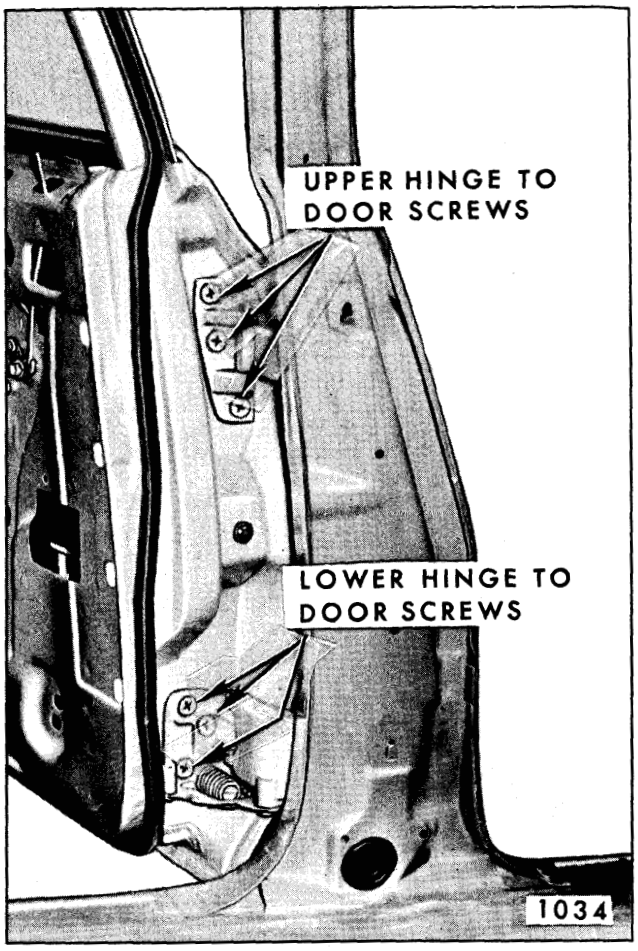

Fig. 7-119—Rear Door Hinge Attachment

5. Remove vacuum actuator and link assembly attaching screws (Fig. 7-123 and 7-124).
6. Pivot (rotate) actuator and linkage assembly, then, pull connecting rod forward through linkage. Remove actuator assembly from door.
7. To install, reverse removal procedure. Check lock operation prior to installing water deflector.

REAR DOOR INNER PANEL CAM—ALL EXCEPT "X" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Remove inner panel cam attaching bolts (Fig. 7-125). Disengage cam from regulator balance arm roller and remove cam from door.

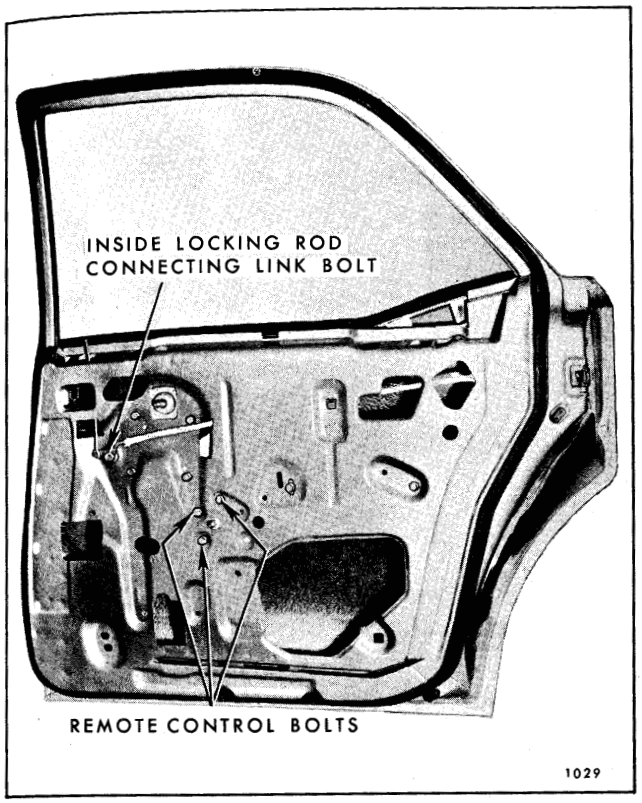

Fig. 7-120—Door Lock Remote Control - "B" Style Shown - Other Similar

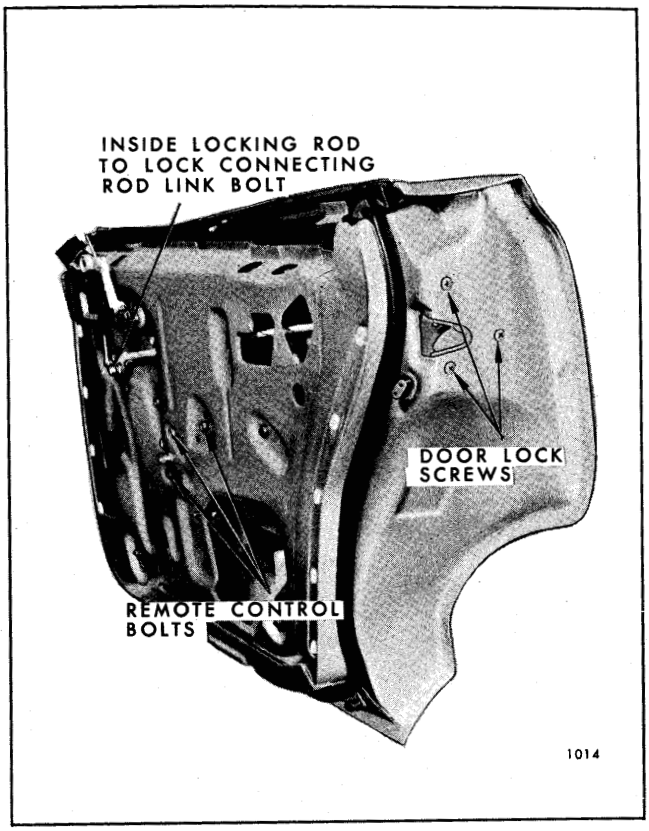

Fig. 7-121—Rear Door Lock Removal - Hardtop Style Shown, Closed Style Similar

3. To install, reverse removal procedure. Adjust front end of cam for proper window operation. Correct adjustment of cam will prevent a rotated (cocked) door window.

WINDOW LOWER SASH CHANNEL CAM—ALL EXCEPT "X" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.

2. Depending on body style and power options, operate window to position specified in Figure 7-125 for "A-B & C" Styles and Figures 7-126 and 7-127 for "Z" Styles.

3. On "Z" Styles, remove sash channel cam front screw first, then, raise window and remove rear screw. Support window and remove cam.

4. On "A-B & C" Styles, remove cam front and rear screws through access holes indicated and remove cam.

5. To install, reverse removal procedure.

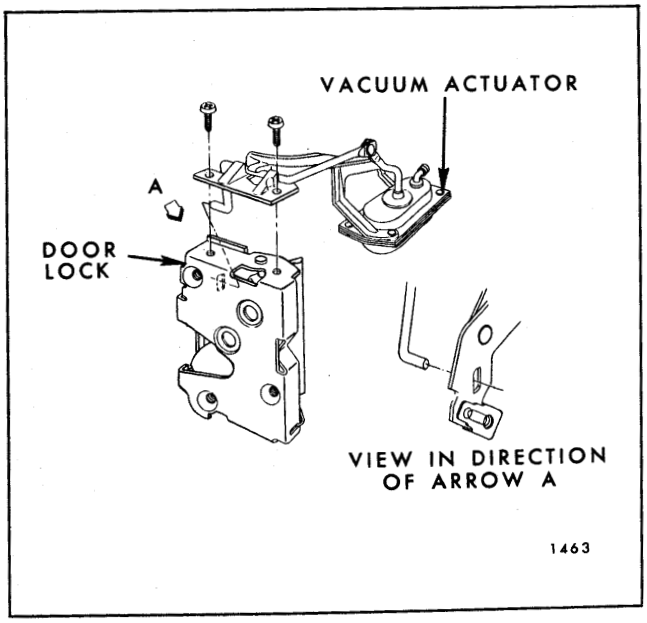

Fig. 7-122—Rear Door Vacuum Lock Actuator

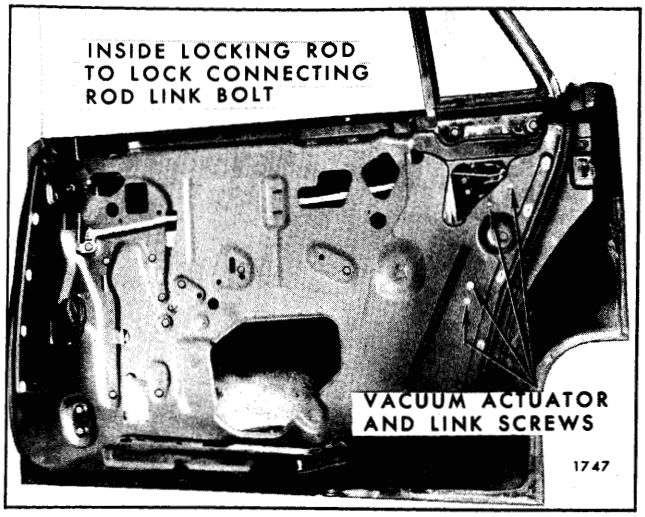

Fig. 7-123—Vacuum Lock Actuator Removal - 68069-68169 Styles

REAR DOOR WINDOW STATIONARY VENTILATOR DIVISION CHANNEL—"X-35 AND 69" STYLES

The stationary ventilator division channel is held into place by one division channel to door upper frame attaching screw and one lower adjusting stud and nut. This assembly acts as a rear door window rear glass run channel and also holds the stationary ventilator window in proper position.

Removal and Installation:

1. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to the lower adjusting stud and nut (see Fig. 7-128).
2. Remove door window lower stop.
3. Remove ventilator division channel lower adjusting stud and nut.
4. Carefully lower door window and remove division channel to door upper frame attaching screw (see Fig. 7-129).
5. Rotate upper section of division channel forward and inboard and remove assembly from door.
6. To install, reverse removal procedure. In or out and fore or aft adjustment of this part is available at the lower adjusting stud and nut only.

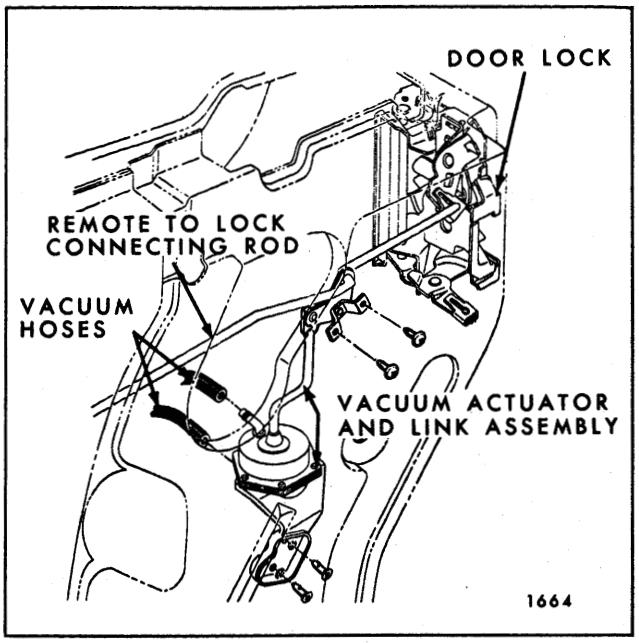

Fig. 7-124—Rear Door Vacuum Lock Actuator and Link Assembly - 68069-68169 Styles

REAR DOOR WINDOW STATIONARY VENTILATOR ASSEMBLY—"X-35 AND 69" STYLES

The rear door stationary ventilator assembly is set within a rubber channel and held into place by pressure of the ventilator division channel.

Removal and Installation:

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove lower stop and carefully lower door window to extreme bottom of door.
3. Remove stationary ventilator division channel (see Fig. 7-128).
4. Pull stationary ventilator window forward and remove from door.
5. To install, reverse removal procedure.

GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES—"A-X & Z" STYLES

In order to remove the inner or outer strip assembly it is necessary to lower the window below its normal flush position with the belt line. The removal procedure varies according to body style.

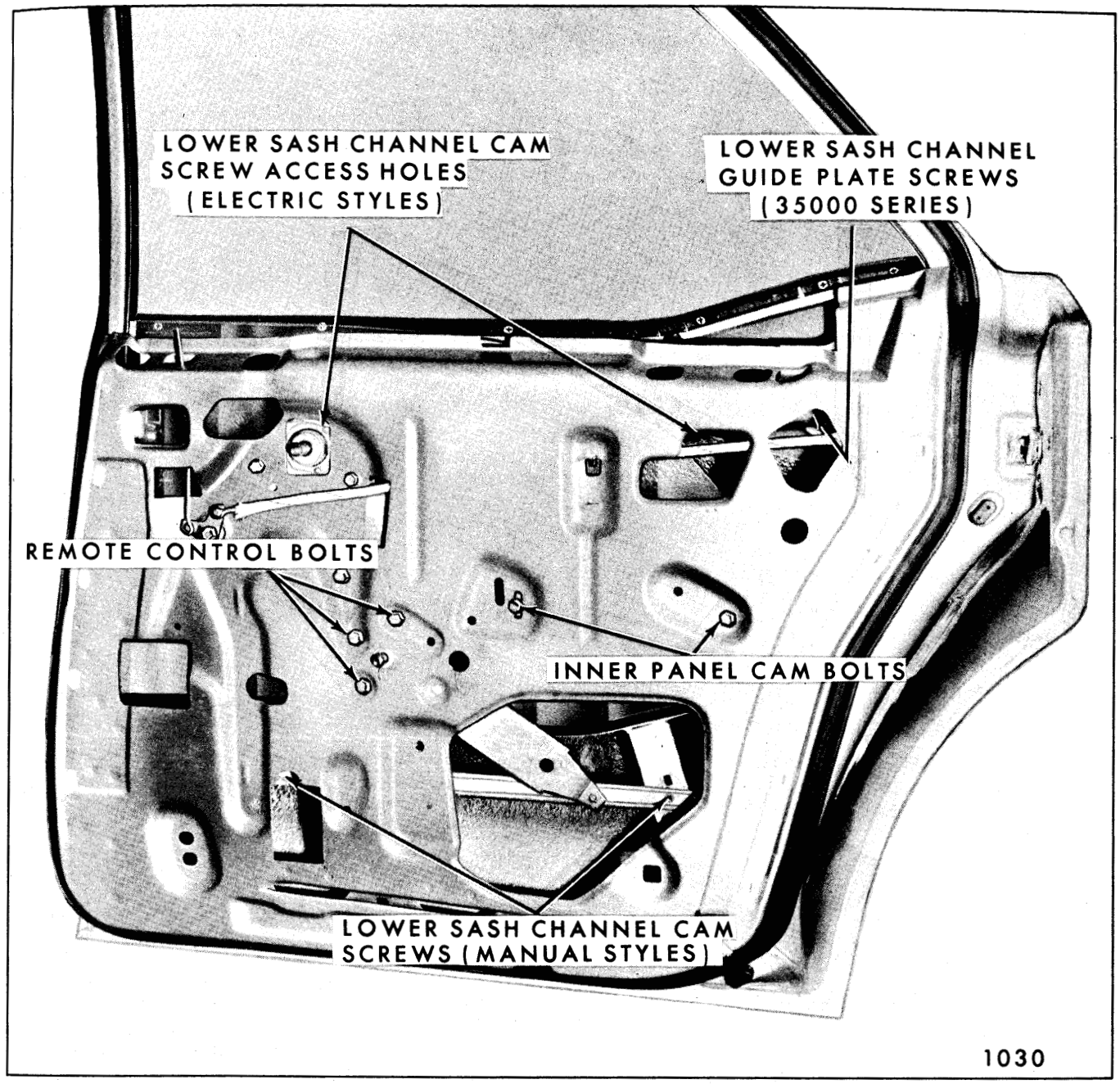

Fig. 7-125—Rear Door Hardware Attachment - "B" Styles Shown - "A" Styles Similar

1. On "Z" Body Styles, remove lower sash channel cam as previously described and lower window below its normal full-down position.

2. On "A" Closed Styles, remove rubber bumper from down-stop. On hardtop styles, loosen sector gear down-stop as specified in "Rear Door Window Adjustments".

3. On "X" Styles, remove bolt-on window lower stop.

When window has been lowered, proceed as follows:

1. Apply cloth-backed tape as protective cover to painted surfaces adjacent to strip assembly(ies) to be removed.

2. Insert a flat-blade tool that is slotted to fit over tang of clip between door panel return flange and strip assembly at clip locations (Fig. 7-130).

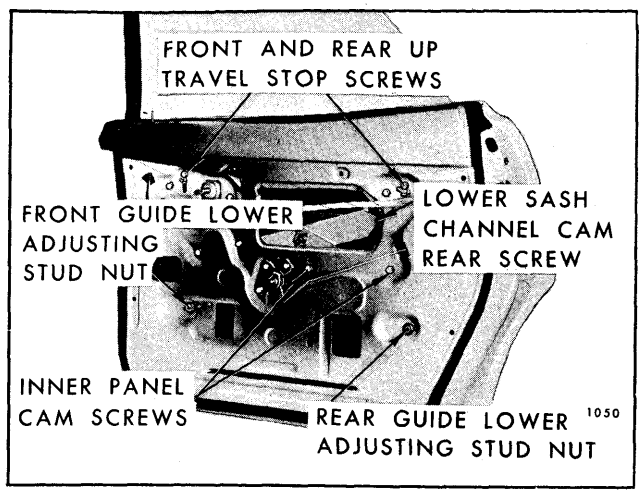

Fig. 7-126—Rear Door Hardware - "Z-39" Styles

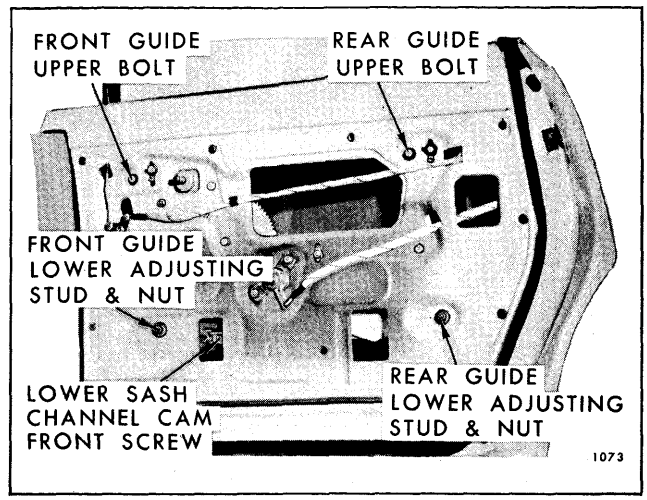

Fig. 7-127—Rear Door Hardware - "Z-39" Styles

3. Carefully pry clips from slots in panel and remove strip assembly.

4. To install, position strip assembly so that all clip tangs start into slots in door panel, then press at each clip location and engage clips.

   Prior to installing strip assembly, reform clip tangs to assure positive retention when installed.

   NOTE: To make strip assembly removal tool, make a 1/4" wide by 3/8" deep slot in a J-2272 headlining inserting tool or equivalent.

GLASS RUN CHANNEL OUTER STRIP ASSEMBLY—"B & C" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.

2. Remove rubber bumper from door window lower stop and operate window to full-down position.

3. Remove screws securing glass run channel outer strip assembly to door outer panel return flange (Fig. 7-125) and remove strip assembly.

4. To install, reverse removal procedure.

REAR DOOR WINDOW ASSEMBLY—ALL CLOSED STYLES

The rear door window assembly consists of a frameless solid tempered safety plate glass window and a pressed-on lower sash channel assembly. When handling window, make certain glass does not develop edge chips or deep scratches which could cause glass to shatter.

Removal and Installation ("B-35-45 and 69" Styles)

1. Remove door trim assembly and inner panel water deflector.

2. On 35000 Series "69" Styles, lower window approximately 3" down from full-up position. Remove lower sash channel rear guide plate attaching screws through upper rear access hole and remove guide plate (Fig. 7-125).

3. Operate window to position shown in Figure 7-125 and remove lower sash channel cam attaching screws (window slightly down on electric styles and full down on manual).

4. Remove glass run channel front and rear attaching bolts (Fig. 7-131 and 7-132).

5. Pivot window in opening (raise front edge) to disengage front and rear edges of glass from glass run channel, then remove window inboard of door upper frame.

6. To install, reverse removal procedure.

Removal and Installation ("X-35 and 69" Styles)

1. Raise door window; remove door trim assembly and detach inner panel water deflector.

2. Remove rear door window stationary ventilator assembly-division channel and glass.

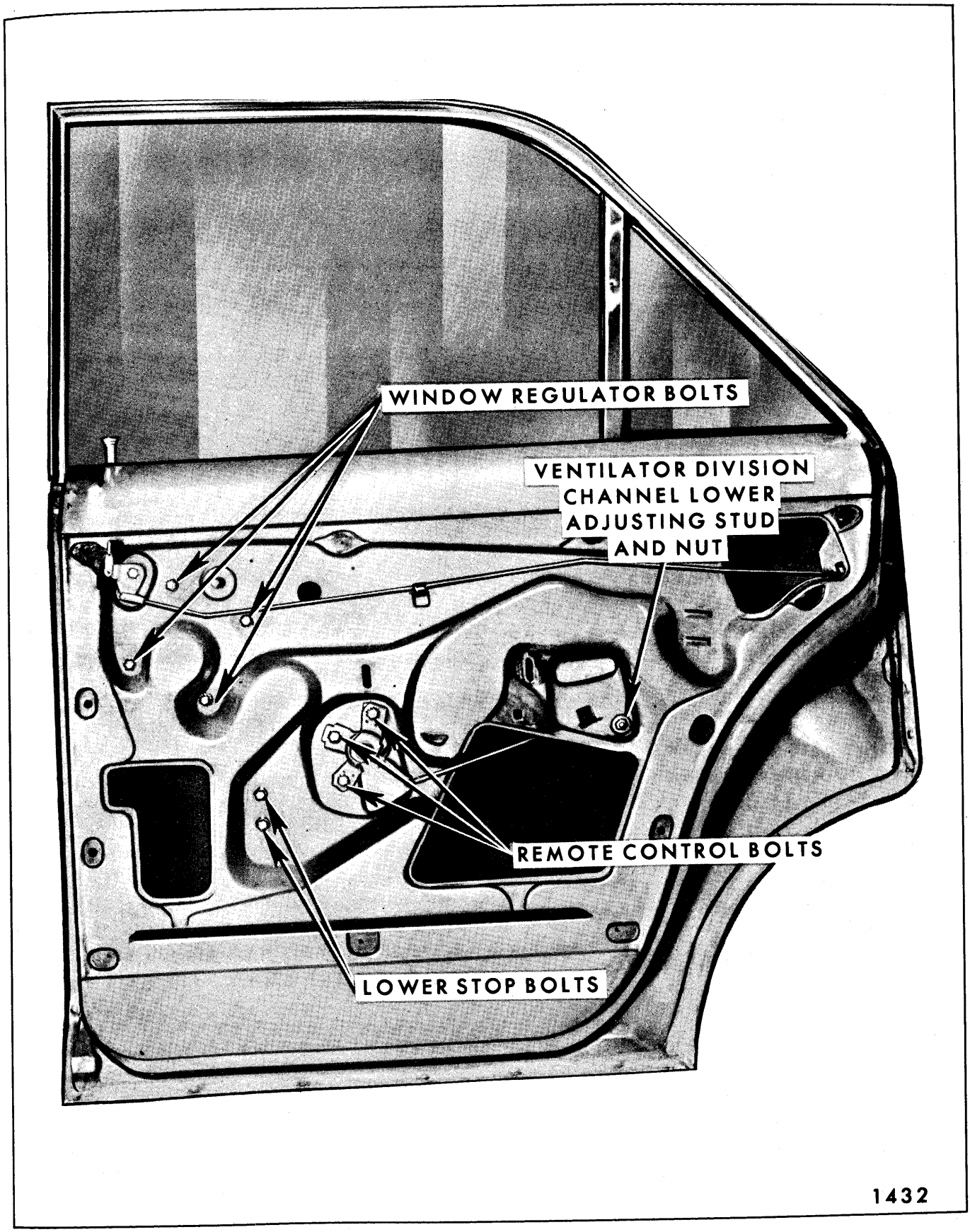

Fig. 7-128—Rear Door Hardware - "X-35 and 69" Styles

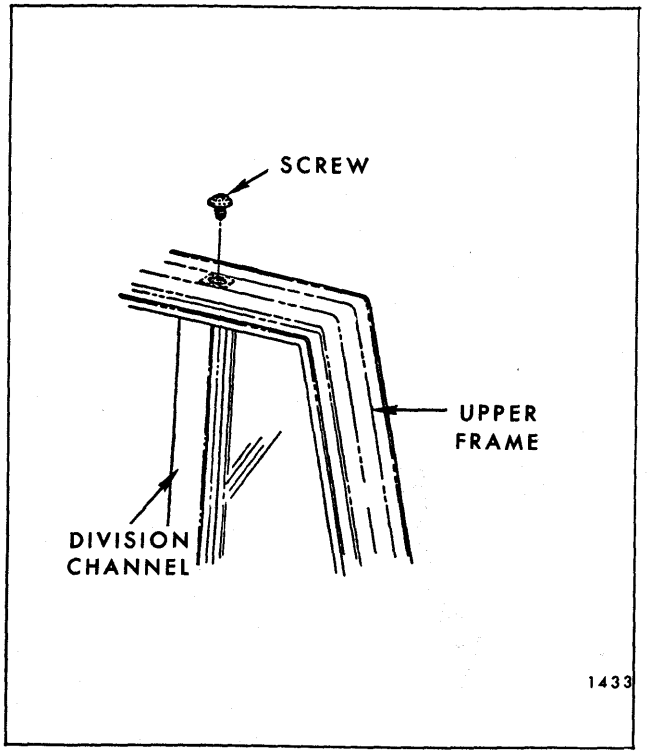

Fig. 7-129—Rear Door Ventilator Attachment - "X" Styles

3. Slide glass rearward to disengage regulator lift arm roller from lower sash channel cam and remove window from door inboard of door window frame (see Fig. 7-128).

4. To install, reverse removal procedure. Prior to installation of water deflector, lubricate sash channel cam with 630AAW Lubriplate or equivalent. Check operation of window and, where required, adjust window assembly as described under "Rear Door Window Adjustments".

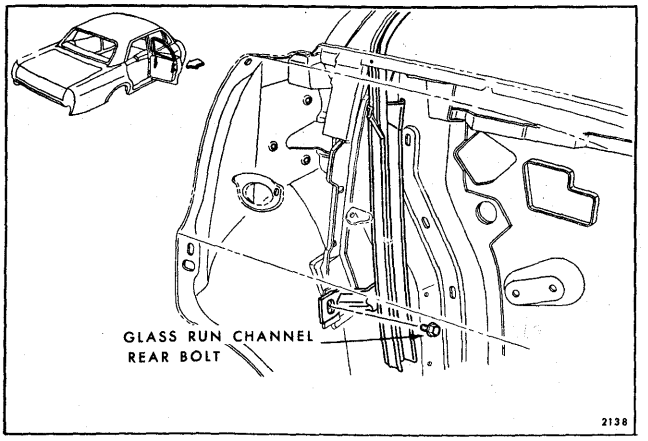

Fig. 7-131—Glass Run Channel Retention - "B" Closed Styles Except 45-46000 Series

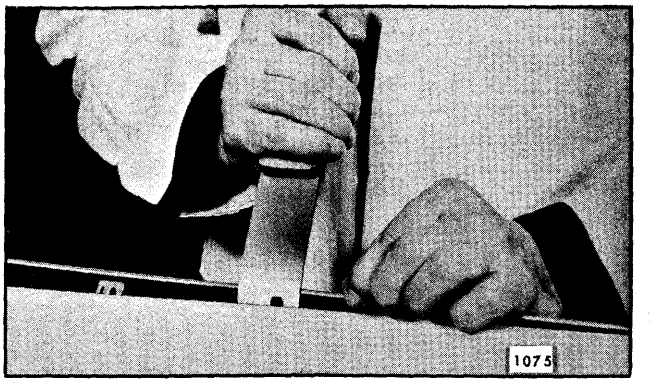

Fig. 7-130—Glass Run Channel Inner-Outer Strip Removal - "A-X & Z" Styles

Removal and Installation ("A-35-55-65 and 69" Styles)

1. Lower door window, remove door trim pad and detach inner panel water deflector.

2. Remove inner panel cam. On styles not equipped with a hang-on trim pad, remove inner belt seal (draft strip).

3. Rotate rear edge of glass downward until front edge is free of door upper frame and lower sash channel cam slides off of regulator balance arm roller.

4. Rotate glass upward and forward to disengage lower sash channel cam from regulator lift arm roller and remove door window outboard of door upper frame (See Fig. 7-133 View A and B).

5. To install, reverse removal procedure.

REAR DOOR WINDOW ASSEMBLY— ALL "B-C 39" STYLES AND ALL "C-69" STYLES EXCEPT 68069 AND 68169

The rear door window assembly consists of a frameless piece of solid tempered safety plate glass and a bolt-on lower sash channel. With this design, the window is removed from the door as an assembly and door glass replacement made in a bench operation.

Figures 7-134 and 7-135 are exploded views of the "39 and 69" Style (except 68069 and 68169 Styles) rear door window assemblies and identify the specific components and their assembly sequence.

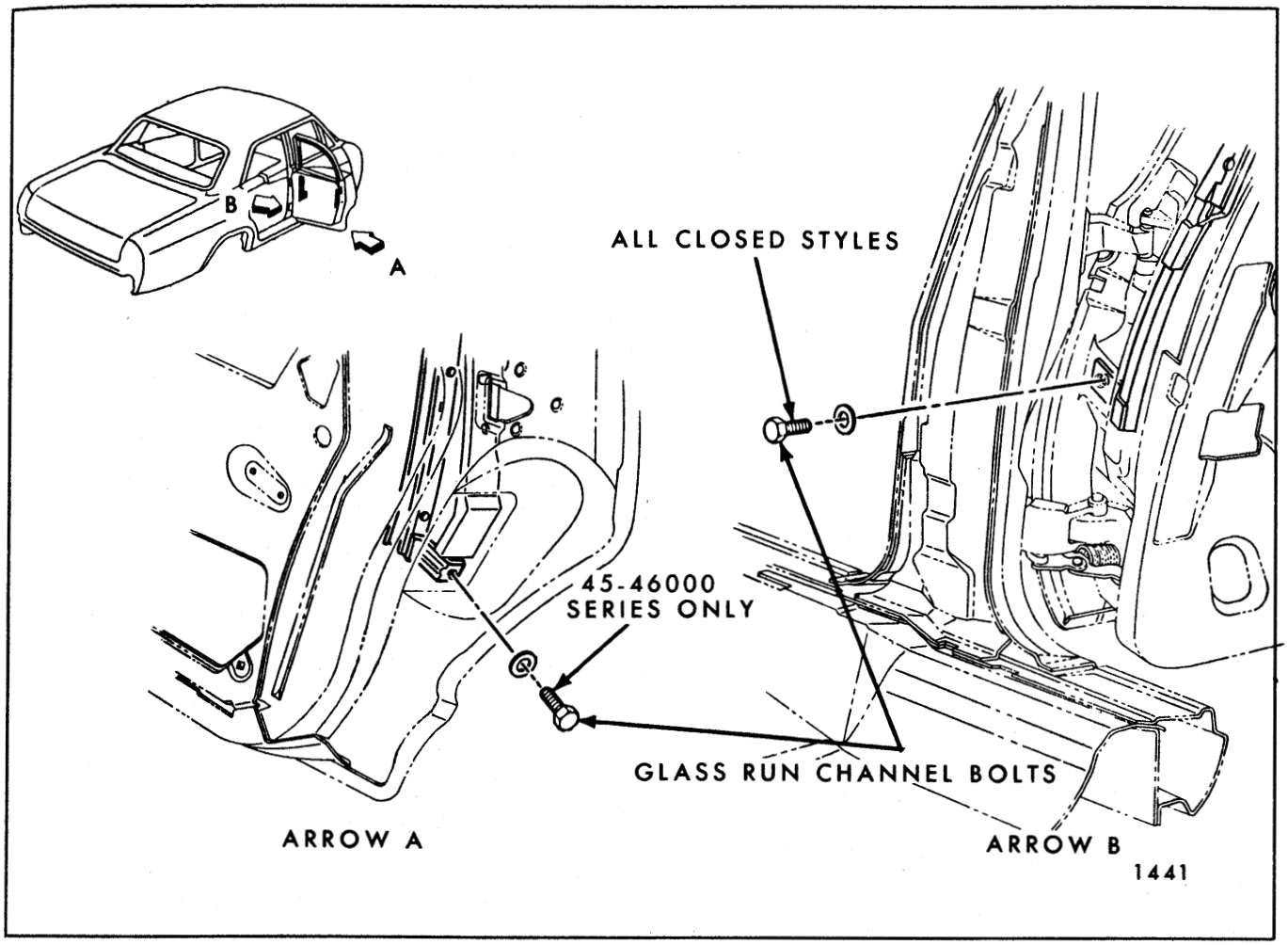

Fig. 7-132—Glass Run Channel Retention - "B" Closed Styles

NOTE: When replacing door glass, replace glass to sash channel spacers. When installing glass to sash channel nuts, torque to 60 inch lbs. (5 foot lbs.).

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.

2. Loosen front and rear upper stop attaching bolts "D & E" (Fig. 7-136) and rotate stops into vertical position (Fig. 7-137).

3. Loosen front and rear guide upper attaching bolts "A & C" and lower adjusting stud nuts "F & H" (Fig. 7-136).

4. Operate window to required position as shown in Figure 7-136 and remove rear lower sash channel cam attaching screws at "B" or "G". (Window almost full-down for manual styles, and almost full-up for electric styles).

NOTE: On electric styles it is necessary to remove electric switch plastic cover from inner panel to gain access to sash channel cam front attaching screw.

5. Lift window and remove it from door at belt line.

6. To install, reverse removal procedure. Adjust guides and wedge plates for proper window operation as described below.

Adjustments

1. To adjust the top of the door glass in-or-out in relation to the side roof rail weatherstrip, loosen the front and rear guide lower adjusting stud nuts "F & H" (Fig. 7-136). Adjust studs in-or-out as required and tighten stud nuts.

2. To adjust window assembly fore-or-aft, or in-or-out, loosen front and rear guide upper at-attaching bolts "A & C" and lower adjusting

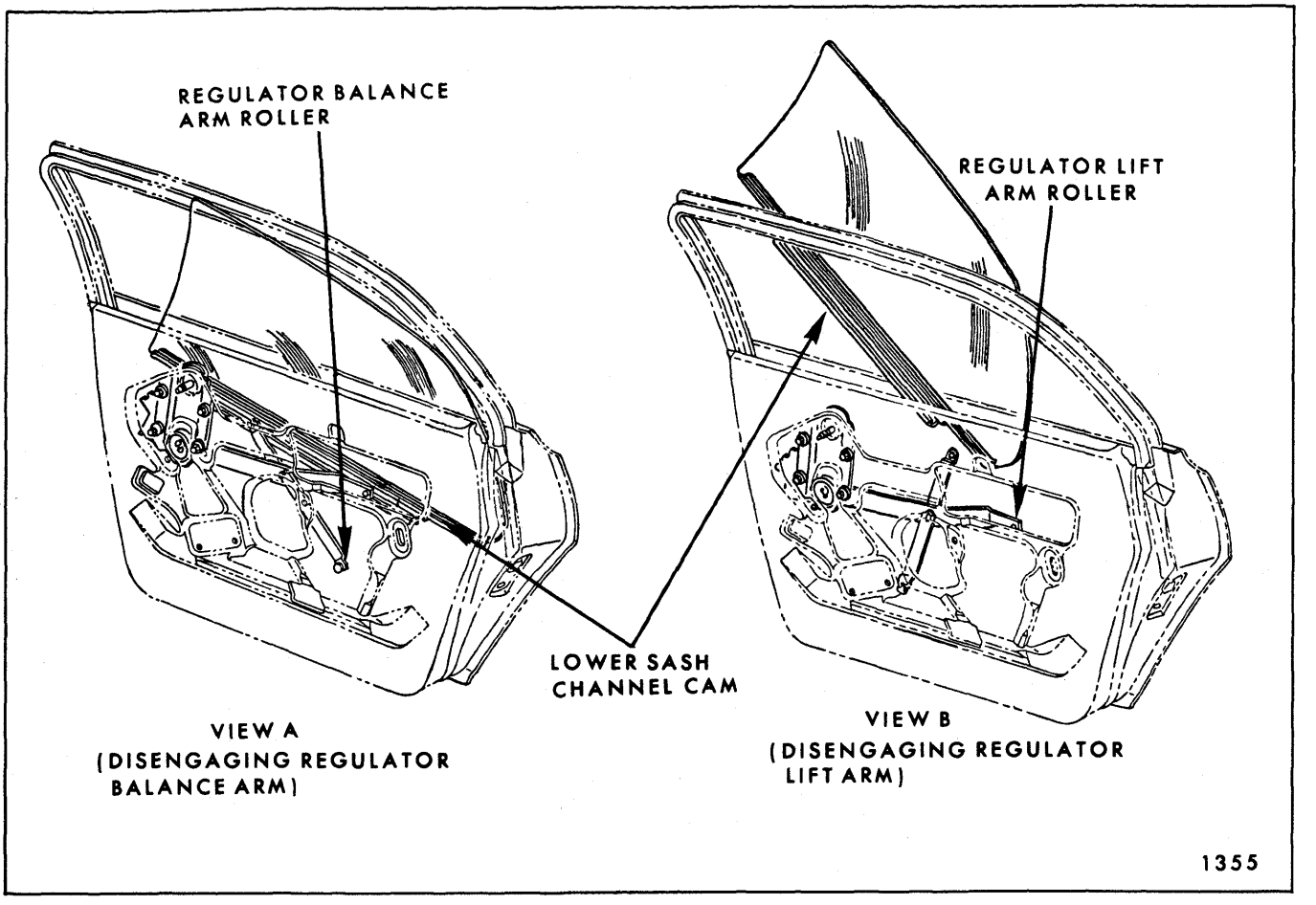

Fig. 7-133—Rear Door Window Removal - "A" Closed Styles

stud nuts "F & H" (Fig. 7-136). Position window as desired and tighten guide attachments.

3. To correct a window that is rotated (cocked) in the opening, loosen inner panel cam attaching bolts "I" (Fig. 7-136). Adjust front of cam up-or-down as required and tighten bolts.

4. To adjust front or rear edge of glass in-or-out, loosen front or rear guide upper attaching bolts "A & C" (Fig. 7-136). Adjust guide in-or-out as required and tighten bolts.

5. To obtain proper up-travel of window for good contact with side roof rail weatherstrip, loosen front and rear upper stop attaching bolts "D & E" (Fig. 7-136). Operate window to desired up position. Then, tighten stop bolts while exerting slight downward force on stops.

NOTE: Upper stop adjustment can correct a slightly rotated (cocked) window, however, for major adjustment of this type, use inner panel cam adjustment.

REAR DOOR WINDOW ASSEMBLY—68069 AND 68169 STYLES

The rear door window assembly consists of a frameless piece of solid tempered safety plate glass and a bolt-on lower sash channel assembly. With this design, the window is removed as an assembly and door glass replacement made in a bench operation.

Figure 7-138 is an exploded view of the rear door window and identifies the various components and their assembly sequence.

NOTE: When replacing door glass, replace glass to sash channel spacers. When installing nuts on glass to sash channel attaching bolts, torque to 60 inch lbs. (5 foot lbs.).

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

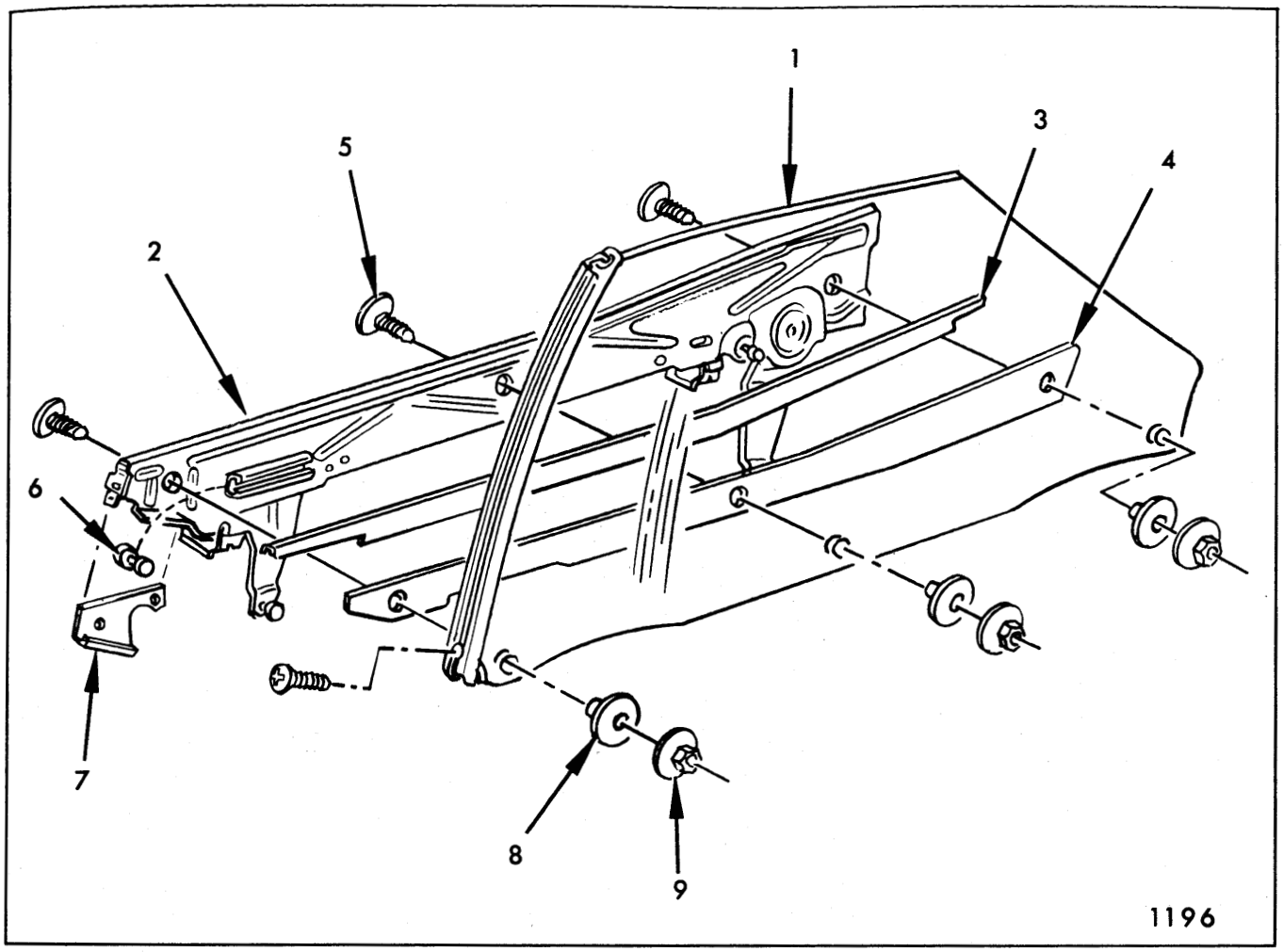

Fig. 7-134—Rear Door Window Assembly - "B & C-39" Styles Shown - "A" Similar

1. Rear Door Window Assembly
2. Lower Sash Channel Assembly
3. Lower Sash Channel Upper Filler
4. Lower Sash Channel Lower Filler
5. Glass to Lower Sash Channel Bolts
6. Lower Sash Channel Front Cam Roller
7. Lower Sash Channel Front Filler Plate
8. Glass to Lower Sash Channel Spacer
9. Glass to Lower Sash Channel Nuts

2. With glass in full-up position, remove front and rear up-travel stop attaching bolts, two bolts on front stop, one on rear (Figs. 7-139 and 7-140).

3. Lower glass approximately 2" and remove lower sash channel cam attaching screws (Fig. 7-141).

4. While supporting glass by pressing it rearward into ventilator division channel, remove lower sash channel to guide plate attaching nuts (Fig. 7-140).

5. Disengage lower sash channel from weld-on studs on sash channel guide plate and remove window assembly from door.

6. To install, reverse removal procedure. Adjust window for proper operation and alignment as described under "Rear Door Window and/or Ventilator Adjustments".

REAR DOOR VENTILATOR REGULATOR—68069 AND 68169 STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector. Operate door glass to full-up position.

2. Disconnect ventilator regulator wire harness connector at regulator motor.

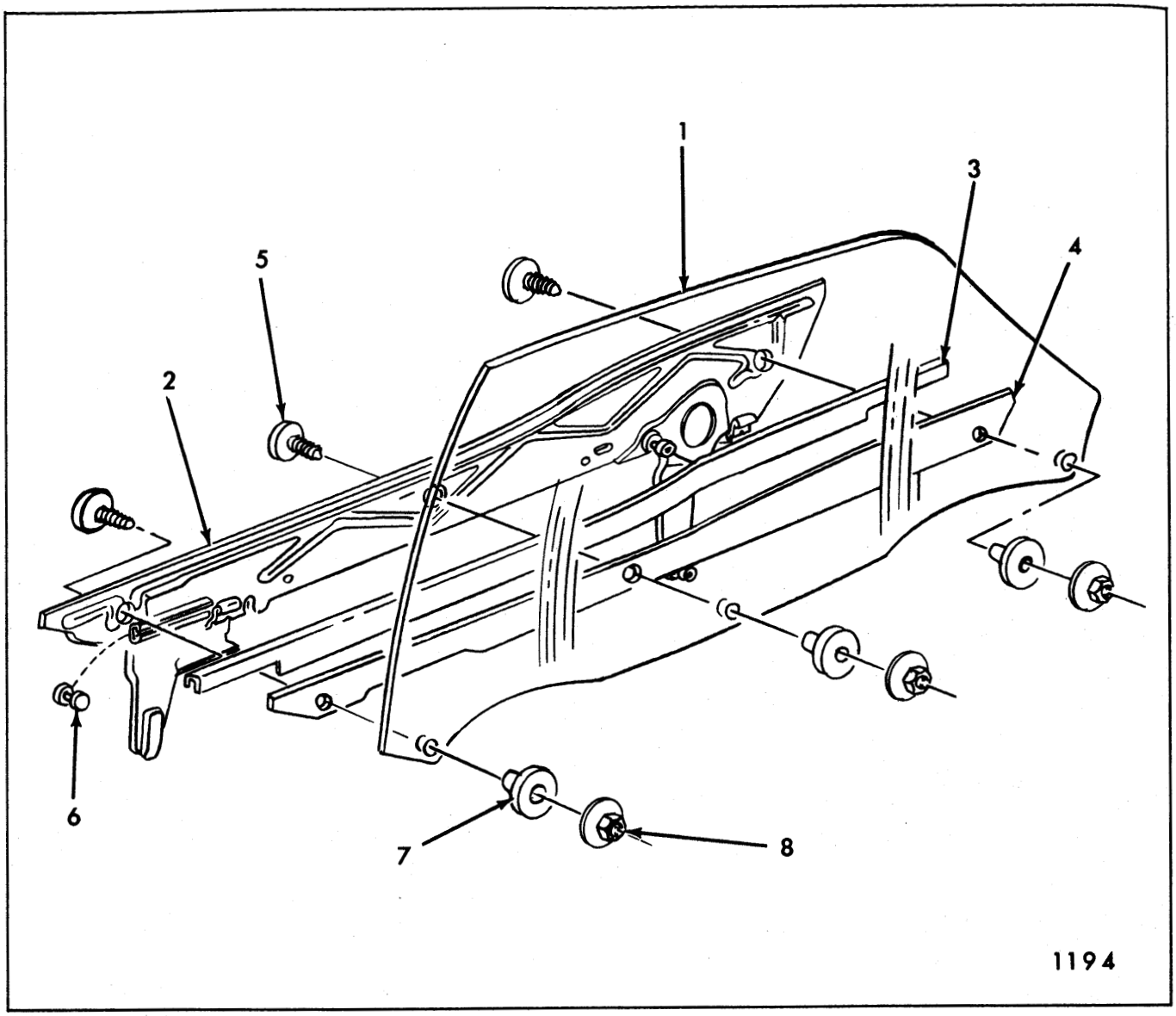

Fig. 7-135—Rear Door Window Assembly "C-69" Styles Except 68069-68169 Styles

1. Rear Door Window Assembly
2. Lower Sash Channel Assembly
3. Lower Sash Channel Upper Outer Filler
4. Lower Sash Channel Lower Outer Filler
5. Glass to Lower Sash Channel Bolts
6. Lower Sash Channel Front Cam Roller
7. Glass to Lower Sash Channel Spacers
8. Glass to Lower Sash Channel Nuts

3. Remove ventilator "T-shaft" to regulator attaching bolt (Fig. 7-142).

4. Remove ventilator regulator to ventilator frame attaching bolts (Fig. 7-142).

5. Disengage ventilator regulator from ventilator "T-shaft" and remove regulator through access hole.

6. To install, reverse removal procedure.

REAR DOOR VENTILATOR ASSEMBLY—68069 AND 68169 STYLES

Removal and Installation:

1. Remove rear door ventilator regulator as previously described.

2. Remove ventilator lower frame and ventilator division channel lower adjusting stud nuts (Fig. 7-142).

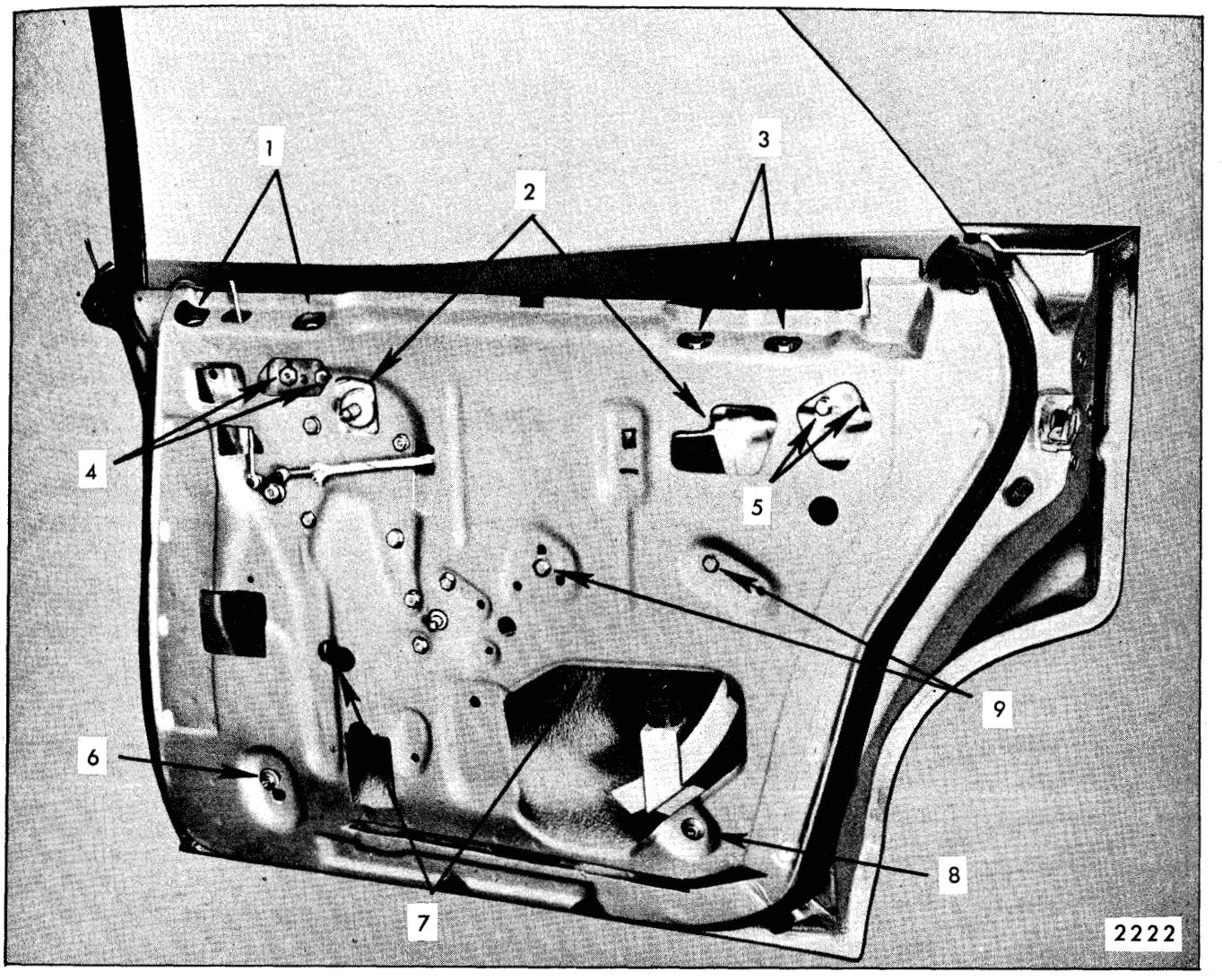

Fig. 7-136—Rear Door Hardware Attachment "B-C 39 and C-69" Except 68069-68169 Styles

1. Front Guide Upper Bolts
2. Lower Sash Channel Cam Screw Access Holes (Electric)
3. Rear Guide Upper Bolts
4. Front Upper Stop Bolts
5. Rear Upper Stop Bolts
6. Front Guide Lower Adjusting Stud Nut
7. Lower Sash Channel Cam Screw Access Holes (Manual)
8. Rear Guide Lower Adjusting Stud Nut
9. Inner Panel Cam Bolts

3. Remove ventilator lower frame attaching bolts (Fig. 7-142).

4. Lift ventilator assembly up approximately 3" and remove ventilator lower frame adjusting stud through access hole.

5. Lift ventilator upward and remove from door. Twist ventilator 90° to remove division channel lower adjusting stud at belt.

6. To install, reverse removal procedures. Adjust ventilator for proper operation and alignment as described under "Rear Door Window and/or Ventilator Adjustments".

Ventilator Disassembly

1. Remove ventilator assembly from door as previously described.
2. Remove ventilator division pillar glass run channel strip assembly by disengaging lower end and pulling strip upward (Fig. 7-143).
3. Remove division pillar to ventilator stationary frame attaching screws (Fig. 7-143).

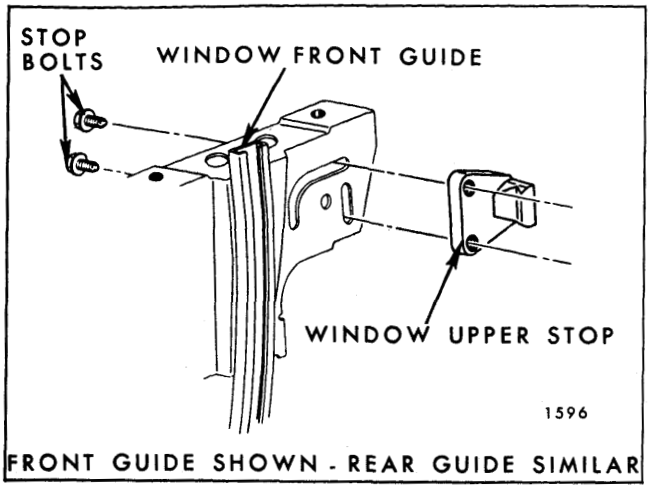

Fig. 7-137—Window Upper Stop Attachment

4. Remove division pillar to ventilator upper frame (and rubber bumper) attaching screw (Fig. 7-143) and separate ventilator frame and divison channel.

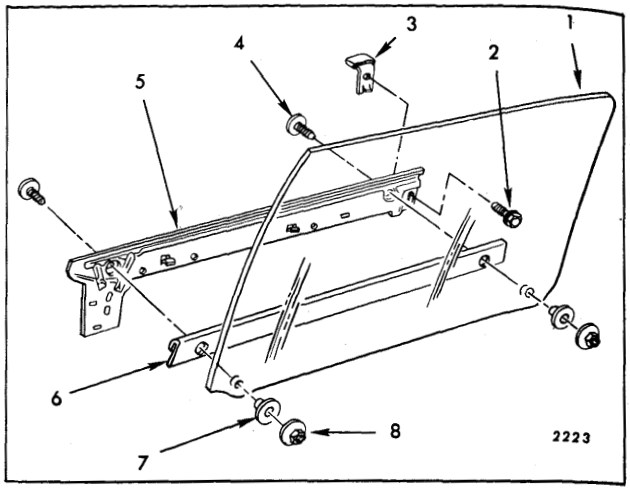

Fig. 7-138—Rear Door Window Assembly - 68069-68169 Style

1. Door Window Glass
2. Rear Stop to Sash Channel Screw
3. Window Rear Stop
4. Glass to Lower Sash Channel Bolt
5. Window Lower Sash Channel
6. Window Lower Sash Outer Filler
7. Glass to Lower Sash Channel Spacer
8. Glass to Lower Sash Channel Nut

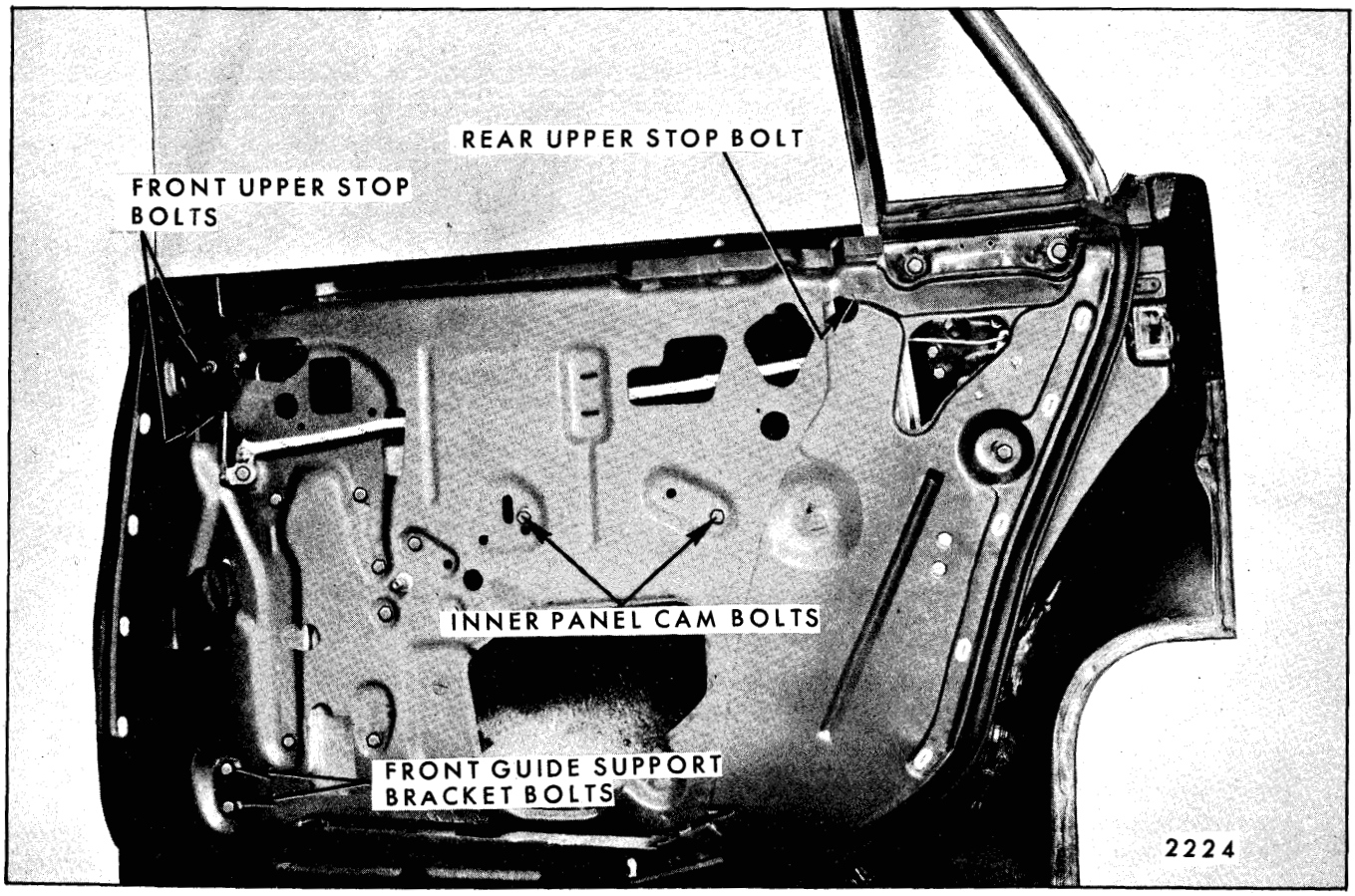

Fig. 7-139—Rear Door Window Removal - 68069-68169 Styles

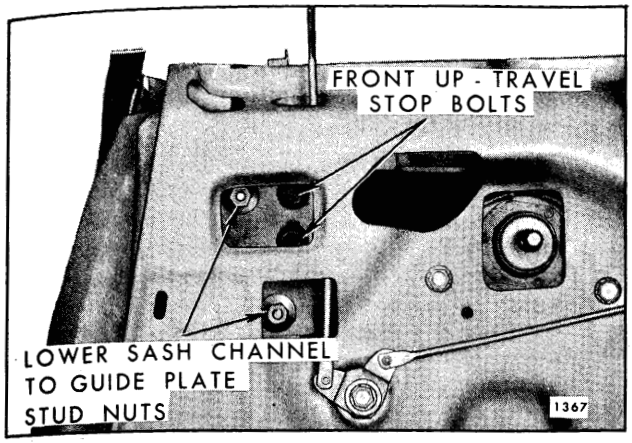

Fig. 7-140—Rear Door Window Removal - 68069-68169 Styles

5. Put ventilator window 90° to ventilator frame. Using hand pressure only, force ventilator downward to disengage ventilator upper pivot from ventilator frame.

6. Straighten division pillar weatherstrip bend-over tabs (Fig. 7-143) and remove weatherstrip.

7. Pull ventilator weatherstrip from front frame. Three clips retain it down front edge and it may be necessary to pry between weather-strip and frame at these locations.

8. To assemble, reverse removal procedure.

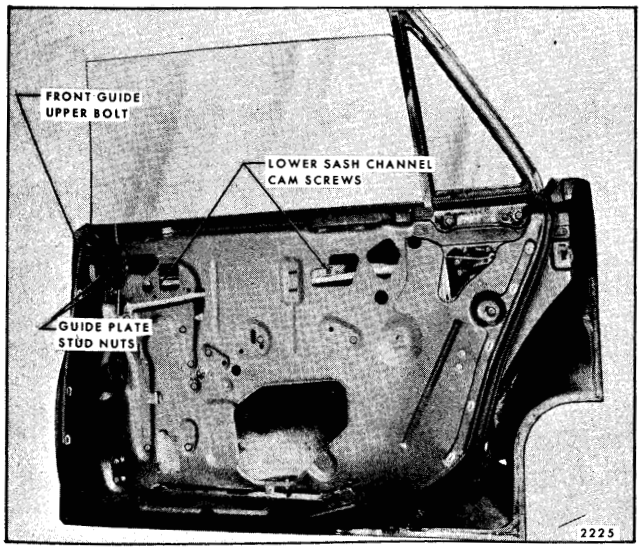

Fig. 7-141—Rear Door Window Removal - 68069-68169 Styles

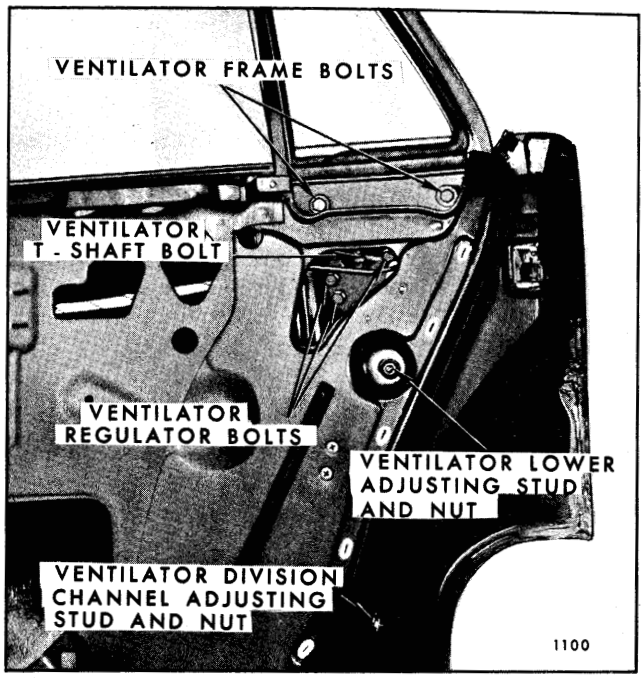

Fig. 7-142—Rear Door Ventilator Attachments - 68069-68169 Styles

NOTE: The above procedure covers complete disassembly of the ventilator, which in most cases, will not be required. When servicing a ventilator assembly, select only those steps necessary.

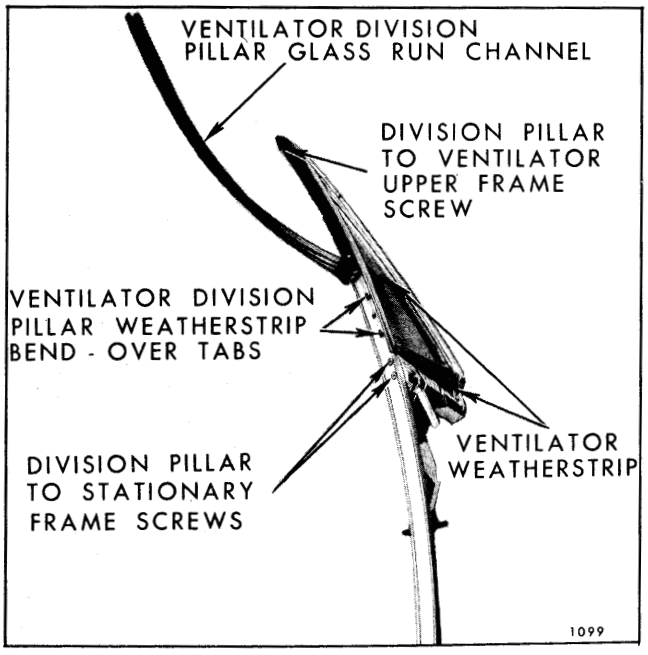

Fig. 7-143—Rear Door Ventilator Assembly - 68069-68169 Styles

REAR DOOR WINDOW AND/OR VENTILATOR ADJUSTMENTS— 68069 AND 68169 STYLES

1. To adjust door window or ventilator assembly in-or-out in relation to side roof rail, adjustment is provided at the following attachments:

   a. Door window front guide to support assembly attaching bolt (Fig. 7-144). Access to this bolt can be gained through large access hole.

   b. Front guide upper attaching bolt (Fig. 7-141).

   c. Ventilator division channel and ventilator frame lower adjusting studs (Fig. 7-142).

These attachments can be adjusted in combination or individually to achieve desired adjustment. When adjusting ventilator adjusting studs, loosen ventilator lower frame attaching bolts prior to adjustment, then, retighten after adjustment.

2. To adjust door window fore-or-aft, loosen guide plate to lower sash channel attaching nuts (Fig. 7-140). Adjust window fore-or-aft as required and tighten nuts.

3. To adjust ventilator fore-or-aft, or to rotate it in opening, loosen ventilator attaching bolts, adjusting stud nuts, and "T-shaft" attaching bolt (Fig. 7-142). Position ventilator as required and tighten loosened attachments.

4. To correct a rotated (cocked) window, loosen inner panel cam attaching bolts (Fig. 7-139). Adjust cam as required and tighten bolts.

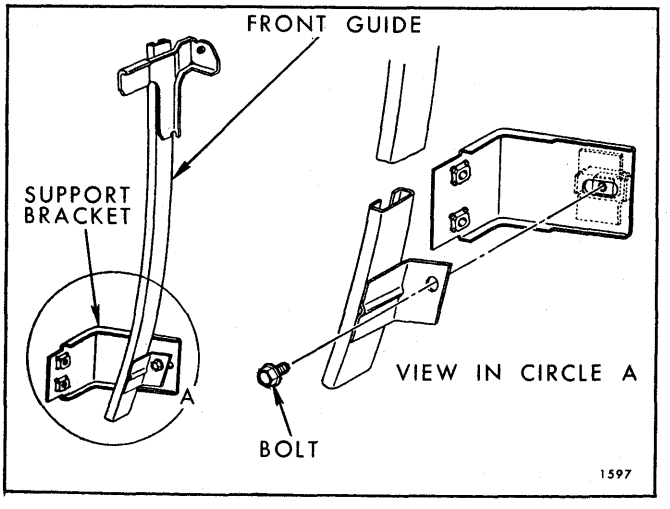

Fig. 7-144—Front Guide to Support Bracket Attachment - 68069-68169 Styles

5. To obtain proper up-travel of door window, loosen front and rear up-travel stop attaching bolts (Fig. 7-139). Operate window to desired position. While exerting upeard force on stops, tighten stop attaching bolts.

6. To eliminate a bind between ventilator division channel and front guide (improve operation of a properly adjusted door window), loosen front guide support bracket attaching bolts and front guide to support bracket attaching bolt (Figs. 7-139 and 7-144). Operate glass to full-down position and tighten support bolts. Operate glass 1/3 up from down position and tighten guide to support attaching bolt.

REAR DOOR WINDOW ASSEMBLY— "A-39" STYLES

Removal and Installation:

1. Raise door window, remove trim pad and detach inner panel water deflector.

2. On styles not equipped with a hang-on door trim pad, remove inner and outer belt seal (draft strip).

3. Remove front and rear glass up-stops and window lower sash channel cam.

4. Pull rear door glass straight up and remove assembly from door (see Fig. 7-145).

   NOTE: The window regulator lift and balance arms are designed with a slight outboard spring. When removing glass, pull regulator

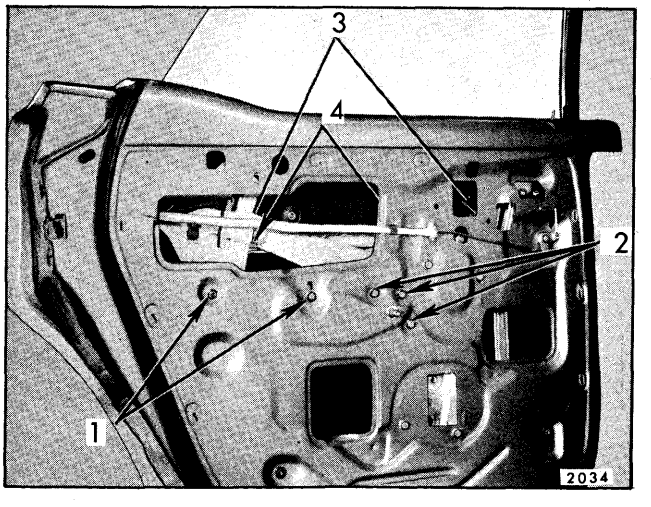

Fig. 7-145—Rear Door Hardware - "A-39" Style

1. Inner Panel Cam Bolts
2. Remote Control Bolts
3. Front and Rear Up-Stop Bolts (Hidden)
4. Sash Channel Cam Screws

arms toward inner panel to ease removal procedure. If necessary, the front and rear guides can be loosened at upper attaching points (see Fig. 7-145).

5. To install, reverse removal procedures.

Adjustments

The up-travel and sector gear stops can be adjusted to control height of door glass; the inner panel cam is adjustable at the rear attaching bolt to correct a rotated window; the upper attaching bolts of front and rear guides provide fore or aft and in or out movement of glass. The lower adjusting studs can be positioned to tip the window inboard or outboard at top edge of glass to maintain proper seal and to ease window operation. (see Fig. 7-145).

The rear door is equipped with five separate window stops, consisting of: two up-travel stops (front and rear), two down travel stops (front and rear) and one regulator sector gear stop (used to additionally restrict up-travel of glass). The sector gear stop attaching point varies with the type of window operation. On manually operated windows, the sector gear stop is attached to the front guide. On electrically operated windows, this stop is attached to the regulator back plate. In either case, regulator sector gear stops are secured by a single attaching bolt and are adjustable.

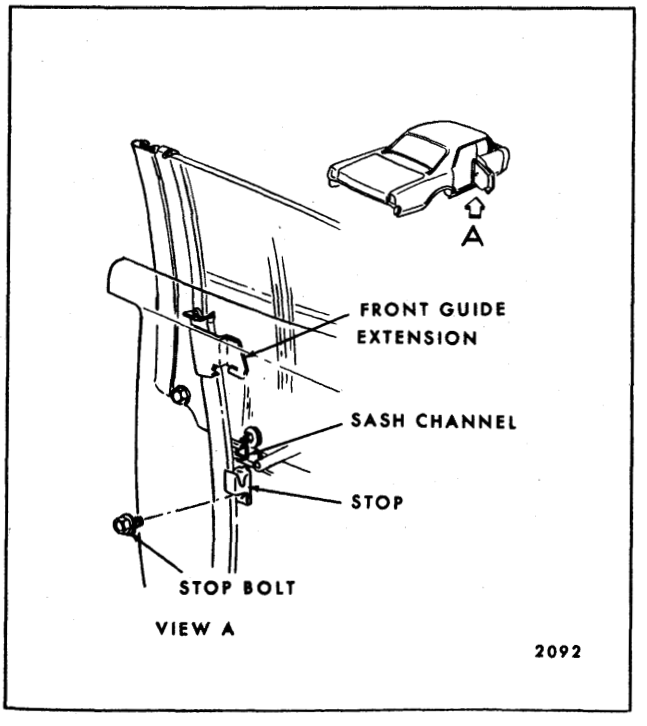

Fig. 7-146—Window Front Up-Stop - "A-39" Style

The two down-travel stops are integral components of either the front or rear window guides and are not separately adjustable.

The two up-travel stops (front and rear) are attached to the window lower sash channel. When glass is raised, the stop comes in contact with a designed extension of either the front or rear guide. Stops are secured by a single bolt and are adjustable up or down. See Figure 7-146 for front up-stop attachment and Figure 7-147 for rear up-stop attachment.

REAR DOOR WINDOW ASSEMBLY— "Z-39"

The rear door window assembly consists of a solid tempered safety plate glass window and a bolted-on lower sash channel. With this design, the door glass and sash channel are removed from the door as a unit and glass replacements made in bench operations. Figure 7-148 is an exploded view of the rear door window assembly and identifies the various components and their assembly sequence. When assembling window, torque sash channel nuts to 60 inch pounds (5 foot pounds). Also, replace glass to sash channel spacers.

CAUTION: Use care to make certain that glass does not strike hard objects. Edge chips or deep scratches can cause solid tempered safety plate glass to shatter. Do not attempt to drill or grind glass.

Removal and Installation:

1. Remove window lower sash channel cam and both inner and outer glass run channel strip assemblies as previously described.

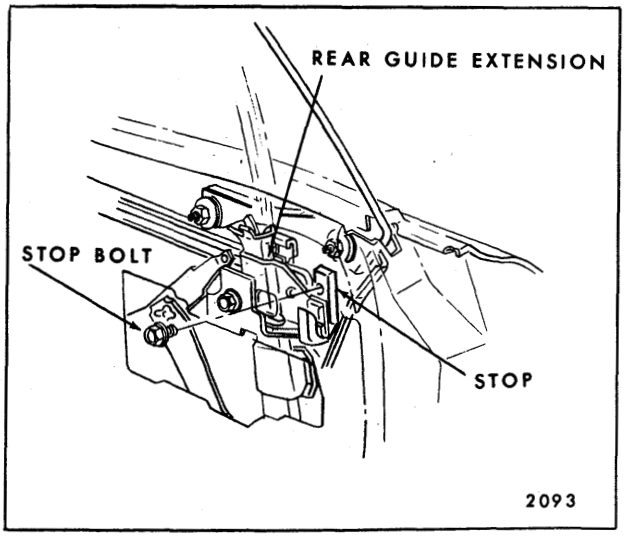

Fig. 7-147—Window Rear Up-Stop - "A-39" Style

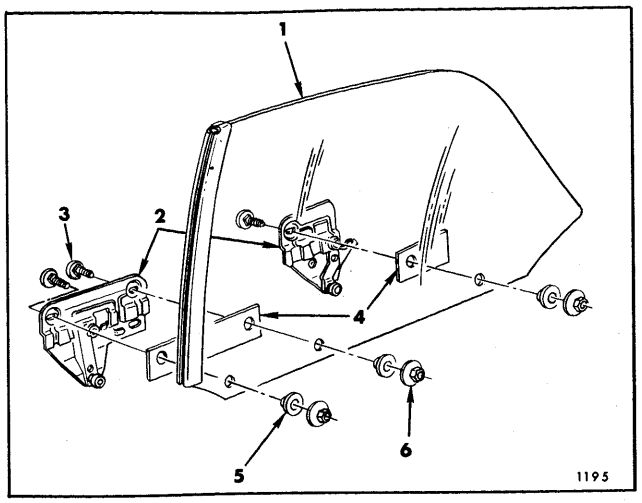

Fig. 7-148—Rear Door Window Assembly - "Z-39" Style

1. Rear Door Window Glass
2. Window Lower Sash Channel Support Assemblies, Front and Rear
3. Glass to Lower Sash Channel Support Attaching Bolts
4. Glass to Lower Sash Channel Support Filler, Front and Rear
5. Glass to Lower Sash Channel Support Spacers
6. Glass to Lower Sash Channel Support Nuts

2. Loosen attaching screws for both front and rear up-travel stops and turn stops 45° into slots provided in inner panel.

3. Raise window and remove it from door at belt line.

4. To install, reverse removal procedure. Adjust window for proper alignment as described in "Rear Door Window Adjustments".

REAR DOOR WINDOW ADJUSTMENTS

To make any rear door window adjustments, it is first necessary to remove the trim pad and water deflector.

1. To adjust the top of the window in or out in relation to the side roof rail, loosen the front and rear guide lower adjusting stud nuts (Fig. 7-149). Adjust studs in or out as required, then tighten stud nuts.

2. To adjust up-travel of window, loosen front and rear up-travel stop attaching screws (Fig. 7-149). Adjust window to desired position; then, while exerting a slight downward force on stops, tighten attaching screws.

3. To rotate glass in the opening (raise or lower upper front corner of glass), loosen inner panel cam attaching screws (Fig. 7-149). Adjust front of cam up or down as required, then tighten attaching screws.

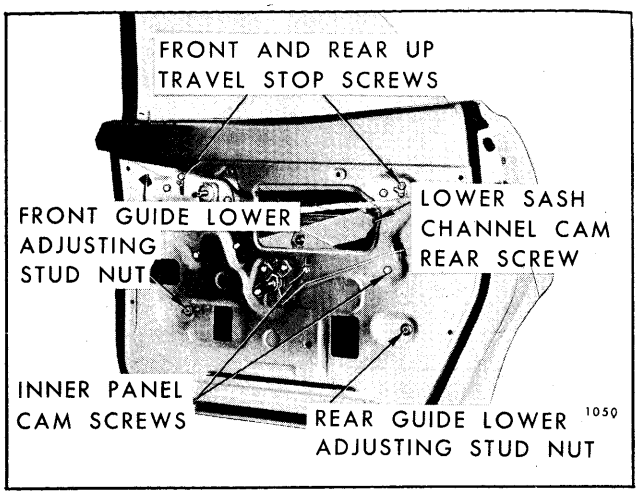

Fig. 7-149—Rear Door Hardware - "Z-39" Styles

4. To relieve a bind within the guides or to adjust window assembly fore or aft, loosen front and rear guide upper attaching screws and lower adjusting stud nuts. With window in full up position and properly aligned with front door window, tighten upper attaching screws. Lower window to full down position and tighten adjusting stud nuts.

REAR DOOR WINDOW GLASS RUN CHANNEL ALL "B-35-45 AND 69" STYLES

Removal and Installation:

1. Remove rear door window assembly as previously described.

2. Remove glass run channel front attaching bolt located on door hinge pillar (arrow "B", Fig. 7-150).

3. On 45-46000 Series, remove glass run channel rear lower attaching bolt located on door lock pillar (arrow "A", Fig. 7-150).

4. On all "B & C" Closed Styles except 45-46000 Series, remove glass run channel rear attaching bolt (Fig. 7-151).

5. Pull run channel into window opening to disengage run channel clips from door upper frame and remove run channel from door.

6. To install, reverse removal procedure. Prior to installation, apply a continuous bead of caulking compound to door upper frame from belt line to belt line to effect a weathertight

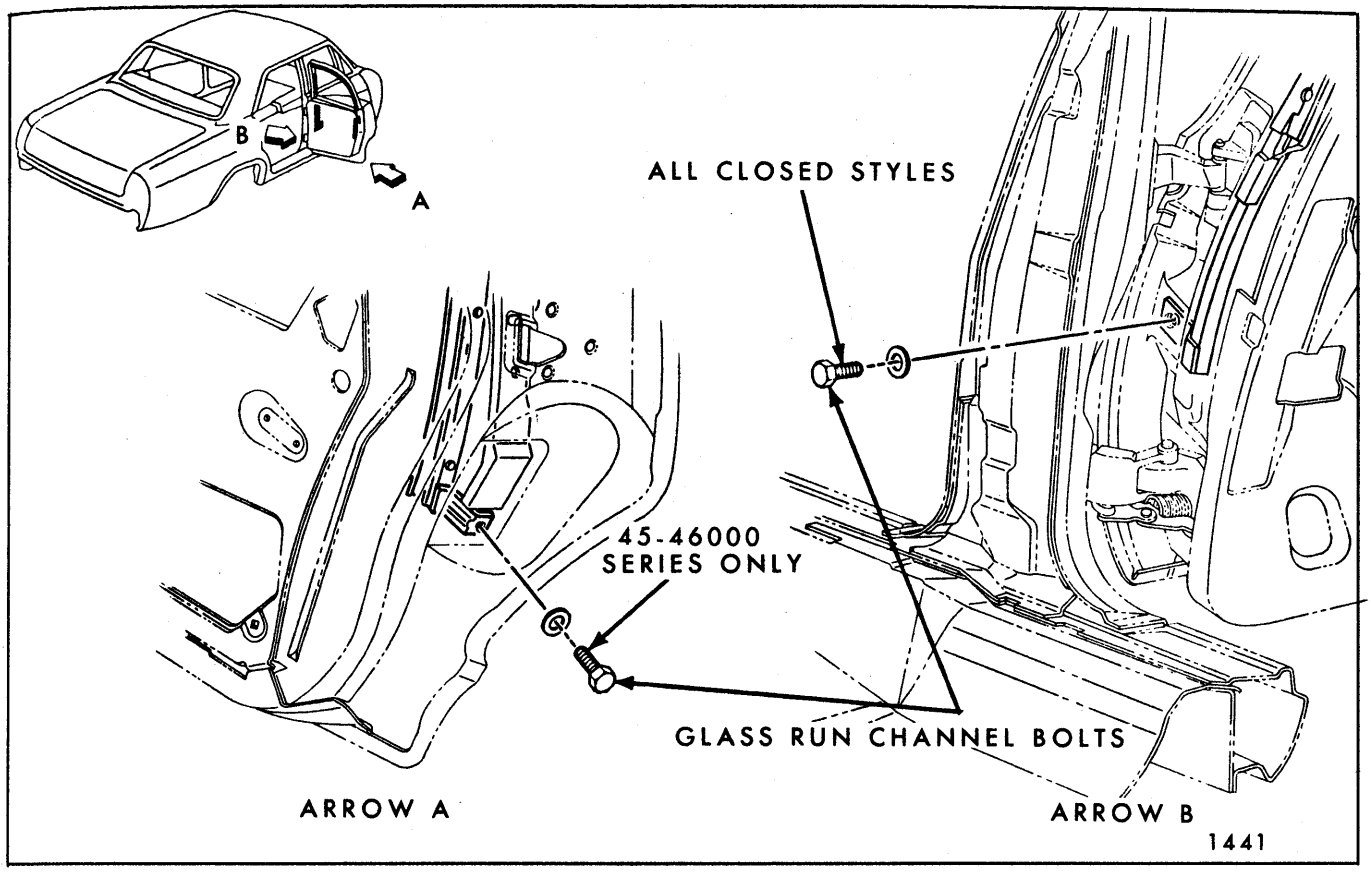

Fig. 7-150—Glass Run Channel Retention "B" Closed Styles

seal between door frame and run channel. If preferred, sealer can be applied to run channel rather than door upper frame.

REAR DOOR WINDOW GLASS RUN CHANNEL—"A-35-55-65 AND 69" STYLES

A soft "flocked" run channel is used for all rear door windows.

Removal and Installation:

1. Remove rear door trim pad and detach inner panel water deflector.

2. Remove rear door window.

3. With finger pressure, squeeze run channel together and gently pull run channel out of rear door upper frame and remove from door. (See Fig. 7-152).

4. To install, reverse removal procedure.

IMPORTANT: The glass run channel must be properly seated and conform to shape of door upper frame to achieve proper glass operation.

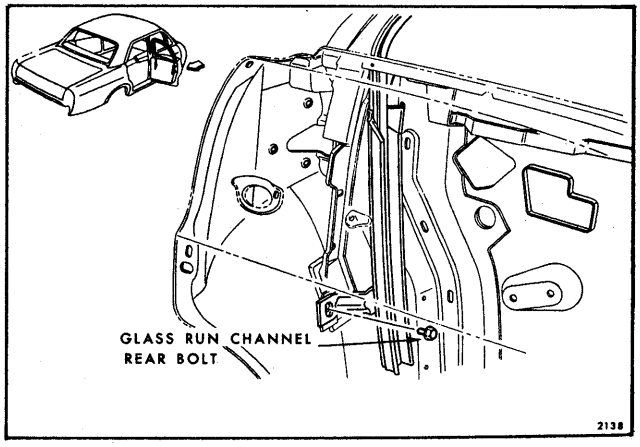

Fig. 7-151—Glass Run Channel Retention - "B" Closed Styles Except 45-46000 Series

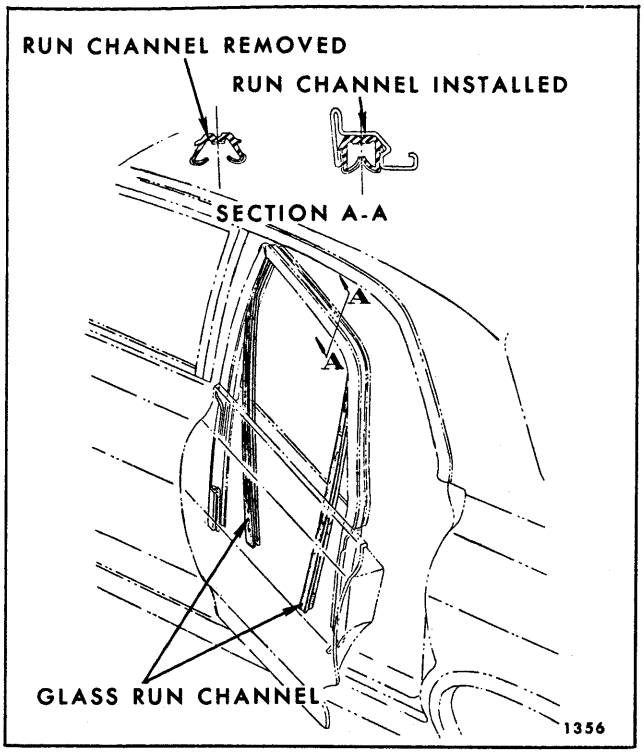

Fig. 7-152—Glass Run Channel - "A" Closed Styles

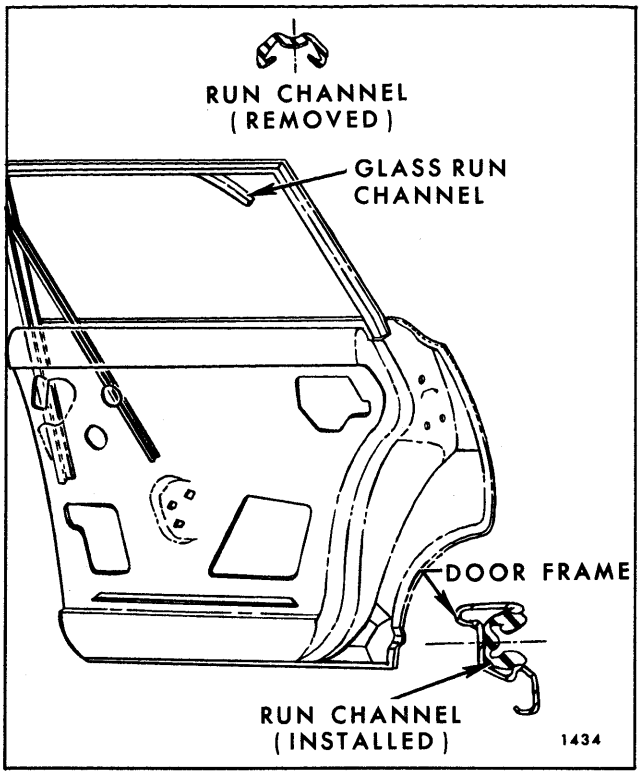

Fig. 7-153—Window Run Channel Installation - "X" Closed Styles

REAR DOOR WINDOW GLASS RUN CHANNEL—"X-35 AND 69" STYLES

Removal and Installation:

1. Remove rear door trim pad and detach inner panel water deflector.
2. Remove rear door window.
3. With finger pressure, squeeze run channel together at rear end and gently pull run channel out of rear door upper frame (See Fig. 7-153).
4. To install, reverse removal procedure.

   IMPORTANT: The glass run channel must be properly seated and conform to shape of door upper frame to achieve proper glass operation.

REAR DOOR WINDOW FRONT GUIDE—ALL "B-C 39" STYLES AND ALL "C-69" STYLES EXCEPT 68069 AND 68169

Removal and Installation:

1. Remove rear door window assembly as previously described.
2. Remove front guide attaching bolts at belt line and lower adjusting stud nut (Fig. 7-154).
3. Remove inside locking rod connecting link attaching bolts (Fig. 7-154). Disengage guide from inside locking rod and remove guide through access hole.
4. To install, reverse removal procedure. Adjust guide for proper window operation as described in the window adjustment procedure.

REAR DOOR WINDOW REAR GUIDE—ALL "B-C 39" STYLES AND ALL "C-69" STYLES EXCEPT 68069 AND 68169

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Operate window to full-up position.
3. Remove rear guide upper attaching bolts (Fig. 7-154 - Locations "A" for 38-48-68000 Series, Locations "B" for remaining styles). Remove rear guide lower adjusting stud nut.

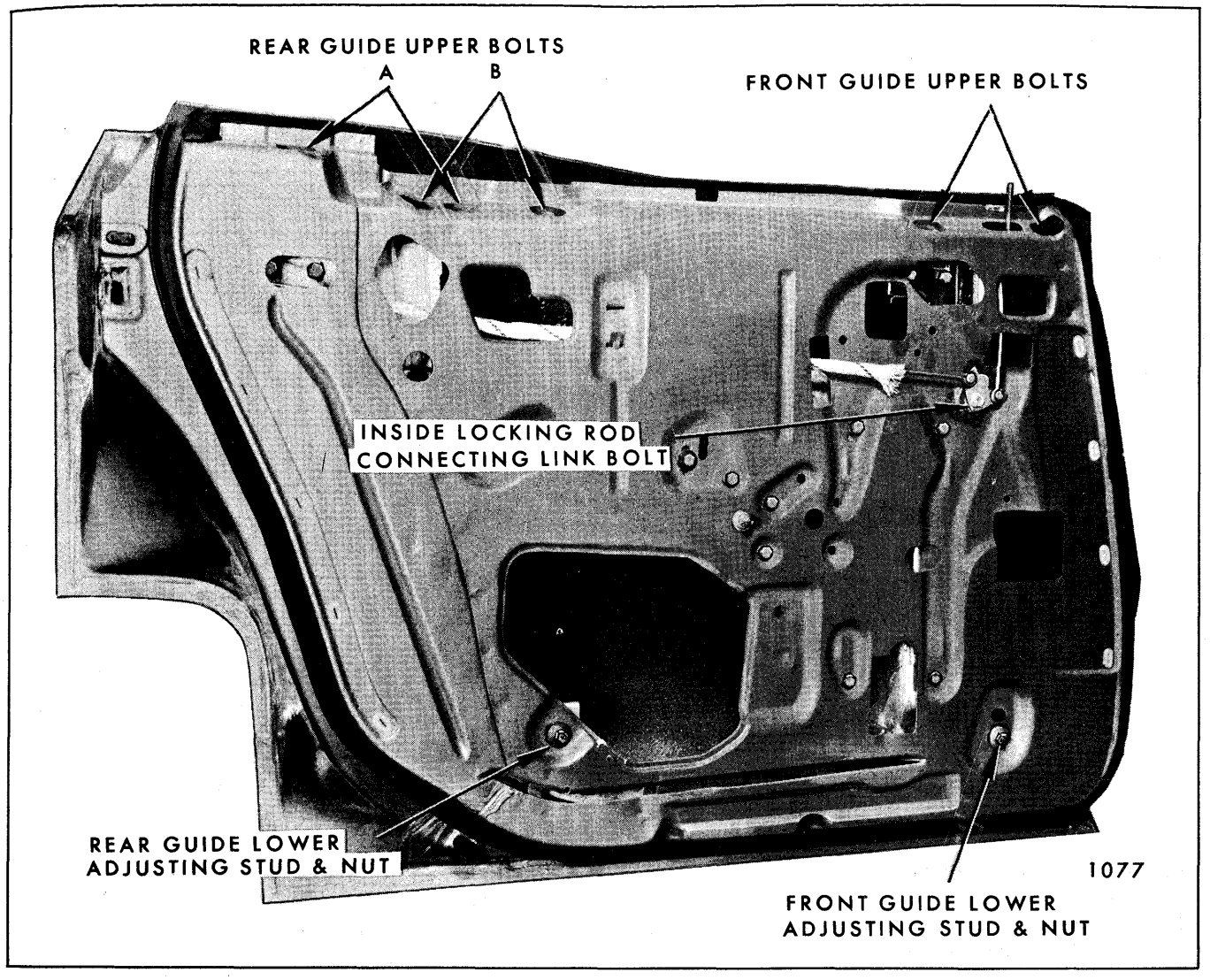

Fig. 7-154—Rear Door Window Guides - "B & C-39 and C-69" Except 68069-68169 Styles

4. Lower guide and swing bottom end forward to disengage guide from roller on lower sash channel and lower sash channel balance arm.

5. Remove guide, upper end first, through large access hole.

6. To install, reverse removal procedure. Adjust guide for proper window operation as described in the door window adjustment procedure.

REAR DOOR FRONT GUIDE AND GUIDE PLATE—68069 AND 68169 STYLES

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

2. Operate window to full-up position.

3. Remove front upper stop attaching bolts and remove stop (Fig. 7-155).

4. Remove front guide support bracket attaching bolt (Fig. 7-155).

5. Remove front guide upper attaching bolt (Fig. 7-156).

6. Remove guide plate to lower sash channel attaching stud nuts (Figs. 7-156 and 7-157).

7. Remove front guide and guide plate as an assembly through access hole (Fig. 7-158).

8. To install, reverse removal procedure. Adjust front guide for proper window operation

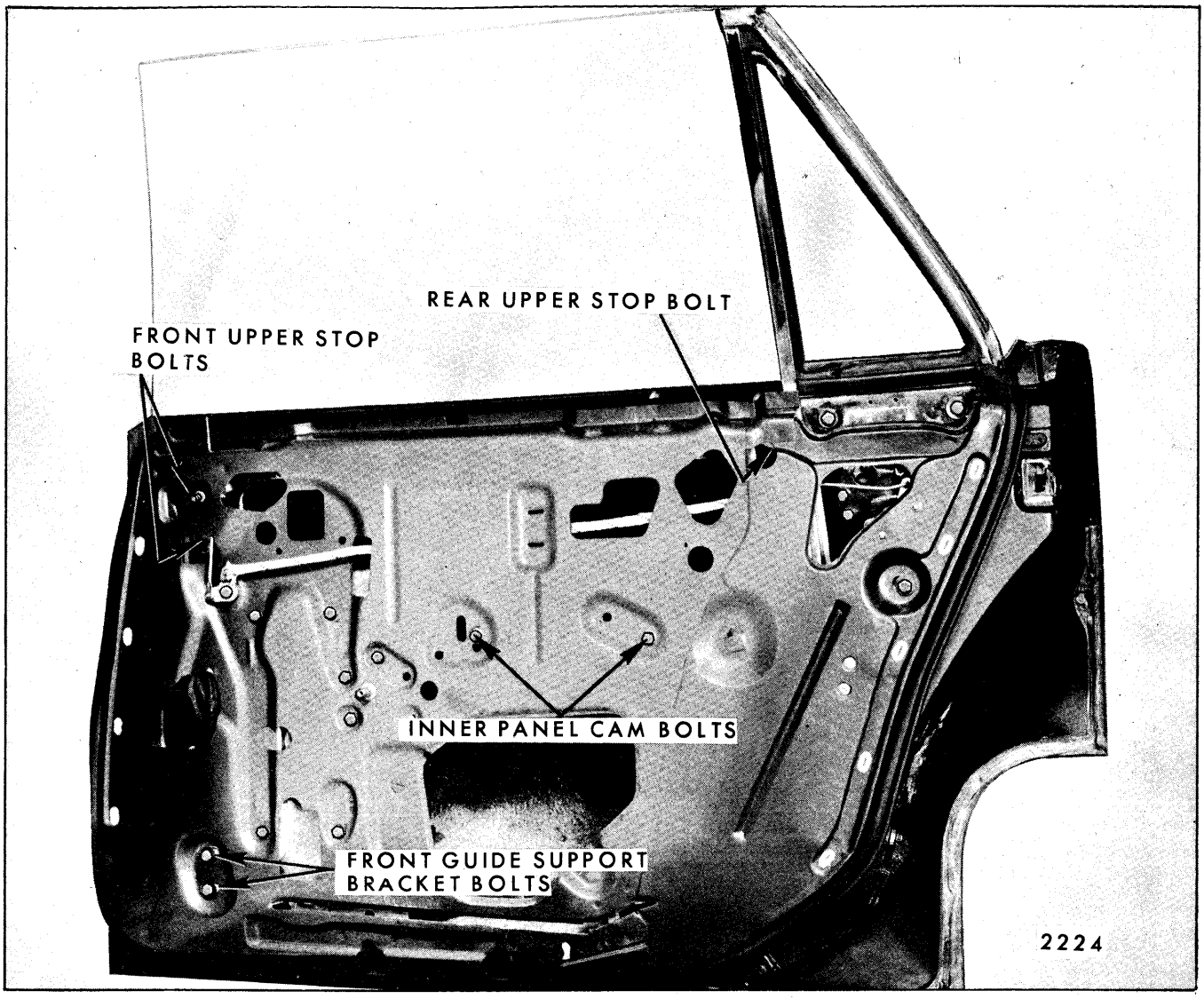

Fig. 7-155—Front Guide and Upper Stop Removal

as described in door window adjustment procedure.

REAR DOOR WINDOW GUIDE CHANNELS—"A-39" STYLES

Removal and Installation:

1. Remove door trim pad and detach inner panel water deflector.
2. Remove rear door window assembly.
3. On guide to be removed, remove upper attaching bolts and lower adjusting stud nut and remove guide (see Fig. 7-159).
4. To install, reverse removal procedure.

REAR DOOR WINDOW FRONT OR REAR GUIDE—"Z-39" STYLES

Removal and Installation:

1. Remove door trim pad and inner panel water deflector.
2. Loosen front and rear up-travel stop attaching screws (Fig. 7-125). Rotate stops so that stop tabs enter angled slots. Raise window as far as possible.
3. Remove upper attaching screw and lower adjusting stud nut from guide being removed. Lower guide to disengage it from sash channel roller, then remove guide through large access hole.
4. To install, reverse removal procedure.

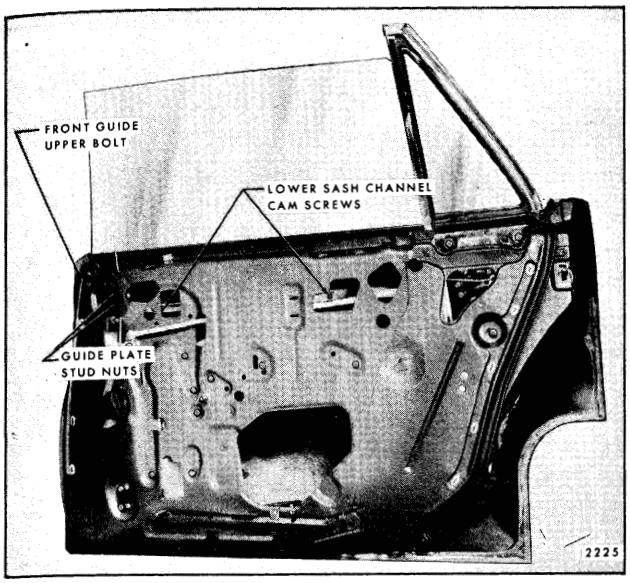

Fig. 7-156—Front Guide and Guide Plate Removal

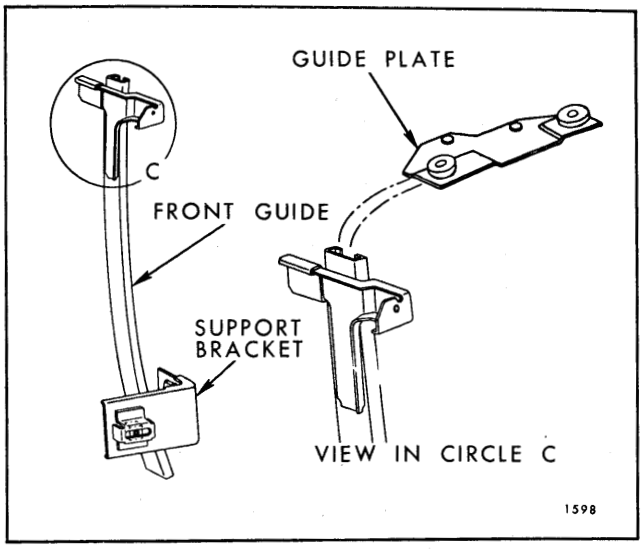

Fig. 7-158—Front Guide and Guide Plate - 68069-68169 Styles

REAR DOOR WINDOW REGULATOR—MANUAL AND ELECTRIC—ALL "B & C" STYLES

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

2. Remove lower sash channel cam attaching screws (Fig. 7-160 for "closed" styles, 7-161 for "hardtop" styles).

   While supporting glass, disengage cam from rollers on regulator lift and balance arms and remove cam.

3. Raise window and prop it in full-up position.

4. Remove inner panel cam attaching bolts (Fig. 7-160 for "closed" styles, Fig. 7-161 for "hardtop" styles).

5. On styles equipped with electric window regulators, disconnect body wire harness from window regulator at window regulator motor.

6. Remove window regulator attaching bolts and remove regulator through large access hole. (Figs. 7-161 and 7-160).

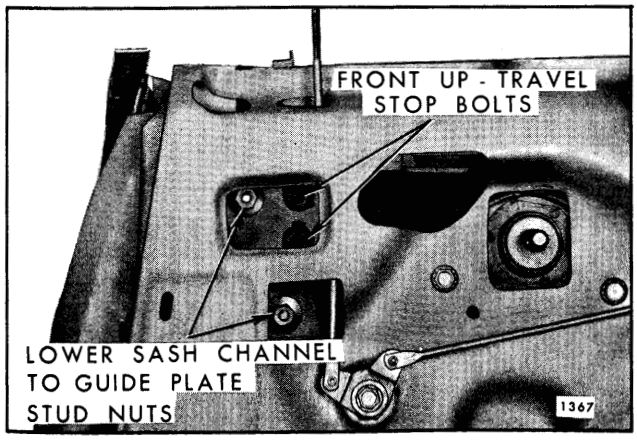

Fig. 7-157—Window Guide Plate Removal

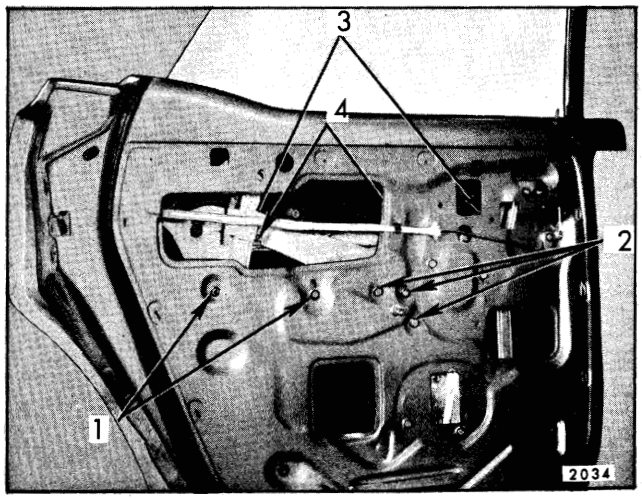

Fig. 7-159—Rear Door Hardware "A-39" Style

1. Inner Panel Cam Bolts
2. Remote Control Bolts
3. Front and Rear Up-Stop Bolts (Hidden)
4. Sash Channel Cam Screws

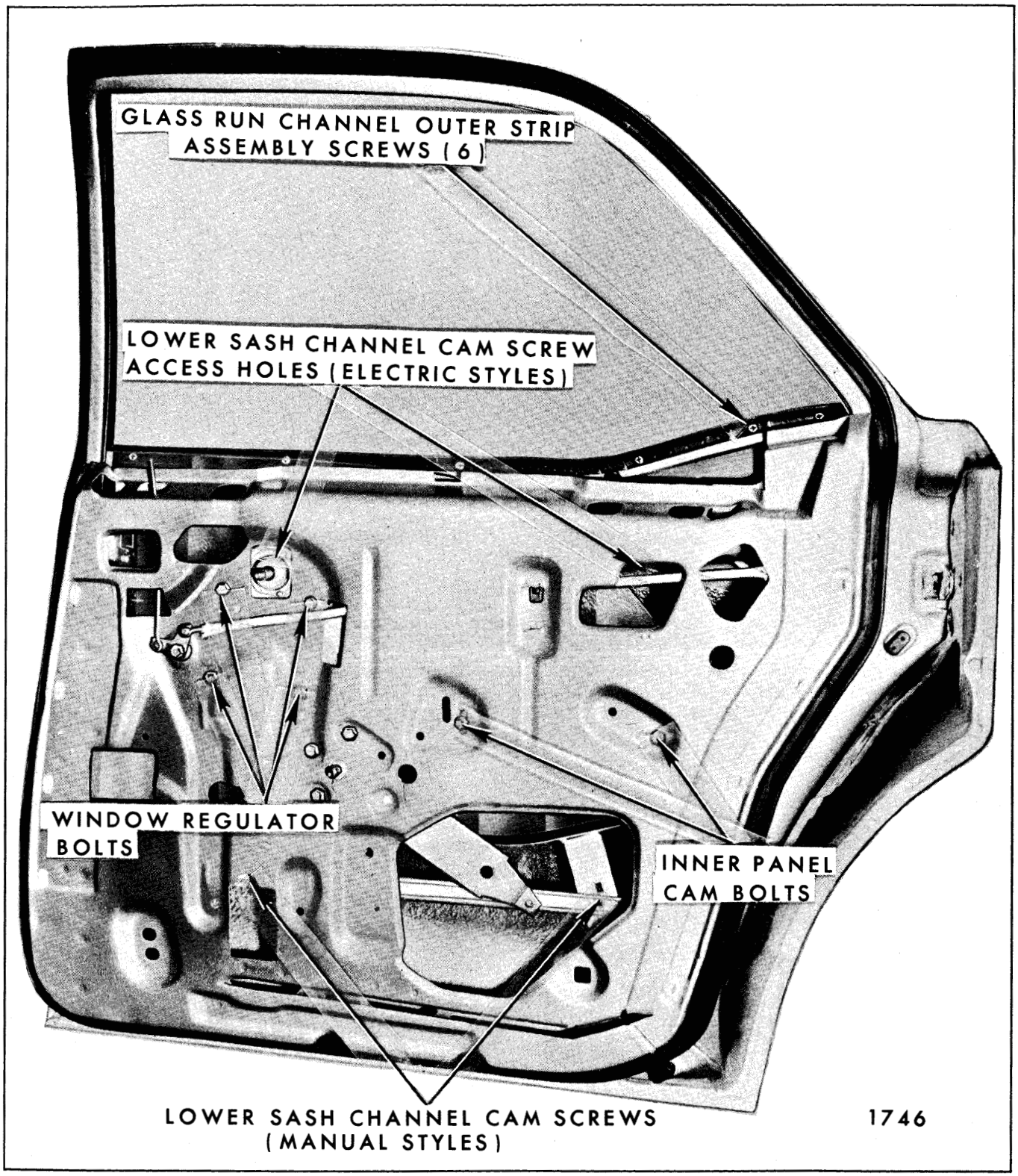

Fig. 7-160—Window Regulator Removal - "B" Closed Styles

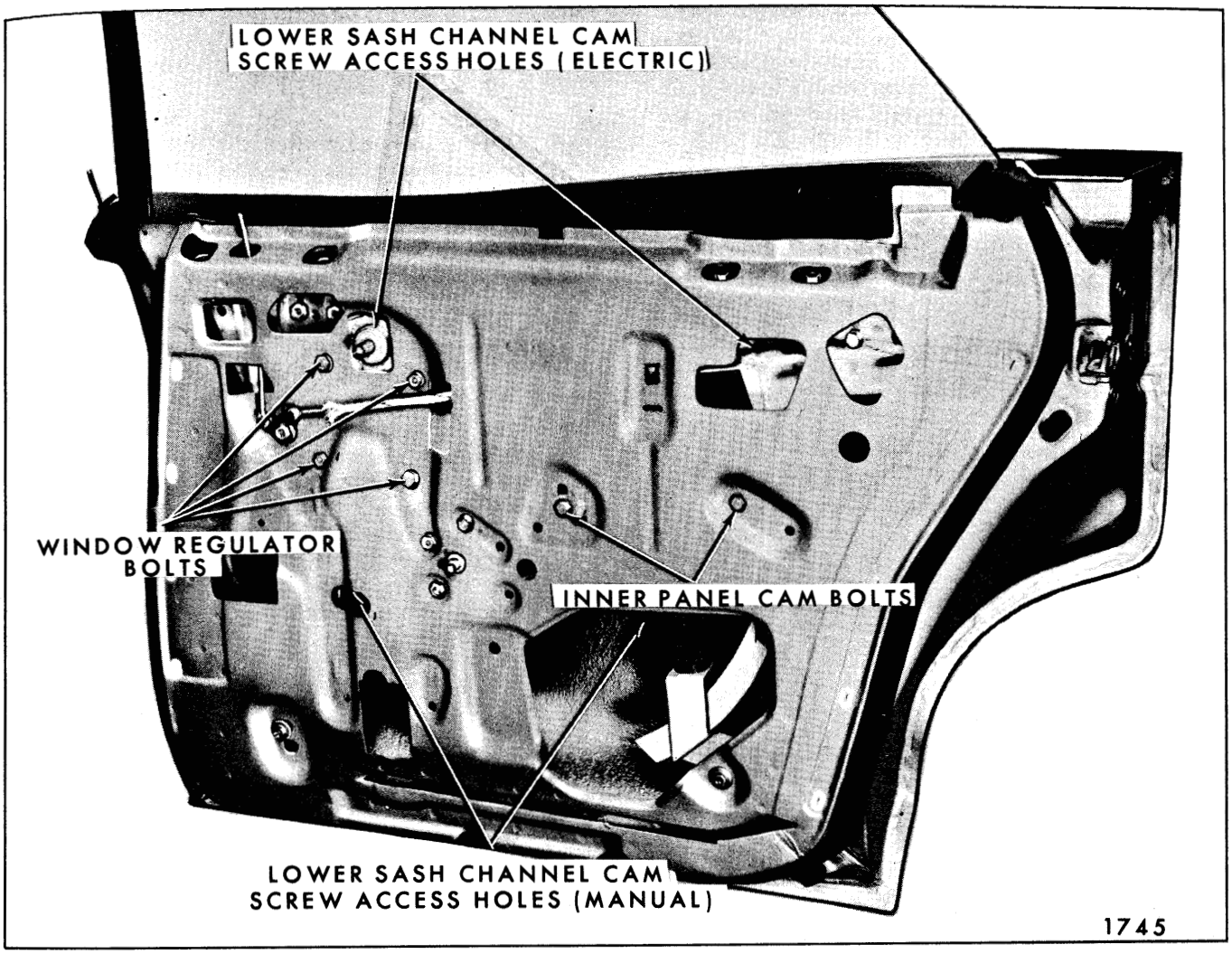

Fig. 7-161—Window Regulator Removal - "Hardtop" Styles

REAR DOOR WINDOW REGULATOR ASSEMBLY—"A-35-55-65 AND 69" STYLES AND "X-35 AND 69" STYLES

Removal and Installation:

1. Raise door window, remove door trim pad and detach inner panel water deflector.

2. Secure window in the full up position by installing a twelve to fifteen inch piece of body tape (2" or 2-1/2" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of window regulator.

3. Remove inner panel cam on "A" Body Styles.

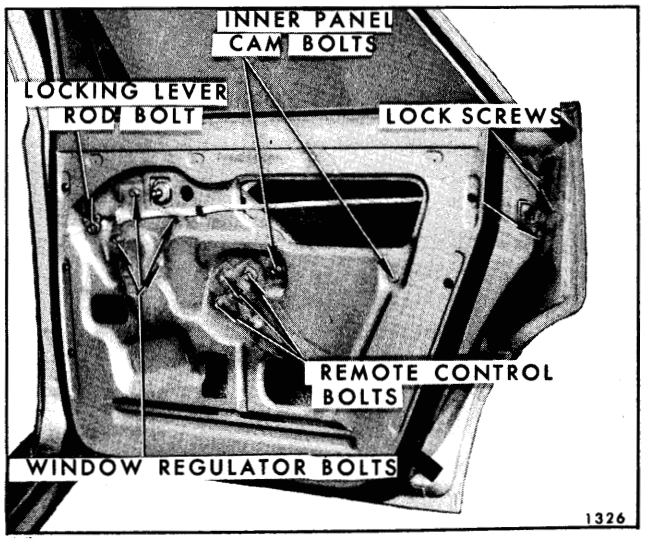

Fig. 7-162—Rear Door Hardware - "A" Styles Shown

4. Remove window regulator attaching bolts and move regulator assembly rearward to disengage lift arm rollers (and balance arm rollers on "A" Styles) from window lower sash channel cam and remove regulator through large access hole (See Fig. 7-162).

5. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector and door trim pad.

REAR DOOR WINDOW REGULATOR ASSEMBLY "A-Z 39" STYLES

Removal and Installation:

1. Remove door trim pad and detach inner panel water deflector.
2. Remove rear door window.
3. On "A" Body Electric Styles, disconnect motor from wire harness.
4. Remove regulator attaching bolts and remove regulator assembly (See Fig. 7-159).
5. To install, reverse removal procedure.

REAR DOOR WINDOW REGULATOR ELECTRIC MOTOR REMOVAL— ALL STYLES

If it is necessary to remove the electric motor from the regulator, refer to "Front Door" section for the proper procedure. The tension on the lift arm assist spring can cause serious injury if the motor is removed without use of the cautionary measures described in the procedure.

SECTION 8
REAR QUARTER
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INTRODUCTION

Section Eight, pertaining to Rear Quarters, covers all service procedures applicable to this area of the body, for all styles. The contents are divided into three separate categories; specifically, Trim, Stationary Glass and Hardware (See Index). The material within each basic category is arranged, as closely as possible, in the sequence in which individual assemblies would be removed.

REAR QUARTER TRIM

DESCRIPTION

Rear quarter trim assemblies for all two-door styles consist of the following two types:

1. Hang on type, where upper edge of trim panel is secure on upper edge of rear quarter inner panel.
2. Insert type where trim panel is secured by retainers and sealing plugs.

REAR QUARTER ARM REST "17-27-37 AND 57" STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies as described under "Rear Seats".
2. Remove seat back filler panel to rear quarter inner panel attaching screws (Figs. 8-1 and 8-2) and remove filler panel.
3. Remove arm rest attaching screws at front, rear and bottom arm rest (Figs. 8-1 and 8-2).
4. On styles with electrical devices in arm rest assembly, carefully detach arm rest from rear quarter inner panel sufficiently to disconnect wire harness connectors. Figures 8-3 and 8-4 are indicative of electrical installations in rear quarter arm rests. Lift arm rest in an upward, inboard movement and remove assembly from rear quarter inner panel.
5. To install, reverse removal procedure.

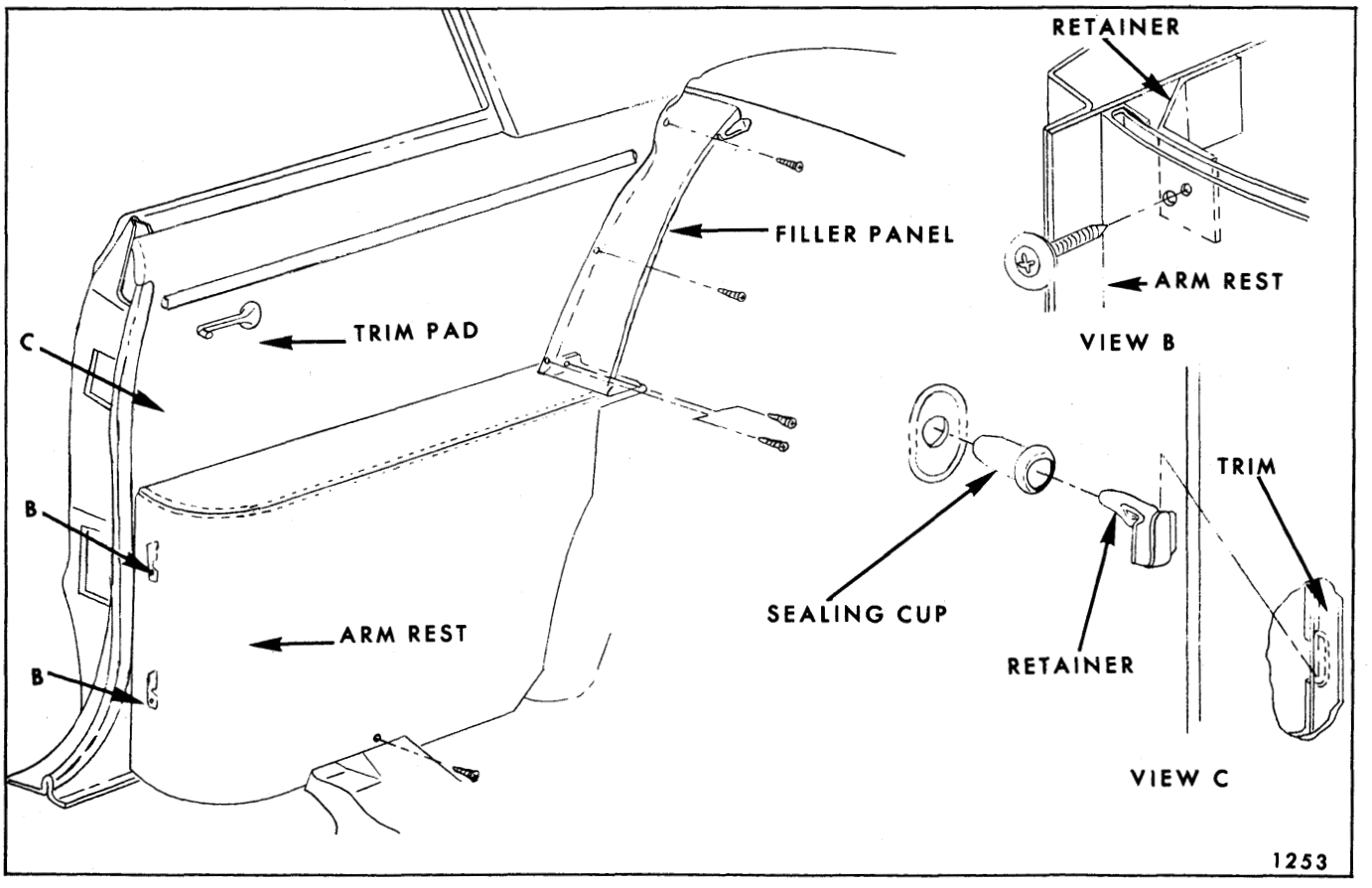

Fig. 8-1—Rear Quarter Trim Assembly (Insert Type)

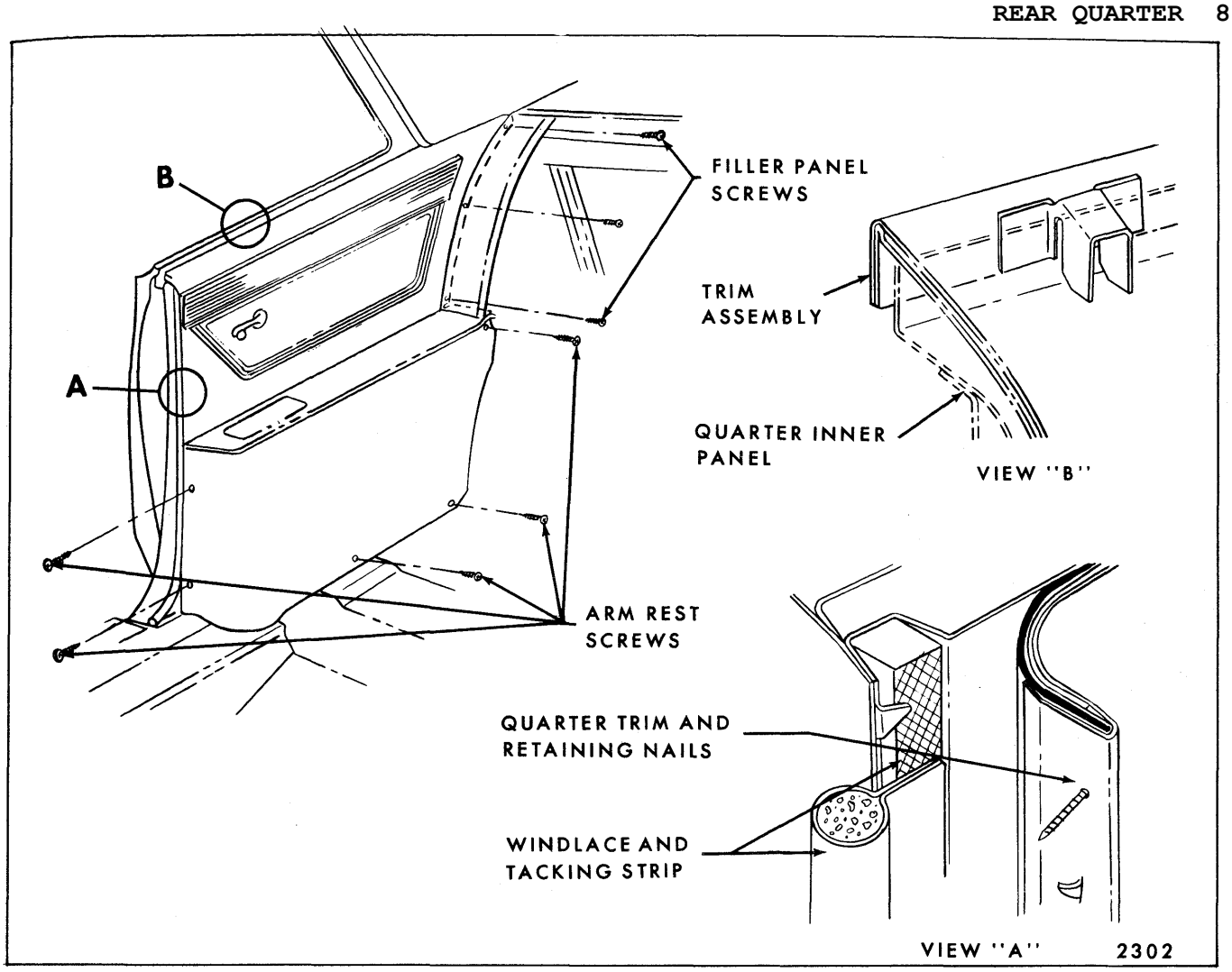

Fig. 8-2—Rear Quarter Trim Assembly (Hang-On Type)

REAR QUARTER TRIM (HANG-ON TYPE)—"A-B & C" TWO DOOR STYLES, EXCEPT CONVERTIBLES

Removal and Installation

1. Where present, remove applied type rear quarter arm rest and window regulator inside handle as described in the "Door Trim" section of the Body Service Manual.

2. Remove rear seat cushion and seat back assemblies as described in the "Seat" section of the Body Service Manual.

3. On styles with floor mounted arm rest, remove rear quarter arm rest assembly as previously described.

4. a. On "A" body styles with hang-on type trim assemblies proceed as follows:

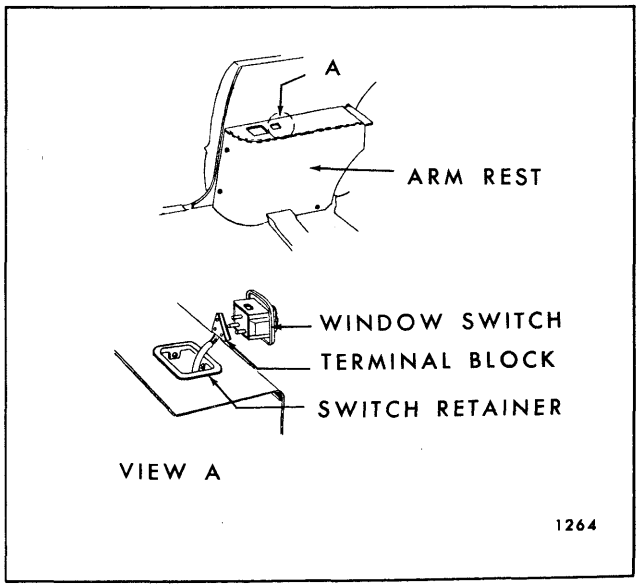

Fig. 8-3—Rear Quarter Arm Rest Window Switch

Remove front door sill plate and disengage rear body lock pillar finishing strip. With a screwdriver, or other suitable flat bladed tool, disengage trim assembly retaining clips from sealing plugs along leading edge of rear body lock pillar (Fig. 8-1).

Lift trim assembly upward to disengage top of trim from top of rear quarter inner panel.

NOTE: On styles equipped with electric window regulators, disconnect wire harness connector from switch on trim assembly.

b. On "B & C" body styles use trim panel removing tool (J-6335) or equivalent to carefully pry trim assembly retaining nails from tacking strip; then lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

5. To install rear quarter trim assembly, reverse removal procedure.

NOTE: Trim pad nailing strip replacement tabs, or trim pad retaining clips and corresponding sealing plugs are available as service parts.

REAR QUARTER TRIM (INSERT TYPE)—"A & X" BODY TWO-DOOR STYLES EXCEPT CONVERTIBLES

Removal and Installation

1. Where present, remove applied type rear quarter arm rest and window regulator inside handle as described in the "Door Trim" section of the Body Service Manual.

2. Remove rear seat cushion and seat back assemblies, as described in the "Seat" section of the Body Service Manual.

3. On styles with floor mounted arm rest, remove rear quarter arm rest assembly, as previously described.

4. Remove door sill plate and disengage pinchweld finishing strip along lower section of rear body lock pillar.

5. Carefully detach approximately three inches of the upper front cemented edge of trim material from body lock pillar pinchweld flange (Fig. 8-5 View "B"). Carefully bend or bow trim inboard sufficiently to disengage upper edge of trim from under finishing molding retainer (Fig. 8-5, View "C").

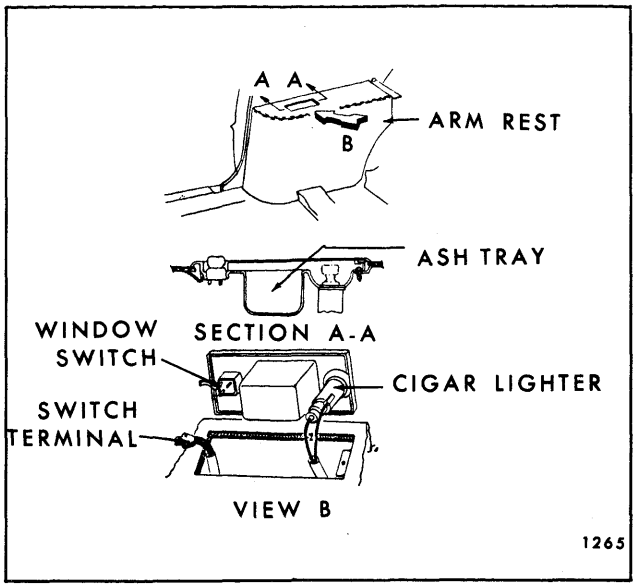

Fig. 8-4—Rear Quarter Arm Rest Ash Tray and Cigar Lighter

On "X" styles carefully bend or bow lower portion of trim sufficiently to disengage lower edge of trim from under lower finsihing molding retainer.

6. Carefully pivot trim assembly forward; then, break cement bond along pinchweld flange of rear body lock pillar and remove assembly from body.

NOTE: If trim assembly incorporates electric window switch, disconnect wire harness connector from window switch.

The finishing molding retainer (Fig. 8-5, View "C") is retained by screws and can be removed at this point, where required.

7. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, recement forward edge of trim to pinchweld flange (Fig. 8-5, View "B").

REAR QUARTER TRIM—CORVAIR TWO-DOOR STYLES EXCEPT CONVERTIBLES

Removal and Installation

1. Remove rear seat cushion and rear seat back, as described in the "Seat" section of the Body Service

2. Remove ash tray and two screws securing ash tray housing to rear quarter inner panel (Fig. 8-6, View in Circle "A").

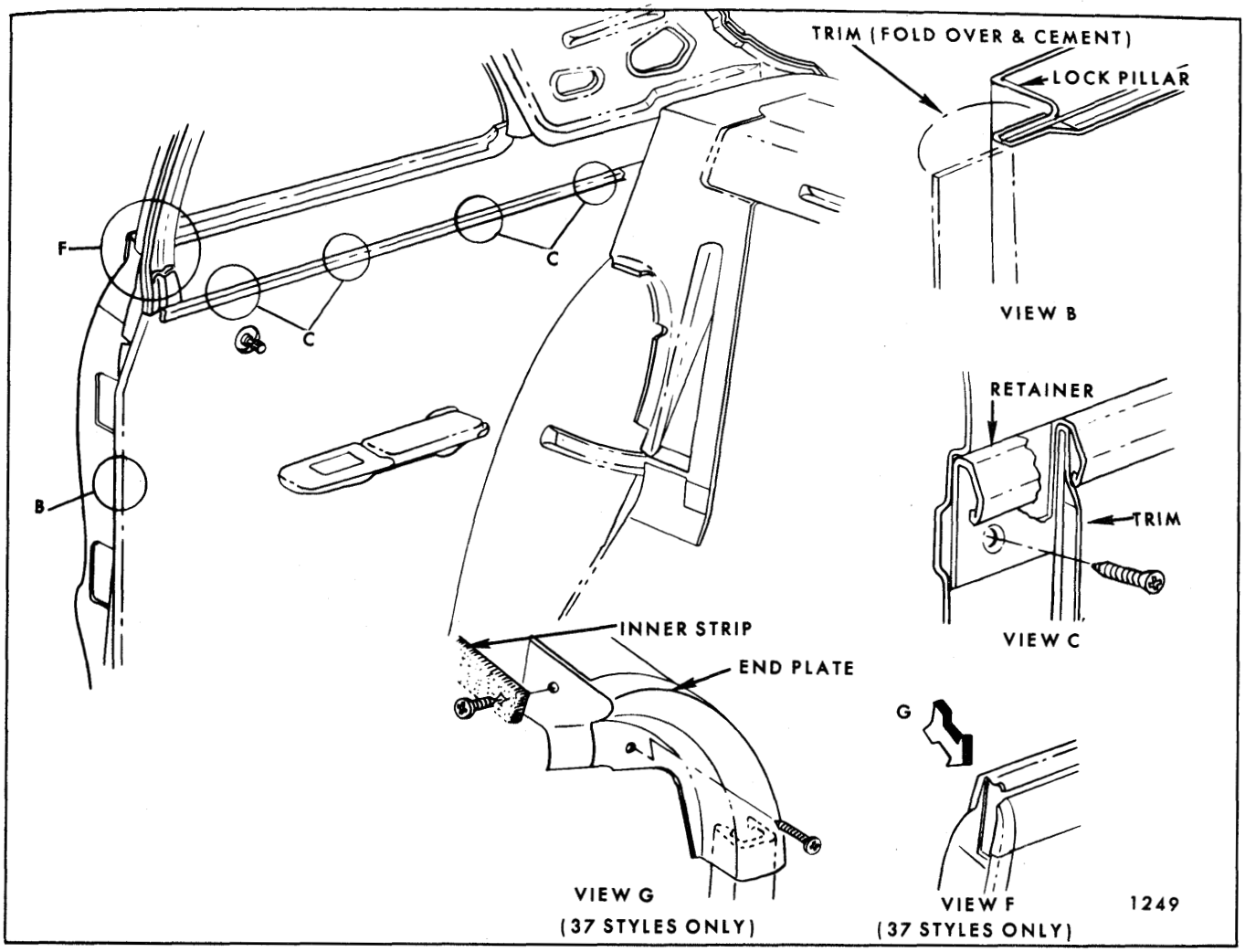

Fig. 8-5—Rear Quarter Trim Assembly—"A & X" Two Door Styles Except Convertibles

3. Remove front door sill plate and disengage pinchweld finishing strip along rear body lock pillar.

4. With a flat bladed tool, disengage trim pad retaining clips from plastic sealing plugs in rear quarter inner panel (Fig. 8-6, Section "A-A").

5. With a flat bladed tool, break cement bond at lower section of trim assembly to rear quarter inner panel (Fig. 8-6, Section "C-C").

6. Carefully pivot trim assembly forward to break cement bond at pinchweld flange of rear body lock pillar and remove assembly from body (Fig. 8-6, Section "B-B").

7. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward overlapping edge of trim assembly to pinchweld flange outboard surface. Also, re-cement bottom edge of trim assembly to rear quarter inner panel.

REAR QUARTER TRIM—CHEVELLE 13480 AND 13680 STYLES

Removal and Installation

1. Remove seat cushion and seat back assemblies.

2. Detach rear body lock pillar pinchweld finishing strip (see section "B-B" in Fig. 8-7) and remove front door sill plate.

3. Remove screws securing rear quarter trim to body panel and remove assembly from body (see Fig. 8-7).

4. To install, reverse removal procedure.

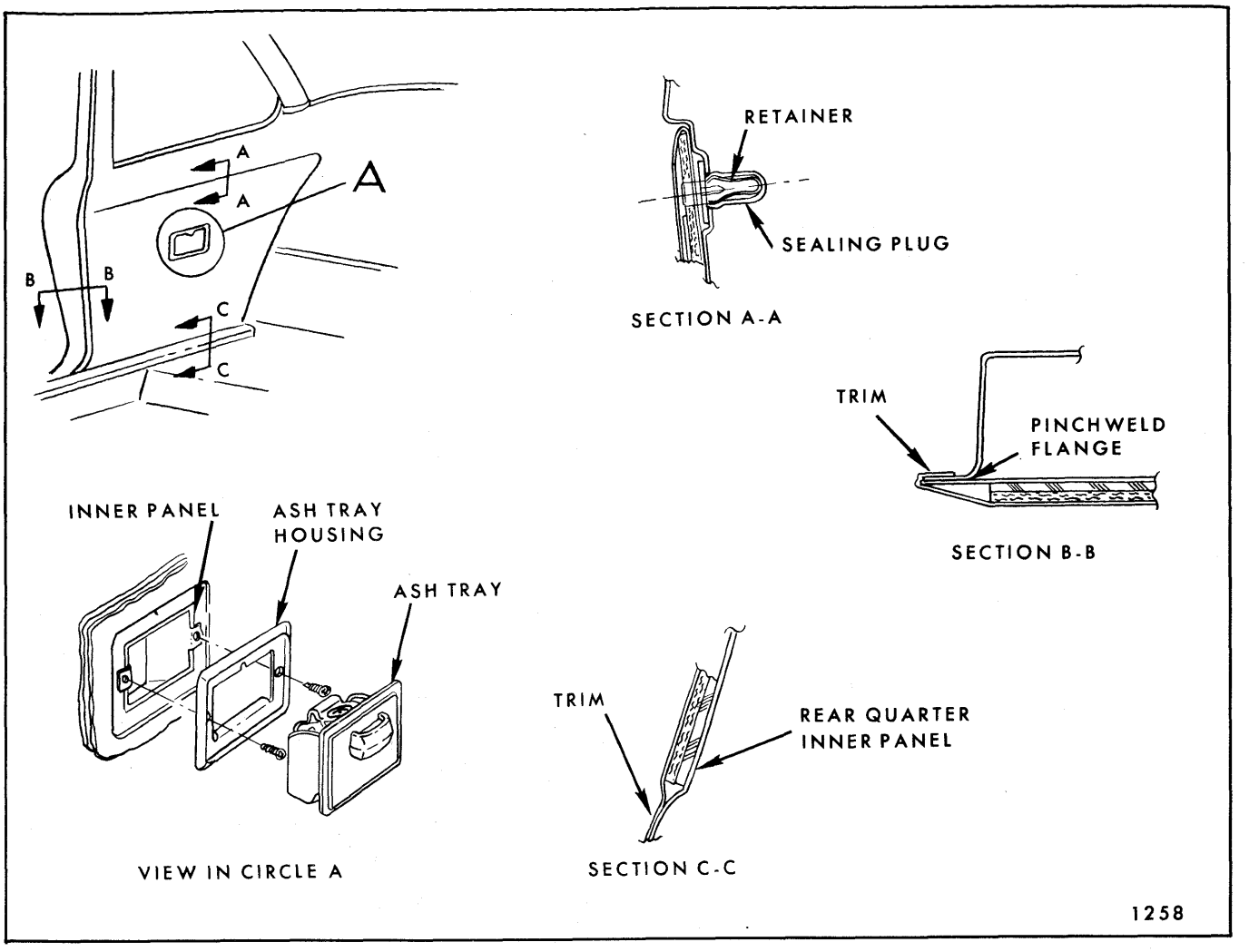

Fig. 8-6—Rear Quarter Trim Assembly - "Z" Body Styles

FOLDING TOP COMPARTMENT SIDE TRIM PANEL—CONVERTIBLE STYLES

Removal and Installation

1. Remove rear seat cushion and seat back assemblies.
2. Remove exposed attaching screws securing front and rear of side trim panel.
3. Raise trim panel and move it inboard.
4. Disconnect electrical leads, where present, and remove side trim panel.

   NOTE: On styles equipped with rear quarter lamp assemblies, disconnect lamp as shown in Figure 8-8.
5. To install, reverse removal procedure.

NOTE: As a bench operation, the arm rest assembly can be removed from the folding top compartment side trim assembly by removing screws installed on the reverse side.

REAR QUARTER TRIM (HANG-ON TYPE)— "A-B & C" CONVERTIBLE STYLES

Removal and Installation

1. Remove folding top compartment side trim panel assembly, as previously described.
2. On styles with manually operated windows, remove window regulator handle and anti-friction washer.
3. a. On "A" body styles with hang-on type trim assembly remove door sill plate and disengage lock pillar pinchweld finishing strip.

Also remove lock pillar finishing cap. With a screwdriver or other suitable flat bladed tool, disengage trim assembly retaining clips from sealing plugs along leading edge of rear body lock pillar (Fig. 8-1, View "C"). Lift trim assembly upward to disengage top of trim from top of rear quarter inner panel.

b. On "B & C" body styles use trim panel removing tool (J-6335) or equivalent to carefully pry trim assembly retaining nails from tacking strip; then, lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

4. To install rear quarter trim assembly, reverse removal procedure.

NOTE: Trim pad nailing strip replacement tabs, or trim pad retaining clips and corresponding sealing plugs are available as service parts.

REAR QUARTER TRIM (INSERT TYPE)— "A & Z" BODY CONVERTIBLES

Removal and Installation

1. Remove folding top compartment side trim panel assembly, as previously described.

2. On styles with manually operated windows, remove window regulator handle and anti-friction washer.

3. Remove door sill plate and disengage lock pillar pinchweld finishing strip.

4. Carefully detach approximately three inches of the upper front cemented edge of trim material from body lock pillar pinchweld flange (Fig. 8-9, View "B"). Carefully bend or bow trim inboard sufficiently to disengage upper edge of trim from under finishing molding retainer (Fig. 8-9, View "C").

5. Carefully pivot trim assembly forward; then, break cement bond along pinchweld flange of rear body lock pillar and remove assembly from the body.

NOTE: If trim assembly incorporates electric window switch, disconnect wire harness connector from window switch.

The finishing molding retainer (Fig. 8-9, View "C") is retained by screws and can be removed at this point, where required.

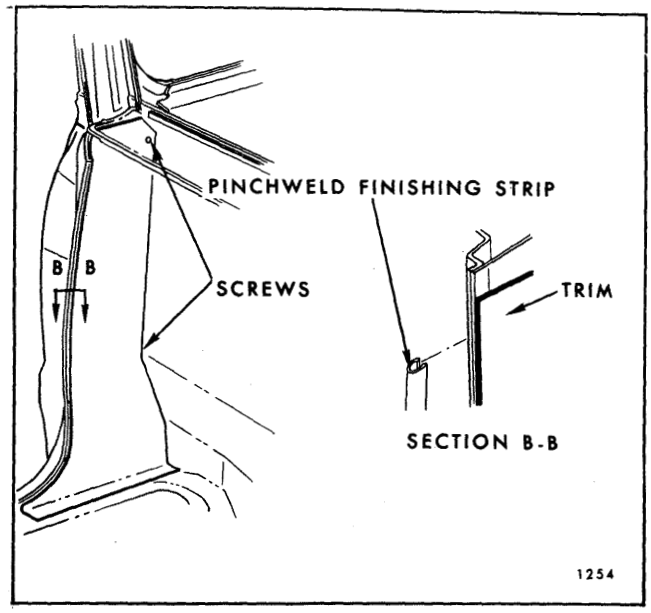

Fig. 8-7—Rear Quarter Trim Assembly - "A-80" Styles

6. To install rear quarter trim assembly, reverse removal procedure. Prior to installation of pinchweld finishing strip, recement forward edge of trim to pinchweld flange (see Fig. 8-9, View "B").

REAR QUARTER ARM REST AND TRIM— "E" BODY STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies, as described under "Rear Seats".

2. On Oldsmobile 39487 remove seat back filler panel attaching screws (Fig. 8-10) and remove filler panel.

3. Remove arm rest attaching screws (Figs. 8-10 and 8-11). On styles with electrical equipment in arm rest, carefully detach arm rest from quarter panel sufficiently to disconnect wire harness connectors; then, remove arm rest from rear quarter panel.

4. Remove rear quarter trim assembly attaching screws (Fig. 8-11 and 8-10). Use trim panel removing tool (J-6335) or equivalent to carefully pry trim assembly retaining nails (Fig. 8-11) from tacking strip along body lock pillar; then lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

NOTE: If trim assembly incorporates an electric window switch, disconnect wire harness connector from switch on trim assembly.

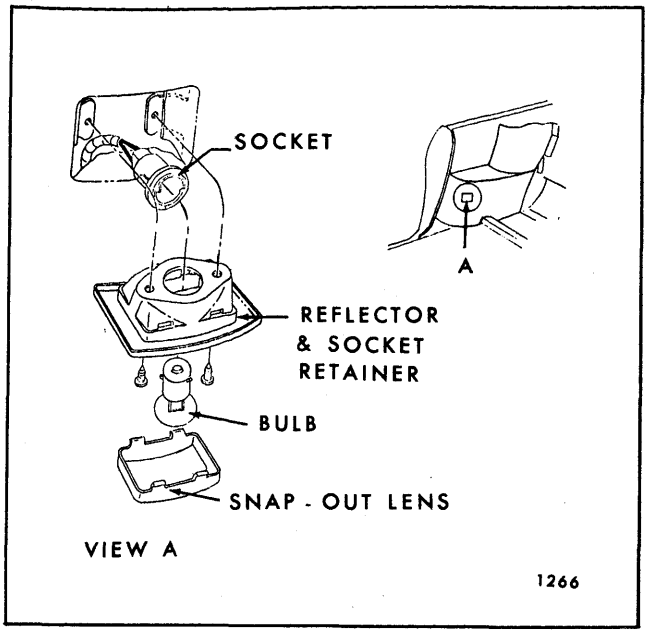

Fig. 8-8—Rear Quarter Arm Rest Courtesy Lamp

5. To install rear quarter trim assembly or rear quarter arm rest, reverse removal procedure.

NOTE: Trim assembly nailing strip replacement tabs are available as a service part.

COMPARTMENT SHELF CENTER FINISHING PANEL—"E" BODY STYLES

Removal and Installation

1. Remove rear seat cushion and seat back assemblies as described under "Rear Seats".

2. From inside rear compartment remove compartment shelf center finishing panel attaching screws or nuts at locations shown in Fig. 8-12 for Buick or Fig. 8-13 for Oldsmobile.

3. From inside body pull center finishing panel forward sufficiently to disengage both front and rear edge of center finishing panel from retainers (see Figs. 8-12 and 8-13, Views "B & F"); then, lift panel upward and remove from shelf panel.

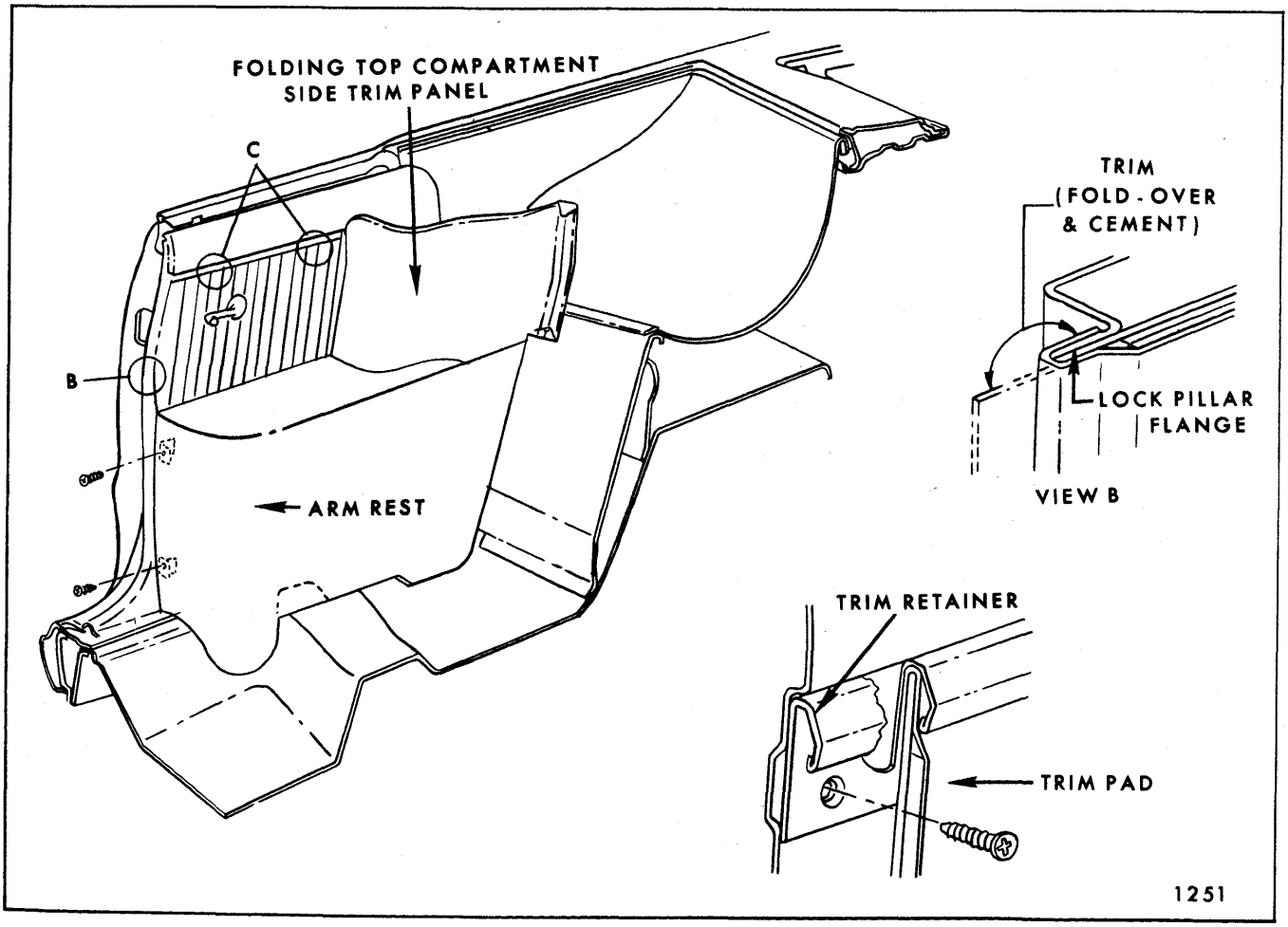

Fig. 8-9—Rear Quarter Trim Assembly - Convertible Styles

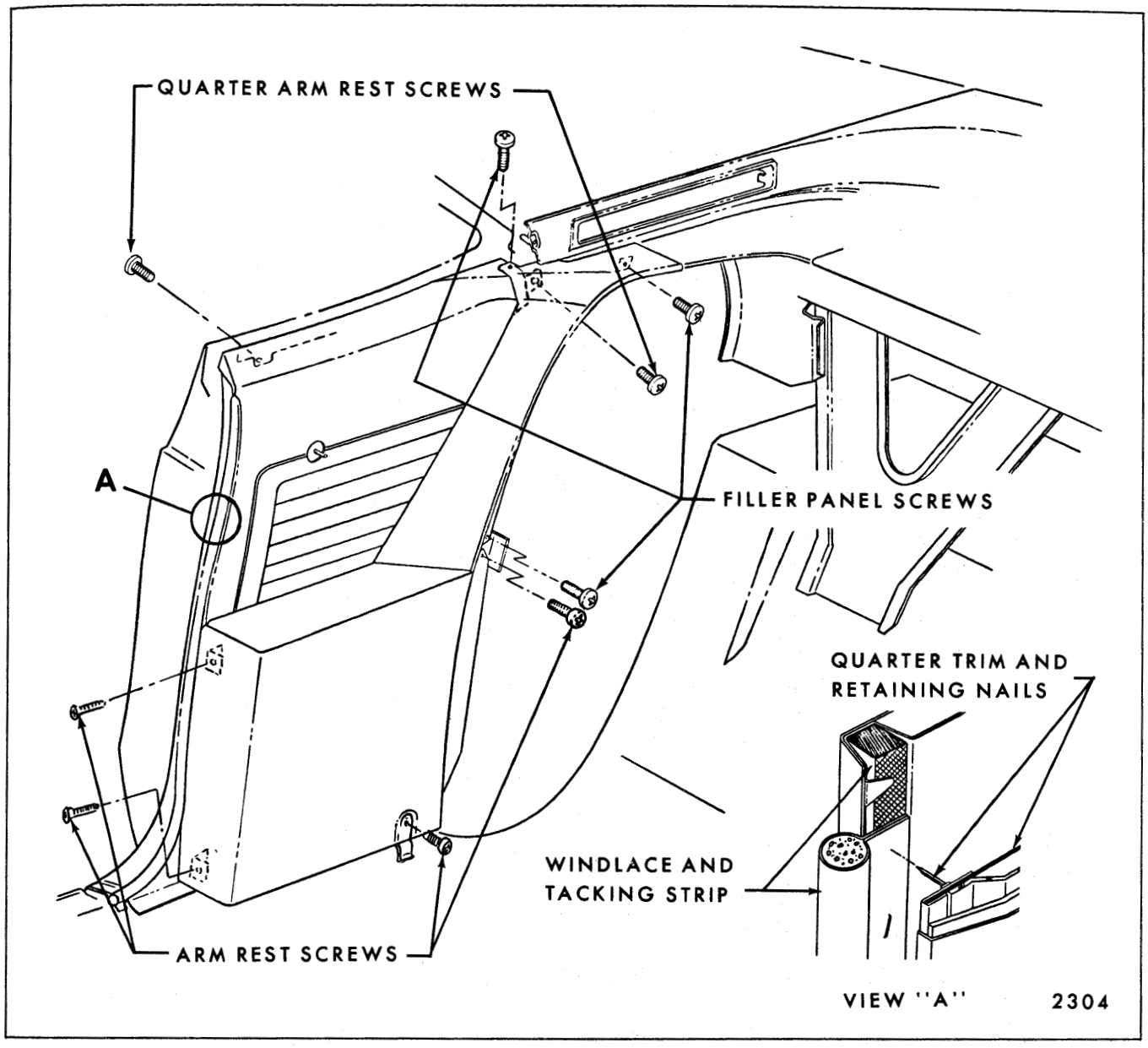

Fig. 8-10—Rear Quarter Trim Assembly - "E" Body 39487 Style

4. To install compartment shelf center finishing panel, reverse removal procedure.

COMPARTMENT SHELF SIDE FINISHING PANELS—"E" BODY STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies, as described under "Rear Seats".

2. Remove compartment shelf center finishing panel, as previously described.

3. a. On Oldsmobile 39487 Style remove seat back filler panel attaching screws (Fig. 8-11) and remove filler panel.

   b. On Oldsmobile 39687 and Buick 49487 Styles remove rear quarter trim assembly, as previously described.

4. Remove compartment shelf side finishing panel attaching screws (Figs. 8-12 and 8-13) and remove side finishing panel. On Oldsmobile styles disconnect courtesy lamp feed wires.

5. To install compartment shelf side finishing panel, reverse removal procedure.

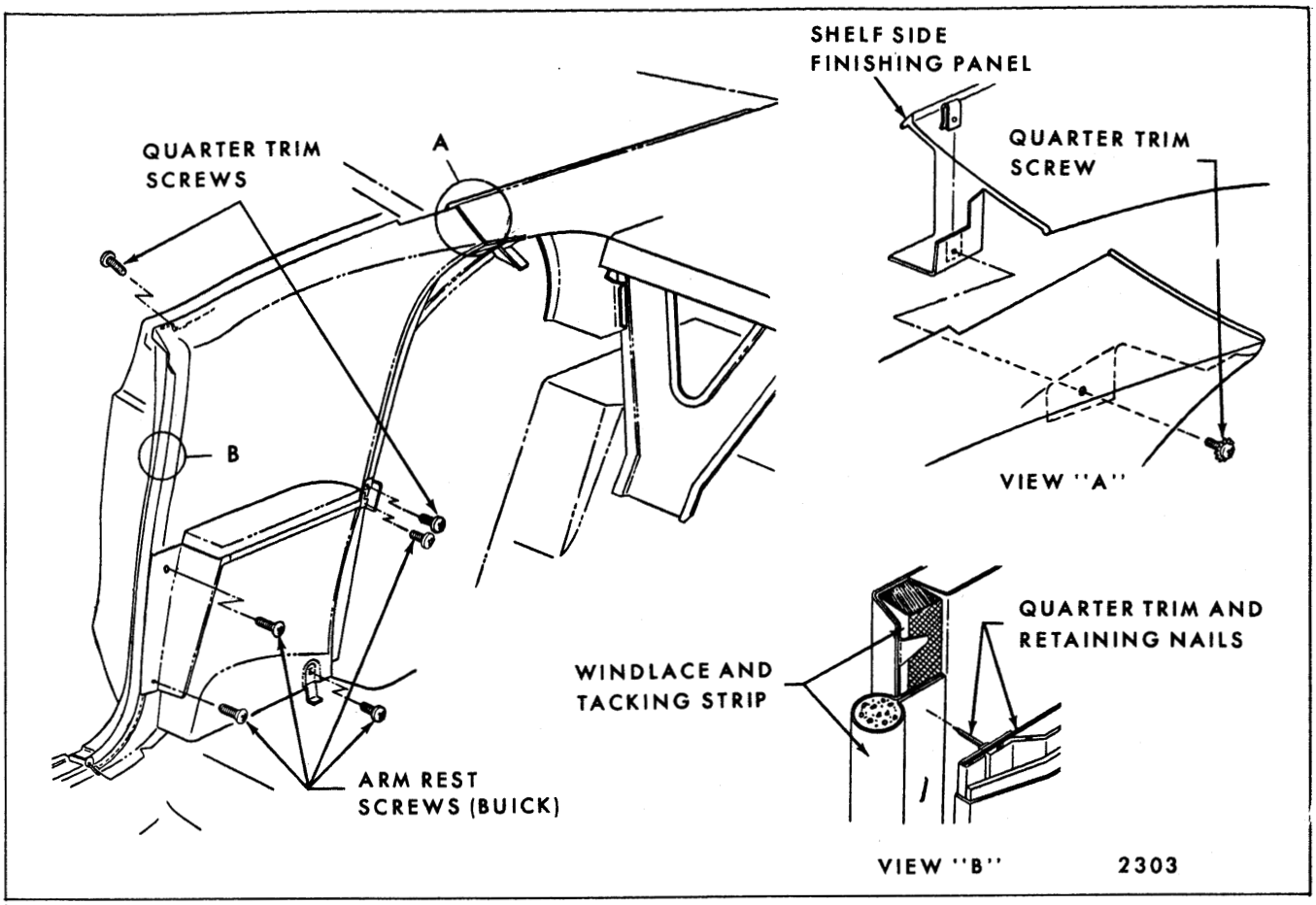

Fig. 8-11—Rear Quarter Arm Rest and Trim Assembly - "E" Body

REAR QUARTER LOWER TRIM— "B & C" BODY "39 AND 69" STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies.
2. Remove back window and rear quarter or roof rail garnish moldings as required.
3. With tool J-6335, or any other suitable flat bladed tool, pry trim assembly retaining nails from tacking strip (see Fig. 8-14).
4. Lift trim assembly upward to disengage from retainer at top of rear quarter inner panel and remove trim assembly.
5. To install, reverse removal procedure.

REAR QUARTER LOWER TRIM— OLDSMOBILE 33839, 33869, AND BUICK 44439 STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies.
2. Detach rear body lock pillar finishing strip and remove rear door sill plate (see section "B-B" in Fig. 8-15).
3. With a putty knife, or other suitable flat bladed tool, detach trim assembly at cemented areas indicated in Fig. 8-15.
4. To install, reverse removal procedure.

REAR QUARTER INNER TRIM PANEL (LEFT SIDE)—"B" BODY STATION WAGON STYLES

Removal and Installation

1. Remove rear quarter stationary window front and lower garnish moldings.
2. Remove all screws securing trim panel to rear quarter inner panel (Fig. 8-16).
3. With a suitable flat-bladed tool, carefully disengage trim retainers from rear quarter inner panel along leading edge of rear body lock

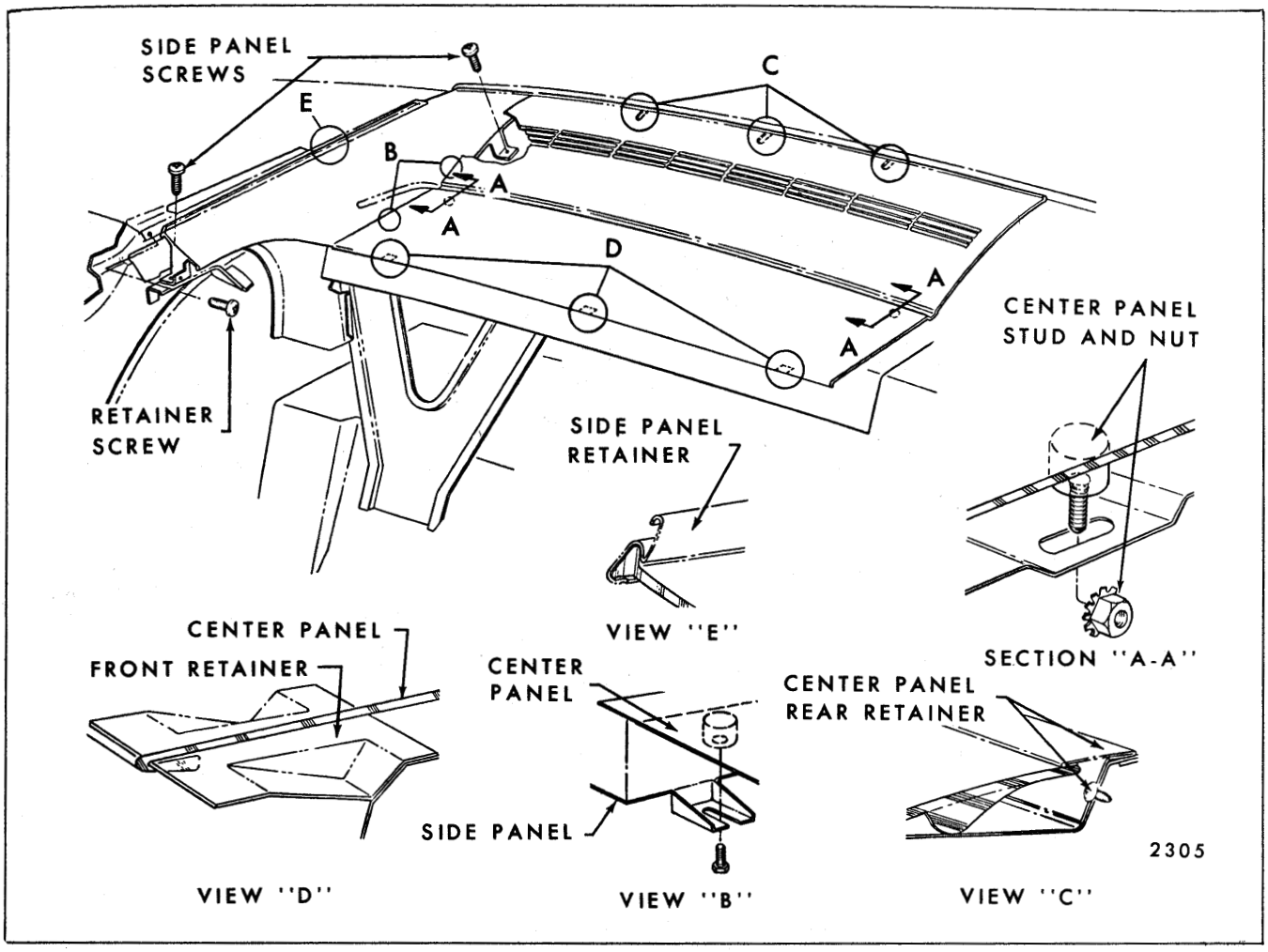

Fig. 8-12—Compartment Shelf Trim - Buick "E" Body

pillar (on front edge of rear quarter front trim assembly) (Fig. 8-16).

4. Lift assembly upward slightly to disengage from rear quarter inner panel and remove assembly from body. On styles equipped with courtesy lamp disconnect feed wire from switch and lamp (Fig. 8-16, View "A").

   NOTE: The rear quarter front trim assembly can be removed at this point, as a bench operation, by breaking cement bond between trim and metal panel of rear quarter inner trim panel assembly. The rear quarter front trim is a sub-assembly of the rear quarter inner trim panel; left and right sides.

6. To install, reverse removal procedure.

SPARE TIRE COVER PANEL— "B" BODY STATION WAGON STYLES

The spare tire cover panel is secured to a retainer at the belt line by a folding catch type handle. To remove the panel, disengage the catch and lift the panel upward. To install, reverse removal procedure.

The handle can be adjusted "in" or "out" to increase or decrease closing effort. To adjust, loosen the handle attaching screws; position the handle as desired and tighten the screws.

REAR QUARTER WHEELHOUSE COVER PANEL (RIGHT SIDE)— "B" BODY STATION WAGON STYLES

Removal and Installation

1. Remove spare tire cover.

2. Remove rear quarter stationary window front and lower garnish moldings.

3. Remove all screws securing trim panel to rear quarter inner panel (Fig. 8-17).

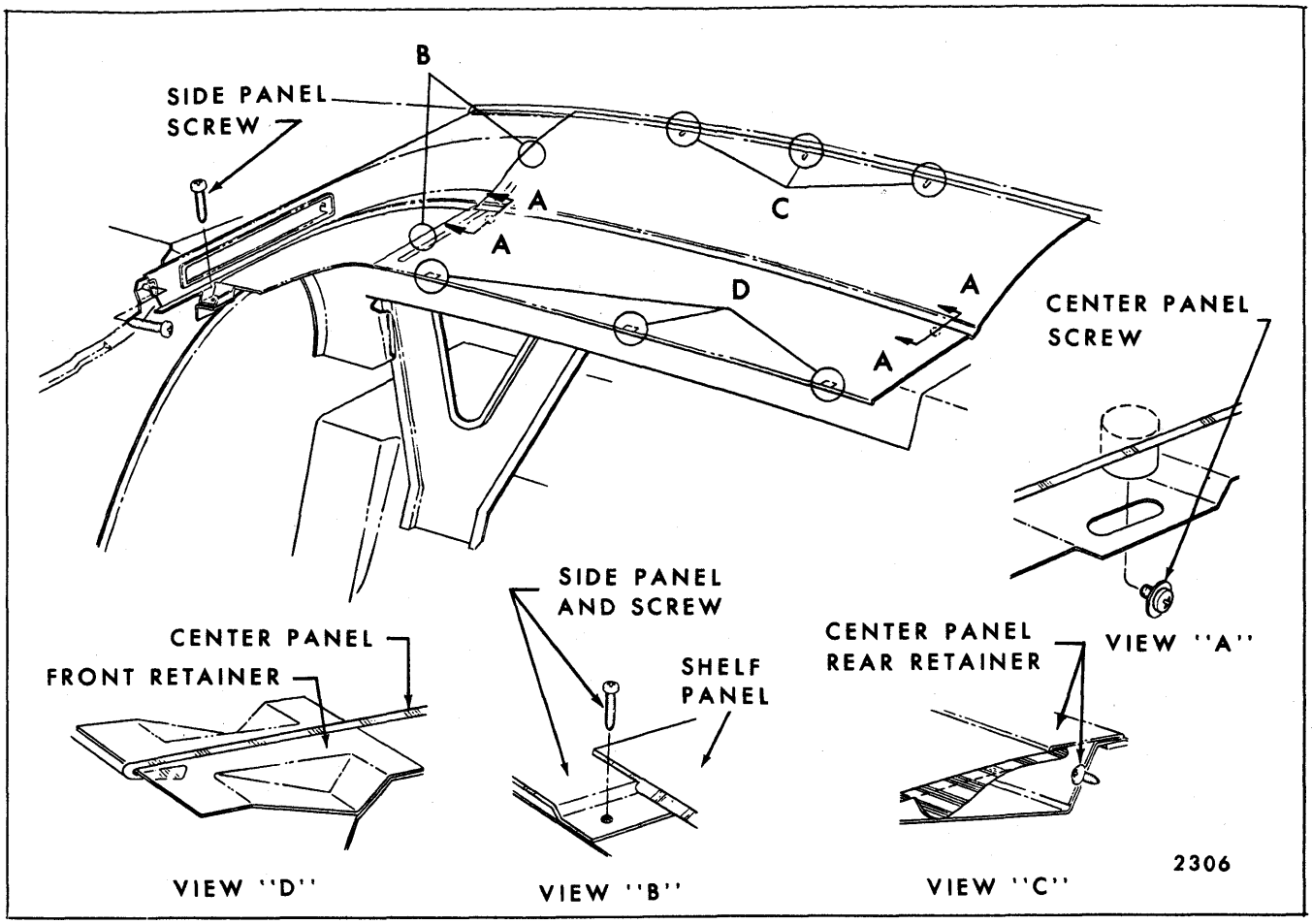

Fig. 8-13—Compartment Shelf Trim - Oldsmobile "E" Body

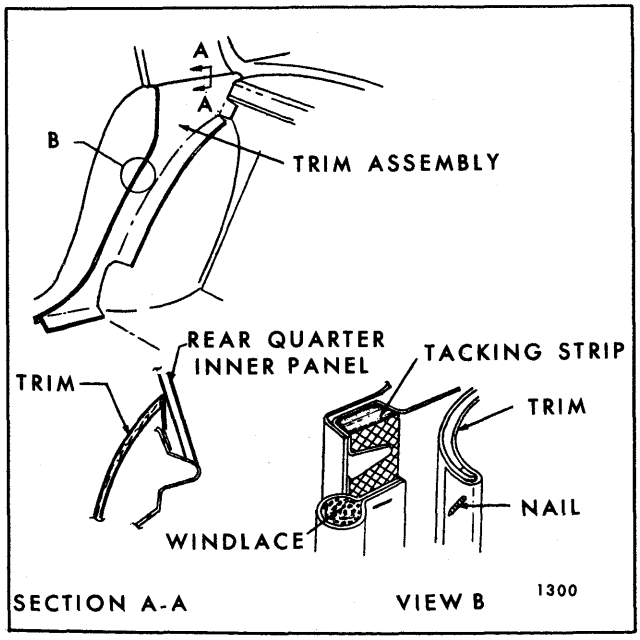

Fig. 8-14—Rear Quarter Lower Trim Assembly - "B&C" Body "39 and 69" Styles

4. With a suitable flat-bladed tool, carefully disengage trim retainers from rear quarter inner panel along leading edge of rear body lock pillar (on front edge of rear quarter front trim assembly). (Fig. 8-17).

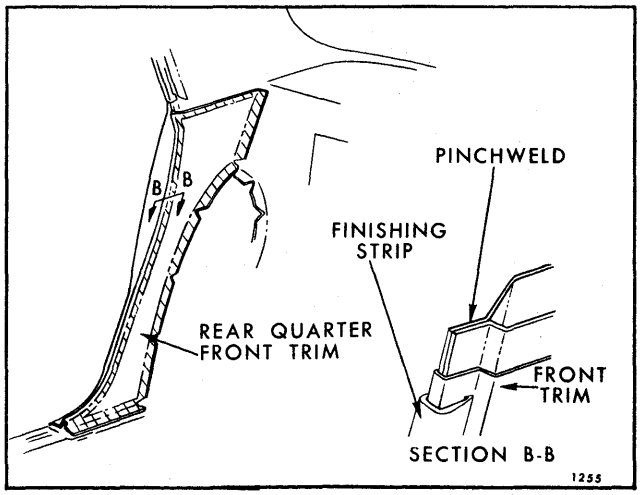

Fig. 8-15—Rear Quarter Trim Assembly - Oldsmobile 33839, 69 and Buick 44439 Styles

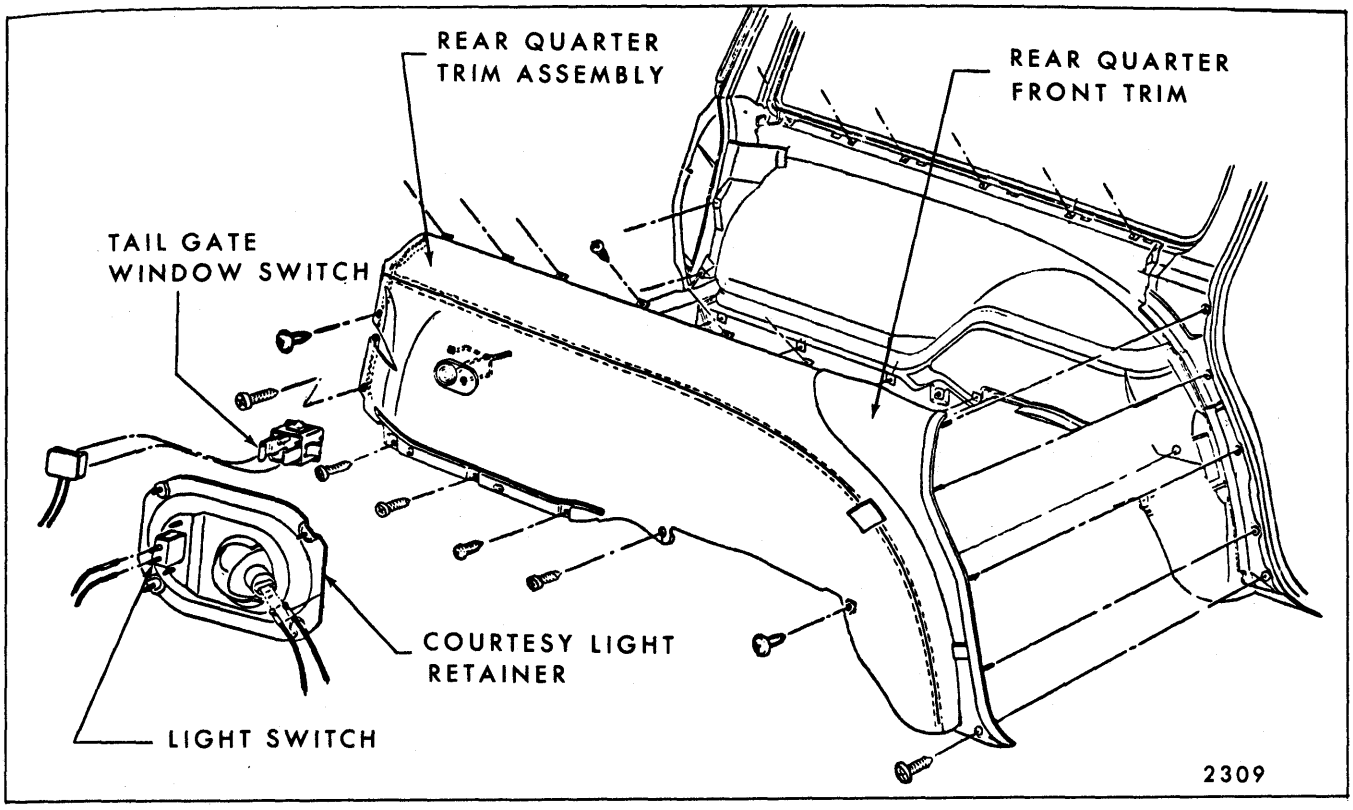

Fig. 8-16—Rear Quarter Trim Panel Left Side - "B" Station Wagons

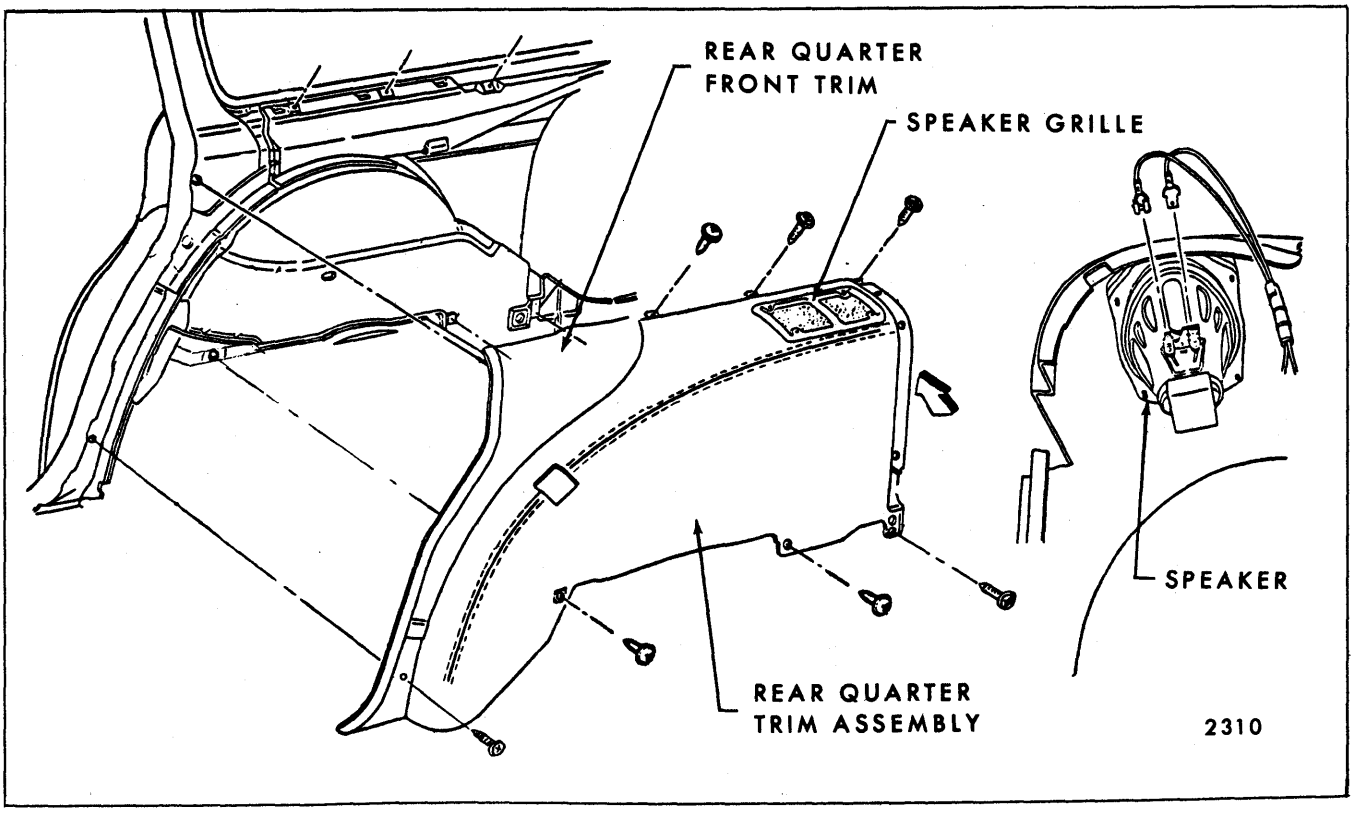

Fig. 8-17—Rear Quarter Trim Panel Right Side - "B" Station Wagons

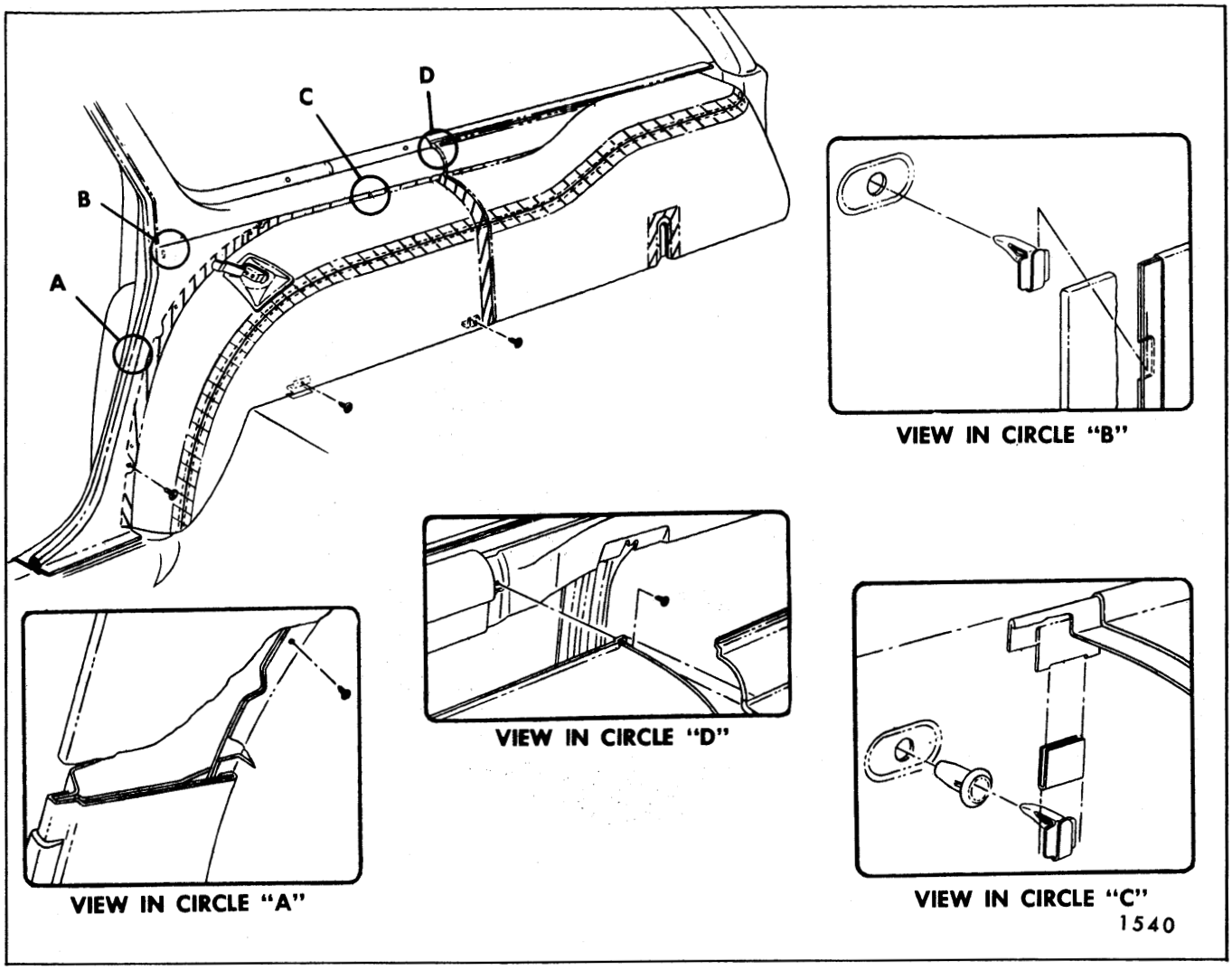

Fig. 8-18—Rear Quarter Trim Panel, Right Side - "A" Station Wagons

5. Remove spare tire cover support.

6. Lift assembly upward slightly to disengage from rear quarter inner panel and remove assembly from body.

7. To install, reverse removal procedure.

REAR QUARTER FRONT TRIM PANEL (RIGHT OR LEFT SIDE)— "A" BODY STATION WAGONS

Removal and Installation

1. Disengage pinchweld finishing strip along rear body lock pillar and remove rear door sill plate.

2. Remove exposed screw at lower end of trim panel (see Fig. 8-18 and 8-19).

3. With a flat bladed tool, disengage trim retaining clips from quarter inner panel (see View "B" in Fig. 8-18).

4. Carefully swing rear edge of trim assembly forward to break cement bond at body lock pillar and remove rear quarter front trim panel from body.

5. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward edge of trim assembly to outboard surface of body lock pillar pinchweld flange (see View "C" in Fig. 8-19).

SPARE TIRE COVER PANEL— "A" BODY STATION WAGON STYLES

Removal and Installation

The spare tire cover panel is retained at belt line

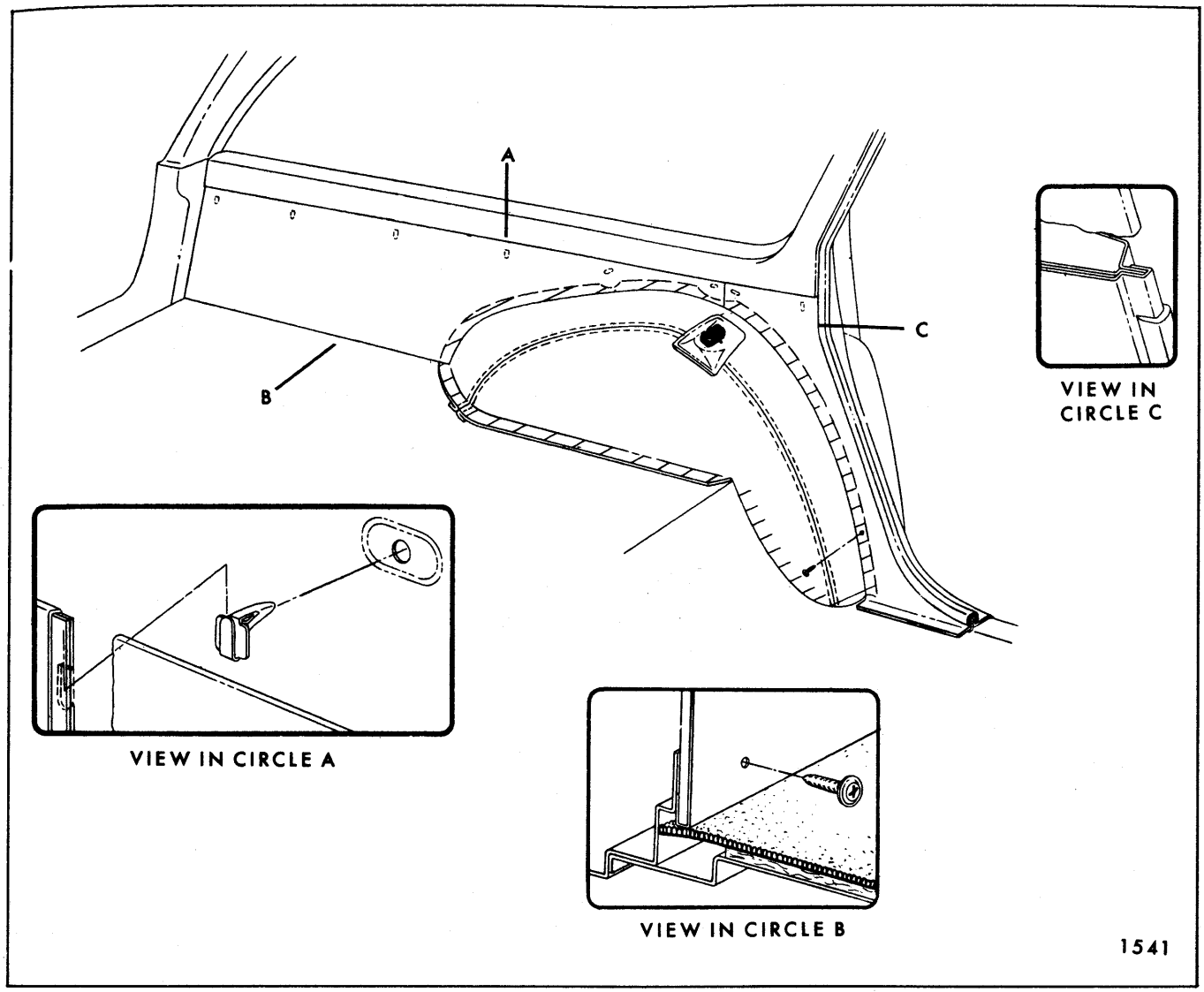

Fig. 8-19—Rear Quarter Trim Panel, Left Side - "A" Station Wagons

by a screwed-on garnish molding and at the load floor level by a folding (catch-type) handle. To remove cover, open catch handle and swing bottom edge of assembly upward to disengage upper edge from beneath garnish molding (see Fig. 8-18). To install, reverse removal procedure.

WHEELHOUSE TRIM COVER PANEL (RIGHT SIDE)—ALL "A" BODY STATION WAGON STYLES

Removal and Installation

1. Remove rear quarter front trim panel and spare tire cover panel.
2. Remove second folding seat back catch and bumper assembly from wheelhouse.
3. Remove all trim attaching screws at front, rear and bottom of wheelhouse trim cover (See Fig. 8-18).
4. With a putty knife, or other suitable flat bladed tool, disengage trim retaining clips from sealing plugs along top of wheelhouse cover panel and remove panel from body (see View "C", in Fig. 8-18).

   NOTE: The trim retaining clips and corresponding plastic sealing plugs are available as service parts.

5. To install, reverse removal procedure.

REAR QUARTER REAR TRIM PANEL—ALL STATION WAGON STYLES EXCEPT 13435 AND 23335 STYLES (LEFT SIDE)

Removal and Installation

1. On "35" styles, remove exposed screw at

bottom center of panel (see View "B" in Fig. 8-19).

2. Working from front to rear (with a flat bladed tool) disengage trim retaining clips from plastic sealing plugs along upper edge of rear quarter rear trim panel (see View "A" in Fig. 8-19).

3. With an upward movement, remove panel from body.

4. To install, reverse removal procedure.

WHEELHOUSE TRIM COVER ASSEMBLY (LEFT SIDE)—ALL "A" STATION WAGON STYLES EXCEPT 23335 STYLES

Removal and Installation

1. Remove rear quarter front and rear trim panel assemblies and second folding seat back bumper assembly.

2. On "35" styles, fold back rubber mat from wheelhouse. On "55 and 65" styles, remove compartment side filler panel as described in the "Seat" section of the body service manual.

3. Beginning at outer edges and working toward center, carefully break cement bond between wheelhouse and trim cover and remove cover.

4. To install, reverse removal procedure. Prior to installation, clean off old cement from wheelhouse to assure a smooth cementing surface. Install cover in position and scribe line inside of folding seat back bumper cut-out to guide installation when adhesive is applied. Remove cover and apply trim adhesive over wheelhouse surfaces contacted by trim cover (Do not cover scribe lines). With trim cover "inside-out", align bumper cut-out with scribe lines on wheelhouse. Apply cover to wheelhouse working from center of cover towards outer edges.

REAR QUARTER REAR TRIM PANEL (LEFT SIDE)—CHEVROLET 13435 AND PONTIAC 23335 STYLES

The rear quarter rear trim panel on these styles (left side) is constructed of a textured metal finish and extends to include the wheelhouse; all in a single panel.

Removal and Installation

1. Remove rear quarter front trim panel and second folding seat back bumper assembly from wheelhouse.

2. Remove all screws at front, rear and bottom of rear trim panel (see Fig. 8-20).

3. Working from front to rear (with a flat bladed tool), disengage trim retaining clips from plastic sealing plugs and remove trim assembly from body (see View "D" in Fig. 8-20).

   NOTE: The trim retaining clips and corresponding plastic sealing plugs are available as service parts.

4. To install, reverse removal procedure.

REAR QUARTER REAR TRIM PANEL—CHEVY II STATION WAGONS

Removal and Installation

1. Remove rear quarter belt finishing moldings (front molding only right side). Disengage pinchweld finishing strip from rear body lower lock pillar pinchweld flange. Carefully break cement bond between overlapping edge of trim assembly and pinchweld flange.

2. Remove screws at front and rear of rear trim panel and remove trim panel from body.

   NOTE: On styles with electric tail gate dropping window, remove screws securing window switch in left rear trim panel and disconnect switch from feed wire connector before removing trim panel from body.

3. To install, reverse removal procedure. Prior to installation, apply trim cement to pinchweld flange surface contacted by overlapping forward edge of trim assembly to assure good retention.

REAR QUARTER FRONT TRIM PANEL—CHEVY II STATION WAGONS

Removal and Installation

1. Remove front screw on rear quarter rear trim panel. Disengage pinchweld finishing strip from rear body lower lock pillar pinchweld flange. Remove rear door sill plate extension.

2. Carefully break cement bond between overlapping edge of front trim panel and pinchweld flange. Remove front trim panel attaching screws and remove trim panel from body.

3. To install, reverse removal procedure. Prior to installation, apply trim cement to pinchweld flange surface contacted by overlapping edge of trim assembly to assure good retention.

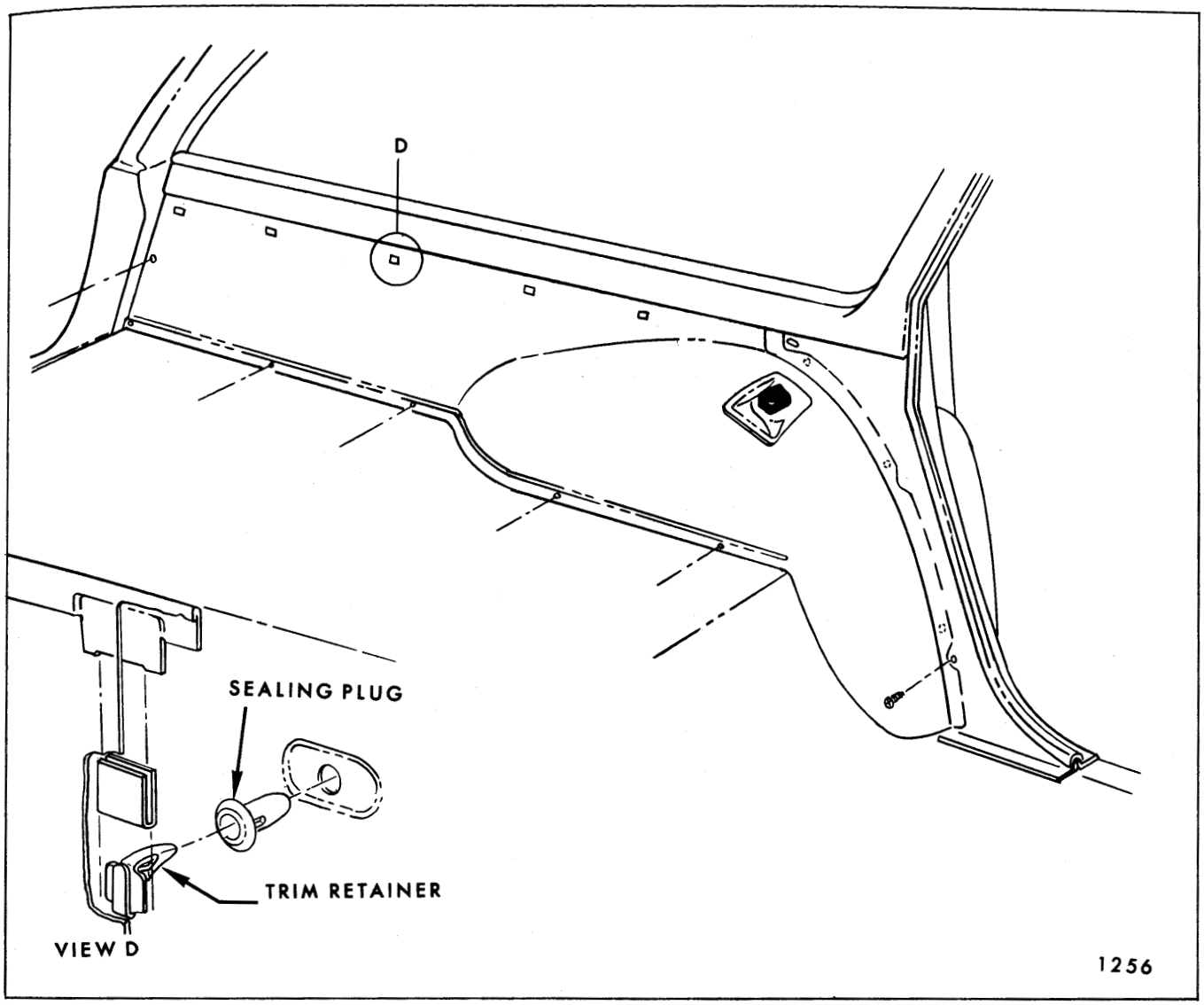

Fig. 8-20—Rear Quarter Trim Panel, Left Side - Pontiac 23335 Style

REAR QUARTER WHEELHOUSE TRIM COVER— CHEVY II STATION WAGONS

Removal and Installation

1. Remove second folding seat back filler panel. Remove the rear quarter front and rear trim panels.
2. Remove screws securing second folding seat back retainer and support and remove retainer and support from wheelhouse.
3. Carefully break cement bond between wheelhouse trim cover and wheelhouse panel and remove trim cover from body.
4. To install, reverse removal procedure. Prior to installing wheelhouse trim cover, apply neoprene type weatherstrip adhesive, 2" wide, completely around inside perimeter of wheelhouse trim cover. Also, apply weatherstrip adhesive to area around cut-out for second seat back support on wheelhouse. Position trim assembly to wheelhouse and apply, working material down and outwards to remove wrinkles. Install previously removed parts.

REAR QUARTER STATIONARY WINDOW GLASS "A & B" STATION WAGONS

DESCRIPTION

The rear quarter window glass is retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a rear quarter window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to rear quarter window glass removal and installation will be covered in this section.

REMOVAL

1. Remove glass as outlined in General Information Section. If the original glass is to be re-used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

   NOTE: Do not use an oil base solvent. Any trace of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around rear quarter window opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, replace or reform clip to insure adequate molding retention.

   NOTE: Check all clip attaching screws and tighten as required.

2. With black weatherstrip adhesive cement four flat spacers (.20 x .63 x 1.0 - Part No. 4459429 or equivalent) to pinchweld flange; two at top and two at bottom (see Fig. 8-21).

3. With black weatherstrip adhesive cement four rectangular spacers (.34 x .44 x 1.0 - Part No. 4871330 or equivalent) to rear quarter window opening rabbet; two at sides and two at bottom (see Fig. 8-21). Both side spacers should be cemented in the approximate position indicated in Figure 8-21.

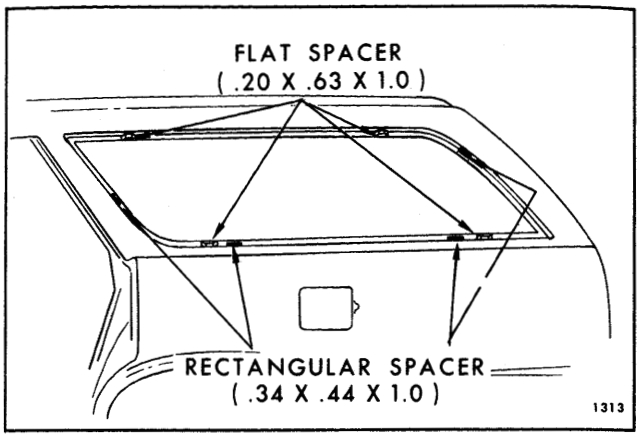

Fig. 8-21—Rear Quarter Window Spacer Installation

4. Position glass in opening by making contact along upper edge first and then swing in lower edge (see Fig. 8-22 and 8-23).

5. Check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers.

6. Check relationship of glass contour to body opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, correction can be made by any one of the following methods:

   a. Position another glass in opening to determine if a better fit can be obtained.

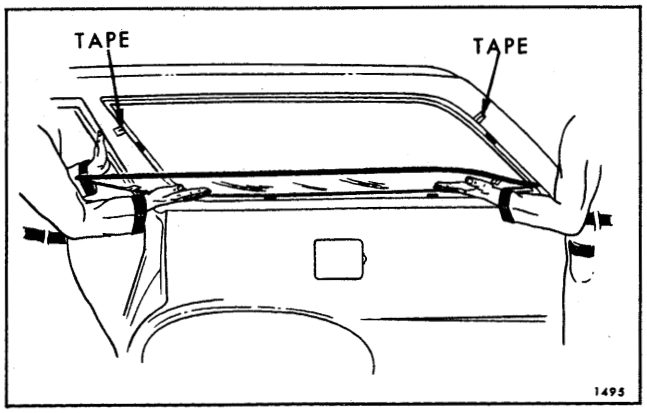

Fig. 8-22—Stationary Quarter Window Installation

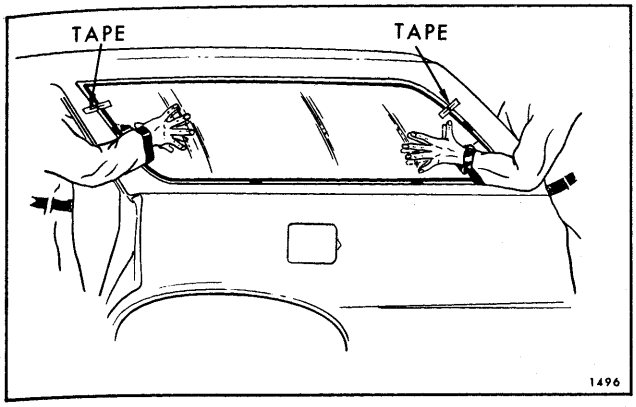

Fig. 8-23—Stationary Quarter Window Installation

b. Rework pinchweld flange.

c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange or by allowing bead on glass to exceed specified 3/8" height at gap areas.

7. After final adjustments have been made and glass is in proper position, apply a piece of masking tape horizontally over front and rear edges of glass and body pillars (Fig. 8-23), so that tape on glass can be aligned with tape on body and act as a guide when glass is installed.

8. Apply one inch masking tape completely around edge of glass inner surface 1/4" inboard from outer edge (see Fig. 8-24).

9. From inside of body, apply masking tape around window opening to protect painted and trimmed surfaces.

10. Using a clean, lint free cloth, liberally dampened with Adhesive Caulking Primer, briskly rub primer over and into original adhesive caulking material that remains on pinchweld flange. If the pinchweld flange has been repainted, prime flange with Paint Primer, or equivalent.

11. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean water-dampened rag. Dry glass thoroughly with a clean dry rag.

12. With caulking gun and nozzle positioned as illustrated in Figure 8-24, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass.

NOTE: When material in first tube is dispensed, quickly insert second tube and continue application of bead. This material begins to cure after fifteen (15) minutes exposure to air; therefore, perform the following steps immediately and install glass in the opening as quickly as possible.

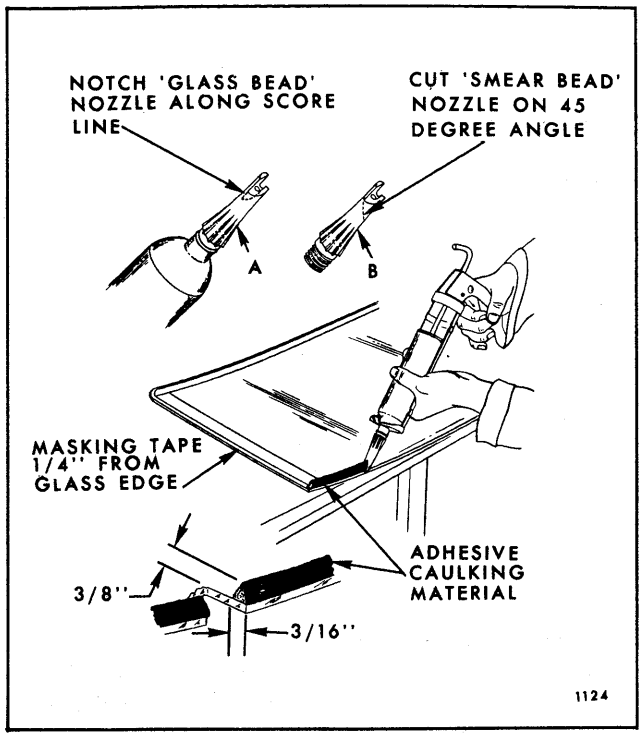

Fig. 8-24—Adhesive Caulking Material Application - Extended Method

13. Remove "glass bead" nozzle and insert "smear bead" nozzle. Holding caulking gun at an angle so that opening of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

14. Install glass (see Fig. 8-22 and Fig. 8-23). Make certain that glass sets properly on spacers and does not have to be shifted after material contacts pinchweld flange. Align tape on glass with tape on body to guide window into opening.

NOTE: When setting glass in opening, make contact with upper edge of glass first and then swing in lower edge.

15. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the rear quarter glass.

16. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.
17. Watertest installation immediately using cold water spray.
18. Remove masking tape from inside of glass.
19. Install reveal moldings, inside garnish moldings and previously removed parts.

REAR QUARTER STATIONARY WINDOW "X" STATION WAGON

REMOVAL

1. Remove rear quarter garnish moldings and rear quarter reveal moldings (see Molding section of Body Service Manual).
2. Remove quarter window upper and lower retainer and belt finishing molding supports.
3. Using a suitable tool, carefully break seal between window rubber channel and body opening. With the aid of a helper, carefully push glass and rubber channel assembly inboard and remove assembly from opening.

   CAUTION: Use care so that glass does not strike body metal. Edge chips can cause solid tempered safety plate glass to shatter: Do not attempt to grind glass.

INSTALLATION

1. Clean off old sealer from rubber channel and body opening to assure a smooth sealing surface.
2. Apply a bead of black weatherstrip adhesive into glass cavity in rubber channel and install rubber channel to glass.
3. Apply a ribbon of medium-bodied sealer completely around window opening.
4. Insert window assembly into opening and install upper and lower window retainers.
5. Using a pressure type applicator, apply weatherstrip adhesive (black) between glass and lip of rubber channel completely around outside of window.
6. Clean off excess sealer and replace previously removed parts.

REAR QUARTER HARDWARE

DESCRIPTION

As shown in the following rear quarter hardware drawings, the "closed" style rear quarter window assembly operates within glass run channels. On "hardtop" styles, nylon rollers, which are components of the lower sash channel or which are bolted directly to the window glass, operate within the window front and rear guides.

All side windows are frameless solid tempered safety plate glass. Therefore, use caution when handling window assemblies which may shatter if chipped or deeply scratched.

In order to perform any service operations in the rear quarter it is necessary to remove the rear quarter trim as specified in the preceding trim section (see index).

REAR QUARTER INNER PANEL SEALING

All rear quarter inner panels are sealed with one or a combination of water deflectors, access hole covers, sealing plugs (or grommets) and body sealer. Service procedures for inner panel water deflectors are outlined in the "Front and Rear Door" section of this manual (see index). Figure 8-25 is typical of a water deflector installation.

Inner panel access hole covers are retained by a series of screws and sealed with body sealer. Usually, removal of either the water deflector or access hole cover will provide the clearance required for service procedures of rear quarter hardware. Whenever any seal has been disturbed, however, the area must be carefully resealed to prevent waterleaks. Body caulking compound is recommended for service sealing. Figure 8-26 illustrates quarter inner panel sealing on styles which use individual seals at all hardware attaching locations.

PHANTOM VIEWS

The following figures illustrate the rear quarter

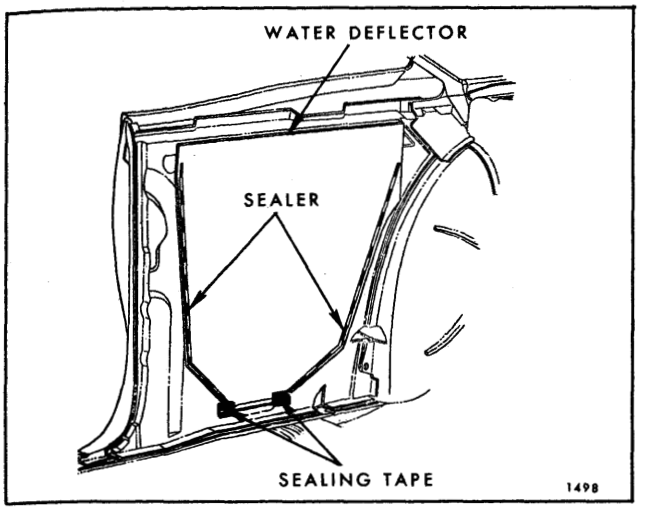

Fig. 8-25—Rear Quarter Inner Panel Sealing - Typical of Water Deflector Installation

hardware components and their relationship to each other on the various styles.

REAR QUARTER WINDOW "A & B-11" STYLES AND "A-07" STYLE

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector.

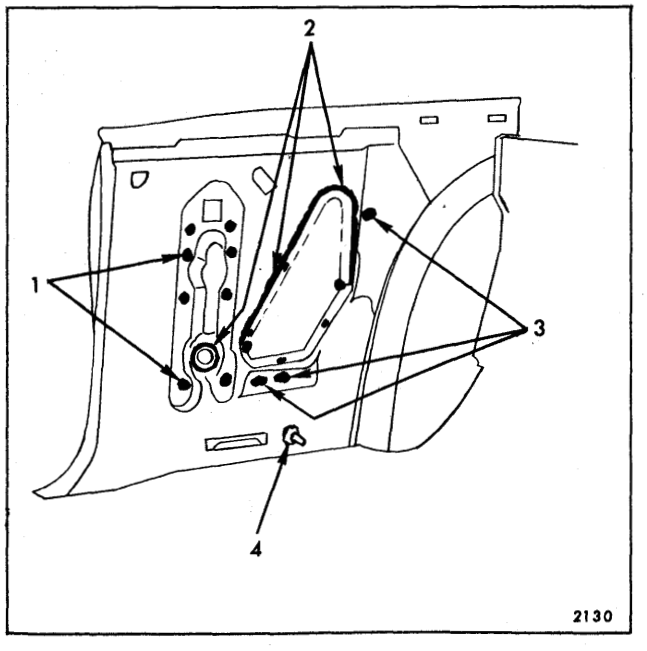

Fig. 8-26—Rear Quarter Inner Panel Sealing - "67" Styles

1. Regulator Attaching Bolt Slots
2. Access Hole Covers
3. Window Guide Adjusting Stud Slots
4. Electrical Harness Grommet

2. On "A" styles, remove glass run channel outer strip assembly. Refer to index of "Front Door" section for strip assembly removal.

3. On "A & B" styles lower window to position shown in Figure 8-39 for "A-07" styles, 8-40 for "A-11" styles, and 8-41 for "B-11" styles.

4. Supporting window with one hand, disengage clip retainer securing regulator lift arm to pivot pin on window lower sash channel ("11" styles) or to lower edge of glass ("07" style).

5. Lower front edge of glass until nylon guide at top of window front vertical sash comes out of front glass channel and rear edge of glass comes out of rear run channel. Then, lift glass up (rear edge first) and remove window from body outboard of window opening.

6. To install, reverse removal procedure.

REAR QUARTER WINDOW— "X-11" STYLE

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector.

2. Remove glass run channel inner and outer strip assemblies (at belt). Refer to index of "Door" section for removal procedure.

3. With the window in the full up position, remove window support to regulator plate attaching screws (Fig. 8-42).

4. Operate window regulator down. Disengage window assembly from regulator arm and tilt rear of window downward to disengage window from glass run channels. Lift window upward and inboard and remove from body.

5. To install, reverse removal procedure.

REAR QUARTER WINDOW ADJUSTMENTS—"A & B" CLOSED STYLES

All window assembly adjustments are provided at the window regulator attaching screws.

1. To obtain proper seating of the glass in the upper glass run channels, or proper contact between belt sealing strips and lower sash channel, loosen regulator attaching screws and adjust window as required.

2. To eliminate a fore and aft bind between the glass run channels (hard operating window),

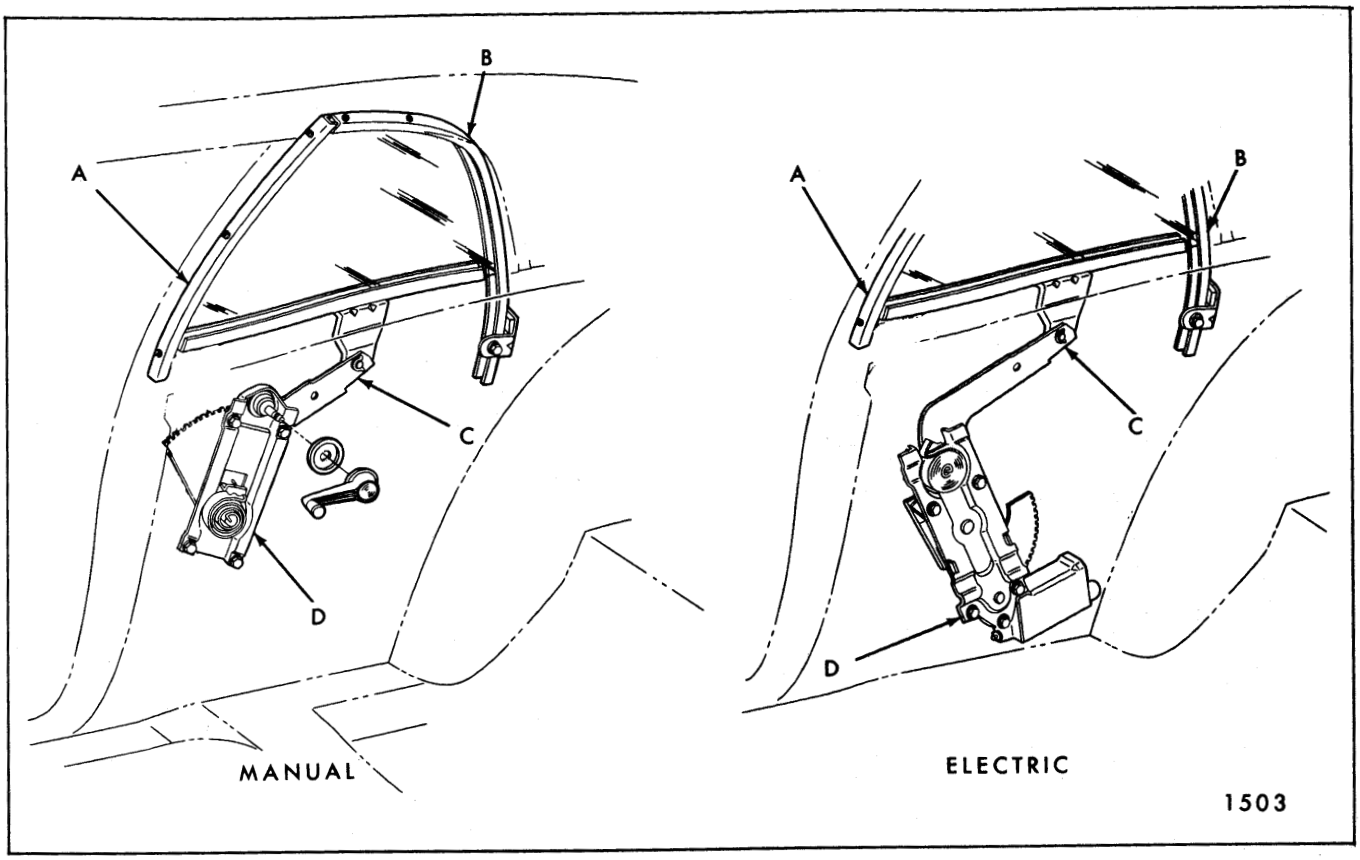

Fig. 8-27—Rear Quarter Window Hardware - "B-11" Styles

A. Front Glass Run Channel
B. Rear Glass Run Channel
C. Slotted Retainer
D. Window Regulator

or a condition where window will not stay in rear run channel, loosen rear run channel attaching bolt and adjust run channel fore or aft as required.

REAR QUARTER WINDOW ADJUSTMENTS—"X" CLOSED STYLES

For proper operation of rear quarter window and correct seating of glass in run channels, adjust rear quarter window in the following sequence:

1. With the window in the full "up" position, loosen the window support to regulator plate attaching screws and the center guide attaching screws.

2. Using hand pressure, press window upward and forward to make certain it is "bottomed" in the upper and forward glass run channels.

3. Tighten window support to regulator plate attaching screws and center guide upper attaching screw.

4. Lower window to full "down" position. Tighten center guide lower attaching screw while forcing lower portion of guide rearward.

NOTE: Do not apply too much pressure when forcing guide rearward, as this tends to make front edge of glass dig into front run channel.

REAR QUARTER WINDOW REGULATOR (MANUAL AND ELECTRIC)— "A-B & X" CLOSED STYLES

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector. On electric styles, disconnect feed wire from regulator motor.

2. On "A & B" styles, disengage clip retainer from pivot pin on window lower sash channel (Fig. 8-41 for "B" styles, Figures 8-39 and 8-40 for "A" styles). Raise window to full-up and prop in that position.

3. On "X" styles, remove support to regulator plate screws (Fig. 8-42). Raise window to full-up and prop in that position.

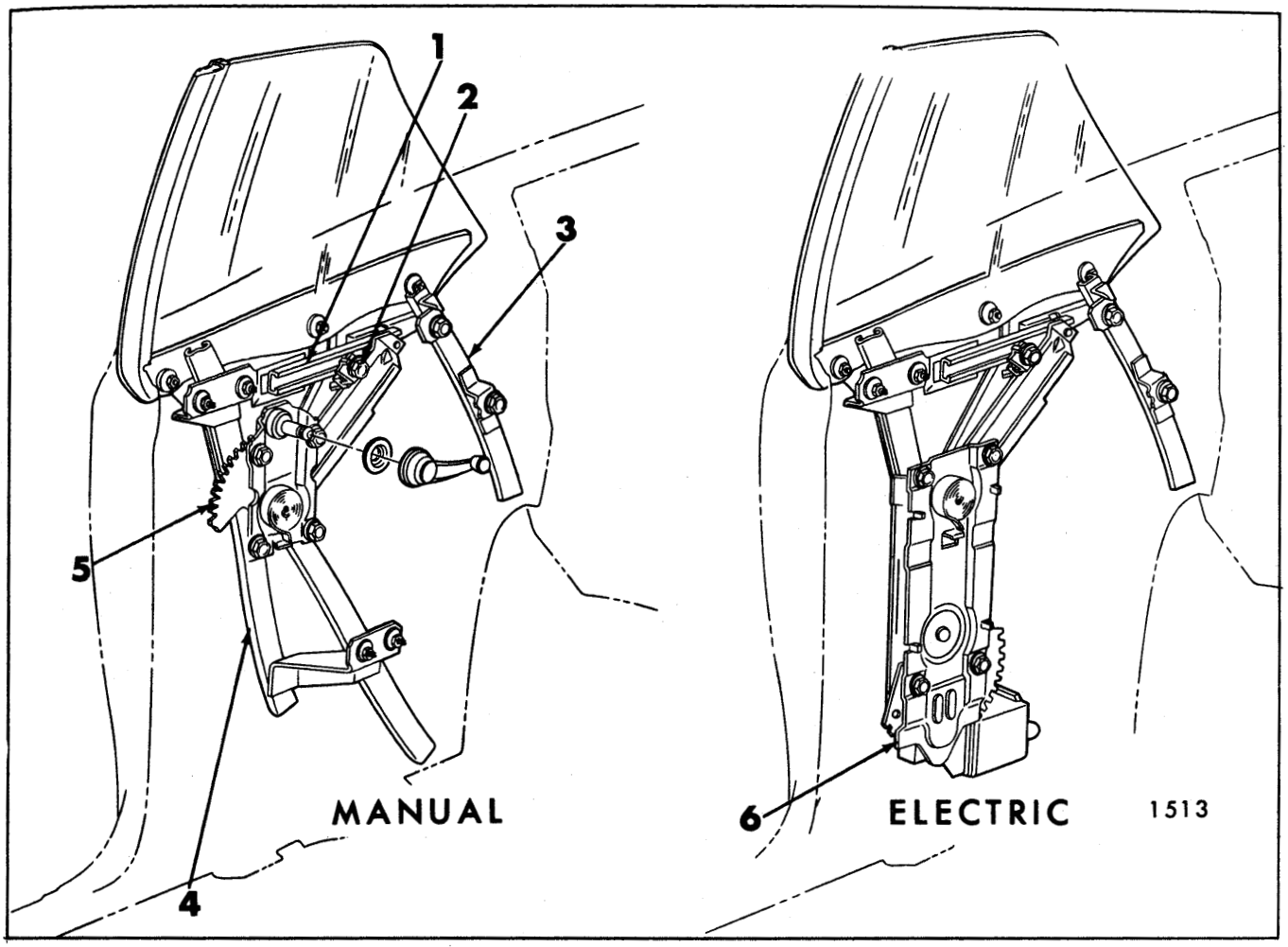

Fig. 8-28—Rear Quarter Window Hardware - "67 B-C" Styles Shown - "37-47-57" Styles Similar

1. Window Sash Channel Cam
2. Window Up-Stop
3. Rear Guide
4. Front Guide
5. Regulator (Manual)
6. Regulator (Electric)

4. On "A & B" styles, remove regulator to inner panel screws and remove regulator through large access hole (Fig. 8-43 - "A" styles shown, "B" similar).

5. On "X" styles, remove regulator to inner panel screws (Fig. 8-42). Disengage roller on regulator plate from window guide and remove regulator through large access hole.

6. To install, reverse removal procedure.

NOTE: The procedure for removing electric motor from regulator is described under "Door and Quarter Window Regulator Electric Motor Assembly" in the Door Section of this manual.

REAR QUARTER WINDOW REAR GLASS RUN CHANNEL—ALL CLOSED STYLES

Removal and Installation

1. Remove rear quarter window as previously described.

2. Remove run channel to inner panel attaching bolt (Fig. 8-44).

3. On "A-07" style remove screws securing run channel to side roof rail along length of run channel.

4. Using a flat blade tool, carefully pry run channel retaining clips from piercings in side roof rail.

NOTE: If difficulty is encountered disengaging run channel, inspect inside of channel for the presence of screws.

5. At belt line on "A" styles, disengage tab on rear run channel from side roof rail by moving run channel downward into opening between the panels; then, remove run channel from body.

6. Prior to installation, inspect foam sealing material for any damage, that would result in waterleaks, and replace as necessary.

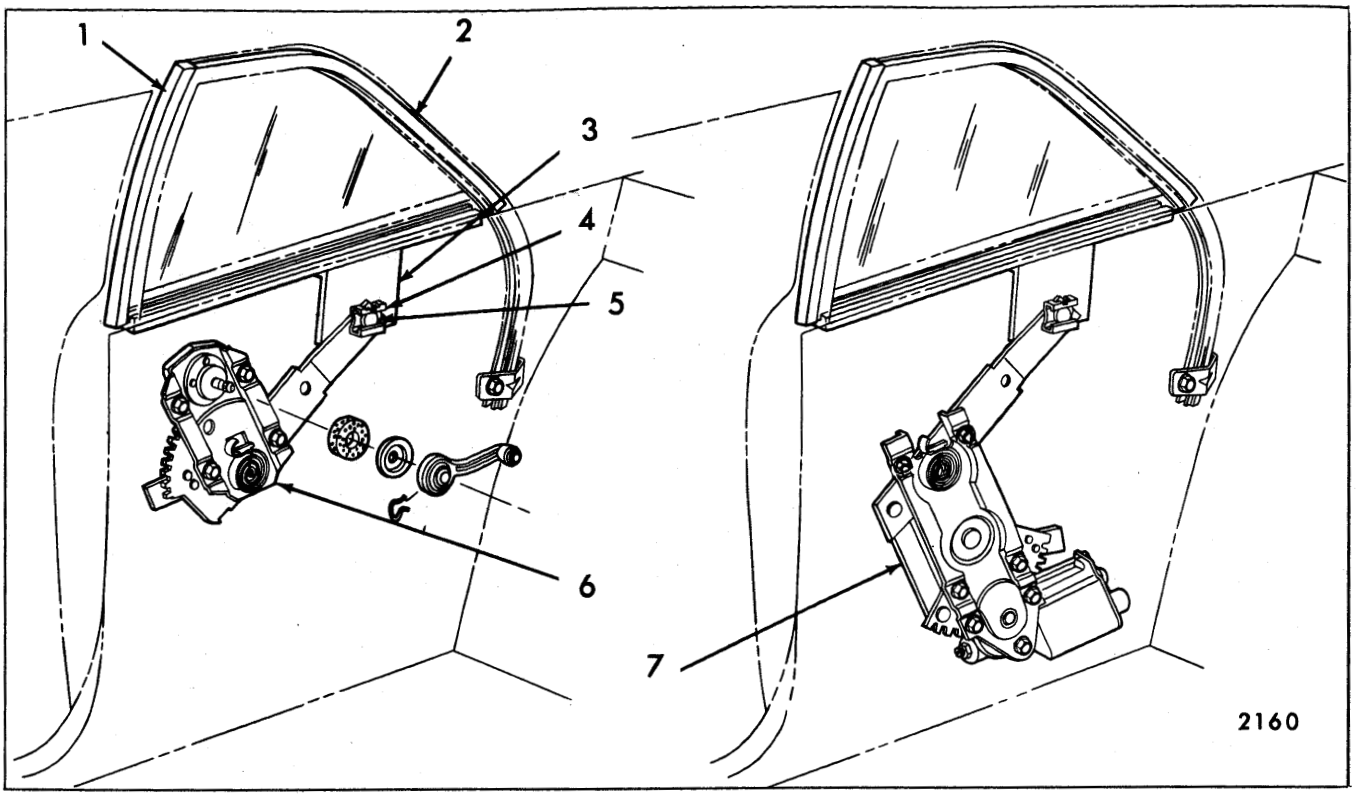

Fig. 8-29—Rear Quarter Hardware - "A-11" Style

1. Front Glass Run Channel
2. Rear Glass Run Channel
3. Window Lower Sash
4. Clip Retainer
5. Pivot Pin
6. Regulator (Manual)
7. Regulator (Electric)

7. To install, reverse removal procedure.

REAR QUARTER WINDOW FRONT GLASS RUN CHANNEL—ALL CLOSED STYLES

Removal and Installation

1. Remove rear quarter window as previously described.
2. On "A" styles, remove screws along length of run channel securing channel to body (Fig. 8-44).
3. On all styles, using a flat blade tool, pry run channel from body pillar and remove run channel (Fig. 8-45).
4. To install, reverse removal procedure. Prior to installation inspect sealing material on body pillar or run channel and replace or add to as required.

REAR QUARTER WINDOW GUIDE ASSEMBLY—"X-11" STYLES

Removal and Installation

1. Remove rear quarter trim assembly and trim finishing upper molding.
2. Detach inner panel water deflector sufficiently to gain access to guide attaching screws.
3. Remove guide attaching screws, disengage guide from roller on regulator arm and remove guide through access hole (see Fig. 8-46).
4. To install, reverse removal procedure.

REAR QUARTER WINDOW OUTER STRIP ASSEMBLY—ALL CLOSED STYLES

1. Remove rear quarter trim assembly and inner panel water deflector.
2. On "A & B" styles, disengage window assembly from regulator lift arm by removing slotted

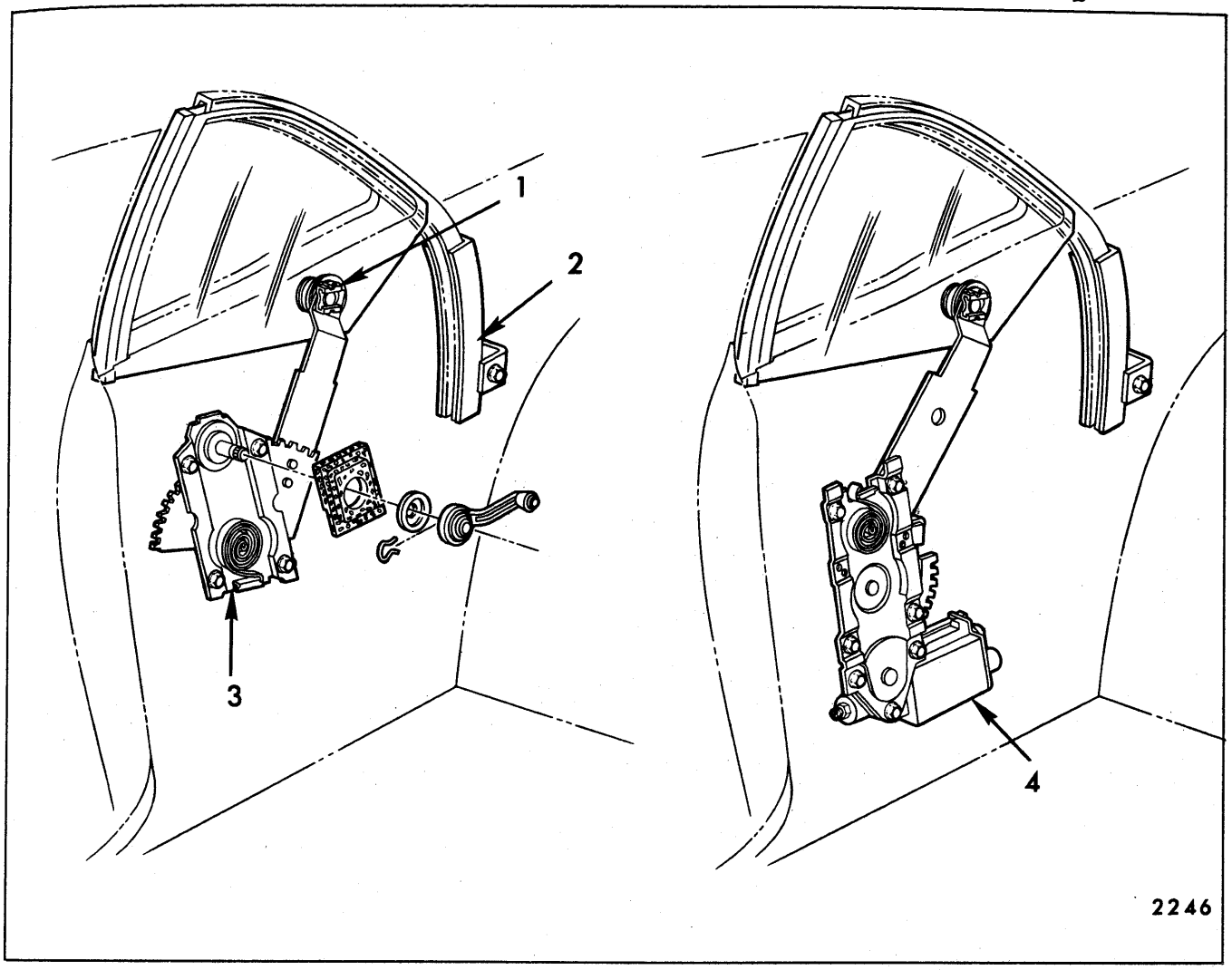

Fig. 8-30—Rear Quarter Hardware - "A-07" Style

1. Glass Retainer
2. Glass Run Channel
3. Window Regulator (Manual)
4. Window Regulator (Electric)

retainer (Fig. 8-41). On "X" styles remove support to regulator plate screws (Fig. 8-42).

3. Lower window assembly to bottom of rear quarter and rest it against outer panel.

4. On styles with screw retained strip assemblies, remove screws securing outer strip to rear quarter outer panel return flange and remove strip from body (Fig. 8-47). On styles with clip retained strip assemblies refer to index of "Door" section for removal procedure.

   NOTE: Use care not to damage strip assembly or adjacent painted surfaces.

5. To install, reverse removal procedure.

REAR QUARTER WINDOW ASSEMBLY— "17-37-47-57-67 AND 87" STYLES

The rear quarter window is made of solid tempered safety plate glass. Consequently, it cannot be drilled or ground, or develop scratches or edge chips as it will shatter. The window assembly consists of a pressed-on front vertical sash channel and a bolt-on lower sash channel assembly.

NOTE: When reinstalling glass to sash channel bolts, or nylon roller nuts, torque to 60 inch pounds (5 foot pounds). Also, replace glass to sash channel spacers (rubber).

Refer to front of this section for hardware drawings which can assist in performing any of the following procedures. To perform any of these service

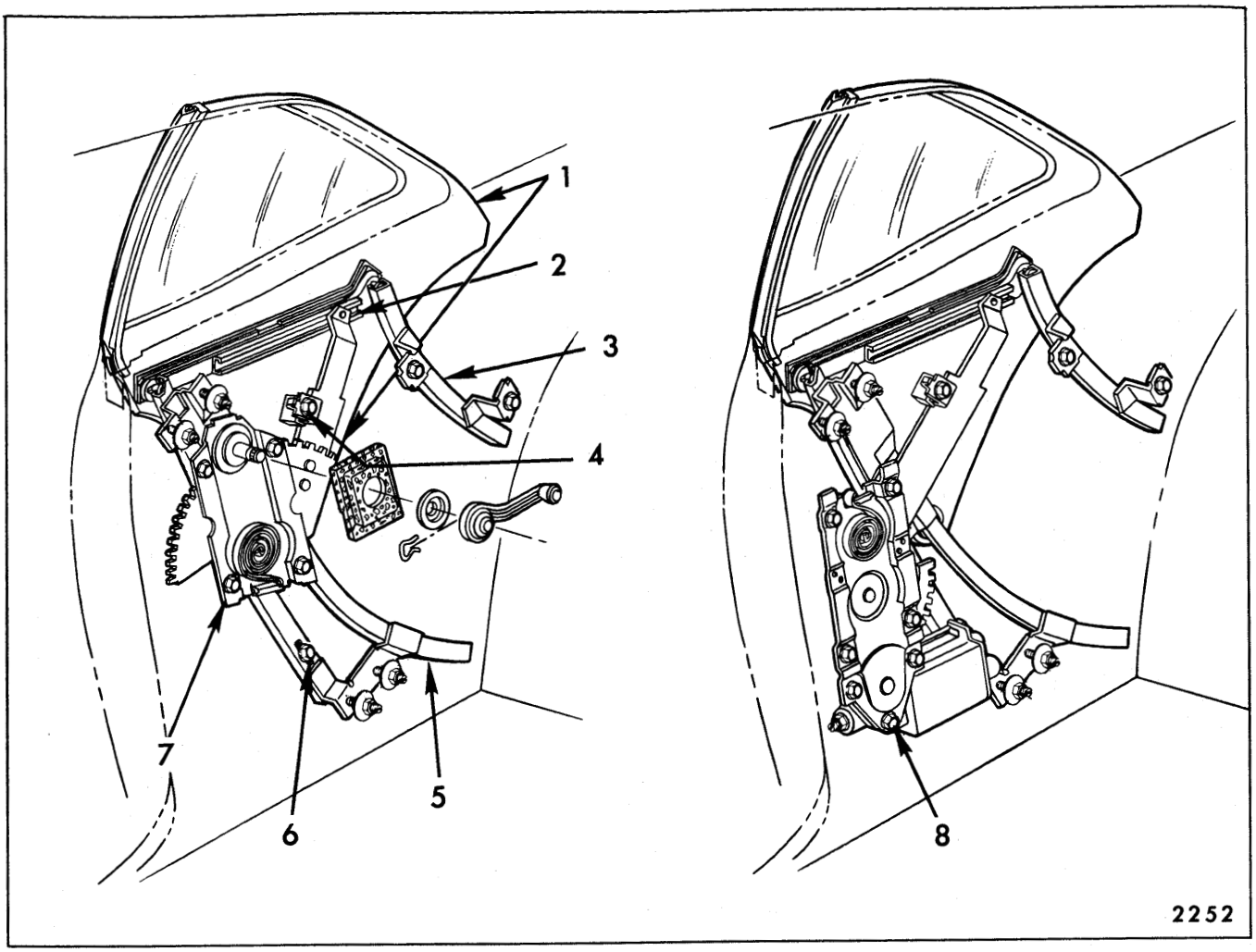

Fig. 8-31—Rear Quarter Hardware - "A-17" Style

1. Window Glass
2. Sash Channel Cam
3. Rear Guide
4. Up-Stop
5. Front Guide
6. Down-Stop
7. Window Regulator (Manual)
8. Window Regulator (Electric)

operations, remove rear quarter trim assembly and inner panel water deflector or access hole cover.

a. Removal and Installation "B-C 37 and 57" Styles

1. With window in full-up position, remove rear guide upper and lower adjusting stud nuts (Fig. 8-48). Disengage guide from roller on window lower sash channel and remove guide through access hole.

2. Lower window to almost full-down position to make lower sash channel cam attaching screws accessible through inner panel access hole (Fig. 8-48).

3. Loosen front guide upper adjusting stud nuts and remove front guide lower adjusting stud nuts (Fig. 8-48).

4. Remove lower sash channel cam attaching screws (Fig. 8-48). Disengage cam from regulator lift arm roller and remove cam.

5. Manually raise window and remove it from between the panels by lifting upward and inboard.

6. To install rear quarter window, reverse removal procedure. Figure 8-49 is an exploded view of the rear quarter window assembly and identifies the various components and their assembly sequence.

b. Removal and Installation "B-47" Style

1. With window in full-up position, remove rear guide upper and lower adjusting stud nuts (Fig. 8-48). Disengage guide from roller on window lower sash channel and remove guide through access hole.

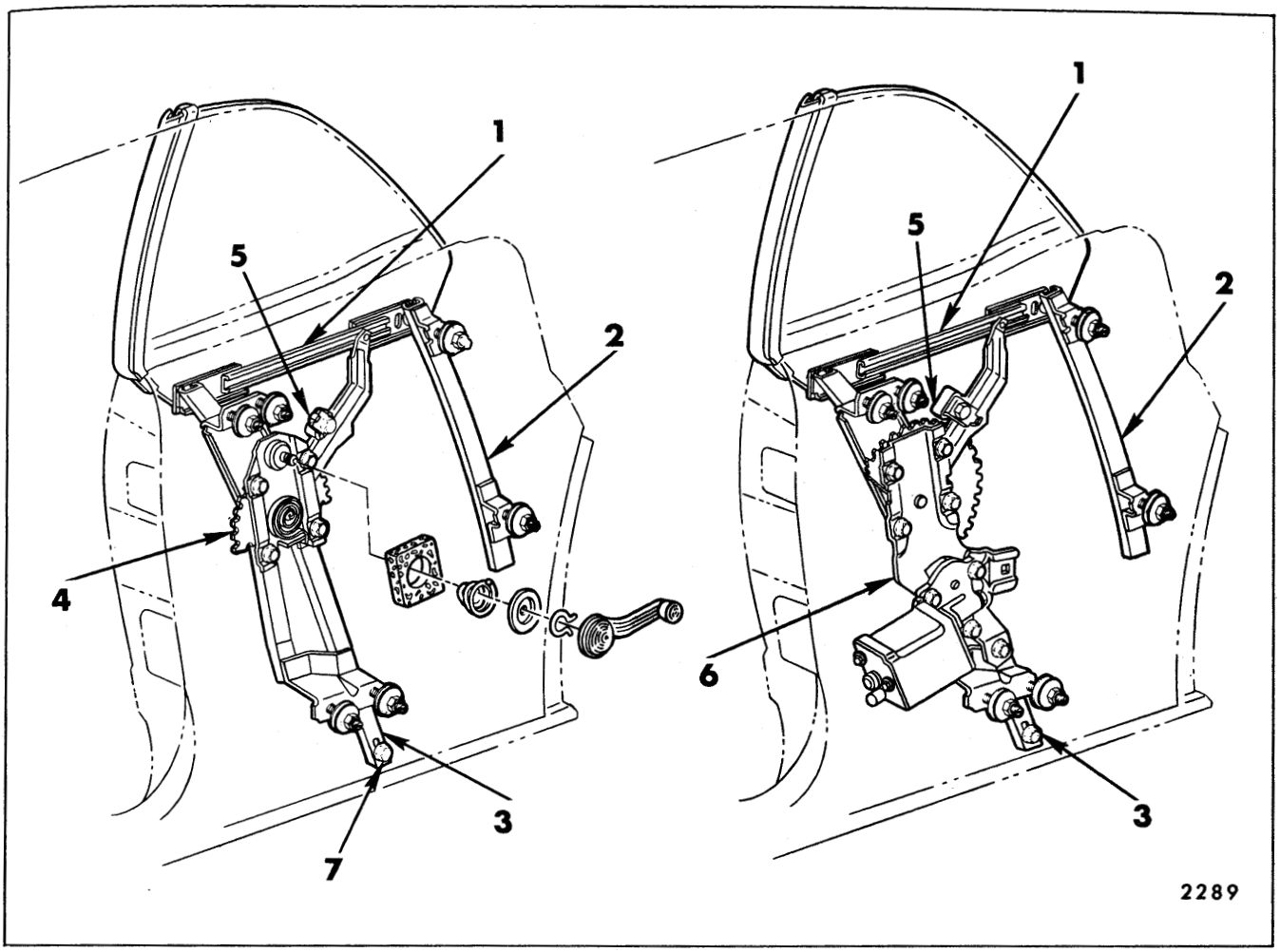

Fig. 8-32—Rear Quarter Hardware - "A-67" Styles

1. Sash Channel Cam
2. Rear Guide
3. Front Guide
4. Window Regulator (Manual)
5. Up-Stop
6. Window Regulator (Electric)
7. Front Guide Lower Stop

2. With window lowered to half-down position, remove front guide lower adjusting stud nuts and loosen upper adjusting stud nuts (Fig. 8-48).

3. Disengage front guide lower studs from inner panel by pushing studs outboard. Disengage regulator lift arm from window lower sash channel cam at rear of cam by swinging guide and window assembly forward.

4. Supporting window assembly, drop front guide upper adjusting studs to bottom of the slots in the inner panel. Remove window from body by lifting window upward and inboard.

5. To install, reverse removal procedure. Figure 8-50 is an exploded view of the rear quarter window assembly and identifies the various components and their assembly sequence.

c. Removal and Installation "B-C 67" Styles

1. Lower folding top.

2. Lower window to almost full-down position and remove lower sash channel cam attaching screws (Fig. 8-48). Disengage cam from regulator lift arm roller and remove cam.

3. Lift window straight upward and remove it from body.

4. To install rear quarter window, reverse removal procedure. Figure 8-49 is an exploded view of the rear quarter window assembly and identifies the various components and their assembly sequence.

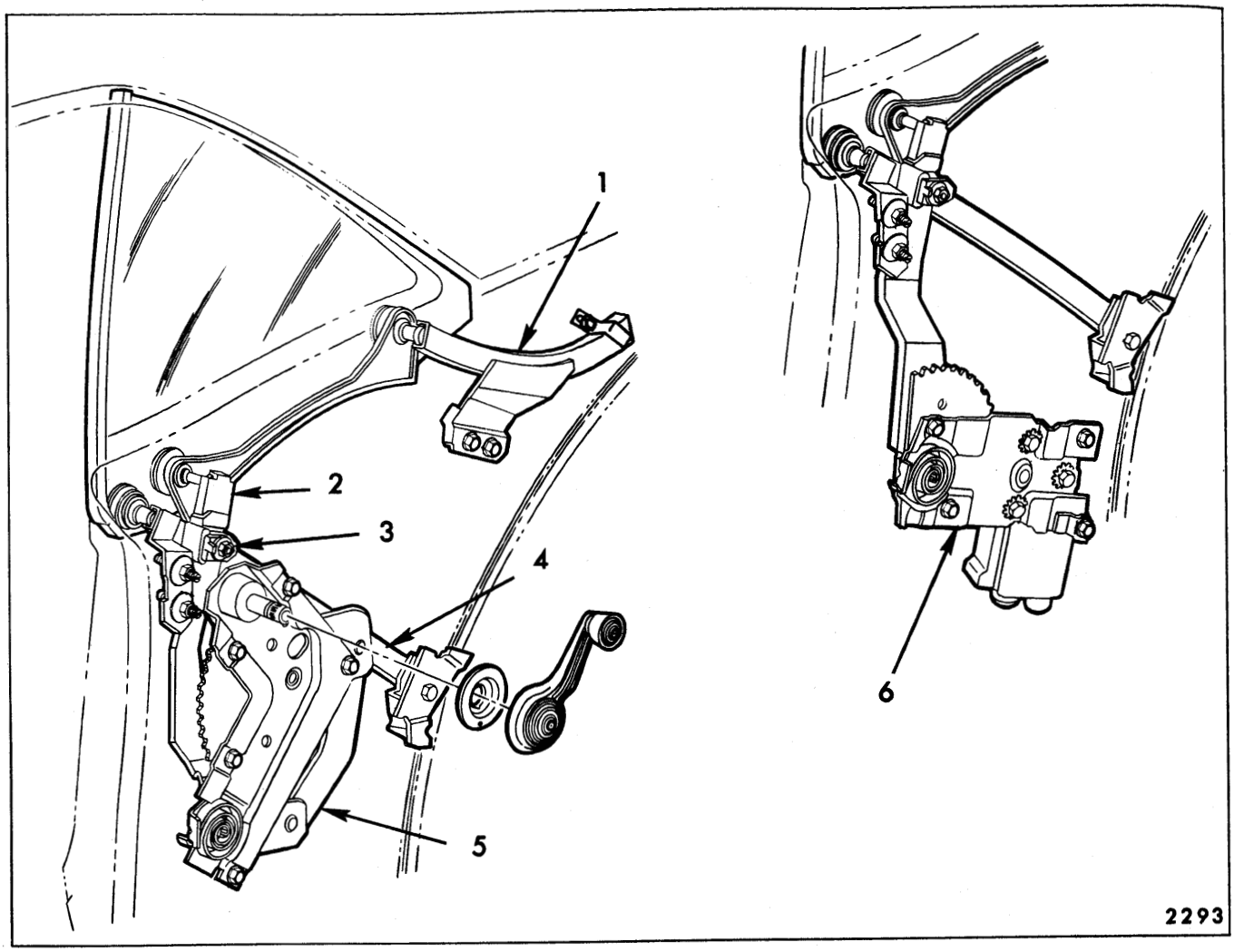

Fig. 8-33—Rear Quarter Hardware - Buick "E" Styles

1. Rear Guide
2. Regulator Litt Arm Cam
3. Up-Stop
4. Front Guide
5. Regulator (Manual)
6. Regulator (Electric)

Adjustments—"B-C 37-47-57 and 67" Styles

1. Rear quarter window up-travel is determined by position of the window up-stop (Fig. 8-48). To change the window upper limits, loosen the stop attaching bolt and position the stop as desired.

2. Fore or aft position of the window is determined by the position of the front and rear guides. To adjust the window, loosen the front and rear guide adjusting stud nuts (Fig. 8-48) and reposition the window as required.

3. In or out adjustment of the window assembly, or only the top of the window, can be obtained by utilizing the front and rear guide adjusting studs (Fig. 8-48). To reposition the window in or out, adjust the guide upper and lower adjusting studs in the same direction. To adjust the top of the window in or out, adjust the lower adjusting studs in the opposite direction of the upper studs.

d. Removal and Installation "A-17 and 67" Styles

1. Lower folding top on "67" styles.

2. Remove rear guide upper and lower attaching screws (Fig. 8-51 and 8-52). Disengage guide from sash channel roller and remove guide.

3. Remove glass run channel outer strip assembly (draft strip - see "Front Door" section of manual).

4. Remove the lower two adjusting stud nuts of the quarter window front guide and all but the top attaching bolt of window regulator (see Fig. 8-53).

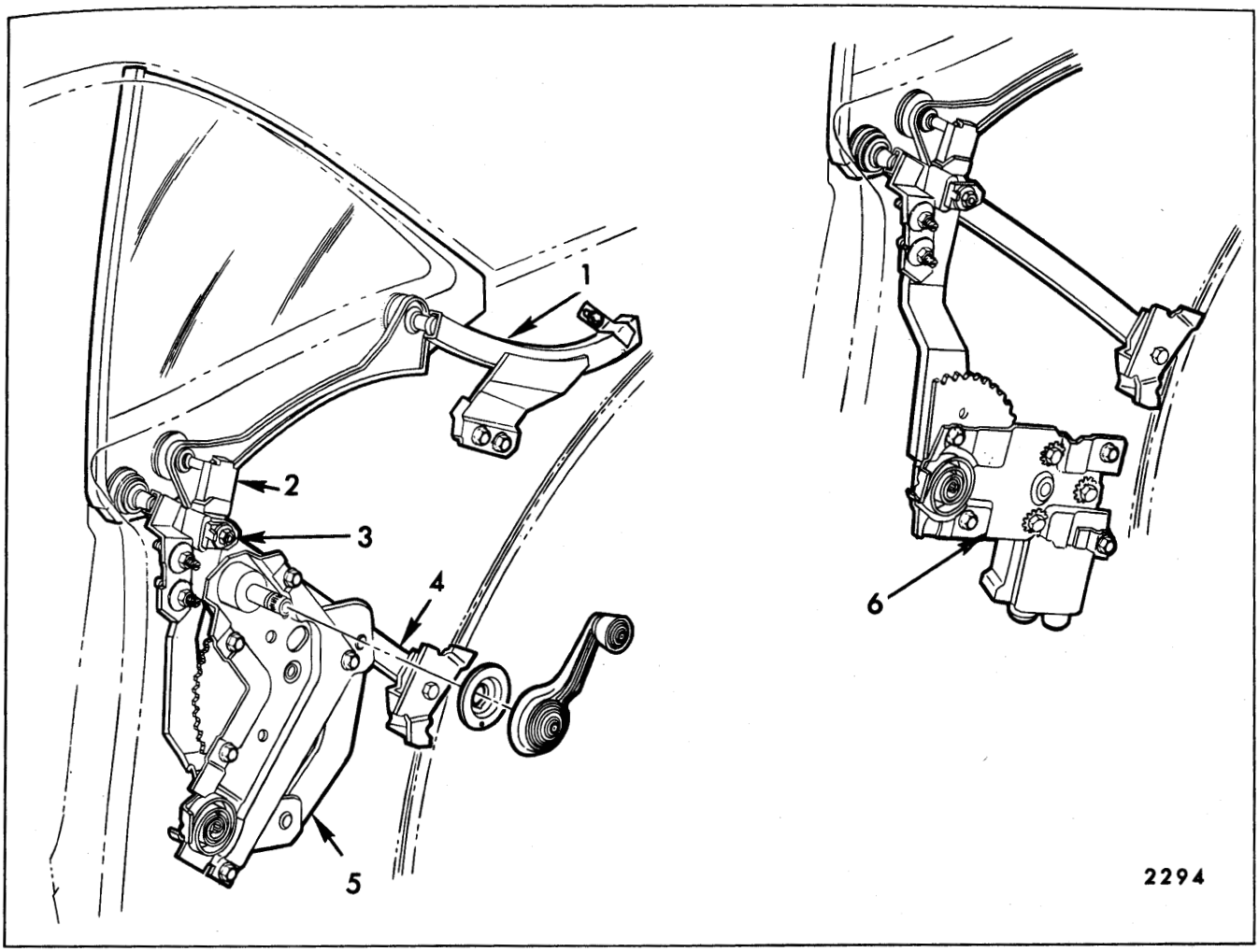

Fig. 8-34—Rear Quarter Hardware - Oldsmobile "E" Body

1. Rear Guide
2. Regulator Lift Arm Cam
3. Up-Stop
4. Front Guide
5. Regulator (Manual)
6. Regulator (Electric)

5. Rotate regulator counter-clockwise until lift arm roller is free of quarter window sash channel cam. Rotate rear edge of glass upward (outboard of side rail on "17" styles) and remove window (see Fig. 8-53).

   NOTE: If additional clearance is needed (on "17" styles), the side roof rail weatherstrip can be detached at quarter window area.

6. To install, reverse removal procedure.

Adjustments—"A-17 and 67" Styles

To perform any rear quarter window adjustments, it is necessary to remove the rear quarter trim assembly.

1. To adjust window "fore or aft", loosen front and rear guide adjusting stud nuts, position window and guides as required, and tighten nuts.

2. To adjust window "in or out" at belt line, loosen front guide upper adjusting stud nuts, adjust studs in or out as required, and tighten stud nuts.

3. To adjust top of window "in or out", loosen front guide lower adjusting stud nuts, adjust studs in or out as required, and tighten stud nuts.

4. To relieve a "fore or aft" binding condition between front and rear guides, loosen rear guide adjusting stud nut. Operate window to "full-down" position and tighten remaining stud nut.

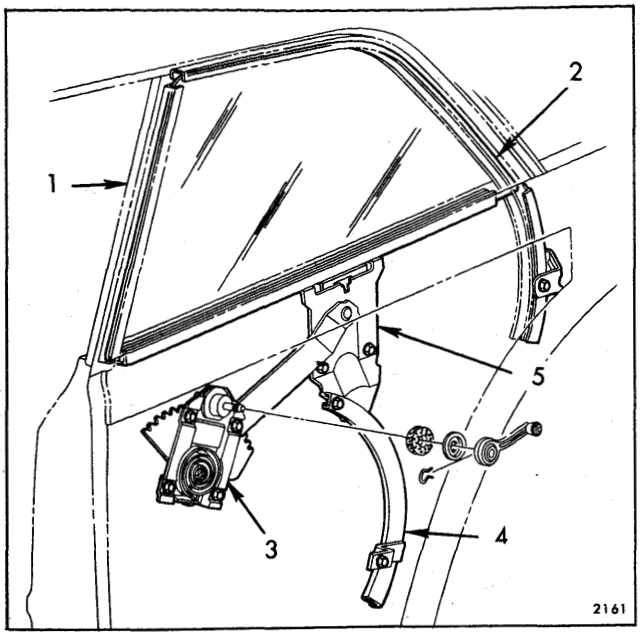

Fig. 8-35—Rear Quarter Hardware - "X-11" Style

1. Front Glass Run Channel
2. Rear Glass Run Channel
3. Window Regulator
4. Window Guide
5. Window Support to Regulator Plate

5. To limit up-travel of window, adjust window stop as required (see Figs. 8-52 and 8-51).

e. Removal and Installation All "E" Styles

1. With window in full-up position, remove rear guide upper and lower attaching bolts (Fig. 8-54). Disengage guide from roller on window assembly and remove guide through access hole.

2. With quarter window partially lowered (see Fig. 8-54), remove nuts securing regulator lift arm cam to regulator lift arm and remove cam.

   NOTE: Lift arm must be pushed inboard slightly to remove cam.

3. While supporting glass, remove quarter window front guide attaching bolts and lower guide to bottom of rear quarter.

4. Remove quarter window inboard of roof panel.

5. To install, reverse removal procedure. Figure 8-55 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments—All "E" Styles

Fore and aft alignment is determined by positioning front guide. Adjusting rear guide will provide parallel condition of quarter window to door for constant seal. In or out alignment is determined by upper two adjusting studs and nuts at front guide. The adjustable up-stop will provide up or down alignment and partially fore and aft alignments by controlling window travel.

NOTE: Adjustments on regulator lift arm cam are provided to permit maximum travel but caution must be observed so not to interfere with quarter trim assembly at belt.

f. Removal and Installation "X-37" Style

1. With window in full-up position, remove rear guide upper and lower attaching bolts (Fig. 8-56). Disengage guide from roller on window assembly and remove guide through access hole.

2. Remove glass run channel inner and outer strip assemblies (draft strips) as outlined in the "Front Door" section of this manual - see index. Remove lock pillar sealing strip.

3. Remove front guide lower two adjusting stud nuts and loosen upper two nuts (see Fig. 8-56).

4. Rotate rear edge of glass upward until regulator lift arm roller is free of sash channel cam and front two glass rollers are out of front guide channels (see Fig. 8-56). Remove glass inboard of side rail.

   NOTE: If additional clearance is needed, the side roof rail weatherstrip can be detached at quarter window area.

5. To install, reverse removal procedure. Figure 8-57 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments—"X-37" Style

To perform any rear quarter window adjustments, it is necessary to remove the rear quarter trim assembly.

1. To adjust window "fore or aft", loosen front and rear guide adjusting stud nuts, position window and guides as required, and tighten nuts.

2. To adjust window "in or out" at belt line, loosen front guide upper adjusting stud nuts, adjust studs in or out as required, and tighten stud nuts.

3. To adjust top of window "in or out", loosen front guide lower adjusting stud nuts, adjust

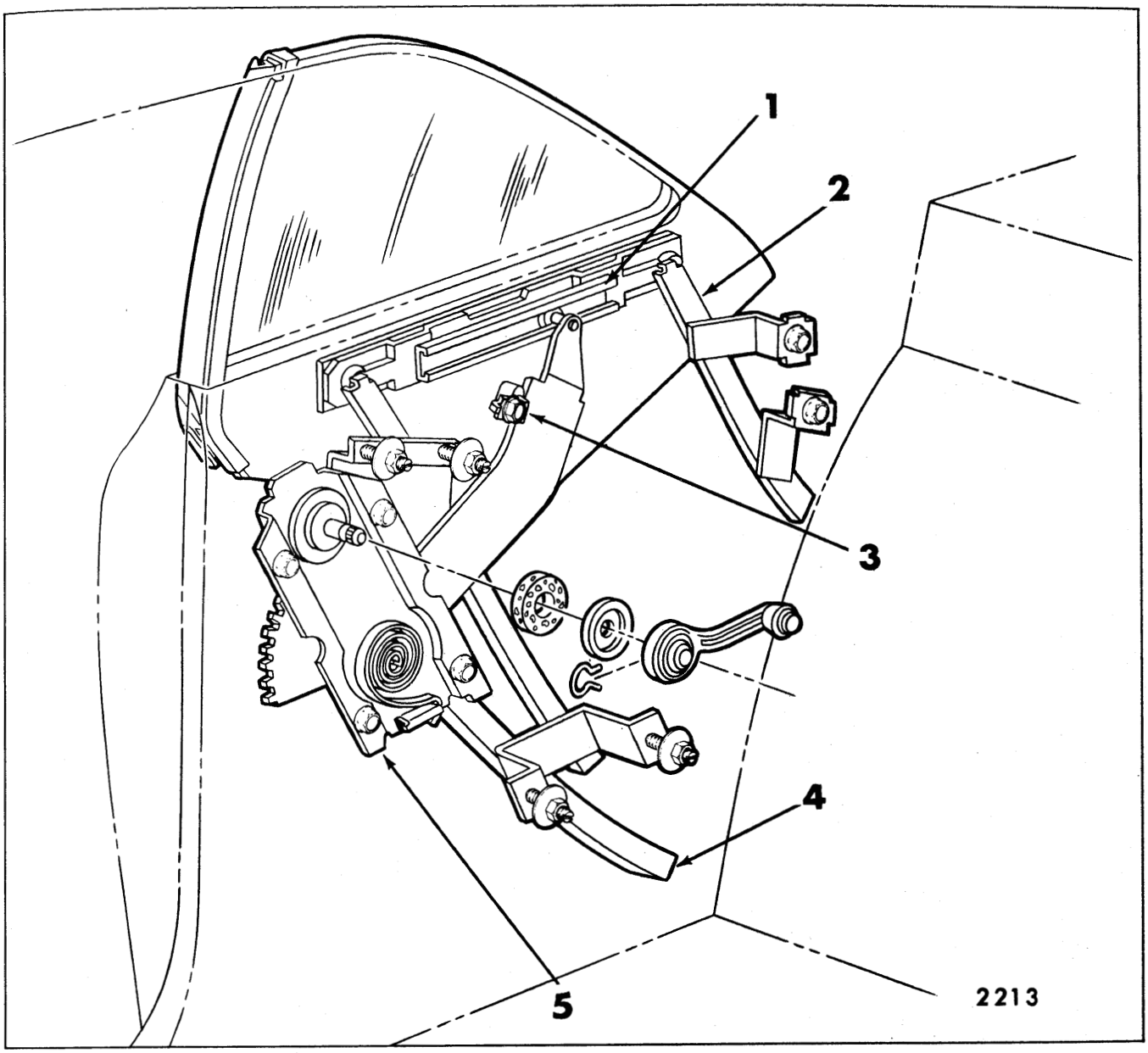

Fig. 8-36—Rear Quarter Hardware - "X-37" Styles

1. Sash Channel Cam
2. Rear Guide
3. Upper Stop
4. Front Guide
5. Window Regulator

studs in or out as required, and tighten stud nuts.

4. To relieve a "fore or aft" binding condition between front and rear guides, loosen front and rear guide adjusting stud nuts. Operate window to "full-up" position and tighten upper adjusting stud nuts. Operate window to "full-down" position and tighten remaining stud nuts.

NOTE: When adjusting studs on front guide, make certain that adjacent studs are adjusted equally to prevent creation of a bind between cam channels.

5. To limit up-travel of window, adjust window stop as required (see Fig. 8-36).

g. Removal and Installation "Z-37" Styles

1. With window in full-up position, remove rear guide upper and lower attaching bolts (Fig. 8-58). Disengage guide from roller on window assembly and remove guide.

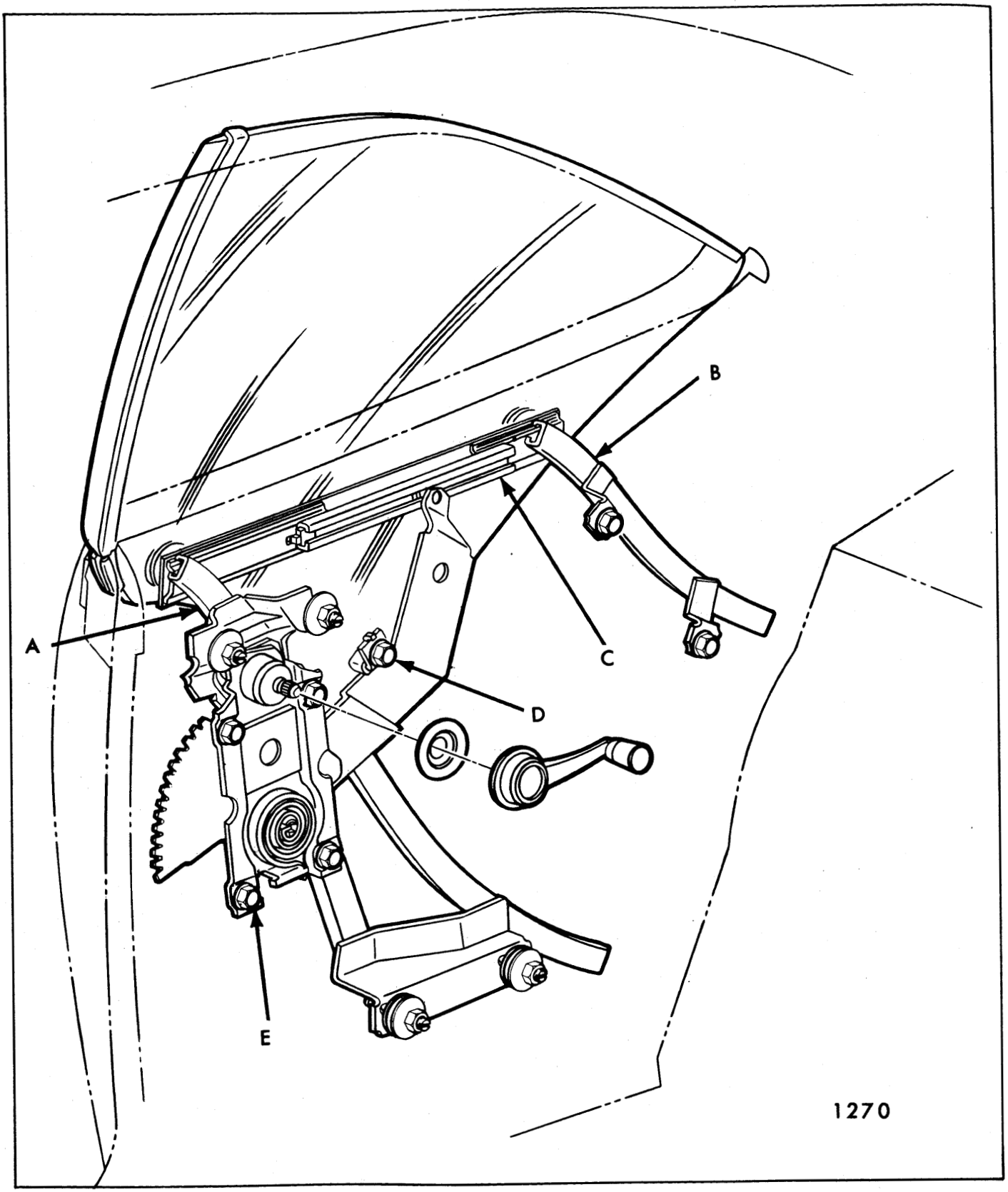

Fig. 8-37—Rear Quarter Hardware - "37" Styles

A. Front Guide
B. Rear Guide
C. Lower Sash Channel Cam
D. Window Up-Stop
E. Window Regulator

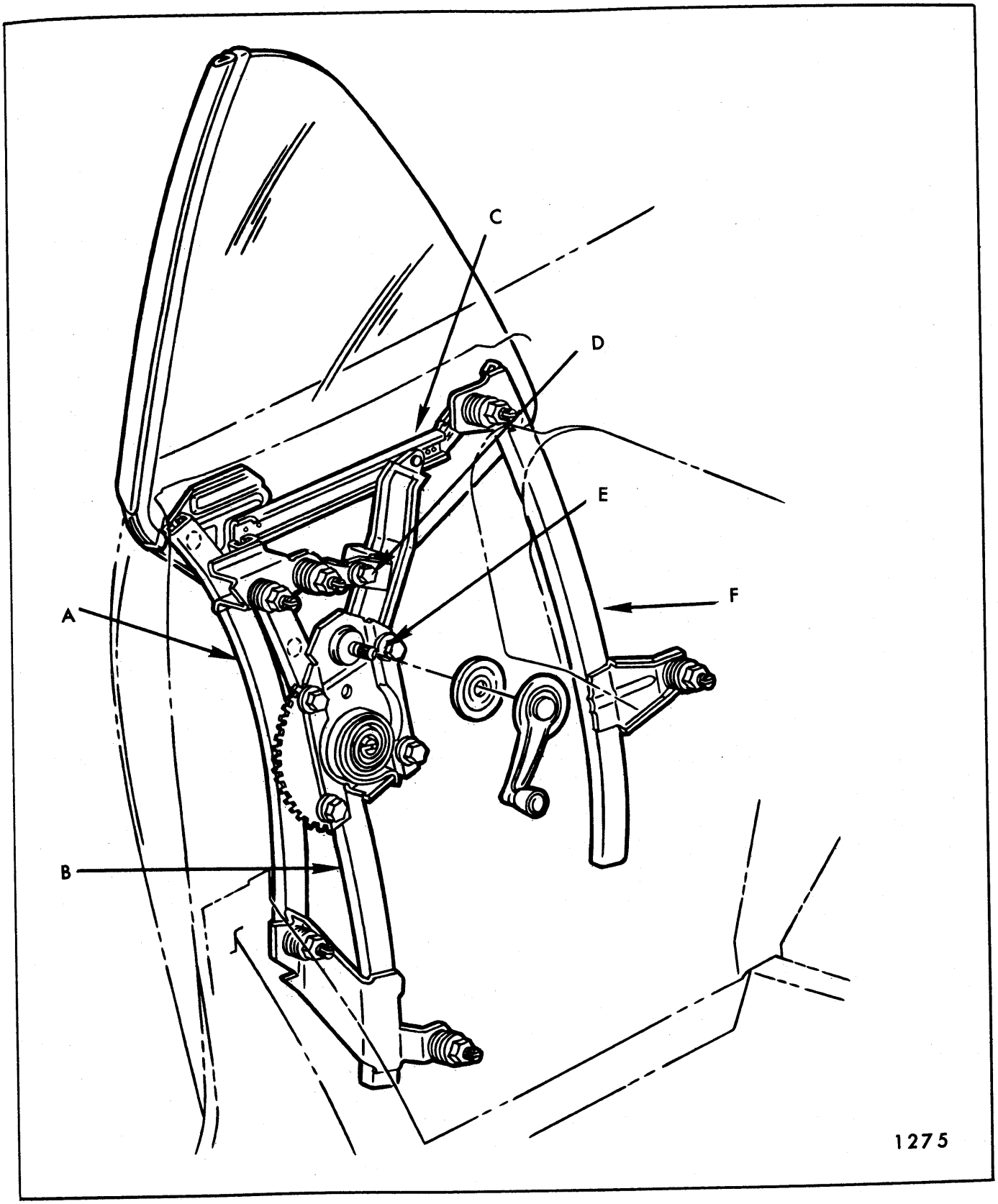

Fig. 8-38—Rear Quarter Hardware - "67" Style

A. Front Guide (Forward Channel)
B. Front Guide (Rearward Channel)
C. Sash Channel Cam
D. Window Up-Stop
E. Window Regulator
F. Rear Guide

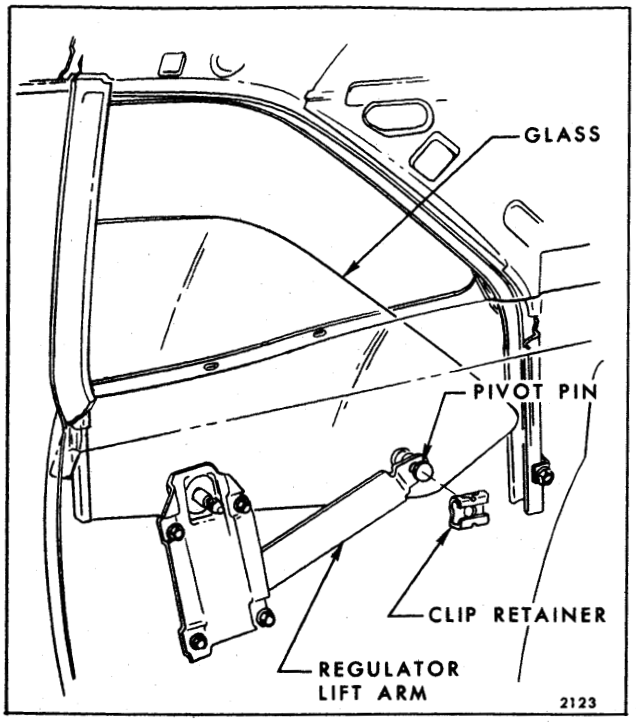

Fig. 8-39—Rear Quarter Window Attachment - "A-07" Styles

2. Remove regulator as described in a following procedure.

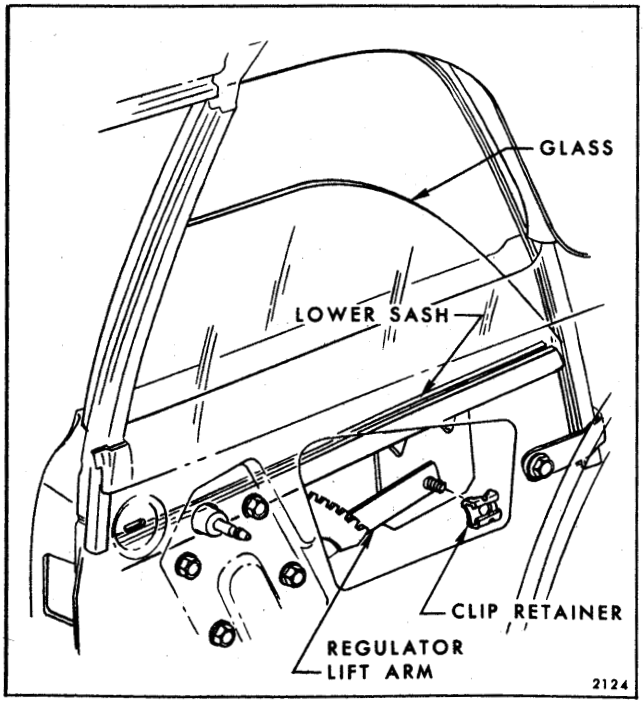

Fig. 8-40—Rear Quarter Window Attachment - "A-11" Styles

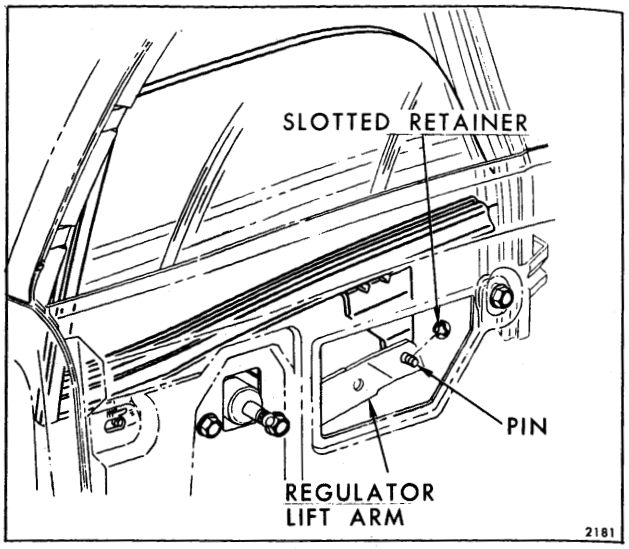

Fig. 8-41—Rear Quarter Window Attachment - "B-11" Styles

3. Slide rear quarter window upward and forward and pivot top rear corner of glass to a point outboard of side roof rail. Continue glass upward and forward to disengage front glass rollers from front guide assembly and remove rear quarter window from body.

4. To install, reverse removal procedure. Figure 8-59 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

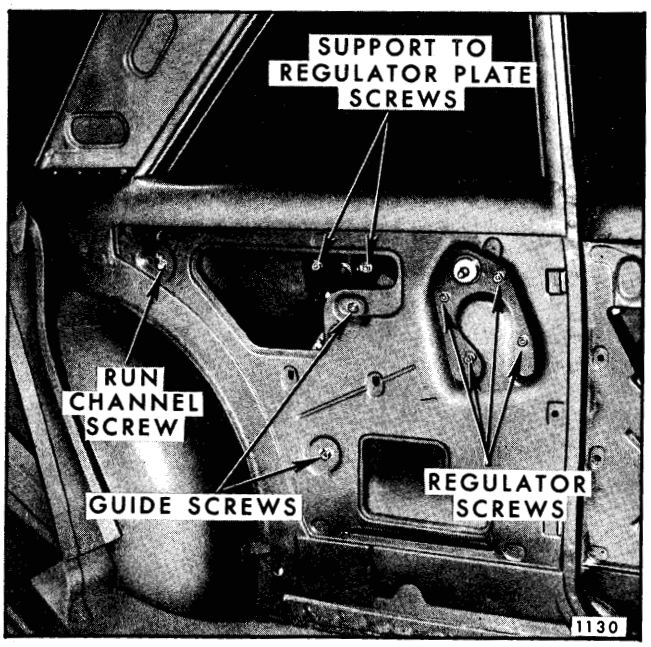

Fig. 8-42—Rear Quarter Hardware Attachment - "X-11" Style

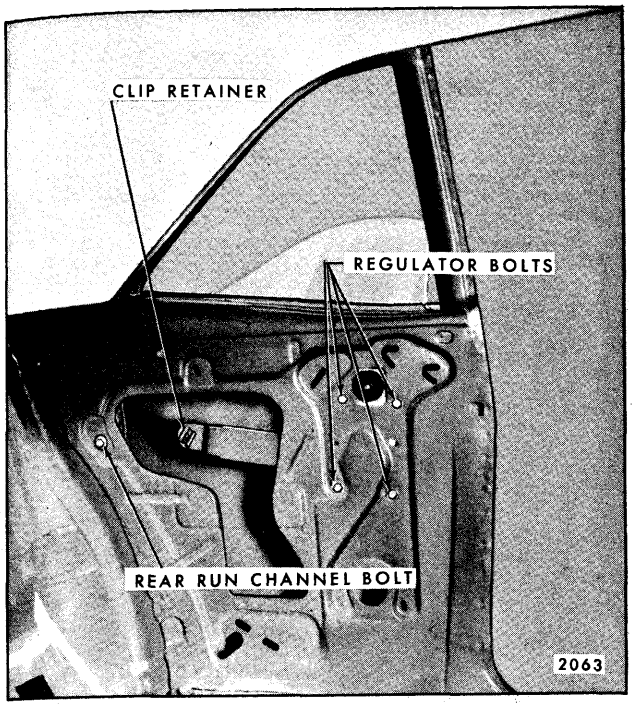

Fig. 8-43—Rear Quarter Hardware Attachment - "A-07" Styles Shown - "11" Styles Similar

Adjustments—"Z-37" Styles

1. The quarter window up-stop can be utilized for adjustments of glass to side roof rail weatherstrip (see Section "A-A" in Fig. 8-60).

2. The rear guide can be adjusted to gain proper fore and aft contact of rear quarter window vertical weatherstrip to rear edge of front door window (see section "C-C and F-F" in Fig. 8-60).

3. The upper two adjusting studs of the rear quarter window front guide are used for in or out and fore or aft adjustment of quarter window at front leading edge (see section "D-D" in Fig. 8-60).

4. The lower two adjusting studs of rear quarter window front guide are adjustable up or down and fore or aft for proper operation of quarter window (see section "E-E" in Fig. 8-60).

h. Removal and Installation "Z-67" Styles

1. Lower folding top.

2. Remove window regulator as described in a following procedure.

3. Raise glass straight up and remove from body.

4. To install, first engage lower forward roller of glass into rear channel of front guide and then upper forward roller of glass into front channel of front guide and reverse removal procedure (see Fig. 8-38). Figure 8-61 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments—"Z-67" Styles

1. The quarter window up-stop can be utilized for adjustments of glass to side roof rail weatherstrip (see section "A-A" in Fig. 8-62).

2. Both front and rear guides provide fore or aft and in or out adjustment at all attaching locations. The upper attaching locations directly affect position of quarter glass and lower attachments provide smooth operation of dropping rear quarter window (see Fig. 8-62).

REAR QUARTER WINDOW REGULATOR ASSEMBLY (MANUAL)—"B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37-47 and 57" styles, remove inner panel water deflector.

2. Operate window to "full-up" and prop it in that position.

3. Remove regulator attaching bolts (Fig. 8-48). Disengage regulator lift arm roller from window lower sash channel cam and remove regulator through inner panel access hole.

4. To install, reverse removal procedure.

REAR QUARTER WINDOW REGULATOR ASSEMBLY (ELECTRIC)—"B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37-47 and 57" styles, remove inner panel water deflector.

2. With window in almost fully lowered position, remove lower sash channel cam attaching screws and remove cam (Fig. 8-48). Manually raise window to full-up and prop in that position.

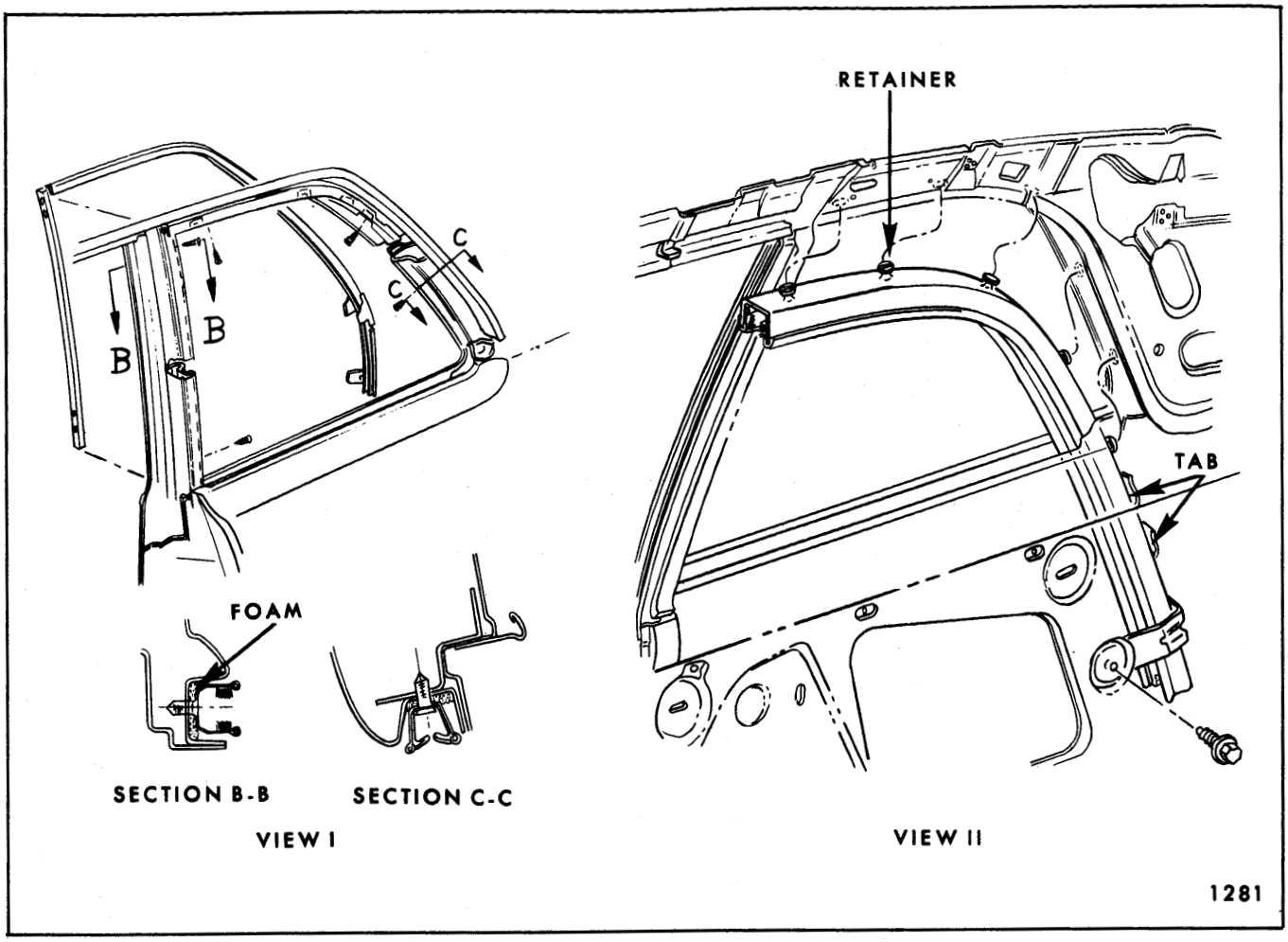

Fig. 8-44—Rear Quarter Window Glass Run Channels - Typical of All Closed Styles

3. On "67" styles, disconnect regulator motor wire harness at in-line connector located inboard of quarter inner panel. DO NOT attempt to disconnect permanent connector at regulator motor.

4. On the remaining styles, disconnect wire harness at motor. Remove window regulator attaching bolts (Fig. 8-48) and remove regulator through inner panel access hole.

NOTE: The procedure for removing electric motor from regulator is described and illustrated under "Door and Quarter Window Regulator Electric Motor Assembly" in the "Door" section of this manual.

5. To install, reverse removal procedure.

REAR QUARTER WINDOW REGULATOR ASSEMBLY (MANUAL OR ELECTRIC)— "A-E-X & Z" HARDTOP AND CONVERTIBLE STYLES

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover (or water deflector).

2. On "E" styles, remove rear quarter window. On "A & X" styles and "Z-37" styles, prop window in a full-up position. On "Z-67" styles, lower rear quarter window to the position illustrated in Figure 8-63.

3. On "Z-37" styles, remove rear quarter window rear guide assembly.

4. On "A & E" styles, equipped with electric

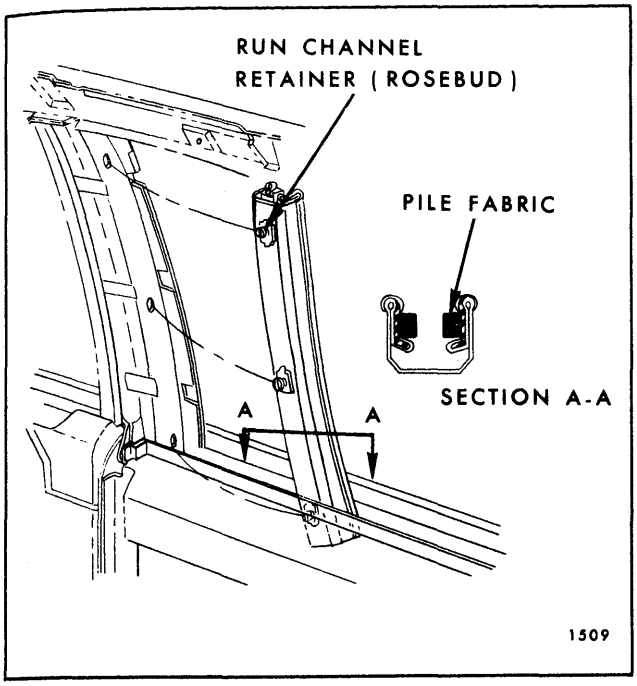

Fig. 8-45—Rear Quarter Window Front Glass Run Channels - Typical of "B" Styles

option, disconnect regulator motor wire harness at "in-line" connector and remove wire retaining clip attaching screw.

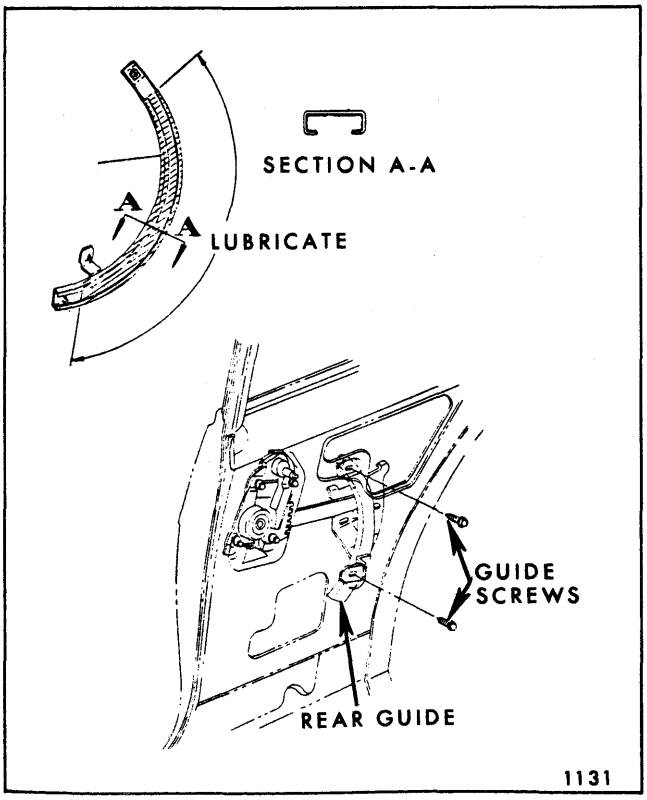

Fig. 8-46—Rear Quarter Window Guide - "X-11" Styles

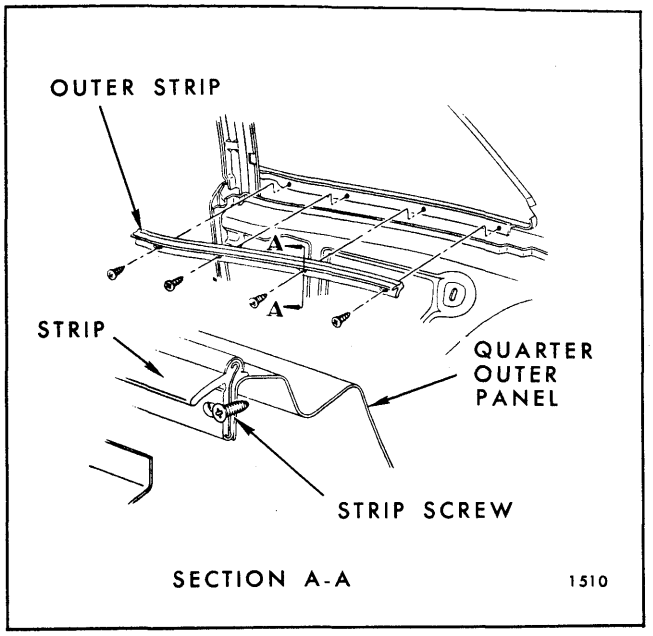

Fig. 8-47—Rear Quarter Window Outer Strip Assembly - All Closed Styles

5. Remove regulator attaching bolts (four on manual and five on electric, see Fig. 8-32). Slide unit rearward to disengage lift arm roller from sash cam and remove regulator.

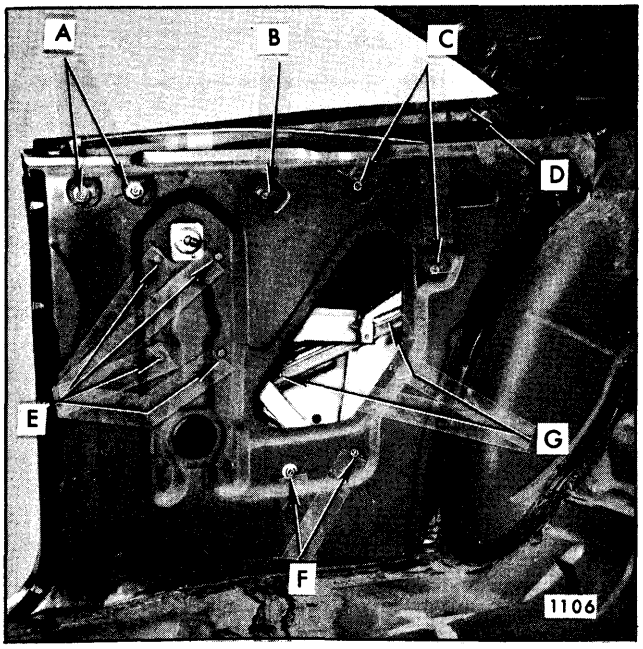

Fig. 8-48—Rear Quarter Hardware - "B and C" Hardtop Styles

A. Front Guide Upper Adjusting Studs and Nuts
B. Up-Stop Bolt
C. Rear Guide Studs and Nuts
D. Outer Strip Assembly
E. Regulator Bolts
F. Front Guide Lower Adjusting Studs and Nuts
G. Sash Channel Cam Screws

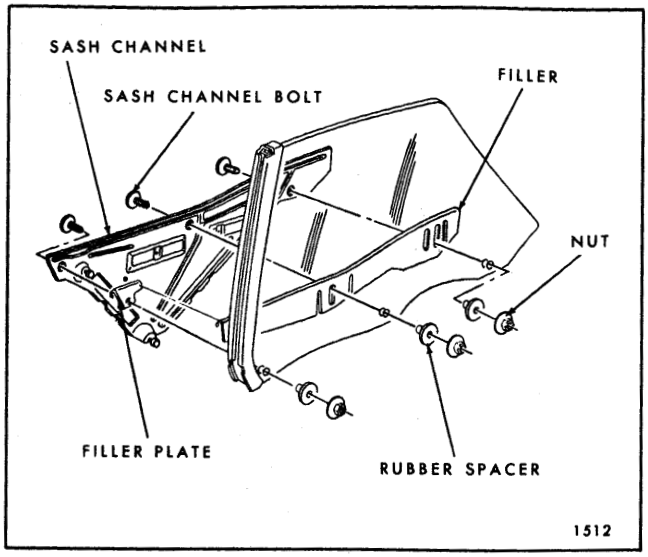

Fig. 8-49—Rear Quarter Window Assembly - "B&C" - "37-57 and 67" Styles

NOTE: If necessary, loosen upper attaching points of front guide to gain additional clearance.

6. To install, reverse removal procedure.

NOTE: The procedure for removing the electric motor from the regulator is described under "Door and/or Quarter Window Regulator Electric Motor Assembly".

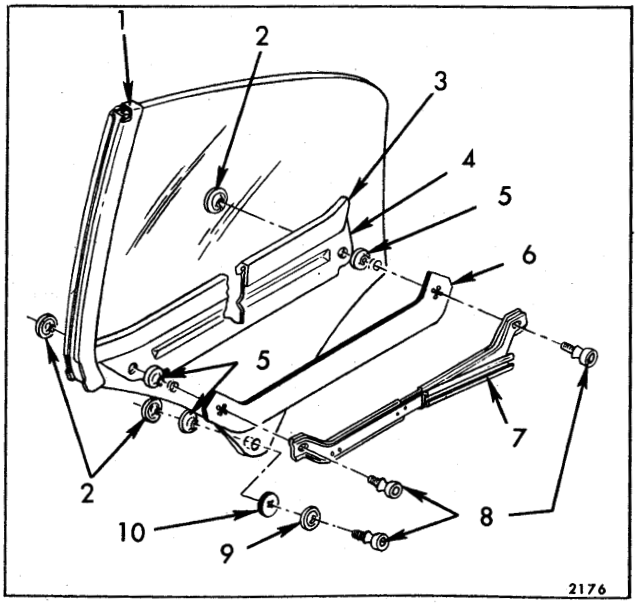

Fig. 8-50—Rear Quarter Window Assembly - Chevrolet "B-47" Style

1. Front Sash Channel
2. Nut
3. Lower Sash Outer Filler
4. Outer Filler Retainer
5. Bushing
6. Lower Sash Inner Filler
7. Lower Sash Cam Assembly
8. Roller Assembly
9. Washer (Steel)
10. Washer (Rubber)

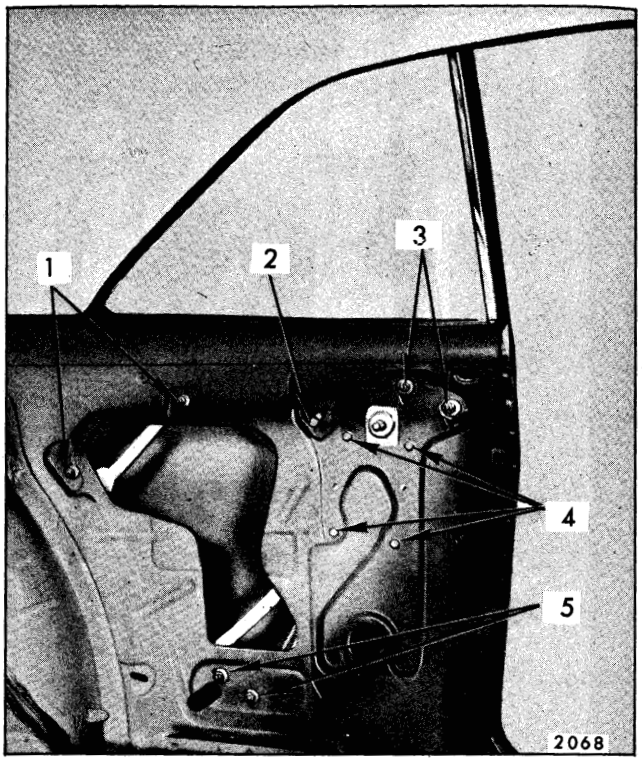

Fig. 8-51—Rear Quarter Hardware - "A-17" Style

1. Rear Guide Adjusting Studs and Nuts
2. Up-Stop Bolt
3. Front Guide Upper Adjusting Studs & Nuts
4. Regulator Bolts
5. Front Guide Lower Adjusting Studs & Nuts

REAR QUARTER WINDOW FRONT GUIDE "B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter window assembly as previously described.

2. Remove front guide upper and lower adjusting stud nuts (Fig. 8-48) and remove guide through access hole.

3. To install, reverse removal procedure.

REAR QUARTER WINDOW REAR GUIDE— "B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37-47 and 57" styles remove inner panel water deflector.

2. With window in full-up position, remove rear

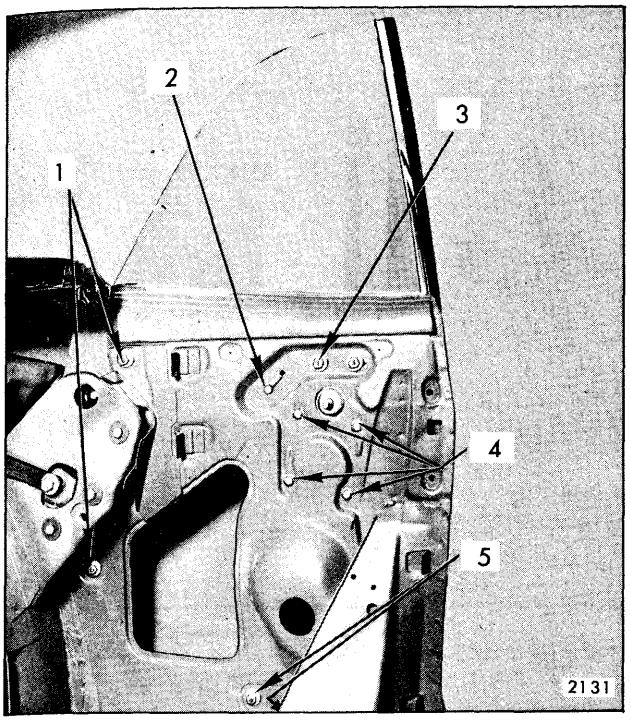

Fig. 8-52—Rear Quarter Hardware - "A-67" Style

1. Rear Guide Adjusting Studs and Nuts
2. Up-Stop Bolt
3. Front Guide Upper Adjusting Studs & Nuts
4. Regulator Bolts
5. Front Guide Lower Adjusting Studs & Nuts

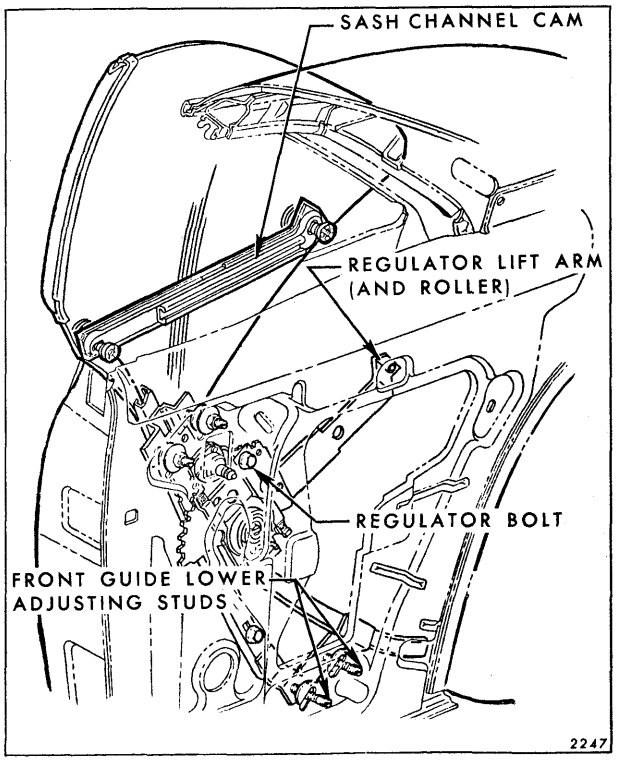

Fig. 8-53—Rear Quarter Window Removal "A-17 and 67" Styles

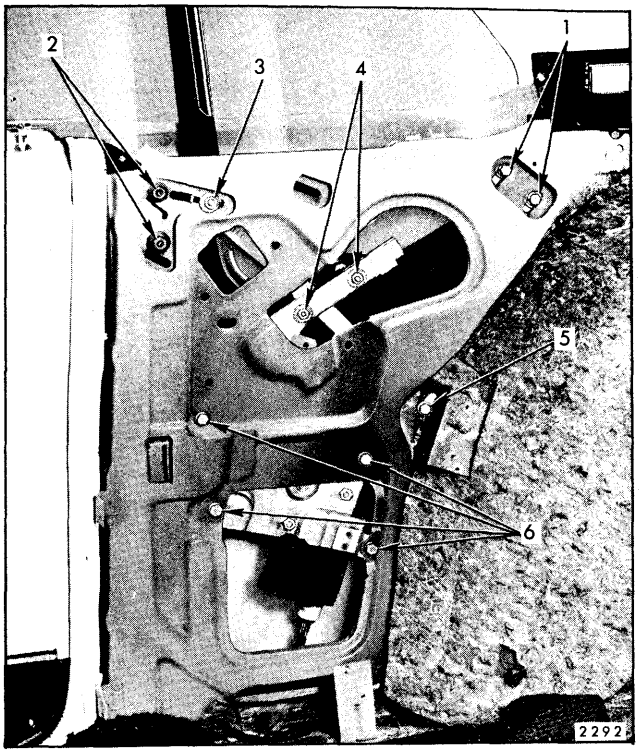

Fig. 8-54—Rear Quarter Hardware - "E" Body

1. Rear Guide Attaching Bolts
2. Front Guide Upper Adjusting Studs & Nuts
3. Up-Stop Attaching Bolts
4. Regulator Lift Arm Cam Attaching Nuts
5. Front Guide Lower Attaching Bolt
6. Regulator Attaching Bolts (4 for Elect. 5 for Manual)

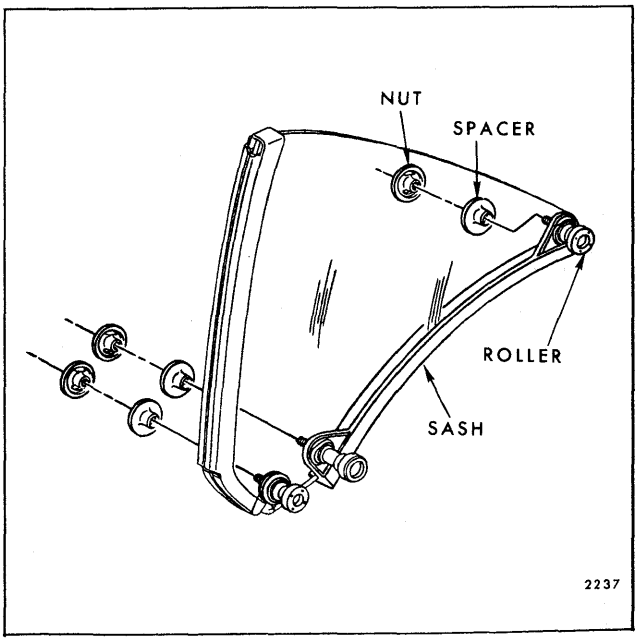

Fig. 8-55—Rear Quarter Window Assembly - "E" Body Styles

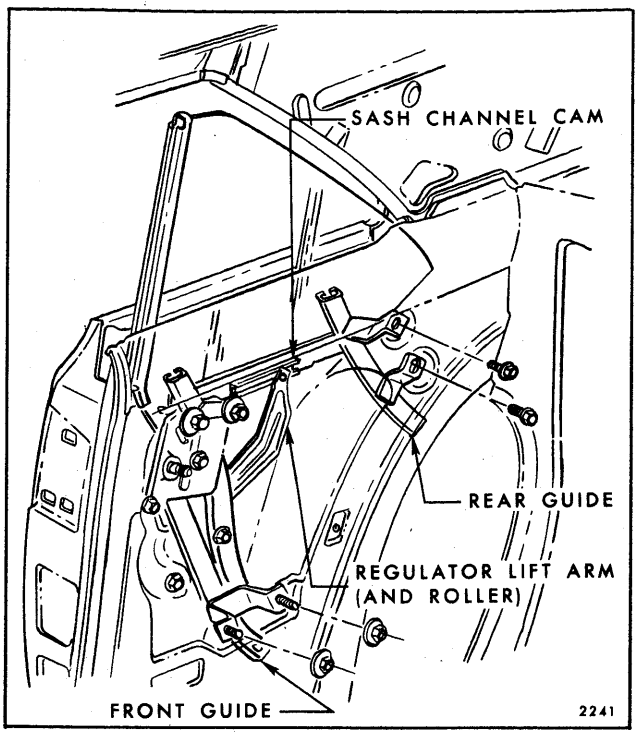

Fig. 8-56—Rear Quarter Hardware - "X"-37 Style

guide upper and lower adjusting stud nuts (Fig. 8-48). Disengage guide from roller on window lower sash channel and remove guide through access hole.

3. To install, reverse removal procedure.

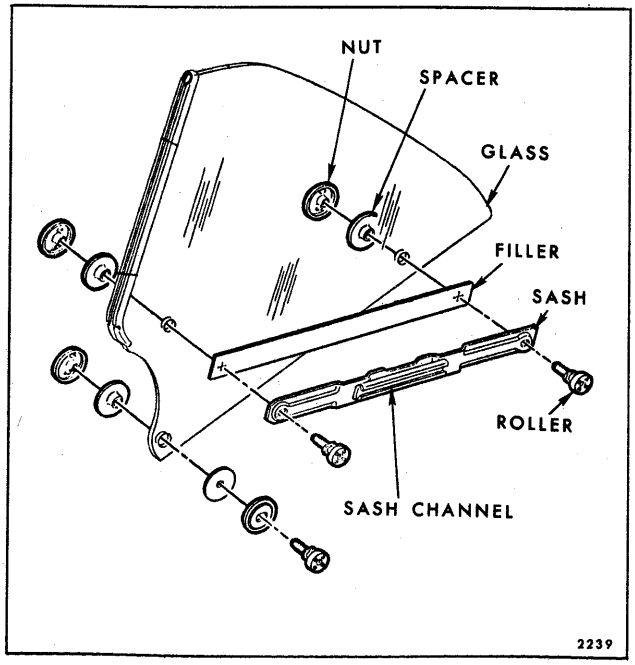

Fig. 8-57—Rear Quarter Window Assembly - "X-37" Style

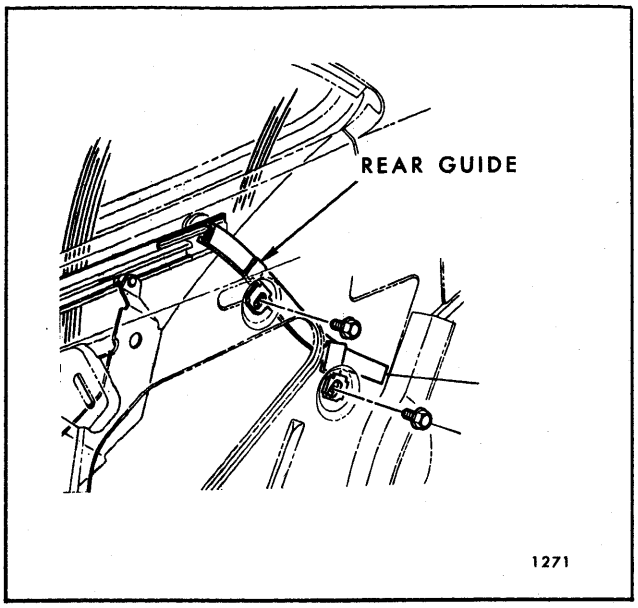

Fig. 8-58—Rear Quarter Window Rear Guide Assembly - "Z-37" Styles

REAR QUARTER WINDOW FRONT GUIDE ASSEMBLY—"A-E-X & Z" HARDTOP AND CONVERTIBLE STYLES

Removal and Installation

1. Remove rear quarter window assembly.
2. On "A, X & Z" styles, remove front guide upper and lower adjusting stud nuts (refer to Figs. 8-52 and 8-51). These illustrations are for "A" bodies but are indicative of all styles).

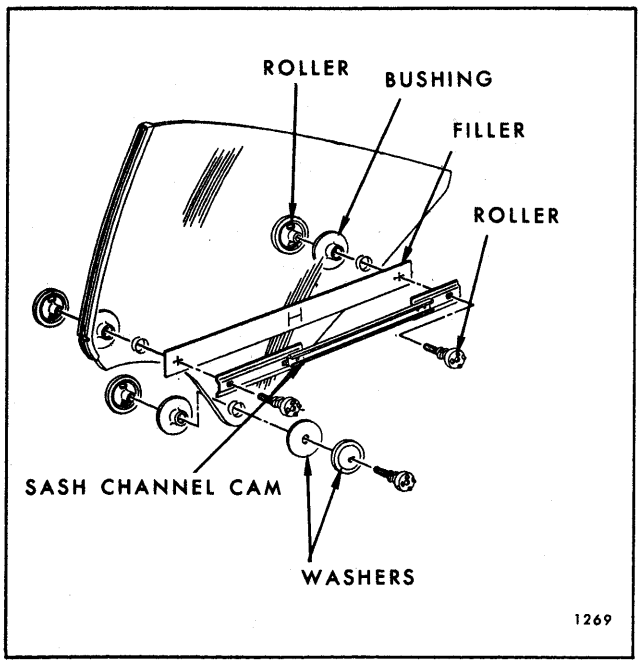

Fig. 8-59—Rear Quarter Window Assembly - "Z-37" Styles

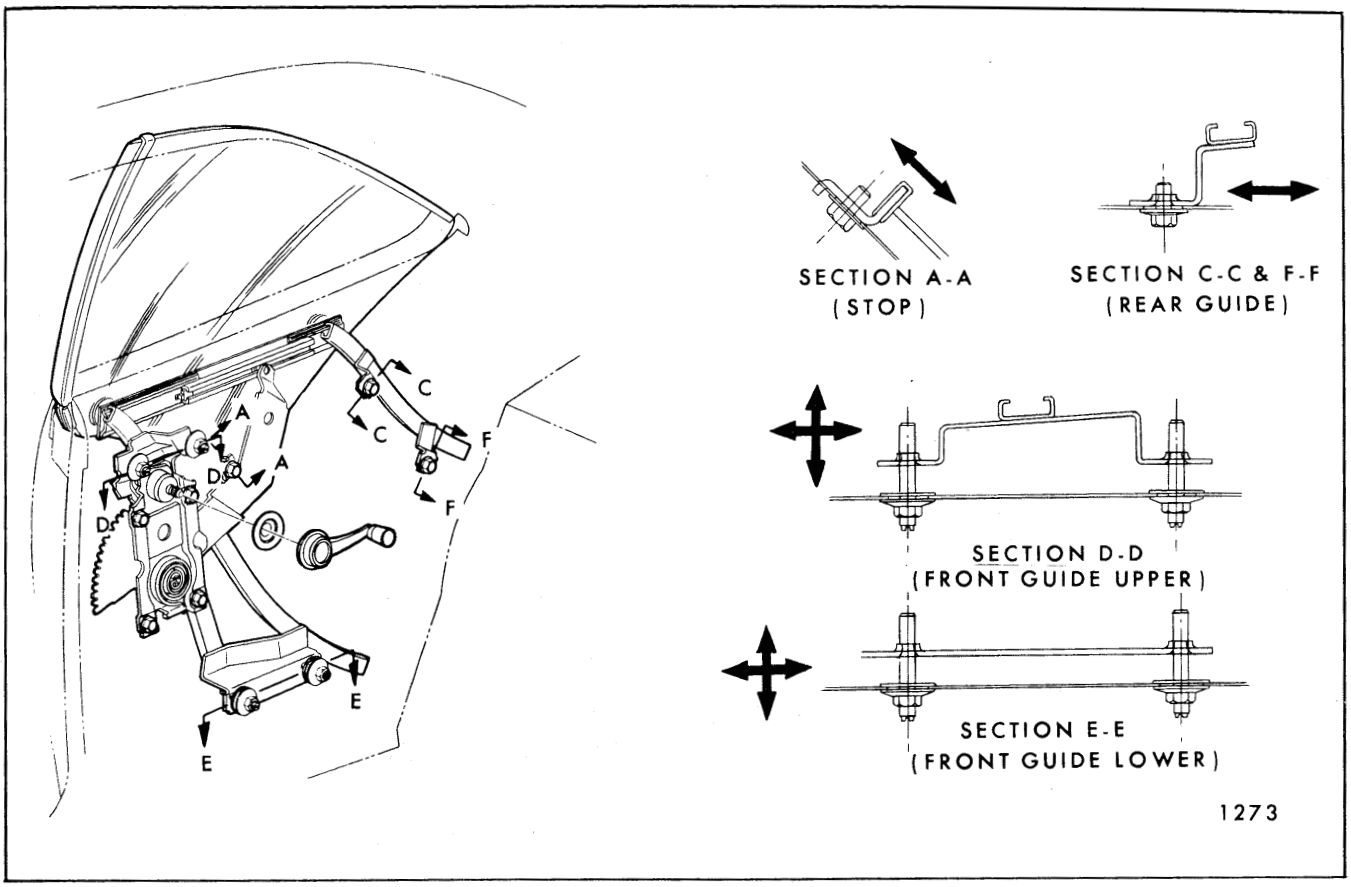

Fig. 8-60—Rear Quarter Window Adjustments - "Z-37" Styles (Arrows Indicate Adjustment Direction Available)

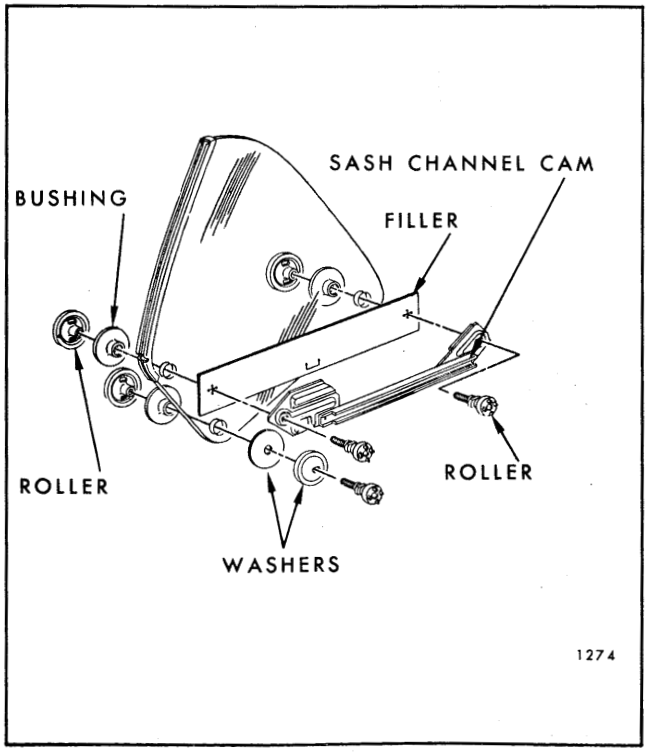

Fig. 8-61—Rear Quarter Window Assembly - "Z-67" Styles

NOTE: As explained under "Rear Quarter Window Assembly" - Removal and Installation for "E" bodies, the front guide attachments must be removed and guide lowered prior to removal of window assembly.

3. Disengage guide adjusting studs from slots in quarter inner panel and remove guide through access hole on all except "E" styles. On "E" bodies, remove front guide between rear quarter inner and outer panels at belt.

4. To install, reverse removal procedure. Adjust guide for proper window operation as specified under "Rear Quarter Window Adjustments".

NOTE: The rear channel of the front guide of "A-17 & 67" styles is equipped with an adjustable lower stop to control height of quarter window in the lowered position (see Fig. 8-32).

REAR QUARTER WINDOW GLASS RUN CHANNEL—CHEVROLET"B-47" STYLE

Removal and Installation

1. Remove rear quarter upper extension trim panel.

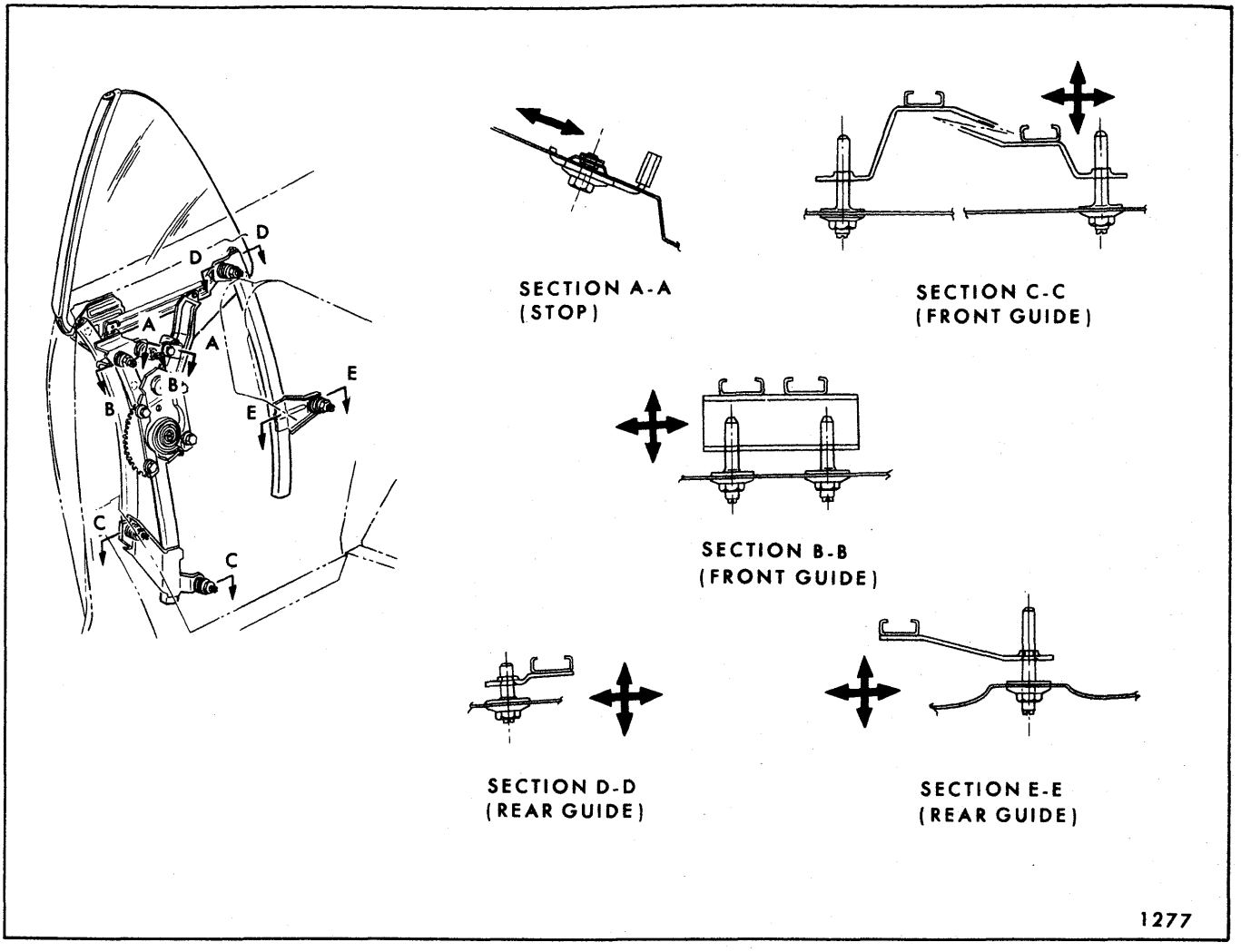

Fig. 8-62—Rear Quarter Window Adjustments - "Z-67" Styles (Arrows Indicate Adjustment Direction Available)

2. With window in full-down position, remove screw securing run channel to rear quarter extension panel (Fig. 8-64).

3. Remove screw inserted through forward end of run channel into side roof rail (Fig. 8-64) and remove run channel from body.

4. To install, reverse removal procedure. Prior to installation apply a bead of body caulking compound to surface of run channel that mates with side roof rail to effect a weathertight seal when installed.

REAR QUARTER WINDOW UPPER GLASS RUN CHANNEL ASSEMBLY—"E" STYLES

Removal and Installation

1. Remove rear seat cushions and back (see seat trim index).

2. Remove screw securing side roof rail weatherstrip, weatherstrip retainer and rear quarter window run channel to side roof rail (see View "B" in Fig. 8-65).

3. Remove screw securing lower end of run channel to rear quarter inner panel (see View "B" in Fig. 8-65).

4. On Buick styles, remove screw securing outer wall of run channel to side rail (see Section "A-A" in Fig. 8-65).

5. Remove rear quarter window upper glass run channel.

6. To install, reverse removal procedure. If original sealing strip (see section "E-E" in Fig. 8-65) is damaged, seal run channel to side rail with pumpable caulking compound.

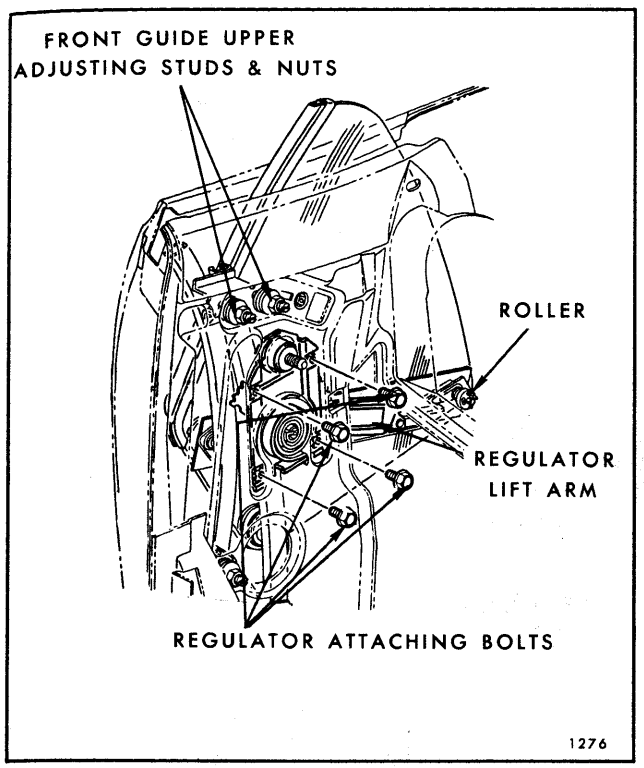

Fig. 8-63—Rear Quarter Window Regulator Attachment - "Z-67" Styles

REAR QUARTER WINDOW OUTER STRIP ASSEMBLY—PONTIAC, OLDSMOBILE, AND BUICK "B-37 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37" styles remove inner panel water deflector.

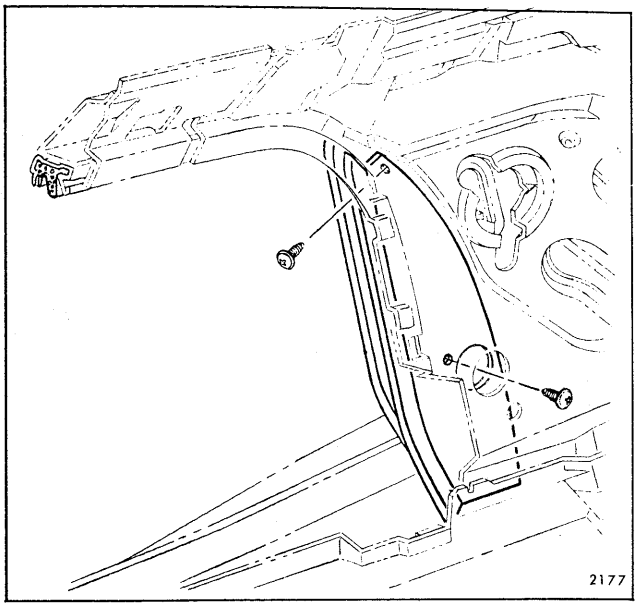

Fig. 8-64—Rear Quarter Window Glass Run Channel - "B-47" Style

2. Working through access hole, loosen down-stop attaching screw (Fig. 8-66). Slide stop to bottom of guide channel and retighten stop bolt.

3. Operate window to full-down position and remove screws securing outer strip assembly to outer panel return flange.

4. To install, reverse removal procedure. Reposition window down-stop for proper alignment of top edge of glass with body belt line when window is fully lowered.

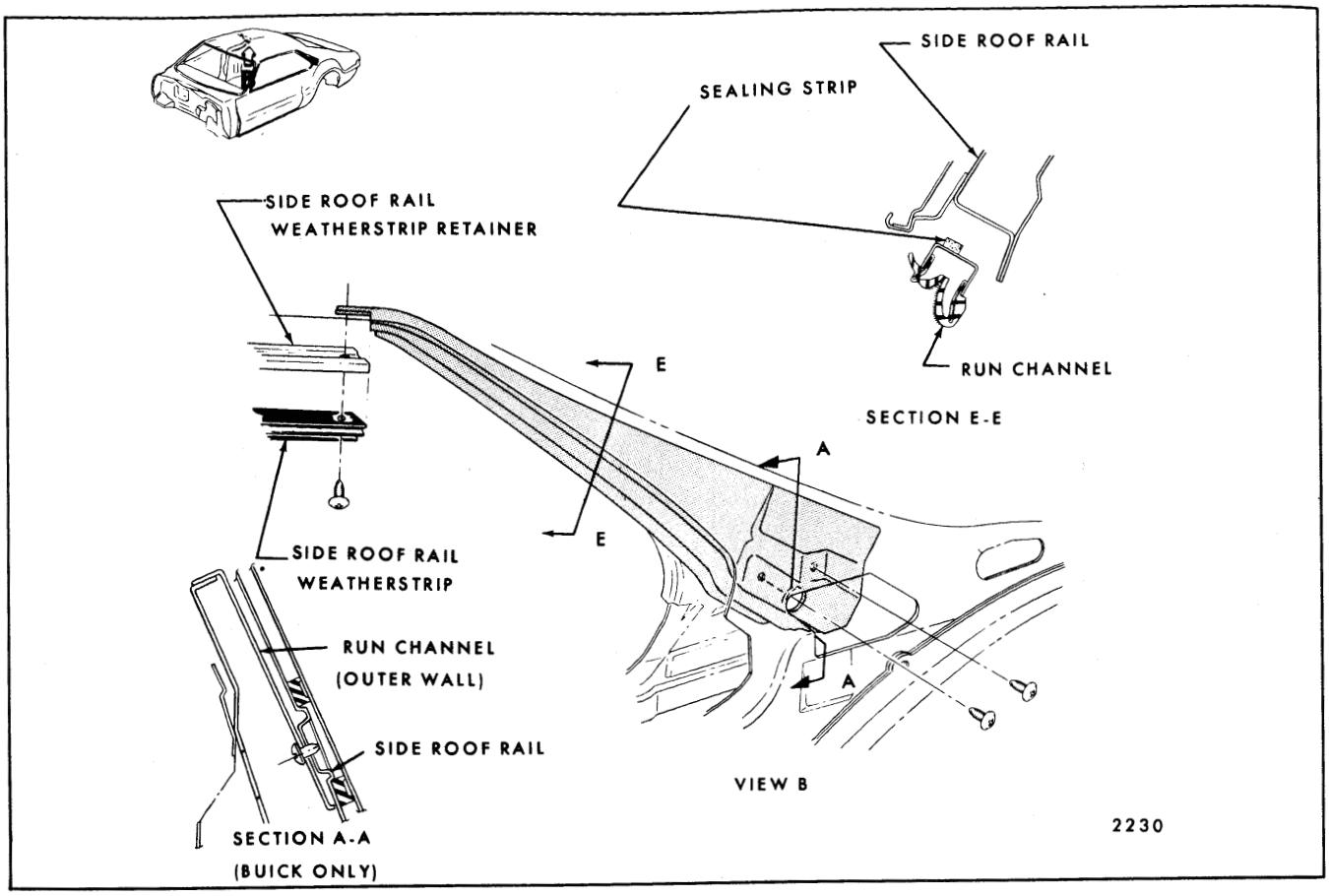

Fig. 8-65—Rear Quarter Window Upper Glass Run Channel - "E" Body Styles

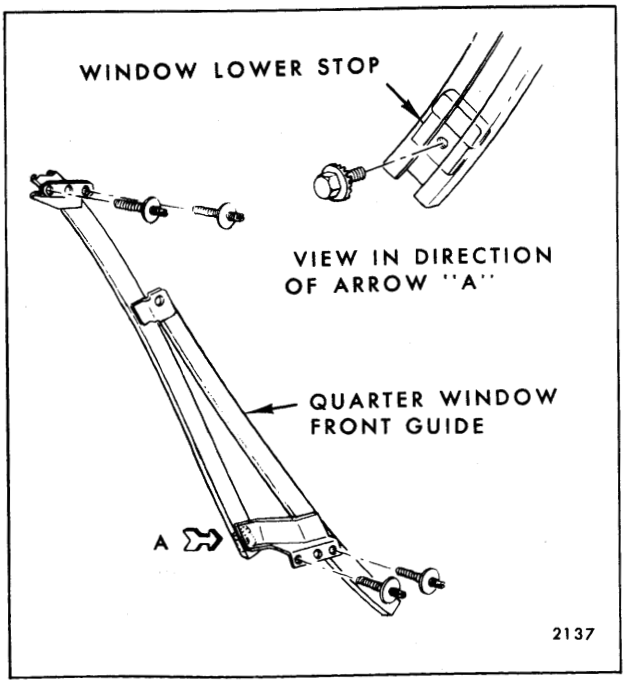

Fig. 8-66—Rear Quarter Window Lower Stop Adjustment - Styles so Equipped

SECTION 9
REAR END

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BACK WINDOW GLASS
Removal and Installation
All Styles Except 35-45-55-65 and 67 Styles

DESCRIPTION

The back window glass is retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a back window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to back window glass removal and installation, will be covered in this section.

REMOVAL

1. Removal glass as outlined in General Information Section. If the original glass is to be re-

used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use an oil base solvent. Any trace of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around back window opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, replace or reform clip to insure adequate molding retention. Tighten all loose clip screws.

2. With black weatherstrip adhesive cement two flat spacers (.18 x .63 x 1.0 Part #4421823 or equivalent) to pinchweld flange at top, approximately fifteen inches each side of centerline of opening (Fig. 9-1).

3. With black weatherstrip adhesive, cement four rectangular spacers (.34 x .44 x 1.0 Part #4871330 or equivalent) to back window opening rabbet - one in center of each side and two at bottom, approximately nineteen inches from centerline of opening (Fig. 9-1).

NOTE: A thicker (Part #4534314) or thinner (Part #4404196) spacer can be used in an emergency in lieu of spacer listed in step 3.

4. On styles so equipped with 3 slots in compartment front shelf panel across lower edge of back window opening, install three insert

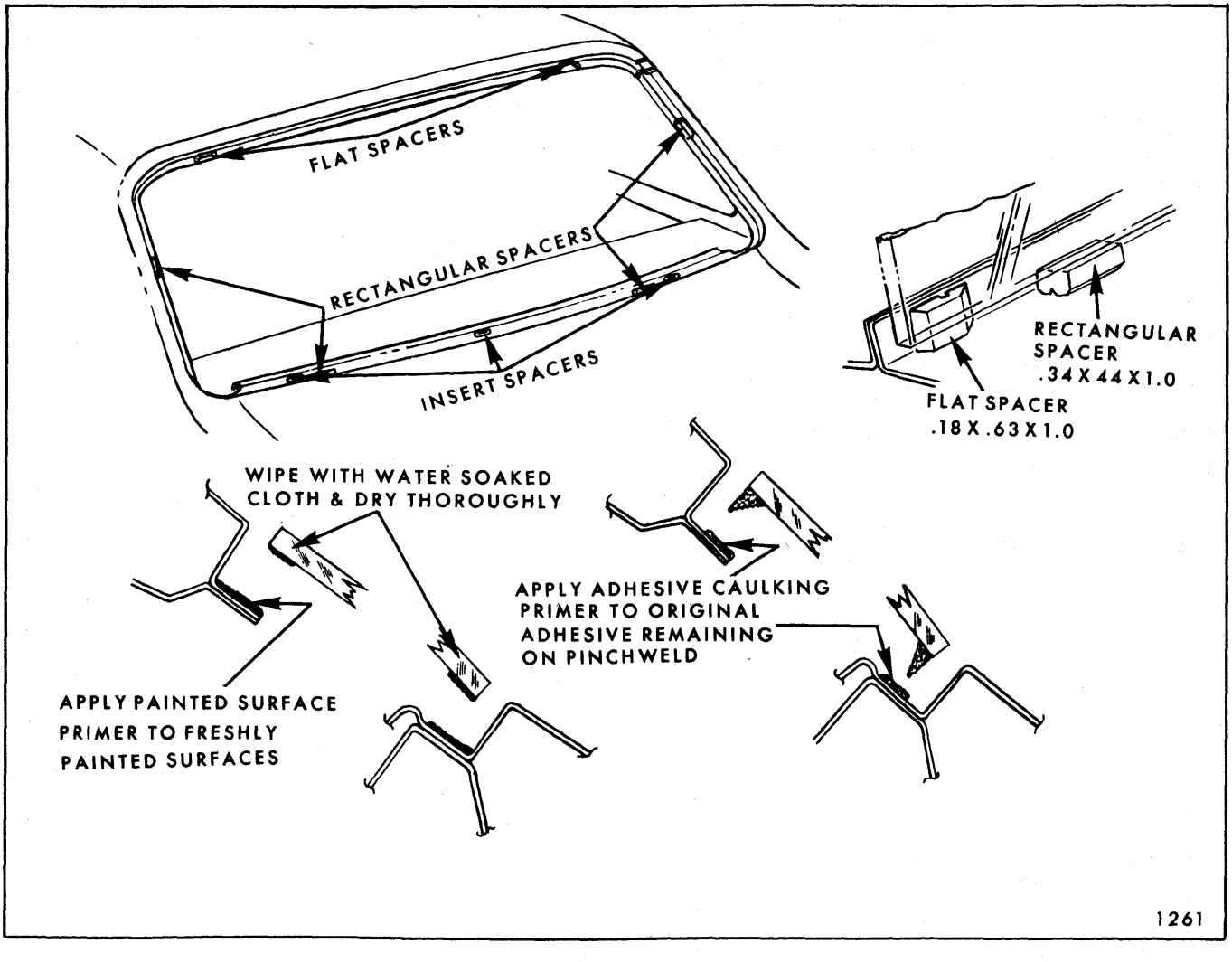

Fig. 9-1—Back Window Adhesive Caulked Installation

spacers (.18 x .24 x .74 Part #4410043 or equivalent) at bottom, one in center and one each approximately 22 inches from centerline (Fig. 9-1). On all other styles cement (with black weatherstrip adhesive) three flat spacers (.18 x .62 x 1.0 Part #4421823 or equivalent) at bottom, one in center and one each approximately 22 inches from centerline.

NOTE: The rectangular spacers across the bottom support the weight of the glass, therefore, make certain that they are well positioned so they will not rock or slide out.

5. Position glass in opening and check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers.

6. Check relationship of glass contour to back window opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, corrections can be made by any one of the following methods.

   a. Substitute another glass to determine if it will fit opening better.

   b. Rework pinchweld flange.

   c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange by allowing bead on glass to exceed specified 3/8" height at gap areas.

7. After final adjustments have been made and glass is in proper position in opening, apply a piece of masking tape horizontally over each side edge of glass and rear quarter extension (Fig. 9-2), so that when glass is being installed, tape on glass can be aligned with tape on body and serve as a guide.

8. Apply one inch masking tape to inner surface of glass 1/4" inboard from outer edge up both sides and across top. Do not apply tape to bottom edge of glass. Instead, apply masking tape over painted feature strip below back window opening. (See Fig. 9-3.)

9. Using a clean, lint-free cloth liberally dampen with Adhesive Caulking Primer, briskly rub primer over original adhesive caulking compound remaining on pinchweld flange.

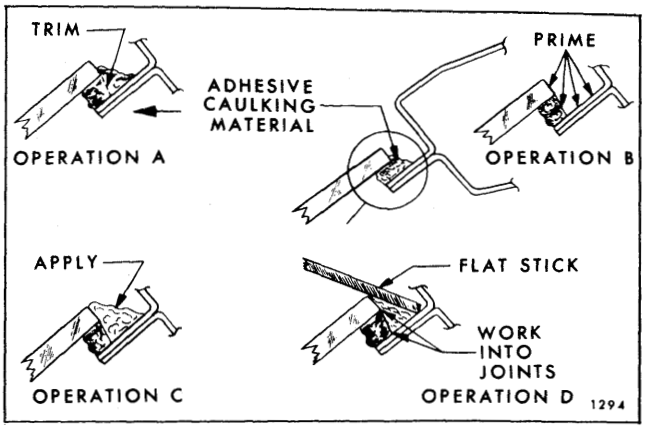

Fig. 9-2—Back Window Installation

NOTE: If the pinchweld flange has been repainted, prime flange with Paint Surface Primer, or equivalent.

10. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened rag. Dry glass thoroughly with a clean, dry rag.

11. With caulking gun and nozzle positioned as illustrated in Figure 9-3 carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass.

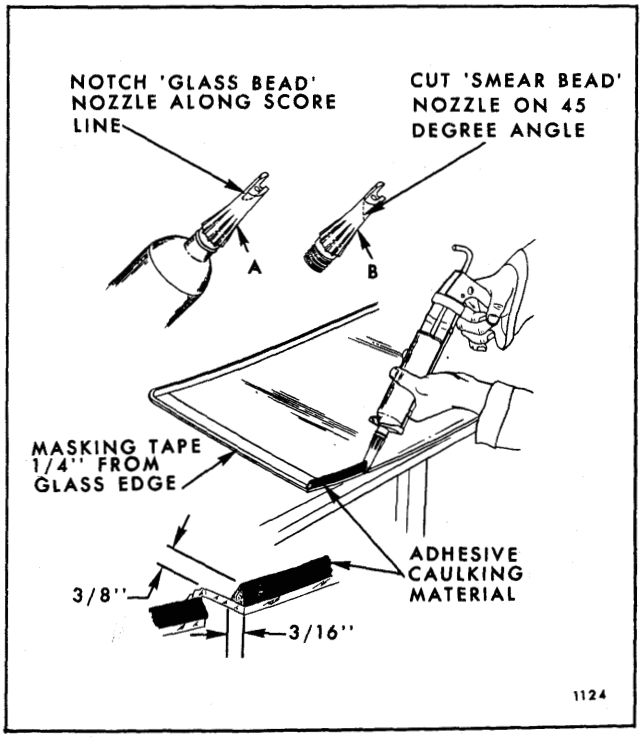

Fig. 9-3—Adhesive Caulking Installation - Extended Method

NOTE: When material in first tube is dispensed, quickly insert second tube and continue application of bead. This material begins to cure after fifteen minutes exposure to air, therefore, perform the following steps immediately and install glass in the opening as quickly as possible.

12. Remove "glass-bead" nozzle and insert "smear-bead" nozzle. Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear-bead" of adhesive caulking material completely around pinchweld flange.

13. Install glass in body opening making certain that glass sets properly on spacers and does not have to be shifted after material contacts pinchweld flange. Align tape on glass with tape on body to guide window into opening. (See Fig. 9-2).

NOTE: When setting glass into opening, it should be in the same plane as opening so that all edges of glass contact pinchweld flange at approximately the same time.

14. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the glass.

15. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.

16. Watertest installation immediately using cold water spray.

17. Remove masking tape from inside of glass.

18. Install reveal moldings, inside garnish moldings and previously removed parts.

REAR COMPARTMENT
All Styles Except Corvair

The rear compartment lid employs two torque rods that are mounted between the hinge assemblies to act as a counterbalance and hold-open for the lid. Notches at the stationary end of the rods allow for adjustment of the rods to increase or decrease lid operating effort.

The rear compartment lid lock employs a side-action snapbolt mechanism that has provisions at the attaching locations for lateral adjustment. Up and down adjustment to correct lid locking effort is available at the striker attaching locations.

All styles use a single section cement-on type weatherstrip which is cemented to the rear compartment gutter completely around the lid opening.

REAR COMPARTMENT LID

Removal and Installation

1. Open lid and place protective covering along edges of rear compartment opening to prevent damage to painted surfaces.

2. Where necessary, disengage wire harness from clips on hinge and rear compartment lid inner panel and remove wire harness.

3. On styles with rear compartment lid lock vacuum release option in compartment lid, disconnect vacuum hose from vacuum release unit and remove hose from lid.

4. Mark location of hinge straps on rear compartment lid inner panel.

5. With the aid of a helper, remove lid attaching bolts and remove lid (Fig. 9-4 for "A, B, C & X" Styles, Fig. 9-5 for "E" Styles).

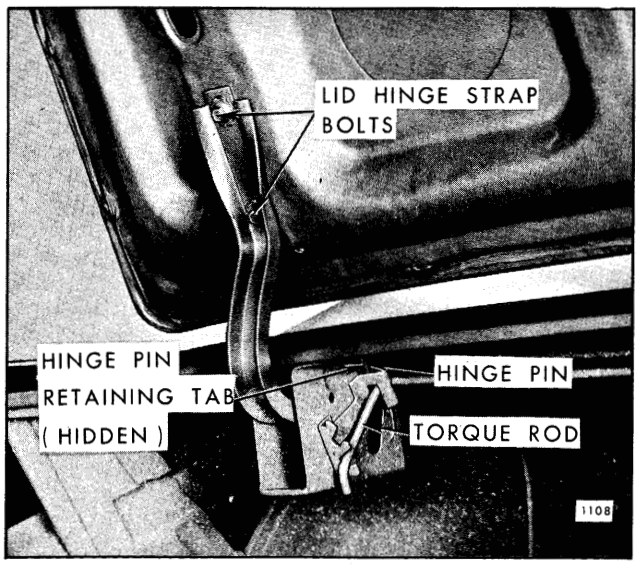

Fig. 9-4—Rear Compartment Lid Attachment

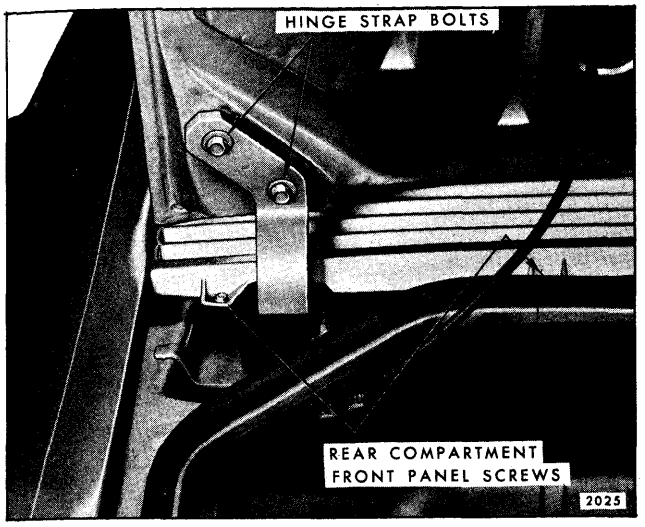

Fig. 9-5—Rear Compartment Lid Attachment

6. To install, align lid within scribe marks and reverse removal procedure.

Adjustments

1. Forward, rearward and side-to-side adjustments of lid are provided at hinge strap attaching points. The lid can be raised or lowered at hinge bolt locations by the use of shims installed between inner panel and hinge strap.

2. The lock and striker are adjustable for correct lock-to-striker engagement and proper lid closing effort.

ENGINE COMPARTMENT LID—CORVAIR

Removal and Installation

1. Raise lid and place protective covering over adjacent paint finish.

2. Mark position of hinge straps on lid inner panel.

3. With the aid of a helper holding lid in open position, remove lid support attaching bolts from lid. (See Fig. 9-6.)

4. With lid properly supported, remove hinge strap attaching bolts and remove engine compartment lid from body. (See Fig. 9-6.)

5. To install, reverse removal procedure, aligning hinge straps within scribe marks.

Adjustments

1. To adjust the engine compartment lid forward, rearward or sideways in the body opening, loosen hinge strap-to-lid attaching bolts and shift lid to required position, then tighten bolts.

2. The lid latch and striker are adjustable for proper engagement when closing lid.

REAR COMPARTMENT FRONT PANEL "E" STYLES

Removal and Installation

1. Raise rear compartment lid and remove lower screws of panel (see Fig. 9-5).

2. Remove back window lower reveal molding.

3. Remove upper screws of rear shelf panel and remove panel.

4. To install, reverse removal procedure.

REAR COMPARTMENT LID HINGE STRAP

Removal and Installation

1. Place protective covering over upper portion of rear compartment opening and provide support for lid on side from which hinge strap is to be removed.

2. Disengage any wire harness or vacuum hose that may interfere with hinge strap removal.

3. Mark location of hinge strap on lid inner panel and remove bolts securing hinge strap to lid.

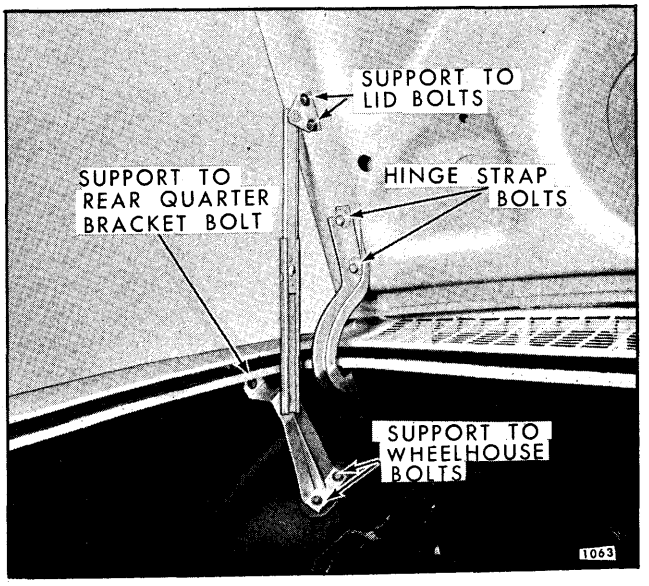

Fig. 9-6—Engine Compartment Lid Support

4. Disengage torque rod from notched retainer on inboard face of opposite side hinge box. On "B & C" Styles use 1/2" I.D. pipe; on "A & X" Styles use tool J-21412 as shown in Figure 9-7. On "E" Styles, first remove rear compartment front panel, then disengage rod using tool J-22291 as shown in Figure 9-8.

5. Disengage opposite end of torque rod from movable portion of hinge strap and remove rod.

6. Bend up hinge pin retaining tab and drive out pin. Remove hinge strap from body.

7. To install, reverse removal procedure.

REAR COMPARTMENT TORQUE ROD ADJUSTMENT

The amount of effort required to open and close the rear compartment lid is determined by the position of the torque rod in the notches on the inboard face of the hinge boxes. If the torque rod is located in the lowest notch, the amount of effort required to open the lid is the greatest and the amount of effort required to close the lid is the least. If the torque rod is located in the top notch, the amount of effort to open the lid is the least and the amount of effort to close the lid is the greatest (Fig. 9-4).

NOTE: It is not necessary to adjust the left and right hand torque rods at the same time or to the same final position (notch).

On "B & C" Styles adjust rod with a length of 1/2" I.D. pipe. On "A & X" Styles use tool J-21412 as shown in Figure 9-7. If tool is not available, fabricate equivalent as shown in Figure 9-9. On "E" Styles use tool J-22291 as shown in Figure 9-8. If tool J-22291 is not available, fabricate equivalent as shown in Figure 9-10.

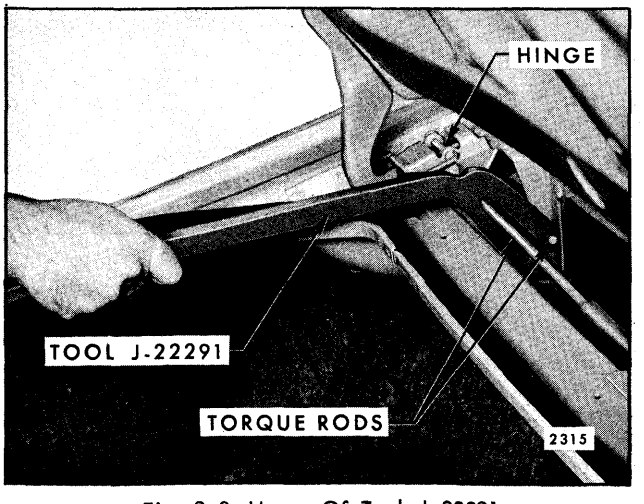

Fig. 9-8—Usage Of Tool J-22291

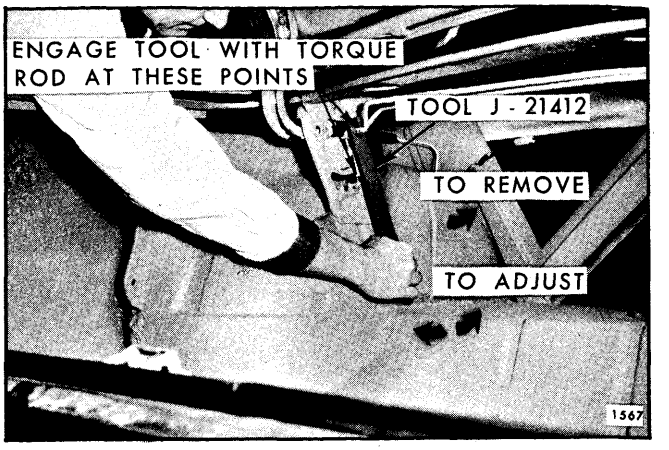

Fig. 9-7—Rear Compartment Torque Rod Adjustments

ENGINE COMPARTMENT LID SUPPORT—CORVAIR

Removal and Installation

1. Prop engine compartment lid in a full open position.

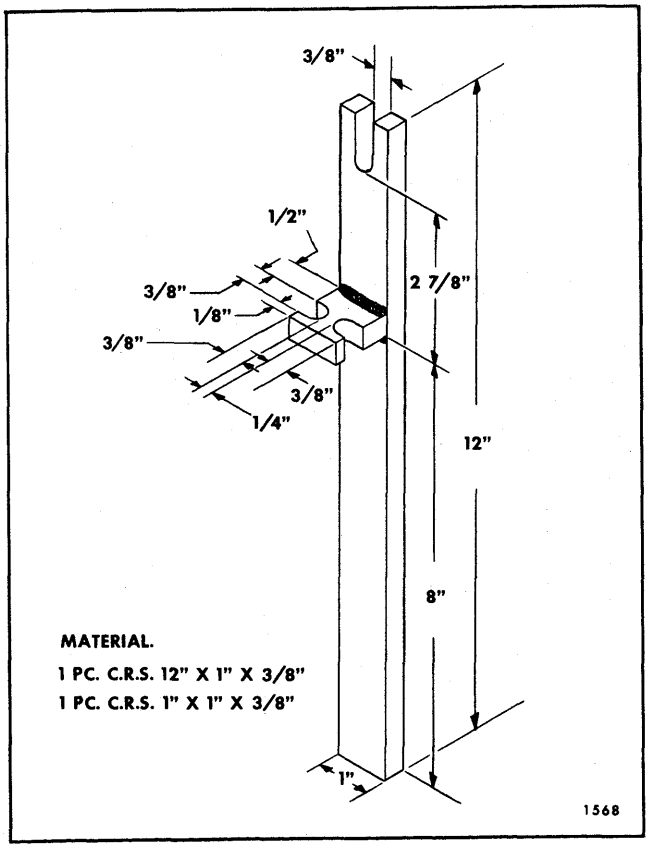

Fig. 9-9—Rear Compartment Torque Rod Adjusting Tool

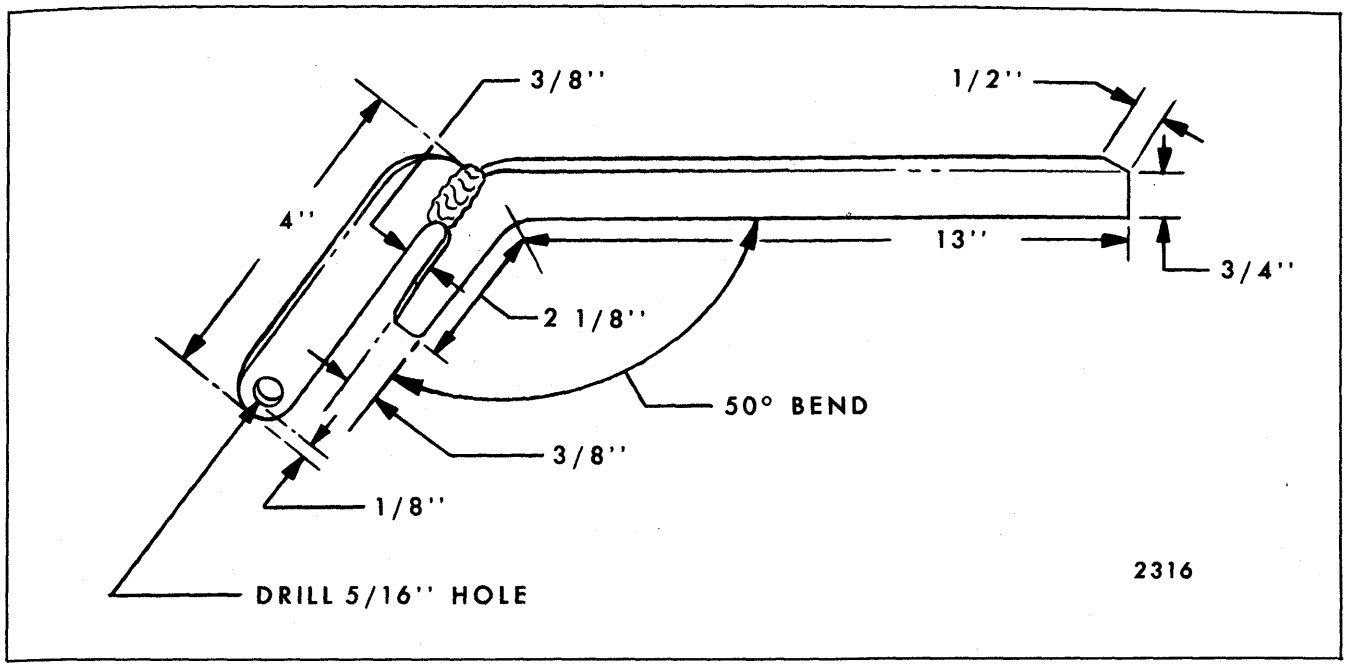

Fig. 9-10—Tool J-22291 "E" Body Torque Rod Adjusting Tool

2. Remove the two attaching bolts securing support to lid, the two bolts securing support to wheelhouse and the single bolt securing support to rear quarter bracket (see Fig. 9-6) and remove support from body.

3. To install, reverse removal procedure. To insure good operation, lubricate telescoping channels of support with Lubriplate or its equivalent.

REAR COMPARTMENT LID LOCK CYLINDER CHEVROLET "B & X" STYLES, BUICK "A-B & C" STYLES AND OLDSMOBILE "A & C" STYLES

Removal and Installation

1. Open rear compartment lid. Remove lock cylinder retainer attaching screws located on lid inner panel below lock cylinder and adjacent to lid hemming flange (Fig. 9-11).

2. Pull downward on retainer to disengage retainer from lock cylinder and remove retainer from lid. Lock cylinder is now free and can be removed from compartment lid outer panel.

3. To install, reverse removal procedure. Make certain lock cylinder shaft engages with lock and that gasket mates properly with compartment lid outer panel to form a watertight seal. Check lock for proper operation (section "B-B" in Fig. 9-11).

REAR COMPARTMENT LID EMBLEM AND LOCK CYLINDER ASSEMBLY ALL CADILLAC STYLES

Removal and Installation

1. Open rear compartment lid. Remove access hole cover screws at lower rear of lid inner panel and remove cover.

2. Working through access hole, remove stud nuts securing compartment lid emblem and lock cylinder assembly and lock cylinder guard.

3. Remove guard through access hole, then remove compartment lid emblem and lock cylinder assembly from lid outer panel (Fig. 9-12).

4. To remove lock cylinder from emblem, remove lock cylinder shaft and spring and rotate cylinder counter-clockwise.

5. To install, reverse removal procedure. Make certain that emblem gasket mates properly with lid outer panel and that emblem stud holes are sealed to protect against waterleaks.

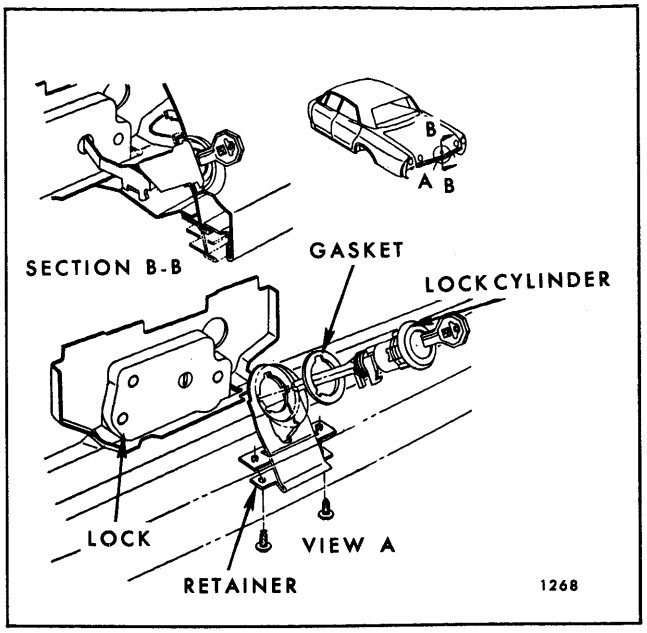

Fig. 9-11—Rear Compartment Lid Lock Cylinder

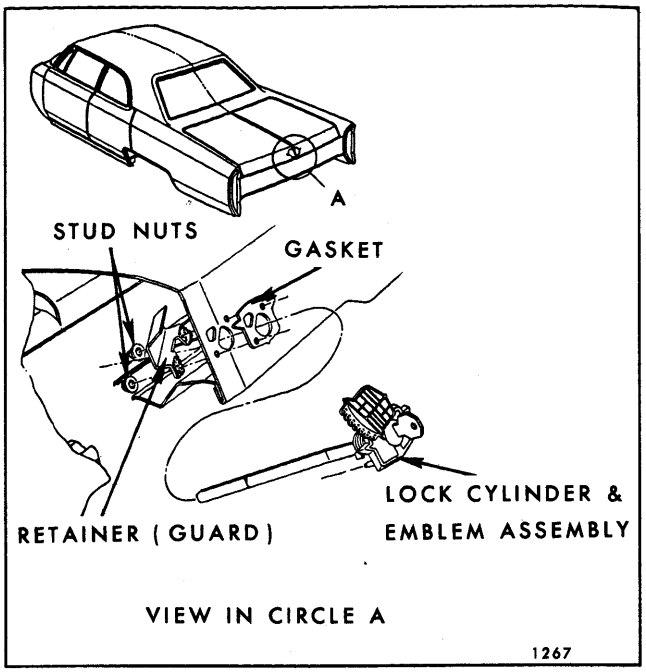

Fig. 9-12—Rear Compartment Lid Lock Cylinder and Emblem Assembly

REAR COMPARTMENT LID LOCK CYLINDER CHEVROLET "A", PONTIAC "A & B" (EXCEPT 26657), OLDSMOBILE "B & E" AND BUICK "E" STYLES

Removal and Installation

1. Open rear compartment lid and remove screw securing lock cylinder retainer to rear compartment lid lock support (Fig. 9-13).

2. Slide retainer laterally to disengage it from lock cylinder and remove lock cylinder assembly and sealing gasket from rear end panel.

3. To install, reverse removal procedure.

REAR COMPARTMENT LID LOCK CYLINDER ASSEMBLY PONTIAC 26657 STYLE

1. Open rear compartment lid. Working through access holes provided in rear end panel, remove nuts securing lock cylinder assembly to studs on rear end panel molding.

2. Move lock cylinder and shaft assembly forward to enable disengaging shaft from cylinder and remove shaft and cylinder from body.

NOTE: On styles with rear compartment lid lock vacuum release unit, it is necessary to remove lock and vacuum release unit attaching bolts to permit lock cylinder removal.

3. To install, reverse removal procedure.

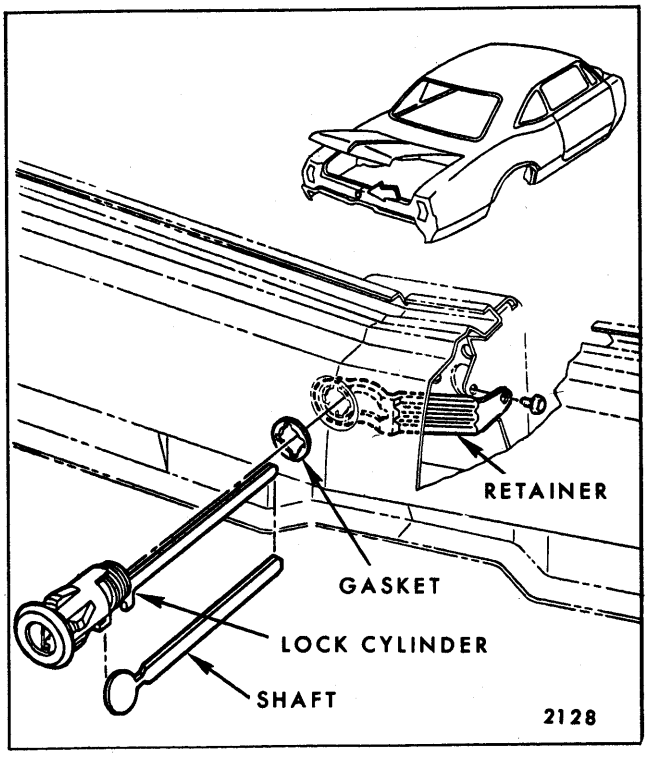

Fig. 9-13—Rear Compartment Lid Lock Cylinder Assembly - Oldsmobile "B" Style Shown

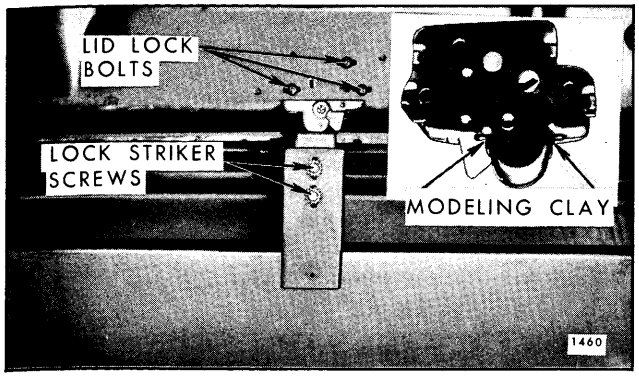

Fig. 9-14—Rear Compartment Lid Lock and Striker

REAR COMPARTMENT LID LOCK

Removal and Installation

1. Remove rear compartment lid lock cylinder assembly as previously described.
2. On styles so equipped, remove rear compartment lid vacuum release unit as described on page 9-10.
3. Remove rear compartment lid lock attaching bolts and remove lock from lid (Fig. 9-14 and 9-15).
4. To install, reverse removal procedure. Check lock engagement with striker and make any necessary lateral adjustments before tightening bolts.

REAR COMPARTMENT LID LOCK STRIKER

Removal and Installation

1. Open rear compartment lid. Mark vertical position of striker by scribing a line on striker at top of striker support or at base of lid inner panel.
2. Remove striker attaching screws and remove striker (Fig. 9-14 and 9-15).
3. To install, reverse removal procedure. Close lid to check lock to striker engagement and make any necessary vertical adjustments before tightening striker screws.

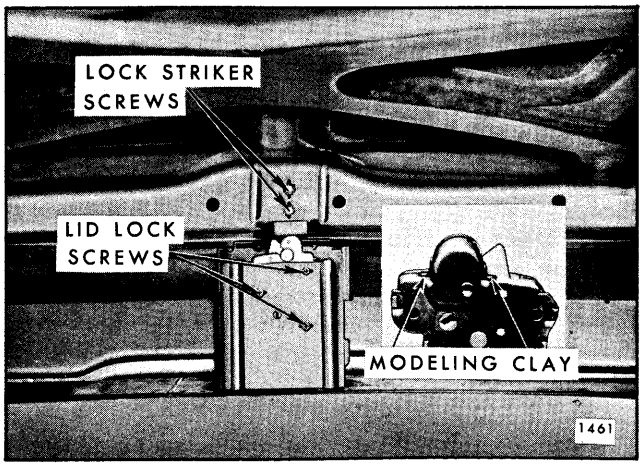

Fig. 9-15—Rear Compartment Lid Lock and Striker

REAR COMPARTMENT LID LOCK STRIKER ENGAGEMENT ALL STYLES EXCEPT CORVAIR AND CADILLAC STYLES WITH MECHANICAL CLOSING UNIT OPTION

IMPORTANT: Since the rear compartment lock frame acts as a guide when entering the striker, make sure rear compartment lid is properly positioned in body opening before performing striker engagement check.

1. Insert a small quantity of modeling clay on frame of lock at both sides of the lock bolt (Figs. 9-14 and 9-15). Close lid with moderate force.
2. Open lid and check amount of engagement of striker with lock frame as indicated by the compression of the clay. The striker bar impressions in the clay should be even on both sides of the lock frame. Where required, loosen striker or lock attaching screws; adjust lock sideways or striker up or down to obtain proper engagement; then, tighten screws.

ENGINE COMPARTMENT LID LATCH ALL CORVAIR STYLES

Removal and Installation

1. Raise engine compartment lid and mark position of latch.

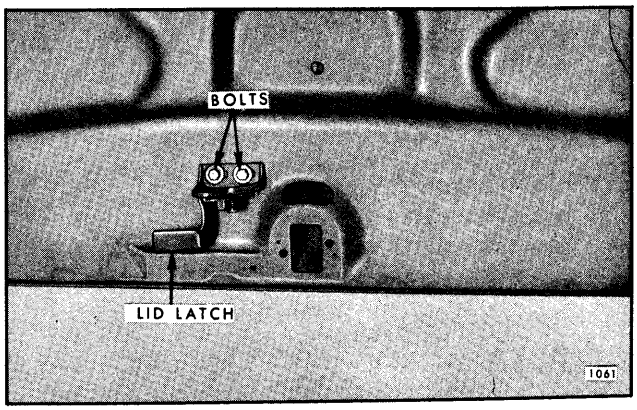

Fig. 9-16—Engine Compartment Lid Latch Assembly

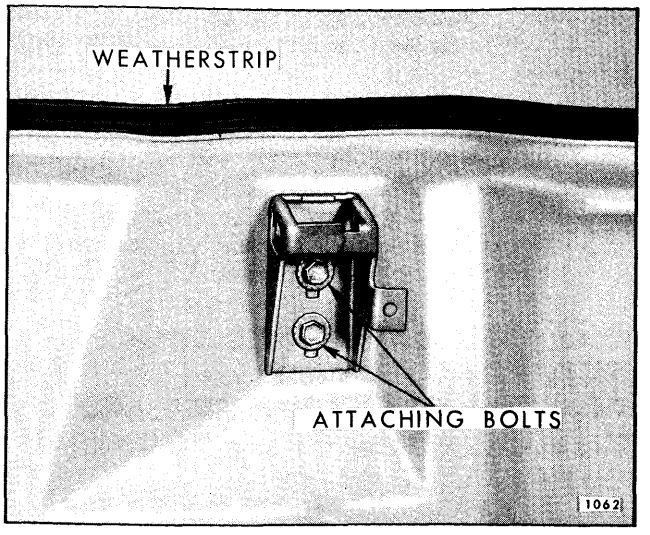

Fig. 9-17—Engine Compartment Lid Latch Striker

2. Remove two bolts securing latch to engine compartment inner panel and remove assembly from body. (See Fig. 9-16.)

3. To install, align latch assembly within scribe marks and install attaching bolts. Check engagement of latch with striker and perform any adjustments that may be required.

ENGINE COMPARTMENT LATCH STRIKER—CORVAIR

Removal and Installation

1. Raise engine compartment lid and mark position of striker on rear end panel.

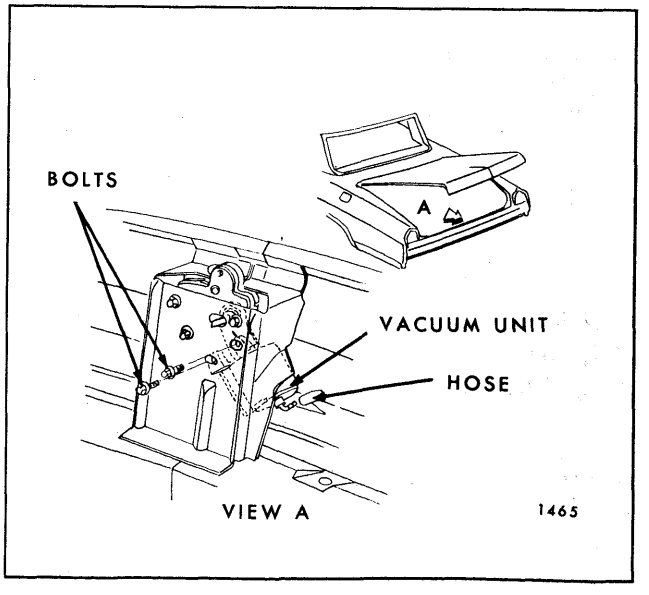

Fig. 9-18—Rear Compartment Vacuum Release Unit

2. Remove attaching bolts and remove striker from body. (See Fig. 9-17.)

3. To install, align striker within scribe marks and install attaching bolts. Check engagement of latch within striker and perform any adjustments that may be required.

REAR COMPARTMENT LID VACUUM LOCKING SYSTEM STYLES EQUIPPED WITH OPTION

The rear compartment lid vacuum lock system is a side-action snap-bolt type lock with a vacuum release unit attached that unlocks the lock upon the introduction of vacuum in the unit. The vacuum is stored in a storage tank located on the shroud panel and is controlled by a switch located in the instrument panel compartment box. By actuating the switch, vacuum is introduced into the line extending from the storage tank to the vacuum release unit, thereby, unlocking the lid lock. As this is only an unlocking feature, the rear compartment lid must be closed manually.

REAR COMPARTMENT LID VACUUM RELEASE UNIT STYLES EQUIPPED WITH OPTION

Removal and Installation

1. Remove rear compartment lid lock cylinder as previously described.

2. Disconnect vacuum hose from vacuum release unit. Remove attaching bolts shown in illustration and remove vacuum unit (Figs. 9-18, 9-19 and 9-20 for typical illustrations).

3. To install, reverse removal procedure. Check unit for proper operation.

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT ALL CADILLAC STYLES

The rear compartment lid mechanical pull-down unit is used in conjunction with the opening unit. When the rear compartment lid is lowered to a point where the lid lock engages with striker, the mechanical closing unit pulls the lid the remaining distance (7/8") to the fully closed position.

To act as a safety feature and slow the action of the closing unit, a hydraulic cylinder is incorporated in the mechanism. The cylinder is attached

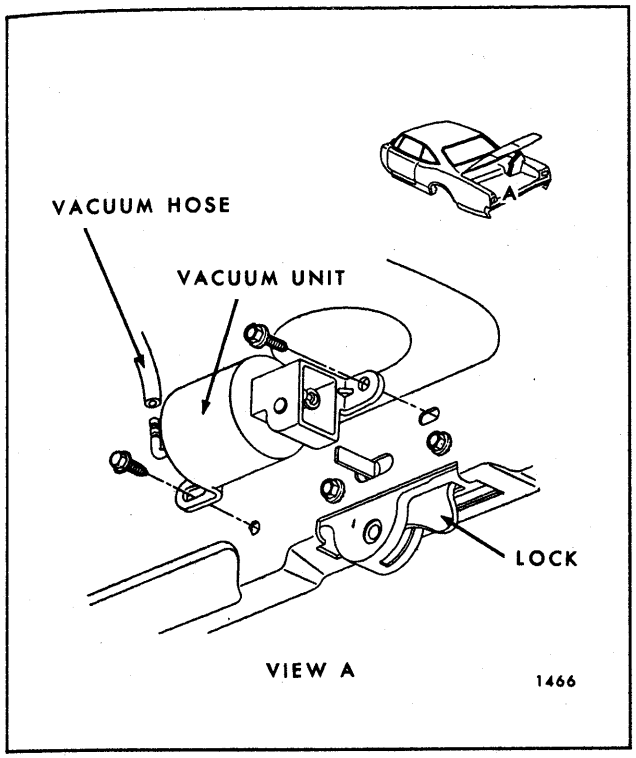

Fig. 9-19—Rear Compartment Vacuum Release Unit

to a bell crank at the right rear compartment lid hinge and to the closing unit by a cable. As the lid is lowered and the lock latches to the striker, but before the mechanical closing feature is tripped, the piston extends to a "full-out" position. Then, as the lid is lowered to actuate the mechanical closing feature, the piston compresses the fluid in the cylinder retarding the closing action of the spring in the hydraulic cylinder.

Removal and Installation

1. Open rear compartment lid. Remove mechical pull-down unit cover panel. Depress striker slightly to relieve tension from cable and disengage clip securing cable to pull-down control arm (Fig. 9-21).

2. Disengage clip securing cable conduit to cable adjusting bracket and disengage cable and cable conduit from pull-down unit (Fig. 9-21).

3. Scribe (mark) position of pull-down unit on rear end panel and supports to facilitate reinstalling unit in same position. Remove pull-down unit attaching bolts and remove unit from body (Fig. 9-22).

4. To install, reverse removal procedure.

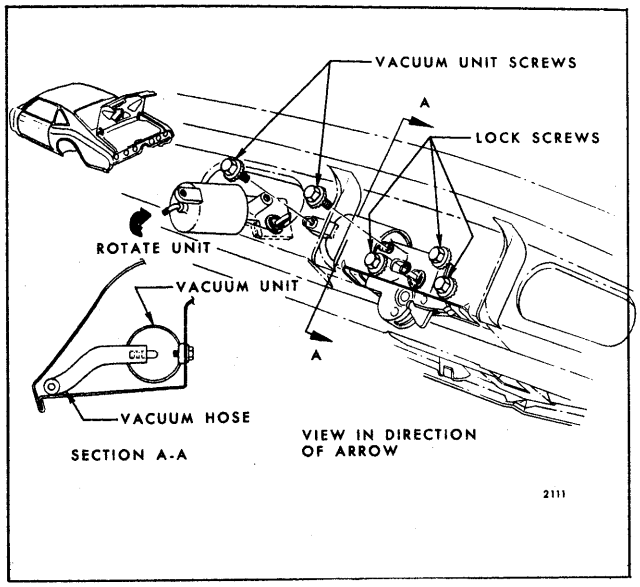

Fig. 9-20—Rear Compartment Lid Vacuum Release Unit

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT CABLE ALL CADILLAC STYLES

Removal and Installation

1. On lower end of hydraulic cylinder pull clip away from hooked end of pull-down unit cable. Disengage cable from slot in cylinder. Disengage cable conduit retaining clip from support on wheelhouse and remove cable and conduit from support (Fig. 9-23).

2. Repeat this procedure at other end of cable, disengaging clips securing cable to pull-down unit and cable conduit to adjusting bracket (Fig. 9-21), and remove cable from body.

3. To install, reverse removal procedure.

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT HYDRAULIC CYLINDER ALL CADILLAC STYLES

Removal and Installation

1. Disengage cable from lower end of hydraulic cylinder as described under "Rear Compartment Lid Mechanical Pull-Down Unit Cable - Removal".

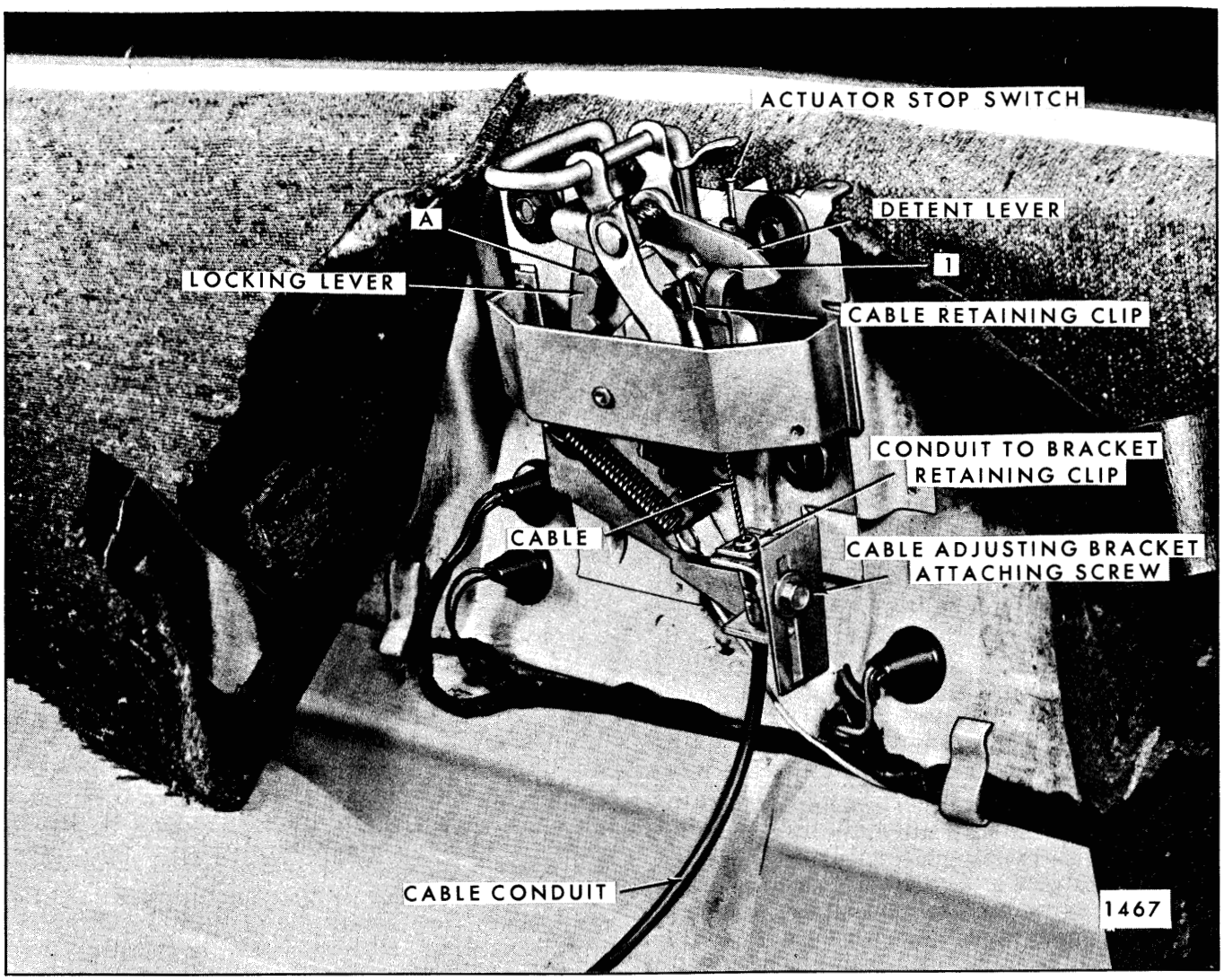

Fig. 9-21—Rear Compartment Lid Mechanical Pull-Down Unit

2. Lift cylinder to disengage upper end from shoulder of shaft on link assembly and remove cylinder.
3. To install, reverse removal procedure.

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT ADJUSTMENTS ALL CADILLAC STYLES

To actuate the mechanical pull-down unit the rear compartment lid lock must properly engage the striker arm and depress the detent lever of the pull-down unit. This engagement can be checked by lowering the lid and visually checking lock and striker alignment. If adjustment is necessary, obtain lateral adjustment at lock attaching screw locations and "up or down" adjustment at pull-down unit attaching screw locations.

For proper operation of the pull-down unit, the pull-down unit cable must be adjusted to the proper tension. If the cable has too much tension it will not allow the pull-down unit to return to its full-up position and "cock". This is apparent when as the lid begins to lower, so does the pull-down unit.

Too little tension in the cable results in a lessening of pull-down effort in the unit and, consequently, a misaligned (high) rear compartment lid.

To increase cable tension, position hydraulic cylinder end of cable in the upper slot on the lower end of the cylinder ("1" in Fig. 9-23). If more tension, or finer adjustment, is required, loosen cable adjusting bracket attaching screw (Fig. 9-21). Adjust bracket downward (to increase cable travel) and tighten attaching screw.

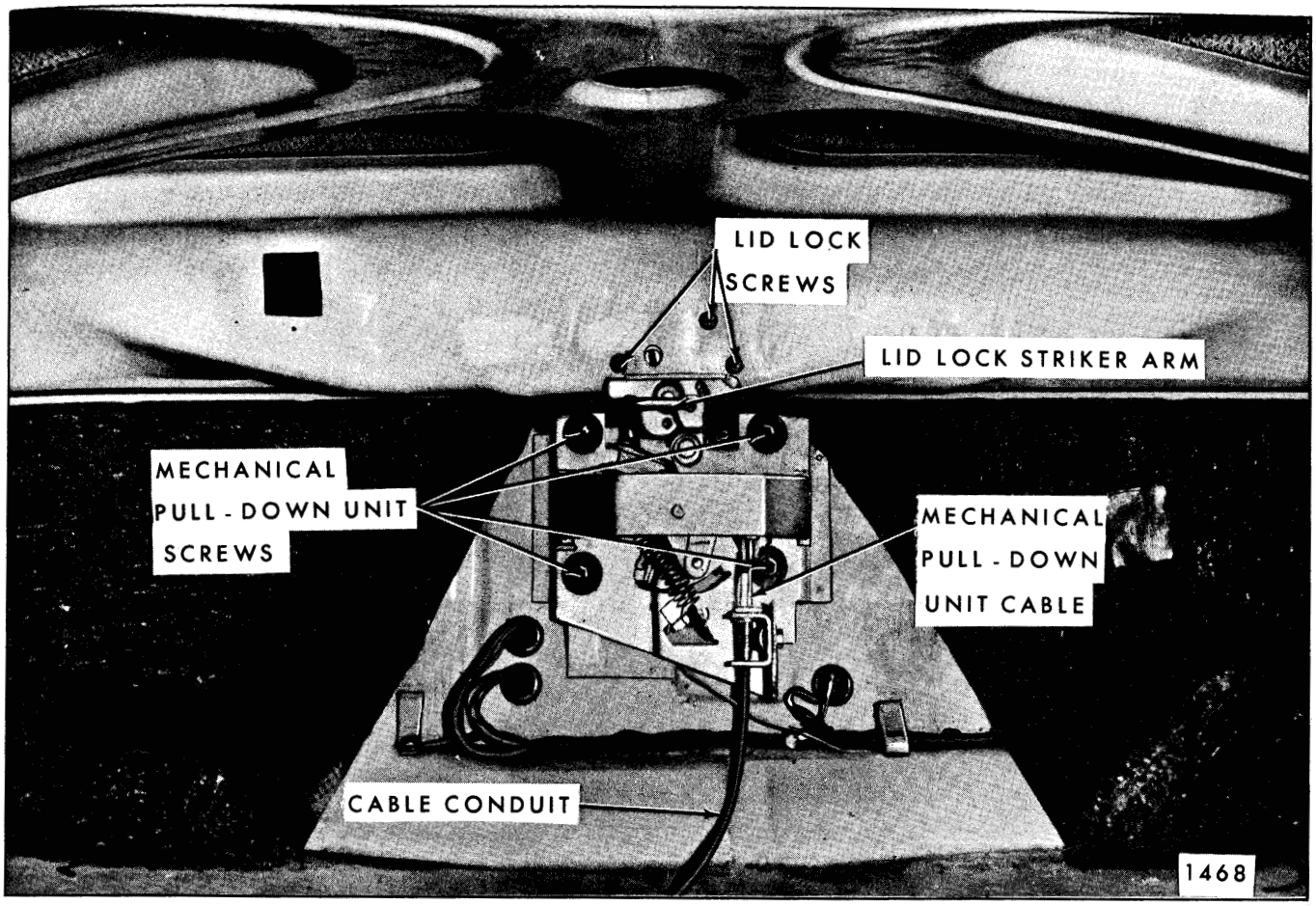

Fig. 9-22—Rear Compartment Lid Mechanical Pull-Down Unit

To decrease cable tension, position hydraulic cylinder end of cable in lower slot on hydraulic cylinder ("2" in Fig. 9-22). For finer adjustment, or to lessen tension still more, loosen cable adjusting bracket attaching screw (Fig. 9-21). Adjust bracket upward to desired position and tighten attaching screw.

IMPORTANT: The lack of lubrication between the toggle and the detent lever ("1", Fig. 9-21) can greatly increase the effort required to trip (unlock) the pull-down unit. Therefore, make certain point of contact between these two levers is lubricated with 630 AAW Lubriplate or its equivalent.

REAR COMPARTMENT LID LOCK MANUAL RELEASE UNIT PONTIAC "A" STYLES

Removal and Installation

1. Remove rear compartment lock and lock cylinder.
2. Remove cable support clip attaching screw and move cable toward left side of body to enable disengagement of release cable return spring retainer (See Fig. 9-24).
3. Disconnect cable from return spring.
4. Spread tab on coupling (of coupling and lever assembly) and disengage cable from coupling.
5. Remove all cable retaining clips in rear compartment (right side of gutter).
6. Remove rear seat cushion and rear seat back. On convertible styles, remove folding top compartment side trim panel assembly.
7. Remove door sill plate from right side of body. Fold-back floor carpets and remove cable retaining clips.
8. Inside of instrument panel compartment (glove box), loosen pull handle retaining nut and disengage pull handle from slotted support.

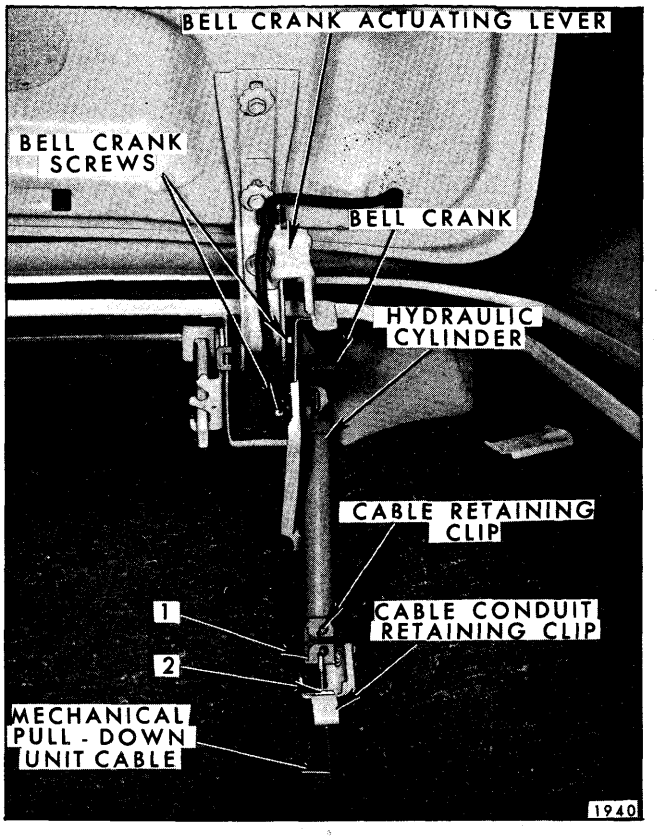

Fig. 9-23—Mechanical Pull-Down Unit Hydraulic Cylinder

9. Remove pull handle from glove box through slot provided, and remove cable and pull handle assembly from body.

10. To install, reverse removal procedure. To adjust cable, position stop on cable 1/2 inch left of body centerline (coupling and lever assembly).

REAR COMPARTMENT WEATHERSTRIP ALL STYLES

Removal

1. Separate "butt" ends of weatherstrip at rear compartment opening (Fig. 9-25).

2. Using a flat-bladed tool, carefully disengage weatherstrip from its cemented foundation in gutter completely around opening and remove weatherstrip from body.

Installation

1. Clean out-gutter around entire rear compartment opening to provide a clean cementing surface.

2. Apply (brush) a continuous coat of black weatherstrip adhesive to surfaces of the rear compartment gutter.

3. Using a flat-bladed tool, such as a putty knife, insert weatherstrip into gutter starting with one end of weatherstrip at rear center of gutter and working completely around gutter.

4. If a new weatherstrip is being installed, trim end to form a butt joint at rear center of opening. Brush weatherstrip adhesive (black) on both ends of weatherstrip and secure ends together to form a butt joint.

5. Using a pressure type applicator, apply weatherstrip adhesive (neoprene type) between weatherstrip and outer surface of gutter completely around opening to assure a watertight seal.

6. Roll or press weatherstrip to aid in obtaining a good cement bond. Allow sufficient time for cement to set before closing rear compartment lid.

TAIL GATES
All Station Wagon Styles

DESCRIPTION

All tail gates incorporate either a manually or electrically operated window that can be lowered into the gate or raised into the back body opening. The manual window is operated by a regulator control handle located in the tail gate outer panel. The power window can be operated by either of two control switches; one on the instrument panel and one at the lock cylinder (key operated) of the tail gate outer panel. All styles using a power tail gate window are equipped with an electrical switch that prevents movement of the window with gate in any position other than fully closed.

The tail gate is unlocked by means of a remote control inside handle which cannot be opened until the gate window is fully lowered. All tail gates are counter-balanced by a torque rod that assists in reducing the effort required to open or close the tail gate.

Unless otherwise stated, the tail gate service procedures outlined in this manual pertain to all station wagon styles.

TAIL GATE INNER PANEL COVER

The inner panel cover is attached to the tail gate

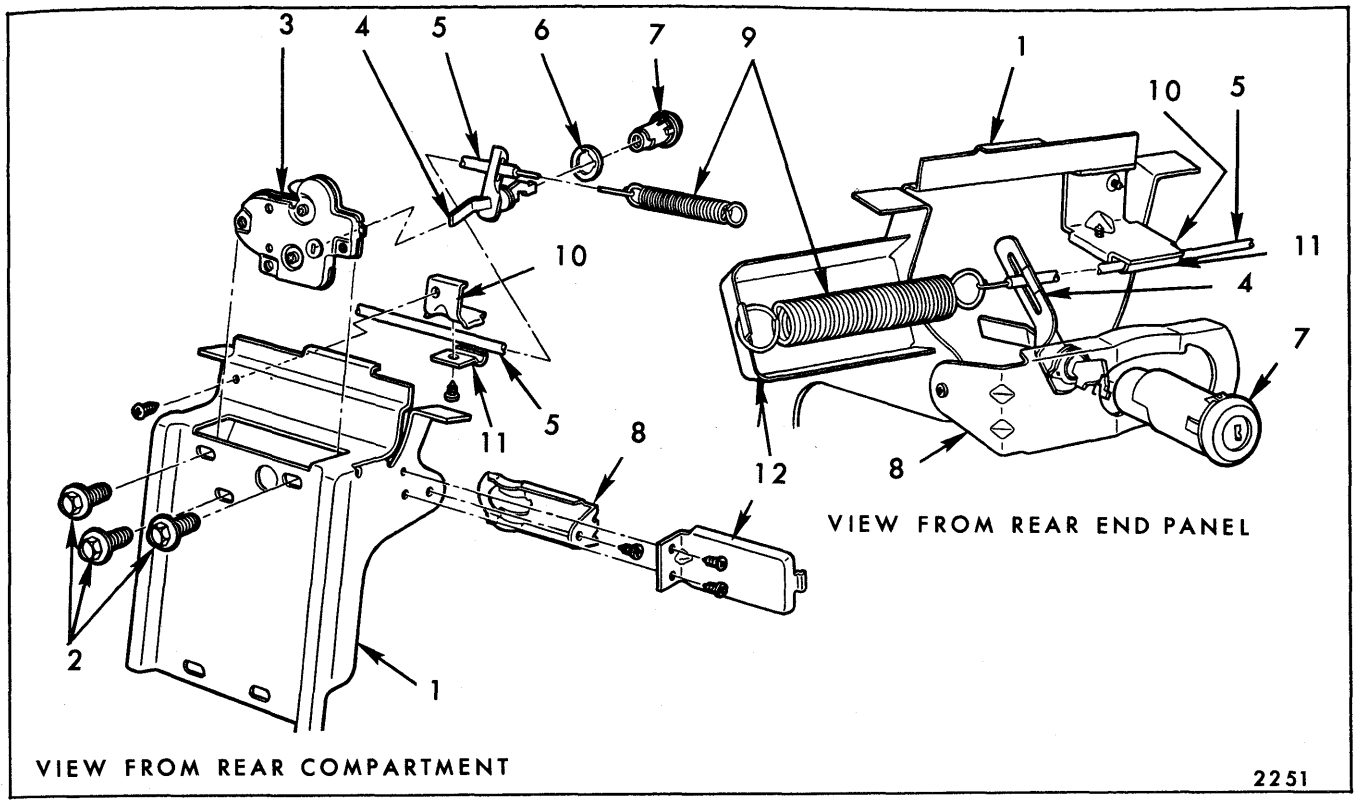

Fig. 9-24—Rear Compartment Lid Manual Release Unit

1. Compartment Lid Anchor Plate - Body Side
2. Rear Compartment Lock Attaching Screws
3. Rear Compartment Lock
4. Release Coupling and Lever Assembly
5. Release Cable
6. Sealing Gasket
7. Lock Cylinder
8. Lock Cylinder Retainer
9. Return Spring
10. Release Cable Support
11. Release Cable Support Clip
12. Return Spring Retainer

inner panel by a series of screws. Removal is obvious except in those cases where the tail gate cannot be opened. This could occur if a power operated window motor fails with glass in the up position. In such circumstances, proceed as follows:

1. The attaching screws on "A & X" Body Styles are still accessible with gate in the closed position. On "B" Body Styles, however, remove the side and center screws of the cover and slide panel up to remove from tail gate.

NOTE: The bottom retainer screws need not be removed as they secure retainer only. The tail gate inner panel cover is held in the bottom retainer by slots in side and center section metal strips. (See Fig. 9-26.)

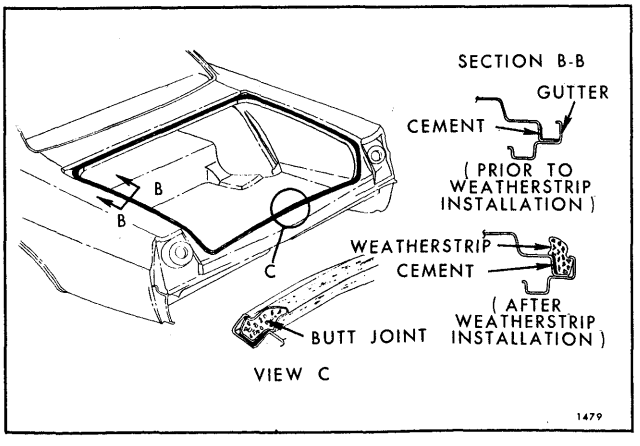

Fig. 9-25—Rear Compartment Weatherstrip Assembly

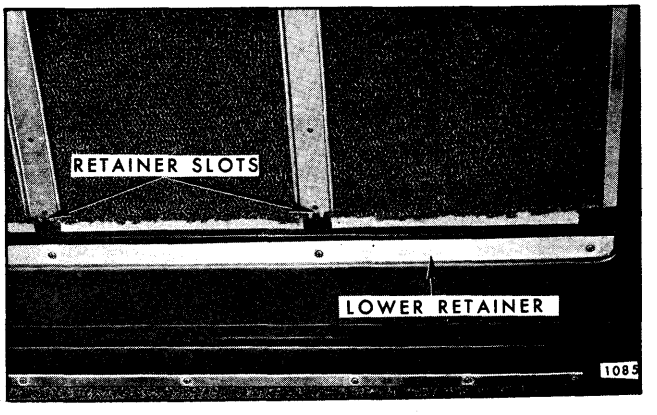

Fig. 9-26—Inner Panel Cover

2. Once the inner panel cover has been removed, it is possible to remove the access hole covers and window sash channel cams as explained in the following pages. At this point, the tail gate window can be lowered and the gate opened.

