

Body by Fisher



1968

SERVICE MANUAL

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1968 FISHER BODY SERVICE MANUAL

FOR ALL
BODY STYLES

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all U. S. and Canadian built 1968 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
NO. 7792212

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MANUAL DESCRIPTION**INTRODUCTION**

This publication contains the essential removal, installation, adjustment and maintenance procedures for servicing all 1968 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 18.

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 (Figs. 1-1, & 1-2). On Corvair styles, the body number plate is attached to the left side of the motor

compartment cross rail. On Cadillac "C" & "D" 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).

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:

- 11 - 2 door sedan with pillar post
- 23 - 4 door sedan with auxiliary center seat
- 27 - 2 door coupe with pillar (notch back)
- 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
- 49 - 4 door sedan 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)
- 77 - 2 door coupe with pillar (plain back)
- 80 - 2 door pick-up delivery
- 87 - 2 door sport coupe hardtop (plain back)

BODY TYPE NAME

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

Closed Style

- Two door sedan (11)
- Two door coupe (27, 77)
- Four door sedan (69)
- Limousine (23, 33)

Hard Top

- Sport coupe hardtop (27, 47, 57, 87)
- Coupe hardtop (37)
- Sedan hardtop (39, 49)

Station Wagon

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

Convertible Coupe

Sedan Delivery

BODY TYPE LETTER

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

“A” - Chevrolet 13000 Series
Pontiac 23-24000 Series
Oldsmobile 33-34000 Series
Buick 43-44000 Series
Beaumont 73000 Series (Canadian)

“B” - Chevrolet 15-16000 Series
Pontiac 25-26000 Series
Oldsmobile 35-36000 Series
Buick 45-46000 Series
Pontiac 75-76000 Series (Canadian)

“C” - Oldsmobile 384-38600 Series
Buick 482-48400 Series
Cadillac 68000 Series

“D” - Cadillac 69700 Series

“E” - Oldsmobile 394-39600 Series
Buick 49000 Series
Cadillac 69300 Series

“F” - Chevrolet 12000 Series
Pontiac 22000 Series

“X” - Chevrolet 11000 Series
Acadian 71000 Series (Canadian)

“Z” - Chevrolet 10000 Series

GENERAL INFORMATION

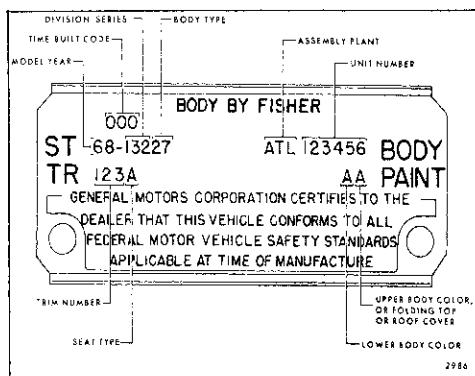


Fig. 1-1—Body Number Plate - U.S. Models

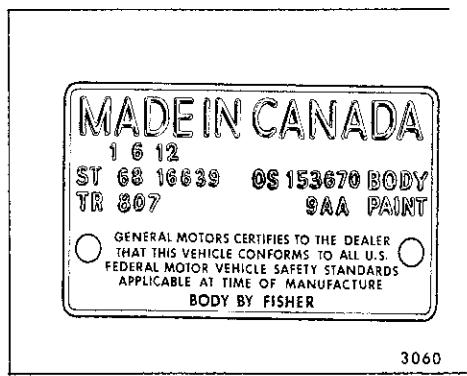


Fig. 1-2—Body Number Plate - Canadian Models
(Item Clarification Similar as shown in Fig. 1-1)

VEHICLE IDENTIFICATION NUMBERS

The Vehicle Identification Numbers (Serial Numbers) are located on the instrument panel cluster or or rabbet, as shown in Figures 1-3 and 1-4. These figures show typical installations for all GM car lines.



Fig. 1-3—Vehicle Identification Number
(At Windshield Rabbet)



Fig. 1-4—Vehicle Identification Number
(At Instrument Cluster)

LOCK CYLINDER CODING

FIVE BITTING LEVEL LOCK CYLINDER AND KEY

All 1968 style cars are equipped with new lock cylinders and keys. The keyway has been revised so that prior model keys will not enter current model lock cylinders.

Two non-interchangeable keyways are used on 1968 model cars. One keyway, known as type "C", is used in all ignition, front door and station wagon tail gate lock cylinders. Type "C" keys will have a hexagonal head and be marked similar to keys used for 1967 styles, except that a capital letter "C" will be located on the shank just below the coining on the head, in place of capital letter "A".

In addition, a code number within the series 0N00 to 9N99, or 0P00 to 9P99 will be stamped on the knock-out portion on the keyhead. This number identifies the lock combination and is used when ordering or making new keys.

The second keyway, known as type "D", is used in the instrument panel compartment, console compartment, rear compartment, front compartment and station wagon rear floor compartment lock cylinders. Type "D" keys will have rounded heads and will be similar to keys used for 1967 styles, except that a capital letter "D" will be stamped on the shank just below the coining on the head, in place of capital letter "B". In addition, a code

iber within the series 0R00 to 9R99, or 0T00 to 9T99 will be stamped on the knock-out portion of key head. This number identifies the lock combination and is used when ordering or making new keys.

Key code numbers are stamped on the "knockout" lug in the key head and on the lock cylinder housing (to facilitate replacement or duplication of key). After the code number has been recorded by the owner, the plugs should be knocked out of the key head. From these numbers, the lock combination can be determined by use of a code list (available to owners of key cutting equipment from equipment suppliers). If key code numbers are not available from records or from the "knock-out" plug, lock combination (tumbler numbers and position arrangement) can be determined by laying the key on the diagram in Figure 1-5.

CUTTING KEYS

After the special code has been determined, either from the code list or the Key Code Diagram (Fig. 1-5) cut a blank key to the proper level for each of the six tumbler positions, and check the key in the lock cylinder. The new key should agree with the combination opposite the code number in the code list.

REPLACEMENT LOCK CYLINDERS

New lock cylinders are available from the servicing Parts Warehouse with the lock cylinder locking bar staked in place. Tumblers are also available and must be assembled into the cylinder according to the procedure outlined below.

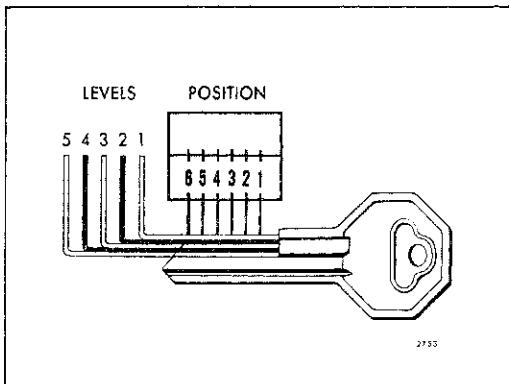


Fig. 1-5—Key Code Diagram

ASSEMBLY AND CODING LOCK CYLINDERS—

ALL LOCK CYLINDERS EXCEPT GLOVE AND CONSOLE COMPARTMENTS

Tumblers for all locks except the glove and console compartments are shaped exactly alike, with the exception of the position of a notch on one side. As the key is inserted in the lock cylinder, the tumblers are raised to the correct height so that the notches on each tumbler are on the same level. When the notches on all six tumblers line up, the locking bar is pushed into the notches by two small springs, allowing the cylinder to turn in its bore. Five types of tumblers are used to make all the various lock tumbler combinations and each is coded according to a number, 1 through 5, stamped on its side.

- Determine lock cylinder tumbler numbers and tumbler arrangement by use of a numerical key code lock cylinder code list. Code lists are made available to owners of key cutting equipment by equipment suppliers.

NOTE: To determine which tumblers should be installed in what position for a given key, when a code list is not available, proceed as follows:

- Lay the key on the Key Code Diagram (Fig. 1-5) with the key outlined by the diagram as accurately as possible.
- Starting at the head of the key blade, determine and record the lowest level (tumbler number) that is visible in position #1 and subsequent position numbers 2 through 6. After tumbler numbers and arrangement have been determined, assemble as follows:

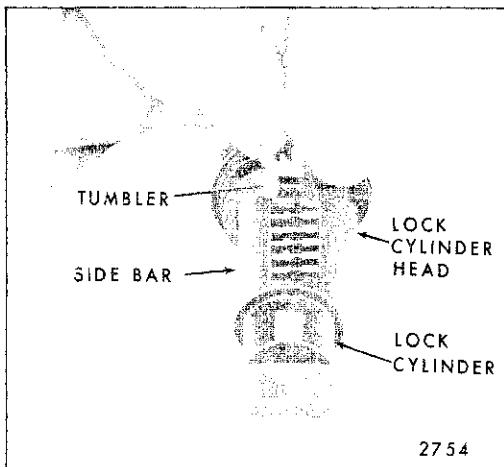


Fig. 1-6—Installing Tumblers

2. Starting at the open end (head) of the cylinder, insert the tumblers in their proper slots in the order called for by the code, as shown in Figure 1-6.
3. Pull out side bar with fingers so that tumblers will drop completely into place (Fig. 1-6). Insert one tumbler spring in the space provided above each tumbler.

NOTE: If the springs become tangled, do not pull them apart - unscrew them.

4. Insert the spring retainer so that the two end prongs slide into the slots at either end of the cylinder. Press the retainer down. (See Fig. 1-7)
5. To determine if tumblers have been properly installed, insert key into lock cylinder. If tumblers are installed properly the side bar will drop down. If bar does not drop down, remove the key, spring retainer, springs and tumblers and reassemble correctly.

NOTE: If the tumblers have not been assembled correctly, they can be removed from the cylinder by holding cylinder with the tumbler slots down, pulling the side bar out with the fingers and jarring the cylinder to shake the tumblers out. This procedure is necessary because once the tumblers have been pressed down into the cylinder they are held in their slots by the side bar.

6. If, after checking, it is found that the lock cylinder is assembled properly, remove key and secure cylinder in a vise with spring retainer exposed.

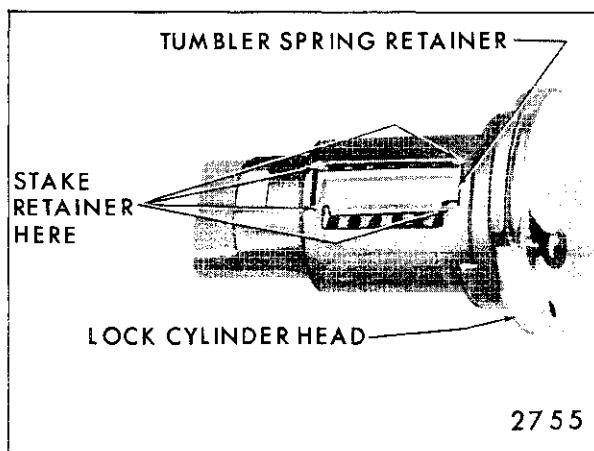


Fig. 1-7—Installing Spring Retainer

NOTE: Use leather or wood at each vise jaw to prevent damage to the cylinder.

7. Using a suitable staking tool, stake the spring retainer securely in place by staking the cylinder metal over the retainer at each end. Refer to Figure 1-7.

ASSEMBLING AND CODING GLOVE AND CONSOLE COMPARTMENT LOCK CYLINDERS

Only one type of tumbler is used to make the various lock tumbler combinations for glove and console compartment locks. Tumblers for these two lock cylinders are pre-assembled in the service replacement lock cylinder and require that a correctly coded key be inserted in the cylinder before and during cylinder coding.

As the key is inserted in the coded lock cylinder, each tumbler is depressed so that no part of any tumbler is exposed above the level of the lock cylinder thereby allowing the cylinder to turn in its bore.

NOTE: These two lock assemblies are equipped with four or five tumblers rather than six as used in other locks. Tumblers are used in positions 3-4-5-6 or 2-3-4-5-6 only. Tumblers which correspond to positions 1 and/or 2 on the key are not used. The non-brass, black "tumbler" that is closest to the head of the four tumbler lock cylinder is a locking devise and must NOT be removed or filed. See Fig. 1-8.

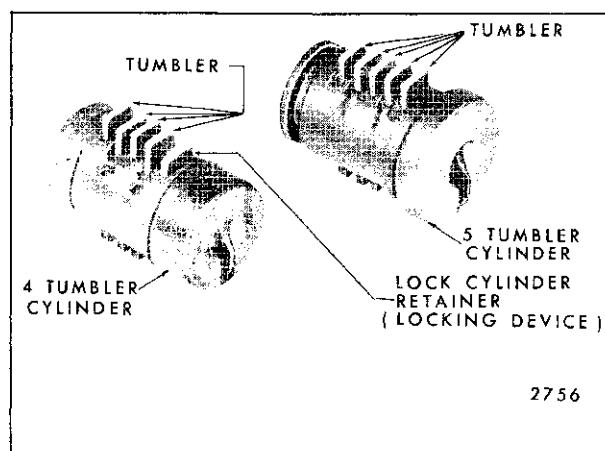


Fig. 1-8—Glove Compartment Lock Cylinder

1. Insert properly coded key in cylinder.
2. Place cylinder in a vise, bottom side up, using leather or wood at each vise jaw to prevent damage to the cylinder.
3. File tumblers down so that no part of any tumbler extends above the lock cylinder.

NOTE: Do not file any part of the non-brass, black "tumbler" (retainer) on four tumbler lock cylinders. This is a locking bar and should not be altered.

4. Reverse lock cylinder position in vise and repeat step #3 for top of tumblers. See Fig. 1-9.

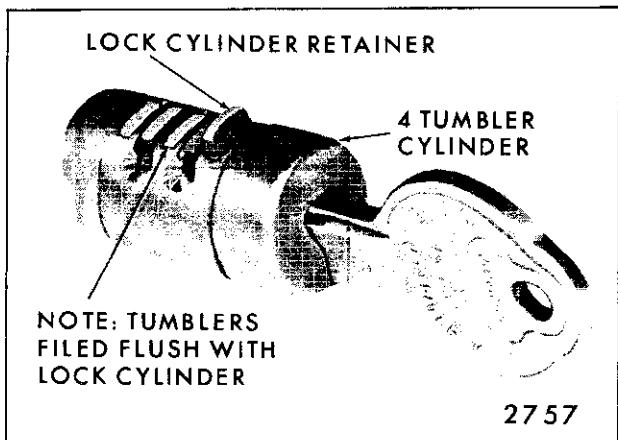


Fig. 1-9—Coded Glove Compartment Cylinder

GLASS POLISHING

REMOVAL OF MINOR SCRATCHES AND ABRASIONS—

Description

Minor glass scratches and abrasions can be effectively removed or substantially reduced by utilizing the procedure and precautions presented in this section. The phases of glass polishing discussed in this section include the equipment required, the recommended procedure and the precautions necessary.

There are two basic types of automotive glass: (1) laminated safety plate (all windshield and skylight glass) and (2) solid tempered safety plate (all side windows and back glass, except skylight).

A major concern in glass polishing is preventing double vision from developing in areas that will distort driver's vision. For this reason, less polishing can be done on the windshield in the driver's line of vision than in other areas. Distortion is most likely to result when attempting to remove deep scratches.

Glass polishing is an operation that must be performed with reasonable care.

The equipment and procedures recommended here were developed using cerium oxide compound (Glass-Nu or equivalent). Follow the manufacturer's directions if other materials are used.

The following equipment is recommended for glass polishing:

1. A low speed (600-1300 RPM) rotary polisher (Skill Model #570 or equivalent).

2. A wool felt rotary-type polishing pad, approximately three inches in diameter and two inches thick.
3. Powdered cerium oxide (Glass-Nu or equivalent) mixed with water as the abrasive compound.
4. A wide mouth container (coffee can, earthen crock, or equivalent) to hold the polish.

Glass Polishing Procedure

1. Mix at least three heaping tablespoons of cerium oxide (Glass-Nu or equivalent) with sufficient water to obtain a creamy consistency.
- NOTE:** If a larger proportion of cerium oxide (Glass-Nu or equivalent) is used, the compound cakes on the felt pad faster. If a small proportion is used the polishing time required will increase.
2. Agitate the mixture occasionally to maintain a creamy consistency. The powdered cerium oxide is insoluble in water and tends to separate.
3. Draw a circle around the scratches on the inside of the windshield with a marking crayon or equivalent. Draw other lines directly behind scratches to serve as guides in locating the during polishing (Fig. 1-10).
4. Use masking paper where needed to catch drippings or spattered polish.
5. Dip the felt pad attached to the polisher into

the mixture several times to insure that the pad is well saturated.

NOTE: Never submerge or allow the pad to stay in the mixture as it may loosen the bond between the pad and the metal plate.

- Using moderate, but steady, pressure, hold the pad flat against the scratched area of the glass, and with a feathering-out motion, polish the affected area as shown in Figure 1-10.

NOTE: Avoid excessive pressure which does not speed-up the operation and may cause overheating of the glass.

- Cover a sufficient area around the scratch with a feathering-out motion as shown in Figure 1-10, to eliminate any possibility of a "bulls-eye".

NOTE: Never hold the tool in one spot or operate the tool on the glass any longer than 30 to 45 seconds at a time. If the glass becomes hot to touch, let it air cool before proceeding further. Cooling with cold water may crack the heated glass.

- Dip the pad into the mixture about every fifteen seconds to insure that the wheel and the

glass are always wet during the polishing operation. A dry pad causes excessive heat to develop.

- After removing the scratch or abrasion, wipe the body clean of any polish.
- Clean the polishing pad.

NOTE: Care should be taken during polishing and storage to keep the pad free of foreign material such as dirt, metal filings, etc.

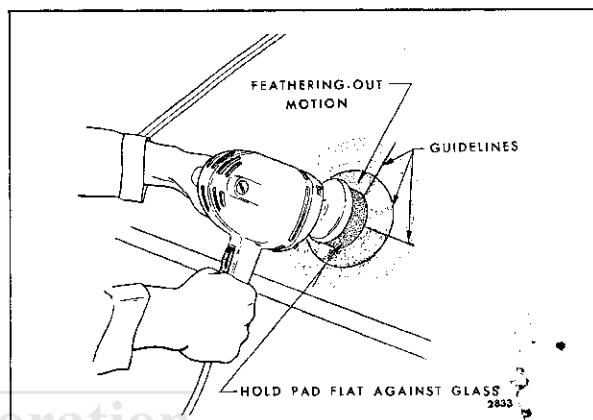


Fig. 1-10—Minor Glass Scratch Removal

WOOD GRAIN TREATMENT

STATION WAGONS AND SEDAN DELIVERY

Description

The wood grain transfer film is a vinyl material with a pressure sensitive adhesive backing. The transfers are serviced in pre-cut panels.

Removal

Remove the moldings from the affected panel (see Molding Section 17). Starting at one edge peel film from panel while heating that area with heat lamp or heat gun (heat activates the adhesive, aiding removal).

Installation

Preparation of the surface to which the transfer will be applied is very important. In cases where body metal repair has been made, it is necessary to prime and color coat these areas to blend with the undamaged surface. New paint must be thoroughly dry before applying new transfer film. Apply the transfer film to color coated panels only, never to bare metal or primer. The surface must

be free of any imperfections that may highlight through the film. Remove dirt nibs and other foreign material in the paint by sanding lightly with 600 grit sandpaper.

Then clean the surface with a non-petroleum base volatile cleaner and allow to dry.

For best results, the temperature of the body should be maintained at a moderate level between approximately 65 and 90 degrees. Too warm a body will cause the wood grain film to stick prematurely while too cool a body will reduce the adhesion of the wood grain film.

Just prior to application of transfer film, wet the affected area of the panel with a wetting solution. The wetting solution is a mixture of liquid detergent (1/2 oz.) and water (1 gallon). This will reduce surface tension which aids in releasing the film from the panel to work out air bubbles and wrinkles or in repositioning of the film.

The following steps are recommended for application of the film:

- Peel entire backing paper from transfer film.

2. Holding the film at the upper edges, position the film to the panel.
3. With a plastic or hard rubber squeegee, press transfer film to panel removing all air bubbles and wetting solution. The sequence of working with the squeegee may vary on different panels; however, in most cases, starting in the center and working up and out to the edges, then from the center down and out to the edges will provide the best results.

NOTE: The transfer can be pulled back from the panel and reinstalled if large air pockets develop. Exercise care not to stretch the material. Small air bubbles may be removed by piercing the film at the bubble with a pin and

pressing the bubble down.

4. In contoured areas the use of a single heat lamp will aid in forming the film into the different areas.
5. Apply, by brush, a small amount of clear vinyl trim adhesive to the hemming flanges at contact areas.
6. Make small relief cuts in film at curved areas where film is to be secured to hemming flange.
7. Slightly heat the edges of the film and secure to hemming flanges using a squeegee.
8. Install moldings.



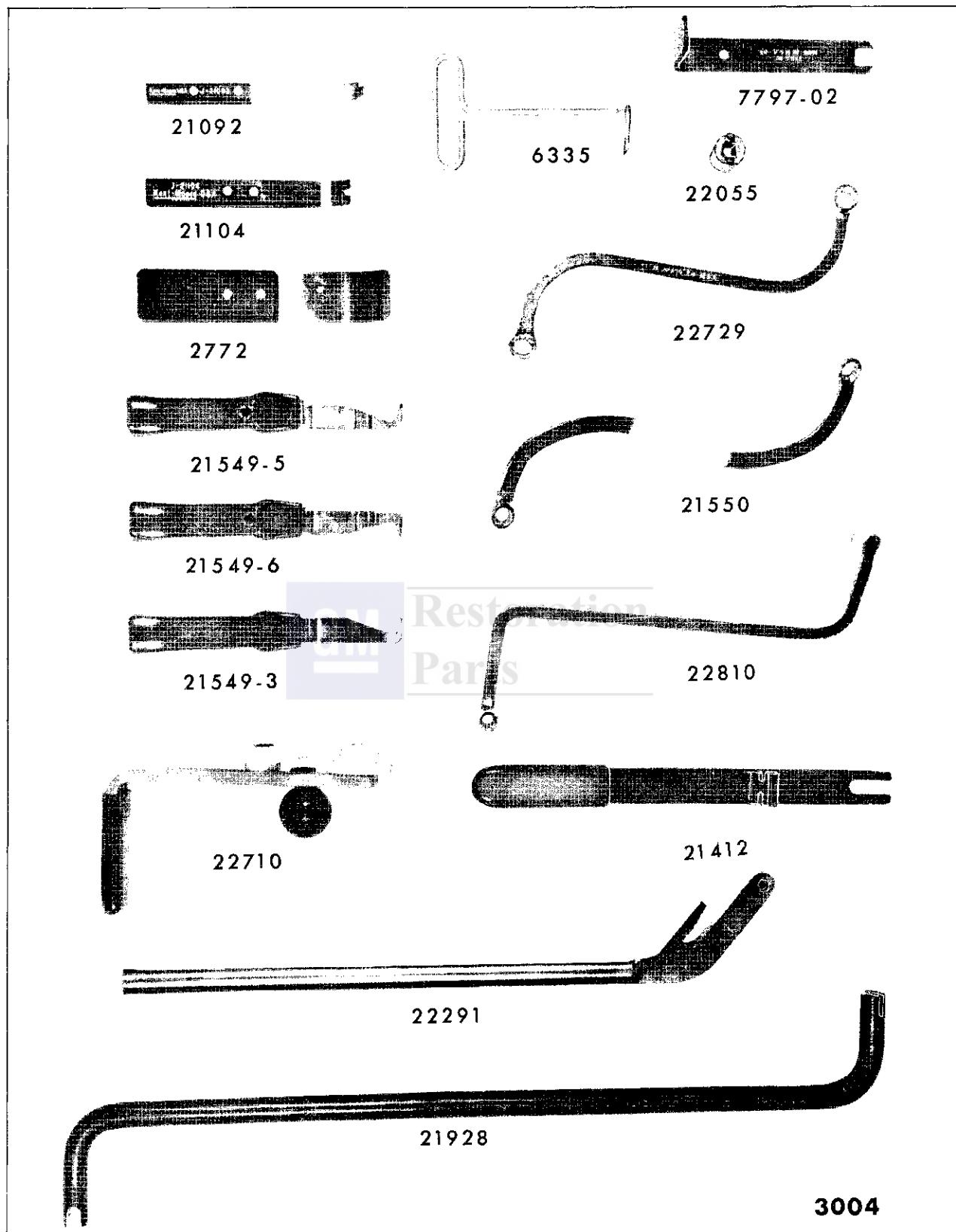


Fig. 1-11—Special Body Service Tools

SECTION 2

LUBRICATION

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DESCRIPTION

The mechanical parts of the body with contacting surfaces that have relative motion with other parts are lubricated during assembly. If additional lubrication is required, the procedures and specified materials or their equivalents presented in this section should be used.

The illustrations in this section serve as typical views of the subject areas. The procedures described are similar for all styles.

FRONT COMPARTMENT LID LOCK—Corvair

1. Clean lock bolt surface.
2. Apply a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent) to the contact surface of the fork bolt (Fig. 2-1).
3. Actuate the lock mechanism several times.
4. Remove excess lubricant.

FRONT COMPARTMENT LID HINGES AND TORQUE ROD

1. Remove dirt and old lubricant.
2. Apply white lithium soap grease (Lubriplate 630 AAW or equivalent) to the frictional areas indicated 1 in Figure 2-2.
3. Open and close compartment lid to assure smooth operation.

4. Wipe off excess lubricant.

INSTRUMENT PANEL COMPARTMENT DOOR HINGE

1. Wipe off the dirt and old lubricant.
2. Apply a low temperature lubricant (Dripless oil or equivalent) sparingly to the friction areas.
3. Operate the hinge mechanism several times to be certain that the lubricant has worked in effectively.
4. Remove excess lubricant.

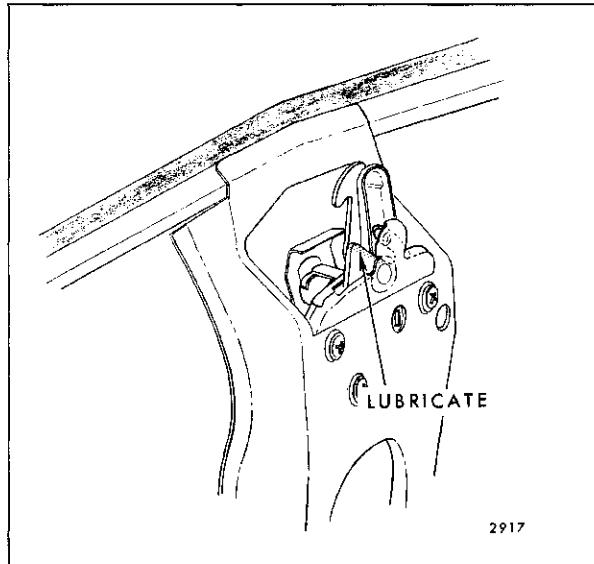


Fig. 2-1—Front Compartment Lid Lock

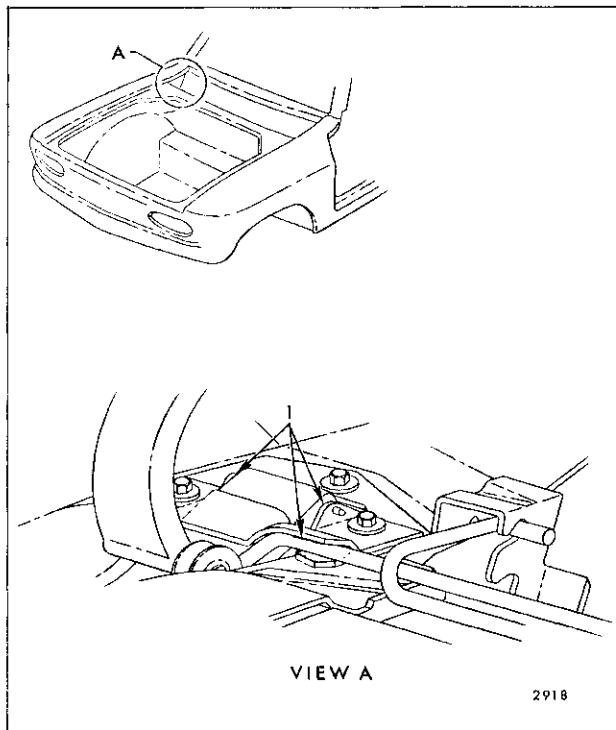


Fig. 2-2—Front Compartment Hinge and Torque Rod —
Corvair

FRONT DOOR HINGE ASSEMBLY

1. Clean dirt and old lubricant from subject area.
2. Apply a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent) to the pivot points and other friction areas of the front door hinge and hold-open assembly at the points indicated (Fig. 2-3).

NOTE: It is imperative that the contact surfaces of the detent roller and detent lever remain free of lubricant. Lubrication at these points indicated 1 in Figure 2-3, would result in a sliding action instead of the desired rolling action.

3. Lubricate the torque rod on the "E" series lower hinge assembly with molybdenum disulfide (Fiske Bros. 475-10DS or equivalent) at the points indicated (Fig. 2-4).
4. Open and close door several times to insure that the lubricant has worked in effectively.

REAR DOOR HINGE ASSEMBLY

1. Clean surface of dirt and old lubricant.
2. Apply a thin coat of white lithium soap grease

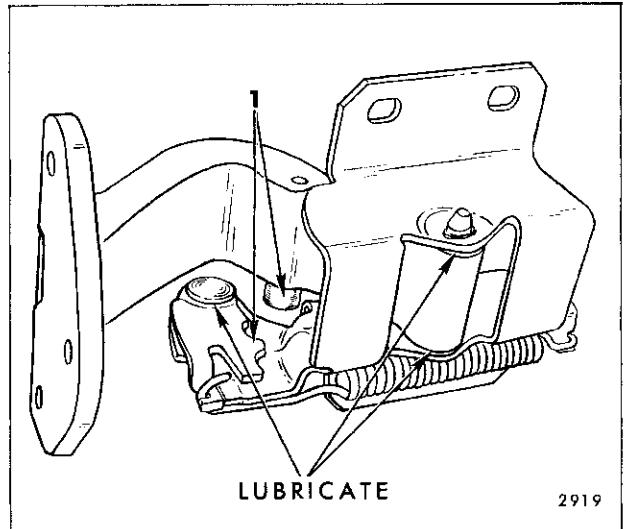


Fig. 2-3—Front Door Hinge Assembly - "B" Body Styles

lubricant (Lubriplate 630 AAW or equivalent) to the pivot points and other friction areas of the rear door hinge and hold-open assembly at the points indicated (Fig. 2-5).

3. Open and close door several times to insure that the lubricant has worked in effectively.

DOOR LOCK FORK BOLT

1. Clean the fork bolt surface.
2. Apply a thin coat of grease stick lubricant (Doorease or equivalent) to the areas indicated (Fig. 2-6).

3. Operate the lock mechanism several times.

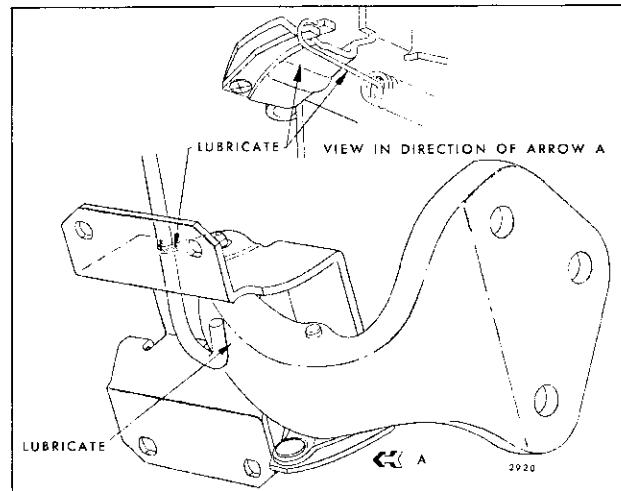


Fig. 2-4—Front Door Hinge Assembly - "E" Body Styles

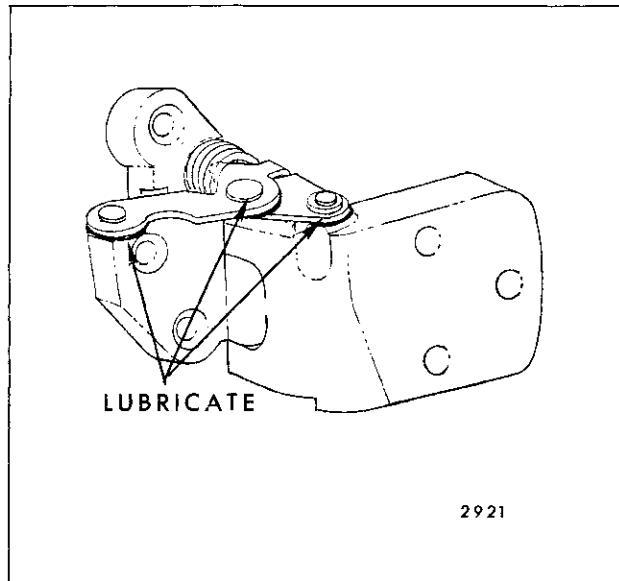


Fig. 2-5—Rear Door Hinge Assembly - "B" Body Styles

DOOR JAMB SWITCH

1. Wipe off dirt.
2. Apply a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent) to the circumference and end surface of the switch plunger.

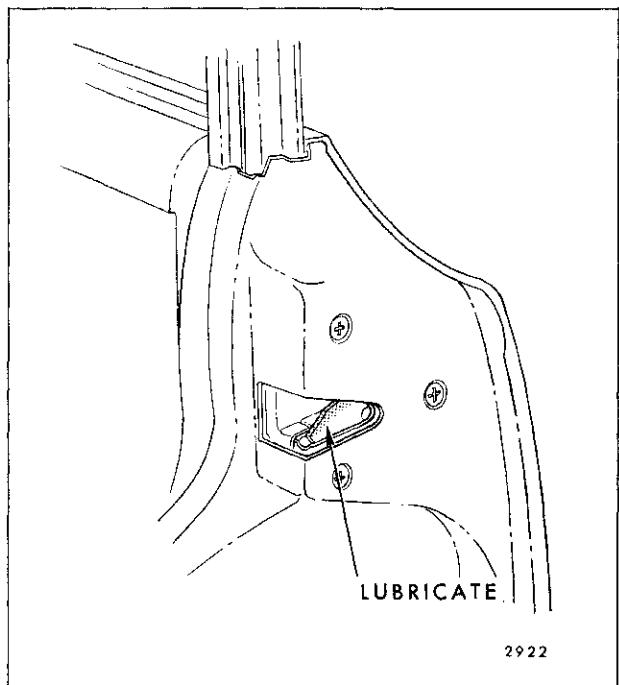


Fig. 2-6—Door Lock Fork Bolt

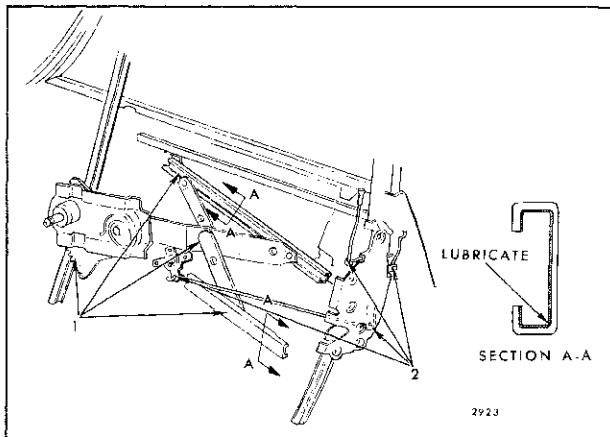


Fig. 2-7—Door Window Regulator and Cams on Styles with Door Upper Frames

3. Operate the plunger several times to insure that the lubricant has been worked in effectively.
4. Remove excess lubricant.

DOOR LOCKING MECHANISM AND LOCK PARTS

1. Apply white lithium soap grease lubricant (Lubriplate 630 AAW or equivalent) to the pivot points, ends of connecting rods, and other movable parts of the lock.
2. Actuate the lock mechanism to insure smooth operation.

DOOR WINDOW REGULATOR AND CAMS ON STYLES WITH DOOR UPPER FRAMES

1. Applying a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent), cover the entire length of the lower sash channel cam and inner panel cam as shown in section "A-A", Figure 2-7.
2. Lubricate all connecting rod pivot points with 630 AAW Lubriplate or equivalent at the points indicated in Figure 2-7.
3. Apply a thin coat of 630 AAW Lubriplate or equivalent to the teeth of the sector gear and the pivot point of the balance arm and lift arm as indicated at points 1 in Figure 2-7.
4. Operate the glass, remote control, and lock to assure smooth operation.

NOTE: Rear door lubrication is similar.

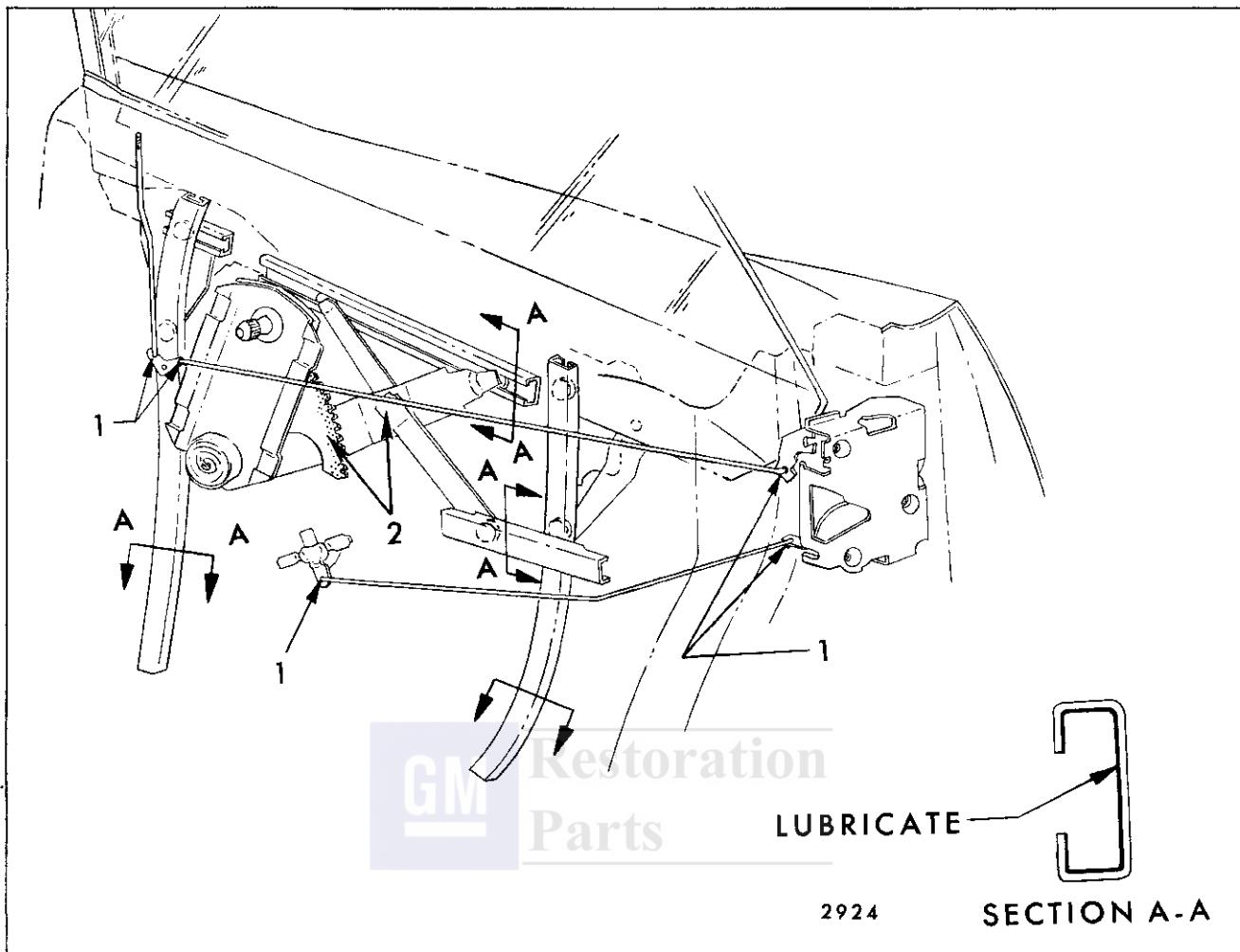


Fig. 2-8—Door Window Regulator and Cams on Styles without Upper Frames

DOOR WINDOW REGULATOR CAMS AND GUIDES ON STYLES WITHOUT UPPER FRAMES

1. Applying a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent) cover the entire length of the front guide, rear guide, the lower sash channel cam, and the inner panel cam as shown in the cross section "A-A", Figure 2-8.
2. Lubricate all connecting rod pivot points with 630 AAW Lubriplate or equivalent at the points indicated 1 in Figure 2-8.
3. Apply a thin coat of 630 AAW Lubriplate or equivalent to the teeth of the sector gear and the pivot point of the balance arm and lift arm as indicated at points 2 in Figure 2-8.
4. Operate the window, remote control, and lock to assure smooth operation.

NOTE: Front door lubrication is similar.

REAR QUARTER WINDOW REGULATOR CAMS AND GUIDES

1. Apply a thin coat of white lithium soap grease lubricant (Lubriplate 630 AAW or equivalent) to the friction areas indicated (Fig. 2-9).
2. Cover the entire length of the inner surface of all guides with lubricant as shown in the cross section (Fig. 2-9).
3. Operate glass to insure smooth operation.

TAIL GATE LOCK STRIKER (Station Wagon)

1. Wipe off dirt and old lubricant.

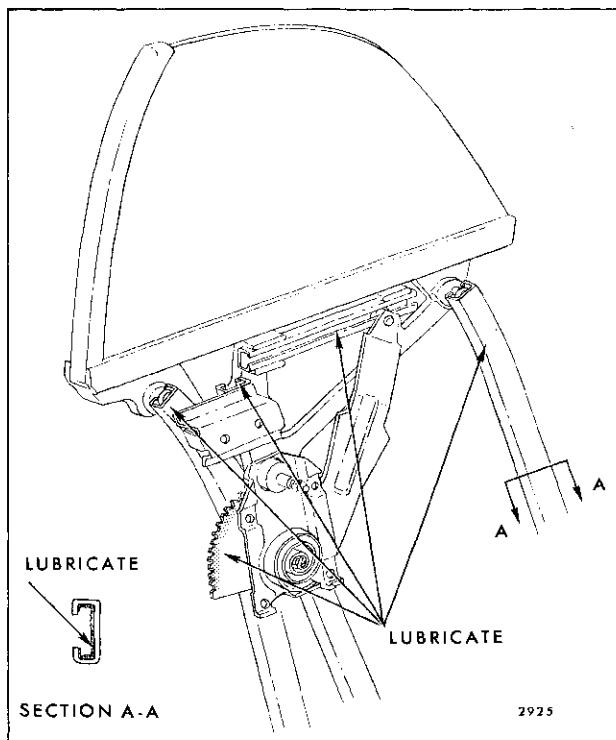


Fig. 2-9—Rear Quarter Window Regulator, Cams, and Guides

2. Apply a thin coat of grease stick lubricant (Doorease or equivalent) to the contact surfaces of the striker teeth (Fig. 2-10).
3. Open and close tail gate several times.
4. Remove excess lubricant.

TAIL GATE TORQUE ROD (Station Wagon)

1. Apply white lithium soap grease (Lubriplate 630 AAW or equivalent) to the circumference of the tail gate torque rod which passes through the nylon guide as indicated in Figure 2-10.
2. Open and close tail gate several times to assure smooth operation.
3. Remove excess lubricant.

TAIL GATE HINGE (Station Wagon)

1. Apply a minute amount of low temperature lubricant (Dripless oil or equivalent) to the frictional surfaces.
2. Open and close tail gate several times.
3. Remove excess lubricant.

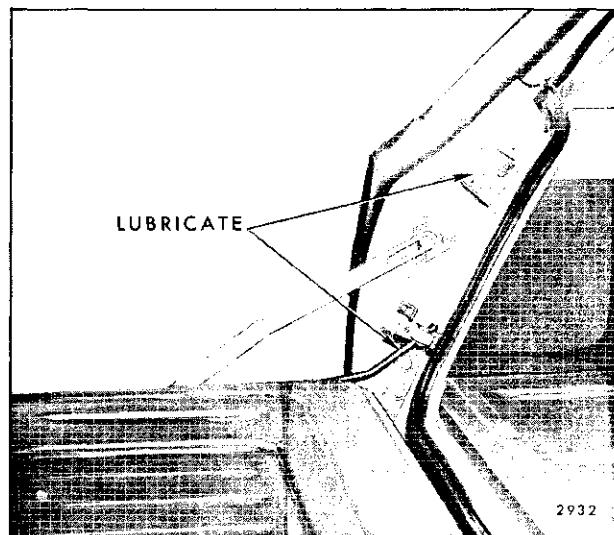


Fig. 2-10—Tail Gate Lock Striker and Torque Rod
(Station Wagon)

TAIL GATE WINDOW REGULATOR, CAMS, AND SECTOR GEARS (Station Wagon)

1. Apply white lithium soap grease lubricant (Lubriplate 630 AAW or equivalent) to the pivot points of the connecting rods indicated 1 in Figure 2-11.
2. Coat the entire length of the inner surface of all cams with Lubriplate 630 AAW or equivalent as shown in the cross section "A-A" in Figure 2-11.
3. Apply Lubriplate 630 AAW or equivalent to the teeth of the sector gears at points 2 as shown in Figure 2-11.

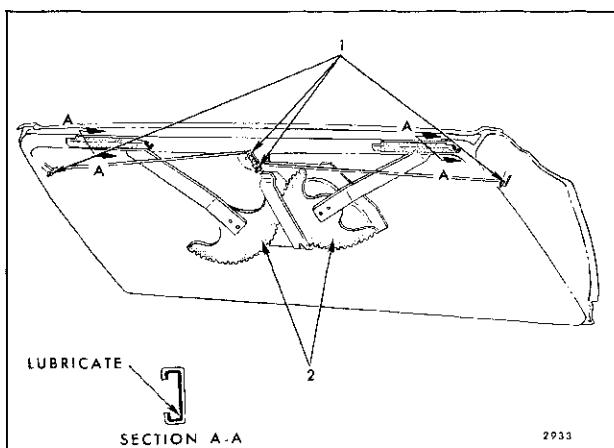


Fig. 2-11—Tail Gate Window Regulator, Cams, and
Sector Gears (Station Wagon)

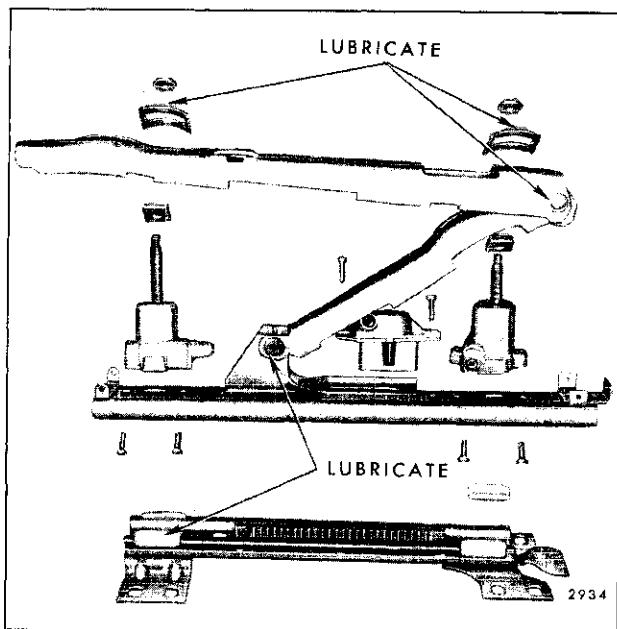


Fig. 2-12—Front Seat Adjuster Mechanism

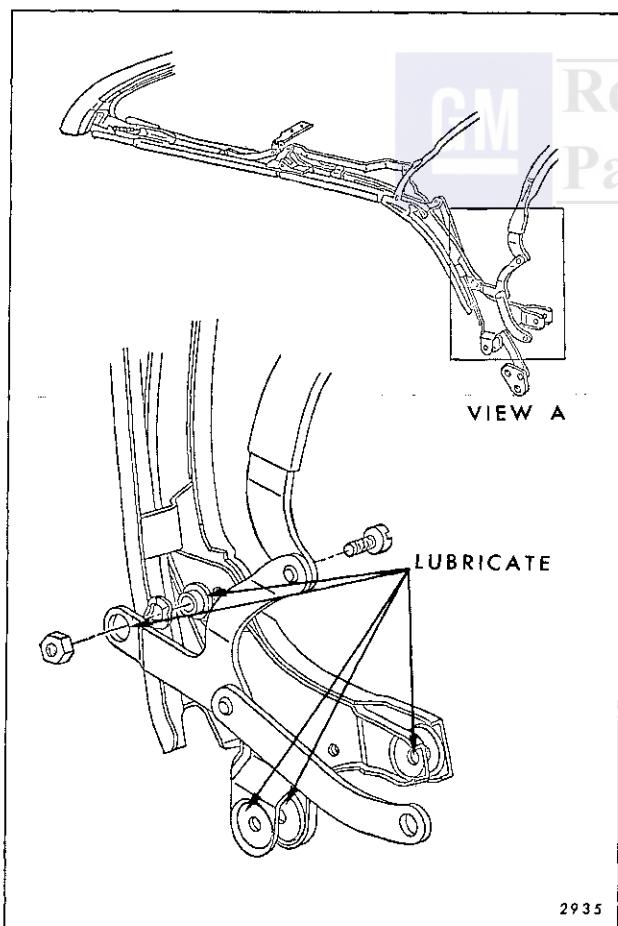


Fig. 2-13—Convertible Top Hinge - "B" Body Styles

4. Operate the glass to assure smooth operation.

GAS TANK FILLER DOOR HINGE

1. Clean area of dirt and old lubricant.
2. Apply a low temperature lubricant (Dripless oil or equivalent) sparingly to the friction areas.
3. Operate the door several times.
4. Remove excess lubricant.

FOLDING SEAT LINKAGE

1. Clean surface of dirt and old lubricant.
2. Apply a low temperature lubricant (Dripless oil or equivalent) sparingly to the frictional areas.
3. Operate the linkage several times.
4. Remove excess lubricant to prevent soiling trim.

FRONT SEAT ADJUSTER MECHANISM (Manual or Electrical)

1. Wipe off old lubricant.

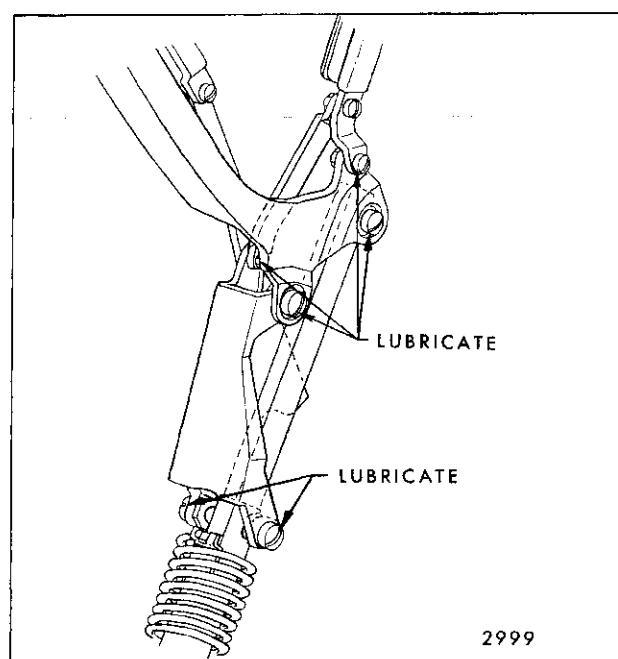


Fig. 2-14—Convertible Top Hinge - "A" Body Styles

2. Apply a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent) to the pivot pins, upper surface of the gearnut tension springs and upper channel track nylon bushings as illustrated (Fig. 2-12).

3. Operate seat to the limit of all positions.

4. Remove excess lubricant.

CONVERTIBLE TOP HINGE MECHANISM

1. Apply a limited amount of low temperature lubricant (Dripless oil or equivalent) to all friction surfaces.

2. The friction surfaces lubricated should include all washers, bushings, and other contact surfaces at the points indicated by the arrows (Fig. 2-13, Fig. 2-14, and Fig. 2-15).

3. To prevent soiling trim wipe off excess lubricant.

REAR COMPARTMENT HINGES

1. Apply white lithium soap grease lubricant (Lu-

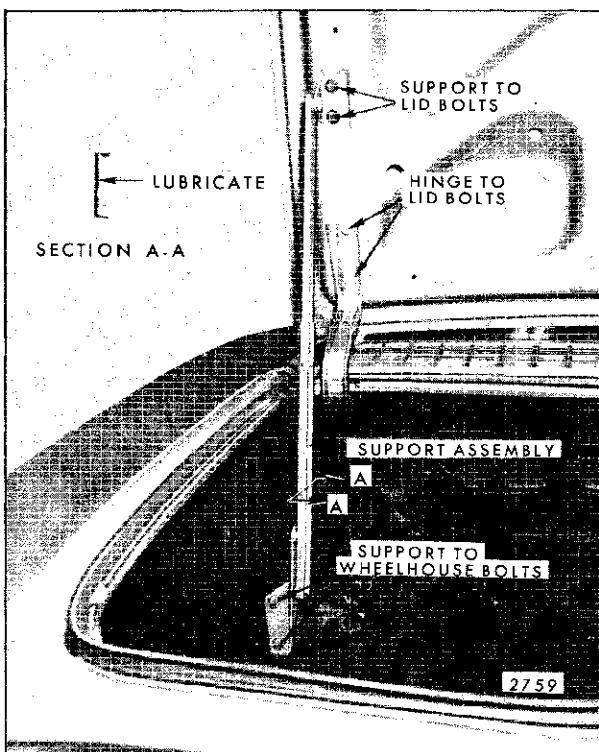


Fig. 2-16—Engine Compartment Lid Support

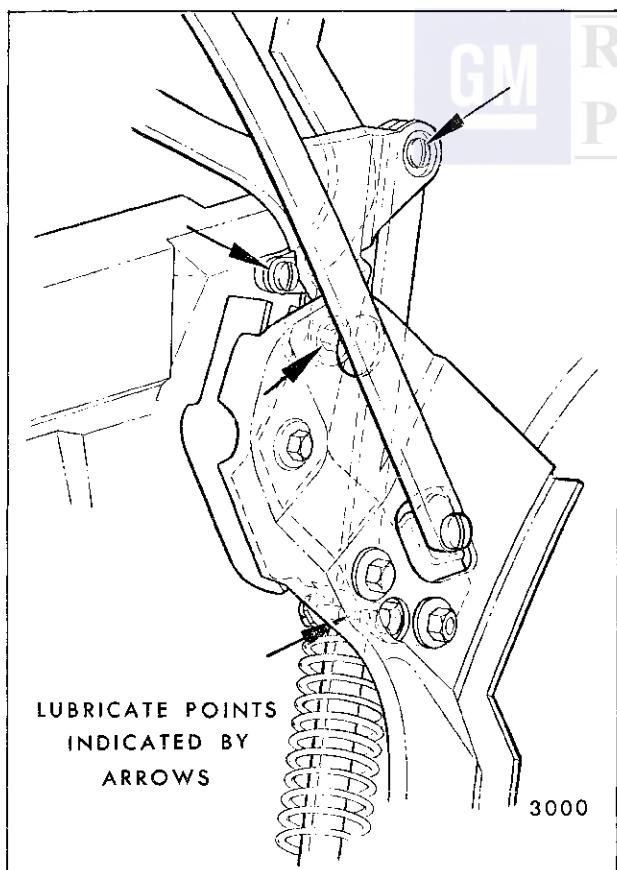


Fig. 2-15—Convertible Top Hinge - "F" Body Styles

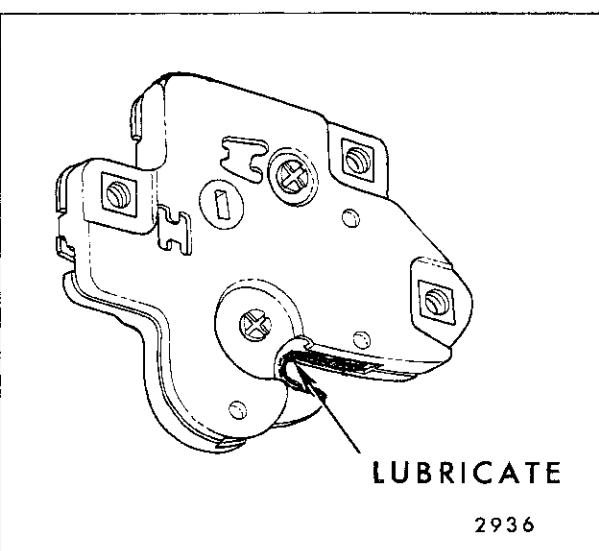


Fig. 2-17—Rear Compartment Lid Lock

briplate 630 AAW or equivalent) to the friction areas of the rear compartment lid hinge.

2. Open and close rear compartment lid several times.

3. Remove excess lubricant.

ENGINE COMPARTMENT LID SUPPORT

1. Apply a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent) to the inner surface telescoping channel of the compartment lid support (Fig. 2-16).
2. Open and close the lid several times.
3. Remove excess lubricant.

REAR COMPARTMENT LID LOCK

1. Clean the lock bolt surface.
2. Apply a thin coat of white lithium soap grease (Lubriplate 630 AAW or equivalent) to the contact surface of the lock bolt (Fig. 2-17)
3. Actuate the lock mechanism several times.
4. Remove excess lubricant.



SECTION 3

UNDERBODY

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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 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 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.

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 lo-

cations. 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.

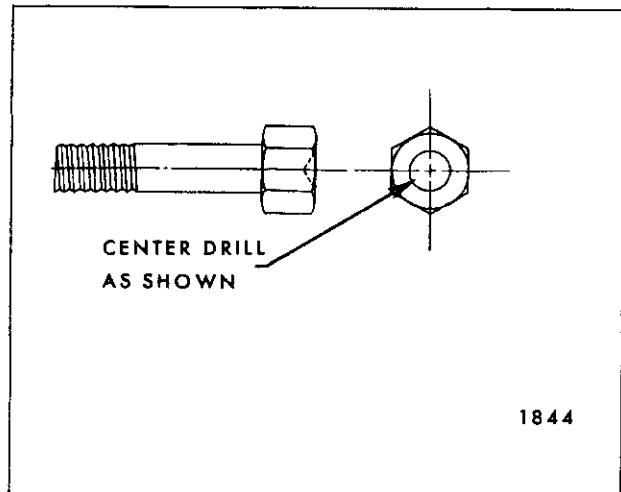


Fig. 3-1—Tram Gage Centering Bolt

ALIGNMENT CHECKING INFORMATION

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 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 3-2 are calculated on a horizontal plane parallel to the plane of the underbody. Precision measurements can be made only if the tram gage is also parallel to the plane of the underbody. This can be controlled by setting the vertical pointers on the tram gage according to the dimensions shown in the lower portion of Figure 3-2.

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

To facilitate centering the tram gage pointers at the suspension locations, special centering bolts (same size and thread as original attaching bolts) may be prepared as shown in Figure 3-1. 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. 3-2)

Dimensions to gage holes and other unthreaded holes are measured to dead center of the holes and

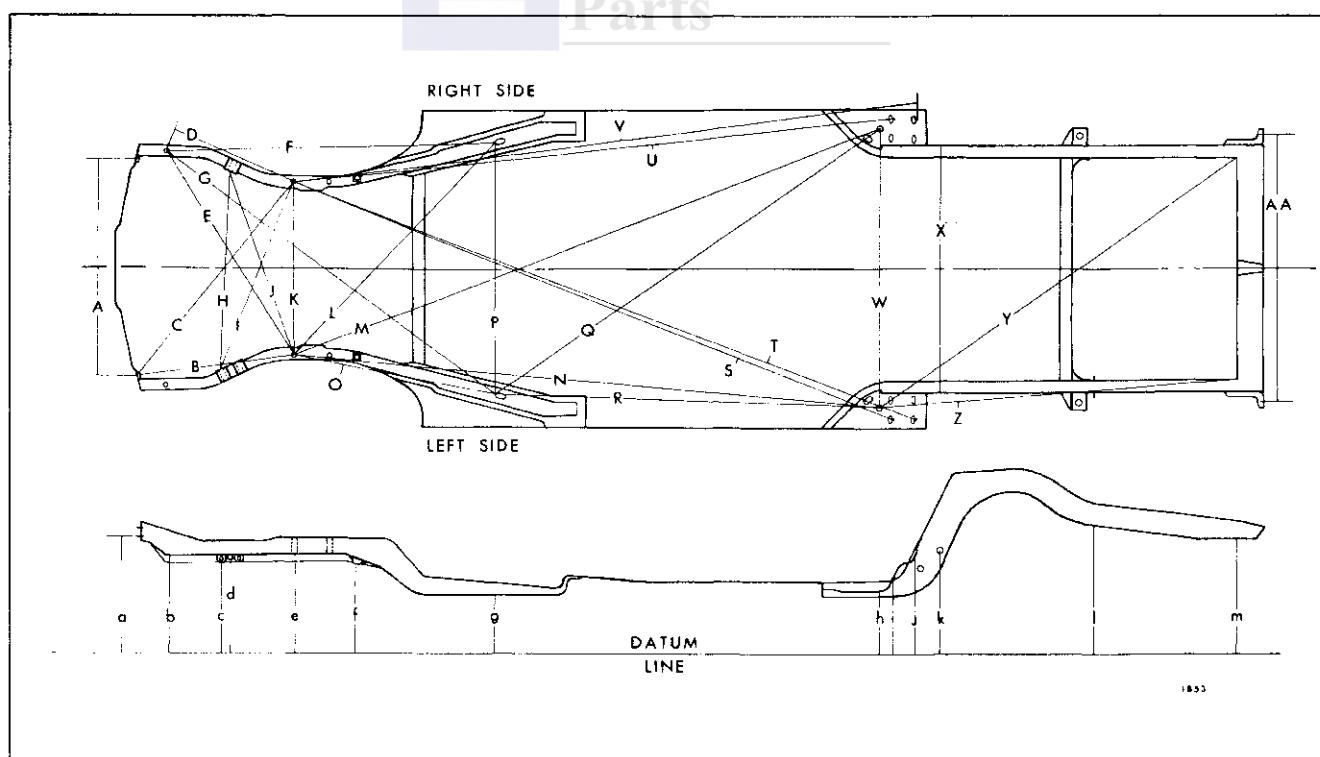


Fig. 3-2—Underbody Vertical Alignment Reference Points.

flush to the adjacent surface metal. Dimensions to body front tie down slits are measured to the front centerline edge of the slot (see Fig. 3-3). 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 gage 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).

Horizontal Dimensions (Fig. 3-2)

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. 3-3).
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. 3-3).

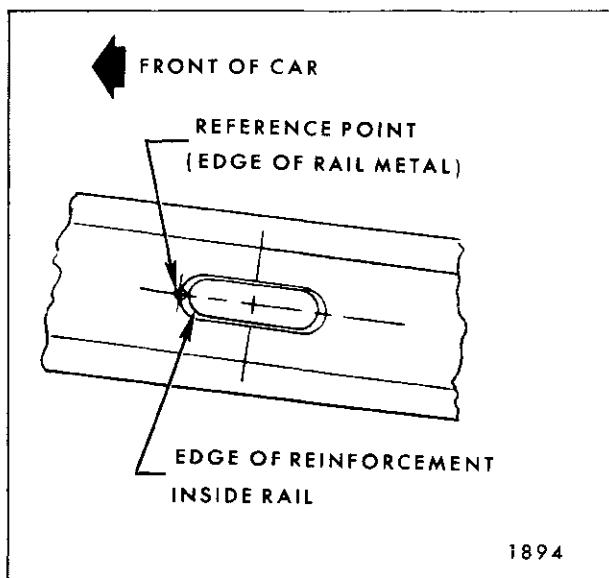


Fig. 3-3—Front Body Tie-Down Slot

H 31-7/8 Lower inner edge of steering gear reinforcement directly below center of steering gear front attaching bolt hole (Fig. 3-4) and lower inner edge of front compartment right side rail directly below center of steering gear idler arm support lower attaching bolt hole (Fig. 3-5).

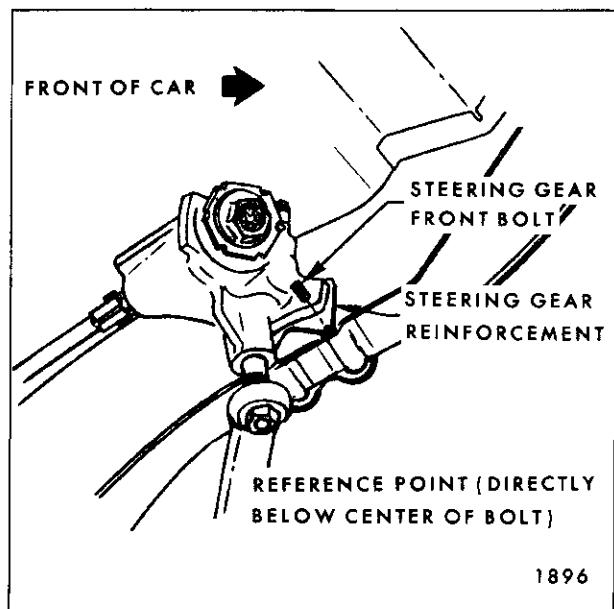


Fig. 3-4—Reference Point at Steering Gear Reinforcement

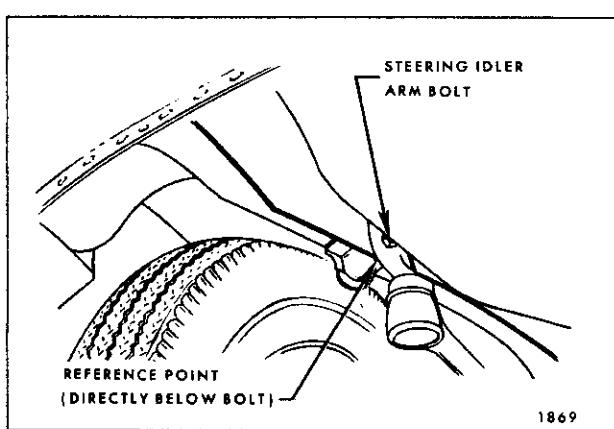


Fig. 3-5—Reference Point at Steering Idler Arm

Fig.	Ref.	Dimension	Location
	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. 3-3).
	P	40-3/16	Body front tie down slot (use front center of slot of side rail metal - See Fig. 3-3).
	Q	72	Body front tie down slot (use front center of slot of side rail metal - See Fig. 3-3) and 3/4" master gage hole in motor compartment side rail-to-rocker panel brace on opposite side of body.
I	R	31-15/16	Lower inner edge of steering gear reinforcement directly below center of steering gear front attaching bolt hole (Fig. 3-4) and front suspension front attaching bolt hole or bolt head on opposite side of body.
J	S	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. 3-5) and front suspension front attaching bolt hole or bolt head on opposite side of body.
K	T	27-9/16	Front suspension front attaching bolt hole or bolt head.
L	U	45-23/32	Front suspension front attaching bolt hole or bolt head and body front tie down slot on opposite side of body (use front center of slot of side rail metal - See Fig. 3-3).
M	V	96-1/8	Front suspension front attaching bolt hole or bolt head on opposite side of body and 3/4" master gage hole in motor compartment side rail-to-rocker panel brace.
N	W	89-9/16	Front suspension front attaching bolt hole or bolt head and 3/4" master gage hole in motor compartment side rail-to-rocker panel brace on same side of body.
		44	3/4" master gage hole in motor compartment side rail-to-rocker panel brace.

Fig. Ref.	Dimension	Location	Fig. Ref.	Dimension	Location
X	38-15/16	Outside edge of motor compartment side rail directly below transmission support upper attaching bolt.	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. 3-5).
		NOTE: This dimension is constant rearward to motor compartment rear cross rail.	e	12-13/32	Front suspension front attaching hole (front suspension removed).
Y	67-1/2	3/4" master gage 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.		11-13/16	Front suspension front attaching bolt (suspension installed).
Z	55-1/32	3/4" master gage 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.	f	10-1/4	Front suspension rear attaching hole (front suspension removed).
				9-3/4	Front suspension rear attaching bolt (suspension installed).
AA	41-5/32	Rear bumper lower attaching holes.	g	6	Lower surface of front compartment side rail at body front tie down slot (front center of slot). Fig. 3-3.
			h	6-13/16	3/4" master gage hole in motor compartment side rail-to-rocker panel brace.
			i	8-3/4	Rear suspension control arm lower outer attaching bolt hole (upper edge of hole).
			j	12-3/4	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.
a	15-3/16	Center of front bumper lower attaching bolt holes.	l	18	Lower surface of motor compartment side rail at a point 1 inch rearward of rear edge of motor compartment corner reinforcement.
b	12-9/32	Front edge of 3/4" diameter paint hole.	m	15-3/32	Lower surface of motor compartment side rail adjacent to front edge of motor compartment rear cross rail.
c	11-19/32	Lower inner edge of steering gear reinforcement directly below center of front attaching bolt hole (Fig. 3-4).			

Vertical Dimensions (Fig. 3-2)

Fig. Ref.	Dimension	Location			
a	15-3/16	Center of front bumper lower attaching bolt holes.	l	18	Lower surface of motor compartment side rail at a point 1 inch rearward of rear edge of motor compartment corner reinforcement.
b	12-9/32	Front edge of 3/4" diameter paint hole.	m	15-3/32	Lower surface of motor compartment side rail adjacent to front edge of motor compartment rear cross rail.
c	11-19/32	Lower inner edge of steering gear reinforcement directly below center of front attaching bolt hole (Fig. 3-4).			

UNDERBODY ALIGNMENT CAMARO AND FIREBIRD "F" BODIES CHEVY II AND ACADIAN "X" BODIES

GENERAL BODY CONSTRUCTION

The "F" and "X" series bodies are of unitized construction. A stub frame supports the front end

sheet metal, front suspension, engine and other mechanical components. Unitized construction demands that underbody components be properly

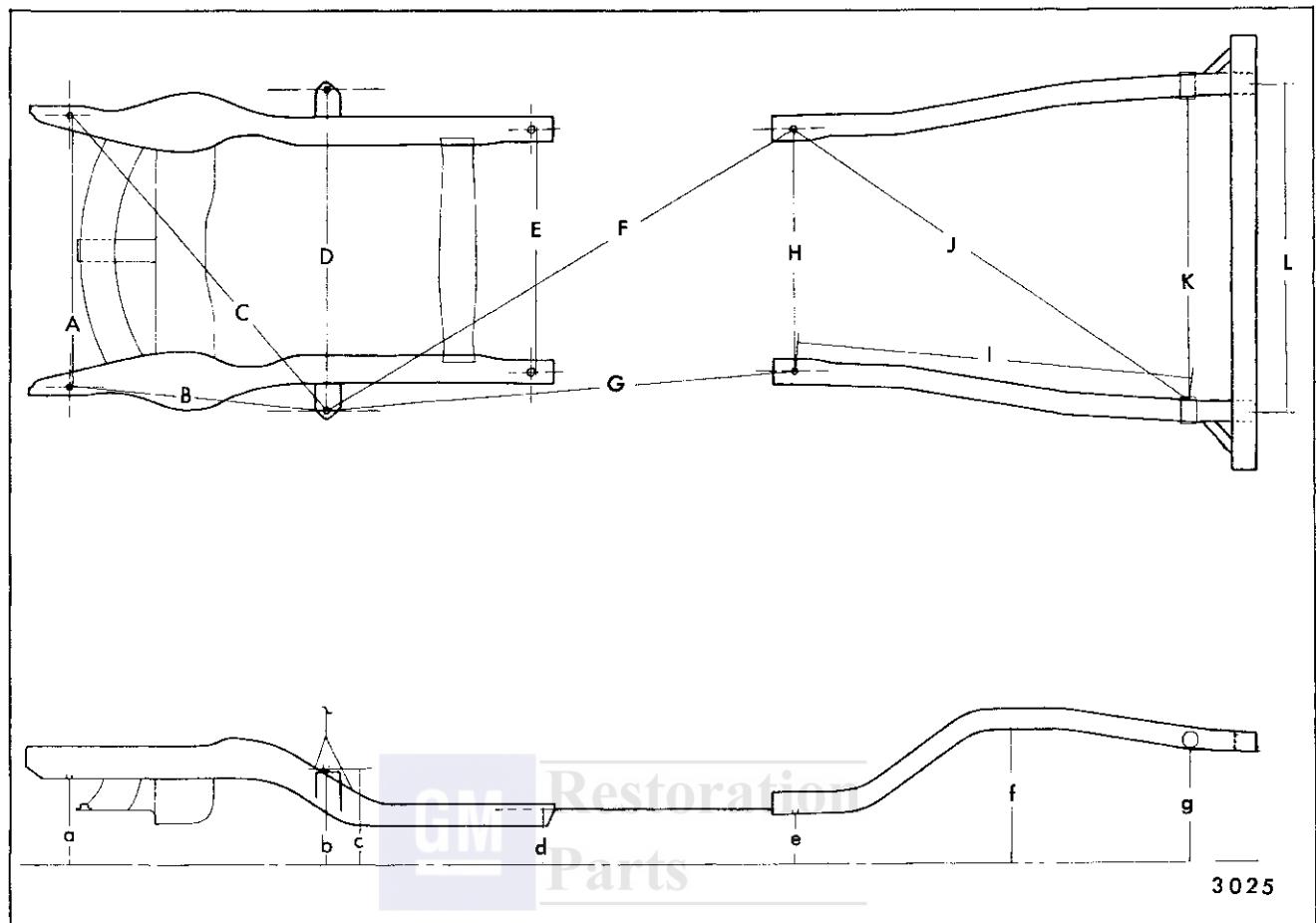


Fig. 3-6—Horizontal & Vertical Checking Dimensions (Chevy II & Acadian "X" Bodies)

aligned to assure correct suspension location. In the event of collision damage, it is important that the underbody be thoroughly checked and, if necessary, realigned in order to accurately establish proper dimensions.

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.

The tools and materials needed to check alignment and repair collision damage are described in the preceding Corvair Underbody Alignment section.

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.

Underbody Alignment Reference Point Dimensions—(Fig. 3-6 for Chevy II and Acadian "X" Bodies)

(Fig. 3-8 for Camaro & Firebird "F" Bodies)

Dimensions to gage holes are measured to dead center of the holes and flush to adjacent surface metal unless otherwise specified. The master gage holes, adjacent to the #1 body mount and in the side rails near the rear spring front attachment, are key locations and should be used wherever possible as a basis for checking other reference points.

Horizontal Dimensions— Chevy II & Acadian "X" Bodies (Fig. 3-6)

Fig.	Ref. Dimension	Location
A	38-1/4	Rear edge at centerline of 7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail.

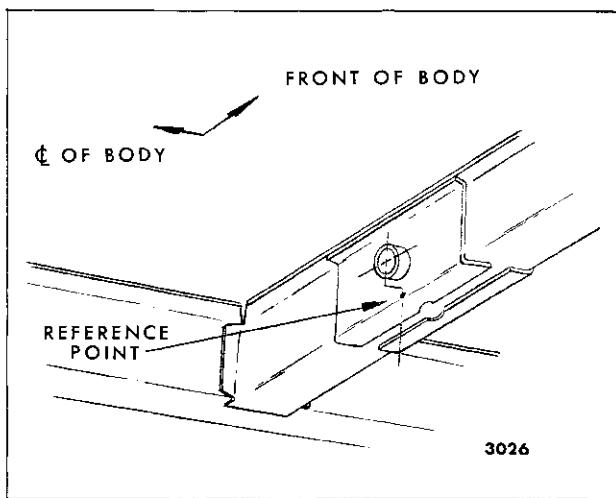


Fig. 3-7—Side Rail at Rear Spring Rear Shackle Bushing
(Chevy II & Acadian "X" Bodies)

Fig.	Ref. Dimension	Location
B	35-1/4	Rear edge at centerline of 7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail and center at master gage hole adjacent to #1 body mount in same side of body.
C	54-3/16	Rear edge at centerline of 7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail and center of master gage hole adjacent to #1 body mount in opposite side of body.
D	44-9/16	Center of master gage hole adjacent to #1 body mount.
E	33-3/4	Rear edge at centerline of #2 body mount bolt hole.
F	79-1/16	Center of master gage hole adjacent to #1 body mount and center of master gage hole in side rail on opposite side of body.
G	69	Center of master gage hole adjacent to #1 body mount and center of master gage hole in side rail on same side of body.
H	33-3/16	Center of master gage hole in side rail.
I	54-11/16	Center of master gage hole in side rail and a point at inboard

Fig.	Ref. Dimension	Location
J	66-3/8	Center of master gage hole in side rail and a point at inboard edge of opposite side rail at centerline of shackle bolt hole (See Fig. 3-7).
K	42-5/8	Inboard edge of side rail at centerline of shackle bolt hole (See Fig. 3-7).
L	41-15/16	Center of rear bumper lower attaching bolts.

Vertical Dimensions— Chevy II & Acadian "X" Bodies (Fig. 3-6)

Fig.	Ref. Dimension	Location
a	10-1/8	7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail.
b	10-15/16	Master gage hole adjacent to #1 body mount in frame.
c	11-13/16	Master gage hole adjacent to #1 body mount on body.
d	6-21/32	Floor pan adjacent to #2 body mount bolt cage nut.
e	6-7/16	Master gage hole in side rail.
f	12-7/32	Lower surface of side rail at kick up either side of rear axle housing.
g	10-5/16	Lower surface of side rail at centerline of shackle bolt hole.

Horizontal Dimensions— Camaro & Firebird "F" Bodies (Fig. 3-8)

Fig.	Ref. Dimension	Location
A	38-1/4	Rear edge at centerline of 7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail.
B	35-1/4	Rear edge at centerline of 7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail and

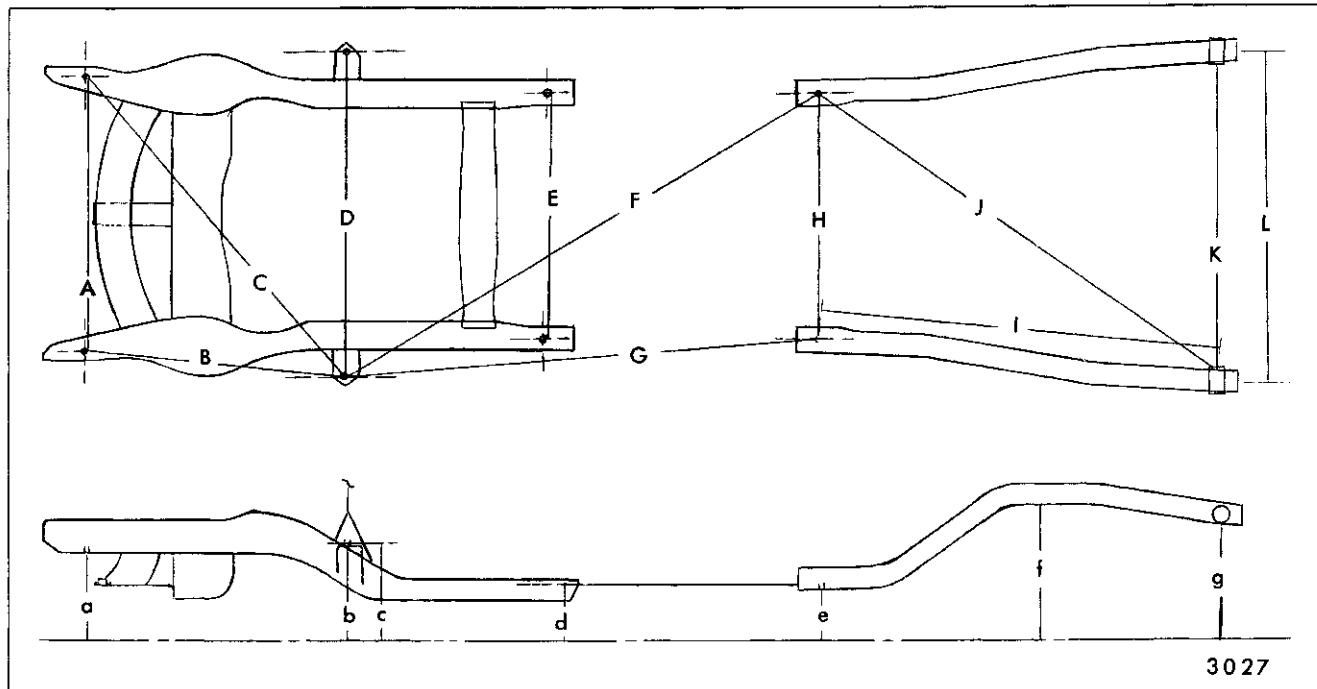


Fig. 3-8—Horizontal & Vertical Checking Dimensions (Camaro & Firebird "F" Bodies)

Fig.
Ref. Dimension

Location

center at master gage hole adjacent to #1 body mount in same side of body.

C 54-3/16 Rear edge at centerline of 7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail and center of master gage hole adjacent to #1 body mount in opposite side of body.

D 44-9/16 Center of master gage hole adjacent to #1 body mount.

E 33-3/4 Rear edge at centerline of #2 body mount bolt hole.

F 75-7/8 Center of master gage hole adjacent to #1 body mount and center of master gage hole in side rail on opposite side of body.

G 65-1/4 Center of master gage hole adjacent to #1 body mount and center of master gage hole in side rail on same side of body.

H 33-1/2 Center of master gage hole in side rail.

Fig.
Ref. Dimension

Location

I 55-3/16

Center of master gage hole in side rail and a point at inboard edge of same side rail at centerline of shackle bolt hole (See Fig. 3-8).

J 66-11/16

Center of master gage hole in side rail and a point at inboard edge of opposite side rail at centerline of shackle bolt hole (See Fig. 3-8).

K 42-7/8

Inboard edge of side rail at centerline of shackle bolt hole (See Fig. 3-8).

L 44-7/8

Center of rear bumper lower attaching bolts.

Vertical Dimensions—

Camaro & Firebird "F" Bodies (Fig. 3-8)

Fig.
Ref. Dimension

Location

a 11-15/16

7/8" hole in lower surface of rail approximately 2" rearward of lower front edge of rail.

b 13

Master gage hole adjacent to #1 body mount in frame.

Fig.	Ref.	Dimension	Location	Fig.	Ref.	Dimension	Location
c	13-13/16		Master gage hole adjacent to #1 body mount on body.	f	15-11/16		Lower surface of side rail at kick up either side of rear axle housing.
d	9-1/8		Floor pan adjacent to #2 body mount bolt cage nut.	g	11-3/4		Lower surface of side rail at centerline of shackle bolt hole.
e	6-15/16		Master gage hole in side rail.				



SECTION 4

STATIONARY GLASS

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ADHESIVE CAULKED GLASS ALL STYLES

DESCRIPTION

The stationary windows on all 1968 model passenger vehicles, excluding the Cadillac Limousine Landau option back window, are bonded to the body opening with a synthetic, self-curing, rubber adhesive caulking compound.

To replace a window installed with this material requires either partial or complete replacement of the caulking compound. Partial replacement of the material is referred to as the "short method". Complete material replacement is known as the "extended method".

The "short method" can be used in those situations where the original adhesive caulk material remaining on the window opening pinchweld flanges after glass removal can serve as a base for the new glass. This method would be applicable in cases of cracked windshields or the removal of windows that are still intact. In these situations, the amount of adhesive that is left in the window opening can be controlled during glass removal.

The "extended method" is required when the original adhesive caulking compound remaining in the window opening after glass removal cannot serve as a base for the replacement glass. Examples of this latter situation would be in cases requiring metal work or paint refinishing in the opening, or where there is a considerable loss of adhesion between the original caulk and the body metal. In these cases, the original caulk is removed and replaced with fresh material during window installation.

Adhesive Caulking Kit #4226000 contains some of the materials needed to remove and replace an adhesive caulked glass. This kit can be obtained through regular service parts channels. Other materials that may be required are available as

service parts or can be readily obtained through local supply shops.

The components of adhesive caulking kit #4226000 are as follows:

- a. One tube of Adhesive Caulking material.
- b. One dispensing nozzle (cut for "short method" but can be notched-out for "extended method").
- c. Steel music wire (.020 diameter).
- d. Adhesive Caulking Primer (for priming original adhesive material in window opening).