TAIL GATE INNER PANEL WATER DEFLECTOR

A waterproof paper deflector is sealed against the tail gate inner panel to deflect water toward the bottom of the gate and out the drain holes.

IMPORTANT: Whenever work is performed on the tail gate that requires any detachment of the water deflector, it must be properly resealed to the inner panel.

Removal

1. Remove tail gate inner panel cover.
2. Using a flat-bladed tool, carefully break cement bond securing water deflector to inner panel. Make sure string, located within sealer, is against water deflector and carefully slide tool between sealer and inner panel along both sides and top to disengage deflector from inner panel. If the entire deflector need not be removed, detach only that portion necessary.

Installation

1. Inspect deflector and repair any damage noted with body waterproof tape applied to both sides.
2. If a new deflector is to be installed, use old deflector as a template.
3. If needed, apply a bead of body caulking compound (approximately 3/16" diameter) to tail gate inner panel. (See Fig. 9-27.) The inner panel cover attaching screw holes should also be sealed with body caulking compound.
4. Position water deflector to tail gate with polyethylene coated side (black) against inner panel. Firmly press sealed areas to obtain a good bond between deflector and inner panel.

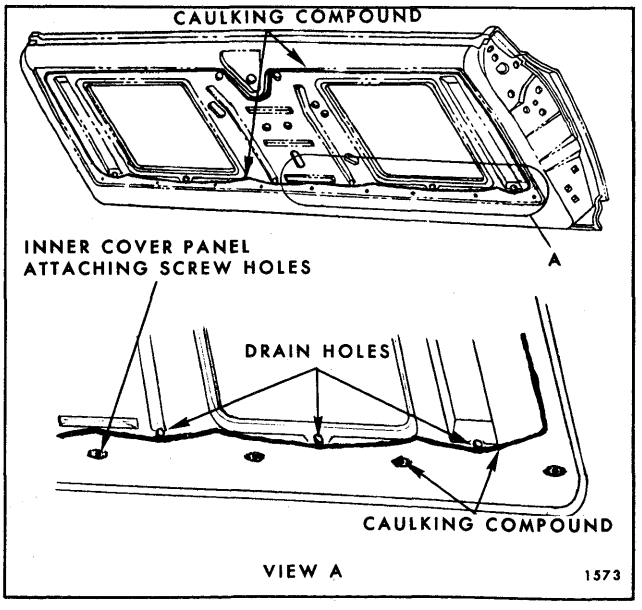

Fig. 9-27—Tail Gate Sealing

TAIL GATE INNER PANEL ACCESS HOLE COVERS

Removal and Installation

1. Remove tail gate inner panel cover and water deflector.
2. Remove screws securing right and left access hole covers to tail gate inner panel and remove covers. (See Fig. 9-24.)
3. To install, reverse removal procedure.

TAIL GATE HINGE ASSEMBLY

Removal and Installation

1. Open tail gate and provide support for gate on side from which hinge is to be removed.
2. Remove escutcheon covering hinge entrance hole in tail gate outer panel by sliding retaining lips through "T" slot.

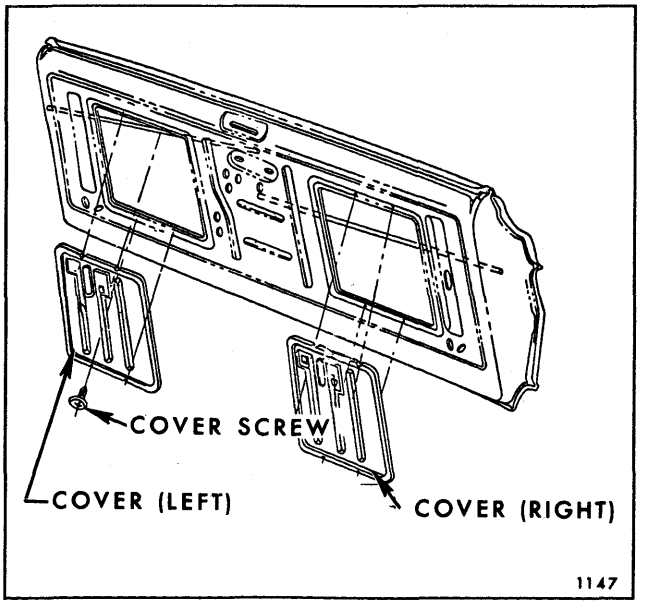

Fig. 9-28—Tail Gate Inner Panel Access Hole Covers

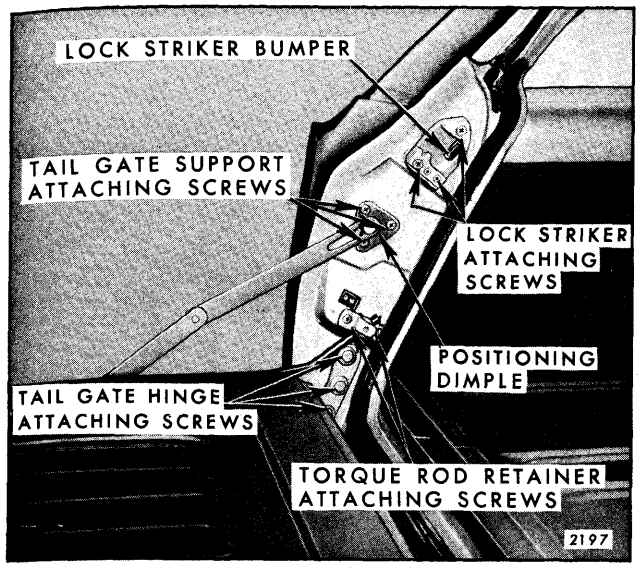

Fig. 9-29—Tail Gate Torque Rod, Hinge and Support Attachments "B & A" Body Styles

3. Remove tail gate hinge attaching bolts from tail gate and body (See Figs. 9-29 and 9-30.) and remove hinge from gate.

4. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surface of hinge that contacts body.

5. Check alignment of tail gate in opening and adjust as required.

TAIL GATE SUPPORT ASSEMBLIES

Removal and Installation

1. Open tail gate and support it in that position.

2. Remove screws securing support to tail gate and to body lock pillar and remove support. (See Figs. 9-29 and 9-30.)

3. To install, reverse removal procedure.

NOTE: Objectionable slack in either support can be corrected by rotating support plate(s) at body pillar.

TAIL GATE ASSEMBLY

The basic hardware of all tail gates is similar, regardless of the style involved. For purposes of proper identification, however, Figures 9-31 ("B" Body), 9-32 ("A" Body) and 9-33 ("X" Body) identify the major hardware components of each specific body type.

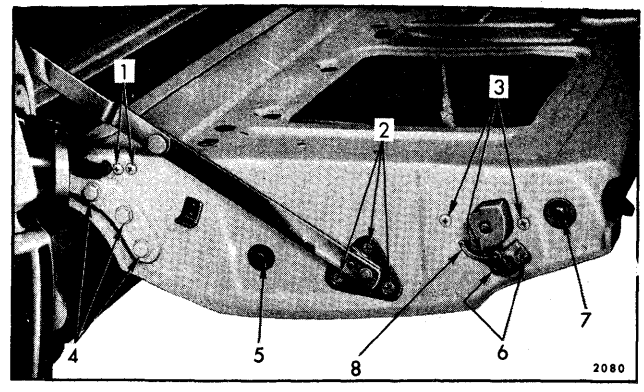

Fig. 9-30—Tail Gate Hardware - Left Side

1. Torque Rod Bearing Plate Screws
2. Support to Tail Gate Bolts
3. Tail Gate Lock Screws
4. Hinge to Tail Gate Bolts
5. Glass Run Channel Lower Bolt
6. Jamb Switch Screws
7. Glass Run Channel Upper Bolt
8. Jamb Switch Arm

Removal and Installation

1. Open tail gate and remove inner panel cover, water deflector and both access hole covers.

2. Raise tail gate to an approximate vertical position to relieve torque rod tension. Remove torque rod retainer attaching screws and remove retainer. On "B & A" Body Styles, this retainer is on the left body pillar as shown in Figure 9-29. On "X" Body Styles, however, the retainer is located on the right side of the rear body cross bar. (See Fig. 9-34.)

3. On styles equipped with power operated tail gate windows, proceed as follows:

   a. Remove tail gate window as described under "Tail Gate Window Assembly, Removal and Installation".

   b. Disconnect wire harness at key switch, jamb switch and at motor. Remove harness from tail gate.

4. While properly supporting tail gate, remove right and left support to gate attaching screws and fold supports against body. (See Fig. 9-30.)

5. With the aid of a helper, remove right and left tail gate hinge to gate attaching bolts and remove tail gate from body. (See Fig. 9-30.)

6. To install, reverse removal procedure. Prior to installation, apply a coat of heavy bodied sealer to surface of hinges that contact tail gate.

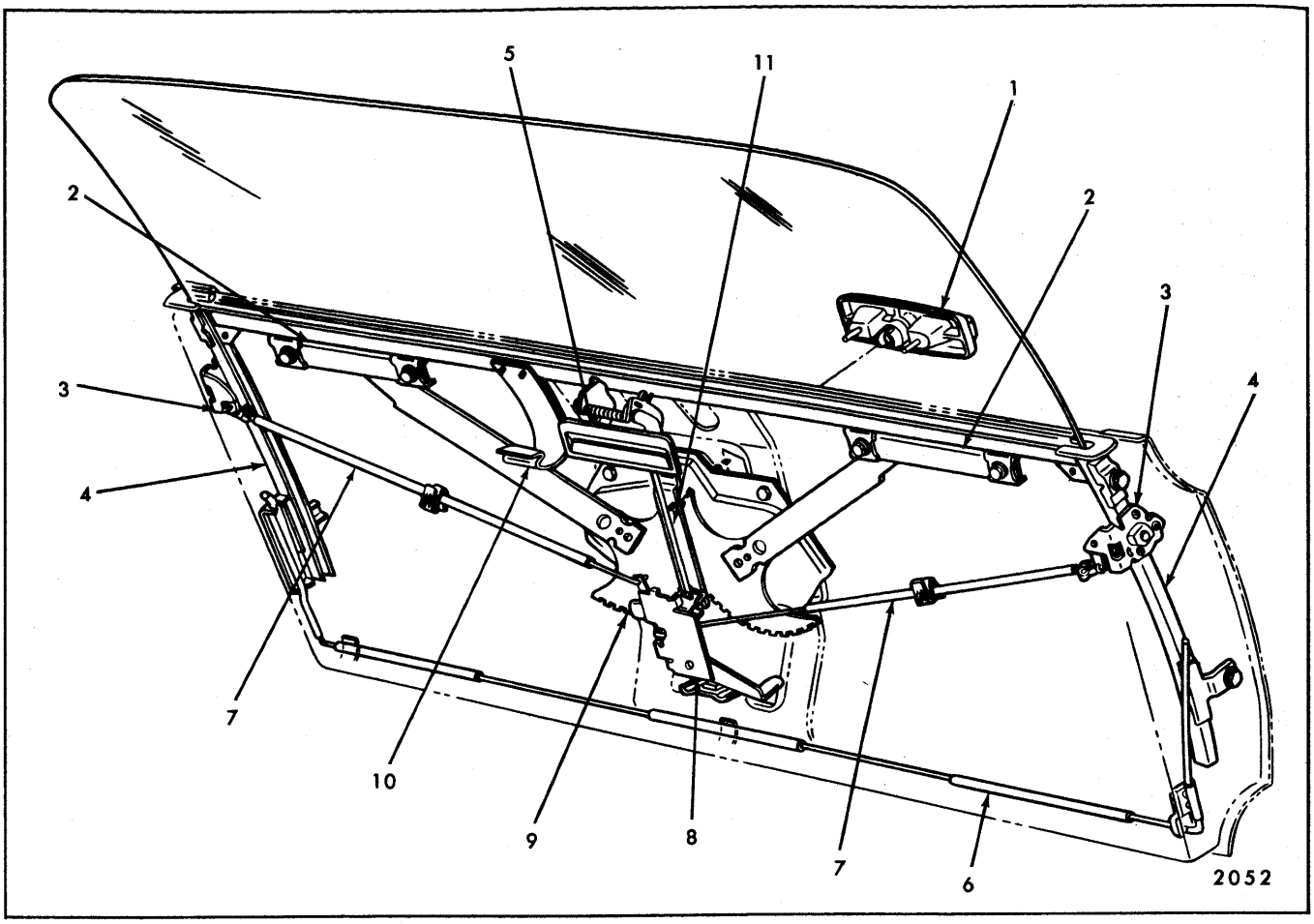

Fig. 9-31—Tail Gate Hardware - "B" Body Styles

1. Outside Handle or Key Switch
2. Sash Channel Cams
3. Locks
4. Lower Glass Run Channels
5. Inside Handle
6. Torque Rod
7. Remote Control Connecting Rods
8. Remote Control
9. Regulator
10. Anti-Rattle Clip
11. Inside Handle Push Rod

Adjustments

Up or down and fore or aft adjustment is provided at hinge to gate attaching bolts. Side to side adjustment is available at hinge to body opening attaching bolts by using shims.

NOTE: Following any adjustments of the tail gate, check engagement of locks to strikers as described in "Tail Gate Lock Striker Adjustment".

TAIL GATE WINDOW ASSEMBLY—MANUAL OR ELECTRIC

Removal and Installation

1. Remove tail gate inner panel cover, water deflector and both access hole covers.
2. Operate tail gate window to a point that sash channel cam attaching bolts are accessible as depicted in Figure 9-35.

NOTE: On styles equipped with power operated tail gate windows, engage jamb switch and operate window to any position desired. Engaging the tail gate jamb switch, makes it possible to operate the window (by key switch) with gate in the lowered position. This jamb switch is located on the left side of the tail gate on "B" Bodies and the right side for "A & X" Bodies. "B & A" Bodies have a switch of similar design that can be engaged by merely pushing arm with a finger. (See Fig. 9-30.) On "X" Bodies, however, the jamb switch consists of two contact plates, one on gate and one on body pillar. These plates can be engaged with gate open by connecting them with a length of body wire. (See Fig. 9-36.)

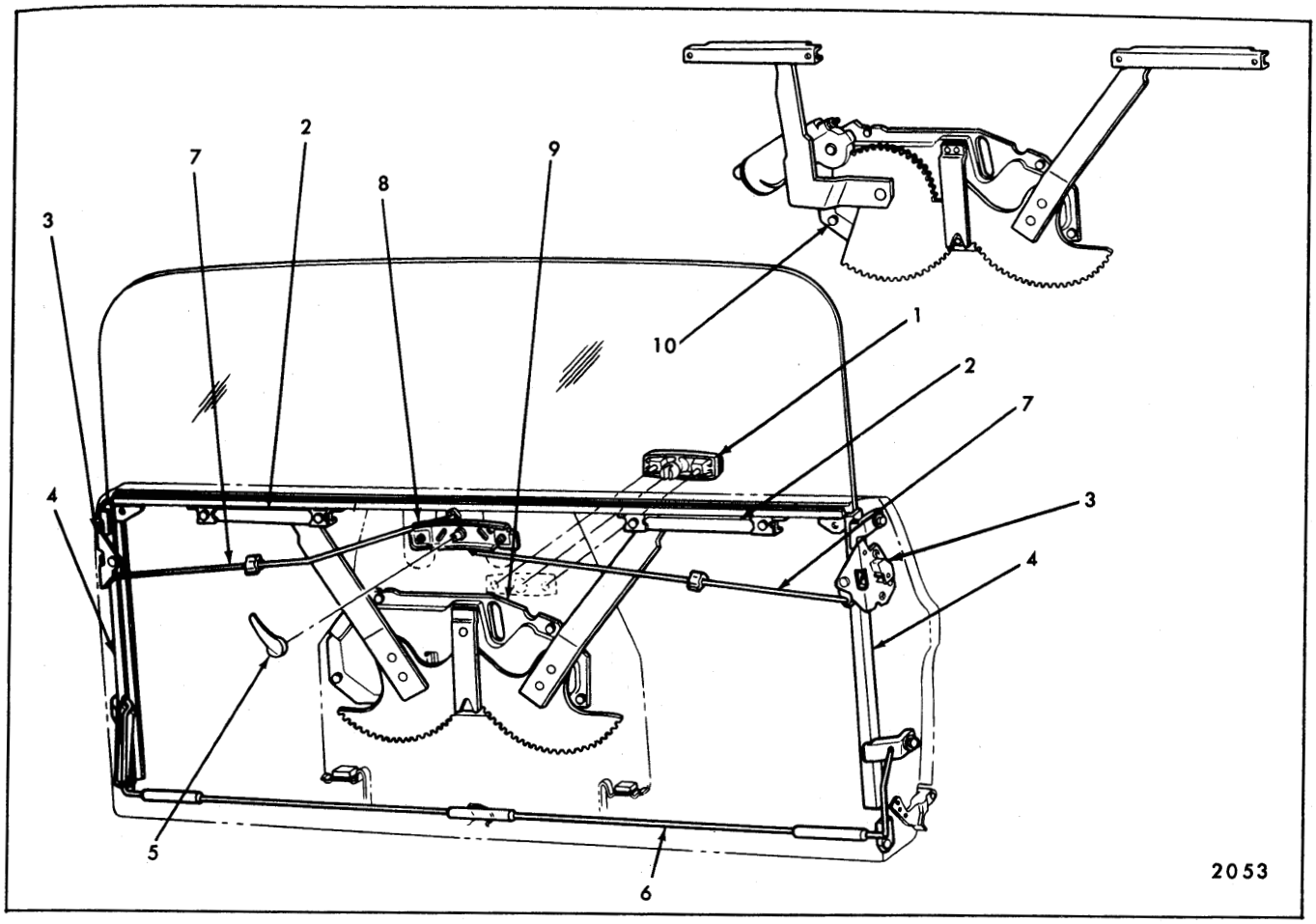

Fig. 9-32—Tail Gate Hardware - "A" Body Styles

1. Outside Handle or Key Switch
2. Sash Channel Cams
3. Locks
4. Lower Glass Run Channels
5. Inside Handle
6. Torque Rod
7. Remote Control Connecting Rods
8. Remote Control
9. Regulator (Manual)
10. Regulator (Electric)

3. Remove right and left cam attaching bolts (Fig. 9-35). Slide cams sideways to disengage from regulator lift arm rollers and remove cams from tail gate.

4. Pull window straight out to remove from tail gate.

5. To install, reverse removal procedure.

Adjustments

The tail gate glass run channels can be adjusted to relieve a binding glass. To correct a rotated glass condition, loosen window regulator attaching screws and rotate regulator clockwise or counter clockwise as required.

TAIL GATE WINDOW REGULATOR—MANUAL OR ELECTRIC

Removal and Installation

1. Remove tail gate window assembly.

2. On styles equipped with a power operated tail gate window, disconnect electric harness at regulator motor connector.

CAUTION: DO NOT operate regulator motor after window assembly has been disengaged from regulator or after regulator has been removed from tail gate. Operation of motor with load removed may damage unit.

3. Remove bolts securing regulator to support

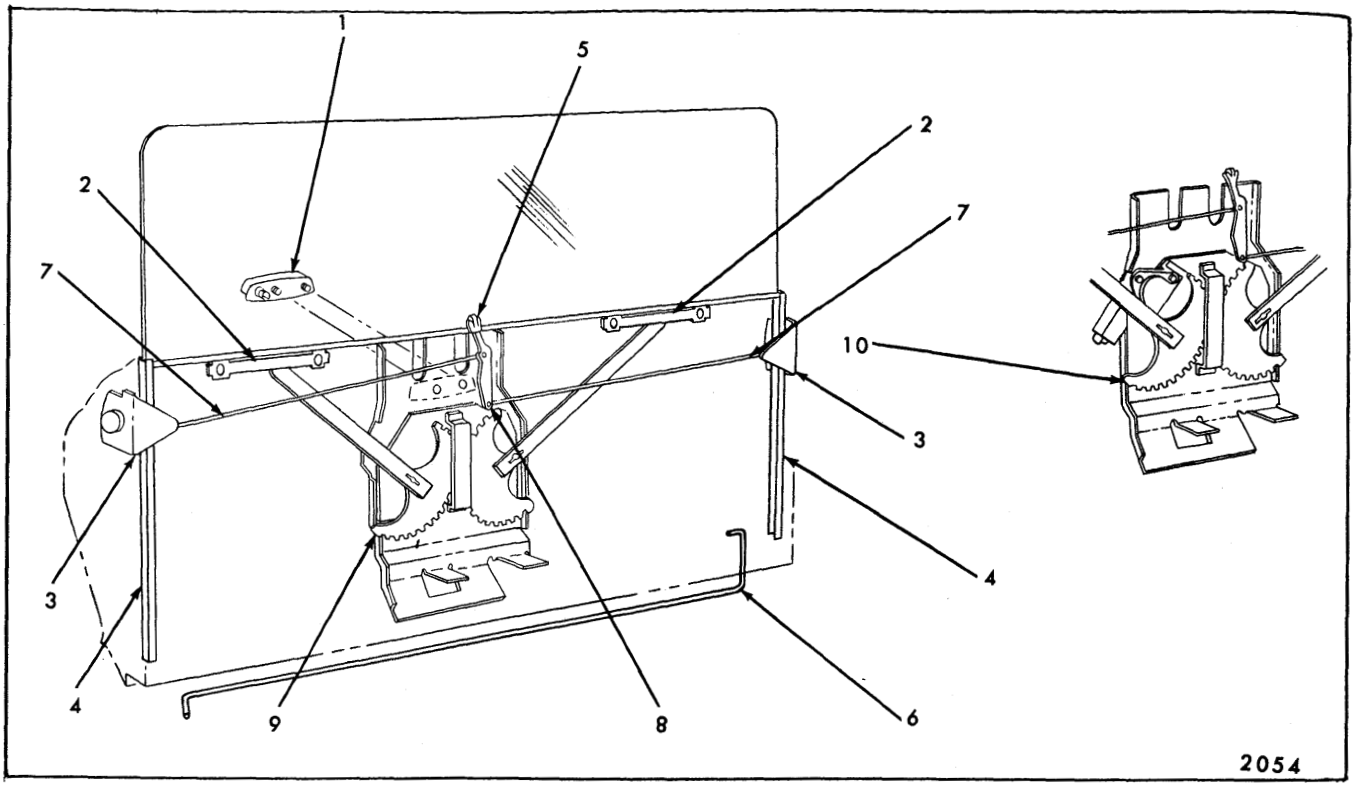

Fig. 9-33—Tail Gate Hardware - "X" Body Styles

1. Outside Handle or Key Switch
2. Lower Sash Channel Cams
3. Locks
4. Lower Glass Run Channels
5. Inside Handle
6. Torque Rod
7. Remote Control Connecting Rods
8. Remote Control
9. Regulator (Manual)
10. Regulator (Electric)

and remove regulator, with motor attached, from tail gate.

4. To install, reverse removal procedure.

TAIL GATE WINDOW ELECTRIC REGULATOR MOTOR ASSEMBLY

Removal

1. Open tail gate and remove tail gate inner cover panel.

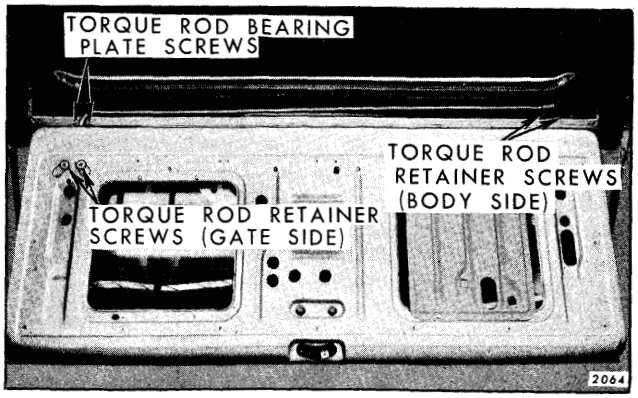

Fig. 9-34—Tail Gate Hardware "X" Body Styles

2. Detach inner panel water deflector and remove inner panel right access hole cover.

3. Disconnect wire harness connector from motor.

IMPORTANT: The following operation must be

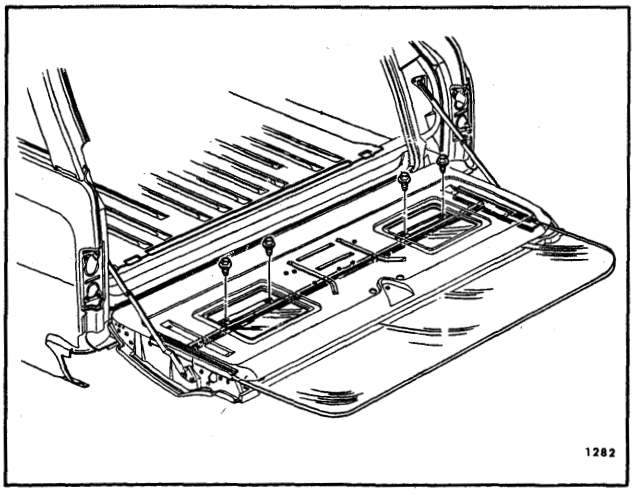

Fig. 9-35—Tail Gate Inner Panel Cams Attachment

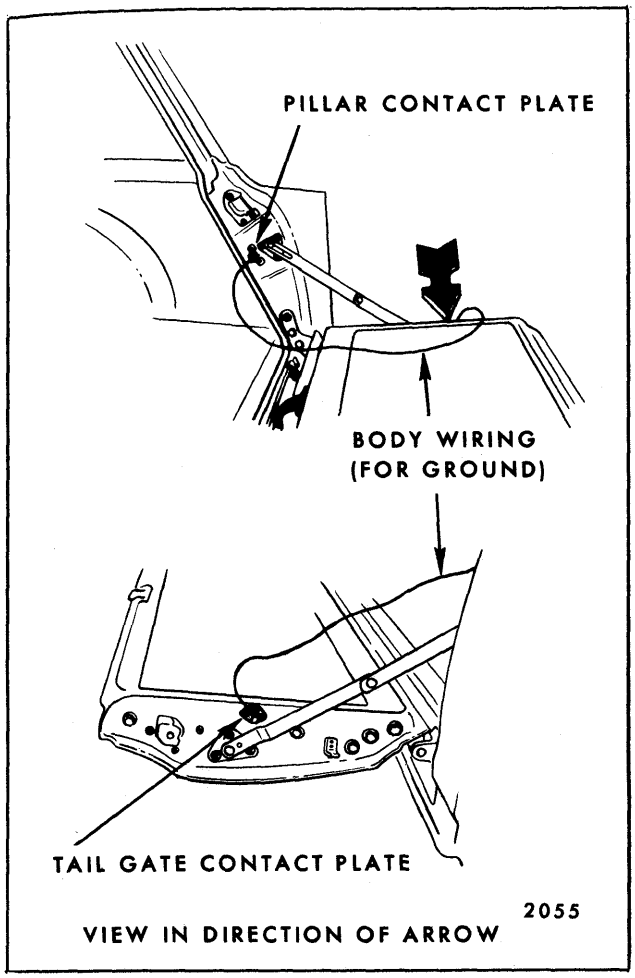

Fig. 9-36—"X" Body Tail Gate Jamb Switch

performed if the window is removed or disengaged from the regulator lift arms. The regulator lift arms, which are under tension from the counter-balance spring, can cause serious injury if the motor is removed without locking the sector gears in position.

4. Drill a 1/8" hole through regulator sector and back plate. (See Fig. 9-37.) DO NOT drill hole closer than 1/2" to edge of sector gear of back plate. Install a pan head sheet metal tapping screw (#10-12 x 5/8) in drilled hole to lock sector gears in position.

5. Loosen regulator right upper attaching screw. Remove the three regulator motor attaching screws and remove motor assembly from regulator and tail gate.

Installation

1. Lubricate the motor drive gear and regulator sector teeth with Lubriplate or its equivalent.

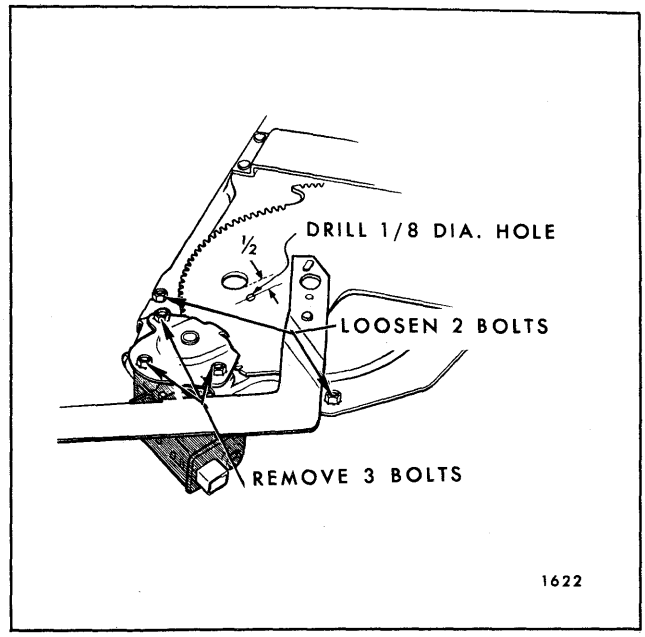

Fig. 9-37—Tail Gate Regulator Motor Assembly

2. With tail gate in an open position, install regulator motor to regulator. Make sure the motor pinion gear teeth mesh properly with the sector gear, teeth before installing the three motor attaching screws.

3. Tighten regulator attaching screws and remove screw locking sector gears into a fixed position.

4. Connect wire harness to motor and cycle tail gate window prior to installation of inner panel access hole cover, water deflector and cover panel.

TAIL GATE WINDOW REGULATOR OUTSIDE HANDLE—MANUAL OR ELECTRIC

Removal and Installation

1. Lower tail gate and remove inner panel cover and water deflector.

2. Position tail gate window so that outside handle (or key switch) attaching nuts are accessible through gate inner panel and window regulator access holes. (See Fig. 9-38.)

3. Remove nuts securing handle (or key switch) to tail gate and remove handle and sealing gasket. (See Fig. 9-39.)

NOTE: On electrical styles, disconnect wire harness from connector on escutcheon (key switch).

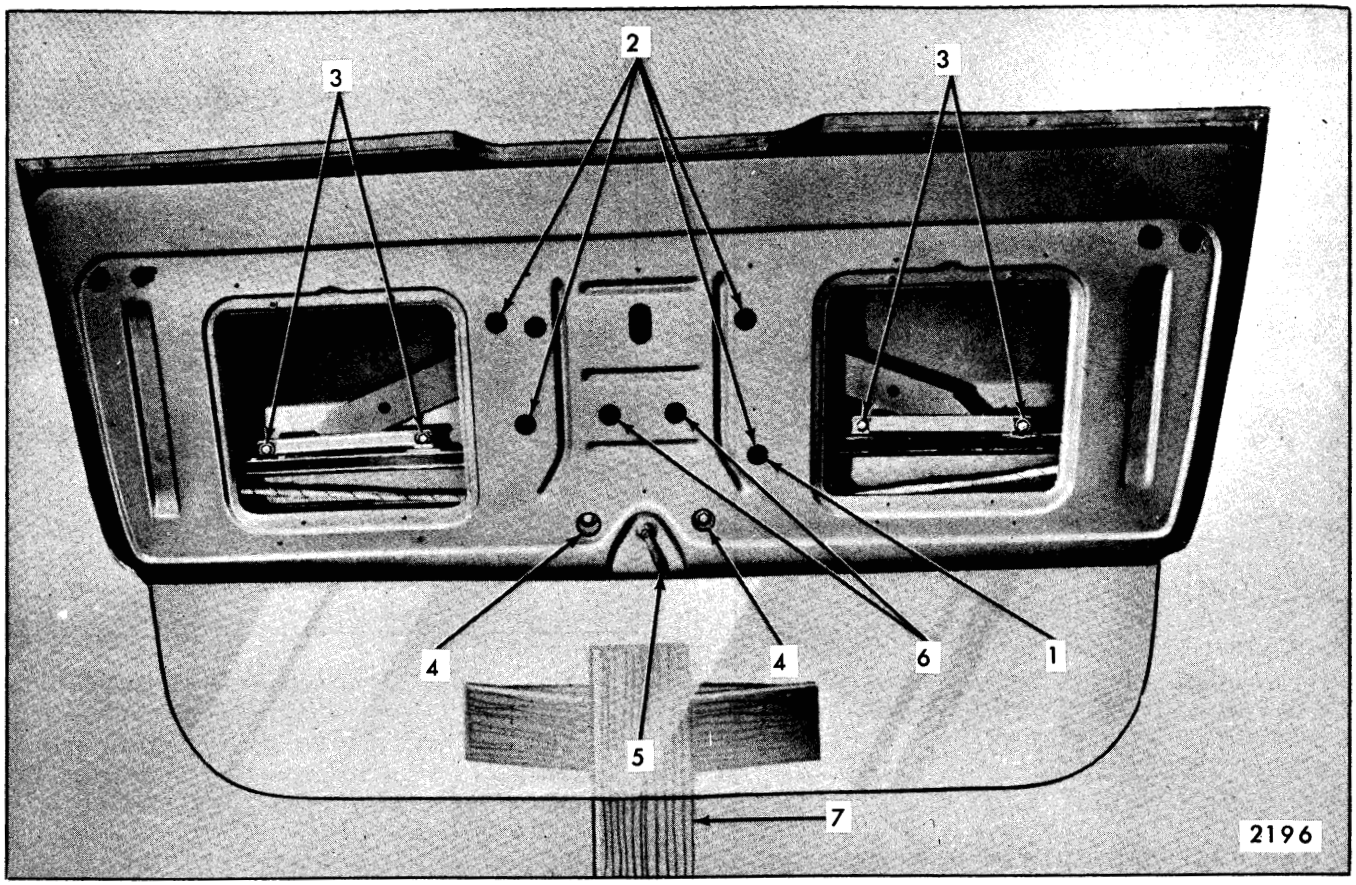

Fig. 9-38—Tail Gate Window Hardware

1. Access Hole for Regulator Adjusting Screw
2. Access Holes for Window Regulator Attaching Screws
3. Window Lower Sash Channel Cams Attaching Screws
4. Lock Remote Control Attaching Screws
5. Lock Remote Control Handle Attaching Screw
6. Access Holes for Outside Handle or Key Switch
7. Support Glass

4. To install, reverse removal procedure.

TAIL GATE WINDOW LOWER GLASS RUN CHANNELS

Removal and Installation

1. Remove tail gate window.
2. Remove bolts securing run channel(s) to tail gate. (See Fig. 9-30.)
3. Pull run channel(s) down into tail gate and remove through inner panel access hole.
4. To install, reverse removal procedure.

TAIL GATE JAMB SWITCH— ELECTRIC STYLES

The electric jamb switch is used to prevent opera-

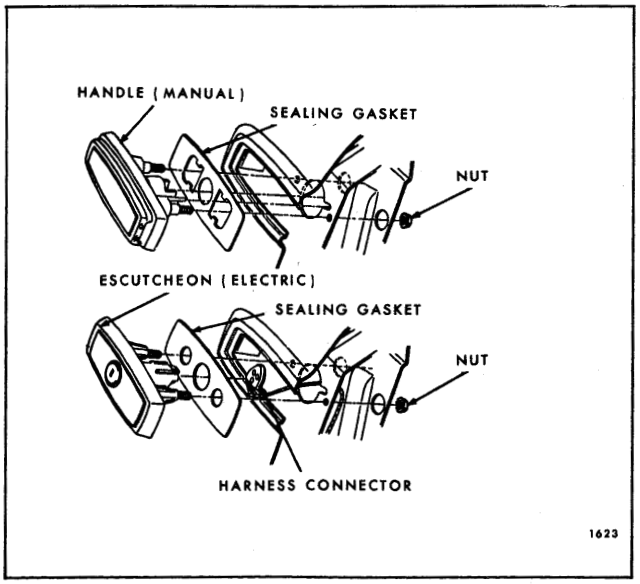

Fig. 9-39—Tail Gate Outside Handle Assemblies

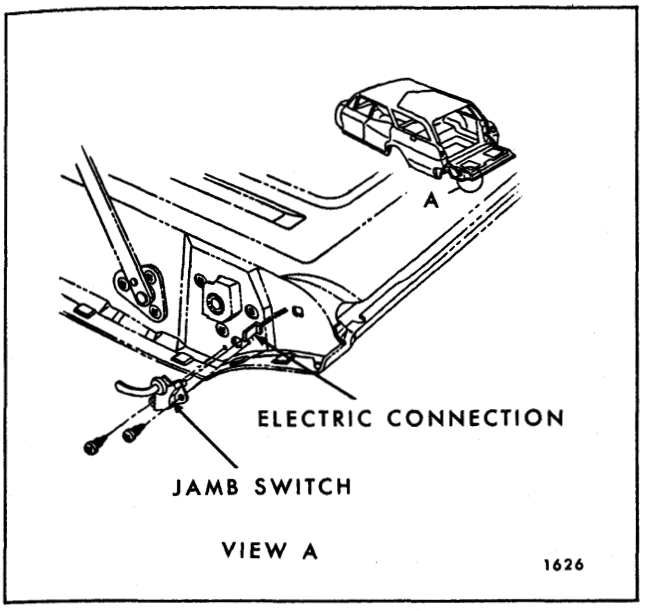

Fig. 9-40—Tail Gate Jamb Switch

tion of the tail gate window with the tail gate in an open position.

Removal and Installation

1. Remove screws securing jamb switch to tail gate and remove switch. (See Fig. 9-40.)

NOTE: Figure 9-40 illustrates the jamb switch on a "B" Body but is indicative of all styles.

2. To install, reverse removal procedure.

TAIL GATE REMOTE CONTROL INSIDE HANDLE "B" STYLES

Removal and Installation

1. Raise inside handle and disengage remote push rod from spring clip. (See Fig. 9-41.)

2. Remove screws securing handle to inner panel and remove handle.

3. To install, reverse removal procedure.

NOTE: The inside handle on "A & X" Body Styles is retained by a single attaching screw.

TAIL GATE LOCK REMOTE CONTROL ASSEMBLY

Removal and Installation

1. Remove tail gate window assembly.

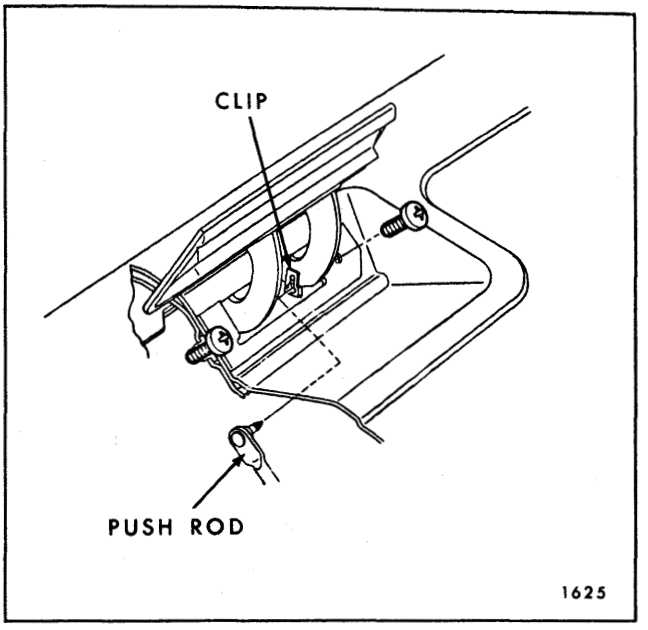

Fig. 9-41—Tail Gate Inside Handle Attachment

2. Disconnect remote control to lock connecting rods at remote assembly by sliding clip out of engagement. (See Section "B-B" in Fig. 9-42.)

3. On "X" Body Styles, remove remote control inside handle attaching screw and remove handle. (See View II in Fig. 9-42.) Pry out and remove escutcheon.

4. Remove remote control attaching bolts and remove assembly from tail gate. On "B" Body Styles, it will be necessary to disengage remote from inside handle push rod. (See Fig. 9-42 for "X" Body Styles and Fig. 9-43 for "B & A" Body Styles.)

5. To install, reverse removal procedure.

NOTE: The remote adjusting nut on "B" and "A" Body Styles (Fig. 9-43) can be adjusted to increase or decrease remote operating effort.

TAIL GATE LOCK ASSEMBLY— RIGHT OR LEFT SIDE

Removal and Installation

1. Remove tail gate window assembly.

2. Remove tail gate window lower glass run channel on side from which lock is to be removed.

3. Remove screws securing lock to tail gate. (See Fig. 9-44.)

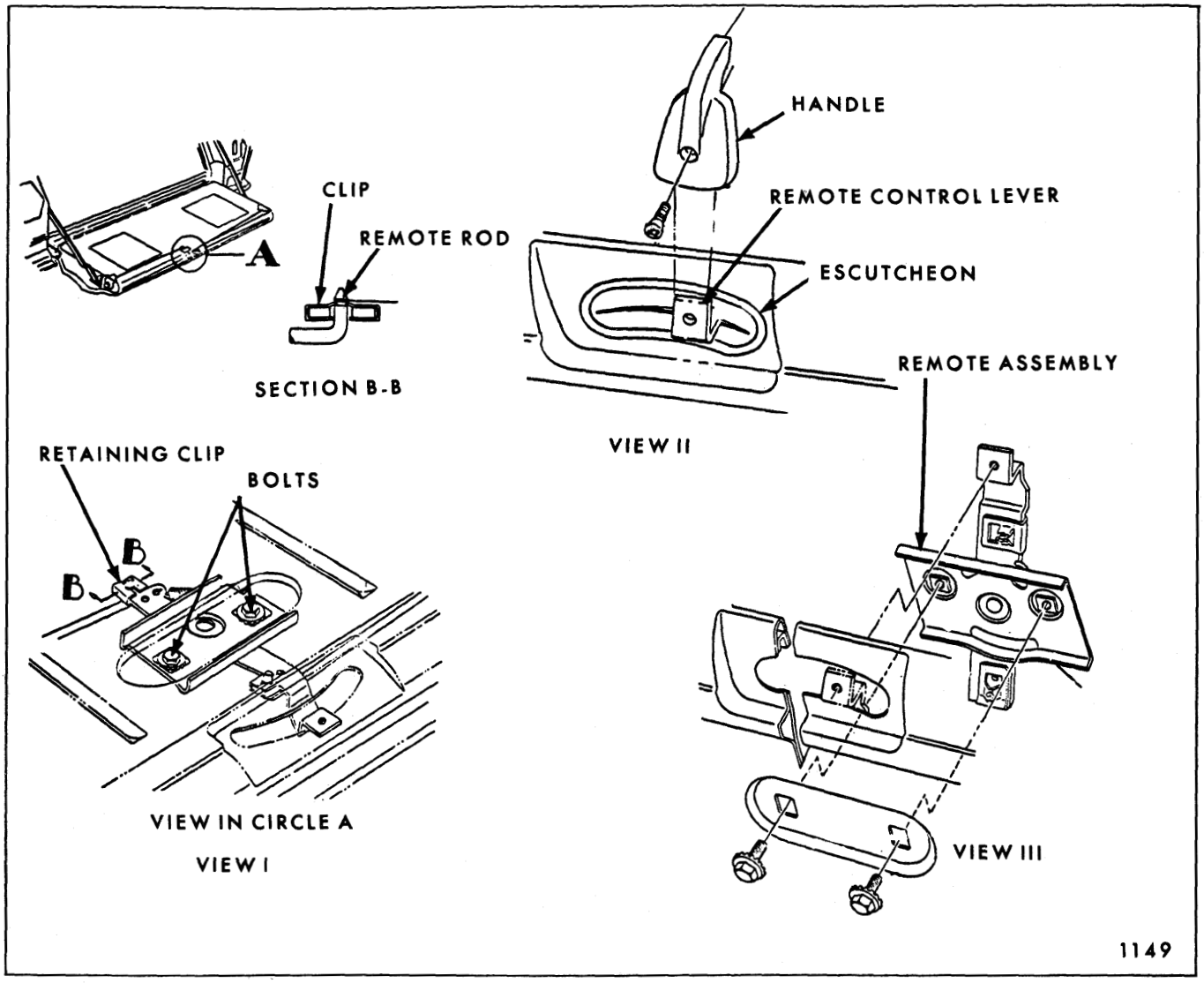

Fig. 9-42—Tail Gate Lock Remote Control Assembly - "X" Body Styles

4. Move lock assembly to tail gate access hole, disengage remote rod anti-rattle clip and remove lock assembly.

5. To install, reverse removal procedure.

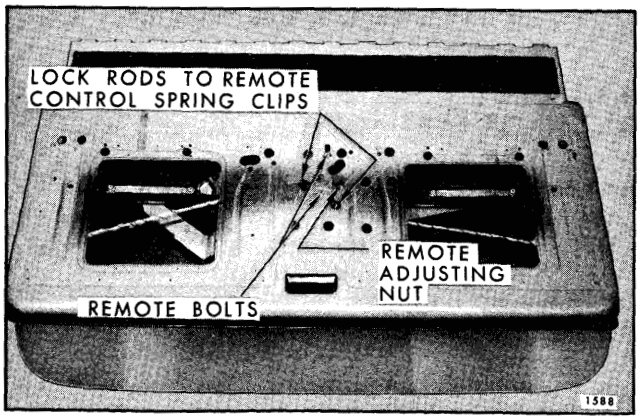

Fig. 9-43—Tail Gate Hardware - "A & B" Body Styles

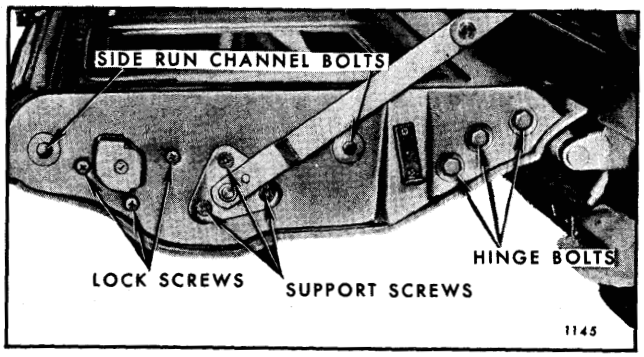

Fig. 9-44—Tail Gate Lock and Support

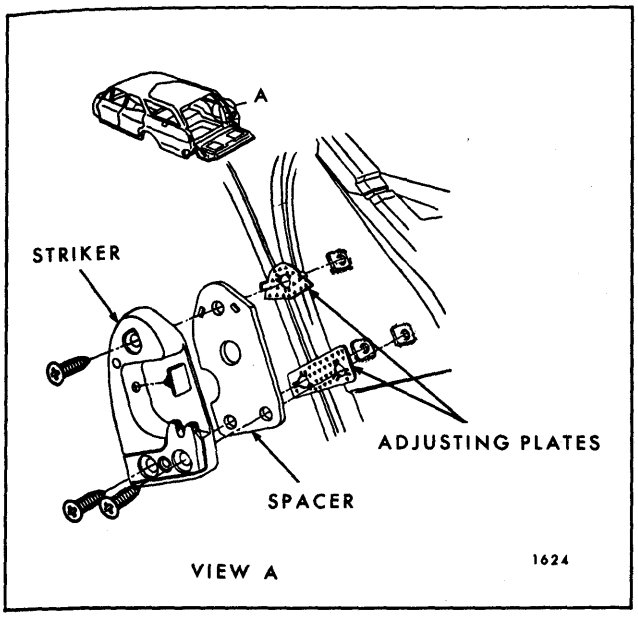

Fig. 9-45—Tail Gate Lock Striker Assembly

Fig. 9-46—Tail Gate Lock Striker Caulking Check

TAIL GATE LOCK STRIKER—RIGHT OR LEFT SIDE

Removal and Installation

1. Open tail gate and mark (pencil) position of striker on body pillar. (See Fig. 9-29.)

2. Remove lock striker attaching screws and remove striker and adjusting plates from body pillar.

3. To install, align striker and components within pencil marks and install attaching screws. (See Fig. 9-45.)

TAIL GATE LOCK STRIKER ADJUSTMENTS

1. To adjust the tail gate lock striker up or down or forward or rearward, loosen striker attaching screws, shift striker and adjusting plates to desired position and tighten attaching screws.

2. DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER SERVICE SPACERS.

   a. Tail gate should be properly aligned before checking spacer requirements.

   b. To determine if tail gate lock striker service spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages and close tail gate to form a measureable impression in the clay or caulking compound, as shown in Figure 9-46.

When dimension "A" from inside face of striker teeth to center of lock extension is less than 3/16" install service spacers and proper length striker attaching screws as follows:

Dimension "A"	Spacers Required	Thickness	Striker Attaching Screws*
3/16" to 1/8"	1	1/16"	Original Screw
1/8" to 1/16"	1	1/8"	Service Screw (1/8" Longer)
1/16" to 0	1 (1/8" Spacer) 1 (1/16" Spacer)	3/16" (Total)	Service Screw (1/4" Longer)
0 to 1/16" Interference	2 (1/8" Spacer)	1/4" (Total)	Service Screw (1/4" Longer)

*Zinc or cadmium-plated flat-head cross-recess screw with countersunk washer.

NOTE: Dimension "B" from center of lock extension to inside face of striker should never be less than 1/16".

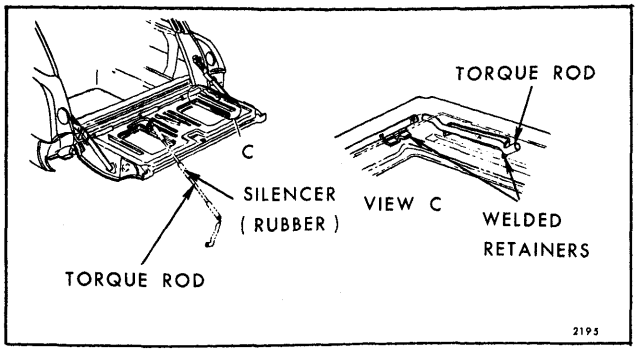

Fig. 9-47—Tail Gate Torque Rod

TAIL GATE TORQUE ROD

Removal and Installation

1. Remove tail gate window assembly and torque rod retainer(s). (See Figs. 9-21 and 9-34.)

2. Remove screws securing torque rod bearing plate to tail gate. (See Fig. 9-30 for "B & A" Bodies and Fig. 9-21 for "X" Bodies.)

3. On "B & A" Body Styles, disengage torque rod from welded retainers. (See View "C" in Fig. 9-47.)

4. On "B & A" Body Styles, remove torque rod silencer (rubber) from left side of torque rod (exposed). Work torque rod out of opening on left side and remove rod through top of gate. (See Fig. 9-47.)

5. On "X" Body Styles, remove torque rod from gate through entrance hole. (See Fig. 9-21.)

6. To install, reverse removal procedure.

TAIL GATE WINDOW INNER AND OUTER STRIP ASSEMBLIES

Removal and Installation

Both strip assemblies are retained by clips in either the inner or outer panel of tail gate. The outer strip is additionally retained by two screws, one at each extreme end. To remove either strip, first remove screws and, using a flat tool, remove strip assemblies. To install, reverse removal procedure. (See Fig. 9-48.)

TAIL GATE BOTTOM DRAIN HOLE SEALING STRIPS

Removal and Installation

1. With a flat-bladed tool carefully pry out snap-on fastener at each end of strip and remove sealing strip from tail gate.

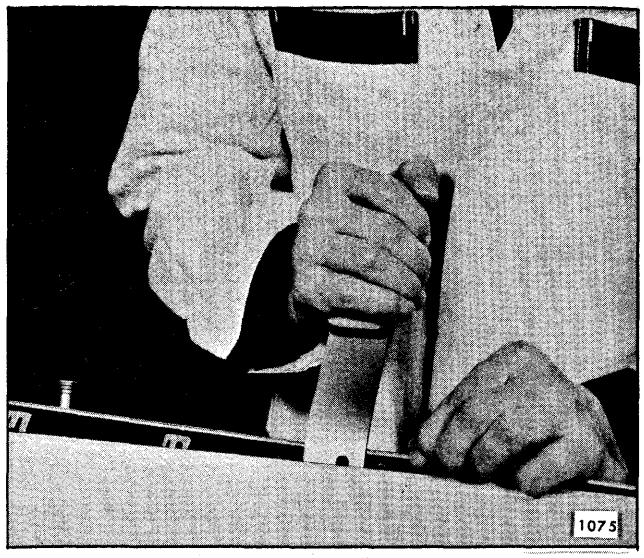

Fig. 9-48—Tail Gate Strip Assembly Removal

2. To install sealing strips, reverse removal procedure. To prevent strip from adhering to the tail gate panel and blocking the drain holes, apply a sparing amount of silicone rubber lubricant on the center section of the sealing strip. (See illustration under "Front and Rear Door Bottom Drain Hole Sealing Strips".)

TAIL GATE OPENING WEATHERSTRIP

Removal and Installation

1. Open tail gate and remove fasteners and/or screws securing weatherstrip to right and left body pillars (at belt). On "B" Body Styles, remove screws securing lower weatherstrip retainer to rear body cross bar. (See Fig. 9-49.)

2. With a flat bladed tool, carefully remove weatherstrip all along rail gate opening.

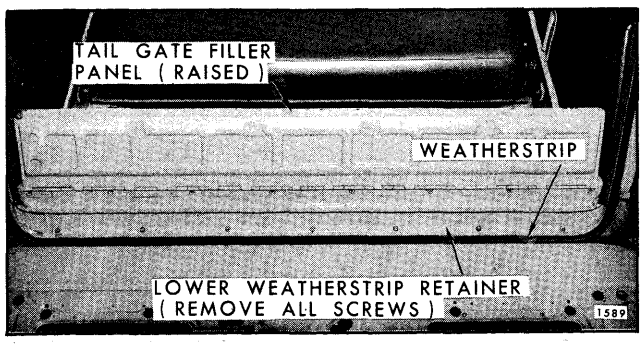

Fig. 9-49—Tail Gate Weatherstrip Retention

3. To install, apply a bead of black weatherstrip cement into retainer along entire opening and reverse removal procedure.

TAIL GATE WINDOW UPPER GLASS RUN CHANNEL "B & A" BODY STYLES

Removal and Installation

1. Open tail gate. With finger pressure only, squeeze run channel at one end and pull channel out of retainer.

2. Once run channel has been removed, the retainer attaching screws are exposed. (See Fig. 9-50.) The retainer can be adjusted by loosening attaching screws, shifting retainer to desired position and tightening screws. If retainer is removed, seal same with medium body sealer prior to installation.

3. To install, reverse removal procedure.

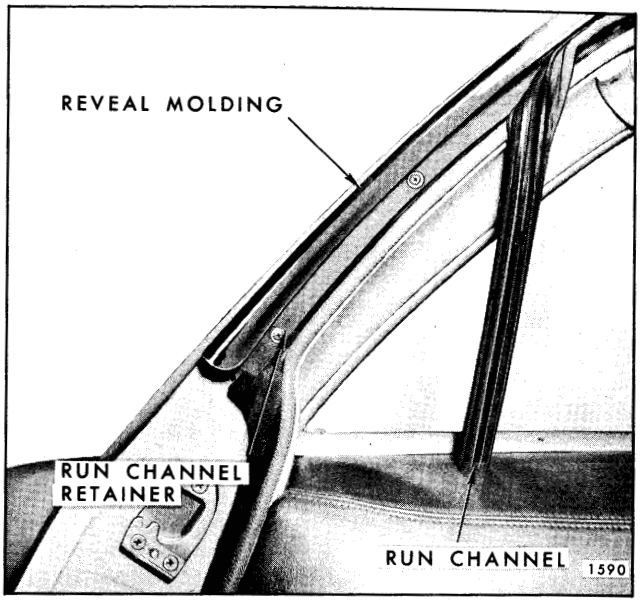

Fig. 9-50—Tail Gate Upper Glass Run Channel Retention

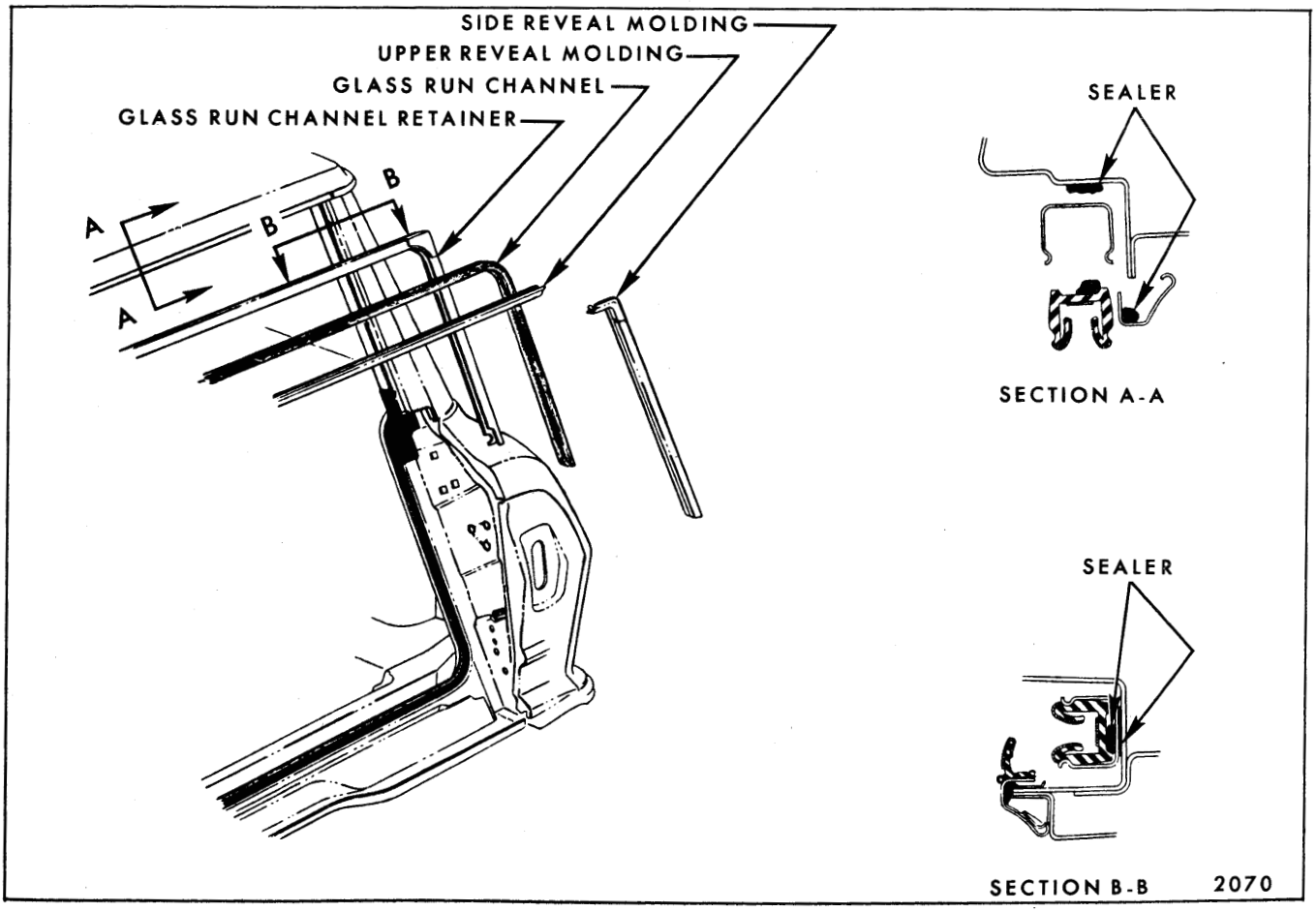

Fig. 9-51—Tail Gate Opening Sealing - "X" Body Styles

TAIL GATE WINDOW UPPER GLASS RUN CHANNEL "X" BODY STYLES

Removal and Installation

1. Open tail gate and remove exposed clip at each end of glass run channel securing channel to body pillar at belt line.
2. Carefully break cement bond between run channel and retainer and remove run channel.
3. Remove screws to run channel retainer and remove retainer.
4. Prior to installation of either run channel or retainer, seal contact areas with medium bodied sealer as depicted in Sections "A-A" and "B-B" in Figure 9-51.
5. To install, reverse removal procedure.

TAIL LAMPS

Various methods are employed to remove and install the components of tail lamp assemblies. The following charts (Figs. 9-52, 9-53, 9-54 and 9-55) will provide a quick reference for performing the the three basic service operations for each Car Division. (Bulb replacement, lens replacement and housing replacement.)

SEALING

Caution should be exercised to prevent waterleaks at the tail lamp area when sealing surfaces are disturbed. Damaged gaskets should be replaced. If new gaskets are not installed, the use of sealer (body caulking compound or equivalent) is recommended at critical areas and where the old gaskets have taken a set.

The recommended torque for attaching nuts to zinc die cast studs on tail lamp housings and rear fender extensions is 60-72 inch pounds. If additional tightening of casting to panel is required a maximum of 90 inch pounds of torque may be used without stripping the nut.

TAIL LAMP BULB USAGE CHART

Trade No.	Candle Power	Use
1155	4	Tail Lamp
1156	32	Back-Up Lamp
1157	32 and 4	Combination Tail, Stop and Directional

TAIL LAMP OPERATIONS—CHEVROLET (Fig. 9-52)

Operation	Method	Body Type						
		X	X 35	A	A 35	B 15000	B 16000	B 35-45
Bulb Replacement	Remove Lens (Outside)		X		X			X
	Remove Socket (Rear Compartment)	X		X		X	X	
Lens Replacement	Remove Retaining Screws (Outside)	X	X	X	X	X		X
	Remove Housing and Remove Screws (Under Gasket)						X	
Housing Replacement	Remove From Outside (Retaining Nuts in Rear Compartment)	X	X	X View A		X	X	
	Remove From Outside (Retaining Bolts Under Lens)				X			X View B

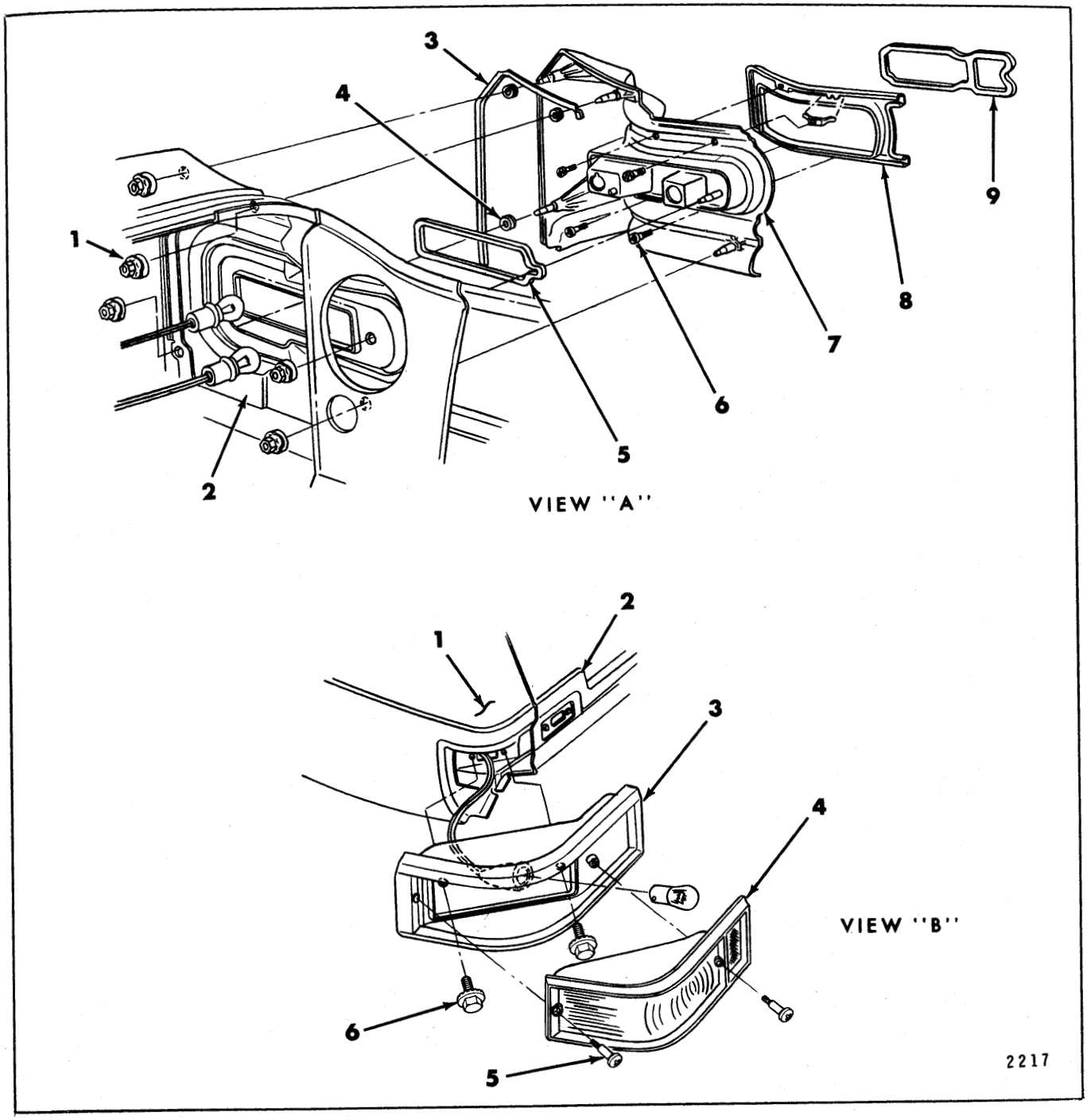

Fig. 9-52—Chevrolet Tail Lamp Installations

View A
1. Extension Nuts
2. Rear End Inner Panel
3. Paint Chip Gasket
4. Extension Sealing Washer
5. Lamp Opening Gasket
6. Outer Bezel Screws
7. Outer Panel Extension
8. Outer Bezel
9. Lens Gasket

View B
1. Rear Quarter
2. Tail Gate
3. Rear Lamp Housing
4. Lens
5. Lens Screw
6. Lamp Housing Screws

TAIL LAMP OPERATIONS—PONTIAC (Fig. 9-53)

Operation	Method	Body Type					
		A 23000	A 24000	A 35	B	B 26657	B Wagon 35-45
Bulb Replacement	Remove Lens (Outside)			X			X
	Remove Socket (Rear Compartment)	X	X		X	X	
Lens Replacement	Remove Retaining Screws (Outside)			X			X
	Remove Housing and Remove Screws (Under Gasket)	X	X		X	X	
Housing Replacement	Remove From Rear Compartment (Retaining Nuts)		X View B			X	
	Remove From Outside (Retaining Nuts in Rear Compartment)	X View A			X		
	Remove From Outside (Retaining Bolts Under Lens)			X			X View C

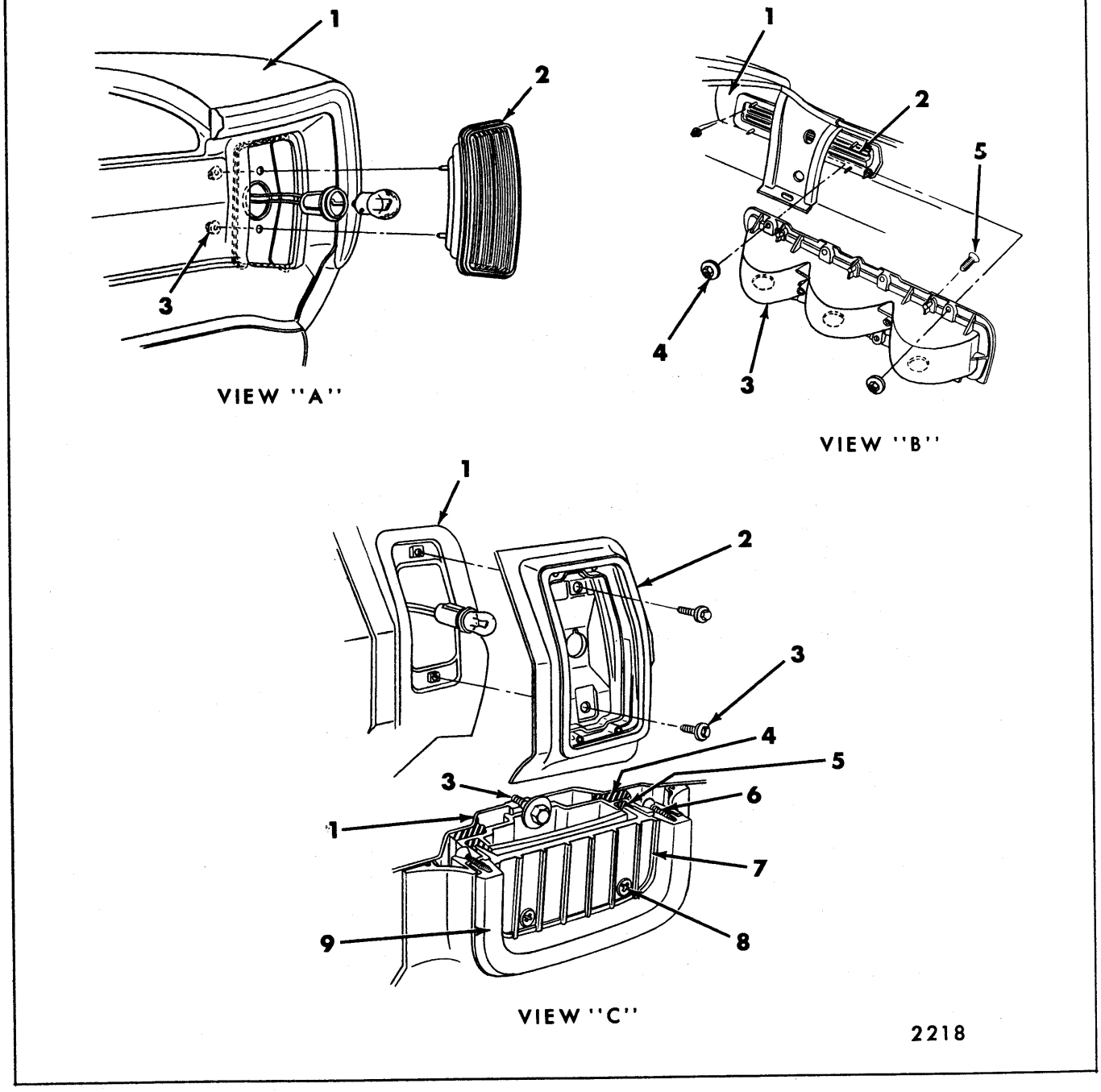

Fig. 9-53—Pontiac Tail Lamp Installations

View A
1. Rear Quarter Panel
2. Rear Lamp Housing
3. Housing Nuts

View B
1. Rear End Inner Panel
2. Rear End Outer Panel Finishing Molding
3. Rear Lamp Housing
4. Housing Nut
5. Lens Screw

View C
1. Rear Quarter Panel
2. Rear Lamp Housing
3. Housing Screw
4. Rear Lamp Opening Gasket
5. Lens Gasket
6. Bezel Screws
7. Lens
8. Lens Screws
9. Bezel

TAIL LAMP OPERATIONS—OLDSMOBILE (Fig. 9-54)

Operation	Method	Body Type				
		A	A 35-55-65	B	C	E
Bulb Replacement	Remove Lens (Outside)		X			
	Remove Socket (Rear Compartment)	X		X	X	X
Lens Replacement	Remove Retaining Screws (Outside)		X			
	Remove Housing and Remove Screws (Under Gasket)	X		X	X	X
Housing Replacement	Remove From Rear Compartment (Retaining Nuts)					X View C
	Remove From Outside (Retaining Nuts in Rear Compartment)	X		X	X View B	
	Remove From Outside (Retaining Bolts Under Lens)		X View A			
	Rear Bumper Lowered	X		X	X	

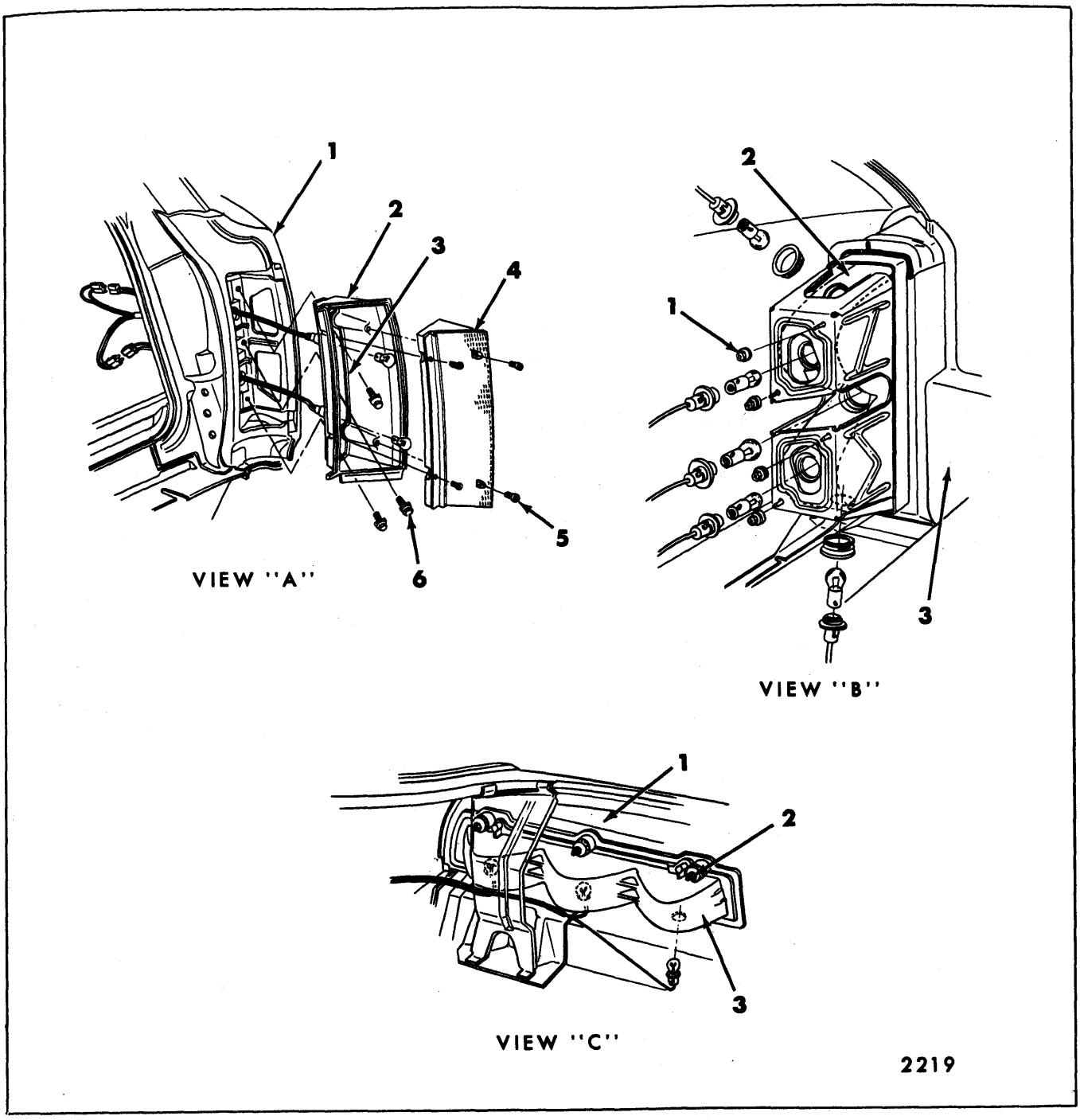

Fig. 9-54—Oldsmobile Tail Lamp Installations

View A
1. Rear Quarter Panel
2. Lamp Housing
3. Lens Gasket
4. Lens
5. Lens Screw
6. Housing Screw

View B
1. Lamp Housing Nut
2. Lamp Housing
3. Rear End Inner Panel

View C
1. Rear End Inner Panel
2. Lamp Housing Nut
3. Rear Lamp Housing

TAIL LAMP OPERATIONS—BUICK (Fig. 9-55)

Operation	Method	Body Type				
		A	A 35-55-65	B	C	E
Bulb Replacement	Remove Lens (Outside)		X			
	Remove Socket (Rear Compartment)	X		X	X	X
Lens Replacement	Remove Retaining Screws (Outside)		X			
	Remove Housing and Remove Screws (Under Gasket)	X		X	X	X
Housing Replacement	Remove From Rear Compartment (Retaining Nuts)			X View C		
	Remove From Outside (Retaining Nuts in Rear Compartment)	X View A			X	X
	Remove From Outside (Retaining Bolts Under Lens)		X View B			

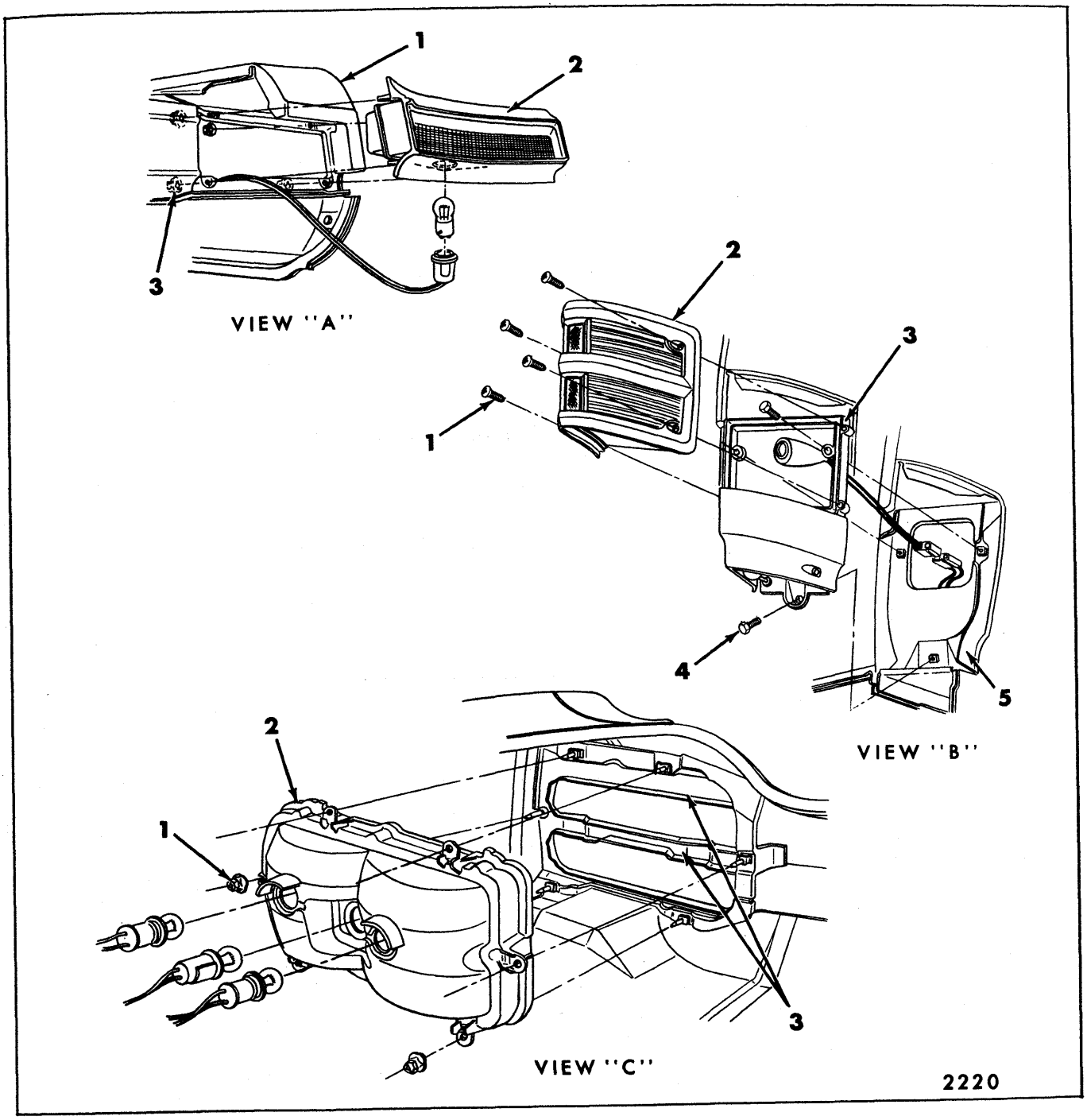

Fig. 9-55—Buick Tail Lamp Installations

View A
1. Rear Quarter Panel
2. Rear Lamp Housing Assembly
3. Housing Nuts

View B
1. Lens Screw
2. Lens and Bezel Assembly
3. Lamp Housing
4. Lamp Housing Screw
5. Rear Quarter Panel

View C
1. Lamp Attaching Nuts
2. Lamp Housing
3. Rear End Panel

SECTION 10

SEATS

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INTRODUCTION

In addition to the standard line full width seats for 1966, a new design "Strato" full width and bucket seat have been introduced this year. The new "Strato" seats are contoured to provide greater comfort and are thinner to provide additional leg room. A reclining seat back with head rest is available on the passengers side on some body styles. The "Strato" head rest is also available on both the drivers and passengers side of "Strato" seats. All bucket seats, with the exception of Corvair use the new "Strato" design bucket seats. A standard seat back head rest is available for both the drivers and passengers side of the seat back.

FRONT SEATS—FULL WIDTH

FRONT SEAT ASSEMBLY—MANUALLY OPERATED

Description

The conventional full width manually operated seat assembly incorporates manually operated seat adjusters to provide fore and aft movement of the seat. When the lever at the left seat adjuster is moved forward the seat adjusters unlock, permitting horizontal travel of the seat. When the seat is in the desired position, and the locking lever is released, the seat is locked.

All seat adjusters are secured to the floor pan by nuts installed on floor pan anchor plate studs or bolts installed into anchor nuts in the floor pan. (See Fig. 10-1 and Fig. 10-2).

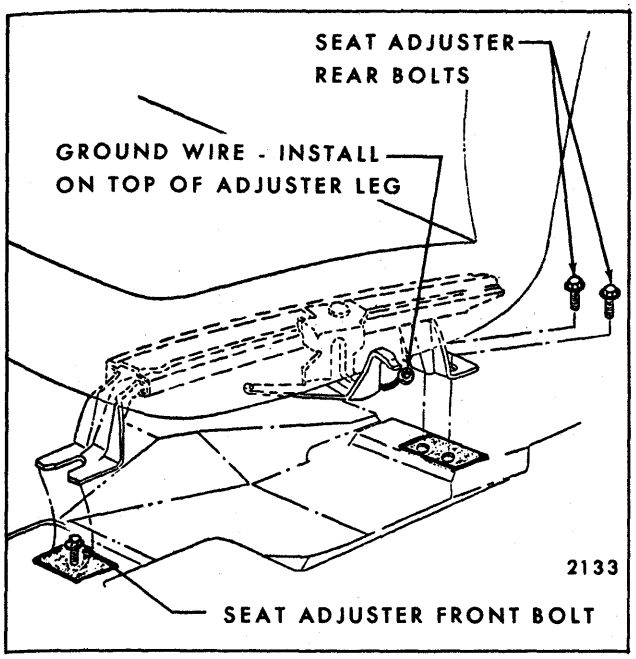

Fig. 10-1—Seat Adjuster Floor Pan Attachment - "A, X & Z" Full Width Seat

Seat Assembly

Removal and Installation

1. Remove both driver and passenger inner seat belt floor pan attaching bolt.

2. Remove door sill plates and turn back floor mat or carpeting, where necessary, to expose seat adjuster-to-floor pan attaching nuts or bolts.

3. Operate seat to full forward position.

4. At rear of adjusters, remove adjuster-to-floor pan rear attaching nuts or bolts (Fig. 10-1 and Fig. 10-2).

5. Operate seat to full rearward position. On "A, X & Z" Body Styles loosen adjuster-to-floor pan front attaching bolts. Then with aid of a helper, slide seat assembly rearward until front legs of adjusters are disengaged from under front attaching bolts. Remove seat assembly from body.

   On "B & C" Body Styles remove adjuster-to-floor pan front attaching bolts. On Styles with seat back cigar lighter tilt seat assembly rearward sufficiently to disconnect lighter feed wire. With aid of a helper, remove seat assembly from body.

6. To install seat assembly, reverse removal procedure. Where seat adjuster-to-floor pan spacers were present reinstall spacers in same position.

   NOTE: On "A, X & Z" Body Styles make certain front legs of adjusters are completely engaged under front attaching bolts before tightening bolts.

   Check operation of seat assembly to full limits of travel.

Adjuster Assembly

Removal and Installation

1. Remove front seat assembly with adjusters attached, as previously described, and place upside down on a clean protected surface.

2. Remove seat adjuster assist spring from adjuster to be removed (Fig. 10-3).

3. If left adjuster is being replaced, remove adjuster control knob.

4. Squeeze hooked end of seat adjuster locking wire together and slide retaining spring back over hump in locking wire and remove locking wire from adjuster.

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 10-3) and remove seat adjuster from seat.

6. To install, reverse removal procedure.

   NOTE: The right and left seat adjuster sliding mechanism should be in same relative position when attaching adjuster to seat bottom frame.

After installing adjusters to seat frame, check operation of adjusters. If adjusters do not lock or unlock satisfactorily when control handle on left adjuster is operated, disengage locking wire retainer from hole in seat bottom frame and engage retainer in one of adjacent holes to obtain proper tension in wire. (Fig. 10-3)

FRONT SEAT ASSEMBLY—POWER OPERATED TWO, FOUR OR SIX-WAY FULL WIDTH SEAT

Description

The seat adjusters are actuated by a 12 volt, reversible, shunt wound motor with a built in circuit breaker. The motor is energized by a toggle-type control switch installed in the left seat side panel or in the left door arm rest.

On four-way and six way power operated seats the seat operating mechanism incorporates a transmission assembly which incorporates solenoids

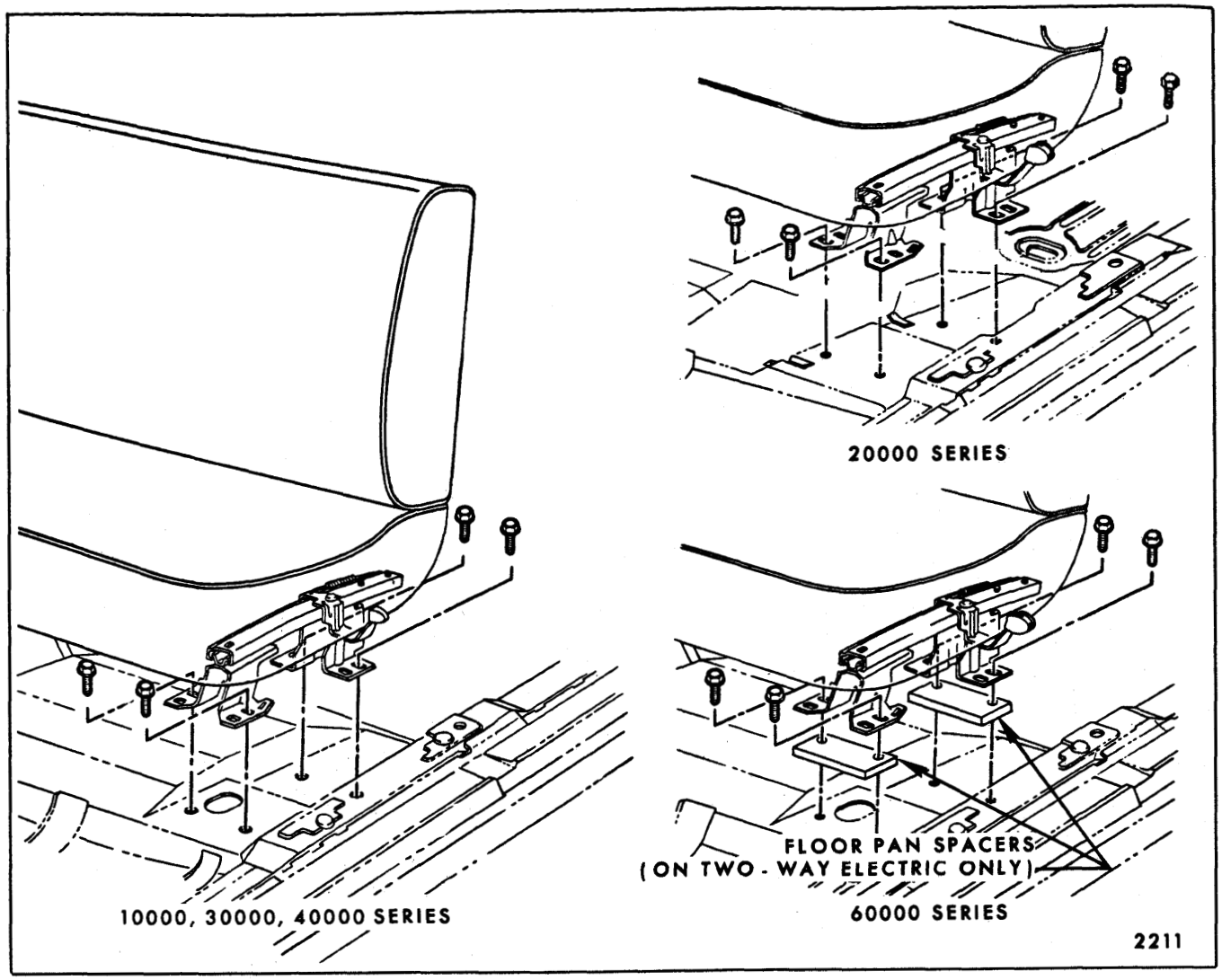

Fig. 10-2—Seat Adjuster Floor Pan Attachment - "B & C" Full Width Seat

and drive cables to the seat adjusters. On the four-way seat one solenoid controls the horizontal movement of the seat while the second solenoid controls the vertical movement of the seat. On the six-way seat one solenoid controls the vertical movement of the front of the seat, the second solenoid controls the horizontal movement of the seat and the third solenoid controls the vertical movement of the rear of the seat. When the control switch is actuated, the motor and one of the solenoids are energized simultaneously. Then the solenoid plunger engages with the driving gear dog. The driving gear rotates the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber coupler connecting the motor and transmission. When the control switch is released, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

Seat Assembly

Removal and Installation

1. Operate seat to full forward position. On four-way or six-way power seats operate seat to full up position.

2. Remove both driver and passenger inner seat belt floor pan attaching bolt. Remove seat cushion side panels where present. Where seat adjuster track covers are present carefully pry out track cover snap in retainers with a flat-bladed tool and remove track covers.

3. Where necessary, remove sill plates and turn back floor mat or carpeting to expose seat adjuster-to-floor pan attaching nuts or bolts.

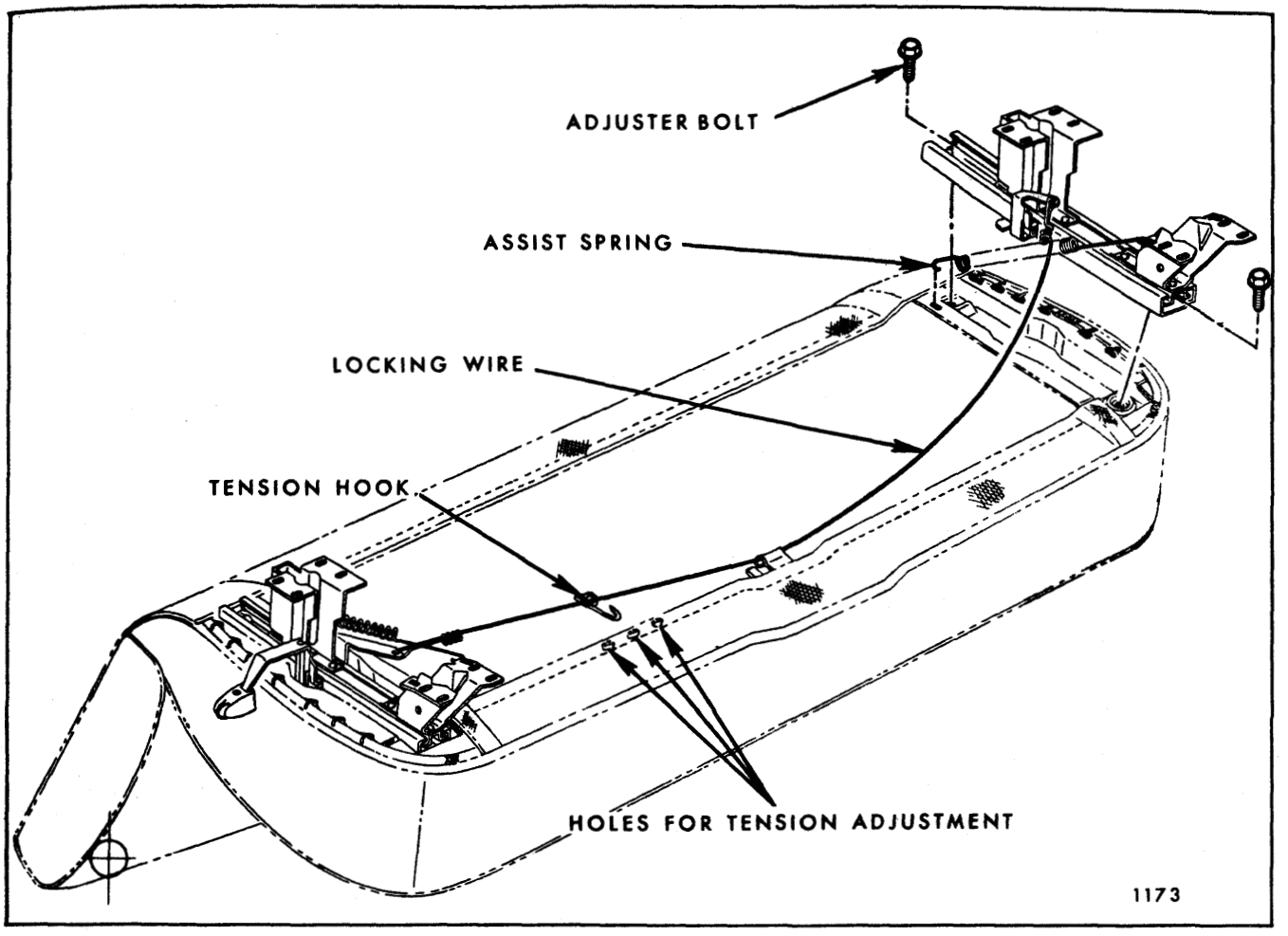

Fig. 10-3—Manually Operated Seat Adjuster Installation - "B & C" Shown "A, X & Z" Typical

4. Remove seat adjuster-to-floor pan rear attaching bolts (Fig. 10-1 or 10-2); then operate seat assembly to full rearward position.

5. a. On "A" Body Styles with power operated seat adjusters, loosen adjuster-to-floor pan front attaching bolts (Fig. 10-1). With aid of helper, slide seat assembly rearward until front legs of adjusters are disengaged from under front attaching bolts. Tilt seat assembly rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-4); then remove seat assembly from floor pan.

   b. On "B & C" Body Styles remove adjuster-to-floor pan front attaching bolts (Fig. 10-2). Tilt seat assembly rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-5 for Two-Way, Fig. 10-6 for Four-Way, Fig. 10-7 for Six-Way and Fig. 10-8 for Strato Six-Way). On styles with seat back cigar lighter, seat back courtesy lamps or seat back vanity lamp disconnect electrical feed wire or wires. With aid of a helper remove seat assembly from body.

6. To install seat assembly, reverse removal procedure. Where seat adjuster-to-floor pan spacers were present reinstall spacers in same position.

   NOTE: On "A" Body Styles make certain front legs of adjusters are completely engaged under front attaching bolts before tightening. Also check that carpet retainers are installed under rear attaching bolts (Fig. 10-1) and that floor mat or carpet is properly positioned under retainers.

   Make sure ground wire is securely attached under left seat adjuster-to-floor pan rear attaching bolt. Check for proper operation of seat adjusters to limits of travel.

   IMPORTANT: When installing seat assembly in body, seat adjusters should be parallel and "in phase" with each other. In the event the

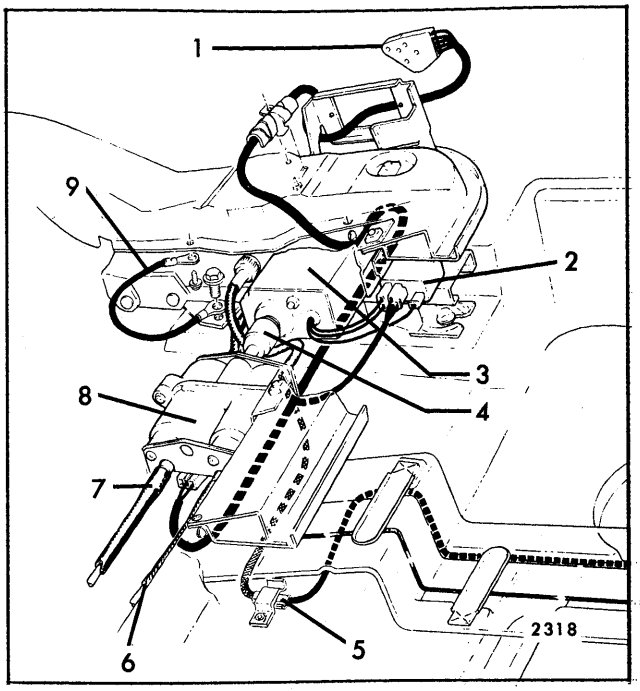

Fig. 10-4—Four-Way Full Width Seat Electric Wiring - "A" Styles

1. Control Switch Block
2. Motor Control Relay
3. Motor
4. Rubber Coupler
5. Harness Feed Connector
6. Vertical Drive Cable (Yellow)
7. Horizontal Drive Cable (Black)
8. Transmission Assembly
9. Seat Ground Wire

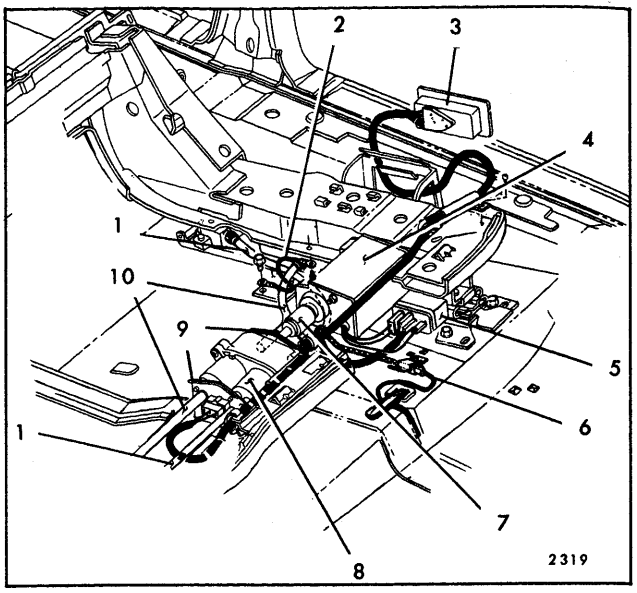

Fig. 10-6—Four-Way Full-Width Seat Electric Wiring - Buick "B, C & E" Styles

1. Vertical Control Cable (Yellow)
2. Ground Wire
3. Control Switch
4. Motor
5. Motor Control Relay
6. Harness Feed Connector
7. Rubber Coupler
8. Transmission Assembly
9. Transmission End Plates
10. Horizontal Control Cable (Black)

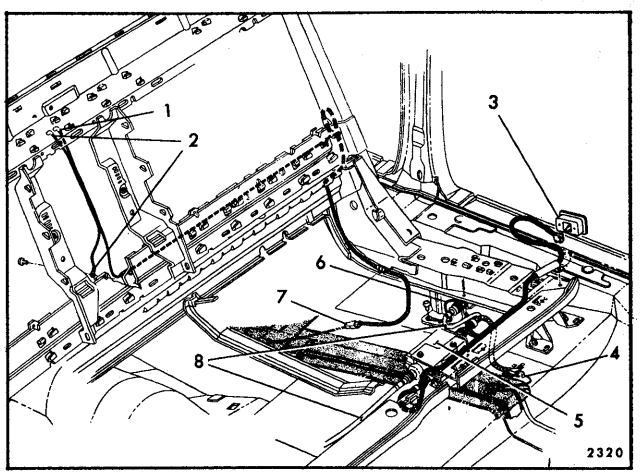

Fig. 10-5—Two-Way Full Width Seat Electric Wiring - "C & E" Styles

1. Front Seat Back Switch Feed - White
2. Front Seat Back Switch Ground - Black
3. Control Switch
4. Harness Feed Connector
5. Motor
6. Ground Wire
7. Front Seat Back Courtesy Lamp Feed Connector (Cadillac Only)
8. Horizontal Control Cable

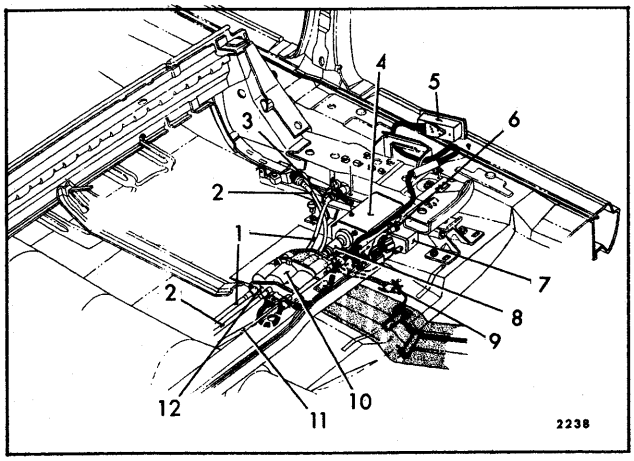

Fig. 10-7—Six-Way Full-Width Seat Electric Wiring - "B, C & E" Styles

1. Horizontal Control Cable (Black)
2. Rear Vertical Control Cable (Blue)
3. Ground Wire
4. Motor
5. Control Switch
6. Front Vertical Control Cable (Yellow) - Left Side
7. Motor Control Relay
8. Rubber Coupler
9. Harness Feed Connector
10. Transmission and Solenoid Assembly
11. Front Vertical Control Cable (Yellow) - Right Side
12. Transmission End Plate

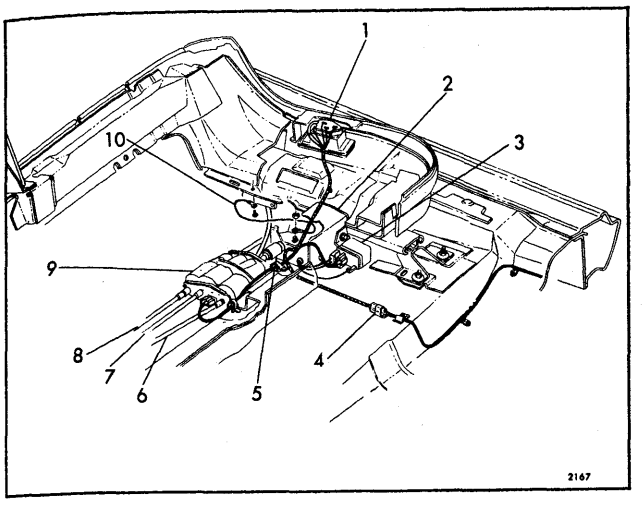

Fig. 10-8—"Strato" Six-Way Full-Width Seat Electric Wiring

1. Control Cable
2. Motor
3. Motor Control Relay
4. Harness Feed Connector
5. Rubber Coupler
6. Front Vertical Control Cable (Yellow)
7. Rear Vertical Control Cable (Blue)
8. Horizontal Control Cable (Black)
9. Transmission Assembly
10. Ground Wire

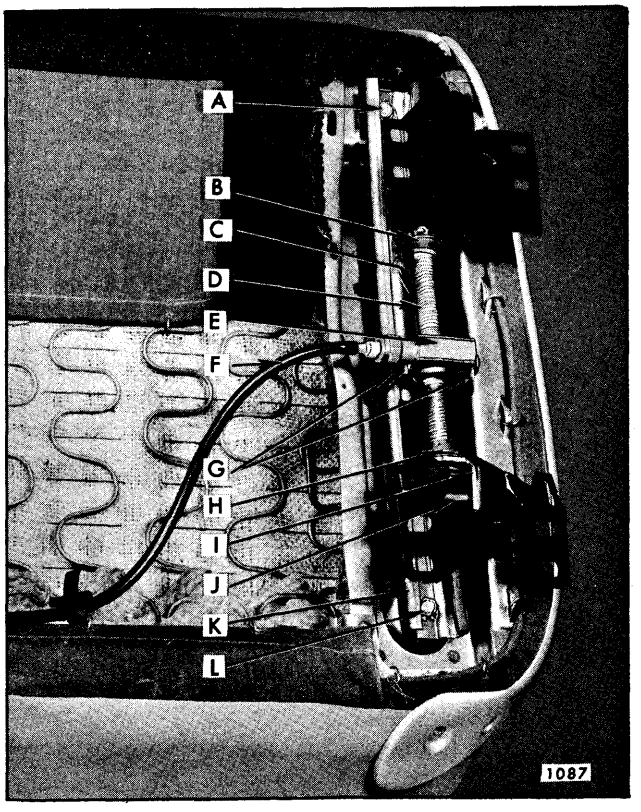

Fig. 10-9—Horizontal Power Adjuster - "C & E" Styles

A. Adjuster Attaching Bolt
B. Rear Stop
C. Adjuster Lower Channel
D. Jackscrew
E. Gearnut
F. Drive Cable
G. Shoulder Bolts
H. Front Stop
I. Stop Bracket
J. Cross Pin
K. Adjuster Upper Channel
L. Adjuster Attaching Bolt

adjusters are "out of phase" (this is, one adjuster reaches its maximum horizontal or vertical travel in a given direction before the other adjuster), proceed as follows:

a. Horizontal Travel - Operate seat control switch until one adjuster reaches full forward position. Detach horizontal drive cable from adjuster which has reached full forward position. Operate seat forward until other adjuster reaches full forward position; then, connect horizontal drive cable and check horizontal travel of seat.

b. Front or Rear Vertical Travel - Operate seat control switch until one adjuster has reached the fully raised position at both front and rear vertical travel limits. Disconnect both front and rear vertical drive cables from adjuster which has reached the fully raised position. Operate seat control switch until other adjuster reaches the fully raised position at both front and rear vertical travel limits; then, connect previously removed front and rear vertical drive cables. Check vertical travel by operating adjusters through one or two complete cycles. The above operation may be repeated on an "as required" basis if adjusters do not appear to be "in phase" after test cycle.

Adjuster Assembly

Removal and Installation

1. Operate seat to a midway horizontal position; on four-way and six-way seats also operate seat to fully raised position.

2. Remove front seat assembly with adjusters attached, as previously described, and place upside down on a clean protected surface.

3. Detach power drive cables from gear nuts to adjuster to be removed (Fig. 10-9, 10-10, 10-11 and 10-12).

4. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly (Fig. 10-9, 10-10, 10-11 and 10-12).

5. To install seat adjuster assembly, reverse removal procedure. On seats with adjuster track covers, make sure track cover supports are installed between adjuster and seat frame (Fig. 10-10, 10-12 and 10-11). Check operation of seat adjusters and make sure adjusters are

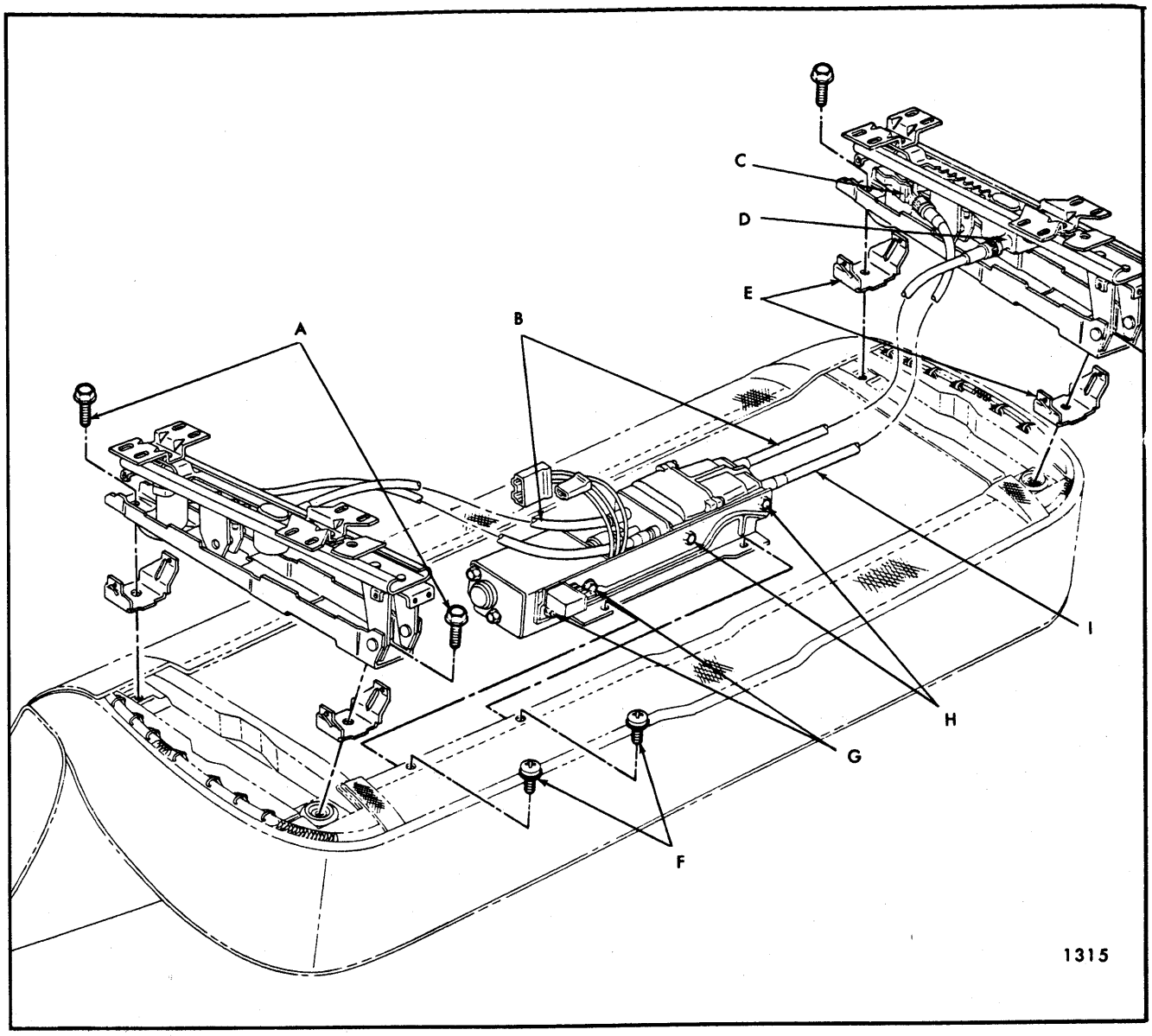

Fig. 10-10—Front Seat Assembly - Four-Way Tilt - Buick "B, C & E" Styles

A. Adjuster-to-Seat Attaching Bolts
B. Horizontal Cables - Black
C. Vertical Gearnut
D. Horizontal Actuator
E. Track Cover Supports
F. Motor and Transmission Support Attaching Screws
G. Motor Attaching Screws
H. Transmission Attaching Screws
I. Rear Vertical Cables - Blue

"in phase" before installing assembly into body (See Step 6 under "Front Seat Assembly - Removal and Installation").

TWO-WAY SEAT ADJUSTER MAJOR COMPONENTS—"C" BODY FULL WIDTH SEATS

The following service procedures cover replacement of the major component parts of the power operated two-way seat adjusters used on "C" body full width seats.

Electric Motor—"C" Body

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean protected surface.

2. Disconnect both power drive cables from actuator motor.

3. Remove screws that secure actuator motor support bracket to seat bottom frame and

remove actuator motor with attached support bracket from seat assembly.

4. Disconnect feed wire harness from actuator motor (Fig. 10-5).

5. Remove screws securing motor to motor support bracket.

6. To install, reverse removal procedure. Check for proper seat operation to extreme limit of fore and aft travel.

Horizontal Gearnut Assembly—"C" Body

Removal and Installation

1. Remove front seat assembly with attached adjusters and place upside down on a clean, protected surface.

2. Detach power drive cable from gearnut to be removed.

3. Using a "clutch" type screwdriver or other suitable tool, remove two shoulder bolts securing gearnut to upper slide portion of seat adjuster (Fig. 10-9).

4. Rotate jackscrew assembly upward sufficiently to gain access to cotter pin at rear of jackscrew assembly.

5. Remove cotter pin, washer and rubber bumper from rear end of jackscrew; then, remove gearnut from jackscrew.

6. To install, reverse removal procedure. Prior to installing seat assembly in body, be sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal Jackscrew—"C" Body

Removal and Installation

1. Remove front seat assembly with attached adjusters and place upside down on a clean, protected surface.

2. Detach power drive cable from gearnut and jackscrew assembly to be removed.

3. Using a suitable tool (preferably a "clutch" type screwdriver) remove two shoulder bolts securing gearnut to upper slide portion of seat adjuster assembly (Fig. 10-9).

4. Remove retainer that secures stop bracket crosspin to adjuster front pedestal and remove crosspin (Fig. 10-9).

5. Remove jackscrew assembly from seat adjuster.

6. To install, reverse removal procedure.

NOTE: When replacing jackscrew assembly with new part, remove nut, washers, rubber bumper and stop bracket with inserted rubber grommet from front end of jackscrew, as well as gearnut and washers, rubber bumper and cotter pin from rear end of jackscrew and transfer to new jackscrew assembly.

Plastic Slides—"C" Body

Removal and Installation

1. Remove front seat adjuster to be serviced from front seat assembly. (See: Front Seat Adjuster - Two-Way Electric - Removal and Installation procedures).

2. Using a suitable tool (preferably a "clutch" type screwdriver), remove two shoulder bolts securing gearnut to upper channel of seat adjuster assembly (Fig. 10-9).

3. Slide lower track and support base portion of seat adjuster, with attached jackscrew and gearnut, forward until it disengages from upper channel assembly. The four plastic slides may now be disengaged from positioning slots on lower track.

4. To install, reverse removal procedure making sure that groove in plastic slide slips onto lower track with thinner section of slide protruding above surface of track.

FOUR-WAY SEAT ADJUSTER MAJOR COMPONENTS—"A" BODY FULL WIDTH SEATS

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjusters used on the "A" body full width seats.

Electric Motor—"A" Body

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean protected surface.

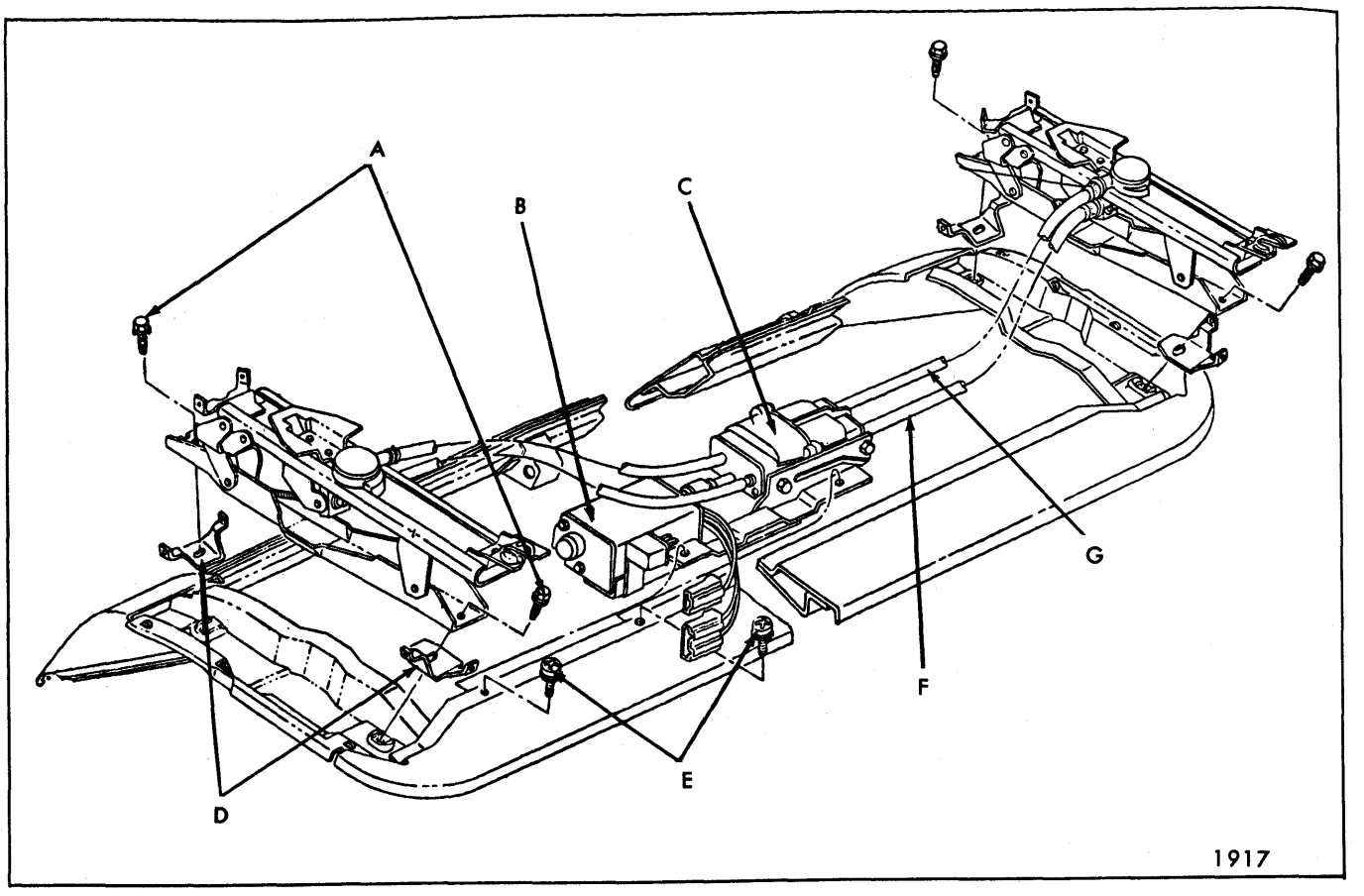

Fig. 10-11—Front Seat Assembly - Four-Way Tilt - "A" Styles

A. Adjuster to Seat Frame Attaching Bolts
B. Motor Assembly
C. Transmission Assembly
D. Track Cover Supports
E. Motor and Transmission Support Attaching Screws
F. Vertical Cable (Yellow)
G. Horizontal Cable (Black)

2. Disconnect wire harness from motor relay assembly.

3. Remove screws securing motor and transmission support to seat bottom frame. (Fig. 10-11)

4. Remove motor-to-motor support attaching screws and remove motor assembly from support.

5. To install, reverse removal procedure making sure rubber coupler is properly engaged at both motor and transmission ends. Check operation of seat to full limits of travel.

Vertical Gearnut—"A" Body

Removal and Installation

1. Operate seat assembly to fully raised and midway position.

2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.

3. Detach vertical gearnut drive cable from other adjuster.

4. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut being replaced (Fig. 10-13).

5. If right adjuster gearnut is being replaced, at front of jackscrew, remove double nut that acts as a jackscrew "down" stop.

6. Using a portable power source to energize the motor, actuate vertical gearnut until gearnut is disengaged from jackscrew.

NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain clearance for removal of gearnut.

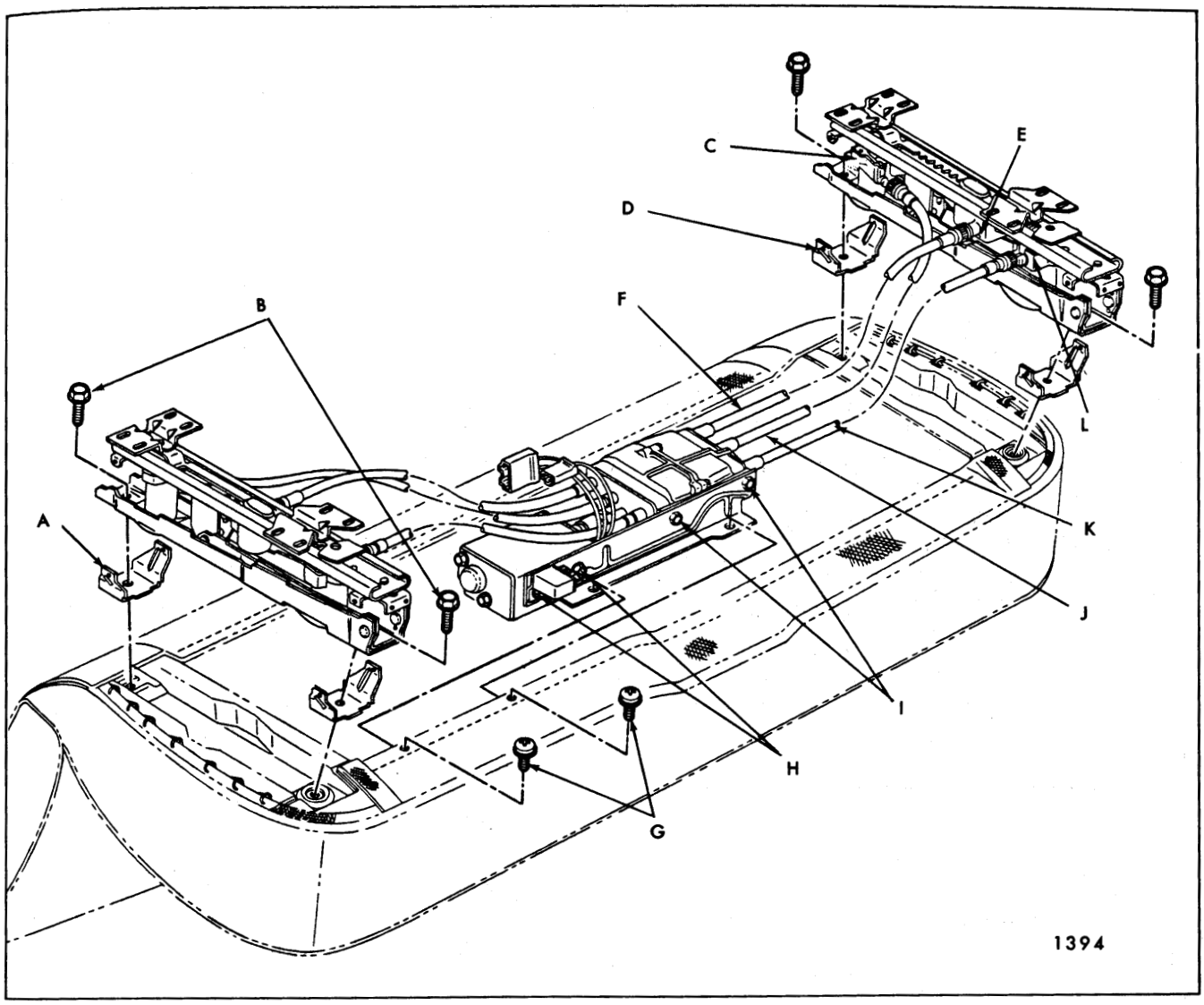

Fig. 10-12—Front Seat Assembly - Six-Way - "B & C" Styles

A. Track Cover Support
B. Adjuster-to-Seat Attaching Screws
C. Rear Vertical Gearnut
D. Track Cover Support
E. Horizontal Actuator
F. Horizontal Cables - Black
G. Motor and Transmission Support Attaching Screws
H. Motor Attaching Screws
I. Transmission Attaching Screws
J. Rear Vertical Cables - Blue
K. Front Vertical Cables - Yellow
L. Front Vertical Gearnut

7. Disconnect drive cable from gearnut.

8. To install, reverse removal procedure.

NOTE: Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal Actuator—"A" Body

Removal and Installation

1. Remove adjuster vertical gearnut as previously described.

2. Disconnect drive cable from horizontal actuator.

3. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly (Fig. 10-13).

4. To install, reverse removal procedure.

NOTE: When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Readjust actuator "as required" until all free motion between

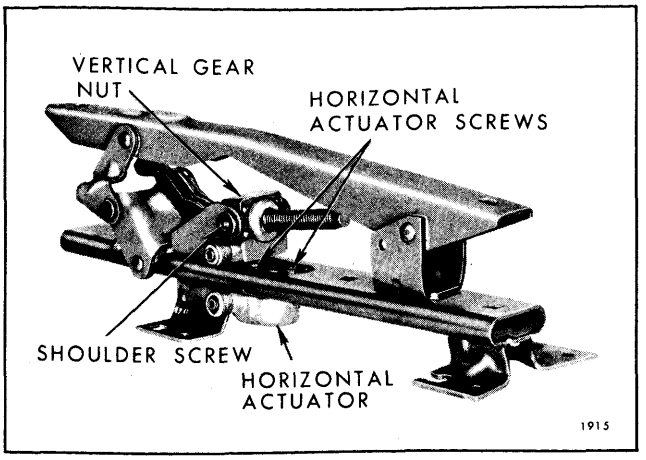

Fig. 10-13—Four-Way Seat Adjuster - "A" Styles

channels has been removed. Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Jackscrew—"A" Body

Removal and Installation

1. Remove adjuster vertical gearnut as previously described.
2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts on side affected (Fig. 10-11).
3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 10-14).

   NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain access to jackscrew attaching rivet.
4. To install, reverse removal procedure. Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal and Vertical Drive Cables—"A" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Detach both horizontal and vertical cables from seat adjuster.
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly (Fig. 10-4).
4. Disengage cable to be replaced from end plate.
5. To install cables, reverse removal procedure. Check operation of seat to full limits of travel.

Transmission—"A" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission (Fig. 10-4).
3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.
4. Remove transmission to support attaching bolts; then, disengage transmission from rubber coupler and remove transmission from seat assembly.
5. To install, reverse removal procedure.

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

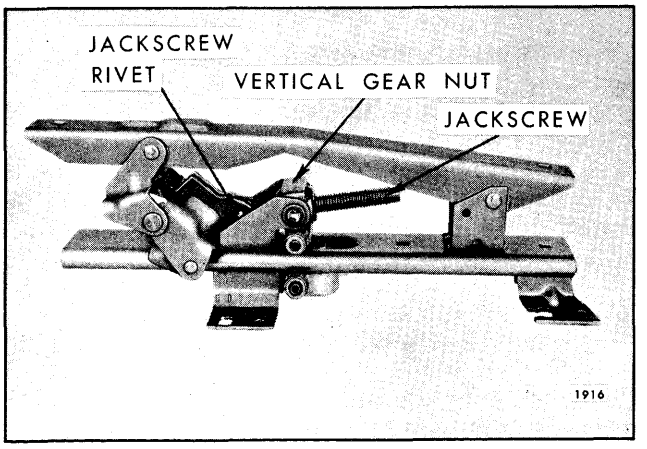

Fig. 10-14—Four-Way Seat Adjuster - "A" Styles

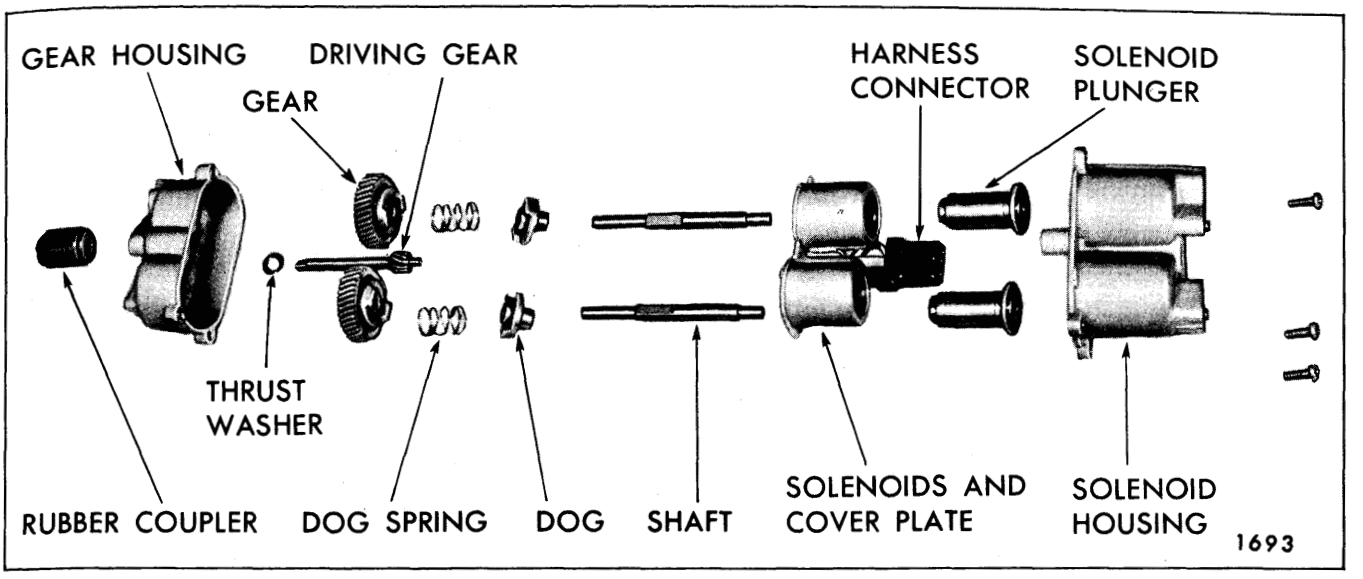

Fig. 10-15—Four-Way Seat Adjuster Transmission

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-15).

3. To assemble transmission, reverse removal procedure.

   IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

FOUR-WAY SEAT ADJUSTER MAJOR COMPONENTS—BUICK "B-C & E" FULL WIDTH FOUR-WAY POWER SEAT

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjusters used on the Buick "B-C & E" body full width seats.

Electric Motor—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly, and place upside down on a clean protected surface.

2. Disconnect wire harness from motor relay assembly (Fig. 10-6).

3. Remove screws securing motor and transmission support to seat bottom frame (Fig. 10-10).

4. Remove motor-to-support attaching screws and remove motor assembly from support.

5. To install, reverse removal procedure making sure rubber coupler is properly engaged at both motor and transmission ends. Check that seat harness is properly secured to seat (Fig. 10-6). Check operation of seat to full limits of travel.

Vertical Gearnut—Buick "B-C & E" Body

Removal and Installation

1. Operate seat to rearward position; then, remove front seat assembly and seat adjuster.

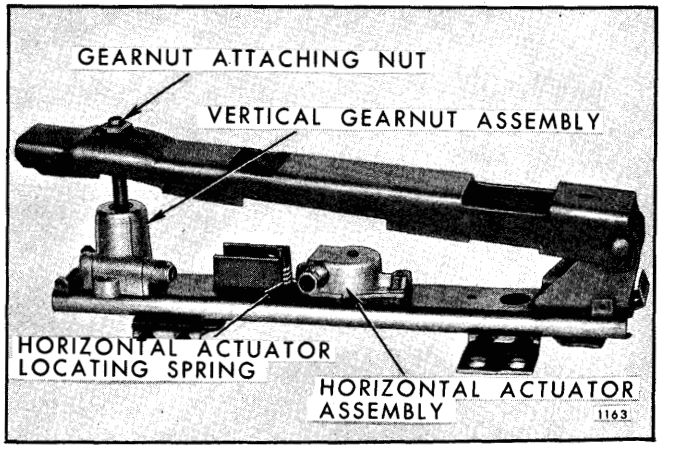

Fig. 10-16—Four-Way Seat Adjuster - Buick "B-C & E" Styles

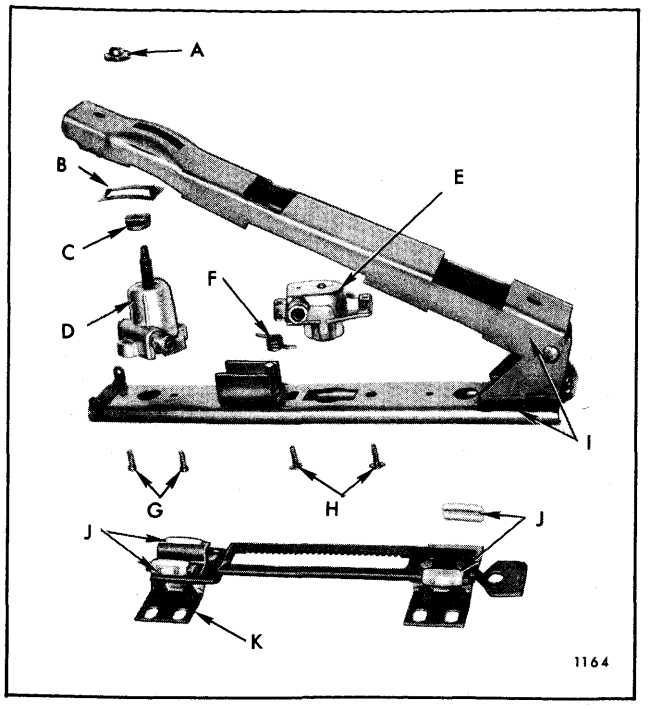

Fig. 10-17—Four-Way Seat Adjuster Components - Buick "B-C & E" Styles

A. Gearnut to Upper Attaching Nut
B. Gearnut Tension Spring
C. Gearnut Washer
D. Vertical Gearnut Assembly
E. Horizontal Actuator Assembly
F. Locating Spring
G. Vertical Gearnut Screws
H. Horizontal Actuator Screws
I. Upper Channel Assembly
J. Plastic Shoes
K. Lower Channel

2. Remove vertical gearnut attaching nut at adjuster upper track (Fig. 10-16). Lift rear of channel upward and remove gearnut tension spring and washer (Fig. 10-17).

3. Lay adjuster on its side and remove screws securing vertical gearnut to adjuster lower track; then, remove gearnut from adjuster (Fig. 10-16).

4. To install, reverse removal procedure.

   NOTE: Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal Actuator—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly and place upside down on a clean protected surface.

2. Disconnect drive cable from horizontal actuator (Fig. 10-10).

3. Remove screws securing horizontal actuator assembly to adjuster lower track; then, remove actuator from adjuster assembly (Fig. 10-17).

   NOTE: It may be necessary to manually actuate the horizontal actuator to gain access to attaching screws.

4. To install, reverse removal procedure. Make sure horizontal actuator locating spring is properly positioned (Fig. 10-16 and 10-17).

   NOTE: When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Readjust actuator "as required" until all free motion between channels has been removed. Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal and Vertical Drive Cables—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly, as previously described, and place upside down on a clean protected surface.

2. Detach both horizontal and vertical cables from seat adjuster (See Fig. 10-10).

3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly (See Fig. 10-6).

4. Disengage cable to be replaced from end plate.

5. To install cables, reverse removal procedure. Check operation of seat to full limits of travel.

Transmission—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly, from body and place upside down on a clean protected surface.

2. Disconnect wire harness connector from transmission (See Fig. 10-6).

3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.

4. Remove transmission to support attaching bolts; then, disengage transmission from rubber coupler and remove transmission from seat assembly.

5. To install, reverse removal procedure.

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

   IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-15).

3. To assemble transmission, reverse removal procedure.

SIX-WAY SEAT ADJUSTER MAJOR COMPONENTS—"B-C & E" BODY FULL WIDTH SEATS

The following service procedures cover replacement of the major component parts of the power operated six-way seat adjusters used on the "B, C and E" body full width seats.

Electric Motor—"B-C & E" Body

Removal and Installation

1. Remove front seat assembly, as previously described, and place upside down on a clean protected surface.

2. Disconnect motor feed wires from motor control relay (See Fig. 10-7).

3. Remove motor support-to-seat frame attaching bolts.

4. Remove motor-to-support attaching bolts; then move motor assembly outboard (away from transmission) sufficiently to disengage motor from rubber coupling.

5. To install, reverse removal procedure making sure rubber coupling is properly engaged at both motor and transmission. Check that seat harness is properly secured to seat (See Fig. 10-7). Check operation of seat to full limits of travel.

Horizontal Actuator—"B-C & E" Body

Removal and Installation

1. Remove seat assembly from body as previously described and place upside down on a clean protected surface.

   NOTE: Horizontal Actuator is easily accessible with seat in mid-way or approximate center position.

2. Detach three power drive cables from adjuster to be removed.

3. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.

4. At top of adjuster, remove front and rear vertical gearnut attaching nuts (Fig. 10-18).

5. Remove front vertical gearnut spring (Fig. 10-18).

6. Lift upward on adjuster upper track; then remove rear vertical gearnut spring (Fig. 10-18).

7. Lay adjuster on its side; then remove screws securing horizontal actuator to adjuster upper channel assembly and remove actuator from adjuster.

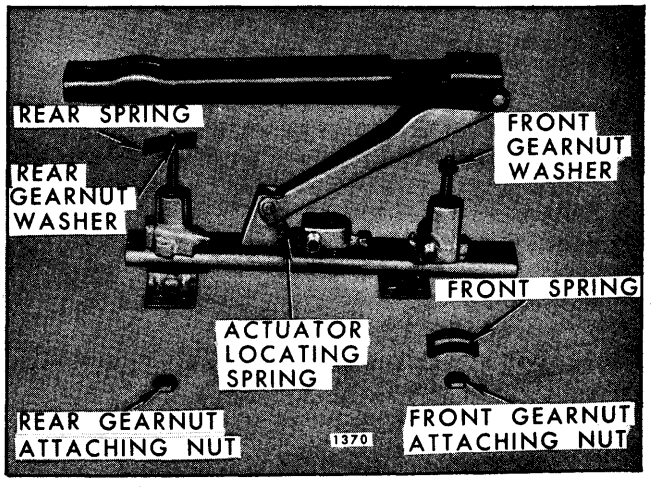

Fig. 10-18—Six-Way Seat Adjuster - "B & C" Styles

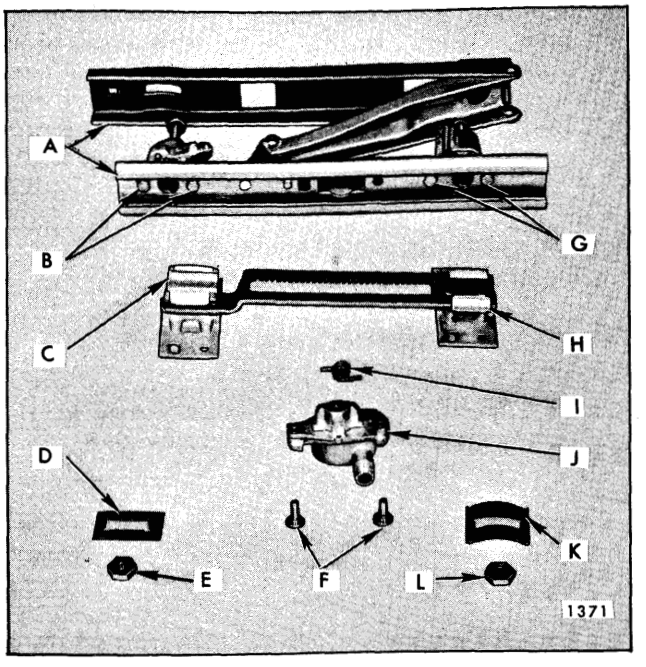

Fig. 10-19—Six-Way Seat Adjuster Components - "B & C" Styles

A. Upper Channel Assembly
B. Rear Vertical Gearnut Attaching Screws
C. Lower Channel
D. Rear Spring
E. Rear Gearnut Attaching Nut
F. Actuator Attaching Screws
G. Front Vertical Gearnut Attaching Screws
H. Plastic Shoe
I. Actuator Locating Spring
J. Horizontal Actuator
K. Front Spring
L. Front Gearnut Attaching Screw

IMPORTANT: Horizontal actuator is under tension from spring shown in Figure 10-18. When installing actuator, be sure actuator locating spring is properly engaged with actuator assembly.

8. To install, reverse removal procedure. When installing horizontal actuator, be sure actuator drive gear is full engaged with teeth on lower channel. With tension spring properly installed and actuator attaching screws tight, there should be no free motion between upper and lower adjuster channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Be sure seat adjusters are "in phase", before installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Front Vertical Gearnut—"B-C & E" Body

Removal and Installation

1. Operate seat to either full forward or full rearward position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
3. Detach three power drive cables from adjuster to be removed.
4. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
5. At top of adjuster, remove front vertical gearnut attaching nut.
6. Remove front vertical gearnut spring (Fig. 10-18).
7. Lay adjuster on its side and remove front vertical gearnut attaching screws (Fig. 10-19); then remove gearnut from adjuster.
8. If front vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly (Fig. 10-18).
9. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Rear Vertical Gearnut—"B-C & E" Body

Removal and Installation

1. Operate seat to full forward position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
3. Detach three power drive cables from adjuster to be removed.
4. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
5. At top of adjuster, remove rear vertical gearnut attaching nut (Fig. 10-18).
6. Lift rear of channel upward and remove rear vertical gearnut spring (Fig. 10-18).
7. Lay adjuster on its side and remove rear vertical gearnut attaching screws; then remove gearnut from adjuster (Fig. 10-19).
8. If rear vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly (Fig. 10-18).

9. To install, reverse removal procedure. Be sure rear gearnut spring is properly engaged under adjuster upper channel before tightening rear gearnut upper attaching nut. In addition, be sure adjusters are "in phase" prior to installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Lower Channel and Plastic Slides—"B-C & E" Body

Removal and Installation

1. Remove horizontal actuator as previously described.

2. Slide seat adjuster lower channel from upper channel until lower channel is completely disengaged from upper channel. Remove plastic slides from lower channel.

3. If lower channel is being replaced with a new part, transfer plastic slides to new part (Fig. 10-19).

4. Apply "Lubriplate" (630AAW) or equivalent to track portion of upper channel, plastic slides and teeth on lower channel.

5. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Upper Channel—"B-C & E" Body

Removal and Installation

1. Remove seat assembly from body and place upside down on a clean protected surface.

2. Detach three power drive cables from adjuster to be removed.

3. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.

4. Remove horizontal actuator from upper channel as previously described.

5. Slide lower channel until it is completely disengaged from upper channel; then transfer lower channel to new upper channel.

   NOTE: Be sure sliding surfaces of upper and lower channels are properly lubricated with "Lubriplate" (630AAW) or equivalent.

6. Transfer front and rear gearnuts to new upper channel (Fig. 10-19).

7. Install horizontal actuator and actuator locating spring to new upper channel.

8. Install adjuster to seat bottom frame; then check all operations of adjusters. Be sure adjusters are "in phase" prior to installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

9. Install seat assembly into body. Operate seat through several complete cycles to insure proper operation.

Horizontal and Vertical Drive Cables—"B-C & E" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Detach both horizontal and vertical cables from seat adjuster.

3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly; then disengage cables from end plate.

4. To install horizontal and vertical cables, reverse removal procedure. Make sure colored drive cables are installed to proper gearnus and horizontal actuator as shown in Figure 10-12.

Transmission—"B-C & E" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Disconnect wire harness connector from transmission (See Fig. 10-7).

3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.

4. Remove transmission to support attaching bolts; then disengage transmission from motor

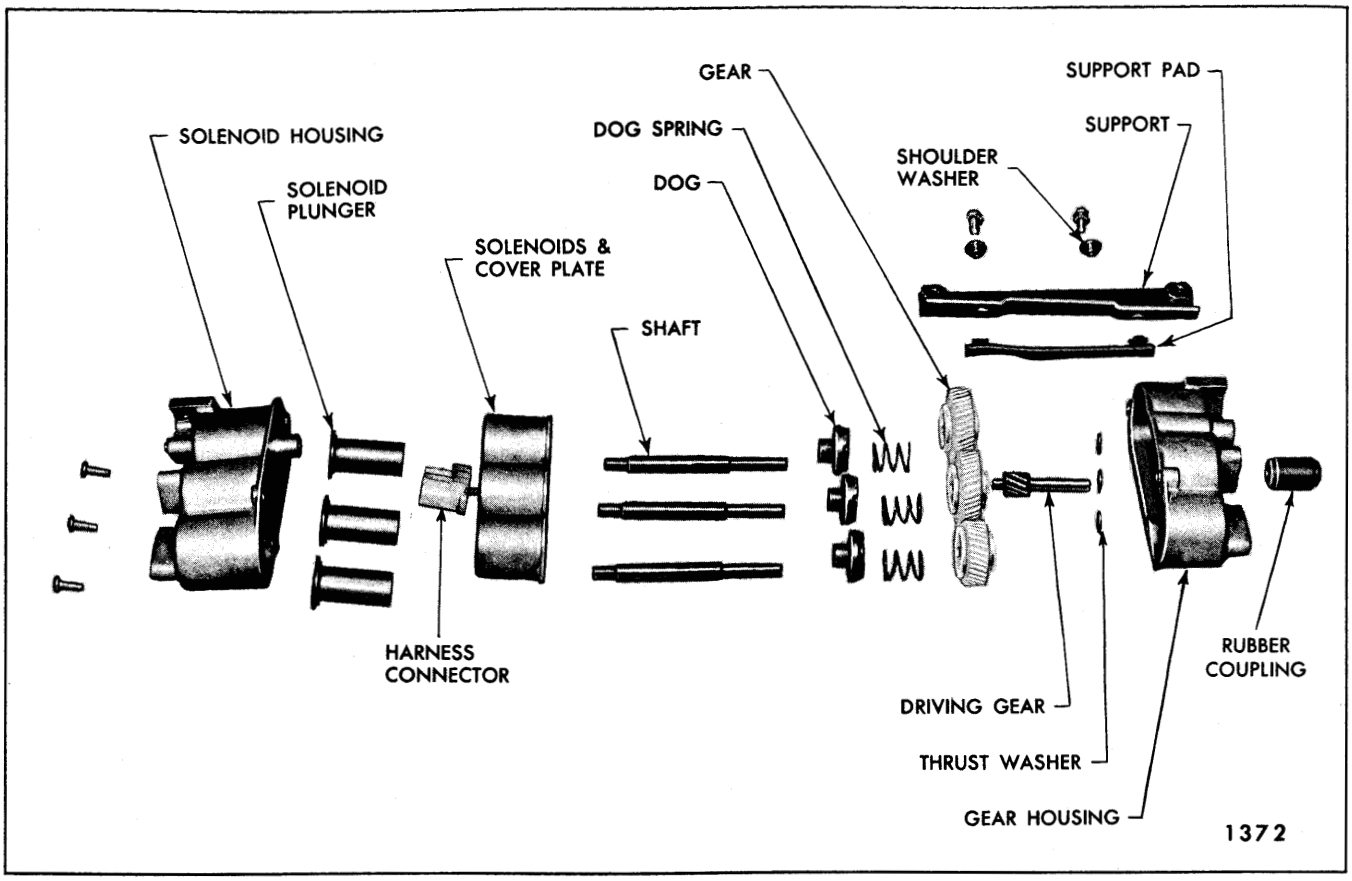

Fig. 10-20—Six-Way Seat Adjuster Transmission - "B & C" Style

drive coupling and remove transmission from seat assembly.

5. To install, reverse removal procedure. Make sure seat harness is properly secured to seat. (See Fig. 10-7).

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing gear housing to the solenoid housing; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-20).

3. To assemble transmission, reverse removal procedure.

IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear, thrust washer, large gears, dog washers, gear shafts and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

FRONT SEAT BACK

Seat Back Assembly—Four Door Style with Standard Full Width Seat

Removal and Installation

1. Remove front seat assembly from body and place it upside down on a clean protected surface. Remove seat side panels, where present.

2. Remove hog rings securing lower edge of seat back trim to seat cushion springs.

3. On "A-X & Z" body full width front seats, raise lower edge of seat back trim, remove cardboard breakover foundation and bend out tabs on seat back frame securing seat cushion springs. Disengage springs from tabs.

4. At each end of seat, remove hog rings securing lower edge of seat back trim to seat bottom frame. Raise or turn back seat back trim to expose bolts securing seat back frame to seat cushion frame (Fig. 10-22). Where seat back lighter or courtesy light is present disconnect wire from seat cushion frame.

5. Place seat assembly in upright position. Then with a helper, holding seat back assembly, remove seat back attaching bolts on each side of seat and remove seat back assembly.

6. To install seat back assembly, reverse removal procedure.

Seat Back Assembly—(Right or Left)—Two Door Style with Standard Full Width Seat

Removal and Installation

1. a. On seat with seat cushion side panel, remove side panel and detach seat cushion trim sufficiently to expose outer hinge pin and retainer.

   b. On seats with outer hinge arm cover, remove screw securing cover and remove cover.

2. Using a flat bladed tool carefully remove retainer securing seat back outer arm to hinge pin.

3. Carefully disengage seat back outer arm from hinge pin; then, tilt seat back forward and upward to disengage seat back inner arm from hinge pin and remove seat back from body.

4. To install seat back assembly, reverse removal procedure making sure washers are installed over hinge pins prior to installing seat back. If outer retainer is damaged, install new retainer.

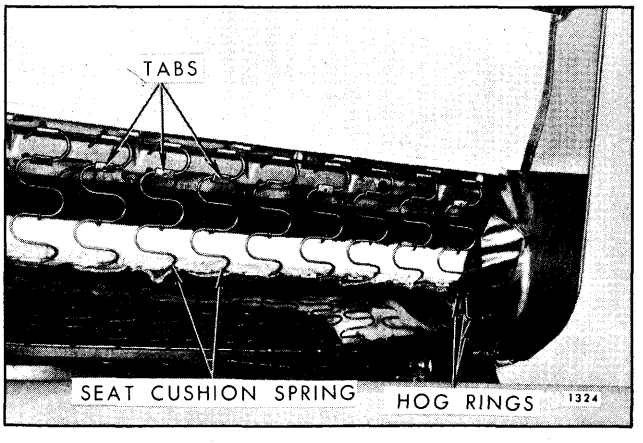

Fig. 10-21—Seat Cushion-to-Back Spring Attachment

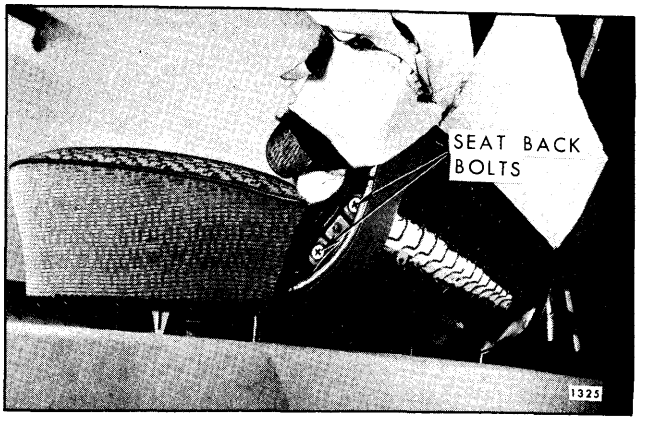

Fig. 10-22—Seat Back Attachment

"Strato" Front Seat Back Assembly (Right or Left)—Full Width Seat All Styles Except 16639 Style

Removal and Installation

1. Remove front seat assembly as described under, "Full Width Front Seat Assembly - Removal and Installation".

2. At side of seat from which seat back is being removed, remove hog rings securing cushion side trim at rear of seat and fold trim forward sufficiently to expose two seat back outer attaching bolts (Fig. 10-23).

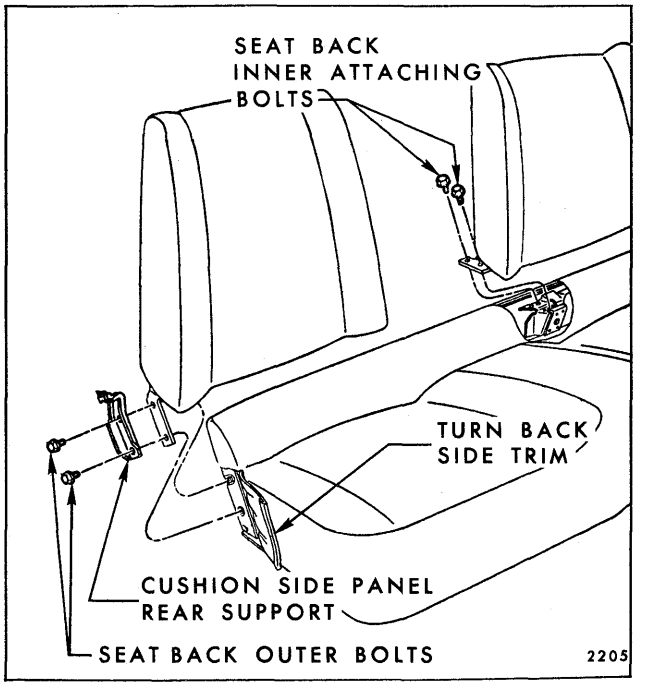

Fig. 10-23—Strato Full Width Seat Back Attachment

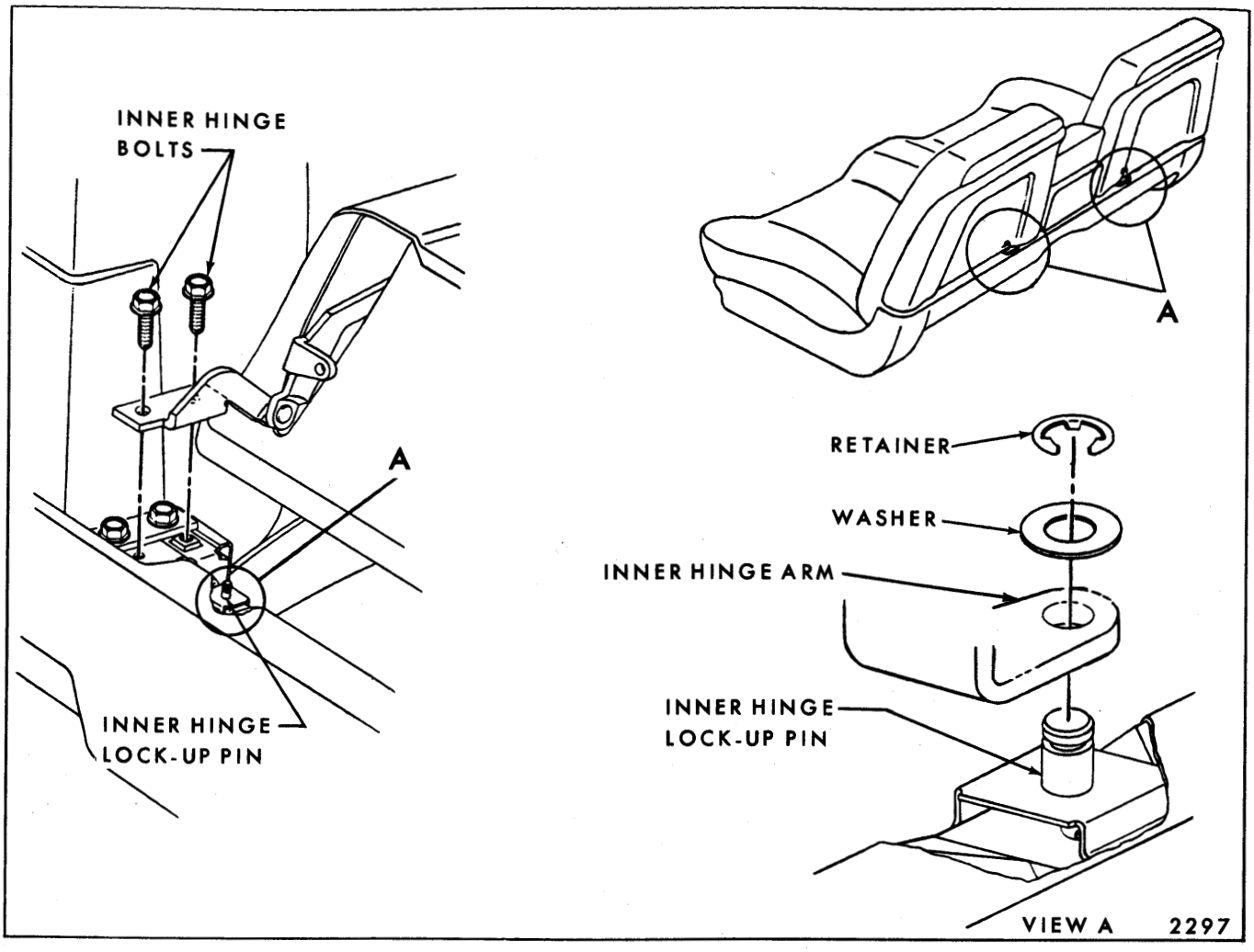

Fig. 10-24—Strato Full Width Seat Back Attachment - Chevrolet 16639 Style

3. At inboard side of seat back, remove screw securing inner attaching bolt cover plate and remove cover plate.

4. Remove seat back inner attaching bolts; then, remove outer attaching bolts and remove seat back assembly from seat.

5. To install seat back assembly, reverse removal procedure. Make certain seat side panel support (Fig. 10-23) is secured under seat back outer attaching bolts.

"Strato" Front Seat Back Assembly (Right or Left)—Full Width Seat—16639 Style

Removal and Installation

1. Remove seat assembly from body, as previously described, and place seat right side up on a clean surface.

2. Remove seat side panel on side from which seat back is being removed. Remove hog rings securing seat cushion trim side facing at rear of seat and turn side facing forward sufficiently to expose seat back outer arm attaching bolts (See Fig. 10-23).

3. Using a suitable hooked end tool between seat back and seat cushion, at location "A", remove retaining ring locking seat back at inner hinge (see View "A", Fig. 10-24).

4. Remove seat back outer arm attaching bolts (Fig. 10-23).

5. Carefully tilt seat back forward. Remove inner hinge bolt cover plate. Remove inner hinge bolts (Fig. 10-24) and carefully remove seat back from seat assembly.

6. To install, reverse removal procedure.

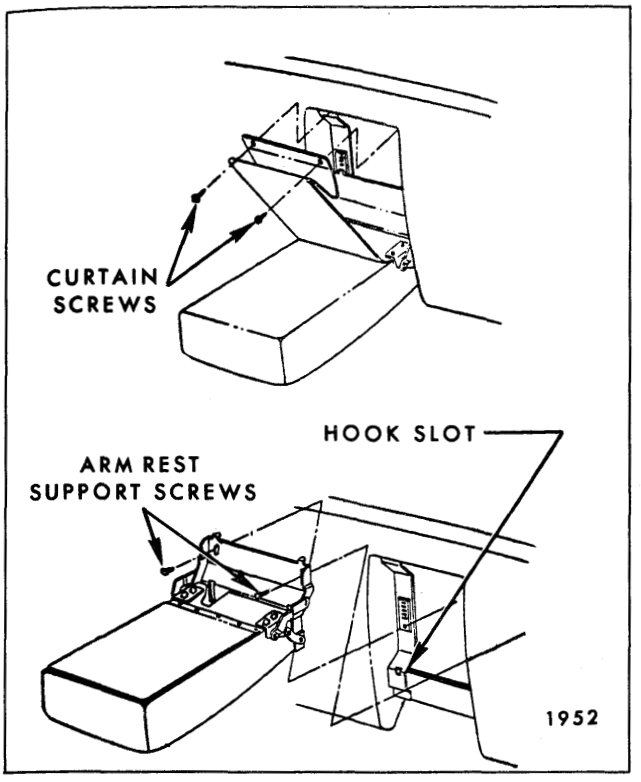

Fig. 10-25—Front Seat Center Arm Rest (Full Width Seat Back)

NOTE: It is important that removal procedure be reversed step by step when installing seat back assembly.

Standard Full Width Seat Back Head Rest (Drivers or Passengers Side)

The standard full width seat back headrest is secured by a support which is screwed or welded to the seat back frame. The support incorporates a detent spring which allows the headrest to be raised or lowered to four different height positions. The headrest can be removed from the seat back for storage by pulling the headrest bar out of the support.

To remove and install the headrest support, the seat back trim must be removed and the support-to-seat back frame screws removed.

NOTE: On styles where the support is welded to the seat back frame, the welds must be cut to remove the support.

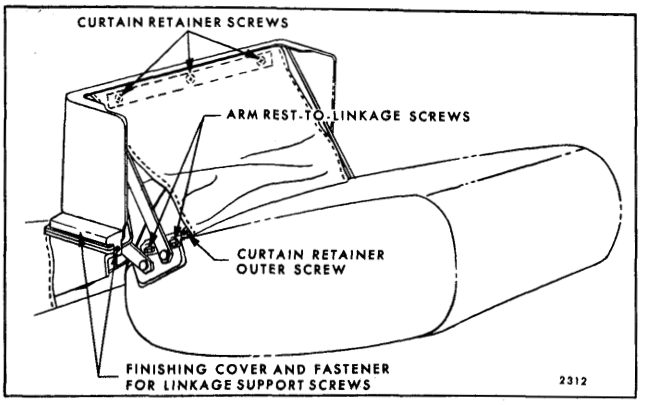

Fig. 10-26—Front Seat Center Arm Rest (Notch Down Seat Back)

FRONT SEAT CENTER ARM REST

Arm Rest and Curtain Assembly—Front Seat with Standard Full Width Seat Back

Removal and Installation

1. Place center arm rest in down position.
2. At top of arm rest curtain, remove two screws securing curtain to seat back frame (Fig. 10-25) and pull curtain forward to expose screws securing arm rest to support linkage (Fig. 10-25).
3. Remove arm rest-to-support linkage screws (Fig. 10-25) and remove arm rest and curtain from seat.
4. To install, reverse removal procedure.

Arm Rest and Support Assembly—Front Seat with Standard Full Width Seat Back

Removal and Installation

1. Place center arm rest in down position.
2. At top of arm rest curtain, remove two screws securing curtain to seat back frame (Fig. 10-25).
3. Remove two screws securing arm rest to supports on seat back (Fig. 10-25); then, carefully lift arm rest and linkage upward to disengage hooks of arm rest from slots in supports and remove assembly from seat.
4. To install, reverse removal procedure. Prior to installing curtain screws check alignment and operation of arm rest.

Front Seat Center Arm Rest and Curtain Assembly—Front Seat with Notch Down Seat Back and Strato Front Seat

Removal and Installation

1. Lower arm rest to approximately 2 inches short of full down position.
2. Carefully pull curtain back sufficiently to remove screws securing center arm rest to support linkage and loosen outer screws securing curtain retainer to arm rest (Fig. 10-26).
3. Remove screw finishing covers (Fig. 10-26). Disengage arm rest from support linkage and turn arm rest upside down on trim panel finishing cover with curtain attached. Remove three screws securing curtain retainer to trim panel finishing cover (Fig. 10-26); then remove arm rest and curtain from seat.
4. To install, reverse removal procedure.

Front Seat Center Arm Rest Assembly—Front Seat with Notch Down Seat Back and Strato Front Seat

Removal and Installation

1. Place arm rest in up position.
2. Working between arm rest and seat back, remove fastener at both sides of arm rest securing front end of screw finishing covers (Fig. 10-26).
3. Working at rear of seat, push one seat back to full forward position. Carefully pull up front of screw finishing cover sufficiently to expose arm rest support attaching screws; then remove screws (Fig. 10-27). Repeat this operation on opposite side of arm rest; then carefully remove arm rest assembly, including trim panel finishing cover, from seat.

   NOTE: If washers are present between arm rest support and supports on seat (Fig. 10-27), note location and number of washers used to facilitate installation in same position. Washer(s) are used to align arm rest to front seat back(s).
4. To install, reverse removal procedure. Prior to bending down screw finishing covers check alignment and operation of arm rest. Where necessary to align arm rest with seat back(s) install washer(s), as required, between arm rest support and supports on seat (See Fig. 10-27).

Front Seat Center Arm Rest Support—Front Seat with Notch Down Seat Back and Strato Front Seat

Removal and Installation

1. Remove center arm rest assembly.
2. Remove screws securing arm rest to support (Fig. 10-26); then, remove support from arm rest, finishing cover and curtain.
3. To install, reverse removal procedure. Prior to bending down support screw finishing covers check alignment and operation of arm rest. Where necessary to align arm rest with seat back(s), install washer(s), as required, between arm rest support and supports on seat (See Fig. 10-27).

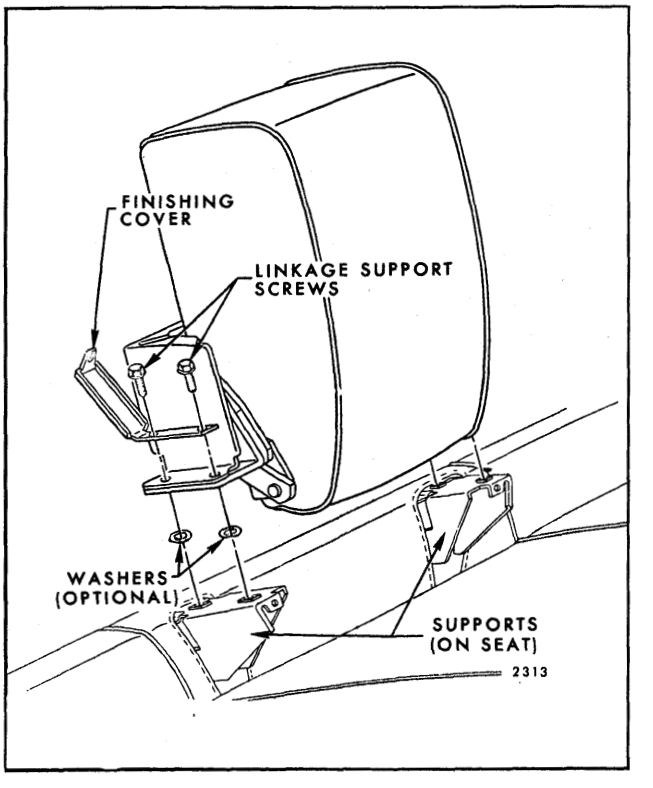

Fig. 10-27—Front Seat Center Arm Rest Support (Notch Down Seat Back)

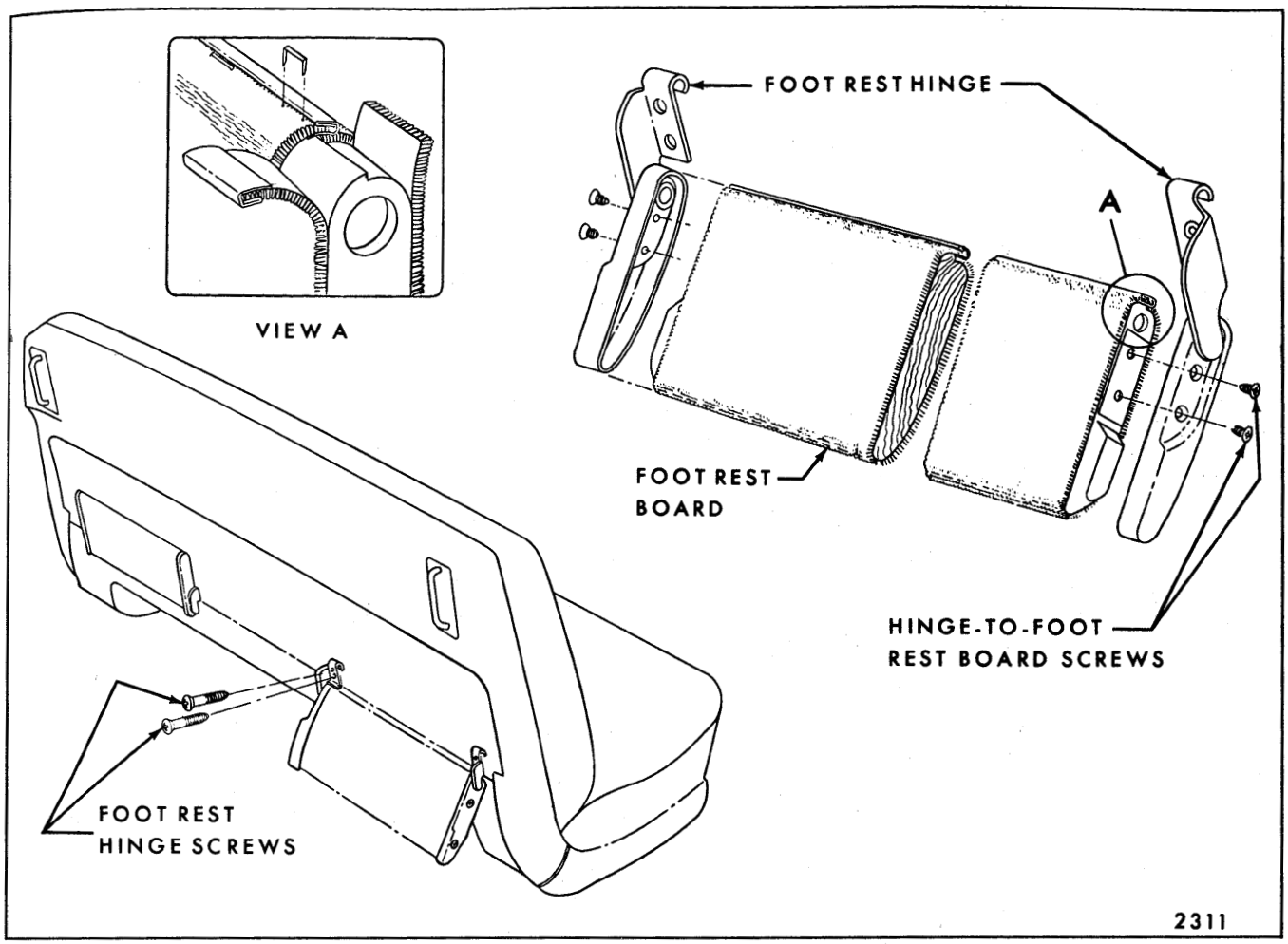

Fig. 10-28—Foot Rest Installation - Cadillac 68169 Styles

FOOT REST ASSEMBLY—CADILLAC 68169 STYLE

The folding foot rest assemblies shown in Fig. 10-28 are secured to the seat back by hinges. To remove foot rest assembly, remove hinge-to-seat back attaching screws from both sides of foot rest (Fig. 10-28) and remove foot rest assembly from seat back. To remove trimmed foot rest board remove hinge-to-board attaching screws (Fig. 10-28) and remove hinges from foot rest board.

BUCKET SEATS

DESCRIPTION

Bucket seats, on all styles except Corvair, are a new Strato design type seat incorporating new manual and power operated seat adjusters. Optional reclining seat back with head rest are available on Pontiac, Oldsmobile, Buick and Cadillac passenger's bucket seats. The reclining seat back is operated by a control lever located at the right side of the seat cushion. When the control lever is pulled upward the seat back can be reclined to any desired position up to approximately 30° from normal position. The head rest, which is available on all Strato seat backs, can be raised or lowered to four detent positions and can be completely removed from the seat back.

MANUALLY OPERATED BUCKET SEAT ASSEMBLY

Removal and Installation

1. Operate seat to full rearward position.

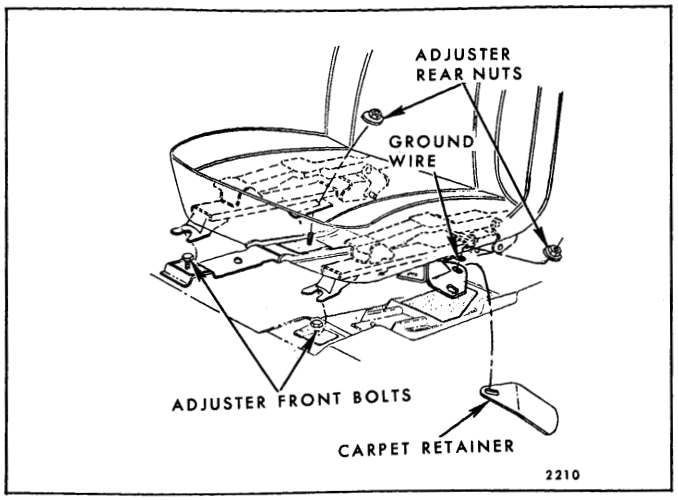

Fig. 10-29—Bucket Seat Floor Rear Attachment - "A" Styles

2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts (Fig. 10-29 or 10-30).

3. a. On "A, X & Z" body styles loosen adjuster-to-floor pan front attaching bolts (Fig. 10-29). Operate seat to full forward position. Remove adjuster-to-floor pan rear attaching bolts, then, slide seat rearward sufficiently to disengage front legs of adjusters from under front attaching bolts and remove seat assembly from body.

   b. On "B, C & E" body styles remove adjuster-to-floor pan front attaching bolts (Fig. 10-30). Operate seat to full forward position. Remove adjuster-to-floor pan rear attaching bolts and remove seat assembly from body.

4. To install, reverse removal procedure. On "A, X & Z" body styles make sure front leg of both adjusters are engaged under front attaching bolts prior to installing rear attaching nuts. Check operation of seat adjusters to full limits of travel.

POWER OPERATED HORIZONTAL OR FOUR-WAY BUCKET SEAT ASSEMBLY

The two-way and four-way (tilt) seat adjusters are actuated by a 12 volt, reversible shunt wound motor with a built-in circuit breaker.

The four-way seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and two drive cables leading to the seat adjusters. One solenoid controls the vertical movement of the seat while the other solenoid controls the horizontal movement of the seat. When the control switch is actuated, the motor drives the transmission by means of a belt and one of the transmission solenoids are energized simultaneously. The solenoid plunger then engages with the driving gear dog. The driving gear rotates the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber belt connecting the motor and transmission. When the switch contacts are opened, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

Removal and Installation

1. Operate seat to full forward position. On four-way power seats operate seat to full up position. Remove seat cushion side panels, where present. Where seat adjuster track covers are present, carefully pry out track cover snap-on retainers with a flat-bladed tool and remove track covers.

2. Where necessary, remove sill plates and turn back floor carpeting to expose seat adjuster-to-floor pan attaching nuts and bolts.

3. Remove seat adjuster-to-floor pan rear attaching bolts (Fig. 10-29 or 10-31); then, operate seat assembly to full rearward position.

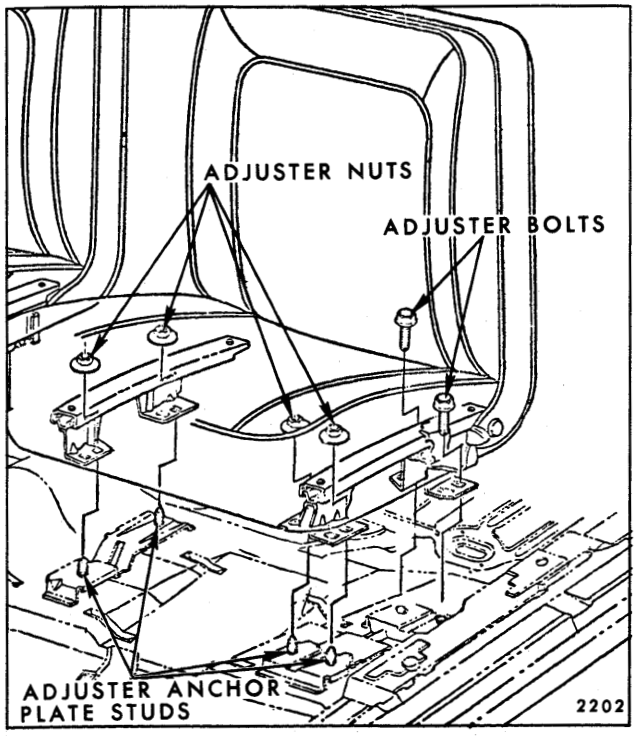

Fig. 10-30—Manually Operated Bucket Seat Floor Pan Attachment - "B & C" Styles

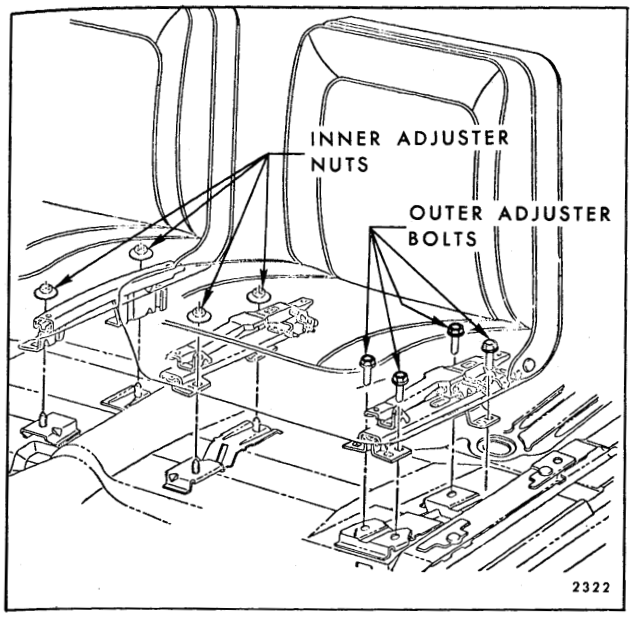

Fig. 10-31—Four-Way Bucket Seat Floor Pan Attachment - "B & C" Styles

4. a. On "A" Body Styles with power operated four-way seat adjusters loosen adjuster-to-floor pan front attaching bolts (Fig. 10-29), then, slide seat assembly rearward until front legs of adjusters are disengaged from under front attaching bolts. Tilt seat rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-32); then remove seat assembly from body.

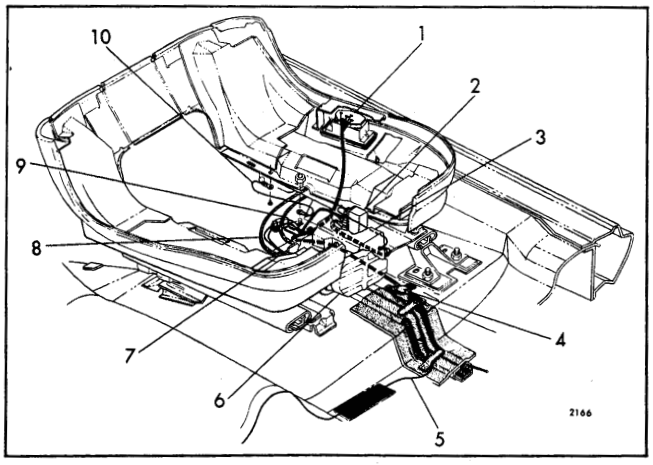

Fig. 10-32—Four-Way Strato Bucket Seat Wiring - "A & B" Styles

1. Control Switch
2. Motor Control Relay
3. Motor
4. Harness Feed Connector
5. Feed to Passenger Seat
6. Pulley Cover Plate
7. Transmission and Solenoid Assembly
8. Vertical Control Cable (Orange)
9. Horizontal Control Cable (Black)
10. Ground Wire

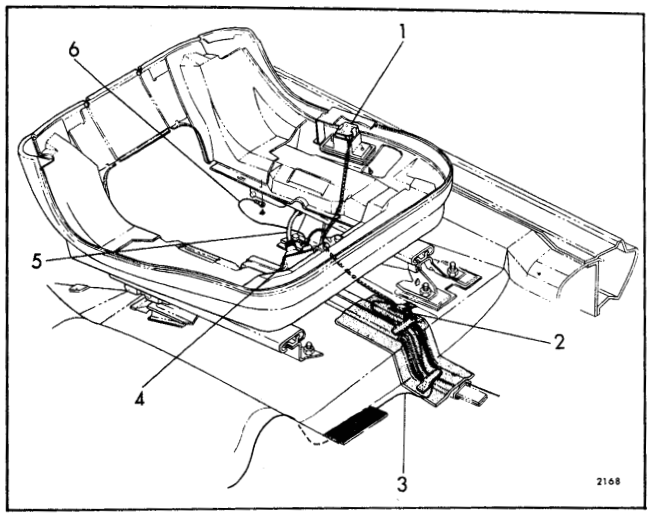

Fig. 10-33—Horizontal Bucket Seat Wiring - "B & C" Styles

1. Control Switch
2. Feed Harness Connector
3. Feed Wire to Passenger Seat
4. Motor
5. Control Cable
6. Ground Wire

b. On "B, C & E" Styles with power operated seat adjusters remove seat adjuster-to-floor pan front attaching bolts (Fig. 10-31). Tilt seat rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-32 or 10-33); then remove seat assembly from body.

5. To install, reverse removal procedure. Make sure ground wire is secured under adjuster inboard rear attaching nut or bolt.

On "A" Body Styles make sure adjusters are properly engaged under front attaching bolts and that rear floor carpet is properly positioned around rear supports of adjuster prior to installing carpet retainer on adjuster stud and adjuster rear attaching nuts.

MANUALLY OPERATED BUCKET SEAT ADJUSTER

Removal and Installation

1. Remove bucket seat assembly, as previously described, and place seat upside down on a protected surface.

2. If replacing inboard adjuster, remove assist spring (Fig. 10-34).

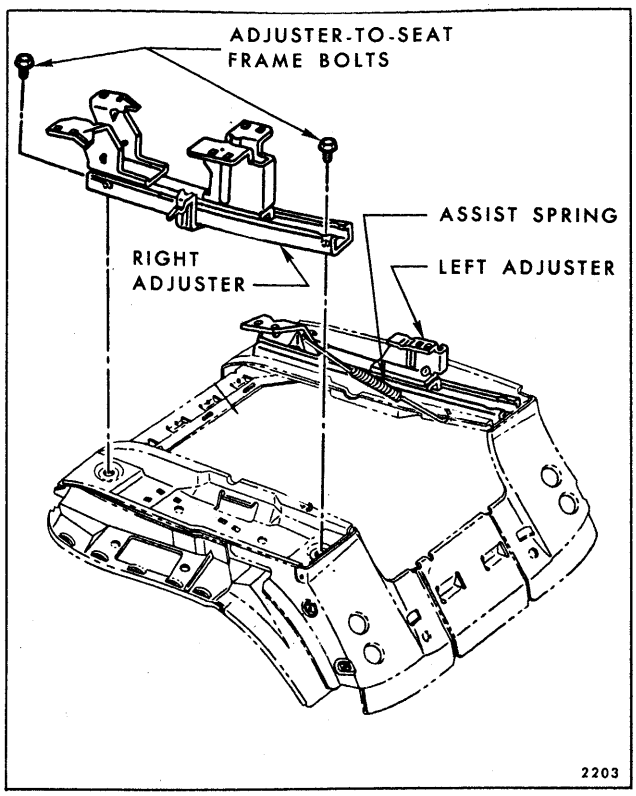

Fig. 10-34—Manual Bucket Seat Adjuster Removal

3. Operate adjuster so that both front and rear adjuster-to-seat frame attaching bolts (Fig. 10-34) are accessible; then, remove attaching bolts and remove adjuster from seat assembly.

4. To install, reverse removal procedure.

POWER OPERATED HORIZONTAL BUCKET SEAT ADJUSTER

Removal and Installation

1. Operate seat to a midway horizontal position. Remove bucket seat assembly, as previously described, and place seat upside down on a clean protected surface.

2. Disconnect power drive cable from adjuster gearnut (Fig. 10-35).

3. Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 10-35) and remove adjuster from seat assembly.

4. To install, reverse removal procedure. Where spacers were installed between seat adjuster and floor pan or seat adjuster and seat frame make certain spacers are reinstalled. Check for proper operation of seat to full limits of travel.

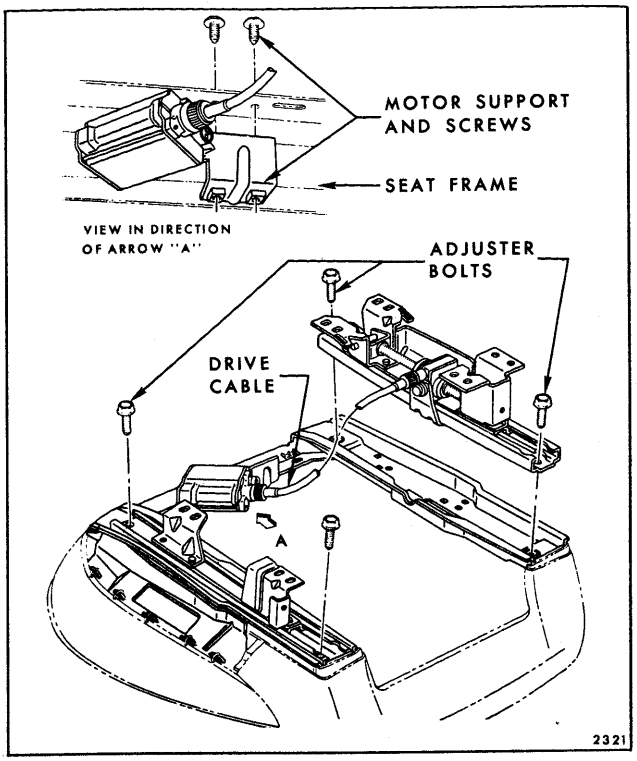

Fig. 10-35—Power Horizontal Bucket Seat Adjuster Removal

POWER OPERATED FOUR-WAY BUCKET SEAT ADJUSTER

Removal and Installation

1. Operate seat to assembly to fully raised and midway horizontal positions.

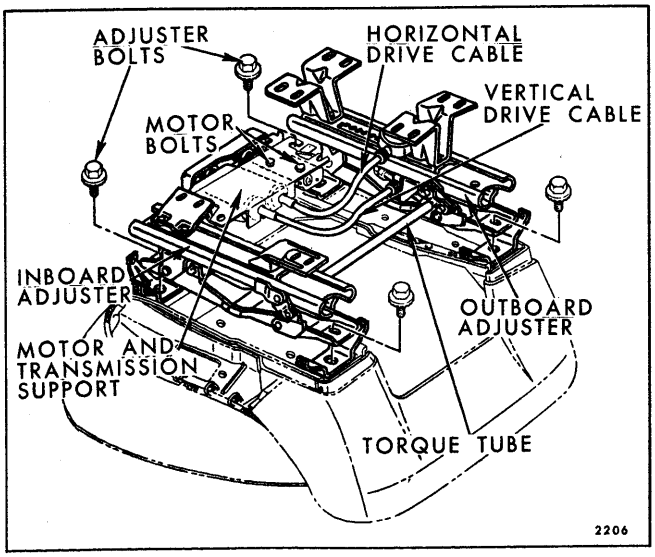

Fig. 10-36—Four-Way Bucket Seat Assembly

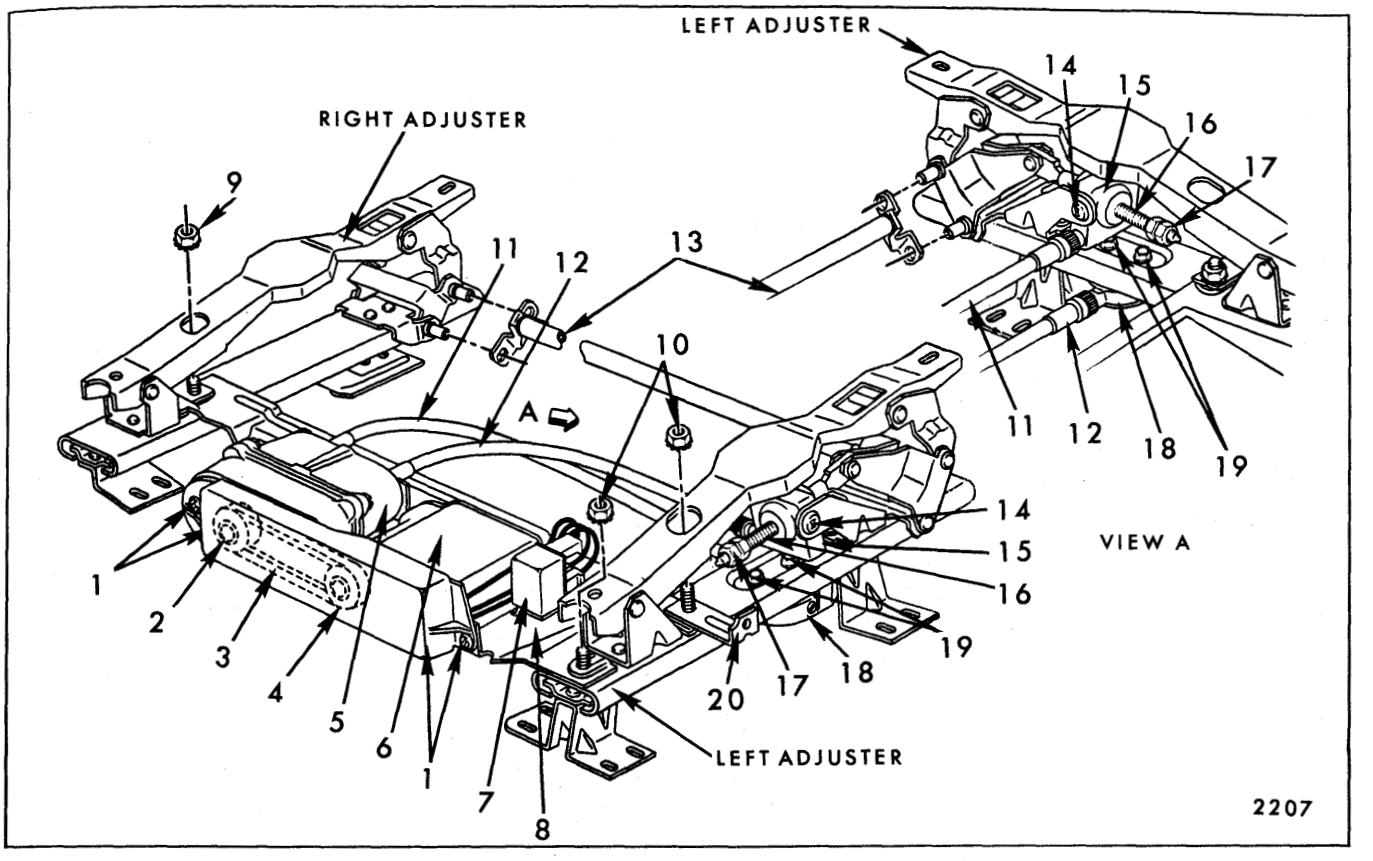

Fig. 10-37—Four-Way Bucket Seat Adjusters

1. Motor and Transmission Drive Belt Cover and Attaching Screws
2. Transmission Drive Pulley
3. Transmission and Motor Drive Belt
4. Motor Drive Pulley
5. Transmission Assembly
6. Electric Motor Assembly
7. Electric Motor Relay
8. Motor and Transmission Support
9. Motor and Transmission Support-to-Right Adjuster Attaching Nut
10. Motor and Transmission Support-to-Left Adjuster Attaching Nuts
11. Adjuster Horizontal Drive Cable
12. Adjuster Vertical Drive Cable
13. Adjuster Torque Tube
14. Adjuster Vertical Gearnut Shoulder Screw
15. Adjuster Vertical Gearnut Assembly
16. Adjuster Vertical Jackscrew
17. Adjuster Vertical Jackscrew Stop Nuts
18. Adjuster Horizontal Actuator Assembly
19. Adjuster Horizontal Actuator Attaching Screws
20. Seat Side Panel Support

2. Remove front seat assembly from body with attached adjusters, motor and transmission, as previously described, and place upside down on a clean protected surface.

3. If outboard adjuster is being removed, disconnect bolt, horizontal and vertical drive cables from vertical gearnut and horizontal actuator (Fig. 10-36).

4. Remove nuts securing motor and transmission support to adjuster being removed (Fig. 10-37).

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts securing adjuster to be removed (Fig. 10-36).

6. Carefully disengage adjuster from support, and torque tube; then, remove adjuster from seat.

7. To install power operated four-way bucket seat adjuster assembly, reverse removal procedure. Check for proper operation of seat adjusters to limits of travel.

POWER OPERATED FOUR-WAY BUCKET SEAT ADJUSTER MAJOR COMPONENTS

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjuster, used on bucket seats.

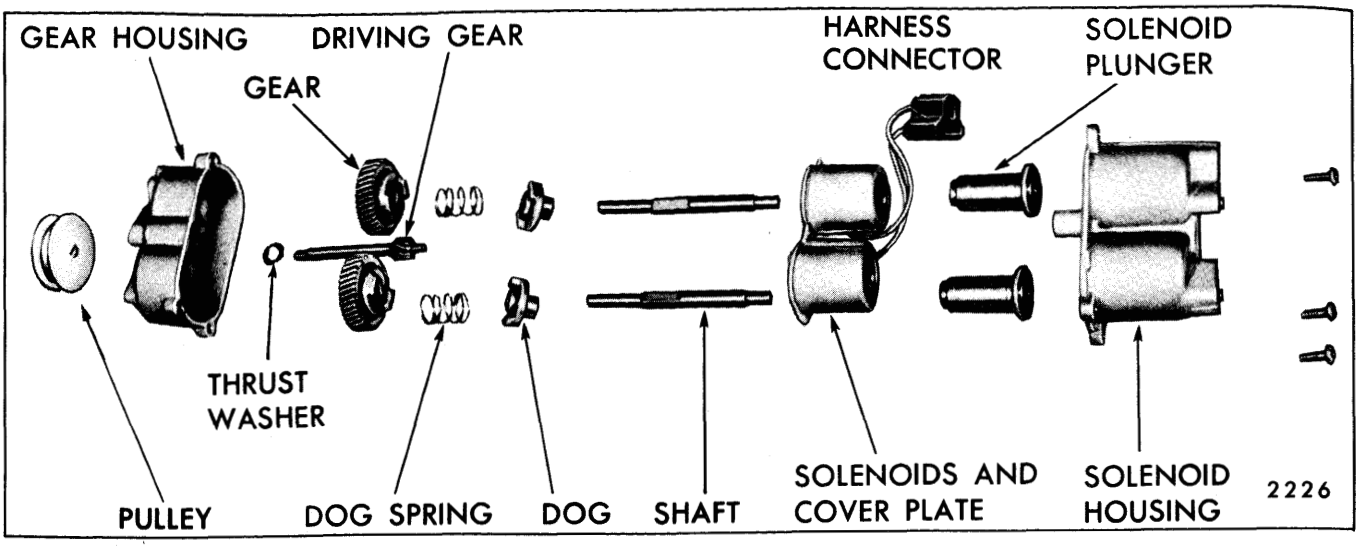

Fig. 10-38—Four-Way Bucket Seat Transmission

Motor and Transmission Drive Belt and Pulleys

Removal and Installation

1. At front of seat motor and transmission drive belt cover remove attaching screws (Fig. 10-37) and remove cover.

2. Remove drive belt (Fig. 10-37) from both motor and transmission drive pulleys. Pulleys may be removed from either motor or transmission by pulling pulleys off their respective shaft.

3. To install drive belt, reverse removal procedure. Check for proper operation of seats to full limits of travel.

Motor Assembly

Removal and Installation

1. If motor can be operated, operate seat assembly to full "up" position. Disconnect wire harness connector from motor relay.

2. Remove motor-to-transmission drive belt cover and drive belt, as previously described.

3. From under motor and transmission support remove two cap screws securing motor to motor-and-transmission support and remove motor assembly from under seat.

4. To install, reverse removal procedure. Check for proper operation of seat to full limits of travel.

Transmission Assembly and Horizontal and Vertical Drive Cables

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission, as previously described, and place upside down on a protected surface.

2. Disconnect wire harness connector from transmission.

3. Remove motor and transmission drive belt cover and remove drive belt (Fig. 10-37).

4. Remove two screws securing transmission assembly to motor and transmission support; then, move transmission forward to disengage from drive cables and remove transmission from seat.

   NOTE: To remove horizontal or vertical drive cables detach drive cable from adjuster and remove cable.

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-38).

3. To assemble transmission, reverse removal procedure.

IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

4. To install transmission assembly, reverse removal procedure. Make certain drive cables are properly engaged in transmission and properly retained in cut out notches of motor and transmission support prior to installing transmission attaching screws.

5. Check for proper operation of seat to full limits of travel.

Adjuster Vertical Gearnut

Removal and Installation

1. Operate seat assembly to fully raised and midway horizontal position.

2. Remove front seat assembly from body and place upside down on a clean protected surface.

3. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut (Fig. 10-37).

4. Remove jackscrew "down" stop from jackscrew (Fig. 10-37).

5. Using a portable power source to energize the motor, actuate vertical gearnut until gearnut is disengaged from jackscrew.

   NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain clearance for removal of gearnut.

6. Disconnect drive cable from gearnut.

7. To install, reverse removal procedure. Check seat adjusters for proper operation.

Adjuster Jackscrew

Removal and Installation

1. Remove adjuster gearnut as previously described.

2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts.

3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 10-37).

   NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain access to jackscrew attaching rivet.

4. To install, reverse removal procedure. Use new rivet to attach jackscrew-to-adjuster linkage. Check seat adjusters for proper operation.

Adjuster Horizontal Actuator Assembly

Removal and Installation

1. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.

2. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut (Fig. 10-37).

3. Using a portable power source, actuate vertical gearnut until gearnut is against "down" stop on jackscrew assembly.

4. Disconnect drive cable from horizontal actuator assembly.

5. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly (Fig. 10-37).

6. To install, reverse removal procedure.

   NOTE: When installing horizontal actuator, adjuster acturator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Check seat adjusters for proper operation.

Torque Tube Assembly

Removal and Installation

1. Remove inboard seat adjuster assembly, as previously described.

2. Disengage torque tube from outboard adjuster (Fig. 10-36 and 10-37) and remove torque tube assembly.

3. To install torque tube assembly, reverse removal procedure. Check for proper operation of seat to full limits of travel.

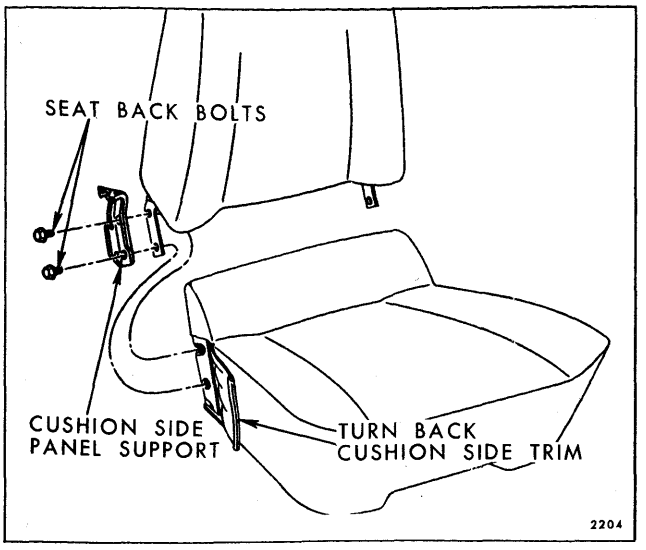

Fig. 10-39—Bucket Seat Back Removal (Without Reclining Seat Back) All Except Corvair

STANDARD BUCKET SEAT BACK ASSEMBLY—ALL TWO DOOR STYLES EXCEPT CORVAIR

Removal and Installation

1. Remove bucket seat assembly from body, as previously described, and place on a clean protected surface.

2. Remove hog rings at both sides of seat securing cushion side trim at rear of seat and fold trim forward sufficiently to expose four seat back attaching bolts (Fig. 10-39).

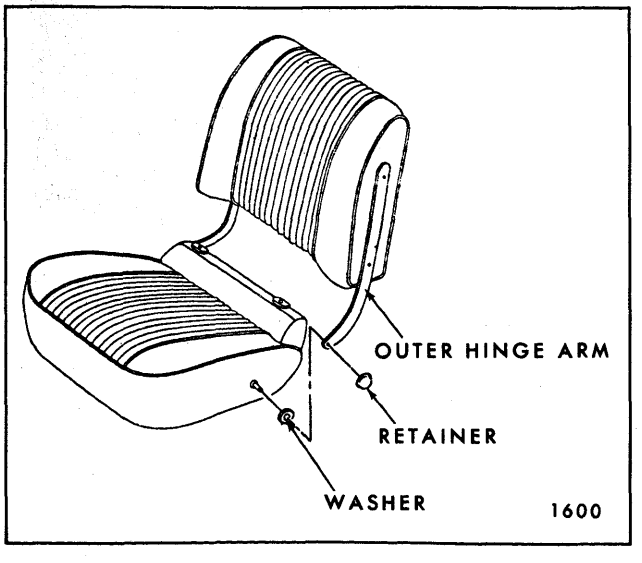

Fig. 10-40—Bucket Seat Back Removal - Corvair

3. Remove seat back attaching bolts at both sides of seat and remove side panel support and seat back assembly from seat cushion assembly.

4. To install seat back assembly, reverse removal procedure. Make certain seat side panel support is secured under seat back outer attaching bolts.

STANDARD BUCKET SEAT BACK ASSEMBLY—CORVAIR

Removal and Installation

1. Using a flat-bladed tool, carefully remove retainer from inner and outer hinge pin (Fig. 10-40).

NOTE: On 10000 Series, remove screw securing hinge arm cover (Fig. 10-41) and remove cover; then, remove inner hinge pin retainer.

2. Carefully disengage inner and outer front seat back hinge arms from pins; then remove seat back assembly from body.

3. To install, reverse removal procedure. Prior to installation of back assembly, be sure inner and outer washers are installed over hinge pins. In addition, inspect hinge arm retainers. If retainers are damaged, replace retainers using new parts.

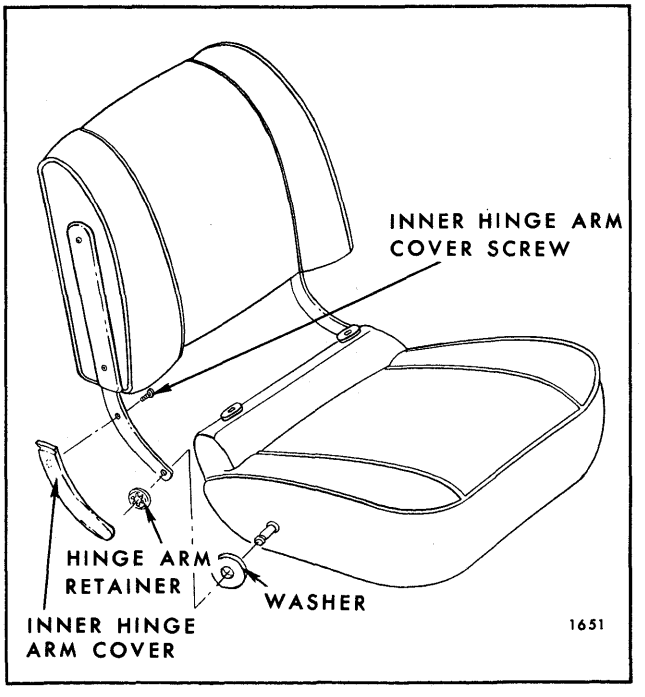

Fig. 10-41—Bucket Seat Back Inner "Hinge" Arm-Corvair

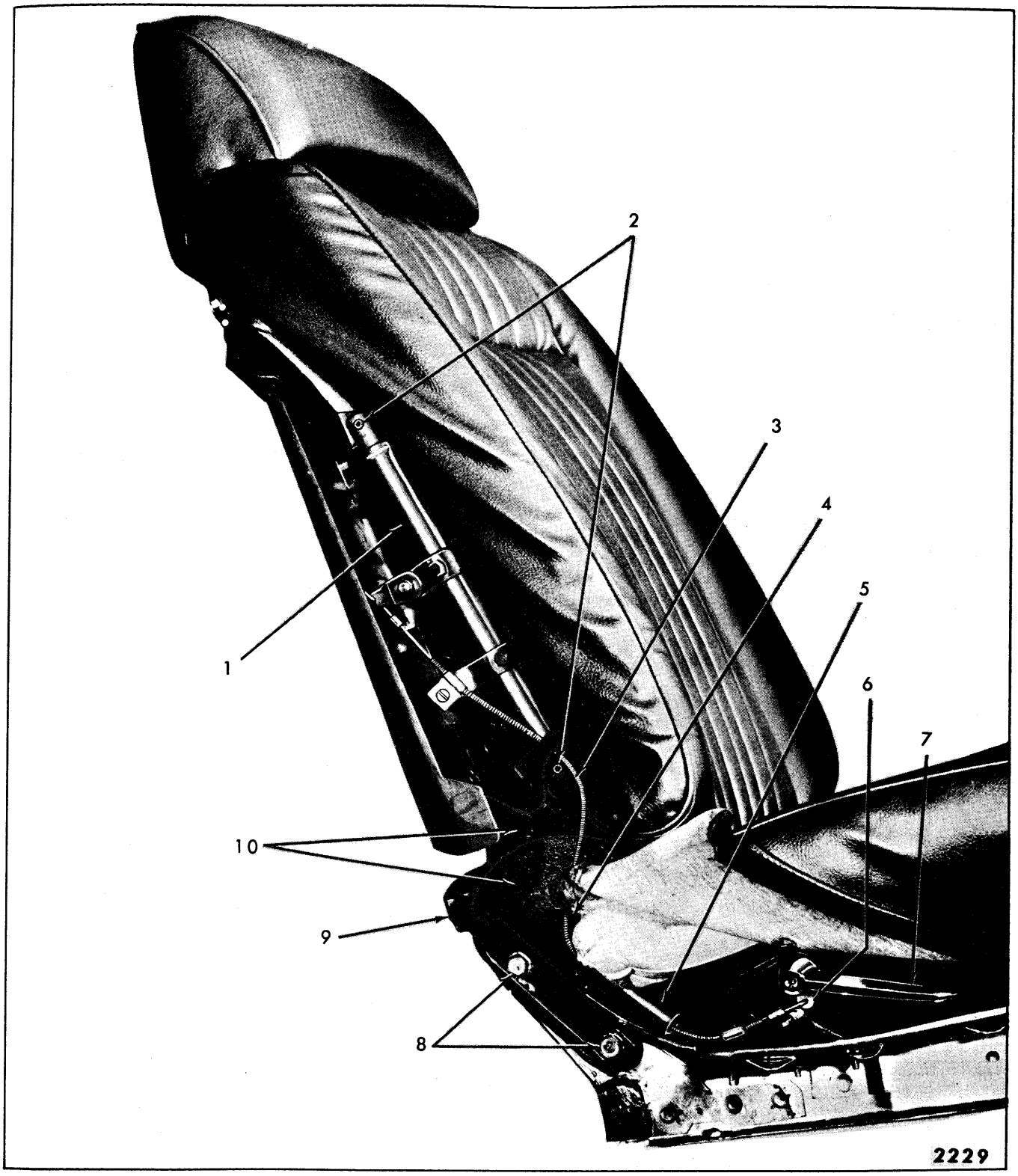

Fig. 10-42—Reclining Seat Back and Positioning Unit

1. Reclining Positioning Unit
2. Positioning Unit Attaching Roll Pins
3. Positioning Unit Control Cable
4. Control Cable Grommet in Cushion Trim
5. Control Cable Guide
6. Handle Control Lever
7. Control Handle
8. Seat Back Hinge Attaching Bolts
9. Seat Cushion Side Panel Rear Support
10. Seat Back Hinge

RECLINING FRONT SEAT BACK AND HEADREST

RECLINING FRONT SEAT BACK (PASSENGER SIDE)—"STRATO" FULL WIDTH OR BUCKET SEAT

Description

The reclining seat back which is available on the passenger seat of the Strato design front seats can be reclined approximately 30 degrees from the normal seat back position. The reclining unit is a friction operating mechanism and is actuated by a control handle and cable at the right side of the seat.

When the control handle is pulled upward the control cable unlocks the reclining positioning unit in the seat back allowing the seat back to be reclined, by means of rearward pressure on the seat back, to a maximum of approximately 30 degrees or until the control handle is released. When the control handle is released the reclining positioning unit is locked and will not allow the seat back to be reclined further. When the control handle is pulled up and there is no rearward pressure on the seat back, the assist spring in the reclining positioning unit will return the seat to the normal position or to a position at which the handle is released. The friction mechanism of the positioning unit will allow the seat back to be moved forward to the normal position with approximately four pounds manual forward push at the top of the seat back. This "dress-up" feature allows the driver or passenger to return a reclined seat back to its normal position without having to operate the control handle.

Reclining Seat Back Assembly

Removal and Installation

1. Remove seat assembly from body, as described, and place upside down on a clean protected surface.

2. On right side of seat with seat side panel removed, remove hog rings securing cushion side trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose seat back attaching bolts and reclining control cable attachment at handle control lever (Fig. 10-42).

3. Detach reclining positioning unit control cable from handle control lever; then pull control cable through cable guide and through grommet in cushion trim (Fig. 10-42).

4. a. On reclining bucket seat remove hog rings securing cushion side trim facing on inboard side of seat and turn trim forward sufficiently to expose seat back attaching bolts. Then remove seat back attaching bolts from both sides of seat and remove seat back assembly from seat.

   b. On reclining full width seat, remove screw at inboard side of seat back securing seat back attaching bolt cover plate and remove cover plate. Remove seat back inner attaching bolts then, remove seat back outer attaching bolts and remove seat back assembly from seat.

5. To install seat back assembly, reverse removal procedure. Make certain side panel support (Fig. 10-42) is secured under seat back outer attaching bolts.

Reclining Seat Back Positioning Unit

Removal and Installation

1. Remove seat assembly from body, as previously described, and place upside down on a clean protected surface.

2. On right side of seat with seat side panel removed, removed hog rings securing cushion side trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose reclining control cable attachment at handle control lever (Fig. 10-42).

3. Remove two screws securing bottom of seat back panel to seat back; then, lift panel upward to disengage from upper retainers and remove panel from seat back (Fig. 10-43).

4. Remove hog rings securing right side of seat back side trim to seat back frame (Fig. 10-43) and turn trim forward sufficiently to expose positioning unit (Fig. 10-42).

5. Detach reclining positioning unit control cable from handle control lever; then pull control cable through cable guide and through grommet in cushion trim (Fig. 10-42).

6. Using a suitable size drift punch carefully drive out roll pins securing positioning unit to support on seat back frame and to seat back hinge (Fig. 10-42); then remove positioning unit from seat back.

   IMPORTANT: If roll pins do not drive out easily use a suitable back up to prevent possible damage or breakage of the positioning unit or mounting brackets.

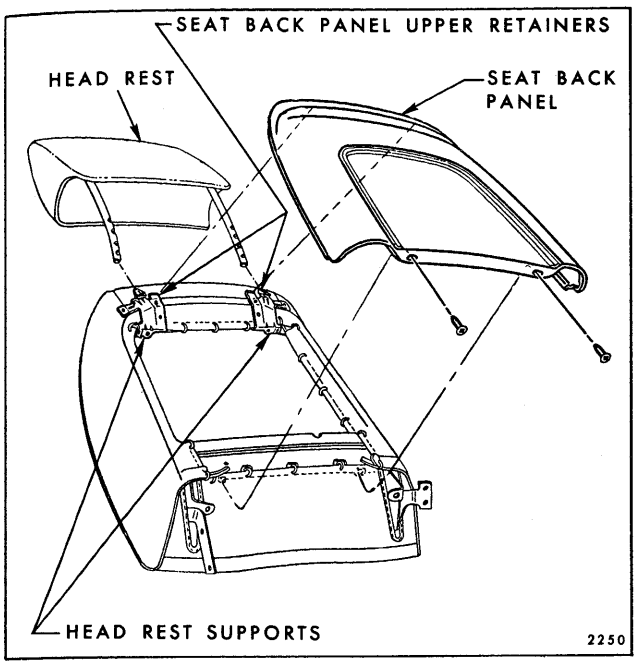

Fig. 10-43—Strato Seat Back Panel and Headrest

Where necessary, remove control cable from positioning unit.

7. To install reclining seat back positioning unit, reverse removal procedure. Check for proper operation of reclining seat back to full limits of travel.

STRATO SEAT BACK HEADREST

Description

All reclining seat backs are equipped with a headrest which is adjustable to four different positions. This headrest is also available as an option on all Strato design seats on either the drivers or passengers seat back. When desired, the headrest can be removed from the seat back; however, it requires slightly more lifting effort to clear the headrest past the last detent position.

Strato Seat Back Headrest Support Guide Tube

Removal and Installation

1. Remove headrest assembly from seat back.

2. Remove support finishing escutcheon screw and remove escutcheon (Fig. 10-44).

3. Carefully pull plastic support guide tube out of support. If guide tube hangs up on detent spring insert a screwdriver into guide and depress detent spring sufficiently to remove guide tube.

4. To install support guide tube reverse removal procedure. Make certain lower end of plastic guide is inserted into hole in bottom of support and that cut out in guide for detent spring is facing rearward (Fig. 10-44). Check for proper operation of headrest.

Strato Seat Back Headrest Supports

Removal and Installation

1. Remove headrest assembly from seat back.

2. Remove two screws securing bottom of seat back panel; then, lift panel upward to disengage from upper retainers and remove panel from seat back (Fig. 10-43).

3. Remove headrest support finishing escutcheon screw and remove escutcheon (Fig. 10-44).

4. Remove four remaining support attaching screws (Fig. 10-44) and remove support from seat back. Where required, remove support guide from support.

5. To install headrest support, reverse removal procedure. Make certain lower end of plastic guide is inserted into hole in bottom of support and that cut out in guide for detent spring is facing rearward (Fig. 10-44). Prior to tightening support attaching screws, install headrest into supports and align support(s) with headrest arm(s); then, tighten support screws.

6. Check for proper operation of headrest.

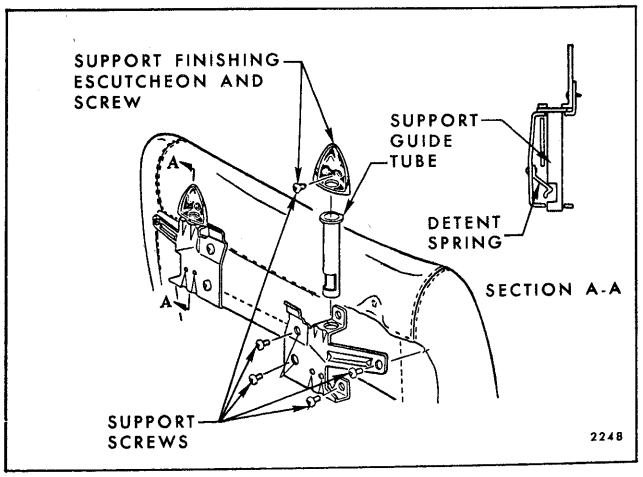

Fig. 10-44—Strato Seat Back Head Rest Support

REAR SEAT

REAR SEAT CUSHION—ALL STYLES

Removal

1. Push lower forward edge of cushion rearward and pull cushion upward until wire protrusions on seat bottom frame disengage from floor pan retainers at each side of seat.

   NOTE: On "E" Body Styles lift up front of seat cushion sharply to disengage cushion from pan retainers.

2. Pull cushion forward and carefully remove from body.

Installation

1. Carefully lift cushion into body using caution not to damage adjacent trim.
2. Position rear edge of cushion under rear seat back assembly.
3. Center wire protrusions on seat bottom with retainers on or in floor pan.

   IMPORTANT: If seat bottom frame protrusions are not properly centered in relation to retainers on floor pan, proper engagement and placement of cushion will be extremely difficult.

4. Push forward edge of cushion rearward and downward until protrusions are properly engaged behind retainers on floor pan.

REAR SEAT BACK ASSEMBLY—ALL STYLES EXCEPT CORVAIR

Removal and Installation

1. Remove rear seat cushion assembly.
2. At bottom of seat back bend out the tabs securing the lower portion of seat back to floor panel. On convertible styles, remove screw from rear side of seat back support panel securing upper corners of seat back to panel. If screws are used securing center of seat back to seat back panel it will be necessary to remove screws from inside rear compartment.

   Remove two screws securing lower portion of seat back to floor pan.

3. Pull seat back assembly out at the bottom until seat back clears body tabs; then, on all styles except "E" Styles raise seat back upward until disengaged from hangers on the seat back panel support. On "E" Styles push seat back downward until wire protrusions at top of seat back are disengaged from slots in seat back panel support.
4. Remove seat back assembly from body.
5. To install, reverse removal procedure, making certain that all attaching body tabs and hangers have industrial body tape applied to them to act as an anti-squeak.

REAR SEAT BACK CENTER ARM REST AND CURTAIN

Removal and Installation

1. Lower rear seat back arm rest. On all styles except 68069 carefully pull upper portion of arm rest curtain out of slot in hanger plate and fold curtain forward. On 68069 Style fold arm rest flipper forward.
2. Remove four screws securing arm rest to hanger plate linkage then, remove arm rest from seat back.
3. To install, reverse removal procedure.

REAR SEAT BACK CENTER ARM REST HANGER PLATE AND LINKAGE

Removal and Installation

1. Remove rear seat back center arm rest; then, remove two screws securing arm rest hanger plate to body seat back support brace. Remove rear seat back.
2. On back side of rear seat back, remove four screws securing arm rest hanger plate to seat back supports; then, carefully remove arm rest and hanger plate assembly from seat back (Fig. 10-45).
3. To install, reverse removal procedure. Prior to tightening hanger plate screws move arm rest assembly upward until top is snug against top of opening in seat back.

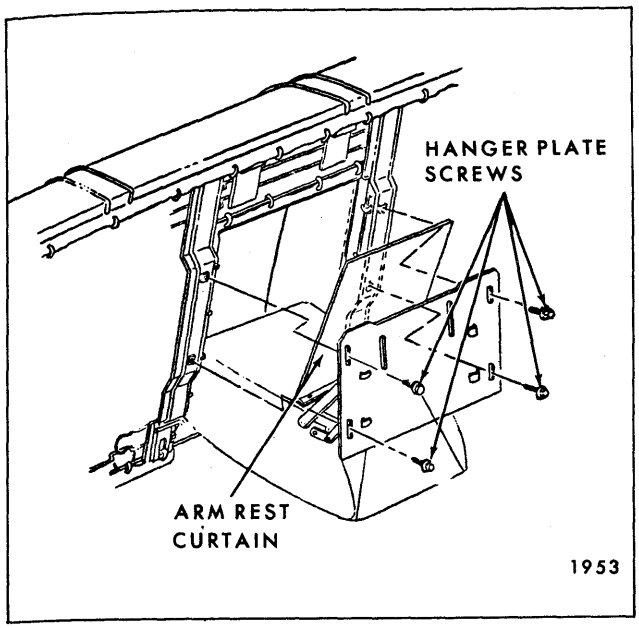

Fig. 10-45—Rear Seat Back Arm Rest and Hanger Plate

FOLDING REAR SEAT BACK AND FILLER PANEL—CORVAIR

Folding Rear Seat Back Assembly

Removal and Installation

1. Remove rear seat back cushion, as previously described.
2. Lower folding seat back; then, remove three screws from both sides of seat back securing seat back to folding linkage.
3. Carefully disengage seat back from linkage and remove folding seat back from body.
4. To install, reverse removal procedure.

Folding Rear Seat Back Linkage

Removal and Installation

1. Remove rear seat cushion and folding seat back, as previously described.
2. Mark position of linkage on floor pan. Remove bolts securing folding seat back linkage to floor pan and remove linkage.
3. To install, reverse removal procedure. Align linkage on floor pan with previously made alignment marks.

Rear Folding Seat Back Filler Panel—10039 Style

Removal and Installation

1. Remove rear seat cushion, as previously described; then lower folding seat back.
2. Lift up seat back filler panel sufficiently to gain access to attaching screws and prop panel in this position.

   NOTE: Prop should be wide enough to bear against hinge and hold hinge in position during removal of hinge attaching screws.

3. Remove filler panel hinge attaching screws; then remove prop and remove filler panel.
4. To install, reverse removal procedure.

STATION WAGON FOLDING REAR SEATS AND FLOOR PANELS—"B" BODY (CHEVROLET 15-16000 SERIES AND PONTIAC 25-26000 SERIES)

DESCRIPTION

The following views are typical of the station wagon folding seats and rear compartment floor panels. These illustrations identify the component panels of the rear compartment area and their relationship.

Figure 10-46 is typical of 15000 and 16000 two-seat station wagons.

Figure 10-47 is typical of 15000 and 16000 three-seat station wagons with split second seat option.

Figure 10-48 is typical of 25000 and 26000 two-seat station wagons.

Figure 10-49 is typical of 25000 three-seat station wagons with split second seat option.

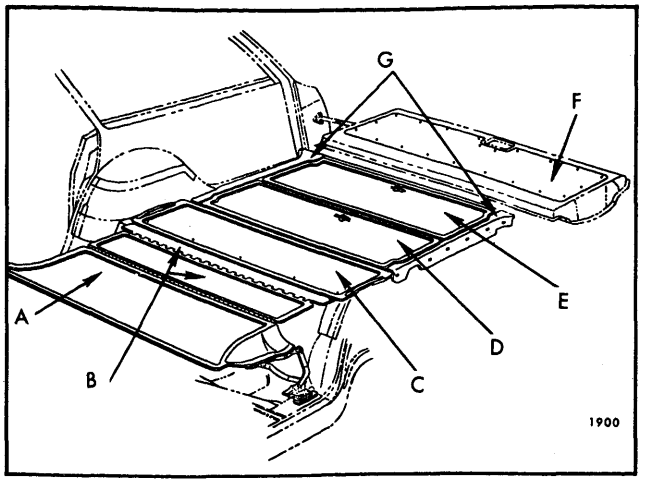

Fig. 10-46—Folding Seat and Floor Panels
Chevrolet "B-35" Styles

A. Second Seat Back Panel
B. Rear Floor Filler Panel
C. Compartment Floor Panel
D. Luggage Compartment Front Panel
E. Luggage Compartment Rear Panel
F. Tail Gate Inner Cover Panel
G. Compartment Pan Side Filler Panels

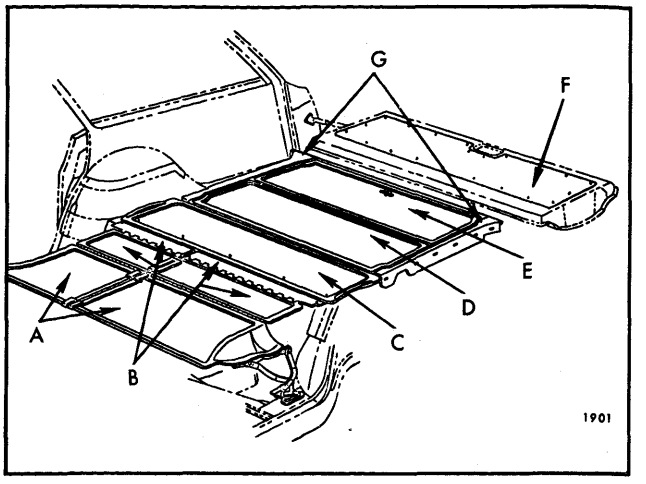

Fig 10-47—Folding Seats and Floor Panels
Chevrolet "B-45" Styles

A. Second Seat Back Panels (Split Option)
B. Rear Floor Filler Panels
C. Compartment Floor Panel (at Kick-Up)
D. Third Seat Back Panel
E. Third Seat Cushion Panel
F. Tail Gate Inner Cover Panel
G. Compartment Pan Side Filler Panels

REAR FLOOR TO TAIL GATE FILLER PANEL ASSEMBLY 25-26000 SERIES

Removal and Installation

1. Lower tail gate assembly.
2. Lift up rear edge of filler panel assembly sufficiently to expose attaching screws along forward edge of panel.
3. Remove filler panel attaching screws and remove panel assembly from body opening.
4. To install, reverse removal procedure.

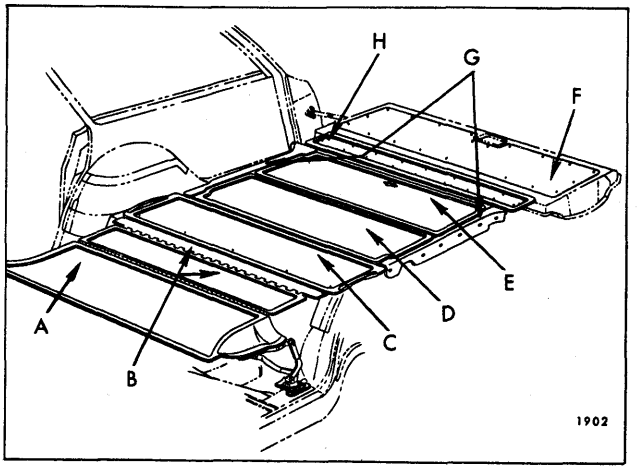

Fig. 10-48—Folding Seat and Floor Panels
Pontiac "B-35" Styles

A. Second Seat Back Panel
B. Rear Floor Filler Panel
C. Compartment Floor Panel (at Kick-Up)
D. Luggage Compartment Front Panel
E. Luggage Compartment Rear Panel
F. Tail Gate Inner Cover Panel
G. Compartment Pan Side Filler Panels
H. Rear Floor-to-Tail Gate Panel

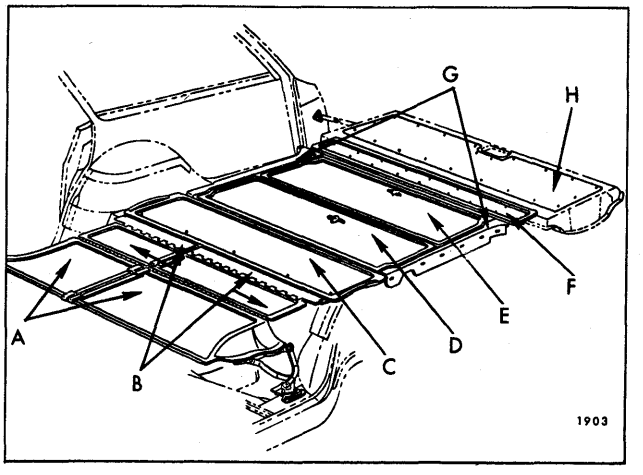

Fig. 10-49—Folding Seats and Floor Panels
Pontiac "B-45"

A. Second Seat Back Panels (Split Option)
B. Rear Floor Filler Panels
C. Compartment Floor Panel (at Kick-Up)
D. Third Seat Back Panel
E. Third Seat Cushion Panel
F. Rear Floor-to-Tail Gate Panel
G. Compartment Pan Side Filler Panels
H. Tail Gate Inner Cover Panel

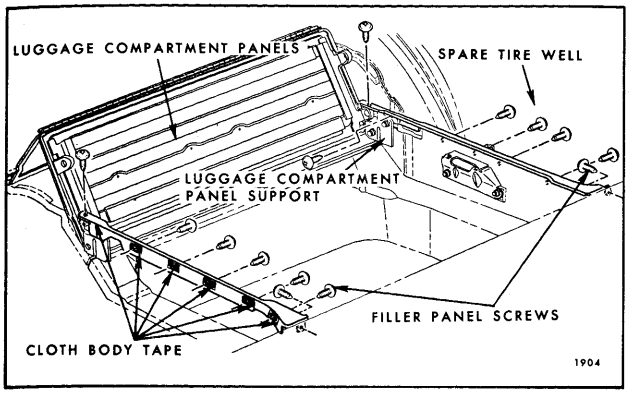

Fig. 10-50—Rear Compartment Pan Side Filler Panels

COMPARTMENT PAN SIDE FILLER PANEL (RIGHT OR LEFT SIDE) ALL STYLES

Removal and Installation:

1. On "35" Styles, use handle and fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel (Fig. 10-50).

2. On "45" Styles, raise folding 3rd seat back assembly to up position; then raise 3rd seat bottom cushion assembly to up or "sitting" position.

3. For right floor side panel, remove spare tire cover panel.

4. On left side, remove screw which secures floor side panel to panel support.

5. Along inboard and outboard side facing of right and/or left panel, remove screws which secure panel to panel supports (Fig. 10-50) and remove panel(s) from body.

6. To install, reverse removal procedure. If installing new filler panel, apply cloth body tape over all screw attaching holes. (See Fig. 10-50).

LUGGAGE COMPARTMENT FRONT AND REAR PANEL ASSEMBLIES TWO-SEAT STYLES

Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.

2. Fold combined front and rear luggage compartment panels to "up" or half open position. (See Fig. 10-50).

3. Remove bolt (Fig. 10-51) at both sides of front panel securing front and rear panel assemblies to supports; then remove assembly from body.

4. To install, reverse removal procedure. Make sure bushing and spring washer are properly installed (Fig. 10-51).

NOTE: When replacing front luggage compartment panel with new part, transfer rear luggage compartment panel with attached hinge to new part.

LUGGAGE COMPARTMENT REAR PANEL ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.

2. Remove screws securing hinge assembly to rear luggage compartment panel and remove panel assembly from body.

3. To install, reverse removal procedure.

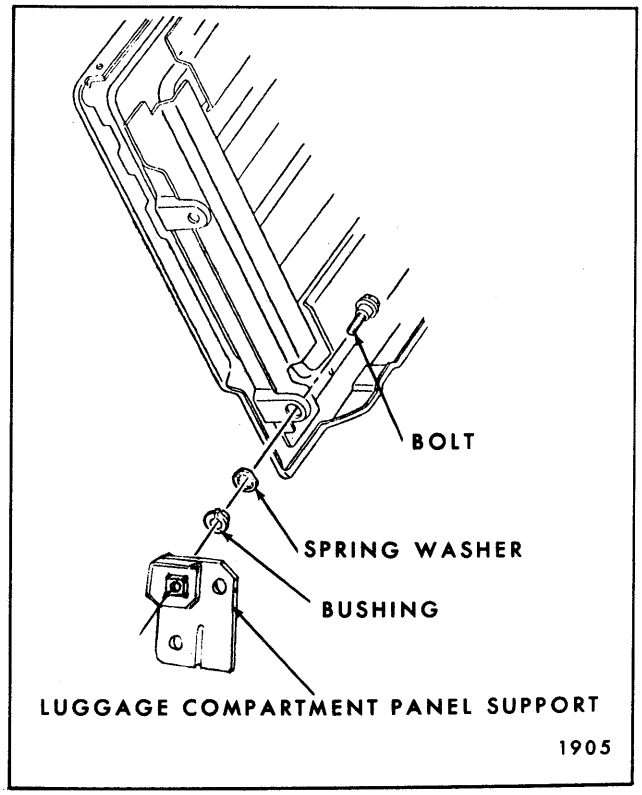

Fig. 10-51—Luggage Compartment Panel Attachment to Body

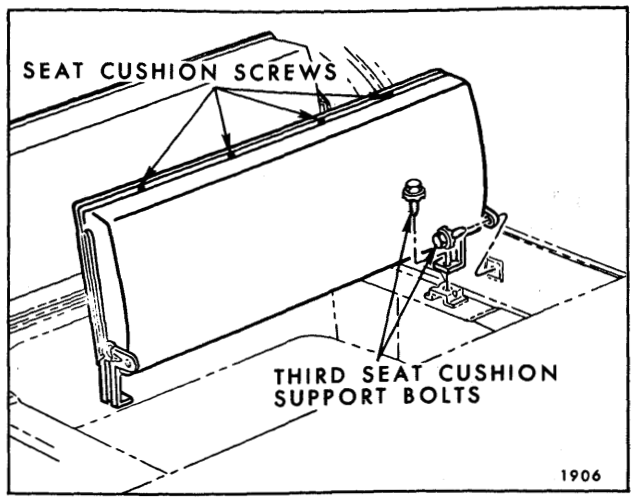

Fig. 10-52—Folding Third Seat Cushion

LUGGAGE COMPARTMENT FRONT AND REAR PANEL HINGE ASSEMBLY

Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.

2. Remove screws securing hinge assembly to both front and rear panels and remove hinge from body.

3. To install, reverse removal procedure.

FOLDING THIRD SEAT CUSHION THREE-SEAT STYLES

Removal and Installation

1. Lift third seat cushion to a half raised position or approximately vertical to floor pan (Fig. 10-52).

2. Remove four seat cushion screws from rearward edge of cushion (Fig. 10-52).

3. Pull rear edge of cushion away from flange of cushion panel then lift cushion upward to disengage cushion border wire from four tabs on panel. Remove cushion from body and place on a clean protected surface.

4. To install, reverse removal procedure. Make sure cushion border wire is engaged with all four panel tabs prior to installing cushion attaching screws.

FOLDING THIRD SEAT CUSHION, PANEL ASSEMBLY AND SUPPORT THREE-SEAT STYLES

Removal and Installation

1. Lift third seat cushion to a half raised position or approximately vertical to floor pan. (See Fig. 10-52).

2. Remove two bolts at each side of seat securing supports to body (Fig. 10-52); then, remove seat cushion, panel assembly and supports from body and place on a clean protected surface.

   To remove support, remove cushion from panel assembly; then remove bolt securing support to cushion (Fig. 10-53).

3. To install, reverse removal procedure. If support was removed from seat cushion panel, make sure bushing and spring washer are properly installed. (See Fig. 10-53).

FOLDING THIRD SEAT BACK TRIM ASSEMBLY THREE-SEAT STYLES

Removal and Installation

1. Raise third seat back assembly - leave cushion assembly in down position.

2. Remove four screws securing lower edge of seat back trim to seat back panel. (See Fig-10-54).

3. Pull lower edge of seat back trim slightly rearward; then, lift trim assembly upward to disengage trim border wire from four tabs on

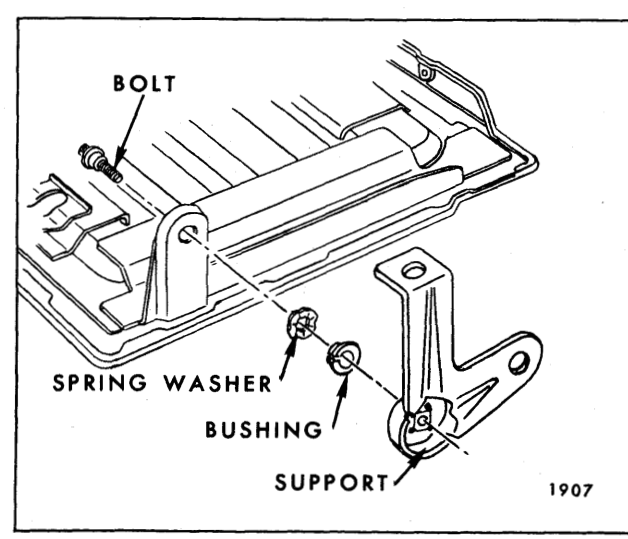

Fig. 10-53—Third Seat Cushion Panel and Support

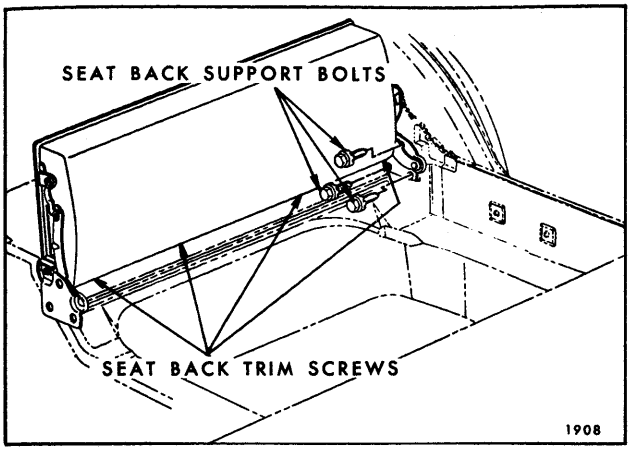

Fig. 10-54—Folding Third Seat Back

upper portion of panel. Remove trim assembly from body and place on a clean protected surface.

4. To install, reverse removal procedure. Make sure seat back trim border wire is engaged with all four panel tabs at upper portion of panel prior to installing seat back trim attaching screws.

FOLDING THIRD SEAT BACK PANEL ASSEMBLY THREE-SEAT STYLES

Removal and Installation

1. Remove third seat back trim assembly

2. At both sides of third seat back panel remove seat back linkage bolt (Fig. 10-55) and bolt securing seat back panel to support (Fig. 10-55); then remove seat back panel assembly from body.

3. To install, reverse removal procedure.

COMPARTMENT FLOOR PANEL ASSEMBLY (AT KICK-UP) ALL STYLES

Removal and Installation

1. On "45" Styles, remove folding 3rd seat back assembly as previously described.

2. On "35" Styles, remove luggage compartment front and rear panel assemblies (complete) as previously described.

3. Directly under rear edge of compartment floor panel remove four screws securing panel to floor pan.

4. At front of compartment floor panel remove five screws securing panel to floor pan; then, remove compartment floor panel from body.

5. To install, reverse removal procedure.

REAR FLOOR FILLER PANEL ALL STYLES

Removal and Installation

1. Remove compartment floor panel assembly (at kick-up) as previously described.

2. Along rear edge of filler panel, remove screws which secure panel to floor pan.

3. Fold filler panel forward sufficiently to remove screws which secure panel to folding 2nd seat back assembly and remove filler panel from body.

4. To install, reverse removal procedure.

SECOND SEAT CUSHION (FULL WIDTH OR SPLIT SEAT) ALL STYLES

Removal and Installation

1. Lift up front edge of folding rear seat cushion assembly to disengage seat bottom frame from slots in rear seat support on floor pan; then, remove cushion assembly from body and place on a clean protected surface.

2. To install, reverse removal procedure. Make certain that seat cushion frame is fully engaged in supports on floor pan.

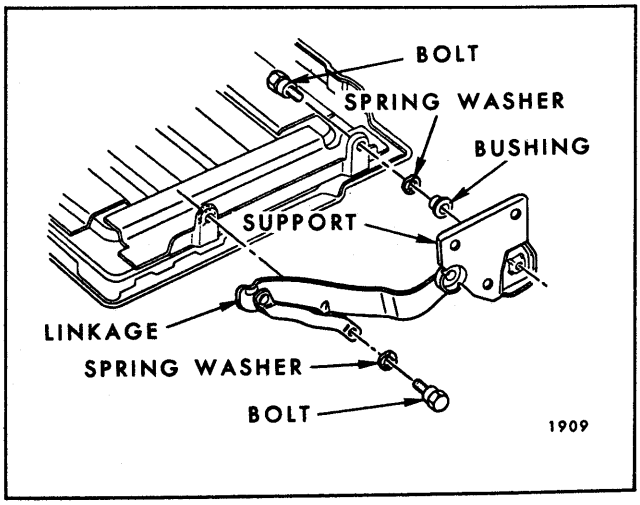

Fig. 10-55—Third Seat Back Panel and Linkage

FOLDING SECOND SEAT BACK TRIM ASSEMBLY (FULL WIDTH OR SPLIT SEAT) ALL STYLES

Removal and Installation

1. Raise folding second seat back and remove second seat cushion.

2. On underside of second seat back panel, remove screws securing seat back trim assembly to seat back panel.

   NOTE: Do not remove screws securing rear floor filler panel hinge to second seat back panel.

3. Pull lower edge of seat back trim slightly forward; then lift trim assembly upward to disengage trim border wire from tabs on upper portion of panel. Remove trim assembly from body and place on a clean protected surface.

4. To install, reverse removal procedure. Make sure seat back trim border wire is engaged with panel tabs at upper portion of seat back panel prior to installing seat back trim attaching screws.

FOLDING SECOND SEAT BACK TRIM, PANEL AND LINKAGE ASSEMBLY (FULL WIDTH OR SPLIT SEAT) ALL STYLES

Removal and Installation

1. Raise folding second seat back and remove second seat cushion.

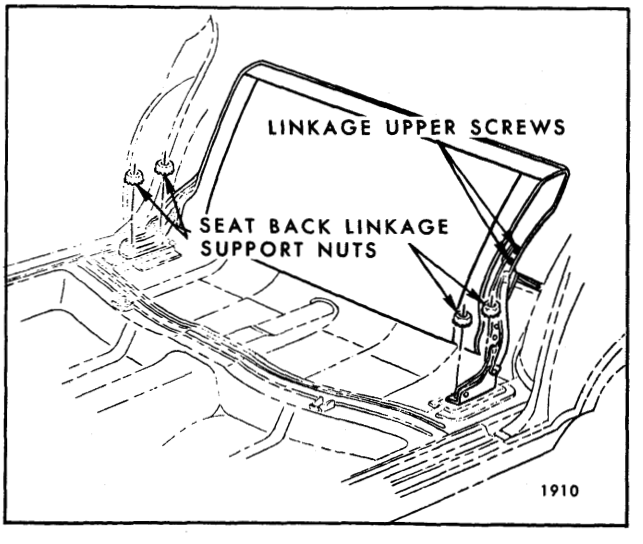

Fig. 10-56—Folding Second Seat Back Supports (Full Width Seat)

2. On underside of folding second seat back remove screws securing rear floor filler panel hinge to seat back panel.

   NOTE: Do not remove screws securing seat back trim assembly to seat back panel.

3. Mark position of folding second seat back linkage supports on floor pan. Remove nuts from both sides of seat back securing linkage supports to floor pan (See Figure 10-56), full width seat (Fig. 10-57) for split seat.

   Lift seat back assembly with attached linkage from body and place on a clean protected surface.

4. To remove linkage from folding second seat back remove linkage-to-seat back panel attaching bolts and remove linkage - See (Fig. 10-58 for full width seat) (Fig. 10-59 for split seat).

5. To install, reverse removal procedure. If linkage was removed from split seat back, make sure bushings and spring washers are properly installed prior to installing linkage attaching bolts. (See Fig. 10-59).

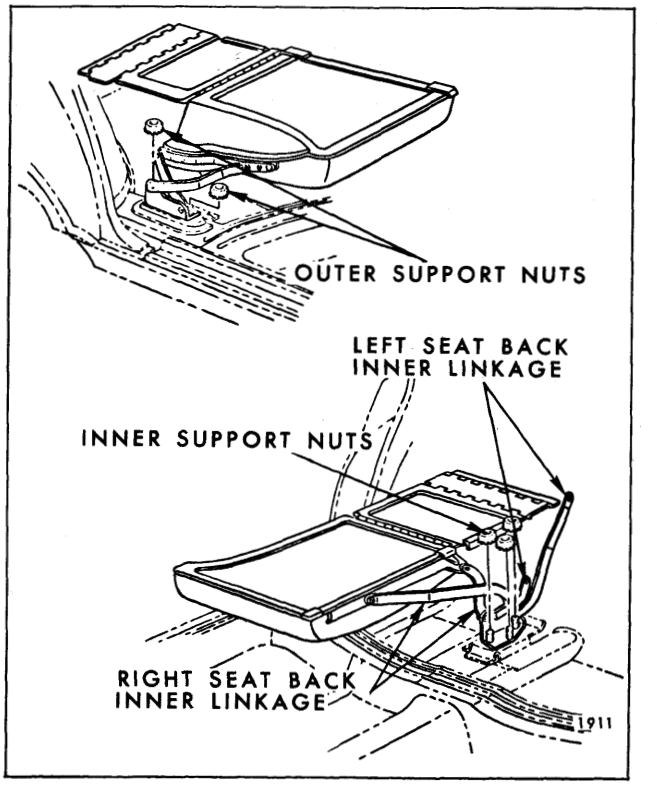

Fig. 10-57—Folding Second Seat Back Supports and Linkages (Split Seat)

FOLDING SECOND SEAT BACK LINKAGE ASSEMBLY (FULL WIDTH SEAT—RIGHT OR LEFT SIDE SPLIT SEAT—OUTER LINKAGE ONLY) ALL STYLES

If both right and left linkage assemblies are to be removed on full width second seat remove second seat back trim, panel and linkage assembly and remove linkage from seat back panel as described under "Folding Second Seat Back Trim, Panel and Linkage Assembly - Removal and Installation".

If one linkage assembly (right or left side) is to be removed proceed as follows:

Removal and Installation

1. Remove second seat cushion.
2. Move folding second seat back forward just sufficiently to remove two lower linkage-to-seat back panel attaching screws. (See Fig. 10-58).
3. Carefully return seat back to full up position; then, place a support under seat back assembly to support seat back in this position.
4. Remove two upper linkage-to-seat back panel attaching screws. (See Fig. 10-58).
5. Remove nuts securing linkage support to floor pan (See Fig. 10-56); then carefully remove linkage assembly from seat back and floor pan.
6. To install, reverse removal procedure.

FOLDING SECOND SPLIT SEAT BACK INNER LINKAGE ASSEMBLY ALL STYLES

Removal and Installation

1. Remove left second seat cushion and place left seat back in full up position. Place a support under right side of left seat back to support seat back in this position.
2. Place right seat back in partially down position (resting on seat cushion).
3. Remove nuts securing inner linkage assembly to floor pan (See Fig. 10-57).
4. Remove inner linkage-to-seat back bolts from both right and left seats (See Fig. 10-59); then carefully disengage inner linkage from seat backs and floor pan studs and remove linkage assembly.

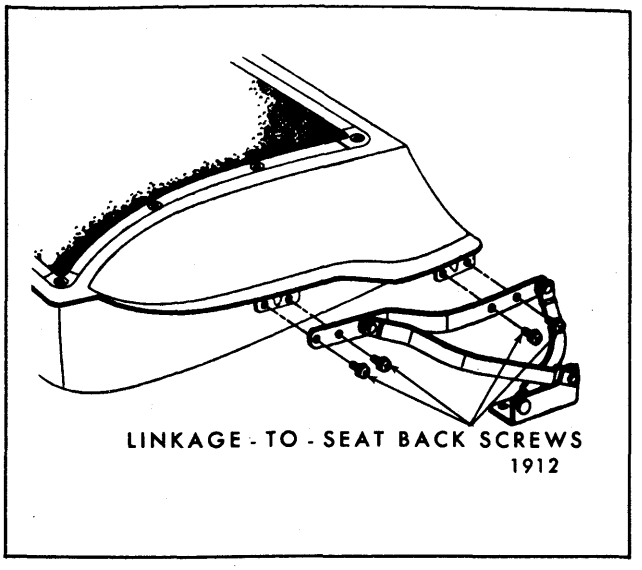

Fig. 10-58—Folding Second Seat Back Supports and Linkage (Full Width Seats)

5. To install, reverse removal procedure. Make sure bushings and spring washers are properly installed prior to installing linkage attaching bolts to both right and left seat back panels. (See Fig. 10-59).

FOLDING SECOND SEAT BACK CATCH ASSEMBLY ALL 25-26000 STYLES

Removal and Installation

1. Fold second seat back forward.
2. Remove catch cover screws and remove cover (Fig. 10-60).
3. Remove three screws securing catch to seat back frame and remove catch assembly from seat back (Fig. 10-60).
4. To install, reverse removal procedure.

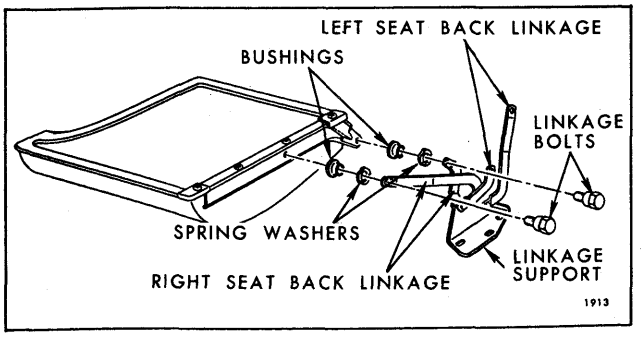

Fig. 10-59—Folding Second Seat Back Inner Linkage and Support

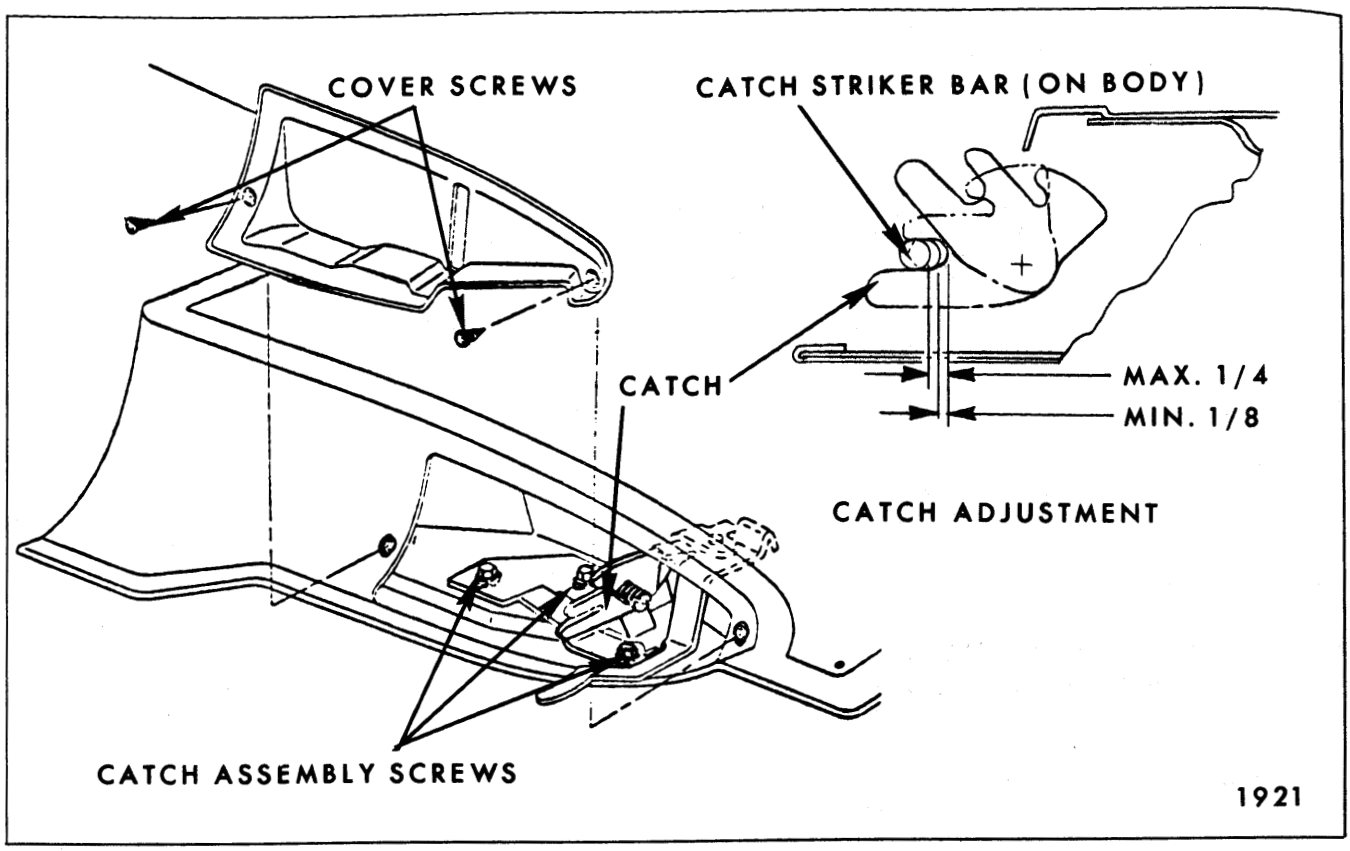

Fig. 10-60—Folding Seat Back Catch - All Pontiac "B" Styles

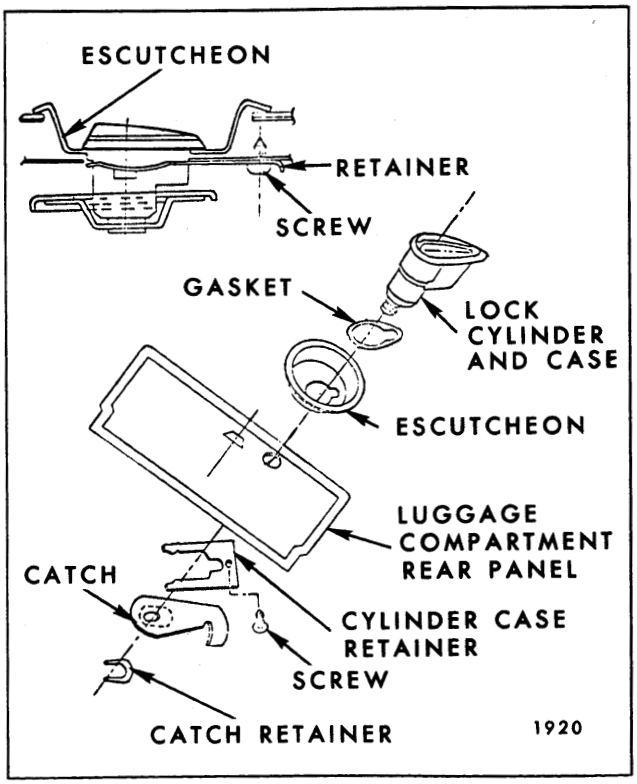

Fig. 10-61—Luggage Compartment Lock Chevrolet "B" Styles

IMPORTANT: To assure proper operation of the folding second seat back the catch assembly should be installed and, where necessary, adjusted for a minimun gap of 1/64 inch to a maximum gap of 3/16 inch between bottom of slot in catch and catch striker when seat back is in full "up" position (Fig. 10-60).

LUGGAGE COMPARTMENT LOCK CYLINDER (OPTIONAL EQUIPMENT) 15-16000 TWO-SEAT STYLES

Removal and Installation

1. Open luggage compartment rear panel.
2. On underside of luggage compartment rear panel remove catch retainer and catch from lock cylinder case (Fig. 10-61); then turn lock cylinder with key until cylinder can be removed from case.
3. To install, reverse removal procedure.

LUGGAGE COMPARTMENT LOCK (OPTIONAL EQUIPMENT) 15-16000 TWO-SEAT STYLES

Removal and Installation

1. Open luggage compartment rear panel.

2. On underside of luggage compartment rear panel, remove catch retainer and catch (Fig. 10-61).

3. Remove lock cylinder case retainer screw and retainer (Fig. 10-61); then, remove lock cylinder and case, gasket and escutcheon from panel (Fig. 10-61).

4. To install, reverse removal procedure.

STATION WAGON FOLDING SEATS AND FLOOR PANELS—"A" BODY EXCEPT "65" STYLES

DESCRIPTION

Figures 10-62 and 10-63 are typical of two-seat station wagon folding full second seat and rear compartment floor panels. The illustration identifies component parts, their relationship and various attaching points.

REAR COMPARTMENT FLOOR PANEL COVERING STYLES WITH RUBBER MAT

The rear compartment floor panel conver consists of a one-piece rubber mat with a pad backing. The rubber mat is installed loose with sides inserted under rear quarter trim and wheelhouse trim assemblies.

REAR COMPARTMENT FLOOR PANEL COVERING STYLES WITH VINYL MAT

The rear compartment floor panel covering consists of a one-piece vinyl mat with a pad backing. The vinyl mat is installed loose with sides inserted under the rear quarter trim and wheelhouse trim assemblies. The 23535 Style incorporates metal skid strips which are tabbed to the vinyl mat.

REAR COMPARTMENT FLOOR PANEL COVERING STYLES WITH FLOOR CARPET

A one-piece rear compartment floor panel carpet with a pad backing is available as an option. The carpet is retained at the front and rear edges by finishing moldings which are secured to the floor panel by screws. (See Fig. 10-63). The sides of the carpet are inserted under the rear quarter trim and wheelhouse trim assemblies.

REAR SEAT CUSHION ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. Lift up front edge of cushion assembly to disengage protrusions on seat bottom frame from slots in seat cushion support and remove cushion assembly.

2. To install, reverse removal procedure. Make certain protrusions on seat bottom frame are fully engaged in slots in seat cushion support.

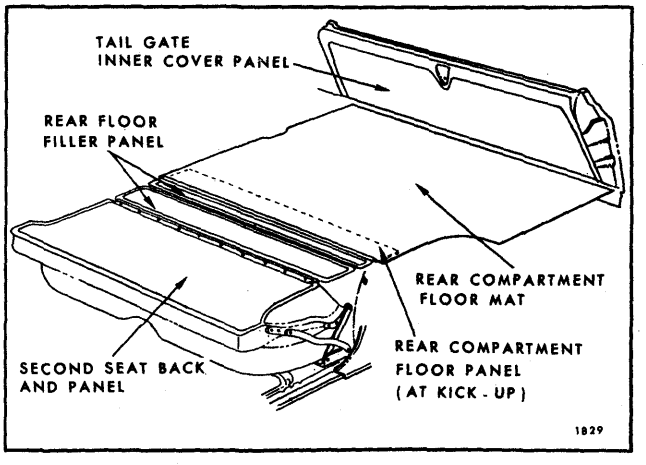

Fig. 10-62—Folding Second Seat and Rear Floor Panel Covers

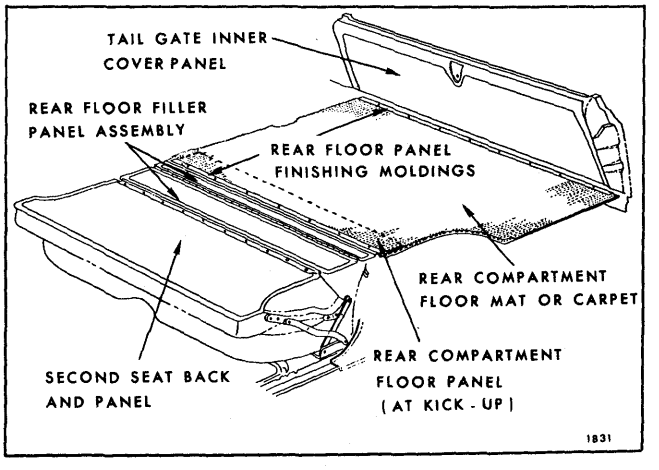

Fig. 10-63—Folding Second Seat and Rear Floor Panel Covering

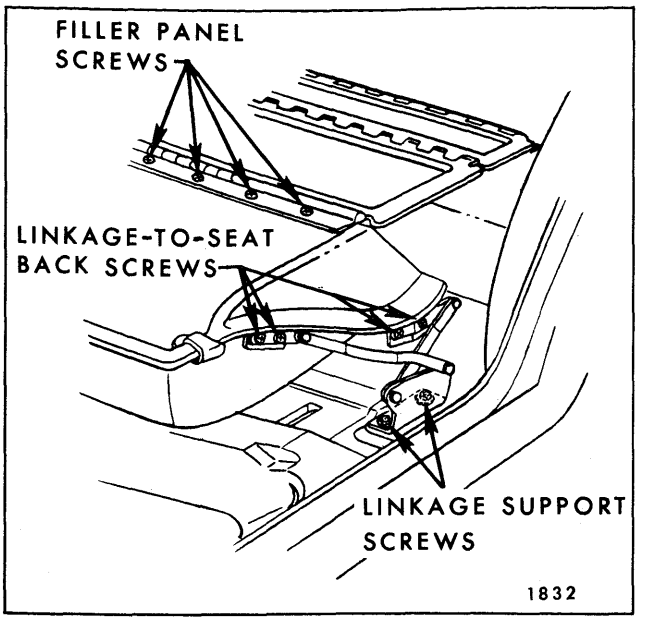

Fig. 10-64—Folding Second Seat Back Linkage and Filler Panel

FOLDING REAR SEAT BACK TRIM AND SPRING ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. Remove second seat cushion.
2. With folding second seat back in up position, remove screws along bottom edge of seat back trim. Lift trim and spring assembly to disengage retainers at top from slots in seat back panel; then, remove seat back trim and spring assembly from seat back panel.
3. To install, reverse removal procedure.

REAR COMPARTMENT FLOOR PANEL (AT KICK-UP) TWO-SEAT STYLES

Removal and Installation

1. Turn back front edge of rear compartment floor panel covering and remove eight hex-head rear compartment floor panel attaching screws. On styles with carpet, remove front finishing molding prior to turning back carpet.

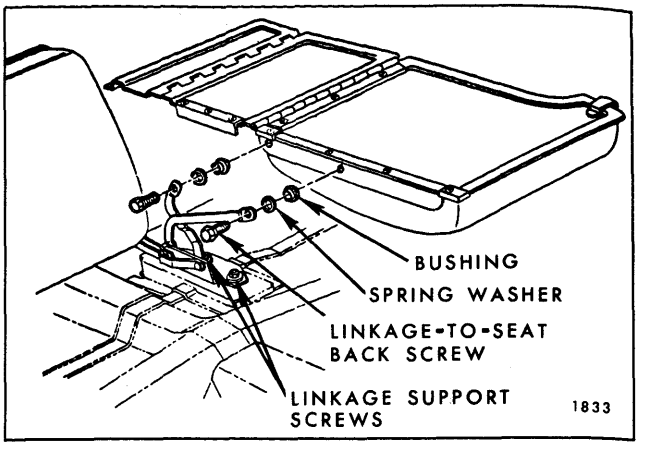

Fig. 10-65—Split Second Seat Center Linkage

2. To install, reverse removal procedure.

FOLDING REAR SEAT BACK AND PANEL ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. With second seat back in down position, remove screws securing rear floor filler panel to second seat back panel and detach filler panel from seat back.
2. On both sides of seat back, remove screws securing seat back to folding linkage (Fig. 10-64) and remove seat back and panel assembly from body.

See Figure 10-65 for center linkage attachments on split second seat.

3. To install, reverse removal procedure.

REAR FLOOR FILLER PANEL ASSEMBLY

Removal and Installation

1. Remove rear compartment floor panel (at kick-up) as previously described.
2. Remove filler panel front and rear attaching screws and remove filler panel assembly.
3. To install, reverse removal procedure.

STATION WAGON FOLDING SEATS AND FLOOR PANELS—"A" BODY "55 AND 65" STYLES

DESCRIPTION

The "55" Style Skylight station wagons have a full width folding second seat on which the seat back folds flush with the floor panels. A luggage compartment is provided under the luggage compartment floor panel. Fig. 10-66 identifies the major load floor panels on the "55" Style station wagon.

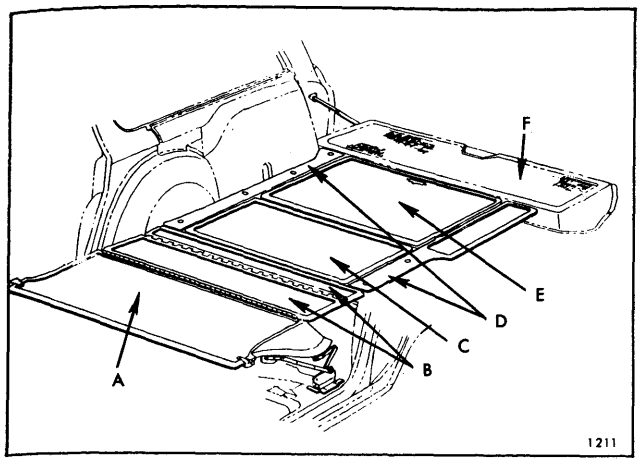

Fig. 10-66—Folding Seat and Rear Compartment Floor Panels "A-55" Style Station Wagon

A. Folding Second Seat Back Panel
B. Rear Floor Filler Panel Assembly
C. Rear Compartment Floor Panel
D. Rear Compartment Side Pan Cover Panel - Right and Left
E. Luggage Compartment Cover Panel
F. Tail Gate Inner Cover Panel

A split folding second seat - 1/3 (left side), 2/3 (right side) is available as an option on the "55" Style Skylight station wagon.

The service procedures for the "55" Style station wagon folding second seat are the same as for the "35" Style station wagon folding second seat.

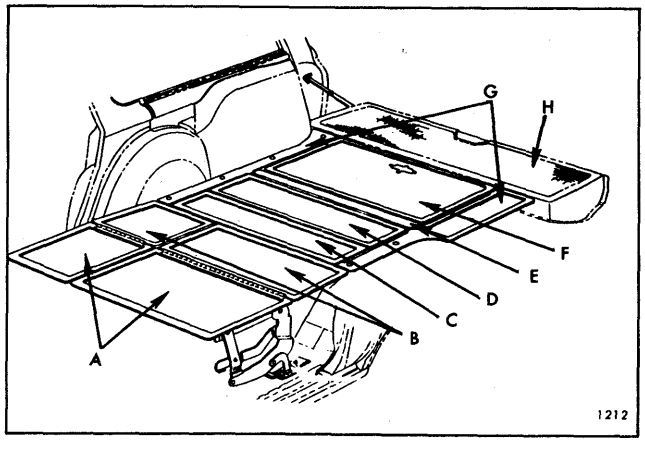

Fig. 10-67—Folding Seats and Rear Compartment Floor Panels "A-65" Style Station Wagon

A. Folding Second Seat Back Panel - Left and Right
B. Rear Floor Filler Panel - Left and Right
C. Rear Floor Filler (at Kick-Up) Panel
D. Folding Third Seat Back Panel Assembly
E. Luggage Compartment Filler Panel
F. Luggage Compartment Cover Panel
G. Compartment Side Pan Cover Panel - Right and Left
H. Tail Gate Inner Cover Panel

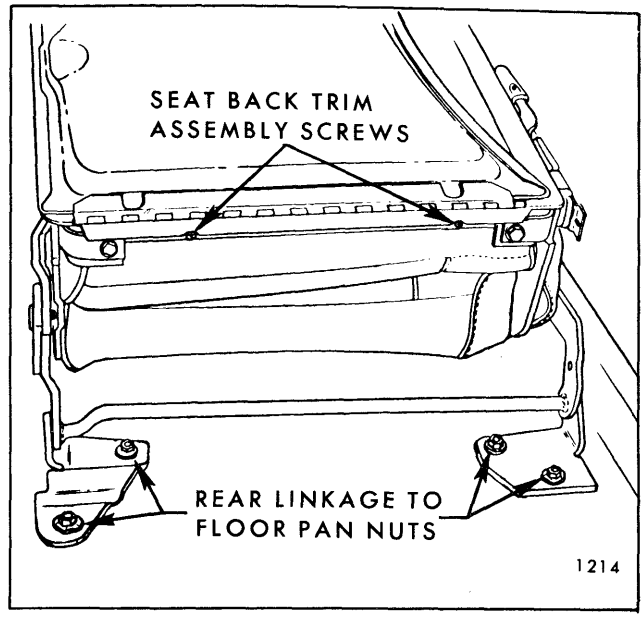

Fig. 10-68—Folding Second Seat Rear Linkage

The "65" Style station wagons have a full folding split second seat - 1/3 (right side), 2/3 (left side).

Both sections of the folding second seat are hinged to the floor pan and can be folded forward to provide entrance room into the third seat area. Also both sections of the folding second seat back can be folded flush with the floor panels. A seat back lock located at the outer linkage of both right and left folding second seat backs, locks the seat backs in the up position and must be released to fold the seats.

The full 3/4 width folding third seat is provided with an over-center lock on the right side linkage.

The lock handle is depressed to lock the seat in the

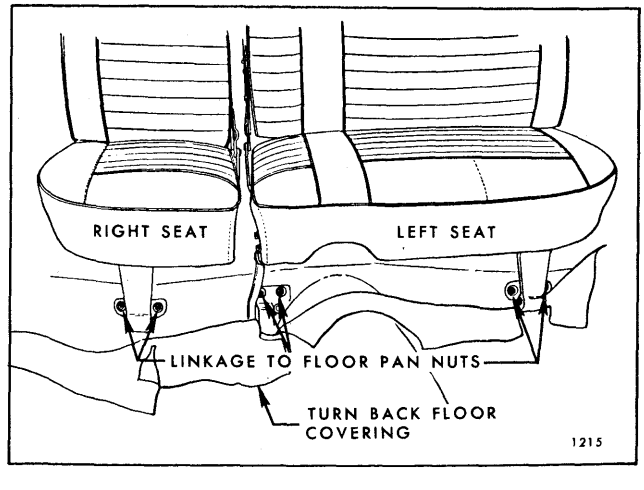

Fig. 10-69—Folding Second Seat Front Linkage

up position and pulled forward to release the lock and allow the seat to be folded.

Figure 10-67 identifies the major load floor panels on the "65" Style Skylight station wagon.

FOLDING SECOND SEAT ASSEMBLY—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove rear door sill plate and turn back floor carpeting sufficiently to gain access to nuts securing folding seat front and rear linkage to floor pan (Fig. 10-68 and 10-69).

2. Mark position of seat front and rear linkage supports on floor pan to facilitate installation of seat in same position.

3. Remove nut and washer assemblies securing front and rear linkage to floor pan (Fig. 10-68 and 10-69); then, remove seat assembly from body.

4. To install seat assembly, reverse removal procedure. Align linkage floor pan supports with previously made marks prior to tightening nuts.

FOLDING SECOND SEAT CUSHION ASSEMBLY—RIGHT OR LEFT SIDE "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car, as previously described and place on a clean surface.

2. Remove hog rings and detach outboard rear portion of trim sufficiently to remove three screws securing seat outer link to cushion frame (Fig. 10-70).

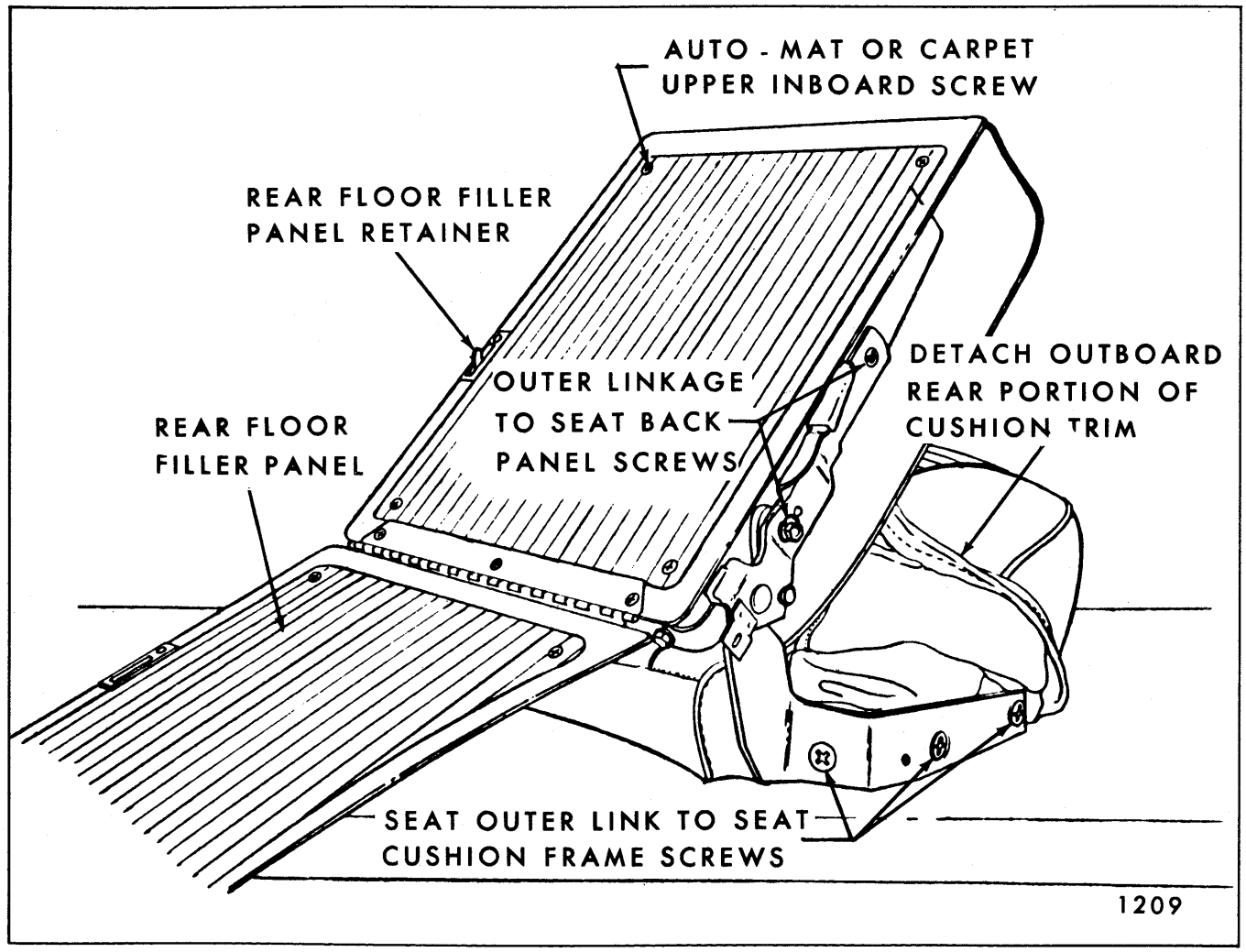

Fig. 10-70—Folding Second Seat Outer Linkage

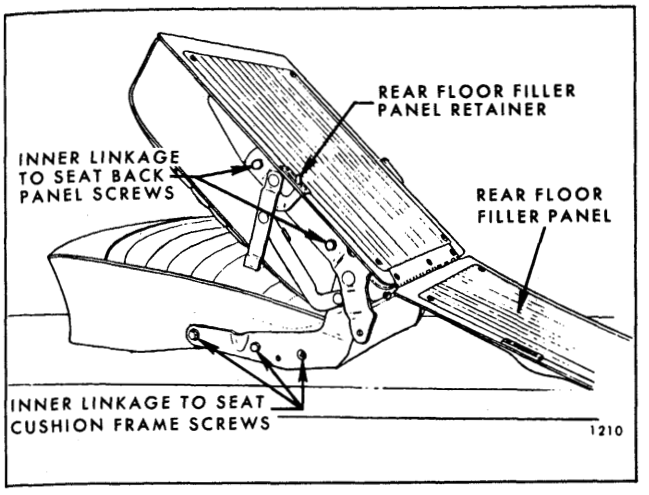

Fig. 10-71—Folding Second Seat Inner Linkage

3. Remove three screws securing seat inner link to cushion frame (Fig. 10-71); then remove seat cushion and frame assembly from linkage. If required, remove cushion front and rear floor pan linkage.

4. To install, reverse removal procedure.

FOLDING SECOND SEAT BACK TRIM AND SPRING ASSEMBLY—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Fold second seat back forward.

2. Remove seat back trim assembly attaching screws. (see Fig. 10-68).

3. Raise seat back; then, pull seat back trim assembly upward to disengage wire loops at top of seat back trim from slots in seat back panel.

   NOTE: If seat back trim does not readily disengage from seat back panel, fold rear floor filler panel down and remove upper inboard screw securing automat or carpet (Fig. 10-70). Then remove seat back trim assembly.

4. To install seat back trim assembly, reverse removal procedure.

FOLDING SECOND SEAT FRONT FLOOR PAN LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Place seat in an up position. Turn back floor carpet sufficiently to gain access to front linkage floor pan attaching nuts.

2. Mark location of front linkage support on floor pan to facilitate installation in same position. Support front of seat. Remove bolts securing linkage to seat and nuts securing linkage to floor pan studs (see Fig. 10-69); then, remove front linkage.

3. To install, reverse removal procedure making sure linkage support on floor pan is aligned with previously made alignment mark.

FOLDING SECOND SEAT REAR FLOOR PAN LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.

2. Remove screws securing rear floor pan linkage to each side of seat cushion frame (Fig. 10-72); then, remove linkage assembly from seat.

3. To install, reverse removal procedure. Inserts in Figure 10-72 show relationship of linkage, bushings and attaching screws.

FOLDING SECOND SEAT SIDE INNER LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.

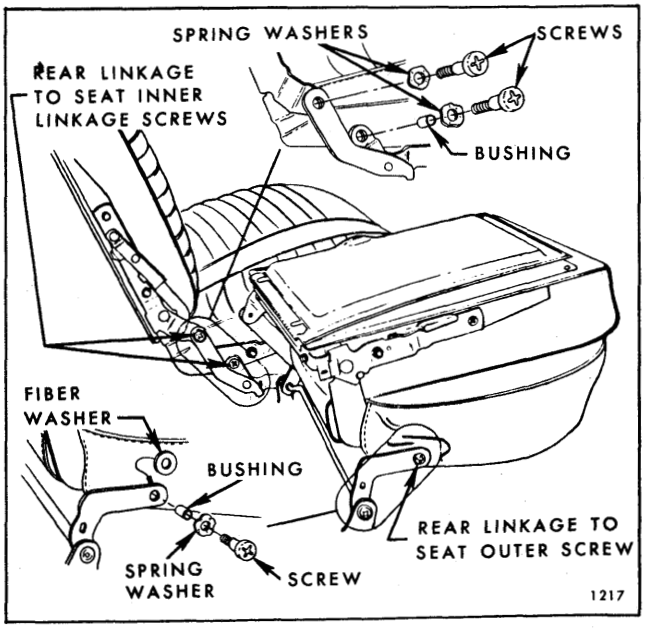

Fig. 10-72—Floor Pan Rear Linkage

2. Remove floor pan rear linkage-to-seat inner linkage attaching screws (Fig. 10-72).

3. Remove seat inner linkage-to-seat back panel and seat cushion frame attaching screws (see Fig. 10-71); then, disengage and remove side linkage from seat.

4. To install, reverse removal procedure. Make sure rear floor filler panel retainer is inserted through slot in seat back panel prior to installing inner linkage-to-seat back panel attaching screws.

FOLDING SECOND SEAT SIDE OUTER LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.

2. Remove outer linkage cover. Remove screw securing seat rear floor pan linkage to seat outer attaching screw (Fig. 10-72).

3. Remove hog rings and detach rear portion of trim sufficiently to remove three screws securing outer linkage to seat cushion frame. (See Fig. 10-70).

4. Remove outer linkage-to-seat back panel attaching screws (see Fig. 10-70); then, remove linkage and seat back catch from seat.

5. To install, reverse removal procedure. Install seat back lock and spring as described under "Folding Second Seat Back Lock - Removal and Installation".

FOLDING SECOND SEAT BACK LOCK—RIGHT OR LEFT SEAT "65" STYLES

Removal

1. Remove seat back trim assembly, as previously described. Remove outer linkage cover.

2. Remove outer linkage-to-seat back panel attaching screws (See Fig. 10-70).

3. Remove lock handle, spring and bushing from linkage.

Installation

1. Position bushing and spring on lock handle.

2. Install lock handle, bushing and spring into position between seat back panel and outer linkage making sure end of spring is engaged in hole in outer link (Fig. 10-73).

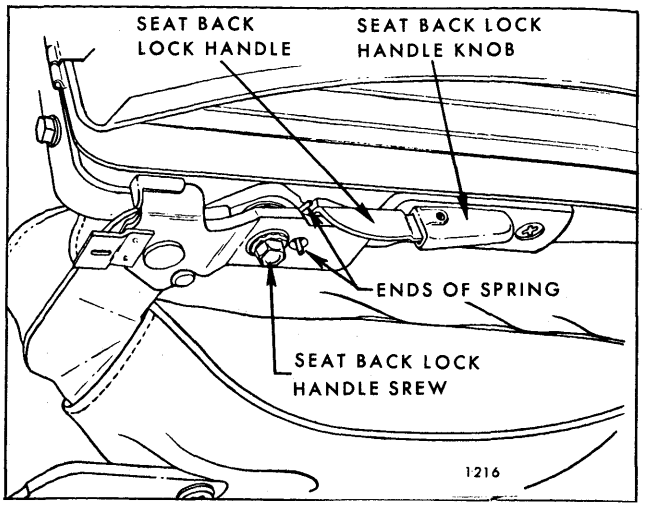

Fig. 10-73—Seat Back Lock

3. Install lock handle attaching screw; then, install outer linkage to seat back panel attaching screws (Fig. 10-70).

4. Install seat back trim assembly and outer linkage cover.

FOLDING SECOND SEAT BACK PANEL AND FILLER PANEL—RIGHT OR LEFT SEAT—"65" STYLES

Removal and Installation

1. Remove seat back trim assembly, as previously described. Remove outer linkage cover.

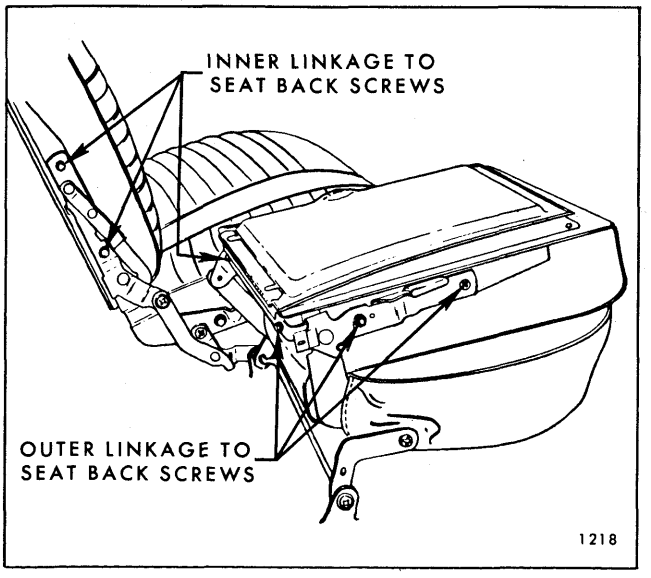

Fig. 10-74—Seat Inner and Outer Linkage

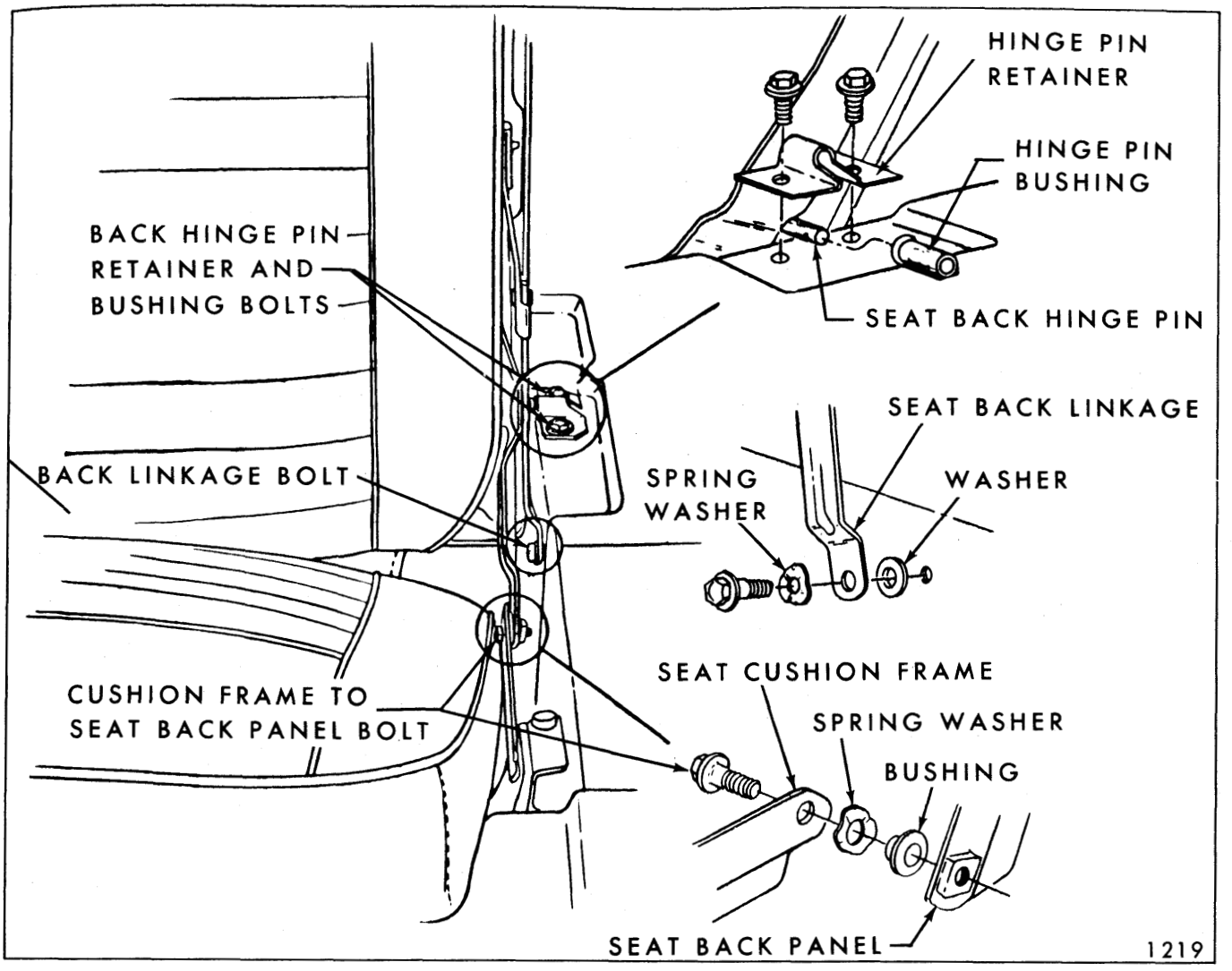

Fig. 10-75—Folding Third Seat

2. Remove outer and inner linkage to seat back attaching screws (Fig. 10-74). Remove seat back lock handle, spring and bushing from between outer linkage and seat back panel; then, remove seat back panel and rear floor filler panel from linkage.

3. To install, reverse removal procedure. To install seat back lock refer to "Folding Second Seat Back Lock - Installation".

FOLDING THIRD SEAT AND FLOOR PANEL ASSEMBLY "65" STYLES

Removal and Installation

1. Raise folding third seat. Remove rear compartment left side panel. (See Fig. 10-67).

2. Remove seat back linkage-to-compartment side pan attaching bolt (Fig. 10-75) at both right and left sides of seat.

3. At left side of seat remove seat back hinge pin retainer (Fig. 10-75).

4. Carefully move seat back assembly to the left sufficiently to disengage right seat back hinge pin from hinge pin retainer; then, remove folding third seat assembly from body and place on a clean surface.

5. To install folding third seat and floor panel assembly, reverse removal procedure. Make sure a seat back hinge pin bushing is installed over both hinge pins. Also install flat washer between seat back linkage and compartment side pan and spring washer between linkage and bolt head (Fig. 10-75).

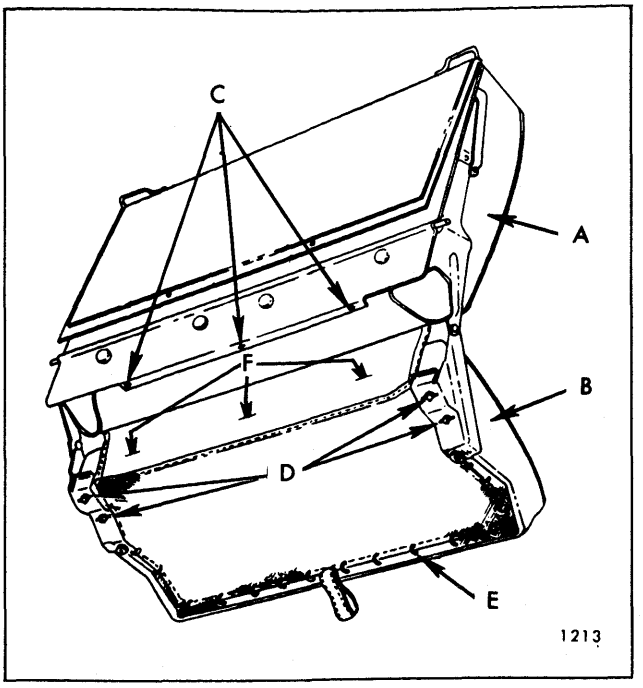

Fig. 10-76—Folding Third Seat Assembly

A. Third Seat Back
B. Third Seat Cushion
C. Seat Back Trim to Seat Back Panel Attaching Screws
D. Cushion Trim to Cushion Frame Attaching Screws
E. Hog Rings Securing Seat Back Trim Flap
F. Location of Cushion Trim to Cushion Frame Attaching Screws (Under Trim Flap)

FOLDING THIRD SEAT CUSHION TRIM ASSEMBLY "65" STYLES

Removal and Installation

1. Raise folding third seat. Raise front of third seat cushion and prop in up position.
2. Remove hog rings securing seat back trim flap to bottom of seat cushion (Fig. 10-76).
3. Remove seat cushion frame-to-seat back panel attaching bolt (Fig. 10-75) from both sides of seat; then, remove seat cushion assembly and place on a clean surface.
4. As a bench operation remove hex-head screws securing seat cushion trim to seat cushion frame (Fig. 10-76) and three screws securing rear edge of seat cushion trim to seat cushion frame; then, remove cushion trim assembly from cushion frame.
5. To install, reverse removal procedure. When installing seat cushion frame-to-seat back frame attaching bolts install bolt bushing and spring washer, as shown in insert of Figure 10-75.

FOLDING THIRD SEAT BACK TRIM ASSEMBLY OR SEAT BACK PANEL ASSEMBLY "65" STYLES

Removal and Installation

1. Remove folding third seat and floor panel assembly, as previously described, and place on a clean surface.
2. Remove hog rings securing seat back trim flap to bottom of seat cushion (Fig. 10-76).
3. To remove seat back trim assembly remove seat back trim-to-seat back panel attaching screws (Fig. 10-76); then, lift trim assembly upward to disengage wire loops on seat back trim from slots in seat back panel and remove trim assembly.
4. To remove seat back panel assembly, remove seat cushion frame-to-seat back panel attaching bolt (Fig. 10-75); then, remove seat back panel with attached rear floor filler (at kick-up) panel from seat cushion.
5. To install, reverse removal procedure. Refer to inserts in Figure 10-75 for correct installation of linkage bolts, bushings and spring washers.

LUGGAGE COMPARTMENT COVER PANEL AND FILLER PANEL "65" STYLES

Removal and Installation

1. Raise luggage compartment cover panel and support cover panel in up position.
2. Remove five hex-head screws securing cover panel to cross bar; then remove luggage compartment cover panel and filler panel.
3. To install, reverse removal procedure.

SEAT BELTS

FRONT STANDARD SEAT BELTS

Removal and Installation

1. Remove bolt on outboard seat belt anchor plate at rocker inner panel and inboard seat belt anchor plate on side of floor pan tunnel. (See Fig. 10-77).
2. Bench Type Seats Only: Pull inboard belt from front of seat thru protector, and from between front seat cushion and back (Fig. 10-78).
3. To install, reverse removal procedure, making certain that anchor plates are facing direction of seat belt pull.

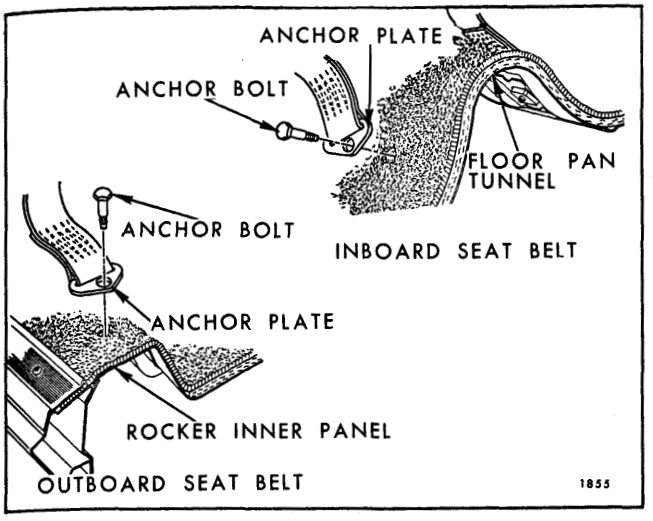

Fig. 10-77—Standard Seat Belt Attachments

FRONT DELUXE SEAT BELTS WITH BAIL TYPE RETRACTORS

Description

As an option, seat belts are available with bail type seat belt retractors on the outboard belt only. The outboard seat belt must be fully extended and the inboard belt adjusted for individual requirements when the seat belt is fastened by the driver or passenger. When the seat belt buckle is operated to disengage the belts, the outboard belt will automatically retract to the floor pan.

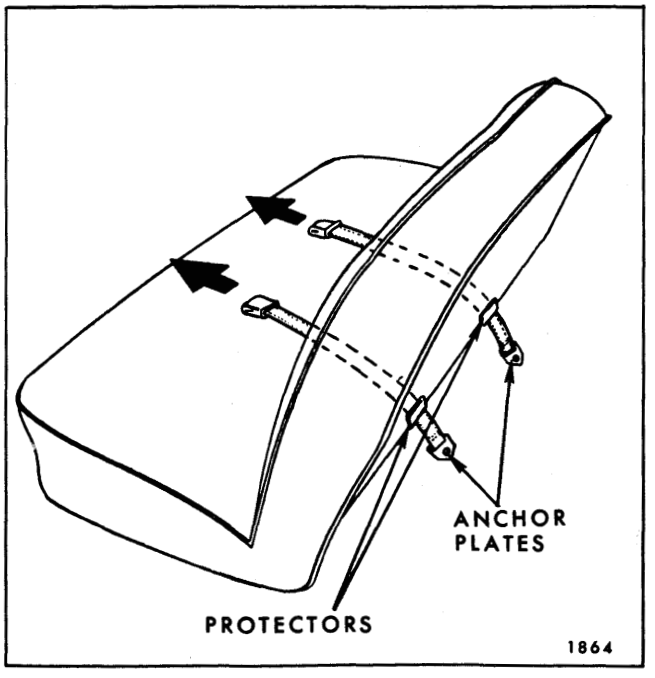

Fig. 10-78—Removal of Seat Belts from Bench Type Seats

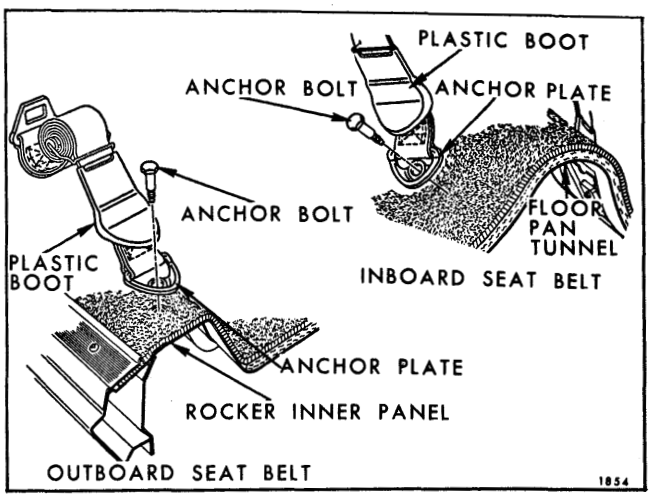

Fig. 10-79—Deluxe Seat Belt Attachments - With Bail Type Retractors

Deluxe Seat Belts with Bail Type Retractors

Removal and Installation

1. Remove bolt on outboard seat belt anchor plate at inner rocker panel and inboard seat belt anchor plate on side of floor pan tunnel by first sliding plastic boot away from plates (See Fig. 10-79).

2. Bench Type Seats Only: Pull inboard seat belt from front of seat thru protector and from between front seat cushion and back (See Fig. 10-78).

3. To install, reverse removal procedure, making certain that anchor plates are facing direction of seat belt pull.

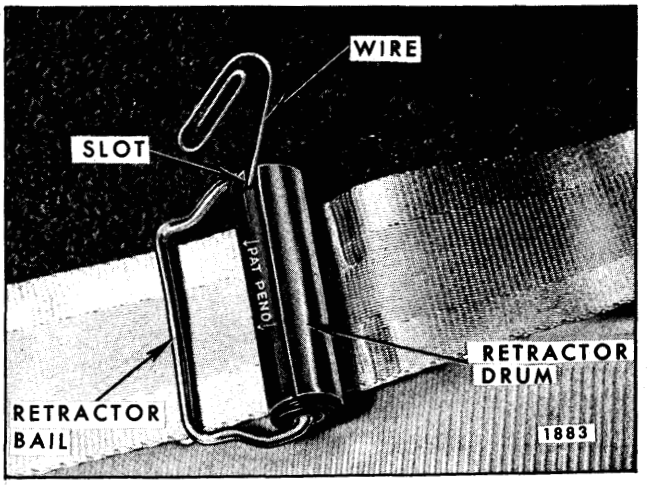

Fig. 10-80—Locking Seat Belt Bail Type Retractor Drum

Bail Type Retractor

Removal

1. Extend outboard seat belt to full length.
2. Insert a piece of stiff wire such as a paper clip in slot in roller drum to maintain spring tension of retractor. (See Fig. 10-80).

   IMPORTANT: Wire to remain in slot until retractor is reinstalled. In the event that spring tension is lost, drum on retractor can be turned 8 revolutions by hand to regain spring tension.
3. Using a flat-bladed tool pry open tabs that secure belt on drum and remove retractor from belt (See Fig. 10-81).

Installation

1. With seat belt fully extended, insert belt under tabs on retractor and position on center of seat belt.

   NOTE: Tabs on retractor to be on inboard side of seat belt and bail pointing frontward.
2. Using pliers, lightly bend down tabs securing belt to drum.
3. Remove wire from slot in drum (when replacing with new retractor, a retaining clip that retains spring tension will be on retractor which is to be removed) and allow belt to roll up on retractor.

FRONT DELUXE SEAT BELTS WITH FLOOR MOUNTED RETRACTOR AND COVER

Description

As an option, seat belts may be equipped with seat belt floor mounted retractor and covers on the outboard side only. The outboard seat belt must be fully extended and the inboard belt adjusted for individual requirements when the seat belt is fastened by the driver or passenger. When the seat belt buckle is operated to disengage the belts; the outboard belt will automatically retract into the retractor cover.

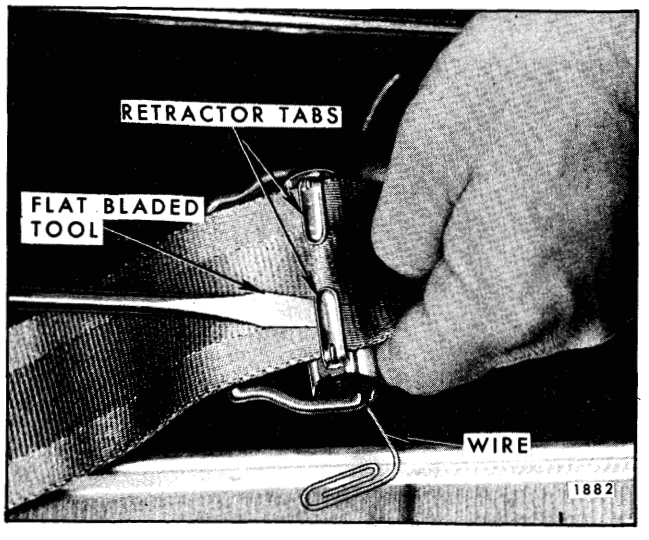

Fig. 10-81—Removal of Bail Type Retractor from Seat Belt

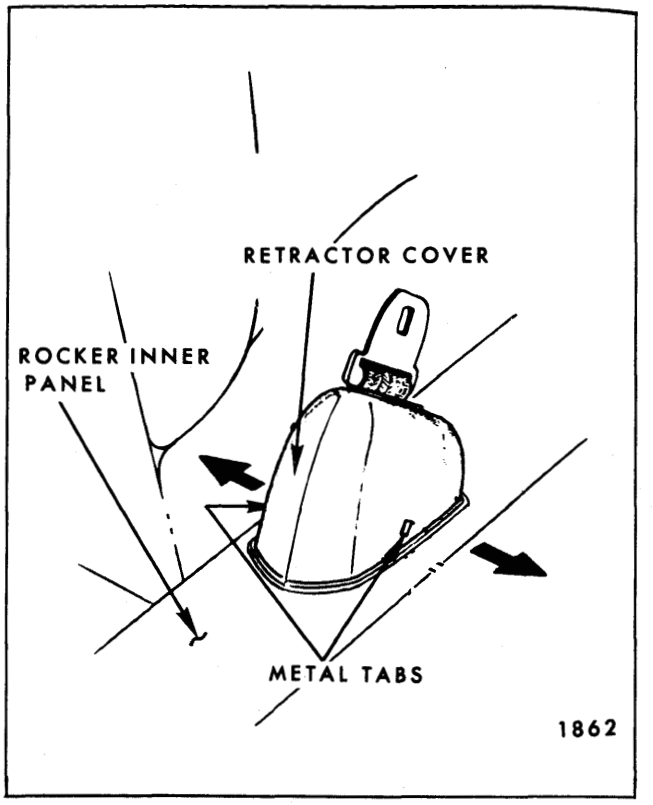

Fig. 10-82—Removal of Seat Belt Retractor Cover

Outboard Seat Belt

Removal

1. Extend belt fully; insert screwdriver through belt opening in cover and apply moderate pressure to inside of cover adjacent to metal tabs and disengage cover from tabs on sides of retractor base. (See Fig. 10-82)
2. Lift up cover to expose bolt securing seat belt retractor (See Fig. 10-83).
3. Remove bolt and remove retractor (See Fig. 10-83).

Installation

1. With retractor cover disengaged insert bolt thru retractor and into top of rocker inner panel and secure.

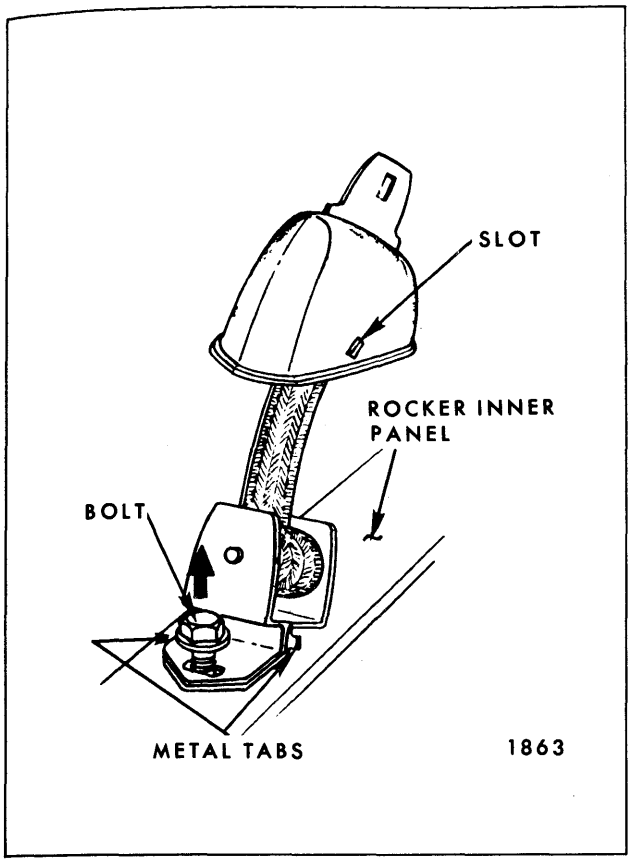

Fig. 10-83—Removal of Seat Belt Retractor with Cover

2. Gently pull sides of retractor cover outward, and position cover on retractor snapping slots in cover over metal tabs on retractor.

NOTE: Seat belt retractor and seat belt is serviced only as an assembly.

Inboard Seat Belt—Bucket Seats

Removal and Installation

1. Remove bolt securing seat belt anchor plate from side of floor pan tunnel. (See Fig. 10-77)

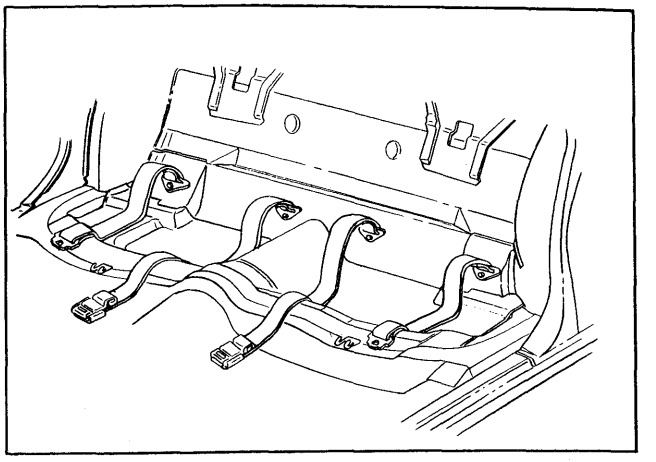

Fig. 10-84—Rear Seat Belt Attachment

2. To install, reverse removal procedure.

Inboard Seat Belts—Full Width Seats

Removal and Installation

1. Remove bolt securing seat belt anchor plate from side of floor pan tunnel. (See Fig. 10-77).

2. From front of seat, pull seat belt thru protector and from between front seat cushion and back (See Fig. 10-78).

3. To install, reverse removal procedure.

REAR SEAT BELTS

Rear seat belts will be available on all styles as standard equipment. The rear seat belts are attached to anchor nuts in the floor pan by bolts. To remove rear seat belts, remove rear seat cushion assembly, remove belt attaching bolts and seat belts. To install, reverse removal procedure making certain that the belts with the buckles are installed on the inboard location of the floor pan (Fig. 10-84).

SECTION 11

ELECTRICAL

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BODY ELECTRICAL INTRODUCTION

The 1966 body electrical equipment for all body styles is grouped into sections of power windows and ventilators, power tail gate window (station wagon), power seats (horizontal, four-way and six-way) and electric folding top.

Each section combines all styles and series together which incorporate the power equipment unless stated otherwise in the procedure.

The circuit wiring is protected by a circuit breaker (40 ampere in most cases) and is located as follows:

DIVISION	STYLE	LOCATION
Chevrolet	Z	Engine compartment - Left body side rail

DIVISION	STYLE	LOCATION
	X	Left Shroud inner panel
	A	Left Shroud inner panel
	B	Under left end of instrument panel
Pontiac	A	Engine compartment - adjacent to fuse block
	B	Engine compartment bulkhead
Oldsmobile	A	Engine compartment - at horn relay
	B-C	Engine compartment - at horn relay
	E	Right Fender Filler Plate - at junction block stud
Buick	All Styles	In fuse block - plug-in type
Cadillac	C	In fuse block - plug-in type

POWER WINDOWS AND VENTILATORS

POWER OPERATED WINDOWS— ALL SERIES

Description

The wiring harness for the electrically operated windows consists of four major sections.

1. Front Cross-Over Harness
2. Feed Harness to Rear Door or Quarter Window
3. & 4. Left and Right Rear Door or Quarter Window Harnesses

Front Cross-Over Harness

This harness is installed beneath the instrument panel and completes the circuit from the right door to the left door windows on all styles except on Cadillac styles. (See Figs. 11-1, 11-2, 11-3, 11-4 and 11-6). On Cadillac styles the cross-over harness is installed on the floor pan - see Figure 11-5.

Feed Harness for Rear Doors or Quarter Windows

This harness of flat wire construction connects to the front cross-over harness on the left side of the shroud (fire wall) and extends rearward under the flat body wire harness.

In two door styles the quarter window harness divides at the rear of the rear seat on all styles except Cadillac styles, see Figures 11-7, 11-8, 11-9, 11-10, 11-11, 11-12, 11-13 and 11-14.

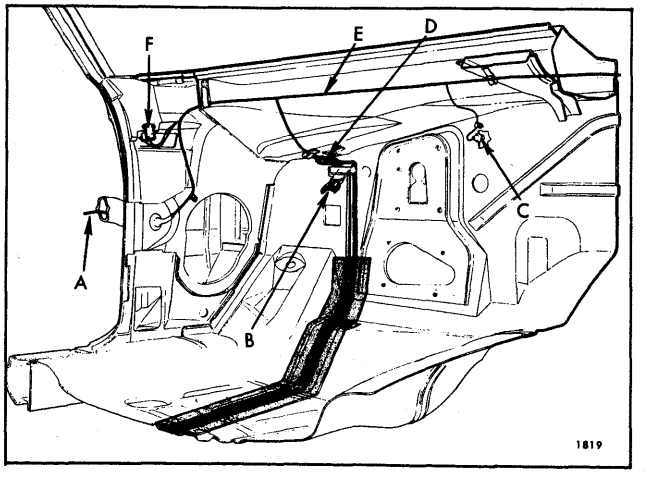


Fig. 11-1—Front End Power Window Wiring - Chevrolet "B"

A. Front Door Wiring
B. Body Wiring Connector
C. Feed Wire
D. Power Window Wiring Connector
E. Cross-Over Harness
F. Cricuit Breaker

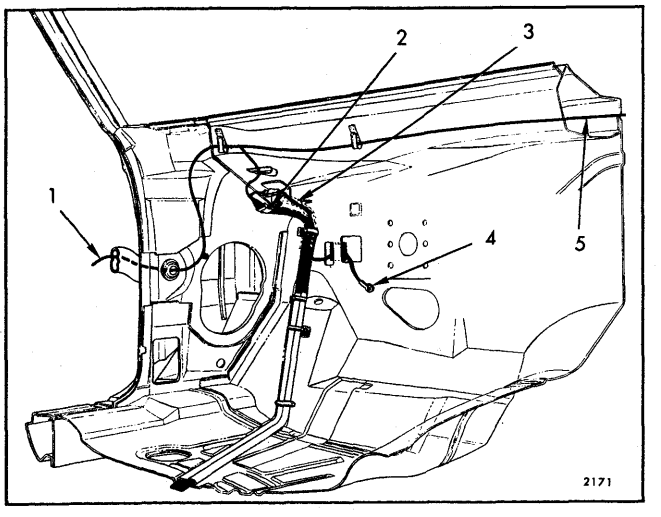


Fig. 11-2—Front End Power Window Wiring - Pontiac "B"

1. Front Door Wiring
2. Power Window Wiring Connector
3. Body Wiring Connector
4. To Curcuit Breaker
5. Cross-Over Harness

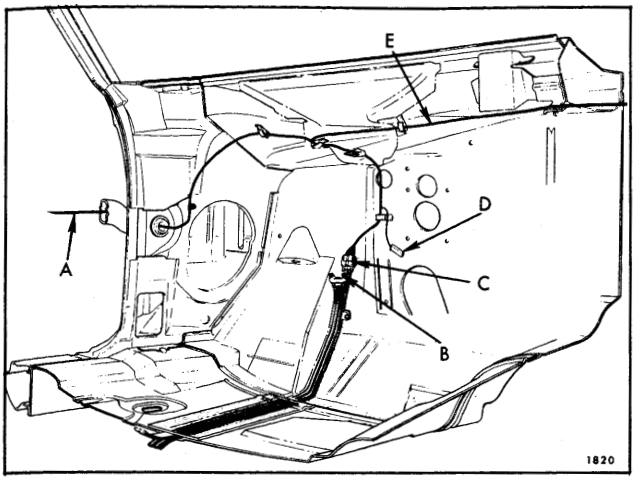


Fig. 11-3—Front End Power Window Wiring - Buick "B & C"

A. Front Door Wiring
B. Body Wiring Connector
C. Power Window Wiring Connector
D. To Fuse Block
E. Front Cross-Over Harness

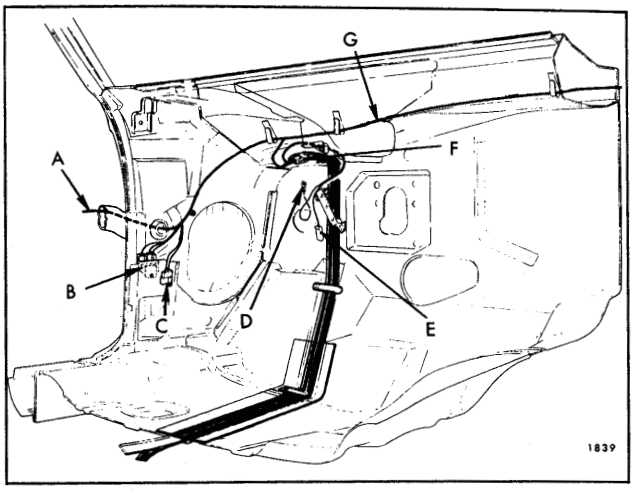


Fig. 11-4—Front End Power Window Wiring - Oldsmobile "B-C & E"

A. Front Door Wiring
B. Ignition Relay
C. Power Seat Feed on 38439-67 and 38669 only
D. To Circuit Breaker
E. To Fuse Block
F. Power Window Wiring Connector
G. Cross-Over Harness

On Cadillac styles the harness divides at the rear of the front seat (see Fig. 11-15).

The rear door window harness divides at rear of the front seat (see Figs. 11-16, 11-17, 11-18 and 11-19).

It is to be noted that the flat body wiring harness is positioned on top of the power window wire harness and the front connector of the body wire harness is in a lower position.

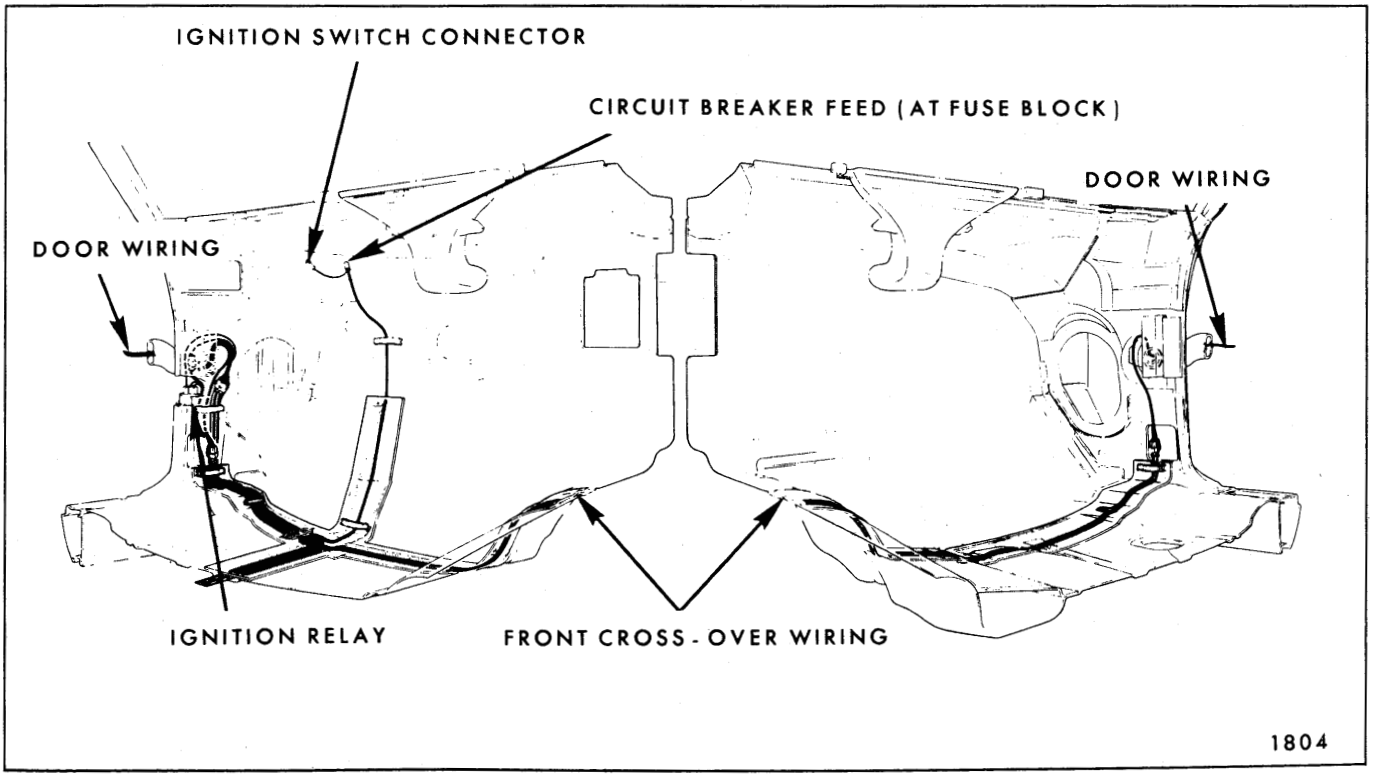


Fig. 11-5—Front End Power Window Wiring - Cadillac

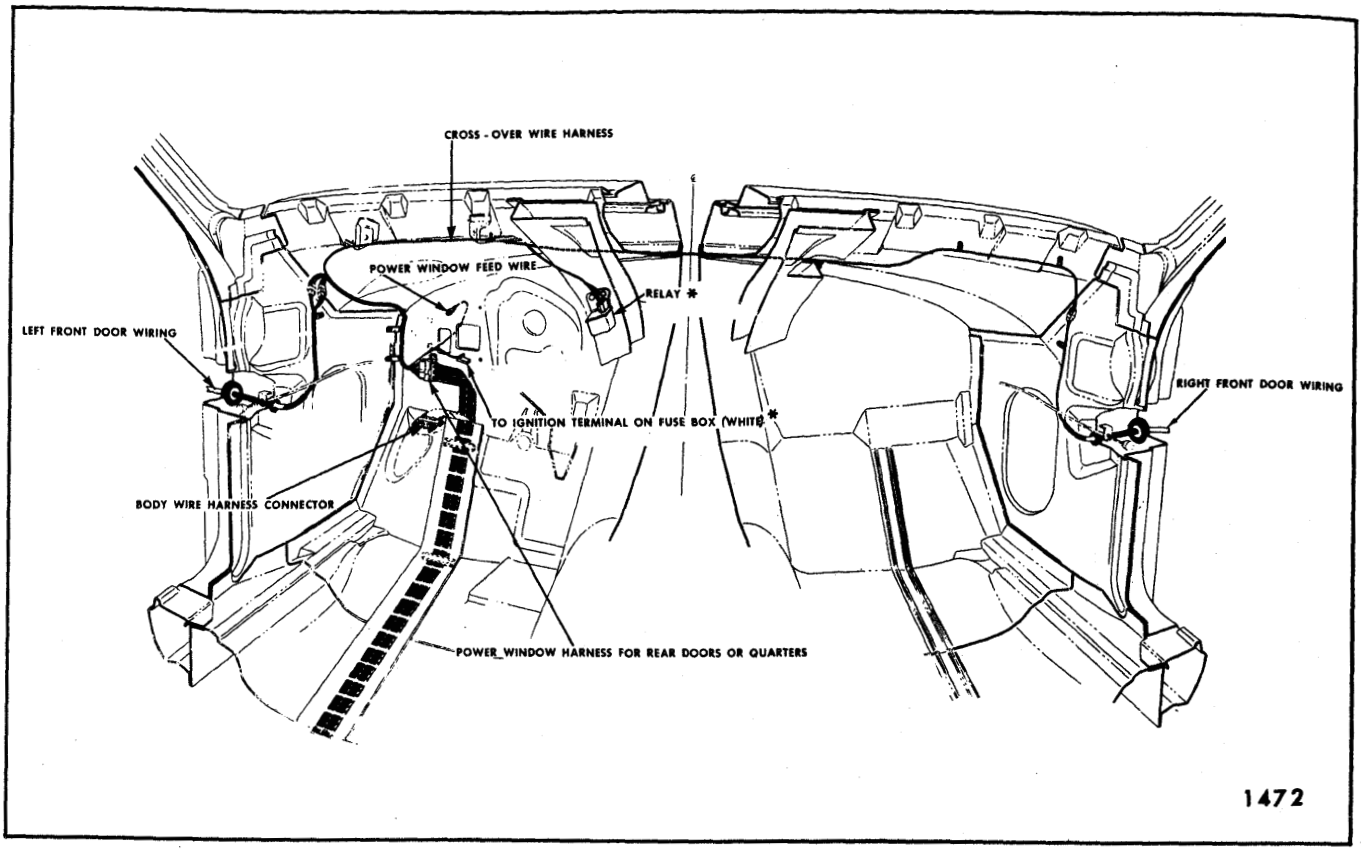


Fig. 11-6—Front End Power Window Wiring - All "A" Body Styles

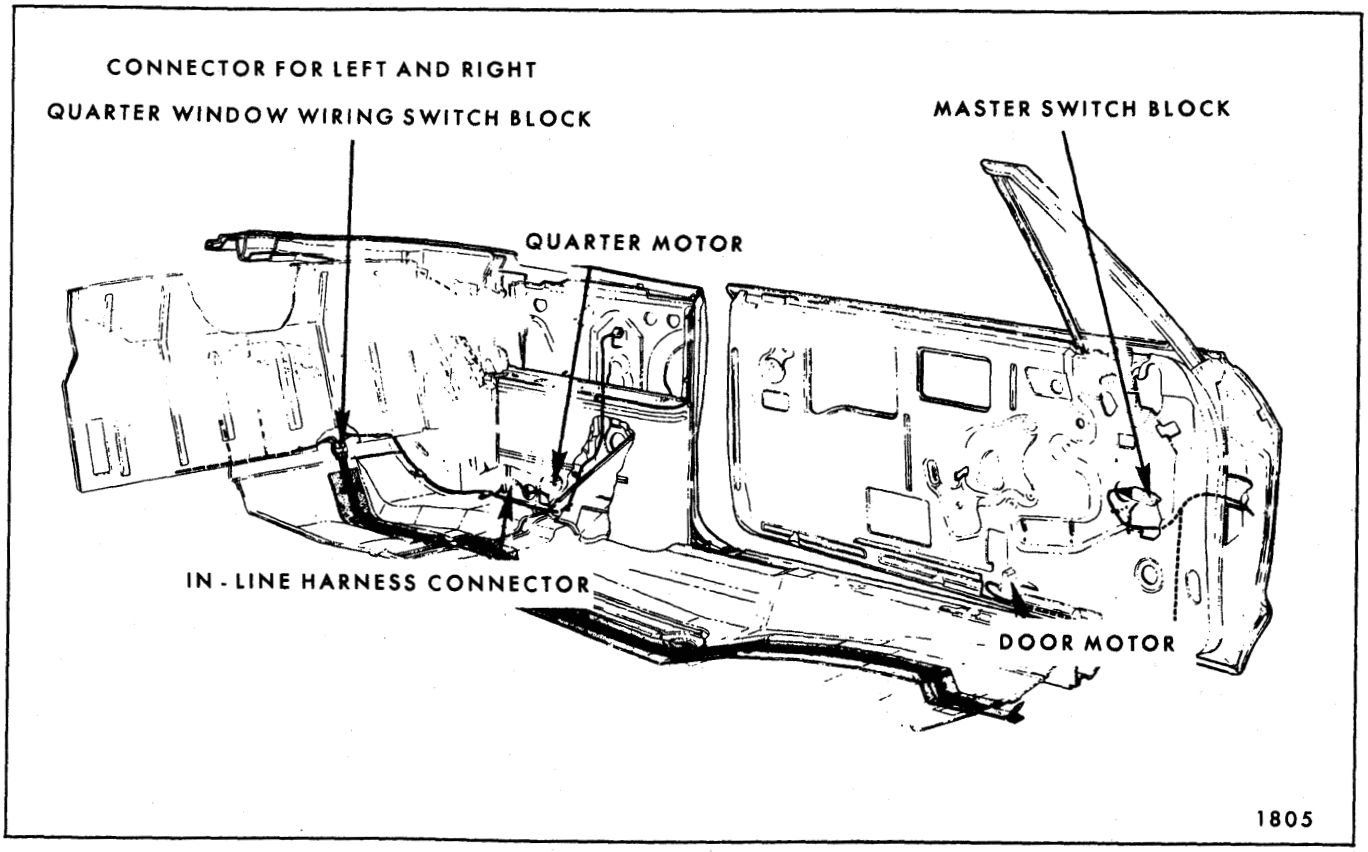


Fig. 11-7—Left Side Power Window Wiring - 67 "B & C" Styles

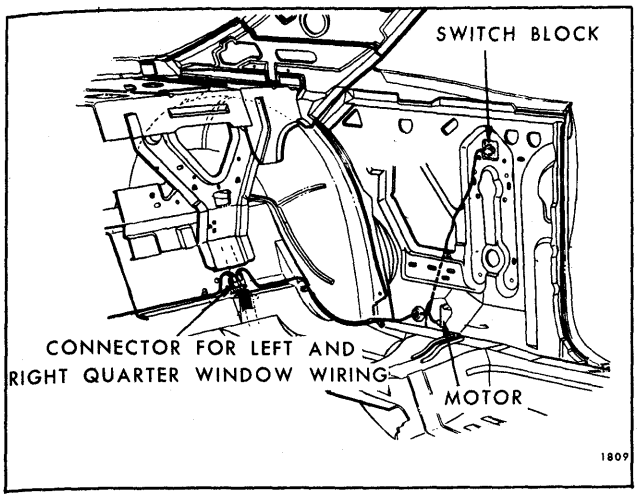


Fig. 11-8—Rear Quarter Power Window Wiring - "B & C" 37 Styles

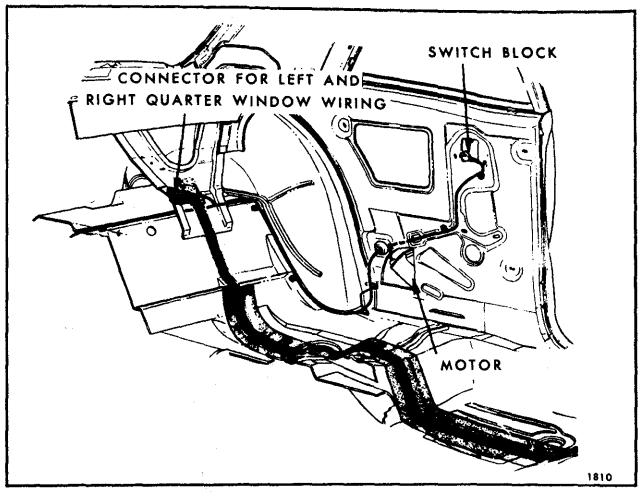


Fig. 11-9—Rear Quarter Power Window Wiring - "B-11" Style

Quarter Window Harness

The left and right round wire harness connects to the main flat feed harness behind the rear quarter arm rest foundation on convertible styles except on Cadillac series and under the rear seat cushion on "07-17 and 37" styles. On Cadillac, "57 and 67" styles the round wire harness connects to the flat wire at the forward end of the rear quarter arm rest assembly.

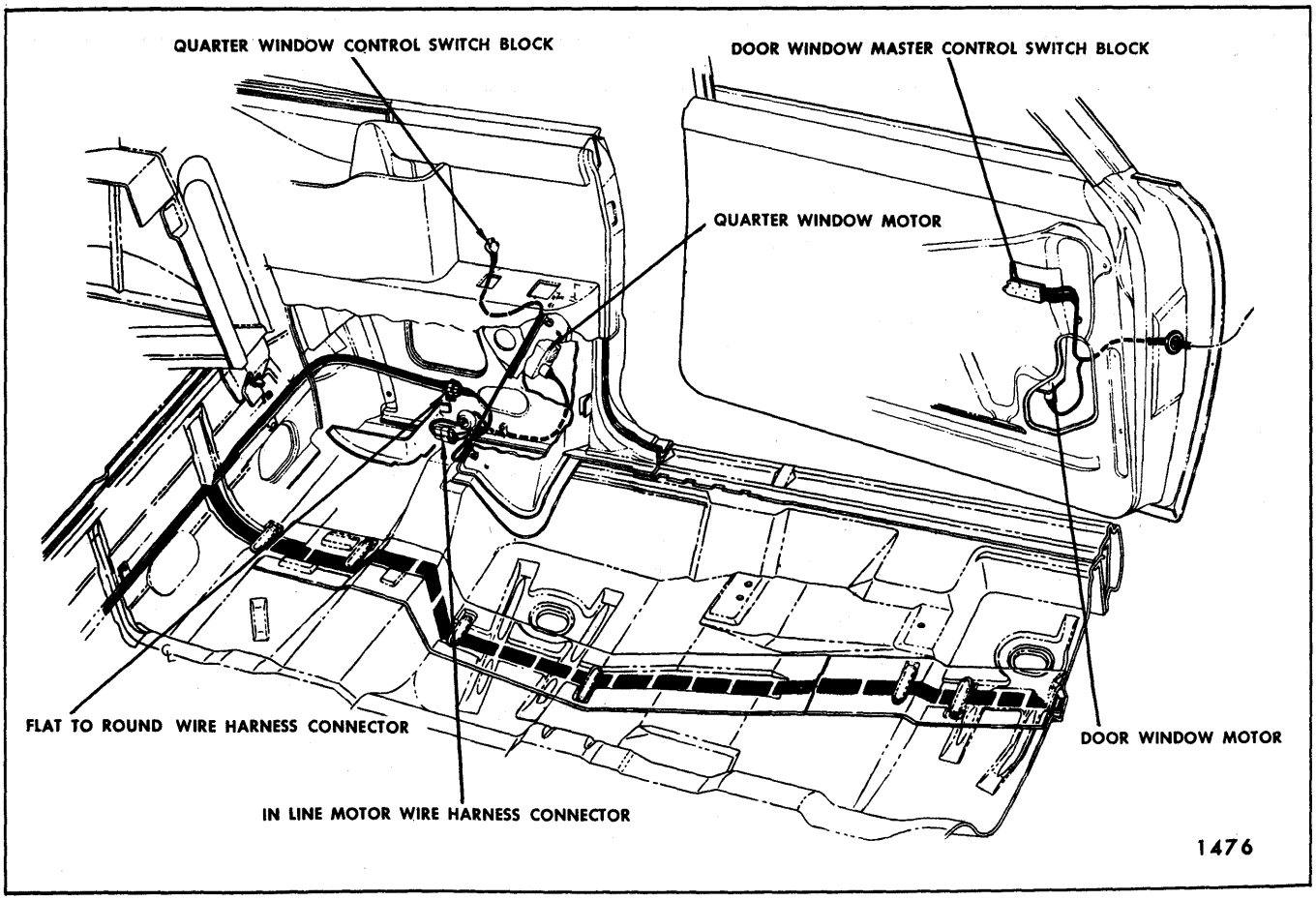


Fig. 11-10—Left Side Power Window Wiring - "A" 67 Styles

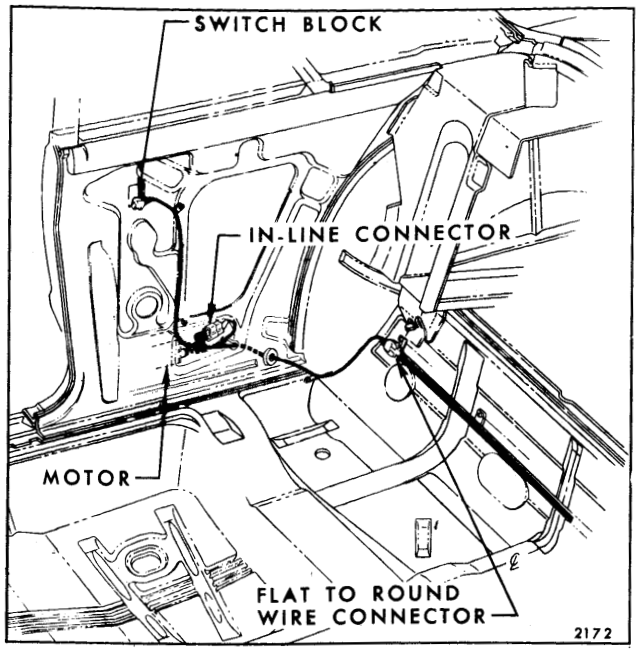


Fig. 11-11—Rear Quarter Window Wiring - "A" Coupe Less 67 Styles

Rear Door Window Harness

The left and right rear door harness connects to the main flat feed harness in the base of the center pillar. To disengage the connector, pull harness inboard at base of center pillar for accessibility.

Power windows are operated by a rectangular shaped 12 volt series-wound motor with an internal circuit breaker and a self-locking rubber coupled gear drive. The harness to the door window motor connector is designed with a locking embossment to insure a positive connection. When disengaging the harness connector from the door motor, it is necessary to depress the thumb release. When installing the harness, the thumb release must be held depressed until the embossment on the female connector is locked in the hole of the motor connector.

Some rear quarter window motors and ventilator motors are designed with a locking type connector which should not be disengaged. When testing or removing the motor, the in-line connector located inboard of the inner panel should be disengaged.

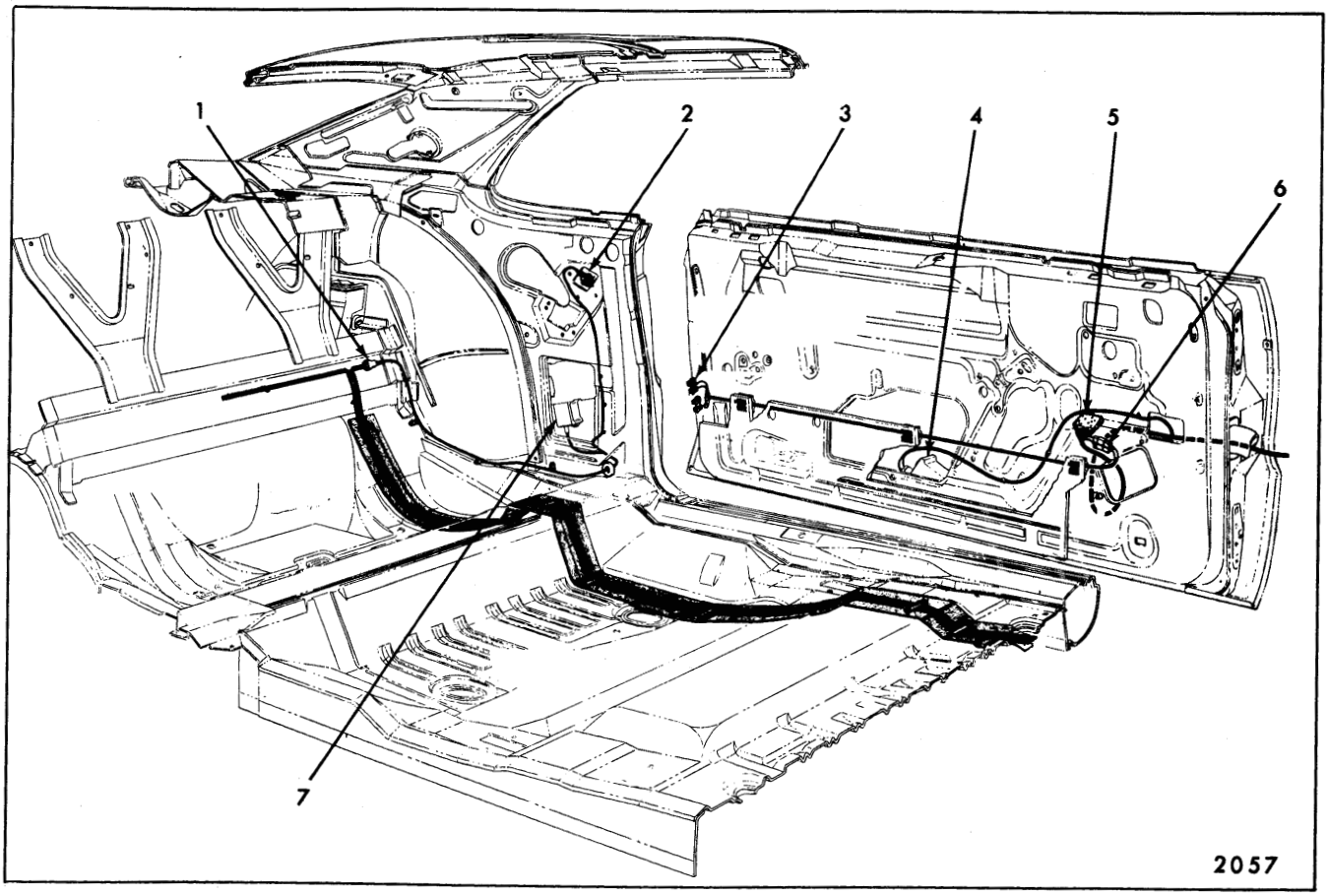


Fig. 11-12—Left Side Power Window Wiring - Oldsmobile "E" Optional

1. Flat to Round Wire Connector
2. Quarter Window Switch Block
3. Optional Door Courtesy Lamp
4. Door Window Motor
5. Master Control Switch Block
6. Door Courtesy Lamp Connector
7. Quarter Window Motor

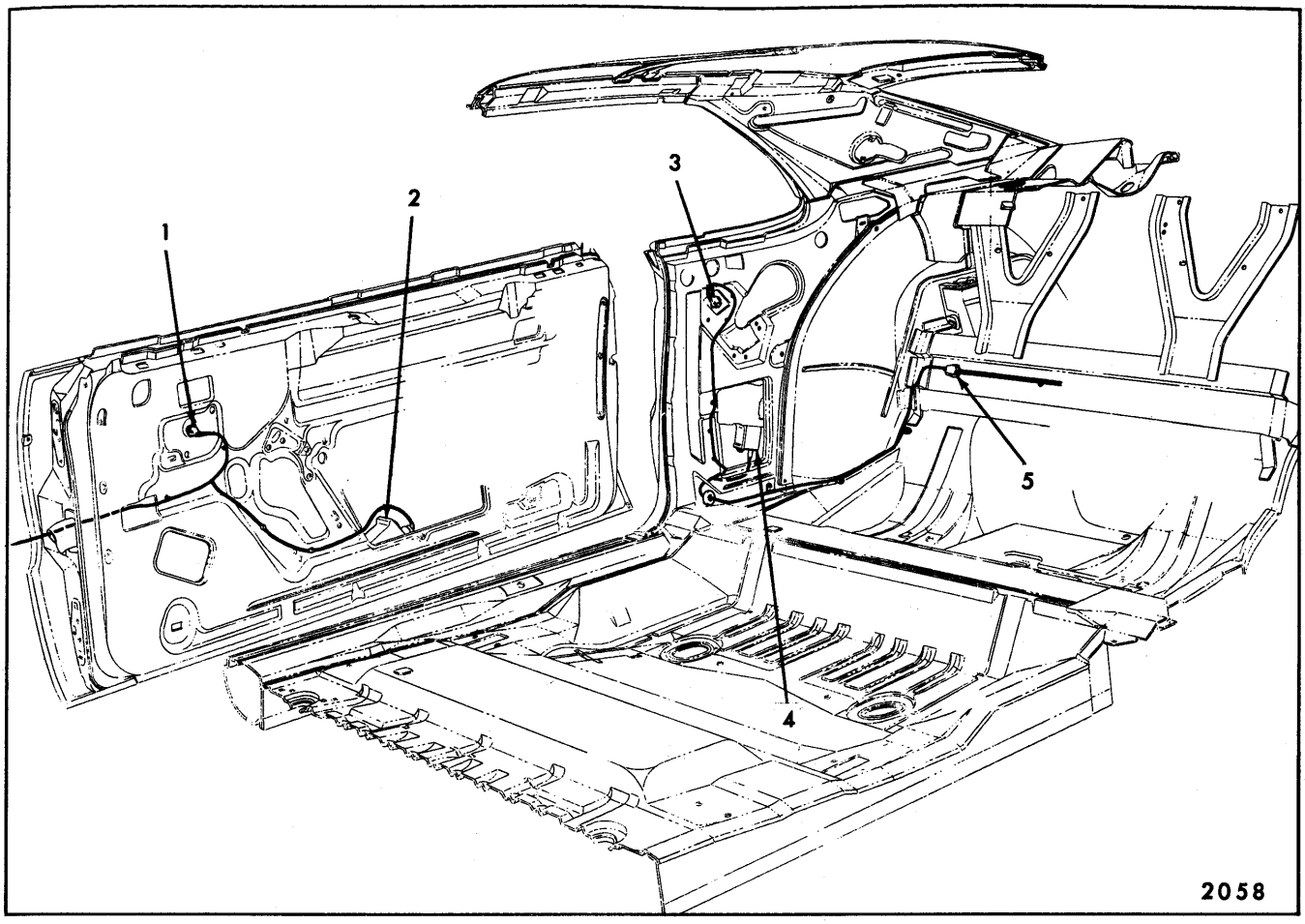


Fig. 11-13—Right Side Power Window Wiring - Oldsmobile "E" - Standard

1. Door Window Switch Block
2. Door Window Motor
3. Quarter Window Switch Block
4. Quarter Window Motor
5. Flat to Round Wire Connector

Tests are made at this location on those styles. The power window circuit is protected by a circuit breaker. Refer to electrical introduction for specific locations.

Relay

Oldsmobile and Cadillac styles only - In addition to the circuit breaker, a relay is used in the circuit. The relay prevents the operation of the power windows until the ignition switch is turned "on".

Cut-Out Switch

A cut-out switch (Cadillac styles only) installed on the left front door arm rest, is designed to temporarily by-pass the relay circuit so the windows may be operated only from the master control switch when the ignition is in the off position.

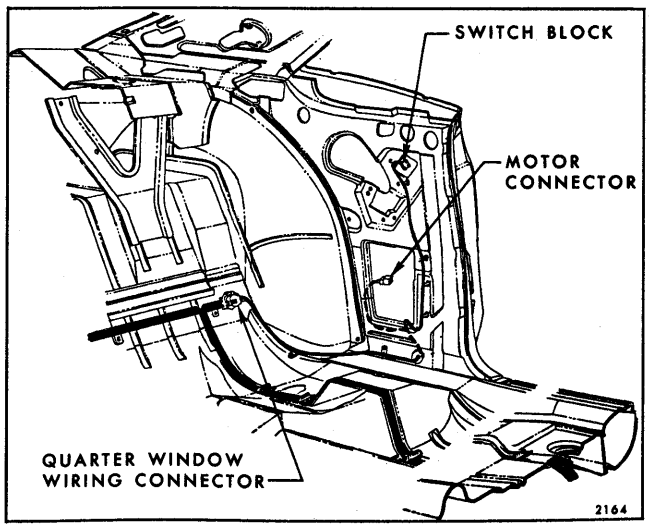


Fig. 11-14—Rear Quarter Power Wiring - Buick "E"

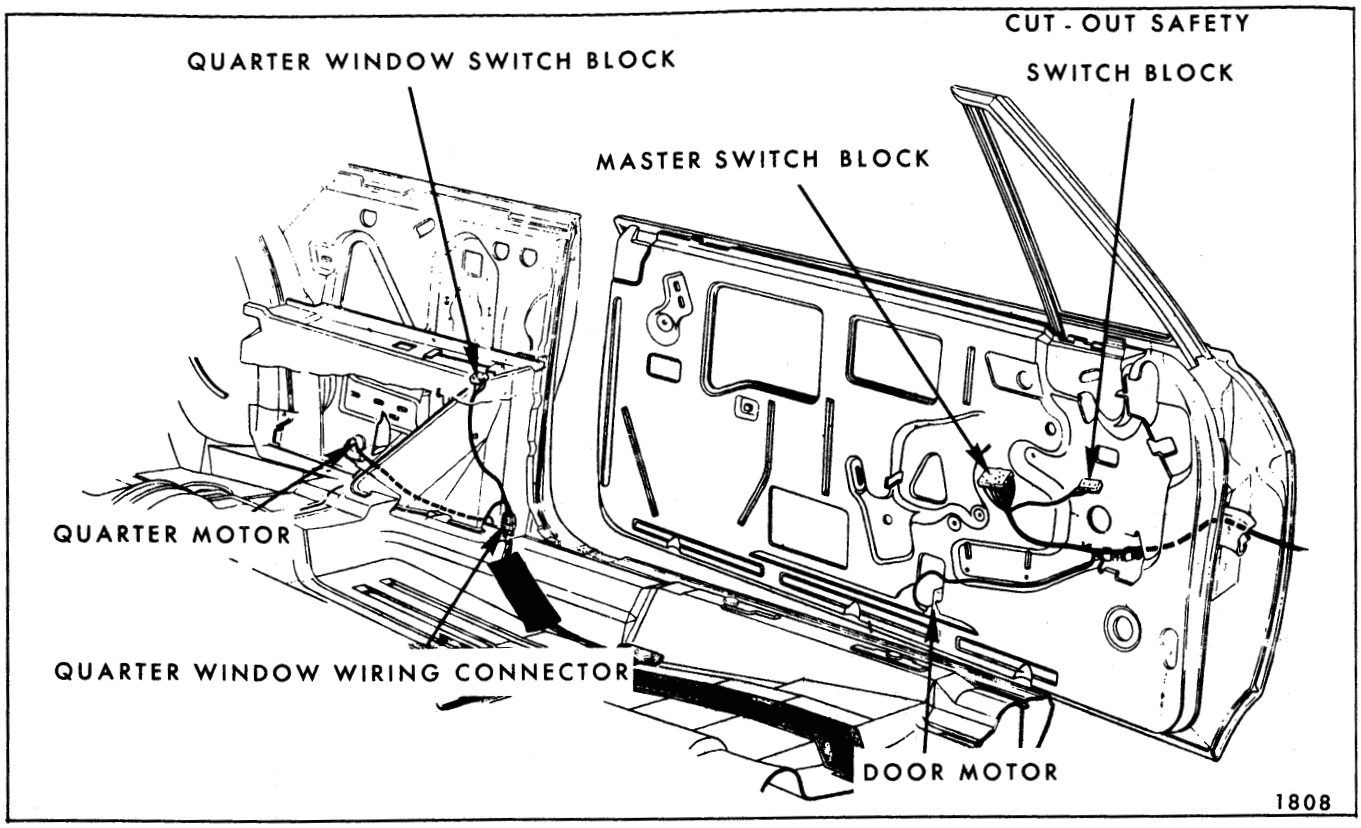


Fig. 11-15—Left Side Power Window Wiring - Cadillac "57" Styles

To perform this operation, the cut-out switch control button is held in the "EMERG" position while the master control switch buttons are actuated. When the cut-out button is released, the button will return to the "NORMAL" position.

The cut-out switch button should be set in the "LOCK" position when ignition switch is "ON" to permit normal operation of power windows from all switch locations. If the control button is left in the "NORMAL" position with the ignition switch on, the windows will operate only from the master control switch.

Power Window Circuit Checking Procedures

Failures in a circuit are usually caused by short circuits or open circuits. Open circuits are usually caused by breaks in the wiring, faulty connection or mechanical failure in a component such as a switch or circuit breaker. Short circuits are usually caused by wires from different components of the circuit contacting one another or by a wire or component grounding to the metal of the body due to a screw through the wire, insulation cut through by sharp metal edge, etc.

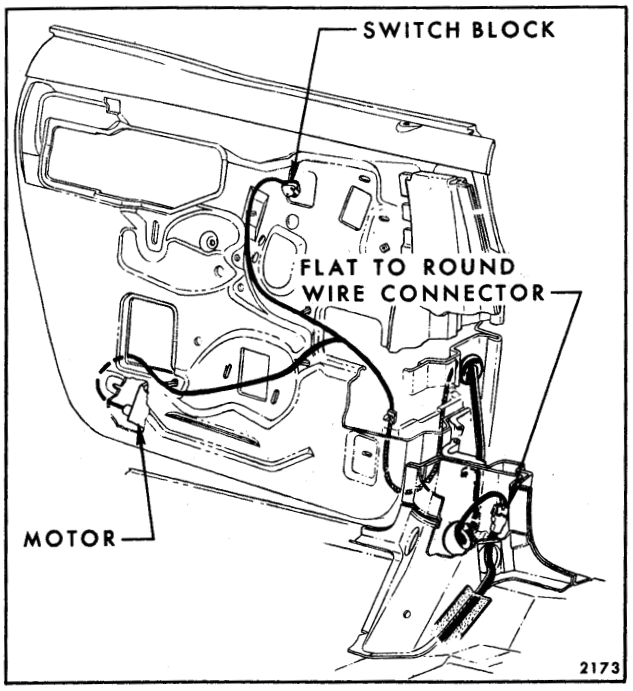


Fig. 11-16—Left Rear Door Power Window Wiring - "A"-39 Styles

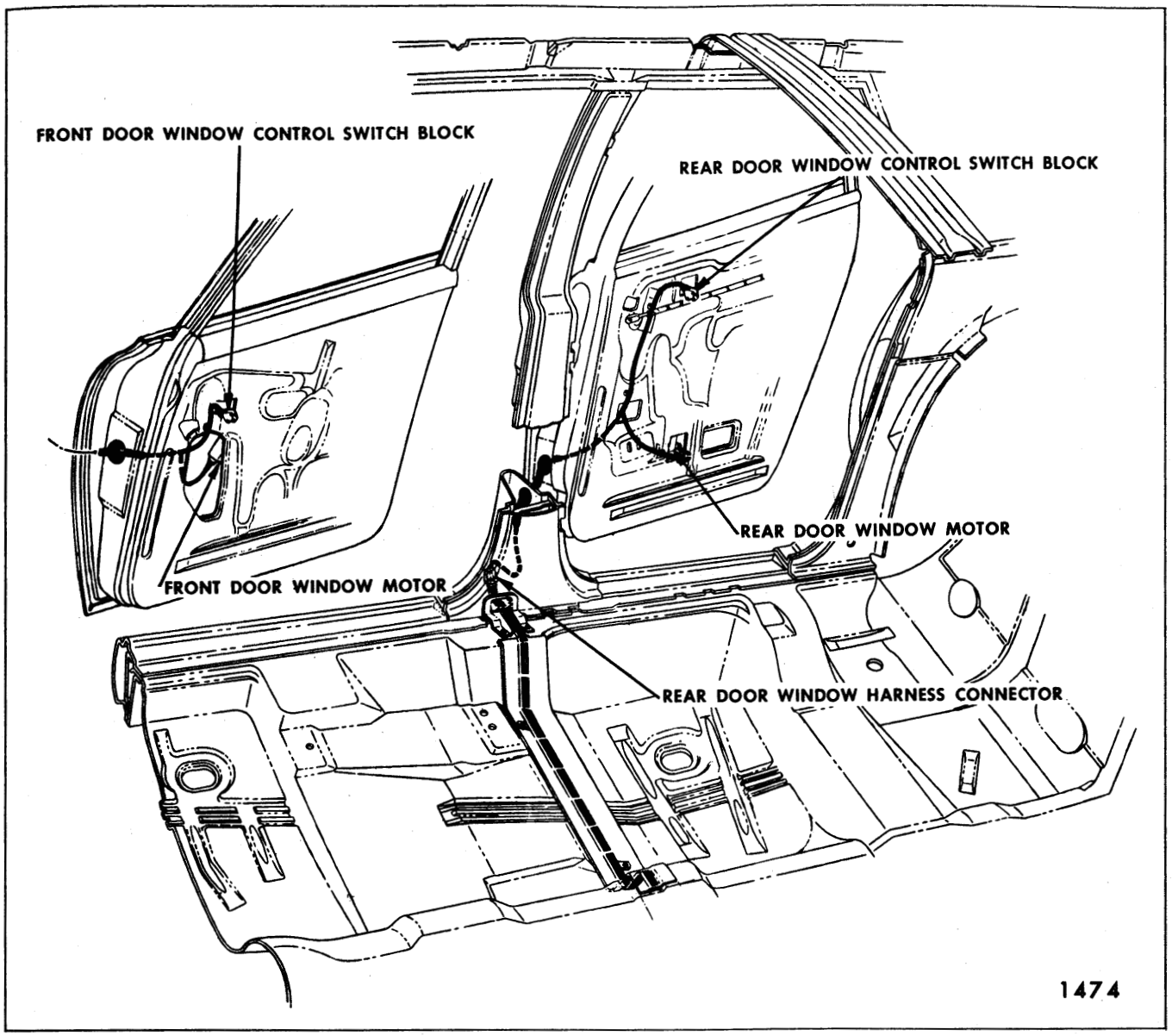


Fig. 11-17—Right Side Power Window Wiring "A" 35-55-65 and 69 Styles

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Be sure to check the harness connectors for proper engagement and become familiar with the typical circuit diagrams. (See Figs. 11-23 through 11-30).

Circuit diagram of 4 door styles is shown but basic circuitry and color code is similar on two door styles.

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker, disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker and with test light, check terminal from which wire was disconnected. If tester does not light, circuit breaker is inoperative.

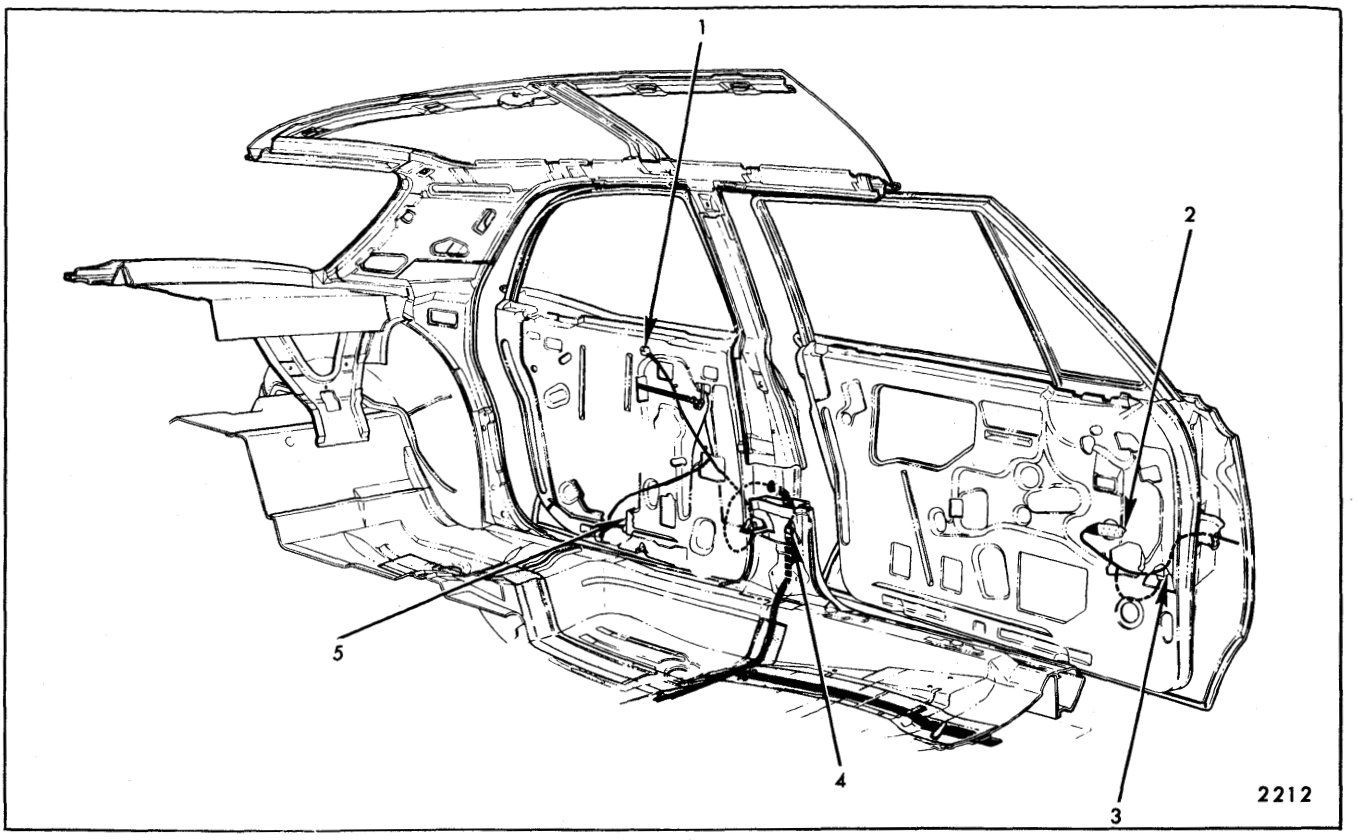


Fig. 11-18—Left Side Power Window Wiring - "B & C" Four Door Styles

1. Switch Block
2. Master Switch Block
3. Front Door Motor
4. Rear Door Window Wire Harness Connector
5. Rear Door Motor

b. Checking Relay Assembly at Shroud—Oldsmobile and Cadillac Only

1. With test light, check relay feed. If tester does not light, there is an open or short circuit between relay and circuit breaker.

2. Turn ignition switch on and with test light check output terminal of relay. If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch and relay assembly. (Check fuse at dash panel).

c. Checking for Current at Cut-Out Switch—Cadillac Only

1. Connect one test light lead to relay by-pass (over ride) terminal (orange-black stripe) of the switch block and ground other test lead.

2. If tester does not light, there is an open or short circuit between by-pass feed source and cutout switch.

NOTE: Current should be present whether ignition is "on" or "off".

3. With ignition switch on, connect one test light lead to the master window control switch feed terminal (red-white stripe) of the switch block and ground other test lead.

4. If tester does not light, there is an open or short circuit between the relay and cut-out switch.

d. Checking Cut-Out Switch—Cadillac Only

1. With ignition switch off, connect one end of a #12 gauge jumper wire to by-pass feed terminal (over-ride) (orange-black stripe) and the other end to the center terminal (master control switch feed - red-white stripe).

2. Operate master control switch. If windows operate with jumper wire but not with the cut-out switch, the by-pass side of the switch is defective.

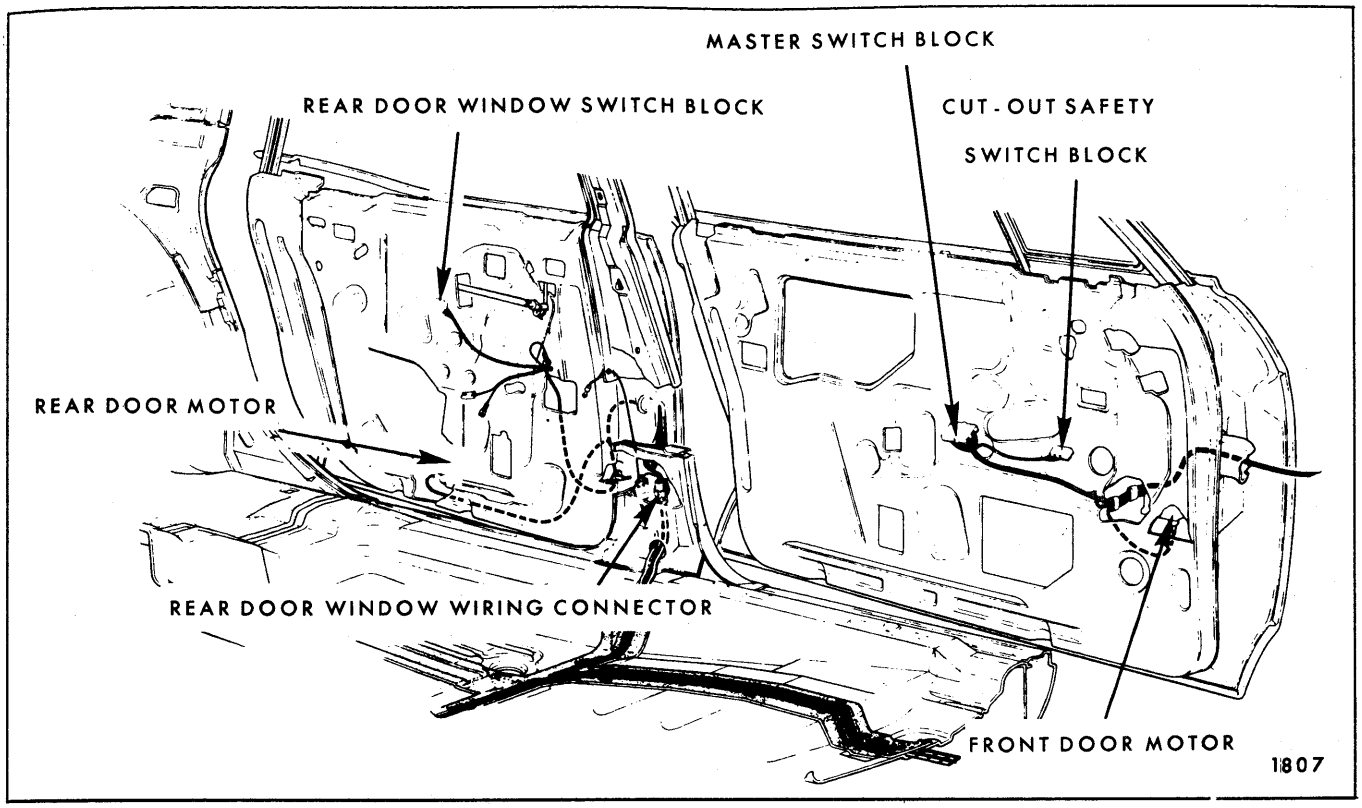


Fig. 11-19—Left Side Power Window Wiring - Cadillac "39-69" Styles

3. With the ignition switch on, connect one end of a #12 gauge jumper wire to center terminal (master control switch feed - red-white stripe) and the other end in the right and left rear quarter or door and right front door feed terminal (pink-black stripe).

4. Operate control switches. If any of the windows operate with the jumper but not with the cut-out switch, the switch is defective.

e. Checking Feed Circuit Continuity at Window Control Switch

1. Connect one test light lead to feed terminal of switch block and ground other tester lead to body metal (see Fig. 11-20).

2. If tester does not light, there is an open or short circuit between switch and power source.

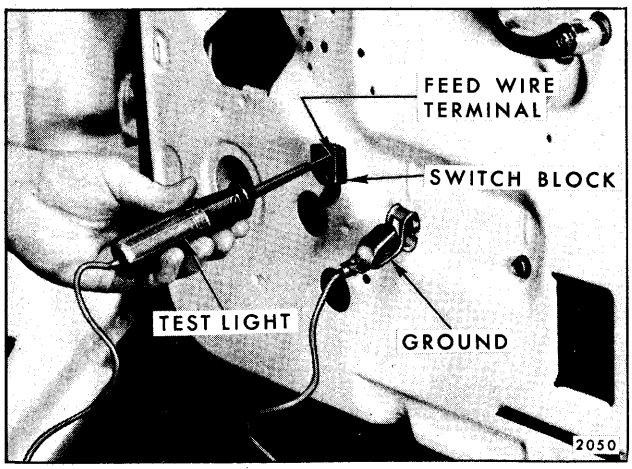


Fig. 11-20—Checking Feed Circuit

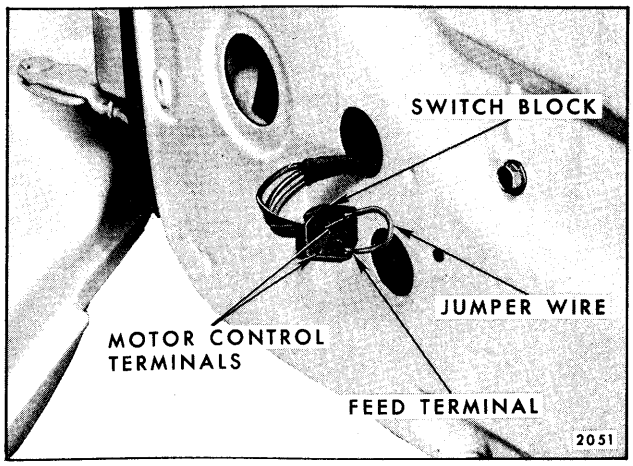


Fig. 11-21—Checking Window Control Switch

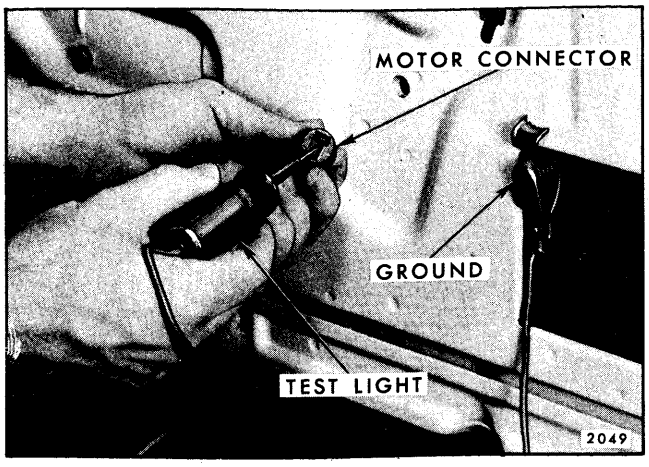


Fig. 11-22—Checking Circuit Between Switch and Motor

f. Checking Window Control Switch

1. Insert one end of a #12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block. Repeat this check on the remaining motor lead terminal (see Fig. 11-21).
2. If the window operates with the jumper wire, but does not operate with the switch, the switch is defective.

g. Checking Wires Between Door Window Switch and Door Window Motor

1. Disengage harness connector from window motor connector. The thumb release on the harness connector must be depressed before it can be disengaged from the motor.
2. Insert one end of a #12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block (see Figure 11-21).
3. With test light check for current at terminal being tested. If tester does not light, there is an open or short circuit in the harness between the control switch and motor connector (see Fig. 11-22).
4. Check other terminal.

h. Checking Wires Between Quarter Window Switch and Quarter Window Motor

1. Disengage the in-line connector located inboard of the quarter inner panel as required.
2. Insert one end of a #12 gauge jumper wire in the switch feed terminal and the other end in one of the motor lead terminals of the switch block (see Fig. 11-22).

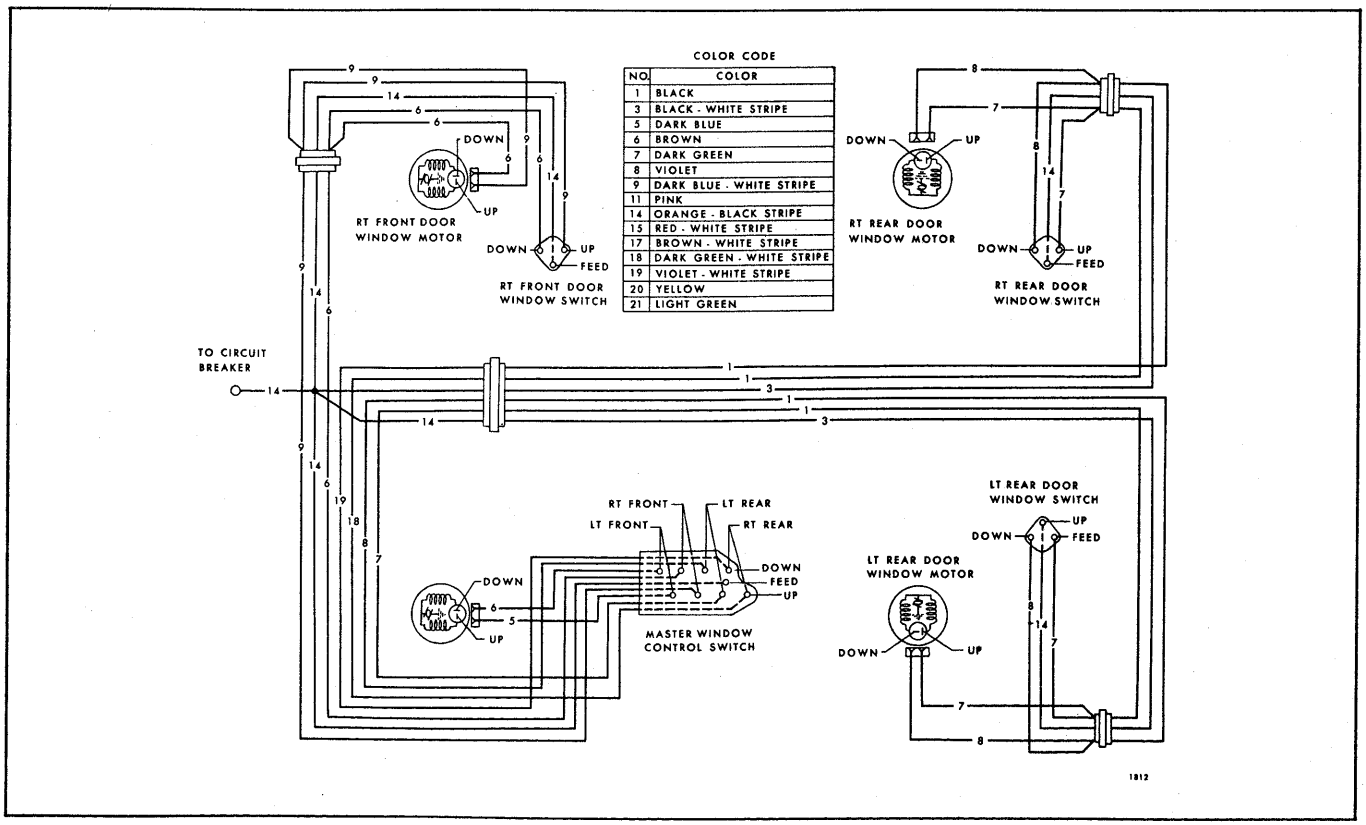


Fig. 11-23—Power Window Circuit Diagram - Chevrolet-Pontiac-Buick "B & C"

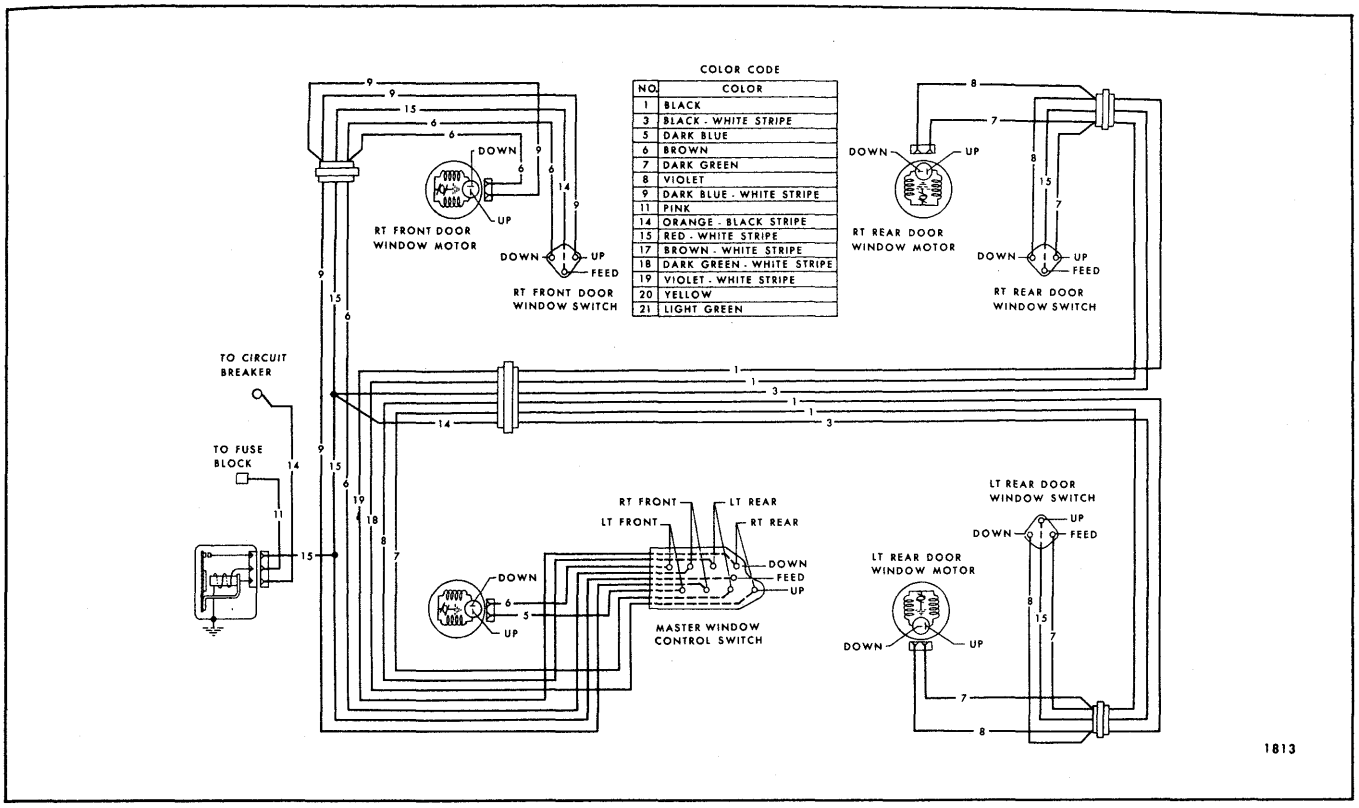


Fig. 11-24—Power Window Circuit Diagram - Oldsmobile "B & C"

3. With a test light, check for current at the corresponding terminal at the in-line motor connector. If tester does not light, there is an open or short circuit between control switch and motor connector.

4. Check other terminal.

i. Checking Window Motor

1. Check window regulator and channels for possible mechanical bind of window.

2. Check attachment of window motor to insure an effective ground.

3. Connect one end of a #12 gauge jumper wire to the power source and the other end to one of the terminals on the door window motor or the in-line connector for the quarter window motor.

4. If the motor fails to operate with a jumper wire, the motor is defective and should be repaired or replaced as required. Check the other motor lead in the same manner.

j. Typical Failures of Power Windows

The following typical failures and corrections have been listed as an aid for eliminating electrical failures in the power window electrical circuit. It should be noted that multiple failures in the circuit may lead to a combination of conditions, each of which must be checked separately.

CONDITION	CAUSE	CORRECTION
1. None of the windows will operate with ignition switch on.	Short or open circuit in power feed circuit.	A. Check circuit breaker operation. B. Check relay operation at left cowl. C. Check feed connection to power harness beneath instrument panel. D. Check the feed circuit wires for possible short or open circuit. E. Check cut-out switch.
2. Right rear door window does not operate from master control switch on left door or from control switches on right rear door. Left door window operates.	A. Short or open circuit between right rear door harness and power window front harness. B. Short or open circuit in affected window control switch or window motor circuit. C. Possible mechanical failure or bind in window channels. D. Defective window motor.	A. Check harness connectors beneath outer ends of instrument panel for proper installation. B. Check wires in power window front harness for possible short or open circuit. C. Check operation of rear door window control switch. D. Check circuit from window control switch to window motor for short or open circuit. E. Check window regulator and channels for possible mechanical failure or bind. F. Check operation of motor.
3. Right door windows will operate from left door master control switch but will not operate from right door control switches. Left door windows operate.	Open or short circuit in front harness feed wire circuit.	Follow up feed wire in front harness for possible short or open circuit.

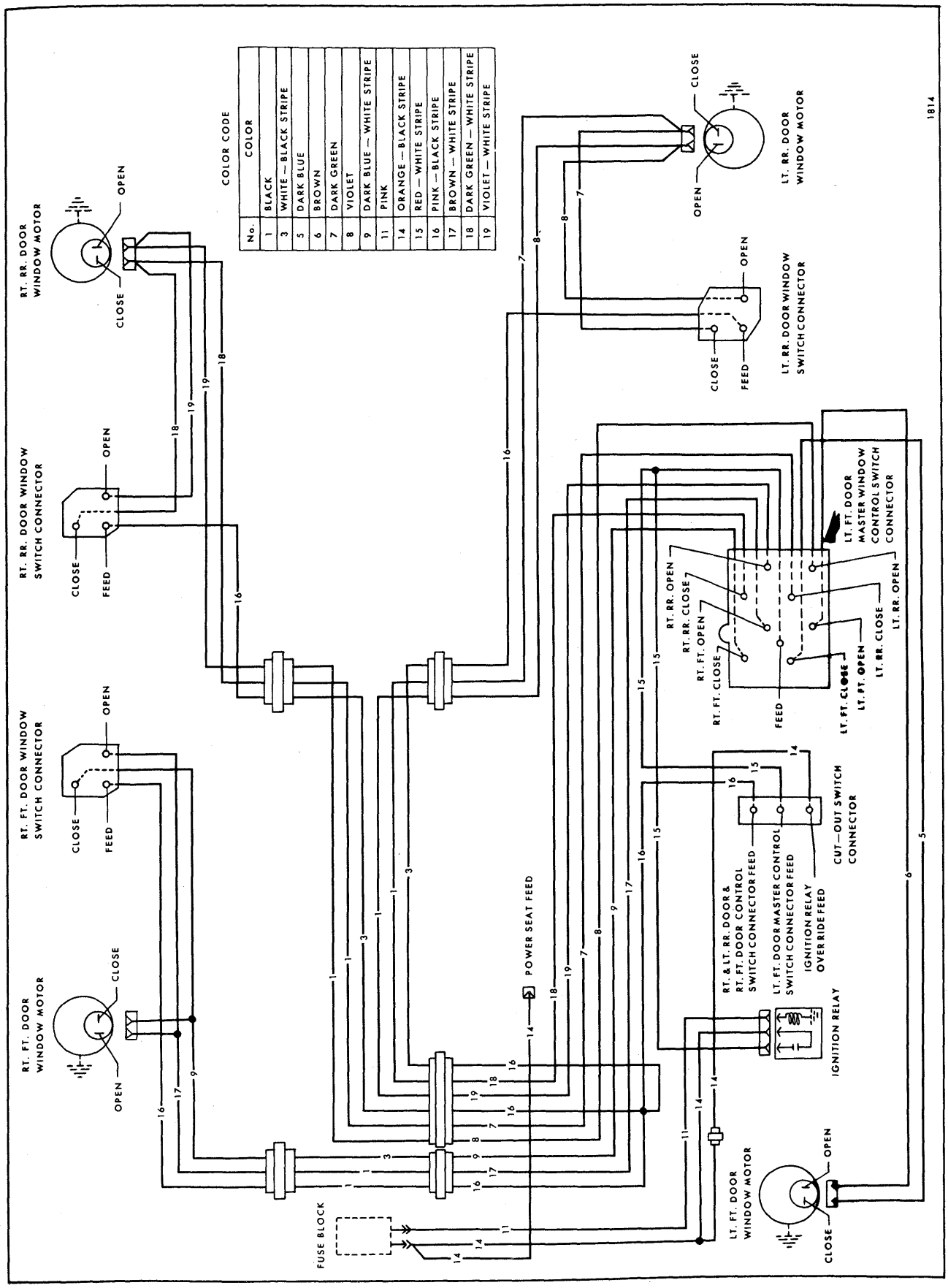


Fig. 11-25—Power Window Circuit Diagram - All Cadillac Except 68169

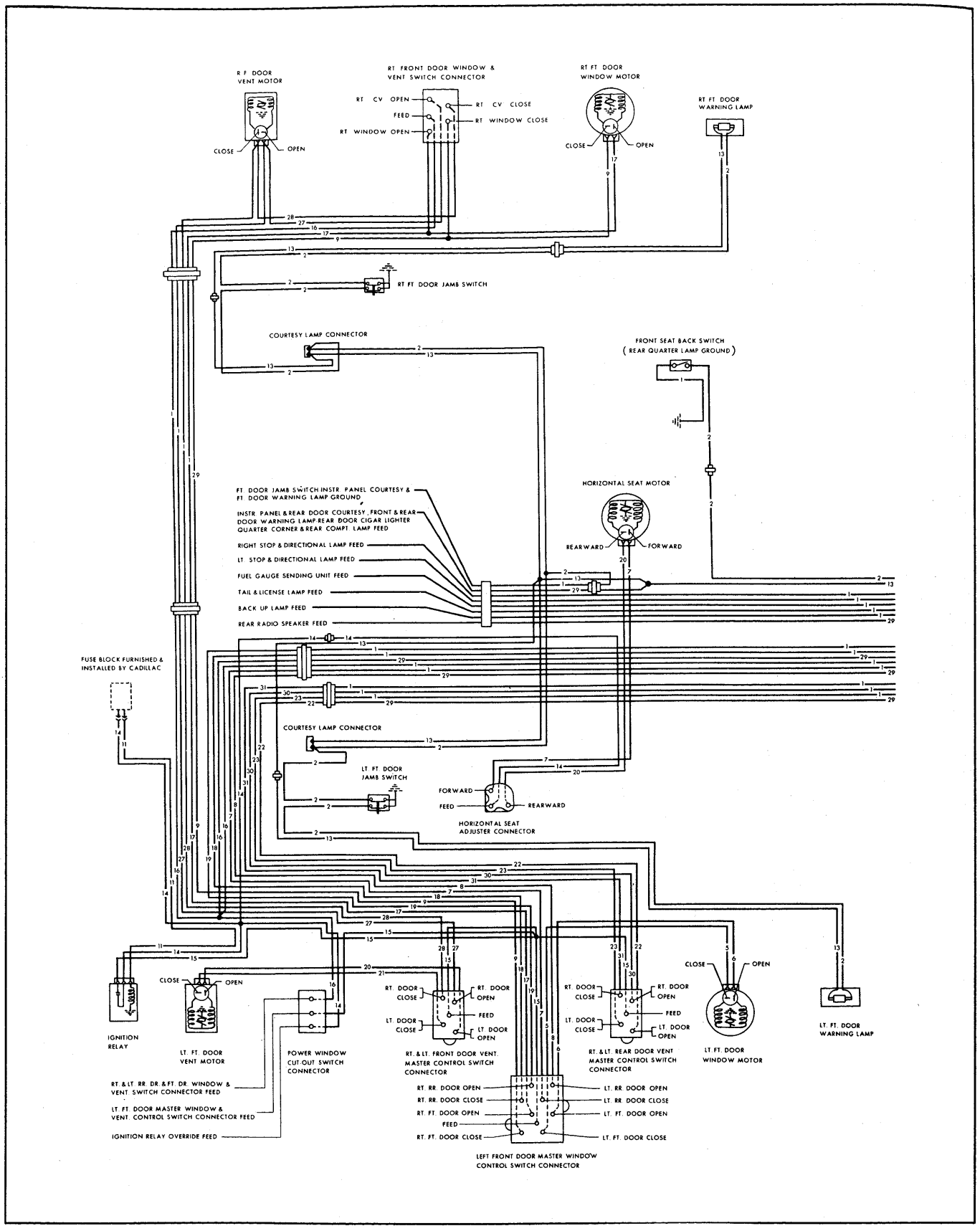
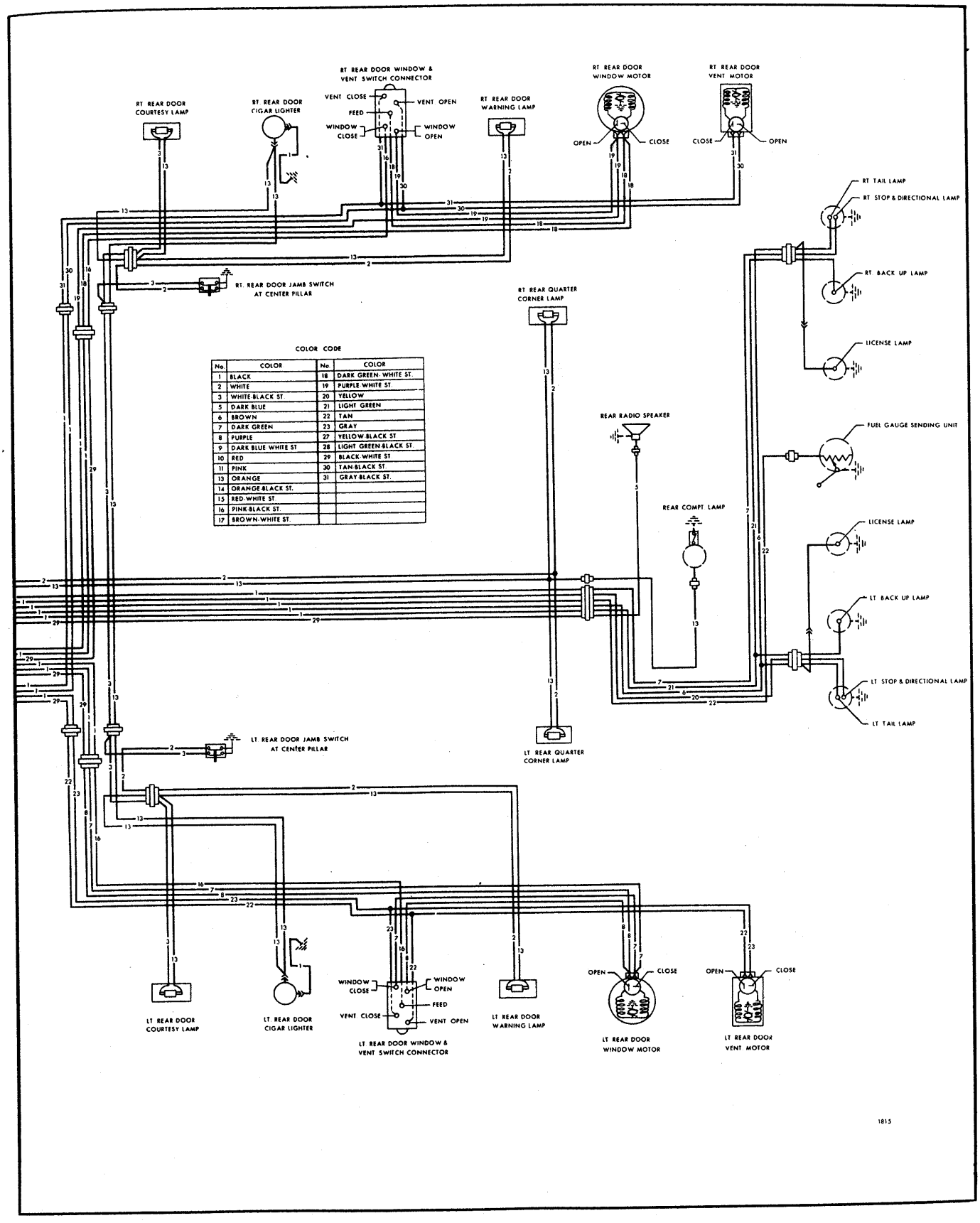


Fig. 11-26—Standard Body and Power Wiring Circuit Diagram - Cadillac 68169



COLOR CODE

No.	COLOR	No.	COLOR
1	BLACK	18	DARK GREEN-WHITE ST.
2	WHITE	19	PURPLE WHITE ST.
3	WHITE-BLACK ST.	20	YELLOW
5	DARK BLUE	21	LIGHT GREEN
6	BROWN	22	TAN
7	DARK GREEN	23	GRAY
8	PURPLE	27	YELLOW-BLACK ST.
9	DARK BLUE-WHITE ST.	28	LIGHT GREEN-BLACK ST.
10	RED	29	BLACK-WHITE ST.
11	PINK	30	TAN-BLACK ST.
13	ORANGE	31	GRAY-BLACK ST.
14	ORANGE-BLACK ST.		
15	RED-WHITE ST.		
16	PINK-BLACK ST.		
17	BROWN-WHITE ST.		

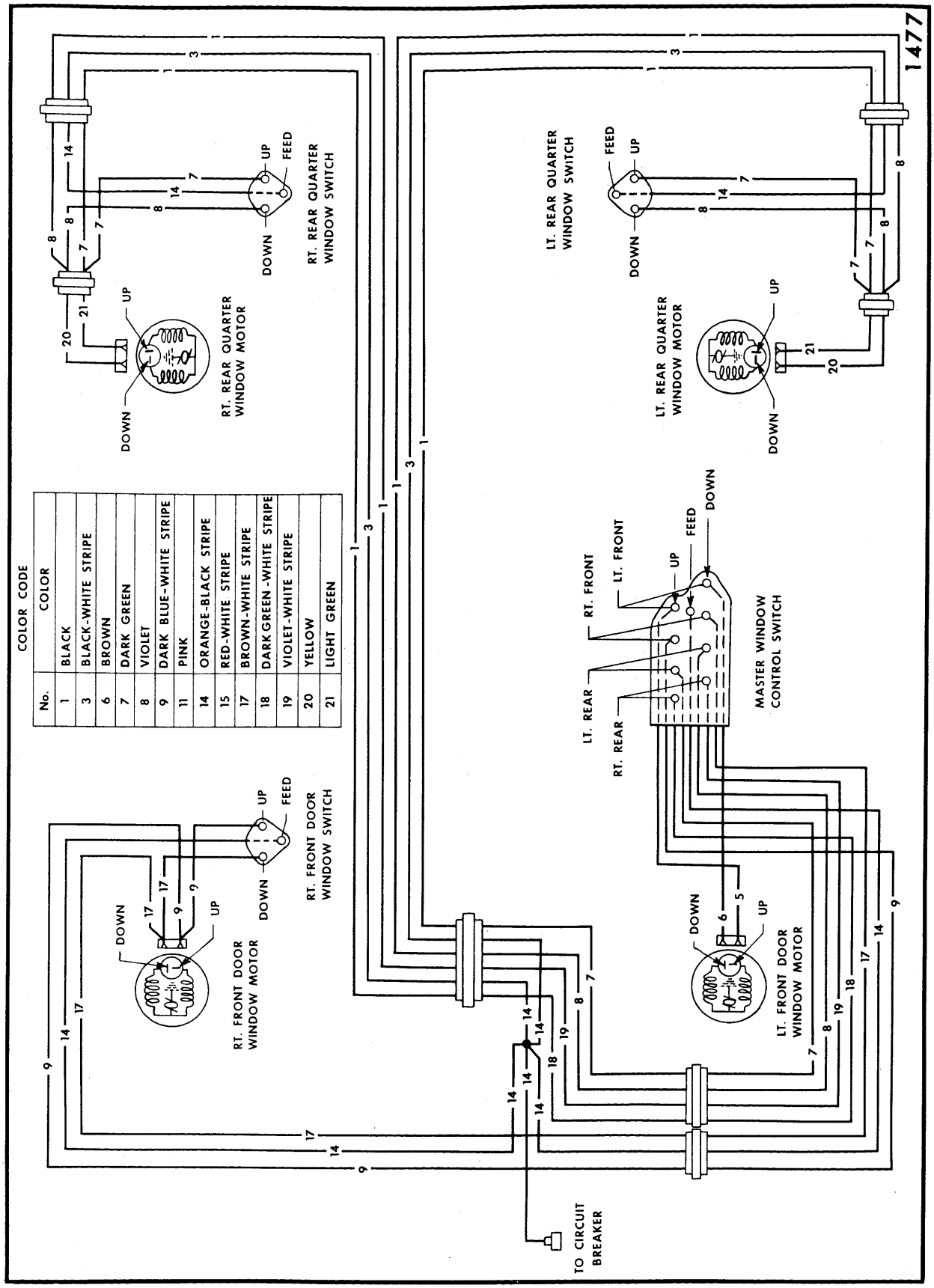


Fig. 11-27—Power Window Circuit Diagram - Chevrolet, Pontiac, Buick "A"

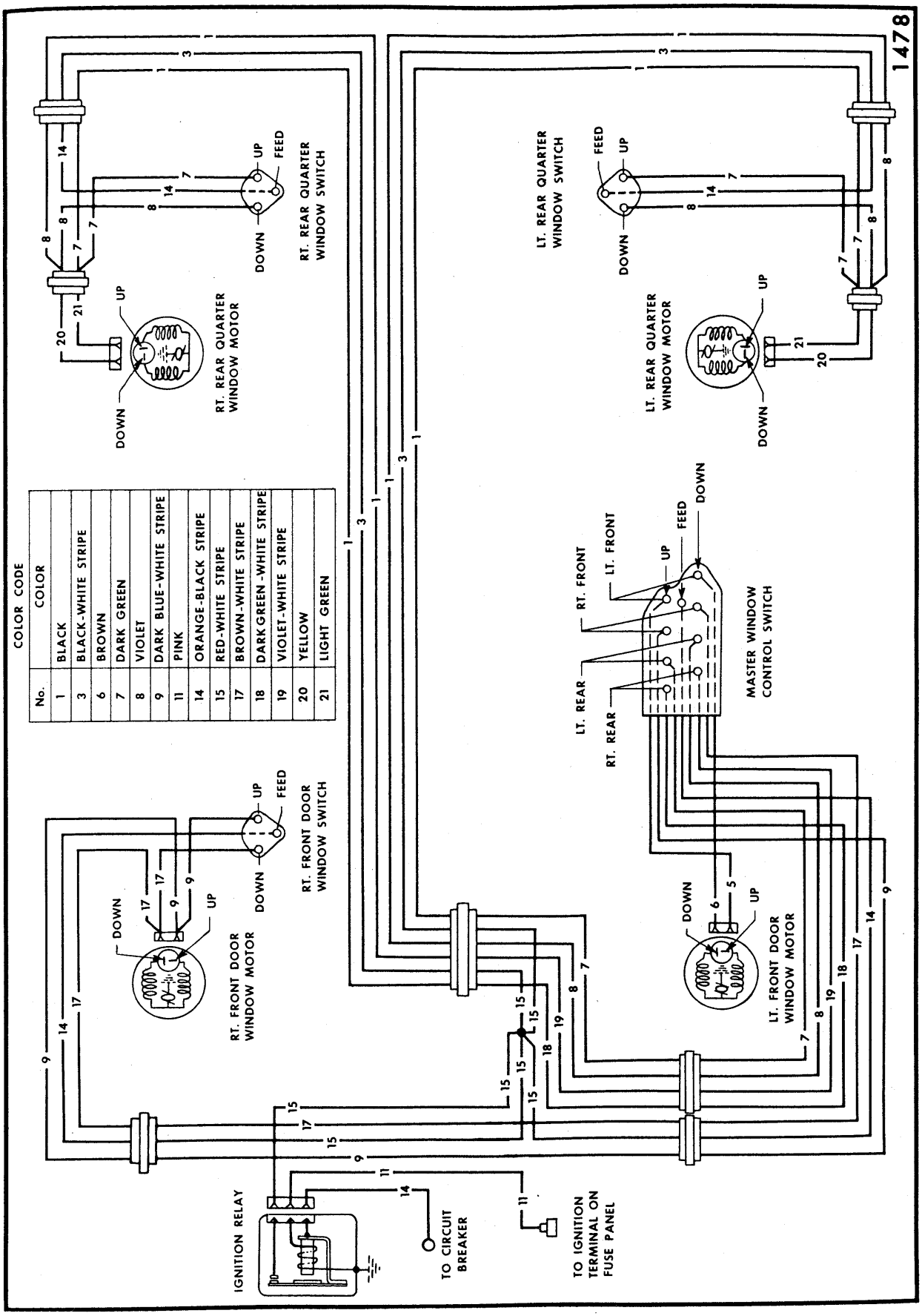


Fig. 11-28—Power Window Circuit Diagram - Oldsmobile "A"

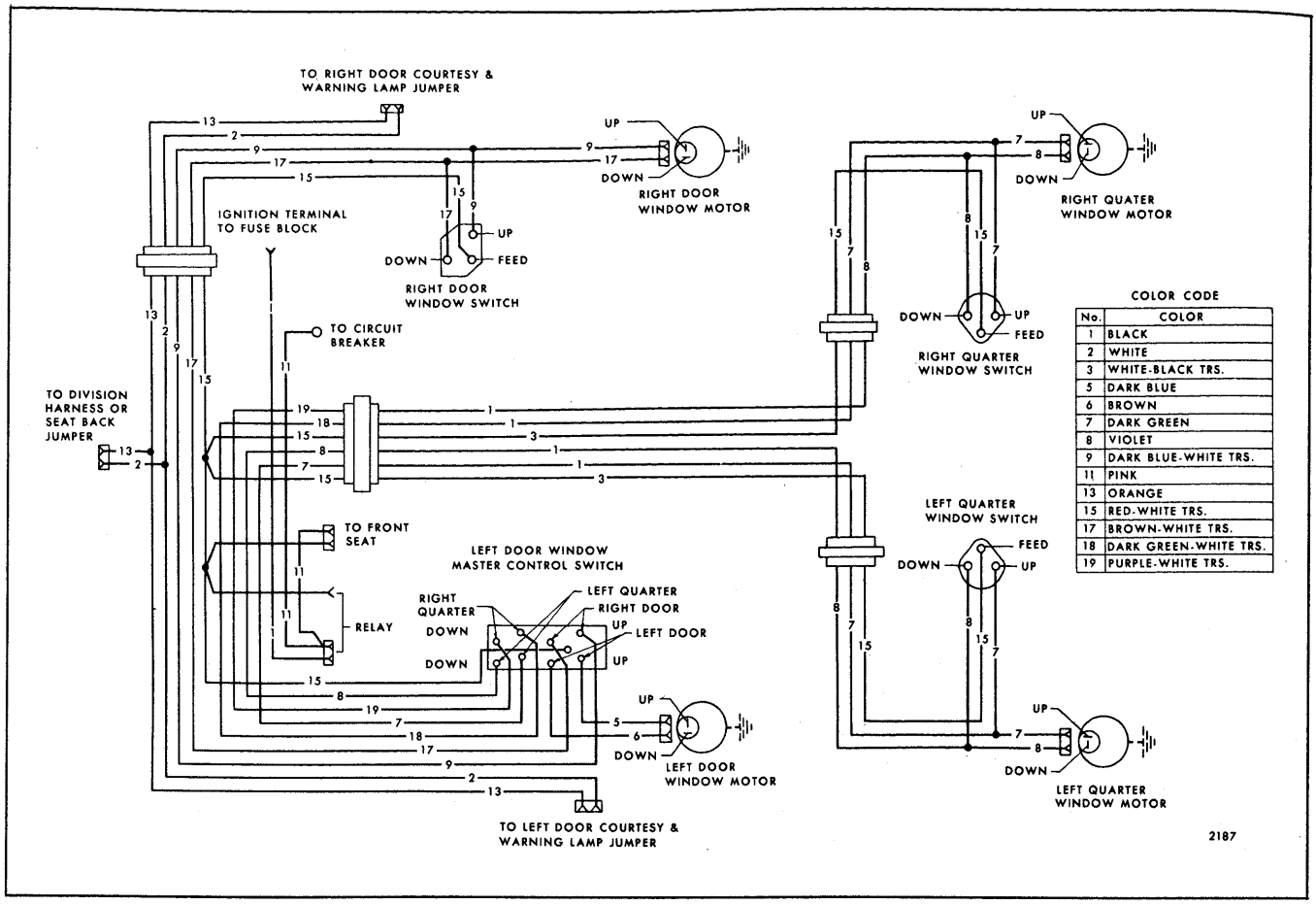


Fig. 11-29—Power Window Circuit Diagram - Oldsmobile "E"

POWER OPERATED VENTILATORS

The power ventilators are operated by a rectangular shaped 12 volt series-wound motor with an internal circuit breaker.