Additional materials required:

- a. Caulking gun - standard household cartridge type reworked as follows:
 1. Widen end-slot to accept dispensing end of adhesive caulking tube.
 2. Reduce diameter of plunger disc on rod so that disc can enter large end of adhesive caulking tube.
- b. Two pieces of wood for wire handles.
- c. Black weatherstrip adhesive.
- d. Paint Finish Primer - available as service part #4226001 or equivalent - use only with "extended method".
- e. Rubber glass spacers - for "extended method".

NOTE: When the glass is originally installed, a rubber sealing strip "dam" is used around the edges of the window to prevent excessive squeeze-out of the adhesive caulk material. Service installations do not utilize this part. By applying masking

tape around the inner perimeter of the glass prior to window installation, excess squeeze-out material is picked-up and removed with the tape.

ADHESIVE CAULKED WINDOW REMOVAL

The window removal procedure is the same for both the "short" and "extended" installation methods with one exception. If the "short method" installation is to be used, more care must be used during removal to make certain that an even, uniform bead of adhesive caulk material remains on the window opening to serve as a base for the replacement glass. Also, make certain that the glass lower support spacers are not disturbed.

1. Place protective coverings around area where glass is being removed.
2. Remove all trim and hardware immediately adjacent to glass being removed. Depending on the area of the body, this could involve window reveal moldings, garnish moldings or finishing lace, rear view mirror support, windshield wiper arms and front fender mounted antenna.

NOTE: Reveal molding removal is covered in the Exterior Molding Section 17.

3. Secure one end of steel music wire to a piece of wood that can serve as a handle (Fig. 4-1). Using long nose pliers, insert other end of wire through caulking material at edge of glass; then, secure that end of wire to another wood handle.
4. With the aid of a helper, carefully cut (pull wire) through caulking material around entire perimeter of window (Figure 4-1). If "short method" will be used to install new glass, hold wire close to inside plane of glass to prevent cutting an excessive amount of adhesive caulk-

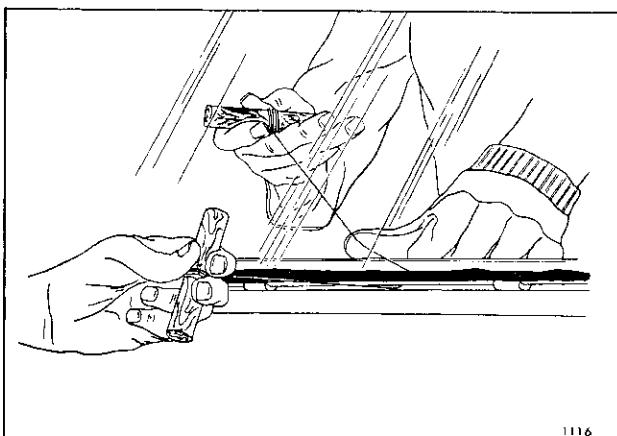


Fig. 4-1—Cutting Adhesive Material

ing from the window opening. Keep tension on wire throughout cutting operation to prevent wire from kinking and breaking.

NOTE: Optional methods of glass removal which require only one man are: (1) the electric hot-knife (Fig. 4-2) and (2) pulling the cutting wire through upper and lower edges of glass simultaneously (Fig. 4-3). For the latter optional method, insert one end of wire through caulking material at inner upper edge of glass and the other end of wire through caulking material at inner lower edge. Attach handles to both wire ends outside of body.

5. If the glass being removed is to be reinstalled, place it on a protected bench or holding fixture; remove old caulking material using a razor blade or sharp scraper. Any remaining traces of caulk can be removed with a toluene or thinner dampened cloth.

IMPORTANT: DO NOT use a petroleum base solvent such as kerosene or gasoline. The presence of oil will prevent adhesion of new caulking material.

ADHESIVE CAULKED GLASS INSTALLATION—"Short" Method

The "short" method of glass installation can be used if the original adhesive caulk material remaining on the window opening flanges after glass removal can serve as a base for the replacement glass. If there is substantial loss of adhesion between adhesive caulk material and body metal, or the window opening must be reworked or refinished,

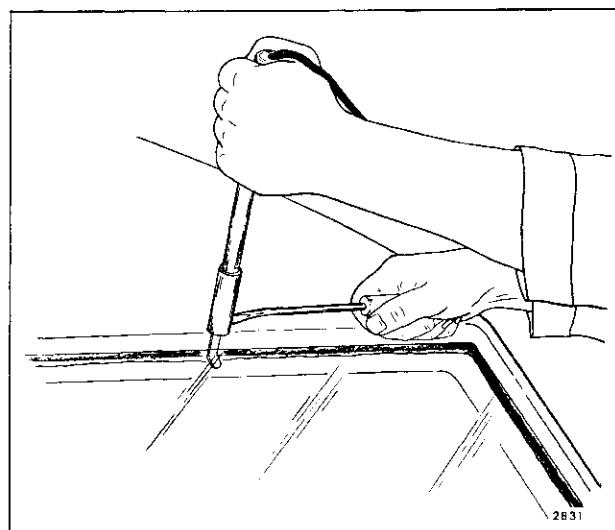


Fig. 4-2—Adhesive Caulked Glass Removal - Electric Hot-Knife Method

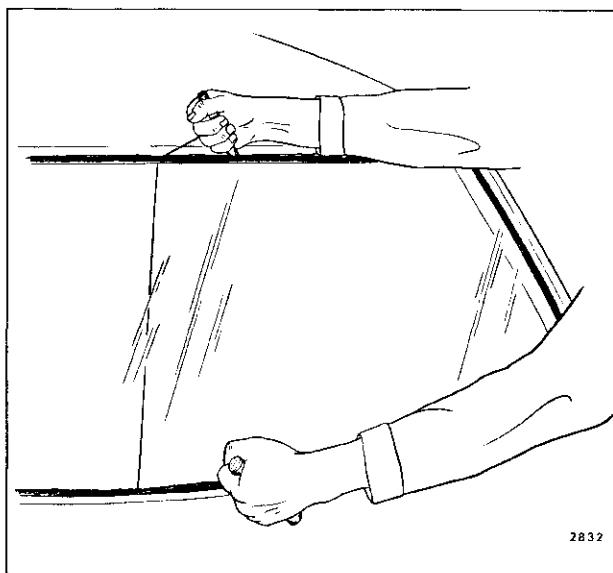


Fig. 4-3—Adhesive Caulked Glass Removal - One-Man Wire Method

the "extended" method of replacement will be required.

Installation—"Short" Method

1. Inspect reveal molding retaining clips. Replace or re-shape clips which are bent away from body metal $1/32"$ or more. Where clips are retained by screws, make certain screws are sealed against waterleaks.
2. Position glass in the window opening. If new glass is being installed, check relationship of glass to adhesive caulk material on pinch-weld flange. Gaps in excess of $1/8"$ must be corrected by shimming or by applying more adhesive caulk material than specified in Step 7.
3. When glass is in proper position in the opening, apply a piece of masking tape over each side edge of glass and adjacent body pillar (Fig. 4-4). Slit tape vertically at edge of glass. During installation, tape on glass can be aligned with tape on body to guide window into desired position.
4. Using a clean lint-free cloth liberally dampened with Adhesive Caulking Primer (furnished in Kit #4226000) or equivalent, 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.

CAUTION: Use care so as not to spill or drip Primer on painted or trimmed surfaces.

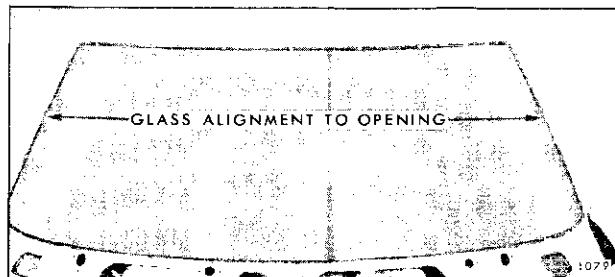


Fig. 4-4—Typical Glass Alignment

5. 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 clean-up after installation.
6. Wipe surface of glass to which adhesive caulking material will be applied (around edge of inside surface) with a clean, water-dampened cloth. Dry glass with a clean cloth.
7. Apply a smooth continuous bead of adhesive caulking material around entire inside edge of glass as shown in Figure 4-5. Material should be $1/8"$ to $3/16"$ in diameter.

IMPORTANT: Due to the fast curing characteristics of adhesive caulking material, glass installation should be completed within 15 minutes from start of application of material to glass.

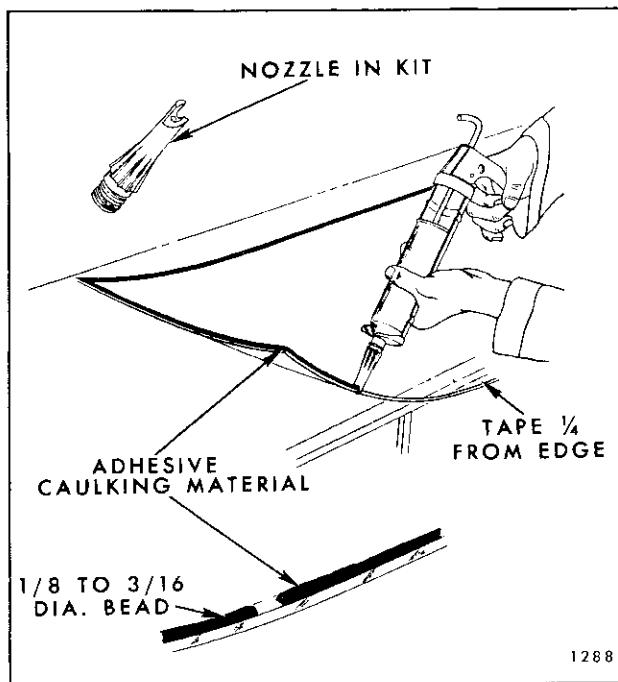


Fig. 4-5—Adhesive Material Application - Short Method

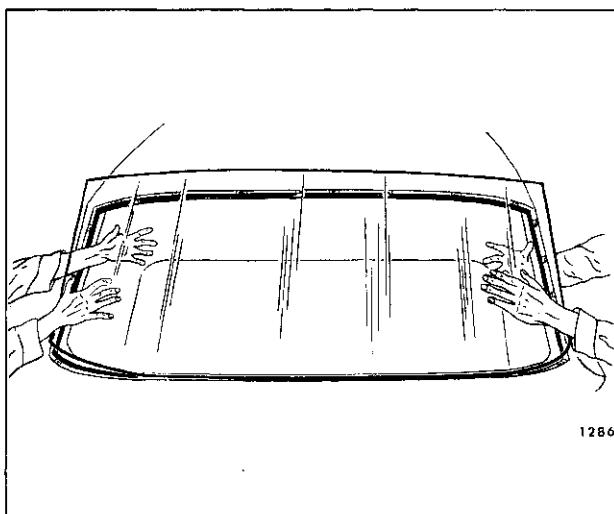


Fig. 4-6—Windshield Installation

8. With the aid of a helper, lift glass into window opening. On back window installations it will be necessary to use suction cups to position glass in opening. On windows with narrow body pillars at the side edges of glass, the glass can be positioned without the aid of carrying devices. As shown in Figure 4-6, carry glass with one hand on inside of glass and one hand on outside. At the window opening, put glass in horizontal position. While one man holds glass in this position, the second man can reach one arm around the body pillar and support the glass while the other man assumes the same position.
9. Using the tape guides applied in Step 3, carefully position glass in window opening making certain glass is properly centered and positioned on lower supports (metal or rubber).
10. Press glass firmly to "wet-out" and "set" caulking material. Use care to avoid excessive squeeze-out which would cause an appearance problem.
11. Watertest car immediately using a cold water spray. Do not direct a hard stream of water at fresh adhesive material. If any leaks are encountered, paddle-in extra adhesive material at leak point using a stick or flat-blade tool.
12. Install window reveal moldings. Remove clean-up masking tape from inner surface of glass and install remaining parts.

ADHESIVE CAULKED GLASS INSTALLATION—"Extended" Method

If the adhesive caulk material remaining in the

window opening after window removal is damaged, or must be removed to permit refinishing of the window opening, or has insufficient adhesion to body metal to serve as a base for the replacement glass, it will be necessary to use the "extended" installation method.

Installation—"Extended" Method

1. On styles using screw-retained lower glass supports, remove supports.
2. Using a sharp scraper or chisel, remove major portion of old caulking material from window opening flanges around entire opening. It is not necessary that all traces of the material be removed, but there should not be any mounds or loose pieces left.
3. Inspect reveal molding retaining clips. If upper end of a clip is bent away from body metal more than $1/32"$, replace or reform clip. Tighten all loose clip screws and reseal as required.
4. Using black weatherstrip adhesive or adhesive caulking material, cement flat rubber spacers #4459429 or equivalent to window opening pinchweld flanges. As shown in Figure 4-7, location "B", spacers should be positioned to provide equal support around entire perimeter of glass.

NOTE: If weatherstrip adhesive is used, apply sufficient material to obtain a watertight seal beneath spacer, however, do not allow excessive squeeze-out. Weatherstrip adhesive is not compatible with the replacement adhesive caulk material and waterleaks may develop

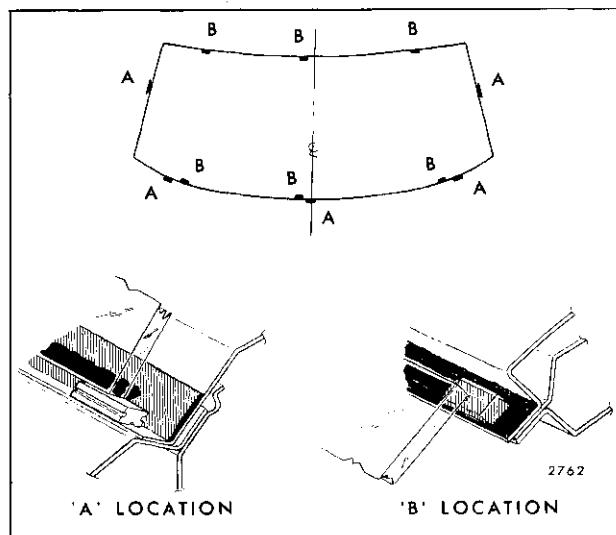


Fig. 4-7—Gloss Spacer Installation

at locations where these two materials are used together to form a seal.

5. Using black weatherstrip adhesive or adhesive caulking material, cement rectangular spacers #4871330 (.34 x .44 x 1.0) or equivalent to window opening rabbet to support lower edge of glass and restrict lateral movement. Figure 4-7, location "A", illustrates rectangular spacers positioned in a typical windshield installation. On smaller glasses, only 2 rectangular support spacers are required across the bottom.
6. With the aid of a helper, lift glass into window opening. On back window installations it will be necessary to use suction cups to position glass in opening. On windows with narrow body pillars at the sides, the glass can be positioned without the aid of carrying devices as described in step 7 and shown in Figure 4-6.
7. With one hand on each side of glass, put window in vertical position and support it on lower center glass support spacer. While one man holds glass in this position, the second man can reach one arm around the body pillar and support the glass while the other man assumes the same position.
8. With glass positioned in the opening, 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 thinner (#4404196 or equivalent) and thicker (#4534314 or equivalent) rectangular spacers are available as service parts.
9. 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.
 - c. Change glasses - another glass may fit opening better.
 - d. Rework pinchweld flange.
10. After final adjustments have been made and glass is in proper position, apply pieces of

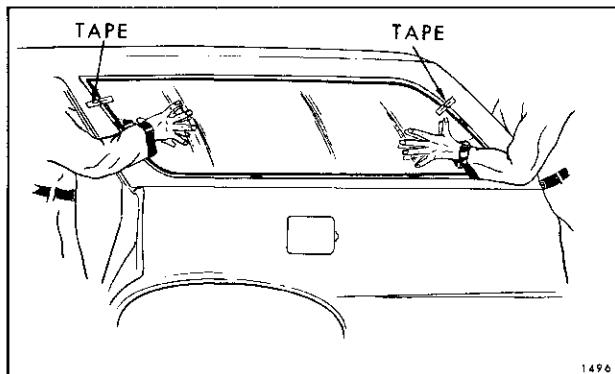


Fig. 4-8—Stationary Quarter Window Installation

masking tape over edges of glass and body (Fig. 4-4 or 4-8, depending on window being installed). Tape on glass can be aligned with tape on body to guide glass into opening during installation.

11. Remove glass from opening and apply one-inch masking tape around inner surface of glass $1/4"$ inboard from outer edge (Fig. 4-9). On windshield installations, apply tape to top and sides only. Do not use tape across bottom. Removal of tape after glass installation will aid in clean-up and give a smooth, even edge to adhesive material.
12. 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 Finish Primer #4226001 or equivalent. Paint Finish Primer is available as a service part.

CAUTION: Use extreme care to avoid spilling either primer solution on trim or painted surfaces. Wipe any spills immediately as primers will etch trim or painted surfaces on prolonged contact.
13. Nozzle furnished in kit is designed for "short" method. For the "extended" method, enlarge nozzle opening by removing material within score lines as indicated in Figure 4-9. Do not notch nozzle beyond score lines.
14. 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 with a clean cloth.

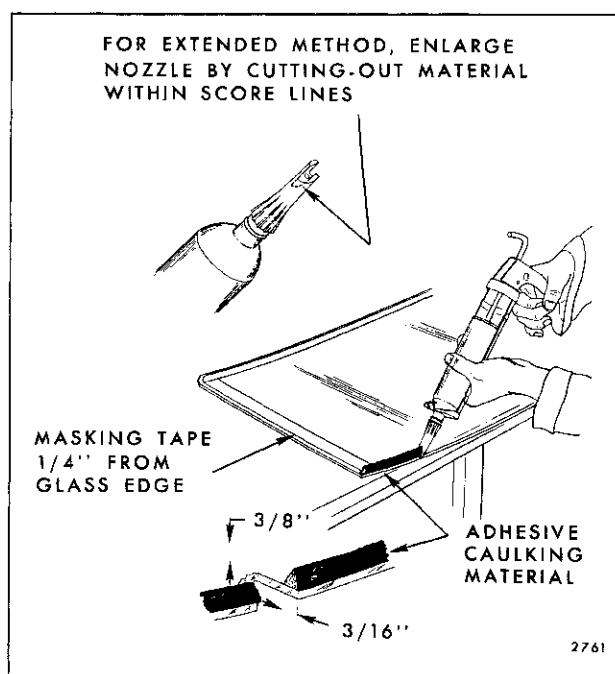


Fig. 4-9—Adhesive Material Application - Extended Method

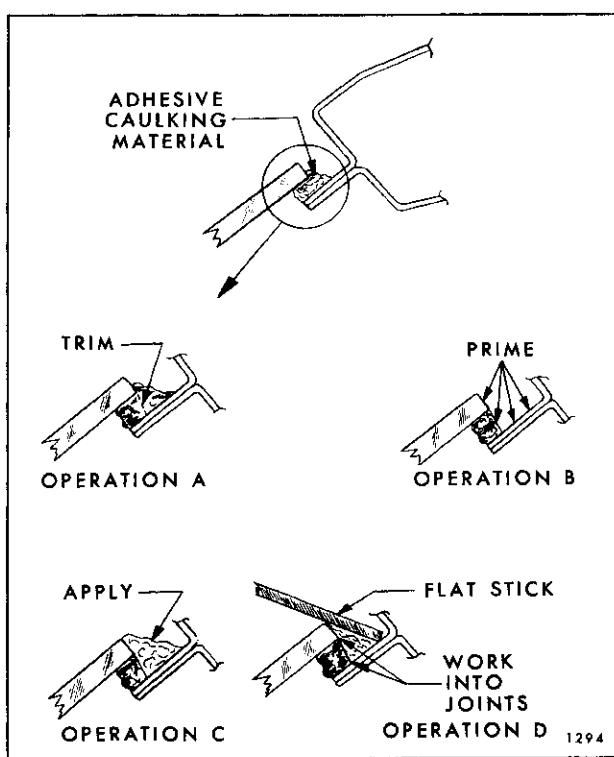


Fig. 4-10—Adhesive Glass Waterleak Correction

15. With caulking gun and nozzle positioned as illustrated in Figure 4-9, carefully apply a smooth continuous bead of caulking material $\frac{3}{8}$ " high by $\frac{3}{16}$ " wide at base completely around inside edge of glass.

NOTE: Adhesive caulk material begins to cure after fifteen minute exposure to air; therefore, install glass in the opening as quickly as possible.

16. Install glass in opening as described in steps 6 and 7. Apply light hand pressure to "wet-out" adhesive material and obtain a bond to body opening.

17. Watertest immediately using a cold water spray. Do not direct stream of water at fresh adhesive material. Allow water to spill over edges of glass. If waterleak is encountered, use a flat-blade tool to work-in additional caulking material at leak point.

18. Install window reveal moldings. Then, carefully remove masking tape from around inner periphery of window. Pull tape toward center of glass to give a clean-cut edge to adhesive caulk, and to prevent excess squeeze-out material on tape from creating an additional clean-up problem.

19. Install all other previously removed parts and clean-up.

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. In some cases, it may become necessary to remove garnish moldings or finishing lace to locate the source of a 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. 4-10) 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. 4-10).
6. Apply adhesive caulking material, as shown in Operation "C" (Fig. 4-10), 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. 4-10).
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.



SECTION 5 FRONT END

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BODY VENTILATION

DESCRIPTION—All Styles Except 16647, 26657, "E" & "F" Body Styles

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

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

DESCRIPTION—16647, 26657, "E & F" Body Styles

The 16647, 26657, "E & F" Body Styles incorporate air exhaust outlets in the body ventilation system.

Figure 5-1 is a composite drawing of the air flow patterns on all the above styles. The actual exhaust ports used vary from style to style.

The exhausting air on the 16647, 26657, "E & F" body styles is directed under the rear seat and into the rear compartment through provisions in the

rear seat back foundation. The air leaves the rear compartment through exhaust outlets in the body lock pillars (Fig. 5-1).

On the Oldsmobile and Buick "E" styles air coming up from behind the rear seat back flows into the rear plenum chamber and out the exhaust grille located behind the rear window.

SHROUD SIDE FINISHING PANEL— "B-C-E" Styles Except 26657

Removal and Installation

1. Remove sill plate.
2. Remove finishing panel to hinge pillar attaching screw (Fig. 5-2).
3. Remove screws securing the shroud side finishing panel to the air outlet duct assembly (Fig. 5-2).
4. Slide finishing panel rearward disengaging the panel from the front body hinge pillar pinch-weld flange and from under the windshield side garnish molding; remove panel.
5. To install, reverse removal procedure.

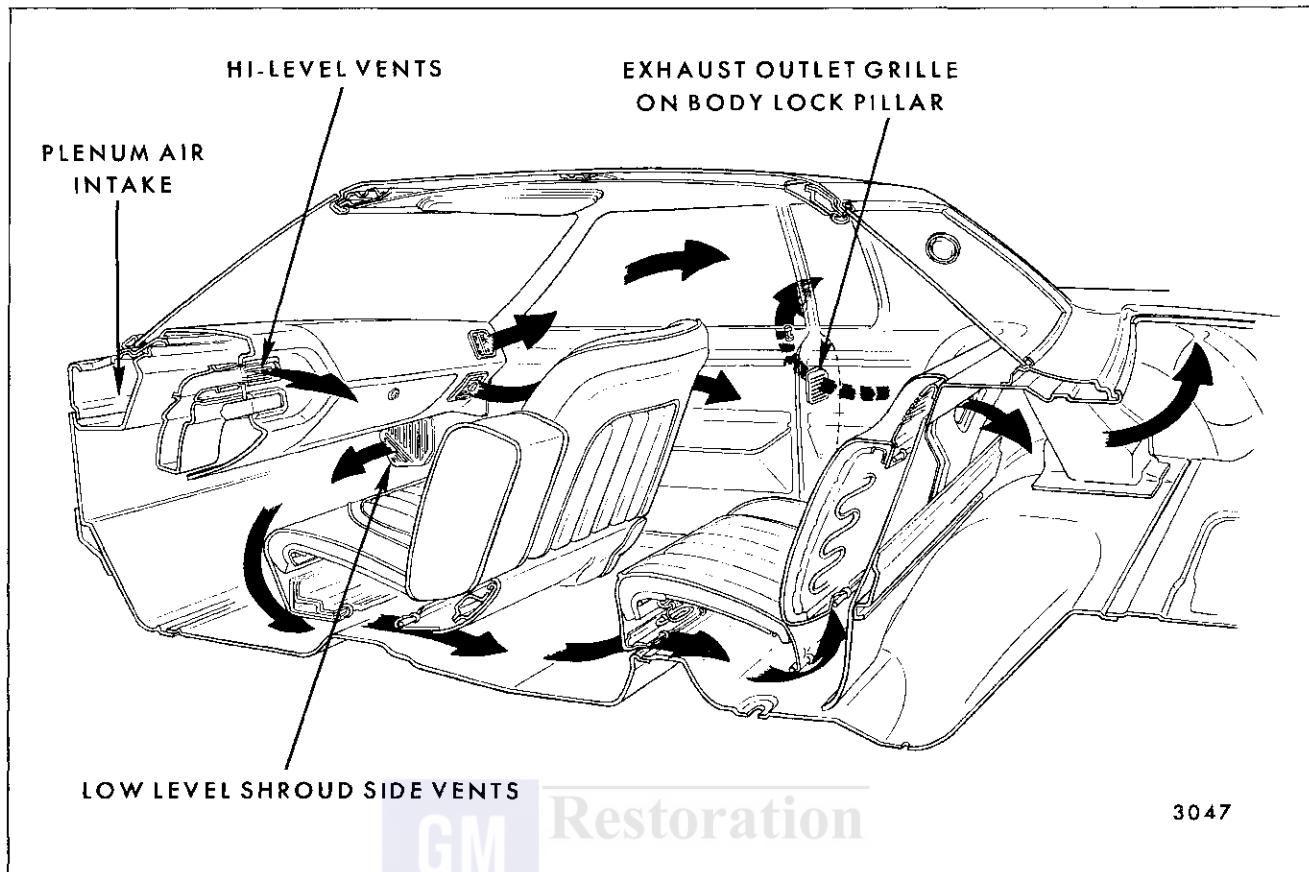


Fig. 5-1—Body Ventilation Flow Patterns — Cadillac "E" Body Shown,
Pontiac 26657, Chevrolet "F", and 16647 Styles Similar

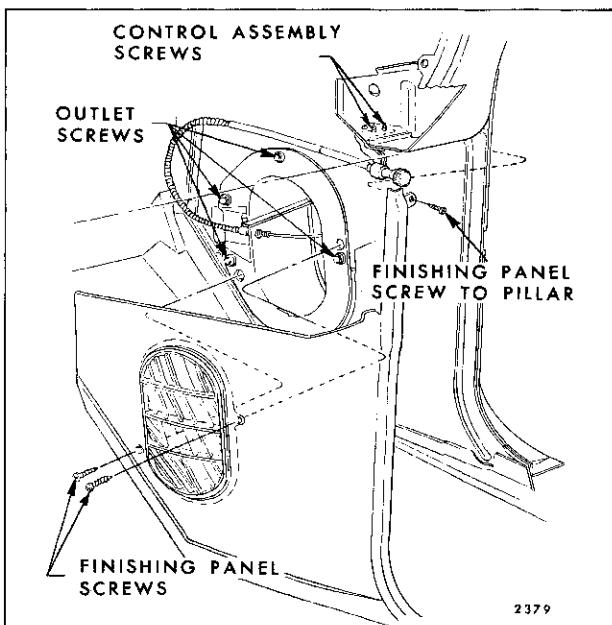


Fig. 5-2—Shroud Side Finishing Panel —
"B, C & E" Except 26657

SHROUD SIDE AIR OUTLET DUCT ASSEMBLY—"B-C-E" Body Styles Except 26657

Removal and Installation

1. Remove shroud side finishing panel.
2. Loosen cable attaching screw and clip and disengage control cable from outlet door (Fig. 5-3).
3. Remove screws securing outlet duct assembly to shroud ventilator duct side panel (Fig. 5-2) and remove assembly.
4. To install, apply a bead of medium-bodied sealer around the entire inner flange of outlet assembly (Fig. 5-4) and reverse removal procedure.

SHROUD SIDE FINISHING PANEL AND AIR OUTLET DUCT ASSEMBLY—"A-F-X-Z" & 26657 Styles

Removal and Installation

1. On all styles, remove sill plate.

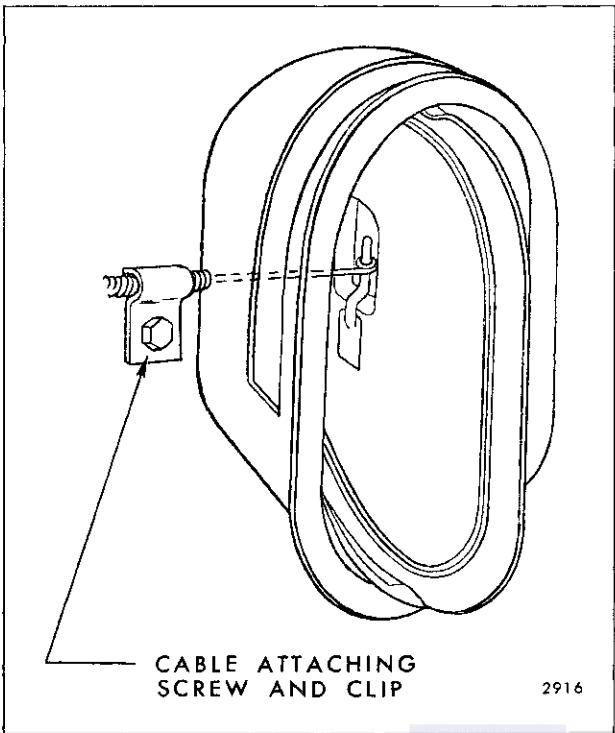


Fig. 5-3—Shroud Side Air Outlet Duct Assembly —
"B, C & E" Except 26657 Body Styles

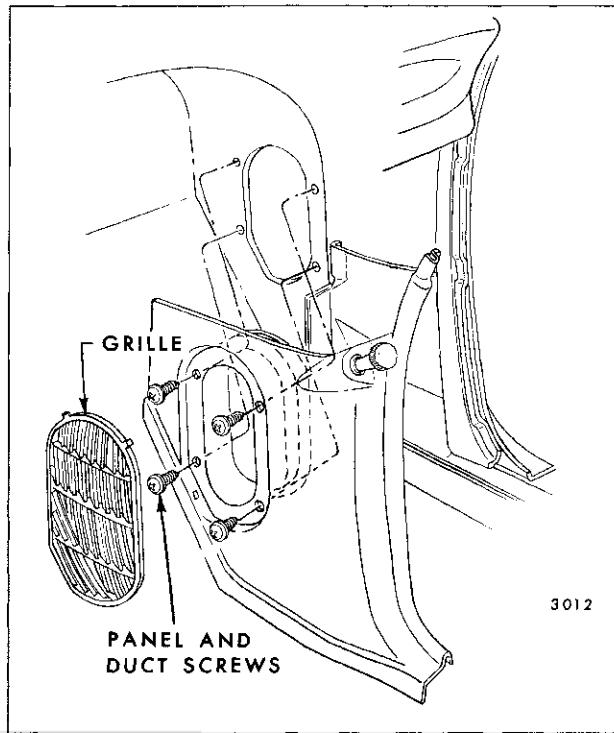


Fig. 5-5—Shroud Side Finishing Panel and Air Outlet
Duct Assembly "A, F, X & Z" and 26657 Styles

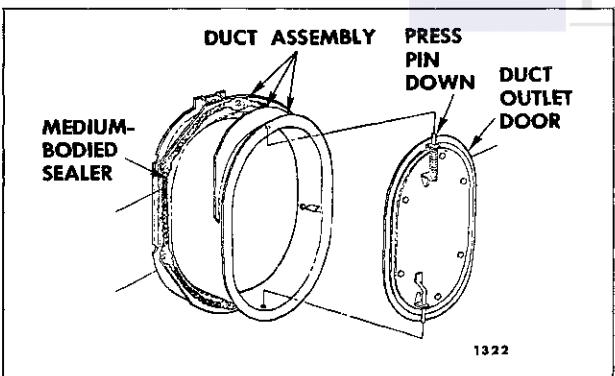


Fig. 5-4—Shroud Side Air Outlet Duct
Assembly and Sealing

2. On "A, Z" and 26657 Styles pry the grille from the finishing panel with a flat-bladed tool (screwdriver or equivalent) as shown in Figure 5-5.
3. On all styles, remove screws attaching finishing panel and duct assembly to the shroud ventilator duct side panel (Fig. 5-5).
4. Slide finishing panel rearward disengaging panel from front body hinge pillar pinchweld flange and remove assembly.

5. To install, apply a generous bead of medium-bodied sealer to flange of finishing panel and duct assembly (Fig. 5-6) and reverse removal procedure.

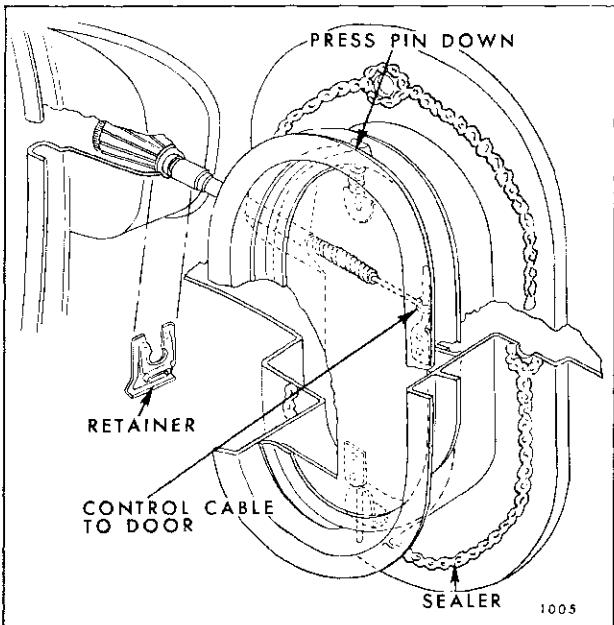


Fig. 5-6—Shroud Side Finishing Panel and Air Outlet —
"A, F, X & Z" and 26657 Styles

NOTE: On "F" styles, when installing the right side finishing panel and air outlet duct assembly, insert the upper portion of the valve housing through the opening in the body at approximately a 45 degree angle and push the lower portion into place.

SHROUD SIDE AIR OUTLET DUCT DOOR—"B-C-E" Styles, Except 26657

Removal and Installation

1. Remove shroud side air outlet duct assembly.
2. Depress upper pivot pin spring (Fig. 5-4) in door and remove door assembly.

NOTE: On "E" styles remove door retainer from slot in outlet before removing door.

3. To install, reverse removal procedure.

SHROUD SIDE AIR OUTLET DUCT DOOR—"A-F-X-Z & 26657" Styles

Removal and Installation

1. Remove shroud side finishing panel and air outlet duct assembly.
2. Disconnect control cable from door (Fig. 5-6).

NOTE: On "F & X" styles, remove the push-on nut from the pin on door before disconnecting.

3. Depress upper pivot pin (Fig. 5-6) and remove door assembly.
4. To install, reverse removal procedure.

SHROUD SIDE AIR OUTLET DUCT DOOR CONTROL CABLE—"B-C-E" Styles, Except 26657

Removal and Installation

1. Remove shroud side finishing panel.
2. Loosen attaching screw securing cable to shroud side air outlet duct assembly (Fig. 5-3).
3. Disconnect cable from door.
4. Remove screws securing control assembly to instrument panel (Fig. 5-2) and remove control assembly.
5. To install, reverse removal procedure.

SHROUD AIR OUTLET DUCT DOOR CONTROL CABLE—"A-F-X-Z Styles & 26657"

Removal and Installation

1. Remove shroud side finishing panel and air outlet duct assembly.
 2. Disconnect cable from door.
- NOTE:** On "F & X" Styles, remove the push-on nut from the pin on door before disconnecting.
3. Remove retaining clip securing control assembly to finishing panel (Fig. 5-6) and remove control assembly.
 4. To install, reverse removal procedure.

INSTRUMENT PANEL

INSTRUMENT PANEL COMPARTMENT DOOR—Buick "A-B-C&E" Styles

Removal and Installation

The instrument panel compartment door hinges and stops are either an integral part of the door or are attached by screws depending upon the series.

To remove the door assembly, remove attaching screws securing the hinge to the instrument panel (Fig. 5-7) lift door, and rotate counter-clockwise to remove stop from opening in the instrument panel. To install, reverse removal procedure.

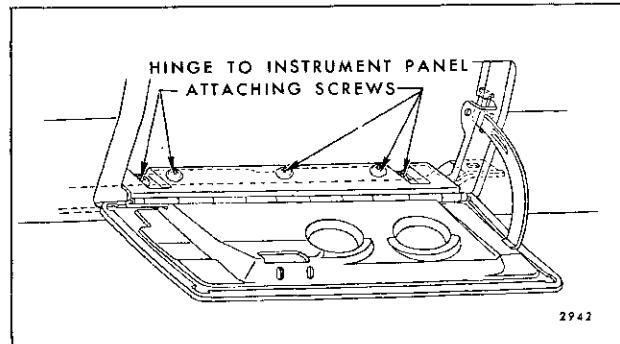


Fig. 5-7—Instrument Panel Compartment Door—"A" Styles

Adjustments

1. On "B, C, & E" body styles, to move the door up or down, loosen the door-to-hinge screws and position door as desired (Fig. 5-8).
2. On all styles, to move the door in or out, loosen hinge to instrument panel screws and position door as desired (Figs. 5-7 and 5-8).
3. On all styles, to move the door right or left, loosen hinge to instrument panel screws and position door as desired (Figs. 5-7 and 5-8).
4. On all styles, strikers can be adjusted on the door by loosening the attaching screws and positioning the striker as desired (Fig. 5-8).

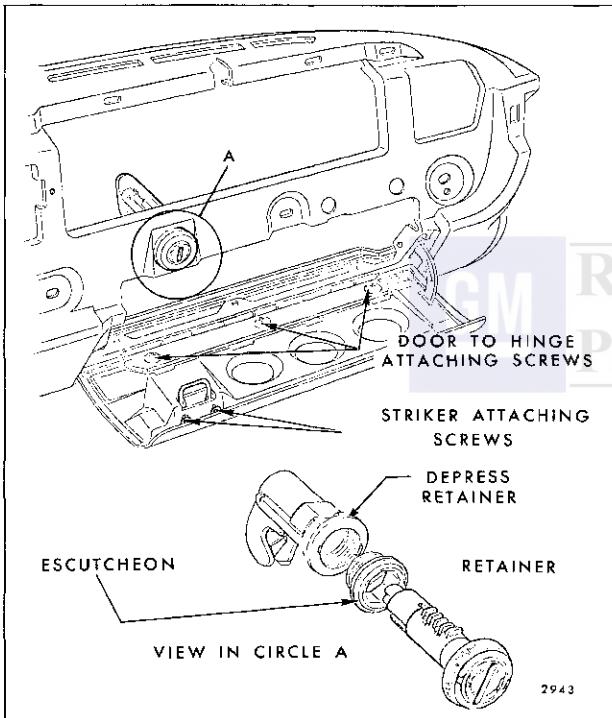


Fig. 5-8—Instrument Panel Compartment Door and Lock - "B-C" Styles

INSTRUMENT PANEL COMPARTMENT DOOR LOCK—Buick "A-B-C&E" Body Styles

Removal and Installation

1. With door open set fork bolt in closed position.
2. With key out, depress retainer thru access hole on side of lock casing (Fig. 5-8).
3. While retainer is depressed insert key into lock and remove lock cylinder.

4. Remove octagonal-head escutcheon (Fig. 5-8).

5. Remove lock cylinder casing.
6. To install lock cylinder casing, replace octagonal-head escutcheon.
7. To install the lock cylinder, hold fork bolt in closed position and insert lock cylinder into the lock casing.

NOTE: In order to obtain clearance for the lock cylinder to enter the casing, the tumblers and retainer must be in the down position. This is accomplished by inserting the key into the cylinder while depressing the retainer.

8. Actuate the lock.
9. Holding cylinder in position, remove key.

NOTE: Refer to the General Information Index for lock cylinder coding.

INSTRUMENT PANEL COVERS—All Chevrolet Styles

The instrument panel cover is secured to the instrument panel by a combination of screws, stud

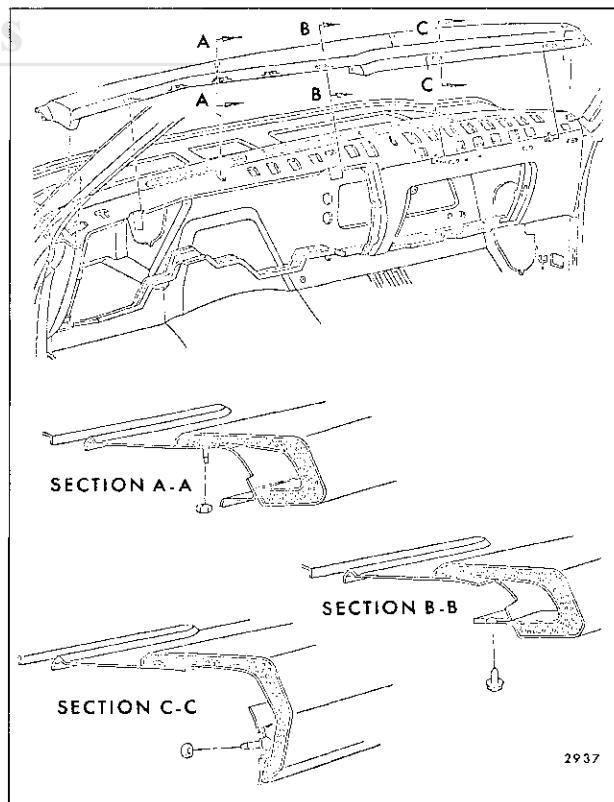


Fig. 5-9—Instrument Panel Cover - Chevrolet "A" Styles

and clip assemblies or stud and nut assemblies. The cover attachment locations are shown in illustrations, Figures 5-9, 5-10, 5-11, 5-12, and 5-13.

NOTE: Instrument panel covers for all other divisions are covered in the chassis service manuals.

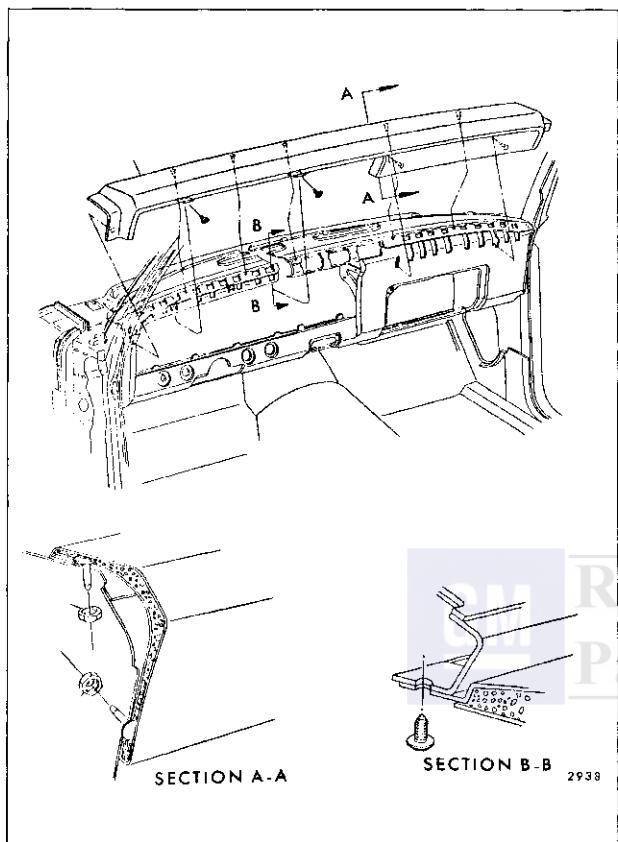


Fig. 5-10—Instrument Panel Cover Chevrolet "B" Styles

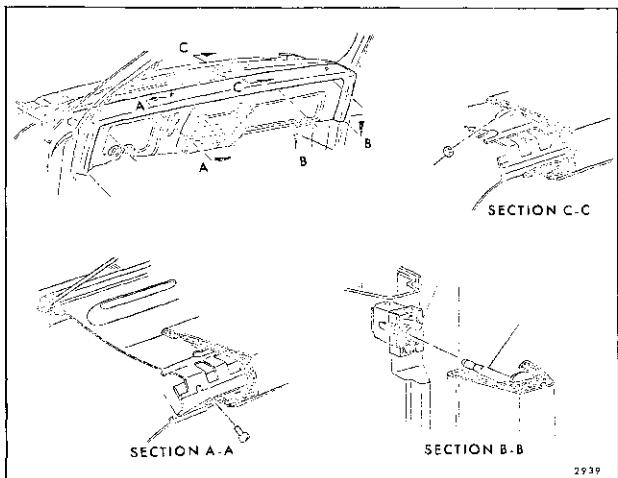


Fig. 5-11—Instrument Panel Cover - Chevrolet "F" Styles

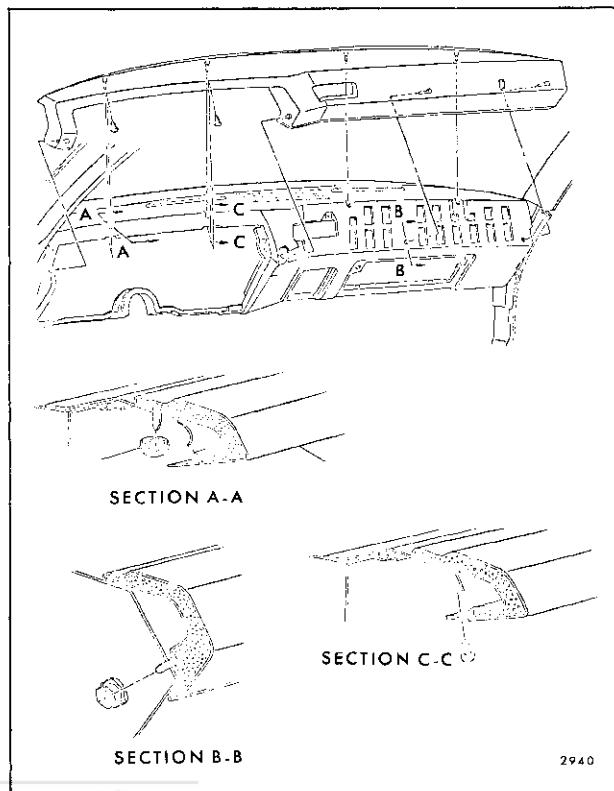


Fig. 5-12—Instrument Panel Cover - Chevrolet "X" Styles

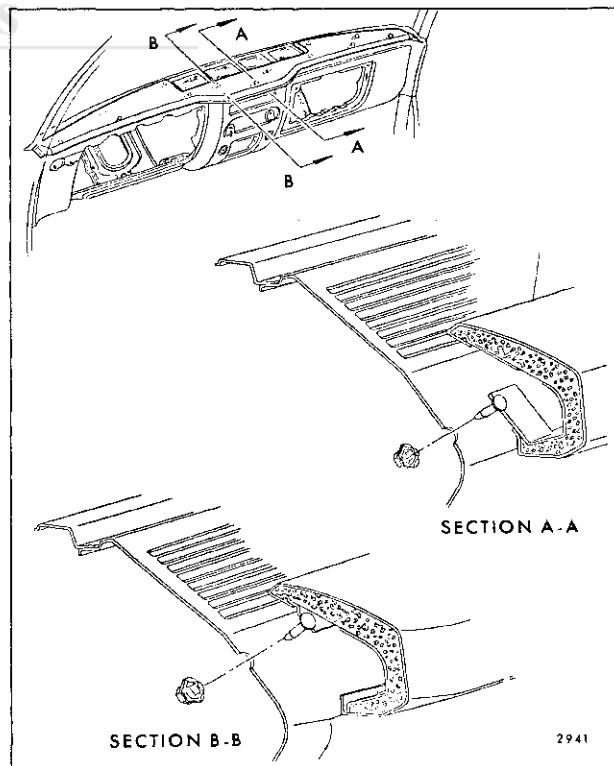


Fig. 5-13—Instrument Panel Cover - Chevrolet "Z" Styles

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 consists of a side action snap-bolt mechanism equipped with a safety latch and is secured 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 in a closed position.

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 a protective cover over surfaces adjacent to front compartment opening to prevent damage to painted areas.
2. Mark (pencil) location of hinge straps on inner panel.
3. With the aid of a helper, remove hinge to lid attaching bolts from each hinge and remove lid. (See Fig. 5-14.)

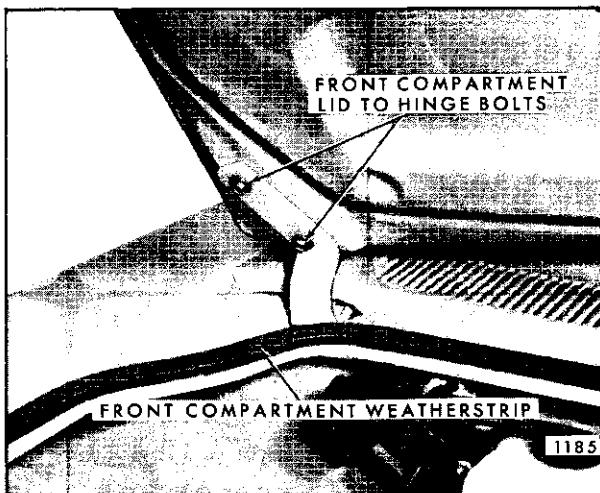


Fig. 5-14—Front Compartment Weatherstrip and Front Compartment Lid Attaching Bolts

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

Adjustments

1. Adjustments to the front compartment lid may be made forward or rearward and side to side in body opening by loosening hinge to upper shroud attaching bolts at each hinge. Adjust hinge as required and secure bolts (See Fig. 5-15).

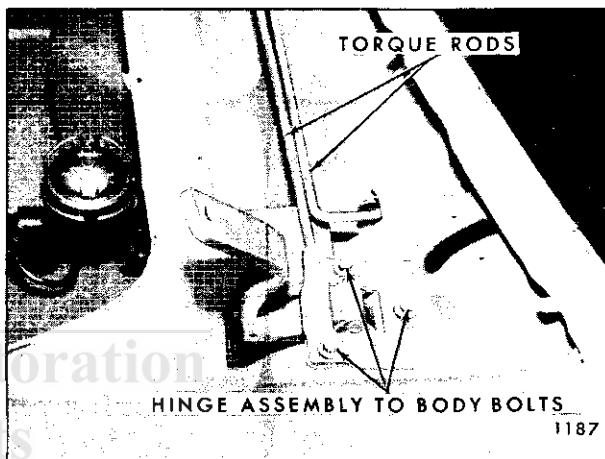


Fig. 5-15—Front Compartment Lid Hinge Removal

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. 5-14).
 - b. To lower rear edge of lid at hinge area, place shim between hinge strap and lid inner panel at front attaching bolt (Fig. 5-14).
3. Check front compartment lid lock to insure proper engagement with striker.

FRONT COMPARTMENT LID TORQUE RODS

Tool J 21928 is designed to remove, install or reset tension for one or both rods without removal of the front compartment lid. The tool has a different design on each end for use on either the right or left side of the 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. 5-16).
6. Install tool J 21928 (Fig. 5-16) 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.

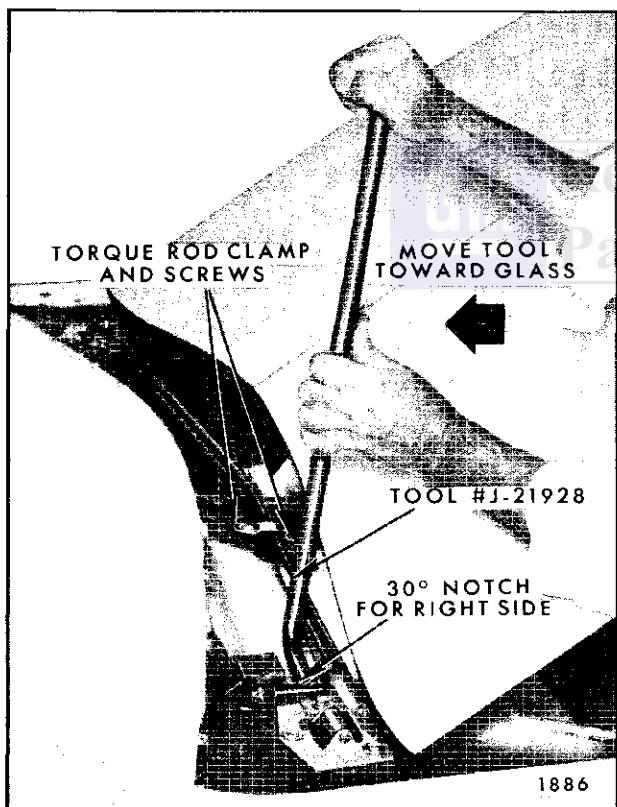


Fig. 5-16—Torque Rod Removal - Right Side

7. In like manner remove rod on left side of body (Fig. 5-17).

NOTE: It is necessary to remove torque rods prior to removal of front compartment lid hinge assemblies.

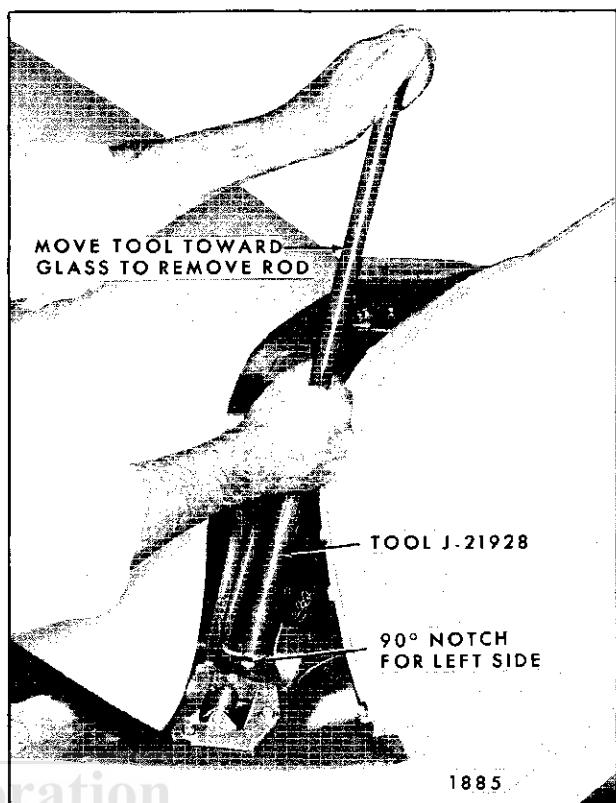


Fig. 5-17—Torque Rod Removal - Left Side

8. To install, apply an approved lubricant to torque rod ends which contact hinge roller. Reverse removal procedure, placing torque rods in the same retainer notch as they were prior to removal. Check operating effort of compartment lid. Should operating effort be increased or decreased, relocate torque rods for proper operation.

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. 5-18.)

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.

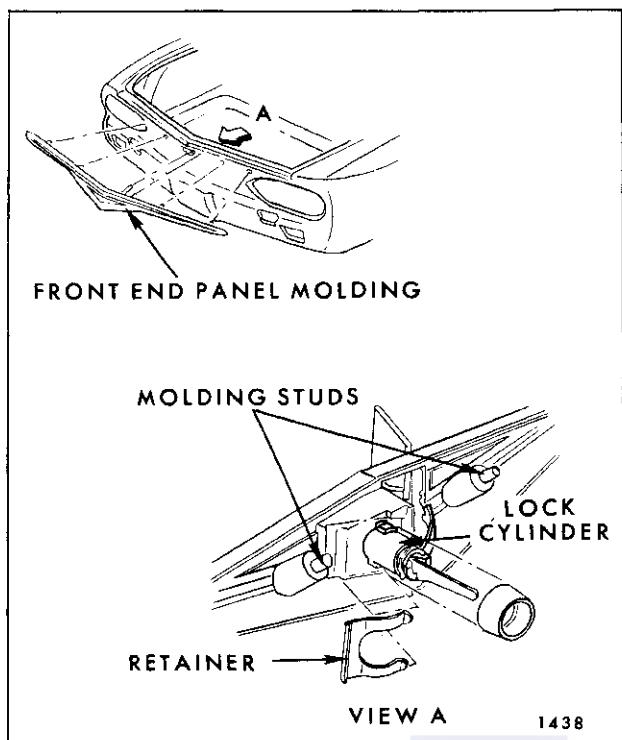


Fig. 5-18—Front Compartment Lid Lock Removal

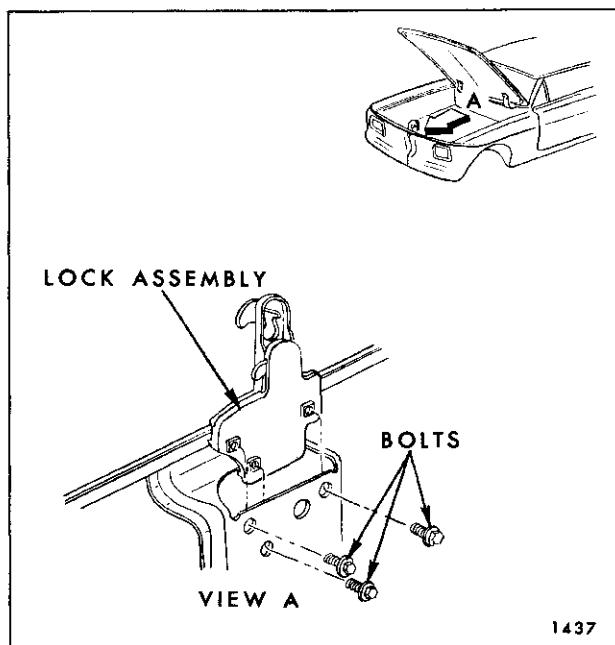


Fig. 5-19—Front Compartment Lid Lock

FRONT COMPARTMENT LID LOCK ASSEMBLY

Removal and Installation

1. Remove front end panel molding and lid lock cylinder assembly.
2. Remove screws (Fig. 5-19) 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. 5-20).

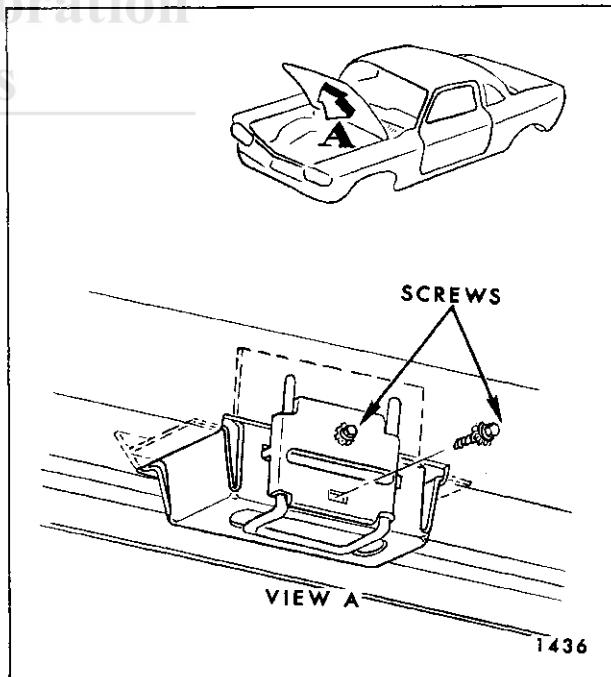


Fig. 5-20—Front Compartment Lid Lock Striker

3. To install, position striker within scribe marks and reverse removal procedure. Insure proper engagement of striker to 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 the upper end of the lid lock acts as a guide by entering the striker when the lid is closed, align the front compartment lid properly 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.
2. Using a brush, apply approved sealer along the base and around the entire perimeter of gutter.

NOTE: Apply a sufficient amount of weather-strip cement along lower inboard corner of gutter so that after installation of weatherstrip, cement will spread and fill complete 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 top front of compartment opening in that order. Roll or press weatherstrip to insure a good seal and proper retention of weatherstrip.
5. When a new weatherstrip is required, trim the ends to form a "butt" joint at front of opening. Using a brush, apply weatherstrip cement on both ends of new weatherstrip and secure ends together to form a matching joint.
6. Allow sufficient time for cement to set before closing front compartment lid.



SECTION 6

DOORS

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FRONT AND REAR DOORS

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. 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.

Door trim service procedures are covered in Section 14 of this manual (See index).

Body series or style references in the procedures are explained under "General Information" in Section 1 of this manual.

FRONT AND REAR DOOR WEATHERSTRIPS—

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 in the door panels. The serrations of the fastener retain the fastener in the piercing and also seal the openings, from water entry (See Fig. 6-1).

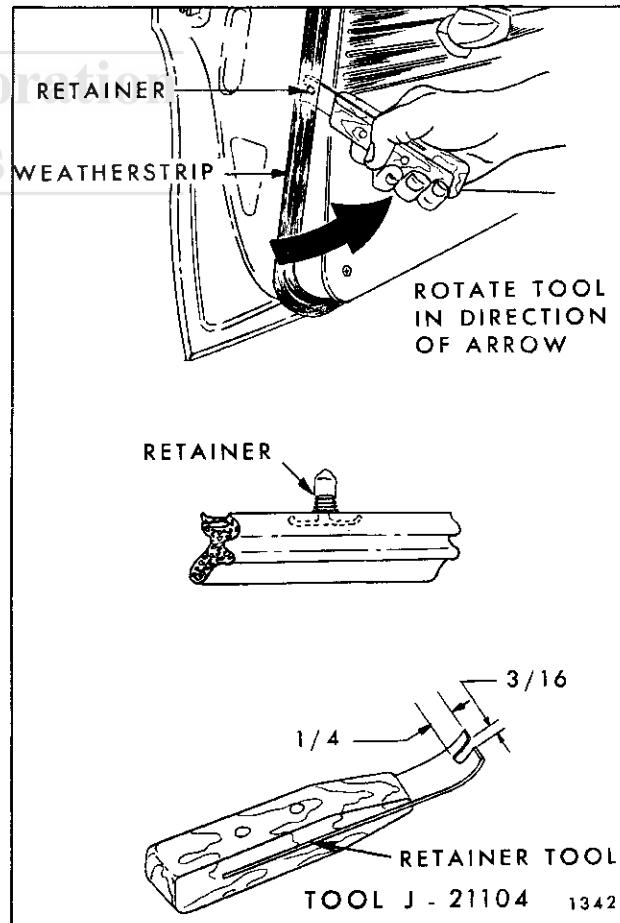


Fig. 6-1—Door Weatherstrip Removal

On "B" Body Sedan Styles, nylon fasteners are used around the entire perimeter of the door. On "A & 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. 6-2).

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. 6-1). This tool permits removal of the weatherstrip without damaging the serrations on the fasteners so that the weatherstrip can be reinstalled if desired.

Although a replacement door weatherstrip will include the nylon fasteners, individual fasteners are available as service parts.

Removal

1. On all hardtop and convertible styles, remove exposed plastic fasteners at beltline. On all hardtop and convertible styles, except "B-39" style front doors, it is necessary to remove door trim assembly to gain access to weatherstrip fastener hidden under trim assembly (Fig. 6-3).
2. On sedan styles, use a flat-bladed tool to break cement bond between door and weatherstrip. On "B" Body Sedan Styles, weatherstrip adhe-

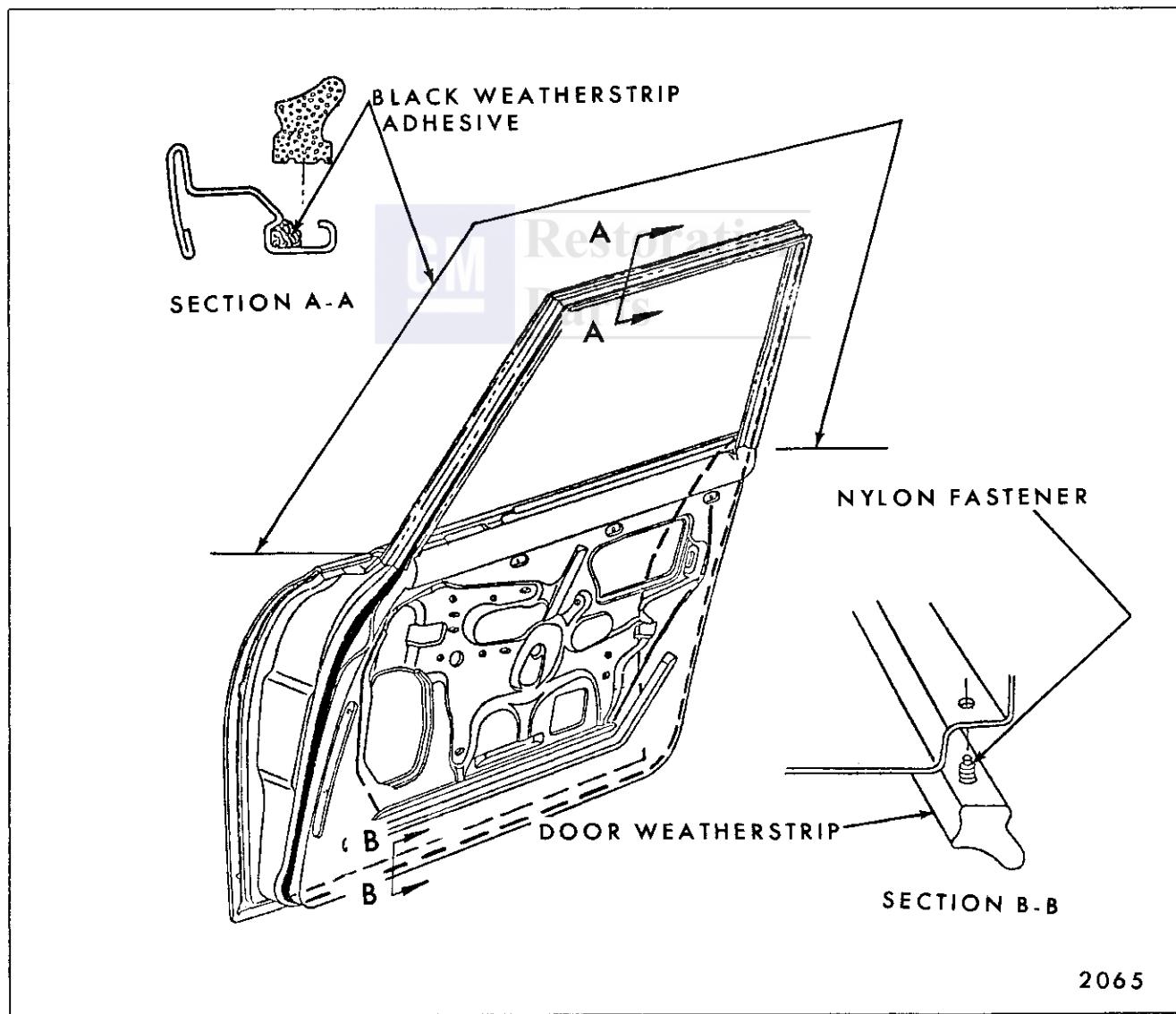


Fig. 6-2—Door Weatherstrip - "A & X" Closed Styles

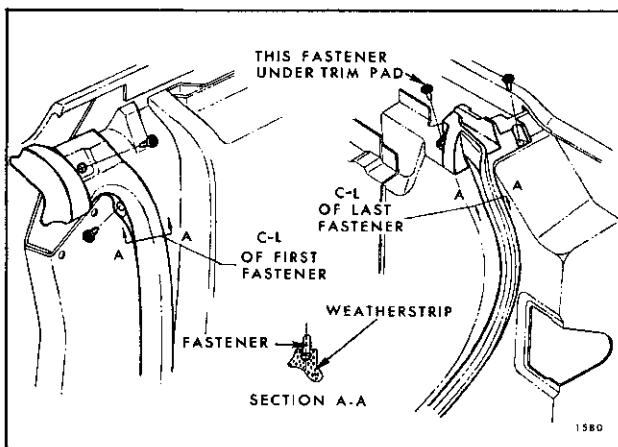


Fig. 6-3—Door Weatherstrip — Attachment Under Trim Assemblies

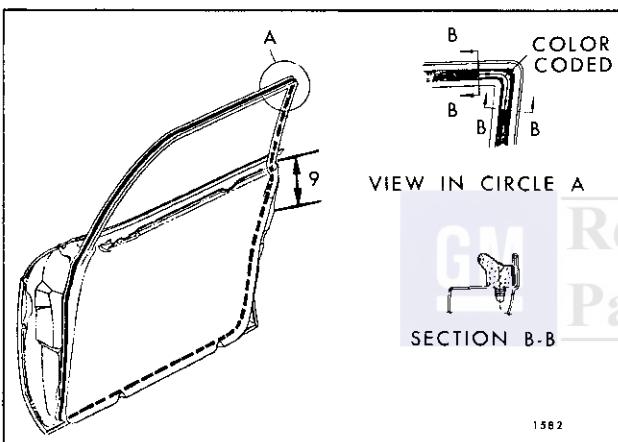


Fig. 6-4—Front Door Weatherstrip — "B" Closed Styles

sive is used for a distance of 9" at beltline (See Fig. 6-4). On "A & X" sedan styles, weatherstrip is retained by weatherstrip adhesive completely around door upper frame (See Fig. 6-2).

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 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 styles with door upper frames, position weatherstrip to door as follows:

a. On front doors, locate weatherstrip from rear upper corner which is color-coded (Fig. 6-4).

b. On rear doors, locate weatherstrip from molded front upper corner.

5. Tap nylon fasteners into door piercings using a hammer and blunt caulking tool.

6. On "A & X" Sedan Styles, apply a bead of black weatherstrip adhesive to gutter of door upper frame as shown in section "A-A", Figure 6-2; 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 6-4) 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 belt line.

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—Chev. 16600 Series and All "Ol-Bu-Cad. & Pont." Styles Except Pont. 'F' Series

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. 6-5).

To remove sealing strips, use a flat-bladed tool to pry retaining plugs from door inner panel piercings.

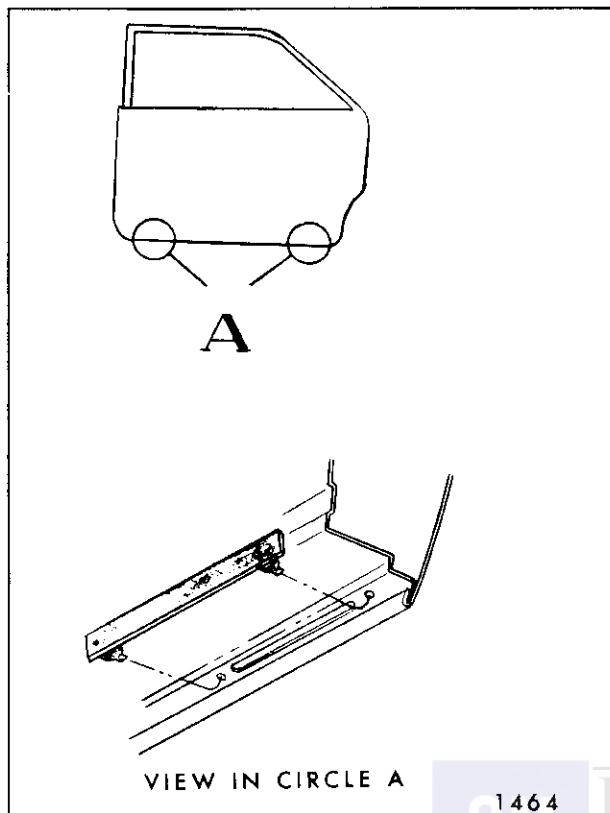


Fig. 6-5—Door Bottom Drain Hole Sealing Strips

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—Chev. 13800 and 16600 Styles, Pontiac "B" Styles, All Cadillac Styles and All "E" Body 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 6-6, the upper edge of the strip is aligned with the water deflector drain slot. The rolled, semi-bulbular 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.

FRONT AND REAR DOOR WATER DEFLECTORS

A waterproof 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

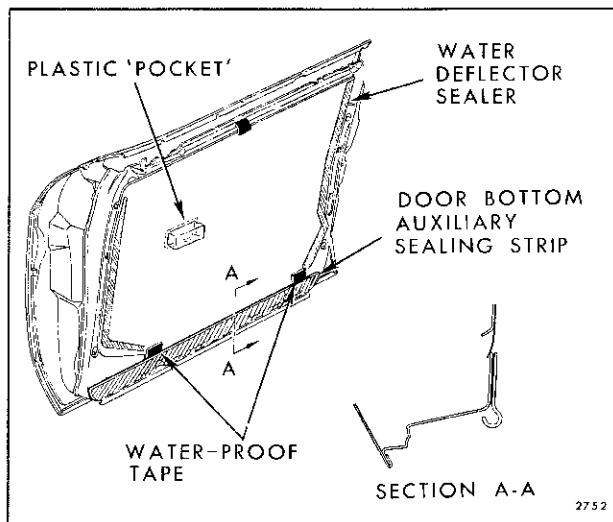


Fig. 6-6—Door Inner Panel Sealing

rear lower corners. Whenever work is performed on front or rear doors where the 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-bladed 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 embedded in sealer.

4. When seal has been broken down both sides of deflector, carefully remove tape from inner panel at lower corners of water deflector (Fig. 6-6). Disengage water deflector from inner panel drain slot and remove deflector. On styles so equipped, it will be necessary to partially remove door bottom auxiliary sealing strip to permit removal of tape at bottom of deflector (Fig. 6-6).

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 deflector is to be installed, use old deflector as a template. On styles where deflector has small individual plastic "pockets", transfer "pockets" from old to new deflector (Fig. 6-6). Use waterproof body tape or black weatherstrip adhesive to form a watertight seal completely around "pocket". Seal on opposite side from which "pocket" deflector protrudes (dotted line, Fig. 6-6).

NOTE: If "pocket" deflector is damaged beyond repair, replace with new part which is available as service part.

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.

If old sealer does not effect a satisfactory seal, apply additional body caulking compound to inner panel at unsealed areas.

4. Seal lower corners of deflector by re-applying previously removed tape or new pieces of 2" or 2-1/2" waterproof 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.

DOOR WINDOW GLASS RUN CHANNEL SEALING STRIP ASSEMBLIES

Glass run channel sealing strips are used to form a seal between the door inner and outer panels and the window at the beltline. The construction and attachment of these strips vary with the body style involved.

On all except "Z" body styles, the inner strip assembly is attached to the door trim pad and is removed from the door with the trim pad. The "Z" style strip assembly is secured to the door inner

panel with clips and must be removed to permit removal of the door window assembly.

The outer strip assembly is retained by screws or a combination of clips and screws.

NOTE: To remove either the clip or screw retained strip assembly, the glass must be low enough to gain access to the attachments. In most cases this will require removal of the window lower stop bumpers to permit further lowering of window assembly.

Removal and Installation

1. On styles with screw retained outer strip assembly which extends forward through the ventilator area, it is necessary to remove the vent to gain access to the outer strip retaining screws hidden by the ventilator.
2. On styles with clip retained inner or outer strip assemblies, remove strip assembly as follows:
 - a. Apply cloth-backed tape as a protective cover over painted surface of door panel adjacent to strip assembly.
 - b. Using a flat-bladed tool that is slotted to fit over tang of clip, disengage clips from slots in door panel return flange as shown in Figure 6-7.
 - c. To install strip assembly, position strip so that each clip tang starts into slot in door panel; then, engage clips by pressing downward. Prior to installation, re-form clip tangs to assure positive retention when installed.

NOTE: To fabricate strip assembly removal tool, make a 1/4" wide by 3/8" deep slot in a flat-bladed tool similar to the J-2772 headlining inserting tool.



Fig. 6-7—Clip Retained Glass Run Channel Inner Strip Assembly Removal

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—All Hardtop Styles Except "E" Body

1. Remove plastic fasteners at front and screw at rear of side roof rail weatherstrip (Figs. 6-8, 6-9, 6-10 and 6-11).
2. While carefully pulling weatherstrip out of retainer, simultaneously break cement bond between weatherstrip and weatherstrip retainer using a flat-bladed tool.
3. With weatherstrip removed, screws securing weatherstrip retainer to side roof rail are exposed. Remove screws to remove retainer (Fig. 6-12).

Removal—(Buick and Oldsmobile "E-87" Styles)

1. Remove plastic fasteners at front of weatherstrip similar to those shown in Figure 6-9.

2. Remove rear quarter courtesy light lens. If attaching screws securing rear section of side roof rail weatherstrip are accessible, remove screws. If not, proceed as follows:

- a. Remove rear seat cushion, rear seat back and rear quarter upper trim assembly (See Trim Index).
- b. Remove screw(s) securing side roof rail weatherstrip (rear section) to side roof rail (See Fig. 6-13), and rear quarter panel.
3. While carefully pulling weatherstrip out of retainer, simultaneously break cement bond between weatherstrip and retainer using a flat-bladed tool.
4. With weatherstrip removed, screws securing weatherstrip retainer to side roof rail are exposed. Remove screws to remove side roof rail weatherstrip retainer.

NOTE: The following procedure outlines the recommended process of servicing side roof rail weatherstrips on "E-87" styles when only that portion over the door glass requires replacement.

The side roof rail weatherstrip consists of two sections connected by a vulcanized joint. The front section (over door glass) can be serviced separately from the rear section (over rear quarter

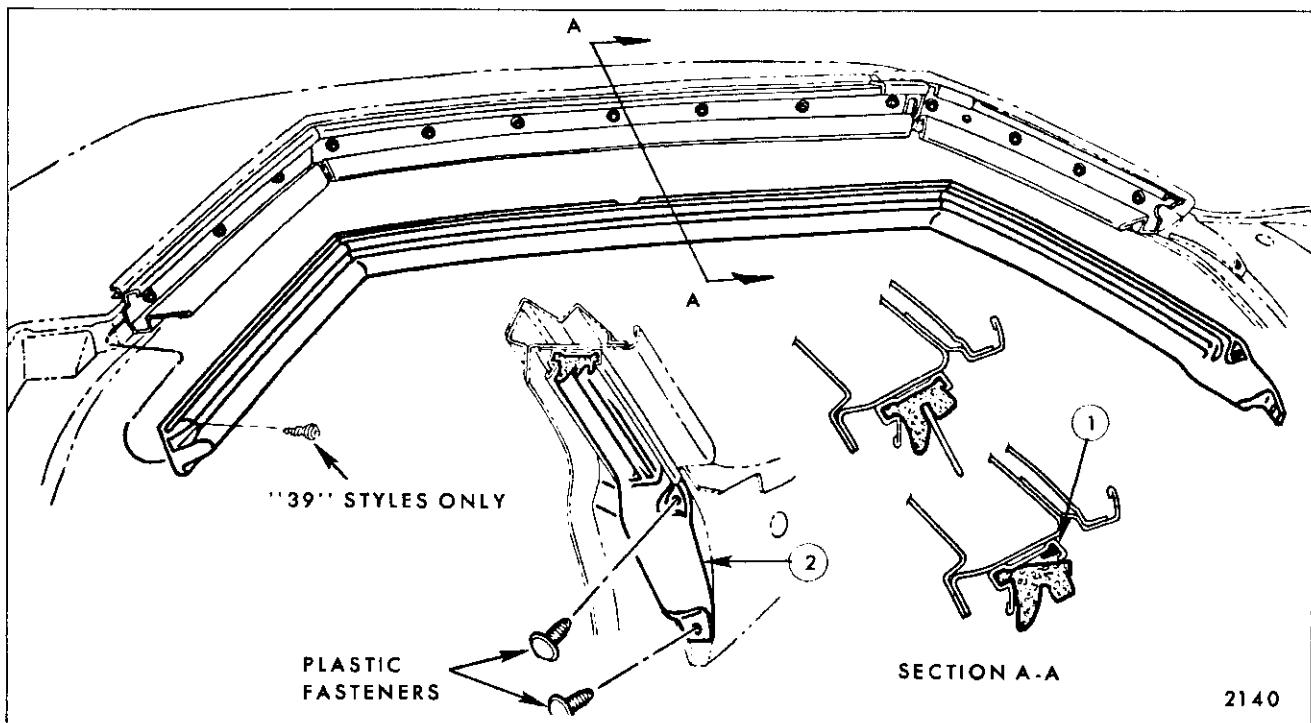


Fig. 6-8—Side Roof Rail Weatherstrip — All Hardtop Styles Except "B-C47 & E" Body Styles

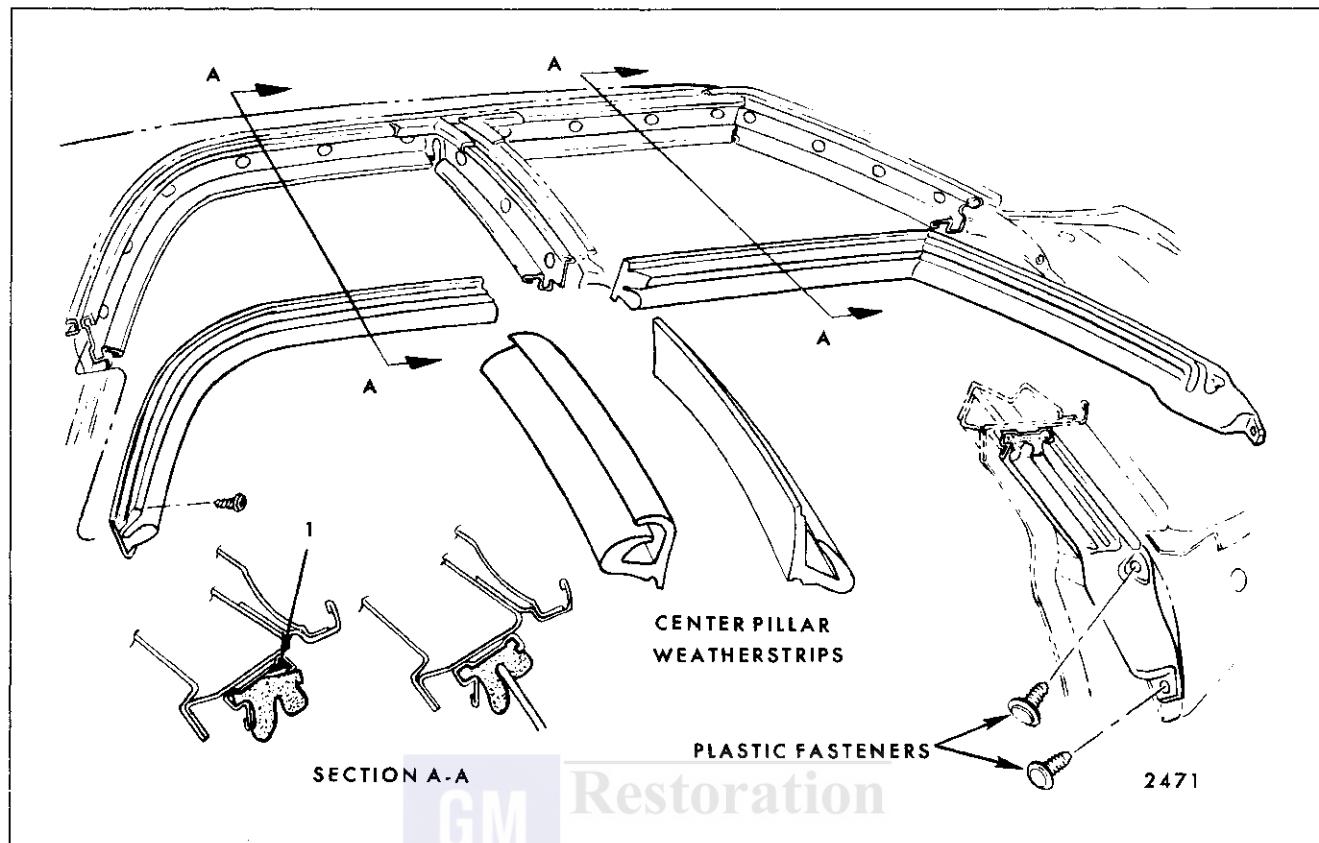


Fig. 6-9—Side Roof Rail and Center Pillar Weatherstrips — "C-69" Styles

window). Replacement of the rear section requires replacement of the entire side roof rail weatherstrip. Replacement of front section, however, can be accomplished individually by utilizing the following procedure.