The power ventilator circuit is very similar to the power window circuit. The diagnosis outlined for the power windows may also be used in locating and correcting failures in the power ventilator circuit.

A typical illustration showing the ventilator installation is shown in Figure 11-31.

The harness for the ventilator circuit is separate in Pontiac styles. All other series the harness is an integral part of the power window harness.

Circuits for power ventilators are shown in Figures 11-32 and 11-33.

POWER OPERATED STATION WAGON TAIL GATE WINDOW

Electrical Tail Gate Window Circuit

The station wagon style power operated tail gate window is controlled by a window regulator assembly, equipped with a rectangular shaped, 12 volt D.C., reversible direction motor with an internal circuit breaker and a self-locking gear drive.

In addition to the internal circuit breaker the wiring circuit is protected by a 40 amp circuit breaker (see Electrical Introduction for locations).

Oldsmobile Styles - In addition to the circuit breaker, a relay is used in the circuit and installed at the shroud. The relay prevents the operation of the tail gate window from the instrument panel switch, until the ignition switch is turned "on".

The window may be operated from the instrument panel control switch, or from the tail gate window lock cylinder which rotates to raise or lower the window.

Chevrolet Styles - On the nine passenger station wagon styles, a tail gate window control switch is located at the rear of the left rear quarter inner trim panel (see Fig. 11-34).

NOTE: The "up" cycle wire is not engaged in the switch block but may be connected upon owner request.

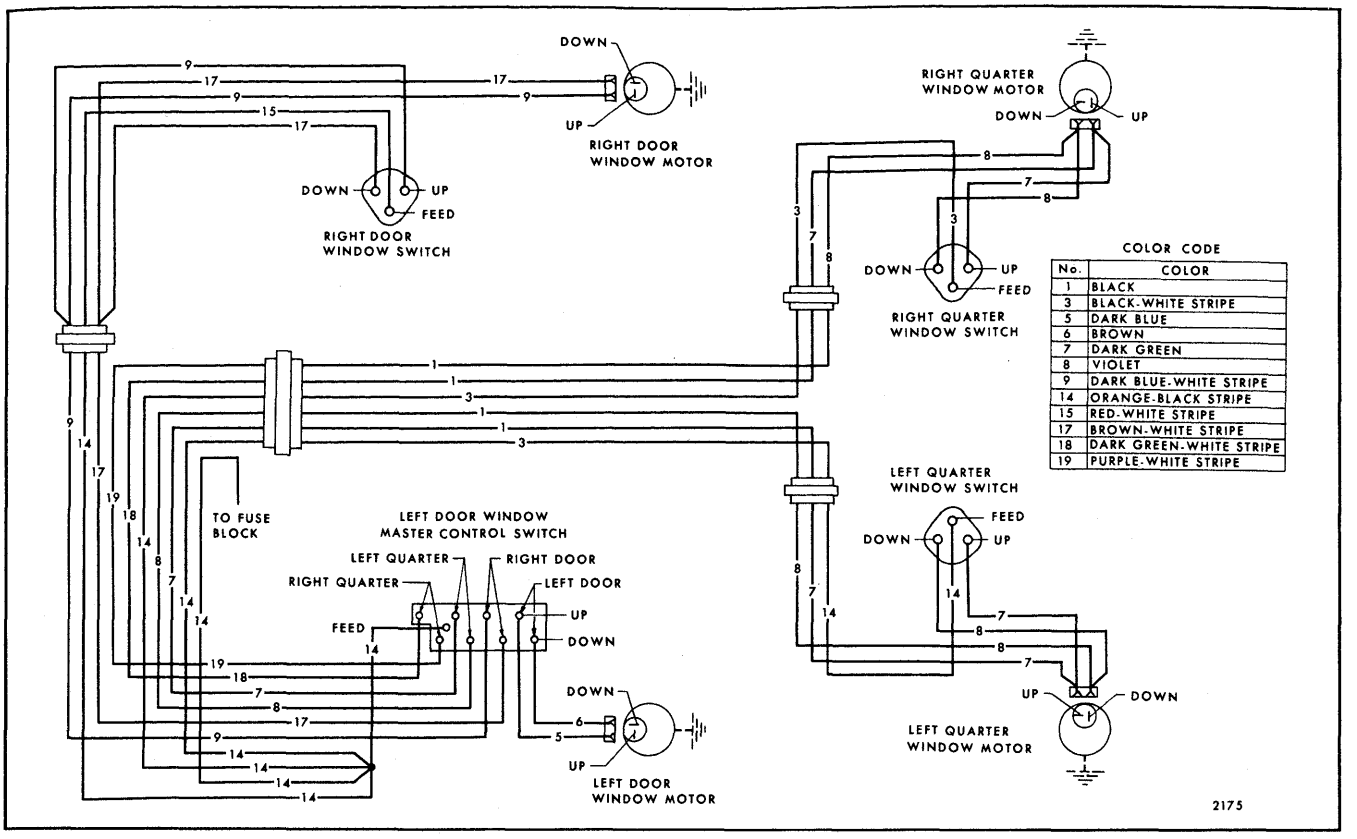


Fig. 11-30—Power Window Circuit Diagram - Buick "E"

To prevent the window from being operated to the up position when the tail gate has been lowered, a safety switch is located on the tail gate lock pillar. The safety switch opens the ground circuit of the tail gate window motor, making it inoperative. See tail gate views.

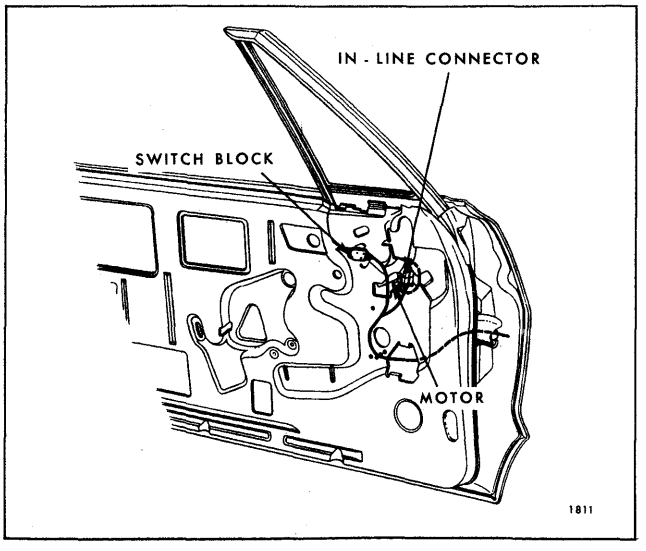


Fig. 11-31—Typical Power Ventilator Wiring

On all "A & B" Bodies - the tail gate window harness runs adjacent to the body wire and consists of two major sections. The front section of flat wire extends from the left center of the toe pan (Fig. 11-35 and 11-36), rearward and connects to the rear harness at the right rear quarter area (see Figs. 11-37, 11-38, 11-39). The rear cross bar wiring is shown in Figures 11-40, 11-41 and the tail gate wiring is shown in Figures 11-42, 11-43 and 11-44.

On Chevrolet "X" Bodies - The tail gate window harness is a component part of the body wiring harness which consists of two sections (front and rear) see Figures 11-45, 11-46, 11-47 and 11-48.

Checking Procedure

Before performing an intensive checking procedure to determine any failure of the circuit, check all the connectors for proper installation. The checking procedures below may be used to check the operation of a switch or motor after the cause of the electrical failure has been isolated to a particular part of the circuit. Refer to the circuit diagrams. See Figures 11-49, 11-50 and 11-51.

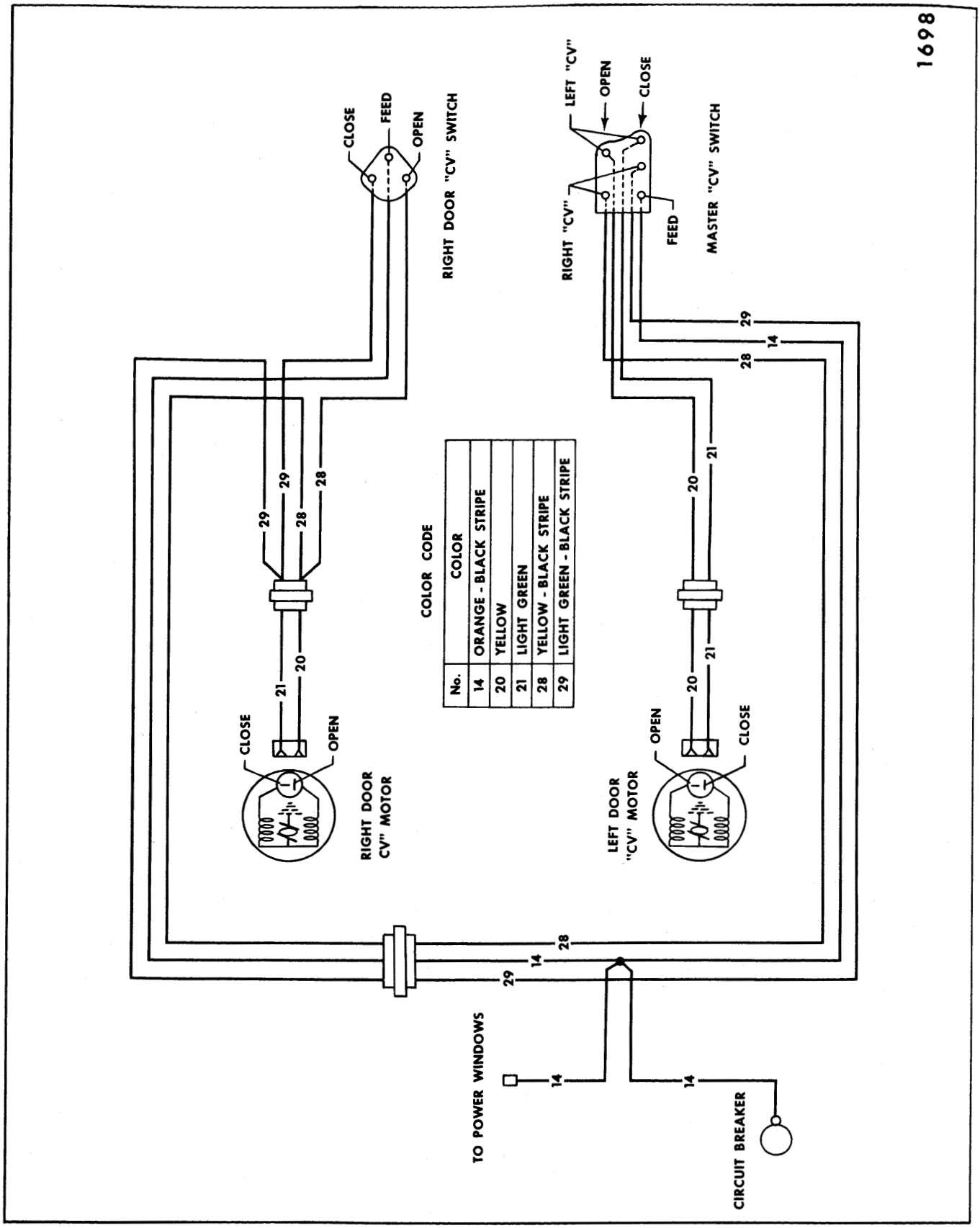


Fig. 11-32—Power Ventilator Circuit Diagram - Pontiac Style Shown

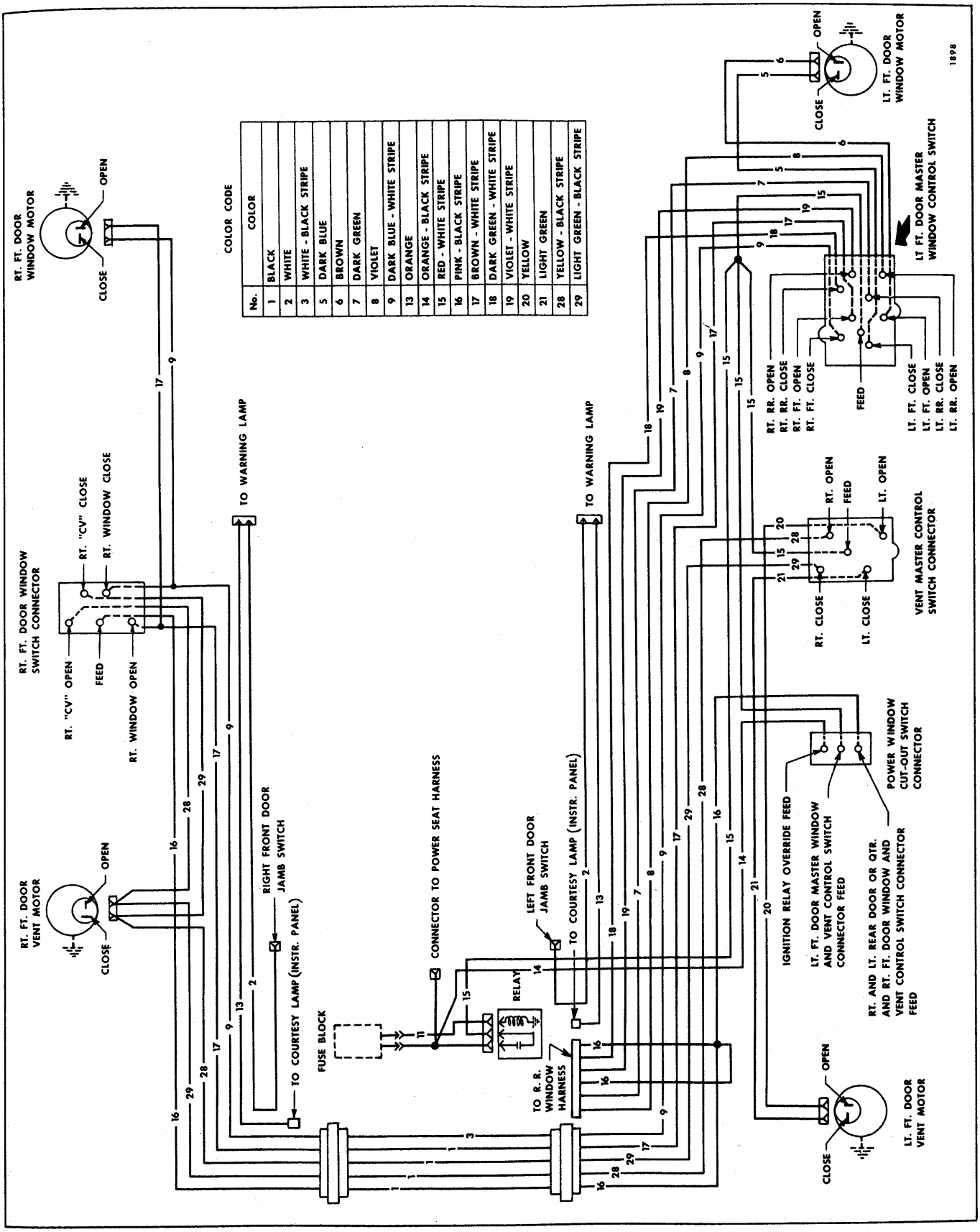


Fig. 11-33—Front Door Power Window and Ventilator Circuit Diagram - Cadillac

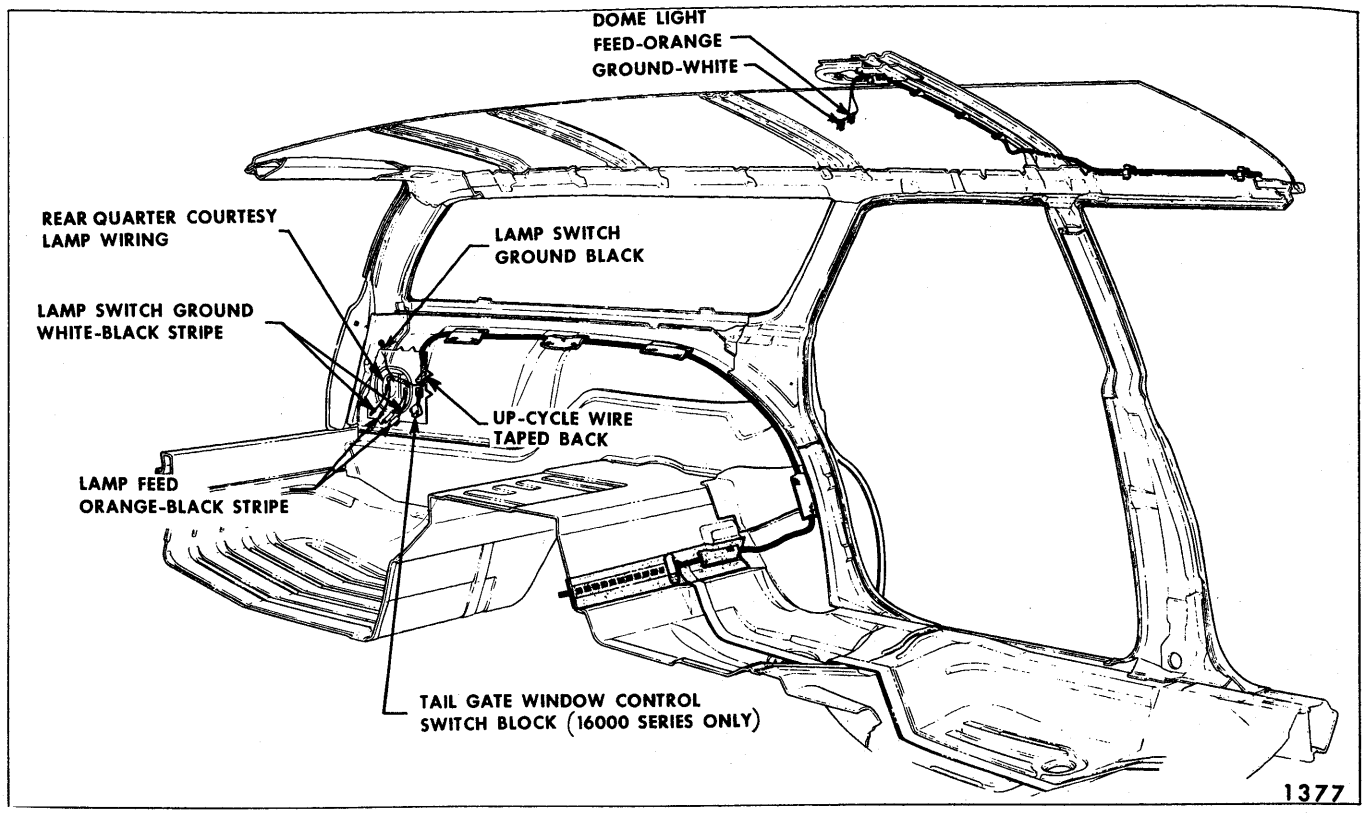


Fig. 11-34—Left Side Power Tail Gate Window and Body Wiring - Chevrolet, Pontiac "B" Bodies

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker. Connect one test light lead to the output terminal and ground other lead. If tester does not light, circuit breaker is inoperative.

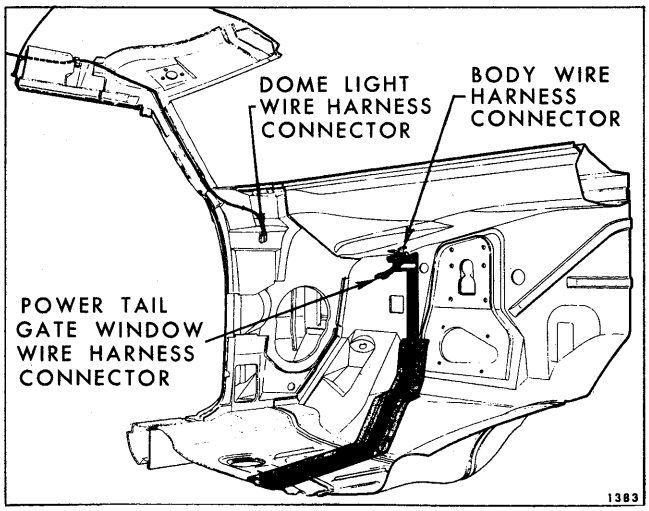


Fig. 11-35—Front End Wiring - Chevrolet, Pontiac "B" Body

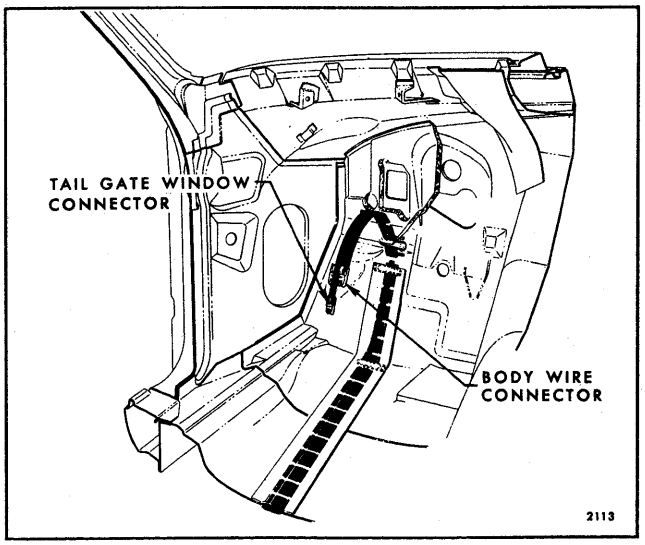


Fig. 11-36—Front End Wiring - All "A" Bodies

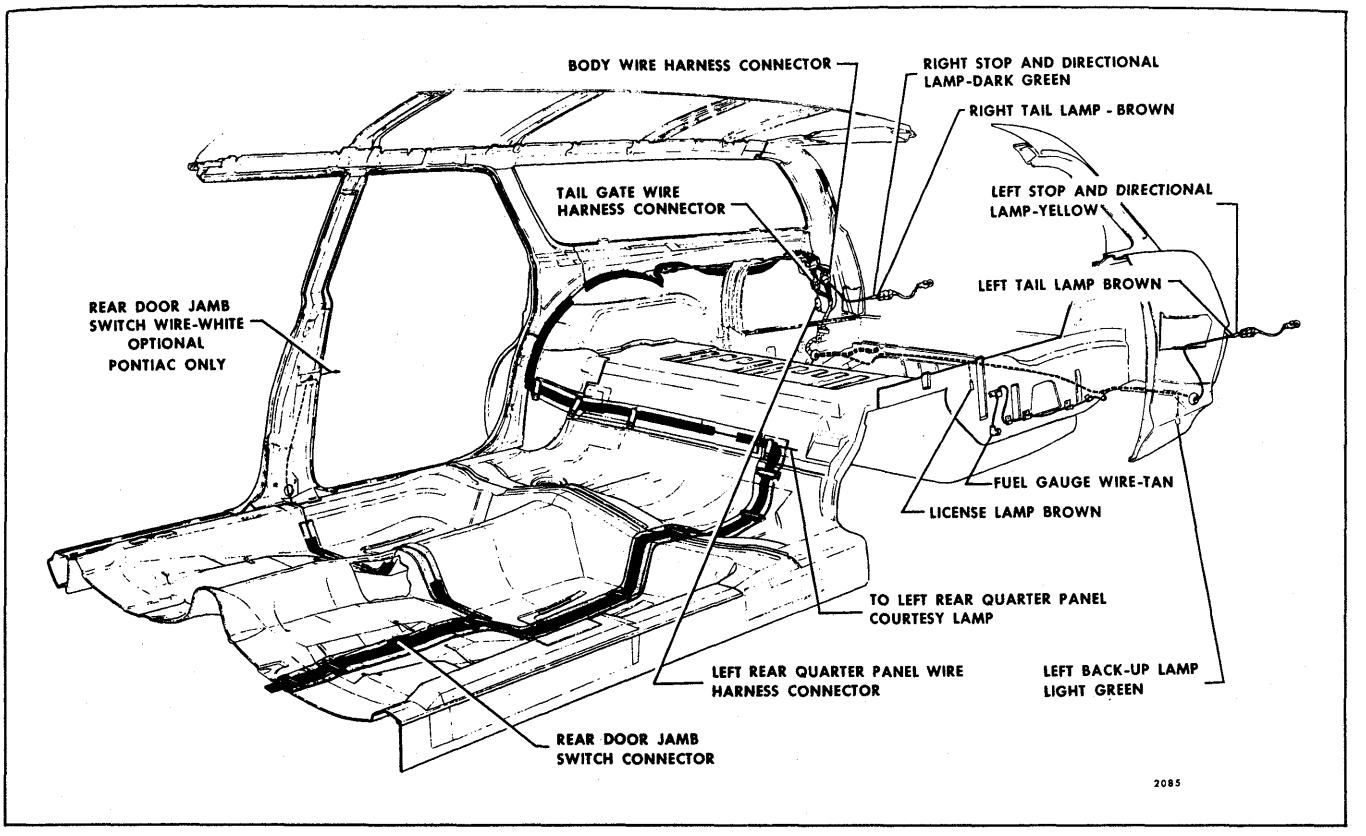


Fig. 11-37—Right Side and Rear End Wiring - Chevrolet, Pontiac "B" Bodies

b. Checking Relay Assembly at Shroud—Oldsmobile Styles Only

1. With test light check relay feed. If tester does not light, there is an open or short circuit between relay and circuit breaker.

2. Turn ignition switch on and with test light check output terminal of relay. If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch and relay assembly. (Check fuse at dash panel.)

c. Checking Feed Circuit Continuity at Control Switch on Instrument Panel

1. Disengage harness connector from switch. Connect one test light lead to feed terminal of switch connector and ground other test lead to body metal. If tester does not light, there is an open or short circuit between switch and power source.

d. Checking Control Switch at Instrument Panel

1. Disengage harness connector from switch.

2. Use a #12 gauge jumper wire and insert one end into the feed terminal and the other end into one of the other terminals. Tail gate window motor should operate.

3. Repeat procedure for the other terminal. If the tail gate window motor operates with the jumper wire but does not operate with the control switch, the switch is defective.

e. Checking Control Switch on Tail Gate

Remove tail gate switch and escutcheon as described in tail gate section. Disengage connector from switch and determine that there is current at terminal block; then, use a 12 gauge jumper and perform the same checking procedure as outlined for the control switch at the instrument panel.

f. Checking the Tail Gate Window Motor

1. Disconnect harness connector from motor.

2. Connect the positive side of power source to the light blue wire terminal (close cycle) on the motor connector and the negative lead to the white - dark green (ground) wire terminal. Motor should operate. To check the reverse operation of the motor connect the power

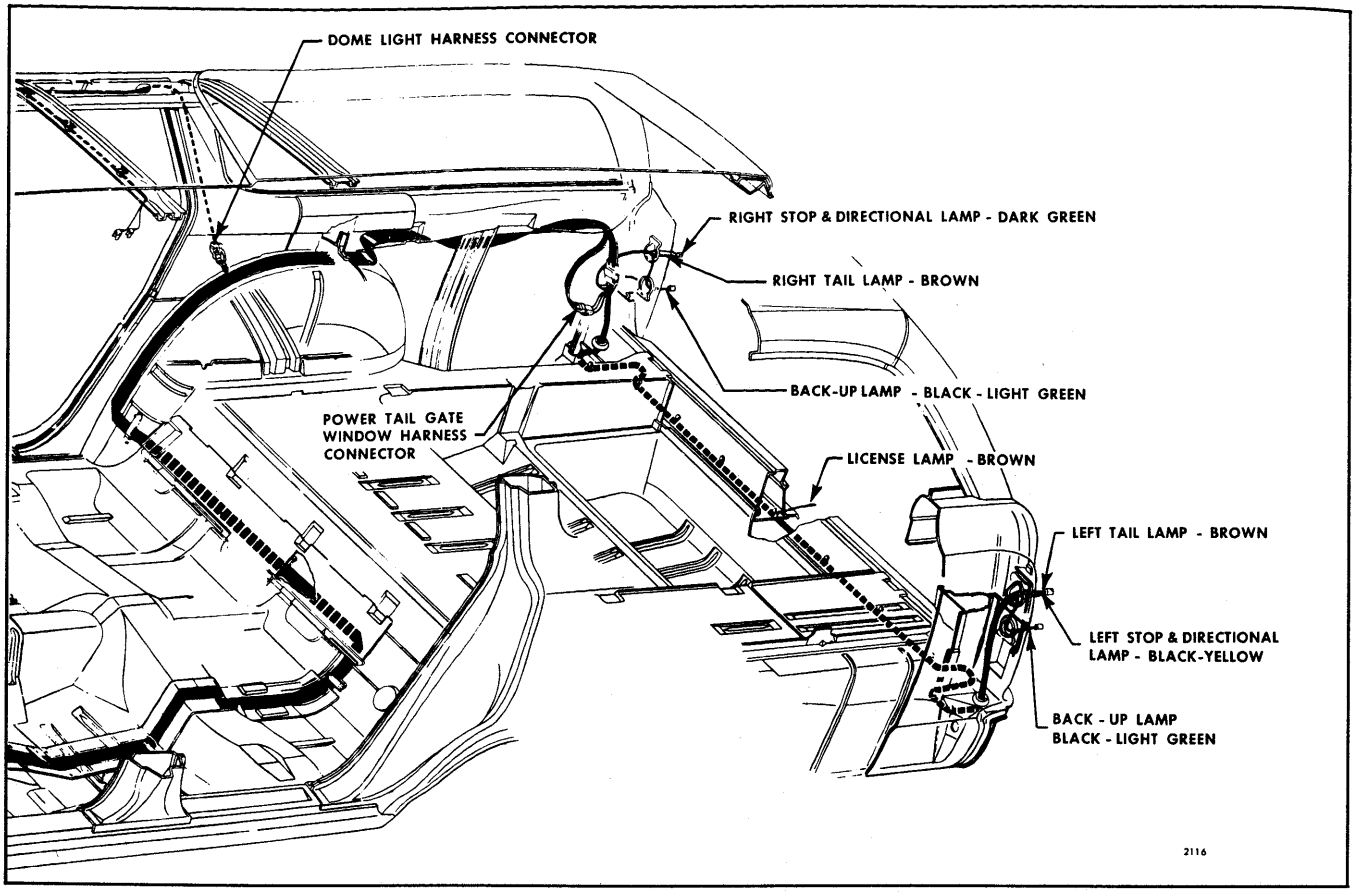


Fig. 11-38—Right Side and Rear End Wiring - Chevrolet, Pontiac, Oldsmobile "A" Bodies

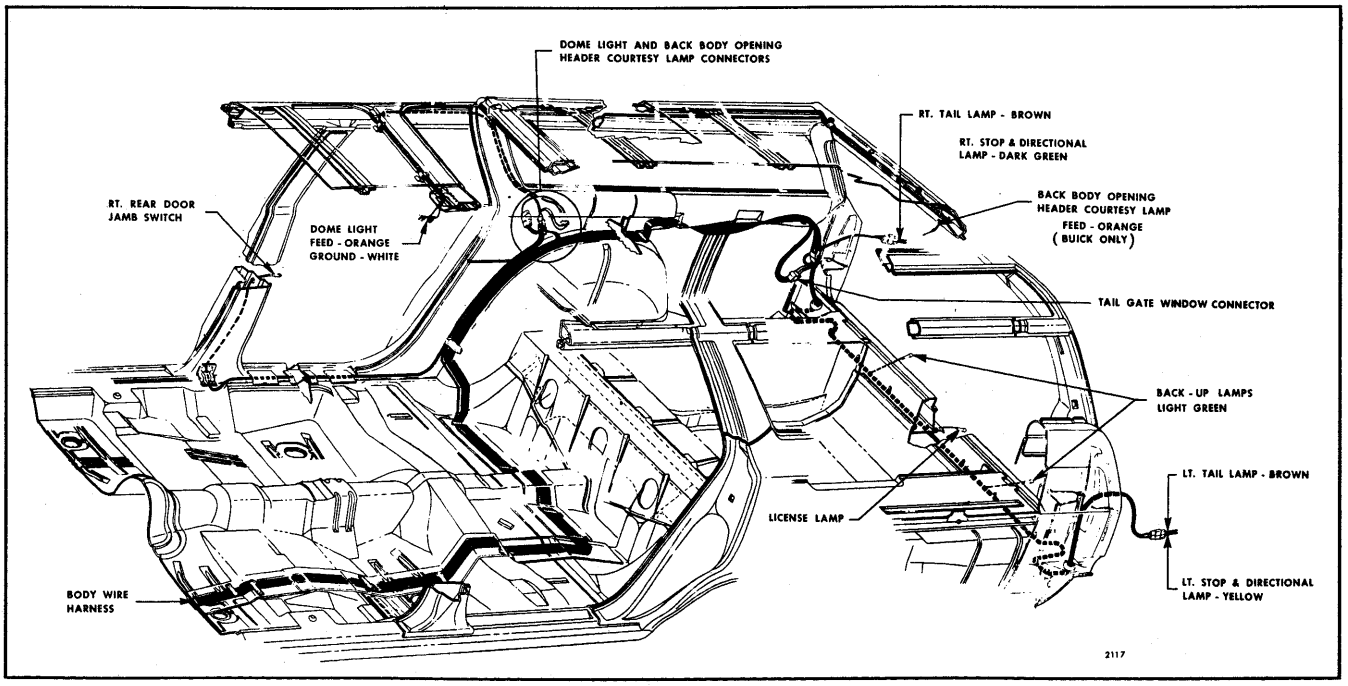


Fig. 11-39—Right Side and Rear Wiring - Buick "A" Body 55-65 Style

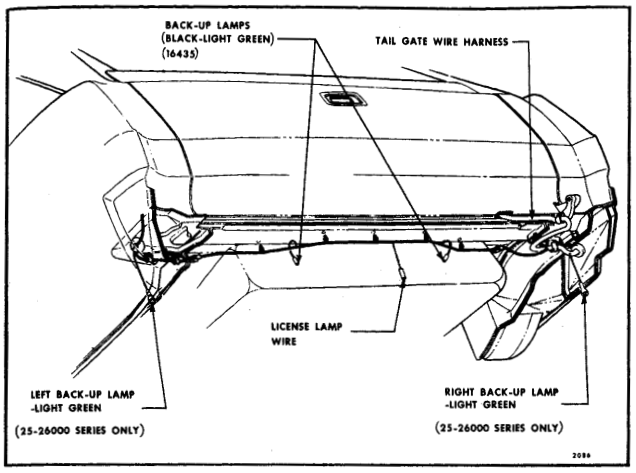


Fig. 11-40—Rear Cross Bar Wiring - Chevrolet, Pontiac "B" Bodies

source to the tan - white wire terminal (open cycle). If motor does not operate in both directions, repair or replace motor.

g. *Checking Operation of Safety Switch*

1. With tail gate open, depress switch arm to simulate the tail gate being closed on all "A & B" Styles. For Chevrolet "X" use jumper wire from open contact to body ground. Operate control switch. If motor does not operate, either switch is defective or the circuit is open from the motor to the switch.

2. To check for defective switch, connect one end of test light to a source of power and the other lead to the safety switch terminal. If the tester lights when the switch lever is actuated, the switch is operative.

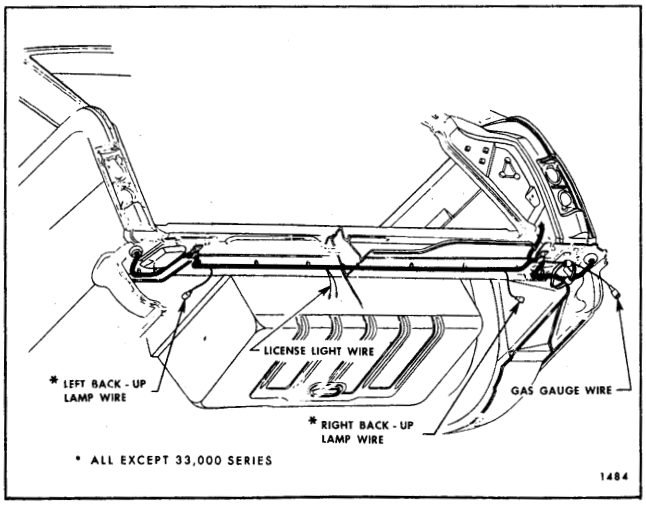


Fig. 11-41—Rear Cross Bar Wiring - All "A" Bodies

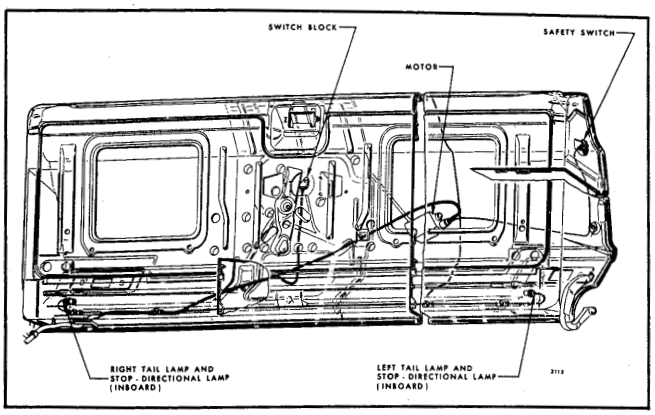


Fig. 11-42—Tail Gate Wiring - Chevrolet "B" Bodies

NOTE: Safety switch completes the ground circuit from the motor.

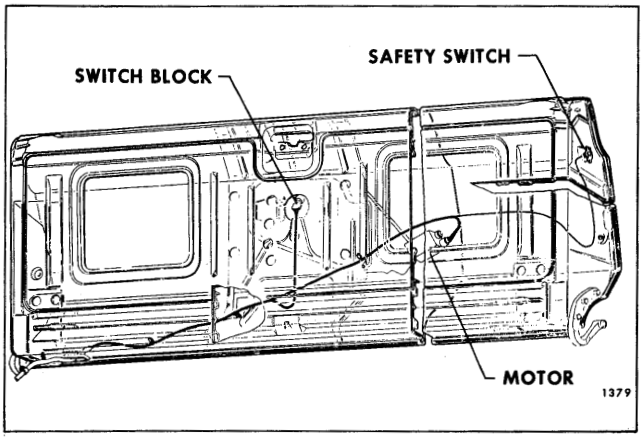


Fig. 11-43—Tail Gate Wiring - Pontiac "B" Bodies

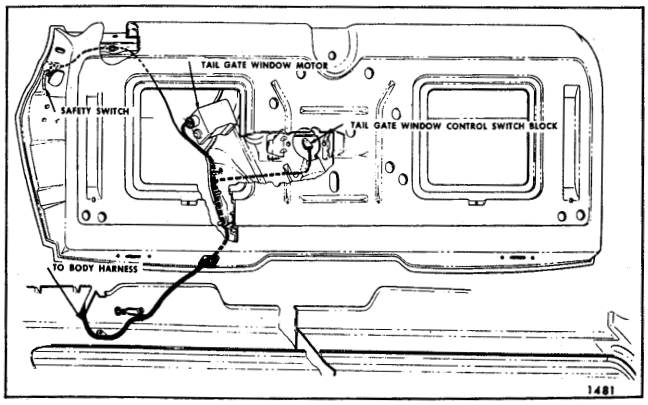


Fig. 11-44—Tail Gate Wiring - All "A" Bodies

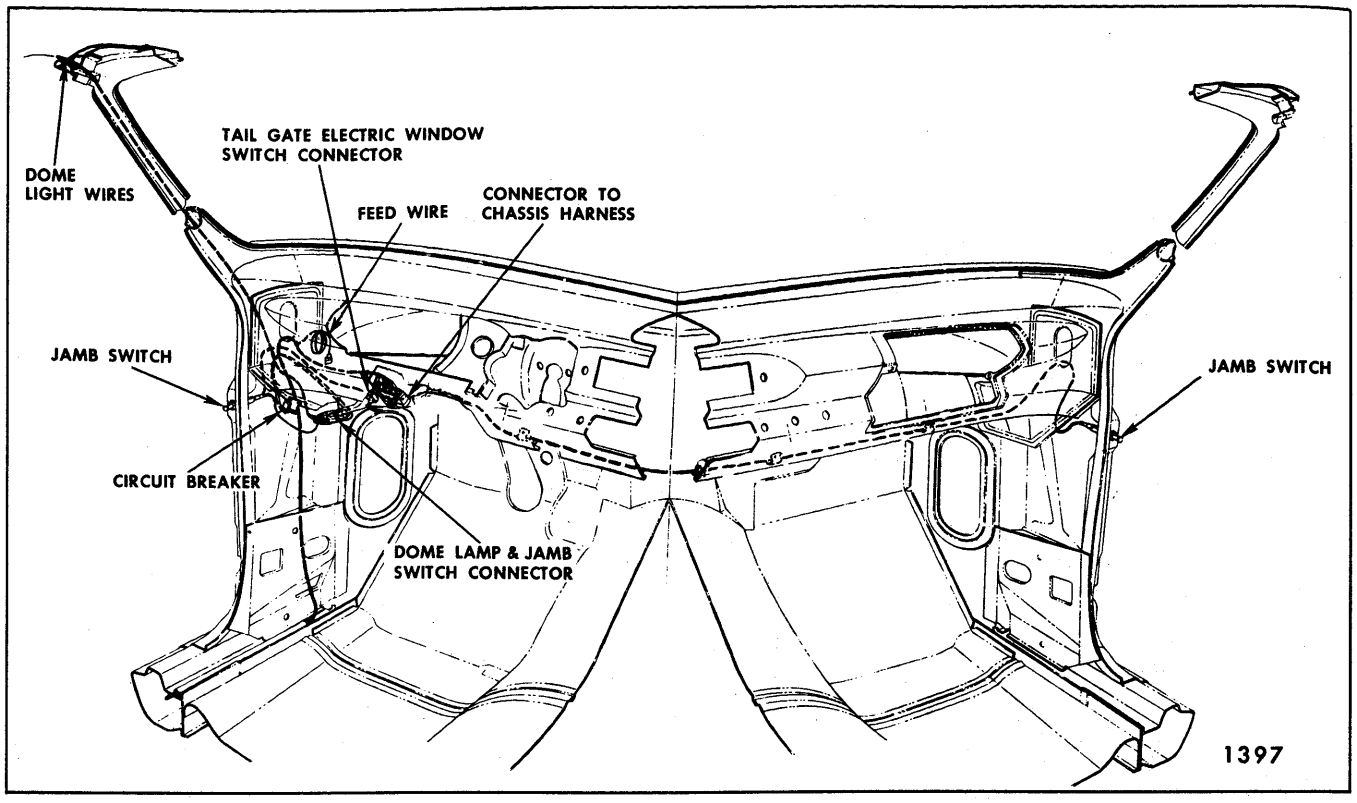


Fig. 11-45—Front End Wiring - Chevrolet "X" Bodies

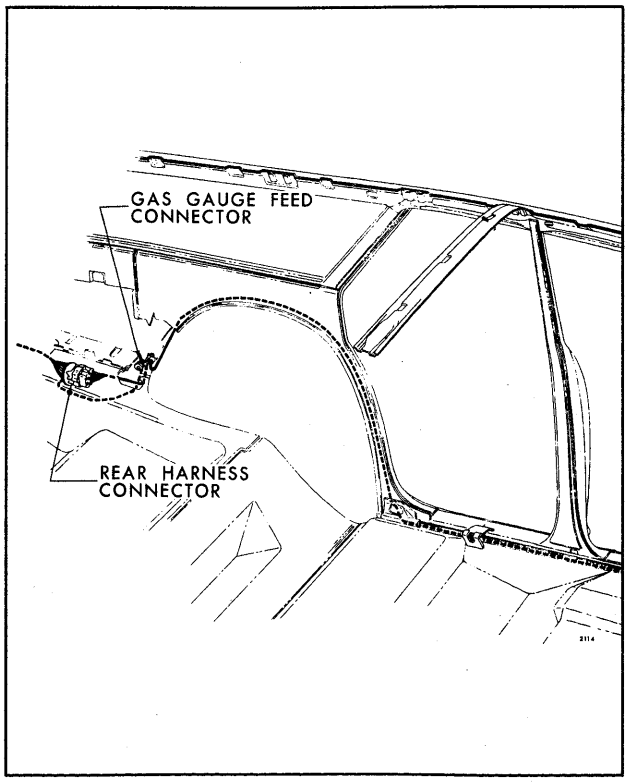


Fig. 11-46—Left Side Wiring - Chevrolet "X" Bodies

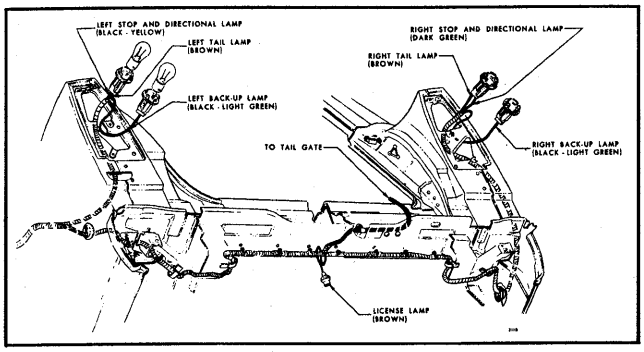


Fig. 11-47—Rear Cross Bar Wiring - Chevrolet "X" Bodies

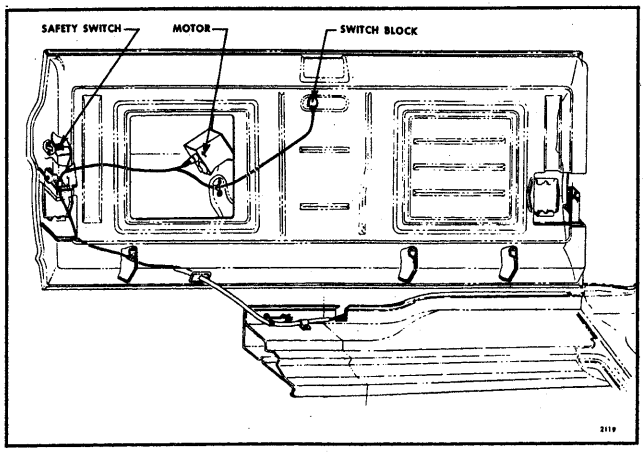


Fig. 11-48—Tail Gate Wiring - Chevrolet "X" Bodies

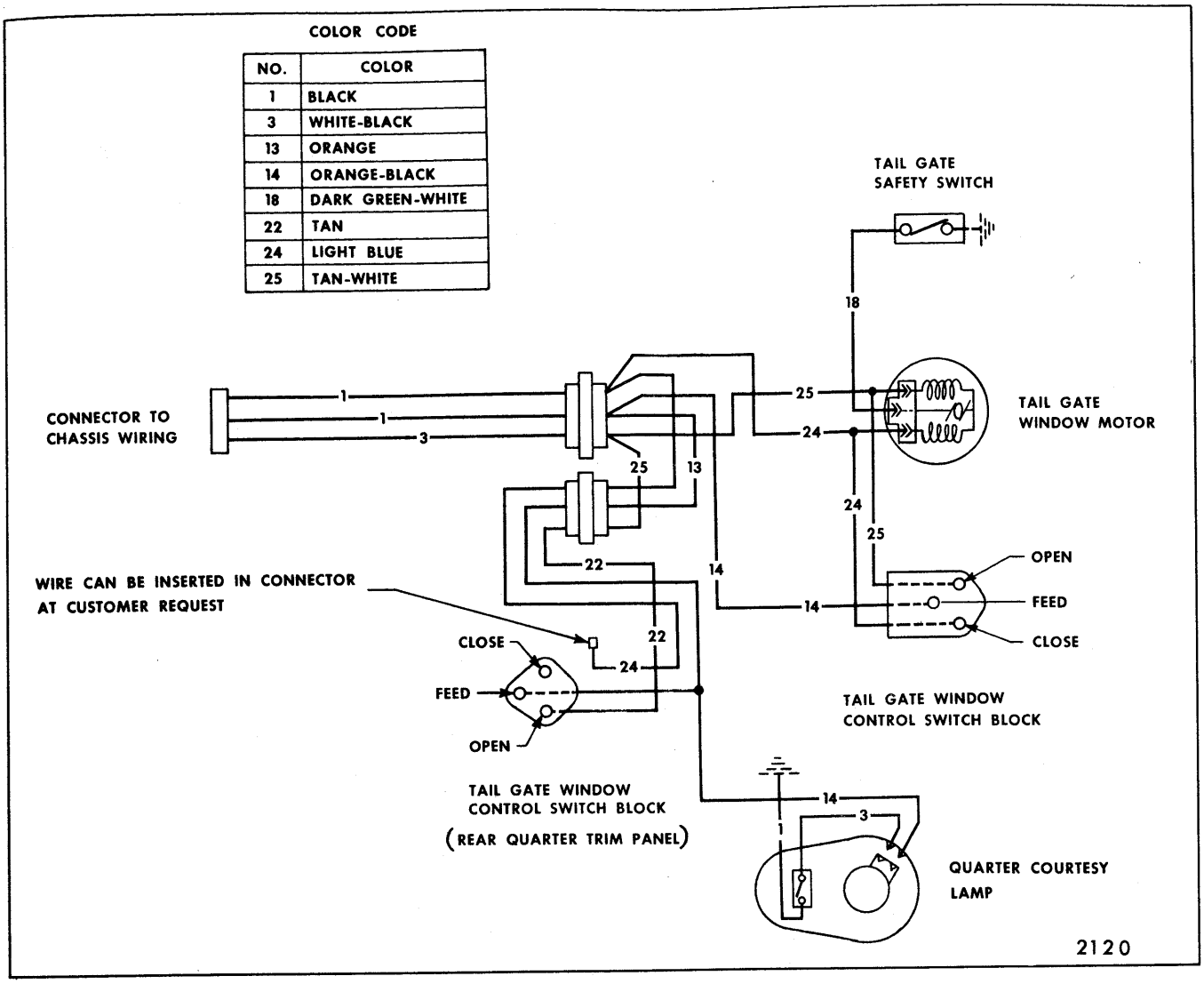
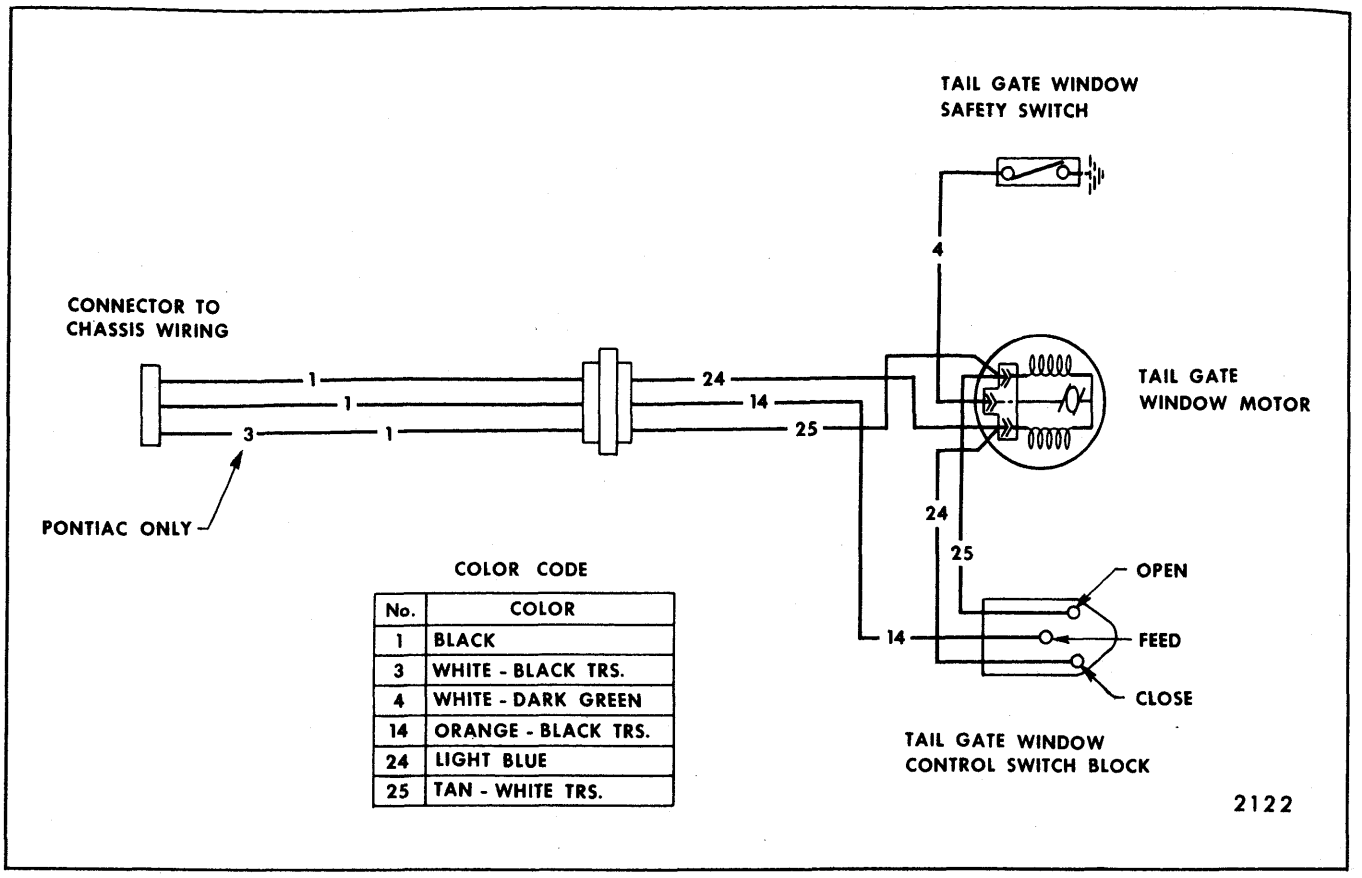


Fig. 11-49—Power Tail Gate Circuit - Chevrolet "B" 45 Styles



COLOR CODE

No.	COLOR
1	BLACK
3	WHITE - BLACK TRS.
4	WHITE - DARK GREEN
14	ORANGE - BLACK TRS.
24	LIGHT BLUE
25	TAN - WHITE TRS.

Fig. 11-50—Power Tail Gate Window Circuit - All "A & B" 35-55 and 65 Styles

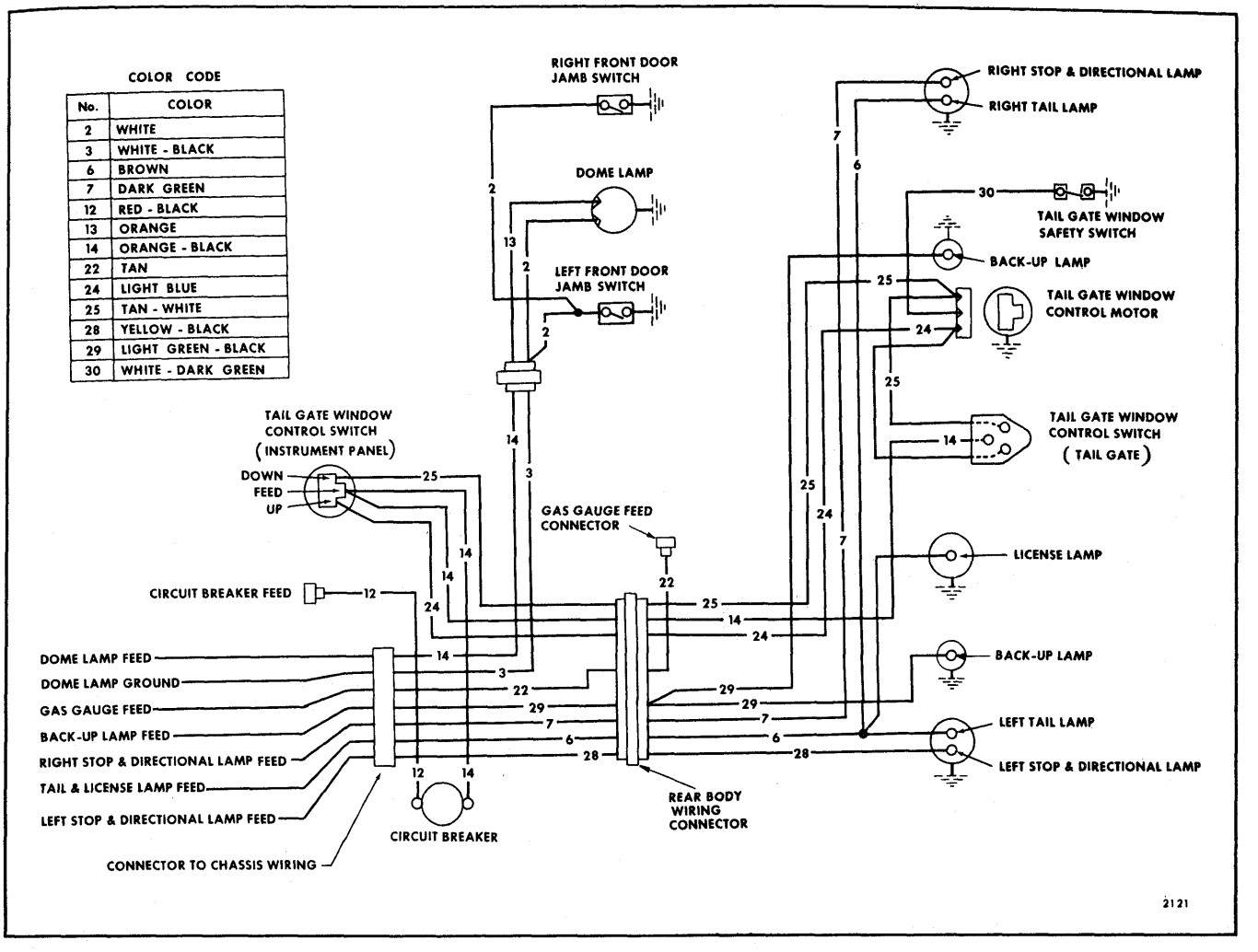


Fig. 11-51—Power Tail Gate Window Circuit - Chevrolet "X" Bodies

h. Trouble Shooting

CONDITION	CAUSE	CORRECTION
A. The tail gage window operates up and down from the tail gate switch but does not operate from the switch at the instrument panel.	1. Open or short circuit from power source to control switch at instrument panel.	1. Check affected wiring for open or short circuit and check connector at switch for proper installation.
	2. Defective or inoperative control switch.	2. Check operation of switch.
B. With the tail gate closed, the window operates downward but does not operate upward when the switch at the instrument panel or tail gate is actuated.	1. Open or short circuit in up cycle feed wire.	1. Check affected wiring for open or short circuit.
	2. Defective motor.	2. Check operation of motor.

CONDITION	CAUSE	CORRECTION
C. The window will not operate up or down from any of the control switches.	1. Open or short circuit in circuit from power source to switches or motor.	1. Check operation of circuit breaker.
	2. Safety switch not connected or poor ground.	2. Check affected circuit for open or short circuit.
	3. Mechanical bind or failure in tail gate window regulator mechanism.	3. Check connectors to safety switch and motor for proper engagement.
	4. Defective tail gate window regulator motor.	4. Check tail gate mechanical parts for bind or failure.
		5. Check operation of motor.

SEATS

HORIZONTAL SEATS

Description

The seat adjusters for the bench-type and bucket-type seat are actuated by a 12 volt series-wound motor located near the front left side of the seat bottom frame, and are energized through a control switch installed in the seat side panel or in the door arm rest. For typical wiring installations see Figure 11-52 for bucket-type seats and Figure 11-53 for bench-type seats.

For circuit diagrams see Figures 11-54 and 11-55.

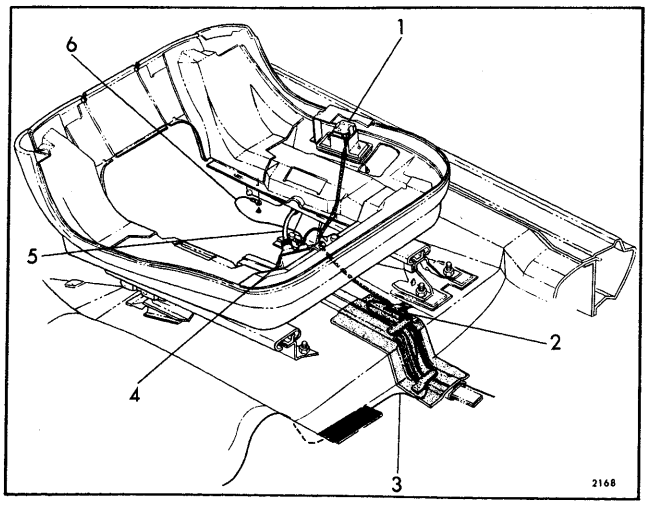


Fig. 11-52—Horizontal Bucket Seat Wiring

1. Control Switch
2. Feed Harness Connector
3. Feed Wire to Passenger Seat
4. Motor
5. Control Cable
6. Ground Wire

The horizontal seat circuit is protected by a circuit breaker (refer to Electrical Introduction for specific location).

Oldsmobile styles only - In addition to the circuit breaker a relay is used in the circuit which prevents the operation of the seat until the ignition switch is turned "on".

The trouble diagnosis chart will help locate typical problems which may occur.

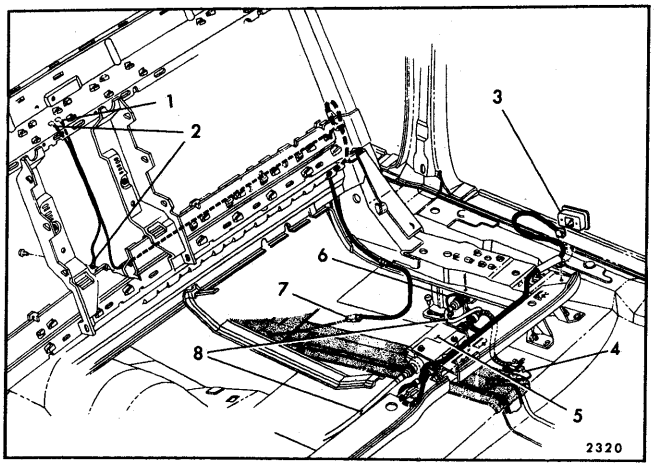


Fig. 11-53—Horizontal Bench Seat Wiring

1. Front Seat Back Switch Feed - White
2. Front Seat Back Switch Ground - Black
3. Control Switch
4. Harness Feed Connector
5. Motor
6. Ground Wire
7. Front Seat Back Courtesy Lamp Feed Connector (Cadillac Only)
8. Horizontal Control Cable

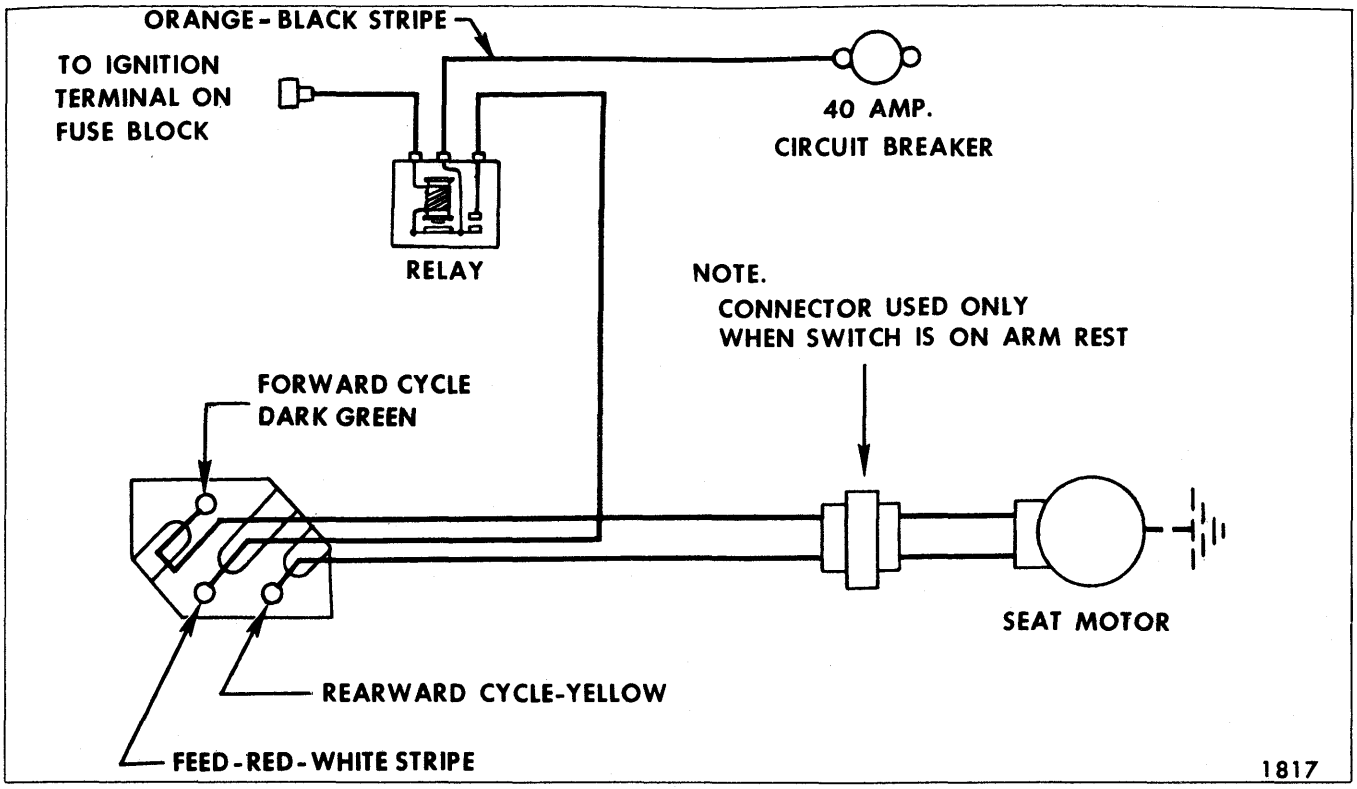


Fig. 11-54—Horizontal Seat Circuit - Oldsmobile Styles

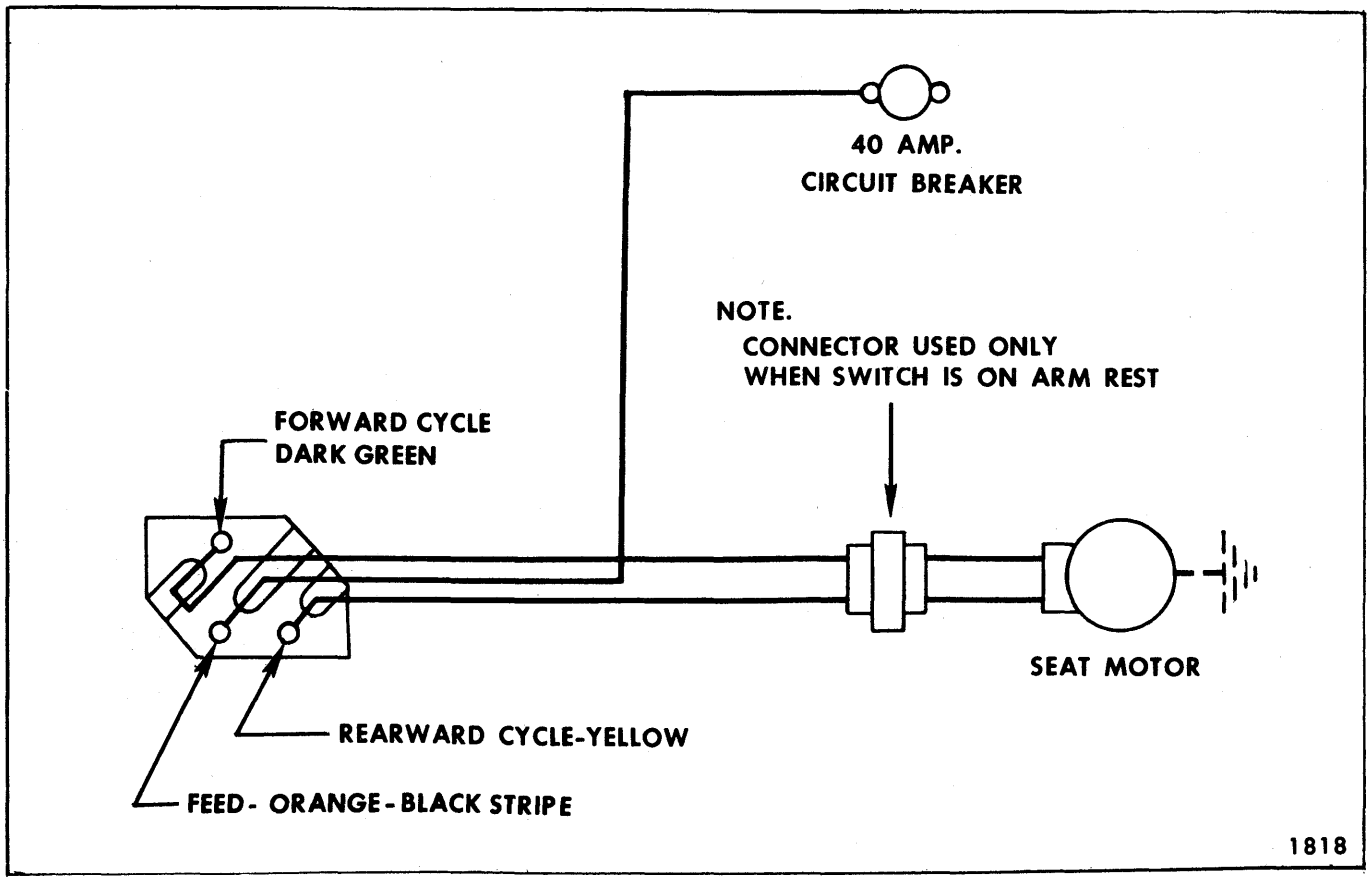


Fig. 11-55—Horizontal Seat Circuit - Buick, Cadillac Styles

Typical Failures and Corrections of Horizontal Seat Circuit

CONDITION	CAUSE	CORRECTION
The seat motor does not operate in either the forward or rearward direction.	a. Open or short circuit in feed harness.	a. Connect one test light lead to feed terminal of switch block and ground other tester lead to body metal. If tester does not light, there is an open or short circuit between switch and power source.
	b. Inoperative motor.	b. Check operation of seat control switch with jumper wire. See "Checking Door Window Control" for similar operation. c. Check circuit from control switch to motor for short or open circuit and check ground wire attachment at adjuster. d. Check operation of motor with #12 gauge jumper wire. Connect one end of jumper wire to power source and the other end to one of the seat motor terminals. Motor should operate. Perform same check at the other motor terminal. If motor does not operate, repair or replace motor as required.
The seat motor operates in only one direction.	a. Defective switch.	a. Check operation of seat control switch with jumper wire.
	b. Open or short circuit in motor feed wires.	b. Check circuit from control switch to motor for short or open circuit.
	c. Defective seat motor.	c. Check operation of motor with #12 gauge jumper wire. Connect one end of jumper wire to power source and the other end to one of the seat motor terminals. Motor should operate. Perform same check at the other motor terminal. If motor does not operate, repair or replace motor as required.

FOUR-WAY TILT SEAT

Description

The seat adjusters for the bench type and bucket type seats are actuated by a 12 volt, reversible, shunt-wound motor with a built-in circuit breaker. See Figures 11-56 and 11-57 for the bench seat installation and Figure 11-58 for the bucket seat installation.

The seat motor is energized by a toggle-type control switch installed in the left seat side panel. On 48467 style, the control switch is installed in the left front door arm rest.

The four way seat circuit is protected by a circuit breaker (refer to Electrical Introduction for specific location).

Oldsmobile styles only - In addition to the circuit breaker a relay is used in the circuit which prevents the operation of the seat until the ignition switch is turned "on".

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and four drive cables on bench type seats and two drive cables on bucket seats, leading to the seat adjusters. One solenoid controls the rear

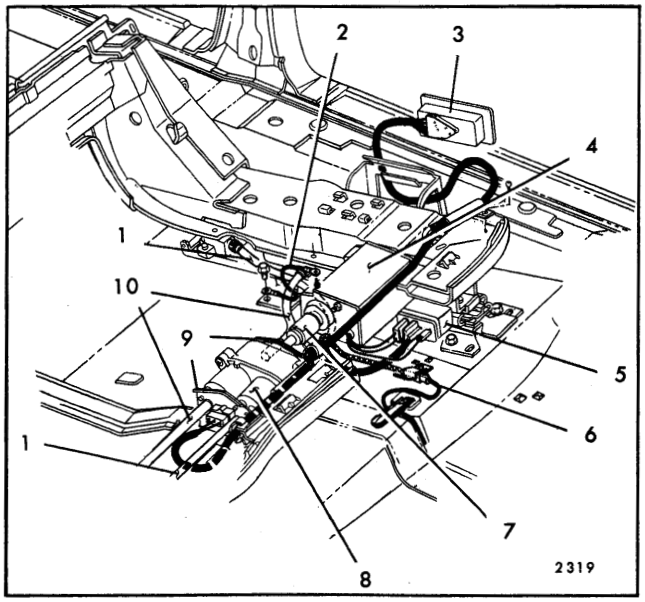


Fig. 11-56—Four-Way Bench Seat Wiring - "B & C" Body Styles

1. Vertical Control Cable (Yellow)
2. Ground Wire
3. Control Switch
4. Motor
5. Motor Control Relay
6. Harness Feed Connector
7. Rubber Coupler
8. Transmission Assembly
9. Transmission End Plates
10. Horizontal Control Cable (Black)

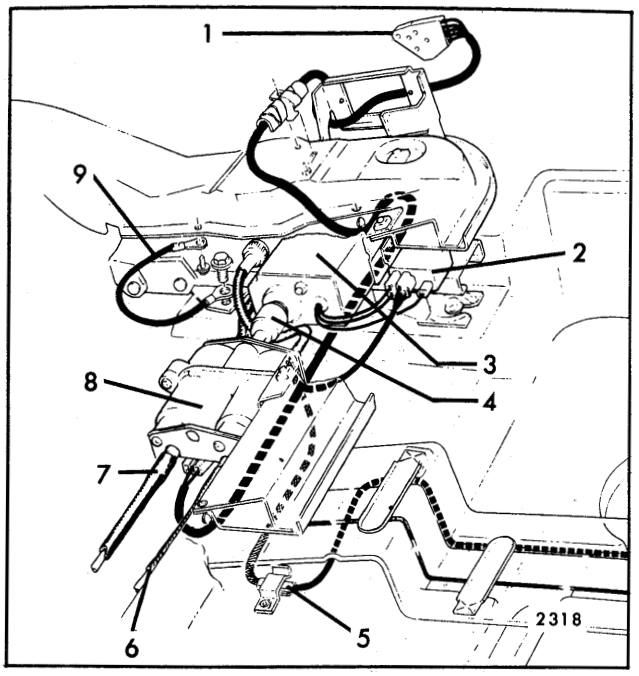


Fig. 11-57—Four-Way Bench Seat Wiring - "A" Body Styles

1. Control Switch Block
2. Motor Control Relay
3. Motor
4. Rubber Coupler
5. Harness Feed Connector
6. Vertical Drive Cable (Yellow)
7. Horizontal Drive Cable (Black)
8. Transmission Assembly
9. Seat Ground Wire

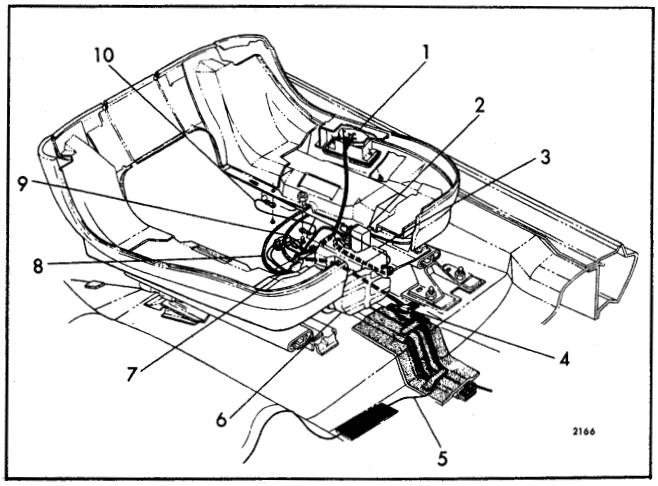


Fig. 11-58—Four-Way "Strato" Bucket Seat Wiring - All Styles

1. Control Switch
2. Motor Control Relay
3. Motor
4. Harness Feed Connector
5. Feed to Passenger Seat
6. Pulley Cover Plate
7. Transmission and Solenoid Assembly
8. Vertical Control Cable (Orange)
9. Horizontal Control Cable (Black)
10. Ground Wire

vertical movement of the seat while the other solenoid controls the horizontal movement of the seat. When the control switch is actuated, the motor and one of the solenoids are energized simultaneously. Then the solenoid plunger causes the shaft dog to engage with the large gear dog. Power is then transmitted through the transmission shaft on bench seats and through the pulleys on bucket seats, which in turn drives the actuator cables. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber coupler connecting the motor and transmission on bench seats. On bucket seats torque is absorbed through the belt on the pulley. When the control switch lever is released the switch contacts open, a spring returns the shaft dog and solenoid plunger to their original position disengaging the shaft dog from the large gear dog. See "Seat Section" for exploded view of transmission.

Checking Procedure

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedures as outlined. Before performing any extensive check procedures, check the seat adjuster drive cables for proper attachment. In addition, study the seat circuit diagrams to become familiar with the seat circuit. (See Figs. 11-59 and 11-60).

a. Checking for Current at Circuit Breaker

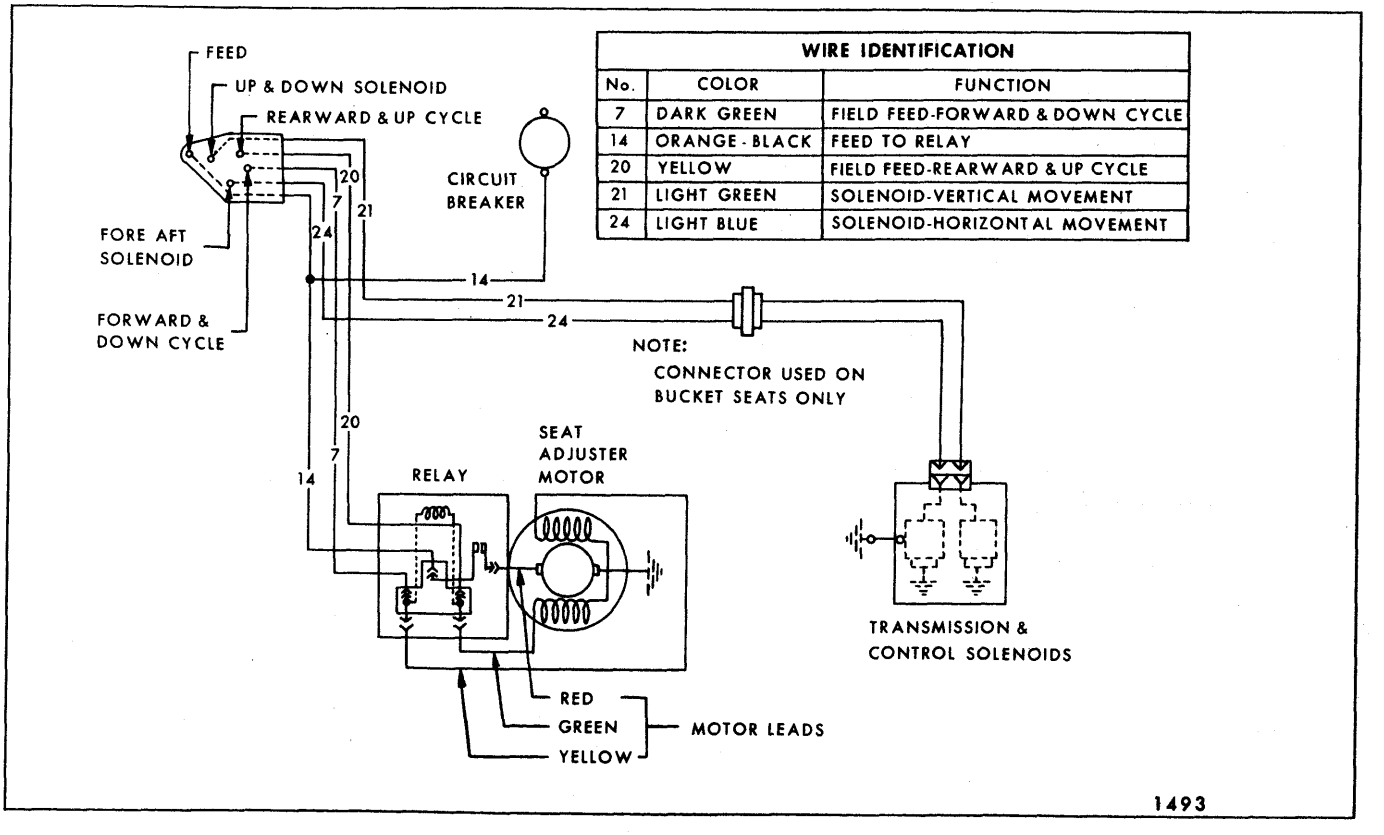
1. Connect one test light lead to battery side of circuit breaker. If tester does not light, there is no current at battery side of circuit breaker.

2. To check circuit breaker, disconnect switch feed wire from breaker, and with a test light check for current at switch side of circuit breaker. If tester does not light, there is no current flowing through circuit breaker.

b. Checking the Ignition Relay Assembly— Oldsmobile "B & E" Styles Only

1. With test light check for current at circuit breaker side of relay. If tester does not light, there is a short or open circuit between circuit breaker and relay assembly.

2. Turn ignition switch on and with a test light check for current at output side of relay. If



WIRE IDENTIFICATION		
No.	COLOR	FUNCTION
7	DARK GREEN	FIELD FEED-FORWARD & DOWN CYCLE
14	ORANGE-BLACK	FEED TO RELAY
20	YELLOW	FIELD FEED-REARWARD & UP CYCLE
21	LIGHT GREEN	SOLENOID-VERTICAL MOVEMENT
24	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT

Fig. 11-59—Four-Way Seat Circuit - All Styles except Oldsmobile "B & E" Styles

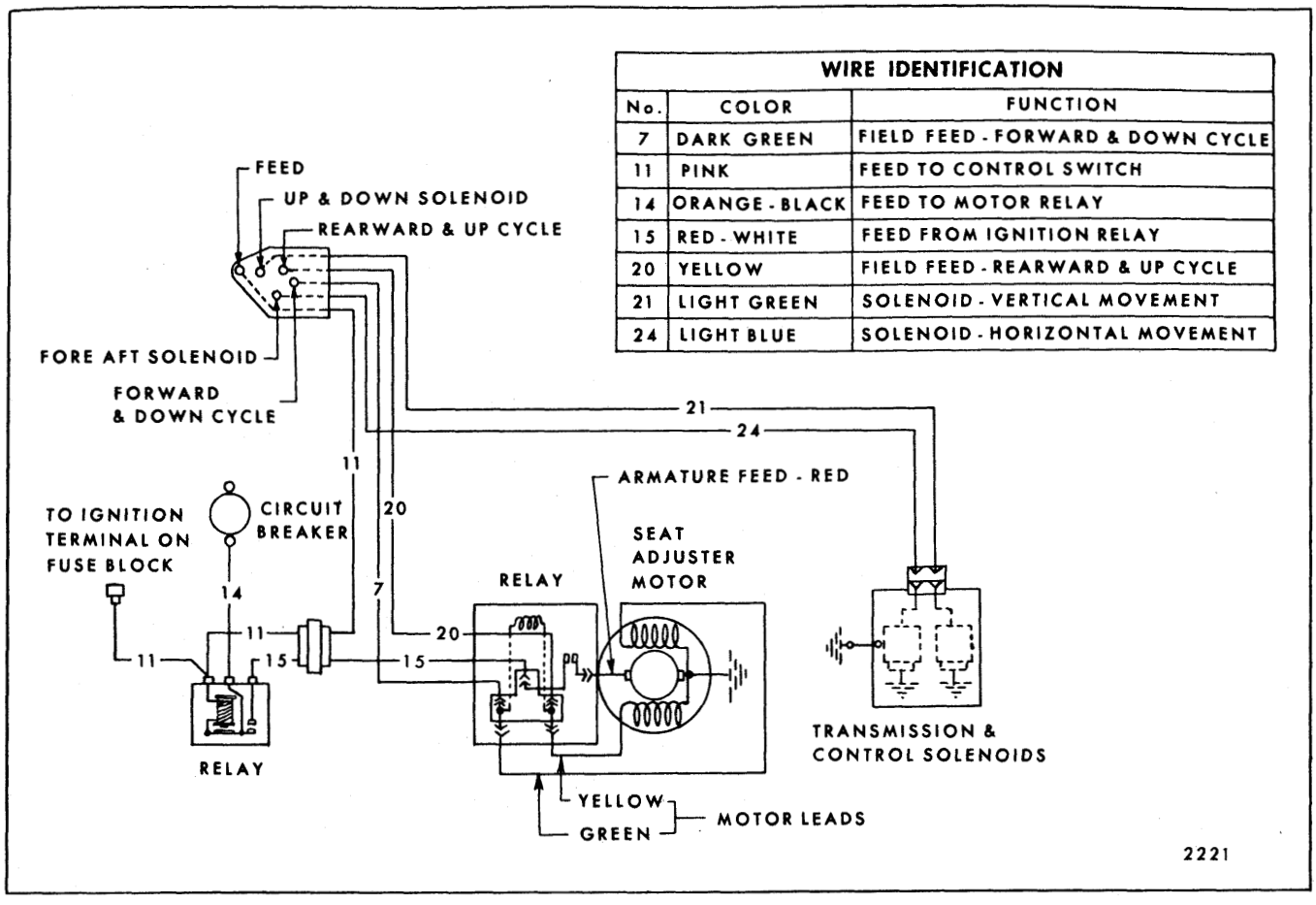


Fig. 11-60—Four-Way Seat Circuit - Oldsmobile "B&E" Styles

tester does not light, the relay is defective or there is a short or open circuit between ignition switch and relay assembly. Check wires before replacing relay.

NOTE: Oldsmobile "B & E" Styles Only - Ignition switch must be on for performing the remainder of checking procedure.

c. Checking Feed Circuit Continuity at Relay on Seat Motor—All Styles

1. Disengage three-way connector body from the seat motor relay.

2. Insert one test light lead into the relay power feed connector slot on the harness, and ground other tester lead.

3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short circuit in feed circuit.

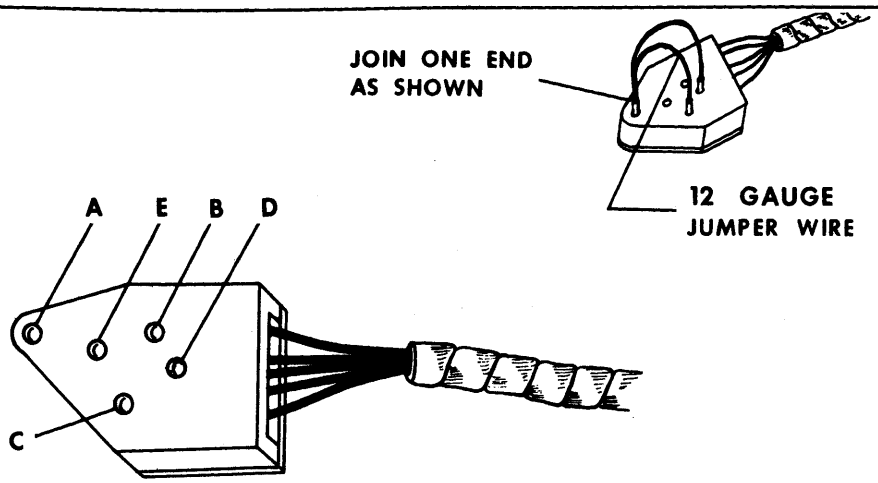
d. Checking for Current at Seat Control Switch

1. Connect one test light lead to feed terminal of switch block and ground other test light lead to body metal.

2. If tester does not light, there is no current at switch block. Failure is caused by an open or short circuit between switch block and power source.

e. Checking the Seat Control Switch

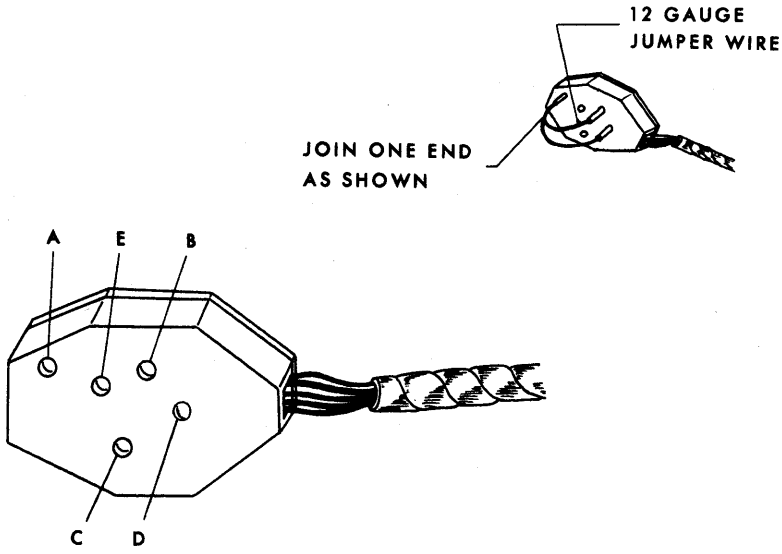
In the following operations which specify the seat control switch to be actuated, a switch that has been checked for proper operation may be connected to the switch block. If a switch is not available, a three-way jumper wire can be made to perform the switch function. The method of making the jumper wire and the switch locations to be connected to obtain a specific movement of the seat are shown in Figures 11-61 and 11-62. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.



LOCATION	WIRE COLOR	FUNCTION
A	ORANGE - BLACK	SWITCH FEED
B	YELLOW	FIELD FEED-REARWARD & UP CYCLE
C	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT
D	DARK GREEN	FIELD FEED-FORWARD & DOWN CYCLE
E	LIGHT GREEN	SOLENOID-VERTICAL MOVEMENT

1849

Fig. 11-61—Four-Way Seat Switch Block - All Styles Except Oldsmobile "B & E"



LOCATION	WIRE COLOR	FUNCTION
A	PINK	SWITCH FEED
B	YELLOW	FIELD FEED—REARWARD & UP CYCLE
C	LIGHT BLUE	SOLENOID—HORIZONTAL MOVEMENT
D	DARK GREEN	FIELD FEED—FORWARD & DOWN CYCLE
E	LIGHT GREEN	SOLENOID—VERTICAL MOVEMENT

1850

Fig. 11-62—Four-Way Seat Switch Block - Oldsmobile "B & E" Styles

NOTE: To make jumper wire, obtain two pieces of #12 gauge wire, each 4 1/2" long. Join one end of each wire as shown in diagram. The joined end can be inserted in the feed location in the switch block; one of the remaining ends can be inserted into one of the solenoid locations.

1. Obtain switch or jumper wire and connect to switch block.

2. Operate switch if used. If adjusters operate with switch or jumper wire, but did not operate with original switch, the original switch is defective or connector block was not sufficiently engaged.

   IMPORTANT: To obtain a seat movement using a three-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations have to be connected simultaneously.

   The switch locations to be connected to obtain a specific seat movement are outlined as follows:

   (a) To raise seat, place jumper wire in locations A, B and E.

   (b) To lower seat, place jumper wire in locations A, D and E.

   (c) To operate seat forward, place jumper wire in locations A, C and D.

   (d) To operate seat rearward, place jumper wire in locations A, B and C.

f. Checking Wires Between Control Switch and Motor Relay

1. Disengage three-wire harness connector from relay at motor.

2. Insert one test light lead into the motor field connector slot on harness and ground other lead.

3. Actuate seat switch to energize field wire being tested.

4. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch. Check other motor field wire in the same manner.

g. Checking the Relay Assembly

1. Disconnect three leads from relay assembly. These are the wires leading from the motor to the relay.

2. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

3. Connect one test light lead to motor armature feed stud on relay and groud other tester lead.

4. With jumper wire, energize the field stud which is not grounded.

   CAUTION: Do not energize grounded side. If tester does not light, the relay is defective.

h. Checking the Motor Assembly

1. Disconnect motor field feed wires from motor.

2. Connect one end of a #12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.

3. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.

i. Checking Wires Between Switch and Solenoids

1. Disconnect harness connector from transmission assembly.

2. Connect one test light lead to one terminal of power feed and ground other test light lead to body metal.

3. Operate switch to wire being tested. If tester does not light, there is no current at the end of harness wire. Failure is caused by an open or short circuit between end of wire and switch or defective switch.

4. Check other wire in same manner.

   NOTE: One wire in connector is a blank. Check wiring diagram for colors of wires actually used.

j. Checking the Solenoid

1. Check solenoid ground strap attachment for proper ground.

2. Connect one end of a #12 gauge jumper wire to the battery positive pole and the other end to the lead of the solenoid being checked.

   CAUTION: To prevent damaging the solenoid, do not energize solenoid for more than one minute.

3. Operate switch, actuate adjuster motor and solenoid being checked.

4. If adjusters do not operate and there is no mechanical failure of the adjusters, the solenoid is defective.

NOTE: If solenoid is functioning properly, a "click" may be heard when solenoid plunger operates.

k. Typical Electrical Failures

CONDITION	CAUSE	CORRECTION
1. Seat adjuster motor does not operate.	a. Short or open circuit between power source or switch and motor.	a. Check circuit from power source and switch to motor to locate failure.
	b. Defective motor relay.	b. Replace relay.
	c. Defective motor.	c. Check Motor. If defective repair or replace as required.
	d. Defective switch.	d. Replace switch.
	e. Defective circuit breaker.	e. Replace circuit breaker.
2. Seat adjuster motor operates in both directions but seat adjusters are not actuated.	a. Short or open circuit between switch and affected solenoid.	a. Check circuit from switch to solenoid to locate failure.
	b. Defective solenoid.	b. Check solenoid. If defective, repair or replace as required.
	c. Defective switch.	c. Replace switch.
3. Seat Adjuster motor operates in one direction only, seat moves down and forward, but does not move up and rearward.	a. Short or open circuit between one of the motor relay wires and seat control switch.	a. Check circuit between affected motor relay wire and seat switch.
	b. Defective field coil in motor.	b. Check motor. If defective repair or replace as required.
	c. Defective switch.	c. Replace switch.

SIX-WAY TILT SEATS

Description

The seat adjuster for the standard and "STRATO" type 6-way seats are actuated by a 12-volt motor installed at the left side of the seat assembly (see Figs. 11-63 and 11-64). The motor is energized by a three button-type control switch located in the left seat side panel.

On same "C-69" Styles, the control switch is installed in the left front door arm rest.

The power seat circuit is protected by a circuit breaker (refer to Electrical Introduction for location).

Oldsmobile Styles Only - In addition to the circuit breaker a relay is used in the circuit which prevents the operation of the seat until the ignition switch is turned "on".

The electrical portion of the six way seat operates as follows:

When the control switch is actuated, current flows to the transmission solenoid which controls the desired seat movement. The energizing of the solenoid coil results in the solenoid plunger dog engaging the gear mechanism to rotate the control cable. The same switch action which energized the solenoid produces a current flow through the motor

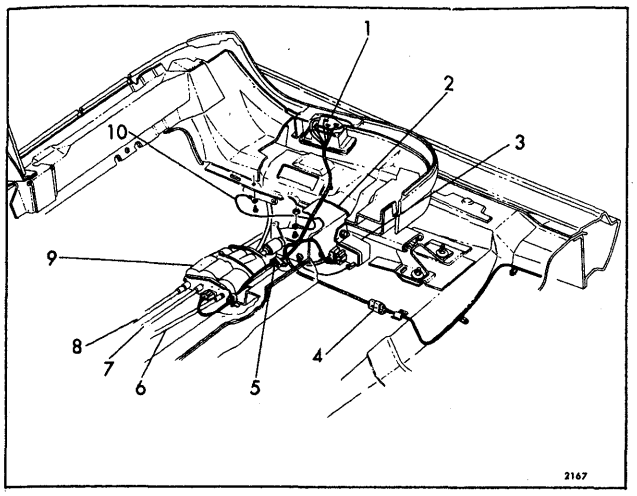


Fig. 11-63—Six-Way "Strato" Seat

1. Control Switch
2. Motor
3. Motor Control Relay
4. Harness Feed Connector
5. Rubber Coupler
6. Front Vertical Control Cable (Yellow)
7. Rear Vertical Control Cable (Blue)
8. Horizontal Control Cable (Black)
9. Transmission and Solenoid Assembly
10. Ground Wire

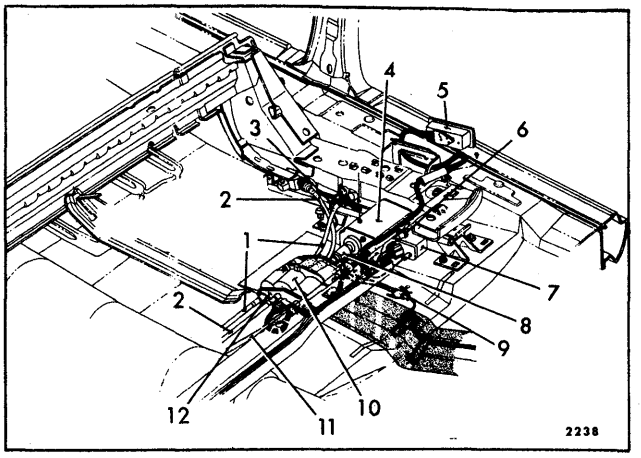


Fig. 11-64—Six-Way Standard Bench Seat

1. Horizontal Control Cable (Black)
2. Rear Vertical Control Cable (Blue)
3. Ground Wire
4. Motor
5. Control Switch
6. Front Vertical Control Cable (Yellow)
7. Motor Control Relay
8. Rubber Coupler
9. Harness Feed Connector
10. Transmission and Solenoid Assembly
11. Front Vertical Control Cable (Yellow)
12. Transmission End Plate

control relay to one of the motor field coils. The current flows through the relay, closes the contacts between the relay power source and the armature motor lead wire, and results in the operation of the seat motor. When the control switch lever is released, the switch contacts open, a spring returns the shaft dog and solenoid plunger to their original position disengaging them from the gear dog.

Circuit Checking Procedures

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident, follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Before performing any extensive check procedures, check the seat adjuster drive cables for proper attachment. In addition, study the seat circuit diagrams to become familiar with the seat circuit. See Figures 11-65, 11-66 and 11-67.

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker, disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker and with test light check terminal from which the wire was disconnected. If tester does not light, circuit breaker is inoperative. Buick and Cadillac Styles - Check feed circuit continuity at fuse block.

b. Checking Relay Assembly at Shroud— Oldsmobile Styles

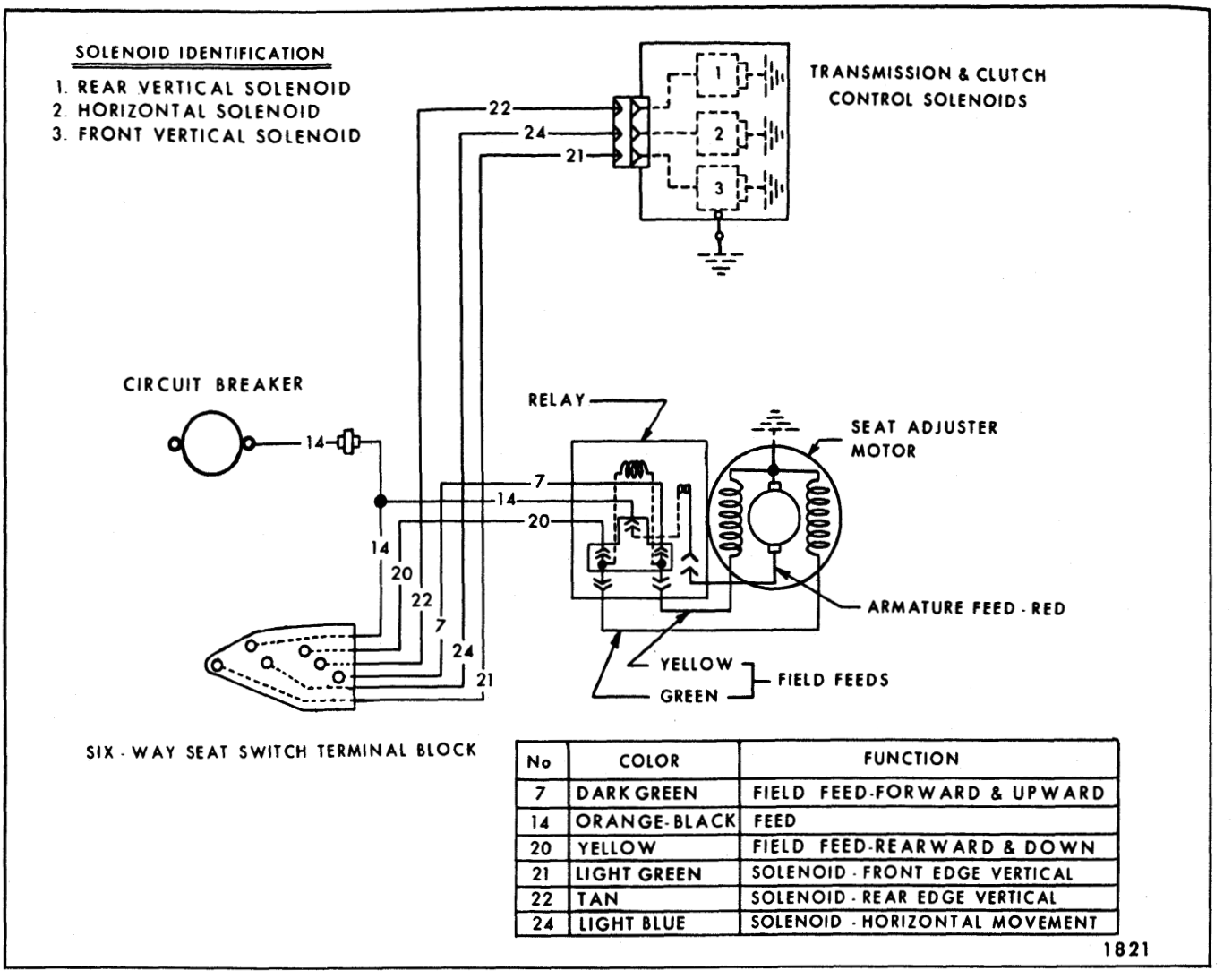
1. With test light check relay feed (orange-black stripe). If tester does not light, there is an open or short circuit between relay and circuit breaker.

2. Turn ignition switch on and with test light check output terminal of relay (red-white stripe). If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch (pink) and relay assembly. (Check fuse at dash panel).

c. Check Feed Circuit Continuity at Seat Control Switch

1. Connect one test light lead to feed terminal of switch block and ground other test lead to body metal.

2. If tester does not light, there is an open or short circuit between switch and power source.



No	COLOR	FUNCTION
7	DARK GREEN	FIELD FEED-FORWARD & UPWARD
14	ORANGE-BLACK	FEED
20	YELLOW	FIELD FEED-REARWARD & DOWN
21	LIGHT GREEN	SOLENOID - FRONT EDGE VERTICAL
22	TAN	SOLENOID - REAR EDGE VERTICAL
24	LIGHT BLUE	SOLENOID - HORIZONTAL MOVEMENT

Fig. 11-65—Six-Way Seat Circuit - All Except Oldsmobile Styles

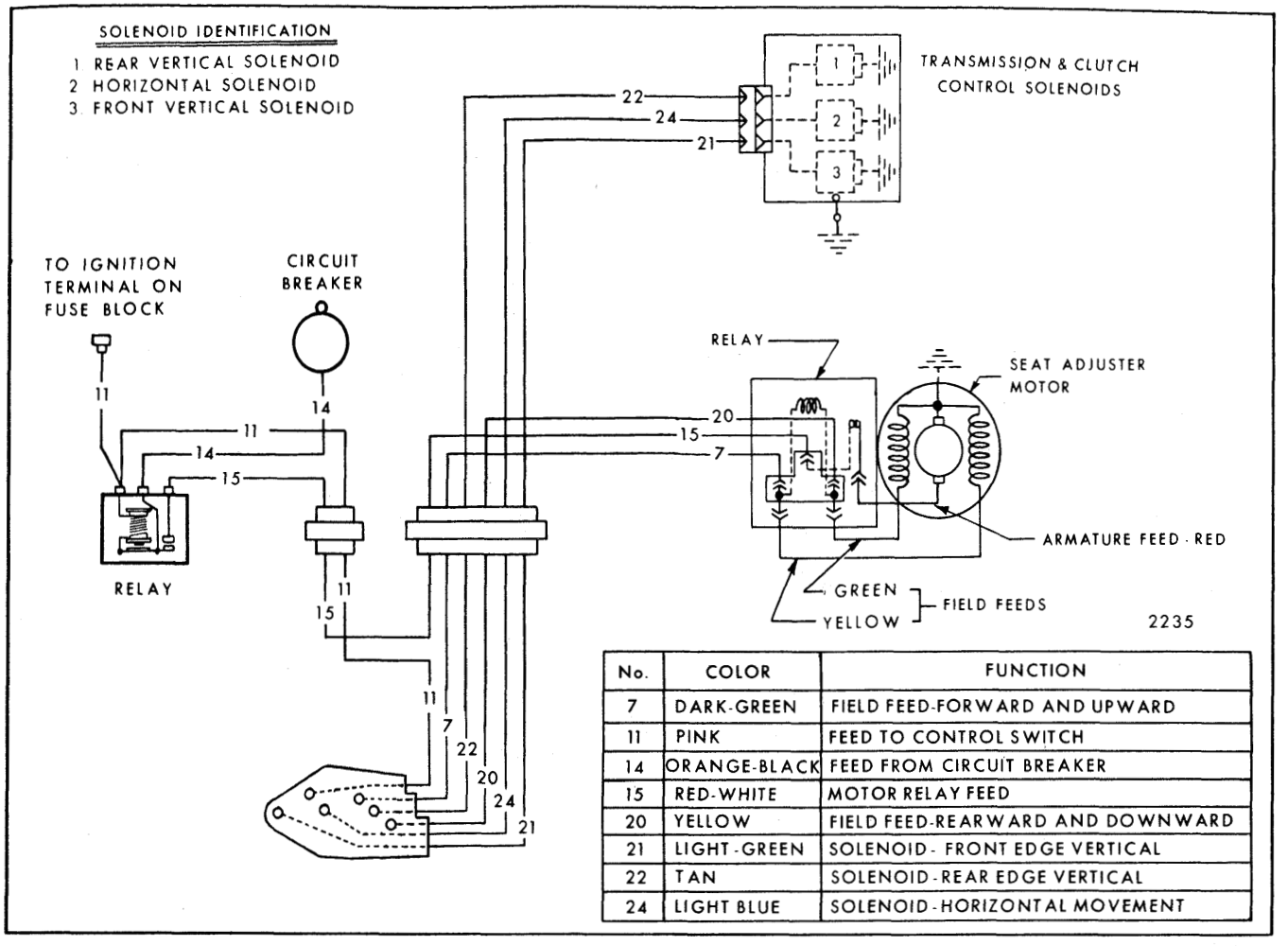
d. Checking the Seat Control Switch

NOTE: In the following operations which specify the seat control switch to be actuated, a switch that has been checked for proper operation may be connected to the switch block. If a switch is not available, a three-way jumper wire can be made to perform the switch function. The jumper wire and the switch locations to be connected to obtain a specific movement of the seat are shown in Figures 11-69 - Oldsmobile styles with switch in seat side panel; 11-70 - Oldsmobile styles with switch in arm rest; 11-68 - Chevrolet, Pontiac, Buick and Cadillac styles. If a jumper wire is used, letter the locations on the switch block as indicated in the illustration. Details outlining the making and use of the jumper wire follow the checking procedure.

1. Obtain switch or jumper wire and connect to switch block.
2. Operate switch. If adjusters operate with new switch or jumper wire, but did not operate with original switch, the original switch is defective.
3. Check all six movements of seat adjuster.

e. Checking Feed Circuit Continuity at Relay on Seat Motor

1. Disengage 3-wire connector body from the seat motor relay terminal.
2. Insert one test light lead into the relay power feed connector slot on the harness, and ground the other test light lead.



No.	COLOR	FUNCTION
7	DARK-GREEN	FIELD FEED-FORWARD AND UPWARD
11	PINK	FEED TO CONTROL SWITCH
14	ORANGE-BLACK	FEED FROM CIRCUIT BREAKER
15	RED-WHITE	MOTOR RELAY FEED
20	YELLOW	FIELD FEED-REARWARD AND DOWNWARD
21	LIGHT-GREEN	SOLENOID - FRONT EDGE VERTICAL
22	TAN	SOLENOID-REAR EDGE VERTICAL
24	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT

Fig. 11-66—Six-Way Seat Circuit - Switch in Arm Rest - Oldsmobile Styles

3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short in feed circuit.

f. Checking Wires Between Control Switch and Motor Relay

1. Disengage 3-wire harness connector from relay at motor.

2. Insert one test light lead into the motor field connector slot on harness and ground the other lead.

3. Actuate seat switch to energize field wire being tested.

4. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch. Check other motor field wire in the same manner.

g. Checking the Relay Assembly

1. Disconnect three motor leads from relay assembly. These are the wires leading from the motor to the relay.

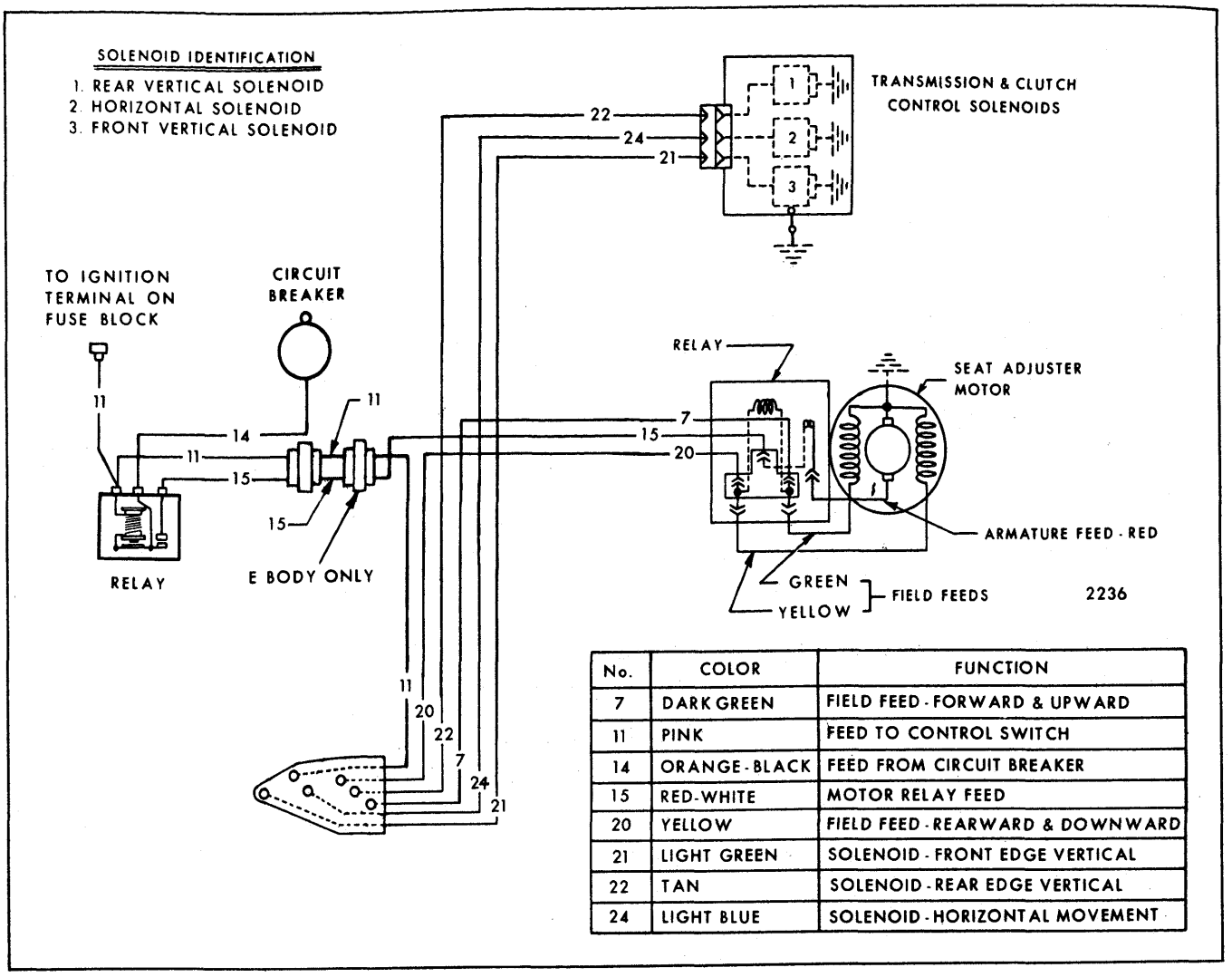
2. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

3. Connect one end of test light to motor armature feed stud on relay and ground other tester lead.

4. With a jumper wire, energize the field stud which is not grounded. If tester does not light the relay is defective.

h. Checking the Motor Assembly

1. Disconnect the motor armature feed lead and one of the motor field feeds from the relay assembly.



No.	COLOR	FUNCTION
7	DARK GREEN	FIELD FEED - FORWARD & UPWARD
11	PINK	FEED TO CONTROL SWITCH
14	ORANGE - BLACK	FEED FROM CIRCUIT BREAKER
15	RED-WHITE	MOTOR RELAY FEED
20	YELLOW	FIELD FEED - REARWARD & DOWNWARD
21	LIGHT GREEN	SOLENOID - FRONT EDGE VERTICAL
22	TAN	SOLENOID - REAR EDGE VERTICAL
24	LIGHT BLUE	SOLENOID - HORIZONTAL MOVEMENT

Fig. 11-67—Six-Way Seat Circuit - Switch in Seat Side Panel - Oldsmobile Styles

2. With a jumper wire, energize the armature feed and one of the field feeds.

3. If motor does not operate, it is defective. Check the other motor field feed in the same manner.

i. Checking the Wire Between the Solenoid and Switch

1. Disengage harness connector from transmission.

2. Connect one test light lead to end of harness wire being tested and ground other lead.

3. Operate switch to energize wire being tested. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch.

j. Checking the Solenoid

1. Check solenoid ground strap attachment for proper ground.

2. Energize solenoid being checked with jumper wire.

NOTE: If solenoid is functioning, a "click" should be heard when solenoid plunger operates "in" and "out".

CAUTION: To prevent damaging the solenoid, do not energize solenoid for more than one minute.

3. With solenoid energized, actuate seat control switch to energize adjuster motor.

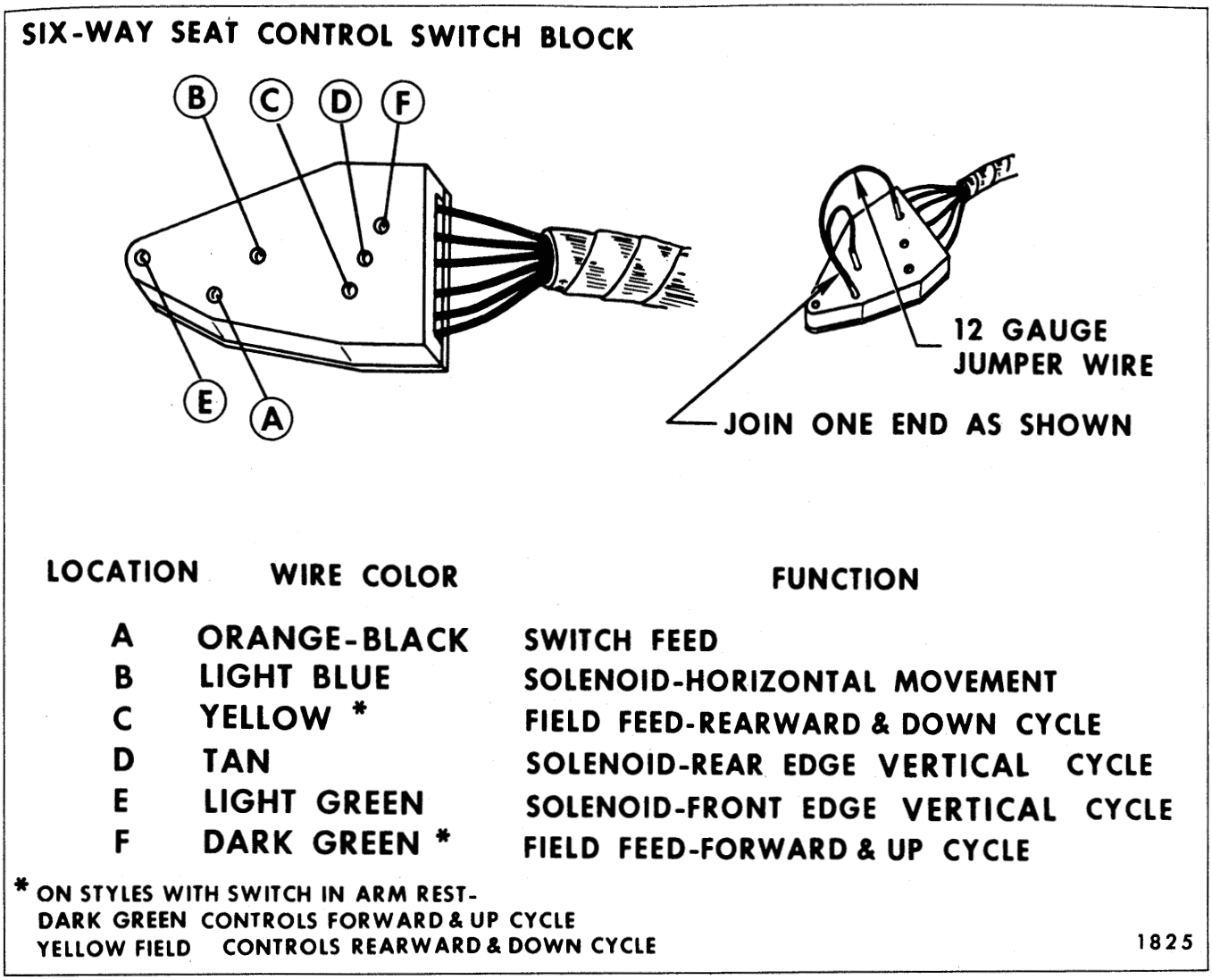


Fig. 11-68—Six-Way Seat Switch Block - All Styles Except Oldsmobile

4. If adjusters do not operate, and there is no mechanical failure in the seat unit, the solenoid is defective.

Three-Way Jumper Wire for Checking Seat Switch

To make jumper wire, obtain two pieces of #12 gauge wire, each 4 1/2" long, join one end of each wire as shown in Figure 11-68. The joined end can be inserted in the feed location in the switch block; one of the remaining ends can be inserted into one of the field locations in the switch block; the other end can be inserted into one of the solenoid locations.

IMPORTANT: To obtain a seat movement using a 3-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations must be connected simultaneously.

On Bodies with Switch in Seat Side Panel:

1. To raise front edge of seat, place jumper in locations, A, F and E.
2. To lower front edge of seat, place jumper in locations A, C and E.
3. To raise rear edge of seat, place jumper in locations A, F and D.
4. To lower rear edge of seat, place jumper in locations A, C and D.

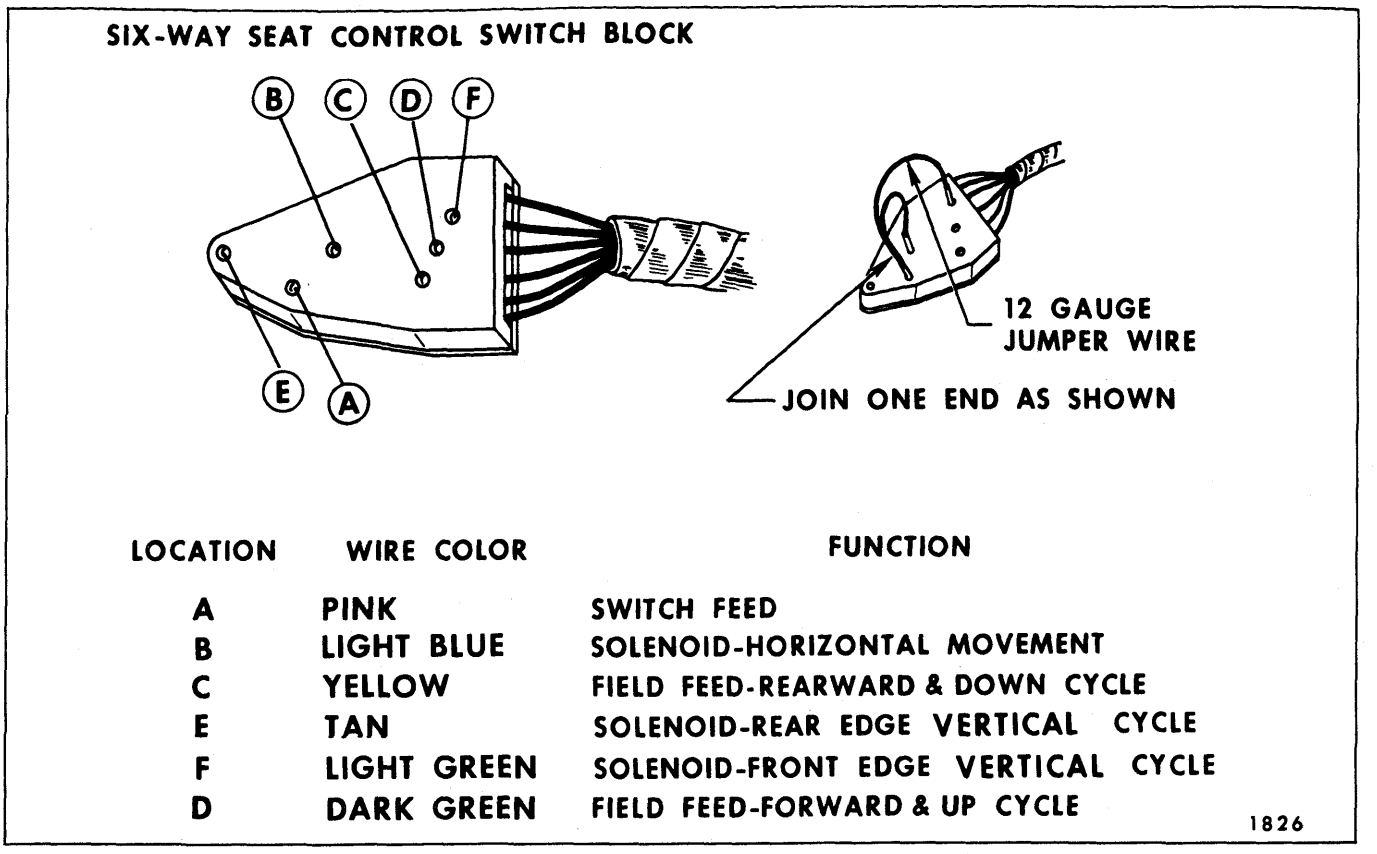


Fig. 11-69—Six-Way Seat Switch Block - Switch in Seat Side Panel - Oldsmobile

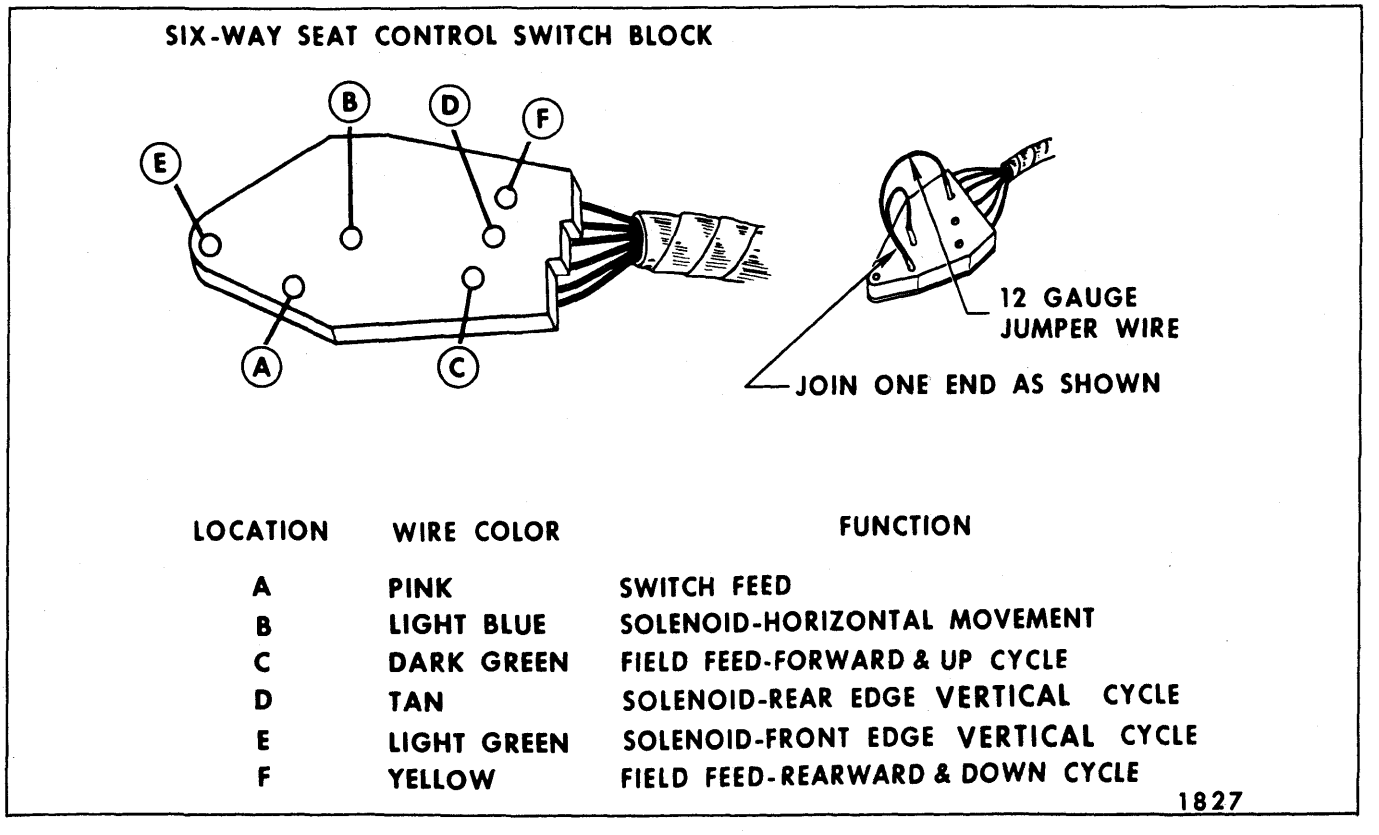


Fig. 11-70—Six-Way Seat Switch Block - Switch in Arm Rest - Oldsmobile

5. To move seat forward, place jumper in locations A-B and F.

6. To move seat rearward, place jumper in locations A-C and B.

On Bodies with Switch in Arm Rest:

1. To raise front edge of seat, place jumper in locations A-C and E.

2. To lower front edge of seat, place jumper in locations A-F and E.

3. To raise rear edge of seat, place jumper in locations A-C and D.

4. To lower rear edge of seat, place jumper in locations A-F and D.

5. To move seat forward place jumper in locations A-C and B.

6. To move seat rearward, place jumper in locations A-F and B.

Typical Electrical Failures

CONDITION	CAUSE	CORRECTION
Seat adjuster motor does not operate.	a. Short or open circuit between power source or switch and motor. b. Defective motor.	a. Check circuit from power source and switch to motor to locate failure. b. Check ignition switch circuit through relay at left shroud - Oldsmobile styles only. c. Check motor. If defective, repair or replace as required.
Seat adjuster motor operates, but seat adjusters are not actuated. or Seat adjuster motor operates, front edge of seat moves up and down and seat moves forward and rearward. The rear edge of seat cannot be operated.	a. Short or open circuit between switch and affected solenoid. b. Defective solenoid.	a. Check circuit from switch to solenoid to locate failure. b. Check solenoid. If defective, repair or replace as required.
Seat adjuster motor operates and seat adjusters move front and rear edge of seat up and forward but will not move the seat down and rearward. or Seat adjuster motor operates and seat adjusters move front and rear of seat down and rearward, but will not move the seat up and forward.	a. Short or open circuit between one of the motor field wires and seat control switch. b. Defective field coil in motor.	a. Check circuit between affected motor field wire and seat switch. b. Check motor. If defective, repair or replace as required.

ELECTRIC FOLDING TOP—CORVAIR

DESCRIPTION

The electric folding top assembly is actuated by a 12 volt shunt-wound motor located under the folding top compartment bag (see Fig. 11-71).

The motor is energized by a control switch mounted on the left side of the instrument panel (see Fig. 11-72). For wiring installation from engine compartment to instrument panel (see Fig. 11-73).

Checking Procedure

Failures in a circuit are usually caused by short circuits or open circuits. Open circuits are usually caused by breaks in the wiring, faulty connection or mechanical failure in a component such as a switch or circuit breaker. Short circuits are usually caused by wires from different components of the circuit contacting one another or by a wire or component grounding to the metal of the body due to a screw through the wire, insulation cut through by sharp metal edge, etc.

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Be sure to check the harness connectors for proper engagement, become familiar with the typical circuit diagram (see Fig. 11-74) and disengage drive cables at motor actuator assembly to relieve any mechanical bind.

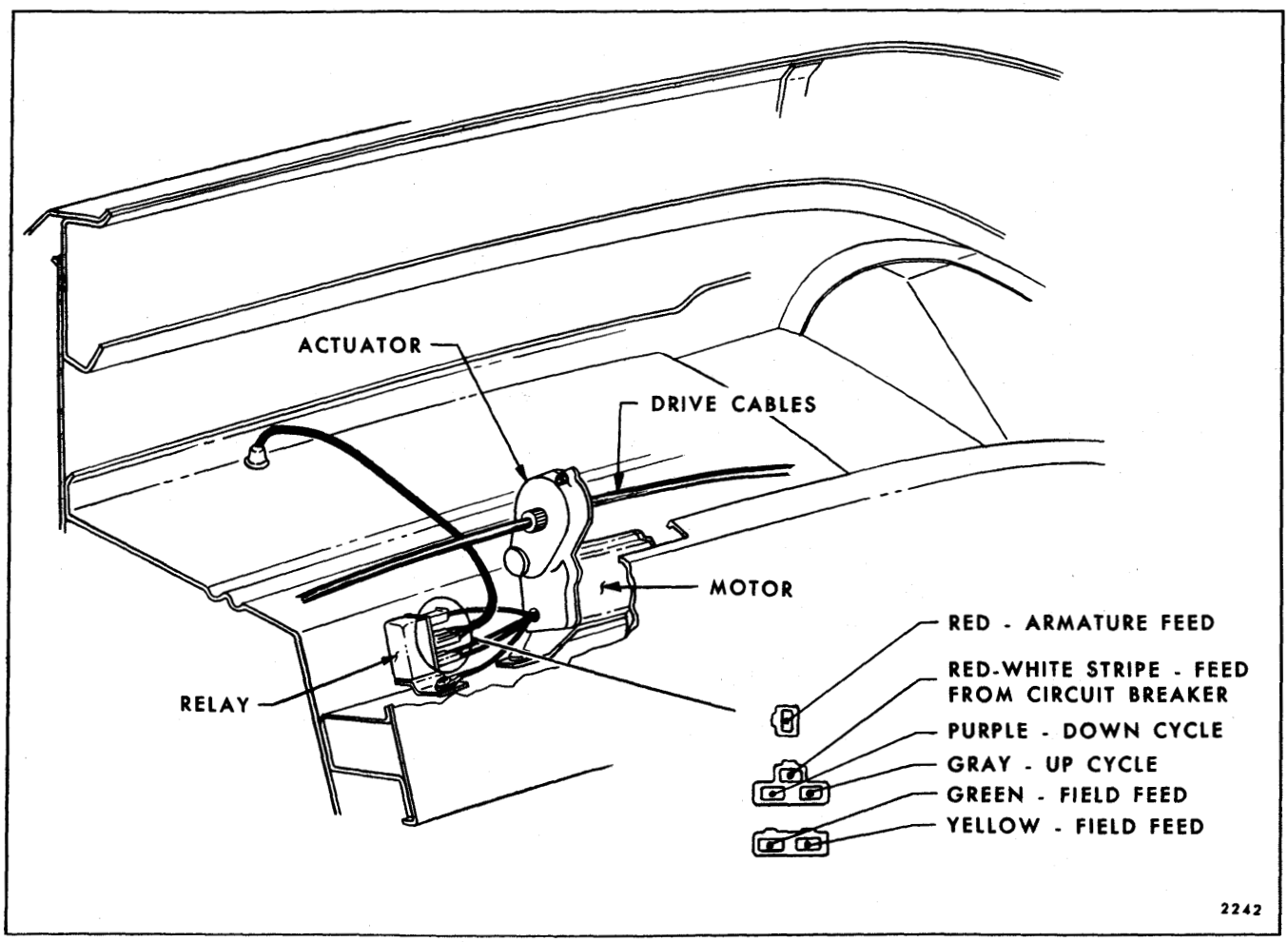


Fig. 11-71—Electric Folding Top Motor and Actuator - Corvair

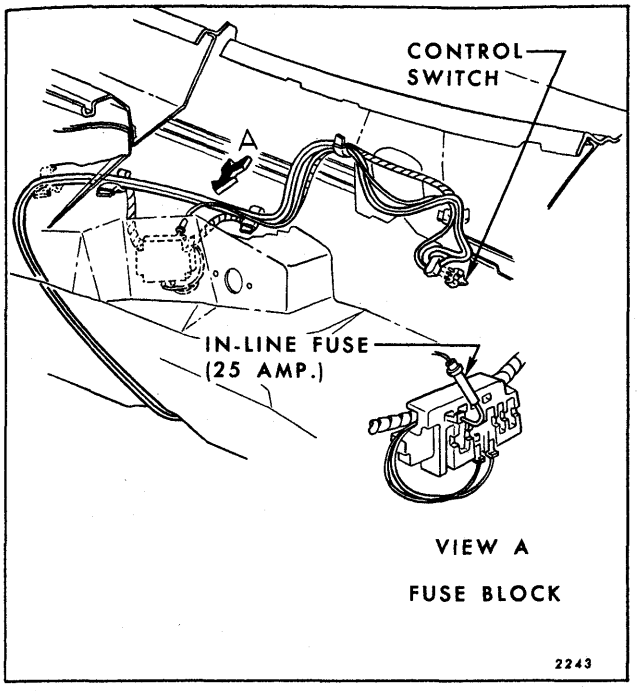


Fig. 11-72—Electric Folding Top Front End Wiring - Corvair

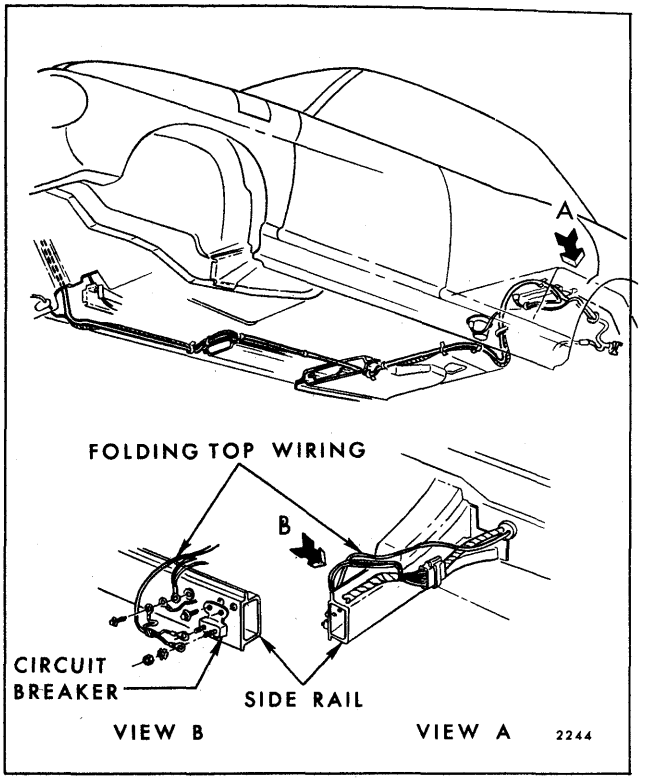


Fig. 11-73—Electric Folding Top Body Wiring - Corvair

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker. Connect one test light lead to the output terminal and ground other lead. If tester does not light, circuit breaker is inoperative.

b. Checking Feed Circuit Continuity at Control Switch on Instrument Panel

1. Disengage harness connector from switch. Connect one test light lead to feed terminal of switch connector and ground other test lead to body metal. If tester does not light, there is an open or short circuit between switch and power source.

c. Checking Control Switch at Instrument Panel

1. Disengage harness connector from switch.

2. Use a #12 gauge jumper wire and insert one end into the feed terminal and the other end into one of the other terminals. Top motor should operate.

3. Repeat procedure for the other terminal. If the top motor operates with the jumper wire but does not operate with the control switch, the switch is defective.

d. Checking Feed Circuit Continuity at Relay at Motor

1. Disengage three-way connector body from the motor relay.

2. Insert one test light lead into the relay power feed connector slot on the harness, and ground other tester lead.

3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short circuit in feed circuit.

e. Checking the Relay Assembly

1. Disconnect three leads from relay assembly. These are the wires leading from the motor to the relay. (Red, Green, Yellow, Fig. 11-71).

2. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

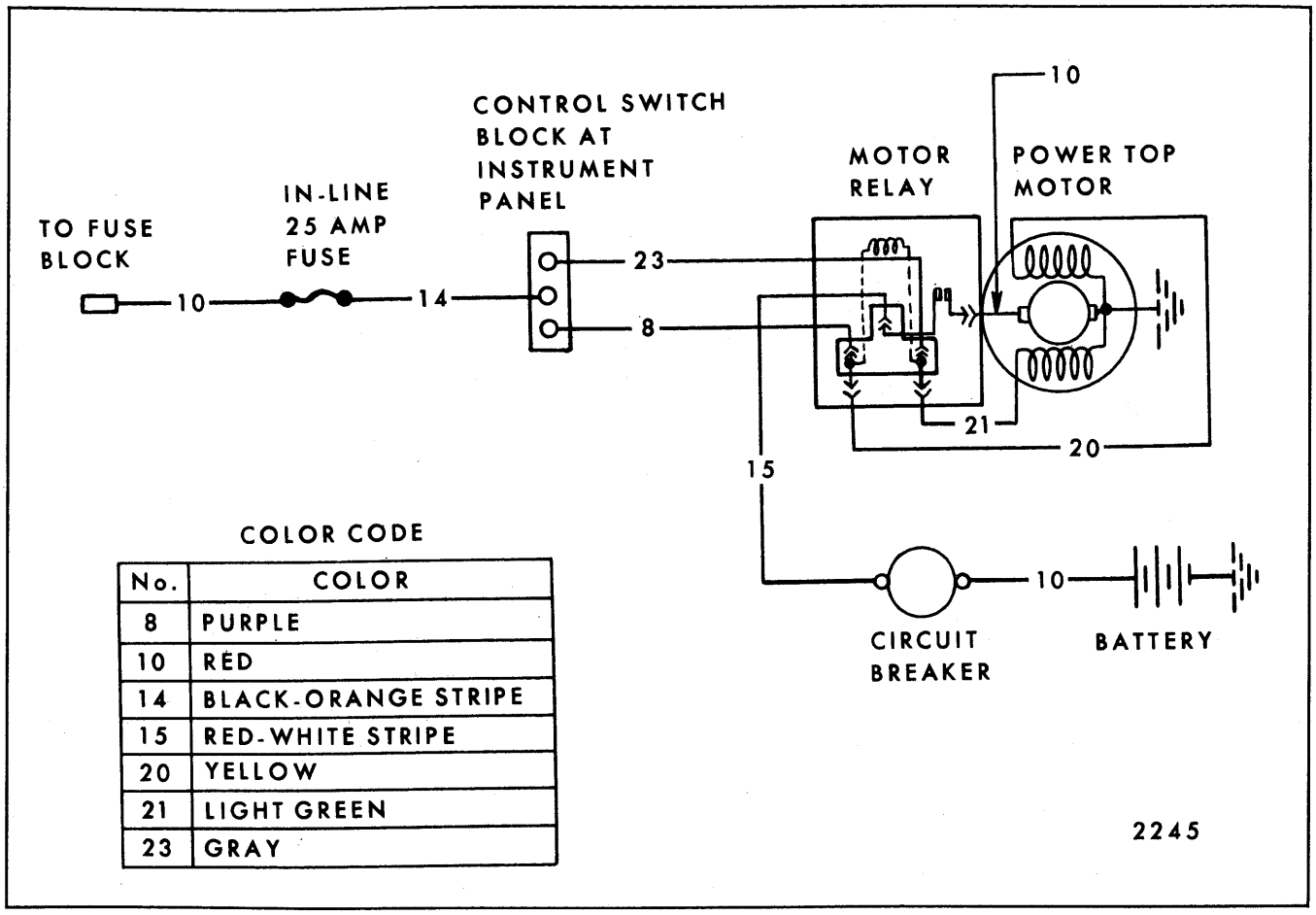
3. Connect one test light lead to motor armature feed stud on relay and ground other tester lead.

4. With jumper wire, energize the field stud which is not grounded.

CAUTION: Do not energize grounded side, if tester does not light, the relay is defective.

f. Checking the Motor Assembly

1. Disconnect motor field feed wires from motor (at relay).
2. Connect one end of a #12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.
3. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.



COLOR CODE

No.	COLOR
8	PURPLE
10	RED
14	BLACK-ORANGE STRIPE
15	RED-WHITE STRIPE
20	YELLOW
21	LIGHT GREEN
23	GRAY

Fig. 11-74—Electric Folding Top Wiring Circuit - Corvair

SECTION 12
EXTERIOR MOLDINGS

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EXTERIOR MOLDINGS

INTRODUCTION

The exterior moldings are secured to the body by any one or a combination of the following attachments (see Fig. 12-1).

a. attaching screws

b. bolt and clip assemblies with attaching nuts

c. integral studs with attaching nuts

d. "bath-tub" type snap on clips

e. "W base" type snap in clips

f. weld on studs and clips

g. snap in studs to pre-installed retainers

h. spring (self retained)

Before using the molding charts the following information will be helpful when installing or removing exterior moldings.

1. Screw locations - the exact location for each screw is not shown or mentioned, but when hidden, the general location is indicated by naming the molding or other part which conceals the screw and therefore must be removed to gain access to the screw.

2. When a molding is overlapped the overlapping molding is indicated in the "Engages with other molding" column and must be removed first.

GENERAL PRECAUTIONS

When removing or installing any body exterior molding certain precautions should be exercised.

1. Adjacent finishes should be protected with masking tape to prevent damage to finish.

2. Proper tools and care should be employed to guard against molding damage.

SEALING OPERATION

Although detailed sealing operations for each individual molding are not described on the "Molding Removal Chart" the following information is given to permit a satisfactory sealing operation.

Medium-bodied sealer or body caulking compound are the sealers most frequently used to provide a watertight seal or for anti-rattle measures.

Holes in body panels for screws, bolts, or clips that would permit water to enter the interior of the body should be sealed with body caulking compound or presealed screws, nuts or clips.

Drip moldings require a 1/4" bead of medium-bodied sealer along the full length of the inner attaching surface. Door window scalps and center pillar scalps require a 1/8" x 1/4" x 1/4" bead of caulking compound at 5" intervals for anti-rattle purposes. Pinchwelds require medium-bodied sealer on both sides when pinchweld clips are used. The exception is the rear quarter pinchweld on convertible styles which requires waterproof tape over the entire pinchweld, prior to clip installation.

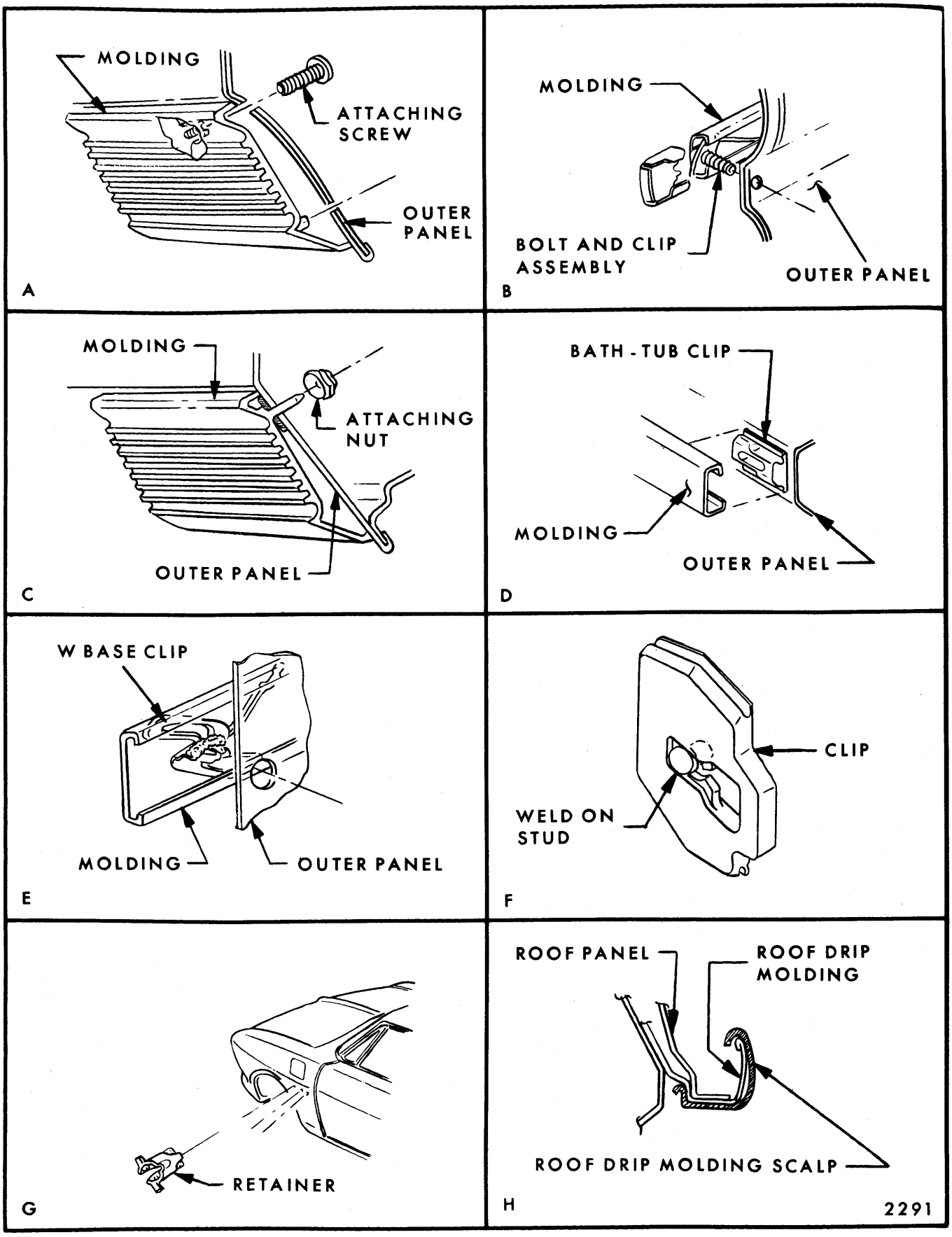

Fig. 12-1—Exterior Molding Attachments

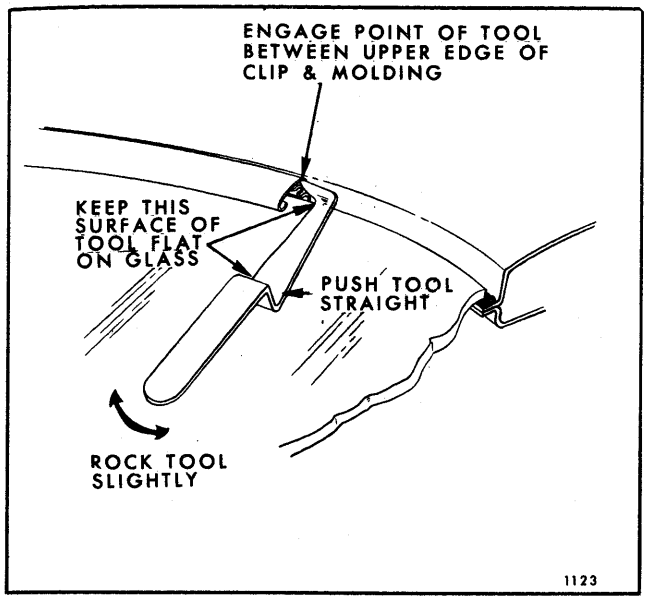

Fig. 12-2—Usage of Reveal Molding Disengagement Tool

TOOLS AND CARE

The following groups of moldings are listed with the name or description of the tool which is suitable for molding removal.

Roof Drip Scalps - pointed hook tool

Door Window Scalps - thin flat-bladed tool (putty knife)

Snap-On Clips - thin flat-bladed tool (putty knife)

Reveal moldings around adhesive caulked glass installations are retained by clips which are attached to the body opening by weld on studs or screws. On all styles, a projection on the clip engages the reveal molding flange, retaining the molding between clip and body metal. To disengage a molding from retaining clips use tool J-21549-2 (or J-9698) or any other suitable tool as shown in Figure 12-2.

NOTE: Adhesive caulked window glass tool set J-21549-03 is available as a service tool package and consists of:

J-21549-1 Handle

*J-21549-2 Reveal molding remover (flat blade)

**J-21549-3 Reveal molding remover (angle blade)

J-21549-5 R.H. Reveal molding remover

J-21549-6 L.H. Reveal molding remover

*also available as J-21549

**also available as J-9698

If it is necessary to replace a damaged "bath-tub" molding clip, use the following procedure for removal and installation:

1. Insert sharp edge of flat-bladed tool, such as a putty knife, under edge of clip and hammer tool until base of clip is cut approximately half-way through (Fig. 12-3) then disengage clip from hole.

NOTE: In some cases, it may be necessary to cut clip at opposite end of base also.

2. Special tool J-21214 is required when installing metal bath-tub type clips.

3. No special tool is needed to install a new plastic bath-tub type clip.

If a weld stud on a panel becomes damaged or broken off use the following procedure:

1. Drill a small hole in the panel adjacent to where original weld on stud was installed.

2. Insert a self sealing screw through original clip and into outer panel.

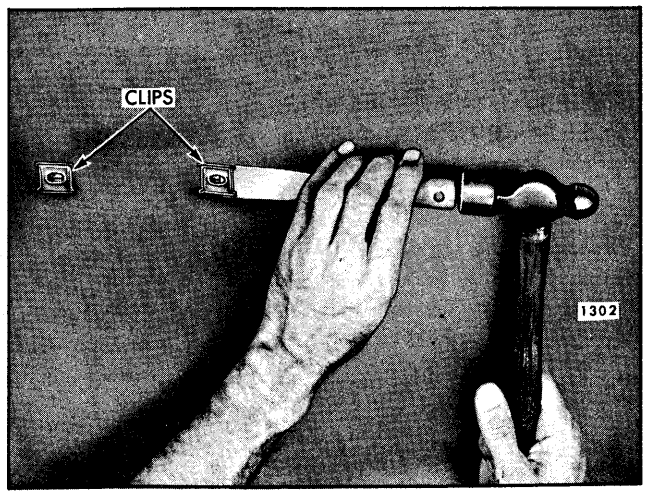

Fig. 12-3—Removal of "Bath-Tub" Molding Clip

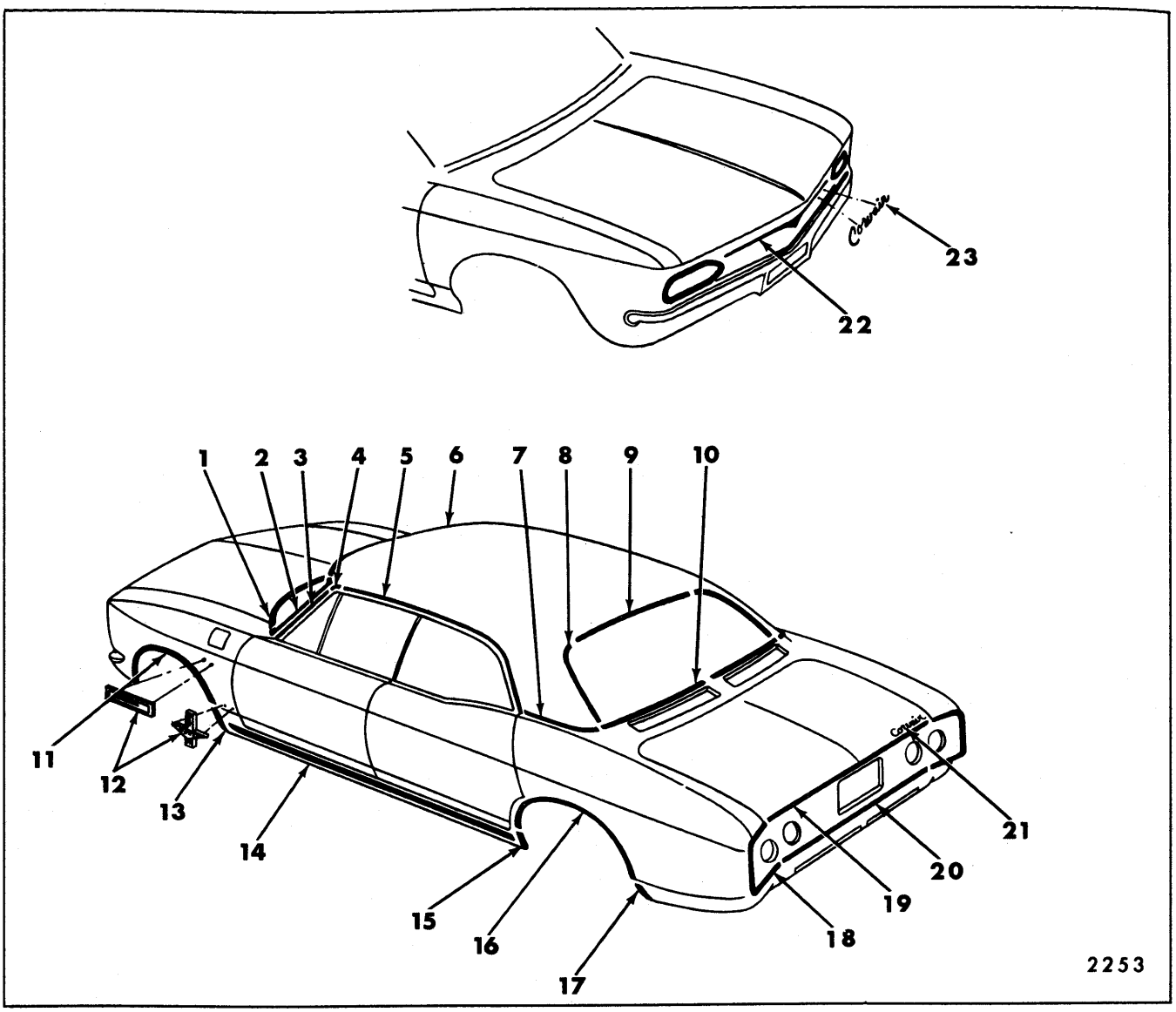

Fig. 12-4—Corvair - "Z-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Scalp Escutcheon
5. Roof Drip Molding Scalp
6. Windshield Reveal Upper Molding
7. Rear Quarter Belt Reveal Molding
8. Back Window Reveal Side Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Front Wheel Opening Front Molding
12. Front Fender Emblem
13. Front Wheel Opening Rear Molding
14. Rocker Panel Molding
15. Front of Rear Wheel Opening Molding
16. Rear Wheel Opening Molding
17. Rear of Rear Wheel Opening Molding
18. Rear of Rear Quarter Panel Molding
19. Engine Compartment Lid Outer Panel Molding
20. Rear End Panel Molding
21. Engine Compartment Lid Outer Panel Nameplate
22. Front Compartment Emblem
23. Front Compartment Nameplate

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front End Outer Panel	All					X		Front Compartment Lock Cylinder and Retainer
Front End Outer Panel Nameplate	All					X		
Front Wheel Opening Front	10500-10700	X						
Front Wheel Opening Rear	10500-10700	X					Loosen Front Wheel Opening Front Molding	
Front Fender Emblem	All			X		X		Front Cowl Trim Foundation
Windshield Reveal Upper	All			X				
Windshield Reveal Side	All			X			Remove Windshield Upper Reveal	
Windshield Reveal Lower	All			X			Remove Windshield Side Reveal	
Windshield Pillar Drip	All (except 67)	X						Front Section of Side Roof Rail Weatherstrip and Weatherstrip Retainer
Windshield Pillar Finishing	67 Style	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
Windshield Pillar Drip Molding Scalp	10537, 39, 10737		X				Windshield Pillar Drip Molding Scalp Escutcheon	

10100 - 10500 - 10700 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Pillar Drip Molding Scalp Escutcheon	10537, 39, 10737		X					
Roof Drip Molding Scalp	10537, 39, 10737		X				Windshield Pillar Drip Molding Scalp	
Rocker Outer Panel	10500-10700	X			X			
Rear Wheel Opening Front	10500-10700	X					Loosen Rear Wheel Opening Center	
Rear Wheel Opening Center	10500-10700	X						
Rear Wheel Opening Rear	10500-10700	X					Loosen Rear Wheel Opening Center	
Rear Quarter Outer Panel Emblem	10700					X		
Rear Quarter Belt Reveal (Optional)	39 Styles				X	X		
Rear Quarter Pinchweld Finishing	67 Styles	X		X			Left Side Telescopes into Right Side	
Back Glass Reveal Upper	All 37-39 Styles			X			Remove Back Glass Reveal Sides	
Back Glass Reveal Side	All 37-39 Styles			X			Remove Back Glass Reveal Lower	
Back Glass Reveal Lower	All 37-39 Styles			X				
Rear of Rear Quarter	10500-10700					X		
Engine Compartment Lid	10500-10700	X						
Engine Compartment Lid Nameplate	All					X		
Rear End Panel	10500-10700					X	Rear of Rear Quarter	

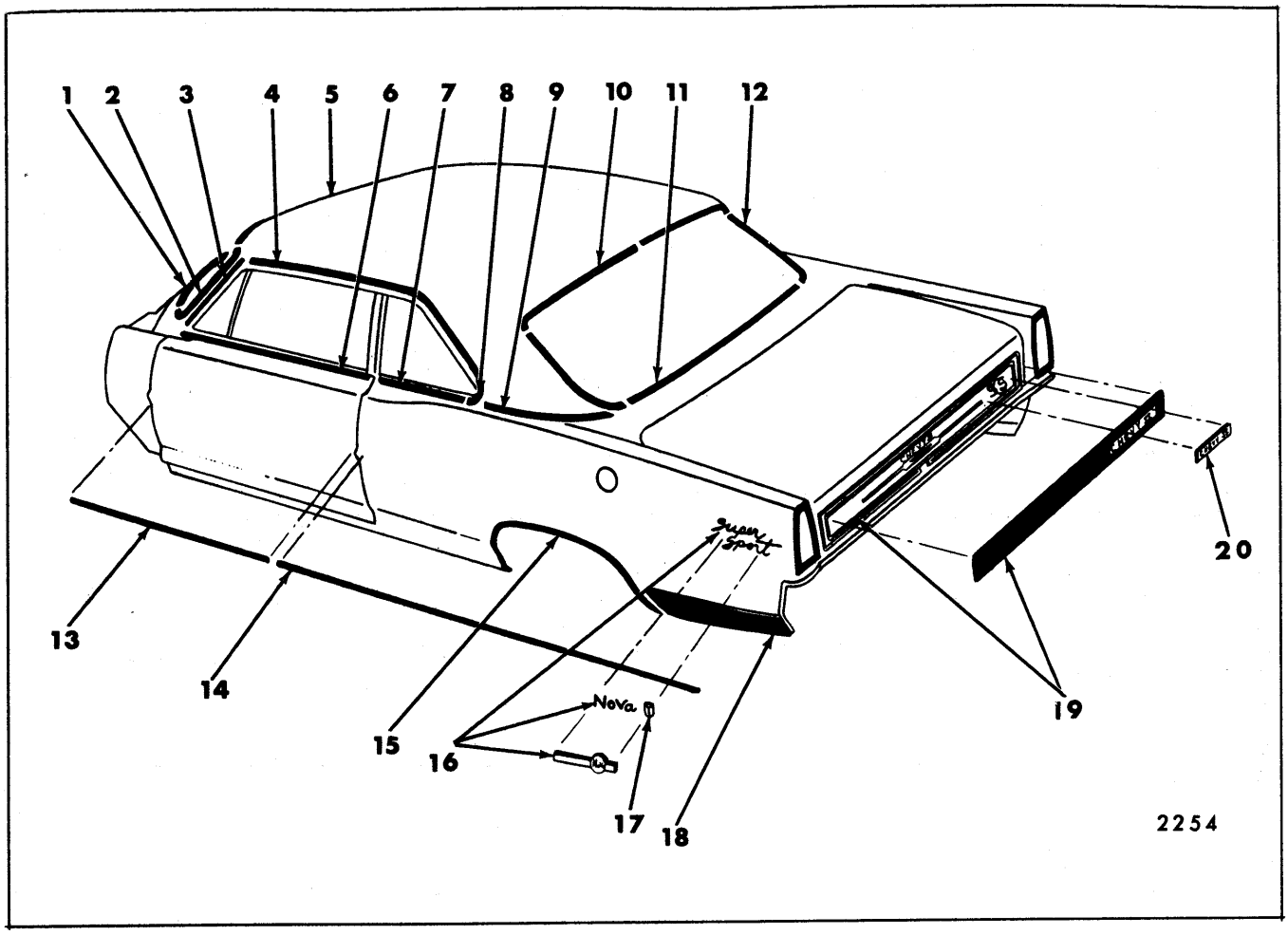

Fig. 12-5—Chevy II "X-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Scalp
5. Windshield Reveal Upper Molding
6. Front Door Window Belt Reveal Molding
7. Rear Quarter Window Belt Reveal Molding
8. Rear Quarter Window Rear Corner Belt Reveal Molding
9. Rear Quarter Belt Reveal Molding
10. Back Window Reveal Upper Molding
11. Back Window Reveal Lower Molding
12. Back Window Reveal Side Molding
13. Front Door Outer Panel Molding
14. Rear Quarter Outer Panel Molding
15. Rear Wheel Opening Molding
16. Rear Quarter Outer Panel Nameplate
17. Rear Quarter Outer Panel Emblem
18. Rear of Rear Wheel Opening Molding
19. Rear Compartment Lid Outer Panel Molding
20. Rear Compartment Lid Outer Panel Nameplate

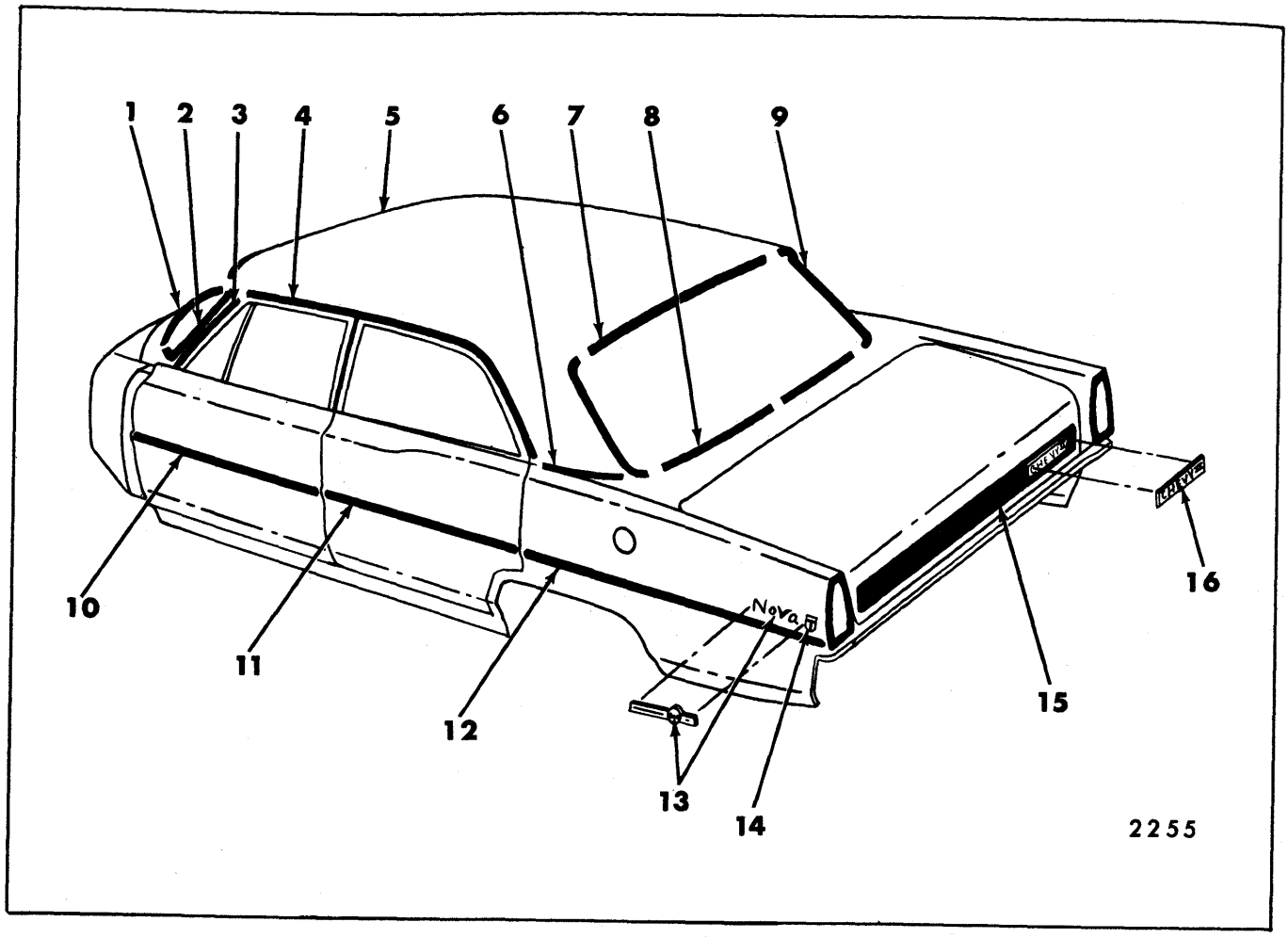

Fig. 12-6—Chevy II "X-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Scalp
5. Windshield Reveal Upper Molding
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Front Door Outer Panel Molding
11. Rear Door Outer Panel Molding
12. Rear Quarter Outer Panel Molding
13. Rear Quarter Outer Panel Nameplate
14. Rear Quarter Outer Panel Emblem
15. Rear Compartment Lid Outer Panel Molding
16. Rear Compartment Lid Outer Panel Nameplate

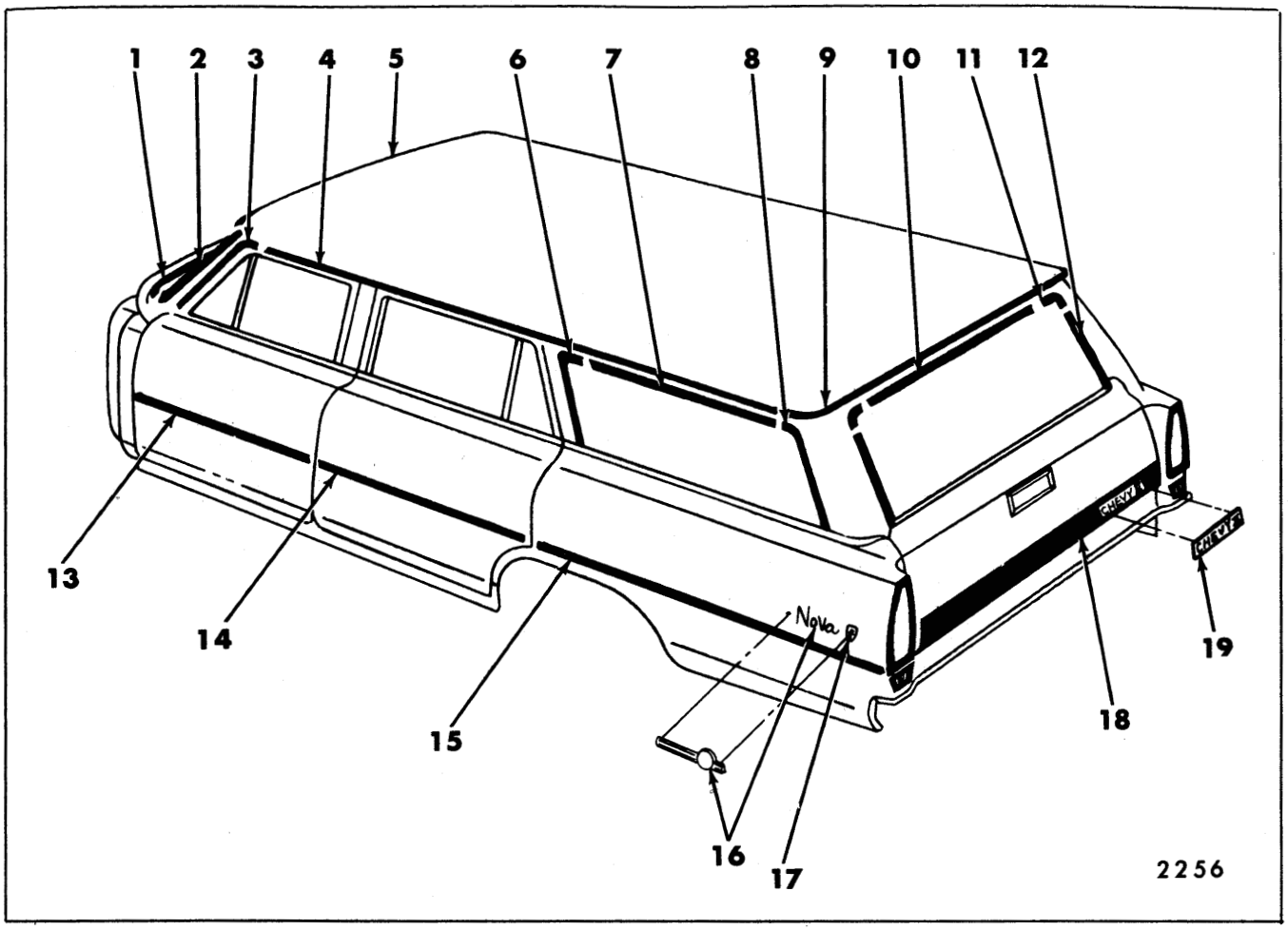

Fig. 12-7—Chevy II "X-35" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Front Scalp
5. Windshield Reveal Upper Molding
6. Rear Quarter Window Reveal Front Molding
7. Rear Quarter Window Reveal Upper Molding
8. Rear Quarter Window Reveal Rear Molding
9. Roof Drip Molding Rear Scalp
10. Back Body Opening Upper Reveal Molding
11. Back Body Opening Reveal Escutcheon
12. Back Body Opening Side Reveal Molding
13. Front Door Outer Panel Molding
14. Rear Door Outer Panel Molding
15. Rear Quarter Outer Panel Molding
16. Rear Quarter Outer Panel Nameplate
17. Rear Quarter Outer Panel Emblem
18. Tailgate Outer Panel Molding
19. Tailgate Outer Panel Nameplate

11400 - 11600 - 11800 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All							Windshield Reveal Moldings are Removed from the Rubber Channel after the Glass and Channel are Removed from the Opening
Windshield Reveal Side	All						Overlaps the Upper and Lower Windshield Reveal Moldings	(Same As Above)
Windshield Reveal Lower	All							(Same As Above)
Windshield Pillar Drip	All	X						
Roof Drip Molding Scalp	69		X					
Roof Drip Molding Scalp Front	35 and 37		X					
Roof Drip Molding Scalp Rear	35 and 37		X					
Back Roof Drip Molding Scalp	35		X					
Front Door Window Belt Reveal	37	X			X			
Rear Quarter Window Belt Reveal	37	X			X			
Quarter Belt Reveal	11 and 69 37 (Optional)			X		X		
Front Door Outer Panel	11600	X		X				
Rear Door Outer Panel	11600	X		X				

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Quarter Outer Panel	11600			X		X		
Rear Quarter Outer Panel Emblem	All					X		
Rear Wheel Opening	11837	X						
Rear of Rear Wheel Opening	11837	X		X				
Back Glass Reveal Upper	All (except 35)			X				
Back Glass Reveal Side	All (except 35)			X				
Back Glass Reveal Lower	All (except 35)			X				
Back Body Opening Reveal Side	35			X				
Back Body Opening Reveal Upper	35			X				
Back Body Opening Reveal Escutcheon	35		X					
Tail Gate Outer Panel Emblem	11435					X		
Tail Gate Outer Panel Molding and Emblem Assembly	11635					X		
Rear Compartment Lid Outer Panel Emblem	11400					X		
Rear Compartment Lid Outer Panel Molding and Emblem Assembly	11600-11800					X		

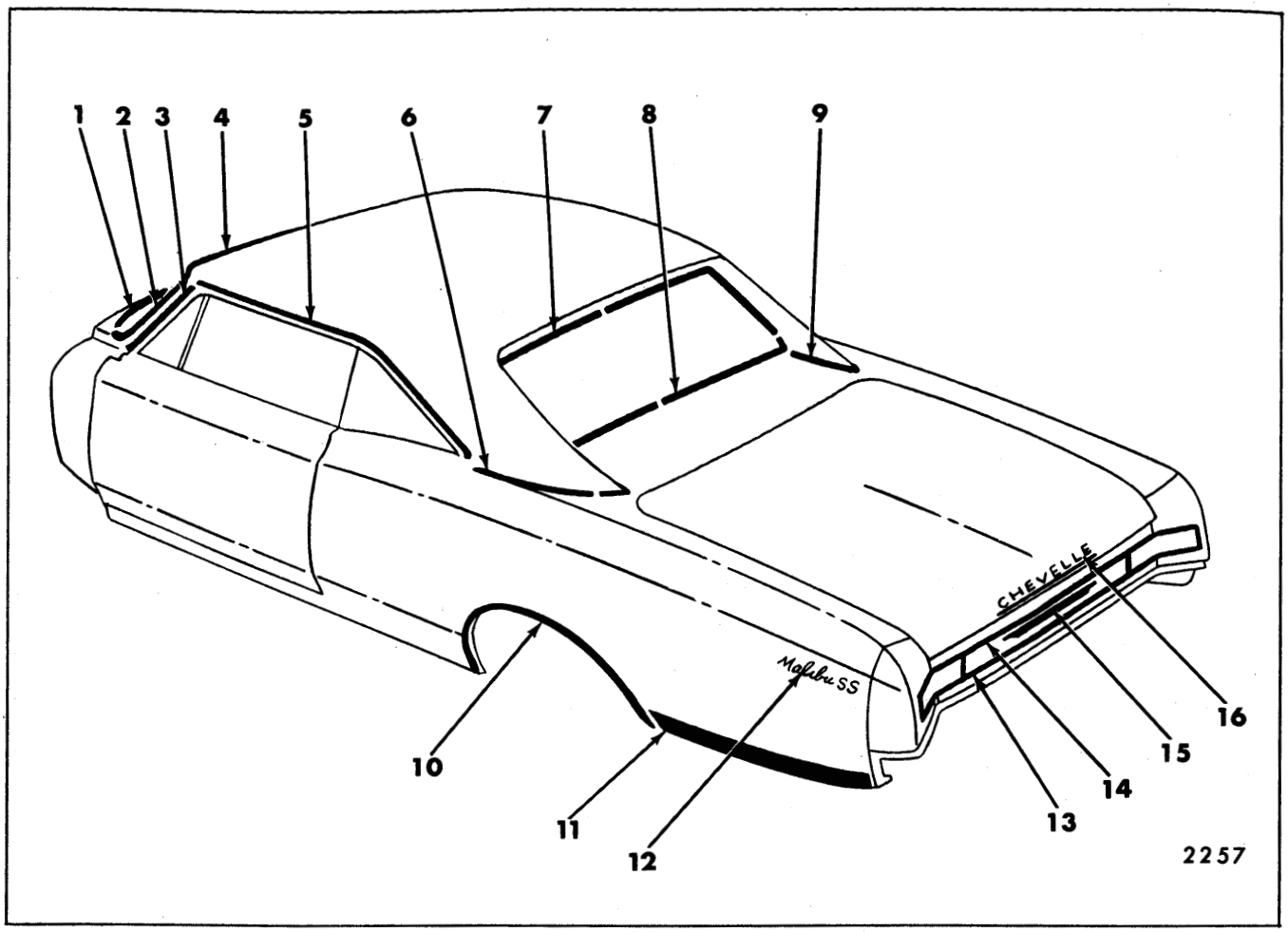

Fig. 12-8—Chevelle "A" — 13817

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Rear Quarter Belt Reveal Rear Molding
10. Rear Wheel Opening Molding
11. Rear of Rear Wheel Opening Molding
12. Rear Quarter Outer Panel Nameplate
13. Rear End Panel Lower Molding
14. Rear End Panel Upper Molding
15. Rear End Panel Emblem
16. Rear Compartment Lid Outer Panel Nameplate

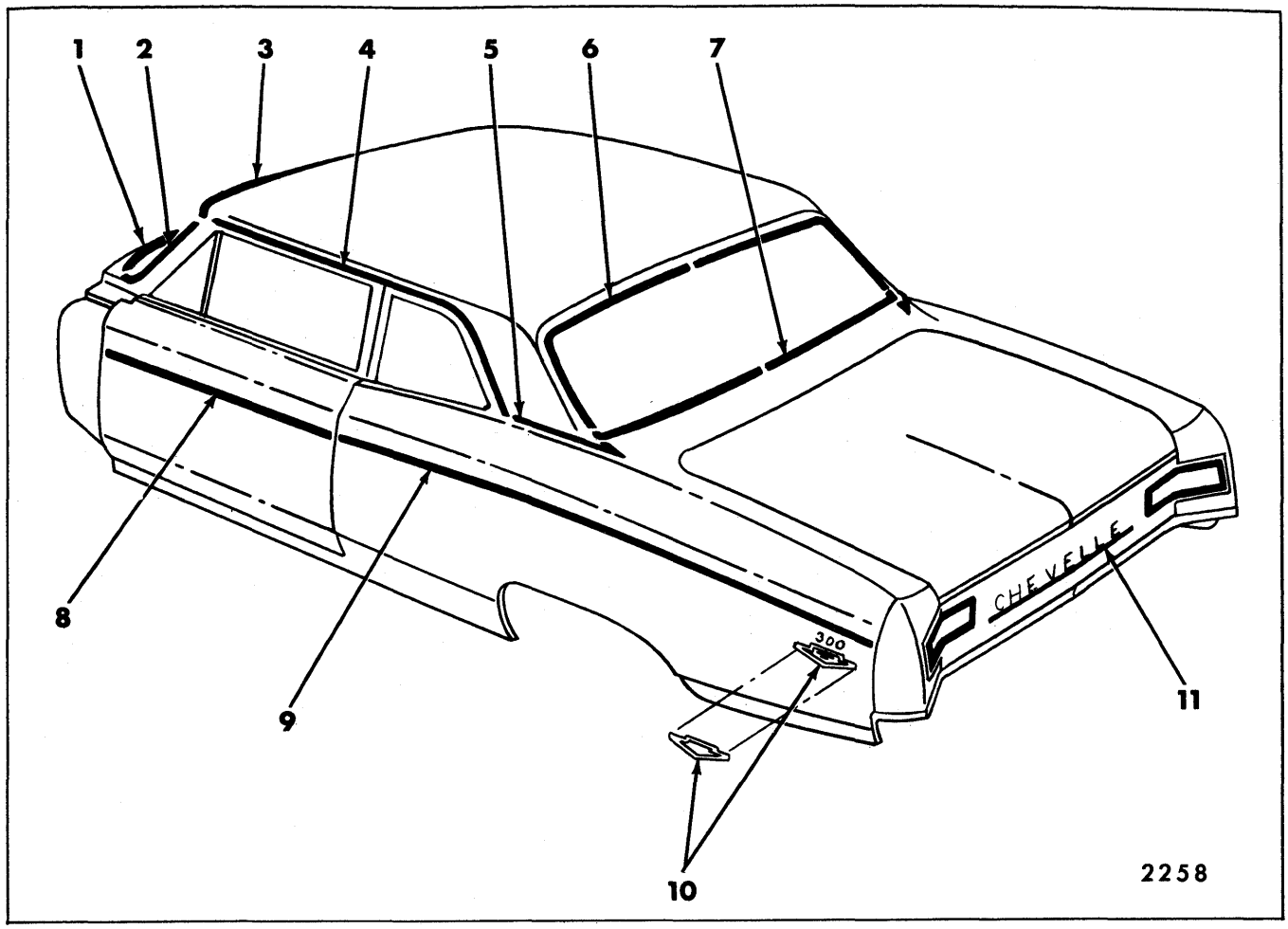

Fig. 12-9—Chevelle "A-11" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Roof Drip Molding Scalp
5. Rear Quarter Belt Reveal Molding
6. Back Window Reveal Upper Molding
7. Back Window Reveal Lower Molding
8. Front Door Outer Panel Molding
9. Rear Quarter Outer Panel Molding
10. Rear Quarter Outer Panel Emblem
11. Rear End Panel Nameplate

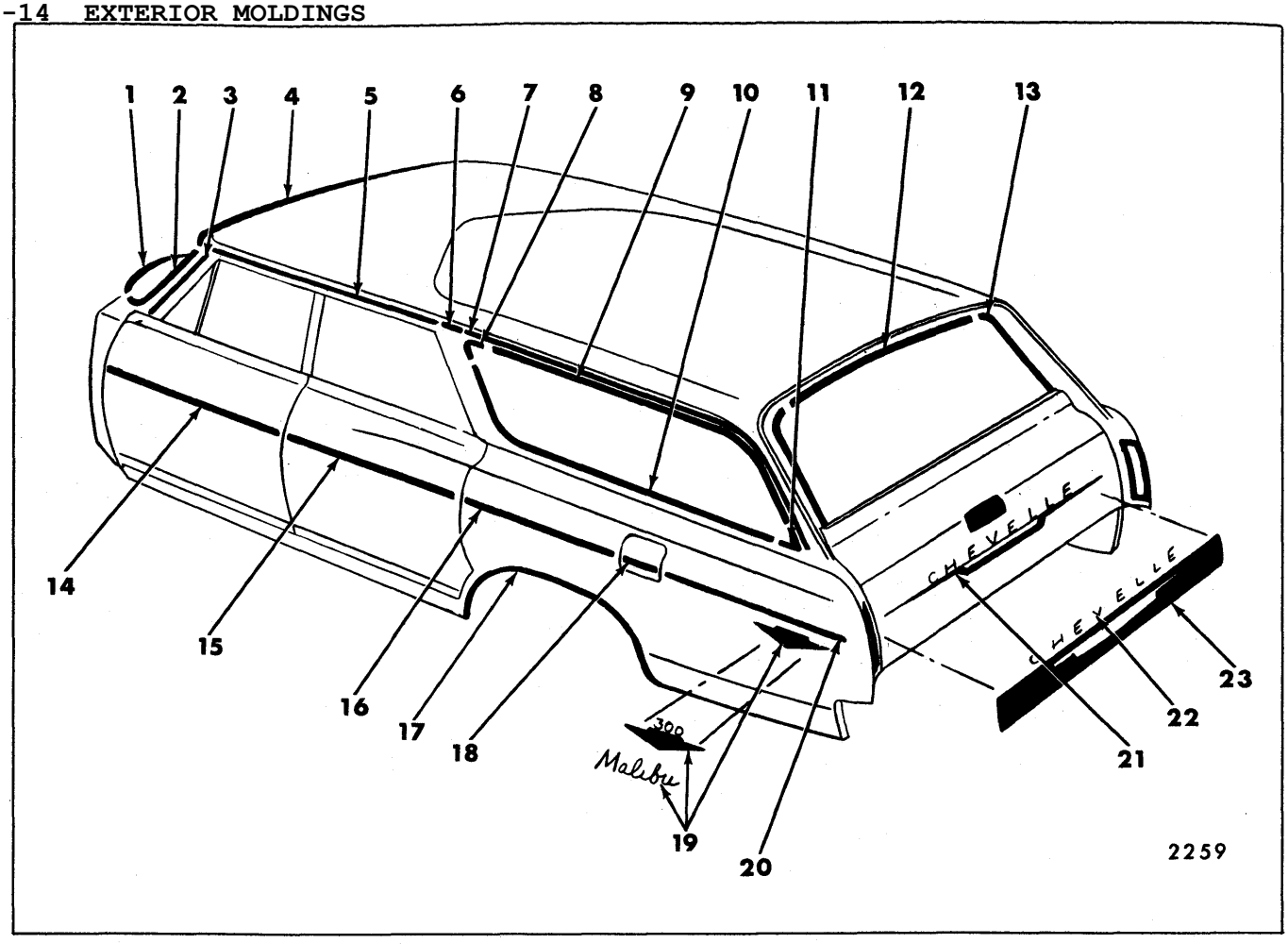

Fig. 12-10—Chevelle "A-35" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Scalp Escutcheon
7. Roof Drip Molding Rear Scalp
8. Rear Quarter Window Reveal Upper Corner Escutcheon
9. Rear Quarter Window Reveal Upper Molding
10. Rear Quarter Window Reveal Lower Molding
11. Rear Quarter Window Reveal Lower Corner Escutcheon
12. Back Body Opening Upper Reveal Molding
13. Back Body Opening Side Reveal Molding
14. Front Door Outer Panel Molding
15. Rear Door Outer Panel Molding
16. Rear Quarter Outer Panel Front Molding
17. Rear Wheel Opening Molding
18. Gas Tank Filler Door Molding
19. Rear Quarter Outer Panel Emblem
20. Rear Quarter Outer Panel Rear Molding
21. Tailgate Outer Panel Emblem
22. Tailgate Outer Panel Nameplate
23. Tailgate Outer Panel Molding

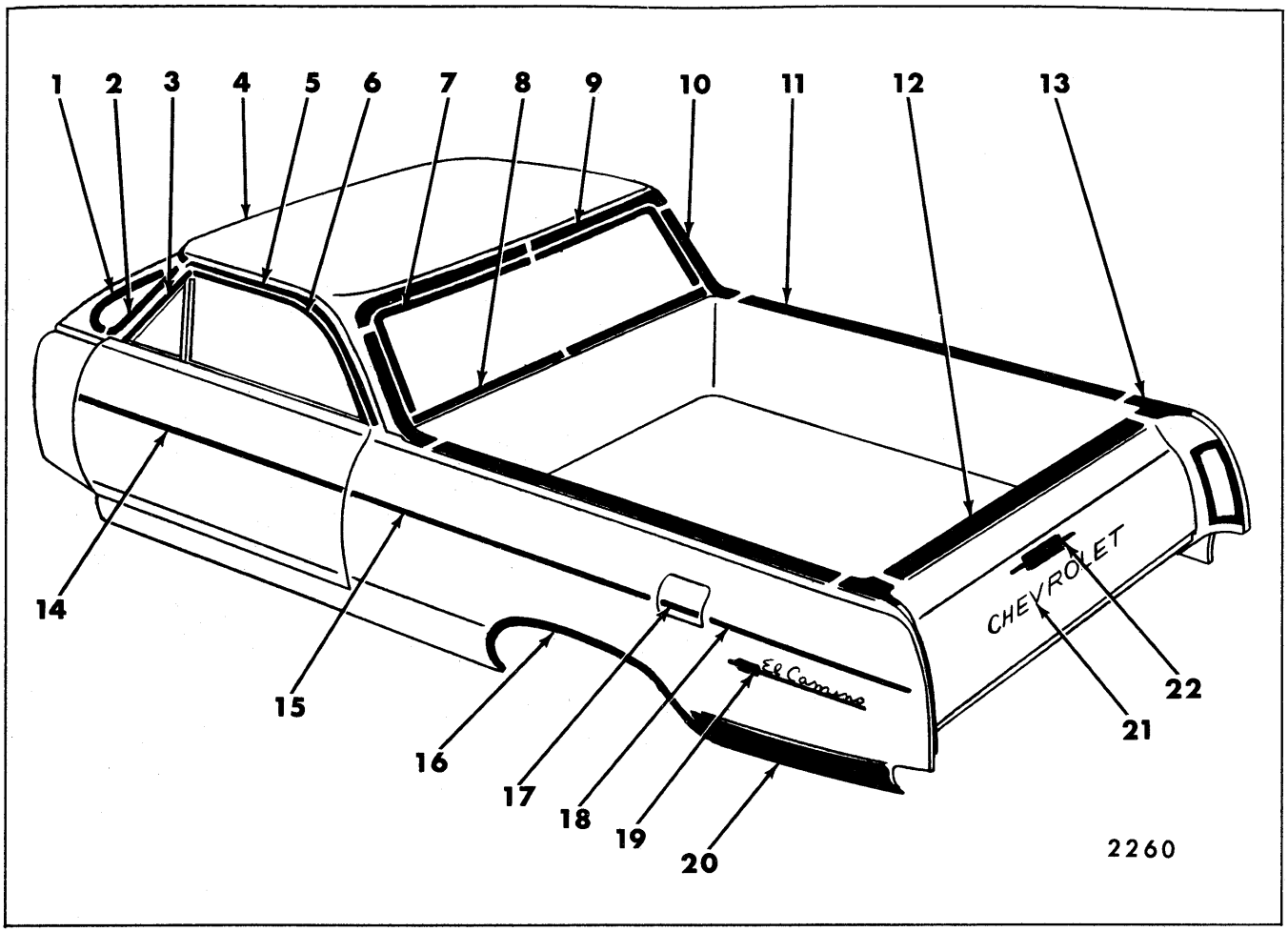

Fig. 12-11—Chevelle "A-80" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Front Door Window Frame Front Scalp Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Front Door Window Frame Upper Scalp Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Roof Panel Upper Finishing Molding
10. Roof Panel Side Finishing Molding
11. Quarter Pinchweld Finishing Molding
12. Tailgate Belt Finishing Molding
13. Quarter Pinchweld Rear Finishing Molding
14. Front Door Outer Panel Molding
15. Rear Quarter Outer Panel Front Molding
16. Rear Wheel Opening Molding
17. Gas Tank Filler Door Molding
18. Rear Quarter Outer Panel Rear Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear of Rear Wheel Opening Molding
21 Tailgate Outer Panel Nameplate
22. Tailgate Outer Panel Emblem

13200 - 13400 - 13600 - 13800 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing	67 & 80	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (67 Style)
Roof Drip Scalp Molding	11, 69, 80		X					
Roof Drip Scalp Molding Front	35 & 17		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Scalp Molding Rear	35 & 17		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Scalp Molding Escutcheon	35 & 17		X					
Roof Panel Rear Finishing	80					X	Right Side Overlaps Left Side Back Window Side Escutcheon	Finishing Lace, Dome Lamp, Rear of Headlining

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Side Finishing	80					X	Quarter Pinchweld Belt Finishing at Front	Finishing Lace, Side Foundation
Front Door Window Frame Scalp Upper	80		X				Front Door Window Frame Scalp Front	
Front Door Window Frame Scalp Front	80		X					
Quarter Pinchweld Belt Finishing Front	80			X		X	Quarter Pinchweld Belt Finishing Rear	Quarter Inner Access Hole Cover
Quarter Pinchweld Belt Finishing Rear	80			X		X	Quarter Pinchweld Belt Finishing Front	Quarter Inner Access Hole Cover
Rear Quarter Front Reveal (Painted)	11		X				Quarter Window Upper Reveal	
Rear Quarter Upper Reveal (Painted)	11		X					
Quarter Pinchweld Finishing	67	X		X				Rear Quarter & Rear End Trim Sticks
Quarter Belt Reveal	11, 17, 69				X	X	Back Window Lower Reveal (11, 69 Only)	
Rear End Pinchweld Finishing	67			X			Quarter Pinchweld Finishing Molding	Rear Quarter & Rear End Trim Sticks

13200 - 13400 - 13600 - 13800 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Front Door Outer Panel	13400	X		X				
Rear Door Outer Panel	13400	X		X				
Rear Quarter Outer Panel	13400			X		X		
Rear Wheel Opening	13600-13800	X						
Rear of Rear Wheel Opening	13800-13680					X		
Rear Quarter Outer Panel Nameplate and/or Emblem	All					X		
Rear Compartment Lid Nameplate	13600-13800 Exc. 35, 80					X		

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear End Panel Nameplate	13200-13400 Exc. 35, 80					X		
Rear End Panel Upper	13600-13800					X		
Rear End Panel Emblem	13600-13800					X		
Rear End Panel Lower	13600-13800					X		
Back Window Reveal Upper	All except 35, 67			X			Back Window Reveal Side	
Back Window Reveal Side	All except 35, 67			X			Back Window Reveal Lower	Back Window Reveal Upper
Back Window Reveal Lower	All except 35, 67			X			Back Window Reveal Side	Back Window Reveal Side
Back Body Opening Upper Reveal	35	X						
Back Body Opening Side Reveal	35	X						
Tailgate Belt Finishing	80					X		
Tailgate Outer Panel Nameplate	35, 80					X		
Tailgate Outer Panel	13635					X		Tailgate Window and Regulator

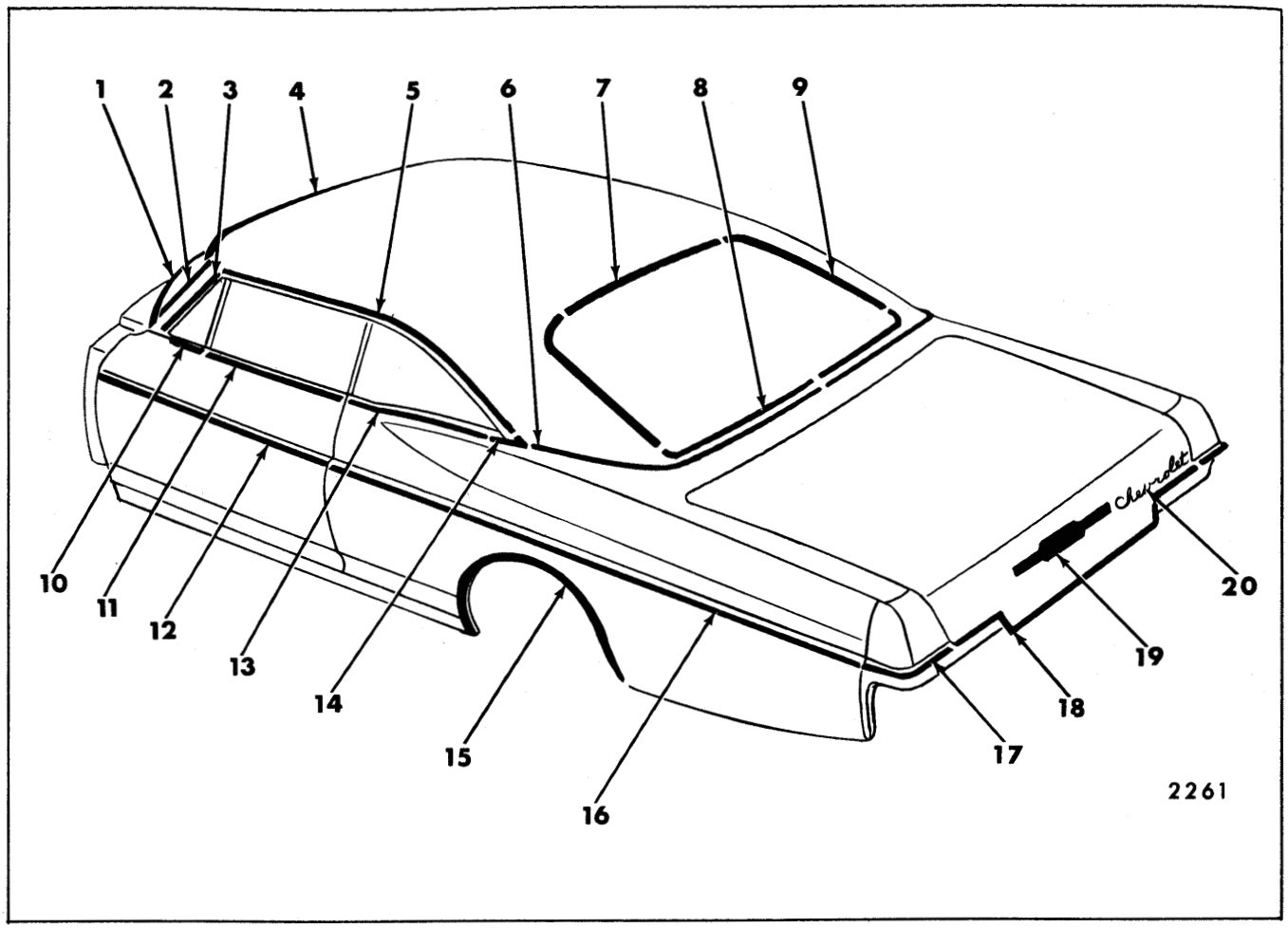

Fig. 12-12—Chevrolet "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Front Door Window Belt Reveal (At Vent) Molding
11. Front Door Window Belt Reveal Molding
12. Front Door Outer Panel Molding
13. Rear Quarter Window Belt Reveal Molding
14. Rear Quarter Window Belt Reveal (Rear Corner) Escutcheon
15. Rear Wheel Opening Molding
16. Rear Quarter Outer Panel Molding
17. Rear of Rear Quarter Outer Panel Molding
18. Rear Compartment Lid Outer Panel Molding
19. Rear Compartment Lid Outer Panel Emblem
20. Rear Compartment Lid Outer Panel Nameplate

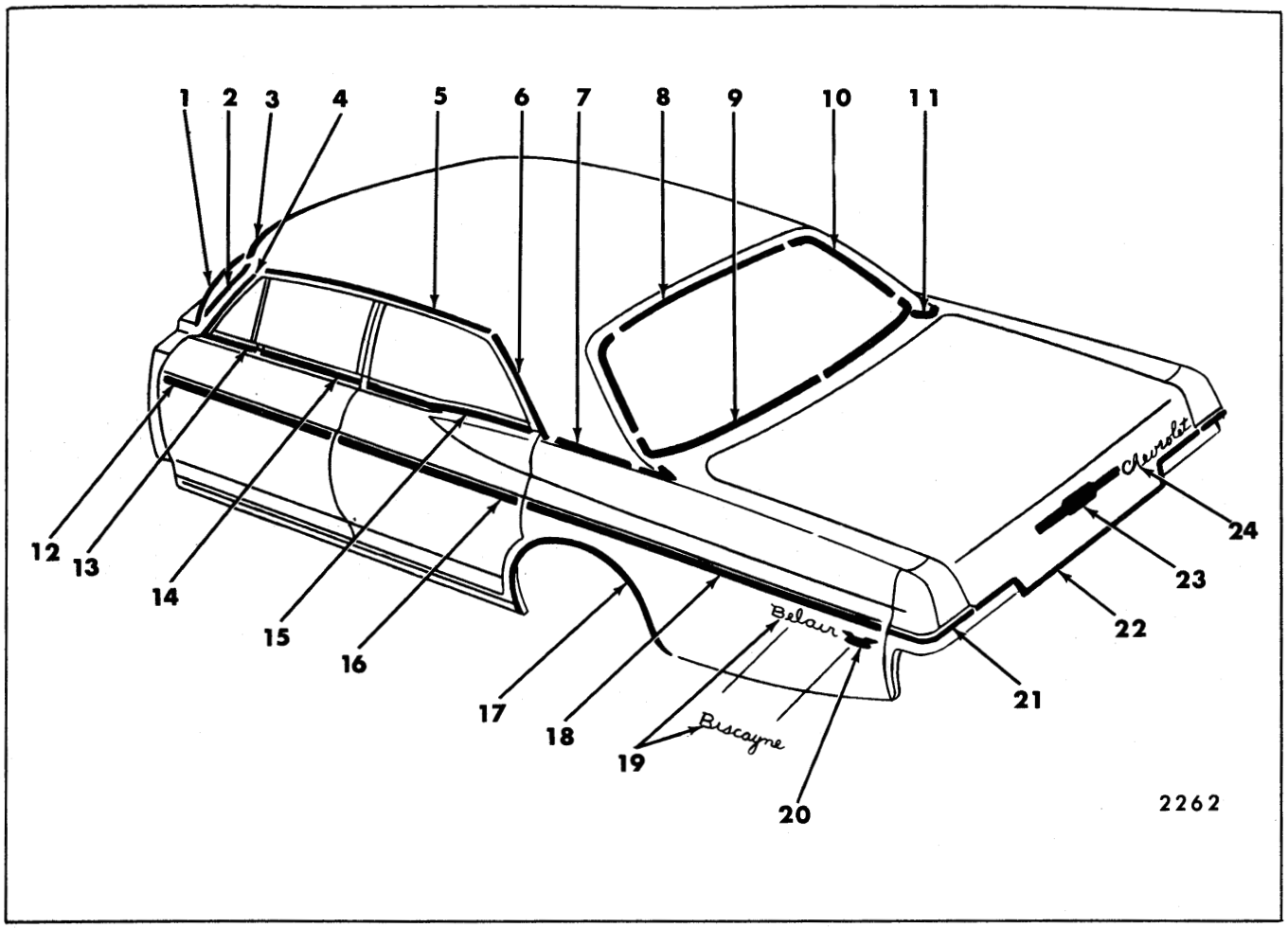

Fig. 12-13—Chevrolet "B-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding Scalp
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Rear Quarter Belt Reveal Front Molding
8. Back Window Reveal Upper Molding
9. Back Window Reveal Lower Molding
10. Back Window Reveal Side Molding
11. Rear Quarter Belt Reveal Rear Molding
12. Front Door Outer Panel Molding
13. Front Door Window Belt Reveal (At Vent) Molding
14. Front Door Window Belt Reveal Molding
15. Rear Door Window Belt Reveal Molding
16. Rear Door Outer Panel Molding
17. Rear Wheel Opening Molding
18. Rear Quarter Outer Panel Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear Quarter Outer Panel Emblem
21. Rear of Rear Quarter Outer Panel Molding
22. Rear Compartment Lid Outer Panel Molding
23. Rear Compartment Lid Outer Panel Emblem
24. Rear Compartment Lid Outer Panel Nameplate

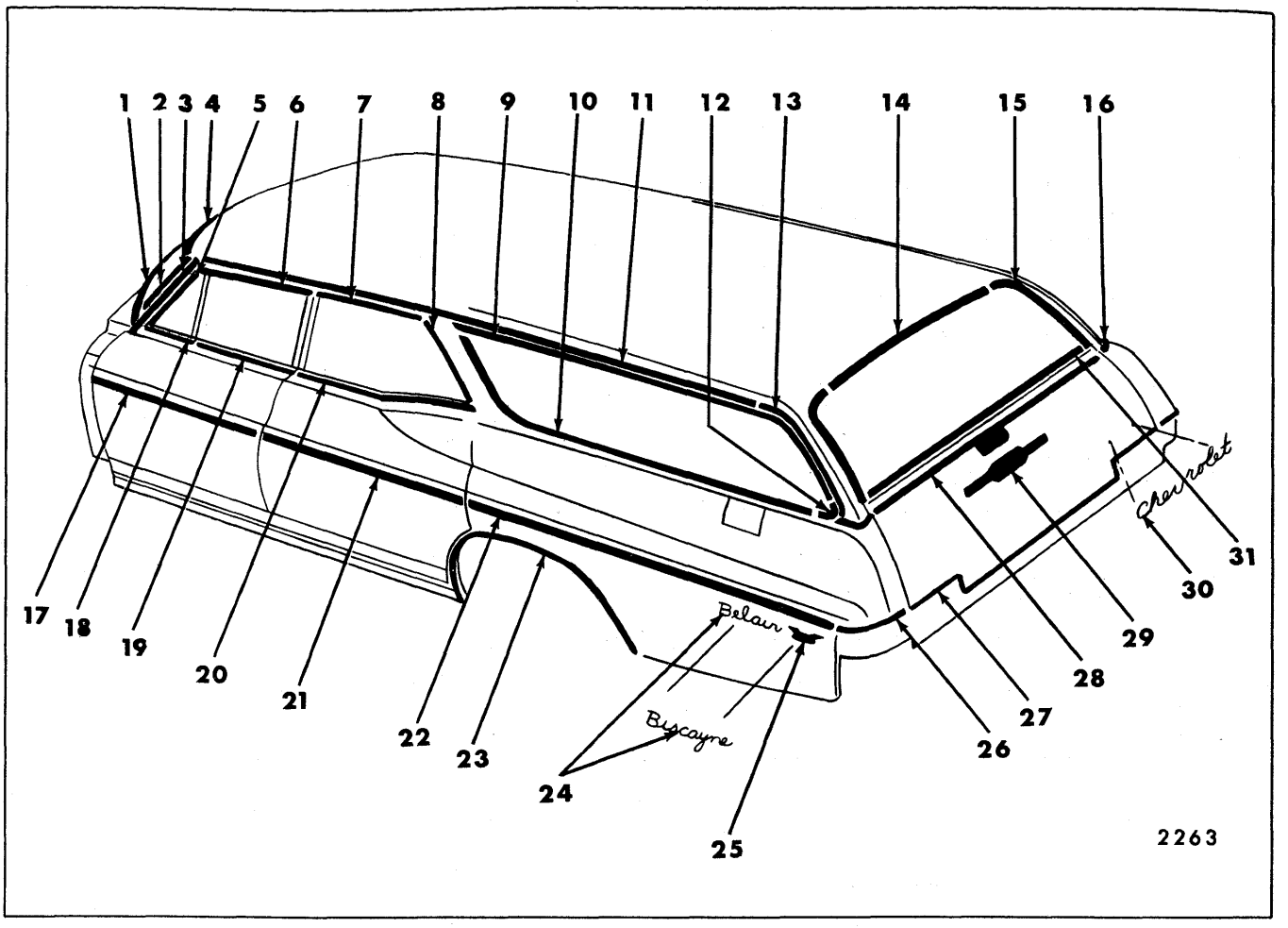

Fig. 12-14—Chevrolet "B-35-45" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Front Door Window Frame Front Scalp Molding
6. Front Door Window Frame Upper Scalp Molding
7. Rear Door Window Frame Upper Scalp Molding
8. Rear Door Window Frame Rear Scalp Molding
9. Rear Quarter Window Reveal Upper Molding
10. Rear Quarter Window Reveal Lower Molding
11. Roof Drip Molding Front Scalp
12. Rear Quarter Window Reveal Lower Corner Escutcheon
13. Roof Drip Molding Rear Scalp
14. Back Body Opening Upper Reveal Molding
15. Back Body Opening Side Reveal Molding
16. Back Body Pillar Belt Finishing Molding
17. Front Door Outer Panel Molding
18. Front Door Window Belt Reveal (At Vent) Molding
19. Front Door Window Belt Reveal Molding
20. Rear Door Window Belt Reveal Molding
21. Rear Door Outer Panel Molding
22. Rear Quarter Outer Panel Molding
23. Rear Wheel Opening Molding
24. Rear Quarter Outer Panel Nameplate
25. Rear Quarter Outer Panel Emblem
26. Rear of Rear Quarter Outer Panel Molding
27. Tailgate Outer Panel Lower Molding
28. Tailgate Outer Panel Belt Reveal Molding
29. Tailgate Outer Panel Emblem
30. Tailgate Outer Panel Nameplate
31. Tailgate Window Lower Reveal Molding

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All (except 67)	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing	67	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Scalp	11, 37, 69		X				Windshield Pillar Drip	Windshield Side Reveal Molding
Roof Drip Molding Scalp Front	35, 45, 39		X				Windshield Pillar Drip	
Roof Drip Molding Scalp Rear	35, 45, 39		X				Roof Drip Molding Front Scalp	
Front Door Window Frame Scalp Front	35, 45, 69		X				Front Door Window Frame Scalp Upper	
Front Door Window Frame Scalp Upper	35, 45, 69		X					
Front Door Window Belt Reveal (at Vent)	All (except 11)	X						Front Door Vent Assy. (35, 45, 69 Styles) Front Door Trim Pad (37, 39, 67 Style)

15400 - 15600 - 16400 - 16600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Belt Reveal	16400-16600	X		X			Front Door Window Reveal (at Vent)	Rubber Bumper on Front Door Window Lower Stop
Rear Door Window Frame Scalp Upper	35, 45, 69		X				Rear Door Window Frame Rear Scalp (35, 45 Styles Only)	
Rear Door Window Frame Scalp Rear	35, 45		X					
Rear Door Window Belt Reveal	16400-16600	X		X				Rubber Bumper on Rear Door Window Lower Stop
Quarter Window Reveal Front (Painted)	11		X				Quarter Window Upper Reveal	
Quarter Window Reveal Upper (Painted)	11		X					
Quarter Window Belt Reveal	16400-16600	X		X				Quarter Window Lower Stop
Quarter Window Belt Reveal Lower Escutcheon	37	X						
Quarter Window Reveal Upper	35, 45			X			Quarter Window Reveal Lower	
Quarter Window Reveal Lower	35, 45			X				Quarter Window Reveal Lower Escutcheon
Quarter Window Reveal Lower Escutcheon	35, 45			X			Quarter Window Reveal Upper and Lower	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Pinchweld Finishing	67	X			X			
Front Door Outer Panel	15600-16400	X		X				
Rear Door Outer Panel	15600-16400	X		X				
Rear Quarter Outer Panel	15600-16400			X		X		
Rear Wheel Opening	16400-16600	X						
Rear Quarter Outer Panel Nameplate	15400-15600 35-45 Left Side			X				
Rear Quarter Outer Panel Nameplate	15400-15600 16600 35-45 Right Side					X		
Rear of Rear Quarter Outer Panel	35, 45	X			X			
Rear of Rear Quarter Outer Panel	15600-16400 16600	X						Rear of Rear Quarter Extension
Rear of Rear Quarter Outer Panel Lower (Vertical)	16600	X						Loosen Rear Bumper
Back Glass Reveal Upper	All (except 35, 45, 67)			X			Back Glass Reveal Side	
Back Glass Reveal Side	All (except 35, 45, 67)			X			Back Glass Reveal Lower	
Back Glass Reveal Lower	All (except 35, 45, 67)			X			Back Glass Reveal Side	

15400 - 15600 - 16400 - 16600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Body Opening Reveal Upper	35, 45	X					Back Body Opening Reveal Side	Remove Upper Glass Run Channel
Back Body Opening Reveal Side	35, 45	X					Back Body Opening Reveal Upper	
Tailgate Window Reveal	35, 45	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt Reveal (Optional)	35, 45	X			X			
Tailgate Outer Panel Emblem	All Series 35-45 Styles					X		Tailgate Inner Trim Panel
Tailgate Outer Panel Nameplate	All Series 35-45 Styles					X		Tailgate Inner Trim Panel
Tailgate Outer Panel Lower	15600-16400 16600 35,45 Styles	X			X			
Back Body Pillar Belt Finishing (Optional)	35, 45	X			X			
Rear Compartment Lid Outer Panel Emblem	All					X		
Rear Compartment Lid Outer Panel	All	X						

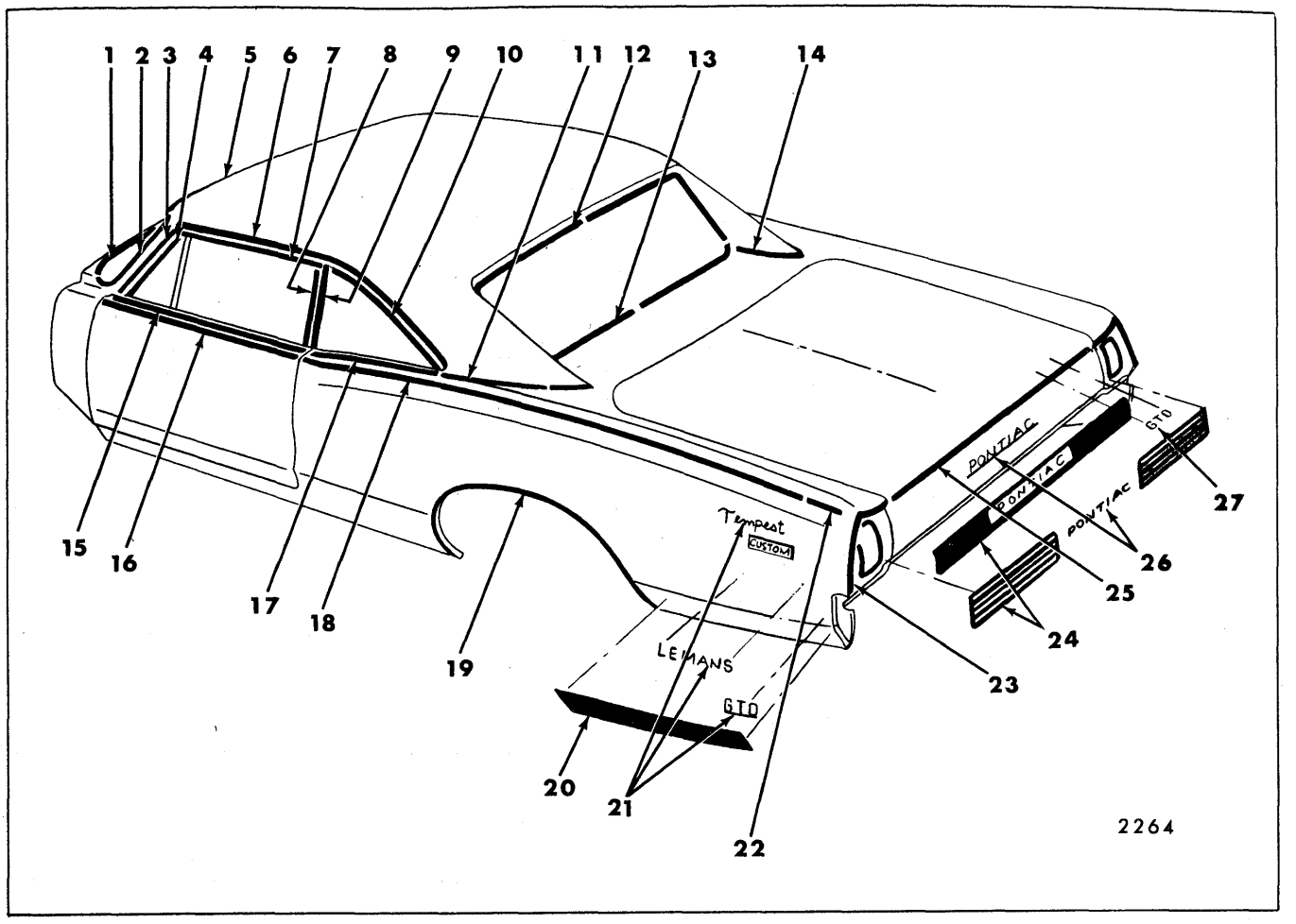

Fig. 12-15—Tempest "A-07" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Roof Drip Molding Scalp
7. Front Door Window Frame Upper Scalp Molding
8. Front Door Window Frame Rear Scalp Molding
9. Quarter Window Front Scalp Molding
10. Quarter Window Upper Scalp Molding
11. Rear Quarter Belt Reveal Molding
12. Back Window Reveal Upper Molding
13. Back Window Reveal Lower Molding
14. Rear Quarter Belt Reveal Rear Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Quarter Window Belt Reveal Molding
18. Rear Quarter Outer Panel Front Molding
19. Rear Wheel Opening Molding
20. Rear of Rear Wheel Opening Molding
21. Rear Quarter Outer Panel Nameplate
22. Rear Quarter Outer Panel Rear Molding
23. Rear of Rear Quarter Outer Panel Molding
24. Rear End Panel Molding
25. Rear Compartment Lid Outer Panel Molding
26. Rear End Panel Nameplate
27. Rear Compartment Lid Outer Panel Emblem

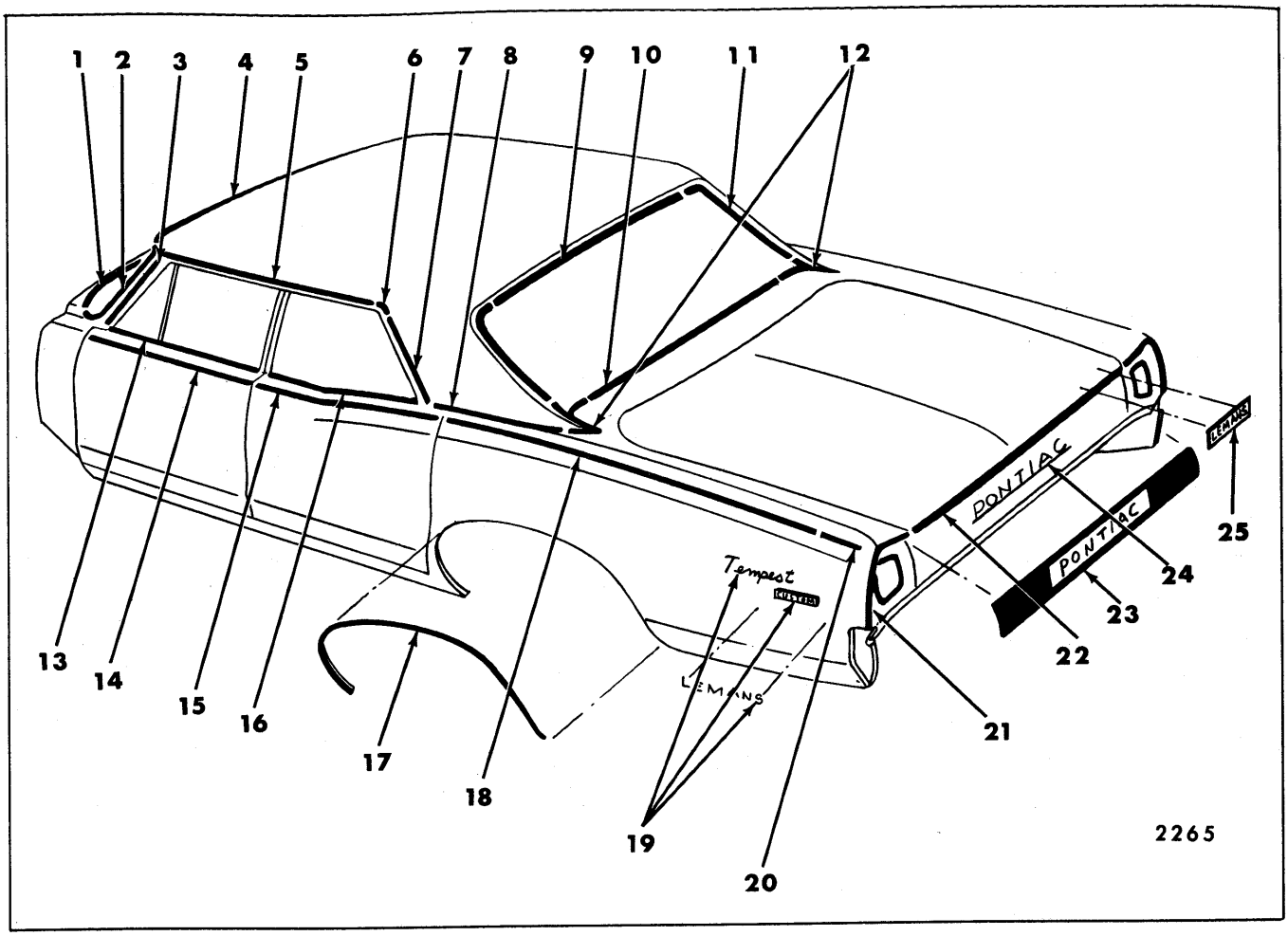

Fig. 12-16—Tempest "A-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Scalp Escutcheon
7. Roof Drip Molding Rear Scalp
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Rear Quarter Belt Reveal Corner Escutcheon
13. Front Door Window Belt Reveal Molding
14. Front Door Outer Panel Molding
15. Rear Door Outer Panel Molding
16. Rear Door Window Belt Reveal Molding
17. Rear Wheel Opening Molding
18. Rear Quarter Outer Panel Front Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear Quarter Outer Panel Rear Molding
21. Rear of Rear Quarter Outer Panel Molding
22. Rear Compartment Lid Outer Panel Molding
23. Rear End Panel Molding
24. Rear End Panel Nameplate
25. Rear Compartment Lid Outer Panel Nameplate

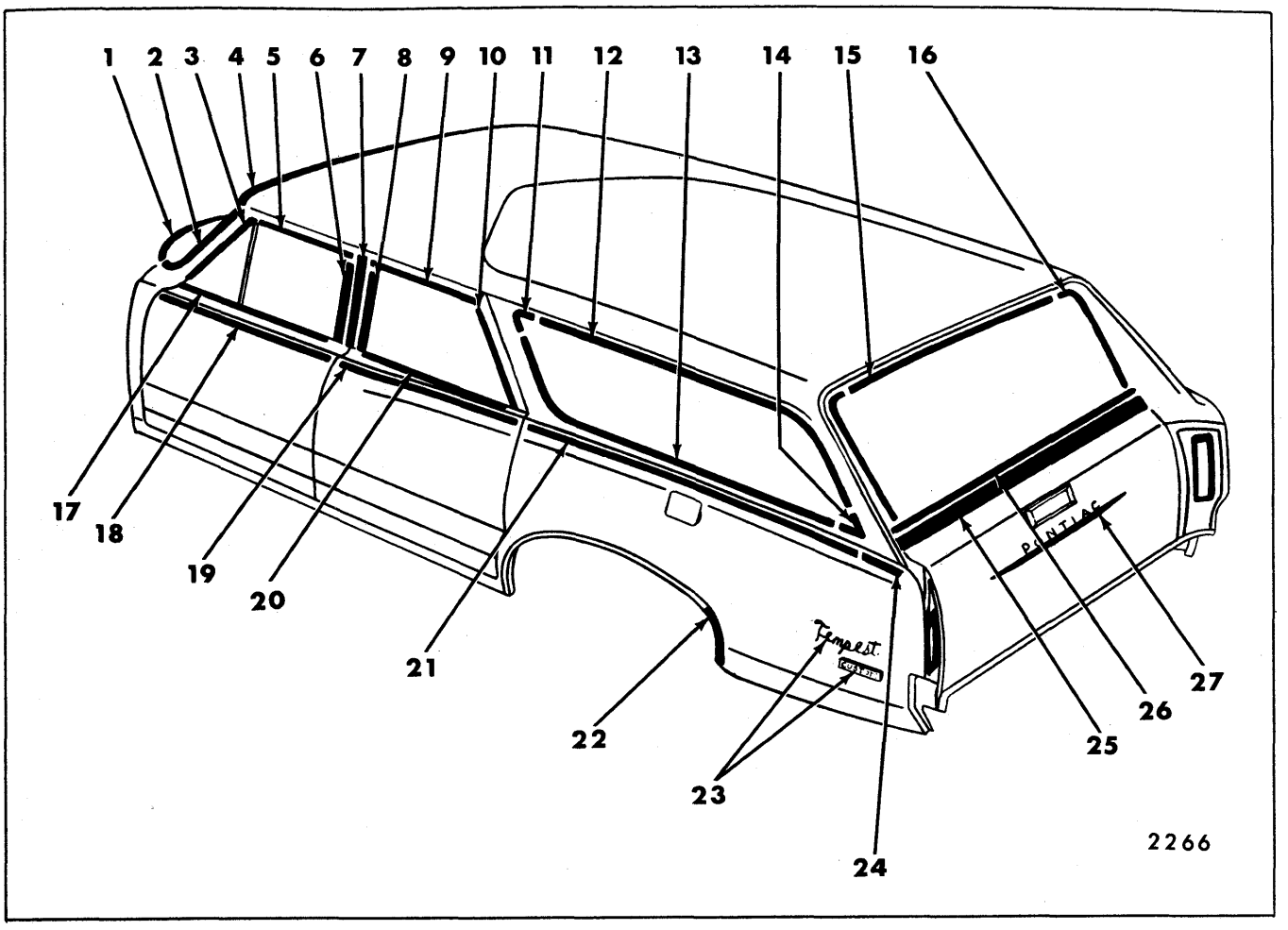

Fig. 12-17—Tempest "A-35" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Front Door Window Frame Front Scalp Molding
4. Windshield Reveal Upper Molding
5. Front Door Window Frame Upper Scalp Molding
6. Front Door Window Frame Rear Scalp Molding
7. Center Pillar Scalp Molding
8. Rear Door Window Frame Front Scalp Molding
9. Rear Door Window Frame Upper Scalp Molding
10. Rear Door Window Frame Rear Scalp Molding
11. Rear Quarter Window Reveal Upper Corner Escutcheon
12. Rear Quarter Window Reveal Upper Molding
13. Rear Quarter Window Reveal Lower Molding
14. Rear Quarter Window Reveal Lower Corner Escutcheon
15. Back Body Opening Upper Reveal Molding
16. Back Body Opening Side Reveal Molding
17. Front Door Window Belt Reveal Molding
18. Front Door Outer Panel Molding
19. Rear Door Outer Panel Molding
20. Rear Door Window Belt Reveal Molding
21. Rear Quarter Outer Panel Front Molding
22. Rear Wheel Opening Stone Shield
23. Rear Quarter Outer Panel Nameplate
24. Rear Quarter Outer Panel Rear Molding
25. Tailgate Outer Panel Belt Molding
26. Tailgate Window Lower Reveal Molding
27. Tailgate Outer Panel Nameplate

23300 - 23500 - 23700 - 24200 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing	07, 17, 67, 69	X						Windshield Pillar Weather-strip and Weatherstrip Retainer (37 67 Styles Only)
Roof Drip Molding Front Scalp	07, 17, 69		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Rear Scalp	07, 17, 69		X				Roof Drip Molding Scalp Escutcheon	
Rood Drip Molding Scalp Escutcheon	07, 17, 69		X					
Roof Panel Emblem	69					X		Headlining Rear Quarter Trim Panel
Front Door Window Frame Front Scalp	07, 35, 69		X					
Front Door Window Frame Upper Scalp	07, 35, 69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	07, 35, 69		X				Front Door Window Frame Upper Scalp	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Belt Reveal	07, 37, 69, 67	X						Front Door Window Glass Lower Stops
Center Pillar Scalp	35, 69	X						
Rear Door Window Frame Front Scalp	35, 69		X				Rear Door Window Frame Upper Scalp	
Rear Door Window Frame Upper Scalp	35, 69		X				Rear Door Window Frame Rear Scalp	
Rear Door Window Frame Rear Scalp	35, 69		X					
Rear Door Window Belt Reveal	69	X						Rear Door Window Lower Stops
Quarter Window Front Scalp	07			X			Quarter Window Upper Reveal	
Quarter Window Upper Scalp	07			X				
Quarter Window Lower Belt Reveal	07, 17, 67	X						Quarter Window Glass Lower Stops
Quarter Belt Reveal	07, 17, 69				X	X	Rear End Belt	
Quarter Belt Reveal Corner Escutcheon	39					X		
Quarter Pinchweld Finishing	67	X		X			Quarter Window Lower Reveal	Rear Quarter and Rear End Trim Sticks

23300 - 23500 - 23700 - 24200 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear End Pinchweld Finishing	67	X		X			Quarter Pinchweld Finishing	Rear Quarter and Rear End Trim Sticks
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Front Door Outer Panel	23500	X		X				
Rear Door Outer Panel	23500	X		X				
Rear Quarter Outer Panel Front	23500			X				
Rear Quarter Outer Panel Rear	23500					X		

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Wheel Opening Stone Guard	35	X						
Rear Wheel Opening	23700, 24200	X						
Rear of Rear Wheel Opening	24200	X						
Rear Quarter Outer Panel Nameplate and/or Emblem	All					X		Quarter Trim Left Side Spare Tire Cover Right Side (35 Style Only)
Rear of Rear Quarter Outer Panel	All					X		
Rear Compartment Lid Outer Panel	All	X						
Rear Compartment Lid Outer Panel Nameplate and/or Emblem	23500, 24200					X		
Rear End Panel	23700, 24200					X		
Rear End Panel Nameplate	23300, 23500 24200					X		

23300 - 23500 - 23700 - 24200 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Upper	All except 35, 67			X			Back Window Reveal Side	
Back Window Reveal Side	All except 35, 67			X			Back Window Reveal Lower	Back Window Reveal Upper
Back Window Reveal Lower	All except 35, 67			X			Back Window Reveal Side	Back Window Reveal Side
Back Body Opening Upper Reveal	35	X					Back Body Opening Side Reveal	Tailgate Window Glass Run Channel
Back Body Opening Side Reveal	35	X					Back Body Opening Upper Reveal	
Tailgate Window Lower Reveal	35	X			X			Tailgate Window
Tailgate Outer Panel Belt	35					X	Tailgate Window Lower Reveal	Tailgate Window and Regulator
Tailgate Outer Panel Nameplate	35					X		Tailgate Window and Regulator

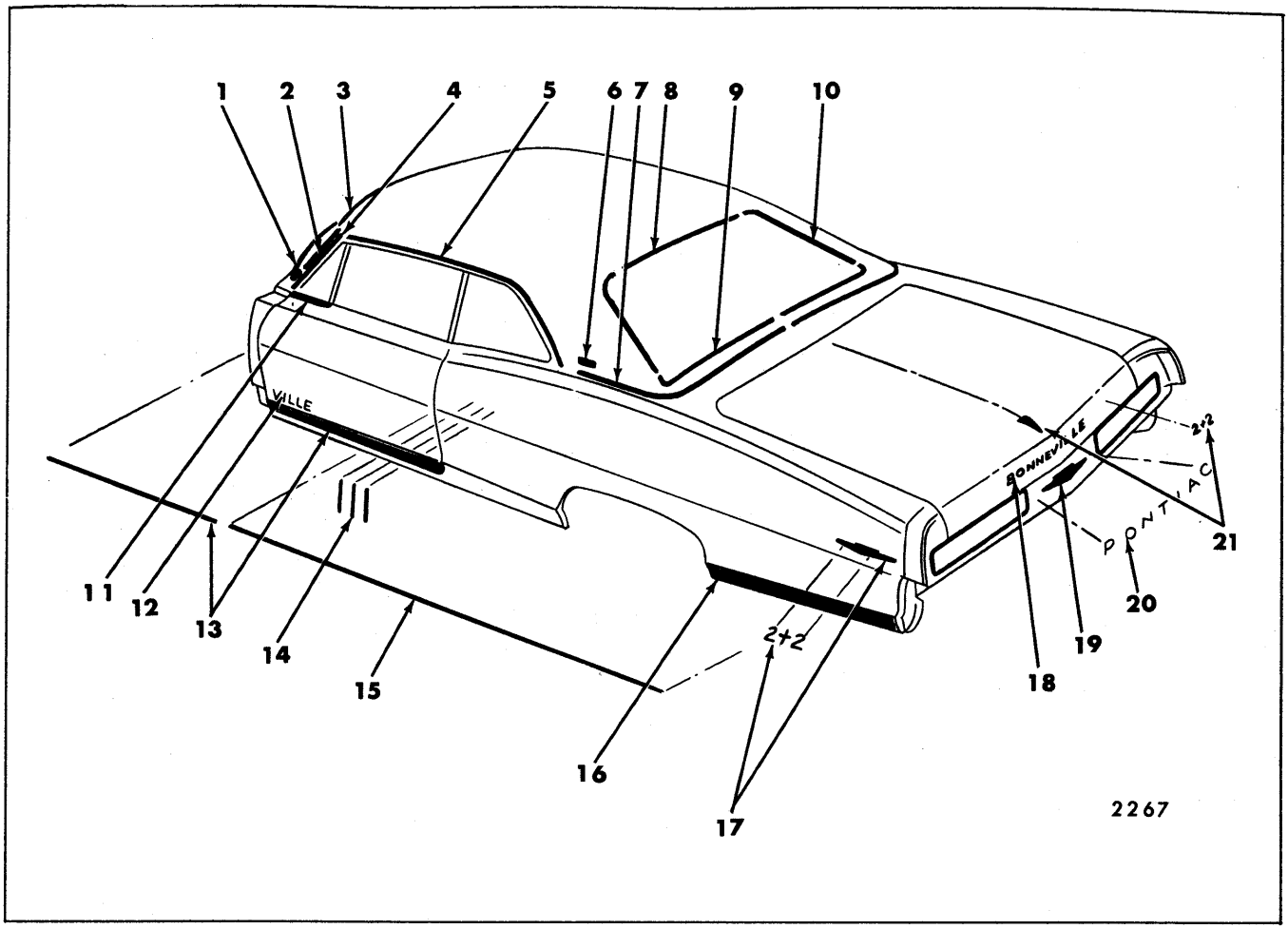

Fig. 12-18—Pontiac "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding Scalp
5. Roof Drip Molding Scalp
6. Roof Panel Emblem
7. Rear Quarter Belt Reveal Molding
8. Back Window Reveal Upper Molding
9. Back Window Reveal Lower Molding
10. Back Window Reveal Side Molding
11. Front Door Window Belt Reveal (At Vent) Molding
12. Front Door Outer Panel Nameplate
13. Front Door Outer Panel Molding
14. Rear Quarter Outer Panel Louver Moldings
15. Rear Quarter Outer Panel Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Emblem
18. Rear Compartment Lid Outer Panel Nameplate
19. Rear End Panel Emblem
20. Rear End Panel Nameplate
21. Rear Compartment Lid Outer Panel Emblem

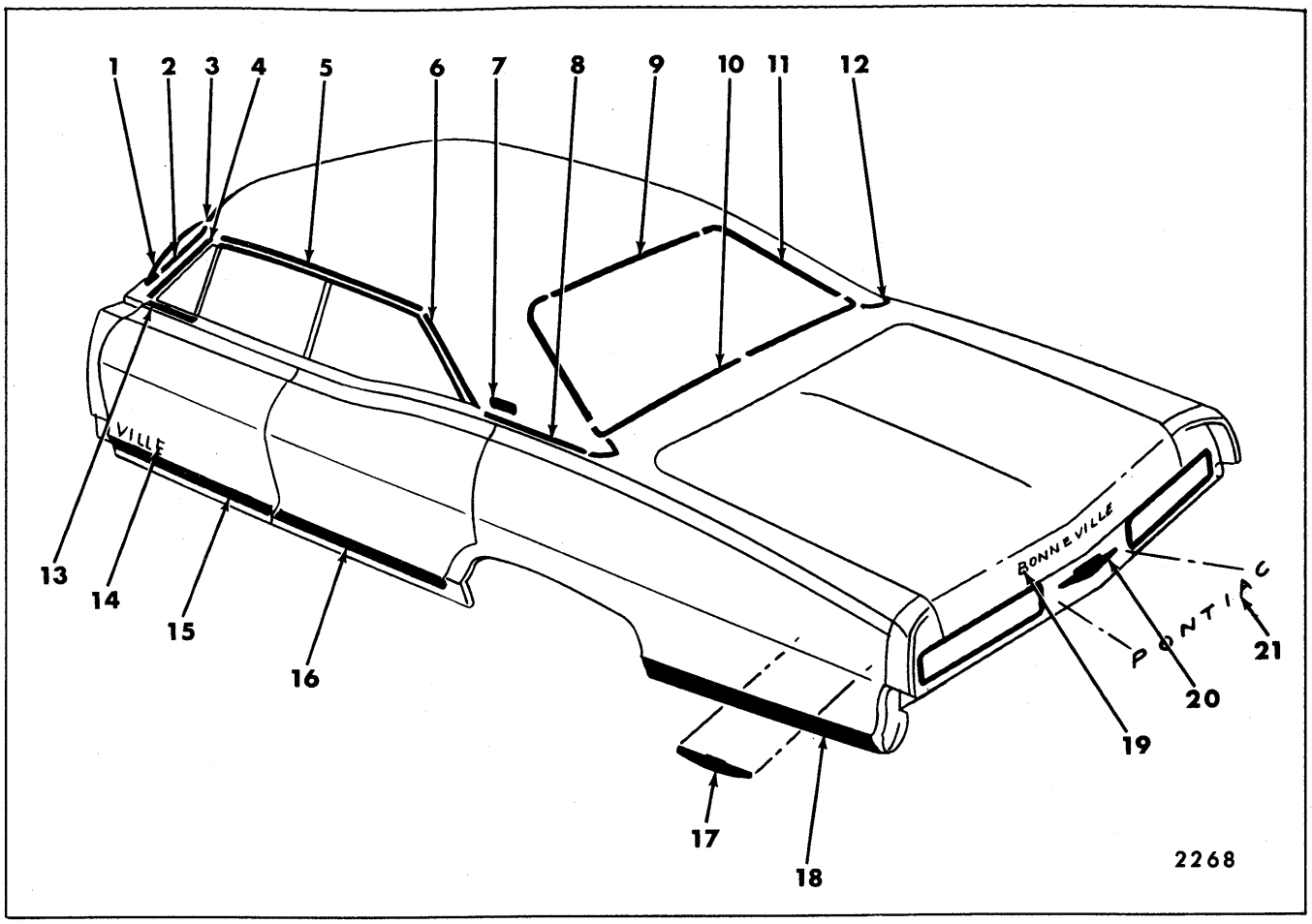

Fig. 12-19—Pontiac "B-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Roof Panel Emblem
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Rear Quarter Belt Reveal Rear Molding
13. Front Door Window Belt Reveal (At Vent) Molding
14. Front Door Outer Panel Nameplate
15. Front Door Outer Panel Molding
16. Rear Door Outer Panel Molding
17. Rear Quarter Outer Panel Emblem
18. Rear of Rear Wheel Opening Molding
19. Rear Compartment Lid Outer Panel Nameplate
20. Rear End Panel Emblem
21. Rear End Panel Nameplate

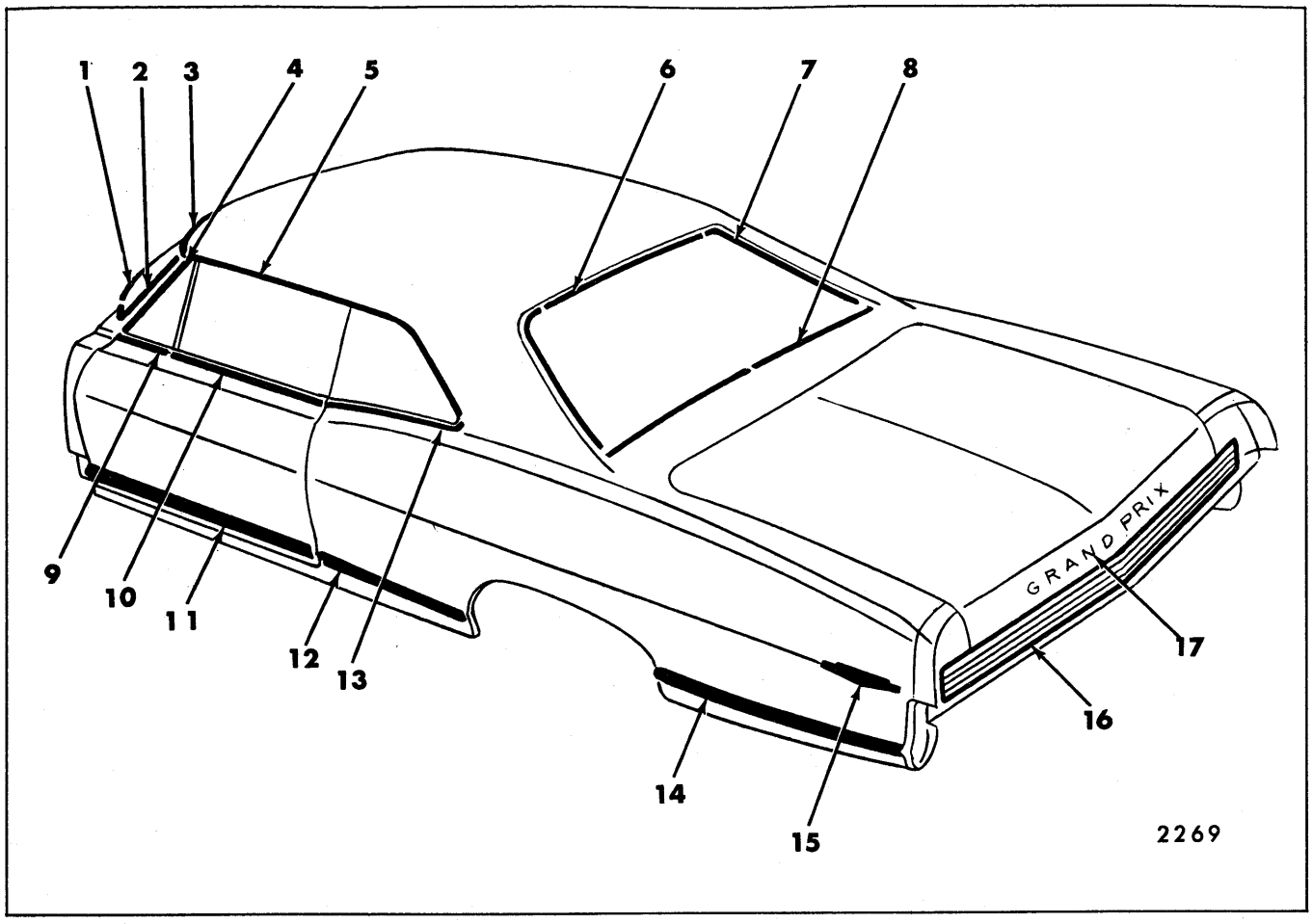

Fig. 12-20—Pontiac "B-57" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Upper Molding
7. Back Window Reveal Side Molding
8. Back Window Reveal Lower Molding
9. Front Door Window Belt Reveal (At Vent) Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Front of Rear Wheel Opening Molding
13. Rear Quarter Window Belt Reveal Molding
14. Rear of Rear Wheel Opening Molding
15. Rear Quarter Outer Panel Emblem
16. Rear End Panel Molding
17. Rear Compartment Lid Outer Panel Nameplate

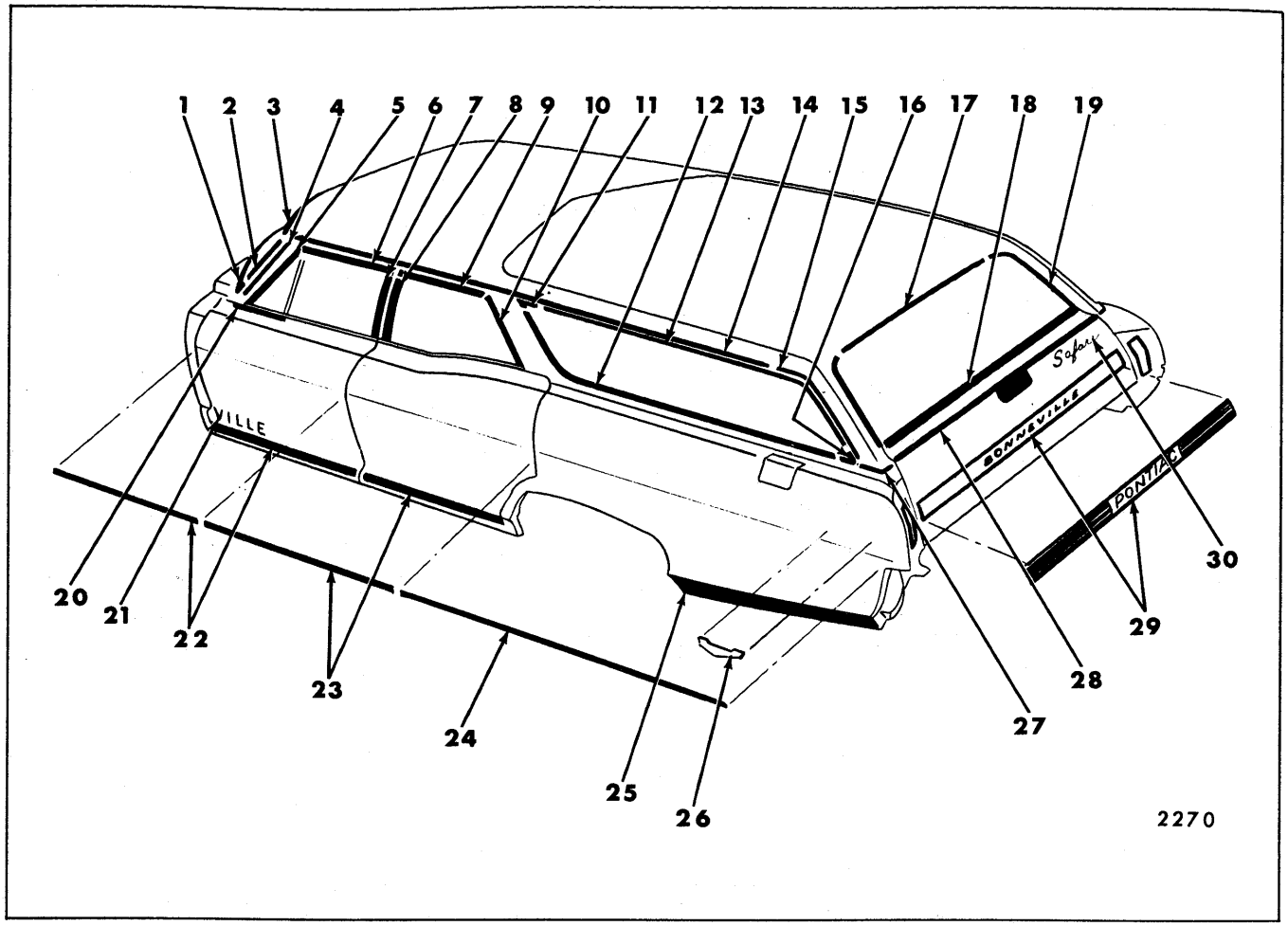

Fig. 12-21--Pontiac "B-35 and 45" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Front Door Window Frame Front Scalp Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Rear Door Window Frame Front Scalp Molding
9. Rear Door Window Frame Upper Scalp Molding
10. Rear Door Window Frame Rear Scalp Molding
11. Rear Quarter Window Reveal Upper Corner Escutcheon
12. Rear Quarter Window Reveal Lower Molding
13. Rear Quarter Window Reveal Upper Molding
14. Roof Drip Molding Front Scalp
15. Roof Drip Molding Rear Scalp
16. Rear Quarter Window Reveal Lower Corner Escutcheon
17. Back Body Opening Upper Reveal Molding
18. Tailgate Window Lower Reveal Molding
19. Back Body Opening Side Reveal Molding
20. Front Door Window Belt Reveal (At Vent) Molding
21. Front Door Outer Panel Nameplate
22. Front Door Outer Panel Molding
23. Rear Door Outer Panel Molding
24. Rear Quarter Outer Panel Molding
25. Rear of Rear Wheel Opening Molding
26. Rear Quarter Outer Panel Emblem
27. Back Body Pillar Belt Finishing Molding
28. Tailgate Outer Panel Belt Molding
29. Tailgate Outer Panel Molding
30. Tailgate Outer Panel Nameplate

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	35, 37, 39, 69, 57	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (37, 39, 57 styles only)
Windshield Pillar Finishing	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Scalp	37, 69		X				Windshield Pillar Drip Molding	
Roof Drip Molding Scalp Front	35, 39, 57		X				Windshield Pillar Drip Molding	
Roof Drip Molding Scalp Rear	35, 39, 57	X (57 only)	X				Roof Drip Molding Scalp Front	
Roof Panel Ornament	39					X		Headlining Rear Quarter Trim
Roof Panel Name Plate	39, 69					X		Headlining Rear Quarter Trim

25200 - 25400 - 25600 - 26200 - 26600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Frame Front Scalp	11, 35, 45, 69		X					
Front Door Window Frame Upper Scalp	11, 35, 45, 69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	11, 35, 45, 69		X				Front Door Window Frame Upper Scalp	
Front Door Window Belt Reveal (at vent)	All	X						Front Door Vent Assembly (11, 35, 45, 69 Styles only) Door Trim Pad (37, 57, 39, 67 Styles)
Front Door Window Belt Reveal	57	X					Front Door Window Reveal (at vent)	Rubber Bumper on Door Glass Lower Stop
Rear Door Window Frame Front Scalp	35, 45, 69		X				Rear Door Window Frame Upper Scalp	
Rear Door Window Frame Upper Scalp	35, 45, 69		X				Rear Door Window Frame Rear Scalp	
Rear Door Window Frame Rear Scalp	35, 45		X					
Quarter Window Upper Scalp	11			X				

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Front Scalp	11			X			Quarter Window Upper Reveal	
Quarter Window Lower Belt Reveal	57	X						Quarter Window Glass Lower Stop
Quarter Window Lower Belt Reveal Escutcheon	57		X				Roof Drip Molding Rear Scalp Quarter Window Lower Reveal	
Quarter Belt Reveal Front	57			X	X	X	Quarter Belt Reveal Rear	Headlining Rear Quarter Trim Panel
Quarter Belt Reveal Rear	57	X				X	Quarter Belt Reveal Front	
Quarter Belt Reveal	11, 39, 69			X	X			
Quarter Belt Reveal	37				X	X	Right Side Overlaps Left Side	Headlining Rear Quarter Trim Panel
Quarter Pinchweld Finishing Molding	67	X		X			Right Side Overlaps Left Side	
Quarter Window Reveal Upper	35, 45			X			Quarter Window Reveal Lower	
Quarter Window Reveal Lower	35, 45			X			Quarter Window Reveal Lower Escutcheon	

25200 - 25400 - 25600 - 26200 - 26600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Reveal Lower Escutcheon	35, 45			X			Quarter Window Reveal Upper and Lower	
Front Door Outer Panel	25200-25400 25600	X		X				
Front Door Outer Panel	26200	X				X		Remove Door Trim
Rear Door Outer Panel	25200-25600	X		X				
Rear Door Outer Panel	26200	X				X		Remove Door Trim
Rear Quarter Outer Panel	25200-25600			X				
Front of Rear Wheel Opening	25400-26600			X				
Rear of Rear Wheel Opening	25400-26600			X				
Rear of Rear Wheel Opening	26200	X				X		
Rear Quarter Outer Panel Emblem and/or Nameplate	All Except 26200					X		
Back Window Reveal Upper	All (except 35, 45, 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 35, 45, 67)			X			Back Window Reveal Lower	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Lower	All (except 35, 45, 67)			X			Back Window Reveal Side	
Back Body Opening Reveal Upper	35, 45	X					Back Body Opening Reveal Side	Tailgate Glass Run Channel
Back Body Opening Reveal Side	35, 45	X					Back Body Opening Reveal Upper	
Tailgate Window Reveal	35, 45	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt Reveal (Optional)	35, 45	X			X			
Tailgate Outer Panel Nameplate	35, 45					X		
Tailgate Outer Panel Lower	35, 45					X		
Back Body Pillar Belt Reveal (Optional)	35, 45				X			
Rear Compartment Lid Outer Panel Emblem and/or Nameplate	All (except 35, 45)					X		
Rear End Panel	26657					X		
Rear End Panel Nameplate	25200-25400 25600					X		

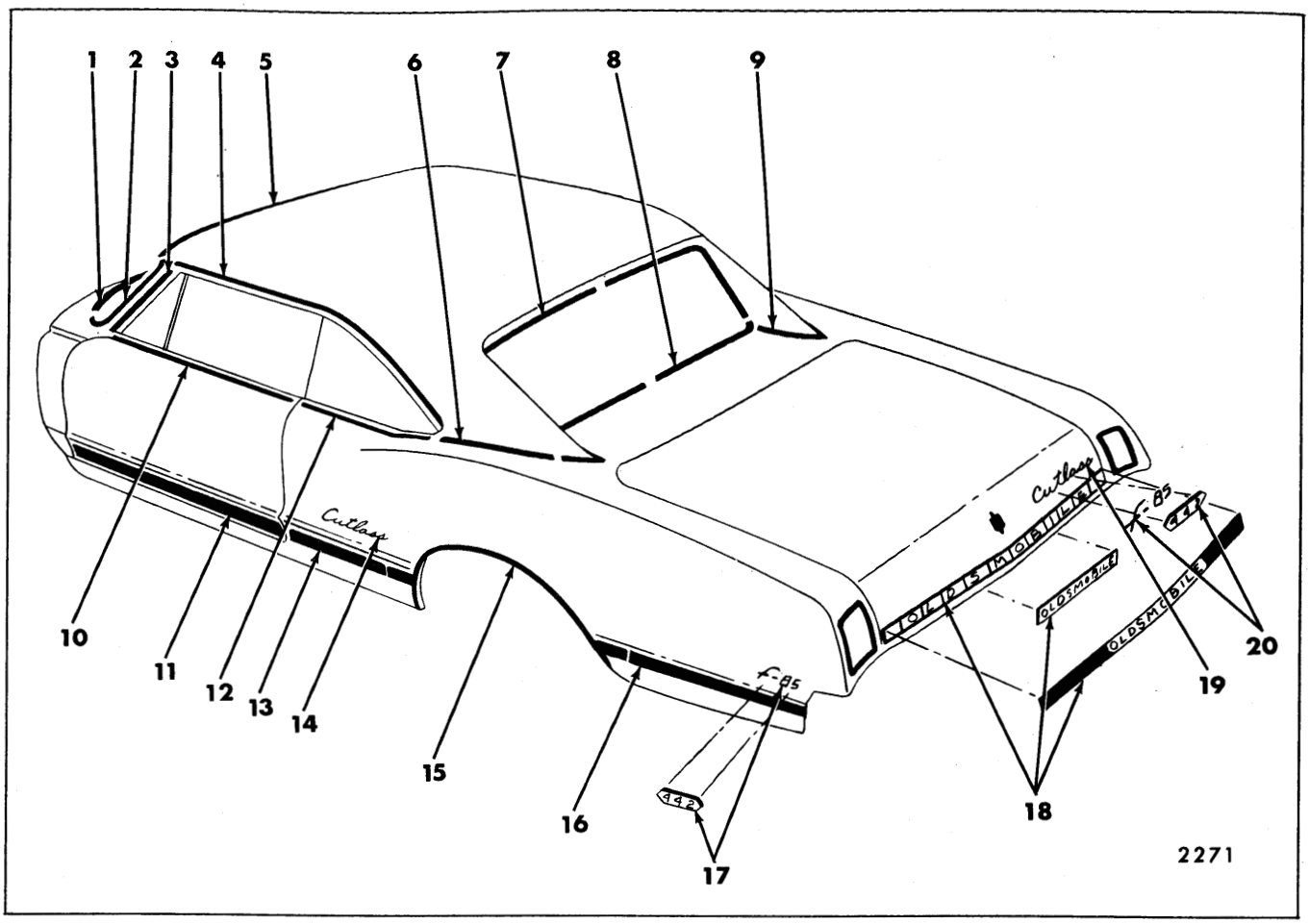

Fig. 12-22—F-85 "A-17" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Roof Drip Molding Scalp
5. Windshield Reveal Upper Molding
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Rear Quarter Belt Reveal Rear Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Rear Quarter Window Belt Reveal Molding
13. Front of Rear Wheel Opening Molding
14. Rear Quarter Outer Panel Nameplate
15. Rear Wheel Opening Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Emblem
18. Rear Compartment Lid Outer Panel Molding
19. Rear Compartment Lid Outer Panel Nameplate
20. Rear Compartment Lid Outer Panel Emblem

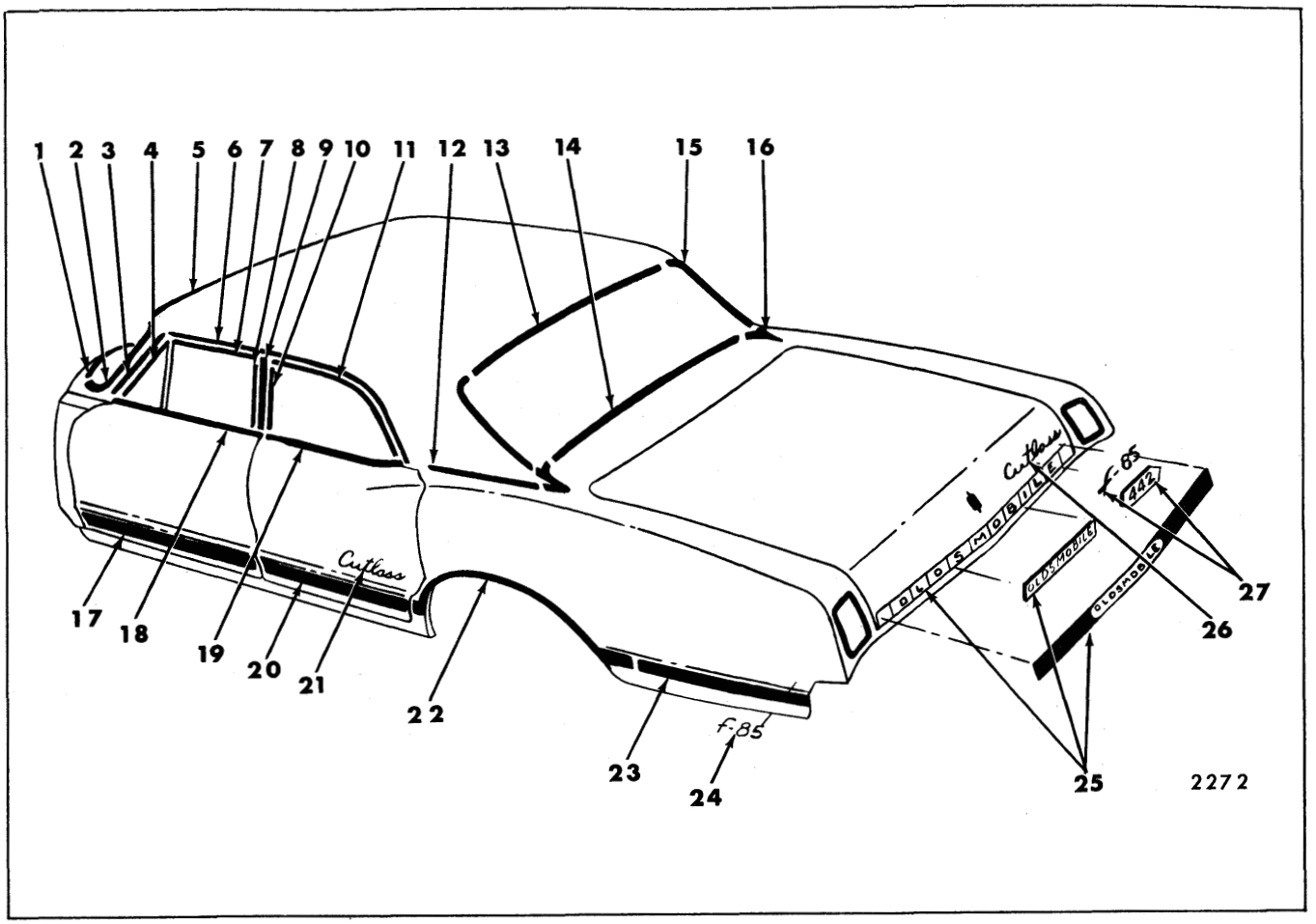

Fig. 12-23—F-85 "A-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Roof Drip Molding Scalp
7. Front Door Window Frame Upper Scalp Molding
8. Front Door Window Frame Rear Scalp Molding
9. Center Pillar Scalp Molding
10. Rear Door Window Frame Front Scalp Molding
11. Rear Door Window Frame Upper Scalp Molding
12. Rear Quarter Belt Reveal Molding
13. Back Window Reveal Upper Molding
14. Back Window Reveal Lower Molding
15. Back Window Reveal Side Molding
16. Rear Quarter Belt Reveal Rear Molding
17. Front Door Outer Panel Molding
18. Front Door Window Belt Reveal Molding
19. Rear Door Window Belt Reveal Molding
20. Rear Door Outer Panel Molding
21. Rear Door Outer Panel Nameplate
22. Rear Wheel Opening Molding
23. Rear of Rear Wheel Opening Molding
24. Rear Quarter Outer Panel Emblem
25. Rear Compartment Lid Outer Panel Molding
26. Rear Compartment Lid Outer Panel Nameplate
27. Rear Compartment Lid Outer Panel Emblem

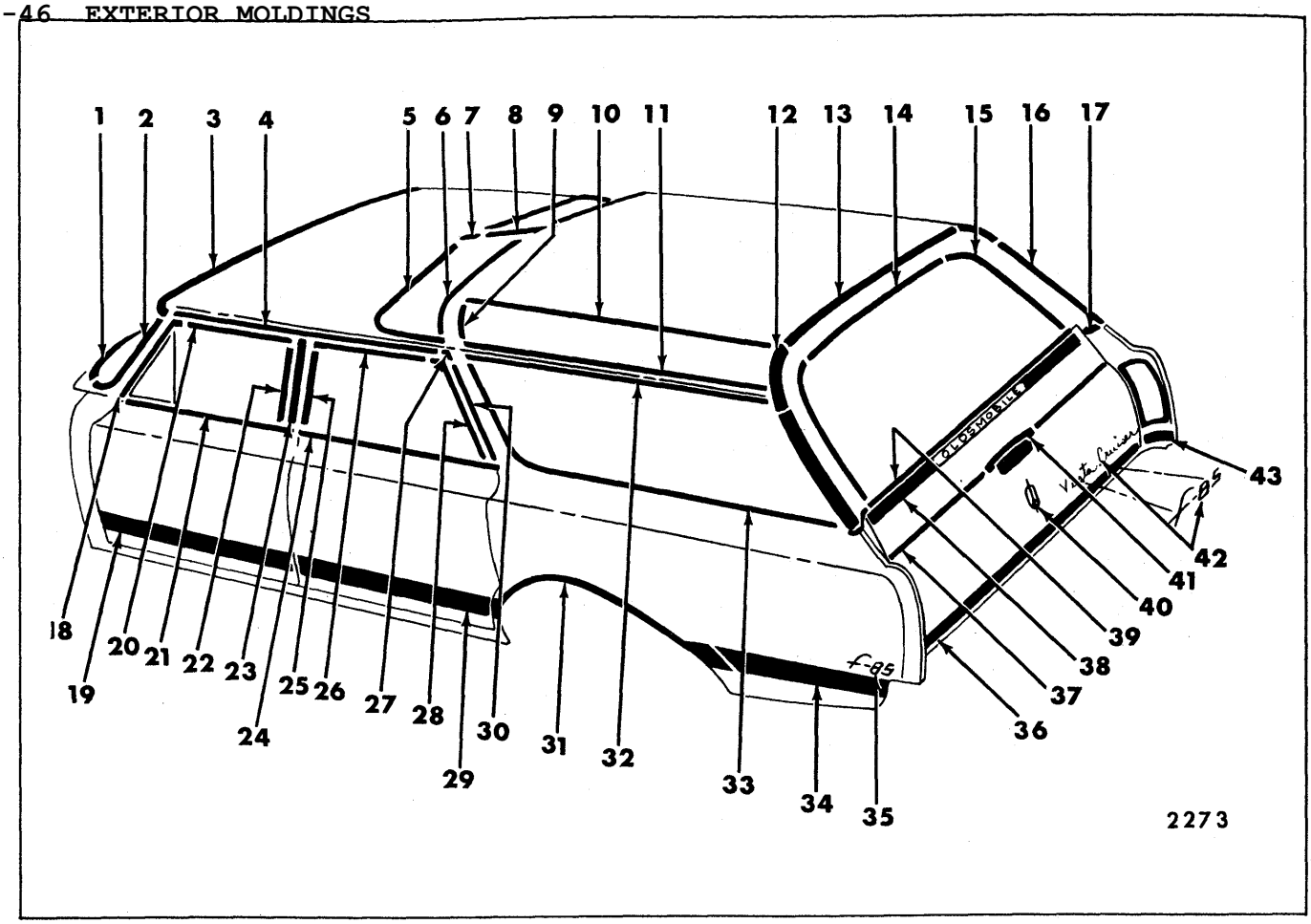

Fig. 12-24—F-85 "55-65" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Roof Drip Molding Front Scalp
5. Front Skylight Front Reveal Molding
6. Front Skylight Rear Reveal Molding
7. Front Skylight Center Division Reveal Lower Escutcheon
8. Front Skylight Center Division Reveal Molding
9. Side Skylight Front Reveal Molding
10. Side Skylight Upper Reveal Molding
11. Side Skylight Lower Reveal Molding
12. Rear Upper Side Finishing Molding
13. Rear Upper Finishing Molding
14. Back Body Opening Upper Reveal Molding
15. Back Body Opening Side Reveal Molding
16. Rear Lower Side Finishing Molding
17. Back Body Pillar Belt Finishing Molding
18. Front Door Window Frame Front Scalp Molding
19. Front Door Outer Panel Molding
20. Front Door Window Frame Upper Scalp Molding
21. Front Door Window Belt Reveal Molding
22. Front Door Window Frame Rear Scalp Molding
23. Center Pillar Scalp Molding
24. Rear Door Window Belt Reveal Molding
25. Rear Door Window Frame Front Scalp Molding
26. Rear Door Window Frame Upper Scalp Molding
27. Roof Drip Molding Scalp Escutcheon
28. Rear Door Window Frame Rear Scalp Molding
29. Rear Door Outer Panel Molding
30. Roof Drip Molding Rear Scalp
31. Rear Wheel Opening Molding
32. Rear Quarter Window Reveal Upper Molding
33. Rear Quarter Window Reveal Lower Molding
34. Rear of Rear Wheel Opening Molding
35. Rear Quarter Outer Panel Emblem
36. Tailgate Outer Panel Lower Molding
37. Tailgate Outer Panel Upper Molding
38. Tailgate Outer Panel Belt Molding
39. Tailgate Window Lower Reveal Molding
40. Tailgate Outer Panel Emblem
41. Tailgate Outer Panel Upper Molding (At Handle)
42. Tailgate Outer Panel Nameplate
43. Rear of Rear Quarter Outer Panel Molding

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing	All	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (37, 67 Styles Only)
Roof Drip Molding Scalp Front	All Except 67		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Rear	All Except 67		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Escutcheon	All Except 67		X					
Front Door Window Frame Front Scalp	07, 35, 55, 65, 69		X					
Front Door Window Frame Upper Scalp	07, 35, 55, 65, 69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	07, 35, 55, 65, 69		X				Front Door Window Frame Upper Scalp	
Front Door Window Belt Reveal	All	X						Front Door Window Lower Stops

33400 - 33600 - 33800 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Center Pillar Scalp	35, 55, 65, 69	X						
Rear Door Window Frame Scalp Front	35, 55, 65, 69		X				Rear Door Window Upper Scalp	
Rear Door Window Frame Scalp Upper	35, 55, 65, 69		X				Rear Door Window Frame Rear Scalp	
Rear Door Window Frame Scalp Rear	35, 55, 65, 69		X					
Rear Door Window Belt Reveal	35, 55, 65, 69	X						Rear Door Window Lower Stops
Quarter Window Front Scalp	07			X			Quarter Window Upper Reveal	
Quarter Window Upper Scalp	07			X				
Quarter Window Belt Reveal	07, 37, 67	X						Quarter Window Lower Stop
Quarter Belt Reveal	07, 37				X	X		
Quarter Pinchweld Finishing	67	X		X				Rear Quarter and Rear End Trim Sticks
Rear End Pinchweld	67	X		X			Quarter Pinchweld Finishing Quarter Window Lower Reveal Molding	Rear Quarter and Rear End Trim Sticks

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Skylight Front Reveal	55, 65			X				
Front Skylight Rear Reveal	55, 65			X			Front Skylight Front Reveal	
Front Skylight Center Division Reveal Lower Escutcheon	55, 65			X			Front Skylight Front Reveal and Center Division Reveal	
Front Skylight Center Division Reveal	55, 65			X			Front Skylight Rear Reveal	
Side Skylight Front Reveal	55, 65			X			Side Skylight Lower Reveal	
Side Skylight Upper Reveal	55, 65			X			Side Skylight Front Reveal	
Side Skylight Lower Reveal	55, 65			X				
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon

33400 - 33600 - 33800 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	55, 65			X				
Quarter Window Reveal Lower	55, 65			X				
Roof Panel Rear Upper Finishing	55, 65					X		Rear Roof Headlining Trim Finish Molding
Rear Upper Side Finishing	55, 65					X		
Rear Lower Side Finishing	55, 65				X			
Front Door Outer Panel	33800				X			
Rear Door Outer Panel	33800				X			
Front of Rear Wheel Opening	33800	X				X	Rear Wheel Opening	Quarter Trim Pad
Rear Wheel Opening	33800	X						
Rear of Rear Wheel Opening	33800	X			X	X	Rear Wheel Opening	
Rear Quarter Outer Panel Nameplate and/or Emblem	All					X		
Rear Compartment Lid Outer Panel	All					X		
Rear Compartment Lid Outer Panel Emblem	All					X		

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Upper	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67, 35, 55, 65)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	
Back Body Opening Upper Reveal	55, 65	X						Tailgate Glass Run Channel
Back Body Opening Side Reveal	55, 65	X						
Tailgate Window Lower Reveal	35, 55, 65	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt	35, 55, 65					X		Tailgate Window and Regulator
Tailgate Outer Panel Upper	33600-33800 35, 55, 65				X			
Tailgate Outer Panel Lower	33600-33800 35, 55, 65				X			
Tailgate Outer Panel Nameplate and/or Emblem	35, 55, 65					X		

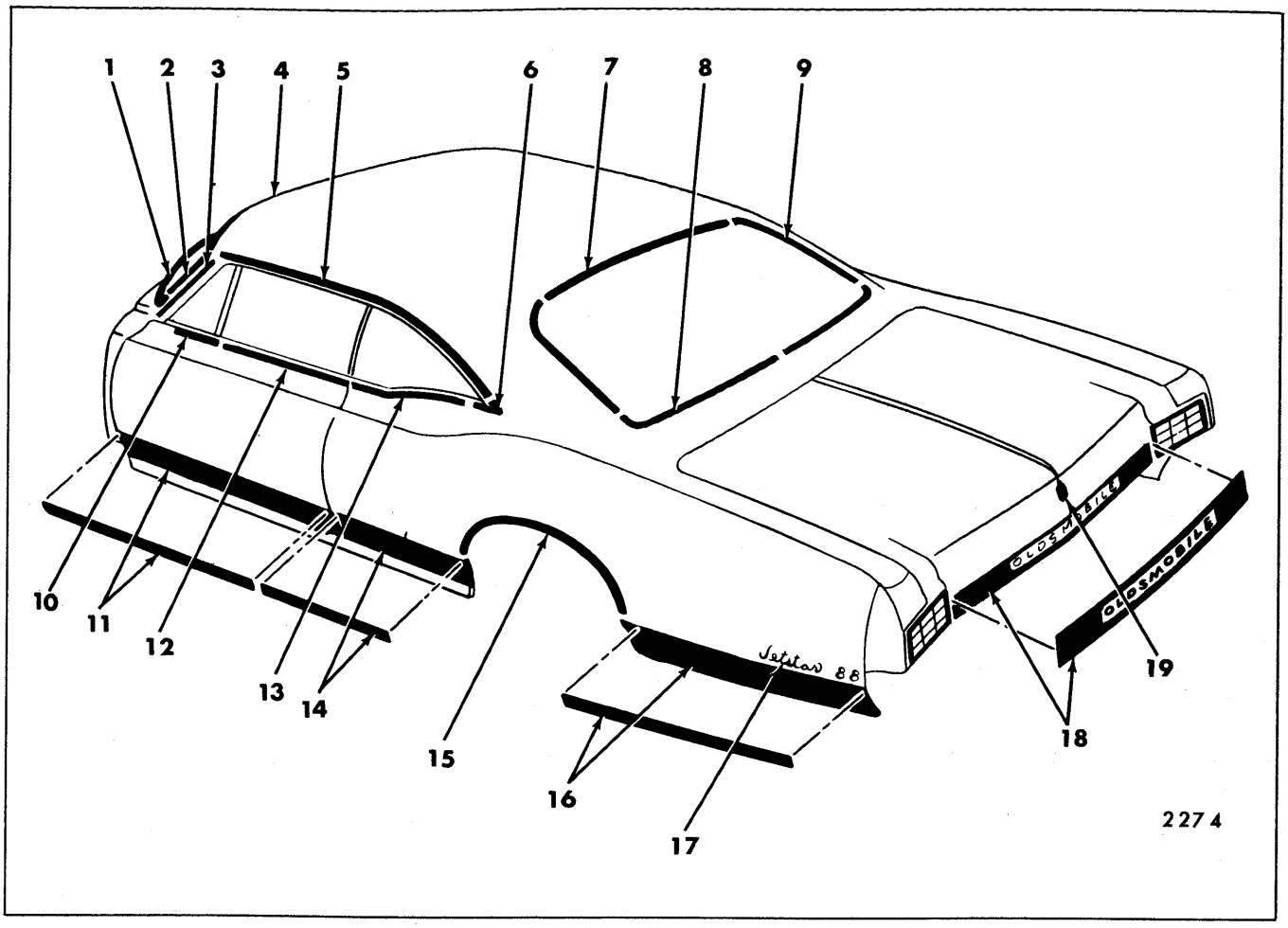

Fig. 12-25—Oldsmobile "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Window Belt Reveal (Rear Corner) Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Front Door Window Belt Reveal (At Vent) Molding
11. Front Door Outer Panel Molding
12. Front Door Window Belt Reveal Molding
13. Rear Quarter Window Belt Reveal Molding
14. Front of Rear Wheel Opening Molding
15. Rear Wheel Opening Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Nameplate
18. Rear End Panel Molding
19. Rear Compartment Lid Outer Panel Emblem

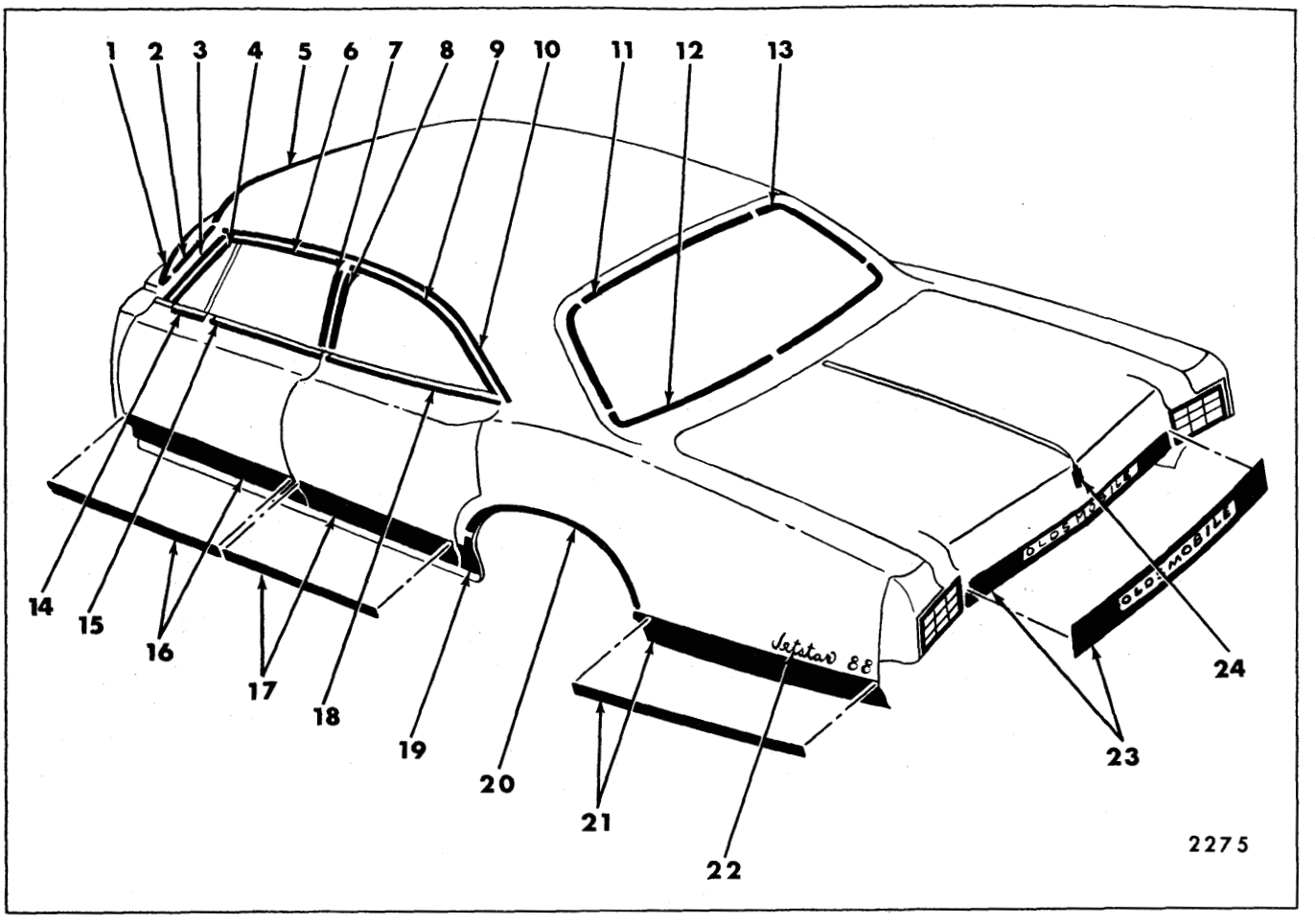

Fig. 12-26—Oldsmobile "B-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Rear Door Window Frame Front Scalp Molding
9. Rear Door Window Frame Upper Scalp Molding
10. Roof Drip Molding Scalp
11. Back Window Reveal Upper Molding
12. Back Window Reveal Lower Molding
13. Back Window Reveal Side Molding
14. Front Door Window Belt Reveal (At Vent) Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Door Outer Panel Molding
18. Rear Door Window Belt Reveal Molding
19. Front of Rear Wheel Opening Molding
20. Rear Wheel Opening Molding
21. Rear of Rear Wheel Opening Molding
22. Rear Quarter Outer Panel Nameplate
23. Rear End Panel Molding
24. Rear Compartment Lid Outer Panel Emblem

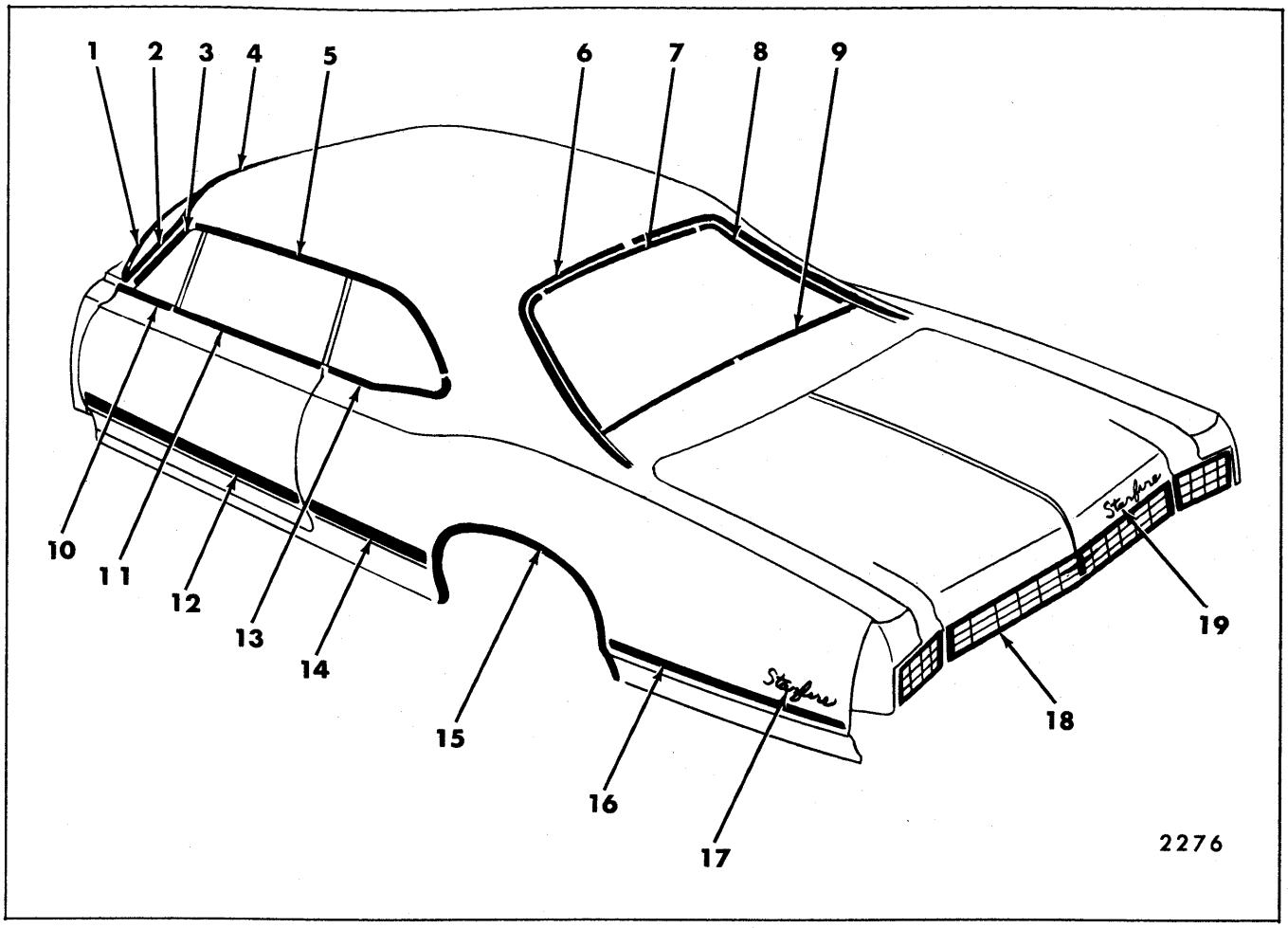

Fig. 12-27—Oldsmobile "B-57" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Roof Panel At Back Window Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Side Molding
9. Back Window Reveal Lower Molding
10. Front Door Window Belt Reveal (At Vent) Molding
11. Front Door Window Belt Reveal Molding
12. Front Door Outer Panel Molding
13. Rear Quarter Window Belt Reveal Molding
14. Front of Rear Wheel Opening Molding
15. Rear Wheel Opening Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Nameplate
18. Rear End Panel Molding
19. Rear Compartment Lid Outer Panel Nameplate

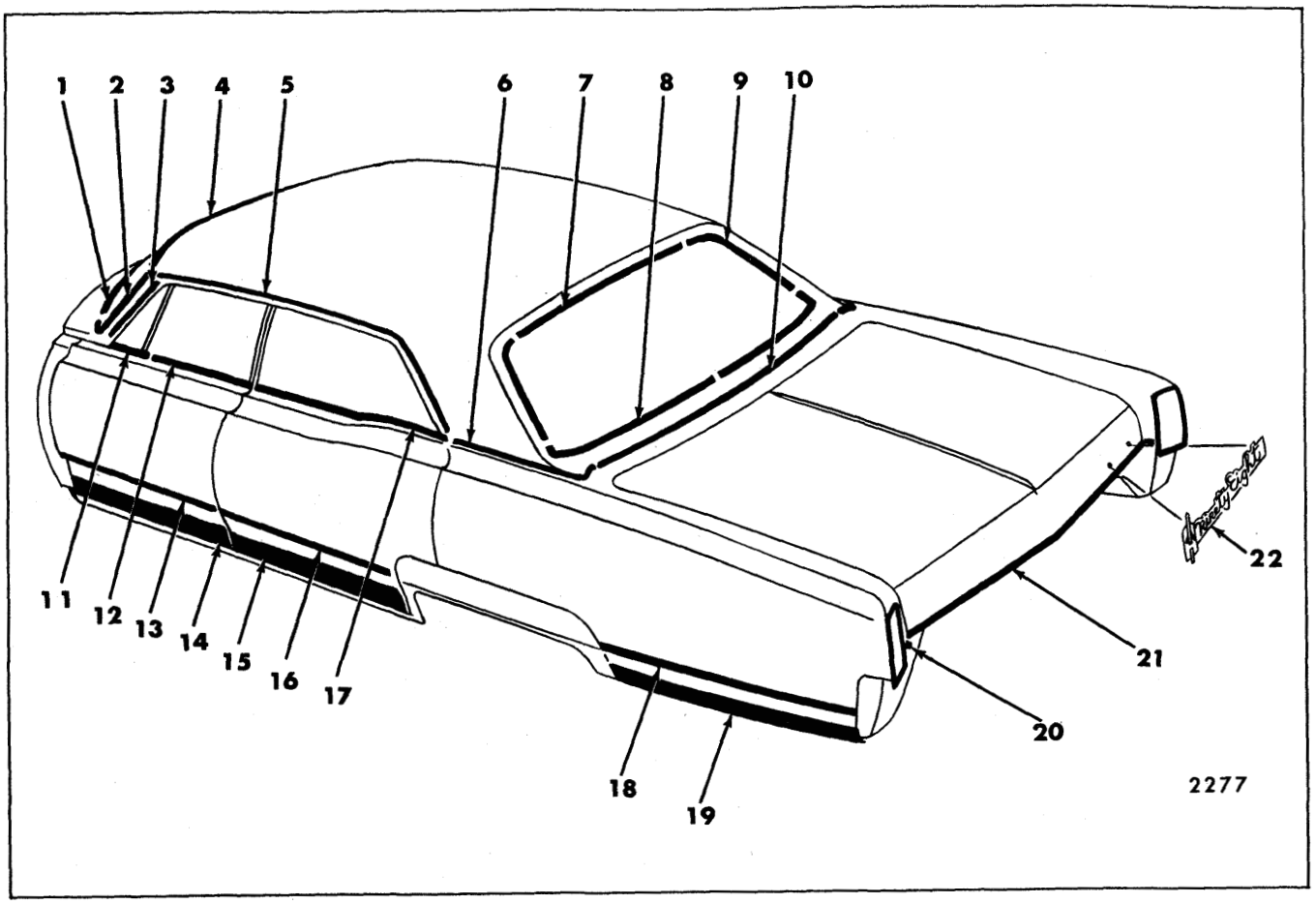

Fig. 12-28—Oldsmobile "C-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Rear End Belt Reveal Molding
11. Front Door Window Belt Reveal (At Vent) Molding
12. Front Door Window Belt Reveal Molding
13. Front Door Outer Panel Upper Molding
14. Front Door Outer Panel Lower Molding
15. Rear Door Outer Panel Lower Molding
16. Rear Door Outer Panel Upper Molding
17. Rear Door Window Belt Reveal Molding
18. Rear Quarter Outer Panel Upper Molding
19. Rear Quarter Outer Panel Lower Molding
20. Rear Compartment Lid Outer Panel Extension Molding
21. Rear Compartment Lid Outer Panel Molding
22. Rear Compartment Lid Outer Panel Nameplate

35200 - 35400 - 35600 - 35800 - 38400 - 38600 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All except 67	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Scalp	All 69 35237, 35637 35837		X				Windshield Pillar Drip	
Roof Drip Molding Front Scalp	39, 57						Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	39, 57	X 57 Style Only	X				Roof Drip Molding Front Scalp	
Roof Drip Molding Front Scalp	38437		X				Windshield Pillar Drip	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Roof Drip Molding Rear Scalp	38437	X					Roof Drip Molding Front Scalp	
Roof Panel Emblem	38669					X		Headlining Rear Quarter Trim Panel
Front Door Window Frame Front Scalp	69		X					
Front Door Window Frame Upper Scalp	69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	69		X				Front Door Window Frame Upper Scalp	
Front Door Window Belt Reveal (at vent)	All except 35000 69 styles	X						Front Door Trim Pad
Front Door Window Belt Reveal (at vent)	35000 69 styles	X						Front Door Vent Assembly
Front Door Window Belt Reveal	All	X						Rubber Bumper on Front Door Window Lower Stop
Center Pillar Scalp	38469, 38669	X						Front and Rear Side Roof Rail Weatherstrip at Center Pillar
Rear Door Window Frame Front Scalp	69		X				Rear Door Window Frame Upper Scalp	

35200 - 35400 - 35600 - 35800 - 38400 - 38600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Door Window Frame Upper Scalp	69		X					
Rear Door Window Belt Reveal	39, 69	X						Rubber Bumper on Rear Door Window Lower Stop
Quarter Window Belt Reveal	37, 67	X					Quarter Window Reveal Escutcheon	Quarter Window Lower Stop
Quarter Window Belt Reveal Escutcheon	37		X				Quarter Window Reveal Roof Drip Molding Scalp	
Quarter Belt Reveal	37 Except 38000 Series	X		X	X			
Quarter Belt Reveal	38000, 37 & 39				X	X		Headlining Rear Quarter Trim Panel (37 Styles Only)
Rear End Belt Reveal	38000, 37 & 39					X	Quarter Belt Reveal	
Quarter Pinchweld Finishing Molding	67	X		X			Right Side Overlaps Left Side	
Front Door Outer Panel Upper	38400-38600	X		X				
Front Door Outer Panel	35200, 35600	X		X				
Front Door Outer Panel	35400, 35800	X				X		Front Door Trim

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Outer Panel Lower	38400-38600	X		X				
Rear Door Outer Panel Upper	38400-38600	X		X				
Rear Door Outer Panel	35200-35600	X		X				
Rear Door Outer Panel	35800	X				X		Door Trim Pad
Rear Door Outer Panel Lower	38400-38600	X		X				
Front of Rear Wheel Opening Upper	38400-38600			X				
Front of Rear Wheel Opening	35200-35600			X				
Front of Rear Wheel Opening	35400-35800					X		Quarter Trim
Front of Rear Wheel Opening Lower	38400-38600			X				
Rear Wheel Opening	35200-35400 35600-35800	X						
Rear of Rear Wheel Opening Upper	38400-38600			X				
Rear of Rear Wheel Opening	35600			X				
Rear of Rear Wheel Opening	35400-35800					X		
Rear of Rear Wheel Opening Lower	38400-38600			X				

35200 - 35400 - 35600 - 35800 - 38400 - 38600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Quarter Outer Panel Nameplate	35200-35400					X		
Back Window Reveal Upper	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67)			X			Back Window Reveal Side	
Rear Compartment Lid Outer Panel Nameplate	35400-38400 38600					X		
Rear Compartment Lid Outer Panel Emblem	35200-35400 35600-35800					X		
Rear Compartment Lid Outer Panel	38400-38600	X						
Rear Compartment Lid Outer Panel Extension	38400-38600	X						
Rear End Panel	35200-35400 35600-35800					X		

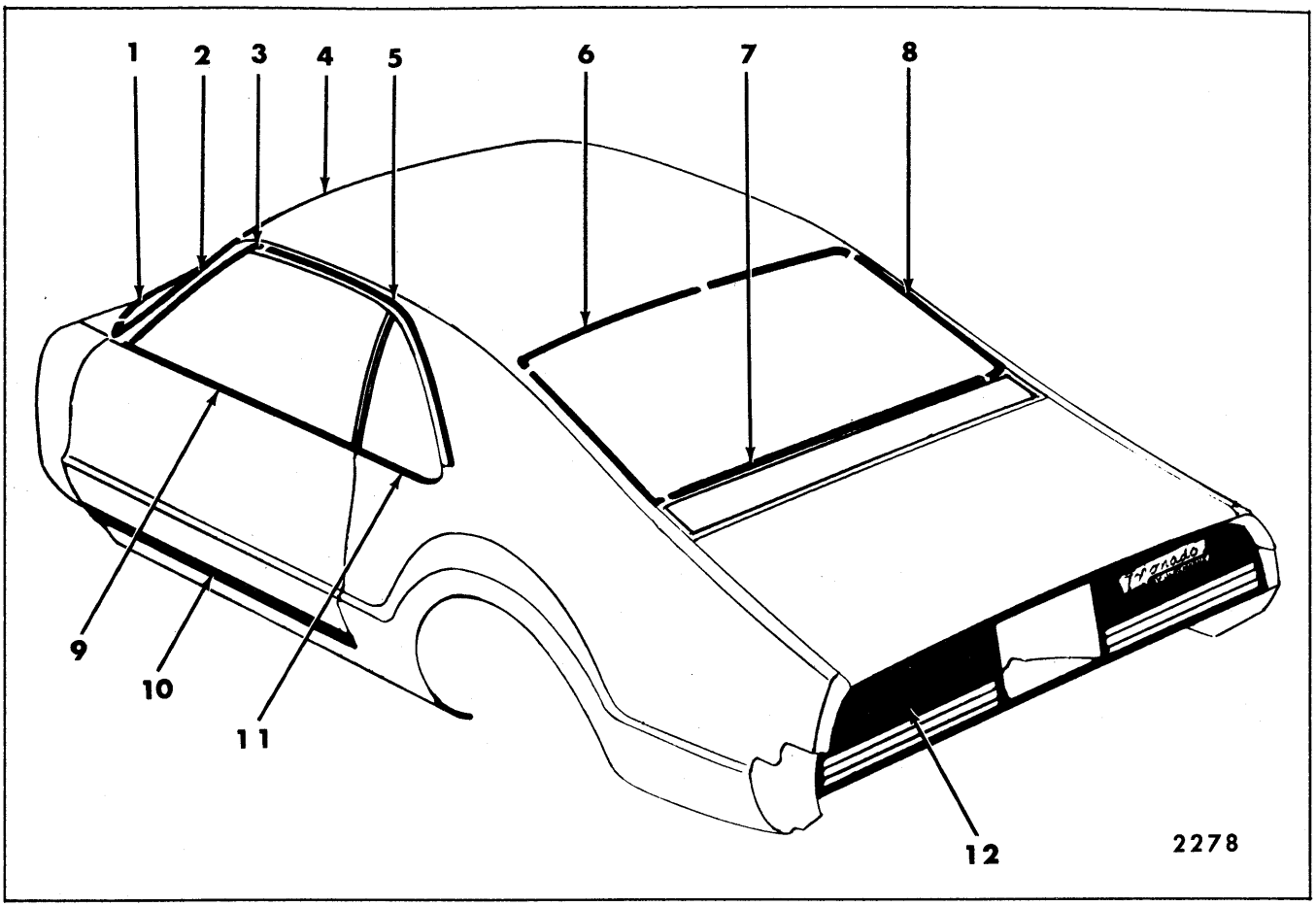

Fig. 12-29—Oldsmobile "E-87" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding Scalp
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Upper Molding
7. Back Window Reveal Lower Molding
8. Back Window Reveal Side Molding
9. Front Door Window Belt Reveal Molding
10. Front Door Outer Panel Molding
11. Rear Quarter Window Belt Reveal Molding
12. Rear End Panel Molding

39400 - 39600 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X			Windshield Reveal Side	Cowl Air Intake Grille
Windshield Pillar Drip Molding Scalp	All		X				Roof Drip Molding Scalp	
Roof Drip Molding Scalp	All		X					
Front Door Window Belt Reveal	All	X				X		
Front Door Outer Panel	All			X				
Rear Quarter Window Belt Reveal	All	X			X			
Back Window Reveal Upper	All			X			Back Window Reveal Side	
Back Window Reveal Side	All			X			Back Window Reveal Lower	
Back Window Reveal Lower	All			X			Back Window Reveal Side	
Rear End Outer Panel	All					X		Loosen Rear Bumper

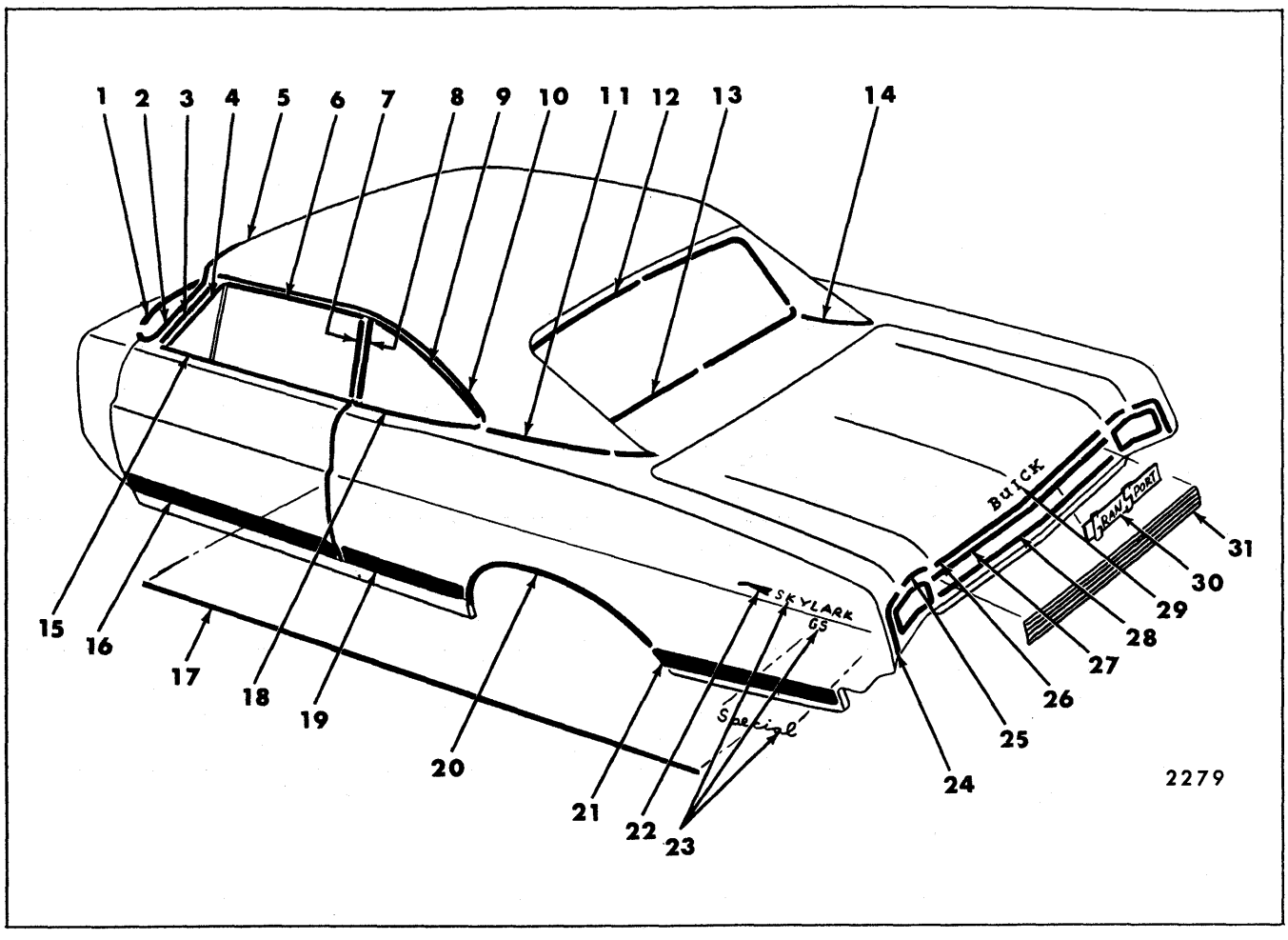

Fig. 12-30—Special "A-07" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Quarter Window Front Scalp Molding
9. Quarter Window Upper Scalp Molding
10. Roof Drip Molding Scalp
11. Rear Quarter Belt Reveal Molding
12. Back Window Reveal Upper Molding
13. Back Window Reveal Lower Molding
14. Rear Quarter Belt Reveal Rear Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Quarter Outer Panel Molding
18. Rear Quarter Window Belt Reveal Molding
19. Front of Rear Wheel Opening Molding
20. Rear Wheel Opening Molding
21. Rear of Rear Wheel Opening Molding
22. Rear Quarter Outer Panel Emblem
23. Rear Quarter Outer Panel Nameplate
24. Rear of Rear Quarter Outer Panel Molding
25. Rear Compartment Lid Outer Panel Extension Molding
26. Rear Compartment Lid Outer Panel Molding
27. Rear End Panel Upper Molding
28. Rear End Panel Lower Molding
29. Rear Compartment Lid Outer Panel Nameplate
30. Rear End Panel Nameplate
31. Rear End Panel Molding

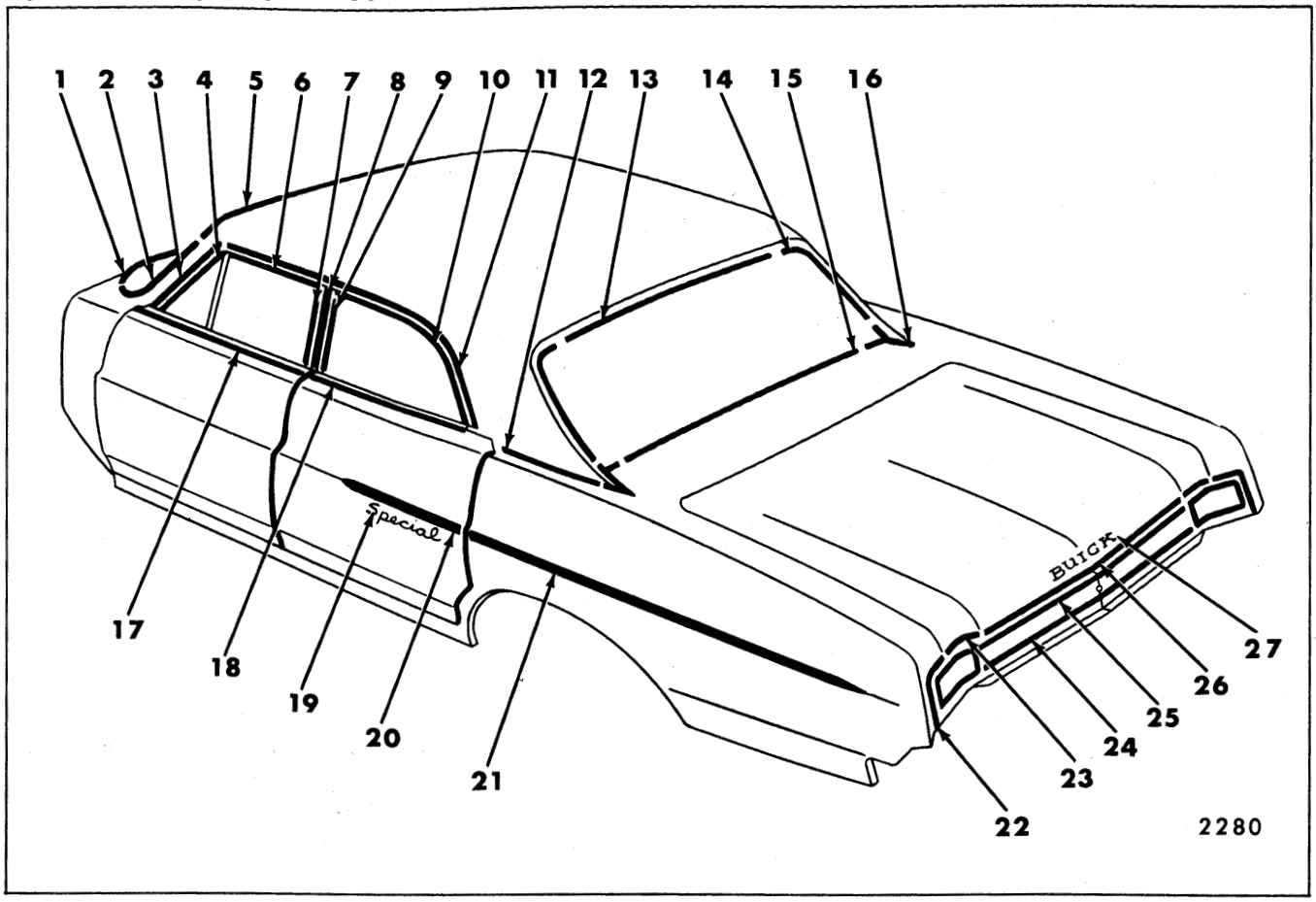

Fig. 12-31—Special "A-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Center Pillar Scalp Molding
9. Rear Door Window Frame Front Scalp Molding
10. Rear Door Window Frame Upper Scalp Molding
11. Roof Drip Molding Scalp
12. Rear Quarter Belt Reveal Molding
13. Back Window Reveal Upper Molding
14. Back Window Reveal Side Molding
15. Back Window Reveal Lower Molding
16. Rear Quarter Belt Reveal Rear Molding
17. Front Door Window Belt Reveal Molding
18. Rear Door Window Belt Reveal Molding
19. Rear Door Nameplate
20. Rear Door Outer Panel Molding
21. Rear Quarter Outer Panel Molding
22. Rear of Rear Quarter Outer Panel Molding
23. Rear Compartment Lid Outer Panel Extension Molding
24. Rear End Panel Lower Molding
25. Rear End Panel Upper Molding
26. Rear Compartment Lid Outer Panel Molding
27. Rear Compartment Lid Outer Panel Nameplate

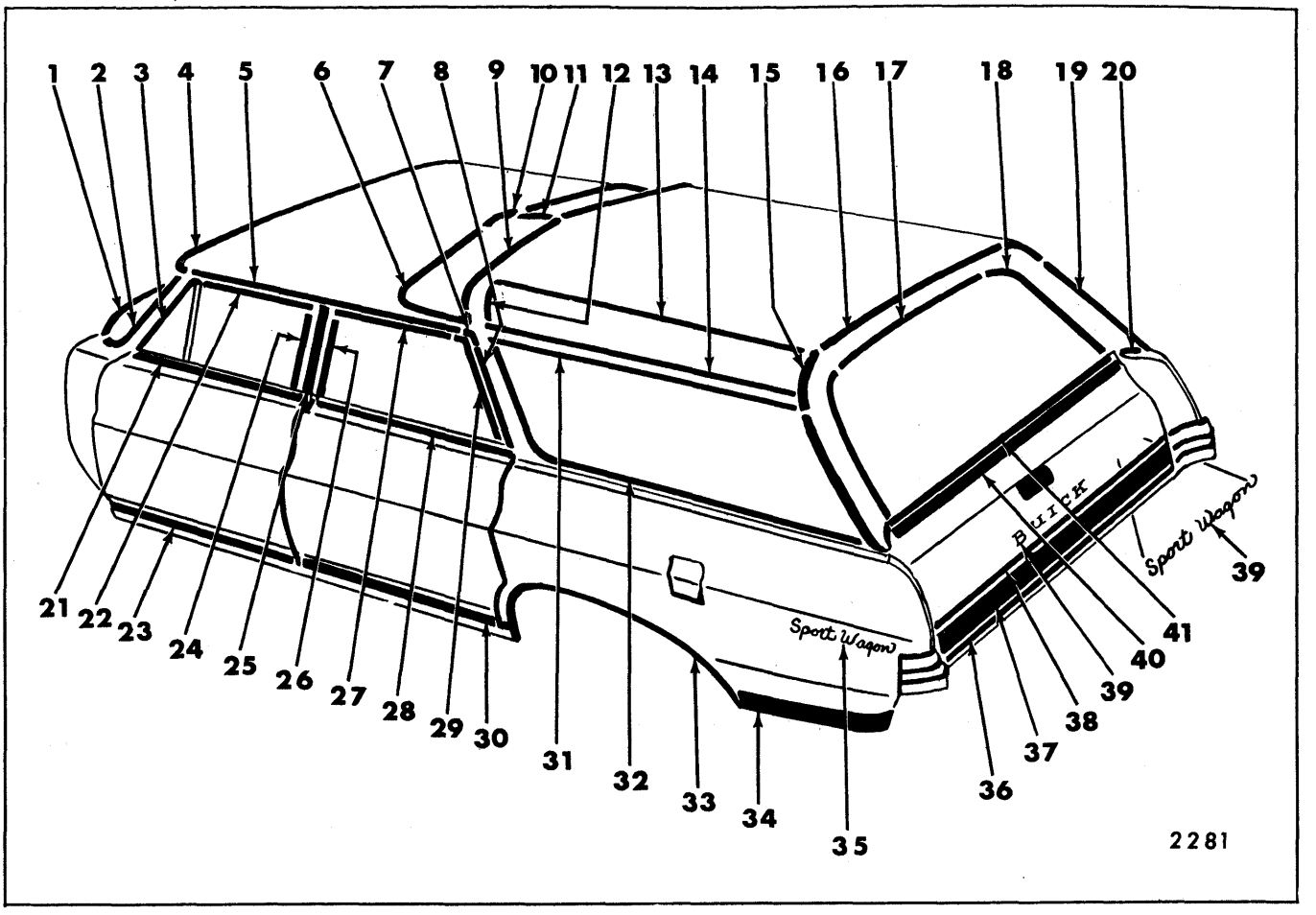

Fig. 12-32—Special "A-55-65" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Front Door Window Frame Front Scalp Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Front Skylight Front Reveal Molding
7. Roof Drip Molding Scalp Escutcheon
8. Roof Drip Molding Rear Scalp
9. Front Skylight Rear Reveal Molding
10. Front Skylight Center Division Reveal Lower Escutcheon
11. Front Skylight Center Division Reveal Molding
12. Side Skylight Front Reveal Molding
13. Side Skylight Upper Reveal Molding
14. Side Skylight Lower Reveal Molding
15. Rear Upper Side Finishing Molding
16. Rear Upper Finishing Molding
17. Back Body Opening Upper Reveal Molding
18. Back Body Opening Side Reveal Molding
19. Rear Lower Side Finishing Molding
20. Back Body Pillar Belt Finishing Molding
21. Front Door Window Belt Reveal Molding
22. Front Door Window Frame Upper Scalp Molding
23. Front Door Outer Panel Molding
24. Front Door Window Frame Rear Scalp Molding
25. Center Pillar Scalp Molding
26. Rear Door Window Frame Front Scalp Molding
27. Rear Door Window Frame Upper Scalp Molding
28. Rear Door Window Belt Reveal Molding
29. Rear Door Window Frame Rear Scalp Molding
30. Rear Door Outer Panel Molding
31. Rear Quarter Window Reveal Upper Molding
32. Rear Quarter Window Reveal Lower Molding
33. Rear Wheel Opening Molding
34. Rear of Rear Wheel Opening Molding
35. Rear Quarter Outer Panel Nameplate
36. Tailgate Outer Panel Lower Molding
37. Tailgate Outer Panel Center Molding
38. Tailgate Outer Panel Upper Molding
39. Tailgate Outer Panel Nameplate
40. Tailgate Outer Panel Belt Molding
41. Tailgate Window Lower Reveal Molding

43400 - 43600 - 44200 - 44400 - 44600 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing Molding	All	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (37 and 67 Styles Only)
Roof Drip Molding Scalp Front	07, 17, 35, 55, 65, 69		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Rear	07, 17, 35, 55, 65, 69		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Escutcheon	07, 17, 35, 55, 65, 69		X					
Front Door Window Frame Scalp Front	07, 69, 35, 55, 65		X					
Front Door Window Frame Scalp Upper	07, 69, 35, 55, 65		X				Front Door Window Frame Scalp Front	
Front Door Window Frame Scalp Rear	07, 69, 35, 55, 65		X				Front Door Window Frame Scalp Upper	
Rear Door Window Frame Scalp Front	35, 55, 65, 69		X				Rear Door Window Frame Scalp Upper	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Door Window Frame Scalp Upper	35, 55, 65, 69		X				Rear Door Window Frame Scalp Rear	
Rear Door Window Frame Scalp Rear	35, 55, 65, 69		X					
Center Pillar Scalp	35, 55, 65, 69	X						
Rear Quarter Window Scalp Molding Front	07		X				Rear Quarter Window Reveal Molding Upper	
Rear Quarter Window Scalp Molding Upper	07		X					
Quarter Pinchweld Finishing	67	X		X				Quarter and Rear End Trim Stick
Rear End Pinchweld Finishing	67	X		X			Quarter Pinchweld Finishing	Quarter and Rear End Trim Stick
Quarter Belt Reveal	07, 17 & 69				X	X		
Front Skylight Front Reveal	55, 65			X				
Front Skylight Rear Reveal	55, 65			X			Front Skylight Front Reveal	
Front Skylight Center Division Reveal Lower Escutcheon	55, 65			X			Front Skylight Front Reveal and Center Division Reveal	
Front Skylight Center Division Reveal	55, 65			X			Front Skylight Rear Reveal	
Side Skylight Front Reveal	55, 65			X			Side Skylight Lower Reveal	

43400 - 43600 - 44200 - 44400 - 44600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Side Skylight Upper Reveal	55, 65			X			Side Skylight Front Reveal	
Side Skylight Lower Reveal	55, 65			X				
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	55, 65			X				
Quarter Window Reveal Lower	55, 65			X				
Rear Upper Finishing	55, 65					X		Rear Roof Headlining Trim Finish Molding
Rear Upper Side Finishing	55, 65					X		
Rear Lower Side Finishing	55, 65				X			

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Outer Panel	44400-44600			X				
Rear Door Outer Panel	43600-44400 44600			X				
Rear Door Outer Panel Nameplate	43600					X		
Front of Rear Wheel Opening	44400-44600			X				
Rear Wheel Opening	44400-44600	X						
Rear of Rear Wheel Opening	44400-44600				X			
Rear Quarter Outer Panel	43600			X				
Rear Quarter Outer Panel Nameplate and/or Emblem	43400, 44400 44600					X		
Rear Compartment Lid Outer Panel	43600-44400 44600	X						
Rear Compartment Lid Outer Panel Nameplate	All					X		
Rear End Panel Upper	43600-46600					X		
Rear End Panel	44400					X		
Rear End Panel Lower	43600-46600					X		
Rear End Panel Nameplate	44600					X		
Back Window Reveal Upper	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	

43400 - 43600 - 44200 - 44400 - 44600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Side	All (except 67, 35, 55, 65)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	
Back Body Opening Upper Reveal	55, 65	X						Tailgate Glass Run Channel
Back Body Opening Side Reveal	55, 65	X						
Tailgate Window Lower Reveal	35, 55, 65	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt	44455, 65					X		Tailgate Window and Regulator
Tailgate Outer Panel Upper	35, 55, 65				X			
Tailgate Outer Panel Center	55, 65	X						Tailgate Outer Panel Upper and Lower Moldings
Tailgate Outer Panel Lower	35, 55, 65				X			
Tailgate Outer Panel Nameplate	35, 55, 65					X		

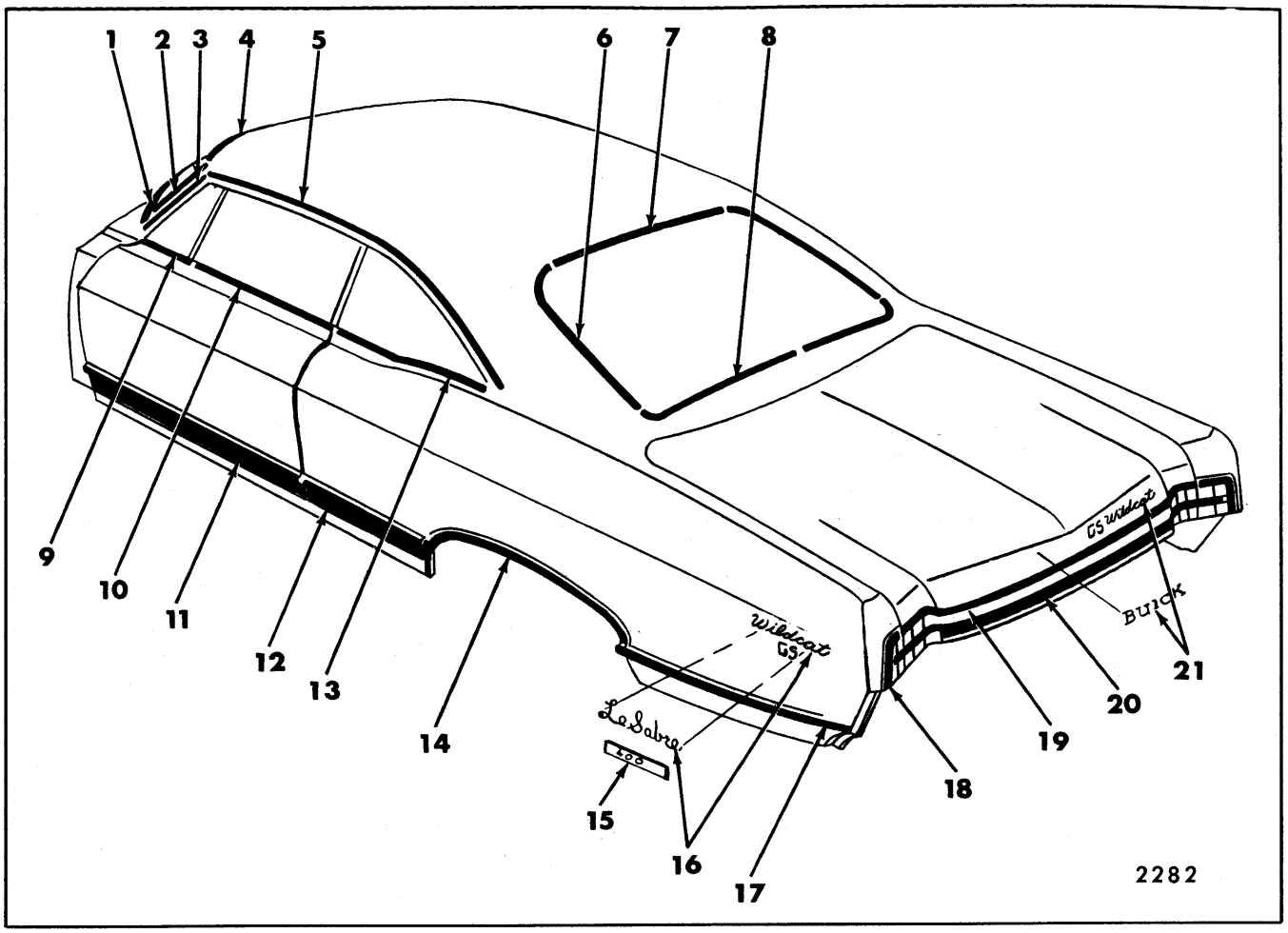

Fig. 12-33—Buick "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Side Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Front Door Window Belt Reveal (At Vent) Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Front of Rear Wheel Opening Molding
13. Rear Quarter Window Belt Reveal Molding
14. Rear Wheel Opening Molding
15. Rear Quarter Outer Panel Emblem
16. Rear Quarter Outer Panel Nameplate
17. Rear of Rear Wheel Opening Molding
18. Rear of Rear Quarter Outer Panel Molding
19. Rear Compartment Lid Outer Panel Molding
20. Rear End Panel Molding
21. Rear Compartment Lid Outer Panel Nameplate

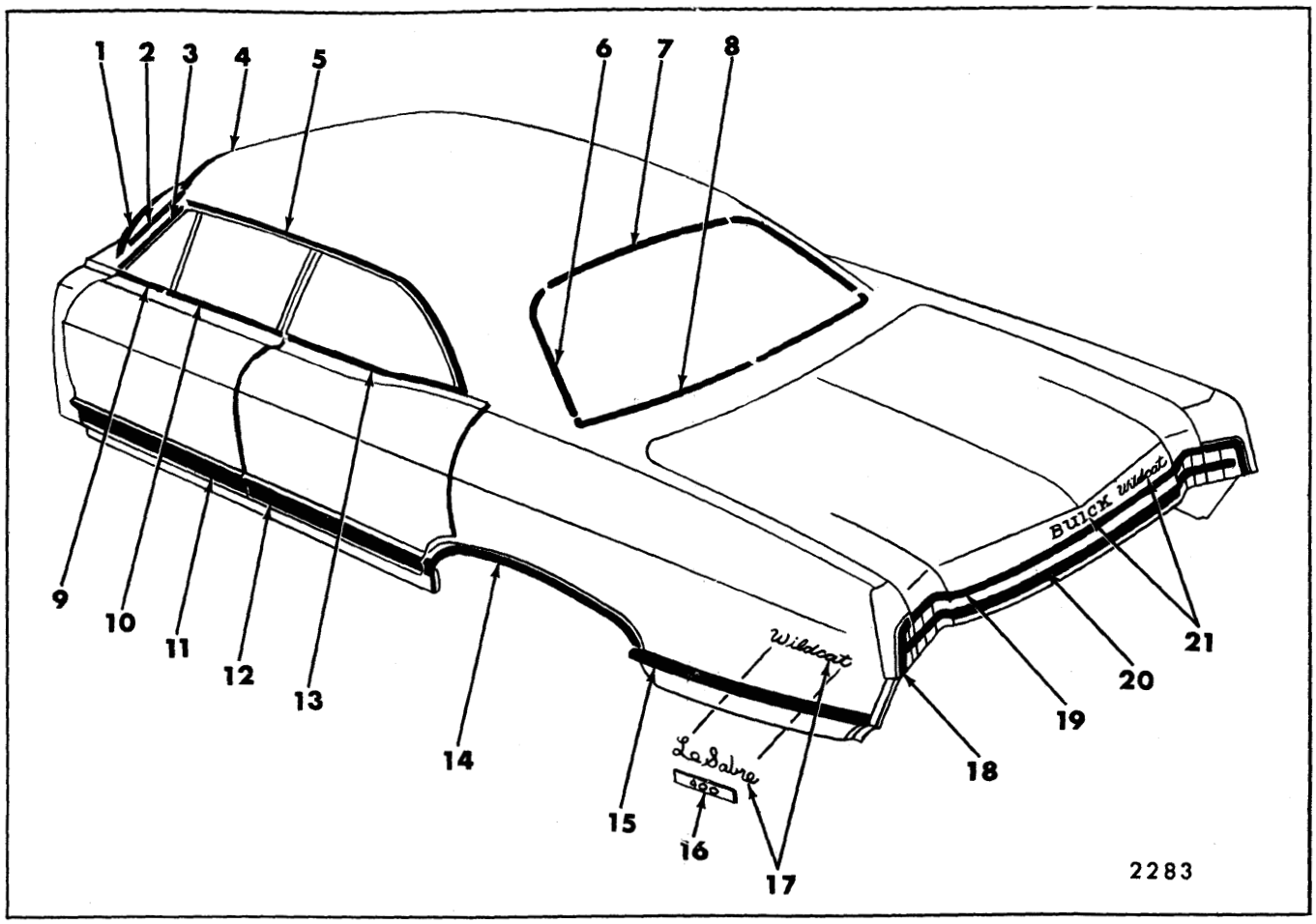

Fig. 12-34—Buick "B-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Side Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Front Door Window Belt Reveal (At Vent) Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Rear Door Outer Panel Molding
13. Rear Door Window Belt Reveal Molding
14. Rear Wheel Opening Molding
15. Rear of Rear Wheel Opening Molding
16. Rear Quarter Outer Panel Emblem
17. Rear Quarter Outer Panel Nameplate
18. Rear of Rear Quarter Outer Panel Molding
19. Rear Compartment Lid Outer Panel Molding
20. Rear End Panel Molding
21. Rear Compartment Lid Outer Panel Nameplate

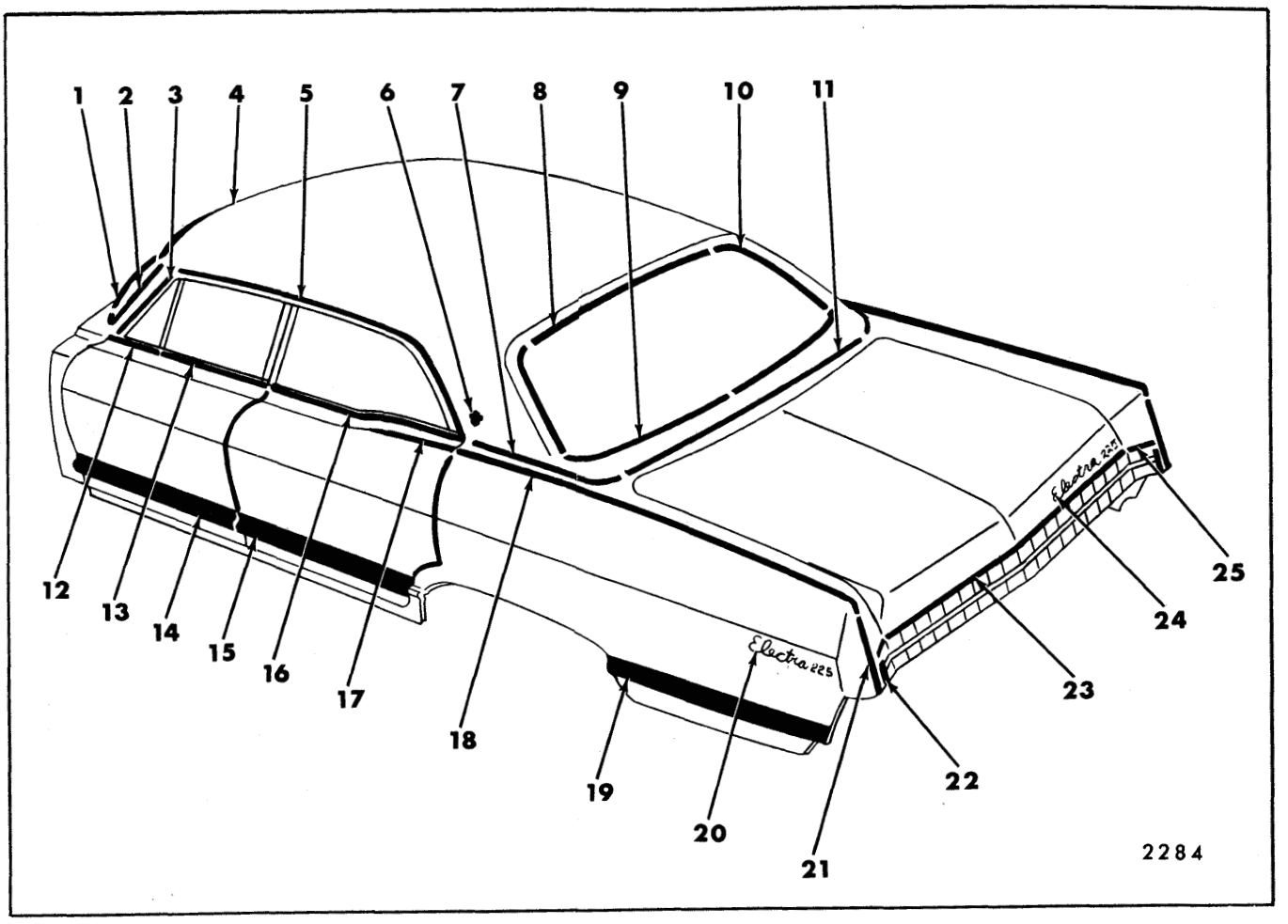

Fig. 12-33—Buick "C-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Roof Panel Emblem
7. Rear Quarter Belt Reveal Molding
8. Back Window Reveal Upper Molding
9. Back Window Reveal Lower Molding
10. Back Window Reveal Side Molding
11. Rear End Belt Reveal Molding
12. Front Door Window Belt Reveal (At Vent) Molding
13. Front Door Window Belt Reveal Molding
14. Front Door Outer Panel Molding
15. Rear Door Outer Panel Molding
16. Rear Door Window Belt Reveal Molding
17. Rear Door Outer Panel Peak Molding
18. Rear Quarter Outer Panel Peak Molding
19. Rear of Rear Wheel Opening Molding
20. Rear Quarter Outer Panel Nameplate
21. Rear of Rear Quarter Outer Panel Peak Molding
22. Rear of Rear Quarter Outer Panel Molding
23. Rear Compartment Lid Outer Panel Molding
24. Rear Compartment Lid Outer Panel Nameplate
25. Rear Compartment Lid Outer Panel Extension Molding

45200 - 45400 - 46400 - 46600 - 48200 - 48400 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All (except 67)	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing Molding	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Front Scalp	39			X			Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	39	X (48239 48439 only)					Roof Drip Molding Front Scalp	
Roof Drip Molding Scalp	37, 69 (except 48237, 48437)		X				Windshield Pillar Drip	
Roof Drip Molding Front Scalp	48237, 48437		X				Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	48237, 48437	X	X				Roof Drip Molding Front Scalp	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Frame Front Scalp	69 (except 48000 Series)		X					
Front Door Window Frame Upper Scalp	69 (except 48000 Series)		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	69 (except 48000 Series)		X				Front Door Window Front Upper Scalp	
Front Door Window Belt Reveal (at vent)	All (except 45000 & 46000, 69 Styles)	X						Front Door Trim Pad
Front Door Window Belt Reveal	All	X					Front Door Window Reveal (at vent)	Rubber Bumper on Door Window Lower Stop
Front Door Window Belt Reveal (at vent)	45000, 46000 69 Styles	X						Front Door Vent Assembly
Center Pillar Scalp	48269, 48469	X						Side Roof Rail Weatherstrip Front and Rear at Center Pillar
Rear Door Window Frame Front Scalp	69 (except 48000 Series)		X				Rear Door Window Frame Upper Scalp	
Rear Door Window Frame Upper Scalp	69 (except 48000 Series)		X					
Rear Door Window Belt Reveal	39, 69	X						Rubber Bumper on Rear Door Window Lower Stop

45200 - 45400 - 46400 - 46600 - 48200 - 48400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Belt Reveal	37, 67	X						Quarter Window Lower Stop
Quarter Window Belt Reveal Escutcheon	37		X					Quarter Window Reveal Roof Drip Molding Rear Scalp
Quarter Belt Reveal	48239, 69 48439, 69			X	X	X		
Rear End Belt Reveal	48239, 69 48439, 69					X	Quarter Belt Reveal	
Quarter Belt Reveal	39 (except 48000 Series)			X	X	X		
Rear End Belt Reveal	39 (except 48000 Series)					X	Quarter Belt Reveal	
Quarter Belt Reveal	48237, 48437				X	X		Headlining Rear Quarter Trim Panel
Rear End Belt Reveal	48237, 48437					X	Quarter Belt Reveal	
Quarter Belt Reveal	37 (except 48000 Series)			X	X	X	Right Side Overlaps Left Side	
Quarter Belt Reveal	69 (except 48000 Series)			X	X			
Quarter Belt Pinchweld Finishing	67	X		X			Right Side Overlaps Left Side	
Front Door Outer Panel Lower	45200, 45400 46400, 46600	X		X				

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Outer Panel Lower	48200, 48400	X				X		Front Door Trim Pad
Rear Door Outer Panel Crown	48200, 48400	X				X		Rear Door Trim
Rear Door Outer Panel Lower	45200, 45400 46400, 46600	X		X				
Rear Door Outer Panel Lower	48200, 48400	X				X		Rear Door Trim
Rear Fender Outer Panel Crown	48200, 48400	X		X		X	Rear of Rear Fender Outer Panel Crown	Quarter Trim on (37, 67 Styles) Rear Compartment Side Trim
Rear of Rear Quarter Outer Panel Crown	48200, 48400	X				X		
Rear of Rear Quarter Outer Panel	45200, 45400 46400, 46600	X						Rear Quarter Extension
Rear of Rear Quarter Outer Panel	48200-48400					X		Rear Quarter Extension
Front of Rear Wheel Opening	48237,48437, 67					X		Quarter Trim
Rear of Rear Wheel Opening	48200-48400	X		X				Rear Compartment Side Trim Panel Compartment to Quarter Panel Filler Plug

45200 - 45400 - 46400 - 46600 - 48200 - 48400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front of Rear Wheel Opening	45400-46400 46600			X		X	Rear Wheel Opening	Quarter Trim Pad
Rear Wheel Opening	45400-46400 46600	X					Front and Rear of Rear Wheel Opening (except Front on 39, 69 Styles)	Quarter Trim Pad Rear
Rear of Rear Wheel Opening	45400-46400 46600			X		X	Rear Wheel Opening	
Rear Quarter Outer Panel Name Plate	All					X		Rear Compartment Side Trim on 48000 Series
Back Window Reveal Upper	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67)			X			Back Window Reveal Side	
Rear Compartment Lid Outer Panel	48200, 48400	X						
Rear Compartment Lid Outer Panel	All (Except 48000 Series)					X		
Rear Compartment Lid Outer Panel Name Plate	All					X		
Rear End Outer Panel	46200, 46400 46600					X		

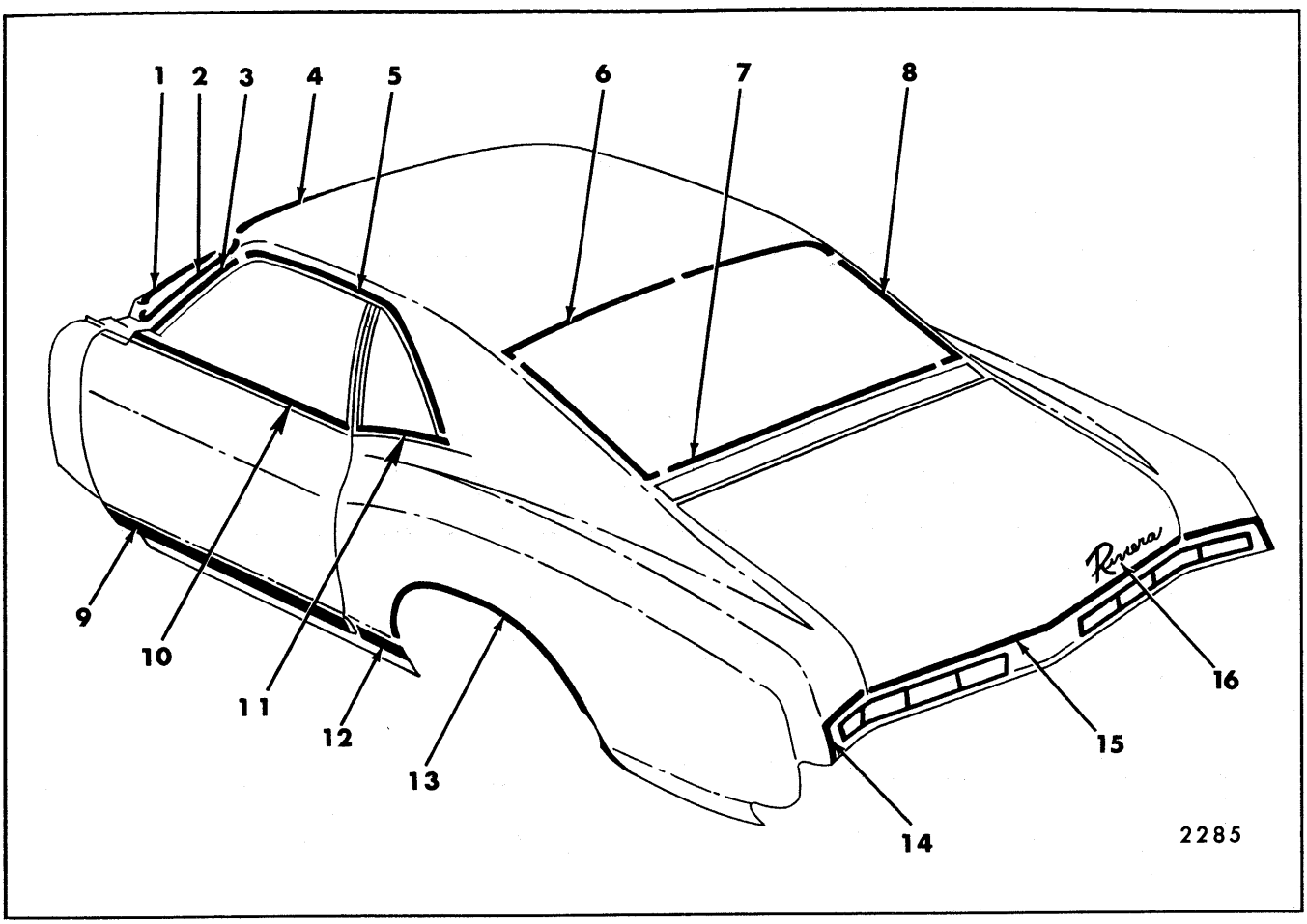

Fig. 12-36—Buick "E-87" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding Scalp
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Upper Molding
7. Back Window Reveal Lower Molding
8. Back Window Reveal Side Molding
9. Front Door Outer Panel Molding
10. Front Door Window Belt Reveal Molding
11. Rear Quarter Window Belt Reveal Molding
12. Front of Rear Wheel Opening Molding
13. Rear Wheel Opening Molding
14. Rear of Rear Quarter Outer Panel Molding
15. Rear Compartment Lid Outer Panel Molding
16. Rear Compartment Lid Outer Panel Nameplate

49400 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X			Windshield Reveal Side	Cowl Air Intake Grille
Windshield Pillar Drip Molding Scalp	All		X				Roof Drip Molding Scalp	
Roof Drip Molding Scalp	All		X					
Front Door Window Belt Reveal	All	X						
Front Door Outer Panel	All			X				
Rear Quarter Window Belt Reveal	All	X						
Front of Rear Wheel Opening	All					X		
Rear Wheel Opening	All	X						
Back Window Reveal Upper	All			X			Back Window Reveal Side	
Back Window Reveal Side	All			X			Back Window Reveal Lower	
Back Window Reveal Lower	All			X			Back Window Reveal Side	
Rear Compartment Lid Outer Panel Nameplate	All					X		
Rear Compartment Lid Outer Panel	All					X		
Rear of Rear Quarter Outer Panel	All					X		Remove Tail Lamp Assembly

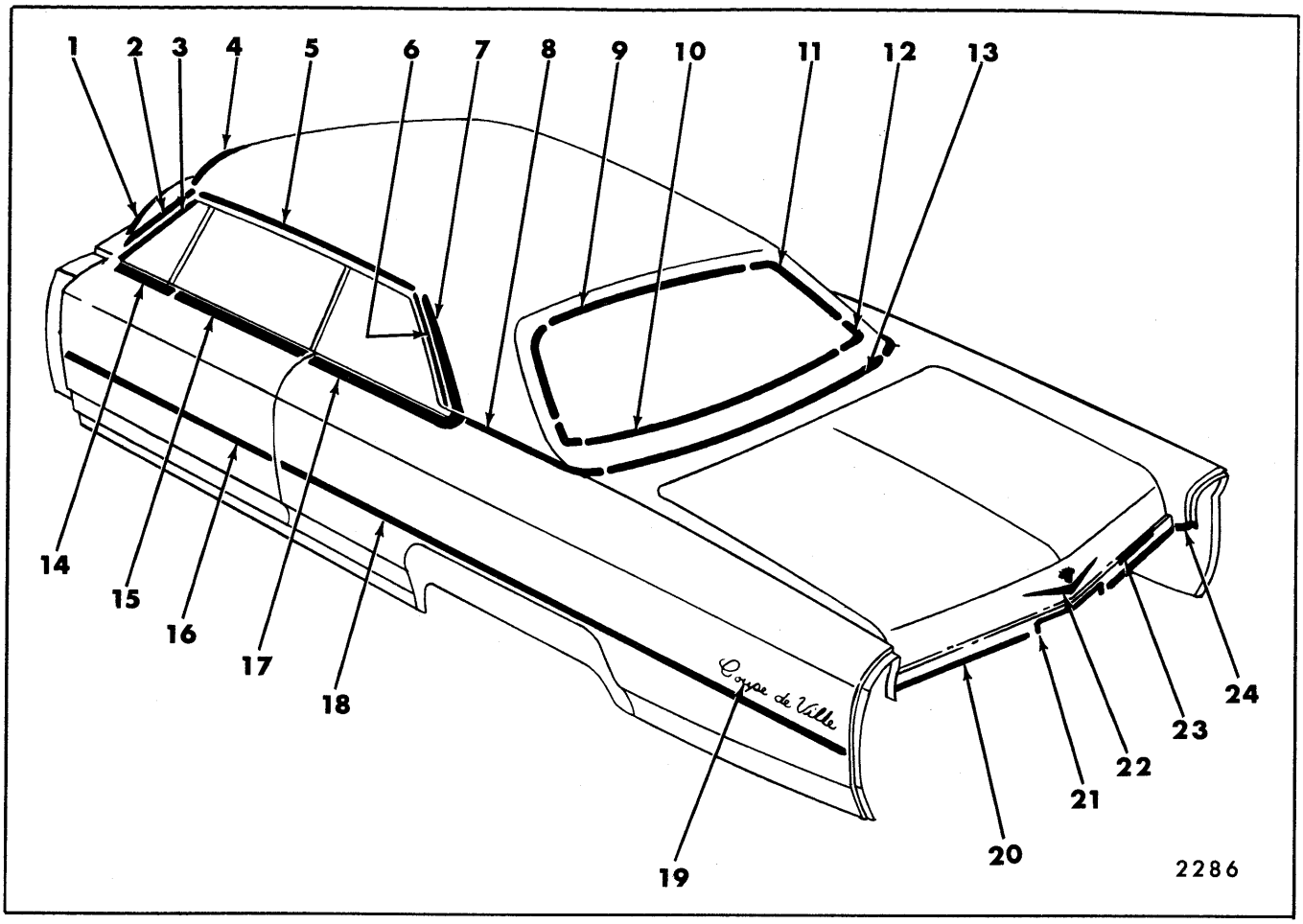

Fig. 12-37—Cadillac "C-57" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Roof Panel Rear of Quarter Window Molding
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Back Window Reveal Corner Escutcheon
13. Rear End Belt Reveal Molding
14. Front Door Window Belt Reveal (At Vent) Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Quarter Window Belt Reveal Molding
18. Rear Quarter Outer Panel Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear Compartment Lid Outer Panel Side Molding
21. Rear Compartment Lid Outer Panel Center Molding
22. Rear Compartment Lid Outer Panel Emblem
23. Rear Compartment Lid Outer Panel Nameplate
24. Rear Compartment Lid Outer Panel Extension Molding

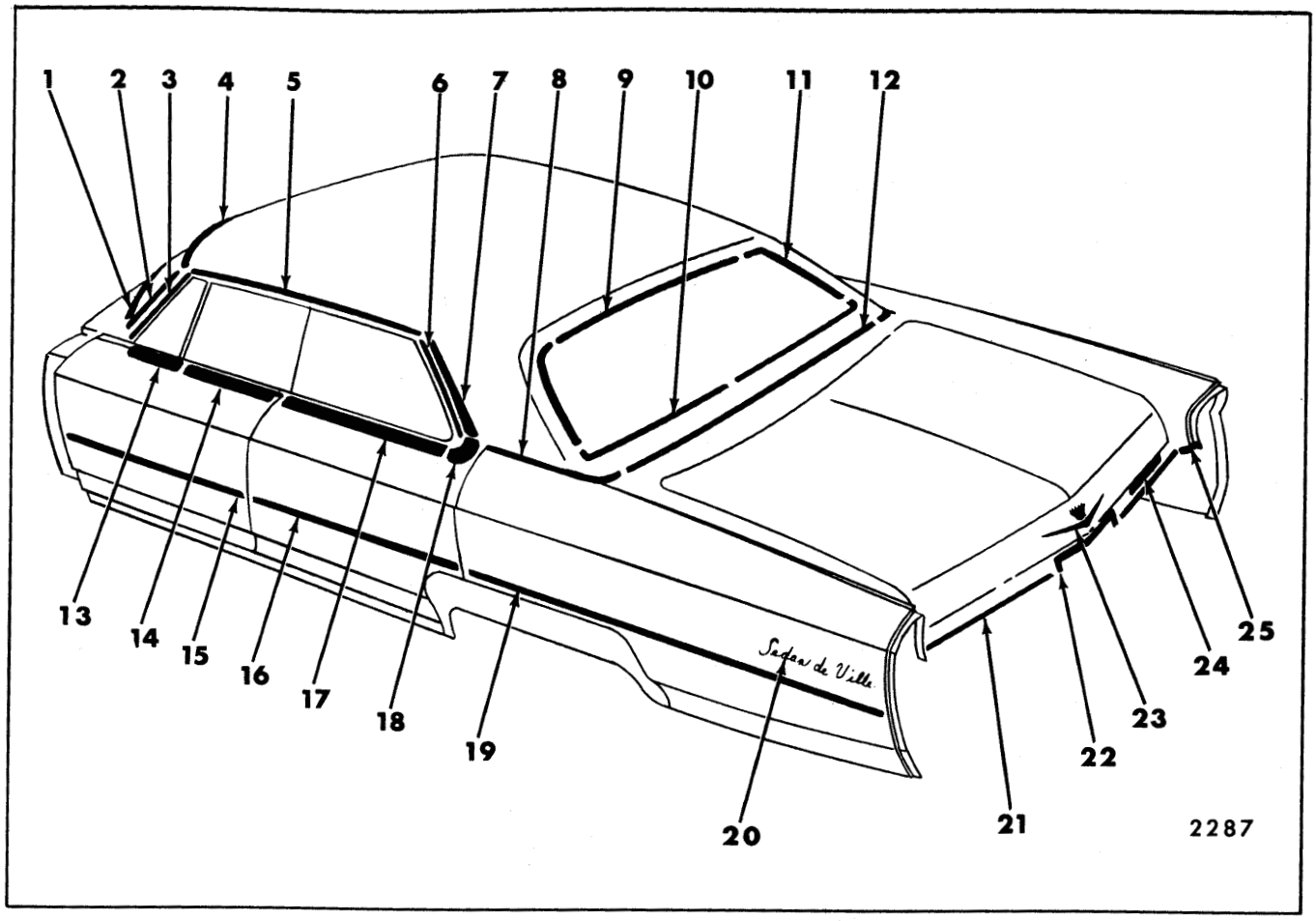

Fig. 12-38—Cadillac "C-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Roof Panel Rear of Rear Door Window Molding
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Rear End Belt Reveal Molding
13. Front Door Window Belt Reveal (At Vent) Molding
14. Front Door Window Belt Reveal Molding
15. Front Door Outer Panel Molding
16. Rear Door Outer Panel Molding
17. Rear Door Window Belt Reveal Molding
18. Rear Door Window Belt Reveal Escutcheon
19. Rear Quarter Outer Panel Molding
20. Rear Quarter Outer Panel Nameplate
21. Rear Compartment Lid Outer Panel Side Molding
22. Rear Compartment Lid Outer Panel Center Molding
23. Rear Compartment Lid Outer Panel Emblem
24. Rear Compartment Lid Outer Panel Nameplate
25. Rear Compartment Lid Outer Panel Extension Molding

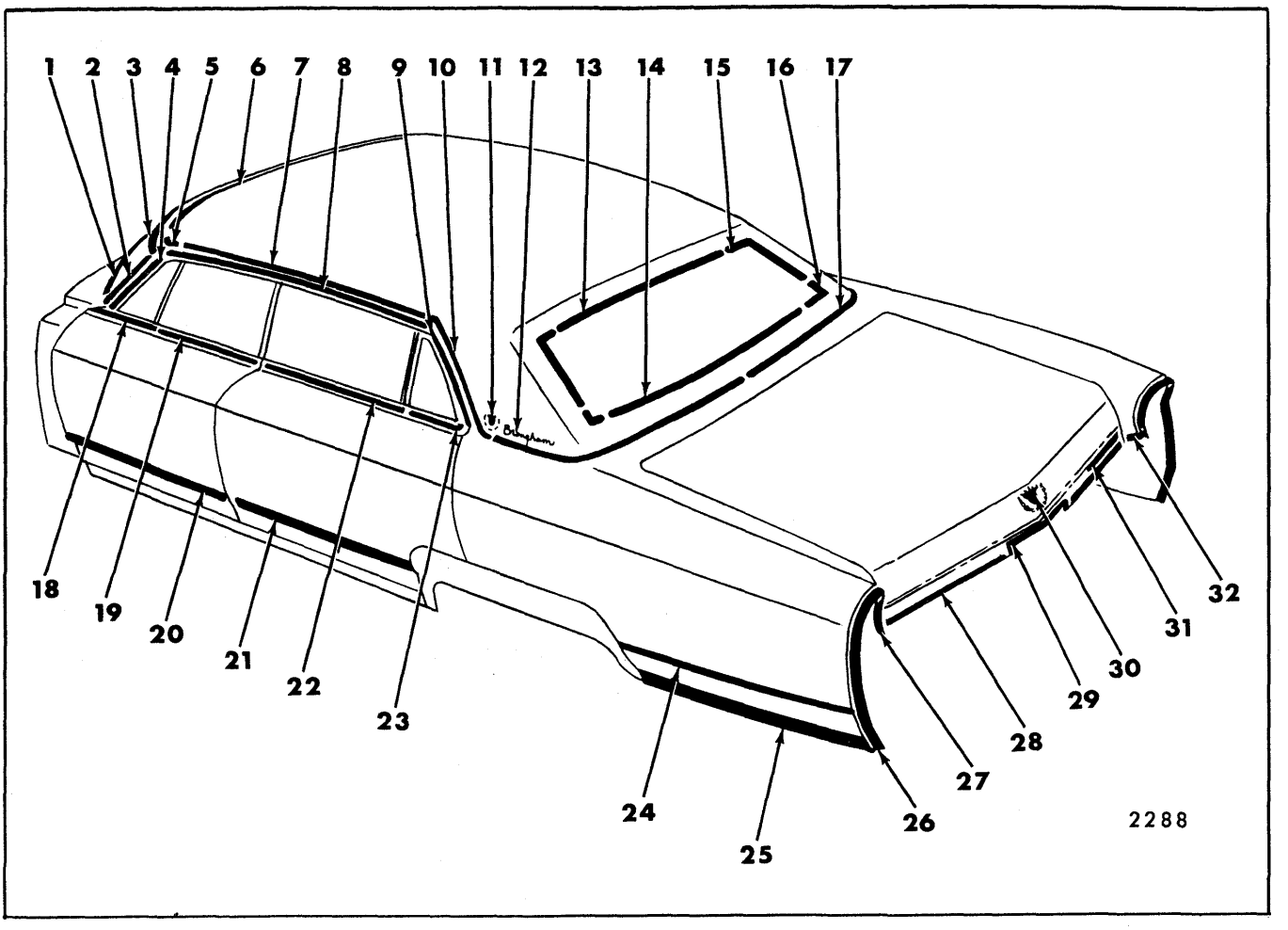

Fig. 12-39—Cadillac "C-69" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Roof Panel Cover Front Finishing Escutcheon
6. Roof Panel Cover Front Finishing Molding
7. Roof Panel Cover Side Front Finishing Molding
8. Roof Drip Molding Front Scalp
9. Roof Drip Molding Rear Scalp
10. Roof Panel Cover Side Rear Finishing Molding
11. Roof Panel Emblem
12. Roof Panel Nameplate
13. Back Window Reveal Upper Molding
14. Back Window Reveal Lower Molding
15. Back Window Reveal Side Molding
16. Back Window Reveal Corner Escutcheon
17. Rear Quarter Belt Reveal Molding
18. Front Door Window Belt Reveal (At Vent) Molding
19. Front Door Window Belt Reveal Molding
20. Front Door Outer Panel Molding
21. Rear Door Outer Panel Molding
22. Rear Door Window Belt Reveal Molding
23. Rear Door Window Rear Belt Reveal Molding
24. Rear of Rear Wheel Opening Upper Molding
25. Rear of Rear Wheel Opening Lower Molding
26. Rear of Rear Quarter Panel Outer At Tail Lamp Molding
27. Rear of Rear Quarter Panel Inner At Tail Lamp Molding
28. Rear Compartment Lid Outer Panel Side Molding
29. Rear Compartment Lid Outer Panel Center Molding
30 Rear Compartment Lid Outer Panel Emblem
31. Rear Compartment Lid Outer Panel Nameplate
32. Rear Compartment Lid Outer Panel Extension Molding

68000 - 68100 - 68200 - 68300 - 68400 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All (Except 67)	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Scalp	68269, 68369		X				Windshield Pillar Drip	
Rood Drip Molding Front Scalp	68069		X				Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	68069		X				Roof Drip Molding Front Scalp	
Roof Drip Molding Front Scalp	39, 57		X				Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	39, 57		X				Roof Drip Molding Front Scalp	
Roof Panel Rear of Quarter Window	68357		X				Roof Drip Molding Rear Scalp	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Roof Panel Rear of Rear Door Window	68339		X				Roof Drip Molding Rear Scalp	
Roof Panel Cover Front Finish	68169	X		X			Roof Panel Cover Front Finish Escutcheon	Front Section of Headlining
Roof Panel Cover Front Finish Escutcheon	68169					X	Roof Panel Cover Side Front Finish	Front Section of Headlining
Roof Panel Cover Side Front Finish	68169			X		X	Roof Panel Cover Front Finish Escutcheon Roof Panel Cover Side Rear Finish	Headlining at Side Area
Roof Panel Cover Side Rear Finish	68169					X	Rear End Belt Cover Finish	Headlining at Rear Quarter Area
Roof Panel Emblem Assembly	68169					X		Headlining at Rear Quarter Area
Roof Panel Name Plate	68169					X		Headlining at Rear Quarter Area
Front Door Window Belt Reveal (at Vent)	All	X					Front Door Window Reveal	Front Door Trim
Front Door Window Belt Reveal (at Vent)	All				X		Front Door Window Reveal	Front Door Vent Assembly
Front Door Window Belt Reveal	All	X						Rubber Bumper on Door Window Lower Stop

68000 - 68100 - 68200 - 68300 - 68400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Center Pillar Scalp	69	X						Weatherstrips and Weatherstrip Retainer at Center Pillar
Rear Door Window Belt Reveal	All	X						Rubber Bumper on Rear Door Window Lower Stop
Rear Door Window Front Belt Reveal	68069, 68169	X						Rubber Bumper on Rear Door Window Lower Stop
Rear Door Window Rear Belt Reveal	68069, 68169	X					Rear Door Window Front Reveal	Rubber Bumper on Rear Door Window Lower Stop
Quarter Window Lower Belt Reveal	57, 67	X						Quarter Window Lower Stop
Quarter Belt Cover Finish	68300				X	X		
Rear End Belt Cover Finish	68300					X	Quarter Belt Cover Finish	
Rear End Belt Cover Finish	68169					X	Right Side Overlaps Left Side Roof Panel	Headlining at Rear Quarter Area
Quarter Pinchweld Finishing	67	X		X			Cover Side Rear Finish	
Rear End Pinchweld Finishing	67			X			Quarter Pinchweld Finishing	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Upper	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Lower Corner Escutcheon	682-68357 680-68169			X				
Front Door Outer Panel Lower	All	X		X				
Rear Door Outer Panel Lower	39, 69	X		X				
Rear Quarter Outer Panel Lower	68200, 68300				X	X		Rear Compartment Side Trim Quarter Window Glass (37, 67 Styles Only) Tail Lamp Assembly Compartment Pan to Quarter Panel Filler Plug
Front of Rear Wheel Opening	68467				X	X		Quarter Trim Pad
Rear Quarter Outer Panel Emblem	68069, 68467					X		
Rear of Rear Wheel Opening Upper	68069, 68467			X	X	X		Rear Compartment Side Trim

68000 - 68100 - 68200 - 68300 - 68400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear of Rear Wheel Opening Lower	68069, 68467 68169	X						
Rear of Rear Fender Outer Panel Inner at Tail Lamp	68069, 68467 68169	X					Rear of Rear Fender Outer Panel Outer at Tail Lamp	
Rear of Rear Fender Outer Panel Outer at Tail Lamp	68069, 68467 68169	X					Rear of Rear Wheel Opening	
Rear of Rear Fender Outer Panel at Compartment Lid	All	X				X	Rear of Rear Fender Outer Panel Inner at Tail Lamp (68069, 68467 Styles Only)	
Rear Compartment Lid Outer Panel Lower Side	All	X						
Rear Compartment Lid Outer Panel Lower Side Extension	All	X						
Rear Compartment Lid Outer Panel Crest	All					X		
Rear Compartment Lid Outer Panel Wreath	68069, 68169 68467					X		

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MANUAL DESCRIPTION

INTRODUCTION

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all 1966 Fisher Body Styles. This information is current as of time of publication approval.

INDEX

The preceding page contains a "Table of Contents" which lists the section number and subject title of each main body area section. The first page in each main body area section has an index to the subjects included in that section. An alphabetic index covering the entire manual is located in section 13.

PAGE AND FIGURE NUMBERS

All page numbers and figure numbers consist of two sets of digits separated by a dash. The digits preceding the dash identify the main body area section. The digits following the dash represent the consecutive page number or figure number within the particular body area section.

REFERENCE TABS

The first page of each section is marked with a ready-reference black tab corresponding with the table of contents page.

TEXT

Unless otherwise specified, each service procedure covers all body styles. Procedures covering specific styles are identified by the style number, body series number, body type letter or similar designation. A description of these designations is covered in this section under "Model Identification".

ILLUSTRATIONS

Where possible, illustrations are placed in close proximity to the accompanying text and should be used as part of the text.

BODY NUMBER PLATE

The body number plate identifies the body style, body assembly plant, body number, trim combination number, paint code and time built code (Fig. 1-1). On Corvair styles, the body number plate is attached to the left side of the motor compartment cross rail. On Cadillac styles, the plate is located on the left upper portion of the horizontal surface of the cowl. On all other cars, the plate is located on the left upper portion of the vertical surface of the dash firewall.

MODEL IDENTIFICATION

INTRODUCTION

Due to the wide variety of body styles available, certain body styles have been grouped in this publication as an aid to identification. These group designations may be used individually or in various combinations. An explanation of the principal categories follows:

BODY STYLE NUMBER

The body style number consists of five digits as they appear on the body number plate. (Refer to previous section for body number plate location.) The body style number is used to include or exclude a specific style (ex. on 16637, use . . . . . .; on all styles, except the 68069 style, use . . . . . .).

BODY STYLE NUMBER SERIES

The body style number series may be used to indicate three possibilities:

Division - first digit and four zeros (ex. 10000 Chevrolet; 20000 Pontiac).

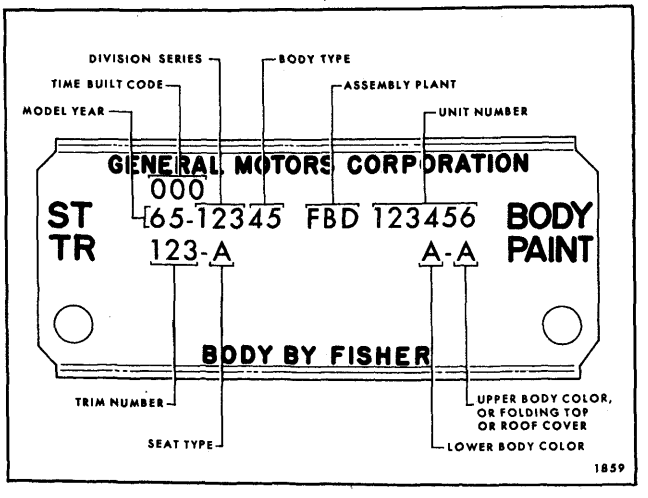

Fig. 1-1—Body Number Plate

Division and Car Line - first two digits and three zeros (ex. 33000 Oldsmobile F 85; 45000 Buick LeSabre).

Division, Car Line and Style Group - First three digits and two zeros (ex. 25200 Catalina; 25600 Star Chief).

BODY STYLE NUMBER SUFFIX

The last two digits of the body style number indicate body type as follows:

07 - 2 door sport coupe with pillar post
11 - 2 door sedan with pillar post
17 - 2 door sport coupe hardtop
23 - 4 door sedan with auxiliary center seat
33 - 4 door sedan with auxiliary center seat and center partition window
35 - 4 door station wagon two seat
37 - 2 door coupe hardtop
39 - 4 door sedan hardtop
45 - 4 door station wagon three seat
47 - 2 door sport coupe hardtop
55 - 4 door station wagon two seat with skylight
57 - 2 door sport coupe hardtop
65 - 4 door station wagon three seat with skylight
67 - 2 door convertible coupe
69 - 4 door sedan with pillar post (some models equipped with door window frames)
80 - 2 door pick-up delivery
87 - 2 door sport coupe hardtop

BODY TYPE NAME

Body type names are used for group classification as follows (style number suffix shown in brackets):

Closed Style
Two door sedan (11)
Two door sport coupe (07)
Four Door sedan (69)
Limousine (23, 33)

Hard Top
Sport coupe hardtop (17, 47, 57, 87)
Coupe hardtop (37)
Sedan hardtop (39)

Station Wagon
Station wagon two seat (35 less skylight; 55 with skylight)
Station wagon three seat (45 less skylight; 65 with skylight)

Convertible Coupe (67)

Sedan Delivery (80)

BODY TYPE LETTER

Basic body types can be identified by generic group classifications as follows:

"A" - Chevrolet 13000 Series
Pontiac 23-24000 Series
Oldsmobile 33000 Series
Buick 43-44000 Series

"B" - Chevrolet 15-16000 Series
Pontiac 25-26000 Series
Oldsmobile 35000 Series
Buick 45-46000 Series

"C" - Oldsmobile 384-386-39800 Series
Buick 482-48400 Series
Cadillac 68000 Series

"D" - Cadillac 69000 Series

"E" - Oldsmobile 394-39600 Series
Buick 49000 Series

"X" - Chevrolet 11000 Series

"Z" - Chevrolet 10000 Series

ADHESIVE CAULKING
All A-B-C-E-Z Styles

DESCRIPTION

This concept of glass installation incorporates a synthetic self-curing rubber adhesive caulking compound that adheres to both glass and window opening pinchweld flange in place of the rubber channel that was formerly used. Applied to the glass while in a soft state the material begins to cure soon after exposure to air. Due to this fast curing characteristic, installation of the glass into the body opening must quickly follow application of material to glass. This method of glass installation is used on stationary glass, such as windshield glass, back glass, station wagon quarter glass and skylights. Reference to specific procedures applicable to the individual glass assemblies may be found in the appropriate section of the manual.

Adhesive caulking GM Kit Part #4226000, which is designed for a short method windshield installation, has some of the materials needed to remove and replace a stationary glass and can be obtained through regular service parts channels.

GM Kit Part #4226000 consists of:

A. One tube of Adhesive Caulking Material

B. One nozzle (cut for the short method)

C. Steel music wire (.020 thickness)

D. Adhesive Caulking Primer (for priming old caulking material on pinchweld flanges).

The other materials that are needed to complete an installation are available as service parts or at local supply shops.

Additional materials required:

A. Caulking gun (standard household type reworked as follows).

1. Widen end-slot of caulking gun with a file to accept dispensing end of tube.

2. Grind down plunger disc on rod so that disc will fit into large end of tube.

B. Two pieces of wood for wire handles.

C. Black weatherstrip adhesive.

D. Paint Finish Primer - service part, used only on the extended method.

E. Rubber glass spacers.

SERVICE PROCEDURES

This type of glass installation requires an entirely different removal and installation service procedure. There are two methods of removal and installation. They are called the short method and the extended method. The extended method requires the removal of all adhesive caulking material from the glass and the opening. The short method requires the removal of all adhesive caulking material from the glass only and the removal

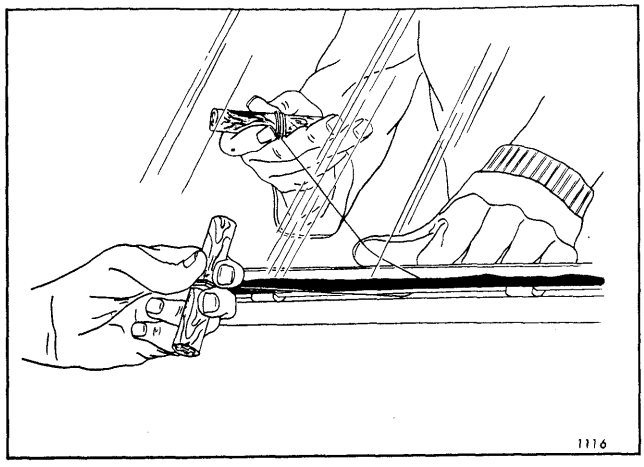

Fig. 1-2—Cutting Adhesive Material

of a minimum of adhesive caulking material when cutting the glass from the body opening. No loose pieces of adhesive material or sealing strip material should be left around the opening. The short method installation is used on a windshield installation only.

IMPORTANT: When the glass is originally installed a sponge or rubber type filler sealing strip is applied to the inside surface of the glass prior to application of adhesive caulking material. For service replacements the sealing strips are not required and are not available as a service part. When replacing a glass, using the short method, the sealing strip must be trimmed from the adhesive material in the body opening for a good appearance.

Removal

The glass removal procedure will be the same for the extended or short method.

1. Place protective coverings around area of glass being removed.

2. Remove garnish moldings, escutcheons, reveal moldings, wiper arm assemblies, cowl air intake grille, rear view mirror support and instrument panel items (instrument panel cover) as required.

NOTE: Reveal molding removal is covered in Exterior Molding Section.

3. Secure one end of steel music wire to a piece of wood (for handle) (Fig. 1-2). With the aid of a pair of long nose pliers insert the other end of wire through caulking material at lower inside corner of windshield along side of glass surface; then, secure that end of wire to another piece of wood (for handle).

4. With the aid of a helper, carefully cut (pull steel wire) through caulking material, up one side of glass across top, down opposite side and across bottom of glass (Fig. 1-2). Make sure inside wire is held close to plane of glass to prevent cutting an excessive amount of adhesive caulking material from the glass opening. This can be accomplished by holding the inside wire close to the plane of the glass with one hand while pulling the wire with the other hand. Keep tension on wire throughout cutting operation to prevent "kinks" in wire.

5. After cutting the adhesive material entire perimeter of glass, carefully remove glass.

Installation

NOTE: If the original glass is to be re-used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

IMPORTANT: Do not use oil base solvent. Any oil will prevent adhesion of new caulking material to glass.

1. Align glass to opening; mark glass to body with tape for proper alignment of glass to opening at time of installation.

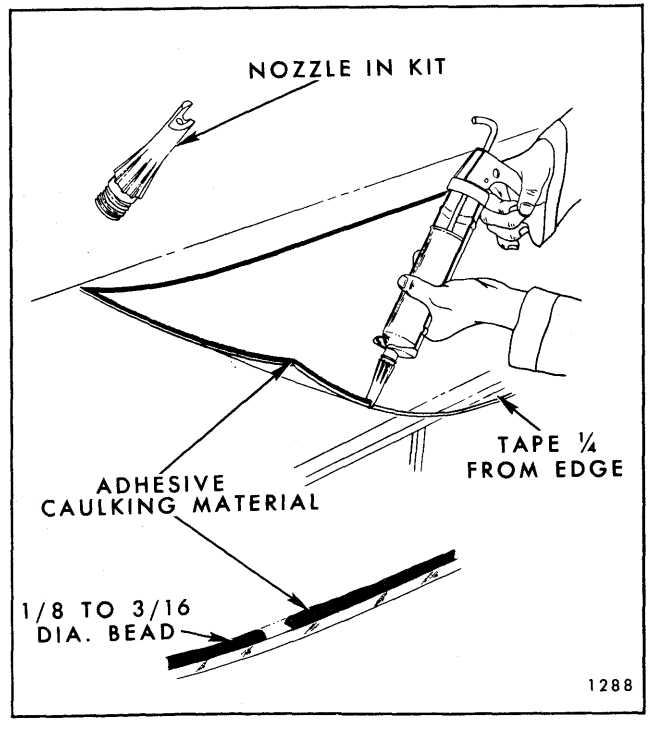

Fig. 1-3—Adhesive Glass Installation Short Method

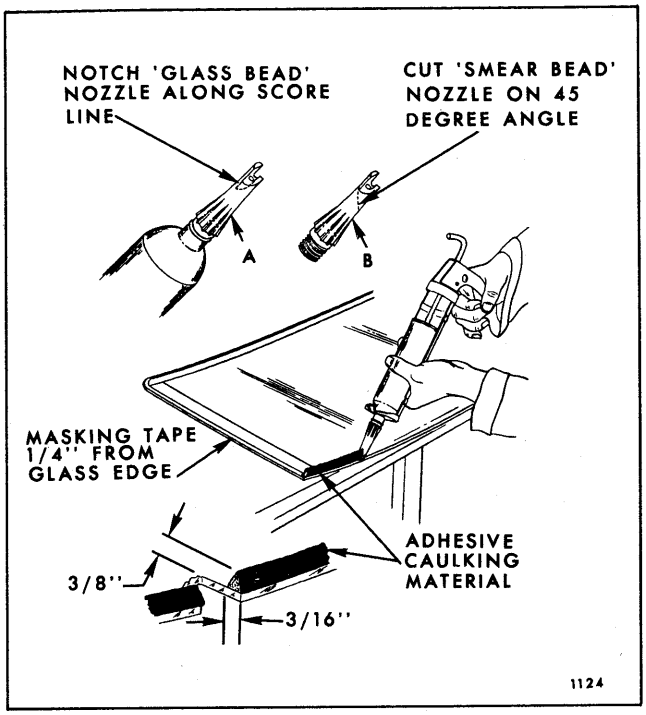

Fig. 1-4—Adhesive Glass Installation Extended Method

2. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer over original adhesive caulking material that remains on pinchweld flange. Additional brisk application of primer on flat rubber spacers is necessary to insure a good bond of material to spacers.

CAUTION: Do not allow primer to drop on painted surfaces or trim parts.

NOTE: If the glass opening is freshly painted due to collision work, etc., apply paint finish primer to painted pinchweld flange. Paint finish primer is available as a service part.

3. If short method installation is required, the nozzle furnished with the kit, is pre-cut to dispense the proper size bead of caulking material (Fig. 1-3).

4. If extended method is required, cut off tip of one nozzle along score line (Fig. 1-4). This glass bead nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle (Fig. 1-4). This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.

5. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened cloth. Dry glass with a clean dry cloth.

6. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle.

7. Positioning the gun and nozzle as shown in Figure 1-4, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.

NOTE: Material begins to cure after 15 minutes exposure to air, therefore, perform following steps immediately and install glass in opening as soon as possible.

8. Remove "glass bead" nozzle and insert "smear bead" nozzle. Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

9. Install glass in opening using tape marks as a guide.

10. Watertest windshield immediately using cold water spray. If any waterleaks are encountered, use flat-bladed tool or stick and work caulking material into leak point to correct leak. This operation is usually performed most effectively from outside the body.

CAUTION: Do not run a heavy stream of water directly on caulking material while the material is still soft.

11. Install previously removed hardware and trim parts.

WATERLEAK CORRECTION OF ADHESIVE CAULKED GLASS

Adhesive caulked glass installation waterleaks can be corrected in the following manner without removing and reinstalling the glass.

NOTE: The following procedure is applicable only with the use of adhesive caulking material and primer furnished in Kit Part #4226000 or equivalent.

1. Remove reveal moldings in area of leak.

2. Mark location of leak(s).

IMPORTANT: If leak is between adhesive caulking material and body or between material and glass carefully push outward on glass in area of leak to determine extent of leak. This operation should be performed while water is being applied to leak area. Mark extent of leak area.

3. From outside body clean any dirt or foreign material from leak area with water; then dry area with air hose.

4. Using a sharp knife, trim off uneven edge of adhesive caulking material (see Operation "A" Fig. 1-5) at leak point and 3 to 4 inches on both sides of leak point or beyond limits of leak area.

5. Using a small brush, apply adhesive caulking material primer over trimmed edge of adhesive caulking material and over adjacent painted surface (see Operation "B" Fig. 1-5).

6. Apply adhesive caulking material, as shown in Operation "C" (Fig. 1-5), at leak point and 3 to 4 inches on both sides of leak point or beyond limits of leak area.

7. Immediately after performing step 6, use flat stick or other suitable flat-bladed tool to work adhesive caulking material well into leak point and into joint of original material and body to effect a watertight seal along entire length of material application (See Operation "D" Fig. 1-5).

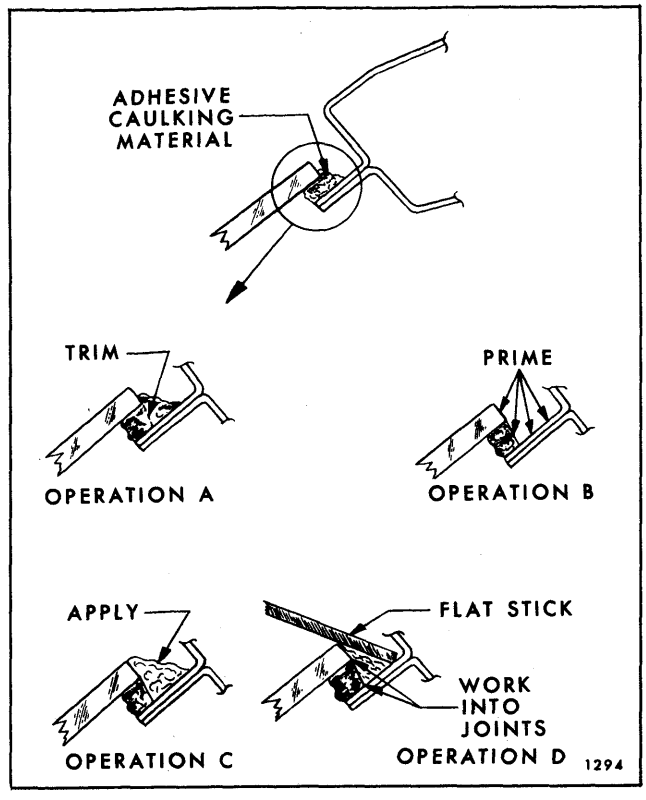

Fig. 1-5—Adhesive Glass Waterleak Correction

8. Spray watertest to assure that leak has been corrected. DO NOT run a heavy stream of water directly on freshly applied adhesive caulking material.

TRIM CLEANING PROCEDURE

INTRODUCTION

This procedure has been prepared to assist service personnel in cleaning automotive upholstery, floor carpets, headlining and folding tops using the latest approved methods for removing soil and stain.

GENERAL INSTRUCTIONS

There are four general types of trim materials used in automotive bodies:

1. Fabrics that may be either plain fabrics (broadcloth), or pattern fabrics which are manufactured with natural or synthetic (nylon, rayon.,) fibers.

2. Genuine leather.

3. Coated fabrics (vinyl or mylar).

4. Polyurethane foam.

Dust and dirt particles that accumulate on the upholstery of a car should be removed every few weeks, or oftener if the car is given constant hard use. This is done with a whisk broom or vacuum cleaner.

CAUTION: Do not use a whisk broom on fabrics having raised tapestry patterns since damage to the fine threads may result. On polyurethane foam material, use soft bristle brush - do not use a whisk broom or vacuum cleaner.

Before attempting to remove spots or stains from upholstery fabrics, determine as accurately as possible:

1. Nature and age of the spot or stain.

2. The effect of stain removing agents on the color structure and general appearance of the fabric.

For best results, stains should be removed from upholstery as soon as possible after they have been made. If they are allowed to stand for some time, they often become set and removal becomes more difficult - frequently, impossible.

There are three basic types of acceptable cleaners available to car owners:

1. Volatile cleaners (colorless liquids).
2. Detergents.
3. Neutral soap (nonalkaline).

Many types of these cleaners can be obtained through GM Dealer or other reputable supply houses.

The volatile cleaners have great solvent powers for grease, oils and general road grime. Detergents generally loosen up stains satisfactorily; however, the use of improper type detergents involves risk of damage to the color or finish of fabrics.

CLEANING FABRICS WITH VOLATILE CLEANERS

Care should be taken not to use too much solvent and to apply it only with clean cloths. It is the solvent that does the work - so only a minimum of pressure should be applied.

1. Brush away all loose particles of dirt and soil.
2. Dampen a clean cloth (cheese cloth may be used) with the volatile cleaner. Open the cloth and allow a portion of the cleaner to evaporate so that the cloth is just slightly damp.
3. Using very light pressure and a circular lifting motion, rub the stained area, starting at the outer edge and working toward the center until the entire area has been covered. Change to a clean portion of the cloth every few strokes.
4. Using a clean white blotter, blot stained area to remove any excess cleaner. Change to a new portion of the blotter each time stained area is blotted. The blotting action should be repeated until no stain is transferred to the blotter surface.
5. Before proceeding, wait several minutes to allow most of the volatile cleaner to evaporate. DO NOT saturate stained area. This will avoid the danger of the cleaner penetrating to the padding under the upholstery. Certain cleaners will deteriorate sponge rubber which is often used in padding.
6. It may be necessary to repeat steps 2, 3, 4 and 5 several times before the stain has been satisfactorily removed. Each time a clean cloth should be used.
7. If a ring should form on the fabric when removing a stain, the entire area of the trim assembly should be cleaned as described in the preceding steps.
8. The cleaned upholstery should be allowed to dry completely before using.

Some volatile cleaners are toxic and harmful; therefore, the following safety precautions should be used.

1. Always use in a well ventilated area. Car windows and garage doors must be open when such cleaners are used.
2. Avoid prolonged or repeated breathing of vapors from cleaner.
3. Avoid prolonged or repeated contact with the skin.
4. Keep away from eyes and mouth.
5. Some cleaners are flammable, and every precaution and care must be exercised in handling these cleaners.
6. Always follow directions specified by the manufacturer of the product used (label directions).

CLEANING FABRICS WITH DETERGENTS

1. Make a solution of the detergent in lukewarm water, working up thick, frothy suds.
2. With a clean cloth or sponge, dampened with lukewarm water, apply suds only to the surface of the upholstery using light to medium pressure. Repeat several times, applying more suds with a clean portion of the cloth or sponge.
3. With a second clean cloth, dampened with lukewarm water, rub over the area with medium pressure to remove excess detergent and loose material.
4. With a clean dry cloth, wipe off all excess moisture. A vacuum cleaner may also be used.
5. Allow the upholstery to dry partially; then, repeat the above treatment, if necessary, to remove stain.

6. When the upholstery is satisfactorily cleaned, allow to dry completely before using.

PRECAUTIONS FOR CLEANING FABRICS

1. Solutions containing water are not recommended for general cleaning of broad cloth. Water has great destructive powers on the high face or high gloss finish of broad cloth, causing the nap to curl and roughen to such an extent that the finish is destroyed or made very unsightly. However, in some cases where it is necessary to use a solution containing water to remove a stain, the resultant disturbance to the finish of the material may be preferable to the stain.
2. Do not use as a cleaning solvent, any gasoline which is colored or which contains tetraethyl lead.
3. Do not use solvents such as acetone, lacquer thinners, enamel reducers or nail polish remover, as a cleaning solvent.
4. Do not use laundry soaps, bleaches or reducing agents, such as the following: chloride of lime, javelle water, hydrogen peroxide, sodium hydrosulphite, potassium permanganate, chlorine or chlorine water, sulphurous acid (sulphur dioxide), sodium thiosulphate (photographers' hypo). The use of these agents tends to weaken fabric and to change its color.
5. Do not use too much cleaning fluid; some interior trim assemblies are padded with rubber, and volatile cleaners are generally solvents for rubber. The application of too much cleaner may destroy these rubber pads or leave a solvent ring.

CLEANING GENUINE LEATHER AND COATED FABRICS

Care of genuine leather and coated fabrics is a relatively simple but important matter. The surface should be wiped occasionally with a dry cloth, and whenever dirt accumulates, the following cleaning instructions should be used:

1. Lukewarm water and a neutral soap should be used. Apply a thick suds to the surface, worked up on a piece of gauze or cheesecloth.

NOTE: When cleaning coated fabrics, a nonflammable detergent may be substituted for neutral soap.

2. The operation should be repeated, using only a damp cloth and no soap.
3. The surface should then be wiped dry with a soft cloth.

Polishes and cleaners used for auto body finishes, volatile cleaners, furniture polishes, oils, varnishes or household cleaning and bleaching agents should never be used.

CLEANING POLYURETHANE FOAM HEADLINING MATERIAL

Normal soilage such as dirt and finger prints can be removed with a cleaning solution of approximately two ounces of white detergent powder mixed in a gallon of water. Immerse a clean cellulose sponge in cleaning solution. Wring the sponge out thoroughly leaving suds only; then, clean soiled area carefully. Rinse off the cleaned area with sponge and clean water - DO NOT soak the cleaned area.

Soilage such as cements, sealers, and grease can be removed by first cleaning the soiled area with a detergent solution as described above - DO NOT RINSE. Leaving suds on the soiled area, clean area with a clean cloth that has been dipped in a good volatile upholstery cleaner and thoroughly wrung out (naphtha cleaner is recommended). Then clean soiled area again with detergent suds and rinse as described above.

CLEANING FOLDING TOP AND FABRIC ROOF COVER MATERIAL

The top should be washed frequently with neutral soap suds, lukewarm water and a brush with soft bristles. Rinse top with sufficient quantities of clear water to remove all traces of soap.

IMPORTANT: Care must be exercised to keep the soaps and cleaners from running onto body finish, as it may cause streaks if allowed to run down and dry.

If the top requires additional cleaning after using soap and water, a mild foaming cleanser can be used. Rinse the whole top with water, then apply a mild foaming type cleanser to the entire top. Scrub with a small, soft bristle hand brush, adding water as necessary until the cleanser foams to a soapy consistency. Remove the first accumulated soilage with a cloth or sponge before it can be ground into the top material. Apply additional cleanser to the area and scrub until the top is clean. After the entire top has been cleaned, rinse the top generously with clear water to remove all traces of cleanser. If desired, the top can be supported from the underside during the scrubbing operations.

After cleaning a convertible top, always be sure the top is thoroughly dry before it is lowered. Lowering the top while it is still wet or damp may cause mildew and unsightly wrinkles.

Do not use volatile cleansers, household bleaching agents, or cleansers containing bleaching agents on the top material.

CLEANING FLOOR CARPETS

Thoroughly brush or vacuum the floor carpet. In many instances, the floor carpet may require no further cleaning. If carpet is extremely soiled, remove carpet from car and thoroughly vacuum to remove loose dirt; then, with a foaming type upholstery cleaner, clean approximately one square foot of carpet at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet, use an air hose to "fluff" the carpet pile, then dry the carpet. After the carpet is completely dried, use an air hose to again fluff the carpet pile.

NOTE: If the carpet is not extremely soiled, the carpet may be cleaned in the car by applying a sparing amount of foaming type upholstery cleaner with a brush.

If oil or grease spots are still present on the carpet, they may be removed by using a volatile cleaner; however, the cleaner must be used very sparingly since it may have a tendency to remove some of the dye coloring.

REMOVAL OF SPECIFIC STAINS FROM AUTOMOTIVE UPHOLSTERY

Some types of stains and soilage including blood, ink, chewing gum, etc., require special consideration for most satisfactory results. For these and other stains, specific instructions are outlined in succeeding paragraphs. It must be expected, particularly where water treatment is specified, that discoloration and finish disturbance may occur. In some cases, fabric disturbance may be considered preferable to the stain itself. By following the procedures outlined with normal care and caution, reasonably satisfactory results can be expected.

Battery Acid

Apply ordinary household ammonia water with a brush or cloth to the affected area, saturating it thoroughly. Permit the ammonia water to remain on the spot about a minute, so that it will have ample time to neutralize the acid. Then rinse the spot by rubbing with a clean cloth saturated with cold water.

This treatment will suffice for both old and new stains. However, no type of treatment will repair damage to fibers resulting from the action of the acids on the fibers - particularly after the spot has dried.

Blood

DO NOT use hot water or soap and water on blood stains since they will set the stain, thereby making its removal practically impossible.

Rub the stain with a clean cloth saturated with cold water until no more of the stain will come out. Care must be taken so that clean portions of cloth are used for rubbing the stain.

This treatment should remove all of the stain. If it does not, apply a small amount of household ammonia water to the stain with a cloth or brush. After a lapse of about one minute, continue to rub the stain with a clean cloth dipped in clear water.

If the stain remains after the use of water and ammonia, a thick paste of corn starch and cold water may be applied to the stained area. Allow the paste to remain until it has dried and absorbed the stain. Then pick off the dry starch. Brush the surface to remove starch particles that remain. For bad stains, several applications of starch paste may be necessary.

Candy

Candy stains, other than candy containing chocolate, can be removed by rubbing the affected area with a cloth soaked with very hot water. If the stain is not completely removed, rub area lightly (after drying) with a cloth wet with volatile cleaner. This will usually remove the stain.

Candy stains resulting from cream and fruit-filled chocolates can be removed more easily by rubbing with a cloth soaked in lukewarm soapsuds (mild neutral soap) and scraping, while wet with a dull knife. This treatment is followed with a rinsing by rubbing the spot with a cloth dipped in cold water.

Stains resulting from chocolate or milk chocolate can be removed by rubbing the stain with a cloth wet with lukewarm water. After the spot is dry, rub it lightly with a cloth dipped in a volatile cleaner. Using a clean white blotter, blot area to remove excess cleaner and chocolate stain. Repeat blotting action until stain is no longer transferred to surface of blotter.

Chewing Gum

Harden the gum with an ice cube, and scrape off particles with a dull knife. If gum cannot be removed completely by this method, moisten it with

a volatile cleaner and work it from the fabric with a dull knife, while gum is still moist.

Fruit, Fruit Stains, Liquor and Wine

Practically all fruit stains can be removed by treatment with very hot water. Wet the stain well by applying hot water to the spot with a clean cloth. Scrape all excess pulp, if present, off the fabric with a dull knife; then, rub vigorously with a cloth wet with very hot water. If the stain is very old or deep, it may be necessary to pour very hot water directly on the spot, following this treatment with the scrapping and rubbing. Direct application of hot water to fabrics is not recommended for general use since discoloration may result.

If the above treatments do not remove stain, allow fabric to dry thoroughly; then, rub lightly with a clean cloth dipped in a volatile cleaner. This is the only further treatment recommended.

Soap and water are not recommended since they will probably set the stain and cause a permanent discoloration. Drying the fabric by means of heat (such as the use of an iron) is not recommended.

Grease and Oil

If grease has been spilled on the material, as much as possible should be removed by scraping with a dull knife or spatula before further treatment is attempted.

Grease and oil stains may be removed by rubbing lightly with a clean cloth saturated with a volatile cleaner. Be sure all motions are toward the center of the stained area, to decrease the possibility of spreading the stain. Use a clean white blotter, blot area to remove excess cleaner and loosened grease or oil. Repeat blotting action until grease or oil stain is no longer transferred to blotter.

Ice Cream

The same procedure is recommended for the removal of ice cream stains as that used in removing fruit stains.

If the stain is persistent, rubbing the spot with a cloth wet with warm soapsuds (mild neutral soap) may be used to some advantage after the initial treatment with hot water. This soap treatment should be followed with a rinsing, by rubbing with a clean cloth wet with cold water. After this dries, rubbing lightly with a cloth wet with volatile cleaner will clear up the last of the stain by removing fatty or oil matter.

Nausea

Sponge with a clean cloth, dipped in clear cold water. After most of the stain has been removed in this way, wash lightly with soap (mild neutral), using a clean cloth and lukewarm water. Then rub with another clean cloth dipped in cold water. If any of the stain remains after this treatment, gently rub clean with a cloth moistened with a volatile cleaner.

Shoe Polish and Dressings

On types of shoe dressings which contain starch, dextrine or some water soluble vehicle, allow the polish to dry; then, brush the spot vigorously with a brush. This will probably be all the treatment that is necessary. If further treatment is required, moisten the spot with cold water and after it has dried, repeat the brushing operation.

Paste or wax type shoe polishes may require using a volatile cleaner. Rub the stain gently with a cloth wet with a volatile cleaner until the polish is removed. Use a clean portion of the cloth for each rubbing operation and rub the stained area from outside to center. Blot stained area to remove as much of the cleaner as possible.

Tar

Remove as much of the tar as possible with a dull knife. Moisten the spot lightly with a volatile cleaner, and again remove as much of the tar as possible with a dull knife. Follow this operation by rubbing the spot lightly with a cloth wet with the cleaner until the stain is removed.

Urine

Sponge the stain with a clean cloth saturated with lukewarm soapsuds (mild neutral soap) and then rinse well by rubbing the stain with a clean cloth dipped in cold water. Then saturate a clean cloth with a solution of one part household ammonia water and five parts water. Apply the cloth to the stain and allow solution to remain on affected area for one minute; then, rinse by rubbing with a clean wet cloth.

Lipstick

The compositions of different brands of lipsticks vary, making the stains very difficult to remove. In some instances, a volatile cleaner may remove the stain. If some stain remains after repeated applications of the volatile cleaner, it is best to leave it rather than try other measures.

UNDERBODY ALIGNMENT
All Corvair Styles

GENERAL BODY CONSTRUCTION

The body design used on the 10000 series is of an integral, all steel, welded construction, commonly known as "unitized" body construction. The overall rigidity of the body is drawn from each of the individual metal components which, when welded together, comprise the body shell assembly. Panels forming the underbody area incorporate attachment provisions for the power train and the suspension systems. These panels, therefore, contribute the greatest amount of strength to the body assembly.

UNDERBODY GENERAL SERVICE INFORMATION

The underbody assembly is comprised of frame side rails, frame cross rails, floor pan cross bars, inner and outer rocker panels and other floor panel components. The underbody is of all-welded construction. The slightest misalignment in the underbody can affect door, front compartment lid, and engine compartment lid fits. Most important, however, underbody misalignment can influence the suspension system, thereby causing many of the problems that arise from a suspension misalignment. It is essential, therefore, that underbody alignment be exact to within 1/16" of the specified dimensions.

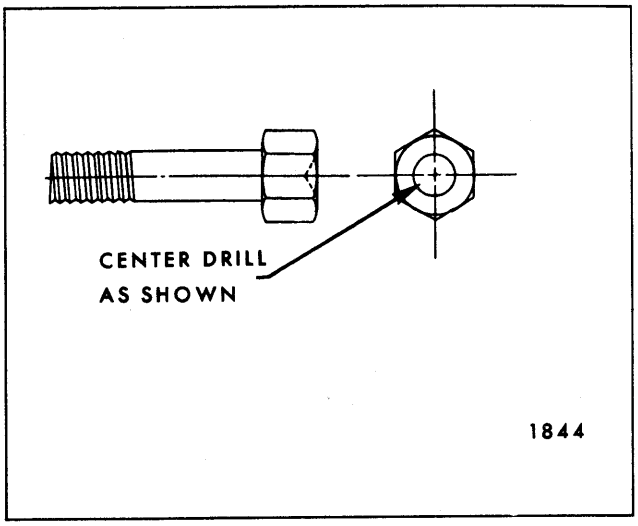

Fig. 1-6—Tram Gage Centering Bolt

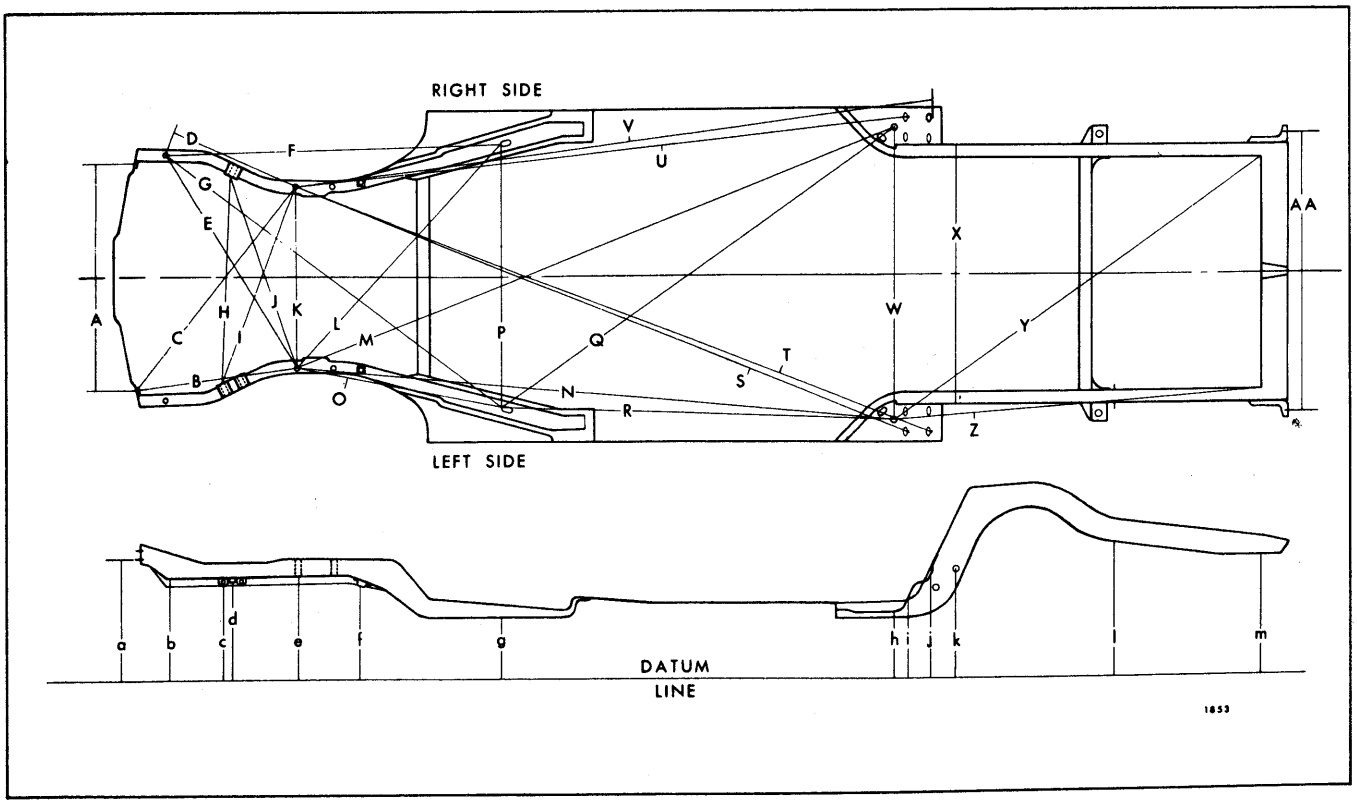

Fig. 1-7—Underbody Vertical Alignment Ref. Points

In the event of collision damage it is important that underbody alignment be thoroughly checked and, if necessary, realigned in order to accurately establish suspension, steering and engine mounting locations. There are many classifications of tools that may be employed to correct the average collision damage situation including frame straightening machines, lighter external pulling equipment and standard body jacks.

Frame tools are not considered as essential equipment for average collision repair operations; however, there will be many situations with this unitized type of construction as with other types of frame construction, where frame equipment will be required. There are also areas of repair where, even though not essential, frame equipment may prove beneficial.

IMPORTANT: Since each individual underbody component contributes directly to the over-all strength of the body, it is essential that proper welding, sealing and rust proofing techniques be observed during service operations. Underbody components should be rust-proofed whenever body repair operations, which destroy or damage the original rust-proofing, are completed. Particularly critical are the enclosed box areas. When rust-proofing critical under body components, it is essential that a good quality type of air dry primer be used (such as corrosion resistant zinc chromate). It is not advisable to use combination type of primer surfacers.

To assist in checking alignment of the underbody components, repairing minor underbody damage or locating replacement parts, the following underbody dimensions and alignment checking information is presented.

ALIGNMENT CHECKING INFORMATION

Body Tram Gauge

An accurate method of determining the alignment of the underbody utilizes a measuring tram gauge. The tram gauge required to perform all recommended measuring checks properly must be capable of extending to a length of 102". At least one of the vertical pointers must be capable of a maximum reach of 18".

Dimensions shown in the upper portion of Figure 1-7 are calculated on a horizontal plane parallel to the plane of the underbody. Precision measurements can be made only if the tram gauge is also parallel to the plane of the underbody. This can be controlled by setting the vertical pointers on the tram gauge according to the dimensions shown in the lower portion of Figure 1-7.

A proper tramming tool is essential for analyzing and determining the extent of collision misalignment present in underbody construction.

To facilitate centering the tram gauge pointers at the suspension locations, special centering bolts (same size and thread as original attaching bolts) may be prepared as shown in Figure 1-6. Use center of bolt thread diameter for centering drill point. Depth of drilled-out cone should be the same for all centering bolts being used as a "set".

Underbody Alignment Reference Point Dimensions—(Fig. 1-7)

Dimensions to gauge holes and other unthreaded holes are measured to dead center of the holes and flush to the adjacent surface metal. Dimensions to body front tie down slots are measured to the front centerline edge of the slot (see Fig. 1-8). Dimensions to bolt or bolt hole locations are measured to the dead center of the thread diameter of the bolt or bolt hole, unless specified otherwise.

The following reference points are key locations and should be used wherever possible as a basis for checking other reference points:

1. Front suspension front attaching bolt holes or bolt heads.
2. 3/4 inch master gauge hole in motor compartment side rail-to-rocker panel brace.
3. Rear suspension control arm lower and upper outer attaching bolt holes (upper edge of holes).

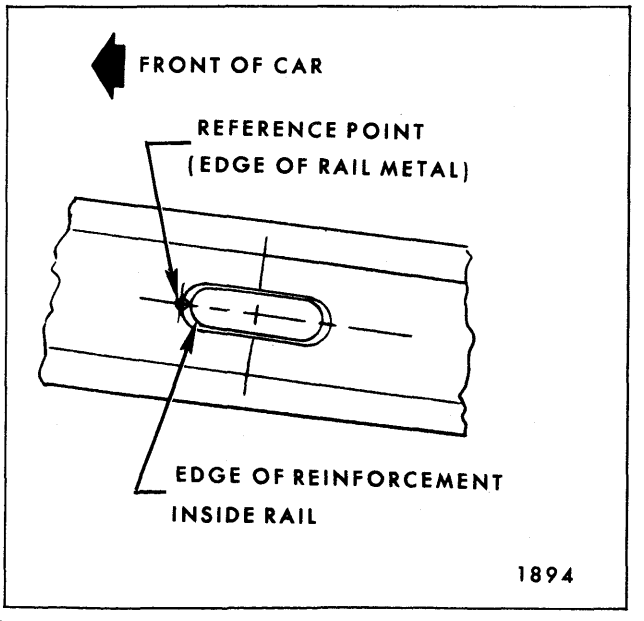

Fig. 1-8—Front Body-Tie Down Slot

Horizontal Dimensions (Fig. 1-7)

Fig. Ref.	Dimension	Location
A	33-7/8	Center of front bumper lower attaching bolt holes.
B	24-3/8	Directly below center of front bumper lower attaching bolt hole and front suspension front attaching bolt head or bolt hole on same side of body.
C	39-1/16	Directly below center of front bumper lower attaching bolt hole and front suspension front attaching bolt hole or bolt head on opposite side of body.
D	15-7/8	3/4" hole in front compartment side rail and front suspension front attaching bolt hole or bolt head on same side of body.
E	35-9/16	3/4" hole in front compartment side rail and front suspension front attaching bolt hole or bolt head on opposite side of body.
F	46	3/4" hole in front compartment side rail and body tie down slot on same side of body (use front center of slot of side rail metal - See Fig. 1-8).

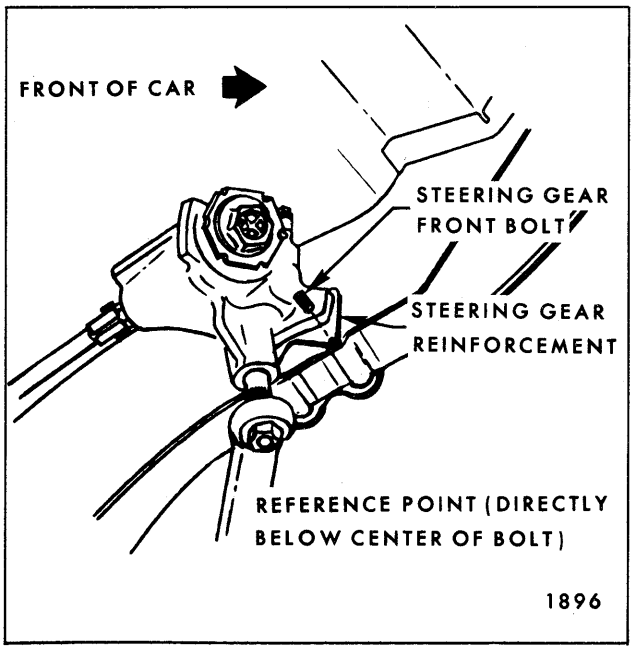

Fig. 1-9—Ref. Point at Steering Gear Reinforcement

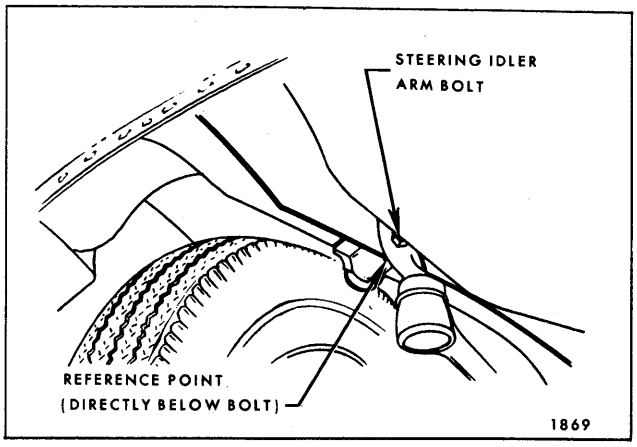

Fig. 1-10—Ref. Point at Steering Idler Arm

Fig. Ref.	Dimension	Location
G	59-29/32	3/4" hole in front compartment side rail and body tie down slot on opposite side of body (use front center of slot of side rail metal - See Fig. 1-8).
H	31-7/8	Lower inner edge of steering gear reinforcement directly below center of steering gear front attaching bolt hole (Fig. 1-9) and lower inner edge of front compartment right side rail directly below center of steering gear idler arm support lower attaching bolt hole (Fig. 1-10).
I	31-15/16	Lower inner edge of steering gear reinforcement directly below center of steering gear front attaching bolt hole (Fig. 1-9) and front suspension front attaching bolt hole or bolt head on opposite side of body.
J	31-1/32	Lower inner edge of front compartment right side rail directly below center of steering gear idler arm support lower attaching bolt hole (Fig. 1-10) and front suspension front attaching bolt hole or bolt head on opposite side of body.
K	27-9/16	Front suspension front attaching bolt hole or bolt head.
L	45-23/32	Front suspension front attaching bolt hole or bolt head and body

Fig. Ref.	Dimension	Location
		front tie down slot on opposite side of body (use front center of slot of side rail metal - See Fig. 1-8).
M	96-1/8	Front suspension front attaching bolt hole or bolt head on opposite side of body and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace.
N	89-9/16	Front suspension front attaching bolt hole or bolt head and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace on same side of body.
O	31-3/8	Front suspension front attaching bolt hole or bolt head and body front tie down slot on same side of body (use front center of slot of side rail metal - See Fig. 1-8).
P	40-3/16	Body front tie down slot (use front center of slot of side rail metal - See Fig. 1-8).
Q	72	Body front tie down slot (use front center of slot of side rail metal - See Fig. 1-8) and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace on opposite side of body.
R	58-13/32	Body front tie down slot (use front center of slot of side rail metal - See Fig. 1-8) and 3/4" master gauge hole in motor compartment side rail-to-rocker panel brace on same side of body.
S	98-1/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm lower outer attaching bolt hole (upper edge of hole) on opposite side of body.
T	101-3/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm upper outer attaching bolt hole (upper edge of hole) on opposite side of body.
U	91-3/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm lower outer attaching bolt hole (upper edge of hole) on same side of body.
V	94-7/8	Front suspension front attaching bolt hole or bolt head and rear suspension control arm upper outer attaching bolt hole (upper edge of hole) on same side of body.
W	44	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace.
X	38-15/16	Outside edge of motor compartment side rail directly below transmission support upper attaching bolt. **NOTE:** This dimension is constant rearward to motor compartment rear cross rail.
Y	67-1/2	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace and lower edge of joint of motor compartment side rail and motor compartment rear cross rail on opposite side of body.
Z	55-1/32	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace and lower edge of joint of motor compartment side rail and motor compartment rear cross rail on same side of body.
AA	41-5/32	Rear bumper lower attaching holes.

Vertical Dimensions (Fig. 1-7)

Fig. Ref.	Dimension	Location
a	15-3/16	Center of front bumper lower attaching bolt holes.
b	12-9/32	Front edge of 3/4" diameter paint hole.

Fig. Ref.	Dimension	Location
c	11-19/32	Lower inner edge of steering gear reinforcement directly below center of front attaching bolt hole (Fig. 1-9).
d	11-17/32	Lower inner edge of front compartment right side rail directly below center of steering idler arm support lower attaching bolt hole (Fig. 1-10).
e	12-13/32	Front suspension front attaching hole (front suspension removed).
	11-13/16	Front suspension front attaching bolt (suspension installed).
f	10-1/4	Front suspension rear attaching hole (front suspension removed).
	9-3/4	Front suspension rear attaching bolt (suspension installed).
g	6	Lower surface of front compartment side rail at body front tie down slot (front center of slot). Fig. 1-8.
h	6-13/16	3/4" master gauge hole in motor compartment side rail-to-rocker panel brace.
i	8-3/8	Rear suspension control arm lower outer attaching bolt hole (upper edge of hole).
j	12-3/8	Rear suspension control arm upper outer attaching bolt hole (upper edge of hole).
k	13-13/32	Transmission support upper attaching bolt hole or bolt head.
l	8	Lower surface of motor compartment side rail at a point 1 inch rearward of rear edge of motor compartment corner reinforcement.
m	15-3/32	Lower surface of motor compartment side rail adjacent to front edge of motor compartment rear cross rail.

UNDERBODY ALIGNMENT
Chevy II Styles

GENERAL BODY CONSTRUCTION

Description

Chevy II series bodies are of unitized construction with provisions for the attachment of an independent front end skirt assembly. The front end skirt assembly incorporates attachment provisions for the front end sheet metal, front suspension system, engine and other mechanical components. The removable front end skirt assembly is covered in detail in the "FRONT END SKIRT ASSEMBLY" section of the chassis manual

The body is of integral all steel, welded construction. The over-all rigidity of the body is drawn from each of the individual metal components which, when welded together, comprise the body shell assembly. Panels forming the cowl and dash and underbody incorporate attachment provisions for the front end skirt assembly and rear suspension system. These panels, therefore, contribute the greatest amount of strength to the body assembly.

UNDERBODY GENERAL SERVICE INFORMATION

Since each individual underbody component contributes directly to the over-all strength of the body, it is essential that proper welding, sealing and rust-proofing techniques be observed during service operations. Underbody components should be rust-proofed whenever body repair operations, which destroy or damage the original rust-proofing, are completed. When rust-proofing critical underbody components, it is essential that a good quality type of air dry primer be used (such as corrosion resistant zinc chromate). It is not advisable to use combination type primer surfacers.

ALIGNMENT CHECKING PROCEDURE

The underbody is comprised of body dash front braces, body floor pan cross braces, body compartment pan side rails, inner and outer rocker panels and other floor panel components. The underbody is of all welded construction. Misalignment in the underbody can affect front fender, door,

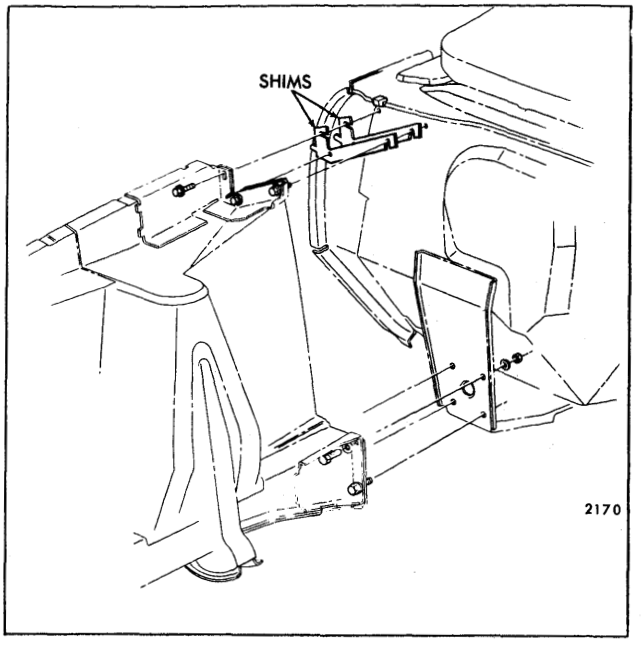

Fig. 1-11—Skirt-to-Dash Mounting

rear compartment lid and glass opening alignment, station wagon tail gate and back body opening alignments. Most important, however, underbody misalignment can influence the suspension system, thereby causing many of the problems that arise from a suspension misalignment. It is essential, therefore, that underbody alignment be exact to within 1/16" of the specified dimensions.

In the event of collision damage, it is important that underbody alignment be thoroughly checked and, if necessary, realigned in order to accurately establish proper dimensions. There are many classifications of tools that may be employed to correct the average collision damage situation including frame straightening machines, lighter external pulling equipment and standard body jacks.

NOTE: Minor misalignment of the front end assembly to the body may be corrected by adding or removing shims at the upper skirt-to-dash attaching surface. Figure 1-11 shows both upper and lower attachment and the installed position of the shims. Shims are available in 1/32" and 1/8" thickness.

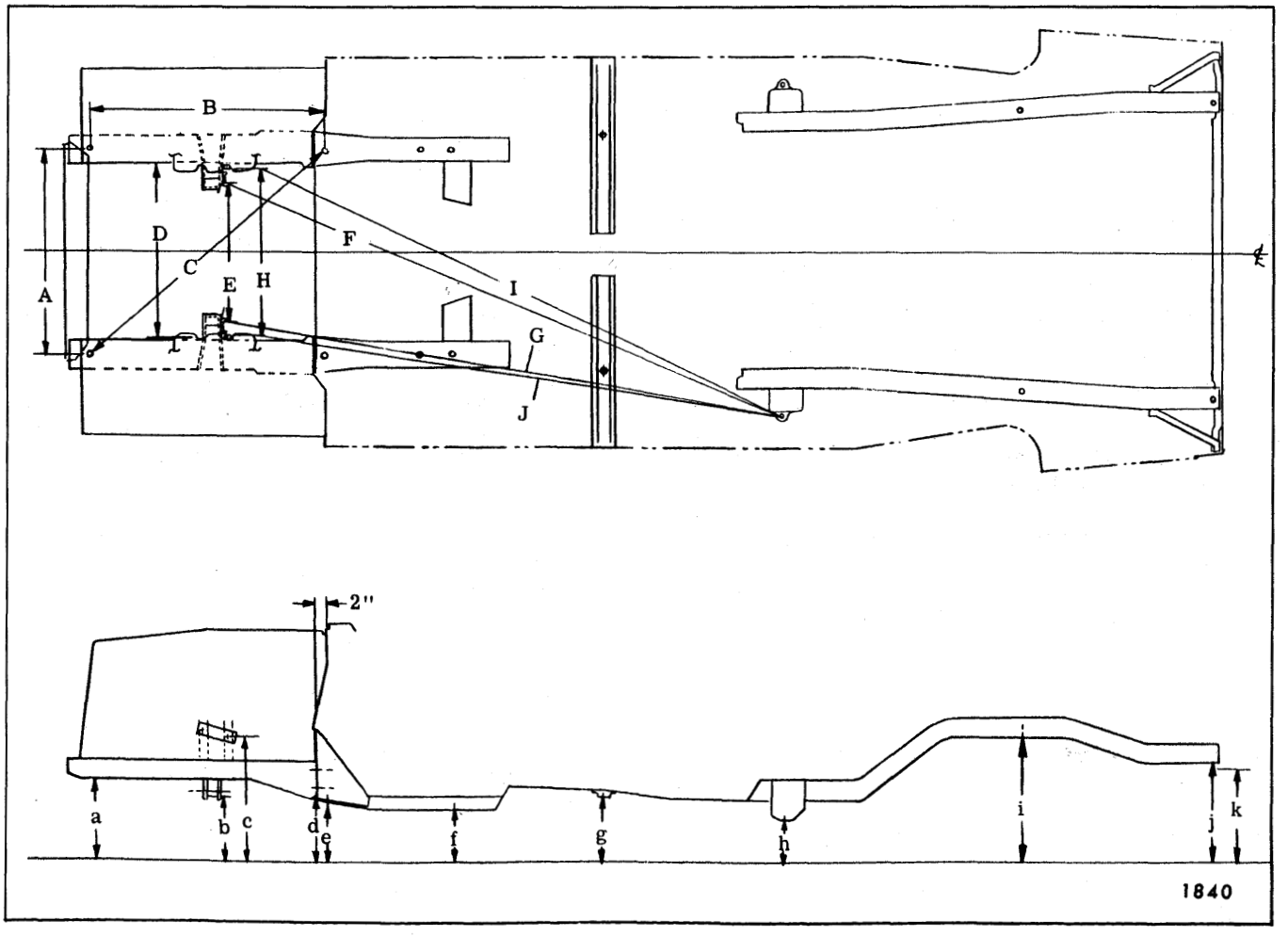

Fig. 1-12—Horizontal and Vertical Dimensions (Front Skirt Assembly)

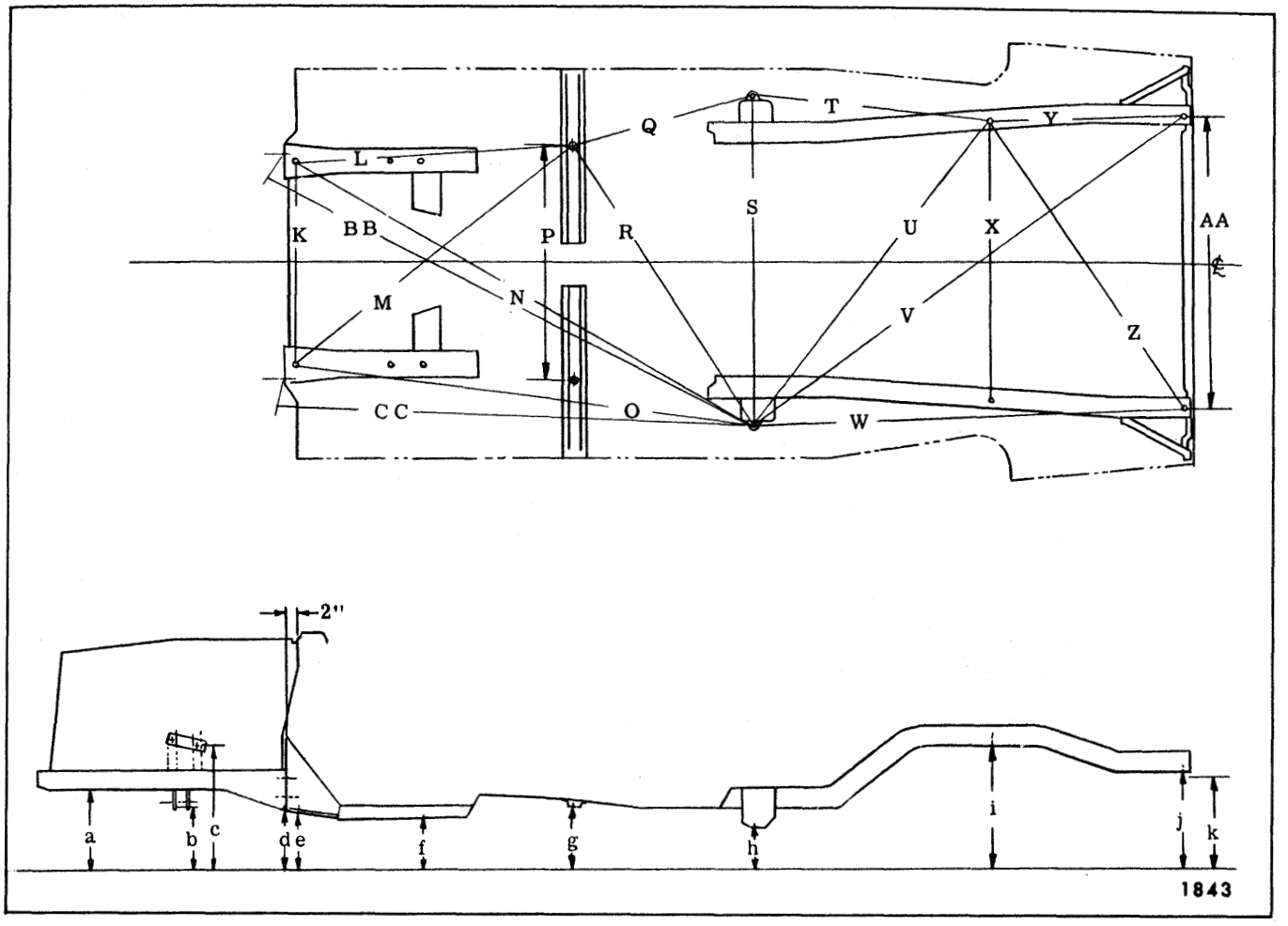

Fig. 1-13—Horizontal and Vertical Dimensions (Body Assembly)

CAUTION: Do not change skirt assembly-to-dash shimming in an effort to adjust the door-to-fender gap or any other sheet metal appearance item. These shims regulate the front end assembly relationship to the body and should only be used to correct dimensions as shown in Figures 1-12 and 1-13.

To assist in checking alignment of the underbody components, repairing minor underbody damage or locating replacement parts, the following underbody dimensions and alignment checking information is presented.

Body Tram Gage

An accurate method of determining the alignment of the underbody utilizes a measuring tram gage. The tram gage required to perform all recommended measuring checks properly must be capable of extending to a length of 91". At least one of the vertical pointers must be capable of a maximum reach of 17".

Horizontal dimensions shown in the upper portion of Figures 1-12 and 1-13 are calculated on a plane parallel to the plane of the underbody. Precision measurements can be made only if the tram gage is properly adjusted so as to remain parallel to the plane of the underbody during measuring operations.

A proper tramming tool is essential for analyzing and determining the extent of collision misalignment present in underbody construction.

Principles of Tramming

In the upper portion of 1-12 and 1-13 all reference locations shown are symmetrical about the centerline of the vehicle. For example, when performing a cross-check of the body floor pan area, dimension "N" should measure the same distance in both diagonal directions of the cross-check operation. Cross checking operations are used to determine the relationship between two locations on the underbody.

To measure the distance accurately between any two reference points on the underbody, two specifications are required:

a. The horizontal dimension between the two points to be trammed.

b. The vertical dimension from the datum line to the points to be trammed. As an example, the diagonal measurement (calculated on a horizontal plane) between reference points of dimension line "N", shown in Figure 1-13, is 78 25/32 inches. The specifications from the datum line have a vertical height difference of 3 5/16 inches between the forward location of dimension "N" (at vertical dimension "e") and the rearward location of dimension "N" (at vertical dimension "h"). The vertical pointer used at the forward location should be positioned so as to extend 3 5/16 inches further from the tram bar than the pointer used at the rearward location. With the proper settings the tram bar will be on a plane parallel to that of the body plane. The exception to this would be when one of the reference locations is included in the misaligned area; then the parallel plane between the body and the tram bar may not prevail. After completion of the repairs, the tram gage should be set at the specified dimension to check the accuracy of the repair operation.

Car Preparation

Preparing the car for the underbody alignment check involves the following:

1. Place the car on level surface.

2. The weight of the car should be supported at the wheel locations.

3. A visual damage inspection should be made to eliminate needless measuring. Obviously damaged or misaligned areas can often be located by sight.

Tramming Sequence

The tramming sequence will vary depending upon the nature and location of the misaligned area.

Prior to performing any tramming operation, the accuracy of reference points to be used must be determined. A measurement that originates from a reference point which is included in a damaged area will produce untrue results and confuse the evaluation of the underbody condition. Unlike the conventional type of frame design, the unitized type of body construction seldom develops the condition of "diamond" in the floor pan area as a result of front or rear end collisions. Therefore, underbody alignment checking can usually originate from the body floor pan area. If inspection indicates that these locations have been disturbed and are not suitable for measuring, one of the undamaged suspension locations should be used as a beginning reference point. If a rare situation should exist where all of these locations are not suitable as reference points, repair operations should begin with the body floor pan area. All other underbody components should be aligned progressively from this area.

Underbody Alignment Reference Point Dimensions (Figures 1-12, 1-13, and 1-14)

Dimensions to gage holes and other unthreaded holes are measured to dead center of the holes and flush to the adjacent surface metal. Dimensions to bolt or bolt hole locations are measured to the dead center of the thread diameter of the bolt or bolt hole.

Figure 1-12 specifies dimension reference locations required for alignment of front end skirt assembly and for alignment of front end skirt assembly to body assembly. Figure 1-13 specifies dimension reference locations required for alignment of underbody assembly. Figure 1-14 specifies cowl and dash reference locations required to check the skirt assembly attaching hole locations.

Horizontal Dimensions (Front End Skirt Assembly)

Fig. Ref.	Dimension	Location
A	30 5/32	15/32" gage hole at front of skirt side rails.

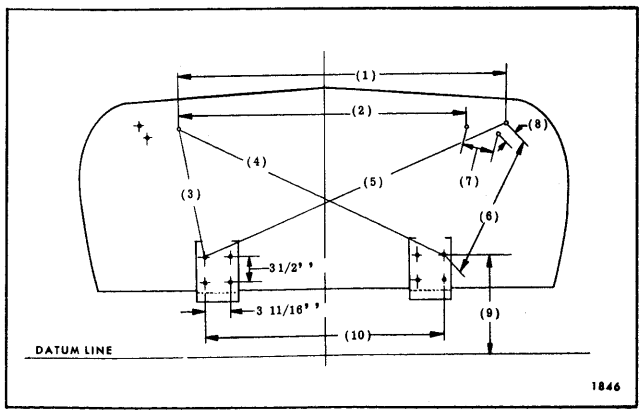

Fig. 1-14—Front View of Cowl and Dash

Fig. Ref.	Dimension	Location
B	35	15/32" gage hole at front of skirt side rail to forward gage hole in dash front brace on same side of body.
C	46 3/16	15/32" gage hole at front of skirt side rail to forward gage hole in dash front brace on opposite side of body.
D	25 29/32	Skirt panel inner surface adjacent to front suspension upper control arm attaching points. (See Fig. 1-16).
E	20 7/8	Front suspension lower control arm adjusting cam guide (outer edge of inner flange - See Fig. 1-15).
F	90 19/32	Front suspension lower control arm adjusting cam guide (outer edge of inner flange - See Fig. 1-15) to gage hole in lower flange of rear spring front support on opposite side of body.

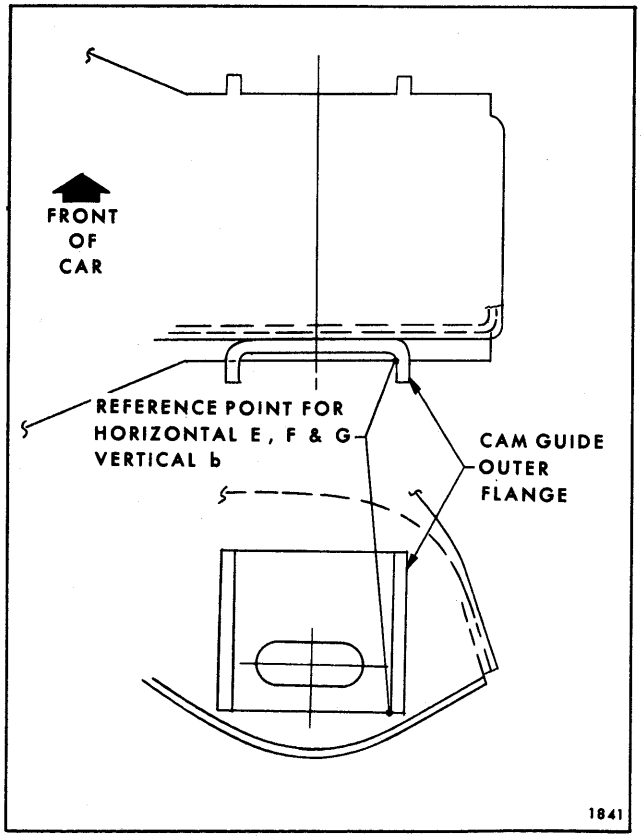

Fig. 1-15—Lower Control Arm Adjusting Cam Guide

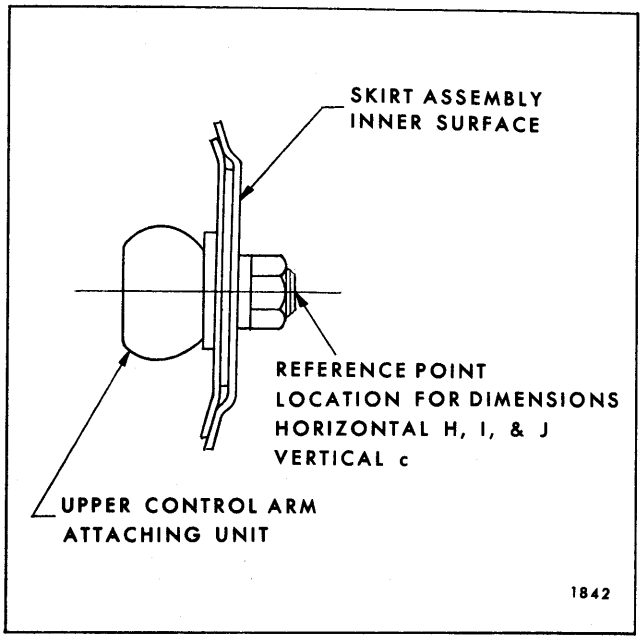

Fig. 1-16—Upper Control Arm Rear Attaching Stud

Fig. Ref.	Dimension	Location
G	84 7/8	Front suspension lower control arm adjusting cam guide (outer edge of inner flange - See Fig. 1-15) to gage hole in lower flange of rear spring front support on same side of body.
H	24 1/2	Front suspension upper control arm rear attaching stud - center of thread end (See Fig. 1-16).
I	90 13/32	Front suspension upper control arm rear attaching stud - center of thread end (See Fig. 1-16) to gage hole in lower flange of rear spring front support on opposite side of body.
J	83 5/8	Front suspension upper control arm rear attaching stud - center of thread end (See Fig. 1-16) to gage hole in lower flange of rear spring front support on same side of body.

Horizontal Dimensions (Body Assembly)

K	30 5/32	Forward gage hole in dash front brace.
L	41 3/4	Forward gage hole in dash front brace to 11/32" gage hole in

Fig. Ref.	Dimension	Location
		floor pan cross brace on same side of body.
M	53 1/16	Forward gage hole in dash front brace to 11/32" gage hole in floor pan cross brace on opposite side of body.
N	78 25/32	Forward gage hole in dash front brace to gage hole in lower flange of rear spring front support on opposite side of body.
O	69	Forward gage hole in dash front brace to gage hole in lower flange of rear spring front support on same side of body.
P	35 17/32	11/32" gage hole in floor pan cross brace.
Q	27 15/32	11/32" gage hole in floor pan cross brace to gage hole in lower flange of rear spring front support on same side of body.
R	49 19/32	11/32" gage hole in front pan cross brace to gage hole in lower flange of rear spring front support on opposite side of body.
S	48	Gage hole in lower flange of rear spring front support.
T	35 1/2	Gage hole in lower flange of rear spring front support to 1/4" gage hole in compartment pan side rail at center of kickup area on same side of body.
U	56 3/4	Gage hole in lower flange of rear spring front support to 1/4" gage hole in compartment pan side rail at center of kick-up area on opposite side of body.
V	79 1/16 (Sedan & Coupe)	Gage hole in lower flange of rear spring front support to rear bumper attaching bolt or bolt hole on opposite side of body.
	82 31/32 (Sta. Wag.)	
W	64 17/32 (Sedan & Coupe)	Gage hole in lower flange of rear spring front support to rear bumper attaching bolt or bolt hole on same side of body.
	69 9/32 (Sta. Wag.)	
X	40 13/16	1/4" unthreaded gage hole in compartment pan side rail at center of kick-up area.
Y	29 3/32 (Sedan & Coupe)	1/4" unthreaded gage hole in compartment pan side rail at center of kick-up area to rear bumper attaching bolt or bolt hole on same side of body.
	38 15/16 (Sta. Wag.)	
Z	51 1/4 (Sedan & Coupe)	1/4" unthreaded gage hole in compartment pan side rail at center of kick-up area to rear bumper attaching bolt or bolt hole on opposite side of body.
	54 3/32 (Sta. Wag.)	
AA	43 7/16	Rear bumper attaching bolt or bolt hole.
BB	80 7/8	Front face of dash lower attaching pad directly under centerline of outer holes in attaching pad (See Fig. 1-17) to gage hole in lower flange of rear spring front support on opposite side of body.
CC	70 5/32	Front face of dash lower attaching pad directly under centerline of outer holes in attaching pad (See Fig. 1-17) to gage hole in lower flange of rear spring front support on same side of body.

Vertical Dimensions (Complete Underbody) (See Figure 1-13 and 1-12)

a	11 9/16	15/32" gage hole at front of skirt side rail.
b	9 3/16	Lowest point of front suspension lower control arm adjusting cam guide (See Fig. 1-15).
c	18 5/16	Center of front suspension upper control arm rear attaching stud center of thread end (See Fig. 1-16).

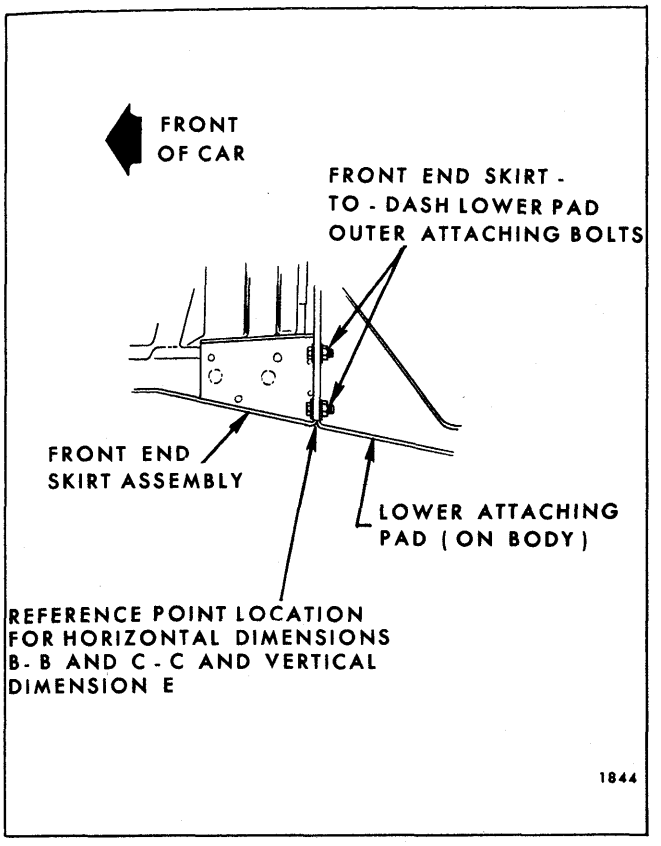

Fig. 1-17—Front End Skirt-to-Dash Lower Attaching Pad

Fig. Ref.	Dimension	Location
d	9 11/32	Joint of front end skirt assembly and dash lower attaching pad on line even with bottom surface of both members (See Fig. 1-17).
e	9 1/16	Lower surface of dash front brace at center of forward gage hole.
f	7 23/32	Lower surface of dash front brace at rear gage hole.
g	9 13/32	Lower surface of floor pan cross brace at 11/32" gage hole.
h	5 3/4	Lower surface of rear spring front support at gage hole in lower flange.
i	17 13/32	Lower surface of compartment pan side rail at 1/4" unthreaded gage hole at center of kick-up area.
j	13 7/8 (Sedan & Coupe)	Lower surface of compartment pan side rail spring support reinforcement at rear bumper attaching bolt hole (See Fig. 1-18).
	12 1/32 (Sta. Wag.)	
k	13 11/32 (Sedan & Coupe)	Center of lower surface of rear bumper attaching bolt head (See Fig. 1-18).
	11 15/32 (Sta. Wag.)	

Cowl and Dash Dimensions

All dimensions are between attaching holes for front end skirt assembly.

Fig. Ref.	Dimension	Location
(1)	46 11/16	Inner threaded hole in upper attaching surface to outer threaded hole on opposite side of dash.
(2)	41 3/32	Inner threaded hole in upper attaching surface to inner threaded hole on opposite side of dash.

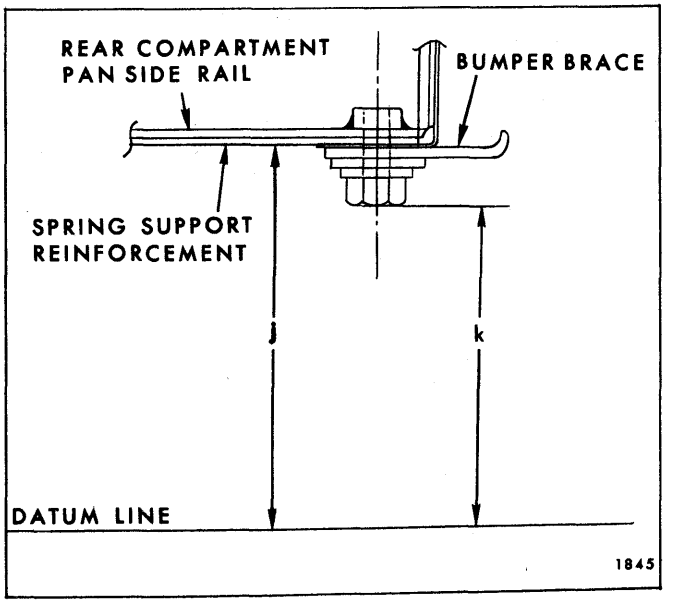

Fig. 1-18—Rear Bumper Attaching Bolt

Fig. Ref.	Dimension	Location
*(3)	18 3/4	Inner threaded hole in upper attaching surface to upper outer hole in lower attaching pad on same side of dash.
*(4)	41 3/4	Inner threaded hole on upper attaching surface to upper outer hole in lower attaching pad on opposite side of dash.
*(5)	47	Upper outer hole in lower attaching pad to outer threaded hole in upper attaching surface on opposite side of dash.
*(6)	21 1/32	Upper outer hole in lower attaching pad to outer threaded hole in upper attaching surface on same side of dash.
(7)	4 11/16	Between the two innermost threaded holes in upper attaching surface on same side of dash.
(8)	1 7/8	Between the two outermost threaded holes in upper attaching surface on same side of dash.

***NOTE:** When checking dimensions 3, 4, 5 or 6 the upper pointer should be extended 2" longer than the lower pointer.

SECTION 2

LUBRICATION

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DESCRIPTION

The movable mechanical parts of the body are lubricated at the factory to insure proper and quiet operation. If additional lubrication is required, the following specified materials or their equivalents should be used at the locations listed.

INSTRUMENT PANEL COMPARTMENT DOOR HINGE

Wipe off dirt and apply a sparing amount of dripless oil to the hinge frictional points. Operate door and wipe off excess lubricant.

FRONT DOOR HINGE HOLD-OPEN ASSEMBLY

Wipe off dirt and apply a light coat of Lubriplate at points indicated (Fig. 2-1). The hinge pins should be lubricated with engine oil.

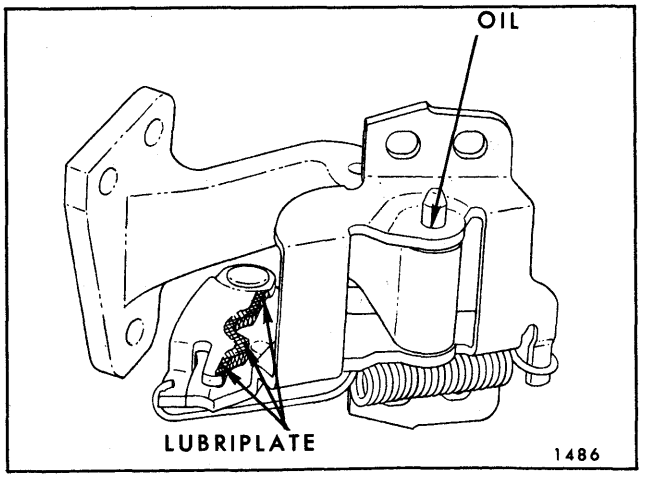

Fig. 2-1—Front Door Hinge Hold-Open Assembly

REAR DOOR HINGE HOLD-OPEN ASSEMBLY

Wipe off dirt and apply a light coat of Lubriplate to frictional points (Fig. 2-2). Wipe off excess lubricant.

DOOR LOCK FORK BOLT AND ROTARY BOLT

Wipe off dirt and apply a thin coat of stick-type lubricant and oil (Figs. 2-3 and 2-4).

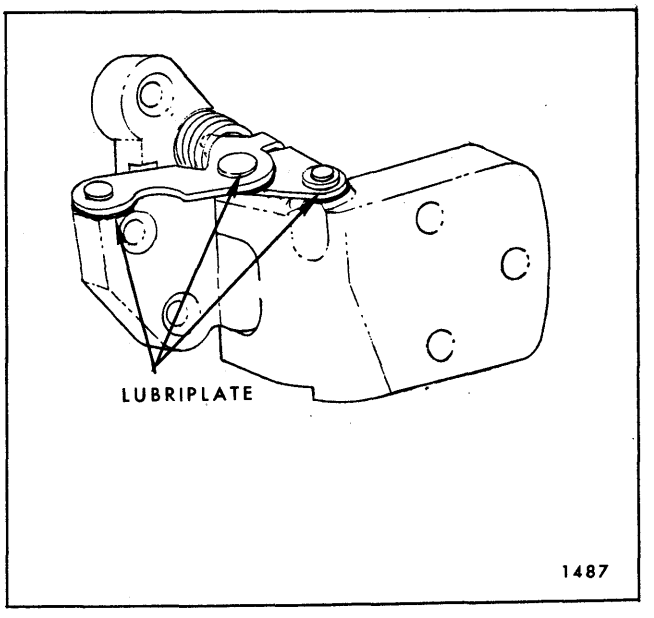

Fig. 2-2—Rear Door Hinge Hold-Open Assembly

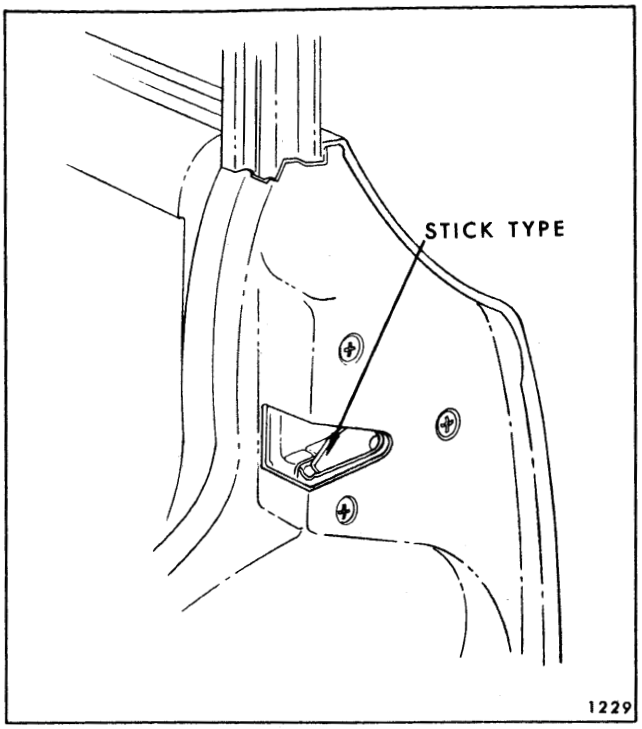

Fig. 2-3—Door Lock Fork Bolt And Rotary Bolt

DOOR LOCK STRIKER

Wipe off dirt and apply a thin coat of stick-type lubricant to top surface of striker teeth at areas indicated (Fig. 2-5).

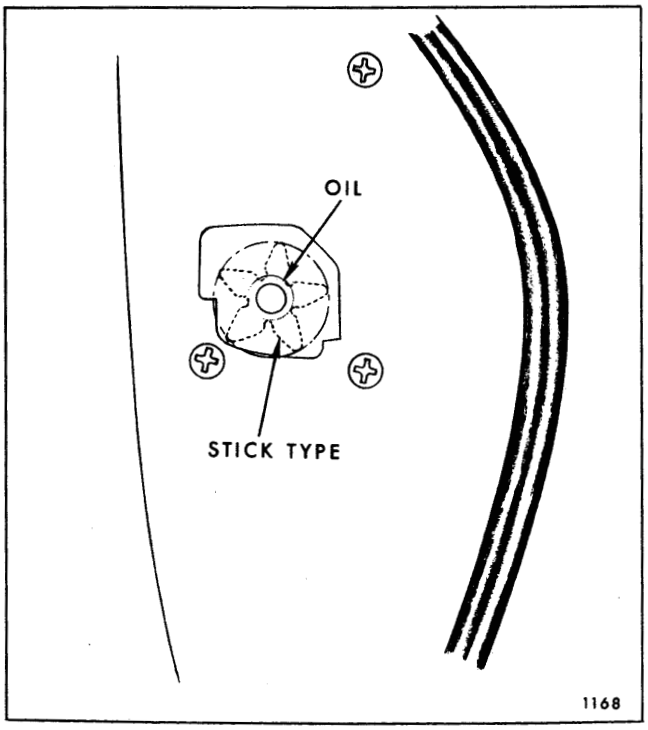

Fig. 2-4—Door Lock Fork Bolt And Rotary Bolt

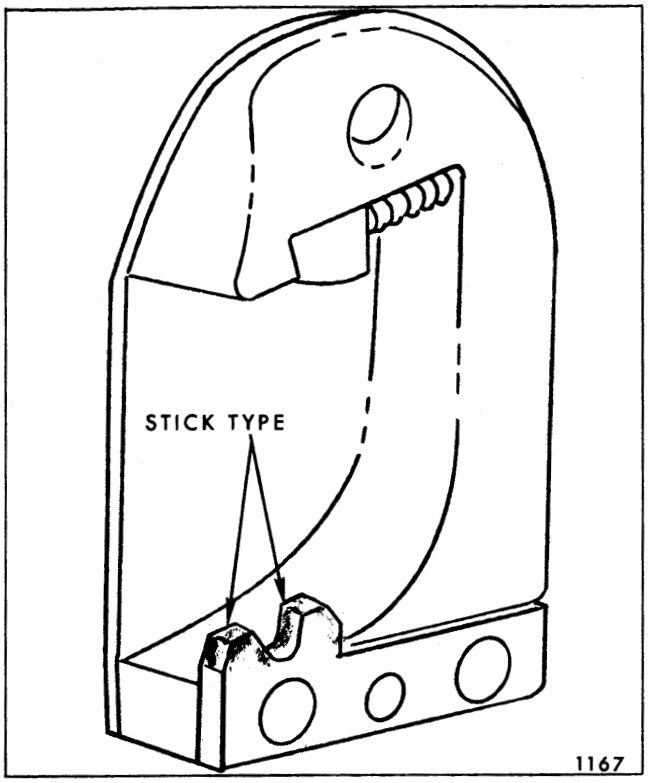

Fig. 2-5—Door Lock Striker

DOOR JAMB SWITCH

Wipe off dirt and apply a thin coat of Lubriplate to end surface of switch plunger and remove excess lubricant.

DOOR LOCK OUTSIDE HANDLE

Apply a thin coat of Lubriplate to surface of lock cylinder shaft contacting bell crank (Fig. 2-6).

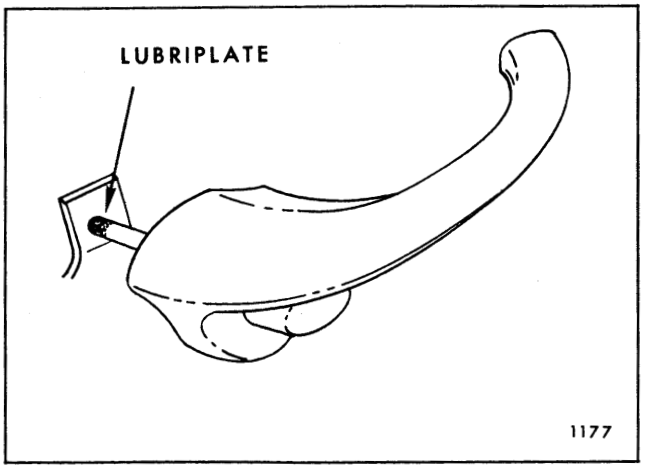

Fig. 2-6—Door Lock Outside Handle

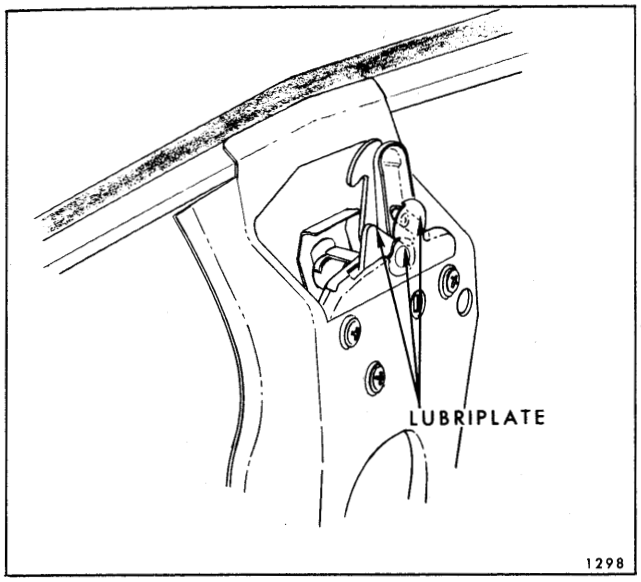

Fig. 2-7—Front Compartment Lid Lock

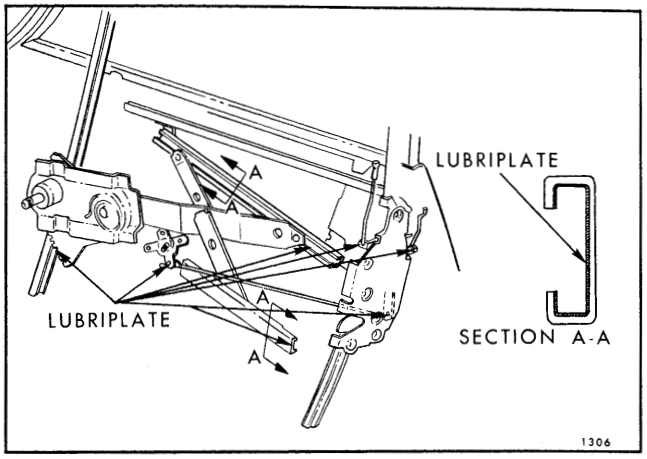

Fig. 2-8—Door Window Regulator And Cams On Styles With Upper Frames

DOOR LOCKING MECHANISM AND LOCK PARTS

Apply Lubriplate to pivot points at ends of connecting rods and moving parts of lock.

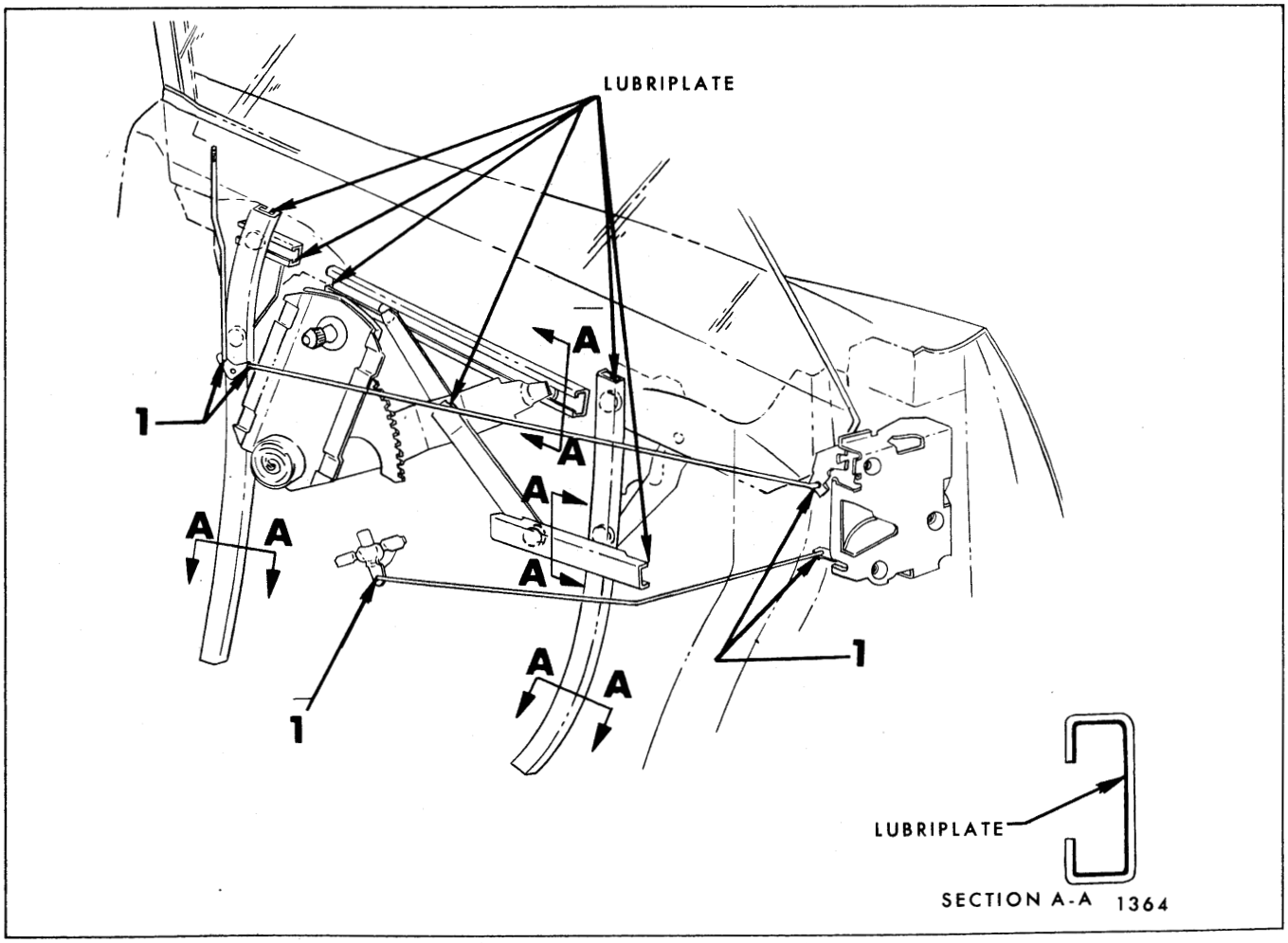

Fig. 2-9—Door Window Regulator And Cams On Styles Without Upper Frames

FRONT COMPARTMENT LID LOCK

On front compartment lid lock apply a thin coat of Lubriplate to contact point as indicated (Fig. 2-7).

DOOR WINDOW REGULATOR AND CAMS—STYLES WITH UPPER FRAMES

Apply a coat of Lubriplate to areas indicated, (Fig. 2-8). Lubrication of front and rear doors with upper frames is typical.

DOOR WINDOW REGULATOR CAMS AND GUIDES—STYLES WITHOUT UPPER FRAMES

Apply a coat of Lubriplate to areas indicated. (Fig. 2-9). Lubrication of front and rear doors without upper frames is typical.

REAR QUARTER WINDOW REGULATOR CAMS AND GUIDES

Apply a coat of Lubriplate to regulator, cams and guides. Lubrication shown is typical of points to be lubricated on other quarter window regulators etc. (Fig. 2-10).

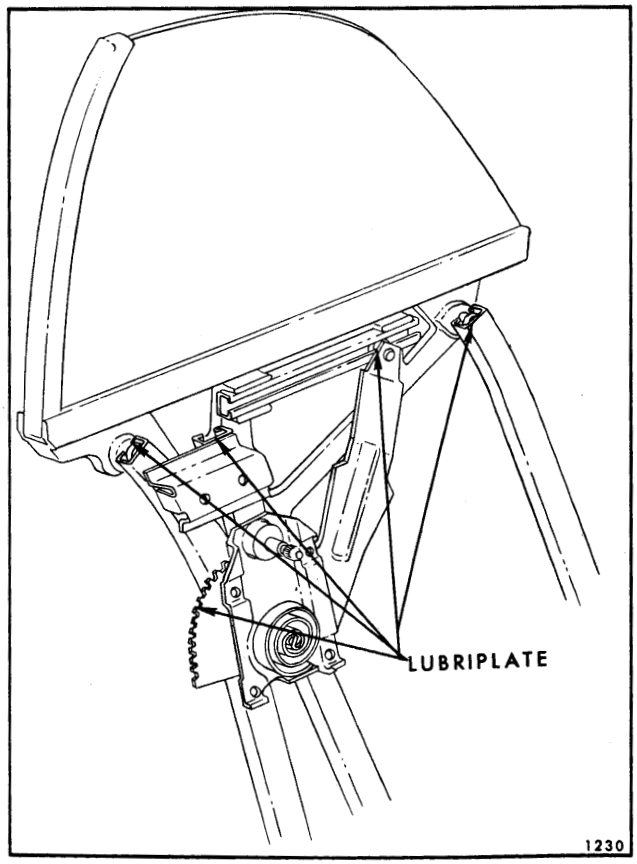

Fig. 2-10—Rear Quarter Window Regulator Cams And Guides

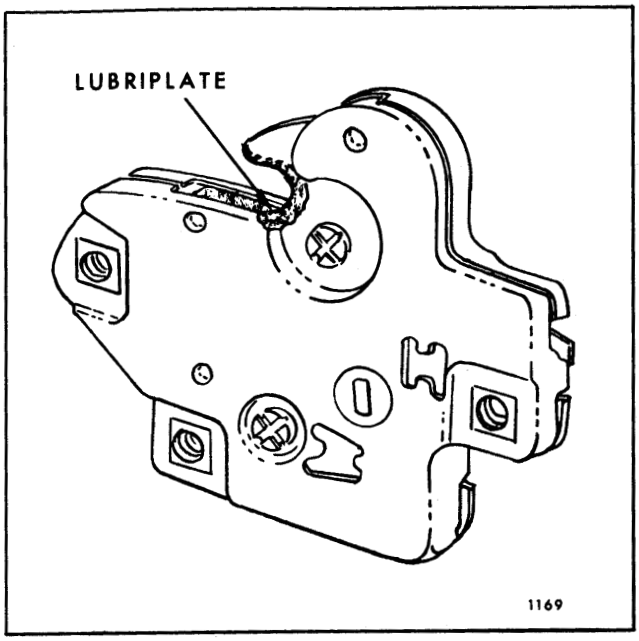

Fig. 2-11—Rear Compartment Lid Lock

REAR COMPARTMENT LID LOCK

Apply a thin coat of Lubriplate to lock bolt (Fig. 2-11).

REAR COMPARTMENT HINGES AND TORQUE RODS

Apply Lubriplate and or dripless oil to frictional points as required. Wipe off excess lubricant.

TAIL GATE WINDOW REGULATOR AND CAMS (station wagon)

Apply Lubriplate to areas indicated (Fig. 2-12).

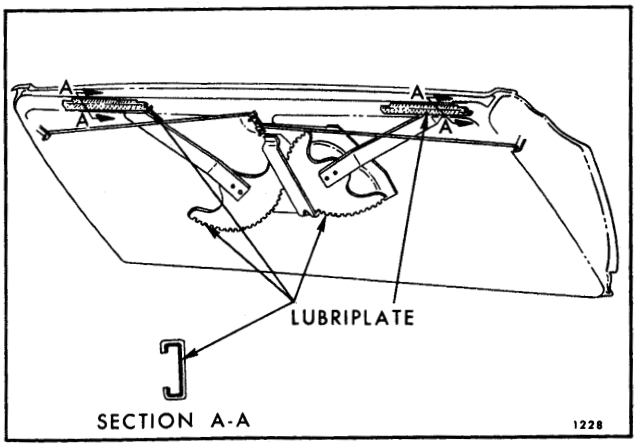

Fig. 2-12—Tail Gate Window Regulator And Cams (Station Wagon)

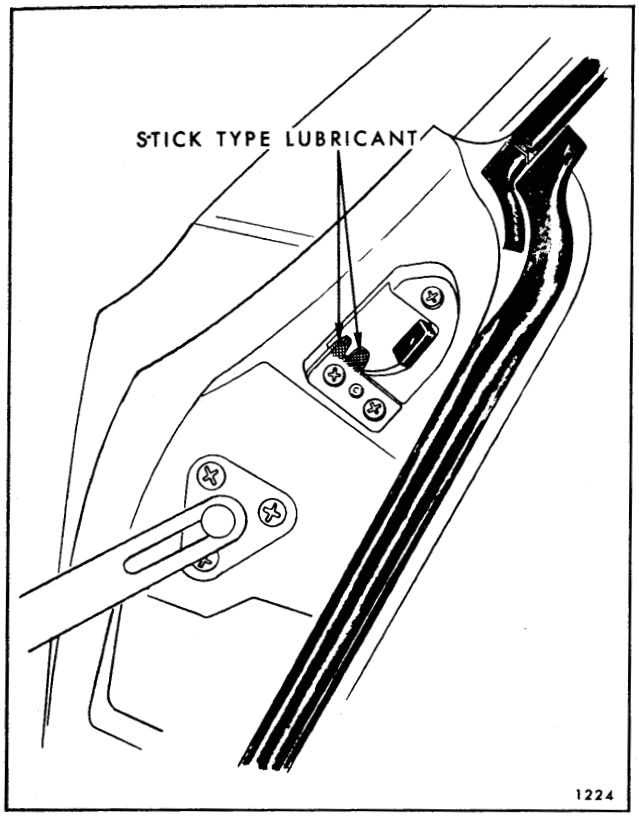

Fig. 2-13—Tail Gate Lock Striker Station Wagon

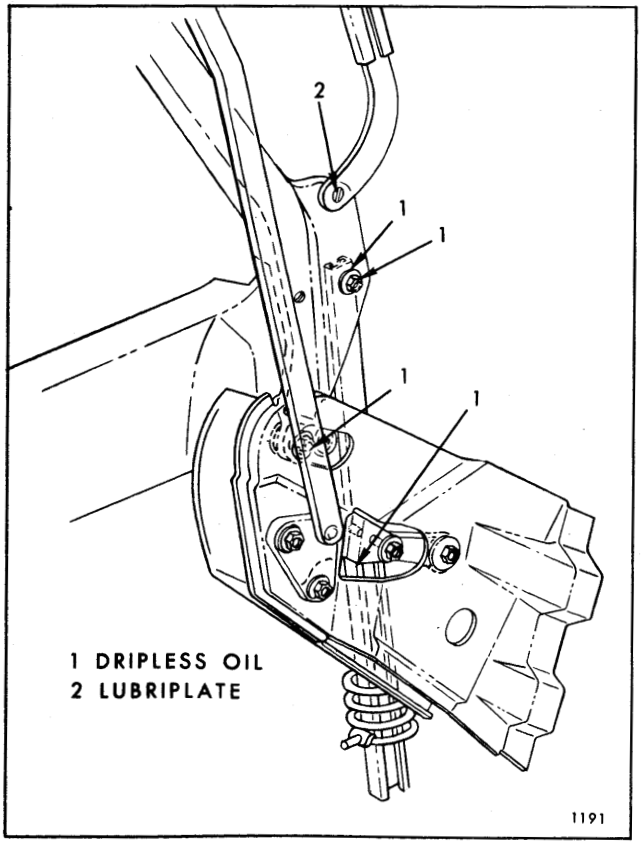

Fig. 2-14—Convertible Top Linkage - "Z" Styles

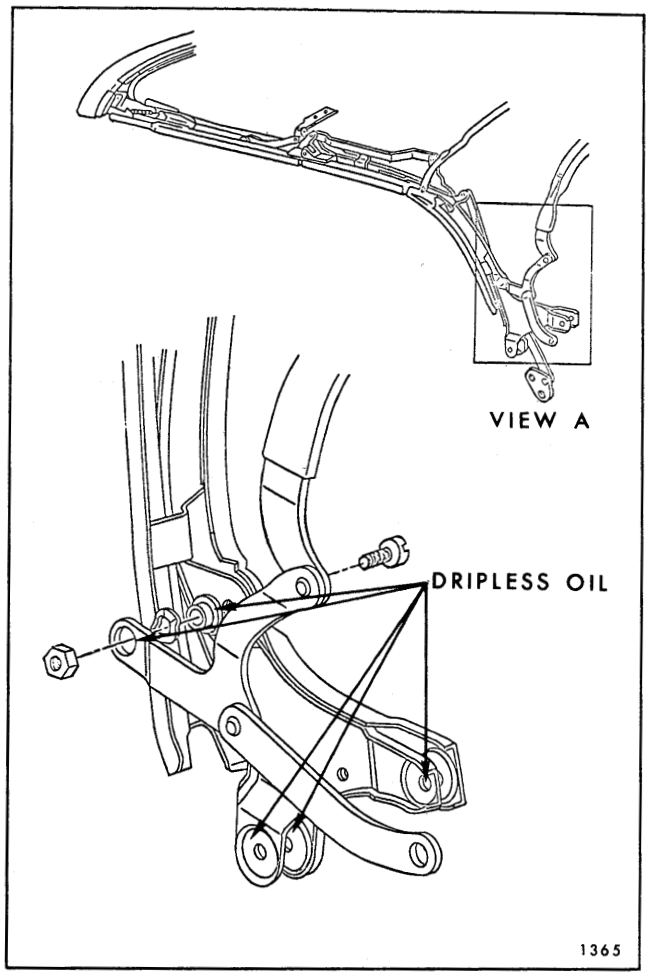

Fig. 2-15—Convertible Top Linkage - "B And C" Styles

TAIL GATE LOCK STRIKER (station wagon)

Apply a thin coat of stick-type lubricant to surface of striker teeth. After lubrication, close tailgate several times and remove excess lubricant (Fig. 2-13).

TAIL GATE HINGES (station wagon)

Apply a sparing amount of dripless oil to frictional parts, work tail gate several times and remove excess lubricant.

GAS TANK FILLER DOOR HINGE

Apply a few drops of dripless oil to frictional points of door hinge, work door several times and remove excess lubricant.

FOLDING SEAT LINKAGE

Wipe off dirt and apply a sparing amount of dripless oil to all frictional areas. Work linkage several times and wipe off excess lubricant.

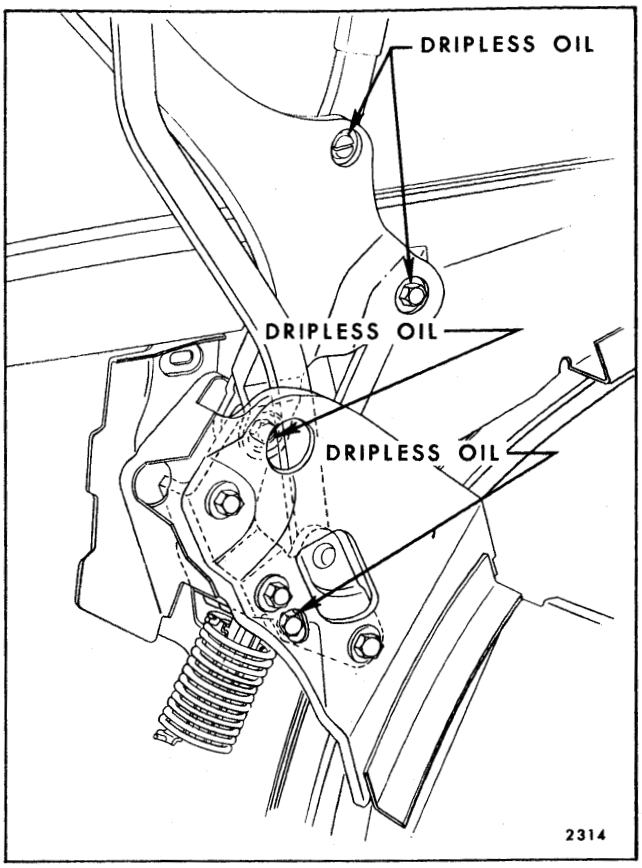

Fig. 2-16—Convertible Top Linkage - "A" Styles (Manual Type Shown)

FRONT SEAT ADJUSTER MECHANISM (Manually and Electrically Operated)

Thoroughly wipe off old lubricant. Apply a thin coat of lubriplate to jack screws and tracks. Operate seat to limits of all positions. Apply a small amount of dripless oil to linkage and wipe off excess lubricant.

CONVERTIBLE TOP LINKAGE

Apply Lubriplate or dripless oil to points indicated (Figs. 2-15, 2-16 and 2-14). Wipe off excess lubricant to prevent soiling trim.

SECTION 3
FRONT END

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BODY VENTILATION ALL STYLES EXCEPT "E" BODY STYLES

The body ventilation system incorporates the use of a shroud top air intake grille, which may be attached by screws or an integral part of the shroud upper panel. The air entering the shroud top air intake grille flows through a duct which guides the air into the body through a shroud side duct panel air outlet assembly. The door in the outlet assembly regulates the flow of air and is adjusted by the use of a cable and knob control.

Water entering the shroud top air intake grille flows down the shroud side duct panel and is discharged through openings in the rocker panels.

SHROUD SIDE FINISHING PANEL

Removal and Installation:

1. Remove sill plate and screws securing finishing panel and grille to outlet (Fig. 3-1).
2. Slide finishing panel rearward disengaging panel from front body hinge pillar pinchweld flange and remove panel assembly.
3. To install, reverse removal procedure.

SHROUD SIDE AIR OUTLET

Removal and Installation:

1. Remove shroud side finishing panel.
2. Remove screws securing outlet to shroud panel, disengage control cable from outlet and remove outlet (Fig. 3-2).
3. To install, apply a bead of medium-bodied sealer to shroud panel completely around inside perimeter of opening and reverse removal procedure (Fig. 3-3).

SHROUD SIDE FINISHING PANEL AND AIR OUTLET DUCT ASSEMBLY

Removal and Installation:

1. With a flat-bladed tool (screw driver or equivalent), pry the outlet grille from the assembly. (Fig. 3-5).

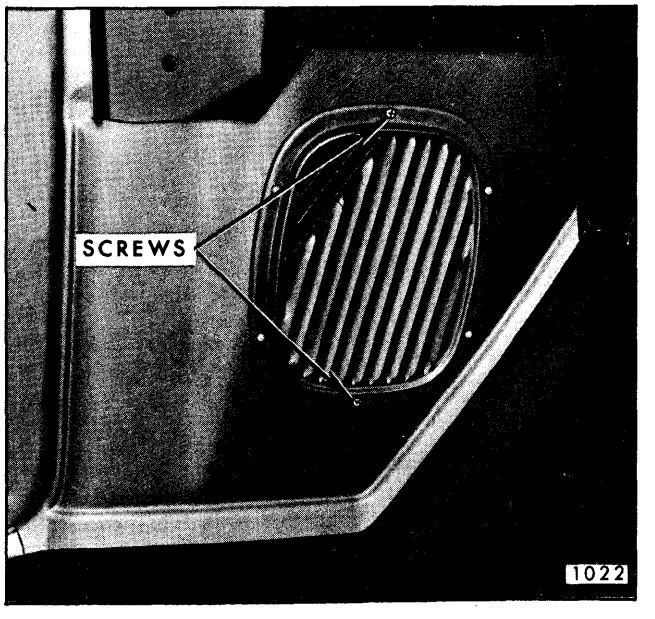

Fig. 3-1—Shroud Side Finishing Panel

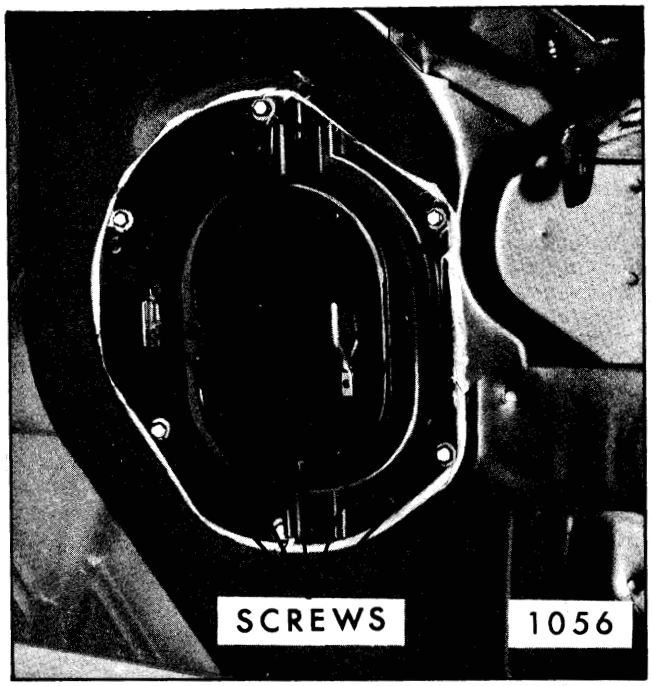

Fig. 3-2—Shroud Side Air Outlet Duct

2. Remove screws attaching duct assembly to shroud.
3. Remove sill plate.
4. Remove finishing panel to hinge pillar attaching screw (Fig. 3-5) and remove assembly.
5. To install, apply a generous bead of medium-bodied sealer to flange of duct assembly (Fig. 3-5) and reverse removal procedure.

SHROUD SIDE AIR OUTLET DOOR

Removal and Installation:

1. Remove outlet grille and outlet duct assembly (Fig. 3-4).

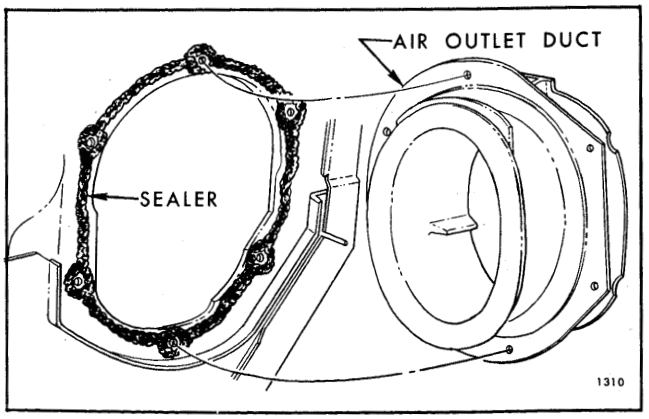

Fig. 3-3—Shroud Side Air Outlet Duct Sealing

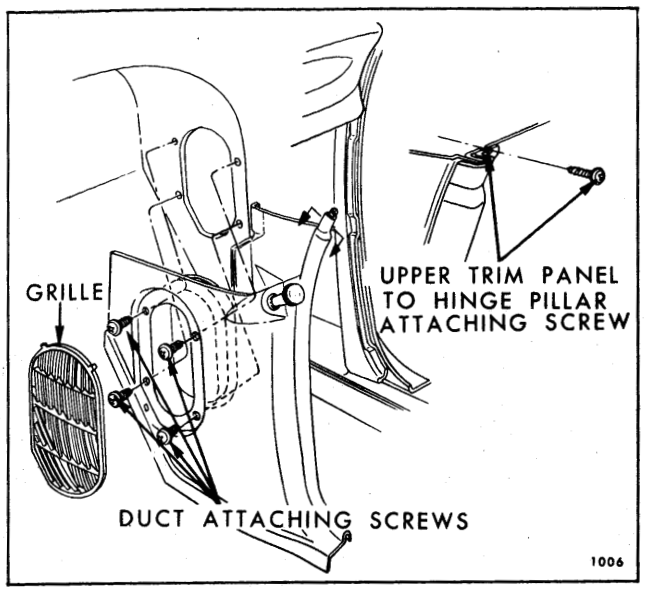

Fig. 3-4—Shroud Side Finishing Panel

2. Disconnect control cable from door (Fig. 3-5).
3. Press down on upper door hinge pin (Fig. 3-5) and remove door assembly.
4. To install, reverse removal procedure.

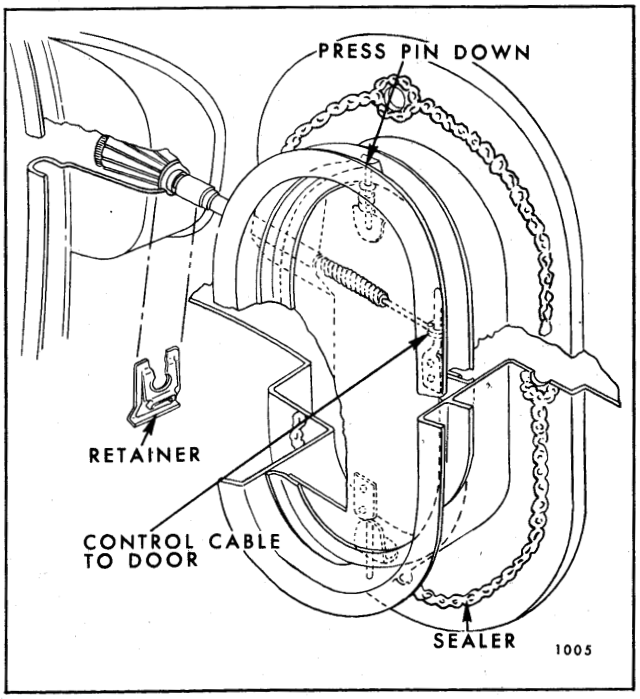

Fig. 3-5—Air Outlet Duct Assembly

SHROUD SIDE AIR OUTLET DOOR CONTROL CABLE

Removal and Installation:

1. Remove outlet grille and outlet duct assembly.
2. Disconnect cable on door.
3. Remove retainer securing control assembly to finishing panel (Fig. 3-5) and remove control assembly.
4. To install, reverse removal procedure.

BODY VENTILATION "E" BODY STYLES

The 1966 "E" body styles incorporate the same air inlet principles as the other 1966 styles. The exhausting air on the Buick "E" body is routed out through pressure relief valves located in the rear compartment shelf and rear plenum chamber (Fig. 3-6). Air passes through a grille in the rear compartment shelf trim panel down through the pressure relief valve and out of the rear plenum chamber grille.

The exhausting air on the Oldsmobile "E" body is routed out under the rear seat, up back of the rear seat back and out through pressure relief valves. (Fig. 3-7). Air passes through the pressure relief valves into the rear plenum chamber and out through the plenum chamber grille.

Water entering the rear plenum chamber is drained out through attached hoses that extend through the floor pan or rear quarter filler panel.

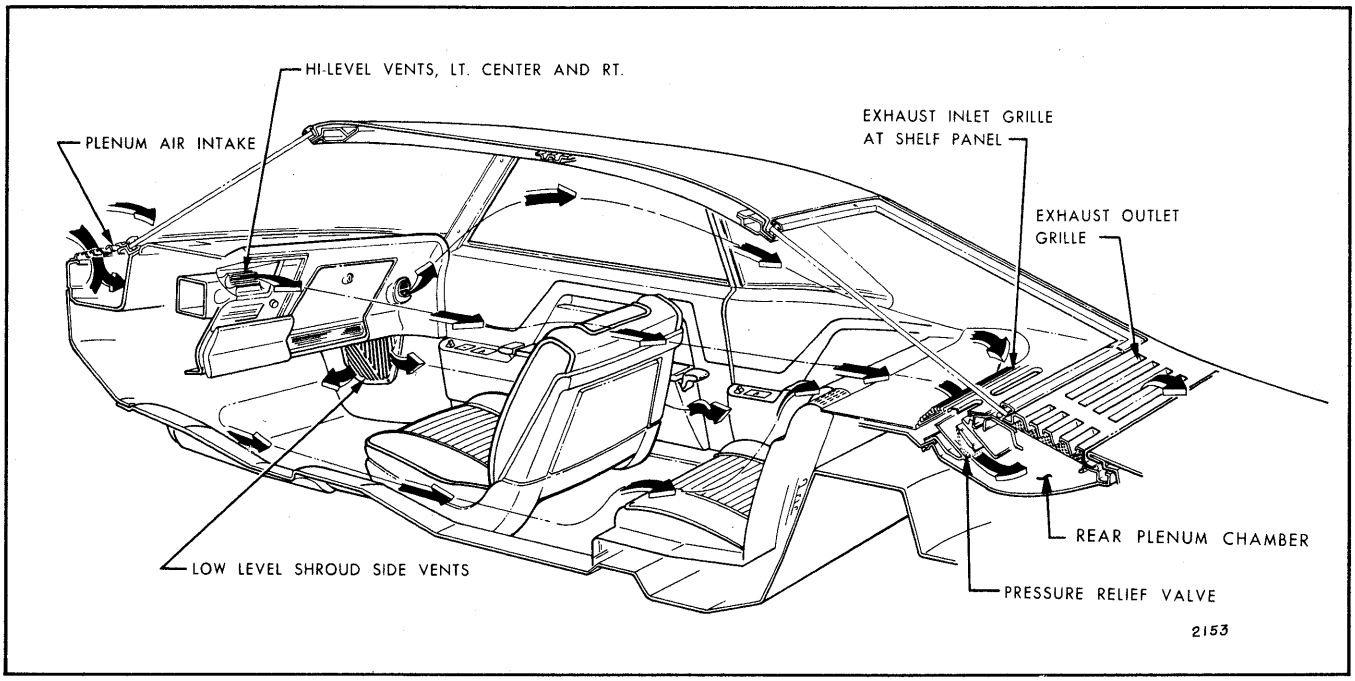

Fig. 3-6—Body Ventilation Buick "E" Body

WINDSHIELD GLASS—ADHESIVE CAULKED TYPE

DESCRIPTION

The windshield glass is retained in the opening by adhesive caulked material. Procedures covering the removal and replacement of the glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to windshield removal and installation will be covered in this section.

WINDSHIELD GLASS INSTALLATION (SHORT METHOD)

1. Remove glass as outlined in General Information Section.

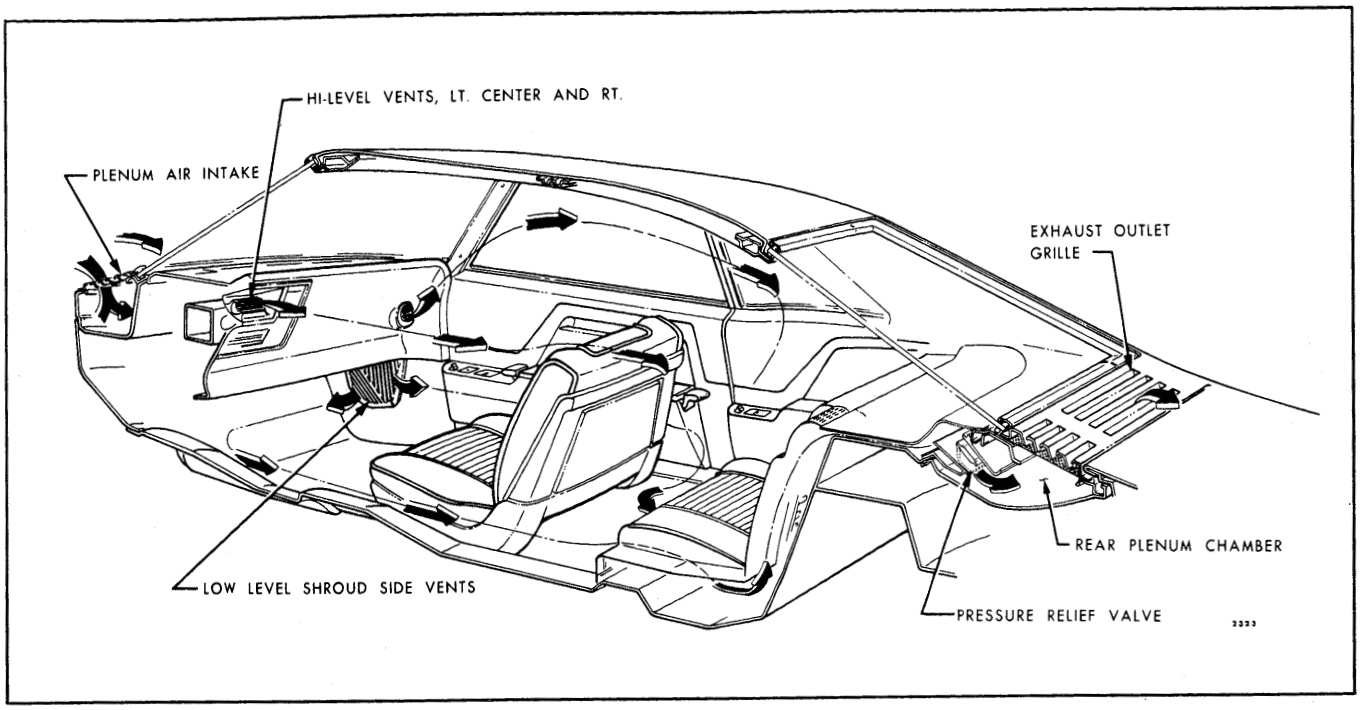

Fig. 3-7—Body Ventilation Oldsmobile "E" Body

2. Inspect reveal molding retaining clips for damage. If upper end of clip is bent away from body metal more than 1/32", replace or reform the clip. Be sure reveal molding clip screws are sealed.

3. If the original glass is to be re-used, remove all remaining traces of old caulking material with toluene or thinner dampened cloth.

4. Using black weatherstrip adhesive, cement three rubber spaces to lower windshield opening at location "A", Figure 3-8.

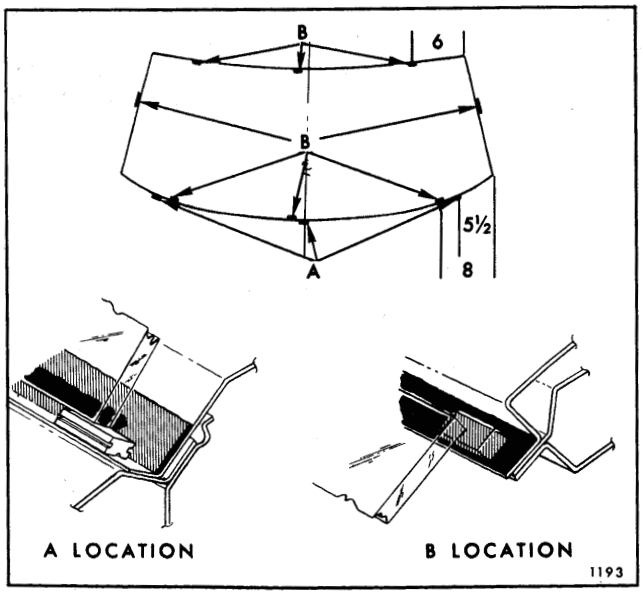

Fig. 3-8—Glass Spacers

5. Place glass in opening, shim glass with spacers as necessary to properly align glass to opening. The glass should overlap the pinch-weld flange 3/8". Mark glass to windshield pillars with tape to assist in proper alignment at time of installation (Fig. 3-9).

6. Apply 1" wide masking tape to inside of windshield glass 1/4" inboard from edge of glass, across the top and down each side, to facilitate cleanup after installation.

7. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer on the freshly cut material in the opening.

CAUTION: Do not allow primer to drop on painted surfaces or trim.

8. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a

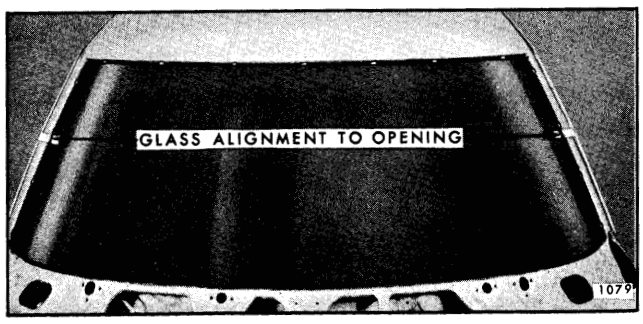

Fig. 3-9—Glass Alignment

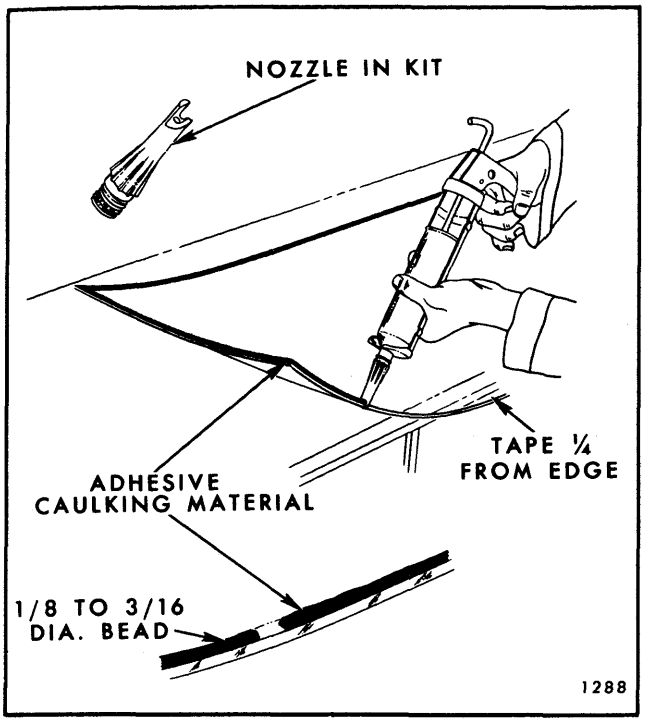

Fig. 3-10—Adhesive Caulking Material Application - Short Method

clean, water dampened cloth. Dry glass with a clean dry cloth.

9. Apply a smooth continuous bead of adhesive caulking material to inside surface of glass next to edge completely around glass (Fig. 3-10). Material should be 1/8" to 3/16" in diameter.

IMPORTANT: The operation of installing glass into the opening should be completed within 15 minutes from start of application of material to glass.

10. With aid of helper, lift glass with one hand on outside of glass and one hand on inside of glass. Carefully move glass up to windshield opening maintaining glass in a horizontal position. While one man holds glass in this position, the second man can reach around the windshield pillar and hold glass; then, first man can reach around windshield pillar (Fig. 3-11). Carefully position glass into opening, making certain that glass is properly centered in opening and positioned on lower spacers. Use tape previously applied on windshield pillar to properly align glass (Fig. 3-9).

11. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the windshield glass.

12. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.

13. Watertest windshield immediately using cold water spray.

14. Remove masking tape from inside of glass.

15. Install reveal moldings, inside garnish moldings and previously removed parts.

WINDSHIELD GLASS INSTALLATION (EXTENDED METHOD)

1. Remove glass as outlined in General Information Section, remove major portion of adhesive caulking material from body pinchweld flange.

2. Inspect reveal molding retaining clips for damage. If upper end of clip is bent away from body metal more than 1/32", replace or reform the clip. Be sure reveal molding clip screws are sealed.

3. Using black weatherstrip adhesive cement three rubber spacers (#4421823 or equivalent) to upper windshield flange and two rubber spacers (#4421823 or equivalent) to windshield pillars at rabbet (View "B", Fig. 3-8). Cement three rubber spacers (#4459429 or equivalent) to lower windshield flange (View "B", Fig. 3-8). Cement three rubber spacers (#4871330 or equivalent) to lower windshield opening (View "A", Fig. 3-8).

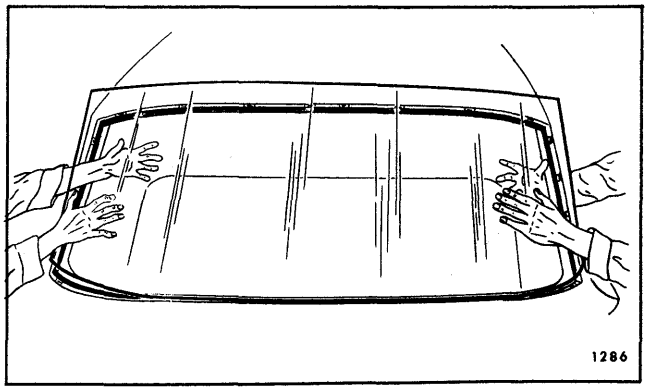

Fig. 3-11—Windshield Installation

4. Position replacement windshield glass in body opening. Carefully check relationship of glass to body opening. The distance between the inside surface of the glass and body should not be less than 3/16". The glass should have 3/8" overlap around the entire opening. Where necessary to obtain proper spacing, use shim spacers as required. Mark position of glass on glass and windshield pillars with masking tape, for proper alignment of glass to opening at time of installation (Fig. 3-9). Remove glass and place on a protected bench or holding fixture.

5. If original glass is to be installed, remove old caulking material from glass with sharp scraper or razor blade. Remove remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use oil base solvent. Any oil will prevent adhesion of new caulking material to glass.

6. Apply 1" wide masking tape to inside of windshield glass 1/4" inboard from edge of glass, across the top and down each side, to facilitate cleanup after installation.

7. Using a clean, lint-free cloth, briskly rub a generous amount of adhesive caulking primer over original adhesive caulking material that remains on pinchweld flange. Additional brisk application of primer on flat rubber spacers if necessary to insure a good bond of material to spacers.

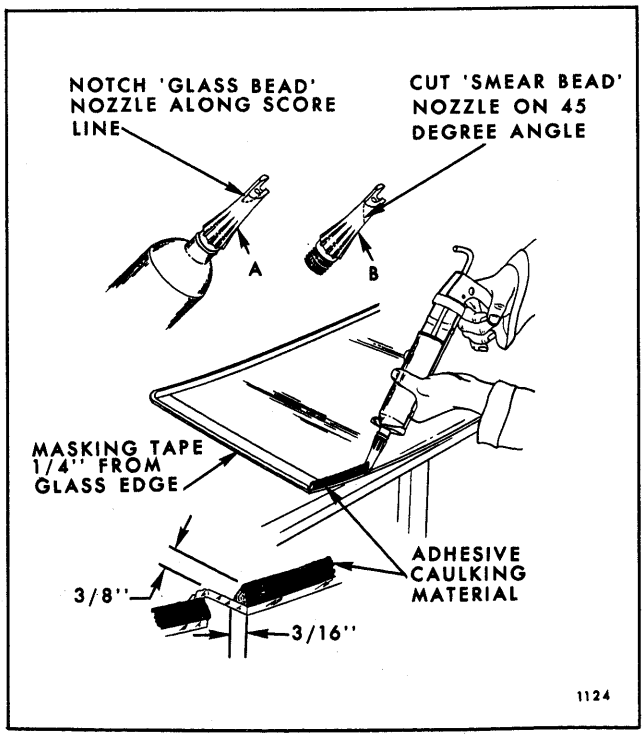

Fig. 3-12—Adhesive Caulking Installation - Extended Method

CAUTION: Do not allow primer to drop on painted surfaces or trim parts.

NOTE: If the windshield opening is freshly painted due to collision work, etc., apply paint finish primer to painted pinchweld flange. Paint finish primer is available as a service part.

8. Cut off tip of one nozzle along score line (Fig. 3-12). This "glass bead" nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle (Fig. 3-12). This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.

9. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened cloth. Dry glass with a clean dry cloth.

10. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle.

11. Positioning the gun and nozzle as shown in Figure 3-12 carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.

NOTE: Material begins to cure after 15 minutes exposure to air, therefore, perform following steps immediately and install glass in opening as soon as possible.

12. Remove "glass bead" nozzle and insert "smear bead" nozzle (nozzle cut on 45° angle in step #8). Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

13. Install glass as outlined in steps 10 through 15 of short method installation.

WINDSHIELD GLASS—RUBBER CHANNEL—ALL "X" STYLES

REMOVAL

1. Place protective covering over hood, front fenders, instrument panel and front seat assembly.

2. Remove rear view mirror support.

3. Remove windshield wiper arm assembly.

4. On inside of body loosen lip of rubber channel from pinchweld flange along top and sides of windshield as follows: With palm of hand, apply pressure to glass near edge (Fig. 3-13). At the same time use a blunt putty knife or other suitable tool and carefully assist rubber channel over pinchweld flange.

5. After windshield rubber channel is free from pinchweld flange, with aid of helper, carefully lift windshield assembly from body opening and place it on a protected bench.

NOTE: The windshield reveal moldings are installed in the rubber channel and are to be removed prior to removing rubber channel from the glass.

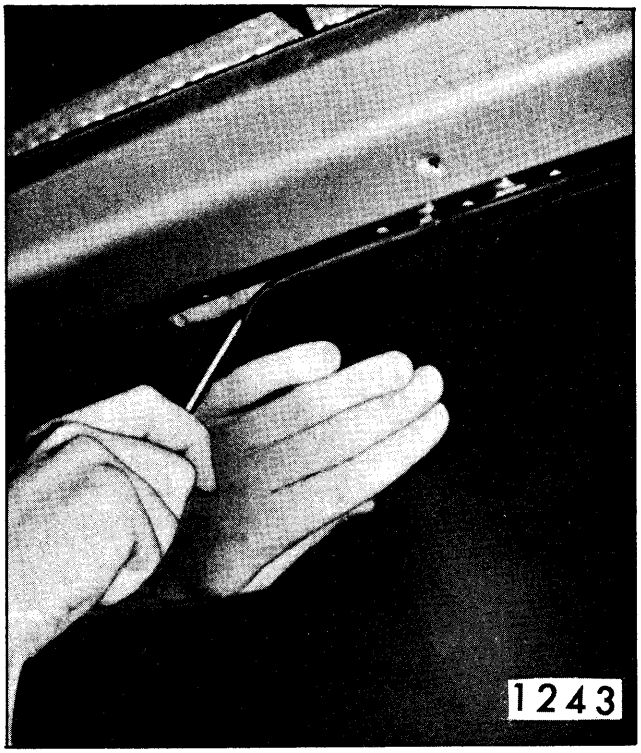

Fig. 3-13—Windshield Glass Removal

INSTALLATION

It is important that the body windshield opening be checked thoroughly before installation of the replacement windshield glass. The procedure below outlines the method which may be used to check the windshield opening.

1. Check windshield rubber channel for any irregularities.

2. Clean off old sealer around windshield opening and check entire body opening flange for any irregularities.

3. Install five windshield checking blocks J-8942 or equivalent (Fig. 3-14) to pinchweld flange at the following locations. Position one block over lower pinchweld flange on each side of body approximately twelve inches inboard from the lower outer corner of the opening. Position one block in center on lower pinchweld flange. Position final blocks on upper pinchweld flange midway between center block and each outboard block on lower retaining flange.

4. With aid of helper carefully position replacement glass on blocks in windshield opening.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation. Edge chips can lead to future breaks.

5. With windshield glass supported and centered in body opening by checking blocks, check relationship of glass to body opening around entire perimeter of glass. Figure 3-15 shows a typical section taken through the glass channel and body opening. Check glass to body relationships as follows:

   a. The inside surface of the glass should be a uniform distance from pinchweld flange. The dimension should be from 1/4" to 5/16".

   b. The outer edge of glass should be a uniform distance from body metal, measured in the

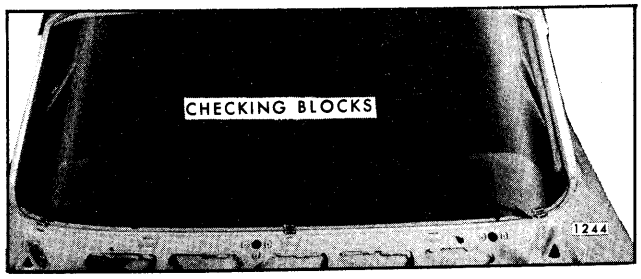

Fig. 3-14—Windshield Glass Checking Blocks

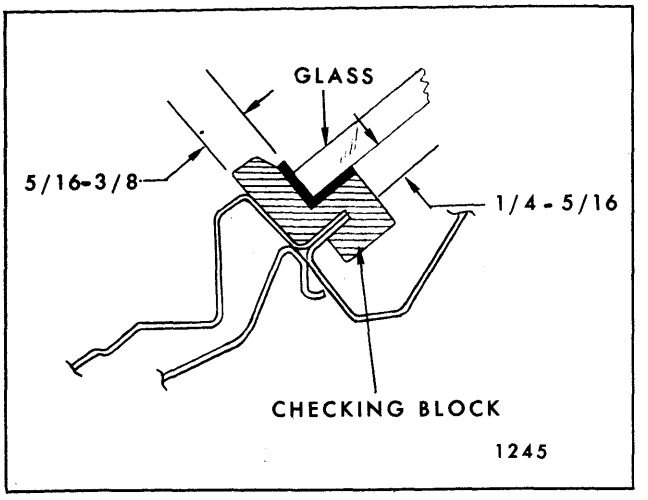

Fig. 3-15—Correct Position Of Checking Blocks

plane of the glass. This dimension should be from 5/16" to 3/8".

6. Mark any sections of body to be re-formed, remove glass and re-form opening as required.

7. Re-check windshield opening as outlined above. Then MARK THE CENTER LINE ON THE GLASS AND BODY so that glass can be accurately centered in opening when installed.

8. Install windshield.

   a. Clean out old sealer in glass cavity of windshield rubber channel and around base of rubber channel.

   b. Install rubber channel to glass and install reveal moldings in rubber channel.

   c. Insert a strong cord in pinchweld cavity of rubber channel completely around windshield. Tie ends of cord and tape to inside surface of glass at bottom center of glass (Fig. 3-16).

   d. Apply a ribbon of medium-bodied sealer completely around base of rubber channel as indicated in Figure 3-17, Item #1.

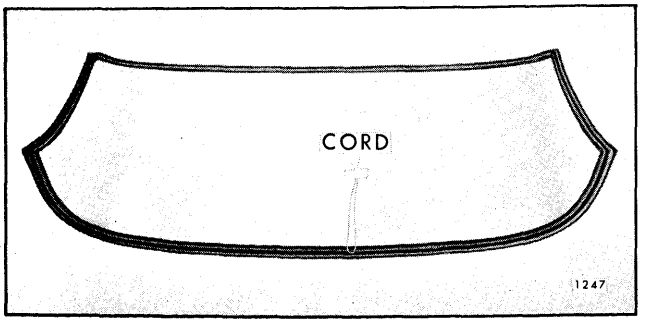

Fig. 3-16—Windshield Installation

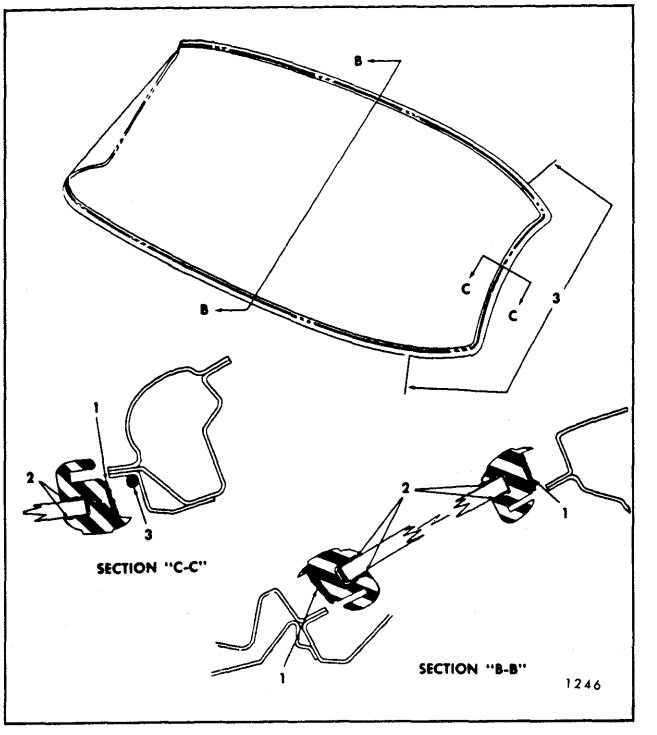

Fig. 3-17—Sealing Of Windshield Glass And Channel

   e. Apply a bead of medium-bodied sealer, approximately 1/4" in diameter to corner of windshield opening rabbet around each side of windshield for distance indicated in Figure 3-17, Item #3.

   f. With aid of helper, carefully position and center windshield assembly in windshield opening.

CAUTION: Do not position glass by tapping or hammering at any time.

   g. When the glass and channel are properly positioned in opening, slowly pull ends of cord, starting at lower center of windshield, to seat lip of rubber channel over pinchweld flange. Cord should be pulled first across bottom of windshield, then up each side and finally across top of windshield.

   h. Using a pressure type applicator, seal inner and outer lips of rubber channel to glass with an approved weatherstrip adhesive as indicated in Figure 3-17, Item #2. Seals are to extend completely around rubber channel.

   i. Clean off excess sealer from windshield glass with mineral spirits.

   j. Reinstall all previously removed parts and remove protective coverings.

WATERLEAK CORRECTION

In many instances minor waterleaks around the windshield may be corrected by performing the following operations.

1. Leaks between rubber channel and glass.

   a. Using a pressure applicator (plews oiler or equivalent) with a narrow tip, apply an approved weatherstrip adhesive (black) between glass and rubber channel on the outside of the glass completely around perimeter of glass.

2. Leaks between rubber channel and body.

   a. Use a pressure applicator with a narrow tip. Working from outside of body, apply medium-bodied sealer under outer lip of rubber channel around entire perimeter of body opening.

INSTRUMENT PANEL

INSTRUMENT PANEL COVER
ALL CHEVROLET STYLES

The instrument panel cover is secured to the instrument panel by studs and nuts or screws (Figs. 3-18, 3-19, 3-20 and 3-21). The studs are an integral part of the cover assembly.

Removal and Installation:

1. Remove windshield side garnish moldings where necessary.
2. Loosen or remove any necessary instrument panel items, glove box etc.
3. From underside of instrument panel, remove attaching screws and nuts and carefully remove cover assembly (Figs. 3-18, 3-19, 3-20 and 3-21).
4. To install, reverse removal procedure.

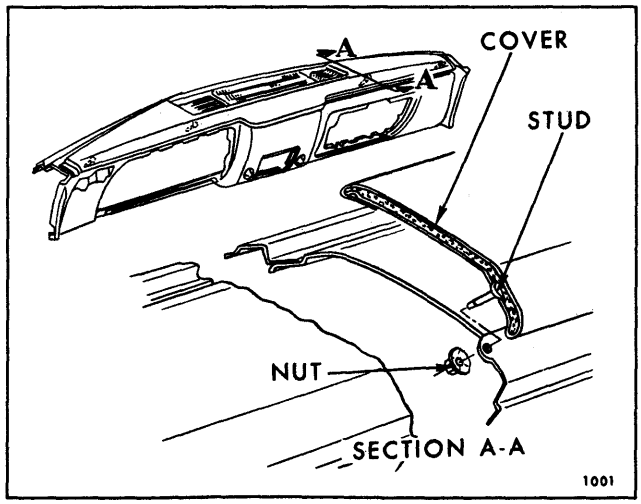

Fig. 3-18—Instrument Panel Cover

INSTRUMENT PANEL ASSEMBLY
ALL CHEVROLET AND PONTIAC STYLES
(10000, 11000, 13000, 15000, 16000, 23000, 25000, 26000 SERIES)
ALL BUICK "A" STYLES
43000 AND 44000 SERIES STYLES

Instrument Panel Compartment Door

Removal and Installation

The instrument compartment door hinges and stops are an integral part of the door or attached by screws. The hinges and door assemblies are attached to the instrument panel by screws. To remove the door assemblies, remove attaching screws securing hinge to instrument panel (Figs. 3-22, 3-23, 3-24, 3-25) lift door, rotate counterclockwise to remove stop from opening in panel.

To install, reverse removal procedure.

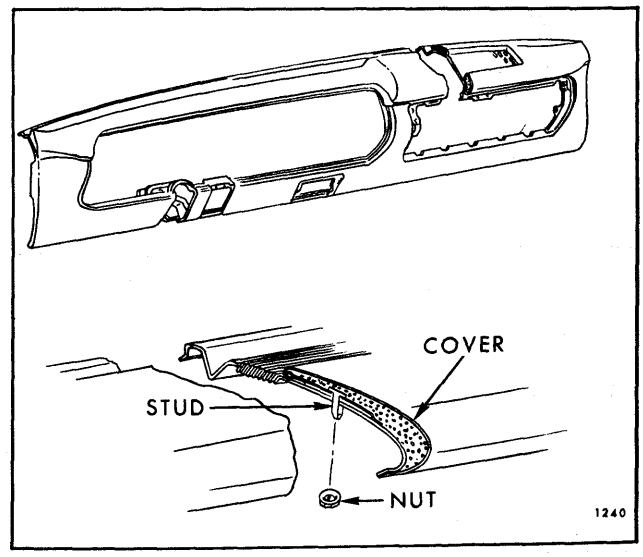

Fig. 3-19—Instrument Panel Cover

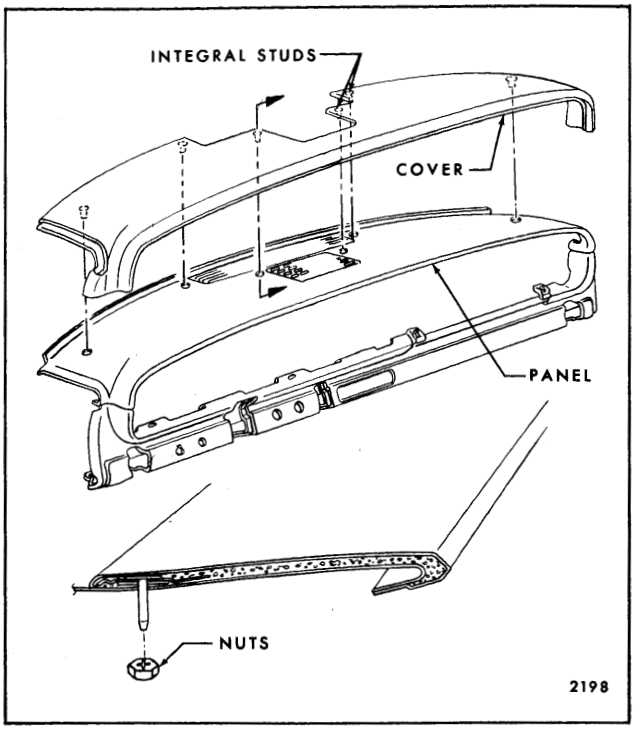

Fig. 3-20—Instrument Panel Cover

Adjustments

1. To move door up or down, shim between hinge and instrument panel or loosen door-to-hinge screws and position door as desired.

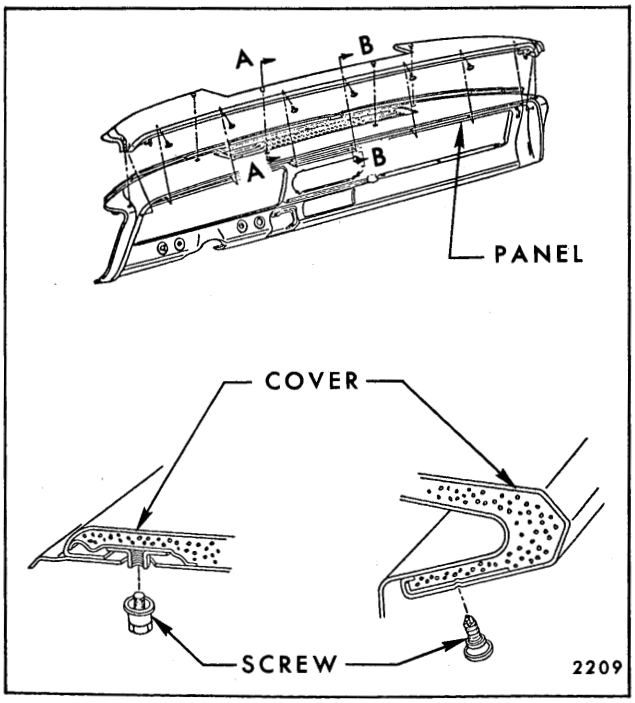

Fig. 3-21—Instrument Panel Cover

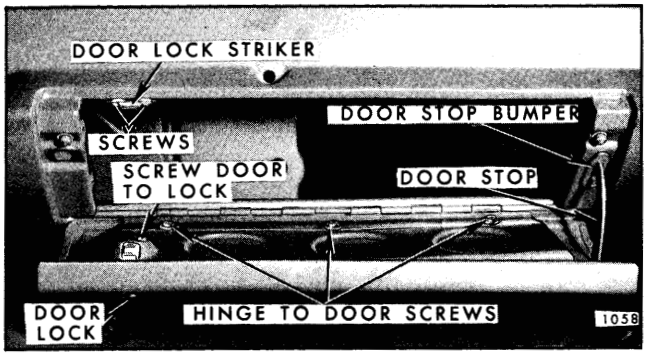

Fig. 3-22—Instrument Panel Compartment Door

2. To move door in or out, loosen hinge-to-instrument panel and position door as desired.

3. To move door right or left, loosen hinge-to-instrument panel screws and position door as desired.

4. Striker plates are adjustable on the instrument panel by loosening the attaching screws and positioning the striker plate as desired (Figs. 3-22, 3-23, 3-24 and 3-25).

Instrument Panel Door Locks

Removal and Installation

1. Open compartment door, remove screw attaching lock to door inner panel and remove lock assembly (Figs. 3-22, 3-23, 3-24 and 3-25).

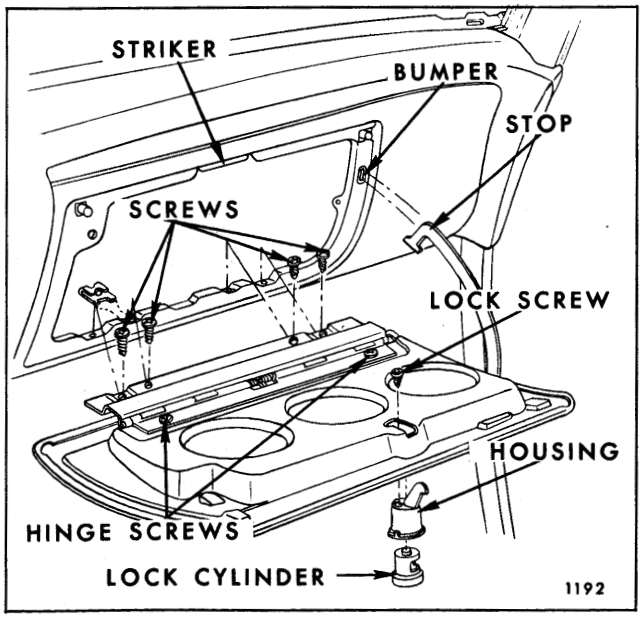

Fig. 3-23—Instrument Panel Compartment Door

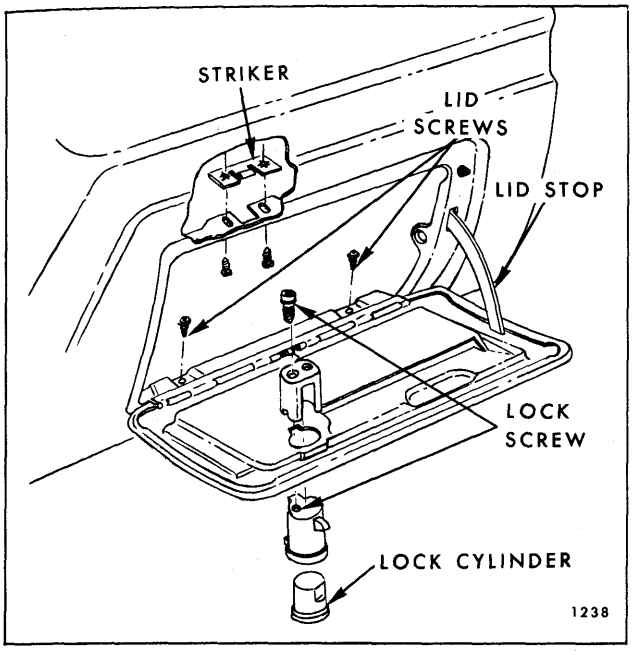

Fig. 3-24—Instrument Panel Compartment Door

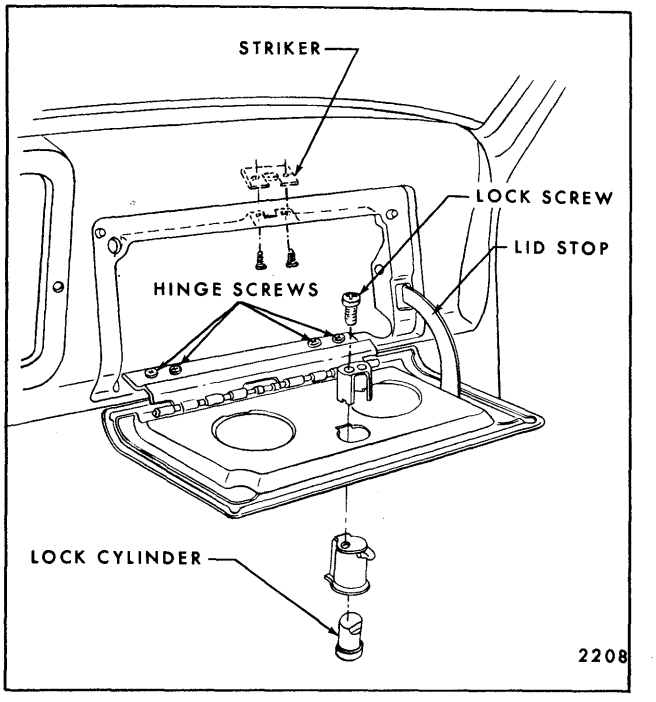

Fig. 3-25—Instrument Panel Compartment Door

2. To install, reverse removal procedure.

FRONT COMPARTMENT—CORVAIR

DESCRIPTION

Each front compartment lid hinge assembly employs the use of an individual torque rod which acts as a counterbalance and hold-open for the lid. Notches are provided in the torque rod retainer for adjustment of the rods.

The front compartment lid lock assembly is a side action snap-bolt mechanism equipped with a safety latch and is attached to a support on the front end panel. The end of the lock assembly acts as a guide by entering the striker when the lid is closed.

A single section cement-on type front compartment weatherstrip is used on all styles.

FRONT COMPARTMENT LID

Removal and Installation:

1. Open lid and place protective covering over surfaces of front compartment opening to prevent damage to painted surfaces.

2. Scribe (pencil) location of hinge straps on lid inner panel.

3. With aid of a helper remove hinge to lid attaching bolts from each hinge and remove lid (See Fig. 3-26).

4. To install, align hinges to lid within scribe marks and reverse removal procedure.

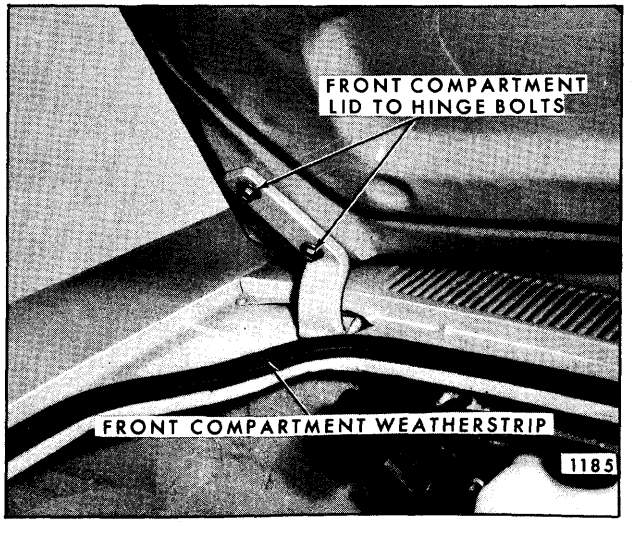

Fig. 3-26—Front Compartment Weatherstrip And Front Compartment Lid Attaching Bolts

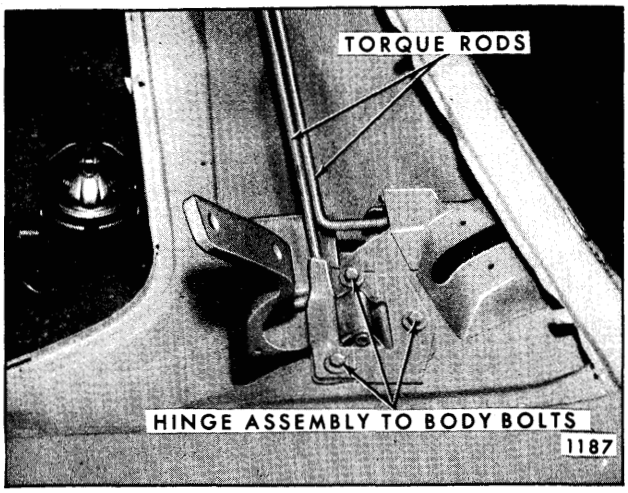

Fig. 3-27—Front Compartment Lid Hinge Removal

Adjustments

1. To adjust front compartment lid forward or rearward or from side to side in body opening, loosen hinge to upper shroud attaching bolts at each hinge and adjust lid as required; tighten bolts (see Fig. 3-27).

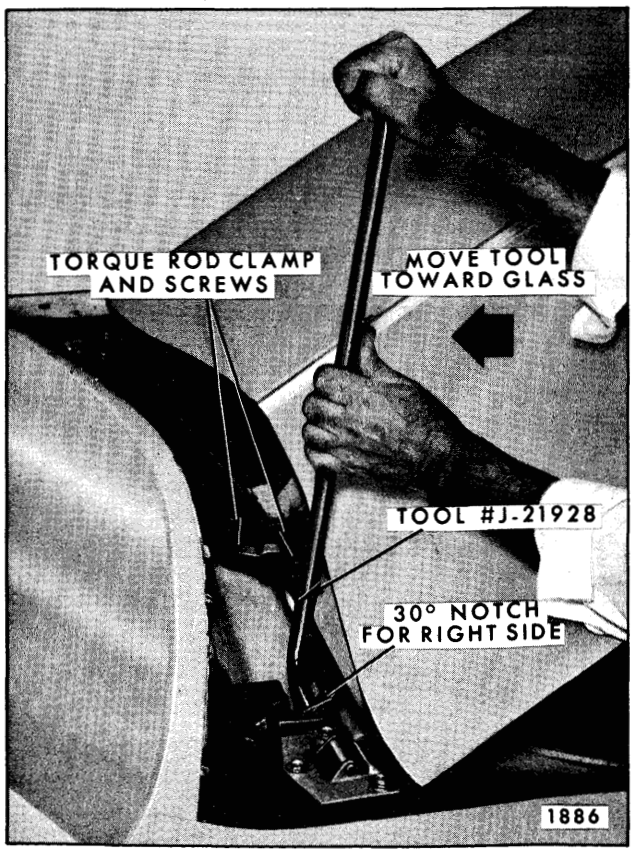

Fig. 3-28—Torque Rod Removal - Right Side

2. To adjust the lid up or down at one or both sides, install shims between the hinge strap and lid as follows:

   a. To raise rear edge of lid at hinge area, place shim between hinge strap and lid inner panel at rear attaching bolt (Fig. 3-26).

   b. To lower rear edge of lid at hinge area, place shim between hinge strap and lid inner panel at front attaching bolt (Fig. 3-26).

3. Check front compartment lid lock engagement with striker.

FRONT COMPARTMENT LID TORQUE RODS

The torque rod removal and installation tool, J-21928 is designed to remove, replace or reset tension for one or both rods without removing the front compartment lid. This double-ended tool is designed with a different end for right and left side of body.

Removal and Installation:

1. Install protective covering over compartment lid and lower part of windshield.

2. Open compartment lid and prop same in a full open position.

3. Remove windshield wiper arms.

4. Remove shroud top air intake grille.

5. Remove torque rod clamp to shroud, located to right of center of shroud (Fig. 3-28).

6. Install tool J-21928 (Fig. 3-28) to lid torque rod on right side of body. Securely grasp tool and move it toward windshield to disengage rod from retaining notch. Carefully disengage tool from rod.

7. In like manner remove rod on left side of body (Fig. 3-29).

NOTE: Front compartment lid hinge assembly removal should be made only after torque rods are removed.

8. To install, apply a coat of No. 630AAW Lubriplate or equivalent to torque rod end that contacts hinge roller and reverse removal procedure, locating torque rods in the same

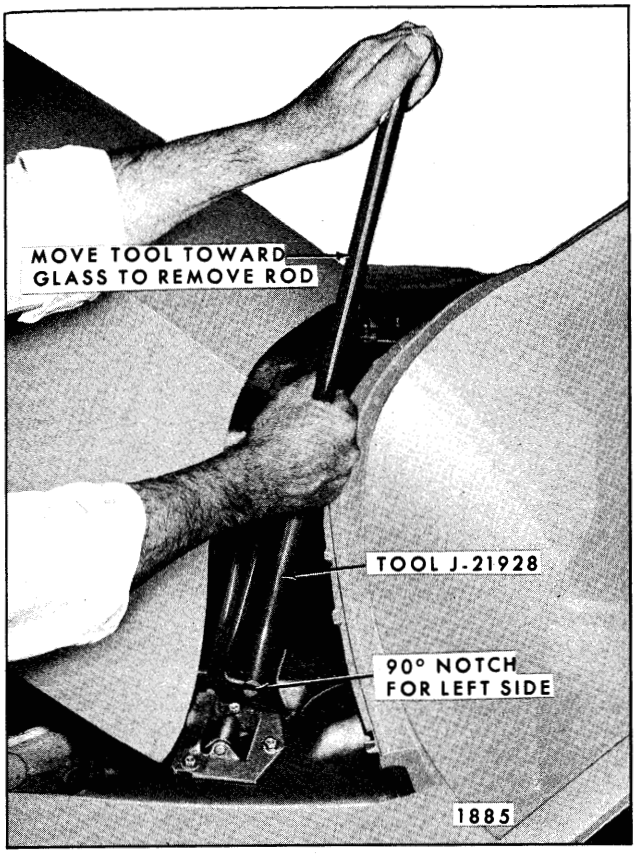

Fig. 3-29—Torque Rod Removal - Left Side

notch in retainer as they were before removal. Check tension on lid. If additional tension is required reset torque rod.

FRONT COMPARTMENT LID LOCK CYLINDER ASSEMBLY

The front compartment lid lock cylinder is attached to the front end panel molding which is secured to the front end panel by studs and nuts (See Fig. 3-30).

Removal and Installation:

1. Remove front end panel molding assembly as explained in the "Exterior Molding" section of this manual (see index).

2. Remove lock cylinder retainer and remove lock cylinder from molding.

3. To install, reverse removal procedure. Make certain that molding is properly sealed to front end panel.

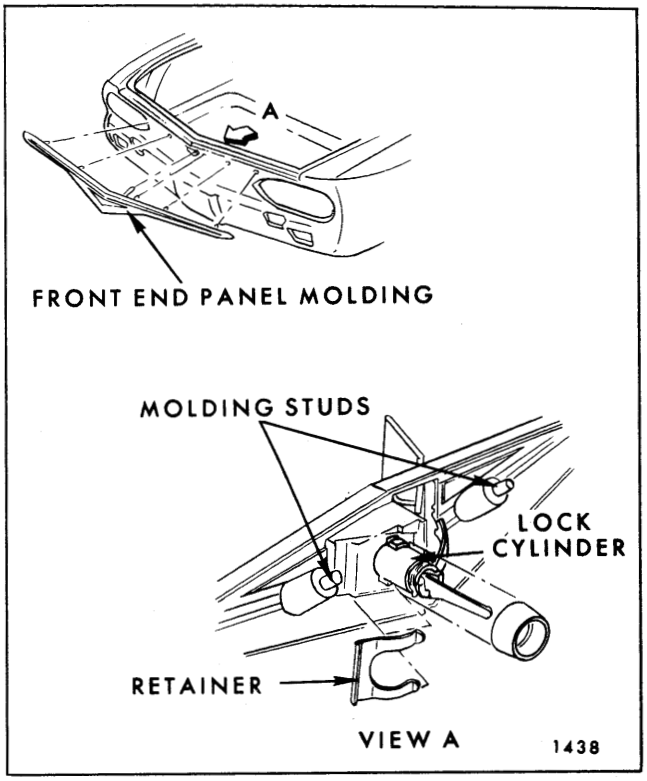

Fig. 3-30—Front Compartment Lid Lock Removal

FRONT COMPARTMENT LID LOCK ASSEMBLY

Removal and Installation:

1. Remove front end panel molding and lid lock cylinder assembly.

2. Remove screws (Fig. 3-31) securing lock to lid lock support and remove lock assembly.

3. To install, reverse removal procedure.

NOTE: If lock does not properly engage in striker opening, the lock may be adjusted forward by installing emergency spacer(s) between lock and support.

FRONT COMPARTMENT LID LOCK STRIKER

Removal and Installation:

1. Mark (pencil) location of front compartment lid lock striker on striker support.

2. Remove striker retainer plate attaching bolts and remove retainer plate and striker (Fig. 3-32).

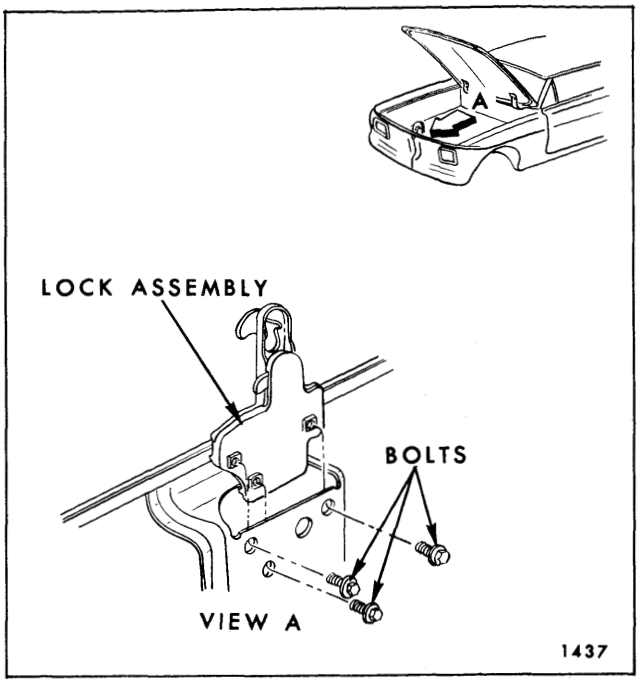

Fig. 3-31—Front Compartment Lid Lock

3. To install, position striker within scribe marks and reverse removal procedure. Check striker for proper engagement with lock.

Adjustments

1. To adjust striker up, down, right or left, loosen retainer plate attaching bolts (while holding plate in position), adjust striker as required and tighten bolts.

NOTE: Since upper end of lid lock acts as a guide by entering the striker when the lid is closed, make certain the front compartment lid is properly aligned in the body opening prior to making any striker adjustments.

FRONT COMPARTMENT LID GUTTER WEATHERSTRIP

Removal

1. Separate "butt" ends of weatherstrip at front of compartment opening.

2. With a flat-bladed tool, carefully disengage weatherstrip from its cemented foundation in gutter around entire perimeter of front compartment and remove weatherstrip.

Installation

1. Remove excess cement from gutter around entire front compartment opening to insure a smooth cementing surface.

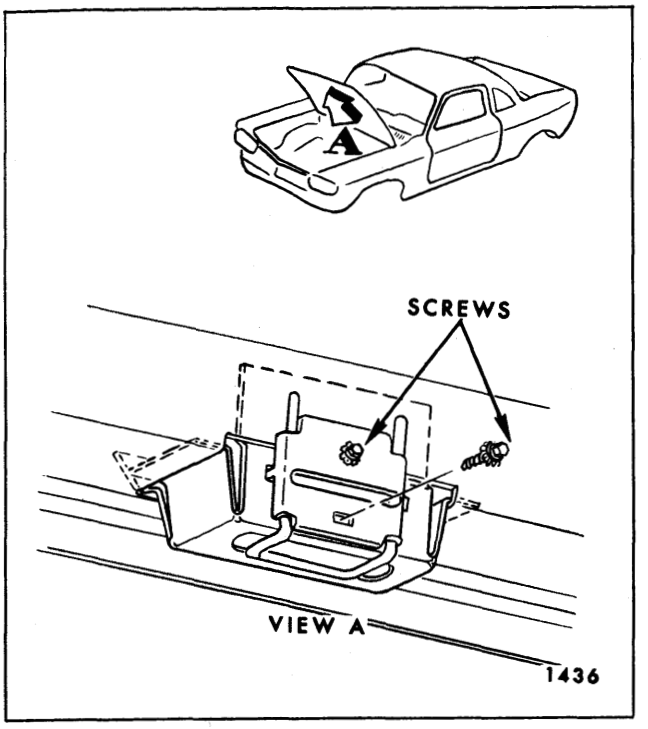

Fig. 3-32—Front Compartment Lid Lock Striker

2. Brush an approved weatherstrip cement along base of gutter around entire perimeter of gutter.

NOTE: Apply a sufficient amount of weatherstrip cement along lower inboard corner of gutter so that after installation of weatherstrip, cement will spread and completely fill area.

3. Center weatherstrip at area between lid hinges using color or tape identification mark at center of weatherstrip as guide.

4. Using a flat-bladed tool, such as a putty knife with rounded corners, insert weatherstrip into gutter across top, down sides and across front of compartment opening in that order. Roll or press weatherstrip to insure a good seal and proper retention of weatherstrip.

5. If installing a new weatherstrip, trim ends of weatherstrip to form "butt" joint at front of opening. Brush weatherstrip cement on both ends of weatherstrip and secure ends together to form a "butt" joint.

6. Allow sufficient time for cement to set before closing front compartment lid.

SECTION 4
HEADLINING

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HEADLINING—CLOTH AND VINYL COATED ALL STYLES—EXCEPT "55 AND 65" STATION WAGONS

DESCRIPTION

The headlining assembly is formed to the contour of the roof panel by concealed listing wires. The listing wires are retained to the headlining by listing wire pockets which are part of the headlining assembly.

Depending upon the body type and style, the listing wires are attached to the side roof rails by either inserting wires directly into holes in side rail or into a clip which is screwed into the side rail. (See View "A and B" in Fig. 4-1.)

On all styles except Corvair equipped with a vinyl coated headlining, the listing wires are further attached to the roof panel by tabs on the front to rear longitudinal roof bow. (See View "D" in Fig. 4-1.)

When pinchweld finishing lace is used at the windshield and back window or back body opening, the headlining is attached by means of cement at those areas.

Where garnish moldings are utilized the headlining is tacked or stapled in addition to being cemented at the windshield and back window or back body opening (View "E", Fig. 2155 and Fig. 4-2).

The headlining is retained along the side roof rails by cementing or the use of a pronged retainer. Depending upon the style, garnish moldings or pinchweld finishing lace is also used to assist in retaining the headlining. The side roof rail garnish moldings are secured to the pinchweld flange by clips that are located in the molding. (See Figs. 4-3 and 4-4.)

On styles where a upper quarter trim panel is utilized, the headlining is tacked or stapled to a trim stick in the roof extension area (See Fig. 4-2). The upper quarter trim is retained by clips (See Fig. 4-2). On "E" Body Styles the upper quarter trim is further retained by cementing the forward edge to the side roof rail. On styles where the headlining covers the entire roof extension area, the headlining is retained along the rear compartment shelf by a pronged retainer (See Fig. 4-5).

REMOVAL

1. Place protective coverings over seat cushions and backs.

2. Prior to removing headlining, remove following hardware and trim assemblies if present.

   a. Windshield side and upper garnish moldings or finishing lace.

   b. Rear view mirror support.

   c. Sun shade supports.

   d. Dome or rear quarter courtesy lamps.

   e. Coat hooks.

   f. Side roof rail moldings or finishing lace.

   g. Back window garnish moldings or finishing lace.

   h. Center pillar finishing moldings.

   i. Rear quarter trim, where necessary.

   j. Upper quarter trim finishing panel (on styles so equipped).

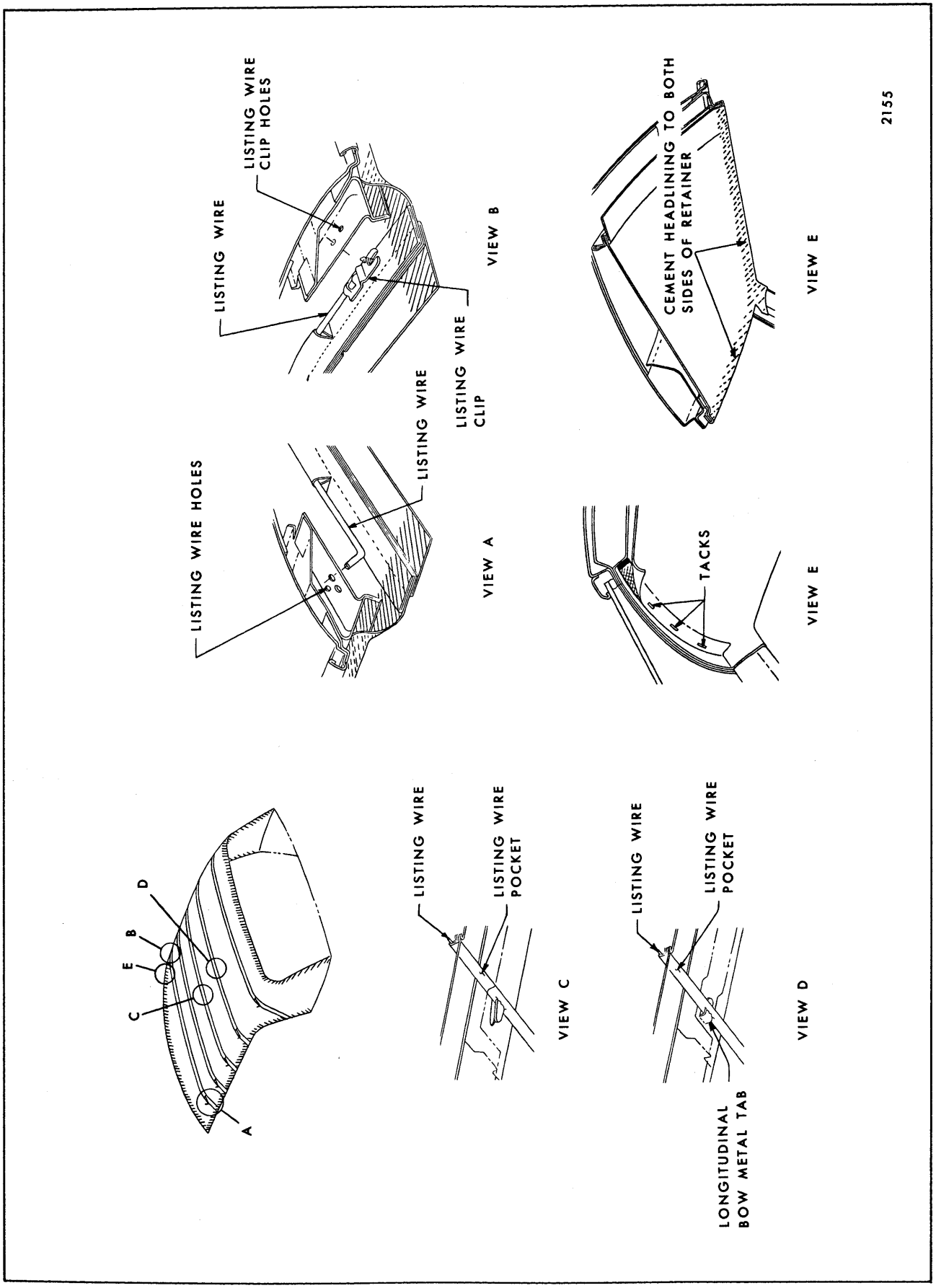

Fig. 4-1—Vinyl and Cloth Headlining Installation

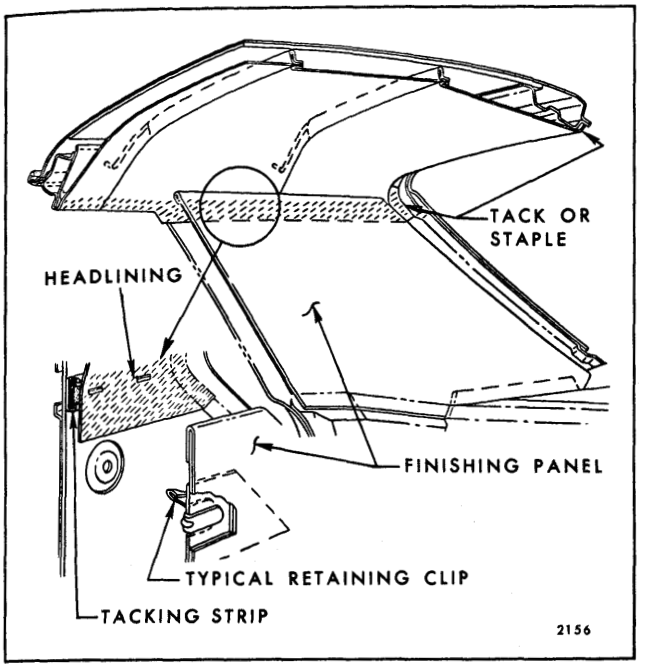

Fig. 4-2—Upper Quarter Trim Installation

k. Back body opening garnish moldings or finishing lace.

3. Carefully remove tacks or staples securing headlining at windshield and back window opening or back body opening.

4. On styles using pronged retainers, use headlining inserting tool, J-2772 or similar wide-bladed tool and carefully disengage headlining from pronged retainers where present.

5. Carefully detach cemented edge of headlining around entire perimeter.

6. Starting at front of body, carefully disengage No. 1 and No. 2 listing wires from side roof

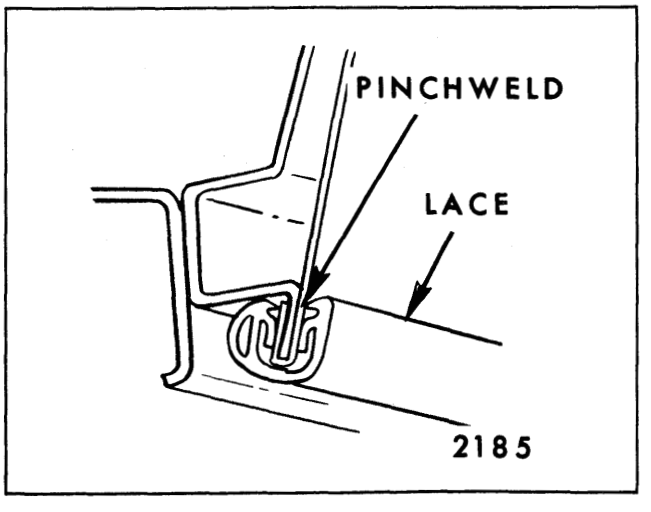

Fig. 4-3—Pinchweld Finishing Lace

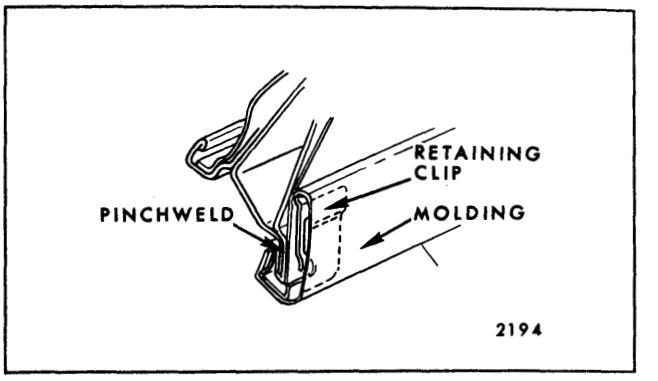

Fig. 4-4—Side Roof Rail Garnish Moldings

inner rails and supporting tabs on longitudinal (front to rear) bow on styles so equipped (View "D" in Fig. 4-1). In like manner, working from rear of body, disengage listing wires from side roof rails and supporting tabs on longitudinal bow. Exercise care to keep headlining material clean by gathering or folding headlining with listing wires on outside.

7. At No. 3 listing wire, bend down tab securing listing wire (View "C" in Fig. 4-1) and remove headlining assembly from body.

IMPORTANT: Note in which holes listing wires are installed in side roof rails. Listing wires should be placed in same hole when replacing headlining.

8. If replacing headlining, remove listing wires from pockets of old headlining.

IMPORTANT: Listing wires removed from old headlining must be installed in corresponding pockets of new headlining.

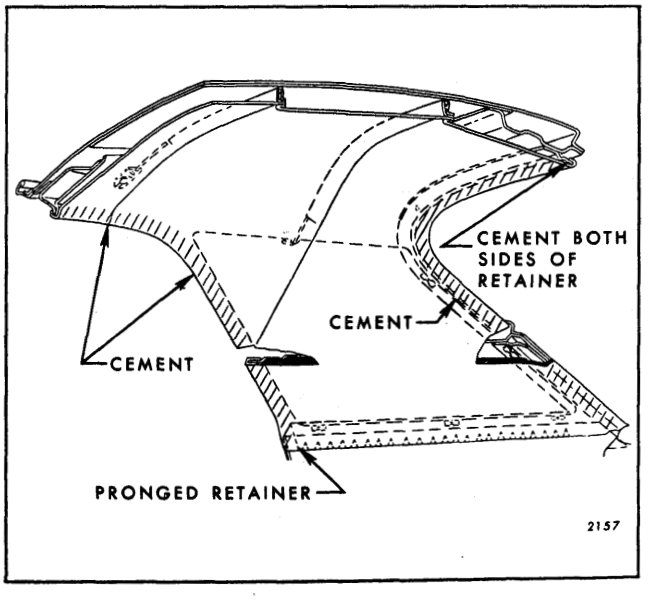

Fig. 4-5—Headlining Installation at Roof Extension

INSTALLATION

1. If previously removed, install listing wires into corresponding pockets of new headlining assembly.
2. Apply approved trim cement to headlining attaching surface at windshield, side roof rail and back window or back body opening. On styles that utilize pinchweld finishing lace be certain cement is applied to both sides of retainer at windshield and back window or back body opening. (View "E", Fig. 4-1 and Fig. 4-5)
3. Lift headlining assembly into body and install No. 3 listing wire and listing wire pocket over metal tab at roof bow (View "C", Fig. 4-1). Bend up tab to secure listing wire to bow. Make certain headlining is centered in body.
4. When new headlining is being installed on styles equipped with longitudinal bow (except cloth headlining) slit listing wire pockets at each tab location on longitudinal bow (approximately 1-1/2" in length). Working rearward from No. 3 listing wire, install listing wires in side roof rails and over tabs on longitudinal bow. In like manner, working forward, install No. 2 and No. 1 listing wires. (View "D", Fig. 4-1)

NOTE: Listing wires may be adjusted up or down by utilizing appropriate holes in side roof rails. Listing wires should rest tight against roof panel after installation. (Views "A" and "B" in Fig. 4-1)

5. Stretch and secure headlining at windshield and back window or back body opening. Stretch and secure headlining at rear quarters and side roof rails. Permanently attach material removing draws and wrinkles and replace all previously removed inside hardware and trim assemblies.

HEADLINING—POLYURETHANE FOAM AND FLOCKED HEADLININGS

DESCRIPTION

The polyurethane foam headlining assembly and the flocked headlining assembly consist of five individual sections.

The headlining sections are secured in place by retainers formed to the contour of the roof panel. Plastic moldings are snapped over the retainers and cover the retainers and edges of the headlining sections. Windshield, back window and side roof rail garnish moldings, also assist in holding the headlining in place.

When necessary, the headlining sections may be individually removed and replaced.

REMOVAL (ONE OR MORE SECTIONS)

1. Place protective coverings over seat cushions and backs.
2. Remove side roof rail moldings. If removing front section of headlining, remove windshield upper and side garnish moldings, sunshade support assemblies and rear view mirror support. If removing rear section, remove back window garnish moldings, side roof rail garnish moldings and rear quarter trim assembly to gain access to headlining at side roof rail area. If center sections are removed, where required, remove dome lamps, coat hooks, and coat hook spacers if present.
3. With flat-bladed tool, carefully pry one end of plastic molding from retainer and remove (View "C", Fig. 4-6). Remove plastic moldings from both retainers securing section of headlining being removed.
4. When removing individual sections, use flat-bladed tool and carefully pry one edge of headlining section from retainer and remove from body.
5. If removing headlining section at back window, remove tacks or staples securing section at back window opening.
6. When retainers are required to be removed, remove screws securing retainer to roof (View "D", Fig. 4-6). Retainer spacers are installed between the metal retainers and roof (View "D", Fig. 4-6).

INSTALLATION:

1. If retainers were removed, make certain that retainer spacer shown in View "D", of Figure 4-6 is installed prior to installing retainers.

NOTE: Retainers should be tight against roof panel after installation.

2. Install headlining sections by positioning one edge in retainer and centering section in relation to other sections and side roof rails;

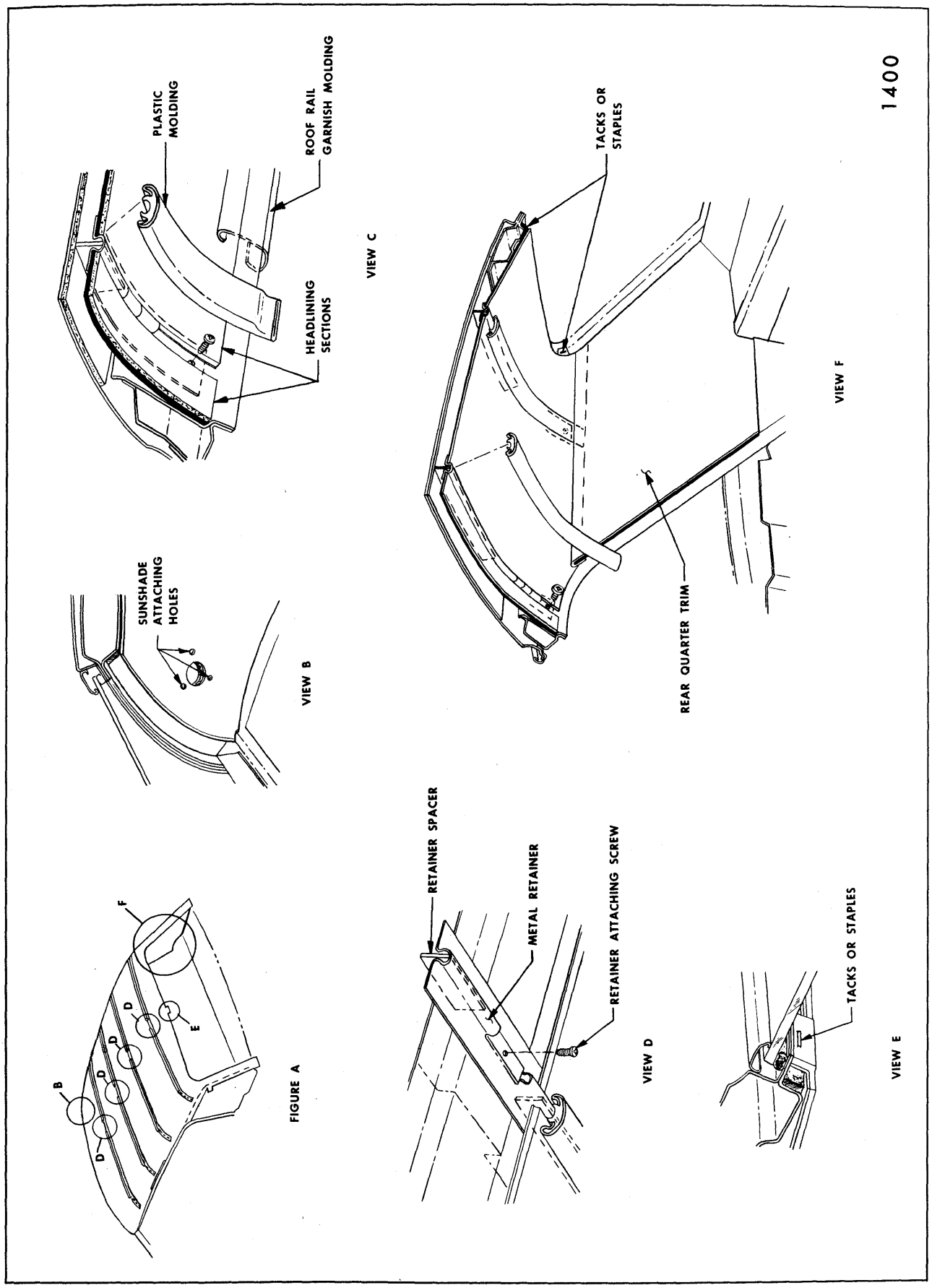

Fig. 4-6—Polyurethane Foam Headlining and Flocked Headlining Installation

then carefully snap remaining edge in other retainer. Snap plastic molding over retainers (View "C", Fig. 4-6).

3. If installing rear section of headlining assembly, position forward edge of section in retainer. Center and align section in relation to side roof rails and back window opening and stay tack section in place. Recheck alignment; then starting at center of back window area, permanently tack section to tacking strips at back window opening (View "F", Fig. 4-6).

4. If installing front section of headlining assembly, position appropriate edge in retainer. Center headlining section in relation to other sections, side roof rails, and sunshade support attaching holes (View "B", Fig. 4-6). Install sunshade supports.

NOTE: Forward edge of front section and rearward edge of rear section are also secured in place by windshield or back window garnish moldings.

5. Install all previously removed hardware and remove protective coverings.

NOTE: When installing side roof rail moldings, make certain edge of headlining section is covered by side roof rail moldings.

HEADLINING—"55 AND 65" STATION WAGON STYLES

DESCRIPTION

The "55 and 65" station wagon styles use two separate headlining assemblies and may be removed and replaced separately.

The front headlining is formed to the contour of the roof panel by concealed listing wires (View "A", Fig. 4-7). The ends of the listing wires are installed into holes in the side roof inner rails (View "B"), and may be adjusted up and down or fore and aft.

The headlining material is cemented to metal retainers and side roof rail pinchweld flanges (View "B", "C" and "D", Fig. 4-7). Escutcheons, moldings, and finishing lace cover the edges and assist in holding the material in place.

The rear headlining is formed to the contour of the roof panel by concealed listing wires (View "E", Fig. 4-7). The ends of the listing wires are installed into clips which are secured to the side roof inner rails by screws (View "F", Fig. 4-7). The edges of the material are cemented to the retainer flanges (View "G", Fig. 4-7). Finishing lace and moldings cover the edges and assist in holding the material in place.

CAUTION: Clean hands are essential when working with headlining material.

FRONT HEADLINING ASSEMBLY

Removal

1. Place protective covers over front seat cushion and back.

2. Prior to removal of the front headlining, remove the following items:

   a. Sunshade supports.

   b. Rear view mirror support.

   c. Windshield upper corner escutcheons.

   d. Center lock pillar upper finishing plates.

   e. Side skylight front upper garnish molding.

   f. Coat hooks.

   g. Courtesy lamps.

   h. Front skylight center division garnish molding.

   i. Front headlining finishing lace.

   j. Rear of headlining finishing lace.

   k. Finishing lace over front and rear doors.

3. Starting at front, carefully detach all cemented edges of headlining material from retainers and flanges.

4. Bend down tab at front listing wire (View "H", Fig. 4-7); remove listing wires from inner rails. Gather or roll headlining with listing wires on outside to keep headlining clean and remove old headlining assembly.

IMPORTANT: Note into which holes ends of listing wires are installed in side roof rails. Listing wires should be placed in same holes when replacing headlining. If replacing headlining remove listing wires from pockets of old headlining.

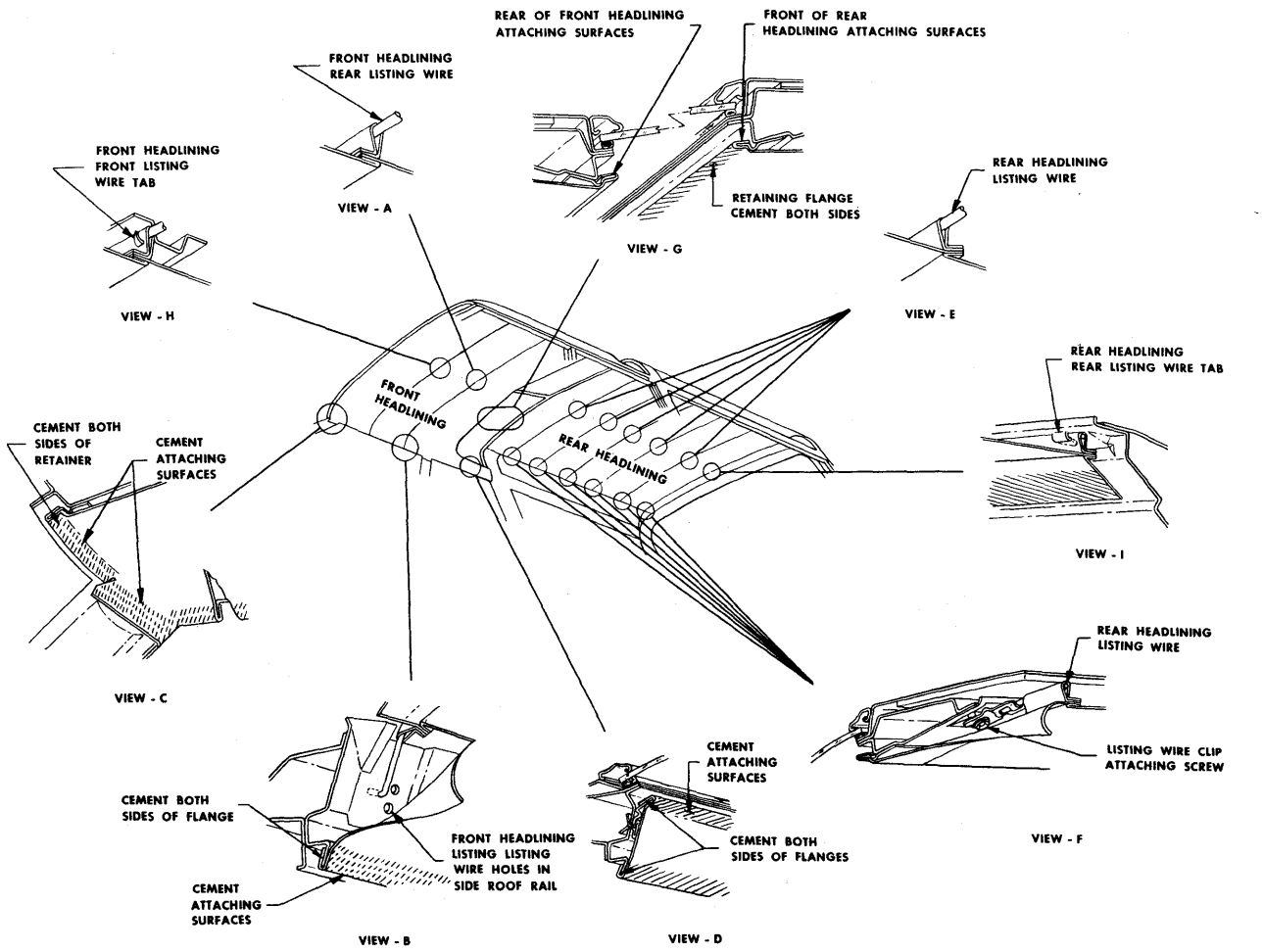

Fig. 4-7—Headlining Installation "55" and "65" Styles

Installation

1. If previously removed, install listing wires into pockets of headlining.

IMPORTANT: Listing wires removed from old headlining must be installed in corresponding pockets of replacement headlining.

2. Apply approved trim cement to headlining attaching surfaces.

3. Apply approved trim cement to metal retainers and flanges.

4. Lift headlining into body, install listing wires into holes in side roof rail, center headlining to roof, hook front listing wire over tab on roof bow and bend down tab (View "H", Fig. 4-7).

NOTE: Listing wires should rest tight against roof panel. Working from front to rear, attach headlining to retainers and flanges while stretching and removing wrinkles. Reinstall all previously removed parts.

REAR HEADLINING ASSEMBLY

Removal

1. Place protective covering over seats and floor.

2. Prior to removing headlining, remove the following items:

   a. Sunshade supports.

   b. Front skylight center division garnish molding.

   c. Side skylight front upper garnish molding.

   d. Rear roof headlining trim finish molding.

   e. All finishing lace around perimeter of headlining.

3. Carefully detach headlining at cemented edges.

4. Starting at front remove listing wires from roof inner rails (View "F", Fig. 4-7).

5. At rear listing wire bend down tab securing wire to bow (View "I", Fig. 4-7).

6. Gather or roll headlining with listing wires on outside to keep headlining clean and remove headlining assembly from car.

Installation

1. If previously removed, install listing wires into pockets of new headlining assembly.

IMPORTANT: Listing wires removed from old headlining must be installed in corresponding pockets of new headlining.

2. Apply approved trim cement to attaching surfaces of headlining material.

3. Apply approved trim cement to retaining flanges of roof panel.

4. Lift headlining into body, install center of rear listing wire over hook at rear bow and bend over tab (View "I", Fig. 4-7).

5. Working forward install remainder of listing wires into clips and secure clips to roof (View "F", Fig. 4-7).

6. Listing wires must rest tight against the roof. If necessary adjust listing wires by moving clips at attaching screws.

7. Attach entire perimeter of headlining to retaining flanges, removing wrinkles by stretching the material as required.

8. Replace previously removed parts.

SECTION 5
ROOF
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FABRIC ROOF COVER (ALL STYLES EXCEPT STATION WAGONS)

DESCRIPTION

The roof panel fabric cover is a vinyl coated fabric covering applied to the roof panel. The fabric covering is made in sections which are dielectrically joined at the seams.

On certain styles a pad is located between the fabric cover and roof panel. The pad is cemented to the roof panel with nitrile type non-staining cement. The roof panel fabric is cemented around the perimeter only and not to the pad.

On other styles the roof panel fabric is cemented to the entire surface of the roof panel with nitrile type non-staining cement.

The roof panel cover is attached at the windshield and back window opening by drive nails or staples. Drive nails are used at the belt line of the rear quarter area. A flexible retainer secures the fabric cover inside the right and left drip moldings.

NOTE: On certain styles where roof panel moldings are utilized, the fabric roof cover is not secured at the windshield opening or inside the roof drip moldings. The retainers utilized to retain the roof panel moldings also secure the fabric roof cover.

Prior to and during removal and installation of fabric roof cover, review Figure 5-1, 5-2, 5-3, 5-4 and 5-5.

Figures 5-1 and 5-2 are applicable for all styles. Figure 5-4 is to be referred to when working on styles not equipped with roof panel moldings. Figure 5-3 is applicable only to styles equipped with a pad. Figure 5-5 should be referred to when working on styles equipped with roof panel moldings.

REMOVAL

1. The following parts must be removed prior to removing the roof panel fabric cover:
   a. Windshield assembly. (except styles equipped with roof panel moldings)
   b. Roof drip molding scalps. (except styles equipped with roof panel moldings)
   c. Back window assembly.

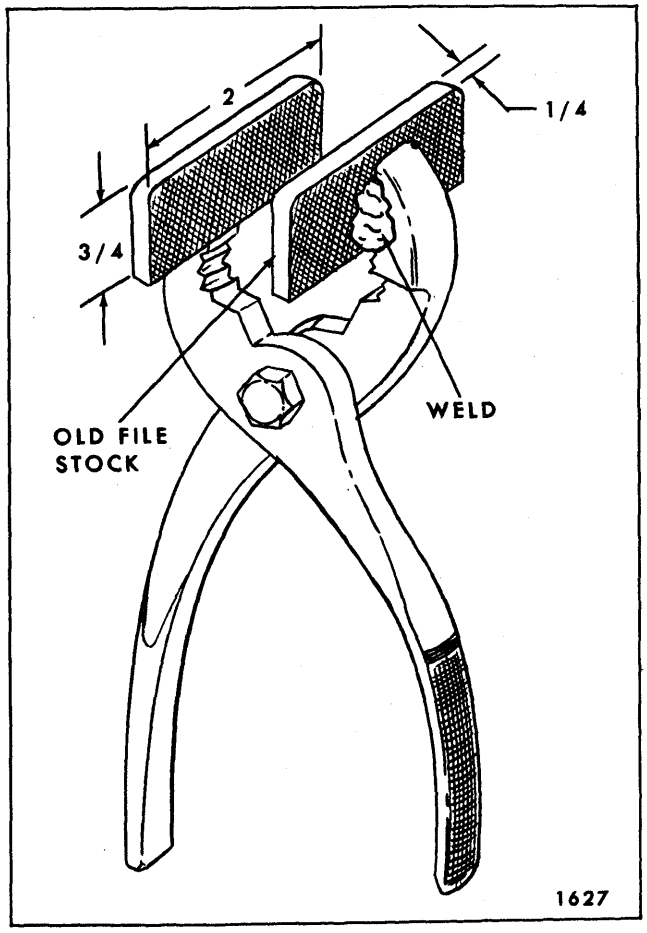

Fig. 5-1—Fabric Cover Pliers

d. Rear quarter belt reveal moldings and rear end belt reveal moldings.

e. Rear extension panel emblem and/or nameplate assembly.

f. All roof panel moldings and molding retainers (on styles so equipped). (View "B", Fig. 5-5).

2. Clean off all excess adhesive caulking material from windshield and back window openings.

3. Remove drive nails and/or staples from edge of fabric cover at windshield, back window openings, and at roof panel extension (at belt).

NOTE: Drive nails can best be removed by first driving a screwdriver or suitable tool under the heads of the nails to loosen them. Diagonal cutters or similar tool can then be used to grasp nails and twist them out. Unnecessary enlargement of holes in roof panel should be avoided.

4. Remove flexible retainers securing fabric cover inside right and left drip moldings. (View "C", Fig. 5-4). The retainers may be removed by inserting tip of screwdriver or similar tool under retainer at front of drip molding. While exerting slight outward force on drip molding with pliers, disengage fingers of retainer from drip molding flange. Do not damage drip molding. New retainers are to be used when replacing fabric cover.

NOTE: On styles equipped with roof panel moldings, front and side retainers are to be removed by first removing spring clips from weld-on studs. (View "B", Fig. 5-5).

5. Prior to removing fabric cover, application of heat to cemented areas will permit easier loosening of cemented edges.

CAUTION: Heat may be applied by lamps held 18" (minimum) from fabric only until fabric is warm. If lamps are held too close or fabric cover is heated over 200°F, the fabric may lose its grain, blister, or become very shiny.

6. Loosen cemented edges of fabric roof cover at windshield, side roof rails, back window, and rear quarter areas; then, carefully remove fabric cover from remaining cemented area of roof panel.

IMPORTANT: On styles where a pad is present, exercise care when removing fabric cover so pad will not be damaged.

7. On styles equipped with pad, inspect padding and, if necessary, replace damaged area. Padding may be removed by applying xylol solvent such as 3M Adhesive Cleaner, or equivalent to affected area. Allow solvent to dissolve adhesive and remove padding. Exercise care to avoid softening of roof panel paint finish.

8. Replace pad by cementing pad to roof panel with nitrile vinyl trim adhesive.

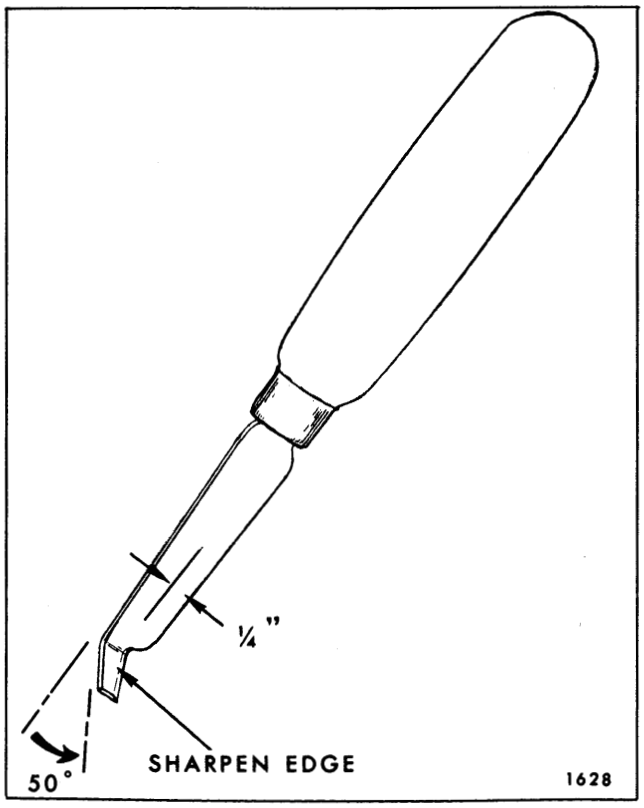

Fig. 5-2—Fabric Cover Trimming Knife

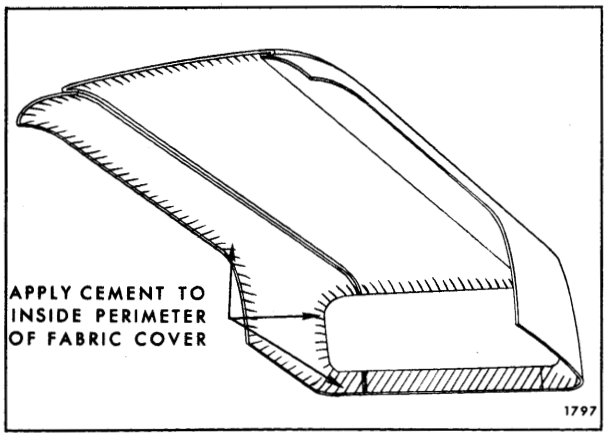

Fig. 5-3—Cementing Fabric Cover with Pad

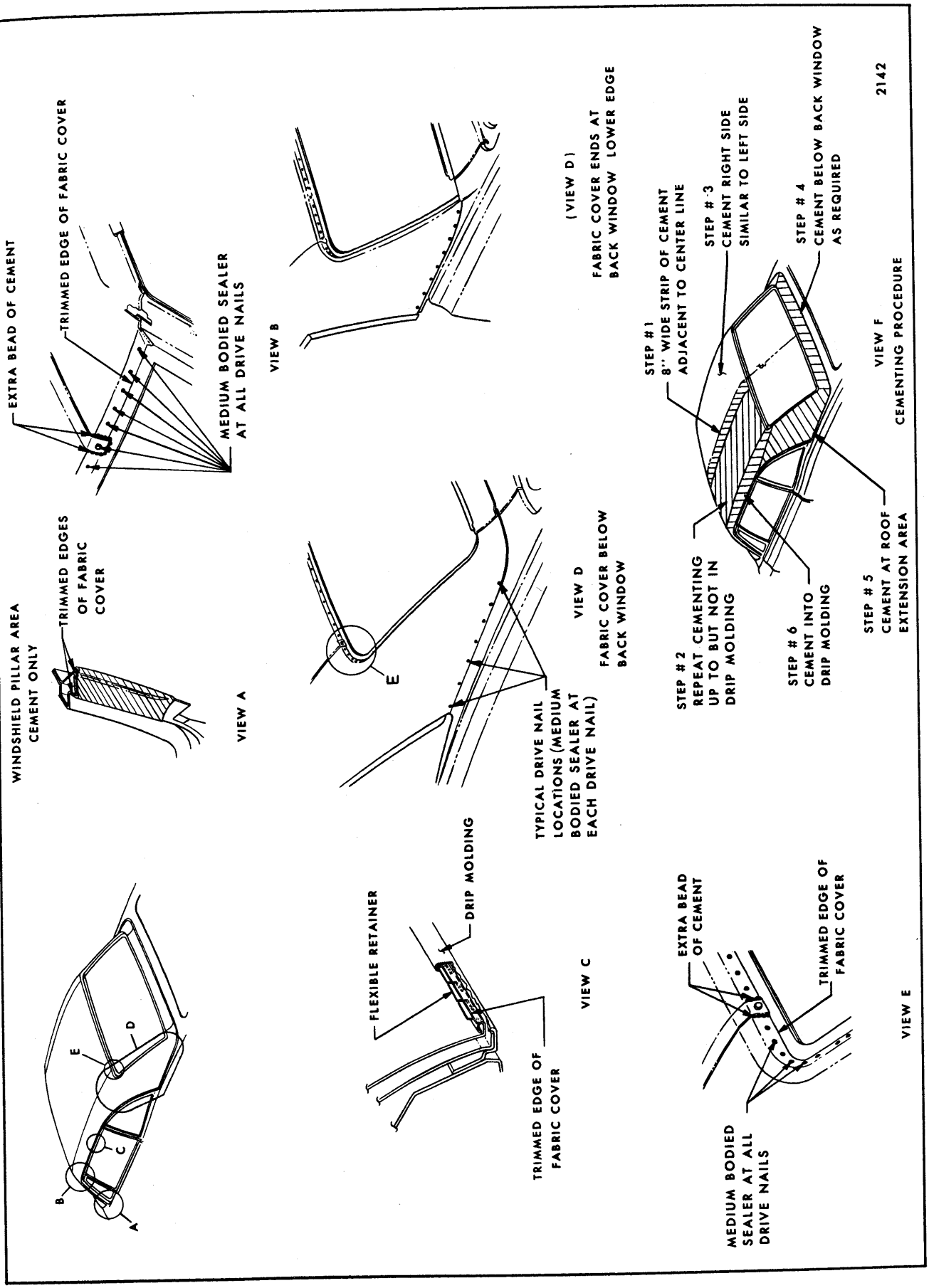

Fig. 5-4—Fabric Roof Cover Installation - Styles without Roof Panel Molding

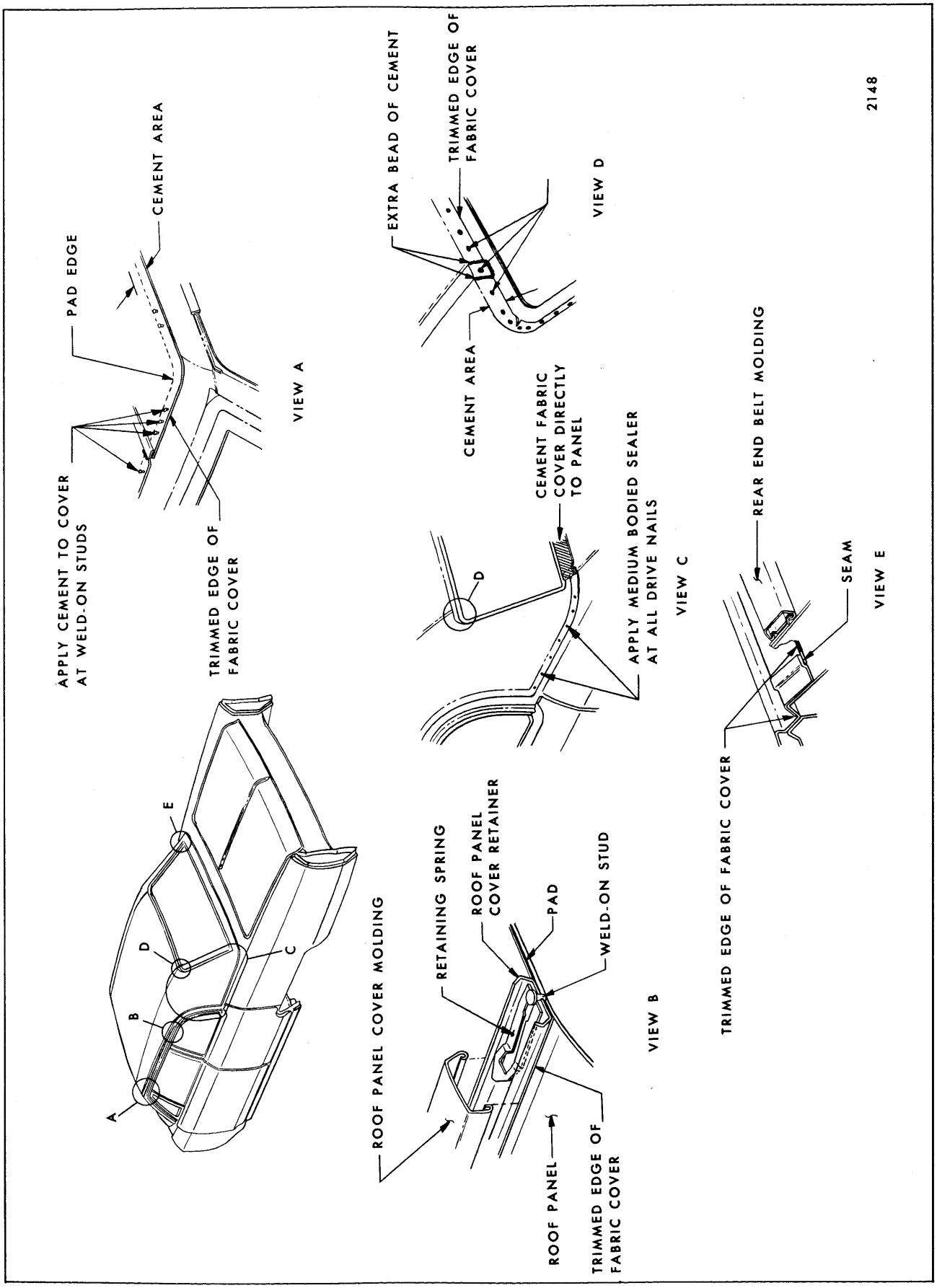

Fig. 5-5—Fabric Roof Cover Installation - Styles with Roof Panel Moldings

INSTALLATION

1. Check all cementing surfaces on body to insure a smooth surface. Cementing surface must be smooth to prevent "highlighting" of excess cement through fabric cover after new cover has been installed. Clean off old cement as required.

NOTE: A xylol solvent such as 3M Adhesive Cleaner or equivalent, should be used to remove or smooth out excess old cement. Apply solvent and allow to soak before rubbing.

CAUTION: Be certain to follow manufacturer's directions when using cleaner.

2. On styles equipped with roof panel moldings, completely mask off area of roof panel which is not covered by fabric cover. Extend tape over windshield upper reveal molding so solvent will not contact paint or adhesive caulking material. On all other styles, mask portion of windshield and back window opening where adhesive caulk material will be later applied.

3. Where possible, install new cover at room temperature (approximately 72°), to permit easier fitting and removing of wrinkles from new cover assembly.

NOTE: Where new cover is installed at temperatures below 72°, fabricated pliers as shown in Figure 5-1 will aid in removing wrinkles.

4. Determine center line of roof panel by marking center points on windshield and back window opening with tape or equivalent.

5. Fold cover lengthwise, precisely at center location. Mark center location at front and rear of cover.

6. Lay cover on roof panel and align to correspond with center line of roof panel. Determine proper material overhang at windshield and back window openings. (Approximately 2" overhang at seam area at back window and windshield opening).

7. a. On styles where pad is not present, apply an 8" wide strip of nitrile non-staining vinyl trim adhesive (such as 3M Vinyl Trim Adhesive, Permalastic Vinyl Trim Adhesive or equivalent) to the roof panel adjacent to center line of fabric roof cover.

   b. On styles equipped with pad, apply nitrile type trim adhesive to one side of exposed roof panel where fabric roof cover is attached. Make certain that cement overlaps pad approximately 1" (Fig. 5-3).

IMPORTANT: Application of nitrile vinyl trim adhesive should be as thin as possible, as an excess amount of cement may result in trapped solvents (blisters) between fabric cover and roof panel. Application of neoprene type adhesive should also be as thin as possible as an excess amount of cement may result in "highlights" (cement build-up). For these reasons, a mohair roller or equivalent should be used to apply a thin coat of cement to fabric cover and roof panel; however, if necessary, a brush may be used. Exercise care when applying cement on lining side (inner layer) of cover to prevent cement from contacting vinyl side.

NOTE: If nitrile non-staining cement is not available, neoprene type non-staining weatherstrip cement (3M Weatherstrip Cement or equivalent) may be used.

8. a. On styles without pad apply an 8" wide strip of cement to fabric roof cover.

   b. On styles equipped with pad, install drive nail at seam areas only in back window opening. Apply cement to outer perimeter of fabric roof cover that will contact the portion of roof panel only that cement has previously been applied. Allow to dry.

NOTE: Allow approximately 15 minutes for cement to dry.

9. Apply cemented portion of fabric roof cover to cemented portion of roof panel making absolutely certain center of cover aligns with center of windshield and back window opening.

10. Repeat 7a and 8a until cover is completely cemented up to but not in drip moldings or weld-on studs for roof panel molding retainers.

NOTE: Make certain that cover is completely free of wrinkles and seams are straight. Fabric cover pliers (see Fig. 5-1) may be used in aiding removal of wrinkles.

NOTE: When installing fabric cover to inside of drip molding, a small thin-edged piece of plastic or similar material may be used to insert cover in place inside drip rails. Exercise care so damage will not occur to cover when performing this operation.

11. Cut relief notches in fabric cover at radius of windshield and back window opening and at all weld-on studs that are present. On styles where roof panel moldings are used, cut relief notches along front and sides of cover to accommodate weld-on studs. After notches have been cut cement fabric cover at these areas.

12. Using hammer and flat end punch install drive nails at top of windshield and back window openings. (View "B" and "E" Fig. 5-4 shows typical drive nail installation). Drive nails are not to be used at weld-on studs on roof panel on styles equipped with roof panel moldings.

    NOTE: When installing drive nails it is best to first use an awl or similar tool to initiate a hole in metal. Drive nails should be spaced approximately 2" apart on styles with felt pad and 3" apart for other styles in a straight area, and 1" apart at a radius. Strike drive nails only hard enough to seat them. Installation of drive nails should also be as low as possible in windshield and back window opening. This will aid in preventing cutting edge of fabric cover due to a missed hammer blow when drive nails are installed.

13. On styles where fabric cover extends below back window opening, install cover in the following manner.

    a. Align seam on cover with coach weld joints on rear compartment front panel.

    b. Cement the cover to the rear compartment front panel (between coach weld joints only) in the same manner as outlined in original installation.

14. Cement fabric at left roof extension area in the same manner as described in steps 7a, b and 8a, b. Pull fabric down and rearward and fasten (cement only) into back window opening. When operation is completed, fabric cover should be free of all wrinkles and draws in this area.

15. Repeat step 14 on right side.

16. Make sure that fabric cover is completely cemented around back window opening.

17. Using flat end punch and hammer, install drive nails at side of back window opening and roof extension area (belt).

18. On styles equipped with roof panel moldings, position roof panel cover retainers over weld-on studs and install retaining clips.

19. On styles where roof panel cover extends down windshield pillar, cement fabric roof cover to windshield pillar in same manner as outlined in original installation.

20. On styles equipped with roof panel moldings, trim fabric cover along roof panel molding retainers. (View "B", Fig. 5-5). Trimming tool (J-21092) or suitable small knife may be used to trim cover. (See Fig. 5-2). Do Not Damage Paint Finish. At front corners, raise cemented edge of cover and using scissors or sharp knife cut radius so roof panel moldings cover cut edge. Recement fabric cover to roof panel. (See View "A", Fig. 5-5). Remove masking tape from roof panel.

21. On all styles trim material along belt line at roof extension area. On styles where fabric cover extends below back window, trim cover along rear end belt molding area. If it is necessary to trim material from outer edge of fabric cover around windshield or back window opening, raise cemented edge and cut as required. Edge of fabric cover should exist as shown in View "B" and "E", Fig. 5-4. Do Not Damage Paint Finish.

22. On styles not equipped with roof panel moldings perform the following operations.

    a. Cement fabric cover into drip moldings.

    b. Using fabric cover trimming tool (J-21092), or suitable small knife, trim fabric cover just under lip of roof drip molding. (View "C", Fig. 5-4). A tool may be fabricated to trim material along side roof rail drip moldings as illustrated in Figure 5-2.

    c. Prior to installing flexible retainers in side roof rail drip moldings, spread them slightly to insure a tight fit.

    d. Install flexible retainer starting at radius area above rear door or quarter window. Working toward rear of body, carefully insert retainer into drip molding so that fingers are under drip molding flange. (See View "C", Fig. 5-4). Use fibre or wood block with slight concave end to push retainer downward. DO NOT DAMAGE RETAINER.

23. Apply medium bodied sealer at the following locations:

    1. Each drive nail.

    2. All relief notches cut in fabric cover except at roof panel molding areas.

24. Remove masking tape from windshield and back window opening.

25. Install all previously removed moldings and assemblies.

    NOTE: Normally minor creases or fold marks will gradually disappear after cover assembly has been in service.

IMPORTANT: If nitrile adhesive is used, fabric cover should be allowed to dry approximately four hours after installation. If fabric cover is subjected to extreme direct sunlight or heat immediately after installation, blistering due to trapped solvents may occur.

26. Use mineral spirits, kerosene or equivalent to remove windshield and back window adhesive caulking material from fabric cover.

IMPORTANT: Do not apply excessive pressure when wiping cover as damage may occur to fabric cover.

FABRIC ROOF COVER (STATION WAGON STYLES)

The procedure for removal and installation of the fabric cover on station wagon styles is divided into two sections. The roof panel fabric cover procedure is followed by the tailgate fabric cover procedure.

NOTE: The roof panel fabric cover assembly is ordered as a separate service part. The fabric used on the tailgate is ordered as "yardage material" in the normal manner.

DESCRIPTION

The roof panel fabric cover is cemented to the entire surface of the roof panel and tailgate with nitrile type non-staining cement. In addition to cement, the fabric cover is attached at the windshield by drive nails and in the tailgate opening by two screws at the seams. Drive nails are used at the belt line of the back body opening pillar. A flexible retainer secures the fabric cover inside the right and left drip moldings.

Prior to and during removal and installation of fabric roof cover, review Fig. 5-1, 5-2 and 5-6.

REMOVAL

1. The following parts must be removed prior to removing the roof panel fabric cover:

   a. Windshield pillar drip molding.

   b. Windshield assembly.

   c. Back body opening upper and side reveal moldings.

   d. Roof drip molding scalps.

   e. Back body pillar cover finishing molding retainers.

   f. Tailgate upper glass run channel.

2. Clean off all excess adhesive caulking material from windshield opening.

3. Remove screws, drive nails and/or staples from edge of fabric cover at windshield, and at back body pillar.

NOTE: Drive nails can best be removed by first driving a screwdriver or suitable tool under the heads of the nails to loosen them. Diagonal cutters or similar tool can then be used to grasp nails and twist them out. Unnecessary enlargement of holes in roof panel should be avoided.

4. Remove flexible retainers securing fabric cover inside right and left drip moldings. (See Section A-A, Fig. 5-6). The retainers may be removed by inserting tip of screwdriver or similar tool under retainer at front of drip molding. While exerting slight outward force on drip molding with pliers, disengage fingers of retainer from drip molding flange. DO NOT DAMAGE DRIP MOLDING.

NOTE: New flexible retainers should be used when replacing fabric cover.

5. Prior to removing fabric cover, application of heat to cemented areas will permit easier loosening of cemented edges.

CAUTION: Heat may be applied by lamps held 18" (minimum) from fabric only until fabric is warm. If lamps are held too close or fabric cover is heated over 200°F, the fabric may lose its grain, blister, or become very shiny.

6. Loosen cemented edges of fabric roof cover at windshield area, drip moldings, back body opening, and back body pillar areas; then, carefully remove fabric cover from remaining cemented area of roof panel.

INSTALLATION

1. Check all cementing surfaces on body to insure a smooth surface. Cementing surface must be smooth to prevent "highlighting" of excess cement through fabric cover after new cover has been installed. Clean off old cement as required.

NOTE: A xylol solvent such as 3M Adhesive Cleaner or equivalent, should be used to remove or smooth out excess old cement. Apply solvent and allow to soak before rubbing.

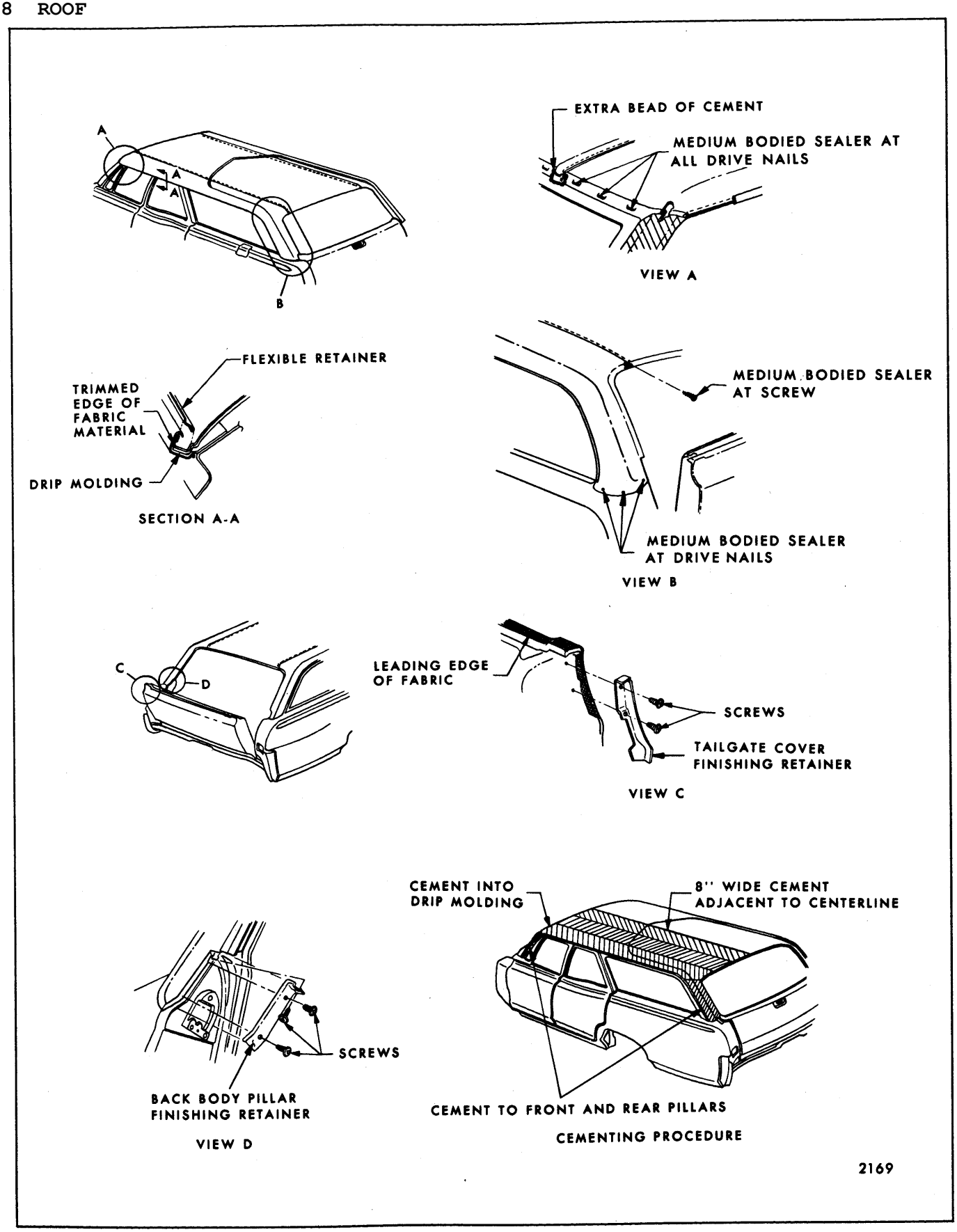

Fig. 5-6—Fabric Roof Cover Installation - Station Wagon Styles

CAUTION: Be certain to follow manufacturer's directions when using cleaner.

2. Mask painted surfaces below belt line, windshield pinchweld flange, instrument panel, and back body opening to protect painted surfaces.

CAUTION: Avoid prolonged contact of saturated masking materials to painted surfaces or paint etching may result.

3. Where possible, install new cover at room temperature (approximately 72°F), to permit easier fitting and removing of wrinkles from new cover assembly.

NOTE: Where new cover is installed at temperatures below 72°F, pliers fabricated as shown in Figure 5-1, will aid in removing wrinkles.

4. Determine center line of roof panel by marking center points on windshield and back body opening with chalk or equivalent.

5. Fold cover lengthwise, precisely at center location. Mark center location at front and rear of cover.

6. Lay cover on roof panel and align to correspond with center line of roof panel. Determine proper material overhang at windshield and back body openings. (Approximately 2" overhang at seam area at back body and windshield opening).

7. Using a mohair roller or brush, apply an 8" wide strip of nitrile non-staining vinyl trim adhesive (such as 3M Vinyl Trim Adhesive, Permalastic Vinyl Trim Adhesive or equivalent) to the roof panel adjacent to center line of fabric roof cover.

IMPORTANT: Application of nitrile vinyl trim adhesive should be as thin as possible, as an excess amount of cement may result in trapped solvents (blisters) between fabric cover and roof panel. Application of neoprene type adhesive should also be as thin as possible as an excess amount of cement may result in "highlights" (cement build-up). For these reasons, a mohair roller or equivalent should be used to apply a thin coat of cement to fabric cover and roof panel; however, if necessary, a brush may be used. Exercise care when applying cement on lining side (inner layer) of cover to prevent cement from contacting vinyl side.

NOTE: If nitrile non-staining cement is not available, neoprene type non-staining weatherstrip cement (3M Super Weatherstrip Cement or equivalent) may be used.

8. Apply an 8" wide strip of cement to fabric roof cover.

NOTE: Allow approximately 15 minutes for cement to dry.

9. Apply cemented portion of fabric roof cover to cemented portion of roof panel making absolutely certain center of cover aligns with center of windshield and back body opening.

10. Repeat 7, 8 and 9 until cover is completely cemented up to and in drip moldings. Make certain that cover is completely free of wrinkles and seams are straight. Fabric cover pliers (See Fig. 5-1) may be used in aiding removal of wrinkles.

NOTE: When installing fabric cover to inside of drip molding, a small thin edged piece of plastic, or similar material, may be used to insert cover in place inside drip molding. Exercise care to prevent damage to cover when performing this operation.

11. Cement fabric cover to windshield pillar and back body pillar area in the same manner as original installation. At windshield and back body openings cement cover into opening.

12. Using hammer and flat end punch install drive nails at windshield opening.

NOTE: When installing drive nails it is best to first use an awl or similar tool to initiate a hole in the metal. Drive nails should be spaced approximately 3" apart in a straight area, and 1" apart at a radius. Strike drive nails only hard enough to seat them. Installation of drive nails should also be low as possible in windshield opening. This will aid in preventing cutting edge of fabric cover due to a missed hammer blow when drive nails are installed.

13. Install drive nails at belt line of back body pillar area and screws in back body opening. Do not use awl for punching holes at belt line. Use existing holes or drill.

14. Trim off material at windshield opening, windshield pillar, back body opening, and back body pillar.

15. Using fabric cover trimming tool (J-21092), or suitable small knife, trim fabric cover just under lip of roof drip molding (Section A-A, Figure 5-6). A tool may be fabricated to trim material along roof drip rail moldings as illustrated in Figure 5-2.

16. Prior to installing flexible retainers in side

roof rail drip moldings, spread them slightly to insure a tight fit.

17. Install flexible retainer starting at front end of drip molding. Working toward rear of body, carefully insert inner edge of retainer into drip molding and snap fingers of retainer under drip molding flange. Use fibre or wood block with slight concave end to push retainer downward. DO NOT DAMAGE RETAINER.

18. Apply medium bodied sealer at the following locations at each drive nail and at 2 screws at seam area in back body opening.

19. Remove all masking tape.

20. Install all previously removed moldings and assemblies.

NOTE: Normally minor creases or fold marks will gradually disappear after cover assembly has been in service.

IMPORTANT: If nitrile adhesive is used, fabric cover should be allowed to dry approximately four hours after installation. If fabric cover is subjected to extreme direct sunlight or heat immediately after installation, blistering due to trapped solvents may occur.

TAIL GATE FABRIC COVER

DESCRIPTION

The tail gate fabric cover is a vinyl coated fabric of one section and is cemented to the surface of tailgate.

REMOVAL

1. The following parts must be removed prior to removing the tailgate fabric cover.

   a. Tail gate belt reveal molding.

   b. Tail gate window lower reveal molding.

   c. Tail gate cover finishing retainer.

2. Prior to removing fabric cover, application of heat to cemented areas will permit easier loosening of cemented edges.

CAUTION: Heat may be applied by lamps held 18" (minimum) from fabric only until fabric is warm. If lamps are held too close or fabric cover is heated over 200°F, the fabric may lose its grain, blister, or become very shiny.

3. Loosen cemented edges of fabric cover on tail gate, then carefully remove cover from remaining cemented area.

INSTALLATION

1. Check cementing surfaces on body to insure a smooth surface. Cementing surface must be smooth to prevent "highlighting" of excess cement through fabric cover after new cover has been installed. Clean off old cement as required.

NOTE: A xylol solvent such as 3M Adhesive Cleaner or equivalent, should be used to remove or smooth out excess old cement. Apply solvent and allow to soak before rubbing.

CAUTION: Be certain to follow manufacturer's directions when using cleaner.

2. Mask area below fabric break line on tailgate to protect painted surfaces.

CAUTION: Avoid prolonged contact of saturated masking materials to painted surfaces or paint etching may result.

2. To permit easier fitting and removing of wrinkles from new cover assembly, where possible, install new cover at room temperature (approximately 72°).

3. Position and install fabric cover on tailgate as follows:

   a. Place fabric cover on protected surface with inner layer of material exposed.

   b. Apply adhesive material to entire inner surface of fabric roof cover.

   c. Apply adhesive material to exposed surface of tail gate panel including inner flange.

   d. Position fabric to top leading edge of tail gate panel and work material down to molding attaching holes. (See View "C", Fig. 5-6).

   e. Wrap fabric around flange on tailgate.

   f. Trim off excess material on tail gate flange. (View "C", Fig. 5-6).

4. Install all previously removed moldings and assemblies.

IMPORTANT: If nitrile adhesive is used, fabric cover should be allowed to dry approximately four hours after installation. If fabric cover is subjected to extreme direct sunlight or heat immediately after installation, blistering due to trapped solvents may occur.

5. Remove all masking tape.

FRONT AND SIDE SKYLIGHT WINDOWS ("55" AND "65" STYLES)

DESCRIPTION

The front and side skylight window glass are retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a skylight window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to skylight window glass removal and installation, will be covered in this section.

REMOVAL

1. Remove glass as outlined in General Information Section. If the original glass is to be reused, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use an oil base solvent. Any traces of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around glass opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of clip is bent away from body metal more than 1/16 of an inch, either reform or replace clip. Check all clip screws and tighten as required. Place protective covering over interior trim below window opening.

2. Using black weatherstrip adhesive, cement flat rubber spacers #4848472 or equivalent (.18 x .5 x 1.0) to window opening pinchweld flanges at "X" locations as shown in Circle "A" in Figure 5-7.

NOTE: Use sufficient adhesive to obtain a watertight seal beneath spacer, however, do not allow excessive squeeze-out. Weatherstrip adhesive is not compatible with the replacement adhesive material and waterleaks may develop at locations where these two materials are used together to form a seal.

3. Using black weatherstrip adhesive, cement rectangular spacers #4404196 or equivalent (.30 x .44 x 1.0) to window opening rabbet at "Y" locations shown in Section "B-B" in Figure 5-7.

4. If the front skylight is being installed, attach glass handling suction cups to outer surface of glass and position glass in body opening (See Fig. 5-8).

   If side skylight is being installed, carry glass to body with aid of a helper as shown in Figure 5-9.

   Supporting glass with one hand, extend other arm into body and back through window opening as shown in Figure 5-10 and lower glass into position.

5. Check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange should be equal with a minimum overlap of 3/16". Overlap across top may be varied by changing lower glass support spacers. Both .30 thick (#4404196 or equivalent) and .34 thick (#4871330 or equivalent) rectangular spacers are available as service parts.

6. Check relationship of glass contour to body opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, correction can be made by any one of the following methods:

   a. Reposition flat spacers.

   b. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange or by allowing bead on glass to exceed 3/8" height at gap areas.

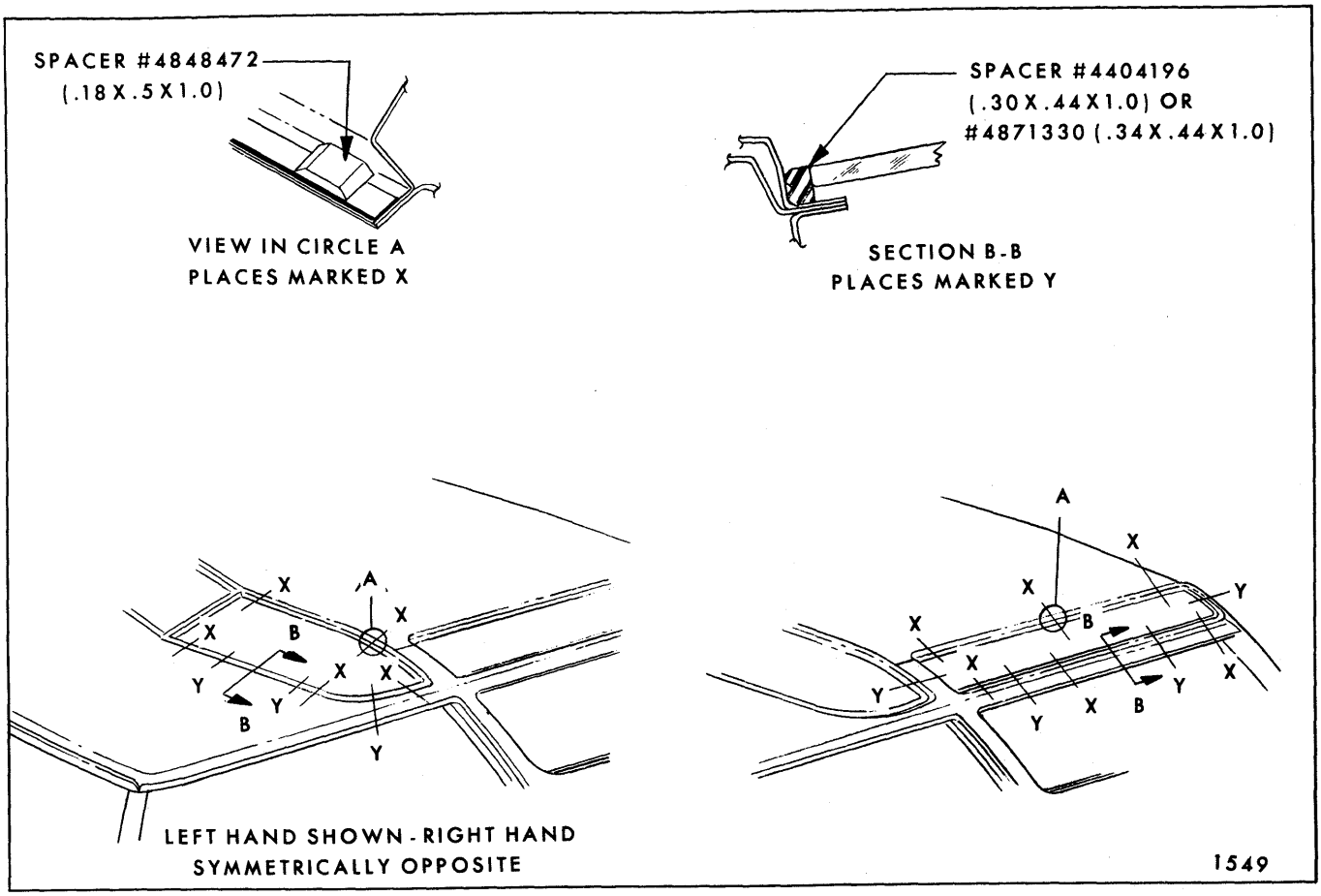

Fig. 5-7—Front and Side Skylight Rubber Spacer Installation

c. Change glasses - another glass may fit opening better.

d. Rework pinchweld flange.

7. After final adjustments have been made and glass is in proper position, apply pieces of masking tape over edges of glass and body (see View "A" in Fig. 5-8 or 5-10, depending on window being installed). Tape on glass can be aligned with tape on body to guide glass into opening during installation.

8. Apply one inch masking tape completely around inner surface of glass 1/4" inboard from outer edge (see Fig. 5-11). Removal of tape after glass installation will aid in clean-up and give a smooth even edge to adhesive material.

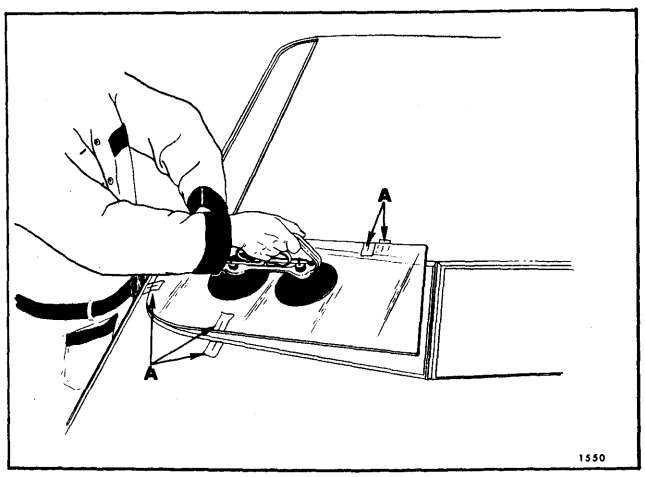

Fig. 5-8—Glass Suction Cup Usage

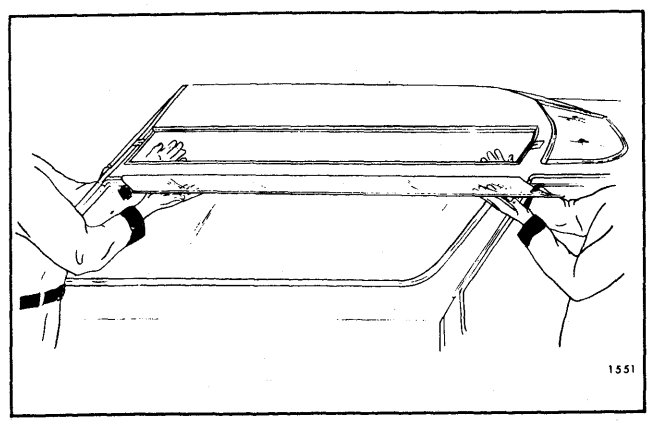

Fig. 5-9—Side Skylight Window Installation

9. Using a clean lint-free cloth liberally dampened with Adhesive Caulking Primer or equivalent (supplied in kit #4226000), briskly rub primer over original adhesive material remaining on pinchweld flange. Perform the following steps while allowing primer to dry for 5 to 10 minutes.

NOTE: If the pinchweld flange has been repainted, prime pinchweld flange with Paint Surface Primer (or equivalent). Paint Surface Primer is available as a service part.

CAUTION: Use extreme care to avoid spilling any primer solution on trim or painted surfaces. Wipe any spills immediately as primers will etch trim or interior paint finishes on contact.

10. Wipe surface of glass to which bead of adhesive material will be applied (between applied masking tape and edge of glass) with a clean water-dampened cloth. Dry glass with a clean cloth.

11. Positioning gun and nozzle as shown in Figure 5-11, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around edge of glass.

NOTE: Adhesive caulking material begins to cure after 15 minutes exposure to air; therefore, perform the following steps immediately and install glass in opening as quickly as possible.

12. Install glass in opening, focus attention on tape guides previously applied to obtain proper positioning.

NOTE: When installing front skylight, position outer lower corner first as shown in Figure 5-8, and lower glass into opening.

13. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the skylight glass.

14. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges

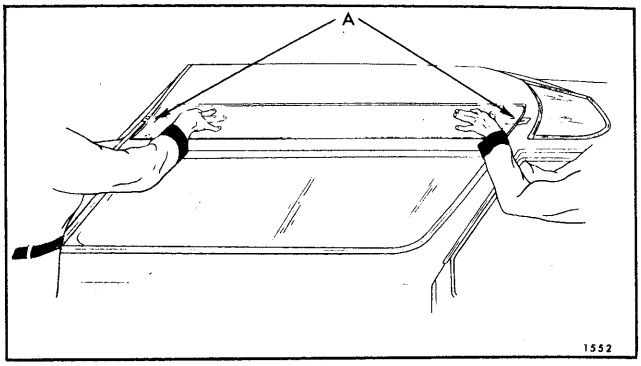

Fig. 5-10—Side Skylight Window Installation

to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.

15. Watertest installation immediately using cold water spray.

16. Remove masking tape from inside of glass.

17. Install reveal moldings, inside garnish moldings and previously removed parts.

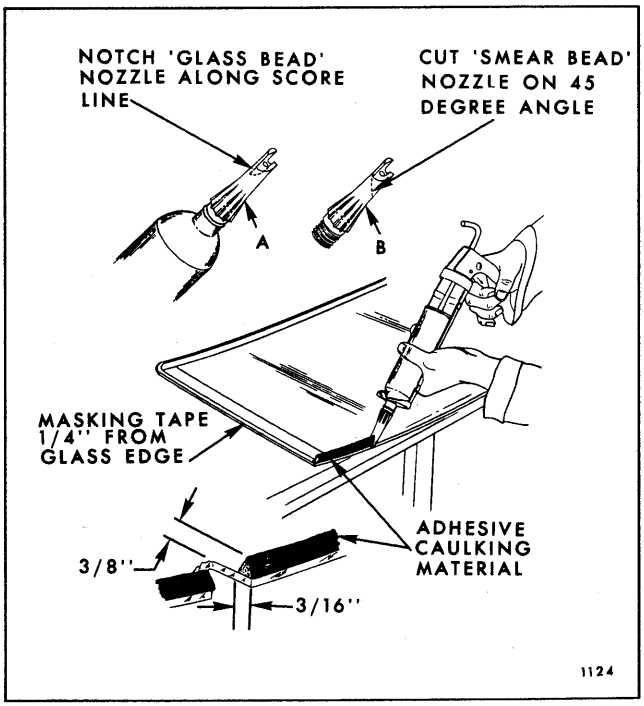

Fig. 5-11—Adhesive Caulking Material Application - Extended Method

SECTION 6
FOLDING TOP

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FOLDING TOP TRIM ASSEMBLY (COMPLETE)

All convertible top trim cover assemblies incorporate a spring-loaded top material hold-down cable along the right and left side roof rails. The cables are installed through a retaining pocket in the top material and are fastened at the front and rear side rails by attaching screws. The cables are designed to hold the top material tight against the side roof rail stay pads, thus minimizing air leakage between the top material and the stay pads.

All dropping back curtain assemblies incorporate, as an integral part of the back curtain upper valance, an elastic webbing. The elastic webbing is located in the upper corners of the back curtain. The elastic webbing reduces tension on the zipper assembly at the radius, providing improved zipper operation.

On certain styles the back curtain assemblies incorporate a hard, curved glass back window. This back window is dielectrically bonded to the vinyl back curtain material and is not serviced as a separate item. On other styles, the back curtain incorporates a pliable plastic window.

REMOVAL OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. Place protective covers on all exposed panels which may be contacted during procedure.

2. Remove rear seat cushion and back.

CAUTION: Disconnect rear seat speaker wire if present.

3. Remove right and left folding top compartment side trim panels.

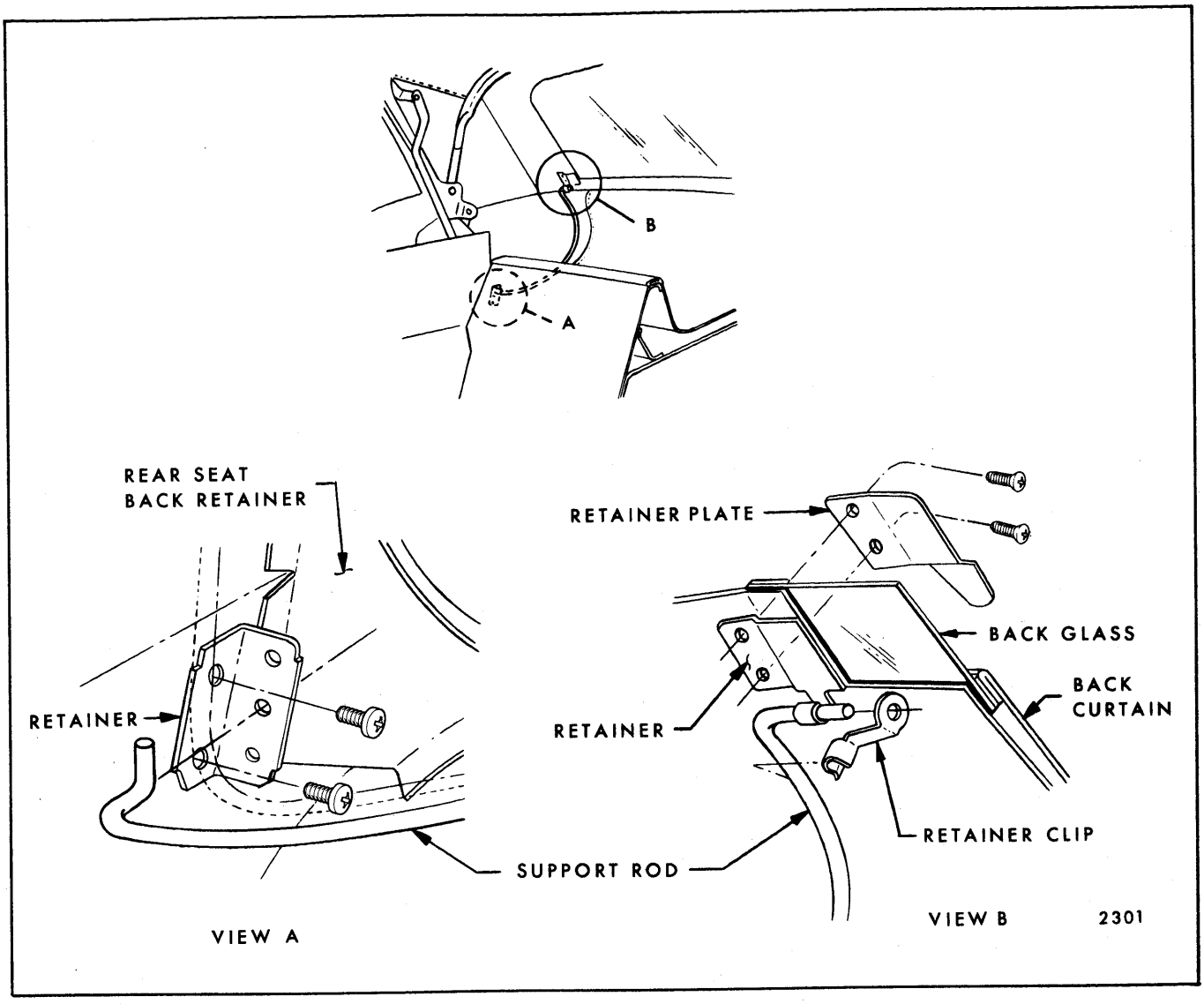

Fig. 6-1—"B & C" Body Back Glass Support Rod Attachments

4. Remove right and left side roof rail rear weatherstrip attaching screws: then remove weatherstrips from rails.

5. Detach folding top quarter flaps from side roof rear rails.

6. On styles equipped with back glass support rods, disengage right and left rods from back curtain (Fig. 6-1).

7. Lower top to "stacked" position.

8. Remove remaining side roof rail weatherstrip attaching screws; then remove weatherstrips from rails.

9. Remove front roof rail front and rear weatherstrips.

10. Detach top material from front roof rail (Fig. 6-2).

11. Detach top material flaps from side roof front rail (Fig. 6-2).

12. Raise top and lock to windshield header.

13. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (See Views "A and B" in Fig. 6-3.)

14. Pull both hold-down cables forward until cables are completely removed from top material retaining pockets.

15. At underside of front bow, remove screws securing listing pocket retainer to bow (Fig. 6-4).

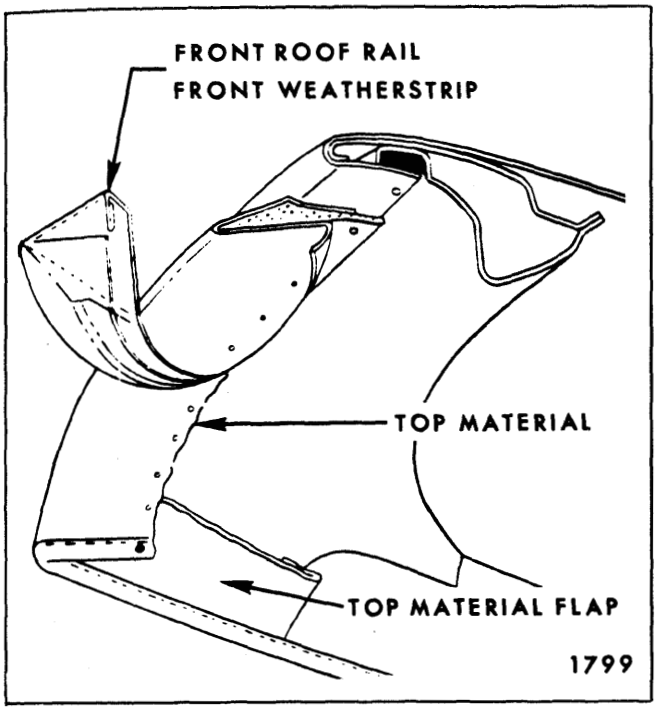

Fig. 6-2—Top Material At Front Roof Rail

16. Push top material upward sufficiently until retainer is disengaged from bow; then remove retainer from listing pocket.

17. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-5).

18. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-6).

19. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel

20. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-7). Reference marks should be transferred to new back curtain when step 6 of installation procedure is performed.

NOTE: Reference marks must be made below upper edge of rear trim stick.

21. To establish relationship of old top material to its position on rear trim sticks. Cut selvage end of top material off flush with lower edge of trim sticks.

CAUTION: When cutting top material, be careful not to cut lower selvage edge of back curtain assembly.

22. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 6-8). Reference marks for trim sticks should be transferred to new top material when step 28 of installation procedure is performed.

23. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow. Detach top material from rear roof bow and from trim sticks, then remove top cover assembly (Fig. 6-9).

24. Lock top to windshield header. Install radius end of each adjustable spacer stick to fit against center roof bow. Install opposite end of spacer stick so that metal plate fits under rear roof bow. Spacer sticks should be installed along inboard edge of side stay pad (Fig. 6-10).

NOTE: The approximate dimension for location of spacer sticks, measuring outboard from centerline dimple of rear roof bow, is 19-3/4" for "B & C" Body Styles, 15-1/2" for "Z" Body Styles and 19-11/16" for "A" Body Styles. (See Dimension "Y" in Fig. 6-10.)

While exerting rearward pressure on rear bow to draw side stay pads taut, extend spacer sticks until they fit snugly between center bow and rear roof bow, then tighten wing nuts.

25. Spacer sticks may be fabricated as shown in Figure 6-11.

26. Temporarily tie or tape rear bow to rear side roof rails. (See Fig. 6-10.) Detach nylon webbing, side stay pads and back curtain assembly from rear bow.

27. Remove rear trim stick with attached back curtain assembly and top compartment bag from body and place on clean, protected surface.

28. Remove right and left nylon webbing from rear trim stick on styles so equipped.

29. Using chalk, or other suitable material, mark ends of rear quarter trim sticks on vinyl surface of back curtain material (Fig. 6-12). Reference marks for trim sticks should be

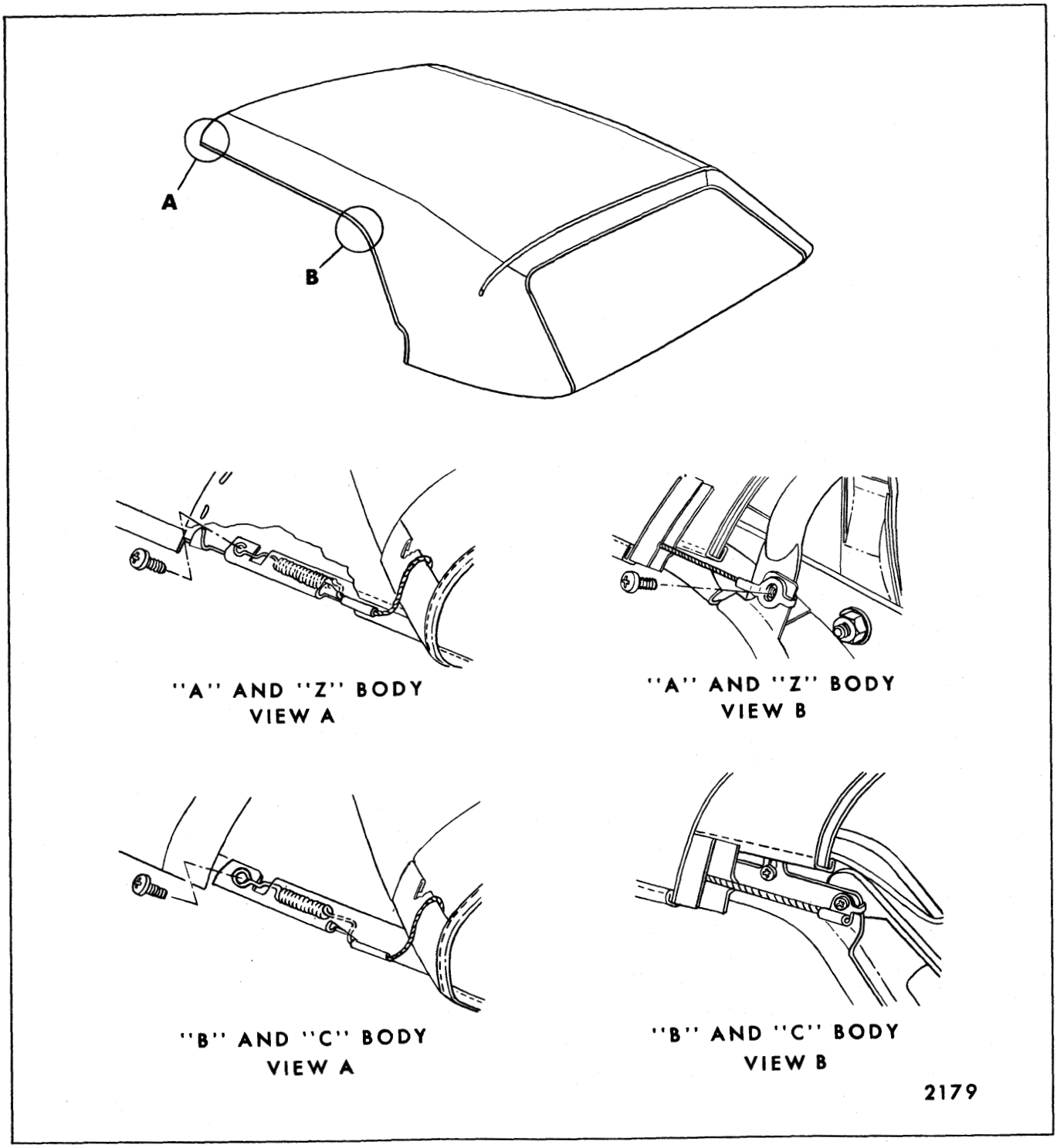

Fig. 6-3—Convertible Top Material Hold Down Cable

transferred to new back curtain material when step 6 of installation procedure is performed.

30. Remove back curtain assembly from rear and rear quarter trim sticks.

31. Remove side stay pads. Stay pads are attached to front roof rail and front and rear bows with tacks; to center bow with screws.

INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. If new top is being installed but it was impossible to perform step 24 of removal procedure, pre-set spacer sticks to shortest length and install between center and rear roof bow (Fig. 6-10). Adjust sticks so that

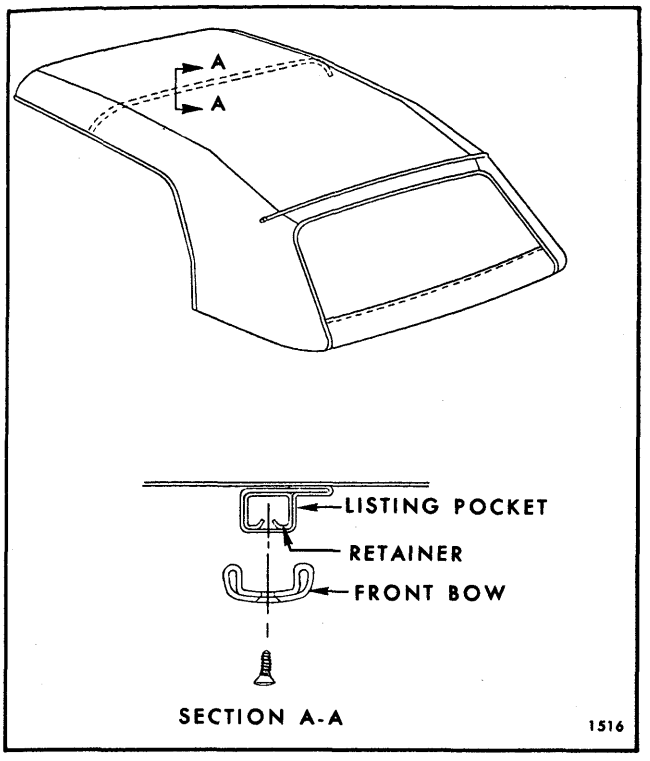

Fig. 6-4—Listing Pocket Retainer

dimension "X" in Figure 6-10 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 14-7/8" on "B & C" Styles, 16-5/8" on "Z" Styles and 16-1/64" on "A" Styles. Tie or tape rear bow to rear side roof rails.

NOTE: In all cases, above dimension may be changed slightly within tolerances to correspond

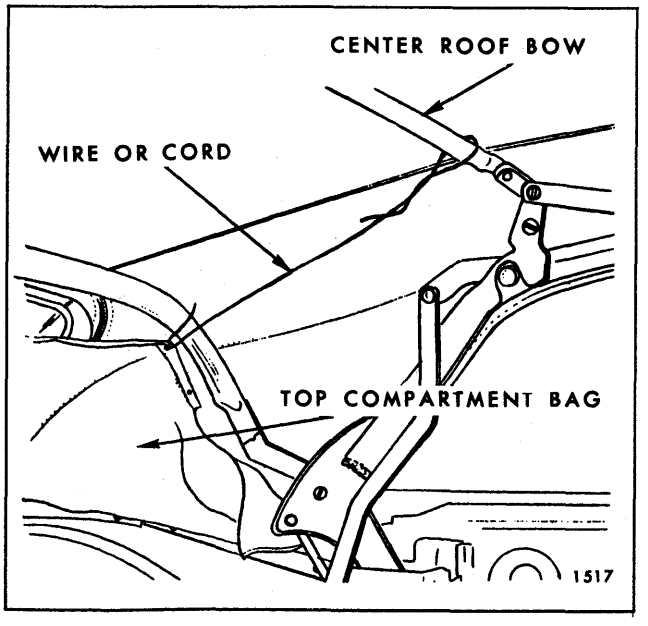

Fig. 6-5—Top Compartment Bag Tied To Center Bow

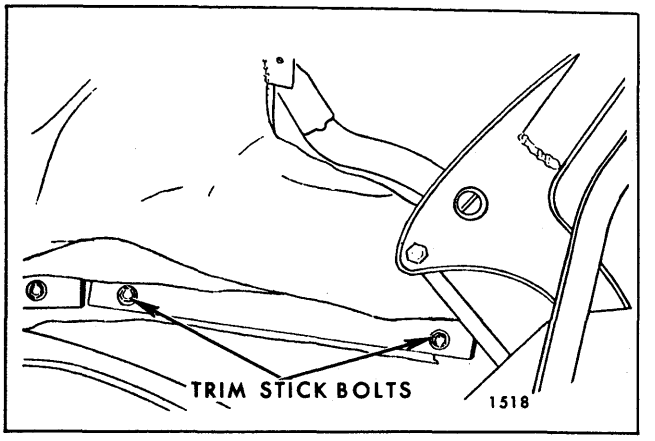

Fig. 6-6—Rear Quarter Trim Stick

with new top after tryout. Dimension should be equal on both right and left sides.

2. Tack side stay pads in conventional manner to rear roof bow and stay tack pads to front roof rail. Make sure inboard edge of pad is properly aligned within depressions in bow and rail. Stay tack pad to front bow. Install pad to center bow with screws. Make sure inboard edge of pad is properly aligned within depression in bow. Install stay pad wadding in conventional manner using an approved trim cement. (Fig. 6-13 for "A" Body, Fig. 6-14 for "B" Body, Fig. 6-15 for "C" Body and Fig. 6-16 for "Z" Body.)

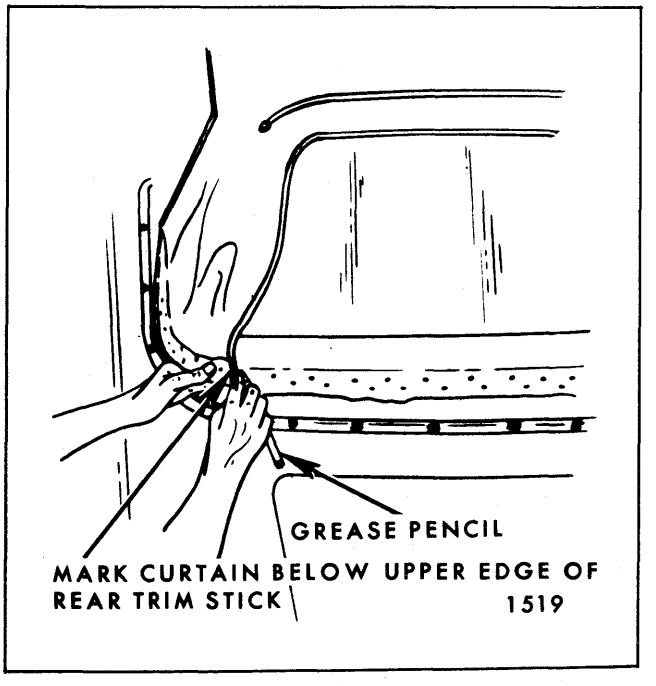

Fig. 6-7—Locating Edge of Top Material

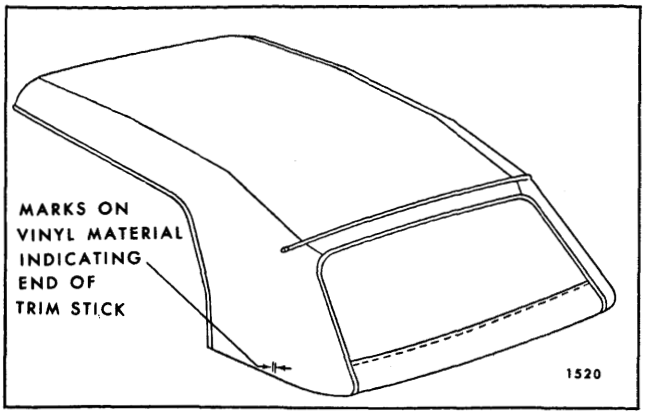

Fig. 6-8—Marking Top Material

3. Trim salvage end of side stay pads just forward of rear rolled edge of rear roof bow (Fig. 6-13 for "A" Body, Fig. 6-14 for "B" Body, Fig. 6-15 for "C" Body and Fig. 6-16 for "Z" Body).

4. Distance from center of center bow to rolled forward upper edge of rear roof bow is 14-7/8" for "B & C" Styles, 16-5/8" for "Z" Styles and 16-1/64" for "A" Styles.

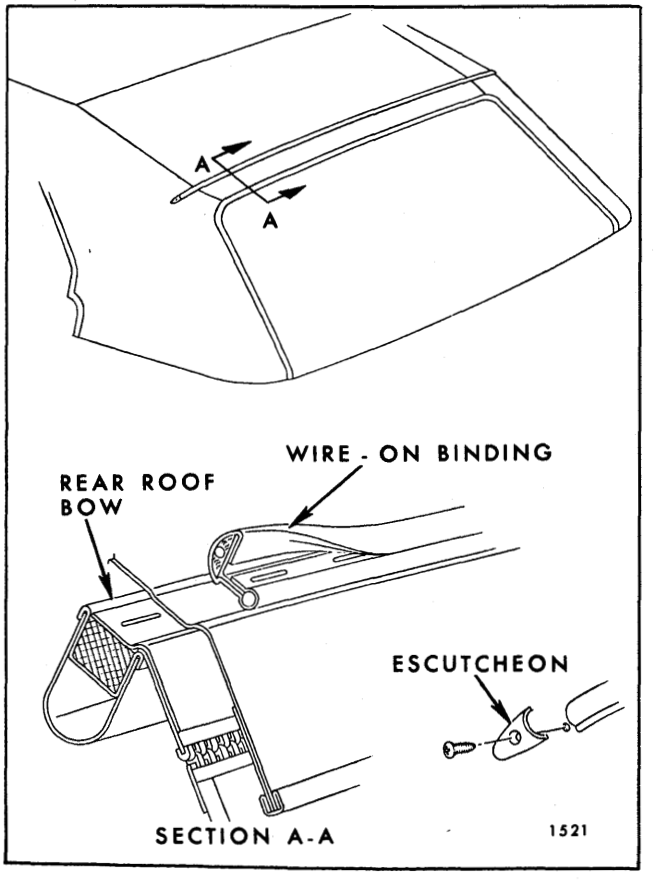

Fig. 6-9—Rear Roof Bow Wire-On Binding

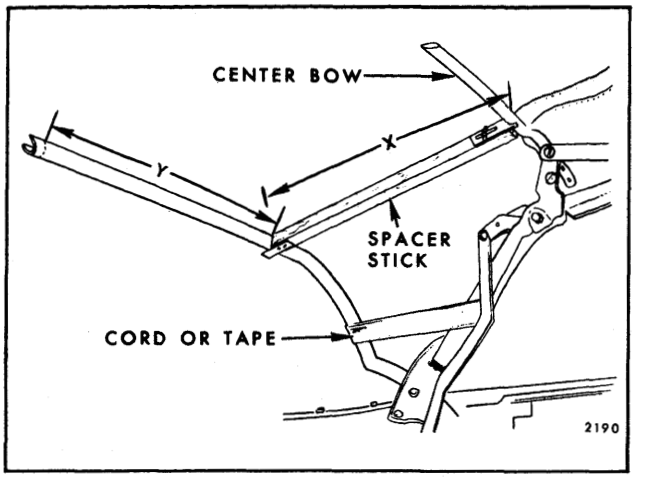

Fig. 6-10—Spacer Stick Installation

NOTE: Dimension may vary ±1/4" after back curtain has been completely installed. Readjust spacer sticks and side roof rail pads as required if rear bow does not come within this position range.

5. Place new back curtain assembly on clean covered work bench with interior surface of back window facing down.

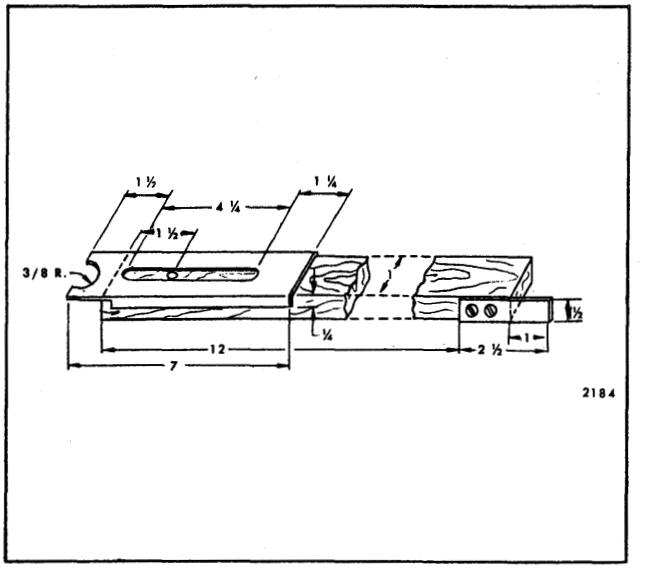

Fig. 6-11—Spacer Stick Dimensions

MATERIAL PER STICK

Wood - 1/2 x 1 x 14-1/2
Steel - 1/32 x 1/2 x 2-1/2
Steel - 1/32 x 1-1/2 x 7
2 Screw #6 x 1/2"
Bolt 1/4 - 20 UNC - 2A x 1"
Wingnut 1/4 x 20 UNC - 2B
2 Washers 1/4" I.D.

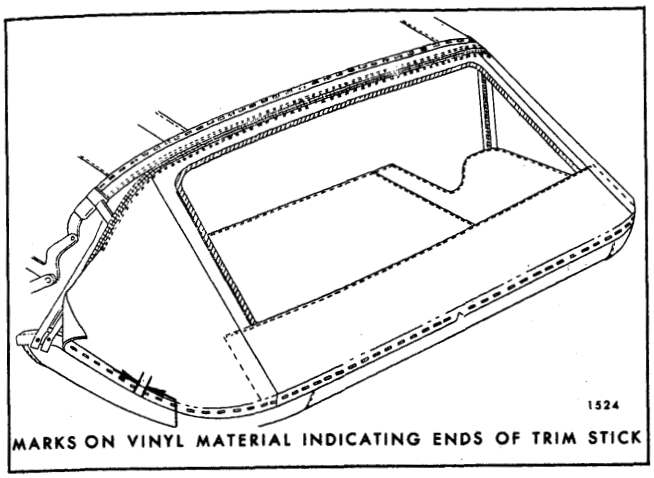

Fig. 6-12—Marking Back Curtain

6. Carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See steps 20 and 29 of removal procedure.) In addition, mark trim stick bolt hole locations on new back curtain assembly.

IMPORTANT: Where a grease pencil or similar material is used for marking back curtain, marks must be below trim stick so that they will not show after curtain is installed in body.

7. Center and position back curtain assembly to rear trim stick over attached top compartment bag.

NOTE: Notch in back curtain material at lower edge indicates centerline of back curtain assembly (Fig. 6-17). In addition, back curtain lower

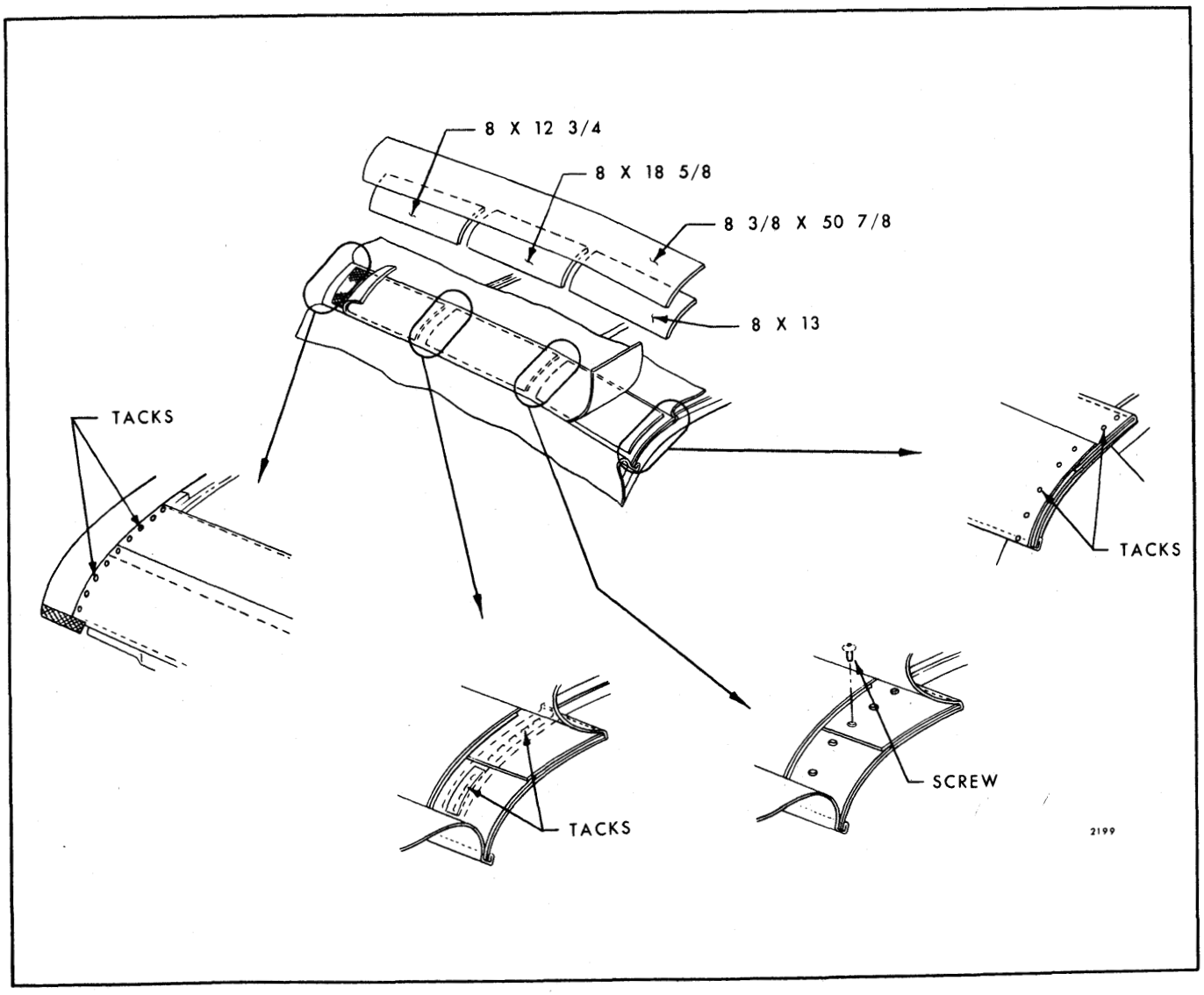

Fig. 6-13—"A" Body Side Stay Pad Installation

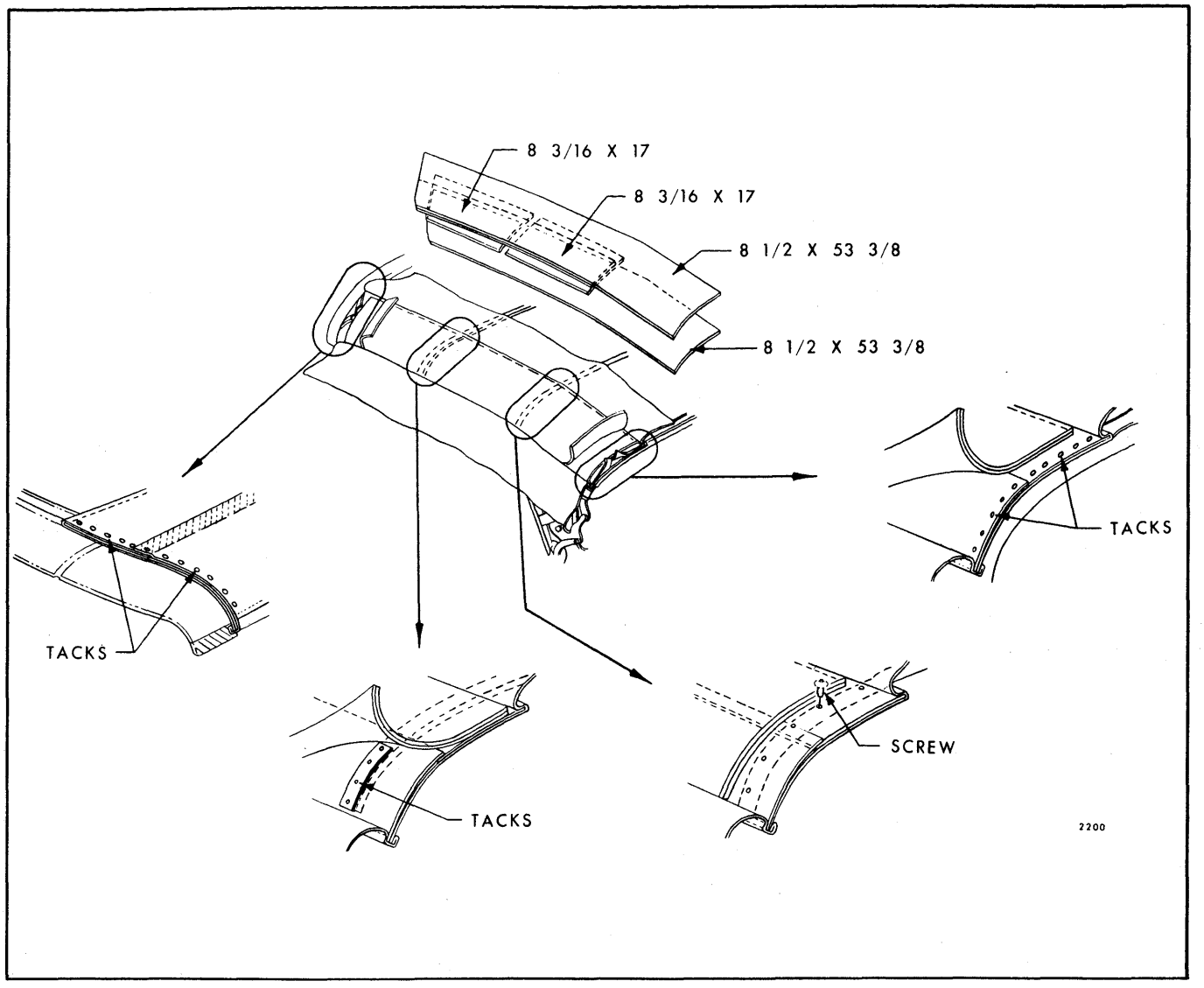

Fig. 6-14—"B" Body Side Stay Pad Installation

edge should extend approximately 1/2" below lower edge of trim sticks.

8. Tack curtain to rear and rear quarter trim sticks (Fig. 6-17). On "A & Z" Body Styles only, tack zipper tape on right side to forward edge of rear quarter trim stick (Fig. 6-18).

NOTE: Zipper stop should be above upper edge of rear quarter trim stick. Zipper tape should not be pulled taut after back curtain has been installed to rear roof bow as zipper assembly may show through top material after top has been properly installed.

9. Tack remainder of back curtain material to rear quarter trim stick.

10. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim sticks; then pierce or punch back curtain assembly for each trim stick bolt.

11. On all "B, C & A" Styles, tack nylon webbing to rear trim stick. Forward edge of webbing should be even with edge of rear trim stick. New webbing may be cut from a piece of non-staining type webbing 2" x 24" for "A" Bodies and 2" x 27" for "B & C" Bodies. Excess webbing should be trimmed off at rear trim stick, 1/2" above back curtain lower edge.

12. Inspect mastic type trim stick fillers to body below pinchweld for sufficient seal at bolt holes (Fig. 6-19).

13. On "B & C" Styles with dropping back curtains, fasten back curtain assist straps to rear roof bow; then secure back curtain assembly with

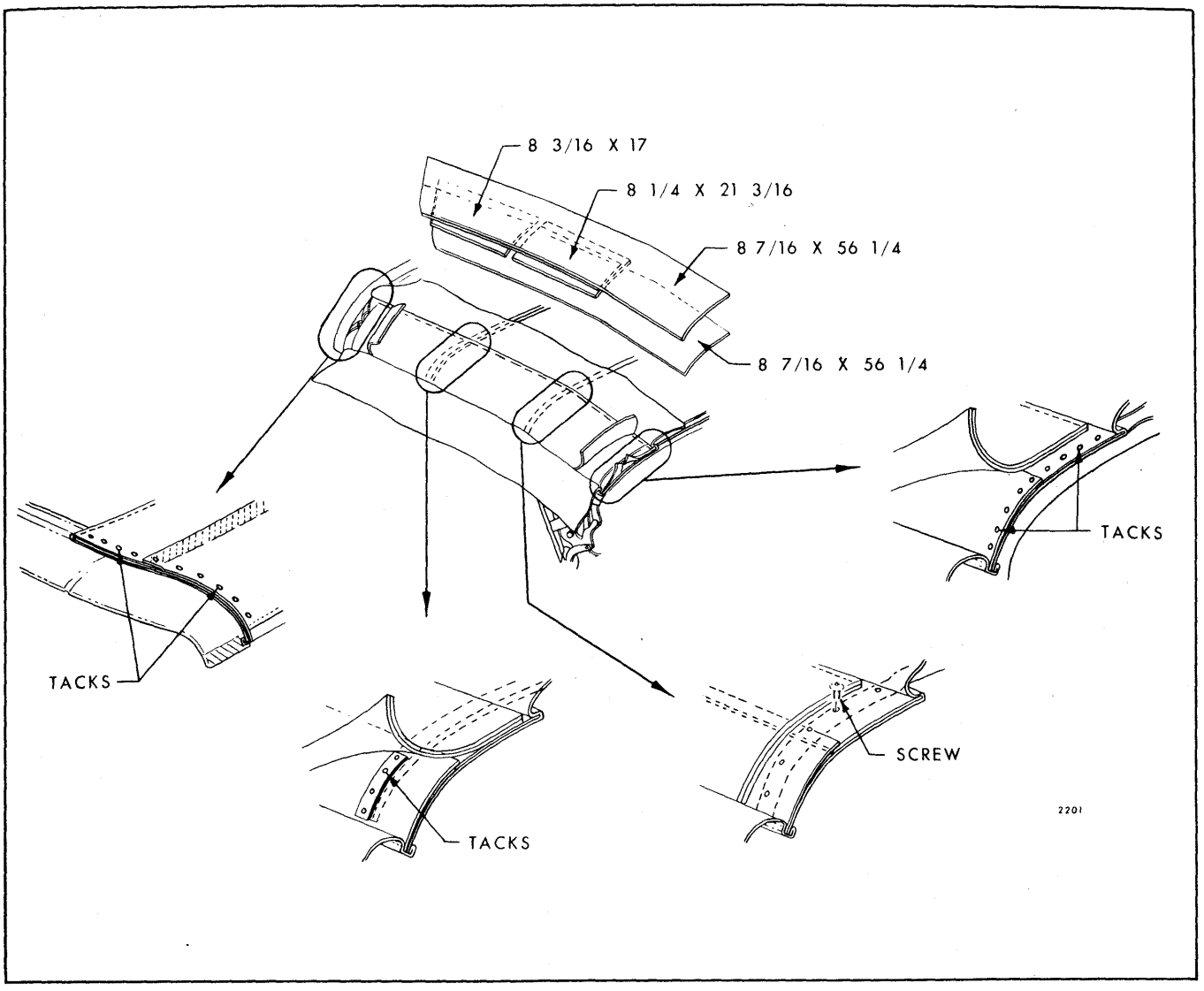

Fig. 6-15—"C" Body Side Stay Pad Installation

three or four tacks to rear bow to prevent accidental damage to back light. On all other styles secure back curtain with tacks to rear roof bow to prevent damage.

14. Install rear trim stick with attached back curtain assembly into body.

NOTE: Make sure that all trim stick bolts are driven completely in to represent finished condition.

15. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain material (Fig. 6-20). Fold any excess back curtain upper valance material rearward and tack to rear bow.

IMPORTANT: Do not cut off excess upper valance material as material may unravel.

16. Check contour of back curtain assembly at rear roof bow and at pinchweld molding.

17. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required (Fig. 6-21).

18. Where required, adjust side stay pads; then tack side stay pads to front roof rail and front bow. Attach side stay pads to center bow with screws. Trim selvage end of side stay pads at front roof rail. Install stay pad top covering material in conventional manner using nitrile or neoprene type trim cement.

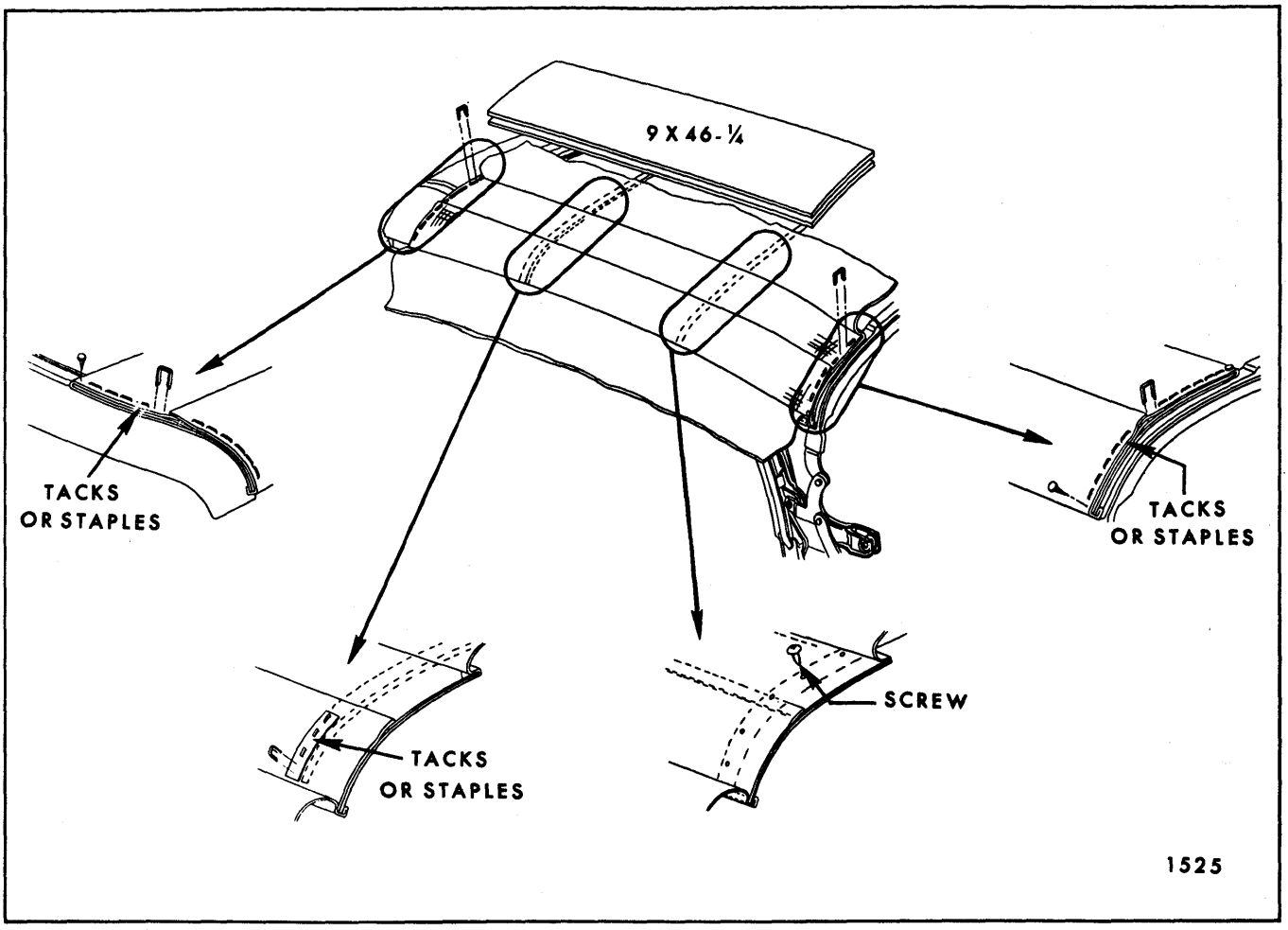

Fig. 6-16—"Z" Body Side Stay Pad Installation

19. On "B, C & A" Styles only, tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

CAUTION: Do not cut back curtain or side stay pad material.

20. Detach rear trim stick with attached back curtain assembly from body.

21. Lay out new top material on clean protected surface with outer layer of material exposed.

22. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 5-1/4" on "B & C" and 4-1/4" on "A & Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 6-22)

23. Fold new top material in half so that inner lining of top material is exposed (Fig. 6-23). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 6-23). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

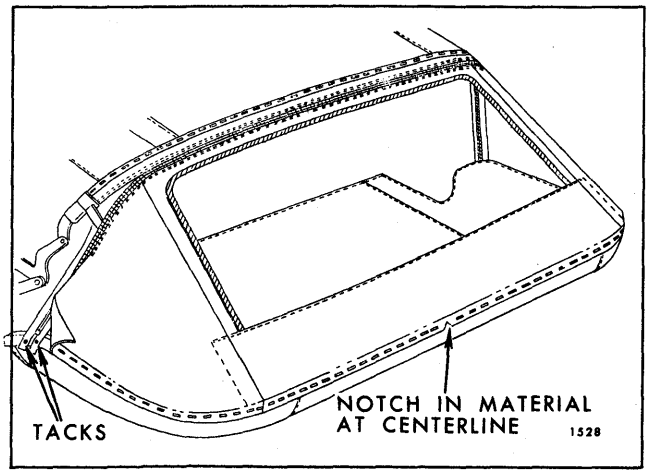

Fig. 6-17—Back Curtain Installation

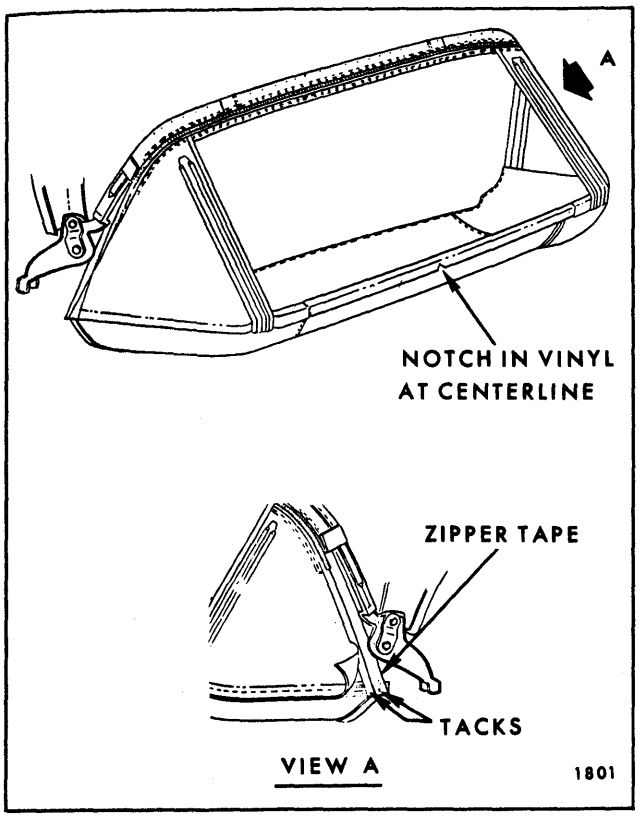

Fig. 6-18—Back Curtain Installation

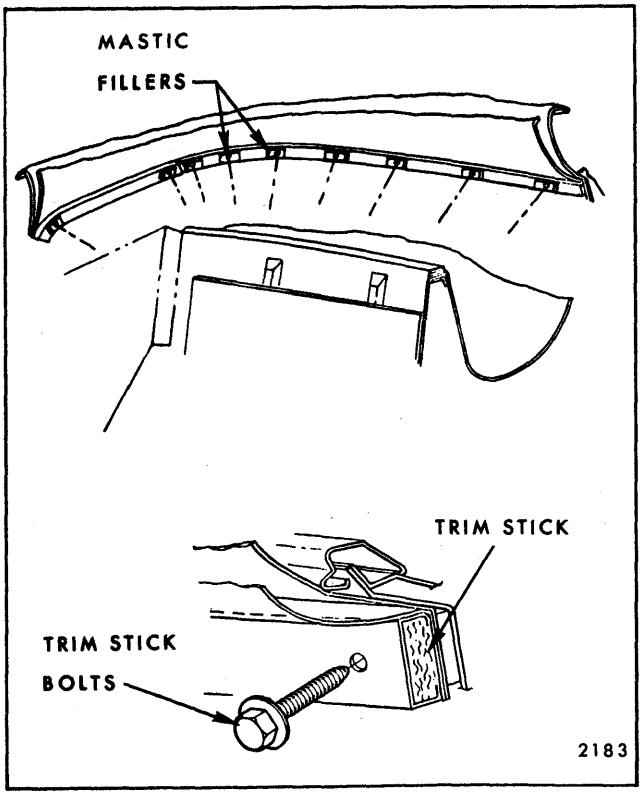

Fig. 6-19—Checking Trim Stick Fillers

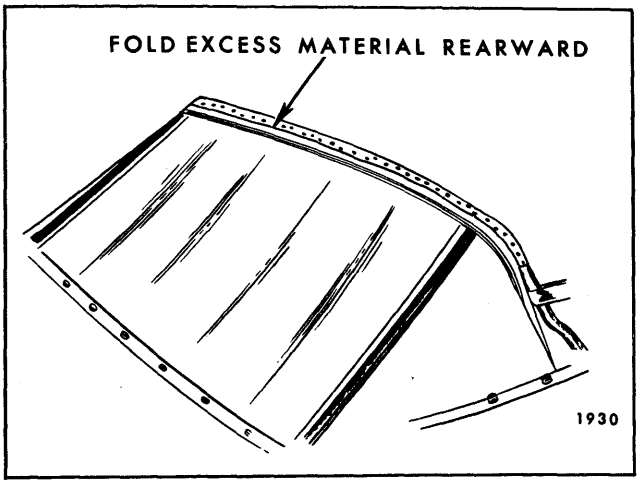

Fig. 6-20—Back Curtain Installed

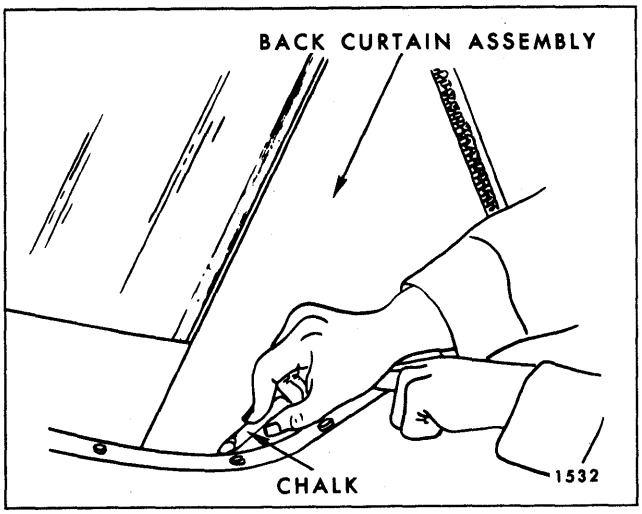

Fig. 6-21—Marking Back Curtain

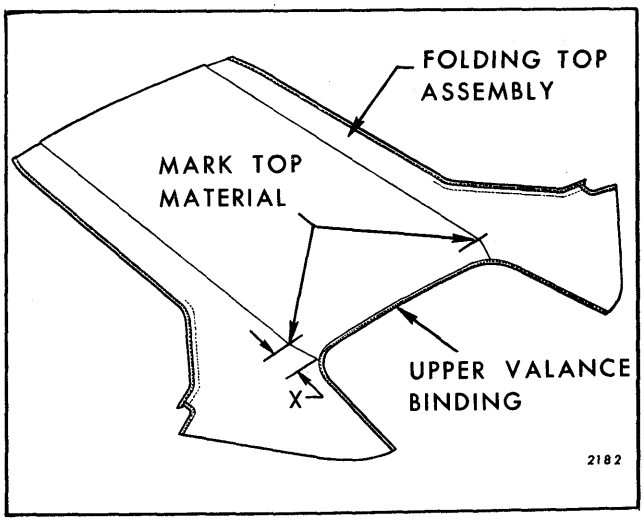

Fig. 6-22—Marking Top Material

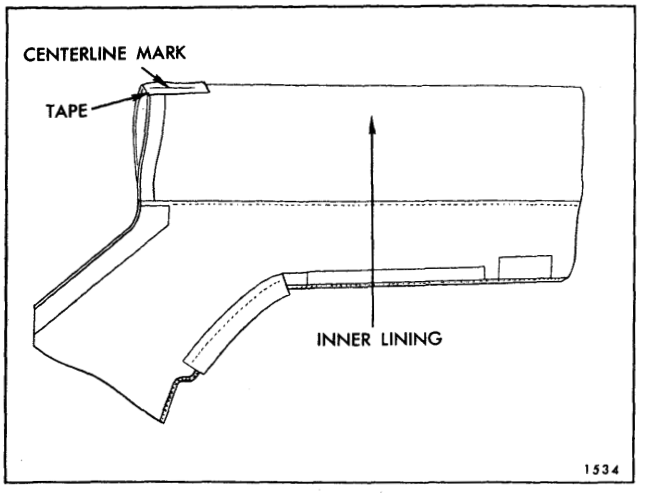

Fig. 6-23—Marking Folding Top Material

IMPORTANT: Be sure mark will be visible inside of body after new top is installed on convertible top framework.

24. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape (Fig. 6-24).

25. Remove rear bow spacer sticks and positioning tape or cord.

26. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (±1/4") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow.

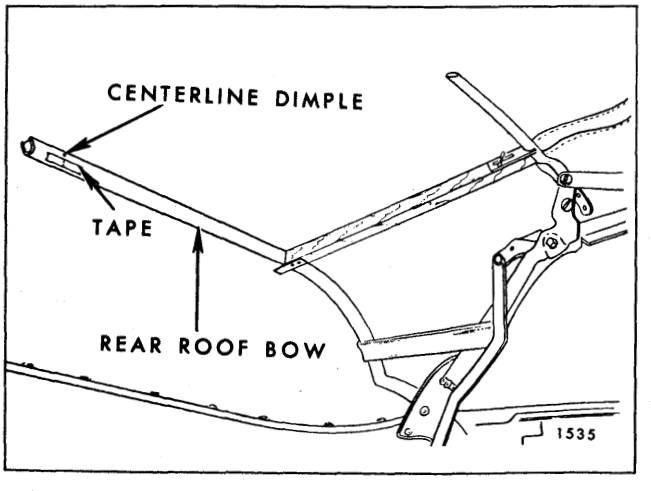

Fig. 6-24—Marking Rear Roof Bow

27. Remove top trim material.

28. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark edges of trim sticks on vinyl surface of new top material. (See steps 21 and 22 of removal procedure).

29. Position top trim on framework and center assembly both fore and aft and side to side.

30. Install listing pocket retainer into listing pocket.

31. Center retainer in listing pocket; then, install retainer into front bow.

NOTE: Retainer should be evenly centered between side roof rail stay pads.

32. Install front bow to listing pocket retainer attaching screws (Fig. 6-25).

33. On right side of top material, at front of

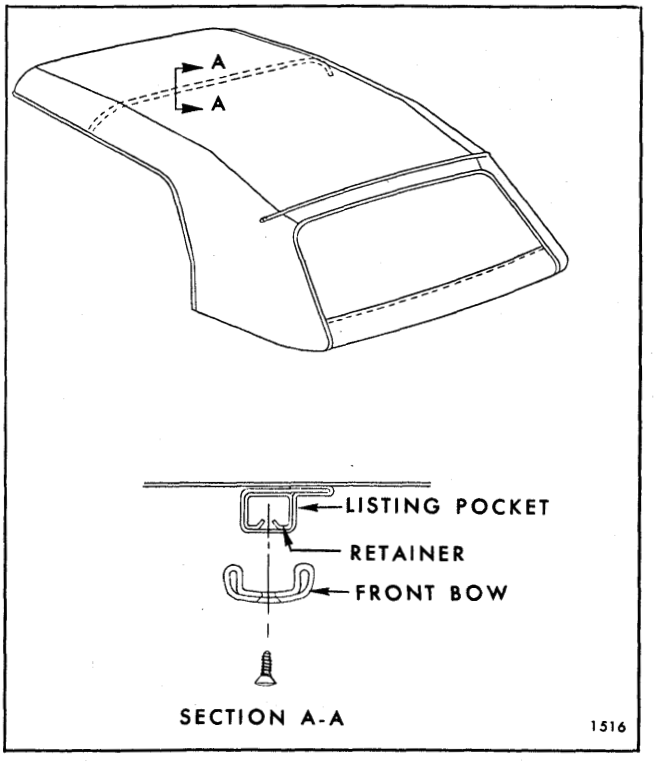

Fig. 6-25—Listing Pocket Retainer

hold-down cable pocket, install cable through pocket in top assembly.

NOTE: Welding rod or similar material may be bent at one end to form a hook. Then at rear of hold-down pocket, slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at front of pocket. Install rear end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at rear end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

34. After cables have been inserted in hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails (Fig. 6-3).

35. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (± 1/4") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow. (See Fig. 6-26).

36. Using nitrile cement or neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rear rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

NOTE: Material may have to be stretched from side to side to insure proper fit of top material flaps to side roof rear rails and to remove wrinkles from top material along rear roof bow.

37. Using an awl or other suitable tool, pierce flaps for side roof rail rear weatherstrip attaching screws. Install side roof rail rear weatherstrips to help maintain position of quarter flaps while adhesive is drying.

38. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 6-26 shows top material installed to rear trim stick at inboard edge.

39. Cut or punch hole in top material for each trim stick attaching bolt.

40. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.

41. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.

42. Where required, re-mark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks and/or by retacking top material to rear and/or rear quarter trim sticks.

NOTE: In extreme cases, adjustment of top material at rear or rear quarter trim sticks may have to be performed several times before desired fit of top material is obtained.

43. Remove trim sticks with attached top material from top compartment well. Back curtain should extend 1/2" below trim sticks. (See step 7 of installation procedure). In addition, top material must extend 1/2" to 5/8" below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.

44. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.

45. Re-check side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also re-check centerline mark on inner surface of top material at rear bow.

46. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.

47. While pulling top material slightly rearward, stay tack top material along rear roof bow.

IMPORTANT: Tacks must be installed along a straight line in center of rear bow. (See Fig. 6-27). Tacks outboard of deck seams should be restricted to distance not to exceed 6", which is

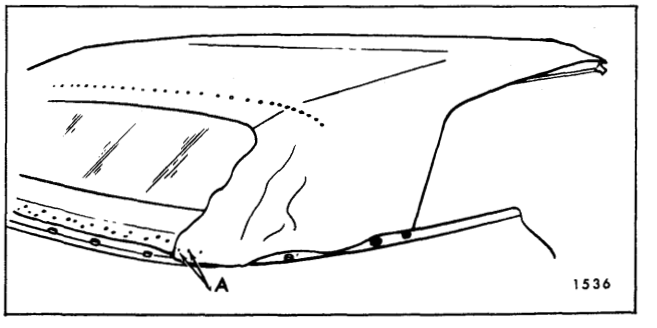

Fig. 6-26—Tacking Top Material

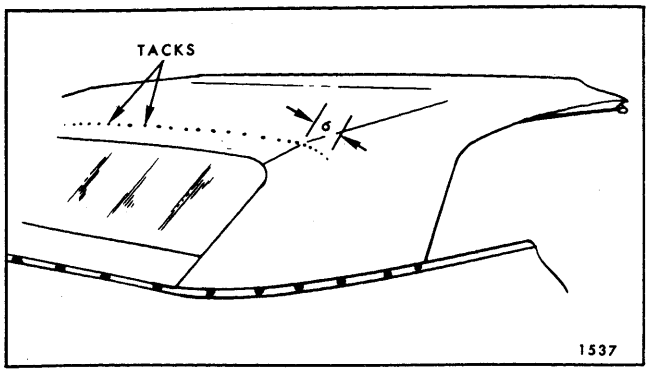

Fig. 6-27—Tacking Outboard Of Seams

length wire-on binding extends past seam (Fig. 6-27).

48. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail (Fig. 6-28).

49. Unlock top from windshield header and apply nitrile cement or neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding surface of top material. Pull top trim material slightly forward so that pencil marks are on underside of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (Fig. 6-29).

50. Apply nitrile cement or neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails. (See Fig. 6-30).

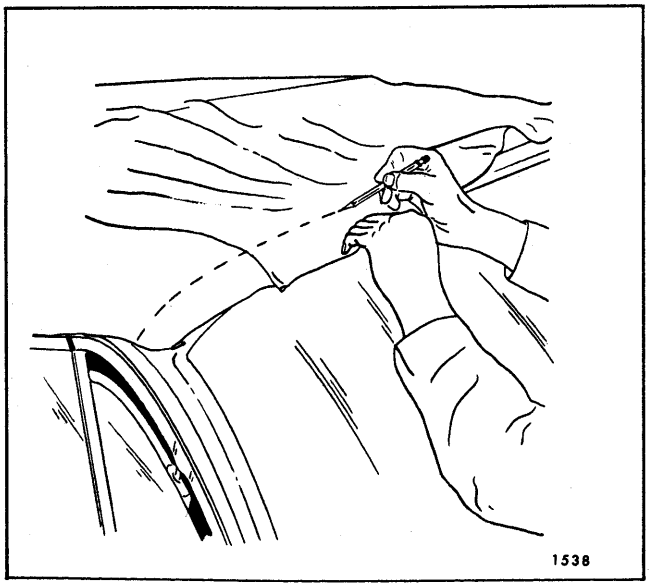

Fig. 6-28—Marking Top Material At Front Roof Rail

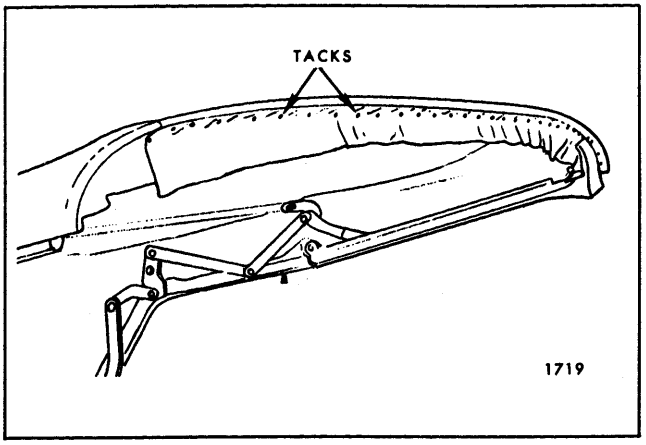

Fig. 6-29—Installation Of Top Material To Front Roof Rail

51. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim unlock top from header and reposition top trim by pulling trim further forward. Stay tack and re-check top appearance).

52. Complete tacking of top trim to front roof rail and trim off excess material.

53. Permanently tack top material to rear roof bow. Apply bead of neoprene-type weatherstrip adhesive around each tack head, and into two

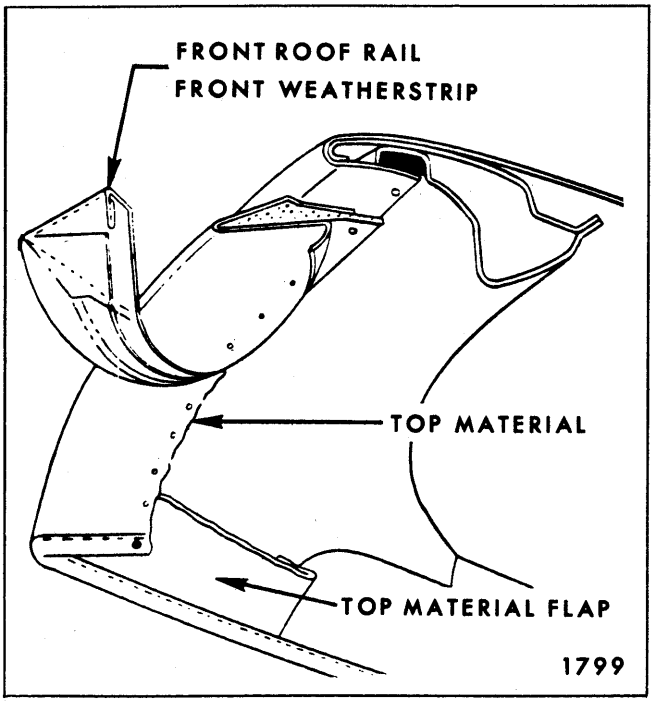

Fig. 6-30—Top Material At Front Roof Rail

holes pierced into top material for wire-on binding clip escutcheons.

NOTE: Any tack holes made in top material as a result of stay tacking material to rear roof bow should also be sealed using neoprene-type weatherstrip adhesive.

54. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material, back window and material or pads.

55. On styles so equipped, connect back curtain support rod to back curtain.

FOLDING TOP TRIM—LESS BACK CURTAIN

REMOVAL OF FOLDING TOP TRIM COVER

1. Place protective covers on all exposed panels which may be contacted during procedures.

2. Remove rear cushion and back.

CAUTION: Disconnect rear seat speaker wire if present.

3. Remove right and left folding top compartment side trim panels.

4. Remove right and left side roof rail rear weatherstrip attaching screws; then remove weatherstrips from rails.

5. Detach folding top quarter flaps from side roof rear rails.

6. Lower to "stacked" position.

7. Remove right and left side roof rail front weatherstrip attaching screws; then remove weatherstrip from rails.

8. Remove front roof rail front and rear weatherstrips.

9. Detach top material from front roof rail.

10. Detach top material flaps from side roof front rail (Fig. 6-30).

11. Raise top and lock to windshield header.

12. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (See Views "A and B" in Fig. 6-31).

13. Pull both hold-down cables forward until cables are completely removed from top material retaining pockets.

14. At underside of front bow, remove screws securing listing pocket retainer to bow (Fig. 6-32).

15. Push top material upward sufficiently until retainer is disengaged from bow; then, remove retainer from listing pocket.

16. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-33).

17. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-34).

18. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

19. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-35).

NOTE: Reference marks must be made below upper edge of rear trim sticks.

20. To establish relationship of old top material to its position on rear trim sticks, cut selvage end of top material off flush with lower edge of trim sticks.

CAUTION: When cutting top material, be careful not to cut lower selvage edge of back curtain assembly.

21. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material as shown in Figure 6-36. Reference marks for trim sticks should be transferred to new top material when step 8 of installation procedure is performed.

22. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow. Detach top material from rear roof bow and from trim sticks, then remove top cover assembly (Fig. 6-37).

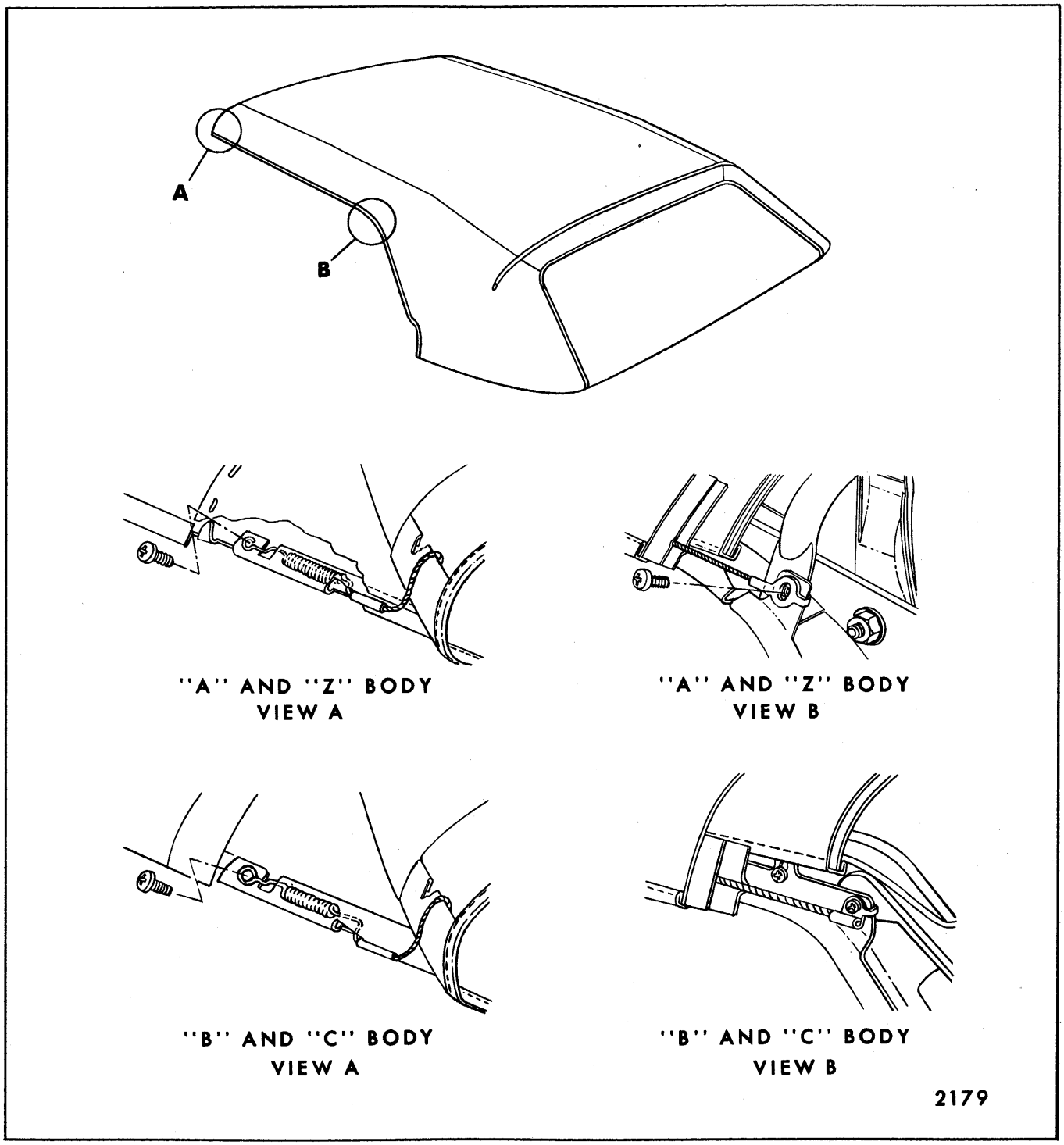

Fig. 6-31—Convertible Top Material Hold Down Cable

INSTALLATION OF FOLDING TOP TRIM COVER

1. Prior to installation of new top trim material, check contour of back curtain and side stay pad assemblies. Where required, adjust back curtain and/or stay pads.
2. Lay out new top material on clean protected surface with outer layer of material exposed.
3. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 5-1/4" on "B & C" and 4-1/4" on "A & Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 6-38).

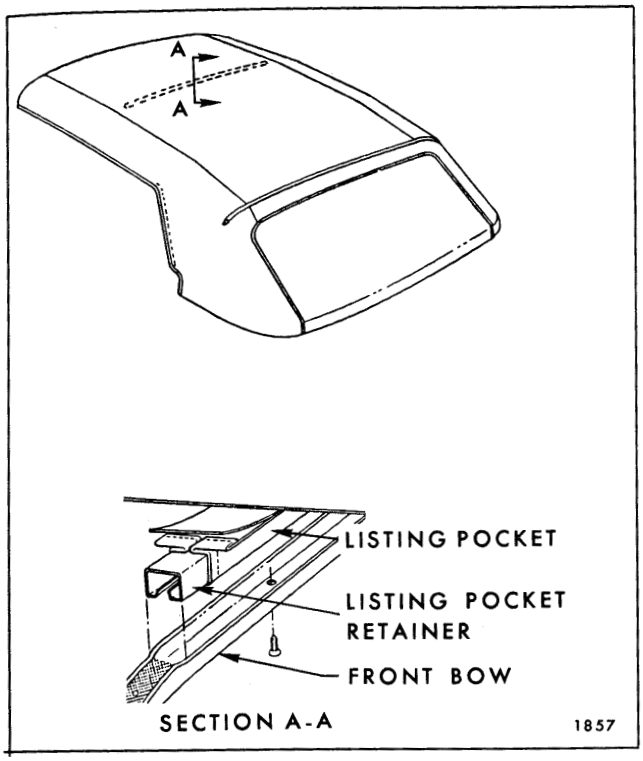

Fig. 6-32—Listing Pocket Retainer

4. Fold new top material in half so that inner lining of top material is exposed (Fig. 6-39). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 6-39). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

IMPORTANT: Be sure mark will be visible

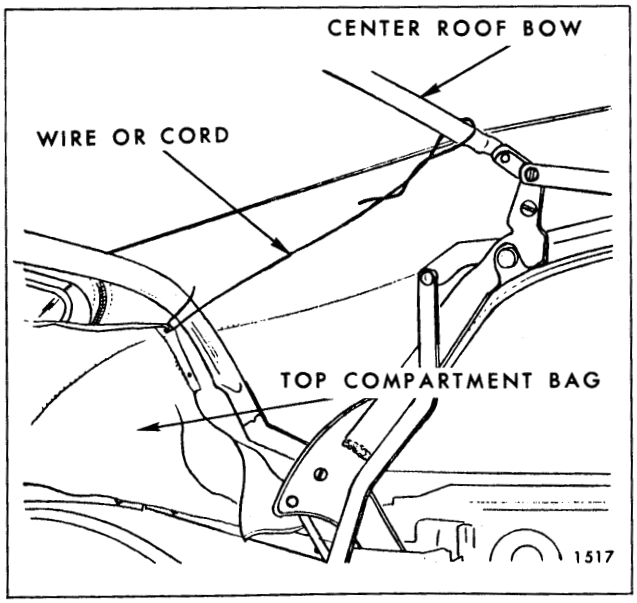

Fig. 6-33—Top Compartment Bag Tied To Center Rail

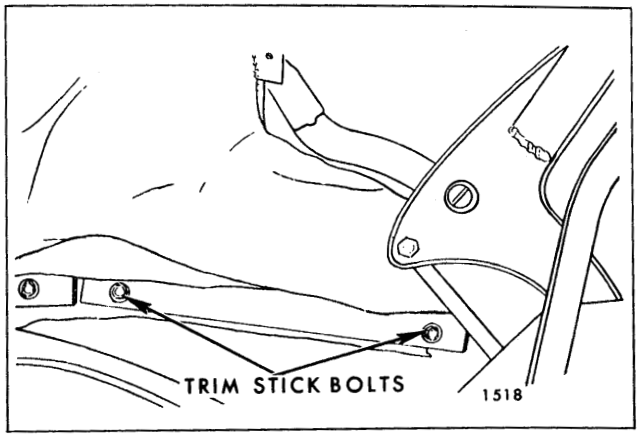

Fig. 6-34—Rear Quarter Trim Stick

inside of body after new top is installed on convertible top framework.

5. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape (Fig. 6-40).

6. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (±1/4") depending upon position of rear roof

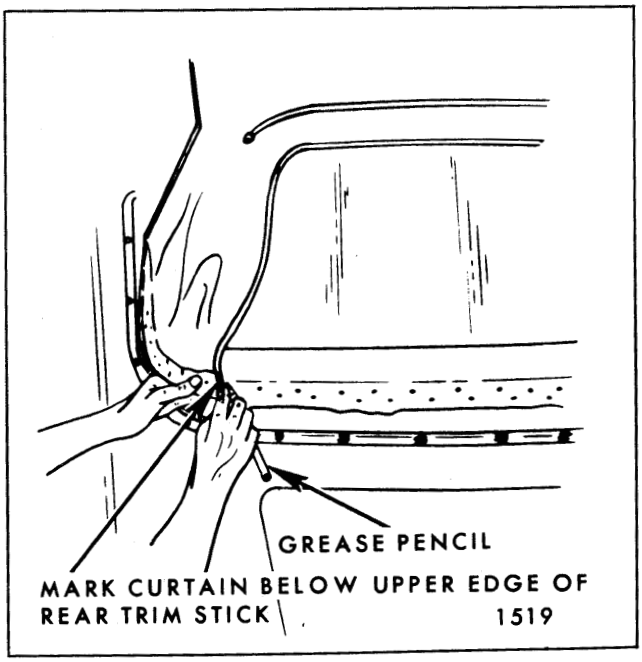

Fig. 6-35—Locating Edge Of Top Material

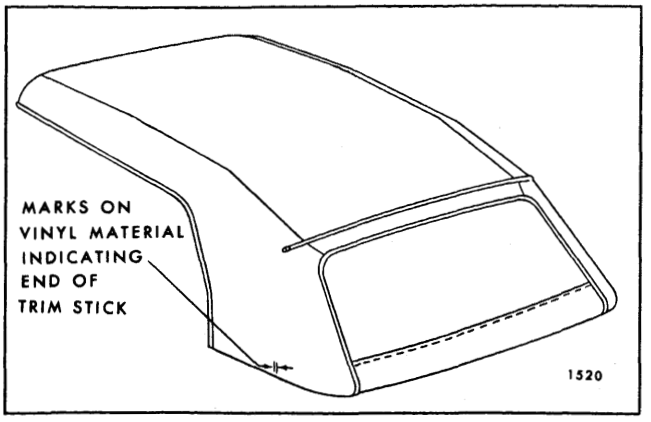

Fig. 6-36—Marking Top Material

bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow.

7. Remove top trim material.

8. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark

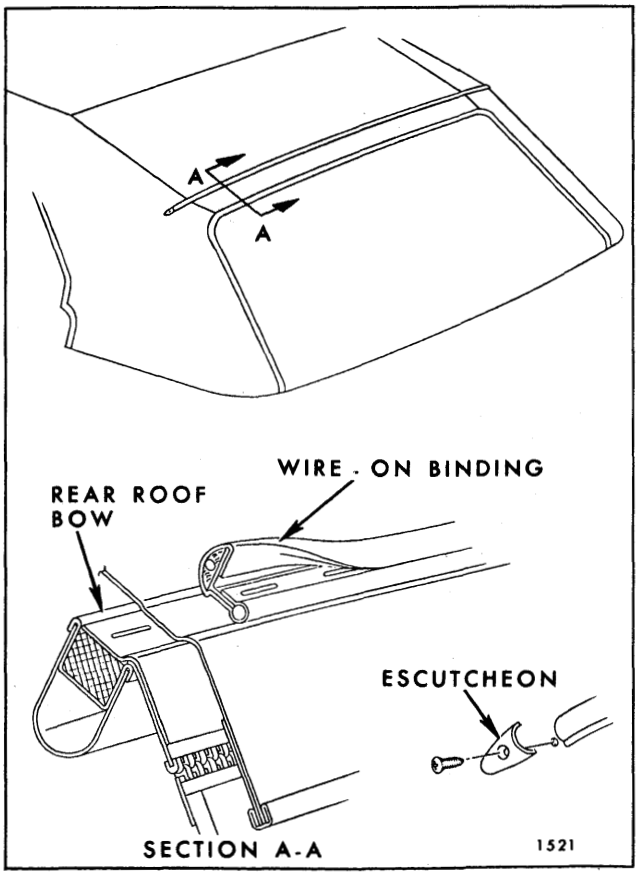

Fig. 6-37—Rear Roof Bow Wire-On Binding

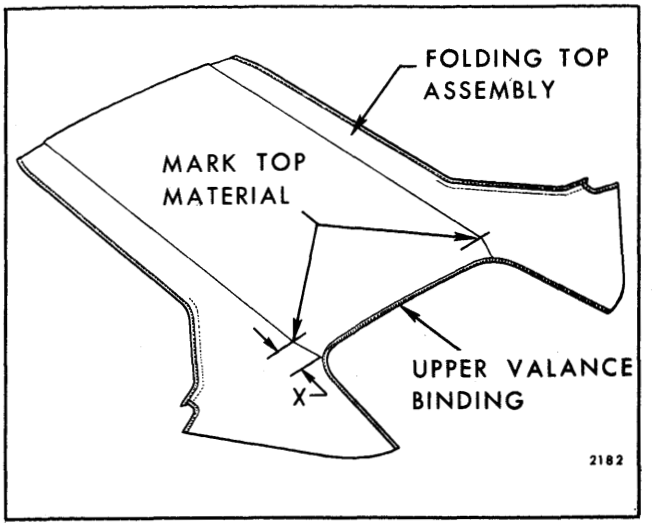

Fig. 6-38—Marking Top Material

edges of trim sticks on vinyl surface of new top material. (See steps 20 and 21 of removal procedure).

9. Position top trim on framework and center assembly both fore and aft and side to side.

10. Install listing pocket retainer into listing pocket.

11. Center retainer in listing pocket; then install retainer into front bow.

NOTE: Retainer should be evenly centered between side roof rail stay pads.

12. Install front bow to listing pocket retainer with attaching screws (Fig. 6-32).

13. On right side of top material, at front of hold-down cable pocket, install cable through pocket in top assembly.

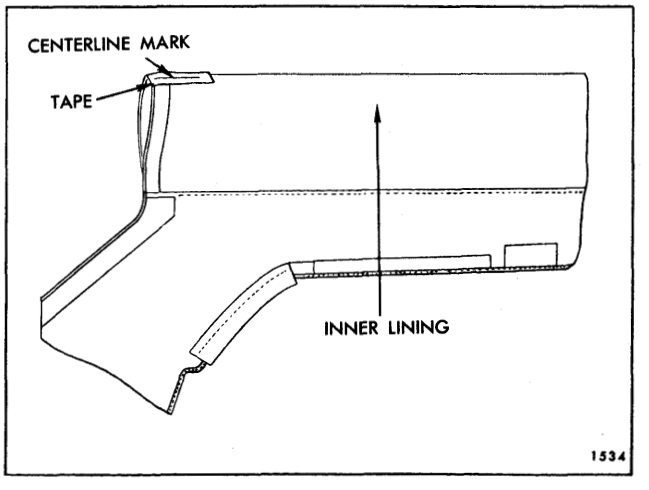

Fig. 6-39—Marking Folding Top Material

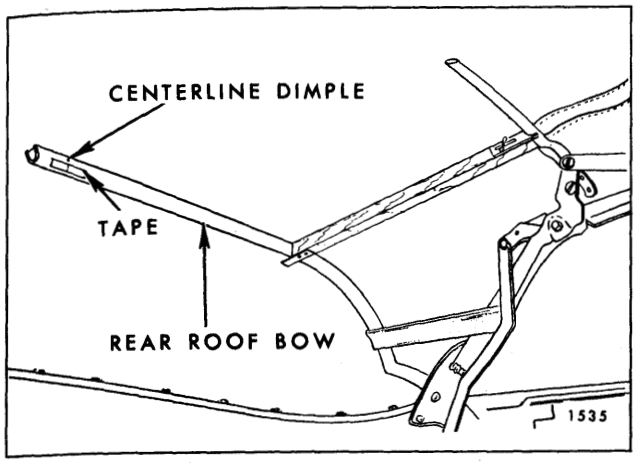

Fig. 6-40—Marking Rear Roof Bow

NOTE: Welding rod or similar material may be bent at one end to form a hook. Then at rear of hold-down pocket slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at front of pocket. Install rear end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at rear end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

14. After cables have been inserted in hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails (Fig. 6-31).

15. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly (±1/4") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow. (Fig. 6-40).

16. Using nitrile cement or neoprene-type weatherstip adhesive, fasten rear quarter flaps to side roof rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

NOTE: Material may have to be stretched from side to side to insure proper fit of top material flaps to side roof rear rails and to remove wrinkles from top material along rear roof bow.

17. Using an awl or other suitable tool, pierce flaps for side roof rail rear weatherstrip attaching screws. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.

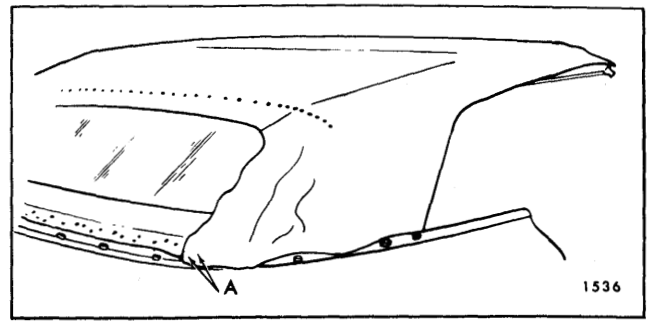

Fig. 6-41—Tacking Top Material

18. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 6-41 shows top material installed to rear trim stick at inboard edge.

19. Cut or punch hole in top material for each trim stick attaching bolt.

20. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.

21. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.

22. Where required, re-mark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks and/or by retacking top material to rear and/or rear quarter trim sticks.

NOTE: In extreme cases, adjustment of top material at rear or rear quarter trim sticks may have to be performed several times before desired fit of top material is obtained.

23. Remove trim sticks with attached top material from top compartment well. Top material must extend 1/2" to 5/8" below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.

24. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.

25. Re-check side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also re-check centerline mark on inner surface of top material at rear bow.

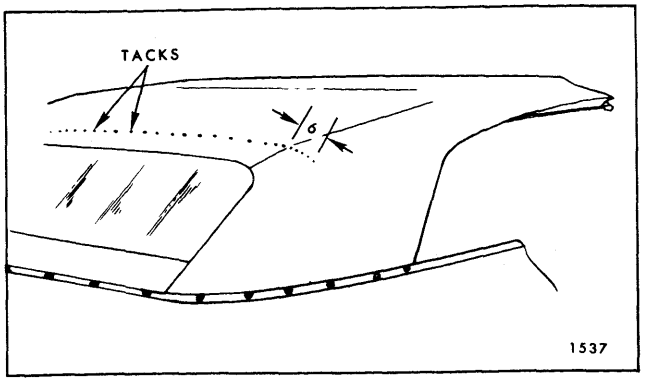

Fig. 6-42—Tacking Outboard Of Seams

26. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.

27. While pulling top material slightly rearward, stay tack top material along rear roof bow.

IMPORTANT: Tacks must be installed along a straight line in center of rear bow. (See Fig. 6-42). Tacks outboard of deck seams should be restricted to distance not to exceed six inches, which is length wire-on binding extends past seam (Fig. 6-42).

28. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail (Fig. 6-43).

29. Unlock top from windshield header and apply nitrile cement or neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding surface of top material. Pull top trim material slightly forward so that pencil marks are on underside of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (Fig. 6-44).

30. Apply nitrile cement or neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails. (See Fig. 6-30).

31. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim unlock top from header and reposition top trim by pulling trim further forward. Stay tack and recheck top appearance).

32. Complete tacking of top trim to front roof rail and trim off excess material.

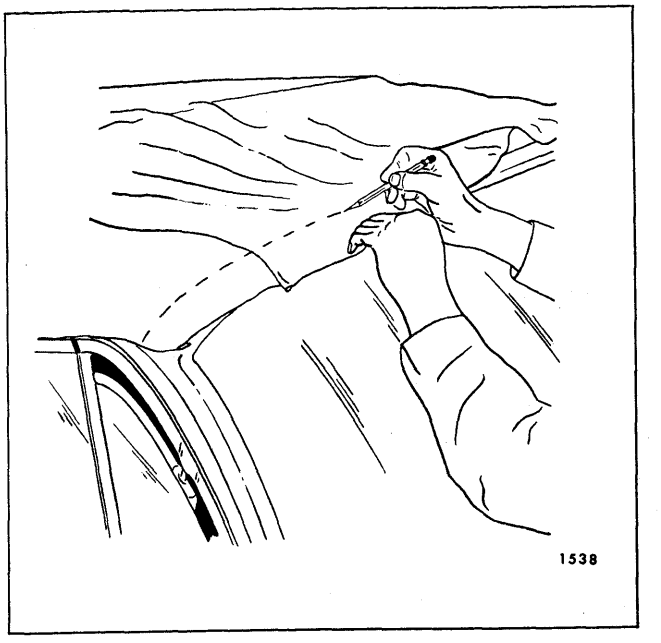

Fig. 6-43—Marking Top Material At Front Roof Rail

33. Permanently tack top material to rear roof bow. Apply bead of neoprene-type weatherstrip adhesive around each tack head, and into two holes pierced into top material for wire-on binding clip escutcheons.

NOTE: Any tack holes made in top material as a result of stay tacking material to rear roof bow should also be sealed using neoprene-type weatherstrip adhesive.

34. When completed, folding top should be free from wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material, back window and material or pads.

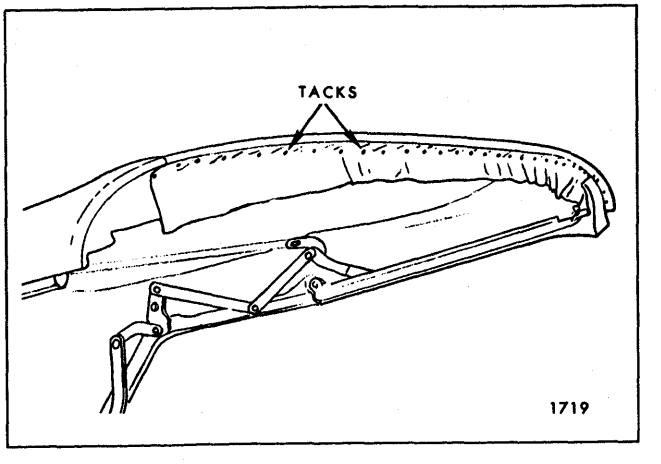

Fig. 6-44—Installation Of Top Material To Front Roof Rail

BACK CURTAIN ASSEMBLY (COMPLETE)

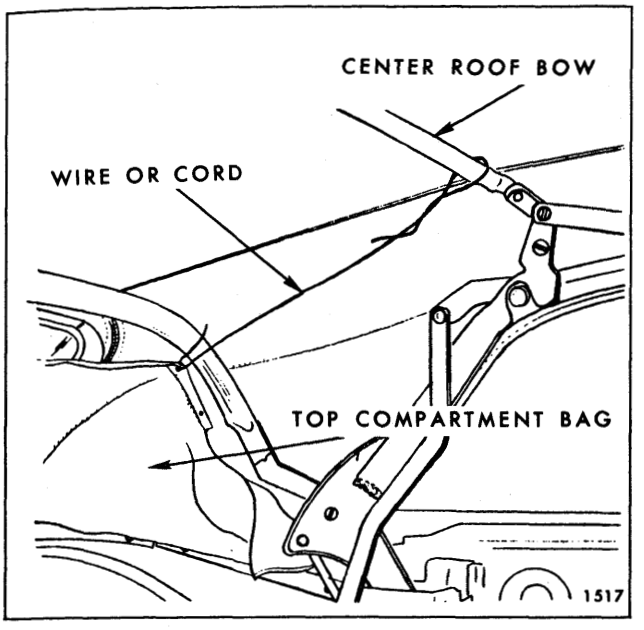

Fig. 6-45—Top Compartment Bag Tied To Center Rail

REMOVAL PROCEDURE

1. Place protective covers on all exposed panels which may be contacted during procedure.

2. Remove following trim and hardware items:

   a. Rear seat cushion and back.

   CAUTION: Disconnect rear seat speaker wire if present.

   b. Folding top compartment side trim panel assemblies.

   c. Side roof rail rear weatherstrip; then loosen folding top quarter flaps from rails.

3. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 6-45).

4. On styles equipped with back curtain support rods disengage rods from back curtain (Fig. 6-46).

5. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 6-47).

6. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

7. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 6-48). Reference marks should be transferred to new back curtain when step 3 of installation procedure is performed.

   NOTE: Reference marks must be made below upper edge of rear trim stick.

8. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 6-49).

9. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow (Fig. 6-50).

10. Detach folding top trim from rear roof bow and from rear and rear quarter trim sticks.

11. Carefully slide top trim forward exposing tacked edge of back curtain at rear roof bow.

12. On styles equipped with dropping back curtain detach nylon webbing and back curtain from rear roof bow; then remove back curtain assembly with attached trim sticks and top compartment bag from body and place on a clean, protected surface. On all other styles remove back curtain from rear roof bow.

13. Remove right and left nylon webbing from rear trim stick. (All styles except "Z". Body).

14. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (Fig. 6-51). Reference marks for trim sticks should be transferred to new back curtain material when step 3 of installation procedure is performed.

15. Remove back curtain assembly from rear and rear quarter trim sticks.

INSTALLATION PROCEDURE

1. Preset spacer sticks to shortest length and install between center and rear roof bow (Fig. 6-52). Adjust sticks so that dimension "X" in Figure 6-52 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 14-7/8" on "B &

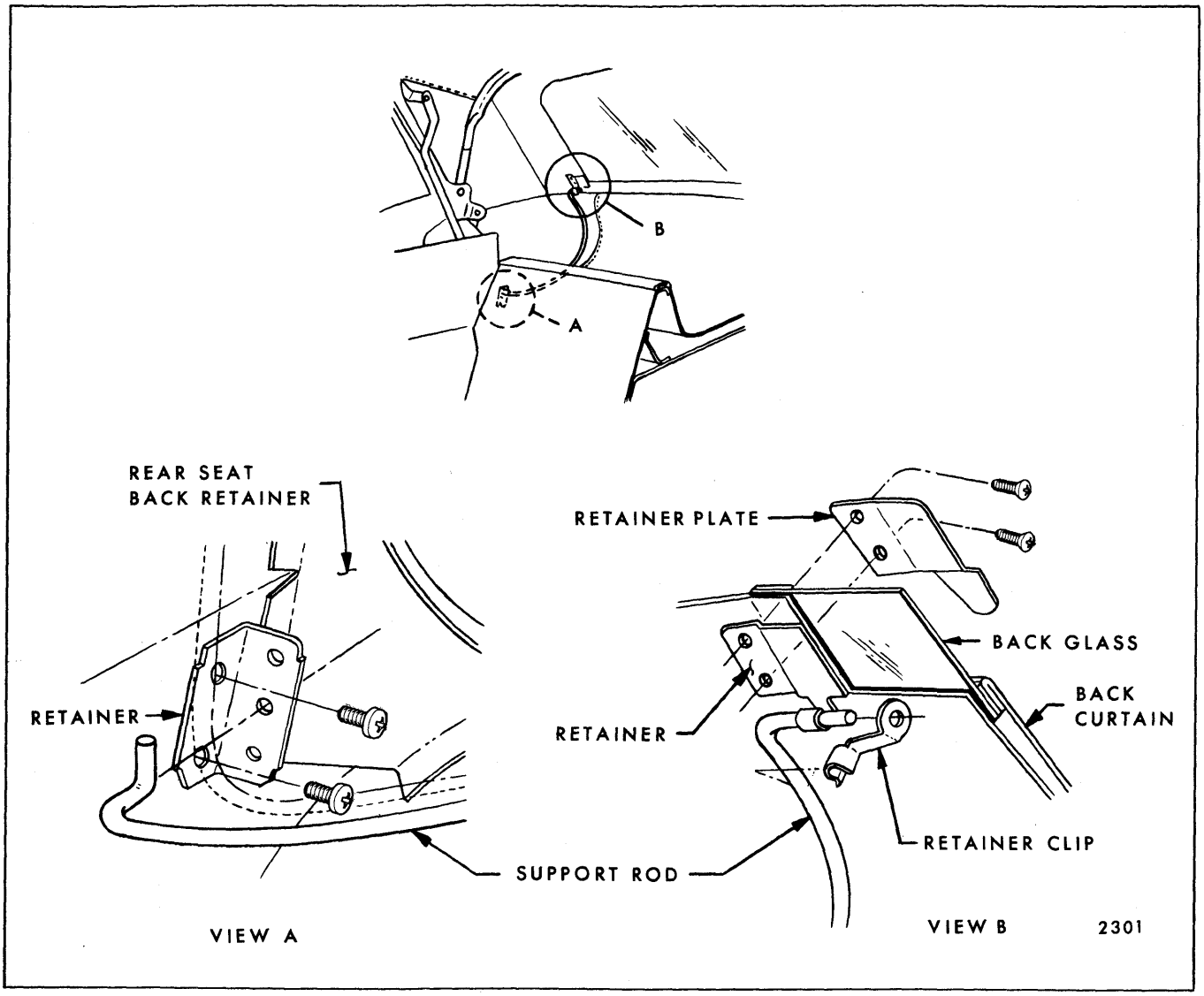

Fig. 6-46—"B & C" Body Back Glass Support Rod Attachments

C'' Styles, 16-5/8" on "A'' Styles and 16-1/64" on "Z'' Styles.

NOTE: Dimension may vary ±1/4" after back curtain has been completely installed.

Tie or tape rear bow to rear side roof rails.

2. Place new back curtain assembly on clean covered work bench with interior surface of back window facing down.

3. Carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See steps 7 and 14 of removal procedure). In addition, mark trim stick bolt hole locations on new back curtain assembly.

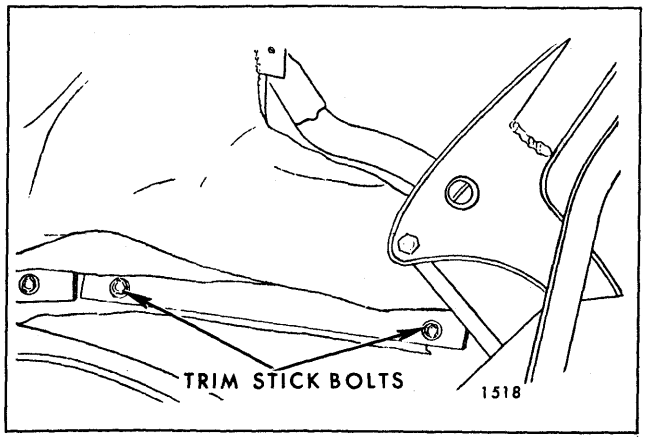

Fig. 6-47—Rear Quarter Trim Stick

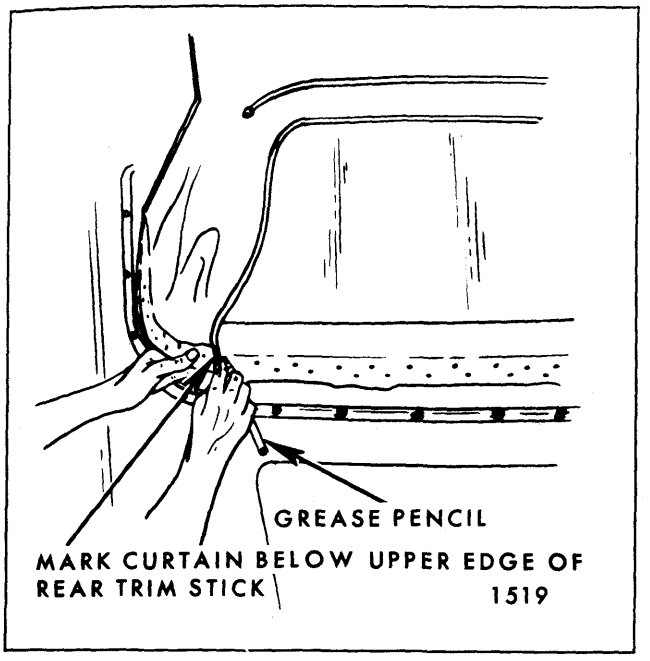

Fig. 6-48—Locating Edge Of Top Material

IMPORTANT: Where a grease pencil or similar material is used for marking back curtain, marks must be below trim stick so that they will not show after curtain is installed in body.

4. Center and position back curtain assembly to rear trim stick over attached compartment bag.

NOTE: Notch in back curtain material at lower edge indicates centerline of back curtain assembly. (See Fig. 6-53). In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

5. Tack curtain to rear and rear quarter trim sticks (Fig. 6-53). On "A & Z" Body Styles tack zipper tape on right side to forward edge of rear quarter trim stick (Fig. 6-54).

NOTE: Zipper stop should be above upper edge of rear quarter trim stick. Zipper tape should not be pulled taut after back curtain has been installed to rear roof bow as zipper assembly

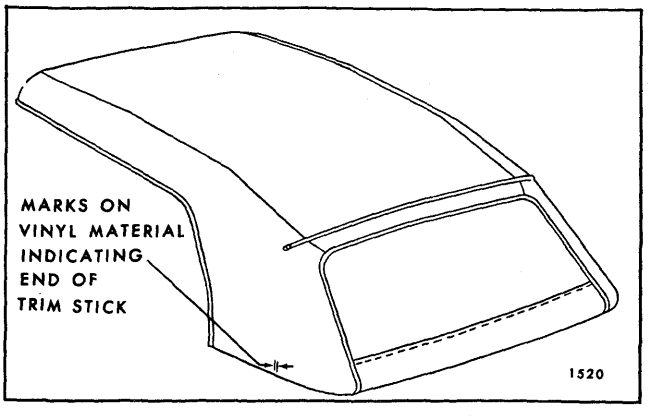

Fig. 6-49—Marking Top Material

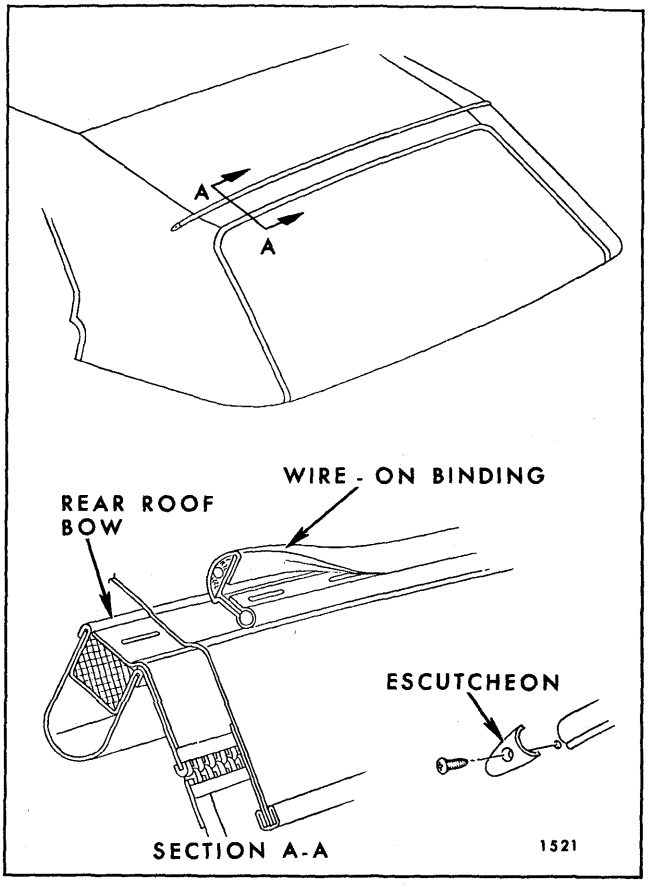

Fig. 6-50—Rear Roof Bow Wire-On Binding

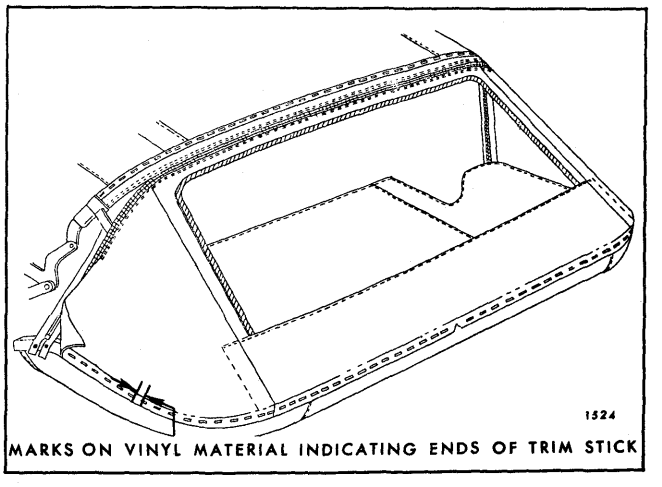

Fig. 6-51—Marking Back Curtain

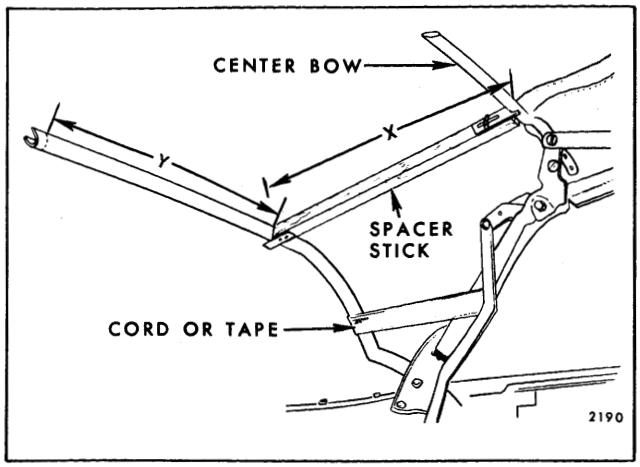

Fig. 6-52—Spacer Stick Installation

may show through top material after top has been properly installed.

6. Tack remainder of back curtain material to rear quarter trim stick.

7. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim sticks; then pierce or punch back curtain assembly for each trim stick bolt.

8. On "B, C & A" Styles tack nylon webbing to rear trim stick. Forward edge of webbing should be even with edge of rear trim stick.

9. Inspect mastic type trim stick fillers at body below pinchweld for sufficient seal at bolt holes (Fig. 6-55).

10. On "B & C" Styles with dropping back curtain, fasten back curtain assist straps to rear roof bow. On all styles secure back curtain

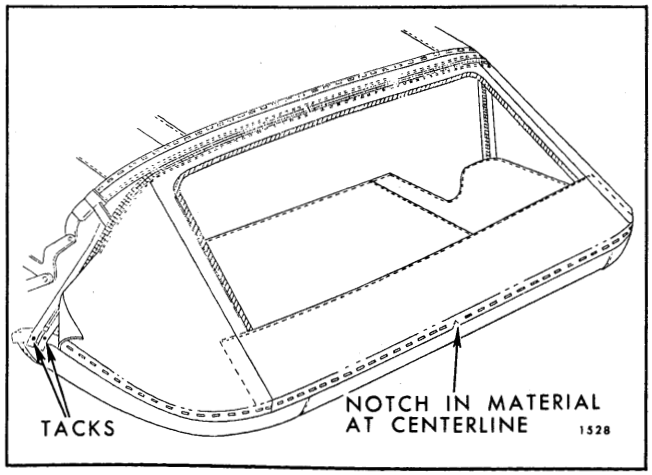

Fig. 6-53—Back Curtain Installation

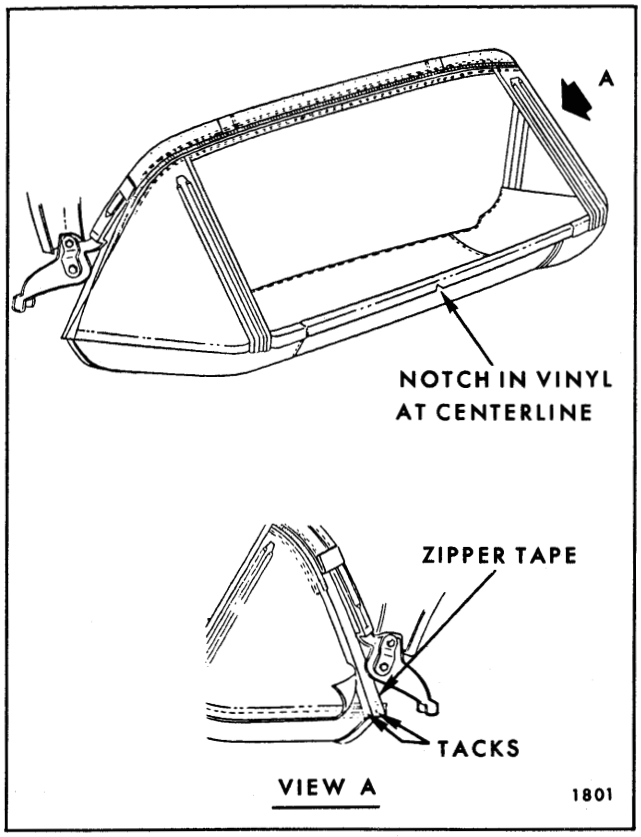

Fig. 6-54—Back Curtain Installation

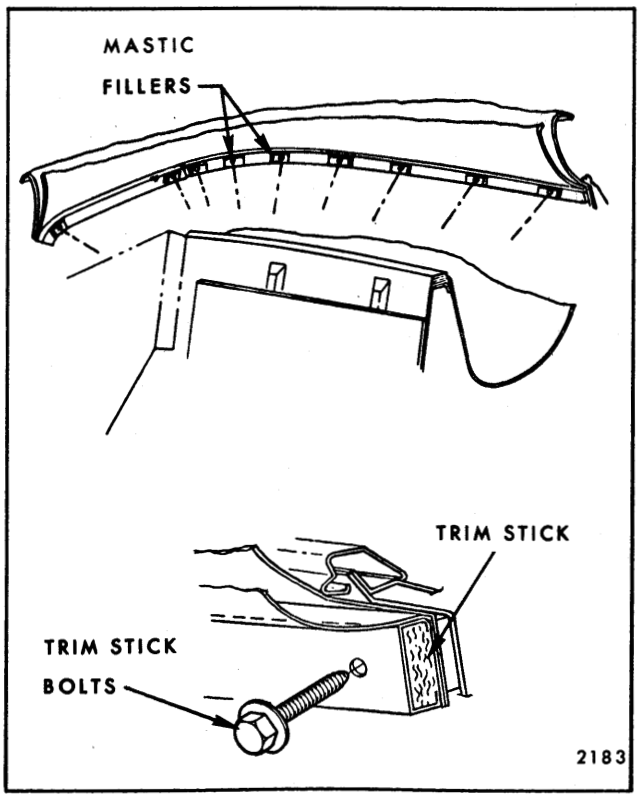

Fig. 6-55—Checking Trim Stick Fillers

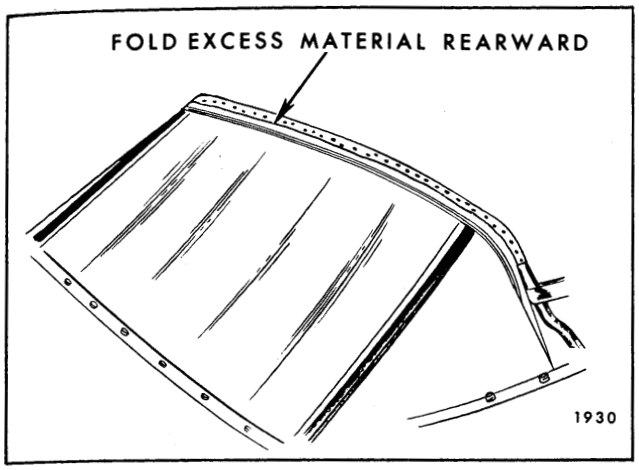

Fig. 6-56—Back Curtain Installed

assembly with a sufficient number of tacks to rear bow to prevent accidental damage to back window.

11. Install rear trim stick with attached back curtain assembly into body.

NOTE: Make sure that all trim stick bolts are driven completely in to represent finished condition.

12. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain material. Fold any excess back curtain upper valance material rearward and tack to rear bow (Fig. 6-56).

IMPORTANT: DO NOT CUT OFF EXCESS UPPER VALANCE MATERIAL AS MATERIAL MAY UNRAVEL.

13. Check contour of back curtain assembly to rear roof bow and at pinchweld molding.

14. Where required, place reference chalk mark on outer surface of back curtain along pinch-

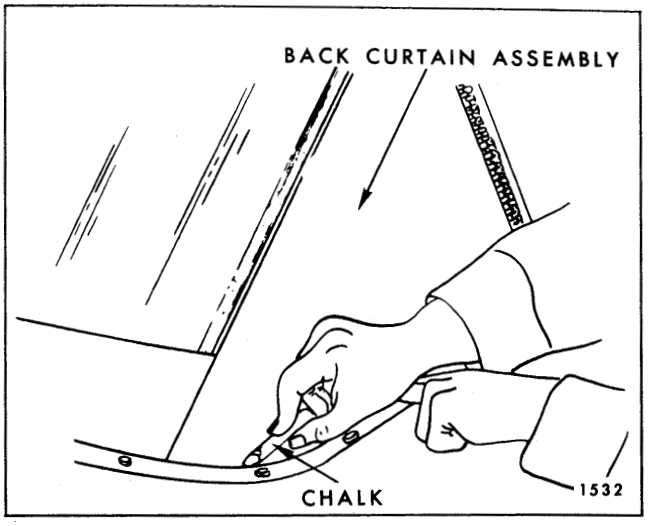

Fig. 6-57—Marking Back Curtain

weld finishing molding. Re-adjust back curtain assembly as required (Fig. 6-57).

15. On "B, C & A" Styles, tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

CAUTION: Do not cut back curtain or side stay pad material.

16. Detach rear trim stick with attached back curtain assembly from body and install top trim cover assembly.

NOTE: Extra care in positioning new curtain at same location on trim stick as old curtain and aligning of trim stick attaching bolt holes in top material with holes in trim stick will allow reinstallation of top material to its original position with a minimum of refitting.

17. Install all previously removed trim and hardware.

BACK CURTAIN ZIPPER REPLACEMENT
All Styles Equipped With Dropping Back Curtain

If only the back curtain zipper is being replaced, use the Removal and Installation procedure for "Back Curtain Assembly (Complete)" and perform the following additional operations after the back curtain assembly has been removed from body (after step 15 of removal procedure).

1. Using chalk or similar material, on old zipper tape mark location of zipper in relation to edges of back window and upper valance webbing.

2. Cut stitches securing zipper tape to back curtain assembly and to upper valance webbing.

3. Transfer reference marks to new zipper assembly.

4. Sew new zipper tape to back curtain material and upper valance webbing.

NOTE: Zipper tape may be stapled to back

curtain and upper valance webbing to aid in holding zipper in proper position during sewing operation.

5. Install back curtain assembly as described under Installation procedure for "Back Curtain Assembly (Complete)".

HYDRO-LECTRIC SYSTEM—ALL EXCEPT "Z" BODY

DESCRIPTION

The high pressure hydro-lectric unit used in the convertible bodies, consists of a 12 volt reversible type motor, a rotor-type pump, two hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. On the "A" Series the unit is installed in the body directly behind rear seat back. (Fig. 6-58). On the "B & C" Series the unit is installed in the body beneath the rear seat back panel (Fig. 6-59).

Figure 6-60 illustrates and identifies the individual parts of the motor and pump assembly.

NOTE: When servicing the motor assembly or pump end plate assembly, it is extremely important that the small motor shaft "O" ring seal is properly installed over the motor armature shaft and into the pump end plate assembly prior to installing the pump rotors or the motor shaft drive ball.

MOTOR AND PUMP ASSEMBLY

Removal

1. Operate folding top to full "up" position.
2. Disconnect positive battery cable.
3. a. On "A" Styles, place protective covering over rear seat cushion and back.

   b. On "B & C" Styles, remove rear seat cushion and back.
4. Working inside body, detach front edge of folding top compartment bag from rear seat back panel.
5. On "A" Body Styles, working on inside of body over rear seat back, remove pump and motor shield attaching screws and remove shield.
6. Remove clips securing wire harness and hydraulic hose to rear seat back panel. (Figs. 6-58 and 6-59).
7. a. On "A" Body Styles disconnect motor leads from wire harness and ground attaching screws (Fig. 6-58).

   b. On "B & C" Body Styles at rear seat back panel, disconnect wiring harness and remove ground wire attaching screw (Fig. 6-59).
8. To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan. (Figs. 6-59 and 6-58).
9. Place absorbent rags below hose connections and end of reservoir.
10. With a straight-bladed screwdriver, vent reservoir by removing filler plug; then install plug.

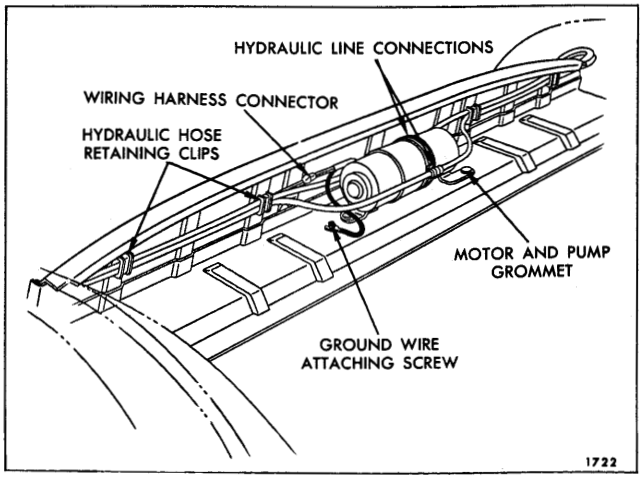

Fig. 6-58—Motor And Pump Assembly

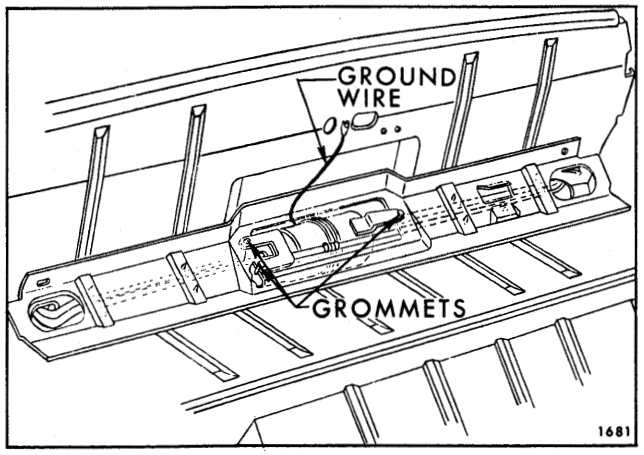

Fig. 6-59—Hydro-Lectric Motor And Pump Assembly

NOTE: Venting reservoir is necessary in this "sealed-in" unit to equalize air pressure in reservoir to that of the atmosphere. This operation prevents the possibility of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.

11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid. (Figs. 6-58 and 6-59). Use a cloth to absorb any leaking fluid, then remove unit from rear compartment.

Installation

1. If a replacement unit is being installed, fill reservoir unit with specified Delco No. 11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super No. 11 or its equivalent). See "Filling of Hydro-Lectric Reservoir".

2. Connect hydraulic hoses, engage attaching grommets in panel and connect wiring.

3. Connect battery and operate top through its up and down cycles until all air has been "bled" from hydraulic circuit. See "Filling of Hydro-Lectric Reservoir".

4. Check connections for leaks and recheck fluid level in reservoir.

5. Install all previously removed parts.

RESERVOIR TUBE

Disassembly From Motor and Pump Assembly

1. Remove motor and pump assembly from body.

2. Scribe a line across pump end plate and reservoir tube to insure a correct assembly of parts. See Fig. 6-61.

3. With a straight-bladed screwdriver, remove reservoir filler plug. Note sealing ring around plug.

4. Drain fluid from reservoir into a clean container.

5. With suitable tool, remove bolt from end of assembly and remove reservoir tube. Note sealing rings around bolt and between end of reservoir tube and pump cover plate assembly.

Assembly To Motor and Pump Assembly

1. Position sealing ring on pump and assembly reservoir tube to pump according to scribe marks.

NOTE: Bracket assembly on tube should be located at outer end when tube is assembled to pump.

2. Install and tighten attaching bolt.

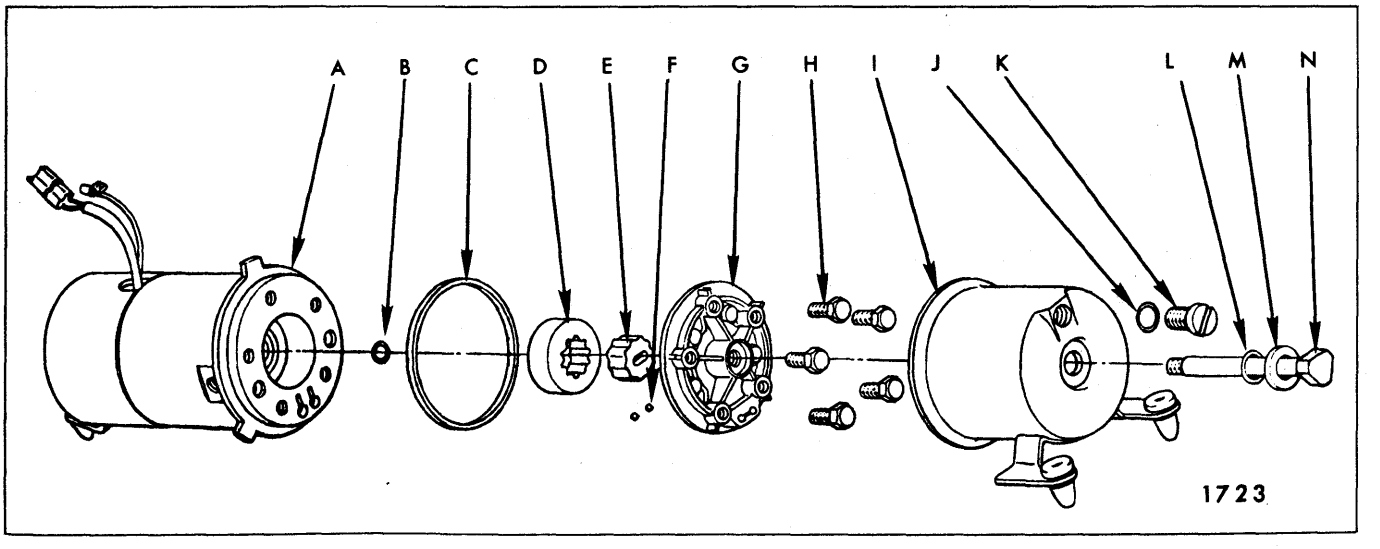

Fig. 6-60—Hydro-Lectric Motor And Pump Disassembled

A. Motor Assembly
B. Motor Shaft "O" Ring Seal
C. Reservoir Seal
D. Outer Pump Rotor
E. Inner Pump Rotor
F. Fluid Control Valve Balls
G. Pump Cover Plate Assembly
H. Pump Cover Attaching Screws
I. Reservoir Tube And Bracket Assembly
J. Reservoir Filler Plug "O" Ring Seal
K. Reservoir Filler Plug
L. Reservoir End Plate Attaching Bolt "O" Ring Seal
M. Reservoir End Plate Attaching Bolt Washer
N. Reservoir End Plate Attaching Bolt

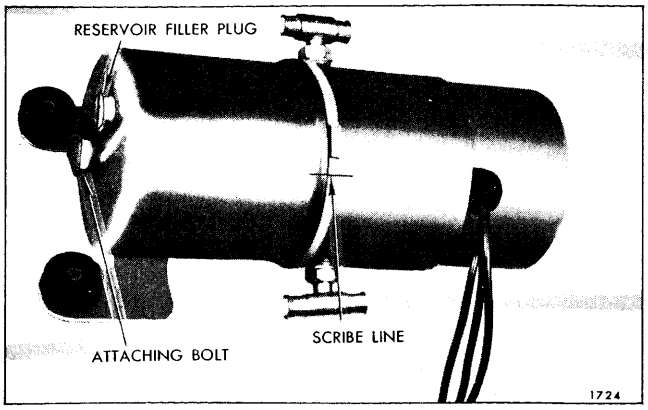

Fig. 6-61—Hydro-Lectric Motor And Pump Assembly

3. Place unit in horizontal position and fill with fluid until fluid level is within 1/4" of lower edge of filler plug hole.

4. Make sure that sealing ring is on filler plug before installing filler plug.

OPERATION OF FOLDING TOP

When the control switch is actuated to the "up" position, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control switch knob is actuated to the "down" position, the feed wire is connected to the dark green motor lead and the motor and pump assembly operate in a reversed direction to force the hydraulic fluid through the hoses to the top of the cylinders. The fluid forces the piston rods in the cylinders downward, thus lowering the top. The fluid in the bottom of the cylinders returns to the pump for recirculation to the top of the cylinders.

OPERATION OF PUMP ASSEMBLY

The rotor type pump assembly is designed to deliver a maximum pressure in the range of 340 psi to 380 psi. The operation of the pump assembly when raising the top is as follows:

1. Raising the Top. When the red motor lead is energized the motor drive shaft turns the rotors clockwise as indicated by the large arrow in Figure 6-62. The action of the pump rotors forces the fluid under pressure to the bottom of each cylinder forcing the piston upward. This action causes the fluid above the piston in each cylinder to be forced into the pump, which recirculates the fluid to the bottom of the cylinders. The additional fluid required to fill the cylinder due to piston rod displacement is drawn from the reservoir.

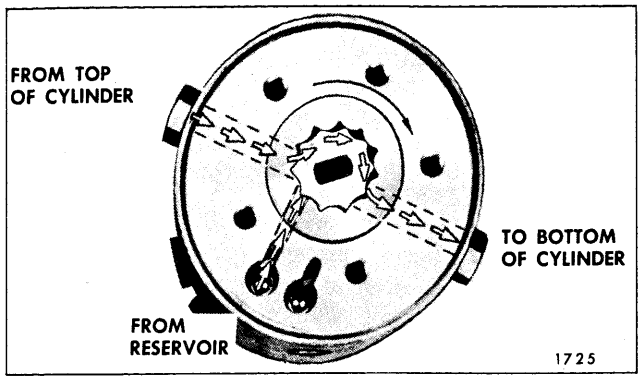

Fig. 6-62—Operation Of Pump To Raise Top

2. Lowering the Top. When the green motor lead is energized the motor drive shaft turns the rotors counterclockwise as indicated by the large arrow in Figure 6-63. The action of the pump rotors forces the fluid under pressure to the top of each cylinder. This action causes the fluid below the piston in each cylinder to be forced into the pump which recirculates the fluid to the top of each cylinder. The surplus hydraulic fluid die to piston rod displacement flows into the reservoir.

FLUID CONTROL VALVE

The fluid control valve consists of a rocker arm installed in the pump cover plate, and two steel balls. Figure 6-64 shows the top surface of the pump cover plate. The dotted lines indicate the cavities on the bottom side of the cover plate. The cavities are designed to permit fluid flow between

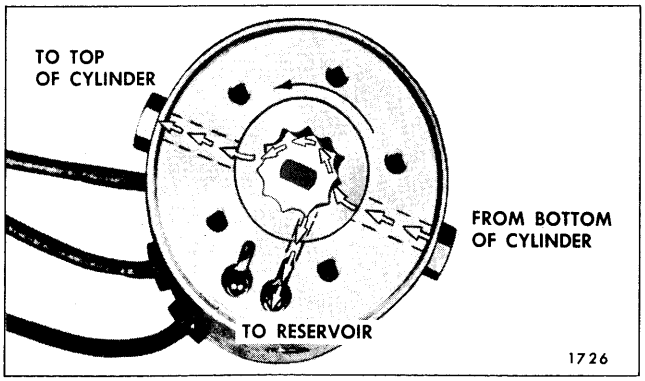

Fig. 6-63—Operation Of Pump To Lower Top

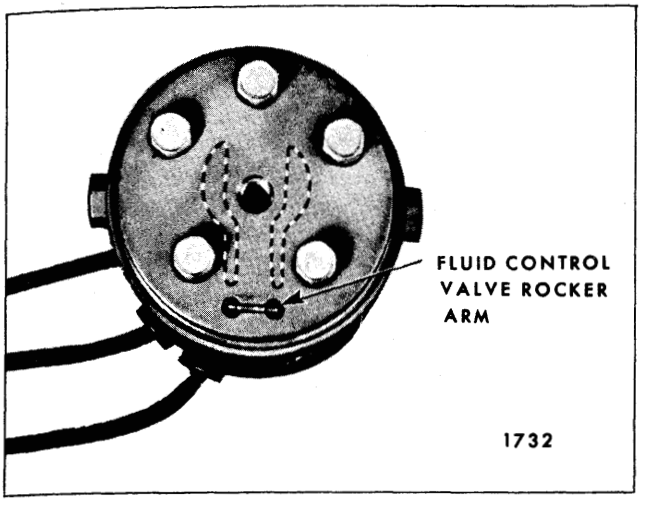

Fig. 6-64—Pump Cover Plate

pump rotors and the reservoir. Figure 6-65 and Figure 6-66 illustrates the operation of the fluid control valve.

MECHANICAL CHECKING PROCEDURE

If there is a failure in the hydro-lectric system and the cause is not evident the mechanical operation of the top should first be checked. If the folding top assembly appears to have a binding action, disconnect the top lift cylinder piston rods from the top linkage and then manually raise and lower the top. The top should travel through its up and down cycle without any evidence of binding action. If a binding action is noted when the top is being locked at the header, check the alignment of the door windows, ventilators and rear quarter windows with relation to the side roof rail weatherstrips. Make all necessary adjustments for correct top alignment. See "Folding Top Adjustments". If a failure continues to exist after a check for mechanical failure has been completed, the hydro-lectric system should then be checked for electrical or hydraulic failures.

ELECTRICAL CHECKING PROCEDURE

If a failure in the hydro-lectric system continues to exist after the mechanical operation has been checked, the electrical system should then be checked. A failure in the electrical system may be caused by a low battery, breaks in wiring, faulty connections, mechanical failure of an electrical component, or wires or components shorting to one another or to body metal. Before beginning checking procedures, check battery according to recommended procedure.

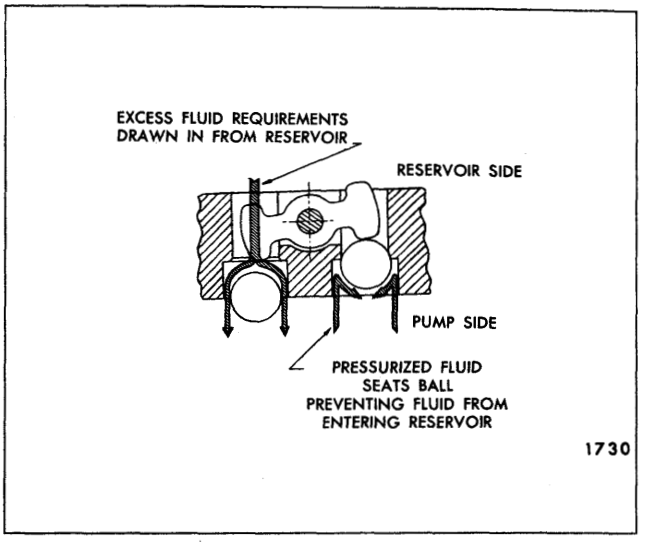

Fig. 6-65—Fluid Control Valve,

1. Check for Current at Folding Top Control Switch.

a. Disengage terminal block from rear of switch.

b. Connect light tester to central feed terminal of switch terminal block.

c. Ground light tester ground lead to body metal.

d. If light tester does not light, there is an open or short circuit between power source and switch.

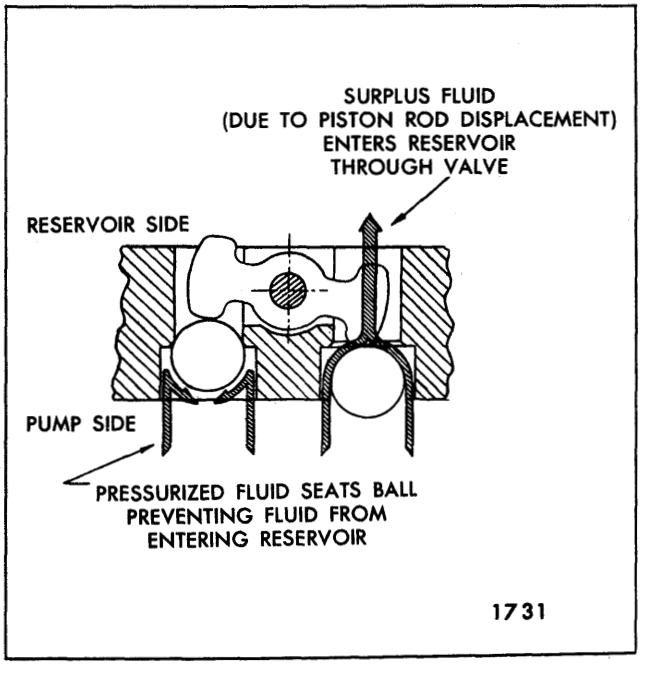

Fig. 6-66—Fluid Control Valve

2. Checking the Folding Top Control Switch.

If there is current at the feed wire terminal of the terminal block, operation of switch can be checked as follows:

a. Place a #12 jumper wire on switch terminal block between center terminal (feed) and one motor wire terminal. If motor operates with jumper wire, but did not operate with switch, switch is defective.

b. Connect jumper wire between center terminal and other motor wire terminal on switch terminal block. If motor operates with jumper wire, but did not operate with switch, switch is defective.

3. Checking Switch to Motor Lead Wires.

If switch is found to be operating properly, the switch to motor lead wires can be checked as follows: See Figure 6-67.

a. Disconnect green switch-to-motor wire from motor lead in rear compartment.

b. Connect a light tester to green switch-to-motor wire terminal.

c. Ground light tester ground lead to body metal.

d. Actuate switch to "down" position. If tester does not light, there is an open or short circuit in wire.

e. Disconnect red switch-to-motor wire from motor lead.

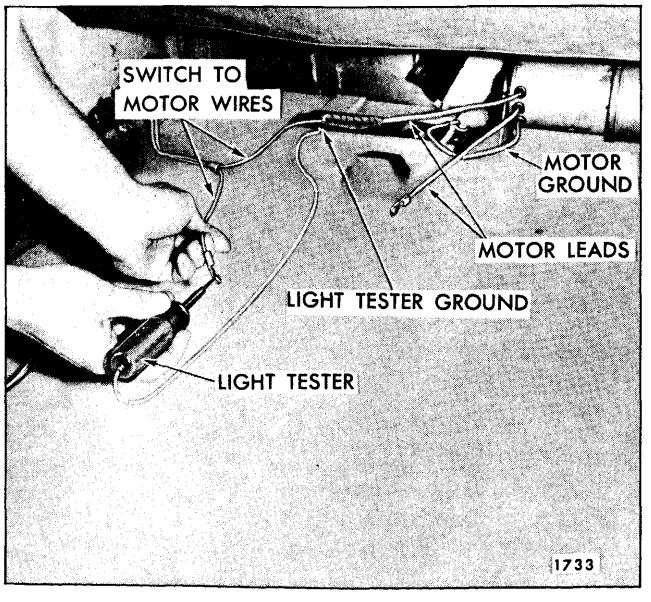

Fig. 6-67—Checking Motor Wiring

f. Connect light tester to red switch-to-motor wire terminal.

g. Actuate switch to "up" position. If tester does not light, there is an open or short circuit in wire.

4. Checking the Motor Unit.

If a light tester indicates current at the motor lead terminals of the switch-to-motor wires, but motor unit does not operate from switch, a final check of the motor unit can be made as follows:

a. Check connection of motor ground wire to body metal. (See Figs. 6-58 and 6-59.)

b. Connect a #12 jumper wire from battery positive pole to motor lead terminal that connects to green switch-to-motor wire. The motor should operate to lower top.

c. Connect jumper wire to motor lead terminal that connects to red switch-to-motor wire. The motor should operate to raise top.

d. If motor fails to operate on either or both of these checks, it should be repaired or replaced.

e. If motor operates with jumper wire but will not operate from switch-to-motor wires, the trouble may be caused by reduced current resulting from damaged wiring or poor connections.

HYDRAULIC CHECKING PROCEDURE

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in hydraulic system, obstructions or kinks in hydraulic hoses or faulty operation of a cylinder or pump.

1. Checking Hydraulic Fluid Level in Reservoir

a. Operate top to raised position.

b. On "A" body styles, at rear compartment, remove pump and motor shield.

c. On "B & C" body styles perform the following operations:

(1) Detach front edge of folding top compartment bag from rear seat back panel.

(2) Remove clips securing hydraulic hose to rear seat back panel.

(3) Disengage pump attaching grommets from compartment pan brace.

d. Place absorbent rags below reservoir at filler plug.

e. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within 1/4 inch of lower edge of filler plug hole.

f. If fluid is low, add Delco #11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super #11 or its equivalent) to bring to specified level. See "Filling of Hydro-Lectric Reservoir".

g. Install filler plug.

h. On "A" body styles, install pump and motor shield.

i. On "B & C" body styles install motor and pump assembly and all previously removed parts.

2. Checking Operation of Lift Cylinders.

a. On all styles remove rear seat cushion and folding top compartment side panel assemblies. On "B & C" body styles remove rear seat back.

b. Operate folding top control switch and observe lift cylinders during "up" and "down" cycles for these conditions:

(1) If movement of cylinder is uncoordinated or sluggish when the motor is actuated, check hydraulic hoses from motor and pump to cylinder for kinks.

(2) If one cylinder rod moves slower than the other, cylinder having slower moving rod is defective and should be replaced.

(3) If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See "Checking the Pressure of the Pump".

NOTE: To insure proper operation of the lift cylinders, the top lift cylinder rods should be cleaned and lubricated at least twice a year. To perform these operations, raise top to "up" position and wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation and/or accumulated grime. With another clean cloth, apply a light film of brake fluid to the piston rods to act as a lubricant.

CAUTION: Exercise care so that brake fluid does not come in contact with any painted or trimmed parts of the body.

3. Checking Pressure at the Pump

a. Remove motor and pump assembly from rear compartment.

b. Install plug in one port, and pressure gauge in port to be checked. See Figure 6-68.

c. Actuate motor with applied terminal voltage within range of 9.5 volts to 11.0 volts. Pressure gauge should show a pressure between 340 psi and 380 psi.

d. Check pressure in other port.

NOTE: A difference in pressure readings may exist between the pressure port for top of cylinders and pressure port for bottom of cylinders. This condition is acceptable if both readings are within the limit of 340 psi and 380 psi.

e. If the pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

FOLDING TOP LIFT CYLINDER

Removal and Installation

1. Lock top to windshield header.

2. Disconnect positive battery cable to prevent accidental operation of motor and pump, particularly when hydraulic hoses are disconnected from cylinder.

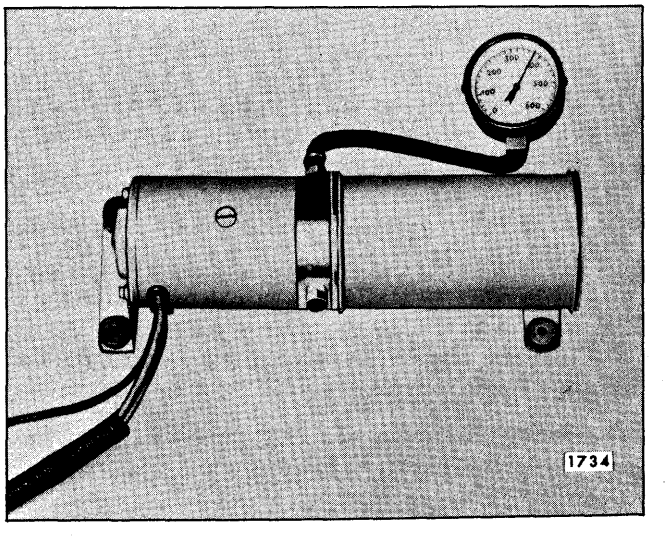

Fig. 6-68—Checking Pump Pressure

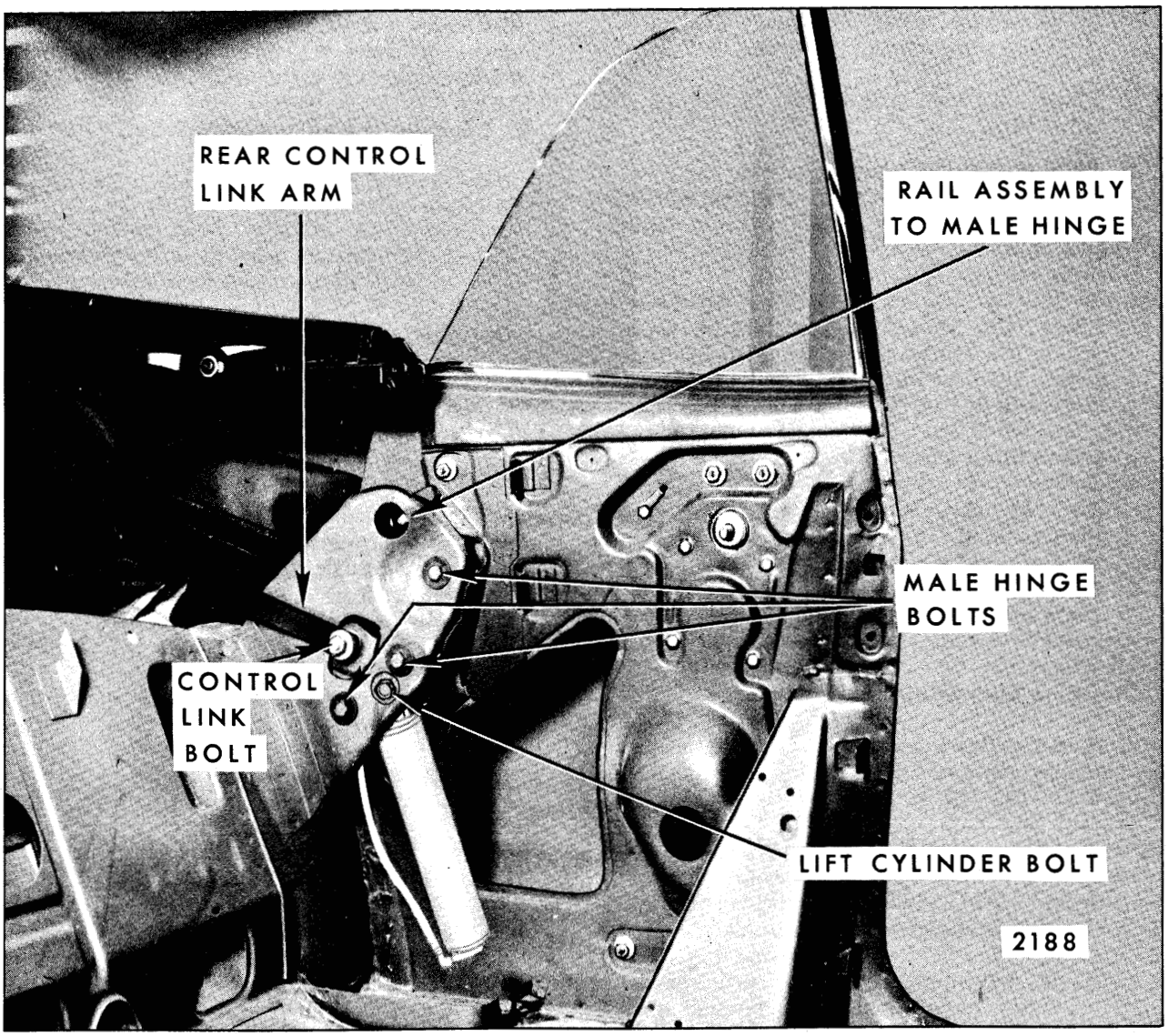

Fig. 6-69—"A" Body Hydraulic Lift Cylinder Attachment

3. Remove rear seat cushion and seat back.
4. Remove folding top compartment side trim panel assembly on side affected.
5. Remove clips securing hydraulic hose to rear seat back panel.
6. Remove attaching nut, bolt, bushing and washer from upper end of cylinder rod, Figures 6-69 and 6-70.
7. Remove inner and outer bolt securing cylinder to male hinge (Fig. 6-70).
8. Carefully move cylinder to inboard side of top compartment brace, exposing upper and lower hydraulic hose to cylinder connections.
9. Prior to disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid.
10. Disconnect hydraulic connections from old cylinder and transfer to new cylinder assembly.
11. Install new cylinder to male hinge.

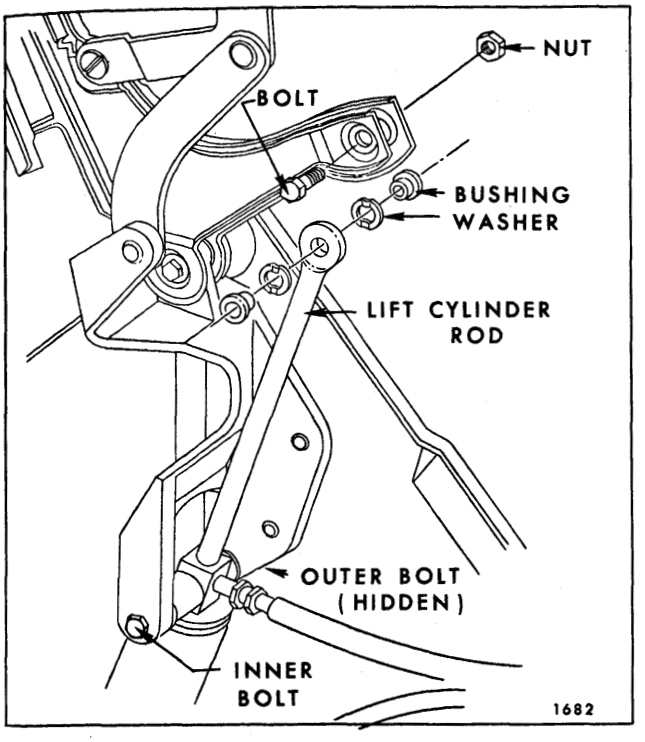

Fig. 6-70—"B and C" Body Hydraulic Lift Cylinder Attachment

12. Connect positive battery cable to battery terminal.

13. Using power, raise cylinder piston rod to extended position.

14. Attach upper end of cylinder rod to folding top linkage using previously removed nut, bolt, bushing and washer.

15. Operate folding top assembly down and up several times; then check and correct level of hydraulic fluid in reservoir. See "Filling of Hydro-Lectric Reservoir".

16. Install hydraulic hose to rear seat back panel with clips and install all previously removed trim and hardware.

FILLING OF HYDRO-LECTRIC RESERVOIR

This procedure virtually eliminates discharge or spillage of hydraulic fluid and possible trim damage while filling and bleeding system.

1. Filler Plug Adapter.

   a. Drill 1/4 inch diameter hole through center of spare reservoir filler plug.

   b. Install two inch length of metal tubing (1/4" O.D. x 3/16" I.D.) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection. See Figure 6-71.

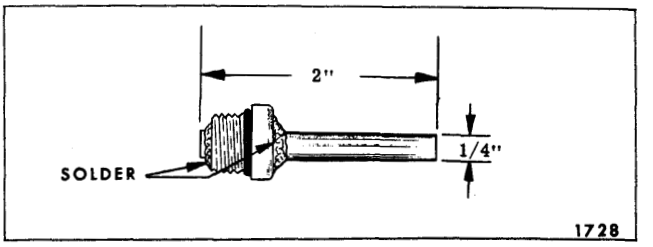

Fig. 6-71—Reservoir Filler Plug Adapter

2. Filling and Bleeding Reservoir.

   a. On "A" body styles, with top in raised position, remove folding top compartment bag material from rear seat back panel and remove pump and motor shield.

   b. On "B & C" body styles perform the following:

      (1) Remove rear seat cushion and back.

      (2) Working from inside of body, detach front edge of folding top compartment bag from rear seat back panel.

      (3) Remove clips securing hydraulic hose to rear seat back panel.

      (4) To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from compartment pan brace.

   c. Place absorbent rags below reservoir at filler plug. Using a straight-bladed screwdriver, slowly remove filler plug from reservoir.

IMPORTANT: When installing new or overhauled motor and pump assembly, as a bench operation, fill reservoir to specified level with hydraulic fluid. This operation is necessary as pump must be primed prior to operation to avoid drawing excessive amount of air into hydraulic system.

   d. Install filler plug adapter to reservoir and attach four or five foot length of 3/16 inch I.D. rubber tubing or hose to filler plug tubing.

   e. Install opposite end of hose into a container of GM Hydraulic Brake Fluid Super #11 or equivalent. (Fig. 6-72 shows typical set-up.)

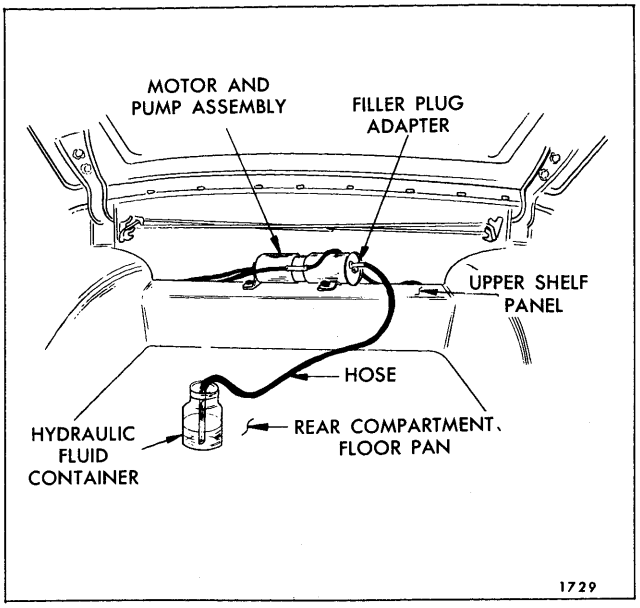

Fig. 6-72—Filling Reservoir

NOTE: Container should be placed in rear compartment area of body, below level of fluid in the reservoir. In addition, sufficient fluid must be available in container to avoid drawing air into hydraulic system.

f. Operate top to down or stacked position. After top is fully lowered, continue to operate motor and pump assembly (approximately 15 to 20 seconds), or until noise level of pump is noticeably reduced. Reduction in pump noise level indicates that hydraulic system is filling with fluid.

g. Operate top several times or until operation of top is consistently smooth in both up and down cycles.

h. Remove hose from filler plug tubing and remove filler plug adapter from reservoir.

i. Check level of fluid in reservoir and reinstall original filler hole plug.

NOTE: Fluid level should be within 1/4 inch of lower edge of filler plug hole.

ACTUATOR ASSEMBLY—All "Z" Body Styles EQUIPPED WITH ELECTRICALLY OPERATED FOLDING TOPS

REMOVAL

1. Remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected.
2. Lock top to windshield header.
3. Fully raise all door and rear quarter windows.
4. Disconnect drive cable from actuator assembly.
5. Remove bolts securing side roof rear rail to sector gear (Fig. 6-73).
6. Mark location of control link adjusting plate on folding top compartment brace (Fig. 6-73).
7. Remove control link adjusting plate attaching bolts.
8. Mark location of female hinge attaching bolt washers on folding top compartment brace (Fig. 6-73).
9. Remove female hinge attaching bolts and remove actuator assembly from body.

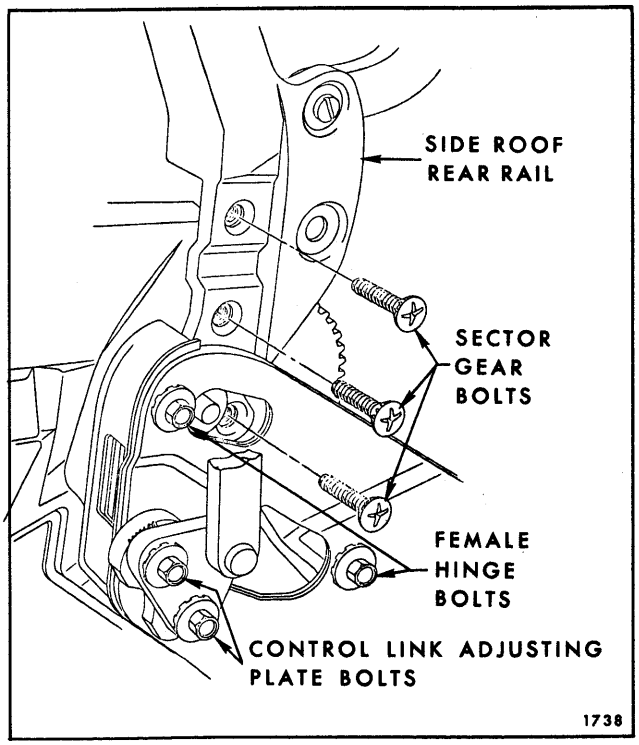

Fig. 6-73—Actuator Attachment

INSTALLATION

1. Install female hinge attaching bolts to new actuator assembly, using washer scribe marks as guide (Fig. 6-73).

2. Install control link adjusting plate attaching bolts, using scribe mark of control link as guide (Fig. 6-73).

IMPORTANT: Be sure female hinge and control link attaching bolts are tight and top is locked to windshield header.

3. Manually move sector gear until all attaching bolts can be easily installed; then tighten sector gear attaching bolts (Fig. 6-73).

NOTE: New actuator assembly should now be "in phase" with opposite lift assembly.

4. Connect drive cable to actuator assembly.

5. Unlock top from windshield header.

6. Operate top to down or "stacked" position.

IMPORTANT: Care should be exercised when operating top during first test cycle to be sure that both actuators are synchronized or "in phase". Operation of top when actuators are "out of phase" may cause damage to side roof rails, actuators or convertible top material.

7. If electric lift units are "out of phase", proceed as follows:

   a. Remove compartment bag material from rear seat back panel.

   b. Disconnect both drive cables from motor assembly (Fig. 6-74).

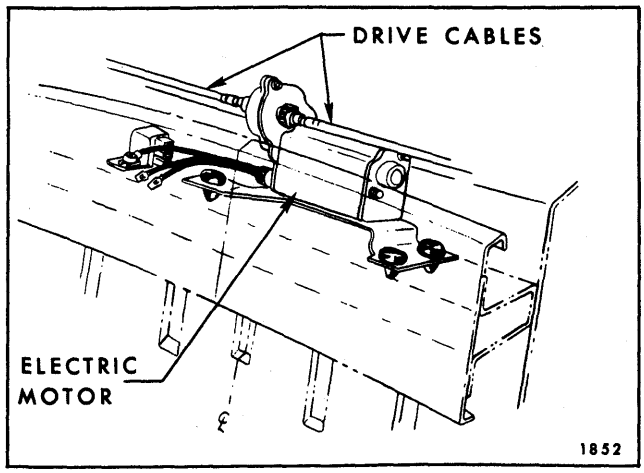

Fig. 6-74—Folding Top Electric Motor and Cables

   c. Manually raise top above windshield header.

   d. Lock top to windshield header.

   e. Connect drive cables to motor.

   f. Operate top through one or two complete cycles.

NOTE: The above procedure may be repeated on an "as required" basis if top does not appear to be "in phase" after test cycle.

   g. Install compartment bag material to rear seat back panel.

8. Install folding top compartment side trim panel and rear seat back and cushion assembly.

INOPERATIVE FOLDING TOP IN DOWN ("STACKED") POSITION

1. Working over rear seat back, detach top compartment bag material from rear seat back panel.

2. Disconnect both drive cables from motor assembly (Fig. 6-74).

3. With aid of helper, manually raise folding top assembly and lock to windshield header.

4. To replace an actuator assembly see "Folding Top Actuator Assembly" removal and installation procedure.

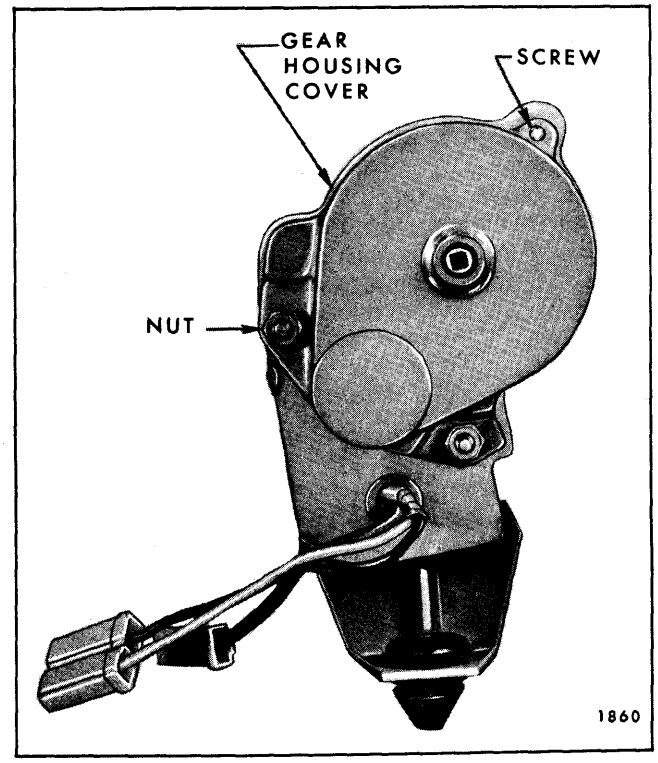

Fig. 6-75—Folding Top Lift Assembly

TOP LIFT ASSEMBLY

Disassembly and Assembly

1. Working over rear seat back, detach top compartment bag material from rear seat back panel.

2. Disconnect both drive cables from motor assembly.

3. Remove nuts, washers and screw securing gear housing cover to motor assembly (Fig. 6-75).

4. Disassemble folding top lift assembly as shown in Figure 6-76.

5. To assemble, reverse disassembly procedure.

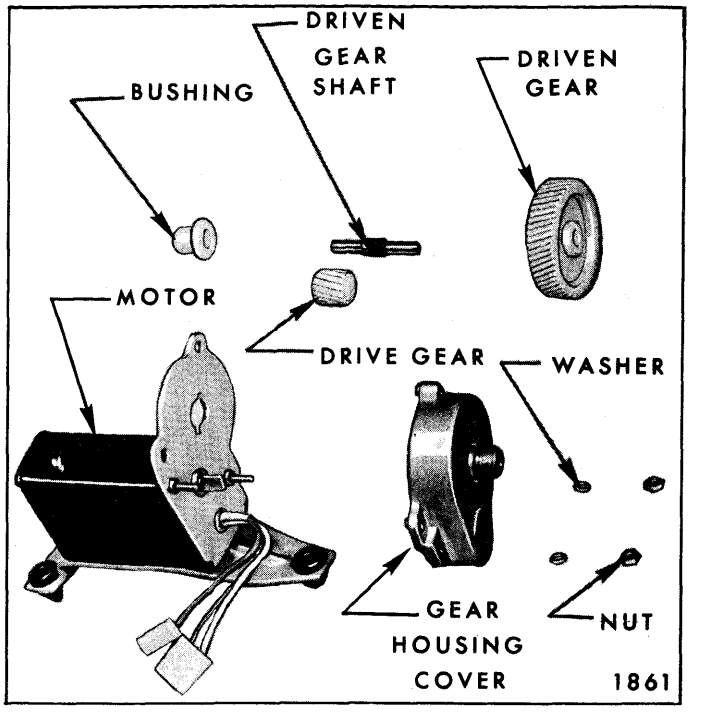

Fig. 6-76—Folding Top Lift Disassembled

FOLDING TOP MANUAL LIFT ASSEMBLY ALL CONVERTIBLE BODIES WITH MANUALLY—OPERATED FOLDING TOPS

DESCRIPTION

The manual lift assembly incorporates a dual-action heavy duty spring which helps compensate for the weight of the folding top mechanism when the top is at or near the full up or full folded positions. When the top is in the up position, the spring is under compression; when it is in the folded or stacked position, the spring is under tension.

CAUTION: Do not attempt to detach lift assembly when spring is under tension or compression.

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected.

2. Move top to midway position to relieve the manual lift springs. If both lift assemblies are to be serviced, have helper support folding top or place supporting props under front roof rail.

3. Remove attaching nut, bolt, bushing and washer from upper end of lift assembly.

4. Remove inner and outer bolt securing lift assembly to male hinge; then remove assembly from body (Fig. 6-77 for "A" body and Fig. 6-78 for "Z" body).

5. To install manual lift assembly, reverse removal procedure. Operate folding top assembly down and up several times to insure proper operation.

FOLDING TOP CATCH CLIPS

The folding top catch clips snap over the folding top side roof center rails when the top is being lowered to the folded or stacked position. The catch clips prevent the spring-loaded manual lift arms from raising the top from this position. In order to raise the top, both catch clips must be disengaged from the side roof center rails. Each catch clip is attached to the folding top compartment side panels by two screws. Any adjustments made to change stack height of the folding top

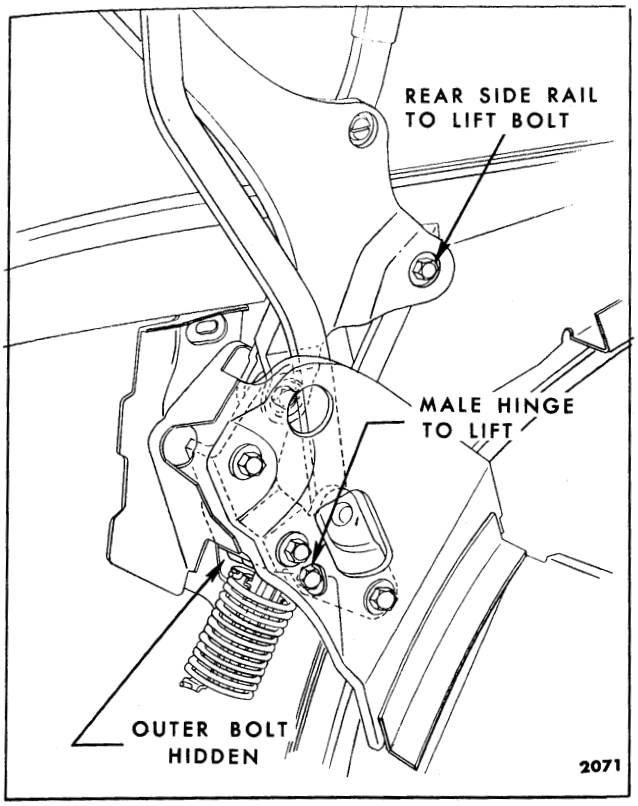

Fig. 6-77—"A" Body Manual Lift Assembly

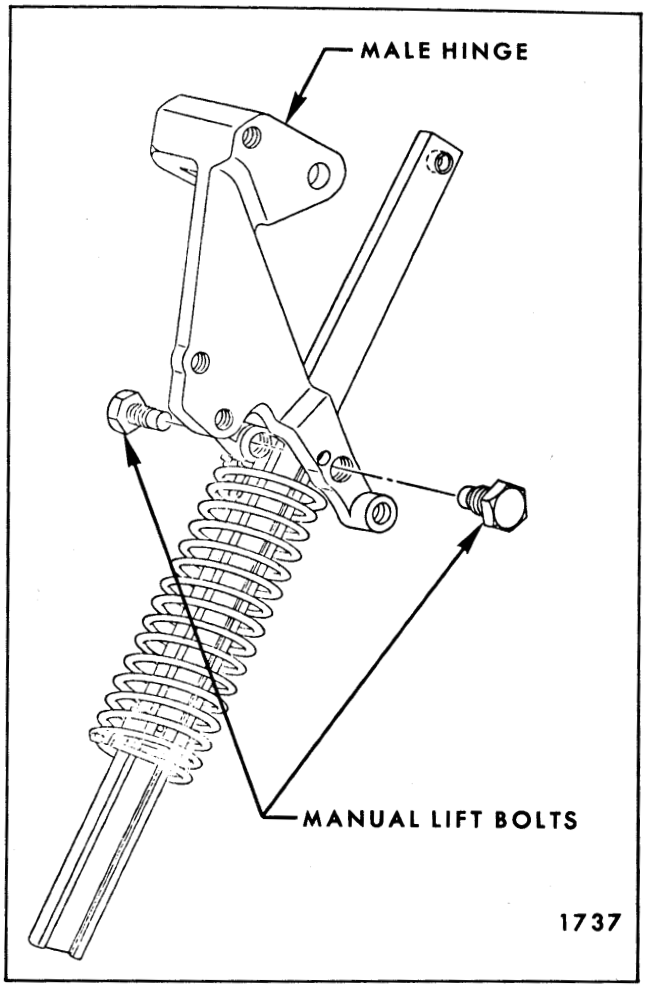

Fig. 6-78—Manual Lift Attachment

(See "Folding Top Adjustments") require corresponding adjustments to the catch clips.

FOLDING TOP ADJUSTMENTS—"A" Body

DESCRIPTION

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

CAUTION: When operating a manually-operated folding top, hands must be kept clear of side roof rail hinges and connecting linkages.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL WEDGE PLATE

The folding top front roof rail wedge plates are designed to contact the sunshade support and striker assembly thus aligning the front roof rail to the striker so that both side roof rail locks will easily engage with the strikers. In addition, the wedge plates act as a spacer between the front roof rail and windshield header when top is in the locked position.

If the front roof rail wedge plates do not contact the sunshade support and striker assemblies when top is locked to the windshield header, the right wedge plate may be adjusted as follows:

NOTE: The left wedge plate functions as a locator and is not adjustable.

1. Raise top assembly to half-open position.
2. Loosen wedge plate attaching screws (Fig. 6-79).

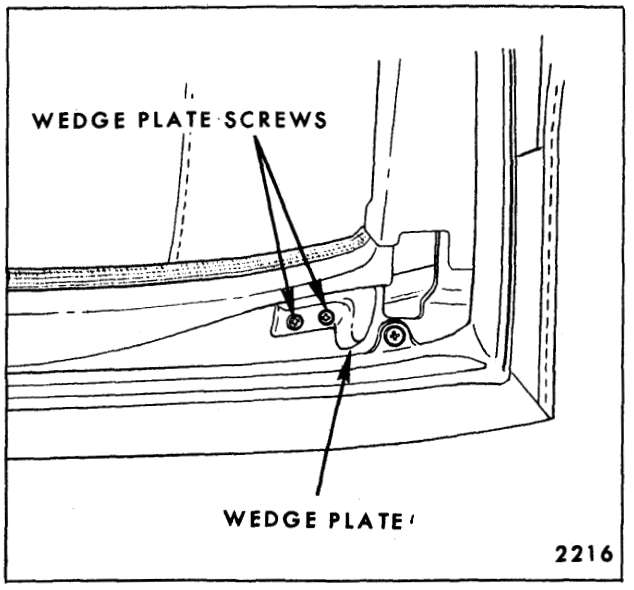

Fig. 6-79—Front Roof Rail Wedge Plate

3. Adjust wedge plate in or out sufficiently so that wedge plate will strike assembly when top is locked to windshield header.

4. Tighten attaching screws.

5. Lock top to windshield header.

6. Readjust wedge plate until desired adjustment is obtained.

NOTE: The sunshade support and striker assembly is not adjustable.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or too far rearward, the front roof rail may be adjusted as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.

2. Loosen lock assembly attaching screws on side roof front rail and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary. (See View "A", Fig. 6-80.)

NOTE: If additional adjustment is required, it can be made at folding top male hinge.

3. When front roof rail is properly adjusted, tighten lock assembly and install weatherstrip attaching screws.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.

2. With top in a half-open position, remove lock attaching screws; then remove lock assembly from front roof rail. (See View "A", Fig. 6-80).

3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook clockwise.

2. To reduce or decrease locking action, turn lock hook counterclockwise.

ADJUSTMENT OF TOP CONTROL LINK

1. With top in "up" position, if joint between front and center side roof rail is too high or too low, proceed as follows:

   a. Remove folding top compartment side trim panel.

   b. Loosen one bolt securing control link sufficiently to permit adjustment of link (See Fig. 6-81).

   c. Adjust side roof rail up or down allowing link to move up or down over serrations on support as required; then tighten bolt.

   d. Reinstall folding top compartment side trim panel.

ADJUSTMENT OF TOP AT MALE HINGE

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:

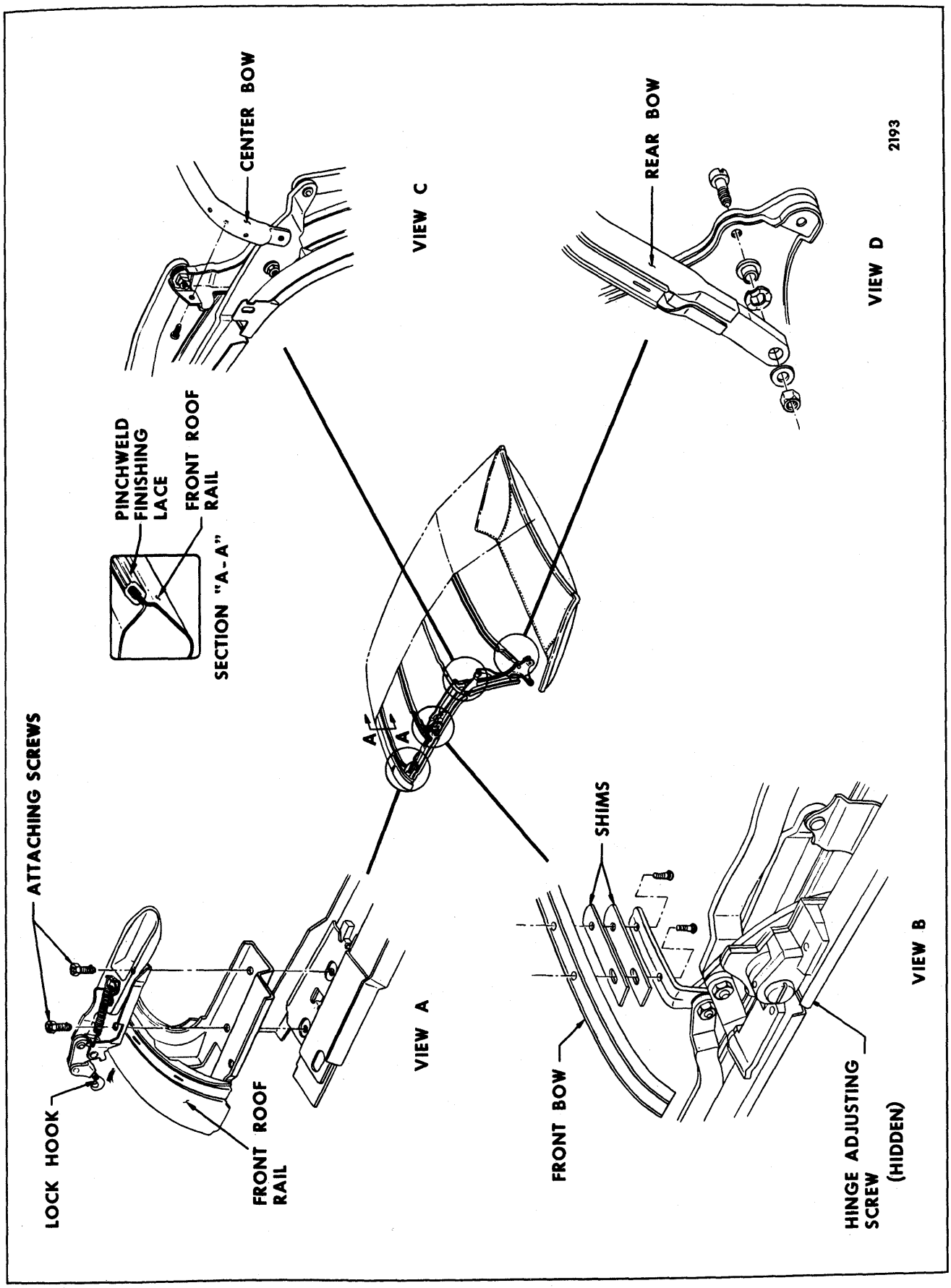

Fig. 6-80—"A" Body Folding Top Adjustments

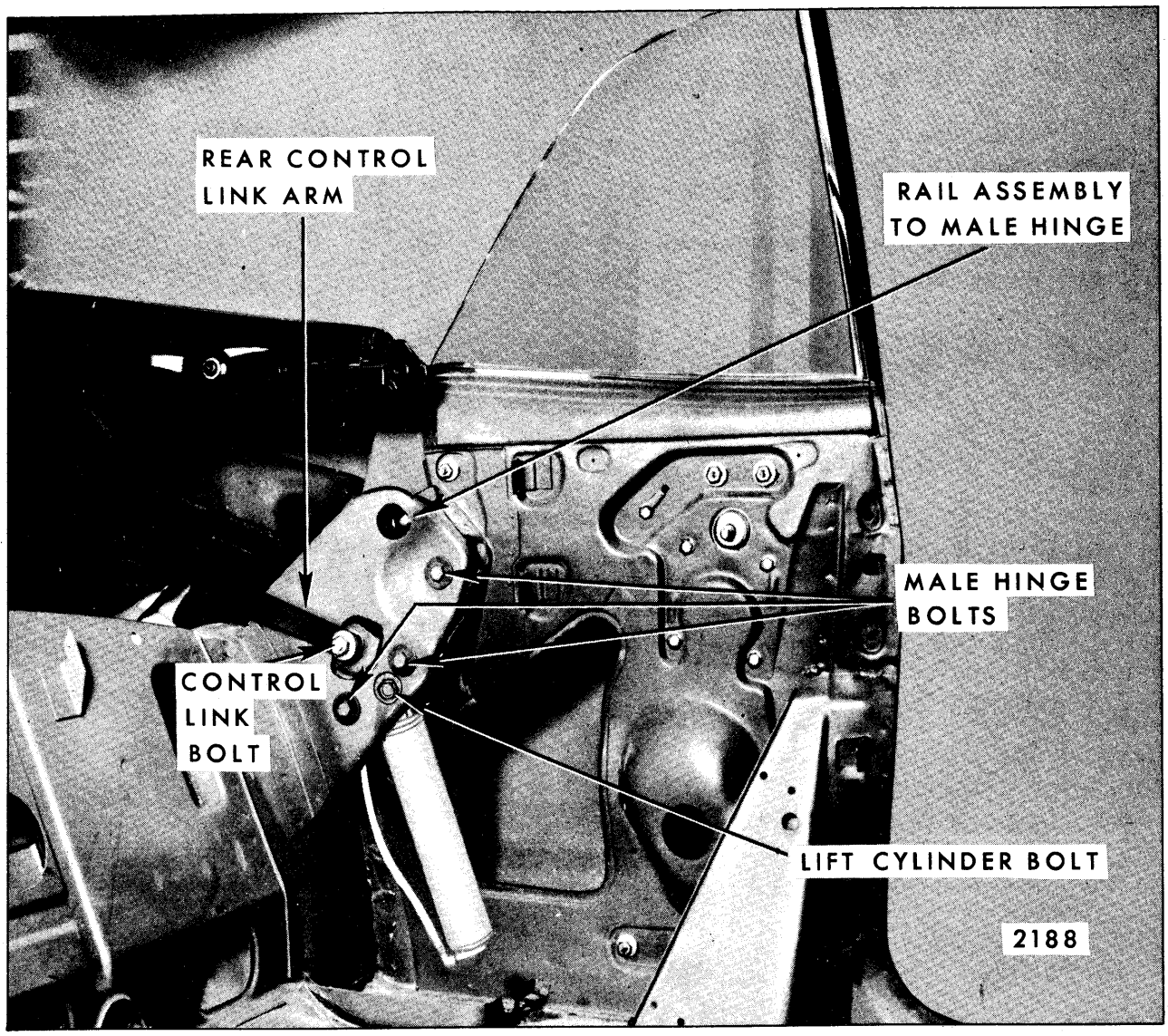

Fig. 6-81—"A" Body Convertible Top Linkage Attachments

a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.

b. Loosen male hinge assembly (Fig. 6-81).

c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window, then tighten bolts.

d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit at top material at rear quarter trim stick; then tighten trim stick attaching bolts.

e. On styles equipped with manually operated folding tops adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware").