1. With a sharp implement, sever the vulcanized joint and remove front section of side roof rail weatherstrip as outlined in the preceding procedure. The service weatherstrip is equipped with a nylon patch, half of which is cemented in place (See Fig. 6-14). The other half is to be cemented over the rear section of side roof rail weatherstrip (over quarter window) as directed in step #3.
2. Install replacement weatherstrip in the normal manner and form a butt joint to quarter run channel (see illustration). Use an approved weatherstrip adhesive (preferably black) to form butt joint.
3. With an approved neoprene cement, install remainder of nylon patch (See Fig. 6-14) to cover butt joint.

Removal—(Cadillac "E-47" Styles)

1. At front of weatherstrip, disengage plastic fasteners from front body hinge pillar (See Fig. 6-11).
2. Lower rear quarter window and remove screw at rear of side roof rail weatherstrip (See Fig. 6-11).
3. While carefully pulling weatherstrip out of retainer, simultaneously break cement bond between weatherstrip and retainer, using a flat-bladed tool.
4. With weatherstrip removed, screws securing weatherstrip retainer to side roof rail are exposed. Remove screws to remove side roof rail weatherstrip retainer (See Fig. 6-11).

Installation (All Styles)

1. If retainer has been removed, remove and discard saturated polyurethane foam sealing strip from side roof rail weatherstrip retainer and/or side roof rail (See Fig. 6-13).

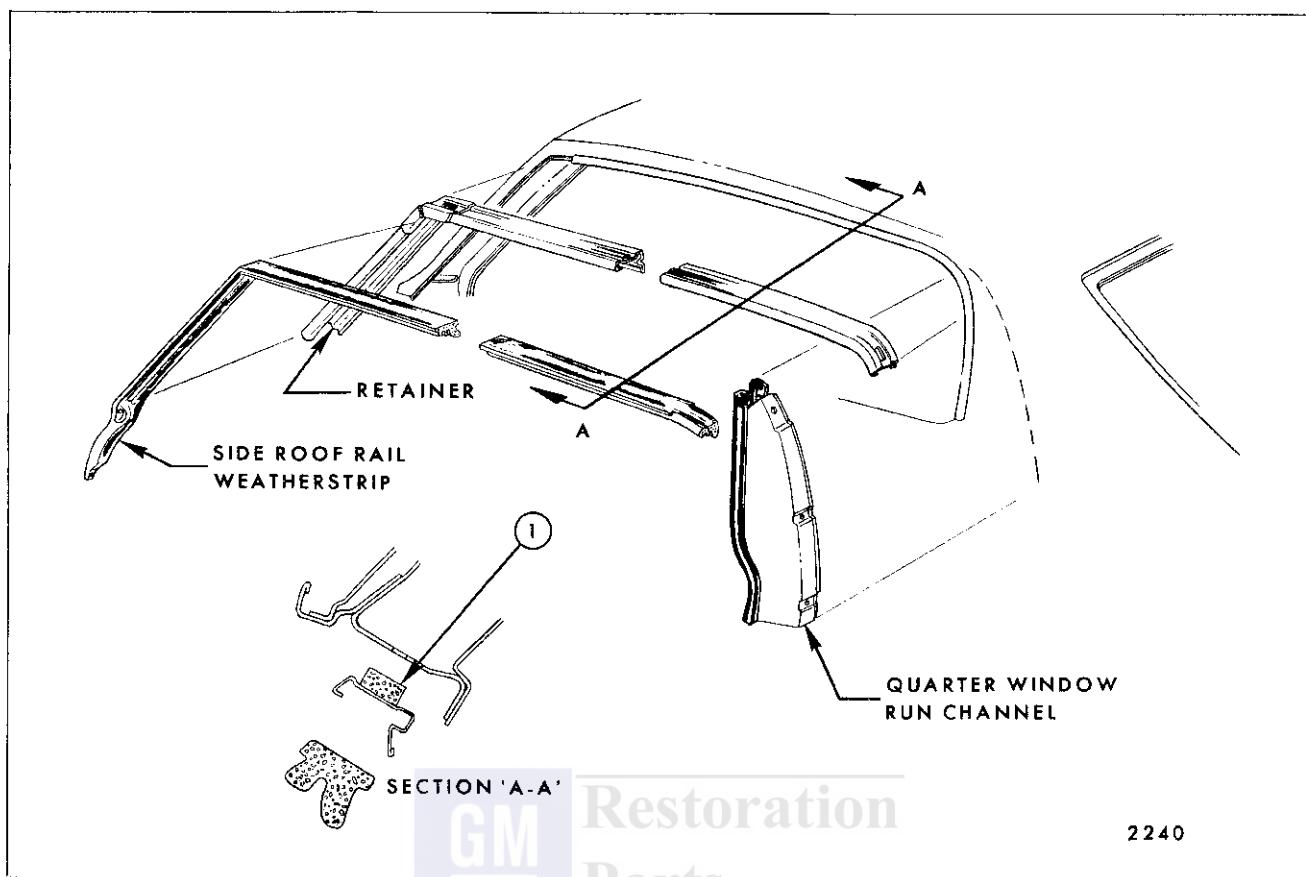


Fig. 6-10—Side Roof Rail Weatherstrip and Retainer "B & C-47" Styles

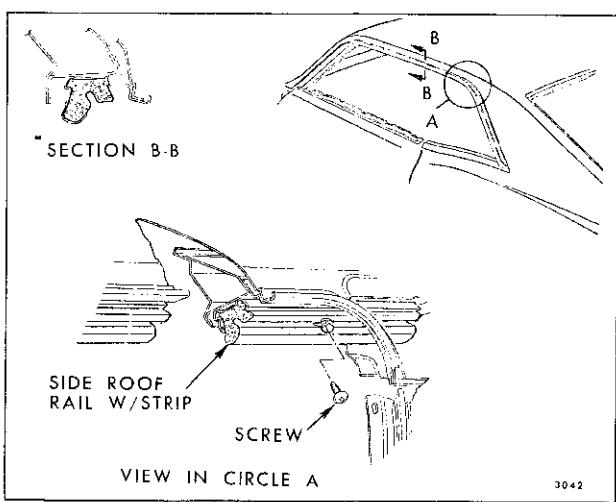


Fig. 6-11—Side Roof Rail Weatherstrip - "E-47" Styles

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. 6-12). Apply bead outboard of attaching screw holes.

4. Position retainer to body and install attaching screws.
 5. Apply a bead of black weatherstrip adhesive to outboard flange of weatherstrip retainer ("1", Figs. 6-8 and 6-9). Extend adhesive down front body hinge pillar to seal lower front end of weatherstrip that is retained with plastic fasteners.
- NOTE:** For Steps 5 & 6, Figures 6-8 and 6-9 are to be considered as typical for all hardtop styles.
6. Position front end of weatherstrip to body and install plastic fasteners. Then, using a flat-bladed tool, begin engaging weatherstrip with retainer as shown in Section "A-A", Figures 6-8 and 6-9. Engage inboard lip of weatherstrip first, then, outboard lip.
 7. After weatherstrip has been installed along length of retainer, install screw at rear end of weatherstrip where so equipped.

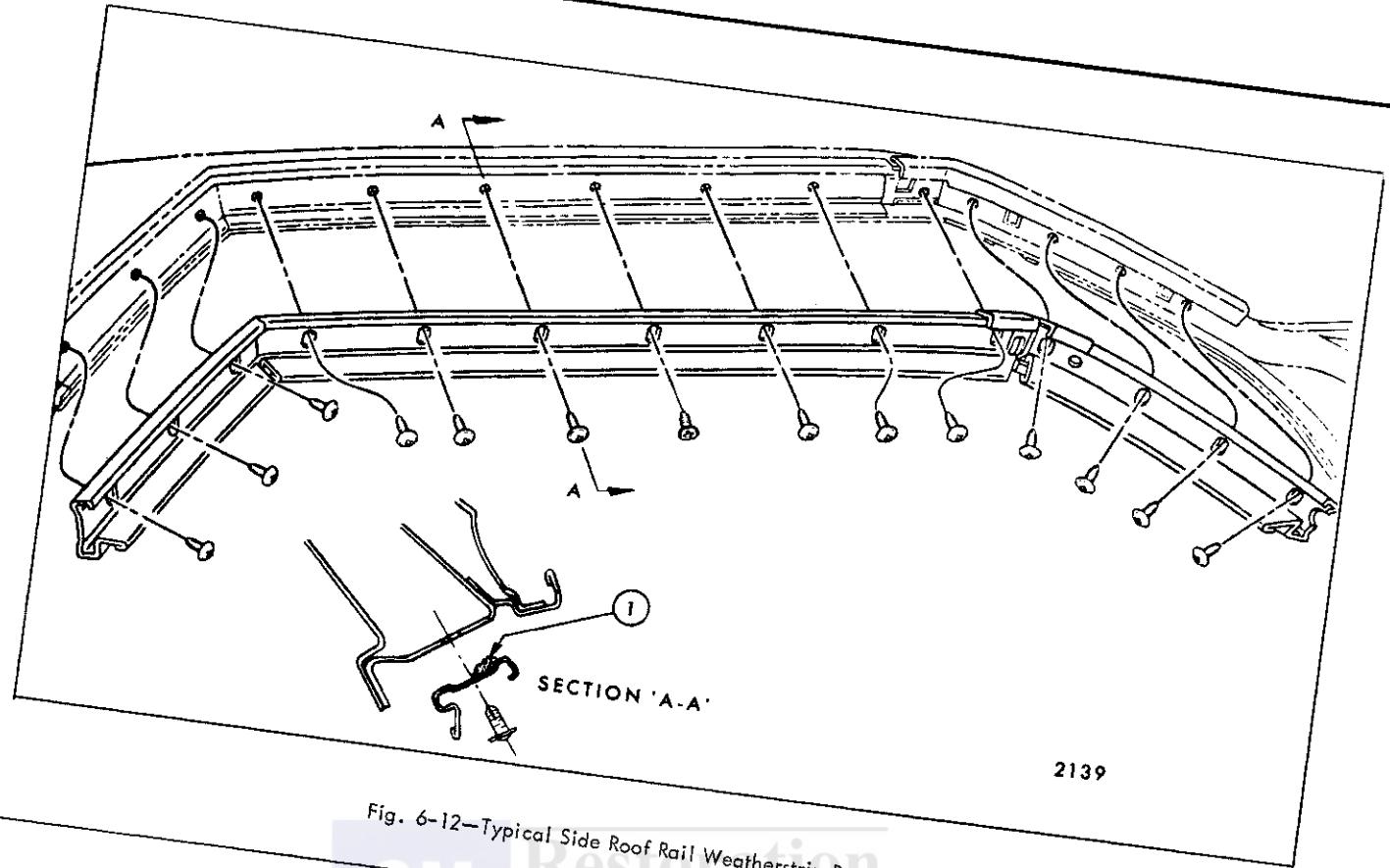


Fig. 6-12—Typical Side Roof Rail Weatherstrip Retainer

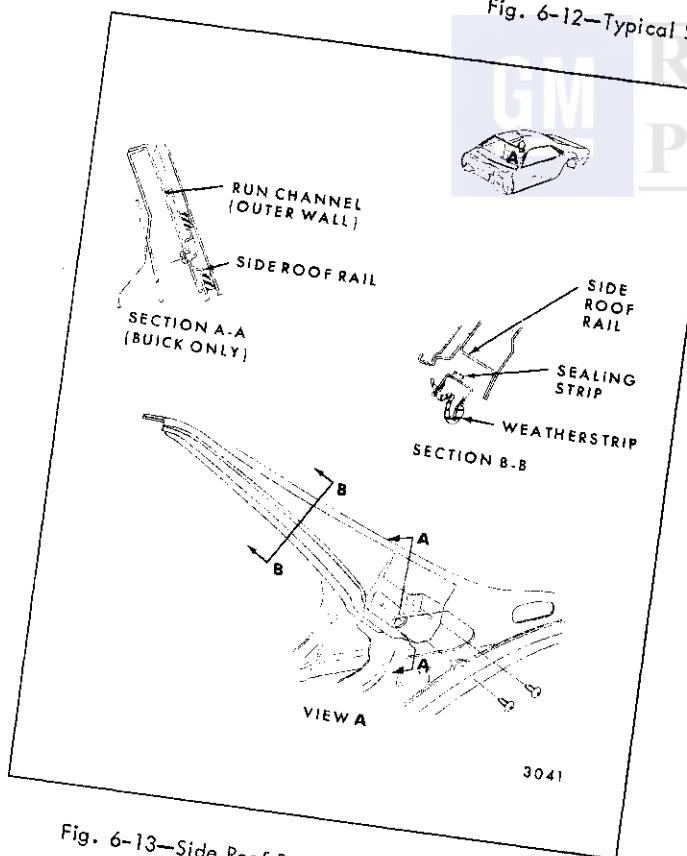


Fig. 6-13—Side Roof Rail Weatherstrip Assembly -
"E-87" Styles

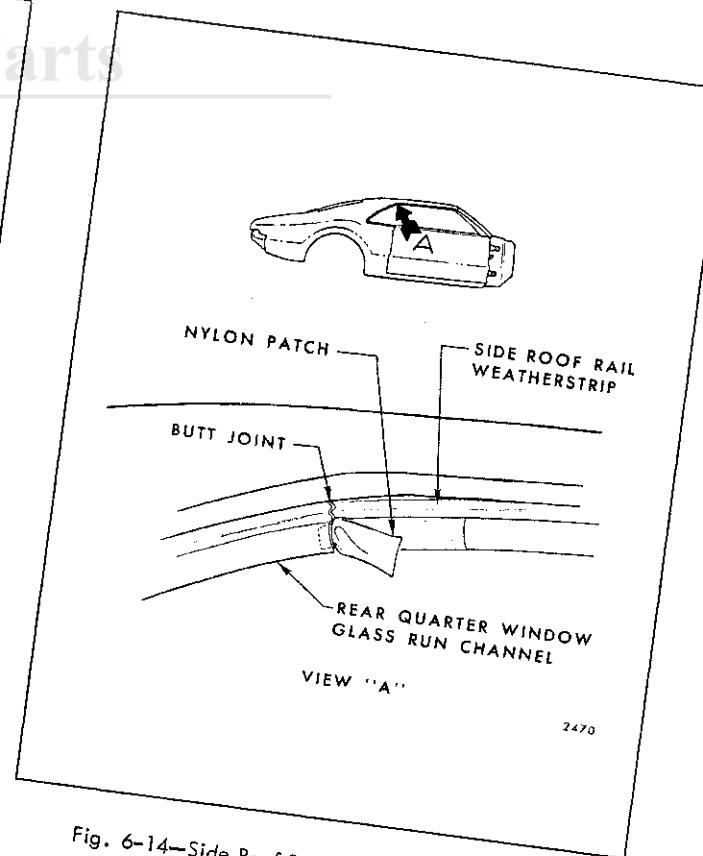


Fig. 6-14—Side Roof Rail Weatherstrip Repair -
"E-87" Styles

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, then, re-install weatherstrip. 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-bladed 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.

SPECIFIED BODY OPENING CLEARANCE TOLERANCES—All Styles

Figures 6-15, 6-16, 6-17, 6-18, 6-19 and 6-20 show specified body opening gap spacing tolerances and deviations from flush alignment permissible between fender and front door and front to rear door on all 1968 body styles.

Deviations from flush alignment are required at those locations where a swing-in type hinge is used and the leading edge of the door swings inboard of adjacent body metal.

SPRING CLIPS

A spring clip is used to secure remote control connecting rods and inside locking rod connecting links to door lock 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. 6-21).

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. 6-22).
2. Remove screws through access hole and remove door handle and gaskets from outside of body.
3. To install, reverse removal procedure.

DOOR OUTSIDE HANDLE DISASSEMBLY AND ASSEMBLY—All Styles

1. Remove door outside handle as previously described.
2. Depress retainer slightly and rotate 1/4 turn in either direction. Remove retainer, spring, push bottom and shaft and sealing washer from handle (See Fig. 6-23 for front door handles and Fig. 6-24 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.

3. To assemble, reverse disassembly procedure.

FRONT AND REAR DOOR LOCK STRIKERS—All Styles

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.

Removal and Installation

1. Mark position of striker on body lock pillar using a pencil.

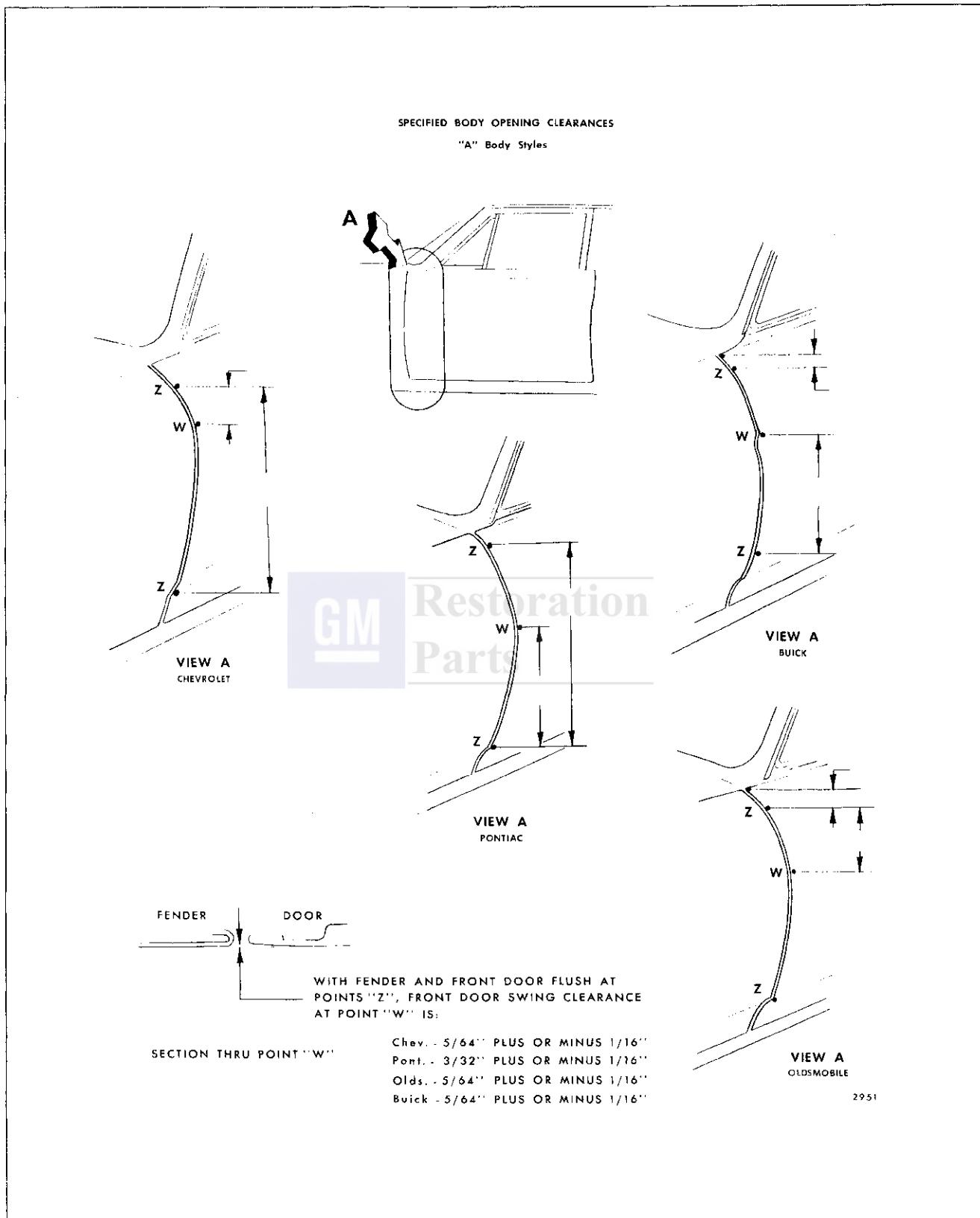
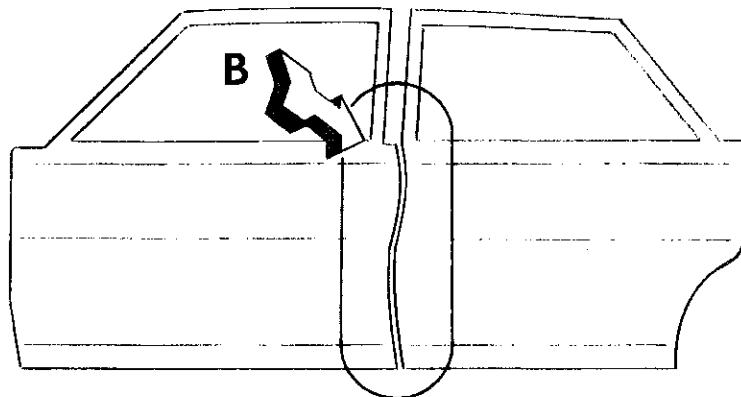


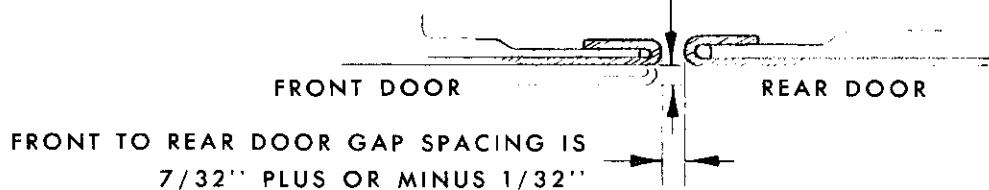
Fig. 6-15—Specified Body Opening Clearance Tolerances - "A" Styles

SPECIFIED BODY OPENING CLEARANCE TOLERANCES

"A" Body 4 Door Styles



FLUSH TO PLUS OR MINUS
1/16" RELATIONSHIP



VIEW B

SECTION SHOWING CLEARANCE BETWEEN FRONT AND REAR DOOR

2950

Fig. 6-16-Specified Body Opening Clearance Tolerances - "A" Four Door Styles

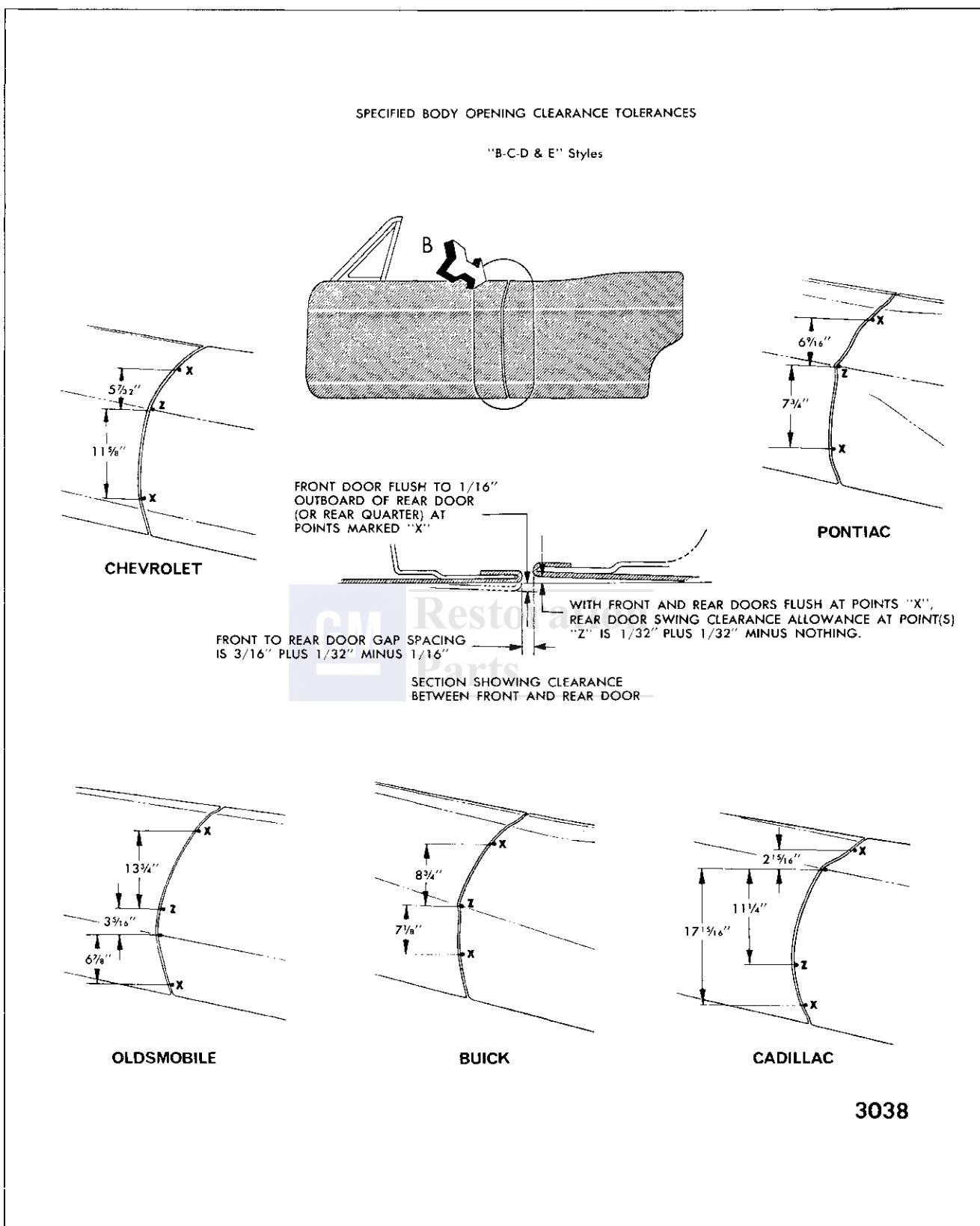


Fig. 6-17-Specified Body Opening Clearance Tolerances - "B-C-D and E" Styles

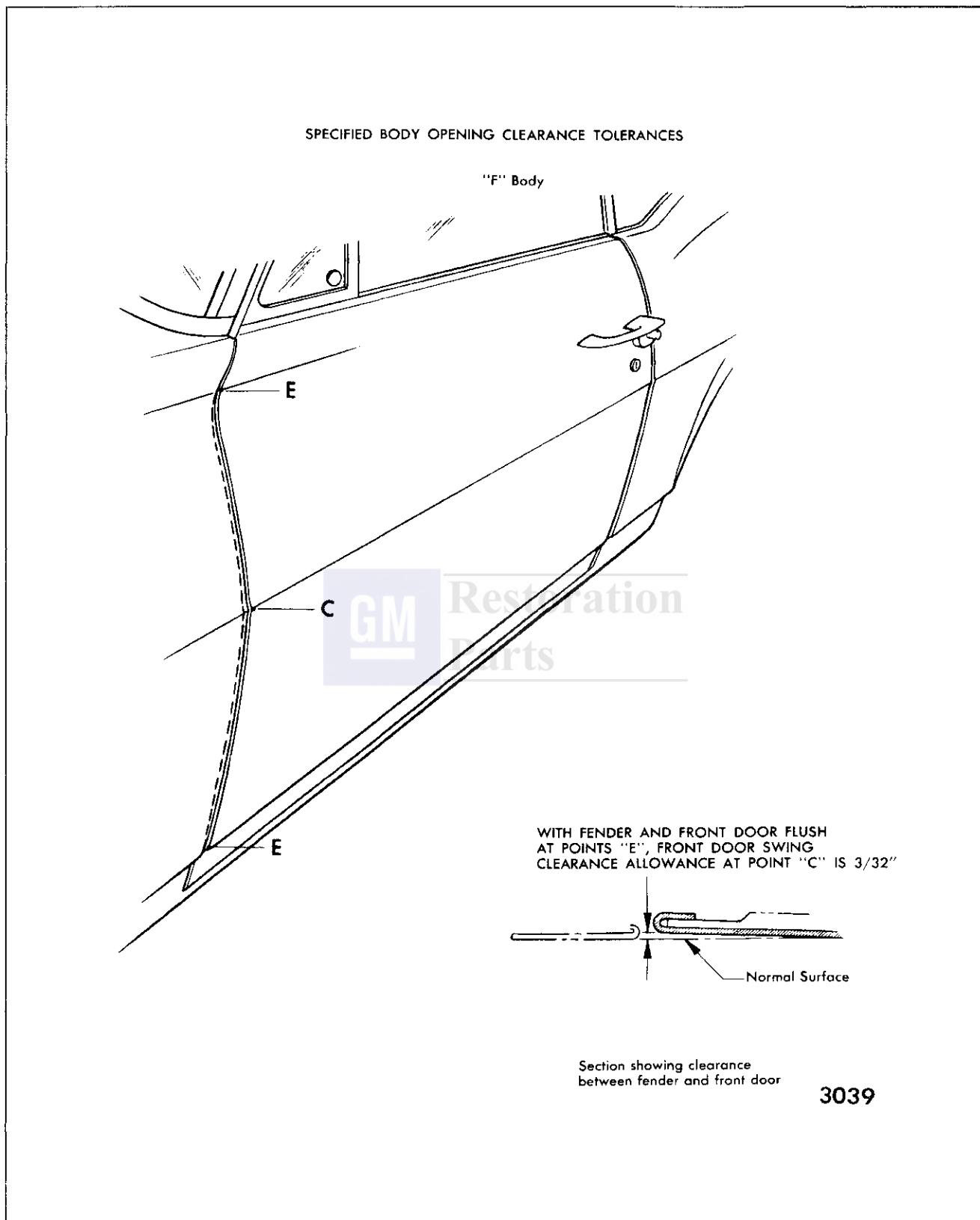


Fig. 6-18—Specified Body Opening Clearance Tolerances - "F" Styles

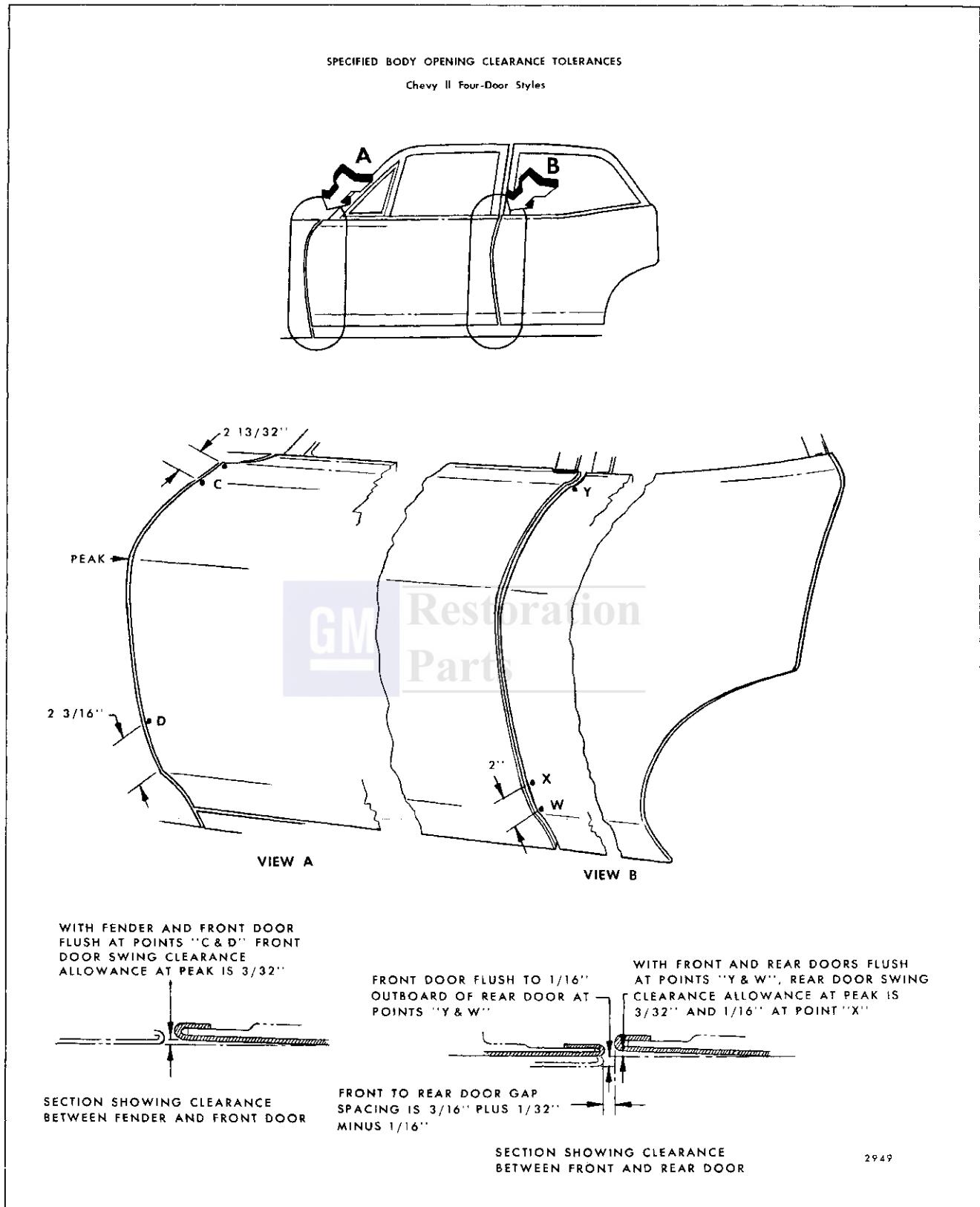
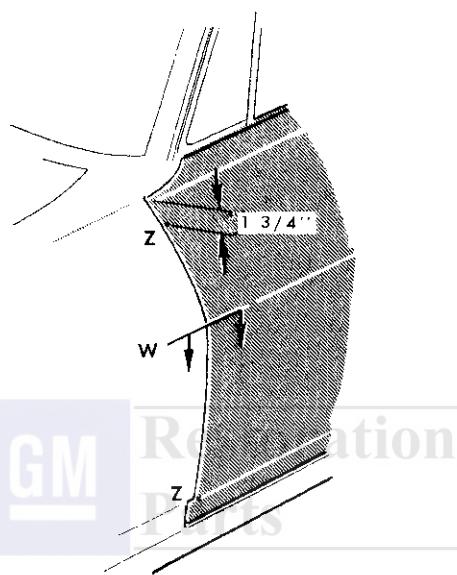


Fig. 6-19—Specified Body Opening Clearance Tolerances - "X" Styles

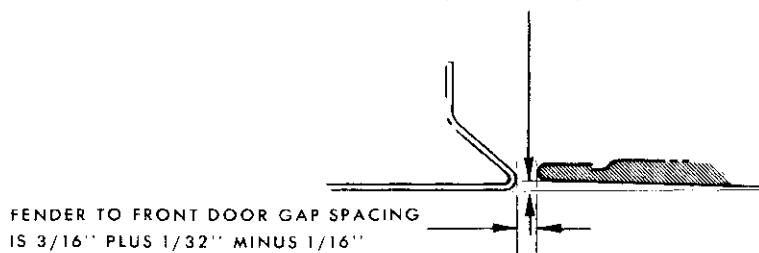
SPECIFIED BODY OPENING CLEARANCE TOLERANCES

Corvair Body Styles



VIEW A

WITH FENDER AND DOOR FLUSH AT POINTS "Z",
FRONT DOOR SWING CLEARANCE ALLOWANCE AT
POINT "W" IS $3/32"$ PLUS $1/16"$ MINUS NOTHING



Section "W" of View A

3043

Fig. 6-20—Specified Body Opening Clearance Tolerances - "Z" Styles

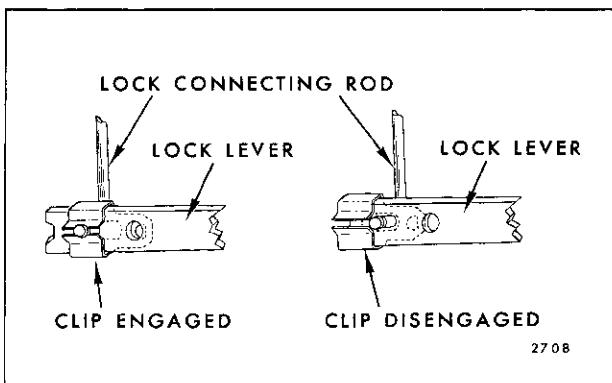


Fig. 6-21—Door Lock Spring Clip

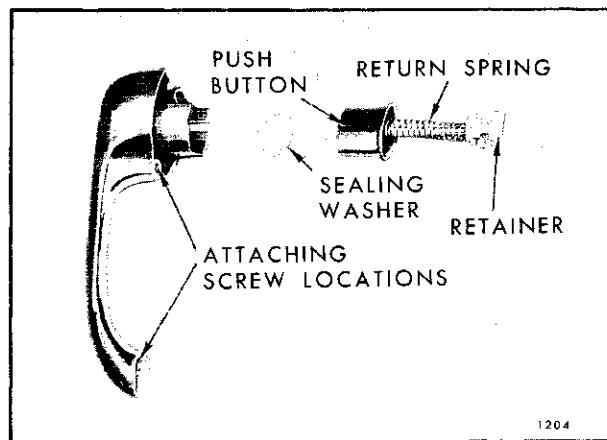


Fig. 6-24—Rear Door Outside Handle

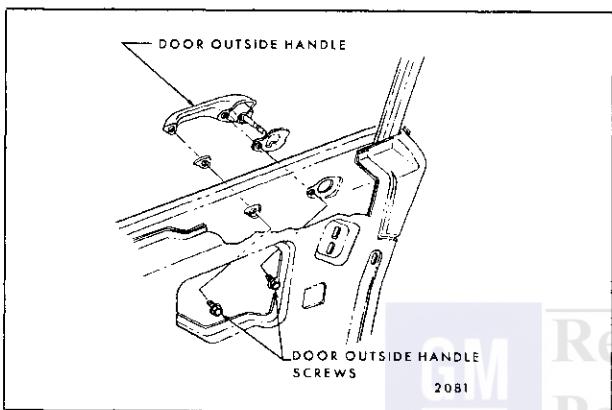


Fig. 6-22—Door Outside Handle Removal

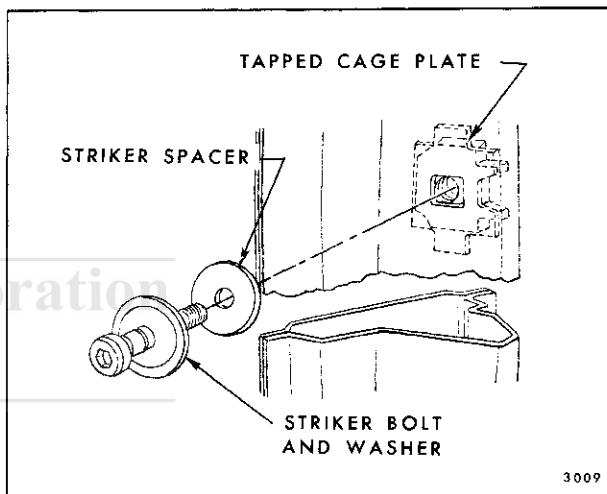


Fig. 6-25—Door Lock Striker Installation

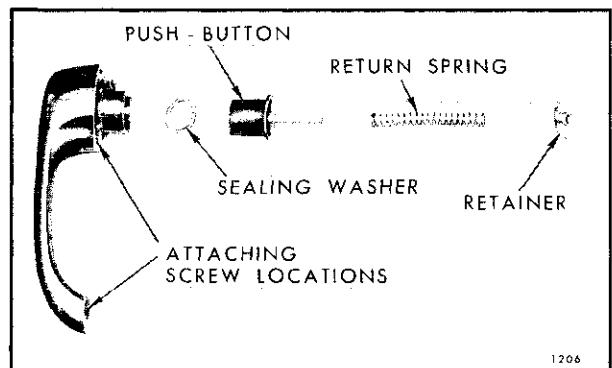


Fig. 6-23—Front Door Outside Handle

2. Insert a 5/16" wrench into hex-head fitting in head of striker bolt and remove striker (Fig. 6-25).
3. To install, reverse removal procedure. Make certain striker is positioned within pencil mark.

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.

NOTE: When replacing striker, touch-up any damaged paint on striker and any exposed unpainted surface on lock pillar adjacent to striker assembly.

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.

- b. Apply modeling clay or body caulking compound to lock bolt opening as shown in Figure 6-26.
- c. Close door only as far as necessary for striker bolt to form an impression in clay or caulking compound as shown in Figure 6-26.

CAUTION: Do not close door completely. Complete door closing will make clay removal very difficult.

- d. Measure striker impression as follows:

Striker head should be centered fore and aft as shown, however, some tolerances are allowed. In any alignment, it is important that minimum dimensions, as outlined in Figure 6-26 be strictly maintained. 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

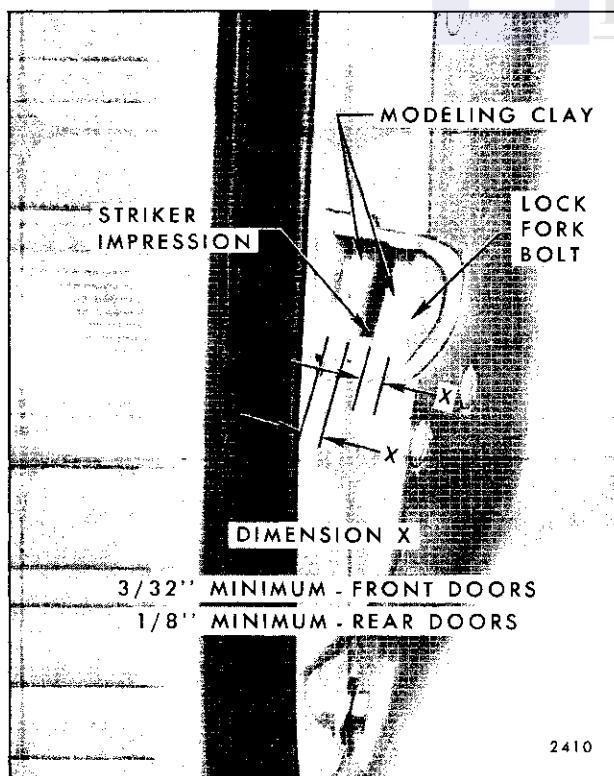


Fig. 6-26—Lock to Striker Engagement

VACUUM DOOR LOCK SYSTEM

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. 6-27).

FRONT DOOR VACUUM LOCK SELECTOR VALVES

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, install color-coded hoses to corresponding color-coded connections 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 ACTUATOR

The actuators that operate the locks are double acting vacuum diaphragms and are attached by screws to the door lock pillar below the lock on front doors and at the front of the door inner panel on rear doors. 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 and the yellow coded vacuum hose provides the locking cycle.

Removal and Installation

1. Raise door window, remove trim pad and detach inner panel water deflector.
2. Disconnect vacuum hoses from actuator.
3. On front doors, remove vacuum actuator to door lock pillar attaching screws, disconnect rod and remove actuator (Fig. 6-28).
4. On rear doors, remove vacuum actuator to door inner panel attaching screws and vacuum

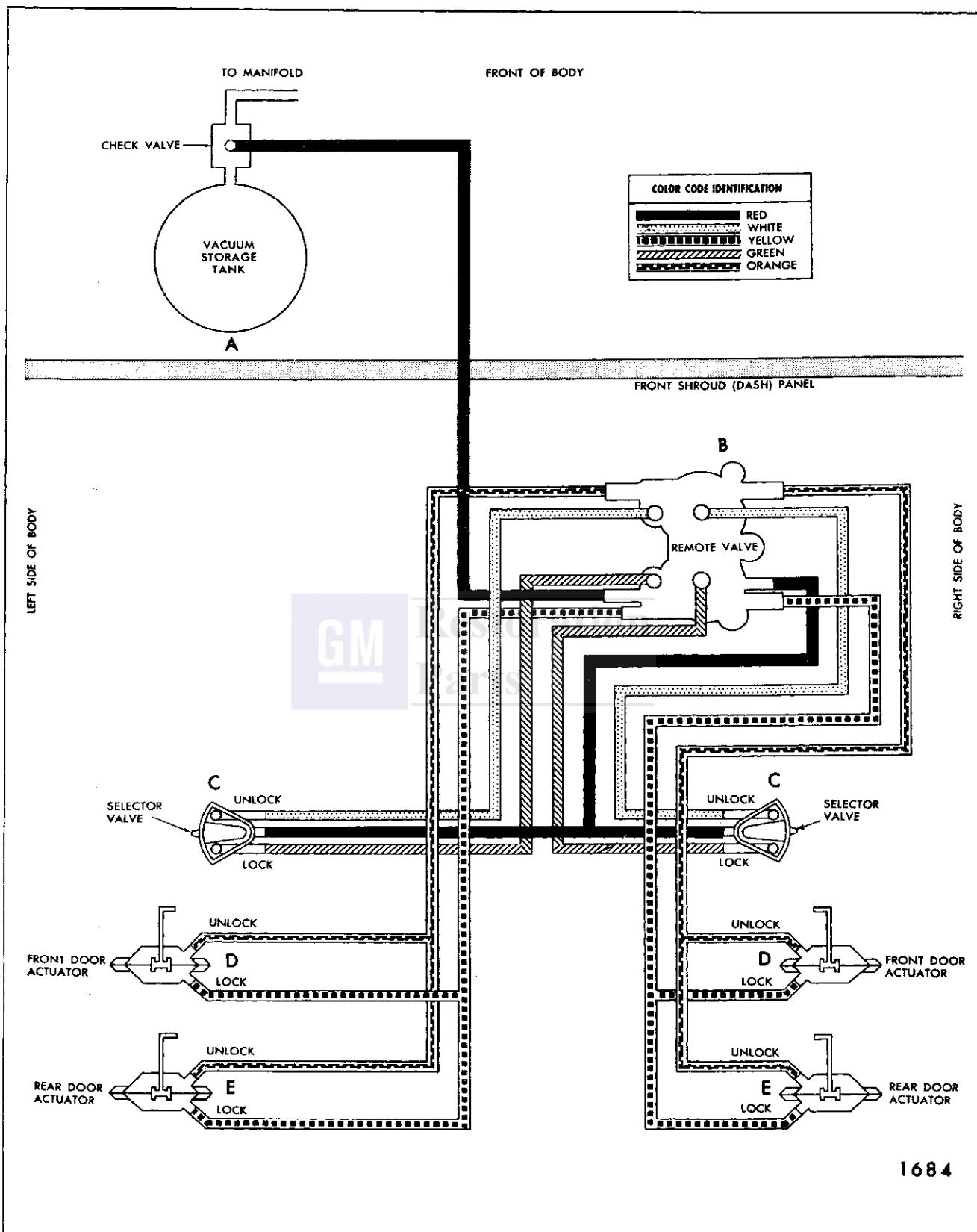


Fig. 6-27—Vacuum Door Lock System

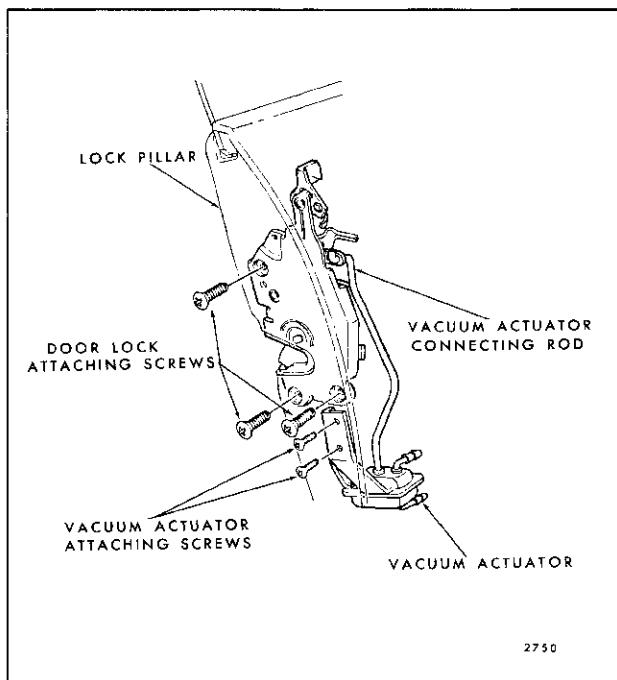


Fig. 6-28—Front Door Vacuum Actuator

actuator connecting rod to door inside locking rod connecting link attaching clip. Remove actuator through access hole (Fig. 6-29).

5. To install, reverse removal procedure.

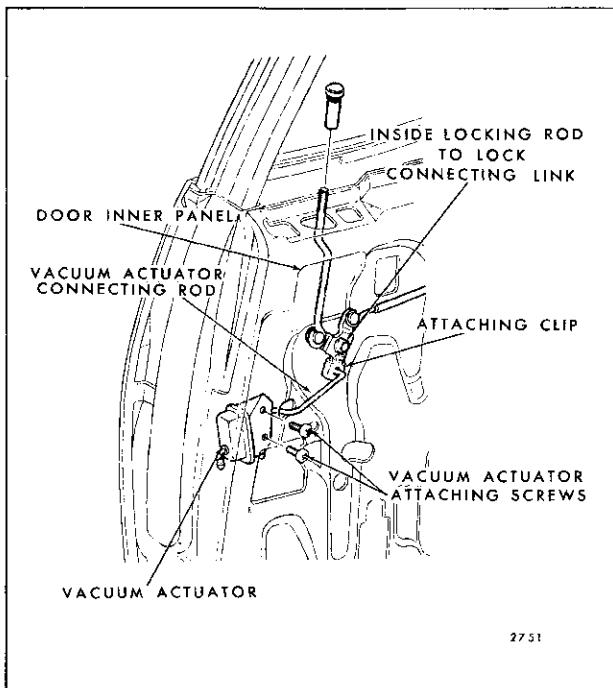


Fig. 6-29—Rear Door Vacuum Actuator

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 vacuum signal from the selector valve. A lock signal received from the 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. All ports and hoses are color-coded for ease of hose installation (Fig. 6-30).

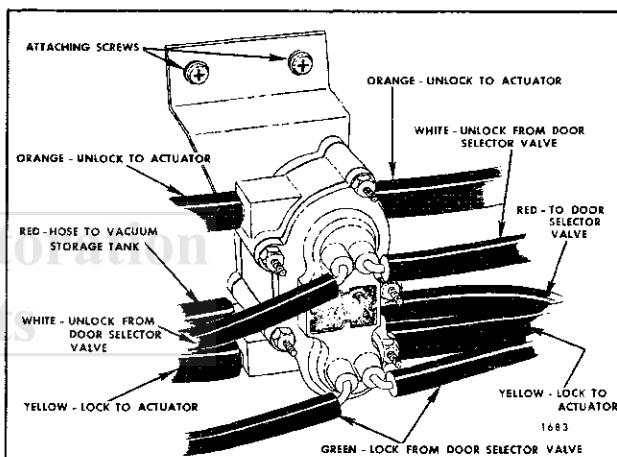


Fig. 6-30—Vacuum Lock Remote Control Valve

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. 6-27). 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.

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 6-31 will aid in determining which part is leaking. This device can be easily constructed from common items that are normally available. The following chart lists

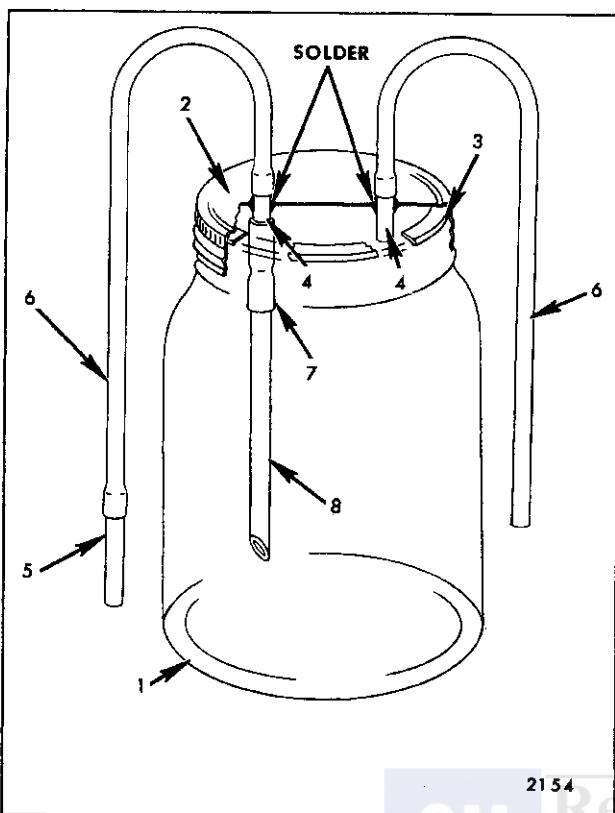


Fig. 6-31—Leak-Down Testing Device
(See Text for Specifications of Components)

the necessary components. The item numbers are referenced to Figure 6-31.

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

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 or door 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:

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.

VACUUM DOOR LOCK DIAGNOSIS CHART (Ref. Fig. 6-27)

CONDITION	APPARENT CAUSE	REPAIR
A. System inoperative	<ol style="list-style-type: none"> 1. Hoses crossed at vacuum supply tank. 2. Vacuum supply hose pinched at remote valve. 3. Door valve supply hose pinched at remote valve. 4. Vacuum supply hose disconnected at tank, remote valve, or engine. 5. Remote valve diaphragm leaking. 	<p>Reverse hoses at vacuum supply tank.</p> <p>Straighten hose at "B" (Red).</p> <p>Straighten hose at "B" (Red).</p> <p>Install hose at "A or B" (Red).</p> <p>Replace remote valve at "B".</p>

CONDITION	APPARENT CAUSE	REPAIR
B. All doors can be locked but not unlocked.	1. Main supply hose crossed lock supply hose at remote valve. 2. Unlock selector hose or supply hose disconnected at remote valve.	Reverse hoses at remote "B" (Red and Green). 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. 2. Lock selector hose or supply hose disconnected at remote.	Reverse hoses at remote "B" (Red and White). 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. 2. Actuator supply hoses (large) 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). 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. 2. Door selector valve reversed in trim assembly.	Reverse small hoses at affected door valve "C" (White and Green). 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".
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.

CONDITION	APPARENT CAUSE	REPAIR
I. One door lock lags behind others when locked or unlocked. - Cont'd.	Lock or linkage bind. - Cont'd.	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).
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.	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). 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.
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.



Restoration
Parts

CONDITION	APPARENT CAUSE	REPAIR
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.

F Parts

DOOR WINDOW REGULATOR ELECTRIC MOTOR

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—All Styles Except, "B&C-11-37-47-57&67" Style Front Doors and "B&C-39" and "C-49&69" Style Rear Doors

1. Remove front door window electric regulator and clamp assembly in a vise (Fig. 6-32).

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.

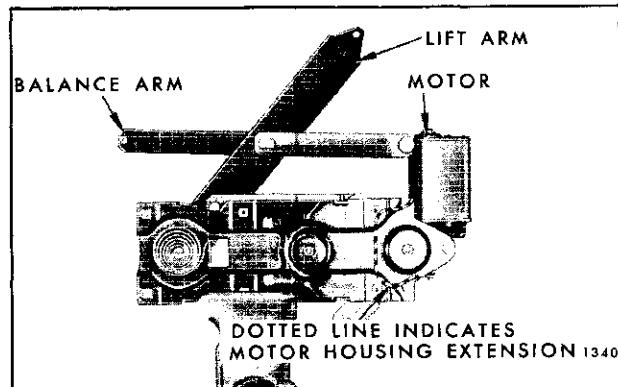


Fig. 6-32—Door Window Regulator and Electric Motor Assembly

IMPORTANT: DO NOT drill into the motor housing, part of which is indicated by the dotted line illustrated in Figure 6-32. In addition, locate hole sufficient distance from edge of sector gear to insure proper retention of sector gear to back plate.

**ALIGN TEMPLATE USING REFERENCE POINTS "I, II, OR III"
WITH REGULATOR LOWER ATTACHING BOLTS ON DOOR**

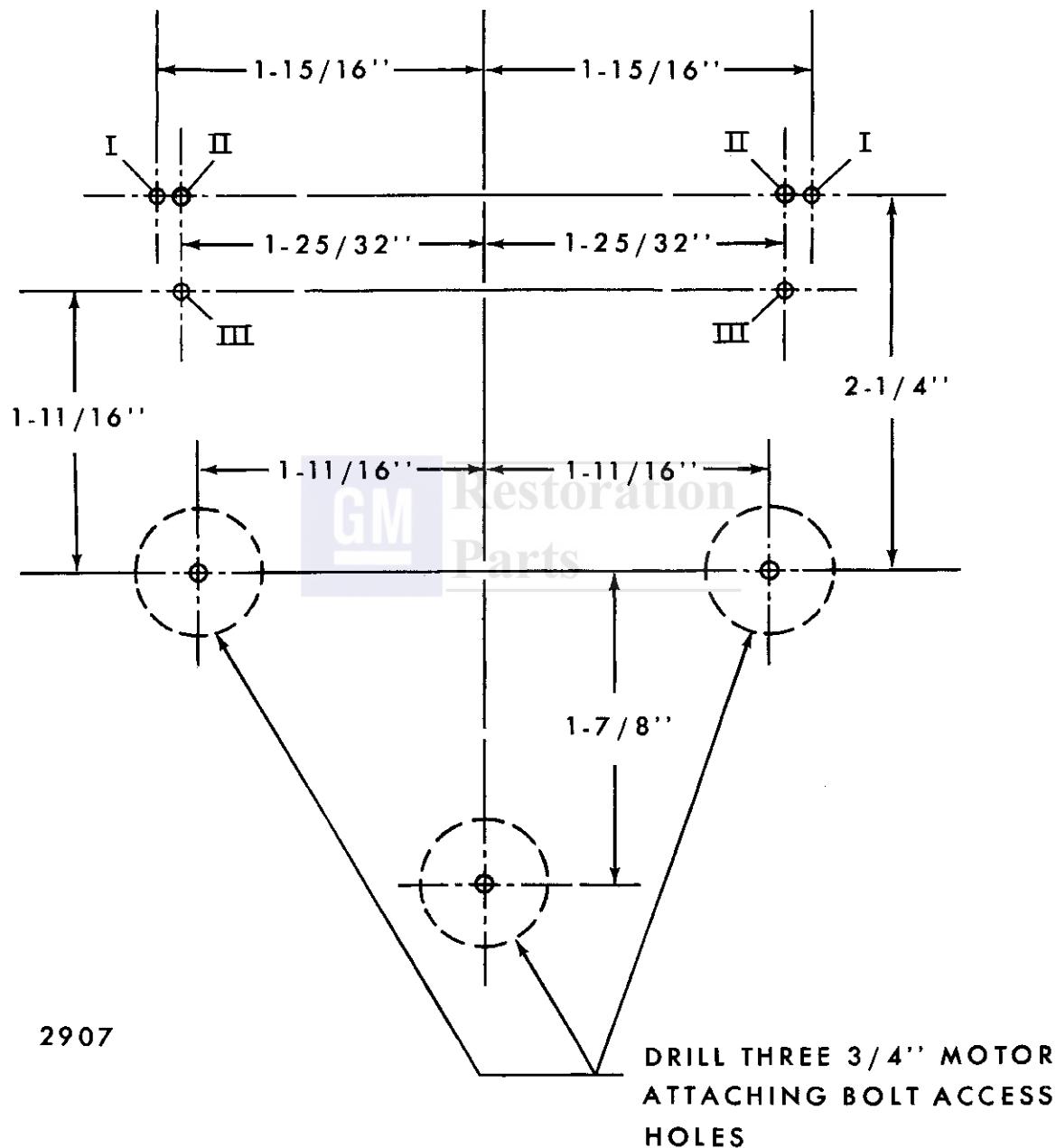


Fig. 6-33—Window Regulator Lower Attaching Bolts Reference Points for Locating Window Motor to Regulator Attaching Bolts: "I" for "B and C-11-37-47-57 and 67" Style Front Doors; "II" for "C-69" Style Rear Doors; "III" for "B and C-39" and "C-49" Style Rear Doors

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.

4. Remove regulator motor attaching bolts and remove motor from regulator assembly (Fig. 6-32).

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.

Removal and Installation—"B and C-11-37-45-57 and 67" Style Front Door and "B and C-39" and "C-49 and 69" Style Rear Doors

1. Remove door trim assembly and inner panel water deflector. Disconnect harness connector at motor.
2. Referring to Figure 6-33, make a template for locating window motor to regulator attaching bolts by selecting the appropriate window regulator lower attaching bolts reference points.
3. Align regulator bolt locations on template with regulator lower attaching bolts on door. Secure template in place with a piece of tape.
4. Using a center punch, dimple the door inner panel at the center of each of the 3/4" holes to be drilled as indicated on the template.
5. Using a 3/4" hole saw, drill three 3/4" motor to regulator attaching bolt access holes as indicated.
6. Remove motor attaching bolts and remove motor through access hole.

NOTE: Although window regulator lift arm is under tension of counterbalance spring, weight of window assembly prevents lift arm from moving. If necessary, window can be moved manually to clear access holes.

7. After replacing motor and prior to trim installation, apply waterproof tape to seal any motor bolt access hole that is outside of the sealing area of the water deflector.

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 both types of front doors utilize similar 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 water deflectors are

covered in the preceding "Front and Rear Doors" section. Trim procedures are in Section 14 (see index).

Unless otherwise stated, the front door service procedures listed here pertain to all body styles.

Figures 6-34 through 6-52 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.

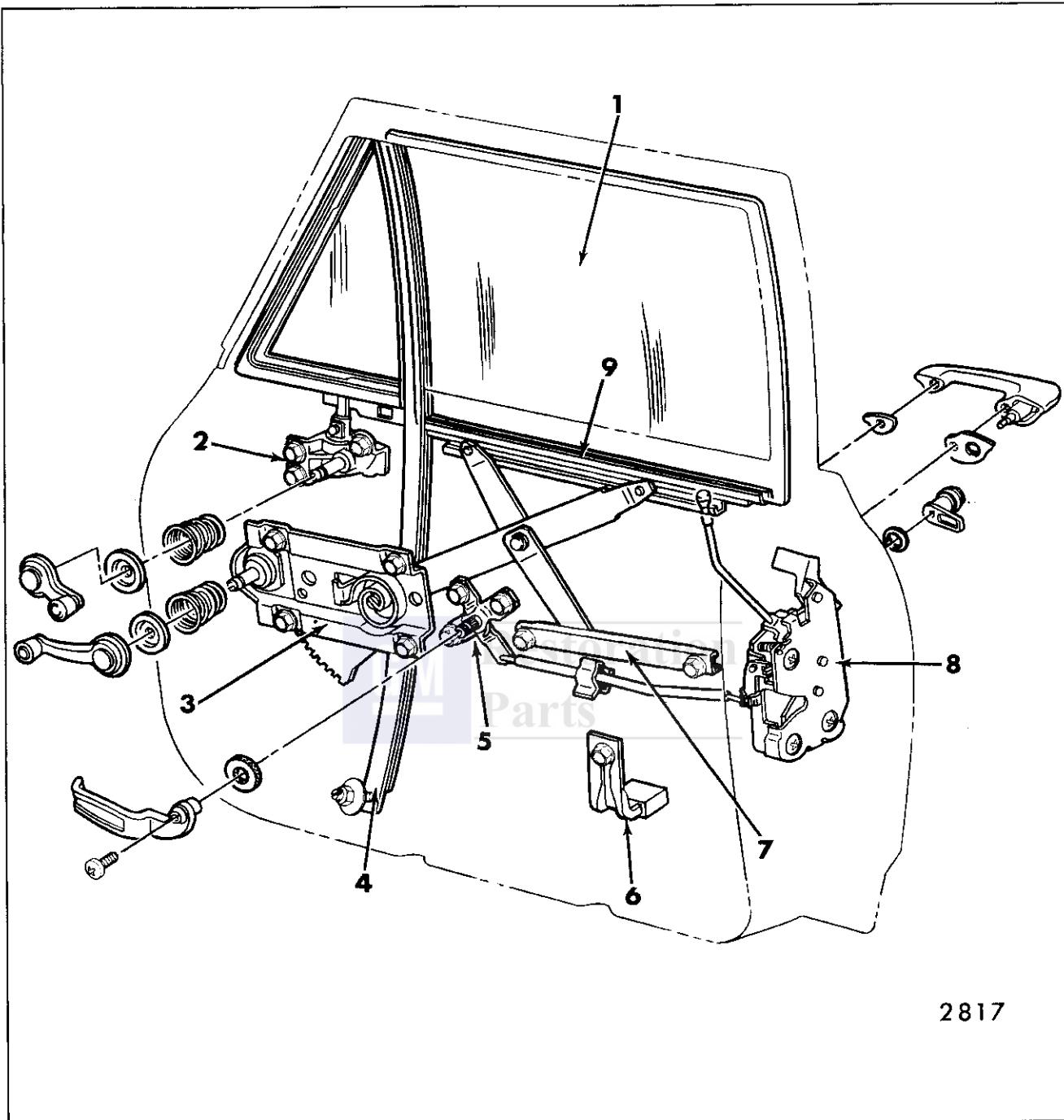


Fig. 6-34—Front Door Hardware - "A" Closed Styles

1. Front Door Window Assembly
2. Ventilator Regulator
3. Window Regulator
4. Ventilator Division Channel
5. Door Lock Remote Control
6. Window Down Stop Support
7. Inner Panel Cam
8. Door Lock
9. Lower Sash Channel Cam

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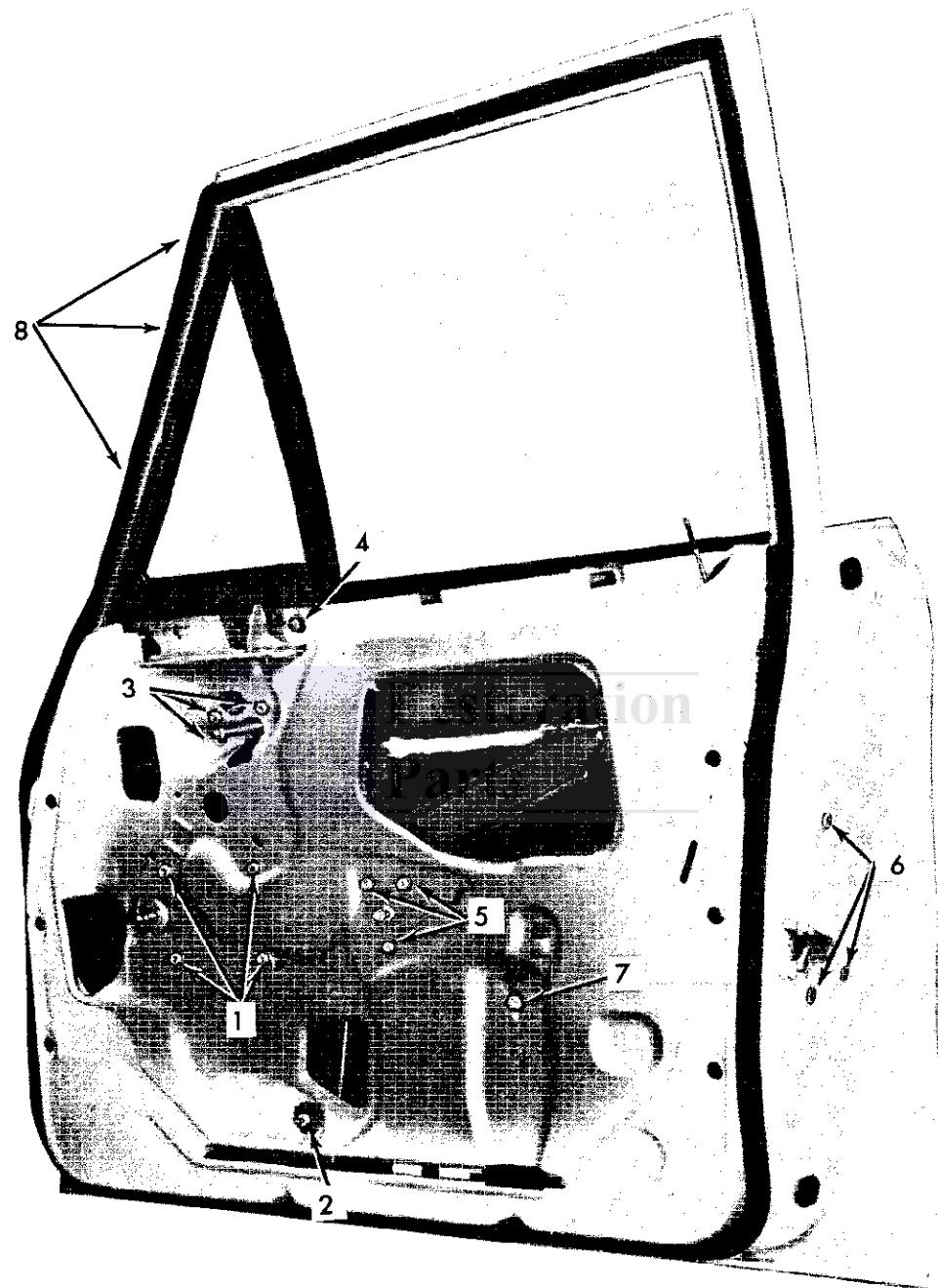


Fig. 6-35—Front Door Hardware - "A" Closed Styles

- 1. Window Regulator Attaching Bolts
- 2. Ventilator Division Channel Lower Adjusting Stud
- 3. Ventilator Regulator Attaching Bolts
- 4. Ventilator Frame to Outer Panel Attaching Bolt
- 5. Door Lock Remote Control Attaching Bolts
- 6. Door Lock Attaching Screws
- 7. Down Stop Support Attaching Bolts
- 8. Ventilator to Door Upper Frame Attaching Screws

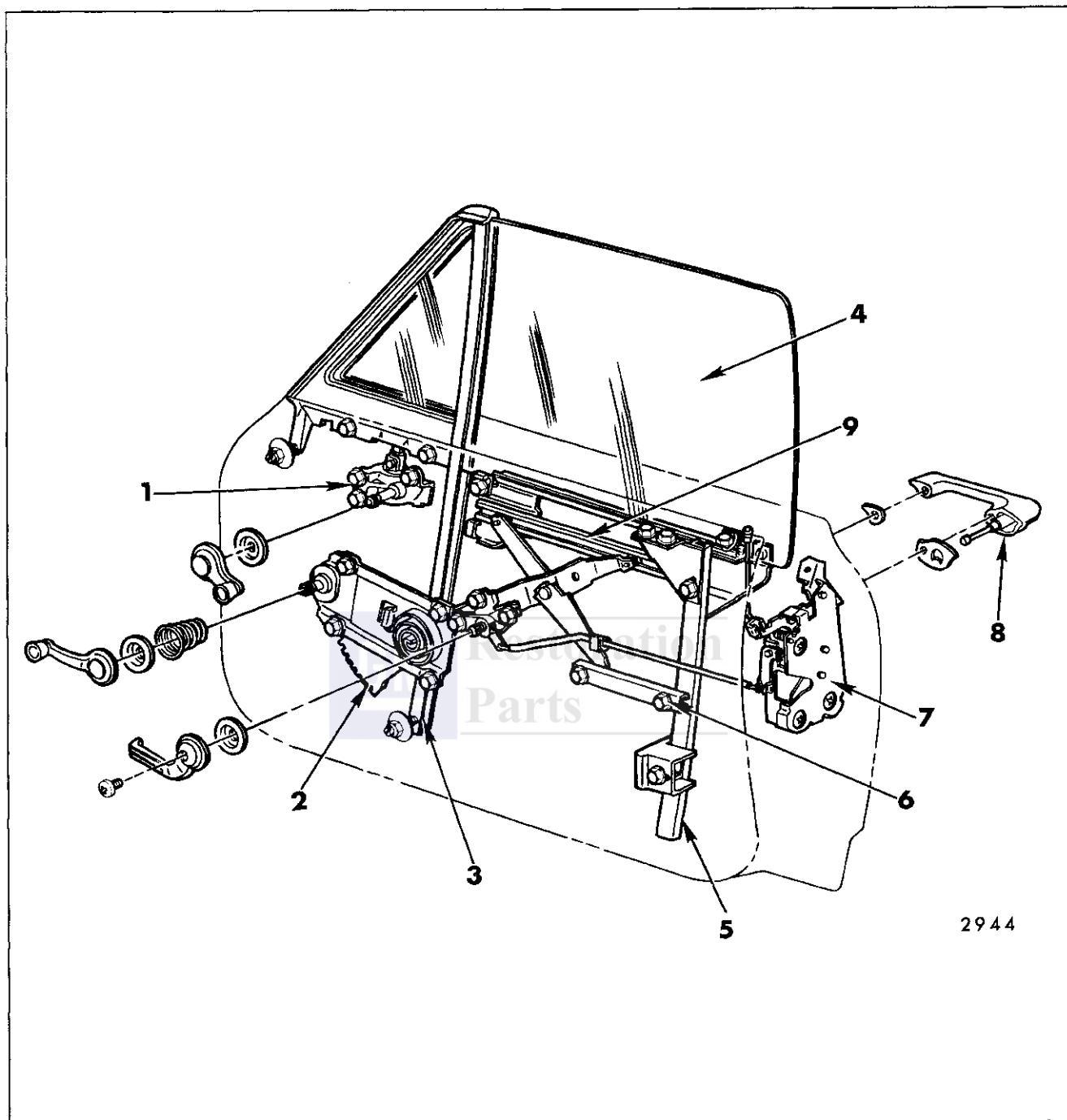
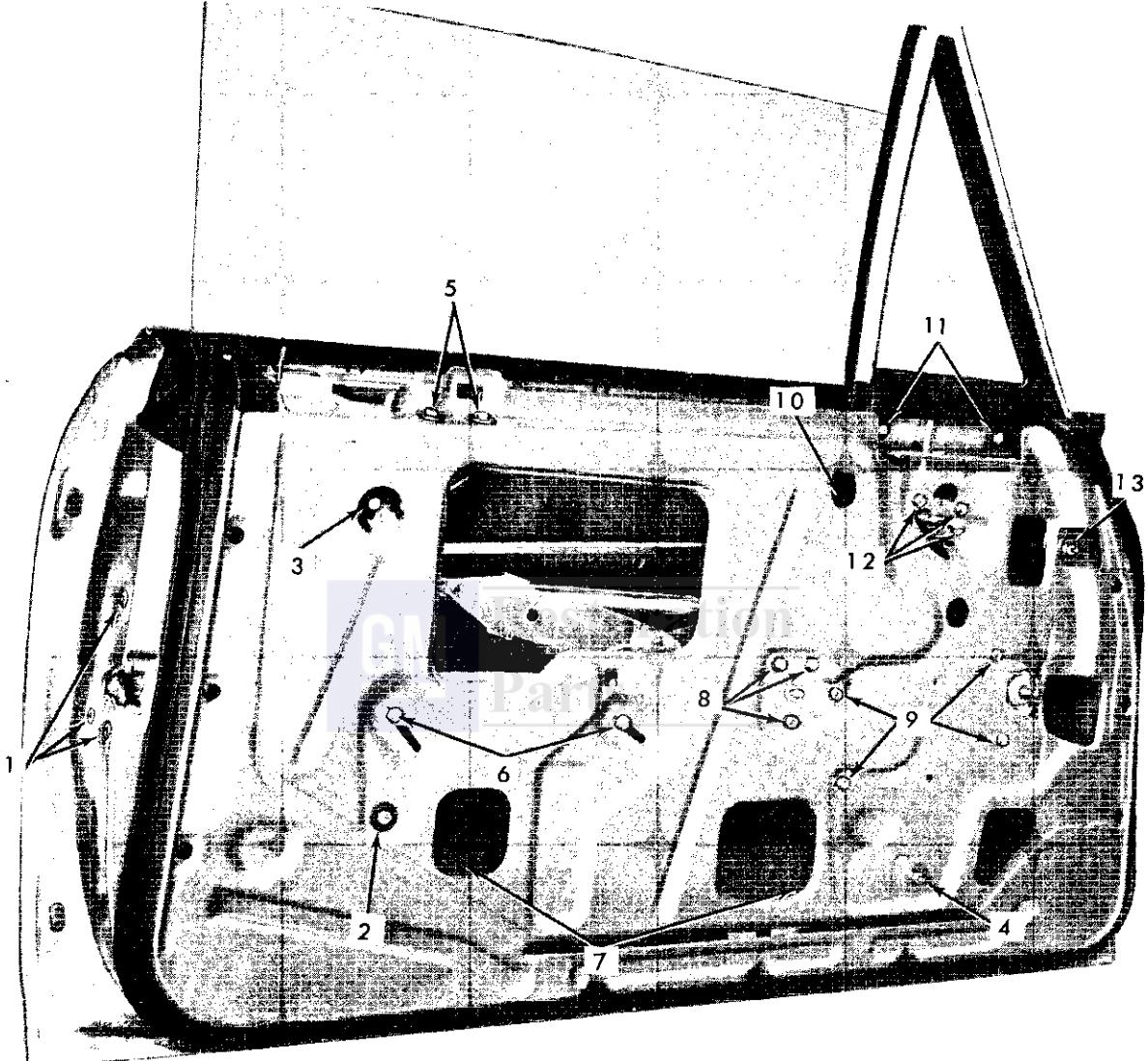


Fig. 6-36—Front Door Hardware - "A" Hardtop and Convertible Styles

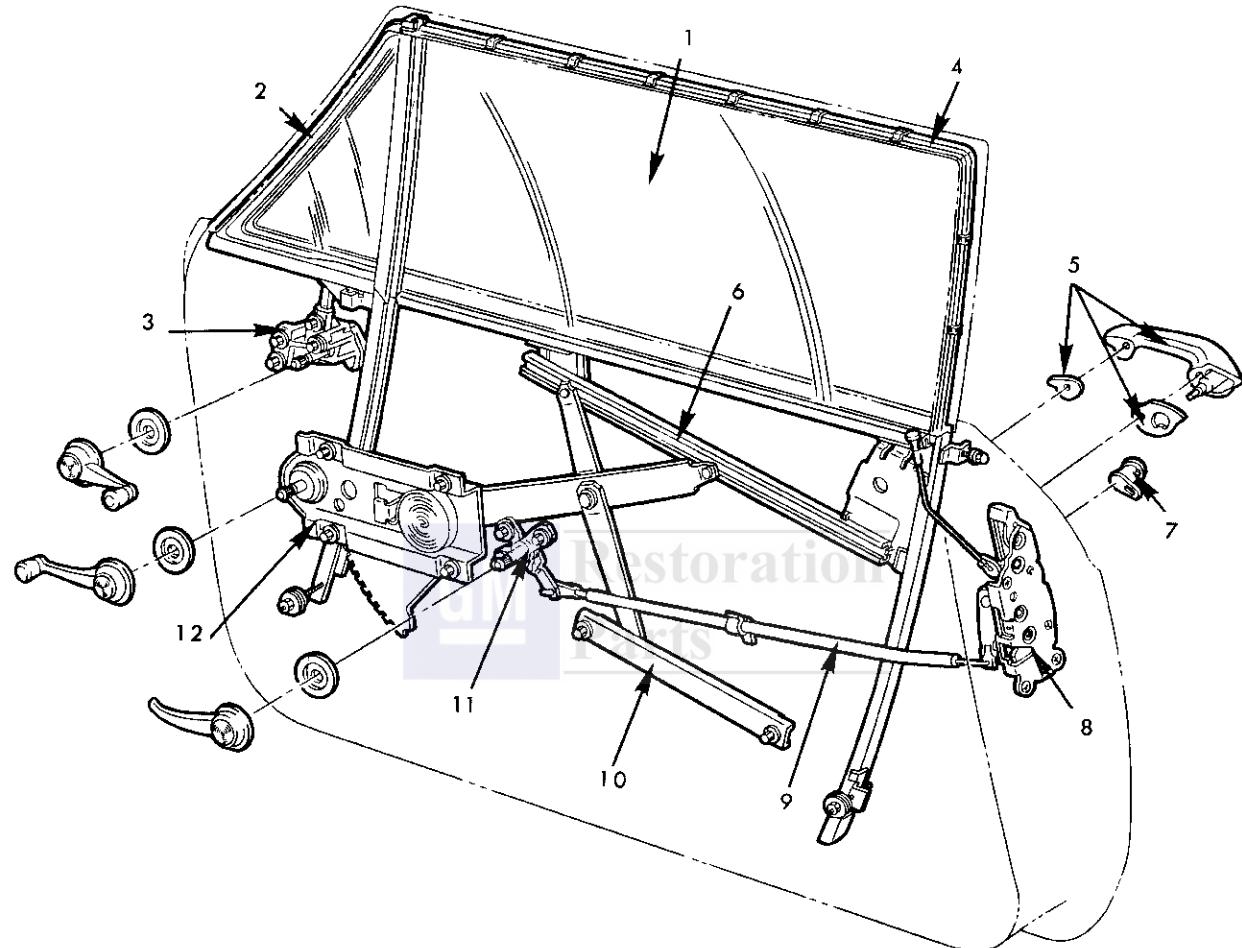
1. Ventilator Regulator
2. Window Regulator
3. Ventilator Division Channel
4. Front Door Window Assembly
5. Rear Guide
6. Inner Panel Cam
7. Door Lock
8. Door Outside Handle
9. Lower Sash Channel Cam



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Fig. 6-37—Front Door Hardware - "A" Hardtop and Convertible Styles

- 1. Door Lock Attaching Screws
- 2. Rear Guide Lower Attaching Bolt
- 3. Window Rear Upper Stop Bolt
- 4. Ventilator Division Channel Lower Adjusting Stud and Nut
- 5. Rear Guide Upper Attaching Bolts
- 6. Inner Panel Cam Attaching Bolts
- 7. Lower Sash Channel Cam Attaching Screws Access Holes
- 8. Door Lock Remote Control Attaching Bolts
- 9. Window Regulator Attaching Bolts
- 10. Window Front Upper Stop Access Hole
- 11. Ventilator Frame to Door Outer Panel Attaching Bolts
- 12. Ventilator Regulator Attaching Bolts
- 13. Ventilator Lower Frame Adjusting Stud and Nut



1739

Fig. 6-38—Front Door Hardware - "B" Closed Styles

- | | | |
|--|---|----------------------------------|
| 1. Window Assembly | 6. Lower Sash Channel Cam (Part of Window Lower Sash Channel) | 9. Remote Control Connecting Rod |
| 2. Ventilator Assembly | 7. Lock Cylinder | 10. Inner Panel Cam |
| 3. Ventilator Regulator | 8. Door Lock | 11. Remote Control |
| 4. Window Glass Run Channel | | 12. Window Regulator |
| 5. Door Outside Handle and Sealing Gaskets | | |

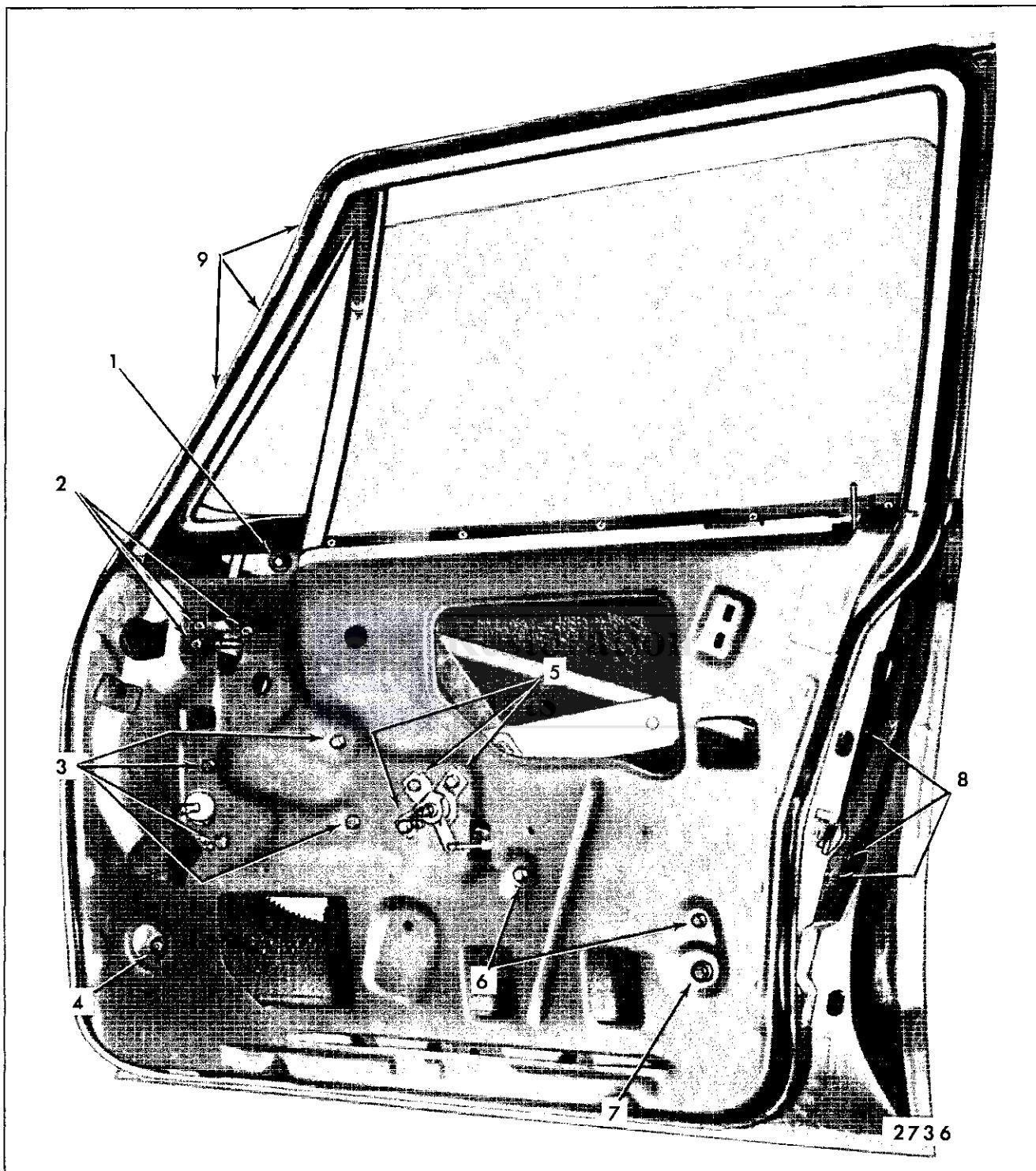


Fig. 6-39—Front Door Hardware - "B" Closed Styles

- 1. Ventilator Frame to Outer Panel Attaching Bolt
- 2. Ventilator Regulator Attaching Screws
- 3. Window Regulator Attaching Bolts
- 4. Ventilator Division Channel Lower Adjusting Stud
- 5. Door Lock Remote Control Attaching Bolts
- 6. Inner Panel Cam Attaching Bolts
- 7. Glass Run Channel Attaching Bolt
- 8. Door Lock Attaching Screws
- 9. Ventilator to Door Upper Frame Attaching Screws