2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:

a. Scribe location of male hinge attaching

bolt washers and control link on folding top compartment brace.

b. Loosen male hinge assembly (see Fig. 6-81).

c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rail and rear quarter window.

d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.

e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

f. On styles equipped with manually-operated folding tops, adjust folding top catch clips as required. (See "Manually Operated Folding Top Hardware").

3. If top does not stack properly when top is in down position proceed as follows:

a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.

b. Loosen male hinge assembly.

c. Rotate male hinge forward to lower stack height or rearward to raise stack height (Fig. 6-81).

NOTE: When rotating male hinge be certain position of rear rail to male hinge is maintained (Fig. 6-81).

d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.

e. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required (see "Manually Operated Folding Top Hardware").

TROUBLE SHOOTING CHART

The following procedure describes and illustrates various types of folding top misalingment conditions, their apparent causes and the recommended procedure for their correction.

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise. (See View "A" in Fig. 6-80).
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail. (View "A" in Fig. 6-80).
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise. (See View "A" in Fig. 6-80).
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misalinged.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (see View "A" in Fig. 6-80).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward. (Fig. 6-81).
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward. (See View "A" in Fig. 6-80).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward. (Fig. 6-81).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward. (Fig. 6-81).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward and/or shim side roof rail rear weatherstrip forward as required (Fig. 6-81).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward. (Fig. 6-81).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required. (Fig. 6-81).
I. Sag at front to center side roof rail joint.	1. Control link misaligned.	Adjust control link downward. (Fig. 6-81).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise. (See View "B" in Fig. 6-80).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link misaligned.	Adjust control link upward. (Fig. 6-81).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise. (See View "B" in Fig. 6-80).
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned male hinge assembly.	Rotate male hinge forward or rearward as required. (Fig. 6-81).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 15-5/8" $\pm$ 1/16". The dimension is measured at approximate centerline of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.
	5. On manual tops, due to improperly adjusted catch slips.	Adjust catch clips downward as required.

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned male hinge assembly.	Rotate male hinge assembly rearward as required. (Fig. 6-81).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 15-5/8" ± 1/16". The dimension is measured at approximate centerline of body.
	3. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips upward as required.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron. (See View "B" in Fig. 6-80).
	2. Excessive width in top material.	If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material.
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron. (See View "B" in Fig. 6-80).
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center or rear quarter trim stick.	Retack top material as required.
P. Wind whistle or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required or when installing only one shim, use attaching screw part #4412844 (1/4 - 20 x 5/8" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

FOLDING TOP ADJUSTMENTS—"B & C" Body

DESCRIPTION

The folding top linkage consists of three sections of right and left side roof rails and a front roof rail connected by bolts, hinges, and a series of connecting links and bows. The top linkage is attached to the body at the rear quarter area by a male hinge. The hinge is attached directly to the quarter panel brace. The front roof rail is locked at the windshield header by two hook type locks which are an integral part of the two locking handles.

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL GUIDE

If the front roof rail guides do not properly engage with the striker assemblies when the top is in an "up" or raised position, the guides may be adjusted laterally as follows:

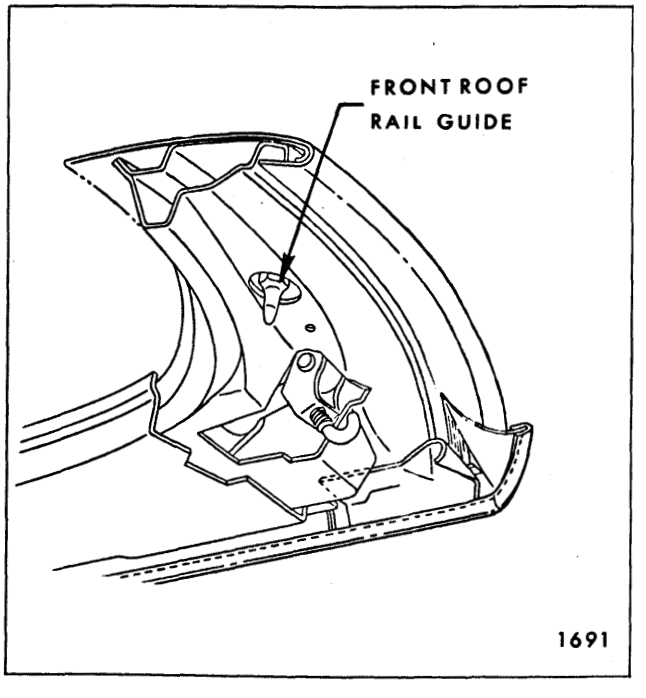

Fig. 6-82—Guide Adjustment

1. Raise top assembly to half-open position.
2. Loosen guide sufficiently to permit adjustment (Fig. 6-82).
3. Shift guide to desired position; then tighten guide.

NOTE: The sunshade support and striker assembly is not adjustable. In addition, adjustment of guide is limited. If additional adjustment is required, particularly fore and aft movement of the front roof rail, it can be obtained by adjusting the front roof rail and/or folding top male hinge.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or does not move forward enough to allow the guide studs on the front roof rail to enter holes in the striker assemblies, proceed as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen side roof rail lock attaching screws and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary (Fig. 6-83).

NOTE: If additional adjustment is required, it can be made at the folding top male hinge.

3. When front roof rail is properly adjusted, tighten lock attaching screws and install weatherstrip attaching screws.

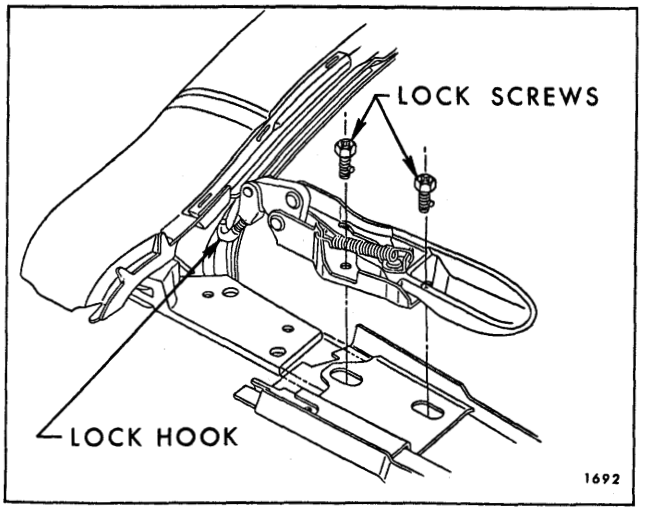

Fig. 6-83—Lock Attachment

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-open position, remove lock attaching screws; then, remove lock assembly from front roof rail (Fig. 6-83).
3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as as follows:

1. To tighten or increase locking action, turn lock hook clockwise.
2. To reduce or decrease locking action, turn lock hook counterclockwise.

ADJUSTMENT OF TOP CONTROL LINK ADJUSTING PLATE

1. With top in up position, if joint between front and center side roof rail is too high or too low, proceed as follows:
   a. Remove folding top compartment side trim panel.
   b. Scribe location of control link adjusting plate on folding top compartment brace.
   c. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (Fig. 6-84).
   d. Without changing fore and aft location of adjusting plate, adjust side roof rail up or down allowing adjusting plate to move up or down over serrations on support as required; then tighten bolts.
2. If top assembly does not stack properly when top is in down position, proceed as follows:
   a. Scribe location of control link adjusting plate on folding top compartment brace.
   b. Loosen bolts securing control link adjusting plate sufficiently to permit adjustment of plate.
   c. Without changing the up or down location of adjusting plate, move adjusting plate forward or rearward (horizontally) over serrations as required to obtain desired height; then tighten bolts.

NOTE: If top cannot be fully lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

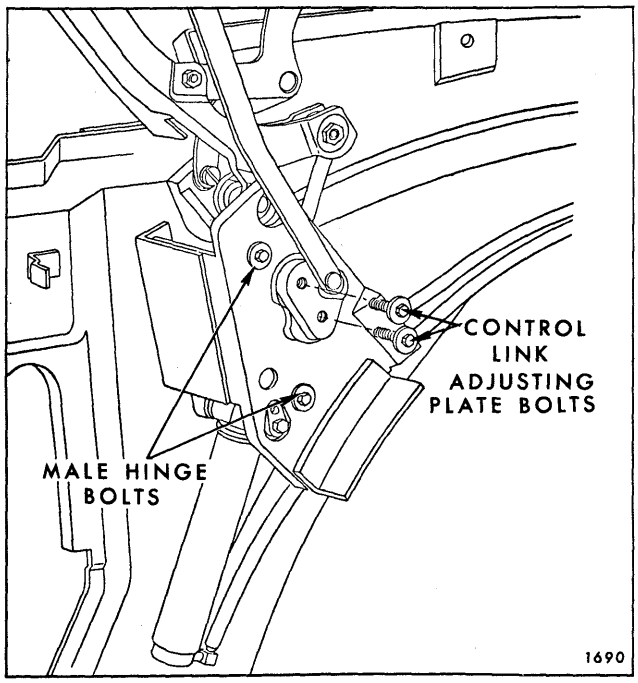

Fig. 6-84—Male Hinge Attachment

ADJUSTMENT OF TOP AT MALE HINGE SUPPORT

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary, adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:
   a. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.

b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-84).

c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window; then tighten bolts.

d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit of top material at rear quarter trim stick area. If necessary, adjust trim stick; then tighten trim stick attaching bolts.

e. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described. (See steps #1 and 2 under "Adjustment of Top Control Link Adjusting Plate").

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:

a. Mark location of male hinge attaching bolt washers and control link on folding top compartment brace.

b. Loosen male hinge assembly attaching bolts (Fig. 6-84).

c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rails and rear quarter windows.

d. Tighten attaching bolts, while maintaining proper alignment of vertical scribe marks.

e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

f. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described. (See steps #1 and 2 under "Adjustment of Top Control Link Adjusting Plate").

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, re-adjust male hinge assembly as required. Check top for proper operation.

TROUBLE SHOOTING CHART

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise.
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise.
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (Fig. 6-85).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-84).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward (Fig. 6-85).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-84).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-84).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-84) and/or shim side roof rail rear weatherstrip forward as required.
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward (Fig. 6-84).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail weatherstrip downward as required.
I. Sag at front of center side roof rail joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate downward (Fig. 6-84).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise (Fig. 6-85).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate upward (Fig. 6-84).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise (Fig. 6-85).
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate rearward or forward as required (Fig. 6-84).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back panel rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 21-1/8" $\pm$1/16". The dimension is measured at approximate centerline of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate forward (Fig. 6-84).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinch-weld finishing molding is 21-1/8" ± 1/16". The dimension is measured at approximate centerline of body.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron (Fig. 6-85).
	2. Excessive width in top material.	If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material.
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron (Fig. 6-85).
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center of rear quarter trim stick.	Retack top material as required.
P. Wind whistles or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
	2. Front roof rail contour does not conform to windshield header.	Contour of front roof rail may be changed slightly by reforming rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required or when installing only one shim, use attaching screw part #4413016 (1/4 - 20 x 7/16" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish) or equivalent.

When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish) or equivalent.

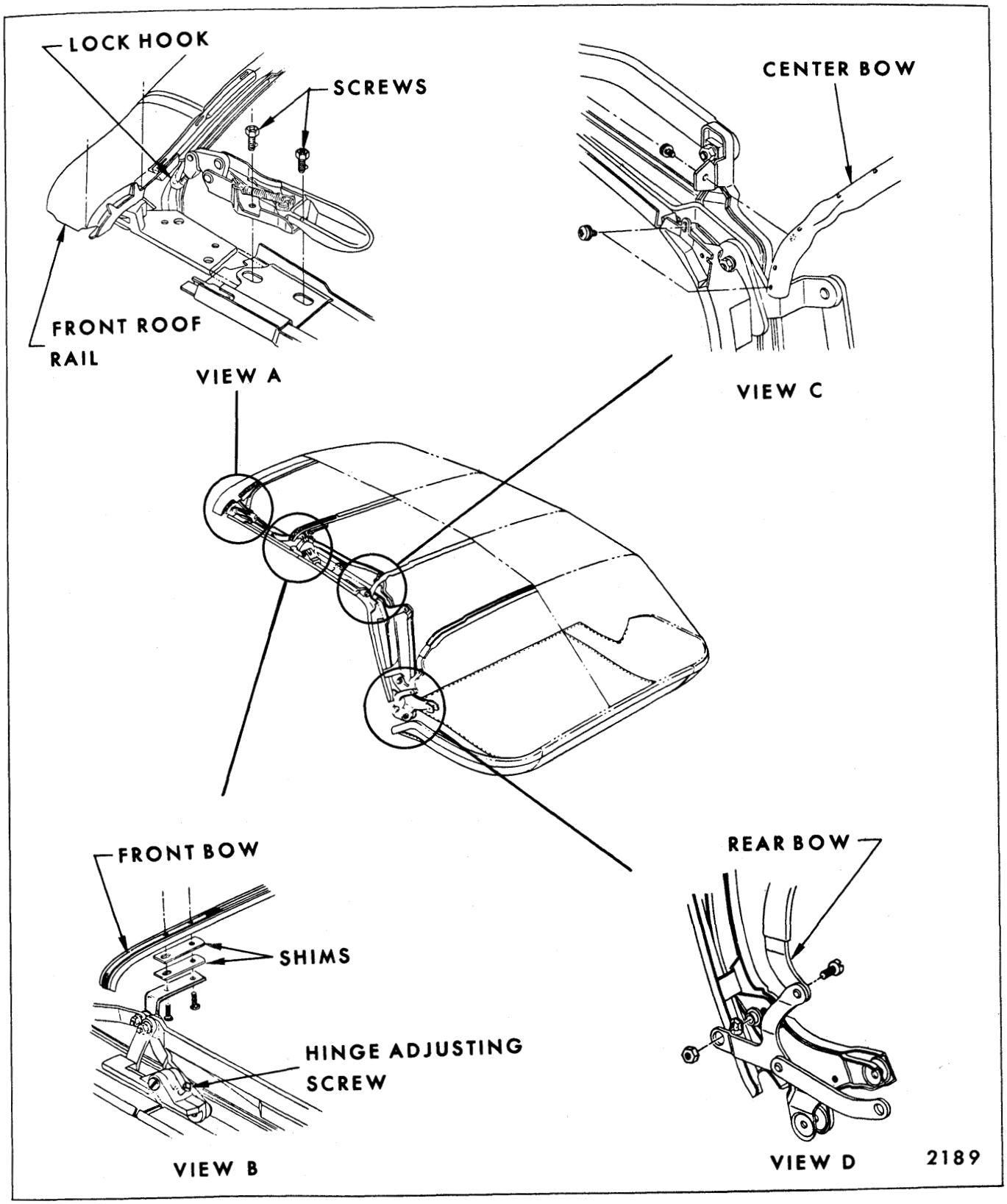

Fig. 6-85—"B and C" Body Folding Top Adjustments

a. Remove folding top compartment side trim panel.

b. Scribe location of control link adjusting plate on folding top compartment brace.

FOLDING TOP ADJUSTMENTS—"Z" Body

DESCRIPTION

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

CAUTION: When operating a manually-operated folding top, hands must be kept clear of side roof rail hinges and connecting linkages.

ADJUSTMENT OF FOLDING TOP FRONT ROOF RAIL WEDGE PLATE

The folding top front roof rail wedge plates are designed to contact the side of the sunshade support and striker assembly thus aligning the front roof rail to the striker so that both side roof rail locks will easily engage with the strikers. In addition, the wedge plates act as a spacer between the front roof rail and windshield header when top is in the locked position.

If the front roof rail wedge plates do not contact the sunshade support and striker assemblies when top is locked to the windshield header, the wedge plates may be adjusted as follows:

1. Raise top assembly to half-open position.
2. Remove wedge plate by removing inboard and outboard attaching screws (Fig. 6-86).
3. Using a file, slot inboard screw hole in wedge plate.
4. Install wedge plate and attaching screws.

NOTE: Do not tighten screws.

5. Move wedge plate in or out sufficiently so wedge plate will contact side of striker assembly when top is locked to windshield header. Tighten attaching screws.
6. Lock top to windshield header.

NOTE: The sunshade support and striker assembly is not adjustable.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL

If the top, when in a raised position, is too far forward or too far rearward, the front roof rail may be adjusted as follows:

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen side roof front rail lock attaching screws and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary (Fig. 6-87).

NOTE: If additional adjustment is required, it can be made at folding top male hinge.

3. When front roof rail is properly adjusted, tighten attaching screws and install weatherstrip attaching screws.

FRONT ROOF RAIL LOCK ASSEMBLY

Removal and Installation

1. Unlock top from windshield header.
2. With top in a half-open position, remove lock attaching screws; then remove lock assembly from front roof rail (Fig. 6-87).
3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook clockwise (Fig. 6-88).
2. To reduce or decrease locking action, turn lock hook counterclockwise (Fig. 6-87).

ADJUSTMENT OF TOP CONTROL LINK ADJUSTING PLATE

1. With top in "up" position, if joint between front and center side roof rail is too high or too low, proceed as follows:

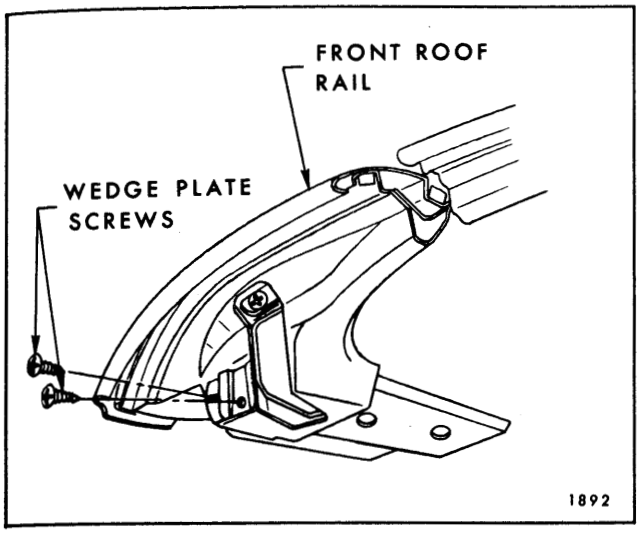

Fig. 6-86—Front Roof Rail Wedge Plate

c. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (Fig. 6-88).

d. Without changing fore and aft location of adjusting plate, adjust side roof rail up or down allowing adjusting plate to move up or down over serrations on support as required; then tighten bolts.

2. If top assembly does not stack properly when top is in down position, proceed as follows:

a. Loosen rear quarter trim stick attaching bolts on side to be adjusted.

b. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.

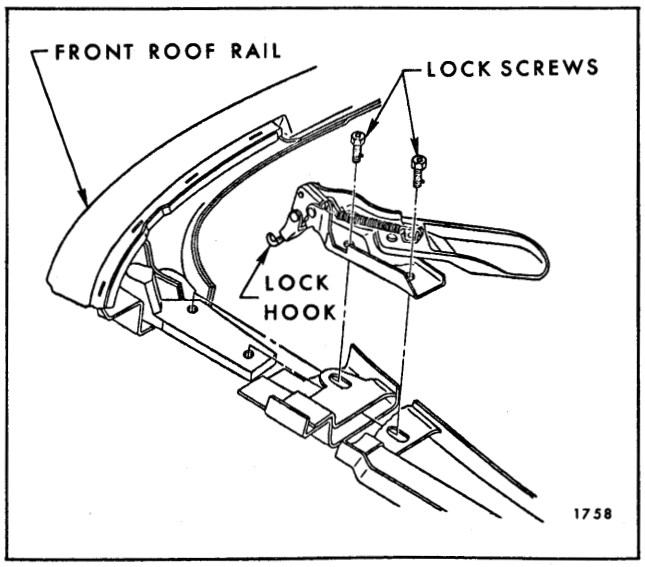

Fig. 6-87—Front Roof Rail Adjustment

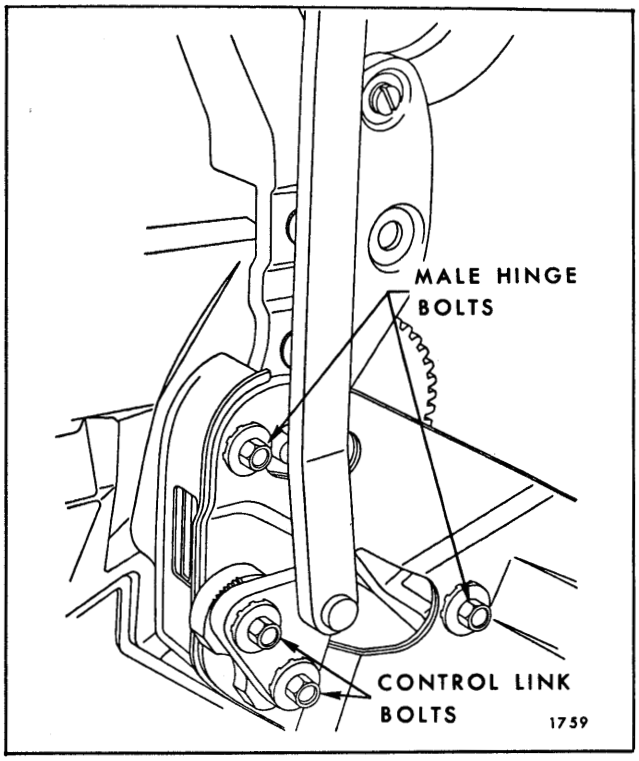

Fig. 6-88—Male Hinge Adjustment

c. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

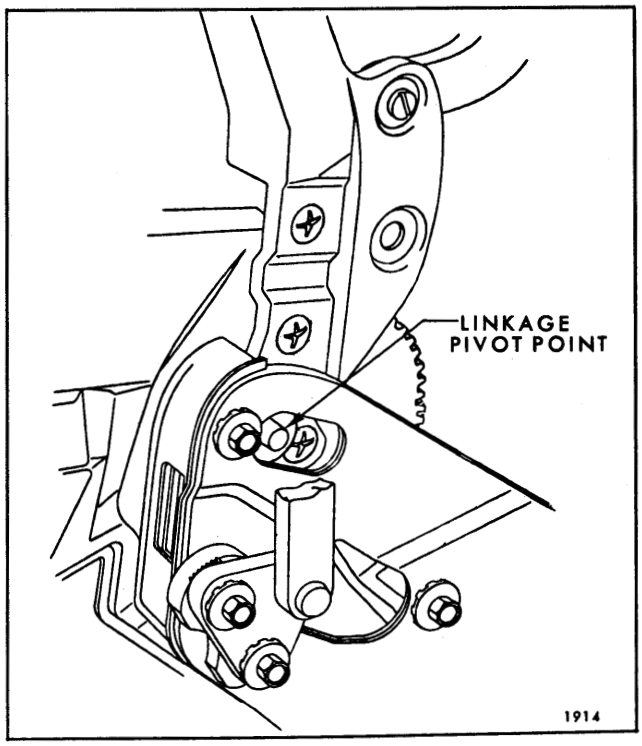

Fig. 6-89—Linkage Pivot Point

d. Rotate male hinge assembly forward or rearward around linkage pivot point, as required; then tighten attaching bolts (Fig. 6-89).

e. On styles equipped with manually operated folding top, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

f. Lock top to windshield header; then check fit of top material at rear quarter trim stick. Adjust trim stick as required and tighten attaching bolts.

ADJUSTMENT OF TOP AT MALE HINGE

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary, adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:

   a. Scribe location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.

   b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

   c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window; then tighten bolts.

   IMPORTANT: If male hinge has been allowed to rotate around linkage pivot point, check stack height. Where required, re-adjust male hinge for proper stack height.

   d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit of top material at rear quarter trim stick; then tighten trim stick attaching bolts.

   e. Check top assembly for proper stack height. Where required, adjust control link adjusting plate as previously described. (See Step #2 under "Adjustment of Top Control Link Adjusting Plate".)

   f. On styles equipped with manually operated folding tops adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

2. If side roof rail is too high or two low at rear quarter window area, proceed as follows:

   a. Scribe location of male hinge attaching bolt washers and control link on folding top compartment brace.

   b. Loosen male hinge assembly and control link attaching bolts (Fig. 6-88).

   c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rail and rear quarter window.

   IMPORTANT: If male hinge has been allowed to rotate, around linkage pivot point, check stack height. Where required, re-adjust male hinge for proper stack height.

   d. Tighten attaching bolts, while maintaining proper alignment of scribe marks.

   e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

   f. Check top assembly for proper stack height. Where required, adjust control link adjusting plate as previously described. (See Step #2 under "Adjustment of Top Control Link Adjusting Plate".)

   g. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

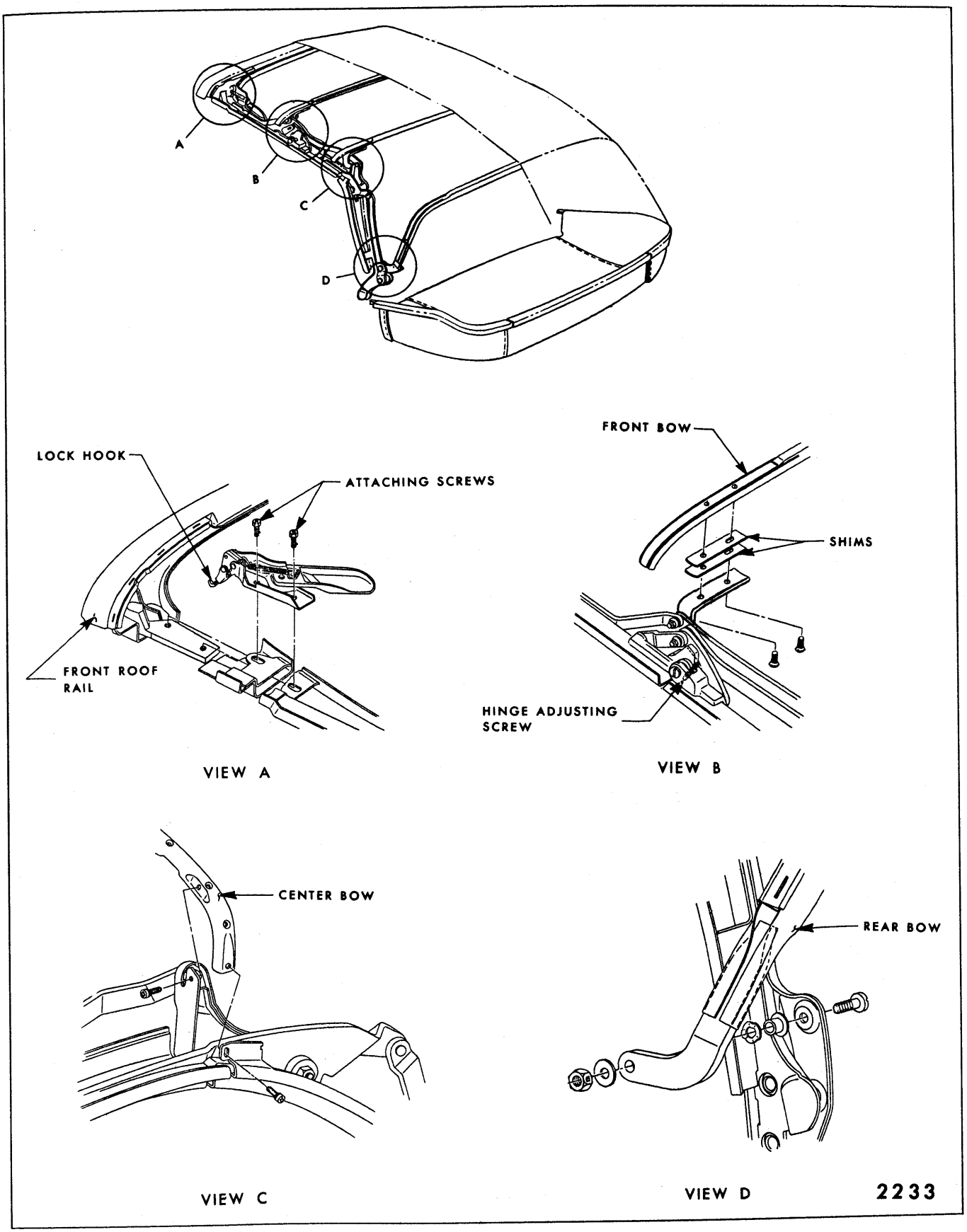

Fig. 6-90—"Z" Body Folding Top Adjustments

TROUBLE SHOOTING CHART

The following procedure describes and illustrates various types of folding top misalignment conditions, their apparent causes and the recommended procedure for their correction.

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted.	Adjust lock hook counterclockwise. (View "A" in Fig. 6-90.)
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail. (View "A" in Fig. 6-90.)
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted.	Adjust lock hook clockwise. (View "A" in Fig. 6-90.)
	2. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	3. Front roof rail misaligned.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (View "A" in Fig. 6-90).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-88).
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward. (View "A" in Fig. 6-90.)
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 6-88).
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Fig. 6-88).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward and/or shim side roof rail rear weatherstrip forward as required (Fig. 6-88).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward (Fig. 6-88).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required (Fig. 6-88).
I. Sag at front to center side roof rail joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate downward (Fig. 6-88).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise. (View "B" in Fig. 6-90.)

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate upward (Fig. 6-90).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise. (View "B" in Fig. 6-90.)
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned male hinge.	Rotate male hinge rearward around pivot point as required (Fig. 6-89).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 13" $\pm$ 1/16". The dimension is measured at approximate center line of body.
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.
	5. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips downward as required.
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned male hinge.	Rotate male hinge forward around pivot point as required (Fig. 6-89).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing moding is 13" $\pm$ 1/16". The dimension is measured at approximate center line of body.
	3. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips upward as required.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron. (View "B" in Fig. 6-90).
	2. Excessive width in top material.	If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material.
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron. (See View "B" in Fig. 6-90).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center or rear quarter trim stick.	Retack top material as required.
P. Wind whistle or water-leak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required or when installing only one shim, use attaching screw part #4413016 (1/4 - 20 x 7/16" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish). When two shims are required, use attaching screw part #4412619 (1/4 - 20 x 3/4" oval head with external tooth lock washer, type "T-T" tapping screw, chrome finish).

SECTION 7
DOORS

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INTRODUCTION

This section of the manual contains the service operations that are necessary for the removal, installation, adjustment and sealing of door assemblies and individual door hardware components. The procedures are arranged in the sequence that they would be performed when servicing a door, such as, trim removal, parts replacement or adjustment, and resealing. To locate specific procedures, refer to the "Door Index".

Hardware items are divided into three categories. Those which are common to all doors are found under "Front and Rear Doors" which also includes door and side roof rail weatherstrips. Items which are peculiar to front or rear doors are found under "Front Doors" or "Rear Doors" respectively.

Body series or style references in the procedures are explained under "General Information" in Section I of this manual.

FRONT AND REAR DOOR

PULL HANDLES

Door pull handles are secured to the door with screws which are inserted through either the handle hinges or handle escutcheons into the door inner panel. On some styles, the handles are additionally retained to the door trim assembly with screws or studs which are installed from the outboard side of the door trim assembly. On these latter styles it is necessary to remove the door trim assembly in order to remove the door pull handle.

NOTE: On all styles it is necessary to remove screws inserted through the handle into the door inner panel in order to remove the door trim assembly.

Styles with pull handles that can be removed independent of the door trim assembly are as follows:

a. Cadillac 68000-68100-68300-68400 Series

b. Buick 48437-67 Styles

c. Buick 49487 Style with standard trim

Styles with pull handles that are assembled to the door trim assembly and can only be removed in a bench operation are as follows:

a. Pontiac 26239 Style

b. Cadillac 68200 Series

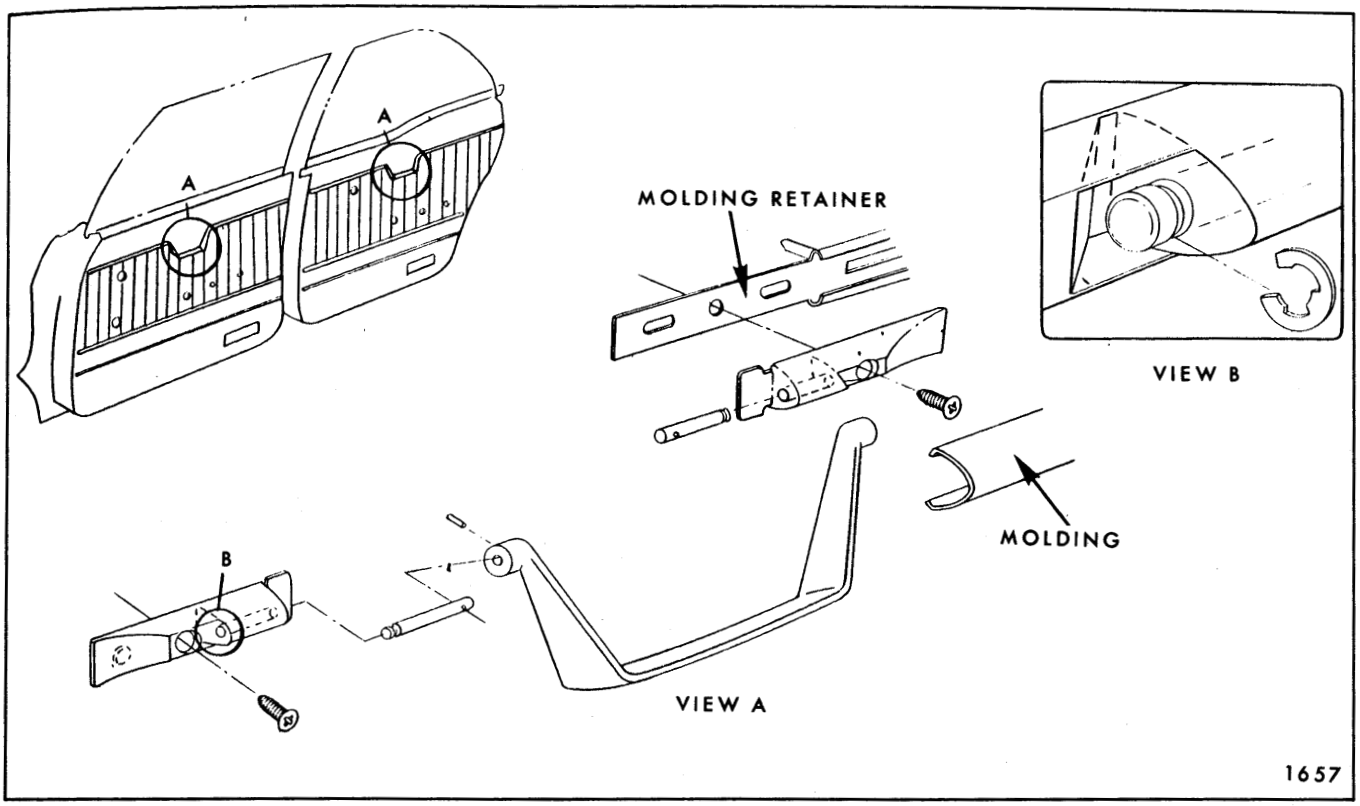

Fig. 7-1—Door Pull Handle Installation - 26239 Style

c. Oldsmobile "C & E" Body Series

d. Buick 48439-69 Styles

e. Buick 49487 with custom trim

Figures 7-1, 7-2, 7-3, 7-4, 7-5, 7-6 and 7-7 are typical of the various types of attachment.

FRONT AND REAR DOOR ARM RESTS

There are two basic types of arm rests; those which are applied to the door after trim pad installation, such as shown in Figure 7-8, and those which are assembled to the trim pad prior to trim pad installation as shown in Figure 7-9.

To remove the applied type shown in Figure 7-8, merely remove the screws inserted through the arm rest base into the door inner panel. To remove the type assembled to the trim pad, remove the trim pad as described in a following procedure and remove the arm rest screws or stud nuts from the outboard side of the trim pad in a bench operation.

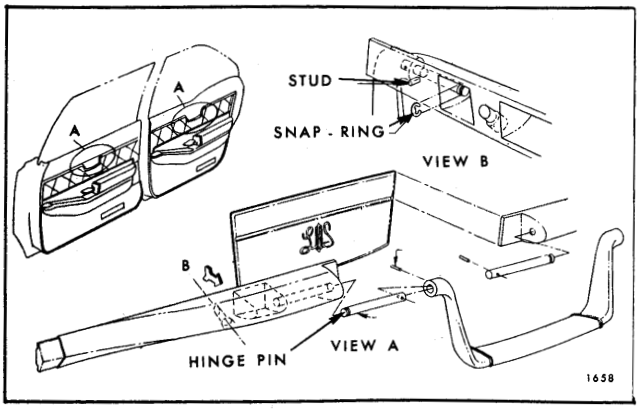

Fig. 7-2—Door Pull Handle Assembly - 38669 Style

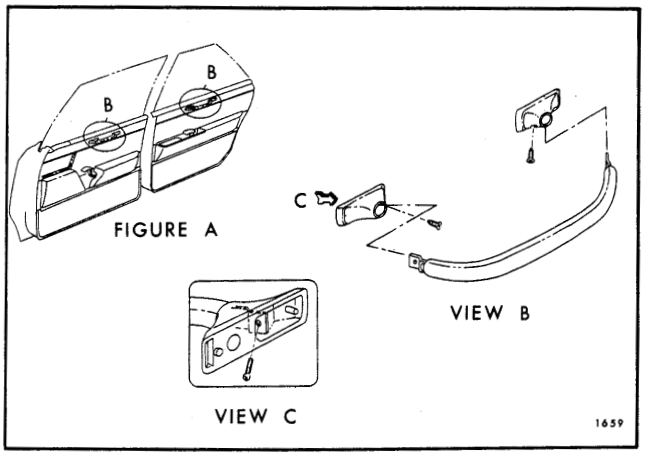

Fig. 7-3—Door Pull Handle Installation - 68200 Series Shown - Other 68000 Series Similar

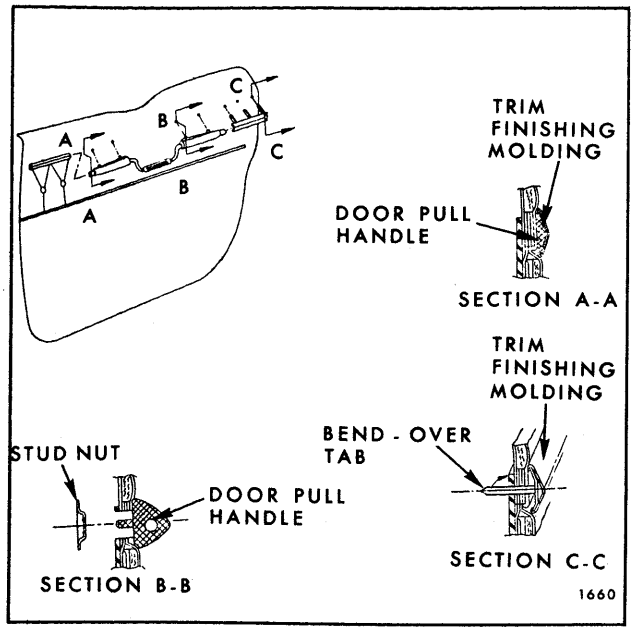

Fig. 7-4—Door Pull Handle Installation - 38000 Series Shown - 39000 Series Similar

Figure 7-6 illustrates the arm rest assembly and pull handle build-up on the 49487 Style with custom trim. Retention of this assembly to trim pad is similar to that shown in Figure 7-9.

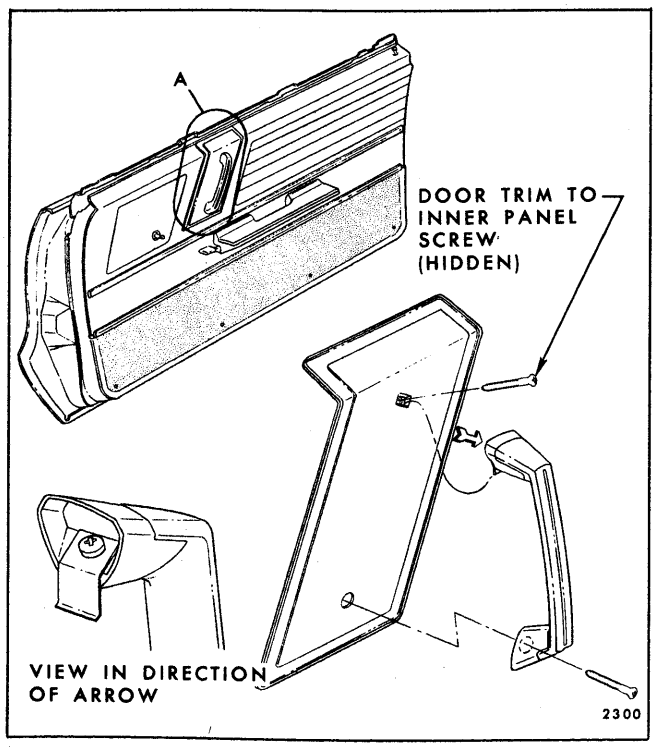

Fig. 7-5—Door Pull Handle Removal - 49487 Style with Standard Trim

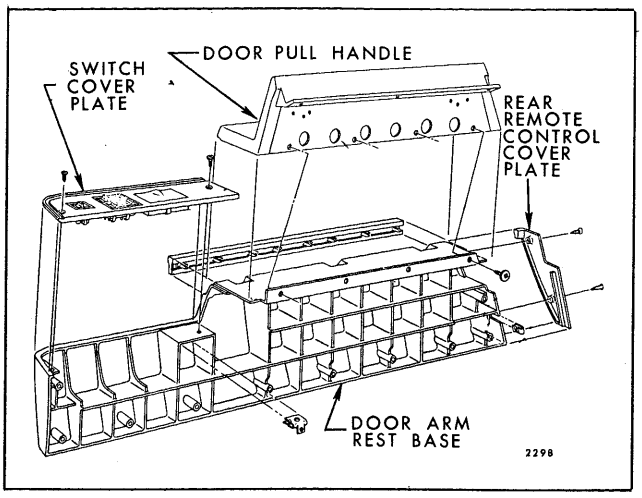

Fig. 7-6—Door Arm Rest and Pull Handle - 49487 Style with Custom Trim

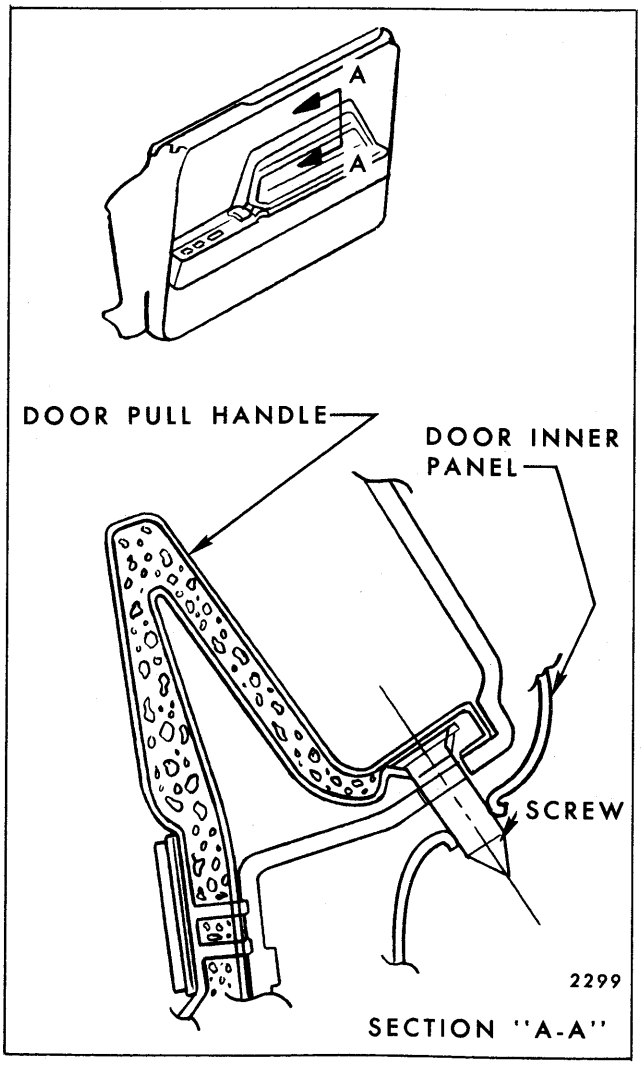

Fig. 7-7—Door Pull Handle Retention - 49487 Style with Custom Trim

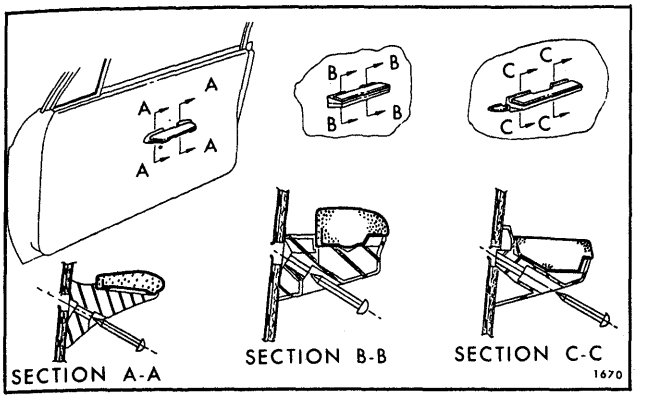

Fig. 7-8—Typical Applied-Type Door Arm Rests

FRONT AND REAR DOOR INSIDE HANDLES

To remove manually operated ventilator and door window inside handles, and door lock remote control handles which are not partially covered by the door arm rest, proceed as follows:

1. Depress door trim assembly sufficiently to permit insertion of tool J-7797 between handle and bearing plate (Fig. 7-10).

2. Push tool to disengage handle retaining spring from spindle and remove bearing plate and handle from door.

3. To install, engage retaining spring on handle and position handle to door at same angle as opposite side door handle; then, press handle until spring engages spindle.

To remove "paddle" type door handles, proceed as follows:

1. On styles with "applied" type door arm rests as shown in Figure 7-8, Section "C-C", remove arm rest as previously described. Then, remove screw securing handle to remote control spindle and remove handle.

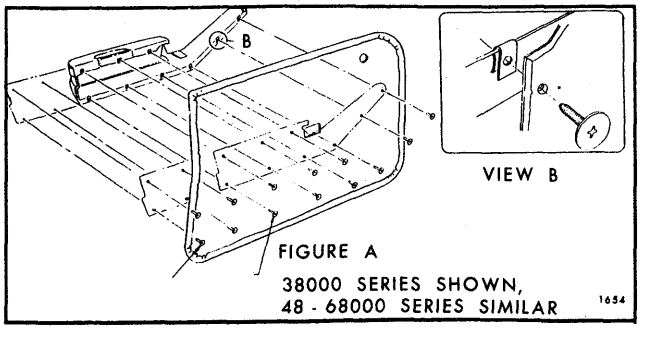

Fig. 7-9—Arm Rest to Door Trim Pad Installation

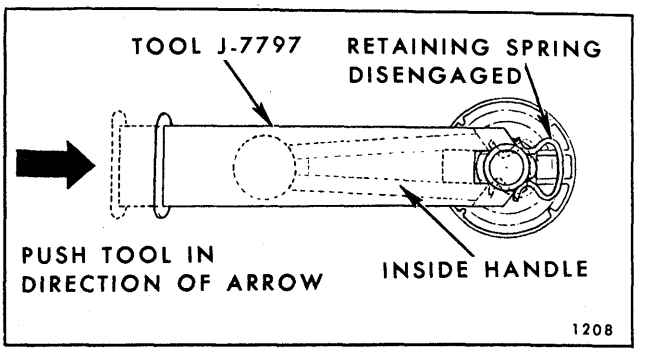

Fig. 7-10—Door Inside Handle Removal

2. On styles with arm rests that are a component part of the door trim assembly as shown in Figure 7-9, it is necessary to remove remote control cover plate (Fig. 7-11) to gain access to remote control handle screw.

NOTE: On 49487 Styles with dual remote control handles, remove switch cover plate to gain access to front handle and remote control cover plate at rear for access to rear handle (Fig. 7-6).

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "B-C & E" STYLES

The door trim assembly is secured to the door by the trim support return flange which hangs over the door inner panel across the top, and by a combination of retaining nails and screws down the sides and across the bottom.

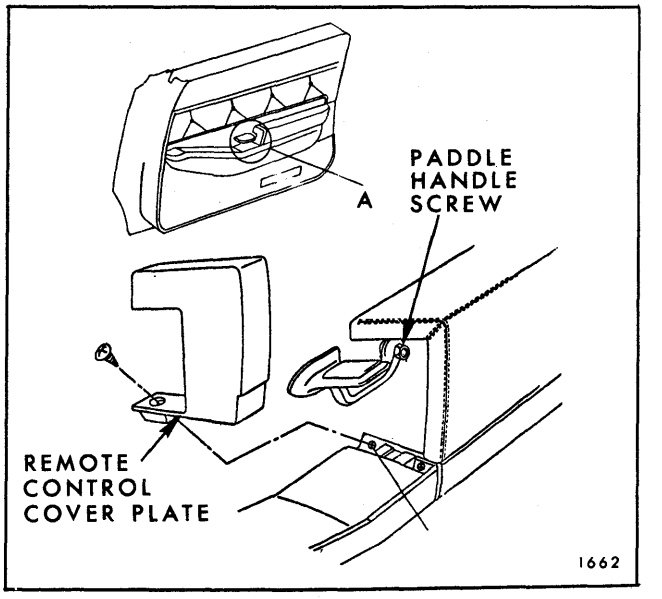

Fig. 7-11—Remote Control Handle and Cover Plate - Front Door Shown - Rear Door Typical

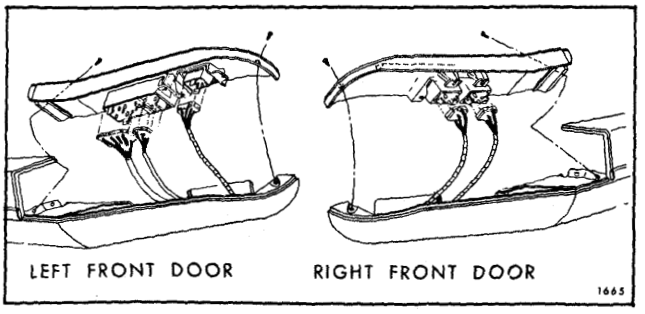

Fig. 7-12—Front Door Arm Rest Switch Cover Assembly

Removal and Installation:

1. Remove all door inside handles as previously described.

2. Remove inside locking rod knob.

3. On styles with door pull handles, remove screws inserted through handle into door inner panel. On some styles, removal of screws removes handle. On other styles, handle will still be retained to trim pad. Refer to "Door Pull Handles" for specific types of retention.

   a. On 26239 Style, screws are hidden by door upper finishing moldings. To expose screws, pry moldings off retainers using a flat-blade tool (Fig. 7-1).

   b. On 49487 Style with custom trim, screws are accessible but partially hidden behind door pull handle (Section "A-A", Fig. 7-7).

   c. On Buick "C" two-door Styles and "E" styles with standard trim, remove pull handle to gain access to trim finishing panel screw hidden under handle (Fig. 7-5).

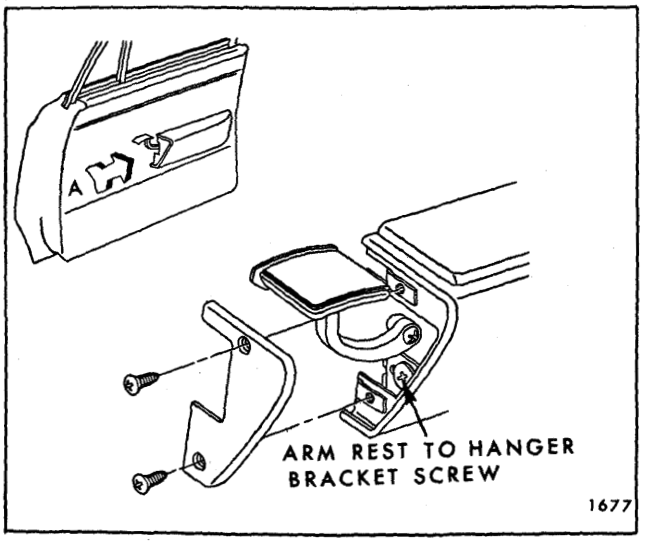

Fig. 7-13—Front Door Arm Rest Base Cap - 68200 Series

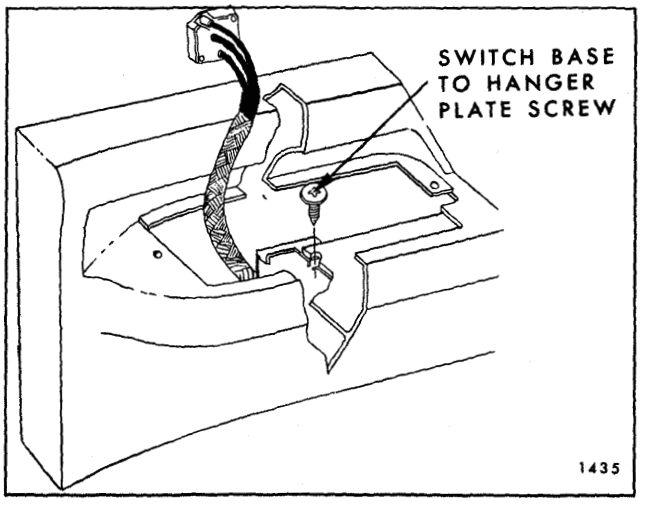

Fig. 7-14—Door Trim Pad Removal - 68200 Series

4. On styles with switch plate located in arm rest as shown in Figure 7-12, remove exposed screws and disconnect switches from wire harness connectors.

5. Remove all exposed screws present under switch plate cover and/or directly under remote control spindle. These screws secure the trim pad to the door hanger plate. (Figs. 7-13 and 7-14 show typical hanger plate attachments.)

6. On styles equipped with arm rest cup, remove screw from cup.

7. Remove all screws present, down sides and along bottom of door trim pad.

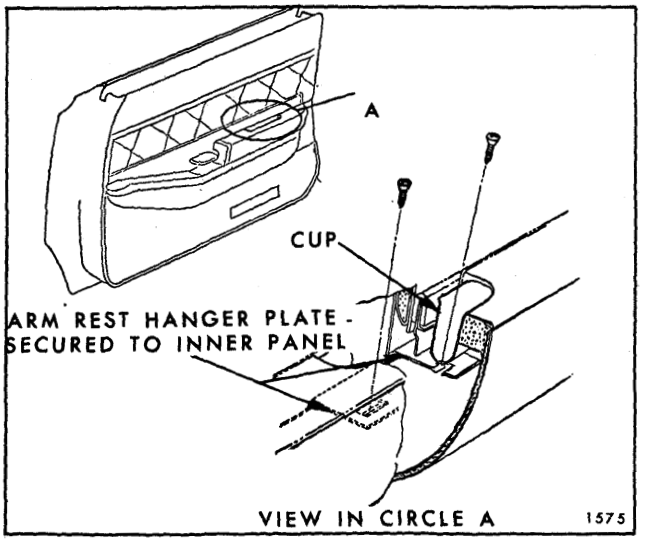

Fig. 7-15—Door Arm Rest Cup Attachment

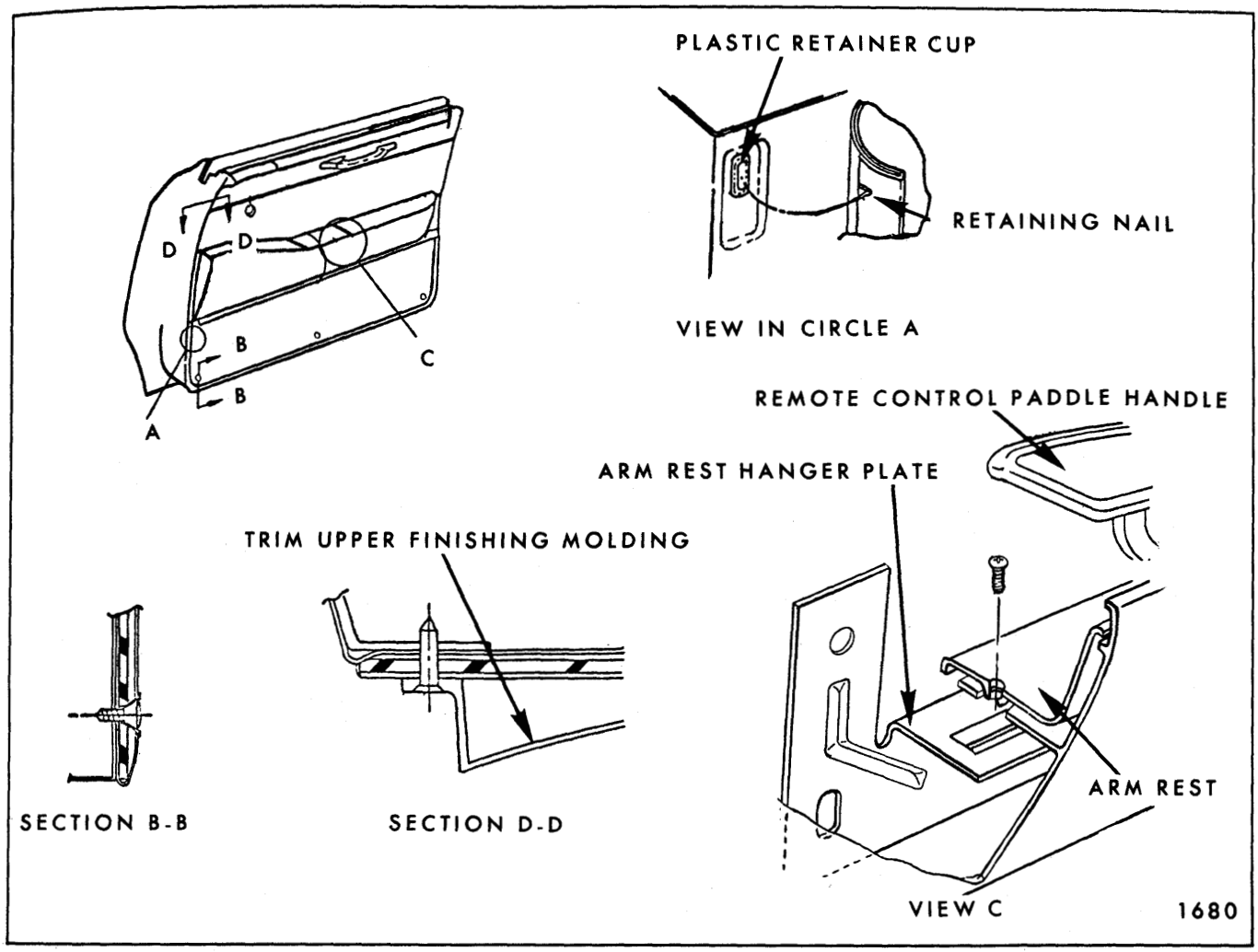

Fig. 7-16—Door Trim Pad Removal

8. Starting at a lower corner, insert tool J-6335 between door inner panel and trim assembly. Working upward, carefully disengage retaining nails from plastic cups inserted in door inner panel. (Fig. 7-16, View "A").

   NOTE: Use care not to damage inner panel water deflector.

9. Lift trim assembly upward to disengage it from door inner panel and remove trim assembly.

   NOTE: On styles equipped with vacuum door locks and electric window switches located on trim pad, disconnect harness or vacuum hoses at switch on selector valve.

10. To install, reverse removal procedure.

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "A" STYLES

There are two types of door trim pads utilized on all "A" bodies. On certain styles the front and rear door trim pad is secured to the door inner panel by trim pad retainers at top, retaining clips along both sides and screws at the bottom. Trim pad retainers are attached to the door inner panel by screws. The retaining clips (along sides) are pressed into plastic retainers or cups which fit into slots in the door inner panel. (Fig. 7-17).

On other styles the hang-on door trim pad is used. This trim pad is further secured by attaching screws along the bottom edge and by retaining nails inserted into plastic retaining cups located in the door inner panel.

Removal and Installation:

1. Remove door inside handles and arm rest assembly.
2. At bottom of door, remove screws securing trim assembly to door inner panel.
3. On styles utilizing hang-on type door trim pad, proceed as follows:
   a. With a clean rubber mallet, tap along side of trim pad to help free nails from retainers.
   b. Starting at bottom of trim pad, carefully insert tool J-6335, or a suitable flat-bladed tool, between door trim assembly and door inner panel at retaining nail locations and disengage nails from retainers. Remove door trim pad from door. (See Fig. 7-18).
4. On other styles proceed as follows:
   a. Remove attaching screws along bottom of door trim pad.
   b. Carefully insert tool J-6335, or a suitable flat-bladed tool, between door trim assembly and door inner panel at retaining clip locations and disengage clips from retaining plugs. (See Fig. 7-17).

      NOTE: Broken or damaged retaining clips should be replaced.

   c. Pull top edge of trim pad down slightly to disengage it from the trim pad retainer and remove trim pad from door.
5. On all styles, to install, reverse removal procedure. Exercise care not to disturb inner panel water deflector.

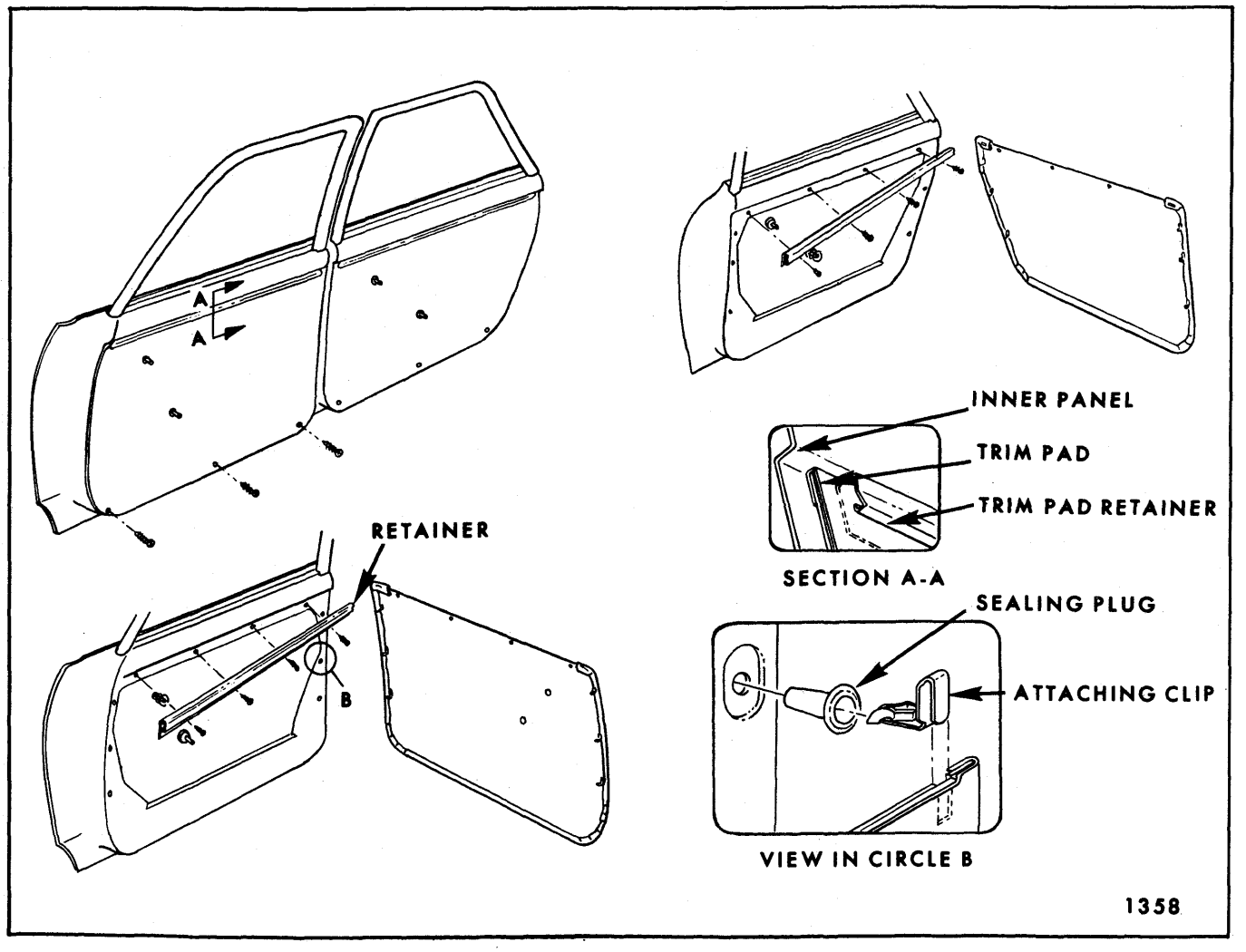

Fig. 7-17—Door Trim Pad Removal

CAUTION: Retaining nails must not pierce back of plastic retainers as waterleaks may develop. For this reason, it is important that PROPER LENGTH repair tab nails (1/2") are used when replacing broken trim retaining nails.

NOTE: If plastic retainers are loose and will not remain engaged in door inner panel, install a 1/2" x 3/4" piece of cloth-backed waterproof body tape over retaining hole in inner panel. Make two slits in tape to form an "X" pattern. Check retainer for a snug fit and if still loose, repeat above operation by installing a second piece of tape over the existing repair. This same procedure can be used to repair waterleaks which develop around perimeter of retainer.

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "X" STYLES

Both the front and rear door trim assemblies are secured to the door inner panel by trim pad retainers at top and bottom of trim pad and by retaining clips along both sides. The retainers are secured to the door inner panel by screws. The retaining clips are pressed into plastic retainers or cups which fit into slots in the door inner panel.

Removal and Installation:

1. Remove door inside handles and arm rest assembly.
2. Carefully insert tool J-6335, or a suitable flat-bladed tool, between door trim assembly and

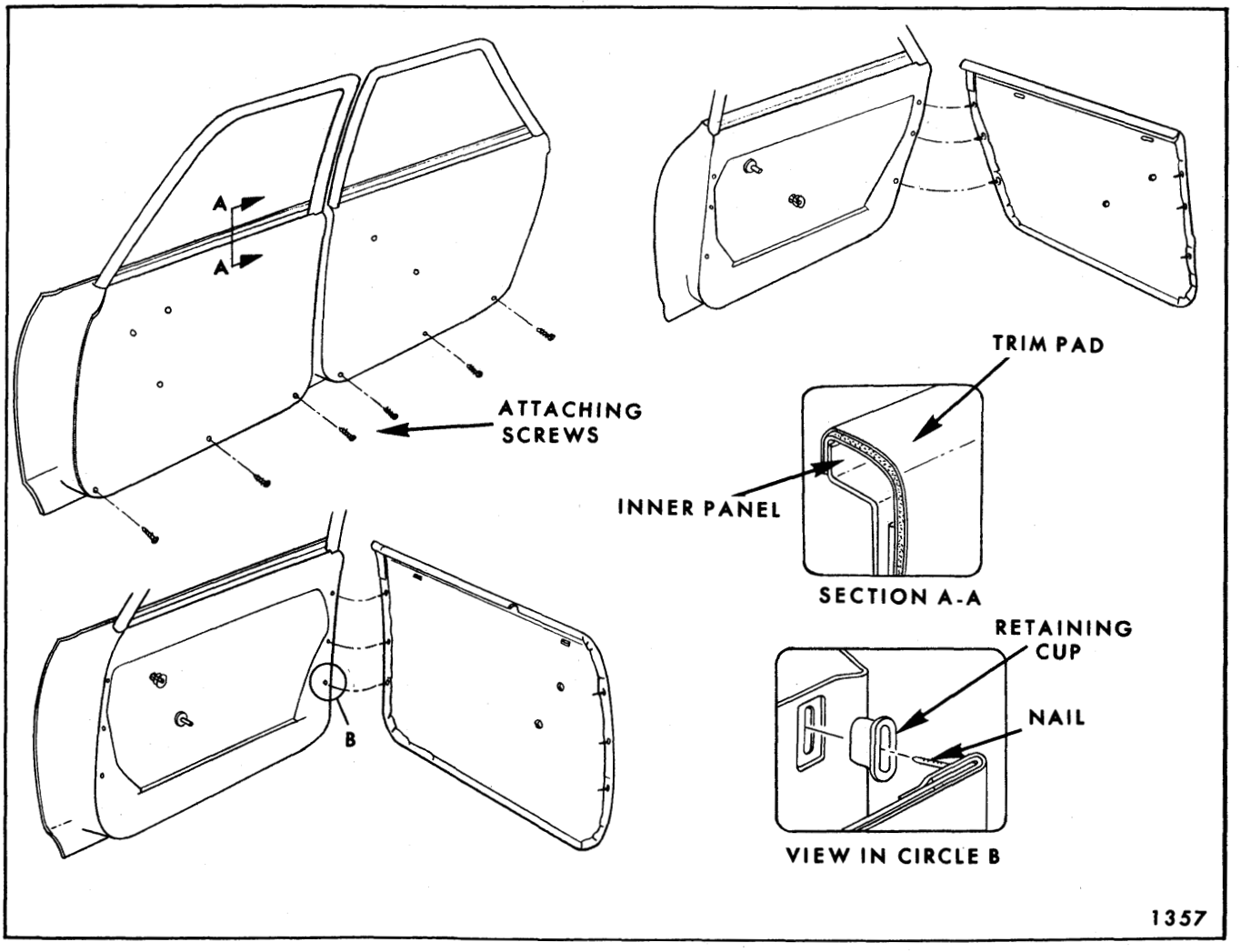

Fig. 7-18—Hang-On Door Trim Pads

door inner panel at retaining clip locations and disengage clips from retaining plugs. (See Figure 7-19).

NOTE: Broken or damaged retaining clips should be replaced.

3. Pull top edge of trim down and slightly inboard to disengage it from the top retainer and then lift trim pad upwards to disengage it from the bottom retainer and remove assembly from door.

   CAUTION: Exercise care not to buckle trim pad.

4. To install, reverse removal procedure.

   NOTE: Exercise care not to disturb inner panel water deflector.

5. If plastic retaining plugs are loose and will not remain engaged in door inner panel, install a 1/2, x 3/4" piece of cloth-backed waterproof body tape over retaining plug hole and door inner panel. (See Fig. 7-19). Make two slits in tape to form an "X" pattern. Check retainer for a snug fit and, if still loose, repeat above operation by installing a second piece of tape over the existing repair. This same procedure can be used to repair waterleaks which develop around perimeter of retainer.

FRONT AND REAR DOOR TRIM ASSEMBLY—ALL "Z" STYLES

Both front and rear door trim pads are retained by clips across the top and down the sides and by screws across the bottom. The clips are attached to the reverse side of the trim pad and are installed into plastic sealing plugs inserted in piercings in the door inner panel. The screws are installed from the exposed side of the trim pad and are readily accessible for removal.

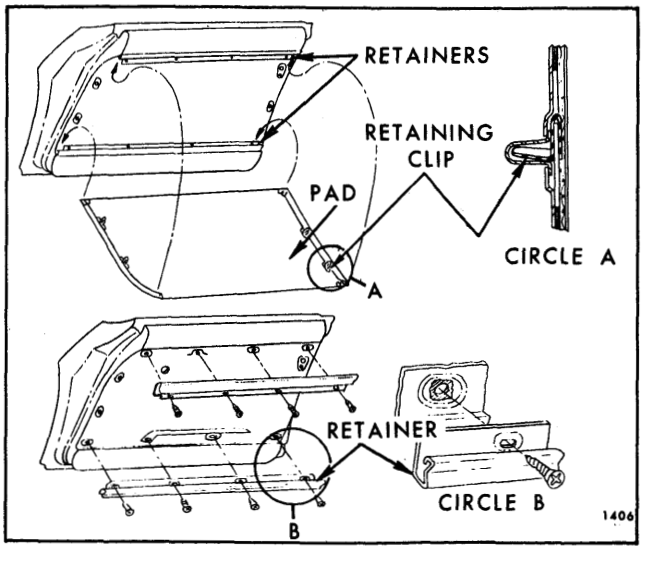

Fig. 7-19—Door Trim Pad Removal

Removal and Installation:

1. Apply masking tape as protective covering to door inner panel painted surfaces adjacent to top and front edges of trim pad.

2. Remove door inside handles and door arm rest as previously described.

3. Carefully insert tool J-6335, or an equivalent flat-bladed tool, between door trim assembly and door inner panel at retaining clip locations and disengage clips from plastic sealing plugs. (Fig. 7-20).

4. Remove screws from across bottom and remove trim pad from door.

5. To install, reverse removal procedure.

FRONT AND REAR DOOR WEATHERSTRIPS—ALL STYLES

Both the front and rear doors use nylon fasteners to retain the door weatherstrips. The fasteners are a component part of the weatherstrip and secure the weatherstrip to the door by engaging piercings

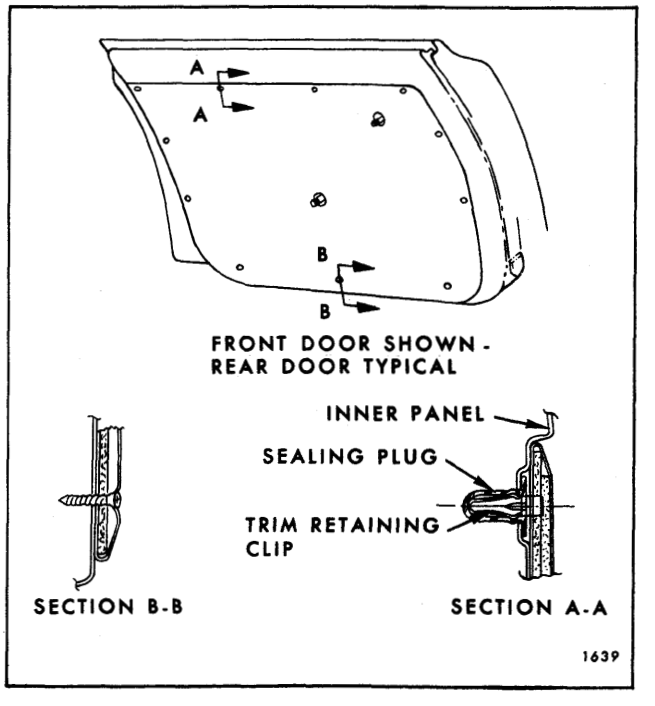

Fig. 7-20—Door Trim Pad Retention

in the door panels. The serrations of the fastener retain the fastener in the piercing and also seal the openings from water entry. (Fig. 7-21).

On "B" Body Sedan Styles, nylon fasteners are used around the entire perimeter of the door. On "A" and "X" Closed Styles, nylon fasteners are used below the belt line only. Weatherstrip adhesive retains the weatherstrip around the door upper frame above the beltline (Fig. 7-22).

In addition to the nylon fastener, "B" Body Sedan Styles use a limited amount of weatherstrip adhesive at the beltline. All styles other than closed styles use plastic fasteners at the belt.

To disengage nylon fasteners from door panel piercings use tool J-21104 or equivalent (Fig. 7-21). This tool permits removal of the weatherstrip without damaging the serrations on the fasteners so that the weatherstrip can be reinstalled if desired.

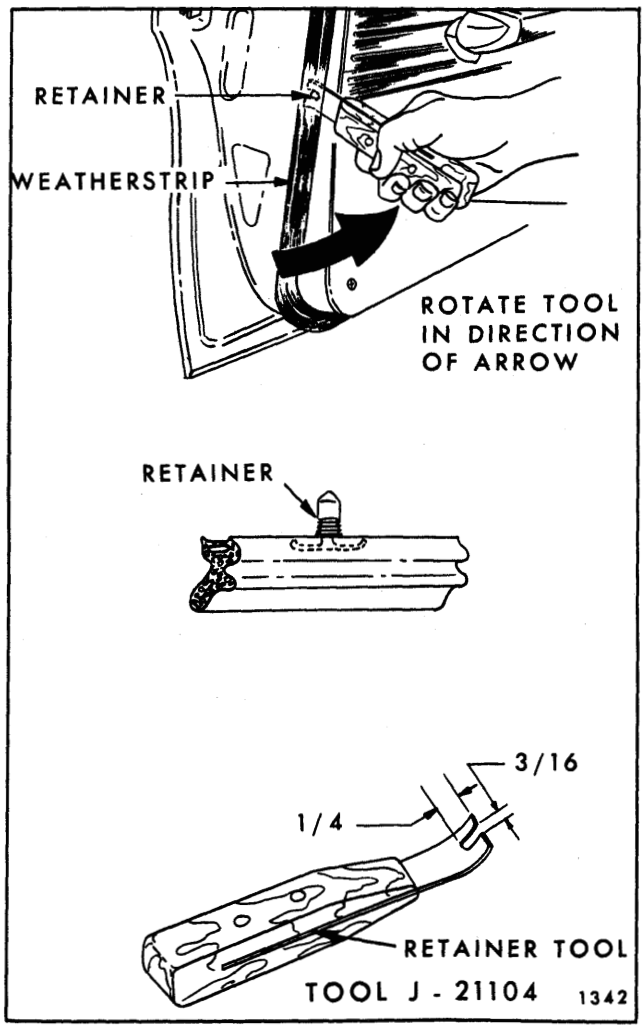

Fig. 7-21—Door Weatherstrip Removal

Although a replacement door weatherstrip will include the nylon fasteners, individual fasteners are available as a service part.

Removal

1. On all hardtop and convertible styles, remove exposed plastic fasteners at beltline. On all "E" Styles and "B-C 39" and "C-69" Style rear doors, remove door trim assembly to gain access to fastener under trim pad (Fig. 7-23).

2. On sedan styles, use a flat-blade tool to break cement bond between door and weatherstrip. On "B" Body Sedan Styles, weatherstrip adhesive is used for a distance of 9" at beltline (Figs. 7-24 and 7-25). On "A & X" Sedan Styles, weatherstrip is retained by weatherstrip adhesive completely around door upper frame (Fig. 7-22).

3. On all styles, use tool J-21104 or equivalent to disengage weatherstrip from door where weatherstrip is retained by nylon fasteners. Nylon fastener usage is below the beltline on all styles, and above the belt only on "B" Body Sedan Styles.

Installation:

1. If previously removed weatherstrip is to be reinstalled, inspect nylon fasteners and replace those that are damaged.

2. Clean off all old weatherstrip adhesive from door.

3. On styles without door upper frames, position weatherstrip to door and install plastic fasteners at front and rear ends of weatherstrip.

4. On sedan styles with door upper frames, position color-coded section of weatherstrip to door as follows:

   a. On front doors, color code should be located at rear upper corner of door upper frame (Fig. 7-24).

   b. On rear doors, color coded section should begin at beltline of door lock pillar and extend upward (Fig. 7-25).

5. Tap nylon fasteners into door piercings using a hammer and blunt caulking tool.

6. On "A and X" Sedan Styles, apply a bead of black weatherstrip adhesive to gutter of door upper frame as shown in section "A-A",

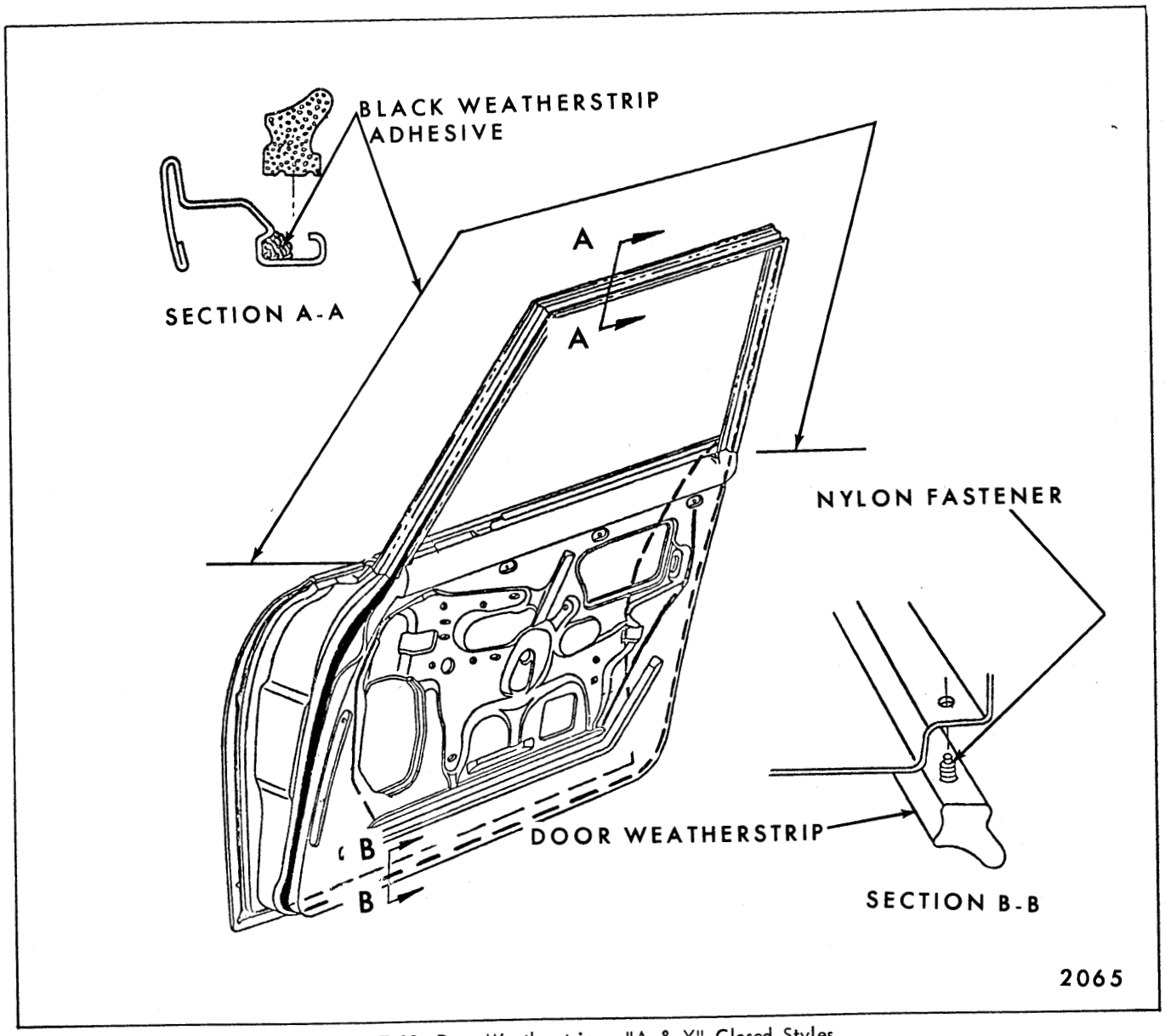

Fig. 7-22—Door Weatherstrip - "A & X" Closed Styles

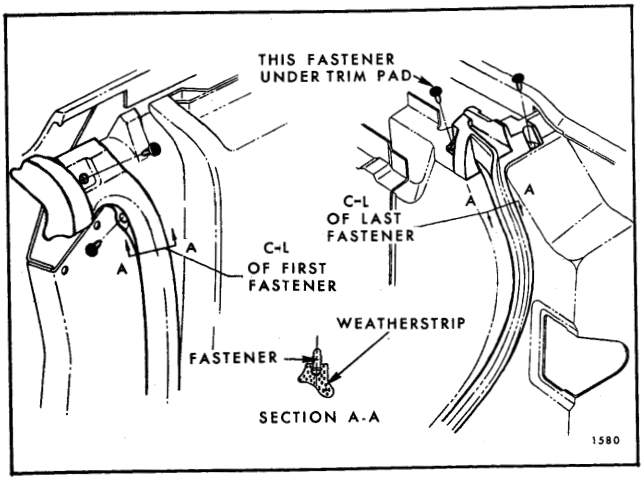

Fig. 7-23—Door Weatherstrip - "B-C 39" Rear Door Shown - "E" Front Door Similar

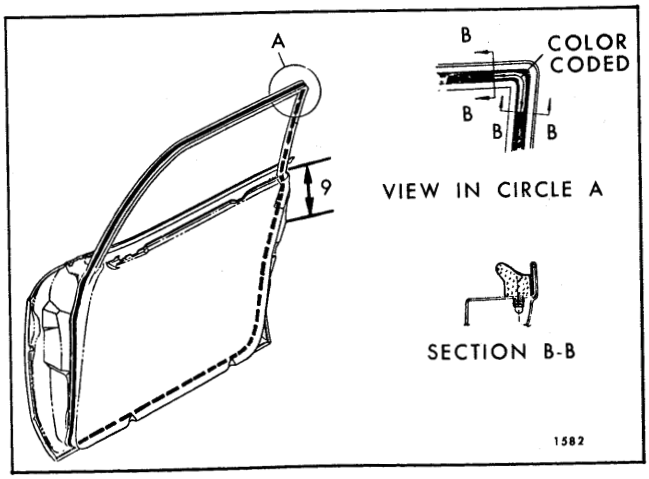

Fig. 7-24—Front Door Weatherstrip

Figure 7-22. Allow adhesive to become tacky, then, install weatherstrip.

7. After all fasteners have been installed on sedan styles, apply weatherstrip adhesive between door and weatherstrip outboard surface at the following locations:

   a. For 5" around rear upper corner of front door upper frame (Circle "A", Figure 7-24) and 9" down door lock pillar starting at beltline.

   b. On sedan rear doors, 9" down both door lock pillar and door hinge pillars starting at beltline (Fig. 7-25).

   c. On door lock pillar on hardtop styles starting at beltline and extending down 2".

   NOTE: If weatherstrip becomes damaged at fastener location and will not retain fastener, remove fastener and secure weatherstrip to door with weatherstrip adhesive. If more than two consecutive fastener locations become damaged, replace weatherstrip.

Although weatherstrip adhesive is specified only at specific locations, it can be used at any point where additional retention is required.

DOOR BOTTOM DRAIN HOLE SEALING STRIPS

Door bottom drain slot sealing strips (dust barriers) are attached to door inner panels over door bottom drain slots to prevent entry of dust and cold air at these locations (Fig. 7-26).

To remove sealing strips, use a flat-blade tool to pry retaining plugs from door inner panel piercings.

To install, insert a blunt pointed tool, such as dull ice pick or scratch awl, into strip retaining plugs and push plugs into door panel piercings.

DOOR BOTTOM AUXILIARY SEALING STRIP—(ALL CADILLAC STYLES AND PONTIAC "B" STYLES)

The door bottom auxiliary sealing strip is secured to the door inner panel with weatherstrip adhesive. The strip is installed after water deflector installation and prior to trim installation. As shown in section "A-A", Figure 7-27, the upper edge of the strip is aligned with the water deflector drain slot. The rolled, semi-bulbublar section of the sealing strip extends down below the door trim pad when the trim is installed and fills the opening between the door and door sill plate.

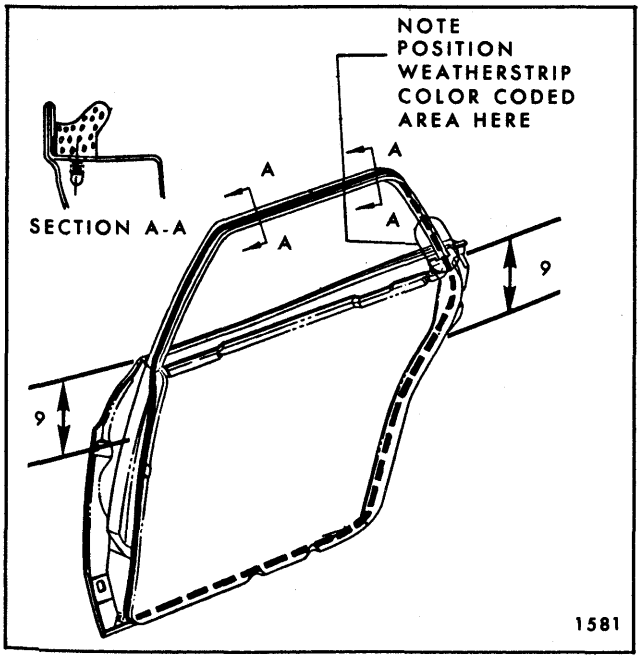

Fig. 7-25—Rear Door Weatherstrip

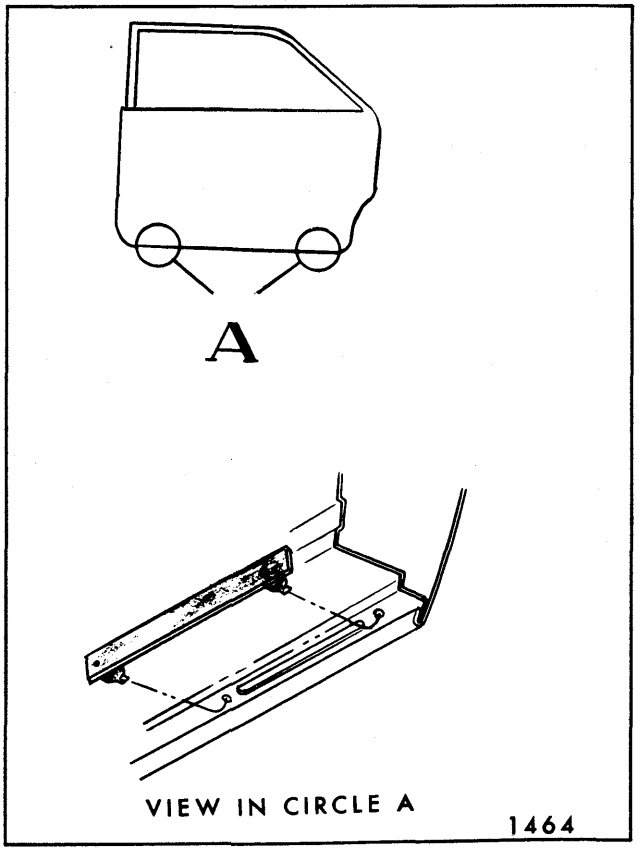

Fig. 7-26—Door Bottom Drain Hole Sealing Strips

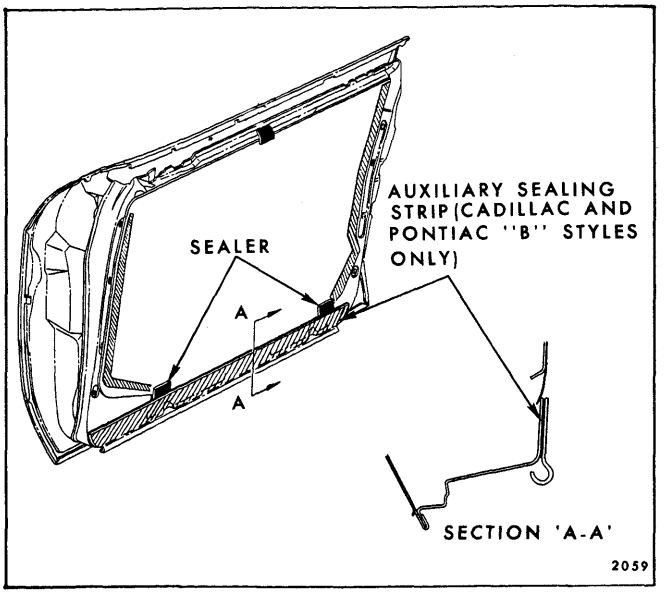

Fig. 7-27—Door Inner Panel Sealing

FRONT AND REAR DOOR WATER DEFLECTORS

A waterproof paper deflector is used to seal the door inner panel and prevent entry of water into body. The deflector is secured by a string loaded sealing material along both front and rear edges and by the application of waterproof sealing tape at front and rear lower corners. Whenever work is performed on front or rear doors where the paper water deflector has been disturbed, the deflector must be properly sealed and taped to the inner panel to prevent serious waterleaks. It is important that all service personnel performing door hardware adjustments or sealing operations be aware of the importance of using the specified material and recommended removal and installation or replacement procedures. For service sealing, body caulking compound is recommended if additional sealing material is required.

When access to the inner panel is required to perform service operations, the deflector may be completely or partially detached from the inner panel. If the existing water deflector is damaged, so that it will not properly seal the door, replacement of the deflector is required.

The following procedure covers complete removal and installation of the water deflector. If only partial removal of the deflector is required, perform only those steps which are necessary to expose the required area of the door inner panel.

Removal

1. Remove door trim assembly.
2. Remove waterproof body tape securing top of water deflector to door inner panel.
3. Using a flat blade tool such as a putty knife, carefully break cement bond between water deflector and door inner panel down both sides of deflector. Make certain tool blade is between inner panel and string that is imbedded in sealer (Fig. 7-27).
4. When seal has been broken down both sides of deflector, carefully remove tape from inner panel at lower corners of water deflector. Disengage water deflector from inner panel drain slot and remove deflector. On Cadillac Styles and Pontiac "B" Styles it will be necessary to partially remove door bottom auxiliary sealing strip to permit removal of tape at bottom of deflector (Fig. 7-27).

Installation:

1. Inspect water deflector and, where necessary, repair any tears or holes with waterproof body tape applied to both sides of deflector.
2. If a new water deflector is to be installed, use old water deflector as a template. Trim new deflector to proper size and cut holes for door inside hardware. If old sealer does not effect a satisfactory seal, apply a bead of body caulking compound (approximately 3/16" diameter) to inner panel at unsealed areas.
3. Position water deflector to door inner panel and insert lower edge of deflector in retaining slot. Then firmly roll or press edges of deflector to obtain a good bond between deflector and door inner panel.

   NOTE: On styles using polyethylene coated paper, black shiny side should be against inner panel.
4. Seal lower corners of deflector by re-applying previously removed tape or new pieces of 2" or 2 1/2" water proof body tape.
5. On styles with door inner panel hardware attachments that are outboard of water deflector, seal attaching bolt head and panel piercing with body caulking compound.

SPRING CLIPS

A spring clip is used to secure remote control connecting rods and inside locking rod connecting

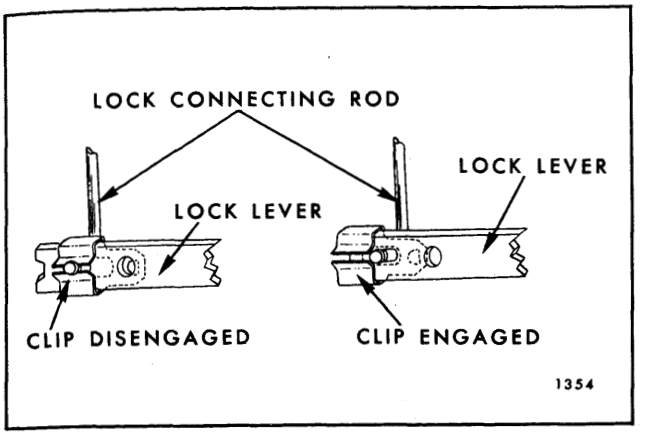

Fig. 7-28—Door Lock Spring Clip

links to door levers. A slot in the clip provides for disengagement of the clips, thereby, facilitating detachment of linkage.

To disengage a spring clip, use a screwdriver, or other suitable tool, to slide clip out of engagement (See Fig. 7-28).

FRONT AND REAR DOOR OUTSIDE HANDLE ASSEMBLY—ALL STYLES

Removal and Installation:

1. Raise door window. Remove door trim assembly and detach upper rear corner of inner panel water deflector sufficiently to gain access to door outside handle attaching screws (Fig. 7-29).
2. Remove screws through access hole and door handle and gaskets from outside of body.

   NOTE: On 68069 and 68169 Styles it is necessary to remove rear door ventilator regulator

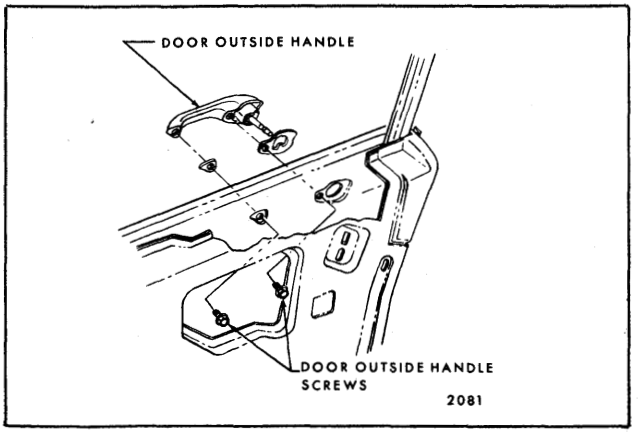

Fig. 7-29—Door Outside Handle Removal

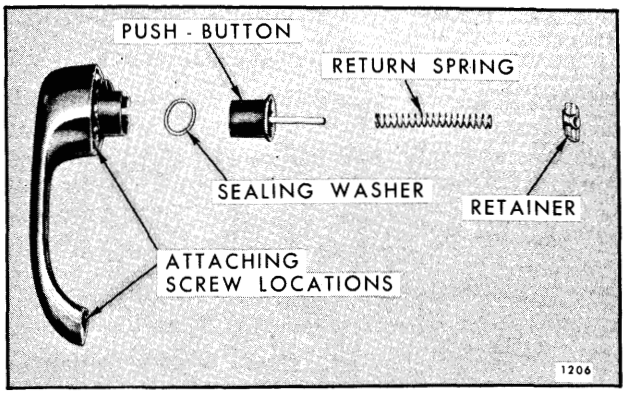

Fig. 7-30—Front Door Outside Handle

as described in the rear door section in order to remove rear door outside handle.

3. To install, reverse removal procedure.

DOOR OUTSIDE HANDLE DISASSEMBLY—ALL STYLES

1. Remove door outside handle as previously described.
2. Depress retainer slightly and turn 1/4 turn either direction. Remove retainer, spring, push button and shaft, and sealing washer from handle (Fig. 7-30 for front door handles, Fig. 7-31 for rear door handles).

   NOTE: Parts are serviced as shown in the illustrations; separate components for the front door handle, and a push button, spring, and retainer assembly for the rear door handle except on "E" Body Styles. On "E" Styles the front door push button, spring, and retainer are serviced as an assembly.

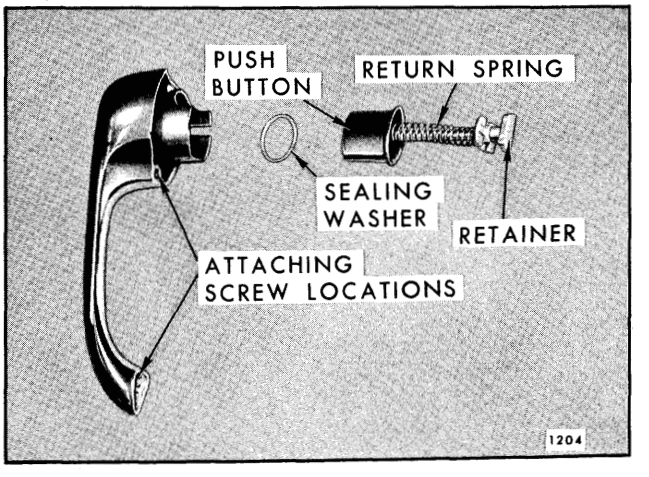

Fig. 7-31—Rear Door Outside Handle

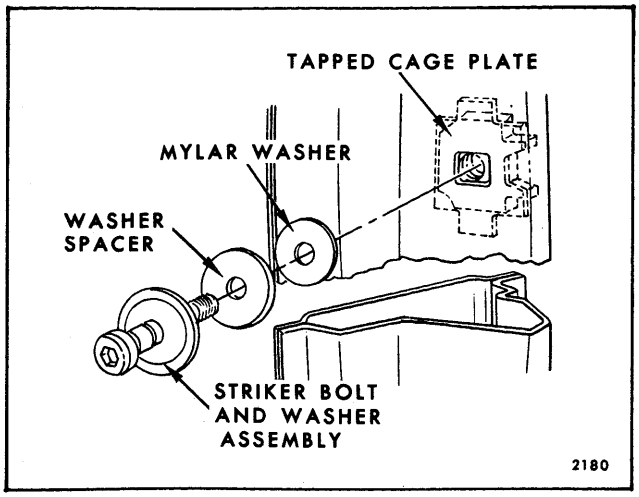

Fig. 7-32—Door Lock Striker Installation

FRONT AND REAR DOOR LOCK STRIKERS—ALL STYLES EXCEPT "X" BODY

The front and rear door lock striker consists of a single metal bolt and washer assembly that is threaded into a tapped, floating cage plate located in the body lock pillar. With this design, the door is secured in the closed position when the door lock fork-bolt snaps-over and engages the striker bolt.

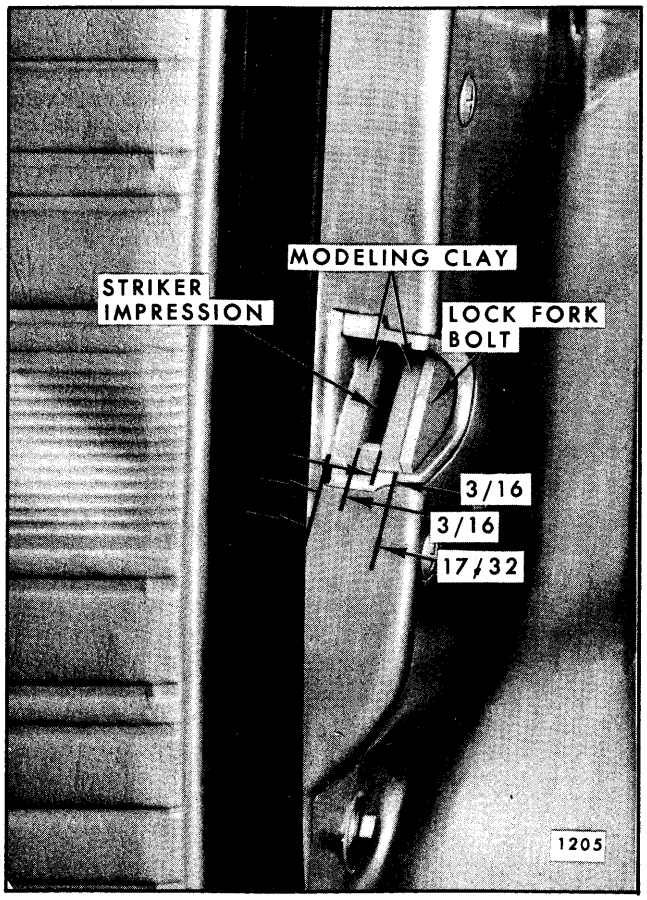

Fig. 7-33—Lock to Striker Engagement

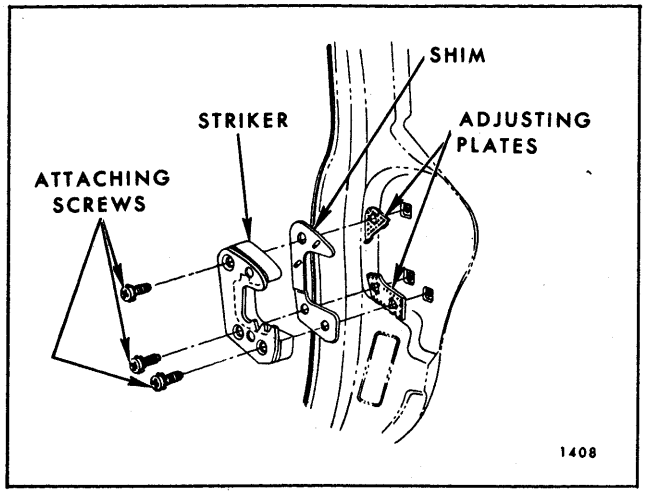

Fig. 7-34—Door Lock Striker Installation

Removal and Installation:

1. Mark position of striker on body lock pillar using a pencil.
2. Insert a 5/16" wrench into hex-head fitting in head of striker bolt and remove striker (Fig. 7-32).
3. To install, reverse removal procedure. Make certain striker is positioned within pencil mark. Also, make certain that paint protecting plastic washer is installed (Fig. 7-32).

IMPORTANT: Whenever a door has been removed and reinstalled or realigned, the door should not be closed completely until a visual check is made to determine if lock fork-bolt will correctly engage with striker.

Adjustments

1. To adjust striker up or down, or in or out, loosen striker bolt and shift striker as required; then tighten striker.
2. To determine if striker fore or aft adjustment is required, proceed as follows:
   a. Make certain door is properly aligned.
   b. Apply modeling clay or body caulking compound to lock bolt opening as shown in Figure 7-33.
   c. Close door only as far as necessary for striker bolt to form an impression in clay

or caulking compound as shown in Figure 7-33.

CAUTION: Do not close door completely. Complete door closing will make clay removal very difficult.

d. Measure the impression in the clay as follows: Striker head should be centered fore and aft as shown. Although 3/16" is shown as desired measurement on both sides of striker head, a tolerance of plus or minus 1/32" is allowed. The following spacers are available as service parts and can be used individually or in combination to achieve the desired alignment.

5/64" spacer - Part #4469196

5/32" spacer - Part #4469197

1/4 " spacer - Part #4469194

5/16" spacer - Part #4469195

FRONT AND REAR DOOR LOCK STRIKERS—"X" BODY STYLES

As shown in Figure 7-34, the door lock striker is secured to the center pillar or body lock pillar by cross-recessed attaching screws. By loosening the screws the striker can be adjusted up-or-down or in-or-out. By adding or subtracting shims, the striker can be adjusted fore or aft.

Removal and Installation:

1. With a pencil, mark position of striker on body pillar.
2. Remove door lock striker attaching screws and remove striker and adjusting plates from pillar (Fig. 7-34).
3. Prior to installation, seal all striker plate attaching screw clearance holes with body caulking compound.
4. Apply a 1/8" bead of body caulking compound around entire back surface of striker plate.
5. Place striker and adjusting plates within scribe marks on pillar and install striker plate attaching screws.

CAUTION: Whenever a door has been removed and installed or realigned, the door SHOULD NOT be closed completely until a visual check is made to determine if lock extension will engage in striker notch. A single shim is installed behind the striker assembly in production (Fig. 7-34).

This shim can be removed or additional shims (available as service parts) can be installed if required. Removal or addition of shims provides fore or aft adjustment of the striker. To adjust striker up or down and in or out, proceed as follows:

Loosen striker plate attaching screws and shift striker and adjusting plates as required and tighten attaching screws (Fig. 7-34).

SIDE ROOF RAIL WEATHERSTRIP AND RETAINER

The side roof rail weatherstrip is cemented to a side roof rail weatherstrip retainer, which, in turn, is secured with screws to the side roof rail. The adhesive that retains the weatherstrip also protects against water entry between the retainer and weatherstrip. A saturated polyurethane foam sealing strip prevents water entry between the retainer and side roof rail.

Removal—("17-37-39-57 and C-69" Styles)

1. Remove plastic fasteners at front and screw at rear of side roof rail weatherstrip. On "C-69" styles, plastic fasteners are used at front of front door side rail weatherstrip and screw at rear of rear door side rail weatherstrip (Fig. 7-35 for "17-37-39 and 57" Styles, Fig. 7-36 for "C-69" Styles).
2. While carefully pulling weatherstrip out of retainer, simultaneously break cement bond between weatherstrip and weatherstrip retainer using a flat-blade tool.
3. With weatherstrip removed, screws securing weatherstrip retainer to side roof rail are exposed. Remove screws to remove side roof rail weatherstrip retainer (Fig. 7-39).

Removal—(Chev, "47" Style, Buick—Oldsmobile "87" Styles)

1. At front of weatherstrip, disengage plastic fasteners from front body hinge pillar (Fig. 7-37 and 7-38).
2. Remove screw inserted through weatherstrip into side roof rail at rear of weatherstrip where it joins quarter window run channel.
3. Starting at front body hinge pillar, carefully pull weatherstrip out of retainer while simultaneously using a flat blade tool to break cement bond between retainer and weatherstrip.

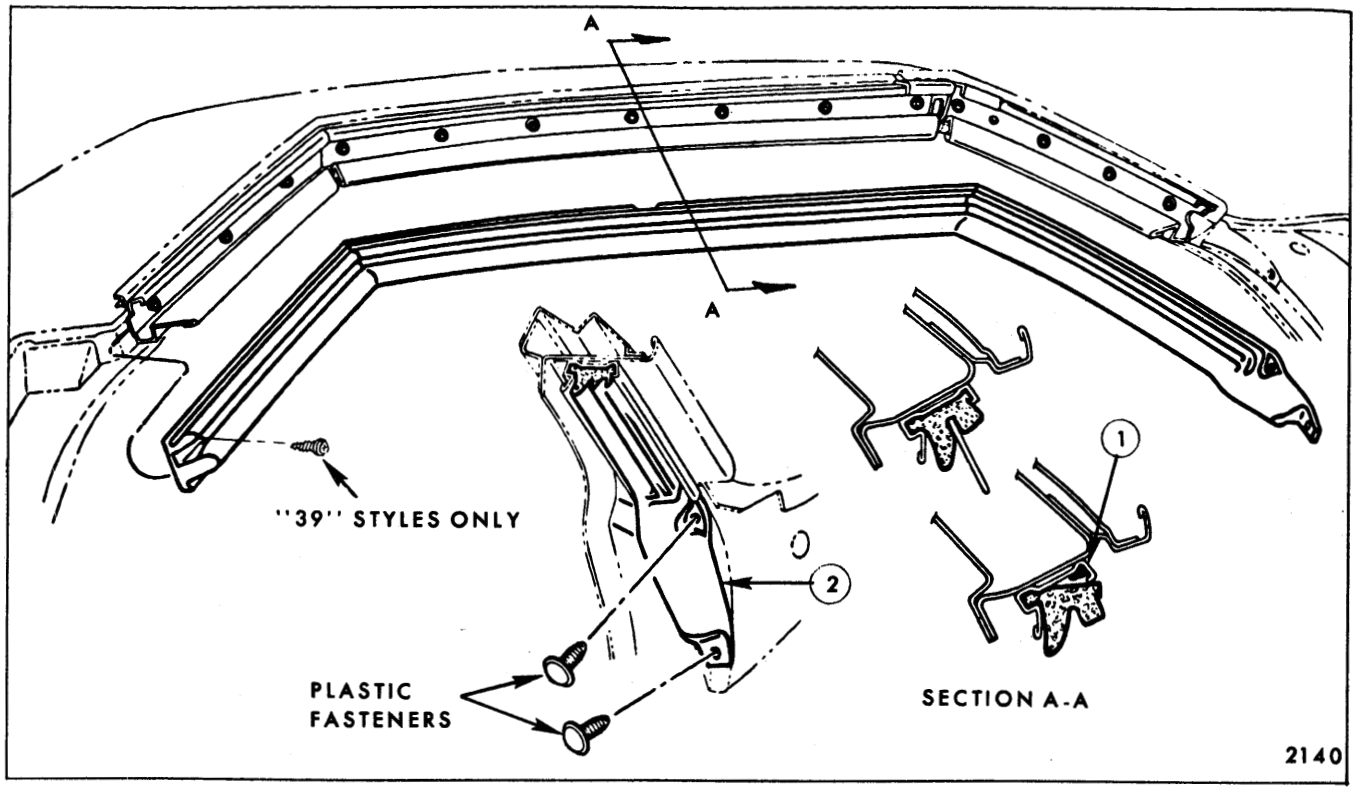

Fig. 7-35—Side Roof Rail Weatherstrip - "17-37-39 and 57" Styles

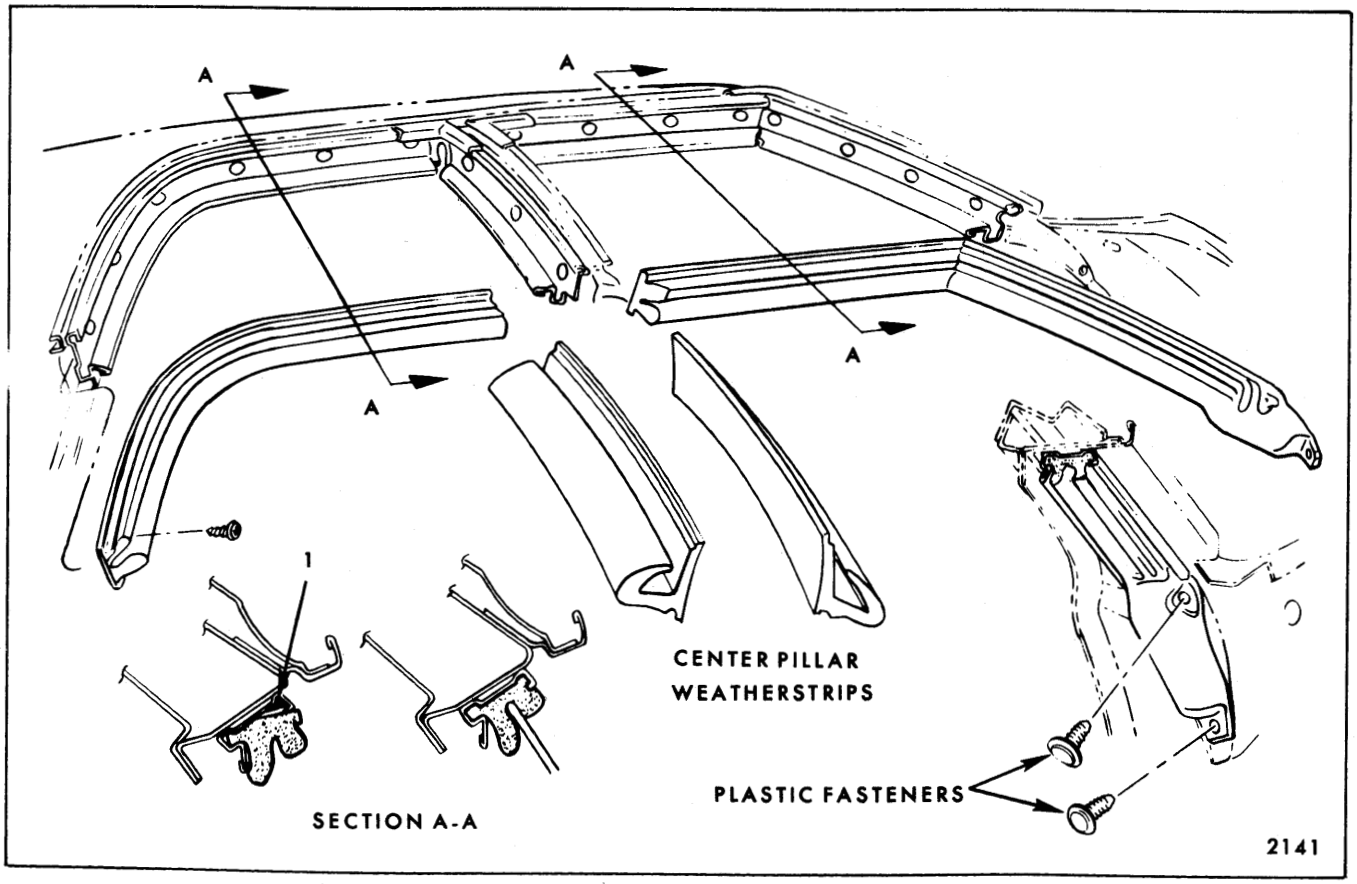

Fig. 7-36—Side Roof Rail and Center Pillar Weatherstrips - "C-69" Styles

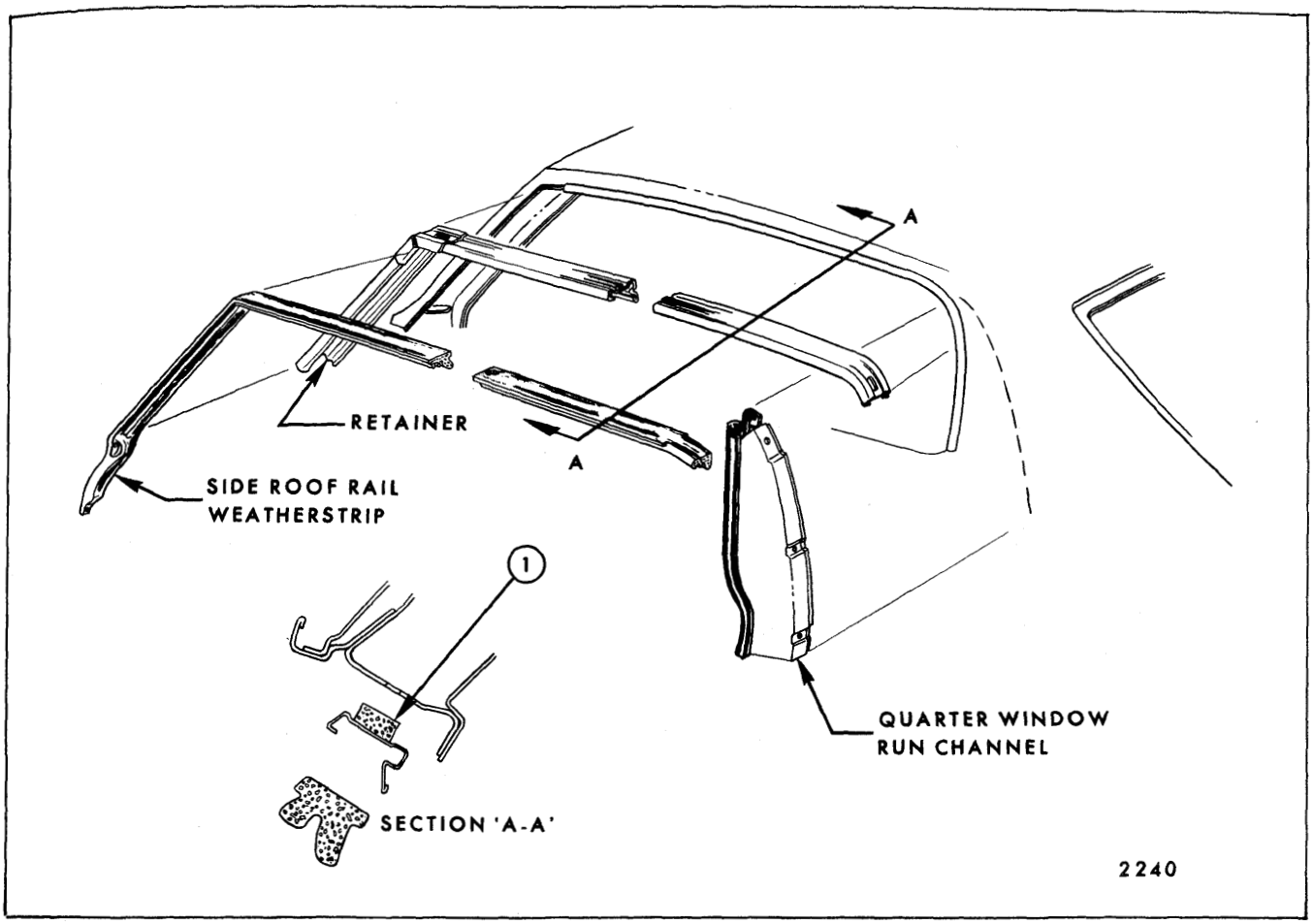

Fig. 7-37—Side Roof Rail Weatherstrip and Retainer - "B-47" Styles

4. On "87" Styles only, carefully break cement bond at butt joint of weatherstrip and quarter window rear run channel and remove weatherstrip.

5. If retainer is to be removed, remove attaching screws and pull retainer forward.

Installation (All Styles)

1. If retainer were removed, remove and discard saturated polyurethane foam sealing strip from side roof rail weatherstrip retainer and/or side roof rail. ("1", Fig. 7-38 and 7-37 "E & B" Styles shown, others similar).

2. Scrape off any excess black weatherstrip adhesive from weatherstrip retainer.

3. Apply a continuous bead of a pumpable type body caulking compound to surface of retainer that mates with side roof rail ("1", Fig. 7-39). Apply bead outboard of attaching screw holes.

4. Position retainer to body and install attaching screws. Prior to installing weatherstrip, reinstall door glass stabilizer clip(s) in retainer using retainer screws for retention. (Fig. 7-39 for all styles except "C-69", Fig. 7-36 for clip locations on "C-69" Styles). At front door opening, install clip just forward of front door window upper rear corner. On "C-69" Style rear doors, install clip just rearward of rear door window front upper corner.

5. Apply a bead of black weatherstrip adhesive to outboard flange of weatherstrip retainer ("1", Fig. 7-35 & 7-36). Extend adhesive down front body hinge pillar to seal lower front end of weatherstrip that is retained with plastic fasteners ("2", Fig. 7-35).

6. Position front end of weatherstrip to body and install plastic fasteners. Then, using a flat-blade tool, begin engaging weatherstrip with retainer as shown in Section "A-A", Figures 7-35 and 7-36). Engage inboard lip of weatherstrip first, then, outboard lip.

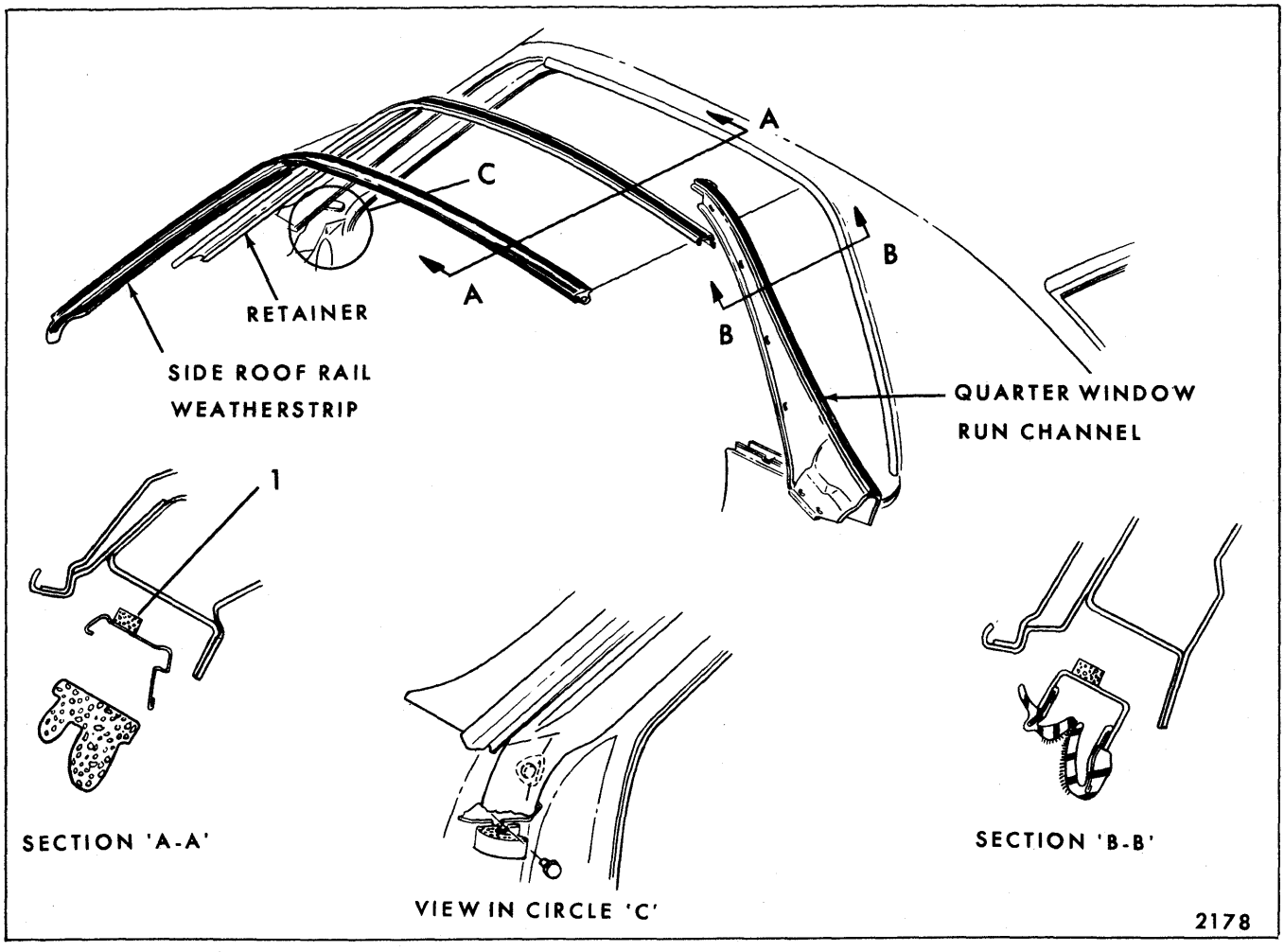

Fig. 7-38—Side Roof Rail Weatherstrip and Retainer - "E" Styles

7. After weatherstrip has been installed along length of retainer on "39" and "C-69" Style, install screw at rear end of weatherstrip (Figs. 7-35 and 7-36).

SIDE ROOF RAIL WEATHERSTRIP ADJUSTMENT

The side roof rail weatherstrip can be adjusted either inboard or outboard to effect a proper seal with the door or quarter window. To reposition the weatherstrip, disengage the inboard edge of weatherstrip from retainer and loosen retainer attaching screws. Adjust retainer as required and tighten screws. For proper relationship of weatherstrip to door window, refer to "Front Door Window Adjustments".

CENTER PILLAR WEATHERSTRIPS C-69 STYLES

The center pillar weatherstrips are retained with adhesive in retainers that are screwed to the center pillar. In addition, the weatherstrips are retained at the top by a barb in the retainer that engages the weatherstrip. Due to the presence of the barb, a center pillar weatherstrip cannot be removed by sliding it out at the bottom of the retainer. Instead, it must be worked out of the retainer with a flat-blade tool. Starting at the lower end and working upward, disengage weatherstrip from retainer outboard flange.

Although the weatherstrip cannot be slid out of the retainer, it is installed by engaging the upper end of the strip with the lower end of the retainer and sliding the strip upward. Prior to installing weatherstrip, apply a bead of black weatherstrip adhesive to outboard flange of retainer to secure weatherstrip when it is installed.

NOTE: The center pillar weatherstrips can be adjusted inboard or outboard to achieve a better seal with the door window. To reposition the weatherstrip, remove weatherstrip from retainer and adjust retainer in or out as required.

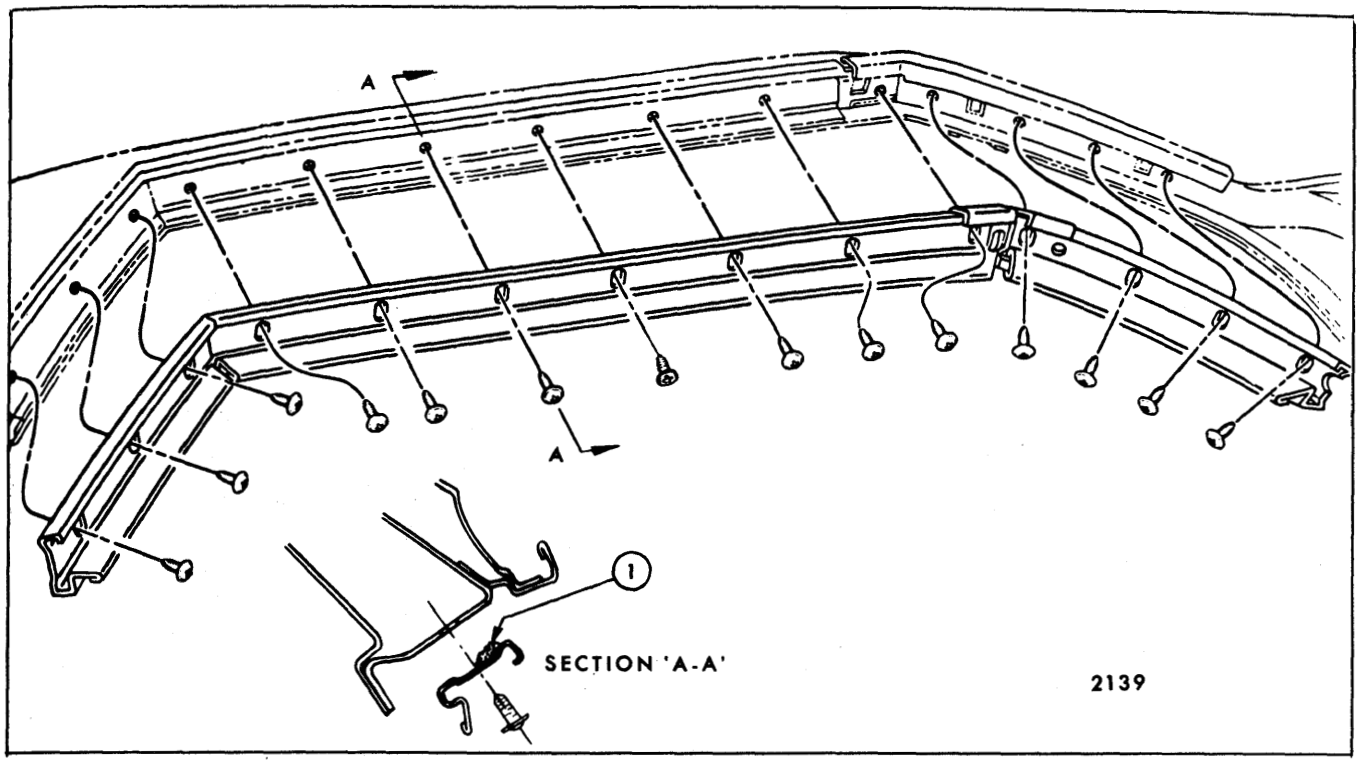

Fig. 7-39—Side Roof Rail Weatherstrip Retainer - "17-37-39 and 57" Styles

FRONT DOORS

DESCRIPTION

All doors fall into two basic categories, closed styles (those with door upper frames) and hard top or convertible styles (those without door upper frames). Although front doors utilize the same fundamental hardware, the presence or lack of a door upper frame usually determines the removal or installation sequence of any particular part.

Any work performed on door hardware usually requires removal of trim pad and inner panel water deflector. The procedures for these items are covered in "Front and Rear Doors" (see index).

Unless otherwise stated, the front door service procedures listed here pertain to all body styles.

Illustrations 7-40, 7-41, 7-42, 7-43, 7-44, 7-45, 7-46, 7-47, 7-48 and 7-49, are typical of front doors with the trim assembly and inner panel water deflector removed. These figures identify the component parts of the front door assembly (by style), their relationship and various attaching points.

FRONT DOOR HINGES

Hinges are the swing-in type on "A-X & Z" Body Styles and the swing-out type on "B-C & E" Body Styles. Both upper and lower hinges on "Z" Body Styles and upper hinges only on "A & Z" Body Styles are constructed of die cast aluminum. The lower hinges on "A & X" Bodies and both upper and lower hinges on "E" Bodies are constructed of malleable iron. An integral check is incorporated into the upper hinge on "E" Body Styles; a two stage hold-open is incorporated into lower hinges of "A-B-C & E" Body Styles; and, an integral check and single stage hold-open feature is used on lower hinge of "X & Z" Body Styles.

CAUTION: Use only the recommended procedures for adjusting front doors. Hinges will break under strain of bending in any attempt to short-cut adjustments. Care should also be exercised when removing or replacing a door assembly.

Removal and Installation

The front door assembly can be removed with or without the hinges attached. If only the door

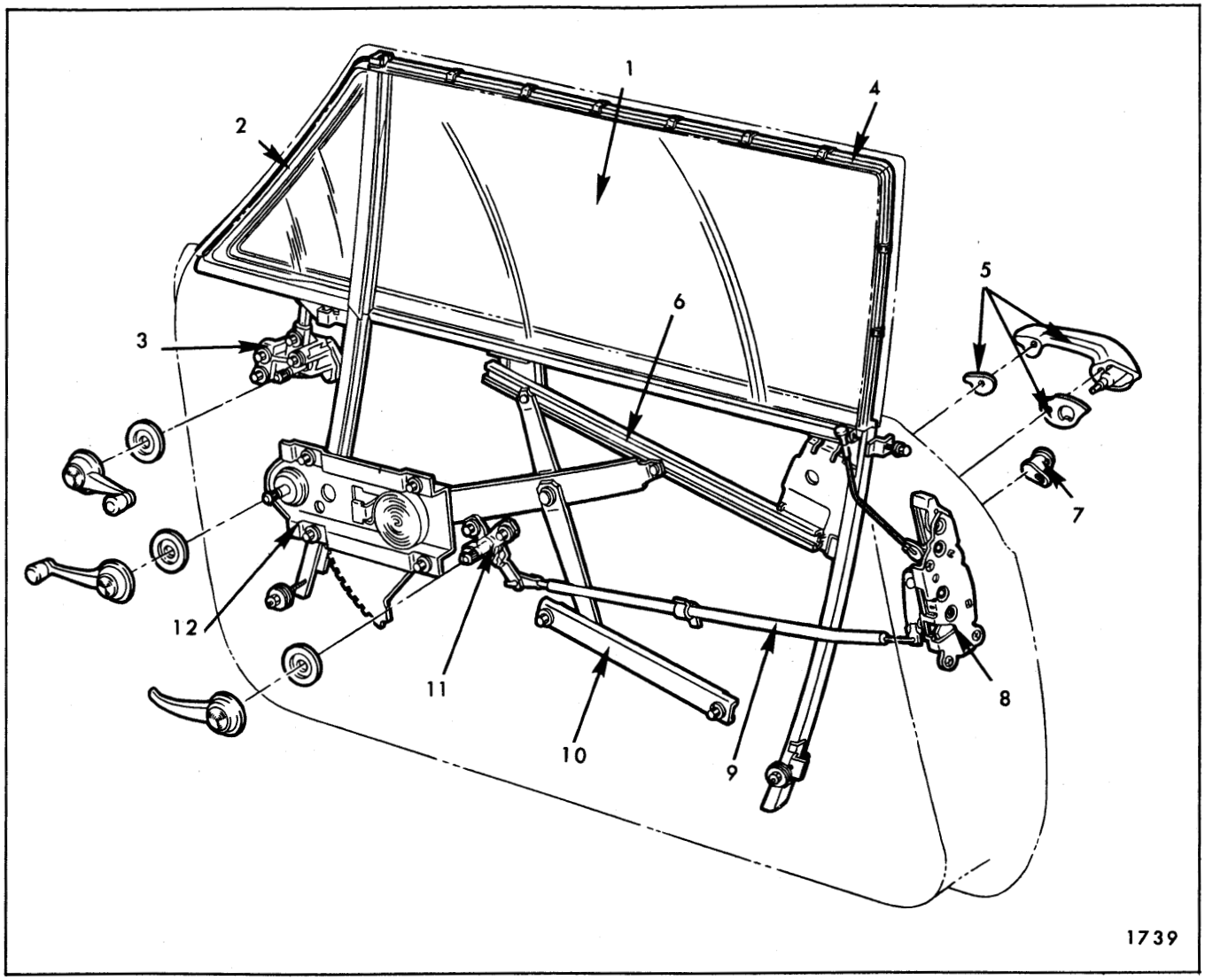

Fig. 7-40—Front Door Hardware - "B" Closed Styles

1. Window Assembly
2. Ventilator Assembly
3. Ventilator Regulator
4. Window Glass Run Channel
5. Door Outside Handle and Sealing Gaskets
6. Lower Sash Channel Cam
7. Lock Cylinder
8. Door Lock
9. Remote Control Connecting Rod
10. Inner Panel Cam
11. Remote Control
12. Window Regulator

assembly is to be serviced, it is recommended that the door be removed from the hinges. If the hinges must be serviced, remove the door and hinges from the body as an assembly and remove the hinges from the door in a bench operation.

1. Mark (pencil) hinge location on door or body pillar, dependant on how door will be removed (with or without hinges).

2. On doors equipped with power operated windows and/or vacuum door locks, remove trim pad and water deflector sufficiently to disconnect harness assembly(s) and remove same from door. On Pontiac-Oldsmobile-Buick styles equipped with electric ventilators, disconnect door wire harness at jumper wire connector, not at motor. On Cadillac styles with electric ventilators, disconnect harness at motor.

NOTE: On all styles, removal of door from body (without hinges attached) can be accomplished without loosening front fender. On "A-E & X" Body Styles, however, removal of hinges necessitates loosening of front fender.

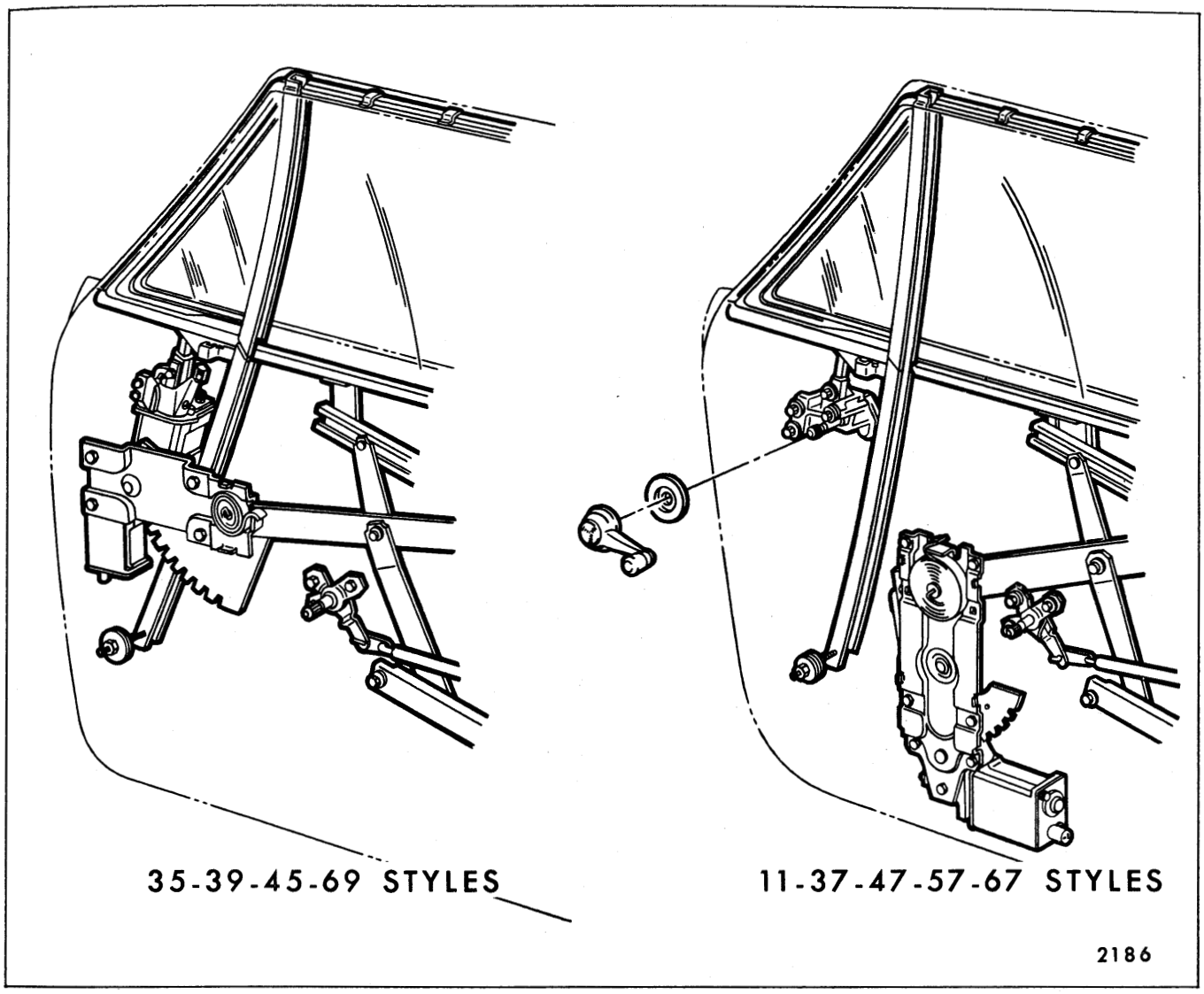

Fig. 7-41—Front Door Hardware Electrical Options - "B & C" Styles
NOTE: Electric ventilator available on both closed and hardtop styles, but not on all styles or all models.

3. To remove door, proceed as follows:

   a. Without hinges attached:

      (1) With aid of a helper (to support door) remove upper and lower hinge to door attaching bolts (or screws) and remove door from body (see Fig. 7-50 - "A" Body, Fig. 7-51 "B-C & E" Body, Fig. 7-52 - "X" Body and Fig. 7-53 - "Z" Body).

   b. With hinges attached:

      (1) On "B-C & Z" Body Styles, remove hinge to body attaching bolts and remove door (see Fig. 7-53).

      NOTE: On 68000 Series, it is necessary to remove the cowl air intake grille to gain access to the upper hinge to body attaching bolts.

      (2) On "A-E & X" Styles, loosen front fender as required:

         a. On "A" Body Styles, remove the front fender to cowl attaching bolt(s) and the first two or three (closest to cowl panel) fender to fender reinforcement attaching bolts. One or more of these latter bolts also serve as hood hinge attaching bolts.

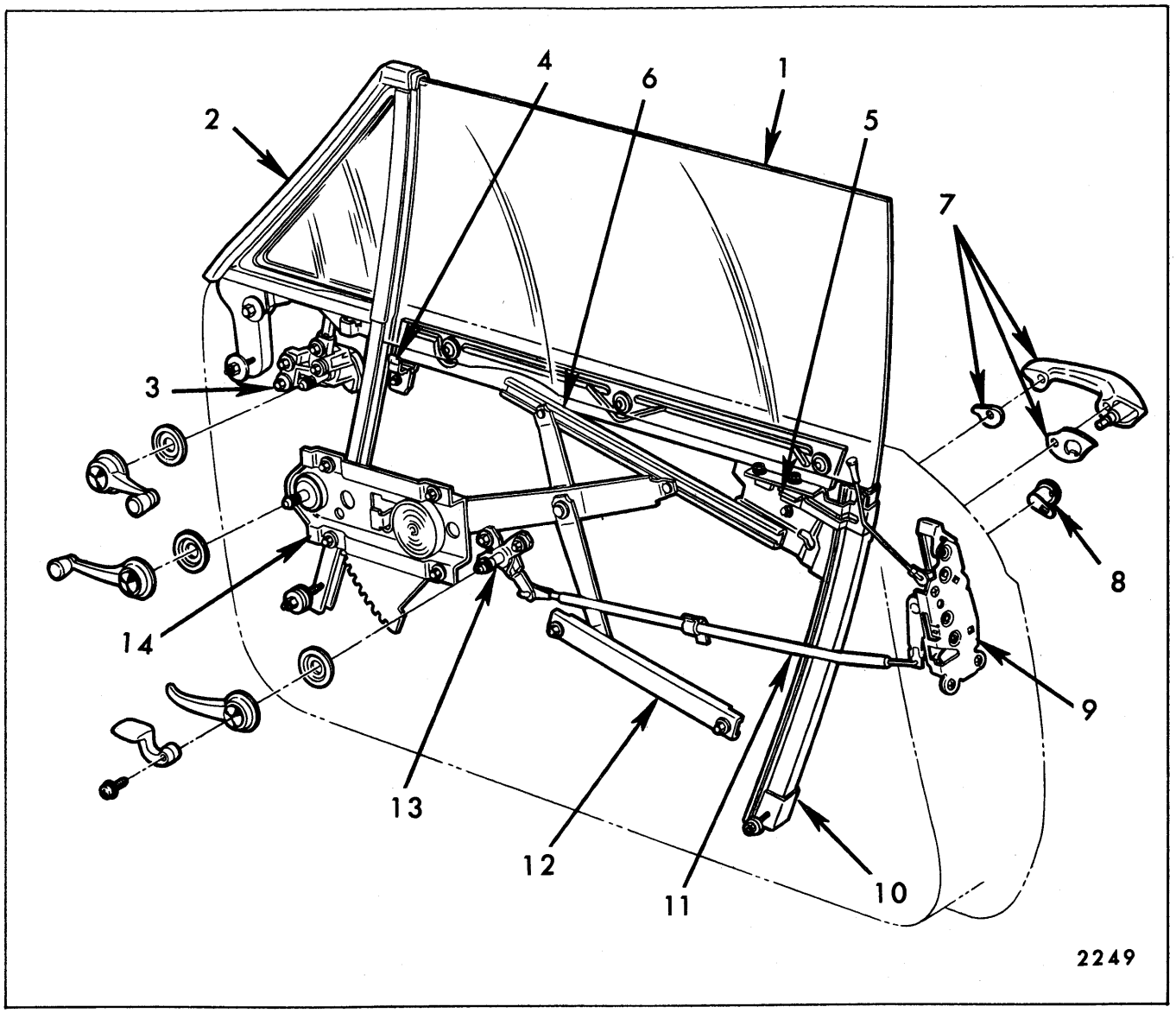

Fig. 7-42—Front Door Hardware - "B & C" "37-47-57 and 67" Styles Shown - "39" and "C-69" Styles Similar

1. Window Assembly
2. Ventilator Assembly
3. Ventilator Regulator
4. Window Front Upper Stop
5. Window Rear Upper Stop
6. Lower Sash Channel Cam (Welded to Window Lower Sash)
7. Outside Handle and Sealing Gaskets
8. Lock Cylinder
9. Door Lock
10. Window Glass Run Channel
11. Remote Control to Lock Connecting Rod
12. Inner Panel Cam
13. Remote Control
14. Window Regulator

Remove fender to rocker panel attaching bolt(s) and the first four or five fender to fender skirt attaching bolts. Prop rear of fender away from body with wooden blocks (see Fig. 7-54).

NOTE: The number of fender bolts that must be loosened to gain adequate fender clearance is determined by the style involved. Tool J-21550, however, is designed for adjustment of front door hinge to body attaching bolts. Usage of this tool alleviates the need of loosening the front fender (see Fig. 7-55).

b. On "E" Body Styles, loosen lower attachment of front fender and prop fender away from body with a wooden block (see Fig. 7-56).

c. On "X" Body Styles, remove the first six top fender bolts (number one being

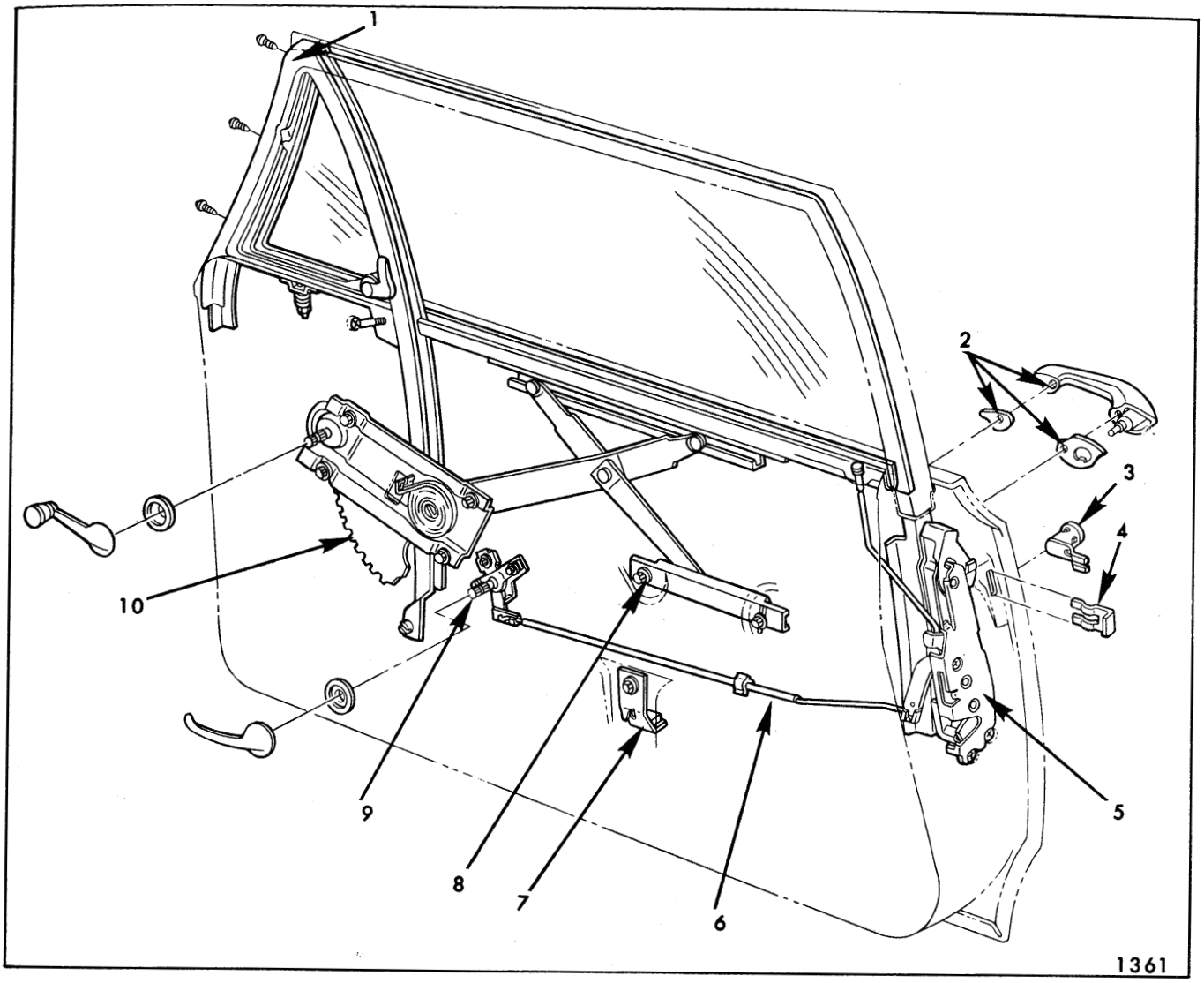

Fig. 7-43—Front Door Hardware - "A & X" Closed Styles

1. Ventilator
2. Outside Handle and Sealing Gaskets
3. Cylinder
4. Lock Cylinder Retainer
5. Lock
6. Remote Control Connecting Rod
7. Window Lower Stop
8. Inner Panel Cam
9. Remote Control
10. Window Regulator

on the cowl and working toward the front bumper). Also remove one lower fender bolt (below body hinge pillar panel, just forward of rocker panel). Hold rear of fender away from the body with a wooden block. (see Figs. 7-57 and 7-58).

(3) With aid of a helper to support door, remove upper and lower hinge to body attaching bolts (or screws) and remove door from body.

4. To install, reverse removal procedure. Align hinges within scribe marks and tighten attaching bolts or screws. Prior to installation of doors, that were removed with hinges attached, apply a coat of heavy-bodied sealer to surfaces of hinges that contact body to prevent squeaks and avoid waterleaks at attaching locations.

FRONT DOOR ADJUSTMENTS

Door adjustments are provided through the use of floating anchor plates in the door and front body hinge pillars. When checking the door for alignment, and prior to making any adjustments, remove striker from body lock pillar to allow door to hang free on its hinges. Loosen front fender as required.

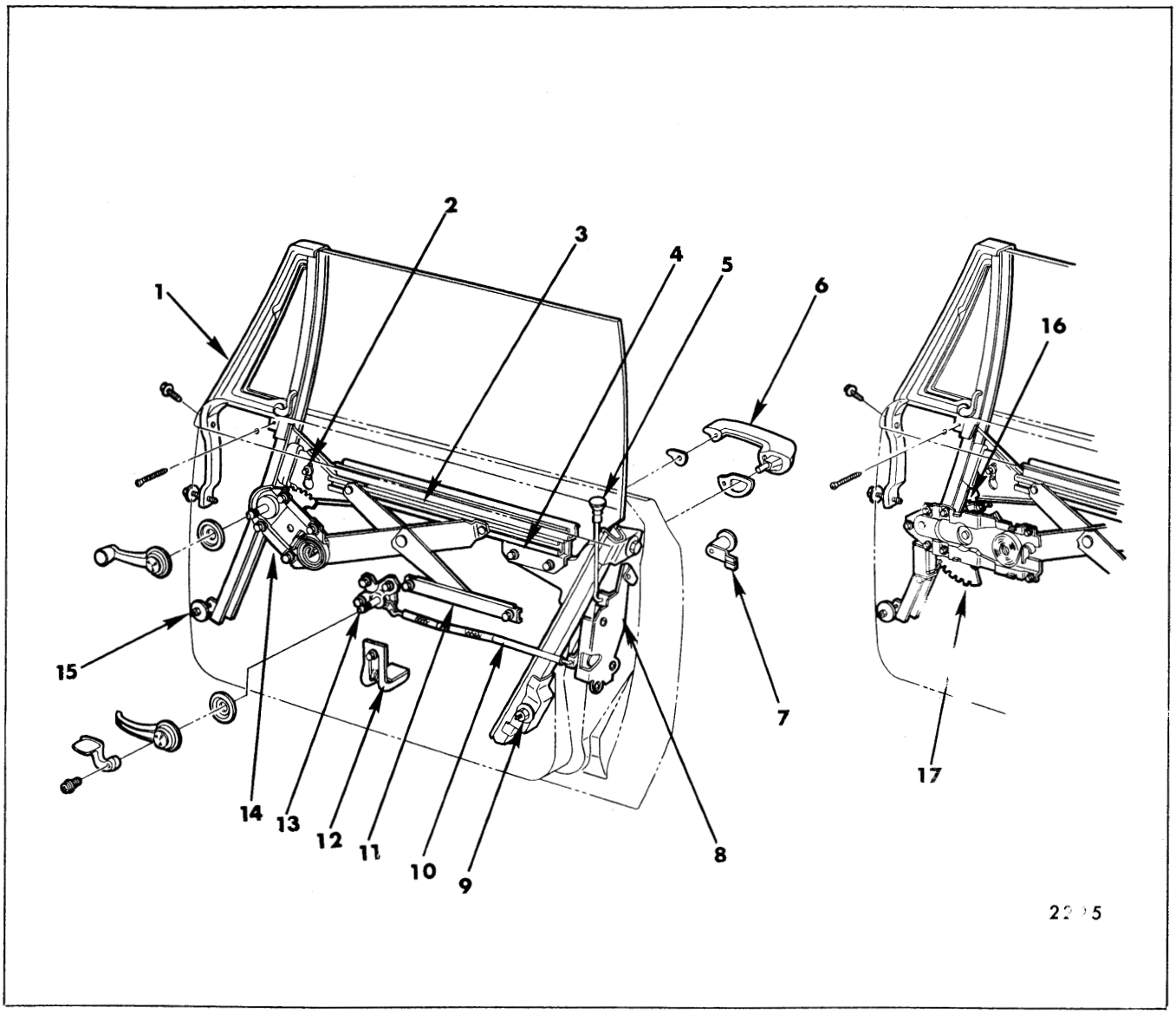

Fig. 7-44—Front Door Hardware - "A-39" Styles

1. Ventilator Front Frame
2. Window Front Up-Stop
3. Sash Channel Cam
4. Rear Guide
5. Lock to Locking Lever Rod
6. Outside Handle and Sealing Gaskets
7. Locking Cylinder
8. Lock
9. Rear Glass Run Channel
10. Remote Control Connecting Rod
11. Inner Panel Cam
12. Window Lower Stop
13. Remote Control
14. Window Regulator (Manual)
15. Ventilator Division Channel
16. Regulator Sector Gear Stop (Electric Only)
17. Window Regulator (Electric)

1. Adjustment provided at body hinge pillars:

   Up or down on all body styles, in or out on "X & Z" Body Styles and fore or aft on "A-B-C and E" Body Styles.

2. Adjustment provided at door hinge pillars:

   Fore or aft on "X & Z" Body Styles, in or out on "A-B-C & E" Body Styles and a slight amount of up or down on "A-B & C" Bodies.

When all door adjustments have been accomplished, reinstall lock striker and check lock extension to striker engagement as described in "Door Lock Striker Adjustments".

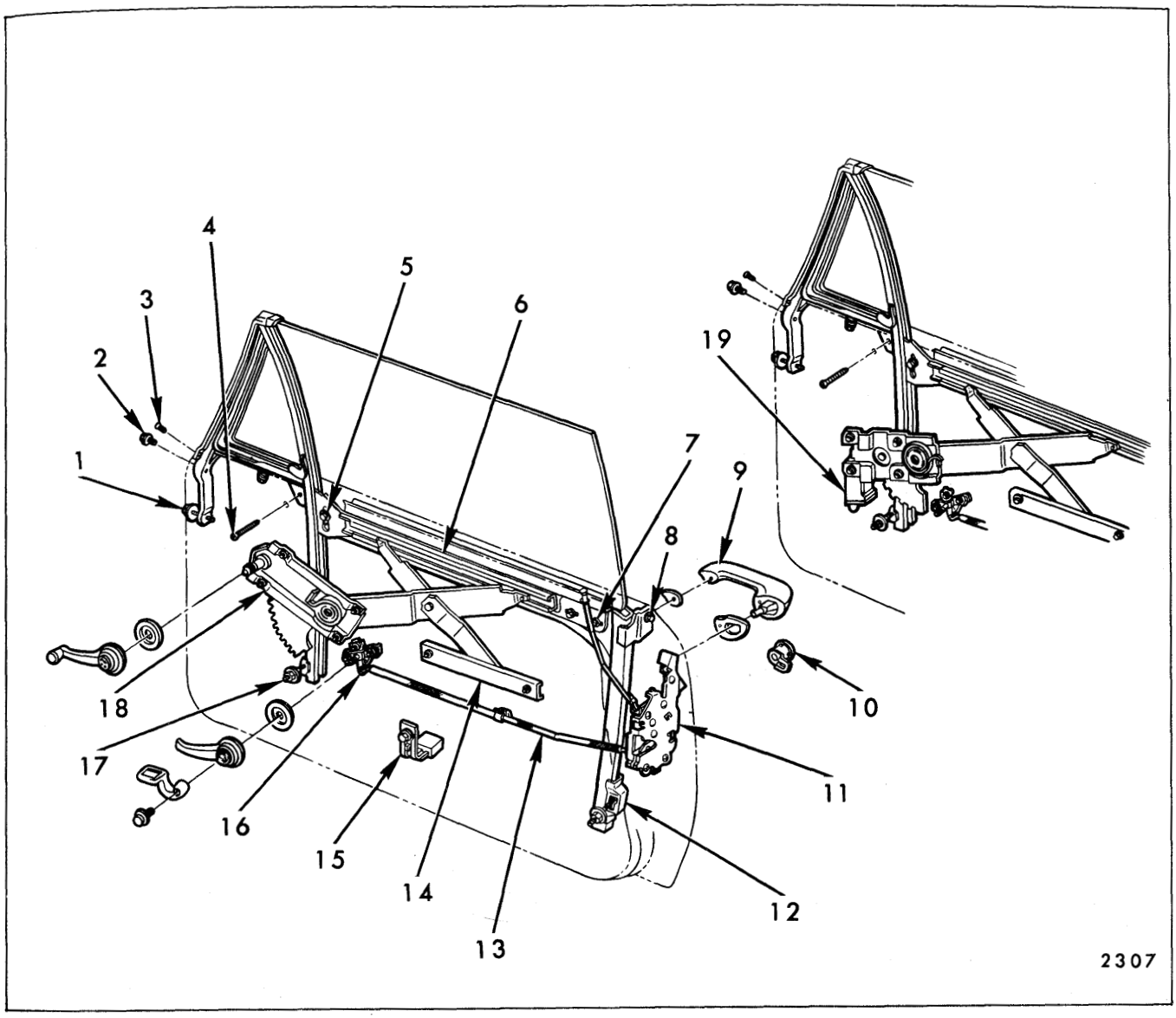

Fig. 7-45—Front Door Hardware - "A-17 and 67" Styles

1. Ventilator Frame Lower Adjusting Stud and Nut
2. Ventilator Frame Upper Attaching Bolt
3. Ventilator Frame to Inner Panel Screw
4. Ventilator to Door Inner Panel Attaching Screw
5. Window Front Up-Stop
6. Window Sash Channel Cam
7. Window Rear Guide
8. Glass Rear Run Channel Upper Bolt
9. Outside Handle Assembly
10. Lock Cylinder
11. Lock
12. Glass Rear Run Channel Lower Adjusting Stud and Nut
13. Lock to Remote Control Connecting Rod
14. Inner Panel Cam
15. Window Lower Stop
16. Remote Control
17. Ventilator Division Channel Lower Adjusting Stud and Nut
18. Window Regulator (Manual)
19. Window Regulator (Electric)

FRONT DOOR WINDOW INNER PANEL CAM

All styles equipped with a door window double arm regulator utilize an inner panel cam. This cam houses the lower roller of the regulator balance arm (see Fig. 7-40).

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.
2. Remove attaching bolts (two) and slide cam out of engagement with regulator balance arm roller.

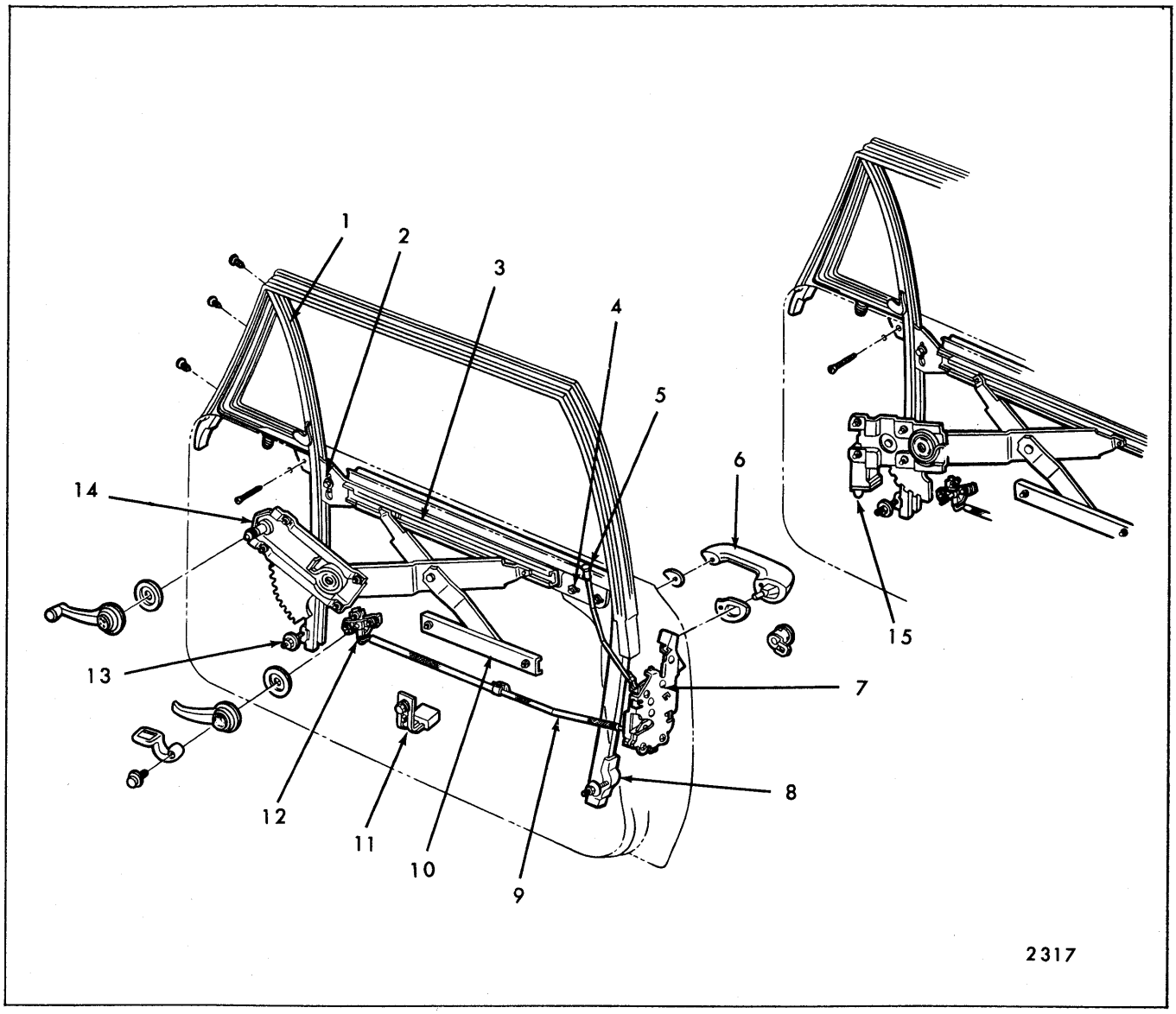

Fig. 7-46—Front Door Hardware "A-07" Styles

1. Ventilator Assembly
2. Window Front Up-Stop
3. Sash Channel Cam
4. Rear Guide
5. Lock to Locking Lever Rod
6. Outside Handle and Sealing Gaskets
7. Lock
8. Rear Glass Run Channel
9. Remote Control Connecting Rod
10. Inner Panel Cam
11. Window Lower Stop
12. Remote Control
13. Ventilator Division Channel
14. Window Regulator (Manual)
15. Window Regulator (Electric)

NOTE: One end of the inner panel cam is adjustable up or down to correct a rotated door window.

FRONT DOOR LOCK REMOTE CONTROL AND CONNECTING ROD

The remote control is secured to the door inner panel by three attaching bolts. On some styles the remote is attached to the inboard surface of the inner panel and on other styles, to the outboard surface. The removal and installation is, however, the same for either method of attachment (Fig. 7-59).

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.

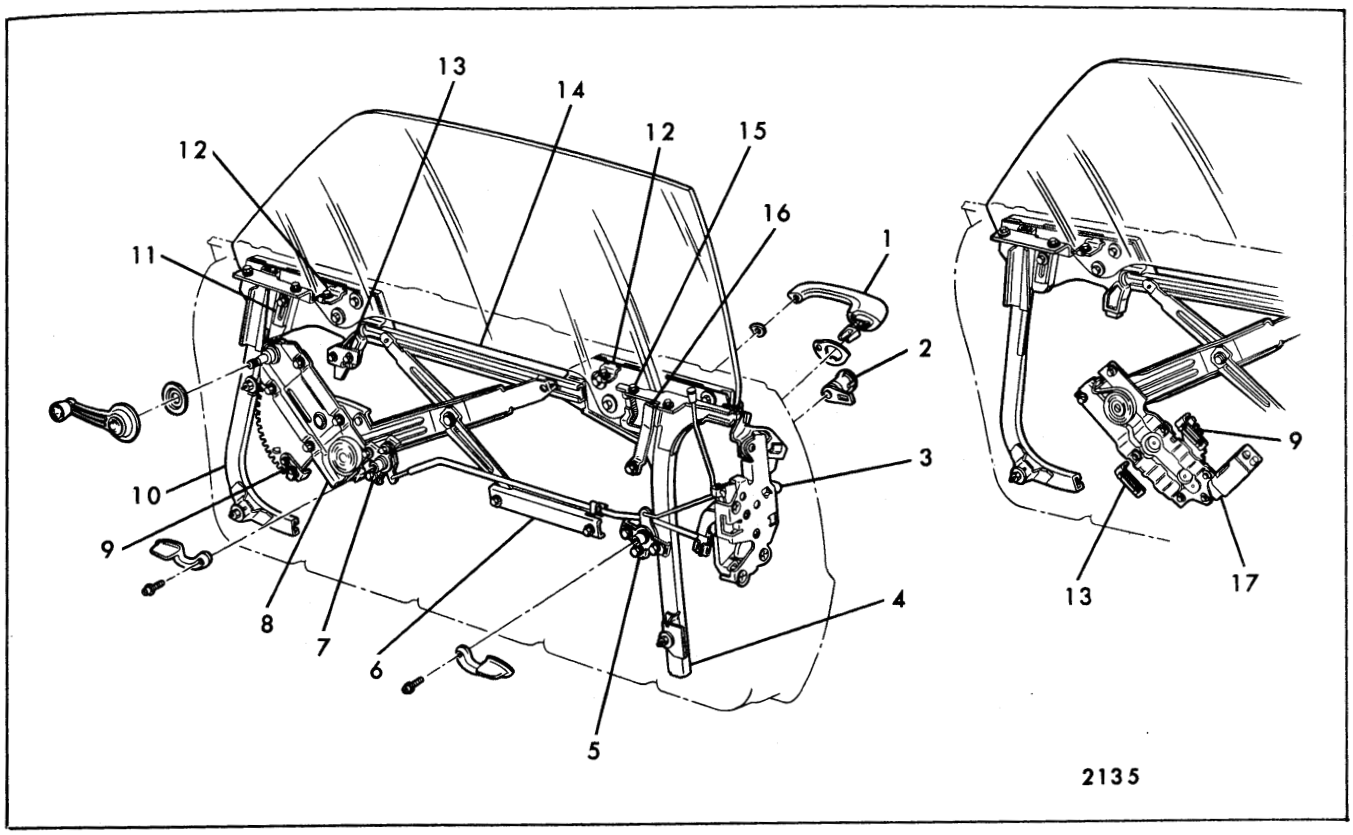

Fig. 7-47—Front Door Hardware "E" Styles

1. Outside Handle
2. Lock Cylinder
3. Lock
4. Window Rear Guide Channel
5. Rear Remote Control (Optional)
6. Inner Panel Cam
7. Front Remote Control
8. Window Regulator (Manual)
9. Window Regulator Sector Gear Stop (Up-Travel)
10. Window Front Guide Channel
11. Window Front Up-Stop
12. Trim Pad Adjusting Plate
13. Window Regulator Sector Gear Stop (Down-Travel)
14. Window Glass Lower Sash Channel Cam
15. Window Glass Stabilizer
16. Window Rear Up-Stop
17. Window Regulator (Electric)

NOTE: Some "E" Body Styles are equipped with two remote controls, one front and one rear. Attachment for both, however, is the same.

2. Remove bolts securing remote to door inner panel ("2", Fig. 7-59).

3. Pivot remote inboard slightly, to disengage connecting rod, and remove remote from door.

4. To install, reverse removal procedure.

NOTE: Connecting rod can be removed at this point by disconnecting spring clip from lock.

FRONT DOOR LOCK ASSEMBLY AND VACUUM ACTUATOR

All styles except "X" Body Styles use the fork bolt lock design. The "X" Body Styles use the rotary bolt type. Both types include a safety interlock feature. Where necessary, striker spacers should be used to insure satisfactory lock and striker engagement.

Removal and Installation

1. Raise door window; remove trim pad and detach inner panel water deflector.

2. Working through large access hole, disengage remote control to lock connecting rod at lock

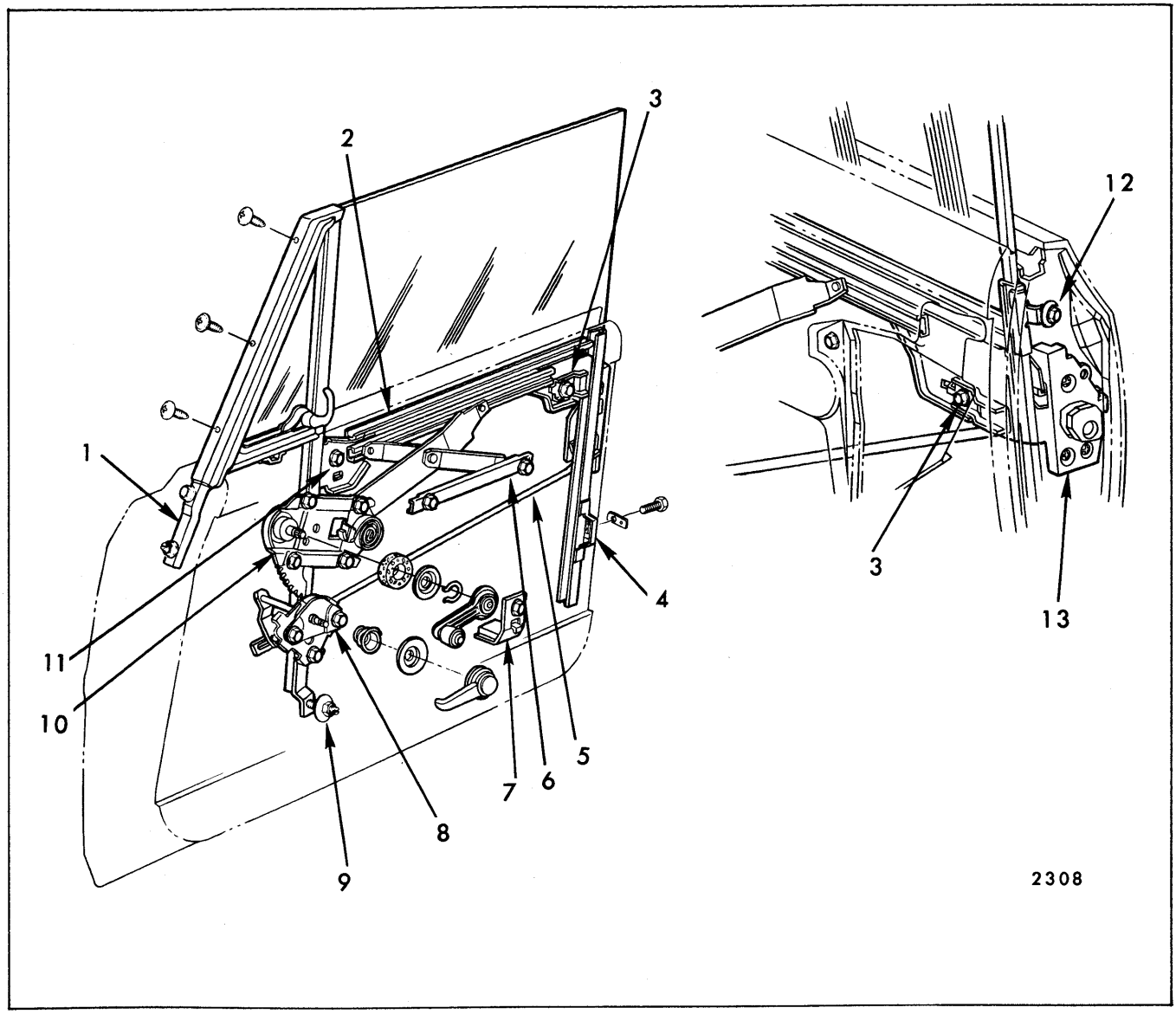

Fig. 7-48—Front Door Hardware "X-37" Styles

1. Ventilator Front Frame
2. Sash Channel Cam
3. Window Rear Up-Stop
4. Rear Glass Run Channel Lower Attachment
5. Remote Control Connecting Rod
6. Inner Panel Cam
7. Window Lower Stop
8. Remote Control Assembly
9. Ventilator Division Channel
10. Regulator
11. Window Front Up-Stop
12. Rear Glass Run Channel Upper Attachment
13. Lock

as specified under "Door Lock Spring Clips" in the preceding Front and Rear Door section.

NOTE: On some styles, it may be necessary to loosen the rear glass run channel to gain sufficient clearance to remove lock.

3. On styles with vacuum lock actuators, disconnect vacuum hoses from actuators.

4. Remove three screws securing lock to door lock pillar panel and remove lock assembly, with lock to locking lever rod attached, from body (see Fig. 7-60 - "A" Body shown, other styles similar). If vacuum actuator is to be serviced, remove in bench operation.

NOTE: The design of the lock to locking lever rod attaching clip does not allow disengagement of rod from lock with lock in an installed position. This rod can be removed from lock as a bench operation after removal of lock assembly.

5. To install, reverse removal procedure.

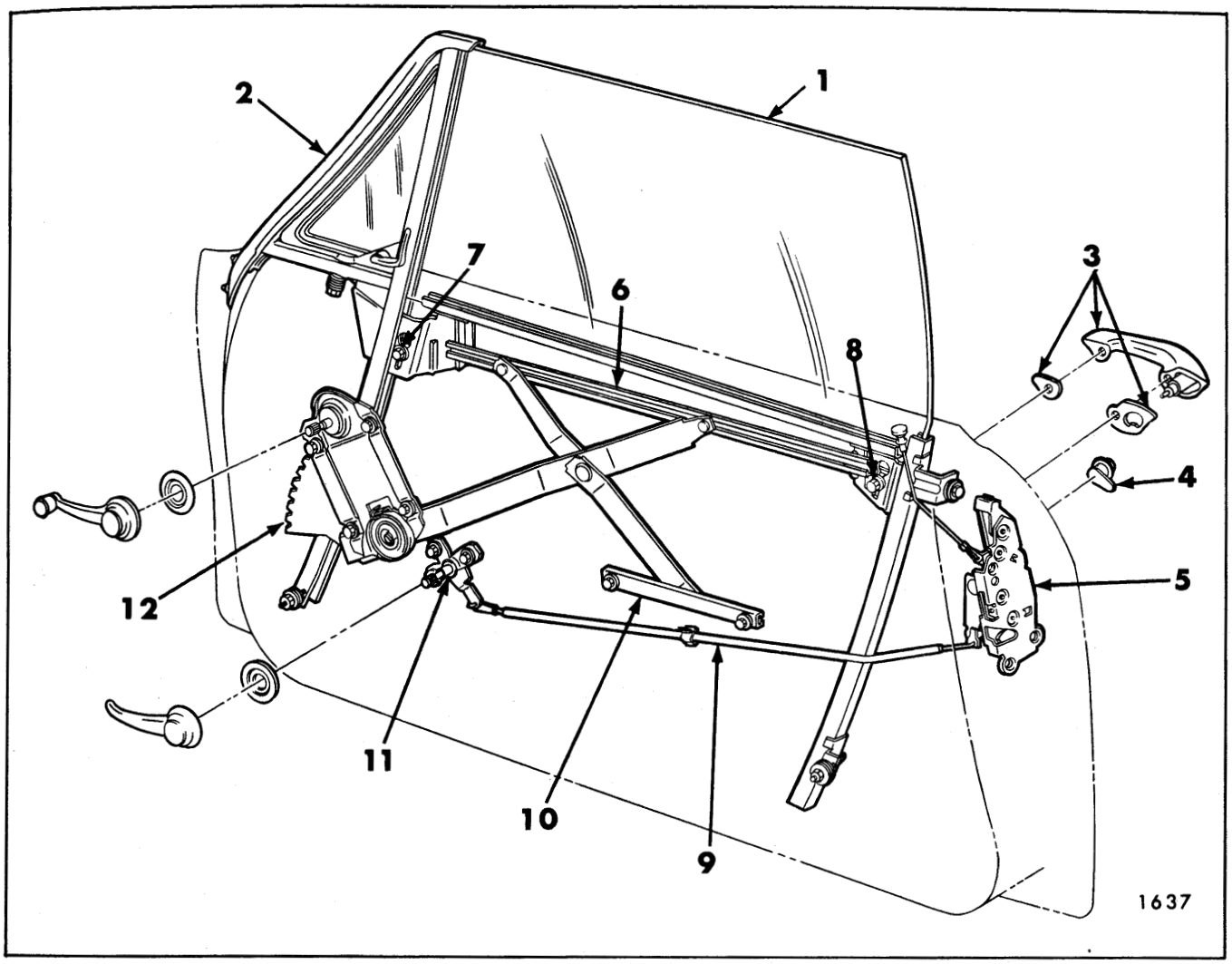

Fig. 7-49—Front Door Hardware "Z-37 and 67" Styles - "39" Similar

1. Window Assembly
2. Ventilator Assembly
3. Door Outside Handle and Sealing Gaskets
4. Lock Cylinder
5. Door Lock
6. Lower Sash Channel Cam
7. Front Up-Travel Stop
8. Rear Up-Travel Stop
9. Remote Control Connecting Rod
10. Inner Panel Cam
11. Remote Control
12. Window Regulator

NOTE: The complete vacuum system and trouble-shooting procedure is covered elsewhere in this manual - see index.

FRONT DOOR LOCK CYLINDER ASSEMBLY—ALL STYLES EXCEPT CHEVROLET FOUR-DOOR STYLES

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.
2. With a screwdriver, or other suitable tool, slide lock cylinder retaining clip (on door outer panel) out of engagement and remove lock cylinder (see Fig. 7-61).
3. To install, reverse removal procedure.

FRONT DOOR LOCK CYLINDER ASSEMBLY—CHEVROLET "B" FOUR-DOOR STYLES

Removal and Installation

1. Perform steps 1 and 2 of the preceding "Front Door Lock Cylinder Assembly" procedure.

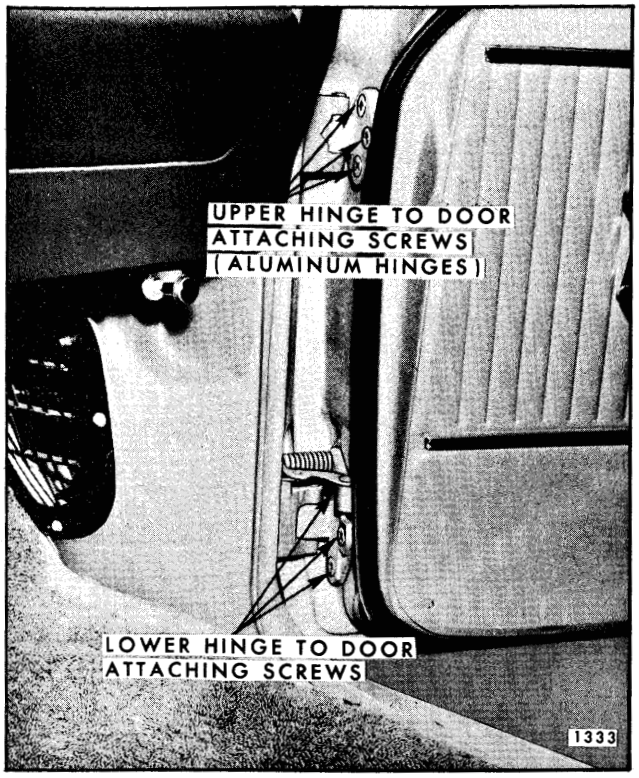

Fig. 7-50—Front Door Hinge Attachment - "A" Styles

2. Disengage spring clip securing lock cylinder to lock connecting rod at lock ("B", Fig. 7-62). Refer to "Front and Rear Door" section for spring clip disengagement.

3. Disengage lock cylinder to lock connecting rod at lock cylinder and remove lock cylinder and sealing gasket from outside of door.

4. To install, reverse removal procedure.

Disassembly and Assembly

1. Remove lock cylinder from door.

2. With a flat-bladed tool, remove retaining clip and pawl (Fig. 7-63).

3. To assemble, reverse disassembly procedure.

NOTE: The lock cylinder housing scalp used in production is usually damaged when removed and must be replaced by a new scalp available as a service part. The service lock cylinder housing scalp is secured by tabs.

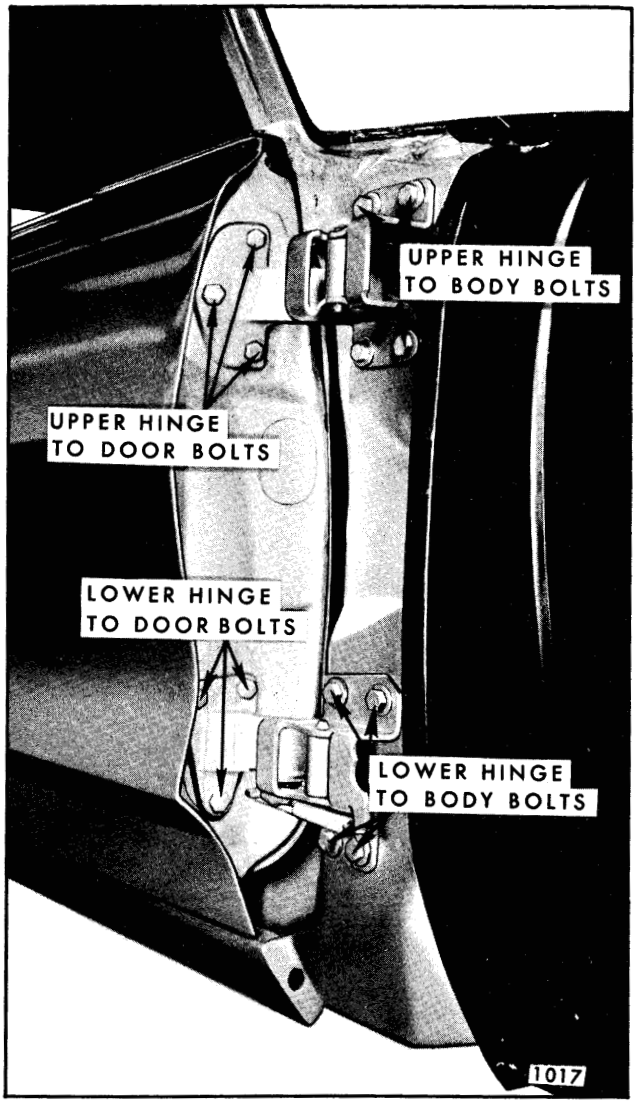

Fig. 7-51—Front Door Hinge Attachment - "B-C and E" Styles

FRONT DOOR VENTILATOR REGULATOR-MANUAL AND ELECTRIC— ALL "B & C" STYLES

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to regulator attachments.

2, On Pontiac, Oldsmobile and Buick styles equipped with electric ventilator regulators, disconnect door wire harness at ventilator jumper harness connector, not at ventilator

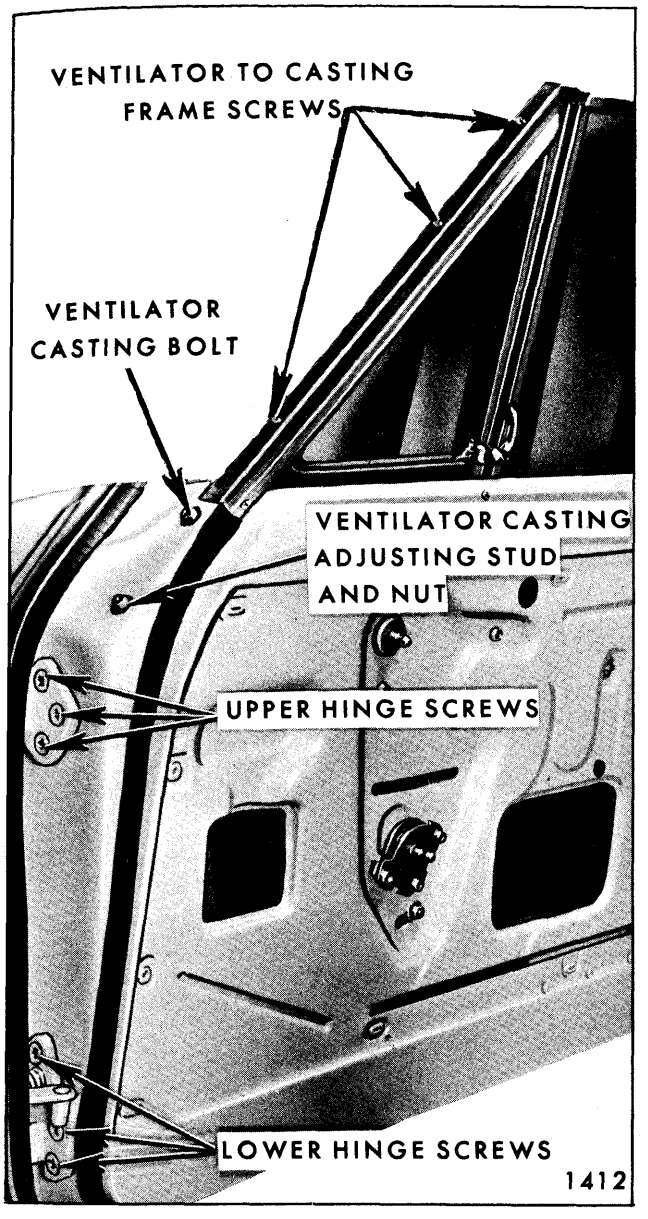

Fig. 7-52—Front Door Hinges and Ventilator - "X" Styles

motor. On Cadillac styles with electric ventilator, disconnect harness at motor.

3. Remove ventilator T-shaft attaching bolt "3" and ventilator regulator to inner panel attaching bolts "4" (Fig. 7-59).

4. Pull regulator down to disengage from ventilator T-shaft and remove regulator through access hole.

5. To install, reverse removal procedure. Check operation of ventilator prior to installing water deflector.

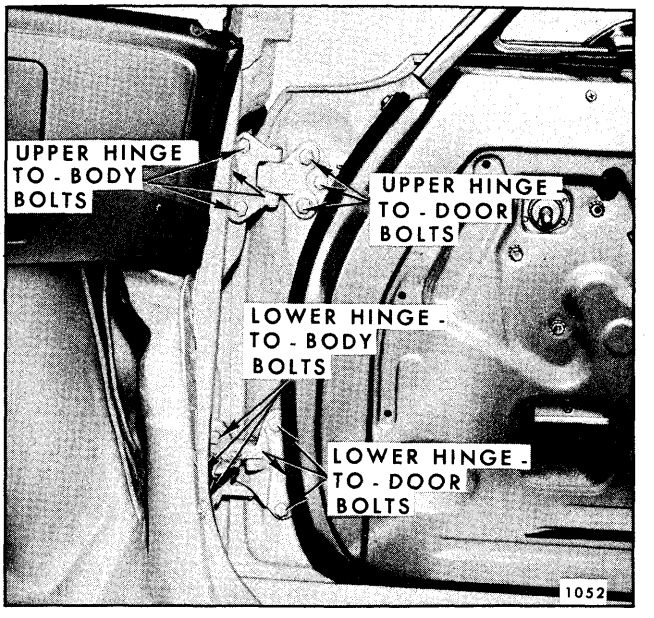

Fig. 7-53—Front Door Hinges - "Z" Styles

FRONT DOOR VENTILATOR ASSEMBLY "B-11-35-45 AND 69" STYLES

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.

2. Remove ventilator regulator as previously described.

3. Lower door window. Remove screws securing ventilator lower frame to door inner panel and to door outer panel (Fig. 7-64).

4. Remove division channel lower adjusting stud nut (Fig. 7-64).

5. Remove ventilator upper attaching screws along door upper frame (Fig. 7-64). Disengage upper front end of glass run channel from door upper frame to permit rearward movement and removal of vent from door frame.

6. Lower ventilator assembly sufficiently to tilt assembly inward, then lift ventilator assembly upward and remove from door.

7. To install, reverse removal procedure. Prior to installation, inspect saturated polyurethane foam sealing material along length of door upper frame contacted by ventilator (Fig. 7-65). If material is damaged, replace with

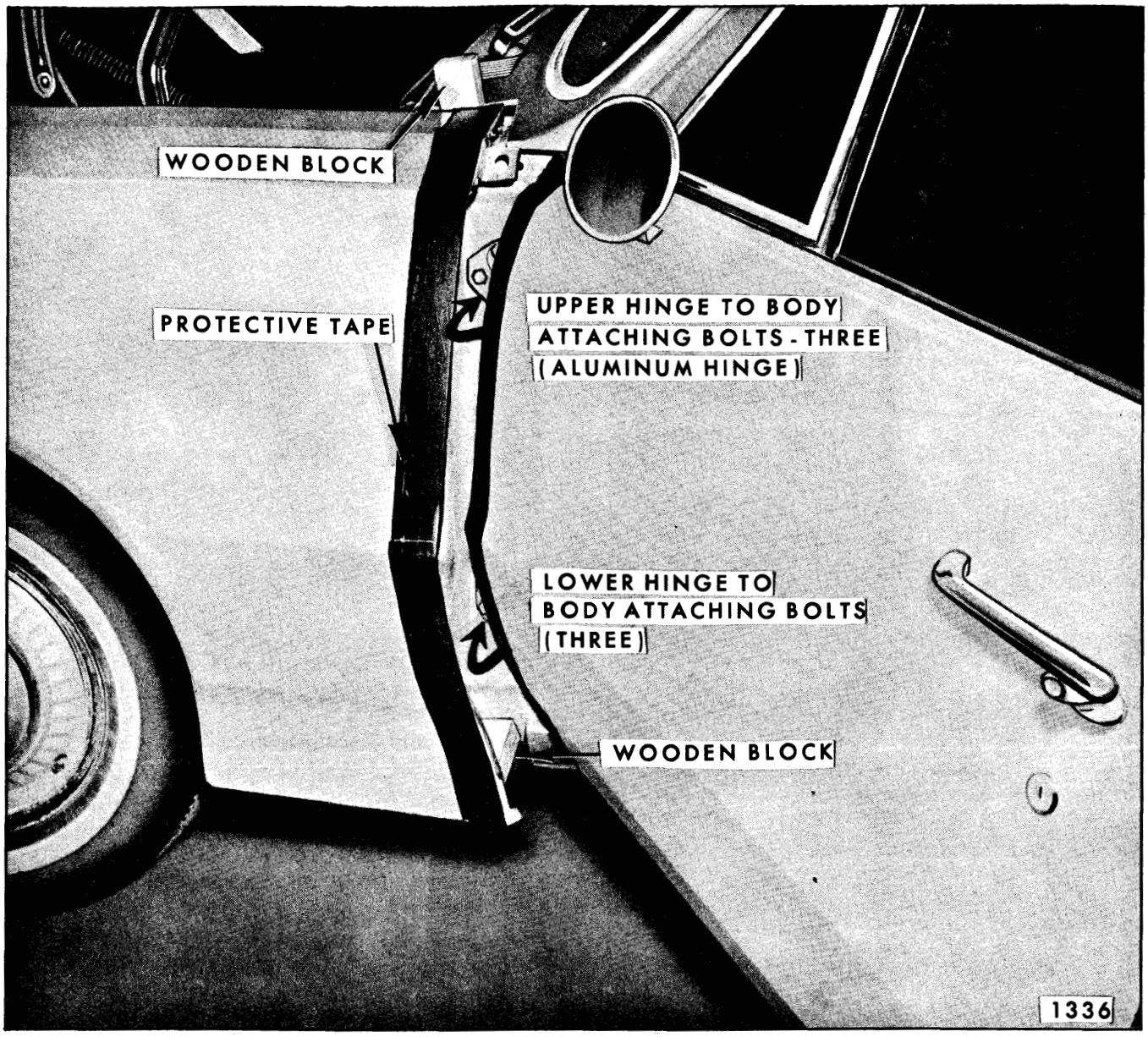

Fig. 7-54—Front Door Hinge Attachment - "A" Styles

new sealing strip or its equivalent. This is furnished in 5 foot sections under part #4480378 (Saturated Polyurethane Foam).

FRONT DOOR VENTILATOR ASSEMBLY— "A & X" CLOSED STYLES

The front door ventilator assembly is a manually operated friction type unit on all styles.

Removal and Installation

1. Raise door window. Remove door trim pad and detach inner panel water deflector.
2. On "A" Body Styles, remove door window glass run channel lower rear retainer attaching screw and remove retainer through large access hole. Figure 7-66 is typical of retainer retention except on "07" Styles. For "07" Styles, see Fig. 7-67.
3. On "X" Body Styles, remove door lock remote control assembly and connecting rod.
4. Remove ventilator division channel lower adjusting stud and nut and ventilator to door inner panel attaching screw.
5. Remove window lower stop. Lower window completely and slide it as far rearward as

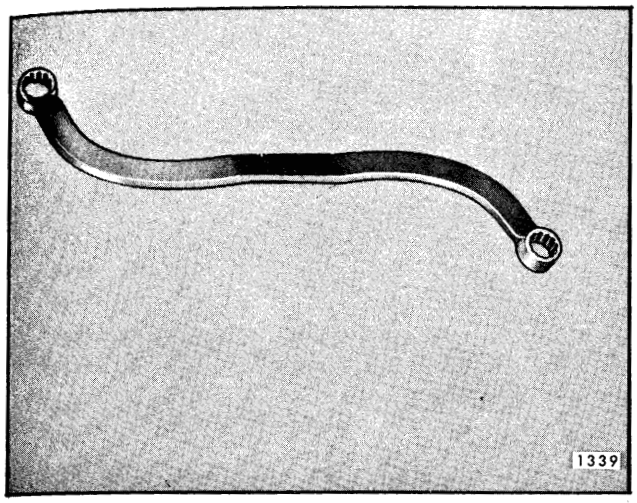

Fig. 7-55—"A" Body Front Door Hinge Tool J-21550

possible (see Fig. 7-67 for "A" Body Styles and 7-68 for "X" Body Styles).

6. Remove ventilator to door upper frame attaching screws (see Fig. 7-68 for "X" Bodies and View "A" in Fig. 7-69 for "A" Bodies).
7. On "A" Body Styles, remove glass run channel from ventilator division channel (above belt line).

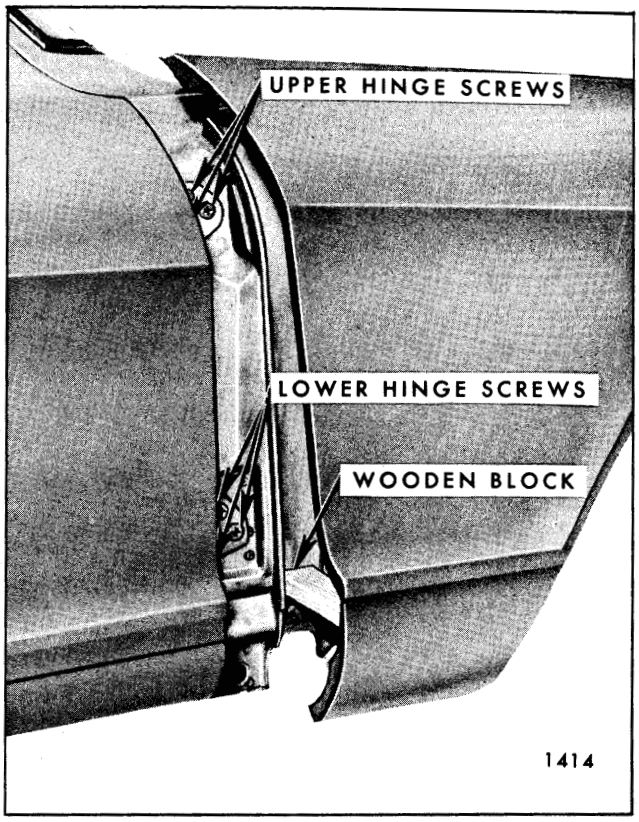

Fig. 7-57—Front Door Hinge Removal - "X" Styles

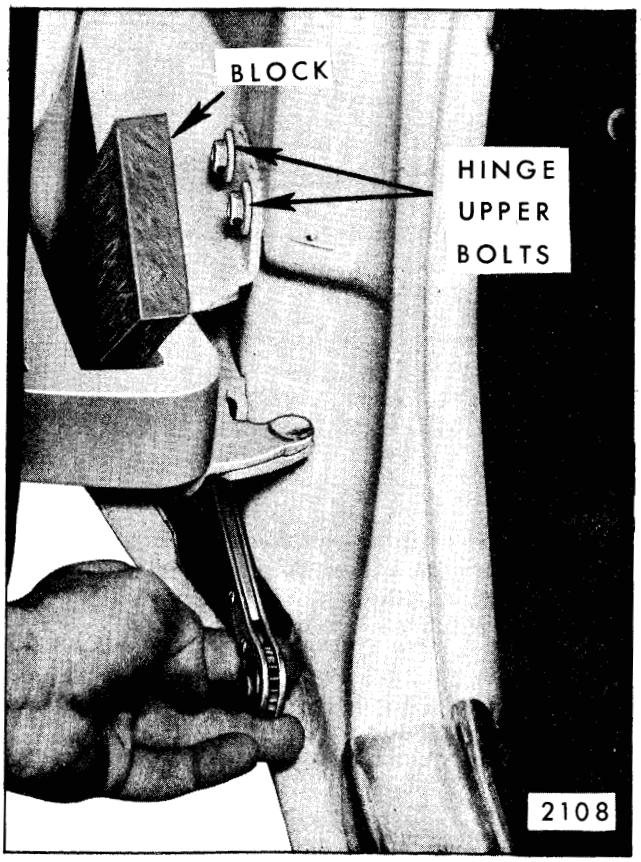

Fig. 7-56—Door Hinge Attachment - "E" Styles

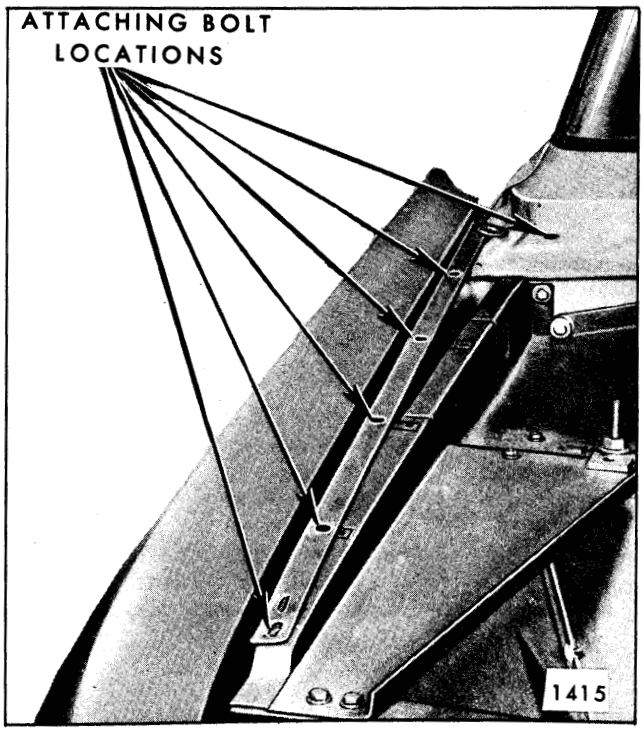

Fig. 7-58—Loosening Front Fender - "X" Styles

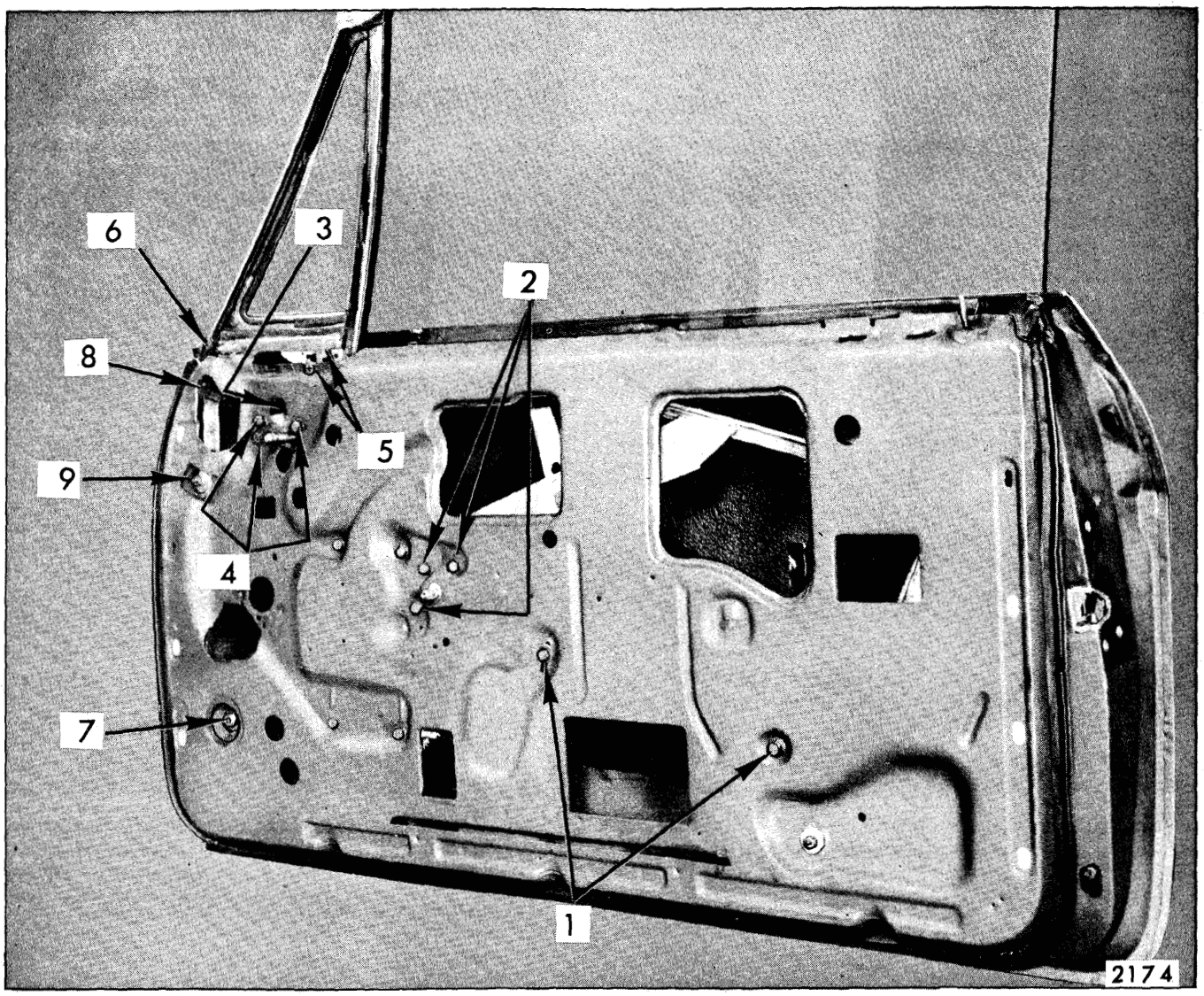

Fig. 7-59—Front Door Hardware Attachment - "B & C" Styles

1. Inner Panel Cam Bolts
2. Remote Control Bolts
3. Ventilator "T" Shaft Bolt
4. Ventilator Regulator Bolt
5. Ventilator Frame Screws
6. Ventilator to Door Pillar Seal
7. Ventilator Division Channel Adjusting Stud
8. Ventilator Frame Bolt
9. Ventilator Frame Adjusting Stud

8. Lift ventilator rearward and upward until lower forward corner of assembly is free of door upper frame (see View "B" in Fig. 7-69).

9. On "A" Styles, rotate ventilator assembly in an outboard movement and remove unit outboard of door upper frame (see View "C" in Fig. 7-69).

10. On "X" Styles, lift ventilator inboard and upward and remove from door.

CAUTION: After ventilator has been removed, door glass should be held or otherwise suitably supported to prevent damage.

11. To install, reverse removal procedure. Check operation of ventilator and door window assembly, and where required, adjust ventilator assembly as described under "Front Door Ventilator Adjustments".

Adjustments

1. A slight fore or aft adjustment of the ventilator division channel is available at the lower

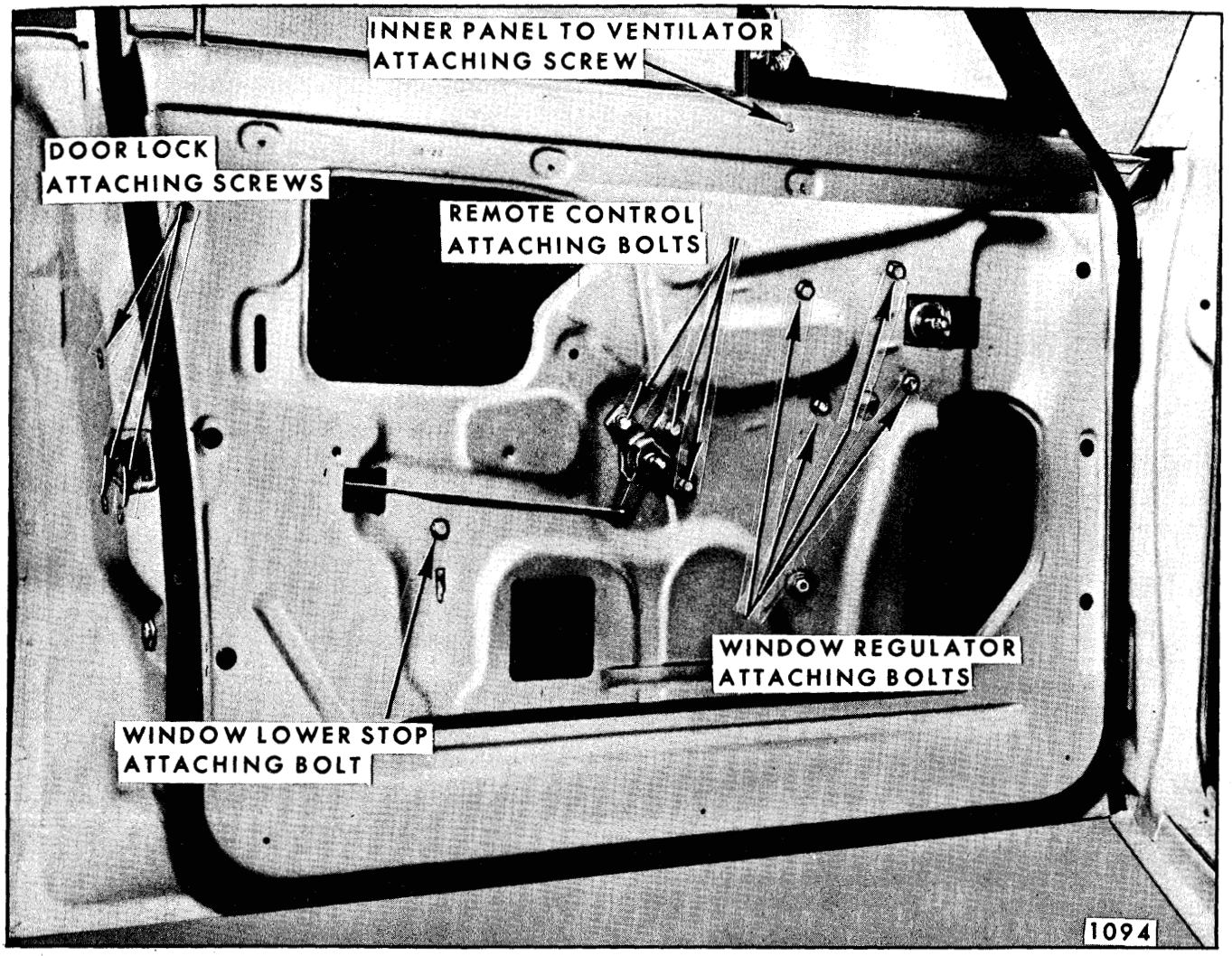

Fig. 7-60—Front Door Hardware - "A" Styles

adjusting stud and nut by loosening attaching nut and sliding nut in slot provided (see Fig. 7-69). The division channel can also be positioned in or out by loosening nut and turning stud in or out as required and tightening nut.

2. The effort required to open or close the ventilator can be set by straightening retaining washer tab and tightening or loosening the adjusting nut. Tightening the adjusting nut will increase operating effort and loosening adjusting nut will decrease operating effort. When the desired adjustment has been obtained, bend down washer tab to lock nut in position (See Fig. 7-70).

NOTE: This adjustment should be performed as a bench operation.

FRONT DOOR VENTILATOR-MANUAL AND ELECTRIC—ALL "B & C" "37-39-47-57 AND 67" AND "C-69" STYLES

Removal and Installation

1. Raise door window. Remove door trim assembly and inner panel water deflector.

2. Remove screws securing ventilator lower frame to door outer panel return flange and to door inner panel ("5", Fig. 7-59).

3. At front of ventilator assembly, break cement bond between door weatherstrip and ventilator assembly ("6", Fig. 7-59).

4. Remove ventilator division channel lower adjusting stud nut ("7", Fig. 7-59).

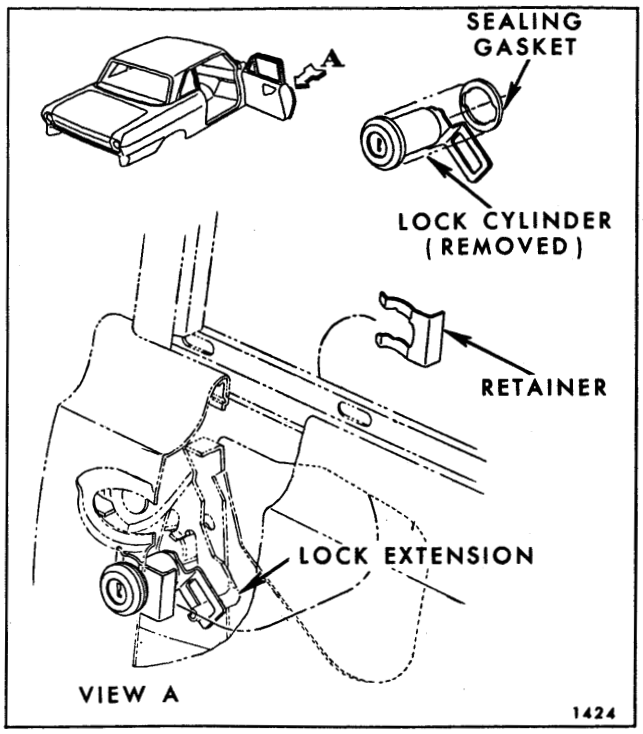

Fig. 7-61—Front Door Lock Cylinder Removal - "X" Styles Shown - Others Similar

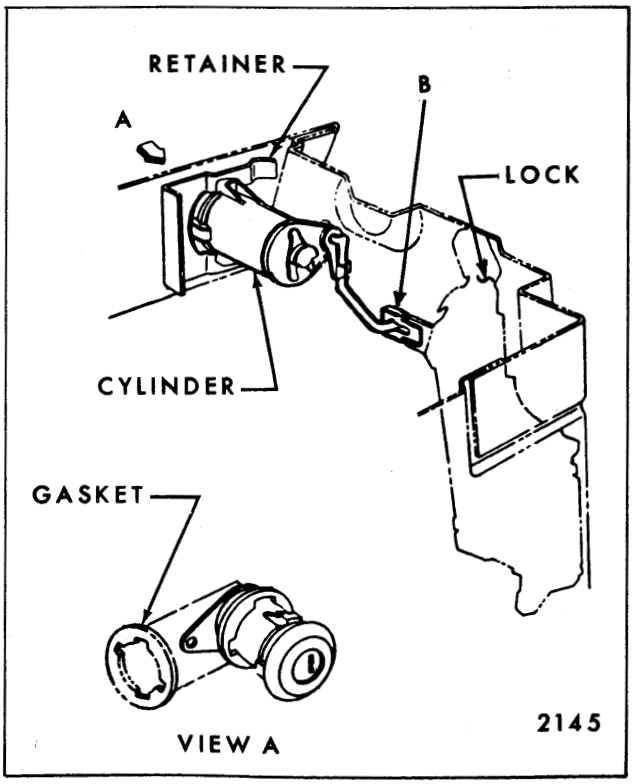

Fig. 7-62—Front Door Lock Cylinder Removal - Chevrolet "B" Four-Door Styles

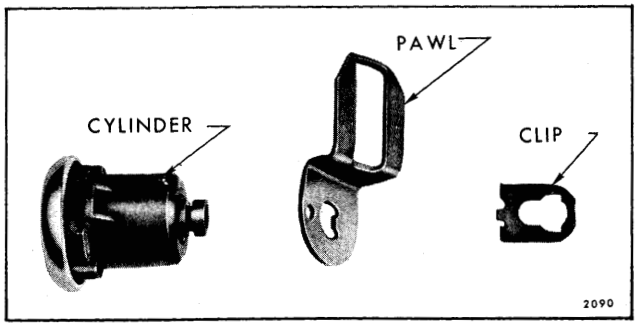

Fig. 7-63—Door Lock Cylinder Assembly

5. Remove ventilator regulator as previously described.

6. Remove ventilator lower frame attaching bolt "8" and ventilator lower frame adjusting stud nut "9" (Fig. 7-59).

7. Lift ventilator assembly upward approximately 6" and remove ventilator lower frame adjusting stud from ventilator at upper front access hole.

8. Lift ventilator upward and remove from door.

9. To install, reverse removal procedure. Adjust ventilator for proper operation and alignment with side roof rail weatherstrip as described below.

FRONT DOOR VENTILATOR ADJUSTMENTS—ALL "B & C" "37-39-47-57 AND 67" AND "C-69" STYLES

The front door ventilator assembly can be adjusted up-or-down, in-or-out at the top, and slightly fore-or-aft. To perform any ventilator adjustments it is first necessary to remove the door trim assembly and inner panel water deflector to expose ventilator attachments. Then, remove or loosen the following attachments.

a. Remove ventilator lower frame to inner panel and ventilator lower frame to outer panel screws ("5", Fig. 7-59).

b. Loosen ventilator lower frame attaching bolt "8".

c. Loosen ventilator lower frame adjusting stud nut "9" and ventilator division channel lower adjusting stud nut "7".

d. Loosen ventilator regulator attaching bolts "4".

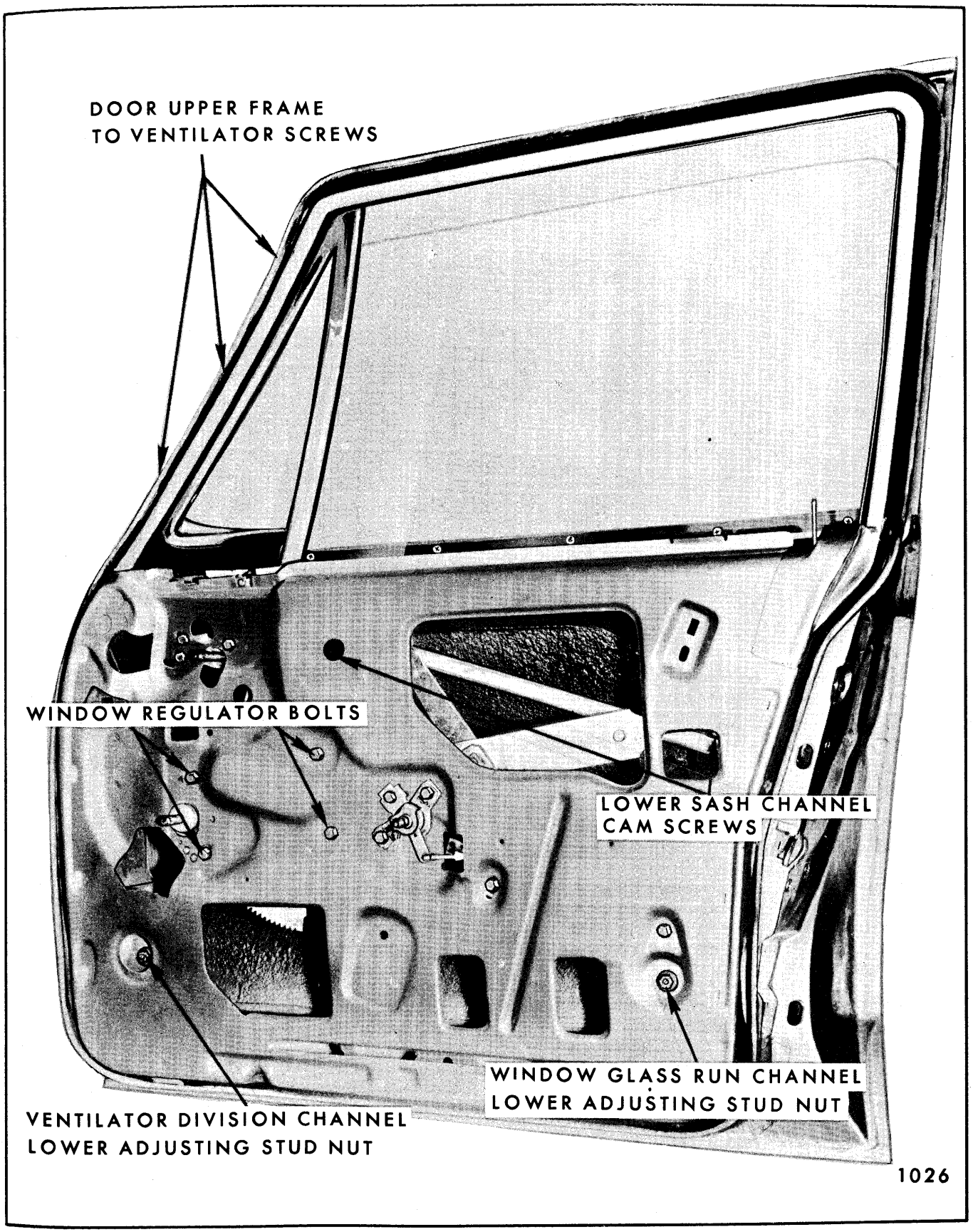

Fig. 7-64—Door Ventilator and Regulator Attachment - "B & C" Closed Styles

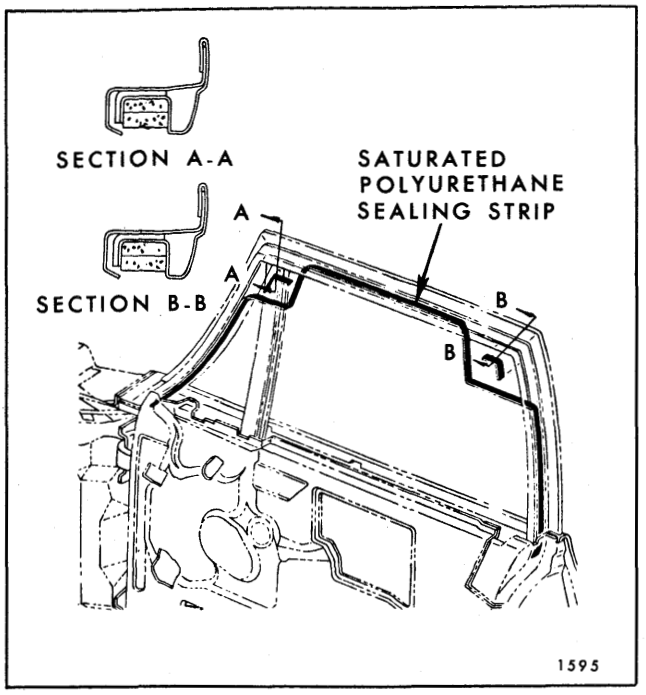

Fig. 7-65—Front Door Window Glass Run Channel Sealing - "B & C" Closed Styles

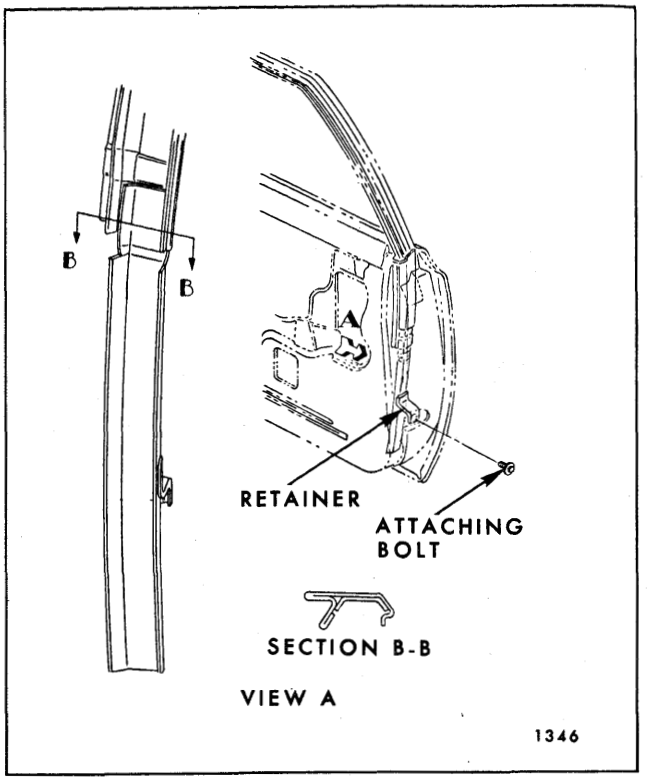

Fig. 7-66—Door Window Glass Run Channel Lower Rear Retainer - "A" Styles

1. To adjust the top of the ventilator assembly in-or-out, adjust the ventilator lower frame and ventilator division channel adjusting studs as required, then tighten the stud nuts.

2. To position ventilator fore-or-aft or up-or-down to obtain proper alignment with side roof rail weatherstrip, shift loosened ventilator to desired position and tighten attaching nuts and bolts.

3. To eliminate flutter (play) of ventilator window, tighten ventilator T-shaft attaching bolt.

4. To obtain a better seal between division pillar weatherstrip and rear edge of ventilator glass, shim front edge of ventilator regulator outboard. Install shims between regulator and door inner panel.

5. To adjust ventilator window up-or-down within ventilator frame, loosen ventilator T-shaft attaching bolt. Adjust ventilator window up-or-down as desired, then, tighten T-shaft bolt.

FRONT DOOR VENTILATOR CASTING—"X-37" STYLES

The front door ventilator casting is used on all "37" Styles and is secured to the front door assembly by one attaching bolt and one adjusting stud and nut. The front facing of the ventilator frame is secured to the ventilator casting by five attaching screws.

Removal and Installation

1. Remove ventilator casting to door hinge pillar panel attaching bolt and lower adjusting stud nut.

2. Remove five ventilator casting to ventilator frame attaching screws and remove assembly from door.

3. A slight fore and aft adjustment of the ventilator casting can be obtained at the lower adjusting stud and nut.

FRONT DOOR VENTILATOR ASSEMBLY—"A-X & Z" HARDTOP AND CONVERTIBLE STYLES

The front door ventilator assembly is a manually operated friction type unit.

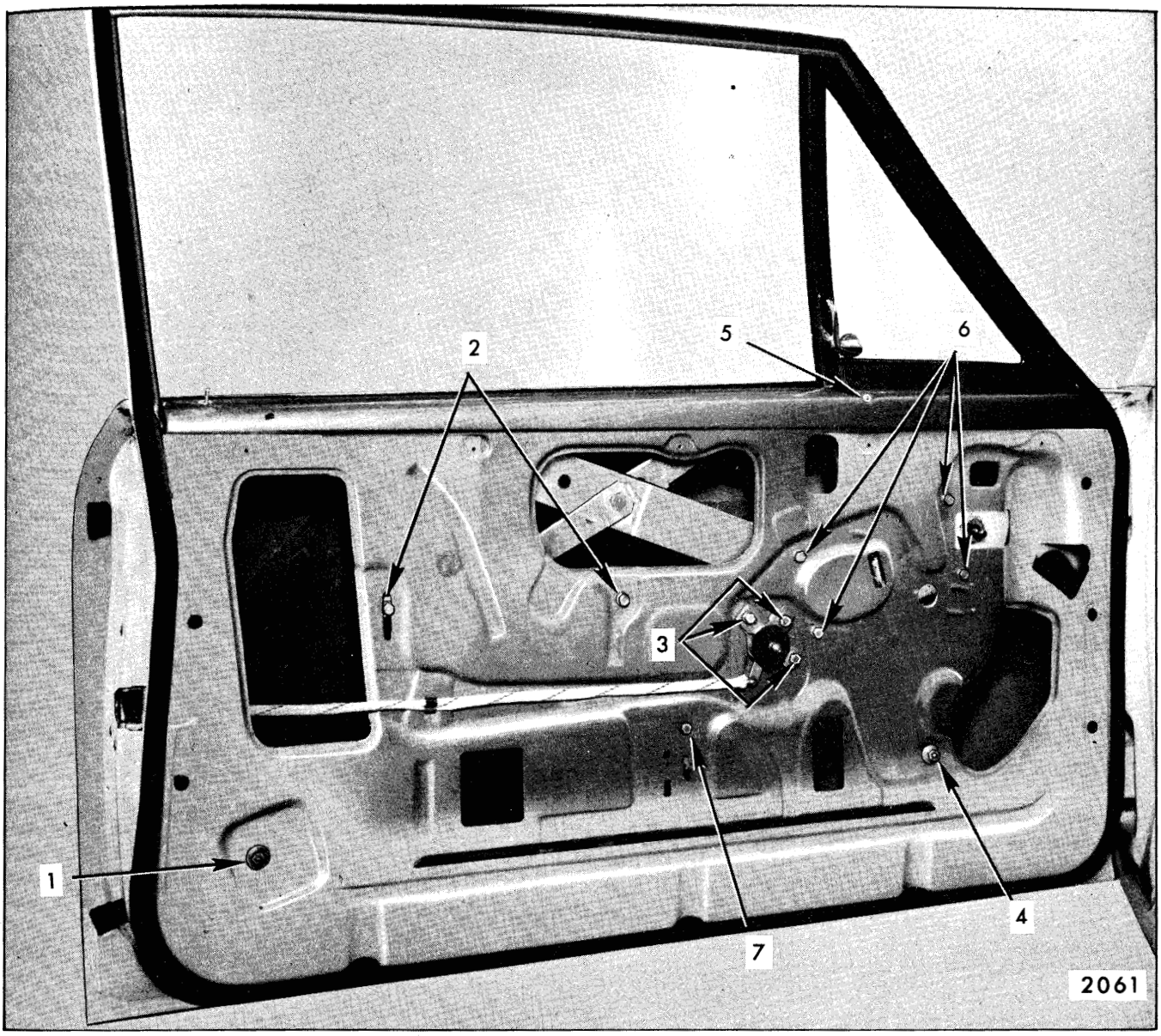

Fig. 7-67—Front Door Hardware - "A-07" Style

1. Rear Glass Run Channel Lower Retainer Adjusting Stud and Nut
2. Inner Panel Cam Bolts
3. Remote Control Bolts
4. Ventilator Division Channel Lower Adjusting Stud and Nut
5. Ventilator to Inner Panel Attaching Screw
6. Window Regulator Bolts
7. Window Lower Stop Attaching Bolt

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.

2. On "A-39" Styles, remove front door window - see index.

3. Remove ventilator division channel lower adjusting stud nut and ventilator to door inner panel attaching screw(s) (See Fig. 7-71).

NOTE: On "A-39" Styles, ventilator to door inner and outer panel return flange attaching screws must be removed. This additional screw is what necessitates removal of door window.

4. On all "A" Body Styles (except "A-39"), remove door window lower stop and completely lower window. Lower door window on all other styles.

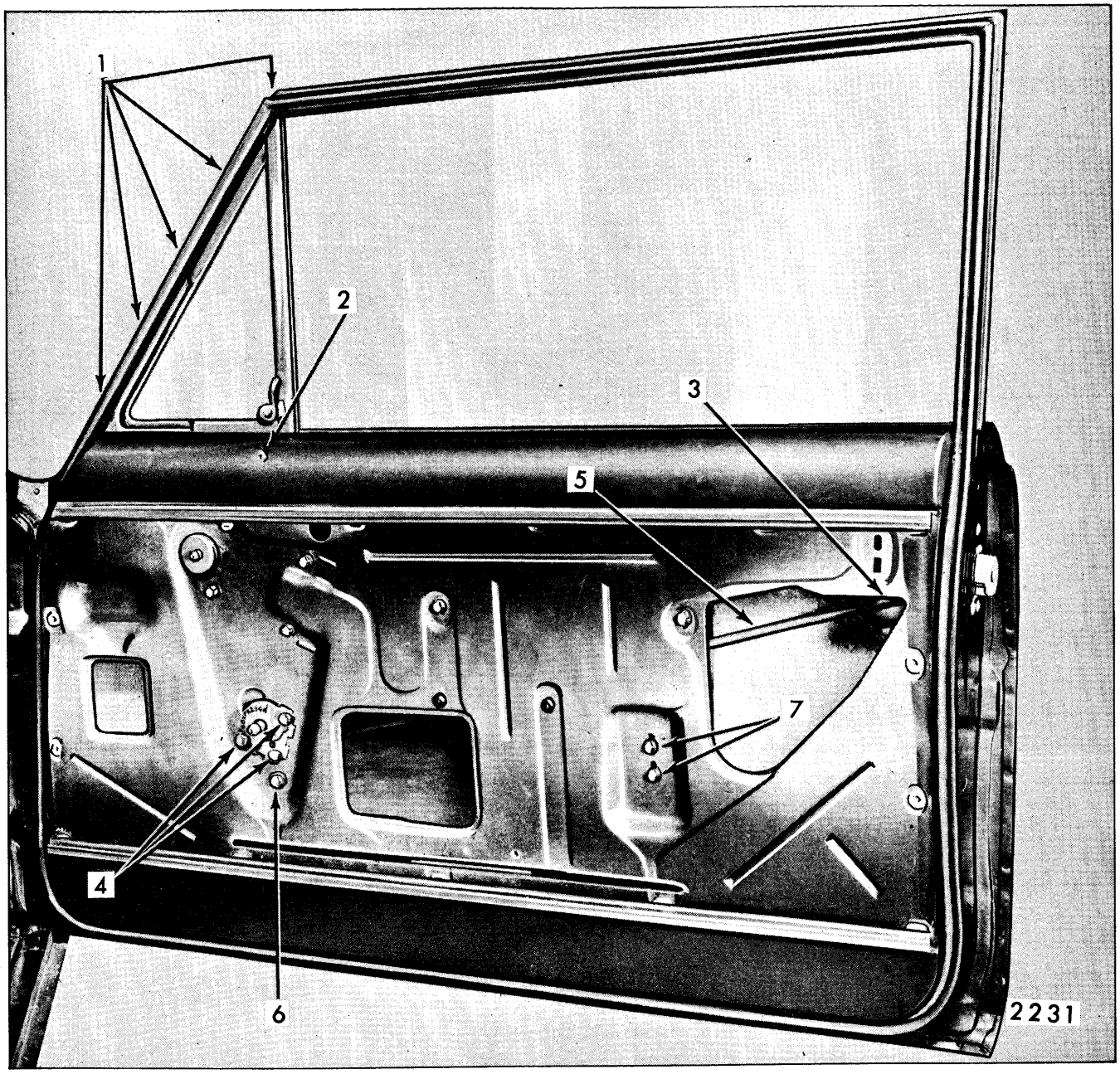

Fig. 7-68—Front Door Hardware Attachment - "X" Styles

1. Window Frame To Ventilator Attaching Screws
2. Ventilator To Door Inner Panel Attaching Screw
3. Spring Clip (Hidden)
4. Remote Control Attaching Bolts
5. Door Lock Connecting Rod
6. Ventilator Division Channel Lower Adjusting Stud And Nut
7. Window Lower Stop Adjusting Stud And Nut

5. On "X" Body Styles, remove front door ventilator casting.

6. On "A & Z" Body Styles, on door hinge pillar, remove ventilator frame lower attaching bolt, ventilator front frame attaching screw(s) and ventilator frame lower adjusting stud nut (see Fig. 7-71).

7. On "Z" Body Styles, loosen rear glass run channel upper attaching screw and remove run channel lower adjusting stud nut. Move door glass as far rearward as possible.

8. Push ventilator lower adjusting stud free of inner panel and rotate top edge of ventilator rearward until front frame clears hinge pillar (see Fig. 7-71).

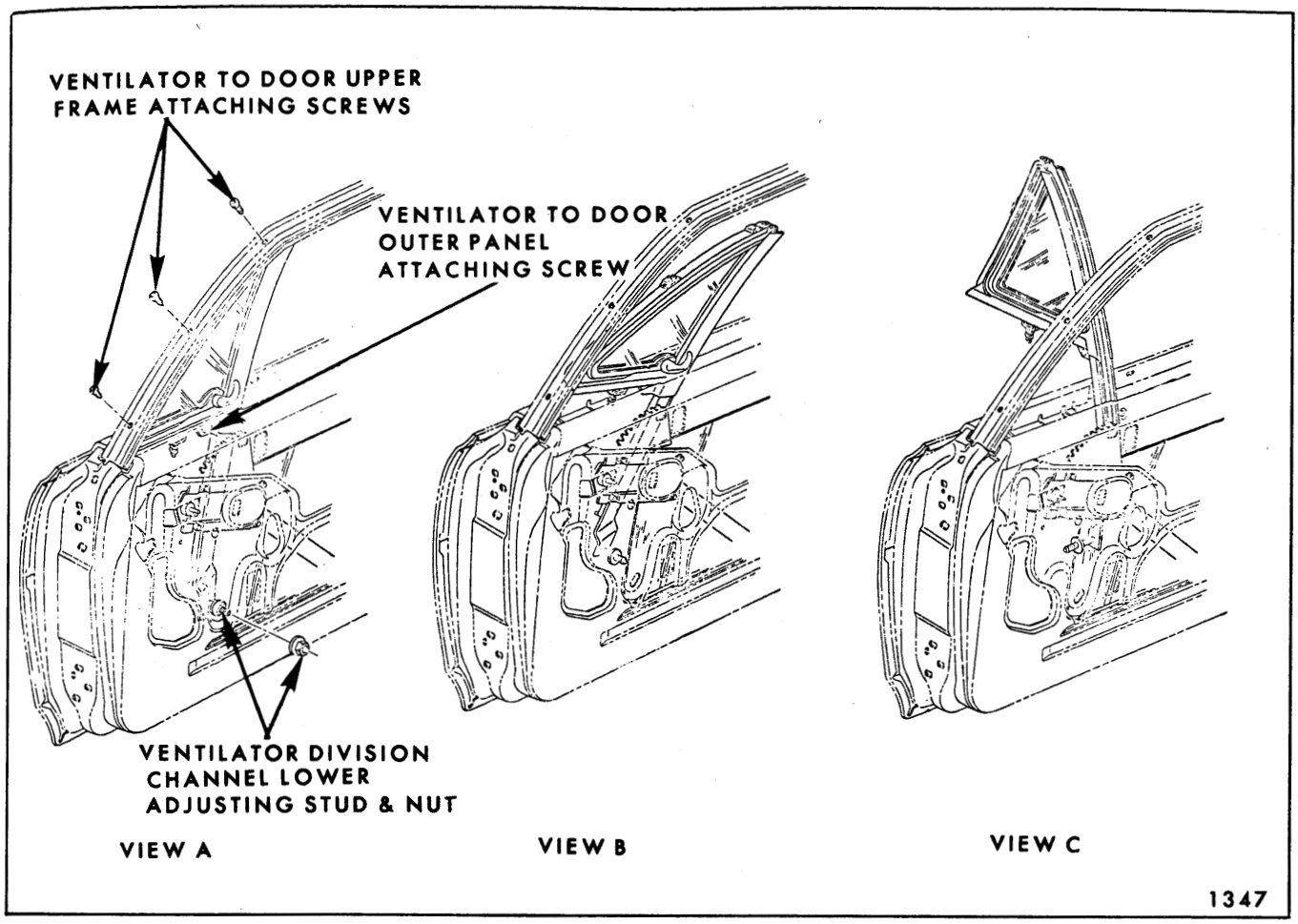

Fig. 7-69—Front Door Ventilator Removal

9. Turn ventilator 90 degrees, as shown in Figure 7-71, and remove assembly from body.

   CAUTION: After ventilator has been removed, door glass should be held or otherwise suitably supported to prevent damage.

10. To install, reverse removal procedure.

Adjustments

1. A slight fore and aft adjustment of ventilator division channel is available at lower adjusting stud and nut by loosening attaching nut and sliding stud in slot provided. The division channel can also be positioned in or out by loosening nut and turning stud in or out as required and tightening nut.

2. The effort required to open or close the ventilator can be set by straightening retaining washer tab and tightening or loosening the adjusting nut. Tightening increases effort and loosening decreases effort. When desired adjustment has been obtained, bend down washer tab to lock nut in position (see Fig. 7-70).

   NOTE: This adjustment should be performed as a bench operation.

3. The ventilator frame lower adjusting stud and nut provides in or out adjustment by use of an oversize attaching hole and fore or aft adjustment by turning stud in or out as required.

FRONT DOOR VENTILATOR ASSEMBLY—WEATHERSTRIP—"A-B & C" STYLES

Removal and Installation

1. Remove front door ventilator assembly.

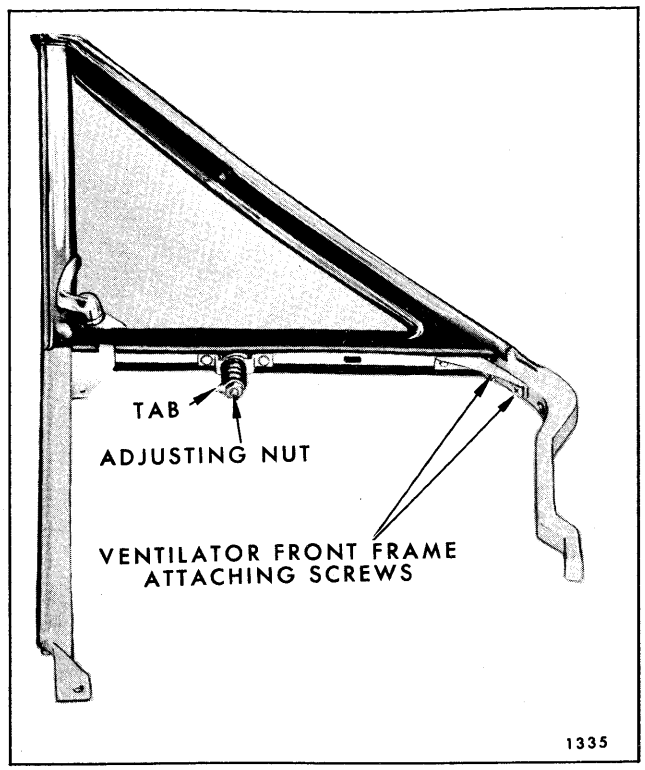

Fig. 7-70—Front Door Ventilator Assembly - "A" Style Shown - "X & Z" Similar

2. Remove ventilator glass and sash channel from ventilator frame by opening glass approximately 60° and pushing glass downward slightly to disengage glass unit from ventilator frame at upper pivot point; then, upward to disengage lower T-shaft from frame. (Fig. 7-72).

3. Remove ventilator division channel upper rubber bumper attaching screw.

4. Remove two attaching screws securing ventilator casting to frame and separate ventilator casting from frame so that the ventilator weatherstrip can be removed (Fig. 7-72).

5. To install, reverse removal procedure. Prior to installation, apply a ribbon of medium bodied sealer between ventilator weatherstrip and casting.

FRONT DOOR WINDOW ASSEMBLY—"B-11-35-45 AND 69" STYLES

The front door window assembly consists of a frameless piece of solid tempered safety plate glass pressed into a thin-section lower sash channel. When cycled, the glass operates within the ventilator division glass run channel and window glass run channel.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.

2. On "35-45 and 69" Styles only, remove front door ventilator as previously described.

3. Remove glass run channel lower adjusting stud nut (Fig. 7-73).

4. On "11" Styles, operate window to approximately 3" down from "full-up" position and remove lower sash channel cam attaching screws.

5. On "35-45 and 69" Styles, lower window to "full-down" position and remove lower sash channel cam attaching screws through lower access holes.

6. On "11" Styles, remove glass from door by simultaneously pivoting glass (front edge down and rear edge up) and lifting glass upward and outboard of door upper frame. On "35-45 and 69" Styles, remove glass by lifting it upward and outboard of door upper frame.

7. To install, reverse removal procedure. Check window for proper operation before installing water deflector.

FRONT DOOR WINDOW ADJUSTMENTS—"B-11-35-45 AND 69" STYLES

Adjustments have been provided to relieve a binding door glass due to misalignment of the glass run channels. The glass can also be adjusted to correct a rotated (cocked) door window assembly. To perform the following adjustments, remove door trim assembly and detach inner panel water deflector, where necessary, to gain access to the hardware attaching points.

Adjustments

1. To adjust lower portion of ventilator division channel for proper alignment with door window assembly, lower door window and loosen ventilator adjusting stud nut. Turn adjusting stud in or out or position lower end of channel fore or aft as required; then tighten adjusting stud nut (Fig. 7-64).

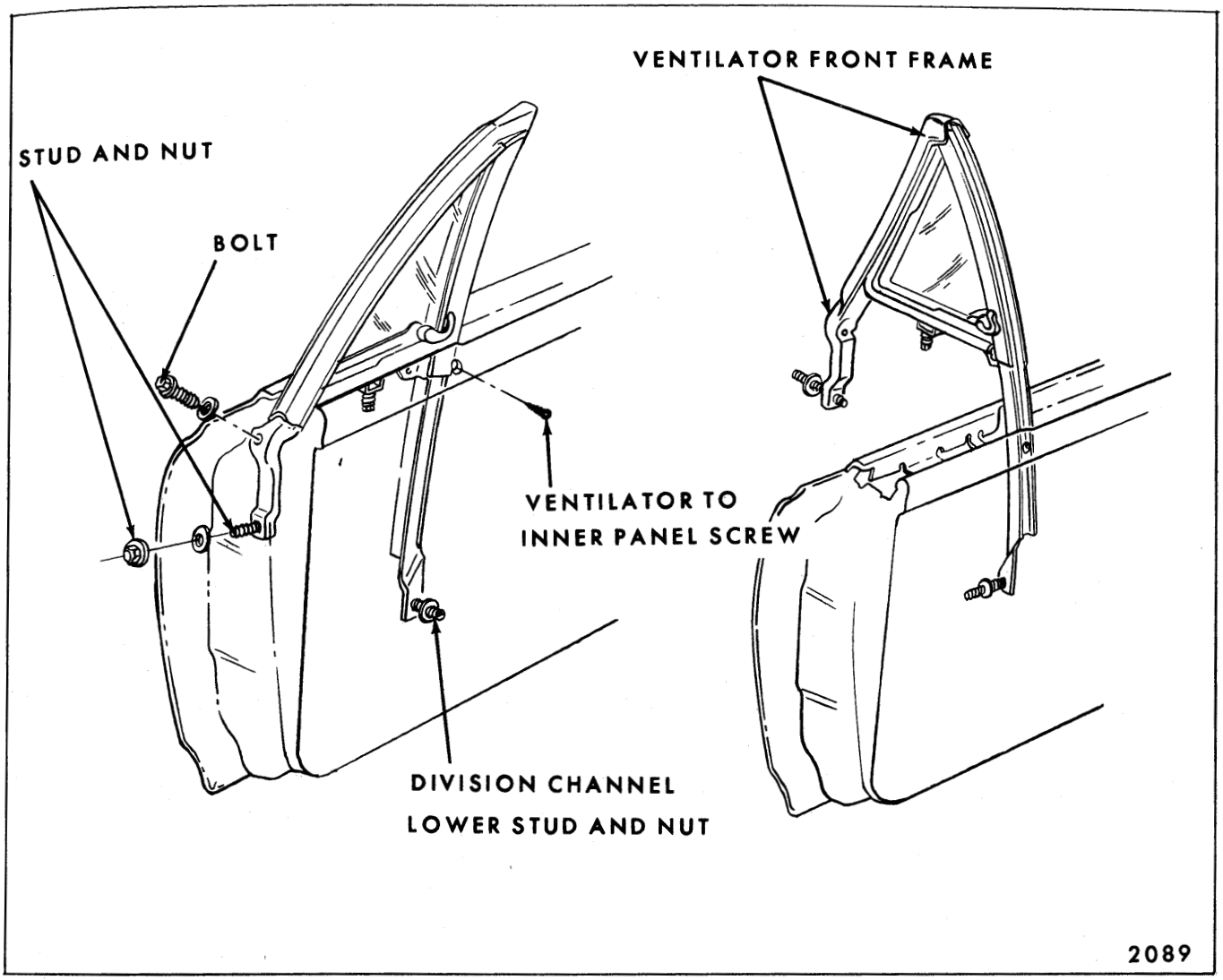

Fig. 7-71—Front Door Ventilator Removal - "A" Style Shown - "X & Z" Similar

2. To adjust lower section of door window rear glass run channel in-or-out for proper alignment with door window, first raise door window. Then, loosen rear run channel lower adjusting stud nut. Adjust channel as required and tighten nut (Fig. 7-64).

NOTE: Adjustments 1 and 2 must be coordinated to provide a properly operating front door window assembly.

3. The door window inner panel cam is adjustable at the front and can correct a rotated (cocked) front door window (Fig. 7-64).

FRONT DOOR WINDOW ASSEMBLY— "A & X" CLOSED STYLES

The front door window is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design, the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation or removal procedure as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

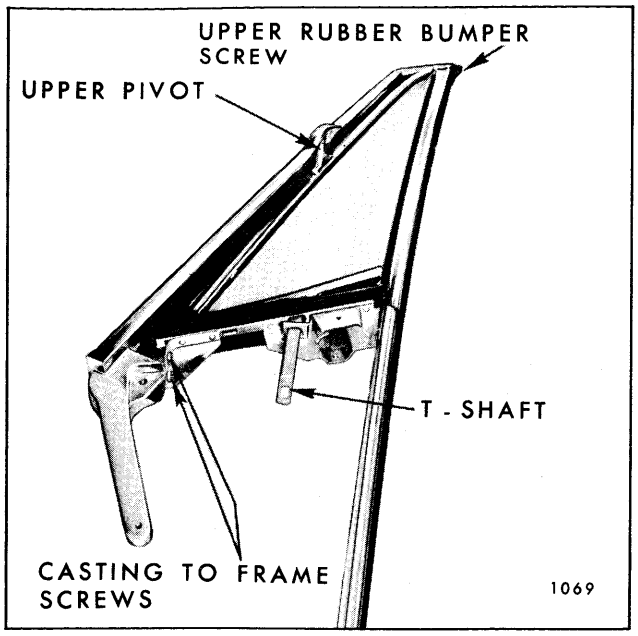

Fig. 7-72—Front Door Ventilator - "B & C" Styles

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On styles so equipped, remove inner panel cam.
3. Remove glass run channel lower rear retainer, front door ventilator assembly and inner belt strip (draft strip).
4. Raise door window to a position of almost fully closed. On styles equipped with a double arm regulator, rotate balance arm close to lift arm.
5. Move door window forward to disengage regulator arm roller(s) from window lower sash channel cam and remove door glass outboard of door upper frame on "A" Body Styles and inboard of door upper frame on "X" Body Styles (see Fig. 7-74 for "A" Bodies and Fig. 7-75 for "X" Bodies).
6. To install, reverse removal procedure.

Adjustments

A slight amount of fore or aft adjustment is available at the ventilator division channel lower adjusting stud and nut as explained under "Front Door Ventilator Assembly - Adjustments". On some styles, a rotated glass can be corrected by adjustment of the inner panel cam as explained under "Front Door Window Inner Panel Cam".

FRONT DOOR WINDOW ASSEMBLY— ALL "B & C" STYLES EXCEPT CLOSED

The front door window assembly consists of a solid tempered safety plate glass window and a bolted-on lower sash channel assembly which includes a welded-on sash channel cam. With this design, the door glass and sash channel are removed from the door as a unit and replacement glasses installed in bench operations.

Figure 7-76 is an exploded view of the front door window assembly and identifies the various components and their assembly sequence.

CAUTION: When installing glass to sash channel bolts, torque to 60 inch pounds (5 foot pounds). Also, when replacing door glass, replace glass spacers.

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Operate glass to "full-up" position and remove front up-travel stop from lower sash channel (Fig. 7-77).
3. Operate window to half-down position and remove rear up-stop (Fig. 7-77).
4. With window in full-up position, remove glass run channel upper attaching bolts and lower adjusting stud nut (Fig. 7-77). Disengage run channel from window assembly and remove through access hole.
5. Remove inner panel cam bolts (Fig. 7-77). Disengage cam from regulator lift arm roller and remove cam.
6. With front upper corner of window inboard of ventilator division channel, rotate window assembly counter-clockwise until lower sash channel cam is parallel with belt line. Then move window assembly rearward to disengage regulator lift arm roller from lower sash channel cam and remove window from door.
7. To install, reverse removal procedure. Adjust window for proper alignment as described in the following procedure.

Adjustments

To perform any door window adjustments it is necessary to remove the door trim assembly and inner panel water deflector to expose the adjustment provisions.

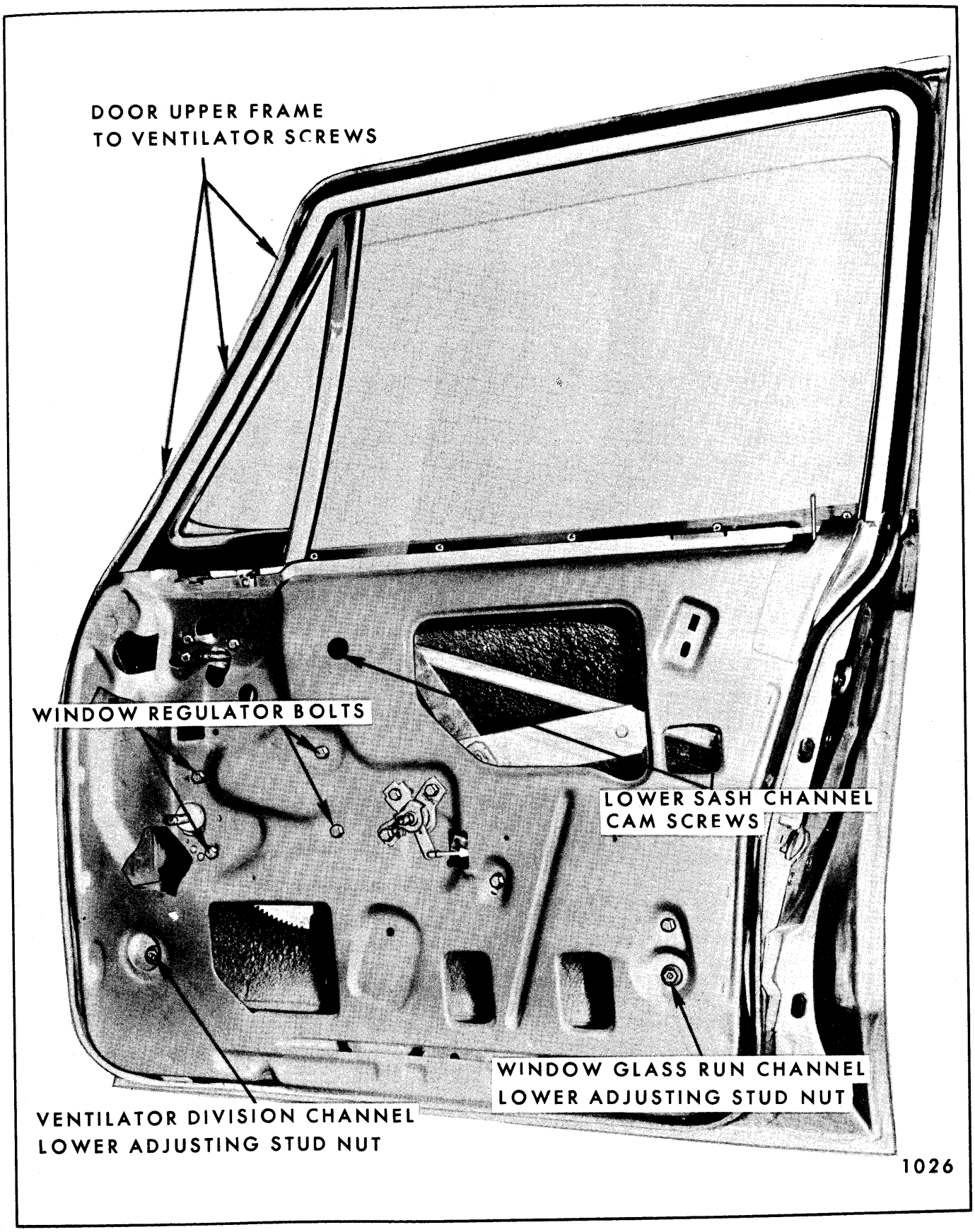

Fig. 7-73—Door Ventilator and Regulator Attachment - "B & C" Closed Styles

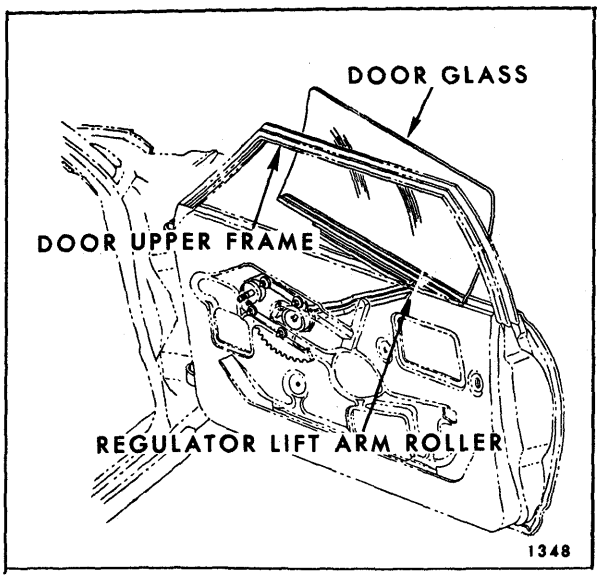

Fig. 7-74—Front Door Window Removal - "A" Styles

1. To correct a rotated window condition (glass cocked in opening), loosen inner panel cam attaching bolts (Fig. 7-77) and adjust front end of cam up or down as required.

   NOTE: If cam adjustment does not correct condition, loosen glass to sash channel attaching bolt nuts (Fig. 7-76) and reposition glass on sash channel. The sequence for making this adjustment is to first obtain flush alignment between lower sash channel and outer strip assembly at the belt line. Then, loosen glass bolt nuts and adjust glass.

2. To adjust upper rear edge of glass in-or-out in relation to side roof rail weatherstrip, loosen glass run channel lower adjusting stud nut and upper attaching bolts (Fig. 7-77).

   a. To adjust top edge of glass inboard, position top edge of run channel inboard and adjust lower adjusting stud outboard.

   b. To adjust top edge of glass outboard, position top edge of run channel outboard and adjust lower adjusting stud inboard.

      IMPORTANT: When adjusting glass in relation to side roof rail, position glass so that in closed position it is sufficiently high and inboard to tuck under weatherstrip outer lip as shown in Figure 7-78.

3. To adjust window up-travel, operate window to full-up position and loosen window front and rear upper stops (Fig. 7-77). Operate window to desired position and tighten stop bolts while forcing stops against welded-in stops on door inner panel.

FRONT DOOR WINDOW LOWER SASH CHANNEL CAM—ALL "E & Z" BODY STYLES

Removal and Installation

1. Remove door trim pad and detach inner panel water deflector.

2. Position window to expose cam attaching screws. On either style, glass will be approximately 3" from full-up position (see Fig. 7-79 for "E" Bodies and Fig. 7-80 for "Z" Bodies).

3. On "Z" Body Styles, remove one front and one rear cam to sash channel attaching screws. On "E" Body Styles, remove two attaching screws at rear (see Fig. 7-79), lower door window and remove two attaching screws at front.

4. Supporting glass with on hand, disengage cam from regulator rollers and remove cam. Lower glass to door bottom.

5. To install, reverse removal procedure.

FRONT DOOR WINDOW GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES (DRAFT STRIPS)

Draft strips are used to form a belt seal between door inner and outer panels and glass assembly. The construction and attachment of these strips vary with the body style involved, as follows:

"B & C" Hard Top and Convertible Styles - Inverted lip inner ("J" strip) Rubber outer

"B & C" Closed Styles - Multifilament pile inner (pile) - Rubber outer

"A-07-17-39 and 67" Styles - "J" strip inner - pile outer

"A-11-69-35-55-65 and 80" Styles - pile inner - Rubber outer

"X-37" Styles - "J" strip inner - pile outer

"X-11-69 and 35" Styles - pile inner - Rubber outer

"E" - All Styles - "J" strip inner - pile outer

"Z" - All Styles - pile inner - pile outer

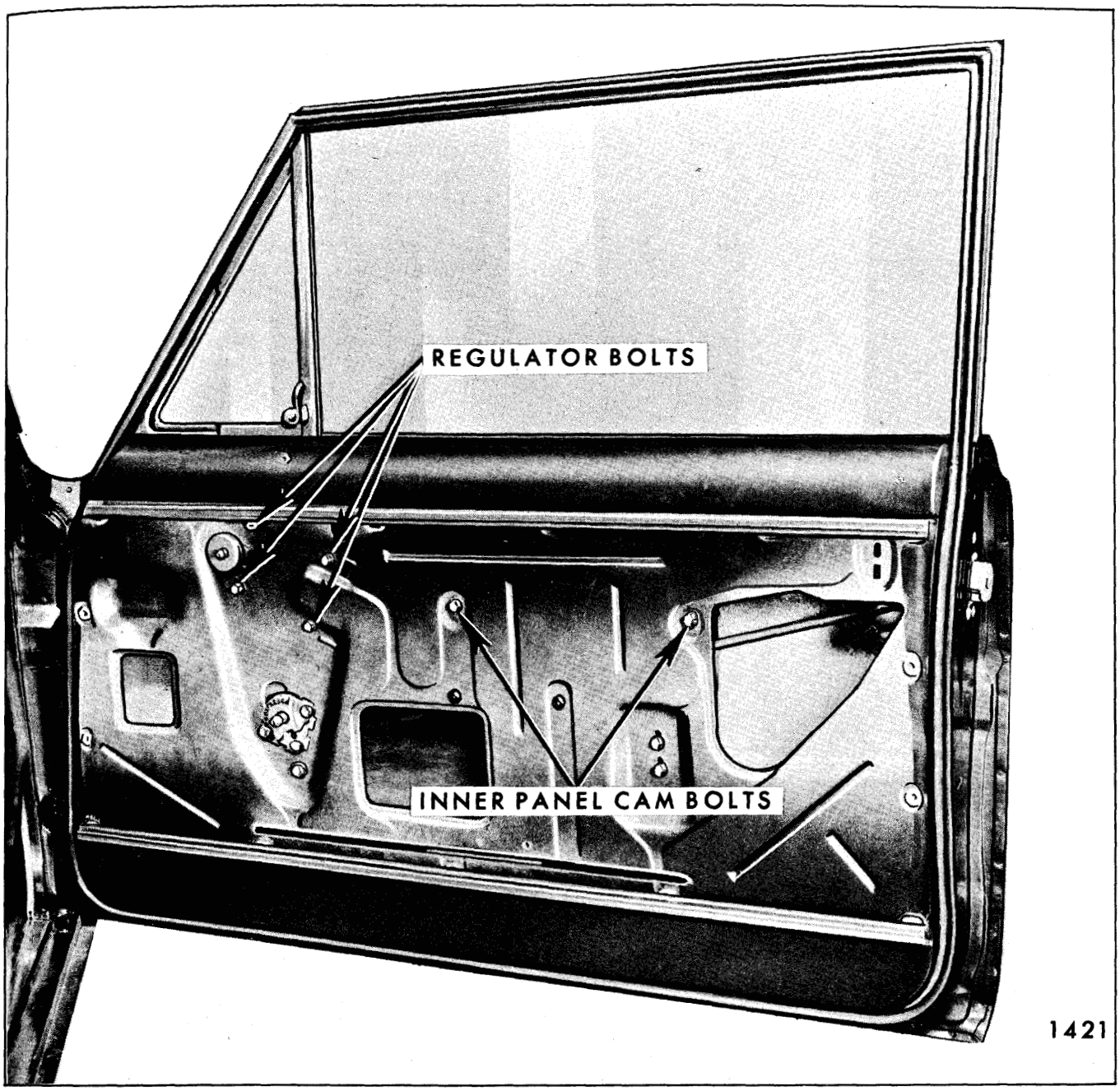

Fig. 7-75—Front Door Hardware - "X" Styles

On all "B & C", "E & A" Bodies equipped with deluxe trim, the inner draft strip is attached to the door trim pad. All "B & C" outer draft strips are attached with screws but need not be removed to facilitate door window removal. All "X-E" and the remaining "A" Body Style inner draft strips are attached by clips. All "A-X-E" and "Z" outer draft strips are attached with a combination of clips and screws (usually one at each end, front and rear).

On those styles equipped with a rubber lip outer draft strip, only the inner draft strip need be removed to facilitate door glass removal. On all other styles, however, both inner and outer draft strips must be removed preceding door glass removal.

Removal and Installation

NOTE: This procedure covers only draft strips attached directly to either the door inner or

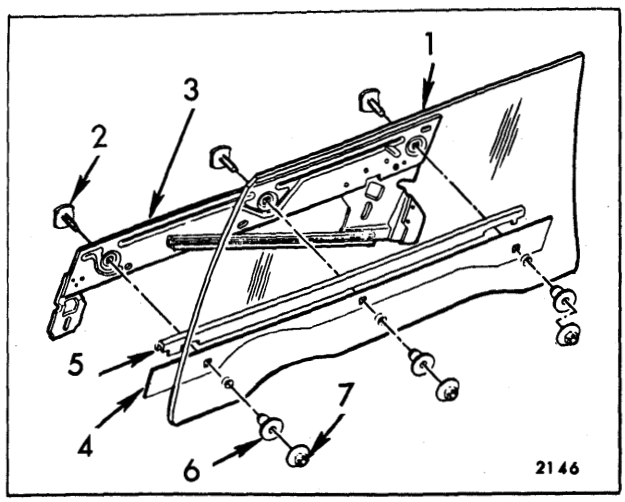

Fig. 7-76—Front Door Window Assembly - All "37-39-47-57 and 67" and "C-69" Styles

1. Door Window Glass
2. Glass to Lower Sash Channel Attaching Bolts (Center Bolt Not Used on "39" Styles)
3. Lower Sash Channel Assembly
4. Sash Channel Lower Filler
5. Sash Channel Upper Filler
6. Glass to Sash Channel Spacers
7. Glass to Sash Channel Nuts

outer panels. When the draft strip is attached to a trim pad, it is removed as part of the trim assembly.

1. The door window must be low enough to provide adequate clearance between top edge of glass and draft strip to be removed. If simply lowering window will not accomplish this needed clearance, proceed as follows:

   a. On styles equipped with a bolted-on lower stop, remove stop and lower window to bottom of door.

   b. On styles equipped with a welded-on lower stop, remove stop bumper to gain the required clearance.

   c. If additional clearance is still needed, remove door window lower sash channel cam and lower glass to bottom of door.

2. Remove draft strip attaching screws.

   NOTE: On most outer draft strips, the forward attaching screw is hidden beneath the ventilator division channel. This will require either removal or loosening of ventilator assembly to gain access.

3. Apply cloth-backed tape as a protective cover to painted surfaces adjacent to strip assembly to be removed.

4. Insert a flat blade tool (slotted to fit over tang of clip) between door panel return flange and strip assembly at clip locations (Fig. 7-81). Carefully pry clips from slots in panel and remove strip assembly.

5. To install, position strip assembly so that tang of clips start into slots in door panel, then press at each clip location and engage clips.

   Prior to installing strip assembly, reform clip tangs to assure positive retention when installed.

   NOTE: To make strip assembly removal tool, make a 1/4" wide by 3/8" deep slot in a J-2772 headlining inserting tool or equivalent.

FRONT DOOR WINDOW SASH CHANNEL GUIDE PLATE—"A-17-39 AND 67" STYLES

The guide plate is attached to the window sash channel by two bolts and acts in the dual capacity of window guide and rear up-travel stop.

Removal and Installation

1. Raise door window to a position almost fully closed (see Fig. 7-82).

2. Remove door trim pad and detach inner panel water deflector sufficiently to gain access to guide plate attaching bolts.

3. Remove two bolts securing guide plate to glass lower sash channel and remove guide plate (see Fig. 7-82).

4. To install, reverse removal procedure. Fore and aft adjustment of the guide plate is provided by usage of elongated attaching holes.

   NOTE: Figure 7-82 is for "17 and 67" Styles. Refer to Figure 7-87 for "39" Styles.

FRONT DOOR WINDOW UP-TRAVEL STOPS—"A-E-X & Z" HARDTOP AND CONVERTIBLE STYLES

On "A-Z & X" Body Styles, the rear up-travel stop is attached (single bolt) to glass sash channel and contacts a welded-on support (flange) on door inner panel. The front up-travel stop is attached (single bolt) to an extension in the glass

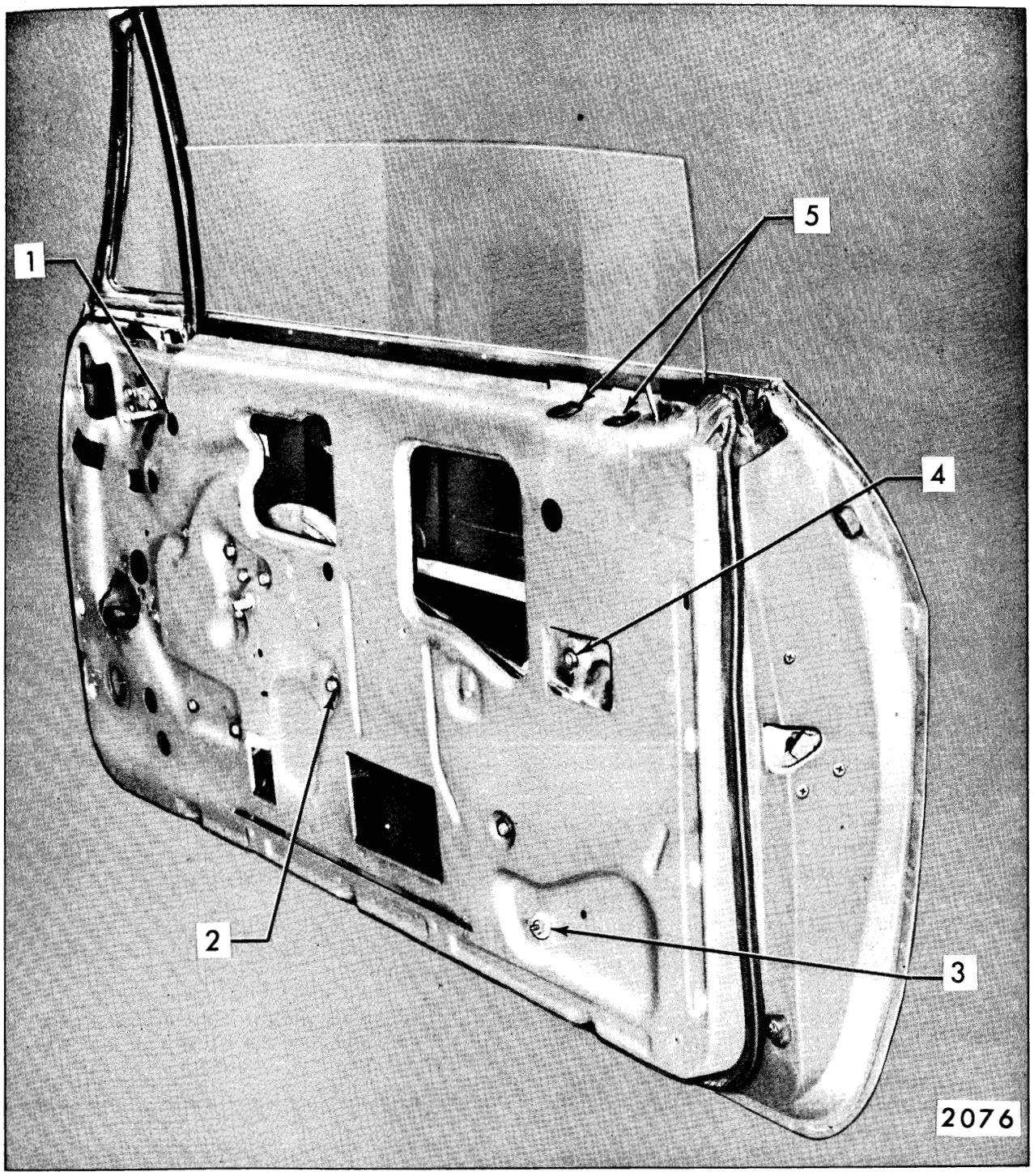

Fig. 7-77—Front Door Window Removal - "B & C" Hardtop Styles

1. Front Up-Stop Access Hole
2. Inner Panel Cam Bolts
3. Glass Run Channel Adjusting Stud and Nut
4. Rear Up-Stop Bolt
5. Glass Run Channel Upper Bolts

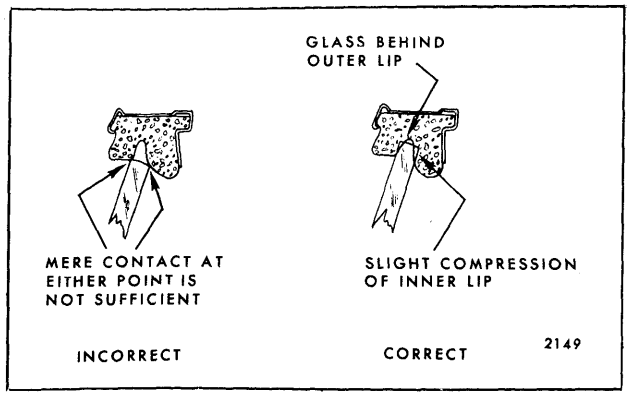

Fig. 7-78—Window to Side Roof Rail Weatherstrip Alignment

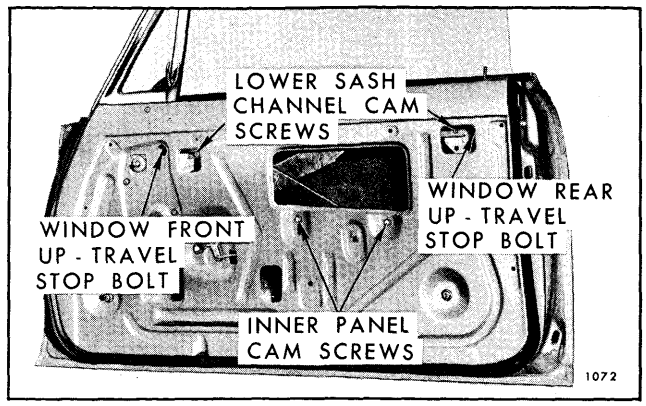

Fig. 7-80—Front Door Hardware - "Z" Styles

sash channel and contacts ventilator stationary stop (finger). Both up-stops are adjustable up or down.

On "E" Body Styles, the front door window is equipped with two up-stops, one front and one rear. Both stops are attached to the glass lower sash channel with single bolts that are accessible through the door inner panel (see Fig. 7-83).

FRONT DOOR WINDOW ASSEMBLY— "A-17 AND 67" STYLES

The front door window is a solid tempered safety plate glass that fits into a lower sash channel which incorporates a welded-on cam. With this design, the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

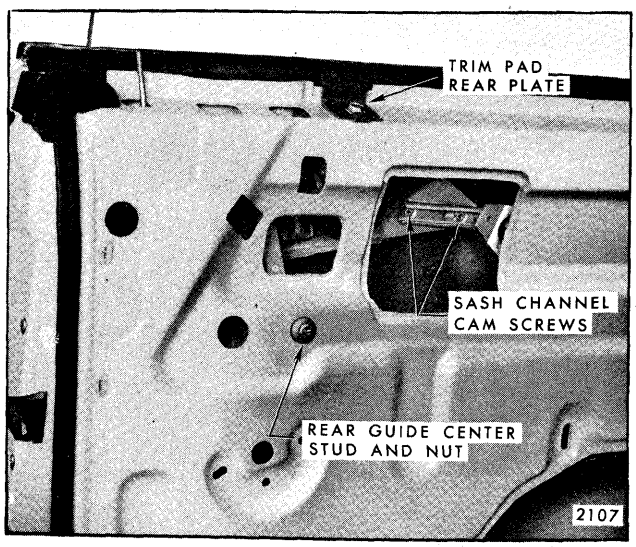

Fig. 7-79—Door Window Attachment

CAUTION: Use care to make certain glass does not strike hard objects. Edge chips or deep scratches can cause solid tempered safety plate glass to shatter. Do not attempt to grind or drill glass.

Figure 7-84 is an exploded view of "17 and 67" Style front door window assemblies. Chevrolet uses a single sash channel cam while Pontiac, Oldsmobile and Buick use a double sash channel cam. This difference is due to a variance in belt line heights but does not materially affect glass removal and installation procedures.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On styles not equipped with a hang-on door trim pad, remove glass run inner strip assembly.
3. Raise door window and remove door window lower sash channel guide plate and front up-travel stop.

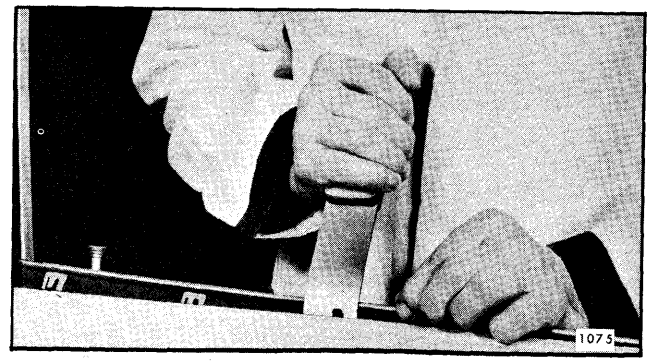

Fig. 7-81—Glass Run Channel Inner - Outer Strip Assembly Removal - "A-X & Z" Styles

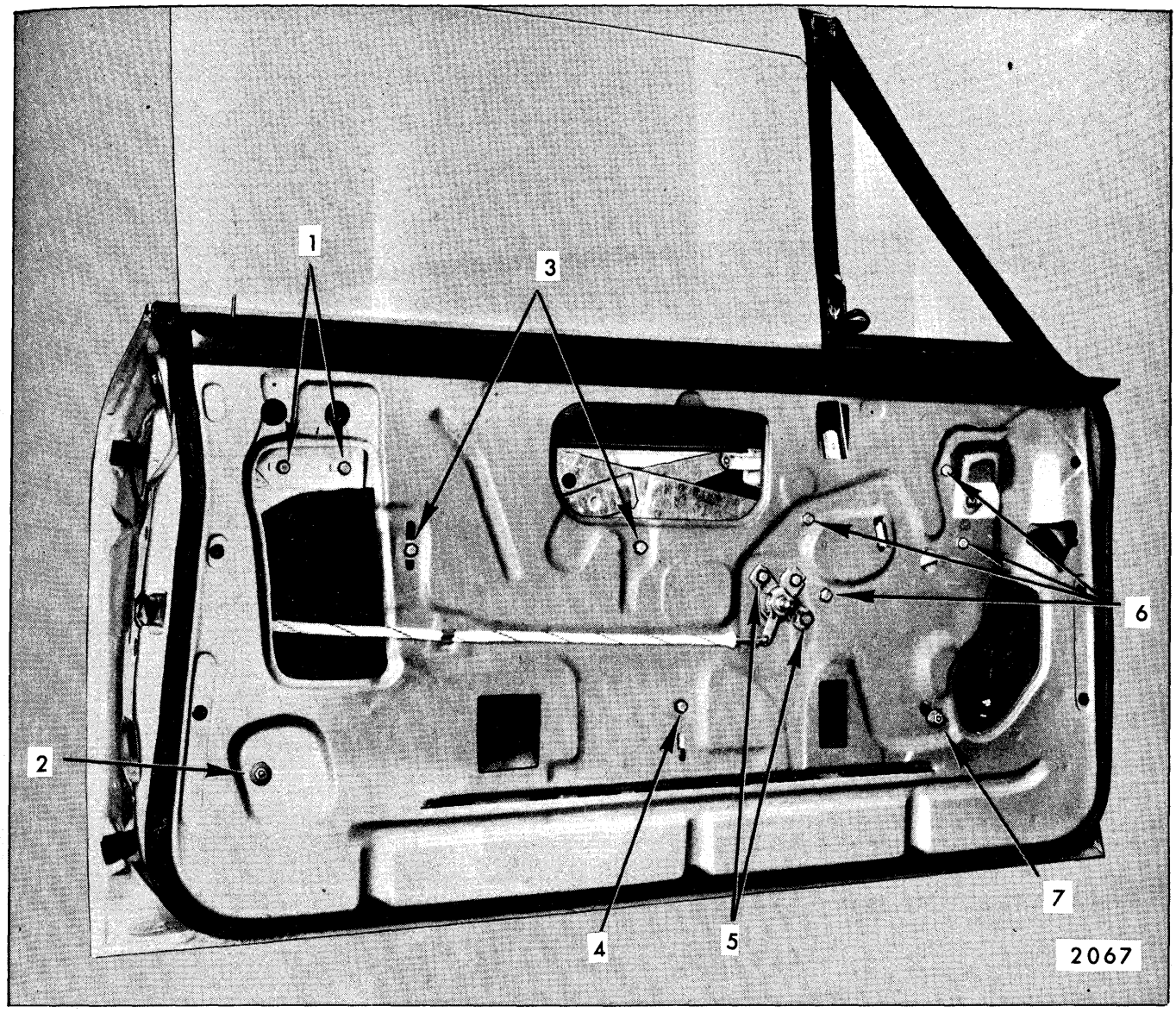

Fig. 7-82—Front Door Hardware - "A-17 and 67" Styles

1. Sash Channel Guide Plate Bolts
2. Glass Run Channel Lower Adjusting Stud and Nut
3. Inner Panel Cam Bolts
4. Window Lower Stop Bolt
5. Remote Control Bolts
6. Window Regulator Bolts
7. Ventilator Division Channel Lower Adjusting Stud and Nut

4. Remove inner panel cam.

5. Lower window slightly and tilt rear edge of glass up until lower sash channel clears door lock pillar at belt line (see Fig. 7-85 for Chevrolet styles and 7-86 for Pontiac, Oldsmobile and Buick styles).

6. Slide window rearward to disengage regulator lift and balance arm rollers from sash channel cam(s) and remove assembly from door.

7. To install, proceed as follows:

   a. On Chevrolet styles, the regulator lift arm roller is installed into the sash channel cam preceding the balance arm roller.

   b. On Pontiac, Oldsmobile and Buick styles, the regulator lift arm roller is installed into the rear sash channel cam simultaneously with the balance arm roller being installed into the front sash channel cam (see Fig. 7-86).

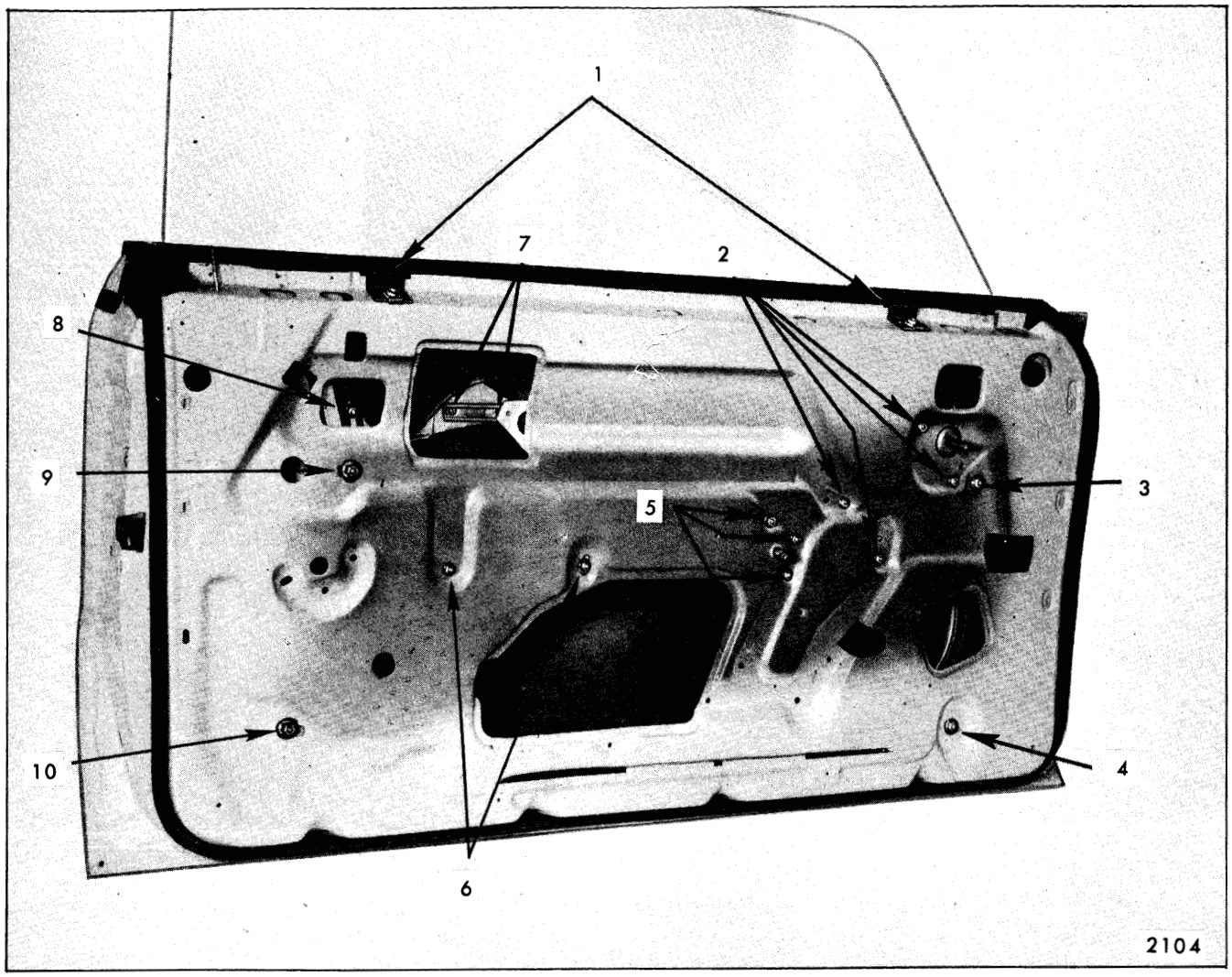

Fig. 7-83—Front Door Hardware - "E" Styles

1. Trim Pad Adjusting Plates
2. Window Regulator Attaching Bolts
3. Front Guide Center Adjusting Stud and Nut
4. Front Guide Lower Adjusting Stud and Nut
5. Remote Control (Standard) Attaching Bolts
6. Inner Panel Cam Attaching Bolts
7. Glass Sash Channel Rear Attaching Screws
8. Window Rear Up-Travel Stop
9. Rear Guide Center Adjusting Stud and Nut
10. Rear Guide Lower Adjusting Stud and Nut

c. Install previously removed hardware and cycle window to insure proper operation prior to installing inner panel water deflector and door trim pad.

Adjustments

The front door window is adjustable fore or aft at guide plate; up or down at up-travel stops; in a rotation manner at inner panel cam; up or down and in or out at rear edge by adjusting rear glass run channel.

The rear run channel lower adjusting stud provides in or out adjustment. This attachment, however, is located on the door inner panel and requires removal of trim pad to gain access (see Fig. 7-62).

FRONT DOOR WINDOW ASSEMBLY— "A-39" STYLES

The front door window is a solid tempered safety plate glass that fits into a lower sash channel which incorporates a welded on cam. With this design,

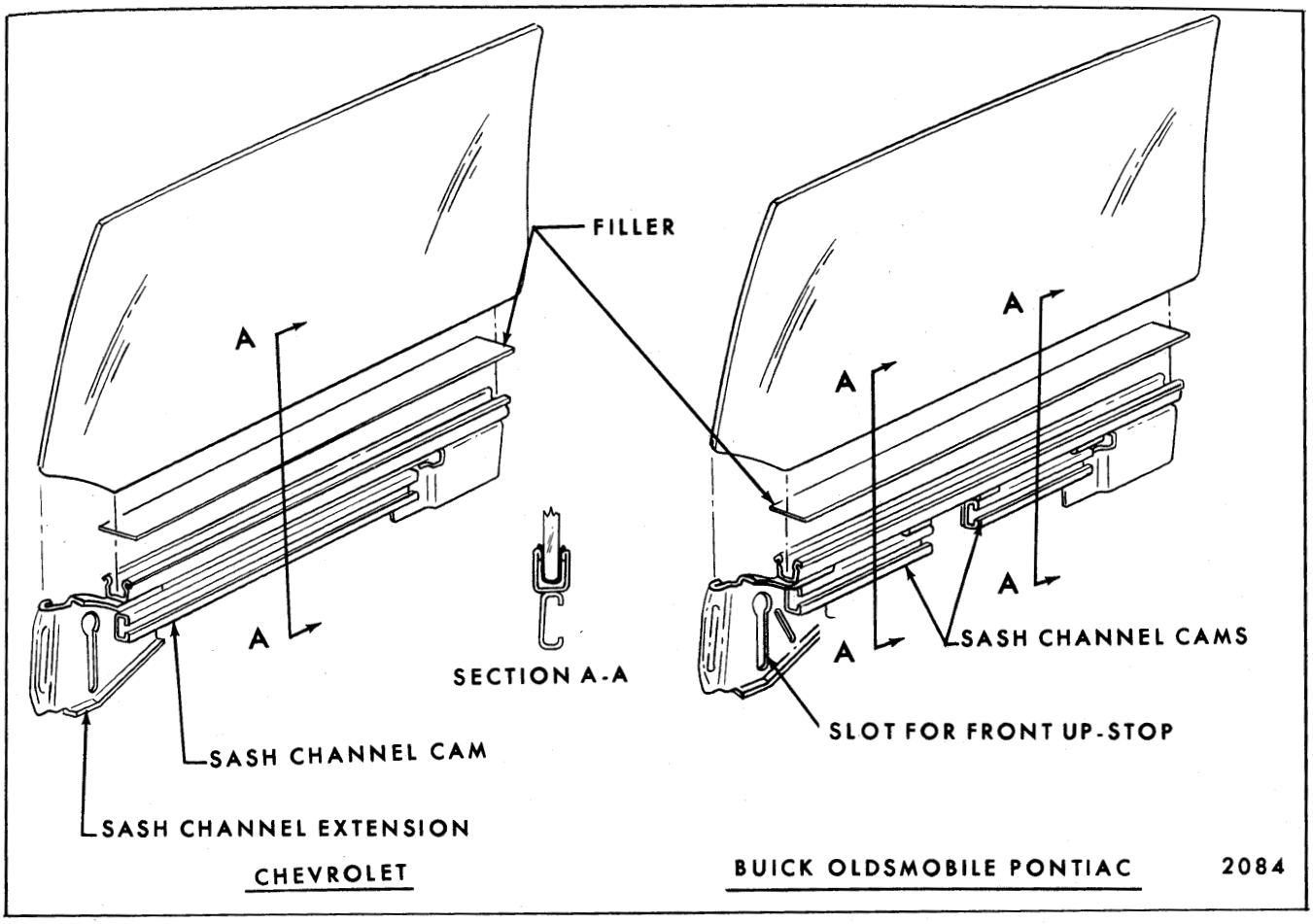

Fig. 7-84—Front Door Window Assembly - "A-17 and 67" Style

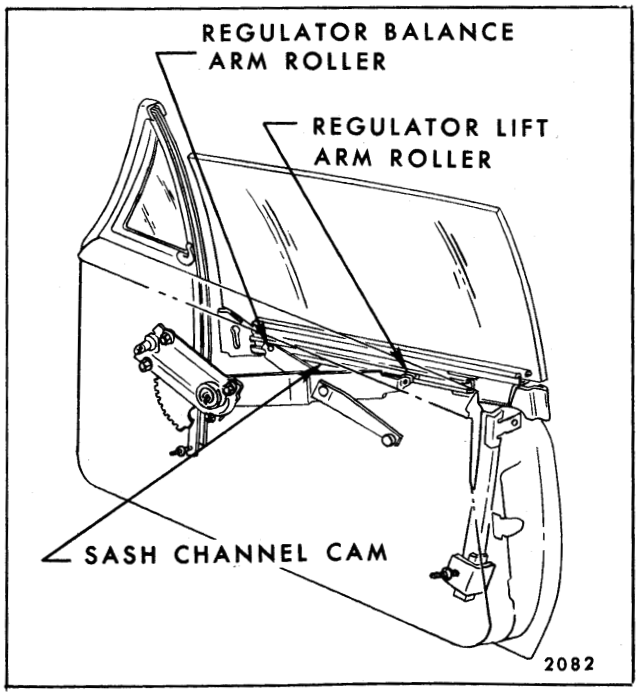

Fig. 7-85—Front Door Window Installation - Chevrolet "A-17 and 67" Styles

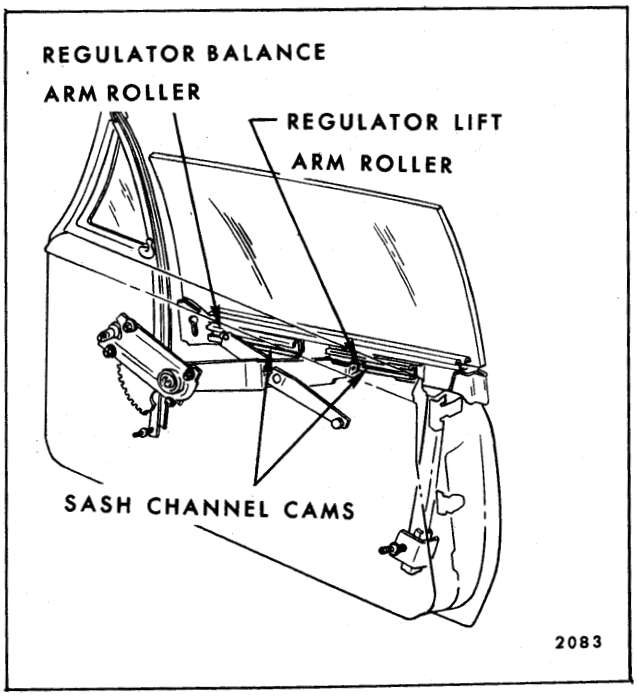

Fig. 7-86—Front Door Window Installation - Buick, Oldsmobile, Pontiac "A-17 and 67" Styles

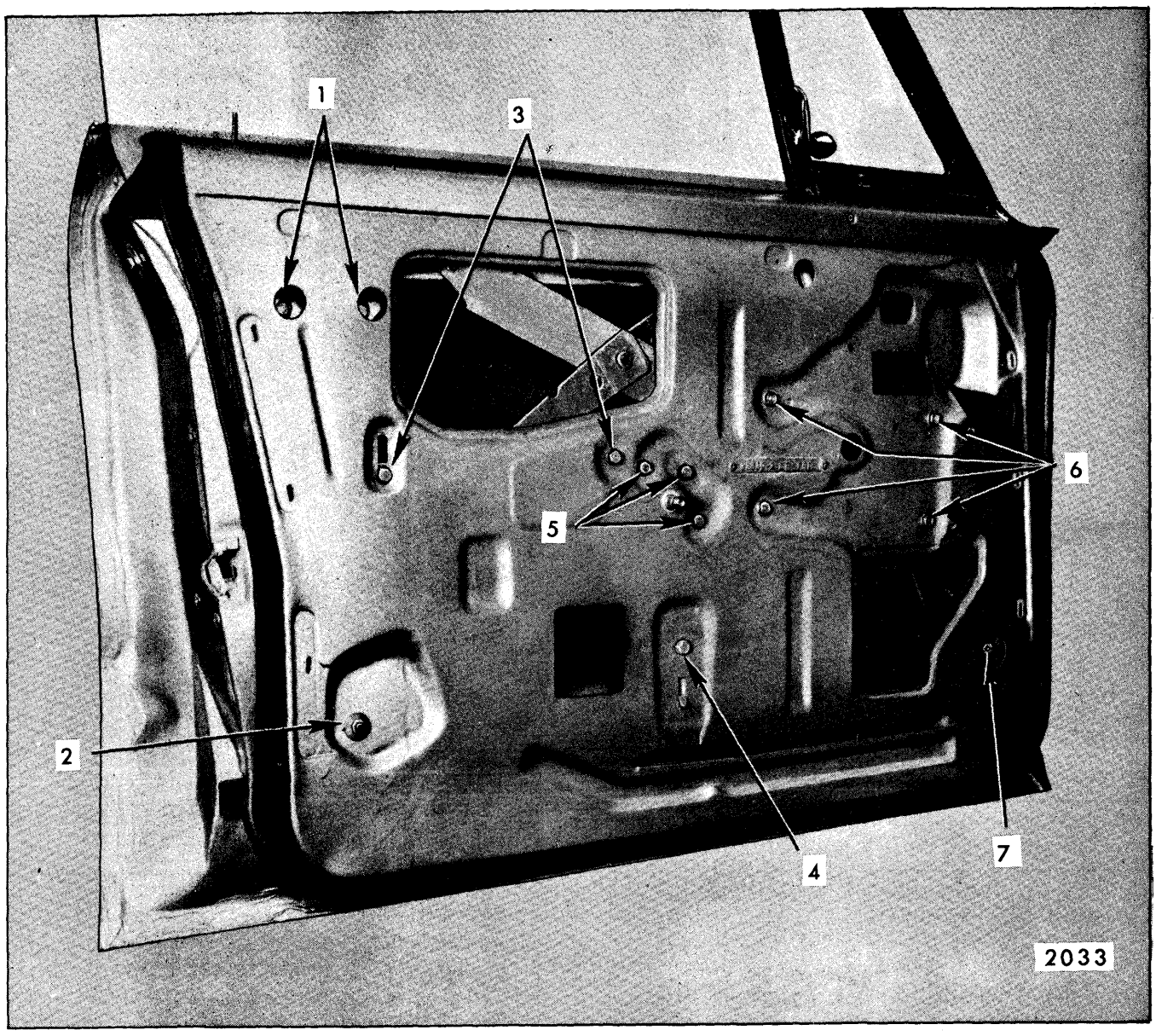

Fig. 7-87—Front Door Hardware - "A-39" Style

1. Sash Channel Guide Plate Bolts
2. Glass Run Channel Lower Adjusting Stud and Nut
3. Inner Panel Cam Bolts
4. Window Lower Stop Bolt
5. Remote Control Bolts
6. Window Regulator Bolts
7. Ventilator Division Channel Lower Adjusting Stud and Nut

the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Use care to make certain glass does not strike hard objects. Edge chips or deep scratches can cause solid tempered safety plate glass to shatter. Do not attempt to grind or drill glass.

Removal and Installation

1. Remove door trim pad and detach inner panel water deflector.
2. On styles not equipped with a hang-on door trim pad, remove inner strip assembly (draft strip).
3. Raise door window. Remove sash channel guide plate, front up-stop and inner panel cam (see Fig. 7-87).
4. Lower window slightly and tilt rear edge of glass up until lower sash channel clears door lock pillar at belt line.

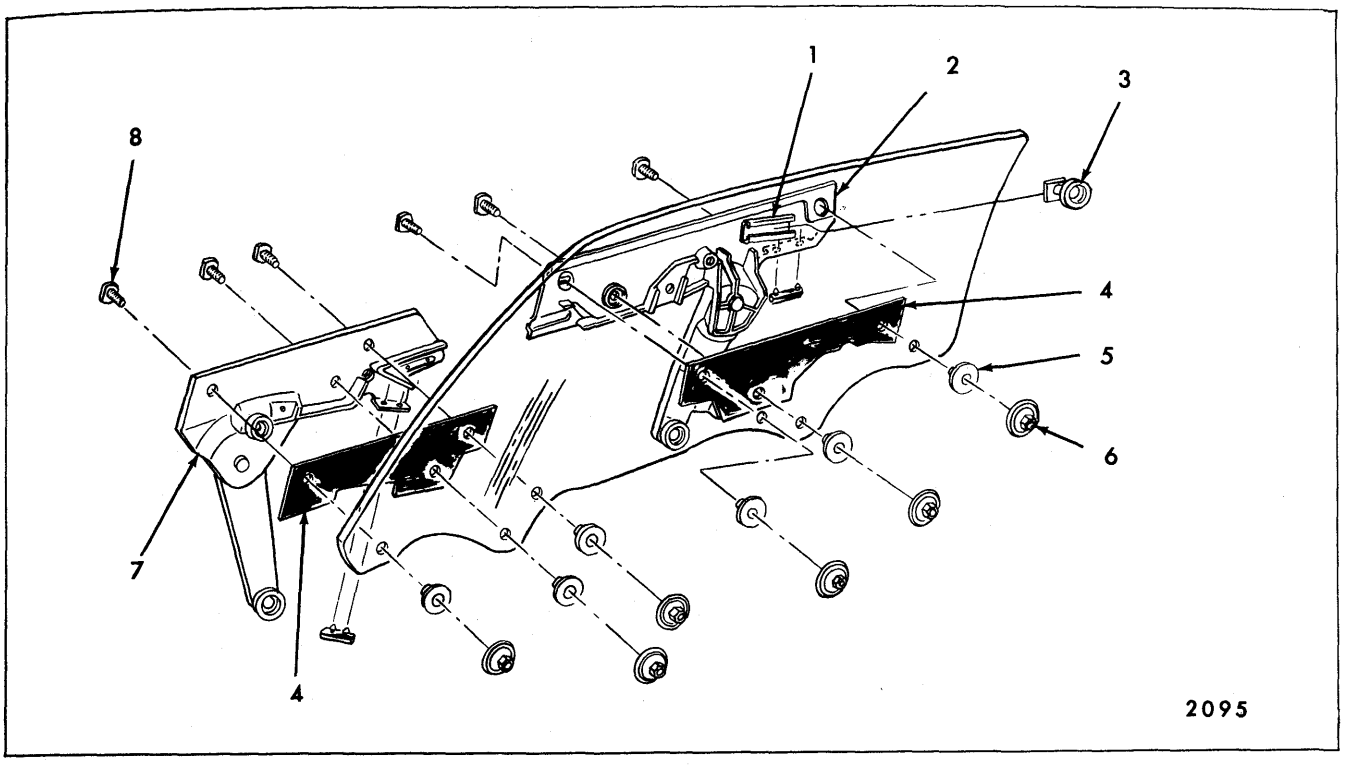

Fig. 7-88—Front Door Window Assembly

1. Sash Channel Plate Rear Cam
2. Rear Sash Channel
3. Cam Roller
4. Glass Filler
5. Spacer
6. Nut
7. Front Sash Channel
8. Bolt

5. Slide window rearward to disengage regulator lift and balance arm rollers from sash channel cam and remove assembly from door.

6. To install, reverse removal procedure. Cycle window to insure proper operation prior to installation of water deflector and trim pad.

NOTE: Front door window adjustments for "A-39" Styles are the same as outlined for "A-17 and 67" Styles with one exception. A regulator sector gear stop (window down-travel) is additionally used on "39" Styles. This stop is attached to the inner panel and can be adjusted to raise or lower the window height in the down position. The stop is used only on power operated (electric) windows.

FRONT DOOR WINDOW ASSEMBLY—49487 STYLES

The front door window assembly consists of a frameless piece of solid tempered safety plate glass and bolt-on front and rear lower sash channel assemblies. With this design the window is removed from the door as an assembly and glass replacements made as bench operations.

Figure 7-88 identifies the components of the door window assembly.

NOTE: When installing glass to sash channel nuts and washers, torque to 60 inch lbs. (5 foot lbs.).

CAUTION: Solid tempered safety plate glass will shatter if it is ground, drilled, chipped or deeply scratched. (see Fig. 7-88).

Removal and Installation

1. Raise door window, remove trim pad and detach inner panel water deflector.

2. Remove front and rear up-stops and lower sash channel cam.

3. Remove glass run channel outer strip and molding assembly (see exterior molding section of manual).

4. Raise glass straight up and remove assembly from body.

NOTE: If necessary, loosen upper attachments of front and rear glass guide channels.

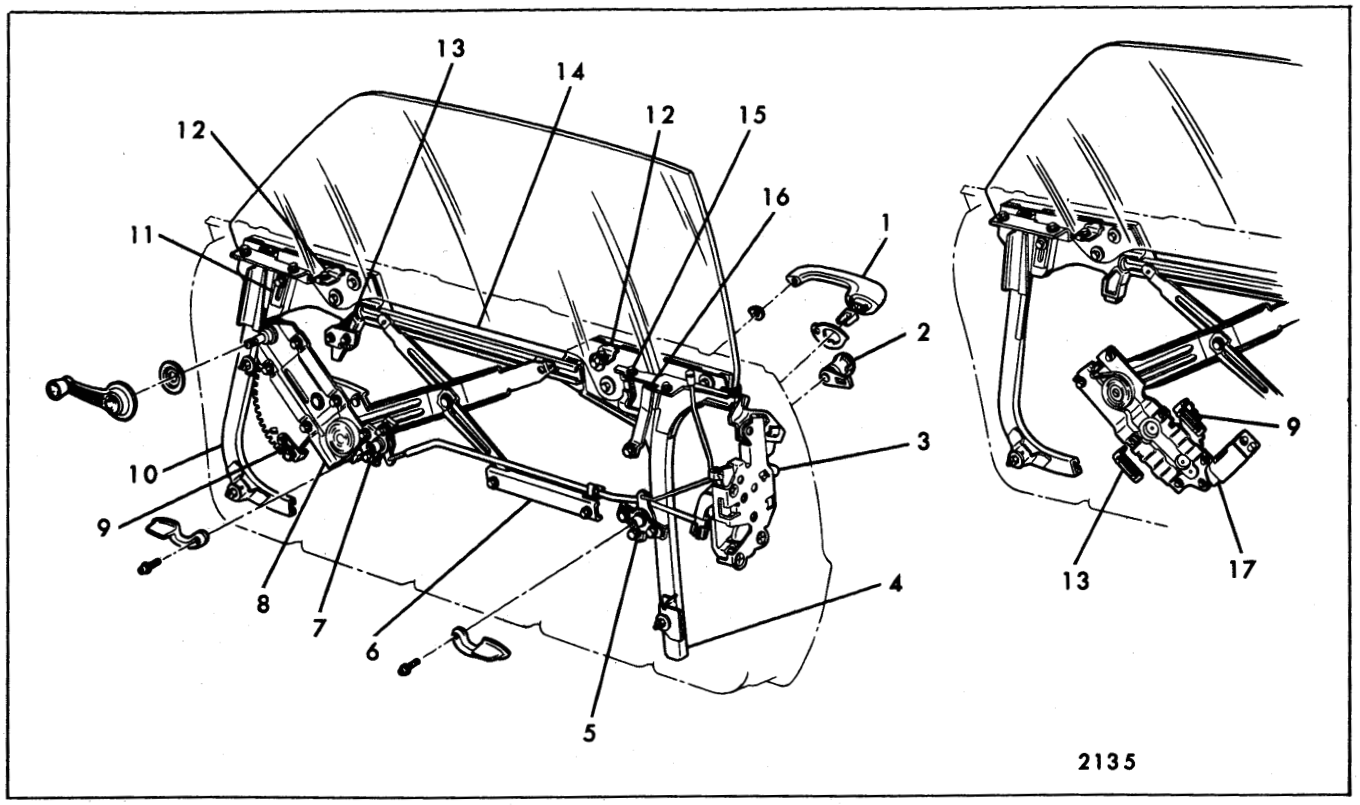

Fig. 7-89—Front Door Hardware - "E" Styles

1. Outside Handle
2. Lock Cylinder
3. Lock
4. Window Rear Guide Channel
5. Rear Remote Control (Optional)
6. Inner Panel Cam
7. Front Remote Control
8. Window Regulator (Manual)
9. Window Regulator Sector Gear Stop (Up-Travel)
10. Window Front Guide Channel
11. Window Front Up-Stop
12. Trim Pad Adjusting Plate
13. Window Regulator Sector Gear Stop (Down-Travel)
14. Window Glass Lower Sash Channel Cam
15. Window Glass Stabilizer
16. Window Rear Up-Stop
17. Window Regulator (Electric)

5. To install, reverse removal procedure.

Adjustments

A rotated glass can be corrected by adjustment of inner panel cam. Up or down adjustment is available at front and rear up-travel stops. In or out adjustment is available at front and rear guides. In addition, the regulator is equipped with two sector gear stops, one controlling up-travel of glass and one down-travel. Each stop is attached to the inner panel with two bolts and both are adjustable. (see Fig. 7-89).

The recommended sequence of total glass adjustment is as follows:

a. Turn front and rear guide center adjusting studs outboard (clockwise) until bearing surface is completely out of engagement with door inner panel.

b. Adjust upper attachments of front and rear guide to proper outboard positions (relationship of glass to side rail weatherstrip).

c. Adjust rear guide upper attachments for proper fore or aft positions.

d. Adjust glass up-travel stops.

e. Adjust front and rear guide lower adjusting studs for proper glass operation.

f. Turn center adjusting studs (both guides) back into contact with door inner panel.

g. Adjust sector gear stops.

FRONT DOOR WINDOW ASSEMBLY—"X-37" STYLES

The front door window glass is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation or removal procedure as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Lower door window and remove front and rear up-travel stops (see Fig. 7-90).
3. Remove front door ventilator casting and ventilator assembly.
4. Remove window down-travel stop.
5. Lower window to full down position.
6. Slide window forward, while tilting front edge upward, to disengage regulator lift arm from lower sash channel cam and remove window from door.
7. To install, reverse removal procedure. After installation of window assembly, lubricate entire length of lower sash channel cam and inner panel cam with Lubriplate or equivalent.

FRONT DOOR WINDOW ADJUSTMENTS—"X-37" STYLES

1. To adjust the window in or out or fore or aft at front section, lower door window and loosen ventilator division channel lower adjusting stud and nut. Turn adjusting stud in or out or position lower end of channel for or aft as required and tighten stud nut.
2. To adjust the window in or out at rear section, loosen rear run channel lower attaching nut. Adjust channel as required, and tighten nut.
3. Up or down adjustment is available at the lower stop assembly and additionally at the up-travel stops.

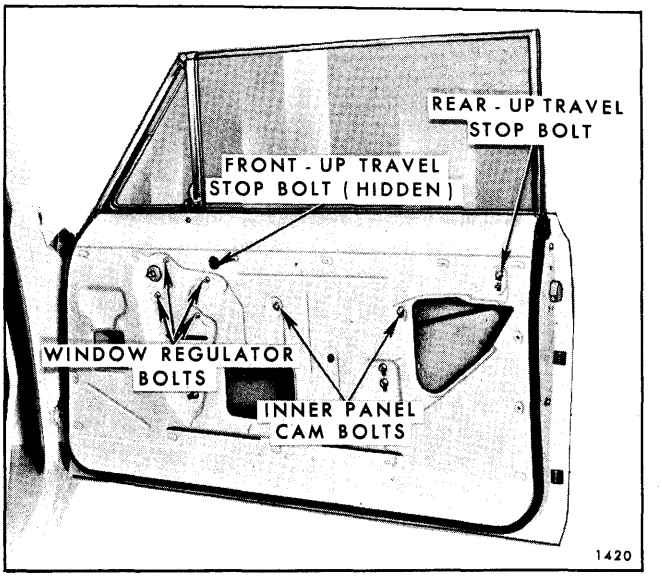

Fig. 7-90—Front Door Window Hardware Attachments - "X-37" Style

FRONT DOOR WINDOW ASSEMBLY—"Z-37-39 AND 67" STYLES

The front door window assembly consists of a frameless piece of solid tempered safety plate glass pressed into a thin-section lower sash channel. When cycled, the glass operates within the ventilator division run channel and the window rear run channel. Guide plates welded to the front and rear of the sash channel also operate in the run channels and give stability to the glass in the full up position.

NOTE: Because these guide plates are not adjustable, it is imperative that replacement door glasses be installed flush with the guide plates at the front and rear of the glass. If glass is too far forward or rearward in relation to guide plates, window assembly will be tight within the run channels.

CAUTION: Handle glass with care. Edge chips can cause solid tempered safety plate glass to shatter. Do not attempt to grind glass.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector. Operate window to almost full-up position.
2. Working through front and rear upper access holes, remove bolts securing front and rear up-travel stops to lower sash channel and remove stops.

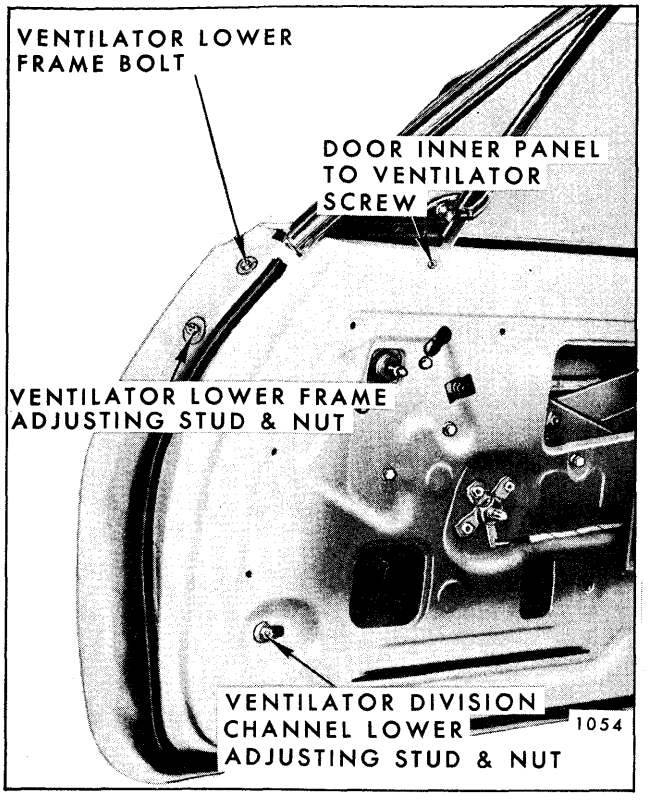

Fig. 7-91—Front Door Ventilator Attachments - "Z" Styles

3. Lower glass to approximately 3" down from full-up position and remove lower sash channel cam attaching screws.

4. Supporting glass with one hand, disengage cam from regulator rollers and remove cam. Lower glass to door bottom.

5. Remove both inner and outer strip assemblies at belt as described under "Glass Run Channel Inner and Outer Strip Assemblies"

6. Loosen ventilator attaching screws and adjusting stud nuts at points described below and illustrated in Figure 7-91.

   a. Ventilator division channel lower adjusting stud nut.

   b. Door inner panel to ventilator attaching screw.

   c. Ventilator adjusting stud nut and ventilator attaching bolt located on door hinge pillar.

7. Lift window assembly and remove it from between door panels at belt line.

8. To install, reverse removal procedure. Adjust window as described below. Adjust ventilator as described under "Front Door Ventilator Adjustments."

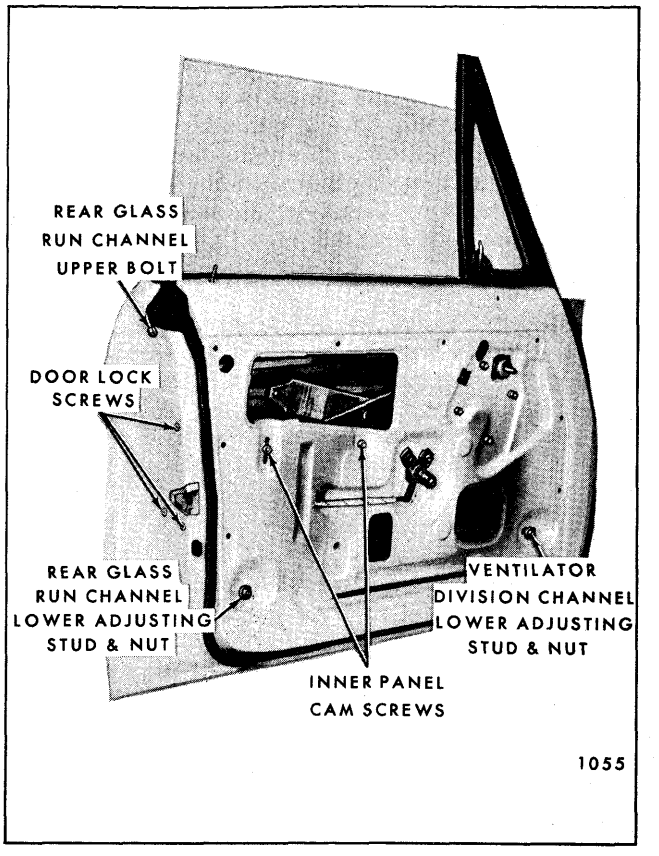

Fig. 7-92—Front Door Hardware - "Z" Styles

FRONT DOOR WINDOW ADJUSTMENTS—"Z" STYLES

To adjust the front door window up or down, loosen the front and rear up-travel stops and operate window to desired position. Then, position and tighten adjustable stops on sash channel against welded-on stops on front and rear run channels.

To rotate the glass in the opening (lower or raise front edge of glass) loosen the inner panel cam attaching screws. Raise or lower adjustable end of cam as required and tighten cam screws.

To adjust rear edge of glass in or out at the belt line, loosen the rear glass run channel upper attaching screw (Fig. 7-92) and adjust the run channel in or out as required.

To adjust the top edge of glass in or out in relation to side roof rail, loosen lower adjusting stud nuts of vent division channel and rear glass run channel (Fig. 7-92). Adjust studs in or out as required, then tighten stud nuts.

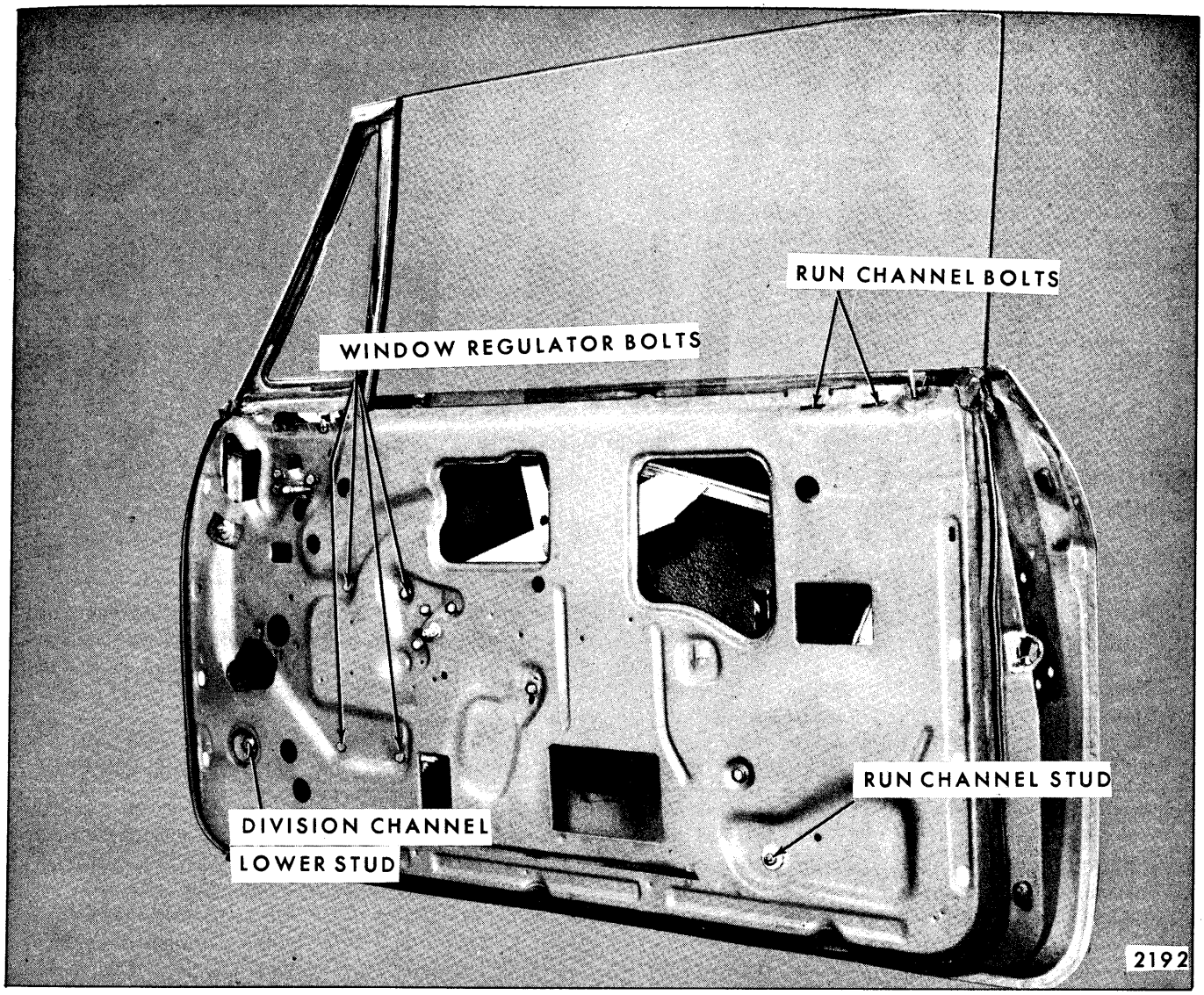

Fig. 7-93—Window Regulator Removal - "B & C" Hardtop Styles

Slight fore and aft adjustment is available by adjusting the vent division channel and rear glass run channel fore or aft at the lower adjusting stud locations (Fig. 7-92).

FRONT DOOR WINDOW REGULATOR—MANUAL AND ELECTRIC—ALL "B & C" STYLES EXCEPT CLOSED STYLES

Removal and Installation

1. Remove front door window assembly as previously described.
2. On two-door styles, remove ventilator division channel lower adjusting stud and nut (Fig. 7-93).
3. On styles equipped with electric window regulators, disconnect wire harness connector at window regulator motor.
4. Remove window regulator attaching bolts (Fig. 7-93).
5. Remove regulator through large access hole. On electric styles it will be necessary to press lower end of ventilator division channel outboard to permit removal.
6. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR—ELECTRIC—"B-35-45 AND 69" STYLES

Removal and Installation

1. Remove front door window and ventilator as previously described.
2. On styles equipped with electric window regulators, disconnect wire harness connector at window regulator motor.
3. Remove window regulator attaching bolts (Fig. 7-93) and remove regulator through access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR—MANUAL—"11-35-45 AND 69" STYLES

Removal and Installation

1. Remove front door trim assembly and inner panel water deflector.
2. Operate window to "full-up" position and secure in place with pieces of cloth-backed body tape applied over door frame.
3. Remove inner panel cam as previously described.
4. Remove ventilator division channel lower adjusting stud and nut and window regulator attaching bolts (Fig. 7-93).
5. Press ventilator division channel outboard to permit disengagement of regulator spindle from inner panel, then run regulator balance arm roller and lift arm roller out of lower sash channel cam at front. Remove regulator through large access hole.
6. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC—ALL "A-E-X & Z" STYLES

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On two-door styles, remove inner panel cam.
3. On closed styles, raise door window. Secure window in full up position by installing a twelve to fifteen inch piece of body tape (2" or 2 1/2" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of the window regulator.
4. On "A-E & X" hard top styles, prop window in a full-up position. On "Z" Body Styles, remove door window and ventilator assembly.
5. Remove ventilator division channel lower adjusting stud and nut. On electric styles, disconnect wire harness from regulator motor.
6. Remove regulator attaching bolts and remove regulator as follows:
   a. On all "A" Styles except "17 and 67" Styles work regulator rearward to disengage lift arm from window lower sash channel cam and remove regulator from door (see Fig. 7-60 and 7-67).
   b. On "A-17 and 67" Styles, slide regulator forward to disengage lift and balance arm rollers from lower sash channel cam(s) and remove regulator through center access hole.
   c. On 49487 Styles, remove regulator through large access hole (Fig. 7-94).
   d. On "X" Body Styles, slide regulator downward and rearward and remove assembly through forward loading hole.
   e. On "Z" Body Styles, remove regulator through large access hole (see Fig. 7-95).
7. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector and trim.

FRONT DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

The electric motor assembly which powers the electrically operated window regulators is a twelve volt, reversible direction motor with an internal circuit breaker and a self-locking gear drive. The motor is secured to the regulator assembly with bolts.

Removal and Installation

1. Remove front door window electric regulator and clamp assembly in a vise (Fig. 7-96).

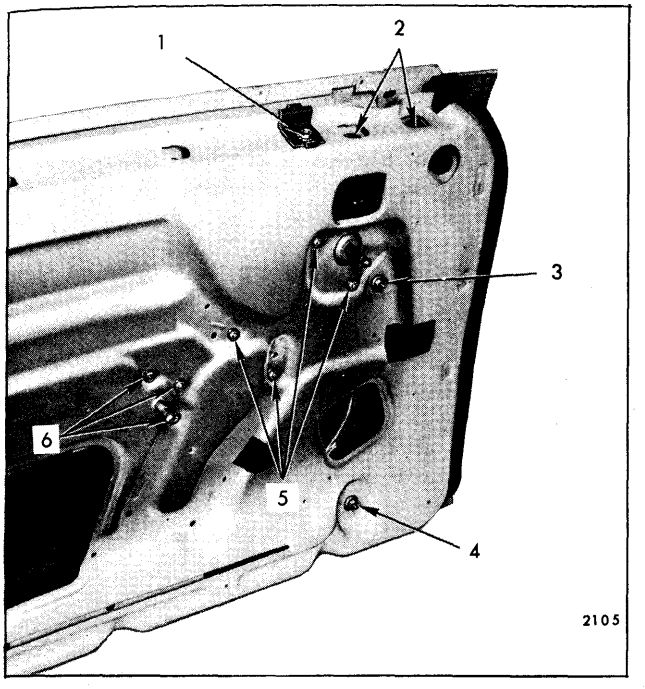

Fig. 7-94—Front Door Hardware—"E" Styles

1. Trim Pad Adjusting Plate (Front)
2. Window Front Guide Channel Upper Bolts
3. Window Front Guide Channel Center Adjusting Stud and Nut
4. Window Front Guide Channel Lower Adjusting Stud and Nut
5. Window Regulator Bolts
6. Front (Standard) Remote Bolts

NOTE: The position of regulator assembly in vise will vary with type of regulator and position of lift arm.

2. Drill a 1/4" hole through regulator back plate and sector gear. The exact point of this hole will be dependent on the position of the regulator lift arm.

IMPORTANT: DO NOT drill into the motor housing, part of which is indicated by the dotted line illustrated in Figure 7-96. In addition, locate hole sufficient distance from edge of sector gear to insure proper retention of sector gear to back plate.

3. Install a 3/16" bolt through hole in regulator back plate and sector gear and install a nut on the bolt. DO NOT tighten nut.

CAUTION: Be sure to perform steps 2 and 3 before attempting to remove motor from regulator assembly. The regulator lift arm is under tension from the regulator counterbalance spring and can cause SERIOUS INJURY if motor is removed from regulator without locking the sector gear in position with a nut and bolt.

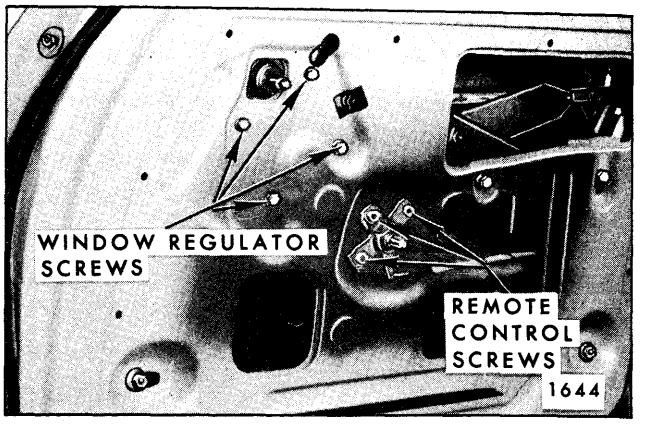

Fig. 7-95—Front Door Hardware - "Z" Styles

4. Remove regulator motor attaching bolts and remove motor from regulator assembly. (Fig. 7-96).

NOTE: Clean off any steel chips from regulator sector gear and motor pinion gear.

5. To install, reverse removal procedure. If difficulty is encountered in lining up motor attaching holes with regulator assembly, the regulator lift arm may be moved into position manually so that motor pinion gear will mesh with teeth on regulator sector gear. After installation of front door window assembly, cycle electric regulator several times before installing inner panel water deflector and door trim pad.

NOTE: Be sure to remove temporary nut and bolt securing regulator back plate to regulator sector gear before installing assembly into door.

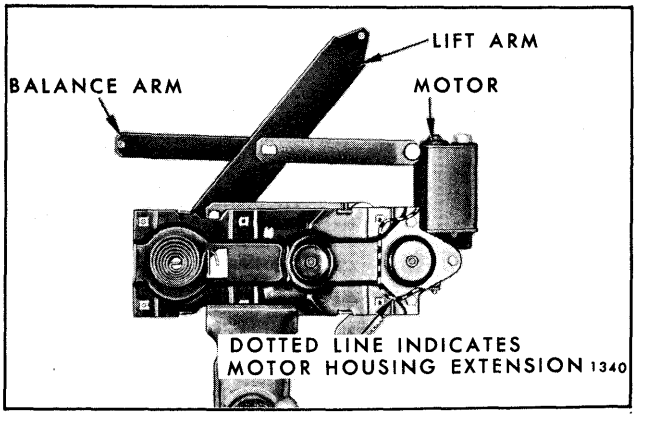

Fig. 7-96—Door Window Regulator and Electric Motor Assembly

FRONT DOOR WINDOW GLASS RUN CHANNEL—ALL "B & C" STYLES EXCEPT CLOSED

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. With window in full-up position, remove window glass run channel upper attaching bolts and lower adjusting stud nut (Fig. 7-93).
3. Disengage lower adjusting stud from inner panel slot and remove run channel through access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW GLASS RUN CHANNEL—"B-11-35-45 AND 69" STYLES

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Lower window to approximately half-down position and tie or tape window so that front edge of window remains engaged in ventilator division channel.
3. Remove glass run channel upper attaching bolt (at belt) and lower adjusting stud nut (Fig. 7-97).
4. From outside door, insert a sharp pointed right angle tool (reveal) molding clip disengaging tool J-21549 or equivalent) between outer edge of glass run channel and door upper frame as shown in Figure 7-98.
5. Beginning at front end of run channel, slide tool rearward until a clip is contacted, then engage point of tool under clip and carefully pry inboard to release clip tangs from door frame.
6. Repeat step 5 at each clip location until run channel is completely disengaged from door frame.
7. Remove glass run channel from door by carefully lowering upper end of channel down into door (rearward of glass) while simultaneously directing lower end (adjusting stud end) of channel out through the rectangular (4" x 6") access hole in lower center of door inner panel.
8. To install, reverse removal procedure. Begin installation above belt at door upper frame upper rear corner.

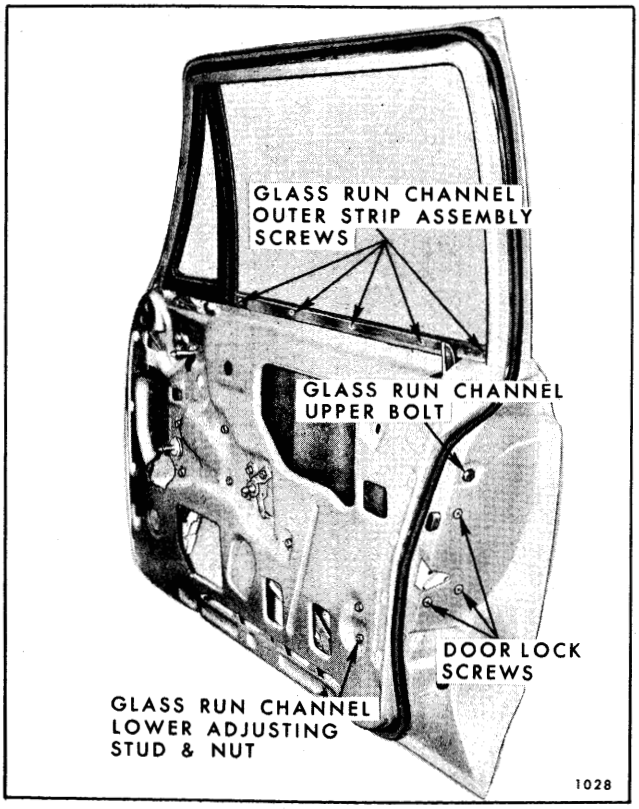

Fig. 7-97—Door Hardware Attachments - "B" Closed Styles

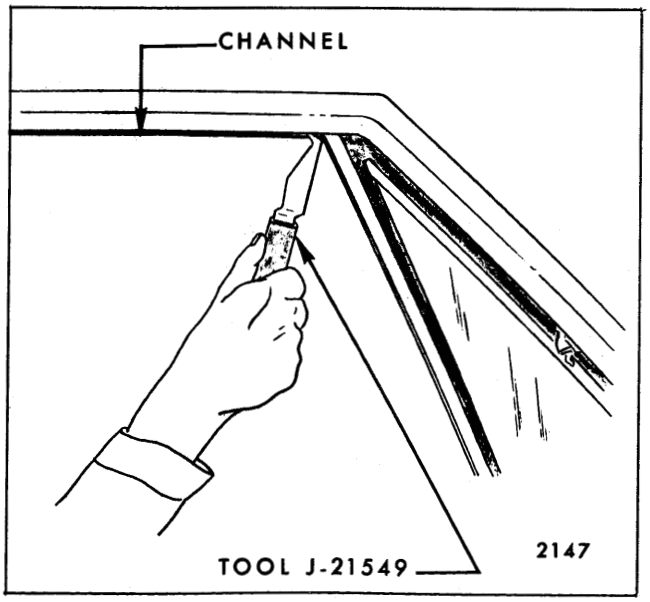

Fig. 7-98—Door Window Glass Run Channel Removal

NOTE: Prior to installation, inspect run channel clips and saturated polyurethane foam sealing strips in door upper frame (Fig. 7-65). Reform distorted clips to insure adequate retention.

Replace damaged sealing strips with Service Part which is available in five foot lengths (Part #4480378 or equivalent).

FRONT DOOR WINDOW REAR GLASS RUN CHANNEL—"A-17-39 AND 67" STYLES

Removal and Installation

1. Raise door window. Remove trim pad and detach inner panel water deflector.
2. Remove front door window guide plate.
3. Remove run channel upper attaching bolt (lock pillar) and lower adjusting stud nut (inner panel - see Fig. 7-82 for "17 and 67" Styles and Fig. 7-87 for "39" Styles).
4. Swing run channel down and forward and remove from door.
5. To install, reverse removal procedure.

NOTE: For adjustments of rear run channel, see "Front Door Window Assembly - "17 and 67" Styles - Adjustments".

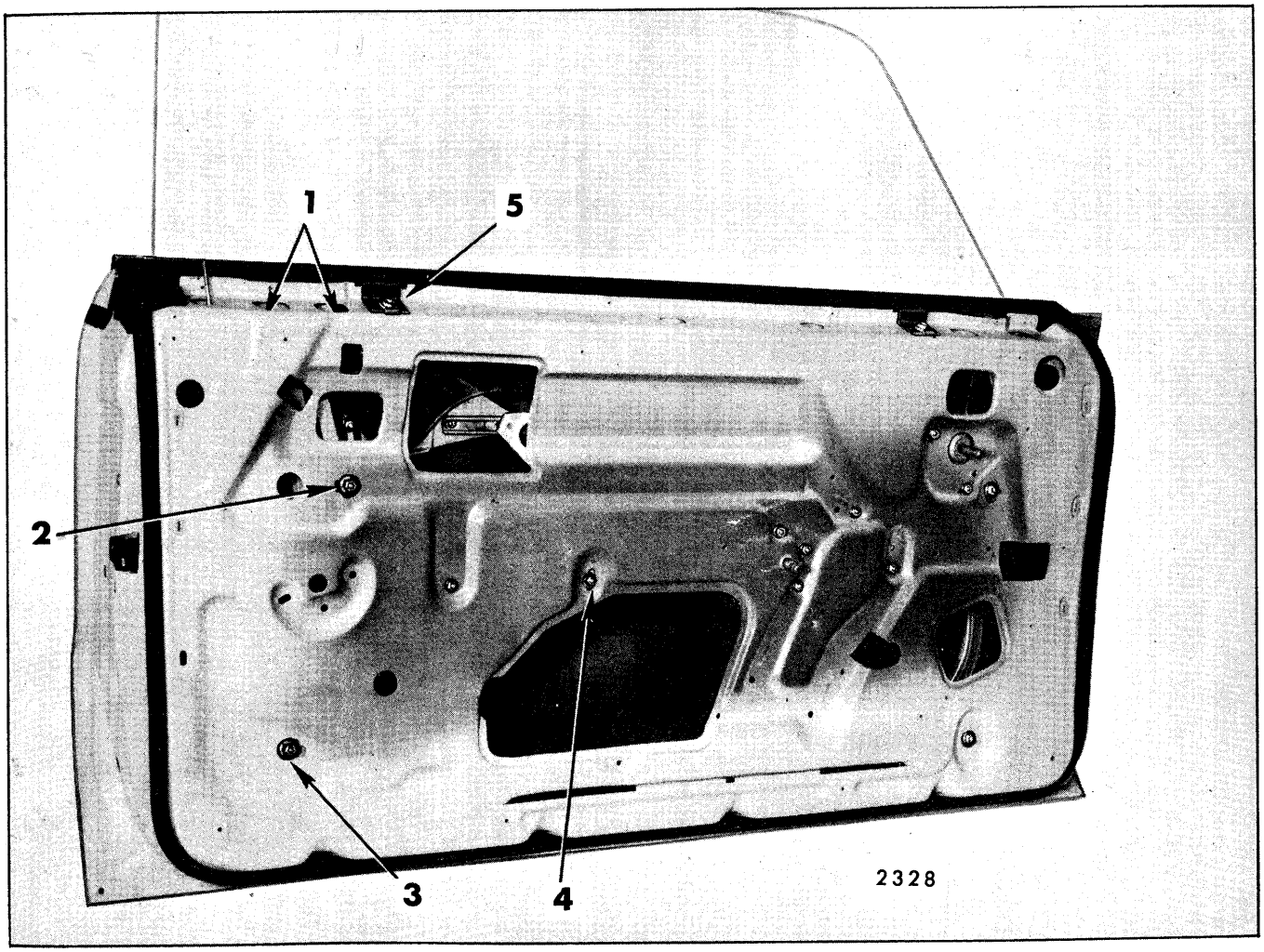

Fig. 7-99—Front Door Hardware - 49487 Style

1. Window Rear Guide Upper Bolts
2. Window Rear Guide Center Adjusting Stud and Nut
3. Window Rear Guide Lower Adjusting Stud and Nut
4. Inner Panel Cam
5. Rear Trim Pad Adjusting Plate

FRONT DOOR WINDOW FRONT GUIDE CHANNEL—49487 STYLES

Removal and Installation

1. Raise door window. Remove trim pad and detach inner panel water deflector.
2. Remove front door window assembly.
3. Remove center and lower adjusting stud nuts and upper two attaching bolts and remove guide assembly (see Fig. 7-94).
4. To install, reverse removal procedure.

Adjustments - see door window adjustments.

FRONT DOOR WINDOW REAR GUIDE CHANNEL—49487 STYLES

Removal and Installation

1. Raise door window. Remove trim pad and detach inner panel water deflector.
2. Remove front door window assembly.

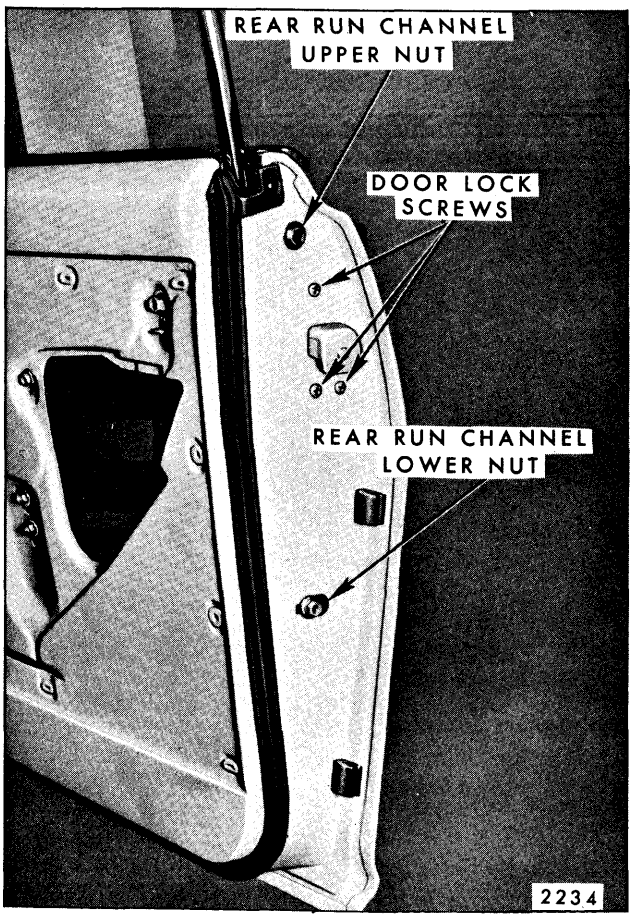

Fig. 7-100—Door Lock Pillar - "X-37" Style

3. Remove center and lower adjusting stud nuts and upper two attaching bolts and remove guide assembly (see Fig. 7-99).
4. To install, reverse removal procedure.

Adjustments - see door window adjustments.

FRONT DOOR WINDOW GLASS RUN CHANNELS—"X-37" STYLES

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove door ventilator and window assembly.
3. Remove bolts securing run channel to lock pillar panel and remove from door.
4. To install, reverse removal procedure (see Fig. 7-100).

FRONT DOOR WINDOW GLASS RUN CHANNELS—"X-11-35 AND 69" STYLES

Removal and Installation

1. Remove door trim pad and detach inner panel water deflector.
2. Remove front door window.
3. Press (finger pressure) sides of run channel together and remove assembly from door upper frame (see View "A" for "11" Styles and View "B" for "35 and 69" Styles in Fig. 7-101).
4. To install, reverse removal procedure.

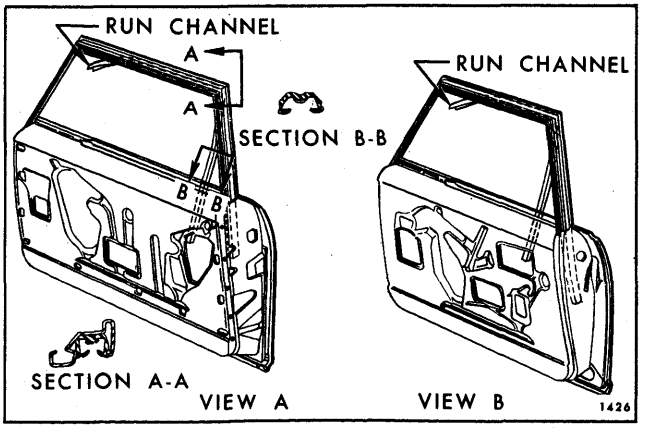

Fig. 7-101—Front Door Glass Run Channel Assembly - "X" Closed Styles

FRONT DOOR WINDOW REAR GLASS RUN CHANNEL—"Z" BODY STYLES

1. Lower door window and remove door trim pad and inner panel water deflector.
2. Remove glass run channel upper attaching screw and lower adjusting stud nut.
3. Disengage run channel from rear edge of glass and remove run channel through large access hole.
4. To install, reverse removal procedure.

DOOR WEDGE PLATES—"67" STYLES

Door wedge plates are used on convertible styles to give additional support to the door when it is in the closed position. One plate is installed to the body lock pillar and the other to the door lock pillar (Fig. 7-102). The plates should contact each other to the extent of a 1/32" interference when the door is closed. Body side wedge plate shims are available as a service part so that this interference can be obtained.

FRONT DOOR LOCK SELECTOR VALVES—ALL CADILLAC STYLES AND BUICK, OLDSMOBILE "B-C & E" STYLES

The vacuum door lock system is operated by selector valves located in the front door trim assemblies. When either valve is actuated upward, all door locks simultaneously unlock. When either valve is actuated downward, all door locks lock. Vacuum is supplied to the selector valve in the red color-coded hose and is present at all times at both valves. Only when the selector valve is actuated is vacuum supplied to the balance of the system (Fig. 7-103).

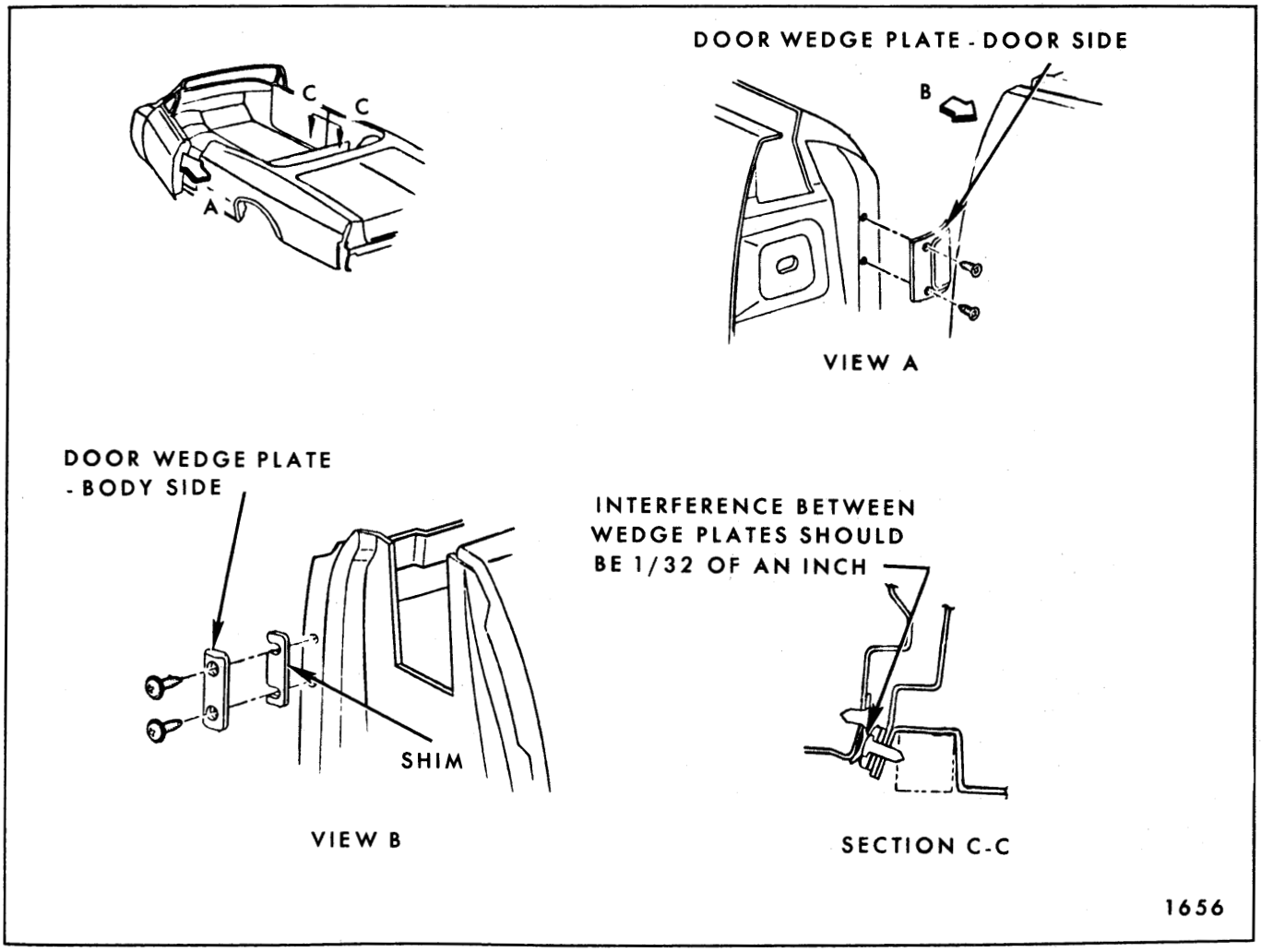

Fig. 7-102—Door Wedge Plates - "67" Styles

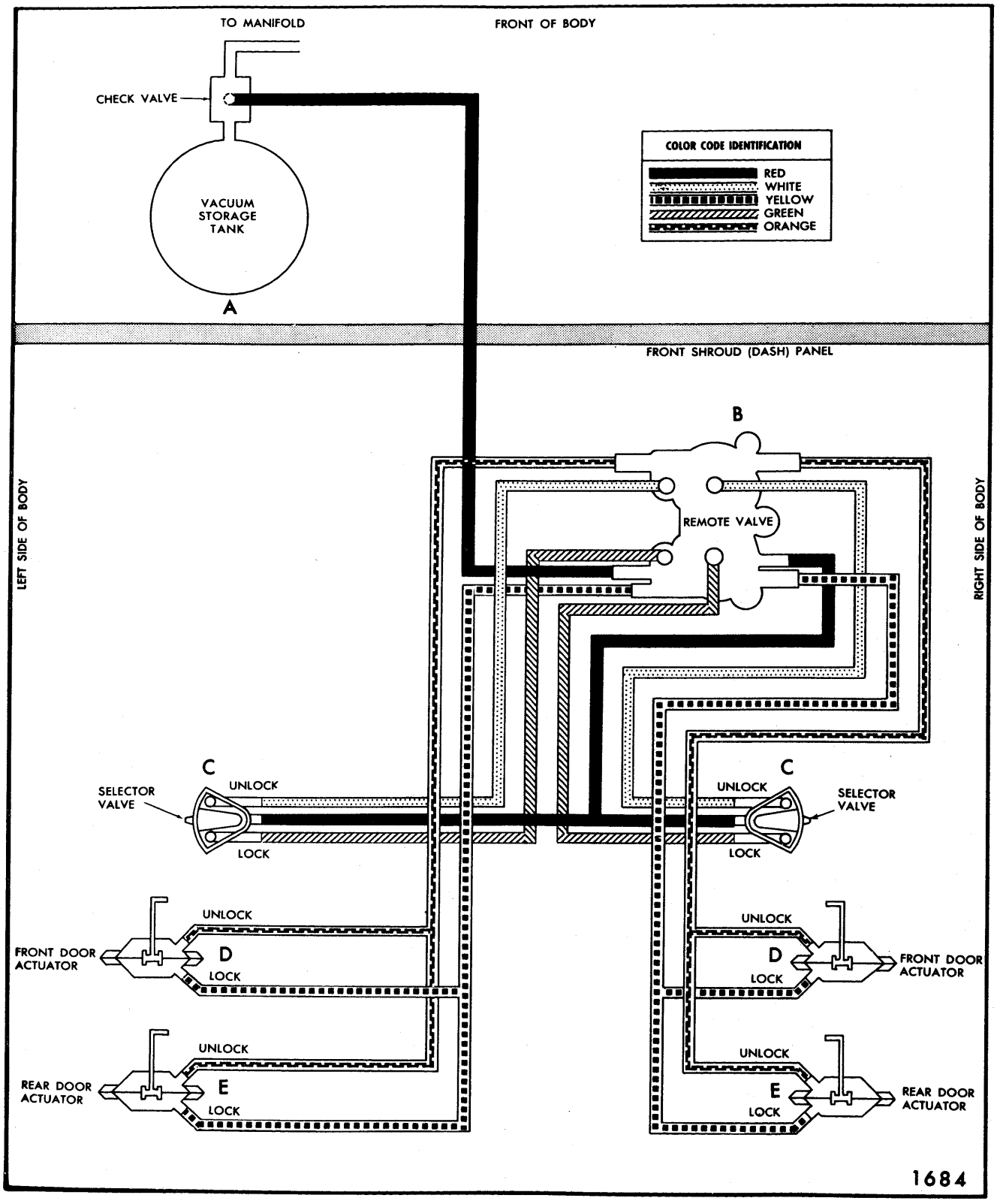

Fig. 7-103—Vacuum Door Lock System - Buick, Oldsmobile, Cadillac

Removal and Installation

1. Remove door trim pad and carefully disconnect vacuum hose from selector valve.
2. Carefully disengage valve assembly from door trim assembly.
3. To install, reverse removal procedure. When installing vacuum hoses to selector valve, hose color codes must be installed to the proper connection on the selector valve for proper valve operation. Check all operations of door lock vacuum system prior to installing door trim and inside hardware.

VACUUM DOOR LOCK SYSTEM OPERATION—PONTIAC "A & B" STYLES

The vacuum system is operated from the left front door inside locking rod. The rod is directly linked to a sliding control valve attached to the left front door lock (Fig. 7-104). By manually raising or depressing the inside locking rod, as would be required to lock or unlock any door, the vacuum system simultaneously locks or unlocks all doors.

Since operation of the system must be done manually at the left front door, the control valve is only required at that location. For the same reason, only vacuum lock actuators are provided at the remaining door locks.

VACUUM DOOR LOCK ACTUATOR—ALL STYLES WITH VACUUM LOCKS

The actuators that operate the locks are double acting vacuum diaphragms. Vacuum is supplied to either side of the diaphragm to lock or unlock the door lock assemblies. The diaphragm moves a rod that operates the locking lever of the lock to the desired position. All vacuum hoses and their corresponding actuator ports are color-coded to assure correct hose-to-actuator installation. The orange coded vacuum hose provides the unlocking cycle of the door assembly and the yellow coded vacuum hose provides the locking cycle of the door lock assembly.

As the actuator is attached to the door lock with screws which are inaccessible with the lock installed, it is necessary to remove the door lock in order to remove the actuator. Once the door lock is removed, the actuator can be removed in a bench operation (Fig. 7-105 for front doors, Fig. 7-106 for rear doors.

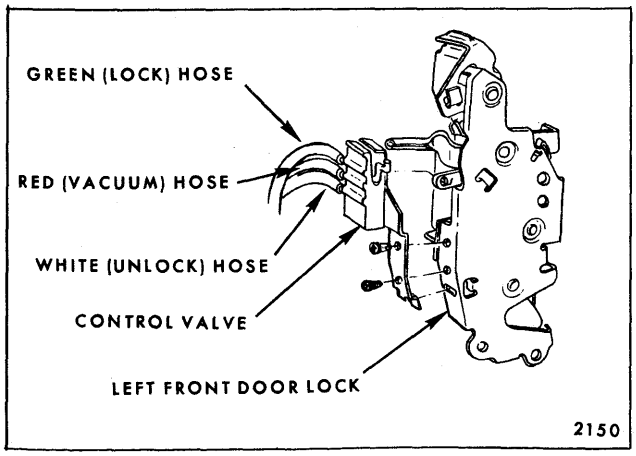

Fig. 7-104—Vacuum Door Lock Control Valve - Pontiac Style

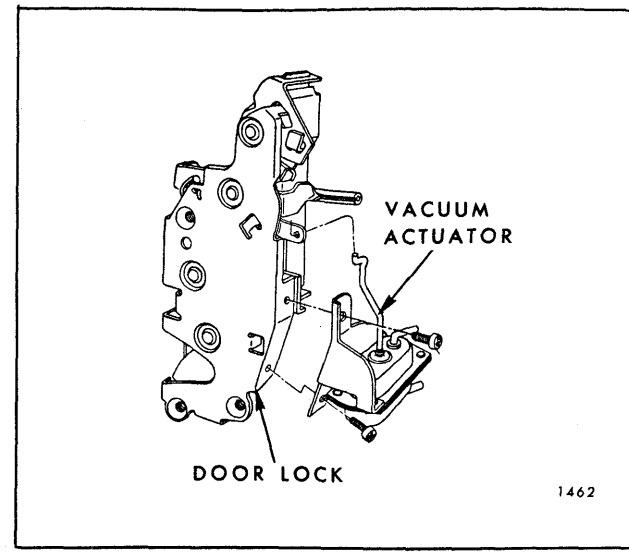

Fig. 7-105—Front Door Vacuum Actuator

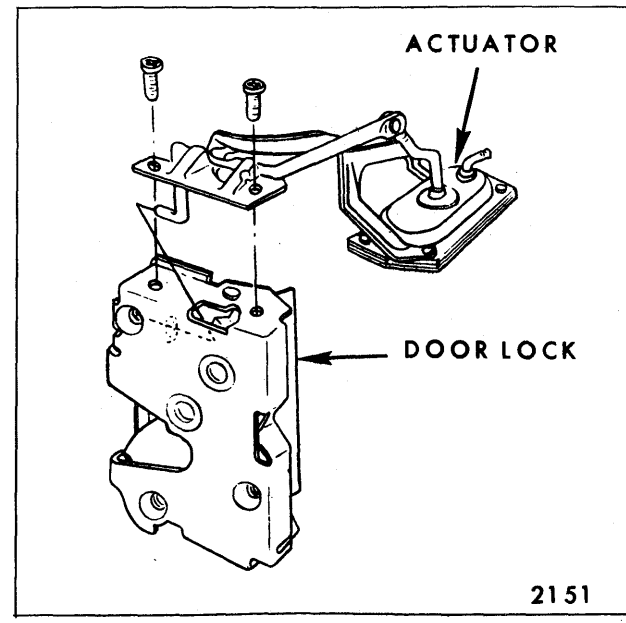

Fig. 7-106—Rear Door Vacuum Lock Actuator

LEFT FRONT DOOR LOCK VACUUM CONTROL VALVE—PONTIAC "A & B" STYLES

The vacuum control valve is attached to the left front door lock with screws which are inaccessible with the lock installed in the door (Fig. 7-104). To remove the valve it is necessary to disconnect the vacuum hoses and remove the lock and control valve from the door as an assembly. The valve can then be removed in a bench operation.

To install the valve, reverse the removal procedure. Connect color-coded hoses to matching color-coded ports on the valve.

For operation of the valve, refer to the preceding "operation" description.

VACUUM DOOR LOCK TRANSFER VALVE—PONTIAC "A & B" STYLES

The transfer valve is a dual diaphragm valve that receives the main lock or unlock vacuum signal from the door lock control valve and then creates its own vacuum signal to momentarily open the proper ports in the remote control.

As there is no neutral position to the door lock control valve, vacuum is constantly surging through the valve, through either the white or green hoses (Fig. 7-107). If it were not interrupted, this vacuum would be constant throughout the entire system and would have to be over-ridden to operate the system from either the lock to unlock, or from the unlock to the lock cycle. This interruption is accomplished by the transfer valve. The valve itself has a dual diaphragm, one side of which is actuated by a transfer of vacuum from one side of the valve to the other (white to green or green to white). This action (depressing one of the diaphragms) creates a secondary vacuum which is relayed to the remote control valve through one of the connecting hoses, either the green or white depending on whether the action is to lock or unlock. This secondary vacuum from the transfer valve momentarily opens the proper ports in the remote control assembly and permits the main vacuum in the red hose to momentarily surge through the remote control and operate the remainder of the locks.

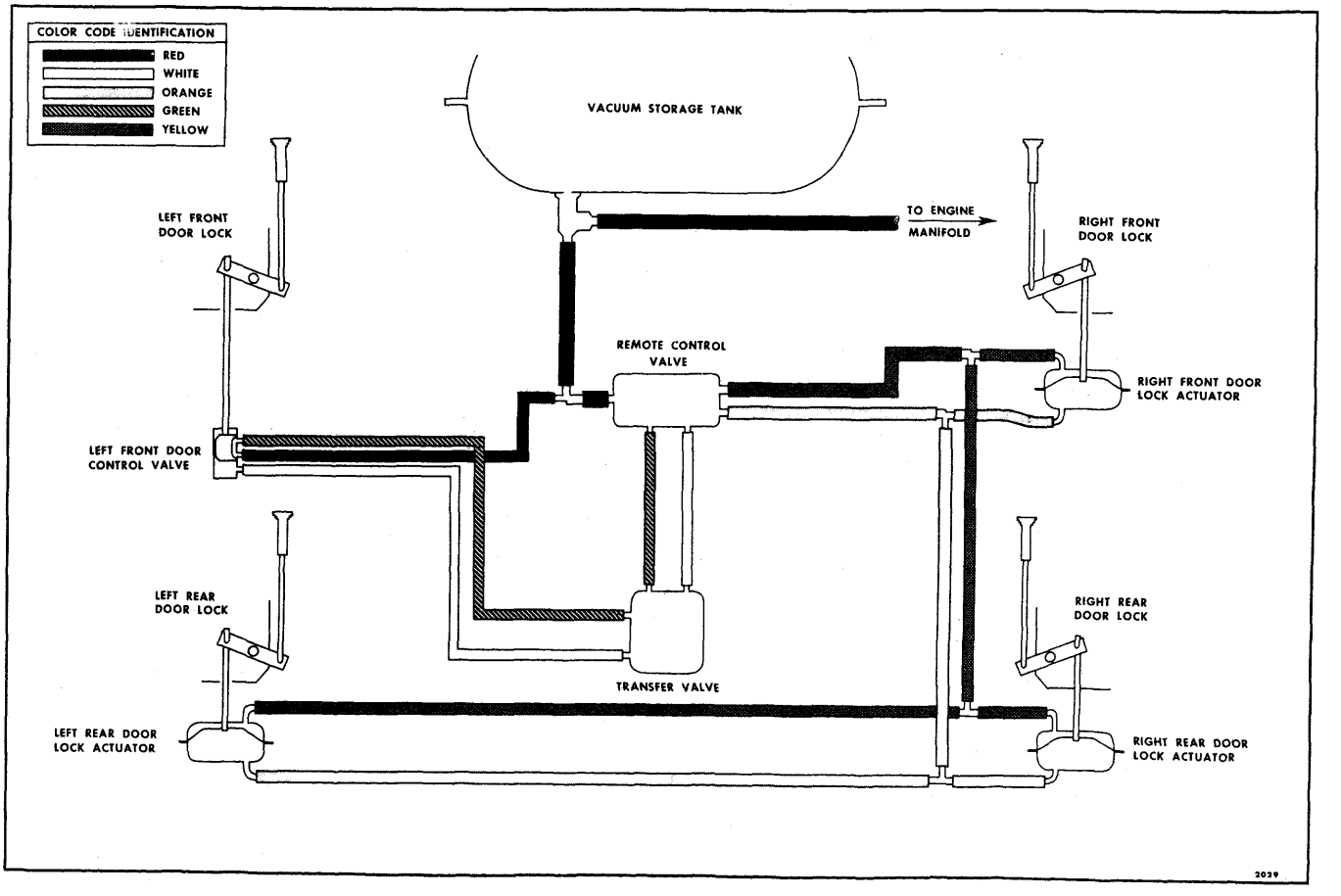

Fig. 7-107—Vacuum Door Lock System - Pontiac Styles

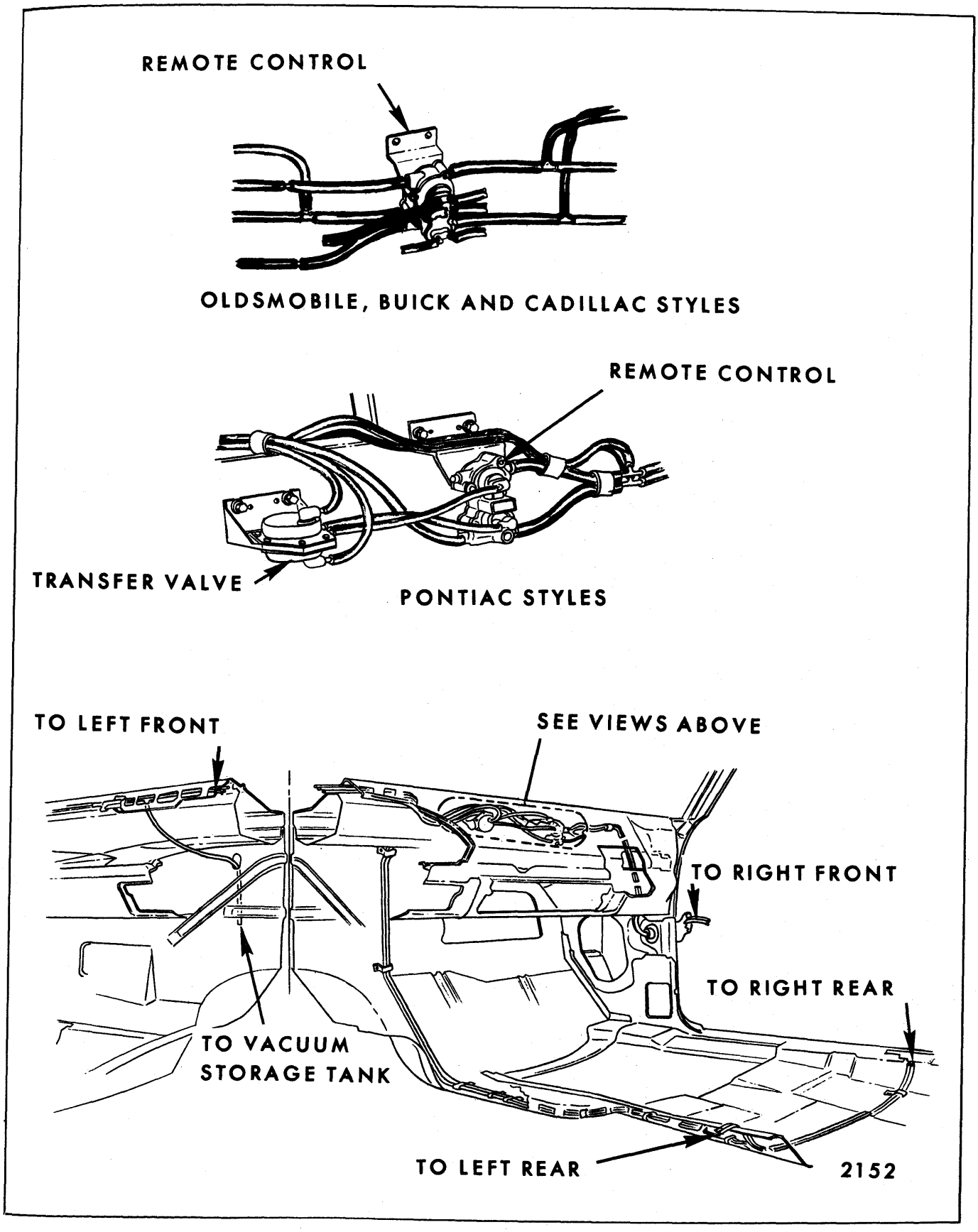

Fig. 7-108—Vacuum Door Lock Hose Routing

As shown in Fig. 7-108 the transfer valve is located next to the remote control assembly under the instrument panel on the right side of the body. The upper and lower hoses (white and green) shown in the insert in Fig. 7-108 connect the valve to the door lock control valve. The middle pair carry the secondary signal to the remote control

VACUUM DOOR LOCK REMOTE CONTROL ASSEMBLY—ALL STYLES WITH VACUUM DOOR LOCKS

The function of the remote control assembly is to momentarily release the interrupted main vacuum in the red hose into the entire system upon receipt of the secondary vacuum signal from the transfer valve or selector valve. A lock signal received from the transfer valve or selector valve through the green hose will open the ports to momentarily introduce vacuum into the yellow (lock) hoses. Conversely, an unlock signal received through the white hose will introduce vacuum into the orange (unlock) hoses.

The remote control valve is located under the instrument panel on the right side (Fig. 7-108). All ports and hoses are color-coded for ease of hose installation (Fig. 7-109).

DOOR LOCK VACUUM STORAGE TANK

The door lock vacuum storage tank is mounted in the engine compartment and is connected to the engine manifold by a hose (Fig. 7-104). A check valve at the tank connector maintains the vacuum in the tank. The storage tank supplies vacuum at all times to the remote valve and door lock control valve. The tank should provide a minimum of three complete cycles of operation (lock and unlock) immediately after the engine has been shut off.

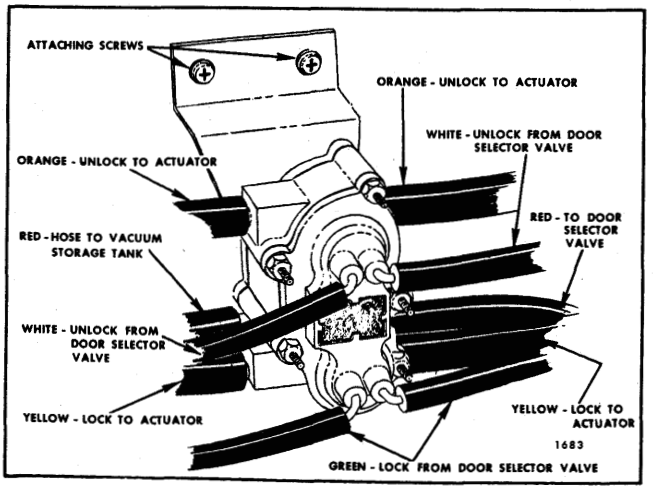

Fig. 7-109—Vacuum Lock Remote Control Valve

VACUUM DOOR LOCK TROUBLE DIAGNOSIS PROCEDURE

When an external air leak in the vacuum locking system is not severe enough to be heard, the leak-down testing device shown in Figure 7-110 will aid in determing which part is leaking. This device can be easily constructed from common items that are normally available. The following chart lists the necessary components. The item numbers are referenced to Figure 7-110.

Although several transparent glass containers may be satisfactory for use as a testing device, a quart jar with a metal cap that can be sealed is recommended.

Item	Description	ID	OD	Length	Quan.
1	Quart Glass Container	-	-	-	1
2	Metal Cap	-	-	-	1
3	Cap Sealing Ring	-	-	-	1
4	Cap Ports	3/16"	1/4"	2 1/2"	2
5	Hose Port	3/16"	1/4"	2 1/2"	1
6	Hose	7/32"	3/8"	2"	2
7	Hose	5/32"	5/16"	1"	1
8	Glass Tube	1/8"	5/16" to 3/8"	4"	1

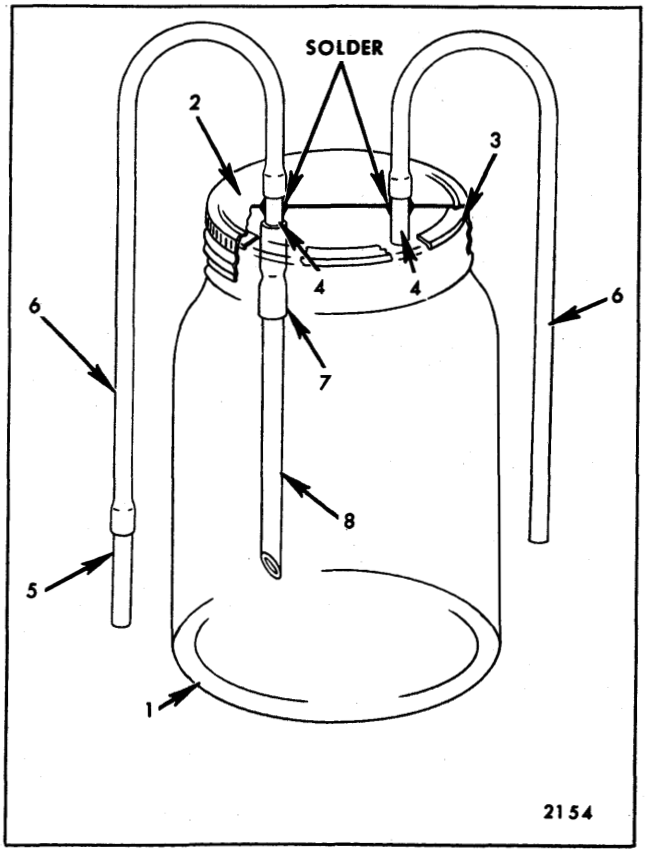

Fig. 7-110—Leak-Down Testing Device

Install ports in cap by drilling 2 holes and inserting ports half-way through cap. Solder ports to cap to make an air-tight seal.

NOTE: There cannot be any air leaks in leak-down testing device to check a vacuum system. The lower end of the glass tube in the jar should be cut on a 45° angle. If glass tubing is not available, plastic tubing may be substituted provided it has the specified inside diameter.

a. Installation of Testing Device Into Vacuum System:

The testing device is installed between the vacuum storage tank and the remote control valve. To install testing device, proceed as follows:

1. Add water to jar until level is approximately 1" above lower end of tube.
2. Raise hood and remove storage tank to remote control valve hose (red) from storage tank check valve.
3. Install hose from testing device (hose without port) to bottom of check valve on storage tank.
4. Install other hose (with attached port) on testing device to hose leading to remote control valve.
5. Set testing device in an upright position.

b. Recharging Vacuum Storage Tank

Vacuum will usually have been depleted after four or five cycles of lock operation, or after testing device has been installed. To recharge storage tank to normal vacuum (22-24 inches of mercury), proceed as follows:

1. Turn testing device on its side until glass tube is out of water.
2. Start engine and run for approximately 1 minute.
3. Turn engine off and return testing device to a normal upright position.

   NOTE: If water rises in glass tube, quickly pinch-off hose leading from testing device to remote control valve. If hose is not pinched, and then disconnected, water rising up tube will enter vacuum lock system components. Condition is the result of a defective storage tank which must be replaced, provided hose connections check out satisfactory.
4. Allow 15 to 30 seconds for water in testing device to stop bubbling. The waiting period is necessary due to different pressures in the system on both sides of testing device. The bubbling is the result of these pressures trying to equalize themselves. The storage tank may be recharged as often as required when checking vacuum system for an external air leak.

   CAUTION: Be certain to turn testing device on its side each time system is recharged. If this is not done, water in jar may be drawn up into vacuum system components.

c. Determining Size of Air Leak from Bubbles in Testing Device:

If bubbles appear in water at a rate of approximately one every fifteen seconds or faster, an air leak is present at either the remote control valve, transfer valve, or door control or selector valve. This assumes, of course, that the hoses are properly connected and free of defects. The faster bubbles appear in the water, the more severe is the air leak. In most cases, where the air leak rate is slower than one bubble every fifteen seconds, the vacuum loss is usually insufficient to affect the operation of the vacuum locking system.

d. Isolating a Leaking Vacuum Part (External Leak) Using the Leak-Down Testing Device:

After a specific part has been isolated as a leaking component, first check the hose color-coded red that attaches to that part. Make sure hose is properly installed to the port and that hose is not split.

When the testing device has been properly installed and storage tank recharged, watch glass tube in testing device and proceed as follows:

Pontiac Styles:

1. If water rises in glass tube, storage tank is leaking. Replace vacuum storage tank.
2. If bubbles appear in water, an air leak is present at the remote control valve, transfer valve, or door control valve.
3. If bubbles appear, remove left front door hinge pillar conduit and pinch red color-coded hose leading to left front door control valve. This will eliminate door control valve and transfer valve from system.
4. Check testing device. If bubbles continue, remote control valve is leaking and should be replaced. If bubbles stop, leak is in door control valve or transfer valve.

5. If bubbles stopped in step 4, release red hose and pinch green hose leading from door control valve to transfer valve. (Prior to pinching hose, depress left front door inside locking rod knob to lock position). If bubbling continues in testing device, leak is in door control valve. If bubbling stops, leak is in transfer valve.

Buick-Oldsmobile-Cadillac Styles:

1. If water rises in glass tube, storage tank is leaking. Replace vacuum storage tank.

2. If bubbles appear in water, an air leak is present in either the remote control valve or in one of the door lock selector valves.

3. Remove right and left front door hinge pillar conduits.

4. Pinch right and left vacuum hose color coded red.

   NOTE: This has eliminated the right and left door lock selector valves from vacuum system.

5. Check testing device. If bubbles continue to appear in water, the remote control valve is leaking. (If bubbles stop, see step 6).

6. If bubbles stop forming in testing device, air leak is at either door valve. Discontinue pinching left valve hose at hinge pillar.

7. Check testing device. If bubbles appear in water, left door valve is leaking. (If no bubbles appear, see step 8).

   NOTE: Before replacing a door lock selector valve, tighten screws on back of valve, then recheck valve. If valve continues to leak, replace left door lock selector valve assembly.

8. If no bubbles appear in testing device after discontinuing pinching of left valve hose, then air leak is at right door valve. This may be shown by discontinuing pinching of right valve hose at hinge pillar. Bubbles will appear immediately in water of testing device.

e. Isolating a Vacuum Part with an Internal Leak—(Pontiac Styles Only)

(Vacuum in lock actuators preventing operation of system)

An internal leak in either the transfer valve or remote control valve will allow vacuum to surge through the entire system and will prevent actuation of the system to a new lock or unlock position. If vacuum is present in the door lock actuators at all times, proceed as follows:

1. If system cannot be operated from lock to unlock, disconnect the white hose leading from the transfer valve to the remote control valve (hose can be disconnected at either end). If system cannot be operated from unlock to lock, disconnect green hose.

2. Actuate left front door inside locking rod knob up and down. If vacuum does not resist operation, the transfer valve is defective and should be replaced. If vacuum is still present in the lock actuators, however, and resists rod movement, the remote control valve is defective and should be replaced.

VACUUM DOOR LOCK DIAGNOSIS CHART (Ref. Fig. 7-107) PONTIAC STYLES

CONDITION	PROBABLE CAUSES	REPAIR
A. System Inoperative	1. Hoses crossed at vacuum supply tank	Reverse hoses
	2. Main vacuum hose (red) or both white and green hoses pinched between door control valve or remote control valve	Trace hoses and relieve pinching where found
	3. Leaking component	Isolate defective part with leak-down testing device as previously described

CONDITION	PROBABLE CAUSES	REPAIR
B. All doors can be locked but not unlocked, or unlocked but not locked. (Vacuum constant in door lock actuators.)	1. Defective door control valve, transfer valve, or remote control valve	Isolate defective part by using leak-down tester or "internal leak" check for transfer valve and remote control in step "E" above
C. Moving door valve to lock or unlock produces opposite action in remaining doors	1. White and green hoses reversed at door control valve or transfer valve	Match color-coded hoses with corresponding color-coded port
	2. Orange and yellow hoses (unlock and lock) reversed at remote control valve	
D. Moving door valve to lock or unlock produces opposite action in one door lock	1. Orange and yellow hoses (unlock and lock) reversed at door lock actuator	Match color-coded hoses with corresponding color-coded ports at affected door lock actuator
E. One door lock lags behind others	Lock or linkage binding	Check linkage for freedom of movement and lubricate lock
F. System will not hold vacuum for 48 hours	Excessive leakage in system	Isolate leaking component with leak-down testing device as described previously in this procedure.
G. System inoperative with door closed, but operative with door open	Hoses being pinched at front body hinge pillar	Reposition hose to eliminate kink

VACUUM DOOR LOCK DIAGNOSIS CHART (Ref. Fig. 7-103) BUICK, OLDSMOBILE & CADILLAC STYLES

CONDITION	APPARENT CAUSE	REPAIR
A. System inoperative	1. Hoses crossed at vacuum supply tank.	Reverse hoses at vacuum supply tank.
	2. Vacuum supply hose pinched at remote valve.	Straighten hose at "B" (Red).
	3. Door valve supply hose pinched at remote valve.	Straighten hose at "B" (Red).
	4. Vacuum supply hose disconnected at tank, remote valve, or engine.	Install hose at "A" or "B" (Red).
	5. Remote valve diaphragm leaking.	Replace remote valve at "B".

CONDITION	APPARENT CAUSE	REPAIR
B. All doors can be locked but not unlocked.	1. Main supply hose crossed lock supply hose at remote valve.	Reverse hoses at remote "B" (Red and Green).
	2. Unlock selector hose or supply hose disconnected at remote valve.	Hook up hose at remote "B" (White).
C. All doors can be unlocked but not locked.	1. Main supply hose crossed with unlock supply hose on remote valve.	Reverse hoses at remote "B" (Red and White).
	2. Lock selector hose or supply hose disconnected at remote.	Hook up hose at remote "B" (Green).
D. Moving either door valve to lock or unlock produces the opposite action of all locks.	1. Door lock selector valve hoses (small) crossed at remote valve.	Reverse selector hoses at remote valve "B" (White and Green), or reverse selector hoses at each door lock selector valve "C" (White and Green).
	2. Actuator supply hoses (large) crossed at remote valve.	Reverse hoses at remote "B" (Orange and yellow).
E. Moving one of the door valves to lock or unlock produces the opposite action of the lock.	1. Valve selector hoses crossed at one door valve.	Reverse small hoses at affected door valve "C" (White and Green).
	2. Door selector valve reversed in trim assembly.	Reverse affected door selector valve in trim assembly "C".
F. System inoperative from one door valve.	Vacuum supply hose pinched or disconnected at affected door valve.	Connect hose or check for pinching at: 1. Affected door valve "C". 2. Front door conduit on side affected "E".
G. System will not lock from one door valve, or system will not unlock from one door valve.	Lock or unlock selector valve hose pinched or disconnected from affected door valve.	Connect hose or check for pinching at: 1. Affected door valve "C" (White or green). 2. Front door conduit on that side "E".
H. Lock movement on any one door not synchronized with other door(s).	Hoses crossed at affected door lock actuator.	At Front Door Reverse hoses at lock actuator "D" (Orange and Yellow). At Rear Door Reverse hoses at lock actuator in door "F" (Orange and Yellow). Or reverse hoses at tubing center pillar "G".

CONDITION	APPARENT CAUSE	REPAIR
I. One door lock lags behind others when locked or unlocked.	Lock or linkage binding.	Front Door 1. Lubricate lock and check inside locking control rod for freedom of movement. 2. Check drive link for freedom of movement in lock trip lever. Rear Door 1. Lubricate lock and check inside locking control rod and linkage for freedom of movement. 2. Check clearance of lock and actuator to door hardware. Coupe 1. Lubricate lock and check inside locking control rod for freedom of movement. 2. Check freedom of movement of actuator and lock.
J. One door lock will not lock or unlock.	Actuator hoses pinched or disconnected.	Front Door 1. Check for pinched hoses at front door, conduit on side affected. 2. Check for hose disconnected at affected actuator. (Orange or Yellow). Rear Door 1. Check for pinched hose at rear door conduit and at center pillar. 2. Check for kinked or flattened hoses under front door carpet support plate. 3. Check for disconnected hose at metal tubing or at actuator (Orange or Yellow).
K. System will not hold vacuum for 48 hours.	1. Excessive leakage in any one of the following units can be the cause: a. Remote valve b. Door valves (2) c. Storage tank and check valve. d. That part of the harness assembly that contacts these components.	1. Actuate system through several lock and unlock cycles, and recheck leakage. 2. Isolate leaking component and replace. **IMPORTANT:** If a door valve is found to be leaking, tighten screws on back of valve, then recheck valve. If valve continues to leak, replace valve.

CONDITION	APPARENT CAUSE	REPAIR
L. Lock(s) inoperative with front door closed but operates with door open.	Door valve vacuum supply hose pinched at front body hinge pillar on side affected.	Check for pinched hose of affected door at conduit.
M. Door selector valve leaks.	Pinch vacuum supply hose (Red) at affected valve. If air leak stops, valve is defective.	Replace affected selector valve. **IMPORTANT:** If selector valve leaks, first tighten screws on back of valve, then recheck valve. If valve continues to leak, replace valve assembly.
N. Storage tank leaks.	Turn engine off and disconnect manifold to storage tank supply hose at tank check valve; then pinch storage tank to remote valve supply hose. Actuate either door lock selector to equalize pressure in balance of system. If air continues to leak, tank is defective.	Replace vacuum storage tank.
O. Actuator assembly inoperative.	Connect hose or check for pinched hose at front door hinge pillar conduit "E", at rear door hinge pillar conduit "H" or at remote control valve "B", then actuate door lock selector valve. If actuator does not operate, actuator is defective.	Replace actuator assembly.
P. Remote valve leaks.	Check remote valve for pinched or disconnected hose(s). If balance of system is checked and found to be in satisfactory condition, replace remote valve with new part. If system then operates properly, original remote valve was defective.	Replace remote control valve assembly.

REAR DOORS

DESCRIPTION

The procedures included in this section concern operations applicable to rear doors only. Procedures for the removal of trim, inside and outside door handles, and door weatherstrips, which are similar for both front and rear doors, are found in the "Front and Rear Door" section.

Illustrations 7-111, 7-112, 7-113, 7-114, 7-115, 7-116, 7-117 identify the individual hardware components and their relation to each other on the various style rear doors.

REAR DOOR HINGES—ALL STYLES

As the rear door hinges are secured with screws to both the door and center pillar, the door can be removed by either removing the door from the hinges or by removing the door and hinges as an assembly from the center pillar.

Removal

1. With a pencil, mark location of hinges on door or center pillar depending on removal method being used.

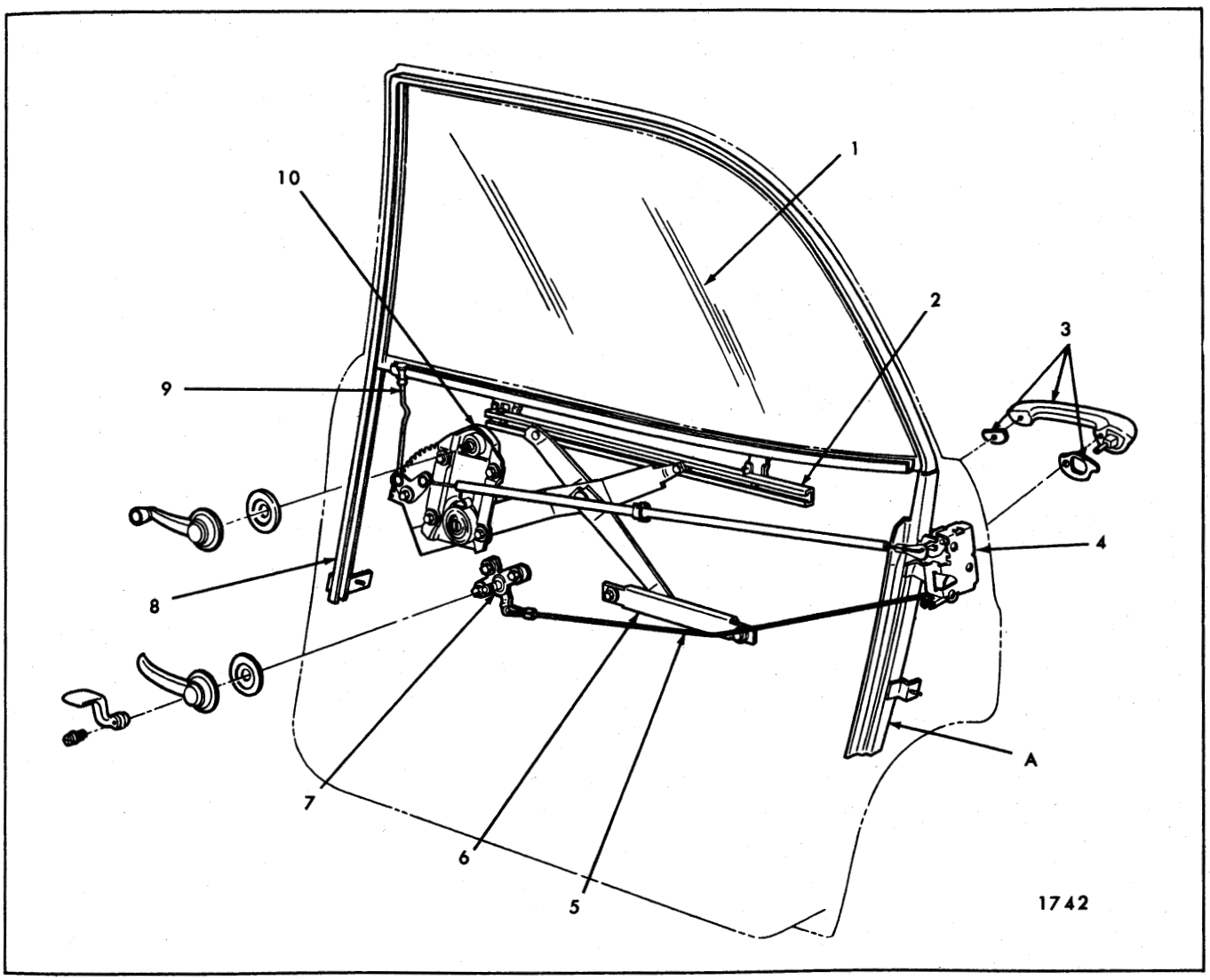

Fig. 7-111—Rear Door Hardware - "B" Closed Styles

1. Window Assembly
2. Lower Sash Channel Cam
3. Outside Handle and Sealing Gaskets
4. Door Lock
5. Remote Control Connecting Rod
6. Inner Panel Cam
7. Remote Control
8. Glass Run Channel (Extends Completely Around Window to Point "A")
9. Inside Locking Rod
10. Window Regulator

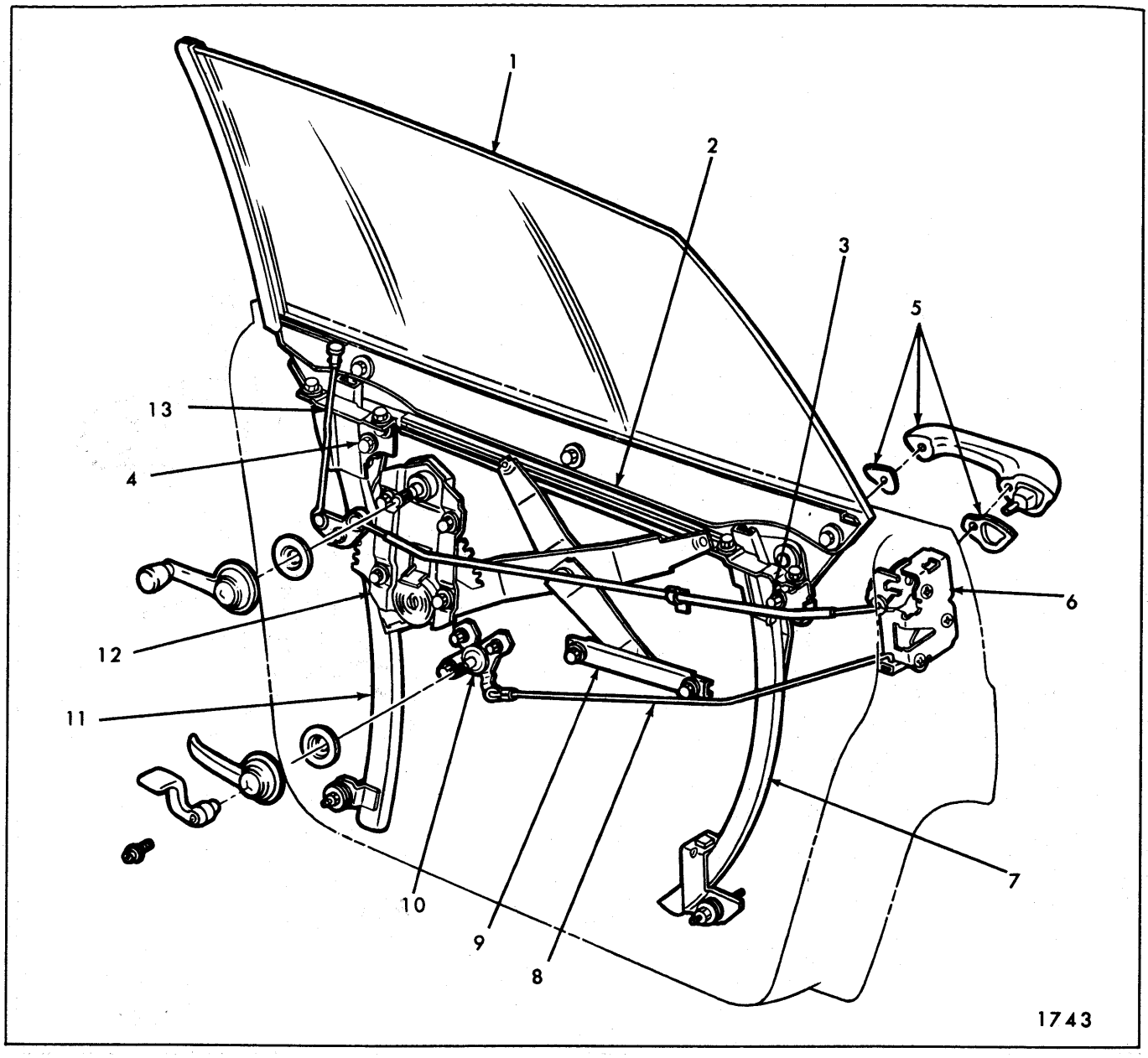

Fig. 7-112—Rear Door Hardware - "B-C 39" and "C-69" Except 68069 and 68169 Styles

1. Window Assembly
2. Lower Sash Channel Cam
3. Window Rear Upper Stop
4. Window Front Upper Stop
5. Outside Handle and Sealing Gaskets
6. Door Lock
7. Window Rear Guide
8. Remote Control Connecting Rod
9. Inner Panel Cam
10. Remote Control
11. Window Front Guide
12. Window Regulator
13. Inside Locking Rod

2. On styles equipped with electric window regulators or vacuum operated locks, proceed as follows:

   a. Remove door trim assembly and inner panel water deflector.

   b. Disconnect wire harness connector from regulator motor and/or vacuum hoses from lock actuator.

   c. Remove electrical conduit from door, then remove wire harness and/or vacuum hoses from door through conduit access hole.