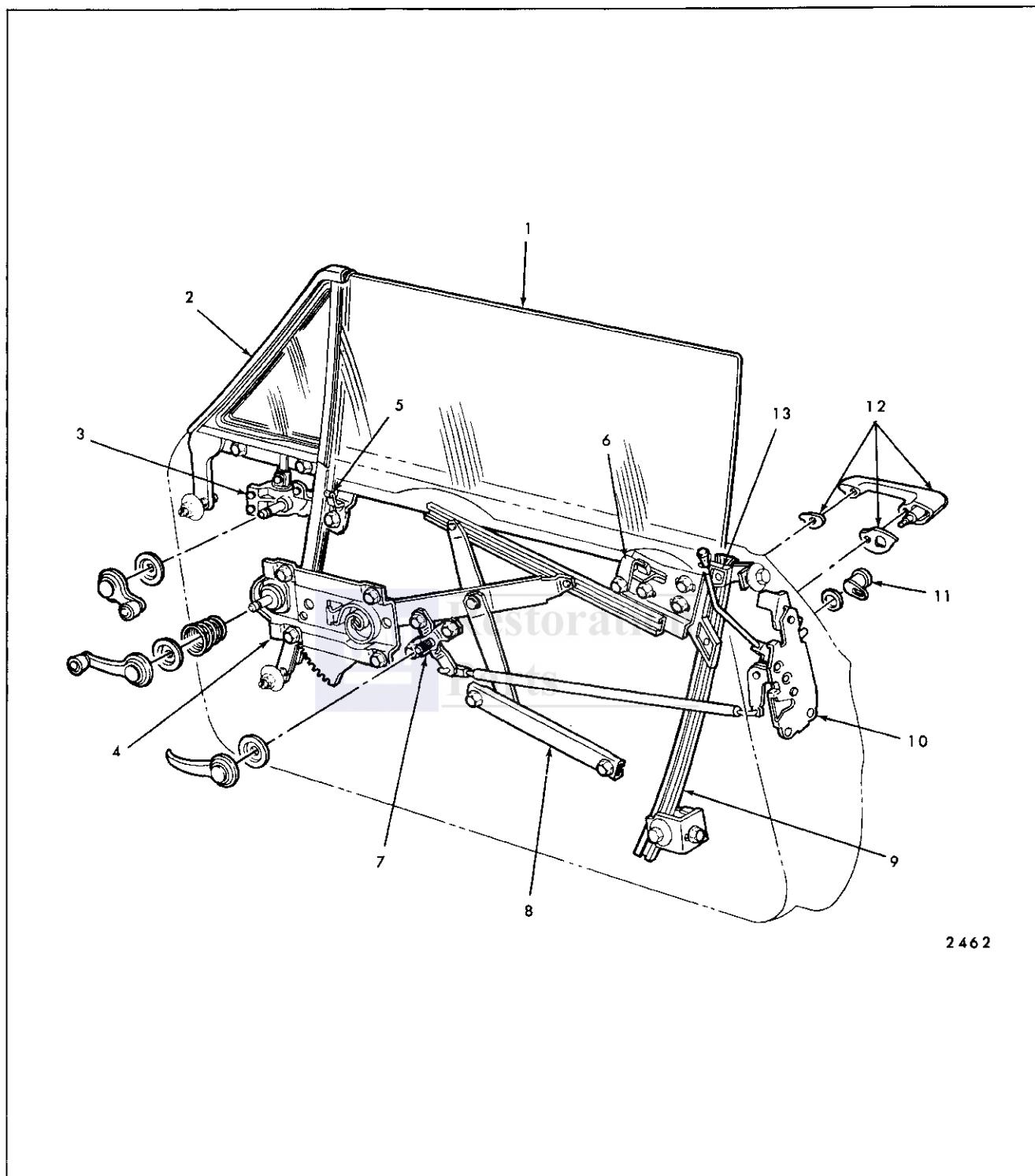
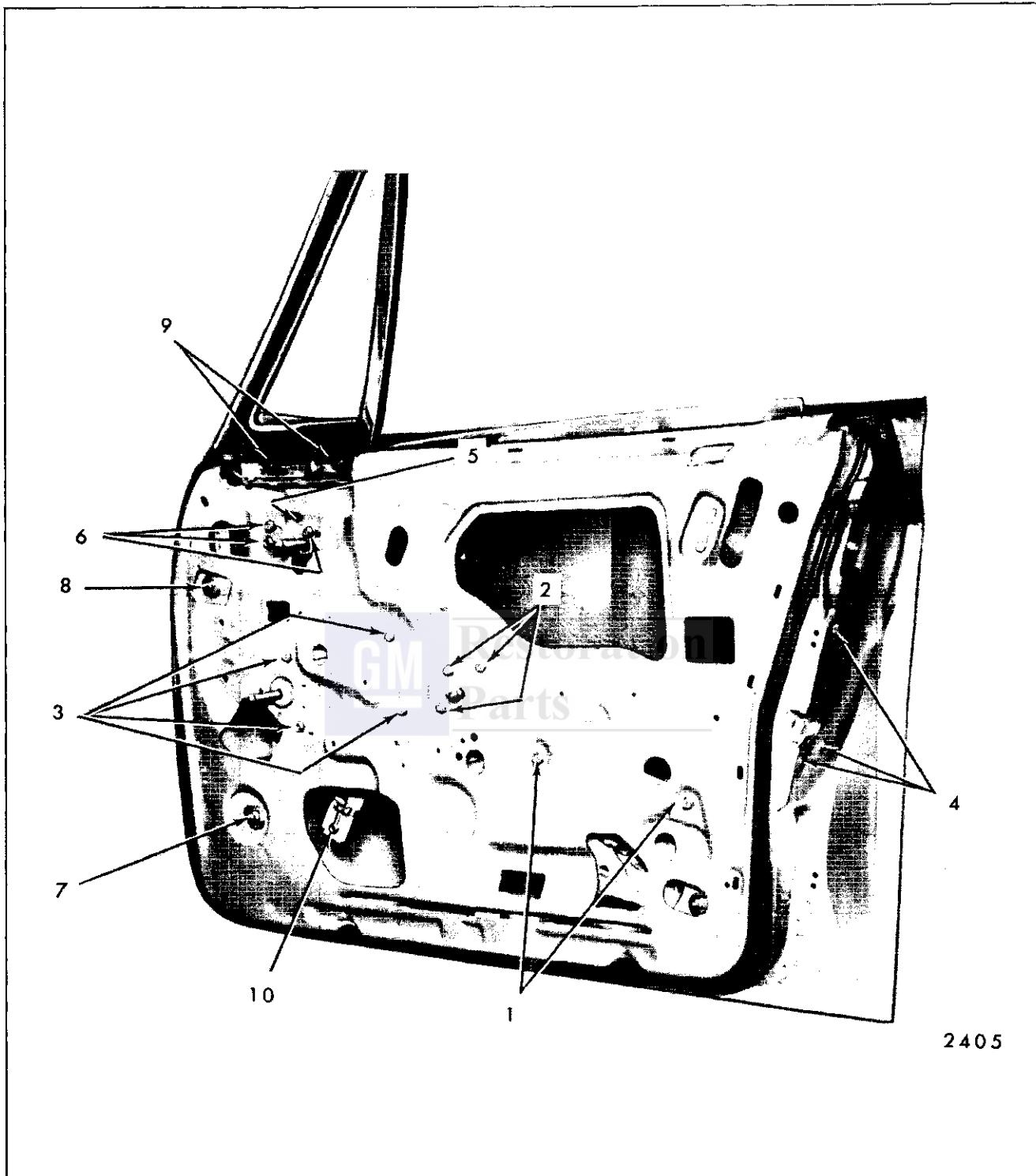


Fig. 6-40—Front Door Hardware - "B-C-39-47-57-67-87" Styles Except 16647 and 26657

- | | | |
|-------------------------------|-----------------------------|-----------------------------|
| 1. Front Door Window Assembly | 6. Window Rear Upper Stop | 11. Door Lock Cylinder |
| 2. Ventilator | 7. Door Lock Remote Control | 12. Outside Handle and |
| 3. Ventilator Regulator | 8. Inner Panel Cam | Gaskets |
| 4. Window Regulator | 9. Window Rear Guide | 13. Front Door Window Guide |
| 5. Window Front Upper Stop | 10. Door Lock | Rear Plate Assembly |



2405

Fig. 6-41—Front Door Hardware - "B-C" Hardtop and Convertible Styles (with Ventilator)

- 1. Inner Panel Cam Attaching Bolts
- 2. Door Lock Remote Control Attaching Bolts
- 3. Window Regulator Attaching Bolts
- 4. Door Lock Screws
- 5. Ventilator T-Shaft to Regulator Screw
- 6. Ventilator Regulator Attaching Screws
- 7. Ventilator Division Channel Lower Adjusting Stud and Nut
- 8. Ventilator Lower Frame Adjusting Stud and Nut
- 9. Ventilator Frame to Outer Panel Attaching Bolts
- 10. Door Window Front Upper Stop

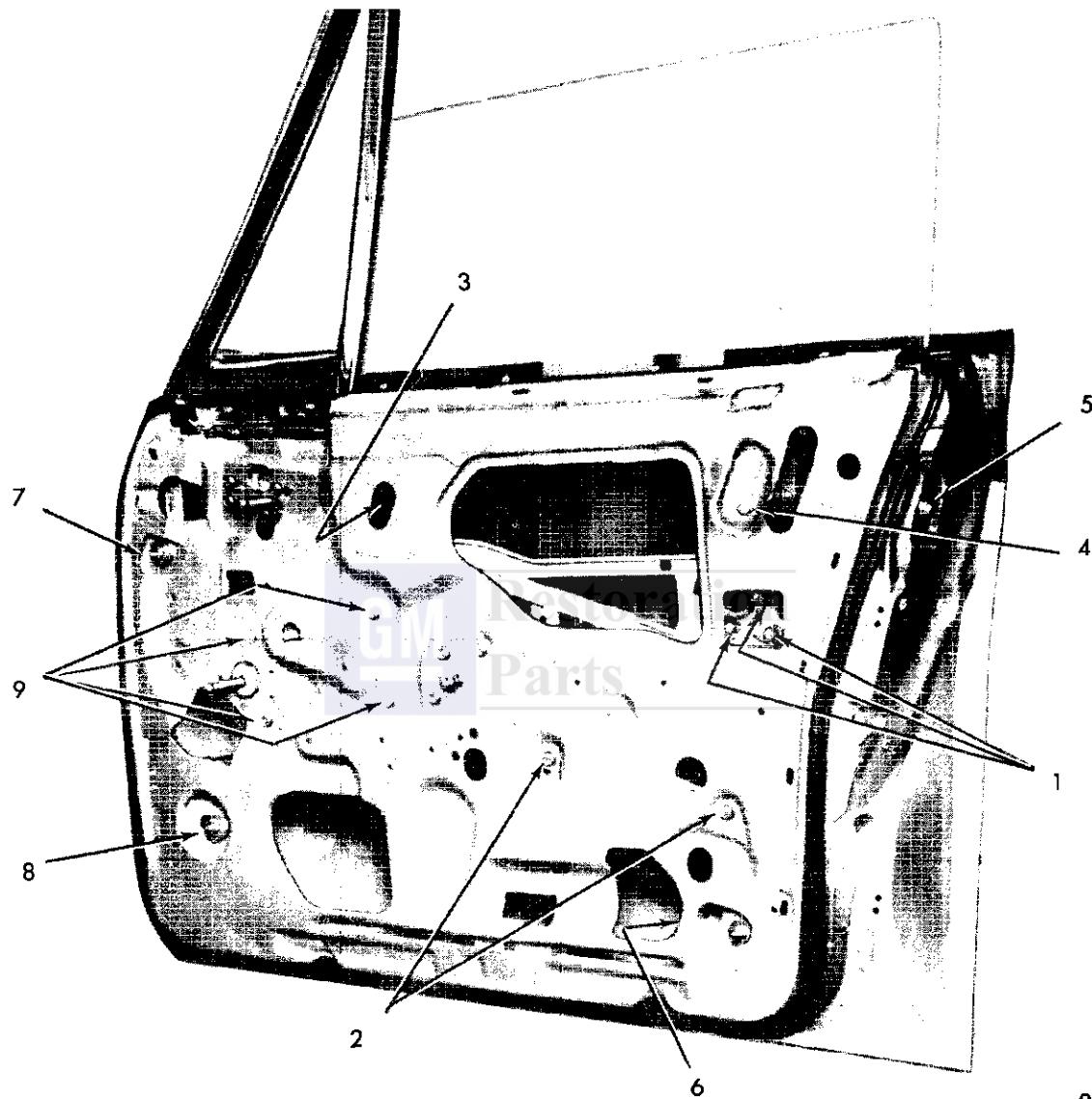
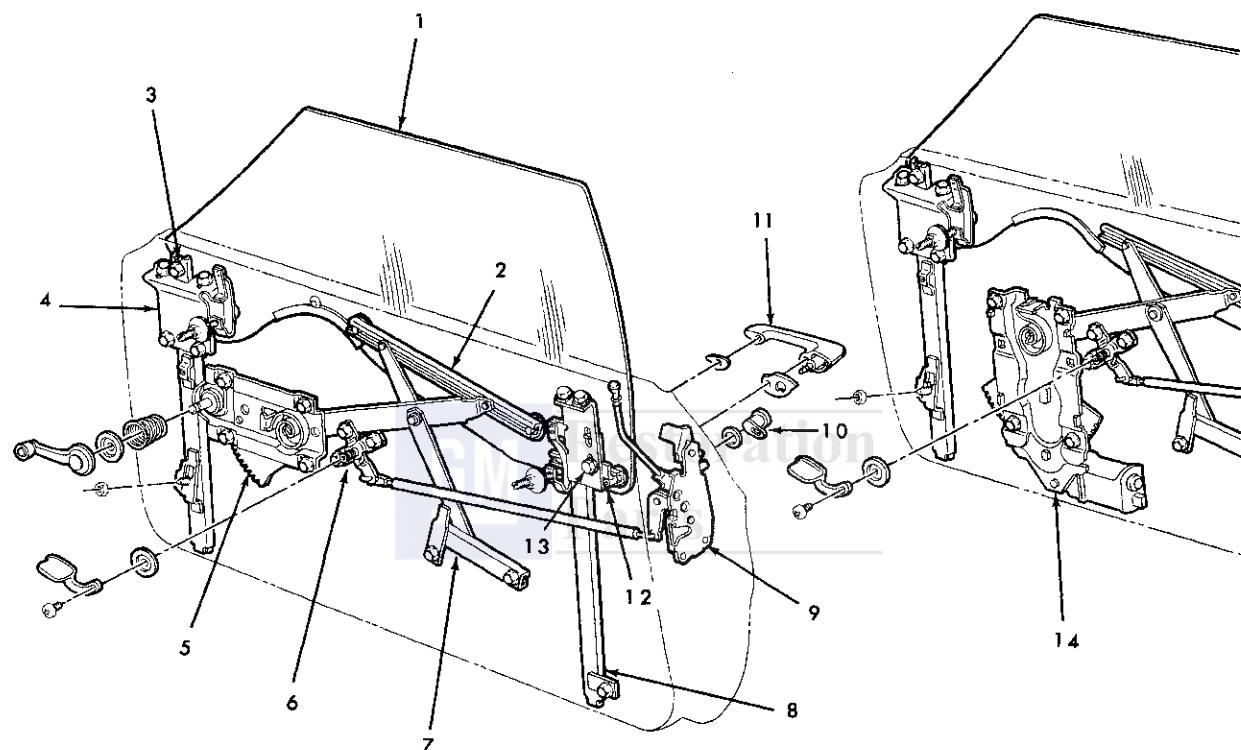


Fig. 6-42—Front Door Hardware – "B-C" Hardtop and Convertible Styles (with Ventilator)

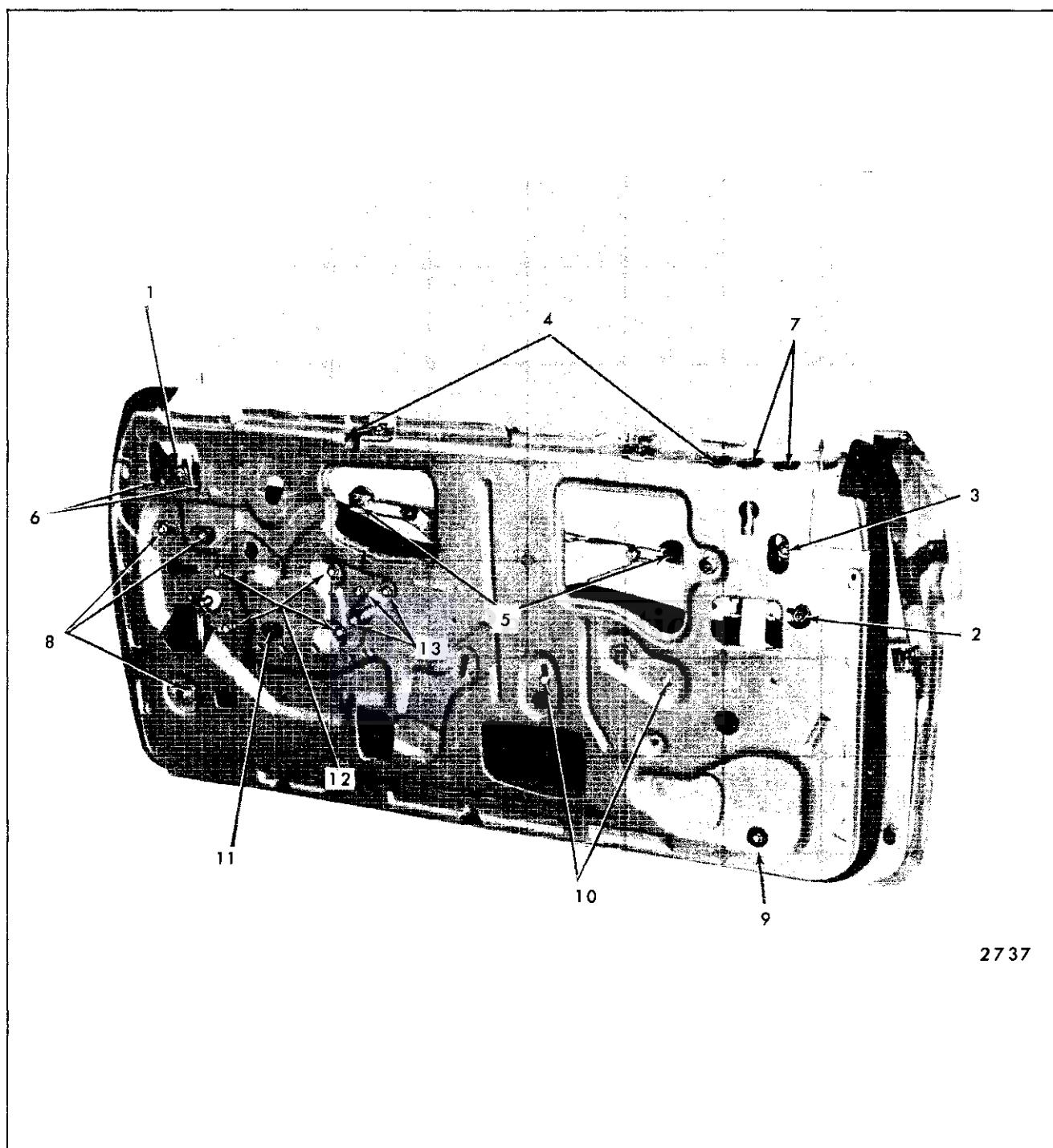
- 1. Window Lower Sash Channel to Rear Guide Plate Bolts
- 2. Inner Panel Cam Attaching Bolts
- 3. Window Front Up-Stop
- 4. Window Rear Up-Stop
- 5. Rear Guide Upper Attaching Bolt
- 6. Rear Guide to Lower Support Bracket Bolt
- 7. Ventilator Lower Frame Adjusting Stud and Nut
- 8. Ventilator Division Channel Lower Adjusting Stud and Nut
- 9. Window Regulator Attaching Bolts



2463

Fig. 6-43—Front Door Hardware - 16647 and 26657 Styles

- | | | |
|-------------------------------|-----------------------------|--|
| 1. Front Door Window Assembly | 6. Door Lock Remote Control | 11. Door Outside Handle |
| 2. Lower Sash Channel Cam | 7. Inner Panel Cam | 12. Window Rear Upper Stop (on window) |
| 3. Window Front Upper Stop | 8. Rear Guide | 13. Window Rear Upper Stop (on guide) |
| 4. Front Guide | 9. Door Lock | 14. Window Regulator - Electric |
| 5. Window Regulator - Manual | 10. Door Lock Cylinder | |



2737

Fig. 6-44—Front Door Hardware - 16647 and 26657 Styles

1. Window Front Upper Stop
2. Window Rear Upper Stop (on Window)
3. Window Rear Upper Stop (on Guide)
4. Window Stabilizer Strip Assemblies
5. Window Lower Sash Channel Cam Stud Nuts
6. Front Guide to Upper Support Bracket Bolts
7. Rear Guide Upper Attaching Bolts
8. Front Guide Upper Attaching Bolts and Lower Attaching Stud Nut
9. Rear Guide Lower Attaching Bolt
10. Inner Panel Cam Attaching Bolts
11. Sector Gear Stop Bolts
12. Window Regulator Attaching Bolts
13. Door Lock Remote Control Attaching Bolts

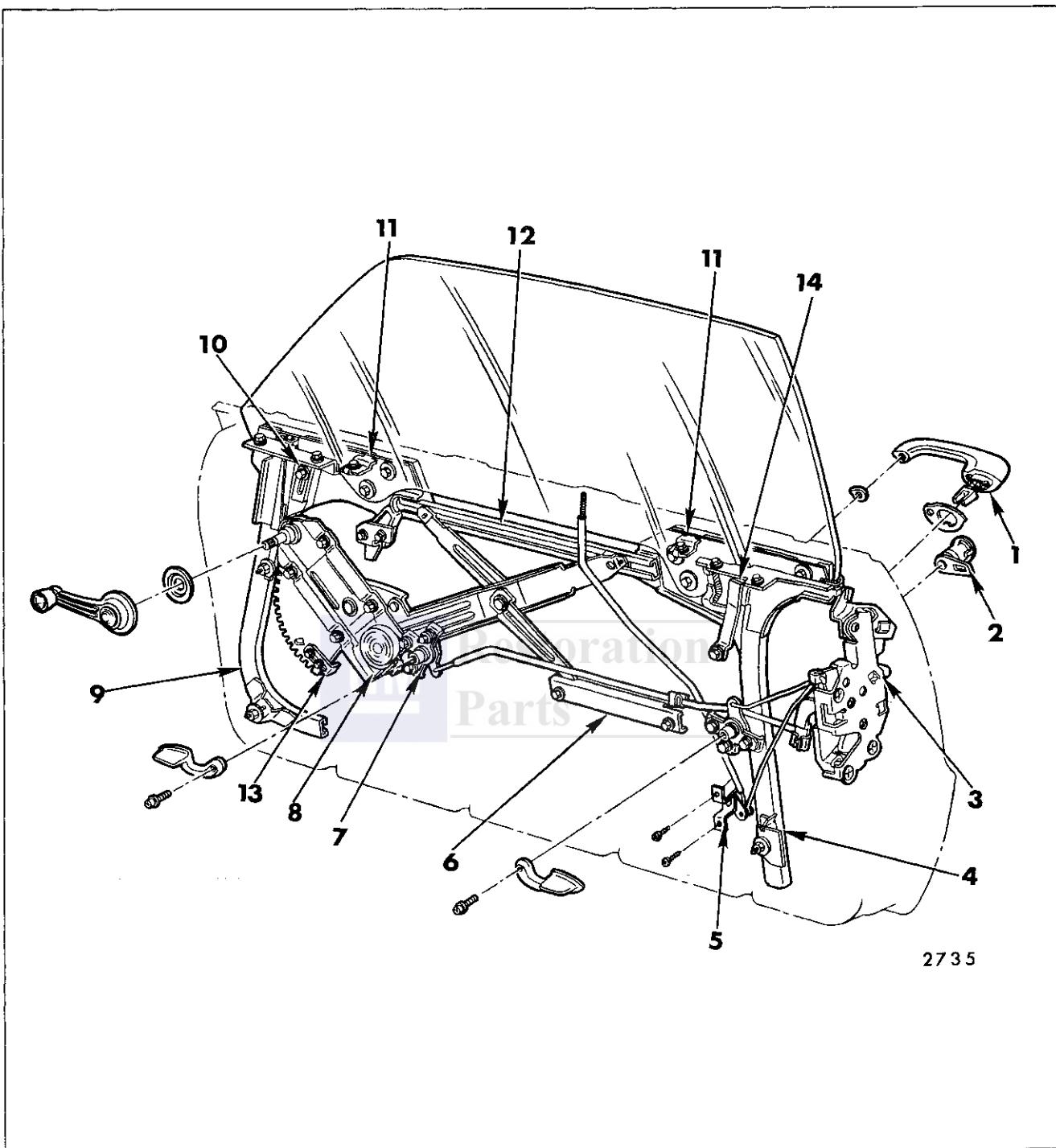


Fig. 6-45—Front Door Hardware - "E" Styles

- | | |
|---|---|
| 1. Door Outside Handle | 8. Window Regulator |
| 2. Lock Cylinder | 9. Front Guide |
| 3. Door Lock | 10. Window Front Up-Stop |
| 4. Rear Guide | 11. Trim Pad Adjusting Plates |
| 5. Inside Locking Rod to Lock Connecting Link | 12. Lower Sash Channel Cam |
| 6. Inner Panel Cam | 13. Window Regulator Sector Stop (Manual) |
| 7. Door Lock Remote Control | 14. Window Rear Up-Stop |

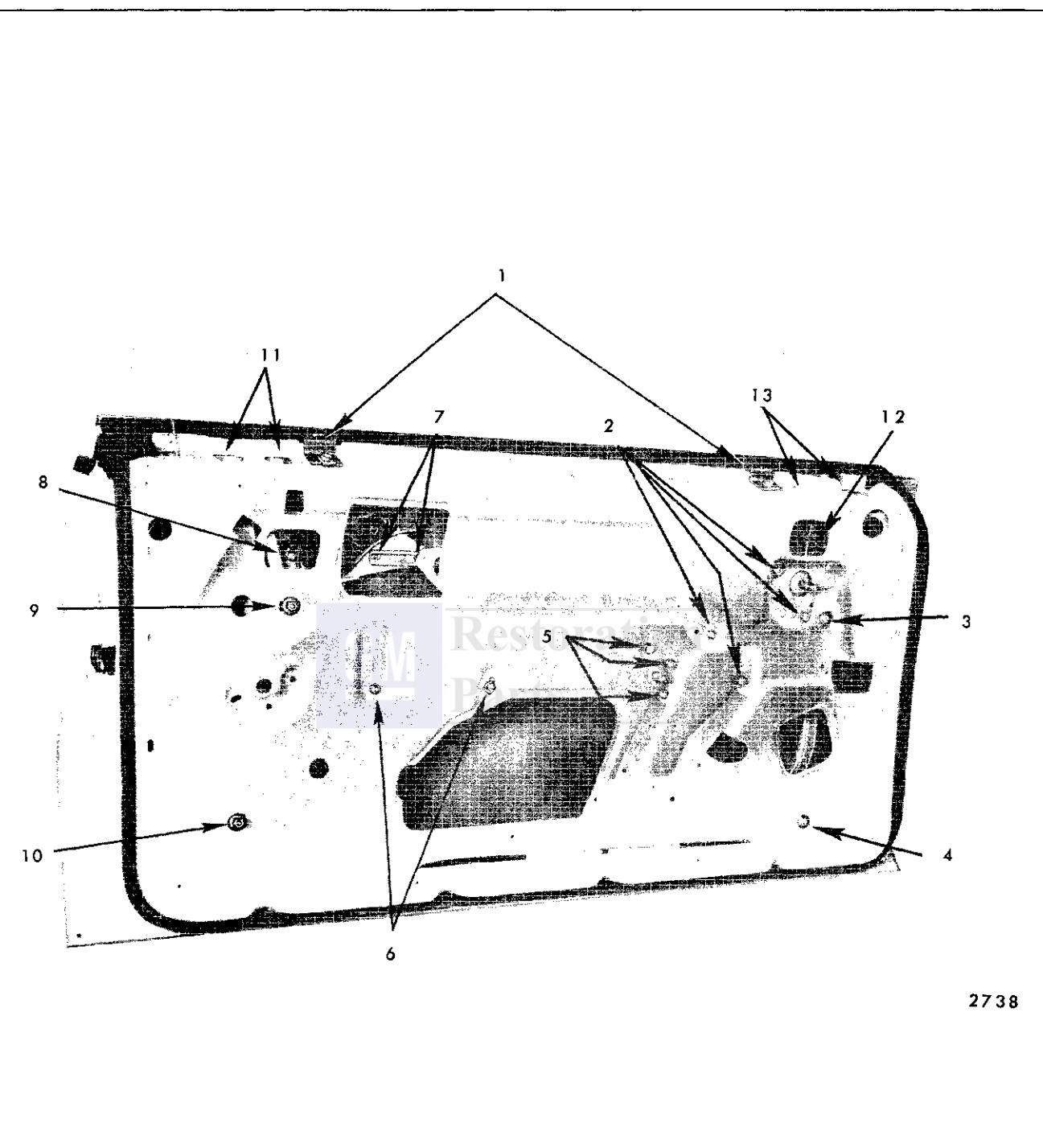


Fig. 6-46—Front Door Hardware - "E" Styles

- 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
- 11. Window Rear Guide Upper Bolts
- 12. Window Front Up-Travel Stop
- 13. Window Front Guide Upper Bolts

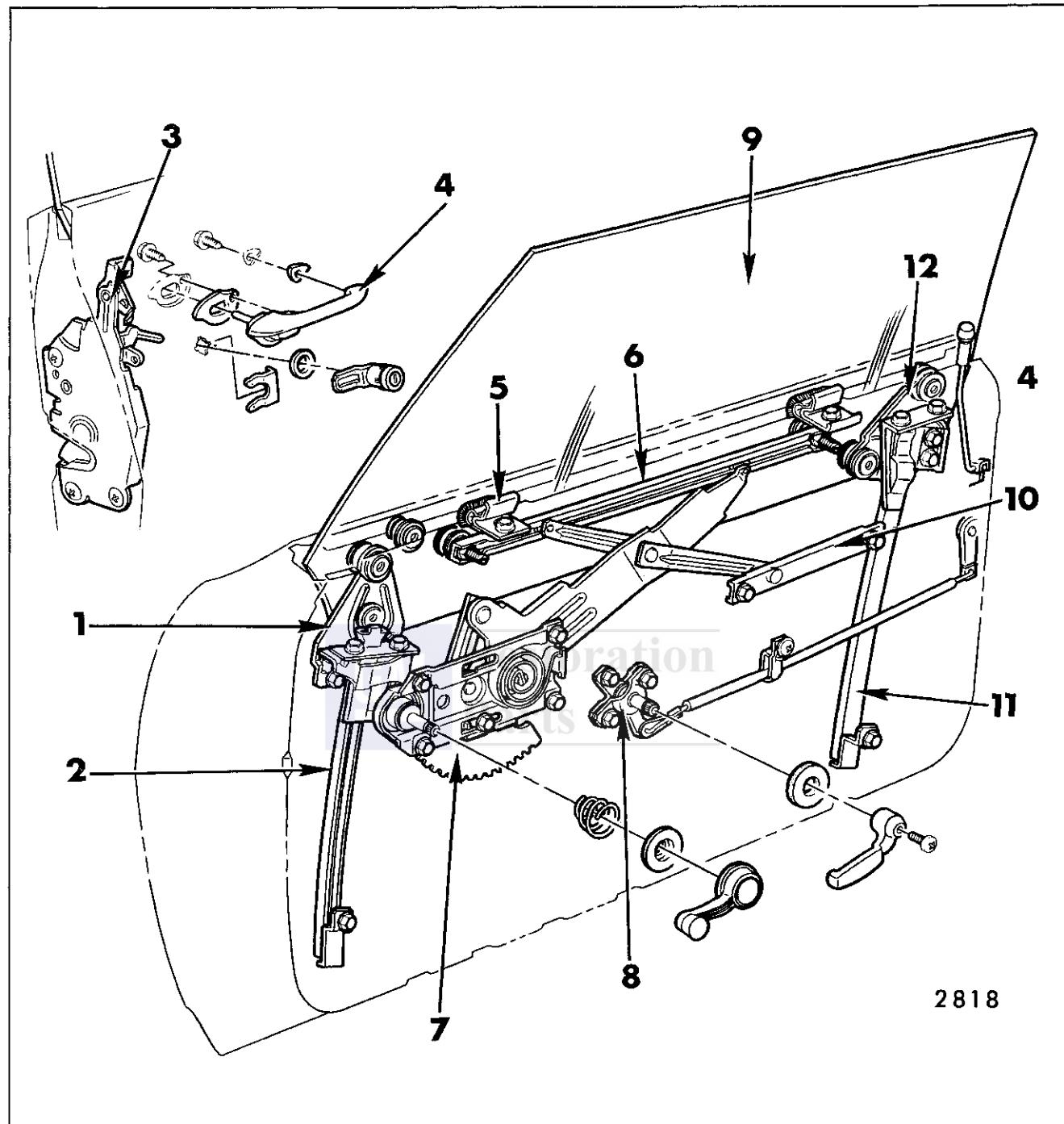
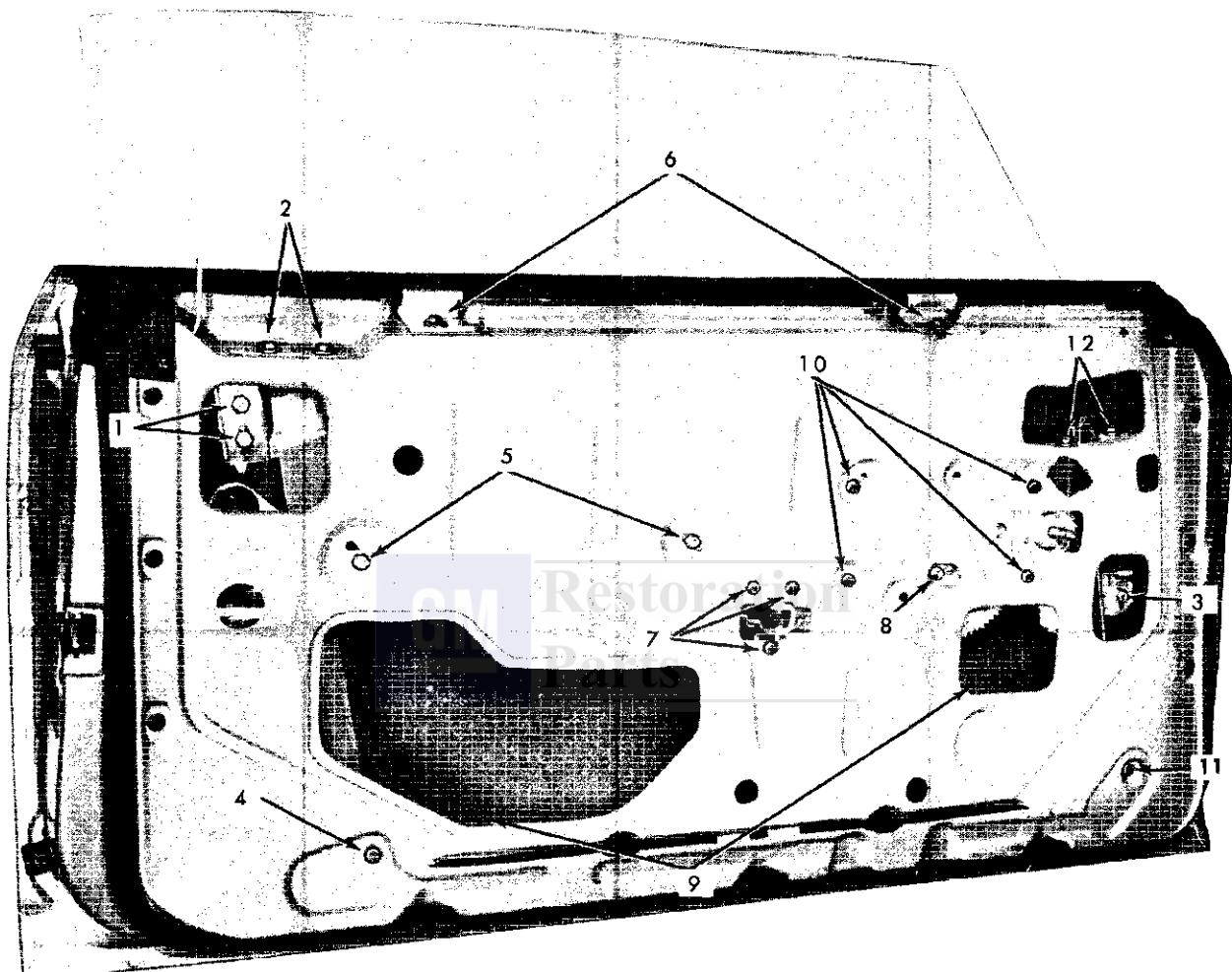


Fig. 6-47—Front Door Hardware - "F" Styles

- 1. Front Lower Sash Channel and Window Roller Cam Assembly
- 2. Front Guide
- 3. Door Lock
- 4. Door Outside Handle
- 5. Stabilizer Strip
- 6. Lower Sash Channel Cam
- 7. Window Regulator
- 8. Door Lock Remote Control
- 9. Front Door Window Assembly
- 10. Inner Panel Cam
- 11. Rear Guide
- 12. Rear Lower Sash Channel and Window Roller Assembly



2745

Fig. 6-48—Front Door Hardware - "F" Styles

- 1. Window Rear Up-Travel Stop
- 2. Rear Guide Upper Attaching Bolts
- 3. Window Front Up-Travel Stop
- 4. Rear Guide Lower Attaching Bolt
- 5. Inner Panel Cam Attaching Bolts
- 6. Window Front and Rear Stabilizer Strips
- 7. Door Lock Remote Control Attaching Bolts
- 8. Sector Gear Stop Bolt
- 9. Window Lower Sash Channel Cam Stud Nut Access Holes
- 10. Window Regulator Attaching Bolts
- 11. Front Guide Lower Attaching Bolt
- 12. Front Guide Upper Attaching Bolts

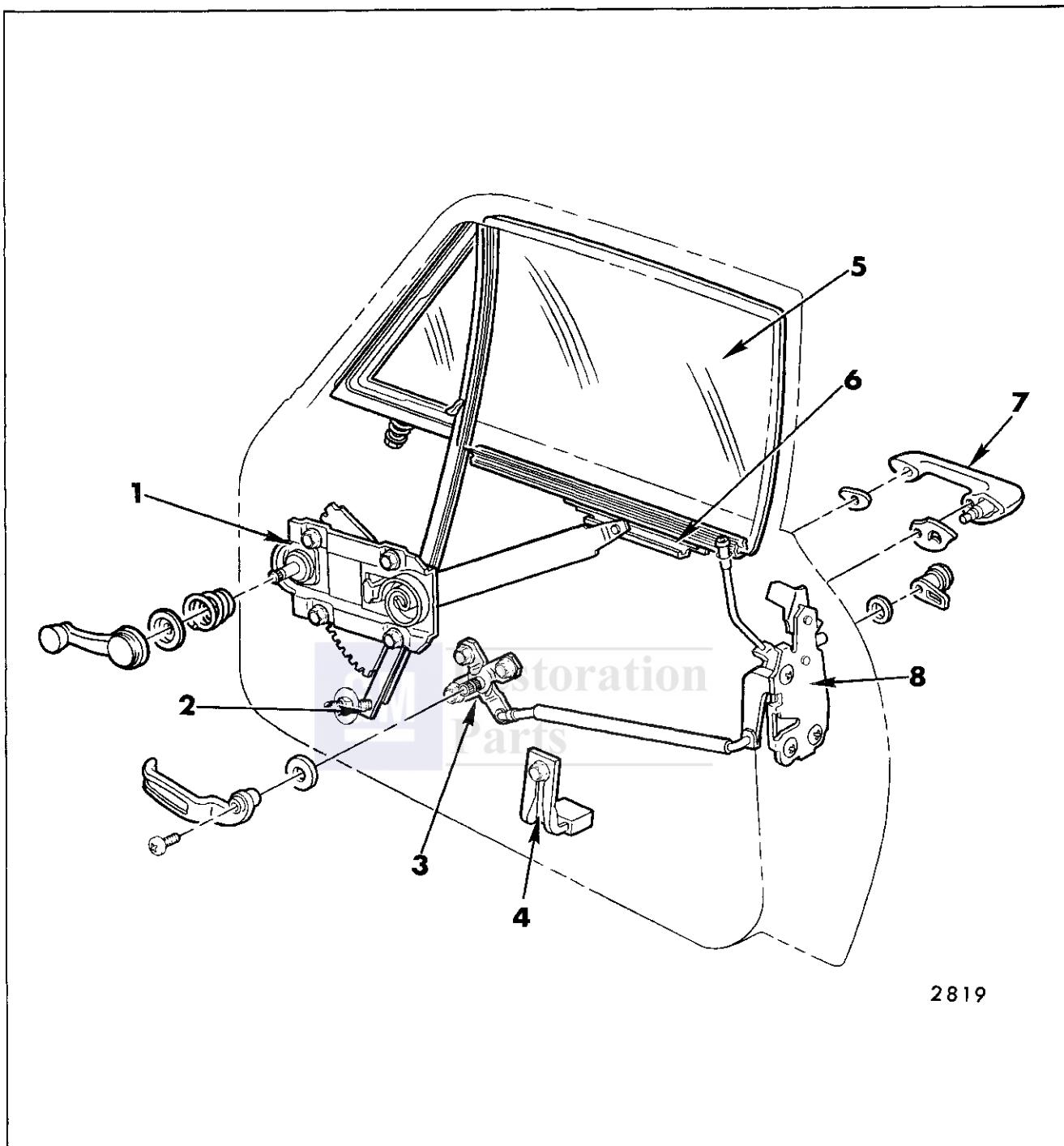
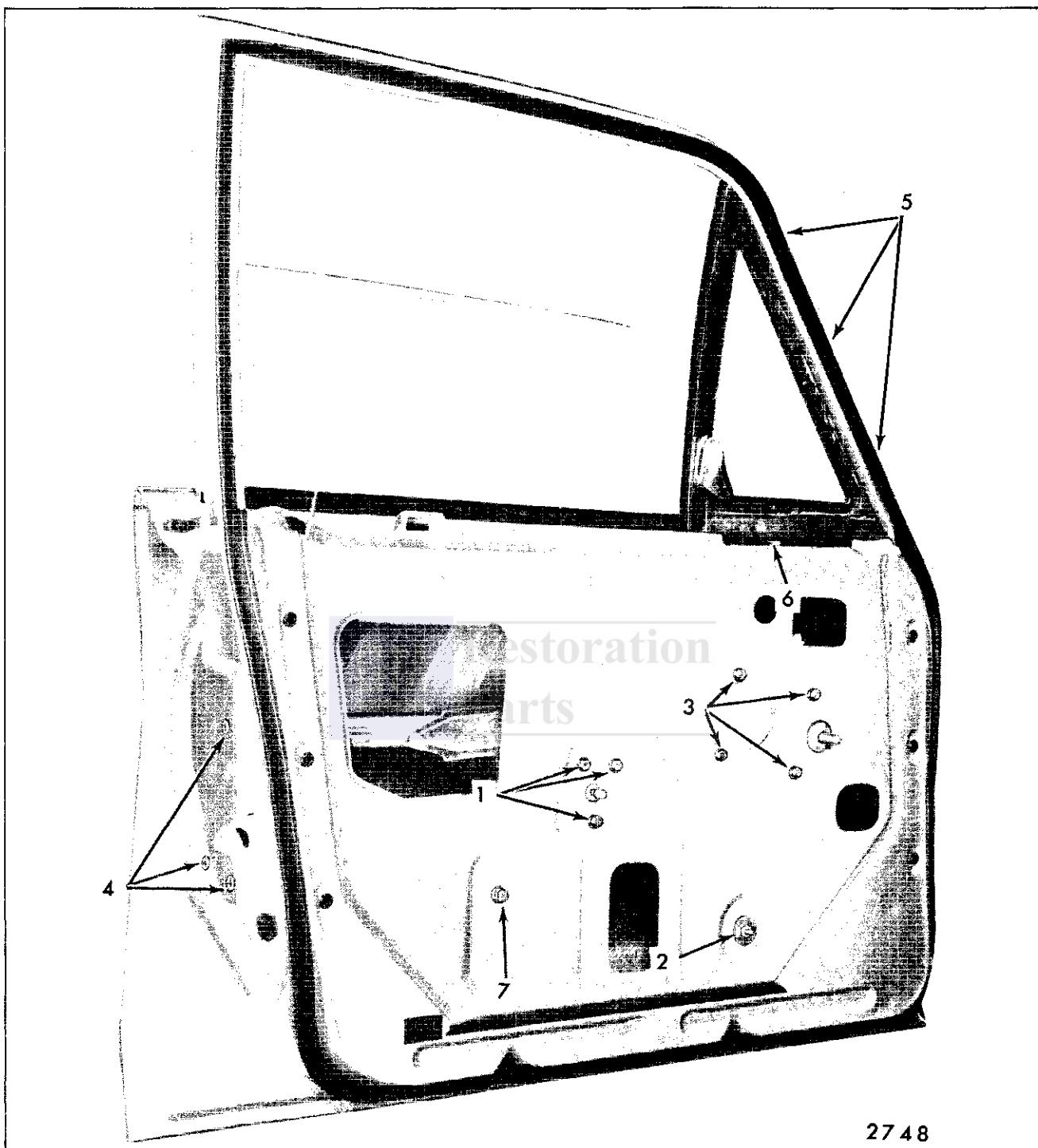


Fig. 6-49—Front Door Hardware - "X" Styles

1. Window Regulator
2. Ventilator Division Channel
3. Door Lock Remote Control
4. Window Down-Travel Stop Support
5. Front Door Window Assembly
6. Lower Sash Channel Cam
7. Door Outside Handle
8. Door Lock

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2748

Fig. 6-50—Front Door Hardware - "X" Styles

1. Door Lock Remote Control Attaching Bolts
2. Ventilator Division Channel Lower Adjusting Stud
3. Window Regulator Attaching Bolts
4. Door Lock Attaching Screws
5. Door Upper Frame to Ventilator Frame Attaching Screws
6. Ventilator Frame to Door Outer Panel Attaching Bolt
7. Window Down Stop Support Attaching Bolt

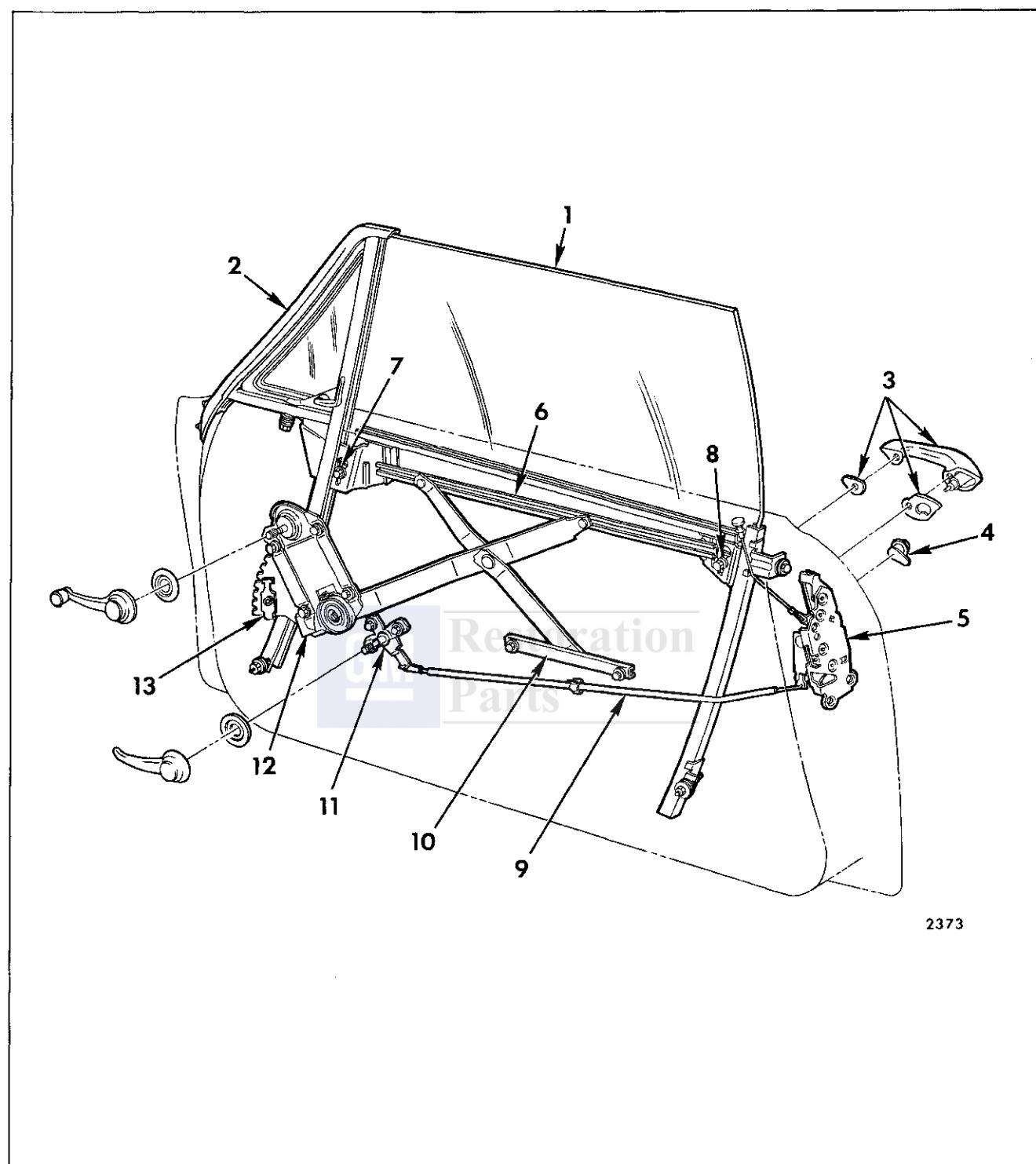
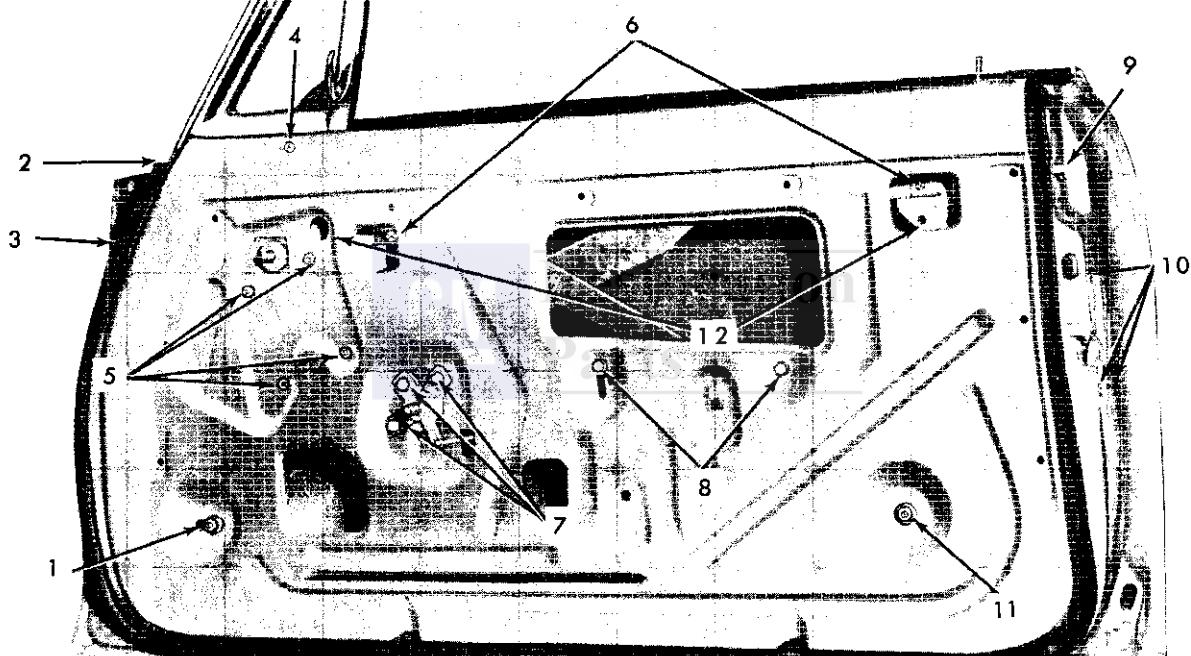


Fig. 6-51—Front Door Hardware - "Z" Styles

- | | | |
|---------------------------------------|----------------------------------|-------------------------|
| 1. Window Assembly | 6. Sash Channel Cam | 10. Inner Panel Cam |
| 2. Ventilator Assembly | 7. Window Front Up-Travel Stop | 11. Remote Control |
| 3. Outside Handle and Sealing Gaskets | 8. Window Rear Up-Travel Stop | 12. Window Regulator |
| 4. Lock Cylinder | 9. Remote Control Connecting Rod | 13. Sector Gear Up-Stop |
| 5. Lock | | |



2734

Fig. 6-52—Front Door Hardware - "Z" Styles

- 1. Ventilator Division Channel Lower Adjusting Stud
- 2. Ventilator Frame Attaching Bolt
- 3. Ventilator Frame Lower Adjusting Stud
- 4. Door Inner Panel to Ventilator Frame Attaching Screw
- 5. Window Regulator Attaching Bolts
- 6. Window Lower Sash Channel Cam Attaching Screws
- 7. Door Lock Remote Control Attaching Bolts
- 8. Inner Panel Cam Attaching Bolts
- 9. Rear Glass Run Channel Upper Attaching Bolt
- 10. Door Lock Attaching Screws
- 11. Rear Glass Run Channel Lower Adjusting Stud and Nut
- 12. Window Front and Rear Upper Stops Access Holes

FRONT DOOR HINGES

All hinges are constructed of steel, except the "Z" style lower hinge door side strap which is constructed of malleable iron. A two stage hold-open feature is incorporated in all lower hinges.

The front door is mounted to the front body hinge pillar with an upper and lower hinge. Figures 6-53 and 6-54 illustrate typical front door hinge installations. On "B, C & E" styles, the hinges are the "swing-out" type, which means that the leading edge of the door swings outboard of the front fender when the door is opened. All other styles use "swing-in" type hinges, which means the leading edge of the door swings inboard of the front door when opened.

Although the door can be removed from the body with or without the hinges attached to the door, it is recommended that when removing the door only, remove the door from the hinges. Accessibility to

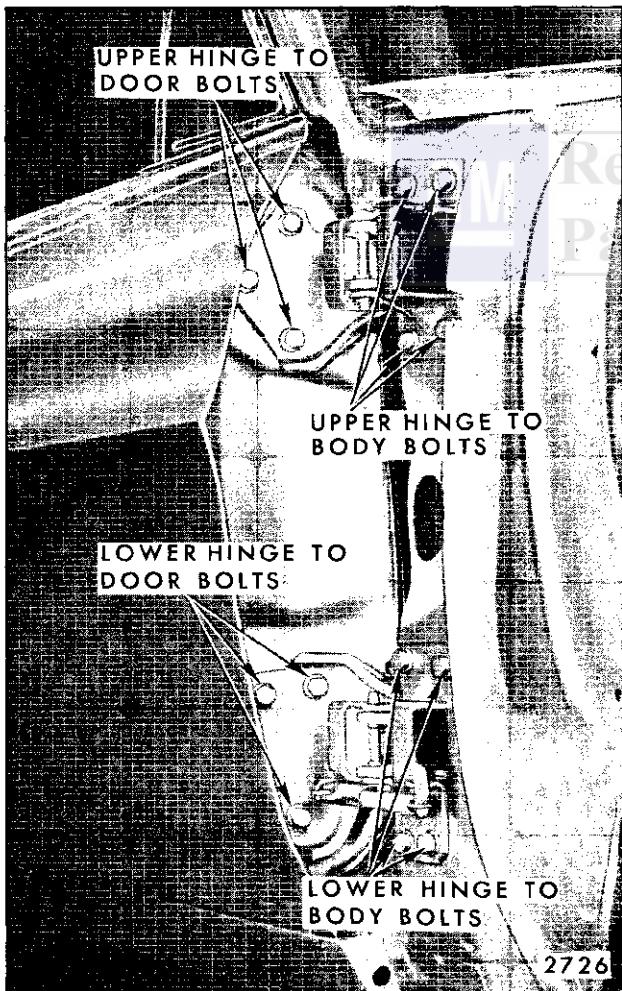


Fig. 6-53—Front Door Hinge Attachment - "B-C & E" Styles

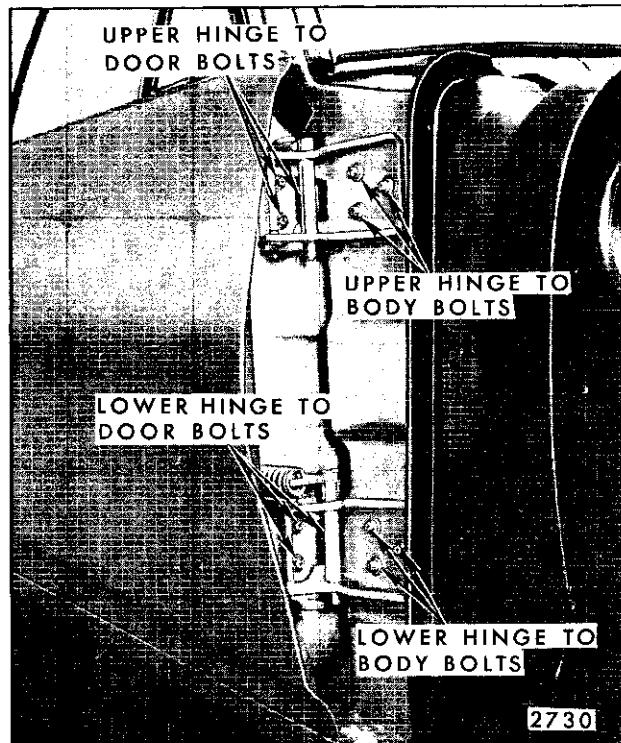


Fig. 6-54—Front Door Hinge Attachment - "A" Styles

the door side hinge bolts is better than to the body side bolts.

When servicing both door hinges, remove the door from the hinges, then the hinges from the body. When servicing only one hinge, however, make replacement while supporting the door in the open position.

Door Removal and Installation

- Prior to loosening any hinge bolts, mark position of hinge on door to facilitate adjustment when reinstalling door on hinge.
- For removal or adjustment of front door hinge to body attaching bolts, use tools outlined below:
 - On "F, X & Z" body styles, use tool J 21550 - 1/2" wrench (Fig. 6-55).
 - On "A" body styles, use tool J 22810 - 1/2" wrench (Fig. 6-56).
 - On "B, C & E" body styles, use tool J 22729 - 9/16" wrench (Fig. 6-57).
- On doors equipped with power operated windows and/or vacuum door locks, remove trim pad and detach inner panel water deflector

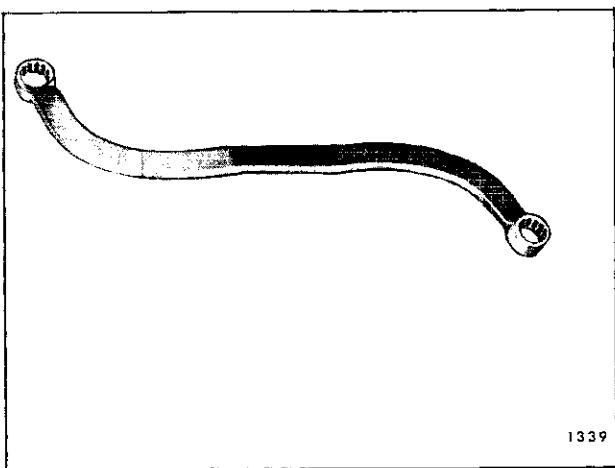


Fig. 6-55—Front Door Hinge Tool J-21550 (1/2" Box) - "F, X & Z" Styles

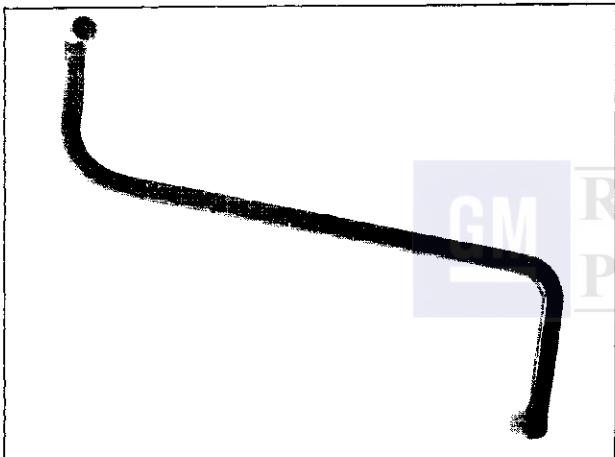


Fig. 6-56—Front Door Hinge Tool J-22810 - "A" Styles

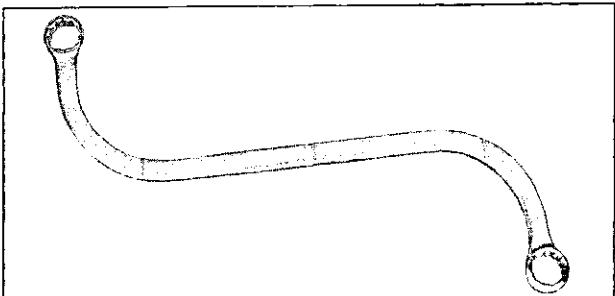


Fig. 6-57—Front Door Hinge Tool J-22729 (9/16" Box) - "B, C & E" Styles

sufficiently to disconnect harness assembly (ies) and remove same from door.

NOTE: On Pontiac, Oldsmobile and Buick Styles equipped with electric ventilators, disconnect door wire harness at jumper wire

connector, not at motor. On Cadillac Styles, disconnect harness of vent motor.

Hinge Removal

1. If both hinges are to be removed, remove front door as previously described. Mark position of hinge on body hinge pillar and remove hinge to body hinge pillar attaching bolts (Fig. 6-54).

NOTE: On "E" body styles, loosen front fender lower attaching bolts as required to permit usage of a wrench when removing lower hinge lower attaching bolts (Fig. 6-58). Car Division Publications should, however, be referenced prior to any movement of front end sheet metal.

NOTE: All "E" body doors are equipped with a torque rod to ease door opening effort. This torque rod is secured under the upper hinge lower rearward bolt, body side, on right and left front doors. The lower end of rod is retained by the lower hinge box. Removal and installation of this rod usually requires loosening of front fenders. Remove rod with door fully opened, when tension on rod is relieved.

2. With the aid of a helper to support door, remove upper and lower hinge to door attaching bolts (Fig. 6-53) and remove door from body.

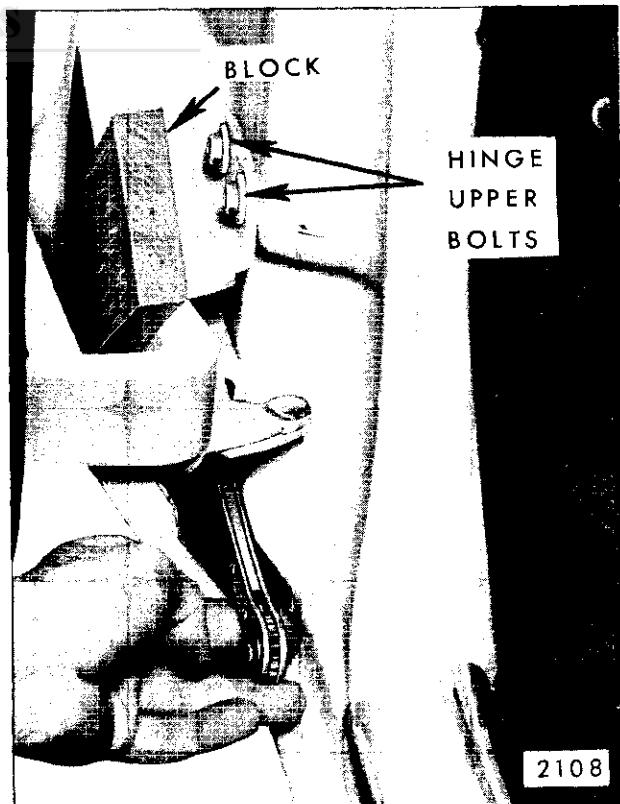


Fig. 6-58—Front Door Hinge Removal - "E" Styles

NOTE: On all styles, removal of door from body with or without hinges attached can be accomplished without loosening front fender, except on "E" body styles. On "E" body styles, removal of lower hinge from body hinge pillar necessitates loosening fender along lower edge (Fig. 6-58).

3. To install door, reverse removal procedure. Prior to installation, apply a coat of heavy body sealer to surface of hinge that contacts door for protection against corrosion.

Front Door Hinge Adjustment

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 door lock striker from body to allow door to hang freely on its hinges. Loosen front fender where required.

NOTE: When making door adjustments, refer to the door gap spacing and lock striker engagement specifications in the "Front and Rear Door" section of this manual.

1. Adjustments provided at body hinge pillars: up and down and fore and aft on all body styles.
2. Adjustment provided at door hinge pillars: in and out on all body styles.

DOOR OUTSIDE REMOTE CONTROL MIRROR—16647, 26647, Cadillac "C" Styles and All "E" Styles

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to remote control mirror cable.
2. Remove remote control mirror to door outer panel attaching bracket screw in base of mirror.
3. Detach mirror cable from retaining tabs or hog rings where used and remove mirror and cable assembly from door.
4. To install, reverse removal procedure.

FRONT DOOR INNER PANEL CAM—All Except "A-X&69" Styles

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.

2. With window in raised position, remove cam attaching bolts ("2", Fig. 6-42) and slide cam off regulator balance arm roller.

NOTE: Figure depicts "B & C" styles - other styles similar.

3. To install, reverse removal procedure.

NOTE: One end of the cam has provisions for up and down adjustment to correct a "cocked" window (not parallel with top of door upper frame or side roof rail weatherstrip).

FRONT DOOR LOCK REMOTE CONTROL AND CONNECTING ROD

There are two basic types of remote controls; spindle type ("2", Fig. 6-41) and inward acting type ("7", Fig. 6-48). Both type remote controls are 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 similar, however, for either method of attachment.

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.

NOTE: Some "E" Body Styles are equipped with two remote controls, one front and one rear. Attachment of both is the same; however, removal procedures differ in that the forward remote (standard equipment) is located in such close proximity to the window regulator that regulator must first be loosened. This can be accomplished by removing three of the four regulator to inner panel attaching bolts and pivoting regulator to a position that remote can be removed (See Fig. 6-46). On 26657 and 16647 styles, remove window regulator two rear attaching bolts and loosen front attaching bolts ("12", Fig. 6-44).

2. Remove bolts securing remote control to door inner panel ("2", Fig. 6-41).
3. Inside of door, pivot remote control to disengage lock connecting rod and remove remote through access hole.
4. If remote control to lock connecting rod is to be removed, refer to "Front and Rear Door" section for method of disengaging spring clip at lock end of rod.
5. To install, reverse removal procedure.

FRONT DOOR LOCK ASSEMBLY

All styles use the fork bolt lock design which includes a safety interlock feature. Where necessary, striker spacers should be used to insure satisfactory lock and striker engagement. Refer to "Front and Rear Door" section for spacer usage.

NOTE: Do not attempt repairs to correct lock discrepancies. Make corrections through replacement of lock.

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 as specified under "Door Lock Spring Clips" in the preceding "Front and Rear Door" section.
3. On styles equipped with vacuum door lock, remove vacuum actuator as described in the "Front and Rear Door" section.
4. Remove three screws securing lock to door lock pillar ('4", Fig. 6-41) and remove lock assembly from door.
5. To install, reverse removal procedure.

FRONT DOOR LOCK CYLINDER ASSEMBLY

Removal and Installation

1. Remove door trim assembly and partially detach inner panel water deflector. Raise door window.
2. With a screwdriver or other comparable tool, slide lock cylinder retaining clip (on door outer panel) out of engagement and remove lock cylinder from door (Fig. 6-59).
3. To install, reverse removal procedure.

Disassembly and Assembly

1. Remove lock cylinder from door as previously described.

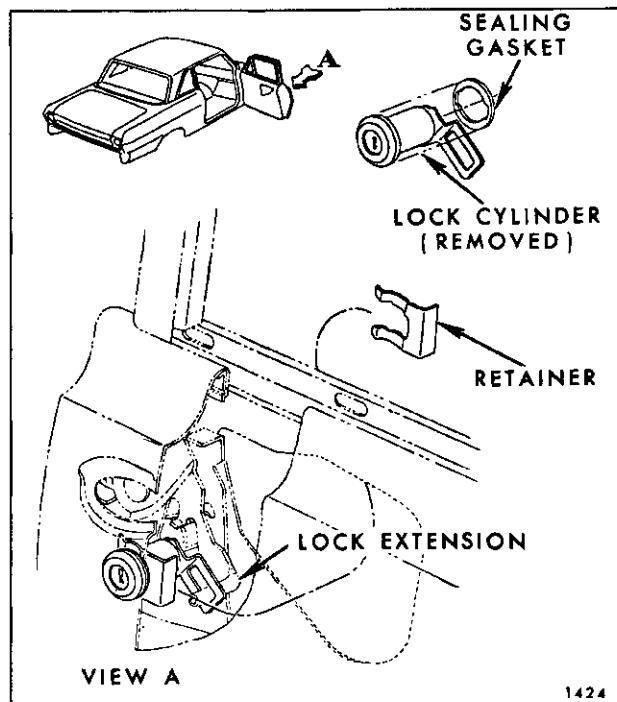


Fig. 6-59—Front Door Lock Cylinder Removal - All Styles

2. With a pointed tool, disengage pawl retaining clip and remove pawl (Fig. 6-60).
3. With a flat-bladed tool, straighten out crimped-over edges of lock cylinder housing scalp and remove scalp and lock cylinder from housing.
4. To install, reverse removal procedure.

NOTE: The lock cylinder housing scalp is usually damaged in the removal procedure and, therefore, must be replaced. Replacement scalps are available as service parts.

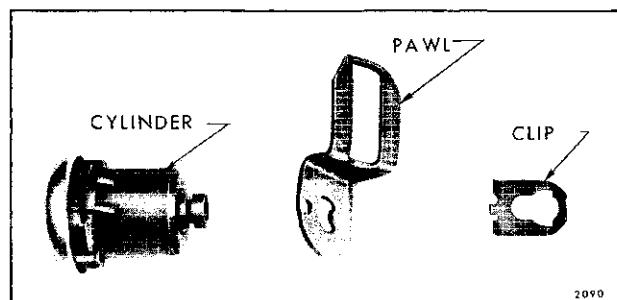


Fig. 6-60—Door Lock Cylinder Assembly

FRONT DOOR VENTILATOR REGULATOR—Manual and Electric “A-B&C” Styles

Removal and Installation

- With front door window in full-up position, remove door trim assembly and partially detach inner panel water deflector.
- On Pontiac, Oldsmobile and Buick “B & C” styles equipped with electric ventilator regulators, disconnect door wire harness at ventilator jumper harness connector, not at ventilator motor. On Cadillac Styles with electric ventilators, disconnect harness at motor.
- Remove ventilator T-shaft bolt (“5”, Fig. 6-41) and ventilator regulator to inner panel attaching bolts (“6”, Fig. 6-41).
- Pull regulator down to disengage from ventilator T-shaft and remove regulator through access hole.
- To install, reverse removal procedure.

FRONT DOOR VENTILATOR ASSEMBLY— “A” Closed Styles

Removal and Installation

- Remove door trim assembly and inner panel water deflector.
- With window in up position, loosen down stop support attaching bolt and remove support (“7”, Fig. 6-35).
- Remove ventilator regulator as previously described.
- Lower window to full down position and remove bolt securing ventilator lower frame to door outer panel (“4”, Fig. 6-35).
- Remove division channel lower adjusting stud nut (“2”, Fig. 6-35).
- Remove ventilator to door upper frame attaching screws (“8”, Fig. 6-35). Disengage upper front end of glass run channel from door upper frame to permit rearward movement and removal of vent from door upper frame (refer to glass run channel removal procedure).
- Tilt vent assembly rearward and remove vent inboard of door upper frame.
- To install, reverse removal procedure.

Adjustments

Some in-and-out, or fore-and-aft adjustment of the ventilator division channel is available at the lower adjusting stud. Adjustment at this location is required only to eliminate any misalignment between the ventilator division channel and window glass run channel.

Ventilator Disassembly and Assembly “A&B” Closed Styles

The ventilator front frame is attached to the division channel with rivets at the bottom and a screw at the top (Fig. 6-61).

The parts that can be replaced are the division channel strip assembly, ventilator weatherstrip (on division channel) and the vent glass.

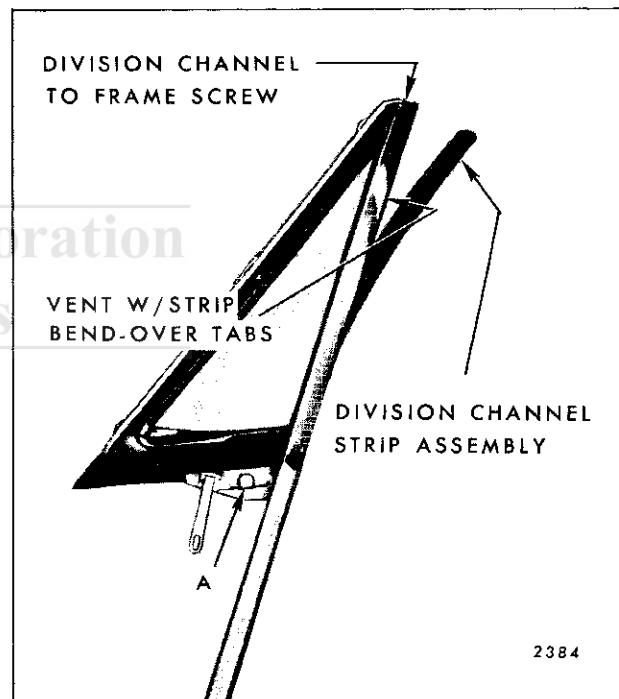


Fig. 6-61—Front Door Ventilator Assembly —
“A & B” Closed Styles

FRONT DOOR VENTILATOR ASSEMBLY— “A” Hardtop and Convertible Style

Removal and Installation

- Remove door window and ventilator regulator as previously described.
- Remove ventilator frame to door panel bolts (“11”, Fig. 6-37) and trim pad hanger plate.
- Remove ventilator lower frame adjusting stud (“13”, Fig. 6-37).

4. Remove division channel lower adjusting stud ("4", Fig. 6-37).
5. Lift the ventilator upward, then rotate it so that division channel lower attaching bracket can clear the beltline adjacent to rear guide.
6. To install, reverse removal procedure. Adjust ventilator for proper operation and alignment as described below.

Ventilator Adjustments

The ventilator assembly can be positioned up or down and fore or aft. In addition, the top of the vent can be adjusted in or out in relation to the side roof rail.

To reposition the ventilator assembly up or down or fore or aft, it is necessary to have the vent completely loose at all attaching locations, including the ventilator regulator attaching screws ("12", Fig. 6-37).

To adjust the top of the ventilator in or out, loosen only the adjusting stud nuts ("13 and 4", Fig. 6-37) and adjust the studs in or out as required. It is not necessary to loosen the vent to outer panel bolts ("11", Fig. 6-37).

FRONT DOOR VENTILATOR ASSEMBLY—“B” Closed 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 bolt securing ventilator lower frame to door outer panel ("1", Fig. 6-39).
4. Remove division channel lower adjusting stud nut ("4", Fig. 6-39).
5. Remove ventilator to door upper frame attaching screws ("9", Fig. 6-39). Disengage upper front end of glass run channel from door upper frame to permit rearward movement and removal of vent from door frame (refer to "Glass Run Channel Removal" procedure).
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. 6-39). If material is damaged, replace with new sealing strip or its equivalent. Saturated polyurethane foam is furnished in five foot sections under part #4480378.

Adjustments

Some in-and-out, or fore-and-aft adjustment of the ventilator division channel is available at the lower adjusting stud. Adjustment at this location is required only to eliminate misalignment between the ventilator division channel and window glass run channel.

FRONT DOOR VENTILATOR ASSEMBLY—“B&C” Hardtop and Convertible Styles

Removal and Installation

1. Remove ventilator regulator as previously described.
2. Remove division channel lower adjusting stud nut ("7", Fig. 6-41).
3. Remove ventilator lower frame adjusting stud nut ("8", Fig. 6-41).
4. Remove ventilator frame to door outer panel bolts ("9", Fig. 6-41).
5. Lift ventilator upward, then rotate it so that division channel lower adjusting stud can clear beltline.
6. To install, reverse removal procedure. Adjust ventilator for proper operation and alignment as described below.

Ventilator Adjustments

The ventilator assembly can be positioned up or down, and fore or aft. In addition, the top of the vent can be adjusted in or out in relation to the side roof rail.

To reposition the ventilator assembly up or down or fore or aft, it is necessary to have the vent completely loose at all attaching locations, including the ventilator regulator attaching screws ("6", Fig. 6-41).

To adjust the top of the ventilator in or out, loosen only the adjusting stud nuts ("7 and 8", Fig. 6-41) and adjust the studs in or out as required. It is not necessary to loosen the vent to outer panel bolts ("9", Fig. 6-41).

Ventilator Disassembly and Assembly “A-B&C” Hardtop and Convertible Styles

The "hardtop" style ventilator permits more disassembly than does the "closed" style vent. The

parts that can be removed and replaced are as follows: upper glass run channel; division channel and component lower glass run channel and vent lower frame; ventilator casting; ventilator window assembly; ventilator weatherstrip (on casting); ventilator rear weatherstrip (on division channel).

As shown in Figure 6-62, it is necessary to remove the vent from the door to gain access to the vent casting to vent frame screws.

The vent window and sash channel assembly can be removed without removing the vent from the door, however, the vent regulator must be removed (see preceding removal procedure). With the regulator out, open the vent window to align the bosses on the T-shaft with the slots in the vent lower frame. Then, press the vent window downward to disengage the vent upper pivot from the vent casting. Remove the vent window by lifting upward.

The division channel to casting screw (Fig. 6-62), also retains the top of the division channel strip assembly. To remove the strip assembly, or to gain access to the vent weatherstrip bend-over tabs (weatherstrip on division channel), remove the screw and pull the strip assembly out of the division channel.

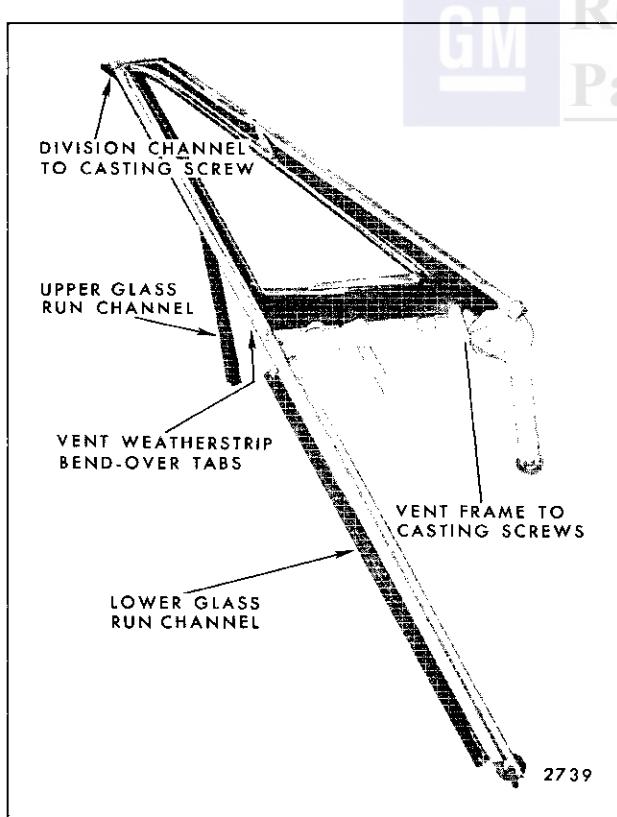


Fig. 6-62—Front Door Ventilator Assembly — "A, B & C" Hardtop and Convertible Styles

FRONT DOOR VENTILATOR ASSEMBLY— "X" Styles

The front door ventilator is a manually operated friction type unit on all styles.

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. With window in "full-up" position loosen down stop support attaching bolt, remove support ("7", Fig. 6-50).
3. Remove ventilator division channel lower adjusting stud nut and ventilator to door outer panel attaching screw (View "A" in Fig. 6-63).
4. Remove ventilator to door upper frame attaching screws (View "A" in Fig. 6-63).
5. Lift ventilator rearward and upward until lower forward corner of assembly is free of door upper frame (View "B" in Fig. 6-63).
6. Rotate ventilator assembly in an outboard movement and remove unit outboard of door upper frame (View "C" in Figure 6-63).
7. To install, reverse removal procedure.

Adjustment

A slight fore and aft adjustment of the ventilator division channel is available at the lower adjusting stud 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.

FRONT DOOR VENTILATOR ASSEMBLY— "Z" Styles

The front door ventilator assembly is a manually operated friction type unit.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove ventilator division channel lower adjusting stud nut and ventilator to door inner panel attaching screw (See Fig. 6-64). Turn stud as far as possible out of contact with door inner panel.
3. On door hinge pillar, remove ventilator frame attaching bolt and ventilator frame lower adjusting stud nut (See Fig. 6-64).

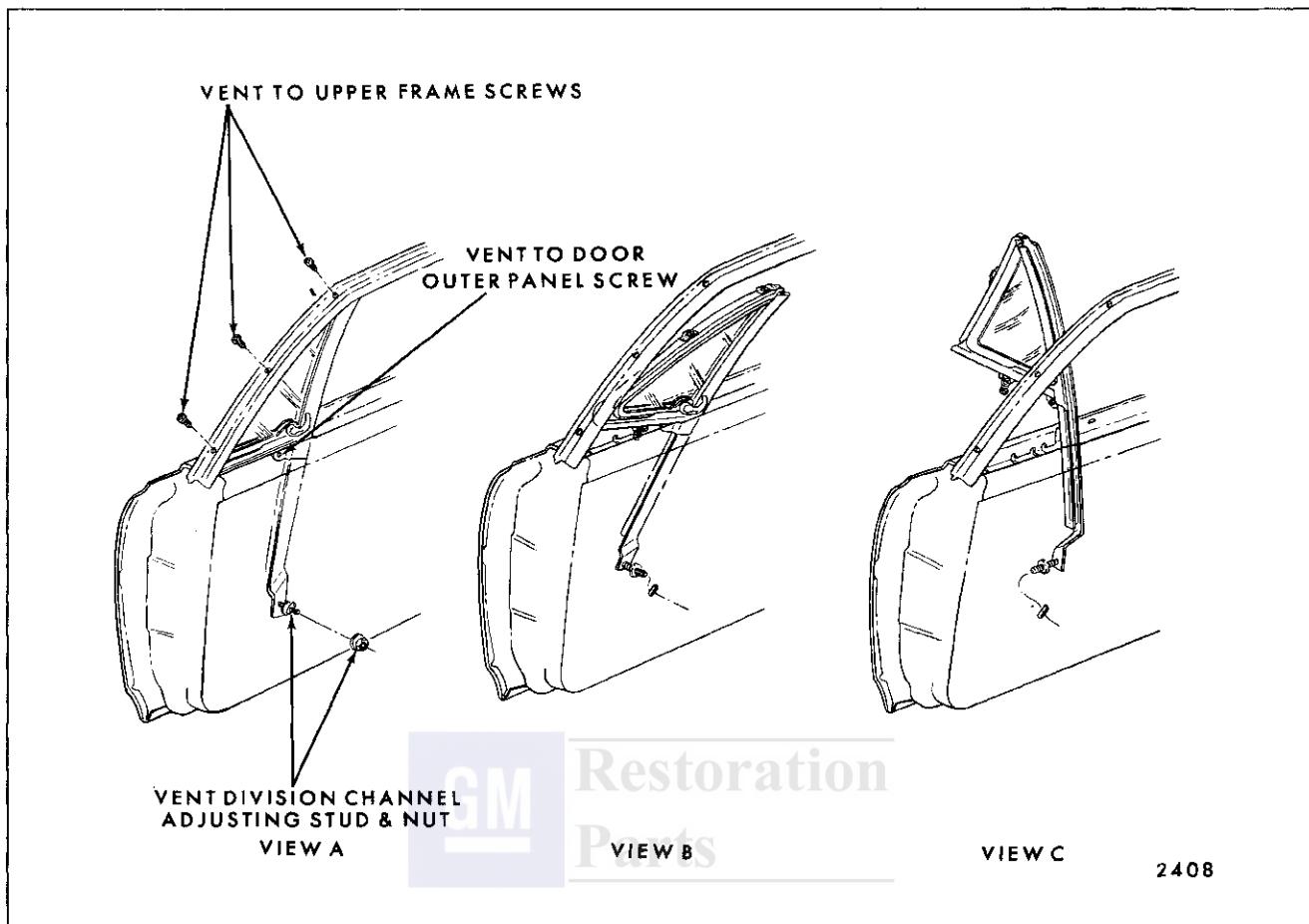


Fig. 6-63—Front Door Ventilator Removal

4. Loosen rear glass run channel upper attaching screw and remove run channel lower adjusting stud nut. Move door glass as far rearward as possible.
5. Push ventilator lower adjusting stud free of inner panel and rotate top edge of ventilator rearward until front frame clears hinge pillar (See Fig. 6-64).
6. Turn ventilator 90 degrees, as shown in Figure 6-64, and remove assembly from body.
7. To install, reverse removal procedure.

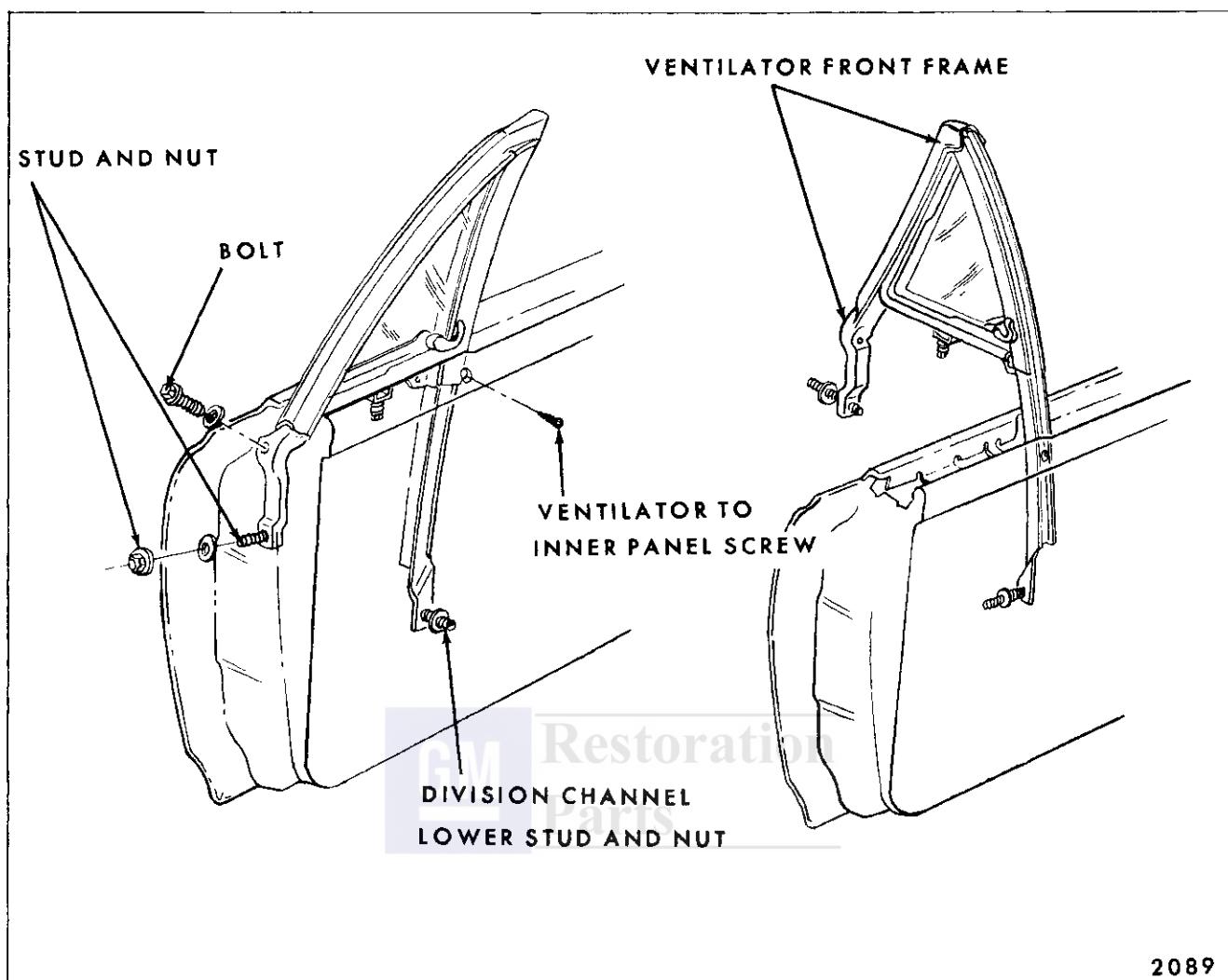
Adjustments

It will generally be necessary to remove door trim pad and detach inner panel water deflector (as required) prior to ventilator assembly adjustments. In addition, removal of ventilator to door inner panel and ventilator front frame to door hinge pillar panel attaching screws is usually required.

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 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.

NOTE: Adjustment No. 2 first requires loosening of ventilator front frame lower attaching bolt (See Fig. 6-65).

3. 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. 6-66).



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Fig. 6-64—Front Door Ventilator Removal - "Z" Styles

NOTE: This adjustment should be performed as a bench operation.

FRONT DOOR VENTILATOR ASSEMBLY WEATHERSTRIP—"Z" Styles

Removal and Installation

1. Remove front door ventilator assembly.
2. Remove ventilator division channel upper rubber bumper attaching screw.
3. Remove two attaching screws securing ventilator casting to frame and separate ventilator casting from frame so that the ventilator weatherstrips can be removed (Fig. 6-66).
4. To install, reverse removal procedure. Prior to installation, apply a ribbon of medium bodied

sealer between ventilator weatherstrip and casting.

FRONT DOOR WINDOW ASSEMBLY—"A&X" Closed 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 channel and window glass run channel.

Removal and Installation

1. Remove front door ventilator assembly as previously described.
2. Slide window lower sash channel cam off window regulator lift arm and balance arm rollers

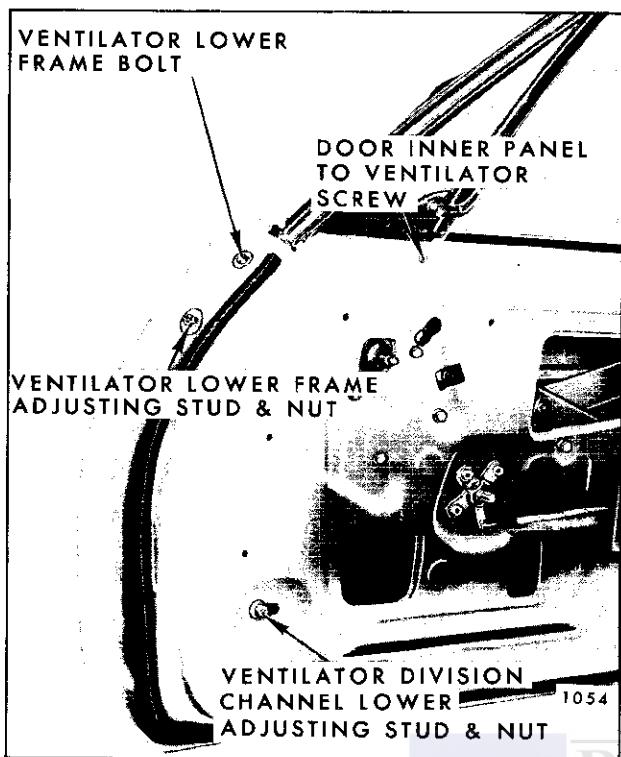


Fig. 6-65—Front Door Ventilator Attachments — "Z" Styles

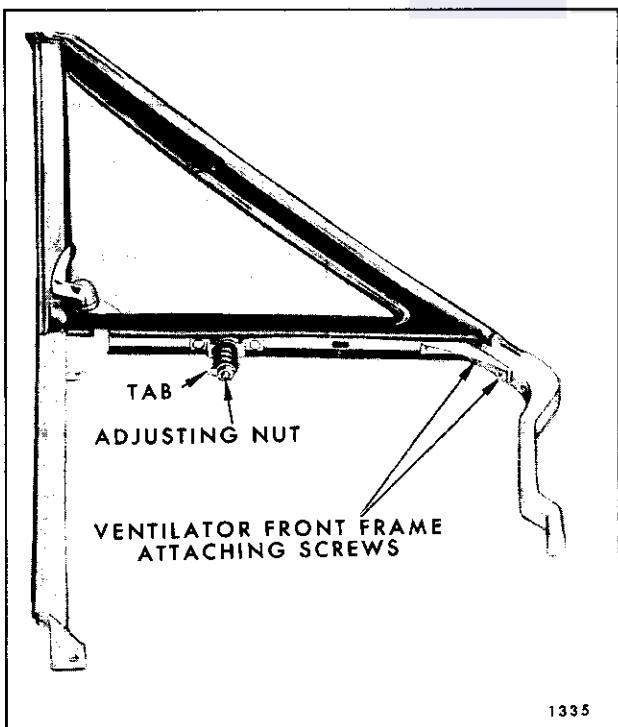


Fig. 6-66—Front Door Ventilator Assembly — "X & Z" Styles

on two door styles and off lift arm roller on four door styles. Remove window inboard of door upper frame.

- To install, reverse removal procedure. Adjust window for proper alignment as described in the following procedure.

Adjustments

- To adjust lower portion of ventilator division channel for proper alignment with door window assembly, lower door window and loosen ventilator adjusting stud nut (Fig. 6-35). Turn adjusting stud in or out or position lower end of channel fore or aft as required; then tighten adjusting stud nut.
- On two door styles, the door window inner panel cam is adjustable at the front and can correct a rotated (cocked) front door window (Fig. 6-35).

FRONT DOOR WINDOW ASSEMBLY—"A" Hardtop and Convertible Styles

The front door window assembly consists of a solid tempered safety plate window and a pressed-on lower sash channel assembly which includes a screw-on lower 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 6-67 is an exploded view of the front door window assembly and identifies the various components and their assembly sequence.

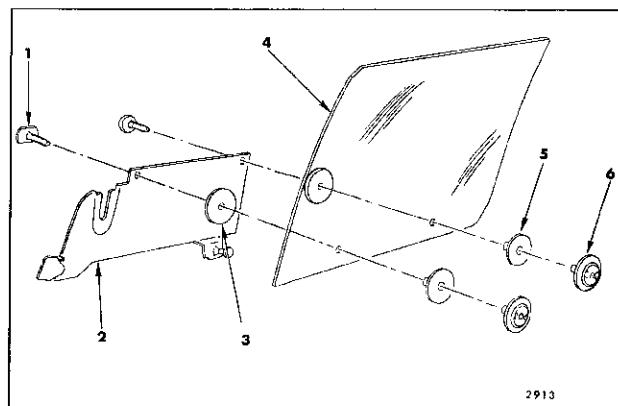


Fig. 6-67—Front Door Window Assembly — "A"
Hardtop and Convertible Styles

- Glass to Sash Channel Bolt
- Lower Sash Channel
- Lower Sash Channel Washer
- Front Door Window
- Glass to Sash Channel Bolt Spacer
- Glass to Sash Channel Bolt Nut

CAUTION: When installing the glass to sash channel bolts, torque nuts to 72 inch pounds (6 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 window to a three-quarter down position, remove front up travel stop from lower sash channel and rear up stop from rear guide ("10 and 3", Fig. 6-37).
3. Loosen rear guide to door inner panel attaching bolts ("5", Fig. 6-37).
4. With window in a three quarter down position, remove screws securing lower sash channel cam to lower sash channel ("7", Fig. 6-37).
5. Disengage lower sash channel cam from regulator rear lift arm roller.
6. Push Regulator lift arm inboard, to clear glass sash channel, remove window by lifting straight-up.
7. To install, reverse removal procedure. Adjust window for proper alignment as described in the following procedure.

Adjustments

1. A rotated window condition (glass cocked in opening) may be caused by any one or a combination of the following (Reference: Fig. 6-37).
 - a. Improperly adjusted inner panel cam ("6").
 - b. Front or rear upper stop improperly adjusted ("3 or 10").
2. To adjust upper rear corner of window in or out in relation to slide roof rail weatherstrip, loosen rear guide upper attaching bolts ("5", Fig. 6-37) and position guide further inboard. If this adjustment proves inadequate, obtain additional adjustment at the ventilator front frame adjusting stud ("13", Fig. 6-37).

Outboard adjustment at this location tends to move the door window upper rear corner inboard. Conversely, inboard adjustment moves the top of the glass outboard.

3. To adjust window up-travel, operate window to "full-up" position and loosen front and rear upper stops ("3 and 10", Fig. 6-37). Operate window to desired up position and tighten stop bolts.

FRONT DOOR WINDOW ASSEMBLY— "B" Closed Styles

The front door window assembly consists of a frameless piece of solid tempered safety plate glass pressed into a thin section lower channel. When cycled, the glass operates within the ventilator division channel and window glass run channel.

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Remove front door ventilator as described in a preceding procedure.
3. Loosen window glass run channel lower attaching bolt ("7", Fig. 6-39).
4. Remove inner panel cam ("6", Fig. 6-39).
5. Slide window lower sash channel cam off window regulator lift arm and balance arm rollers and remove window outboard of door upper frame.

FRONT DOOR WINDOW ADJUSTMENTS— "B" Closed Styles

Adjustments have been provided to relieve a binding door glass due to misalignment of the glass run channel. 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 ("4", Fig. 6-39).
2. The door window inner panel cam is adjustable at the front and can correct a rotated (cocked) front door window ("6", Fig. 6-39).

FRONT DOOR WINDOW ASSEMBLY— "B&C" Hardtop and Convertible Styles, Except 16647 and 26657 Styles

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 sash channel are removed from the door

as a unit and replacement glasses installed in bench operations.

Figure 6-68 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 nuts to 72 inch pounds (6 foot pounds). Also, when replacing door glass, replace glass spacers.

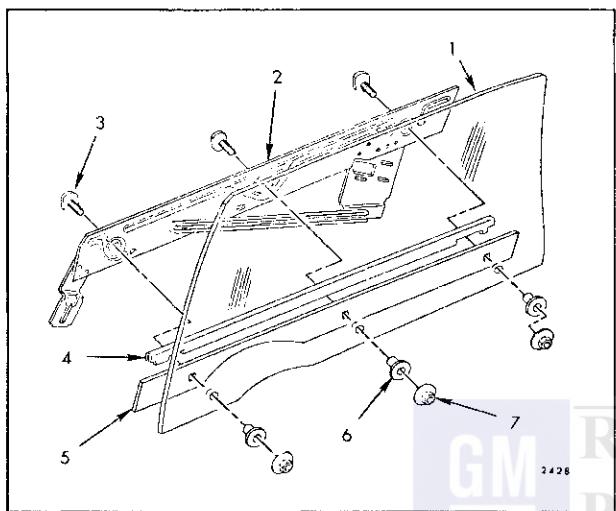


Fig. 6-68—Front Door Window Assembly - "B & C"
Styles Except 16647 and 26657

- | | |
|---|---|
| 1. Front Door Window | 5. Lower Sash Channel
Lower Outer Filler |
| 2. Lower Sash Channel | 6. Glass to Sash
Channel Bolt Spacer |
| 3. Glass to Sash
Channel Bolt | 7. Glass to Sash
Channel Bolt Nut |
| 4. Lower Sash Channel
Upper Outer Filler | |

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Operate window to "full down" position and remove front up-travel stop from lower sash channel ("10", Fig. 6-41).
3. With window in half-up position, remove bolts securing window lower sash channel to rear run channel guide plate and up-stop assembly ("1", Fig. 6-42) and disengage guide plate from sash channel.
4. Operate window to "full-up" position and remove inner panel cam bolts ("2", Fig. 6-42).
5. With front upper corner of window inboard of ventilator division channel, rotate window as-

sembly counter-clockwise until lower sash channel cam is close to parallel with beltline. Then, slide window assembly rearward to disengage regulator lift arm roller from lower sash channel cam and remove window from door.

6. To install, reverse removal procedure. Adjust window for proper alignment as described in the following procedure.

Adjustments

1. A rotated window condition (glass cocked in opening) may be caused by any one or a combination of the following (Reference: Fig. 6-42):
 - a. Improperly adjusted inner panel cam ("2").
 - b. Front or rear upper stop improperly adjusted ("3 or 4").
 - c. Glass rotated (cocked) on lower sash channel.

If inner panel cam or up stop adjustment does not correct condition, loosen glass to sash channel attaching bolt nuts (Fig. 6-68) 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 beltline. Then, loosen glass bolt nuts and adjust glass to obtain required seal at side roof rail weatherstrip. Figure 6-69 illustrates the proper glass to weatherstrip relationship for a good seal.

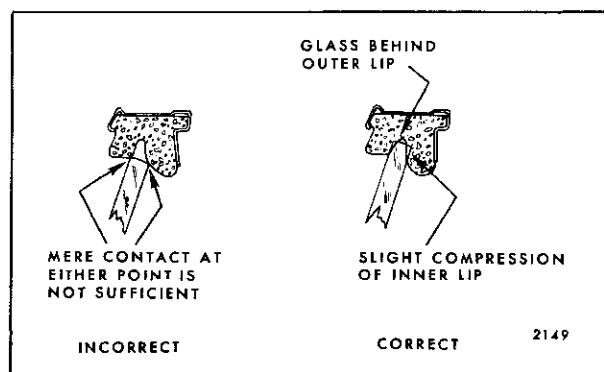


Fig. 6-69—Window to Side Roof Rail
Weatherstrip Alignment

2. To adjust upper rear corner of window in-or-out in relation to side roof rail weatherstrip, loosen rear guide upper attaching bolt ("5", Fig. 6-42) and position run channel farther inboard. If this adjustment proves inadequate, remove

door trim pad and obtain additional adjustment at one or both of the following:

- a. Rear guide to lower support attaching bolt ("6", Fig. 6-42).
 - b. Ventilator front frame adjusting stud ("7", Fig. 6-42).
- Outboard adjustment at either of these locations tends to move the door window upper rear corner inboard. Conversely, inboard adjustment of either attachment move the top of the glass outboard.
3. To adjust window up-travel, operate window to "full-up" position and loosen front and rear

upper stops ("3 and 4", Fig. 6-42). Operate window to desired up position and tighten stop bolts.

FRONT DOOR WINDOW ASSEMBLY— 16647 and 26657 Styles

The front door window assembly consists of a solid tempered safety plate glass window and an individually bolted-on roller at the front and window roller cam at the rear. The lower sash channel cam is bolted to the glass, but is removed in the process of removing the window.

Figure 6-70 is an exploded view of the window assembly and identifies the various components and their assembly sequence.

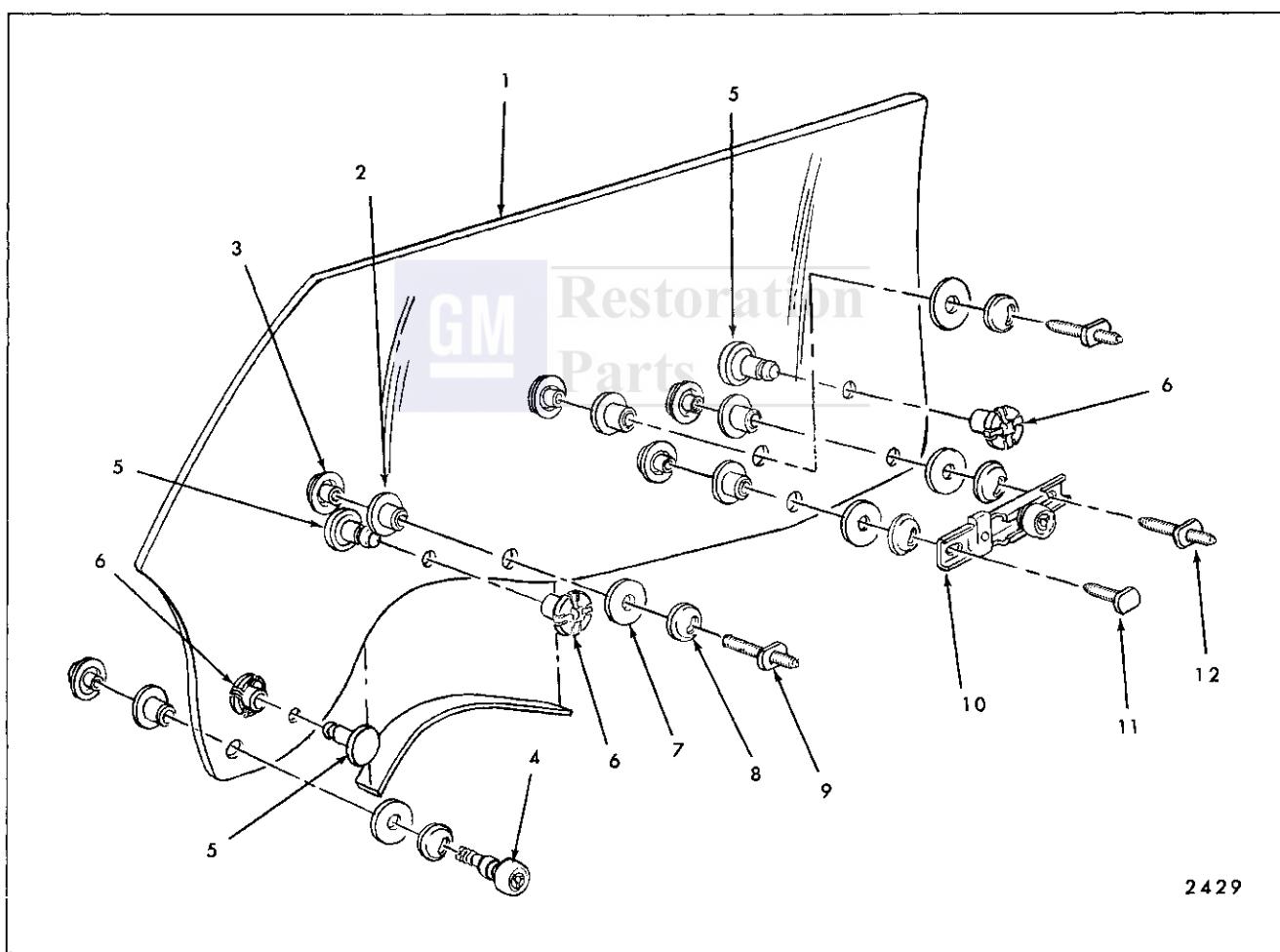


Fig. 6-70—Front Door Window Assembly - 16647 and 26657 Styles

- | | | |
|---------------------------|-------------------------------|------------------------------|
| 1. Window Glass | 6. Glass Bearing Fastener Cap | 11. Bolt, Guide Cam Assembly |
| 2. Bushing | 7. Washer | 12. Stud, Rear Guide Cam |
| 3. Nut | 8. Washer (metal) | (Stud Portion for Up- |
| 4. Roller Assembly | 9. Stud, Inner Panel Cam | Stop Attachment) |
| 5. Glass Bearing Fastener | 10. Rear Guide Cam Assembly | |

Removal and Installation

1. Remove door trim pad and inner panel water deflector. Remove outer strip assembly (window lower reveal molding) as described in preceding "Front and Rear Door" section.
2. Loosen front up-stop bolt ("1," Fig. 6-44) and remove stop from front guide.
3. Using a 1/4" hex-head wrench, remove rear up-stop from window rear roller cam ("2", Fig. 6-44).

NOTE: For window adjustment, use up-stop "3" on window rear guide. However, for window removal, remove stop "2" on window.

4. Remove window stabilizer strip assembly bolts ("4", Fig. 6-44) and remove stabilizer strips.
5. Remove window lower sash channel cam to glass attaching stud nuts ("5", Fig. 6-44).
6. Tilt top edge of glass inboard and disengage window (with studs intact) from lower sash channel cam.
7. Raise window and disengage front roller from front guide, then rear roller from rear guide.
8. Remove window from door by aligning rollers with notches provided in inner panel. Remove front end of window first, then rear end.
9. To install, reverse removal procedure. Adjust window for proper alignment and operation as described in the following adjustment procedure.

Adjustments

1. In and out adjustment of the glass is controlled by the in and out adjustment available at the top of the front and rear guides ("6 and 7", Fig. 6-44) and the in and out position of the glass stabilizer strip assemblies "4".
2. Fore and aft adjustment of the window assembly is controlled by the position of the front guide. The upper and lower attaching locations in the inner panel ("8", Fig. 6-44) are slotted to permit fore and aft adjustment of the guide. Because of the free floating roller in the window rear sash channel cam (Fig. 6-70), the rear guide does not have to be adjusted during fore or aft window alignment.
3. Ease of window operation and window stability depend to a great extent on the adjustment of the window stabilizer strip assemblies at the beltline ("4", Fig. 6-44). The stabilizing strips

"4" should contact the glass throughout the full cycle of the window. Due to slight variations in glass contour, however, in some cases the strip may lose contact with the glass halfway through the cycle. This is permissible provided it does not result in loose glass. Contact should be sufficient to stabilize glass, but not restrict ease of window operation.

4. A window that is rotated (cocked) in the window opening may be the result of an improperly adjusted inner panel cam ("10", Fig. 6-44) or poorly adjusted up-travel stops ("1 or 3", Fig. 6-44).

Control up-travel at front or rear of window through up or down adjustment of either front or rear up-travel stop.

Correct a poorly adjusted inner panel cam by loosening cam attaching bolts ("10", Fig. 6-44) and adjusting front end of cam up or down as required. Adjustment of cam repositions front edge of glass up or down in relation to rear edge of glass.

5. The up-travel of the window is determined by the adjustment of the front up-stop "1", rear up-stop "3" and window regulator sector gear stop ("11", Fig. 6-44).

The sequence of stop adjustment is :

- a. Loosen sector gear stop "11".
- b. Adjust stops "1 and 3" up or down for proper glass to side roof rail weatherstrip contact (Fig. 6-69).
- c. Adjust stop "11" against sector gear (press stop forward) and tighten stop bolt.

FRONT DOOR WINDOW ASSEMBLY— "E" 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 6-71 identifies the components of the door window assembly.

NOTE: When installing glass to sash channel nuts and washers, torque to 72 inch lbs. (6 foot lbs.).

CAUTION: Solid tempered safety plate glass will shatter if it is ground, drilled, chipped or deeply scratched.

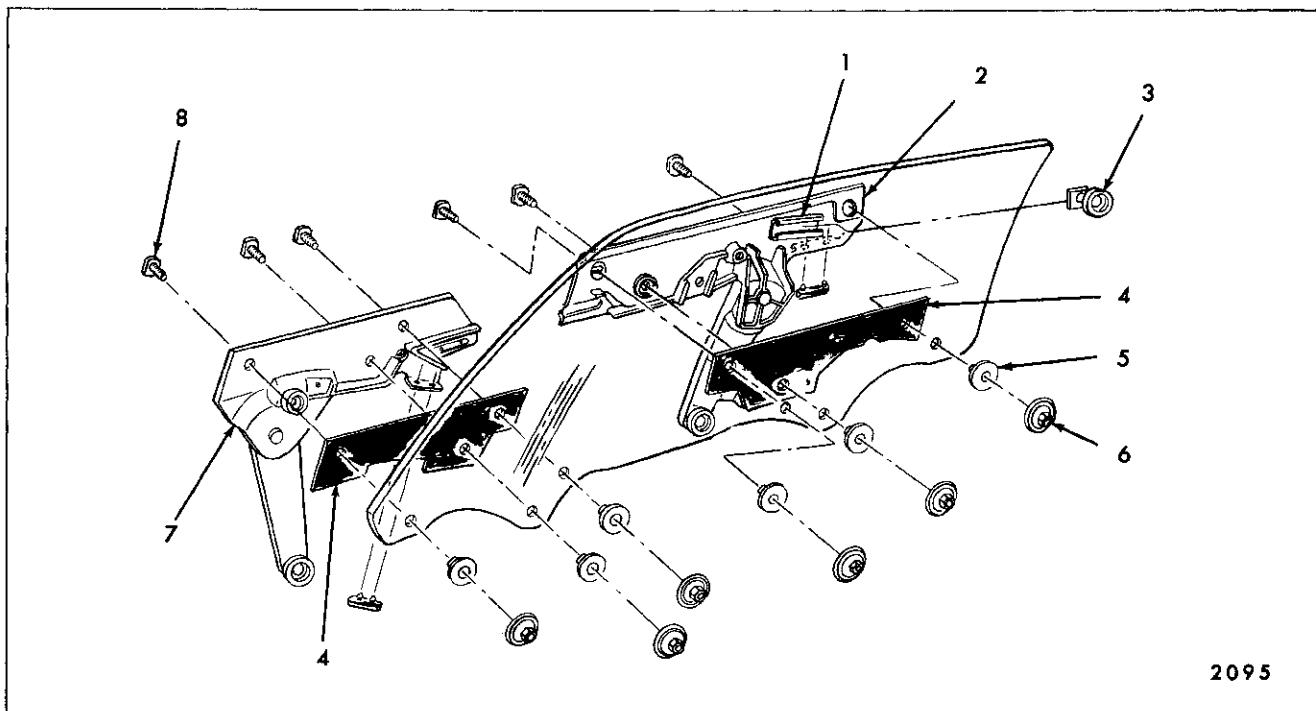


Fig. 6-71—Front Door Window Assembly - "E" Styles

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

Removal and Installation

1. Raise door window, remove trim pad and detach inner panel water deflector.
2. Remove front and rear up-stops ("8 and 12", Fig. 6-46).
3. Remove lower sash channel cam ("7", Fig. 6-46).
4. Remove glass run channel outer strip and molding assembly (see exterior molding section of manual).
5. Raise glass straight up and remove assembly from body.

NOTE: If necessary, loosen upper attachments of front and rear glass guide channels.

6. 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, on manually operated units, is equipped with a single up-travel sector gear stop. This stop is bolted to the inner panel and is adjustable up or down (See Fig. 6-45).

The recommended sequence of total glass adjustment is as follows:

- a. Remove front and rear guide center adjusting stud nuts and turn adjusting studs outboard (clockwise) until bearing surface is completely out of engagement with door inner panel ("3 and 9", Fig. 6-46).
- b. Adjust upper attachments of front and rear guide ("11 and 13", Fig. 6-46) to proper outboard positions (relationship of glass to side rail weatherstrip).
- c. Adjust rear guide upper attachments for proper fore or aft positions ("11", Fig. 6-46).
- d. Adjust glass up-travel stops ("8 and 12", Fig. 6-46).

- e. Adjust front and rear guide lower adjusting studs for proper glass operation ('4 and 10", Fig. 6-46).
- f. Turn center adjusting studs (both guides) back into contact with door inner panel ('3 and 9", Fig. 6-46).
- g. Adjust sector gear stop ("13", Fig. 6-45).

FRONT DOOR WINDOW ASSEMBLY— “F” Styles

The front door window assembly consists of a solid tempered safety plate glass window, an individually bolted-on sash channel and roller assembly at the rear and a sash channel and window roller cam assembly at the front. The lower sash channel cam is bolted to the glass, but is removed in the process of removing the window.

Figure 6-72 is an exploded view of the window assembly and identifies the various components and their assembly sequence.

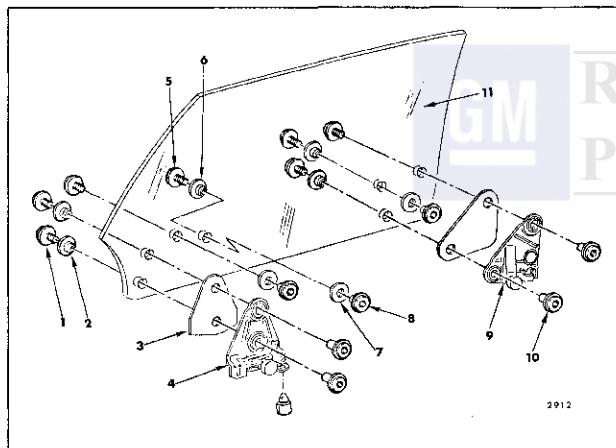


Fig. 6-72—Front Door Window Assembly - "F" Styles

1. Glass to Sash Channel Bolt
2. Glass to Sash Channel Bolt Spacer
3. Lower Sash Channel Filler
4. Front Lower Sash Channel and Window Roller Cam Assembly
5. Glass Bearing Fastener
6. Glass Bearing Spacer
7. Washer
8. Glass Bearing Fastener
9. Rear Lower Sash Channel
10. Glass to Sash Channel Bolt Nut
11. Front Door Window

Removal and Installation

1. Remove door trim pad, inner panel water deflector and outer strip assembly.

2. With window in full-up position, remove rear up-stop from rear guide ("1", Fig. 6-48) and front up-stop from front lower sash channel ("3", Fig. 6-48).
3. Loosen front and rear stabilizer strips and front and rear guide upper bolts (Fig. 6-48).
4. Lower window to full down position, remove lower sash channel cam to glass attaching nuts ("9", Fig. 6-48). Remove window by lifting straight-up, tilting slightly inboard to disengage rollers from guides. Slide window forward and remove rear roller forward of stabilizer strip.
5. To install, reverse removal procedures.

Adjustments

1. In and out adjustment of the glass is controlled by the in and out adjustment available at the top of the front and rear guides ("2 and 12", Fig. 6-48) and the in and out position of the glass stabilizer strip assemblies "6".
2. Fore and aft adjustment of the window assembly is controlled by the position of the rear guide. The upper attaching locations in the inner panel ("2", Fig. 6-48) are slotted to permit fore and aft adjustment of the guide. Because of the free floating roller in the window front sash channel cam (Fig. 6-72), the front guide does not have to be adjusted during fore or aft window alignment.
3. Ease of window operation and window stability depend to a great extent on the adjustment of the window stabilizer strip assemblies at the beltline ("6", Fig. 6-48). The stabilizing strips "6" should contact the glass throughout the full cycle of the window. Due to slight variations in glass contour, however, in some cases the strip may lose contact with the glass halfway through the cycle. This is permissible provided it does not result in loose glass. Contact should be sufficient to stabilize glass, but not restrict ease of window operation.
4. A window that is rotated (cocked) in the window opening may be the result of an improperly adjusted inner panel cam ("5", Fig. 6-48) or poorly adjusted up-travel stops ("1 or 13", Fig. 6-48).

Control up-travel at front or rear of window through up or down adjustment of either front or rear up-travel stop.

Correct a poorly adjusted inner panel cam by loosening cam attaching bolts ("5", Fig. 6-48) and adjusting front end of cam up or down as

required. Adjustment of cam repositions front edge of glass up or down in relation to rear edge of glass.

5. The up-travel of the window is determined by the adjustment of the front up-stop "3", rear up-stop "1" and window regulator sector gear stop ("8", Fig. 6-48).

The sequence of stop adjustment is:

- a. Loosen sector gear stop "8".
- b. Adjust stops "1 and 3" up or down for proper glass to side roof rail weatherstrip contact (Fig. 6-69).
- c. Adjust stop "8" against sector gear (press stop forward) and tighten stop bolt.

FRONT DOOR WINDOW ASSEMBLY— “Z” 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 an 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 ("12", Fig. 6-52).
3. Lower glass to approximately 3" down from full-up position and remove lower sash channel cam attaching screws ("6", Fig. 6-52).
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 6-52.
 - a. Ventilator division channel lower adjusting stud nut "1".
 - b. Door inner panel to ventilator attaching screw "4".
 - c. Ventilator adjusting stud nut and ventilator attaching bolt located on door hinge pillar "2 and 3".
7. Lift window assembly and remove it from between door panels at beltline.
8. To install, reverse removal procedure. Adjust window as described below. Adjust ventilator as described under "Front Door Ventilator Adjustments".

FRONT DOOR WINDOW ADJUSTMENTS— “Z” Styles

To adjust the front door window up or down, loosen the front and rear up-travel stops ("12", Fig. 6-52) 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 ("8", Fig. 6-52). 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 ("9", Fig. 6-52) 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 ("1 and 11", Fig. 6-52). Adjust studs in or out as required, then tighten stud nuts.

Slight fore and aft adjustment is available at the vent division channel and rear glass run channel lower adjusting stud locations ("1 and 11", Fig. 6-52).

FRONT DOOR WINDOW REGULATOR— Manual—“A-B&X” Closed 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. On "A, X" Two Door Styles and "B" Styles, remove inner panel cam as previously described.
4. Remove ventilator division channel lower adjusting stud and nut and window regulator attaching bolts (Fig. 6-73).
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.

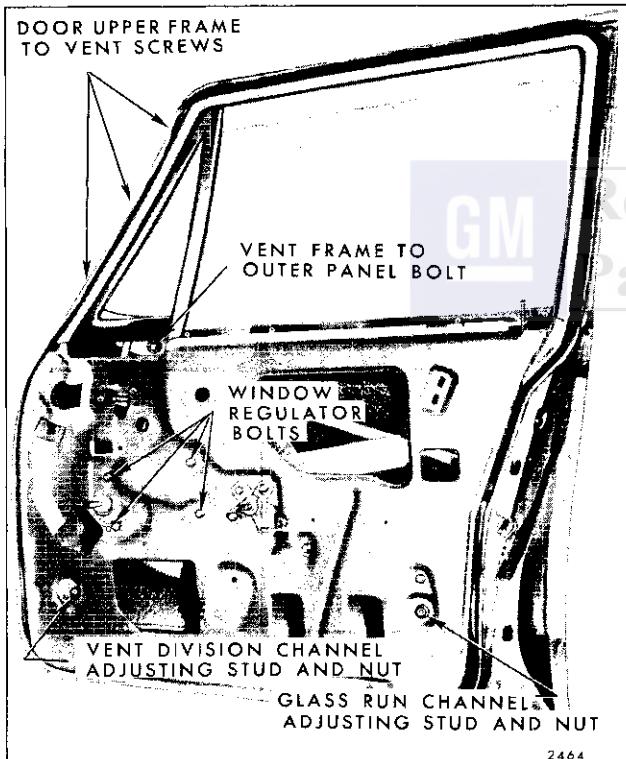


Fig. 6-73—Door Ventilator and Regulator Attachment — "B" Styles Shown, "A" Styles Similar

FRONT DOOR WINDOW REGULATOR— Manual—"A-B&C" Hardtop and Convertible Styles

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.

2. Prop window in full-up position, remove inner panel cam attaching bolts ("1", Fig. 6-41).
3. Remove window regulator attaching bolts ("3", Fig. 6-41).
4. Disengage balance and lift arm rollers from lower sash channel cam, remove regulator through large access hole.
5. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR— Electric—"A&B" Closed 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. 6-73) and remove regulator through access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR— Electric—"A-B&C" Hardtop and Convertible Styles

Removal and Installation

1. Remove front door window as previously described.
2. On "A" Styles, remove inner panel cam as previously described.
3. Remove ventilator division channel lower adjusting stud and nut ("8", Fig. 6-42).
4. Disconnect wire harness connector at window regulator motor.
5. Remove window regulator attaching bolts ("9", Fig. 6-42).
6. On "B" Styles, press lower end of ventilator division channel outboard to permit removal of regulator through large access hole.
7. On "A" Styles, it is necessary to raise the regulator lift arm up through the beltline and rotate the regulator clockwise so that regulator can be removed through the large access hole, motor coming out first.
8. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR— Manual and Electric— 16647 and 26657 "F" Styles

Removal and Installation

1. With window in a full-up position, support glass and remove lower sash channel cam ("5", Fig. 6-44).
2. Remove inner panel cam ("10", Fig. 6-44).
3. On styles equipped with electric window regulators, disconnect wire harness connector at window regulator motor.
4. Remove window regulator attaching bolts ("12", Fig. 6-44) and remove regulator through access hole.
5. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR— Manual and Electric—"E" Styles

Removal and Installation

1. Remove door window as previously described.
2. Remove inner panel cam ("6", Fig. 6-46).
3. On styles equipped with electric window regulators, disconnect wire harness connector at window regulator motor.
4. Remove window regulator attaching bolts ("2", Fig. 6-46) and remove regulator through large access hole.
5. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR— Manual—"Z" Styles

Removal and Installation

1. Remove door window and ventilator assembly as previously described.
2. Remove inner panel cam ("8", Fig. 6-52).
3. Remove window regulator attaching bolts ("5", Fig. 6-52) and remove regulator through large access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW REAR GUIDE— "A" Hardtop and Convertible Styles

Removal and Installation

1. Remove front door trim assembly and inner panel water deflector.

2. With window in full-up position, loosen rear guide window up-travel stop attaching bolt ("3", Fig. 6-37), remove stop from guide.

3. Remove rear guide lower attaching bracket to door inner panel attaching bolt ("2", Fig. 6-37).

4. Remove rear guide upper attaching bolts ("5", Fig. 6-37).

5. Work lower edge of guide past bumper bracket and disengage from roller. Remove guide through access hole.

6. To install reverse removal procedure.

FRONT DOOR WINDOW REAR GUIDE AND GUIDE PLATE ASSEMBLY—"B&C" Hardtop and Convertible Styles— Except 16647 and 26657 Styles

Removal and Installation

1. Remove rear door trim assembly and inner panel water deflector.
2. Operate window to approximately half-up position and remove lower sash channel to guide plate attaching screws ("1", Fig. 6-42).
3. Remove guide upper attaching bolt "5" and guide to lower support bracket attaching bolt ("6", Fig. 6-42).
4. Reaching through large forward access hole, disengage guide plate from window lower sash channel and remove guide and guide plate, as an assembly, from door.
5. To install, reverse removal procedure. Align guide for proper window alignment and operation as described under "Front Door Window Adjustments".

FRONT DOOR WINDOW FRONT GUIDE— 16647 and 26657 Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. With window in full-up position, remove front up-stop ("1", Fig. 6-44).
3. Refer to Figure 6-44 and remove front guide upper attaching bolts and nut from lower attaching stud "8" (stud caged in front guide).
4. To install, reverse removal procedure.

FRONT DOOR WINDOW REAR GUIDE— 16647 and 26657 Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Using a 1/4" hex head wrench, remove rear up-travel stop from window rear sash channel cam ("2", Fig. 6-44).
3. Remove rear guide upper and lower attaching bolt ("7 and 9", Fig. 6-44).
4. Pull guide down and forward to disengage from window rear roller and remove guide from door.
5. To install, reverse removal procedure.

FRONT DOOR WINDOW FRONT GUIDE— All "E" Body 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 ("3, 4 and 13", Fig. 6-46).
4. To install, reverse removal procedure.

Adjustments

SEE DOOR WINDOW ADJUSTMENTS

FRONT DOOR WINDOW REAR GUIDE— All "E" Body 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 ("9, 10 and 11", Fig. 6-46).
4. To install, reverse removal procedure.

Adjustments

SEE DOOR WINDOW ADJUSTMENTS

FRONT DOOR WINDOW FRONT GUIDE— "F" Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. With window in half-down position, remove front guide upper and lower attaching bolts ("12 and 14", Fig. 6-48).
3. Disengage guide from window roller and remove through large access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW REAR GUIDE— "F" Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Remove rear guide upper and lower attaching bolts ("2 and 4", Fig. 6-58).
3. Pull guide down and forward to disengage from window roller and remove guide from door.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW REAR GUIDE— "Z" Body Styles

Removal and Installation

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 ("9 and 11", Fig. 6-52).
3. Disengage run channel from rear edge of glass and remove run channel through large access hole.
4. To install, reverse removal procedure.

FRONT DOOR WINDOW GLASS RUN CHANNEL—"A and X" Closed Styles

Removal and Installation

1. Remove front door window as previously described.
2. Starting at the upper front corner of the door upper frame, press (finger pressure) sides of

run channel together and pull channel from frame.

- To install, reverse removal procedure.

FRONT DOOR WINDOW GLASS RUN CHANNEL—"B" Closed Styles

Removal and Installation

- Remove door trim assembly and detach inner panel water deflector.
- Lower window to approximately half-down position and tie or tape window so that front edge of window remains engaged in ventilator division channel.
- Remove glass run channel upper attaching bolt (at belt) and lower adjusting stud nut (Fig. 6-74).

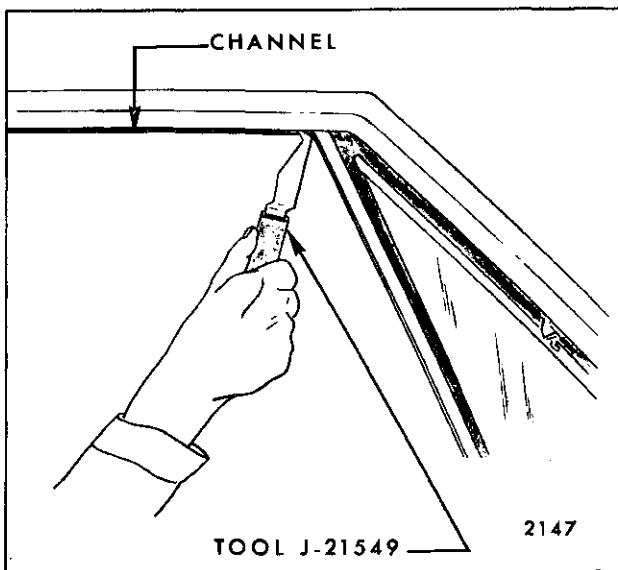


Fig. 6-75—Door Window Glass Run Channel Removal

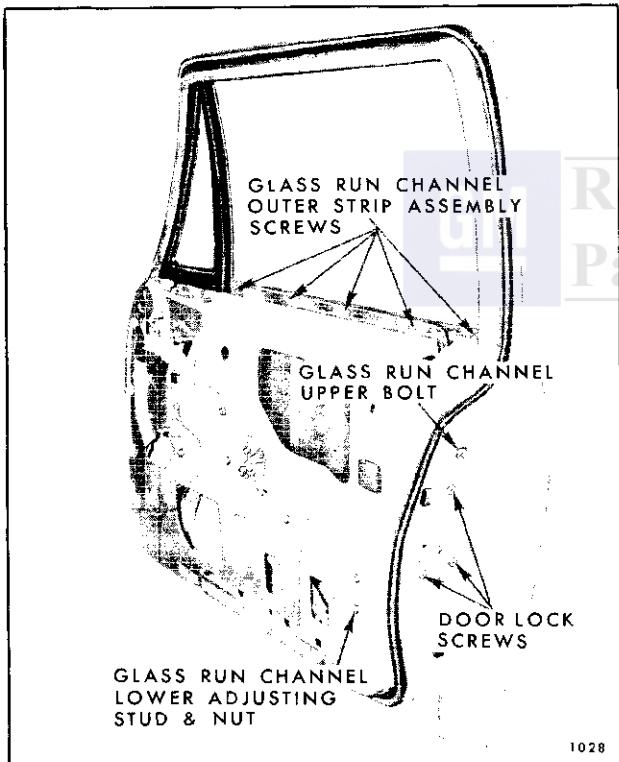


Fig. 6-74—Door Hardware Attachments - "B" Closed Styles

- 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 6-75.
- Beginning at front end of run channel, slide tool rearward until a clip is contacted, then

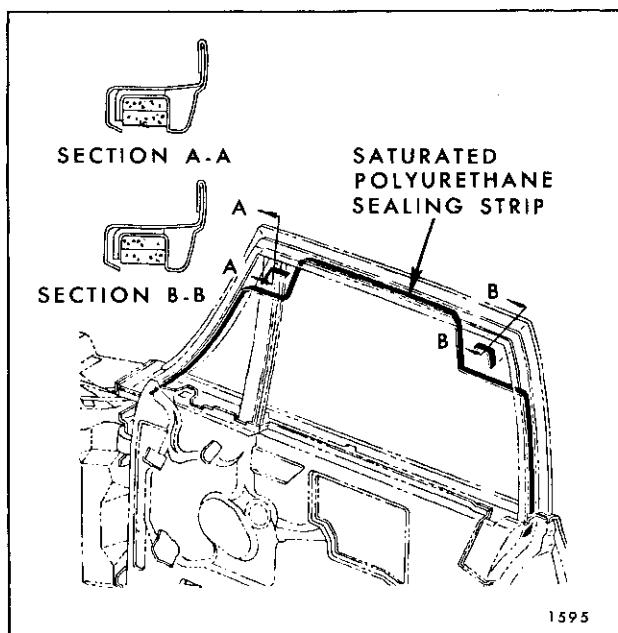


Fig. 6-76—Front Door Window Glass Run Channel Sealing - "B" Closed Styles

engage point of tool under clip and carefully pry inboard to release clip tangs from door frame.

- Repeat step 5 at each clip location until run channel is completely disengaged from door frame.
- 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.

- To install, reverse removal procedure. Begin installation above belt at door upper frame upper rear corners.

NOTE: Prior to installation, inspect run channel clips and saturated polyurethane foam sealing strips in door upper frame (Fig. 6-76). 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).

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. 6-77). 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.

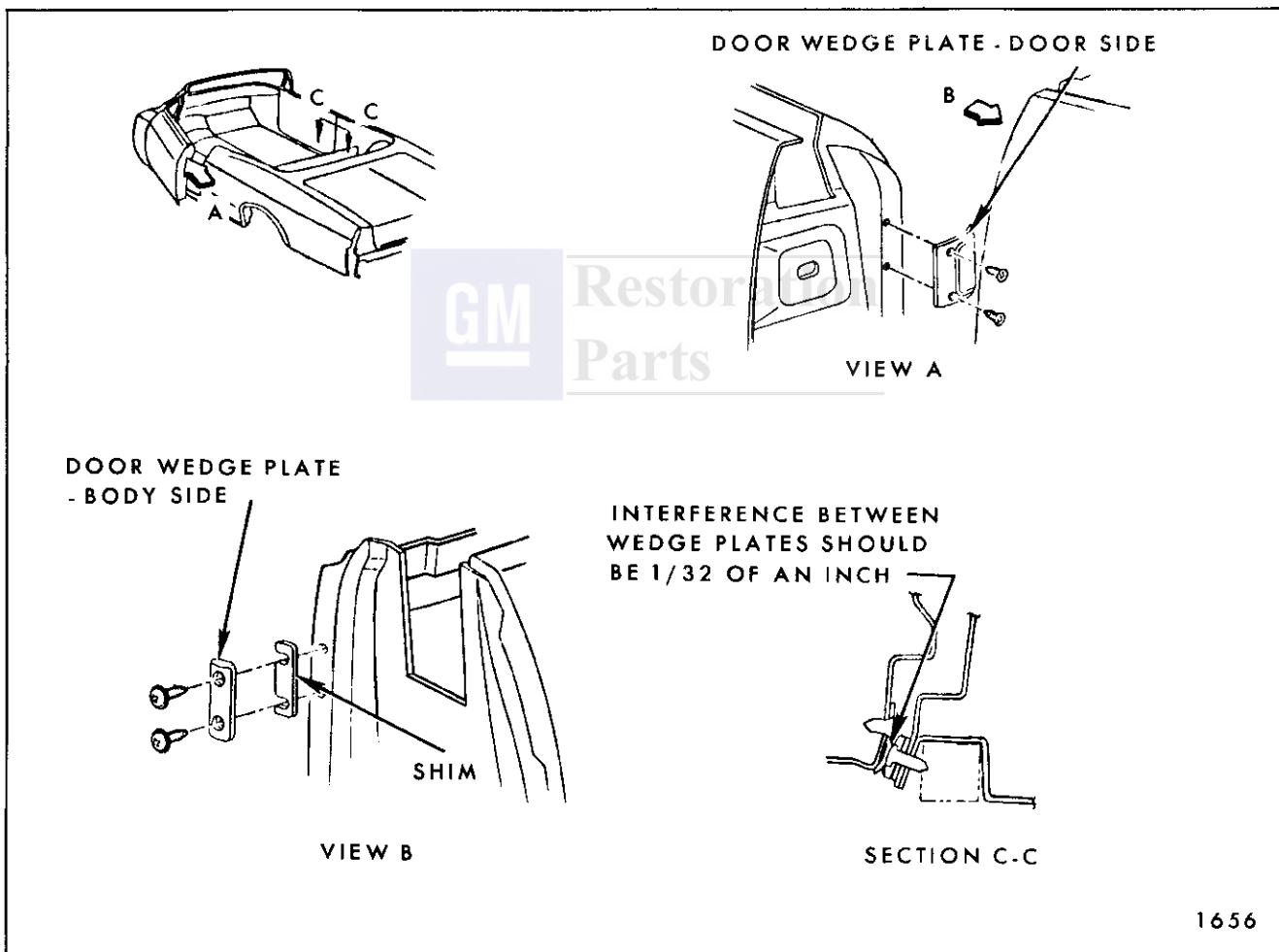


Fig. 6-77—Door Wedge Plates — "67" Styles

REAR DOORS

DESCRIPTION

Information in this section concerns operations applicable to rear doors only. Procedures for removal of water deflectors, door handles and weatherstrips are outlined in the "Front and Rear Door" section of this manual - see index. Door trim assemblies are covered in Section 14 of manual - see index.

Illustrations 6-78 through 6-89 are typical of rear doors with the trim assembly and inner panel water deflector removed. These figures identify the component parts of the rear door assembly (by style), their relationship and various attaching points.

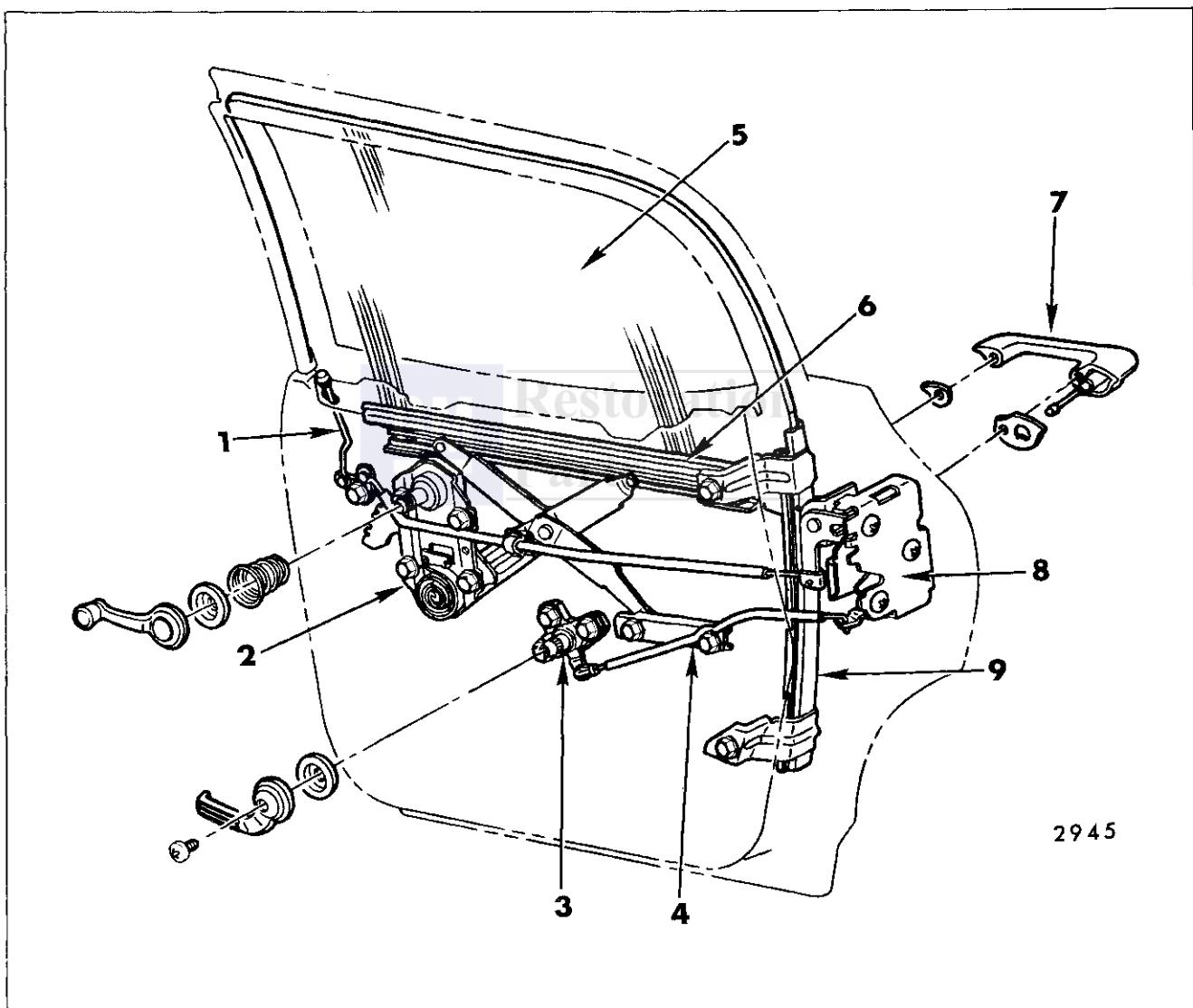
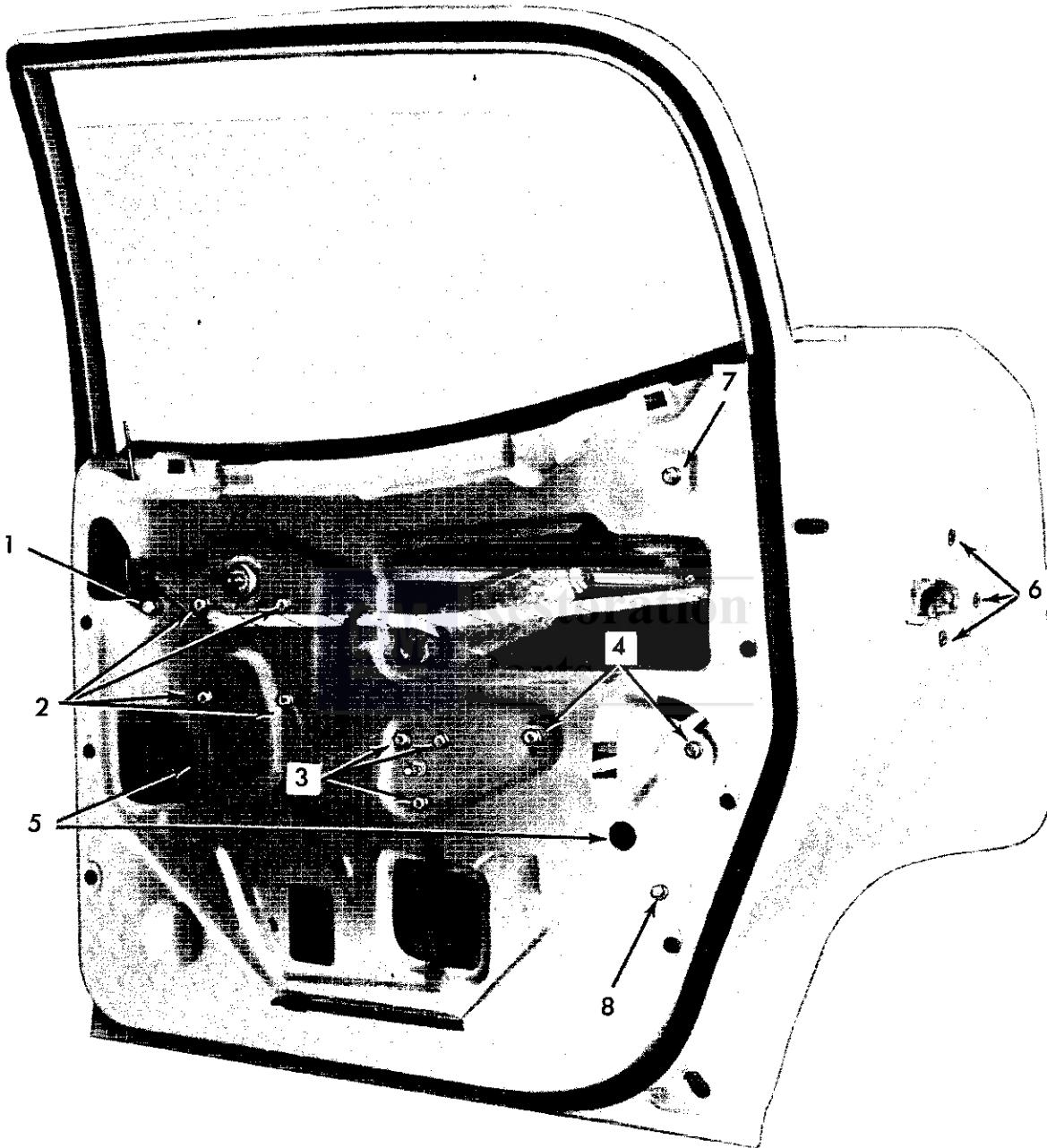


Fig. 6-78—Rear Door Hardware - "A" Closed Styles

- | | |
|------------------------------|---------------------------|
| 1. Inside Locking Rod | 6. Lower Sash Channel Cam |
| 2. Window Regulator - Manual | 7. Door Outside Handle |
| 3. Door Lock Remote Control | 8. Door Lock |
| 4. Inner Panel Cam | 9. Glass Run Channel |
| 5. Rear Door Window | |



2729

Fig. 6-79—Rear Door Hardware — "A" Closed Styles

- 1. Inside Locking Rod to Lock Connecting Link Attaching Bolt
- 2. Window Regulator Attaching Bolts
- 3. Door Lock Remote Control Attaching Bolts
- 4. Inner Panel Cam Attaching Bolts
- 5. Lower Sash Channel Cam Attaching Screws Access Holes
- 6. Door Lock Attaching Screws
- 7. Glass Run Channel Upper Attaching Bolt
- 8. Glass Run Channel Lower Attaching Bolt

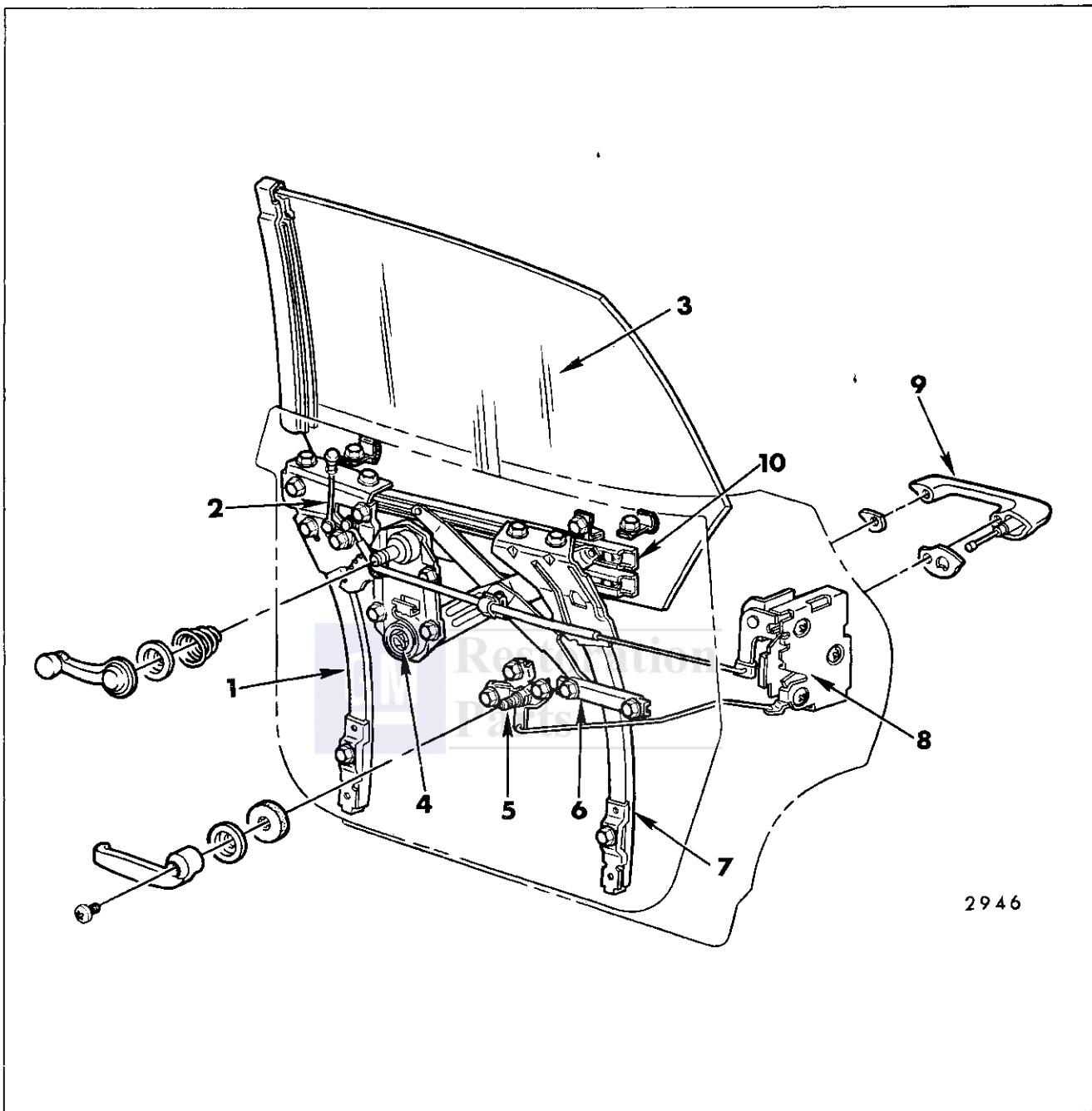


Fig. 6-80—Rear Door Hardware - "A-39" Styles

1. Front Guide
2. Inside Locking Rod
3. Rear Door Window
4. Window Regulator - Manual
5. Door Lock Remote Control
6. Inner Panel Cam
7. Rear Guide
8. Door Lock
9. Door Outside Handle
10. Lower Sash Channel Cam

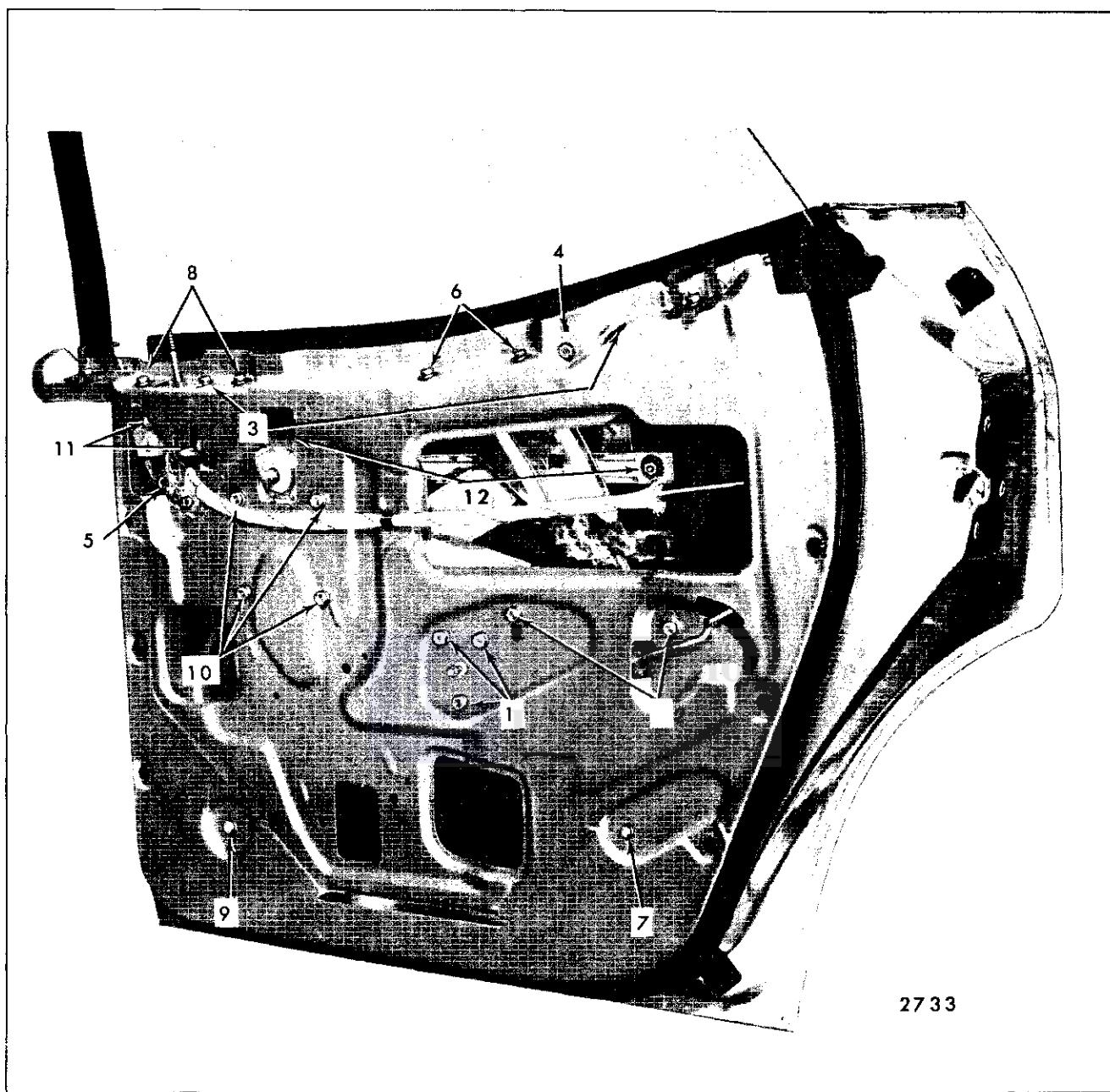
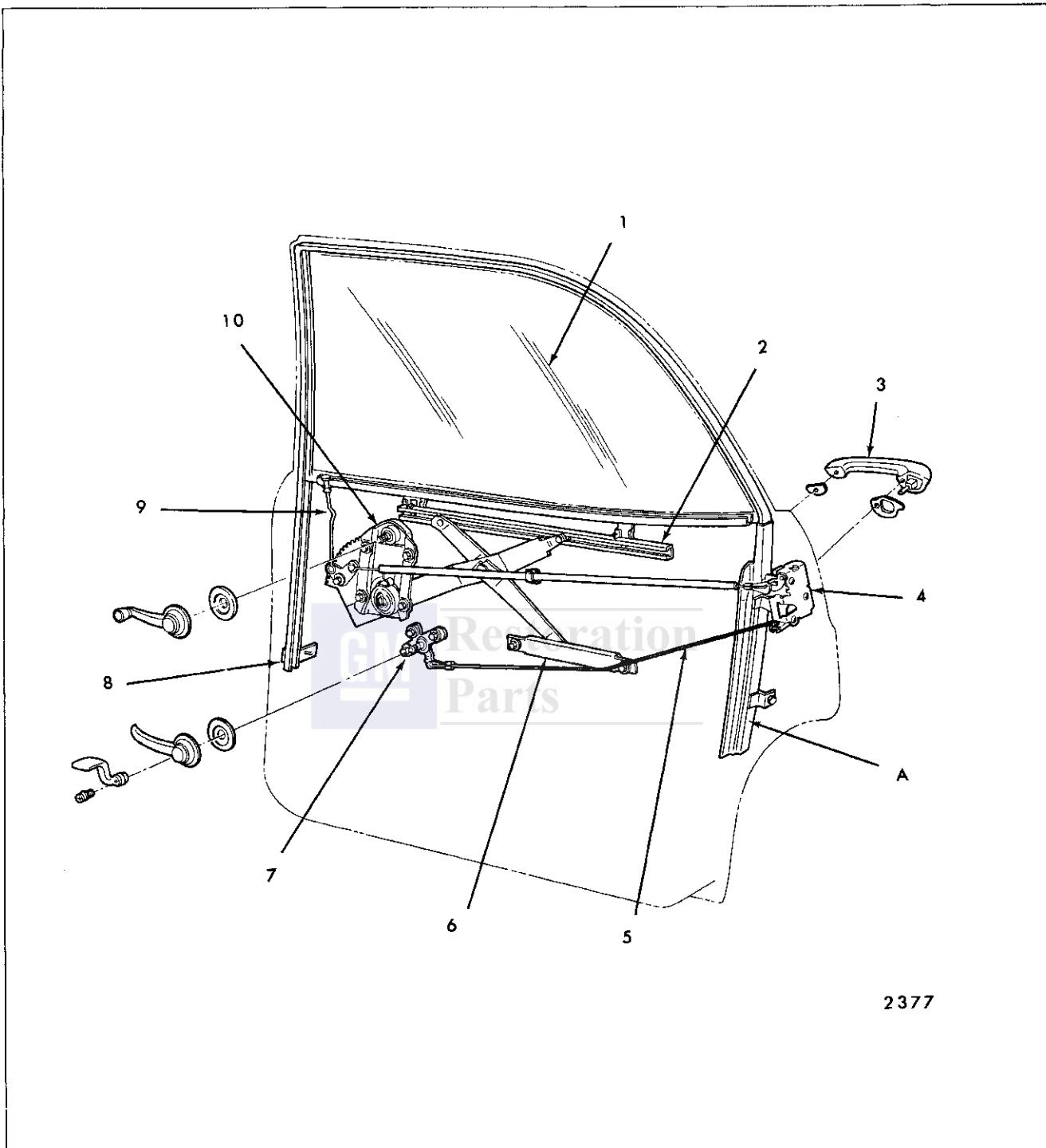


Fig. 6-81—Rear Door Hardware - "A-39" Styles

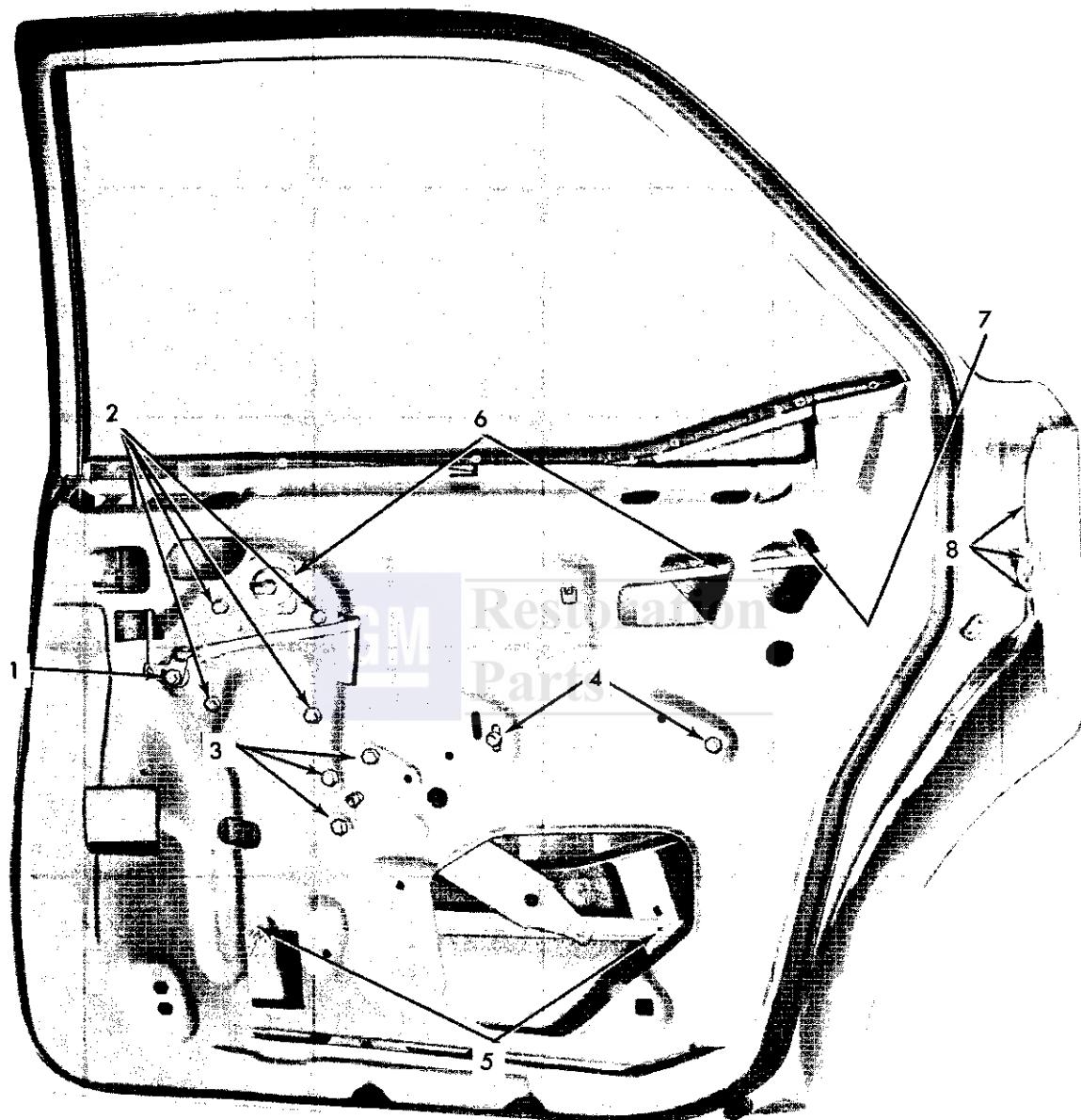
1. Door Lock Remote Control Attaching Bolts
2. Inner Panel Cam Attaching Bolts
3. Window Stabilizer Strip
4. Window Rear Up-Travel Stop
5. Window Front Up-Travel Stop
6. Rear Guide Upper Attaching Bolts
7. Rear Guide Lower Attaching Bolts
8. Front Guide Upper Support Attaching Bolts
9. Front Guide Lower Attaching Bolt
10. Window Regulator Attaching Bolts
11. Front Guide to Upper Support Attaching Bolts
12. Window Lower Sash Channel Cam Stud Nuts



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Fig. 6-82—Rear Door Hardware - "B" Closed Styles

- | | |
|--|---|
| 1. Window Assembly | 6. Inner Panel Cam |
| 2. Lower Sash Channel Cam | 7. Remote Control |
| 3. Outside Handle and
Sealing Gaskets | 8. Glass Run Channel (Extends Completely
Around Window to Point "A") |
| 4. Door Lock | 9. Inside Locking Rod |
| 5. Remote Control Connecting Rod | 10. Window Regulator |



2742

Fig. 6-83—Rear Door Hardware - "B" Closed Styles

- 1. Inside Locking Rod Connecting Link Bolt
- 2. Window Regulator Attaching Bolts
- 3. Door Lock Remote Control Attaching Bolts
- 4. Inner Panel Cam Attaching Bolts
- 5. Window Lower Sash Channel Cam Attaching Screws - Manual Styles
- 6. Window Lower Sash Channel Cam Attaching Screw Access Holes - Electric Styles
- 7. Window Lower Sash Channel Guide Plate Attaching Screws - 35000 Series
- 8. Door Lock Attaching Screws