3. With door properly supported, remove upper and lower hinge attaching screws from door or center pillar (Fig. 7-118 or 7-119) depending on removal method being used. Then, remove door from body.

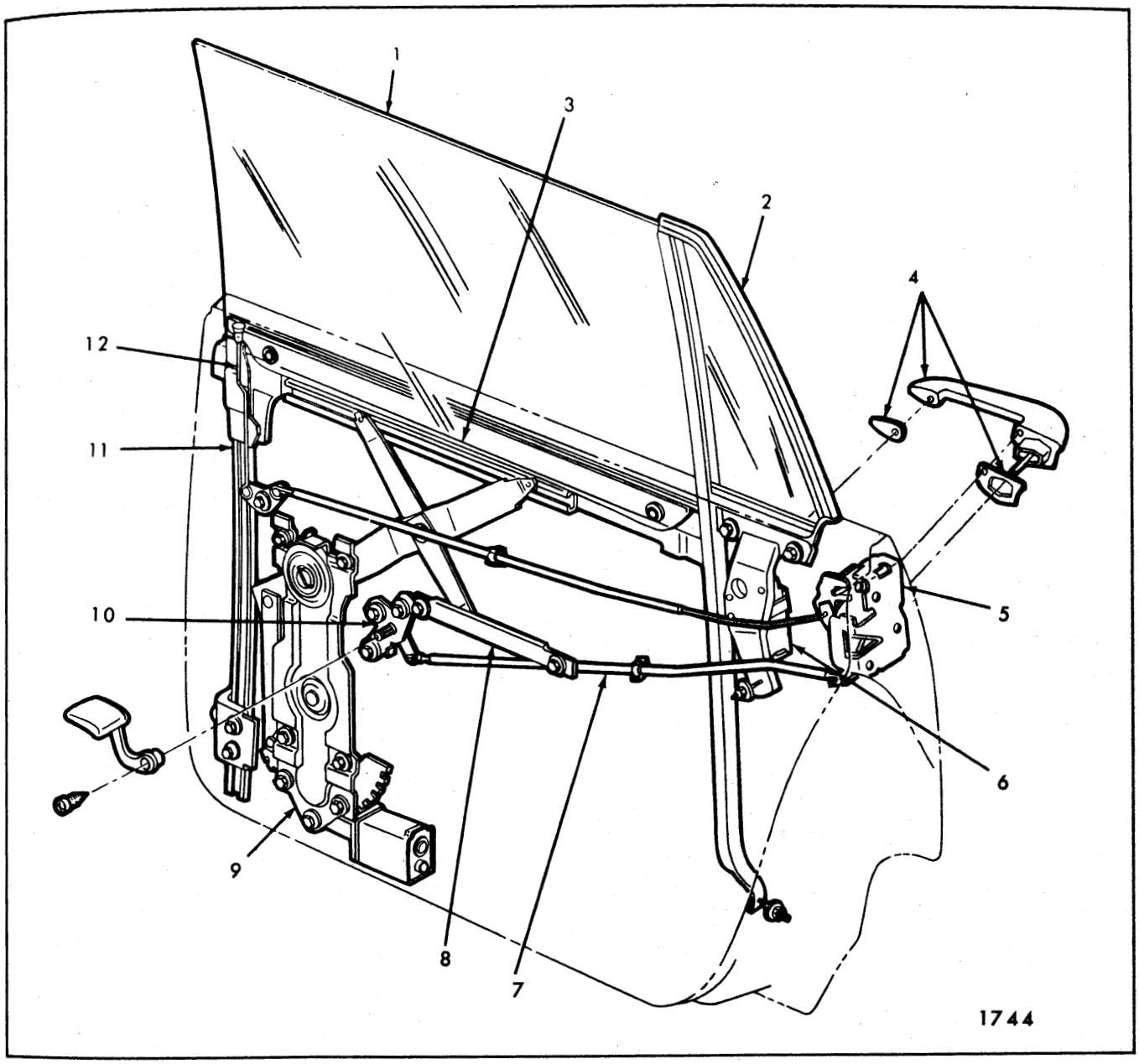

Fig. 7-113—Rear Door Hardware - 68069-68169 Styles

1. Window Assembly
2. Ventilator Assembly
3. Lower Sash Channel Cam
4. Outside Handle and Sealing Gaskets
5. Door Lock
6. Ventilator Regulator (Power Operated)
7. Remote Control Connecting Rod
8. Inner Panel Cam
9. Window Regulator (Power Operated)
10. Remote Control
11. Window Front Guide
12. Inside Locking Rod

Installation

1. Clean off old sealer at hinge attaching areas.
2. Apply a coat of heavy-bodied sealer to surface of hinge that mates with door or center pillar.
3. With aid of a helper, lift door into position and loosely install hinge screws. Align hinges within pencil marks previously made and tighten hinge screws.
4. Install all previously removed parts and check door for proper alignment.

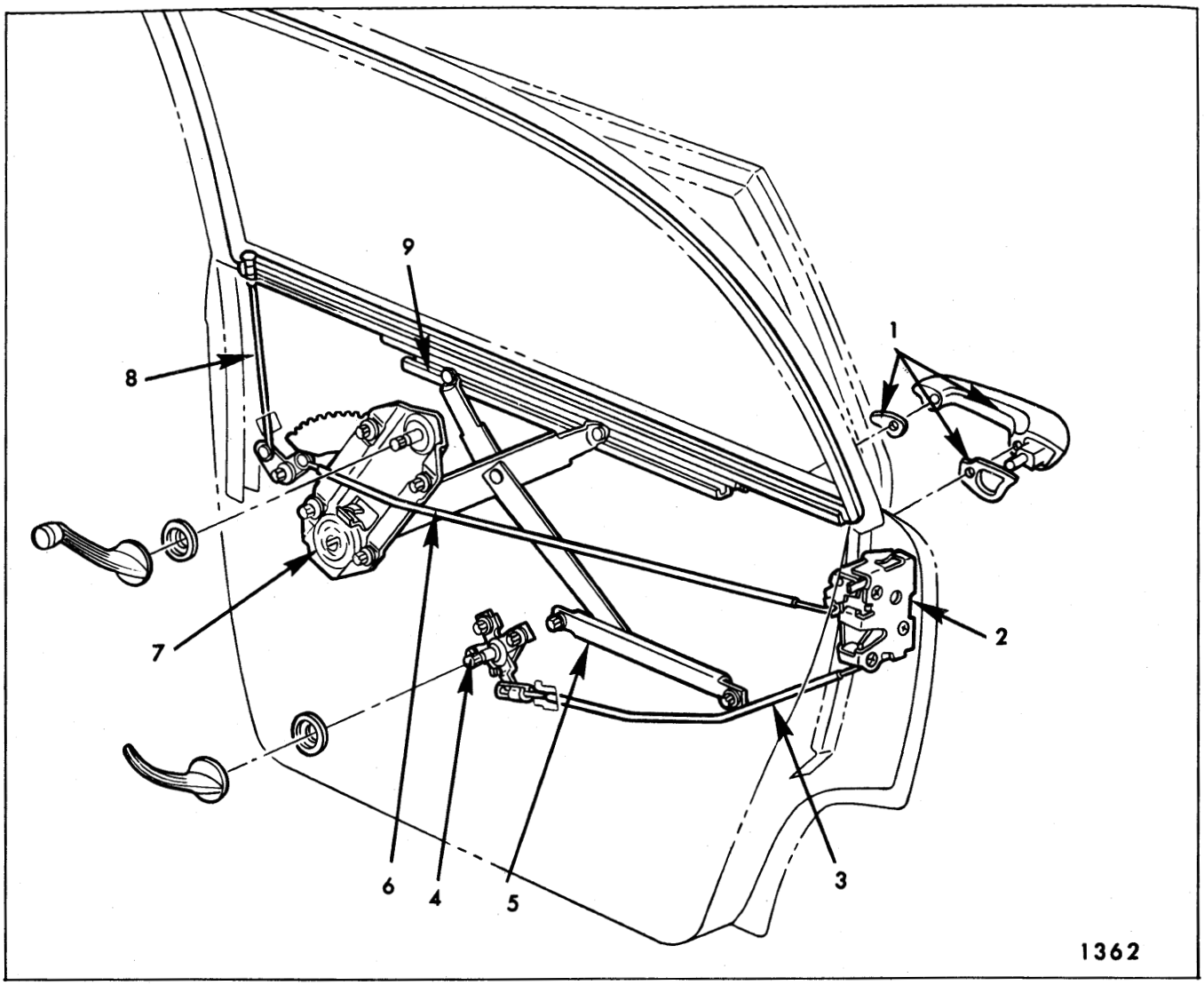

Fig. 7-114—Rear Door Hardware - "A" Closed Styles

1. Outside Handle and Sealing Gaskets
2. Lock Assembly
3. Remote Control Connecting Rod
4. Remote Control
5. Inner Panel Cam
6. Lock to Locking Lever Rod
7. Window Regulator
8. Inside Locking Rod
9. Window Lower Sash Channel Cam

Adjustments

In-or-out and up-or-down adjustment is available at the door side hinge attaching screws. Fore-or-aft and a slight up-or-down adjustment is available at the body side (center pillar) hinge attaching screws except on "X" Styles.

CAUTION: On "B-C & Z" Styles, part or all of the upper hinge is made of die-cast aluminum. Therefore, when making adjustments do not subject hinge to excessive strain that could cause hinge to fail.

REAR DOOR LOCK REMOTE CONTROL

The remote control is secured to the door inner panel by three attaching bolts. On some styles it is mounted on the inboard surface of the door inner panel, and, on others, on the outboard surface. Figure 7-120 identifies "B" style installation, other styles are similar.

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

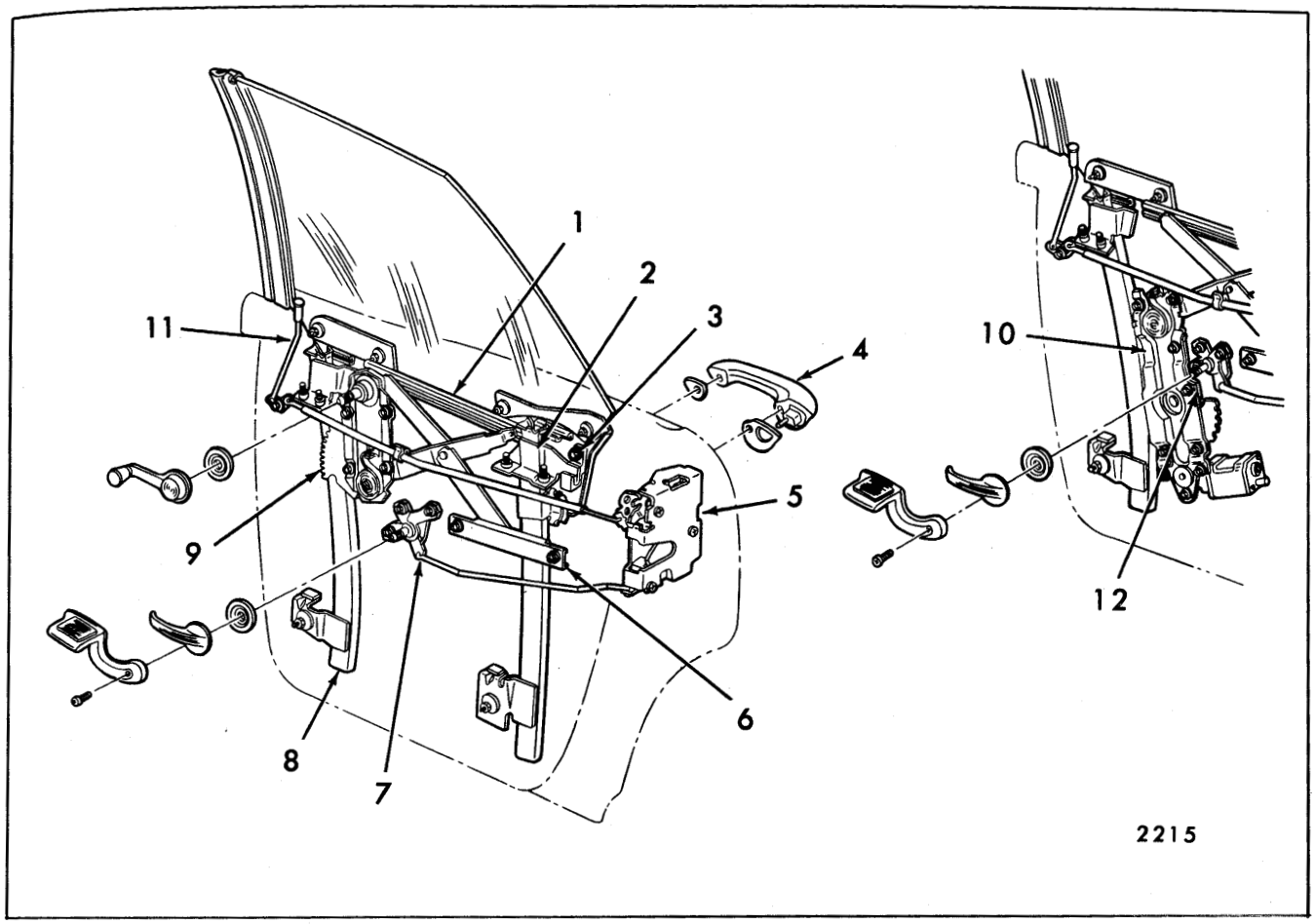

Fig. 7-115—Rear Door Hardware - "A-39" Styles

1. Sash Channel Cam
2. Rear Guide
3. Rear Up-Stop
4. Outside Handle and Sealing Gaskets
5. Lock
6. Inner Panel Cam
7. Remote Control
8. Front Guide
9. Regulator (Manual)
10. Regulator (Electric)
11. Inside Locking Rod
12. Sector Gear Stop

2. Remove remote control attaching bolts (Fig. 7-120).

3. Pivot remote to disengage it from remote control to lock connecting rod and remove remote control from door.

4. To install, reverse removal procedure. Make certain anti-rattle clip on lock connecting rod is properly positioned.

REAR DOOR LOCK ASSEMBLY— "B-35-45 AND 69" STYLES

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

2. Remove door lock remote control.

3. Remove inside locking rod to lock connecting rod link attaching bolt (Fig. 7-120).

4. Remove lock attaching screws (Fig. 7-121 hardtop style shown, closed styles similar).

5. Disengage connecting rods from clips on door lock (for clip disengagement refer to "Door Lock Spring Clips" in Front and Rear door section) and remove lock from door.

6. To install, reverse removal procedure. Check lock for proper operation prior to installing water deflector.

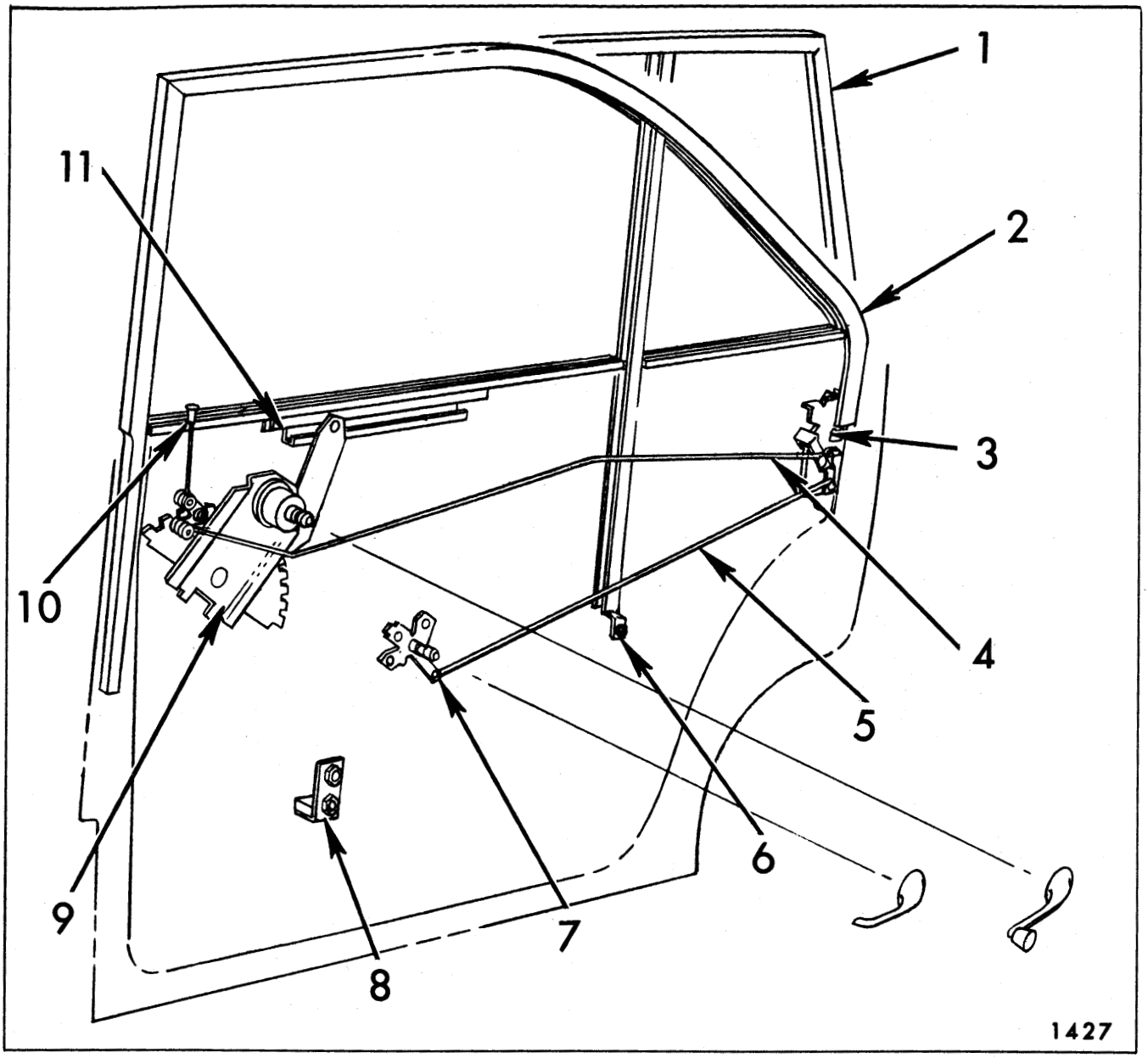

Fig. 7-116—Door Hardware - "X-35 and 69" Styles

1. Upper Frame - "35" Styles
2. Upper Frame - "69" Styles
3. Lock Assembly
4. Lock to Locking Lever Rod
5. Remote Control Connecting Rod
6. Ventilator Division Channel
7. Remote Control Assembly
8. Window Lower Stop
9. Window Regulator Assembly
10. Inside Locking Rod
11. Window Lower Sash Channel Cam

REAR DOOR LOCK ASSEMBLY AND VACUUM ACTUATOR—ALL EXCEPT "B-35-45 AND 69" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Operate glass to full-up position.
3. Working through access hole, disengage lock connecting rods from spring clips on door lock (for clip disengagement refer to "Door Lock Spring Clips" in Front and Rear Door Section).
4. Remove door lock attaching screws (Fig. 7-121) and remove lock from door.

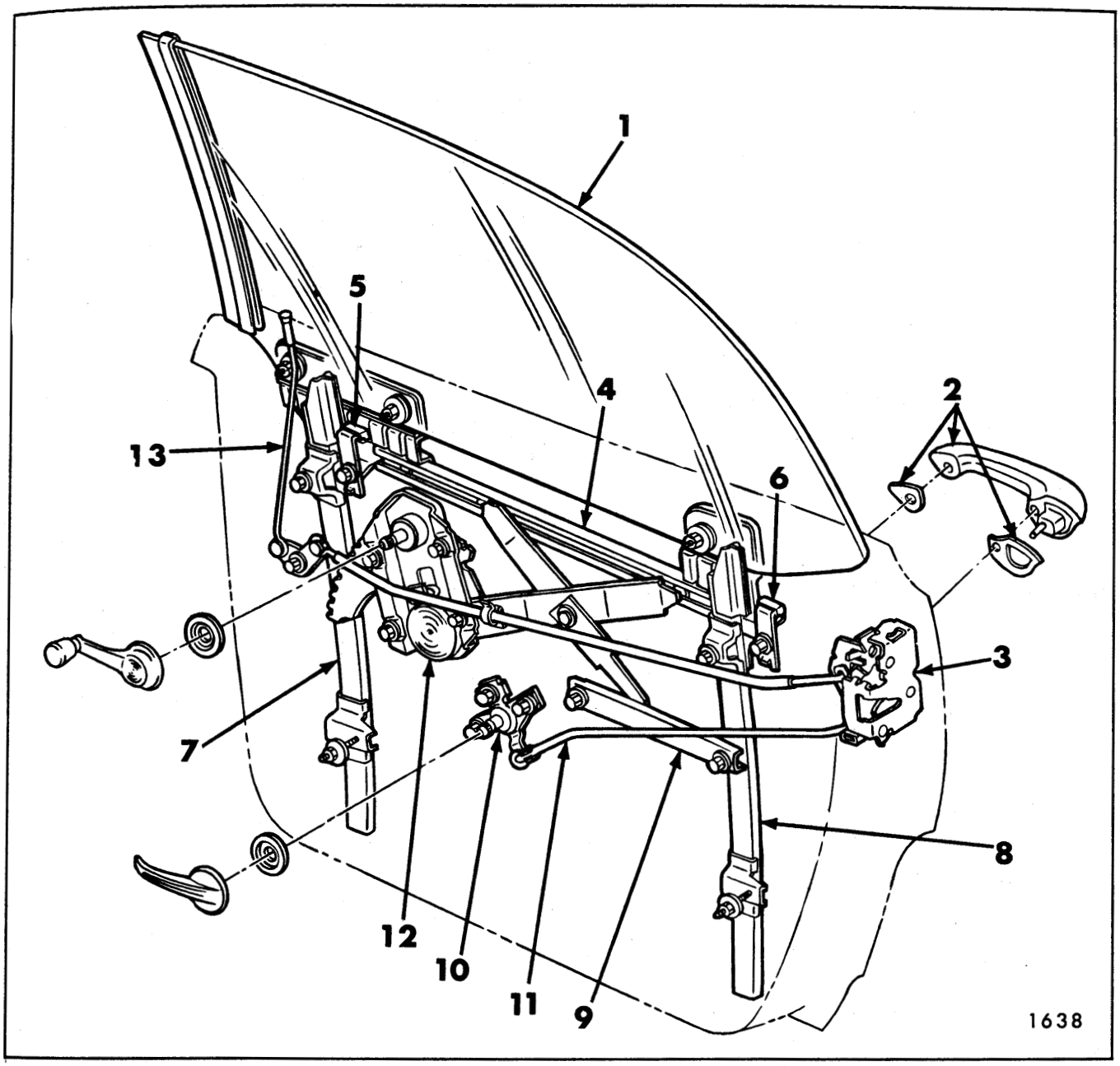

Fig. 7-117—Rear Door Hardware - "Z-39" Styles

1. Window Assembly
2. Outside Handle and Sealing Gaskets
3. Door Lock
4. Lower Sash Channel Cam
5. Front Up-Travel Stop
6. Rear Up-Travel Stop
7. Window Front Guide
8. Window Rear Guide
9. Inner Panel Cam
10. Remote Control
11. Remote Control Connecting Rod
12. Window Regulator
13. Inside Locking Rod

5. To install, reverse removal procedure.

NOTE: On styles equipped with vacuum lock actuators (except 68069-169 Styles), disconnect vacuum hoses from actuator and remove lock and actuator as an assembly. Vacuum actuator is attached to lock with screws which can be removed only in a bench operation (Fig. 7-122).

On 68069-169 Styles, remove vacuum actuator and link assembly screws (Fig. 7-123 and 7-124) and allow vacuum actuator to hang loose during lock removal

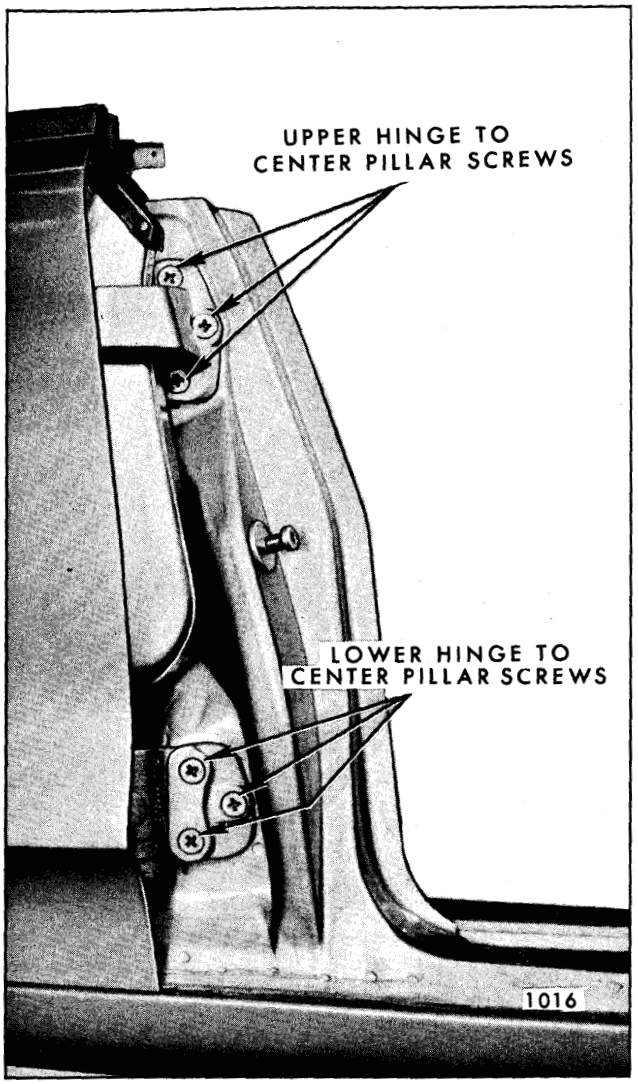

Fig. 118—Rear Door Hinge Attachment - "B" Style Shown - Others Similar

REAR DOOR LOCK VACUUM ACTUATOR—68069 AND 68169 STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Disconnect inside locking rod from door lock spring clip (Refer to Front and Rear Door section under "Door Lock Spring Clips" for disengagement).
3. Remove inside locking to lock connecting rod link bolt (Fig. 7-123).
4. Disconnect vacuum hoses from vacuum actuator.

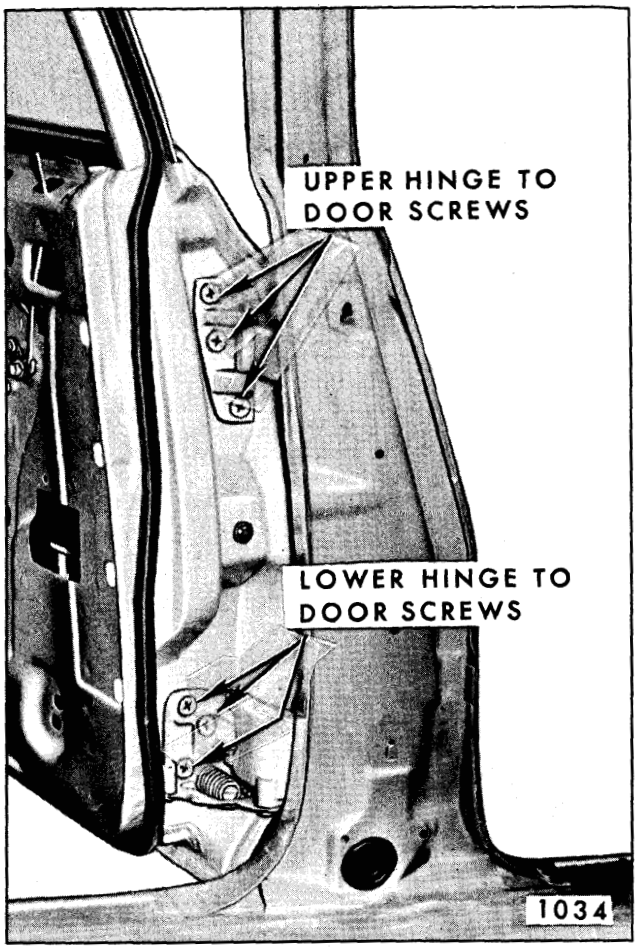

Fig. 7-119—Rear Door Hinge Attachment

5. Remove vacuum actuator and link assembly attaching screws (Fig. 7-123 and 7-124).
6. Pivot (rotate) actuator and linkage assembly, then, pull connecting rod forward through linkage. Remove actuator assembly from door.
7. To install, reverse removal procedure. Check lock operation prior to installing water deflector.

REAR DOOR INNER PANEL CAM—ALL EXCEPT "X" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Remove inner panel cam attaching bolts (Fig. 7-125). Disengage cam from regulator balance arm roller and remove cam from door.

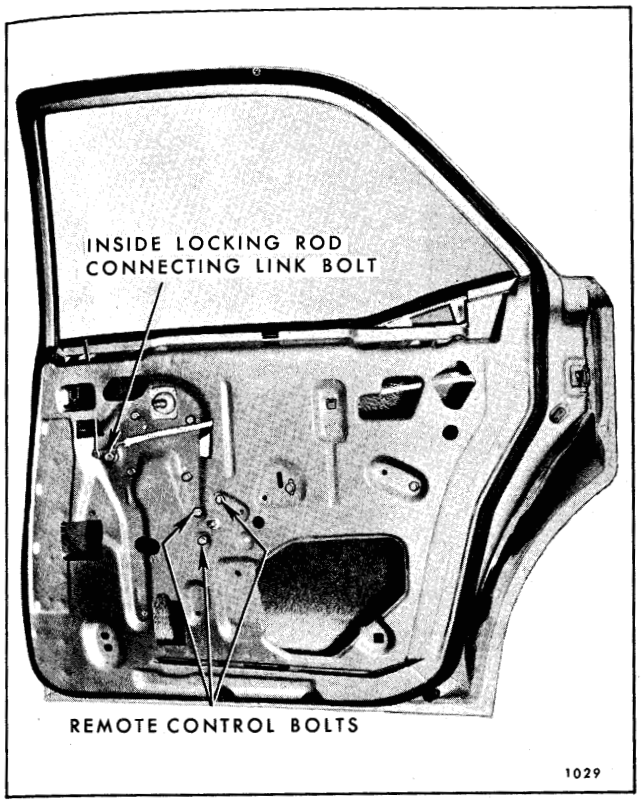

Fig. 7-120—Door Lock Remote Control - "B" Style Shown - Other Similar

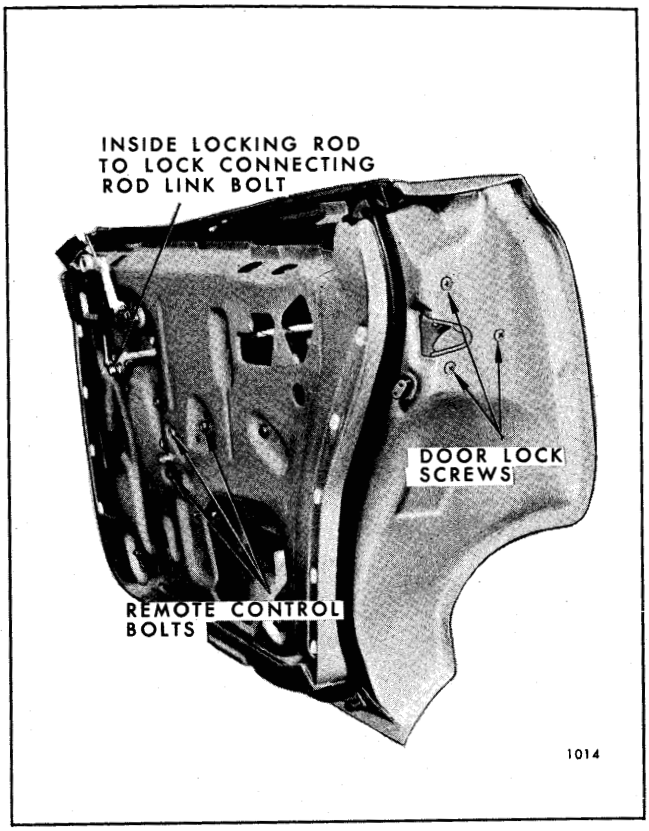

Fig. 7-121—Rear Door Lock Removal - Hardtop Style Shown, Closed Style Similar

3. To install, reverse removal procedure. Adjust front end of cam for proper window operation. Correct adjustment of cam will prevent a rotated (cocked) door window.

WINDOW LOWER SASH CHANNEL CAM—ALL EXCEPT "X" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.

2. Depending on body style and power options, operate window to position specified in Figure 7-125 for "A-B & C" Styles and Figures 7-126 and 7-127 for "Z" Styles.

3. On "Z" Styles, remove sash channel cam front screw first, then, raise window and remove rear screw. Support window and remove cam.

4. On "A-B & C" Styles, remove cam front and rear screws through access holes indicated and remove cam.

5. To install, reverse removal procedure.

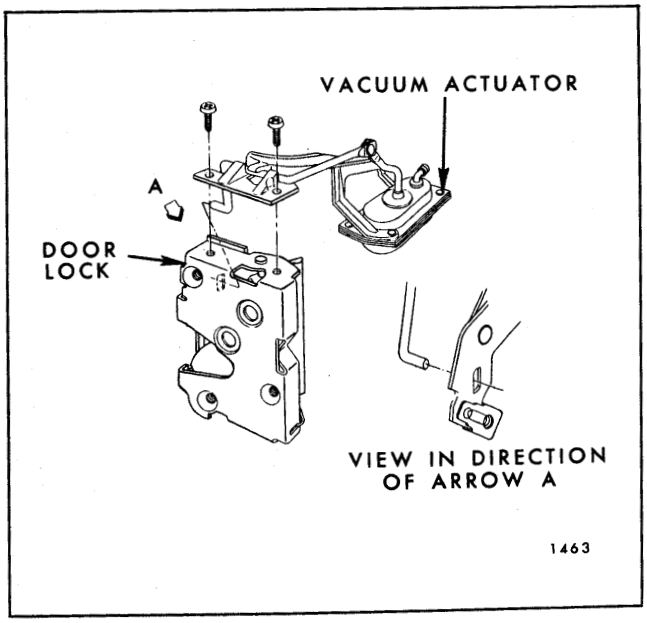

Fig. 7-122—Rear Door Vacuum Lock Actuator

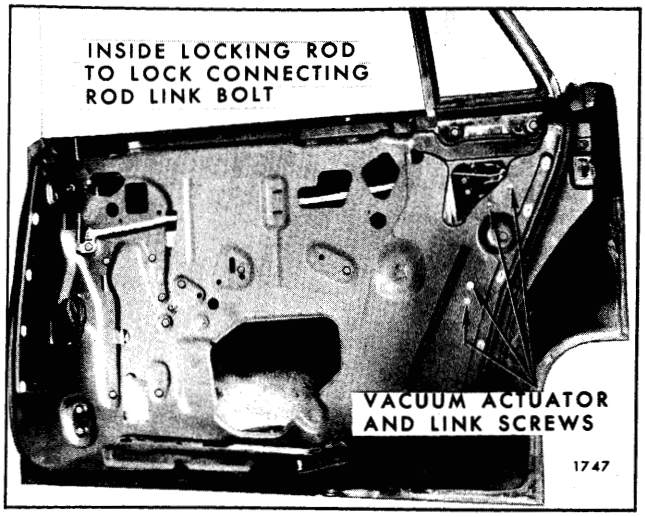

Fig. 7-123—Vacuum Lock Actuator Removal - 68069-68169 Styles

REAR DOOR WINDOW STATIONARY VENTILATOR DIVISION CHANNEL—"X-35 AND 69" STYLES

The stationary ventilator division channel is held into place by one division channel to door upper frame attaching screw and one lower adjusting stud and nut. This assembly acts as a rear door window rear glass run channel and also holds the stationary ventilator window in proper position.

Removal and Installation:

1. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to the lower adjusting stud and nut (see Fig. 7-128).
2. Remove door window lower stop.
3. Remove ventilator division channel lower adjusting stud and nut.
4. Carefully lower door window and remove division channel to door upper frame attaching screw (see Fig. 7-129).
5. Rotate upper section of division channel forward and inboard and remove assembly from door.
6. To install, reverse removal procedure. In or out and fore or aft adjustment of this part is available at the lower adjusting stud and nut only.

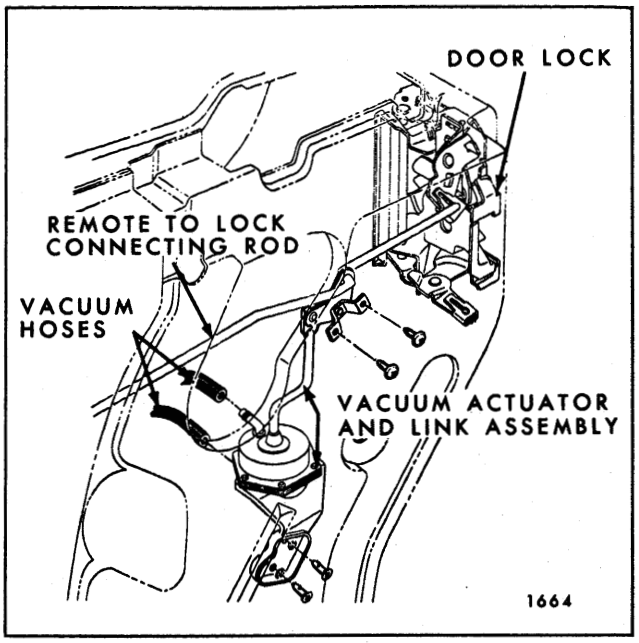

Fig. 7-124—Rear Door Vacuum Lock Actuator and Link Assembly - 68069-68169 Styles

REAR DOOR WINDOW STATIONARY VENTILATOR ASSEMBLY—"X-35 AND 69" STYLES

The rear door stationary ventilator assembly is set within a rubber channel and held into place by pressure of the ventilator division channel.

Removal and Installation:

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove lower stop and carefully lower door window to extreme bottom of door.
3. Remove stationary ventilator division channel (see Fig. 7-128).
4. Pull stationary ventilator window forward and remove from door.
5. To install, reverse removal procedure.

GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES—"A-X & Z" STYLES

In order to remove the inner or outer strip assembly it is necessary to lower the window below its normal flush position with the belt line. The removal procedure varies according to body style.

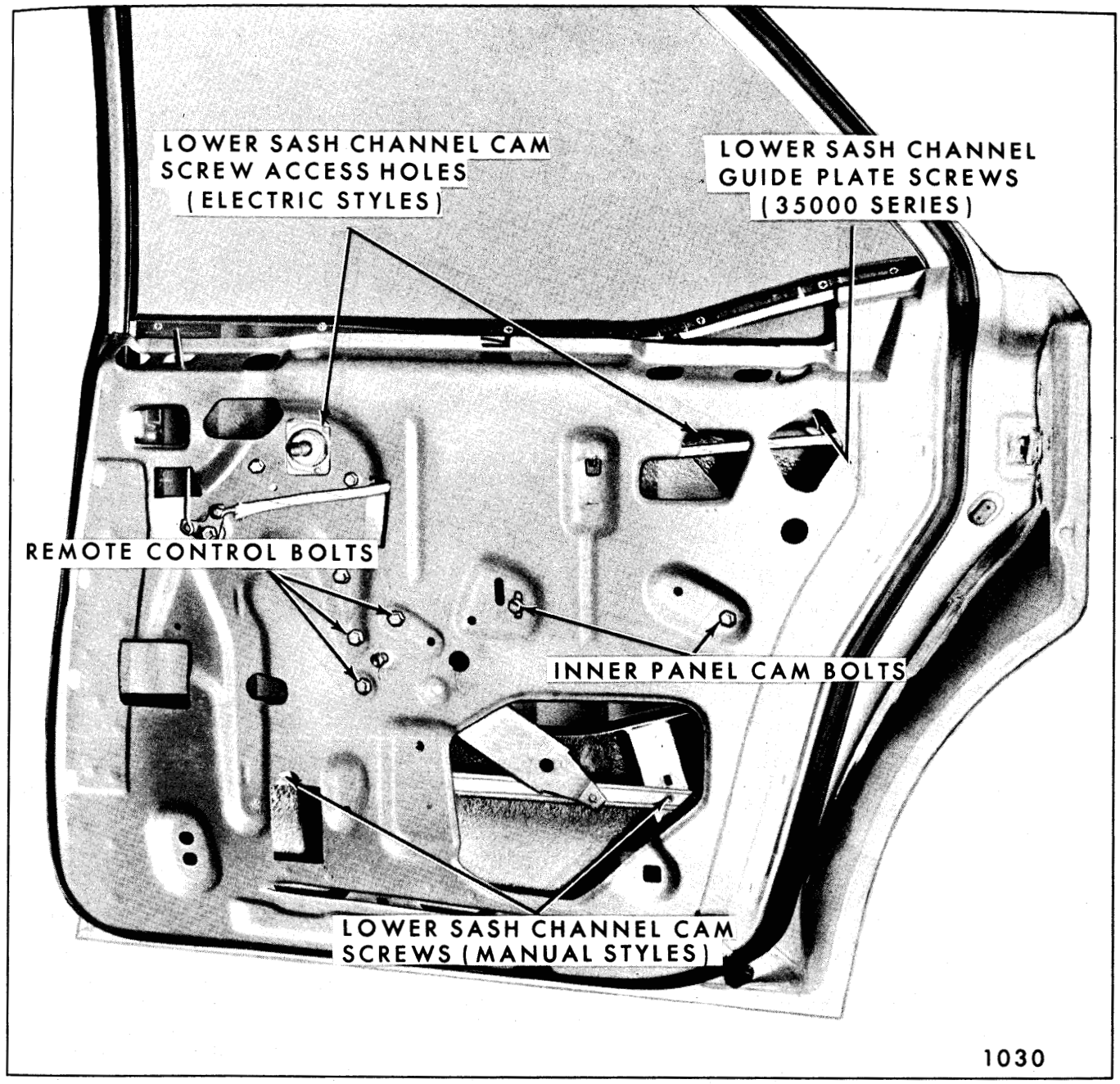

Fig. 7-125—Rear Door Hardware Attachment - "B" Styles Shown - "A" Styles Similar

1. On "Z" Body Styles, remove lower sash channel cam as previously described and lower window below its normal full-down position.

2. On "A" Closed Styles, remove rubber bumper from down-stop. On hardtop styles, loosen sector gear down-stop as specified in "Rear Door Window Adjustments".

3. On "X" Styles, remove bolt-on window lower stop.

When window has been lowered, proceed as follows:

1. Apply cloth-backed tape as protective cover to painted surfaces adjacent to strip assembly(ies) to be removed.

2. Insert a flat-blade tool that is slotted to fit over tang of clip between door panel return flange and strip assembly at clip locations (Fig. 7-130).

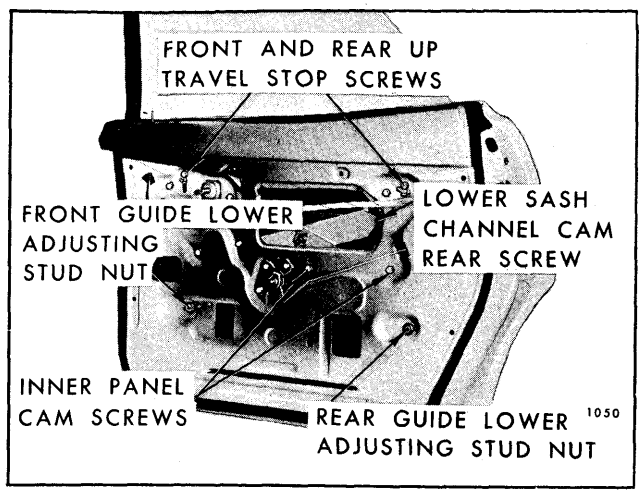

Fig. 7-126—Rear Door Hardware - "Z-39" Styles

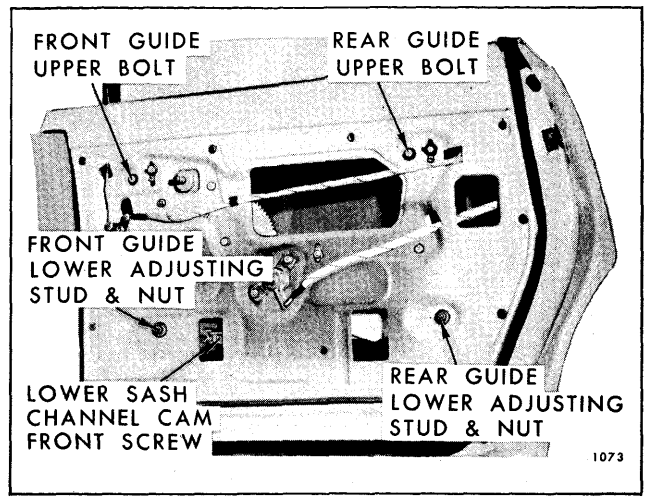

Fig. 7-127—Rear Door Hardware - "Z-39" Styles

3. Carefully pry clips from slots in panel and remove strip assembly.

4. To install, position strip assembly so that all clip tangs start into slots in door panel, then press at each clip location and engage clips.

   Prior to installing strip assembly, reform clip tangs to assure positive retention when installed.

   NOTE: To make strip assembly removal tool, make a 1/4" wide by 3/8" deep slot in a J-2272 headlining inserting tool or equivalent.

GLASS RUN CHANNEL OUTER STRIP ASSEMBLY—"B & C" STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.

2. Remove rubber bumper from door window lower stop and operate window to full-down position.

3. Remove screws securing glass run channel outer strip assembly to door outer panel return flange (Fig. 7-125) and remove strip assembly.

4. To install, reverse removal procedure.

REAR DOOR WINDOW ASSEMBLY—ALL CLOSED STYLES

The rear door window assembly consists of a frameless solid tempered safety plate glass window and a pressed-on lower sash channel assembly. When handling window, make certain glass does not develop edge chips or deep scratches which could cause glass to shatter.

Removal and Installation ("B-35-45 and 69" Styles)

1. Remove door trim assembly and inner panel water deflector.

2. On 35000 Series "69" Styles, lower window approximately 3" down from full-up position. Remove lower sash channel rear guide plate attaching screws through upper rear access hole and remove guide plate (Fig. 7-125).

3. Operate window to position shown in Figure 7-125 and remove lower sash channel cam attaching screws (window slightly down on electric styles and full down on manual).

4. Remove glass run channel front and rear attaching bolts (Fig. 7-131 and 7-132).

5. Pivot window in opening (raise front edge) to disengage front and rear edges of glass from glass run channel, then remove window inboard of door upper frame.

6. To install, reverse removal procedure.

Removal and Installation ("X-35 and 69" Styles)

1. Raise door window; remove door trim assembly and detach inner panel water deflector.

2. Remove rear door window stationary ventilator assembly-division channel and glass.

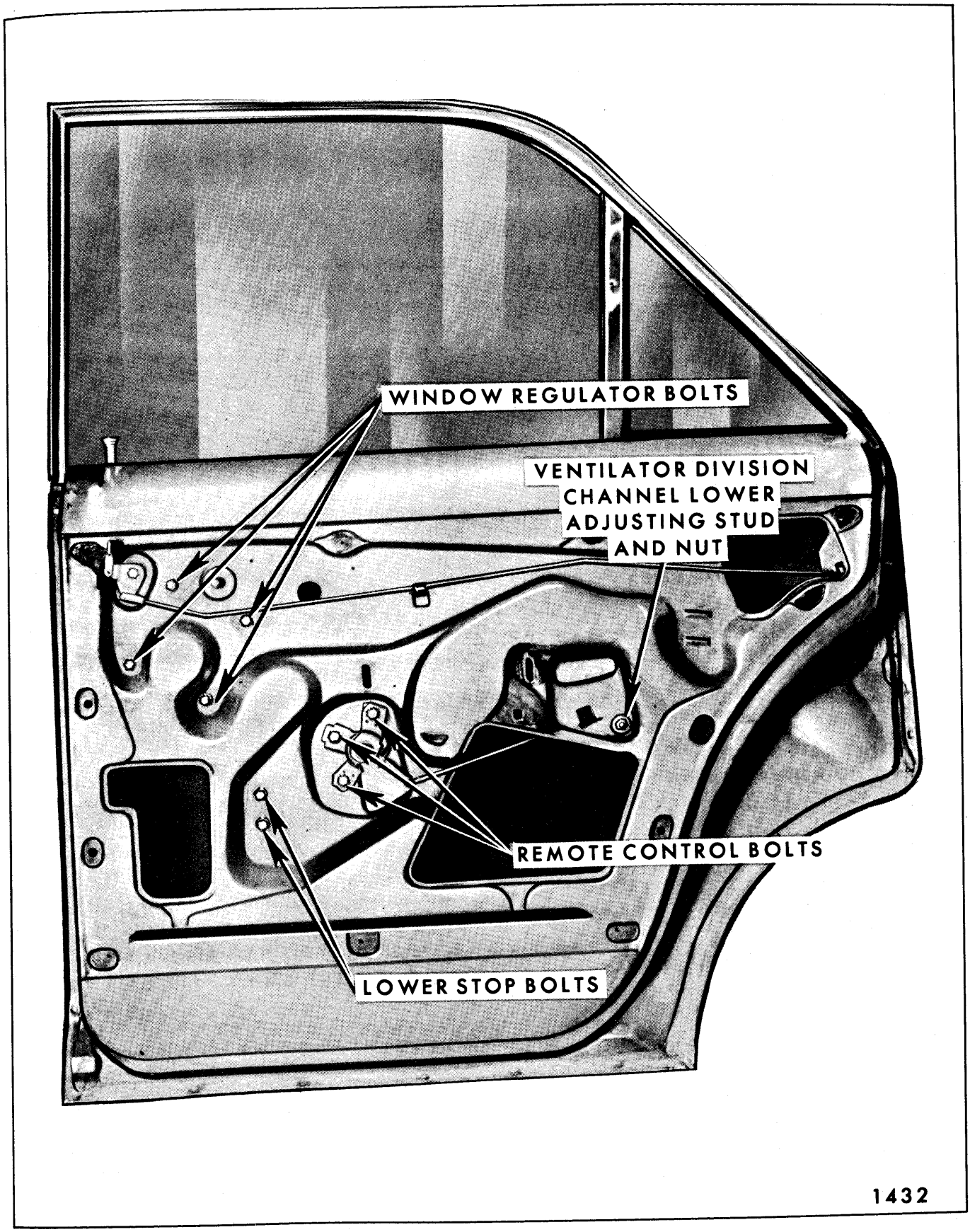

Fig. 7-128—Rear Door Hardware - "X-35 and 69" Styles

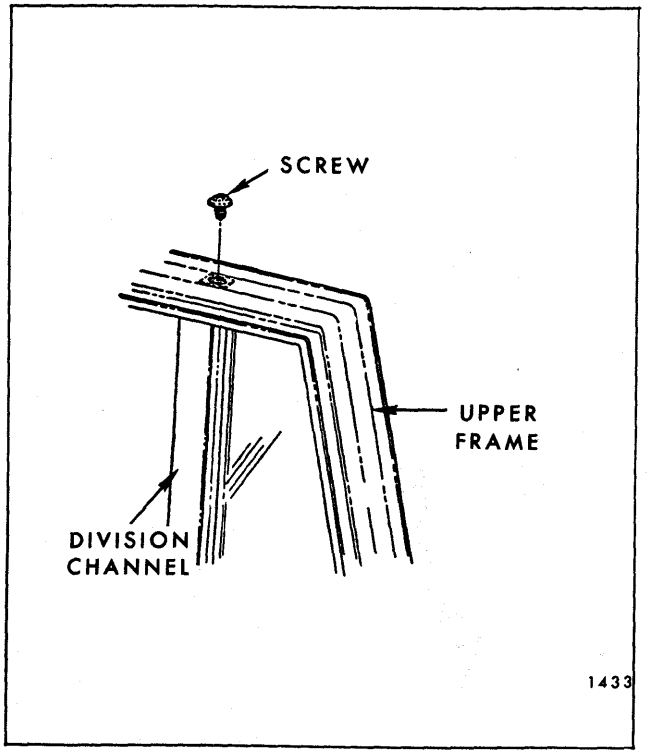

Fig. 7-129—Rear Door Ventilator Attachment - "X" Styles

3. Slide glass rearward to disengage regulator lift arm roller from lower sash channel cam and remove window from door inboard of door window frame (see Fig. 7-128).

4. To install, reverse removal procedure. Prior to installation of water deflector, lubricate sash channel cam with 630AAW Lubriplate or equivalent. Check operation of window and, where required, adjust window assembly as described under "Rear Door Window Adjustments".

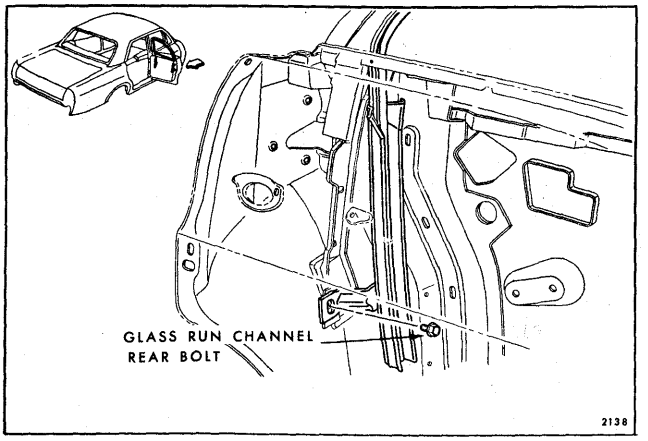

Fig. 7-131—Glass Run Channel Retention - "B" Closed Styles Except 45-46000 Series

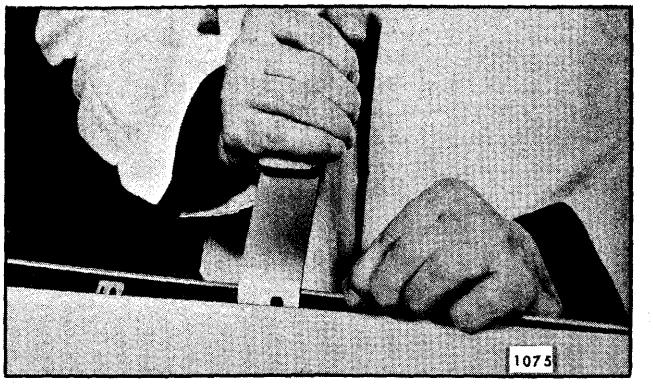

Fig. 7-130—Glass Run Channel Inner-Outer Strip Removal - "A-X & Z" Styles

Removal and Installation ("A-35-55-65 and 69" Styles)

1. Lower door window, remove door trim pad and detach inner panel water deflector.

2. Remove inner panel cam. On styles not equipped with a hang-on trim pad, remove inner belt seal (draft strip).

3. Rotate rear edge of glass downward until front edge is free of door upper frame and lower sash channel cam slides off of regulator balance arm roller.

4. Rotate glass upward and forward to disengage lower sash channel cam from regulator lift arm roller and remove door window outboard of door upper frame (See Fig. 7-133 View A and B).

5. To install, reverse removal procedure.

REAR DOOR WINDOW ASSEMBLY— ALL "B-C 39" STYLES AND ALL "C-69" STYLES EXCEPT 68069 AND 68169

The rear door window assembly consists of a frameless piece of solid tempered safety plate glass and a bolt-on lower sash channel. With this design, the window is removed from the door as an assembly and door glass replacement made in a bench operation.

Figures 7-134 and 7-135 are exploded views of the "39 and 69" Style (except 68069 and 68169 Styles) rear door window assemblies and identify the specific components and their assembly sequence.

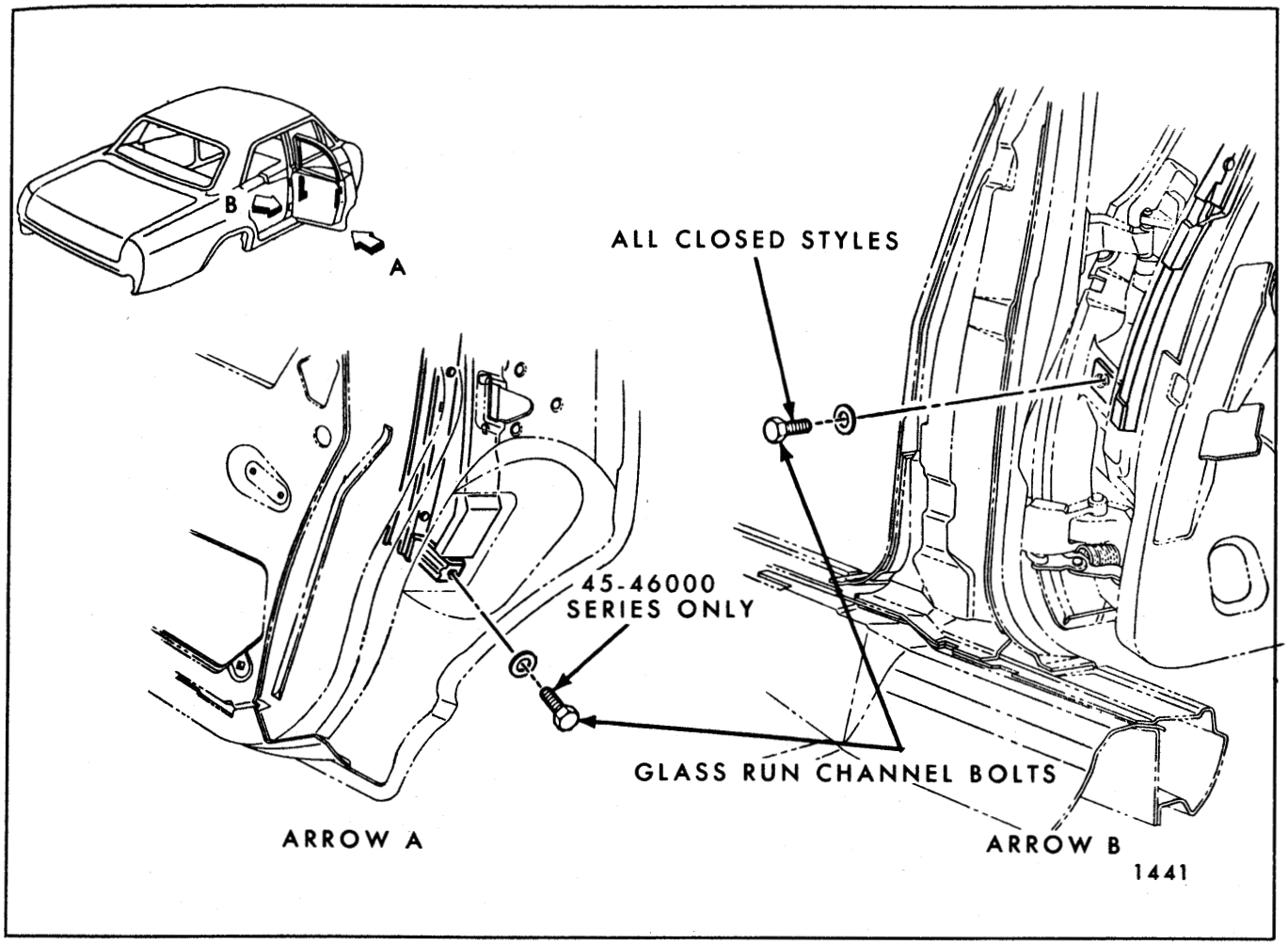

Fig. 7-132—Glass Run Channel Retention - "B" Closed Styles

NOTE: When replacing door glass, replace glass to sash channel spacers. When installing glass to sash channel nuts, torque to 60 inch lbs. (5 foot lbs.).

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.

2. Loosen front and rear upper stop attaching bolts "D & E" (Fig. 7-136) and rotate stops into vertical position (Fig. 7-137).

3. Loosen front and rear guide upper attaching bolts "A & C" and lower adjusting stud nuts "F & H" (Fig. 7-136).

4. Operate window to required position as shown in Figure 7-136 and remove rear lower sash channel cam attaching screws at "B" or "G". (Window almost full-down for manual styles, and almost full-up for electric styles).

NOTE: On electric styles it is necessary to remove electric switch plastic cover from inner panel to gain access to sash channel cam front attaching screw.

5. Lift window and remove it from door at belt line.

6. To install, reverse removal procedure. Adjust guides and wedge plates for proper window operation as described below.

Adjustments

1. To adjust the top of the door glass in-or-out in relation to the side roof rail weatherstrip, loosen the front and rear guide lower adjusting stud nuts "F & H" (Fig. 7-136). Adjust studs in-or-out as required and tighten stud nuts.

2. To adjust window assembly fore-or-aft, or in-or-out, loosen front and rear guide upper at-attaching bolts "A & C" and lower adjusting

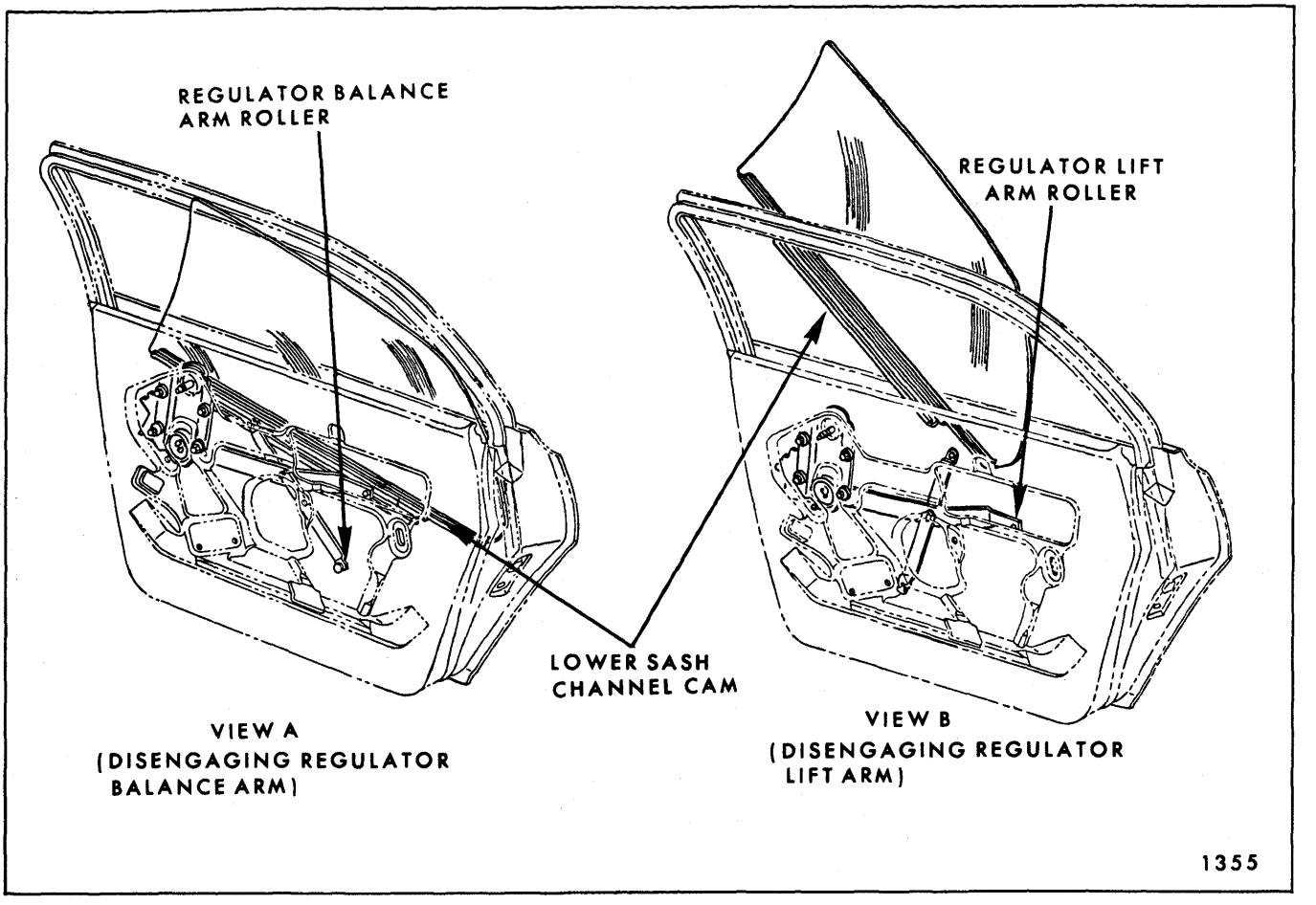

Fig. 7-133—Rear Door Window Removal - "A" Closed Styles

stud nuts "F & H" (Fig. 7-136). Position window as desired and tighten guide attachments.

3. To correct a window that is rotated (cocked) in the opening, loosen inner panel cam attaching bolts "I" (Fig. 7-136). Adjust front of cam up-or-down as required and tighten bolts.

4. To adjust front or rear edge of glass in-or-out, loosen front or rear guide upper attaching bolts "A & C" (Fig. 7-136). Adjust guide in-or-out as required and tighten bolts.

5. To obtain proper up-travel of window for good contact with side roof rail weatherstrip, loosen front and rear upper stop attaching bolts "D & E" (Fig. 7-136). Operate window to desired up position. Then, tighten stop bolts while exerting slight downward force on stops.

NOTE: Upper stop adjustment can correct a slightly rotated (cocked) window, however, for major adjustment of this type, use inner panel cam adjustment.

REAR DOOR WINDOW ASSEMBLY—68069 AND 68169 STYLES

The rear door window assembly consists of a frameless piece of solid tempered safety plate glass and a bolt-on lower sash channel assembly. With this design, the window is removed as an assembly and door glass replacement made in a bench operation.

Figure 7-138 is an exploded view of the rear door window and identifies the various components and their assembly sequence.

NOTE: When replacing door glass, replace glass to sash channel spacers. When installing nuts on glass to sash channel attaching bolts, torque to 60 inch lbs. (5 foot lbs.).

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

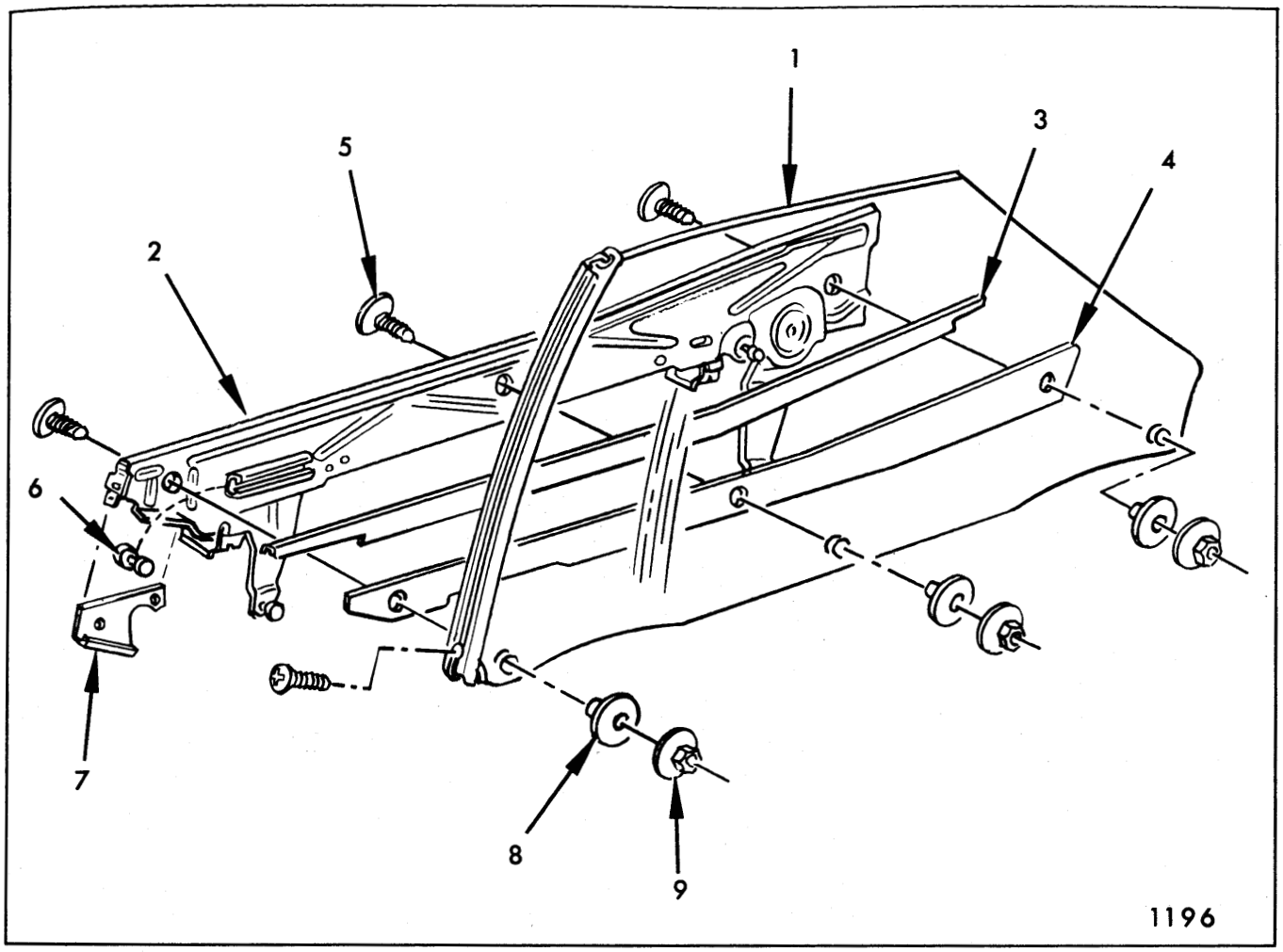

Fig. 7-134—Rear Door Window Assembly - "B & C-39" Styles Shown - "A" Similar

1. Rear Door Window Assembly
2. Lower Sash Channel Assembly
3. Lower Sash Channel Upper Filler
4. Lower Sash Channel Lower Filler
5. Glass to Lower Sash Channel Bolts
6. Lower Sash Channel Front Cam Roller
7. Lower Sash Channel Front Filler Plate
8. Glass to Lower Sash Channel Spacer
9. Glass to Lower Sash Channel Nuts

2. With glass in full-up position, remove front and rear up-travel stop attaching bolts, two bolts on front stop, one on rear (Figs. 7-139 and 7-140).

3. Lower glass approximately 2" and remove lower sash channel cam attaching screws (Fig. 7-141).

4. While supporting glass by pressing it rearward into ventilator division channel, remove lower sash channel to guide plate attaching nuts (Fig. 7-140).

5. Disengage lower sash channel from weld-on studs on sash channel guide plate and remove window assembly from door.

6. To install, reverse removal procedure. Adjust window for proper operation and alignment as described under "Rear Door Window and/or Ventilator Adjustments".

REAR DOOR VENTILATOR REGULATOR—68069 AND 68169 STYLES

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector. Operate door glass to full-up position.

2. Disconnect ventilator regulator wire harness connector at regulator motor.

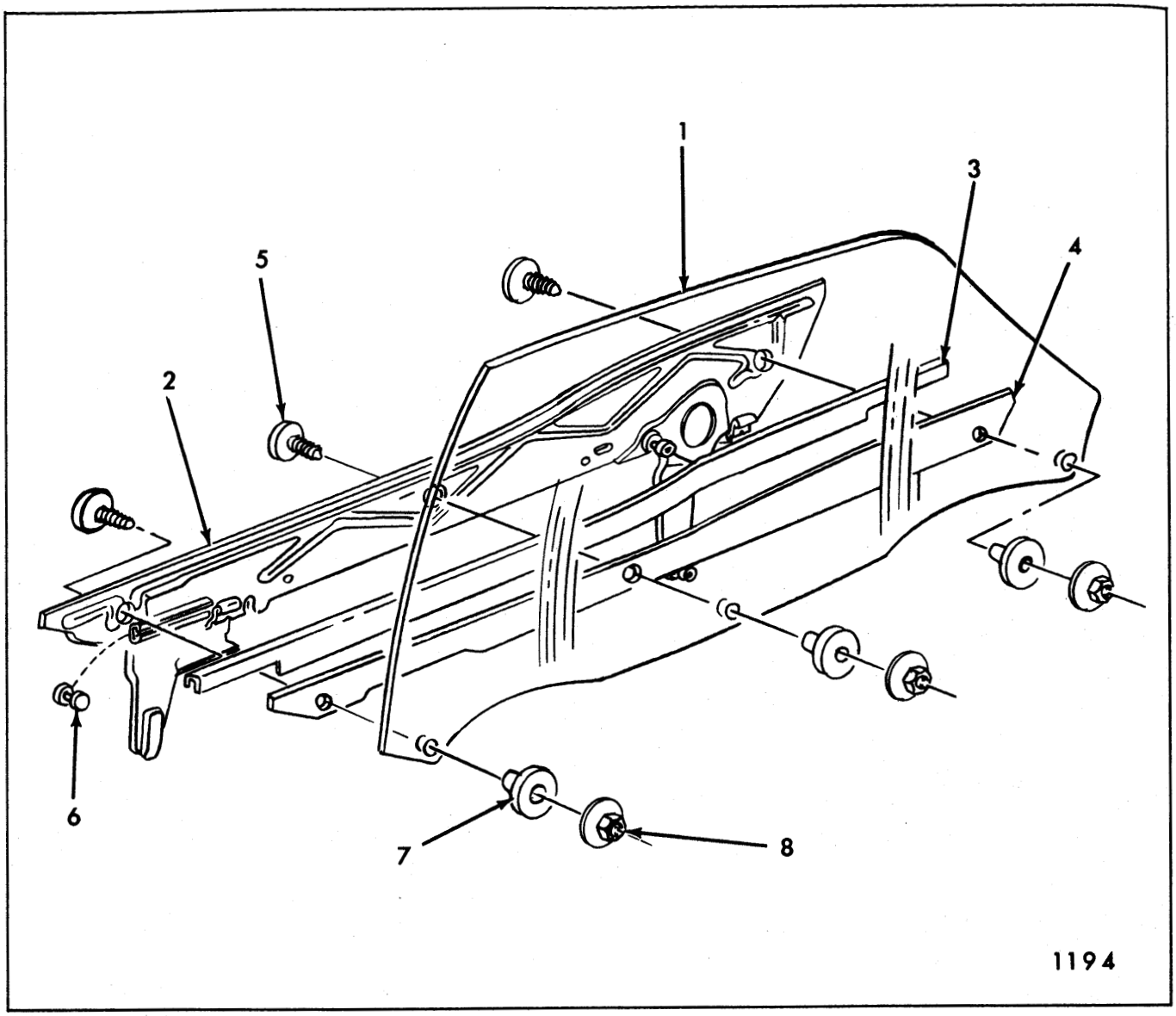

Fig. 7-135—Rear Door Window Assembly "C-69" Styles Except 68069-68169 Styles

1. Rear Door Window Assembly
2. Lower Sash Channel Assembly
3. Lower Sash Channel Upper Outer Filler
4. Lower Sash Channel Lower Outer Filler
5. Glass to Lower Sash Channel Bolts
6. Lower Sash Channel Front Cam Roller
7. Glass to Lower Sash Channel Spacers
8. Glass to Lower Sash Channel Nuts

3. Remove ventilator "T-shaft" to regulator attaching bolt (Fig. 7-142).

4. Remove ventilator regulator to ventilator frame attaching bolts (Fig. 7-142).

5. Disengage ventilator regulator from ventilator "T-shaft" and remove regulator through access hole.

6. To install, reverse removal procedure.

REAR DOOR VENTILATOR ASSEMBLY—68069 AND 68169 STYLES

Removal and Installation:

1. Remove rear door ventilator regulator as previously described.

2. Remove ventilator lower frame and ventilator division channel lower adjusting stud nuts (Fig. 7-142).

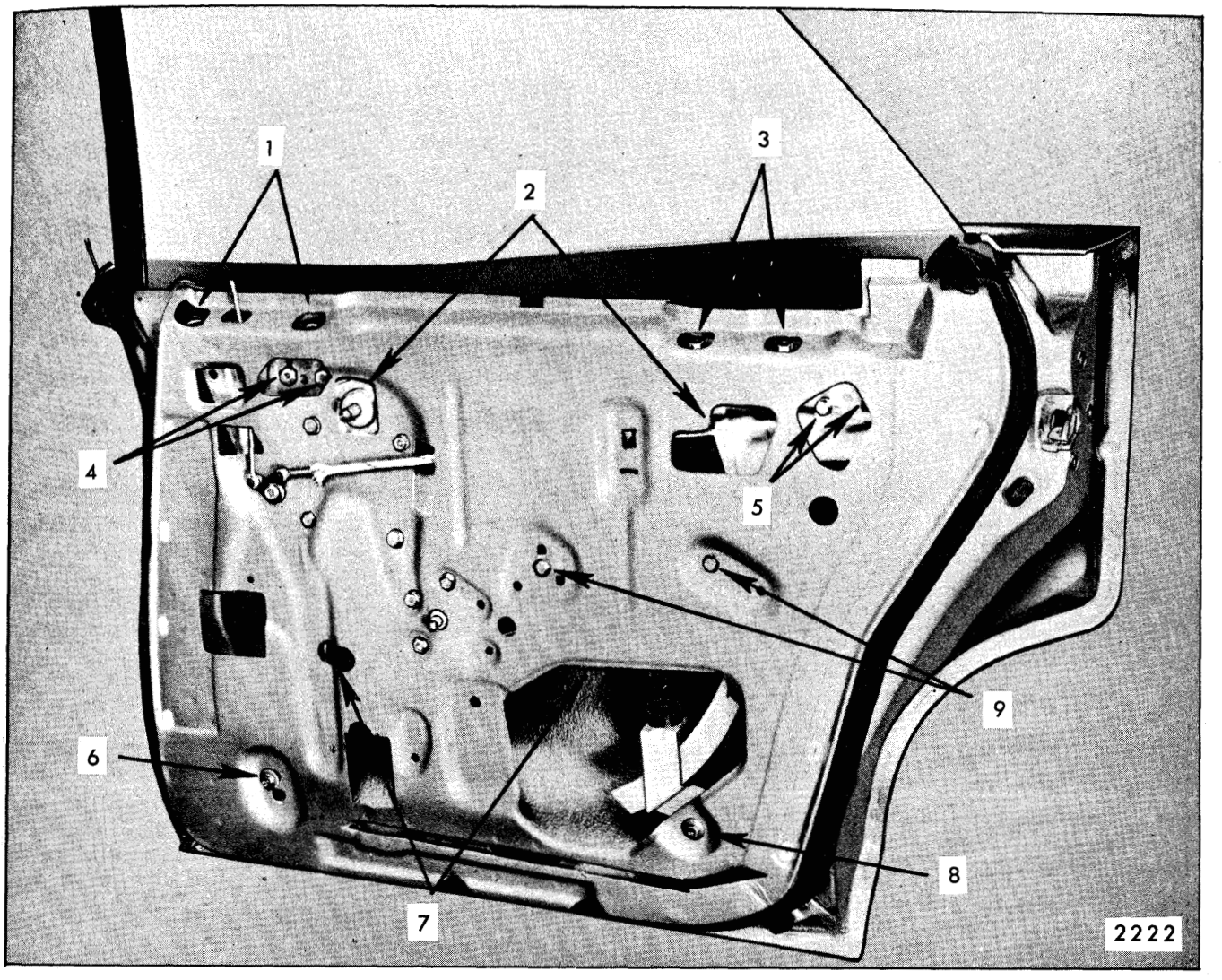

Fig. 7-136—Rear Door Hardware Attachment "B-C 39 and C-69" Except 68069-68169 Styles

1. Front Guide Upper Bolts
2. Lower Sash Channel Cam Screw Access Holes (Electric)
3. Rear Guide Upper Bolts
4. Front Upper Stop Bolts
5. Rear Upper Stop Bolts
6. Front Guide Lower Adjusting Stud Nut
7. Lower Sash Channel Cam Screw Access Holes (Manual)
8. Rear Guide Lower Adjusting Stud Nut
9. Inner Panel Cam Bolts

3. Remove ventilator lower frame attaching bolts (Fig. 7-142).

4. Lift ventilator assembly up approximately 3" and remove ventilator lower frame adjusting stud through access hole.

5. Lift ventilator upward and remove from door. Twist ventilator 90° to remove division channel lower adjusting stud at belt.

6. To install, reverse removal procedures. Adjust ventilator for proper operation and alignment as described under "Rear Door Window and/or Ventilator Adjustments".

Ventilator Disassembly

1. Remove ventilator assembly from door as previously described.
2. Remove ventilator division pillar glass run channel strip assembly by disengaging lower end and pulling strip upward (Fig. 7-143).
3. Remove division pillar to ventilator stationary frame attaching screws (Fig. 7-143).

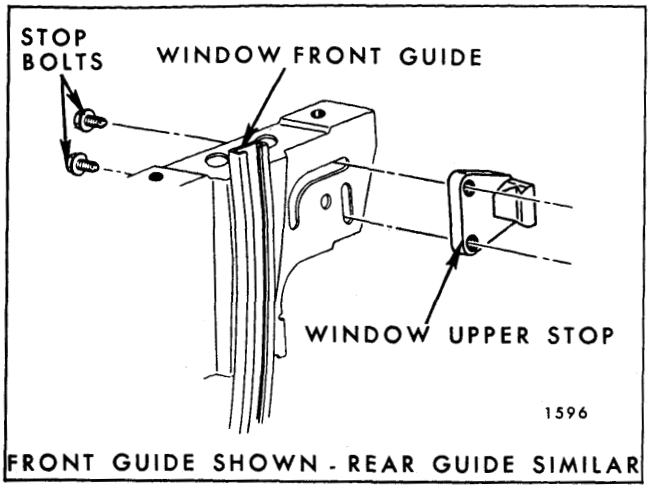

Fig. 7-137—Window Upper Stop Attachment

4. Remove division pillar to ventilator upper frame (and rubber bumper) attaching screw (Fig. 7-143) and separate ventilator frame and divison channel.

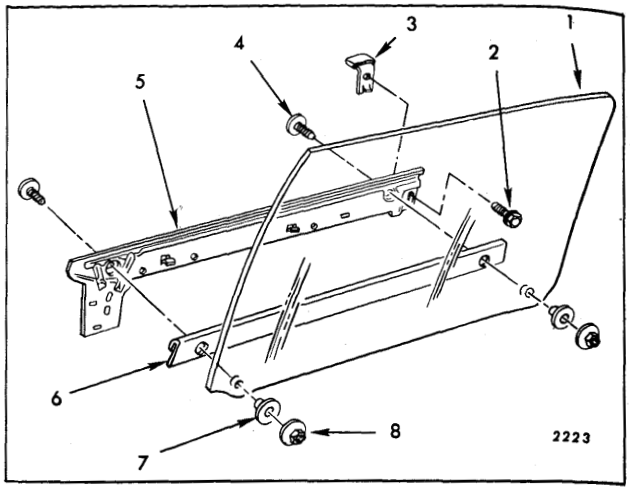

Fig. 7-138—Rear Door Window Assembly - 68069-68169 Style

1. Door Window Glass
2. Rear Stop to Sash Channel Screw
3. Window Rear Stop
4. Glass to Lower Sash Channel Bolt
5. Window Lower Sash Channel
6. Window Lower Sash Outer Filler
7. Glass to Lower Sash Channel Spacer
8. Glass to Lower Sash Channel Nut

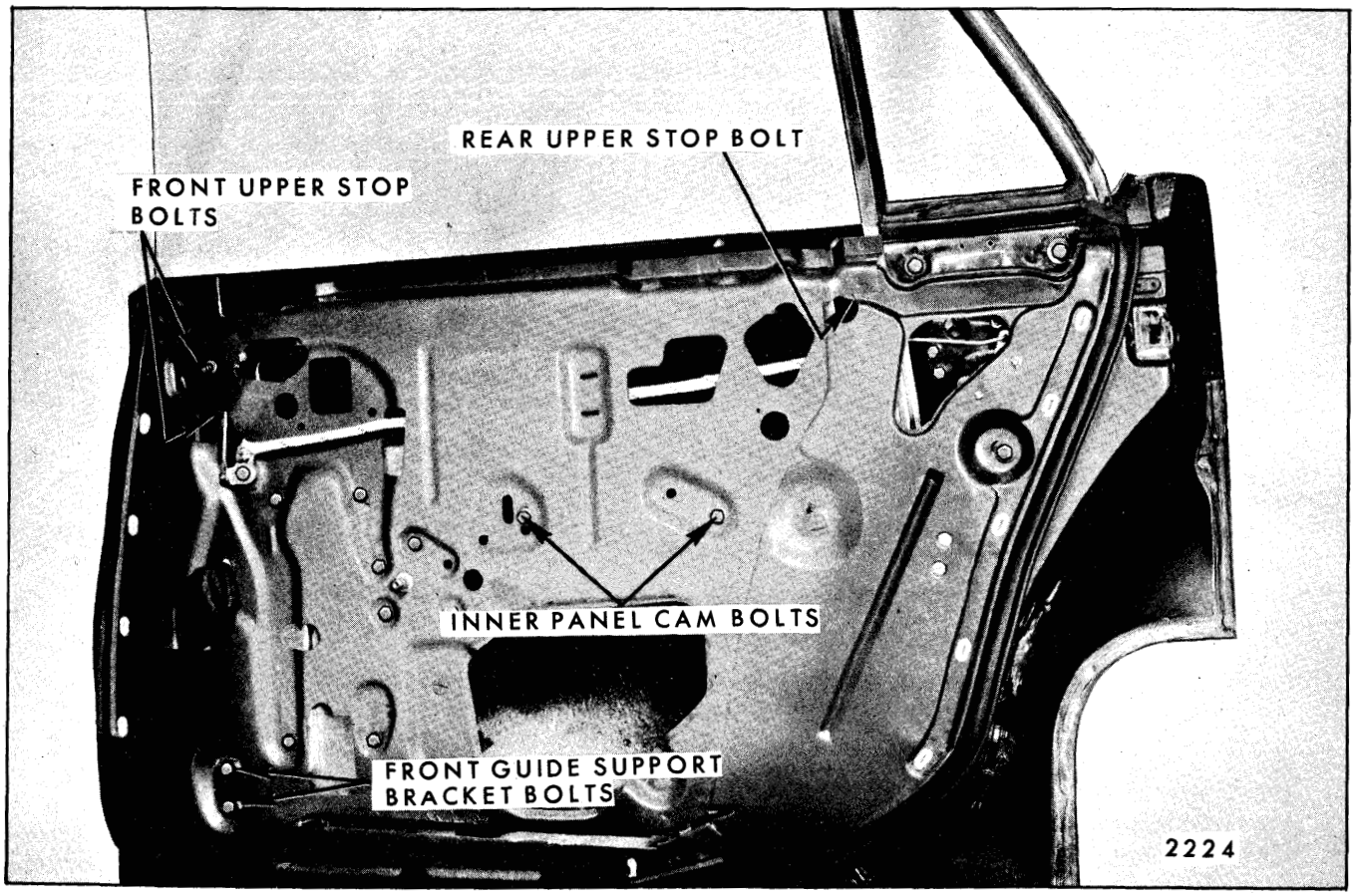

Fig. 7-139—Rear Door Window Removal - 68069-68169 Styles

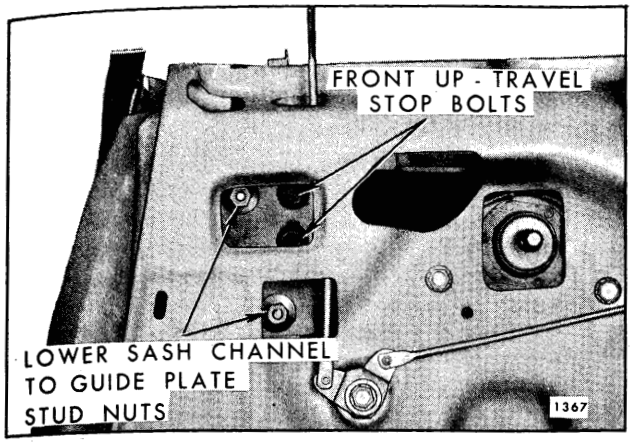

Fig. 7-140—Rear Door Window Removal - 68069-68169 Styles

5. Put ventilator window 90° to ventilator frame. Using hand pressure only, force ventilator downward to disengage ventilator upper pivot from ventilator frame.

6. Straighten division pillar weatherstrip bend-over tabs (Fig. 7-143) and remove weatherstrip.

7. Pull ventilator weatherstrip from front frame. Three clips retain it down front edge and it may be necessary to pry between weather-strip and frame at these locations.

8. To assemble, reverse removal procedure.

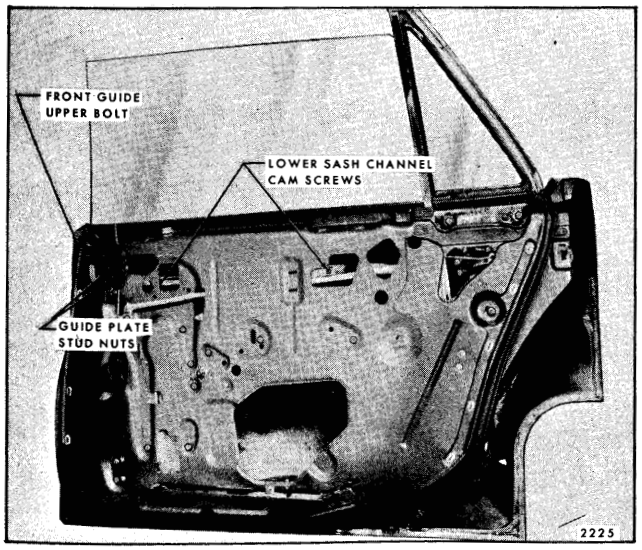

Fig. 7-141—Rear Door Window Removal - 68069-68169 Styles

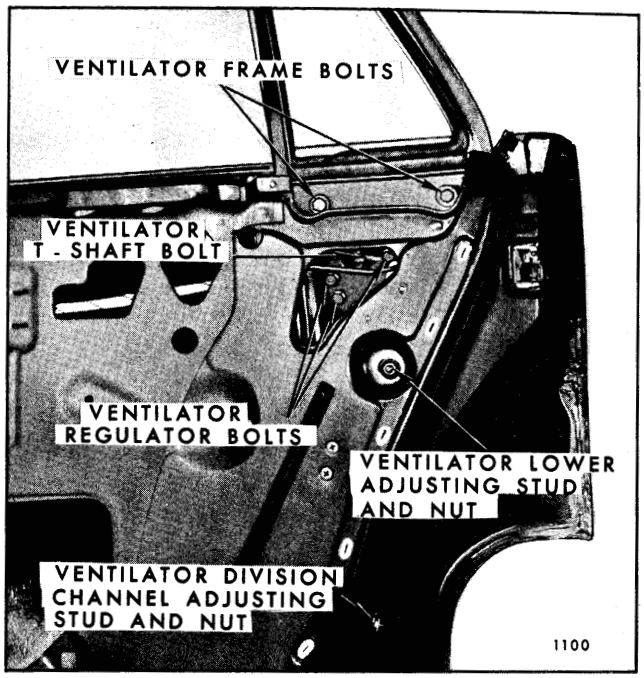

Fig. 7-142—Rear Door Ventilator Attachments - 68069-68169 Styles

NOTE: The above procedure covers complete disassembly of the ventilator, which in most cases, will not be required. When servicing a ventilator assembly, select only those steps necessary.

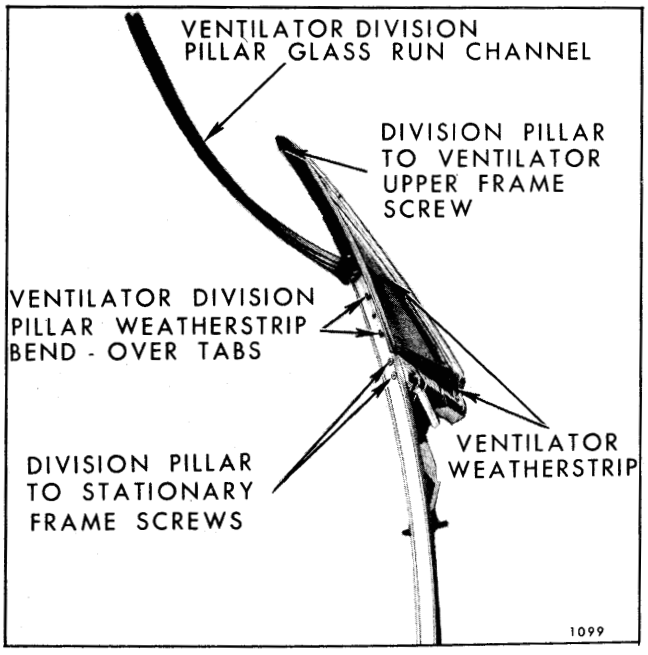

Fig. 7-143—Rear Door Ventilator Assembly - 68069-68169 Styles

REAR DOOR WINDOW AND/OR VENTILATOR ADJUSTMENTS— 68069 AND 68169 STYLES

1. To adjust door window or ventilator assembly in-or-out in relation to side roof rail, adjustment is provided at the following attachments:

   a. Door window front guide to support assembly attaching bolt (Fig. 7-144). Access to this bolt can be gained through large access hole.

   b. Front guide upper attaching bolt (Fig. 7-141).

   c. Ventilator division channel and ventilator frame lower adjusting studs (Fig. 7-142).

These attachments can be adjusted in combination or individually to achieve desired adjustment. When adjusting ventilator adjusting studs, loosen ventilator lower frame attaching bolts prior to adjustment, then, retighten after adjustment.

2. To adjust door window fore-or-aft, loosen guide plate to lower sash channel attaching nuts (Fig. 7-140). Adjust window fore-or-aft as required and tighten nuts.

3. To adjust ventilator fore-or-aft, or to rotate it in opening, loosen ventilator attaching bolts, adjusting stud nuts, and "T-shaft" attaching bolt (Fig. 7-142). Position ventilator as required and tighten loosened attachments.

4. To correct a rotated (cocked) window, loosen inner panel cam attaching bolts (Fig. 7-139). Adjust cam as required and tighten bolts.

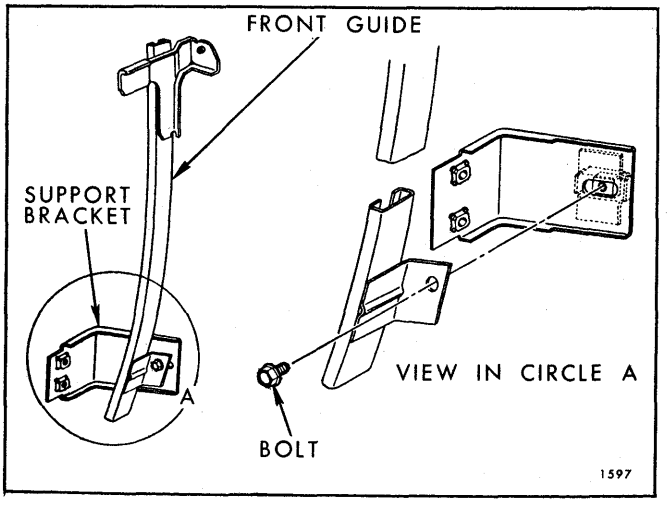

Fig. 7-144—Front Guide to Support Bracket Attachment - 68069-68169 Styles

5. To obtain proper up-travel of door window, loosen front and rear up-travel stop attaching bolts (Fig. 7-139). Operate window to desired position. While exerting upeard force on stops, tighten stop attaching bolts.

6. To eliminate a bind between ventilator division channel and front guide (improve operation of a properly adjusted door window), loosen front guide support bracket attaching bolts and front guide to support bracket attaching bolt (Figs. 7-139 and 7-144). Operate glass to full-down position and tighten support bolts. Operate glass 1/3 up from down position and tighten guide to support attaching bolt.

REAR DOOR WINDOW ASSEMBLY— "A-39" STYLES

Removal and Installation:

1. Raise door window, remove trim pad and detach inner panel water deflector.

2. On styles not equipped with a hang-on door trim pad, remove inner and outer belt seal (draft strip).

3. Remove front and rear glass up-stops and window lower sash channel cam.

4. Pull rear door glass straight up and remove assembly from door (see Fig. 7-145).

   NOTE: The window regulator lift and balance arms are designed with a slight outboard spring. When removing glass, pull regulator

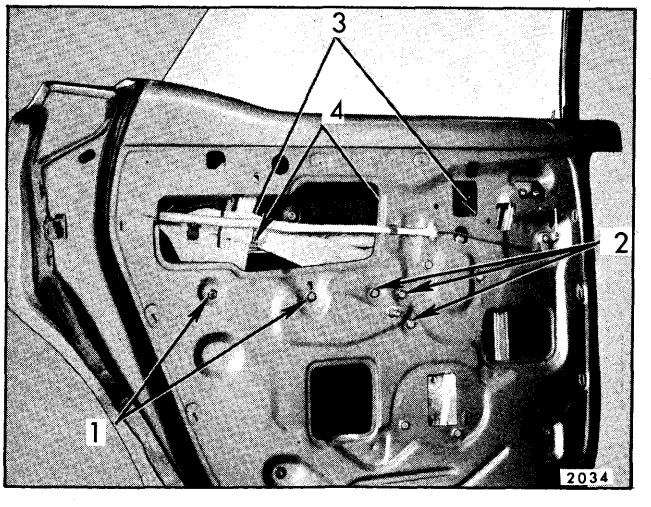

Fig. 7-145—Rear Door Hardware - "A-39" Style

1. Inner Panel Cam Bolts
2. Remote Control Bolts
3. Front and Rear Up-Stop Bolts (Hidden)
4. Sash Channel Cam Screws

arms toward inner panel to ease removal procedure. If necessary, the front and rear guides can be loosened at upper attaching points (see Fig. 7-145).

5. To install, reverse removal procedures.

Adjustments

The up-travel and sector gear stops can be adjusted to control height of door glass; the inner panel cam is adjustable at the rear attaching bolt to correct a rotated window; the upper attaching bolts of front and rear guides provide fore or aft and in or out movement of glass. The lower adjusting studs can be positioned to tip the window inboard or outboard at top edge of glass to maintain proper seal and to ease window operation. (see Fig. 7-145).

The rear door is equipped with five separate window stops, consisting of: two up-travel stops (front and rear), two down travel stops (front and rear) and one regulator sector gear stop (used to additionally restrict up-travel of glass). The sector gear stop attaching point varies with the type of window operation. On manually operated windows, the sector gear stop is attached to the front guide. On electrically operated windows, this stop is attached to the regulator back plate. In either case, regulator sector gear stops are secured by a single attaching bolt and are adjustable.

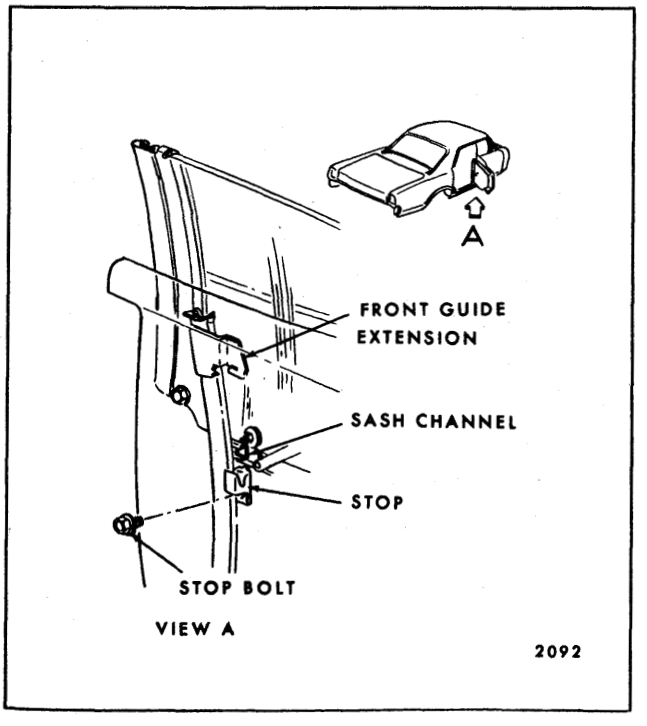

Fig. 7-146—Window Front Up-Stop - "A-39" Style

The two down-travel stops are integral components of either the front or rear window guides and are not separately adjustable.

The two up-travel stops (front and rear) are attached to the window lower sash channel. When glass is raised, the stop comes in contact with a designed extension of either the front or rear guide. Stops are secured by a single bolt and are adjustable up or down. See Figure 7-146 for front up-stop attachment and Figure 7-147 for rear up-stop attachment.

REAR DOOR WINDOW ASSEMBLY— "Z-39"

The rear door window assembly consists of a solid tempered safety plate glass window and a bolted-on lower sash channel. With this design, the door glass and sash channel are removed from the door as a unit and glass replacements made in bench operations. Figure 7-148 is an exploded view of the rear door window assembly and identifies the various components and their assembly sequence. When assembling window, torque sash channel nuts to 60 inch pounds (5 foot pounds). Also, replace glass to sash channel spacers.

CAUTION: Use care to make certain that glass does not strike hard objects. Edge chips or deep scratches can cause solid tempered safety plate glass to shatter. Do not attempt to drill or grind glass.

Removal and Installation:

1. Remove window lower sash channel cam and both inner and outer glass run channel strip assemblies as previously described.

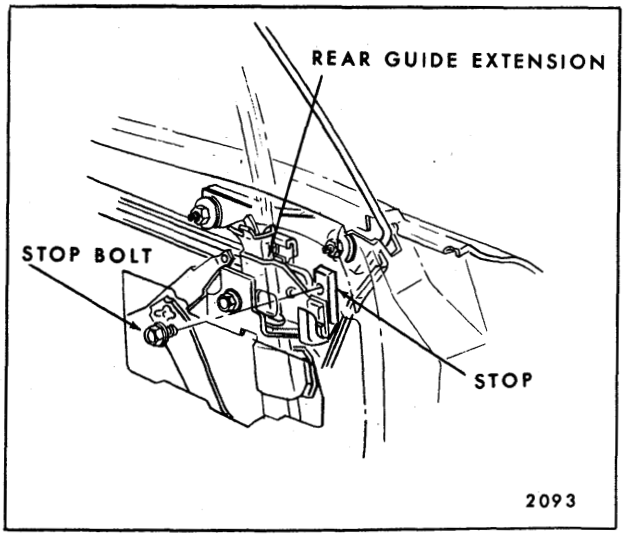

Fig. 7-147—Window Rear Up-Stop - "A-39" Style

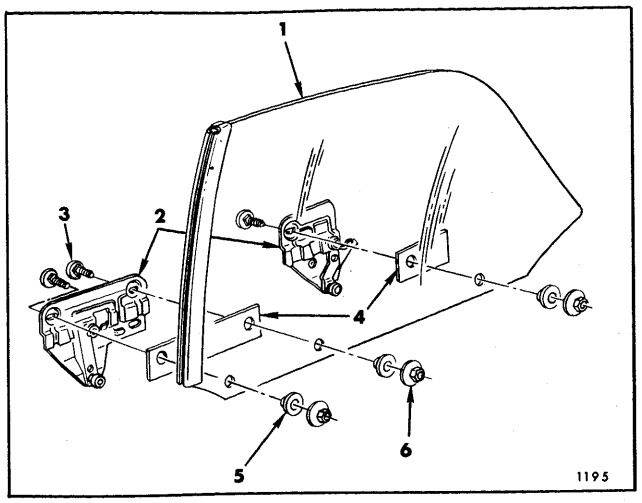

Fig. 7-148—Rear Door Window Assembly - "Z-39" Style

1. Rear Door Window Glass
2. Window Lower Sash Channel Support Assemblies, Front and Rear
3. Glass to Lower Sash Channel Support Attaching Bolts
4. Glass to Lower Sash Channel Support Filler, Front and Rear
5. Glass to Lower Sash Channel Support Spacers
6. Glass to Lower Sash Channel Support Nuts

2. Loosen attaching screws for both front and rear up-travel stops and turn stops 45° into slots provided in inner panel.

3. Raise window and remove it from door at belt line.

4. To install, reverse removal procedure. Adjust window for proper alignment as described in "Rear Door Window Adjustments".

REAR DOOR WINDOW ADJUSTMENTS

To make any rear door window adjustments, it is first necessary to remove the trim pad and water deflector.

1. To adjust the top of the window in or out in relation to the side roof rail, loosen the front and rear guide lower adjusting stud nuts (Fig. 7-149). Adjust studs in or out as required, then tighten stud nuts.

2. To adjust up-travel of window, loosen front and rear up-travel stop attaching screws (Fig. 7-149). Adjust window to desired position; then, while exerting a slight downward force on stops, tighten attaching screws.

3. To rotate glass in the opening (raise or lower upper front corner of glass), loosen inner panel cam attaching screws (Fig. 7-149). Adjust front of cam up or down as required, then tighten attaching screws.

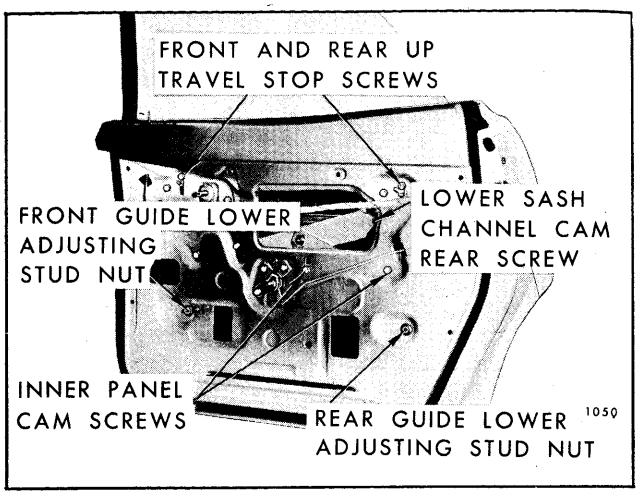

Fig. 7-149—Rear Door Hardware - "Z-39" Styles

4. To relieve a bind within the guides or to adjust window assembly fore or aft, loosen front and rear guide upper attaching screws and lower adjusting stud nuts. With window in full up position and properly aligned with front door window, tighten upper attaching screws. Lower window to full down position and tighten adjusting stud nuts.

REAR DOOR WINDOW GLASS RUN CHANNEL ALL "B-35-45 AND 69" STYLES

Removal and Installation:

1. Remove rear door window assembly as previously described.

2. Remove glass run channel front attaching bolt located on door hinge pillar (arrow "B", Fig. 7-150).

3. On 45-46000 Series, remove glass run channel rear lower attaching bolt located on door lock pillar (arrow "A", Fig. 7-150).

4. On all "B & C" Closed Styles except 45-46000 Series, remove glass run channel rear attaching bolt (Fig. 7-151).

5. Pull run channel into window opening to disengage run channel clips from door upper frame and remove run channel from door.

6. To install, reverse removal procedure. Prior to installation, apply a continuous bead of caulking compound to door upper frame from belt line to belt line to effect a weathertight

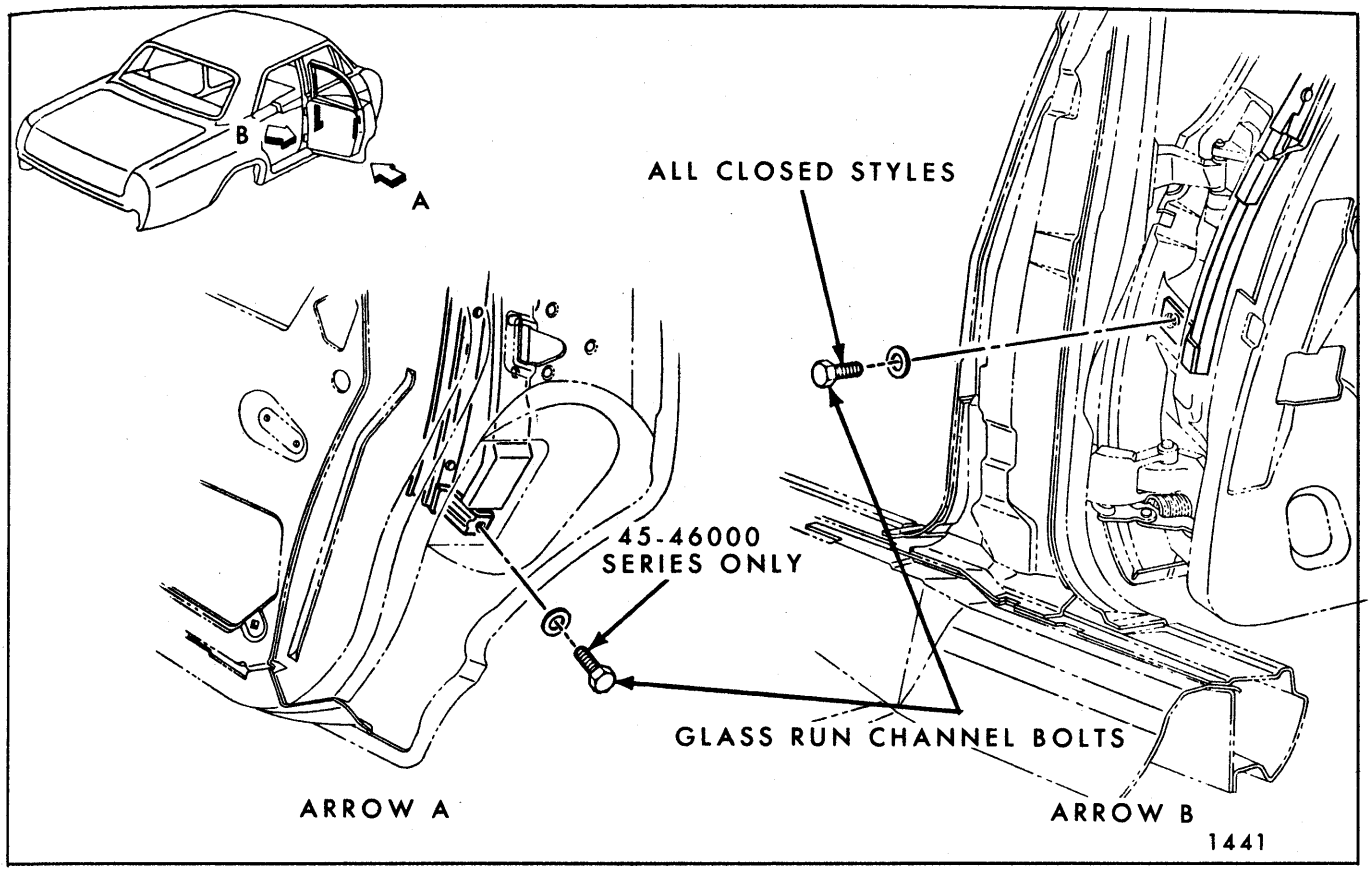

Fig. 7-150—Glass Run Channel Retention "B" Closed Styles

seal between door frame and run channel. If preferred, sealer can be applied to run channel rather than door upper frame.

REAR DOOR WINDOW GLASS RUN CHANNEL—"A-35-55-65 AND 69" STYLES

A soft "flocked" run channel is used for all rear door windows.

Removal and Installation:

1. Remove rear door trim pad and detach inner panel water deflector.

2. Remove rear door window.

3. With finger pressure, squeeze run channel together and gently pull run channel out of rear door upper frame and remove from door. (See Fig. 7-152).

4. To install, reverse removal procedure.

IMPORTANT: The glass run channel must be properly seated and conform to shape of door upper frame to achieve proper glass operation.

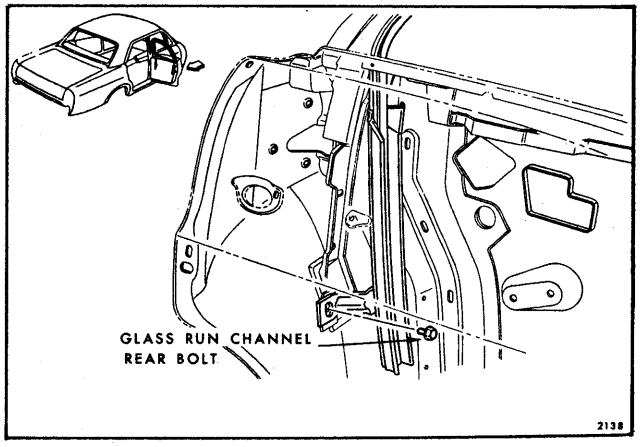

Fig. 7-151—Glass Run Channel Retention - "B" Closed Styles Except 45-46000 Series

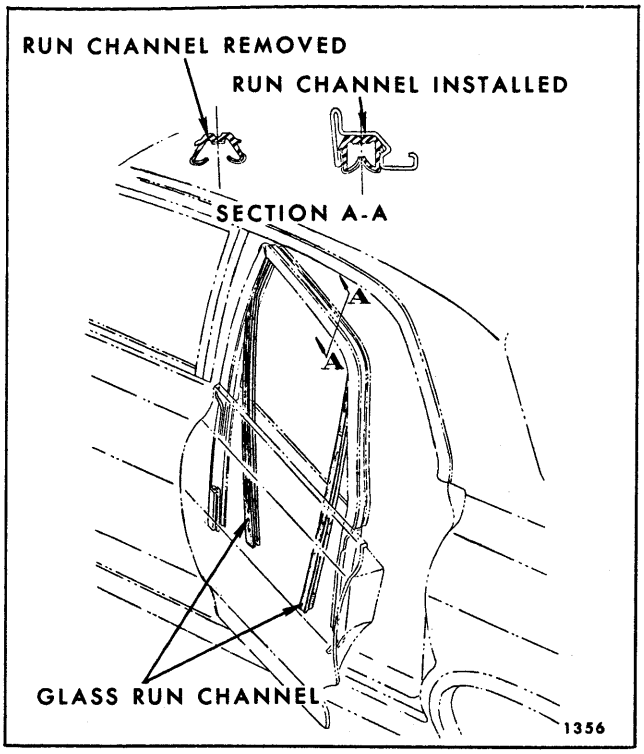

Fig. 7-152—Glass Run Channel - "A" Closed Styles

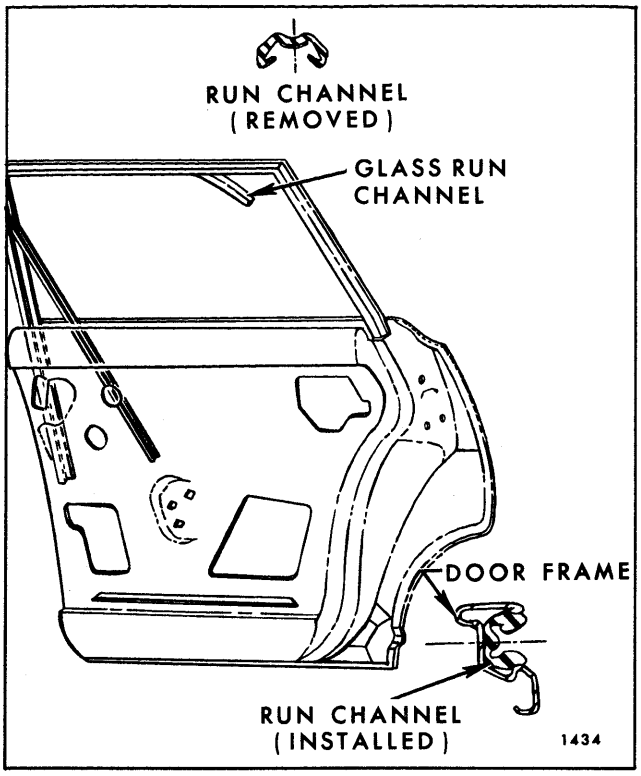

Fig. 7-153—Window Run Channel Installation - "X" Closed Styles

REAR DOOR WINDOW GLASS RUN CHANNEL—"X-35 AND 69" STYLES

Removal and Installation:

1. Remove rear door trim pad and detach inner panel water deflector.
2. Remove rear door window.
3. With finger pressure, squeeze run channel together at rear end and gently pull run channel out of rear door upper frame (See Fig. 7-153).
4. To install, reverse removal procedure.

   IMPORTANT: The glass run channel must be properly seated and conform to shape of door upper frame to achieve proper glass operation.

REAR DOOR WINDOW FRONT GUIDE—ALL "B-C 39" STYLES AND ALL "C-69" STYLES EXCEPT 68069 AND 68169

Removal and Installation:

1. Remove rear door window assembly as previously described.
2. Remove front guide attaching bolts at belt line and lower adjusting stud nut (Fig. 7-154).
3. Remove inside locking rod connecting link attaching bolts (Fig. 7-154). Disengage guide from inside locking rod and remove guide through access hole.
4. To install, reverse removal procedure. Adjust guide for proper window operation as described in the window adjustment procedure.

REAR DOOR WINDOW REAR GUIDE—ALL "B-C 39" STYLES AND ALL "C-69" STYLES EXCEPT 68069 AND 68169

Removal and Installation:

1. Remove door trim assembly and inner panel water deflector.
2. Operate window to full-up position.
3. Remove rear guide upper attaching bolts (Fig. 7-154 - Locations "A" for 38-48-68000 Series, Locations "B" for remaining styles). Remove rear guide lower adjusting stud nut.

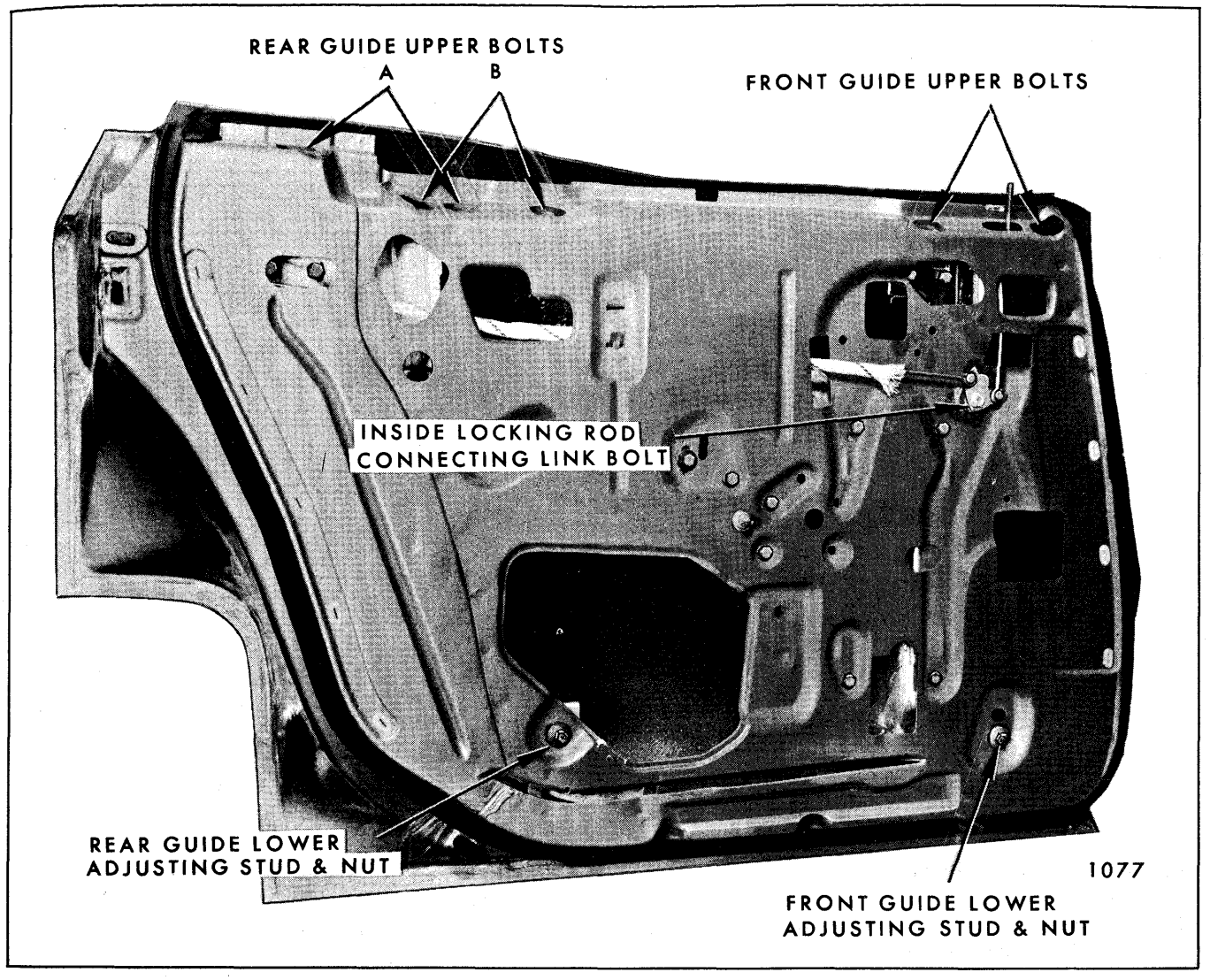

Fig. 7-154—Rear Door Window Guides - "B & C-39 and C-69" Except 68069-68169 Styles

4. Lower guide and swing bottom end forward to disengage guide from roller on lower sash channel and lower sash channel balance arm.

5. Remove guide, upper end first, through large access hole.

6. To install, reverse removal procedure. Adjust guide for proper window operation as described in the door window adjustment procedure.

REAR DOOR FRONT GUIDE AND GUIDE PLATE—68069 AND 68169 STYLES

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

2. Operate window to full-up position.

3. Remove front upper stop attaching bolts and remove stop (Fig. 7-155).

4. Remove front guide support bracket attaching bolt (Fig. 7-155).

5. Remove front guide upper attaching bolt (Fig. 7-156).

6. Remove guide plate to lower sash channel attaching stud nuts (Figs. 7-156 and 7-157).

7. Remove front guide and guide plate as an assembly through access hole (Fig. 7-158).

8. To install, reverse removal procedure. Adjust front guide for proper window operation

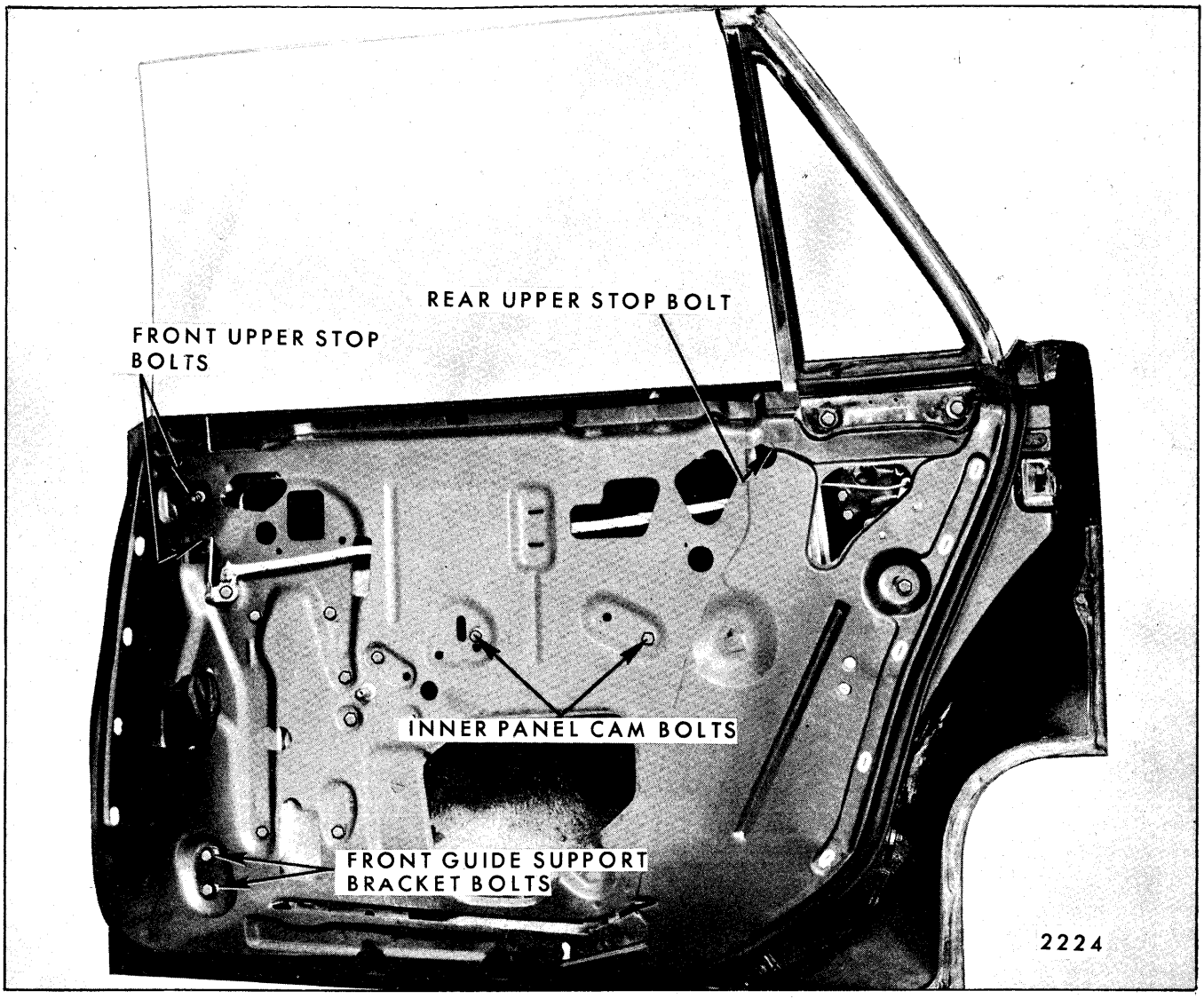

Fig. 7-155—Front Guide and Upper Stop Removal

as described in door window adjustment procedure.

REAR DOOR WINDOW GUIDE CHANNELS—"A-39" STYLES

Removal and Installation:

1. Remove door trim pad and detach inner panel water deflector.
2. Remove rear door window assembly.
3. On guide to be removed, remove upper attaching bolts and lower adjusting stud nut and remove guide (see Fig. 7-159).
4. To install, reverse removal procedure.

REAR DOOR WINDOW FRONT OR REAR GUIDE—"Z-39" STYLES

Removal and Installation:

1. Remove door trim pad and inner panel water deflector.
2. Loosen front and rear up-travel stop attaching screws (Fig. 7-125). Rotate stops so that stop tabs enter angled slots. Raise window as far as possible.
3. Remove upper attaching screw and lower adjusting stud nut from guide being removed. Lower guide to disengage it from sash channel roller, then remove guide through large access hole.
4. To install, reverse removal procedure.

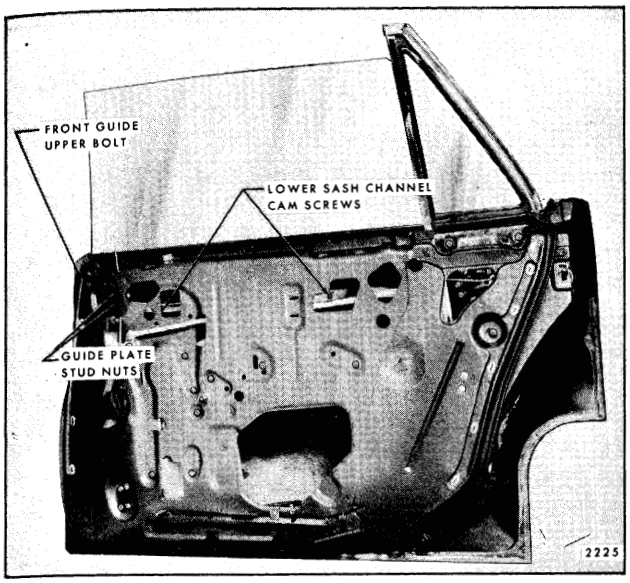

Fig. 7-156—Front Guide and Guide Plate Removal

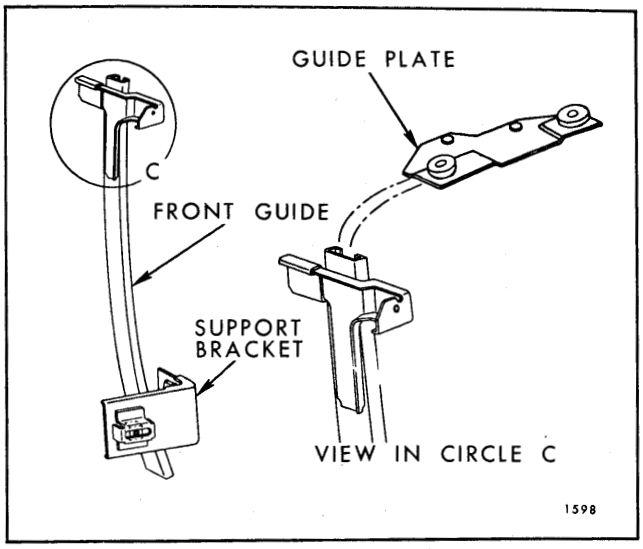

Fig. 7-158—Front Guide and Guide Plate - 68069-68169 Styles

REAR DOOR WINDOW REGULATOR—MANUAL AND ELECTRIC—ALL "B & C" STYLES

Removal and Installation:

1. Remove rear door trim assembly and inner panel water deflector.

2. Remove lower sash channel cam attaching screws (Fig. 7-160 for "closed" styles, 7-161 for "hardtop" styles).

   While supporting glass, disengage cam from rollers on regulator lift and balance arms and remove cam.

3. Raise window and prop it in full-up position.

4. Remove inner panel cam attaching bolts (Fig. 7-160 for "closed" styles, Fig. 7-161 for "hardtop" styles).

5. On styles equipped with electric window regulators, disconnect body wire harness from window regulator at window regulator motor.

6. Remove window regulator attaching bolts and remove regulator through large access hole. (Figs. 7-161 and 7-160).

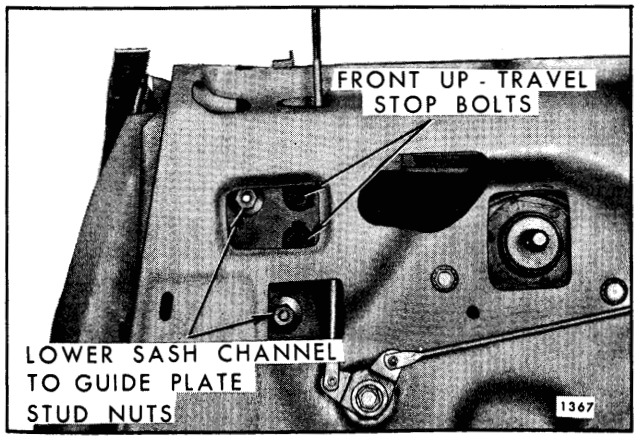

Fig. 7-157—Window Guide Plate Removal

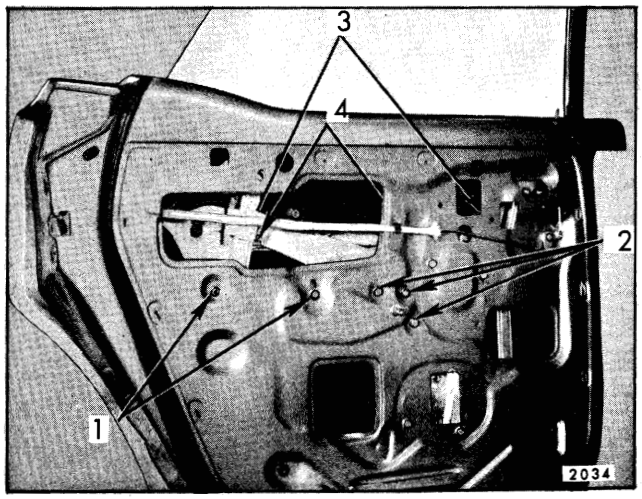

Fig. 7-159—Rear Door Hardware "A-39" Style

1. Inner Panel Cam Bolts
2. Remote Control Bolts
3. Front and Rear Up-Stop Bolts (Hidden)
4. Sash Channel Cam Screws

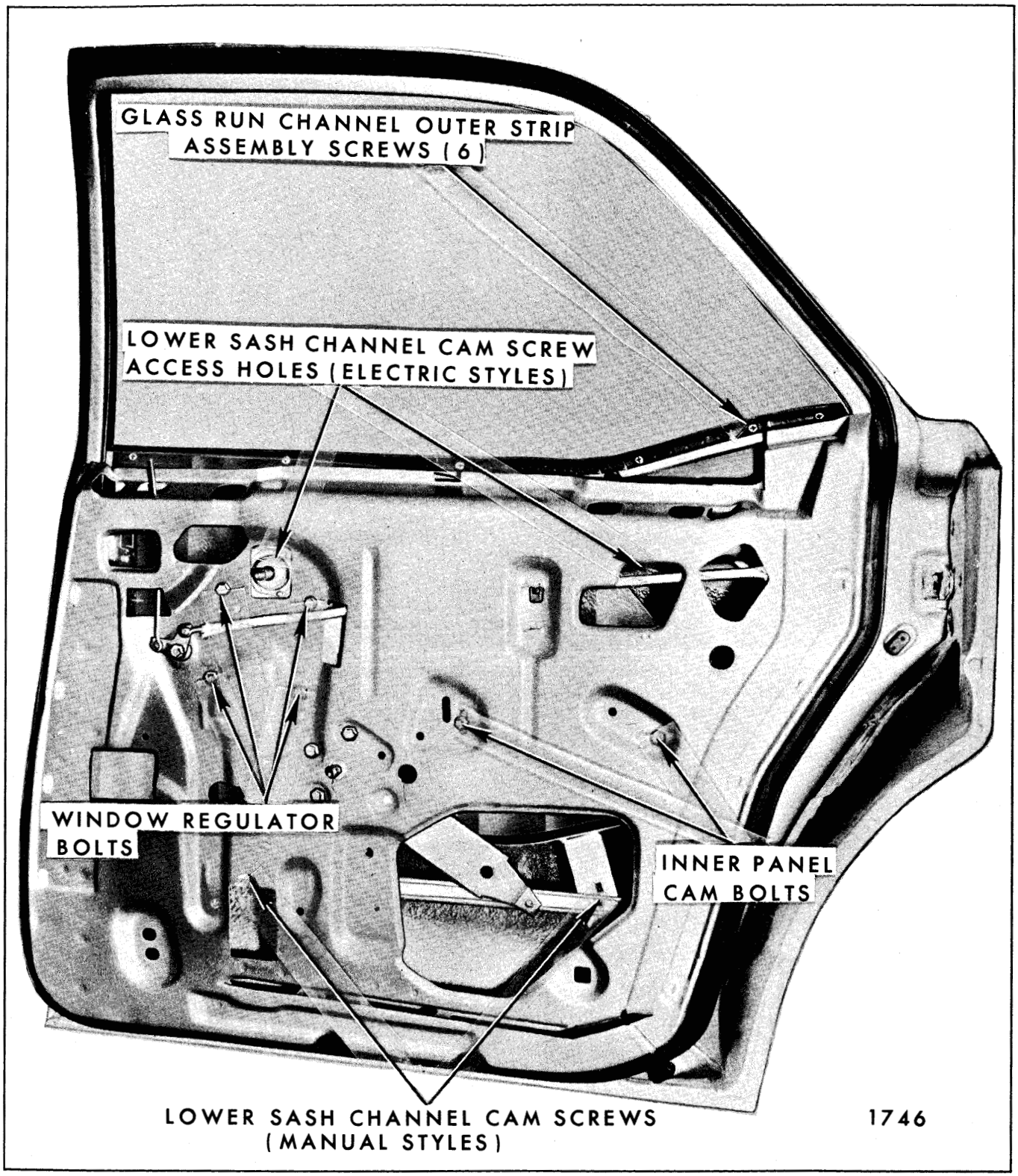

Fig. 7-160—Window Regulator Removal - "B" Closed Styles

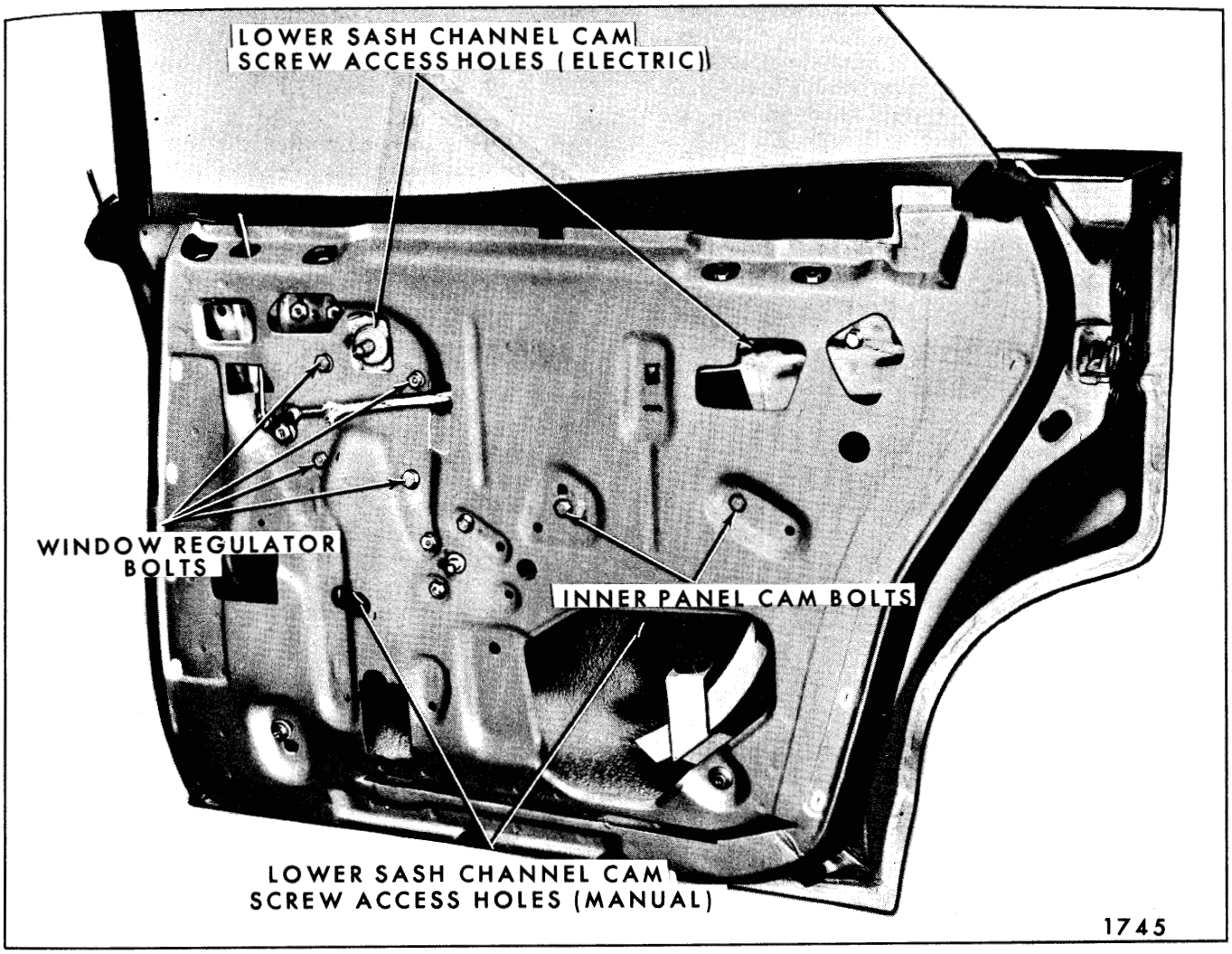

Fig. 7-161—Window Regulator Removal - "Hardtop" Styles

REAR DOOR WINDOW REGULATOR ASSEMBLY—"A-35-55-65 AND 69" STYLES AND "X-35 AND 69" STYLES

Removal and Installation:

1. Raise door window, remove door trim pad and detach inner panel water deflector.

2. Secure window in the full up position by installing a twelve to fifteen inch piece of body tape (2" or 2-1/2" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of window regulator.

3. Remove inner panel cam on "A" Body Styles.

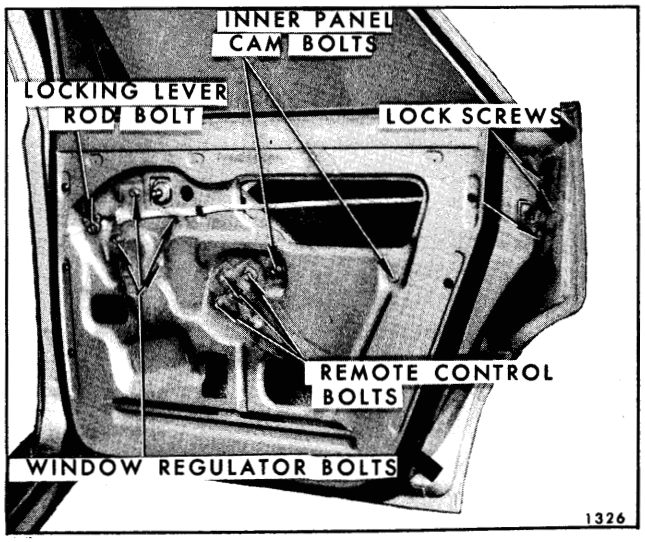

Fig. 7-162—Rear Door Hardware - "A" Styles Shown

4. Remove window regulator attaching bolts and move regulator assembly rearward to disengage lift arm rollers (and balance arm rollers on "A" Styles) from window lower sash channel cam and remove regulator through large access hole (See Fig. 7-162).

5. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector and door trim pad.

REAR DOOR WINDOW REGULATOR ASSEMBLY "A-Z 39" STYLES

Removal and Installation:

1. Remove door trim pad and detach inner panel water deflector.
2. Remove rear door window.
3. On "A" Body Electric Styles, disconnect motor from wire harness.
4. Remove regulator attaching bolts and remove regulator assembly (See Fig. 7-159).
5. To install, reverse removal procedure.

REAR DOOR WINDOW REGULATOR ELECTRIC MOTOR REMOVAL— ALL STYLES

If it is necessary to remove the electric motor from the regulator, refer to "Front Door" section for the proper procedure. The tension on the lift arm assist spring can cause serious injury if the motor is removed without use of the cautionary measures described in the procedure.

SECTION 8
REAR QUARTER
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INTRODUCTION

Section Eight, pertaining to Rear Quarters, covers all service procedures applicable to this area of the body, for all styles. The contents are divided into three separate categories; specifically, Trim, Stationary Glass and Hardware (See Index). The material within each basic category is arranged, as closely as possible, in the sequence in which individual assemblies would be removed.

REAR QUARTER TRIM

DESCRIPTION

Rear quarter trim assemblies for all two-door styles consist of the following two types:

1. Hang on type, where upper edge of trim panel is secure on upper edge of rear quarter inner panel.
2. Insert type where trim panel is secured by retainers and sealing plugs.

REAR QUARTER ARM REST "17-27-37 AND 57" STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies as described under "Rear Seats".
2. Remove seat back filler panel to rear quarter inner panel attaching screws (Figs. 8-1 and 8-2) and remove filler panel.
3. Remove arm rest attaching screws at front, rear and bottom arm rest (Figs. 8-1 and 8-2).
4. On styles with electrical devices in arm rest assembly, carefully detach arm rest from rear quarter inner panel sufficiently to disconnect wire harness connectors. Figures 8-3 and 8-4 are indicative of electrical installations in rear quarter arm rests. Lift arm rest in an upward, inboard movement and remove assembly from rear quarter inner panel.
5. To install, reverse removal procedure.

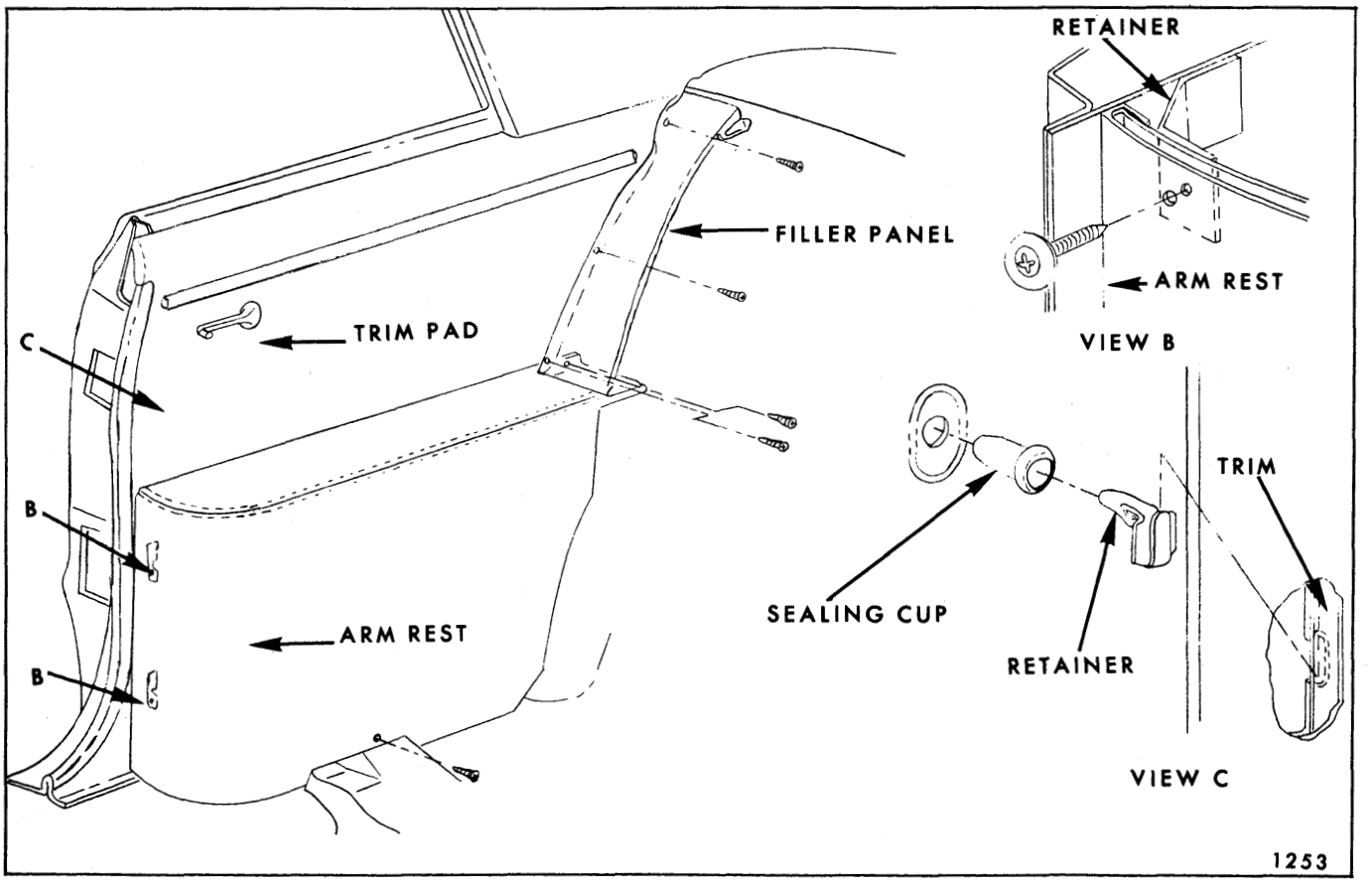

Fig. 8-1—Rear Quarter Trim Assembly (Insert Type)

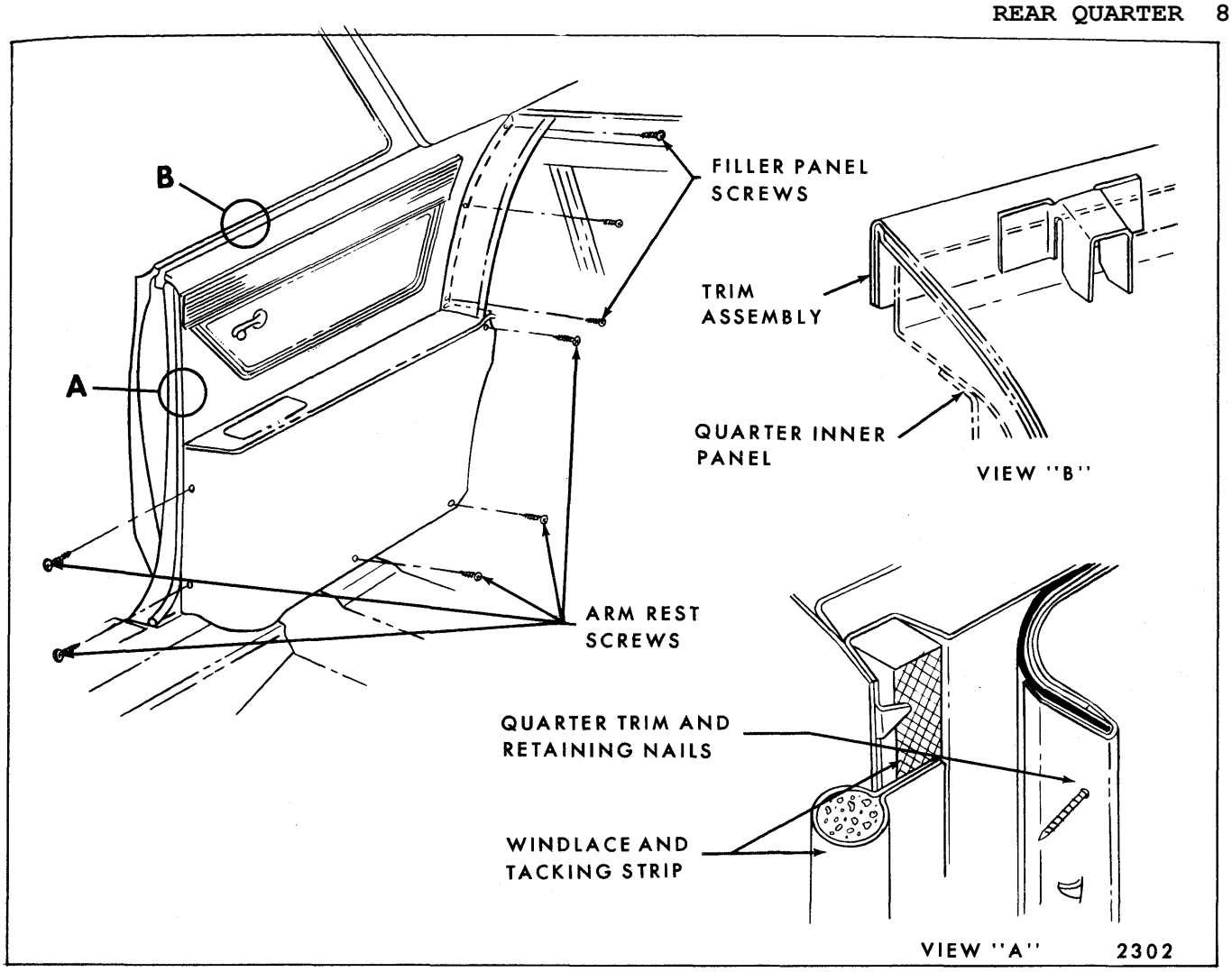

Fig. 8-2—Rear Quarter Trim Assembly (Hang-On Type)

REAR QUARTER TRIM (HANG-ON TYPE)—"A-B & C" TWO DOOR STYLES, EXCEPT CONVERTIBLES

Removal and Installation

1. Where present, remove applied type rear quarter arm rest and window regulator inside handle as described in the "Door Trim" section of the Body Service Manual.

2. Remove rear seat cushion and seat back assemblies as described in the "Seat" section of the Body Service Manual.

3. On styles with floor mounted arm rest, remove rear quarter arm rest assembly as previously described.

4. a. On "A" body styles with hang-on type trim assemblies proceed as follows:

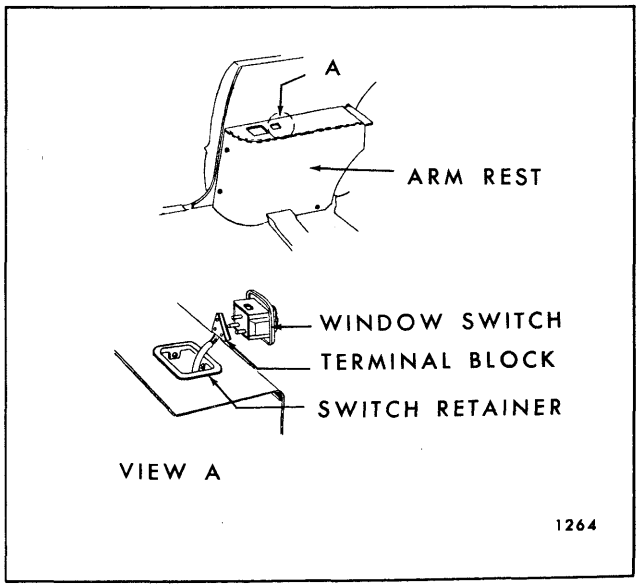

Fig. 8-3—Rear Quarter Arm Rest Window Switch

Remove front door sill plate and disengage rear body lock pillar finishing strip. With a screwdriver, or other suitable flat bladed tool, disengage trim assembly retaining clips from sealing plugs along leading edge of rear body lock pillar (Fig. 8-1).

Lift trim assembly upward to disengage top of trim from top of rear quarter inner panel.

NOTE: On styles equipped with electric window regulators, disconnect wire harness connector from switch on trim assembly.

b. On "B & C" body styles use trim panel removing tool (J-6335) or equivalent to carefully pry trim assembly retaining nails from tacking strip; then lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

5. To install rear quarter trim assembly, reverse removal procedure.

NOTE: Trim pad nailing strip replacement tabs, or trim pad retaining clips and corresponding sealing plugs are available as service parts.

REAR QUARTER TRIM (INSERT TYPE)—"A & X" BODY TWO-DOOR STYLES EXCEPT CONVERTIBLES

Removal and Installation

1. Where present, remove applied type rear quarter arm rest and window regulator inside handle as described in the "Door Trim" section of the Body Service Manual.

2. Remove rear seat cushion and seat back assemblies, as described in the "Seat" section of the Body Service Manual.

3. On styles with floor mounted arm rest, remove rear quarter arm rest assembly, as previously described.

4. Remove door sill plate and disengage pinchweld finishing strip along lower section of rear body lock pillar.

5. Carefully detach approximately three inches of the upper front cemented edge of trim material from body lock pillar pinchweld flange (Fig. 8-5 View "B"). Carefully bend or bow trim inboard sufficiently to disengage upper edge of trim from under finishing molding retainer (Fig. 8-5, View "C").

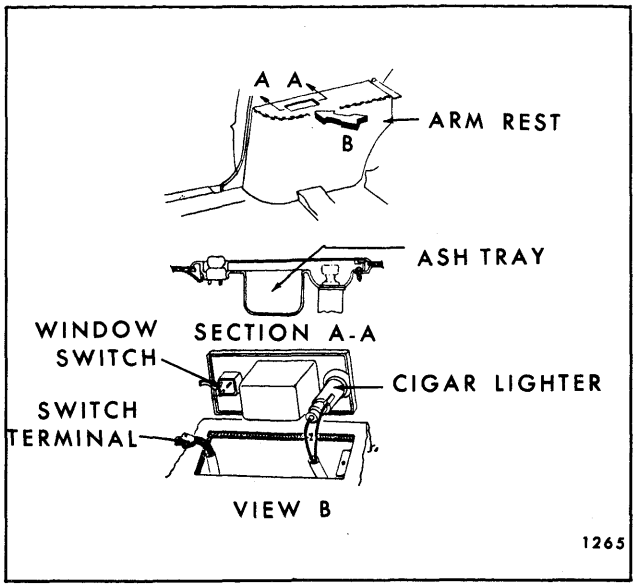

Fig. 8-4—Rear Quarter Arm Rest Ash Tray and Cigar Lighter

On "X" styles carefully bend or bow lower portion of trim sufficiently to disengage lower edge of trim from under lower finsihing molding retainer.

6. Carefully pivot trim assembly forward; then, break cement bond along pinchweld flange of rear body lock pillar and remove assembly from body.

NOTE: If trim assembly incorporates electric window switch, disconnect wire harness connector from window switch.

The finishing molding retainer (Fig. 8-5, View "C") is retained by screws and can be removed at this point, where required.

7. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, recement forward edge of trim to pinchweld flange (Fig. 8-5, View "B").

REAR QUARTER TRIM—CORVAIR TWO-DOOR STYLES EXCEPT CONVERTIBLES

Removal and Installation

1. Remove rear seat cushion and rear seat back, as described in the "Seat" section of the Body Service

2. Remove ash tray and two screws securing ash tray housing to rear quarter inner panel (Fig. 8-6, View in Circle "A").

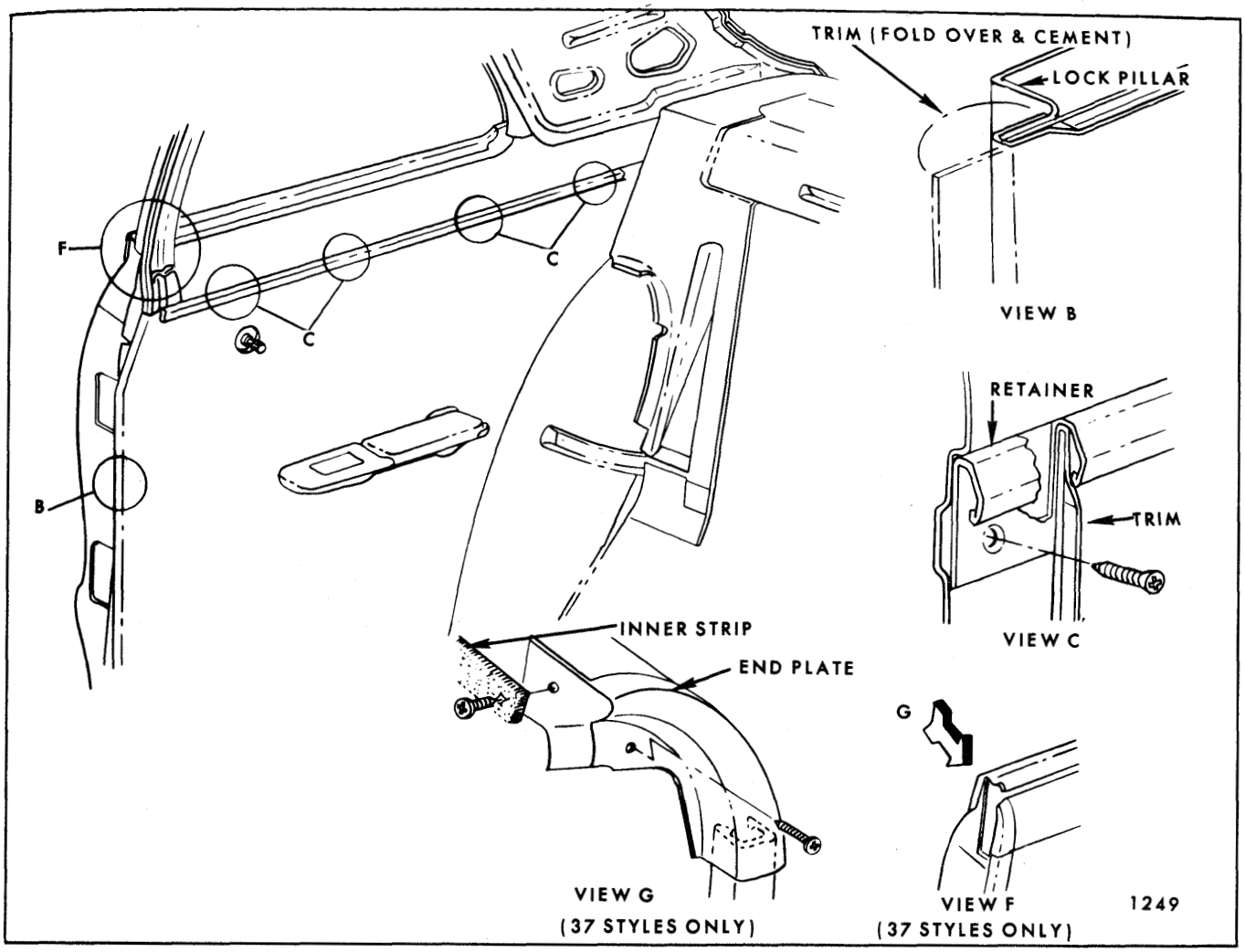

Fig. 8-5—Rear Quarter Trim Assembly—"A & X" Two Door Styles Except Convertibles

3. Remove front door sill plate and disengage pinchweld finishing strip along rear body lock pillar.

4. With a flat bladed tool, disengage trim pad retaining clips from plastic sealing plugs in rear quarter inner panel (Fig. 8-6, Section "A-A").

5. With a flat bladed tool, break cement bond at lower section of trim assembly to rear quarter inner panel (Fig. 8-6, Section "C-C").

6. Carefully pivot trim assembly forward to break cement bond at pinchweld flange of rear body lock pillar and remove assembly from body (Fig. 8-6, Section "B-B").

7. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward overlapping edge of trim assembly to pinchweld flange outboard surface. Also, re-cement bottom edge of trim assembly to rear quarter inner panel.

REAR QUARTER TRIM—CHEVELLE 13480 AND 13680 STYLES

Removal and Installation

1. Remove seat cushion and seat back assemblies.

2. Detach rear body lock pillar pinchweld finishing strip (see section "B-B" in Fig. 8-7) and remove front door sill plate.

3. Remove screws securing rear quarter trim to body panel and remove assembly from body (see Fig. 8-7).

4. To install, reverse removal procedure.

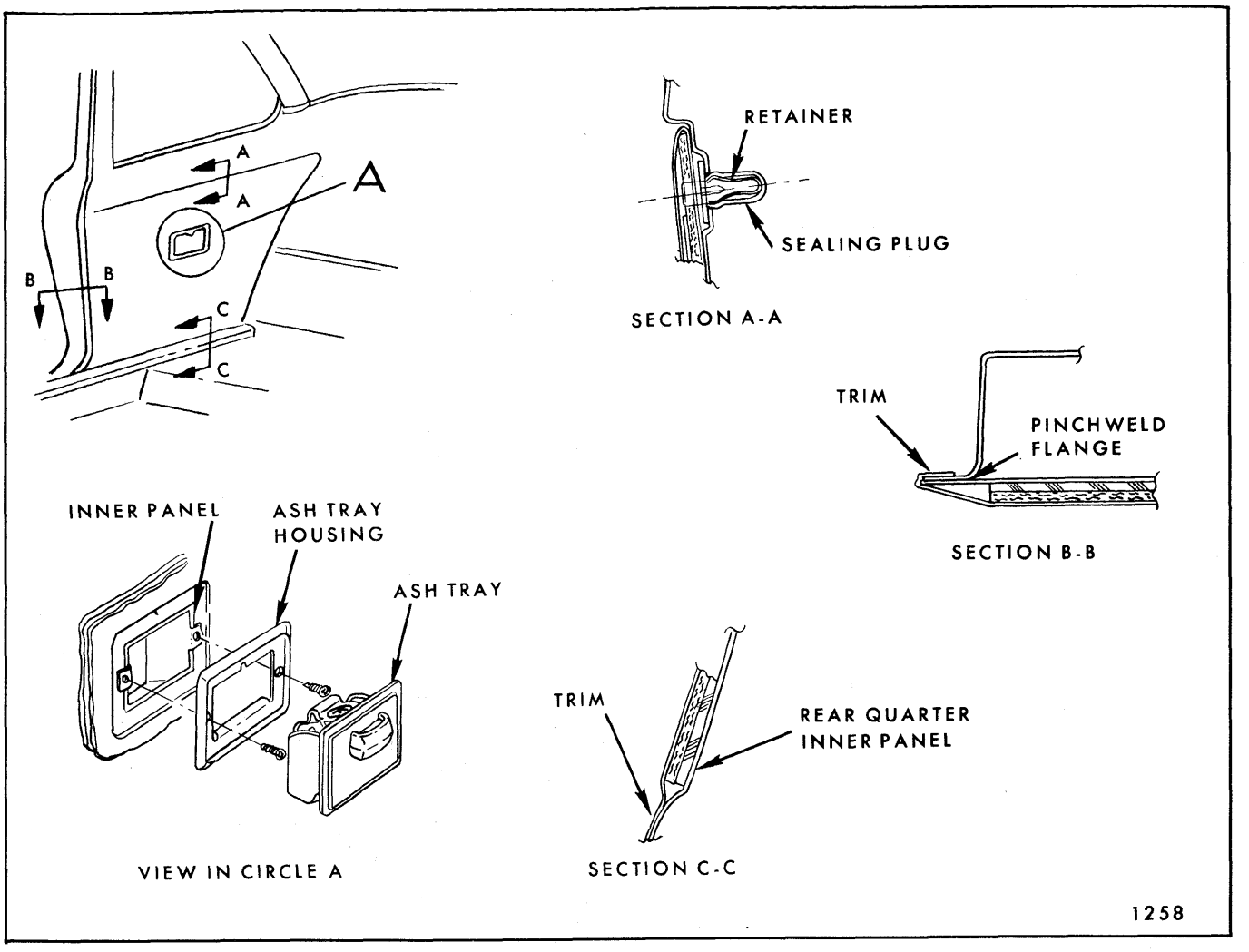

Fig. 8-6—Rear Quarter Trim Assembly - "Z" Body Styles

FOLDING TOP COMPARTMENT SIDE TRIM PANEL—CONVERTIBLE STYLES

Removal and Installation

1. Remove rear seat cushion and seat back assemblies.
2. Remove exposed attaching screws securing front and rear of side trim panel.
3. Raise trim panel and move it inboard.
4. Disconnect electrical leads, where present, and remove side trim panel.

   NOTE: On styles equipped with rear quarter lamp assemblies, disconnect lamp as shown in Figure 8-8.
5. To install, reverse removal procedure.

NOTE: As a bench operation, the arm rest assembly can be removed from the folding top compartment side trim assembly by removing screws installed on the reverse side.

REAR QUARTER TRIM (HANG-ON TYPE)— "A-B & C" CONVERTIBLE STYLES

Removal and Installation

1. Remove folding top compartment side trim panel assembly, as previously described.
2. On styles with manually operated windows, remove window regulator handle and anti-friction washer.
3. a. On "A" body styles with hang-on type trim assembly remove door sill plate and disengage lock pillar pinchweld finishing strip.

Also remove lock pillar finishing cap. With a screwdriver or other suitable flat bladed tool, disengage trim assembly retaining clips from sealing plugs along leading edge of rear body lock pillar (Fig. 8-1, View "C"). Lift trim assembly upward to disengage top of trim from top of rear quarter inner panel.

b. On "B & C" body styles use trim panel removing tool (J-6335) or equivalent to carefully pry trim assembly retaining nails from tacking strip; then, lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

4. To install rear quarter trim assembly, reverse removal procedure.

NOTE: Trim pad nailing strip replacement tabs, or trim pad retaining clips and corresponding sealing plugs are available as service parts.

REAR QUARTER TRIM (INSERT TYPE)— "A & Z" BODY CONVERTIBLES

Removal and Installation

1. Remove folding top compartment side trim panel assembly, as previously described.

2. On styles with manually operated windows, remove window regulator handle and anti-friction washer.

3. Remove door sill plate and disengage lock pillar pinchweld finishing strip.

4. Carefully detach approximately three inches of the upper front cemented edge of trim material from body lock pillar pinchweld flange (Fig. 8-9, View "B"). Carefully bend or bow trim inboard sufficiently to disengage upper edge of trim from under finishing molding retainer (Fig. 8-9, View "C").

5. Carefully pivot trim assembly forward; then, break cement bond along pinchweld flange of rear body lock pillar and remove assembly from the body.

NOTE: If trim assembly incorporates electric window switch, disconnect wire harness connector from window switch.

The finishing molding retainer (Fig. 8-9, View "C") is retained by screws and can be removed at this point, where required.

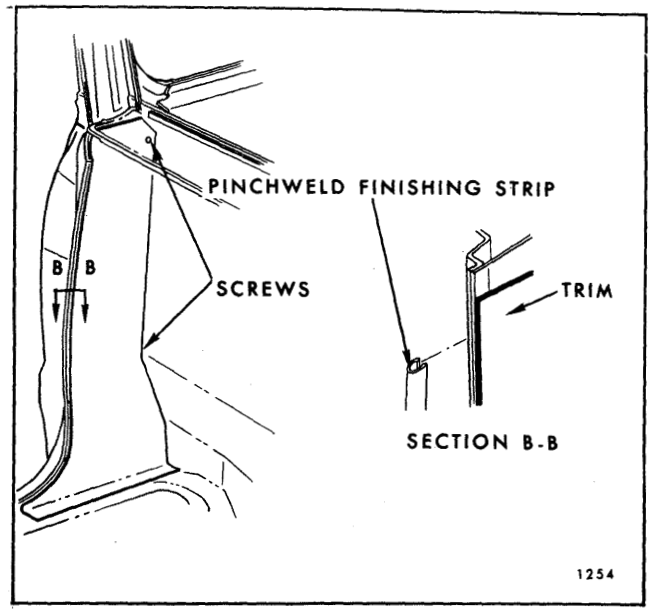

Fig. 8-7—Rear Quarter Trim Assembly - "A-80" Styles

6. To install rear quarter trim assembly, reverse removal procedure. Prior to installation of pinchweld finishing strip, recement forward edge of trim to pinchweld flange (see Fig. 8-9, View "B").

REAR QUARTER ARM REST AND TRIM— "E" BODY STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies, as described under "Rear Seats".

2. On Oldsmobile 39487 remove seat back filler panel attaching screws (Fig. 8-10) and remove filler panel.

3. Remove arm rest attaching screws (Figs. 8-10 and 8-11). On styles with electrical equipment in arm rest, carefully detach arm rest from quarter panel sufficiently to disconnect wire harness connectors; then, remove arm rest from rear quarter panel.

4. Remove rear quarter trim assembly attaching screws (Fig. 8-11 and 8-10). Use trim panel removing tool (J-6335) or equivalent to carefully pry trim assembly retaining nails (Fig. 8-11) from tacking strip along body lock pillar; then lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

NOTE: If trim assembly incorporates an electric window switch, disconnect wire harness connector from switch on trim assembly.

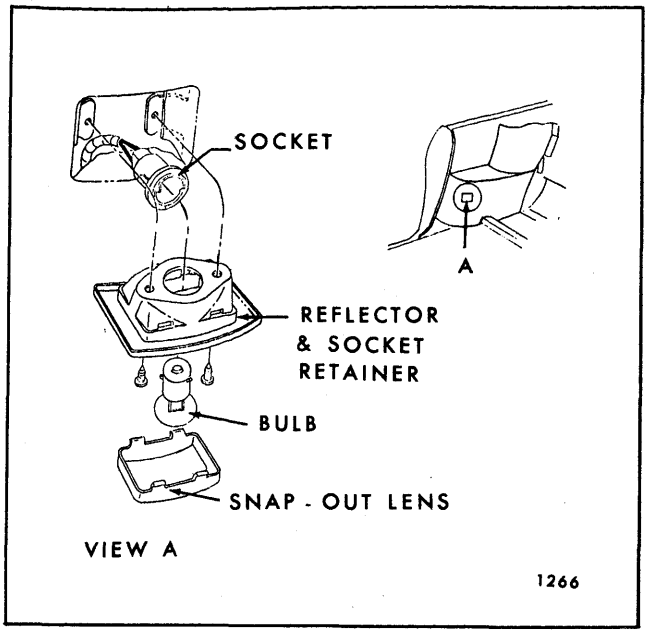

Fig. 8-8—Rear Quarter Arm Rest Courtesy Lamp

5. To install rear quarter trim assembly or rear quarter arm rest, reverse removal procedure.

NOTE: Trim assembly nailing strip replacement tabs are available as a service part.

COMPARTMENT SHELF CENTER FINISHING PANEL—"E" BODY STYLES

Removal and Installation

1. Remove rear seat cushion and seat back assemblies as described under "Rear Seats".

2. From inside rear compartment remove compartment shelf center finishing panel attaching screws or nuts at locations shown in Fig. 8-12 for Buick or Fig. 8-13 for Oldsmobile.

3. From inside body pull center finishing panel forward sufficiently to disengage both front and rear edge of center finishing panel from retainers (see Figs. 8-12 and 8-13, Views "B & F"); then, lift panel upward and remove from shelf panel.

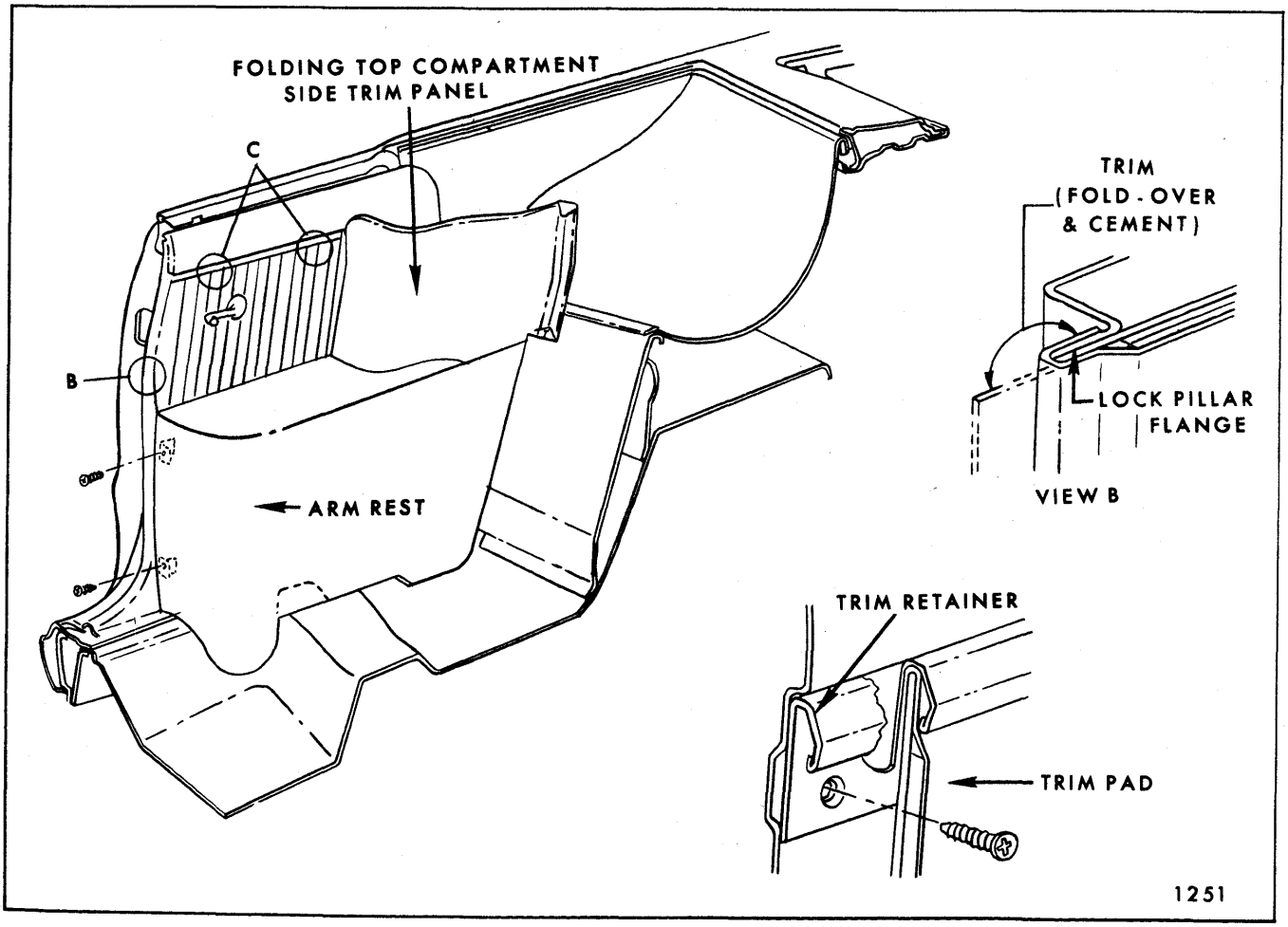

Fig. 8-9—Rear Quarter Trim Assembly - Convertible Styles

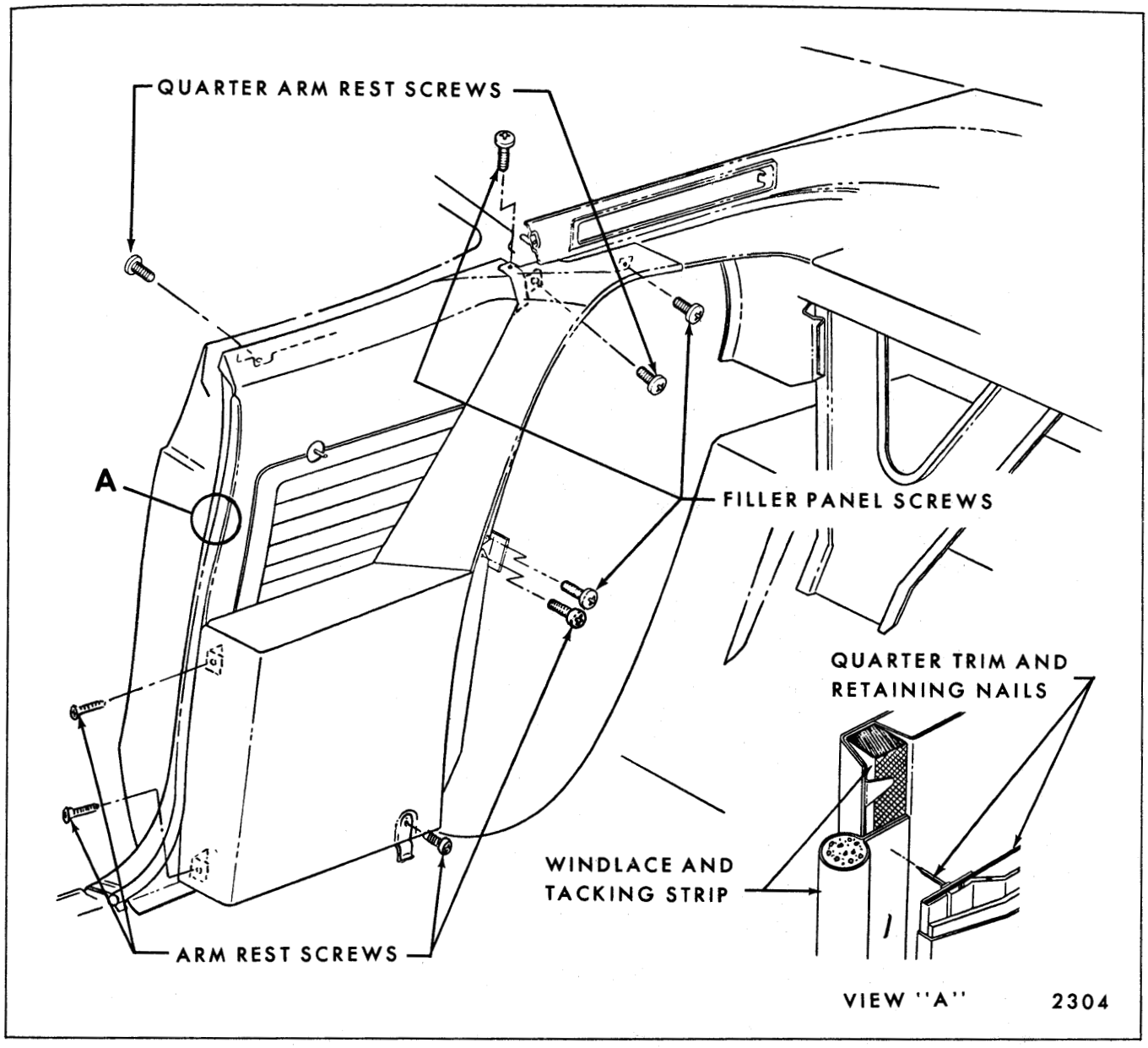

Fig. 8-10—Rear Quarter Trim Assembly - "E" Body 39487 Style

4. To install compartment shelf center finishing panel, reverse removal procedure.

COMPARTMENT SHELF SIDE FINISHING PANELS—"E" BODY STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies, as described under "Rear Seats".

2. Remove compartment shelf center finishing panel, as previously described.

3. a. On Oldsmobile 39487 Style remove seat back filler panel attaching screws (Fig. 8-11) and remove filler panel.

   b. On Oldsmobile 39687 and Buick 49487 Styles remove rear quarter trim assembly, as previously described.

4. Remove compartment shelf side finishing panel attaching screws (Figs. 8-12 and 8-13) and remove side finishing panel. On Oldsmobile styles disconnect courtesy lamp feed wires.

5. To install compartment shelf side finishing panel, reverse removal procedure.

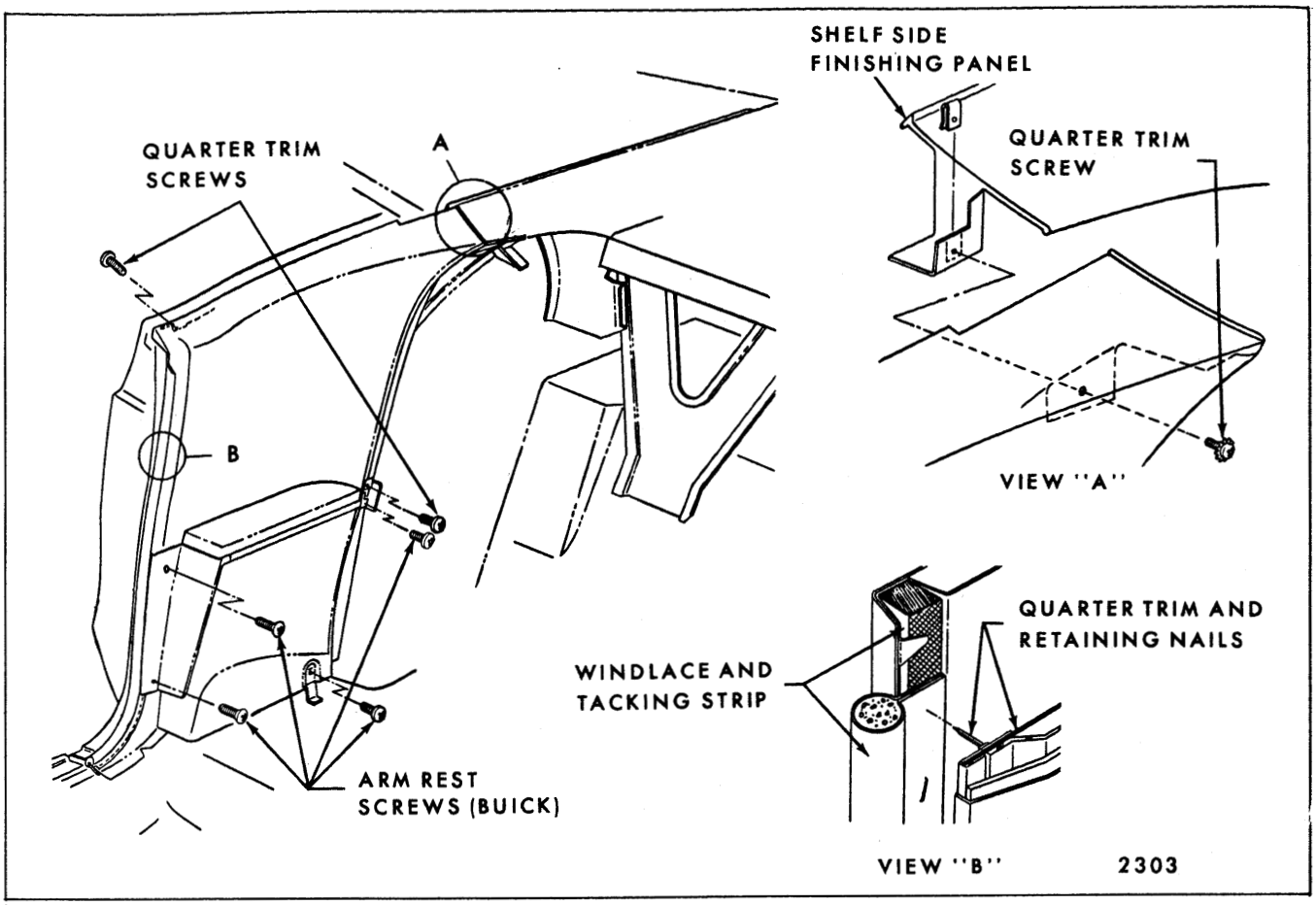

Fig. 8-11—Rear Quarter Arm Rest and Trim Assembly - "E" Body

REAR QUARTER LOWER TRIM— "B & C" BODY "39 AND 69" STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies.
2. Remove back window and rear quarter or roof rail garnish moldings as required.
3. With tool J-6335, or any other suitable flat bladed tool, pry trim assembly retaining nails from tacking strip (see Fig. 8-14).
4. Lift trim assembly upward to disengage from retainer at top of rear quarter inner panel and remove trim assembly.
5. To install, reverse removal procedure.

REAR QUARTER LOWER TRIM— OLDSMOBILE 33839, 33869, AND BUICK 44439 STYLES

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies.
2. Detach rear body lock pillar finishing strip and remove rear door sill plate (see section "B-B" in Fig. 8-15).
3. With a putty knife, or other suitable flat bladed tool, detach trim assembly at cemented areas indicated in Fig. 8-15.
4. To install, reverse removal procedure.

REAR QUARTER INNER TRIM PANEL (LEFT SIDE)—"B" BODY STATION WAGON STYLES

Removal and Installation

1. Remove rear quarter stationary window front and lower garnish moldings.
2. Remove all screws securing trim panel to rear quarter inner panel (Fig. 8-16).
3. With a suitable flat-bladed tool, carefully disengage trim retainers from rear quarter inner panel along leading edge of rear body lock

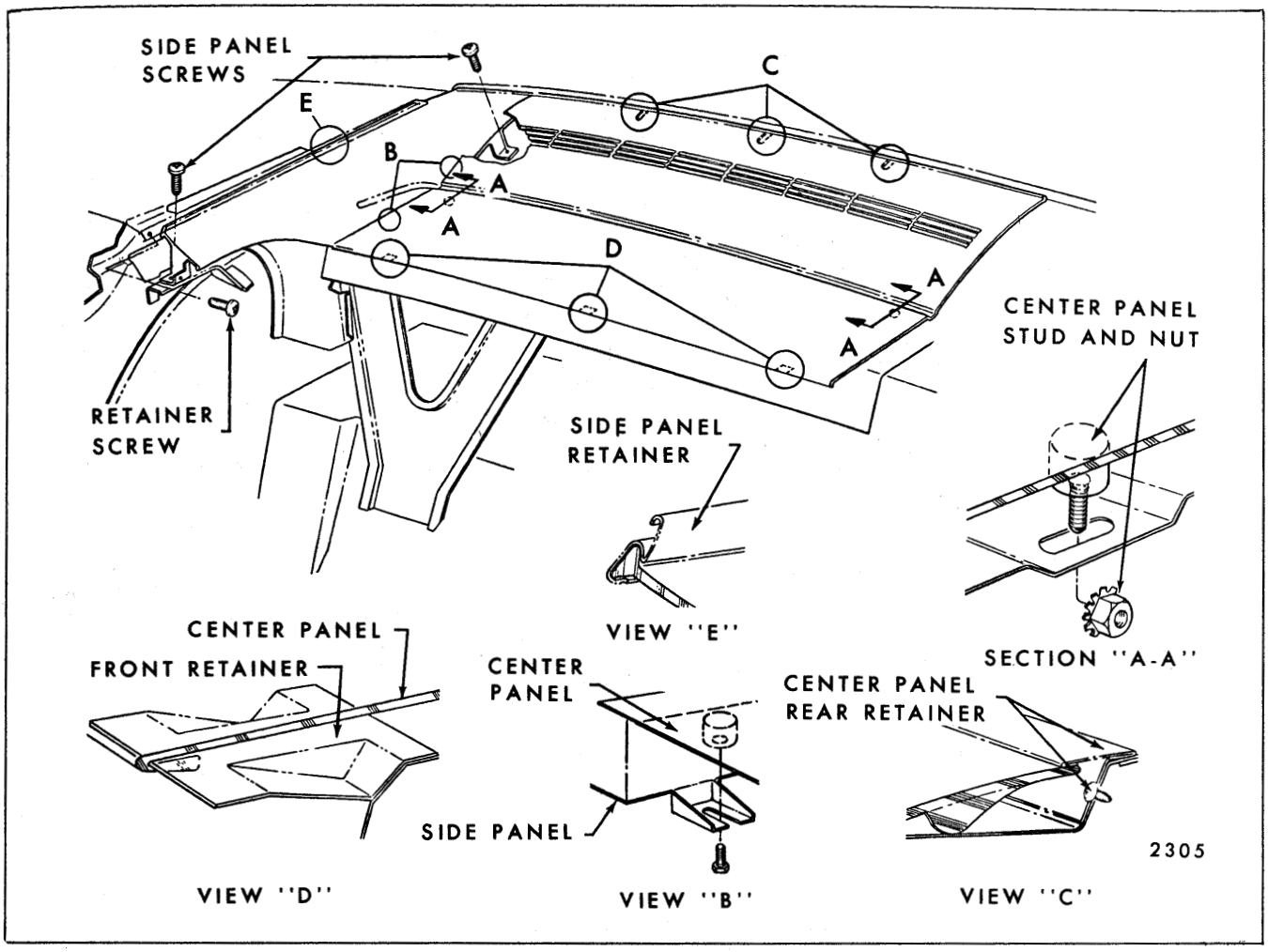

Fig. 8-12—Compartment Shelf Trim - Buick "E" Body

pillar (on front edge of rear quarter front trim assembly) (Fig. 8-16).

4. Lift assembly upward slightly to disengage from rear quarter inner panel and remove assembly from body. On styles equipped with courtesy lamp disconnect feed wire from switch and lamp (Fig. 8-16, View "A").

   NOTE: The rear quarter front trim assembly can be removed at this point, as a bench operation, by breaking cement bond between trim and metal panel of rear quarter inner trim panel assembly. The rear quarter front trim is a sub-assembly of the rear quarter inner trim panel; left and right sides.

6. To install, reverse removal procedure.

SPARE TIRE COVER PANEL— "B" BODY STATION WAGON STYLES

The spare tire cover panel is secured to a retainer at the belt line by a folding catch type handle. To remove the panel, disengage the catch and lift the panel upward. To install, reverse removal procedure.

The handle can be adjusted "in" or "out" to increase or decrease closing effort. To adjust, loosen the handle attaching screws; position the handle as desired and tighten the screws.

REAR QUARTER WHEELHOUSE COVER PANEL (RIGHT SIDE)— "B" BODY STATION WAGON STYLES

Removal and Installation

1. Remove spare tire cover.

2. Remove rear quarter stationary window front and lower garnish moldings.

3. Remove all screws securing trim panel to rear quarter inner panel (Fig. 8-17).

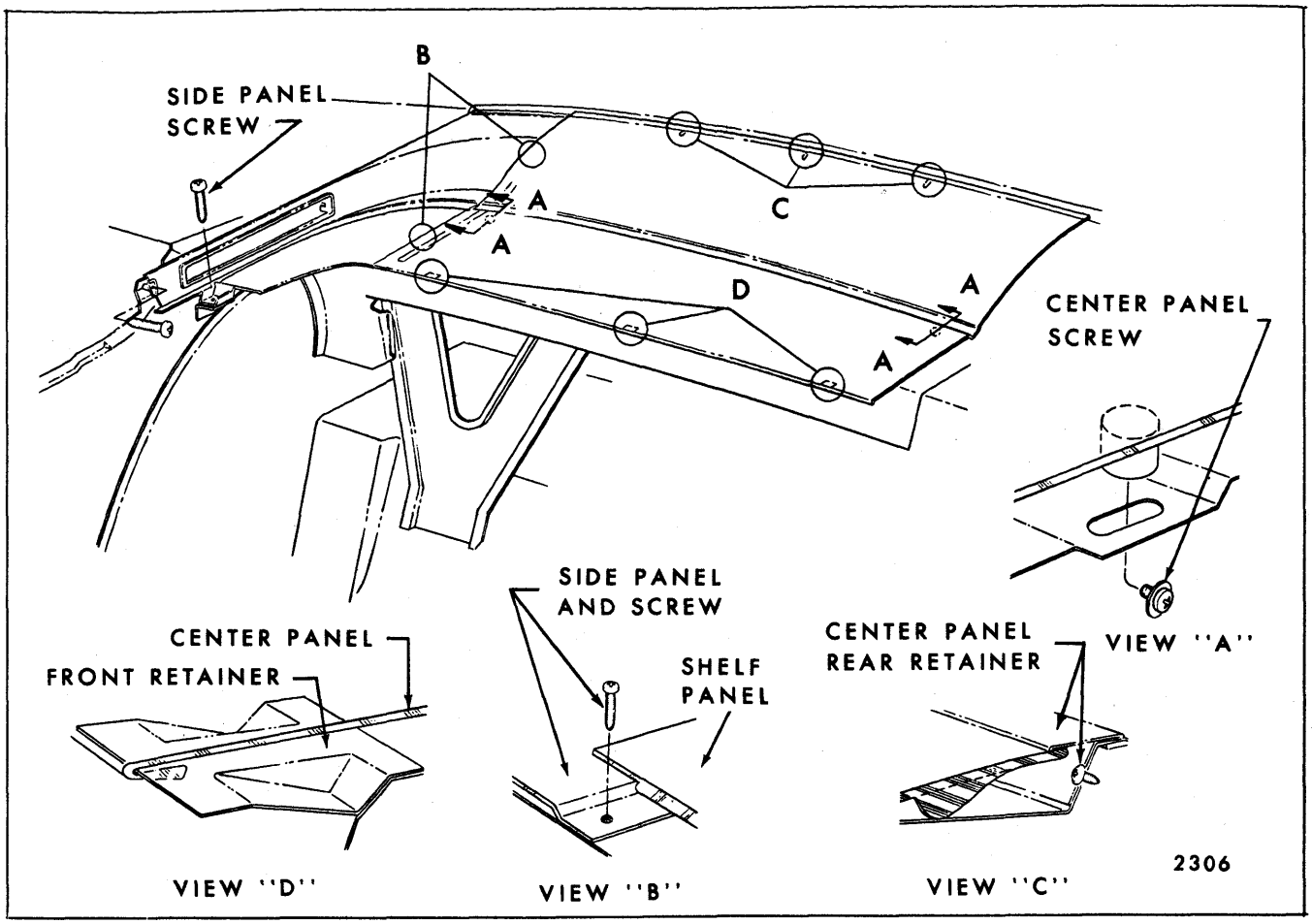

Fig. 8-13—Compartment Shelf Trim - Oldsmobile "E" Body

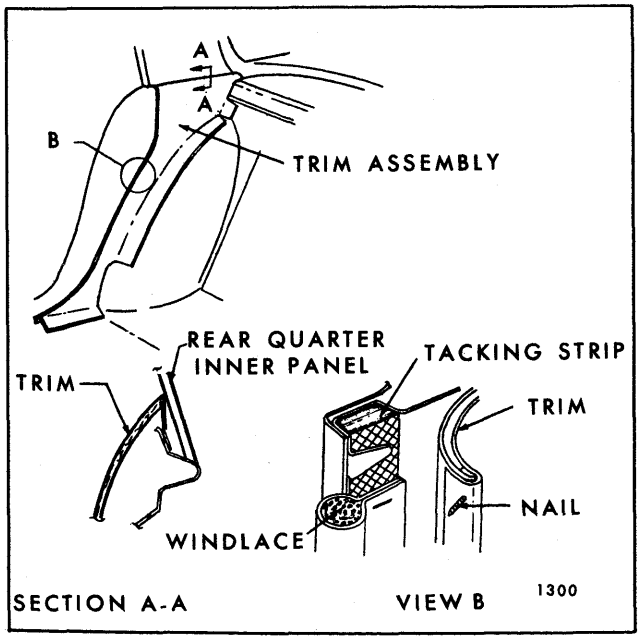

Fig. 8-14—Rear Quarter Lower Trim Assembly - "B&C" Body "39 and 69" Styles

4. With a suitable flat-bladed tool, carefully disengage trim retainers from rear quarter inner panel along leading edge of rear body lock pillar (on front edge of rear quarter front trim assembly). (Fig. 8-17).

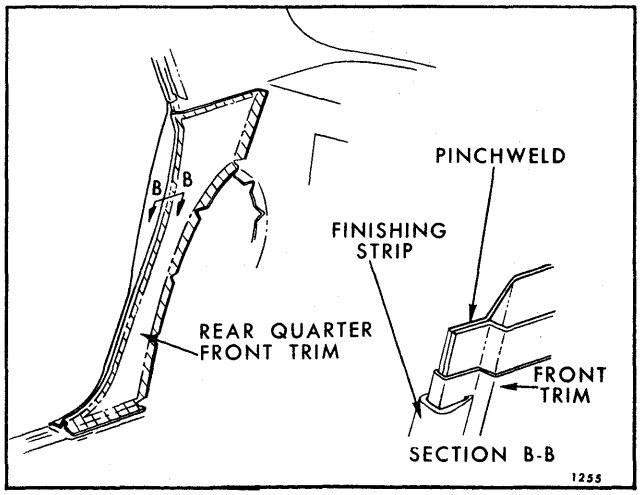

Fig. 8-15—Rear Quarter Trim Assembly - Oldsmobile 33839, 69 and Buick 44439 Styles

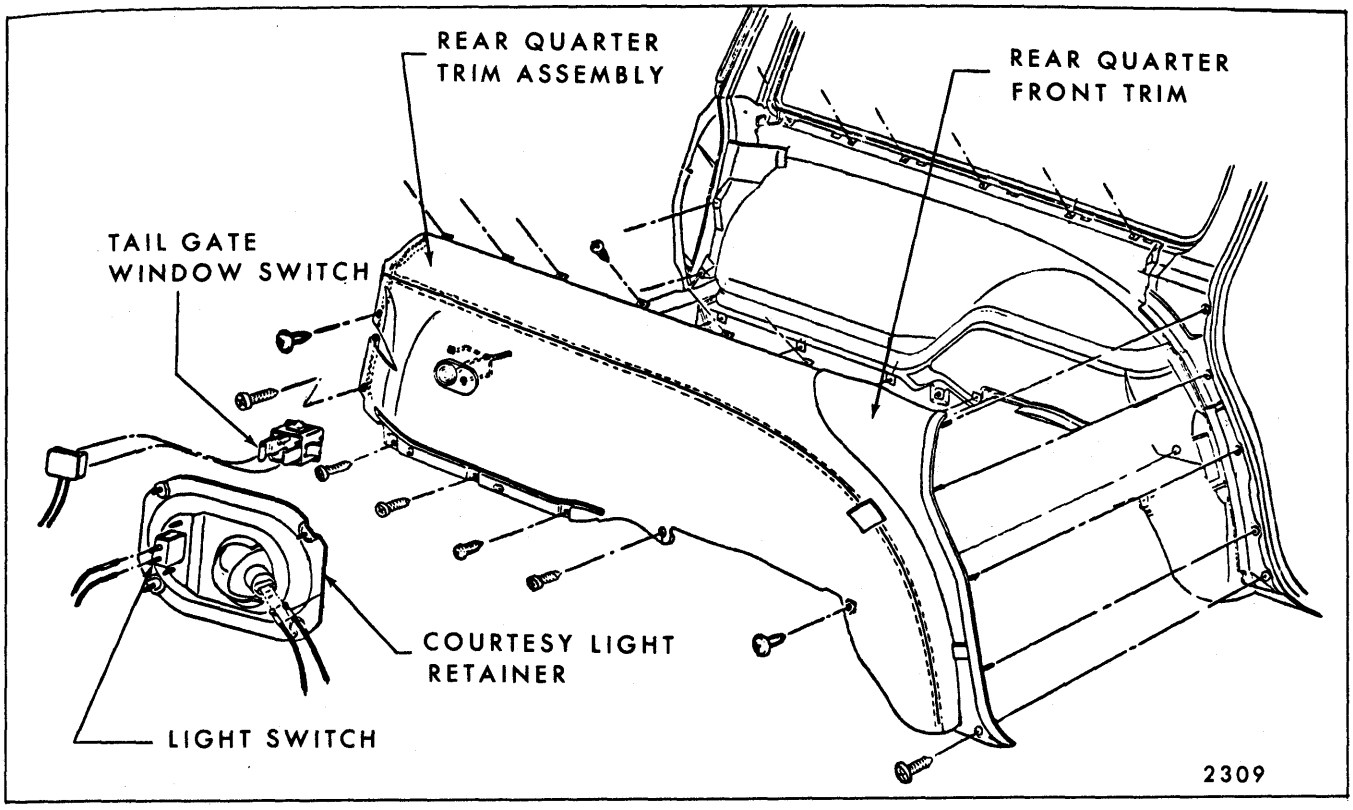

Fig. 8-16—Rear Quarter Trim Panel Left Side - "B" Station Wagons

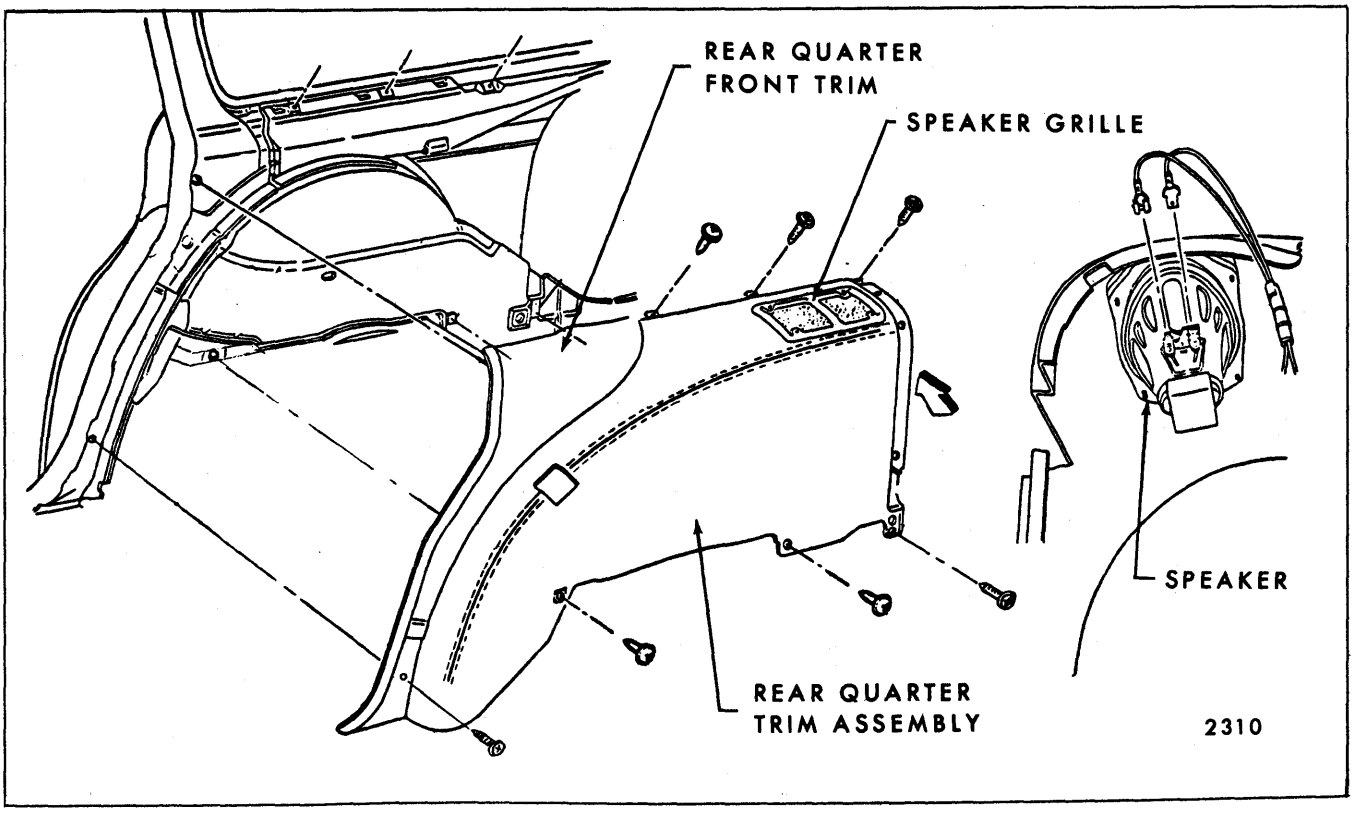

Fig. 8-17—Rear Quarter Trim Panel Right Side - "B" Station Wagons

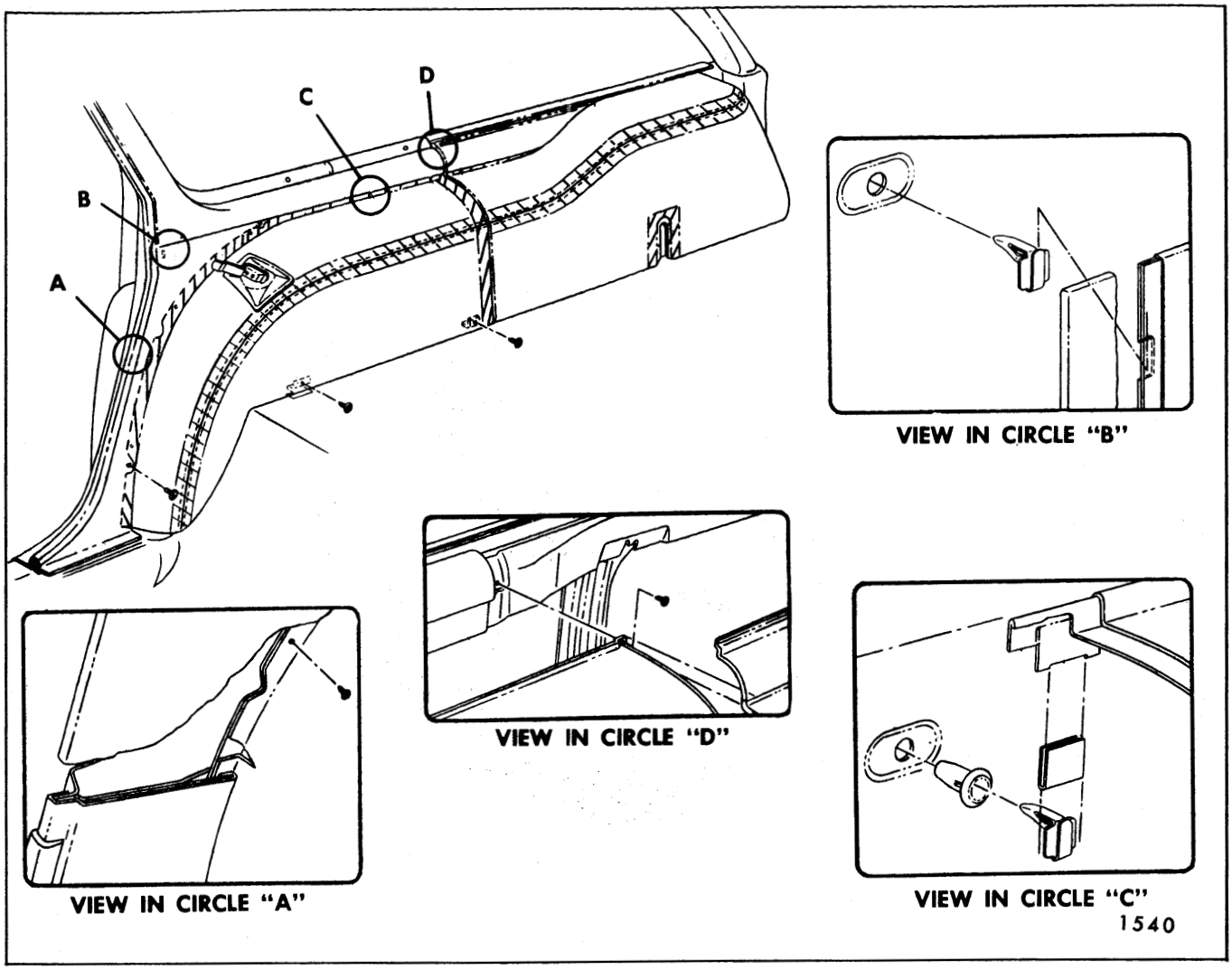

Fig. 8-18—Rear Quarter Trim Panel, Right Side - "A" Station Wagons

5. Remove spare tire cover support.

6. Lift assembly upward slightly to disengage from rear quarter inner panel and remove assembly from body.

7. To install, reverse removal procedure.

REAR QUARTER FRONT TRIM PANEL (RIGHT OR LEFT SIDE)— "A" BODY STATION WAGONS

Removal and Installation

1. Disengage pinchweld finishing strip along rear body lock pillar and remove rear door sill plate.

2. Remove exposed screw at lower end of trim panel (see Fig. 8-18 and 8-19).

3. With a flat bladed tool, disengage trim retaining clips from quarter inner panel (see View "B" in Fig. 8-18).

4. Carefully swing rear edge of trim assembly forward to break cement bond at body lock pillar and remove rear quarter front trim panel from body.

5. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward edge of trim assembly to outboard surface of body lock pillar pinchweld flange (see View "C" in Fig. 8-19).

SPARE TIRE COVER PANEL— "A" BODY STATION WAGON STYLES

Removal and Installation

The spare tire cover panel is retained at belt line

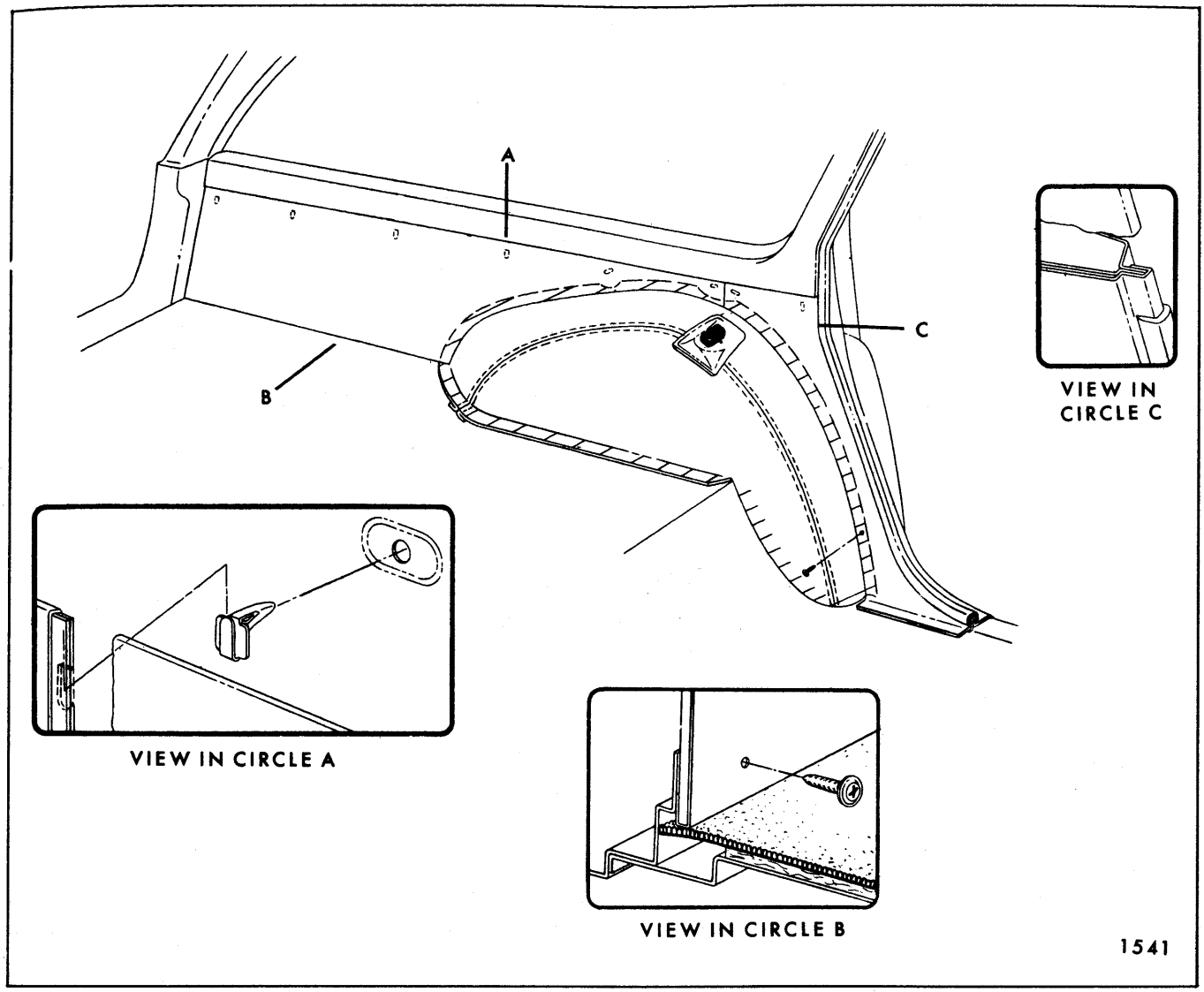

Fig. 8-19—Rear Quarter Trim Panel, Left Side - "A" Station Wagons

by a screwed-on garnish molding and at the load floor level by a folding (catch-type) handle. To remove cover, open catch handle and swing bottom edge of assembly upward to disengage upper edge from beneath garnish molding (see Fig. 8-18). To install, reverse removal procedure.

WHEELHOUSE TRIM COVER PANEL (RIGHT SIDE)—ALL "A" BODY STATION WAGON STYLES

Removal and Installation

1. Remove rear quarter front trim panel and spare tire cover panel.
2. Remove second folding seat back catch and bumper assembly from wheelhouse.
3. Remove all trim attaching screws at front, rear and bottom of wheelhouse trim cover (See Fig. 8-18).
4. With a putty knife, or other suitable flat bladed tool, disengage trim retaining clips from sealing plugs along top of wheelhouse cover panel and remove panel from body (see View "C", in Fig. 8-18).

   NOTE: The trim retaining clips and corresponding plastic sealing plugs are available as service parts.

5. To install, reverse removal procedure.

REAR QUARTER REAR TRIM PANEL—ALL STATION WAGON STYLES EXCEPT 13435 AND 23335 STYLES (LEFT SIDE)

Removal and Installation

1. On "35" styles, remove exposed screw at

bottom center of panel (see View "B" in Fig. 8-19).

2. Working from front to rear (with a flat bladed tool) disengage trim retaining clips from plastic sealing plugs along upper edge of rear quarter rear trim panel (see View "A" in Fig. 8-19).

3. With an upward movement, remove panel from body.

4. To install, reverse removal procedure.

WHEELHOUSE TRIM COVER ASSEMBLY (LEFT SIDE)—ALL "A" STATION WAGON STYLES EXCEPT 23335 STYLES

Removal and Installation

1. Remove rear quarter front and rear trim panel assemblies and second folding seat back bumper assembly.

2. On "35" styles, fold back rubber mat from wheelhouse. On "55 and 65" styles, remove compartment side filler panel as described in the "Seat" section of the body service manual.

3. Beginning at outer edges and working toward center, carefully break cement bond between wheelhouse and trim cover and remove cover.

4. To install, reverse removal procedure. Prior to installation, clean off old cement from wheelhouse to assure a smooth cementing surface. Install cover in position and scribe line inside of folding seat back bumper cut-out to guide installation when adhesive is applied. Remove cover and apply trim adhesive over wheelhouse surfaces contacted by trim cover (Do not cover scribe lines). With trim cover "inside-out", align bumper cut-out with scribe lines on wheelhouse. Apply cover to wheelhouse working from center of cover towards outer edges.

REAR QUARTER REAR TRIM PANEL (LEFT SIDE)—CHEVROLET 13435 AND PONTIAC 23335 STYLES

The rear quarter rear trim panel on these styles (left side) is constructed of a textured metal finish and extends to include the wheelhouse; all in a single panel.

Removal and Installation

1. Remove rear quarter front trim panel and second folding seat back bumper assembly from wheelhouse.

2. Remove all screws at front, rear and bottom of rear trim panel (see Fig. 8-20).

3. Working from front to rear (with a flat bladed tool), disengage trim retaining clips from plastic sealing plugs and remove trim assembly from body (see View "D" in Fig. 8-20).

   NOTE: The trim retaining clips and corresponding plastic sealing plugs are available as service parts.

4. To install, reverse removal procedure.

REAR QUARTER REAR TRIM PANEL—CHEVY II STATION WAGONS

Removal and Installation

1. Remove rear quarter belt finishing moldings (front molding only right side). Disengage pinchweld finishing strip from rear body lower lock pillar pinchweld flange. Carefully break cement bond between overlapping edge of trim assembly and pinchweld flange.

2. Remove screws at front and rear of rear trim panel and remove trim panel from body.

   NOTE: On styles with electric tail gate dropping window, remove screws securing window switch in left rear trim panel and disconnect switch from feed wire connector before removing trim panel from body.

3. To install, reverse removal procedure. Prior to installation, apply trim cement to pinchweld flange surface contacted by overlapping forward edge of trim assembly to assure good retention.

REAR QUARTER FRONT TRIM PANEL—CHEVY II STATION WAGONS

Removal and Installation

1. Remove front screw on rear quarter rear trim panel. Disengage pinchweld finishing strip from rear body lower lock pillar pinchweld flange. Remove rear door sill plate extension.

2. Carefully break cement bond between overlapping edge of front trim panel and pinchweld flange. Remove front trim panel attaching screws and remove trim panel from body.

3. To install, reverse removal procedure. Prior to installation, apply trim cement to pinchweld flange surface contacted by overlapping edge of trim assembly to assure good retention.

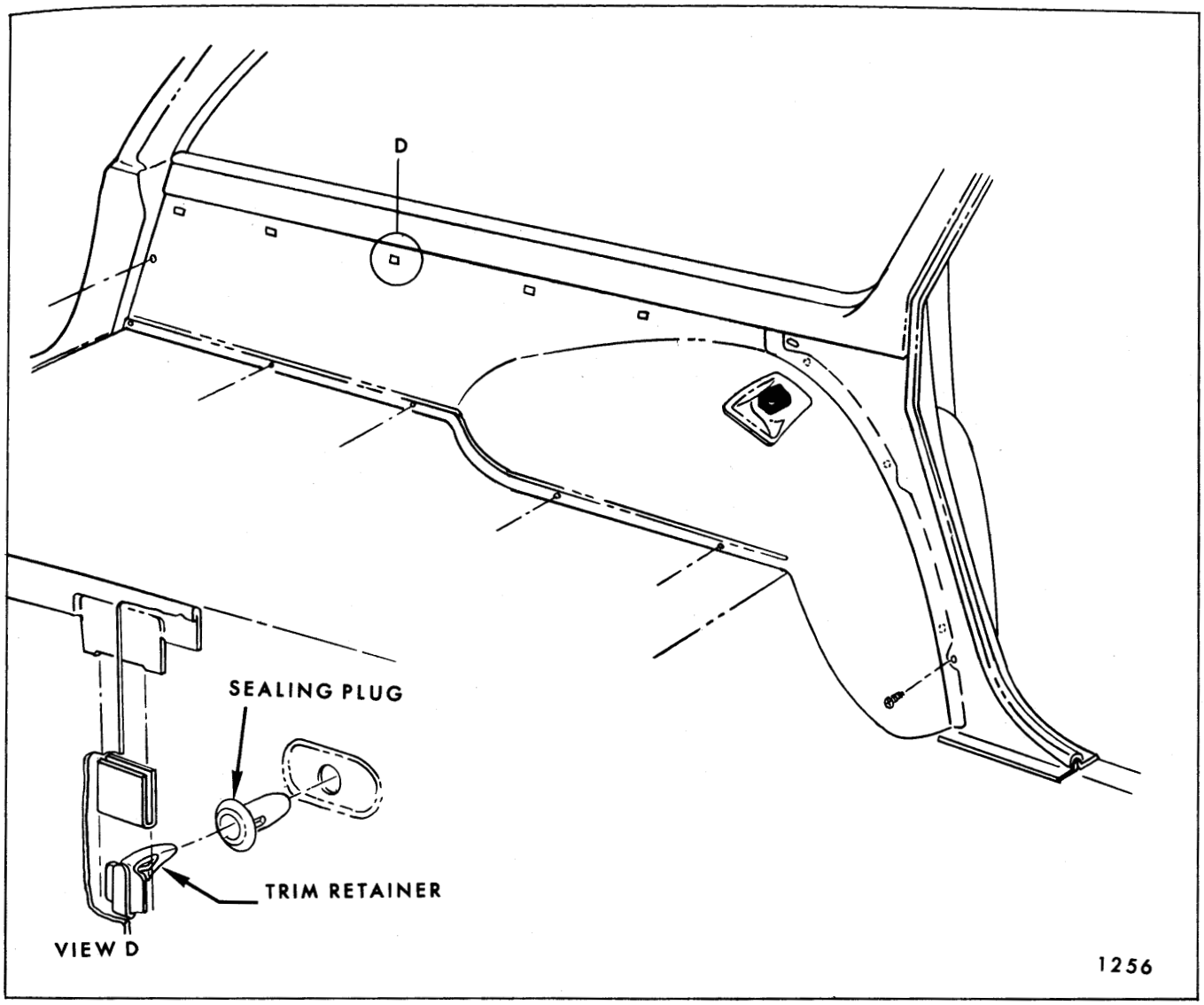

Fig. 8-20—Rear Quarter Trim Panel, Left Side - Pontiac 23335 Style

REAR QUARTER WHEELHOUSE TRIM COVER— CHEVY II STATION WAGONS

Removal and Installation

1. Remove second folding seat back filler panel. Remove the rear quarter front and rear trim panels.
2. Remove screws securing second folding seat back retainer and support and remove retainer and support from wheelhouse.
3. Carefully break cement bond between wheelhouse trim cover and wheelhouse panel and remove trim cover from body.
4. To install, reverse removal procedure. Prior to installing wheelhouse trim cover, apply neoprene type weatherstrip adhesive, 2" wide, completely around inside perimeter of wheelhouse trim cover. Also, apply weatherstrip adhesive to area around cut-out for second seat back support on wheelhouse. Position trim assembly to wheelhouse and apply, working material down and outwards to remove wrinkles. Install previously removed parts.

REAR QUARTER STATIONARY WINDOW GLASS "A & B" STATION WAGONS

DESCRIPTION

The rear quarter window glass is retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a rear quarter window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to rear quarter window glass removal and installation will be covered in this section.

REMOVAL

1. Remove glass as outlined in General Information Section. If the original glass is to be re-used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

   NOTE: Do not use an oil base solvent. Any trace of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around rear quarter window opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, replace or reform clip to insure adequate molding retention.

   NOTE: Check all clip attaching screws and tighten as required.

2. With black weatherstrip adhesive cement four flat spacers (.20 x .63 x 1.0 - Part No. 4459429 or equivalent) to pinchweld flange; two at top and two at bottom (see Fig. 8-21).

3. With black weatherstrip adhesive cement four rectangular spacers (.34 x .44 x 1.0 - Part No. 4871330 or equivalent) to rear quarter window opening rabbet; two at sides and two at bottom (see Fig. 8-21). Both side spacers should be cemented in the approximate position indicated in Figure 8-21.

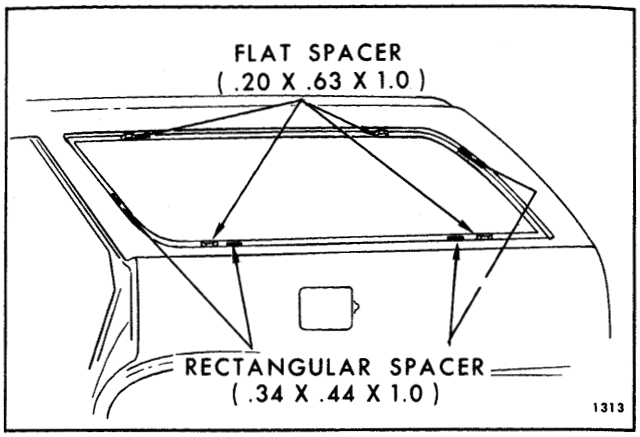

Fig. 8-21—Rear Quarter Window Spacer Installation

4. Position glass in opening by making contact along upper edge first and then swing in lower edge (see Fig. 8-22 and 8-23).

5. Check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers.

6. Check relationship of glass contour to body opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, correction can be made by any one of the following methods:

   a. Position another glass in opening to determine if a better fit can be obtained.

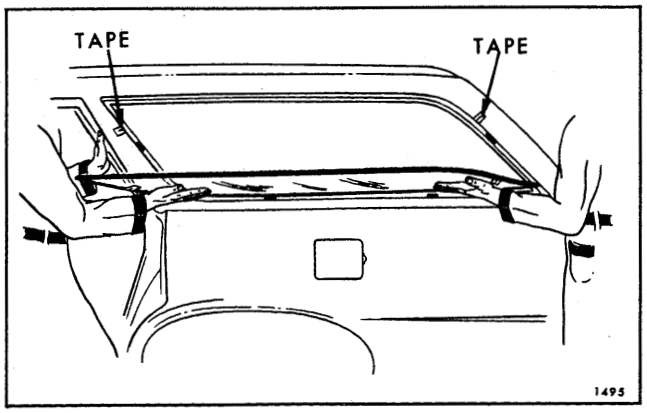

Fig. 8-22—Stationary Quarter Window Installation

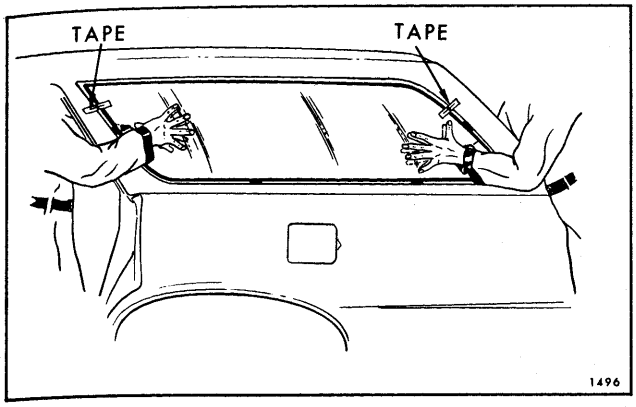

Fig. 8-23—Stationary Quarter Window Installation

b. Rework pinchweld flange.

c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange or by allowing bead on glass to exceed specified 3/8" height at gap areas.

7. After final adjustments have been made and glass is in proper position, apply a piece of masking tape horizontally over front and rear edges of glass and body pillars (Fig. 8-23), so that tape on glass can be aligned with tape on body and act as a guide when glass is installed.

8. Apply one inch masking tape completely around edge of glass inner surface 1/4" inboard from outer edge (see Fig. 8-24).

9. From inside of body, apply masking tape around window opening to protect painted and trimmed surfaces.

10. Using a clean, lint free cloth, liberally dampened with Adhesive Caulking Primer, briskly rub primer over and into original adhesive caulking material that remains on pinchweld flange. If the pinchweld flange has been repainted, prime flange with Paint Primer, or equivalent.

11. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean water-dampened rag. Dry glass thoroughly with a clean dry rag.

12. With caulking gun and nozzle positioned as illustrated in Figure 8-24, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass.

NOTE: When material in first tube is dispensed, quickly insert second tube and continue application of bead. This material begins to cure after fifteen (15) minutes exposure to air; therefore, perform the following steps immediately and install glass in the opening as quickly as possible.

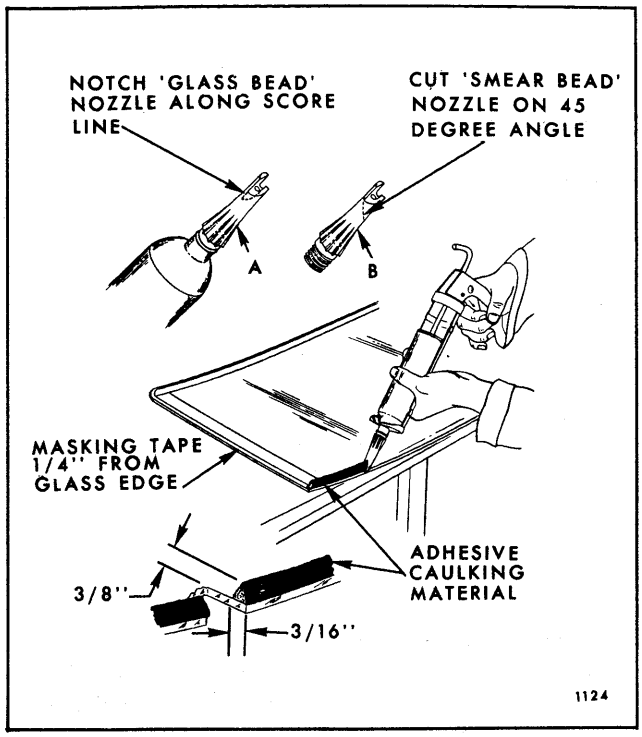

Fig. 8-24—Adhesive Caulking Material Application - Extended Method

13. Remove "glass bead" nozzle and insert "smear bead" nozzle. Holding caulking gun at an angle so that opening of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

14. Install glass (see Fig. 8-22 and Fig. 8-23). Make certain that glass sets properly on spacers and does not have to be shifted after material contacts pinchweld flange. Align tape on glass with tape on body to guide window into opening.

NOTE: When setting glass in opening, make contact with upper edge of glass first and then swing in lower edge.

15. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the rear quarter glass.

16. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.
17. Watertest installation immediately using cold water spray.
18. Remove masking tape from inside of glass.
19. Install reveal moldings, inside garnish moldings and previously removed parts.

REAR QUARTER STATIONARY WINDOW "X" STATION WAGON

REMOVAL

1. Remove rear quarter garnish moldings and rear quarter reveal moldings (see Molding section of Body Service Manual).
2. Remove quarter window upper and lower retainer and belt finishing molding supports.
3. Using a suitable tool, carefully break seal between window rubber channel and body opening. With the aid of a helper, carefully push glass and rubber channel assembly inboard and remove assembly from opening.

   CAUTION: Use care so that glass does not strike body metal. Edge chips can cause solid tempered safety plate glass to shatter: Do not attempt to grind glass.

INSTALLATION

1. Clean off old sealer from rubber channel and body opening to assure a smooth sealing surface.
2. Apply a bead of black weatherstrip adhesive into glass cavity in rubber channel and install rubber channel to glass.
3. Apply a ribbon of medium-bodied sealer completely around window opening.
4. Insert window assembly into opening and install upper and lower window retainers.
5. Using a pressure type applicator, apply weatherstrip adhesive (black) between glass and lip of rubber channel completely around outside of window.
6. Clean off excess sealer and replace previously removed parts.

REAR QUARTER HARDWARE

DESCRIPTION

As shown in the following rear quarter hardware drawings, the "closed" style rear quarter window assembly operates within glass run channels. On "hardtop" styles, nylon rollers, which are components of the lower sash channel or which are bolted directly to the window glass, operate within the window front and rear guides.

All side windows are frameless solid tempered safety plate glass. Therefore, use caution when handling window assemblies which may shatter if chipped or deeply scratched.

In order to perform any service operations in the rear quarter it is necessary to remove the rear quarter trim as specified in the preceding trim section (see index).

REAR QUARTER INNER PANEL SEALING

All rear quarter inner panels are sealed with one or a combination of water deflectors, access hole covers, sealing plugs (or grommets) and body sealer. Service procedures for inner panel water deflectors are outlined in the "Front and Rear Door" section of this manual (see index). Figure 8-25 is typical of a water deflector installation.

Inner panel access hole covers are retained by a series of screws and sealed with body sealer. Usually, removal of either the water deflector or access hole cover will provide the clearance required for service procedures of rear quarter hardware. Whenever any seal has been disturbed, however, the area must be carefully resealed to prevent waterleaks. Body caulking compound is recommended for service sealing. Figure 8-26 illustrates quarter inner panel sealing on styles which use individual seals at all hardware attaching locations.

PHANTOM VIEWS

The following figures illustrate the rear quarter

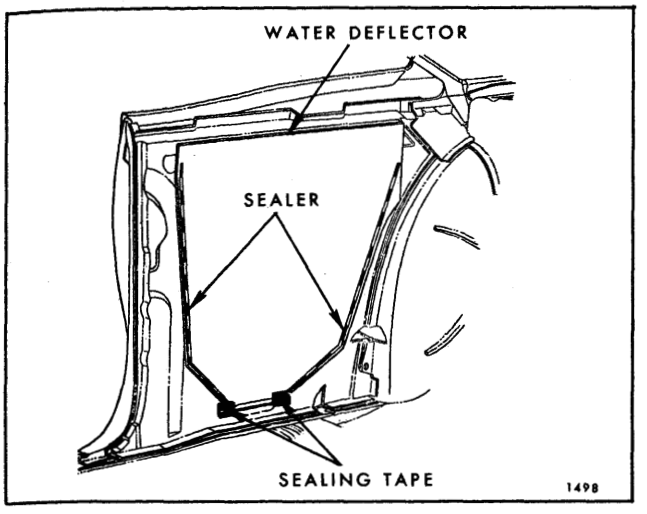

Fig. 8-25—Rear Quarter Inner Panel Sealing - Typical of Water Deflector Installation

hardware components and their relationship to each other on the various styles.

REAR QUARTER WINDOW "A & B-11" STYLES AND "A-07" STYLE

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector.

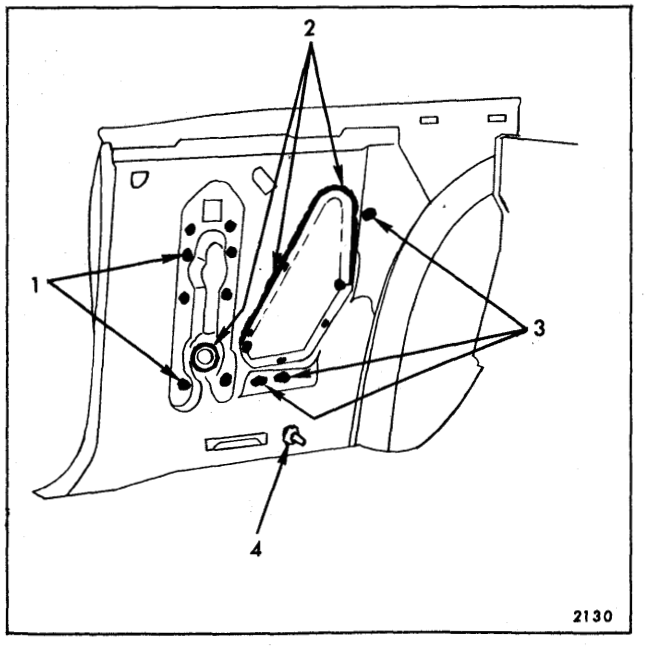

Fig. 8-26—Rear Quarter Inner Panel Sealing - "67" Styles

1. Regulator Attaching Bolt Slots
2. Access Hole Covers
3. Window Guide Adjusting Stud Slots
4. Electrical Harness Grommet

2. On "A" styles, remove glass run channel outer strip assembly. Refer to index of "Front Door" section for strip assembly removal.

3. On "A & B" styles lower window to position shown in Figure 8-39 for "A-07" styles, 8-40 for "A-11" styles, and 8-41 for "B-11" styles.

4. Supporting window with one hand, disengage clip retainer securing regulator lift arm to pivot pin on window lower sash channel ("11" styles) or to lower edge of glass ("07" style).

5. Lower front edge of glass until nylon guide at top of window front vertical sash comes out of front glass channel and rear edge of glass comes out of rear run channel. Then, lift glass up (rear edge first) and remove window from body outboard of window opening.

6. To install, reverse removal procedure.

REAR QUARTER WINDOW— "X-11" STYLE

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector.

2. Remove glass run channel inner and outer strip assemblies (at belt). Refer to index of "Door" section for removal procedure.

3. With the window in the full up position, remove window support to regulator plate attaching screws (Fig. 8-42).

4. Operate window regulator down. Disengage window assembly from regulator arm and tilt rear of window downward to disengage window from glass run channels. Lift window upward and inboard and remove from body.

5. To install, reverse removal procedure.

REAR QUARTER WINDOW ADJUSTMENTS—"A & B" CLOSED STYLES

All window assembly adjustments are provided at the window regulator attaching screws.

1. To obtain proper seating of the glass in the upper glass run channels, or proper contact between belt sealing strips and lower sash channel, loosen regulator attaching screws and adjust window as required.

2. To eliminate a fore and aft bind between the glass run channels (hard operating window),

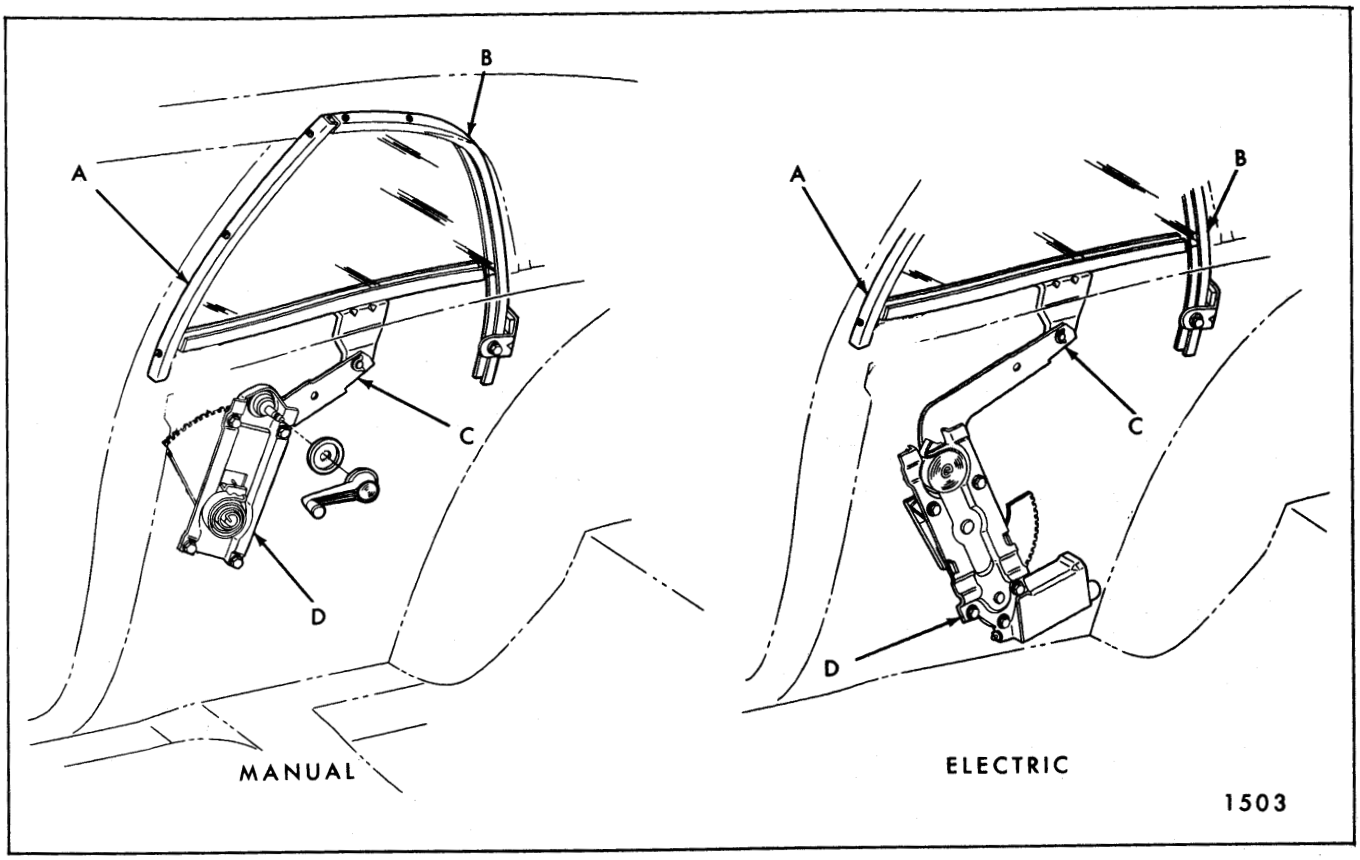

Fig. 8-27—Rear Quarter Window Hardware - "B-11" Styles

A. Front Glass Run Channel
B. Rear Glass Run Channel
C. Slotted Retainer
D. Window Regulator

or a condition where window will not stay in rear run channel, loosen rear run channel attaching bolt and adjust run channel fore or aft as required.

REAR QUARTER WINDOW ADJUSTMENTS—"X" CLOSED STYLES

For proper operation of rear quarter window and correct seating of glass in run channels, adjust rear quarter window in the following sequence:

1. With the window in the full "up" position, loosen the window support to regulator plate attaching screws and the center guide attaching screws.

2. Using hand pressure, press window upward and forward to make certain it is "bottomed" in the upper and forward glass run channels.

3. Tighten window support to regulator plate attaching screws and center guide upper attaching screw.

4. Lower window to full "down" position. Tighten center guide lower attaching screw while forcing lower portion of guide rearward.

NOTE: Do not apply too much pressure when forcing guide rearward, as this tends to make front edge of glass dig into front run channel.

REAR QUARTER WINDOW REGULATOR (MANUAL AND ELECTRIC)— "A-B & X" CLOSED STYLES

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector. On electric styles, disconnect feed wire from regulator motor.

2. On "A & B" styles, disengage clip retainer from pivot pin on window lower sash channel (Fig. 8-41 for "B" styles, Figures 8-39 and 8-40 for "A" styles). Raise window to full-up and prop in that position.

3. On "X" styles, remove support to regulator plate screws (Fig. 8-42). Raise window to full-up and prop in that position.

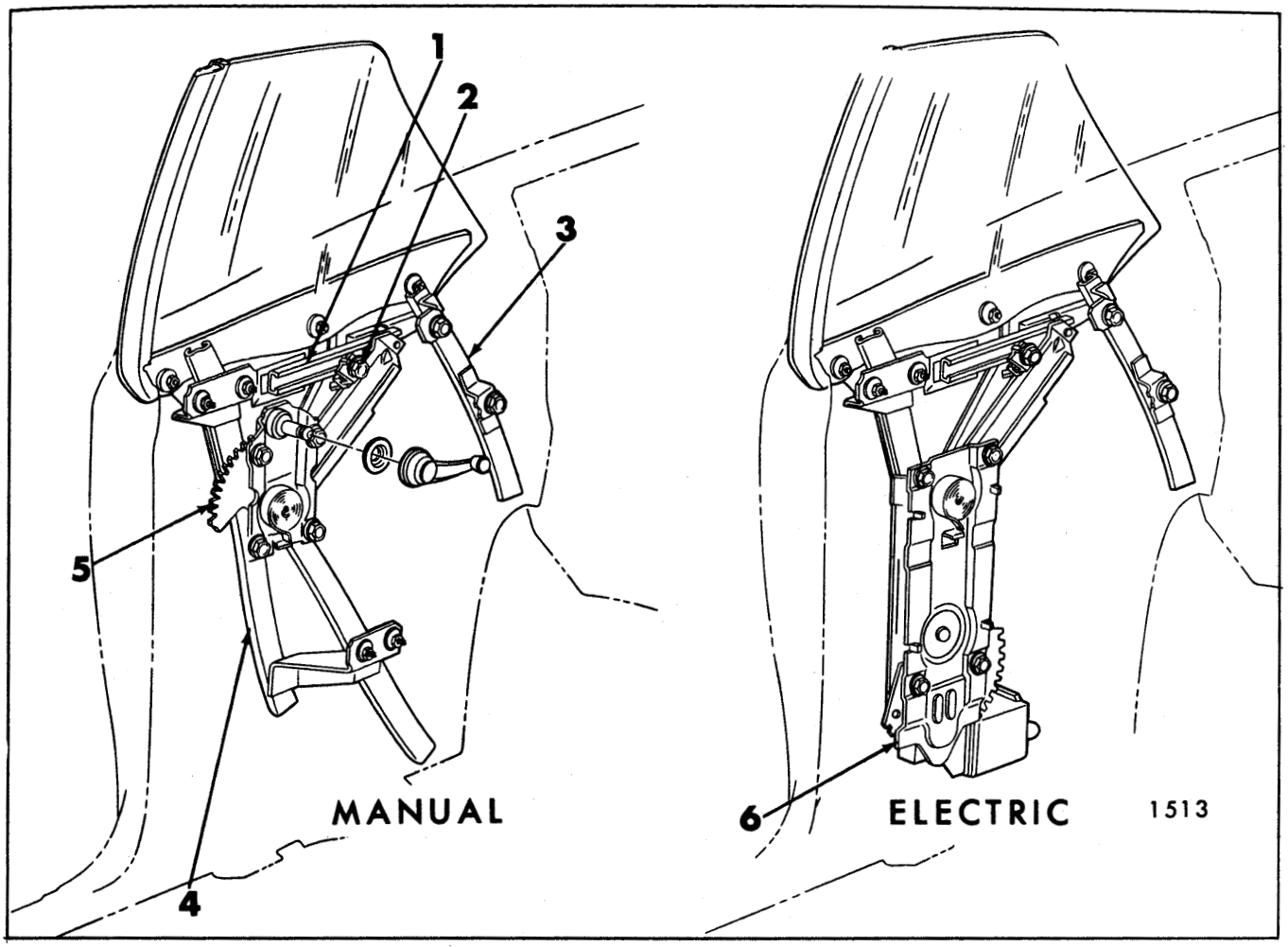

Fig. 8-28—Rear Quarter Window Hardware - "67 B-C" Styles Shown - "37-47-57" Styles Similar

1. Window Sash Channel Cam
2. Window Up-Stop
3. Rear Guide
4. Front Guide
5. Regulator (Manual)
6. Regulator (Electric)

4. On "A & B" styles, remove regulator to inner panel screws and remove regulator through large access hole (Fig. 8-43 - "A" styles shown, "B" similar).

5. On "X" styles, remove regulator to inner panel screws (Fig. 8-42). Disengage roller on regulator plate from window guide and remove regulator through large access hole.

6. To install, reverse removal procedure.

NOTE: The procedure for removing electric motor from regulator is described under "Door and Quarter Window Regulator Electric Motor Assembly" in the Door Section of this manual.

REAR QUARTER WINDOW REAR GLASS RUN CHANNEL—ALL CLOSED STYLES

Removal and Installation

1. Remove rear quarter window as previously described.

2. Remove run channel to inner panel attaching bolt (Fig. 8-44).

3. On "A-07" style remove screws securing run channel to side roof rail along length of run channel.

4. Using a flat blade tool, carefully pry run channel retaining clips from piercings in side roof rail.

NOTE: If difficulty is encountered disengaging run channel, inspect inside of channel for the presence of screws.

5. At belt line on "A" styles, disengage tab on rear run channel from side roof rail by moving run channel downward into opening between the panels; then, remove run channel from body.

6. Prior to installation, inspect foam sealing material for any damage, that would result in waterleaks, and replace as necessary.

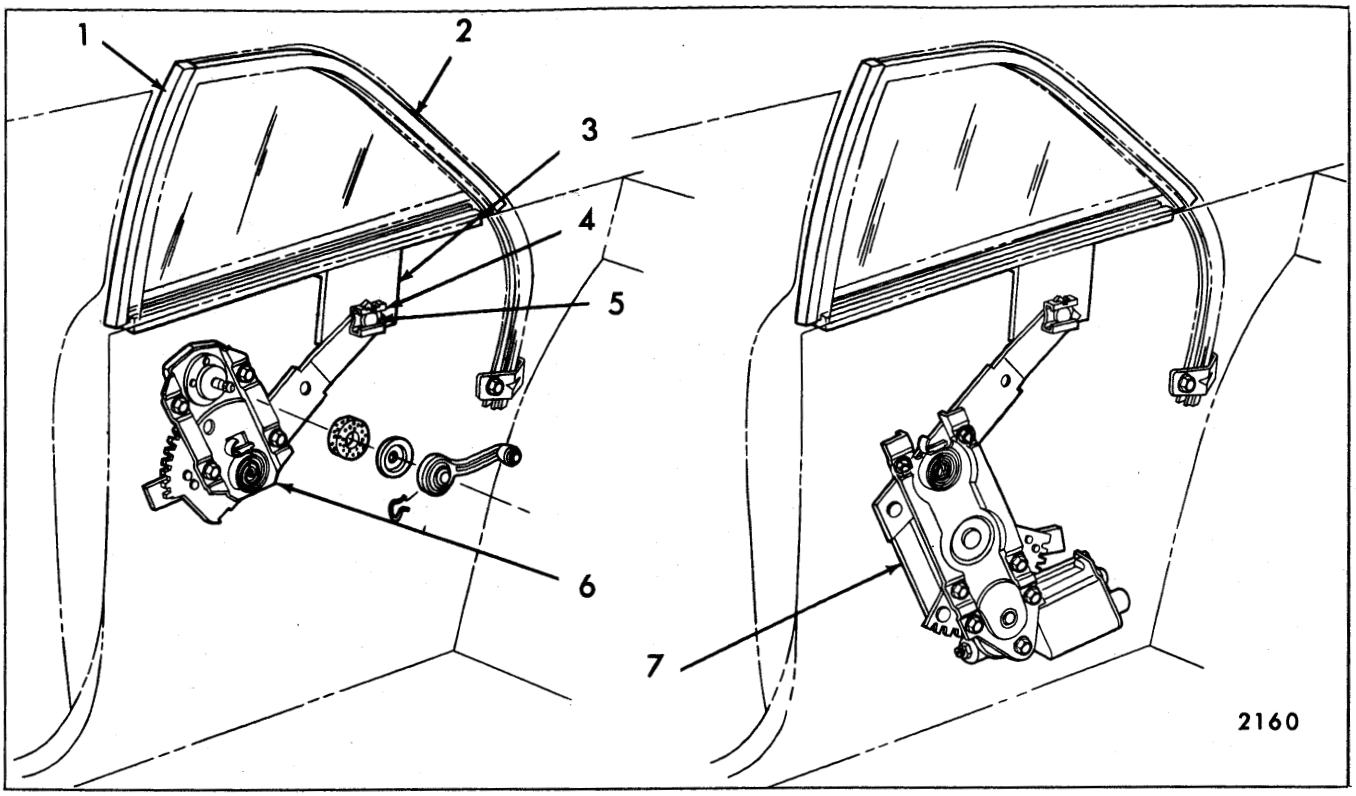

Fig. 8-29—Rear Quarter Hardware - "A-11" Style

1. Front Glass Run Channel
2. Rear Glass Run Channel
3. Window Lower Sash
4. Clip Retainer
5. Pivot Pin
6. Regulator (Manual)
7. Regulator (Electric)

7. To install, reverse removal procedure.

REAR QUARTER WINDOW FRONT GLASS RUN CHANNEL—ALL CLOSED STYLES

Removal and Installation

1. Remove rear quarter window as previously described.
2. On "A" styles, remove screws along length of run channel securing channel to body (Fig. 8-44).
3. On all styles, using a flat blade tool, pry run channel from body pillar and remove run channel (Fig. 8-45).
4. To install, reverse removal procedure. Prior to installation inspect sealing material on body pillar or run channel and replace or add to as required.

REAR QUARTER WINDOW GUIDE ASSEMBLY—"X-11" STYLES

Removal and Installation

1. Remove rear quarter trim assembly and trim finishing upper molding.
2. Detach inner panel water deflector sufficiently to gain access to guide attaching screws.
3. Remove guide attaching screws, disengage guide from roller on regulator arm and remove guide through access hole (see Fig. 8-46).
4. To install, reverse removal procedure.

REAR QUARTER WINDOW OUTER STRIP ASSEMBLY—ALL CLOSED STYLES

1. Remove rear quarter trim assembly and inner panel water deflector.
2. On "A & B" styles, disengage window assembly from regulator lift arm by removing slotted

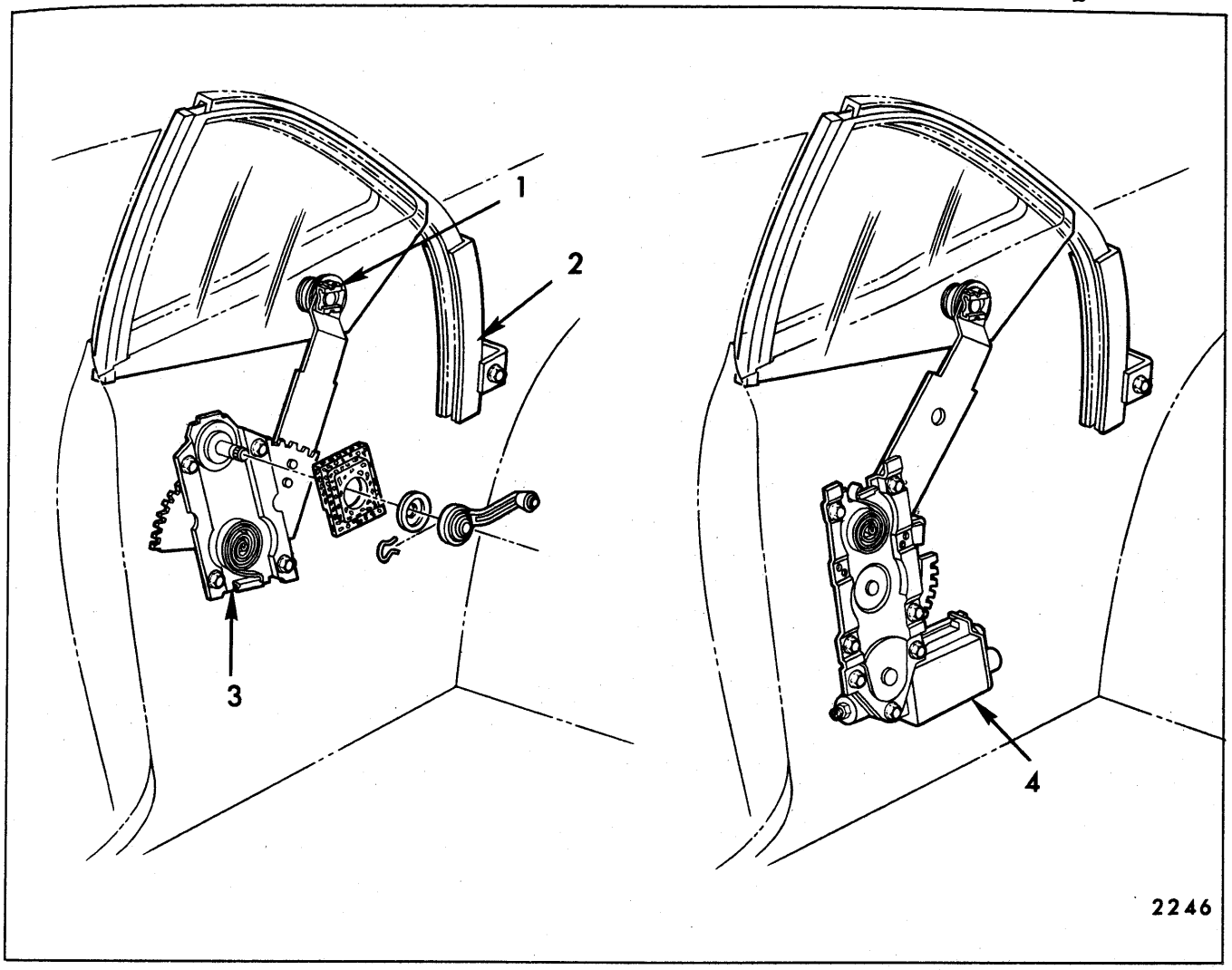

Fig. 8-30—Rear Quarter Hardware - "A-07" Style

1. Glass Retainer
2. Glass Run Channel
3. Window Regulator (Manual)
4. Window Regulator (Electric)

retainer (Fig. 8-41). On "X" styles remove support to regulator plate screws (Fig. 8-42).

3. Lower window assembly to bottom of rear quarter and rest it against outer panel.

4. On styles with screw retained strip assemblies, remove screws securing outer strip to rear quarter outer panel return flange and remove strip from body (Fig. 8-47). On styles with clip retained strip assemblies refer to index of "Door" section for removal procedure.

   NOTE: Use care not to damage strip assembly or adjacent painted surfaces.

5. To install, reverse removal procedure.

REAR QUARTER WINDOW ASSEMBLY— "17-37-47-57-67 AND 87" STYLES

The rear quarter window is made of solid tempered safety plate glass. Consequently, it cannot be drilled or ground, or develop scratches or edge chips as it will shatter. The window assembly consists of a pressed-on front vertical sash channel and a bolt-on lower sash channel assembly.

NOTE: When reinstalling glass to sash channel bolts, or nylon roller nuts, torque to 60 inch pounds (5 foot pounds). Also, replace glass to sash channel spacers (rubber).

Refer to front of this section for hardware drawings which can assist in performing any of the following procedures. To perform any of these service

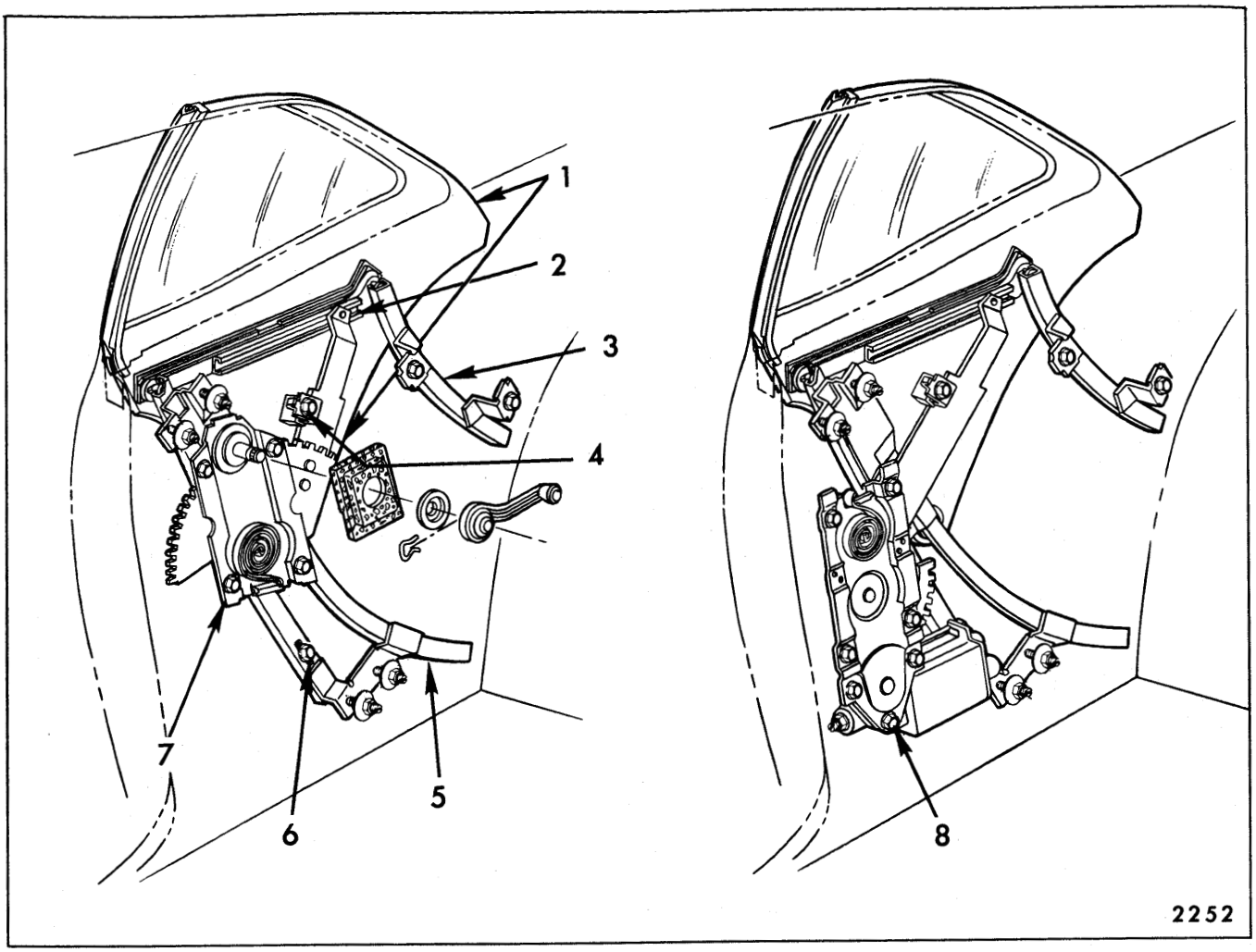

Fig. 8-31—Rear Quarter Hardware - "A-17" Style

1. Window Glass
2. Sash Channel Cam
3. Rear Guide
4. Up-Stop
5. Front Guide
6. Down-Stop
7. Window Regulator (Manual)
8. Window Regulator (Electric)

operations, remove rear quarter trim assembly and inner panel water deflector or access hole cover.

a. Removal and Installation "B-C 37 and 57" Styles

1. With window in full-up position, remove rear guide upper and lower adjusting stud nuts (Fig. 8-48). Disengage guide from roller on window lower sash channel and remove guide through access hole.

2. Lower window to almost full-down position to make lower sash channel cam attaching screws accessible through inner panel access hole (Fig. 8-48).

3. Loosen front guide upper adjusting stud nuts and remove front guide lower adjusting stud nuts (Fig. 8-48).

4. Remove lower sash channel cam attaching screws (Fig. 8-48). Disengage cam from regulator lift arm roller and remove cam.

5. Manually raise window and remove it from between the panels by lifting upward and inboard.

6. To install rear quarter window, reverse removal procedure. Figure 8-49 is an exploded view of the rear quarter window assembly and identifies the various components and their assembly sequence.

b. Removal and Installation "B-47" Style

1. With window in full-up position, remove rear guide upper and lower adjusting stud nuts (Fig. 8-48). Disengage guide from roller on window lower sash channel and remove guide through access hole.

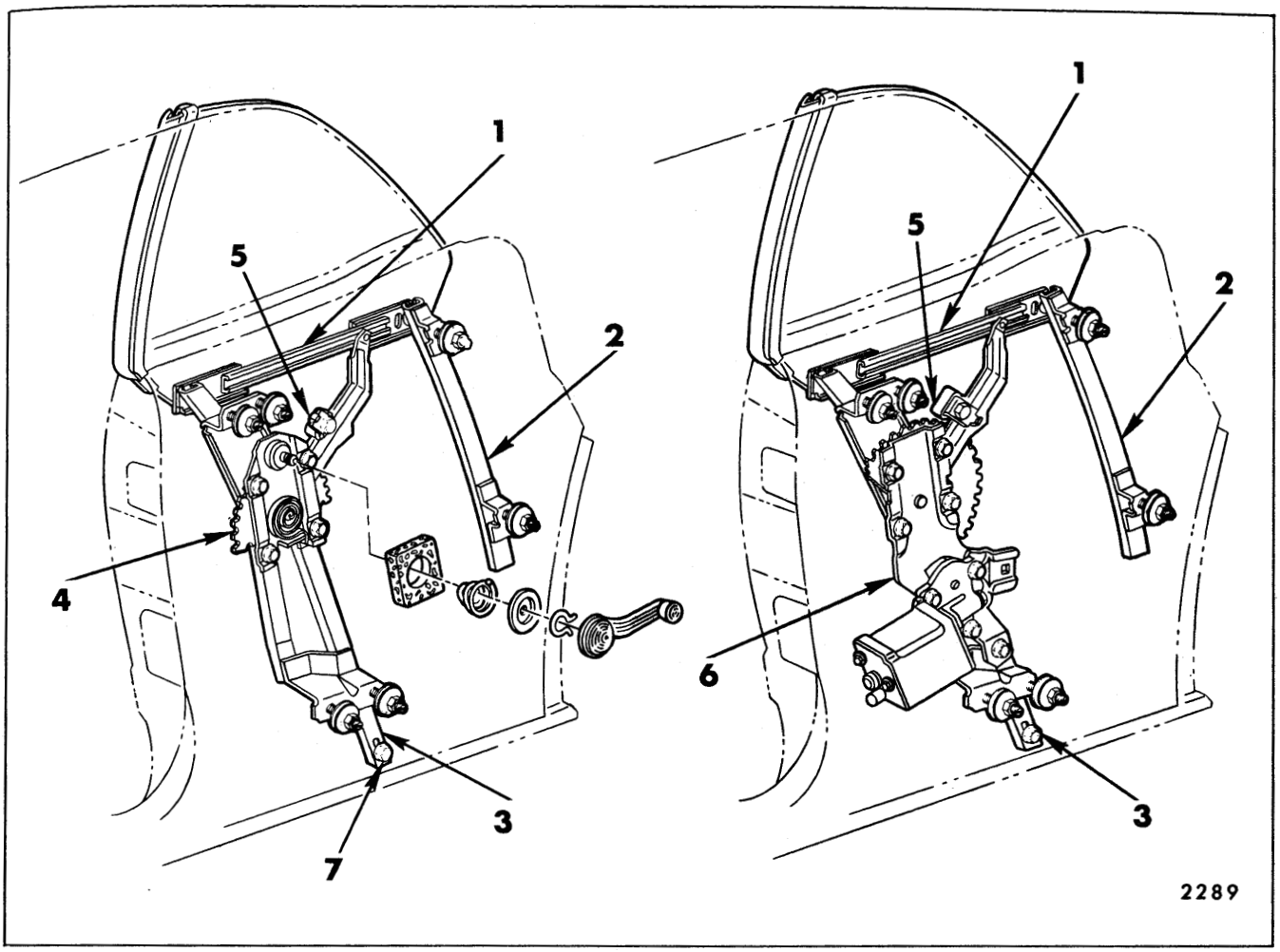

Fig. 8-32—Rear Quarter Hardware - "A-67" Styles

1. Sash Channel Cam
2. Rear Guide
3. Front Guide
4. Window Regulator (Manual)
5. Up-Stop
6. Window Regulator (Electric)
7. Front Guide Lower Stop

2. With window lowered to half-down position, remove front guide lower adjusting stud nuts and loosen upper adjusting stud nuts (Fig. 8-48).

3. Disengage front guide lower studs from inner panel by pushing studs outboard. Disengage regulator lift arm from window lower sash channel cam at rear of cam by swinging guide and window assembly forward.

4. Supporting window assembly, drop front guide upper adjusting studs to bottom of the slots in the inner panel. Remove window from body by lifting window upward and inboard.

5. To install, reverse removal procedure. Figure 8-50 is an exploded view of the rear quarter window assembly and identifies the various components and their assembly sequence.

c. Removal and Installation "B-C 67" Styles

1. Lower folding top.

2. Lower window to almost full-down position and remove lower sash channel cam attaching screws (Fig. 8-48). Disengage cam from regulator lift arm roller and remove cam.

3. Lift window straight upward and remove it from body.

4. To install rear quarter window, reverse removal procedure. Figure 8-49 is an exploded view of the rear quarter window assembly and identifies the various components and their assembly sequence.

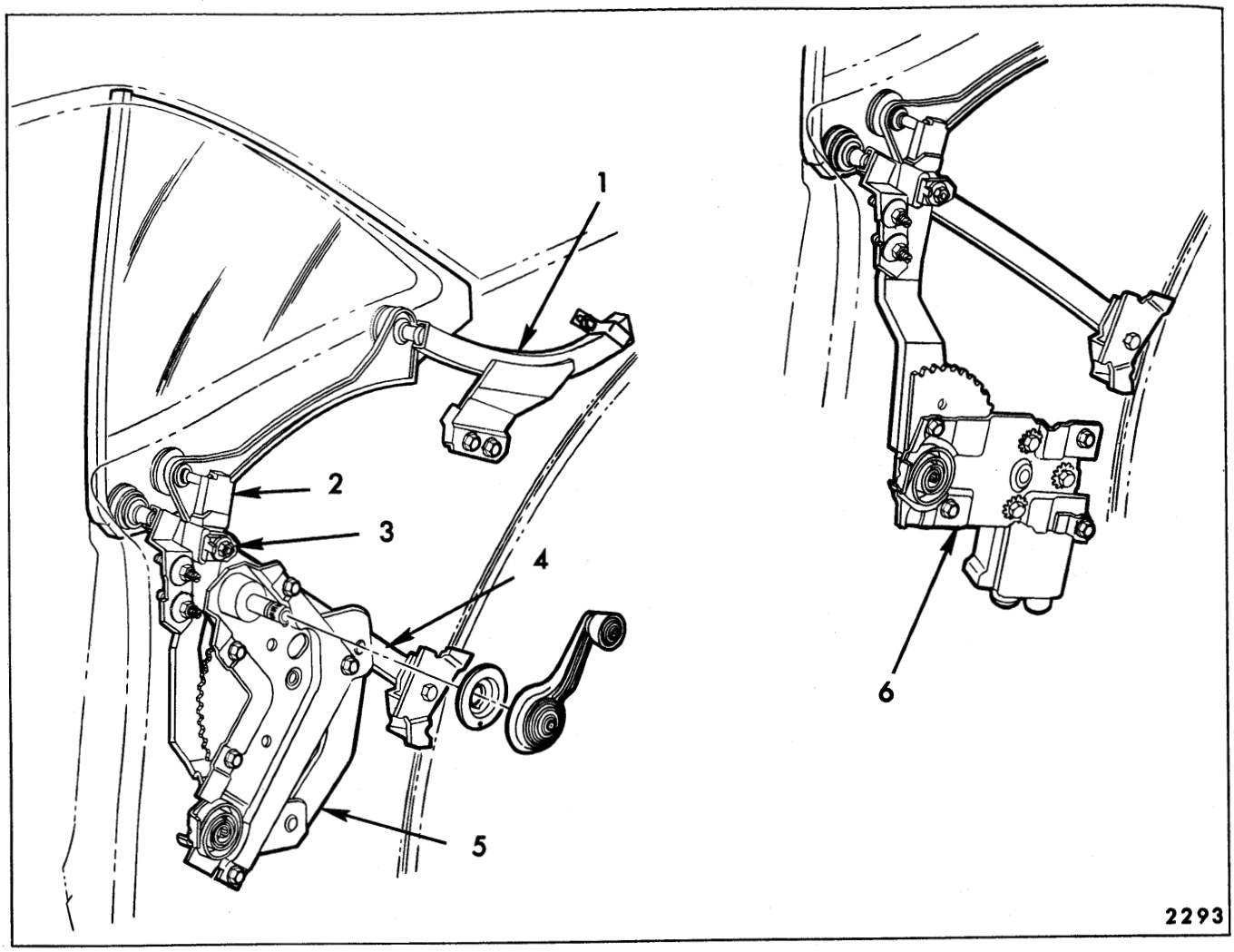

Fig. 8-33—Rear Quarter Hardware - Buick "E" Styles

1. Rear Guide
2. Regulator Litt Arm Cam
3. Up-Stop
4. Front Guide
5. Regulator (Manual)
6. Regulator (Electric)

Adjustments—"B-C 37-47-57 and 67" Styles

1. Rear quarter window up-travel is determined by position of the window up-stop (Fig. 8-48). To change the window upper limits, loosen the stop attaching bolt and position the stop as desired.

2. Fore or aft position of the window is determined by the position of the front and rear guides. To adjust the window, loosen the front and rear guide adjusting stud nuts (Fig. 8-48) and reposition the window as required.

3. In or out adjustment of the window assembly, or only the top of the window, can be obtained by utilizing the front and rear guide adjusting studs (Fig. 8-48). To reposition the window in or out, adjust the guide upper and lower adjusting studs in the same direction. To adjust the top of the window in or out, adjust the lower adjusting studs in the opposite direction of the upper studs.

d. Removal and Installation "A-17 and 67" Styles

1. Lower folding top on "67" styles.

2. Remove rear guide upper and lower attaching screws (Fig. 8-51 and 8-52). Disengage guide from sash channel roller and remove guide.

3. Remove glass run channel outer strip assembly (draft strip - see "Front Door" section of manual).

4. Remove the lower two adjusting stud nuts of the quarter window front guide and all but the top attaching bolt of window regulator (see Fig. 8-53).

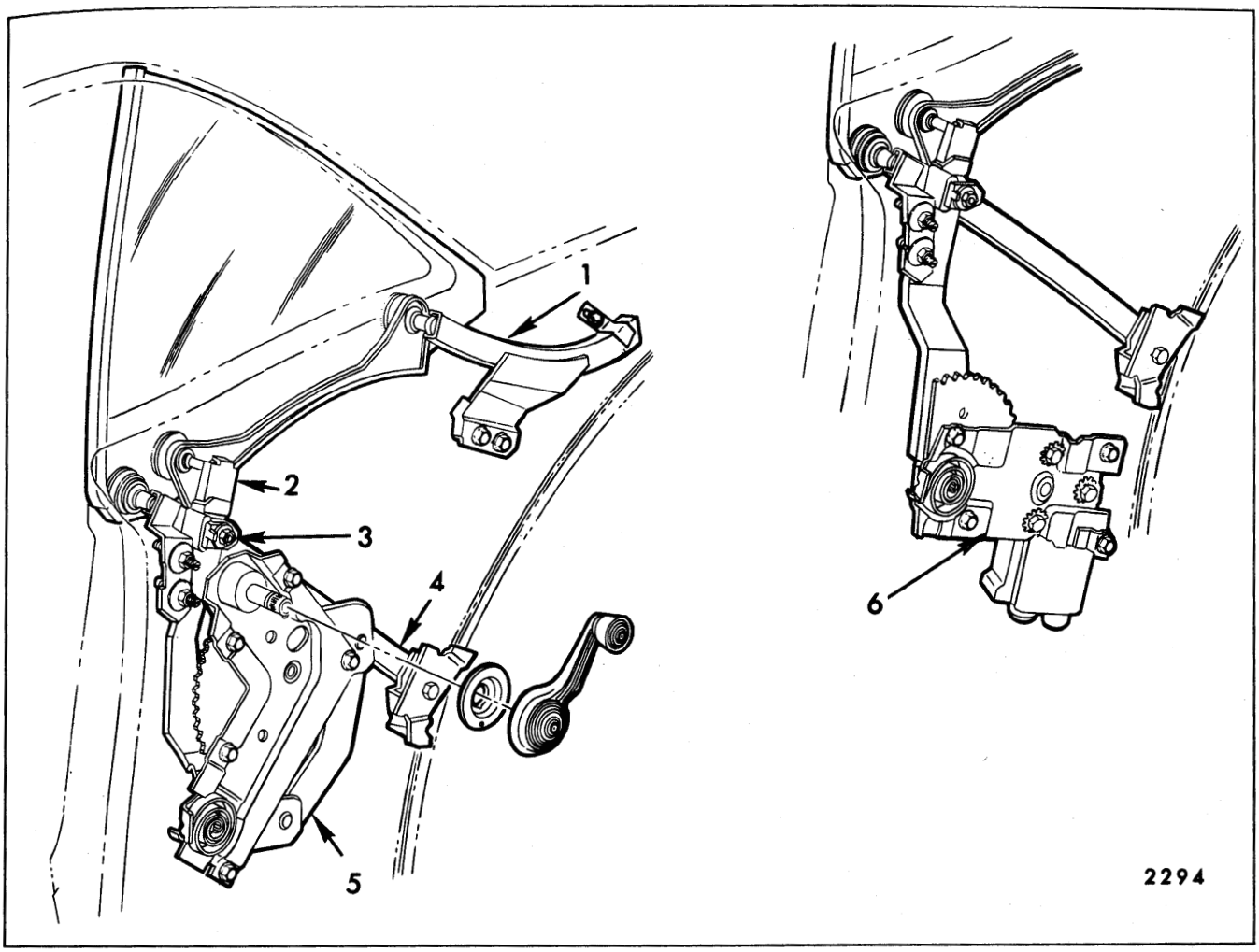

Fig. 8-34—Rear Quarter Hardware - Oldsmobile "E" Body

1. Rear Guide
2. Regulator Lift Arm Cam
3. Up-Stop
4. Front Guide
5. Regulator (Manual)
6. Regulator (Electric)

5. Rotate regulator counter-clockwise until lift arm roller is free of quarter window sash channel cam. Rotate rear edge of glass upward (outboard of side rail on "17" styles) and remove window (see Fig. 8-53).

   NOTE: If additional clearance is needed (on "17" styles), the side roof rail weatherstrip can be detached at quarter window area.

6. To install, reverse removal procedure.

Adjustments—"A-17 and 67" Styles

To perform any rear quarter window adjustments, it is necessary to remove the rear quarter trim assembly.

1. To adjust window "fore or aft", loosen front and rear guide adjusting stud nuts, position window and guides as required, and tighten nuts.

2. To adjust window "in or out" at belt line, loosen front guide upper adjusting stud nuts, adjust studs in or out as required, and tighten stud nuts.

3. To adjust top of window "in or out", loosen front guide lower adjusting stud nuts, adjust studs in or out as required, and tighten stud nuts.

4. To relieve a "fore or aft" binding condition between front and rear guides, loosen rear guide adjusting stud nut. Operate window to "full-down" position and tighten remaining stud nut.

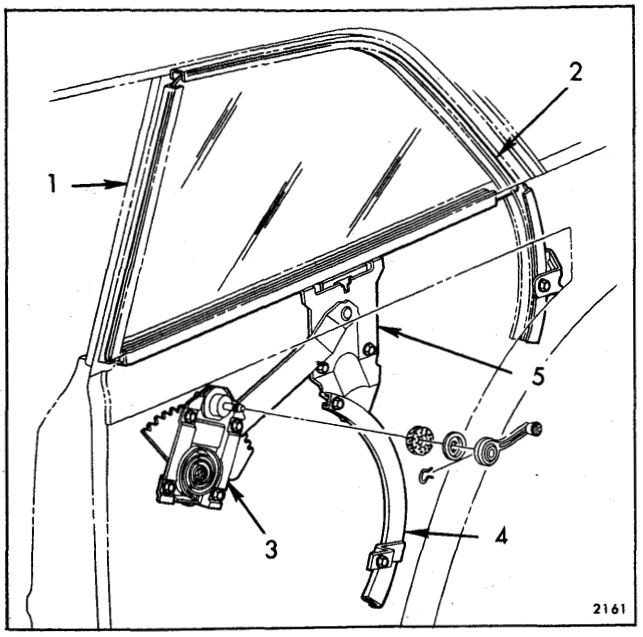

Fig. 8-35—Rear Quarter Hardware - "X-11" Style

1. Front Glass Run Channel
2. Rear Glass Run Channel
3. Window Regulator
4. Window Guide
5. Window Support to Regulator Plate

5. To limit up-travel of window, adjust window stop as required (see Figs. 8-52 and 8-51).

e. Removal and Installation All "E" Styles

1. With window in full-up position, remove rear guide upper and lower attaching bolts (Fig. 8-54). Disengage guide from roller on window assembly and remove guide through access hole.

2. With quarter window partially lowered (see Fig. 8-54), remove nuts securing regulator lift arm cam to regulator lift arm and remove cam.

   NOTE: Lift arm must be pushed inboard slightly to remove cam.

3. While supporting glass, remove quarter window front guide attaching bolts and lower guide to bottom of rear quarter.

4. Remove quarter window inboard of roof panel.

5. To install, reverse removal procedure. Figure 8-55 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments—All "E" Styles

Fore and aft alignment is determined by positioning front guide. Adjusting rear guide will provide parallel condition of quarter window to door for constant seal. In or out alignment is determined by upper two adjusting studs and nuts at front guide. The adjustable up-stop will provide up or down alignment and partially fore and aft alignments by controlling window travel.

NOTE: Adjustments on regulator lift arm cam are provided to permit maximum travel but caution must be observed so not to interfere with quarter trim assembly at belt.

f. Removal and Installation "X-37" Style

1. With window in full-up position, remove rear guide upper and lower attaching bolts (Fig. 8-56). Disengage guide from roller on window assembly and remove guide through access hole.

2. Remove glass run channel inner and outer strip assemblies (draft strips) as outlined in the "Front Door" section of this manual - see index. Remove lock pillar sealing strip.

3. Remove front guide lower two adjusting stud nuts and loosen upper two nuts (see Fig. 8-56).

4. Rotate rear edge of glass upward until regulator lift arm roller is free of sash channel cam and front two glass rollers are out of front guide channels (see Fig. 8-56). Remove glass inboard of side rail.

   NOTE: If additional clearance is needed, the side roof rail weatherstrip can be detached at quarter window area.

5. To install, reverse removal procedure. Figure 8-57 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments—"X-37" Style

To perform any rear quarter window adjustments, it is necessary to remove the rear quarter trim assembly.

1. To adjust window "fore or aft", loosen front and rear guide adjusting stud nuts, position window and guides as required, and tighten nuts.

2. To adjust window "in or out" at belt line, loosen front guide upper adjusting stud nuts, adjust studs in or out as required, and tighten stud nuts.

3. To adjust top of window "in or out", loosen front guide lower adjusting stud nuts, adjust

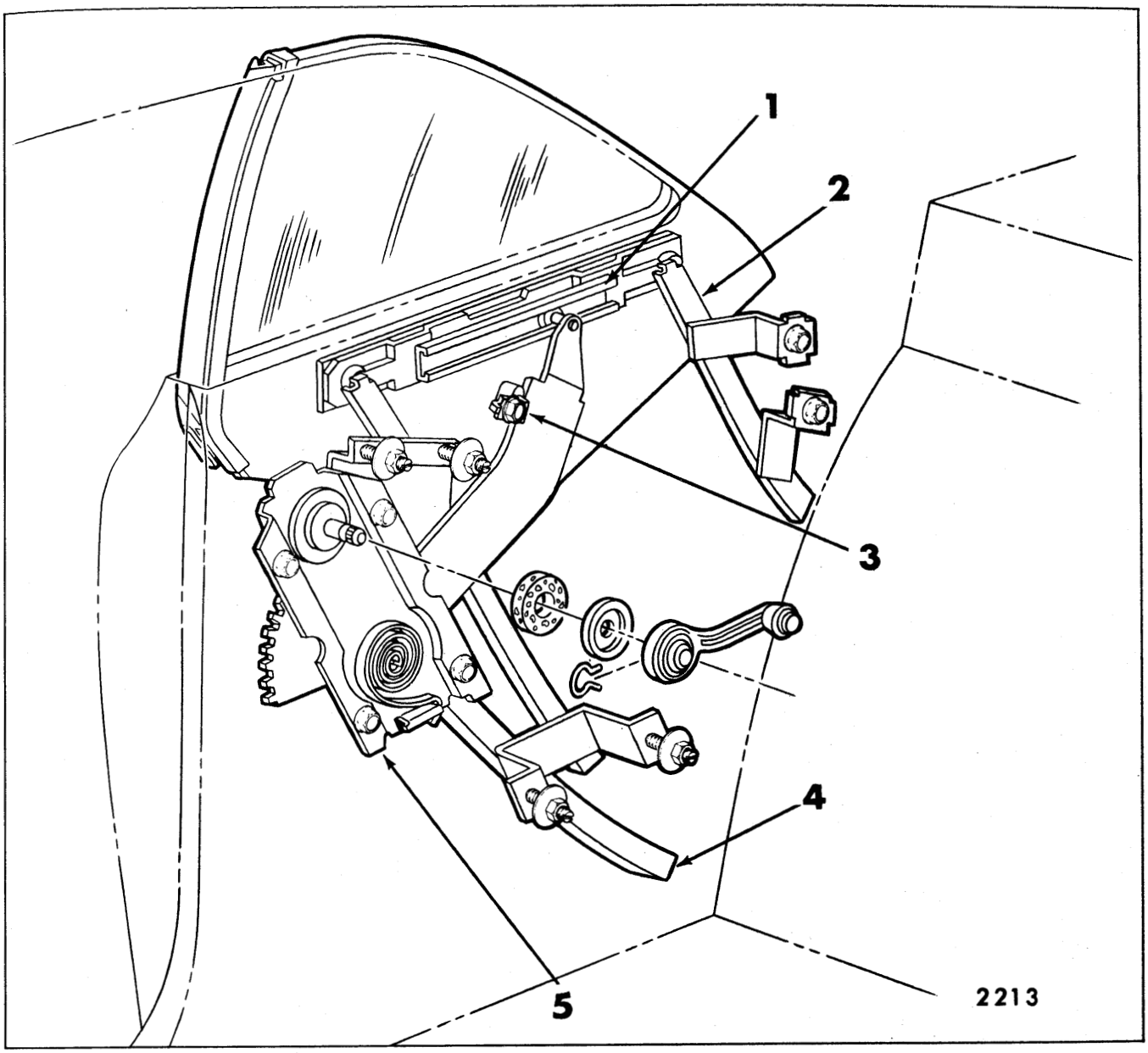

Fig. 8-36—Rear Quarter Hardware - "X-37" Styles

1. Sash Channel Cam
2. Rear Guide
3. Upper Stop
4. Front Guide
5. Window Regulator

studs in or out as required, and tighten stud nuts.

4. To relieve a "fore or aft" binding condition between front and rear guides, loosen front and rear guide adjusting stud nuts. Operate window to "full-up" position and tighten upper adjusting stud nuts. Operate window to "full-down" position and tighten remaining stud nuts.

NOTE: When adjusting studs on front guide, make certain that adjacent studs are adjusted equally to prevent creation of a bind between cam channels.

5. To limit up-travel of window, adjust window stop as required (see Fig. 8-36).

g. Removal and Installation "Z-37" Styles

1. With window in full-up position, remove rear guide upper and lower attaching bolts (Fig. 8-58). Disengage guide from roller on window assembly and remove guide.

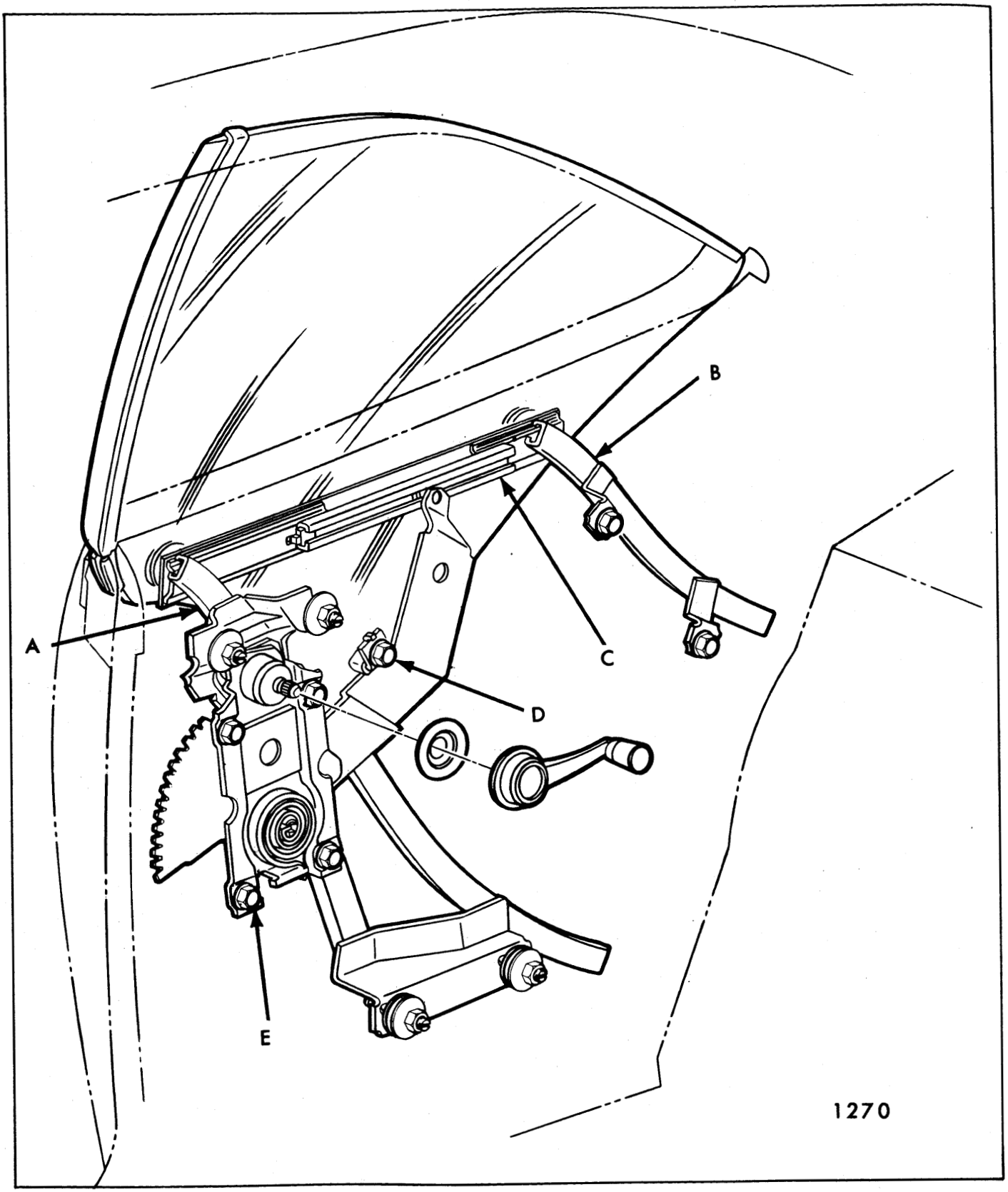

Fig. 8-37—Rear Quarter Hardware - "37" Styles

A. Front Guide
B. Rear Guide
C. Lower Sash Channel Cam
D. Window Up-Stop
E. Window Regulator

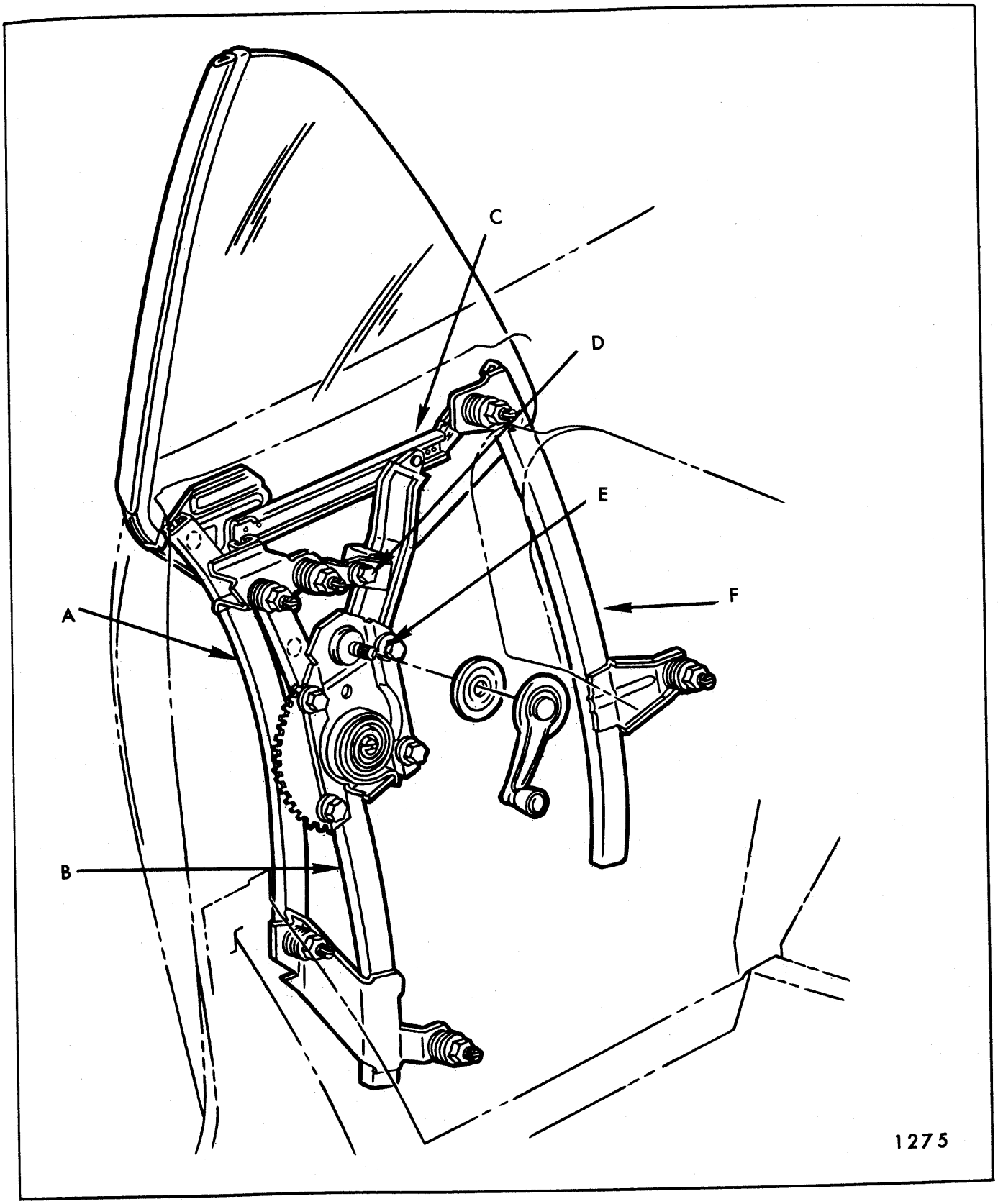

Fig. 8-38—Rear Quarter Hardware - "67" Style

A. Front Guide (Forward Channel)
B. Front Guide (Rearward Channel)
C. Sash Channel Cam
D. Window Up-Stop
E. Window Regulator
F. Rear Guide

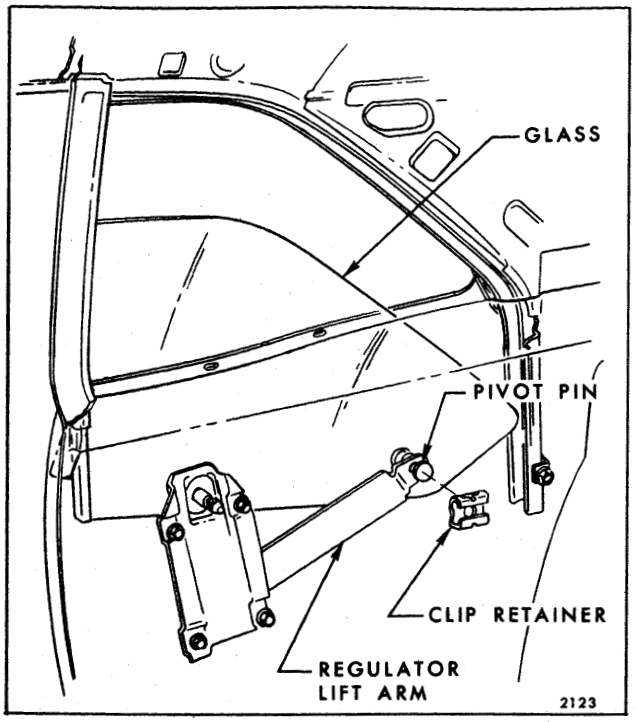

Fig. 8-39—Rear Quarter Window Attachment - "A-07" Styles

2. Remove regulator as described in a following procedure.

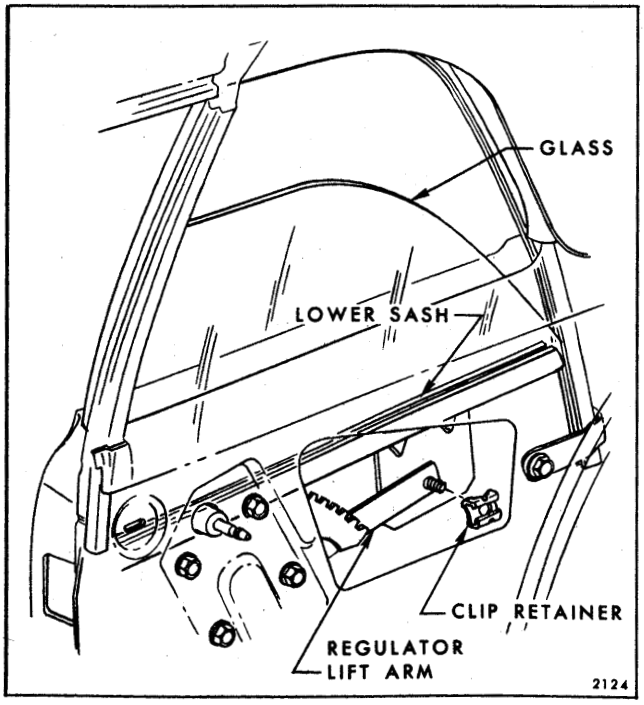

Fig. 8-40—Rear Quarter Window Attachment - "A-11" Styles

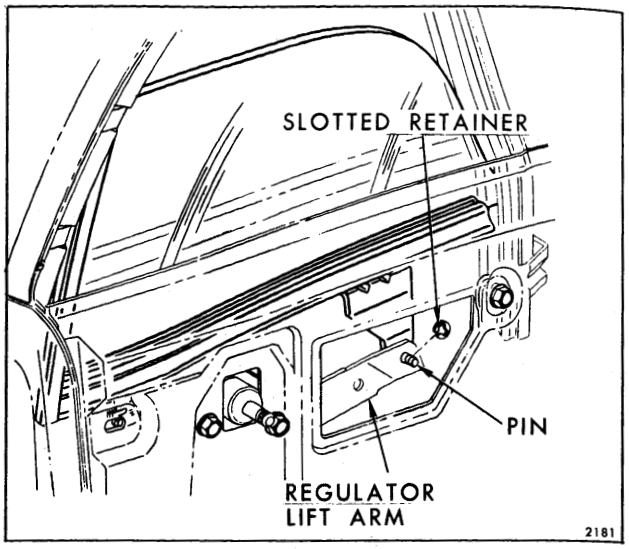

Fig. 8-41—Rear Quarter Window Attachment - "B-11" Styles

3. Slide rear quarter window upward and forward and pivot top rear corner of glass to a point outboard of side roof rail. Continue glass upward and forward to disengage front glass rollers from front guide assembly and remove rear quarter window from body.

4. To install, reverse removal procedure. Figure 8-59 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

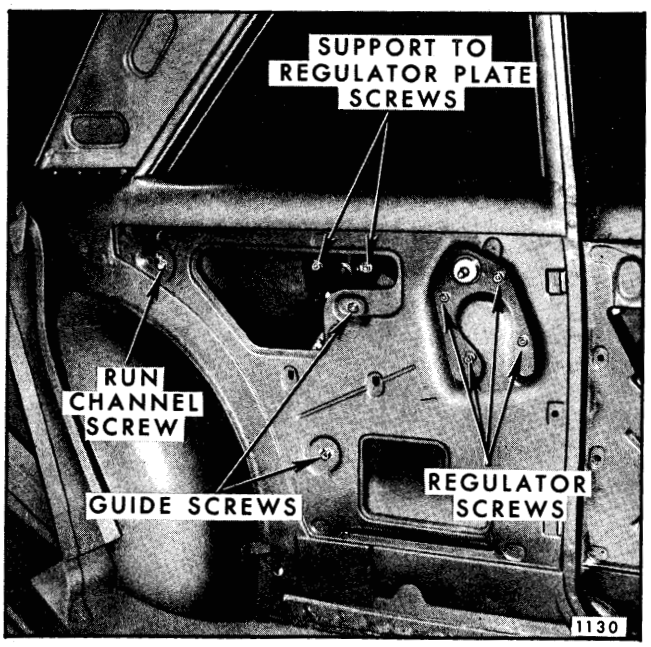

Fig. 8-42—Rear Quarter Hardware Attachment - "X-11" Style

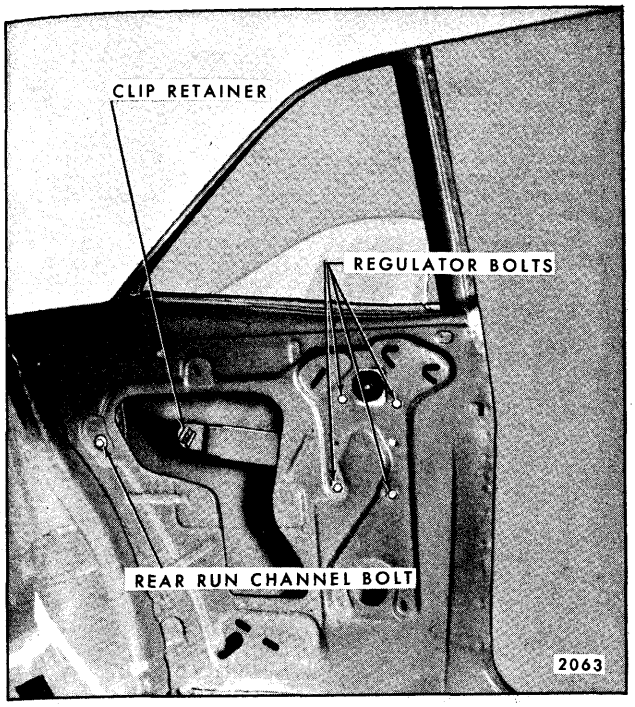

Fig. 8-43—Rear Quarter Hardware Attachment - "A-07" Styles Shown - "11" Styles Similar

Adjustments—"Z-37" Styles

1. The quarter window up-stop can be utilized for adjustments of glass to side roof rail weatherstrip (see Section "A-A" in Fig. 8-60).

2. The rear guide can be adjusted to gain proper fore and aft contact of rear quarter window vertical weatherstrip to rear edge of front door window (see section "C-C and F-F" in Fig. 8-60).

3. The upper two adjusting studs of the rear quarter window front guide are used for in or out and fore or aft adjustment of quarter window at front leading edge (see section "D-D" in Fig. 8-60).

4. The lower two adjusting studs of rear quarter window front guide are adjustable up or down and fore or aft for proper operation of quarter window (see section "E-E" in Fig. 8-60).

h. Removal and Installation "Z-67" Styles

1. Lower folding top.

2. Remove window regulator as described in a following procedure.

3. Raise glass straight up and remove from body.

4. To install, first engage lower forward roller of glass into rear channel of front guide and then upper forward roller of glass into front channel of front guide and reverse removal procedure (see Fig. 8-38). Figure 8-61 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments—"Z-67" Styles

1. The quarter window up-stop can be utilized for adjustments of glass to side roof rail weatherstrip (see section "A-A" in Fig. 8-62).

2. Both front and rear guides provide fore or aft and in or out adjustment at all attaching locations. The upper attaching locations directly affect position of quarter glass and lower attachments provide smooth operation of dropping rear quarter window (see Fig. 8-62).

REAR QUARTER WINDOW REGULATOR ASSEMBLY (MANUAL)—"B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37-47 and 57" styles, remove inner panel water deflector.

2. Operate window to "full-up" and prop it in that position.

3. Remove regulator attaching bolts (Fig. 8-48). Disengage regulator lift arm roller from window lower sash channel cam and remove regulator through inner panel access hole.

4. To install, reverse removal procedure.

REAR QUARTER WINDOW REGULATOR ASSEMBLY (ELECTRIC)—"B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37-47 and 57" styles, remove inner panel water deflector.

2. With window in almost fully lowered position, remove lower sash channel cam attaching screws and remove cam (Fig. 8-48). Manually raise window to full-up and prop in that position.

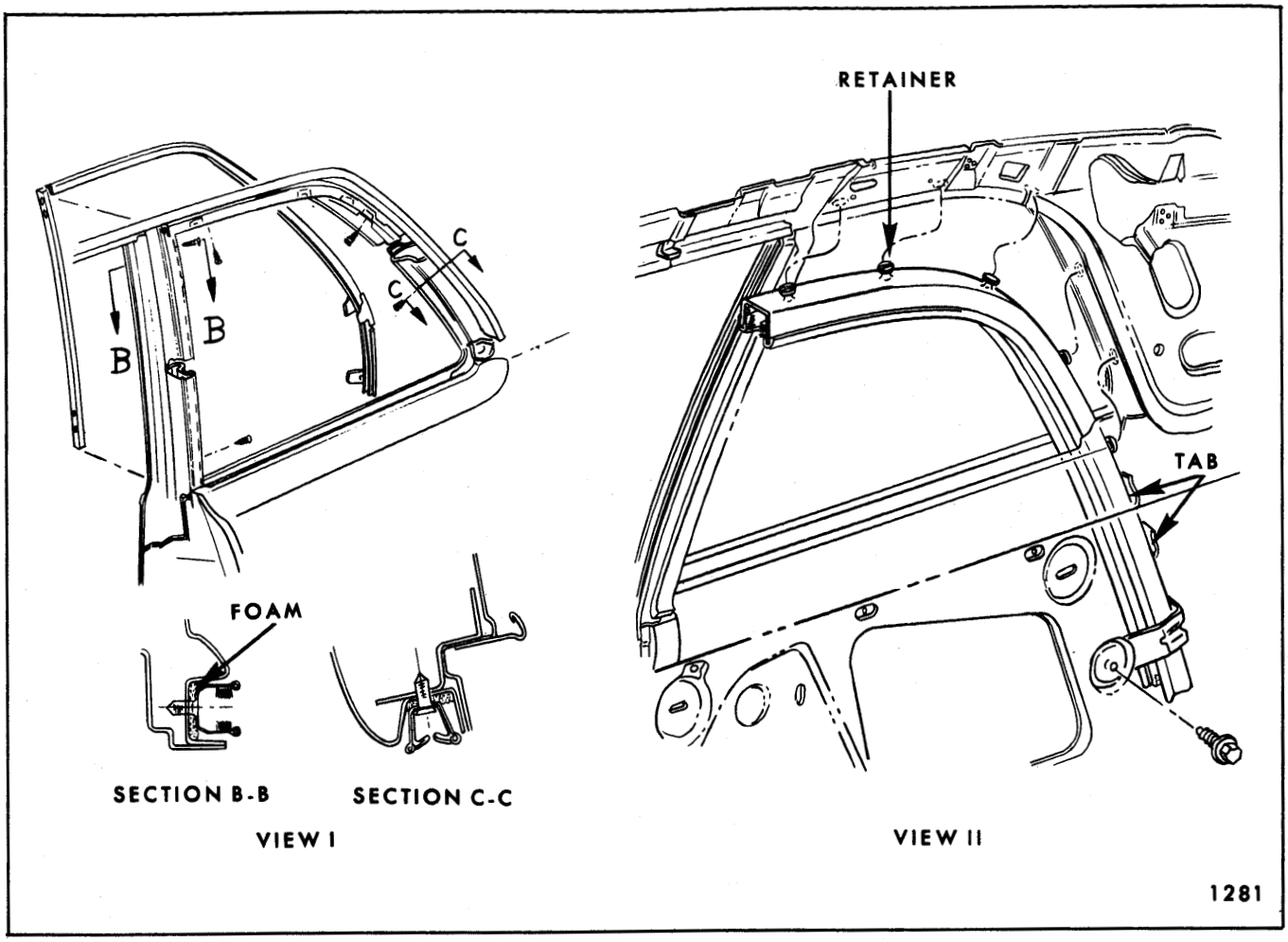

Fig. 8-44—Rear Quarter Window Glass Run Channels - Typical of All Closed Styles

3. On "67" styles, disconnect regulator motor wire harness at in-line connector located inboard of quarter inner panel. DO NOT attempt to disconnect permanent connector at regulator motor.

4. On the remaining styles, disconnect wire harness at motor. Remove window regulator attaching bolts (Fig. 8-48) and remove regulator through inner panel access hole.

NOTE: The procedure for removing electric motor from regulator is described and illustrated under "Door and Quarter Window Regulator Electric Motor Assembly" in the "Door" section of this manual.

5. To install, reverse removal procedure.

REAR QUARTER WINDOW REGULATOR ASSEMBLY (MANUAL OR ELECTRIC)— "A-E-X & Z" HARDTOP AND CONVERTIBLE STYLES

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover (or water deflector).

2. On "E" styles, remove rear quarter window. On "A & X" styles and "Z-37" styles, prop window in a full-up position. On "Z-67" styles, lower rear quarter window to the position illustrated in Figure 8-63.

3. On "Z-37" styles, remove rear quarter window rear guide assembly.

4. On "A & E" styles, equipped with electric

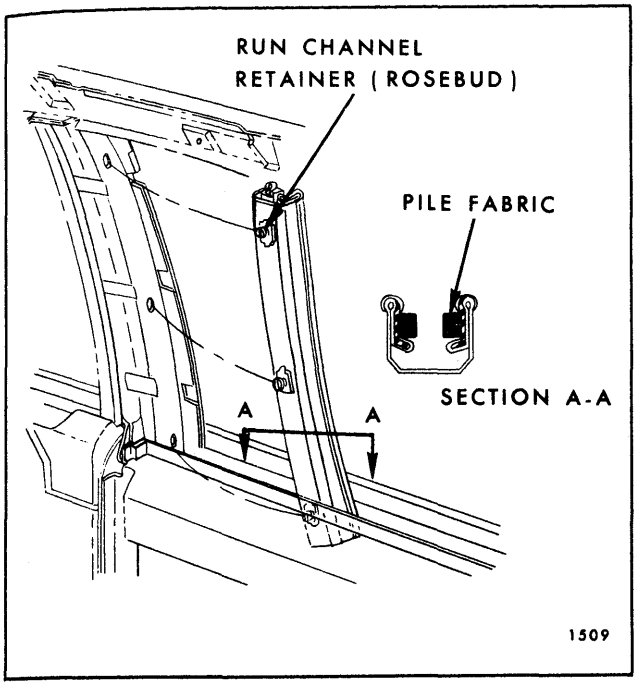

Fig. 8-45—Rear Quarter Window Front Glass Run Channels - Typical of "B" Styles

option, disconnect regulator motor wire harness at "in-line" connector and remove wire retaining clip attaching screw.

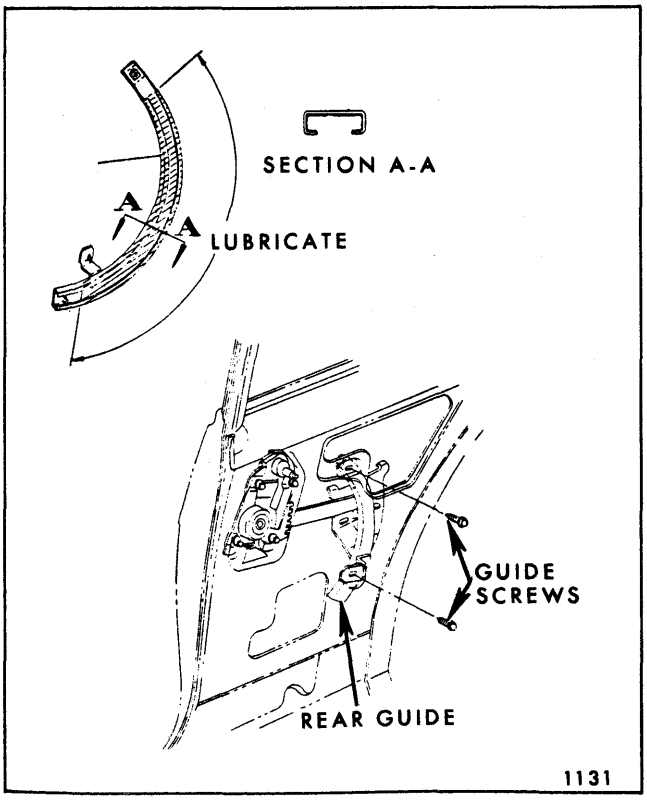

Fig. 8-46—Rear Quarter Window Guide - "X-11" Styles

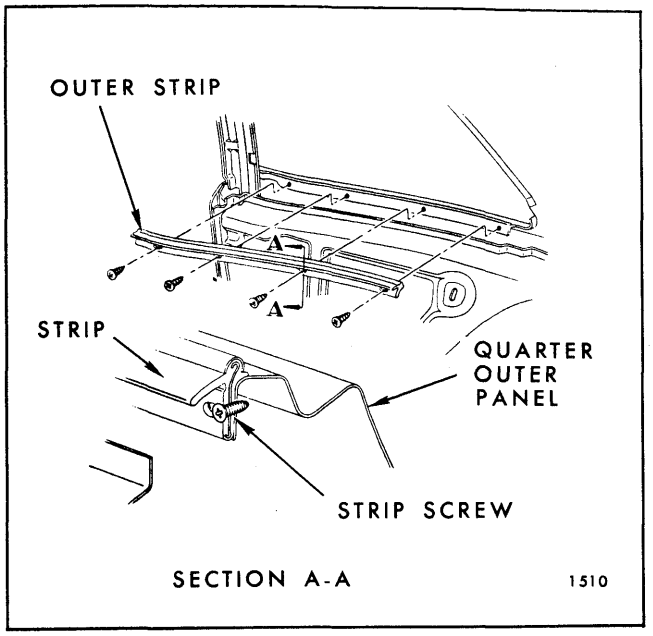

Fig. 8-47—Rear Quarter Window Outer Strip Assembly - All Closed Styles

5. Remove regulator attaching bolts (four on manual and five on electric, see Fig. 8-32). Slide unit rearward to disengage lift arm roller from sash cam and remove regulator.

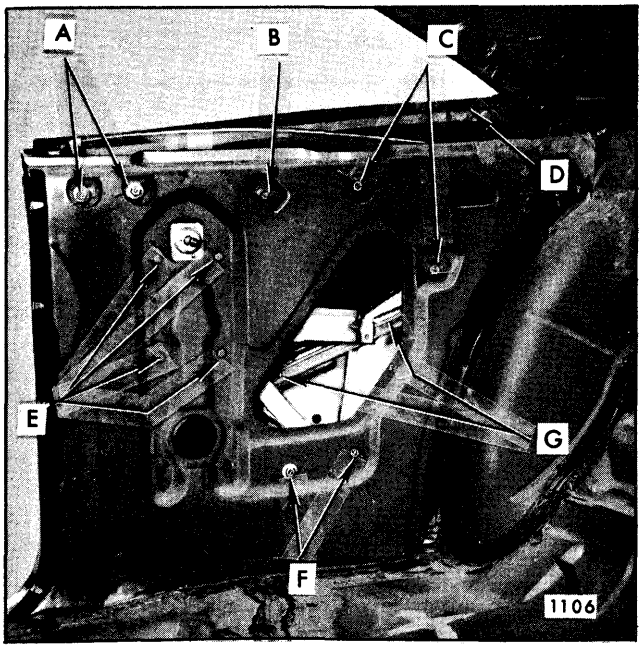

Fig. 8-48—Rear Quarter Hardware - "B and C" Hardtop Styles

A. Front Guide Upper Adjusting Studs and Nuts
B. Up-Stop Bolt
C. Rear Guide Studs and Nuts
D. Outer Strip Assembly
E. Regulator Bolts
F. Front Guide Lower Adjusting Studs and Nuts
G. Sash Channel Cam Screws

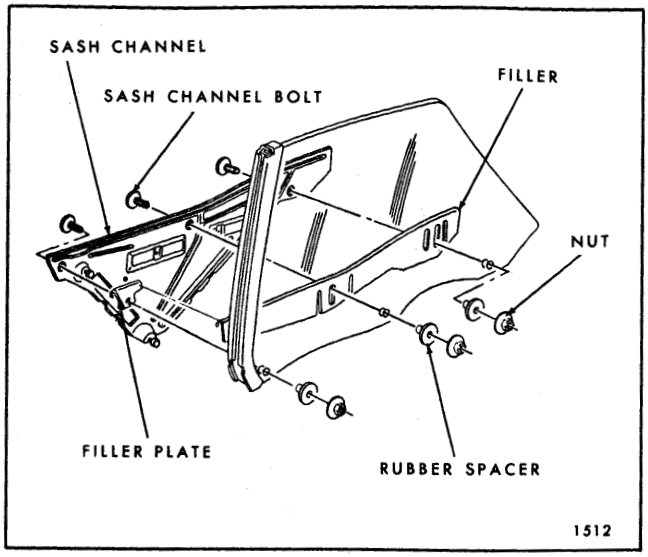

Fig. 8-49—Rear Quarter Window Assembly - "B&C" - "37-57 and 67" Styles

NOTE: If necessary, loosen upper attaching points of front guide to gain additional clearance.

6. To install, reverse removal procedure.

NOTE: The procedure for removing the electric motor from the regulator is described under "Door and/or Quarter Window Regulator Electric Motor Assembly".

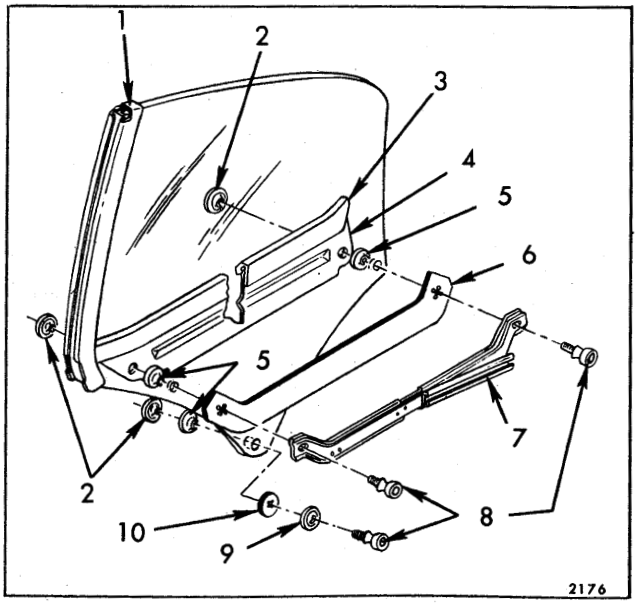

Fig. 8-50—Rear Quarter Window Assembly - Chevrolet "B-47" Style

1. Front Sash Channel
2. Nut
3. Lower Sash Outer Filler
4. Outer Filler Retainer
5. Bushing
6. Lower Sash Inner Filler
7. Lower Sash Cam Assembly
8. Roller Assembly
9. Washer (Steel)
10. Washer (Rubber)

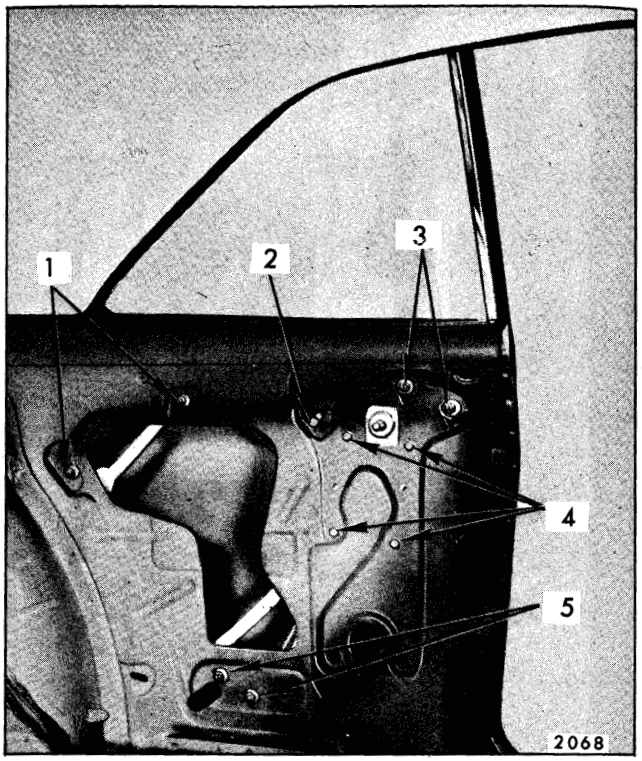

Fig. 8-51—Rear Quarter Hardware - "A-17" Style

1. Rear Guide Adjusting Studs and Nuts
2. Up-Stop Bolt
3. Front Guide Upper Adjusting Studs & Nuts
4. Regulator Bolts
5. Front Guide Lower Adjusting Studs & Nuts

REAR QUARTER WINDOW FRONT GUIDE "B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter window assembly as previously described.

2. Remove front guide upper and lower adjusting stud nuts (Fig. 8-48) and remove guide through access hole.

3. To install, reverse removal procedure.

REAR QUARTER WINDOW REAR GUIDE— "B-C 37-47-57 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37-47 and 57" styles remove inner panel water deflector.

2. With window in full-up position, remove rear

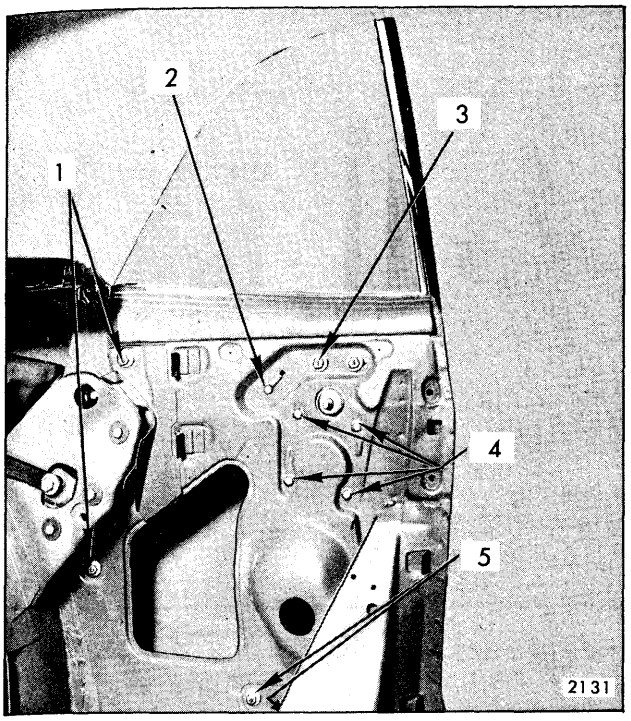

Fig. 8-52—Rear Quarter Hardware - "A-67" Style

1. Rear Guide Adjusting Studs and Nuts
2. Up-Stop Bolt
3. Front Guide Upper Adjusting Studs & Nuts
4. Regulator Bolts
5. Front Guide Lower Adjusting Studs & Nuts

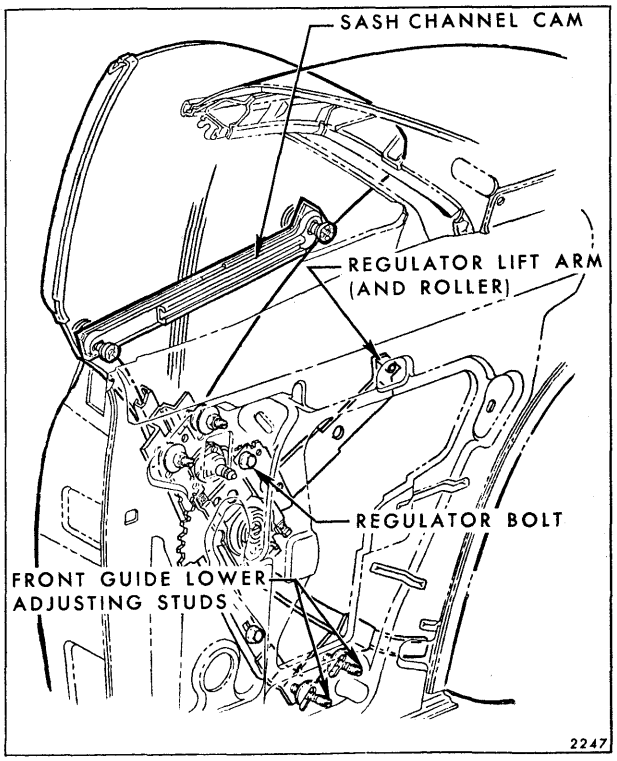

Fig. 8-53—Rear Quarter Window Removal "A-17 and 67" Styles

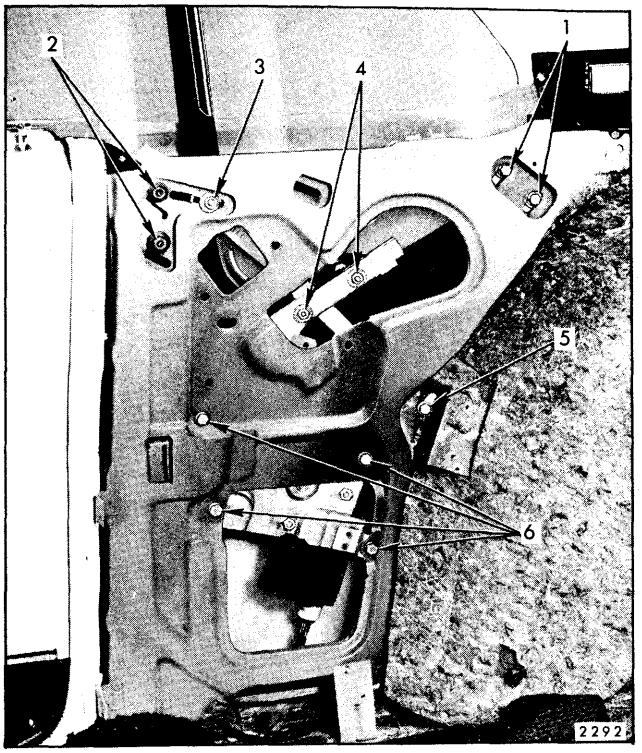

Fig. 8-54—Rear Quarter Hardware - "E" Body

1. Rear Guide Attaching Bolts
2. Front Guide Upper Adjusting Studs & Nuts
3. Up-Stop Attaching Bolts
4. Regulator Lift Arm Cam Attaching Nuts
5. Front Guide Lower Attaching Bolt
6. Regulator Attaching Bolts (4 for Elect. 5 for Manual)

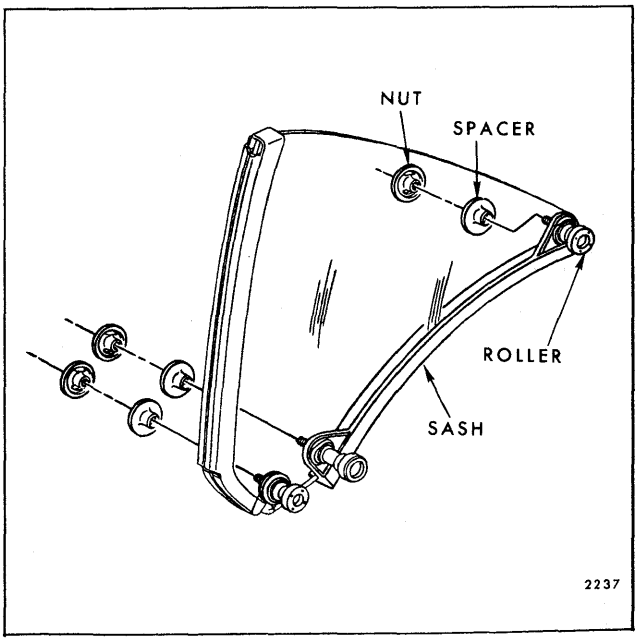

Fig. 8-55—Rear Quarter Window Assembly - "E" Body Styles

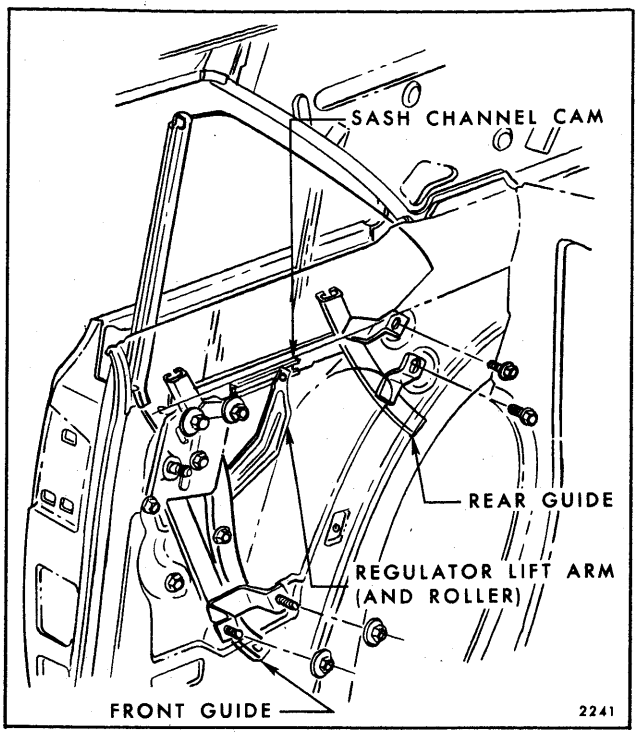

Fig. 8-56—Rear Quarter Hardware - "X"-37 Style

guide upper and lower adjusting stud nuts (Fig. 8-48). Disengage guide from roller on window lower sash channel and remove guide through access hole.

3. To install, reverse removal procedure.

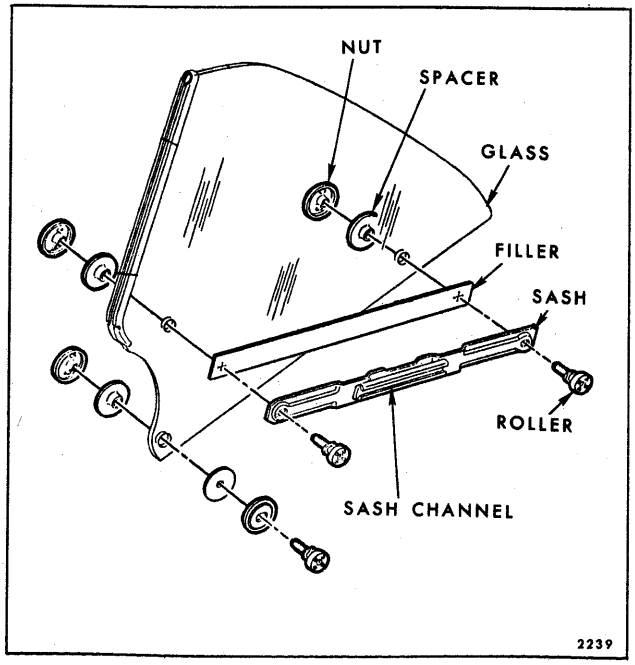

Fig. 8-57—Rear Quarter Window Assembly - "X-37" Style

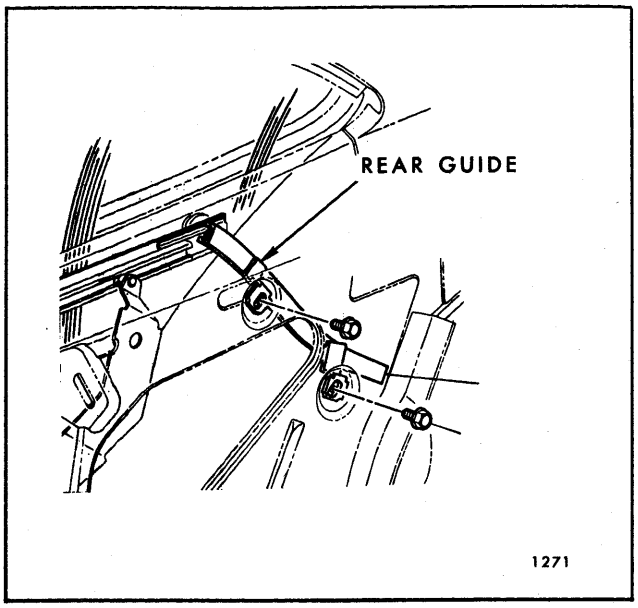

Fig. 8-58—Rear Quarter Window Rear Guide Assembly - "Z-37" Styles

REAR QUARTER WINDOW FRONT GUIDE ASSEMBLY—"A-E-X & Z" HARDTOP AND CONVERTIBLE STYLES

Removal and Installation

1. Remove rear quarter window assembly.
2. On "A, X & Z" styles, remove front guide upper and lower adjusting stud nuts (refer to Figs. 8-52 and 8-51). These illustrations are for "A" bodies but are indicative of all styles).

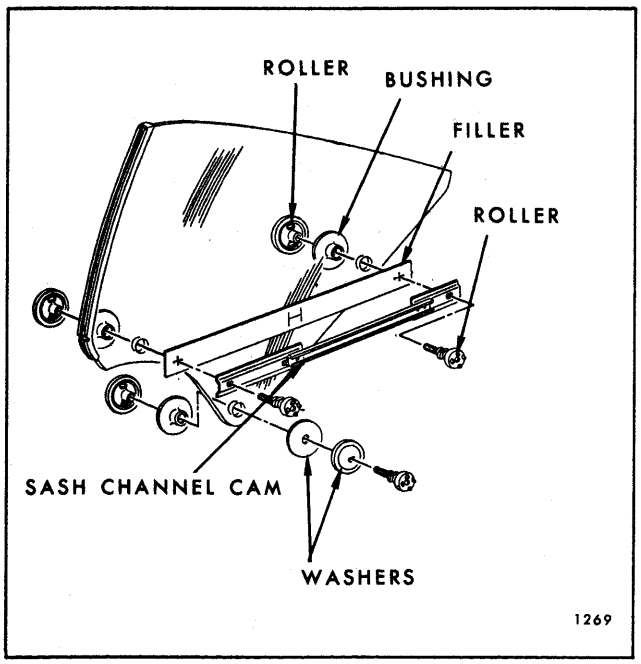

Fig. 8-59—Rear Quarter Window Assembly - "Z-37" Styles

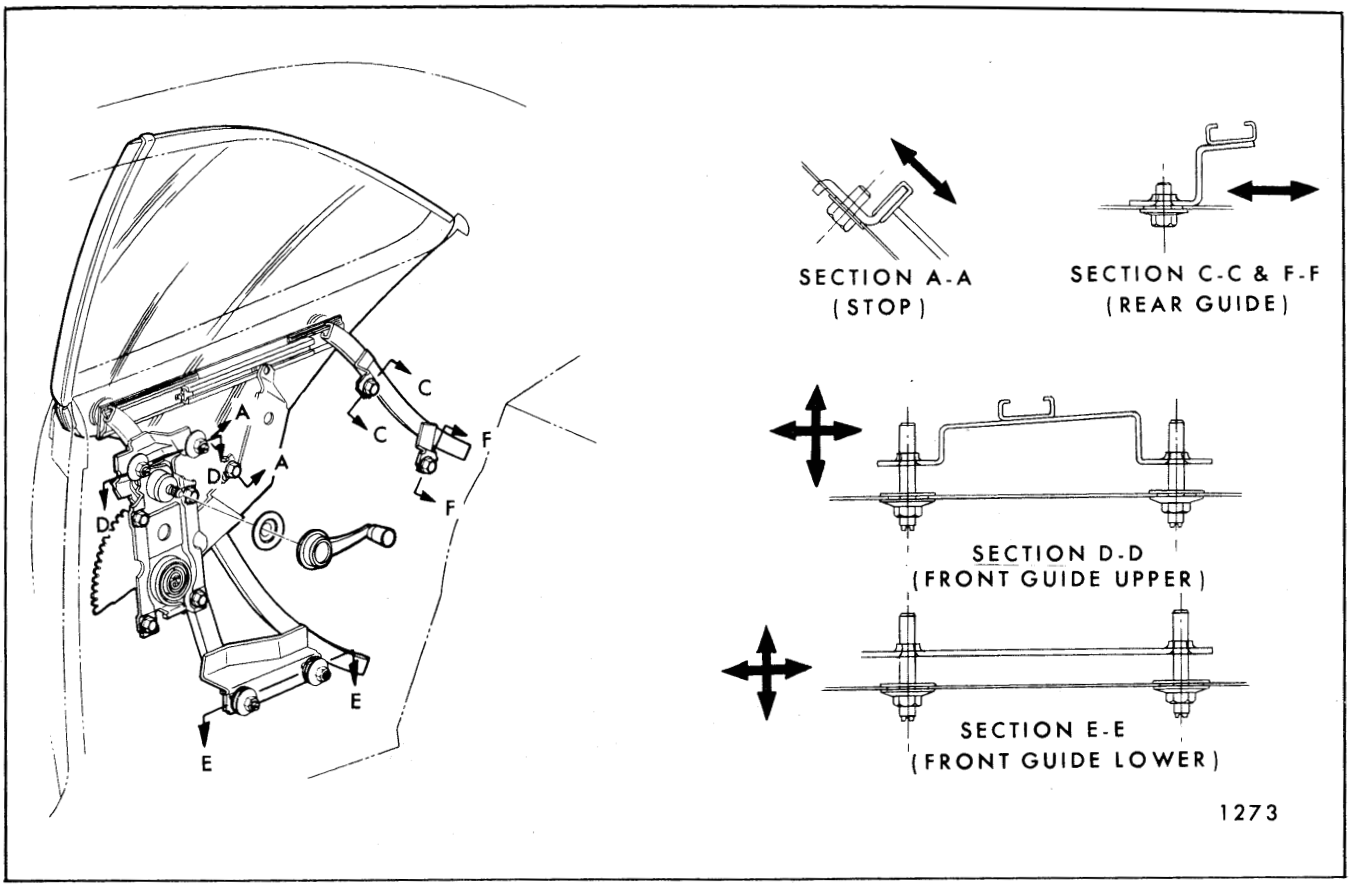

Fig. 8-60—Rear Quarter Window Adjustments - "Z-37" Styles (Arrows Indicate Adjustment Direction Available)

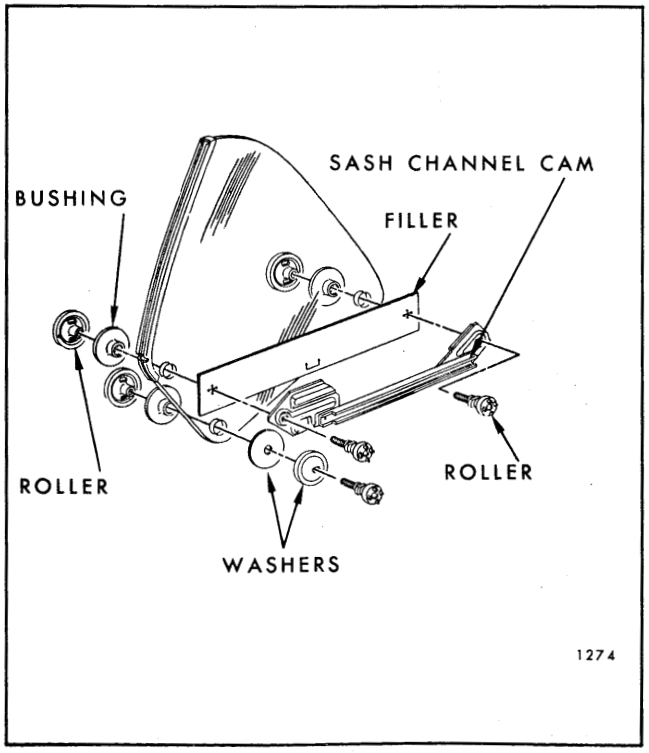

Fig. 8-61—Rear Quarter Window Assembly - "Z-67" Styles

NOTE: As explained under "Rear Quarter Window Assembly" - Removal and Installation for "E" bodies, the front guide attachments must be removed and guide lowered prior to removal of window assembly.

3. Disengage guide adjusting studs from slots in quarter inner panel and remove guide through access hole on all except "E" styles. On "E" bodies, remove front guide between rear quarter inner and outer panels at belt.

4. To install, reverse removal procedure. Adjust guide for proper window operation as specified under "Rear Quarter Window Adjustments".

NOTE: The rear channel of the front guide of "A-17 & 67" styles is equipped with an adjustable lower stop to control height of quarter window in the lowered position (see Fig. 8-32).

REAR QUARTER WINDOW GLASS RUN CHANNEL—CHEVROLET"B-47" STYLE

Removal and Installation

1. Remove rear quarter upper extension trim panel.

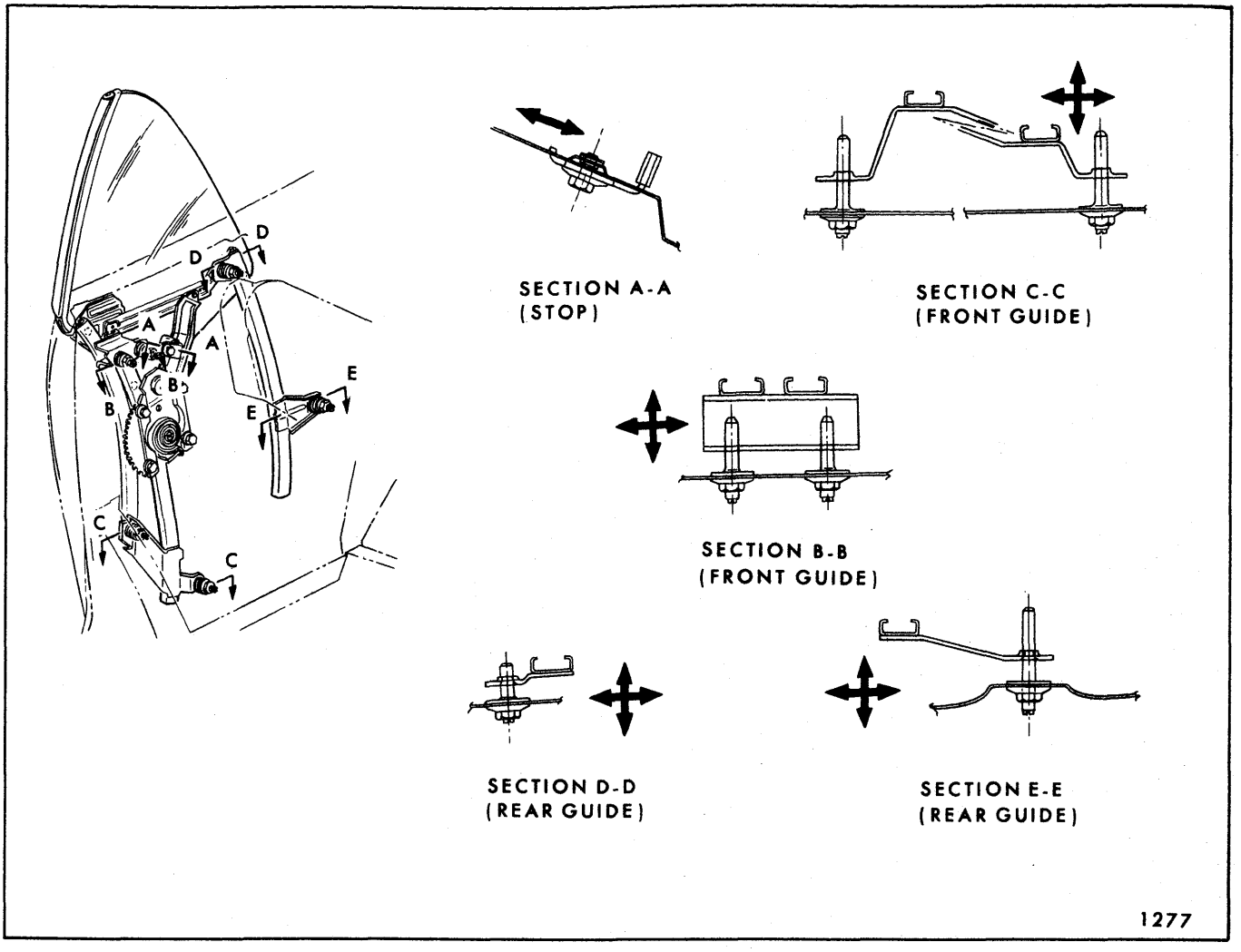

Fig. 8-62—Rear Quarter Window Adjustments - "Z-67" Styles (Arrows Indicate Adjustment Direction Available)

2. With window in full-down position, remove screw securing run channel to rear quarter extension panel (Fig. 8-64).

3. Remove screw inserted through forward end of run channel into side roof rail (Fig. 8-64) and remove run channel from body.

4. To install, reverse removal procedure. Prior to installation apply a bead of body caulking compound to surface of run channel that mates with side roof rail to effect a weathertight seal when installed.

REAR QUARTER WINDOW UPPER GLASS RUN CHANNEL ASSEMBLY—"E" STYLES

Removal and Installation

1. Remove rear seat cushions and back (see seat trim index).

2. Remove screw securing side roof rail weatherstrip, weatherstrip retainer and rear quarter window run channel to side roof rail (see View "B" in Fig. 8-65).

3. Remove screw securing lower end of run channel to rear quarter inner panel (see View "B" in Fig. 8-65).

4. On Buick styles, remove screw securing outer wall of run channel to side rail (see Section "A-A" in Fig. 8-65).

5. Remove rear quarter window upper glass run channel.

6. To install, reverse removal procedure. If original sealing strip (see section "E-E" in Fig. 8-65) is damaged, seal run channel to side rail with pumpable caulking compound.

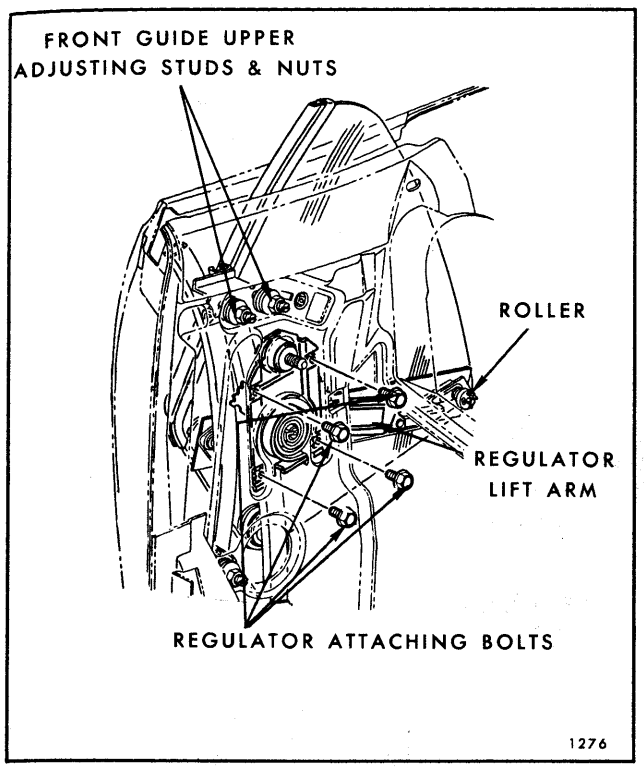

Fig. 8-63—Rear Quarter Window Regulator Attachment - "Z-67" Styles

REAR QUARTER WINDOW OUTER STRIP ASSEMBLY—PONTIAC, OLDSMOBILE, AND BUICK "B-37 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "37" styles remove inner panel water deflector.

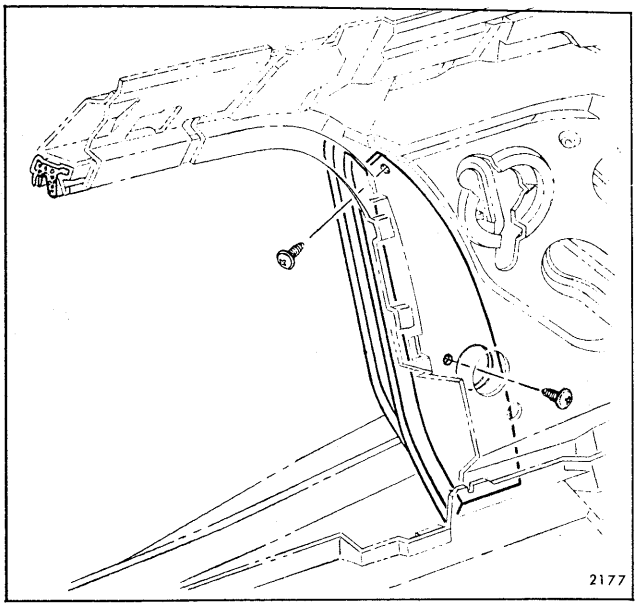

Fig. 8-64—Rear Quarter Window Glass Run Channel - "B-47" Style

2. Working through access hole, loosen down-stop attaching screw (Fig. 8-66). Slide stop to bottom of guide channel and retighten stop bolt.

3. Operate window to full-down position and remove screws securing outer strip assembly to outer panel return flange.

4. To install, reverse removal procedure. Reposition window down-stop for proper alignment of top edge of glass with body belt line when window is fully lowered.

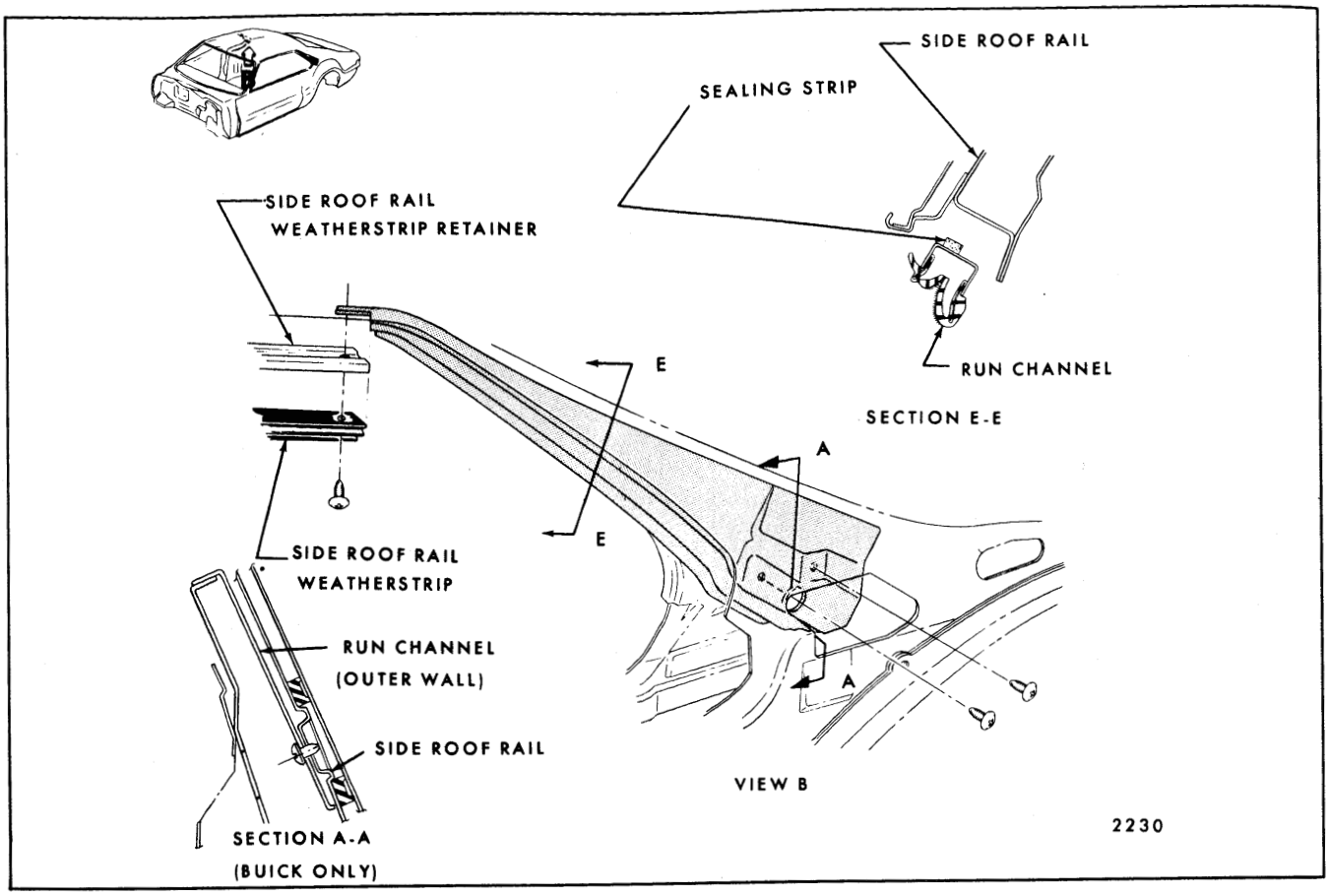

Fig. 8-65—Rear Quarter Window Upper Glass Run Channel - "E" Body Styles

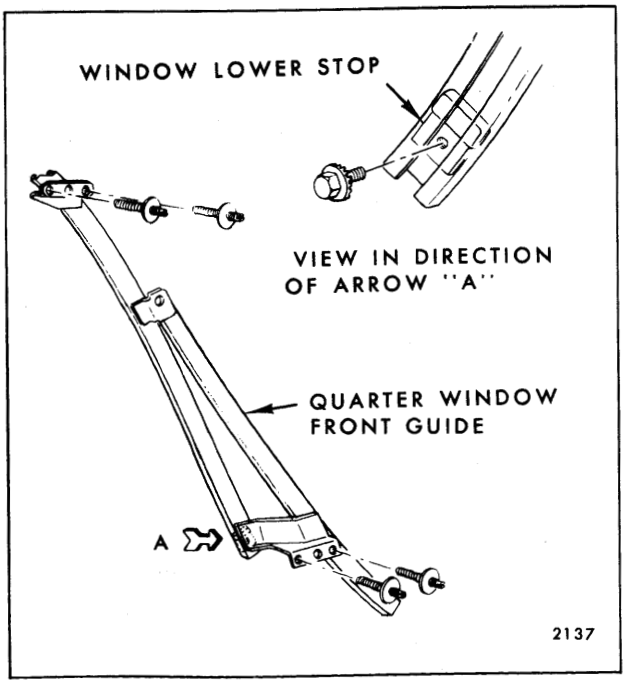

Fig. 8-66—Rear Quarter Window Lower Stop Adjustment - Styles so Equipped

SECTION 9
REAR END

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BACK WINDOW GLASS
Removal and Installation
All Styles Except 35-45-55-65 and 67 Styles

DESCRIPTION

The back window glass is retained in the body opening by adhesive caulked material. The extended method is to be used when replacing a back window glass. Procedures covering the removal and replacement of adhesive caulked glass including cutting out of material, necessary service parts, application of material, watertesting and waterleak repairing are described in the General Information Section. Specific details applying to back window glass removal and installation, will be covered in this section.

REMOVAL

1. Removal glass as outlined in General Information Section. If the original glass is to be re-

used, place it on a protected bench or holding fixture and remove old caulking material from glass with sharp scraper or razor blade. Remove all remaining traces with toluene or thinner dampened cloth.

NOTE: Do not use an oil base solvent. Any trace of oil will prevent adhesion of new caulking material to glass.

2. Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around back window opening. It is not necessary that all material be removed, but there should not be any loose pieces left in the opening.

INSTALLATION

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, replace or reform clip to insure adequate molding retention. Tighten all loose clip screws.

2. With black weatherstrip adhesive cement two flat spacers (.18 x .63 x 1.0 Part #4421823 or equivalent) to pinchweld flange at top, approximately fifteen inches each side of centerline of opening (Fig. 9-1).

3. With black weatherstrip adhesive, cement four rectangular spacers (.34 x .44 x 1.0 Part #4871330 or equivalent) to back window opening rabbet - one in center of each side and two at bottom, approximately nineteen inches from centerline of opening (Fig. 9-1).

NOTE: A thicker (Part #4534314) or thinner (Part #4404196) spacer can be used in an emergency in lieu of spacer listed in step 3.

4. On styles so equipped with 3 slots in compartment front shelf panel across lower edge of back window opening, install three insert

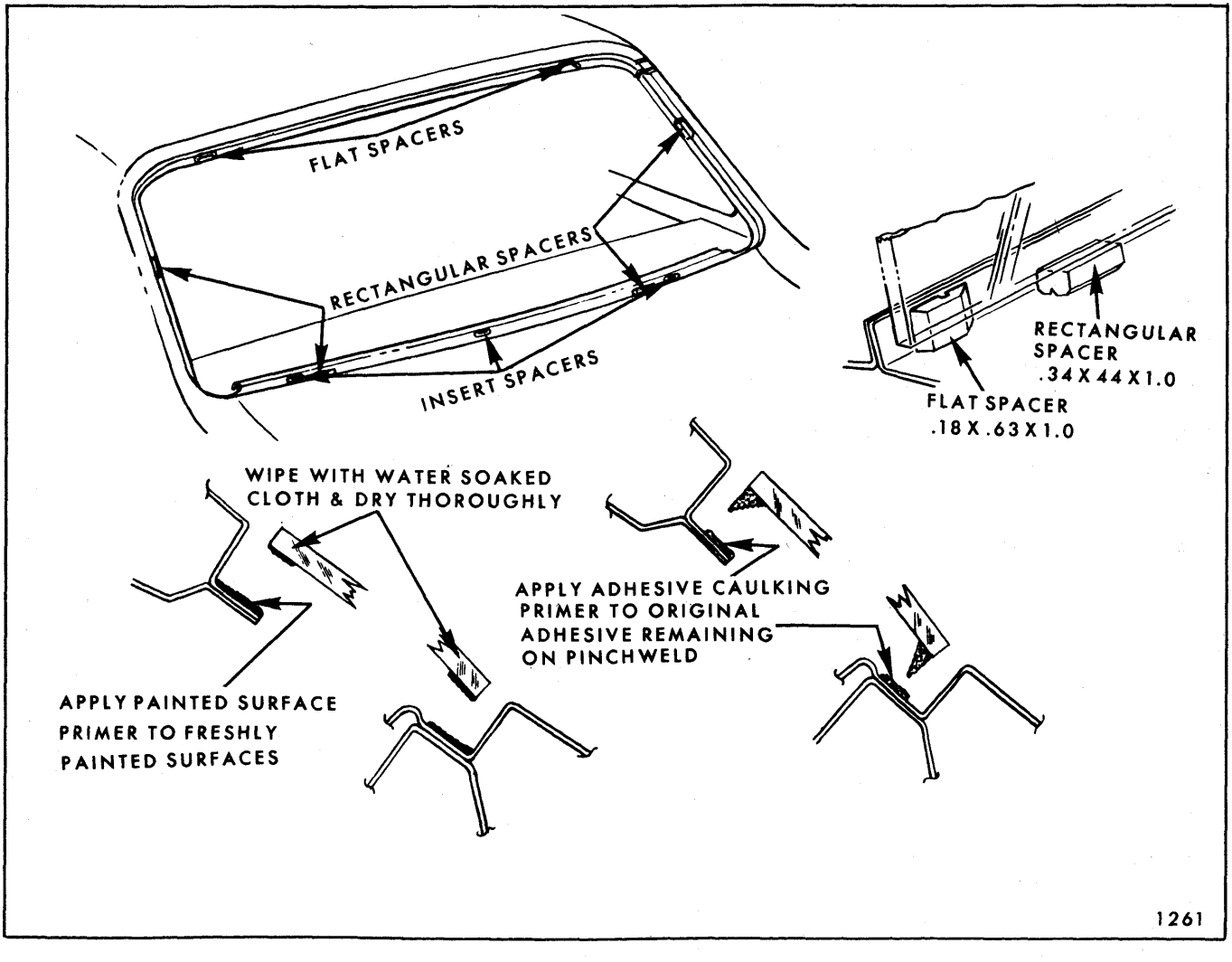

Fig. 9-1—Back Window Adhesive Caulked Installation

spacers (.18 x .24 x .74 Part #4410043 or equivalent) at bottom, one in center and one each approximately 22 inches from centerline (Fig. 9-1). On all other styles cement (with black weatherstrip adhesive) three flat spacers (.18 x .62 x 1.0 Part #4421823 or equivalent) at bottom, one in center and one each approximately 22 inches from centerline.

NOTE: The rectangular spacers across the bottom support the weight of the glass, therefore, make certain that they are well positioned so they will not rock or slide out.

5. Position glass in opening and check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers.

6. Check relationship of glass contour to back window opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, corrections can be made by any one of the following methods.

   a. Substitute another glass to determine if it will fit opening better.

   b. Rework pinchweld flange.

   c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange by allowing bead on glass to exceed specified 3/8" height at gap areas.

7. After final adjustments have been made and glass is in proper position in opening, apply a piece of masking tape horizontally over each side edge of glass and rear quarter extension (Fig. 9-2), so that when glass is being installed, tape on glass can be aligned with tape on body and serve as a guide.

8. Apply one inch masking tape to inner surface of glass 1/4" inboard from outer edge up both sides and across top. Do not apply tape to bottom edge of glass. Instead, apply masking tape over painted feature strip below back window opening. (See Fig. 9-3.)

9. Using a clean, lint-free cloth liberally dampen with Adhesive Caulking Primer, briskly rub primer over original adhesive caulking compound remaining on pinchweld flange.

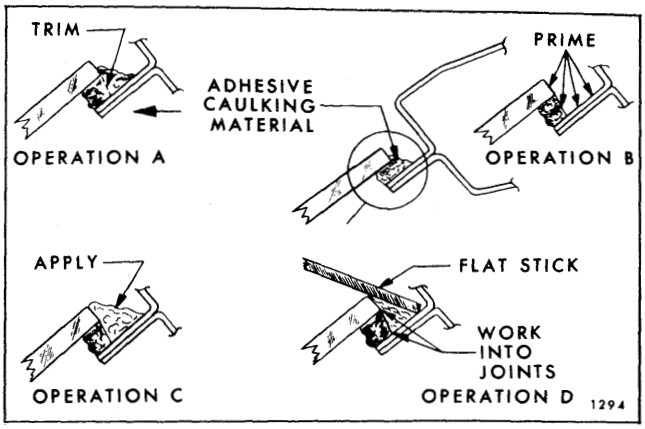

Fig. 9-2—Back Window Installation

NOTE: If the pinchweld flange has been repainted, prime flange with Paint Surface Primer, or equivalent.

10. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened rag. Dry glass thoroughly with a clean, dry rag.

11. With caulking gun and nozzle positioned as illustrated in Figure 9-3 carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass.

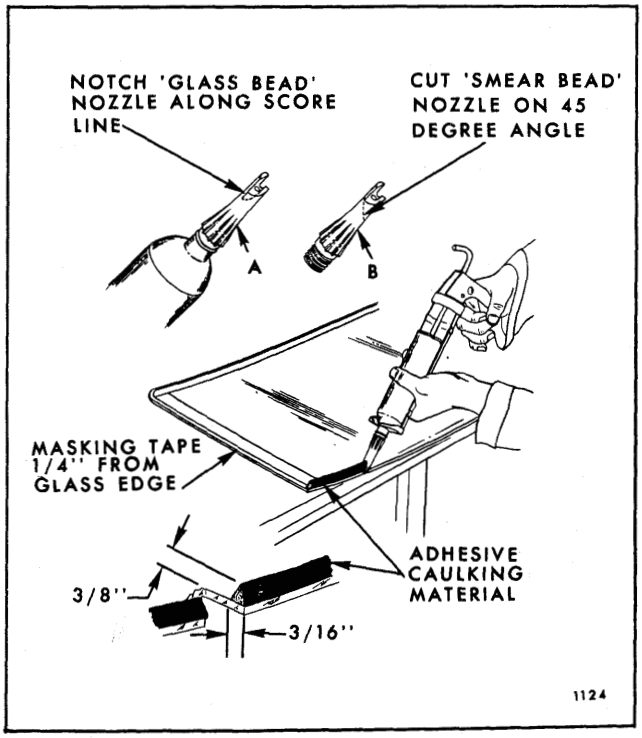

Fig. 9-3—Adhesive Caulking Installation - Extended Method

NOTE: When material in first tube is dispensed, quickly insert second tube and continue application of bead. This material begins to cure after fifteen minutes exposure to air, therefore, perform the following steps immediately and install glass in the opening as quickly as possible.

12. Remove "glass-bead" nozzle and insert "smear-bead" nozzle. Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear-bead" of adhesive caulking material completely around pinchweld flange.

13. Install glass in body opening making certain that glass sets properly on spacers and does not have to be shifted after material contacts pinchweld flange. Align tape on glass with tape on body to guide window into opening. (See Fig. 9-2).

NOTE: When setting glass into opening, it should be in the same plane as opening so that all edges of glass contact pinchweld flange at approximately the same time.

14. Press glass firmly to set caulking material. Use caution to avoid excessive squeeze-out of material.

NOTE: Glass handling suction cups may be used when removing or installing the glass.

15. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, apply sufficient caulking material to fill the void. On inside of body run a flat stick around the pinchweld flanges to push excess caulking material back into opening between glass and flanges. Remove any excess squeeze-out of material.

16. Watertest installation immediately using cold water spray.

17. Remove masking tape from inside of glass.

18. Install reveal moldings, inside garnish moldings and previously removed parts.

REAR COMPARTMENT
All Styles Except Corvair

The rear compartment lid employs two torque rods that are mounted between the hinge assemblies to act as a counterbalance and hold-open for the lid. Notches at the stationary end of the rods allow for adjustment of the rods to increase or decrease lid operating effort.

The rear compartment lid lock employs a side-action snapbolt mechanism that has provisions at the attaching locations for lateral adjustment. Up and down adjustment to correct lid locking effort is available at the striker attaching locations.

All styles use a single section cement-on type weatherstrip which is cemented to the rear compartment gutter completely around the lid opening.

REAR COMPARTMENT LID

Removal and Installation

1. Open lid and place protective covering along edges of rear compartment opening to prevent damage to painted surfaces.

2. Where necessary, disengage wire harness from clips on hinge and rear compartment lid inner panel and remove wire harness.

3. On styles with rear compartment lid lock vacuum release option in compartment lid, disconnect vacuum hose from vacuum release unit and remove hose from lid.

4. Mark location of hinge straps on rear compartment lid inner panel.

5. With the aid of a helper, remove lid attaching bolts and remove lid (Fig. 9-4 for "A, B, C & X" Styles, Fig. 9-5 for "E" Styles).

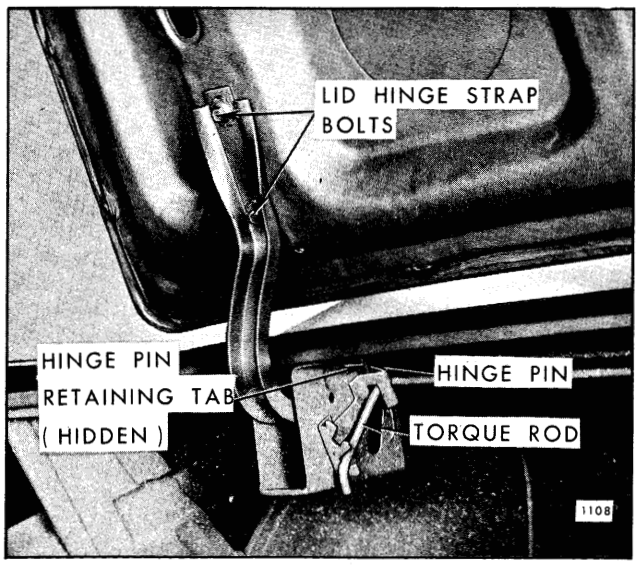

Fig. 9-4—Rear Compartment Lid Attachment

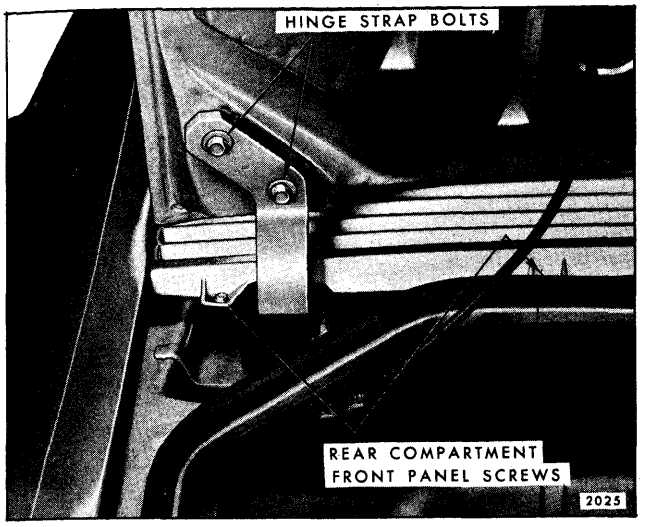

Fig. 9-5—Rear Compartment Lid Attachment

6. To install, align lid within scribe marks and reverse removal procedure.

Adjustments

1. Forward, rearward and side-to-side adjustments of lid are provided at hinge strap attaching points. The lid can be raised or lowered at hinge bolt locations by the use of shims installed between inner panel and hinge strap.

2. The lock and striker are adjustable for correct lock-to-striker engagement and proper lid closing effort.

ENGINE COMPARTMENT LID—CORVAIR

Removal and Installation

1. Raise lid and place protective covering over adjacent paint finish.

2. Mark position of hinge straps on lid inner panel.

3. With the aid of a helper holding lid in open position, remove lid support attaching bolts from lid. (See Fig. 9-6.)

4. With lid properly supported, remove hinge strap attaching bolts and remove engine compartment lid from body. (See Fig. 9-6.)

5. To install, reverse removal procedure, aligning hinge straps within scribe marks.

Adjustments

1. To adjust the engine compartment lid forward, rearward or sideways in the body opening, loosen hinge strap-to-lid attaching bolts and shift lid to required position, then tighten bolts.

2. The lid latch and striker are adjustable for proper engagement when closing lid.

REAR COMPARTMENT FRONT PANEL "E" STYLES

Removal and Installation

1. Raise rear compartment lid and remove lower screws of panel (see Fig. 9-5).

2. Remove back window lower reveal molding.

3. Remove upper screws of rear shelf panel and remove panel.

4. To install, reverse removal procedure.

REAR COMPARTMENT LID HINGE STRAP

Removal and Installation

1. Place protective covering over upper portion of rear compartment opening and provide support for lid on side from which hinge strap is to be removed.

2. Disengage any wire harness or vacuum hose that may interfere with hinge strap removal.

3. Mark location of hinge strap on lid inner panel and remove bolts securing hinge strap to lid.

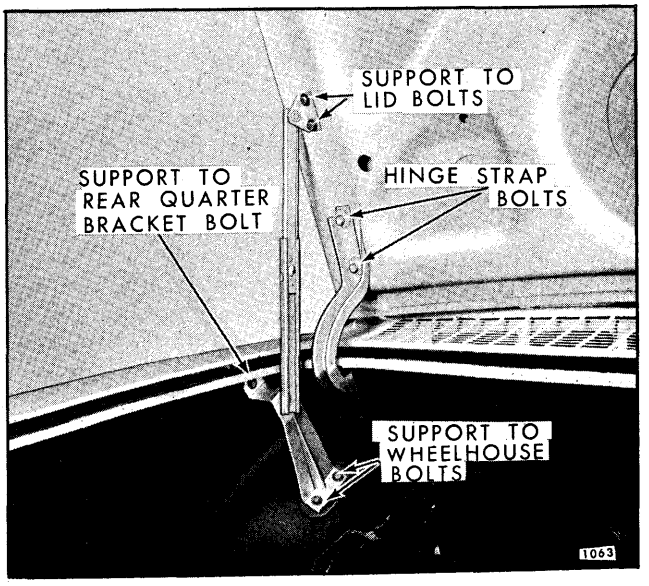

Fig. 9-6—Engine Compartment Lid Support

4. Disengage torque rod from notched retainer on inboard face of opposite side hinge box. On "B & C" Styles use 1/2" I.D. pipe; on "A & X" Styles use tool J-21412 as shown in Figure 9-7. On "E" Styles, first remove rear compartment front panel, then disengage rod using tool J-22291 as shown in Figure 9-8.

5. Disengage opposite end of torque rod from movable portion of hinge strap and remove rod.

6. Bend up hinge pin retaining tab and drive out pin. Remove hinge strap from body.

7. To install, reverse removal procedure.

REAR COMPARTMENT TORQUE ROD ADJUSTMENT

The amount of effort required to open and close the rear compartment lid is determined by the position of the torque rod in the notches on the inboard face of the hinge boxes. If the torque rod is located in the lowest notch, the amount of effort required to open the lid is the greatest and the amount of effort required to close the lid is the least. If the torque rod is located in the top notch, the amount of effort to open the lid is the least and the amount of effort to close the lid is the greatest (Fig. 9-4).

NOTE: It is not necessary to adjust the left and right hand torque rods at the same time or to the same final position (notch).

On "B & C" Styles adjust rod with a length of 1/2" I.D. pipe. On "A & X" Styles use tool J-21412 as shown in Figure 9-7. If tool is not available, fabricate equivalent as shown in Figure 9-9. On "E" Styles use tool J-22291 as shown in Figure 9-8. If tool J-22291 is not available, fabricate equivalent as shown in Figure 9-10.

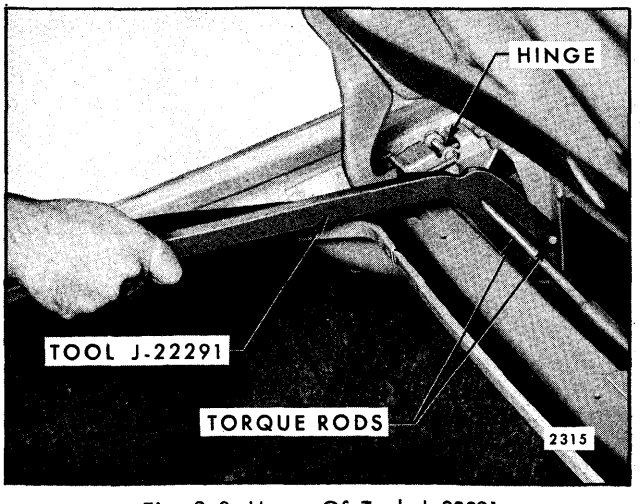

Fig. 9-8—Usage Of Tool J-22291

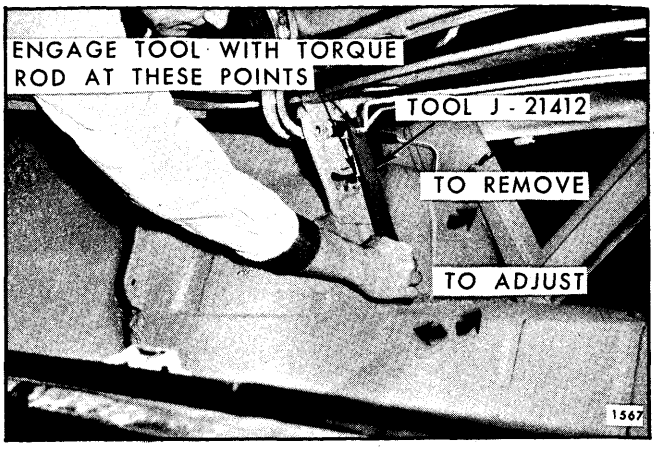

Fig. 9-7—Rear Compartment Torque Rod Adjustments

ENGINE COMPARTMENT LID SUPPORT—CORVAIR

Removal and Installation

1. Prop engine compartment lid in a full open position.

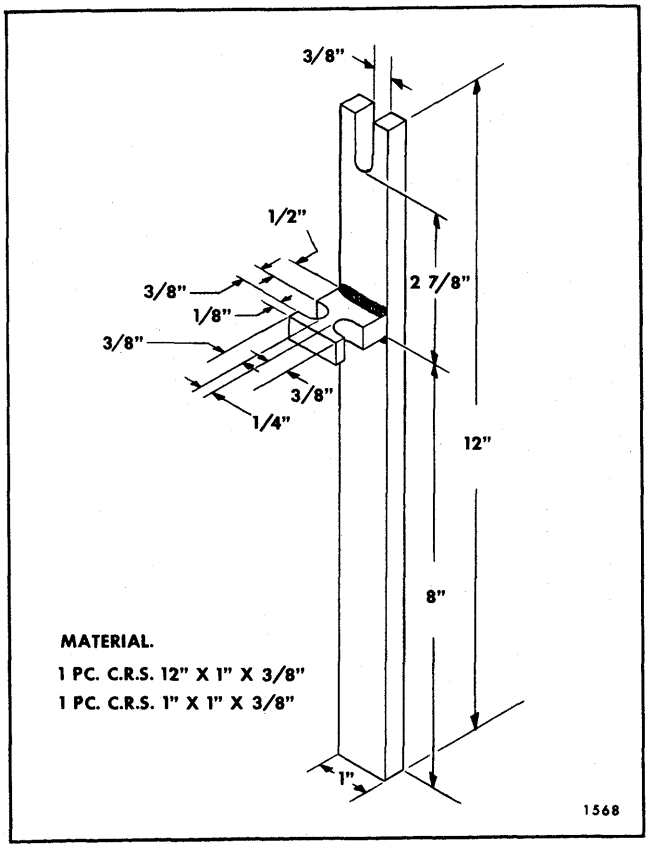

Fig. 9-9—Rear Compartment Torque Rod Adjusting Tool

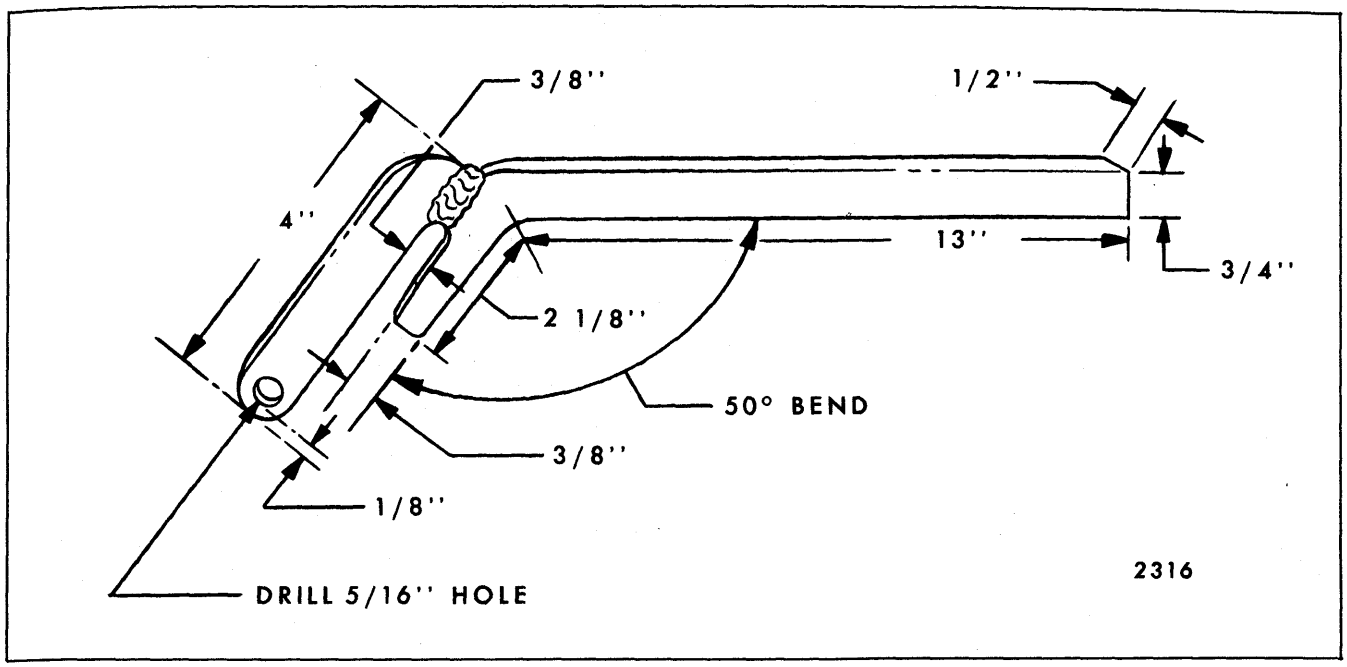

Fig. 9-10—Tool J-22291 "E" Body Torque Rod Adjusting Tool

2. Remove the two attaching bolts securing support to lid, the two bolts securing support to wheelhouse and the single bolt securing support to rear quarter bracket (see Fig. 9-6) and remove support from body.

3. To install, reverse removal procedure. To insure good operation, lubricate telescoping channels of support with Lubriplate or its equivalent.

REAR COMPARTMENT LID LOCK CYLINDER CHEVROLET "B & X" STYLES, BUICK "A-B & C" STYLES AND OLDSMOBILE "A & C" STYLES

Removal and Installation

1. Open rear compartment lid. Remove lock cylinder retainer attaching screws located on lid inner panel below lock cylinder and adjacent to lid hemming flange (Fig. 9-11).

2. Pull downward on retainer to disengage retainer from lock cylinder and remove retainer from lid. Lock cylinder is now free and can be removed from compartment lid outer panel.

3. To install, reverse removal procedure. Make certain lock cylinder shaft engages with lock and that gasket mates properly with compartment lid outer panel to form a watertight seal. Check lock for proper operation (section "B-B" in Fig. 9-11).

REAR COMPARTMENT LID EMBLEM AND LOCK CYLINDER ASSEMBLY ALL CADILLAC STYLES

Removal and Installation

1. Open rear compartment lid. Remove access hole cover screws at lower rear of lid inner panel and remove cover.

2. Working through access hole, remove stud nuts securing compartment lid emblem and lock cylinder assembly and lock cylinder guard.

3. Remove guard through access hole, then remove compartment lid emblem and lock cylinder assembly from lid outer panel (Fig. 9-12).

4. To remove lock cylinder from emblem, remove lock cylinder shaft and spring and rotate cylinder counter-clockwise.

5. To install, reverse removal procedure. Make certain that emblem gasket mates properly with lid outer panel and that emblem stud holes are sealed to protect against waterleaks.

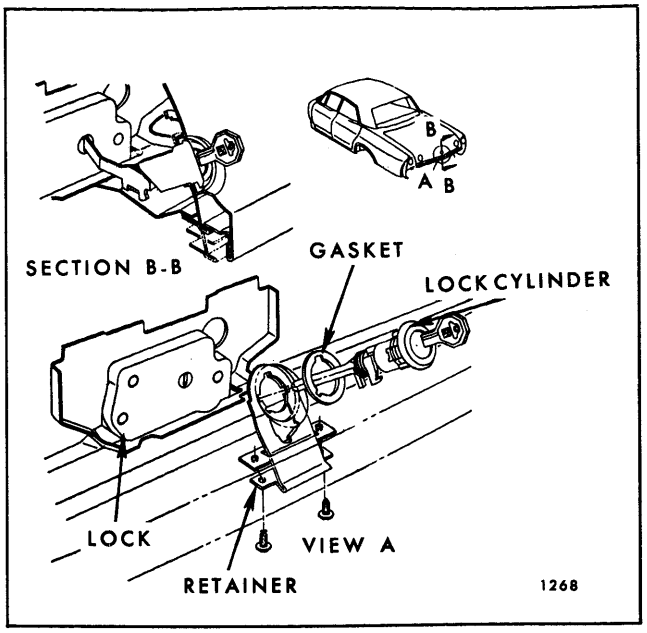

Fig. 9-11—Rear Compartment Lid Lock Cylinder

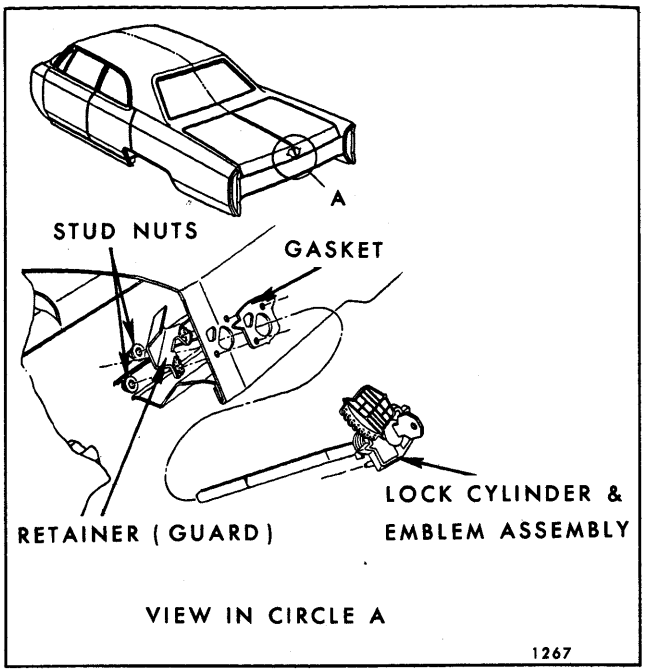

Fig. 9-12—Rear Compartment Lid Lock Cylinder and Emblem Assembly

REAR COMPARTMENT LID LOCK CYLINDER CHEVROLET "A", PONTIAC "A & B" (EXCEPT 26657), OLDSMOBILE "B & E" AND BUICK "E" STYLES

Removal and Installation

1. Open rear compartment lid and remove screw securing lock cylinder retainer to rear compartment lid lock support (Fig. 9-13).

2. Slide retainer laterally to disengage it from lock cylinder and remove lock cylinder assembly and sealing gasket from rear end panel.

3. To install, reverse removal procedure.

REAR COMPARTMENT LID LOCK CYLINDER ASSEMBLY PONTIAC 26657 STYLE

1. Open rear compartment lid. Working through access holes provided in rear end panel, remove nuts securing lock cylinder assembly to studs on rear end panel molding.

2. Move lock cylinder and shaft assembly forward to enable disengaging shaft from cylinder and remove shaft and cylinder from body.

NOTE: On styles with rear compartment lid lock vacuum release unit, it is necessary to remove lock and vacuum release unit attaching bolts to permit lock cylinder removal.

3. To install, reverse removal procedure.

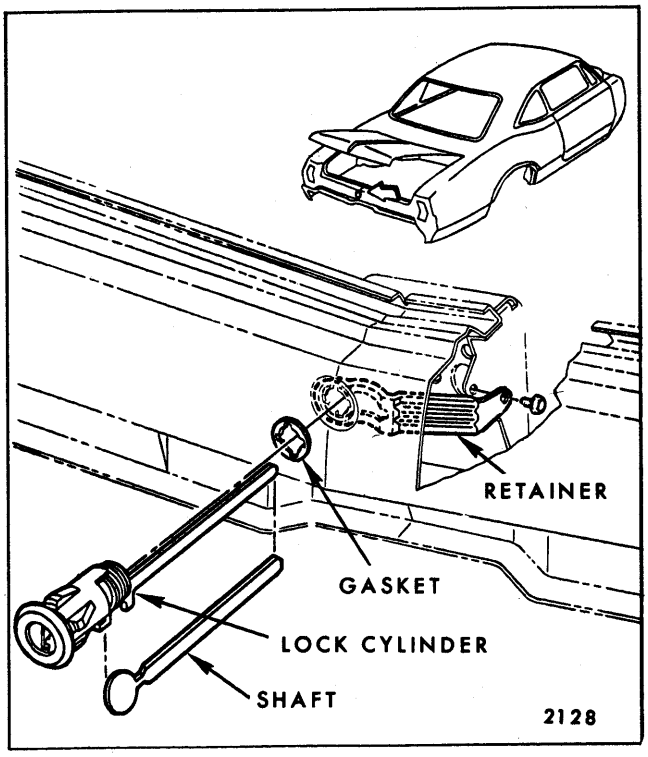

Fig. 9-13—Rear Compartment Lid Lock Cylinder Assembly - Oldsmobile "B" Style Shown

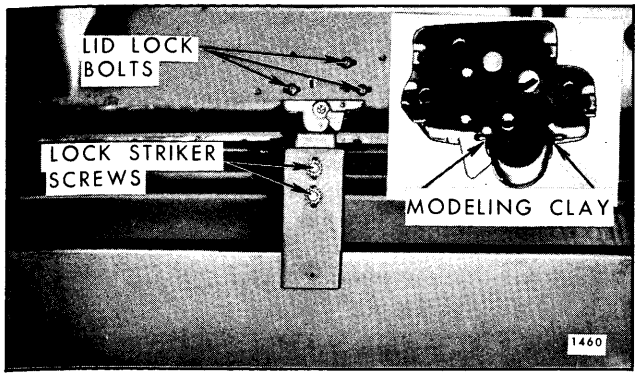

Fig. 9-14—Rear Compartment Lid Lock and Striker

REAR COMPARTMENT LID LOCK

Removal and Installation

1. Remove rear compartment lid lock cylinder assembly as previously described.
2. On styles so equipped, remove rear compartment lid vacuum release unit as described on page 9-10.
3. Remove rear compartment lid lock attaching bolts and remove lock from lid (Fig. 9-14 and 9-15).
4. To install, reverse removal procedure. Check lock engagement with striker and make any necessary lateral adjustments before tightening bolts.

REAR COMPARTMENT LID LOCK STRIKER

Removal and Installation

1. Open rear compartment lid. Mark vertical position of striker by scribing a line on striker at top of striker support or at base of lid inner panel.
2. Remove striker attaching screws and remove striker (Fig. 9-14 and 9-15).
3. To install, reverse removal procedure. Close lid to check lock to striker engagement and make any necessary vertical adjustments before tightening striker screws.

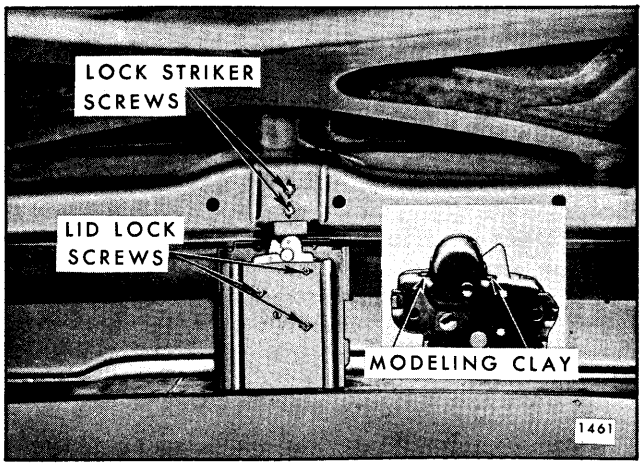

Fig. 9-15—Rear Compartment Lid Lock and Striker

REAR COMPARTMENT LID LOCK STRIKER ENGAGEMENT ALL STYLES EXCEPT CORVAIR AND CADILLAC STYLES WITH MECHANICAL CLOSING UNIT OPTION

IMPORTANT: Since the rear compartment lock frame acts as a guide when entering the striker, make sure rear compartment lid is properly positioned in body opening before performing striker engagement check.

1. Insert a small quantity of modeling clay on frame of lock at both sides of the lock bolt (Figs. 9-14 and 9-15). Close lid with moderate force.
2. Open lid and check amount of engagement of striker with lock frame as indicated by the compression of the clay. The striker bar impressions in the clay should be even on both sides of the lock frame. Where required, loosen striker or lock attaching screws; adjust lock sideways or striker up or down to obtain proper engagement; then, tighten screws.

ENGINE COMPARTMENT LID LATCH ALL CORVAIR STYLES

Removal and Installation

1. Raise engine compartment lid and mark position of latch.

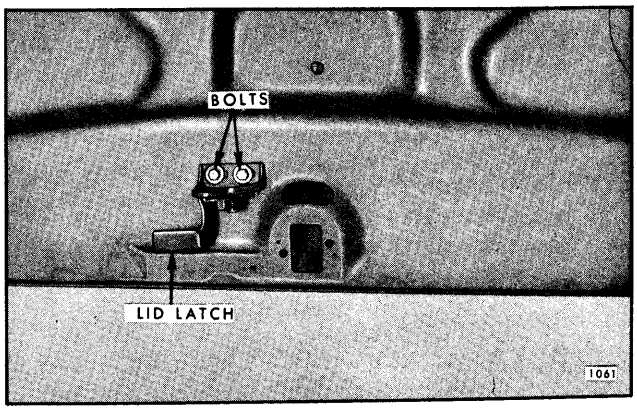

Fig. 9-16—Engine Compartment Lid Latch Assembly

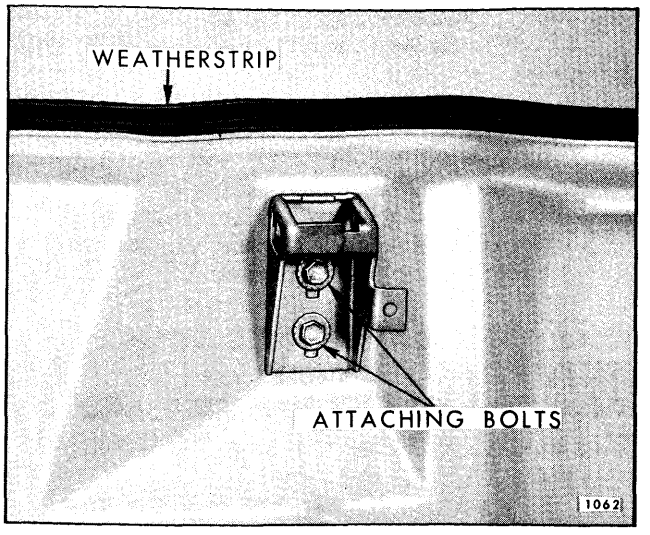

Fig. 9-17—Engine Compartment Lid Latch Striker

2. Remove two bolts securing latch to engine compartment inner panel and remove assembly from body. (See Fig. 9-16.)

3. To install, align latch assembly within scribe marks and install attaching bolts. Check engagement of latch with striker and perform any adjustments that may be required.