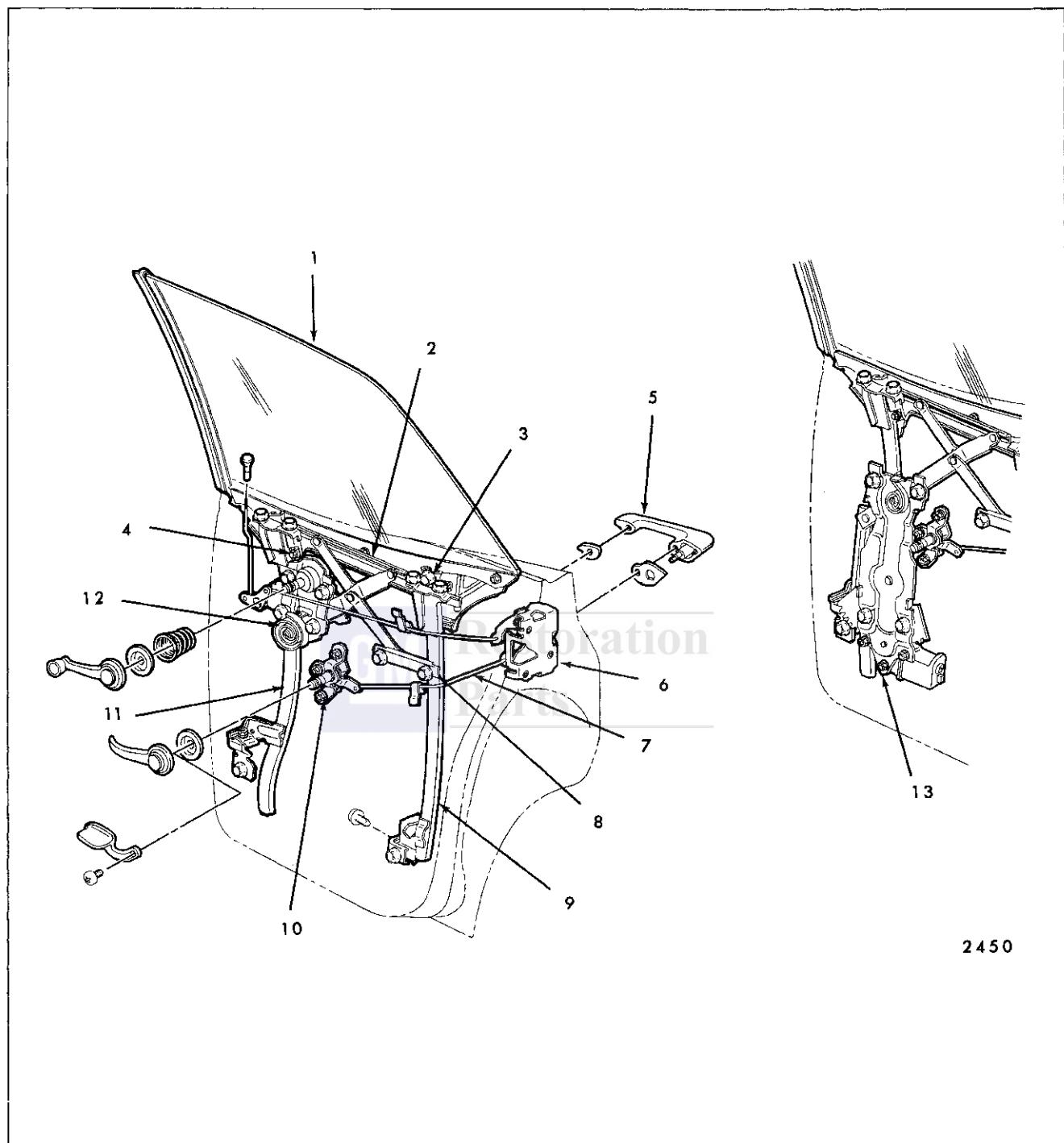
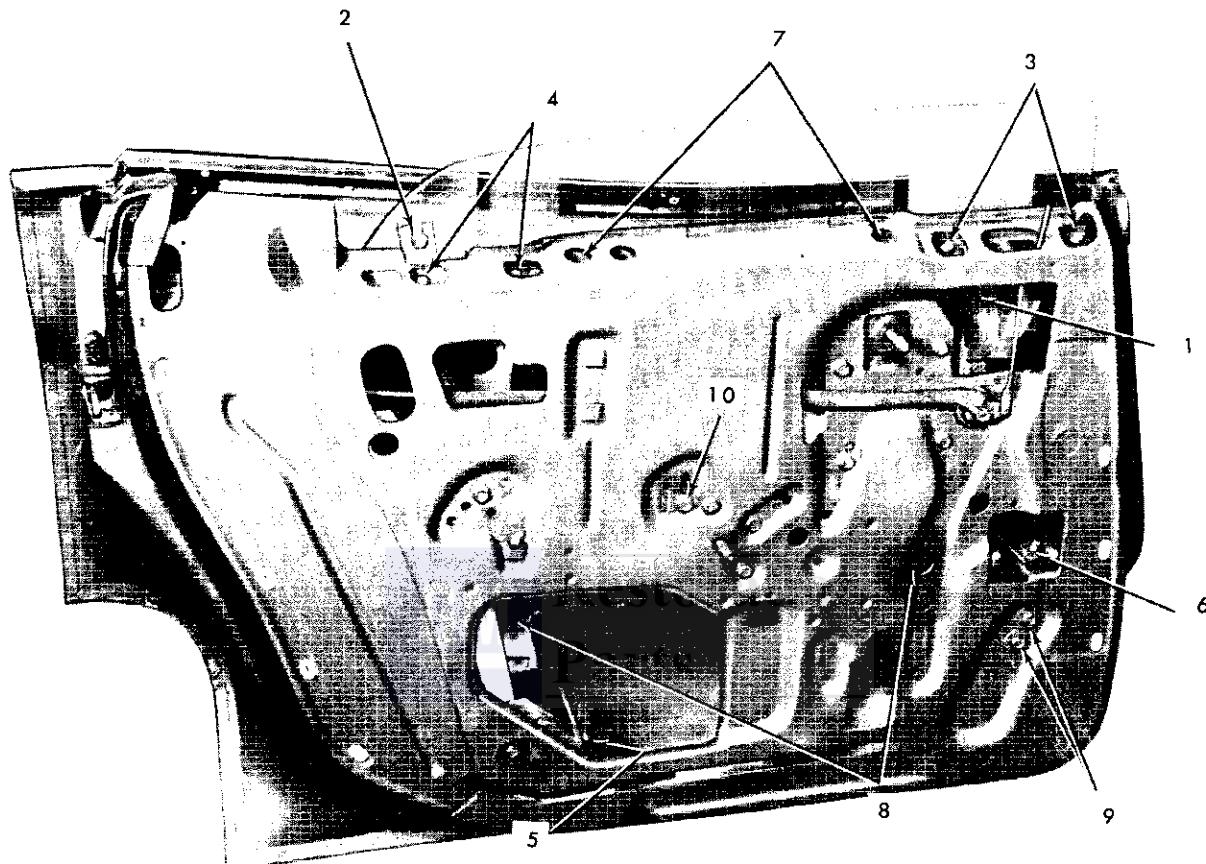


Fig. 6-84—Rear Door Hardware - "B-C 39" and "C-49-69" Except 68069-169 Styles

- | | |
|--|---------------------------------|
| 1. Rear Door Window Assembly | 8. Inner Panel Cam |
| 2. Lower Sash Channel Cam | 9. Rear Guide |
| 3. Rear Guide Window Up-Stop | 10. Remote Control |
| 4. Front Guide Window Up-Stop | 11. Front Guide |
| 5. Outside Handle and Gaskets | 12. Window Regulator - Manual |
| 6. Door Lock | 13. Window Regulator - Electric |
| 7. Remote Control to Lock Connecting Rod | |



2401

Fig. 6-85—Rear Door Hardware - "B-C 39", "C-49-69" Styles, Except 68069-169

1. Window Front Up-Stop
2. Window Rear Up-Stop
3. Front Guide Upper Attaching Bolts
4. Rear Guide Upper Attaching Bolts
5. Rear Guide to Lower Support Bracket Bolt
6. Front Guide to Lower Support Bracket Bolt
7. Window Stabilizer Strips
8. Lower Sash Channel Cam Attaching Screws
9. Front Guide Support Bracket Attaching Bolts
10. Inner Panel Cam Front Attaching Bolt

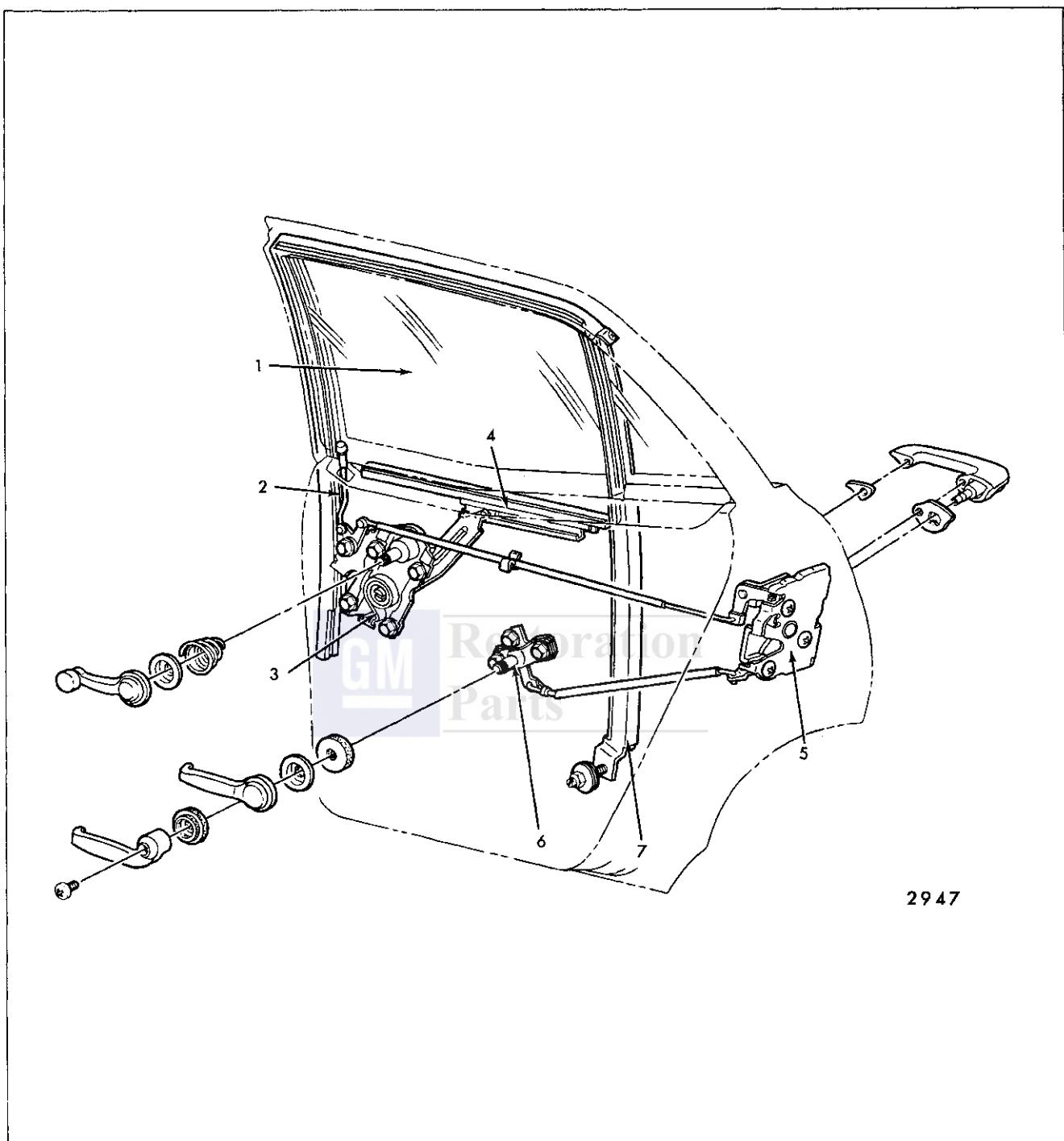


Fig. 6-86--Rear Door Hardware - "X" Style

1. Rear Door Window
2. Inside Locking Rod
3. Window Regulator
4. Lower Sash Channel Cam
5. Door Lock
6. Door Lock Remote Control
7. Ventilator Division Channel

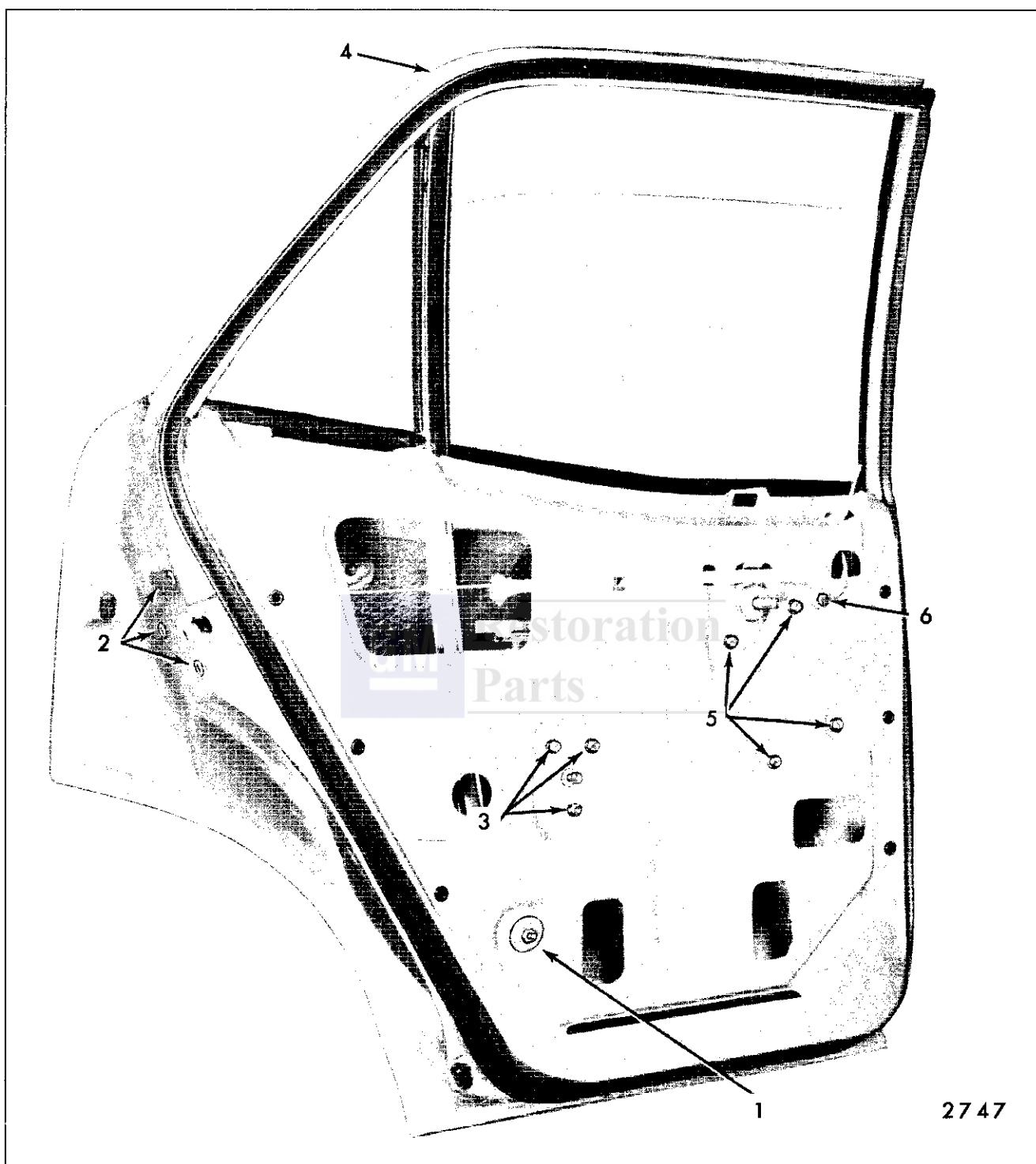


Fig. 6-87—Rear Door Hardware - "X" Style

- | | |
|--|---|
| 1. Ventilator Division Channel Lower
Adjusting Stud | 4. Ventilator Division Channel Upper
Attaching Screw |
| 2. Door Lock Attaching Screws | 5. Window Regulator Attaching Bolts |
| 3. Door Lock Remote Control Attaching
Bolts | 6. Inside Locking Rod to Lock Con-
necting Link Attaching Bolt |

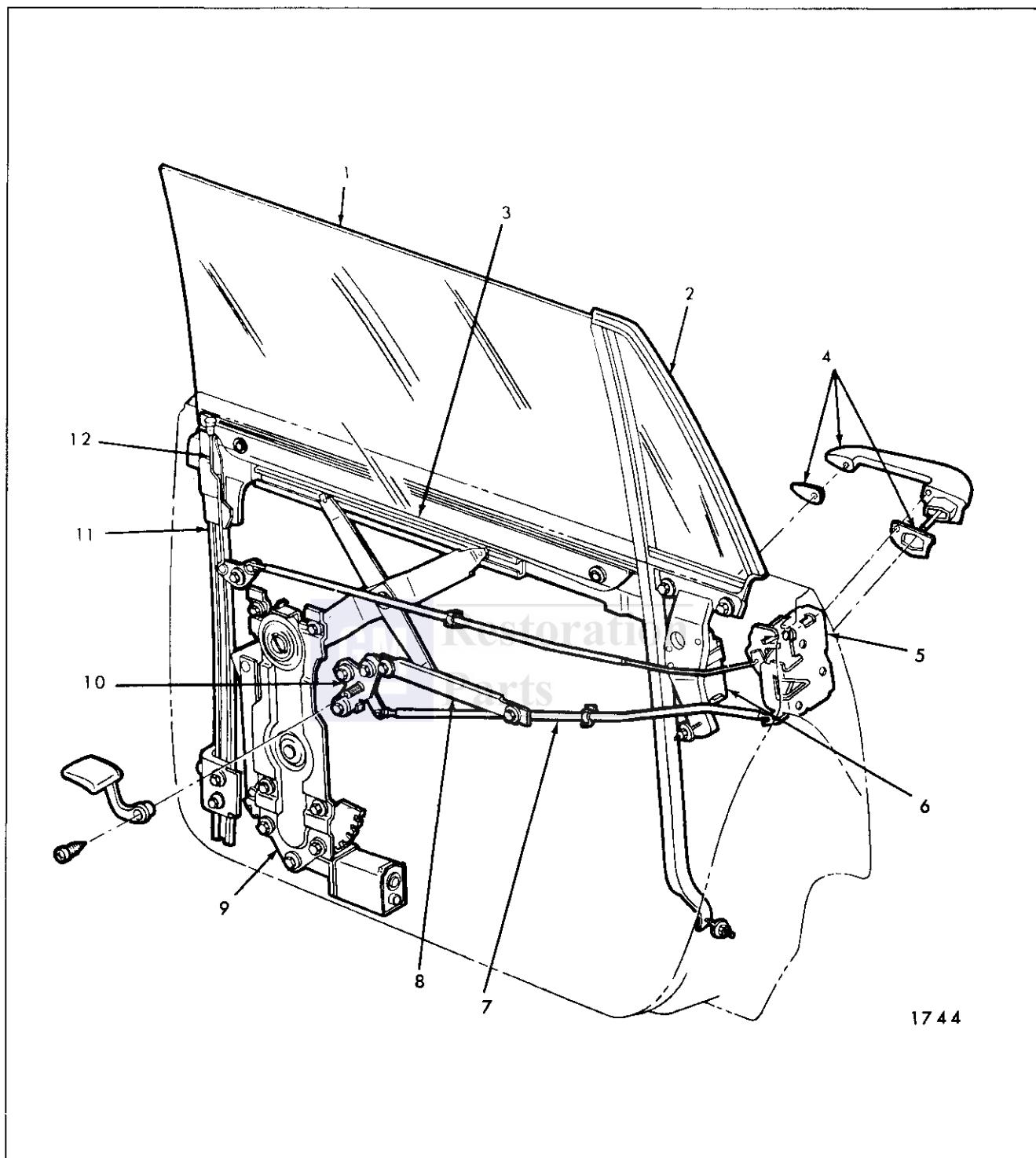


Fig. 6-88—Rear Door Hardware - 68069 - 68169 Styles

- | | | |
|--|---|---|
| 1. Window Assembly | 5. Door Lock | 9. Window Regulator
(Power Operated) |
| 2. Ventilator Assembly | 6. Ventilator Regulator
(Power Operated) | 10. Remote Control |
| 3. Lower Sash Channel Cam | 7. Remote Control Connecting Rod | 11. Window Front Guide |
| 4. Outside Handle and
Sealing Gaskets | 8. Inner Panel Cam | 12. Inside Locking Rod |

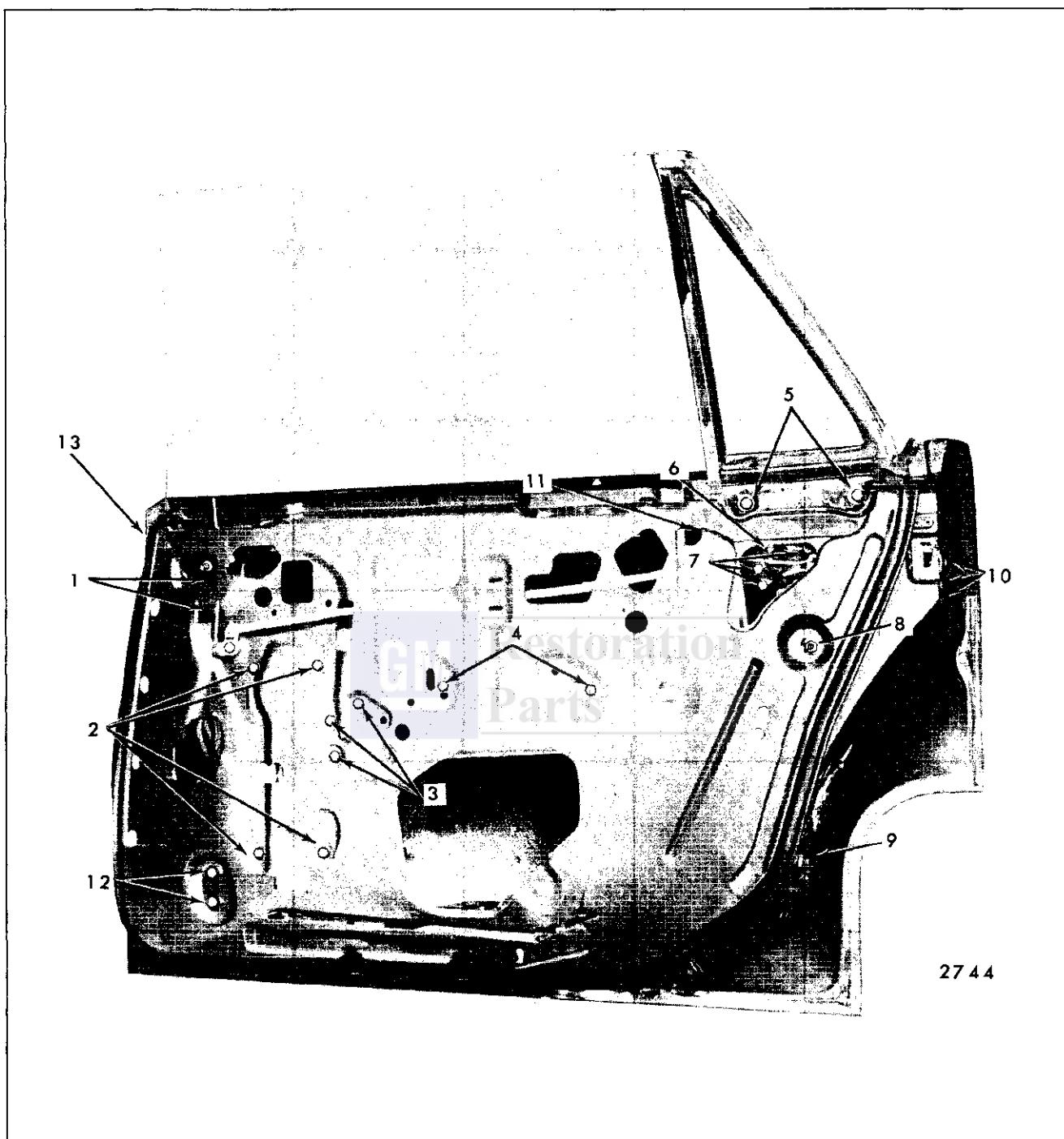


Fig. 6-89—Rear Door Hardware - 68069 - 68169 Styles

- 1. Window Front Up-Travel Stop Bolt
- 2. Window Regulator Attaching Bolts
- 3. Door Lock Remote Control Attaching Bolts
- 4. Inner Panel Cam Attaching Bolts
- 5. Ventilator Frame to Door Inner Panel
Attaching Bolts
- 6. Ventilator "T" Shaft Bolt
- 7. Ventilator Regulator Attaching Bolts
- 8. Ventilator Lower Adjusting Stud and Nut
- 9. Ventilator Division Channel Adjusting Stud and Nut
- 10. Door Lock Attaching Screws
- 11. Window Rear Up-Travel Stop Bolt
- 12. Front Guide Support Bracket Attaching Bolts
- 13. Front Guide Upper Attaching Bolts

REAR DOOR HINGES—All Styles

All rear door hinges are constructed of steel or a combination of steel and malleable iron. A one stage hold-open feature is incorporated in all lower hinges, except on "A" styles which have a two stage hold-open feature and "X" styles which do not have a hold-open feature.

Doors 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.
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 electric conduit from door, then remove wire harness and/or vacuum hoses from door through conduit access hole.
3. With door properly supported, loosen upper and lower hinge attaching screws or bolts from door or center pillar and remove door from body. Figure 6-90 is typical of rear door hinge attachment.

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 to prevent corrosion.
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.

NOTE: When replacing or adjusting door hinges, torque bolts to 14 to 18 foot pounds.

Adjustments

In-or-out and up-or-down adjustment is available at the door side hinge attaching screws. Fore-or-aft

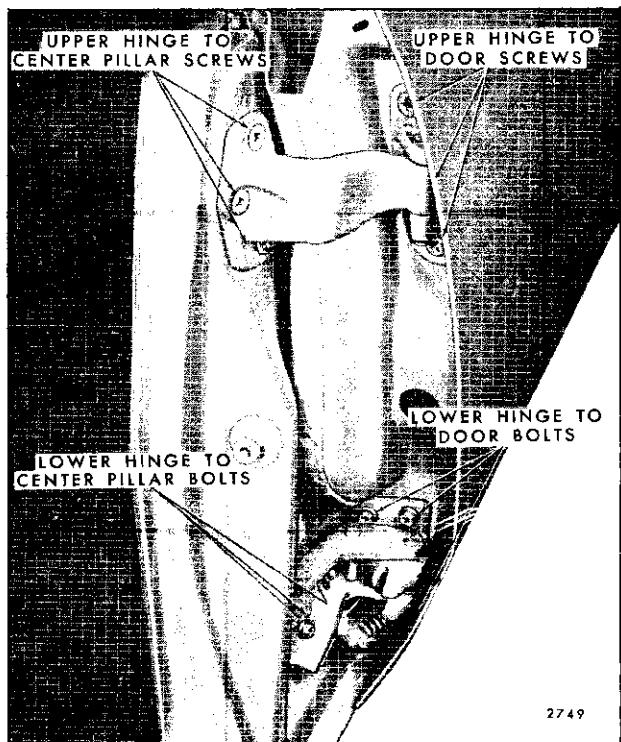


Fig. 6-90—Typical Rear Door Hinge Installation

and a slight up-or-down adjustment is available at the body side (center pillar) hinge attaching screws.

REAR DOOR LOCK REMOTE CONTROL

There are two basic types of door lock remote controls; the "spindle" type which rotates upward when actuated and the "inward" acting type. Both type remote controls are 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 6-83 illustrates the spindle type door lock remote control installation. The inward acting type is similar.

Removal and Installation

1. Remove rear door trim assembly and inner panel water deflector.
2. Remove remote control attaching bolts ("3", Fig. 6-83).
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— All 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 ("8", Fig. 6-83) and remove lock from door.
5. To install, reverse removal procedure.

NOTE: Do not alter or repair lock assemblies. Replace a defective lock with a new lock assembly.

REAR DOOR WINDOW ASSEMBLY— "A" 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

1. Remove door trim assembly and inner panel water deflector.
2. With window in a three-quarter lowered position, remove window lower sash channel cam attaching screws ("5", Fig. 6-79).
3. Loosen rear glass run channel upper and lower attaching screws ("7 and 8", Fig. 6-79).
4. Rotate rear edge of glass downward and remove window by lifting front edge of glass upward outboard of door upper frame.
5. To install, reverse removal procedure.

REAR DOOR WINDOW ASSEMBLY— "A-39"

The rear door window assembly consists of a solid tempered safety plate glass window and an individually bolted-on roller at the front and window roller cam assembly at the rear. The lower sash channel cam is bolted to the glass, but is removed in the process of removing the window.

Figure 6-91 is an exploded view of the window assembly and identifies the various components and their assembly sequence.

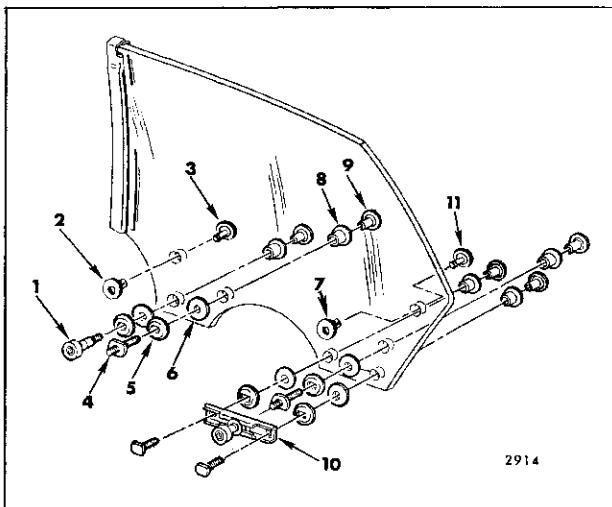


Fig. 6-91—Rear Door Window Assembly - "A-39" Styles

1. Roller Assembly
2. Glass Bearing Fastener Cap
3. Glass Bearing Fastener
4. Stud Inner Panel Cam
5. Washer (Metal)
6. Washer
7. Glass Bearing Fastener Cap
8. Bushing
9. Nut
10. Rear Guide Cam Assembly
11. Glass Bearing Fastener

Removal and Installation

1. Remove door trim pad and inner panel water deflector.
2. Remove window front up-stop from guide ("5", Fig. 6-81) and rear up-stop from door inner panel ("4", Fig. 6-81).
3. Loosen front and rear window stabilizer strip assembly bolts ("3", Fig. 6-81) and remove stabilizer strips.
4. With window in full-up position, remove lower sash channel cam to glass attaching stud nuts ("12", Fig. 6-81).
5. Disengage front roller from front guide, then rear roller from rear guide.
6. Remove window from door by aligning rollers with notches provided in inner panel. Remove rear end of window first, then front end.

- To install, reverse removal procedure. Adjust window for proper alignment and operation as described in the following adjustment procedure.

Adjustments

- In-and-out adjustment of the glass is controlled by the in-and-out adjustment available at the top of the front and rear guides ("6 and 8", Fig. 6-81) and the in-and-out position of the glass stabilizer strip assemblies ("3", Fig. 6-81).
- Fore-and-aft adjustment of the window assembly is controlled by the position of the front guide. The upper attaching locations in the front guide upper support ("11", Fig. 6-81) are slotted to permit fore-and-aft adjustment of the guide. Because of the free floating roller in the window rear sash channel cam (Fig. 6-91) the rear guide does not have to be adjusted during fore-or-aft window alignment.
- Ease of window operation and window stability depend to a great extent on the adjustment of the window stabilizer strip assemblies at the beltline ("3", Fig. 6-81).

The stabilizing strips should contact the glass throughout the full cycle of the window. Due to slight variations in glass contour, however, in some cases the strip may lose contact with the glass half way through the cycle. This is permissible provided it does not result in loose glass. Contact should be sufficient to stabilize glass, but not restrict ease of window operation.

- A window that is rotated (cocked) in the window opening may be the result of an improperly adjusted inner panel cam ("2", Fig. 6-81) or poorly adjusted up-travel stops ("4 or 5", Fig. 6-81).
- The up-travel of the window is determined by the adjustment of the front and rear up stop ("4 or 5", Fig. 6-81).

REAR DOOR WINDOW ASSEMBLY "B" 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

- Remove door trim assembly and inner panel water deflector.

- 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 ("7", Fig. 6-83).
- Operate window to position shown in Figure 6-83 and remove lower sash channel cam attaching screws (refer to "5" for manual styles and "6" for electric styles, Fig. 6-83).
- Remove glass run channel front and rear attaching bolts (Fig. 6-92).
- Pivot window in opening (raise front edge) to disengage front and rear edges of glass from glass run channel, then remove window in-board of door upper frame.
- To install, reverse removal procedure.

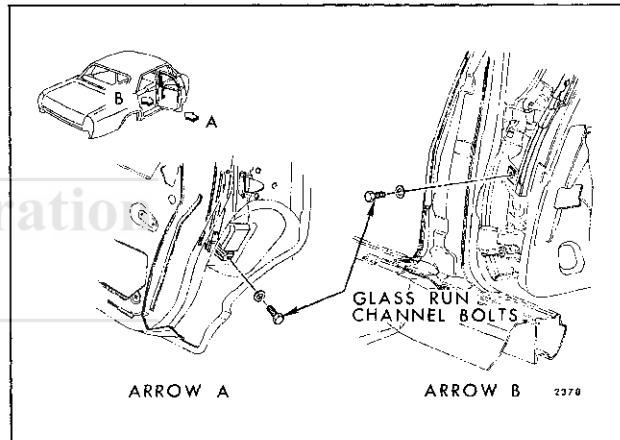


Fig. 6-92—Glass Run Channel Retention - "B" Closed Styles

REAR DOOR WINDOW ASSEMBLY— All "B-C-39" Styles and All "C-49 and 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 6-93 and 6-94 are exploded views of the "B-C-39" and C-49" and "C-69" Style rear door window assemblies (except 68069 and 68169 Styles) and identify the specific components and their assembly sequence.

NOTE: When replacing door glass, replace glass to sash channel spacers. When installing glass to sash channel, torque nuts to 72 inch lbs. (6 foot lbs.).

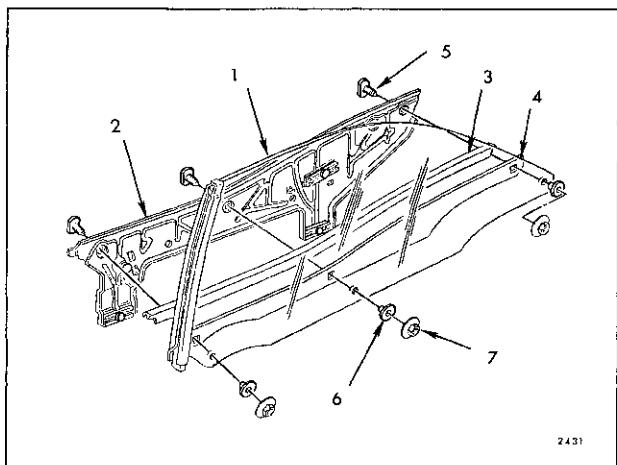


Fig. 6-93—Rear Door Window Assembly -
"B-C 39" and "C-49" Styles

- | | |
|--|---|
| 1. Rear Door Window Assembly | 5. Glass to Lower Sash Channel Bolts |
| 2. Lower Sash Channel Assembly | 6. Glass to Lower Sash Channel Bolt Spacers |
| 3. Lower Sash Channel Upper Outer Filler | 7. Glass to Lower Sash Channel Bolt Nuts |
| 4. Lower Sash Channel Lower Outer Filler | |

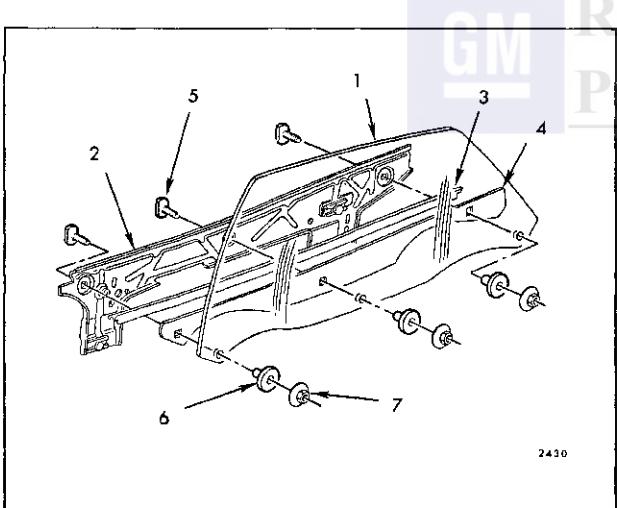


Fig. 6-94—Rear Door Window Assembly -
"C-69" Styles Except 68069-169 Styles

- | | |
|--|------------------------------------|
| 1. Rear Door Window Assembly | 5. Glass to Sash Channel Bolts |
| 2. Lower Sash Channel Assembly | 6. Sash Channel Bolt Spacers |
| 3. Lower Sash Channel Upper Outer Filler | 7. Glass to Sash Channel Bolt Nuts |
| 4. Lower Sash Channel Lower Outer Filler | |

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.

2. Remove front and rear up-stop attaching bolts ("1 and 2", Fig. 6-85) and remove stops.
3. Loosen front and rear guide upper attaching bolts ("3 and 4", Fig. 6-85).
4. Loosen front and rear guide lower attaching bolts ("5 and 6", Fig. 6-85).
5. Remove window stabilizer strip assemblies ("7", Fig. 6-85).
6. Lower window to almost full-down position and remove lower sash channel cam screws ("8", Fig. 6-85). Support window while removing screws.
7. Lift window assembly straight upward and remove it from door.
8. To install, reverse removal procedure. Adjust guides and stops for proper window alignment as described below.

Window Adjustments

1. To adjust the top of door glass in-or-out in relation to the side roof rail weatherstrip, loosen the front and rear guide upper and lower attaching bolts ("3-4-5-6", Fig. 6-85).
 - a. To move top edge of glass inboard, shift bottom of front and rear guides outboard, and top of guides inboard.
 - b. To move top edge of glass outboard, adjust top of guides outboard and bottom of guides inboard.

NOTE: When repositioning window in or out at the beltline, adjust window stabilizer strip assemblies ("7", Fig. 6-85) to provide window stability with window in full up position.

2. To adjust window assembly fore-or-aft, loosen front guide upper bolts and front guide lower support attaching bolts ("3 and 9", Fig. 6-85) and reposition window as required.
3. To correct a window that is "cocked" in the window opening, proceed as follows:
 - a. Check window up stops ("1 and 2", Fig. 6-85). Either stop positioned too high or too low can cause window to "cock".
 - b. Check inner panel cam adjustment. Raising or lowering adjustable end of cam ("10", Fig. 6-85) changes relationship of front upper corner of glass to rear upper corner.

NOTE: Window must be partially lowered for cam adjustment.

- c. If window lower sash channel is flush at beltline, but window is cocked in relation to side roof rail, reposition glass on lower sash channel. Oversize holes in glass allow a limited amount of shifting of glass in relation to lower sash channel.

NOTE: Glass to sash channel attaching nuts are accessible with an open end wrench. After repositioning glass, tighten nuts sufficiently to prevent glass slippage.

4. To obtain proper up-travel of window for good contact with side roof rail weatherstrip, loosen front and rear upper stops ("1 and 3", Fig. 6-85). Position window as desired and tighten stops.

REAR 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 6-95 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 72 inch lbs. (6 foot lbs.)

Removal and Installation

1. Remove rear door trim assembly and inner panel water deflector.
2. With glass in full-up position, remove front and rear up-travel stop attaching bolts, two bolts on front stop, one on rear ("1 and 11", Fig. 6-89).
3. Lower glass approximately 2" and remove lower sash channel cam attaching screws (Fig. 6-96).
4. While supporting glass by pressing it rearward into ventilator division channel, remove lower sash channel to guide plate attaching nuts (Fig. 6-97).
5. Disengage lower sash channel from weld-on studs on sash channel guide plate and remove window assembly from door.

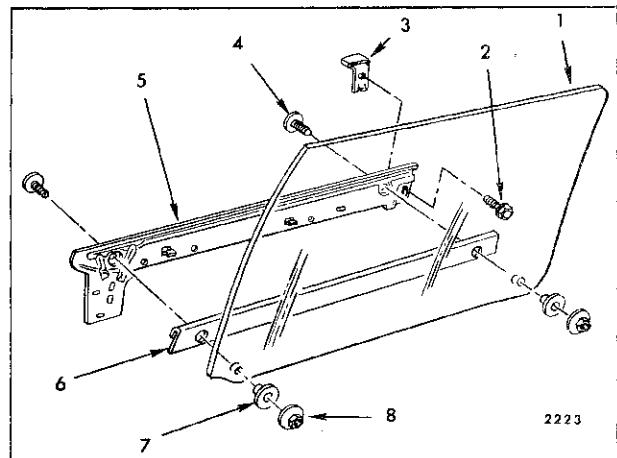


Fig. 6-95—Rear Door Window Assembly —
68069-68169 Styles

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

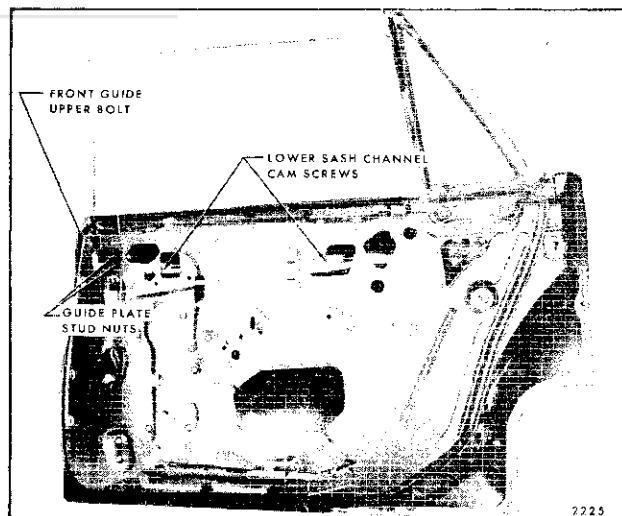


Fig. 6-96—Rear Door Window Removal —
68069-68169 Styles

6. To install, reverse removal procedure. Adjust window for proper operation and alignment as described under "Rear Door Window and/or Ventilator Adjustments".

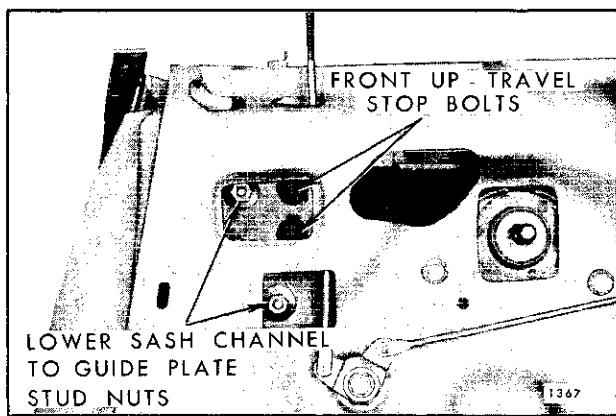


Fig. 6-97—Rear Door Window Removal —
68069-68169 Styles

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.
3. Remove ventilator "T-shaft" to regulator attaching bolt ("6", Fig. 6-89).
4. Remove ventilator regulator to ventilator frame attaching bolts ("7", Fig. 6-89).
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 ("8 and 9", Fig. 6-89).
3. Remove ventilator lower frame attaching bolts ("5", Fig. 6-89).
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. 6-98).
3. Remove division pillar to ventilator stationary frame attaching screws (Fig. 6-98).
4. Remove division pillar to ventilator upper frame (and rubber bumper) attaching screw (Fig. 6-98) and separate ventilator frame and division channel.
5. Align bosses on ventilator "T-shaft" with slots in ventilator lower frame. Using hand pressure only, force ventilator downward to disengage ventilator upper pivot from ventilator casting.
6. Straighten division pillar weatherstrip bend-over tabs (Fig. 6-98), and remove weatherstrip.

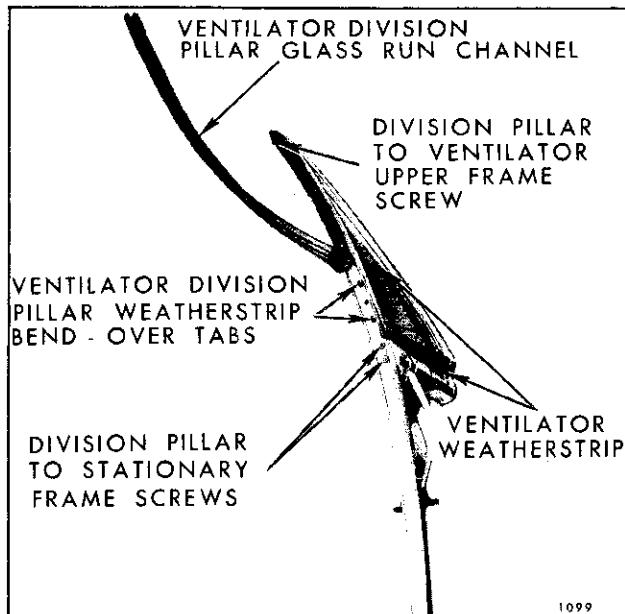


Fig. 6-98—Rear Door Ventilator Assembly —
68069-68169 Styles

7. Pull ventilator weatherstrip from front frame. Three clips retain it down front edge and it may be necessary to pry between weatherstrip and frame at these locations.
8. To assemble, reverse removal procedure.

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.

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. 6-99). Access to this bolt can be gained through large access hole.
 - b. Front guide upper attaching bolt (Fig. 6-96).
 - c. Ventilator division channel and ventilator frame lower adjusting studs ("8 and 9", Fig. 6-89).

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. 6-96). 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 ("5, 6, 8 and 9", Fig. 6-89). Position ventilator as required and tighten loosened attachments.
4. To correct a rotated (cocked) window, loosen inner panel cam attaching bolts ("4", Fig. 6-89). Adjust cam as required and tighten bolts.
5. To obtain proper up-travel of door window, loosen front and rear up-travel stop attaching bolts ("1 and 11", Fig. 6-89). Operate window to desired position. While exerting upward 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. 6-89 and 6-99). Operate glass to full-down position and tighten support bolts. Operate glass $\frac{1}{3}$ up from down position and tighten guide to support attaching bolt.

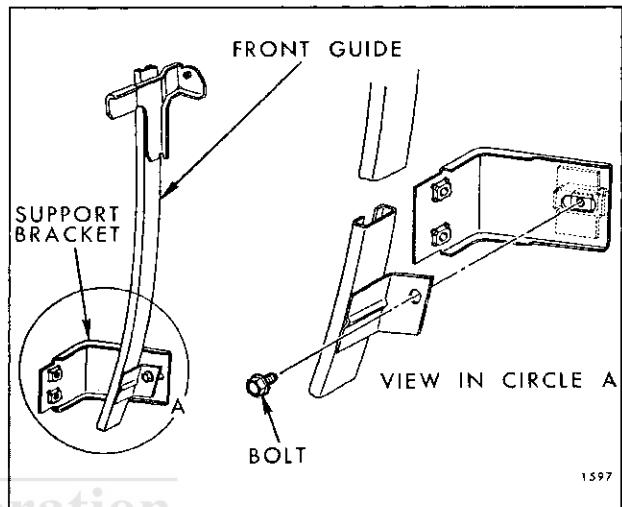


Fig. 6-99—Front Guide to Support Bracket Attachment —
68069-68169 Styles

REAR DOOR INNER PANEL CAM— All Except "A&X-69" Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Remove inner panel cam attaching bolts ("4", Figure 6-79). Disengage cam from regulator balance arm roller and remove cam from door.
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.

REAR DOOR WINDOW STATIONARY VENTILATOR DIVISION CHANNEL— "X-69" Style

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. 6-87).
2. Remove door window lower stop.
3. Remove ventilator division channel lower adjusting stud and nut ("1", Fig. 6-87).
4. Carefully lower door window and remove division channel to door upper frame attaching screw (See Fig. 6-100).
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.

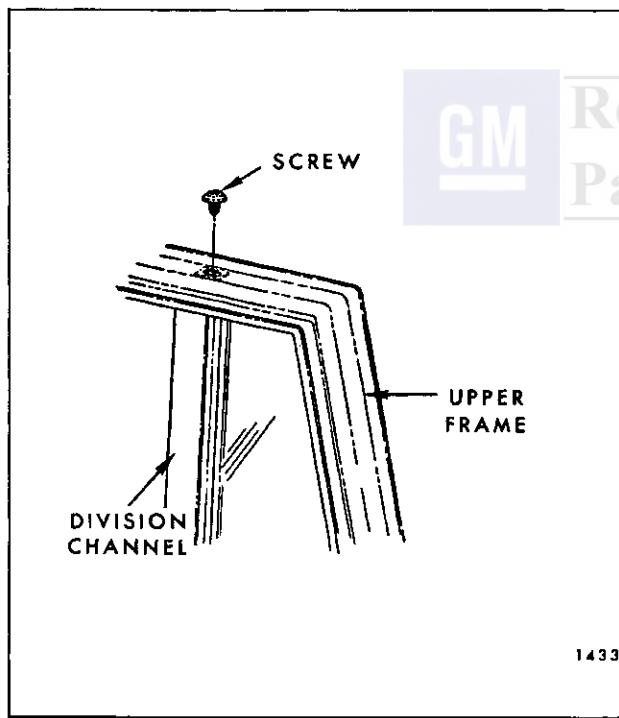


Fig. 6-100—Rear Door Ventilator Attachment — "X" Styles

REAR DOOR WINDOW STATIONARY VENTILATOR ASSEMBLY— "X-69" Style

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. Lower door window to extreme bottom of door.
3. Remove stationary ventilator division channel as previously described.
4. Pull stationary ventilator window forward and remove from door.
5. To install, reverse removal procedure.

REAR DOOR WINDOW ASSEMBLY "X-69" Style

The rear door window assembly consists of a frameless solid tempered safety plate glass window and a pressed-on lower sash channel assembly.

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Remove rear door window stationary ventilator assembly as previously described.
3. Slide window regulator lift arm roller out of window lower sash channel cam and remove glass inboard of door upper frame.
4. To install, reverse removal procedure.

REAR DOOR WINDOW REGULATOR— Manual and Electric—All "A-B&C" Styles

Removal and Installation—(Refer to Figure 6-79 for "A" Closed Styles, Figure 6-81 for "A-39" Style, Figure 6-83 for "B" Closed Styles and Figure 6-85 for "B&C" Hardtop and Convertible Styles)

1. Remove door trim assembly and inner panel water deflector.
2. Lower window and remove lower glass sash channel cam attaching screws. While supporting glass, disengage cam from rollers on regulator lift and balance arms and remove cam.

NOTE: On Closed styles, raise window to a full-up position and secure in place with pieces of cloth-backed body tape applied over door frame. On Hardtop styles, prop the window in a full-up position.

3. Remove inner panel cam attaching bolts.

4. On styles equipped with electric window regulators, disconnect body wire harness from window regulator at regulator motor.
5. On "A-39" Styles equipped with electric window regulators, remove the window rear guide as subsequently described.
6. Loosen window regulator attaching bolts and remove window regulator through large access hole.
7. 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.

REAR DOOR WINDOW REGULATOR—"X-69" Style

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Remove inside locking rod to lock connecting link bolt ("6", Fig. 6-87) and disconnect locking rod at lock.
3. Operate window to full-up position and secure in place with pieces of cloth-backed body tape applied over door frame.
4. Remove regulator attaching bolts ("5", Fig. 6-87). Slide regulator lift arm roller out of lower sash channel cam and remove regulator through large access hole.
5. To install, reverse removal procedure.

REAR DOOR WINDOW FRONT GUIDE AND BRACKET ASSEMBLY—"A-39" Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Remove window front up-travel stop from guide ("5", Fig. 6-81).
3. Remove inside locking rod to lock connecting link bolt ("15", Fig. 6-81). Pull locking rod assembly downward through guide bracket.

4. With window in full-up position, loosen front guide upper and lower attaching bolts ("8 and 9", Fig. 6-81), remove guide through access hole.

5. To install, reverse removal procedure.

REAR DOOR WINDOW REAR GUIDE "A-39" Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. With window in full-up position, remove rear guide upper and lower attaching bolts ("6 and 7", Fig. 6-81). Remove guide through access hole.
3. To install, reverse removal procedure.

REAR DOOR WINDOW GUIDE (FRONT OR REAR)—All "B-C-39" and "C-49-69" Styles Except 68069-169

Removal and Installation

1. Remove rear door window assembly as previously described.
2. Remove guide upper and lower attaching bolts ("3 and 6", or "4 and 5", Fig. 6-85) and remove guide through access hole.
3. To install, reverse removal procedure.

REAR DOOR WINDOW 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 ("1", Fig. 6-89).
4. Remove front guide support bracket attaching bolt ("12", Fig. 6-89).
5. Remove front guide upper attaching bolt ("13", Fig. 6-89).
6. Remove guide plate to lower sash channel attaching stud nuts (Fig. 6-101).
7. Remove front guide and guide plate as an assembly through access holes (Fig. 6-102).

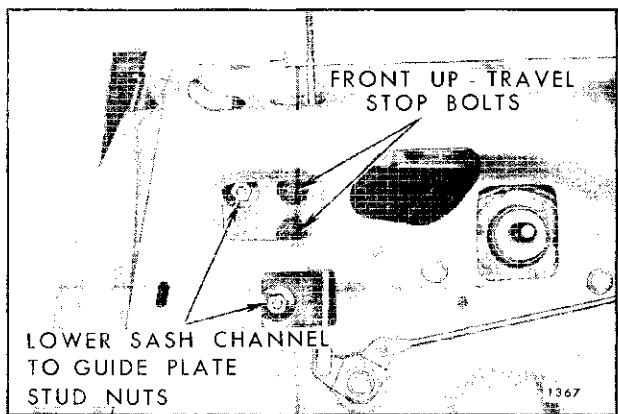
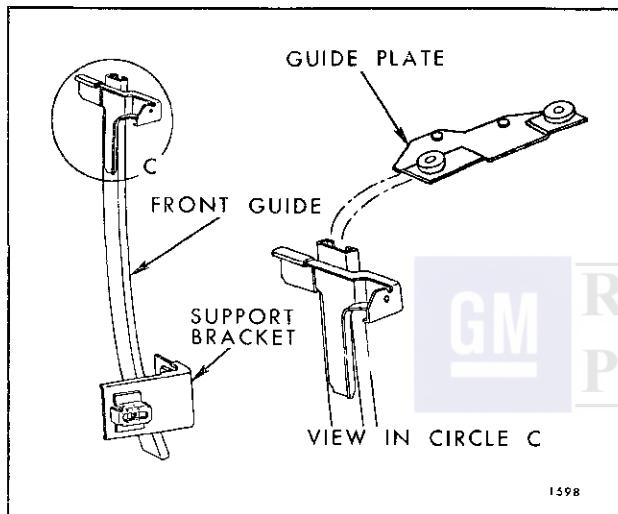


Fig. 6-101—Window Guide Plate Removal

Fig. 6-102—Front Guide and Guide Plate —
68069-68169 Styles

8. To install, reverse removal procedure. Adjust front guide for proper window operation as described in door window adjustment procedure.

REAR DOOR WINDOW GLASS RUN CHANNEL—All "A&X" Closed Styles

Removal and Installation

1. Remove door trim assembly and inner panel water deflector.
2. Remove door window as previously described.
3. With finger pressure, squeeze run channel together and gently pull run channel out of rear door upper frame.
4. To install, reverse removal procedure.

REAR DOOR WINDOW GLASS RUN CHANNEL—All "B" Closed Styles

Removal and Installation

1. Remove rear door window assembly as previously described.
2. Pull run channel into window opening to disengage run channel clips from door upper frame and remove run channel from door.
3. To install, reverse removal procedure. Prior to installation, apply a continuous bead of caulking compound to door upper frame from beltline to beltline to effect a weathertight seal between door frame and run channel. If preferred, sealer can be applied to run channel rather than door upper frame.

SECTION 7

REAR QUARTER

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DESCRIPTION

Closed style rear quarter windows operate within glass run channels. Hardtop and convertible styles employ nylon rollers which are component parts of the lower sash channel or bolt directly to the glass. The nylon rollers operate within run channel guides which may vary dependent upon style.

All quarter glass is constructed of solid tempered safety plate. Caution must be applied when handling glass, as glass may shatter if it is chipped or scratched. Do Not attempt to grind or to drill glass.

When performing any service operations to the rear quarter window hardware, it is necessary to remove the rear quarter trim assembly (see Section 14).

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 7-1 is typical of a water deflector installation.

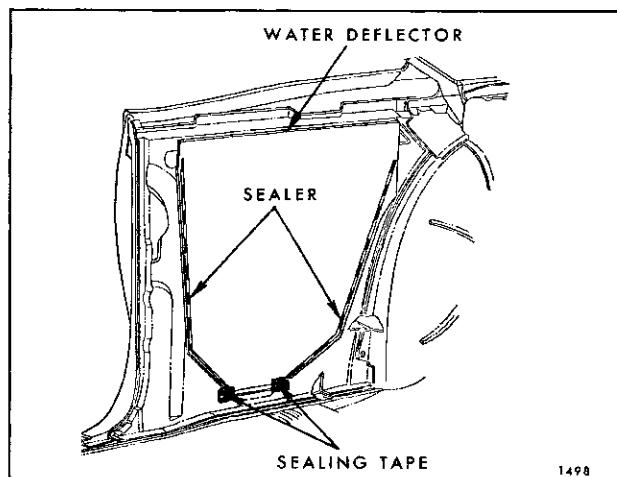


Fig. 7-1—Rear Quarter Inner Panel Sealing - Typical of Water Deflector Installation

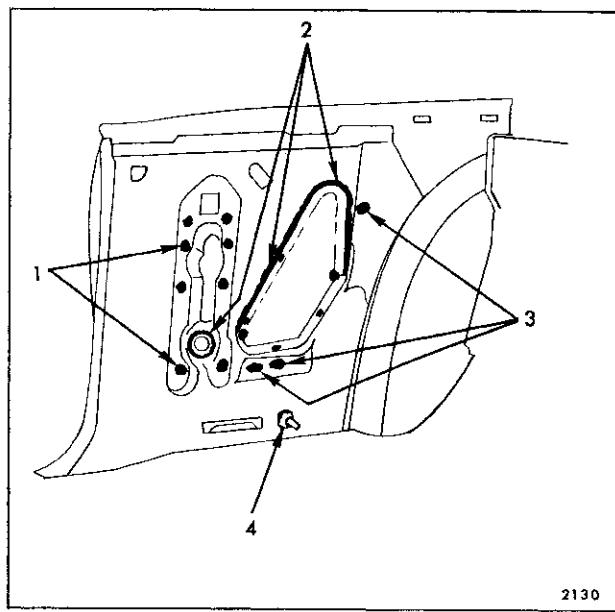


Fig. 7-2—Rear Quarter Inner Panel Sealing - "67" Styles

- | | |
|-----------------------------------|--------------------------------------|
| 1. Regulator Attaching Bolt Slots | 3. Window Guide Adjusting Stud Slots |
| 2. Access Hole Covers | 4. Electrical Harness Grommet |

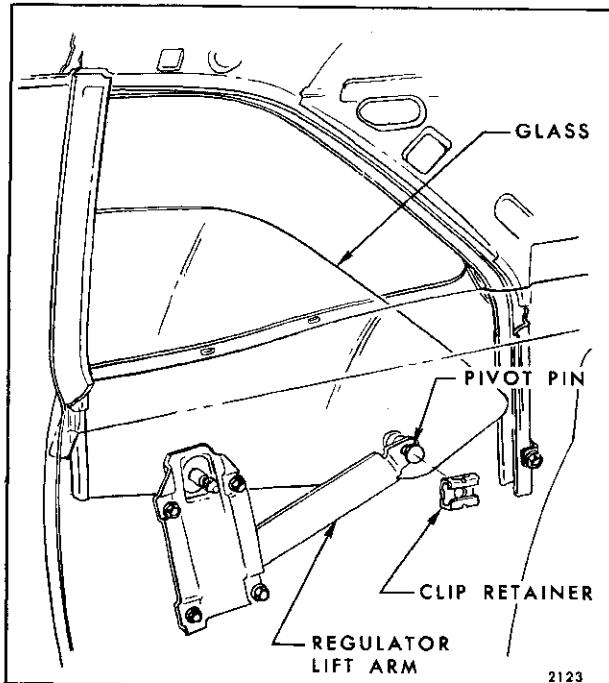
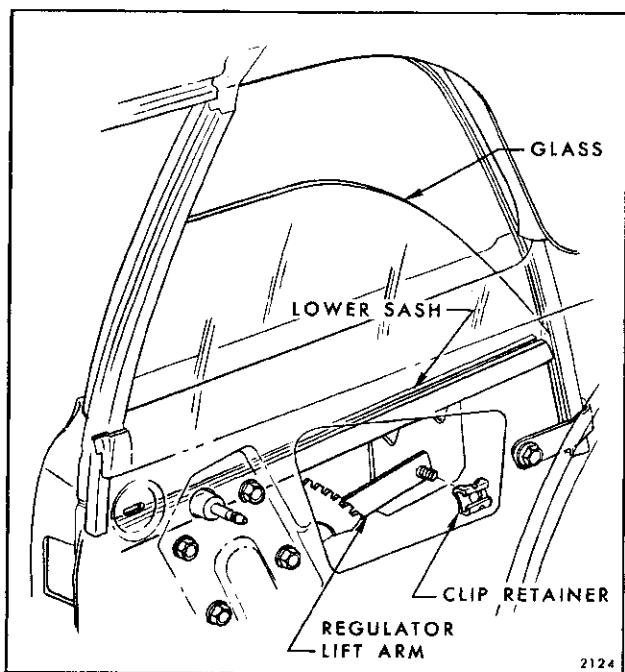
Inner panel access hole covers are retained by screws and sealed with a non-hardening body

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 7-2 illustrates quarter inner panel sealing on styles which use individual seals at all hardware attaching locations.

REAR QUARTER WINDOW "A-27-77 B-11 AND X-27" STYLES

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector.
2. Operate window to position shown in Figure 7-3 for "A" and "X" styles, and Figure 7-4 for "B" styles.
3. Support glass with one hand and disengage clip retainer which secures regulator lift arm to pivot pin on window sash channel on "B-11" Styles (Fig. 7-5) or at lower edge of glass on "A" (Fig. 7-6) and "X" (Fig. 7-7) Styles.
4. 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

Fig. 7-3—Rear Quarter Window Attachment - "A"
Closed Styles Shown - "X" TypicalFig. 7-4—Rear Quarter Window Attachment - "B-11"
Styles

comes out of rear run channel. Then, lift glass up (rear edge first) and remove window from body outboard of window opening.

- To install, reverse removal procedure.

REAR QUARTER WINDOW "A-27-77 B-11 AND X-27" STYLES

Adjustments

All window assembly adjustments are provided at the window regulator attaching screws.

- 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.
- To eliminate a fore and aft bind between the glass run channels (hard operating window), 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 REAR GLASS RUN CHANNEL—All Closed Styles

Removal and Installation

- Remove rear quarter window as previously described.
- Remove run channel to inner panel attaching bolt (Fig. 7-8).
- Remove screws securing run channel to side roof rail along length of run channel.
- Using a flat-bladed 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.

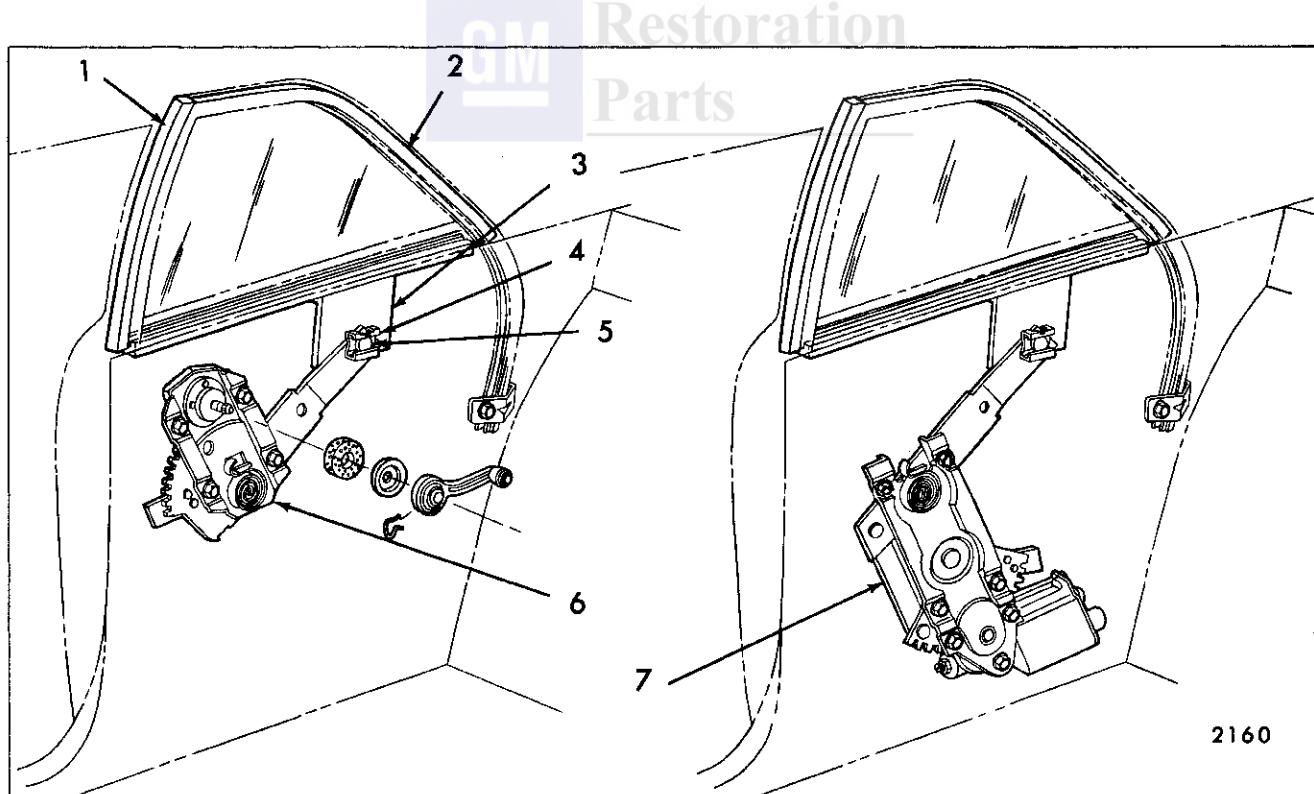


Fig. 7-5—Rear Quarter Hardware - "B-11" Styles

- | | | | |
|----------------------------|----------------------|-----------------------|-------------------------|
| 1. Front Glass Run Channel | 3. Window Lower Sash | 5. Pivot Pin | 7. Regulator (Electric) |
| 2. Rear Glass Run Channel | 4. Clip Retainer | 6. Regulator (Manual) | |

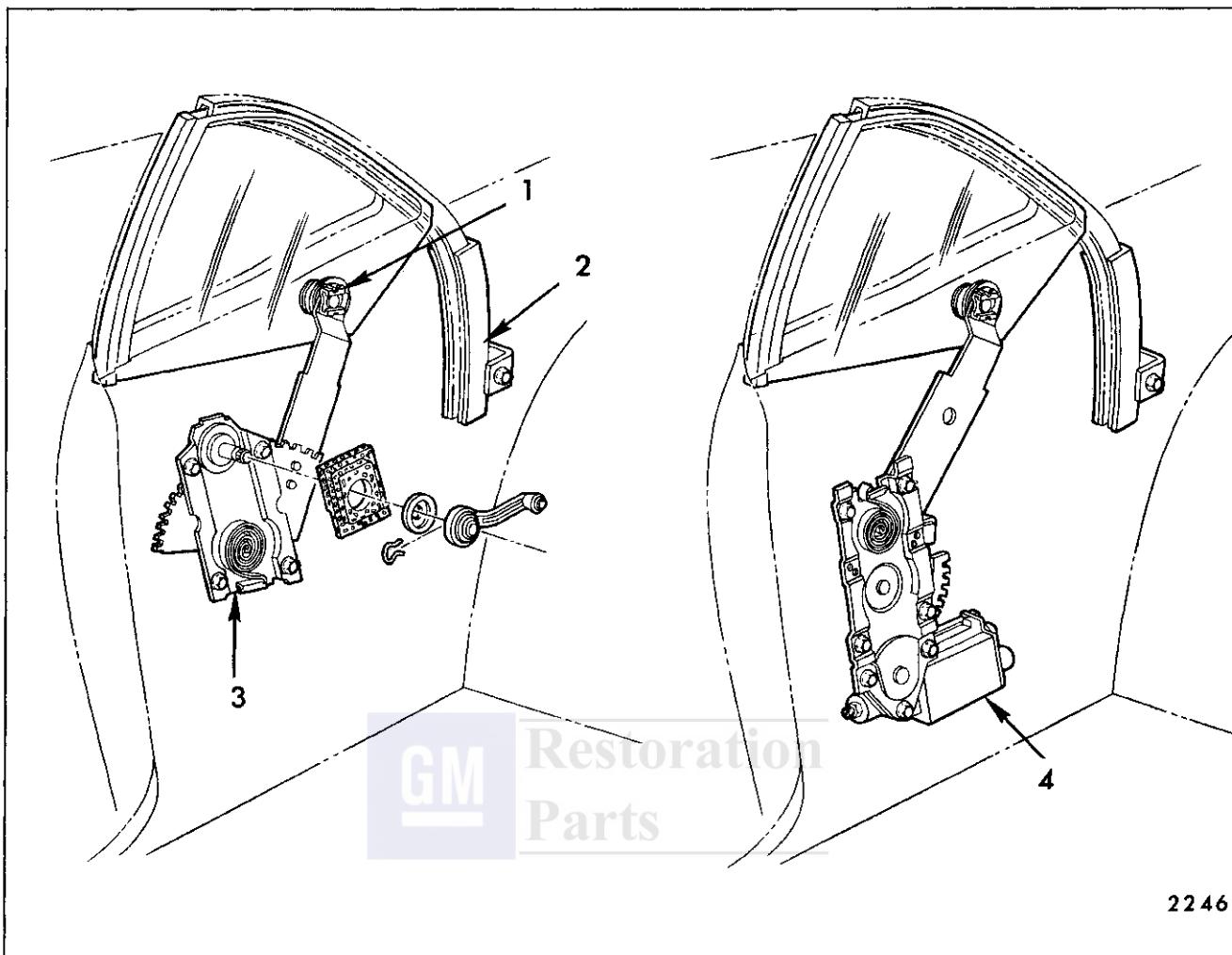


Fig. 7-6—Rear Quarter Hardware - A - "27-77" Styles

1. Glass Retainer 2. Glass Run Channel 3. Window Regulator (Manual) 4. Window Regulator (Electric)

5. Prior to installation, inspect foam sealing material for any damage that would result in waterleaks, and replace as necessary.
6. 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. Remove screws along length of run channel securing channel to body (Figs. 7-7 and 7-8).

3. On all styles, using a flat bladed tool, pry run channel from body pillar and remove run channel (Fig. 7-9).
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 OUTER STRIP ASSEMBLY—All Closed Styles

1. Remove rear quarter trim assembly and inner panel water deflector.
2. Disengage window assembly from regulator lift

arm by removing slotted retainer (see Fig. 7-4).

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 (see Fig. 7-10). 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 REAR VERTICAL INNER SEALING STRIP ASSEMBLY—"C-47" Styles

The rear vertical inner sealing strip assembly serves as a glass run channel above the belt for the rear quarter window. As shown in Figure 7-11 the strip assembly is retained by clips which snap over the leading edge of the quarter inner upper panel. See Item 6 in Figure 7-12 for installed view of sealing strip.

To remove the strip assembly, it is necessary to remove the rear quarter trim assembly and the side roof rail rear finishing molding which covers the sealing strip clips.

REAR QUARTER WINDOW ASSEMBLY—All Hardtop and Convertible Styles Except "B-C" Series

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 72 inch pounds (6 foot pounds). Also, replace glass to sash channel spacers (rubber).

Various hardware illustrations are provided in this section to assist in performing any of the following procedures. To perform any of the procedures which follow, remove the rear quarter trim assembly and inner panel water deflector and/or access hole covers.

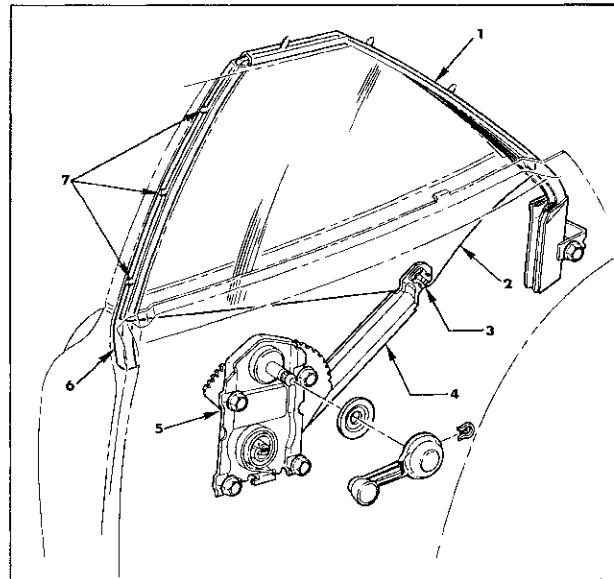


Fig. 7-7—Rear Quarter Hardware "X-27" Styles

- | | |
|---------------------------|----------------------------|
| 1. Rear Glass Run Channel | 5. Regulator Assembly |
| 2. Rear Window Glass | 6. Front Glass Run Channel |
| 3. Retainer and Pivot Pin | 7. Front Run Channel |
| 4. Regulator Lift Arm | Retaining Screws |

REAR QUARTER WINDOW ASSEMBLY—"A-37-67 and 87" Styles

Description

The rear quarter window assembly and related hardware components are similar on both the hardtop and convertible styles. There is a difference at the window guide upper attaching support bracket and the placement of the front up-stop. The upper attaching support on convertible styles is riveted to the guide and adjustments are available through slots at the return flange of the inner panel. The hardtop style support is bolted to the guide and adjustments are available at the bolt locations and also at the access hole slots in the inner panel. The front up-stop on convertible styles is secured to the window guide and is not adjustable. The hardtop style front up-stop is attached to the quarter inner panel and is adjustable. The other two stops (down and rear-up) are common on all styles. Figure 7-13 shows the rear quarter window assembly and Figure 7-14 shows the component parts of the rear quarter window assembly.

Removal and Installation

1. Remove rear seat cushion, seat back, rear quarter trim and inner panel water deflector and/or loading hole cover. On "67" Styles, lower folding top.

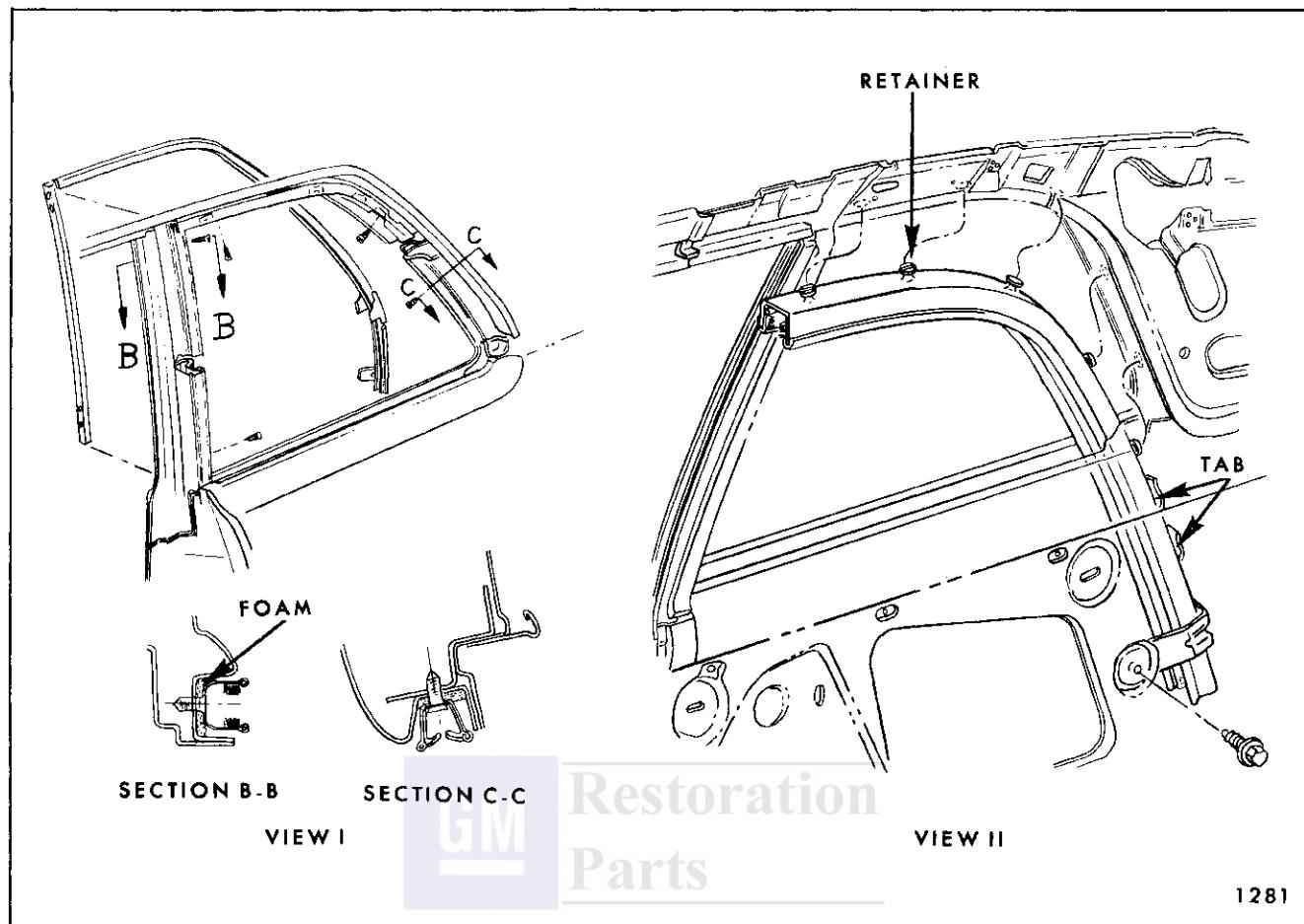


Fig. 7-8—Rear Quarter Window Glass Run Channels — Typical of all Closed Styles

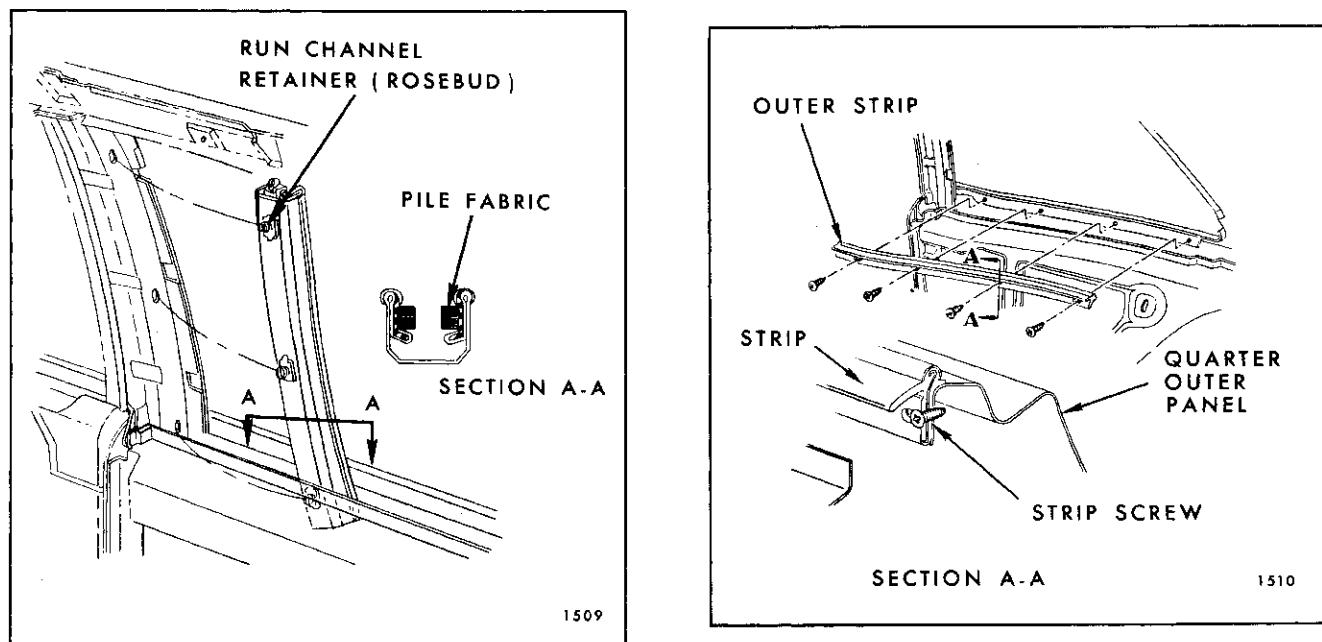


Fig. 7-9—Rear Quarter Window Front Glass Run Channels

Fig. 7-10—Rear Quarter Window Outer Strip Assembly
Closed Styles

2. On "67" Styles, remove window guide upper support to inner panel attaching bolts. On "37" and "87" Styles, remove upper support to window guide attaching bolts (Fig. 7-15).
3. Remove rear up-travel stop.
4. Loosen window guide lower attaching bolt and tilt glass to enable disengagement of lift arm roller from sash channel cam.
5. Lift glass straight up for disengagement from guide. On "67" Styles, clear front up-travel stop away from guide to allow clearance for glass lower roller. Remove glass outboard of side roof rail.
6. To install reverse removal procedure. It may be necessary to remove the window guide lower attaching bolts to permit greater movement of the guide when loading window assembly.

REAR QUARTER WINDOW— "A-37-67 and 87" Styles

Adjustments

The rear quarter window guide is secured to the quarter inner panel at the bottom and top with support brackets. These support brackets provide both in and out and fore or aft adjustment of the glass (Items 7 and 11 in Fig. 7-16). One down-stop and two up-stops are provided for alignment operations. The rear up-stop and lower down-stop are common on all styles; however, the front up-stop on convertible styles is attached to the guide and is not adjustable. The front up-stop on hardtop styles is attached to the quarter inner panel, and is adjustable.

NOTE: Rear quarter glass employs three nylon rollers attached to the glass. To remove any of these nylon rollers, use special tool J-22055 or its equivalent (Figure 7-17). When reinstalling nylon rollers, torque to 72 inch pounds (6 foot pounds).

REAR QUARTER WINDOW "F-37 AND 67" STYLES

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector or loading hole covers.
2. On convertible styles, lower folding top.
3. Remove glass inner and outer strip assembly.

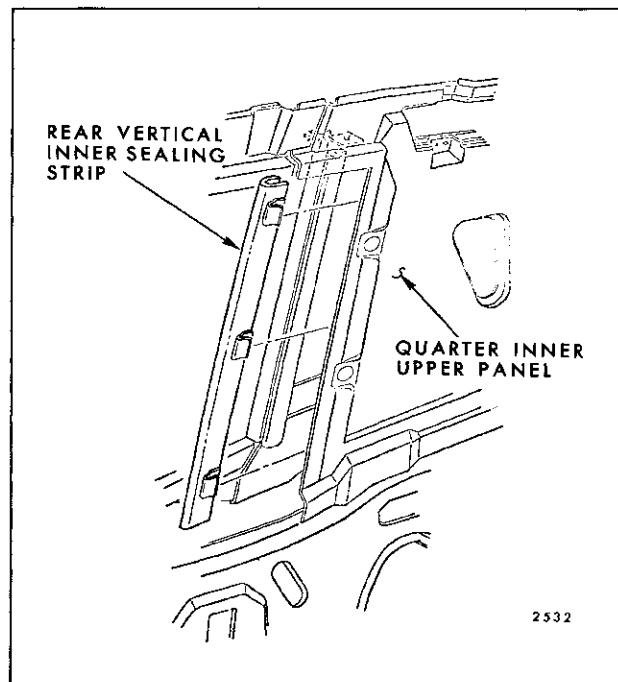


Fig. 7-11—Rear Quarter Window Rear Vertical Inner Sealing Strip Assembly "C-47" Styles

4. Remove window guide upper and lower attaching nuts (Fig. 7-18).
5. Support glass with one hand and position to enable disengagement of lift arm roller from sash channel cam.
6. Remove glass straight up and outboard of side roof rail on hardtop styles.
7. To install, reverse removal procedure.

REAR QUARTER WINDOW "F-37 AND 67" STYLES

Adjustments

In or out fore or aft adjustment is provided by inner panel slots and adjusting studs of the window guide. Up-travel of the glass is controlled by a stop located on the regulator assembly (Fig. 7-18).

NOTE: Figure 7-19 illustrates relationship of window assembly to guide. Figure 7-20 illustrates component parts of the rear quarter window assembly. Figure 7-21 illustrates the quarter window hardware in the installed position.