ENGINE COMPARTMENT LATCH STRIKER—CORVAIR

Removal and Installation

1. Raise engine compartment lid and mark position of striker on rear end panel.

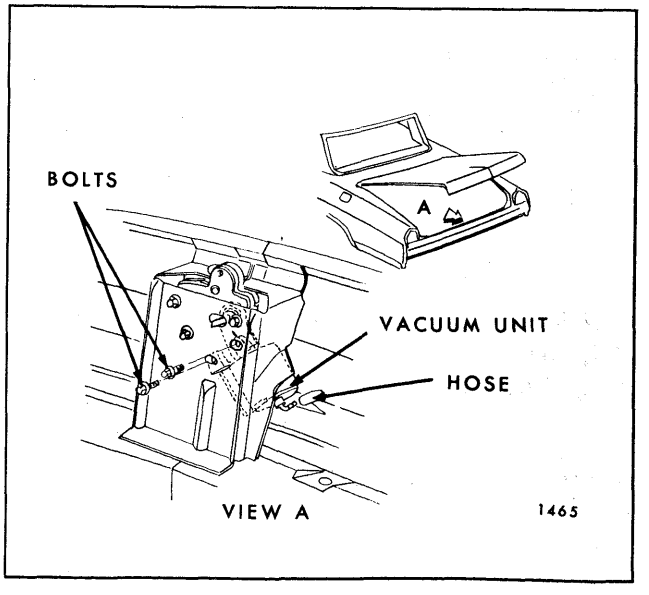

Fig. 9-18—Rear Compartment Vacuum Release Unit

2. Remove attaching bolts and remove striker from body. (See Fig. 9-17.)

3. To install, align striker within scribe marks and install attaching bolts. Check engagement of latch within striker and perform any adjustments that may be required.

REAR COMPARTMENT LID VACUUM LOCKING SYSTEM STYLES EQUIPPED WITH OPTION

The rear compartment lid vacuum lock system is a side-action snap-bolt type lock with a vacuum release unit attached that unlocks the lock upon the introduction of vacuum in the unit. The vacuum is stored in a storage tank located on the shroud panel and is controlled by a switch located in the instrument panel compartment box. By actuating the switch, vacuum is introduced into the line extending from the storage tank to the vacuum release unit, thereby, unlocking the lid lock. As this is only an unlocking feature, the rear compartment lid must be closed manually.

REAR COMPARTMENT LID VACUUM RELEASE UNIT STYLES EQUIPPED WITH OPTION

Removal and Installation

1. Remove rear compartment lid lock cylinder as previously described.

2. Disconnect vacuum hose from vacuum release unit. Remove attaching bolts shown in illustration and remove vacuum unit (Figs. 9-18, 9-19 and 9-20 for typical illustrations).

3. To install, reverse removal procedure. Check unit for proper operation.

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT ALL CADILLAC STYLES

The rear compartment lid mechanical pull-down unit is used in conjunction with the opening unit. When the rear compartment lid is lowered to a point where the lid lock engages with striker, the mechanical closing unit pulls the lid the remaining distance (7/8") to the fully closed position.

To act as a safety feature and slow the action of the closing unit, a hydraulic cylinder is incorporated in the mechanism. The cylinder is attached

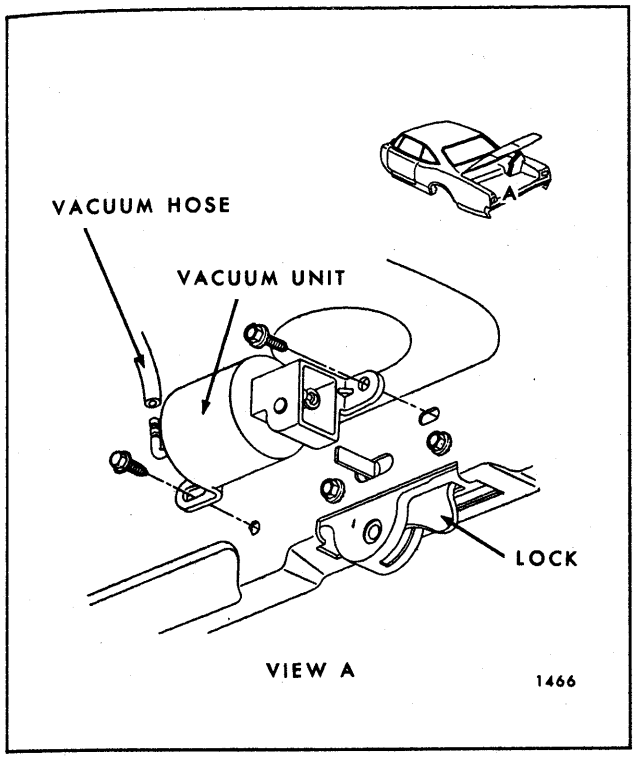

Fig. 9-19—Rear Compartment Vacuum Release Unit

to a bell crank at the right rear compartment lid hinge and to the closing unit by a cable. As the lid is lowered and the lock latches to the striker, but before the mechanical closing feature is tripped, the piston extends to a "full-out" position. Then, as the lid is lowered to actuate the mechanical closing feature, the piston compresses the fluid in the cylinder retarding the closing action of the spring in the hydraulic cylinder.

Removal and Installation

1. Open rear compartment lid. Remove mechical pull-down unit cover panel. Depress striker slightly to relieve tension from cable and disengage clip securing cable to pull-down control arm (Fig. 9-21).

2. Disengage clip securing cable conduit to cable adjusting bracket and disengage cable and cable conduit from pull-down unit (Fig. 9-21).

3. Scribe (mark) position of pull-down unit on rear end panel and supports to facilitate reinstalling unit in same position. Remove pull-down unit attaching bolts and remove unit from body (Fig. 9-22).

4. To install, reverse removal procedure.

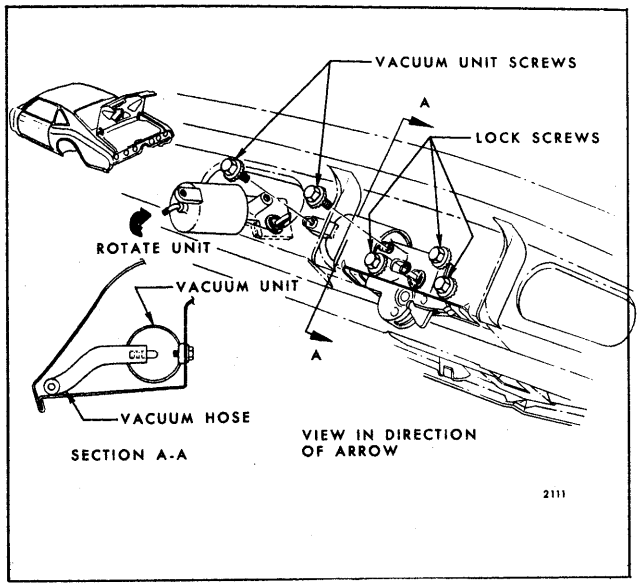

Fig. 9-20—Rear Compartment Lid Vacuum Release Unit

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT CABLE ALL CADILLAC STYLES

Removal and Installation

1. On lower end of hydraulic cylinder pull clip away from hooked end of pull-down unit cable. Disengage cable from slot in cylinder. Disengage cable conduit retaining clip from support on wheelhouse and remove cable and conduit from support (Fig. 9-23).

2. Repeat this procedure at other end of cable, disengaging clips securing cable to pull-down unit and cable conduit to adjusting bracket (Fig. 9-21), and remove cable from body.

3. To install, reverse removal procedure.

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT HYDRAULIC CYLINDER ALL CADILLAC STYLES

Removal and Installation

1. Disengage cable from lower end of hydraulic cylinder as described under "Rear Compartment Lid Mechanical Pull-Down Unit Cable - Removal".

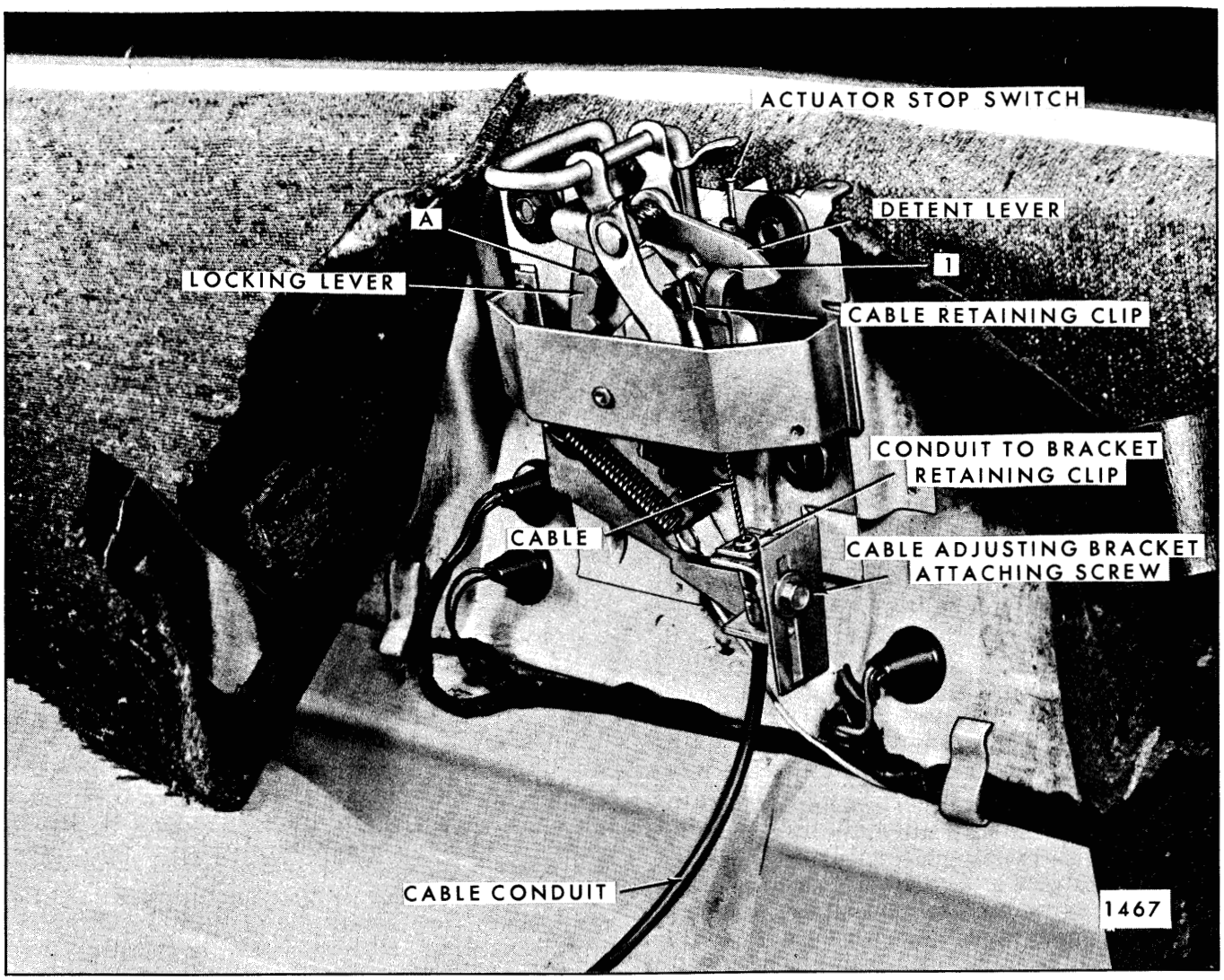

Fig. 9-21—Rear Compartment Lid Mechanical Pull-Down Unit

2. Lift cylinder to disengage upper end from shoulder of shaft on link assembly and remove cylinder.
3. To install, reverse removal procedure.

REAR COMPARTMENT LID MECHANICAL PULL-DOWN UNIT ADJUSTMENTS ALL CADILLAC STYLES

To actuate the mechanical pull-down unit the rear compartment lid lock must properly engage the striker arm and depress the detent lever of the pull-down unit. This engagement can be checked by lowering the lid and visually checking lock and striker alignment. If adjustment is necessary, obtain lateral adjustment at lock attaching screw locations and "up or down" adjustment at pull-down unit attaching screw locations.

For proper operation of the pull-down unit, the pull-down unit cable must be adjusted to the proper tension. If the cable has too much tension it will not allow the pull-down unit to return to its full-up position and "cock". This is apparent when as the lid begins to lower, so does the pull-down unit.

Too little tension in the cable results in a lessening of pull-down effort in the unit and, consequently, a misaligned (high) rear compartment lid.

To increase cable tension, position hydraulic cylinder end of cable in the upper slot on the lower end of the cylinder ("1" in Fig. 9-23). If more tension, or finer adjustment, is required, loosen cable adjusting bracket attaching screw (Fig. 9-21). Adjust bracket downward (to increase cable travel) and tighten attaching screw.

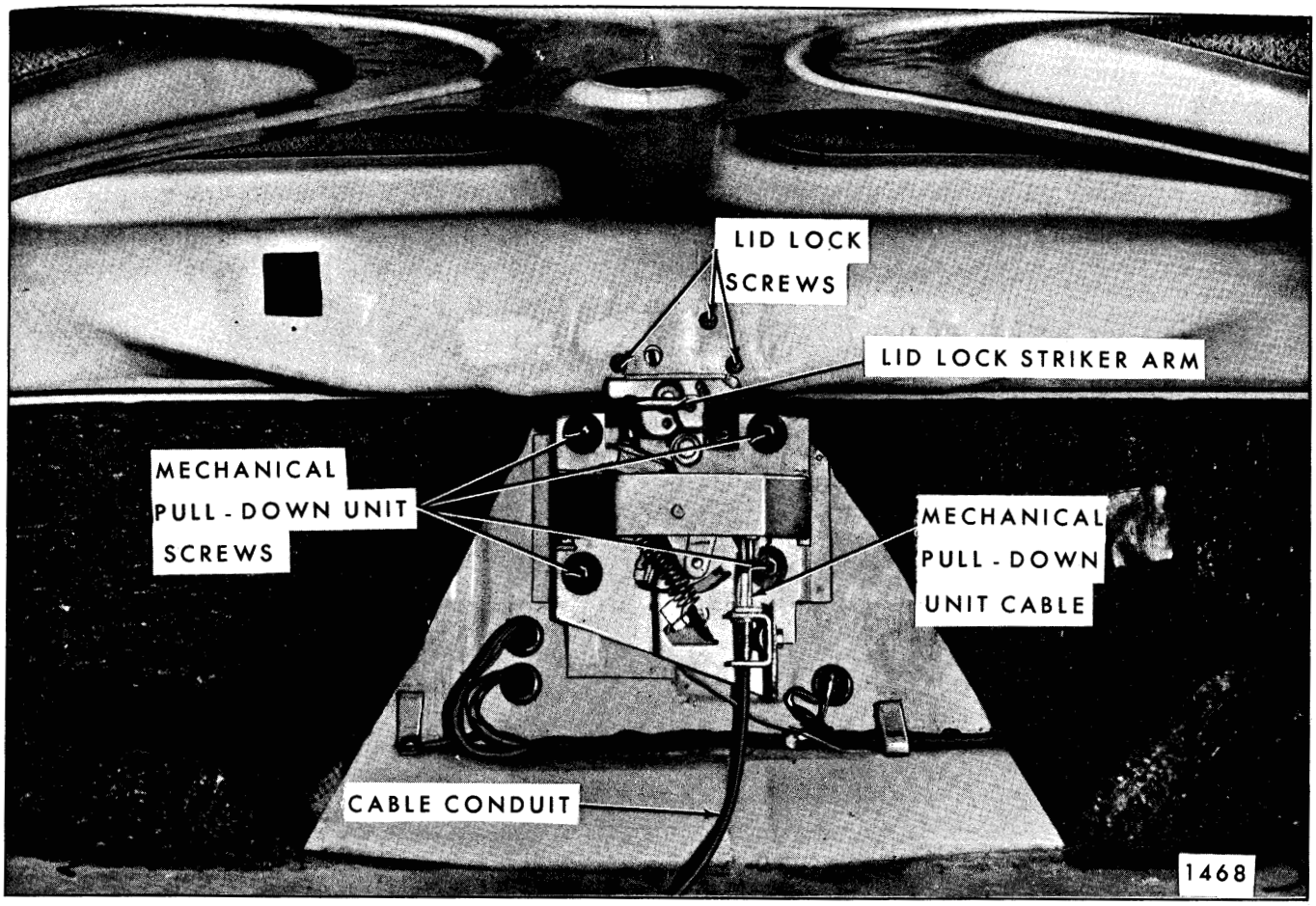

Fig. 9-22—Rear Compartment Lid Mechanical Pull-Down Unit

To decrease cable tension, position hydraulic cylinder end of cable in lower slot on hydraulic cylinder ("2" in Fig. 9-22). For finer adjustment, or to lessen tension still more, loosen cable adjusting bracket attaching screw (Fig. 9-21). Adjust bracket upward to desired position and tighten attaching screw.

IMPORTANT: The lack of lubrication between the toggle and the detent lever ("1", Fig. 9-21) can greatly increase the effort required to trip (unlock) the pull-down unit. Therefore, make certain point of contact between these two levers is lubricated with 630 AAW Lubriplate or its equivalent.

REAR COMPARTMENT LID LOCK MANUAL RELEASE UNIT PONTIAC "A" STYLES

Removal and Installation

1. Remove rear compartment lock and lock cylinder.
2. Remove cable support clip attaching screw and move cable toward left side of body to enable disengagement of release cable return spring retainer (See Fig. 9-24).
3. Disconnect cable from return spring.
4. Spread tab on coupling (of coupling and lever assembly) and disengage cable from coupling.
5. Remove all cable retaining clips in rear compartment (right side of gutter).
6. Remove rear seat cushion and rear seat back. On convertible styles, remove folding top compartment side trim panel assembly.
7. Remove door sill plate from right side of body. Fold-back floor carpets and remove cable retaining clips.
8. Inside of instrument panel compartment (glove box), loosen pull handle retaining nut and disengage pull handle from slotted support.

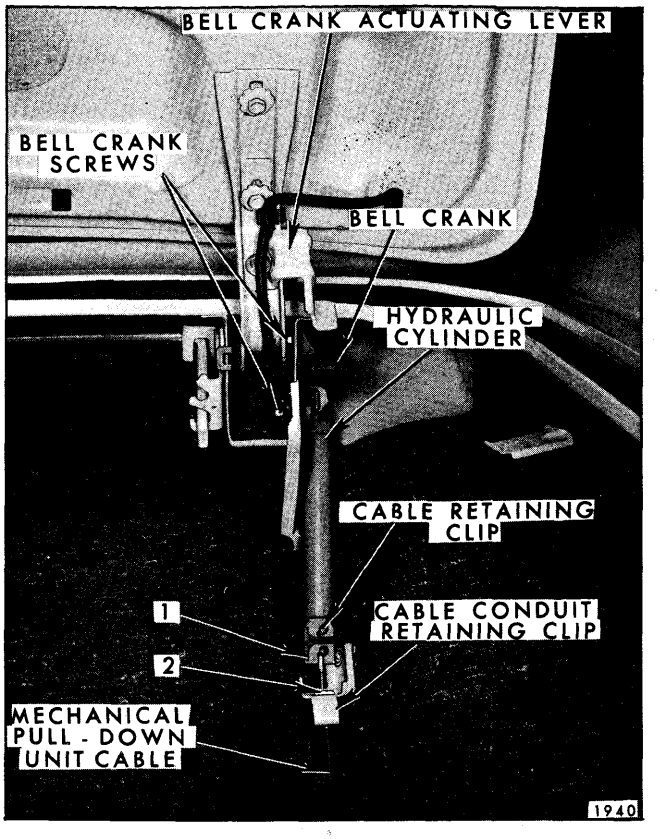

Fig. 9-23—Mechanical Pull-Down Unit Hydraulic Cylinder

9. Remove pull handle from glove box through slot provided, and remove cable and pull handle assembly from body.

10. To install, reverse removal procedure. To adjust cable, position stop on cable 1/2 inch left of body centerline (coupling and lever assembly).

REAR COMPARTMENT WEATHERSTRIP ALL STYLES

Removal

1. Separate "butt" ends of weatherstrip at rear compartment opening (Fig. 9-25).

2. Using a flat-bladed tool, carefully disengage weatherstrip from its cemented foundation in gutter completely around opening and remove weatherstrip from body.

Installation

1. Clean out-gutter around entire rear compartment opening to provide a clean cementing surface.

2. Apply (brush) a continuous coat of black weatherstrip adhesive to surfaces of the rear compartment gutter.

3. Using a flat-bladed tool, such as a putty knife, insert weatherstrip into gutter starting with one end of weatherstrip at rear center of gutter and working completely around gutter.

4. If a new weatherstrip is being installed, trim end to form a butt joint at rear center of opening. Brush weatherstrip adhesive (black) on both ends of weatherstrip and secure ends together to form a butt joint.

5. Using a pressure type applicator, apply weatherstrip adhesive (neoprene type) between weatherstrip and outer surface of gutter completely around opening to assure a watertight seal.

6. Roll or press weatherstrip to aid in obtaining a good cement bond. Allow sufficient time for cement to set before closing rear compartment lid.

TAIL GATES
All Station Wagon Styles

DESCRIPTION

All tail gates incorporate either a manually or electrically operated window that can be lowered into the gate or raised into the back body opening. The manual window is operated by a regulator control handle located in the tail gate outer panel. The power window can be operated by either of two control switches; one on the instrument panel and one at the lock cylinder (key operated) of the tail gate outer panel. All styles using a power tail gate window are equipped with an electrical switch that prevents movement of the window with gate in any position other than fully closed.

The tail gate is unlocked by means of a remote control inside handle which cannot be opened until the gate window is fully lowered. All tail gates are counter-balanced by a torque rod that assists in reducing the effort required to open or close the tail gate.

Unless otherwise stated, the tail gate service procedures outlined in this manual pertain to all station wagon styles.

TAIL GATE INNER PANEL COVER

The inner panel cover is attached to the tail gate

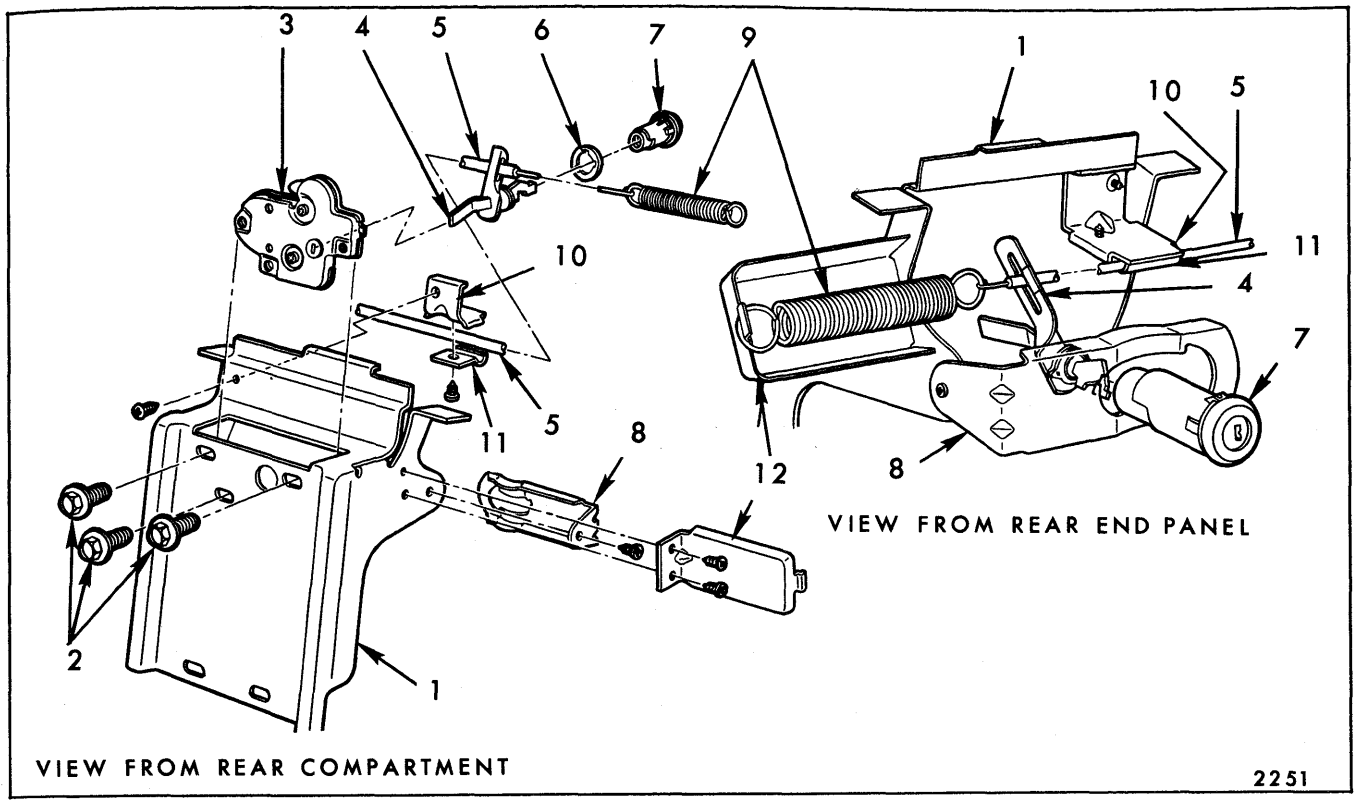

Fig. 9-24—Rear Compartment Lid Manual Release Unit

1. Compartment Lid Anchor Plate - Body Side
2. Rear Compartment Lock Attaching Screws
3. Rear Compartment Lock
4. Release Coupling and Lever Assembly
5. Release Cable
6. Sealing Gasket
7. Lock Cylinder
8. Lock Cylinder Retainer
9. Return Spring
10. Release Cable Support
11. Release Cable Support Clip
12. Return Spring Retainer

inner panel by a series of screws. Removal is obvious except in those cases where the tail gate cannot be opened. This could occur if a power operated window motor fails with glass in the up position. In such circumstances, proceed as follows:

1. The attaching screws on "A & X" Body Styles are still accessible with gate in the closed position. On "B" Body Styles, however, remove the side and center screws of the cover and slide panel up to remove from tail gate.

NOTE: The bottom retainer screws need not be removed as they secure retainer only. The tail gate inner panel cover is held in the bottom retainer by slots in side and center section metal strips. (See Fig. 9-26.)

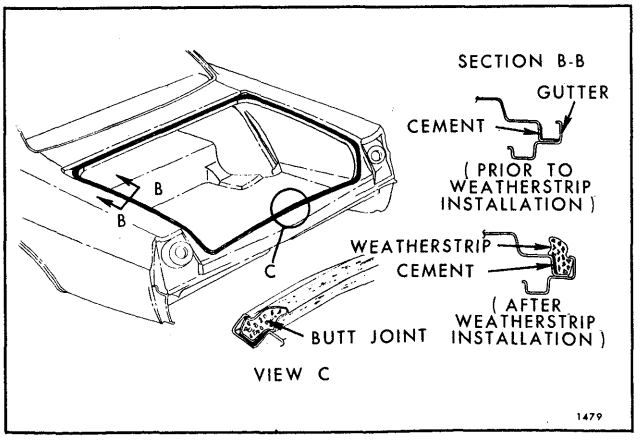

Fig. 9-25—Rear Compartment Weatherstrip Assembly

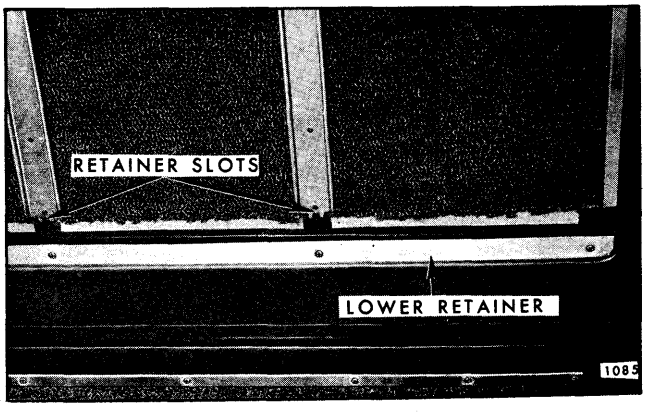

Fig. 9-26—Inner Panel Cover

2. Once the inner panel cover has been removed, it is possible to remove the access hole covers and window sash channel cams as explained in the following pages. At this point, the tail gate window can be lowered and the gate opened.

TAIL GATE INNER PANEL WATER DEFLECTOR

A waterproof paper deflector is sealed against the tail gate inner panel to deflect water toward the bottom of the gate and out the drain holes.

IMPORTANT: Whenever work is performed on the tail gate that requires any detachment of the water deflector, it must be properly resealed to the inner panel.

Removal

1. Remove tail gate inner panel cover.
2. Using a flat-bladed tool, carefully break cement bond securing water deflector to inner panel. Make sure string, located within sealer, is against water deflector and carefully slide tool between sealer and inner panel along both sides and top to disengage deflector from inner panel. If the entire deflector need not be removed, detach only that portion necessary.

Installation

1. Inspect deflector and repair any damage noted with body waterproof tape applied to both sides.
2. If a new deflector is to be installed, use old deflector as a template.
3. If needed, apply a bead of body caulking compound (approximately 3/16" diameter) to tail gate inner panel. (See Fig. 9-27.) The inner panel cover attaching screw holes should also be sealed with body caulking compound.
4. Position water deflector to tail gate with polyethylene coated side (black) against inner panel. Firmly press sealed areas to obtain a good bond between deflector and inner panel.

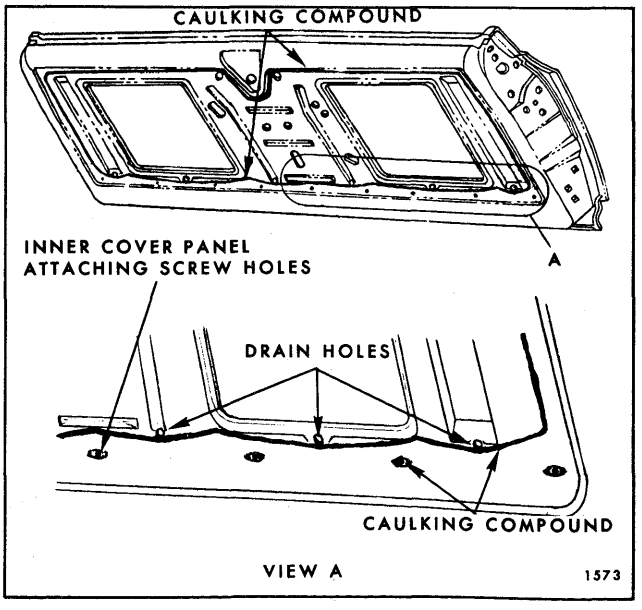

Fig. 9-27—Tail Gate Sealing

TAIL GATE INNER PANEL ACCESS HOLE COVERS

Removal and Installation

1. Remove tail gate inner panel cover and water deflector.
2. Remove screws securing right and left access hole covers to tail gate inner panel and remove covers. (See Fig. 9-24.)
3. To install, reverse removal procedure.

TAIL GATE HINGE ASSEMBLY

Removal and Installation

1. Open tail gate and provide support for gate on side from which hinge is to be removed.
2. Remove escutcheon covering hinge entrance hole in tail gate outer panel by sliding retaining lips through "T" slot.

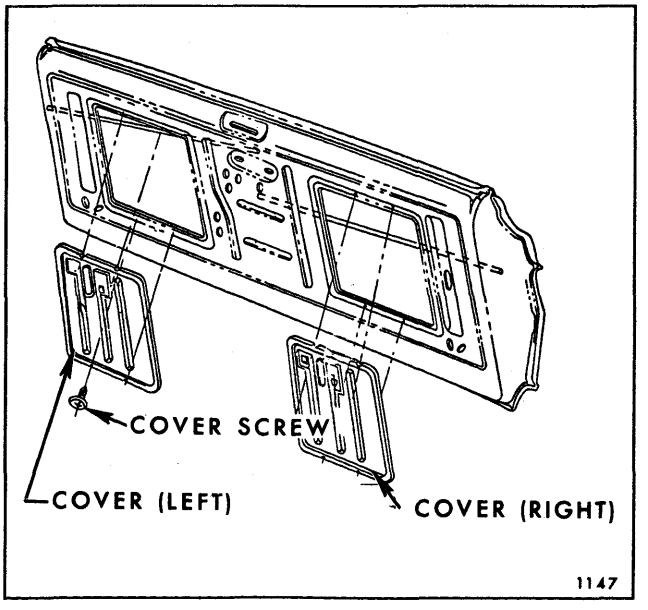

Fig. 9-28—Tail Gate Inner Panel Access Hole Covers

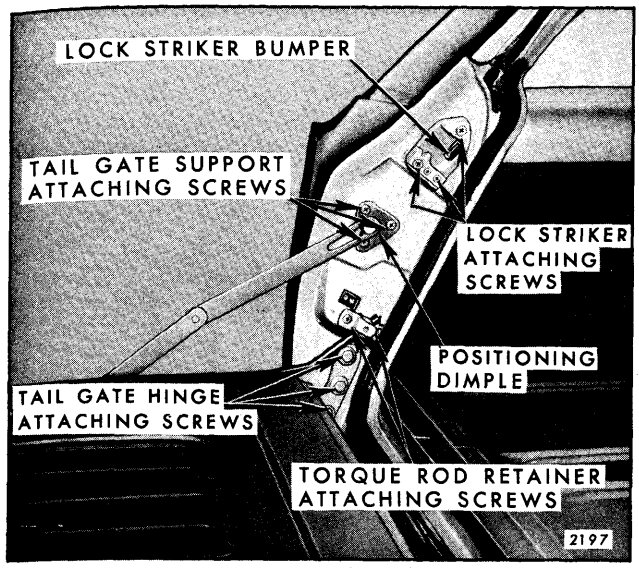

Fig. 9-29—Tail Gate Torque Rod, Hinge and Support Attachments "B & A" Body Styles

3. Remove tail gate hinge attaching bolts from tail gate and body (See Figs. 9-29 and 9-30.) and remove hinge from gate.

4. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surface of hinge that contacts body.

5. Check alignment of tail gate in opening and adjust as required.

TAIL GATE SUPPORT ASSEMBLIES

Removal and Installation

1. Open tail gate and support it in that position.

2. Remove screws securing support to tail gate and to body lock pillar and remove support. (See Figs. 9-29 and 9-30.)

3. To install, reverse removal procedure.

NOTE: Objectionable slack in either support can be corrected by rotating support plate(s) at body pillar.

TAIL GATE ASSEMBLY

The basic hardware of all tail gates is similar, regardless of the style involved. For purposes of proper identification, however, Figures 9-31 ("B" Body), 9-32 ("A" Body) and 9-33 ("X" Body) identify the major hardware components of each specific body type.

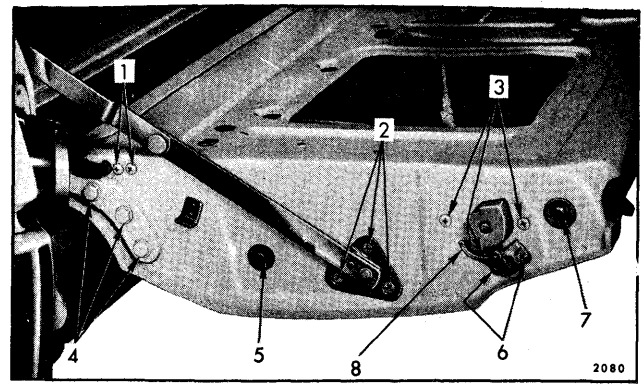

Fig. 9-30—Tail Gate Hardware - Left Side

1. Torque Rod Bearing Plate Screws
2. Support to Tail Gate Bolts
3. Tail Gate Lock Screws
4. Hinge to Tail Gate Bolts
5. Glass Run Channel Lower Bolt
6. Jamb Switch Screws
7. Glass Run Channel Upper Bolt
8. Jamb Switch Arm

Removal and Installation

1. Open tail gate and remove inner panel cover, water deflector and both access hole covers.

2. Raise tail gate to an approximate vertical position to relieve torque rod tension. Remove torque rod retainer attaching screws and remove retainer. On "B & A" Body Styles, this retainer is on the left body pillar as shown in Figure 9-29. On "X" Body Styles, however, the retainer is located on the right side of the rear body cross bar. (See Fig. 9-34.)

3. On styles equipped with power operated tail gate windows, proceed as follows:

   a. Remove tail gate window as described under "Tail Gate Window Assembly, Removal and Installation".

   b. Disconnect wire harness at key switch, jamb switch and at motor. Remove harness from tail gate.

4. While properly supporting tail gate, remove right and left support to gate attaching screws and fold supports against body. (See Fig. 9-30.)

5. With the aid of a helper, remove right and left tail gate hinge to gate attaching bolts and remove tail gate from body. (See Fig. 9-30.)

6. To install, reverse removal procedure. Prior to installation, apply a coat of heavy bodied sealer to surface of hinges that contact tail gate.

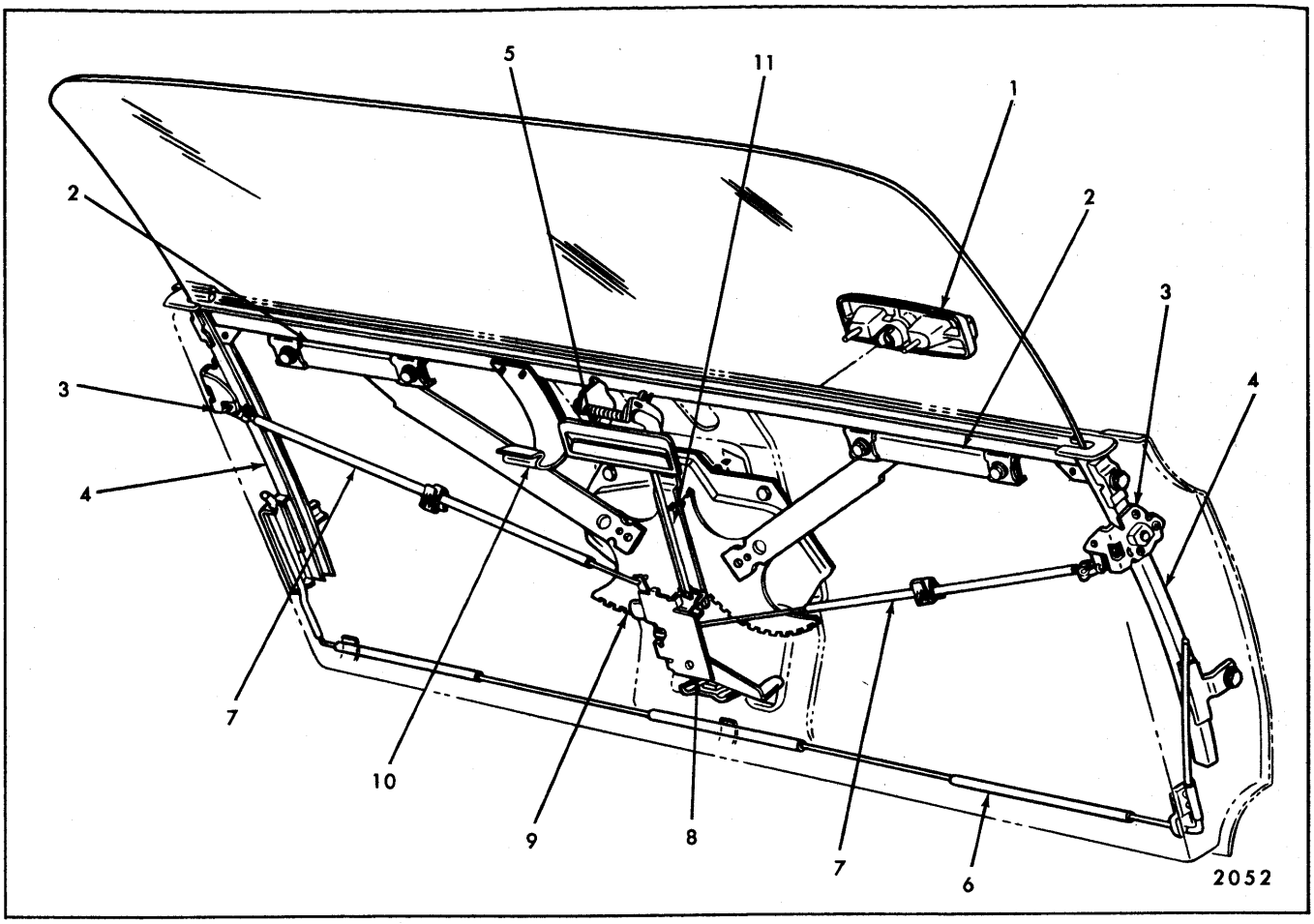

Fig. 9-31—Tail Gate Hardware - "B" Body Styles

1. Outside Handle or Key Switch
2. Sash Channel Cams
3. Locks
4. Lower Glass Run Channels
5. Inside Handle
6. Torque Rod
7. Remote Control Connecting Rods
8. Remote Control
9. Regulator
10. Anti-Rattle Clip
11. Inside Handle Push Rod

Adjustments

Up or down and fore or aft adjustment is provided at hinge to gate attaching bolts. Side to side adjustment is available at hinge to body opening attaching bolts by using shims.

NOTE: Following any adjustments of the tail gate, check engagement of locks to strikers as described in "Tail Gate Lock Striker Adjustment".

TAIL GATE WINDOW ASSEMBLY—MANUAL OR ELECTRIC

Removal and Installation

1. Remove tail gate inner panel cover, water deflector and both access hole covers.
2. Operate tail gate window to a point that sash channel cam attaching bolts are accessible as depicted in Figure 9-35.

NOTE: On styles equipped with power operated tail gate windows, engage jamb switch and operate window to any position desired. Engaging the tail gate jamb switch, makes it possible to operate the window (by key switch) with gate in the lowered position. This jamb switch is located on the left side of the tail gate on "B" Bodies and the right side for "A & X" Bodies. "B & A" Bodies have a switch of similar design that can be engaged by merely pushing arm with a finger. (See Fig. 9-30.) On "X" Bodies, however, the jamb switch consists of two contact plates, one on gate and one on body pillar. These plates can be engaged with gate open by connecting them with a length of body wire. (See Fig. 9-36.)

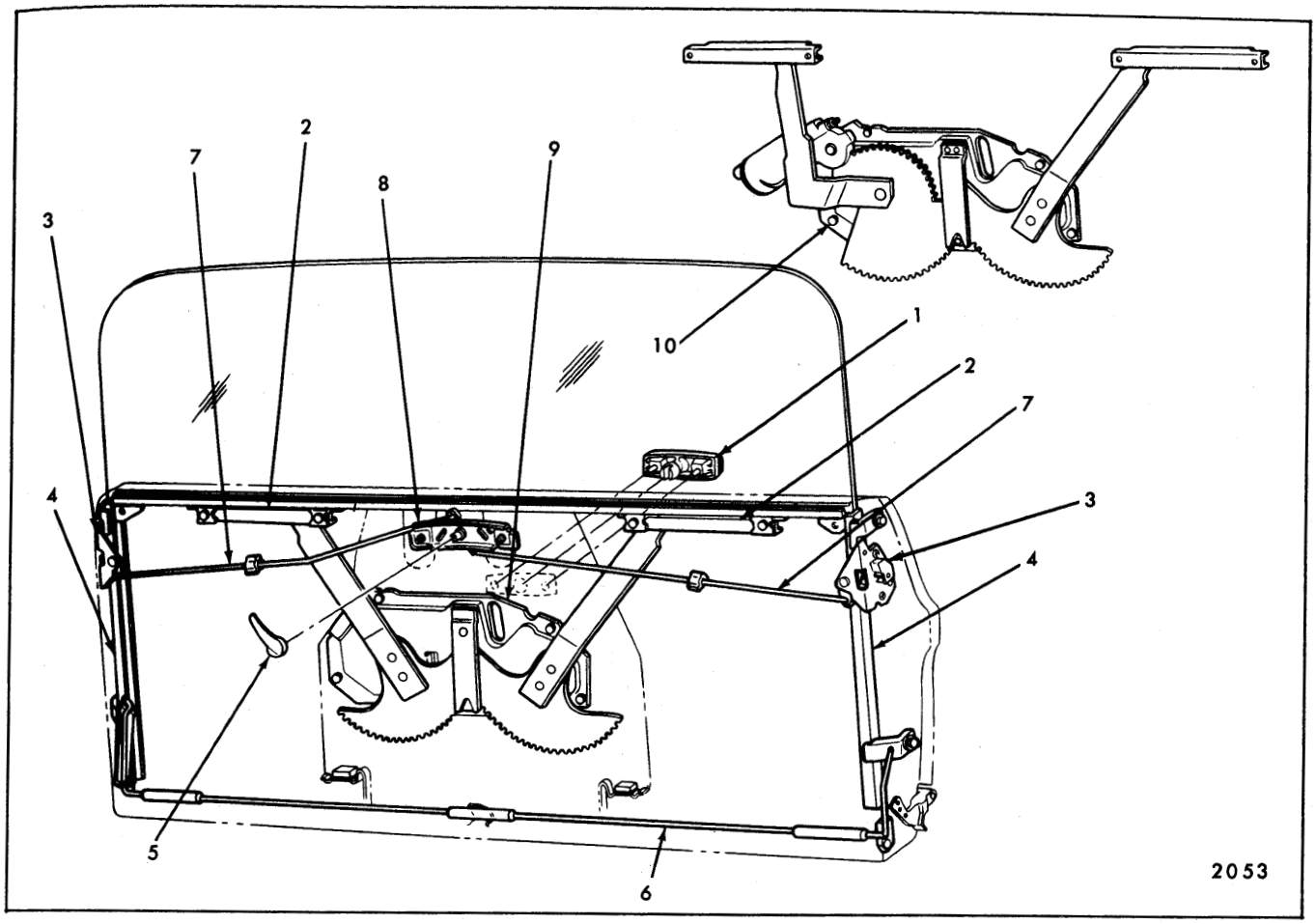

Fig. 9-32—Tail Gate Hardware - "A" Body Styles

1. Outside Handle or Key Switch
2. Sash Channel Cams
3. Locks
4. Lower Glass Run Channels
5. Inside Handle
6. Torque Rod
7. Remote Control Connecting Rods
8. Remote Control
9. Regulator (Manual)
10. Regulator (Electric)

3. Remove right and left cam attaching bolts (Fig. 9-35). Slide cams sideways to disengage from regulator lift arm rollers and remove cams from tail gate.

4. Pull window straight out to remove from tail gate.

5. To install, reverse removal procedure.

Adjustments

The tail gate glass run channels can be adjusted to relieve a binding glass. To correct a rotated glass condition, loosen window regulator attaching screws and rotate regulator clockwise or counter clockwise as required.

TAIL GATE WINDOW REGULATOR—MANUAL OR ELECTRIC

Removal and Installation

1. Remove tail gate window assembly.

2. On styles equipped with a power operated tail gate window, disconnect electric harness at regulator motor connector.

CAUTION: DO NOT operate regulator motor after window assembly has been disengaged from regulator or after regulator has been removed from tail gate. Operation of motor with load removed may damage unit.

3. Remove bolts securing regulator to support

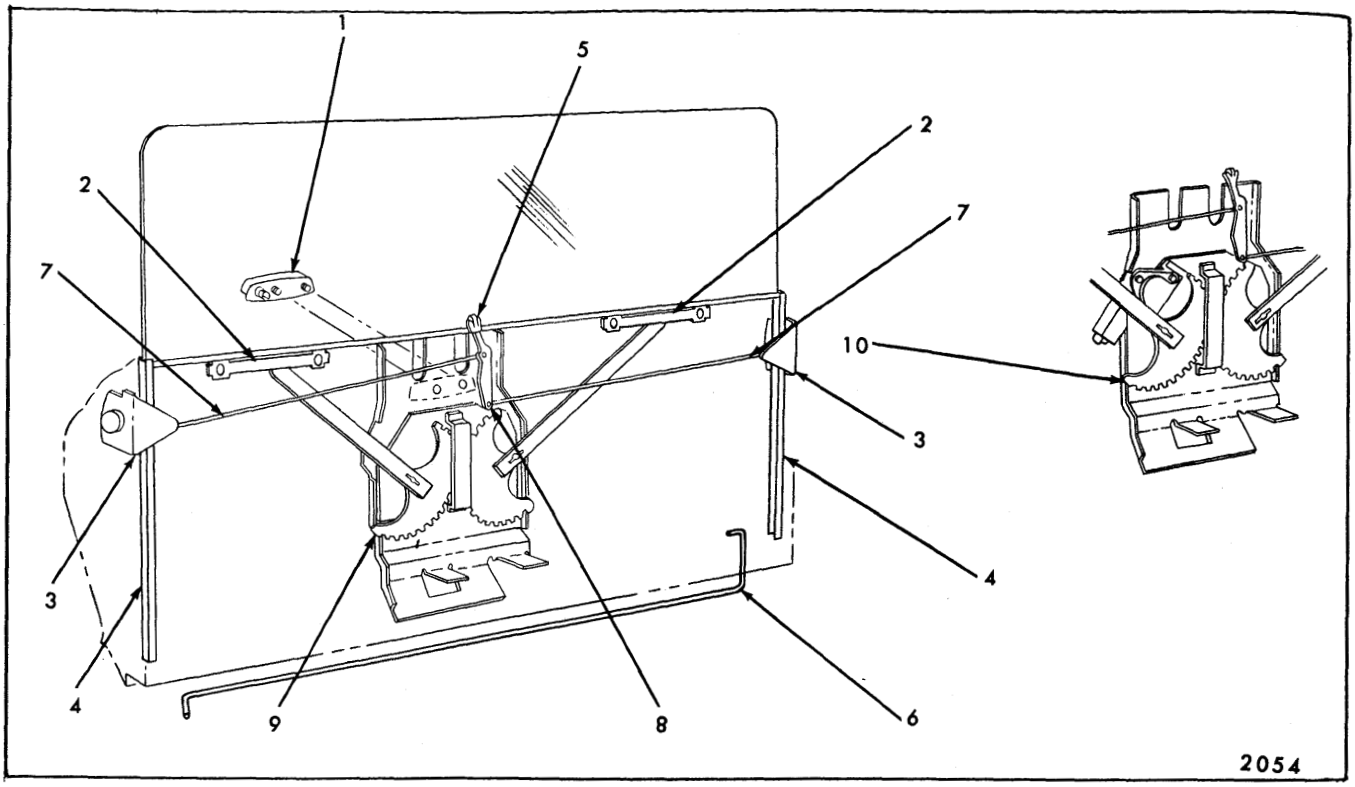

Fig. 9-33—Tail Gate Hardware - "X" Body Styles

1. Outside Handle or Key Switch
2. Lower Sash Channel Cams
3. Locks
4. Lower Glass Run Channels
5. Inside Handle
6. Torque Rod
7. Remote Control Connecting Rods
8. Remote Control
9. Regulator (Manual)
10. Regulator (Electric)

and remove regulator, with motor attached, from tail gate.

4. To install, reverse removal procedure.

TAIL GATE WINDOW ELECTRIC REGULATOR MOTOR ASSEMBLY

Removal

1. Open tail gate and remove tail gate inner cover panel.

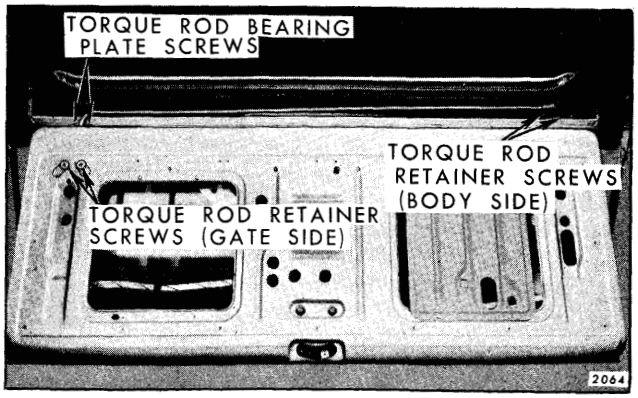

Fig. 9-34—Tail Gate Hardware "X" Body Styles

2. Detach inner panel water deflector and remove inner panel right access hole cover.

3. Disconnect wire harness connector from motor.

IMPORTANT: The following operation must be

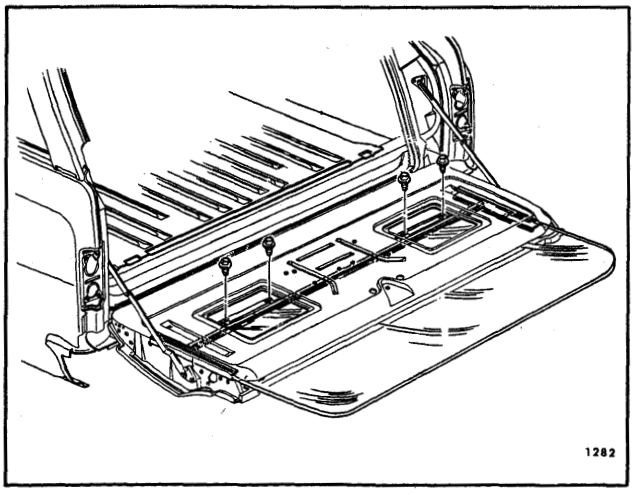

Fig. 9-35—Tail Gate Inner Panel Cams Attachment

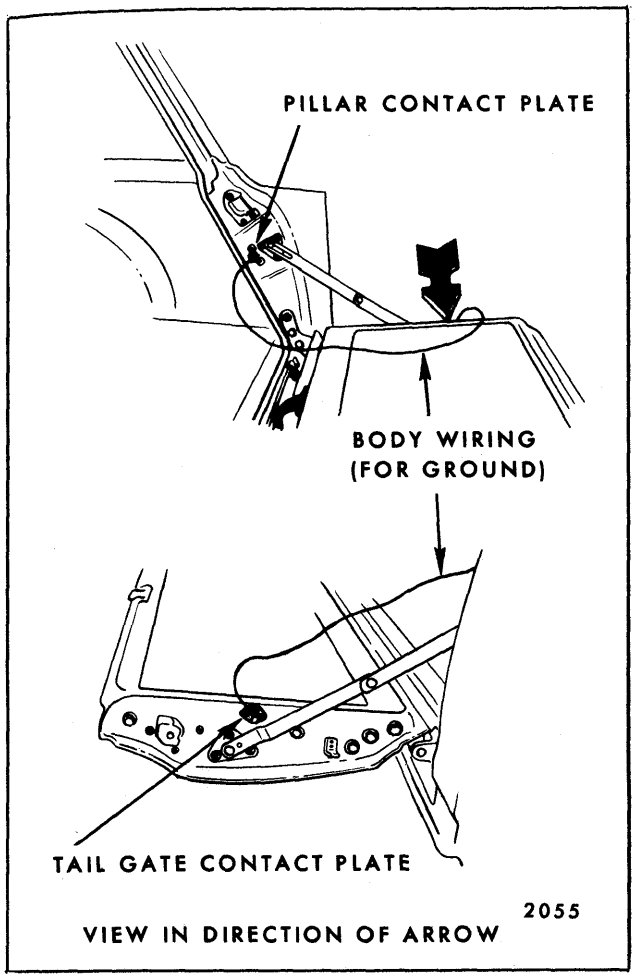

Fig. 9-36—"X" Body Tail Gate Jamb Switch

performed if the window is removed or disengaged from the regulator lift arms. The regulator lift arms, which are under tension from the counter-balance spring, can cause serious injury if the motor is removed without locking the sector gears in position.

4. Drill a 1/8" hole through regulator sector and back plate. (See Fig. 9-37.) DO NOT drill hole closer than 1/2" to edge of sector gear of back plate. Install a pan head sheet metal tapping screw (#10-12 x 5/8) in drilled hole to lock sector gears in position.

5. Loosen regulator right upper attaching screw. Remove the three regulator motor attaching screws and remove motor assembly from regulator and tail gate.

Installation

1. Lubricate the motor drive gear and regulator sector teeth with Lubriplate or its equivalent.

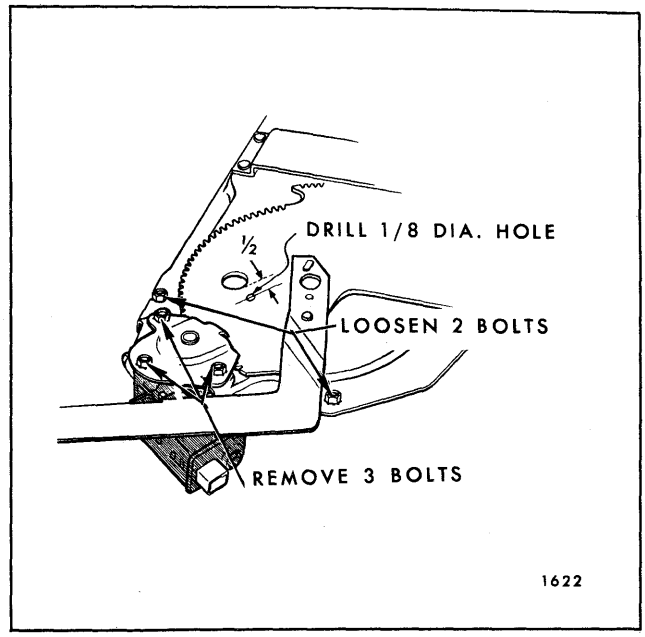

Fig. 9-37—Tail Gate Regulator Motor Assembly

2. With tail gate in an open position, install regulator motor to regulator. Make sure the motor pinion gear teeth mesh properly with the sector gear, teeth before installing the three motor attaching screws.

3. Tighten regulator attaching screws and remove screw locking sector gears into a fixed position.

4. Connect wire harness to motor and cycle tail gate window prior to installation of inner panel access hole cover, water deflector and cover panel.

TAIL GATE WINDOW REGULATOR OUTSIDE HANDLE—MANUAL OR ELECTRIC

Removal and Installation

1. Lower tail gate and remove inner panel cover and water deflector.

2. Position tail gate window so that outside handle (or key switch) attaching nuts are accessible through gate inner panel and window regulator access holes. (See Fig. 9-38.)

3. Remove nuts securing handle (or key switch) to tail gate and remove handle and sealing gasket. (See Fig. 9-39.)

NOTE: On electrical styles, disconnect wire harness from connector on escutcheon (key switch).

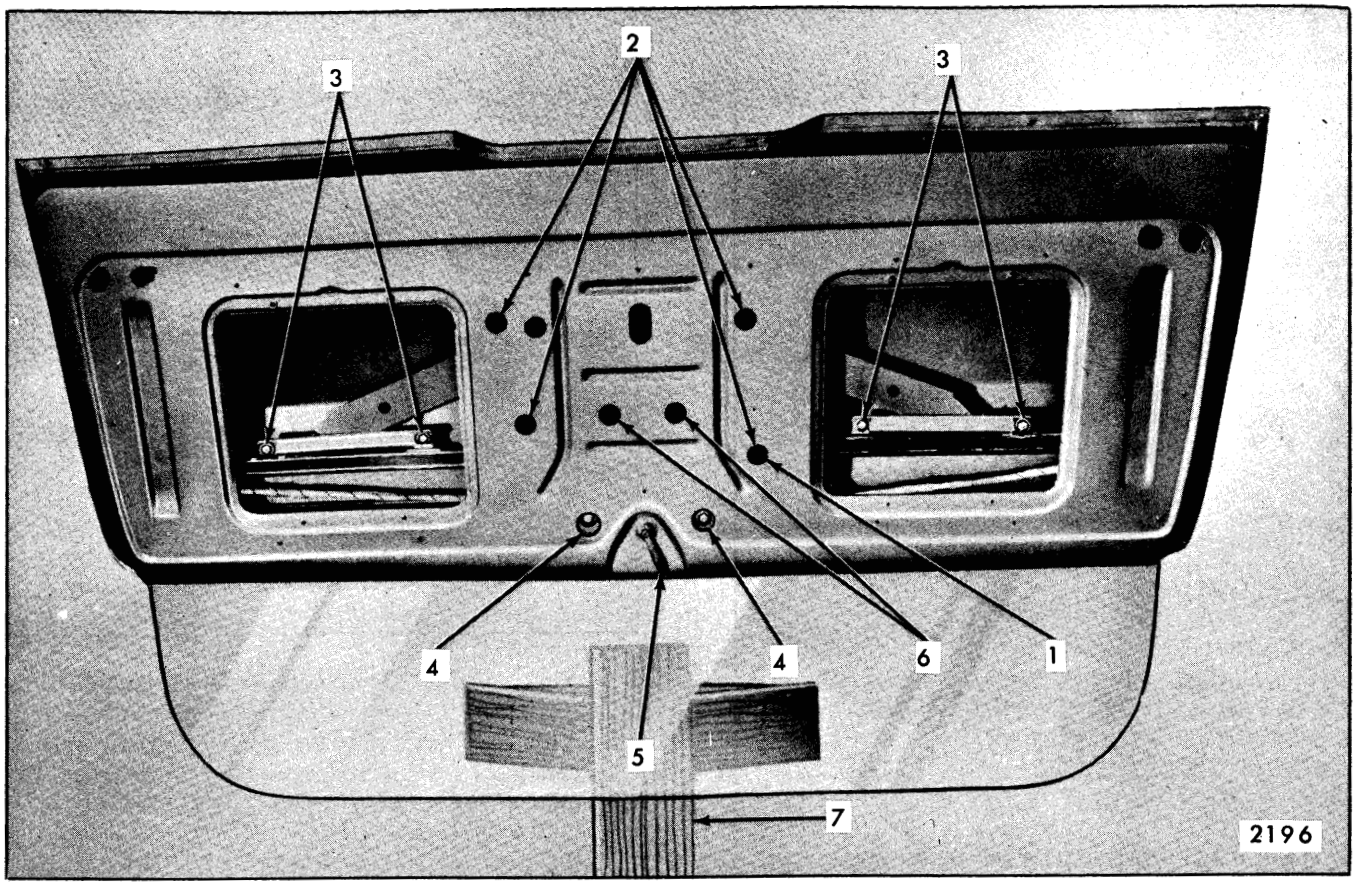

Fig. 9-38—Tail Gate Window Hardware

1. Access Hole for Regulator Adjusting Screw
2. Access Holes for Window Regulator Attaching Screws
3. Window Lower Sash Channel Cams Attaching Screws
4. Lock Remote Control Attaching Screws
5. Lock Remote Control Handle Attaching Screw
6. Access Holes for Outside Handle or Key Switch
7. Support Glass

4. To install, reverse removal procedure.

TAIL GATE WINDOW LOWER GLASS RUN CHANNELS

Removal and Installation

1. Remove tail gate window.
2. Remove bolts securing run channel(s) to tail gate. (See Fig. 9-30.)
3. Pull run channel(s) down into tail gate and remove through inner panel access hole.
4. To install, reverse removal procedure.

TAIL GATE JAMB SWITCH— ELECTRIC STYLES

The electric jamb switch is used to prevent opera-

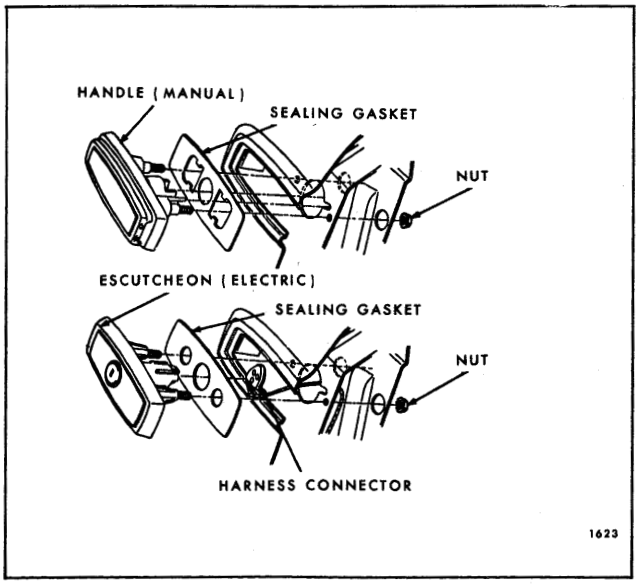

Fig. 9-39—Tail Gate Outside Handle Assemblies

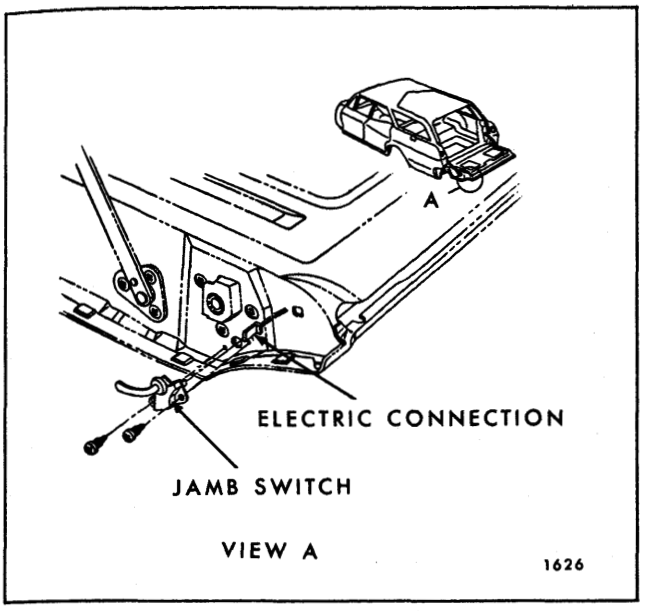

Fig. 9-40—Tail Gate Jamb Switch

tion of the tail gate window with the tail gate in an open position.

Removal and Installation

1. Remove screws securing jamb switch to tail gate and remove switch. (See Fig. 9-40.)

NOTE: Figure 9-40 illustrates the jamb switch on a "B" Body but is indicative of all styles.

2. To install, reverse removal procedure.

TAIL GATE REMOTE CONTROL INSIDE HANDLE "B" STYLES

Removal and Installation

1. Raise inside handle and disengage remote push rod from spring clip. (See Fig. 9-41.)

2. Remove screws securing handle to inner panel and remove handle.

3. To install, reverse removal procedure.

NOTE: The inside handle on "A & X" Body Styles is retained by a single attaching screw.

TAIL GATE LOCK REMOTE CONTROL ASSEMBLY

Removal and Installation

1. Remove tail gate window assembly.

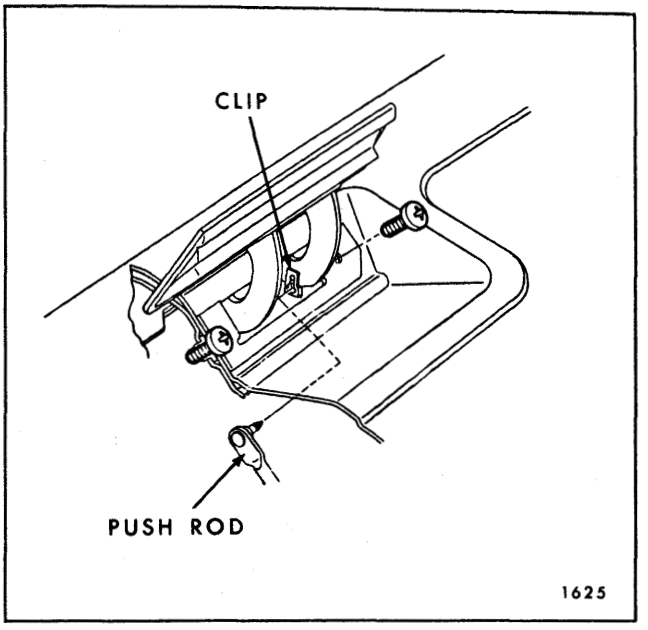

Fig. 9-41—Tail Gate Inside Handle Attachment

2. Disconnect remote control to lock connecting rods at remote assembly by sliding clip out of engagement. (See Section "B-B" in Fig. 9-42.)

3. On "X" Body Styles, remove remote control inside handle attaching screw and remove handle. (See View II in Fig. 9-42.) Pry out and remove escutcheon.

4. Remove remote control attaching bolts and remove assembly from tail gate. On "B" Body Styles, it will be necessary to disengage remote from inside handle push rod. (See Fig. 9-42 for "X" Body Styles and Fig. 9-43 for "B & A" Body Styles.)

5. To install, reverse removal procedure.

NOTE: The remote adjusting nut on "B" and "A" Body Styles (Fig. 9-43) can be adjusted to increase or decrease remote operating effort.

TAIL GATE LOCK ASSEMBLY— RIGHT OR LEFT SIDE

Removal and Installation

1. Remove tail gate window assembly.

2. Remove tail gate window lower glass run channel on side from which lock is to be removed.

3. Remove screws securing lock to tail gate. (See Fig. 9-44.)

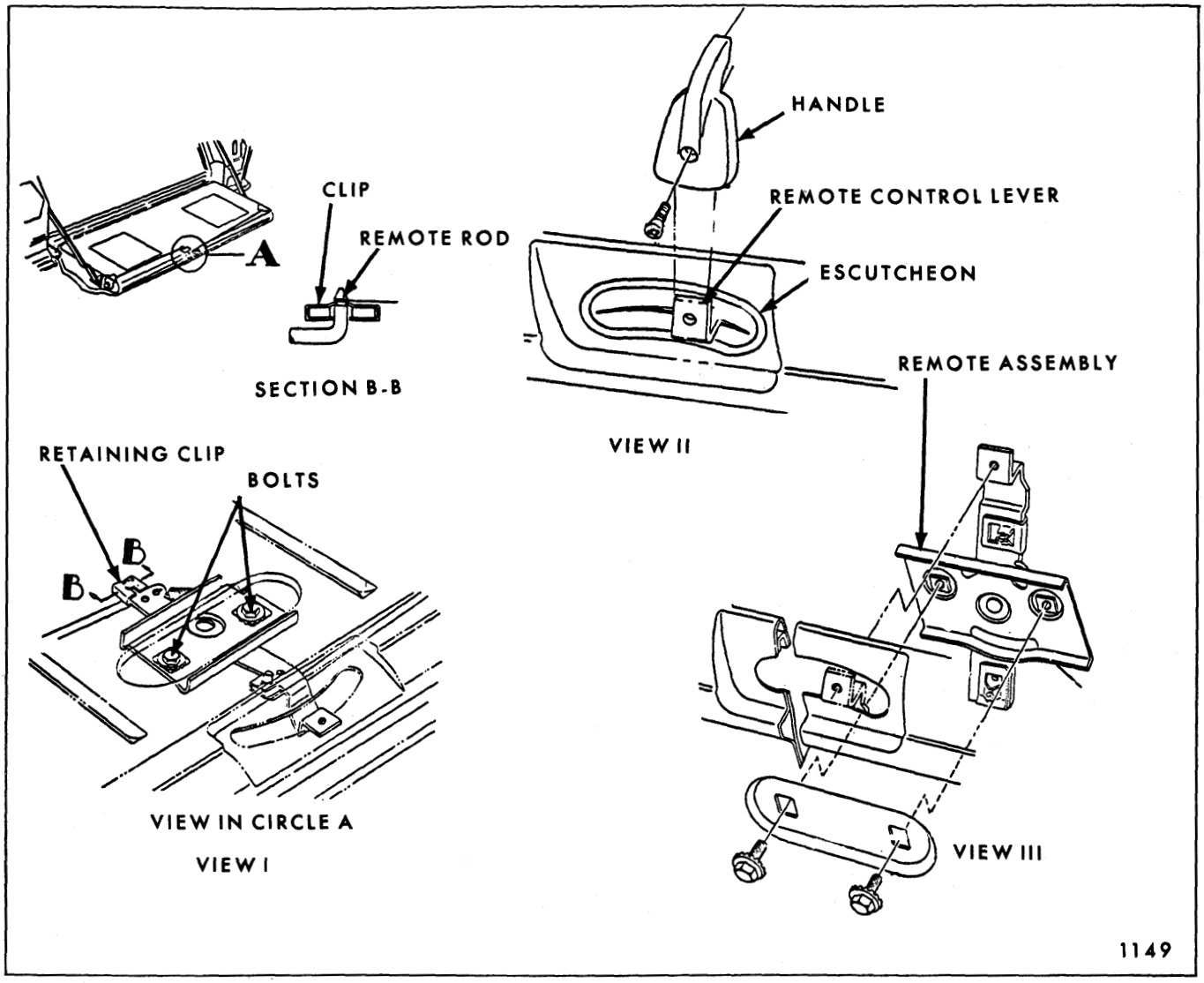

Fig. 9-42—Tail Gate Lock Remote Control Assembly - "X" Body Styles

4. Move lock assembly to tail gate access hole, disengage remote rod anti-rattle clip and remove lock assembly.

5. To install, reverse removal procedure.

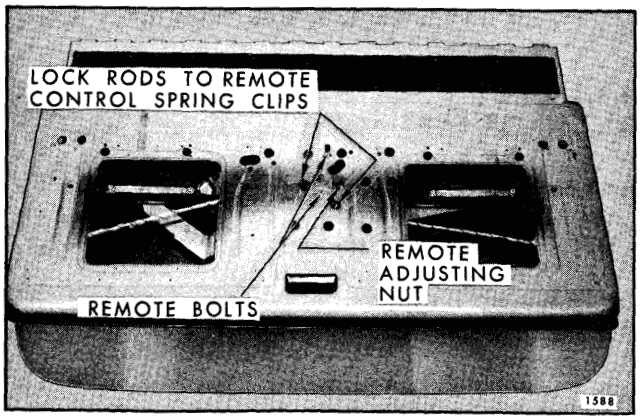

Fig. 9-43—Tail Gate Hardware - "A & B" Body Styles

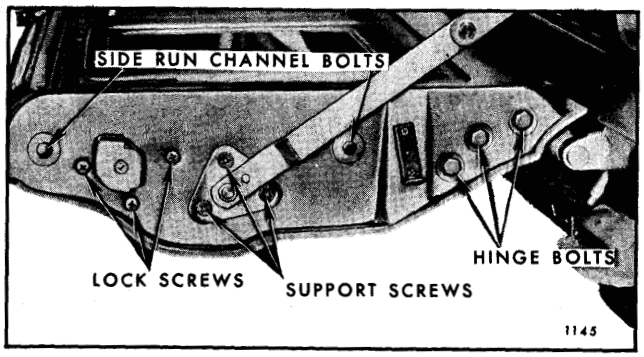

Fig. 9-44—Tail Gate Lock and Support

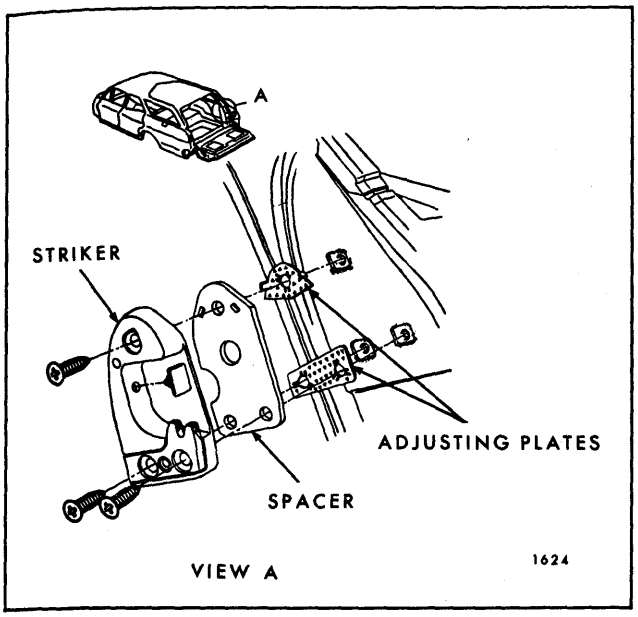

Fig. 9-45—Tail Gate Lock Striker Assembly

Fig. 9-46—Tail Gate Lock Striker Caulking Check

TAIL GATE LOCK STRIKER—RIGHT OR LEFT SIDE

Removal and Installation

1. Open tail gate and mark (pencil) position of striker on body pillar. (See Fig. 9-29.)

2. Remove lock striker attaching screws and remove striker and adjusting plates from body pillar.

3. To install, align striker and components within pencil marks and install attaching screws. (See Fig. 9-45.)

TAIL GATE LOCK STRIKER ADJUSTMENTS

1. To adjust the tail gate lock striker up or down or forward or rearward, loosen striker attaching screws, shift striker and adjusting plates to desired position and tighten attaching screws.

2. DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER SERVICE SPACERS.

   a. Tail gate should be properly aligned before checking spacer requirements.

   b. To determine if tail gate lock striker service spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages and close tail gate to form a measureable impression in the clay or caulking compound, as shown in Figure 9-46.

When dimension "A" from inside face of striker teeth to center of lock extension is less than 3/16" install service spacers and proper length striker attaching screws as follows:

Dimension "A"	Spacers Required	Thickness	Striker Attaching Screws*
3/16" to 1/8"	1	1/16"	Original Screw
1/8" to 1/16"	1	1/8"	Service Screw (1/8" Longer)
1/16" to 0	1 (1/8" Spacer) 1 (1/16" Spacer)	3/16" (Total)	Service Screw (1/4" Longer)
0 to 1/16" Interference	2 (1/8" Spacer)	1/4" (Total)	Service Screw (1/4" Longer)

*Zinc or cadmium-plated flat-head cross-recess screw with countersunk washer.

NOTE: Dimension "B" from center of lock extension to inside face of striker should never be less than 1/16".

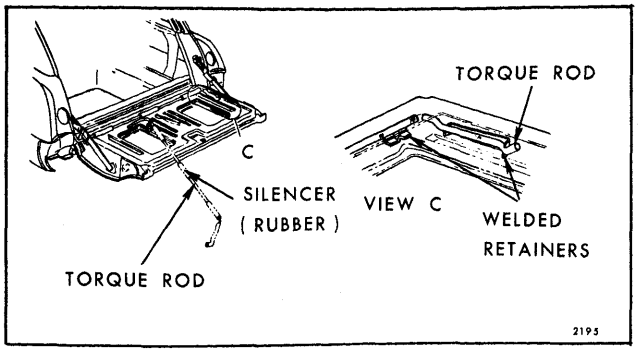

Fig. 9-47—Tail Gate Torque Rod

TAIL GATE TORQUE ROD

Removal and Installation

1. Remove tail gate window assembly and torque rod retainer(s). (See Figs. 9-21 and 9-34.)

2. Remove screws securing torque rod bearing plate to tail gate. (See Fig. 9-30 for "B & A" Bodies and Fig. 9-21 for "X" Bodies.)

3. On "B & A" Body Styles, disengage torque rod from welded retainers. (See View "C" in Fig. 9-47.)

4. On "B & A" Body Styles, remove torque rod silencer (rubber) from left side of torque rod (exposed). Work torque rod out of opening on left side and remove rod through top of gate. (See Fig. 9-47.)

5. On "X" Body Styles, remove torque rod from gate through entrance hole. (See Fig. 9-21.)

6. To install, reverse removal procedure.

TAIL GATE WINDOW INNER AND OUTER STRIP ASSEMBLIES

Removal and Installation

Both strip assemblies are retained by clips in either the inner or outer panel of tail gate. The outer strip is additionally retained by two screws, one at each extreme end. To remove either strip, first remove screws and, using a flat tool, remove strip assemblies. To install, reverse removal procedure. (See Fig. 9-48.)

TAIL GATE BOTTOM DRAIN HOLE SEALING STRIPS

Removal and Installation

1. With a flat-bladed tool carefully pry out snap-on fastener at each end of strip and remove sealing strip from tail gate.

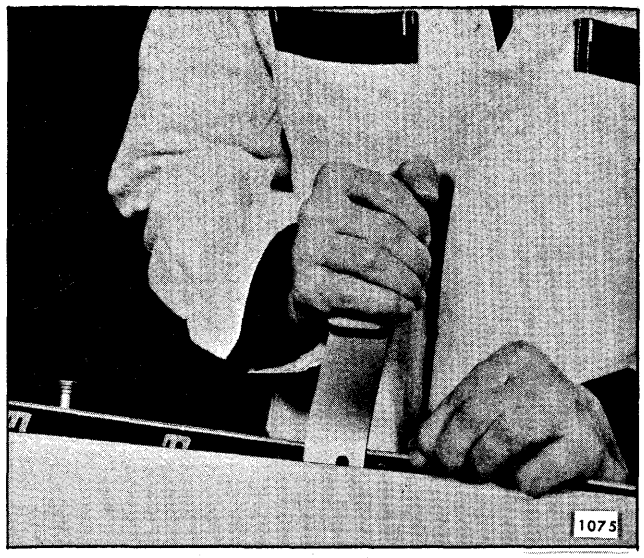

Fig. 9-48—Tail Gate Strip Assembly Removal

2. To install sealing strips, reverse removal procedure. To prevent strip from adhering to the tail gate panel and blocking the drain holes, apply a sparing amount of silicone rubber lubricant on the center section of the sealing strip. (See illustration under "Front and Rear Door Bottom Drain Hole Sealing Strips".)

TAIL GATE OPENING WEATHERSTRIP

Removal and Installation

1. Open tail gate and remove fasteners and/or screws securing weatherstrip to right and left body pillars (at belt). On "B" Body Styles, remove screws securing lower weatherstrip retainer to rear body cross bar. (See Fig. 9-49.)

2. With a flat bladed tool, carefully remove weatherstrip all along rail gate opening.

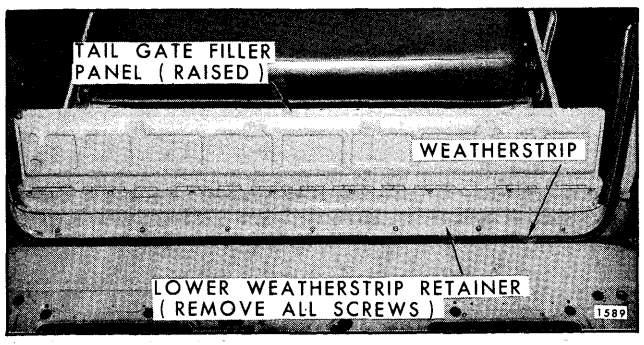

Fig. 9-49—Tail Gate Weatherstrip Retention

3. To install, apply a bead of black weatherstrip cement into retainer along entire opening and reverse removal procedure.

TAIL GATE WINDOW UPPER GLASS RUN CHANNEL "B & A" BODY STYLES

Removal and Installation

1. Open tail gate. With finger pressure only, squeeze run channel at one end and pull channel out of retainer.

2. Once run channel has been removed, the retainer attaching screws are exposed. (See Fig. 9-50.) The retainer can be adjusted by loosening attaching screws, shifting retainer to desired position and tightening screws. If retainer is removed, seal same with medium body sealer prior to installation.

3. To install, reverse removal procedure.

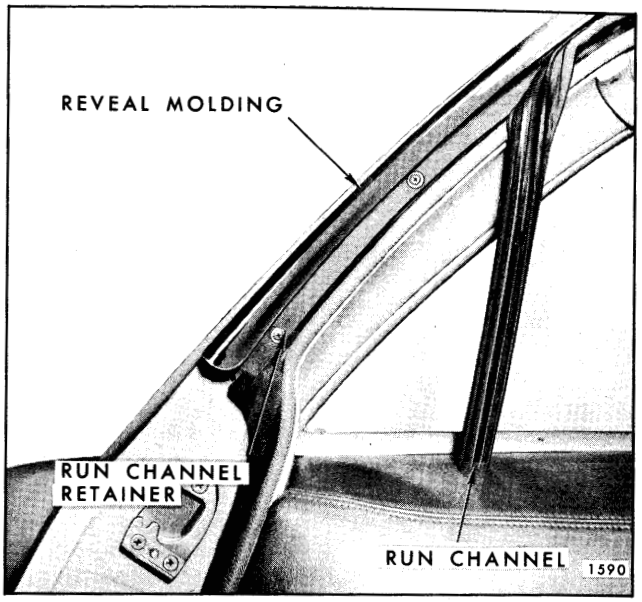

Fig. 9-50—Tail Gate Upper Glass Run Channel Retention

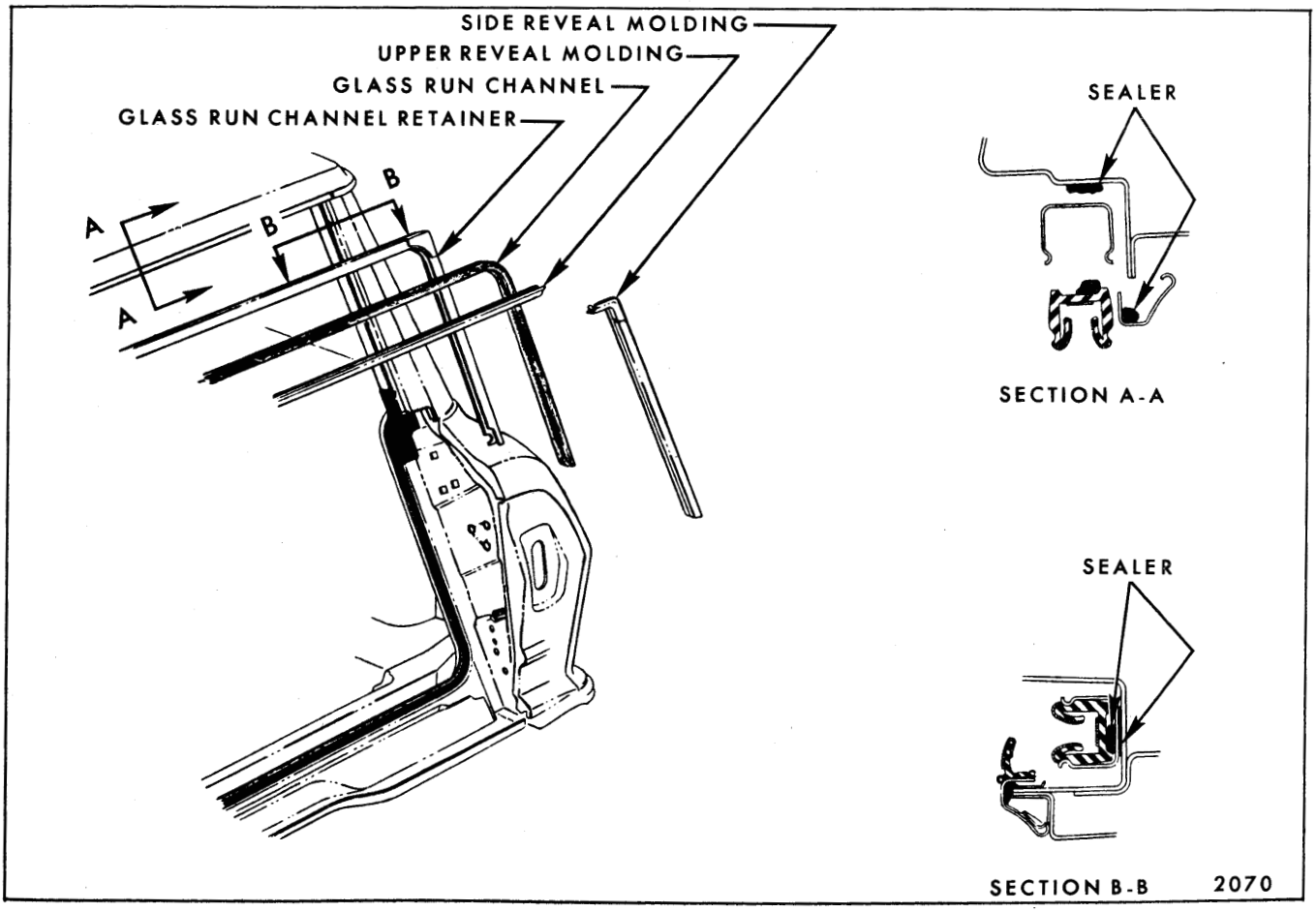

Fig. 9-51—Tail Gate Opening Sealing - "X" Body Styles

TAIL GATE WINDOW UPPER GLASS RUN CHANNEL "X" BODY STYLES

Removal and Installation

1. Open tail gate and remove exposed clip at each end of glass run channel securing channel to body pillar at belt line.
2. Carefully break cement bond between run channel and retainer and remove run channel.
3. Remove screws to run channel retainer and remove retainer.
4. Prior to installation of either run channel or retainer, seal contact areas with medium bodied sealer as depicted in Sections "A-A" and "B-B" in Figure 9-51.
5. To install, reverse removal procedure.

TAIL LAMPS

Various methods are employed to remove and install the components of tail lamp assemblies. The following charts (Figs. 9-52, 9-53, 9-54 and 9-55) will provide a quick reference for performing the the three basic service operations for each Car Division. (Bulb replacement, lens replacement and housing replacement.)

SEALING

Caution should be exercised to prevent waterleaks at the tail lamp area when sealing surfaces are disturbed. Damaged gaskets should be replaced. If new gaskets are not installed, the use of sealer (body caulking compound or equivalent) is recommended at critical areas and where the old gaskets have taken a set.

The recommended torque for attaching nuts to zinc die cast studs on tail lamp housings and rear fender extensions is 60-72 inch pounds. If additional tightening of casting to panel is required a maximum of 90 inch pounds of torque may be used without stripping the nut.

TAIL LAMP BULB USAGE CHART

Trade No.	Candle Power	Use
1155	4	Tail Lamp
1156	32	Back-Up Lamp
1157	32 and 4	Combination Tail, Stop and Directional

TAIL LAMP OPERATIONS—CHEVROLET (Fig. 9-52)

Operation	Method	Body Type						
		X	X 35	A	A 35	B 15000	B 16000	B 35-45
Bulb Replacement	Remove Lens (Outside)		X		X			X
	Remove Socket (Rear Compartment)	X		X		X	X	
Lens Replacement	Remove Retaining Screws (Outside)	X	X	X	X	X		X
	Remove Housing and Remove Screws (Under Gasket)						X	
Housing Replacement	Remove From Outside (Retaining Nuts in Rear Compartment)	X	X	X View A		X	X	
	Remove From Outside (Retaining Bolts Under Lens)				X			X View B

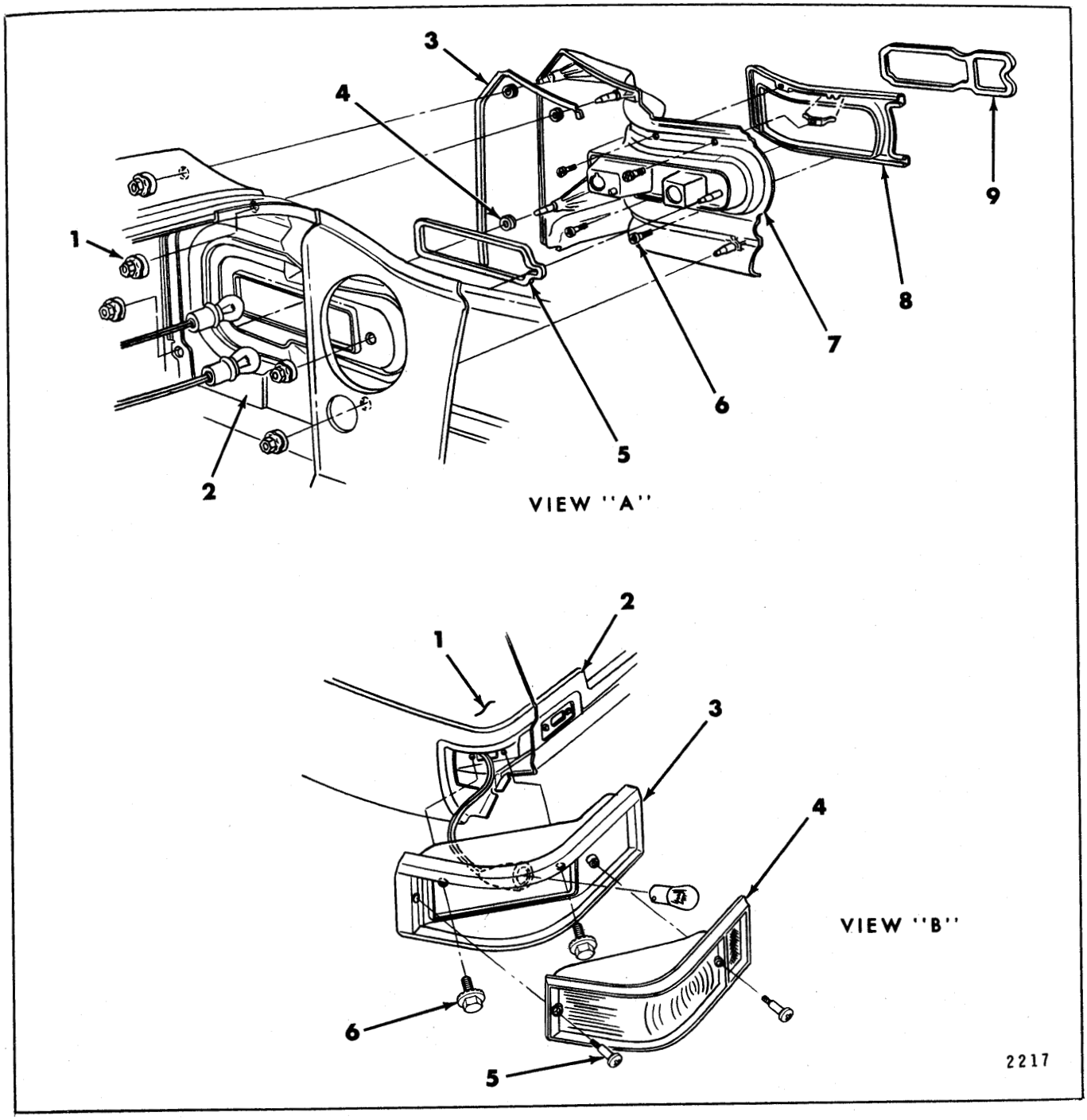

Fig. 9-52—Chevrolet Tail Lamp Installations

View A
1. Extension Nuts
2. Rear End Inner Panel
3. Paint Chip Gasket
4. Extension Sealing Washer
5. Lamp Opening Gasket
6. Outer Bezel Screws
7. Outer Panel Extension
8. Outer Bezel
9. Lens Gasket

View B
1. Rear Quarter
2. Tail Gate
3. Rear Lamp Housing
4. Lens
5. Lens Screw
6. Lamp Housing Screws

TAIL LAMP OPERATIONS—PONTIAC (Fig. 9-53)

Operation	Method	Body Type					
		A 23000	A 24000	A 35	B	B 26657	B Wagon 35-45
Bulb Replacement	Remove Lens (Outside)			X			X
	Remove Socket (Rear Compartment)	X	X		X	X	
Lens Replacement	Remove Retaining Screws (Outside)			X			X
	Remove Housing and Remove Screws (Under Gasket)	X	X		X	X	
Housing Replacement	Remove From Rear Compartment (Retaining Nuts)		X View B			X	
	Remove From Outside (Retaining Nuts in Rear Compartment)	X View A			X		
	Remove From Outside (Retaining Bolts Under Lens)			X			X View C

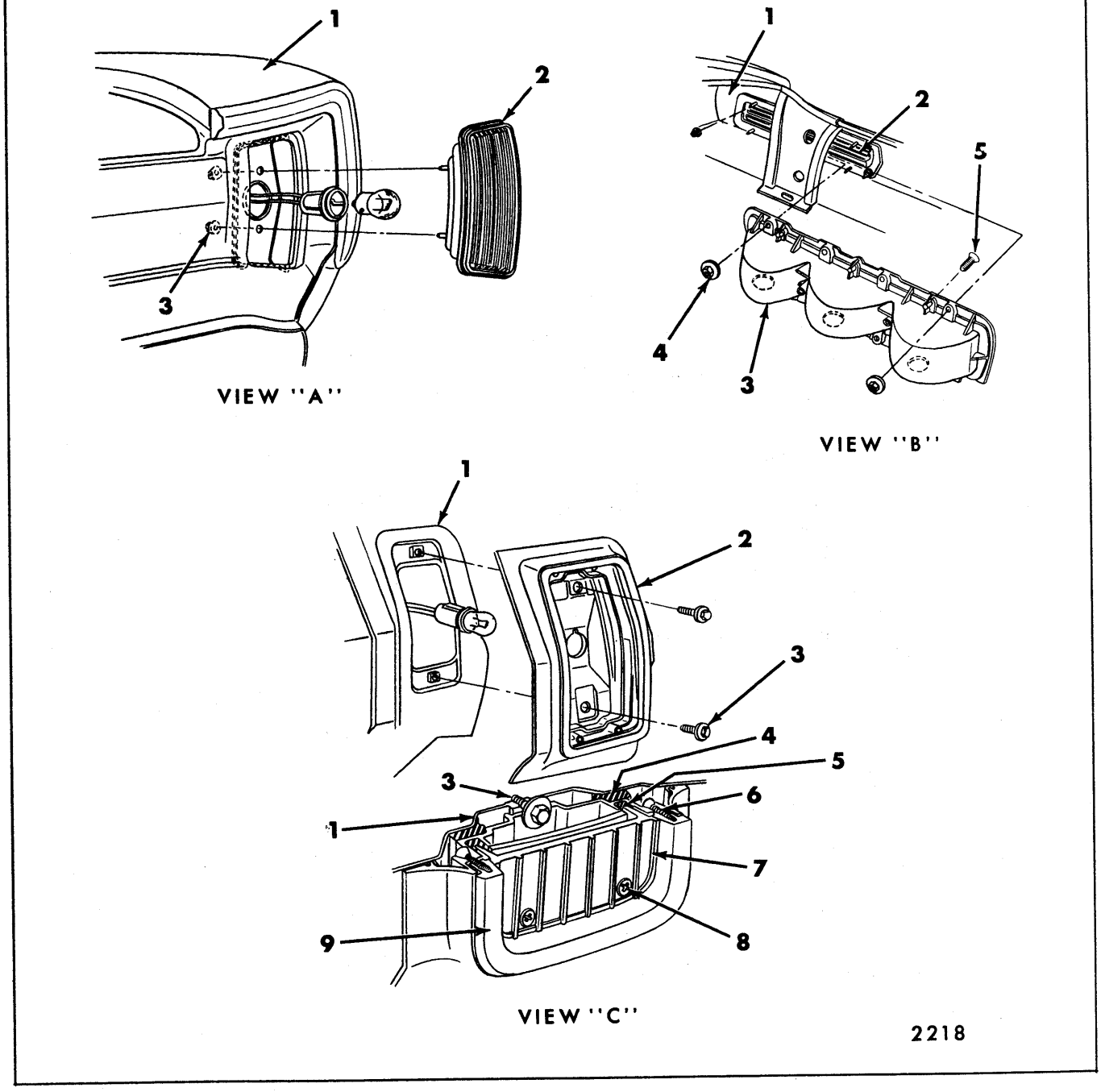

Fig. 9-53—Pontiac Tail Lamp Installations

View A
1. Rear Quarter Panel
2. Rear Lamp Housing
3. Housing Nuts

View B
1. Rear End Inner Panel
2. Rear End Outer Panel Finishing Molding
3. Rear Lamp Housing
4. Housing Nut
5. Lens Screw

View C
1. Rear Quarter Panel
2. Rear Lamp Housing
3. Housing Screw
4. Rear Lamp Opening Gasket
5. Lens Gasket
6. Bezel Screws
7. Lens
8. Lens Screws
9. Bezel

TAIL LAMP OPERATIONS—OLDSMOBILE (Fig. 9-54)

Operation	Method	Body Type				
		A	A 35-55-65	B	C	E
Bulb Replacement	Remove Lens (Outside)		X			
	Remove Socket (Rear Compartment)	X		X	X	X
Lens Replacement	Remove Retaining Screws (Outside)		X			
	Remove Housing and Remove Screws (Under Gasket)	X		X	X	X
Housing Replacement	Remove From Rear Compartment (Retaining Nuts)					X View C
	Remove From Outside (Retaining Nuts in Rear Compartment)	X		X	X View B	
	Remove From Outside (Retaining Bolts Under Lens)		X View A			
	Rear Bumper Lowered	X		X	X	

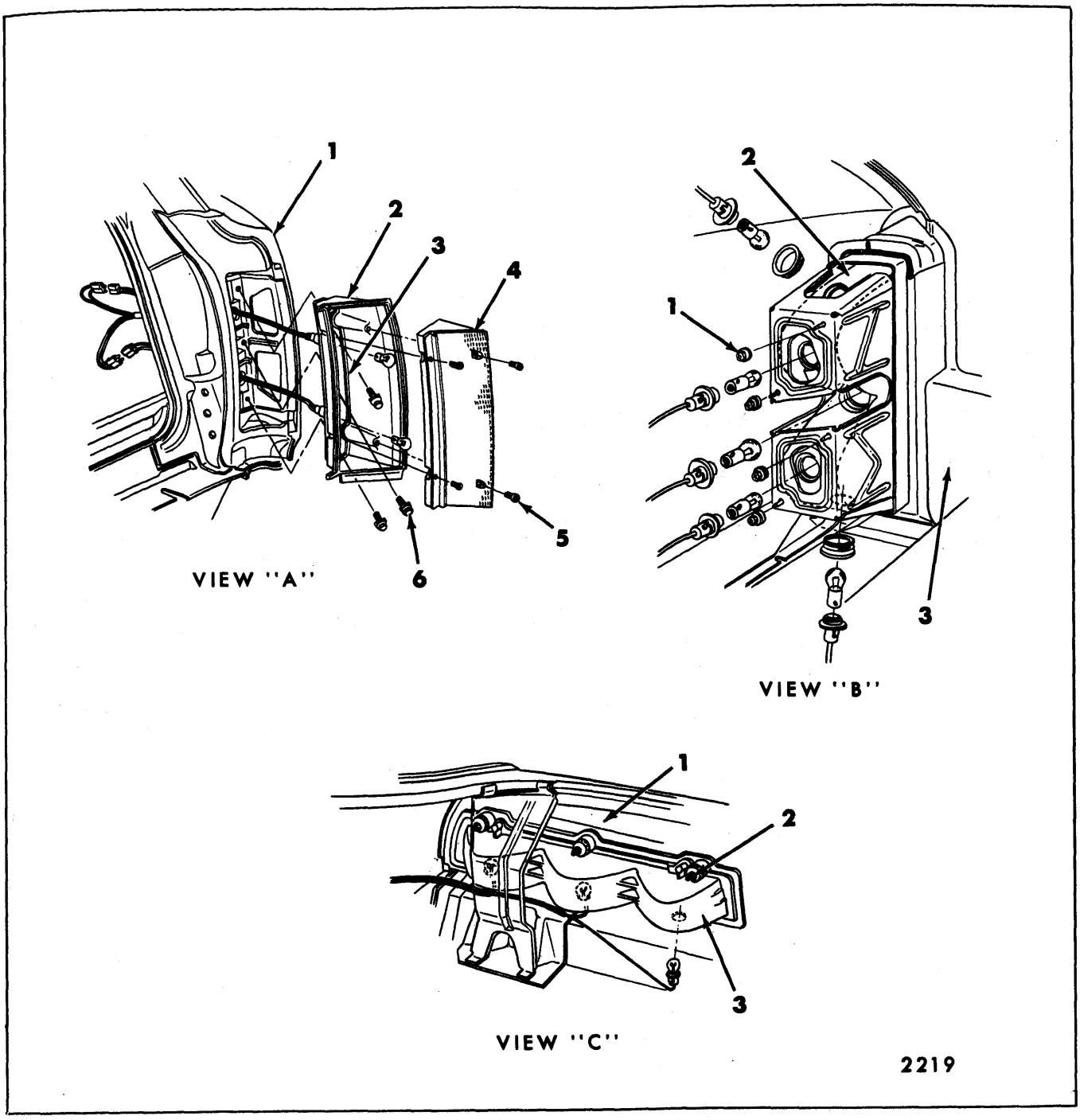

Fig. 9-54—Oldsmobile Tail Lamp Installations

View A
1. Rear Quarter Panel
2. Lamp Housing
3. Lens Gasket
4. Lens
5. Lens Screw
6. Housing Screw

View B
1. Lamp Housing Nut
2. Lamp Housing
3. Rear End Inner Panel

View C
1. Rear End Inner Panel
2. Lamp Housing Nut
3. Rear Lamp Housing

TAIL LAMP OPERATIONS—BUICK (Fig. 9-55)

Operation	Method	Body Type				
		A	A 35-55-65	B	C	E
Bulb Replacement	Remove Lens (Outside)		X			
	Remove Socket (Rear Compartment)	X		X	X	X
Lens Replacement	Remove Retaining Screws (Outside)		X			
	Remove Housing and Remove Screws (Under Gasket)	X		X	X	X
Housing Replacement	Remove From Rear Compartment (Retaining Nuts)			X View C		
	Remove From Outside (Retaining Nuts in Rear Compartment)	X View A			X	X
	Remove From Outside (Retaining Bolts Under Lens)		X View B			

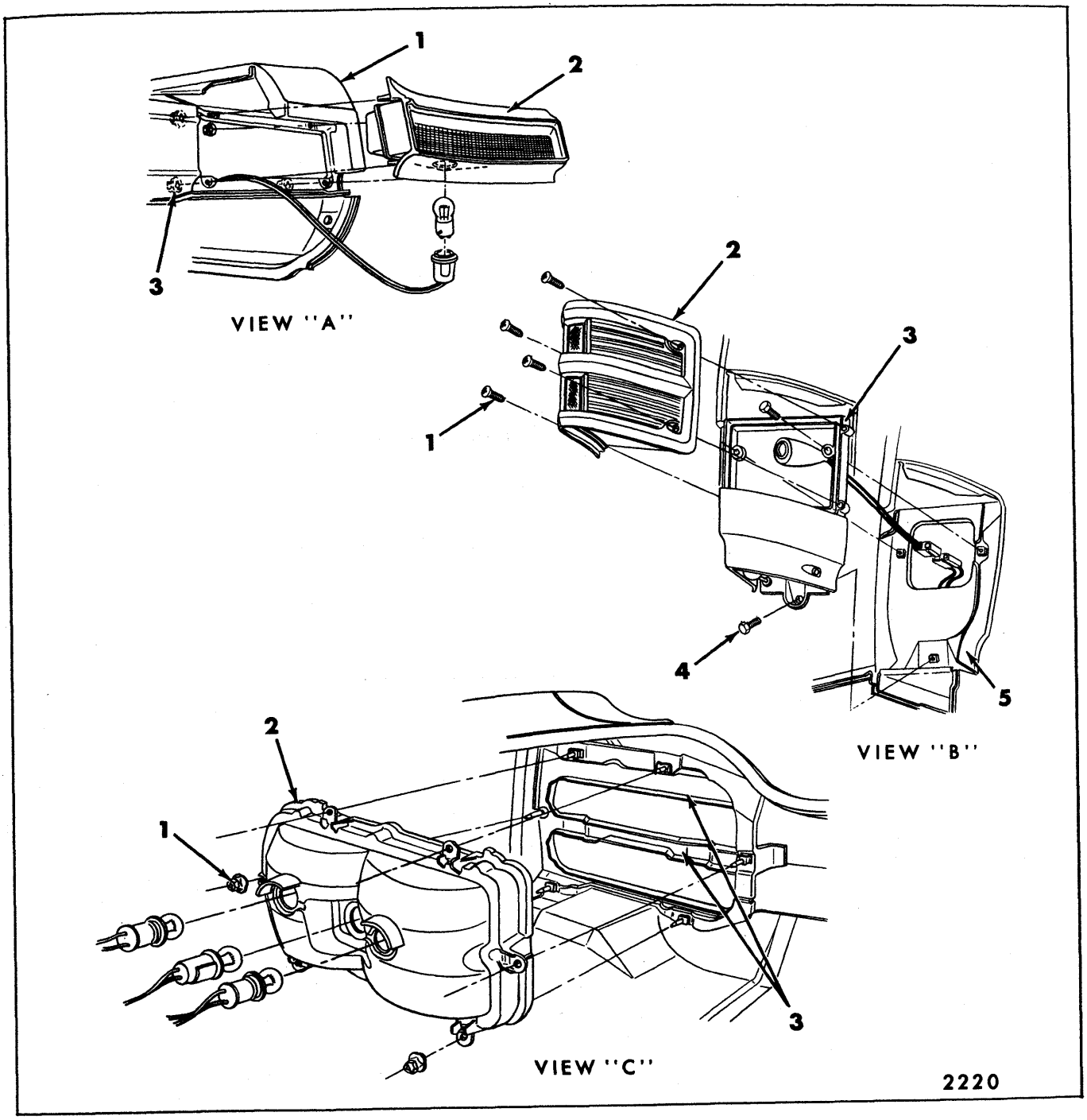

Fig. 9-55—Buick Tail Lamp Installations

View A
1. Rear Quarter Panel
2. Rear Lamp Housing Assembly
3. Housing Nuts

View B
1. Lens Screw
2. Lens and Bezel Assembly
3. Lamp Housing
4. Lamp Housing Screw
5. Rear Quarter Panel

View C
1. Lamp Attaching Nuts
2. Lamp Housing
3. Rear End Panel

SECTION 10

SEATS

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INTRODUCTION

In addition to the standard line full width seats for 1966, a new design "Strato" full width and bucket seat have been introduced this year. The new "Strato" seats are contoured to provide greater comfort and are thinner to provide additional leg room. A reclining seat back with head rest is available on the passengers side on some body styles. The "Strato" head rest is also available on both the drivers and passengers side of "Strato" seats. All bucket seats, with the exception of Corvair use the new "Strato" design bucket seats. A standard seat back head rest is available for both the drivers and passengers side of the seat back.

FRONT SEATS—FULL WIDTH

FRONT SEAT ASSEMBLY—MANUALLY OPERATED

Description

The conventional full width manually operated seat assembly incorporates manually operated seat adjusters to provide fore and aft movement of the seat. When the lever at the left seat adjuster is moved forward the seat adjusters unlock, permitting horizontal travel of the seat. When the seat is in the desired position, and the locking lever is released, the seat is locked.

All seat adjusters are secured to the floor pan by nuts installed on floor pan anchor plate studs or bolts installed into anchor nuts in the floor pan. (See Fig. 10-1 and Fig. 10-2).

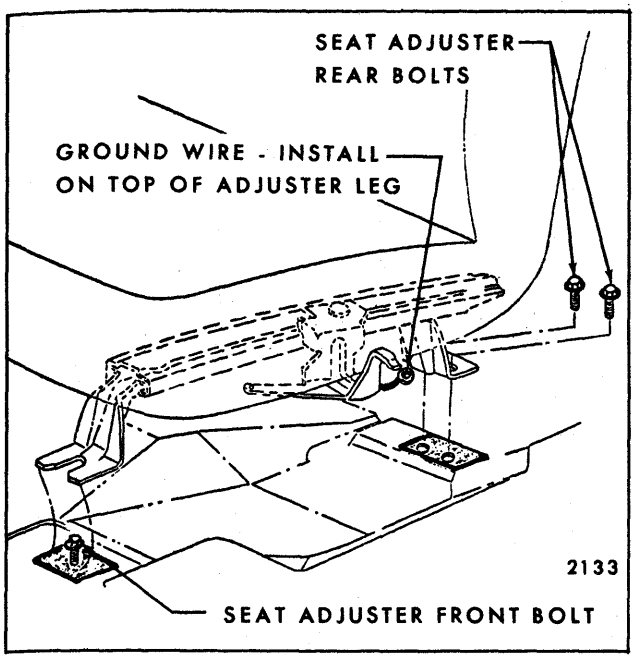

Fig. 10-1—Seat Adjuster Floor Pan Attachment - "A, X & Z" Full Width Seat

Seat Assembly

Removal and Installation

1. Remove both driver and passenger inner seat belt floor pan attaching bolt.

2. Remove door sill plates and turn back floor mat or carpeting, where necessary, to expose seat adjuster-to-floor pan attaching nuts or bolts.

3. Operate seat to full forward position.

4. At rear of adjusters, remove adjuster-to-floor pan rear attaching nuts or bolts (Fig. 10-1 and Fig. 10-2).

5. Operate seat to full rearward position. On "A, X & Z" Body Styles loosen adjuster-to-floor pan front attaching bolts. Then with aid of a helper, slide seat assembly rearward until front legs of adjusters are disengaged from under front attaching bolts. Remove seat assembly from body.

   On "B & C" Body Styles remove adjuster-to-floor pan front attaching bolts. On Styles with seat back cigar lighter tilt seat assembly rearward sufficiently to disconnect lighter feed wire. With aid of a helper, remove seat assembly from body.

6. To install seat assembly, reverse removal procedure. Where seat adjuster-to-floor pan spacers were present reinstall spacers in same position.

   NOTE: On "A, X & Z" Body Styles make certain front legs of adjusters are completely engaged under front attaching bolts before tightening bolts.

   Check operation of seat assembly to full limits of travel.

Adjuster Assembly

Removal and Installation

1. Remove front seat assembly with adjusters attached, as previously described, and place upside down on a clean protected surface.

2. Remove seat adjuster assist spring from adjuster to be removed (Fig. 10-3).

3. If left adjuster is being replaced, remove adjuster control knob.

4. Squeeze hooked end of seat adjuster locking wire together and slide retaining spring back over hump in locking wire and remove locking wire from adjuster.

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 10-3) and remove seat adjuster from seat.

6. To install, reverse removal procedure.

   NOTE: The right and left seat adjuster sliding mechanism should be in same relative position when attaching adjuster to seat bottom frame.

After installing adjusters to seat frame, check operation of adjusters. If adjusters do not lock or unlock satisfactorily when control handle on left adjuster is operated, disengage locking wire retainer from hole in seat bottom frame and engage retainer in one of adjacent holes to obtain proper tension in wire. (Fig. 10-3)

FRONT SEAT ASSEMBLY—POWER OPERATED TWO, FOUR OR SIX-WAY FULL WIDTH SEAT

Description

The seat adjusters are actuated by a 12 volt, reversible, shunt wound motor with a built in circuit breaker. The motor is energized by a toggle-type control switch installed in the left seat side panel or in the left door arm rest.

On four-way and six way power operated seats the seat operating mechanism incorporates a transmission assembly which incorporates solenoids

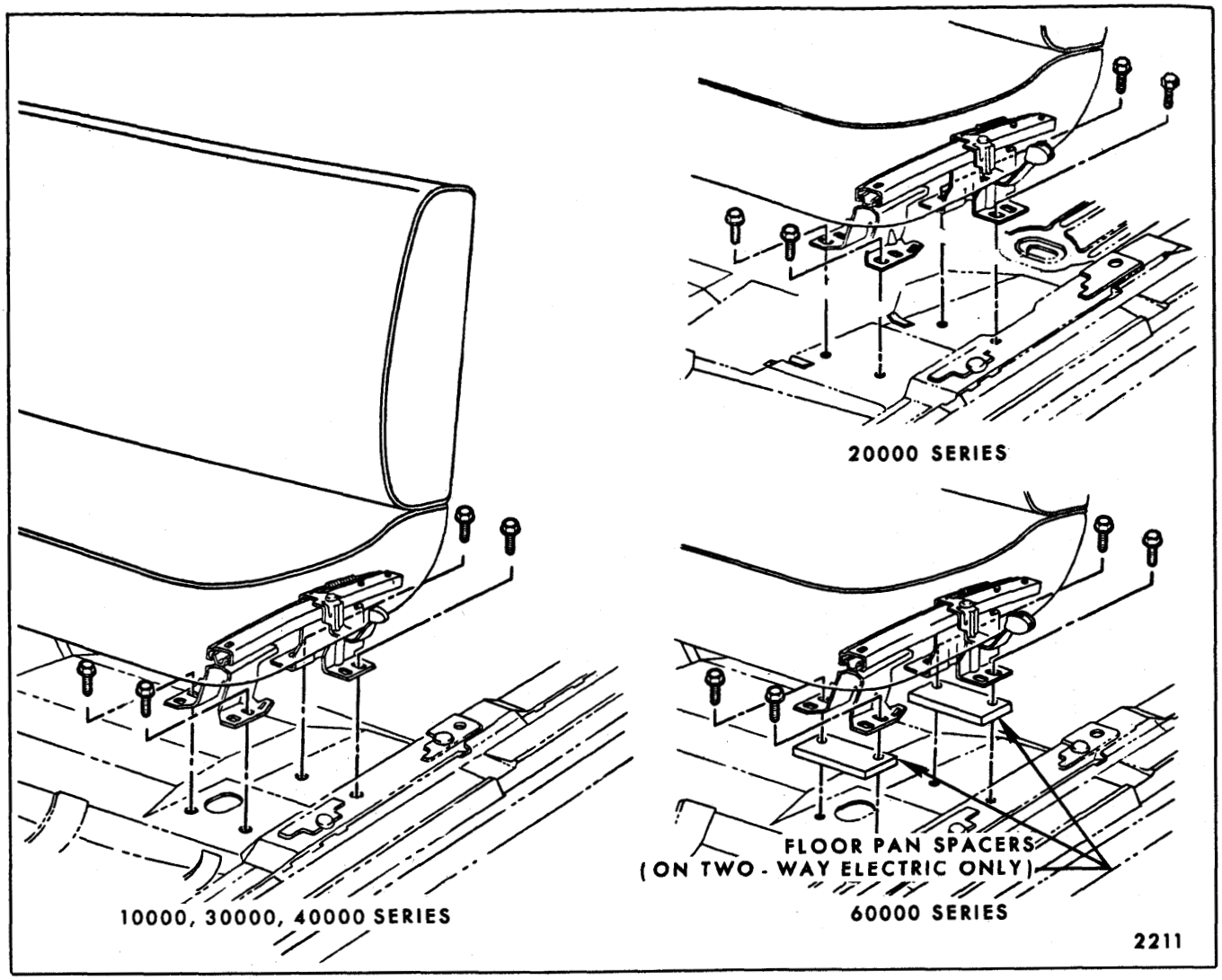

Fig. 10-2—Seat Adjuster Floor Pan Attachment - "B & C" Full Width Seat

and drive cables to the seat adjusters. On the four-way seat one solenoid controls the horizontal movement of the seat while the second solenoid controls the vertical movement of the seat. On the six-way seat one solenoid controls the vertical movement of the front of the seat, the second solenoid controls the horizontal movement of the seat and the third solenoid controls the vertical movement of the rear of the seat. When the control switch is actuated, the motor and one of the solenoids are energized simultaneously. Then the solenoid plunger engages with the driving gear dog. The driving gear rotates the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber coupler connecting the motor and transmission. When the control switch is released, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

Seat Assembly

Removal and Installation

1. Operate seat to full forward position. On four-way or six-way power seats operate seat to full up position.

2. Remove both driver and passenger inner seat belt floor pan attaching bolt. Remove seat cushion side panels where present. Where seat adjuster track covers are present carefully pry out track cover snap in retainers with a flat-bladed tool and remove track covers.

3. Where necessary, remove sill plates and turn back floor mat or carpeting to expose seat adjuster-to-floor pan attaching nuts or bolts.

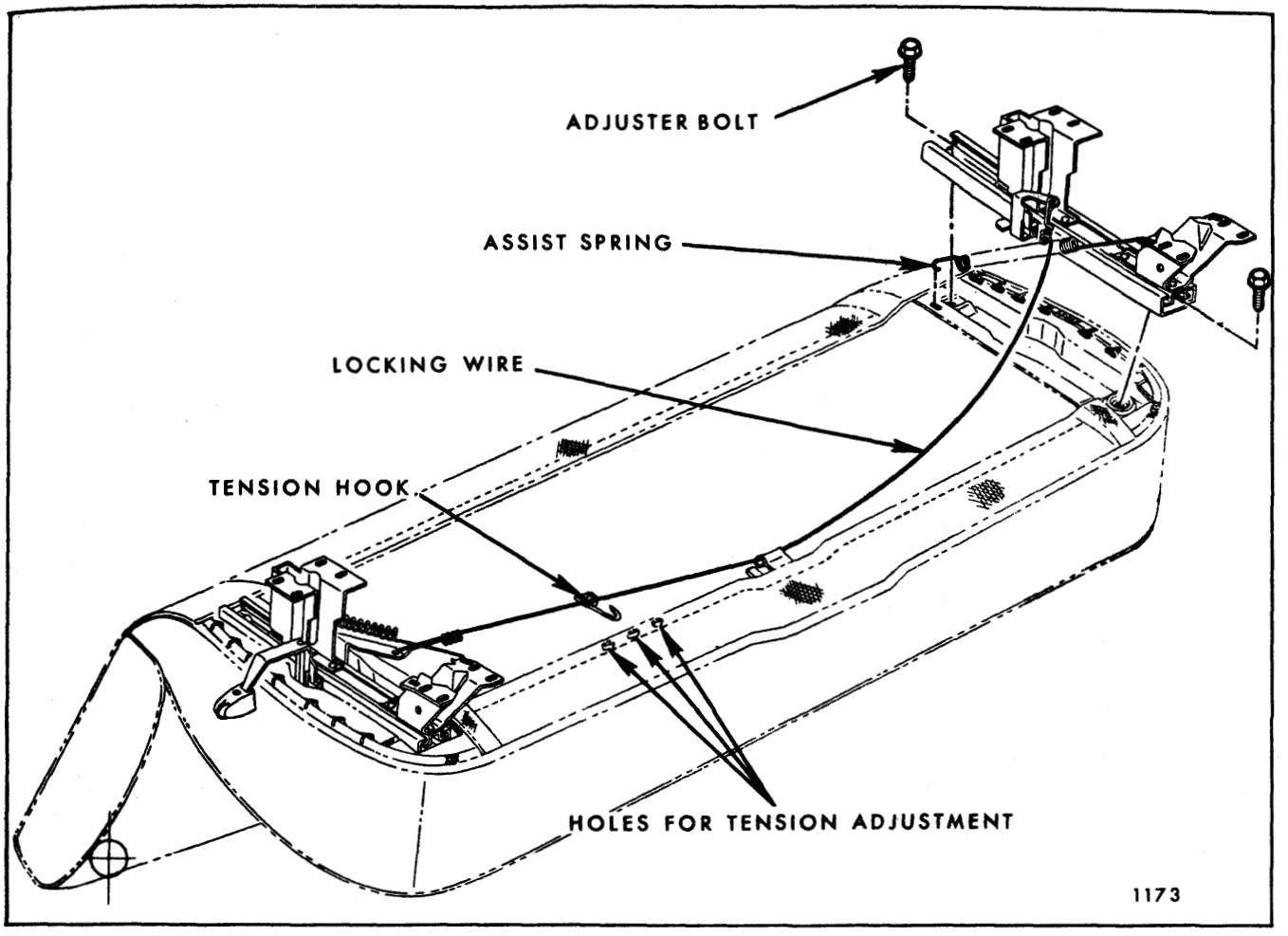

Fig. 10-3—Manually Operated Seat Adjuster Installation - "B & C" Shown "A, X & Z" Typical

4. Remove seat adjuster-to-floor pan rear attaching bolts (Fig. 10-1 or 10-2); then operate seat assembly to full rearward position.

5. a. On "A" Body Styles with power operated seat adjusters, loosen adjuster-to-floor pan front attaching bolts (Fig. 10-1). With aid of helper, slide seat assembly rearward until front legs of adjusters are disengaged from under front attaching bolts. Tilt seat assembly rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-4); then remove seat assembly from floor pan.

   b. On "B & C" Body Styles remove adjuster-to-floor pan front attaching bolts (Fig. 10-2). Tilt seat assembly rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-5 for Two-Way, Fig. 10-6 for Four-Way, Fig. 10-7 for Six-Way and Fig. 10-8 for Strato Six-Way). On styles with seat back cigar lighter, seat back courtesy lamps or seat back vanity lamp disconnect electrical feed wire or wires. With aid of a helper remove seat assembly from body.

6. To install seat assembly, reverse removal procedure. Where seat adjuster-to-floor pan spacers were present reinstall spacers in same position.

   NOTE: On "A" Body Styles make certain front legs of adjusters are completely engaged under front attaching bolts before tightening. Also check that carpet retainers are installed under rear attaching bolts (Fig. 10-1) and that floor mat or carpet is properly positioned under retainers.

   Make sure ground wire is securely attached under left seat adjuster-to-floor pan rear attaching bolt. Check for proper operation of seat adjusters to limits of travel.

   IMPORTANT: When installing seat assembly in body, seat adjusters should be parallel and "in phase" with each other. In the event the

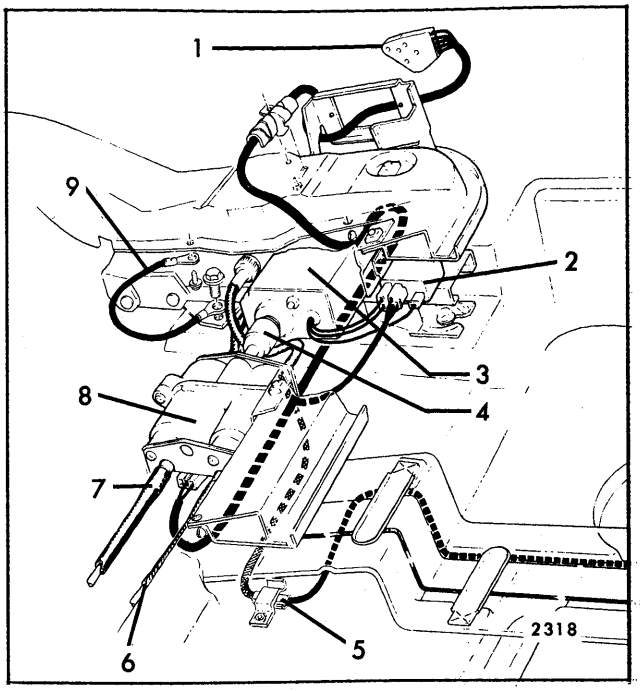

Fig. 10-4—Four-Way Full Width Seat Electric Wiring - "A" Styles

1. Control Switch Block
2. Motor Control Relay
3. Motor
4. Rubber Coupler
5. Harness Feed Connector
6. Vertical Drive Cable (Yellow)
7. Horizontal Drive Cable (Black)
8. Transmission Assembly
9. Seat Ground Wire

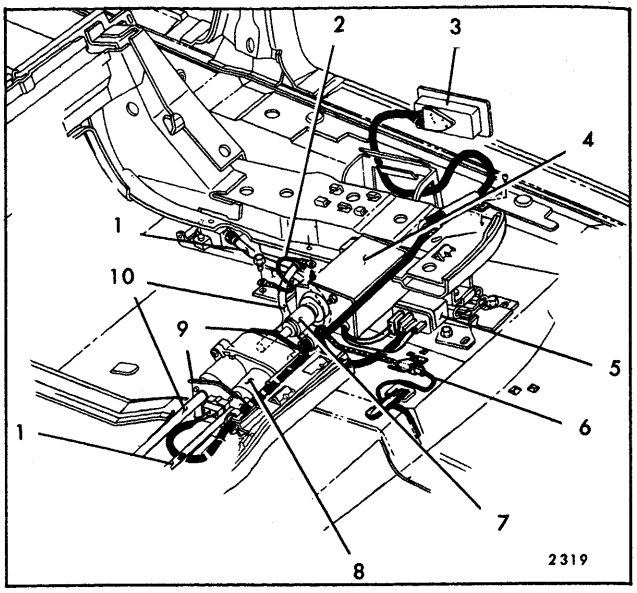

Fig. 10-6—Four-Way Full-Width Seat Electric Wiring - Buick "B, C & E" Styles

1. Vertical Control Cable (Yellow)
2. Ground Wire
3. Control Switch
4. Motor
5. Motor Control Relay
6. Harness Feed Connector
7. Rubber Coupler
8. Transmission Assembly
9. Transmission End Plates
10. Horizontal Control Cable (Black)

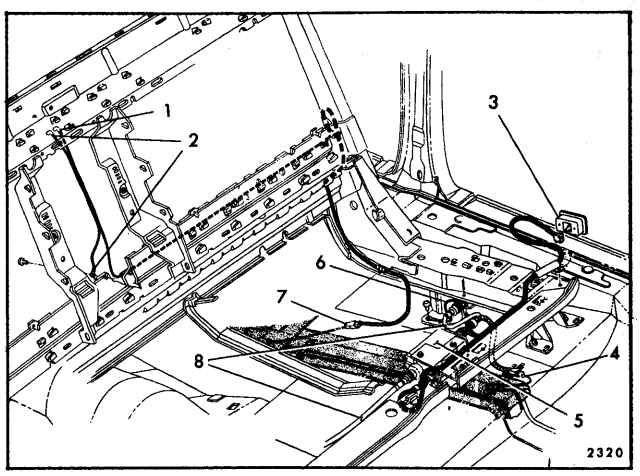

Fig. 10-5—Two-Way Full Width Seat Electric Wiring - "C & E" Styles

1. Front Seat Back Switch Feed - White
2. Front Seat Back Switch Ground - Black
3. Control Switch
4. Harness Feed Connector
5. Motor
6. Ground Wire
7. Front Seat Back Courtesy Lamp Feed Connector (Cadillac Only)
8. Horizontal Control Cable

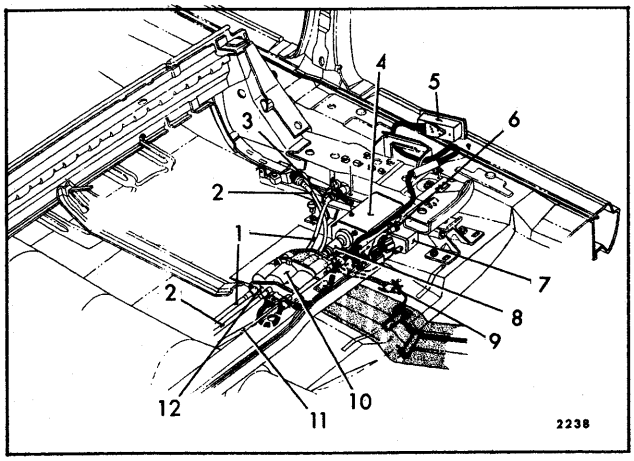

Fig. 10-7—Six-Way Full-Width Seat Electric Wiring - "B, C & E" Styles

1. Horizontal Control Cable (Black)
2. Rear Vertical Control Cable (Blue)
3. Ground Wire
4. Motor
5. Control Switch
6. Front Vertical Control Cable (Yellow) - Left Side
7. Motor Control Relay
8. Rubber Coupler
9. Harness Feed Connector
10. Transmission and Solenoid Assembly
11. Front Vertical Control Cable (Yellow) - Right Side
12. Transmission End Plate

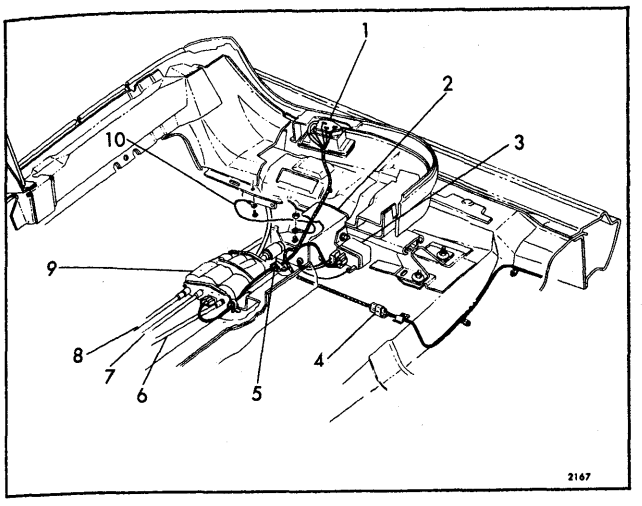

Fig. 10-8—"Strato" Six-Way Full-Width Seat Electric Wiring

1. Control Cable
2. Motor
3. Motor Control Relay
4. Harness Feed Connector
5. Rubber Coupler
6. Front Vertical Control Cable (Yellow)
7. Rear Vertical Control Cable (Blue)
8. Horizontal Control Cable (Black)
9. Transmission Assembly
10. Ground Wire

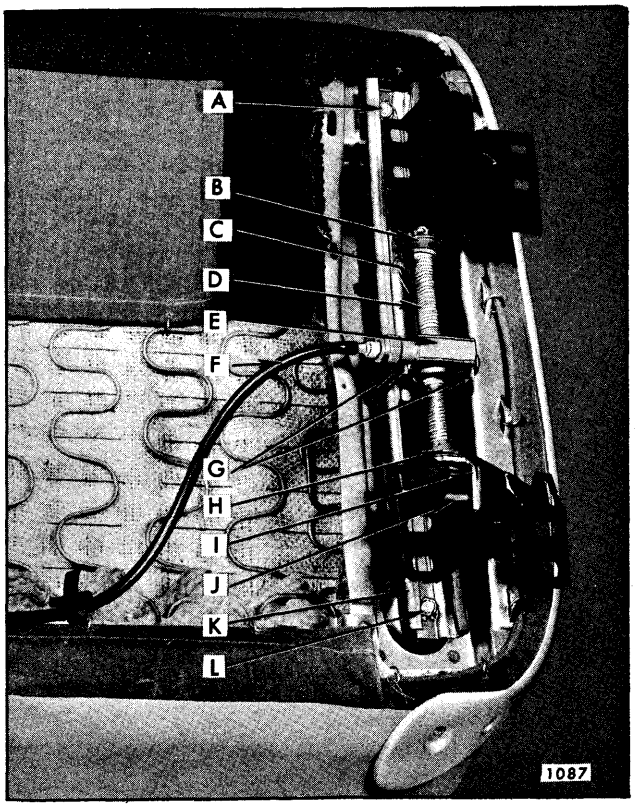

Fig. 10-9—Horizontal Power Adjuster - "C & E" Styles

A. Adjuster Attaching Bolt
B. Rear Stop
C. Adjuster Lower Channel
D. Jackscrew
E. Gearnut
F. Drive Cable
G. Shoulder Bolts
H. Front Stop
I. Stop Bracket
J. Cross Pin
K. Adjuster Upper Channel
L. Adjuster Attaching Bolt

adjusters are "out of phase" (this is, one adjuster reaches its maximum horizontal or vertical travel in a given direction before the other adjuster), proceed as follows:

a. Horizontal Travel - Operate seat control switch until one adjuster reaches full forward position. Detach horizontal drive cable from adjuster which has reached full forward position. Operate seat forward until other adjuster reaches full forward position; then, connect horizontal drive cable and check horizontal travel of seat.

b. Front or Rear Vertical Travel - Operate seat control switch until one adjuster has reached the fully raised position at both front and rear vertical travel limits. Disconnect both front and rear vertical drive cables from adjuster which has reached the fully raised position. Operate seat control switch until other adjuster reaches the fully raised position at both front and rear vertical travel limits; then, connect previously removed front and rear vertical drive cables. Check vertical travel by operating adjusters through one or two complete cycles. The above operation may be repeated on an "as required" basis if adjusters do not appear to be "in phase" after test cycle.

Adjuster Assembly

Removal and Installation

1. Operate seat to a midway horizontal position; on four-way and six-way seats also operate seat to fully raised position.

2. Remove front seat assembly with adjusters attached, as previously described, and place upside down on a clean protected surface.

3. Detach power drive cables from gear nuts to adjuster to be removed (Fig. 10-9, 10-10, 10-11 and 10-12).

4. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly (Fig. 10-9, 10-10, 10-11 and 10-12).

5. To install seat adjuster assembly, reverse removal procedure. On seats with adjuster track covers, make sure track cover supports are installed between adjuster and seat frame (Fig. 10-10, 10-12 and 10-11). Check operation of seat adjusters and make sure adjusters are

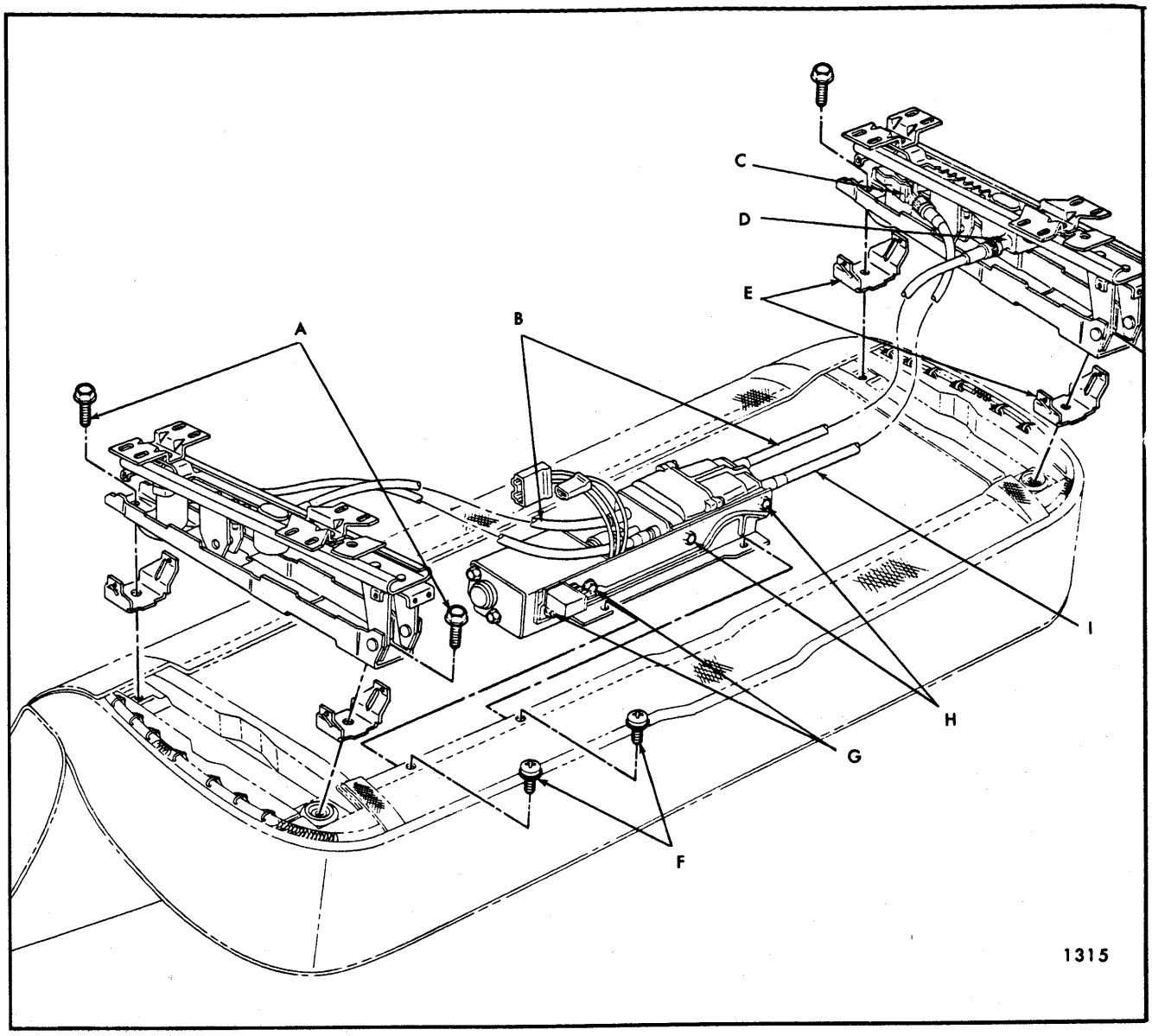

Fig. 10-10—Front Seat Assembly - Four-Way Tilt - Buick "B, C & E" Styles

A. Adjuster-to-Seat Attaching Bolts
B. Horizontal Cables - Black
C. Vertical Gearnut
D. Horizontal Actuator
E. Track Cover Supports
F. Motor and Transmission Support Attaching Screws
G. Motor Attaching Screws
H. Transmission Attaching Screws
I. Rear Vertical Cables - Blue

"in phase" before installing assembly into body (See Step 6 under "Front Seat Assembly - Removal and Installation").

TWO-WAY SEAT ADJUSTER MAJOR COMPONENTS—"C" BODY FULL WIDTH SEATS

The following service procedures cover replacement of the major component parts of the power operated two-way seat adjusters used on "C" body full width seats.

Electric Motor—"C" Body

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean protected surface.

2. Disconnect both power drive cables from actuator motor.

3. Remove screws that secure actuator motor support bracket to seat bottom frame and

remove actuator motor with attached support bracket from seat assembly.

4. Disconnect feed wire harness from actuator motor (Fig. 10-5).

5. Remove screws securing motor to motor support bracket.

6. To install, reverse removal procedure. Check for proper seat operation to extreme limit of fore and aft travel.

Horizontal Gearnut Assembly—"C" Body

Removal and Installation

1. Remove front seat assembly with attached adjusters and place upside down on a clean, protected surface.

2. Detach power drive cable from gearnut to be removed.

3. Using a "clutch" type screwdriver or other suitable tool, remove two shoulder bolts securing gearnut to upper slide portion of seat adjuster (Fig. 10-9).

4. Rotate jackscrew assembly upward sufficiently to gain access to cotter pin at rear of jackscrew assembly.

5. Remove cotter pin, washer and rubber bumper from rear end of jackscrew; then, remove gearnut from jackscrew.

6. To install, reverse removal procedure. Prior to installing seat assembly in body, be sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal Jackscrew—"C" Body

Removal and Installation

1. Remove front seat assembly with attached adjusters and place upside down on a clean, protected surface.

2. Detach power drive cable from gearnut and jackscrew assembly to be removed.

3. Using a suitable tool (preferably a "clutch" type screwdriver) remove two shoulder bolts securing gearnut to upper slide portion of seat adjuster assembly (Fig. 10-9).

4. Remove retainer that secures stop bracket crosspin to adjuster front pedestal and remove crosspin (Fig. 10-9).

5. Remove jackscrew assembly from seat adjuster.

6. To install, reverse removal procedure.

NOTE: When replacing jackscrew assembly with new part, remove nut, washers, rubber bumper and stop bracket with inserted rubber grommet from front end of jackscrew, as well as gearnut and washers, rubber bumper and cotter pin from rear end of jackscrew and transfer to new jackscrew assembly.

Plastic Slides—"C" Body

Removal and Installation

1. Remove front seat adjuster to be serviced from front seat assembly. (See: Front Seat Adjuster - Two-Way Electric - Removal and Installation procedures).

2. Using a suitable tool (preferably a "clutch" type screwdriver), remove two shoulder bolts securing gearnut to upper channel of seat adjuster assembly (Fig. 10-9).

3. Slide lower track and support base portion of seat adjuster, with attached jackscrew and gearnut, forward until it disengages from upper channel assembly. The four plastic slides may now be disengaged from positioning slots on lower track.

4. To install, reverse removal procedure making sure that groove in plastic slide slips onto lower track with thinner section of slide protruding above surface of track.

FOUR-WAY SEAT ADJUSTER MAJOR COMPONENTS—"A" BODY FULL WIDTH SEATS

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjusters used on the "A" body full width seats.

Electric Motor—"A" Body

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean protected surface.

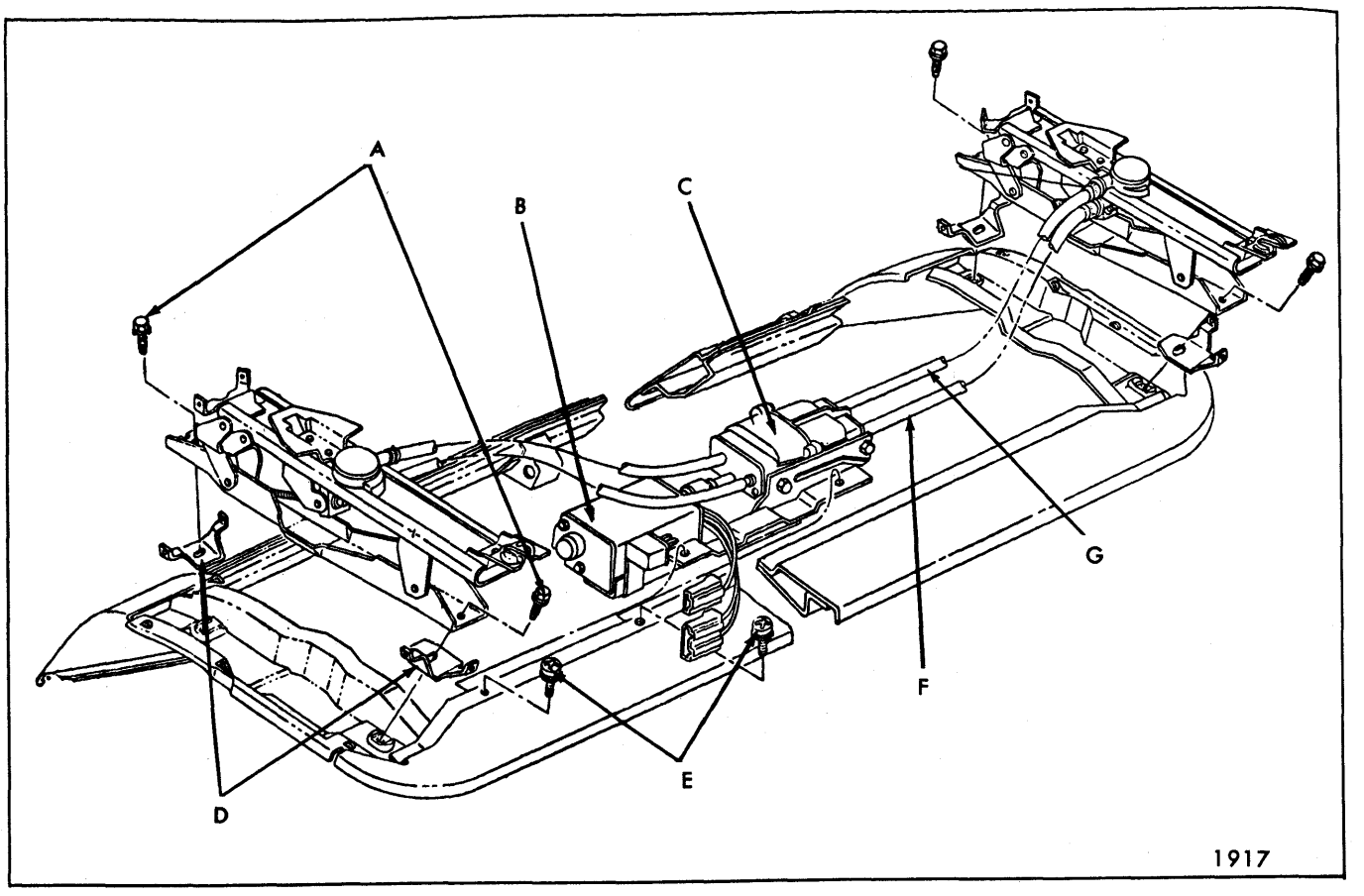

Fig. 10-11—Front Seat Assembly - Four-Way Tilt - "A" Styles

A. Adjuster to Seat Frame Attaching Bolts
B. Motor Assembly
C. Transmission Assembly
D. Track Cover Supports
E. Motor and Transmission Support Attaching Screws
F. Vertical Cable (Yellow)
G. Horizontal Cable (Black)

2. Disconnect wire harness from motor relay assembly.

3. Remove screws securing motor and transmission support to seat bottom frame. (Fig. 10-11)

4. Remove motor-to-motor support attaching screws and remove motor assembly from support.

5. To install, reverse removal procedure making sure rubber coupler is properly engaged at both motor and transmission ends. Check operation of seat to full limits of travel.

Vertical Gearnut—"A" Body

Removal and Installation

1. Operate seat assembly to fully raised and midway position.

2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.

3. Detach vertical gearnut drive cable from other adjuster.

4. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut being replaced (Fig. 10-13).

5. If right adjuster gearnut is being replaced, at front of jackscrew, remove double nut that acts as a jackscrew "down" stop.

6. Using a portable power source to energize the motor, actuate vertical gearnut until gearnut is disengaged from jackscrew.

NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain clearance for removal of gearnut.

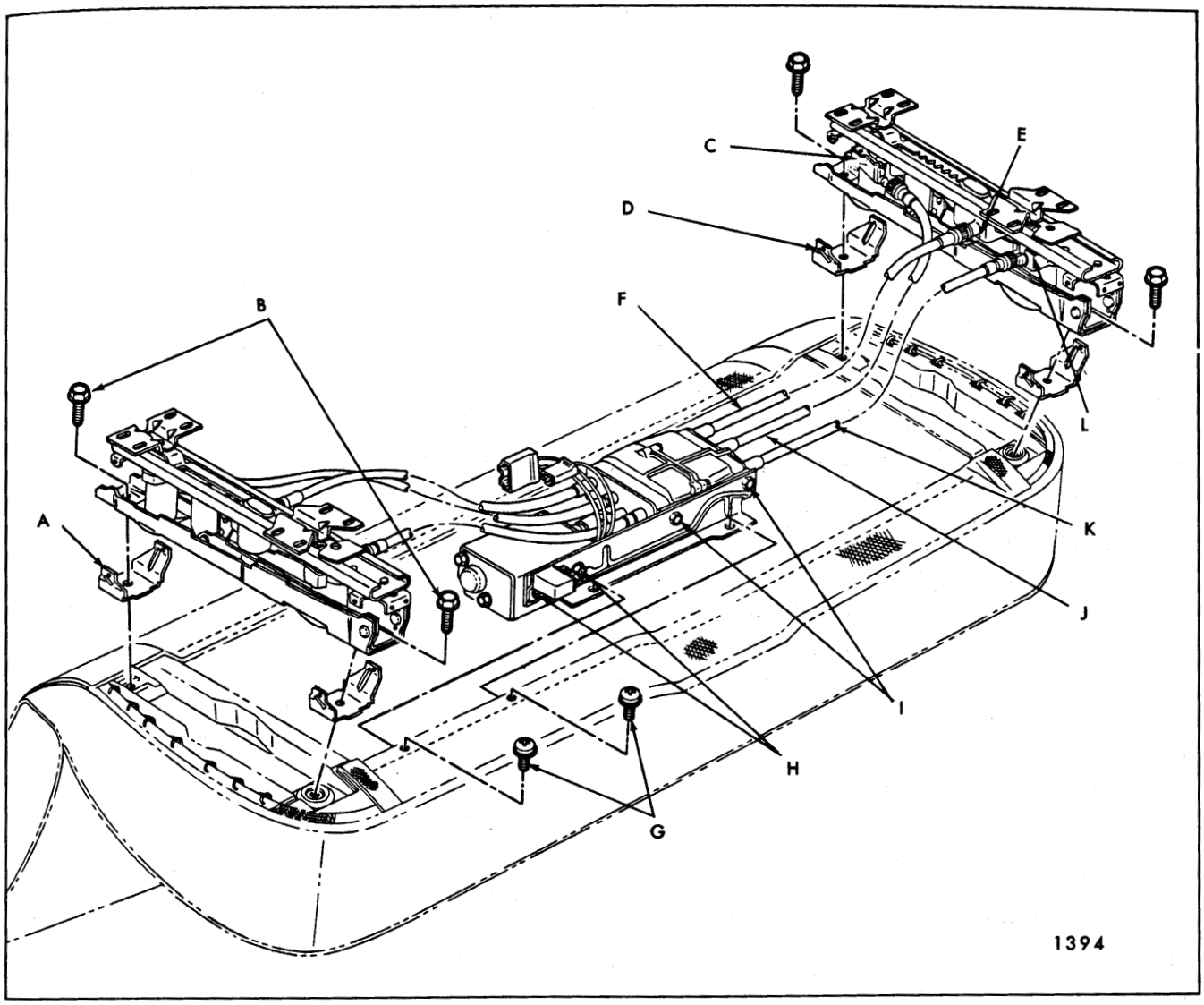

Fig. 10-12—Front Seat Assembly - Six-Way - "B & C" Styles

A. Track Cover Support
B. Adjuster-to-Seat Attaching Screws
C. Rear Vertical Gearnut
D. Track Cover Support
E. Horizontal Actuator
F. Horizontal Cables - Black
G. Motor and Transmission Support Attaching Screws
H. Motor Attaching Screws
I. Transmission Attaching Screws
J. Rear Vertical Cables - Blue
K. Front Vertical Cables - Yellow
L. Front Vertical Gearnut

7. Disconnect drive cable from gearnut.

8. To install, reverse removal procedure.

NOTE: Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal Actuator—"A" Body

Removal and Installation

1. Remove adjuster vertical gearnut as previously described.

2. Disconnect drive cable from horizontal actuator.

3. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly (Fig. 10-13).

4. To install, reverse removal procedure.

NOTE: When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Readjust actuator "as required" until all free motion between

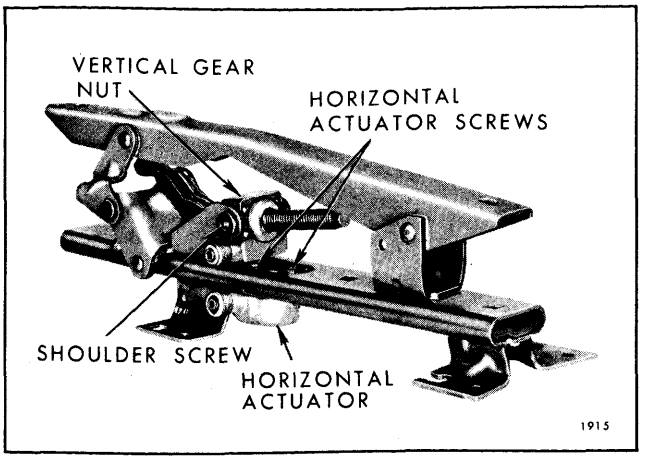

Fig. 10-13—Four-Way Seat Adjuster - "A" Styles

channels has been removed. Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Jackscrew—"A" Body

Removal and Installation

1. Remove adjuster vertical gearnut as previously described.
2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts on side affected (Fig. 10-11).
3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 10-14).

   NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain access to jackscrew attaching rivet.
4. To install, reverse removal procedure. Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal and Vertical Drive Cables—"A" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Detach both horizontal and vertical cables from seat adjuster.
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly (Fig. 10-4).
4. Disengage cable to be replaced from end plate.
5. To install cables, reverse removal procedure. Check operation of seat to full limits of travel.

Transmission—"A" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission (Fig. 10-4).
3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.
4. Remove transmission to support attaching bolts; then, disengage transmission from rubber coupler and remove transmission from seat assembly.
5. To install, reverse removal procedure.

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

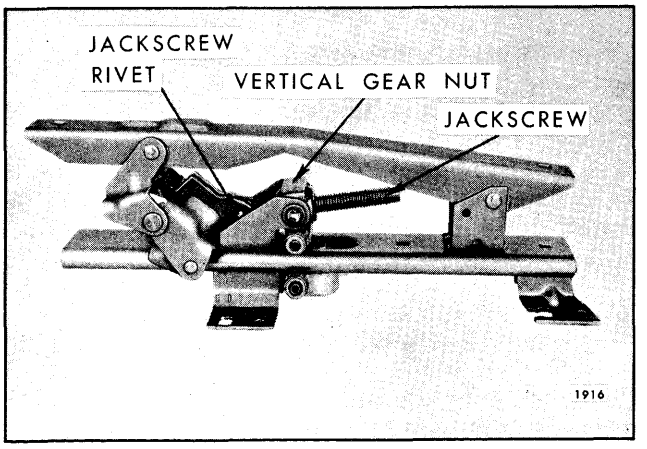

Fig. 10-14—Four-Way Seat Adjuster - "A" Styles

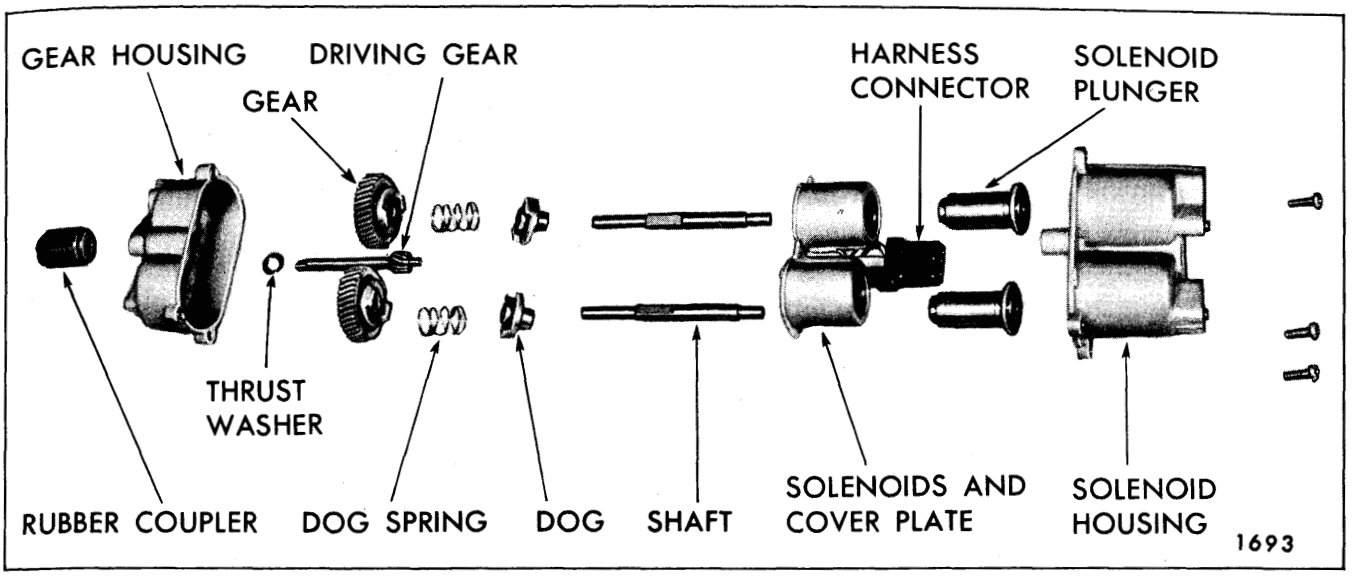

Fig. 10-15—Four-Way Seat Adjuster Transmission

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-15).

3. To assemble transmission, reverse removal procedure.

   IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

FOUR-WAY SEAT ADJUSTER MAJOR COMPONENTS—BUICK "B-C & E" FULL WIDTH FOUR-WAY POWER SEAT

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjusters used on the Buick "B-C & E" body full width seats.

Electric Motor—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly, and place upside down on a clean protected surface.

2. Disconnect wire harness from motor relay assembly (Fig. 10-6).

3. Remove screws securing motor and transmission support to seat bottom frame (Fig. 10-10).

4. Remove motor-to-support attaching screws and remove motor assembly from support.

5. To install, reverse removal procedure making sure rubber coupler is properly engaged at both motor and transmission ends. Check that seat harness is properly secured to seat (Fig. 10-6). Check operation of seat to full limits of travel.

Vertical Gearnut—Buick "B-C & E" Body

Removal and Installation

1. Operate seat to rearward position; then, remove front seat assembly and seat adjuster.

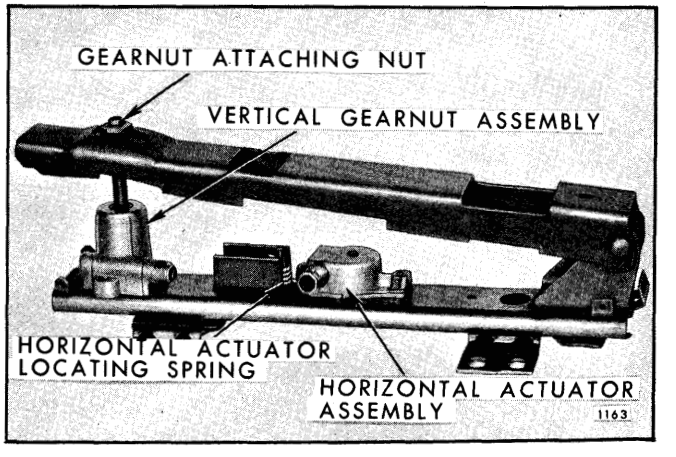

Fig. 10-16—Four-Way Seat Adjuster - Buick "B-C & E" Styles

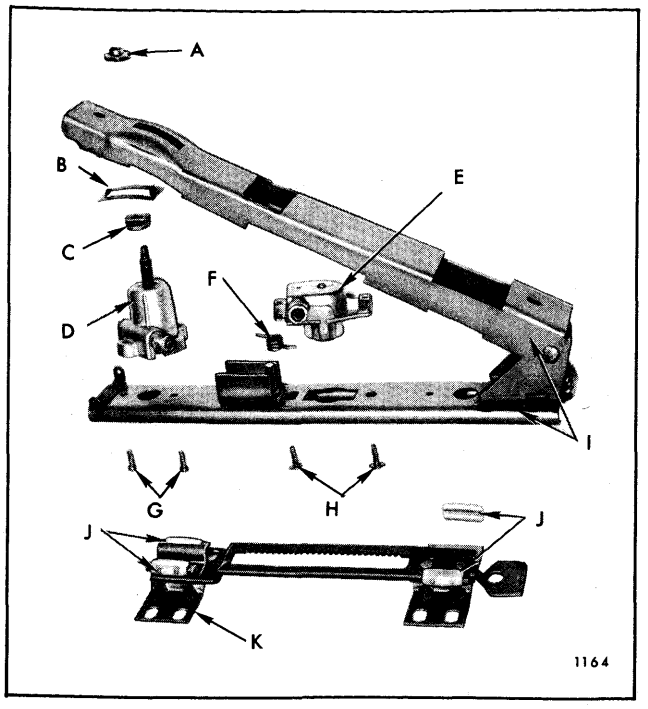

Fig. 10-17—Four-Way Seat Adjuster Components - Buick "B-C & E" Styles

A. Gearnut to Upper Attaching Nut
B. Gearnut Tension Spring
C. Gearnut Washer
D. Vertical Gearnut Assembly
E. Horizontal Actuator Assembly
F. Locating Spring
G. Vertical Gearnut Screws
H. Horizontal Actuator Screws
I. Upper Channel Assembly
J. Plastic Shoes
K. Lower Channel

2. Remove vertical gearnut attaching nut at adjuster upper track (Fig. 10-16). Lift rear of channel upward and remove gearnut tension spring and washer (Fig. 10-17).

3. Lay adjuster on its side and remove screws securing vertical gearnut to adjuster lower track; then, remove gearnut from adjuster (Fig. 10-16).

4. To install, reverse removal procedure.

   NOTE: Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal Actuator—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly and place upside down on a clean protected surface.

2. Disconnect drive cable from horizontal actuator (Fig. 10-10).

3. Remove screws securing horizontal actuator assembly to adjuster lower track; then, remove actuator from adjuster assembly (Fig. 10-17).

   NOTE: It may be necessary to manually actuate the horizontal actuator to gain access to attaching screws.

4. To install, reverse removal procedure. Make sure horizontal actuator locating spring is properly positioned (Fig. 10-16 and 10-17).

   NOTE: When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Readjust actuator "as required" until all free motion between channels has been removed. Check operation of seat adjusters and make sure adjusters are "in phase". See step 6 under "Front Seat Assembly - Removal and Installation".

Horizontal and Vertical Drive Cables—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly, as previously described, and place upside down on a clean protected surface.

2. Detach both horizontal and vertical cables from seat adjuster (See Fig. 10-10).

3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly (See Fig. 10-6).

4. Disengage cable to be replaced from end plate.

5. To install cables, reverse removal procedure. Check operation of seat to full limits of travel.

Transmission—Buick "B-C & E" Body

Removal and Installation

1. Remove front seat assembly, from body and place upside down on a clean protected surface.

2. Disconnect wire harness connector from transmission (See Fig. 10-6).

3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.

4. Remove transmission to support attaching bolts; then, disengage transmission from rubber coupler and remove transmission from seat assembly.

5. To install, reverse removal procedure.

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

   IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-15).

3. To assemble transmission, reverse removal procedure.

SIX-WAY SEAT ADJUSTER MAJOR COMPONENTS—"B-C & E" BODY FULL WIDTH SEATS

The following service procedures cover replacement of the major component parts of the power operated six-way seat adjusters used on the "B, C and E" body full width seats.

Electric Motor—"B-C & E" Body

Removal and Installation

1. Remove front seat assembly, as previously described, and place upside down on a clean protected surface.

2. Disconnect motor feed wires from motor control relay (See Fig. 10-7).

3. Remove motor support-to-seat frame attaching bolts.

4. Remove motor-to-support attaching bolts; then move motor assembly outboard (away from transmission) sufficiently to disengage motor from rubber coupling.

5. To install, reverse removal procedure making sure rubber coupling is properly engaged at both motor and transmission. Check that seat harness is properly secured to seat (See Fig. 10-7). Check operation of seat to full limits of travel.

Horizontal Actuator—"B-C & E" Body

Removal and Installation

1. Remove seat assembly from body as previously described and place upside down on a clean protected surface.

   NOTE: Horizontal Actuator is easily accessible with seat in mid-way or approximate center position.

2. Detach three power drive cables from adjuster to be removed.

3. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.

4. At top of adjuster, remove front and rear vertical gearnut attaching nuts (Fig. 10-18).

5. Remove front vertical gearnut spring (Fig. 10-18).

6. Lift upward on adjuster upper track; then remove rear vertical gearnut spring (Fig. 10-18).

7. Lay adjuster on its side; then remove screws securing horizontal actuator to adjuster upper channel assembly and remove actuator from adjuster.

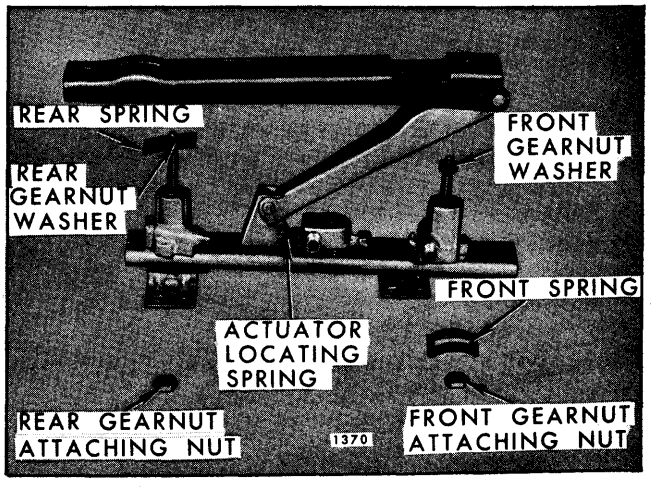

Fig. 10-18—Six-Way Seat Adjuster - "B & C" Styles

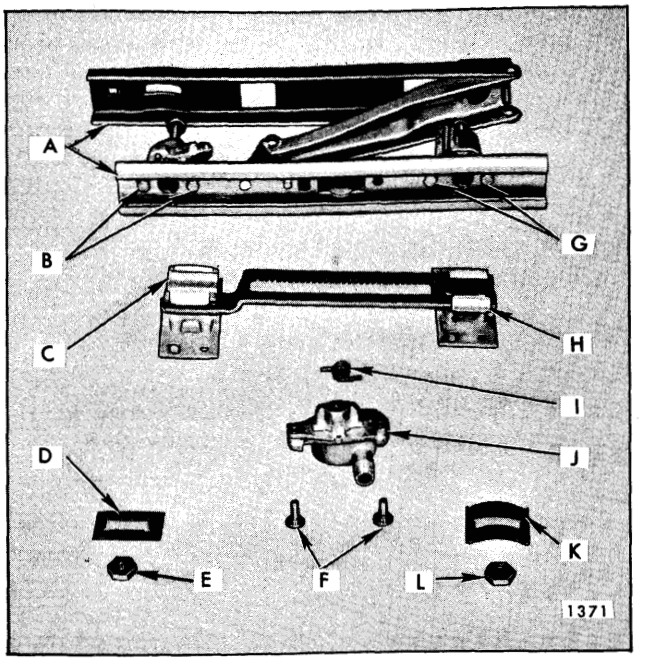

Fig. 10-19—Six-Way Seat Adjuster Components - "B & C" Styles

A. Upper Channel Assembly
B. Rear Vertical Gearnut Attaching Screws
C. Lower Channel
D. Rear Spring
E. Rear Gearnut Attaching Nut
F. Actuator Attaching Screws
G. Front Vertical Gearnut Attaching Screws
H. Plastic Shoe
I. Actuator Locating Spring
J. Horizontal Actuator
K. Front Spring
L. Front Gearnut Attaching Screw

IMPORTANT: Horizontal actuator is under tension from spring shown in Figure 10-18. When installing actuator, be sure actuator locating spring is properly engaged with actuator assembly.

8. To install, reverse removal procedure. When installing horizontal actuator, be sure actuator drive gear is full engaged with teeth on lower channel. With tension spring properly installed and actuator attaching screws tight, there should be no free motion between upper and lower adjuster channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Be sure seat adjusters are "in phase", before installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Front Vertical Gearnut—"B-C & E" Body

Removal and Installation

1. Operate seat to either full forward or full rearward position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
3. Detach three power drive cables from adjuster to be removed.
4. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
5. At top of adjuster, remove front vertical gearnut attaching nut.
6. Remove front vertical gearnut spring (Fig. 10-18).
7. Lay adjuster on its side and remove front vertical gearnut attaching screws (Fig. 10-19); then remove gearnut from adjuster.
8. If front vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly (Fig. 10-18).
9. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Rear Vertical Gearnut—"B-C & E" Body

Removal and Installation

1. Operate seat to full forward position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
3. Detach three power drive cables from adjuster to be removed.
4. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
5. At top of adjuster, remove rear vertical gearnut attaching nut (Fig. 10-18).
6. Lift rear of channel upward and remove rear vertical gearnut spring (Fig. 10-18).
7. Lay adjuster on its side and remove rear vertical gearnut attaching screws; then remove gearnut from adjuster (Fig. 10-19).
8. If rear vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly (Fig. 10-18).

9. To install, reverse removal procedure. Be sure rear gearnut spring is properly engaged under adjuster upper channel before tightening rear gearnut upper attaching nut. In addition, be sure adjusters are "in phase" prior to installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Lower Channel and Plastic Slides—"B-C & E" Body

Removal and Installation

1. Remove horizontal actuator as previously described.

2. Slide seat adjuster lower channel from upper channel until lower channel is completely disengaged from upper channel. Remove plastic slides from lower channel.

3. If lower channel is being replaced with a new part, transfer plastic slides to new part (Fig. 10-19).

4. Apply "Lubriplate" (630AAW) or equivalent to track portion of upper channel, plastic slides and teeth on lower channel.

5. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

Upper Channel—"B-C & E" Body

Removal and Installation

1. Remove seat assembly from body and place upside down on a clean protected surface.

2. Detach three power drive cables from adjuster to be removed.

3. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.

4. Remove horizontal actuator from upper channel as previously described.

5. Slide lower channel until it is completely disengaged from upper channel; then transfer lower channel to new upper channel.

   NOTE: Be sure sliding surfaces of upper and lower channels are properly lubricated with "Lubriplate" (630AAW) or equivalent.

6. Transfer front and rear gearnuts to new upper channel (Fig. 10-19).

7. Install horizontal actuator and actuator locating spring to new upper channel.

8. Install adjuster to seat bottom frame; then check all operations of adjusters. Be sure adjusters are "in phase" prior to installing seat assembly into body. (See step 6 under "Front Seat Assembly - Removal and Installation").

9. Install seat assembly into body. Operate seat through several complete cycles to insure proper operation.

Horizontal and Vertical Drive Cables—"B-C & E" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Detach both horizontal and vertical cables from seat adjuster.

3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly; then disengage cables from end plate.

4. To install horizontal and vertical cables, reverse removal procedure. Make sure colored drive cables are installed to proper gearnus and horizontal actuator as shown in Figure 10-12.

Transmission—"B-C & E" Body

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Disconnect wire harness connector from transmission (See Fig. 10-7).

3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.

4. Remove transmission to support attaching bolts; then disengage transmission from motor

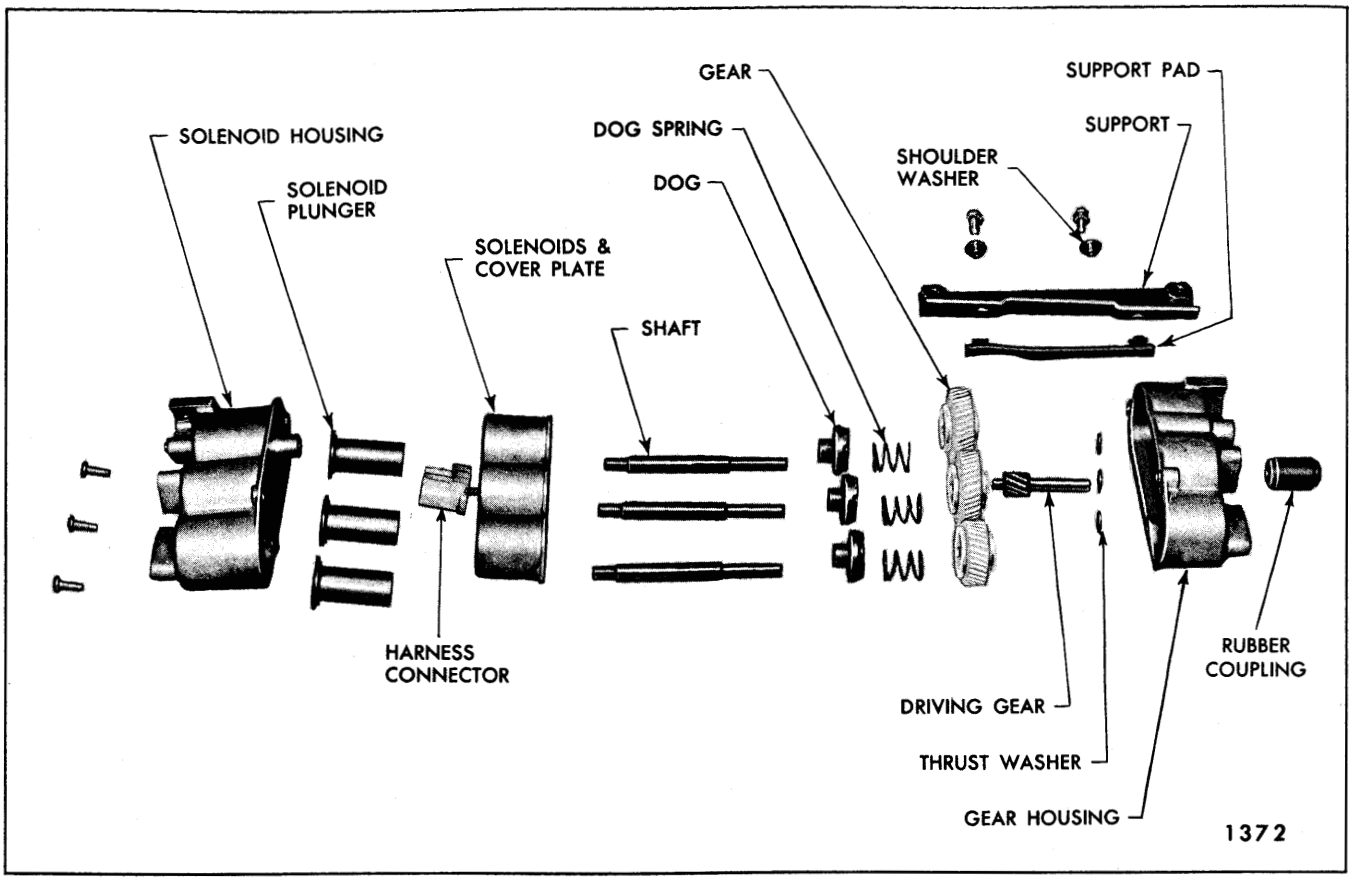

Fig. 10-20—Six-Way Seat Adjuster Transmission - "B & C" Style

drive coupling and remove transmission from seat assembly.

5. To install, reverse removal procedure. Make sure seat harness is properly secured to seat. (See Fig. 10-7).

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing gear housing to the solenoid housing; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-20).

3. To assemble transmission, reverse removal procedure.

IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear, thrust washer, large gears, dog washers, gear shafts and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

FRONT SEAT BACK

Seat Back Assembly—Four Door Style with Standard Full Width Seat

Removal and Installation

1. Remove front seat assembly from body and place it upside down on a clean protected surface. Remove seat side panels, where present.

2. Remove hog rings securing lower edge of seat back trim to seat cushion springs.

3. On "A-X & Z" body full width front seats, raise lower edge of seat back trim, remove cardboard breakover foundation and bend out tabs on seat back frame securing seat cushion springs. Disengage springs from tabs.

4. At each end of seat, remove hog rings securing lower edge of seat back trim to seat bottom frame. Raise or turn back seat back trim to expose bolts securing seat back frame to seat cushion frame (Fig. 10-22). Where seat back lighter or courtesy light is present disconnect wire from seat cushion frame.

5. Place seat assembly in upright position. Then with a helper, holding seat back assembly, remove seat back attaching bolts on each side of seat and remove seat back assembly.

6. To install seat back assembly, reverse removal procedure.

Seat Back Assembly—(Right or Left)—Two Door Style with Standard Full Width Seat

Removal and Installation

1. a. On seat with seat cushion side panel, remove side panel and detach seat cushion trim sufficiently to expose outer hinge pin and retainer.

   b. On seats with outer hinge arm cover, remove screw securing cover and remove cover.

2. Using a flat bladed tool carefully remove retainer securing seat back outer arm to hinge pin.

3. Carefully disengage seat back outer arm from hinge pin; then, tilt seat back forward and upward to disengage seat back inner arm from hinge pin and remove seat back from body.

4. To install seat back assembly, reverse removal procedure making sure washers are installed over hinge pins prior to installing seat back. If outer retainer is damaged, install new retainer.

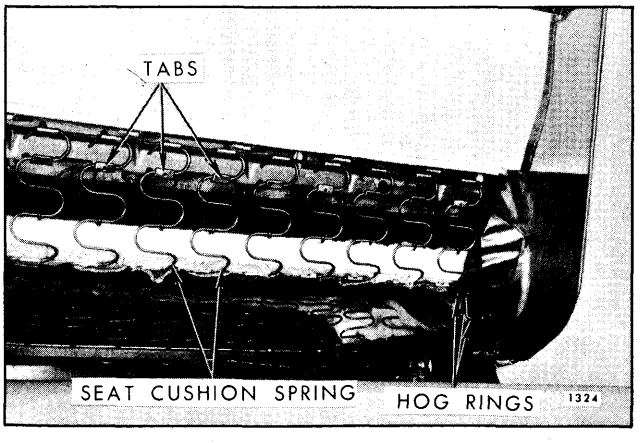

Fig. 10-21—Seat Cushion-to-Back Spring Attachment

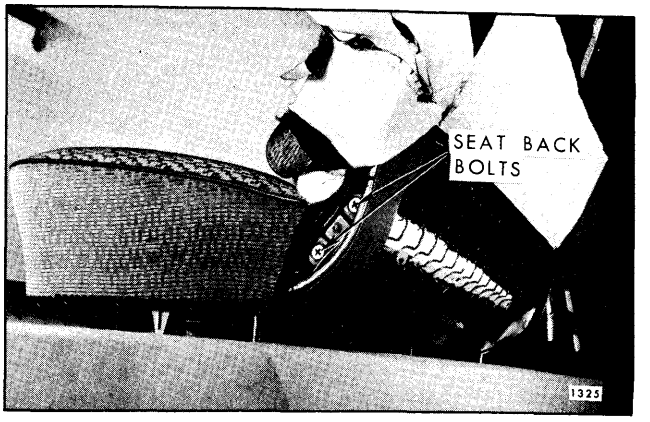

Fig. 10-22—Seat Back Attachment

"Strato" Front Seat Back Assembly (Right or Left)—Full Width Seat All Styles Except 16639 Style

Removal and Installation

1. Remove front seat assembly as described under, "Full Width Front Seat Assembly - Removal and Installation".

2. At side of seat from which seat back is being removed, remove hog rings securing cushion side trim at rear of seat and fold trim forward sufficiently to expose two seat back outer attaching bolts (Fig. 10-23).

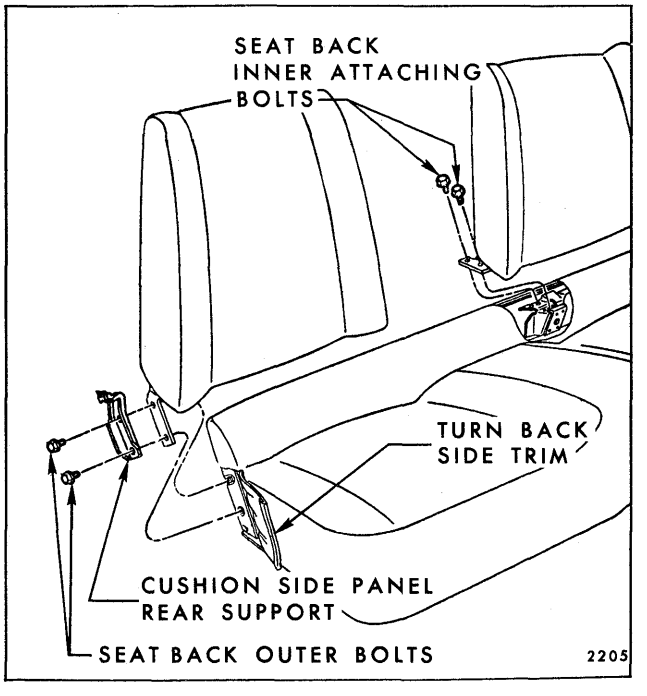

Fig. 10-23—Strato Full Width Seat Back Attachment

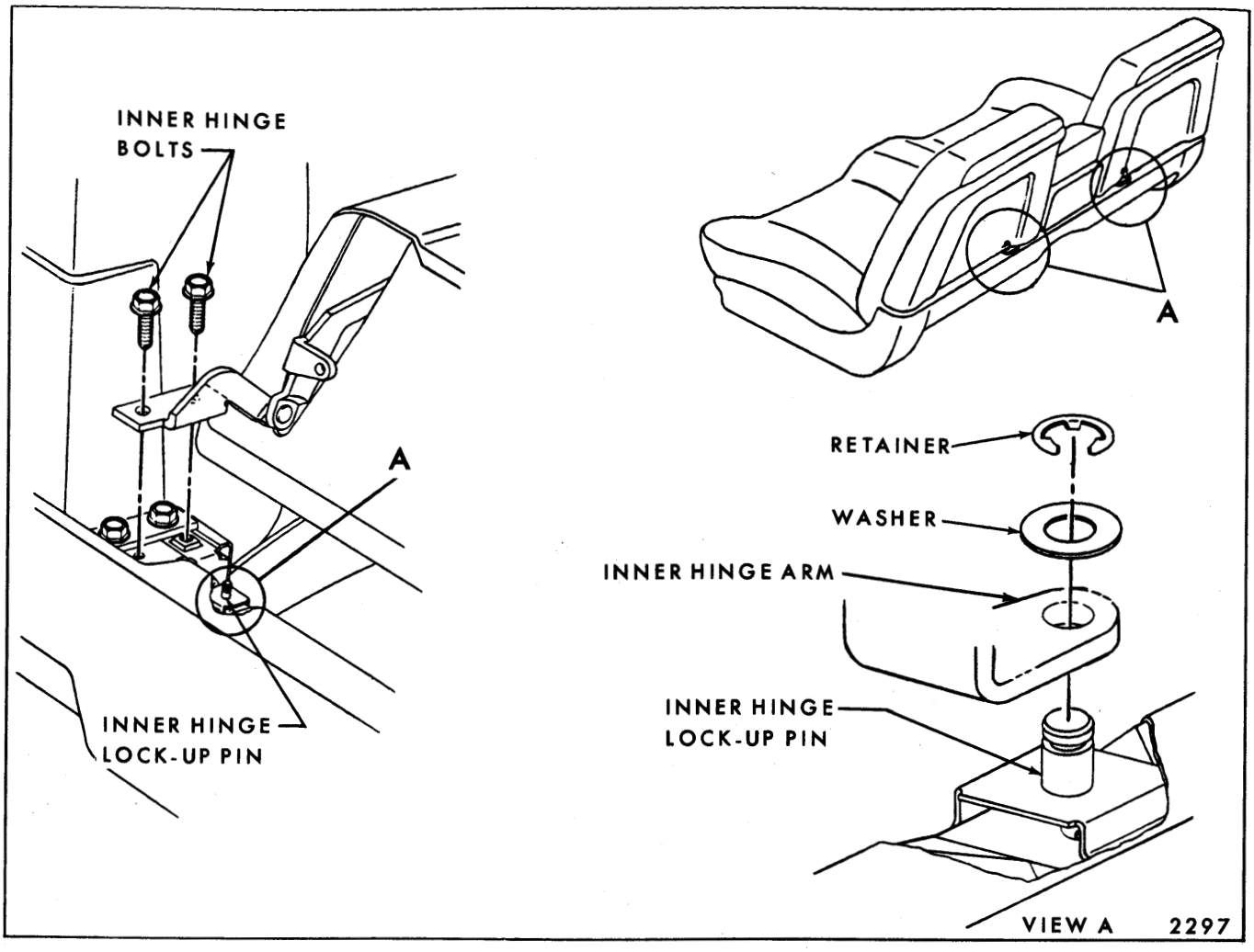

Fig. 10-24—Strato Full Width Seat Back Attachment - Chevrolet 16639 Style

3. At inboard side of seat back, remove screw securing inner attaching bolt cover plate and remove cover plate.

4. Remove seat back inner attaching bolts; then, remove outer attaching bolts and remove seat back assembly from seat.

5. To install seat back assembly, reverse removal procedure. Make certain seat side panel support (Fig. 10-23) is secured under seat back outer attaching bolts.

"Strato" Front Seat Back Assembly (Right or Left)—Full Width Seat—16639 Style

Removal and Installation

1. Remove seat assembly from body, as previously described, and place seat right side up on a clean surface.

2. Remove seat side panel on side from which seat back is being removed. Remove hog rings securing seat cushion trim side facing at rear of seat and turn side facing forward sufficiently to expose seat back outer arm attaching bolts (See Fig. 10-23).

3. Using a suitable hooked end tool between seat back and seat cushion, at location "A", remove retaining ring locking seat back at inner hinge (see View "A", Fig. 10-24).

4. Remove seat back outer arm attaching bolts (Fig. 10-23).

5. Carefully tilt seat back forward. Remove inner hinge bolt cover plate. Remove inner hinge bolts (Fig. 10-24) and carefully remove seat back from seat assembly.

6. To install, reverse removal procedure.

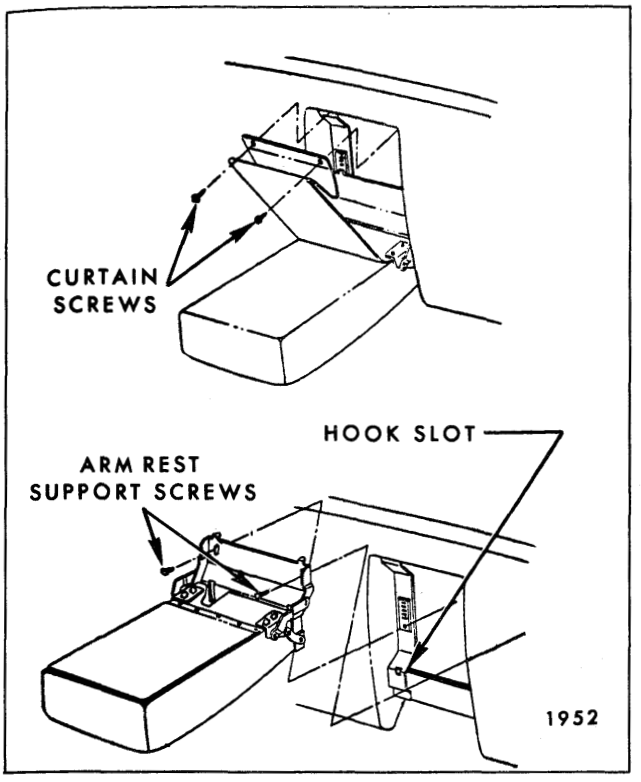

Fig. 10-25—Front Seat Center Arm Rest (Full Width Seat Back)

NOTE: It is important that removal procedure be reversed step by step when installing seat back assembly.

Standard Full Width Seat Back Head Rest (Drivers or Passengers Side)

The standard full width seat back headrest is secured by a support which is screwed or welded to the seat back frame. The support incorporates a detent spring which allows the headrest to be raised or lowered to four different height positions. The headrest can be removed from the seat back for storage by pulling the headrest bar out of the support.

To remove and install the headrest support, the seat back trim must be removed and the support-to-seat back frame screws removed.

NOTE: On styles where the support is welded to the seat back frame, the welds must be cut to remove the support.

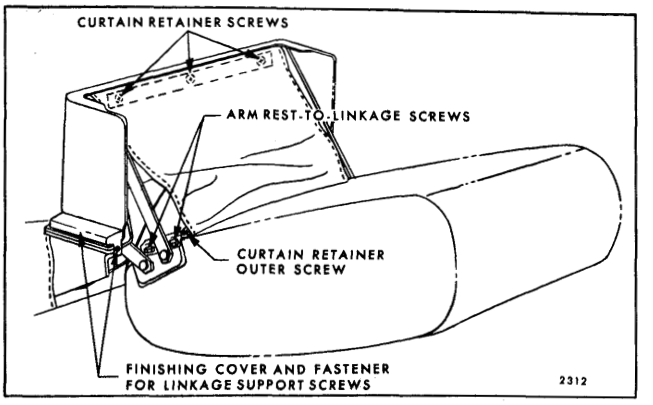

Fig. 10-26—Front Seat Center Arm Rest (Notch Down Seat Back)

FRONT SEAT CENTER ARM REST

Arm Rest and Curtain Assembly—Front Seat with Standard Full Width Seat Back

Removal and Installation

1. Place center arm rest in down position.
2. At top of arm rest curtain, remove two screws securing curtain to seat back frame (Fig. 10-25) and pull curtain forward to expose screws securing arm rest to support linkage (Fig. 10-25).
3. Remove arm rest-to-support linkage screws (Fig. 10-25) and remove arm rest and curtain from seat.
4. To install, reverse removal procedure.

Arm Rest and Support Assembly—Front Seat with Standard Full Width Seat Back

Removal and Installation

1. Place center arm rest in down position.
2. At top of arm rest curtain, remove two screws securing curtain to seat back frame (Fig. 10-25).
3. Remove two screws securing arm rest to supports on seat back (Fig. 10-25); then, carefully lift arm rest and linkage upward to disengage hooks of arm rest from slots in supports and remove assembly from seat.
4. To install, reverse removal procedure. Prior to installing curtain screws check alignment and operation of arm rest.

Front Seat Center Arm Rest and Curtain Assembly—Front Seat with Notch Down Seat Back and Strato Front Seat

Removal and Installation

1. Lower arm rest to approximately 2 inches short of full down position.
2. Carefully pull curtain back sufficiently to remove screws securing center arm rest to support linkage and loosen outer screws securing curtain retainer to arm rest (Fig. 10-26).
3. Remove screw finishing covers (Fig. 10-26). Disengage arm rest from support linkage and turn arm rest upside down on trim panel finishing cover with curtain attached. Remove three screws securing curtain retainer to trim panel finishing cover (Fig. 10-26); then remove arm rest and curtain from seat.
4. To install, reverse removal procedure.

Front Seat Center Arm Rest Assembly—Front Seat with Notch Down Seat Back and Strato Front Seat

Removal and Installation

1. Place arm rest in up position.
2. Working between arm rest and seat back, remove fastener at both sides of arm rest securing front end of screw finishing covers (Fig. 10-26).
3. Working at rear of seat, push one seat back to full forward position. Carefully pull up front of screw finishing cover sufficiently to expose arm rest support attaching screws; then remove screws (Fig. 10-27). Repeat this operation on opposite side of arm rest; then carefully remove arm rest assembly, including trim panel finishing cover, from seat.

   NOTE: If washers are present between arm rest support and supports on seat (Fig. 10-27), note location and number of washers used to facilitate installation in same position. Washer(s) are used to align arm rest to front seat back(s).
4. To install, reverse removal procedure. Prior to bending down screw finishing covers check alignment and operation of arm rest. Where necessary to align arm rest with seat back(s) install washer(s), as required, between arm rest support and supports on seat (See Fig. 10-27).

Front Seat Center Arm Rest Support—Front Seat with Notch Down Seat Back and Strato Front Seat

Removal and Installation

1. Remove center arm rest assembly.
2. Remove screws securing arm rest to support (Fig. 10-26); then, remove support from arm rest, finishing cover and curtain.
3. To install, reverse removal procedure. Prior to bending down support screw finishing covers check alignment and operation of arm rest. Where necessary to align arm rest with seat back(s), install washer(s), as required, between arm rest support and supports on seat (See Fig. 10-27).

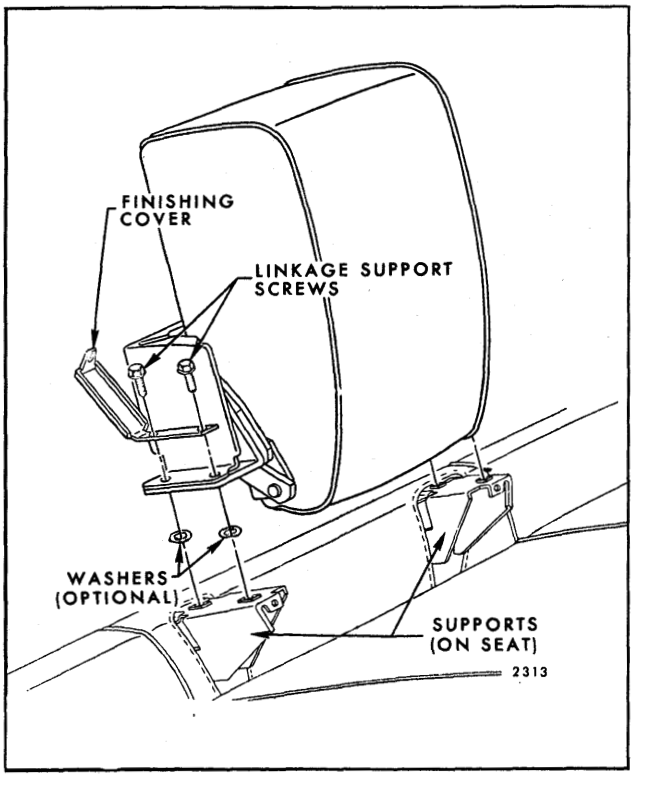

Fig. 10-27—Front Seat Center Arm Rest Support (Notch Down Seat Back)

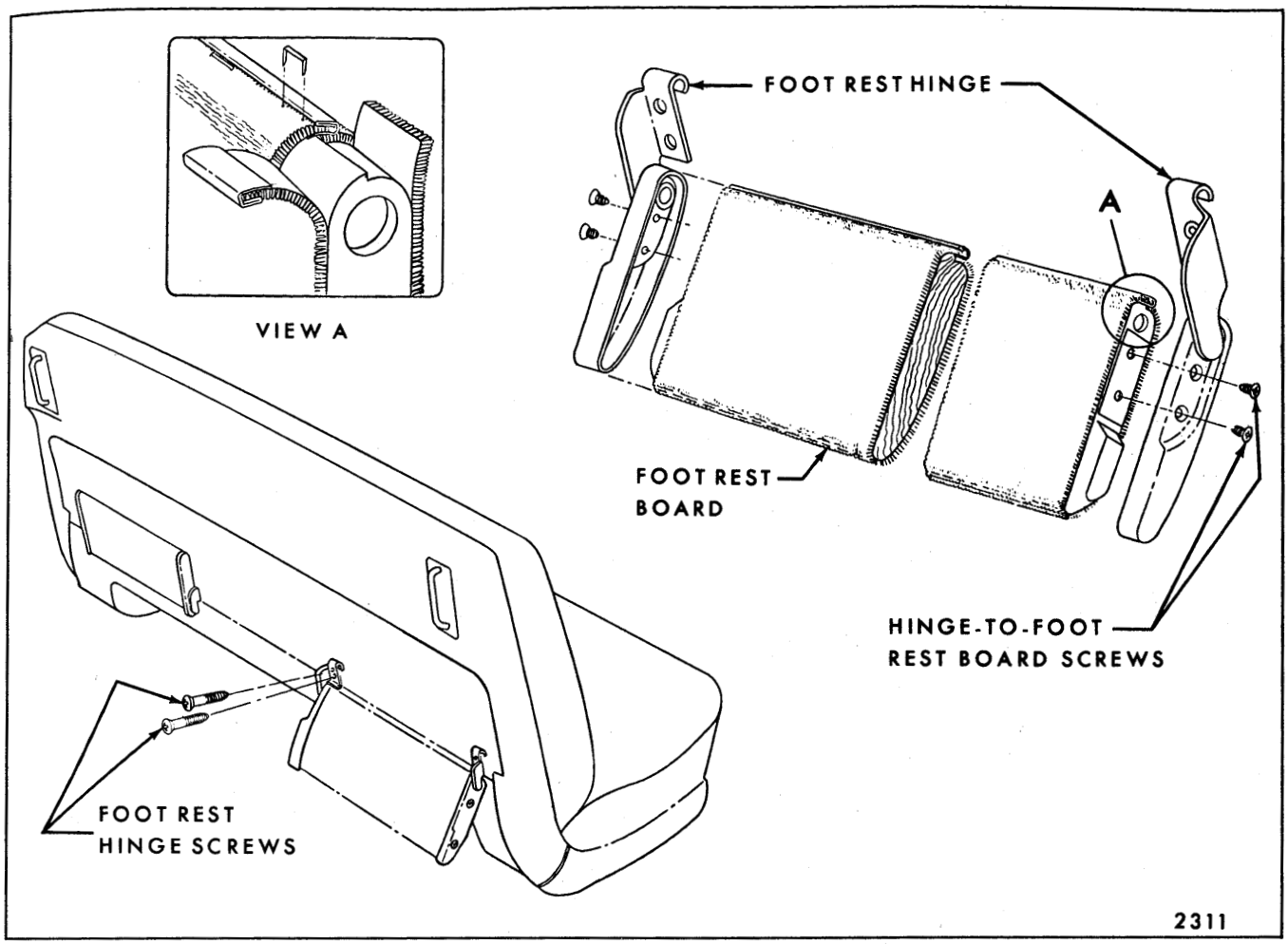

Fig. 10-28—Foot Rest Installation - Cadillac 68169 Styles

FOOT REST ASSEMBLY—CADILLAC 68169 STYLE

The folding foot rest assemblies shown in Fig. 10-28 are secured to the seat back by hinges. To remove foot rest assembly, remove hinge-to-seat back attaching screws from both sides of foot rest (Fig. 10-28) and remove foot rest assembly from seat back. To remove trimmed foot rest board remove hinge-to-board attaching screws (Fig. 10-28) and remove hinges from foot rest board.

BUCKET SEATS

DESCRIPTION

Bucket seats, on all styles except Corvair, are a new Strato design type seat incorporating new manual and power operated seat adjusters. Optional reclining seat back with head rest are available on Pontiac, Oldsmobile, Buick and Cadillac passenger's bucket seats. The reclining seat back is operated by a control lever located at the right side of the seat cushion. When the control lever is pulled upward the seat back can be reclined to any desired position up to approximately 30° from normal position. The head rest, which is available on all Strato seat backs, can be raised or lowered to four detent positions and can be completely removed from the seat back.

MANUALLY OPERATED BUCKET SEAT ASSEMBLY

Removal and Installation

1. Operate seat to full rearward position.

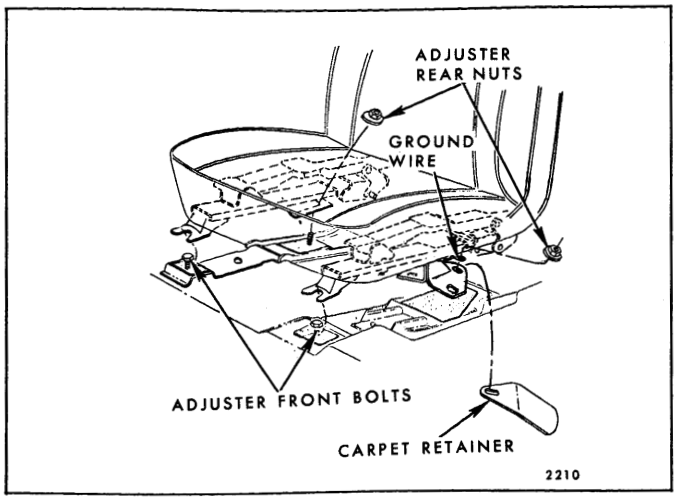

Fig. 10-29—Bucket Seat Floor Rear Attachment - "A" Styles

2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts (Fig. 10-29 or 10-30).

3. a. On "A, X & Z" body styles loosen adjuster-to-floor pan front attaching bolts (Fig. 10-29). Operate seat to full forward position. Remove adjuster-to-floor pan rear attaching bolts, then, slide seat rearward sufficiently to disengage front legs of adjusters from under front attaching bolts and remove seat assembly from body.

   b. On "B, C & E" body styles remove adjuster-to-floor pan front attaching bolts (Fig. 10-30). Operate seat to full forward position. Remove adjuster-to-floor pan rear attaching bolts and remove seat assembly from body.

4. To install, reverse removal procedure. On "A, X & Z" body styles make sure front leg of both adjusters are engaged under front attaching bolts prior to installing rear attaching nuts. Check operation of seat adjusters to full limits of travel.

POWER OPERATED HORIZONTAL OR FOUR-WAY BUCKET SEAT ASSEMBLY

The two-way and four-way (tilt) seat adjusters are actuated by a 12 volt, reversible shunt wound motor with a built-in circuit breaker.

The four-way seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and two drive cables leading to the seat adjusters. One solenoid controls the vertical movement of the seat while the other solenoid controls the horizontal movement of the seat. When the control switch is actuated, the motor drives the transmission by means of a belt and one of the transmission solenoids are energized simultaneously. The solenoid plunger then engages with the driving gear dog. The driving gear rotates the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber belt connecting the motor and transmission. When the switch contacts are opened, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

Removal and Installation

1. Operate seat to full forward position. On four-way power seats operate seat to full up position. Remove seat cushion side panels, where present. Where seat adjuster track covers are present, carefully pry out track cover snap-on retainers with a flat-bladed tool and remove track covers.

2. Where necessary, remove sill plates and turn back floor carpeting to expose seat adjuster-to-floor pan attaching nuts and bolts.

3. Remove seat adjuster-to-floor pan rear attaching bolts (Fig. 10-29 or 10-31); then, operate seat assembly to full rearward position.

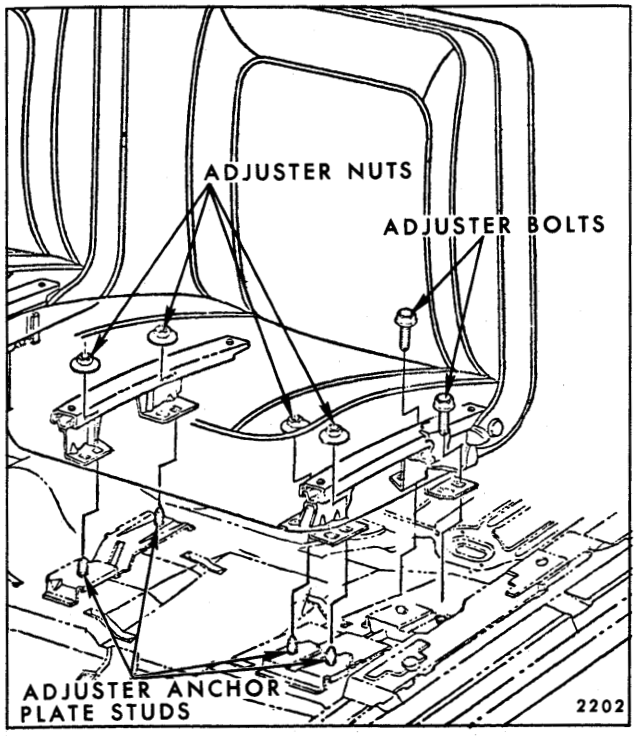

Fig. 10-30—Manually Operated Bucket Seat Floor Pan Attachment - "B & C" Styles

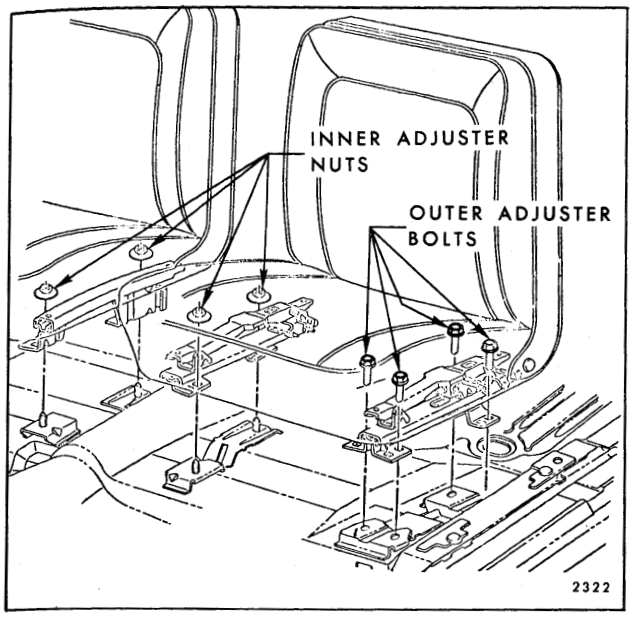

Fig. 10-31—Four-Way Bucket Seat Floor Pan Attachment - "B & C" Styles

4. a. On "A" Body Styles with power operated four-way seat adjusters loosen adjuster-to-floor pan front attaching bolts (Fig. 10-29), then, slide seat assembly rearward until front legs of adjusters are disengaged from under front attaching bolts. Tilt seat rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-32); then remove seat assembly from body.

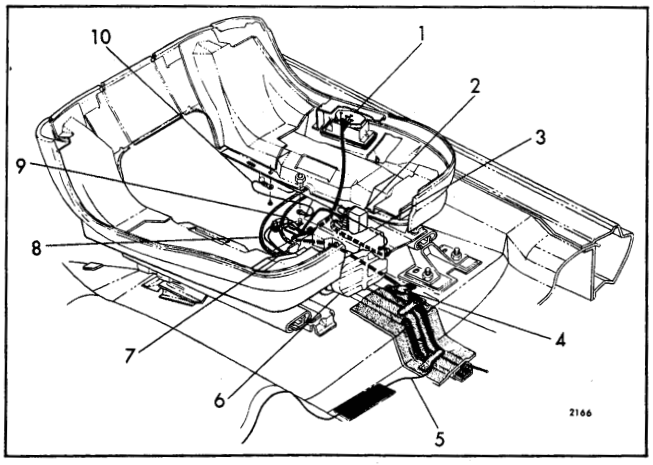

Fig. 10-32—Four-Way Strato Bucket Seat Wiring - "A & B" Styles

1. Control Switch
2. Motor Control Relay
3. Motor
4. Harness Feed Connector
5. Feed to Passenger Seat
6. Pulley Cover Plate
7. Transmission and Solenoid Assembly
8. Vertical Control Cable (Orange)
9. Horizontal Control Cable (Black)
10. Ground Wire

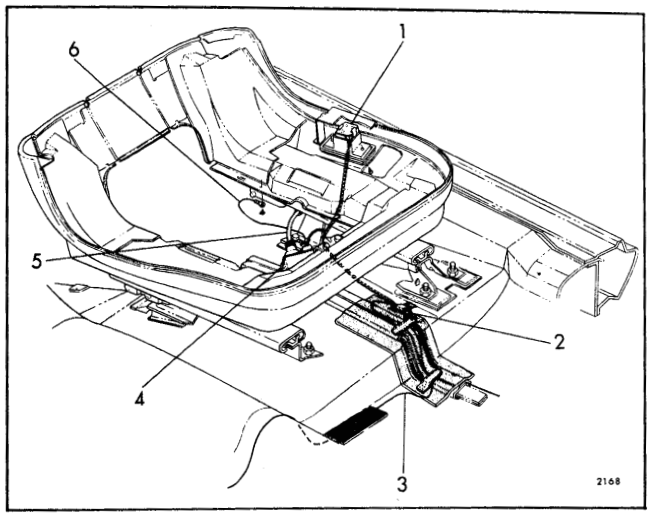

Fig. 10-33—Horizontal Bucket Seat Wiring - "B & C" Styles

1. Control Switch
2. Feed Harness Connector
3. Feed Wire to Passenger Seat
4. Motor
5. Control Cable
6. Ground Wire

b. On "B, C & E" Styles with power operated seat adjusters remove seat adjuster-to-floor pan front attaching bolts (Fig. 10-31). Tilt seat rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan (Fig. 10-32 or 10-33); then remove seat assembly from body.

5. To install, reverse removal procedure. Make sure ground wire is secured under adjuster inboard rear attaching nut or bolt.

On "A" Body Styles make sure adjusters are properly engaged under front attaching bolts and that rear floor carpet is properly positioned around rear supports of adjuster prior to installing carpet retainer on adjuster stud and adjuster rear attaching nuts.

MANUALLY OPERATED BUCKET SEAT ADJUSTER

Removal and Installation

1. Remove bucket seat assembly, as previously described, and place seat upside down on a protected surface.

2. If replacing inboard adjuster, remove assist spring (Fig. 10-34).

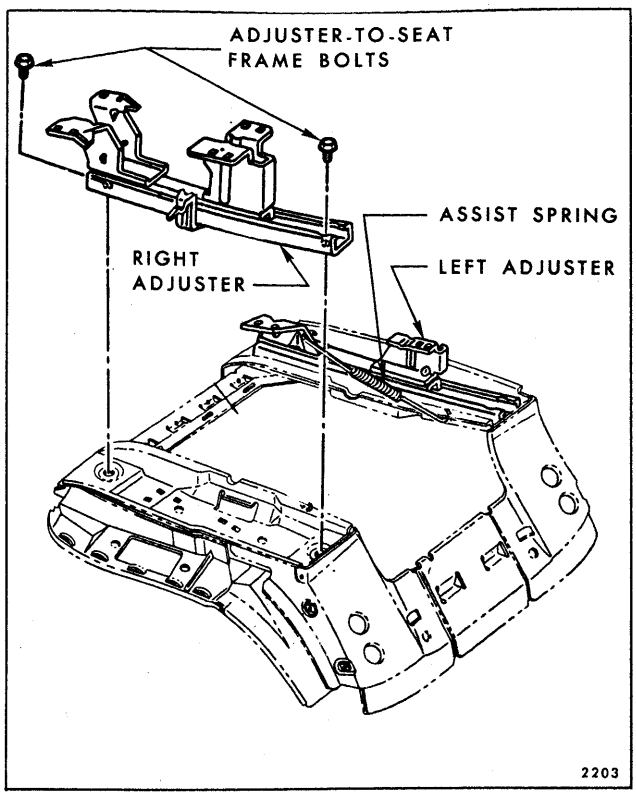

Fig. 10-34—Manual Bucket Seat Adjuster Removal

3. Operate adjuster so that both front and rear adjuster-to-seat frame attaching bolts (Fig. 10-34) are accessible; then, remove attaching bolts and remove adjuster from seat assembly.

4. To install, reverse removal procedure.

POWER OPERATED HORIZONTAL BUCKET SEAT ADJUSTER

Removal and Installation

1. Operate seat to a midway horizontal position. Remove bucket seat assembly, as previously described, and place seat upside down on a clean protected surface.

2. Disconnect power drive cable from adjuster gearnut (Fig. 10-35).

3. Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 10-35) and remove adjuster from seat assembly.

4. To install, reverse removal procedure. Where spacers were installed between seat adjuster and floor pan or seat adjuster and seat frame make certain spacers are reinstalled. Check for proper operation of seat to full limits of travel.

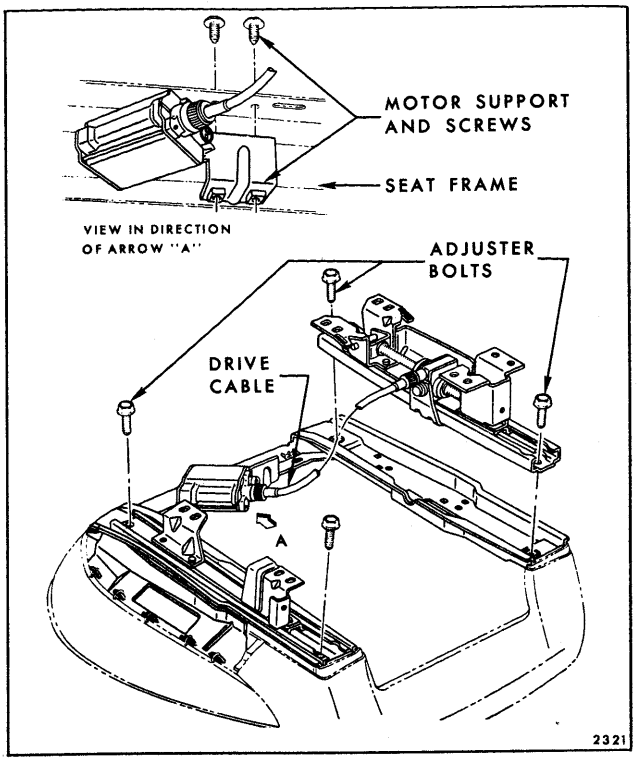

Fig. 10-35—Power Horizontal Bucket Seat Adjuster Removal

POWER OPERATED FOUR-WAY BUCKET SEAT ADJUSTER

Removal and Installation

1. Operate seat to assembly to fully raised and midway horizontal positions.

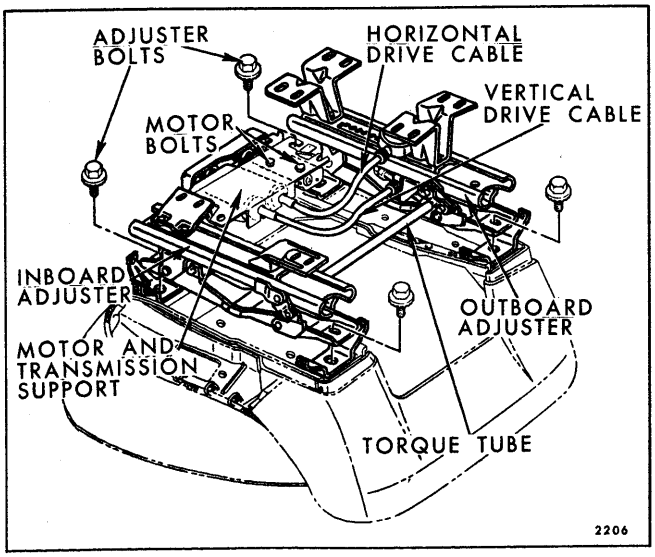

Fig. 10-36—Four-Way Bucket Seat Assembly

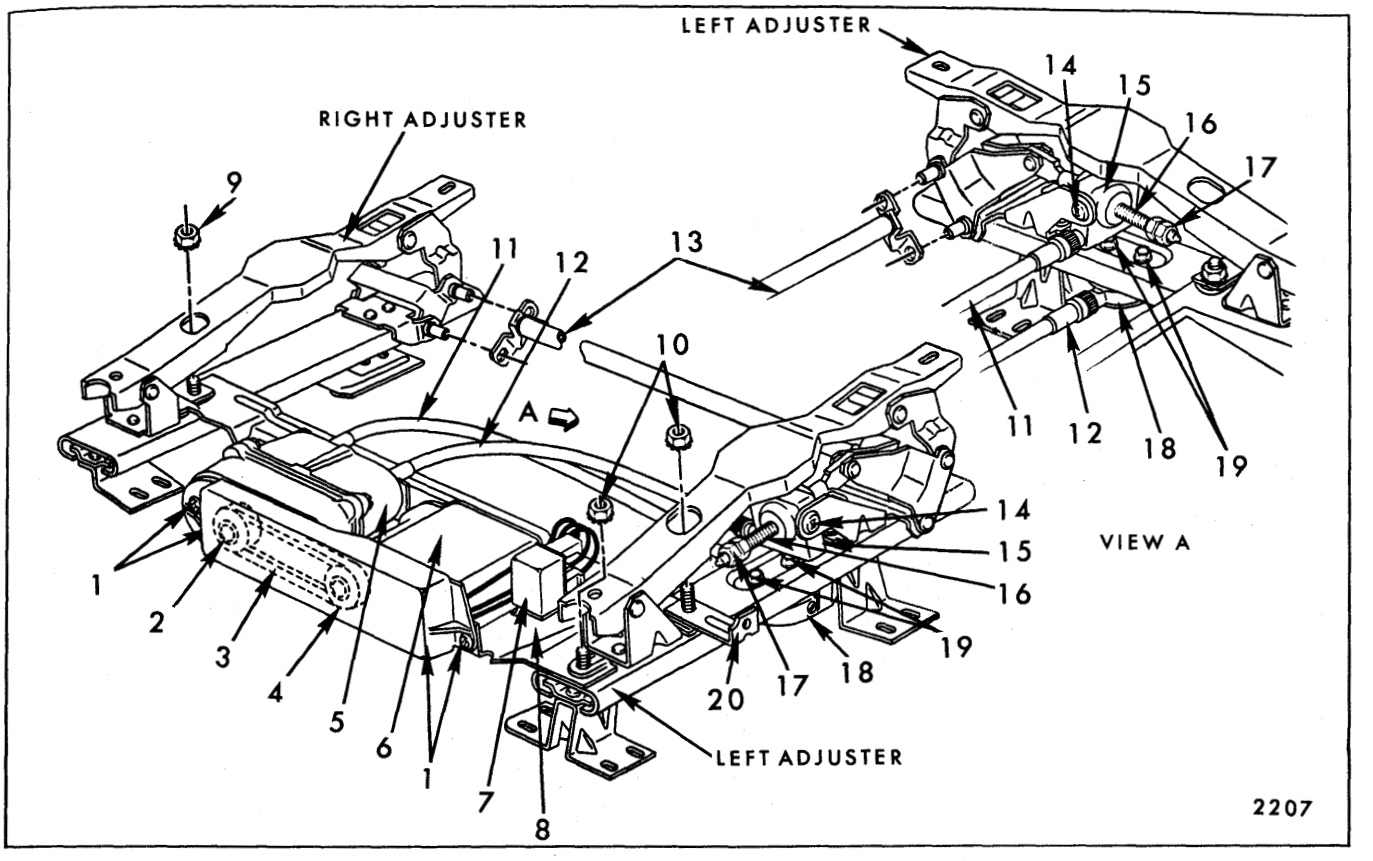

Fig. 10-37—Four-Way Bucket Seat Adjusters

1. Motor and Transmission Drive Belt Cover and Attaching Screws
2. Transmission Drive Pulley
3. Transmission and Motor Drive Belt
4. Motor Drive Pulley
5. Transmission Assembly
6. Electric Motor Assembly
7. Electric Motor Relay
8. Motor and Transmission Support
9. Motor and Transmission Support-to-Right Adjuster Attaching Nut
10. Motor and Transmission Support-to-Left Adjuster Attaching Nuts
11. Adjuster Horizontal Drive Cable
12. Adjuster Vertical Drive Cable
13. Adjuster Torque Tube
14. Adjuster Vertical Gearnut Shoulder Screw
15. Adjuster Vertical Gearnut Assembly
16. Adjuster Vertical Jackscrew
17. Adjuster Vertical Jackscrew Stop Nuts
18. Adjuster Horizontal Actuator Assembly
19. Adjuster Horizontal Actuator Attaching Screws
20. Seat Side Panel Support

2. Remove front seat assembly from body with attached adjusters, motor and transmission, as previously described, and place upside down on a clean protected surface.

3. If outboard adjuster is being removed, disconnect bolt, horizontal and vertical drive cables from vertical gearnut and horizontal actuator (Fig. 10-36).

4. Remove nuts securing motor and transmission support to adjuster being removed (Fig. 10-37).

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts securing adjuster to be removed (Fig. 10-36).

6. Carefully disengage adjuster from support, and torque tube; then, remove adjuster from seat.

7. To install power operated four-way bucket seat adjuster assembly, reverse removal procedure. Check for proper operation of seat adjusters to limits of travel.

POWER OPERATED FOUR-WAY BUCKET SEAT ADJUSTER MAJOR COMPONENTS

The following service procedures cover replacement of the major component parts of the power operated four-way seat adjuster, used on bucket seats.

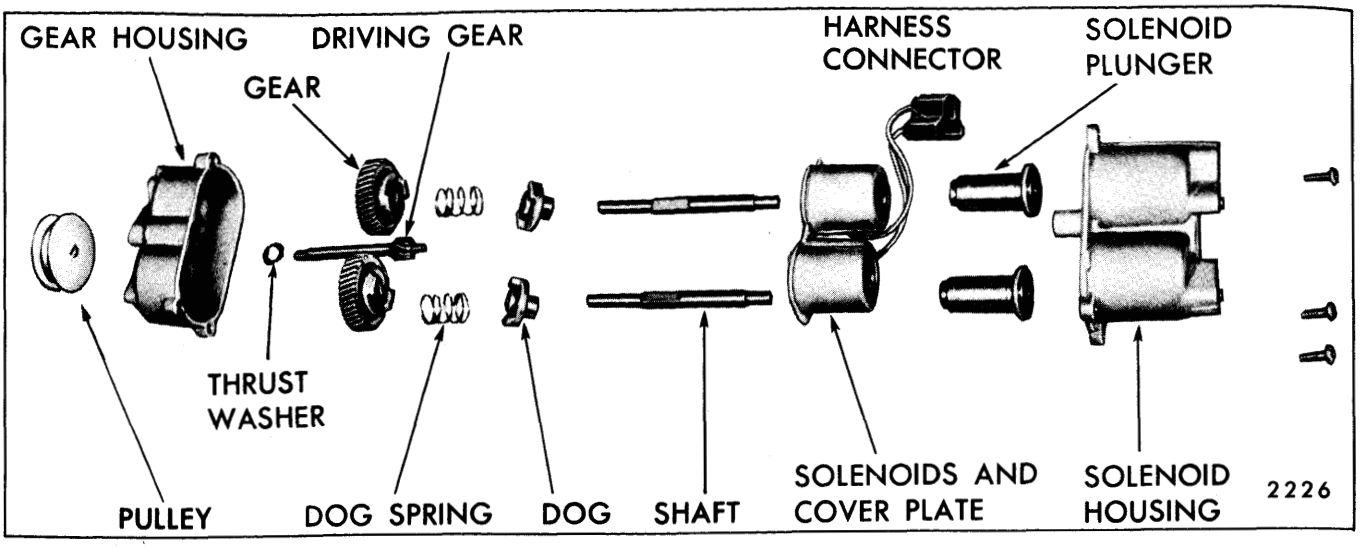

Fig. 10-38—Four-Way Bucket Seat Transmission

Motor and Transmission Drive Belt and Pulleys

Removal and Installation

1. At front of seat motor and transmission drive belt cover remove attaching screws (Fig. 10-37) and remove cover.

2. Remove drive belt (Fig. 10-37) from both motor and transmission drive pulleys. Pulleys may be removed from either motor or transmission by pulling pulleys off their respective shaft.

3. To install drive belt, reverse removal procedure. Check for proper operation of seats to full limits of travel.

Motor Assembly

Removal and Installation

1. If motor can be operated, operate seat assembly to full "up" position. Disconnect wire harness connector from motor relay.

2. Remove motor-to-transmission drive belt cover and drive belt, as previously described.

3. From under motor and transmission support remove two cap screws securing motor to motor-and-transmission support and remove motor assembly from under seat.

4. To install, reverse removal procedure. Check for proper operation of seat to full limits of travel.

Transmission Assembly and Horizontal and Vertical Drive Cables

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission, as previously described, and place upside down on a protected surface.

2. Disconnect wire harness connector from transmission.

3. Remove motor and transmission drive belt cover and remove drive belt (Fig. 10-37).

4. Remove two screws securing transmission assembly to motor and transmission support; then, move transmission forward to disengage from drive cables and remove transmission from seat.

   NOTE: To remove horizontal or vertical drive cables detach drive cable from adjuster and remove cable.

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 10-38).

3. To assemble transmission, reverse removal procedure.

IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate" (630AAW) or equivalent.

4. To install transmission assembly, reverse removal procedure. Make certain drive cables are properly engaged in transmission and properly retained in cut out notches of motor and transmission support prior to installing transmission attaching screws.

5. Check for proper operation of seat to full limits of travel.

Adjuster Vertical Gearnut

Removal and Installation

1. Operate seat assembly to fully raised and midway horizontal position.

2. Remove front seat assembly from body and place upside down on a clean protected surface.

3. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut (Fig. 10-37).

4. Remove jackscrew "down" stop from jackscrew (Fig. 10-37).

5. Using a portable power source to energize the motor, actuate vertical gearnut until gearnut is disengaged from jackscrew.

   NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain clearance for removal of gearnut.

6. Disconnect drive cable from gearnut.

7. To install, reverse removal procedure. Check seat adjusters for proper operation.

Adjuster Jackscrew

Removal and Installation

1. Remove adjuster gearnut as previously described.

2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts.

3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 10-37).

   NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain access to jackscrew attaching rivet.

4. To install, reverse removal procedure. Use new rivet to attach jackscrew-to-adjuster linkage. Check seat adjusters for proper operation.

Adjuster Horizontal Actuator Assembly

Removal and Installation

1. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.

2. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut (Fig. 10-37).

3. Using a portable power source, actuate vertical gearnut until gearnut is against "down" stop on jackscrew assembly.

4. Disconnect drive cable from horizontal actuator assembly.

5. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly (Fig. 10-37).

6. To install, reverse removal procedure.

   NOTE: When installing horizontal actuator, adjuster acturator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator attaching screws are tightened, there should be no free motion between upper and lower channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Check seat adjusters for proper operation.

Torque Tube Assembly

Removal and Installation

1. Remove inboard seat adjuster assembly, as previously described.

2. Disengage torque tube from outboard adjuster (Fig. 10-36 and 10-37) and remove torque tube assembly.

3. To install torque tube assembly, reverse removal procedure. Check for proper operation of seat to full limits of travel.

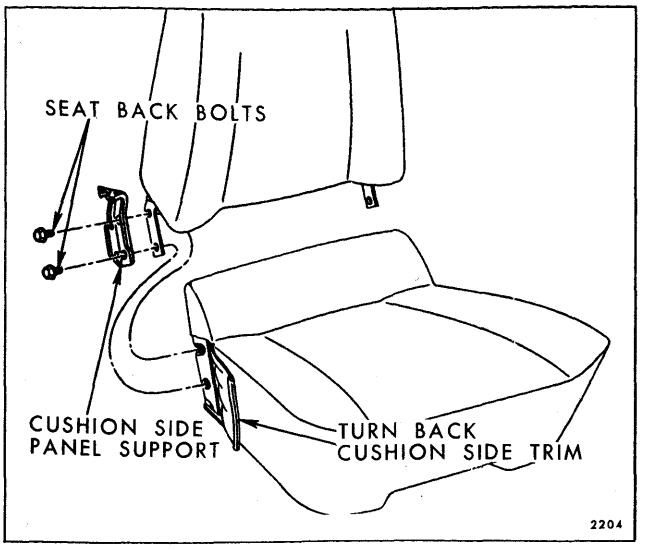

Fig. 10-39—Bucket Seat Back Removal (Without Reclining Seat Back) All Except Corvair

STANDARD BUCKET SEAT BACK ASSEMBLY—ALL TWO DOOR STYLES EXCEPT CORVAIR

Removal and Installation

1. Remove bucket seat assembly from body, as previously described, and place on a clean protected surface.

2. Remove hog rings at both sides of seat securing cushion side trim at rear of seat and fold trim forward sufficiently to expose four seat back attaching bolts (Fig. 10-39).

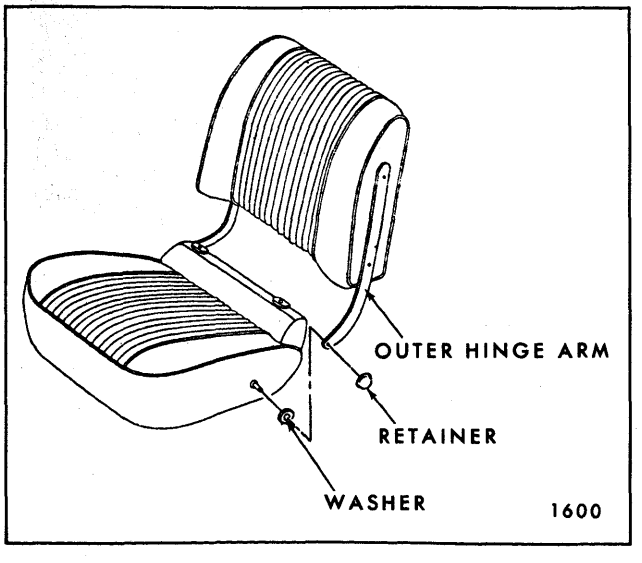

Fig. 10-40—Bucket Seat Back Removal - Corvair

3. Remove seat back attaching bolts at both sides of seat and remove side panel support and seat back assembly from seat cushion assembly.

4. To install seat back assembly, reverse removal procedure. Make certain seat side panel support is secured under seat back outer attaching bolts.

STANDARD BUCKET SEAT BACK ASSEMBLY—CORVAIR

Removal and Installation

1. Using a flat-bladed tool, carefully remove retainer from inner and outer hinge pin (Fig. 10-40).

NOTE: On 10000 Series, remove screw securing hinge arm cover (Fig. 10-41) and remove cover; then, remove inner hinge pin retainer.

2. Carefully disengage inner and outer front seat back hinge arms from pins; then remove seat back assembly from body.

3. To install, reverse removal procedure. Prior to installation of back assembly, be sure inner and outer washers are installed over hinge pins. In addition, inspect hinge arm retainers. If retainers are damaged, replace retainers using new parts.

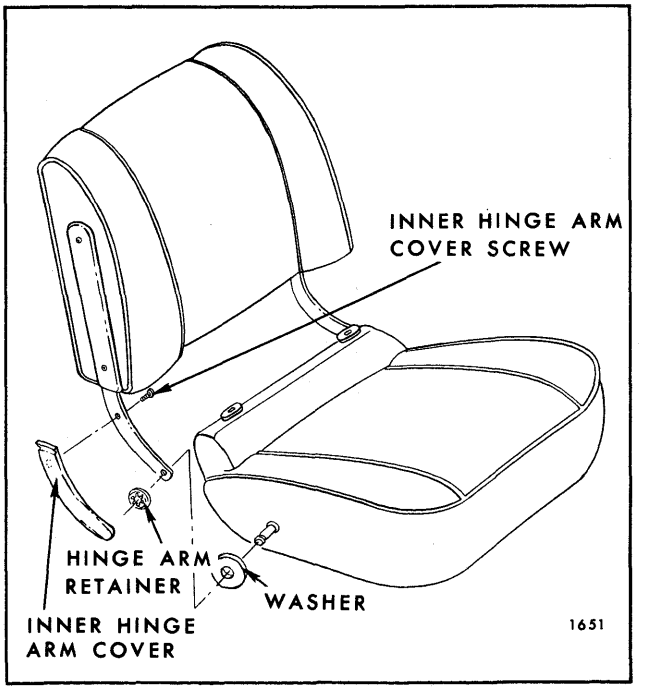

Fig. 10-41—Bucket Seat Back Inner "Hinge" Arm-Corvair

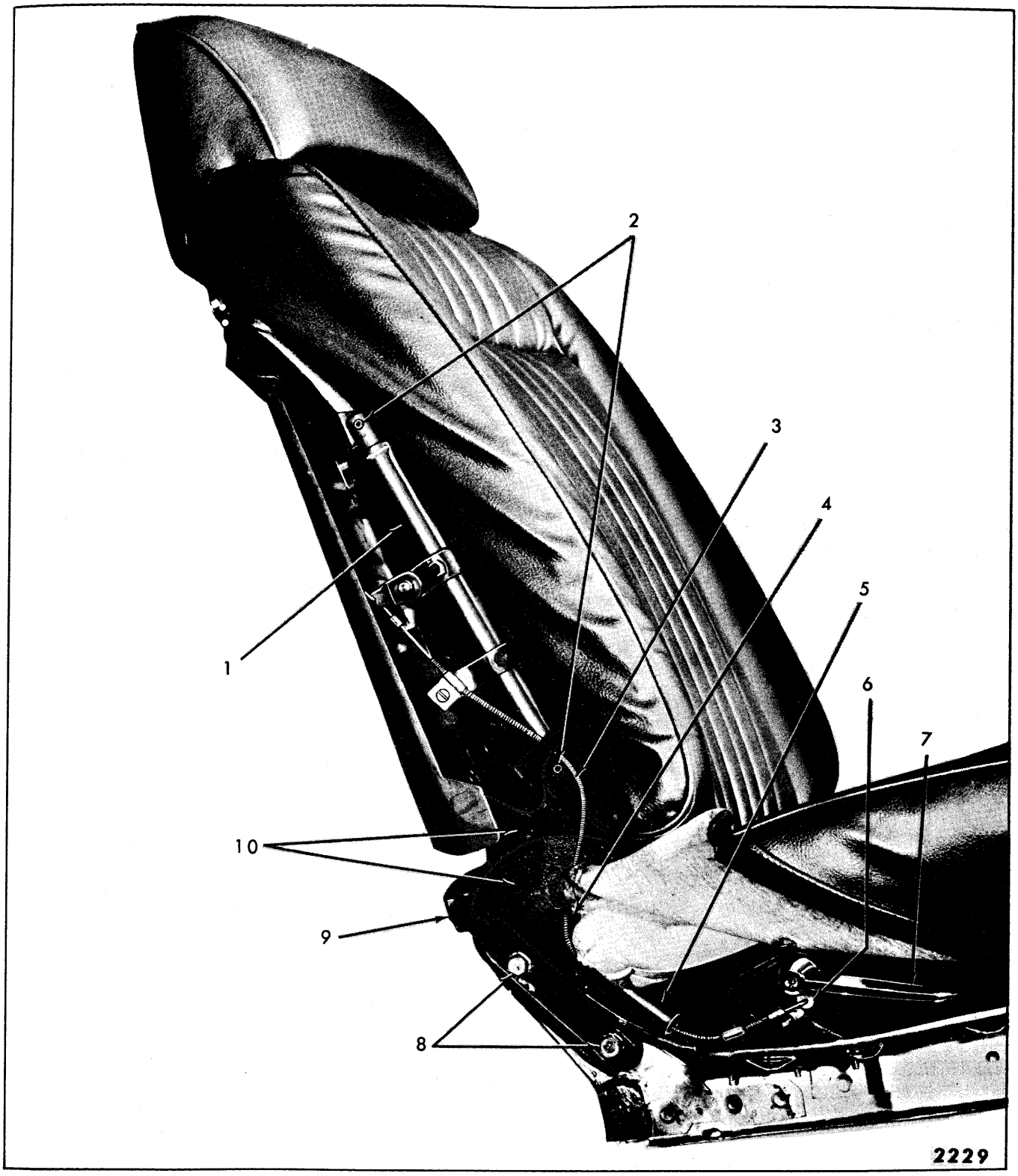

Fig. 10-42—Reclining Seat Back and Positioning Unit

1. Reclining Positioning Unit
2. Positioning Unit Attaching Roll Pins
3. Positioning Unit Control Cable
4. Control Cable Grommet in Cushion Trim
5. Control Cable Guide
6. Handle Control Lever
7. Control Handle
8. Seat Back Hinge Attaching Bolts
9. Seat Cushion Side Panel Rear Support
10. Seat Back Hinge

RECLINING FRONT SEAT BACK AND HEADREST

RECLINING FRONT SEAT BACK (PASSENGER SIDE)—"STRATO" FULL WIDTH OR BUCKET SEAT

Description

The reclining seat back which is available on the passenger seat of the Strato design front seats can be reclined approximately 30 degrees from the normal seat back position. The reclining unit is a friction operating mechanism and is actuated by a control handle and cable at the right side of the seat.

When the control handle is pulled upward the control cable unlocks the reclining positioning unit in the seat back allowing the seat back to be reclined, by means of rearward pressure on the seat back, to a maximum of approximately 30 degrees or until the control handle is released. When the control handle is released the reclining positioning unit is locked and will not allow the seat back to be reclined further. When the control handle is pulled up and there is no rearward pressure on the seat back, the assist spring in the reclining positioning unit will return the seat to the normal position or to a position at which the handle is released. The friction mechanism of the positioning unit will allow the seat back to be moved forward to the normal position with approximately four pounds manual forward push at the top of the seat back. This "dress-up" feature allows the driver or passenger to return a reclined seat back to its normal position without having to operate the control handle.

Reclining Seat Back Assembly

Removal and Installation

1. Remove seat assembly from body, as described, and place upside down on a clean protected surface.

2. On right side of seat with seat side panel removed, remove hog rings securing cushion side trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose seat back attaching bolts and reclining control cable attachment at handle control lever (Fig. 10-42).

3. Detach reclining positioning unit control cable from handle control lever; then pull control cable through cable guide and through grommet in cushion trim (Fig. 10-42).

4. a. On reclining bucket seat remove hog rings securing cushion side trim facing on inboard side of seat and turn trim forward sufficiently to expose seat back attaching bolts. Then remove seat back attaching bolts from both sides of seat and remove seat back assembly from seat.

   b. On reclining full width seat, remove screw at inboard side of seat back securing seat back attaching bolt cover plate and remove cover plate. Remove seat back inner attaching bolts then, remove seat back outer attaching bolts and remove seat back assembly from seat.

5. To install seat back assembly, reverse removal procedure. Make certain side panel support (Fig. 10-42) is secured under seat back outer attaching bolts.

Reclining Seat Back Positioning Unit

Removal and Installation

1. Remove seat assembly from body, as previously described, and place upside down on a clean protected surface.

2. On right side of seat with seat side panel removed, removed hog rings securing cushion side trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose reclining control cable attachment at handle control lever (Fig. 10-42).

3. Remove two screws securing bottom of seat back panel to seat back; then, lift panel upward to disengage from upper retainers and remove panel from seat back (Fig. 10-43).

4. Remove hog rings securing right side of seat back side trim to seat back frame (Fig. 10-43) and turn trim forward sufficiently to expose positioning unit (Fig. 10-42).

5. Detach reclining positioning unit control cable from handle control lever; then pull control cable through cable guide and through grommet in cushion trim (Fig. 10-42).

6. Using a suitable size drift punch carefully drive out roll pins securing positioning unit to support on seat back frame and to seat back hinge (Fig. 10-42); then remove positioning unit from seat back.

   IMPORTANT: If roll pins do not drive out easily use a suitable back up to prevent possible damage or breakage of the positioning unit or mounting brackets.

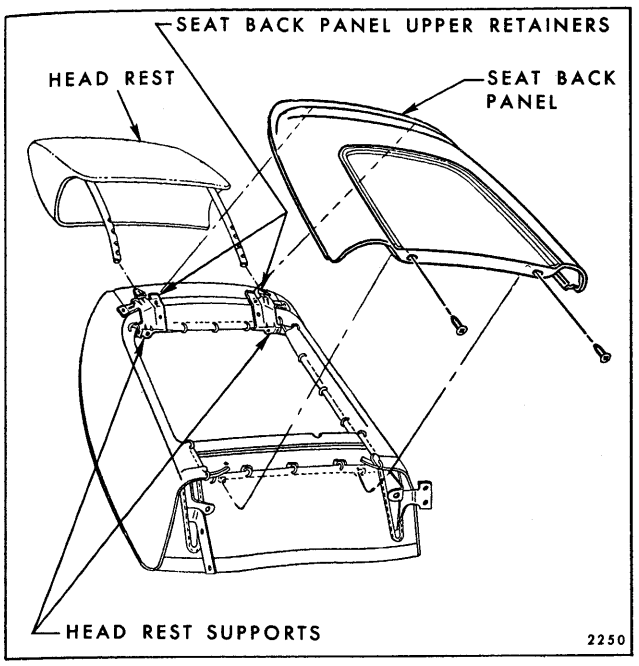

Fig. 10-43—Strato Seat Back Panel and Headrest

Where necessary, remove control cable from positioning unit.

7. To install reclining seat back positioning unit, reverse removal procedure. Check for proper operation of reclining seat back to full limits of travel.

STRATO SEAT BACK HEADREST

Description

All reclining seat backs are equipped with a headrest which is adjustable to four different positions. This headrest is also available as an option on all Strato design seats on either the drivers or passengers seat back. When desired, the headrest can be removed from the seat back; however, it requires slightly more lifting effort to clear the headrest past the last detent position.

Strato Seat Back Headrest Support Guide Tube

Removal and Installation

1. Remove headrest assembly from seat back.

2. Remove support finishing escutcheon screw and remove escutcheon (Fig. 10-44).

3. Carefully pull plastic support guide tube out of support. If guide tube hangs up on detent spring insert a screwdriver into guide and depress detent spring sufficiently to remove guide tube.

4. To install support guide tube reverse removal procedure. Make certain lower end of plastic guide is inserted into hole in bottom of support and that cut out in guide for detent spring is facing rearward (Fig. 10-44). Check for proper operation of headrest.

Strato Seat Back Headrest Supports

Removal and Installation

1. Remove headrest assembly from seat back.

2. Remove two screws securing bottom of seat back panel; then, lift panel upward to disengage from upper retainers and remove panel from seat back (Fig. 10-43).

3. Remove headrest support finishing escutcheon screw and remove escutcheon (Fig. 10-44).

4. Remove four remaining support attaching screws (Fig. 10-44) and remove support from seat back. Where required, remove support guide from support.

5. To install headrest support, reverse removal procedure. Make certain lower end of plastic guide is inserted into hole in bottom of support and that cut out in guide for detent spring is facing rearward (Fig. 10-44). Prior to tightening support attaching screws, install headrest into supports and align support(s) with headrest arm(s); then, tighten support screws.

6. Check for proper operation of headrest.

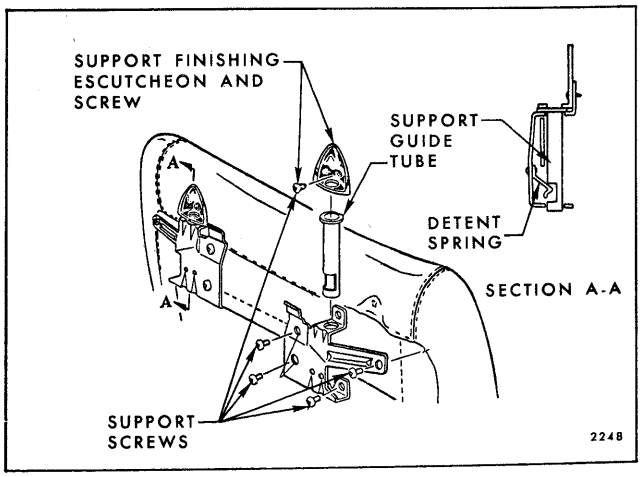

Fig. 10-44—Strato Seat Back Head Rest Support

REAR SEAT

REAR SEAT CUSHION—ALL STYLES

Removal

1. Push lower forward edge of cushion rearward and pull cushion upward until wire protrusions on seat bottom frame disengage from floor pan retainers at each side of seat.

   NOTE: On "E" Body Styles lift up front of seat cushion sharply to disengage cushion from pan retainers.

2. Pull cushion forward and carefully remove from body.

Installation

1. Carefully lift cushion into body using caution not to damage adjacent trim.
2. Position rear edge of cushion under rear seat back assembly.
3. Center wire protrusions on seat bottom with retainers on or in floor pan.

   IMPORTANT: If seat bottom frame protrusions are not properly centered in relation to retainers on floor pan, proper engagement and placement of cushion will be extremely difficult.

4. Push forward edge of cushion rearward and downward until protrusions are properly engaged behind retainers on floor pan.

REAR SEAT BACK ASSEMBLY—ALL STYLES EXCEPT CORVAIR

Removal and Installation

1. Remove rear seat cushion assembly.
2. At bottom of seat back bend out the tabs securing the lower portion of seat back to floor panel. On convertible styles, remove screw from rear side of seat back support panel securing upper corners of seat back to panel. If screws are used securing center of seat back to seat back panel it will be necessary to remove screws from inside rear compartment.

   Remove two screws securing lower portion of seat back to floor pan.

3. Pull seat back assembly out at the bottom until seat back clears body tabs; then, on all styles except "E" Styles raise seat back upward until disengaged from hangers on the seat back panel support. On "E" Styles push seat back downward until wire protrusions at top of seat back are disengaged from slots in seat back panel support.
4. Remove seat back assembly from body.
5. To install, reverse removal procedure, making certain that all attaching body tabs and hangers have industrial body tape applied to them to act as an anti-squeak.

REAR SEAT BACK CENTER ARM REST AND CURTAIN

Removal and Installation

1. Lower rear seat back arm rest. On all styles except 68069 carefully pull upper portion of arm rest curtain out of slot in hanger plate and fold curtain forward. On 68069 Style fold arm rest flipper forward.
2. Remove four screws securing arm rest to hanger plate linkage then, remove arm rest from seat back.
3. To install, reverse removal procedure.

REAR SEAT BACK CENTER ARM REST HANGER PLATE AND LINKAGE

Removal and Installation

1. Remove rear seat back center arm rest; then, remove two screws securing arm rest hanger plate to body seat back support brace. Remove rear seat back.
2. On back side of rear seat back, remove four screws securing arm rest hanger plate to seat back supports; then, carefully remove arm rest and hanger plate assembly from seat back (Fig. 10-45).
3. To install, reverse removal procedure. Prior to tightening hanger plate screws move arm rest assembly upward until top is snug against top of opening in seat back.

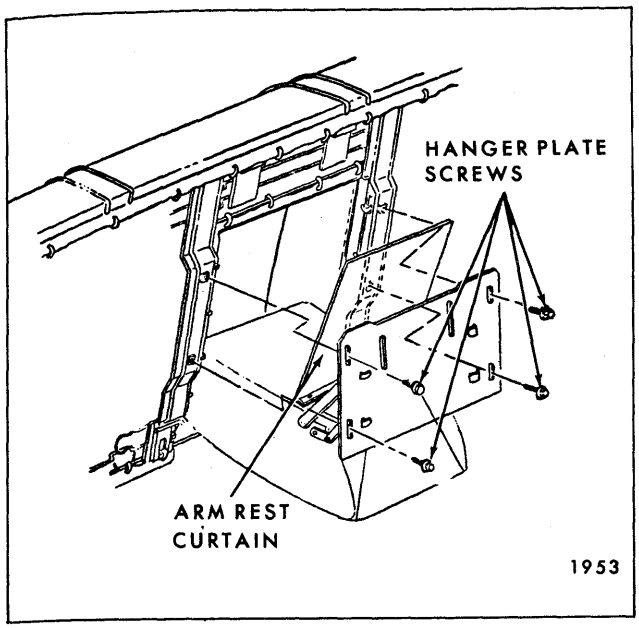

Fig. 10-45—Rear Seat Back Arm Rest and Hanger Plate

FOLDING REAR SEAT BACK AND FILLER PANEL—CORVAIR

Folding Rear Seat Back Assembly

Removal and Installation

1. Remove rear seat back cushion, as previously described.
2. Lower folding seat back; then, remove three screws from both sides of seat back securing seat back to folding linkage.
3. Carefully disengage seat back from linkage and remove folding seat back from body.
4. To install, reverse removal procedure.

Folding Rear Seat Back Linkage

Removal and Installation

1. Remove rear seat cushion and folding seat back, as previously described.
2. Mark position of linkage on floor pan. Remove bolts securing folding seat back linkage to floor pan and remove linkage.
3. To install, reverse removal procedure. Align linkage on floor pan with previously made alignment marks.

Rear Folding Seat Back Filler Panel—10039 Style

Removal and Installation

1. Remove rear seat cushion, as previously described; then lower folding seat back.
2. Lift up seat back filler panel sufficiently to gain access to attaching screws and prop panel in this position.

   NOTE: Prop should be wide enough to bear against hinge and hold hinge in position during removal of hinge attaching screws.

3. Remove filler panel hinge attaching screws; then remove prop and remove filler panel.
4. To install, reverse removal procedure.

STATION WAGON FOLDING REAR SEATS AND FLOOR PANELS—"B" BODY (CHEVROLET 15-16000 SERIES AND PONTIAC 25-26000 SERIES)

DESCRIPTION

The following views are typical of the station wagon folding seats and rear compartment floor panels. These illustrations identify the component panels of the rear compartment area and their relationship.

Figure 10-46 is typical of 15000 and 16000 two-seat station wagons.

Figure 10-47 is typical of 15000 and 16000 three-seat station wagons with split second seat option.

Figure 10-48 is typical of 25000 and 26000 two-seat station wagons.

Figure 10-49 is typical of 25000 three-seat station wagons with split second seat option.

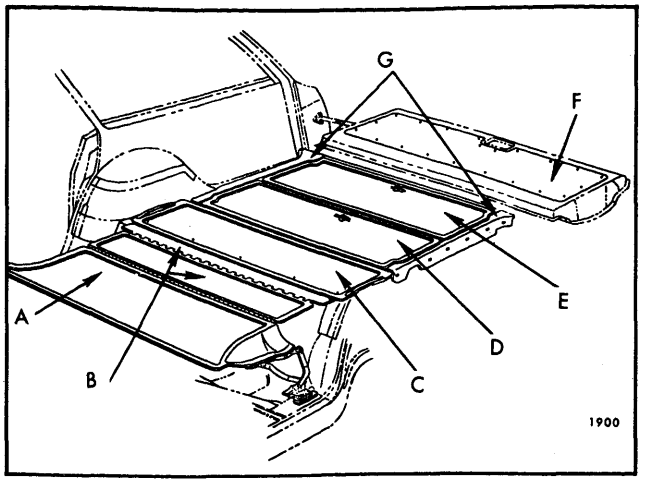

Fig. 10-46—Folding Seat and Floor Panels
Chevrolet "B-35" Styles

A. Second Seat Back Panel
B. Rear Floor Filler Panel
C. Compartment Floor Panel
D. Luggage Compartment Front Panel
E. Luggage Compartment Rear Panel
F. Tail Gate Inner Cover Panel
G. Compartment Pan Side Filler Panels

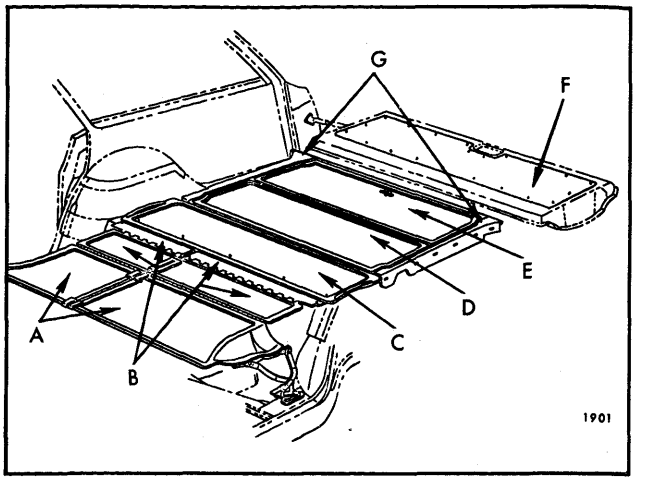

Fig 10-47—Folding Seats and Floor Panels
Chevrolet "B-45" Styles

A. Second Seat Back Panels (Split Option)
B. Rear Floor Filler Panels
C. Compartment Floor Panel (at Kick-Up)
D. Third Seat Back Panel
E. Third Seat Cushion Panel
F. Tail Gate Inner Cover Panel
G. Compartment Pan Side Filler Panels

REAR FLOOR TO TAIL GATE FILLER PANEL ASSEMBLY 25-26000 SERIES

Removal and Installation

1. Lower tail gate assembly.
2. Lift up rear edge of filler panel assembly sufficiently to expose attaching screws along forward edge of panel.
3. Remove filler panel attaching screws and remove panel assembly from body opening.
4. To install, reverse removal procedure.

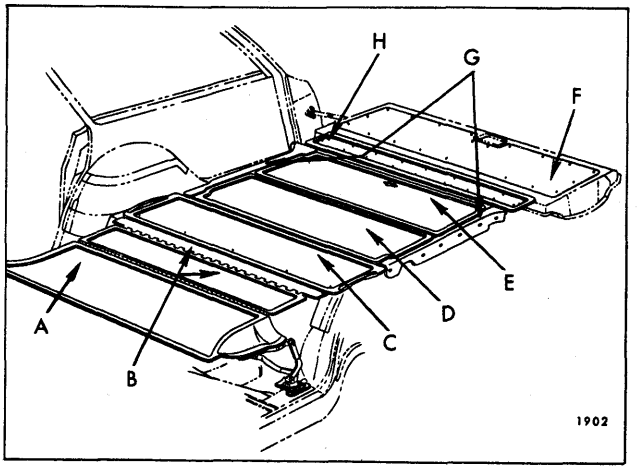

Fig. 10-48—Folding Seat and Floor Panels
Pontiac "B-35" Styles

A. Second Seat Back Panel
B. Rear Floor Filler Panel
C. Compartment Floor Panel (at Kick-Up)
D. Luggage Compartment Front Panel
E. Luggage Compartment Rear Panel
F. Tail Gate Inner Cover Panel
G. Compartment Pan Side Filler Panels
H. Rear Floor-to-Tail Gate Panel

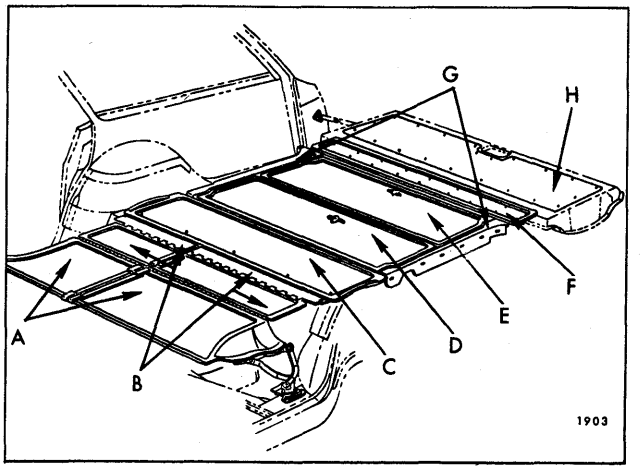

Fig. 10-49—Folding Seats and Floor Panels
Pontiac "B-45"

A. Second Seat Back Panels (Split Option)
B. Rear Floor Filler Panels
C. Compartment Floor Panel (at Kick-Up)
D. Third Seat Back Panel
E. Third Seat Cushion Panel
F. Rear Floor-to-Tail Gate Panel
G. Compartment Pan Side Filler Panels
H. Tail Gate Inner Cover Panel

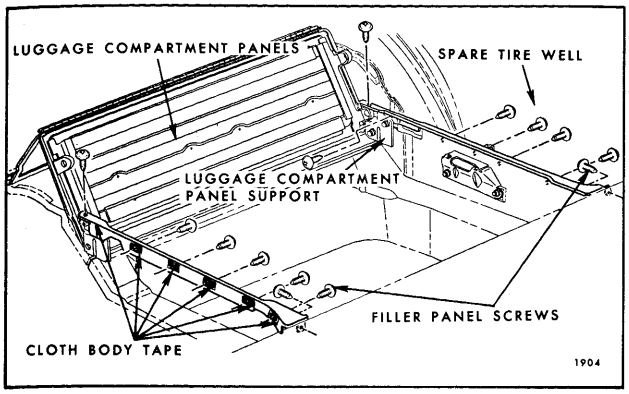

Fig. 10-50—Rear Compartment Pan Side Filler Panels

COMPARTMENT PAN SIDE FILLER PANEL (RIGHT OR LEFT SIDE) ALL STYLES

Removal and Installation:

1. On "35" Styles, use handle and fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel (Fig. 10-50).

2. On "45" Styles, raise folding 3rd seat back assembly to up position; then raise 3rd seat bottom cushion assembly to up or "sitting" position.

3. For right floor side panel, remove spare tire cover panel.

4. On left side, remove screw which secures floor side panel to panel support.

5. Along inboard and outboard side facing of right and/or left panel, remove screws which secure panel to panel supports (Fig. 10-50) and remove panel(s) from body.

6. To install, reverse removal procedure. If installing new filler panel, apply cloth body tape over all screw attaching holes. (See Fig. 10-50).

LUGGAGE COMPARTMENT FRONT AND REAR PANEL ASSEMBLIES TWO-SEAT STYLES

Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.

2. Fold combined front and rear luggage compartment panels to "up" or half open position. (See Fig. 10-50).

3. Remove bolt (Fig. 10-51) at both sides of front panel securing front and rear panel assemblies to supports; then remove assembly from body.

4. To install, reverse removal procedure. Make sure bushing and spring washer are properly installed (Fig. 10-51).

NOTE: When replacing front luggage compartment panel with new part, transfer rear luggage compartment panel with attached hinge to new part.

LUGGAGE COMPARTMENT REAR PANEL ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.

2. Remove screws securing hinge assembly to rear luggage compartment panel and remove panel assembly from body.

3. To install, reverse removal procedure.

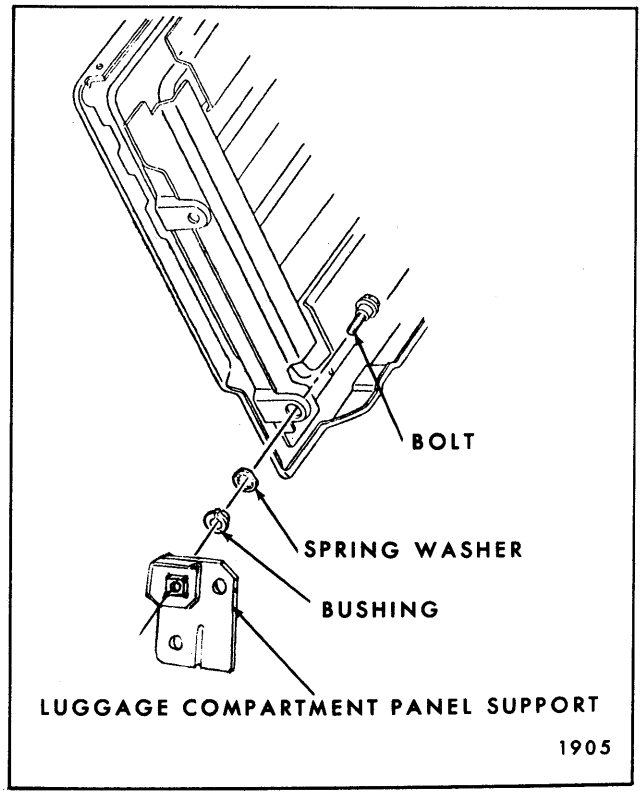

Fig. 10-51—Luggage Compartment Panel Attachment to Body

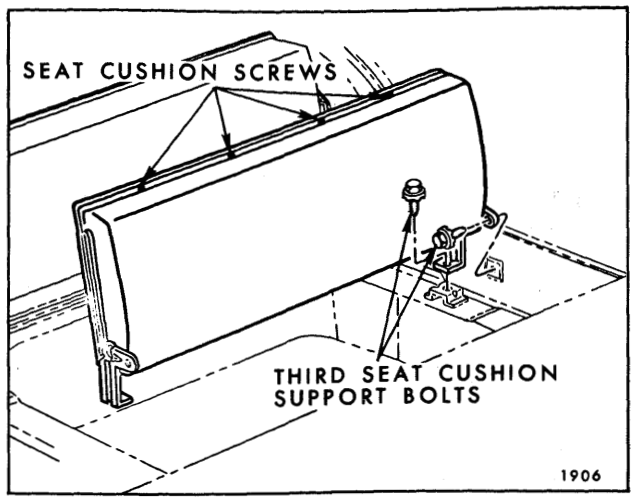

Fig. 10-52—Folding Third Seat Cushion

LUGGAGE COMPARTMENT FRONT AND REAR PANEL HINGE ASSEMBLY

Removal and Installation

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.

2. Remove screws securing hinge assembly to both front and rear panels and remove hinge from body.

3. To install, reverse removal procedure.

FOLDING THIRD SEAT CUSHION THREE-SEAT STYLES

Removal and Installation

1. Lift third seat cushion to a half raised position or approximately vertical to floor pan (Fig. 10-52).

2. Remove four seat cushion screws from rearward edge of cushion (Fig. 10-52).

3. Pull rear edge of cushion away from flange of cushion panel then lift cushion upward to disengage cushion border wire from four tabs on panel. Remove cushion from body and place on a clean protected surface.

4. To install, reverse removal procedure. Make sure cushion border wire is engaged with all four panel tabs prior to installing cushion attaching screws.

FOLDING THIRD SEAT CUSHION, PANEL ASSEMBLY AND SUPPORT THREE-SEAT STYLES

Removal and Installation

1. Lift third seat cushion to a half raised position or approximately vertical to floor pan. (See Fig. 10-52).

2. Remove two bolts at each side of seat securing supports to body (Fig. 10-52); then, remove seat cushion, panel assembly and supports from body and place on a clean protected surface.

   To remove support, remove cushion from panel assembly; then remove bolt securing support to cushion (Fig. 10-53).

3. To install, reverse removal procedure. If support was removed from seat cushion panel, make sure bushing and spring washer are properly installed. (See Fig. 10-53).

FOLDING THIRD SEAT BACK TRIM ASSEMBLY THREE-SEAT STYLES

Removal and Installation

1. Raise third seat back assembly - leave cushion assembly in down position.

2. Remove four screws securing lower edge of seat back trim to seat back panel. (See Fig-10-54).

3. Pull lower edge of seat back trim slightly rearward; then, lift trim assembly upward to disengage trim border wire from four tabs on

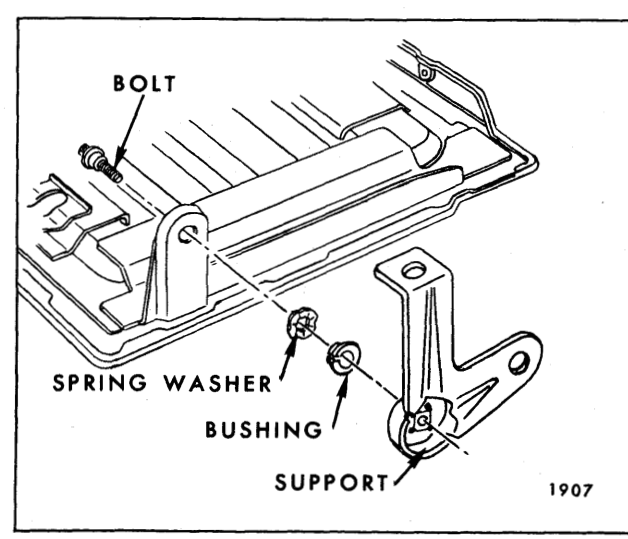

Fig. 10-53—Third Seat Cushion Panel and Support

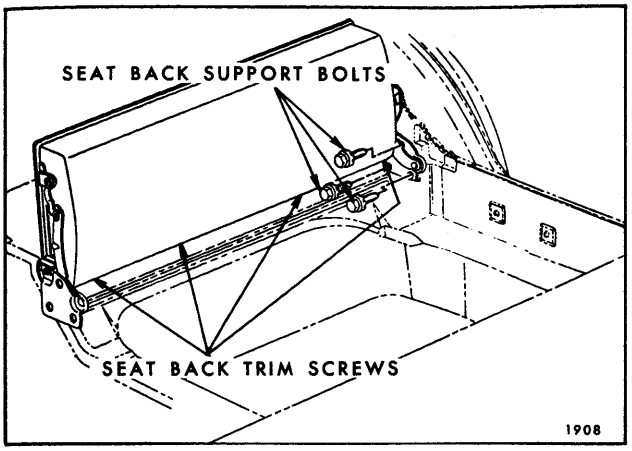

Fig. 10-54—Folding Third Seat Back

upper portion of panel. Remove trim assembly from body and place on a clean protected surface.

4. To install, reverse removal procedure. Make sure seat back trim border wire is engaged with all four panel tabs at upper portion of panel prior to installing seat back trim attaching screws.

FOLDING THIRD SEAT BACK PANEL ASSEMBLY THREE-SEAT STYLES

Removal and Installation

1. Remove third seat back trim assembly

2. At both sides of third seat back panel remove seat back linkage bolt (Fig. 10-55) and bolt securing seat back panel to support (Fig. 10-55); then remove seat back panel assembly from body.

3. To install, reverse removal procedure.

COMPARTMENT FLOOR PANEL ASSEMBLY (AT KICK-UP) ALL STYLES

Removal and Installation

1. On "45" Styles, remove folding 3rd seat back assembly as previously described.

2. On "35" Styles, remove luggage compartment front and rear panel assemblies (complete) as previously described.

3. Directly under rear edge of compartment floor panel remove four screws securing panel to floor pan.

4. At front of compartment floor panel remove five screws securing panel to floor pan; then, remove compartment floor panel from body.

5. To install, reverse removal procedure.

REAR FLOOR FILLER PANEL ALL STYLES

Removal and Installation

1. Remove compartment floor panel assembly (at kick-up) as previously described.

2. Along rear edge of filler panel, remove screws which secure panel to floor pan.

3. Fold filler panel forward sufficiently to remove screws which secure panel to folding 2nd seat back assembly and remove filler panel from body.

4. To install, reverse removal procedure.

SECOND SEAT CUSHION (FULL WIDTH OR SPLIT SEAT) ALL STYLES

Removal and Installation

1. Lift up front edge of folding rear seat cushion assembly to disengage seat bottom frame from slots in rear seat support on floor pan; then, remove cushion assembly from body and place on a clean protected surface.

2. To install, reverse removal procedure. Make certain that seat cushion frame is fully engaged in supports on floor pan.

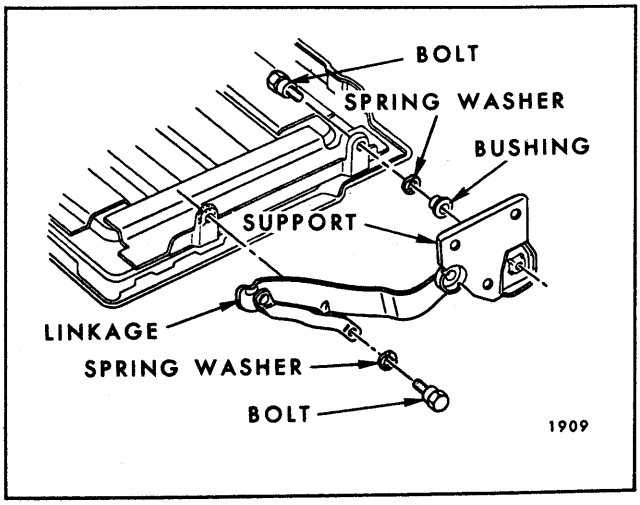

Fig. 10-55—Third Seat Back Panel and Linkage

FOLDING SECOND SEAT BACK TRIM ASSEMBLY (FULL WIDTH OR SPLIT SEAT) ALL STYLES

Removal and Installation

1. Raise folding second seat back and remove second seat cushion.

2. On underside of second seat back panel, remove screws securing seat back trim assembly to seat back panel.

   NOTE: Do not remove screws securing rear floor filler panel hinge to second seat back panel.

3. Pull lower edge of seat back trim slightly forward; then lift trim assembly upward to disengage trim border wire from tabs on upper portion of panel. Remove trim assembly from body and place on a clean protected surface.

4. To install, reverse removal procedure. Make sure seat back trim border wire is engaged with panel tabs at upper portion of seat back panel prior to installing seat back trim attaching screws.

FOLDING SECOND SEAT BACK TRIM, PANEL AND LINKAGE ASSEMBLY (FULL WIDTH OR SPLIT SEAT) ALL STYLES

Removal and Installation

1. Raise folding second seat back and remove second seat cushion.

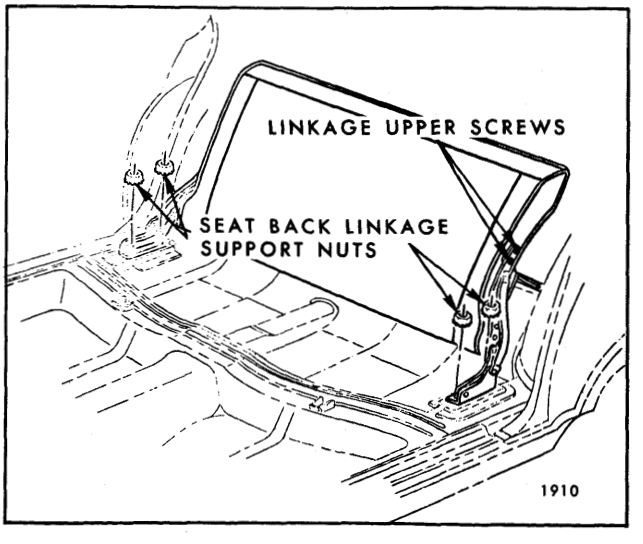

Fig. 10-56—Folding Second Seat Back Supports (Full Width Seat)

2. On underside of folding second seat back remove screws securing rear floor filler panel hinge to seat back panel.

   NOTE: Do not remove screws securing seat back trim assembly to seat back panel.

3. Mark position of folding second seat back linkage supports on floor pan. Remove nuts from both sides of seat back securing linkage supports to floor pan (See Figure 10-56), full width seat (Fig. 10-57) for split seat.

   Lift seat back assembly with attached linkage from body and place on a clean protected surface.

4. To remove linkage from folding second seat back remove linkage-to-seat back panel attaching bolts and remove linkage - See (Fig. 10-58 for full width seat) (Fig. 10-59 for split seat).

5. To install, reverse removal procedure. If linkage was removed from split seat back, make sure bushings and spring washers are properly installed prior to installing linkage attaching bolts. (See Fig. 10-59).

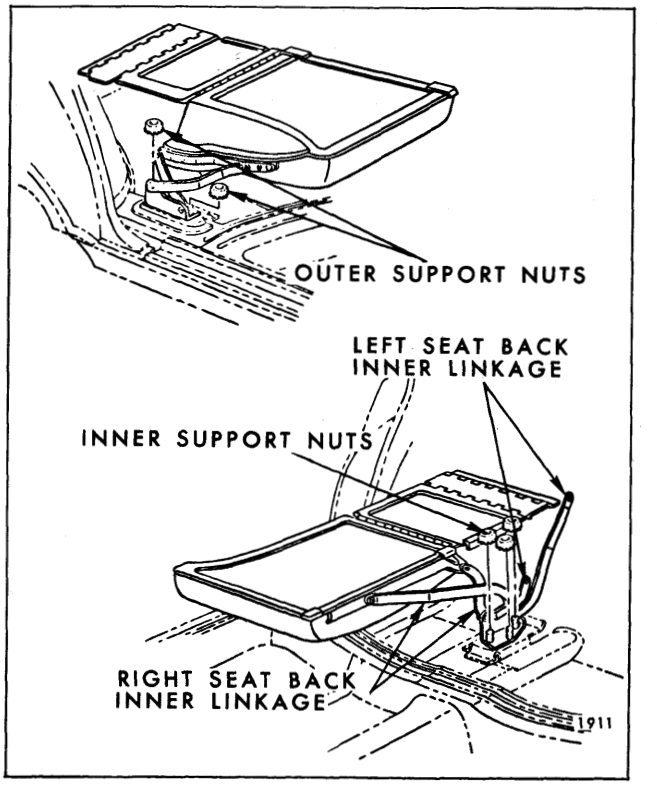

Fig. 10-57—Folding Second Seat Back Supports and Linkages (Split Seat)

FOLDING SECOND SEAT BACK LINKAGE ASSEMBLY (FULL WIDTH SEAT—RIGHT OR LEFT SIDE SPLIT SEAT—OUTER LINKAGE ONLY) ALL STYLES

If both right and left linkage assemblies are to be removed on full width second seat remove second seat back trim, panel and linkage assembly and remove linkage from seat back panel as described under "Folding Second Seat Back Trim, Panel and Linkage Assembly - Removal and Installation".

If one linkage assembly (right or left side) is to be removed proceed as follows:

Removal and Installation

1. Remove second seat cushion.
2. Move folding second seat back forward just sufficiently to remove two lower linkage-to-seat back panel attaching screws. (See Fig. 10-58).
3. Carefully return seat back to full up position; then, place a support under seat back assembly to support seat back in this position.
4. Remove two upper linkage-to-seat back panel attaching screws. (See Fig. 10-58).
5. Remove nuts securing linkage support to floor pan (See Fig. 10-56); then carefully remove linkage assembly from seat back and floor pan.
6. To install, reverse removal procedure.

FOLDING SECOND SPLIT SEAT BACK INNER LINKAGE ASSEMBLY ALL STYLES

Removal and Installation

1. Remove left second seat cushion and place left seat back in full up position. Place a support under right side of left seat back to support seat back in this position.
2. Place right seat back in partially down position (resting on seat cushion).
3. Remove nuts securing inner linkage assembly to floor pan (See Fig. 10-57).
4. Remove inner linkage-to-seat back bolts from both right and left seats (See Fig. 10-59); then carefully disengage inner linkage from seat backs and floor pan studs and remove linkage assembly.

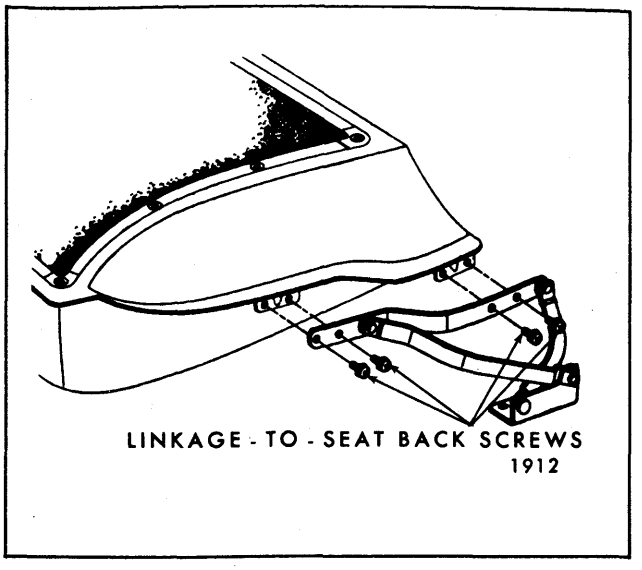

Fig. 10-58—Folding Second Seat Back Supports and Linkage (Full Width Seats)

5. To install, reverse removal procedure. Make sure bushings and spring washers are properly installed prior to installing linkage attaching bolts to both right and left seat back panels. (See Fig. 10-59).

FOLDING SECOND SEAT BACK CATCH ASSEMBLY ALL 25-26000 STYLES

Removal and Installation

1. Fold second seat back forward.
2. Remove catch cover screws and remove cover (Fig. 10-60).
3. Remove three screws securing catch to seat back frame and remove catch assembly from seat back (Fig. 10-60).
4. To install, reverse removal procedure.

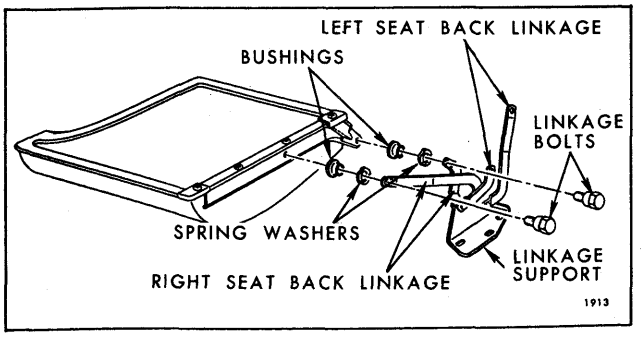

Fig. 10-59—Folding Second Seat Back Inner Linkage and Support

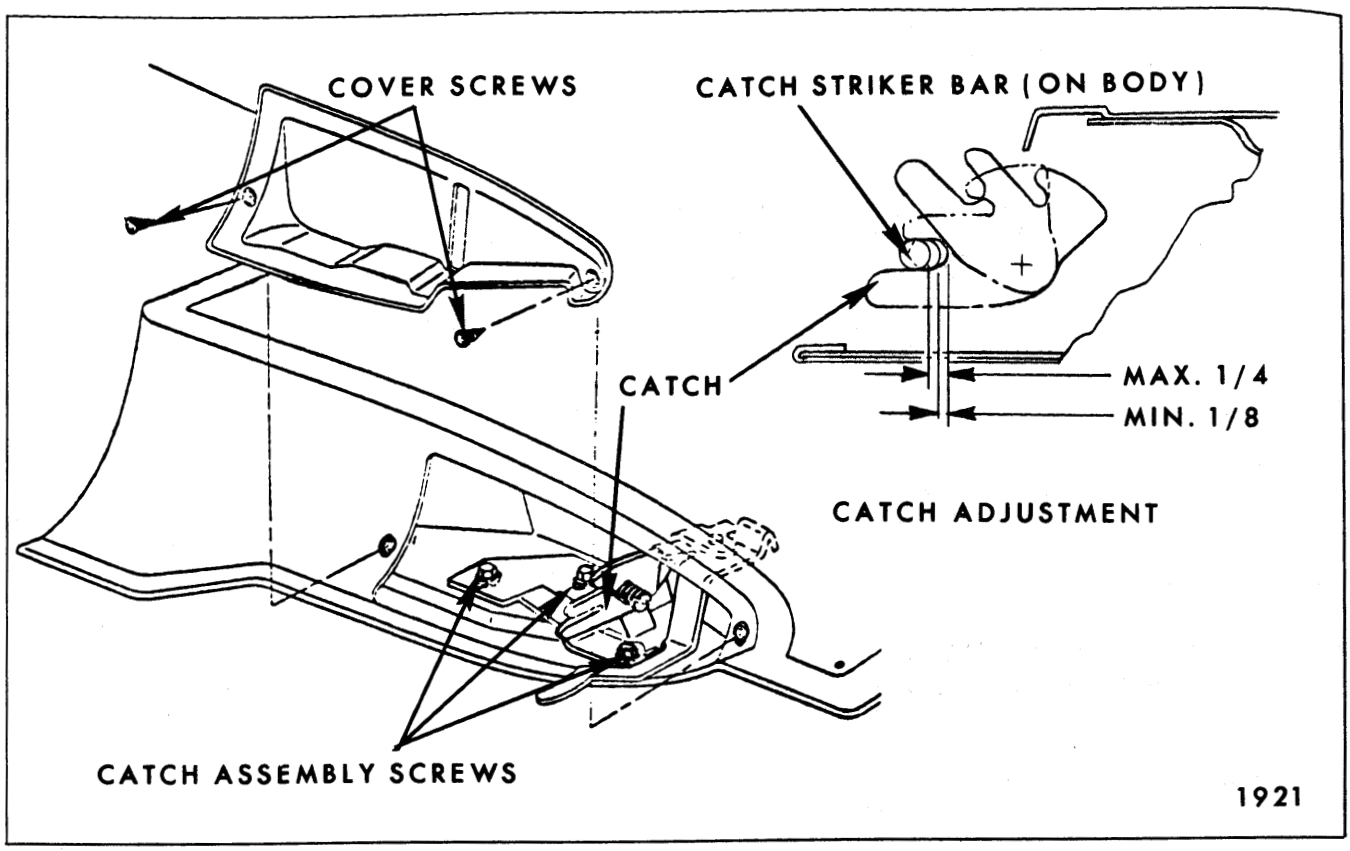

Fig. 10-60—Folding Seat Back Catch - All Pontiac "B" Styles

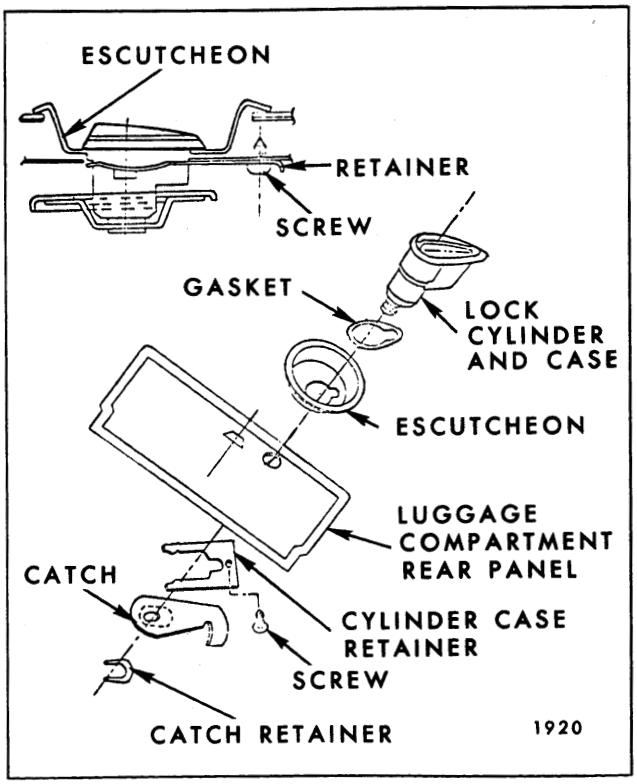

Fig. 10-61—Luggage Compartment Lock Chevrolet "B" Styles

IMPORTANT: To assure proper operation of the folding second seat back the catch assembly should be installed and, where necessary, adjusted for a minimun gap of 1/64 inch to a maximum gap of 3/16 inch between bottom of slot in catch and catch striker when seat back is in full "up" position (Fig. 10-60).

LUGGAGE COMPARTMENT LOCK CYLINDER (OPTIONAL EQUIPMENT) 15-16000 TWO-SEAT STYLES

Removal and Installation

1. Open luggage compartment rear panel.
2. On underside of luggage compartment rear panel remove catch retainer and catch from lock cylinder case (Fig. 10-61); then turn lock cylinder with key until cylinder can be removed from case.
3. To install, reverse removal procedure.

LUGGAGE COMPARTMENT LOCK (OPTIONAL EQUIPMENT) 15-16000 TWO-SEAT STYLES

Removal and Installation

1. Open luggage compartment rear panel.

2. On underside of luggage compartment rear panel, remove catch retainer and catch (Fig. 10-61).

3. Remove lock cylinder case retainer screw and retainer (Fig. 10-61); then, remove lock cylinder and case, gasket and escutcheon from panel (Fig. 10-61).

4. To install, reverse removal procedure.

STATION WAGON FOLDING SEATS AND FLOOR PANELS—"A" BODY EXCEPT "65" STYLES

DESCRIPTION

Figures 10-62 and 10-63 are typical of two-seat station wagon folding full second seat and rear compartment floor panels. The illustration identifies component parts, their relationship and various attaching points.

REAR COMPARTMENT FLOOR PANEL COVERING STYLES WITH RUBBER MAT

The rear compartment floor panel conver consists of a one-piece rubber mat with a pad backing. The rubber mat is installed loose with sides inserted under rear quarter trim and wheelhouse trim assemblies.

REAR COMPARTMENT FLOOR PANEL COVERING STYLES WITH VINYL MAT

The rear compartment floor panel covering consists of a one-piece vinyl mat with a pad backing. The vinyl mat is installed loose with sides inserted under the rear quarter trim and wheelhouse trim assemblies. The 23535 Style incorporates metal skid strips which are tabbed to the vinyl mat.

REAR COMPARTMENT FLOOR PANEL COVERING STYLES WITH FLOOR CARPET

A one-piece rear compartment floor panel carpet with a pad backing is available as an option. The carpet is retained at the front and rear edges by finishing moldings which are secured to the floor panel by screws. (See Fig. 10-63). The sides of the carpet are inserted under the rear quarter trim and wheelhouse trim assemblies.

REAR SEAT CUSHION ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. Lift up front edge of cushion assembly to disengage protrusions on seat bottom frame from slots in seat cushion support and remove cushion assembly.

2. To install, reverse removal procedure. Make certain protrusions on seat bottom frame are fully engaged in slots in seat cushion support.

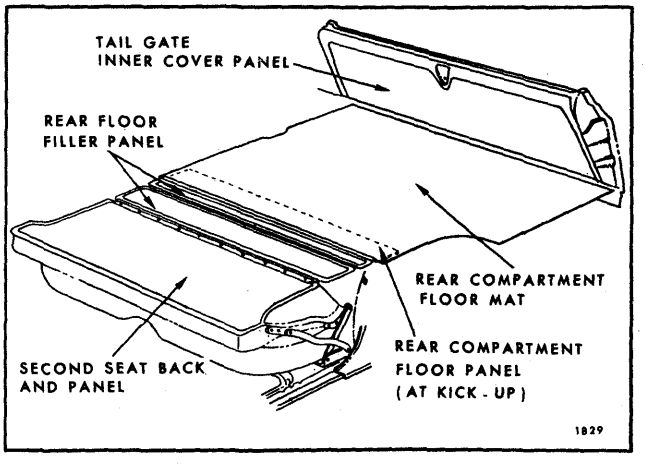

Fig. 10-62—Folding Second Seat and Rear Floor Panel Covers

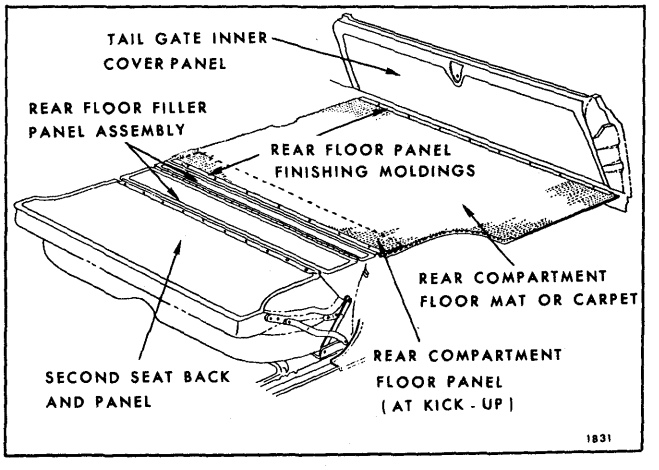

Fig. 10-63—Folding Second Seat and Rear Floor Panel Covering

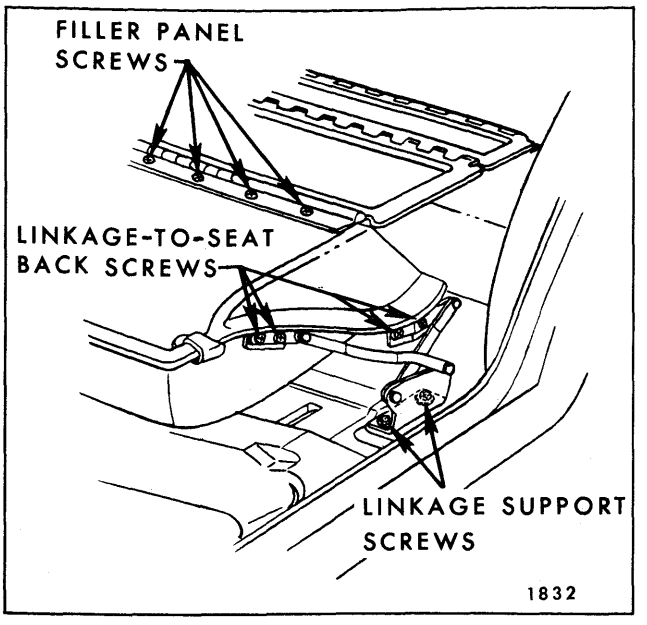

Fig. 10-64—Folding Second Seat Back Linkage and Filler Panel

FOLDING REAR SEAT BACK TRIM AND SPRING ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. Remove second seat cushion.
2. With folding second seat back in up position, remove screws along bottom edge of seat back trim. Lift trim and spring assembly to disengage retainers at top from slots in seat back panel; then, remove seat back trim and spring assembly from seat back panel.
3. To install, reverse removal procedure.

REAR COMPARTMENT FLOOR PANEL (AT KICK-UP) TWO-SEAT STYLES

Removal and Installation

1. Turn back front edge of rear compartment floor panel covering and remove eight hex-head rear compartment floor panel attaching screws. On styles with carpet, remove front finishing molding prior to turning back carpet.

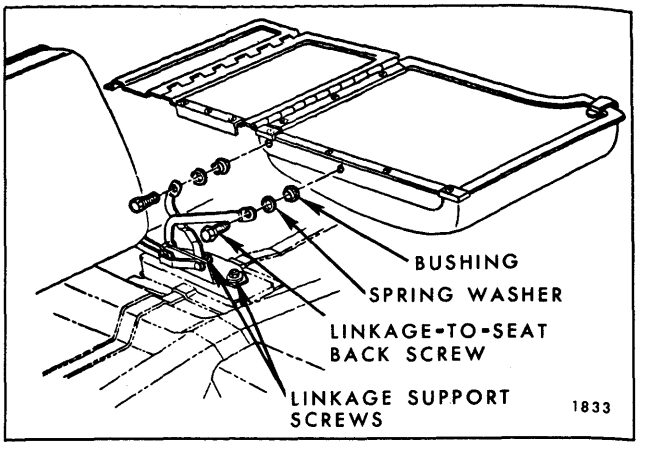

Fig. 10-65—Split Second Seat Center Linkage

2. To install, reverse removal procedure.

FOLDING REAR SEAT BACK AND PANEL ASSEMBLY TWO-SEAT STYLES

Removal and Installation

1. With second seat back in down position, remove screws securing rear floor filler panel to second seat back panel and detach filler panel from seat back.
2. On both sides of seat back, remove screws securing seat back to folding linkage (Fig. 10-64) and remove seat back and panel assembly from body.

See Figure 10-65 for center linkage attachments on split second seat.

3. To install, reverse removal procedure.

REAR FLOOR FILLER PANEL ASSEMBLY

Removal and Installation

1. Remove rear compartment floor panel (at kick-up) as previously described.
2. Remove filler panel front and rear attaching screws and remove filler panel assembly.
3. To install, reverse removal procedure.

STATION WAGON FOLDING SEATS AND FLOOR PANELS—"A" BODY "55 AND 65" STYLES

DESCRIPTION

The "55" Style Skylight station wagons have a full width folding second seat on which the seat back folds flush with the floor panels. A luggage compartment is provided under the luggage compartment floor panel. Fig. 10-66 identifies the major load floor panels on the "55" Style station wagon.

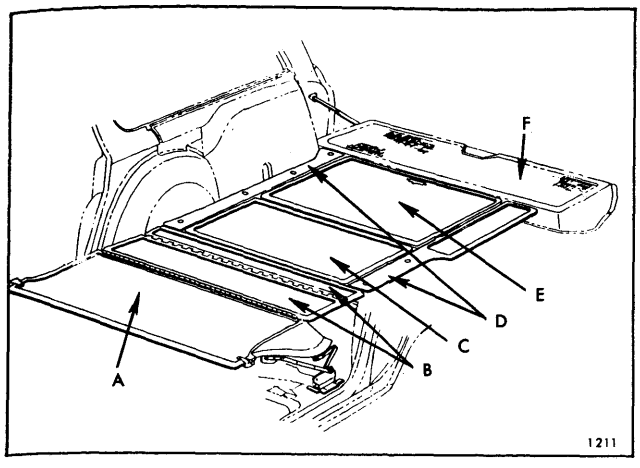

Fig. 10-66—Folding Seat and Rear Compartment Floor Panels "A-55" Style Station Wagon

A. Folding Second Seat Back Panel
B. Rear Floor Filler Panel Assembly
C. Rear Compartment Floor Panel
D. Rear Compartment Side Pan Cover Panel - Right and Left
E. Luggage Compartment Cover Panel
F. Tail Gate Inner Cover Panel

A split folding second seat - 1/3 (left side), 2/3 (right side) is available as an option on the "55" Style Skylight station wagon.

The service procedures for the "55" Style station wagon folding second seat are the same as for the "35" Style station wagon folding second seat.

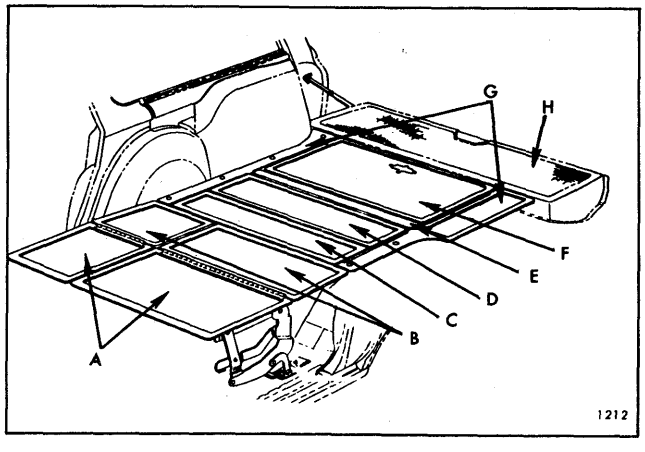

Fig. 10-67—Folding Seats and Rear Compartment Floor Panels "A-65" Style Station Wagon

A. Folding Second Seat Back Panel - Left and Right
B. Rear Floor Filler Panel - Left and Right
C. Rear Floor Filler (at Kick-Up) Panel
D. Folding Third Seat Back Panel Assembly
E. Luggage Compartment Filler Panel
F. Luggage Compartment Cover Panel
G. Compartment Side Pan Cover Panel - Right and Left
H. Tail Gate Inner Cover Panel

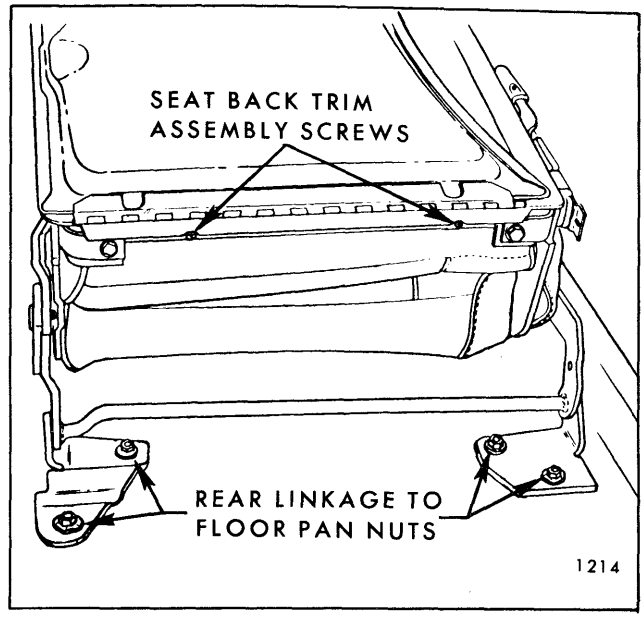

Fig. 10-68—Folding Second Seat Rear Linkage

The "65" Style station wagons have a full folding split second seat - 1/3 (right side), 2/3 (left side).

Both sections of the folding second seat are hinged to the floor pan and can be folded forward to provide entrance room into the third seat area. Also both sections of the folding second seat back can be folded flush with the floor panels. A seat back lock located at the outer linkage of both right and left folding second seat backs, locks the seat backs in the up position and must be released to fold the seats.

The full 3/4 width folding third seat is provided with an over-center lock on the right side linkage.

The lock handle is depressed to lock the seat in the

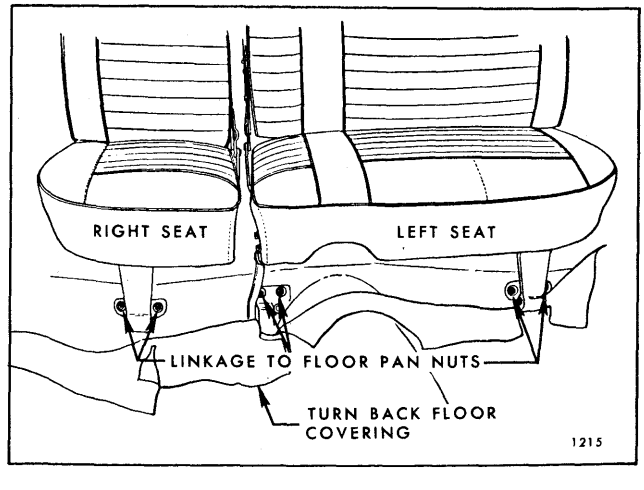

Fig. 10-69—Folding Second Seat Front Linkage

up position and pulled forward to release the lock and allow the seat to be folded.

Figure 10-67 identifies the major load floor panels on the "65" Style Skylight station wagon.

FOLDING SECOND SEAT ASSEMBLY—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove rear door sill plate and turn back floor carpeting sufficiently to gain access to nuts securing folding seat front and rear linkage to floor pan (Fig. 10-68 and 10-69).

2. Mark position of seat front and rear linkage supports on floor pan to facilitate installation of seat in same position.

3. Remove nut and washer assemblies securing front and rear linkage to floor pan (Fig. 10-68 and 10-69); then, remove seat assembly from body.

4. To install seat assembly, reverse removal procedure. Align linkage floor pan supports with previously made marks prior to tightening nuts.

FOLDING SECOND SEAT CUSHION ASSEMBLY—RIGHT OR LEFT SIDE "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car, as previously described and place on a clean surface.

2. Remove hog rings and detach outboard rear portion of trim sufficiently to remove three screws securing seat outer link to cushion frame (Fig. 10-70).

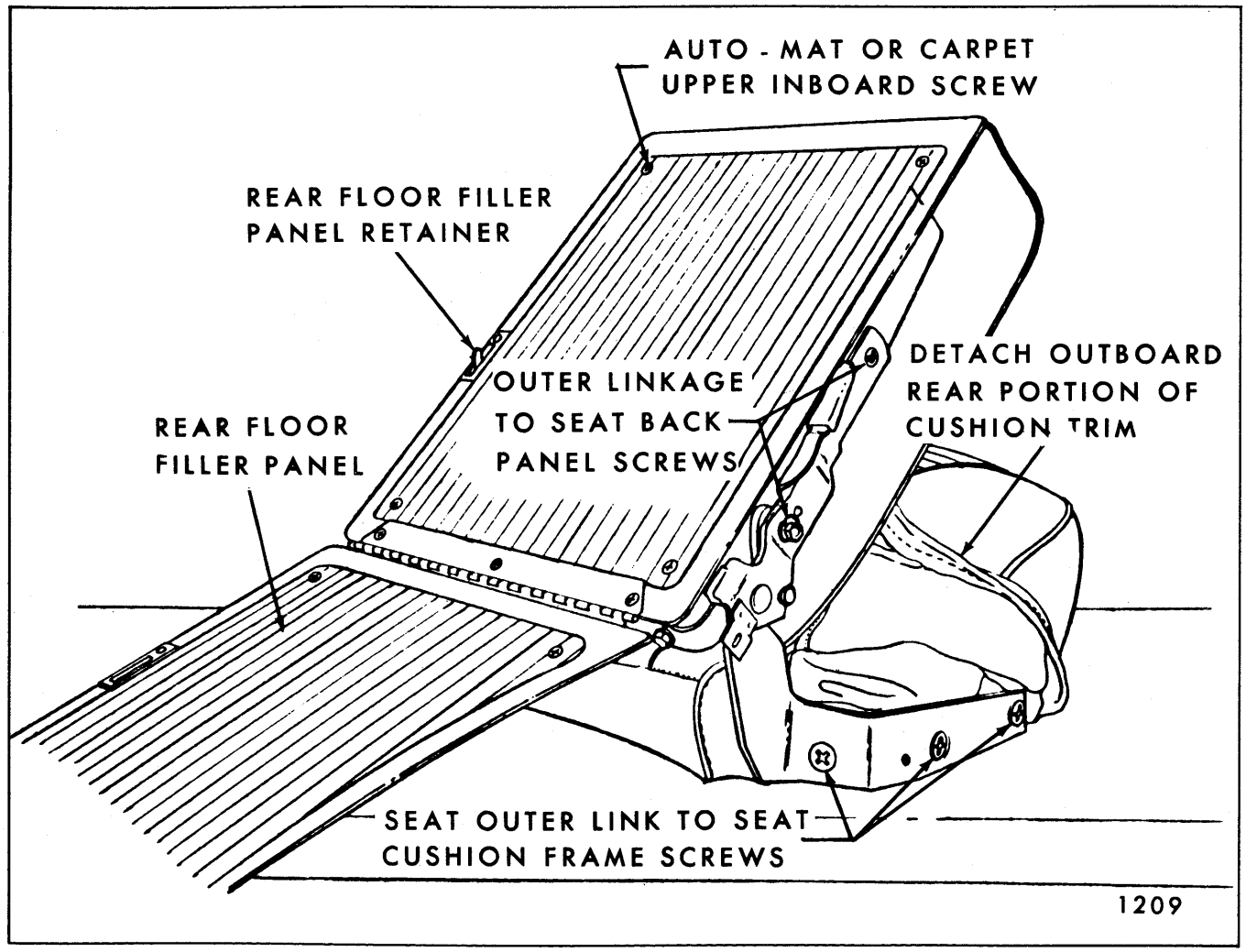

Fig. 10-70—Folding Second Seat Outer Linkage

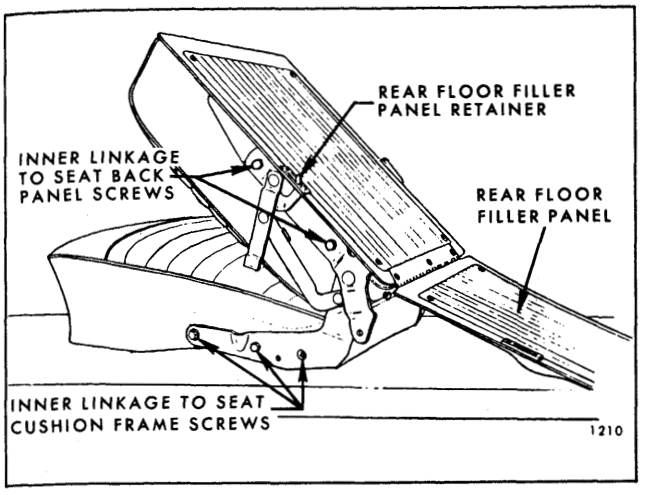

Fig. 10-71—Folding Second Seat Inner Linkage

3. Remove three screws securing seat inner link to cushion frame (Fig. 10-71); then remove seat cushion and frame assembly from linkage. If required, remove cushion front and rear floor pan linkage.

4. To install, reverse removal procedure.

FOLDING SECOND SEAT BACK TRIM AND SPRING ASSEMBLY—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Fold second seat back forward.

2. Remove seat back trim assembly attaching screws. (see Fig. 10-68).

3. Raise seat back; then, pull seat back trim assembly upward to disengage wire loops at top of seat back trim from slots in seat back panel.

   NOTE: If seat back trim does not readily disengage from seat back panel, fold rear floor filler panel down and remove upper inboard screw securing automat or carpet (Fig. 10-70). Then remove seat back trim assembly.

4. To install seat back trim assembly, reverse removal procedure.

FOLDING SECOND SEAT FRONT FLOOR PAN LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Place seat in an up position. Turn back floor carpet sufficiently to gain access to front linkage floor pan attaching nuts.

2. Mark location of front linkage support on floor pan to facilitate installation in same position. Support front of seat. Remove bolts securing linkage to seat and nuts securing linkage to floor pan studs (see Fig. 10-69); then, remove front linkage.

3. To install, reverse removal procedure making sure linkage support on floor pan is aligned with previously made alignment mark.

FOLDING SECOND SEAT REAR FLOOR PAN LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.

2. Remove screws securing rear floor pan linkage to each side of seat cushion frame (Fig. 10-72); then, remove linkage assembly from seat.

3. To install, reverse removal procedure. Inserts in Figure 10-72 show relationship of linkage, bushings and attaching screws.

FOLDING SECOND SEAT SIDE INNER LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.

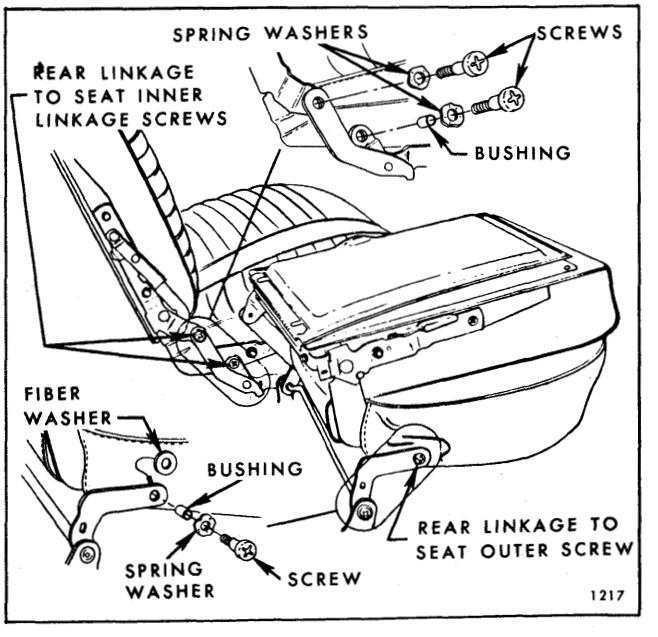

Fig. 10-72—Floor Pan Rear Linkage

2. Remove floor pan rear linkage-to-seat inner linkage attaching screws (Fig. 10-72).

3. Remove seat inner linkage-to-seat back panel and seat cushion frame attaching screws (see Fig. 10-71); then, disengage and remove side linkage from seat.

4. To install, reverse removal procedure. Make sure rear floor filler panel retainer is inserted through slot in seat back panel prior to installing inner linkage-to-seat back panel attaching screws.

FOLDING SECOND SEAT SIDE OUTER LINKAGE—RIGHT OR LEFT SEAT "65" STYLES

Removal and Installation

1. Remove folding second seat assembly from car as previously described and place on a clean surface.

2. Remove outer linkage cover. Remove screw securing seat rear floor pan linkage to seat outer attaching screw (Fig. 10-72).

3. Remove hog rings and detach rear portion of trim sufficiently to remove three screws securing outer linkage to seat cushion frame. (See Fig. 10-70).

4. Remove outer linkage-to-seat back panel attaching screws (see Fig. 10-70); then, remove linkage and seat back catch from seat.

5. To install, reverse removal procedure. Install seat back lock and spring as described under "Folding Second Seat Back Lock - Removal and Installation".

FOLDING SECOND SEAT BACK LOCK—RIGHT OR LEFT SEAT "65" STYLES

Removal

1. Remove seat back trim assembly, as previously described. Remove outer linkage cover.

2. Remove outer linkage-to-seat back panel attaching screws (See Fig. 10-70).

3. Remove lock handle, spring and bushing from linkage.

Installation

1. Position bushing and spring on lock handle.

2. Install lock handle, bushing and spring into position between seat back panel and outer linkage making sure end of spring is engaged in hole in outer link (Fig. 10-73).

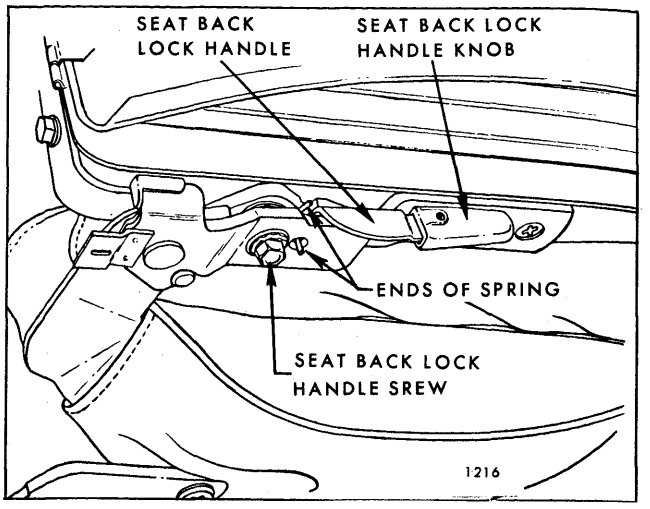

Fig. 10-73—Seat Back Lock

3. Install lock handle attaching screw; then, install outer linkage to seat back panel attaching screws (Fig. 10-70).

4. Install seat back trim assembly and outer linkage cover.

FOLDING SECOND SEAT BACK PANEL AND FILLER PANEL—RIGHT OR LEFT SEAT—"65" STYLES

Removal and Installation

1. Remove seat back trim assembly, as previously described. Remove outer linkage cover.

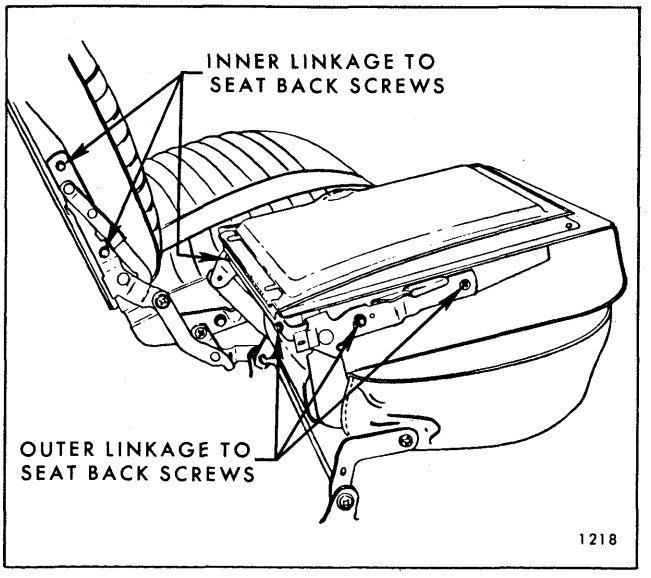

Fig. 10-74—Seat Inner and Outer Linkage

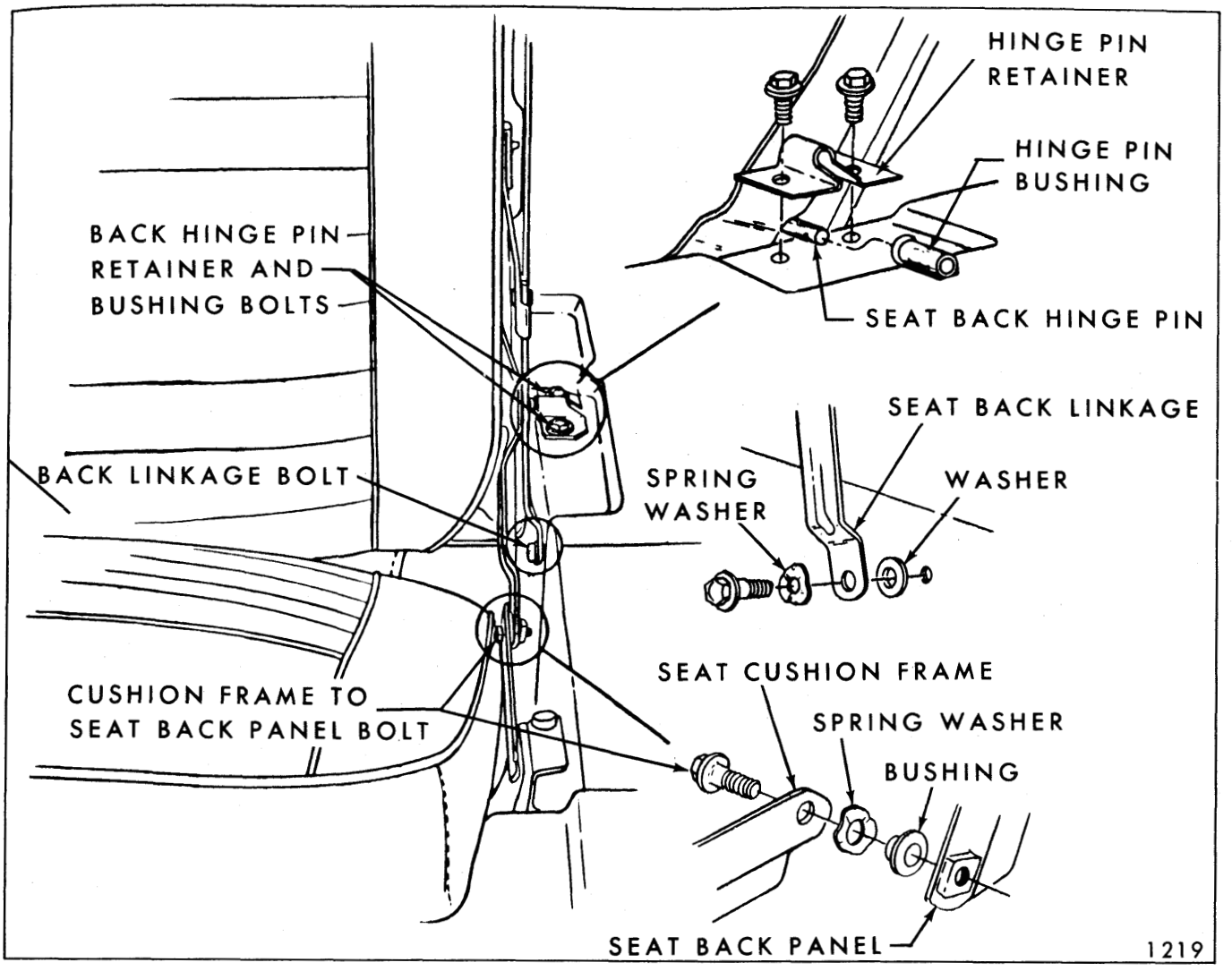

Fig. 10-75—Folding Third Seat

2. Remove outer and inner linkage to seat back attaching screws (Fig. 10-74). Remove seat back lock handle, spring and bushing from between outer linkage and seat back panel; then, remove seat back panel and rear floor filler panel from linkage.

3. To install, reverse removal procedure. To install seat back lock refer to "Folding Second Seat Back Lock - Installation".

FOLDING THIRD SEAT AND FLOOR PANEL ASSEMBLY "65" STYLES

Removal and Installation

1. Raise folding third seat. Remove rear compartment left side panel. (See Fig. 10-67).

2. Remove seat back linkage-to-compartment side pan attaching bolt (Fig. 10-75) at both right and left sides of seat.

3. At left side of seat remove seat back hinge pin retainer (Fig. 10-75).

4. Carefully move seat back assembly to the left sufficiently to disengage right seat back hinge pin from hinge pin retainer; then, remove folding third seat assembly from body and place on a clean surface.

5. To install folding third seat and floor panel assembly, reverse removal procedure. Make sure a seat back hinge pin bushing is installed over both hinge pins. Also install flat washer between seat back linkage and compartment side pan and spring washer between linkage and bolt head (Fig. 10-75).

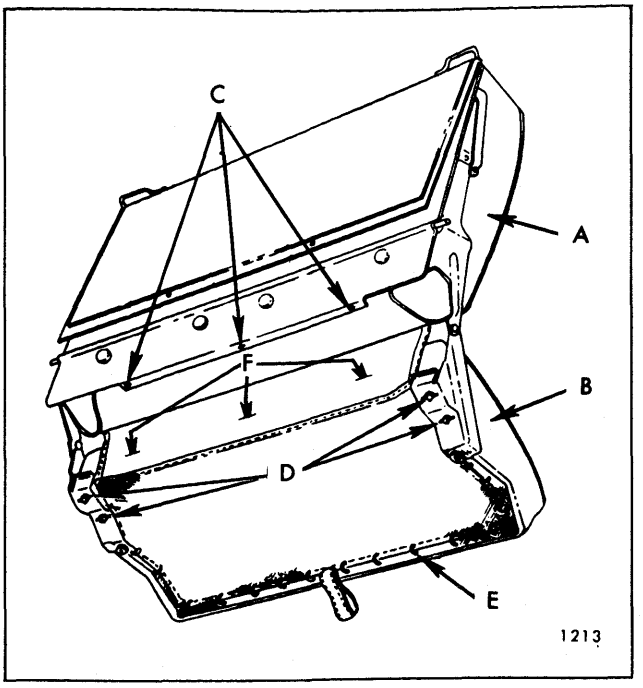

Fig. 10-76—Folding Third Seat Assembly

A. Third Seat Back
B. Third Seat Cushion
C. Seat Back Trim to Seat Back Panel Attaching Screws
D. Cushion Trim to Cushion Frame Attaching Screws
E. Hog Rings Securing Seat Back Trim Flap
F. Location of Cushion Trim to Cushion Frame Attaching Screws (Under Trim Flap)

FOLDING THIRD SEAT CUSHION TRIM ASSEMBLY "65" STYLES

Removal and Installation

1. Raise folding third seat. Raise front of third seat cushion and prop in up position.
2. Remove hog rings securing seat back trim flap to bottom of seat cushion (Fig. 10-76).
3. Remove seat cushion frame-to-seat back panel attaching bolt (Fig. 10-75) from both sides of seat; then, remove seat cushion assembly and place on a clean surface.
4. As a bench operation remove hex-head screws securing seat cushion trim to seat cushion frame (Fig. 10-76) and three screws securing rear edge of seat cushion trim to seat cushion frame; then, remove cushion trim assembly from cushion frame.
5. To install, reverse removal procedure. When installing seat cushion frame-to-seat back frame attaching bolts install bolt bushing and spring washer, as shown in insert of Figure 10-75.

FOLDING THIRD SEAT BACK TRIM ASSEMBLY OR SEAT BACK PANEL ASSEMBLY "65" STYLES

Removal and Installation

1. Remove folding third seat and floor panel assembly, as previously described, and place on a clean surface.
2. Remove hog rings securing seat back trim flap to bottom of seat cushion (Fig. 10-76).
3. To remove seat back trim assembly remove seat back trim-to-seat back panel attaching screws (Fig. 10-76); then, lift trim assembly upward to disengage wire loops on seat back trim from slots in seat back panel and remove trim assembly.
4. To remove seat back panel assembly, remove seat cushion frame-to-seat back panel attaching bolt (Fig. 10-75); then, remove seat back panel with attached rear floor filler (at kick-up) panel from seat cushion.
5. To install, reverse removal procedure. Refer to inserts in Figure 10-75 for correct installation of linkage bolts, bushings and spring washers.

LUGGAGE COMPARTMENT COVER PANEL AND FILLER PANEL "65" STYLES

Removal and Installation

1. Raise luggage compartment cover panel and support cover panel in up position.
2. Remove five hex-head screws securing cover panel to cross bar; then remove luggage compartment cover panel and filler panel.
3. To install, reverse removal procedure.

SEAT BELTS

FRONT STANDARD SEAT BELTS

Removal and Installation

1. Remove bolt on outboard seat belt anchor plate at rocker inner panel and inboard seat belt anchor plate on side of floor pan tunnel. (See Fig. 10-77).
2. Bench Type Seats Only: Pull inboard belt from front of seat thru protector, and from between front seat cushion and back (Fig. 10-78).
3. To install, reverse removal procedure, making certain that anchor plates are facing direction of seat belt pull.

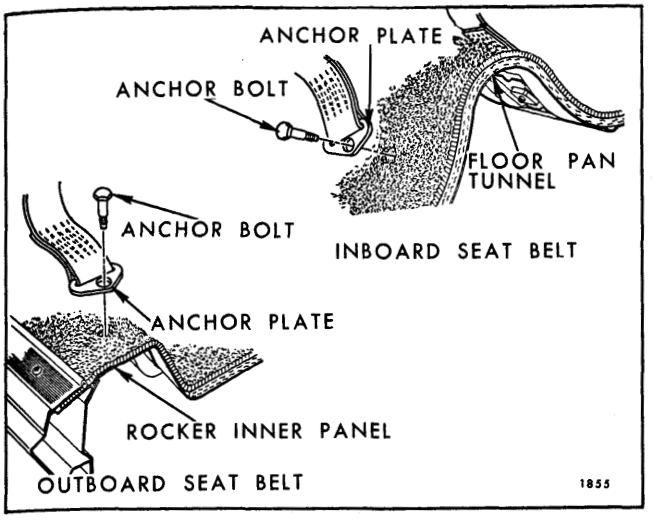

Fig. 10-77—Standard Seat Belt Attachments

FRONT DELUXE SEAT BELTS WITH BAIL TYPE RETRACTORS

Description

As an option, seat belts are available with bail type seat belt retractors on the outboard belt only. The outboard seat belt must be fully extended and the inboard belt adjusted for individual requirements when the seat belt is fastened by the driver or passenger. When the seat belt buckle is operated to disengage the belts, the outboard belt will automatically retract to the floor pan.

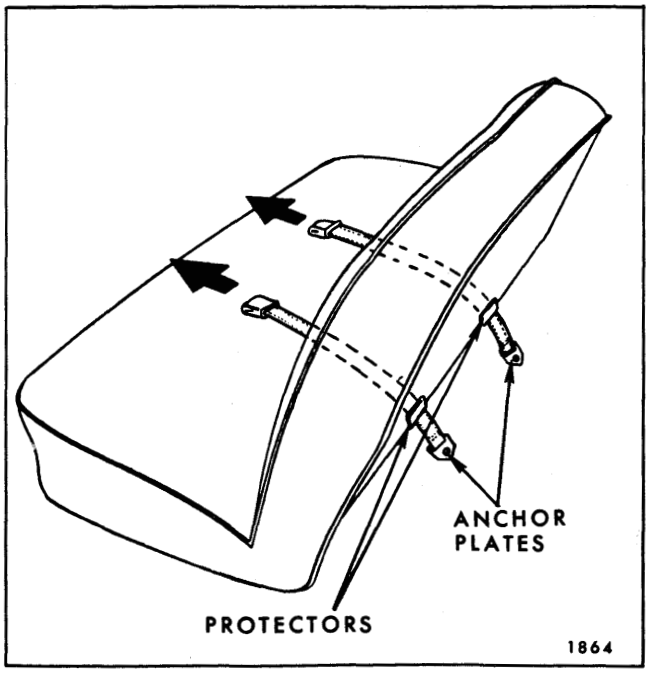

Fig. 10-78—Removal of Seat Belts from Bench Type Seats

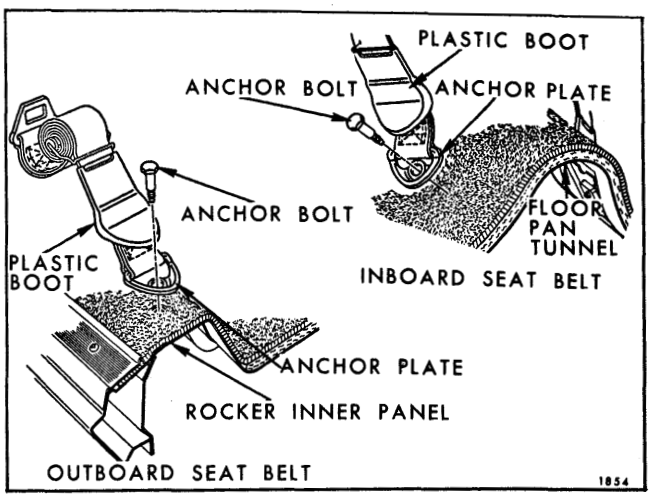

Fig. 10-79—Deluxe Seat Belt Attachments - With Bail Type Retractors

Deluxe Seat Belts with Bail Type Retractors

Removal and Installation

1. Remove bolt on outboard seat belt anchor plate at inner rocker panel and inboard seat belt anchor plate on side of floor pan tunnel by first sliding plastic boot away from plates (See Fig. 10-79).

2. Bench Type Seats Only: Pull inboard seat belt from front of seat thru protector and from between front seat cushion and back (See Fig. 10-78).

3. To install, reverse removal procedure, making certain that anchor plates are facing direction of seat belt pull.

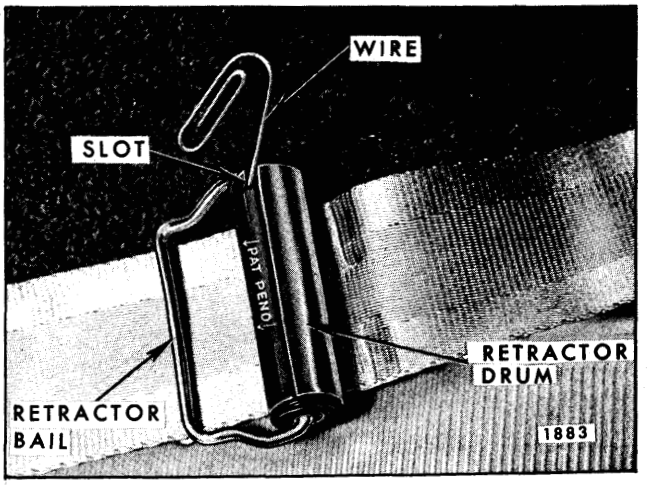

Fig. 10-80—Locking Seat Belt Bail Type Retractor Drum

Bail Type Retractor

Removal

1. Extend outboard seat belt to full length.
2. Insert a piece of stiff wire such as a paper clip in slot in roller drum to maintain spring tension of retractor. (See Fig. 10-80).

   IMPORTANT: Wire to remain in slot until retractor is reinstalled. In the event that spring tension is lost, drum on retractor can be turned 8 revolutions by hand to regain spring tension.
3. Using a flat-bladed tool pry open tabs that secure belt on drum and remove retractor from belt (See Fig. 10-81).

Installation

1. With seat belt fully extended, insert belt under tabs on retractor and position on center of seat belt.

   NOTE: Tabs on retractor to be on inboard side of seat belt and bail pointing frontward.
2. Using pliers, lightly bend down tabs securing belt to drum.
3. Remove wire from slot in drum (when replacing with new retractor, a retaining clip that retains spring tension will be on retractor which is to be removed) and allow belt to roll up on retractor.

FRONT DELUXE SEAT BELTS WITH FLOOR MOUNTED RETRACTOR AND COVER

Description

As an option, seat belts may be equipped with seat belt floor mounted retractor and covers on the outboard side only. The outboard seat belt must be fully extended and the inboard belt adjusted for individual requirements when the seat belt is fastened by the driver or passenger. When the seat belt buckle is operated to disengage the belts; the outboard belt will automatically retract into the retractor cover.

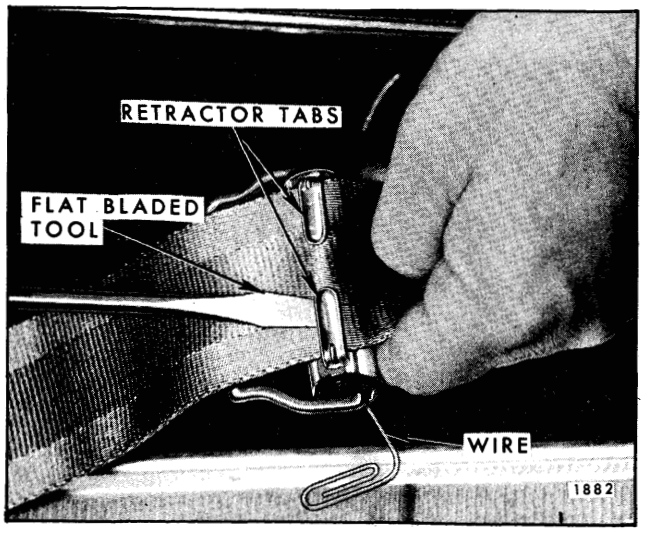

Fig. 10-81—Removal of Bail Type Retractor from Seat Belt

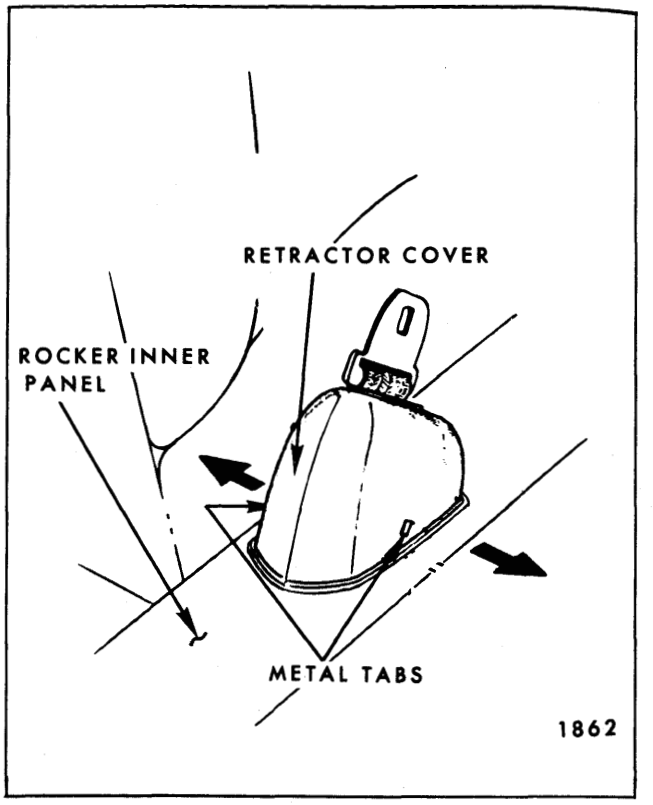

Fig. 10-82—Removal of Seat Belt Retractor Cover

Outboard Seat Belt

Removal

1. Extend belt fully; insert screwdriver through belt opening in cover and apply moderate pressure to inside of cover adjacent to metal tabs and disengage cover from tabs on sides of retractor base. (See Fig. 10-82)
2. Lift up cover to expose bolt securing seat belt retractor (See Fig. 10-83).
3. Remove bolt and remove retractor (See Fig. 10-83).

Installation

1. With retractor cover disengaged insert bolt thru retractor and into top of rocker inner panel and secure.

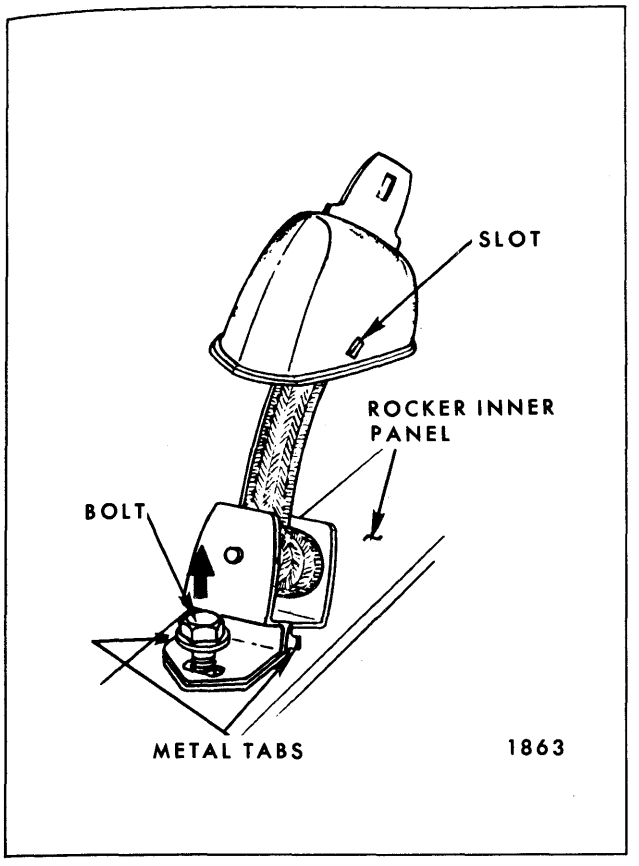

Fig. 10-83—Removal of Seat Belt Retractor with Cover

2. Gently pull sides of retractor cover outward, and position cover on retractor snapping slots in cover over metal tabs on retractor.

NOTE: Seat belt retractor and seat belt is serviced only as an assembly.

Inboard Seat Belt—Bucket Seats

Removal and Installation

1. Remove bolt securing seat belt anchor plate from side of floor pan tunnel. (See Fig. 10-77)

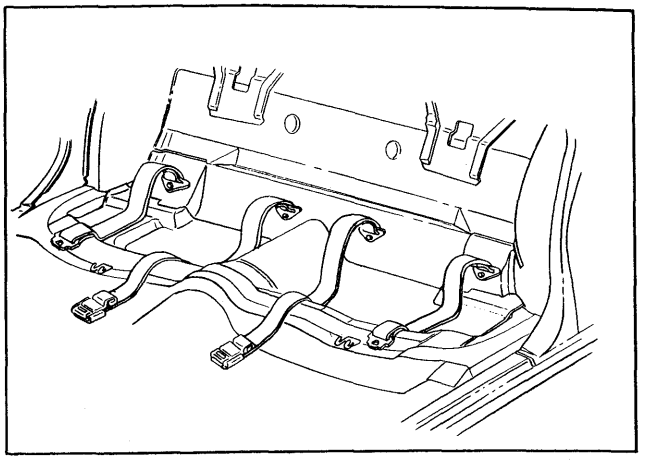

Fig. 10-84—Rear Seat Belt Attachment

2. To install, reverse removal procedure.

Inboard Seat Belts—Full Width Seats

Removal and Installation

1. Remove bolt securing seat belt anchor plate from side of floor pan tunnel. (See Fig. 10-77).

2. From front of seat, pull seat belt thru protector and from between front seat cushion and back (See Fig. 10-78).

3. To install, reverse removal procedure.

REAR SEAT BELTS

Rear seat belts will be available on all styles as standard equipment. The rear seat belts are attached to anchor nuts in the floor pan by bolts. To remove rear seat belts, remove rear seat cushion assembly, remove belt attaching bolts and seat belts. To install, reverse removal procedure making certain that the belts with the buckles are installed on the inboard location of the floor pan (Fig. 10-84).

SECTION 11

ELECTRICAL

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BODY ELECTRICAL INTRODUCTION

The 1966 body electrical equipment for all body styles is grouped into sections of power windows and ventilators, power tail gate window (station wagon), power seats (horizontal, four-way and six-way) and electric folding top.

Each section combines all styles and series together which incorporate the power equipment unless stated otherwise in the procedure.

The circuit wiring is protected by a circuit breaker (40 ampere in most cases) and is located as follows:

DIVISION	STYLE	LOCATION
Chevrolet	Z	Engine compartment - Left body side rail

DIVISION	STYLE	LOCATION
	X	Left Shroud inner panel
	A	Left Shroud inner panel
	B	Under left end of instrument panel
Pontiac	A	Engine compartment - adjacent to fuse block
	B	Engine compartment bulkhead
Oldsmobile	A	Engine compartment - at horn relay
	B-C	Engine compartment - at horn relay
	E	Right Fender Filler Plate - at junction block stud
Buick	All Styles	In fuse block - plug-in type
Cadillac	C	In fuse block - plug-in type

POWER WINDOWS AND VENTILATORS

POWER OPERATED WINDOWS— ALL SERIES

Description

The wiring harness for the electrically operated windows consists of four major sections.

1. Front Cross-Over Harness
2. Feed Harness to Rear Door or Quarter Window
3. & 4. Left and Right Rear Door or Quarter Window Harnesses

Front Cross-Over Harness

This harness is installed beneath the instrument panel and completes the circuit from the right door to the left door windows on all styles except on Cadillac styles. (See Figs. 11-1, 11-2, 11-3, 11-4 and 11-6). On Cadillac styles the cross-over harness is installed on the floor pan - see Figure 11-5.

Feed Harness for Rear Doors or Quarter Windows

This harness of flat wire construction connects to the front cross-over harness on the left side of the shroud (fire wall) and extends rearward under the flat body wire harness.

In two door styles the quarter window harness divides at the rear of the rear seat on all styles except Cadillac styles, see Figures 11-7, 11-8, 11-9, 11-10, 11-11, 11-12, 11-13 and 11-14.

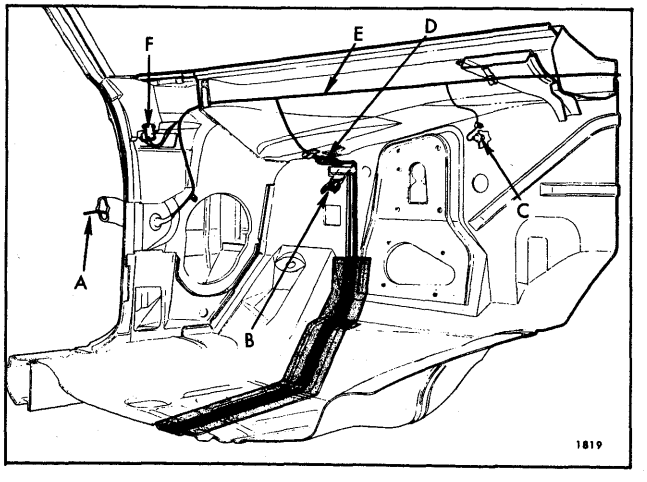


Fig. 11-1—Front End Power Window Wiring - Chevrolet "B"

A. Front Door Wiring
B. Body Wiring Connector
C. Feed Wire
D. Power Window Wiring Connector
E. Cross-Over Harness
F. Cricuit Breaker

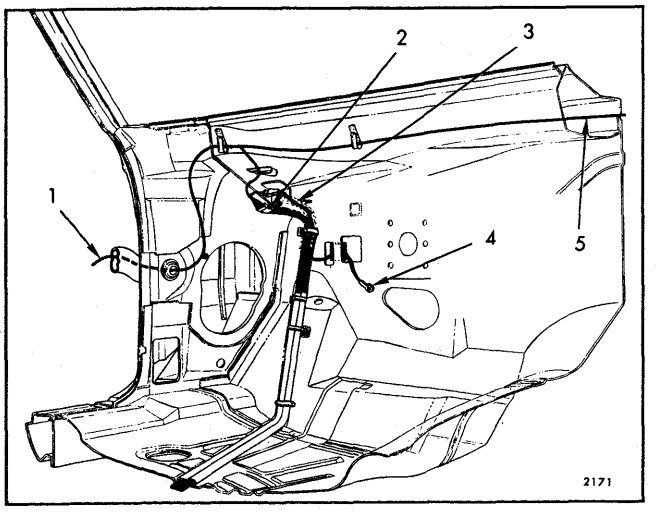


Fig. 11-2—Front End Power Window Wiring - Pontiac "B"

1. Front Door Wiring
2. Power Window Wiring Connector
3. Body Wiring Connector
4. To Curcuit Breaker
5. Cross-Over Harness

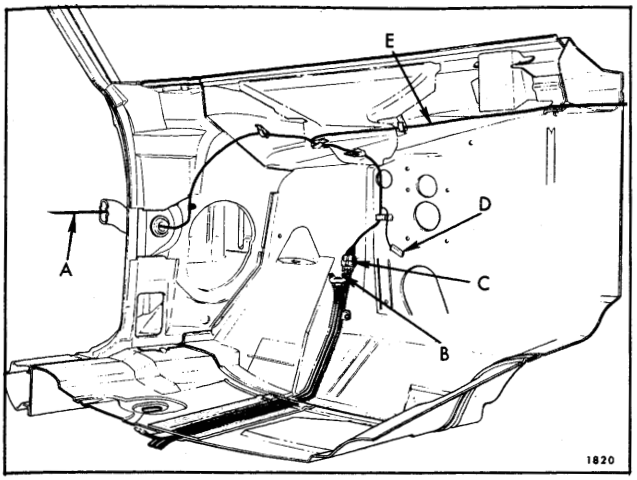


Fig. 11-3—Front End Power Window Wiring - Buick "B & C"

A. Front Door Wiring
B. Body Wiring Connector
C. Power Window Wiring Connector
D. To Fuse Block
E. Front Cross-Over Harness

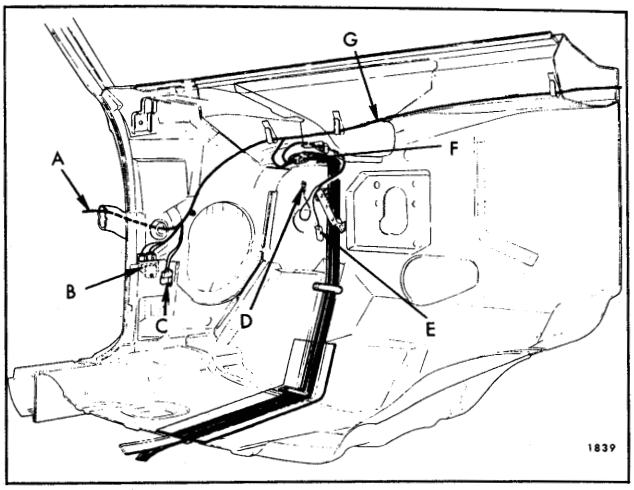


Fig. 11-4—Front End Power Window Wiring - Oldsmobile "B-C & E"

A. Front Door Wiring
B. Ignition Relay
C. Power Seat Feed on 38439-67 and 38669 only
D. To Circuit Breaker
E. To Fuse Block
F. Power Window Wiring Connector
G. Cross-Over Harness

On Cadillac styles the harness divides at the rear of the front seat (see Fig. 11-15).

The rear door window harness divides at rear of the front seat (see Figs. 11-16, 11-17, 11-18 and 11-19).

It is to be noted that the flat body wiring harness is positioned on top of the power window wire harness and the front connector of the body wire harness is in a lower position.

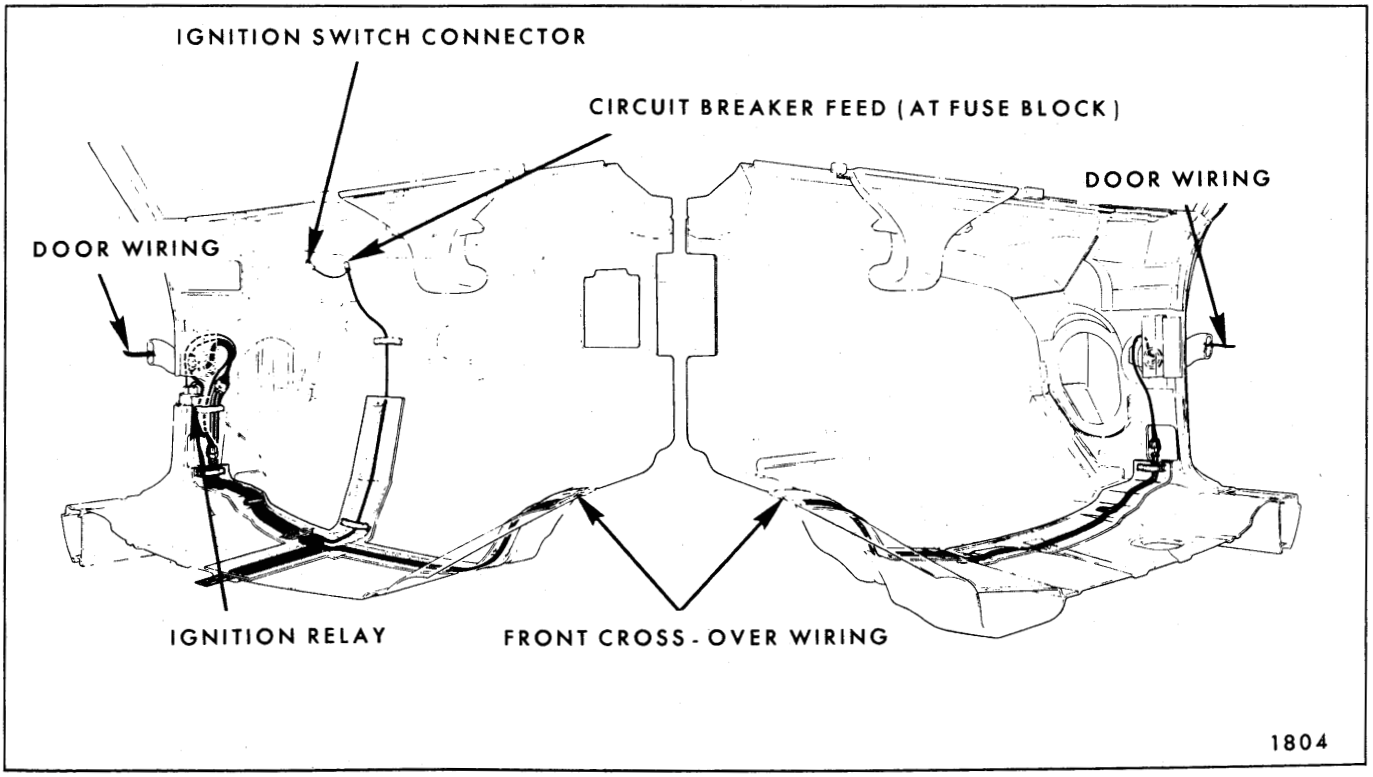


Fig. 11-5—Front End Power Window Wiring - Cadillac

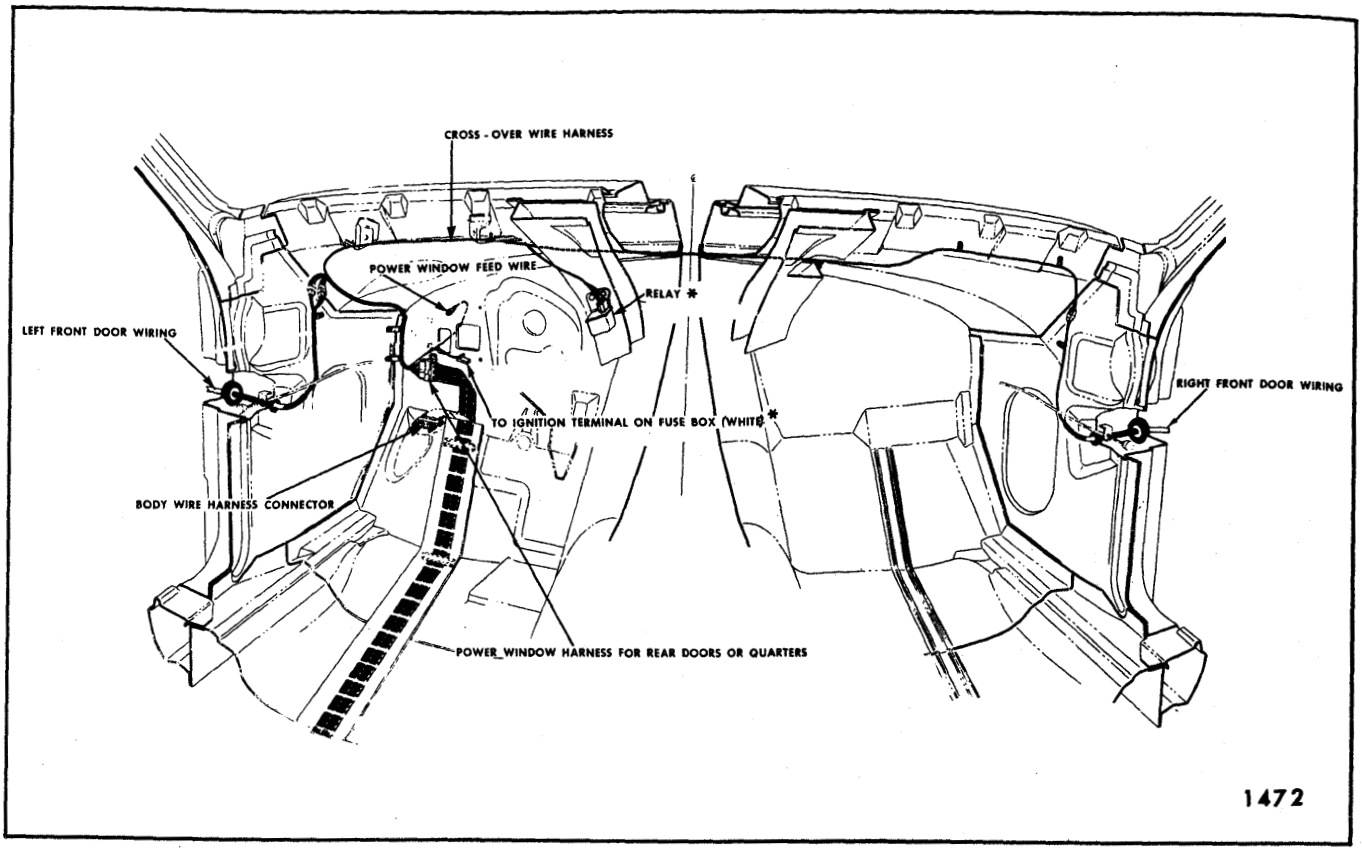


Fig. 11-6—Front End Power Window Wiring - All "A" Body Styles

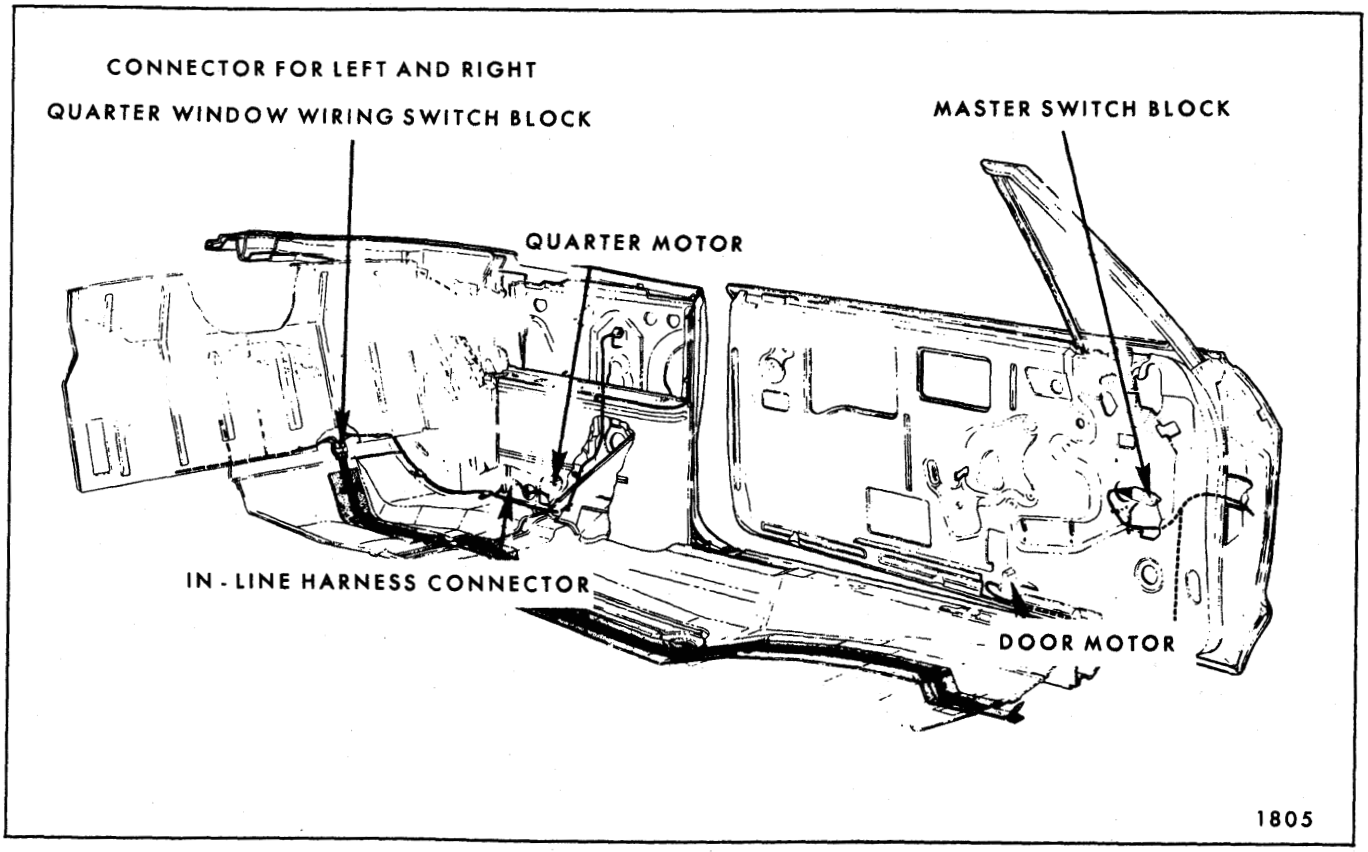


Fig. 11-7—Left Side Power Window Wiring - 67 "B & C" Styles

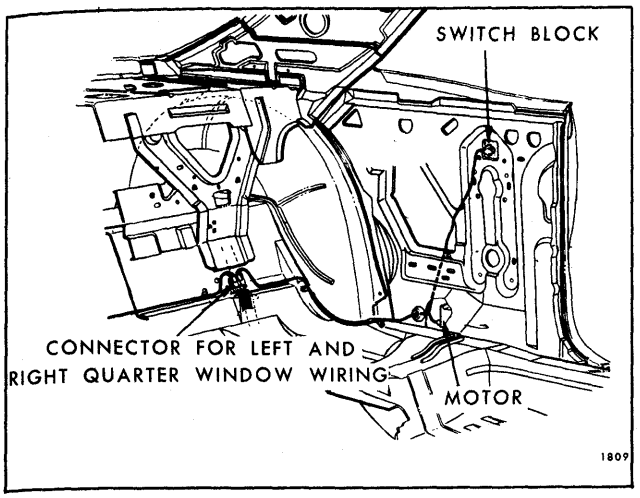


Fig. 11-8—Rear Quarter Power Window Wiring - "B & C" 37 Styles

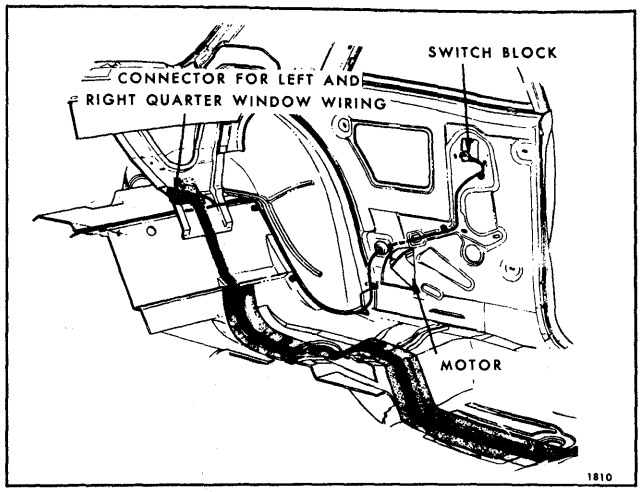


Fig. 11-9—Rear Quarter Power Window Wiring - "B-11" Style

Quarter Window Harness

The left and right round wire harness connects to the main flat feed harness behind the rear quarter arm rest foundation on convertible styles except on Cadillac series and under the rear seat cushion on "07-17 and 37" styles. On Cadillac, "57 and 67" styles the round wire harness connects to the flat wire at the forward end of the rear quarter arm rest assembly.

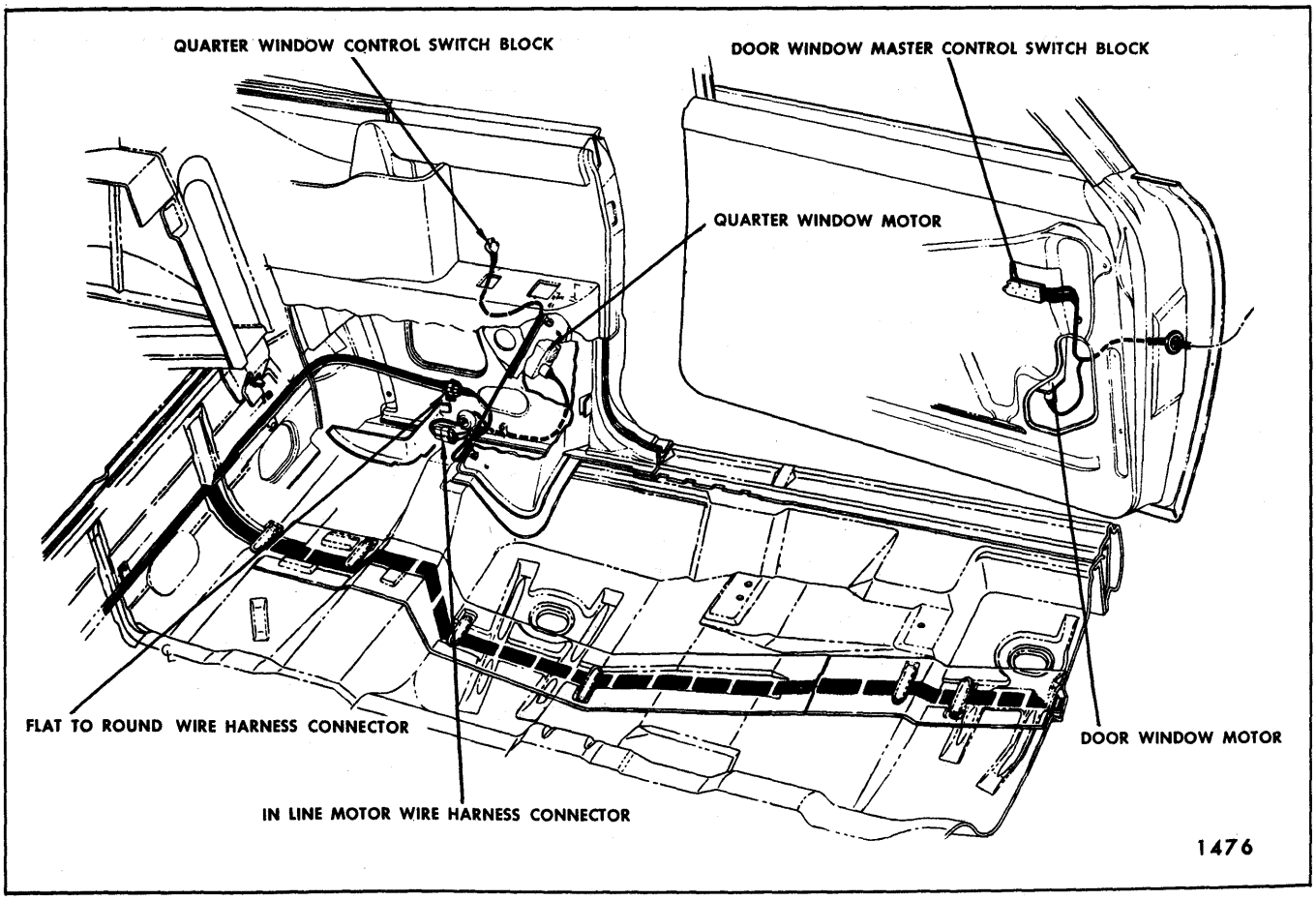


Fig. 11-10—Left Side Power Window Wiring - "A" 67 Styles

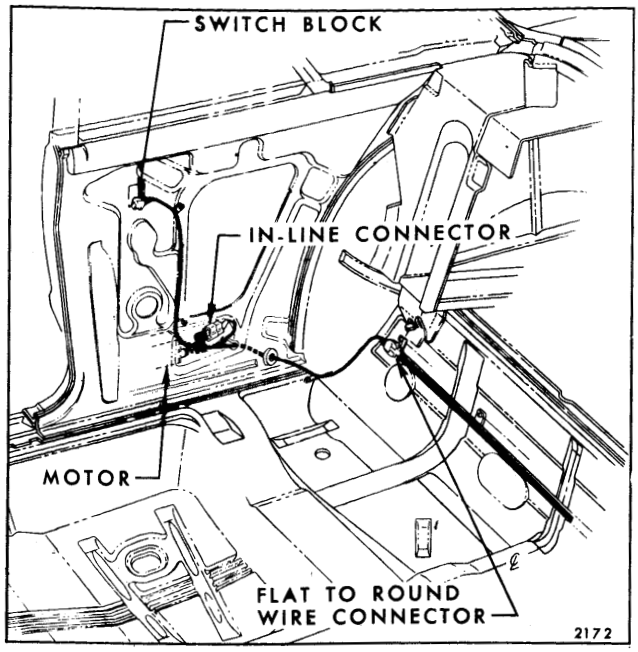


Fig. 11-11—Rear Quarter Window Wiring - "A" Coupe Less 67 Styles

Rear Door Window Harness

The left and right rear door harness connects to the main flat feed harness in the base of the center pillar. To disengage the connector, pull harness inboard at base of center pillar for accessibility.

Power windows are operated by a rectangular shaped 12 volt series-wound motor with an internal circuit breaker and a self-locking rubber coupled gear drive. The harness to the door window motor connector is designed with a locking embossment to insure a positive connection. When disengaging the harness connector from the door motor, it is necessary to depress the thumb release. When installing the harness, the thumb release must be held depressed until the embossment on the female connector is locked in the hole of the motor connector.

Some rear quarter window motors and ventilator motors are designed with a locking type connector which should not be disengaged. When testing or removing the motor, the in-line connector located inboard of the inner panel should be disengaged.

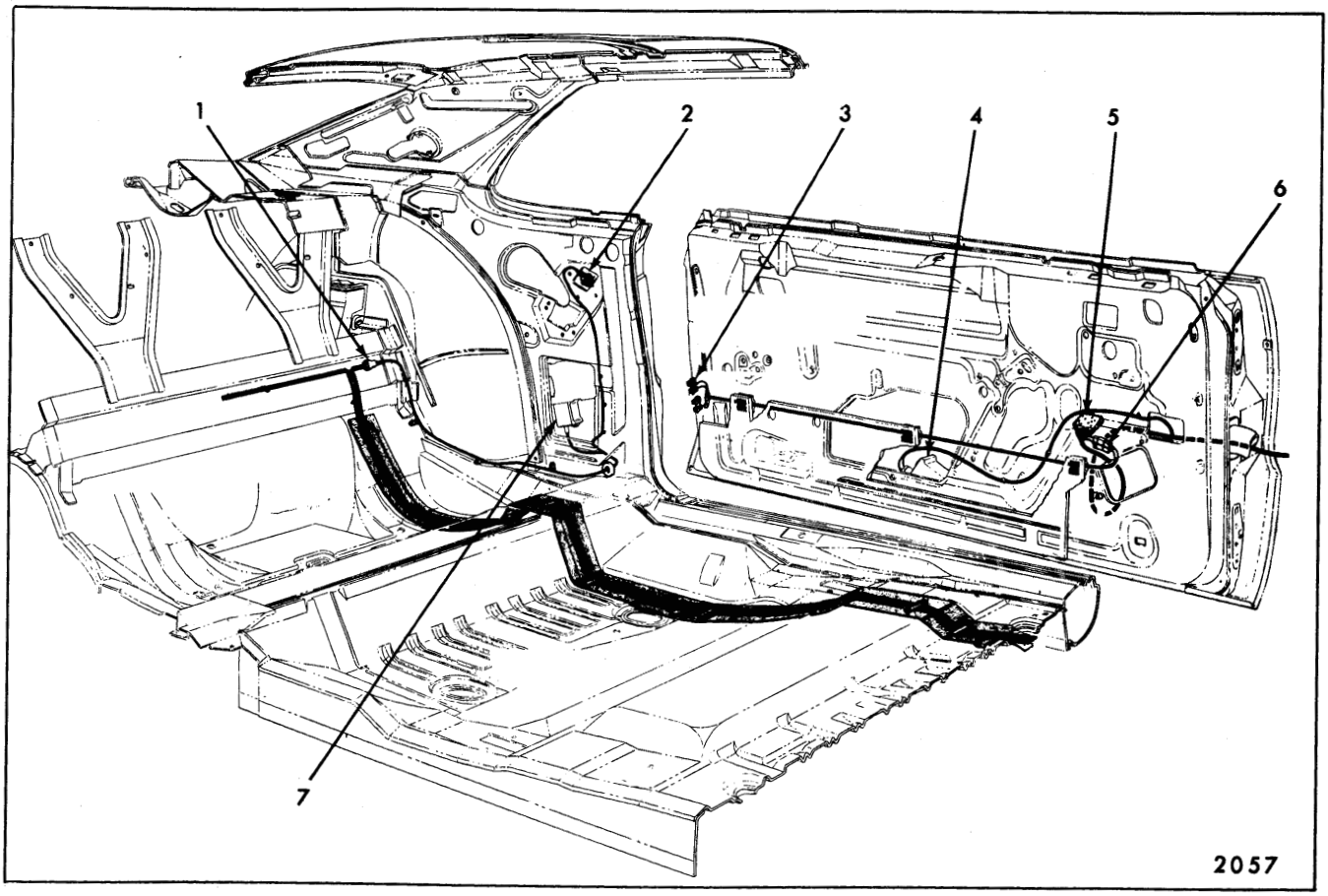


Fig. 11-12—Left Side Power Window Wiring - Oldsmobile "E" Optional

1. Flat to Round Wire Connector
2. Quarter Window Switch Block
3. Optional Door Courtesy Lamp
4. Door Window Motor
5. Master Control Switch Block
6. Door Courtesy Lamp Connector
7. Quarter Window Motor

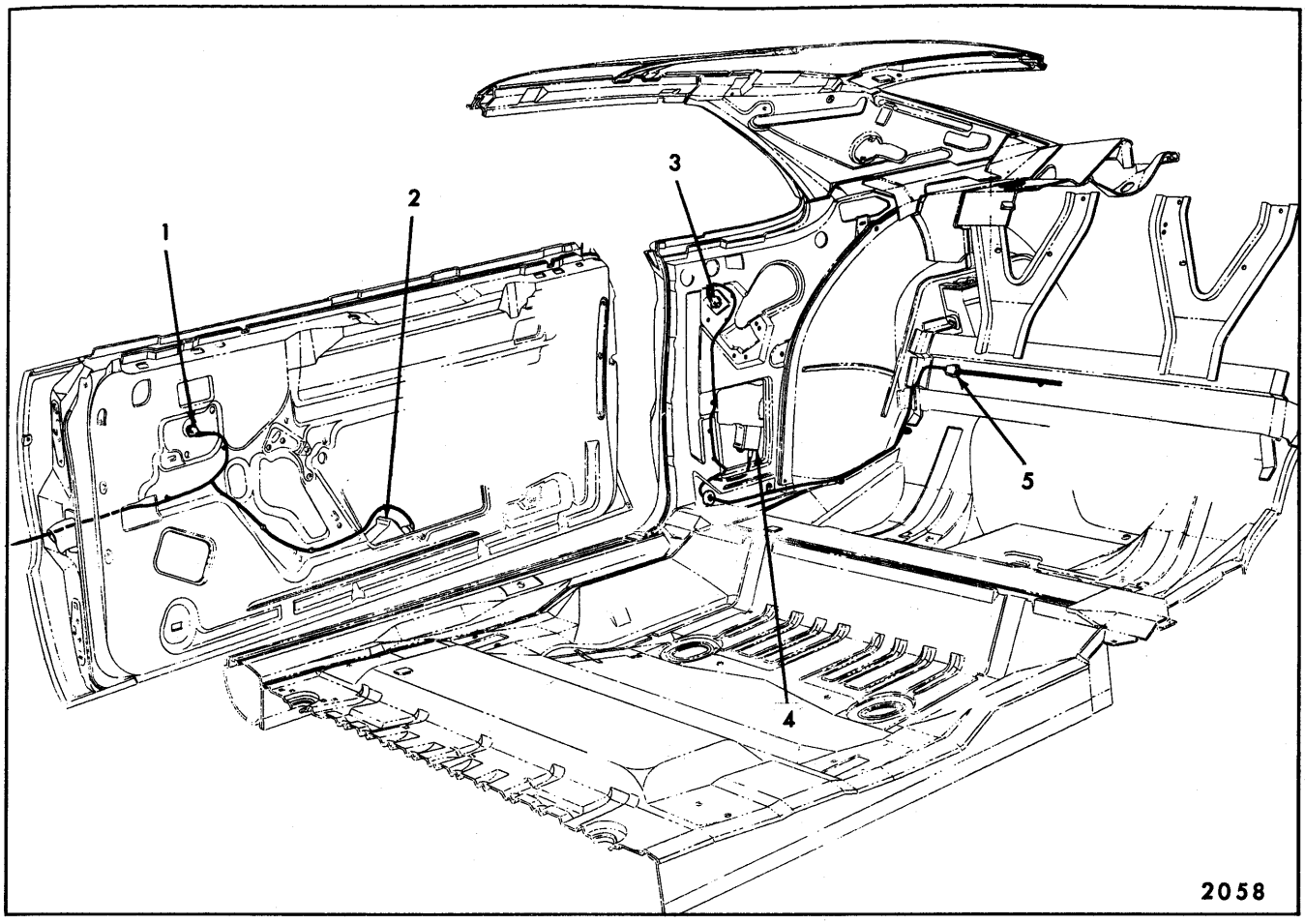


Fig. 11-13—Right Side Power Window Wiring - Oldsmobile "E" - Standard

1. Door Window Switch Block
2. Door Window Motor
3. Quarter Window Switch Block
4. Quarter Window Motor
5. Flat to Round Wire Connector

Tests are made at this location on those styles. The power window circuit is protected by a circuit breaker. Refer to electrical introduction for specific locations.

Relay

Oldsmobile and Cadillac styles only - In addition to the circuit breaker, a relay is used in the circuit. The relay prevents the operation of the power windows until the ignition switch is turned "on".

Cut-Out Switch

A cut-out switch (Cadillac styles only) installed on the left front door arm rest, is designed to temporarily by-pass the relay circuit so the windows may be operated only from the master control switch when the ignition is in the off position.

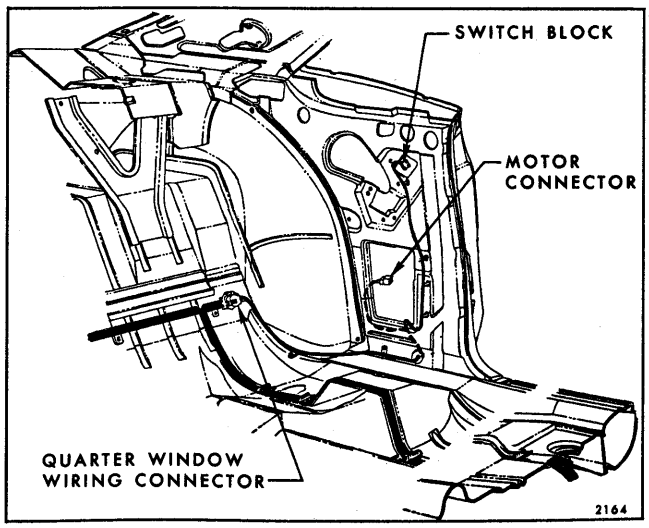


Fig. 11-14—Rear Quarter Power Wiring - Buick "E"

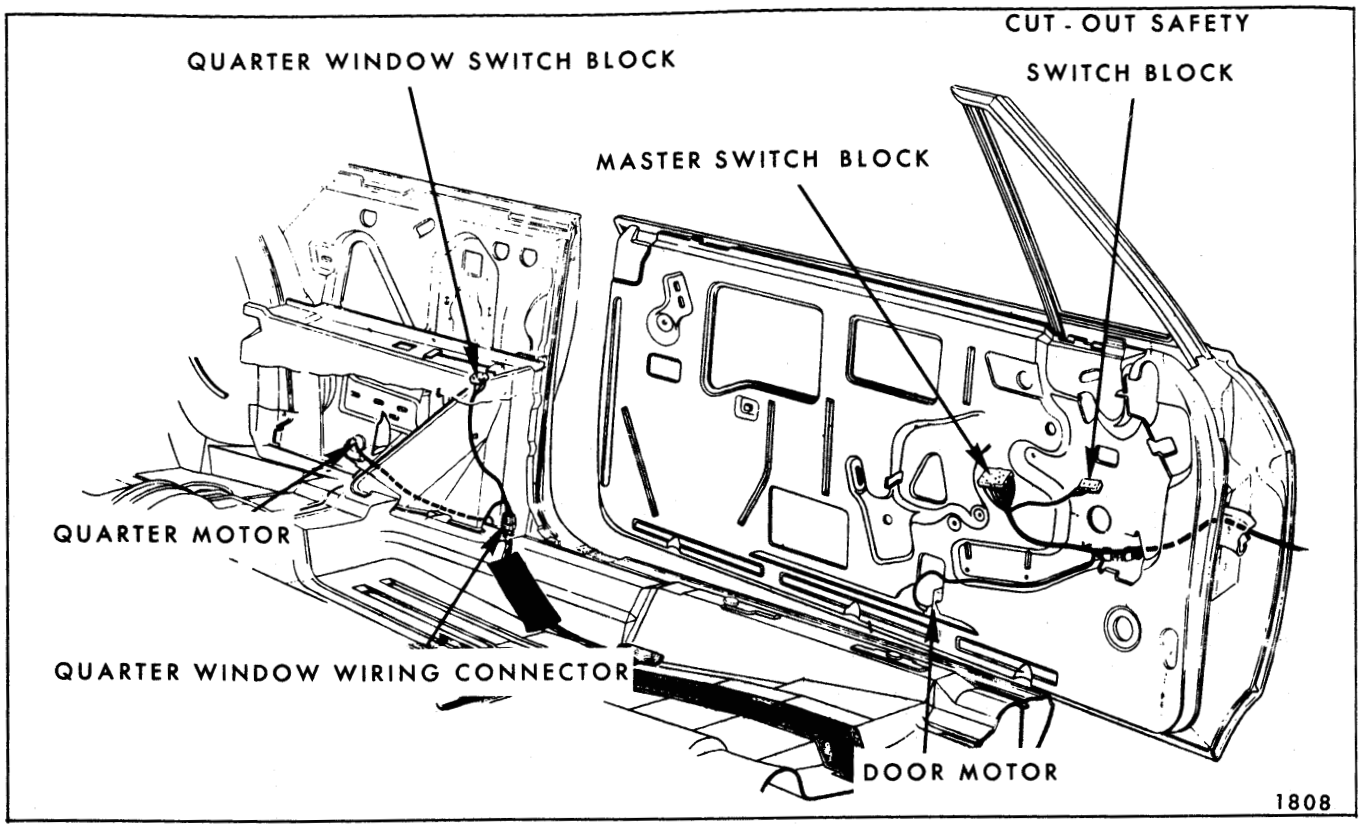


Fig. 11-15—Left Side Power Window Wiring - Cadillac "57" Styles

To perform this operation, the cut-out switch control button is held in the "EMERG" position while the master control switch buttons are actuated. When the cut-out button is released, the button will return to the "NORMAL" position.

The cut-out switch button should be set in the "LOCK" position when ignition switch is "ON" to permit normal operation of power windows from all switch locations. If the control button is left in the "NORMAL" position with the ignition switch on, the windows will operate only from the master control switch.

Power Window Circuit Checking Procedures

Failures in a circuit are usually caused by short circuits or open circuits. Open circuits are usually caused by breaks in the wiring, faulty connection or mechanical failure in a component such as a switch or circuit breaker. Short circuits are usually caused by wires from different components of the circuit contacting one another or by a wire or component grounding to the metal of the body due to a screw through the wire, insulation cut through by sharp metal edge, etc.

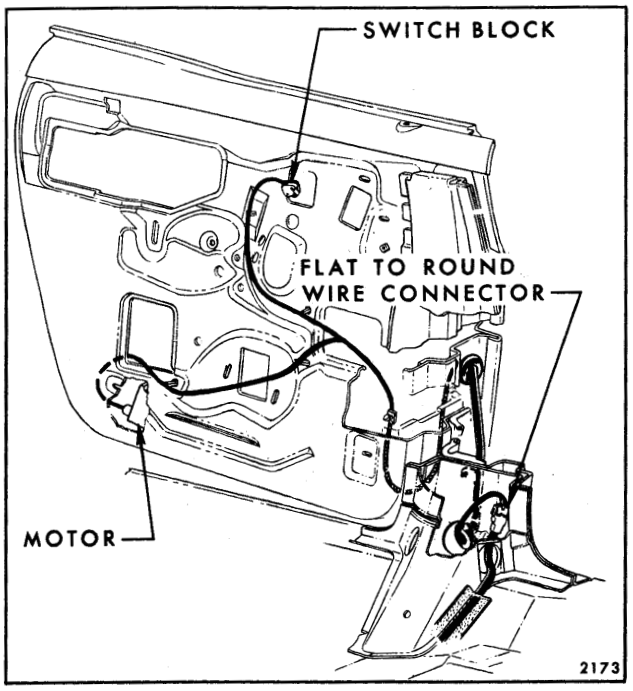


Fig. 11-16—Left Rear Door Power Window Wiring - "A"-39 Styles

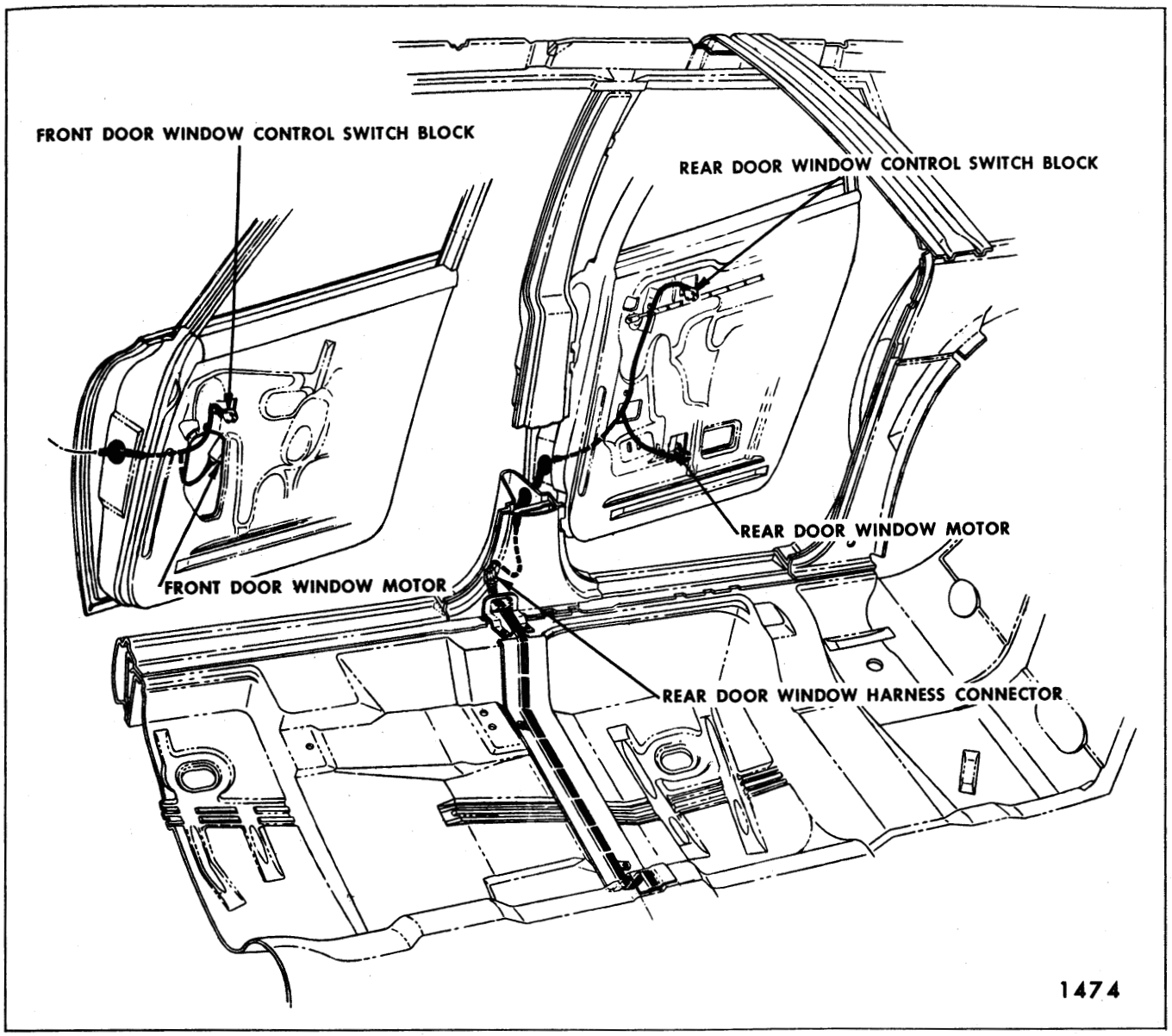


Fig. 11-17—Right Side Power Window Wiring "A" 35-55-65 and 69 Styles

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Be sure to check the harness connectors for proper engagement and become familiar with the typical circuit diagrams. (See Figs. 11-23 through 11-30).

Circuit diagram of 4 door styles is shown but basic circuitry and color code is similar on two door styles.

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker, disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker and with test light, check terminal from which wire was disconnected. If tester does not light, circuit breaker is inoperative.

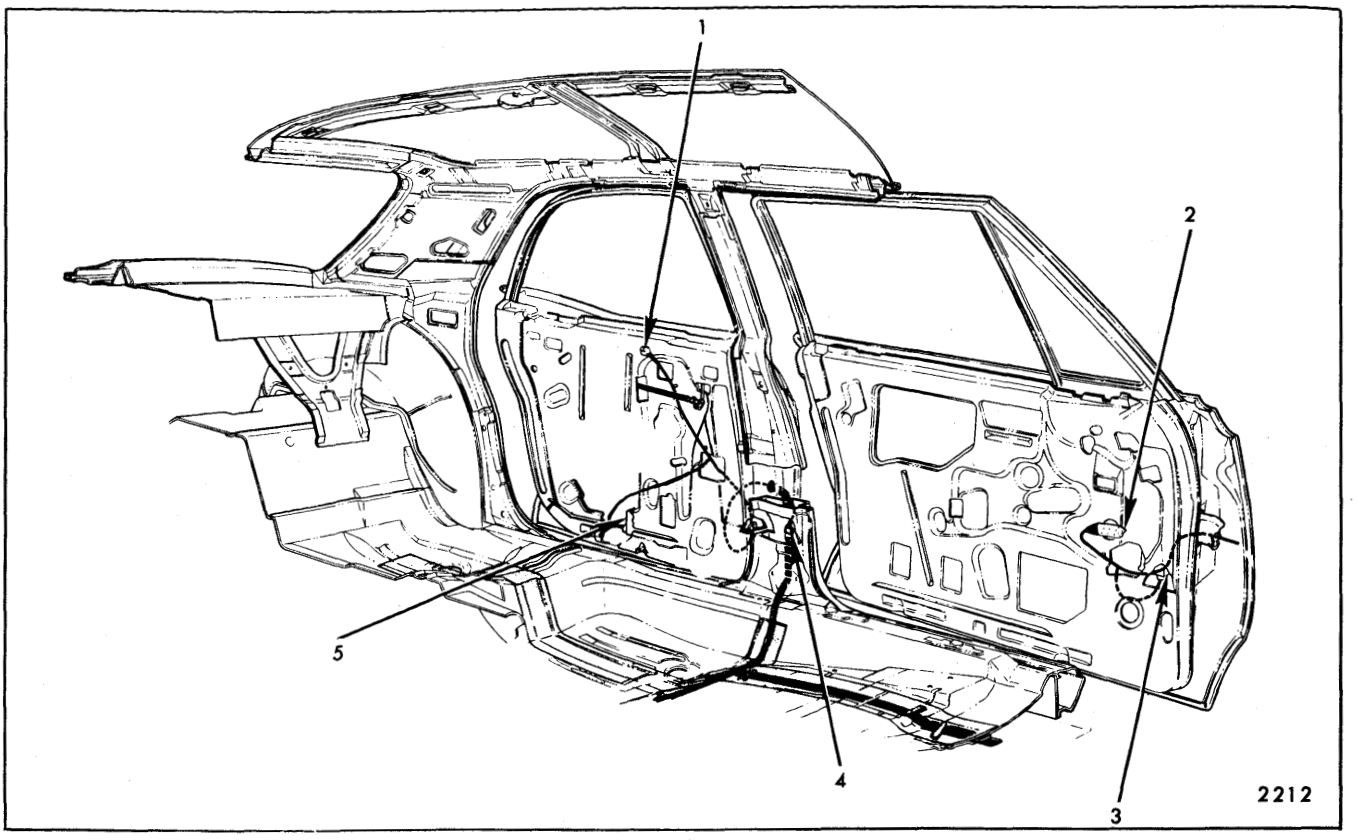


Fig. 11-18—Left Side Power Window Wiring - "B & C" Four Door Styles

1. Switch Block
2. Master Switch Block
3. Front Door Motor
4. Rear Door Window Wire Harness Connector
5. Rear Door Motor

b. Checking Relay Assembly at Shroud—Oldsmobile and Cadillac Only

1. With test light, check relay feed. If tester does not light, there is an open or short circuit between relay and circuit breaker.

2. Turn ignition switch on and with test light check output terminal of relay. If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch and relay assembly. (Check fuse at dash panel).

c. Checking for Current at Cut-Out Switch—Cadillac Only

1. Connect one test light lead to relay by-pass (over ride) terminal (orange-black stripe) of the switch block and ground other test lead.

2. If tester does not light, there is an open or short circuit between by-pass feed source and cutout switch.

NOTE: Current should be present whether ignition is "on" or "off".

3. With ignition switch on, connect one test light lead to the master window control switch feed terminal (red-white stripe) of the switch block and ground other test lead.

4. If tester does not light, there is an open or short circuit between the relay and cut-out switch.

d. Checking Cut-Out Switch—Cadillac Only

1. With ignition switch off, connect one end of a #12 gauge jumper wire to by-pass feed terminal (over-ride) (orange-black stripe) and the other end to the center terminal (master control switch feed - red-white stripe).

2. Operate master control switch. If windows operate with jumper wire but not with the cut-out switch, the by-pass side of the switch is defective.

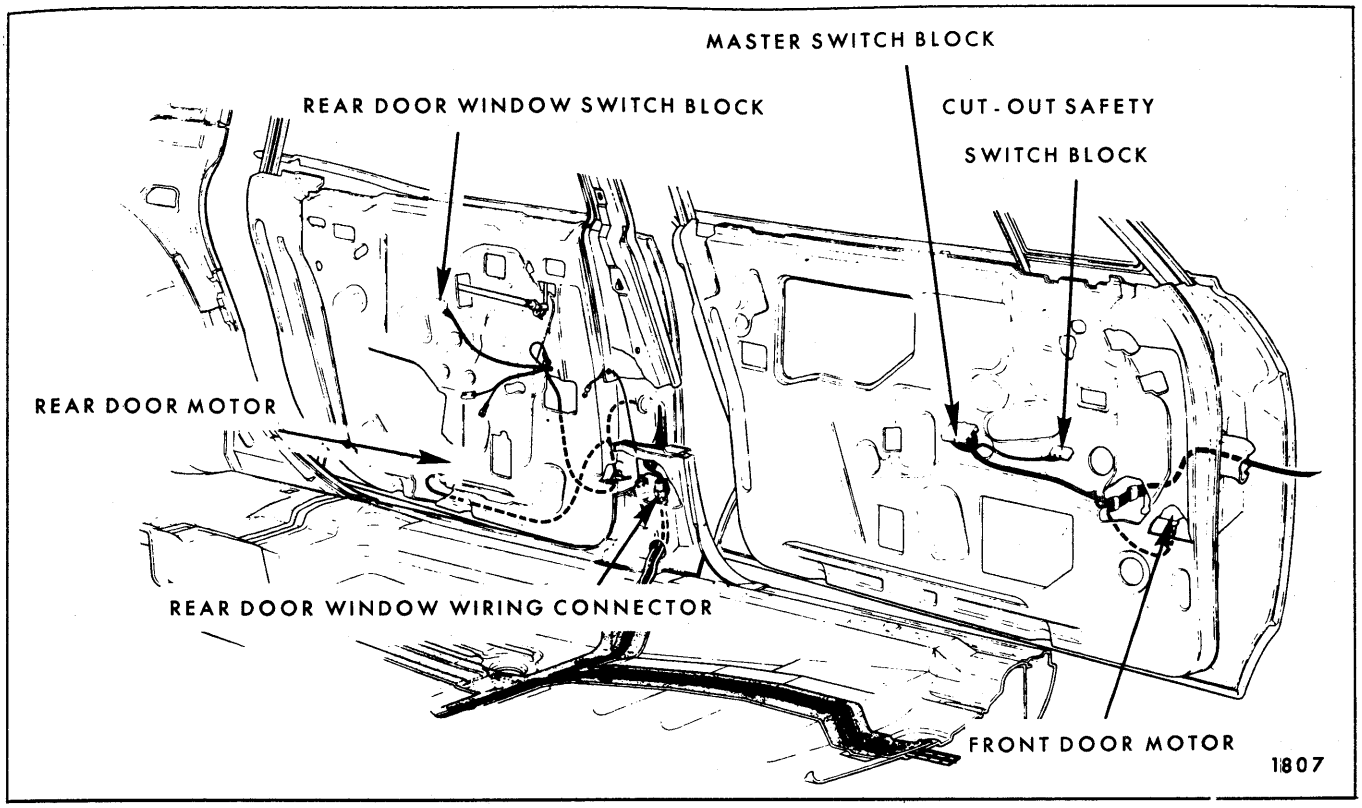


Fig. 11-19—Left Side Power Window Wiring - Cadillac "39-69" Styles

3. With the ignition switch on, connect one end of a #12 gauge jumper wire to center terminal (master control switch feed - red-white stripe) and the other end in the right and left rear quarter or door and right front door feed terminal (pink-black stripe).

4. Operate control switches. If any of the windows operate with the jumper but not with the cut-out switch, the switch is defective.

e. Checking Feed Circuit Continuity at Window Control Switch

1. Connect one test light lead to feed terminal of switch block and ground other tester lead to body metal (see Fig. 11-20).

2. If tester does not light, there is an open or short circuit between switch and power source.

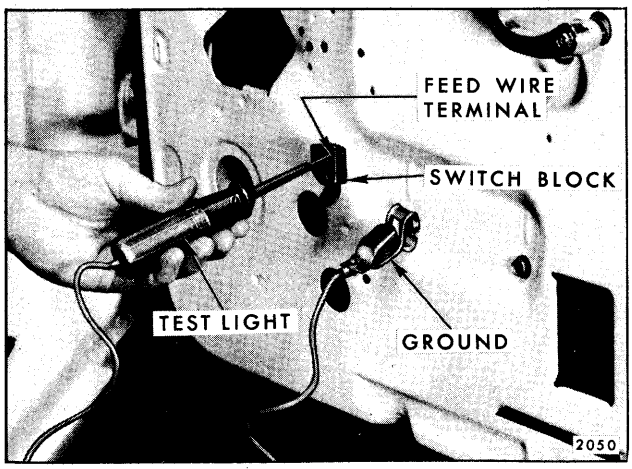


Fig. 11-20—Checking Feed Circuit

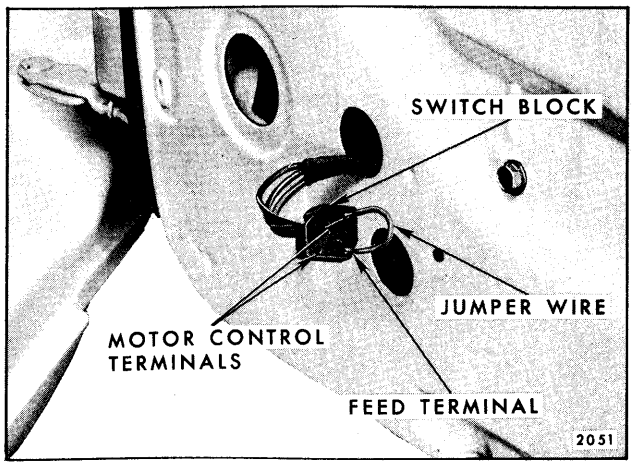


Fig. 11-21—Checking Window Control Switch

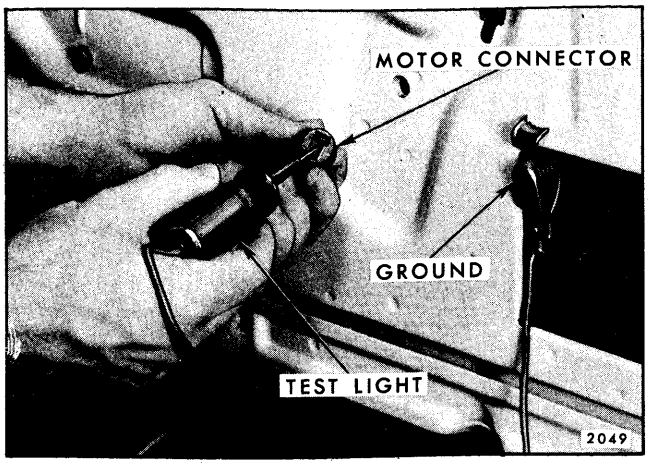


Fig. 11-22—Checking Circuit Between Switch and Motor

f. Checking Window Control Switch

1. Insert one end of a #12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block. Repeat this check on the remaining motor lead terminal (see Fig. 11-21).
2. If the window operates with the jumper wire, but does not operate with the switch, the switch is defective.

g. Checking Wires Between Door Window Switch and Door Window Motor

1. Disengage harness connector from window motor connector. The thumb release on the harness connector must be depressed before it can be disengaged from the motor.
2. Insert one end of a #12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block (see Figure 11-21).
3. With test light check for current at terminal being tested. If tester does not light, there is an open or short circuit in the harness between the control switch and motor connector (see Fig. 11-22).
4. Check other terminal.

h. Checking Wires Between Quarter Window Switch and Quarter Window Motor

1. Disengage the in-line connector located inboard of the quarter inner panel as required.
2. Insert one end of a #12 gauge jumper wire in the switch feed terminal and the other end in one of the motor lead terminals of the switch block (see Fig. 11-22).