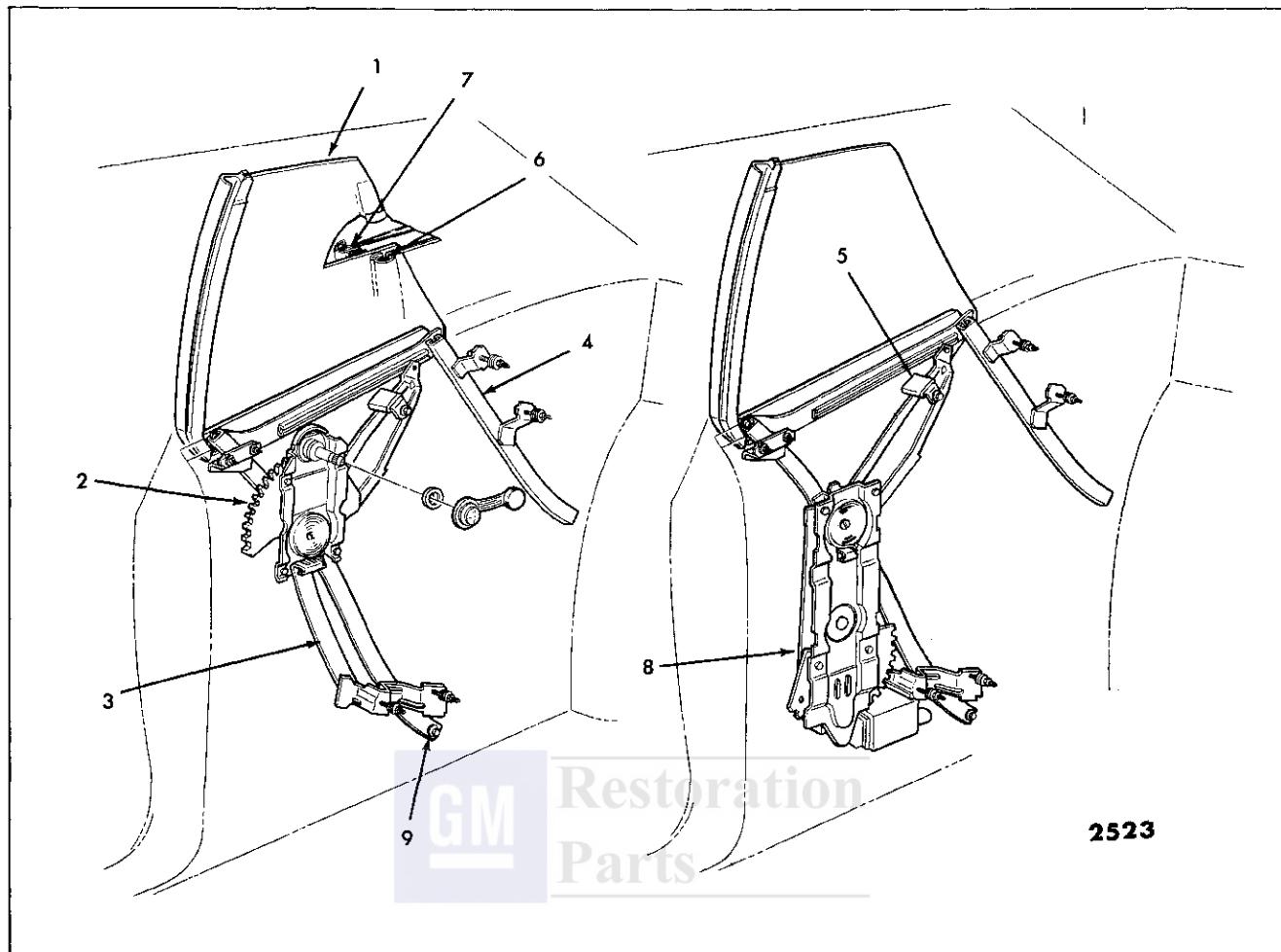


Fig. 7-12--Rear Quarter Hardware - "C-47" Styles Shown, "B-C 57-67" Styles Similar

- | | | | |
|---------------------------------|--|--|-----------------------------------|
| 1. Quarter Window Assembly | 4. Rear Guide | 7. Section Through Roof
Rear Drip Molding
(With Integral Outer
Sealing Strip) | 8. Window Regulator
(Electric) |
| 2. Window Regulator
(Manual) | 5. Window Upper Stop | 9. Window Lower Stop | |
| 3. Front Guide | 6. Section Through Vertical
Inner Sealing Strip | | |

REAR QUARTER WINDOW "E-87" STYLES

Removal and Installation

1. With window in a full-up position, remove rear guide upper and lower attaching bolts. Disengage guide from roller on window assembly and remove guide through access hole (see Fig. 7-22).
2. With quarter window partially lowered, 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. Fig. 7-23 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments

Fore and aft alignment is determined by positioning front guide. Adjusting rear guide will provide parallel condition of quarter window to door for

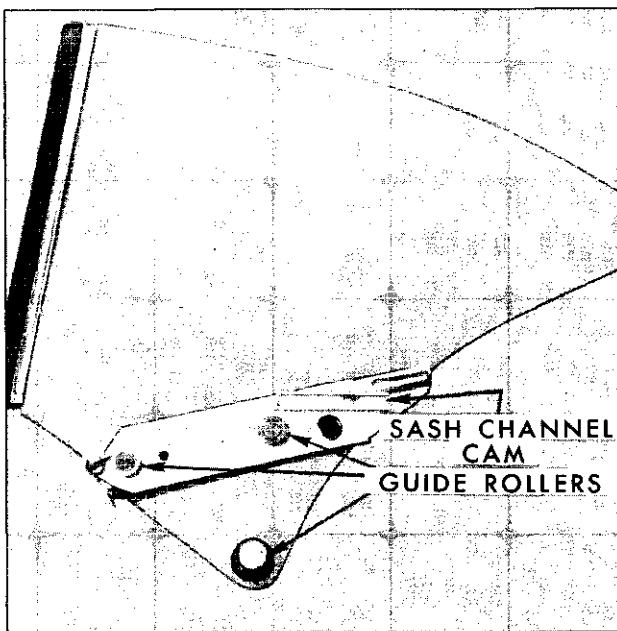


Fig. 7-13—Rear Quarter Window Assembly "A - 37, 67 & 87" Styles

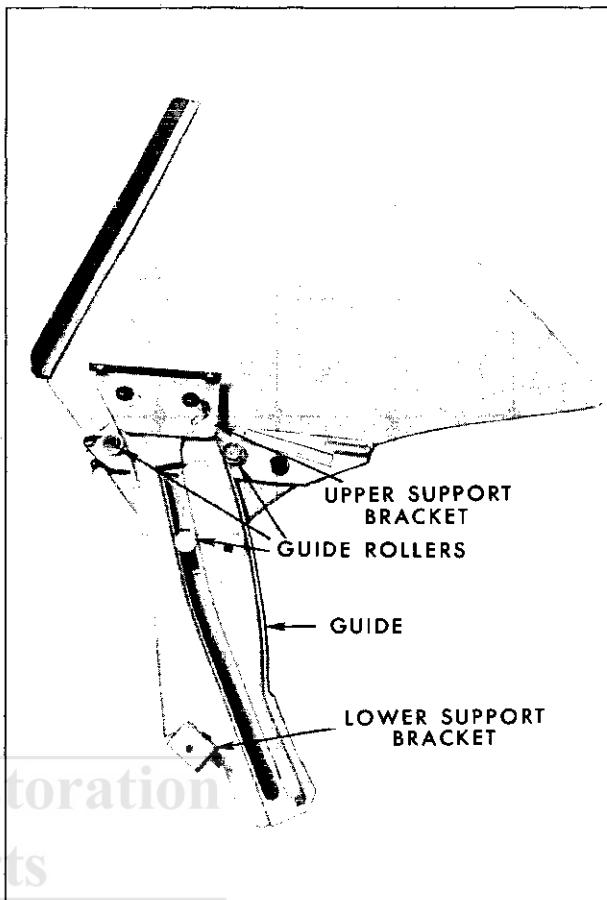


Fig. 7-15—Rear Quarter Window and Guide Assembly "A - 37, 67, 87" - Styles

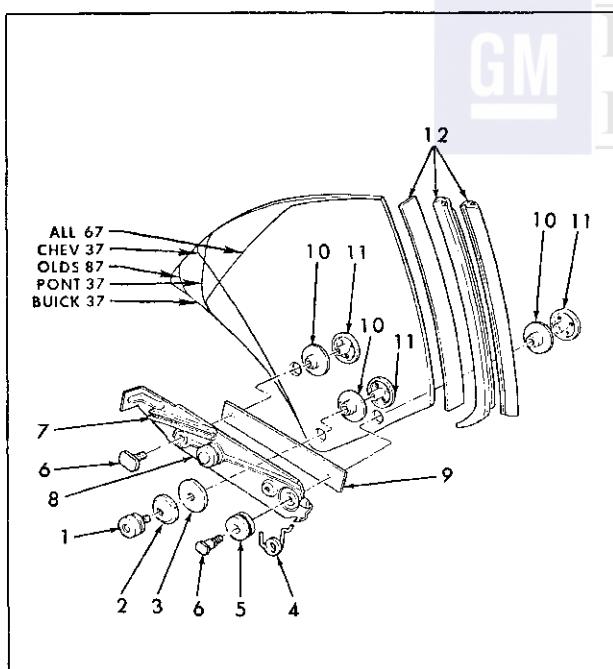


Fig. 7-14—Rear Quarter Window Assembly "A - 37, 67, 87" Body Styles

- | | |
|-------------------------------|---------------------------------|
| 1. Guide Lower Roller | 7. Lower Sash Channel Cam |
| 2. Guide Roller Washer-Rubber | 8. Lower Sash Channel |
| 3. Guide Roller Washer | 9. Lower Sash Channel Filler |
| 4. Guide Roller Spring | 10. Glass to Sash Bushing |
| 5. Guide Front Roller | 11. Glass to Sash Nut |
| 6. Glass to Sash Bolt | 12. Front Vertical Weatherstrip |

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. Figures 7-24 (Buick) and 7-25 (Oldsmobile) illustrate the rear quarter window hardware components.

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.

REAR QUARTER WINDOW CADILLAC "E-47" STYLES

Removal and Installation

1. Remove necessary trim, inner panel water deflector, body lock pillar pressure relief valve grille and body lock pillar upper sealing strip.

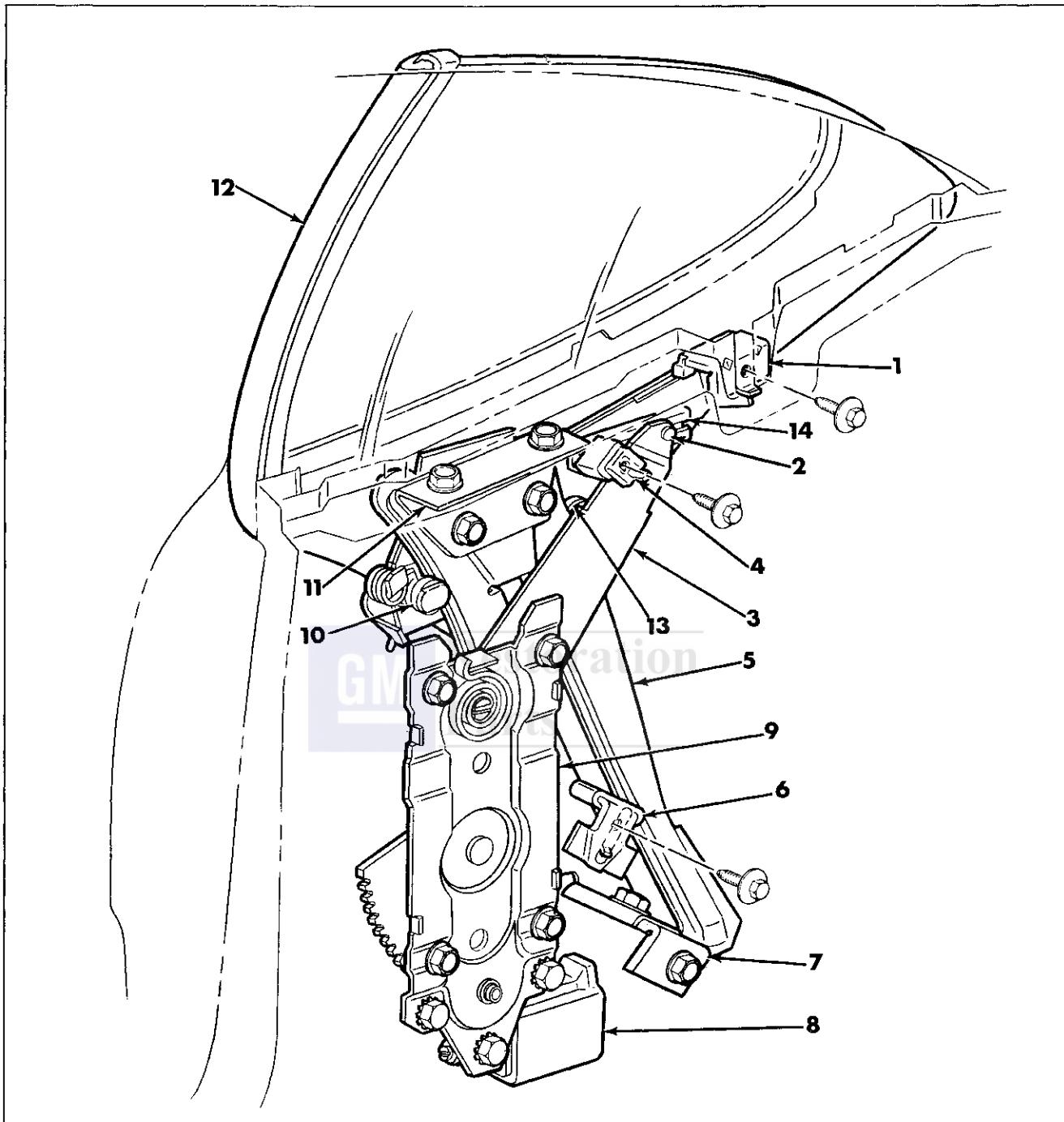


Fig. 7-16—Rear Quarter Hardware "A - 37, 67, 87" Styles

- | | | | |
|------------------------------|--------------------------------|---------------------------------|----------------------------------|
| 1. Rear Up-Stop | 5. Window Guide | 9. Regulator Assembly | 12. Front Vertical Weather-strip |
| 2. Regulator Lift Arm Roller | 6. Down-Stop | 10. Front Roller | 13. Rear Roller |
| 3. Regulator Lift Arm | 7. Lower Guide Support Bracket | 11. Upper Guide Support Bracket | 14. Sash Channel Cam |
| 4. Front Up-Stop | 8. Electric Motor | | |

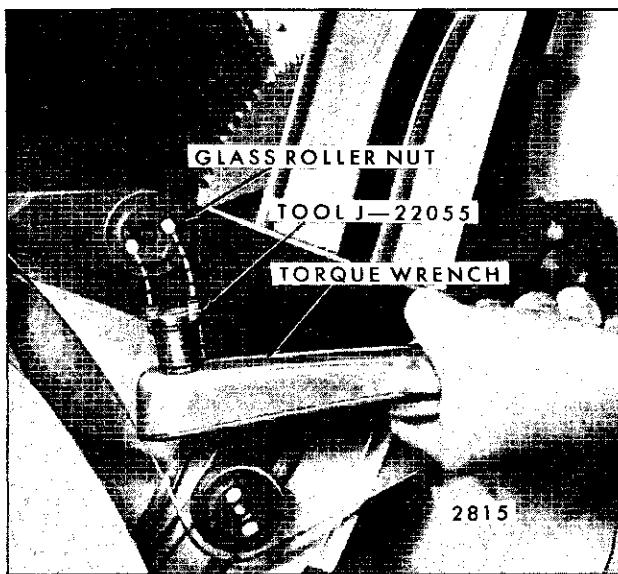


Fig. 7-17—Tool J-22055 - Quarter Window Roller

2. Lower quarter window to gain access to nut securing regulator lift arm and stop to lower sash channel roller and remove nut (Item 4 in Figure 7-26). Disconnect lift arm from sash channel cam.

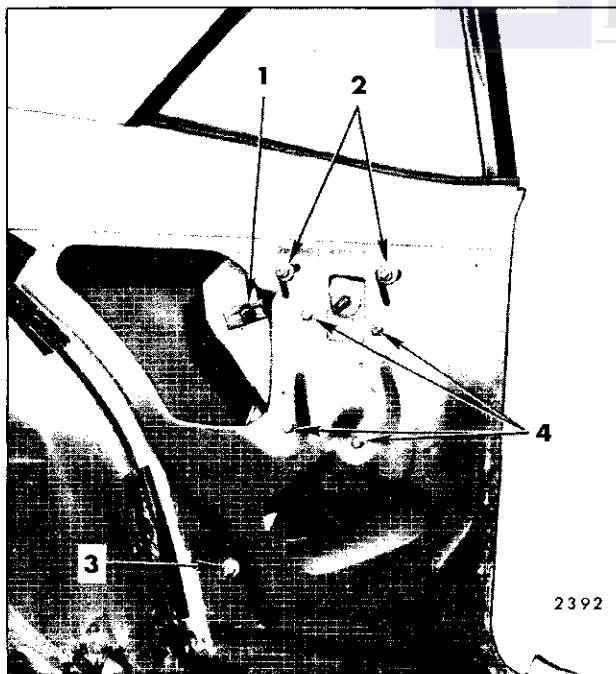


Fig. 7-18—Rear Quarter Window Hardware - "F" Styles

- | | |
|---|--|
| 1. Window Up-Stop | 3. Window Guide
Lower Adjusting
Stud and Nut |
| 2. Window Guide
Upper Adjusting
Stud and Nuts | 4. Window Regulator Bolts |

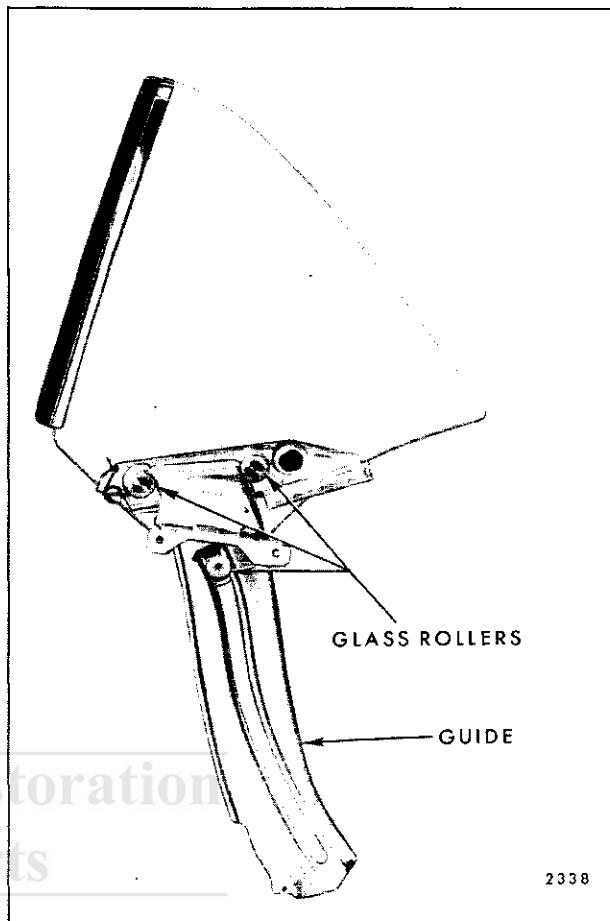


Fig. 7-19—Rear Quarter Window and Guide Assembly - "F" Styles

3. Remove two nuts securing inner panel cam to inner panel (Item 1 in Figure 7-26).
4. Remove adjusting studs from inner panel cam.
5. Remove inner panel cam through lock pillar pressure relief valve opening.
6. Pull quarter glass forward. Remove glass in-board of side roof rail. Figure 7-27 shows quarter glass after removal.
7. To install, reverse removal procedure.

Adjustments

Critical rear quarter window adjustments can be achieved at the lock pillar and DO NOT require seat and side wall trim removal (see Fig. 7-28).

1. Remove lock pillar grille.

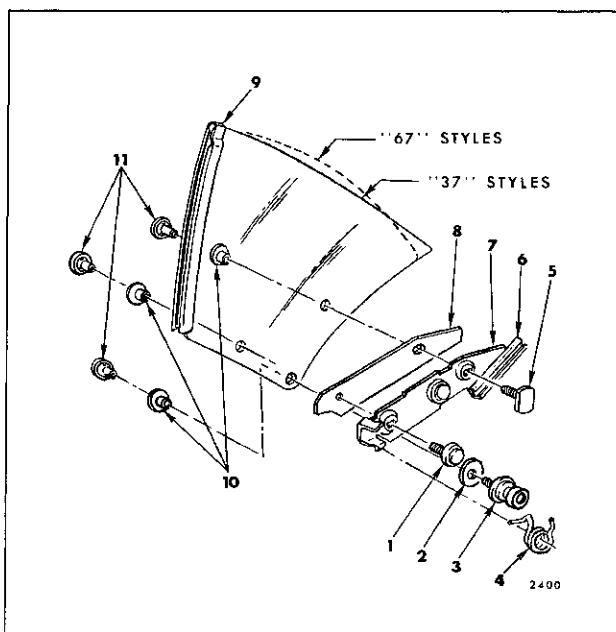


Fig. 7-20—Rear Quarter Window Assembly - "F" Styles

- | | |
|------------------------------------|-----------------------------------|
| 1. Lower Sash Channel Front Roller | 7. Lower Sash Channel |
| 2. Guide Roller Washer (Rubber) | 8. Lower Sash Channel Filler |
| 3. Guide Lower Roller | 9. Vertical Sash Channel |
| 4. Guide Roller Spring | 10. Glass to Sash Channel Bushing |
| 5. Glass to Sash Channel Bolt | 11. Glass to Sash Channel Nut |
| 6. Lower Sash Channel Cam | |

2. The forward glass stop can be adjusted fore and aft by loosening lock nut and turning stud in or out (see Fig. 7-28).

NOTE: Stop bolt also retains forward attachment of glass run channel.

3. A slight amount of in or out adjustment of glass is provided by an elongated slot at glass run channel forward attachment (see Figure 7-28).
4. A secondary glass stop is located in the vertical sash channel cam (see Fig. 7-29). This stop is retained by a single bolt and is accessible through lock pillar opening (see Fig. 7-28).

NOTE: Major glass adjustment is available at inner panel cam adjusting studs and nuts (see Fig. 7-26). In addition, the glass run channel rear attachment provides in or out and up or down adjustment. Also, a glass lower stop is attached to the rear plate of the glass run channel. This stop is adjustable fore and aft.

REAR QUARTER WINDOW "Z-37 AND 67" STYLES

Removal and Installation

1. With window in full-up position, remove rear guide upper and lower attaching bolts (Fig. 7-30 and 7-31). Disengage guide from roller on window assembly and remove guide.
2. Remove regulator as described in a following procedure (see index).
3. Slide rear quarter window upward and forward and pivot top rear corner of glass to a point outboard of side roof rail. Continue movement of 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 7-32 is an exploded view of the quarter window assembly and identifies the various components and their assembly sequence.

Adjustments

1. The quarter window up-stop can be utilized for adjustments of glass to side roof rail weatherstrip (see Section "A-A" in Fig. 7-33).
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. 7-33).

REAR QUARTER WINDOW "B & C 47-57-67 AND 87" STYLES

Description

The rear quarter window assembly consists of a solid tempered safety plate glass window, a pressed-on front vertical sash channel and a bolt-on lower sash channel and cam assembly.

To service any of the component parts Figure 7-34 requires moving the entire window assembly from the body. Inaccessibility of the lower sash channel to glass attaching bolts prevents separation of glass from sash channel with window assembly installed.

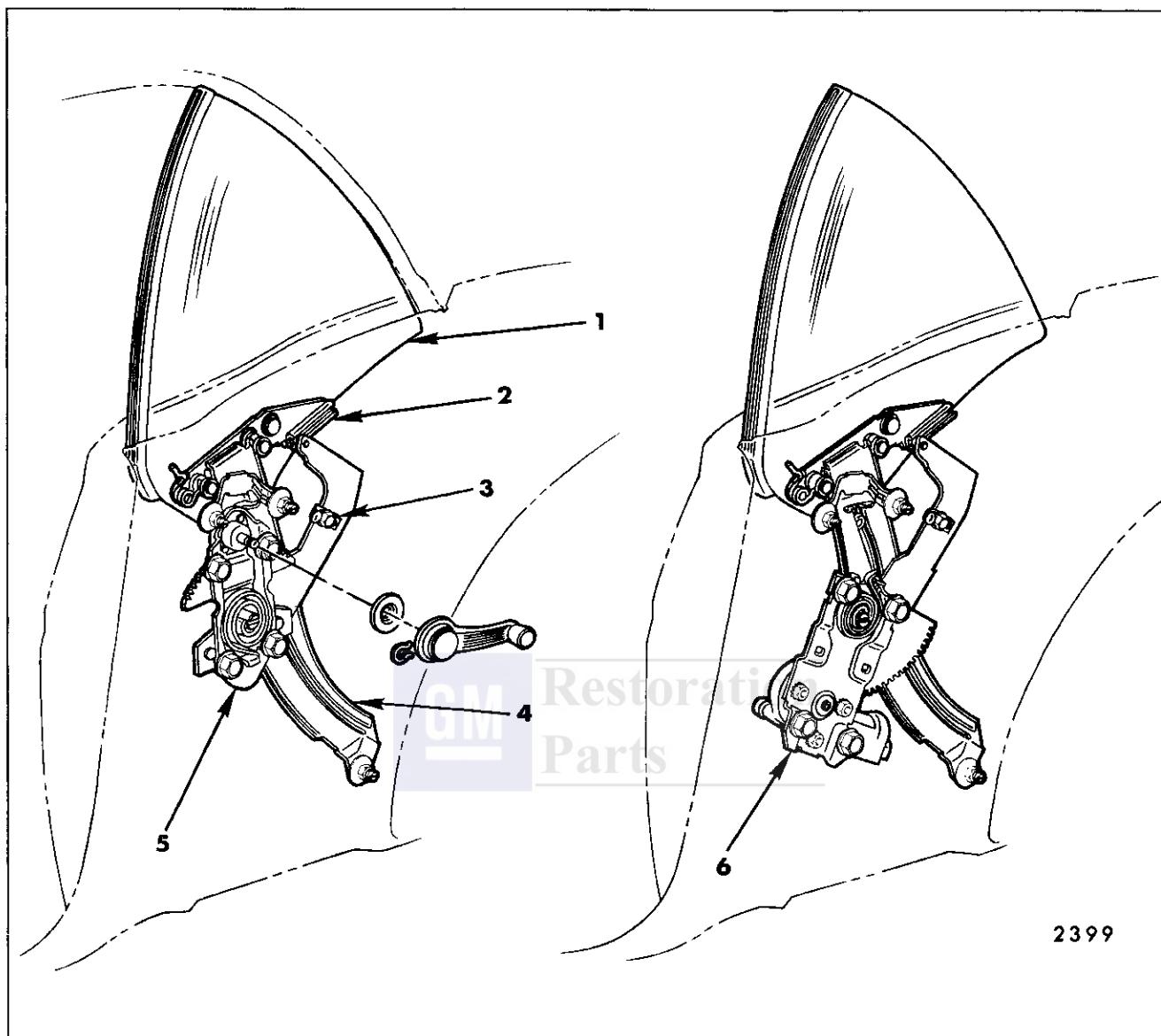


Fig. 7-21—Rear Quarter Hardware - "F" Body Styles

1. Rear Quarter Window
2. Sash Channel Cam

3. Up-Stop
4. Window Guide

5. Regulator (Manual)
6. Regulator (Electric)

Figures 7-35 and 7-36, which are exploded views of the "47" and "87" style quarter windows, are typical of all hardtop and convertible styles.

NOTE: When reinstalling lower sash channel and nylon rollers to quarter window, torque attaching nuts to 72 inch pounds (6 foot pounds). Also, replace sash channel and nylon roller rubber spacers.

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector or inner panel access hole cover. On "67" styles, lower folding top.
2. On "C-47" styles, remove roof rear drip molding (see "Molding" section) and quarter window rear vertical inner sealing strip assembly as described in a preceding procedure.

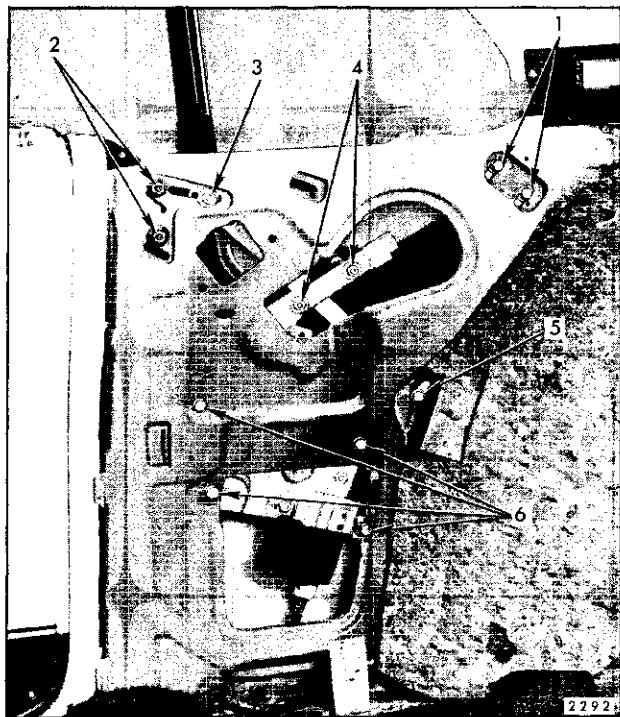


Fig. 7-22—Rear Quarter Hardware - "E" Body

- | | |
|---|---|
| 1. Rear Guide Attaching Bolts | 4. Regulator Lift Arm Cam Attaching Nuts |
| 2. Front Guide Upper Adjusting Studs and Nuts | 5. Front Guide Lower Attaching Bolt |
| 3. Up-Stop Attaching Bolts | 6. Regulator Attaching Bolts (4 for Electric, 5 for Manual) |

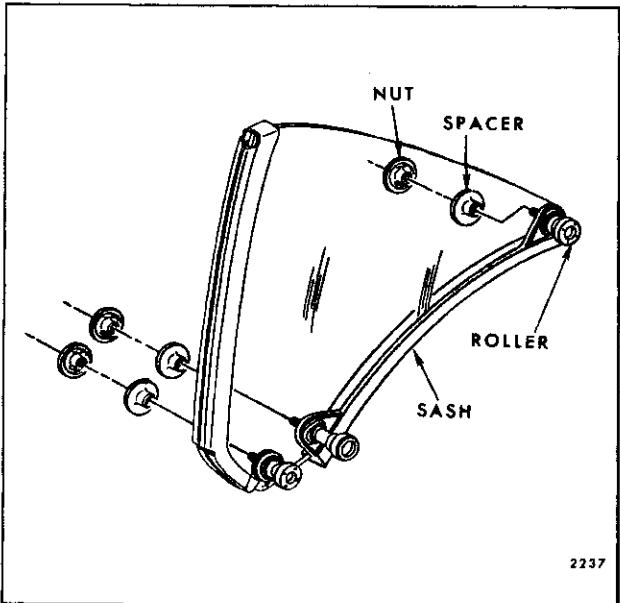
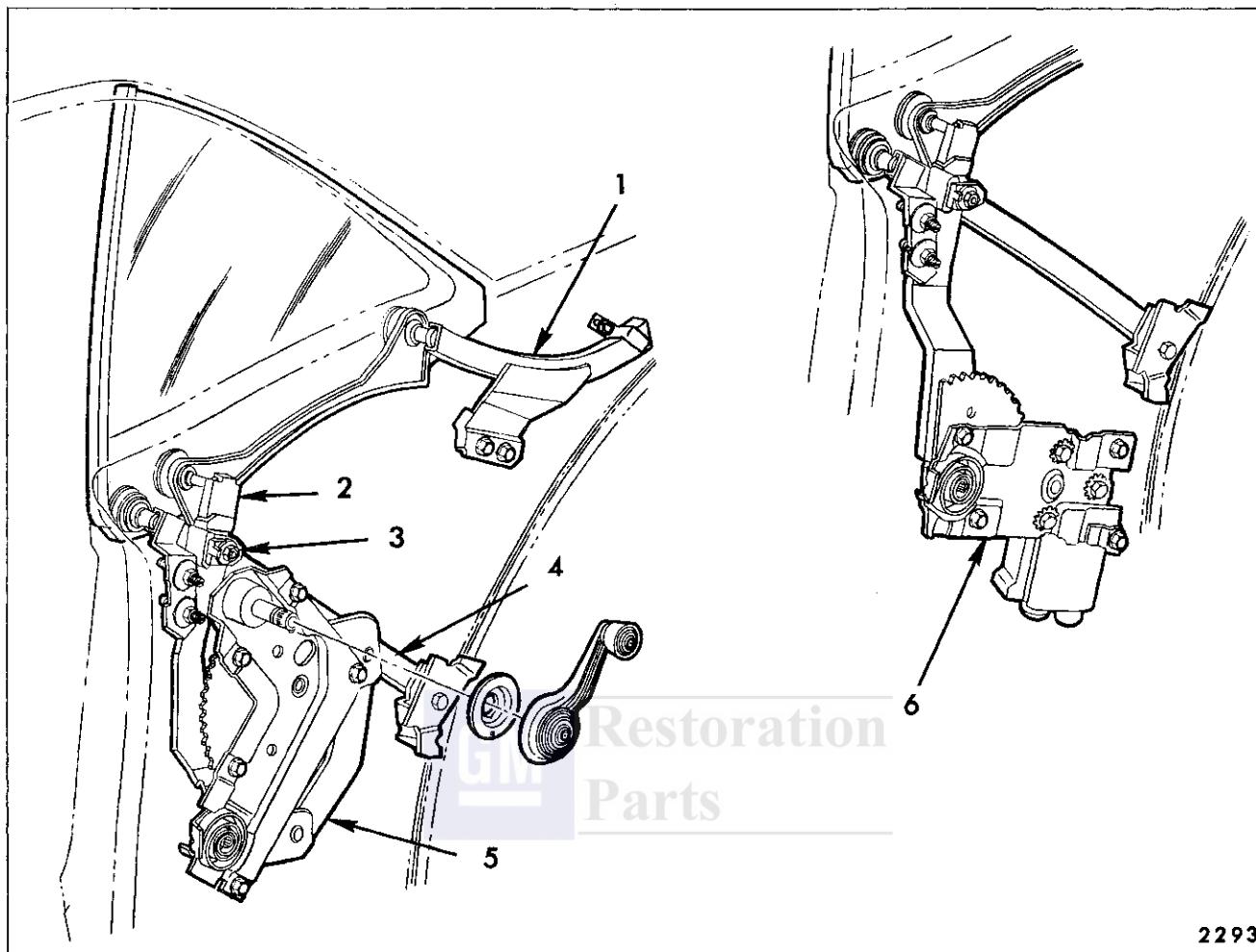


Fig. 7-23—Rear Quarter Window Assembly - "E-87" Styles

3. With window in full-up position, remove rear guide adjusting stud nuts ("1", Fig. 7-37). Disengage guide from roller on window assembly and remove guide through access hole.
4. With window lowered to half-down position, remove front guide lower adjusting stud nuts "2", and loosen upper adjusting stud nuts "3", push lower adjusting studs "2" outboard to disengage from slots in inner panel.
5. Grasping both window assembly and lower end of front guide, swing them forward sufficiently to disengage window regulator lift arm roller from lower sash channel cam at rear of cam.
6. Supporting window assembly, allow front guide upper adjusting studs "3" to drop to bottom of the slots provided in inner panel.
7. Remove window assembly by lifting upward and inboard.
8. To install, reverse removal procedure. Adjust window for proper alignment as described in following adjustment procedure.

Adjustments

1. Rear quarter window up-travel is determined by position of the window up stop "4" (Fig. 7-37). 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 "1", "2" and "3" (Fig. 7-37) 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. 7-37). 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.
4. To control the down-travel of the quarter window (fully lowered position), adjust the down-travel stop. The down stop is located in the



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Fig. 7-24—Rear Quarter Hardware — Buick "E" Styles

- | | | |
|---------------------------|----------------|-------------------------|
| 1. Rear Guide | 3. Up-Stop | 5. Regulator (Manual) |
| 2. Regulator Lift Arm Cam | 4. Front Guide | 6. Regulator (Electric) |

sash channel cam on "B-C 67" and "C-57" styles ("5", Fig. 7-37), and in the front guide on the remaining "B-C" hardtop styles as shown in Figure 7-38.

REAR QUARTER WINDOW REGULATOR (MANUAL OR ELECTRIC)— "B-C 47-57-67-87" Styles

Removal and Installation

1. Remove rear quarter trim assembly. On "67" styles remove inner panel access hole cover. On "47-57-87" styles, remove inner panel water deflector.

2. On "67" styles with electric window regulators, disconnect wire harness at in-line connector located inboard of inner panel. DO NOT attempt to disconnect permanent connector at motor. On "47-57-87" styles, disconnect wire harness connector at motor.
3. If window regulator failed with window in full-up position, proceed as follows:
 - a. Prop window in full-up position.
 - b. Remove window regulator attaching bolts "6", (Fig. 7-37).
 - c. Disengage regulator lift arm roller from lower sash channel cam at rear of cam and remove regulator through access hole.

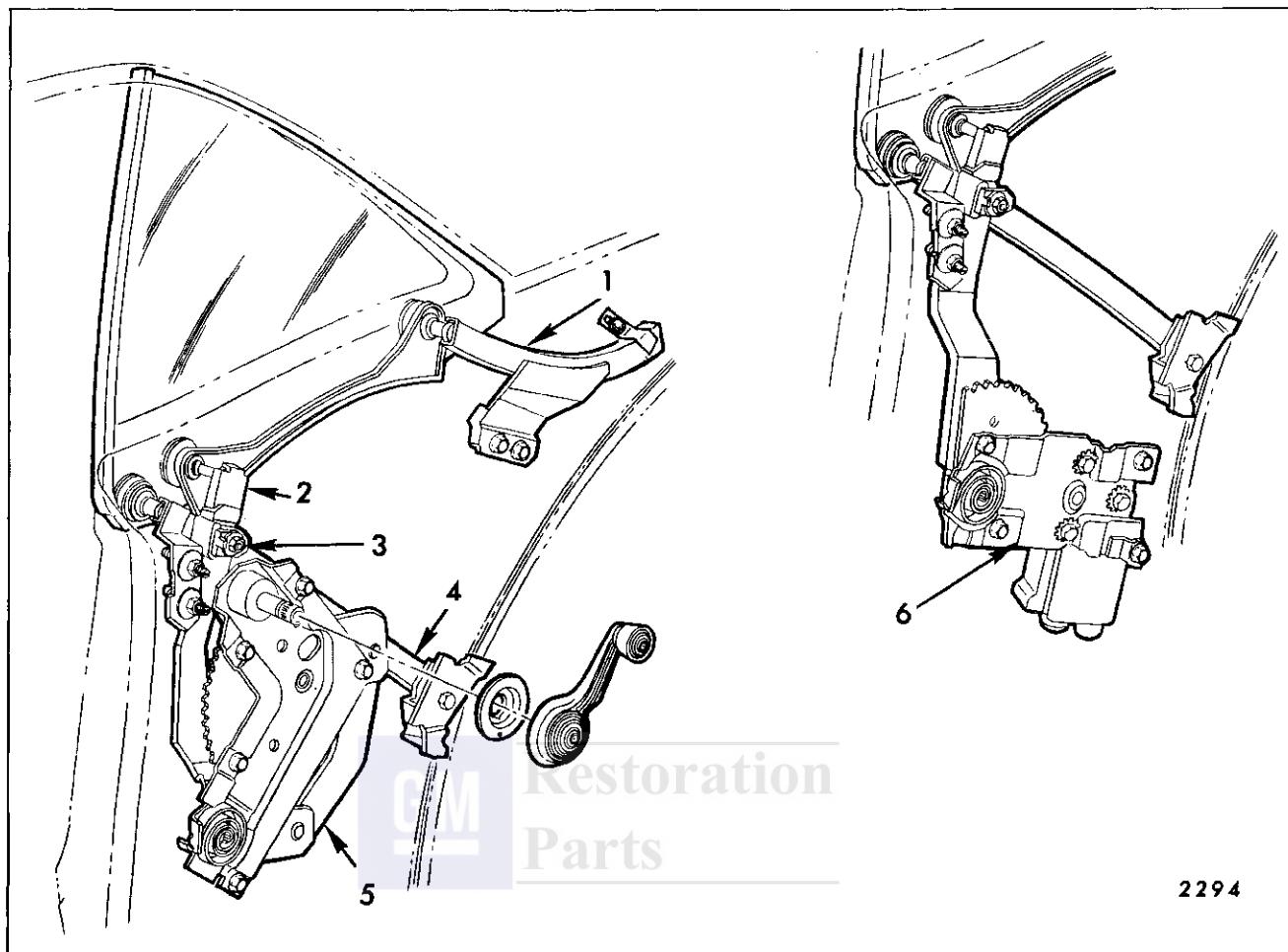


Fig. 7-25—Rear Quarter Hardware — Oldsmobile "E" Body

- | | | |
|---------------------------|----------------|-------------------------|
| 1. Rear Guide | 3. Up-Stop | 5. Regulator (Manual) |
| 2. Regulator Lift Arm Cam | 4. Front Guide | 6. Regulator (Electric) |

4. If regulator failed with window in full-down position, proceed as follows:

a. Remove regulator attaching bolts "6" (Fig. 7-37).

b. Supporting window, move regulator forward to disengage lift arm roller at front of lower sash channel cam.

NOTE: On styles with down stop in cam ("5", Fig. 7-37), remove stop prior to disengaging regulator roller.

c. Manually raise window and prop in full-up position.

d. Remove regulator through access hole.

5. To install, reverse removal procedure.

REAR QUARTER WINDOW REGULATOR ASSEMBLY (Manual or Electric)—"A-E-F & Z" Hardtop and Convertible Styles

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover (or water deflector).

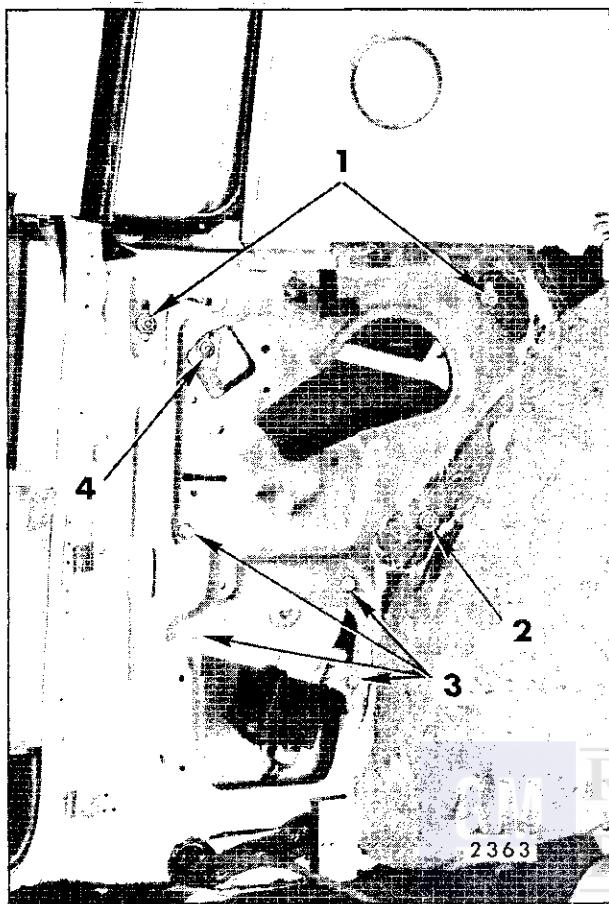


Fig. 7-26—Rear Quarter Hardware - "E-47" Styles

- | | |
|--|---|
| 1. Inner Panel Cam
Adjusting Studs
and Nuts | 3. Regulator Attaching
Bolts |
| 2. Glass Run Channel
Rear Adjusting
Stud and Nut | 4. Regulator Lift Arm
to Cam Glass Roller
Attaching Nut |

On electric styles, disconnect feed wire from regulator or "in-line" connector.

2. On "E-87" styles, remove rear quarter window. On "A & Z-37" styles, prop window in a full-up position
3. On "Z-37" styles, remove rear quarter window rear guide assembly.
4. On "E-47" styles, disconnect regulator lift arm from quarter window as described in "Rear Quarter Window Assembly" (see index).
5. Remove regulator to quarter inner panel attaching bolts, disengage lift arm roller from sash channel cam and remove regulator.

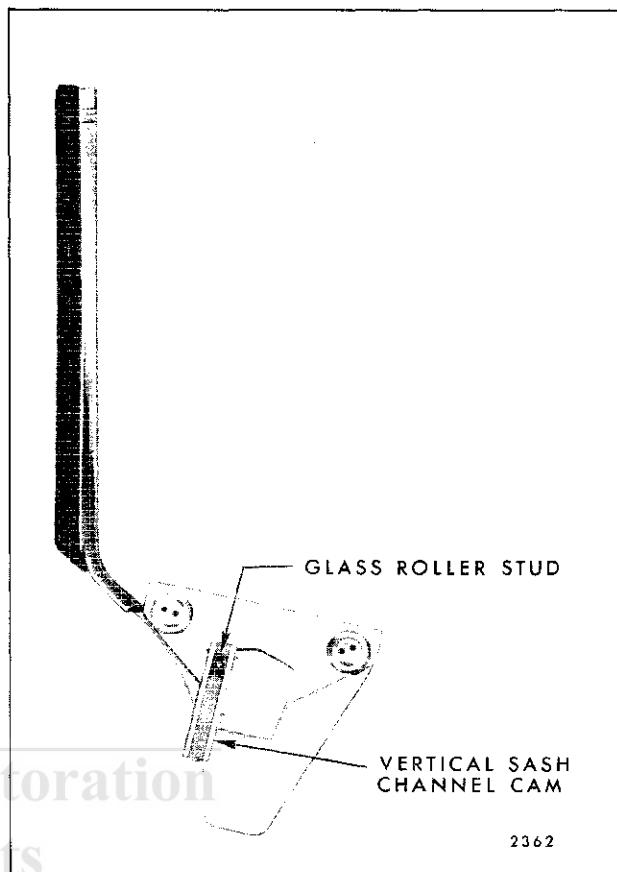


Fig. 7-27—Rear Quarter Window Assembly - "E-47" Styles

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".

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.

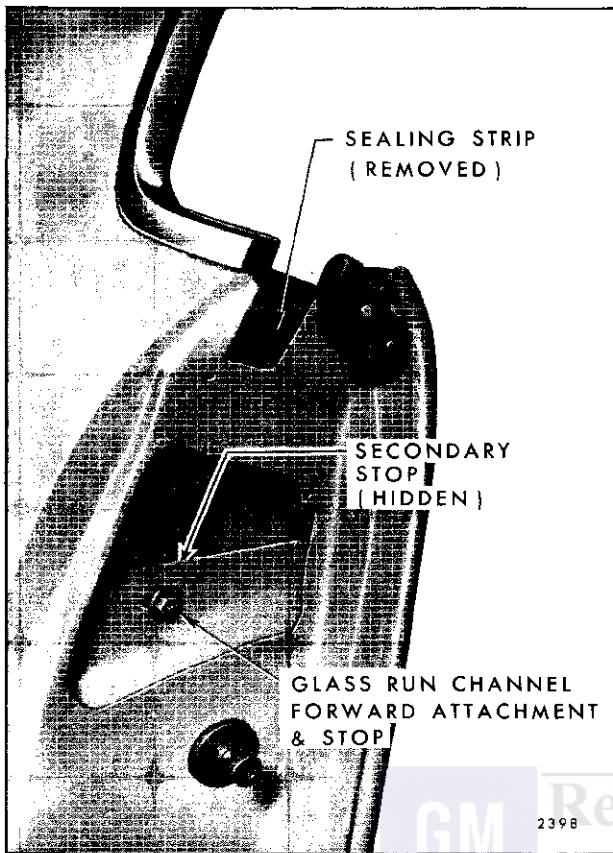


Fig. 7-28—Rear Quarter Window Hardware Attachments on Lock Pillar

2. On "A & B" styles, disengage clip retainer from pivot pin on window lower sash channel (see Fig. 7-3 and 7-4). Raise window to full-up and prop in that position.
3. On "X" styles, remove support to regulator plate screws. Raise window to full-up and prop in that position.
4. On "A & B" styles, remove regulator to inner panel screws and remove regulator through large access hole (see Fig. 7-39).
5. On "X" styles, remove regulator to inner panel screws. 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.

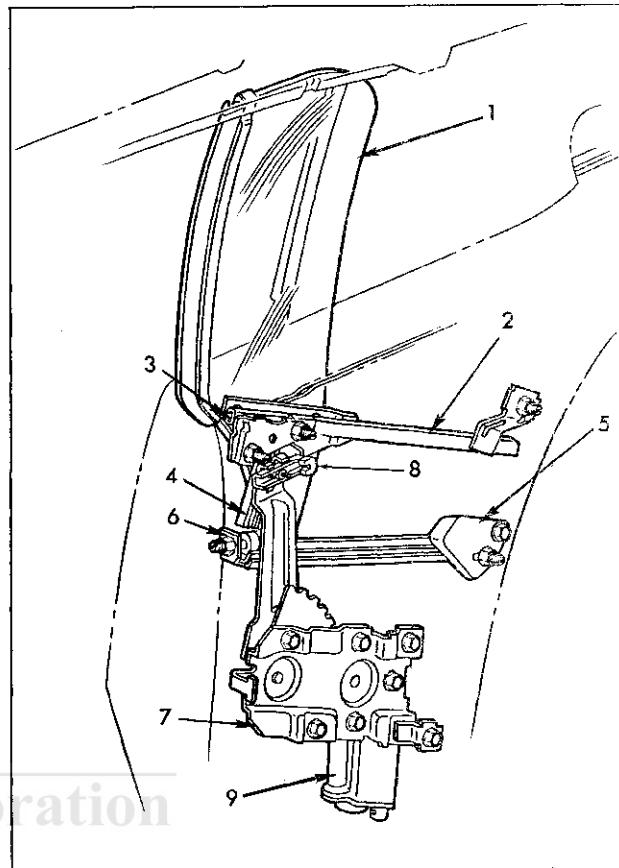


Fig. 7-29—Rear Quarter Hardware - Cadillac "E" Body

- | | |
|----------------------|-----------------------|
| 1. Glass | 4. Regulator Assembly |
| 2. Sash Channel Cam | 5. Down-Stop |
| 3. Glass Run Channel | 6. Front Stop |
| | 7. Vertical Cam |

REAR QUARTER WINDOW FRONT GUIDE—"B-C 47-57-67-87" Styles

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector or access hole cover.
2. With window in full-up position, remove front guide upper and lower adjusting stud nuts ("2" and "3", Fig. 7-37).
3. Pull guide downward and rearward to disengage from rollers on window assembly and remove guide through access hole.
4. To install, reverse removal procedure.

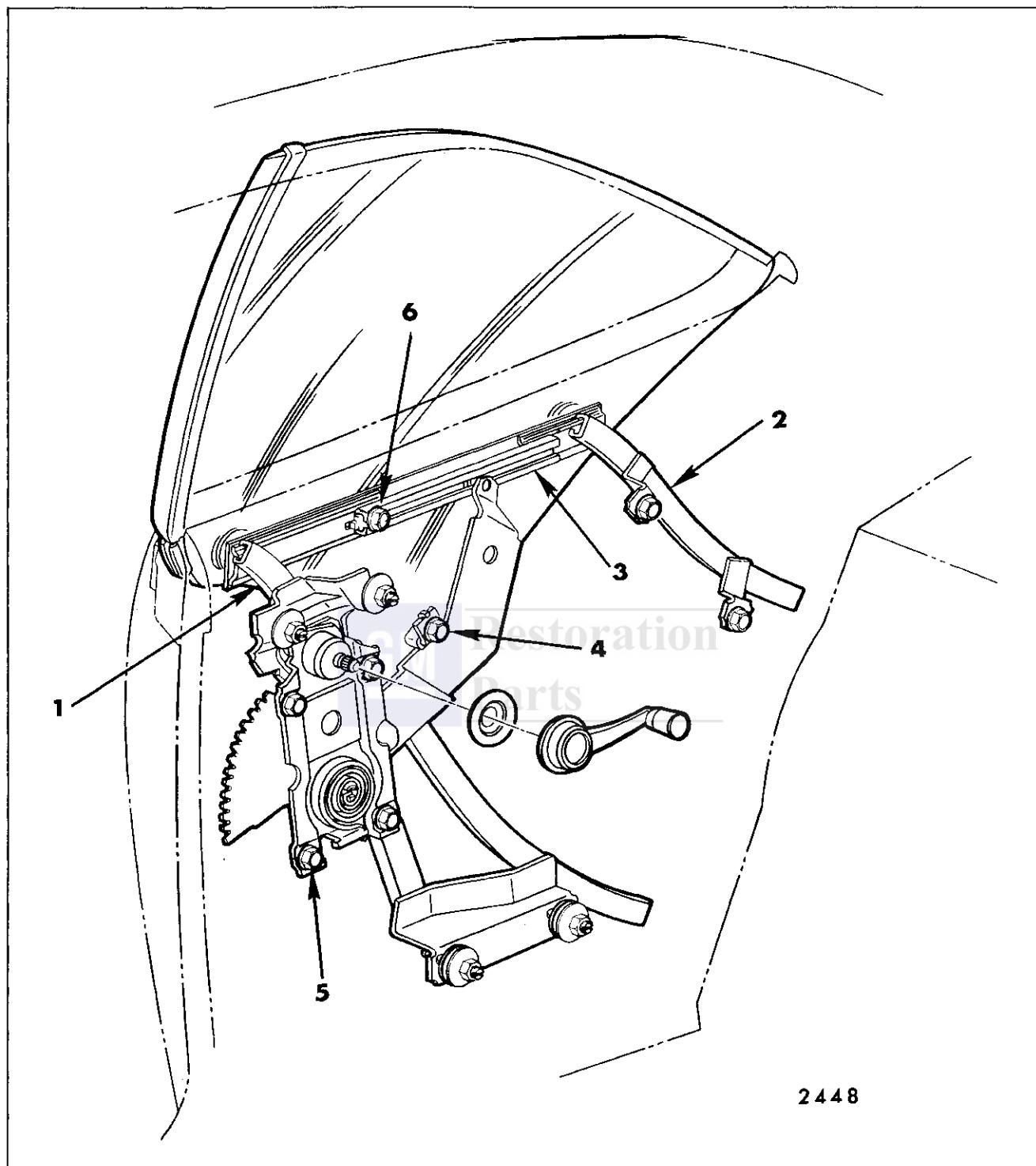


Fig. 7-30—Rear Quarter Hardware - "Z-37" Styles

1. Front Guide
2. Rear Guide

3. Lower Sash Channel Cam
4. Window Up-Stop

5. Window Regulator
6. Window Down-Stop

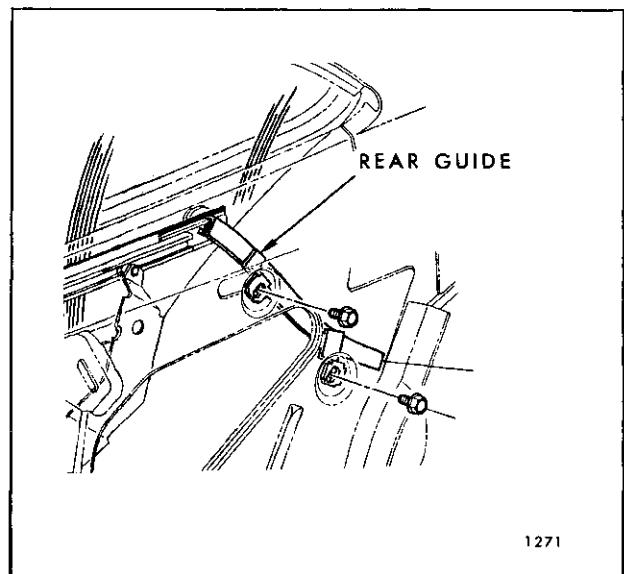


Fig. 7-31—Rear Quarter Window Rear Guide Assembly –
“Z-37” Styles

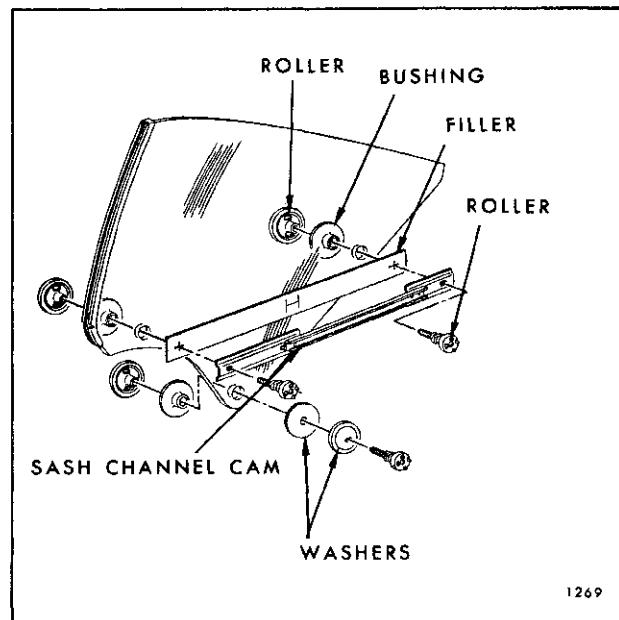


Fig. 7-32—Rear Quarter Window Assembly –
“Z-37” Styles

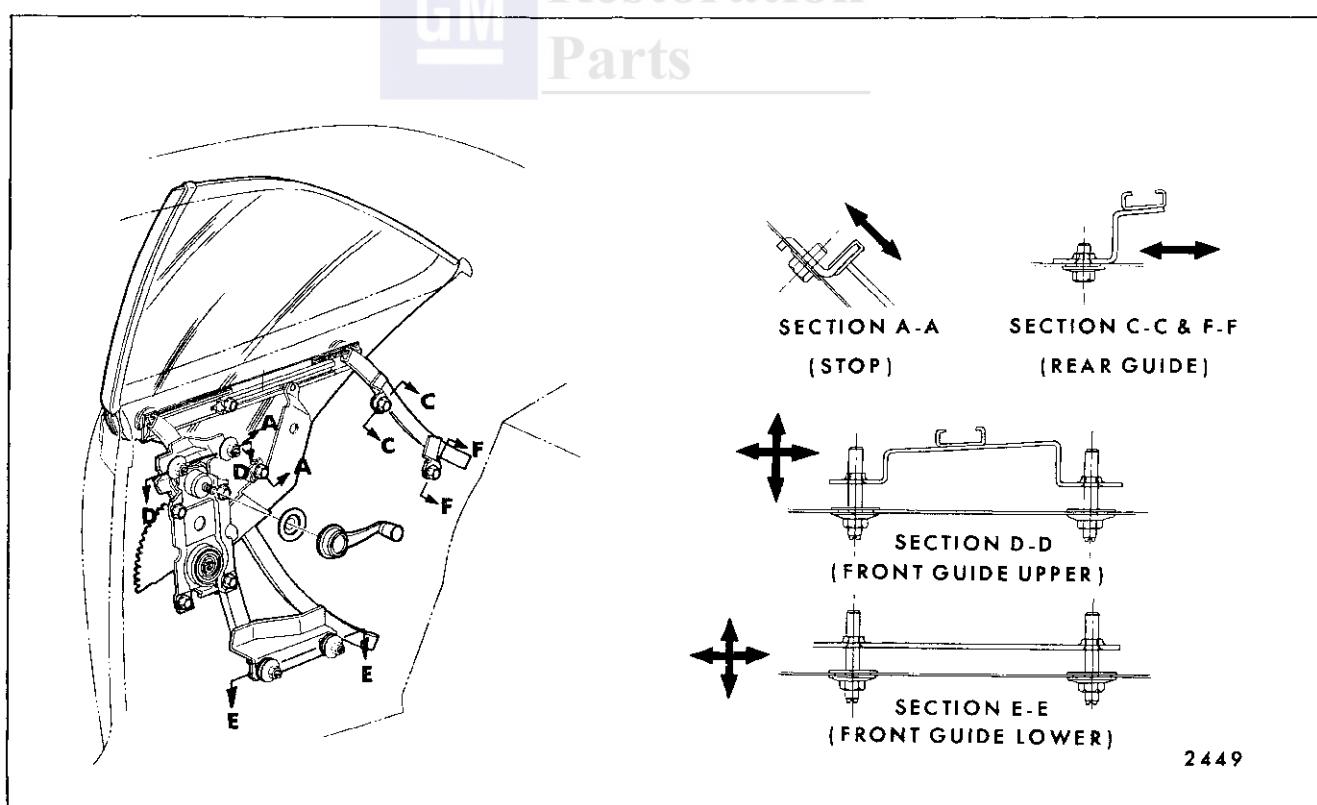


Fig. 7-33—Rear Quarter Window Adjustments – “Z-37” Styles (Arrows Indicate Adjustment Direction Available)

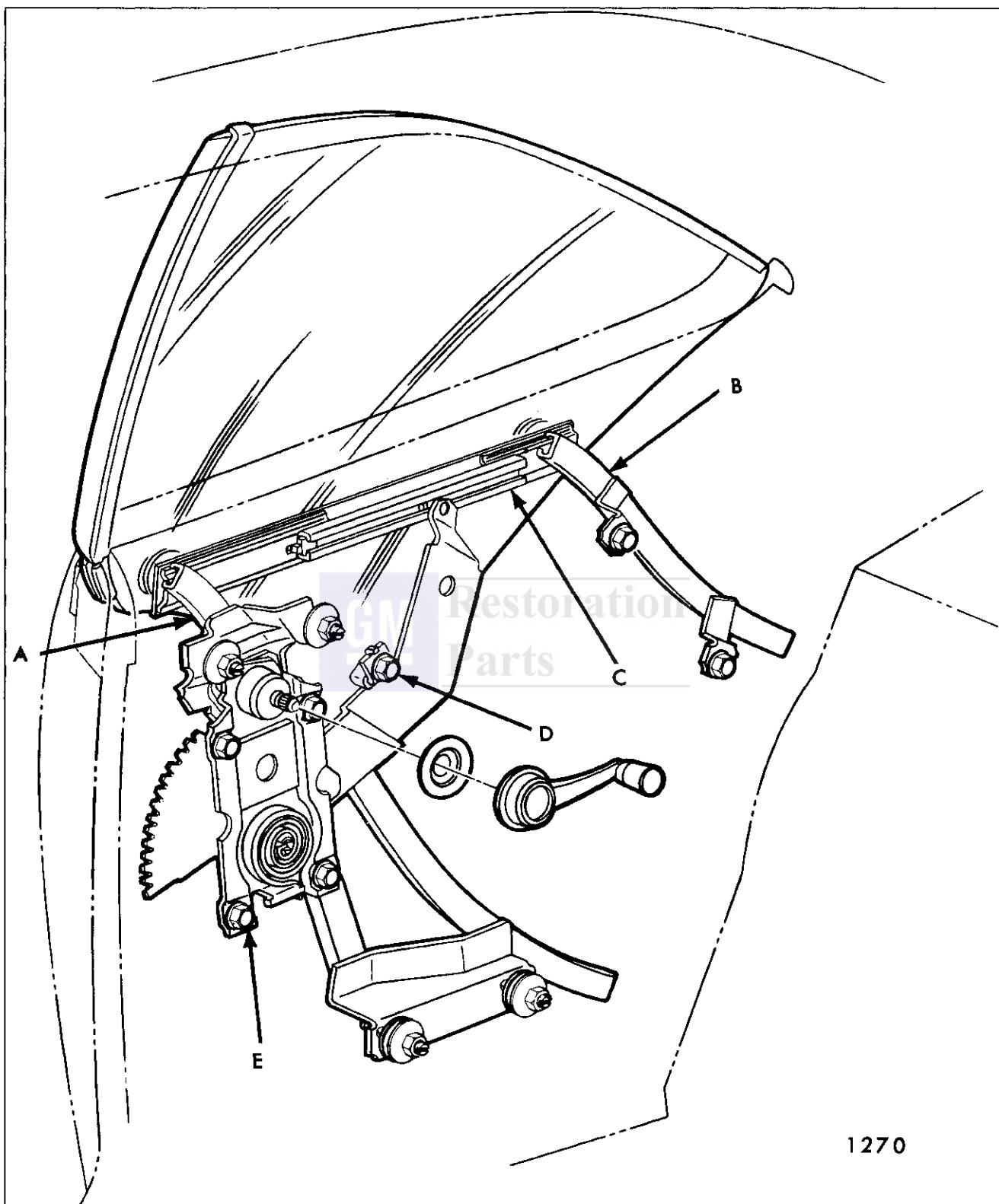


Fig. 7-34—Rear Quarter Hardware - "B-87" Styles

A. Front Guide
B. Rear GuideC. Lower Sash Channel Cam
D. Window Up-Stop

E. Window Regulator

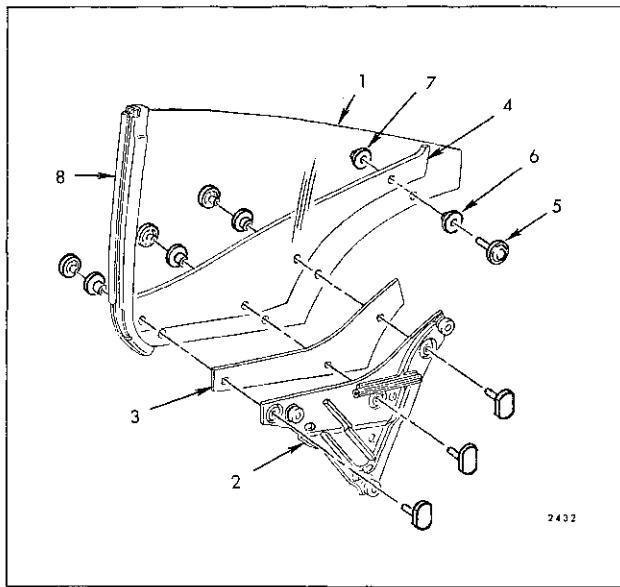


Fig. 7-35—Rear Quarter Window Assembly - "B-87" Styles

- | | |
|------------------------------------|------------------------------------|
| 1. Rear Quarter Window | 4. Lower Sash Channel Outer Filler |
| 2. Lower Sash Channel Assembly | 5. Bolt |
| 3. Lower Sash Channel Inner Filler | 6. Spacer |
| | 7. Nut |
| | 8. Front Vertical Sash Channel |

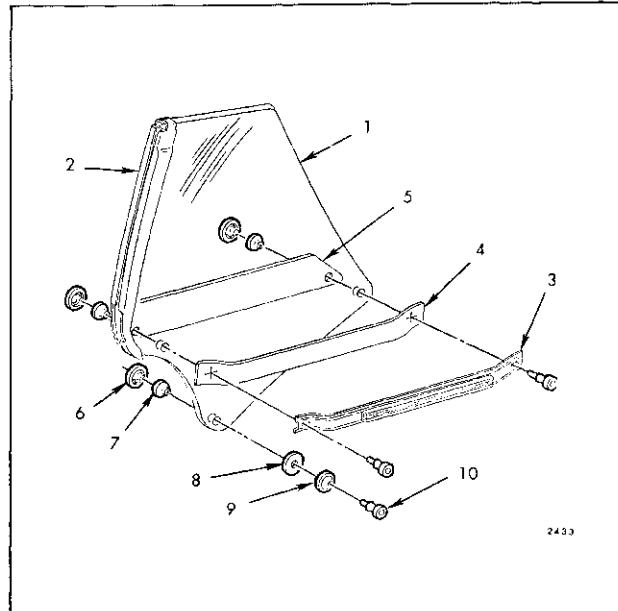


Fig. 7-36—Rear Quarter Window Assembly - "B-C-47-57-67" Styles

- | | |
|---|--------------------|
| 1. Rear Quarter Window | 6. Nut |
| 2. Front Sash Channel | 7. Spacer (Rubber) |
| 3. Lower Sash Channel | 8. Washer (Rubber) |
| 4. Lower Sash Channel Inner Filler | 9. Washer (Metal) |
| 5. Lower Sash Channel Outer Filler (Not on "B-57" Styles) | 10. Roller |

REAR QUARTER WINDOW FRONT GUIDE ASSEMBLY—"Z" Hardtop and Convertible and "E-87" Styles

Removal and Installation

1. Remove rear quarter window assembly.
2. On "Z" styles, remove front guide upper and lower adjusting stud nuts (see Figs. 7-40 and 7-41, which are typical of "Z-37, 67" and "E-87" 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 most styles is equipped with an adjustable lower stop to control height of quarter window in the lowered position (see Fig. 7-38).

REAR QUARTER WINDOW REAR GUIDE ASSEMBLY—"Z" Hardtop and Convertible Styles and "E-87" Styles

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector (or access hole cover).
2. As shown in Figures 7-31, 7-40, 7-41 and all phantom views, rear guides are retained by two bolts or adjusting studs. By providing a minimum of support for rear quarter window,

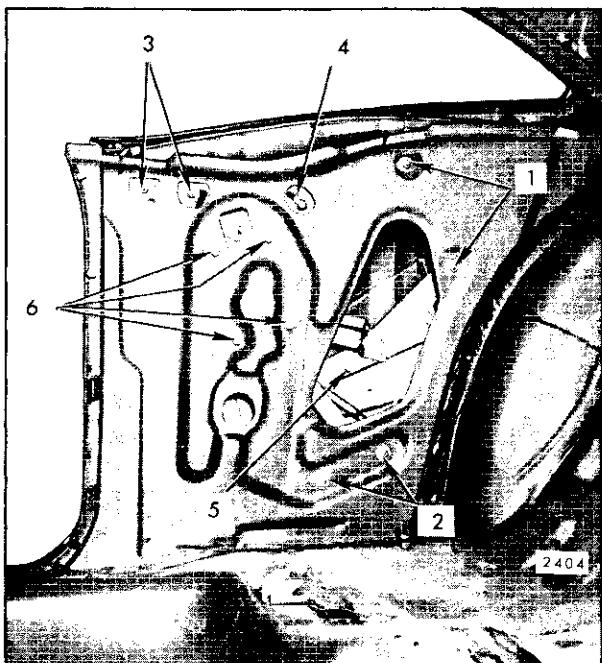


Fig. 7-37—Rear Quarter Hardware - "B-C" Coupe Styles

- 1. Rear Guide Adjusting Studs and Nuts
- 2. Front Guide Lower Adjusting Studs and Nuts
- 3. Front Guide Upper Adjusting Studs and Nuts
- 4. Window Upper Stop
- 5. Window Lower Stop ("B-C-67" and "C-57" Styles)
- 6. Regulator Attaching Bolts

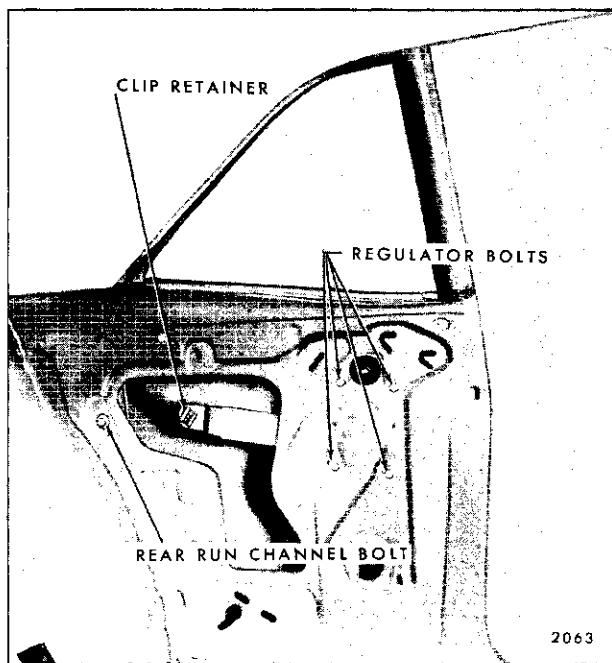
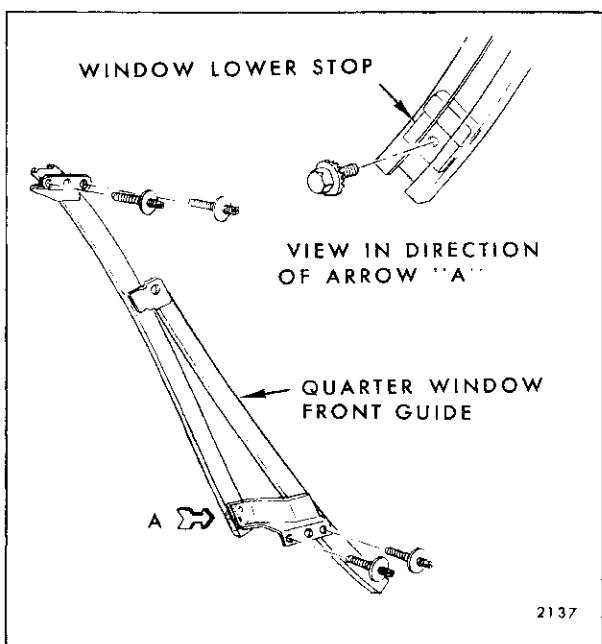
Fig. 7-39—Rear Quarter Hardware Attachment
"A-B-X" Closed Styles

Fig. 7-38—Rear Quarter Window Lower Stop Adjustment - Styles so Equipped

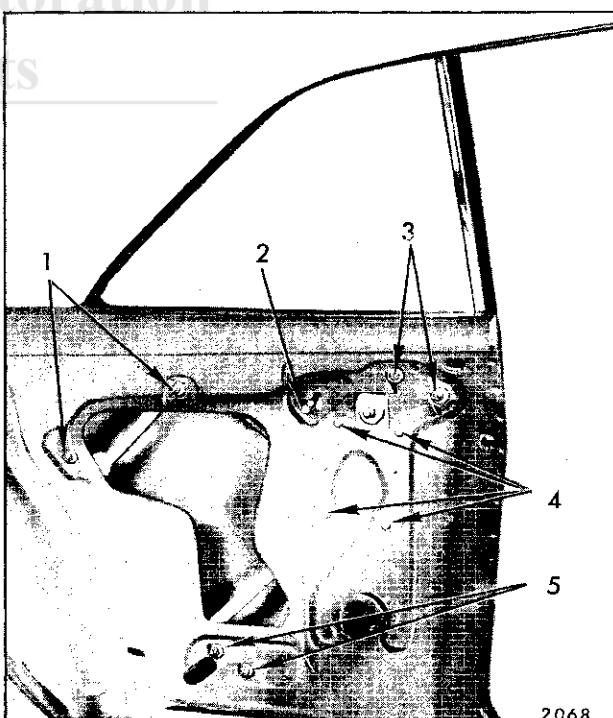


Fig. 7-40—Rear Quarter Hardware - "Z" Styles

- 1. Rear Guide Adjusting Studs and Nuts
- 2. Up-Stop Bolts
- 3. Front Guide Upper Adjusting Studs and Nuts
- 4. Regulator Bolts
- 5. Front Guide Lower Adjusting Studs and Nuts

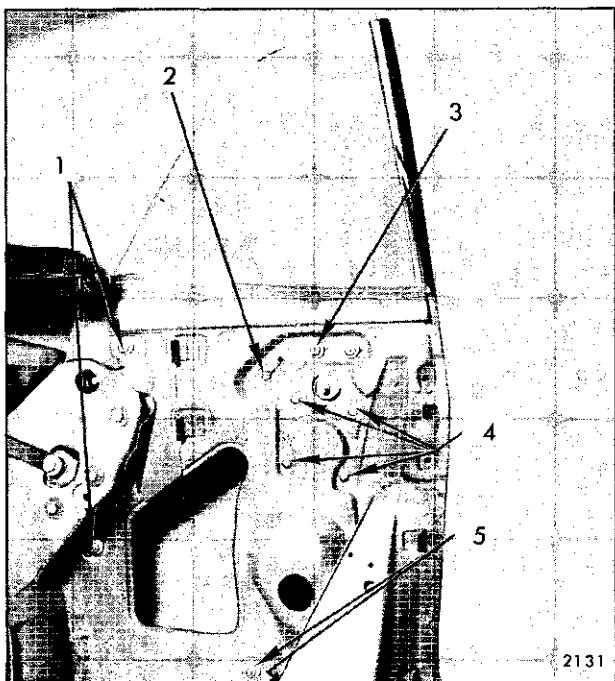


Fig. 7-41—Rear Quarter Hardware - "Z-67" Styles

1. Rear Guide Adjusting Studs and Nuts
2. Up-Stop Bolt
3. Front Guide Upper Adjusting Studs and Nuts

4. Regulator Bolts
5. Front Guide Lower Adjusting Studs and Nuts

these bolts or stud nuts can be removed and the guide disengaged from glass roller.

3. To install, reverse removal procedure. Adjust guide for proper window operation as specified under "Rear Quarter Window Adjustments".

REAR QUARTER WINDOW GUIDE ASSEMBLY—"A" Hardtop and Convertible Styles

Removal and Installation

1. Remove quarter window assembly.

2. Remove lower guide to inner panel attaching nuts.
3. Remove guide through loading hole in quarter inner panel.
4. To install, reverse removal procedure. Adjust guide to proper window operation and alignment as specified under "Rear Quarter Window Adjustments".

REAR QUARTER WINDOW GUIDE ASSEMBLY—All "F" Styles

Removal and Installation

1. Remove rear quarter window regulator assembly.
2. Remove rear quarter window assembly.
3. Remove guide attaching nuts (3) and remove guide through large access hole (see Fig. 7-18).
4. To install, reverse removal procedure.

REAR QUARTER WINDOW GLASS RUN CHANNEL—"E-47" Styles

Removal and Installation

1. Remove rear quarter trim assembly and inner panel water deflector.
2. Remove lock pillar grille (see Fig. 7-28).
3. Remove run channel rear attachment (on inner panel - see Fig. 7-26) and forward attachment (under lock pillar grille).
4. With rear quarter window fully forward, remove glass run channel in a rearward motion.
5. To install, reverse removal procedure.

SECTION 8

REAR COMPARTMENT LID

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REAR COMPARTMENT LID— ALL STYLES EXCEPT CORVAIR

DESCRIPTION

The rear compartment lid employs two torque rods which are mounted between the hinge assemblies to act as a counterbalance and hold-open for the lid. Notches in the hinge rod support plate allow for the adjustment of the rods to increase or decrease lid operating effort.

The rear compartment lid lock employs a side-action snap-bolt 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.

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 hinge strap to lid attaching bolts and remove lid. (Fig. 8-1 is typical for A, B, C, 69347 "E", and "X" styles; Fig. 8-2 for 39687 and 49487 "E" styles; and Fig. 8-3 for "F" styles).

6. To install, align compartment 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 locations. The lid can be raised at the hinge attaching locations with the use of shims placed between hinge strap and lid inner panel at the forward attaching bolt locations. To lower the lid, place shims as required between the hinge strap and lid inner panel at the rear attaching bolt locations.
2. The lock assembly is adjustable up or down and the lock striker is adjustable side-to-side to provide proper engagement and opening and closing effort of the lid.

ENGINE COMPARTMENT LID— Corvair Styles

Removal and Installation

1. Raise lid and place protective covering over adjacent paint finish.

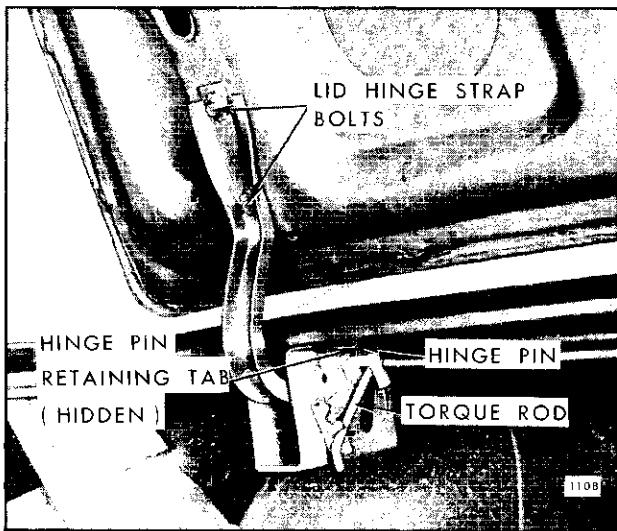


Fig. 8-1—Rear Compartment Lid Attachments - All Styles Except "F" and Oldsmobile, & Buick "E" Styles

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. 8-4).
4. With lid properly supported, remove hinge strap to lid attaching bolts and remove engine compartment lid from body (see Fig. 8-4).

ADJUSTMENTS

1. To adjust the engine compartment lid forward, rearward or sideways in body opening, loosen hinge strap-to-lid attaching bolts and shift lid to required position, then tighten bolts.

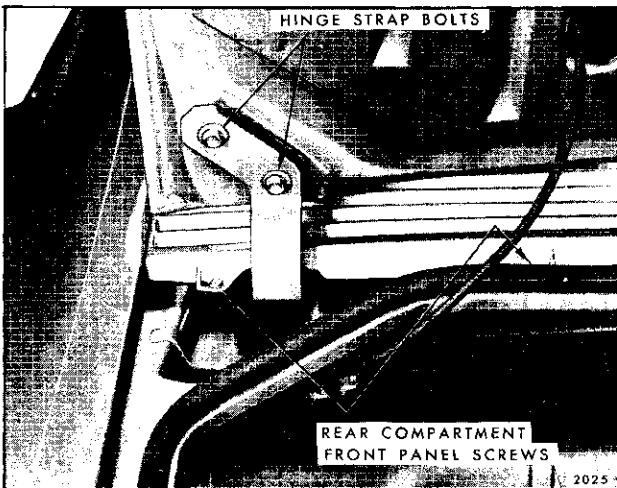


Fig. 8-2—Rear Compartment Lid Attachments - Oldsmobile and Buick "E" Styles

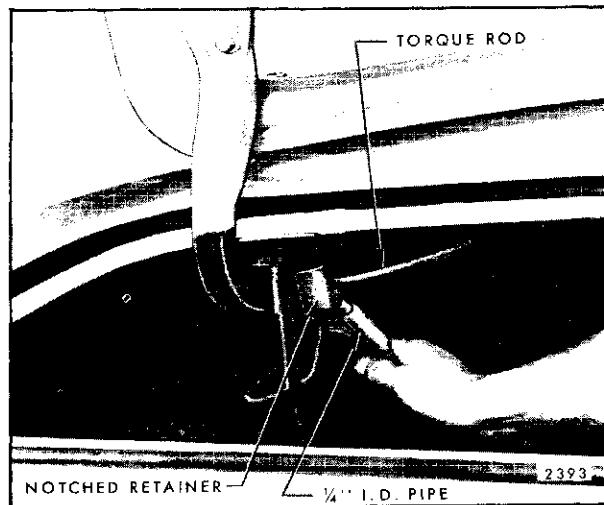


Fig. 8-3—Rear Compartment Lid Attachments - All "F" Styles

2. Up or down adjustment may be obtained at the hinge to lid attaching locations. To raise the lid, install shims as required between the hinge strap and inner panel at the forward bolt locations. To lower the lid, place shims as required between the hinge and inner panel at the rear.
3. The lid latch and striker are adjustable side-to-side or up-or-down to permit proper engagement when opening or closing lid.

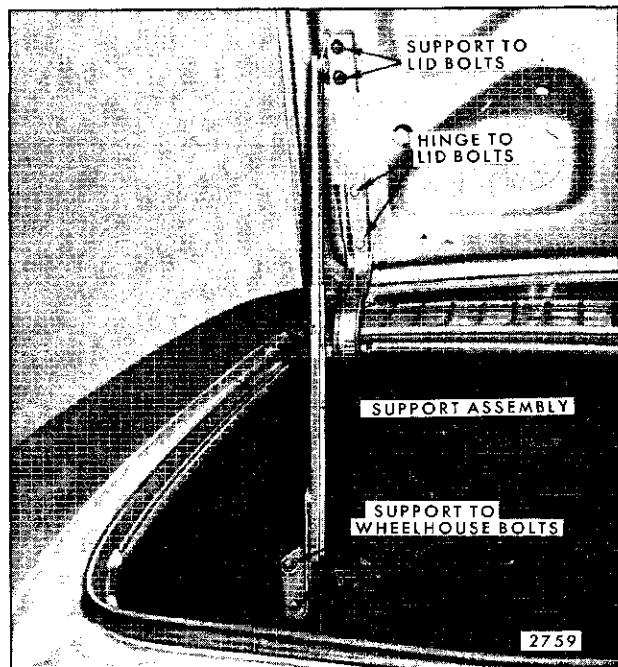


Fig. 8-4—Engine Compartment Lid Attachments - All "Z" Styles

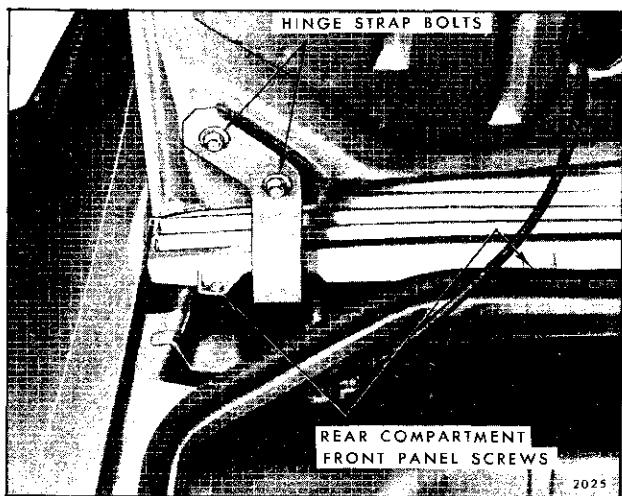


Fig. 8-5—Rear Compartment Front Panel Screws — Oldsmobile and Buick "E" Styles

REAR COMPARTMENT FRONT PANEL— 39487, 39687 and 49487 "E" Styles

Removal and Installation

1. Raise rear compartment lid and remove lower screws of panel (see Fig. 8-5).
2. Remove back window lower reveal molding.
3. Remove upper screws of rear compartment front panel and remove panel.
4. To install, reverse removal procedure.