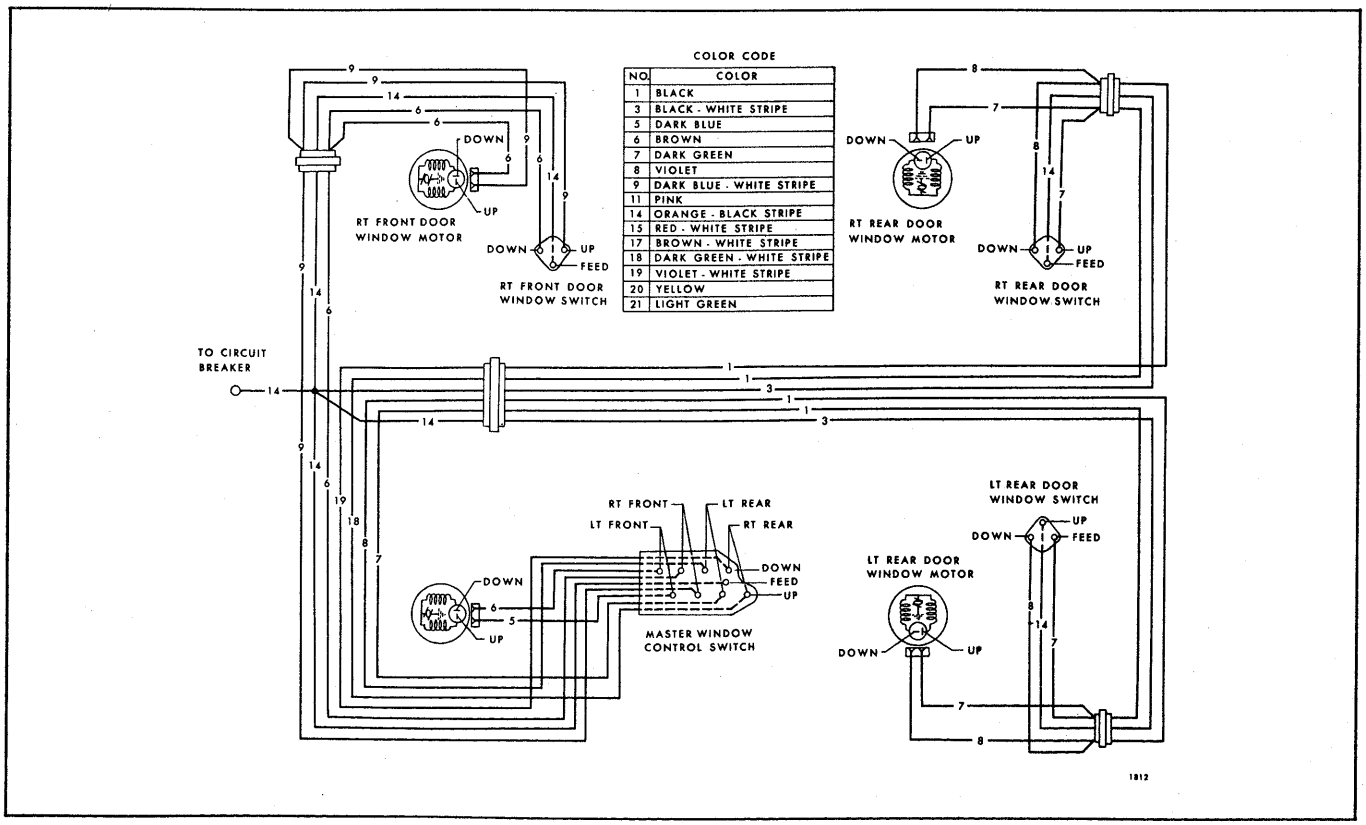


Fig. 11-23—Power Window Circuit Diagram - Chevrolet-Pontiac-Buick "B & C"

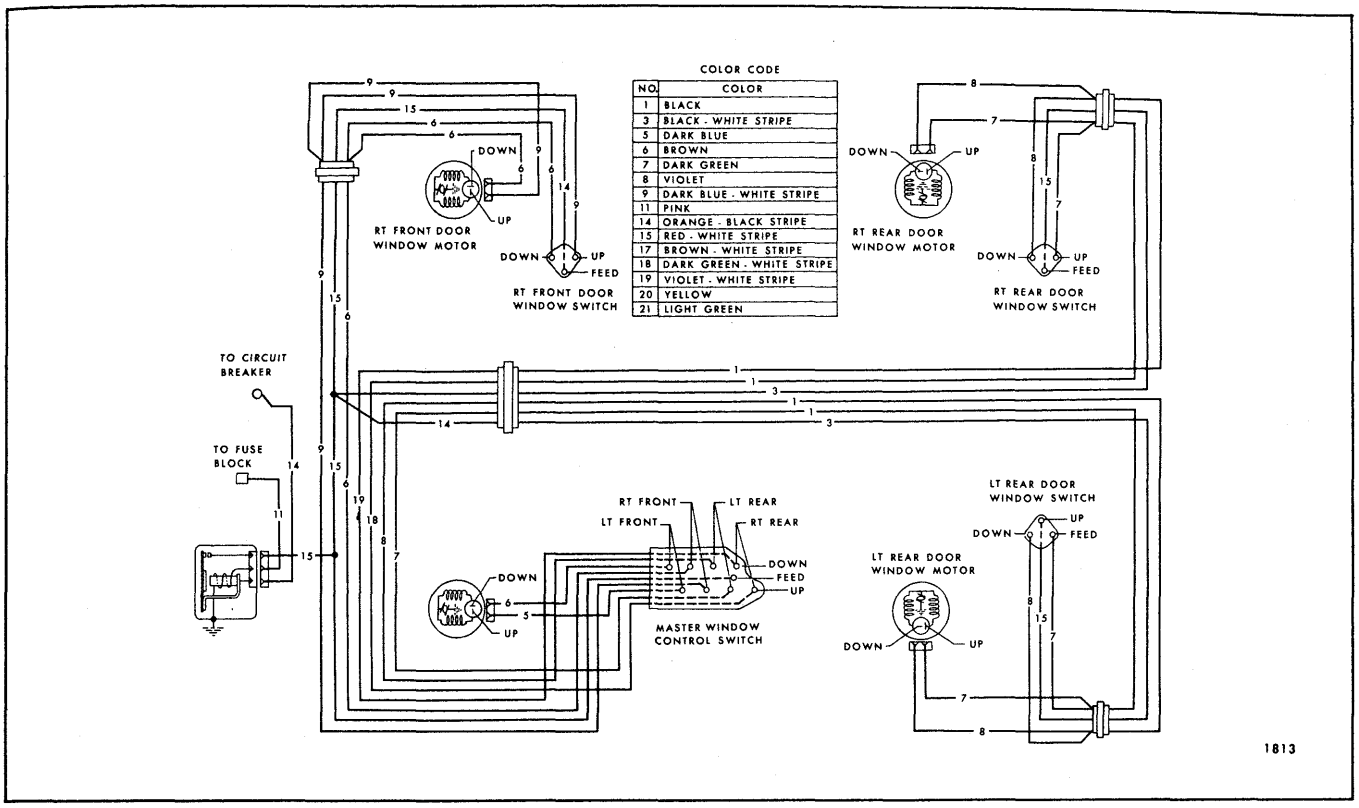


Fig. 11-24—Power Window Circuit Diagram - Oldsmobile "B & C"

3. With a test light, check for current at the corresponding terminal at the in-line motor connector. If tester does not light, there is an open or short circuit between control switch and motor connector.

4. Check other terminal.

i. Checking Window Motor

1. Check window regulator and channels for possible mechanical bind of window.

2. Check attachment of window motor to insure an effective ground.

3. Connect one end of a #12 gauge jumper wire to the power source and the other end to one of the terminals on the door window motor or the in-line connector for the quarter window motor.

4. If the motor fails to operate with a jumper wire, the motor is defective and should be repaired or replaced as required. Check the other motor lead in the same manner.

j. Typical Failures of Power Windows

The following typical failures and corrections have been listed as an aid for eliminating electrical failures in the power window electrical circuit. It should be noted that multiple failures in the circuit may lead to a combination of conditions, each of which must be checked separately.

CONDITION	CAUSE	CORRECTION
1. None of the windows will operate with ignition switch on.	Short or open circuit in power feed circuit.	A. Check circuit breaker operation. B. Check relay operation at left cowl. C. Check feed connection to power harness beneath instrument panel. D. Check the feed circuit wires for possible short or open circuit. E. Check cut-out switch.
2. Right rear door window does not operate from master control switch on left door or from control switches on right rear door. Left door window operates.	A. Short or open circuit between right rear door harness and power window front harness. B. Short or open circuit in affected window control switch or window motor circuit. C. Possible mechanical failure or bind in window channels. D. Defective window motor.	A. Check harness connectors beneath outer ends of instrument panel for proper installation. B. Check wires in power window front harness for possible short or open circuit. C. Check operation of rear door window control switch. D. Check circuit from window control switch to window motor for short or open circuit. E. Check window regulator and channels for possible mechanical failure or bind. F. Check operation of motor.
3. Right door windows will operate from left door master control switch but will not operate from right door control switches. Left door windows operate.	Open or short circuit in front harness feed wire circuit.	Follow up feed wire in front harness for possible short or open circuit.

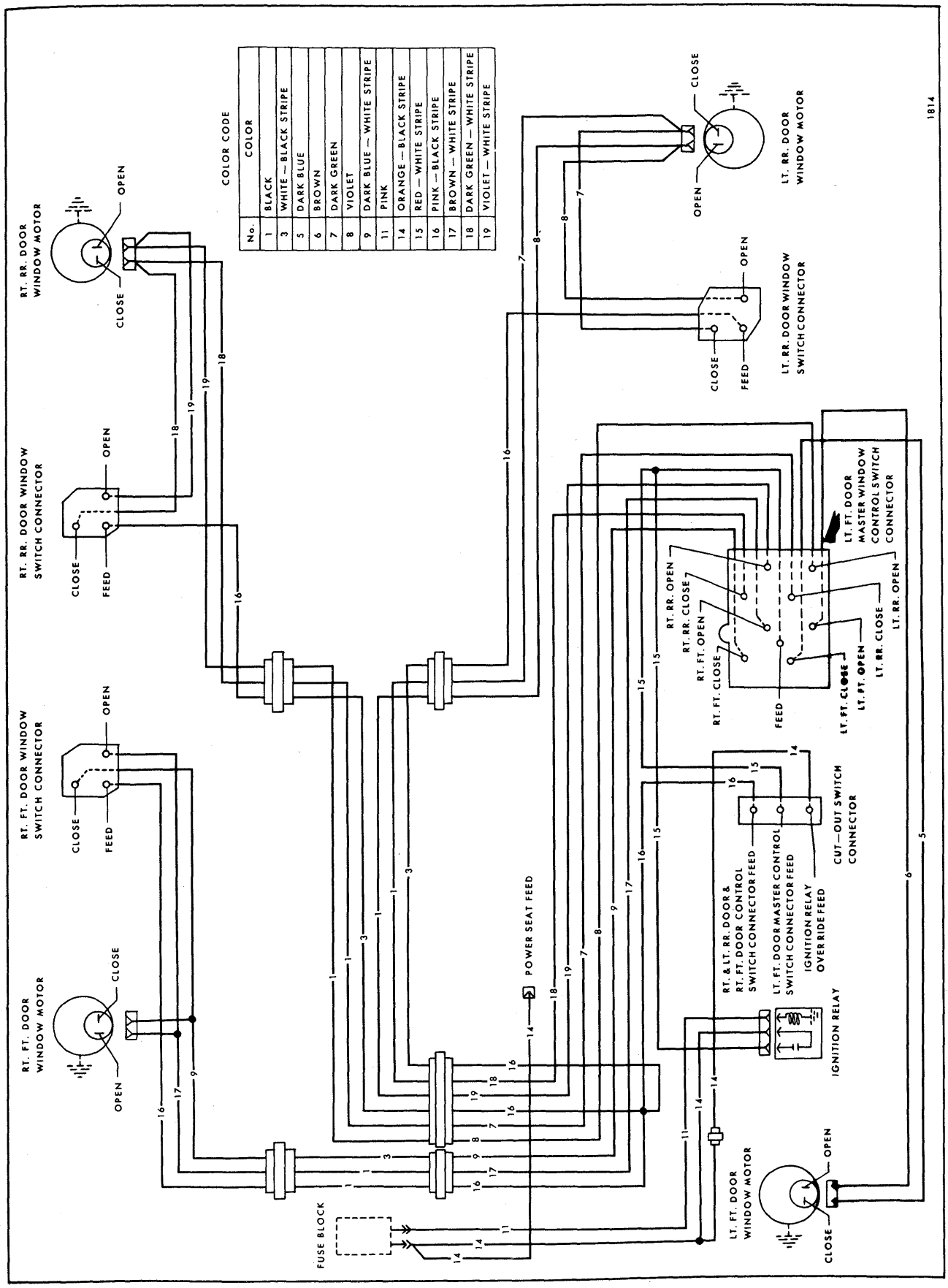


Fig. 11-25—Power Window Circuit Diagram - All Cadillac Except 68169

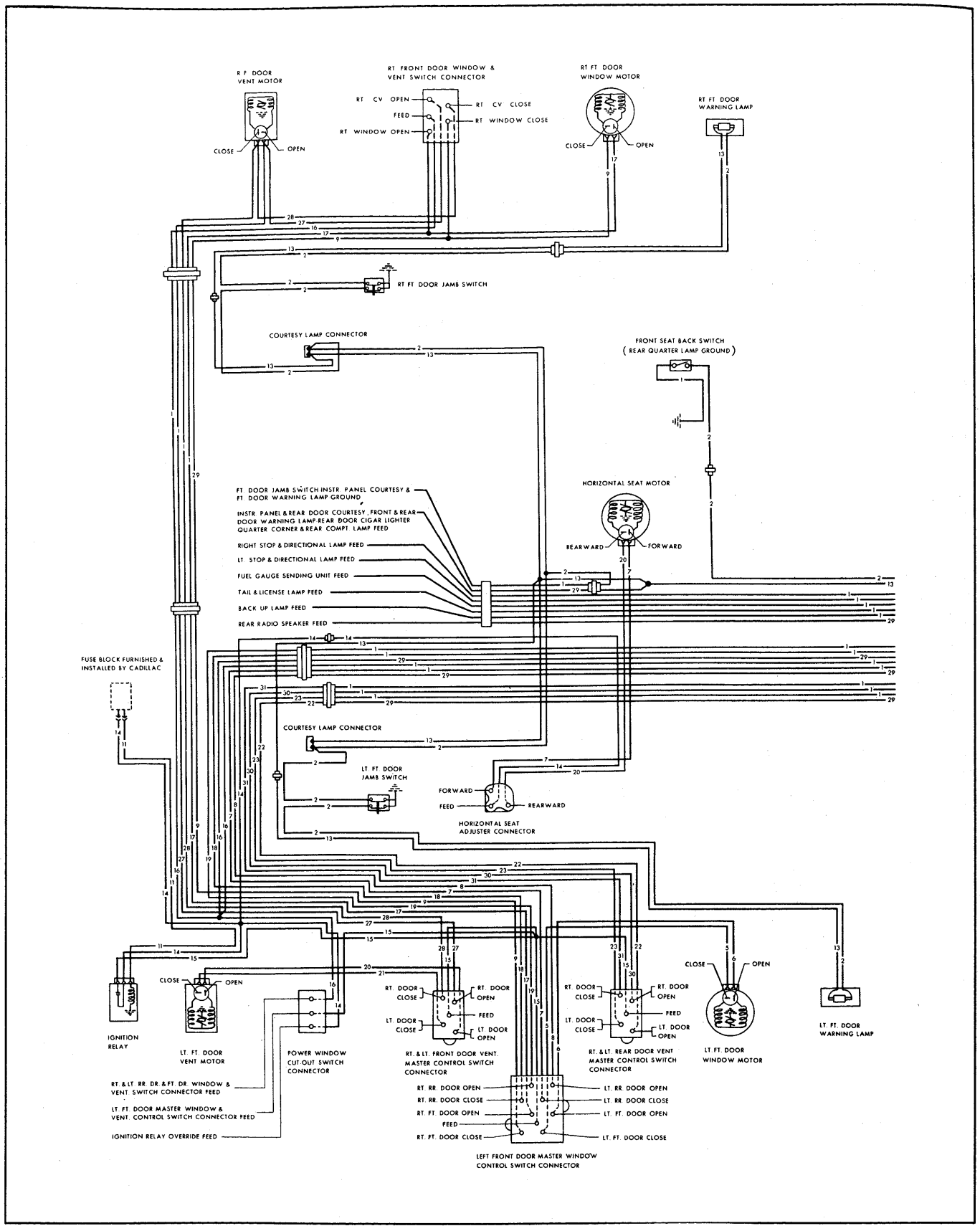
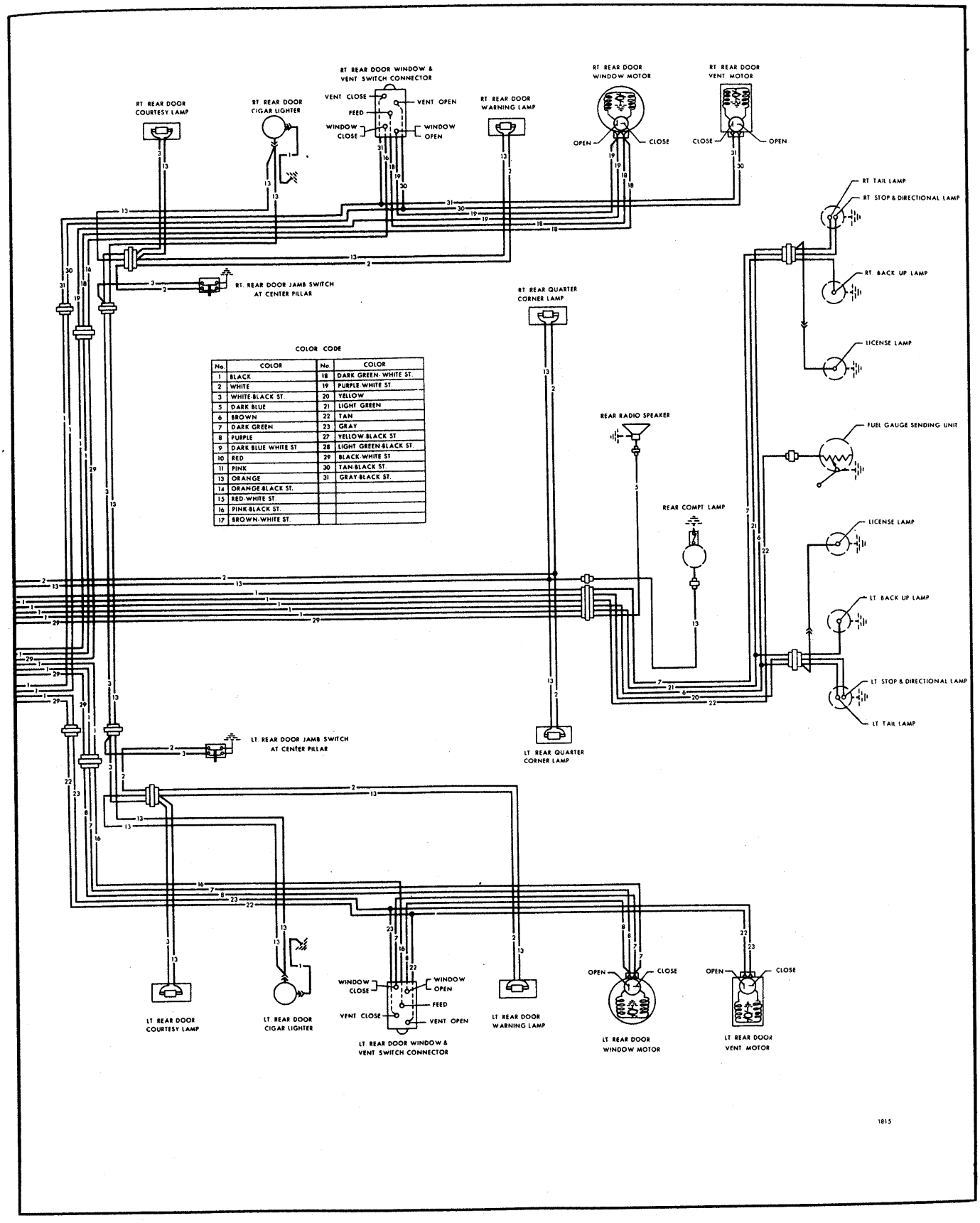


Fig. 11-26—Standard Body and Power Wiring Circuit Diagram - Cadillac 68169



COLOR CODE

No.	COLOR	No.	COLOR
1	BLACK	18	DARK GREEN-WHITE ST.
2	WHITE	19	PURPLE WHITE ST.
3	WHITE-BLACK ST.	20	YELLOW
5	DARK BLUE	21	LIGHT GREEN
6	BROWN	22	TAN
7	DARK GREEN	23	GRAY
8	PURPLE	27	YELLOW-BLACK ST.
9	DARK BLUE-WHITE ST.	28	LIGHT GREEN-BLACK ST.
10	RED	29	BLACK-WHITE ST.
11	PINK	30	TAN-BLACK ST.
13	ORANGE	31	GRAY-BLACK ST.
14	ORANGE-BLACK ST.		
15	RED-WHITE ST.		
16	PINK-BLACK ST.		
17	BROWN-WHITE ST.		

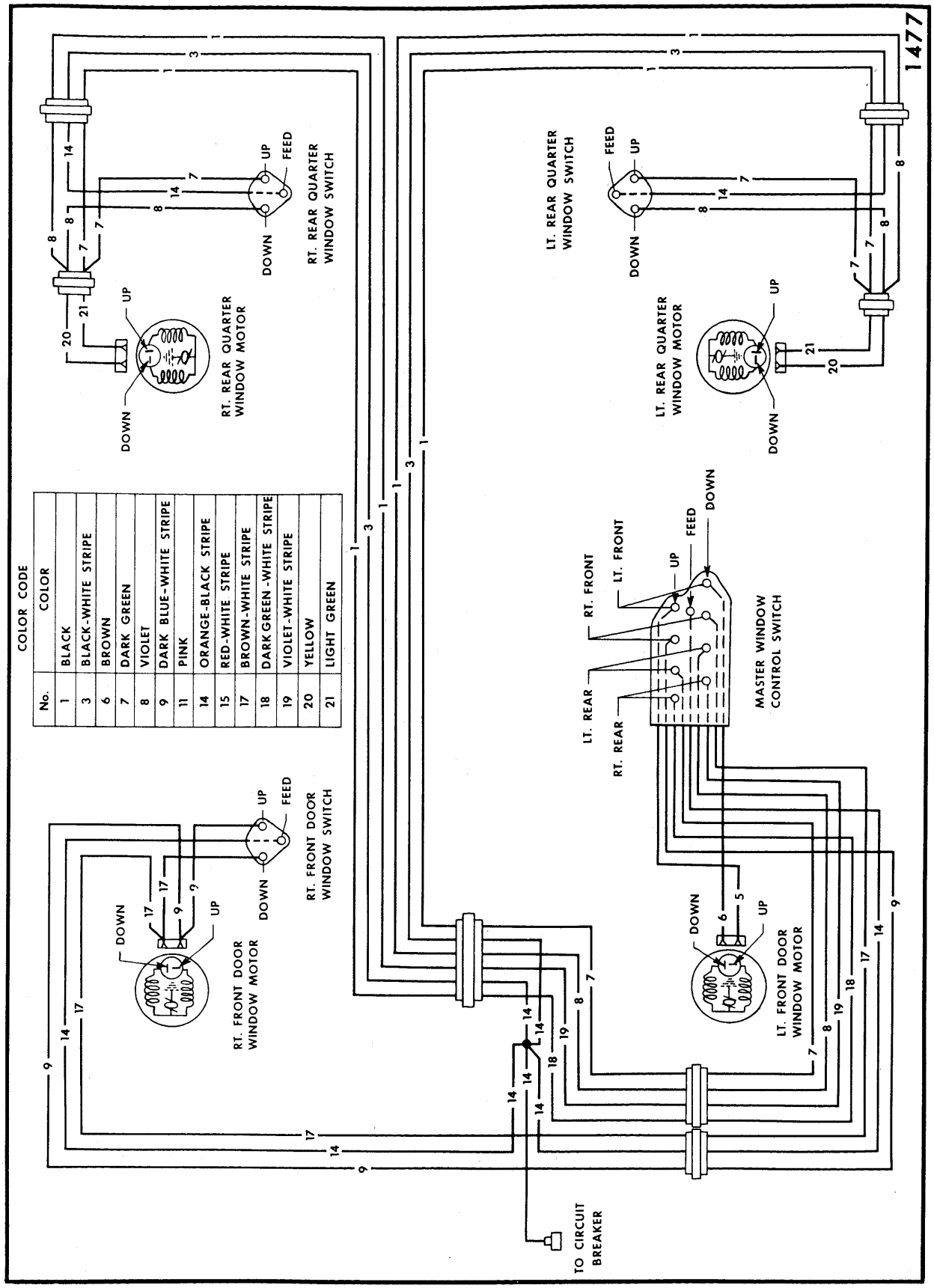


Fig. 11-27—Power Window Circuit Diagram - Chevrolet, Pontiac, Buick "A"

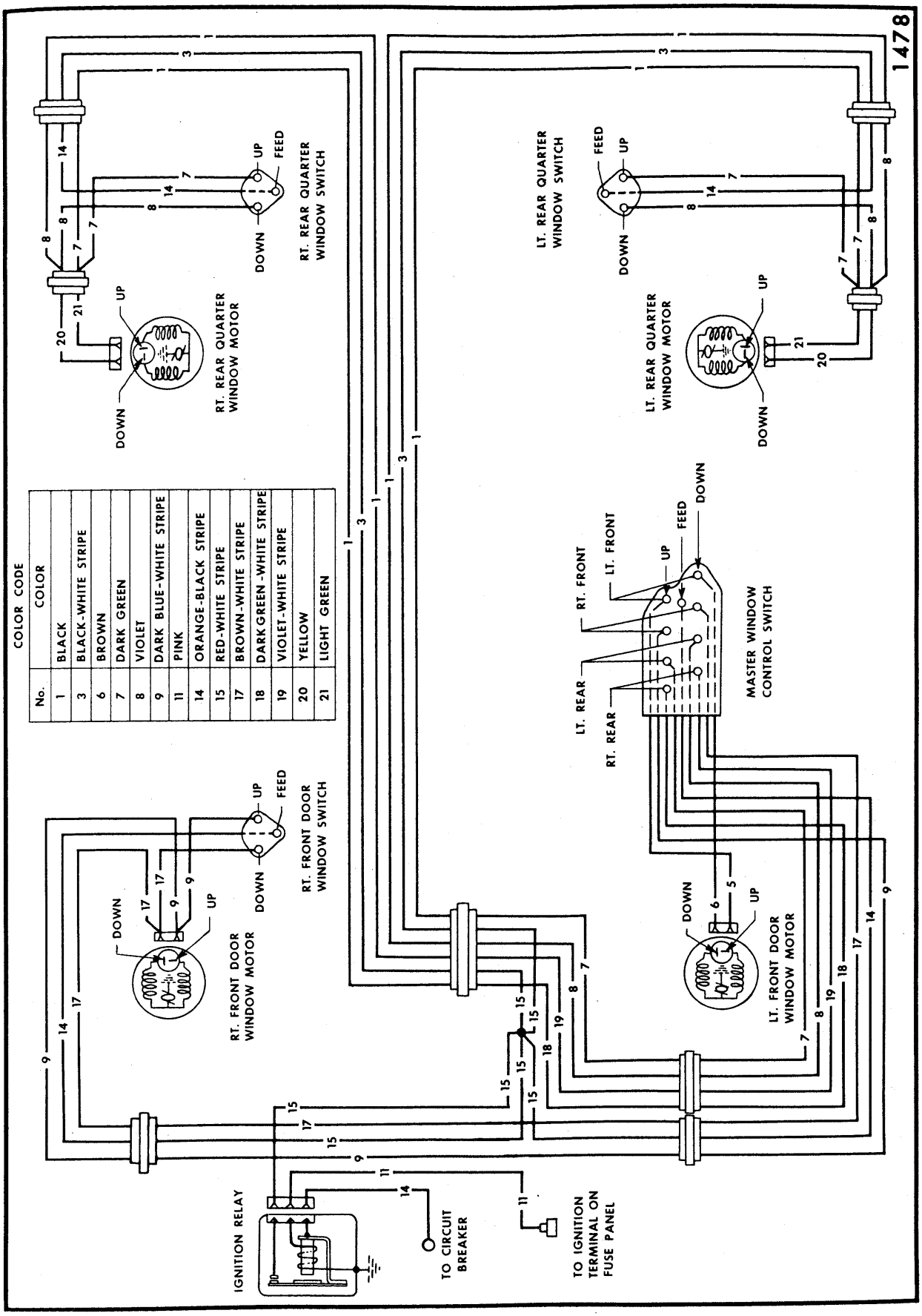


Fig. 11-28—Power Window Circuit Diagram - Oldsmobile "A"

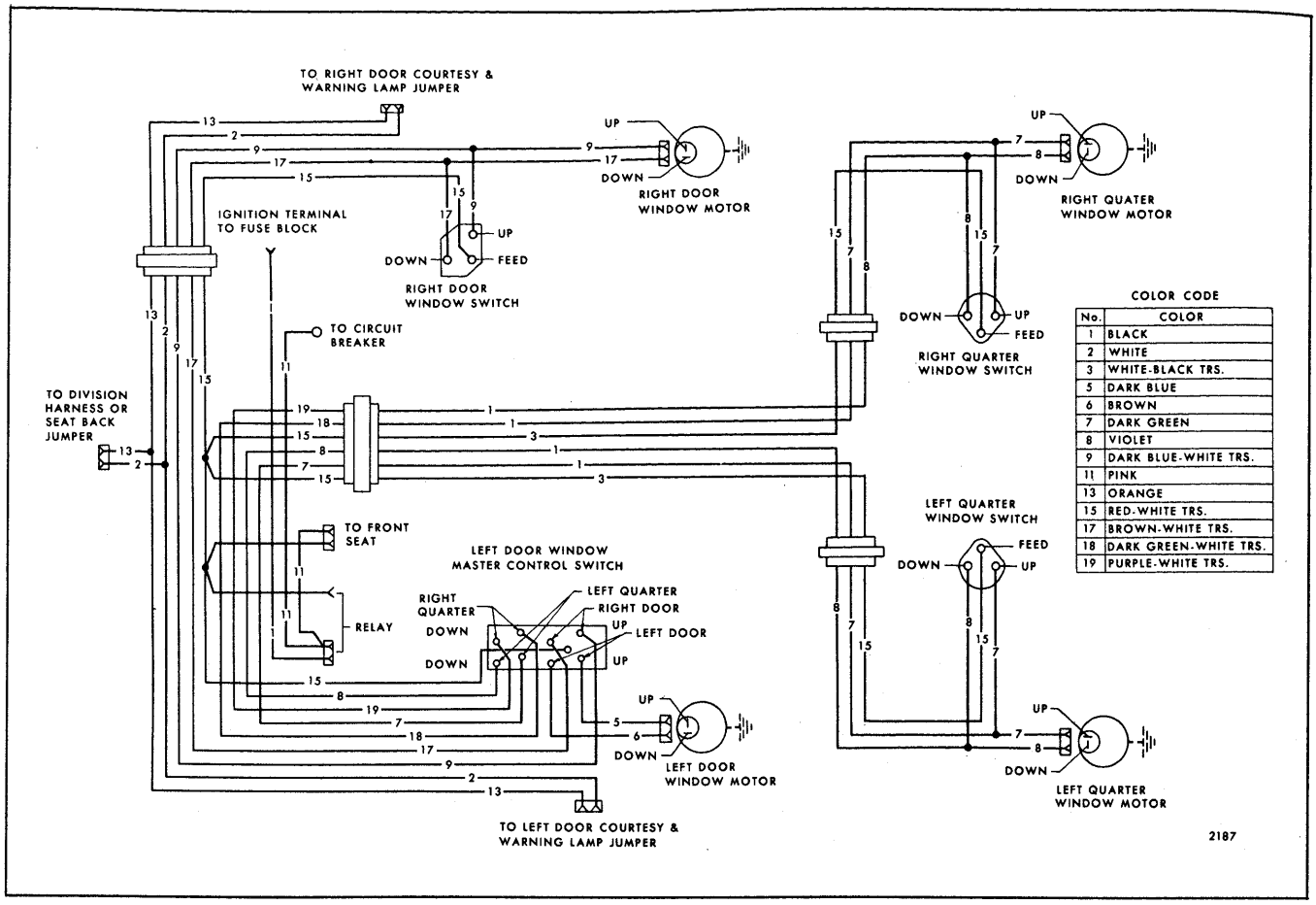


Fig. 11-29—Power Window Circuit Diagram - Oldsmobile "E"

POWER OPERATED VENTILATORS

The power ventilators are operated by a rectangular shaped 12 volt series-wound motor with an internal circuit breaker.

The power ventilator circuit is very similar to the power window circuit. The diagnosis outlined for the power windows may also be used in locating and correcting failures in the power ventilator circuit.

A typical illustration showing the ventilator installation is shown in Figure 11-31.

The harness for the ventilator circuit is separate in Pontiac styles. All other series the harness is an integral part of the power window harness.

Circuits for power ventilators are shown in Figures 11-32 and 11-33.

POWER OPERATED STATION WAGON TAIL GATE WINDOW

Electrical Tail Gate Window Circuit

The station wagon style power operated tail gate window is controlled by a window regulator assembly, equipped with a rectangular shaped, 12 volt D.C., reversible direction motor with an internal circuit breaker and a self-locking gear drive.

In addition to the internal circuit breaker the wiring circuit is protected by a 40 amp circuit breaker (see Electrical Introduction for locations).

Oldsmobile Styles - In addition to the circuit breaker, a relay is used in the circuit and installed at the shroud. The relay prevents the operation of the tail gate window from the instrument panel switch, until the ignition switch is turned "on".

The window may be operated from the instrument panel control switch, or from the tail gate window lock cylinder which rotates to raise or lower the window.

Chevrolet Styles - On the nine passenger station wagon styles, a tail gate window control switch is located at the rear of the left rear quarter inner trim panel (see Fig. 11-34).

NOTE: The "up" cycle wire is not engaged in the switch block but may be connected upon owner request.

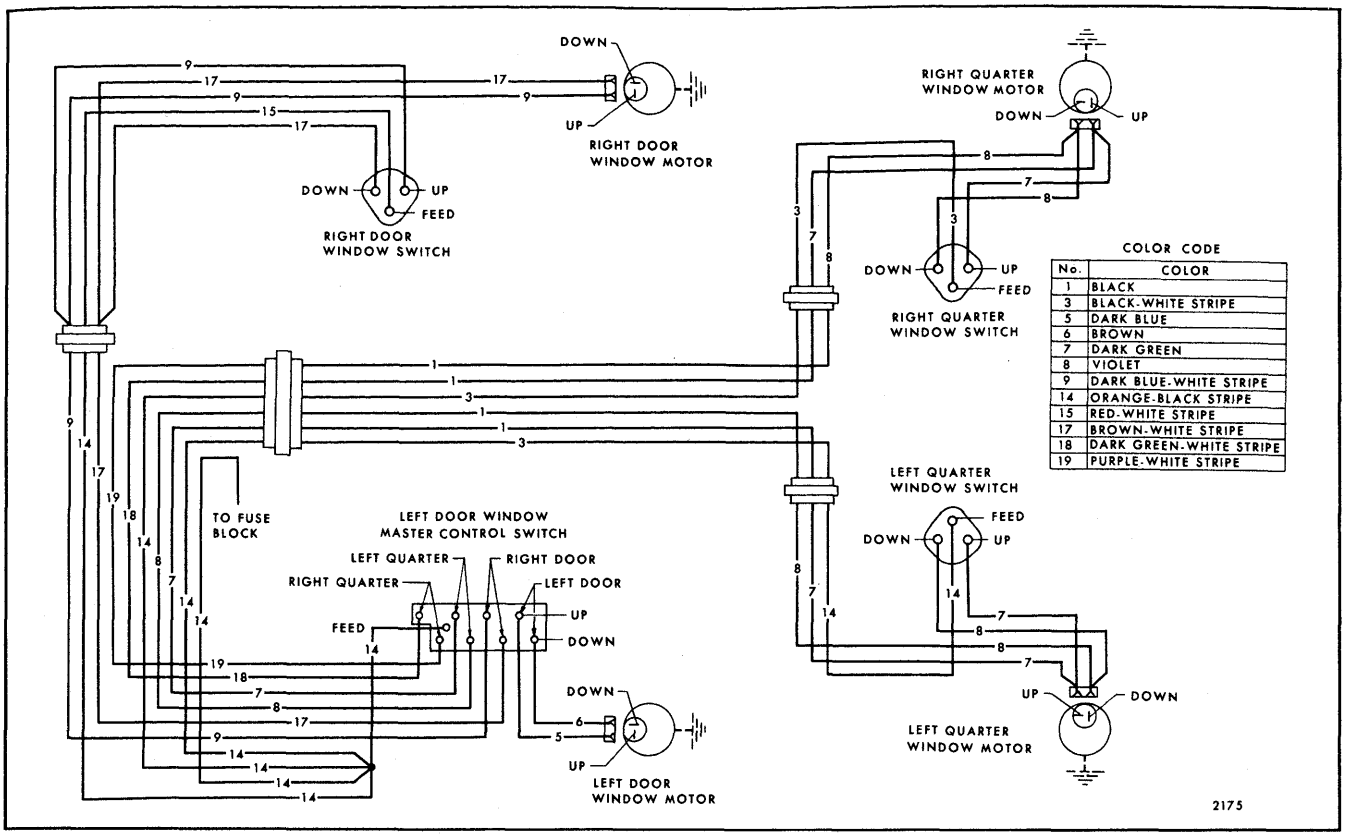


Fig. 11-30—Power Window Circuit Diagram - Buick "E"

To prevent the window from being operated to the up position when the tail gate has been lowered, a safety switch is located on the tail gate lock pillar. The safety switch opens the ground circuit of the tail gate window motor, making it inoperative. See tail gate views.

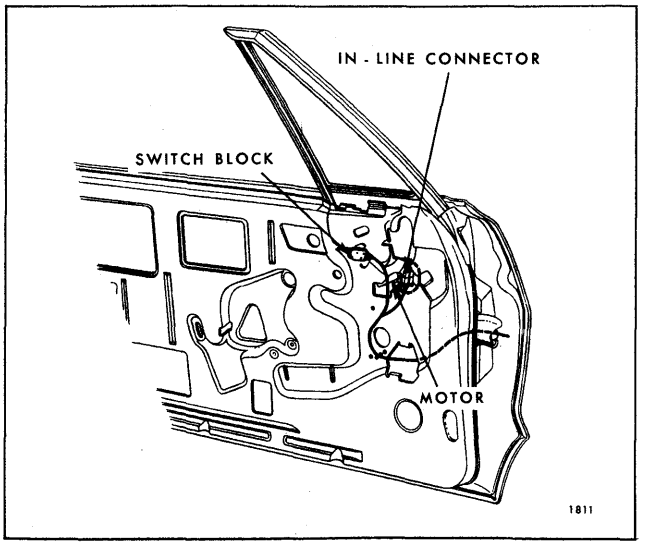


Fig. 11-31—Typical Power Ventilator Wiring

On all "A & B" Bodies - the tail gate window harness runs adjacent to the body wire and consists of two major sections. The front section of flat wire extends from the left center of the toe pan (Fig. 11-35 and 11-36), rearward and connects to the rear harness at the right rear quarter area (see Figs. 11-37, 11-38, 11-39). The rear cross bar wiring is shown in Figures 11-40, 11-41 and the tail gate wiring is shown in Figures 11-42, 11-43 and 11-44.

On Chevrolet "X" Bodies - The tail gate window harness is a component part of the body wiring harness which consists of two sections (front and rear) see Figures 11-45, 11-46, 11-47 and 11-48.

Checking Procedure

Before performing an intensive checking procedure to determine any failure of the circuit, check all the connectors for proper installation. The checking procedures below may be used to check the operation of a switch or motor after the cause of the electrical failure has been isolated to a particular part of the circuit. Refer to the circuit diagrams. See Figures 11-49, 11-50 and 11-51.

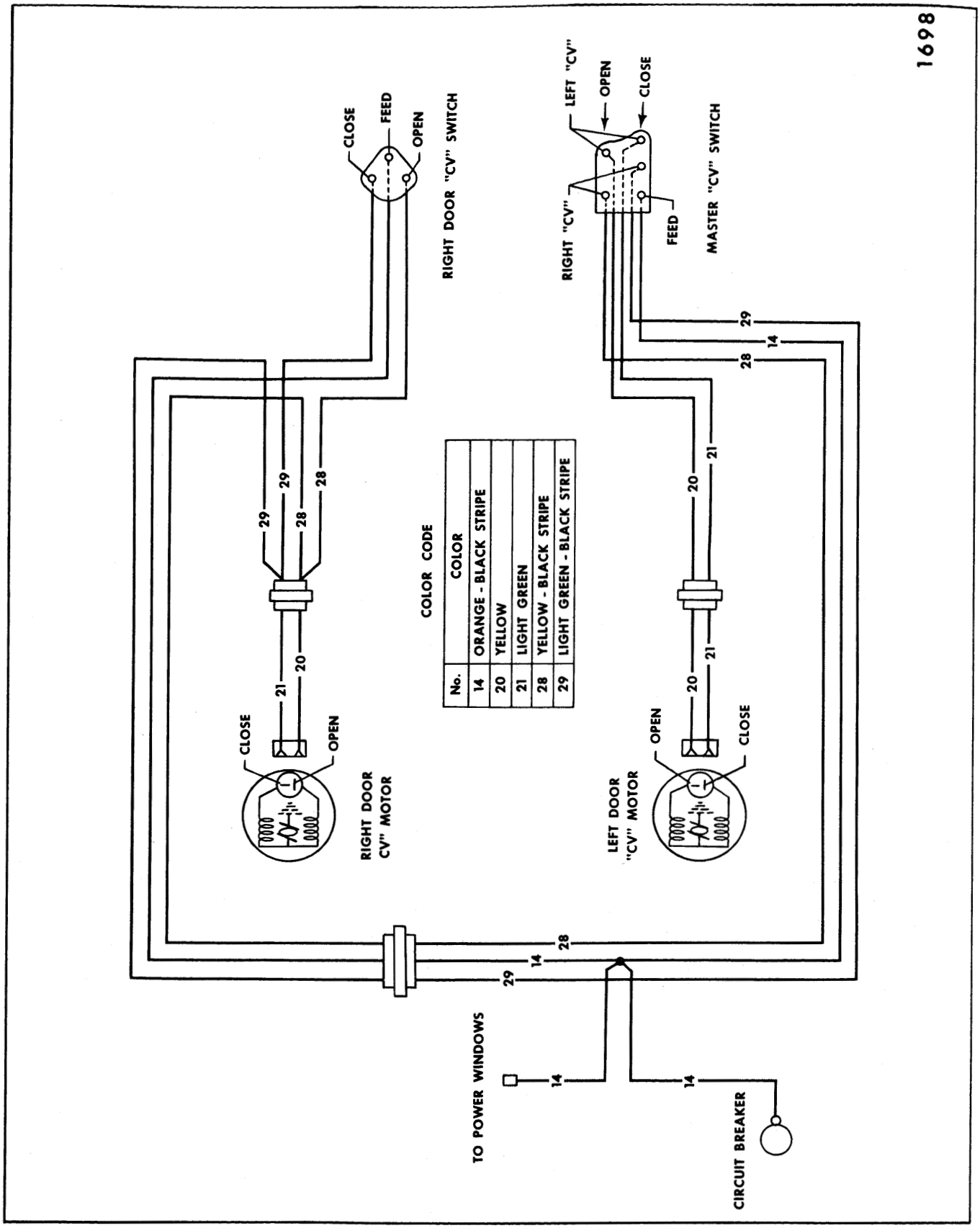


Fig. 11-32—Power Ventilator Circuit Diagram - Pontiac Style Shown

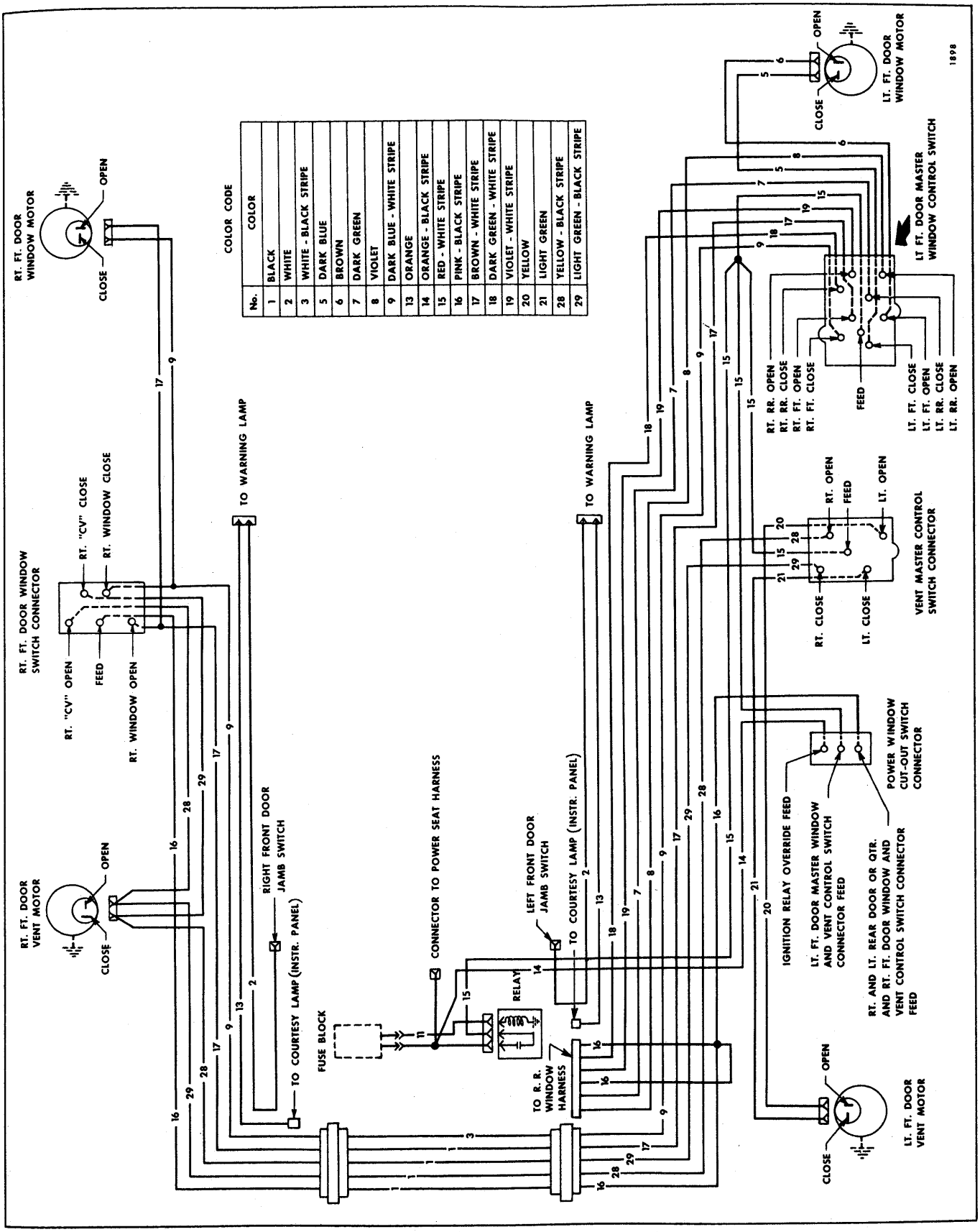


Fig. 11-33—Front Door Power Window and Ventilator Circuit Diagram - Cadillac

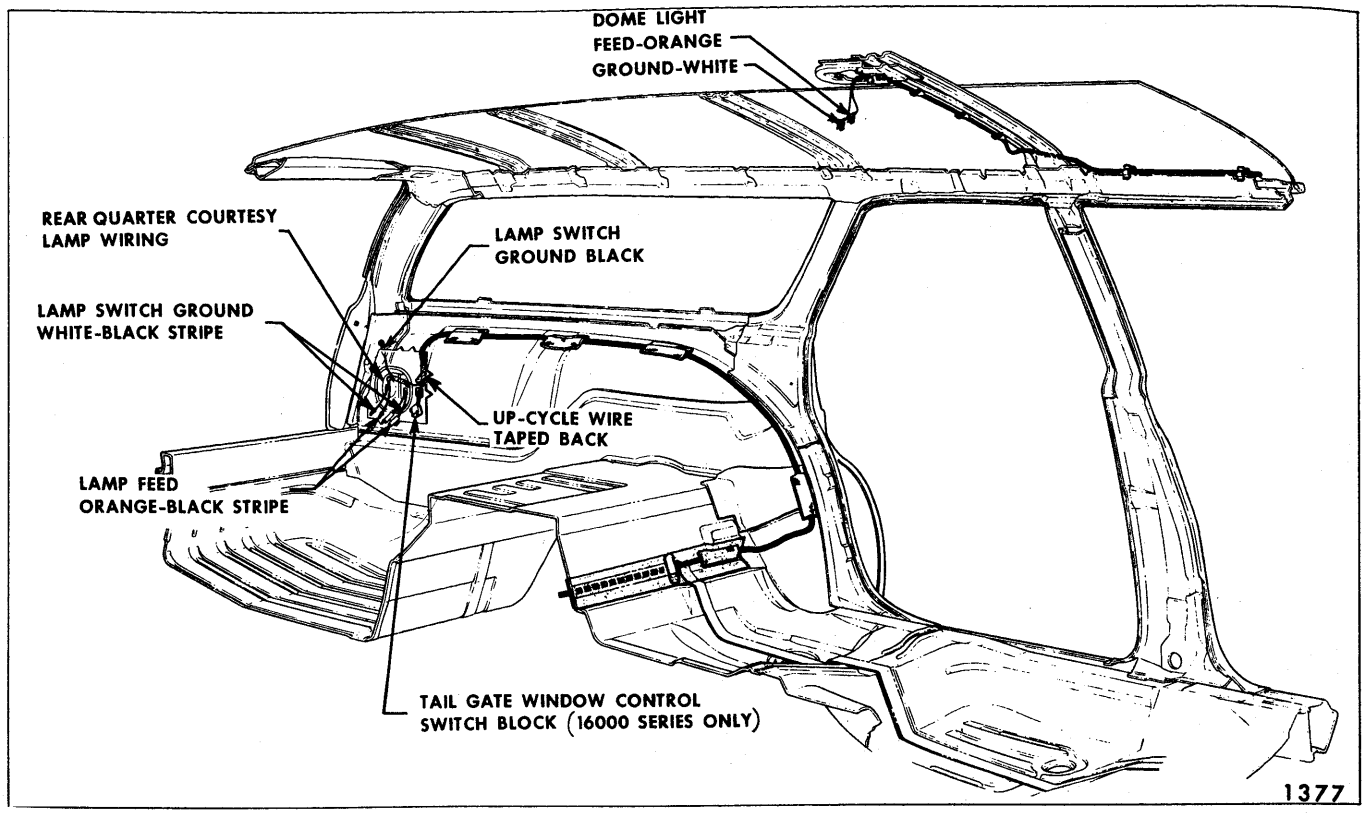


Fig. 11-34—Left Side Power Tail Gate Window and Body Wiring - Chevrolet, Pontiac "B" Bodies

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker. Connect one test light lead to the output terminal and ground other lead. If tester does not light, circuit breaker is inoperative.

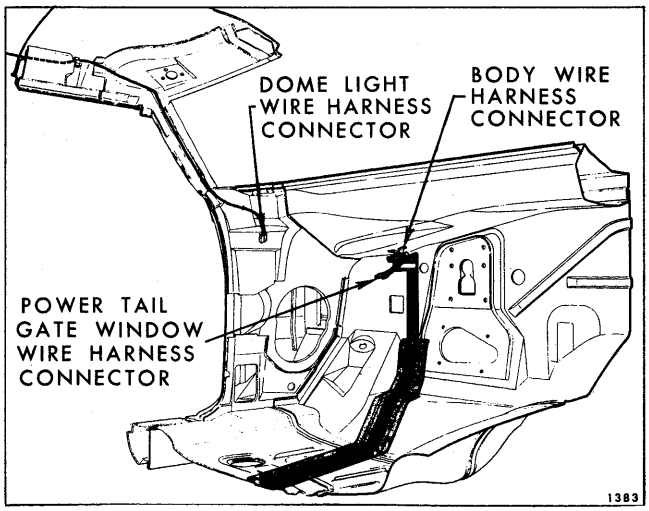


Fig. 11-35—Front End Wiring - Chevrolet, Pontiac "B" Body

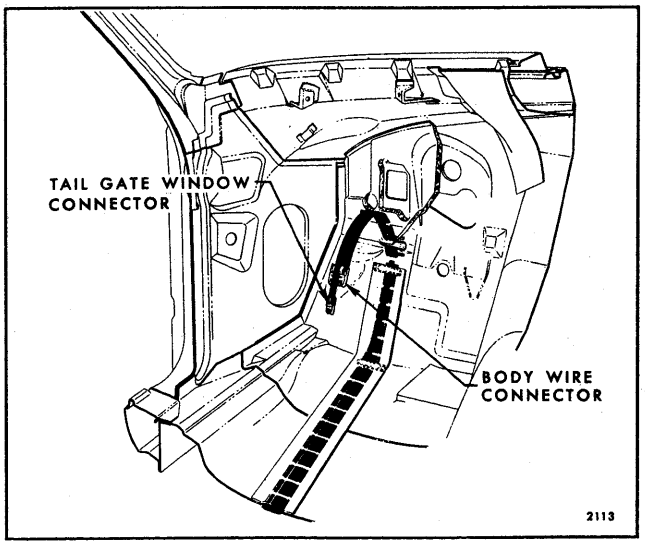


Fig. 11-36—Front End Wiring - All "A" Bodies

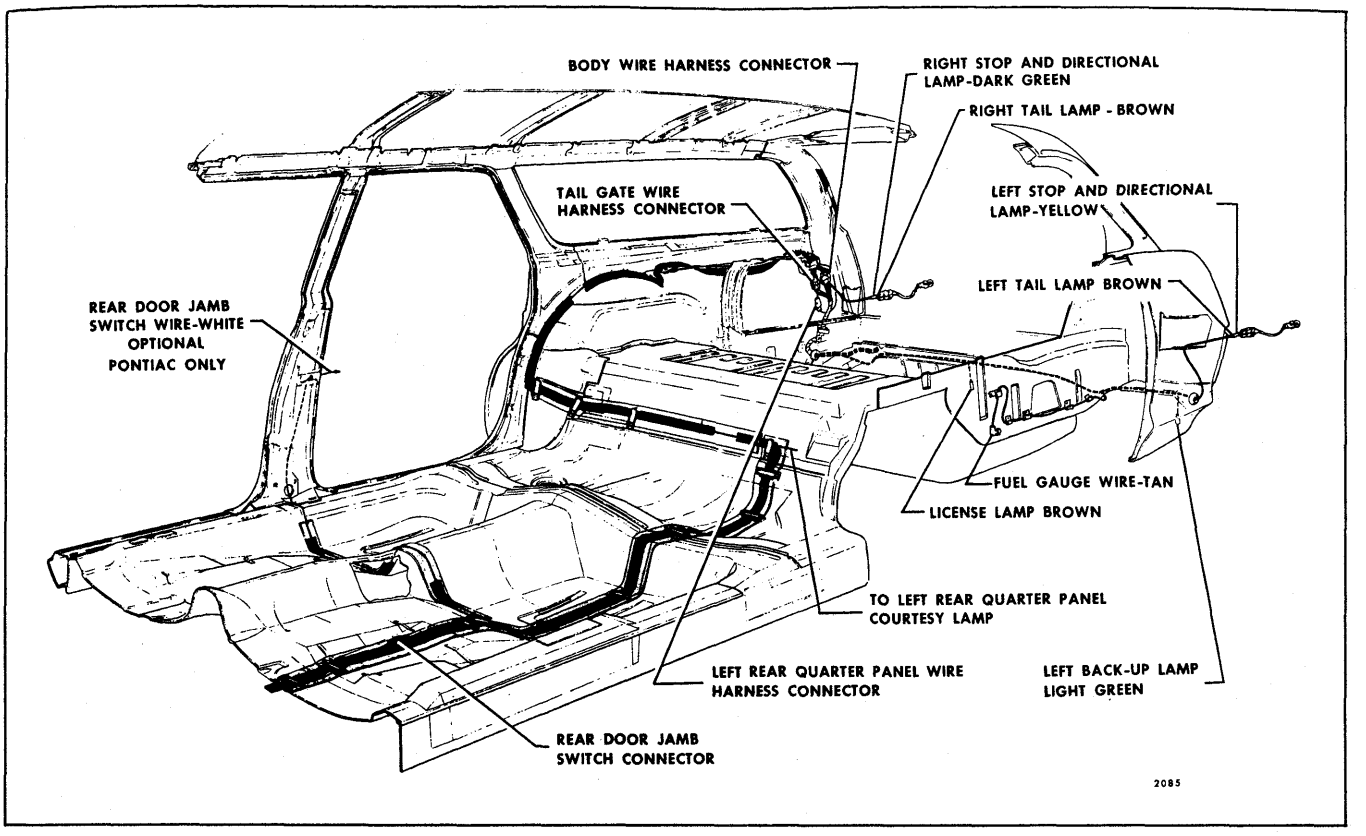


Fig. 11-37—Right Side and Rear End Wiring - Chevrolet, Pontiac "B" Bodies

b. Checking Relay Assembly at Shroud—Oldsmobile Styles Only

1. With test light check relay feed. If tester does not light, there is an open or short circuit between relay and circuit breaker.

2. Turn ignition switch on and with test light check output terminal of relay. If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch and relay assembly. (Check fuse at dash panel.)

c. Checking Feed Circuit Continuity at Control Switch on Instrument Panel

1. Disengage harness connector from switch. Connect one test light lead to feed terminal of switch connector and ground other test lead to body metal. If tester does not light, there is an open or short circuit between switch and power source.

d. Checking Control Switch at Instrument Panel

1. Disengage harness connector from switch.

2. Use a #12 gauge jumper wire and insert one end into the feed terminal and the other end into one of the other terminals. Tail gate window motor should operate.

3. Repeat procedure for the other terminal. If the tail gate window motor operates with the jumper wire but does not operate with the control switch, the switch is defective.

e. Checking Control Switch on Tail Gate

Remove tail gate switch and escutcheon as described in tail gate section. Disengage connector from switch and determine that there is current at terminal block; then, use a 12 gauge jumper and perform the same checking procedure as outlined for the control switch at the instrument panel.

f. Checking the Tail Gate Window Motor

1. Disconnect harness connector from motor.

2. Connect the positive side of power source to the light blue wire terminal (close cycle) on the motor connector and the negative lead to the white - dark green (ground) wire terminal. Motor should operate. To check the reverse operation of the motor connect the power

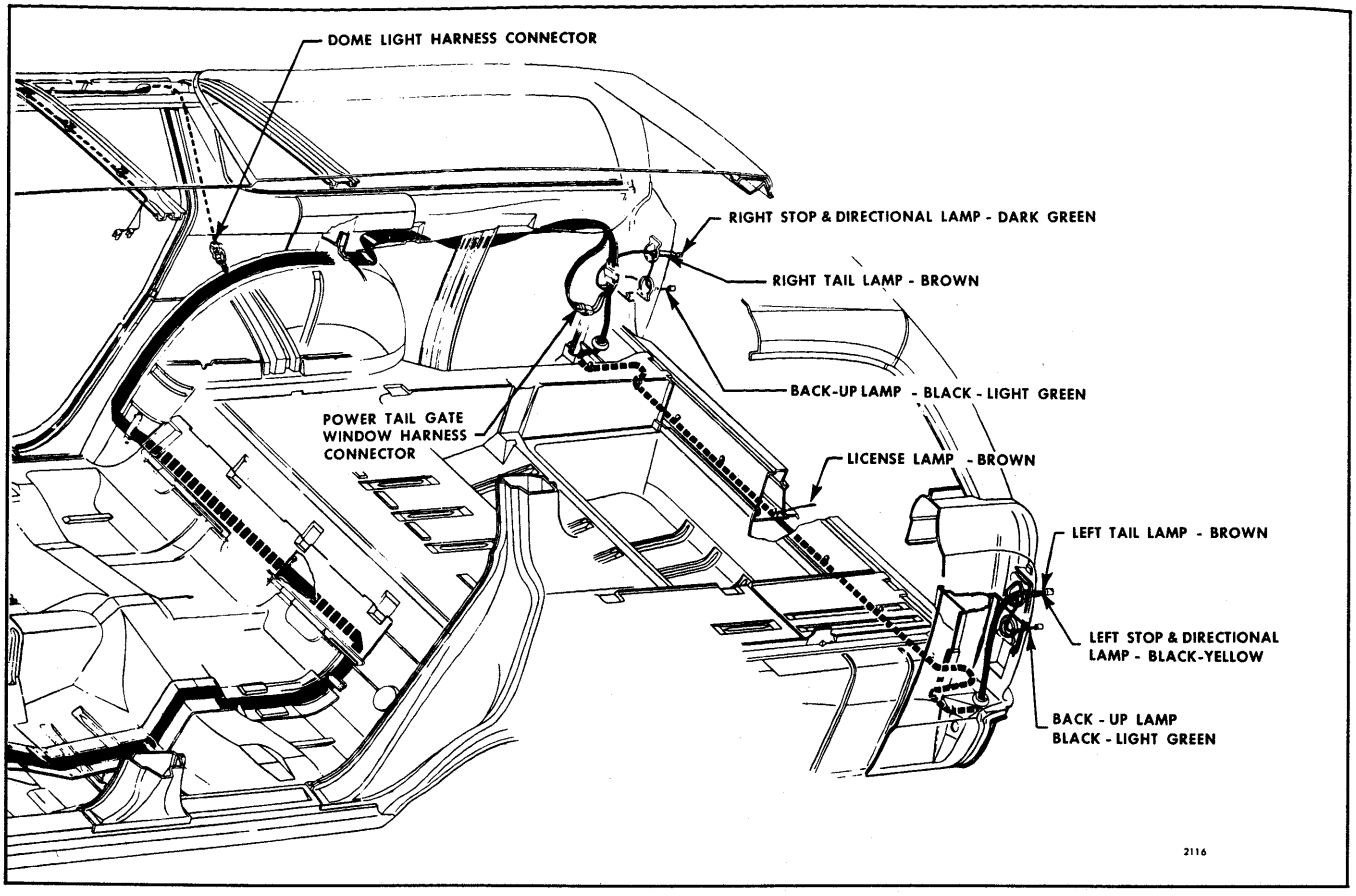


Fig. 11-38—Right Side and Rear End Wiring - Chevrolet, Pontiac, Oldsmobile "A" Bodies

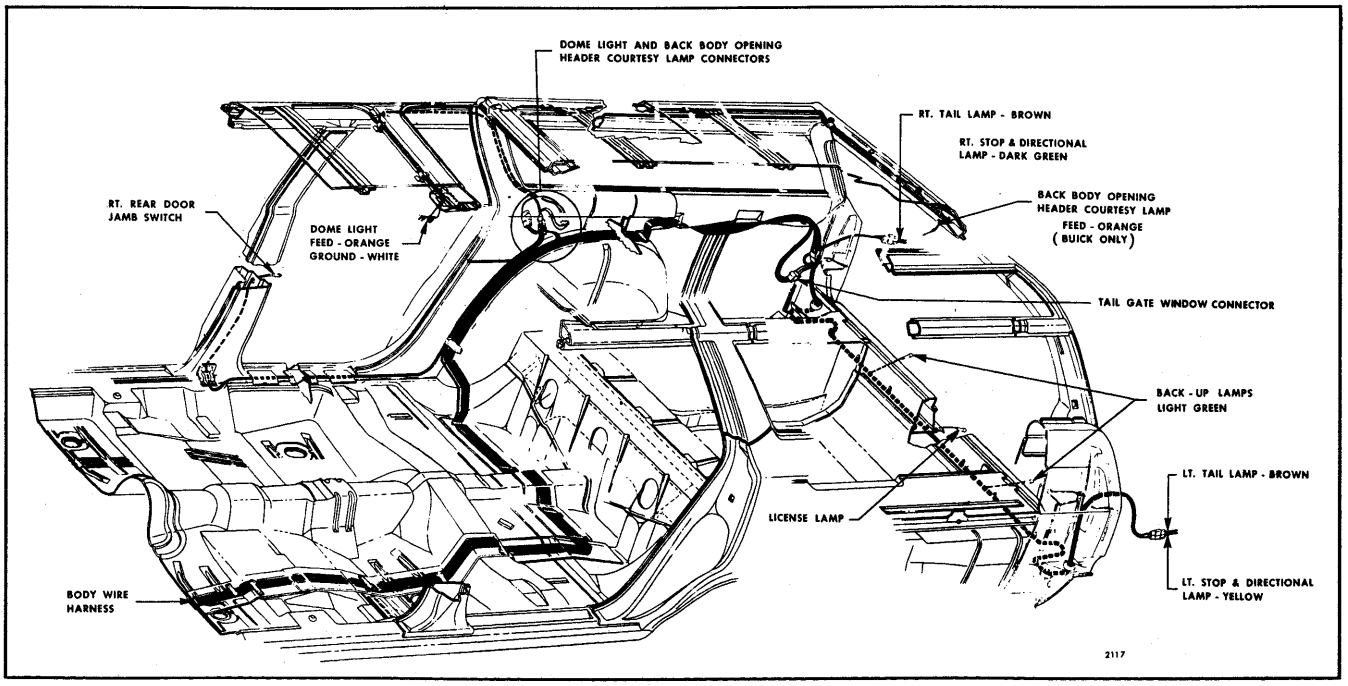


Fig. 11-39—Right Side and Rear Wiring - Buick "A" Body 55-65 Style

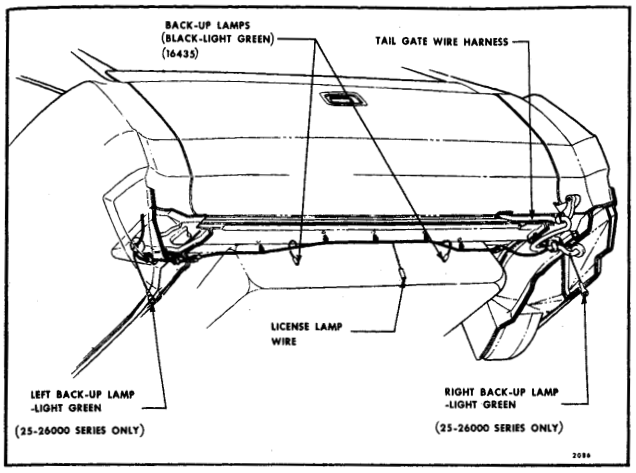


Fig. 11-40—Rear Cross Bar Wiring - Chevrolet, Pontiac "B" Bodies

source to the tan - white wire terminal (open cycle). If motor does not operate in both directions, repair or replace motor.

g. *Checking Operation of Safety Switch*

1. With tail gate open, depress switch arm to simulate the tail gate being closed on all "A & B" Styles. For Chevrolet "X" use jumper wire from open contact to body ground. Operate control switch. If motor does not operate, either switch is defective or the circuit is open from the motor to the switch.

2. To check for defective switch, connect one end of test light to a source of power and the other lead to the safety switch terminal. If the tester lights when the switch lever is actuated, the switch is operative.

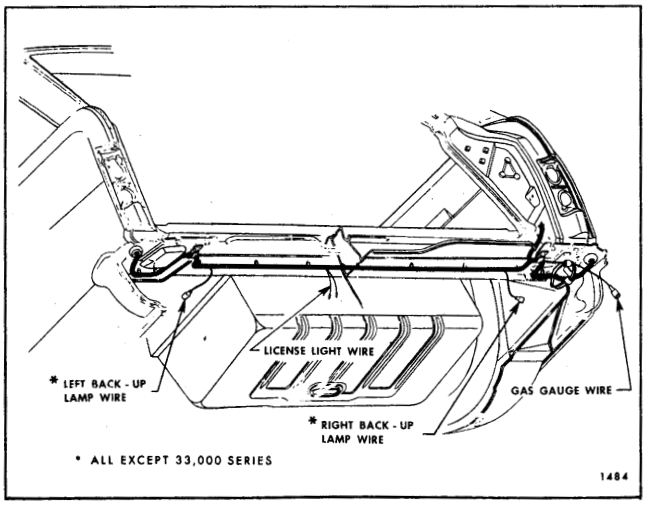


Fig. 11-41—Rear Cross Bar Wiring - All "A" Bodies

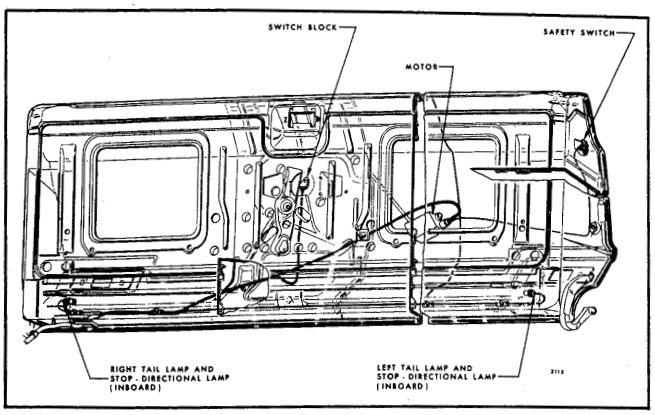


Fig. 11-42—Tail Gate Wiring - Chevrolet "B" Bodies

NOTE: Safety switch completes the ground circuit from the motor.

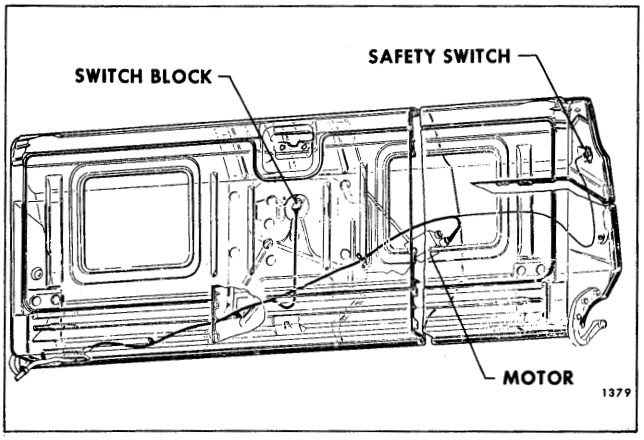


Fig. 11-43—Tail Gate Wiring - Pontiac "B" Bodies

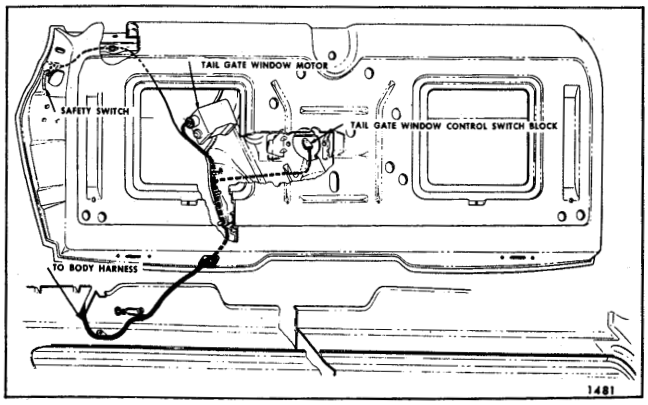


Fig. 11-44—Tail Gate Wiring - All "A" Bodies

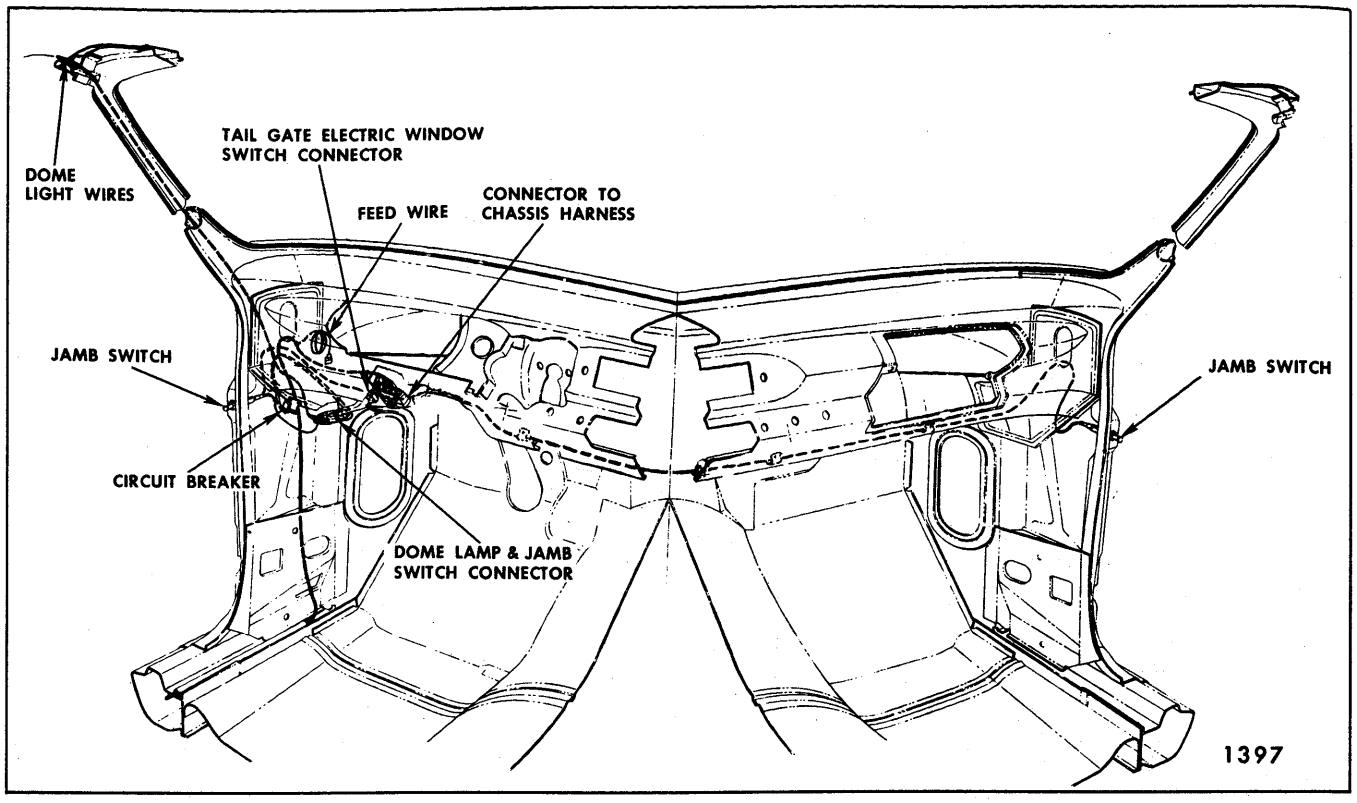


Fig. 11-45—Front End Wiring - Chevrolet "X" Bodies

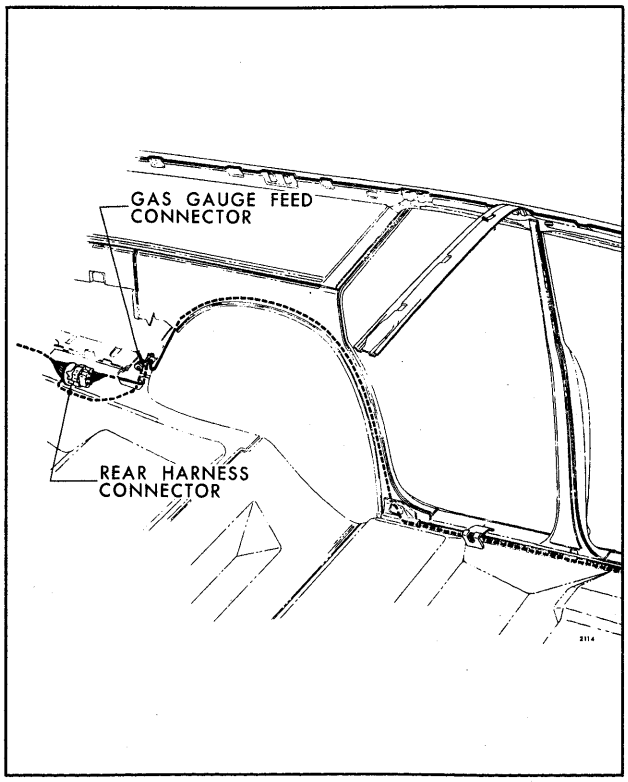


Fig. 11-46—Left Side Wiring - Chevrolet "X" Bodies

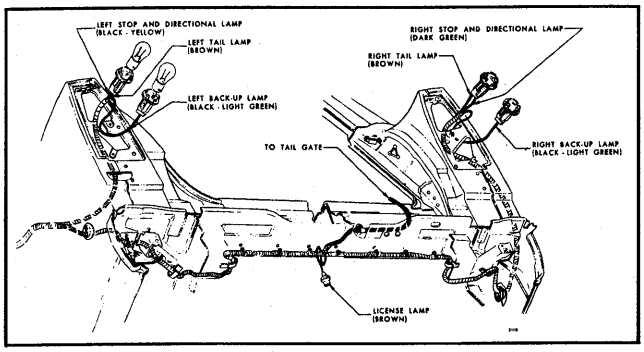


Fig. 11-47—Rear Cross Bar Wiring - Chevrolet "X" Bodies

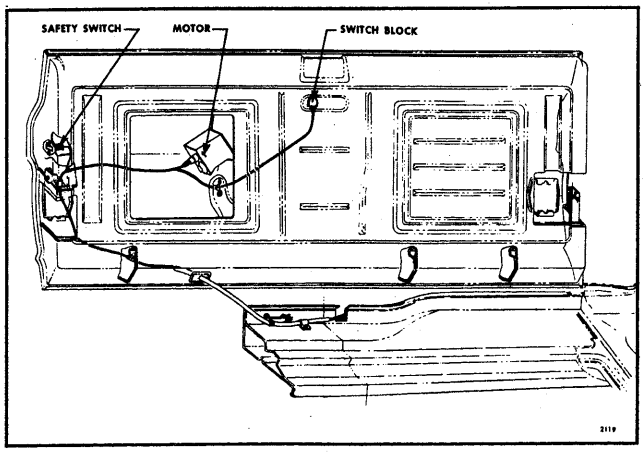


Fig. 11-48—Tail Gate Wiring - Chevrolet "X" Bodies

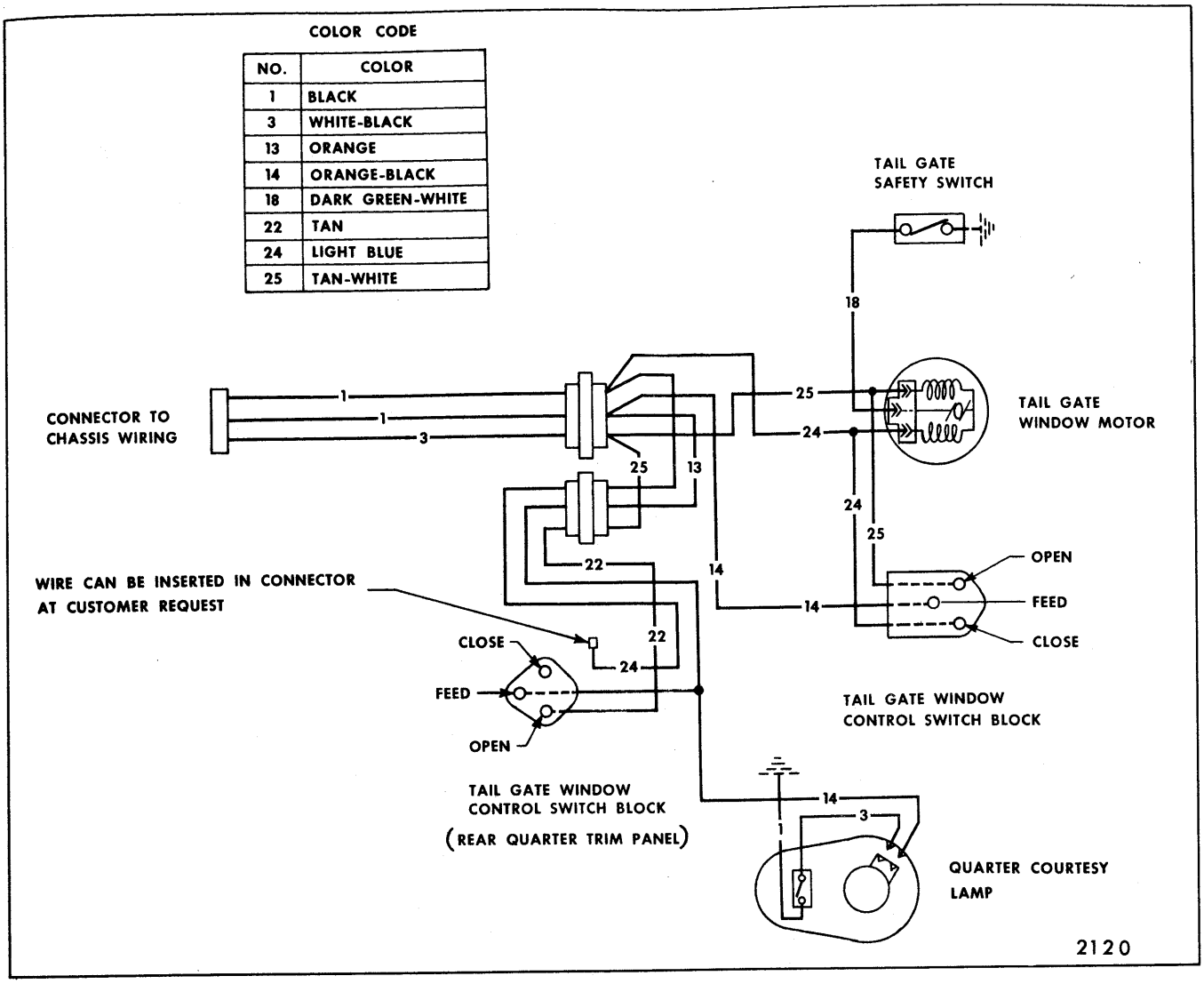
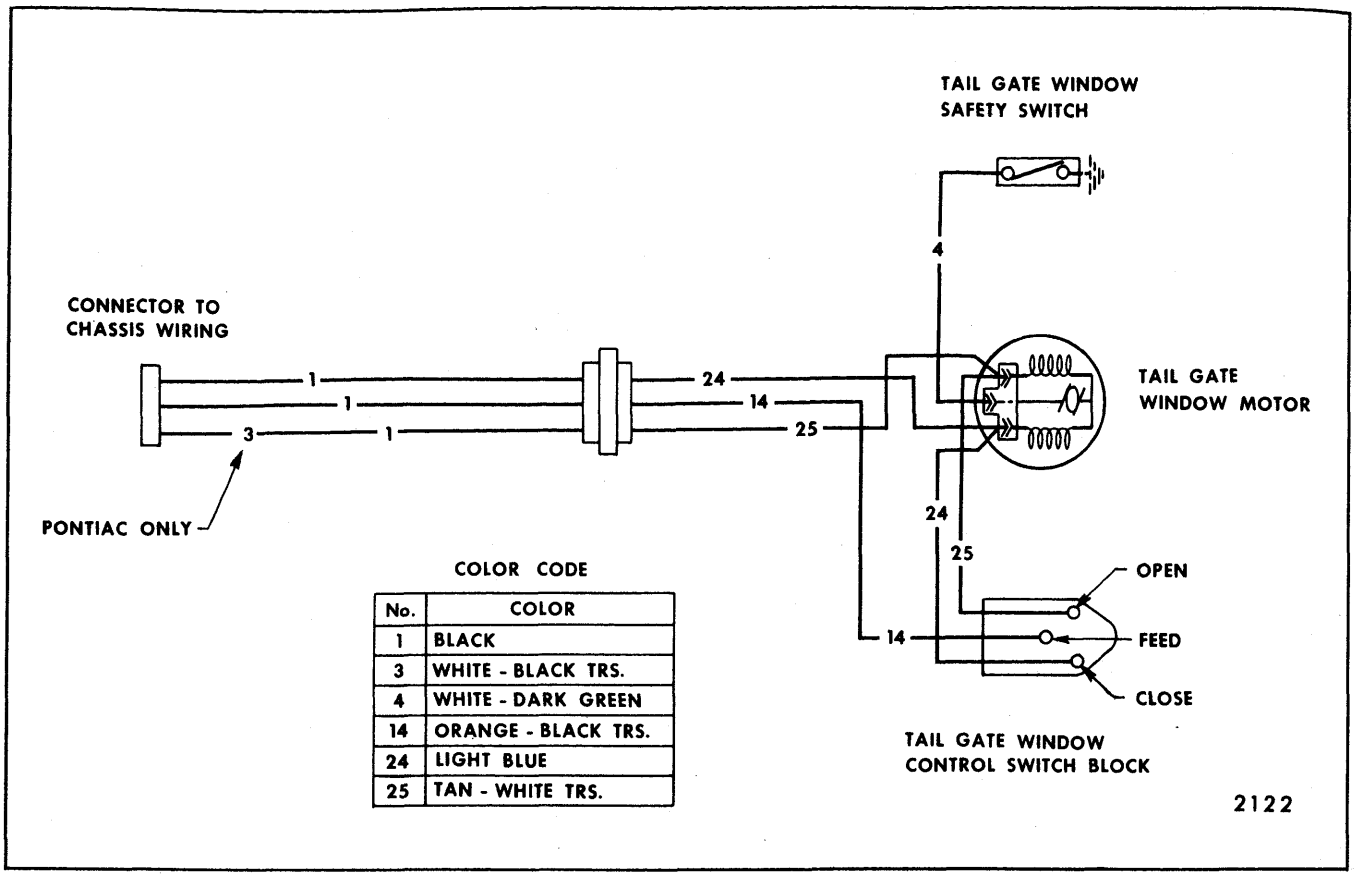


Fig. 11-49—Power Tail Gate Circuit - Chevrolet "B" 45 Styles



COLOR CODE

No.	COLOR
1	BLACK
3	WHITE - BLACK TRS.
4	WHITE - DARK GREEN
14	ORANGE - BLACK TRS.
24	LIGHT BLUE
25	TAN - WHITE TRS.

Fig. 11-50—Power Tail Gate Window Circuit - All "A & B" 35-55 and 65 Styles

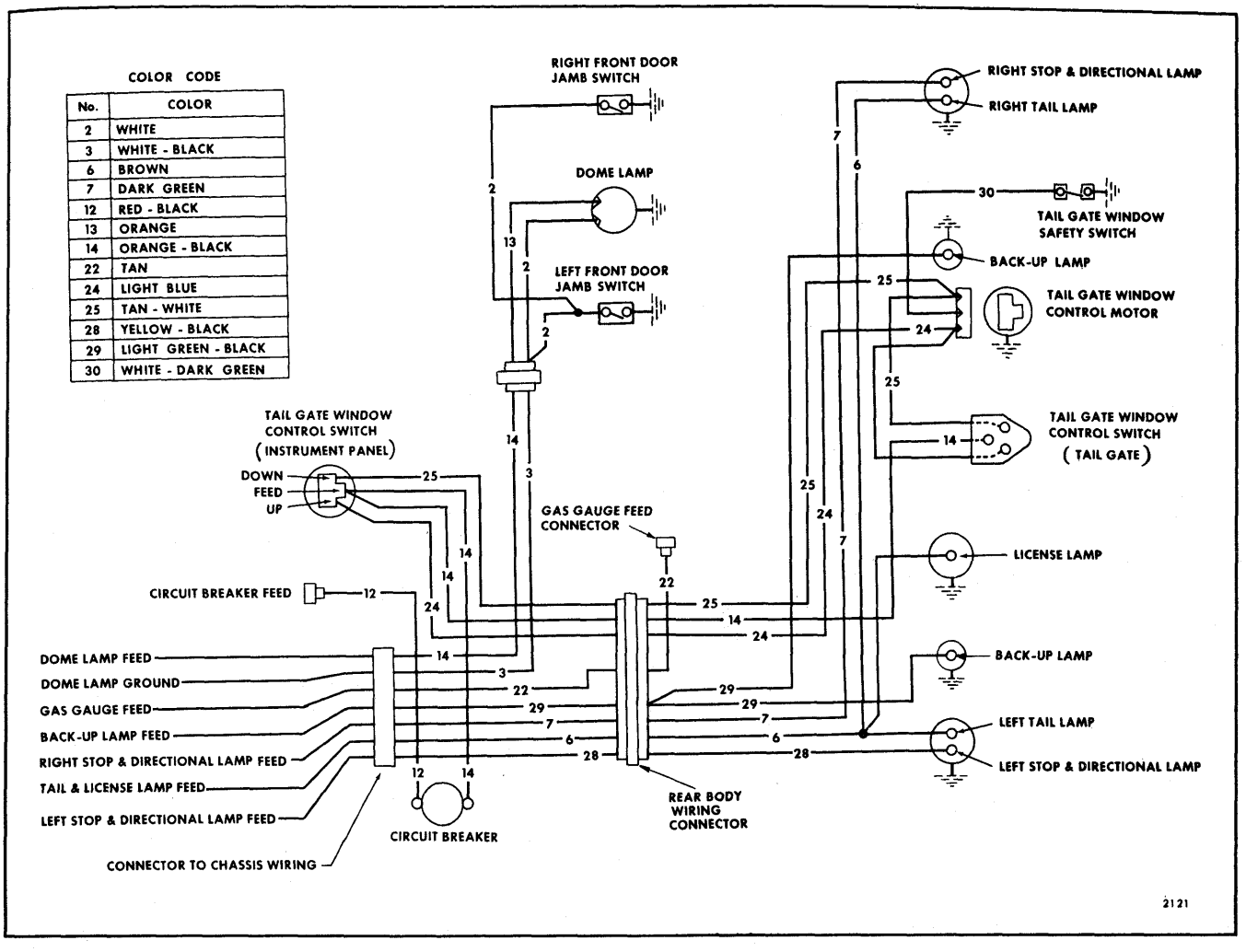


Fig. 11-51—Power Tail Gate Window Circuit - Chevrolet "X" Bodies

h. Trouble Shooting

CONDITION	CAUSE	CORRECTION
A. The tail gage window operates up and down from the tail gate switch but does not operate from the switch at the instrument panel.	1. Open or short circuit from power source to control switch at instrument panel.	1. Check affected wiring for open or short circuit and check connector at switch for proper installation.
	2. Defective or inoperative control switch.	2. Check operation of switch.
B. With the tail gate closed, the window operates downward but does not operate upward when the switch at the instrument panel or tail gate is actuated.	1. Open or short circuit in up cycle feed wire.	1. Check affected wiring for open or short circuit.
	2. Defective motor.	2. Check operation of motor.

CONDITION	CAUSE	CORRECTION
C. The window will not operate up or down from any of the control switches.	1. Open or short circuit in circuit from power source to switches or motor.	1. Check operation of circuit breaker.
	2. Safety switch not connected or poor ground.	2. Check affected circuit for open or short circuit.
	3. Mechanical bind or failure in tail gate window regulator mechanism.	3. Check connectors to safety switch and motor for proper engagement.
	4. Defective tail gate window regulator motor.	4. Check tail gate mechanical parts for bind or failure.
		5. Check operation of motor.

SEATS

HORIZONTAL SEATS

Description

The seat adjusters for the bench-type and bucket-type seat are actuated by a 12 volt series-wound motor located near the front left side of the seat bottom frame, and are energized through a control switch installed in the seat side panel or in the door arm rest. For typical wiring installations see Figure 11-52 for bucket-type seats and Figure 11-53 for bench-type seats.

For circuit diagrams see Figures 11-54 and 11-55.

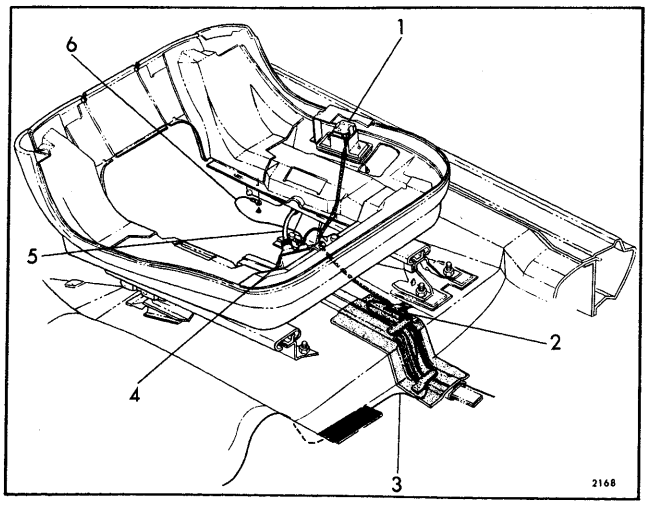


Fig. 11-52—Horizontal Bucket Seat Wiring

1. Control Switch
2. Feed Harness Connector
3. Feed Wire to Passenger Seat
4. Motor
5. Control Cable
6. Ground Wire

The horizontal seat circuit is protected by a circuit breaker (refer to Electrical Introduction for specific location).

Oldsmobile styles only - In addition to the circuit breaker a relay is used in the circuit which prevents the operation of the seat until the ignition switch is turned "on".

The trouble diagnosis chart will help locate typical problems which may occur.

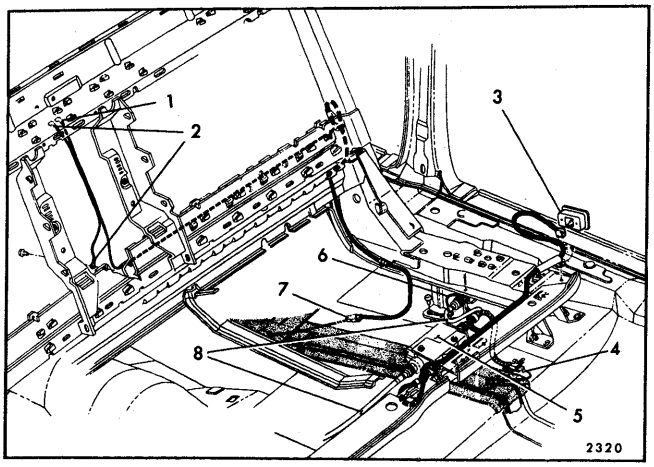


Fig. 11-53—Horizontal Bench Seat Wiring

1. Front Seat Back Switch Feed - White
2. Front Seat Back Switch Ground - Black
3. Control Switch
4. Harness Feed Connector
5. Motor
6. Ground Wire
7. Front Seat Back Courtesy Lamp Feed Connector (Cadillac Only)
8. Horizontal Control Cable

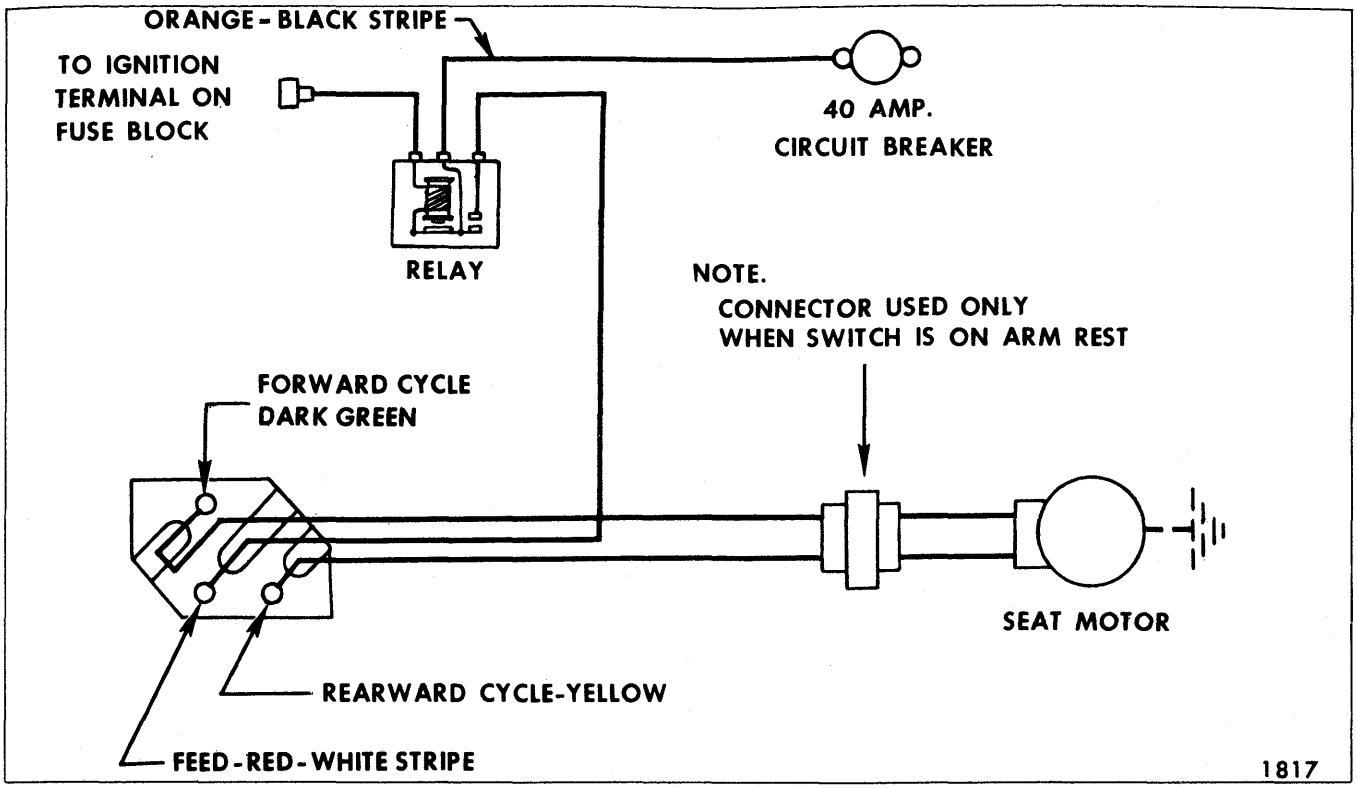


Fig. 11-54—Horizontal Seat Circuit - Oldsmobile Styles

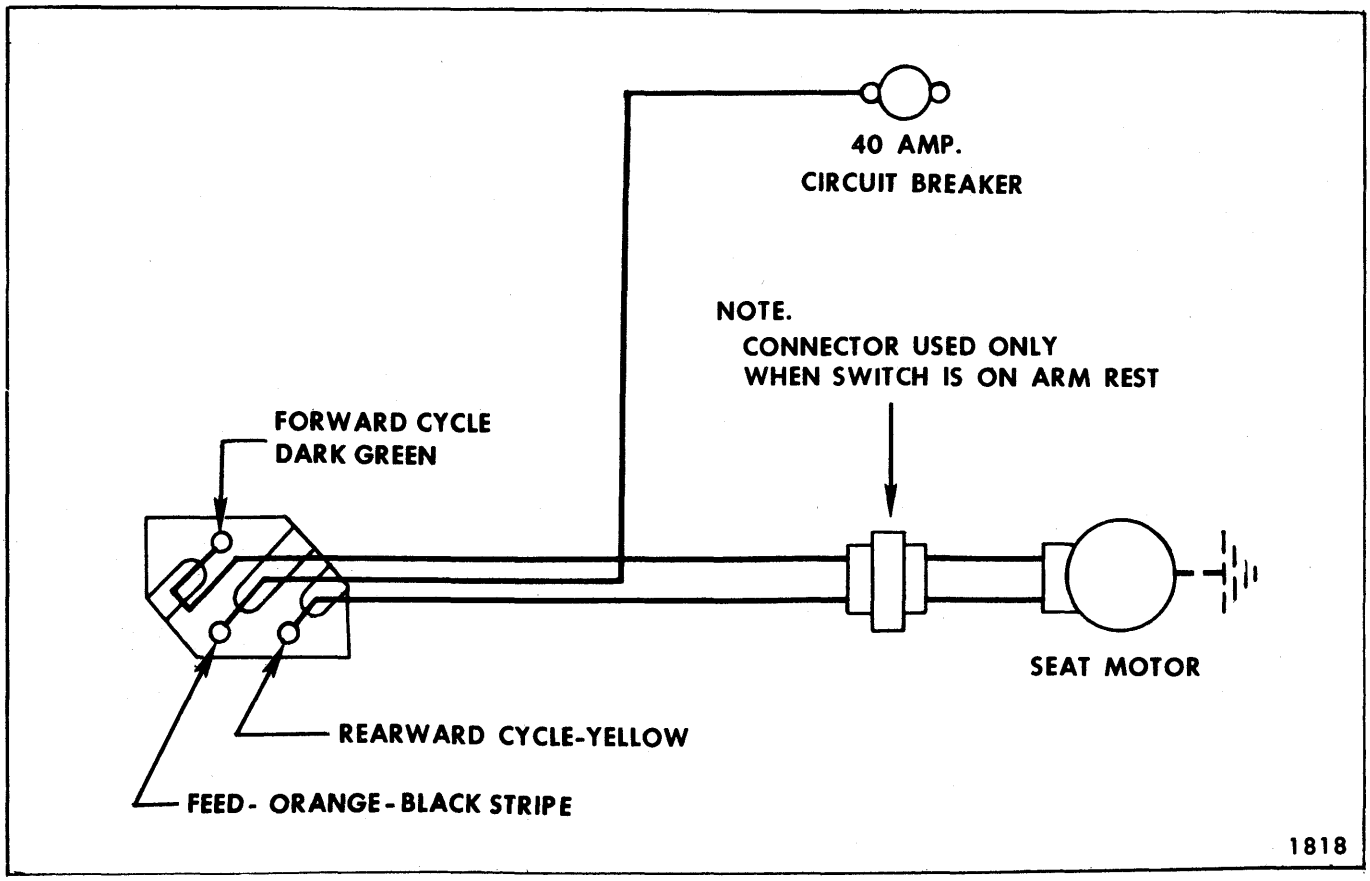


Fig. 11-55—Horizontal Seat Circuit - Buick, Cadillac Styles

Typical Failures and Corrections of Horizontal Seat Circuit

CONDITION	CAUSE	CORRECTION
The seat motor does not operate in either the forward or rearward direction.	a. Open or short circuit in feed harness.	a. Connect one test light lead to feed terminal of switch block and ground other tester lead to body metal. If tester does not light, there is an open or short circuit between switch and power source.
	b. Inoperative motor.	b. Check operation of seat control switch with jumper wire. See "Checking Door Window Control" for similar operation. c. Check circuit from control switch to motor for short or open circuit and check ground wire attachment at adjuster. d. Check operation of motor with #12 gauge jumper wire. Connect one end of jumper wire to power source and the other end to one of the seat motor terminals. Motor should operate. Perform same check at the other motor terminal. If motor does not operate, repair or replace motor as required.
The seat motor operates in only one direction.	a. Defective switch.	a. Check operation of seat control switch with jumper wire.
	b. Open or short circuit in motor feed wires.	b. Check circuit from control switch to motor for short or open circuit.
	c. Defective seat motor.	c. Check operation of motor with #12 gauge jumper wire. Connect one end of jumper wire to power source and the other end to one of the seat motor terminals. Motor should operate. Perform same check at the other motor terminal. If motor does not operate, repair or replace motor as required.

FOUR-WAY TILT SEAT

Description

The seat adjusters for the bench type and bucket type seats are actuated by a 12 volt, reversible, shunt-wound motor with a built-in circuit breaker. See Figures 11-56 and 11-57 for the bench seat installation and Figure 11-58 for the bucket seat installation.

The seat motor is energized by a toggle-type control switch installed in the left seat side panel. On 48467 style, the control switch is installed in the left front door arm rest.

The four way seat circuit is protected by a circuit breaker (refer to Electrical Introduction for specific location).

Oldsmobile styles only - In addition to the circuit breaker a relay is used in the circuit which prevents the operation of the seat until the ignition switch is turned "on".

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and four drive cables on bench type seats and two drive cables on bucket seats, leading to the seat adjusters. One solenoid controls the rear

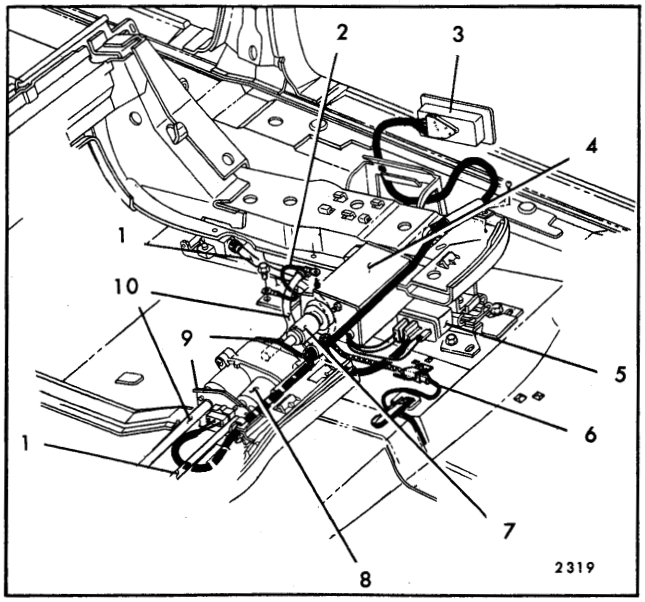


Fig. 11-56—Four-Way Bench Seat Wiring - "B & C" Body Styles

1. Vertical Control Cable (Yellow)
2. Ground Wire
3. Control Switch
4. Motor
5. Motor Control Relay
6. Harness Feed Connector
7. Rubber Coupler
8. Transmission Assembly
9. Transmission End Plates
10. Horizontal Control Cable (Black)

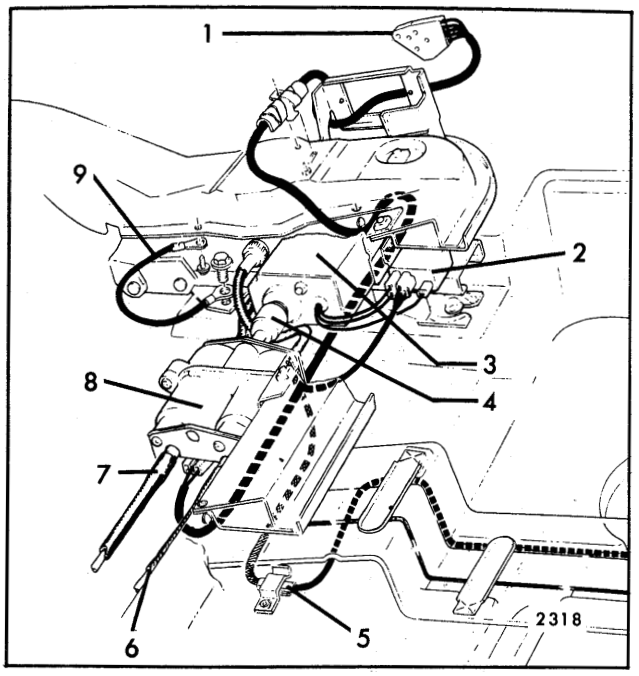


Fig. 11-57—Four-Way Bench Seat Wiring - "A" Body Styles

1. Control Switch Block
2. Motor Control Relay
3. Motor
4. Rubber Coupler
5. Harness Feed Connector
6. Vertical Drive Cable (Yellow)
7. Horizontal Drive Cable (Black)
8. Transmission Assembly
9. Seat Ground Wire

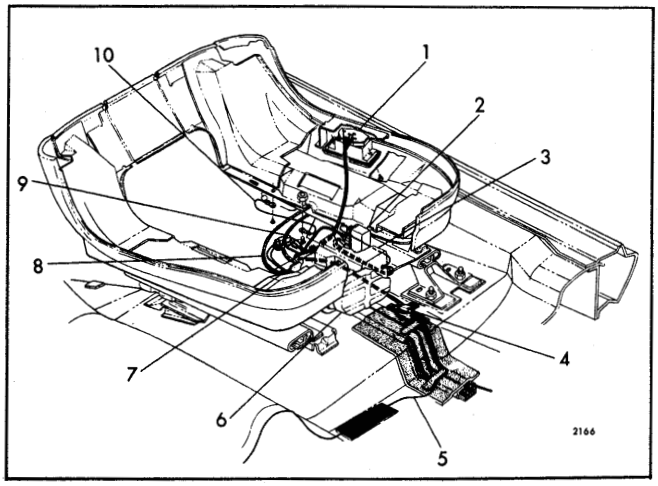


Fig. 11-58—Four-Way "Strato" Bucket Seat Wiring - All Styles

1. Control Switch
2. Motor Control Relay
3. Motor
4. Harness Feed Connector
5. Feed to Passenger Seat
6. Pulley Cover Plate
7. Transmission and Solenoid Assembly
8. Vertical Control Cable (Orange)
9. Horizontal Control Cable (Black)
10. Ground Wire

vertical movement of the seat while the other solenoid controls the horizontal movement of the seat. When the control switch is actuated, the motor and one of the solenoids are energized simultaneously. Then the solenoid plunger causes the shaft dog to engage with the large gear dog. Power is then transmitted through the transmission shaft on bench seats and through the pulleys on bucket seats, which in turn drives the actuator cables. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber coupler connecting the motor and transmission on bench seats. On bucket seats torque is absorbed through the belt on the pulley. When the control switch lever is released the switch contacts open, a spring returns the shaft dog and solenoid plunger to their original position disengaging the shaft dog from the large gear dog. See "Seat Section" for exploded view of transmission.

Checking Procedure

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedures as outlined. Before performing any extensive check procedures, check the seat adjuster drive cables for proper attachment. In addition, study the seat circuit diagrams to become familiar with the seat circuit. (See Figs. 11-59 and 11-60).

a. Checking for Current at Circuit Breaker

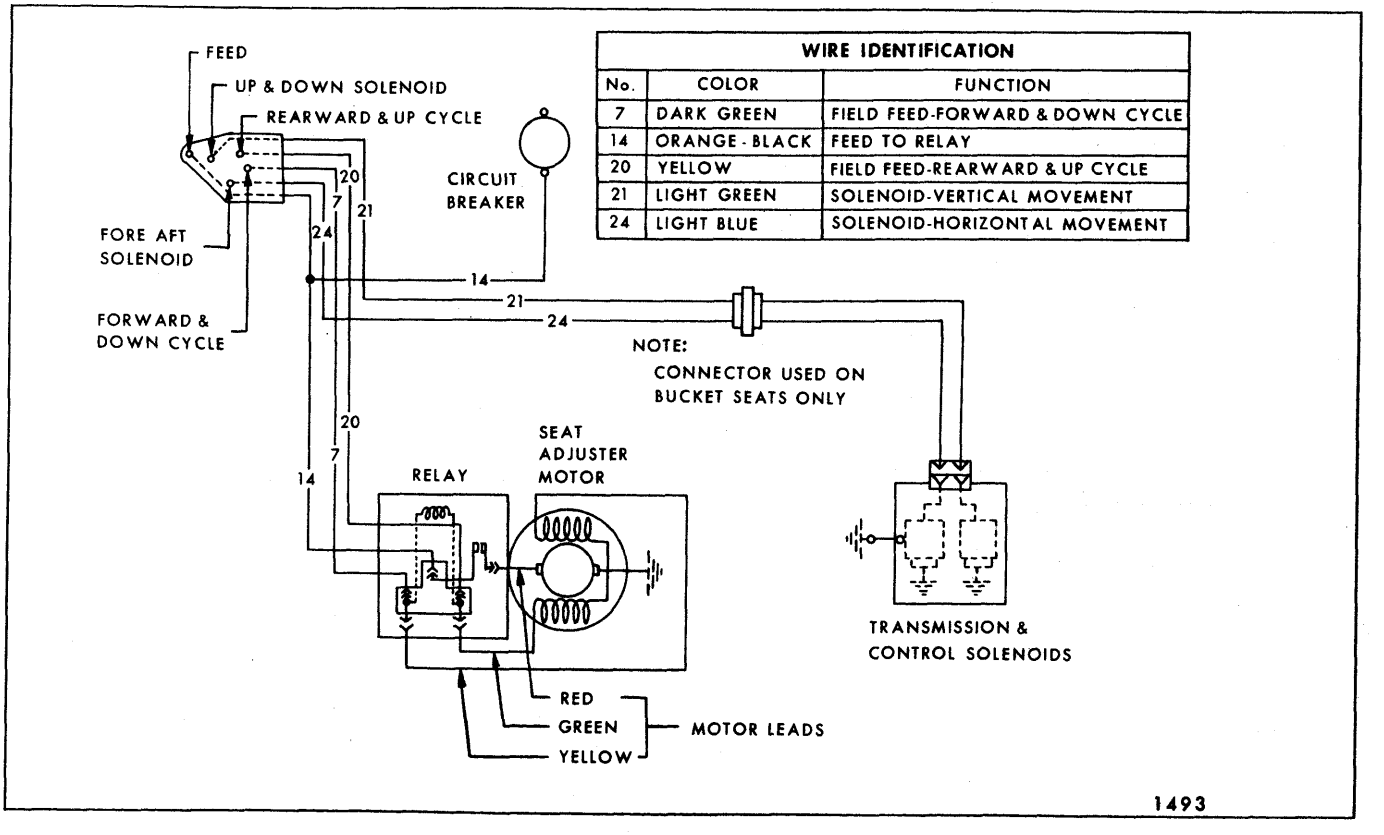
1. Connect one test light lead to battery side of circuit breaker. If tester does not light, there is no current at battery side of circuit breaker.

2. To check circuit breaker, disconnect switch feed wire from breaker, and with a test light check for current at switch side of circuit breaker. If tester does not light, there is no current flowing through circuit breaker.

b. Checking the Ignition Relay Assembly— Oldsmobile "B & E" Styles Only

1. With test light check for current at circuit breaker side of relay. If tester does not light, there is a short or open circuit between circuit breaker and relay assembly.

2. Turn ignition switch on and with a test light check for current at output side of relay. If



WIRE IDENTIFICATION		
No.	COLOR	FUNCTION
7	DARK GREEN	FIELD FEED-FORWARD & DOWN CYCLE
14	ORANGE-BLACK	FEED TO RELAY
20	YELLOW	FIELD FEED-REARWARD & UP CYCLE
21	LIGHT GREEN	SOLENOID-VERTICAL MOVEMENT
24	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT

Fig. 11-59—Four-Way Seat Circuit - All Styles except Oldsmobile "B & E" Styles

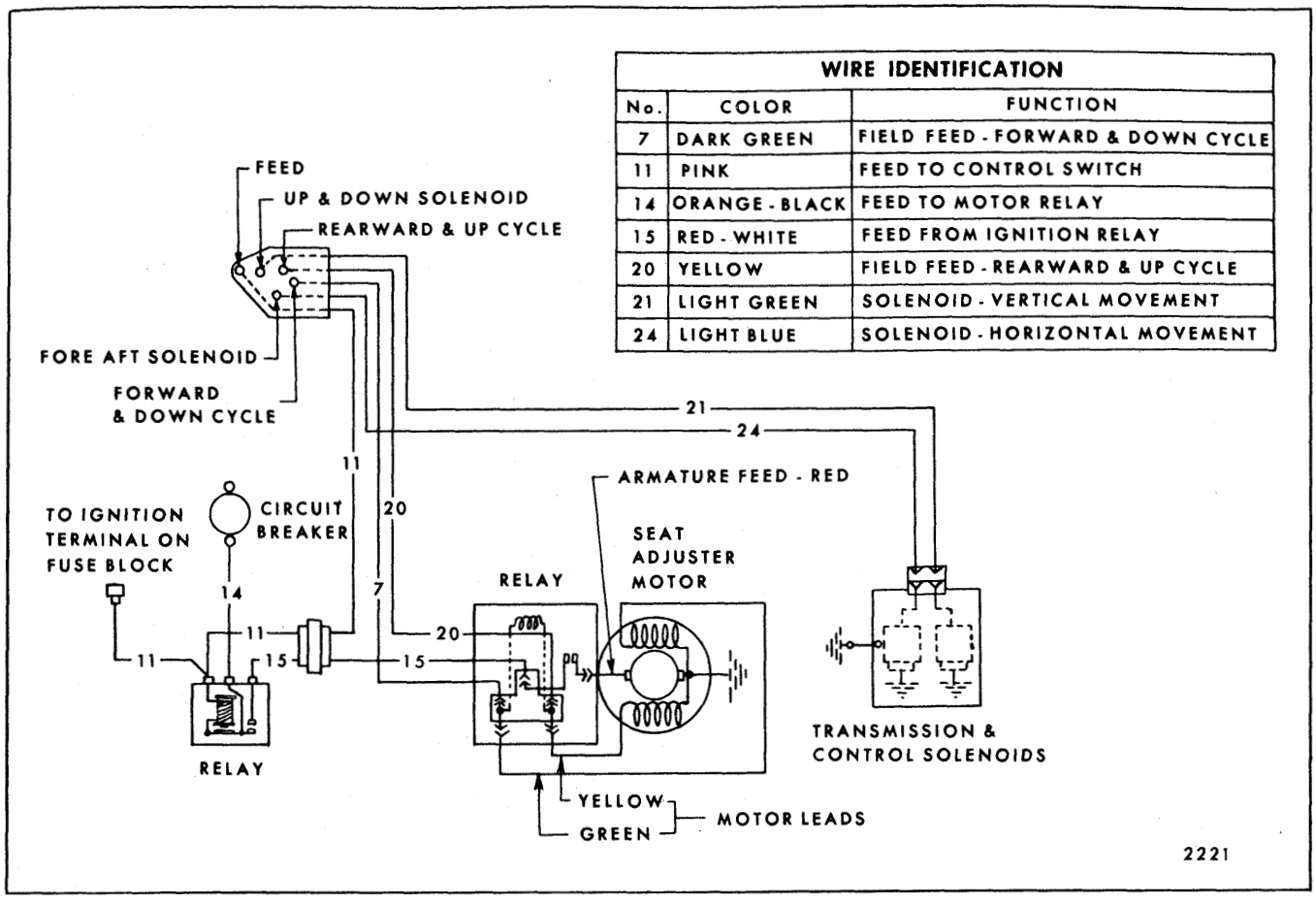


Fig. 11-60—Four-Way Seat Circuit - Oldsmobile "B&E" Styles

tester does not light, the relay is defective or there is a short or open circuit between ignition switch and relay assembly. Check wires before replacing relay.

NOTE: Oldsmobile "B & E" Styles Only - Ignition switch must be on for performing the remainder of checking procedure.

c. Checking Feed Circuit Continuity at Relay on Seat Motor—All Styles

1. Disengage three-way connector body from the seat motor relay.

2. Insert one test light lead into the relay power feed connector slot on the harness, and ground other tester lead.

3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short circuit in feed circuit.

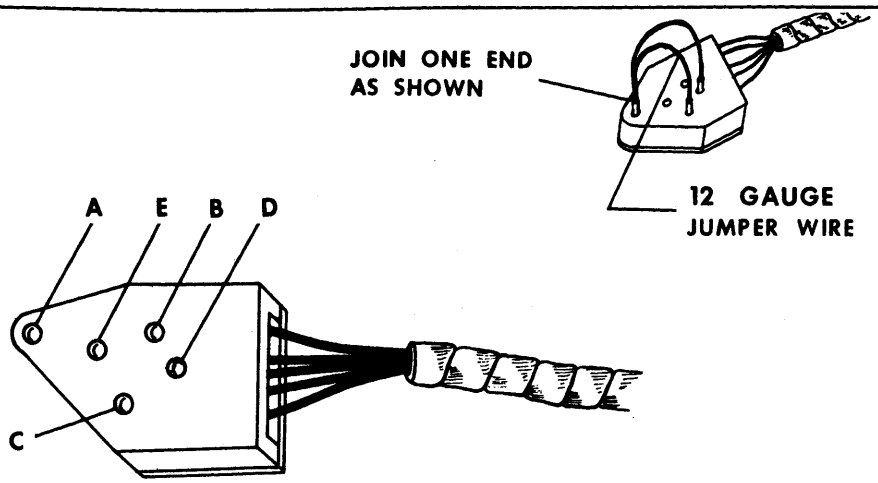
d. Checking for Current at Seat Control Switch

1. Connect one test light lead to feed terminal of switch block and ground other test light lead to body metal.

2. If tester does not light, there is no current at switch block. Failure is caused by an open or short circuit between switch block and power source.

e. Checking the Seat Control Switch

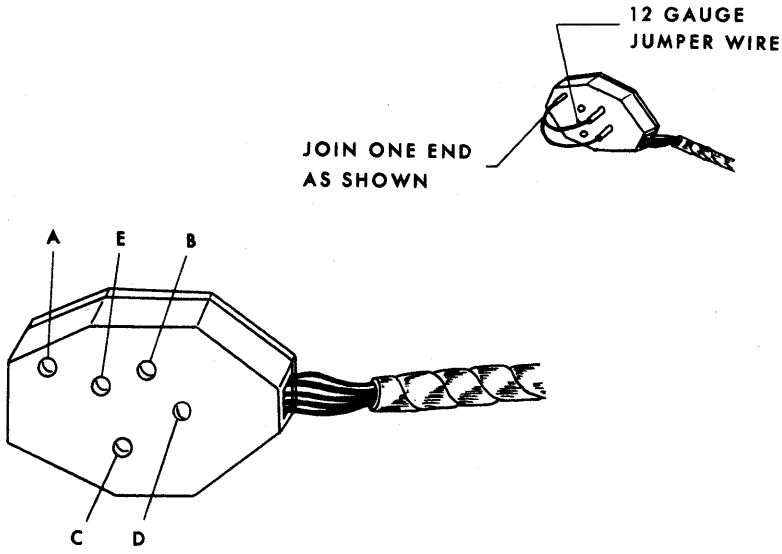
In the following operations which specify the seat control switch to be actuated, a switch that has been checked for proper operation may be connected to the switch block. If a switch is not available, a three-way jumper wire can be made to perform the switch function. The method of making the jumper wire and the switch locations to be connected to obtain a specific movement of the seat are shown in Figures 11-61 and 11-62. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.



LOCATION	WIRE COLOR	FUNCTION
A	ORANGE - BLACK	SWITCH FEED
B	YELLOW	FIELD FEED-REARWARD & UP CYCLE
C	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT
D	DARK GREEN	FIELD FEED-FORWARD & DOWN CYCLE
E	LIGHT GREEN	SOLENOID-VERTICAL MOVEMENT

1849

Fig. 11-61—Four-Way Seat Switch Block - All Styles Except Oldsmobile "B & E"



LOCATION	WIRE COLOR	FUNCTION
A	PINK	SWITCH FEED
B	YELLOW	FIELD FEED—REARWARD & UP CYCLE
C	LIGHT BLUE	SOLENOID—HORIZONTAL MOVEMENT
D	DARK GREEN	FIELD FEED—FORWARD & DOWN CYCLE
E	LIGHT GREEN	SOLENOID—VERTICAL MOVEMENT

1850

Fig. 11-62—Four-Way Seat Switch Block - Oldsmobile "B & E" Styles

NOTE: To make jumper wire, obtain two pieces of #12 gauge wire, each 4 1/2" long. Join one end of each wire as shown in diagram. The joined end can be inserted in the feed location in the switch block; one of the remaining ends can be inserted into one of the solenoid locations.

1. Obtain switch or jumper wire and connect to switch block.

2. Operate switch if used. If adjusters operate with switch or jumper wire, but did not operate with original switch, the original switch is defective or connector block was not sufficiently engaged.

   IMPORTANT: To obtain a seat movement using a three-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations have to be connected simultaneously.

   The switch locations to be connected to obtain a specific seat movement are outlined as follows:

   (a) To raise seat, place jumper wire in locations A, B and E.

   (b) To lower seat, place jumper wire in locations A, D and E.

   (c) To operate seat forward, place jumper wire in locations A, C and D.

   (d) To operate seat rearward, place jumper wire in locations A, B and C.

f. Checking Wires Between Control Switch and Motor Relay

1. Disengage three-wire harness connector from relay at motor.

2. Insert one test light lead into the motor field connector slot on harness and ground other lead.

3. Actuate seat switch to energize field wire being tested.

4. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch. Check other motor field wire in the same manner.

g. Checking the Relay Assembly

1. Disconnect three leads from relay assembly. These are the wires leading from the motor to the relay.

2. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

3. Connect one test light lead to motor armature feed stud on relay and groud other tester lead.

4. With jumper wire, energize the field stud which is not grounded.

   CAUTION: Do not energize grounded side. If tester does not light, the relay is defective.

h. Checking the Motor Assembly

1. Disconnect motor field feed wires from motor.

2. Connect one end of a #12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.

3. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.

i. Checking Wires Between Switch and Solenoids

1. Disconnect harness connector from transmission assembly.

2. Connect one test light lead to one terminal of power feed and ground other test light lead to body metal.

3. Operate switch to wire being tested. If tester does not light, there is no current at the end of harness wire. Failure is caused by an open or short circuit between end of wire and switch or defective switch.

4. Check other wire in same manner.

   NOTE: One wire in connector is a blank. Check wiring diagram for colors of wires actually used.

j. Checking the Solenoid

1. Check solenoid ground strap attachment for proper ground.

2. Connect one end of a #12 gauge jumper wire to the battery positive pole and the other end to the lead of the solenoid being checked.

   CAUTION: To prevent damaging the solenoid, do not energize solenoid for more than one minute.

3. Operate switch, actuate adjuster motor and solenoid being checked.

4. If adjusters do not operate and there is no mechanical failure of the adjusters, the solenoid is defective.

NOTE: If solenoid is functioning properly, a "click" may be heard when solenoid plunger operates.

k. Typical Electrical Failures

CONDITION	CAUSE	CORRECTION
1. Seat adjuster motor does not operate.	a. Short or open circuit between power source or switch and motor.	a. Check circuit from power source and switch to motor to locate failure.
	b. Defective motor relay.	b. Replace relay.
	c. Defective motor.	c. Check Motor. If defective repair or replace as required.
	d. Defective switch.	d. Replace switch.
	e. Defective circuit breaker.	e. Replace circuit breaker.
2. Seat adjuster motor operates in both directions but seat adjusters are not actuated.	a. Short or open circuit between switch and affected solenoid.	a. Check circuit from switch to solenoid to locate failure.
	b. Defective solenoid.	b. Check solenoid. If defective, repair or replace as required.
	c. Defective switch.	c. Replace switch.
3. Seat Adjuster motor operates in one direction only, seat moves down and forward, but does not move up and rearward.	a. Short or open circuit between one of the motor relay wires and seat control switch.	a. Check circuit between affected motor relay wire and seat switch.
	b. Defective field coil in motor.	b. Check motor. If defective repair or replace as required.
	c. Defective switch.	c. Replace switch.

SIX-WAY TILT SEATS

Description

The seat adjuster for the standard and "STRATO" type 6-way seats are actuated by a 12-volt motor installed at the left side of the seat assembly (see Figs. 11-63 and 11-64). The motor is energized by a three button-type control switch located in the left seat side panel.

On same "C-69" Styles, the control switch is installed in the left front door arm rest.

The power seat circuit is protected by a circuit breaker (refer to Electrical Introduction for location).

Oldsmobile Styles Only - In addition to the circuit breaker a relay is used in the circuit which prevents the operation of the seat until the ignition switch is turned "on".

The electrical portion of the six way seat operates as follows:

When the control switch is actuated, current flows to the transmission solenoid which controls the desired seat movement. The energizing of the solenoid coil results in the solenoid plunger dog engaging the gear mechanism to rotate the control cable. The same switch action which energized the solenoid produces a current flow through the motor

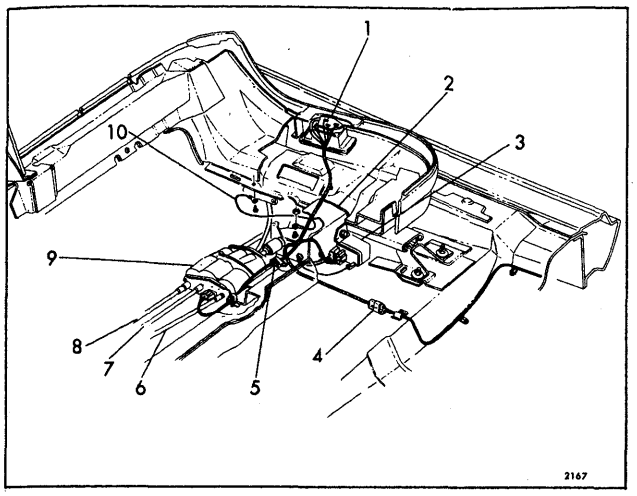


Fig. 11-63—Six-Way "Strato" Seat

1. Control Switch
2. Motor
3. Motor Control Relay
4. Harness Feed Connector
5. Rubber Coupler
6. Front Vertical Control Cable (Yellow)
7. Rear Vertical Control Cable (Blue)
8. Horizontal Control Cable (Black)
9. Transmission and Solenoid Assembly
10. Ground Wire

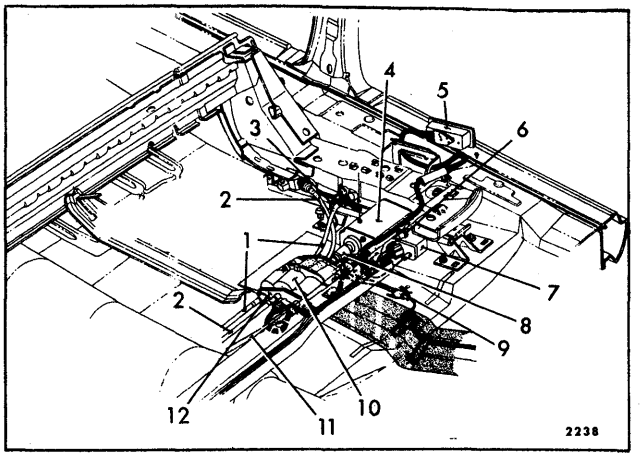


Fig. 11-64—Six-Way Standard Bench Seat

1. Horizontal Control Cable (Black)
2. Rear Vertical Control Cable (Blue)
3. Ground Wire
4. Motor
5. Control Switch
6. Front Vertical Control Cable (Yellow)
7. Motor Control Relay
8. Rubber Coupler
9. Harness Feed Connector
10. Transmission and Solenoid Assembly
11. Front Vertical Control Cable (Yellow)
12. Transmission End Plate

control relay to one of the motor field coils. The current flows through the relay, closes the contacts between the relay power source and the armature motor lead wire, and results in the operation of the seat motor. When the control switch lever is released, the switch contacts open, a spring returns the shaft dog and solenoid plunger to their original position disengaging them from the gear dog.

Circuit Checking Procedures

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident, follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Before performing any extensive check procedures, check the seat adjuster drive cables for proper attachment. In addition, study the seat circuit diagrams to become familiar with the seat circuit. See Figures 11-65, 11-66 and 11-67.

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker, disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker and with test light check terminal from which the wire was disconnected. If tester does not light, circuit breaker is inoperative. Buick and Cadillac Styles - Check feed circuit continuity at fuse block.

b. Checking Relay Assembly at Shroud— Oldsmobile Styles

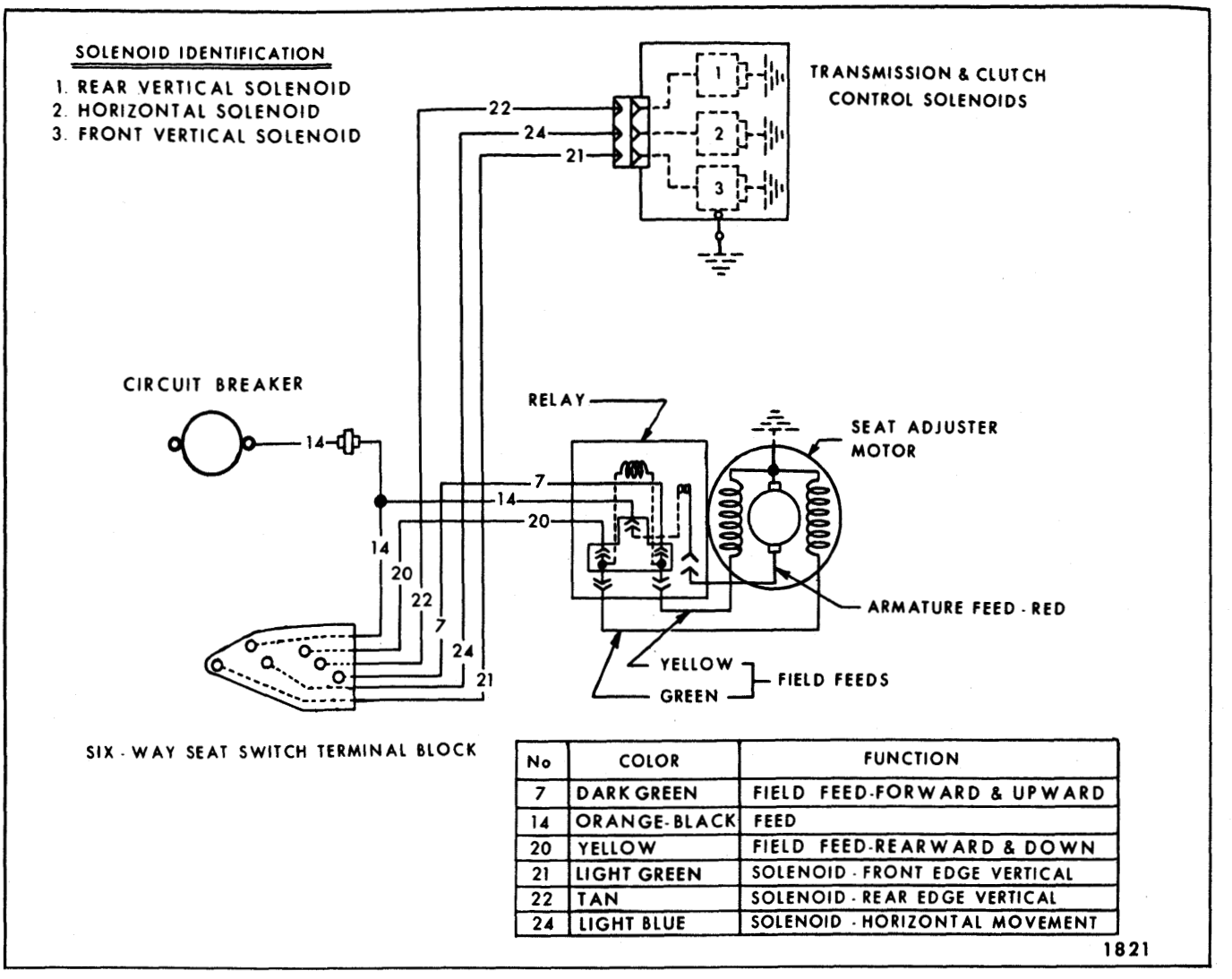
1. With test light check relay feed (orange-black stripe). If tester does not light, there is an open or short circuit between relay and circuit breaker.

2. Turn ignition switch on and with test light check output terminal of relay (red-white stripe). If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch (pink) and relay assembly. (Check fuse at dash panel).

c. Check Feed Circuit Continuity at Seat Control Switch

1. Connect one test light lead to feed terminal of switch block and ground other test lead to body metal.

2. If tester does not light, there is an open or short circuit between switch and power source.



No	COLOR	FUNCTION
7	DARK GREEN	FIELD FEED-FORWARD & UPWARD
14	ORANGE-BLACK	FEED
20	YELLOW	FIELD FEED-REARWARD & DOWN
21	LIGHT GREEN	SOLENOID - FRONT EDGE VERTICAL
22	TAN	SOLENOID - REAR EDGE VERTICAL
24	LIGHT BLUE	SOLENOID - HORIZONTAL MOVEMENT

Fig. 11-65—Six-Way Seat Circuit - All Except Oldsmobile Styles

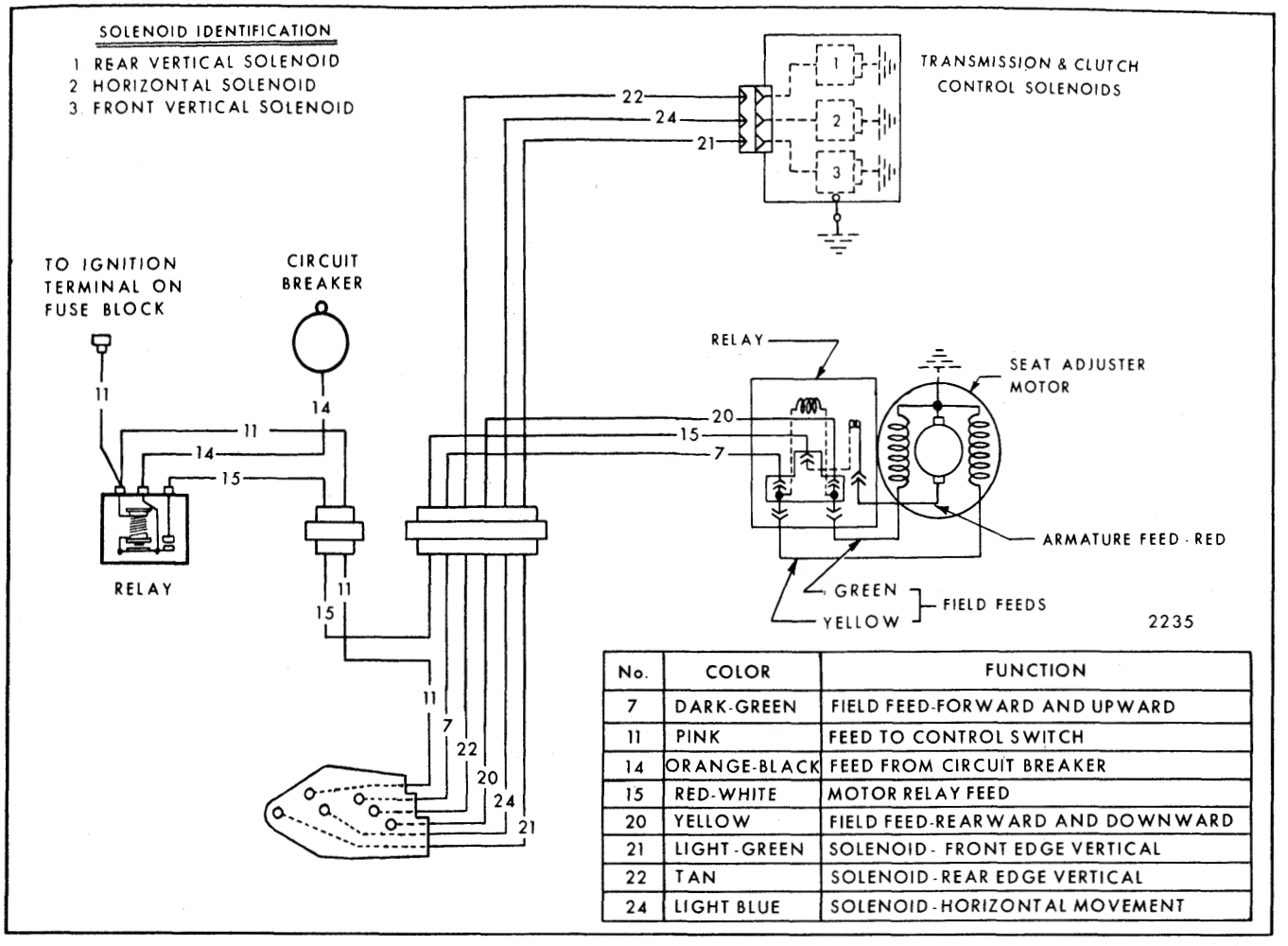
d. Checking the Seat Control Switch

NOTE: In the following operations which specify the seat control switch to be actuated, a switch that has been checked for proper operation may be connected to the switch block. If a switch is not available, a three-way jumper wire can be made to perform the switch function. The jumper wire and the switch locations to be connected to obtain a specific movement of the seat are shown in Figures 11-69 - Oldsmobile styles with switch in seat side panel; 11-70 - Oldsmobile styles with switch in arm rest; 11-68 - Chevrolet, Pontiac, Buick and Cadillac styles. If a jumper wire is used, letter the locations on the switch block as indicated in the illustration. Details outlining the making and use of the jumper wire follow the checking procedure.

1. Obtain switch or jumper wire and connect to switch block.
2. Operate switch. If adjusters operate with new switch or jumper wire, but did not operate with original switch, the original switch is defective.
3. Check all six movements of seat adjuster.

e. Checking Feed Circuit Continuity at Relay on Seat Motor

1. Disengage 3-wire connector body from the seat motor relay terminal.
2. Insert one test light lead into the relay power feed connector slot on the harness, and ground the other test light lead.



No.	COLOR	FUNCTION
7	DARK-GREEN	FIELD FEED-FORWARD AND UPWARD
11	PINK	FEED TO CONTROL SWITCH
14	ORANGE-BLACK	FEED FROM CIRCUIT BREAKER
15	RED-WHITE	MOTOR RELAY FEED
20	YELLOW	FIELD FEED-REARWARD AND DOWNWARD
21	LIGHT-GREEN	SOLENOID - FRONT EDGE VERTICAL
22	TAN	SOLENOID-REAR EDGE VERTICAL
24	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT

Fig. 11-66—Six-Way Seat Circuit - Switch in Arm Rest - Oldsmobile Styles

3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short in feed circuit.

f. Checking Wires Between Control Switch and Motor Relay

1. Disengage 3-wire harness connector from relay at motor.

2. Insert one test light lead into the motor field connector slot on harness and ground the other lead.

3. Actuate seat switch to energize field wire being tested.

4. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch. Check other motor field wire in the same manner.

g. Checking the Relay Assembly

1. Disconnect three motor leads from relay assembly. These are the wires leading from the motor to the relay.

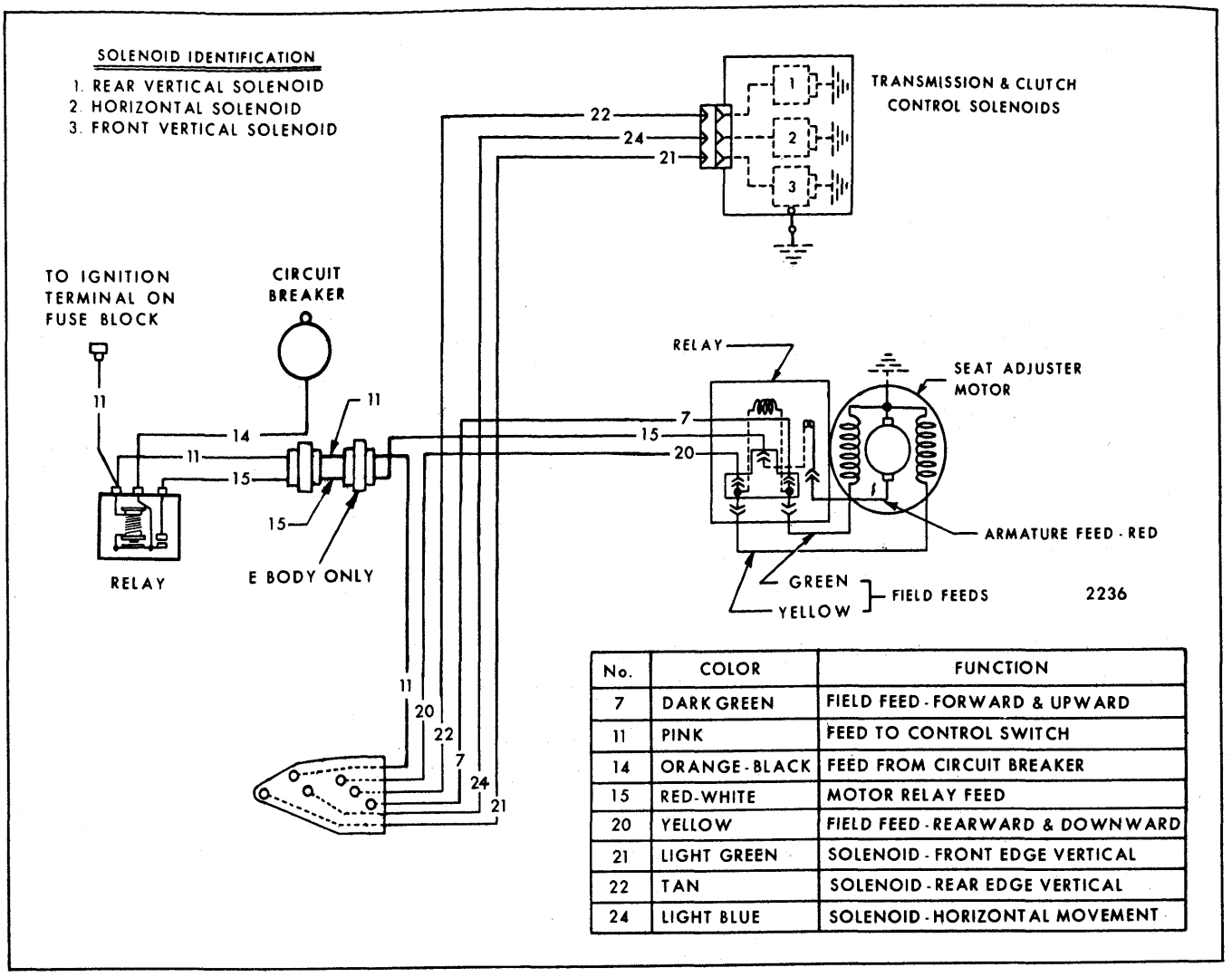
2. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

3. Connect one end of test light to motor armature feed stud on relay and ground other tester lead.

4. With a jumper wire, energize the field stud which is not grounded. If tester does not light the relay is defective.

h. Checking the Motor Assembly

1. Disconnect the motor armature feed lead and one of the motor field feeds from the relay assembly.



No.	COLOR	FUNCTION
7	DARK GREEN	FIELD FEED - FORWARD & UPWARD
11	PINK	FEED TO CONTROL SWITCH
14	ORANGE - BLACK	FEED FROM CIRCUIT BREAKER
15	RED-WHITE	MOTOR RELAY FEED
20	YELLOW	FIELD FEED - REARWARD & DOWNWARD
21	LIGHT GREEN	SOLENOID - FRONT EDGE VERTICAL
22	TAN	SOLENOID - REAR EDGE VERTICAL
24	LIGHT BLUE	SOLENOID - HORIZONTAL MOVEMENT

Fig. 11-67—Six-Way Seat Circuit - Switch in Seat Side Panel - Oldsmobile Styles

2. With a jumper wire, energize the armature feed and one of the field feeds.

3. If motor does not operate, it is defective. Check the other motor field feed in the same manner.

i. Checking the Wire Between the Solenoid and Switch

1. Disengage harness connector from transmission.

2. Connect one test light lead to end of harness wire being tested and ground other lead.

3. Operate switch to energize wire being tested. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch.

j. Checking the Solenoid

1. Check solenoid ground strap attachment for proper ground.

2. Energize solenoid being checked with jumper wire.

NOTE: If solenoid is functioning, a "click" should be heard when solenoid plunger operates "in" and "out".

CAUTION: To prevent damaging the solenoid, do not energize solenoid for more than one minute.

3. With solenoid energized, actuate seat control switch to energize adjuster motor.

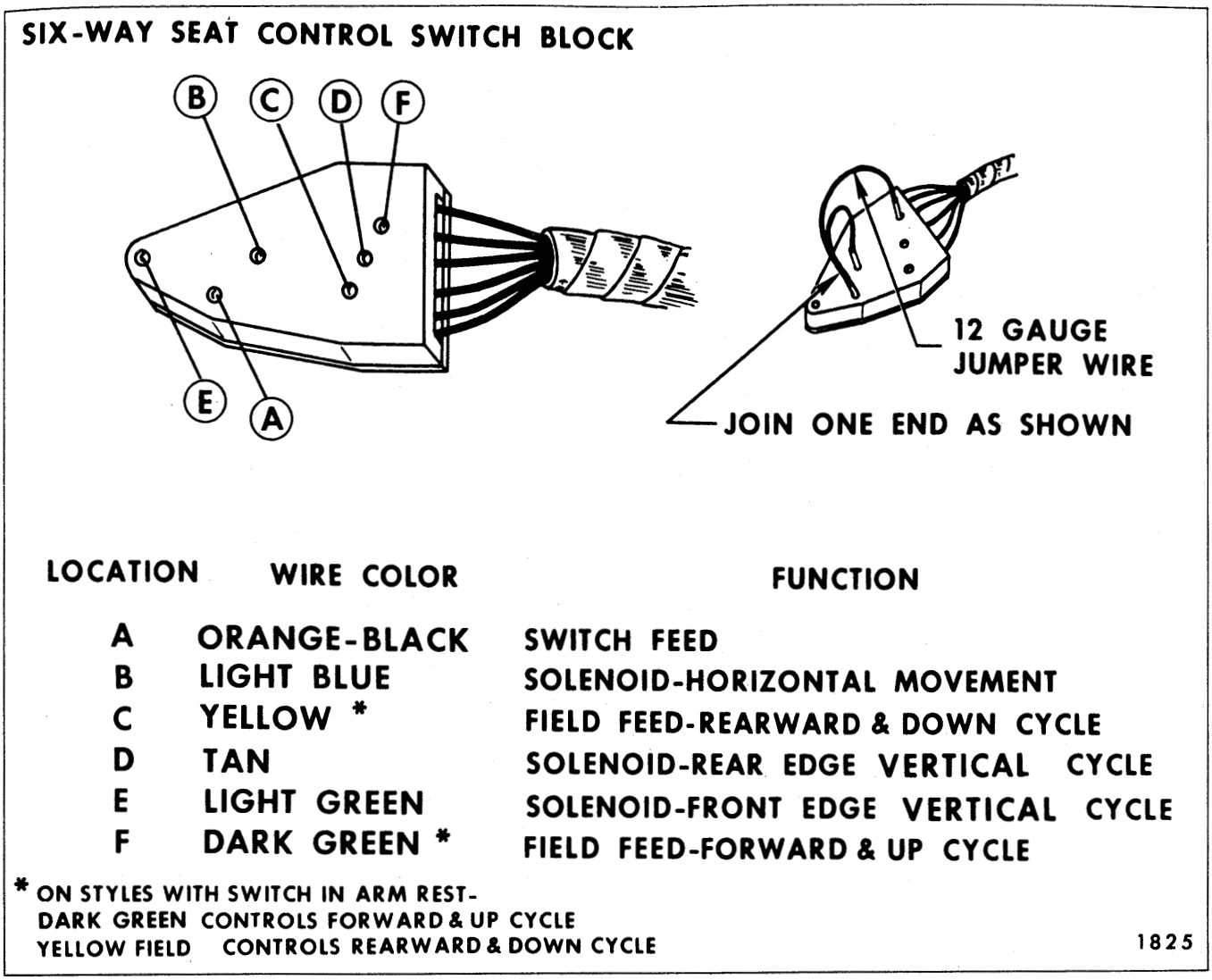


Fig. 11-68—Six-Way Seat Switch Block - All Styles Except Oldsmobile

4. If adjusters do not operate, and there is no mechanical failure in the seat unit, the solenoid is defective.

Three-Way Jumper Wire for Checking Seat Switch

To make jumper wire, obtain two pieces of #12 gauge wire, each 4 1/2" long, join one end of each wire as shown in Figure 11-68. The joined end can be inserted in the feed location in the switch block; one of the remaining ends can be inserted into one of the field locations in the switch block; the other end can be inserted into one of the solenoid locations.

IMPORTANT: To obtain a seat movement using a 3-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations must be connected simultaneously.

On Bodies with Switch in Seat Side Panel:

1. To raise front edge of seat, place jumper in locations, A, F and E.
2. To lower front edge of seat, place jumper in locations A, C and E.
3. To raise rear edge of seat, place jumper in locations A, F and D.
4. To lower rear edge of seat, place jumper in locations A, C and D.

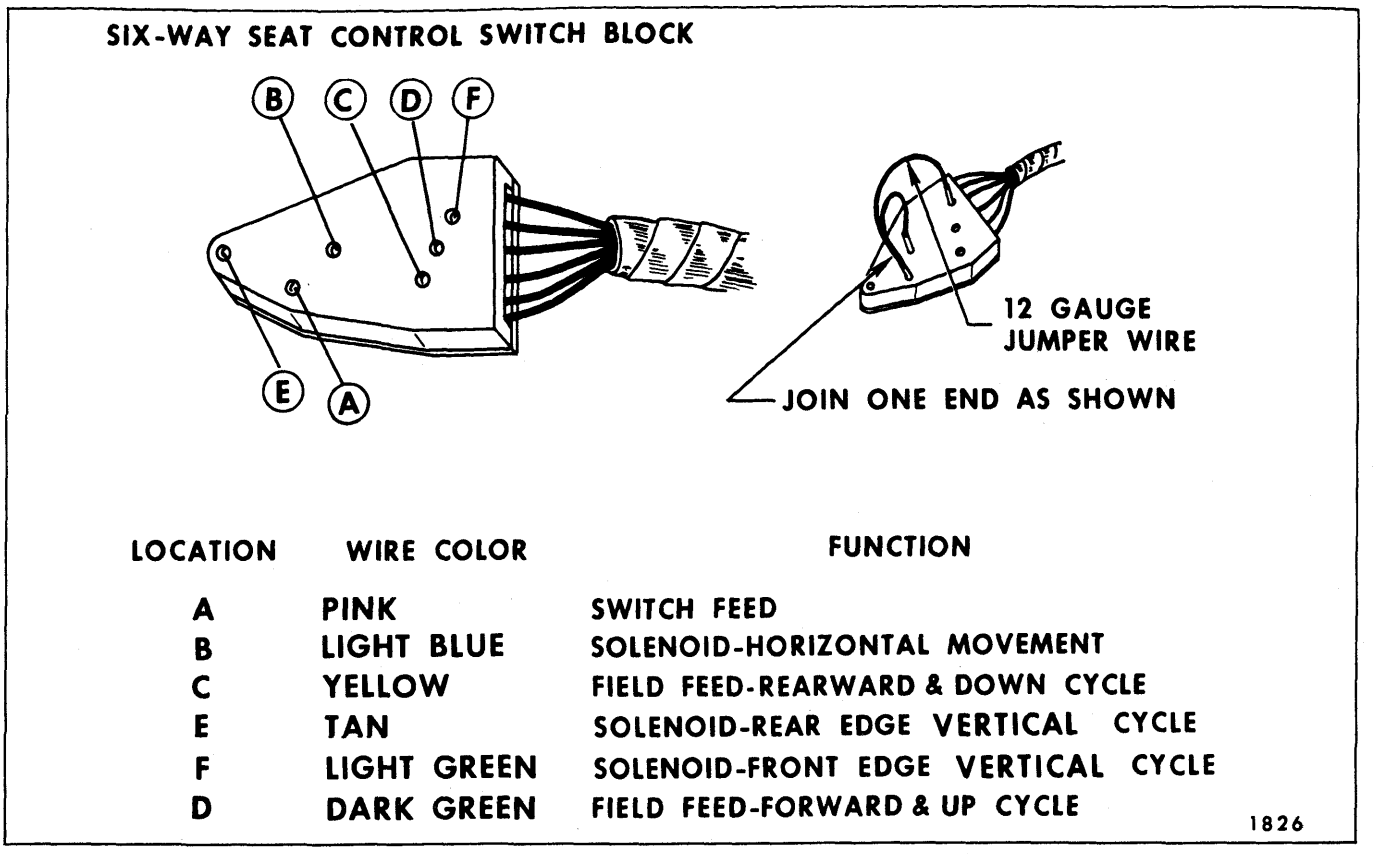


Fig. 11-69—Six-Way Seat Switch Block - Switch in Seat Side Panel - Oldsmobile

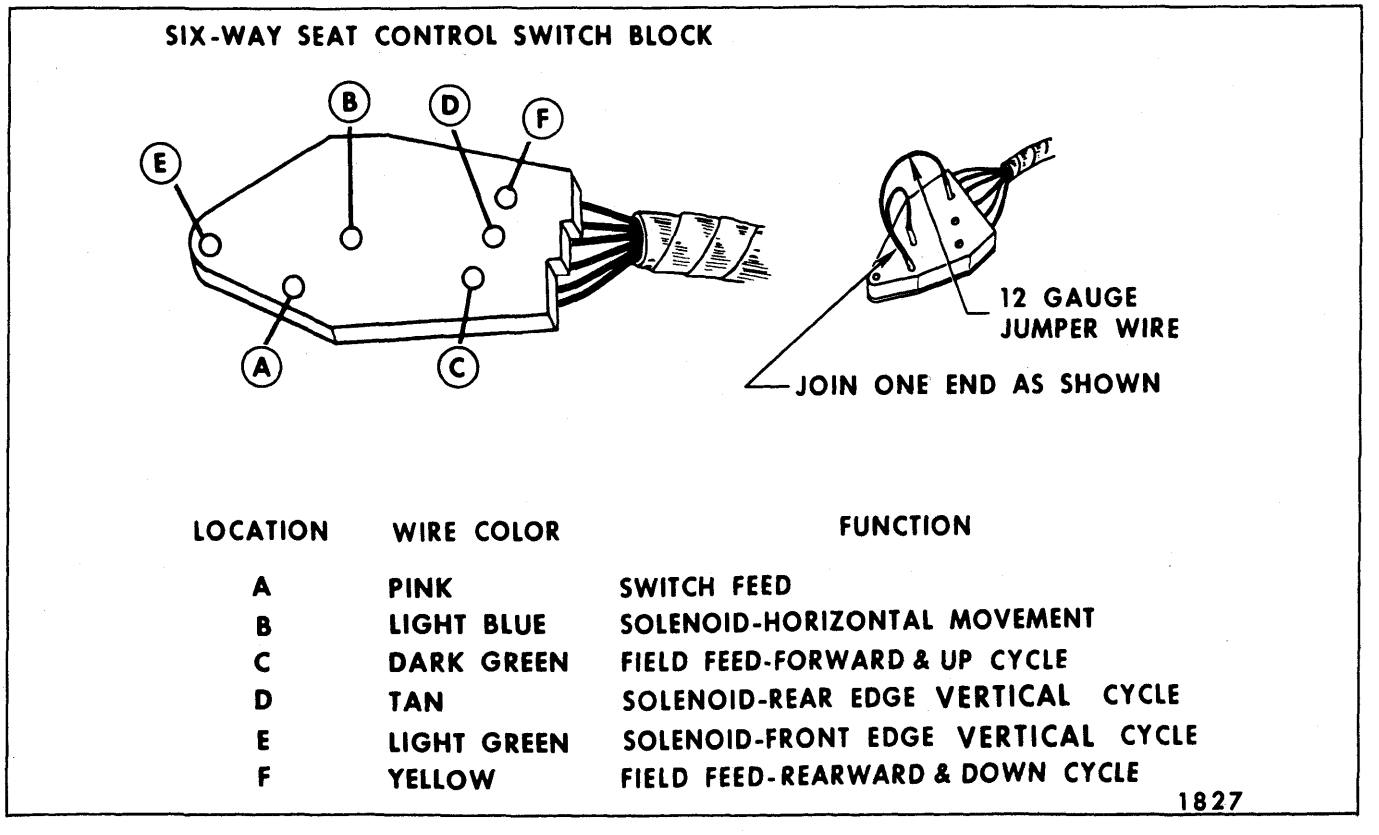


Fig. 11-70—Six-Way Seat Switch Block - Switch in Arm Rest - Oldsmobile

5. To move seat forward, place jumper in locations A-B and F.

6. To move seat rearward, place jumper in locations A-C and B.

On Bodies with Switch in Arm Rest:

1. To raise front edge of seat, place jumper in locations A-C and E.

2. To lower front edge of seat, place jumper in locations A-F and E.

3. To raise rear edge of seat, place jumper in locations A-C and D.

4. To lower rear edge of seat, place jumper in locations A-F and D.

5. To move seat forward place jumper in locations A-C and B.

6. To move seat rearward, place jumper in locations A-F and B.

Typical Electrical Failures

CONDITION	CAUSE	CORRECTION
Seat adjuster motor does not operate.	a. Short or open circuit between power source or switch and motor. b. Defective motor.	a. Check circuit from power source and switch to motor to locate failure. b. Check ignition switch circuit through relay at left shroud - Oldsmobile styles only. c. Check motor. If defective, repair or replace as required.
Seat adjuster motor operates, but seat adjusters are not actuated. or Seat adjuster motor operates, front edge of seat moves up and down and seat moves forward and rearward. The rear edge of seat cannot be operated.	a. Short or open circuit between switch and affected solenoid. b. Defective solenoid.	a. Check circuit from switch to solenoid to locate failure. b. Check solenoid. If defective, repair or replace as required.
Seat adjuster motor operates and seat adjusters move front and rear edge of seat up and forward but will not move the seat down and rearward. or Seat adjuster motor operates and seat adjusters move front and rear of seat down and rearward, but will not move the seat up and forward.	a. Short or open circuit between one of the motor field wires and seat control switch. b. Defective field coil in motor.	a. Check circuit between affected motor field wire and seat switch. b. Check motor. If defective, repair or replace as required.

ELECTRIC FOLDING TOP—CORVAIR

DESCRIPTION

The electric folding top assembly is actuated by a 12 volt shunt-wound motor located under the folding top compartment bag (see Fig. 11-71).

The motor is energized by a control switch mounted on the left side of the instrument panel (see Fig. 11-72). For wiring installation from engine compartment to instrument panel (see Fig. 11-73).

Checking Procedure

Failures in a circuit are usually caused by short circuits or open circuits. Open circuits are usually caused by breaks in the wiring, faulty connection or mechanical failure in a component such as a switch or circuit breaker. Short circuits are usually caused by wires from different components of the circuit contacting one another or by a wire or component grounding to the metal of the body due to a screw through the wire, insulation cut through by sharp metal edge, etc.

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Be sure to check the harness connectors for proper engagement, become familiar with the typical circuit diagram (see Fig. 11-74) and disengage drive cables at motor actuator assembly to relieve any mechanical bind.

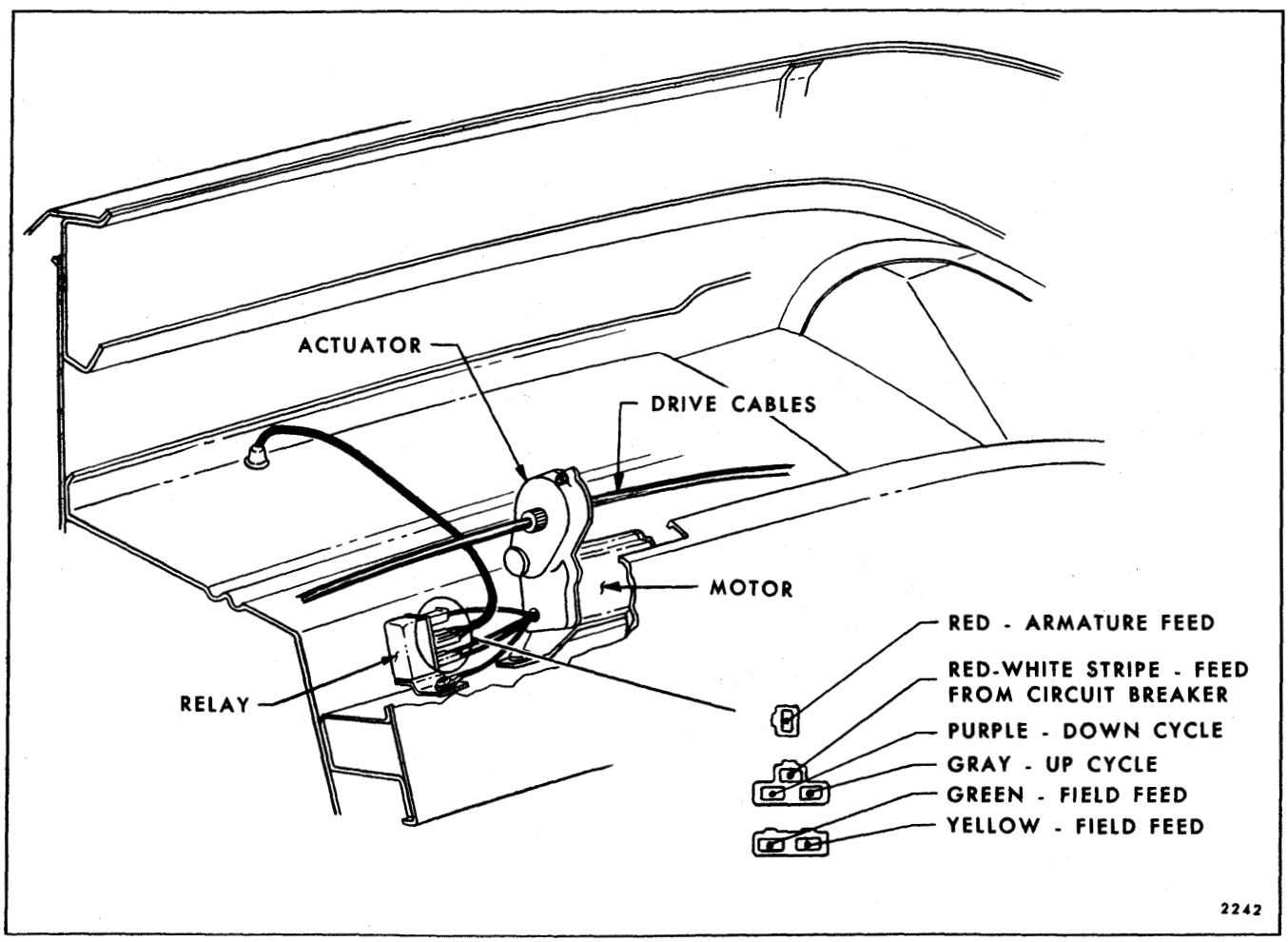


Fig. 11-71—Electric Folding Top Motor and Actuator - Corvair

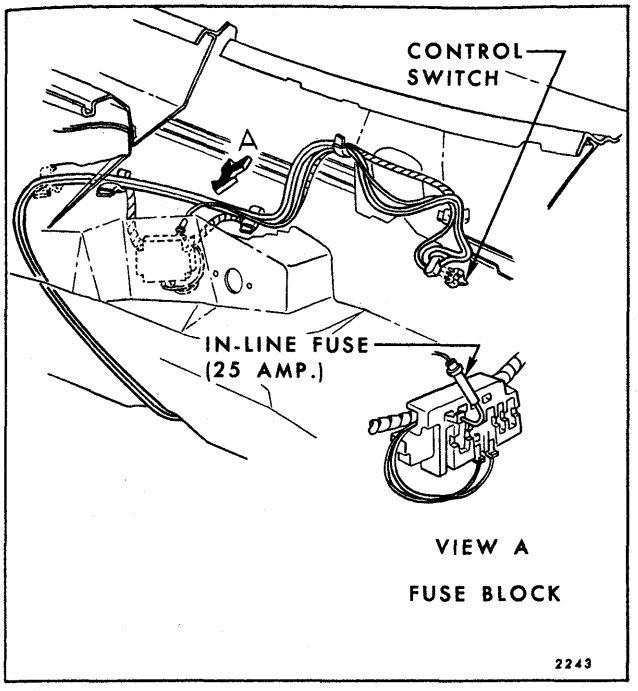


Fig. 11-72—Electric Folding Top Front End Wiring - Corvair

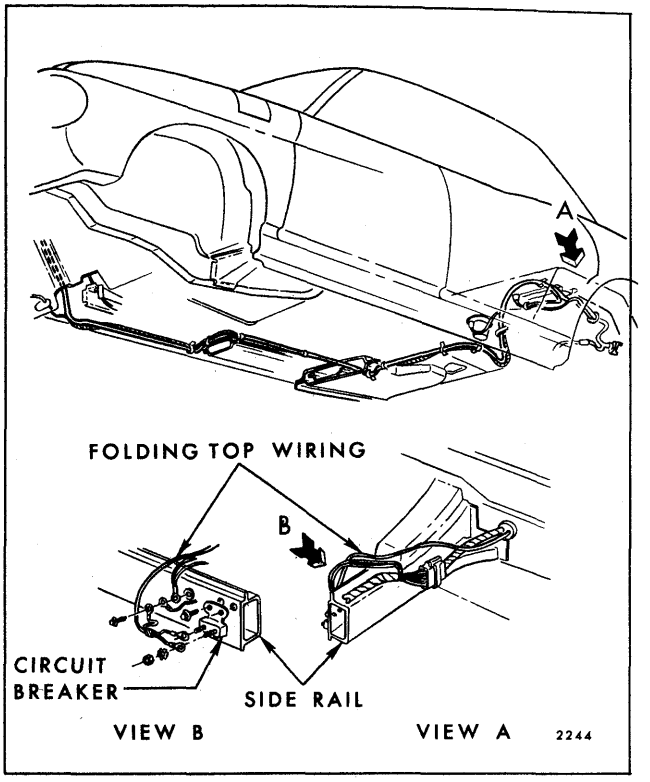


Fig. 11-73—Electric Folding Top Body Wiring - Corvair

a. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one test light lead to battery side of circuit breaker and ground other lead. If tester does not light, there is an open or short circuit in feed circuit to breaker.

2. To check circuit breaker disconnect the output feed wire (the wire opposite the power source feed to the breaker) from the breaker. Connect one test light lead to the output terminal and ground other lead. If tester does not light, circuit breaker is inoperative.

b. Checking Feed Circuit Continuity at Control Switch on Instrument Panel

1. Disengage harness connector from switch. Connect one test light lead to feed terminal of switch connector and ground other test lead to body metal. If tester does not light, there is an open or short circuit between switch and power source.

c. Checking Control Switch at Instrument Panel

1. Disengage harness connector from switch.

2. Use a #12 gauge jumper wire and insert one end into the feed terminal and the other end into one of the other terminals. Top motor should operate.

3. Repeat procedure for the other terminal. If the top motor operates with the jumper wire but does not operate with the control switch, the switch is defective.

d. Checking Feed Circuit Continuity at Relay at Motor

1. Disengage three-way connector body from the motor relay.

2. Insert one test light lead into the relay power feed connector slot on the harness, and ground other tester lead.

3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short circuit in feed circuit.

e. Checking the Relay Assembly

1. Disconnect three leads from relay assembly. These are the wires leading from the motor to the relay. (Red, Green, Yellow, Fig. 11-71).

2. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

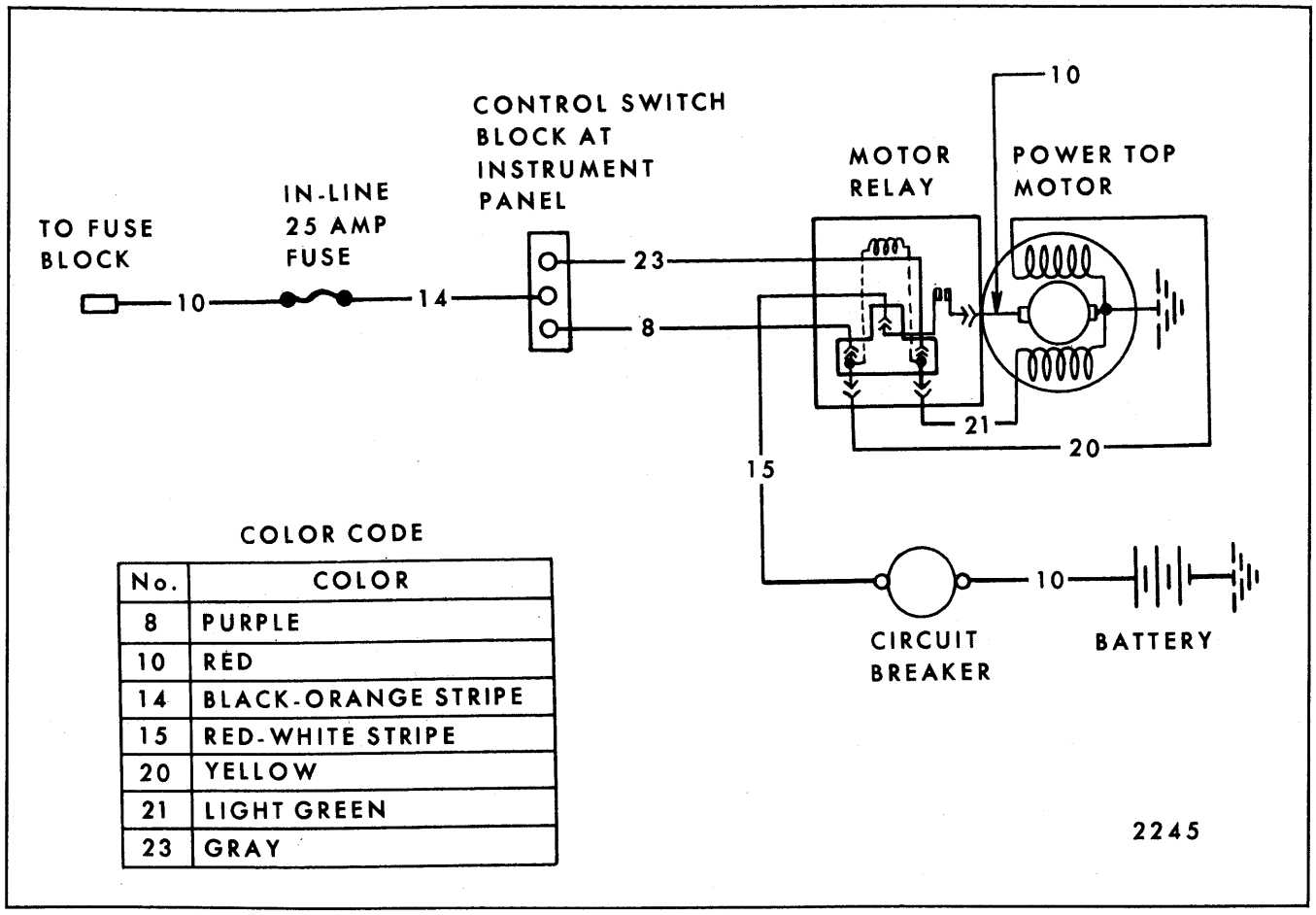
3. Connect one test light lead to motor armature feed stud on relay and ground other tester lead.

4. With jumper wire, energize the field stud which is not grounded.

CAUTION: Do not energize grounded side, if tester does not light, the relay is defective.

f. Checking the Motor Assembly

1. Disconnect motor field feed wires from motor (at relay).
2. Connect one end of a #12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.
3. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.



COLOR CODE

No.	COLOR
8	PURPLE
10	RED
14	BLACK-ORANGE STRIPE
15	RED-WHITE STRIPE
20	YELLOW
21	LIGHT GREEN
23	GRAY

Fig. 11-74—Electric Folding Top Wiring Circuit - Corvair

SECTION 12
EXTERIOR MOLDINGS

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EXTERIOR MOLDINGS

INTRODUCTION

The exterior moldings are secured to the body by any one or a combination of the following attachments (see Fig. 12-1).

a. attaching screws

b. bolt and clip assemblies with attaching nuts

c. integral studs with attaching nuts

d. "bath-tub" type snap on clips

e. "W base" type snap in clips

f. weld on studs and clips

g. snap in studs to pre-installed retainers

h. spring (self retained)

Before using the molding charts the following information will be helpful when installing or removing exterior moldings.

1. Screw locations - the exact location for each screw is not shown or mentioned, but when hidden, the general location is indicated by naming the molding or other part which conceals the screw and therefore must be removed to gain access to the screw.

2. When a molding is overlapped the overlapping molding is indicated in the "Engages with other molding" column and must be removed first.

GENERAL PRECAUTIONS

When removing or installing any body exterior molding certain precautions should be exercised.

1. Adjacent finishes should be protected with masking tape to prevent damage to finish.

2. Proper tools and care should be employed to guard against molding damage.

SEALING OPERATION

Although detailed sealing operations for each individual molding are not described on the "Molding Removal Chart" the following information is given to permit a satisfactory sealing operation.

Medium-bodied sealer or body caulking compound are the sealers most frequently used to provide a watertight seal or for anti-rattle measures.

Holes in body panels for screws, bolts, or clips that would permit water to enter the interior of the body should be sealed with body caulking compound or presealed screws, nuts or clips.

Drip moldings require a 1/4" bead of medium-bodied sealer along the full length of the inner attaching surface. Door window scalps and center pillar scalps require a 1/8" x 1/4" x 1/4" bead of caulking compound at 5" intervals for anti-rattle purposes. Pinchwelds require medium-bodied sealer on both sides when pinchweld clips are used. The exception is the rear quarter pinchweld on convertible styles which requires waterproof tape over the entire pinchweld, prior to clip installation.

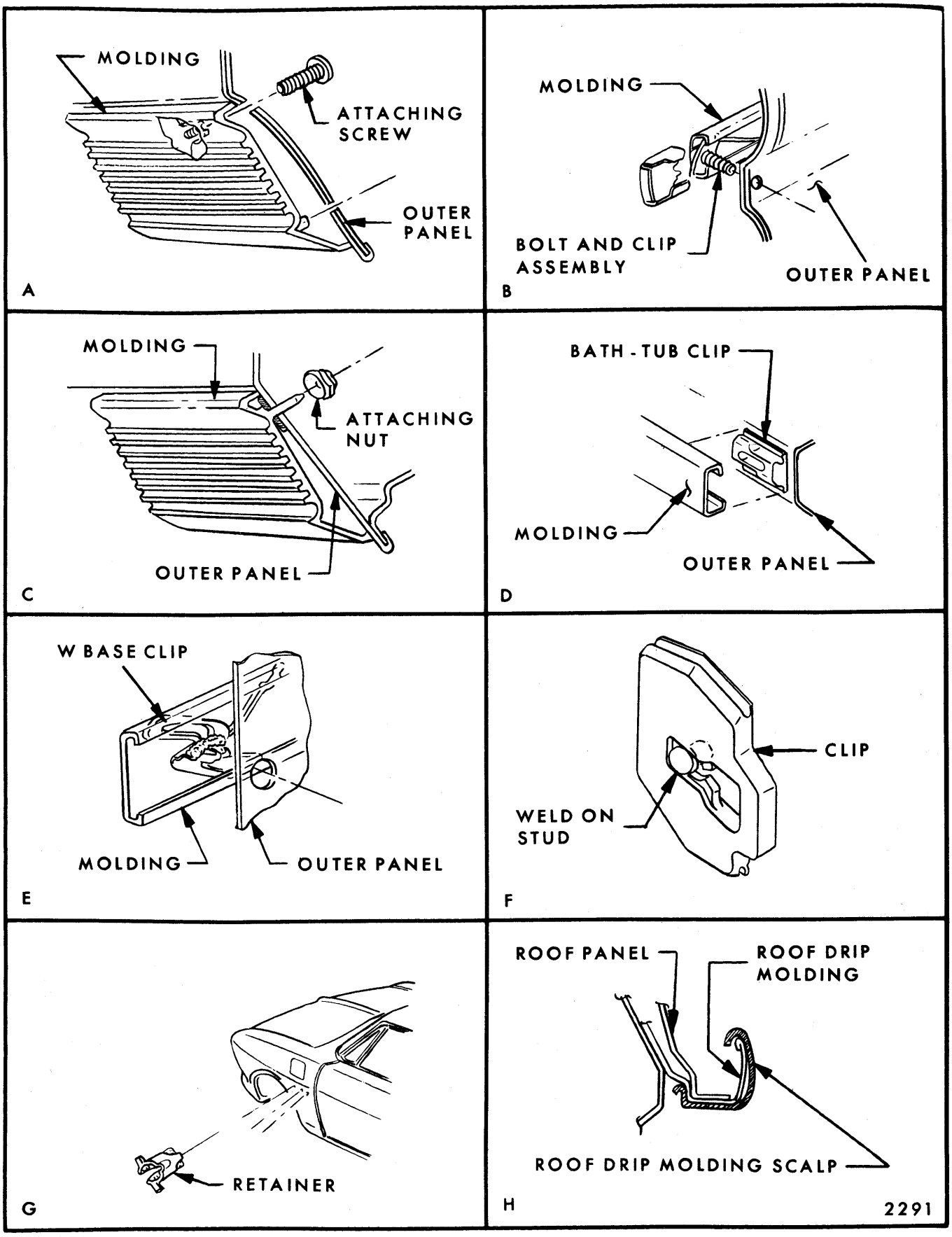

Fig. 12-1—Exterior Molding Attachments

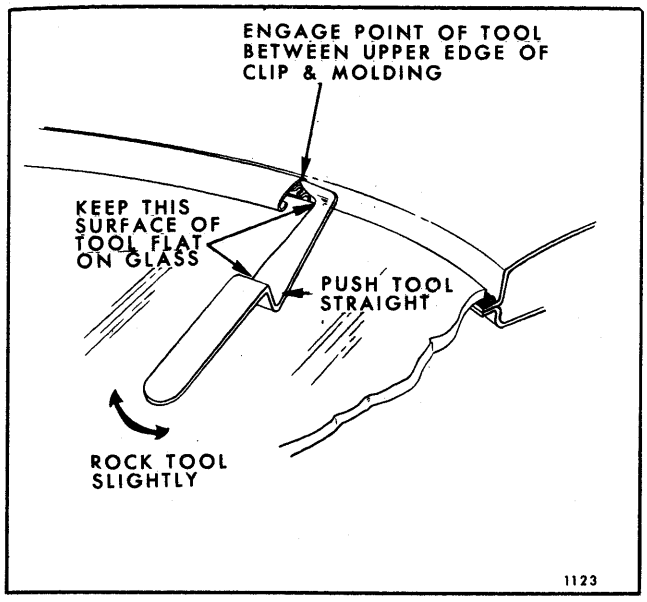

Fig. 12-2—Usage of Reveal Molding Disengagement Tool

TOOLS AND CARE

The following groups of moldings are listed with the name or description of the tool which is suitable for molding removal.

Roof Drip Scalps - pointed hook tool

Door Window Scalps - thin flat-bladed tool (putty knife)

Snap-On Clips - thin flat-bladed tool (putty knife)

Reveal moldings around adhesive caulked glass installations are retained by clips which are attached to the body opening by weld on studs or screws. On all styles, a projection on the clip engages the reveal molding flange, retaining the molding between clip and body metal. To disengage a molding from retaining clips use tool J-21549-2 (or J-9698) or any other suitable tool as shown in Figure 12-2.

NOTE: Adhesive caulked window glass tool set J-21549-03 is available as a service tool package and consists of:

J-21549-1 Handle

*J-21549-2 Reveal molding remover (flat blade)

**J-21549-3 Reveal molding remover (angle blade)

J-21549-5 R.H. Reveal molding remover

J-21549-6 L.H. Reveal molding remover

*also available as J-21549

**also available as J-9698

If it is necessary to replace a damaged "bath-tub" molding clip, use the following procedure for removal and installation:

1. Insert sharp edge of flat-bladed tool, such as a putty knife, under edge of clip and hammer tool until base of clip is cut approximately half-way through (Fig. 12-3) then disengage clip from hole.

NOTE: In some cases, it may be necessary to cut clip at opposite end of base also.

2. Special tool J-21214 is required when installing metal bath-tub type clips.

3. No special tool is needed to install a new plastic bath-tub type clip.

If a weld stud on a panel becomes damaged or broken off use the following procedure:

1. Drill a small hole in the panel adjacent to where original weld on stud was installed.

2. Insert a self sealing screw through original clip and into outer panel.

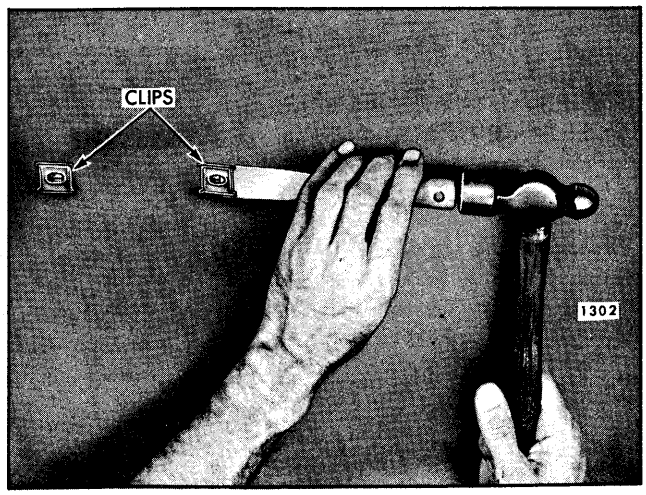

Fig. 12-3—Removal of "Bath-Tub" Molding Clip

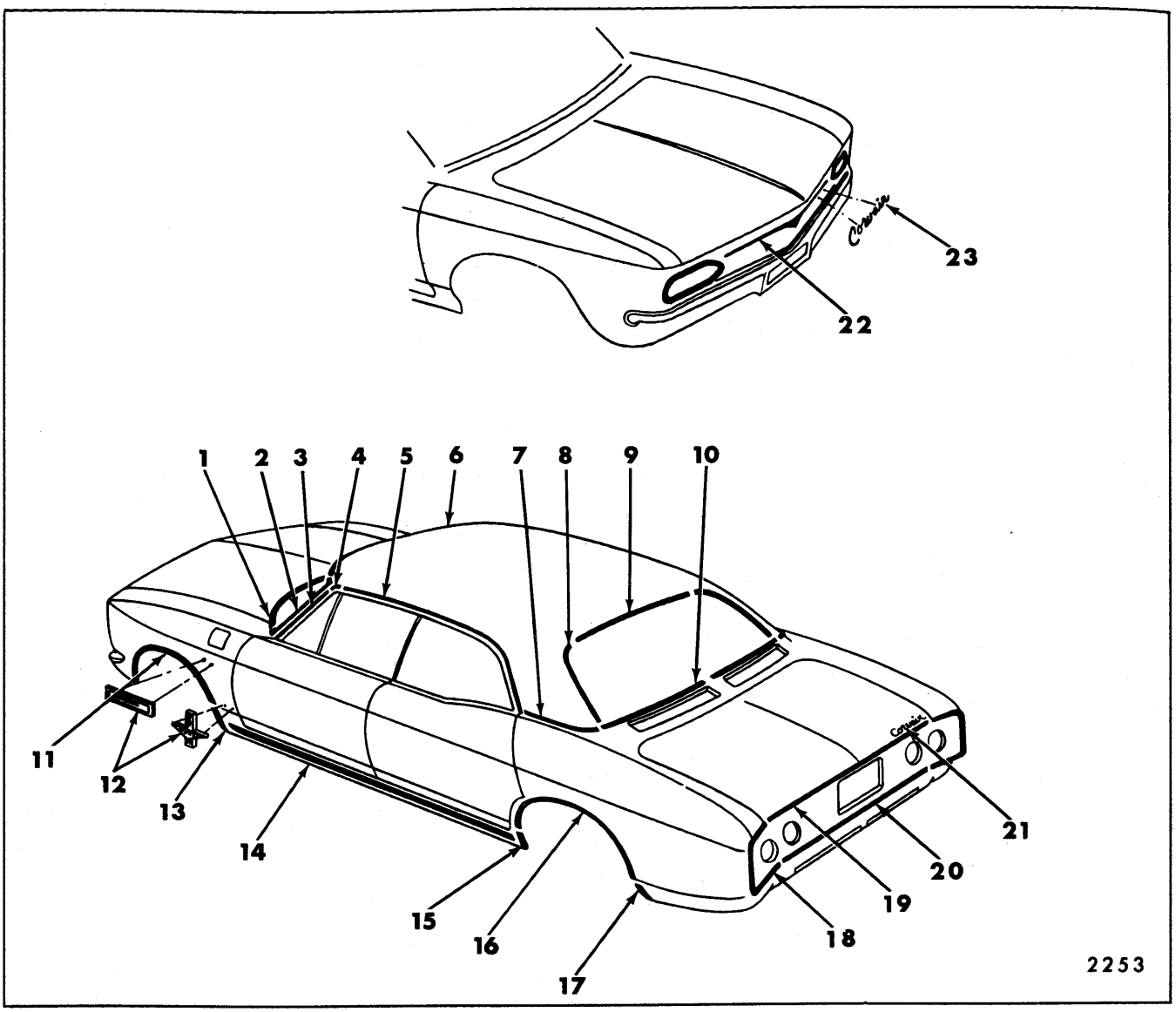

Fig. 12-4—Corvair - "Z-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Scalp Escutcheon
5. Roof Drip Molding Scalp
6. Windshield Reveal Upper Molding
7. Rear Quarter Belt Reveal Molding
8. Back Window Reveal Side Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Front Wheel Opening Front Molding
12. Front Fender Emblem
13. Front Wheel Opening Rear Molding
14. Rocker Panel Molding
15. Front of Rear Wheel Opening Molding
16. Rear Wheel Opening Molding
17. Rear of Rear Wheel Opening Molding
18. Rear of Rear Quarter Panel Molding
19. Engine Compartment Lid Outer Panel Molding
20. Rear End Panel Molding
21. Engine Compartment Lid Outer Panel Nameplate
22. Front Compartment Emblem
23. Front Compartment Nameplate

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front End Outer Panel	All					X		Front Compartment Lock Cylinder and Retainer
Front End Outer Panel Nameplate	All					X		
Front Wheel Opening Front	10500-10700	X						
Front Wheel Opening Rear	10500-10700	X					Loosen Front Wheel Opening Front Molding	
Front Fender Emblem	All			X		X		Front Cowl Trim Foundation
Windshield Reveal Upper	All			X				
Windshield Reveal Side	All			X			Remove Windshield Upper Reveal	
Windshield Reveal Lower	All			X			Remove Windshield Side Reveal	
Windshield Pillar Drip	All (except 67)	X						Front Section of Side Roof Rail Weatherstrip and Weatherstrip Retainer
Windshield Pillar Finishing	67 Style	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
Windshield Pillar Drip Molding Scalp	10537, 39, 10737		X				Windshield Pillar Drip Molding Scalp Escutcheon	

10100 - 10500 - 10700 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Pillar Drip Molding Scalp Escutcheon	10537, 39, 10737		X					
Roof Drip Molding Scalp	10537, 39, 10737		X				Windshield Pillar Drip Molding Scalp	
Rocker Outer Panel	10500-10700	X			X			
Rear Wheel Opening Front	10500-10700	X					Loosen Rear Wheel Opening Center	
Rear Wheel Opening Center	10500-10700	X						
Rear Wheel Opening Rear	10500-10700	X					Loosen Rear Wheel Opening Center	
Rear Quarter Outer Panel Emblem	10700					X		
Rear Quarter Belt Reveal (Optional)	39 Styles				X	X		
Rear Quarter Pinchweld Finishing	67 Styles	X		X			Left Side Telescopes into Right Side	
Back Glass Reveal Upper	All 37-39 Styles			X			Remove Back Glass Reveal Sides	
Back Glass Reveal Side	All 37-39 Styles			X			Remove Back Glass Reveal Lower	
Back Glass Reveal Lower	All 37-39 Styles			X				
Rear of Rear Quarter	10500-10700					X		
Engine Compartment Lid	10500-10700	X						
Engine Compartment Lid Nameplate	All					X		
Rear End Panel	10500-10700					X	Rear of Rear Quarter	

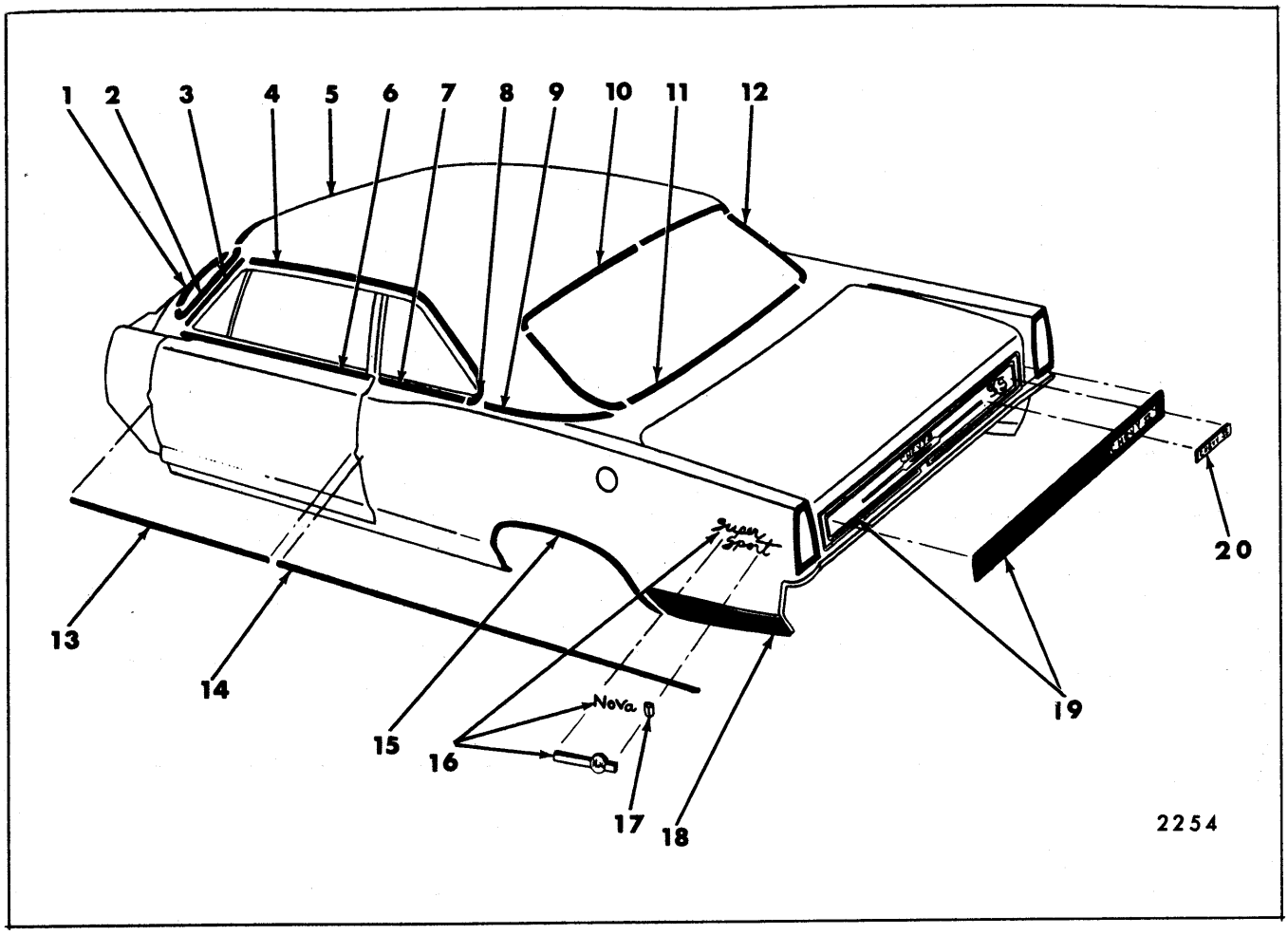

Fig. 12-5—Chevy II "X-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Scalp
5. Windshield Reveal Upper Molding
6. Front Door Window Belt Reveal Molding
7. Rear Quarter Window Belt Reveal Molding
8. Rear Quarter Window Rear Corner Belt Reveal Molding
9. Rear Quarter Belt Reveal Molding
10. Back Window Reveal Upper Molding
11. Back Window Reveal Lower Molding
12. Back Window Reveal Side Molding
13. Front Door Outer Panel Molding
14. Rear Quarter Outer Panel Molding
15. Rear Wheel Opening Molding
16. Rear Quarter Outer Panel Nameplate
17. Rear Quarter Outer Panel Emblem
18. Rear of Rear Wheel Opening Molding
19. Rear Compartment Lid Outer Panel Molding
20. Rear Compartment Lid Outer Panel Nameplate

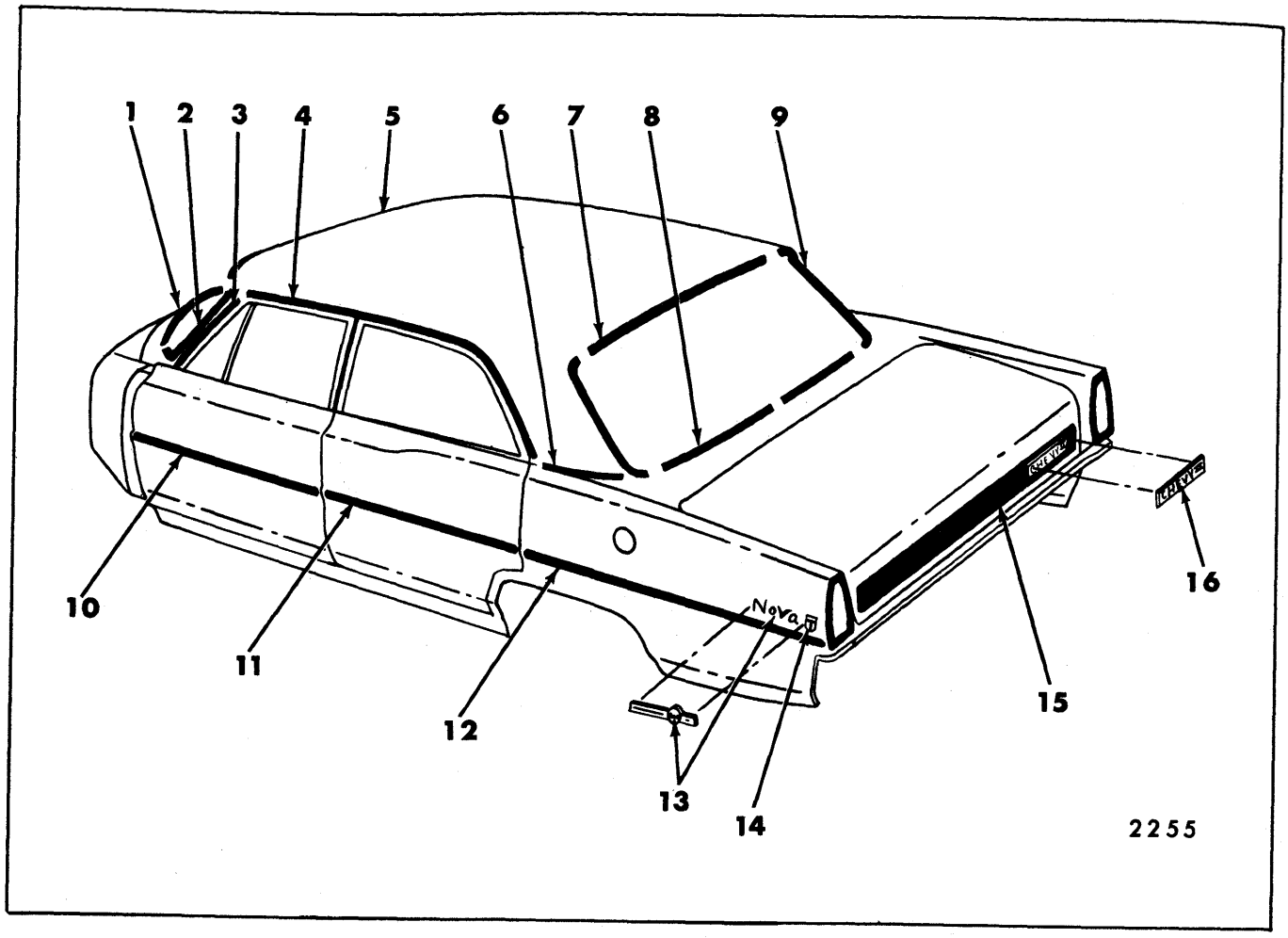

Fig. 12-6—Chevy II "X-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Scalp
5. Windshield Reveal Upper Molding
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Front Door Outer Panel Molding
11. Rear Door Outer Panel Molding
12. Rear Quarter Outer Panel Molding
13. Rear Quarter Outer Panel Nameplate
14. Rear Quarter Outer Panel Emblem
15. Rear Compartment Lid Outer Panel Molding
16. Rear Compartment Lid Outer Panel Nameplate

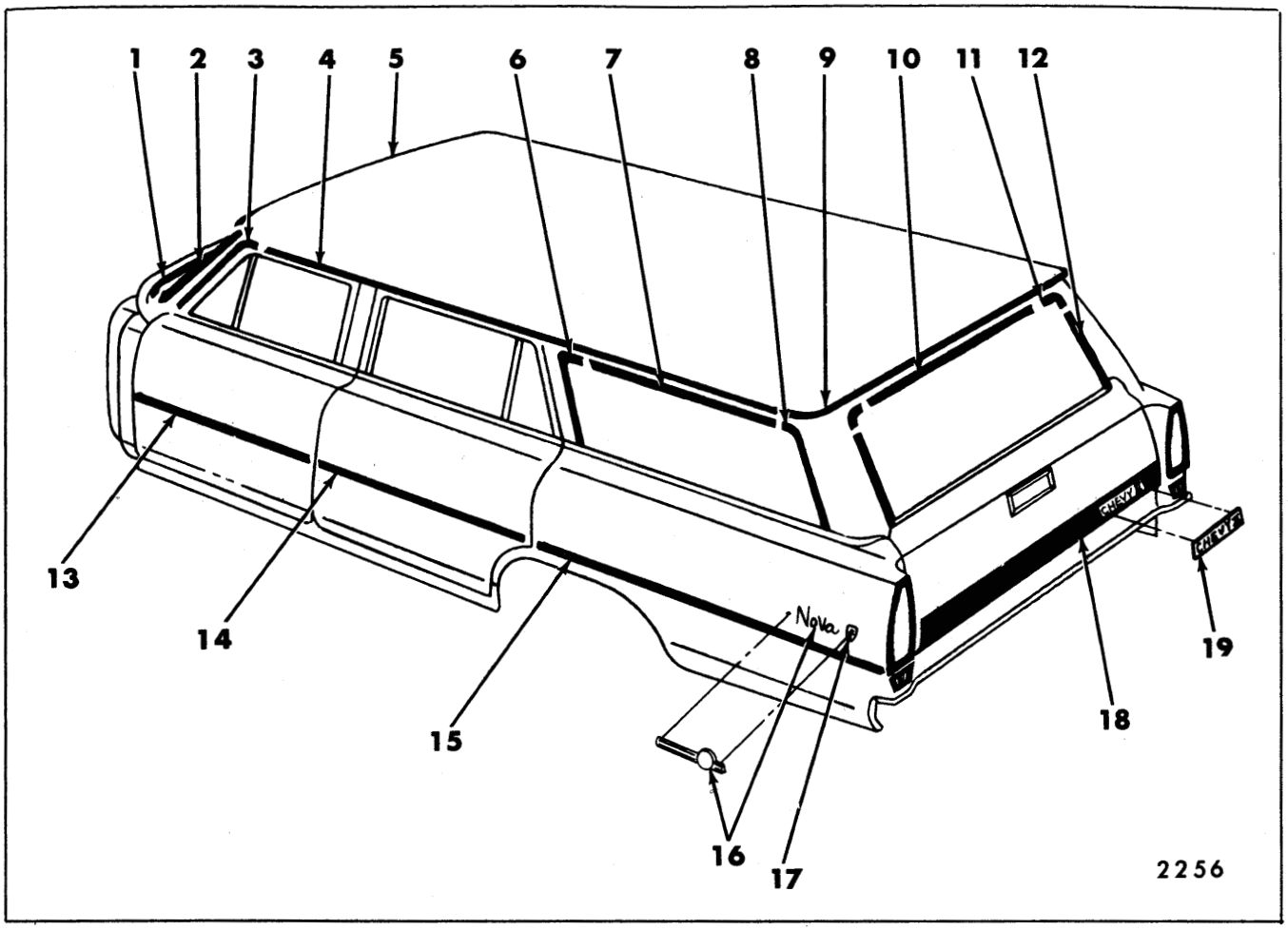

Fig. 12-7—Chevy II "X-35" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Roof Drip Molding Front Scalp
5. Windshield Reveal Upper Molding
6. Rear Quarter Window Reveal Front Molding
7. Rear Quarter Window Reveal Upper Molding
8. Rear Quarter Window Reveal Rear Molding
9. Roof Drip Molding Rear Scalp
10. Back Body Opening Upper Reveal Molding
11. Back Body Opening Reveal Escutcheon
12. Back Body Opening Side Reveal Molding
13. Front Door Outer Panel Molding
14. Rear Door Outer Panel Molding
15. Rear Quarter Outer Panel Molding
16. Rear Quarter Outer Panel Nameplate
17. Rear Quarter Outer Panel Emblem
18. Tailgate Outer Panel Molding
19. Tailgate Outer Panel Nameplate

11400 - 11600 - 11800 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All							Windshield Reveal Moldings are Removed from the Rubber Channel after the Glass and Channel are Removed from the Opening
Windshield Reveal Side	All						Overlaps the Upper and Lower Windshield Reveal Moldings	(Same As Above)
Windshield Reveal Lower	All							(Same As Above)
Windshield Pillar Drip	All	X						
Roof Drip Molding Scalp	69		X					
Roof Drip Molding Scalp Front	35 and 37		X					
Roof Drip Molding Scalp Rear	35 and 37		X					
Back Roof Drip Molding Scalp	35		X					
Front Door Window Belt Reveal	37	X			X			
Rear Quarter Window Belt Reveal	37	X			X			
Quarter Belt Reveal	11 and 69 37 (Optional)			X		X		
Front Door Outer Panel	11600	X		X				
Rear Door Outer Panel	11600	X		X				

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Quarter Outer Panel	11600			X		X		
Rear Quarter Outer Panel Emblem	All					X		
Rear Wheel Opening	11837	X						
Rear of Rear Wheel Opening	11837	X		X				
Back Glass Reveal Upper	All (except 35)			X				
Back Glass Reveal Side	All (except 35)			X				
Back Glass Reveal Lower	All (except 35)			X				
Back Body Opening Reveal Side	35			X				
Back Body Opening Reveal Upper	35			X				
Back Body Opening Reveal Escutcheon	35		X					
Tail Gate Outer Panel Emblem	11435					X		
Tail Gate Outer Panel Molding and Emblem Assembly	11635					X		
Rear Compartment Lid Outer Panel Emblem	11400					X		
Rear Compartment Lid Outer Panel Molding and Emblem Assembly	11600-11800					X		

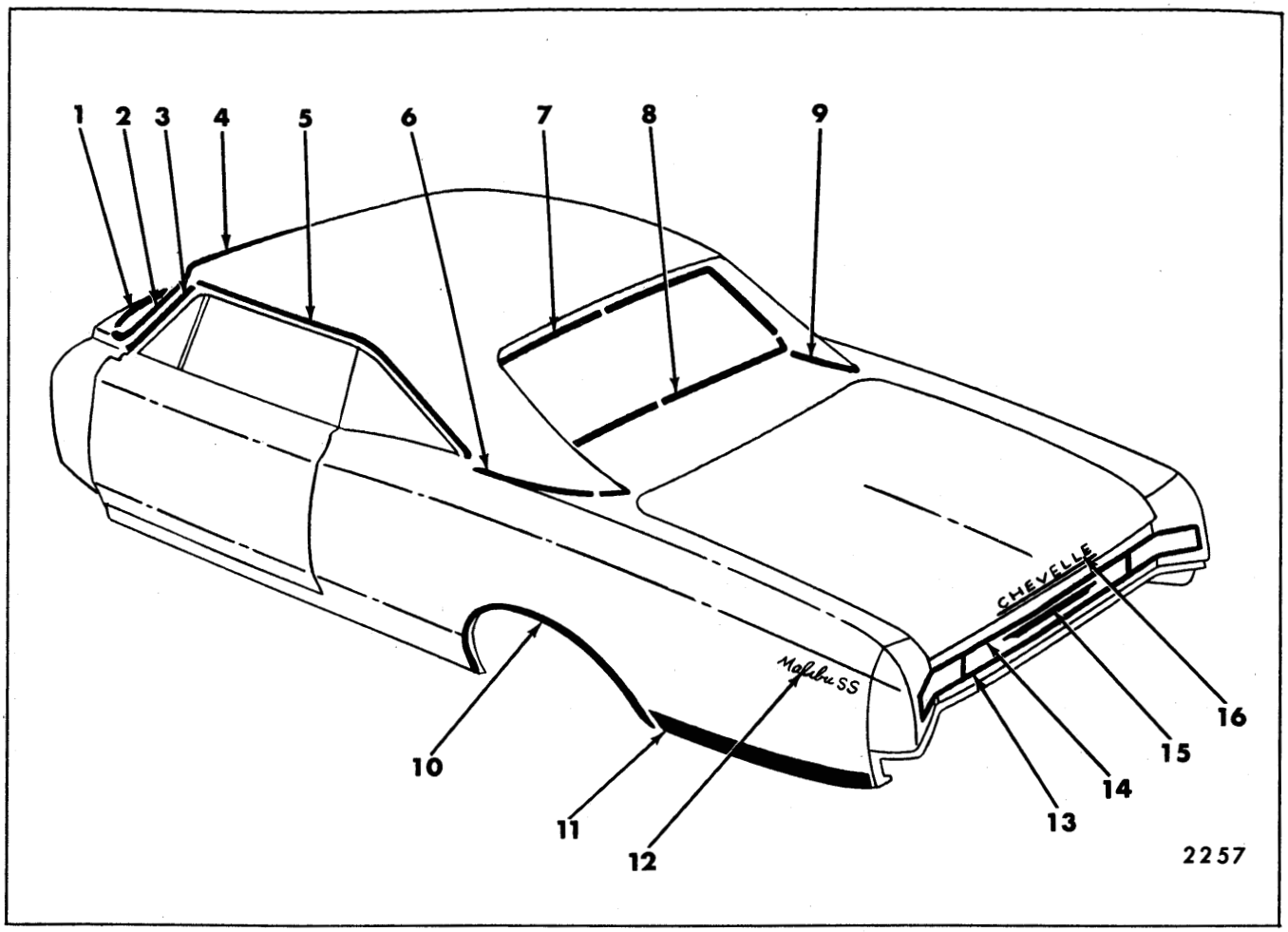

Fig. 12-8—Chevelle "A" — 13817

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Rear Quarter Belt Reveal Rear Molding
10. Rear Wheel Opening Molding
11. Rear of Rear Wheel Opening Molding
12. Rear Quarter Outer Panel Nameplate
13. Rear End Panel Lower Molding
14. Rear End Panel Upper Molding
15. Rear End Panel Emblem
16. Rear Compartment Lid Outer Panel Nameplate

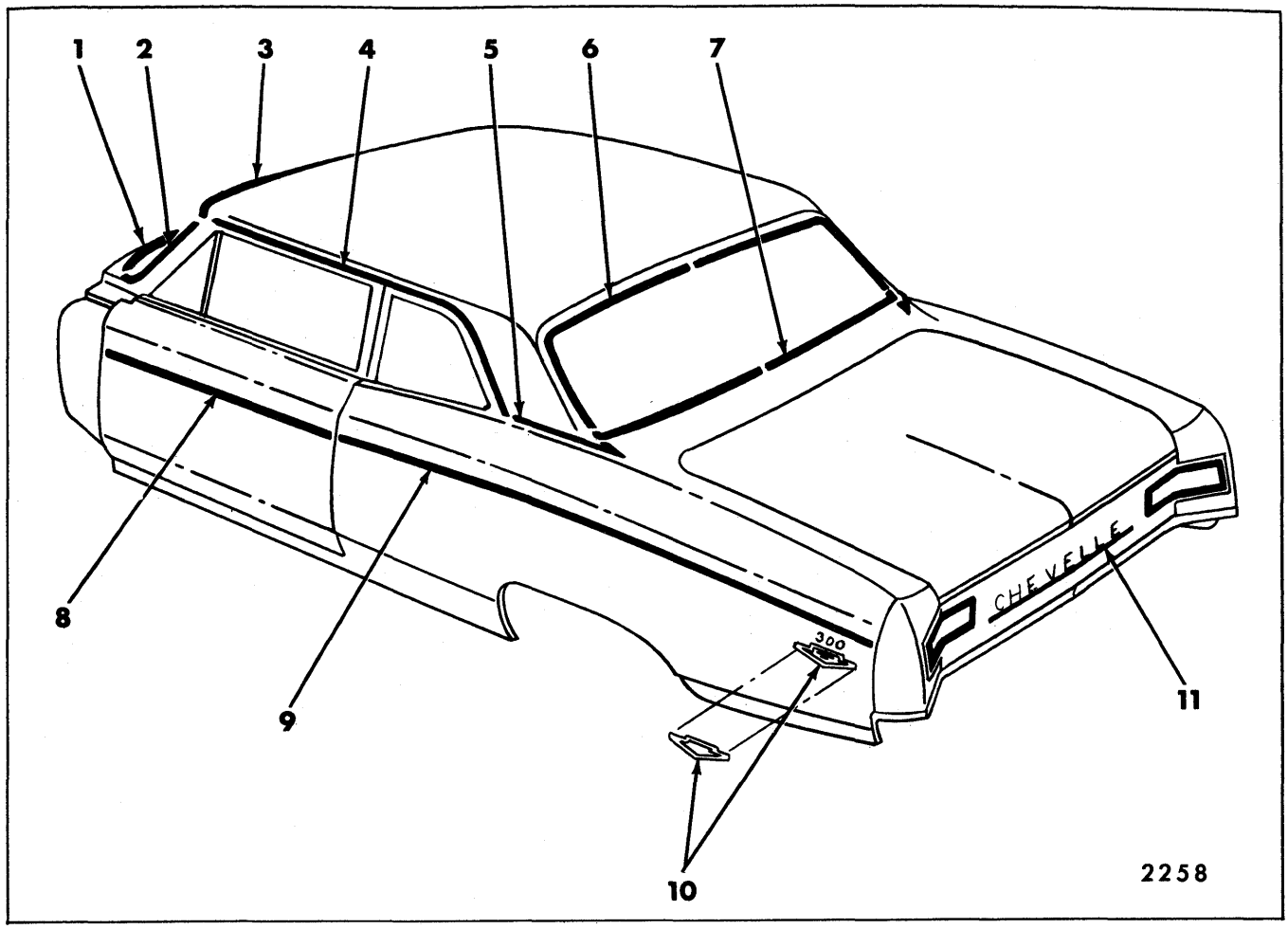

Fig. 12-9—Chevelle "A-11" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Roof Drip Molding Scalp
5. Rear Quarter Belt Reveal Molding
6. Back Window Reveal Upper Molding
7. Back Window Reveal Lower Molding
8. Front Door Outer Panel Molding
9. Rear Quarter Outer Panel Molding
10. Rear Quarter Outer Panel Emblem
11. Rear End Panel Nameplate

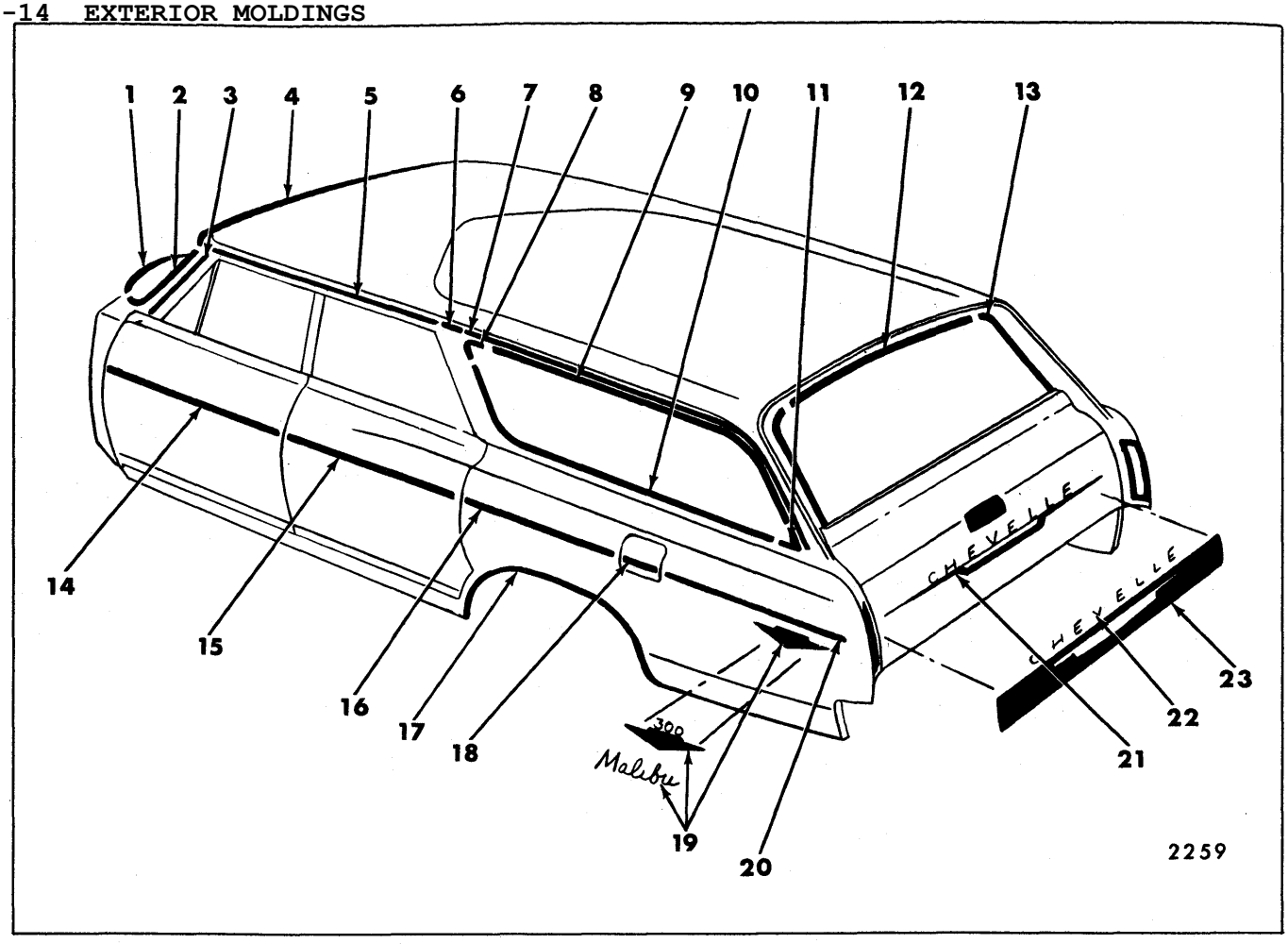

Fig. 12-10—Chevelle "A-35" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Scalp Escutcheon
7. Roof Drip Molding Rear Scalp
8. Rear Quarter Window Reveal Upper Corner Escutcheon
9. Rear Quarter Window Reveal Upper Molding
10. Rear Quarter Window Reveal Lower Molding
11. Rear Quarter Window Reveal Lower Corner Escutcheon
12. Back Body Opening Upper Reveal Molding
13. Back Body Opening Side Reveal Molding
14. Front Door Outer Panel Molding
15. Rear Door Outer Panel Molding
16. Rear Quarter Outer Panel Front Molding
17. Rear Wheel Opening Molding
18. Gas Tank Filler Door Molding
19. Rear Quarter Outer Panel Emblem
20. Rear Quarter Outer Panel Rear Molding
21. Tailgate Outer Panel Emblem
22. Tailgate Outer Panel Nameplate
23. Tailgate Outer Panel Molding

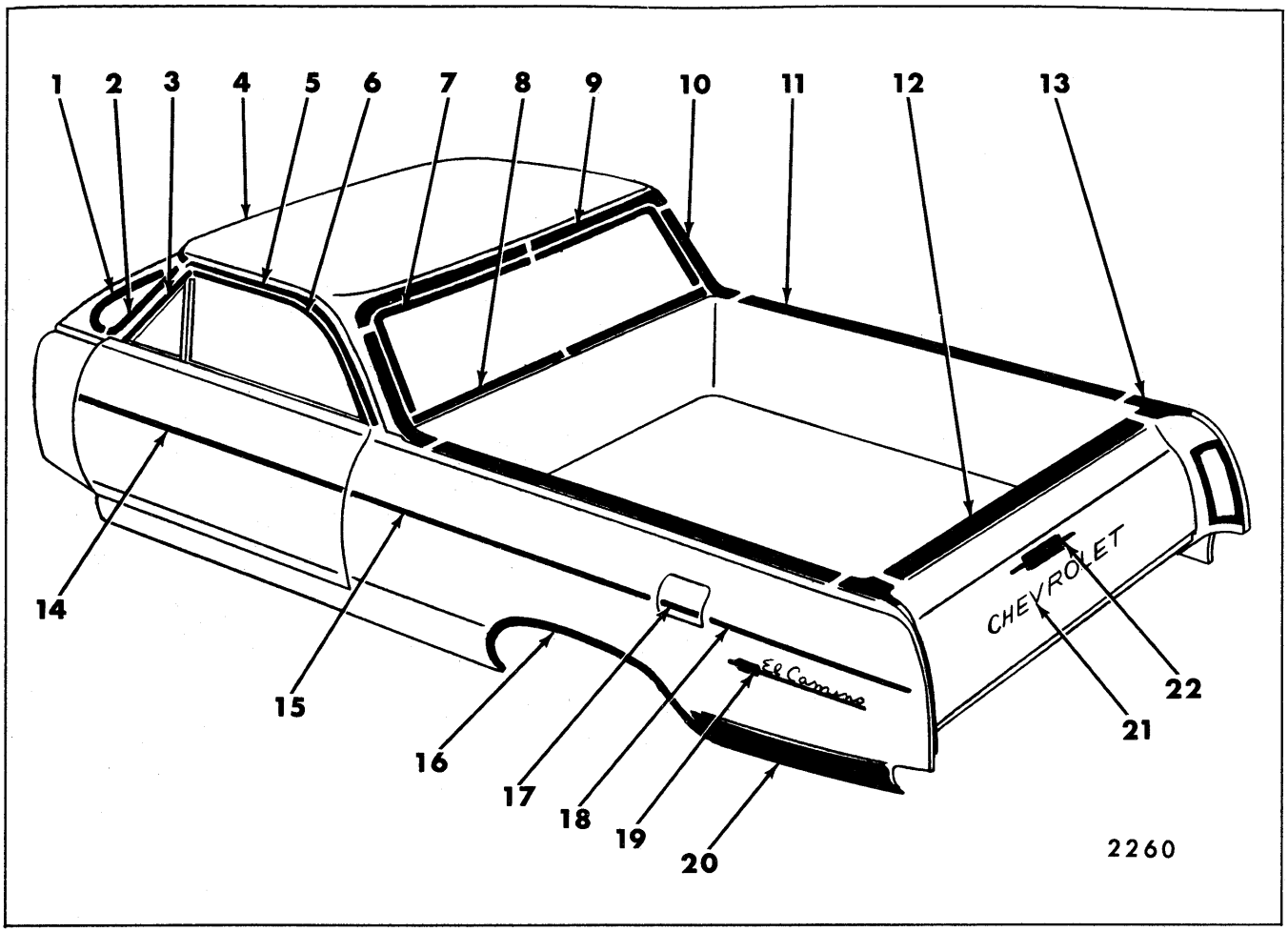

Fig. 12-11—Chevelle "A-80" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Front Door Window Frame Front Scalp Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Front Door Window Frame Upper Scalp Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Roof Panel Upper Finishing Molding
10. Roof Panel Side Finishing Molding
11. Quarter Pinchweld Finishing Molding
12. Tailgate Belt Finishing Molding
13. Quarter Pinchweld Rear Finishing Molding
14. Front Door Outer Panel Molding
15. Rear Quarter Outer Panel Front Molding
16. Rear Wheel Opening Molding
17. Gas Tank Filler Door Molding
18. Rear Quarter Outer Panel Rear Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear of Rear Wheel Opening Molding
21 Tailgate Outer Panel Nameplate
22. Tailgate Outer Panel Emblem

13200 - 13400 - 13600 - 13800 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing	67 & 80	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (67 Style)
Roof Drip Scalp Molding	11, 69, 80		X					
Roof Drip Scalp Molding Front	35 & 17		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Scalp Molding Rear	35 & 17		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Scalp Molding Escutcheon	35 & 17		X					
Roof Panel Rear Finishing	80					X	Right Side Overlaps Left Side Back Window Side Escutcheon	Finishing Lace, Dome Lamp, Rear of Headlining

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Side Finishing	80					X	Quarter Pinchweld Belt Finishing at Front	Finishing Lace, Side Foundation
Front Door Window Frame Scalp Upper	80		X				Front Door Window Frame Scalp Front	
Front Door Window Frame Scalp Front	80		X					
Quarter Pinchweld Belt Finishing Front	80			X		X	Quarter Pinchweld Belt Finishing Rear	Quarter Inner Access Hole Cover
Quarter Pinchweld Belt Finishing Rear	80			X		X	Quarter Pinchweld Belt Finishing Front	Quarter Inner Access Hole Cover
Rear Quarter Front Reveal (Painted)	11		X				Quarter Window Upper Reveal	
Rear Quarter Upper Reveal (Painted)	11		X					
Quarter Pinchweld Finishing	67	X		X				Rear Quarter & Rear End Trim Sticks
Quarter Belt Reveal	11, 17, 69				X	X	Back Window Lower Reveal (11, 69 Only)	
Rear End Pinchweld Finishing	67			X			Quarter Pinchweld Finishing Molding	Rear Quarter & Rear End Trim Sticks

13200 - 13400 - 13600 - 13800 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Front Door Outer Panel	13400	X		X				
Rear Door Outer Panel	13400	X		X				
Rear Quarter Outer Panel	13400			X		X		
Rear Wheel Opening	13600-13800	X						
Rear of Rear Wheel Opening	13800-13680					X		
Rear Quarter Outer Panel Nameplate and/or Emblem	All					X		
Rear Compartment Lid Nameplate	13600-13800 Exc. 35, 80					X		

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear End Panel Nameplate	13200-13400 Exc. 35, 80					X		
Rear End Panel Upper	13600-13800					X		
Rear End Panel Emblem	13600-13800					X		
Rear End Panel Lower	13600-13800					X		
Back Window Reveal Upper	All except 35, 67			X			Back Window Reveal Side	
Back Window Reveal Side	All except 35, 67			X			Back Window Reveal Lower	Back Window Reveal Upper
Back Window Reveal Lower	All except 35, 67			X			Back Window Reveal Side	Back Window Reveal Side
Back Body Opening Upper Reveal	35	X						
Back Body Opening Side Reveal	35	X						
Tailgate Belt Finishing	80					X		
Tailgate Outer Panel Nameplate	35, 80					X		
Tailgate Outer Panel	13635					X		Tailgate Window and Regulator

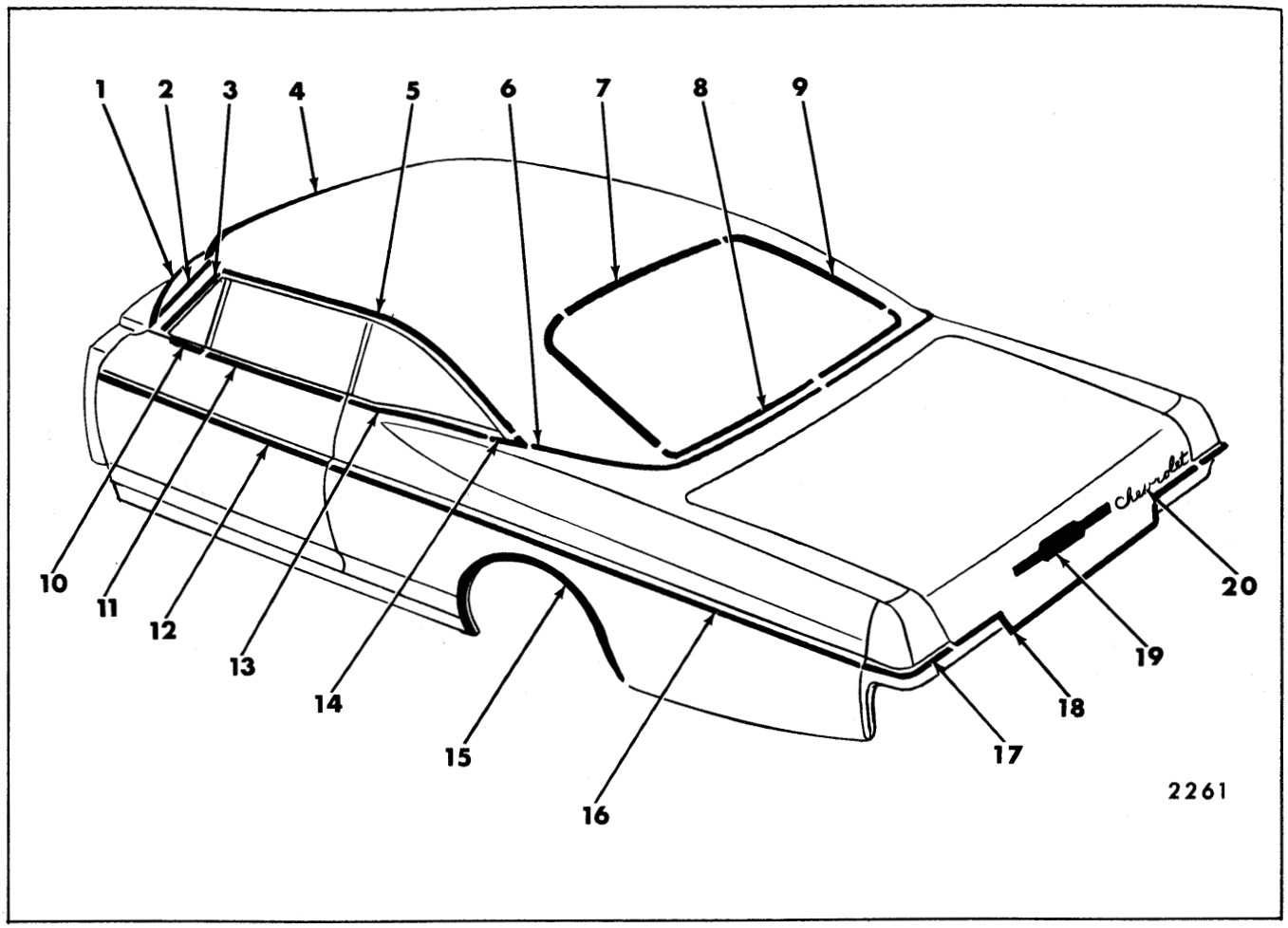

Fig. 12-12—Chevrolet "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Front Door Window Belt Reveal (At Vent) Molding
11. Front Door Window Belt Reveal Molding
12. Front Door Outer Panel Molding
13. Rear Quarter Window Belt Reveal Molding
14. Rear Quarter Window Belt Reveal (Rear Corner) Escutcheon
15. Rear Wheel Opening Molding
16. Rear Quarter Outer Panel Molding
17. Rear of Rear Quarter Outer Panel Molding
18. Rear Compartment Lid Outer Panel Molding
19. Rear Compartment Lid Outer Panel Emblem
20. Rear Compartment Lid Outer Panel Nameplate

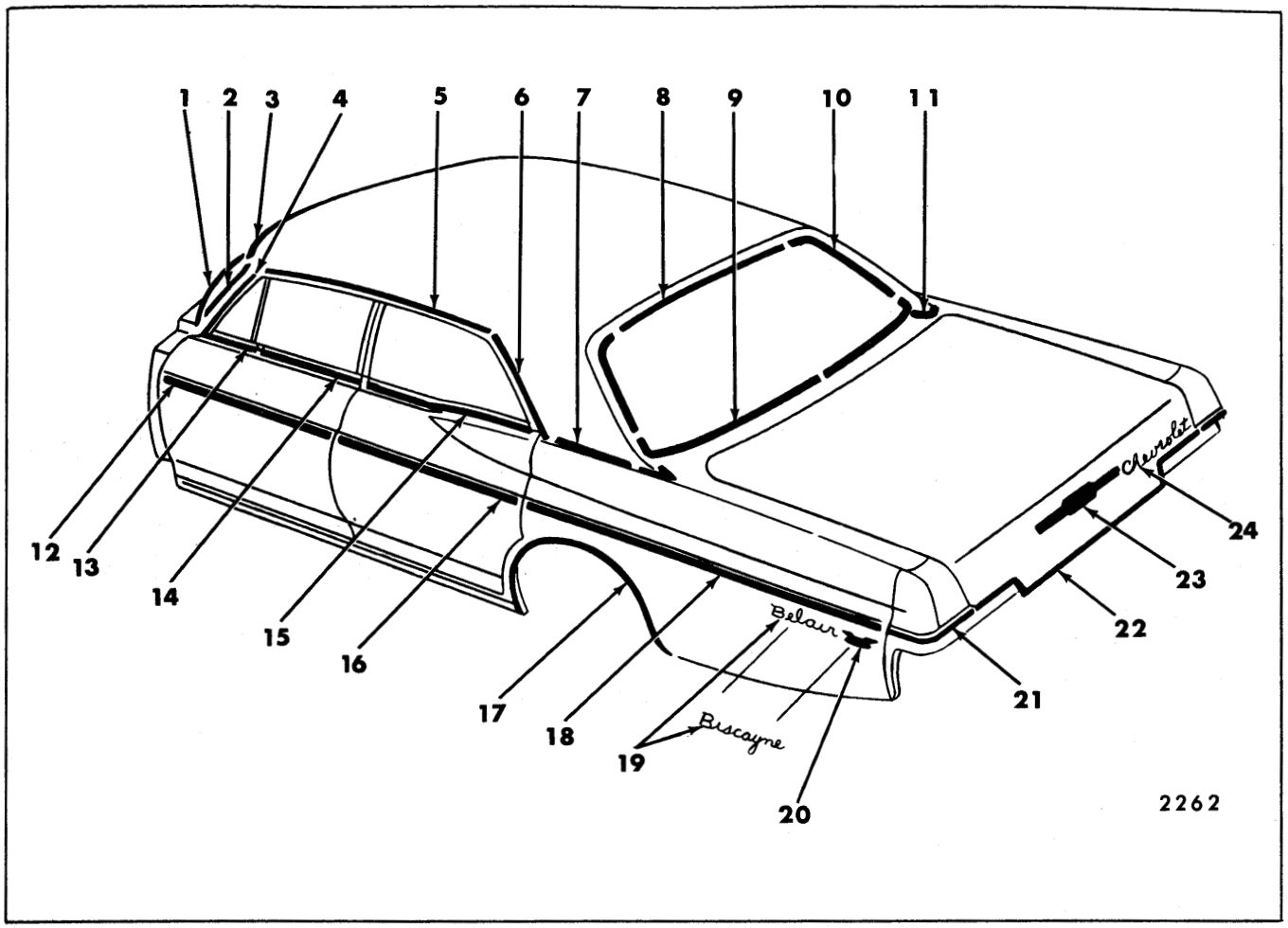

Fig. 12-13—Chevrolet "B-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding Scalp
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Rear Quarter Belt Reveal Front Molding
8. Back Window Reveal Upper Molding
9. Back Window Reveal Lower Molding
10. Back Window Reveal Side Molding
11. Rear Quarter Belt Reveal Rear Molding
12. Front Door Outer Panel Molding
13. Front Door Window Belt Reveal (At Vent) Molding
14. Front Door Window Belt Reveal Molding
15. Rear Door Window Belt Reveal Molding
16. Rear Door Outer Panel Molding
17. Rear Wheel Opening Molding
18. Rear Quarter Outer Panel Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear Quarter Outer Panel Emblem
21. Rear of Rear Quarter Outer Panel Molding
22. Rear Compartment Lid Outer Panel Molding
23. Rear Compartment Lid Outer Panel Emblem
24. Rear Compartment Lid Outer Panel Nameplate

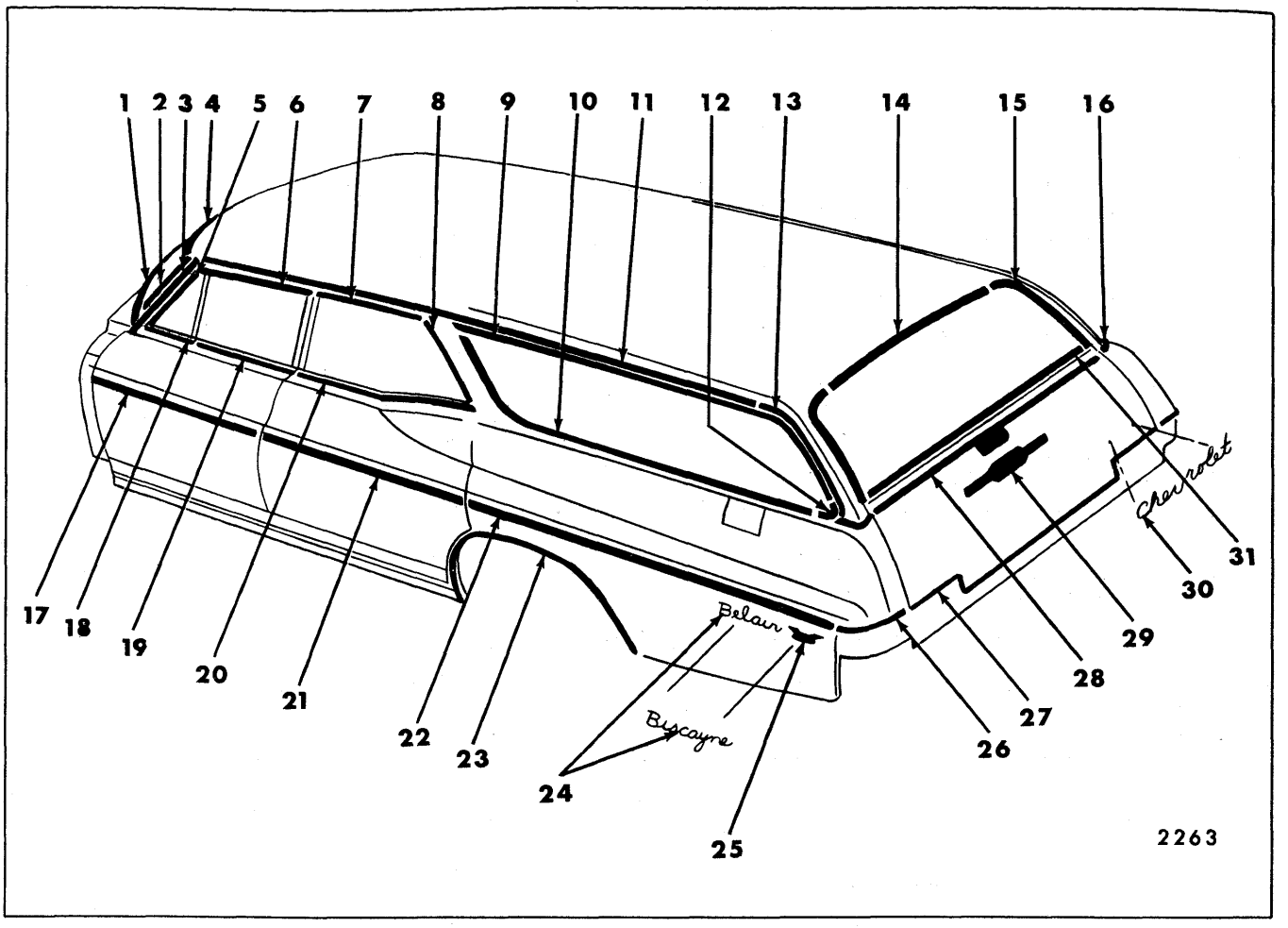

Fig. 12-14—Chevrolet "B-35-45" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Front Door Window Frame Front Scalp Molding
6. Front Door Window Frame Upper Scalp Molding
7. Rear Door Window Frame Upper Scalp Molding
8. Rear Door Window Frame Rear Scalp Molding
9. Rear Quarter Window Reveal Upper Molding
10. Rear Quarter Window Reveal Lower Molding
11. Roof Drip Molding Front Scalp
12. Rear Quarter Window Reveal Lower Corner Escutcheon
13. Roof Drip Molding Rear Scalp
14. Back Body Opening Upper Reveal Molding
15. Back Body Opening Side Reveal Molding
16. Back Body Pillar Belt Finishing Molding
17. Front Door Outer Panel Molding
18. Front Door Window Belt Reveal (At Vent) Molding
19. Front Door Window Belt Reveal Molding
20. Rear Door Window Belt Reveal Molding
21. Rear Door Outer Panel Molding
22. Rear Quarter Outer Panel Molding
23. Rear Wheel Opening Molding
24. Rear Quarter Outer Panel Nameplate
25. Rear Quarter Outer Panel Emblem
26. Rear of Rear Quarter Outer Panel Molding
27. Tailgate Outer Panel Lower Molding
28. Tailgate Outer Panel Belt Reveal Molding
29. Tailgate Outer Panel Emblem
30. Tailgate Outer Panel Nameplate
31. Tailgate Window Lower Reveal Molding

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All (except 67)	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing	67	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Scalp	11, 37, 69		X				Windshield Pillar Drip	Windshield Side Reveal Molding
Roof Drip Molding Scalp Front	35, 45, 39		X				Windshield Pillar Drip	
Roof Drip Molding Scalp Rear	35, 45, 39		X				Roof Drip Molding Front Scalp	
Front Door Window Frame Scalp Front	35, 45, 69		X				Front Door Window Frame Scalp Upper	
Front Door Window Frame Scalp Upper	35, 45, 69		X					
Front Door Window Belt Reveal (at Vent)	All (except 11)	X						Front Door Vent Assy. (35, 45, 69 Styles) Front Door Trim Pad (37, 39, 67 Style)

15400 - 15600 - 16400 - 16600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Belt Reveal	16400-16600	X		X			Front Door Window Reveal (at Vent)	Rubber Bumper on Front Door Window Lower Stop
Rear Door Window Frame Scalp Upper	35, 45, 69		X				Rear Door Window Frame Rear Scalp (35, 45 Styles Only)	
Rear Door Window Frame Scalp Rear	35, 45		X					
Rear Door Window Belt Reveal	16400-16600	X		X				Rubber Bumper on Rear Door Window Lower Stop
Quarter Window Reveal Front (Painted)	11		X				Quarter Window Upper Reveal	
Quarter Window Reveal Upper (Painted)	11		X					
Quarter Window Belt Reveal	16400-16600	X		X				Quarter Window Lower Stop
Quarter Window Belt Reveal Lower Escutcheon	37	X						
Quarter Window Reveal Upper	35, 45			X			Quarter Window Reveal Lower	
Quarter Window Reveal Lower	35, 45			X				Quarter Window Reveal Lower Escutcheon
Quarter Window Reveal Lower Escutcheon	35, 45			X			Quarter Window Reveal Upper and Lower	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Pinchweld Finishing	67	X			X			
Front Door Outer Panel	15600-16400	X		X				
Rear Door Outer Panel	15600-16400	X		X				
Rear Quarter Outer Panel	15600-16400			X		X		
Rear Wheel Opening	16400-16600	X						
Rear Quarter Outer Panel Nameplate	15400-15600 35-45 Left Side			X				
Rear Quarter Outer Panel Nameplate	15400-15600 16600 35-45 Right Side					X		
Rear of Rear Quarter Outer Panel	35, 45	X			X			
Rear of Rear Quarter Outer Panel	15600-16400 16600	X						Rear of Rear Quarter Extension
Rear of Rear Quarter Outer Panel Lower (Vertical)	16600	X						Loosen Rear Bumper
Back Glass Reveal Upper	All (except 35, 45, 67)			X			Back Glass Reveal Side	
Back Glass Reveal Side	All (except 35, 45, 67)			X			Back Glass Reveal Lower	
Back Glass Reveal Lower	All (except 35, 45, 67)			X			Back Glass Reveal Side	

15400 - 15600 - 16400 - 16600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Body Opening Reveal Upper	35, 45	X					Back Body Opening Reveal Side	Remove Upper Glass Run Channel
Back Body Opening Reveal Side	35, 45	X					Back Body Opening Reveal Upper	
Tailgate Window Reveal	35, 45	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt Reveal (Optional)	35, 45	X			X			
Tailgate Outer Panel Emblem	All Series 35-45 Styles					X		Tailgate Inner Trim Panel
Tailgate Outer Panel Nameplate	All Series 35-45 Styles					X		Tailgate Inner Trim Panel
Tailgate Outer Panel Lower	15600-16400 16600 35,45 Styles	X			X			
Back Body Pillar Belt Finishing (Optional)	35, 45	X			X			
Rear Compartment Lid Outer Panel Emblem	All					X		
Rear Compartment Lid Outer Panel	All	X						

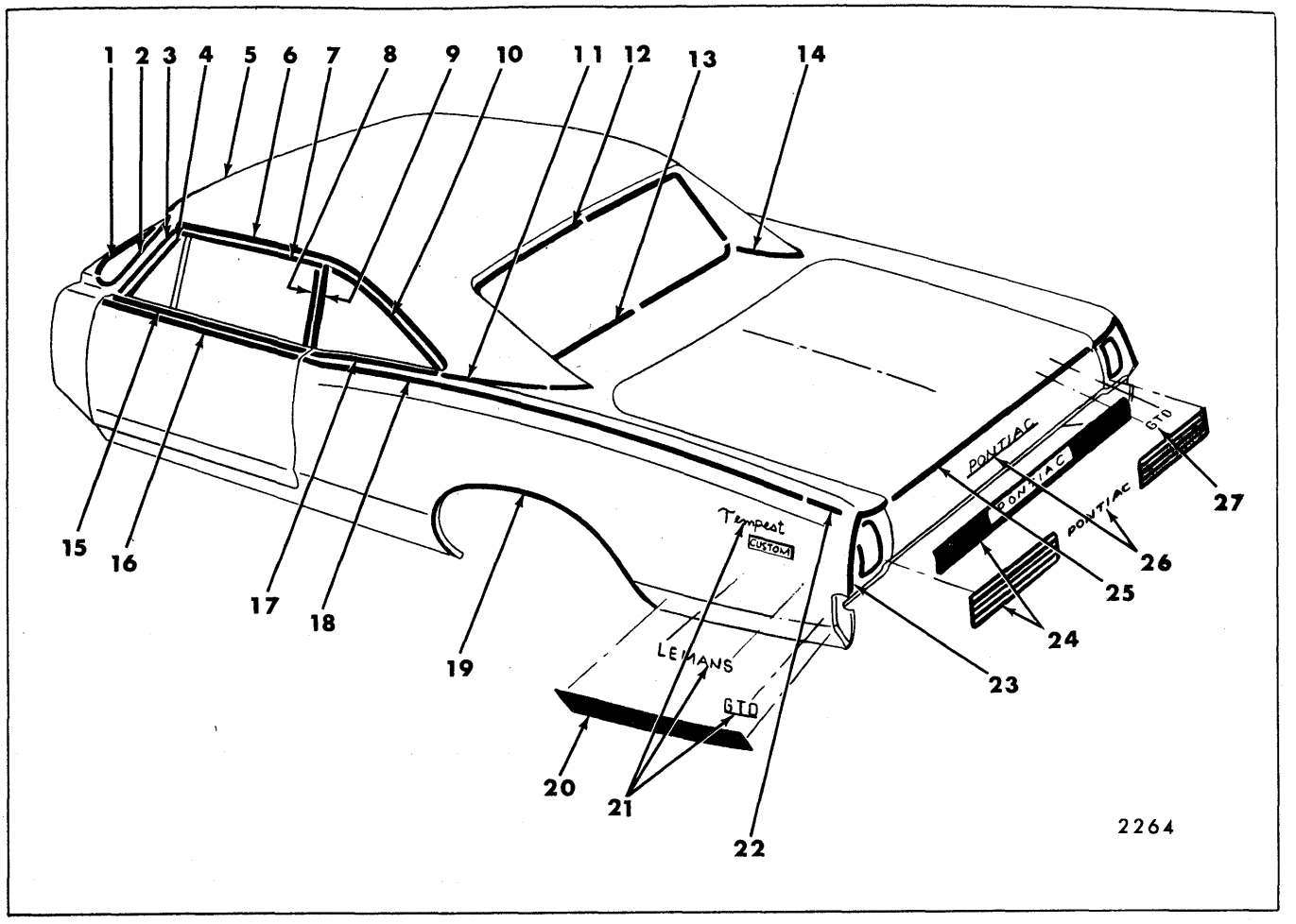

Fig. 12-15—Tempest "A-07" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Roof Drip Molding Scalp
7. Front Door Window Frame Upper Scalp Molding
8. Front Door Window Frame Rear Scalp Molding
9. Quarter Window Front Scalp Molding
10. Quarter Window Upper Scalp Molding
11. Rear Quarter Belt Reveal Molding
12. Back Window Reveal Upper Molding
13. Back Window Reveal Lower Molding
14. Rear Quarter Belt Reveal Rear Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Quarter Window Belt Reveal Molding
18. Rear Quarter Outer Panel Front Molding
19. Rear Wheel Opening Molding
20. Rear of Rear Wheel Opening Molding
21. Rear Quarter Outer Panel Nameplate
22. Rear Quarter Outer Panel Rear Molding
23. Rear of Rear Quarter Outer Panel Molding
24. Rear End Panel Molding
25. Rear Compartment Lid Outer Panel Molding
26. Rear End Panel Nameplate
27. Rear Compartment Lid Outer Panel Emblem

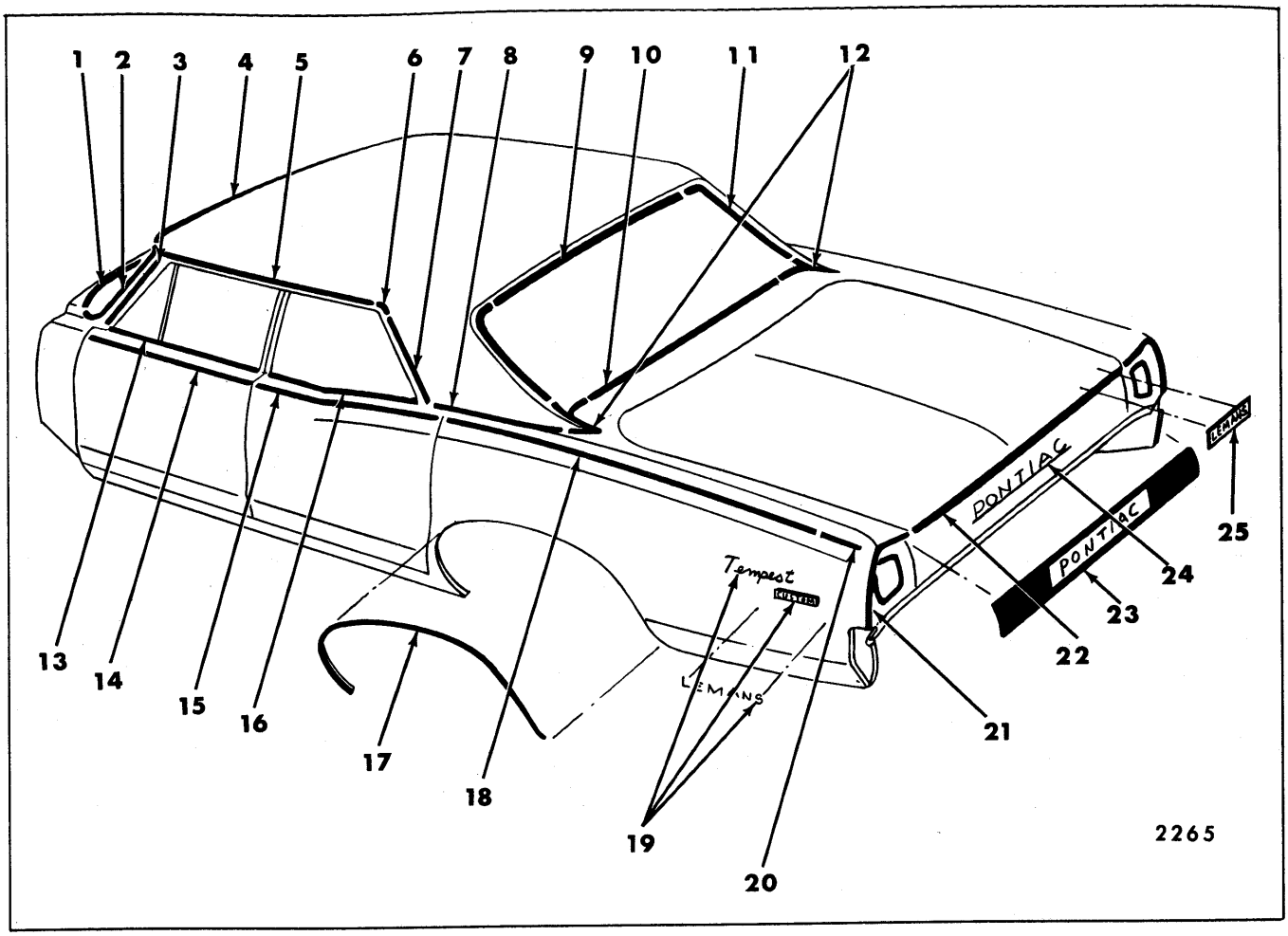

Fig. 12-16—Tempest "A-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Scalp Escutcheon
7. Roof Drip Molding Rear Scalp
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Rear Quarter Belt Reveal Corner Escutcheon
13. Front Door Window Belt Reveal Molding
14. Front Door Outer Panel Molding
15. Rear Door Outer Panel Molding
16. Rear Door Window Belt Reveal Molding
17. Rear Wheel Opening Molding
18. Rear Quarter Outer Panel Front Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear Quarter Outer Panel Rear Molding
21. Rear of Rear Quarter Outer Panel Molding
22. Rear Compartment Lid Outer Panel Molding
23. Rear End Panel Molding
24. Rear End Panel Nameplate
25. Rear Compartment Lid Outer Panel Nameplate

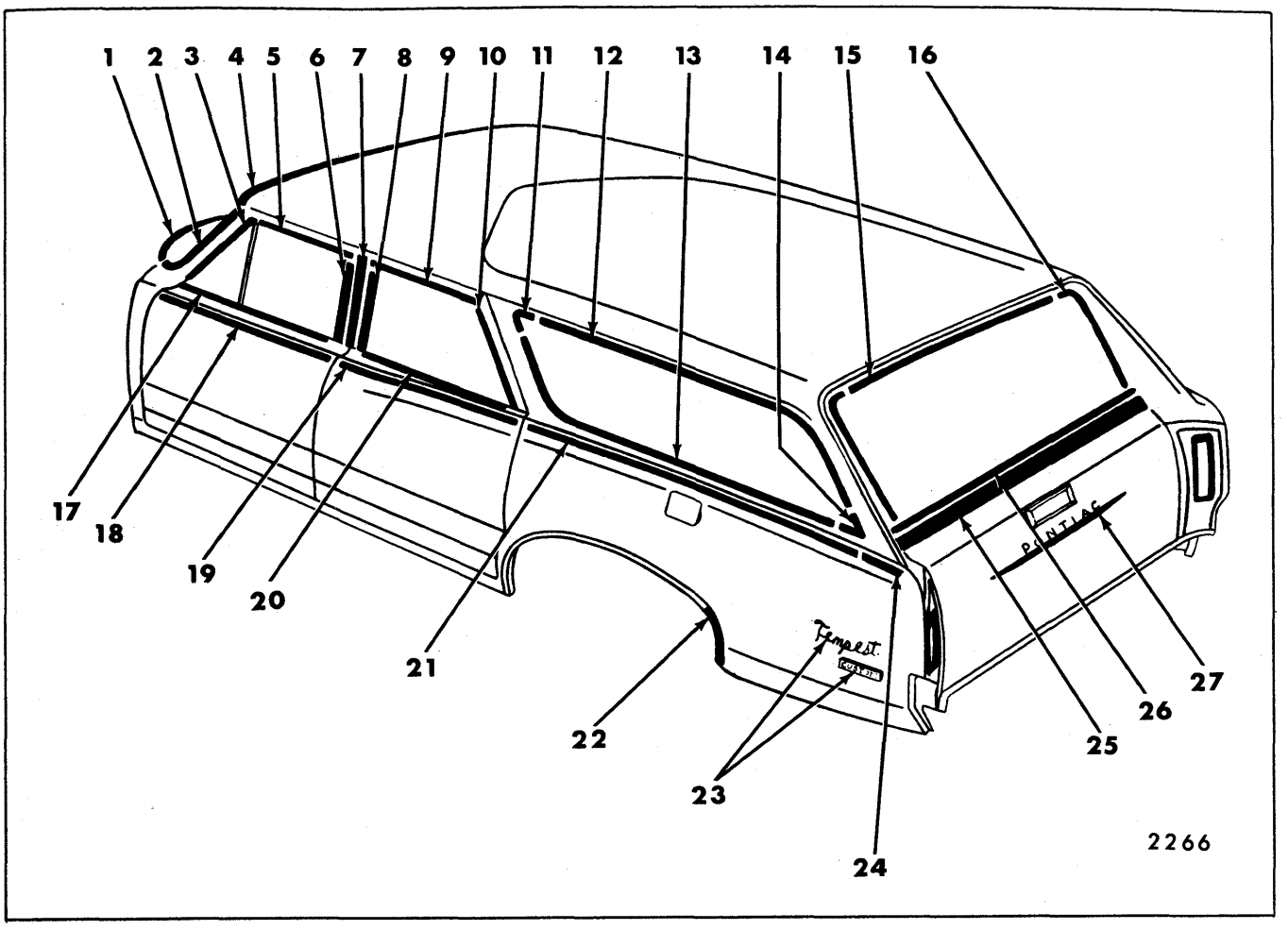

Fig. 12-17—Tempest "A-35" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Front Door Window Frame Front Scalp Molding
4. Windshield Reveal Upper Molding
5. Front Door Window Frame Upper Scalp Molding
6. Front Door Window Frame Rear Scalp Molding
7. Center Pillar Scalp Molding
8. Rear Door Window Frame Front Scalp Molding
9. Rear Door Window Frame Upper Scalp Molding
10. Rear Door Window Frame Rear Scalp Molding
11. Rear Quarter Window Reveal Upper Corner Escutcheon
12. Rear Quarter Window Reveal Upper Molding
13. Rear Quarter Window Reveal Lower Molding
14. Rear Quarter Window Reveal Lower Corner Escutcheon
15. Back Body Opening Upper Reveal Molding
16. Back Body Opening Side Reveal Molding
17. Front Door Window Belt Reveal Molding
18. Front Door Outer Panel Molding
19. Rear Door Outer Panel Molding
20. Rear Door Window Belt Reveal Molding
21. Rear Quarter Outer Panel Front Molding
22. Rear Wheel Opening Stone Shield
23. Rear Quarter Outer Panel Nameplate
24. Rear Quarter Outer Panel Rear Molding
25. Tailgate Outer Panel Belt Molding
26. Tailgate Window Lower Reveal Molding
27. Tailgate Outer Panel Nameplate

23300 - 23500 - 23700 - 24200 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing	07, 17, 67, 69	X						Windshield Pillar Weather-strip and Weatherstrip Retainer (37 67 Styles Only)
Roof Drip Molding Front Scalp	07, 17, 69		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Rear Scalp	07, 17, 69		X				Roof Drip Molding Scalp Escutcheon	
Rood Drip Molding Scalp Escutcheon	07, 17, 69		X					
Roof Panel Emblem	69					X		Headlining Rear Quarter Trim Panel
Front Door Window Frame Front Scalp	07, 35, 69		X					
Front Door Window Frame Upper Scalp	07, 35, 69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	07, 35, 69		X				Front Door Window Frame Upper Scalp	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Belt Reveal	07, 37, 69, 67	X						Front Door Window Glass Lower Stops
Center Pillar Scalp	35, 69	X						
Rear Door Window Frame Front Scalp	35, 69		X				Rear Door Window Frame Upper Scalp	
Rear Door Window Frame Upper Scalp	35, 69		X				Rear Door Window Frame Rear Scalp	
Rear Door Window Frame Rear Scalp	35, 69		X					
Rear Door Window Belt Reveal	69	X						Rear Door Window Lower Stops
Quarter Window Front Scalp	07			X			Quarter Window Upper Reveal	
Quarter Window Upper Scalp	07			X				
Quarter Window Lower Belt Reveal	07, 17, 67	X						Quarter Window Glass Lower Stops
Quarter Belt Reveal	07, 17, 69				X	X	Rear End Belt	
Quarter Belt Reveal Corner Escutcheon	39					X		
Quarter Pinchweld Finishing	67	X		X			Quarter Window Lower Reveal	Rear Quarter and Rear End Trim Sticks

23300 - 23500 - 23700 - 24200 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear End Pinchweld Finishing	67	X		X			Quarter Pinchweld Finishing	Rear Quarter and Rear End Trim Sticks
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Front Door Outer Panel	23500	X		X				
Rear Door Outer Panel	23500	X		X				
Rear Quarter Outer Panel Front	23500			X				
Rear Quarter Outer Panel Rear	23500					X		

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Wheel Opening Stone Guard	35	X						
Rear Wheel Opening	23700, 24200	X						
Rear of Rear Wheel Opening	24200	X						
Rear Quarter Outer Panel Nameplate and/or Emblem	All					X		Quarter Trim Left Side Spare Tire Cover Right Side (35 Style Only)
Rear of Rear Quarter Outer Panel	All					X		
Rear Compartment Lid Outer Panel	All	X						
Rear Compartment Lid Outer Panel Nameplate and/or Emblem	23500, 24200					X		
Rear End Panel	23700, 24200					X		
Rear End Panel Nameplate	23300, 23500 24200					X		

23300 - 23500 - 23700 - 24200 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Upper	All except 35, 67			X			Back Window Reveal Side	
Back Window Reveal Side	All except 35, 67			X			Back Window Reveal Lower	Back Window Reveal Upper
Back Window Reveal Lower	All except 35, 67			X			Back Window Reveal Side	Back Window Reveal Side
Back Body Opening Upper Reveal	35	X					Back Body Opening Side Reveal	Tailgate Window Glass Run Channel
Back Body Opening Side Reveal	35	X					Back Body Opening Upper Reveal	
Tailgate Window Lower Reveal	35	X			X			Tailgate Window
Tailgate Outer Panel Belt	35					X	Tailgate Window Lower Reveal	Tailgate Window and Regulator
Tailgate Outer Panel Nameplate	35					X		Tailgate Window and Regulator

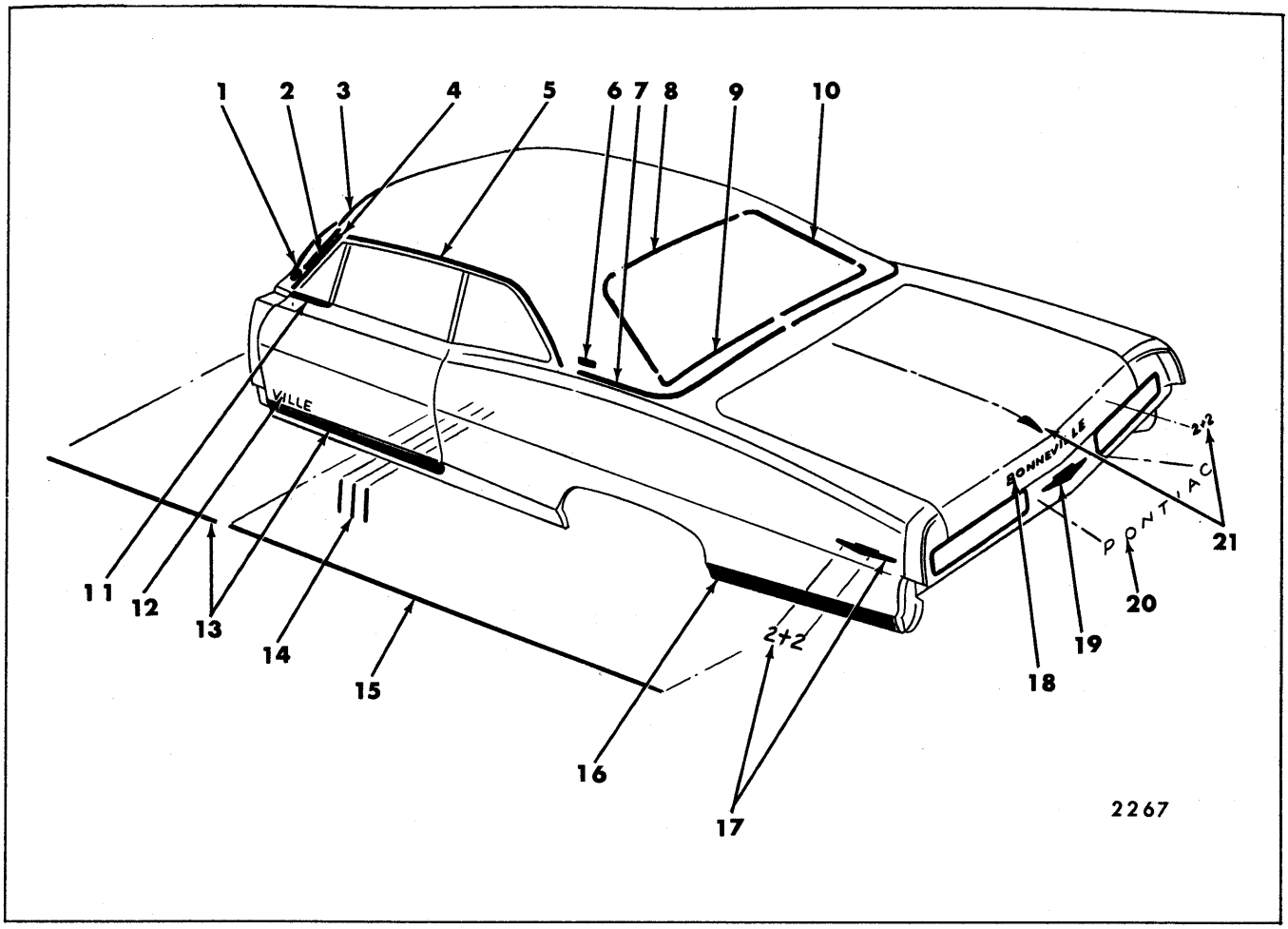

Fig. 12-18—Pontiac "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding Scalp
5. Roof Drip Molding Scalp
6. Roof Panel Emblem
7. Rear Quarter Belt Reveal Molding
8. Back Window Reveal Upper Molding
9. Back Window Reveal Lower Molding
10. Back Window Reveal Side Molding
11. Front Door Window Belt Reveal (At Vent) Molding
12. Front Door Outer Panel Nameplate
13. Front Door Outer Panel Molding
14. Rear Quarter Outer Panel Louver Moldings
15. Rear Quarter Outer Panel Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Emblem
18. Rear Compartment Lid Outer Panel Nameplate
19. Rear End Panel Emblem
20. Rear End Panel Nameplate
21. Rear Compartment Lid Outer Panel Emblem

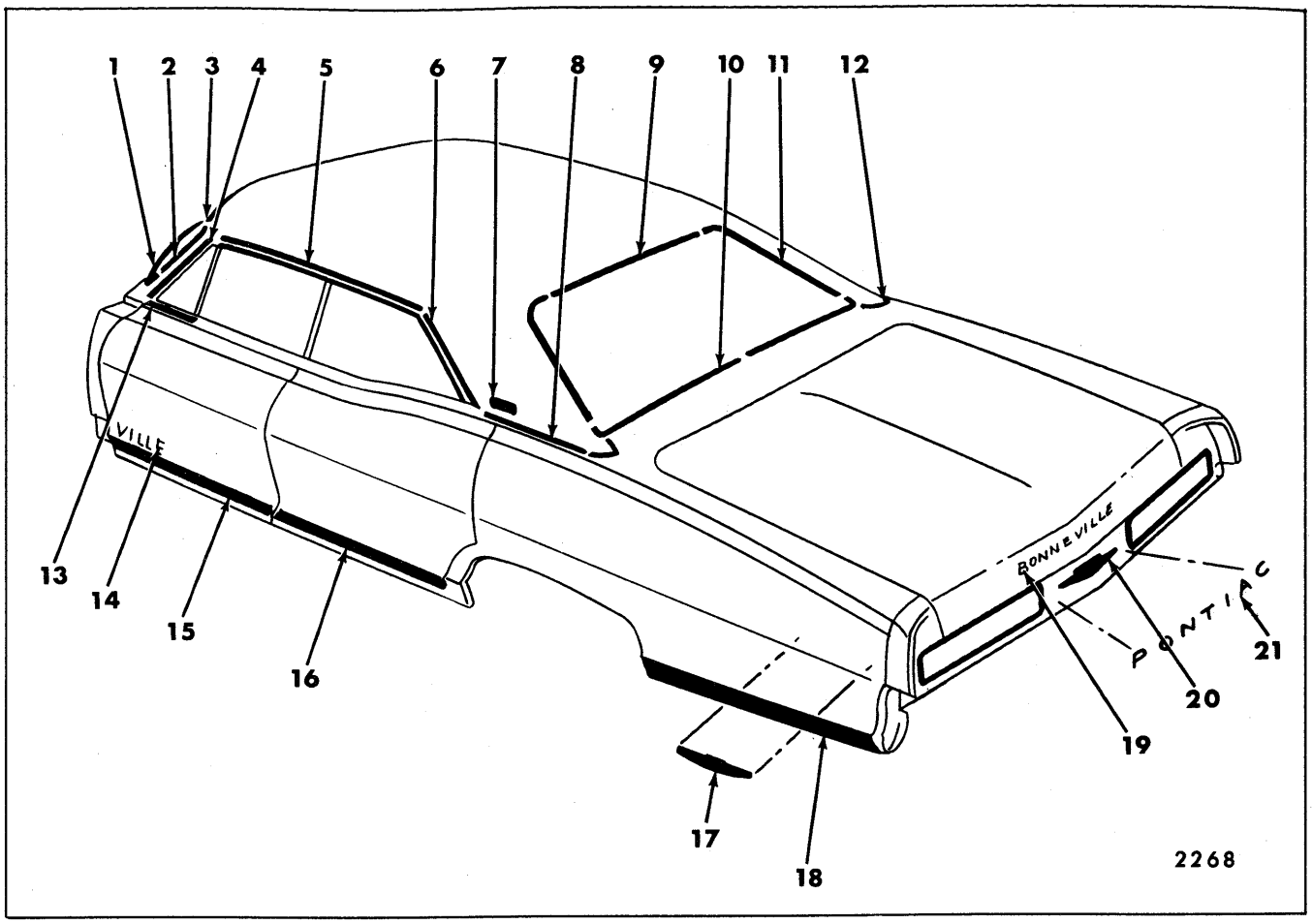

Fig. 12-19—Pontiac "B-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Roof Panel Emblem
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Rear Quarter Belt Reveal Rear Molding
13. Front Door Window Belt Reveal (At Vent) Molding
14. Front Door Outer Panel Nameplate
15. Front Door Outer Panel Molding
16. Rear Door Outer Panel Molding
17. Rear Quarter Outer Panel Emblem
18. Rear of Rear Wheel Opening Molding
19. Rear Compartment Lid Outer Panel Nameplate
20. Rear End Panel Emblem
21. Rear End Panel Nameplate

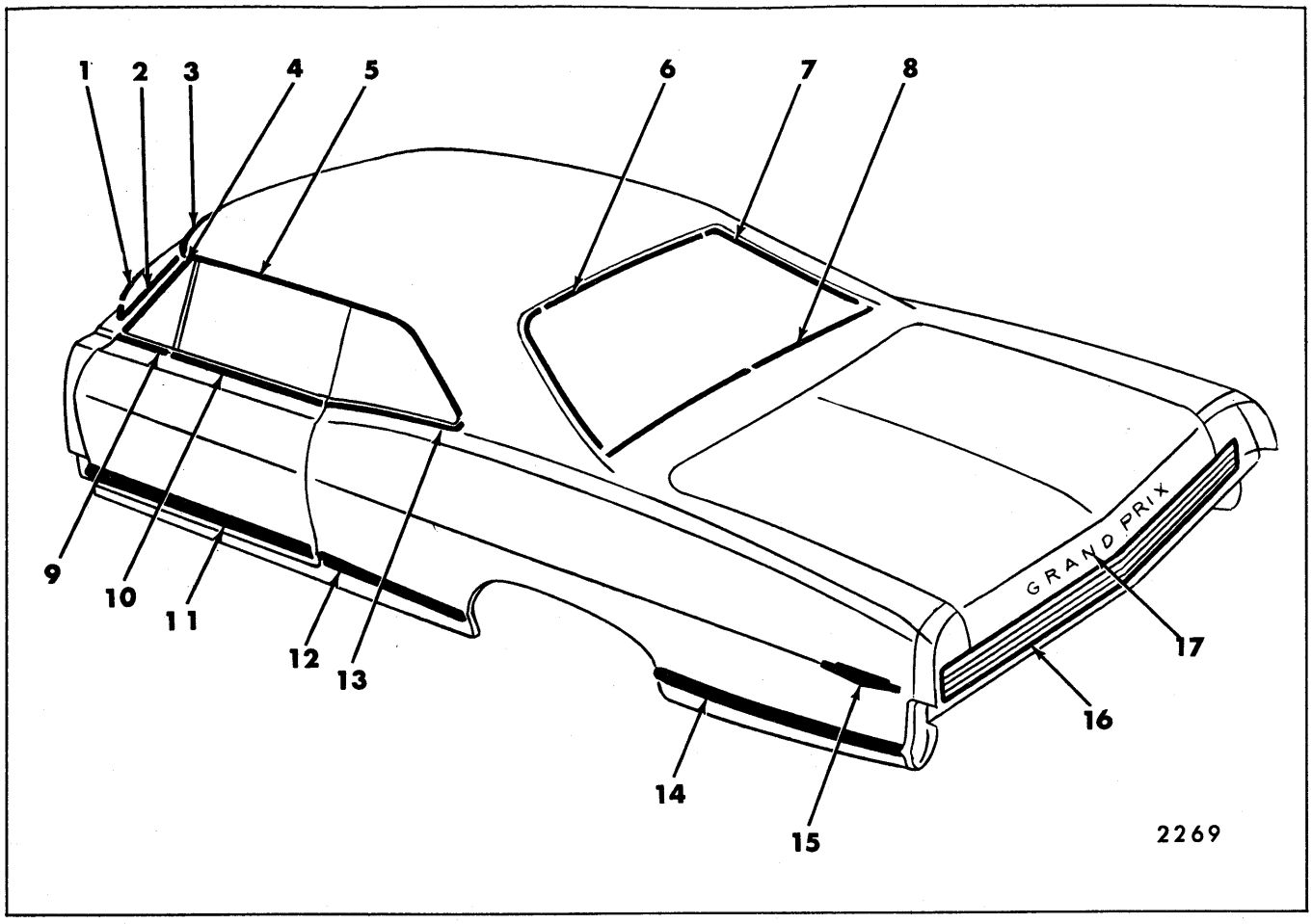

Fig. 12-20—Pontiac "B-57" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Upper Molding
7. Back Window Reveal Side Molding
8. Back Window Reveal Lower Molding
9. Front Door Window Belt Reveal (At Vent) Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Front of Rear Wheel Opening Molding
13. Rear Quarter Window Belt Reveal Molding
14. Rear of Rear Wheel Opening Molding
15. Rear Quarter Outer Panel Emblem
16. Rear End Panel Molding
17. Rear Compartment Lid Outer Panel Nameplate

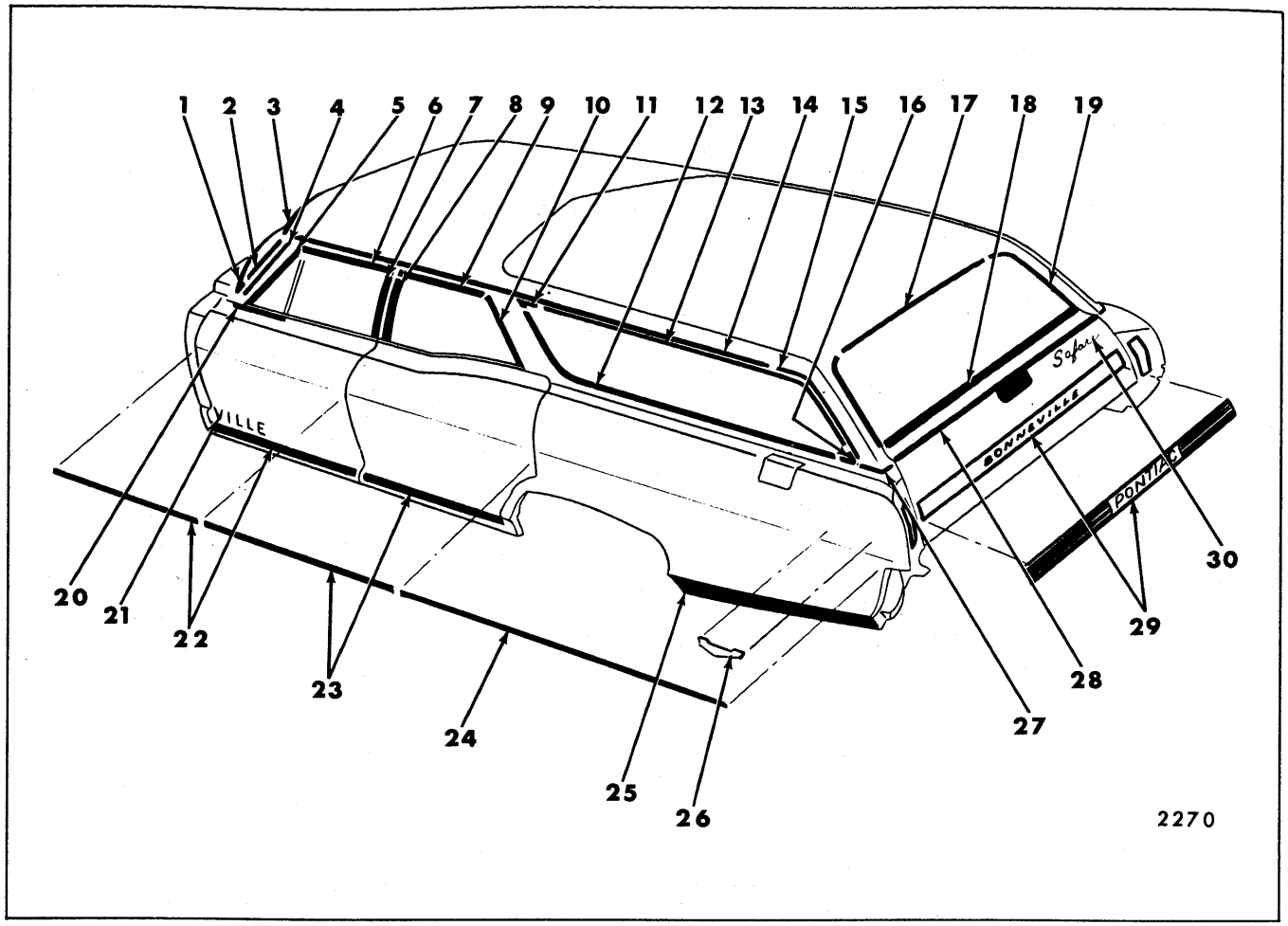

Fig. 12-21--Pontiac "B-35 and 45" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Front Door Window Frame Front Scalp Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Rear Door Window Frame Front Scalp Molding
9. Rear Door Window Frame Upper Scalp Molding
10. Rear Door Window Frame Rear Scalp Molding
11. Rear Quarter Window Reveal Upper Corner Escutcheon
12. Rear Quarter Window Reveal Lower Molding
13. Rear Quarter Window Reveal Upper Molding
14. Roof Drip Molding Front Scalp
15. Roof Drip Molding Rear Scalp
16. Rear Quarter Window Reveal Lower Corner Escutcheon
17. Back Body Opening Upper Reveal Molding
18. Tailgate Window Lower Reveal Molding
19. Back Body Opening Side Reveal Molding
20. Front Door Window Belt Reveal (At Vent) Molding
21. Front Door Outer Panel Nameplate
22. Front Door Outer Panel Molding
23. Rear Door Outer Panel Molding
24. Rear Quarter Outer Panel Molding
25. Rear of Rear Wheel Opening Molding
26. Rear Quarter Outer Panel Emblem
27. Back Body Pillar Belt Finishing Molding
28. Tailgate Outer Panel Belt Molding
29. Tailgate Outer Panel Molding
30. Tailgate Outer Panel Nameplate

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	35, 37, 39, 69, 57	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (37, 39, 57 styles only)
Windshield Pillar Finishing	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Scalp	37, 69		X				Windshield Pillar Drip Molding	
Roof Drip Molding Scalp Front	35, 39, 57		X				Windshield Pillar Drip Molding	
Roof Drip Molding Scalp Rear	35, 39, 57	X (57 only)	X				Roof Drip Molding Scalp Front	
Roof Panel Ornament	39					X		Headlining Rear Quarter Trim
Roof Panel Name Plate	39, 69					X		Headlining Rear Quarter Trim

25200 - 25400 - 25600 - 26200 - 26600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Frame Front Scalp	11, 35, 45, 69		X					
Front Door Window Frame Upper Scalp	11, 35, 45, 69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	11, 35, 45, 69		X				Front Door Window Frame Upper Scalp	
Front Door Window Belt Reveal (at vent)	All	X						Front Door Vent Assembly (11, 35, 45, 69 Styles only) Door Trim Pad (37, 57, 39, 67 Styles)
Front Door Window Belt Reveal	57	X					Front Door Window Reveal (at vent)	Rubber Bumper on Door Glass Lower Stop
Rear Door Window Frame Front Scalp	35, 45, 69		X				Rear Door Window Frame Upper Scalp	
Rear Door Window Frame Upper Scalp	35, 45, 69		X				Rear Door Window Frame Rear Scalp	
Rear Door Window Frame Rear Scalp	35, 45		X					
Quarter Window Upper Scalp	11			X				

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Front Scalp	11			X			Quarter Window Upper Reveal	
Quarter Window Lower Belt Reveal	57	X						Quarter Window Glass Lower Stop
Quarter Window Lower Belt Reveal Escutcheon	57		X				Roof Drip Molding Rear Scalp Quarter Window Lower Reveal	
Quarter Belt Reveal Front	57			X	X	X	Quarter Belt Reveal Rear	Headlining Rear Quarter Trim Panel
Quarter Belt Reveal Rear	57	X				X	Quarter Belt Reveal Front	
Quarter Belt Reveal	11, 39, 69			X	X			
Quarter Belt Reveal	37				X	X	Right Side Overlaps Left Side	Headlining Rear Quarter Trim Panel
Quarter Pinchweld Finishing Molding	67	X		X			Right Side Overlaps Left Side	
Quarter Window Reveal Upper	35, 45			X			Quarter Window Reveal Lower	
Quarter Window Reveal Lower	35, 45			X			Quarter Window Reveal Lower Escutcheon	

25200 - 25400 - 25600 - 26200 - 26600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Reveal Lower Escutcheon	35, 45			X			Quarter Window Reveal Upper and Lower	
Front Door Outer Panel	25200-25400 25600	X		X				
Front Door Outer Panel	26200	X				X		Remove Door Trim
Rear Door Outer Panel	25200-25600	X		X				
Rear Door Outer Panel	26200	X				X		Remove Door Trim
Rear Quarter Outer Panel	25200-25600			X				
Front of Rear Wheel Opening	25400-26600			X				
Rear of Rear Wheel Opening	25400-26600			X				
Rear of Rear Wheel Opening	26200	X				X		
Rear Quarter Outer Panel Emblem and/or Nameplate	All Except 26200					X		
Back Window Reveal Upper	All (except 35, 45, 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 35, 45, 67)			X			Back Window Reveal Lower	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Lower	All (except 35, 45, 67)			X			Back Window Reveal Side	
Back Body Opening Reveal Upper	35, 45	X					Back Body Opening Reveal Side	Tailgate Glass Run Channel
Back Body Opening Reveal Side	35, 45	X					Back Body Opening Reveal Upper	
Tailgate Window Reveal	35, 45	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt Reveal (Optional)	35, 45	X			X			
Tailgate Outer Panel Nameplate	35, 45					X		
Tailgate Outer Panel Lower	35, 45					X		
Back Body Pillar Belt Reveal (Optional)	35, 45				X			
Rear Compartment Lid Outer Panel Emblem and/or Nameplate	All (except 35, 45)					X		
Rear End Panel	26657					X		
Rear End Panel Nameplate	25200-25400 25600					X		

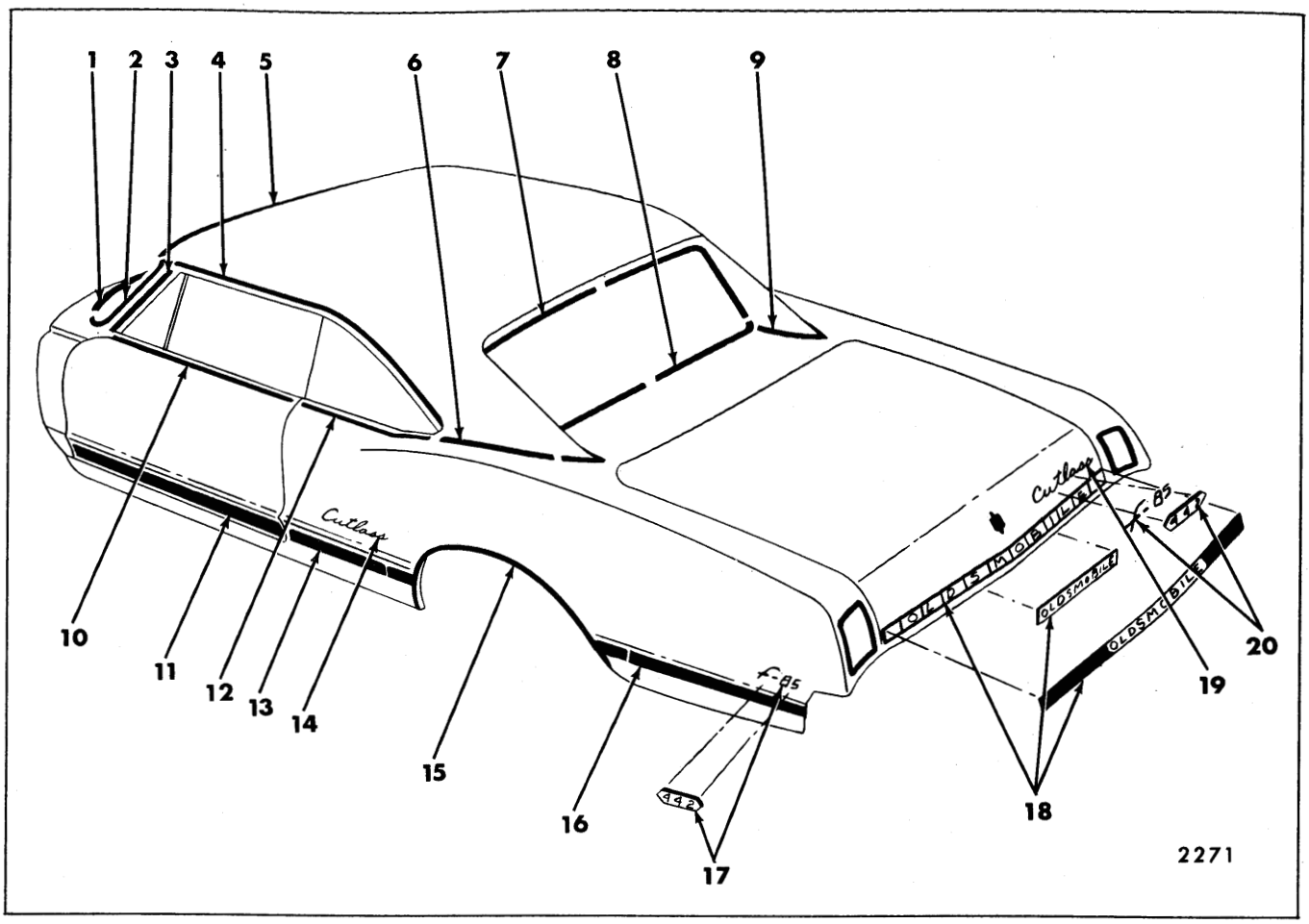

Fig. 12-22—F-85 "A-17" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Roof Drip Molding Scalp
5. Windshield Reveal Upper Molding
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Rear Quarter Belt Reveal Rear Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Rear Quarter Window Belt Reveal Molding
13. Front of Rear Wheel Opening Molding
14. Rear Quarter Outer Panel Nameplate
15. Rear Wheel Opening Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Emblem
18. Rear Compartment Lid Outer Panel Molding
19. Rear Compartment Lid Outer Panel Nameplate
20. Rear Compartment Lid Outer Panel Emblem

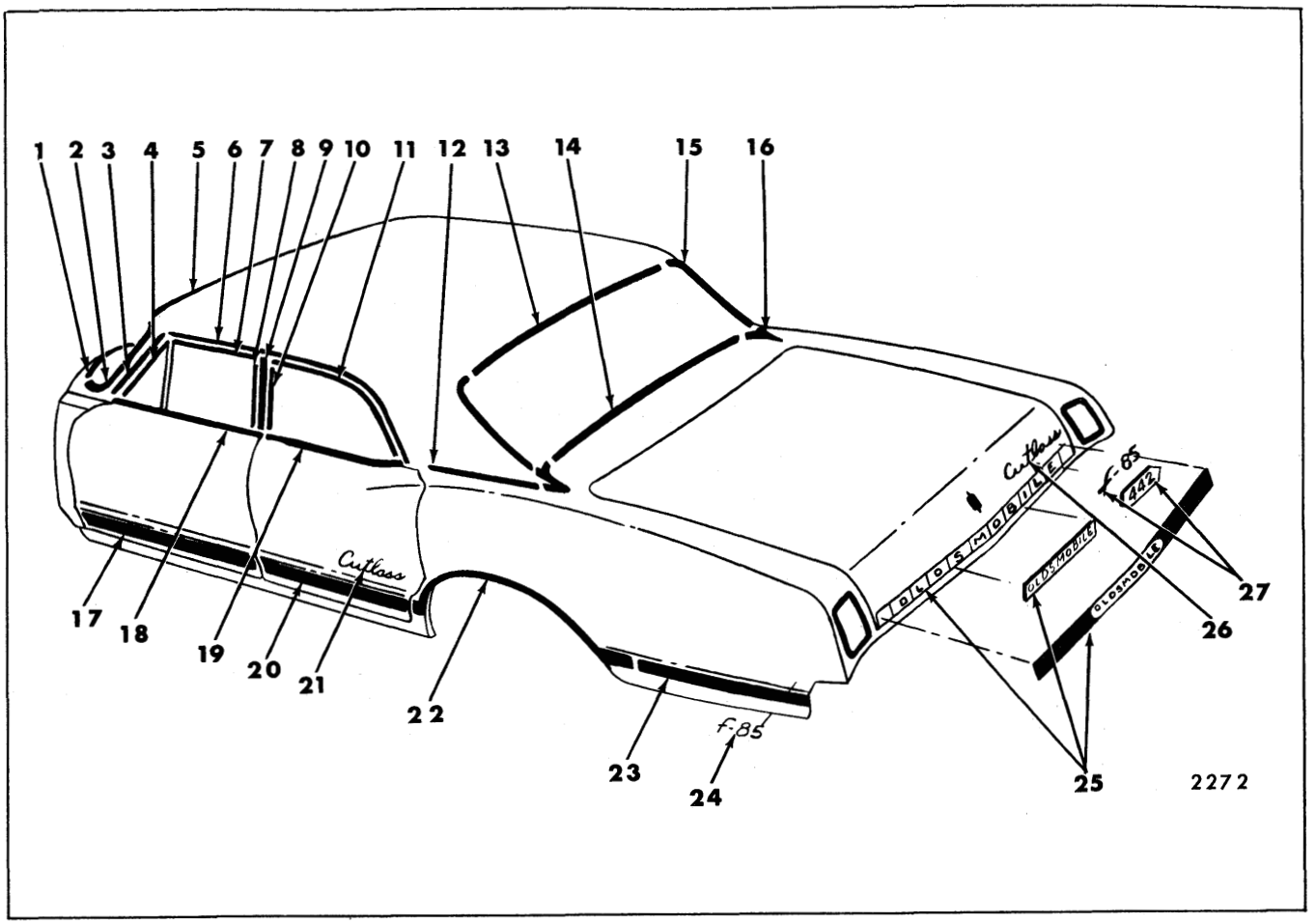

Fig. 12-23—F-85 "A-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Roof Drip Molding Scalp
7. Front Door Window Frame Upper Scalp Molding
8. Front Door Window Frame Rear Scalp Molding
9. Center Pillar Scalp Molding
10. Rear Door Window Frame Front Scalp Molding
11. Rear Door Window Frame Upper Scalp Molding
12. Rear Quarter Belt Reveal Molding
13. Back Window Reveal Upper Molding
14. Back Window Reveal Lower Molding
15. Back Window Reveal Side Molding
16. Rear Quarter Belt Reveal Rear Molding
17. Front Door Outer Panel Molding
18. Front Door Window Belt Reveal Molding
19. Rear Door Window Belt Reveal Molding
20. Rear Door Outer Panel Molding
21. Rear Door Outer Panel Nameplate
22. Rear Wheel Opening Molding
23. Rear of Rear Wheel Opening Molding
24. Rear Quarter Outer Panel Emblem
25. Rear Compartment Lid Outer Panel Molding
26. Rear Compartment Lid Outer Panel Nameplate
27. Rear Compartment Lid Outer Panel Emblem

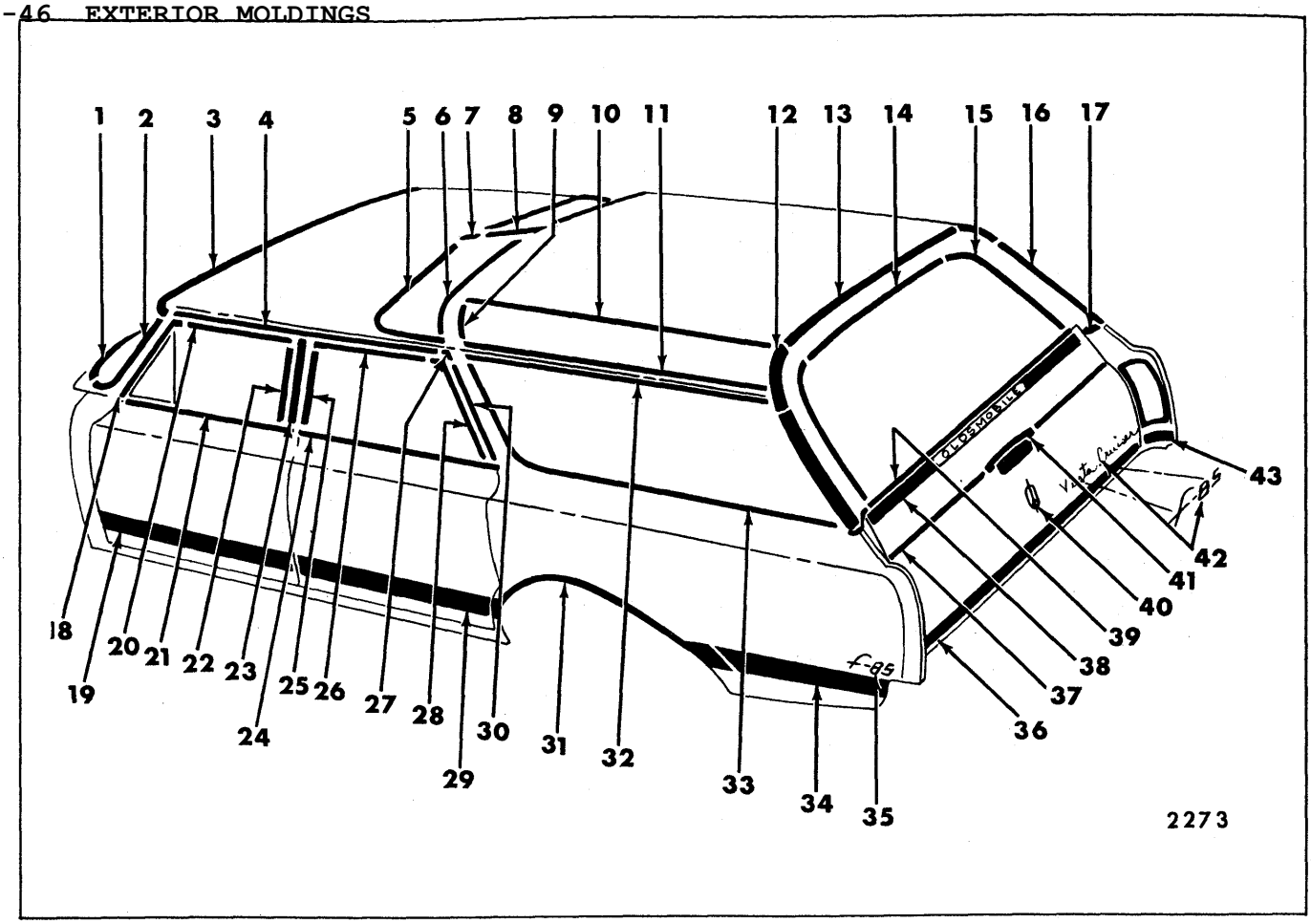

Fig. 12-24—F-85 "55-65" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Roof Drip Molding Front Scalp
5. Front Skylight Front Reveal Molding
6. Front Skylight Rear Reveal Molding
7. Front Skylight Center Division Reveal Lower Escutcheon
8. Front Skylight Center Division Reveal Molding
9. Side Skylight Front Reveal Molding
10. Side Skylight Upper Reveal Molding
11. Side Skylight Lower Reveal Molding
12. Rear Upper Side Finishing Molding
13. Rear Upper Finishing Molding
14. Back Body Opening Upper Reveal Molding
15. Back Body Opening Side Reveal Molding
16. Rear Lower Side Finishing Molding
17. Back Body Pillar Belt Finishing Molding
18. Front Door Window Frame Front Scalp Molding
19. Front Door Outer Panel Molding
20. Front Door Window Frame Upper Scalp Molding
21. Front Door Window Belt Reveal Molding
22. Front Door Window Frame Rear Scalp Molding
23. Center Pillar Scalp Molding
24. Rear Door Window Belt Reveal Molding
25. Rear Door Window Frame Front Scalp Molding
26. Rear Door Window Frame Upper Scalp Molding
27. Roof Drip Molding Scalp Escutcheon
28. Rear Door Window Frame Rear Scalp Molding
29. Rear Door Outer Panel Molding
30. Roof Drip Molding Rear Scalp
31. Rear Wheel Opening Molding
32. Rear Quarter Window Reveal Upper Molding
33. Rear Quarter Window Reveal Lower Molding
34. Rear of Rear Wheel Opening Molding
35. Rear Quarter Outer Panel Emblem
36. Tailgate Outer Panel Lower Molding
37. Tailgate Outer Panel Upper Molding
38. Tailgate Outer Panel Belt Molding
39. Tailgate Window Lower Reveal Molding
40. Tailgate Outer Panel Emblem
41. Tailgate Outer Panel Upper Molding (At Handle)
42. Tailgate Outer Panel Nameplate
43. Rear of Rear Quarter Outer Panel Molding

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing	All	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (37, 67 Styles Only)
Roof Drip Molding Scalp Front	All Except 67		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Rear	All Except 67		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Escutcheon	All Except 67		X					
Front Door Window Frame Front Scalp	07, 35, 55, 65, 69		X					
Front Door Window Frame Upper Scalp	07, 35, 55, 65, 69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	07, 35, 55, 65, 69		X				Front Door Window Frame Upper Scalp	
Front Door Window Belt Reveal	All	X						Front Door Window Lower Stops

33400 - 33600 - 33800 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Center Pillar Scalp	35, 55, 65, 69	X						
Rear Door Window Frame Scalp Front	35, 55, 65, 69		X				Rear Door Window Upper Scalp	
Rear Door Window Frame Scalp Upper	35, 55, 65, 69		X				Rear Door Window Frame Rear Scalp	
Rear Door Window Frame Scalp Rear	35, 55, 65, 69		X					
Rear Door Window Belt Reveal	35, 55, 65, 69	X						Rear Door Window Lower Stops
Quarter Window Front Scalp	07			X			Quarter Window Upper Reveal	
Quarter Window Upper Scalp	07			X				
Quarter Window Belt Reveal	07, 37, 67	X						Quarter Window Lower Stop
Quarter Belt Reveal	07, 37				X	X		
Quarter Pinchweld Finishing	67	X		X				Rear Quarter and Rear End Trim Sticks
Rear End Pinchweld	67	X		X			Quarter Pinchweld Finishing Quarter Window Lower Reveal Molding	Rear Quarter and Rear End Trim Sticks

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Skylight Front Reveal	55, 65			X				
Front Skylight Rear Reveal	55, 65			X			Front Skylight Front Reveal	
Front Skylight Center Division Reveal Lower Escutcheon	55, 65			X			Front Skylight Front Reveal and Center Division Reveal	
Front Skylight Center Division Reveal	55, 65			X			Front Skylight Rear Reveal	
Side Skylight Front Reveal	55, 65			X			Side Skylight Lower Reveal	
Side Skylight Upper Reveal	55, 65			X			Side Skylight Front Reveal	
Side Skylight Lower Reveal	55, 65			X				
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon

33400 - 33600 - 33800 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	55, 65			X				
Quarter Window Reveal Lower	55, 65			X				
Roof Panel Rear Upper Finishing	55, 65					X		Rear Roof Headlining Trim Finish Molding
Rear Upper Side Finishing	55, 65					X		
Rear Lower Side Finishing	55, 65				X			
Front Door Outer Panel	33800				X			
Rear Door Outer Panel	33800				X			
Front of Rear Wheel Opening	33800	X				X	Rear Wheel Opening	Quarter Trim Pad
Rear Wheel Opening	33800	X						
Rear of Rear Wheel Opening	33800	X			X	X	Rear Wheel Opening	
Rear Quarter Outer Panel Nameplate and/or Emblem	All					X		
Rear Compartment Lid Outer Panel	All					X		
Rear Compartment Lid Outer Panel Emblem	All					X		

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Upper	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67, 35, 55, 65)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	
Back Body Opening Upper Reveal	55, 65	X						Tailgate Glass Run Channel
Back Body Opening Side Reveal	55, 65	X						
Tailgate Window Lower Reveal	35, 55, 65	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt	35, 55, 65					X		Tailgate Window and Regulator
Tailgate Outer Panel Upper	33600-33800 35, 55, 65				X			
Tailgate Outer Panel Lower	33600-33800 35, 55, 65				X			
Tailgate Outer Panel Nameplate and/or Emblem	35, 55, 65					X		

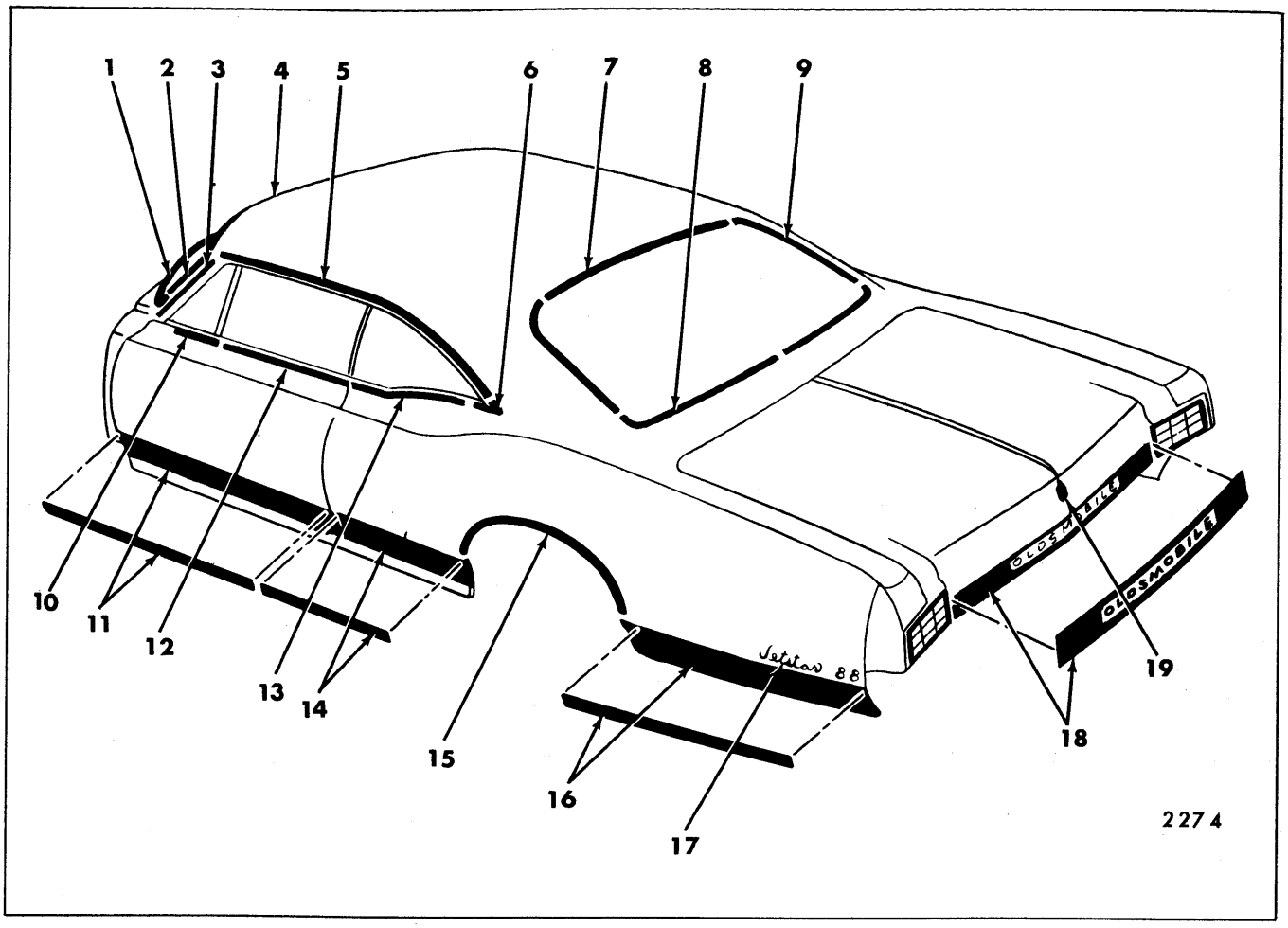

Fig. 12-25—Oldsmobile "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Window Belt Reveal (Rear Corner) Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Front Door Window Belt Reveal (At Vent) Molding
11. Front Door Outer Panel Molding
12. Front Door Window Belt Reveal Molding
13. Rear Quarter Window Belt Reveal Molding
14. Front of Rear Wheel Opening Molding
15. Rear Wheel Opening Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Nameplate
18. Rear End Panel Molding
19. Rear Compartment Lid Outer Panel Emblem

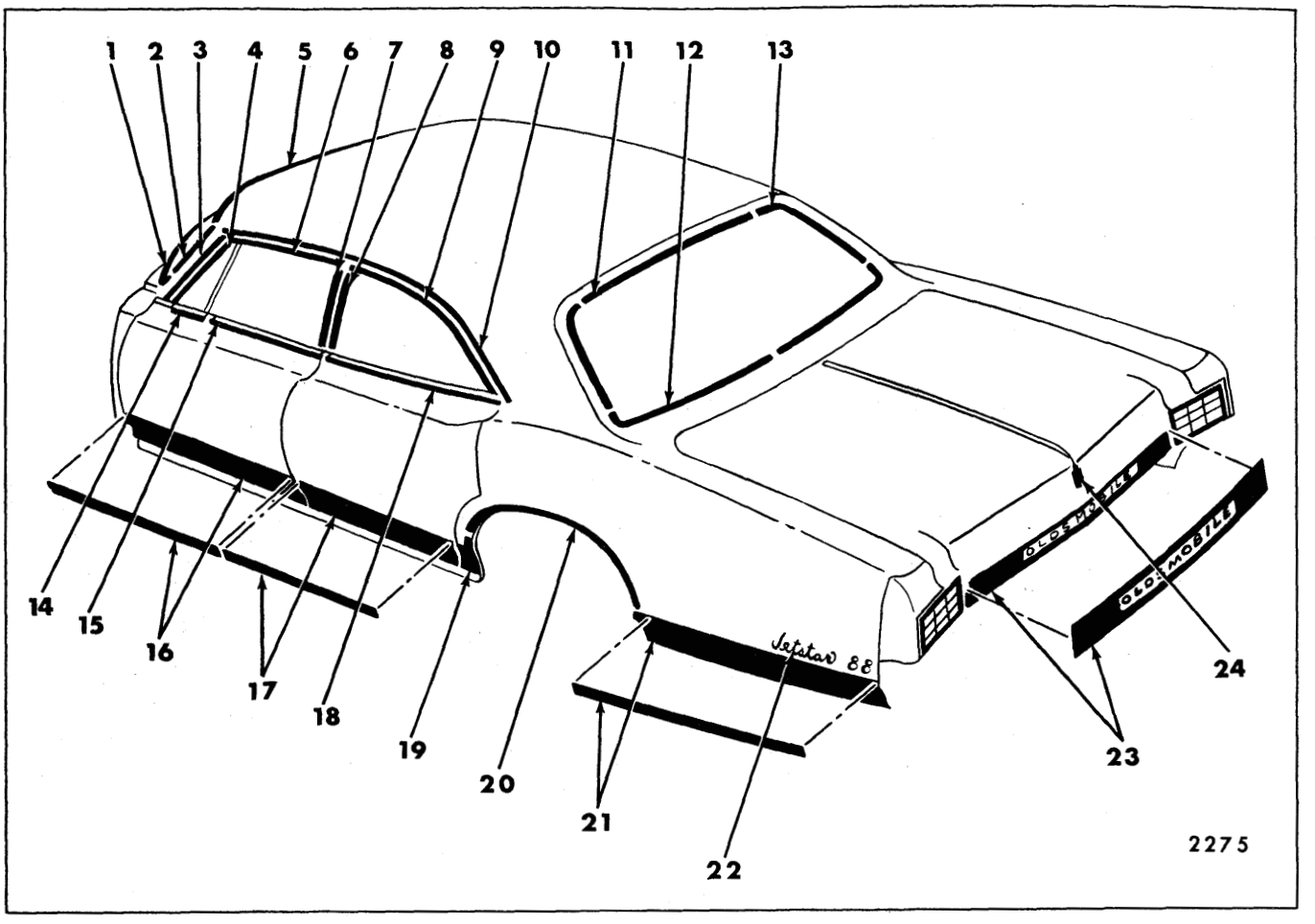

Fig. 12-26—Oldsmobile "B-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Rear Door Window Frame Front Scalp Molding
9. Rear Door Window Frame Upper Scalp Molding
10. Roof Drip Molding Scalp
11. Back Window Reveal Upper Molding
12. Back Window Reveal Lower Molding
13. Back Window Reveal Side Molding
14. Front Door Window Belt Reveal (At Vent) Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Door Outer Panel Molding
18. Rear Door Window Belt Reveal Molding
19. Front of Rear Wheel Opening Molding
20. Rear Wheel Opening Molding
21. Rear of Rear Wheel Opening Molding
22. Rear Quarter Outer Panel Nameplate
23. Rear End Panel Molding
24. Rear Compartment Lid Outer Panel Emblem

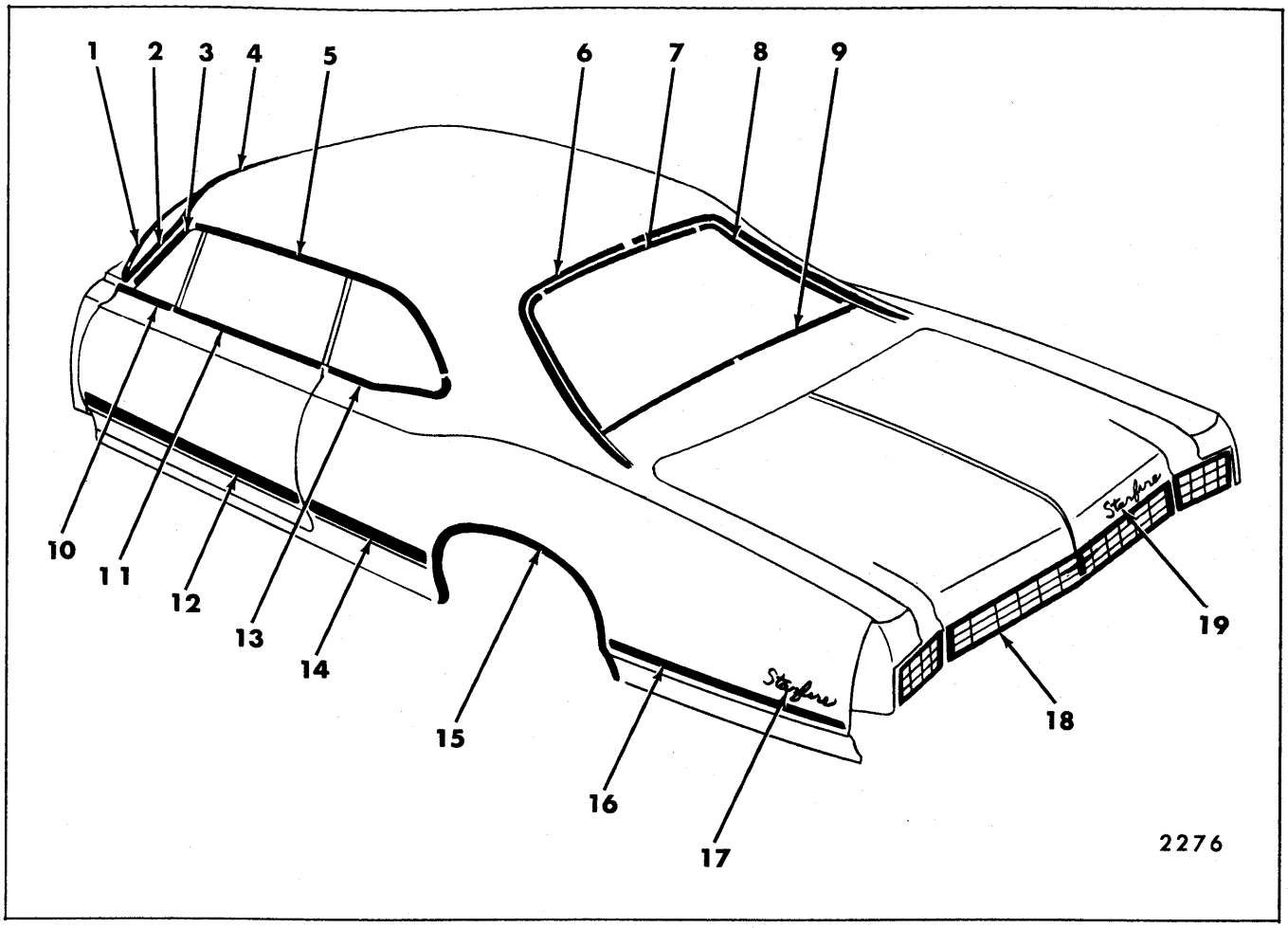

Fig. 12-27—Oldsmobile "B-57" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Roof Panel At Back Window Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Side Molding
9. Back Window Reveal Lower Molding
10. Front Door Window Belt Reveal (At Vent) Molding
11. Front Door Window Belt Reveal Molding
12. Front Door Outer Panel Molding
13. Rear Quarter Window Belt Reveal Molding
14. Front of Rear Wheel Opening Molding
15. Rear Wheel Opening Molding
16. Rear of Rear Wheel Opening Molding
17. Rear Quarter Outer Panel Nameplate
18. Rear End Panel Molding
19. Rear Compartment Lid Outer Panel Nameplate

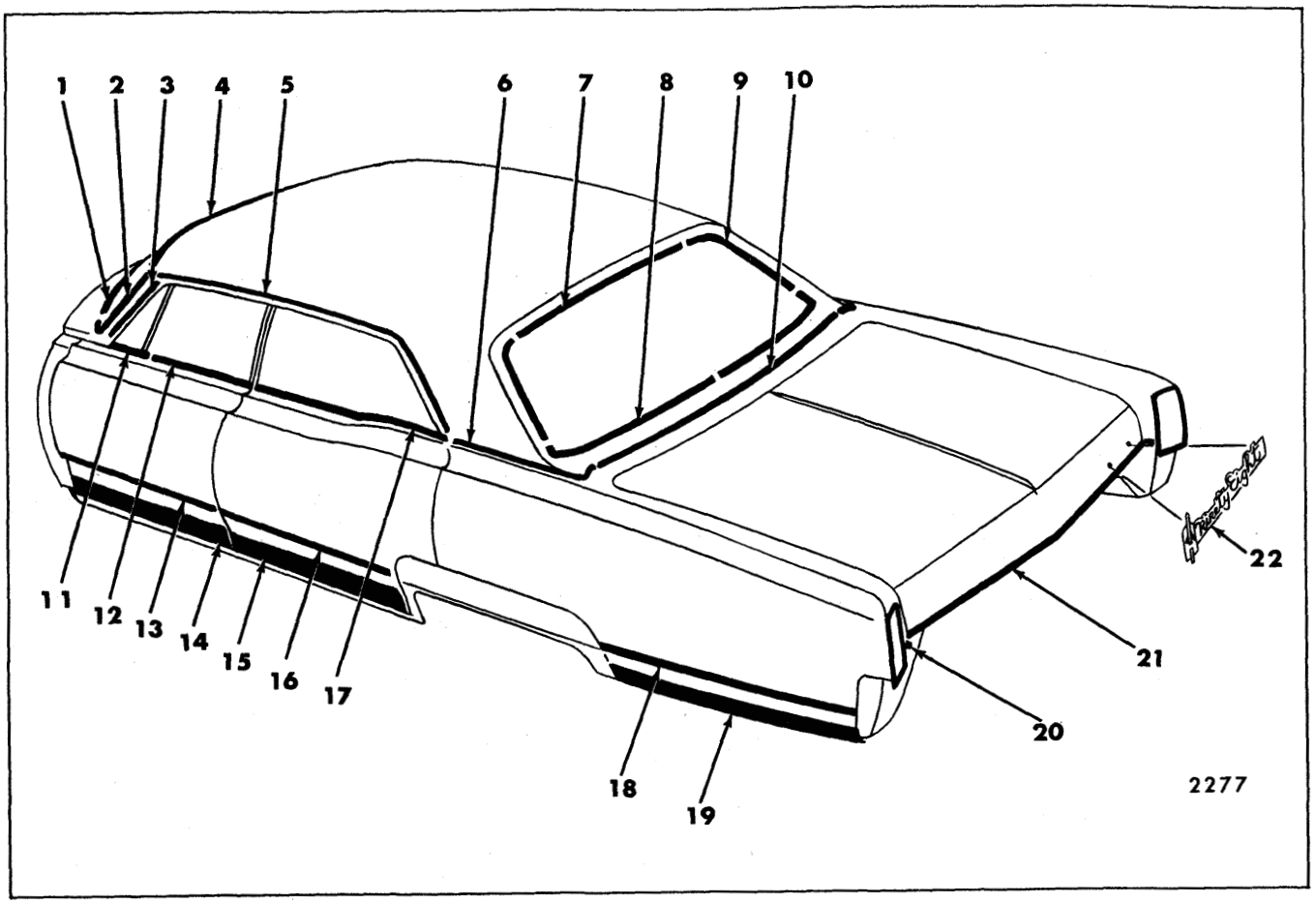

Fig. 12-28—Oldsmobile "C-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Rear Quarter Belt Reveal Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Back Window Reveal Side Molding
10. Rear End Belt Reveal Molding
11. Front Door Window Belt Reveal (At Vent) Molding
12. Front Door Window Belt Reveal Molding
13. Front Door Outer Panel Upper Molding
14. Front Door Outer Panel Lower Molding
15. Rear Door Outer Panel Lower Molding
16. Rear Door Outer Panel Upper Molding
17. Rear Door Window Belt Reveal Molding
18. Rear Quarter Outer Panel Upper Molding
19. Rear Quarter Outer Panel Lower Molding
20. Rear Compartment Lid Outer Panel Extension Molding
21. Rear Compartment Lid Outer Panel Molding
22. Rear Compartment Lid Outer Panel Nameplate

35200 - 35400 - 35600 - 35800 - 38400 - 38600 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All except 67	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Scalp	All 69 35237, 35637 35837		X				Windshield Pillar Drip	
Roof Drip Molding Front Scalp	39, 57						Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	39, 57	X 57 Style Only	X				Roof Drip Molding Front Scalp	
Roof Drip Molding Front Scalp	38437		X				Windshield Pillar Drip	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Roof Drip Molding Rear Scalp	38437	X					Roof Drip Molding Front Scalp	
Roof Panel Emblem	38669					X		Headlining Rear Quarter Trim Panel
Front Door Window Frame Front Scalp	69		X					
Front Door Window Frame Upper Scalp	69		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	69		X				Front Door Window Frame Upper Scalp	
Front Door Window Belt Reveal (at vent)	All except 35000 69 styles	X						Front Door Trim Pad
Front Door Window Belt Reveal (at vent)	35000 69 styles	X						Front Door Vent Assembly
Front Door Window Belt Reveal	All	X						Rubber Bumper on Front Door Window Lower Stop
Center Pillar Scalp	38469, 38669	X						Front and Rear Side Roof Rail Weatherstrip at Center Pillar
Rear Door Window Frame Front Scalp	69		X				Rear Door Window Frame Upper Scalp	

35200 - 35400 - 35600 - 35800 - 38400 - 38600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Door Window Frame Upper Scalp	69		X					
Rear Door Window Belt Reveal	39, 69	X						Rubber Bumper on Rear Door Window Lower Stop
Quarter Window Belt Reveal	37, 67	X					Quarter Window Reveal Escutcheon	Quarter Window Lower Stop
Quarter Window Belt Reveal Escutcheon	37		X				Quarter Window Reveal Roof Drip Molding Scalp	
Quarter Belt Reveal	37 Except 38000 Series	X		X	X			
Quarter Belt Reveal	38000, 37 & 39				X	X		Headlining Rear Quarter Trim Panel (37 Styles Only)
Rear End Belt Reveal	38000, 37 & 39					X	Quarter Belt Reveal	
Quarter Pinchweld Finishing Molding	67	X		X			Right Side Overlaps Left Side	
Front Door Outer Panel Upper	38400-38600	X		X				
Front Door Outer Panel	35200, 35600	X		X				
Front Door Outer Panel	35400, 35800	X				X		Front Door Trim

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Outer Panel Lower	38400-38600	X		X				
Rear Door Outer Panel Upper	38400-38600	X		X				
Rear Door Outer Panel	35200-35600	X		X				
Rear Door Outer Panel	35800	X				X		Door Trim Pad
Rear Door Outer Panel Lower	38400-38600	X		X				
Front of Rear Wheel Opening Upper	38400-38600			X				
Front of Rear Wheel Opening	35200-35600			X				
Front of Rear Wheel Opening	35400-35800					X		Quarter Trim
Front of Rear Wheel Opening Lower	38400-38600			X				
Rear Wheel Opening	35200-35400 35600-35800	X						
Rear of Rear Wheel Opening Upper	38400-38600			X				
Rear of Rear Wheel Opening	35600			X				
Rear of Rear Wheel Opening	35400-35800					X		
Rear of Rear Wheel Opening Lower	38400-38600			X				

35200 - 35400 - 35600 - 35800 - 38400 - 38600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Quarter Outer Panel Nameplate	35200-35400					X		
Back Window Reveal Upper	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67)			X			Back Window Reveal Side	
Rear Compartment Lid Outer Panel Nameplate	35400-38400 38600					X		
Rear Compartment Lid Outer Panel Emblem	35200-35400 35600-35800					X		
Rear Compartment Lid Outer Panel	38400-38600	X						
Rear Compartment Lid Outer Panel Extension	38400-38600	X						
Rear End Panel	35200-35400 35600-35800					X		

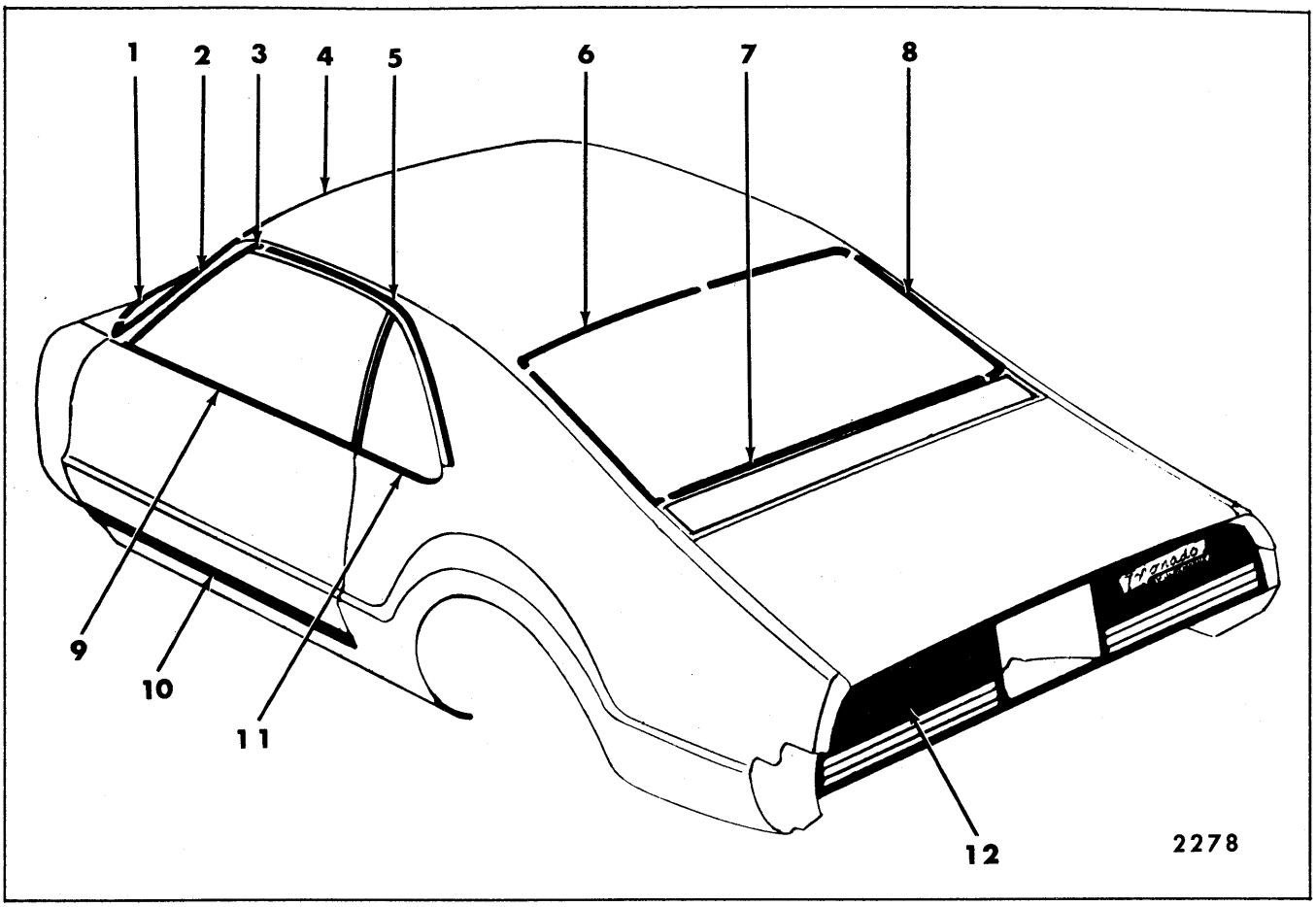

Fig. 12-29—Oldsmobile "E-87" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding Scalp
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Upper Molding
7. Back Window Reveal Lower Molding
8. Back Window Reveal Side Molding
9. Front Door Window Belt Reveal Molding
10. Front Door Outer Panel Molding
11. Rear Quarter Window Belt Reveal Molding
12. Rear End Panel Molding

39400 - 39600 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X			Windshield Reveal Side	Cowl Air Intake Grille
Windshield Pillar Drip Molding Scalp	All		X				Roof Drip Molding Scalp	
Roof Drip Molding Scalp	All		X					
Front Door Window Belt Reveal	All	X				X		
Front Door Outer Panel	All			X				
Rear Quarter Window Belt Reveal	All	X			X			
Back Window Reveal Upper	All			X			Back Window Reveal Side	
Back Window Reveal Side	All			X			Back Window Reveal Lower	
Back Window Reveal Lower	All			X			Back Window Reveal Side	
Rear End Outer Panel	All					X		Loosen Rear Bumper

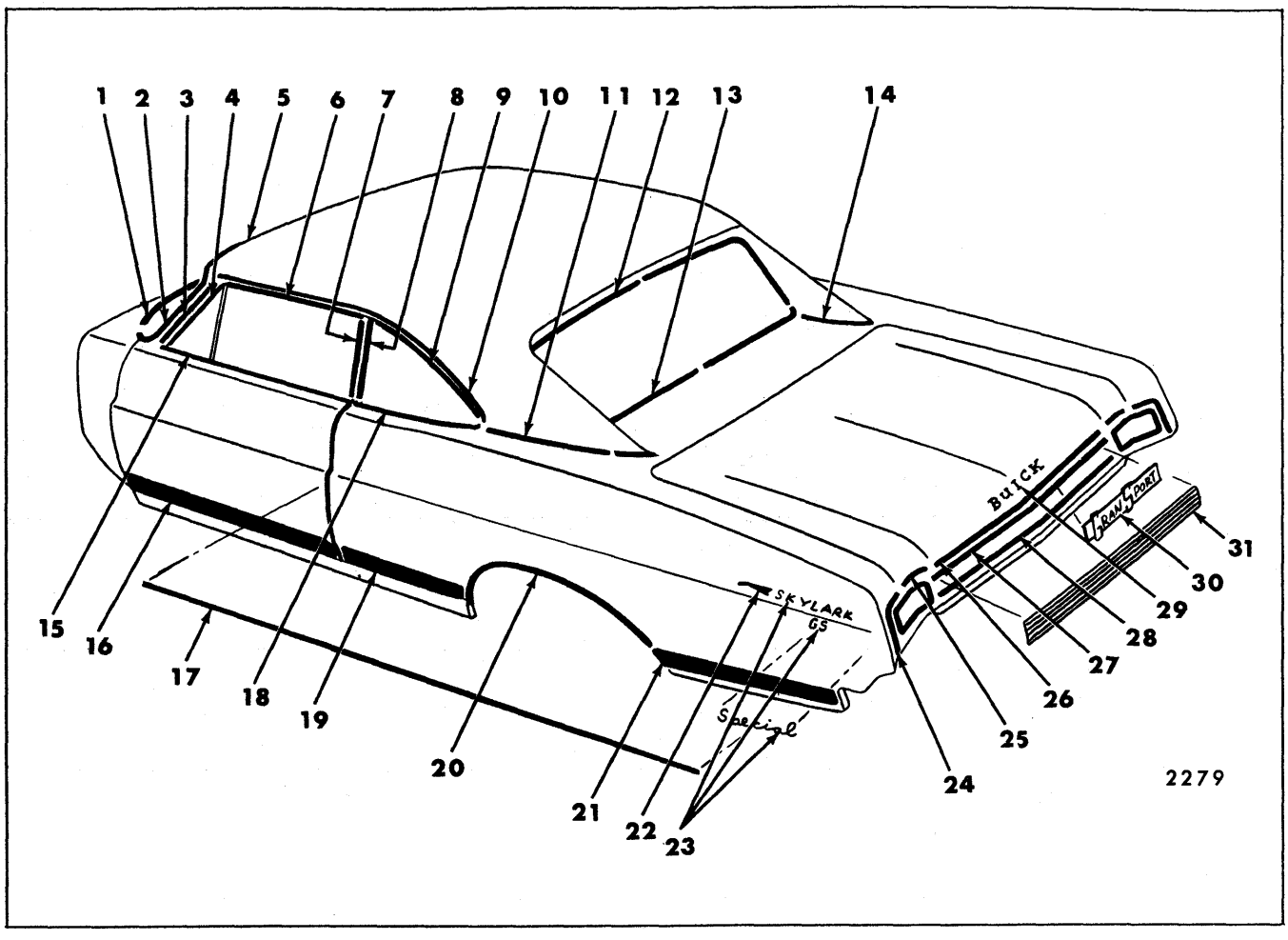

Fig. 12-30—Special "A-07" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Quarter Window Front Scalp Molding
9. Quarter Window Upper Scalp Molding
10. Roof Drip Molding Scalp
11. Rear Quarter Belt Reveal Molding
12. Back Window Reveal Upper Molding
13. Back Window Reveal Lower Molding
14. Rear Quarter Belt Reveal Rear Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Quarter Outer Panel Molding
18. Rear Quarter Window Belt Reveal Molding
19. Front of Rear Wheel Opening Molding
20. Rear Wheel Opening Molding
21. Rear of Rear Wheel Opening Molding
22. Rear Quarter Outer Panel Emblem
23. Rear Quarter Outer Panel Nameplate
24. Rear of Rear Quarter Outer Panel Molding
25. Rear Compartment Lid Outer Panel Extension Molding
26. Rear Compartment Lid Outer Panel Molding
27. Rear End Panel Upper Molding
28. Rear End Panel Lower Molding
29. Rear Compartment Lid Outer Panel Nameplate
30. Rear End Panel Nameplate
31. Rear End Panel Molding

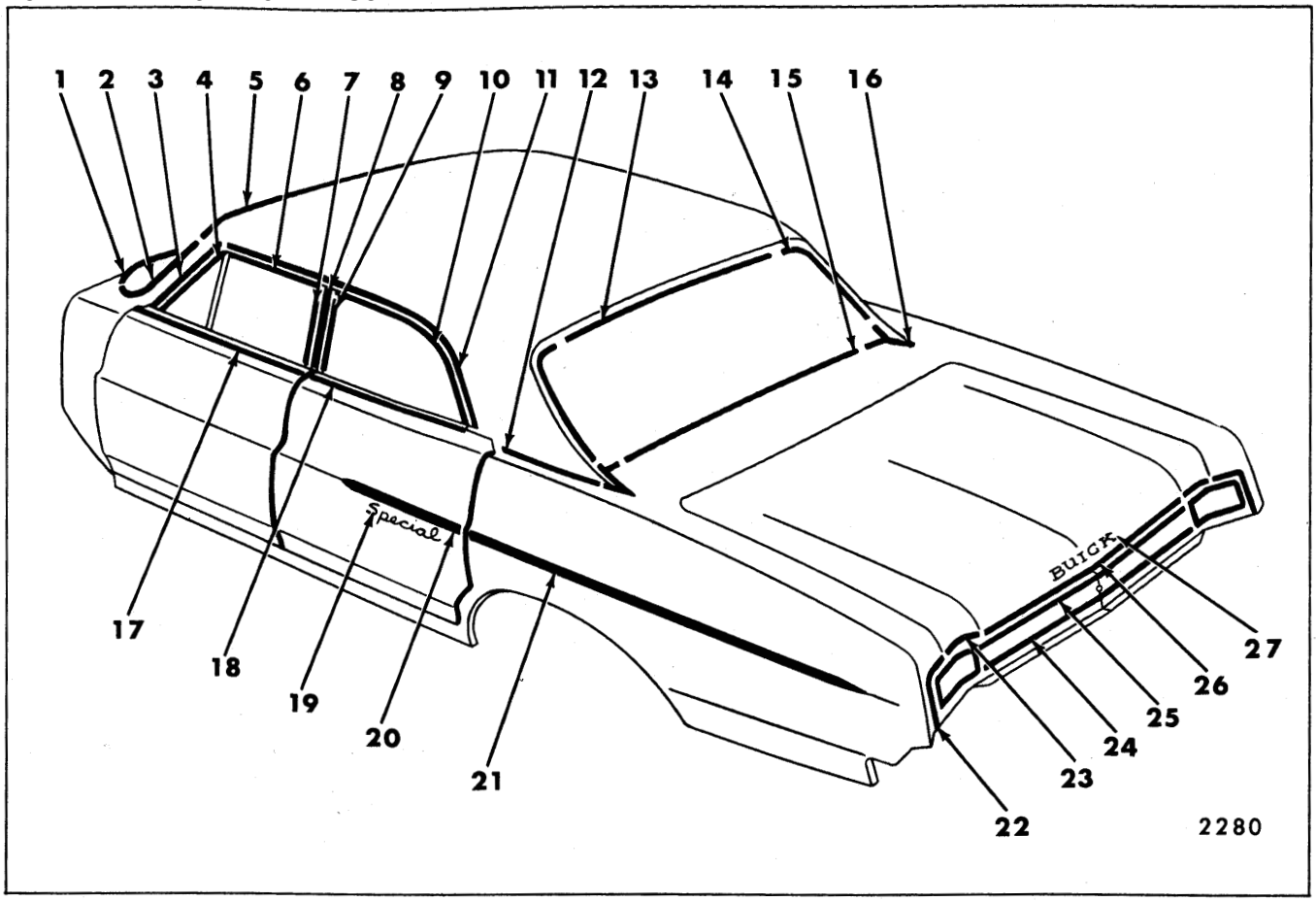

Fig. 12-31—Special "A-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Finishing Molding
4. Front Door Window Frame Front Scalp Molding
5. Windshield Reveal Upper Molding
6. Front Door Window Frame Upper Scalp Molding
7. Front Door Window Frame Rear Scalp Molding
8. Center Pillar Scalp Molding
9. Rear Door Window Frame Front Scalp Molding
10. Rear Door Window Frame Upper Scalp Molding
11. Roof Drip Molding Scalp
12. Rear Quarter Belt Reveal Molding
13. Back Window Reveal Upper Molding
14. Back Window Reveal Side Molding
15. Back Window Reveal Lower Molding
16. Rear Quarter Belt Reveal Rear Molding
17. Front Door Window Belt Reveal Molding
18. Rear Door Window Belt Reveal Molding
19. Rear Door Nameplate
20. Rear Door Outer Panel Molding
21. Rear Quarter Outer Panel Molding
22. Rear of Rear Quarter Outer Panel Molding
23. Rear Compartment Lid Outer Panel Extension Molding
24. Rear End Panel Lower Molding
25. Rear End Panel Upper Molding
26. Rear Compartment Lid Outer Panel Molding
27. Rear Compartment Lid Outer Panel Nameplate

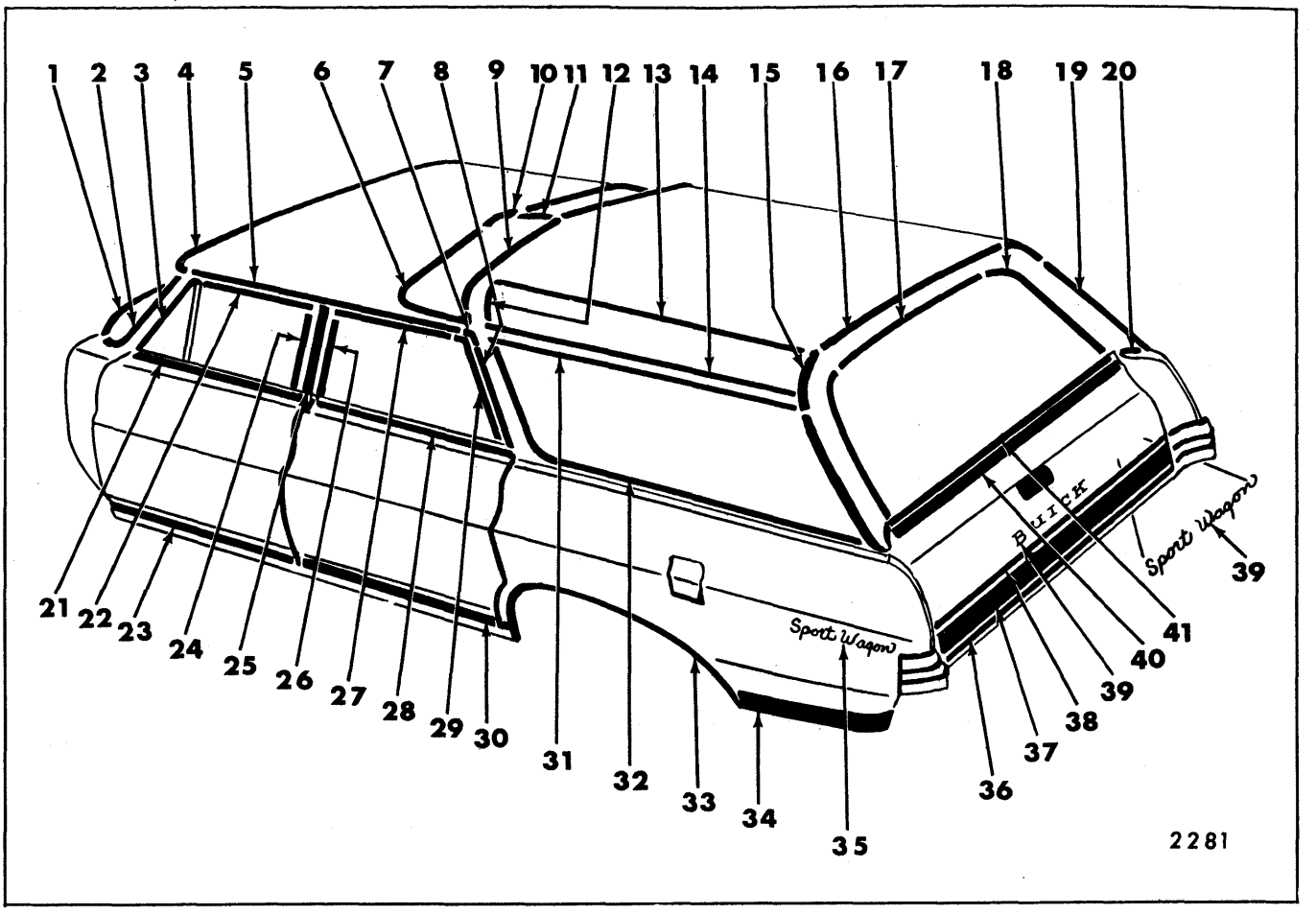

Fig. 12-32—Special "A-55-65" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Front Door Window Frame Front Scalp Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Front Skylight Front Reveal Molding
7. Roof Drip Molding Scalp Escutcheon
8. Roof Drip Molding Rear Scalp
9. Front Skylight Rear Reveal Molding
10. Front Skylight Center Division Reveal Lower Escutcheon
11. Front Skylight Center Division Reveal Molding
12. Side Skylight Front Reveal Molding
13. Side Skylight Upper Reveal Molding
14. Side Skylight Lower Reveal Molding
15. Rear Upper Side Finishing Molding
16. Rear Upper Finishing Molding
17. Back Body Opening Upper Reveal Molding
18. Back Body Opening Side Reveal Molding
19. Rear Lower Side Finishing Molding
20. Back Body Pillar Belt Finishing Molding
21. Front Door Window Belt Reveal Molding
22. Front Door Window Frame Upper Scalp Molding
23. Front Door Outer Panel Molding
24. Front Door Window Frame Rear Scalp Molding
25. Center Pillar Scalp Molding
26. Rear Door Window Frame Front Scalp Molding
27. Rear Door Window Frame Upper Scalp Molding
28. Rear Door Window Belt Reveal Molding
29. Rear Door Window Frame Rear Scalp Molding
30. Rear Door Outer Panel Molding
31. Rear Quarter Window Reveal Upper Molding
32. Rear Quarter Window Reveal Lower Molding
33. Rear Wheel Opening Molding
34. Rear of Rear Wheel Opening Molding
35. Rear Quarter Outer Panel Nameplate
36. Tailgate Outer Panel Lower Molding
37. Tailgate Outer Panel Center Molding
38. Tailgate Outer Panel Upper Molding
39. Tailgate Outer Panel Nameplate
40. Tailgate Outer Panel Belt Molding
41. Tailgate Window Lower Reveal Molding

43400 - 43600 - 44200 - 44400 - 44600 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	Windshield Reveal Upper
Windshield Reveal Lower	All			X			Windshield Reveal Side	Windshield Reveal Side
Windshield Pillar Finishing Molding	All	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer (37 and 67 Styles Only)
Roof Drip Molding Scalp Front	07, 17, 35, 55, 65, 69		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Rear	07, 17, 35, 55, 65, 69		X				Roof Drip Molding Scalp Escutcheon	
Roof Drip Molding Scalp Escutcheon	07, 17, 35, 55, 65, 69		X					
Front Door Window Frame Scalp Front	07, 69, 35, 55, 65		X					
Front Door Window Frame Scalp Upper	07, 69, 35, 55, 65		X				Front Door Window Frame Scalp Front	
Front Door Window Frame Scalp Rear	07, 69, 35, 55, 65		X				Front Door Window Frame Scalp Upper	
Rear Door Window Frame Scalp Front	35, 55, 65, 69		X				Rear Door Window Frame Scalp Upper	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear Door Window Frame Scalp Upper	35, 55, 65, 69		X				Rear Door Window Frame Scalp Rear	
Rear Door Window Frame Scalp Rear	35, 55, 65, 69		X					
Center Pillar Scalp	35, 55, 65, 69	X						
Rear Quarter Window Scalp Molding Front	07		X				Rear Quarter Window Reveal Molding Upper	
Rear Quarter Window Scalp Molding Upper	07		X					
Quarter Pinchweld Finishing	67	X		X				Quarter and Rear End Trim Stick
Rear End Pinchweld Finishing	67	X		X			Quarter Pinchweld Finishing	Quarter and Rear End Trim Stick
Quarter Belt Reveal	07, 17 & 69				X	X		
Front Skylight Front Reveal	55, 65			X				
Front Skylight Rear Reveal	55, 65			X			Front Skylight Front Reveal	
Front Skylight Center Division Reveal Lower Escutcheon	55, 65			X			Front Skylight Front Reveal and Center Division Reveal	
Front Skylight Center Division Reveal	55, 65			X			Front Skylight Rear Reveal	
Side Skylight Front Reveal	55, 65			X			Side Skylight Lower Reveal	

43400 - 43600 - 44200 - 44400 - 44600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Side Skylight Upper Reveal	55, 65			X			Side Skylight Front Reveal	
Side Skylight Lower Reveal	55, 65			X				
Quarter Window Reveal Upper Corner Escutcheon	35			X			Quarter Window Reveal Upper	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Upper Corner Escutcheon
Quarter Window Reveal Lower	35			X			Quarter Window Reveal Upper and Lower Corner Escutcheon	Quarter Window Reveal Lower Corner Escutcheon
Quarter Window Reveal Lower Corner Escutcheon	35			X			Quarter Window Reveal Lower	Loosen Quarter Window Reveal Upper and Lower at Corner
Quarter Window Reveal Upper	55, 65			X				
Quarter Window Reveal Lower	55, 65			X				
Rear Upper Finishing	55, 65					X		Rear Roof Headlining Trim Finish Molding
Rear Upper Side Finishing	55, 65					X		
Rear Lower Side Finishing	55, 65				X			

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Outer Panel	44400-44600			X				
Rear Door Outer Panel	43600-44400 44600			X				
Rear Door Outer Panel Nameplate	43600					X		
Front of Rear Wheel Opening	44400-44600			X				
Rear Wheel Opening	44400-44600	X						
Rear of Rear Wheel Opening	44400-44600				X			
Rear Quarter Outer Panel	43600			X				
Rear Quarter Outer Panel Nameplate and/or Emblem	43400, 44400 44600					X		
Rear Compartment Lid Outer Panel	43600-44400 44600	X						
Rear Compartment Lid Outer Panel Nameplate	All					X		
Rear End Panel Upper	43600-46600					X		
Rear End Panel	44400					X		
Rear End Panel Lower	43600-46600					X		
Rear End Panel Nameplate	44600					X		
Back Window Reveal Upper	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	

43400 - 43600 - 44200 - 44400 - 44600 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Side	All (except 67, 35, 55, 65)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67, 35, 55, 65)			X			Back Window Reveal Side	
Back Body Opening Upper Reveal	55, 65	X						Tailgate Glass Run Channel
Back Body Opening Side Reveal	55, 65	X						
Tailgate Window Lower Reveal	35, 55, 65	X			X			Tailgate Window and Regulator
Tailgate Outer Panel Belt	44455, 65					X		Tailgate Window and Regulator
Tailgate Outer Panel Upper	35, 55, 65				X			
Tailgate Outer Panel Center	55, 65	X						Tailgate Outer Panel Upper and Lower Moldings
Tailgate Outer Panel Lower	35, 55, 65				X			
Tailgate Outer Panel Nameplate	35, 55, 65					X		

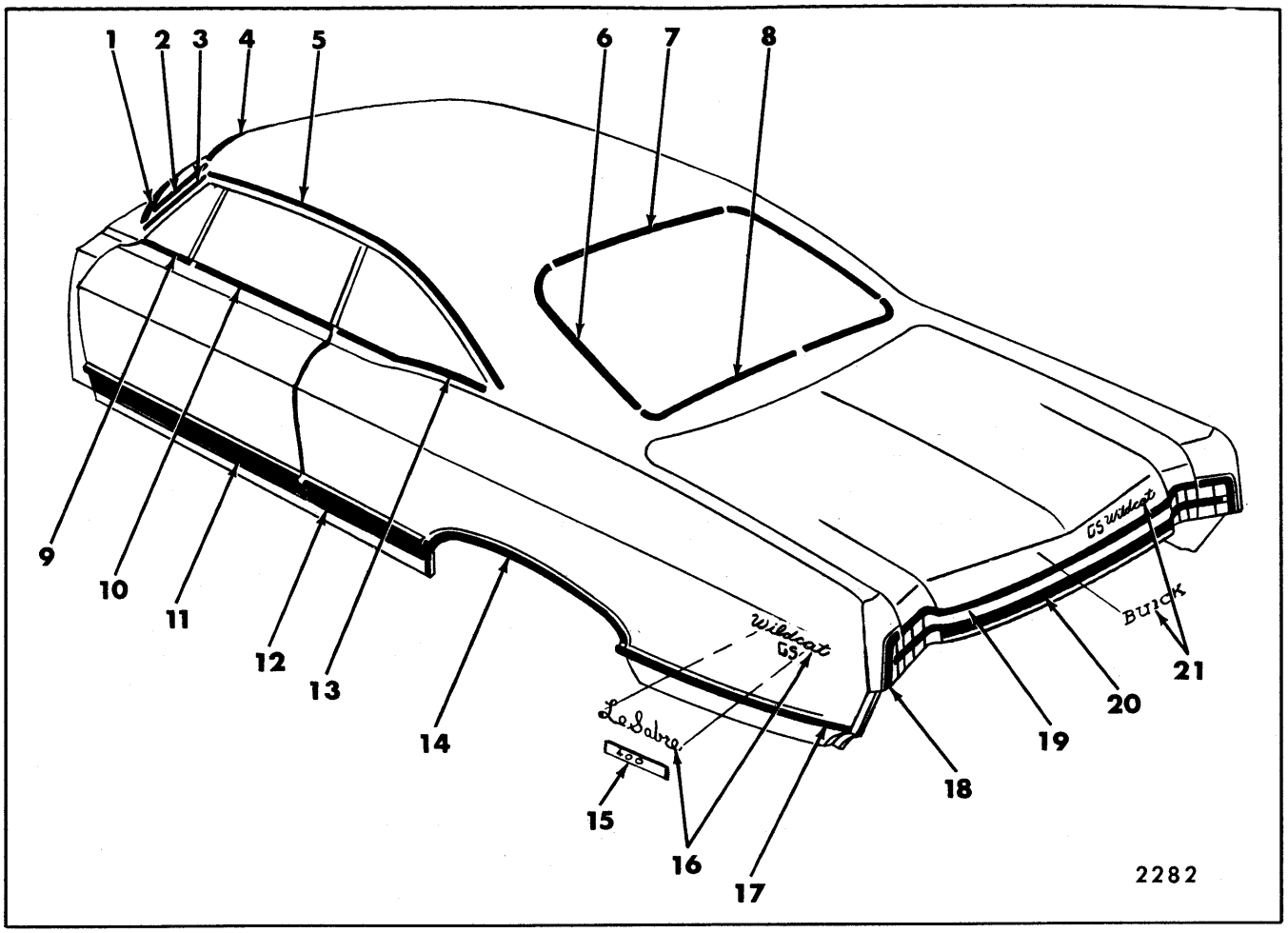

Fig. 12-33—Buick "B-37" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Side Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Front Door Window Belt Reveal (At Vent) Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Front of Rear Wheel Opening Molding
13. Rear Quarter Window Belt Reveal Molding
14. Rear Wheel Opening Molding
15. Rear Quarter Outer Panel Emblem
16. Rear Quarter Outer Panel Nameplate
17. Rear of Rear Wheel Opening Molding
18. Rear of Rear Quarter Outer Panel Molding
19. Rear Compartment Lid Outer Panel Molding
20. Rear End Panel Molding
21. Rear Compartment Lid Outer Panel Nameplate

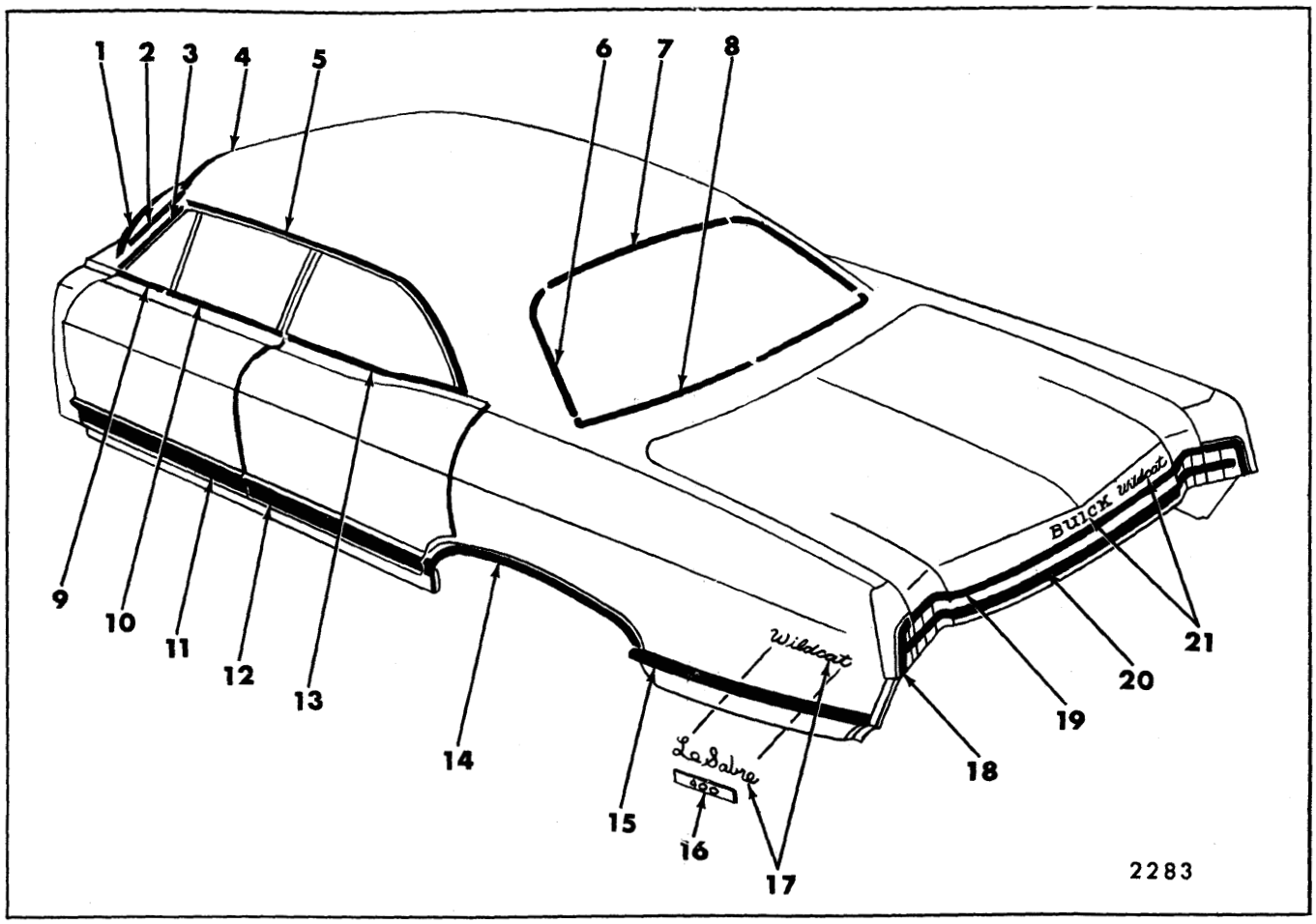

Fig. 12-34—Buick "B-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Side Molding
7. Back Window Reveal Upper Molding
8. Back Window Reveal Lower Molding
9. Front Door Window Belt Reveal (At Vent) Molding
10. Front Door Window Belt Reveal Molding
11. Front Door Outer Panel Molding
12. Rear Door Outer Panel Molding
13. Rear Door Window Belt Reveal Molding
14. Rear Wheel Opening Molding
15. Rear of Rear Wheel Opening Molding
16. Rear Quarter Outer Panel Emblem
17. Rear Quarter Outer Panel Nameplate
18. Rear of Rear Quarter Outer Panel Molding
19. Rear Compartment Lid Outer Panel Molding
20. Rear End Panel Molding
21. Rear Compartment Lid Outer Panel Nameplate

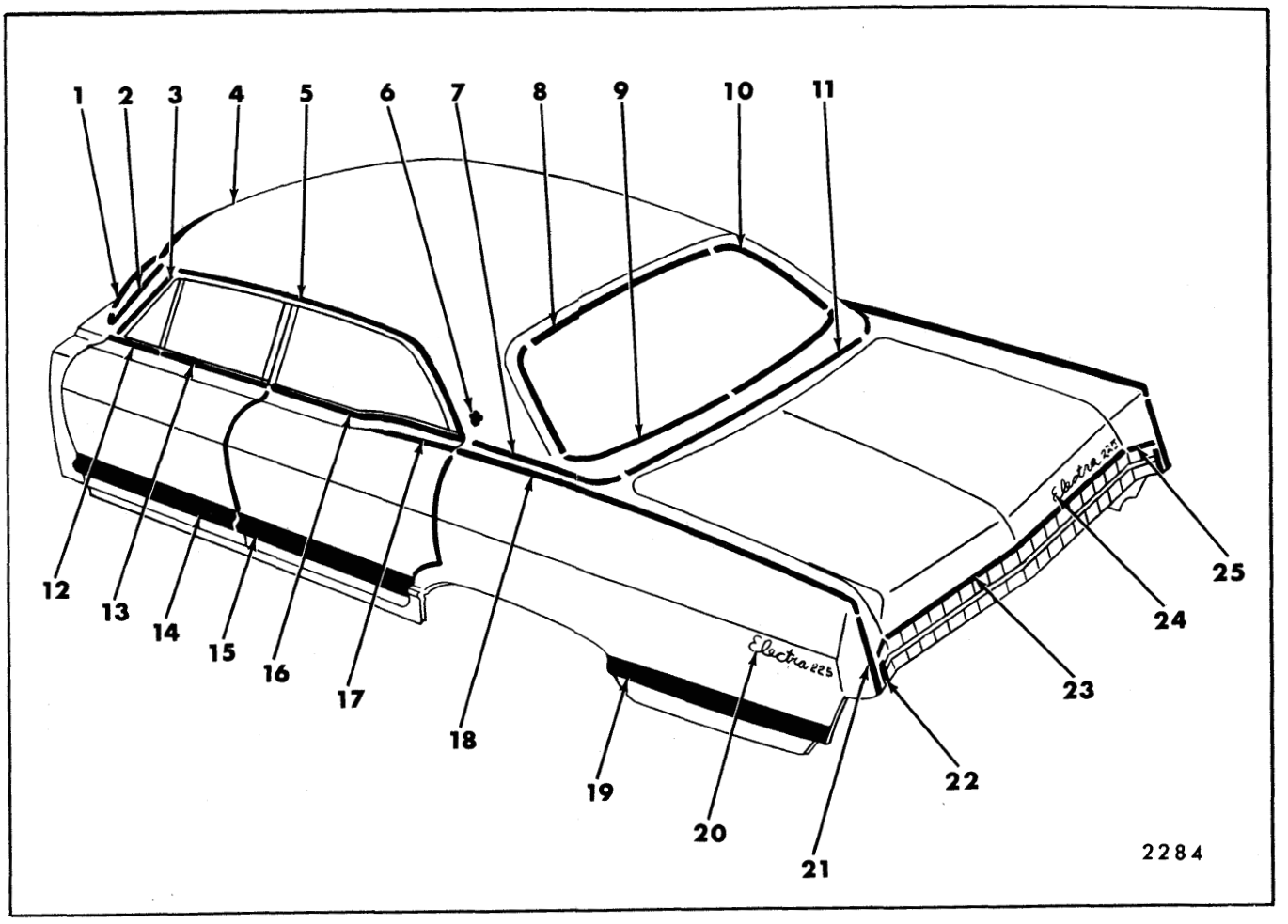

Fig. 12-33—Buick "C-69" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Roof Panel Emblem
7. Rear Quarter Belt Reveal Molding
8. Back Window Reveal Upper Molding
9. Back Window Reveal Lower Molding
10. Back Window Reveal Side Molding
11. Rear End Belt Reveal Molding
12. Front Door Window Belt Reveal (At Vent) Molding
13. Front Door Window Belt Reveal Molding
14. Front Door Outer Panel Molding
15. Rear Door Outer Panel Molding
16. Rear Door Window Belt Reveal Molding
17. Rear Door Outer Panel Peak Molding
18. Rear Quarter Outer Panel Peak Molding
19. Rear of Rear Wheel Opening Molding
20. Rear Quarter Outer Panel Nameplate
21. Rear of Rear Quarter Outer Panel Peak Molding
22. Rear of Rear Quarter Outer Panel Molding
23. Rear Compartment Lid Outer Panel Molding
24. Rear Compartment Lid Outer Panel Nameplate
25. Rear Compartment Lid Outer Panel Extension Molding

45200 - 45400 - 46400 - 46600 - 48200 - 48400 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All (except 67)	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing Molding	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Front Scalp	39			X			Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	39	X (48239 48439 only)					Roof Drip Molding Front Scalp	
Roof Drip Molding Scalp	37, 69 (except 48237, 48437)		X				Windshield Pillar Drip	
Roof Drip Molding Front Scalp	48237, 48437		X				Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	48237, 48437	X	X				Roof Drip Molding Front Scalp	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Window Frame Front Scalp	69 (except 48000 Series)		X					
Front Door Window Frame Upper Scalp	69 (except 48000 Series)		X				Front Door Window Frame Front Scalp	
Front Door Window Frame Rear Scalp	69 (except 48000 Series)		X				Front Door Window Front Upper Scalp	
Front Door Window Belt Reveal (at vent)	All (except 45000 & 46000, 69 Styles)	X						Front Door Trim Pad
Front Door Window Belt Reveal	All	X					Front Door Window Reveal (at vent)	Rubber Bumper on Door Window Lower Stop
Front Door Window Belt Reveal (at vent)	45000, 46000 69 Styles	X						Front Door Vent Assembly
Center Pillar Scalp	48269, 48469	X						Side Roof Rail Weatherstrip Front and Rear at Center Pillar
Rear Door Window Frame Front Scalp	69 (except 48000 Series)		X				Rear Door Window Frame Upper Scalp	
Rear Door Window Frame Upper Scalp	69 (except 48000 Series)		X					
Rear Door Window Belt Reveal	39, 69	X						Rubber Bumper on Rear Door Window Lower Stop

45200 - 45400 - 46400 - 46600 - 48200 - 48400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Quarter Window Belt Reveal	37, 67	X						Quarter Window Lower Stop
Quarter Window Belt Reveal Escutcheon	37		X					Quarter Window Reveal Roof Drip Molding Rear Scalp
Quarter Belt Reveal	48239, 69 48439, 69			X	X	X		
Rear End Belt Reveal	48239, 69 48439, 69					X	Quarter Belt Reveal	
Quarter Belt Reveal	39 (except 48000 Series)			X	X	X		
Rear End Belt Reveal	39 (except 48000 Series)					X	Quarter Belt Reveal	
Quarter Belt Reveal	48237, 48437				X	X		Headlining Rear Quarter Trim Panel
Rear End Belt Reveal	48237, 48437					X	Quarter Belt Reveal	
Quarter Belt Reveal	37 (except 48000 Series)			X	X	X	Right Side Overlaps Left Side	
Quarter Belt Reveal	69 (except 48000 Series)			X	X			
Quarter Belt Pinchweld Finishing	67	X		X			Right Side Overlaps Left Side	
Front Door Outer Panel Lower	45200, 45400 46400, 46600	X		X				

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front Door Outer Panel Lower	48200, 48400	X				X		Front Door Trim Pad
Rear Door Outer Panel Crown	48200, 48400	X				X		Rear Door Trim
Rear Door Outer Panel Lower	45200, 45400 46400, 46600	X		X				
Rear Door Outer Panel Lower	48200, 48400	X				X		Rear Door Trim
Rear Fender Outer Panel Crown	48200, 48400	X		X		X	Rear of Rear Fender Outer Panel Crown	Quarter Trim on (37, 67 Styles) Rear Compartment Side Trim
Rear of Rear Quarter Outer Panel Crown	48200, 48400	X				X		
Rear of Rear Quarter Outer Panel	45200, 45400 46400, 46600	X						Rear Quarter Extension
Rear of Rear Quarter Outer Panel	48200-48400					X		Rear Quarter Extension
Front of Rear Wheel Opening	48237,48437, 67					X		Quarter Trim
Rear of Rear Wheel Opening	48200-48400	X		X				Rear Compartment Side Trim Panel Compartment to Quarter Panel Filler Plug

45200 - 45400 - 46400 - 46600 - 48200 - 48400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Front of Rear Wheel Opening	45400-46400 46600			X		X	Rear Wheel Opening	Quarter Trim Pad
Rear Wheel Opening	45400-46400 46600	X					Front and Rear of Rear Wheel Opening (except Front on 39, 69 Styles)	Quarter Trim Pad Rear
Rear of Rear Wheel Opening	45400-46400 46600			X		X	Rear Wheel Opening	
Rear Quarter Outer Panel Name Plate	All					X		Rear Compartment Side Trim on 48000 Series
Back Window Reveal Upper	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67)			X			Back Window Reveal Side	
Rear Compartment Lid Outer Panel	48200, 48400	X						
Rear Compartment Lid Outer Panel	All (Except 48000 Series)					X		
Rear Compartment Lid Outer Panel Name Plate	All					X		
Rear End Outer Panel	46200, 46400 46600					X		

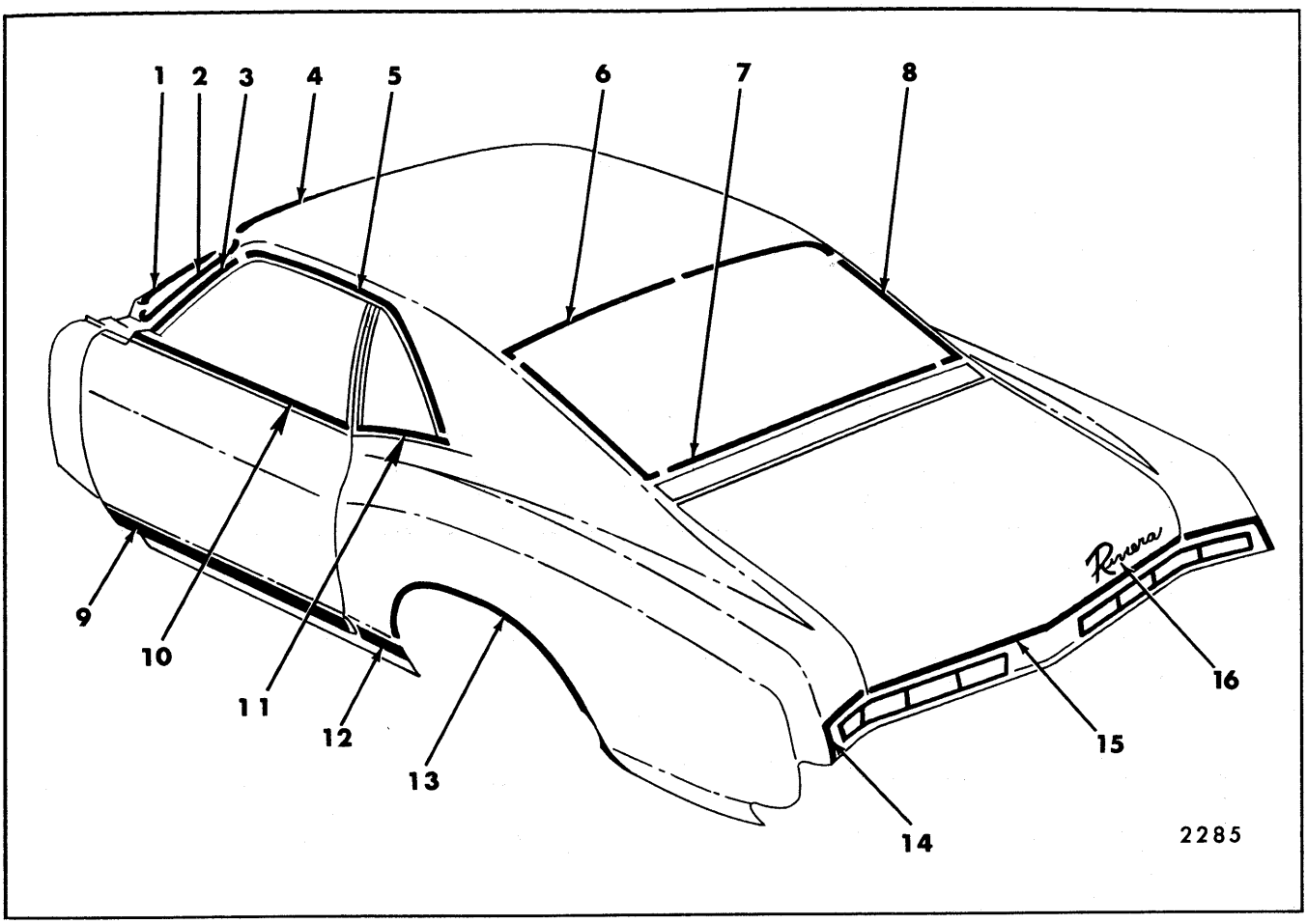

Fig. 12-36—Buick "E-87" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding Scalp
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Scalp
6. Back Window Reveal Upper Molding
7. Back Window Reveal Lower Molding
8. Back Window Reveal Side Molding
9. Front Door Outer Panel Molding
10. Front Door Window Belt Reveal Molding
11. Rear Quarter Window Belt Reveal Molding
12. Front of Rear Wheel Opening Molding
13. Rear Wheel Opening Molding
14. Rear of Rear Quarter Outer Panel Molding
15. Rear Compartment Lid Outer Panel Molding
16. Rear Compartment Lid Outer Panel Nameplate

49400 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X			Windshield Reveal Side	Cowl Air Intake Grille
Windshield Pillar Drip Molding Scalp	All		X				Roof Drip Molding Scalp	
Roof Drip Molding Scalp	All		X					
Front Door Window Belt Reveal	All	X						
Front Door Outer Panel	All			X				
Rear Quarter Window Belt Reveal	All	X						
Front of Rear Wheel Opening	All					X		
Rear Wheel Opening	All	X						
Back Window Reveal Upper	All			X			Back Window Reveal Side	
Back Window Reveal Side	All			X			Back Window Reveal Lower	
Back Window Reveal Lower	All			X			Back Window Reveal Side	
Rear Compartment Lid Outer Panel Nameplate	All					X		
Rear Compartment Lid Outer Panel	All					X		
Rear of Rear Quarter Outer Panel	All					X		Remove Tail Lamp Assembly

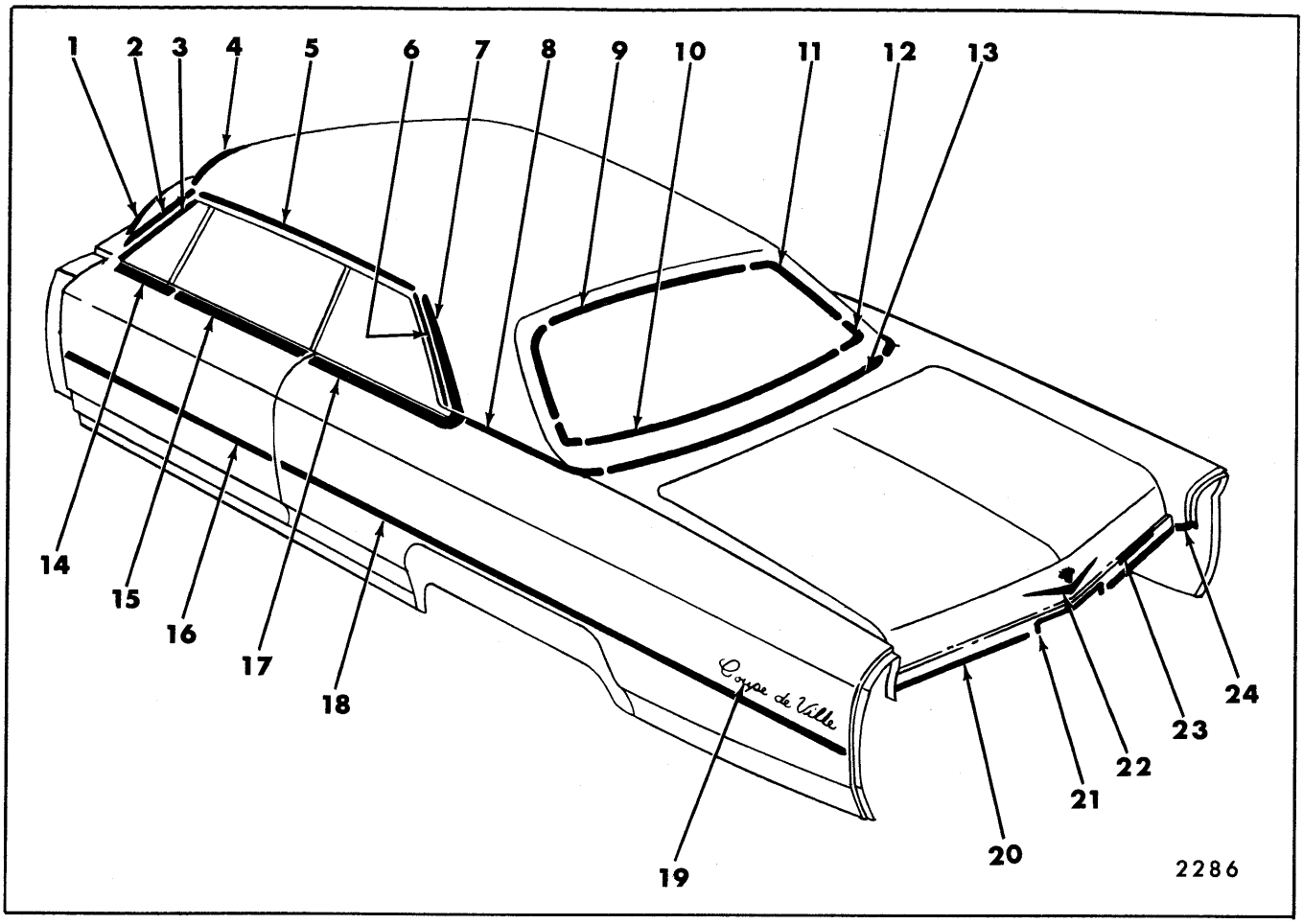

Fig. 12-37—Cadillac "C-57" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Roof Panel Rear of Quarter Window Molding
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Back Window Reveal Corner Escutcheon
13. Rear End Belt Reveal Molding
14. Front Door Window Belt Reveal (At Vent) Molding
15. Front Door Window Belt Reveal Molding
16. Front Door Outer Panel Molding
17. Rear Quarter Window Belt Reveal Molding
18. Rear Quarter Outer Panel Molding
19. Rear Quarter Outer Panel Nameplate
20. Rear Compartment Lid Outer Panel Side Molding
21. Rear Compartment Lid Outer Panel Center Molding
22. Rear Compartment Lid Outer Panel Emblem
23. Rear Compartment Lid Outer Panel Nameplate
24. Rear Compartment Lid Outer Panel Extension Molding

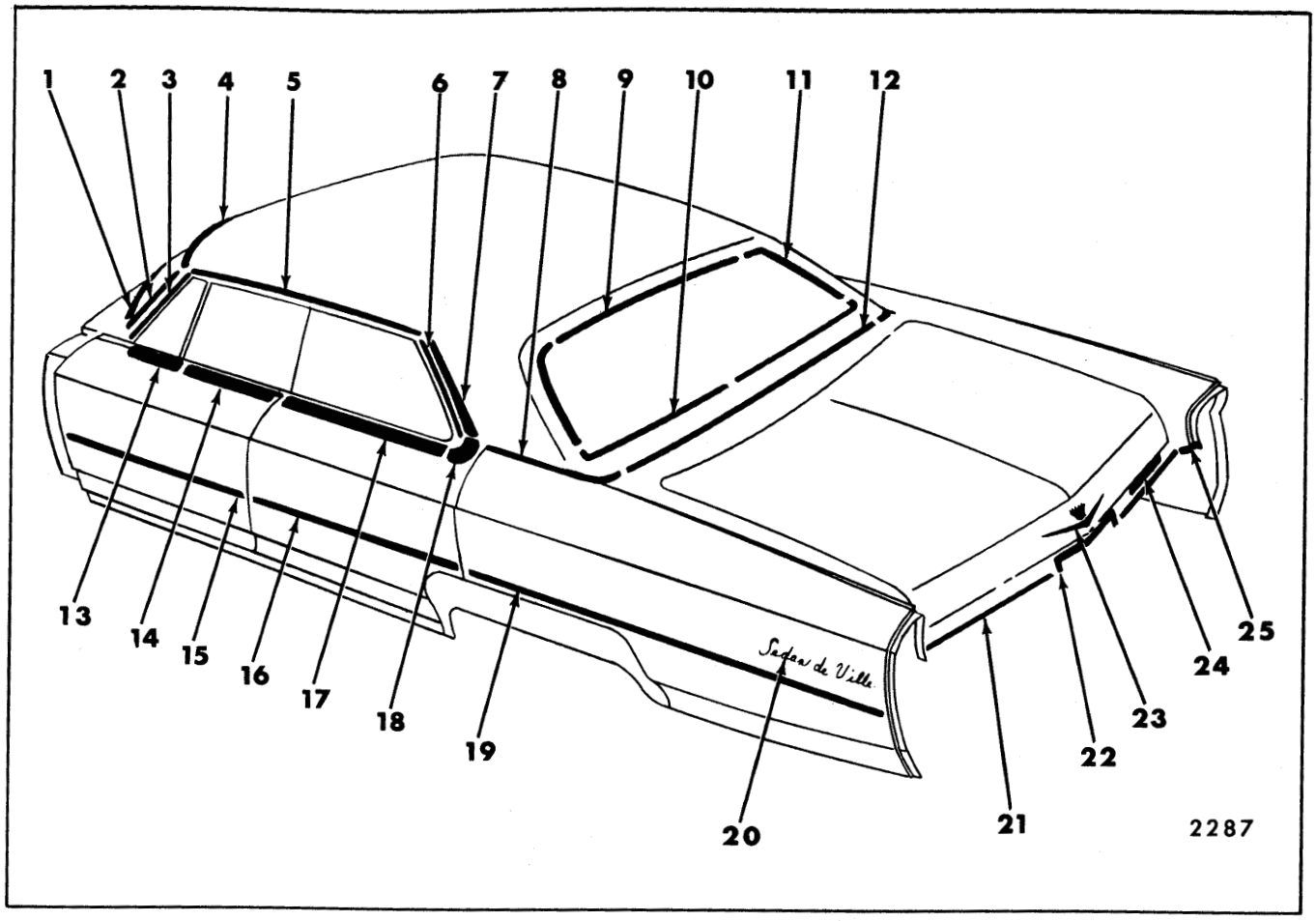

Fig. 12-38—Cadillac "C-39" Styles

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Pillar Drip Molding
4. Windshield Reveal Upper Molding
5. Roof Drip Molding Front Scalp
6. Roof Drip Molding Rear Scalp
7. Roof Panel Rear of Rear Door Window Molding
8. Rear Quarter Belt Reveal Molding
9. Back Window Reveal Upper Molding
10. Back Window Reveal Lower Molding
11. Back Window Reveal Side Molding
12. Rear End Belt Reveal Molding
13. Front Door Window Belt Reveal (At Vent) Molding
14. Front Door Window Belt Reveal Molding
15. Front Door Outer Panel Molding
16. Rear Door Outer Panel Molding
17. Rear Door Window Belt Reveal Molding
18. Rear Door Window Belt Reveal Escutcheon
19. Rear Quarter Outer Panel Molding
20. Rear Quarter Outer Panel Nameplate
21. Rear Compartment Lid Outer Panel Side Molding
22. Rear Compartment Lid Outer Panel Center Molding
23. Rear Compartment Lid Outer Panel Emblem
24. Rear Compartment Lid Outer Panel Nameplate
25. Rear Compartment Lid Outer Panel Extension Molding

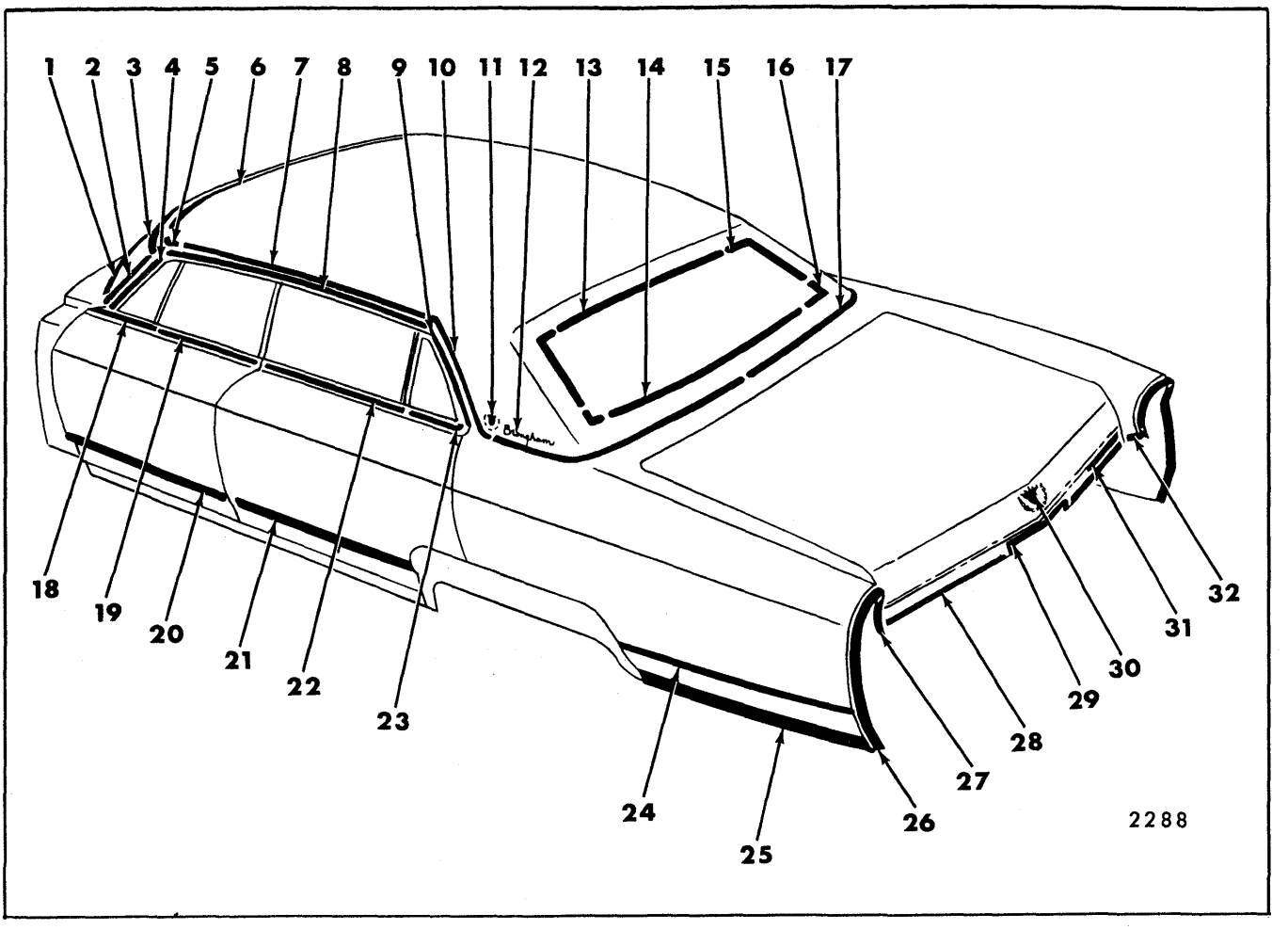

Fig. 12-39—Cadillac "C-69" Style

1. Windshield Reveal Lower Molding
2. Windshield Reveal Side Molding
3. Windshield Reveal Upper Molding
4. Windshield Pillar Drip Molding
5. Roof Panel Cover Front Finishing Escutcheon
6. Roof Panel Cover Front Finishing Molding
7. Roof Panel Cover Side Front Finishing Molding
8. Roof Drip Molding Front Scalp
9. Roof Drip Molding Rear Scalp
10. Roof Panel Cover Side Rear Finishing Molding
11. Roof Panel Emblem
12. Roof Panel Nameplate
13. Back Window Reveal Upper Molding
14. Back Window Reveal Lower Molding
15. Back Window Reveal Side Molding
16. Back Window Reveal Corner Escutcheon
17. Rear Quarter Belt Reveal Molding
18. Front Door Window Belt Reveal (At Vent) Molding
19. Front Door Window Belt Reveal Molding
20. Front Door Outer Panel Molding
21. Rear Door Outer Panel Molding
22. Rear Door Window Belt Reveal Molding
23. Rear Door Window Rear Belt Reveal Molding
24. Rear of Rear Wheel Opening Upper Molding
25. Rear of Rear Wheel Opening Lower Molding
26. Rear of Rear Quarter Panel Outer At Tail Lamp Molding
27. Rear of Rear Quarter Panel Inner At Tail Lamp Molding
28. Rear Compartment Lid Outer Panel Side Molding
29. Rear Compartment Lid Outer Panel Center Molding
30 Rear Compartment Lid Outer Panel Emblem
31. Rear Compartment Lid Outer Panel Nameplate
32. Rear Compartment Lid Outer Panel Extension Molding

68000 - 68100 - 68200 - 68300 - 68400 SERIES

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Windshield Reveal Upper	All			X			Windshield Reveal Side	
Windshield Reveal Side	All			X			Windshield Reveal Lower	
Windshield Reveal Lower	All			X				Cowl Air Intake Grille
Windshield Pillar Drip	All (Except 67)	X						Weatherstrip and Weatherstrip Retainer at Windshield Pillar
Windshield Pillar Finishing	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
Roof Drip Molding Scalp	68269, 68369		X				Windshield Pillar Drip	
Rood Drip Molding Front Scalp	68069		X				Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	68069		X				Roof Drip Molding Front Scalp	
Roof Drip Molding Front Scalp	39, 57		X				Windshield Pillar Drip	
Roof Drip Molding Rear Scalp	39, 57		X				Roof Drip Molding Front Scalp	
Roof Panel Rear of Quarter Window	68357		X				Roof Drip Molding Rear Scalp	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Roof Panel Rear of Rear Door Window	68339		X				Roof Drip Molding Rear Scalp	
Roof Panel Cover Front Finish	68169	X		X			Roof Panel Cover Front Finish Escutcheon	Front Section of Headlining
Roof Panel Cover Front Finish Escutcheon	68169					X	Roof Panel Cover Side Front Finish	Front Section of Headlining
Roof Panel Cover Side Front Finish	68169			X		X	Roof Panel Cover Front Finish Escutcheon Roof Panel Cover Side Rear Finish	Headlining at Side Area
Roof Panel Cover Side Rear Finish	68169					X	Rear End Belt Cover Finish	Headlining at Rear Quarter Area
Roof Panel Emblem Assembly	68169					X		Headlining at Rear Quarter Area
Roof Panel Name Plate	68169					X		Headlining at Rear Quarter Area
Front Door Window Belt Reveal (at Vent)	All	X					Front Door Window Reveal	Front Door Trim
Front Door Window Belt Reveal (at Vent)	All				X		Front Door Window Reveal	Front Door Vent Assembly
Front Door Window Belt Reveal	All	X						Rubber Bumper on Door Window Lower Stop

68000 - 68100 - 68200 - 68300 - 68400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Center Pillar Scalp	69	X						Weatherstrips and Weatherstrip Retainer at Center Pillar
Rear Door Window Belt Reveal	All	X						Rubber Bumper on Rear Door Window Lower Stop
Rear Door Window Front Belt Reveal	68069, 68169	X						Rubber Bumper on Rear Door Window Lower Stop
Rear Door Window Rear Belt Reveal	68069, 68169	X					Rear Door Window Front Reveal	Rubber Bumper on Rear Door Window Lower Stop
Quarter Window Lower Belt Reveal	57, 67	X						Quarter Window Lower Stop
Quarter Belt Cover Finish	68300				X	X		
Rear End Belt Cover Finish	68300					X	Quarter Belt Cover Finish	
Rear End Belt Cover Finish	68169					X	Right Side Overlaps Left Side Roof Panel	Headlining at Rear Quarter Area
Quarter Pinchweld Finishing	67	X		X			Cover Side Rear Finish	
Rear End Pinchweld Finishing	67			X			Quarter Pinchweld Finishing	

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Back Window Reveal Upper	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Side	All (except 67)			X			Back Window Reveal Lower	
Back Window Reveal Lower	All (except 67)			X			Back Window Reveal Side	
Back Window Reveal Lower Corner Escutcheon	682-68357 680-68169			X				
Front Door Outer Panel Lower	All	X		X				
Rear Door Outer Panel Lower	39, 69	X		X				
Rear Quarter Outer Panel Lower	68200, 68300				X	X		Rear Compartment Side Trim Quarter Window Glass (37, 67 Styles Only) Tail Lamp Assembly Compartment Pan to Quarter Panel Filler Plug
Front of Rear Wheel Opening	68467				X	X		Quarter Trim Pad
Rear Quarter Outer Panel Emblem	68069, 68467					X		
Rear of Rear Wheel Opening Upper	68069, 68467			X	X	X		Rear Compartment Side Trim

68000 - 68100 - 68200 - 68300 - 68400 SERIES (Cont'd.)

Molding Name	Series Or Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Moldings	Studs With Attaching Nuts		
Rear of Rear Wheel Opening Lower	68069, 68467 68169	X						
Rear of Rear Fender Outer Panel Inner at Tail Lamp	68069, 68467 68169	X					Rear of Rear Fender Outer Panel Outer at Tail Lamp	
Rear of Rear Fender Outer Panel Outer at Tail Lamp	68069, 68467 68169	X					Rear of Rear Wheel Opening	
Rear of Rear Fender Outer Panel at Compartment Lid	All	X				X	Rear of Rear Fender Outer Panel Inner at Tail Lamp (68069, 68467 Styles Only)	
Rear Compartment Lid Outer Panel Lower Side	All	X						
Rear Compartment Lid Outer Panel Lower Side Extension	All	X						
Rear Compartment Lid Outer Panel Crest	All					X		
Rear Compartment Lid Outer Panel Wreath	68069, 68169 68467					X		

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