REAR COMPARTMENT TORQUE ROD ADJUSTMENT

The amount of effort required to open and close the

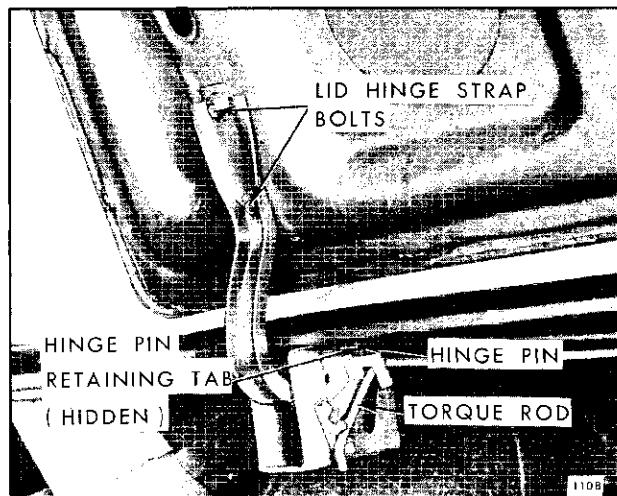


Fig. 8-6—Rear Compartment Torque Rod Adjusting Provisions — Typical "B and C" Styles

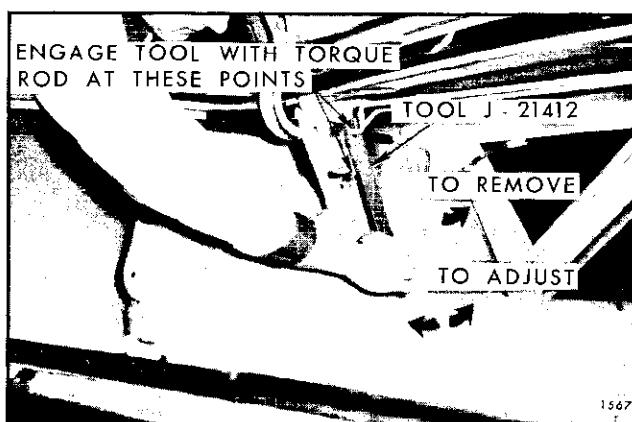


Fig. 8-7—Rear Compartment Torque Rod Adjustments — "X" Styles and "A" Hardtop and Closed Styles

rear compartment lid is determined by the position of the torque rods in the adjusting plate hinge box notches. 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. 8-6).

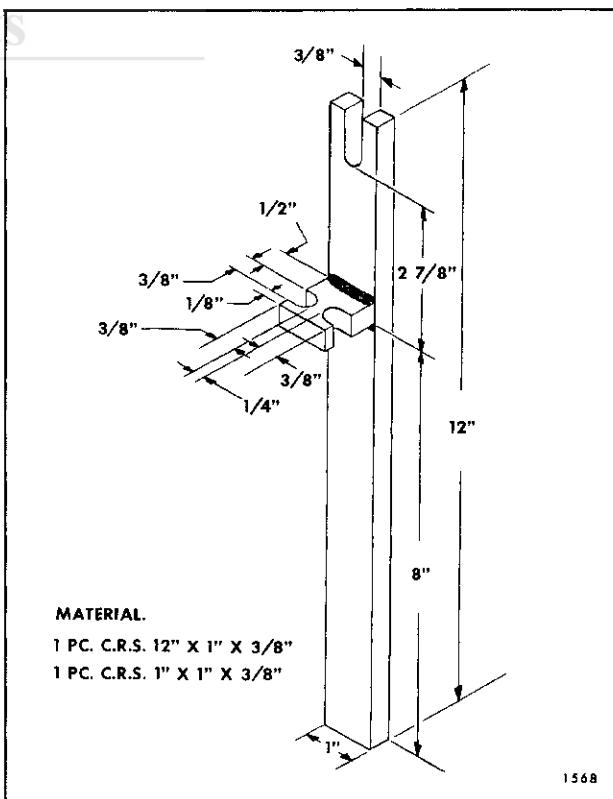


Fig. 8-8—Torque Rod Adjusting Tool

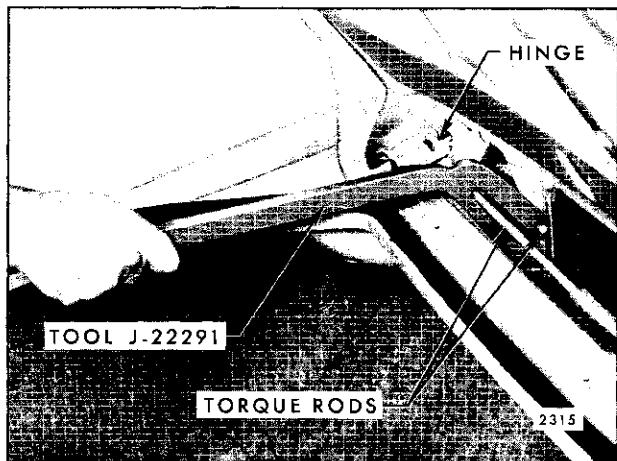


Fig. 8-9—Usage of Tool J-22291 on - Oldsmobile and Buick "E" Styles

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 "A" convertible, and all "B, C" and 69347 "E" styles, adjust torque rod with a length of 1/2" I.D. pipe. On "A" hardtop and closed styles and all "X" styles, use tool J-21412 as shown in Fig. 8-7. If tool is not available, fabricate equivalent as shown in Fig. 8-8. On "E" 39487, 39687 and 49487 styles, use tool J-22291 as shown in Fig. 8-9. If tool is not available, fabricate equivalent as shown in Fig. 8-10. On "F" styles, use 1/4" I.D. pipe as shown in Fig. 8-11.

ENGINE COMPARTMENT LID SUPPORT—Corvair Styles

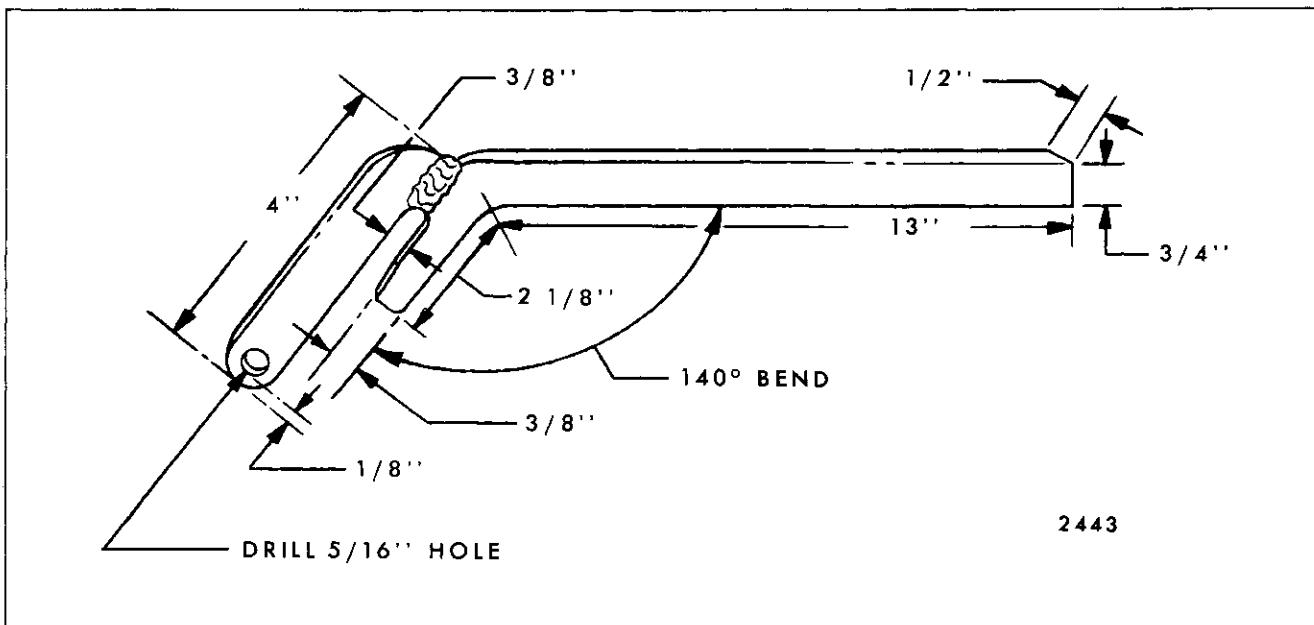
Removal and Installation

1. Prop engine compartment lid in a full open position.
2. Remove two attaching bolts securing support to lid and two bolts securing support to wheelhouse and remove support from body (see Fig. 8-12).
3. To install, reverse removal procedure. To insure proper operation, lubricate telescoping channels of support.

REAR COMPARTMENT LID LOCK CYLINDER ASSEMBLY—All Styles Except Cadillac

Description

The lock cylinder assembly for the rear compartment lid is similar in design on all styles; however, the method of retention may vary dependent upon location of the lock assembly. Some styles have the lock cylinder attached to the deck lid, while on other styles, the lock cylinder is secured to the rear end panel. The lock cylinder is secured with a retainer which is attached to the deck lid inner panel or the rear end panel. It is necessary to disengage the retainer in removal of the lock cylinder assembly (see Figs. 8-13 and 8-14) which are typical.



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Fig. 8-10—Tool J-22291 Dimension Specifications

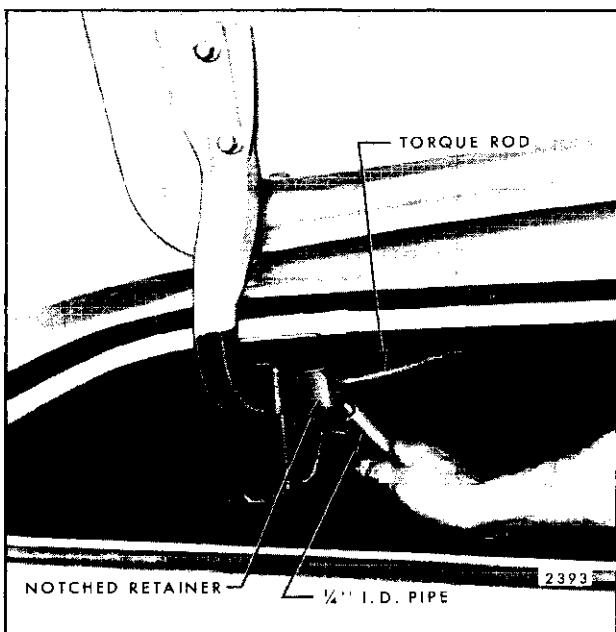


Fig. 8-11—Rear Compartment Lid Torque Rod Adjustments – All "F" Styles

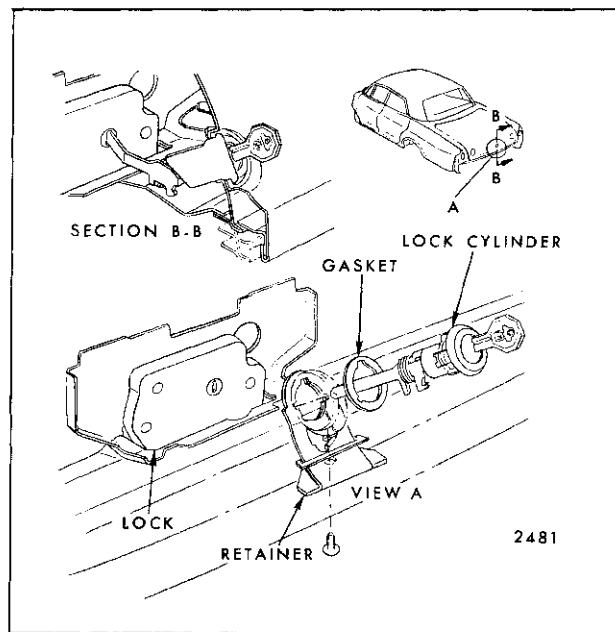


Fig. 8-13—Rear Compartment Lid Lock Cylinder Assembly – Typical of All Styles Except "F", Pontiac "A" and All Cadillac Styles

Removal and Installation

1. Open rear compartment lid and remove retainer screw(s).

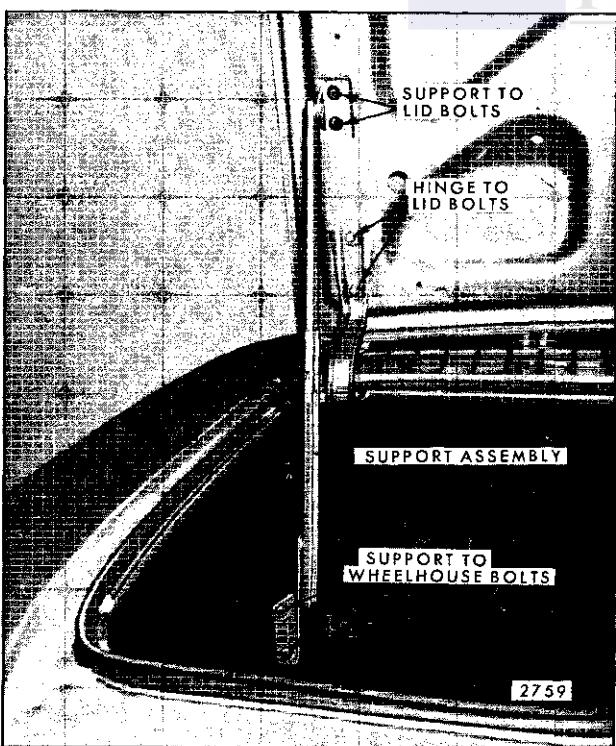


Fig. 8-12—Engine Compartment Lid Support – "Z" Body Styles

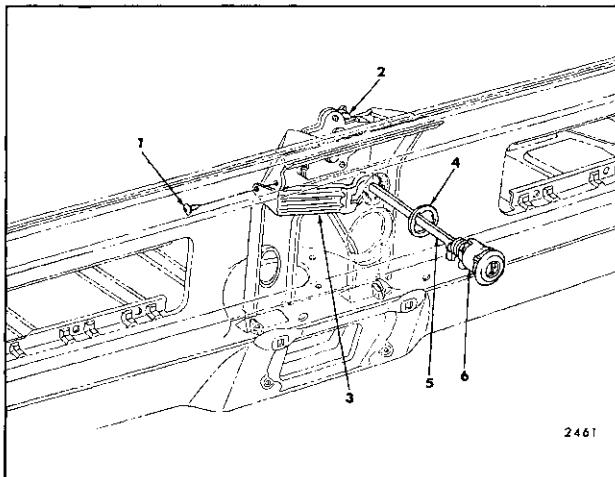


Fig. 8-14—Rear Compartment Lid Lock Cylinder Assembly – Pontiac "A" and All "F" Styles

1. Retainer Attaching Screw
2. Lock
3. Retainer
4. Gasket
5. Shaft
6. Cylinder

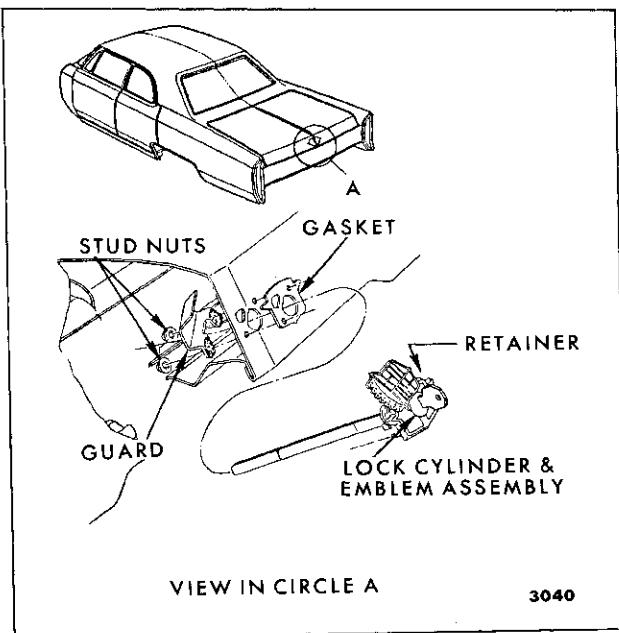


Fig. 8-15—Rear Compartment Lid Lock Cylinder Assembly — All Cadillac Styles

NOTE: Coding of lock cylinders is described in General Information (Section one).

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. 8-15).
4. To remove lock cylinder from emblem assembly, turn the retainer counterclockwise and disengage. Pull cylinder straight out of emblem casting.
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.

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 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 forces the fluid through an orifice retarding the closing action of the spring in the hydraulic cylinder.

Removal and Installation

1. Open rear compartment lid. Remove mechanical pull-down unit cover panel. Depress striker slightly to relieve tension from cable and disengage clip securing cable to pull-down control arm (Fig. 8-16).
2. Disengage clip securing cable conduit to cable adjusting bracket and disengage cable and cable conduit from pull-down unit (Fig. 8-16).
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. 8-17).
4. To install, reverse removal procedures.

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. 8-18).
2. Repeat this procedure at other end of cable, disengaging clips securing cable to pull-down unit and cable conduit to adjusting bracket (Fig. 8-16), and remove cable from body.
3. To install, reverse removal procedure.

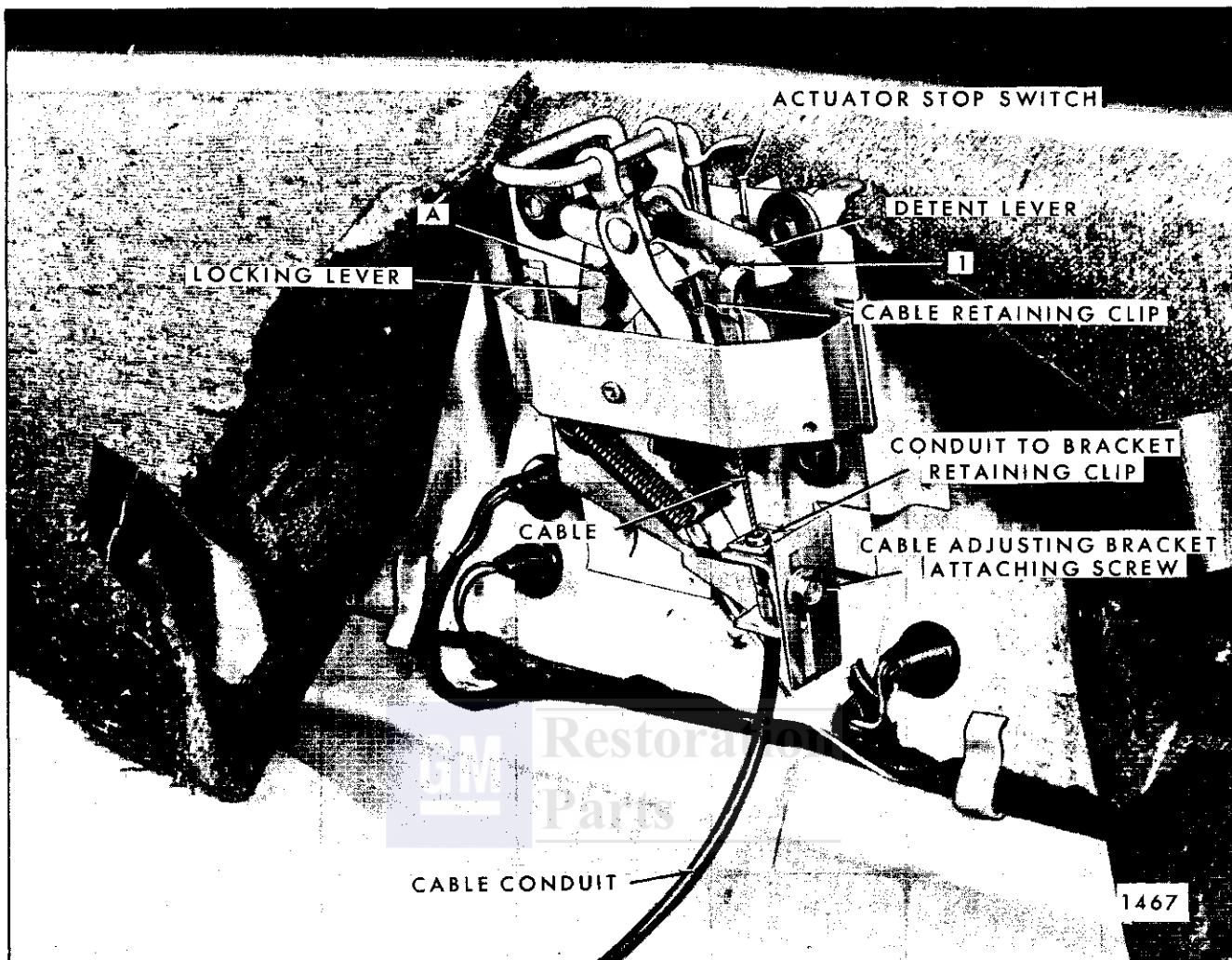


Fig. 8-16—Rear Compartment Mechanical Pull-Down Unit — Cadillac Styles with Option

ENGINE COMPARTMENT LID LATCH— All Corvair Styles

Removal and Installation

1. Raise engine compartment lid and park position of latch.
2. Remove two bolts securing latch to engine compartment inner panel and remove assembly from body (see Fig. 8-19).
3. To install, align latch assembly within locating marks and install attaching bolts. Check engagements 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.

2. Remove attaching bolts and remove striker from body (see Fig. 8-20).

3. To install, align striker within locating marks and install attaching bolts. Check engagement of latch within striker and perform any adjustments that may be required.

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".
2. Lift cylinder to disengage upper end from shoulder of shaft on linkage portion of hinge assembly.

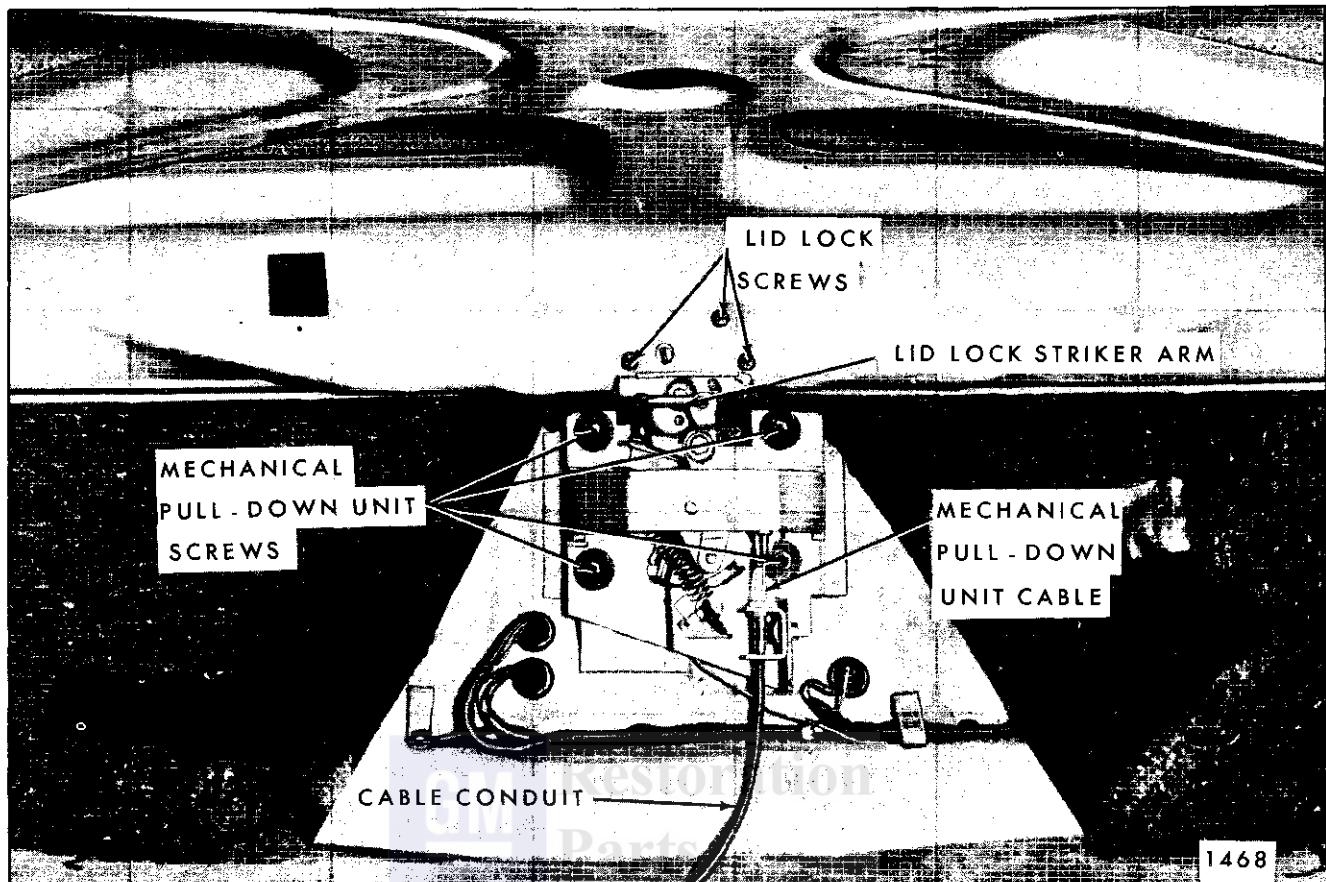


Fig. 8-17—Rear Compartment Mechanical Pull-Down Unit - Cadillac Styles with Option

3. To install, reverse removal procedure.

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.

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 and down" adjustments 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.

To increase cable tension, position hydraulic cylinder end of cable in the upper slot on the lower end of the cylinder ("1" in Fig. 8-21). If more tension, or finer adjustment, is required, loosen cable adjusting bracket attaching screw (Fig. 8-16). Adjust bracket downward (to increase cable travel) and tighten attaching screw.

IMPORTANT: The lack of lubrication between the toggle and the detent lever ("1", Fig. 8-16) 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

Removal and Installation

1. Remove rear compartment lid lock cylinder as previously described.

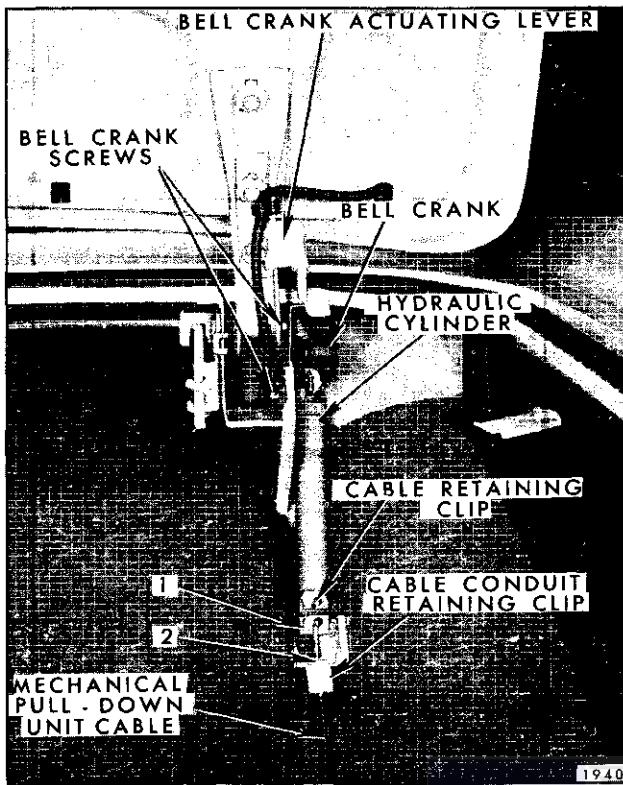


Fig. 8-18—Mechanical Pull-Down Unit Hydraulic Assembly - Cadillac Styles with Option

2. On styles so equipped, remove rear compartment lid vacuum release unit.
3. Remove rear compartment lid lock attaching bolts and remove lock from lid (Figs. 8-21 and 8-22).
4. To install, reverse removal procedure. Check lock engagement with striker and make necessary lateral adjustments before securing attaching bolts.

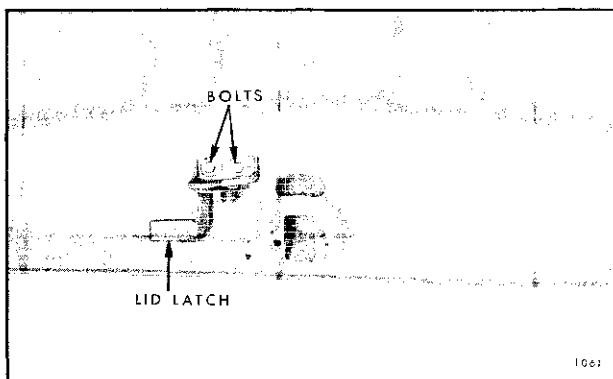


Fig. 8-19—Engine Compartment Lid Latch Assembly - "Z" Styles

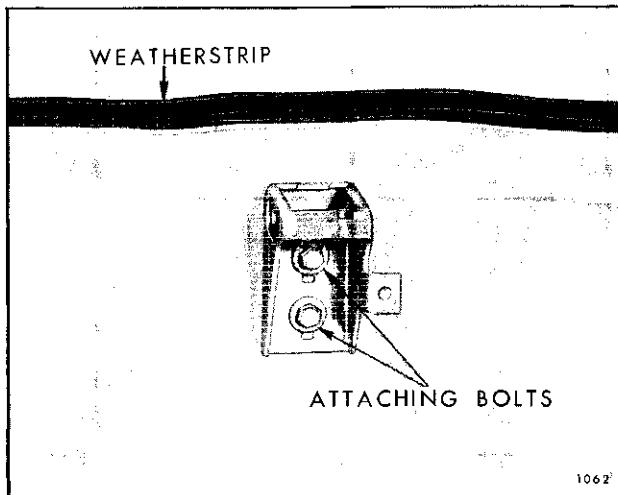


Fig. 8-20—Engine Compartment Lid Latch Striker - "Z" Styles

REAR COMPARTMENT LID LOCK STRIKER

Removal and Installation

1. Open rear compartment lid. Mark vertical position of striker by scribing a line at top of striker support or at base of lid inner panel.
2. Remove striker attaching screws and remove striker (Fig. 8-21 and Fig. 8-22).
3. To install, reverse removal procedure. Close lid to check lock to striker engagement and make any necessary vertical adjustments before tightening striker screws.

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,

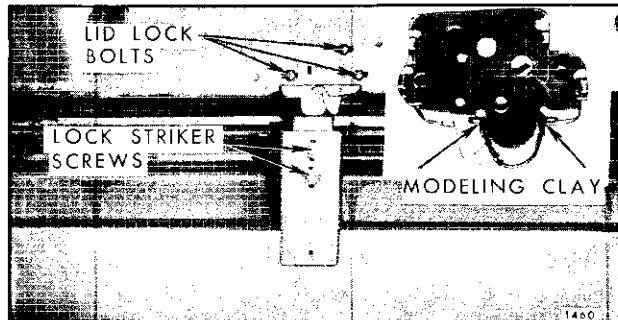


Fig. 8-21—Rear Compartment Lid Lock Assembly - Mounted in Rear Compartment Lid

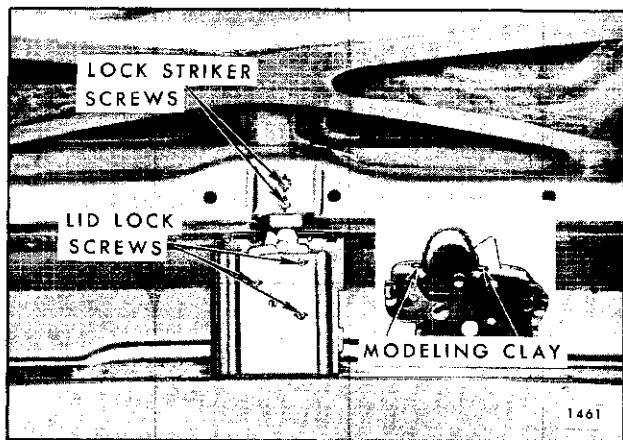


Fig. 8-22—Rear Compartment Lid Lock Assembly — Mounted in Rear End Panel

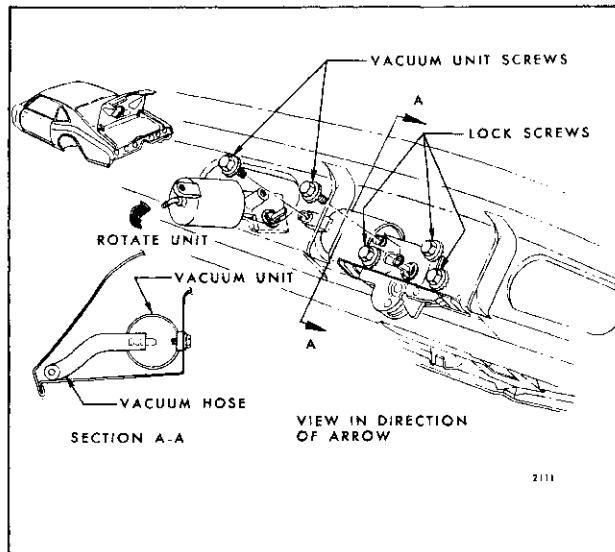


Fig. 8-24—Rear Compartment Lid Vacuum Release Unit — Concealed Type

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. 8-21, and 8-22). 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.

REAR COMPARTMENT LID VACUUM RELEASE SYSTEM—Styles Equipped with Option

The rear compartment lid vacuum lock system is a side-action snap-bolt type lock with a vacuum

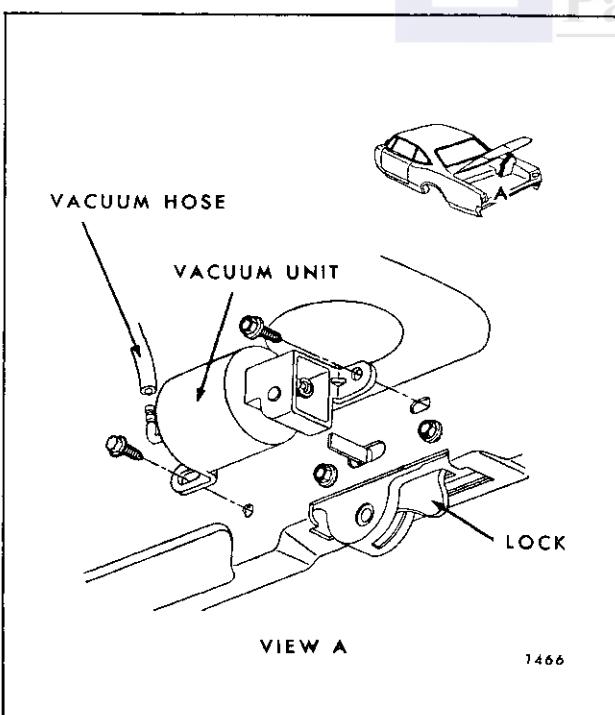


Fig. 8-23—Rear Compartment Lid Vacuum Release Unit — Exposed Type

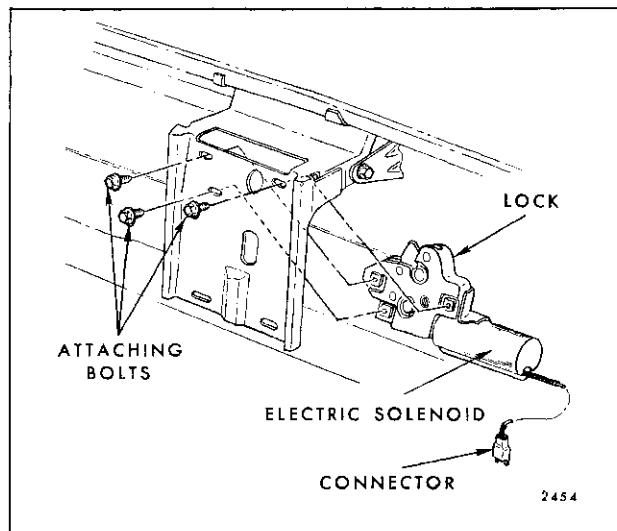


Fig. 8-25—Rear Compartment Electric Release Unit

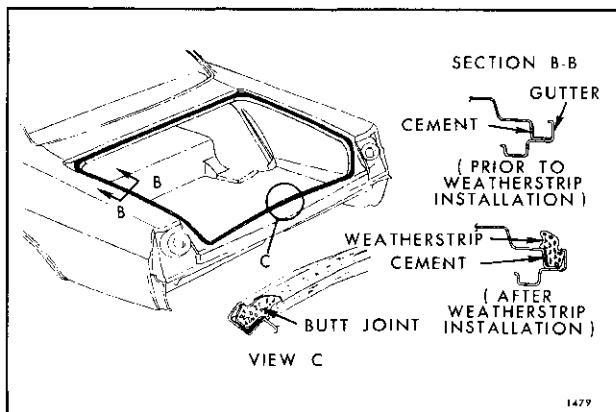


Fig. 8-26—Rear Compartment Weatherstrip Assembly

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 enters 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.

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. 8-23 and 8-24 for typical illustrations).
3. To install, reverse removal procedure. Check unit for proper operation.

REAR COMPARTMENT LID LOCK ELECTRIC RELEASE UNIT— Styles Equipped with Option

The rear compartment lid lock electric release unit which is attached to the lock assembly is controlled by a switch located in the instrument panel compartment box. This option is only an unlocking feature; therefore, the rear compartment lid must be closed manually.

Removal and Installation

1. Open rear compartment lid. Remove rear

compartment lid lock cylinder and shaft as previously described.

2. Remove bolts securing rear compartment lid lock assembly to rear compartment lid anchor plate (Fig. 8-25).
3. Disconnect electric feed wire at connector.
4. Remove lock and electric release assembly.
5. To install, reverse removal procedure.

REAR COMPARTMENT WEATHERSTRIP— All Styles

Removal

1. Separate "butt" ends of weatherstrip at rear compartment opening (Fig. 8-26).
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 while cement is still wet 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.

SECTION 9

TAIL GATE

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DESCRIPTION—All Station Wagon and Pick-Up Delivery Styles

All station wagon 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, on some styles, 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 wagons styles.

The pick-up delivery style tail gate employs locks, strikers, hinges and support cables similar to "A" style station wagons. To perform any service operations to these components, refer to the "A" style procedures in this section.

TAIL GATE INNER PANEL COVER

The "A" station wagon styles employ a "hang-on" type inner panel cover which attaches over the weld supports at the belt line of the tail gate and is se-

cured to the tail gate inner panel by a series of screws. On "A-80" and all "B" styles, the inner panel cover is attached at the recessed portion of the tail gate inner panel and is also secured by a series of screws. The tail gate inner panel cover screws can be readily removed when the tail gate is in the opened position. In those cases where the tail gate cannot be opened, as could occur if a power operated window motor fails with the tail gate glass in the "up" position, the tail gate inner panel cover can be removed as follows:

1. The attaching screws on all "A" and some "B" styles are accessible with the gate in the closed position. On "B" styles where the bottom screws are not accessible, remove the top and side screws and slide inner panel up to remove panel cover from tail gate inner panel retainer.

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 Figure 9-1).

2. When the inner panel cover is removed, it is possible to remove the inner panel water deflector, access hole covers and the window sash channel cams as explained in the following pages. At this point, the tail gate window may 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.

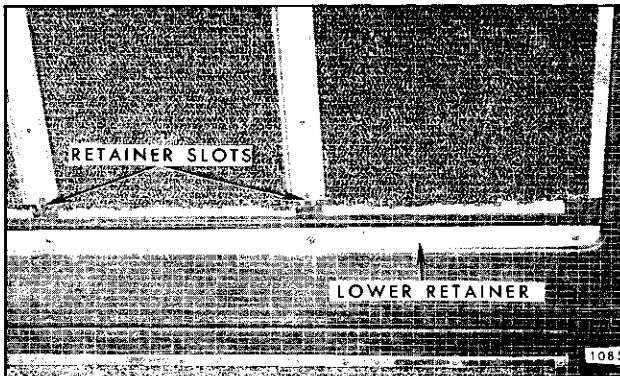


Fig. 9-1—"B" Style Inner Panel Cover

IMPORTANT: When 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.

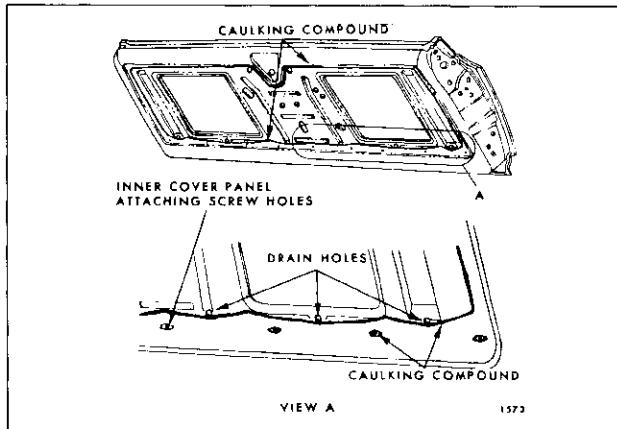


Fig. 9-2—Tail Gate Sealing

3. If needed, apply a bead of body caulking compound (approximately 3/16" diameter) to tail gate inner panel (See Fig. 9-2). 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.

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. 9-3).
3. To install, reverse removal procedure.

TAIL GATE HINGE ASSEMBLY

Removal and Installation

1. Open tail gate to vertical position and remove torque rod retainer attaching screws at the lock pillar. Provide support on side from which hinge is to be removed.
2. Remove tail gate hinge attaching bolts from tail gate and body (See Fig. 9-4 and 9-5 for "B" styles; Figs. 9-6 and 9-7 for "A" station wagons and typical of pick-up delivery styles).
3. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surface of hinge that contacts body.
4. Check alignment of tail gate in opening and adjust as required.

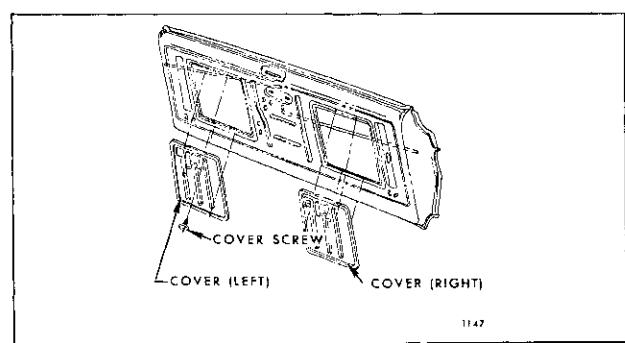


Fig. 9-3—Tail Gate Inner Panel Access Hole Covers

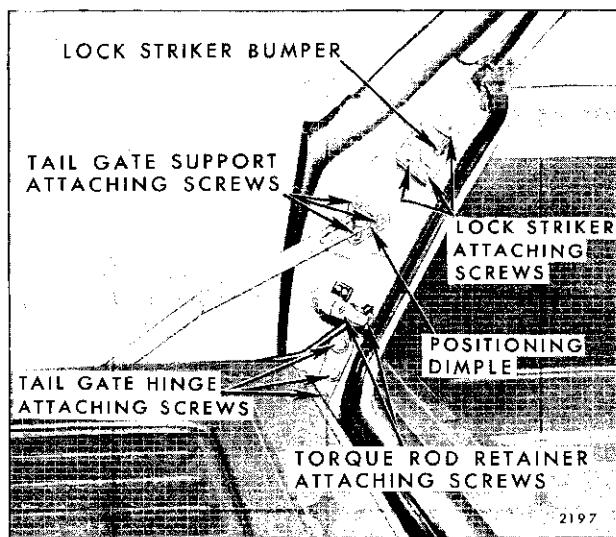


Fig. 9-4—Tail Gate Torque Rod, Hinge and Support Attachments "B" Body Styles



Fig. 9-6—Tail Gate Torque Rod, Hinge and Support Attachments "A" Body Styles

TAIL GATE SUPPORT ASSEMBLIES

Removal and Installation

1. Support tail gate in open position.
2. On "B" styles, remove screws securing support to tail gate and to body lock pillar (Fig. 9-4 and 9-5). On "A" styles, remove bolts securing support to tail gate and to body lock pillar. Disengage support return spring (at body lock pillar or tail gate end) and remove support (See Fig. 9-6 and 9-7).

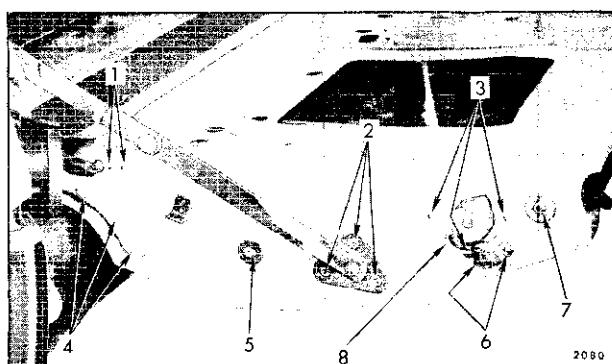


Fig. 9-5—Tail Gate Hardware - Left Side

- | | |
|------------------------------------|---------------------------------|
| 1. Torque Rod Bearing Plate Screws | 5. Glass Run Channel Lower Bolt |
| 2. Support to Tail Gate Bolts | 6. Jamb Switch Screws |
| 3. Tail Gate Lock Screws | 7. Glass Run Channel Upper Bolt |
| 4. Hinge to Tail Gate Bolts | 8. Jamb Switch Arm |

3. To install, reverse removal procedure.

NOTE: On "B" styles, objectionable slack in either support can be corrected by rotating support plate(s) at body lock pillar.

TAIL GATE ASSEMBLY

The basic hardware on all station wagon tail gates is similar regardless of style involved; however, for purpose of identification, refer to Fig. 9-8 for "B" styles and Fig. 9-9 for "A" styles.

Removal and Installation

1. Open tail gate to an approximate vertical position to relieve torque rod tension.

NOTE: Possible injury could occur if tension is not relieved from torque rod.

Remove torque rod retainer attaching screws and remove retainer. On "B" styles, the retainer is

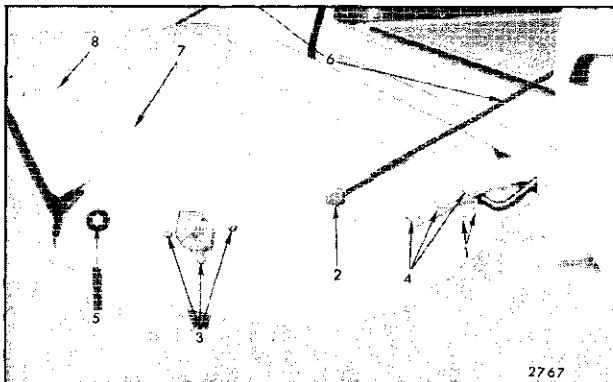


Fig. 9-7—Tail Gate Hardware — Right Side

- | | |
|--|------------------------------------|
| 1. Torque Rod Bearing Plate Screws | 5. Glass Run Channel Upper Bolt |
| 2. Support to Tail Gate Attaching Bolt | 6. Tail Gate Support Cables |
| 3. Tail Gate Lock Screws | 7. Tail Gate "Hang-on" Inner Panel |
| 4. Hinge to Tail Gate Attaching Bolts | 8. Tail Gate Inside Handle |

on the left body pillar as shown in Fig. 9-4. On "A" body styles, the retainer is located on the right body pillar (Fig. 9-6).

2. On styles equipped with power operated tail gate window, proceed as follows:
 - a. Remove inner panel cover, water deflector and access hole cover.
 - b. Remove tail gate window as described under "Tail Gate Window Assembly, Removal and Installation".
 - c. Disconnect wire harness at key switch, jamb switch and at motor. Remove harness from tail gate.
3. While properly supporting tail gate, remove right and left support to gate attaching screws and fold supports against body (See Fig. 9-5 and 9-7).
4. With the aid of a helper, remove right and left tail gate hinge to gate attaching bolts and remove tail gate from body (See Figs. 9-5 and 9-7).
5. To install, reverse removal procedure. Prior to installation, apply a coat of heavy bodied sealer to surface of hinges that contact tail gate.

Adjustments

Up or down and fore or aft adjustment is provided at hinge to gate attaching bolts. Side to side adjust-

ment 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— Station Wagon Styles

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 Fig. 9-10.

NOTE: On styles equipped with power operating 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 the gate in the open position. The jamb switch is located on the left side on "B" styles and on the right side on "A" styles. The switch is similar in design and may be engaged by finger pressure. (See Fig. 9-5).

3. Remove right and left cam attaching bolts (Fig. 9-10). Slide cams 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 and Electric

Removal and Installation

1. Remove tail gate window assembly.
2. On styles equipped with a power operated tail gate window assembly, disconnect electric harness at regulator motor connector.

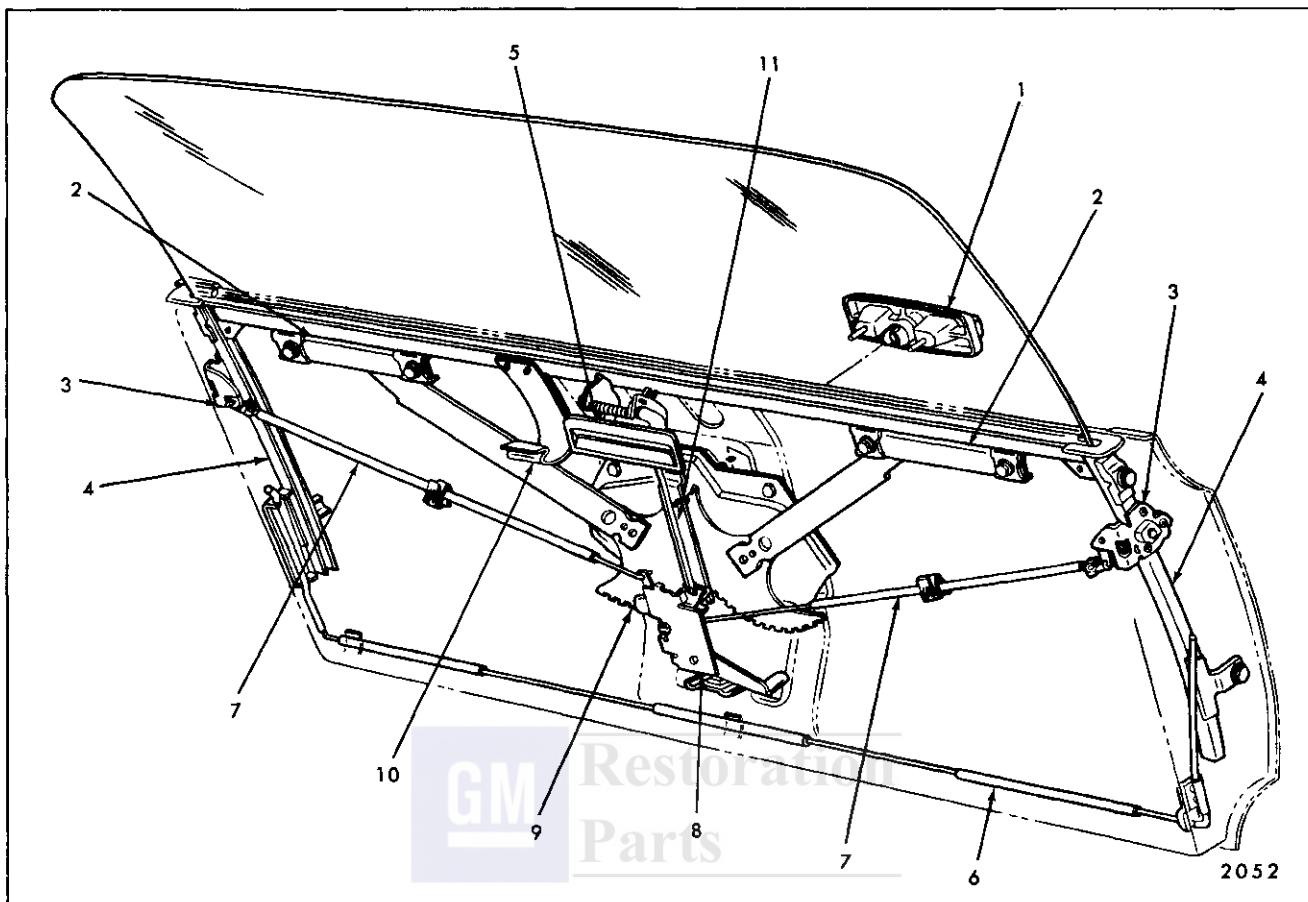


Fig. 9-8—Tail Gate Hardware - "B" Body Styles

- | | | | |
|---------------------------------|-----------------------------|-----------------------------------|----------------------------|
| 1. Outside Handle or Key Switch | 4. Lower Glass Run Channels | 7. Remote Control Connecting Rods | 10. Anti-Rattle Clip |
| 2. Sash Channel Cams | 5. Inside Handle | 8. Remote Control | 11. Inside Handle Push Rod |
| 3. Locks | 6. Torque Rod | 9. Regulator | |

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 and remove regulator, with motor attached, from tail gate.
4. To install, reverse removal procedure.

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 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. 9-11). DO NOT drill hole closer than 1/2" to edge of sector gear or back plate. Install a pan head sheet metal tapping screw (#10-12 x 5/8) in drilled hole to lock sector gears in position.

TAIL GATE WINDOW ELECTRIC REGULATOR MOTOR ASSEMBLY

Removal

1. Open tail gate and remove tail gate inner cover panel.

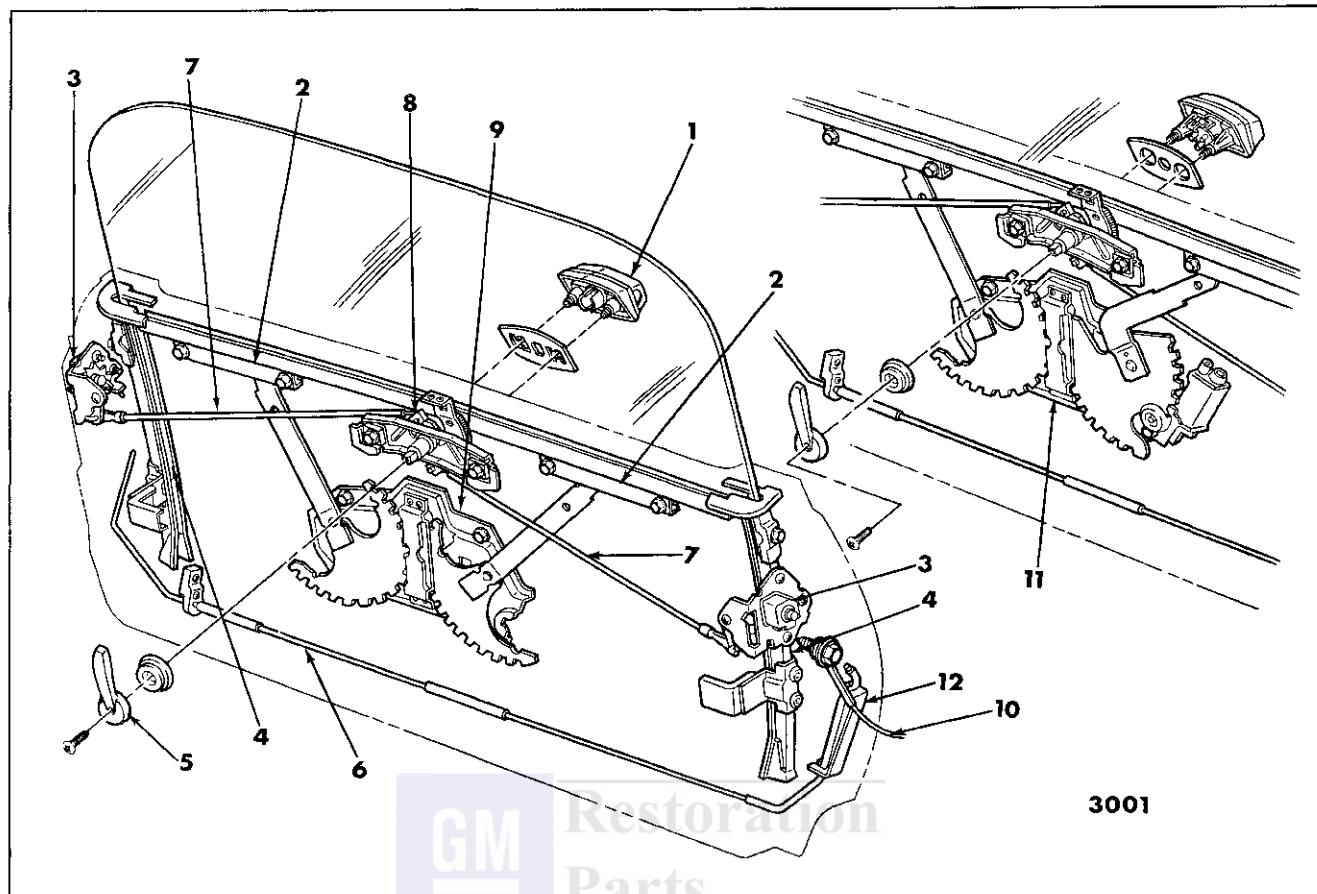


Fig. 9-9—Tail Gate Hardware "A" Body Styles

1. Outside Handle or Key Switch
2. Sash Channel Cam
3. Locks
4. Lower Glass Run Channels

5. Inside Handle
6. Torque Rod
7. Remote Control Connecting Rods
8. Remote Control

9. Regulator
10. Tail Gate Support Cable
11. Electric Regulator Assembly
12. Torque Rod Retaining Bracket

5. Loosen regulator right upper attaching screw. Remove the three regulator motor attaching screws and remove motor assembly from regulator and tail gate.

gate window prior to installation of inner panel access hole cover, water deflector and cover panel.

Installation

1. Lubricate the motor drive gear and regulator sector teeth with Lubriplate or its equivalent.
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, which locks sector gears into a fixed position.
4. Connect wire harness to motor and cycle tail

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. 9-12).
3. Remove nuts securing handle (or key switch)

to tail gate and remove handle and sealing gasket (See Fig. 9-13).

NOTE: On electrical styles, disconnect wire harness from connector on escutcheon (key switch).

4. To install, reverse removal procedure.

TAIL GATE WINDOW LOWER GLASS RUN CHANNELS

Removal and Installation

1. Remove inner panel cover, water deflector and access hole cover on side from which run channel is to be removed.
2. Remove lower attaching bolt which is accessible through access hole on "A" styles, and is located on tail gate side outer panel on "B" styles (Fig. 9-5 for "B" styles).
3. Remove run channel upper attaching bolt (Fig. 9-5).
4. Pull run channel(s) down into tail gate and remove through inner panel access hole.
5. To install, reverse removal procedure.

NOTE: It may be necessary to apply silicone to the corner sealing strip portion of the run channel(s) to permit easier removal and installation.

TAIL GATE JAMB SWITCH— Electric Option

The purpose of the electric jamb switch is to pre-

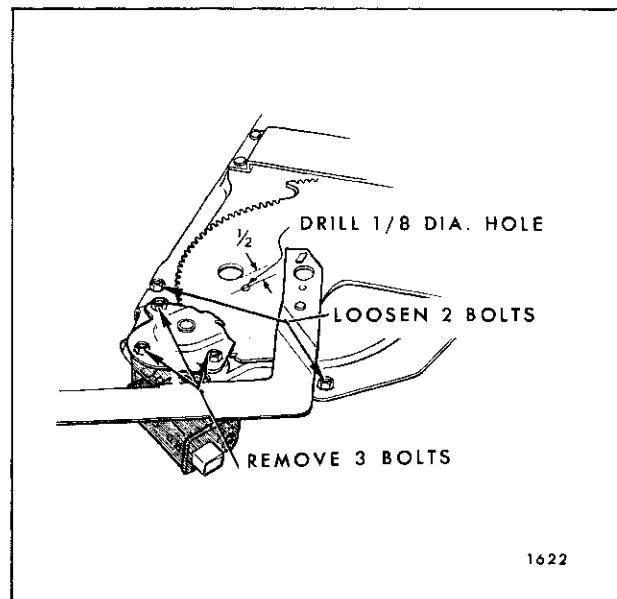


Fig. 9-11—Tail Gate Regulator Motor Assembly

vent operation of the tail gate glass while the gate is in the open position.

Removal and Installation

1. Remove jamb switch to tail gate attaching screws, disconnect attached feed wire and remove switch (See Fig. 9-14).

NOTE: Figure 9-14 illustrates the jamb switch on "B" styles. "A" styles are similar but attached on the right side of the gate.

2. To install, reverse removal procedure.

TAIL GATE REMOTE CONTROL INSIDE HANDLE

Removal and Installation—"B" Styles

1. Raise inside handle and disengage remote push rod from spring clip (See Fig. 9-15).
2. Remove screws securing handle to inner panel and remove handle.
3. To install, reverse removal procedure.

NOTE: The inside handle on "A" body station wagon and pick-up delivery styles is retained by a single attaching screw.

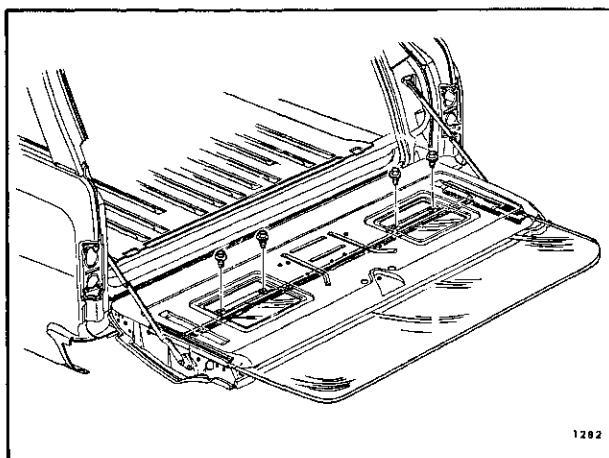


Fig. 9-10—Tail Gate Inner Panel Cam Attachments

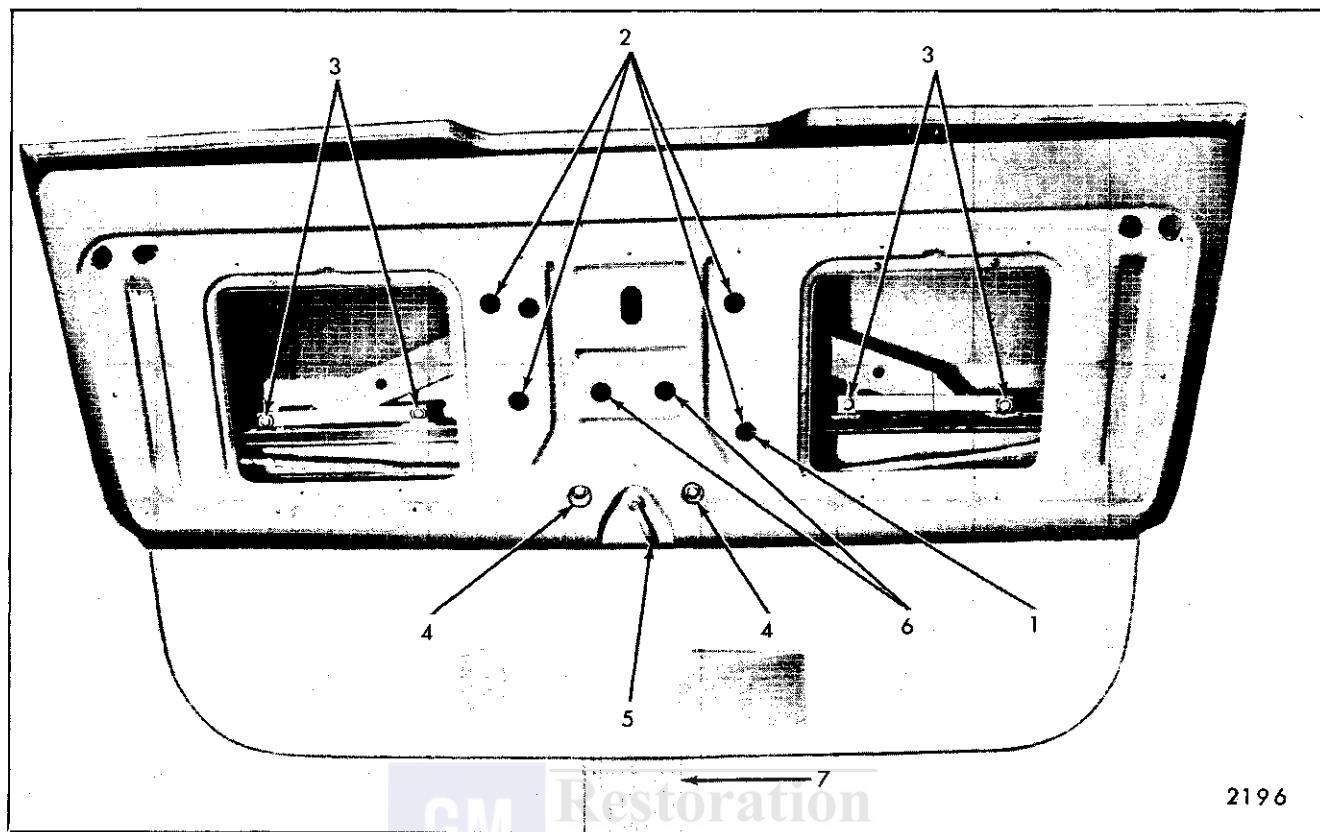


Fig. 9-12—Tail Gate Window Hardware

- | | | |
|---|--|--|
| 1. Access Hole for Regulator Adjusting Screw | 3. Window Lower Sash Channel Cams Attaching Screws | 5. Lock Remote Control Handle Attaching Screw |
| 2. Access Holes for Window Regulator Attaching Screws | 4. Lock Remote Control Attaching Screws | 6. Access Holes for Outside Handle or Key Switch |
| | | 7. Support Glass |

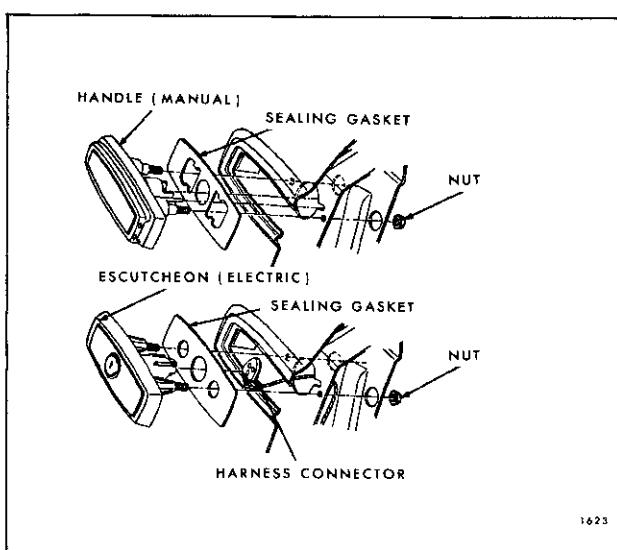


Fig. 9-13—Tail Gate Outside Handle Assemblies

TAIL GATE LOCK REMOTE CONTROL ASSEMBLY

Removal and Installation

1. Remove inner panel cover, water deflector and access hole covers.
2. Disconnect remote control to lock connecting rods at remote assembly by sliding clip out of engagement.
3. Remove remote control attaching bolts and remove assembly from tail gate. On "B" styles, it is necessary to disengage remote from inside handle push rod (See Fig. 9-16).
4. To install, reverse removal procedure.

NOTE: The remote adjusting nut can be adjusted to trip both locks simultaneously.

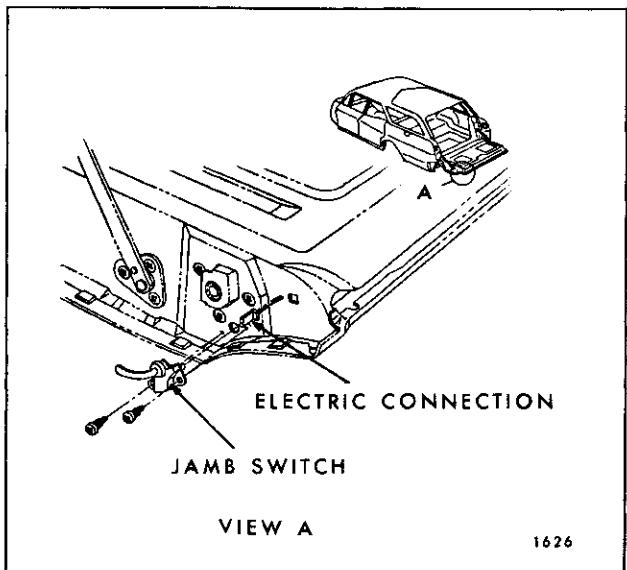


Fig. 9-14—Tail Gate Jamb Switch

TAIL GATE LOCK ASSEMBLY— Right or Left Side

Removal and Installation

1. Remove inner panel cover, water deflector and access hole cover from side which lock is to be removed.
2. On station wagon styles, raise glass assembly

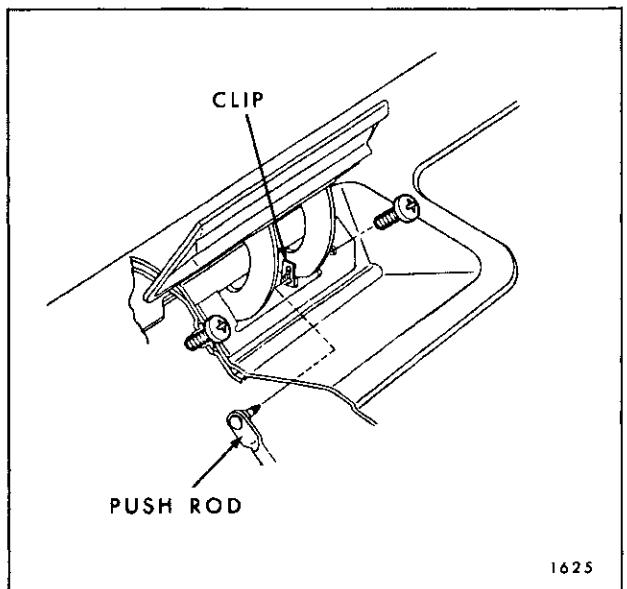


Fig. 9-15—Tail Gate Inside Handle Attachment

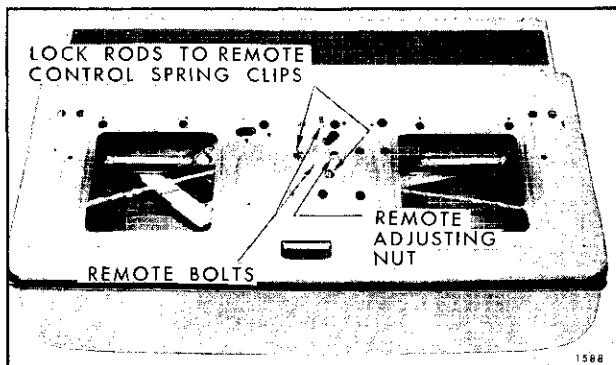


Fig. 9-16—Tail Gate Hardware - "B" Body Styles

- to full "up" position and 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 (Fig. 9-17 and Fig. 9-7).
 4. Disengage clip which secures remote rod to lock and remove lock through access hole.
 5. To install, reverse removal procedure.

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. 9-4).
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. 9-18).

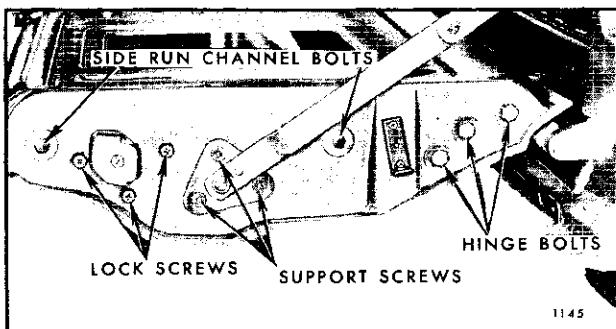


Fig. 9-17—Tail Gate Lock and Support - "B" Body Styles

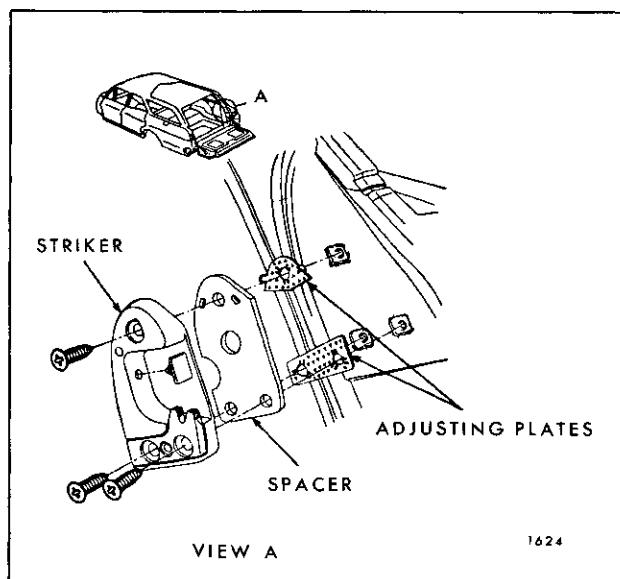


Fig. 9-18—Tail Gate Lock Striker Assembly - "A" and "B" Body Styles

TAIL GATE LOCK STRIKER ADJUSTMENTS

- 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.
- 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 measurable impression in the clay or caulking compound, as shown in Figure 9-19.

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 $1/16"$.

TAIL GATE TORQUE ROD— Station Wagon Styles

Removal and Installation

- Remove tail gate window assembly and torque rod retainer (See Figure 9-4 for "B" body styles and Figure 9-7 for "A" body styles).
- Remove screws securing torque rod bearing plate to tail gate (See Figure 9-5 for "B" styles and Figure 9-7 for "A" Styles).
- Disengage torque rod from welded retainers. The retainer is located on the right side on "B" styles and on the left side on "A" styles. (See Fig. 9-20).
- Remove torque rod silencer (rubber) from torque rod, and work torque rod out through glass loading hole (See Fig. 9-20).
- To install, reverse removal procedure.

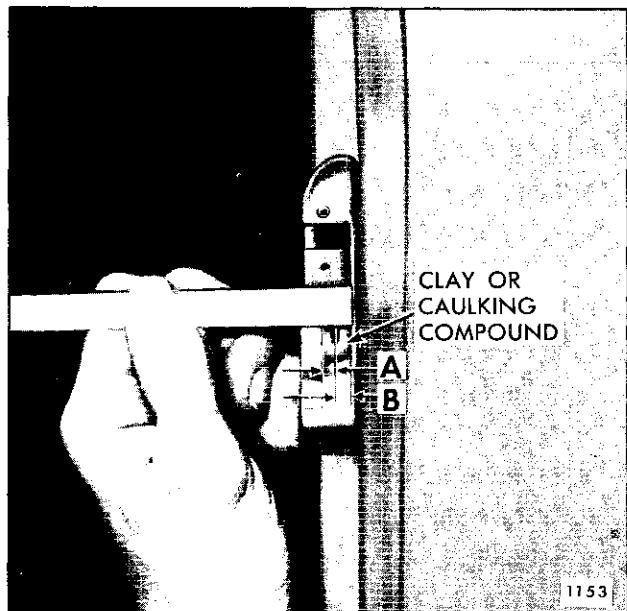


Fig. 9-19—Tail Gate Lock Striker Caulking Check

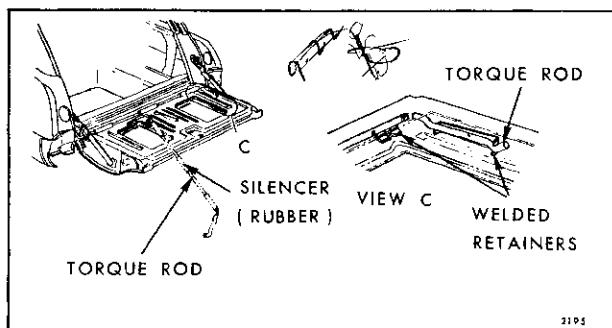


Fig. 9-20—Tail Gate Torque Rod Assembly

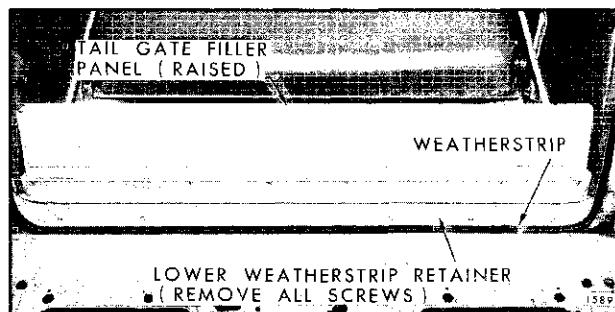


Fig. 9-22—Tail Gate Weatherstrip Retention — "B" Body Styles

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. 9-21).

TAIL GATE BOTTOM DRAIN HOLE SEALING STRIPS

Removal and Installation

- With a flat-bladed tool carefully pry out snap-on fastener at each end of strip and remove sealing strip from tail gate.



Fig. 9-21—Tail Gate Strip Assembly Removal

- 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

- Open tail gate and remove fasteners and/or screws securing weatherstrip to right and left body pillars (at belt). On "B" styles, remove screws securing lower weatherstrip retainer to rear body cross bar (See Fig. 9-22).
- With a flat bladed tool, carefully remove weatherstrip along entire tail gate opening.

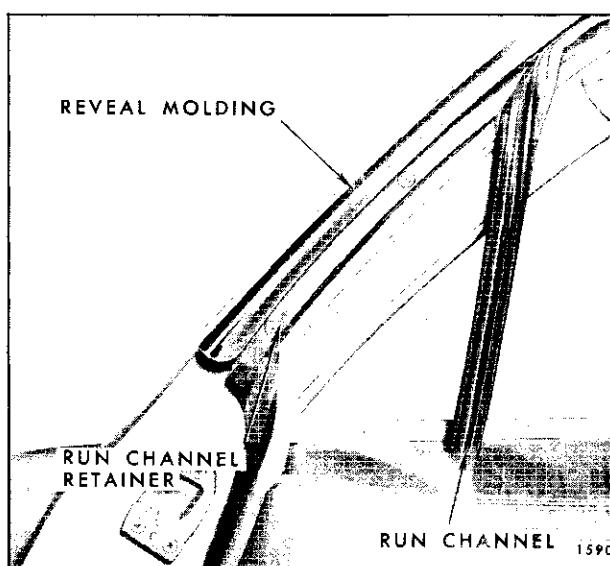


Fig. 9-23—Tail Gate Upper Glass Run Channel Retention

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—"A & B" Body Styles

Removal and Installation

3. To install, apply a bead of black weatherstrip cement into retainer along entire opening and reverse removal procedure.
2. Once run channel has been removed, the retainer attaching screws are exposed. (See Fig. 9-23) The retainer can be adjusted by loosening attaching screws, shifting retainer to desired position and tightening screws. If retainer is removed, seal retainer with medium bodied sealer prior to installation.

1. Open tail gate. With finger pressure only,

3. To install, reverse removal procedure.



SECTION 10

TRIM CLEANING

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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, or pattern fabrics which are manufactured with synthetic (nylon, rayon) fibers.
2. Genuine leather.
3. Coated fabrics (vinyl or mylar).
4. Flocked headlining.

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 flocked headlining use whisk broom and volatile cleaners only. Detergents leave rings.

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 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 non-flammable 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 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 or household bleaching agents on the top material.

NOTE: Volatile cleaners may be used in certain instances when stubborn sealer or cement stains are encountered. However, EXTREME CAUTION must be exercised as damage to the fabric finish may result.

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.

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 scraping 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. If odor persists treat area with a water-baking soda solution (1 teaspoon baking soda to 1 cup of tepid 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.

CAUTION: It is possible that the cleaner will dissolve the tar causing it to bleed. Generally tar

will stain trim materials and this type of stain will be very difficult to remove.

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.

Ball Point Ink

Sponge stain with cool water, work a detergent into it and rinse. Generally this type stain will be very difficult to remove.

SECTION 11

HEADLINING

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HEADLINING—CLOTH AND VINYL COATED (Soft) 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.

On certain styles, the listing wires are further attached to the roof panel by snap-in type clips on the front to rear longitudinal roof bow (See View "C" in Fig. 11-1).

When 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 "A", Fig. 11-1).

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 finishing lace is also used to assist in retaining the headlining. The side roof rail garnish moldings are secured to the headlining retainer by clips that are located in the molding (See Fig. 11-2).

At the roof extension area, the headlining is se-

cured either by cement to a metal retainer or by tacks or staples to a trim stick.

The upper quarter trim panel is secured in the roof extension area by retaining clips. On certain styles, the upper quarter trim panel is additionally secured by cementing the forward edge to the side roof rail (See Fig. 11-3 for typical type attachments).

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 upper trim assembly.

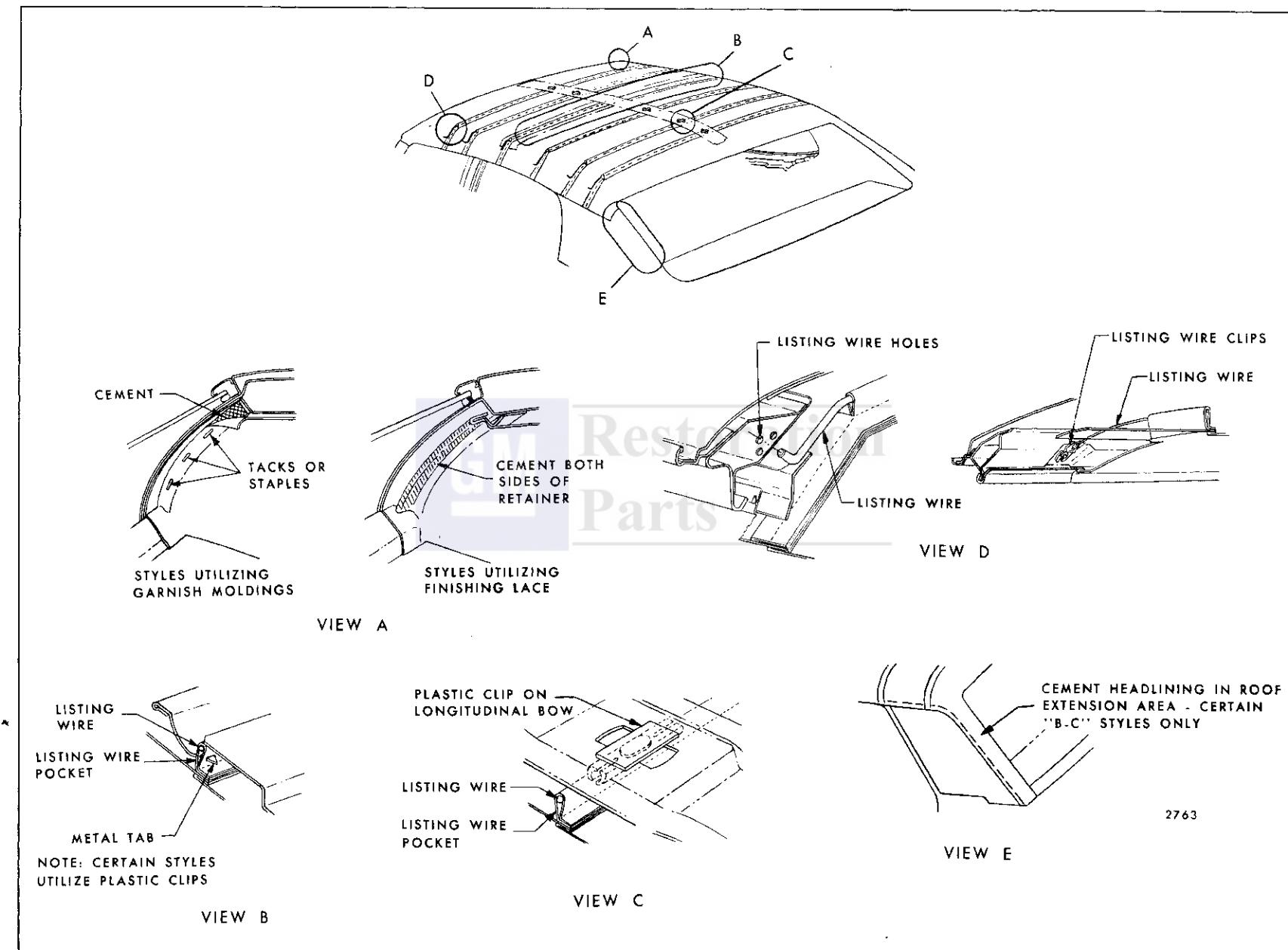


Fig. 11-1—Typical Cloth and Vinyl Headlining Installations

- i. Rear quarter trim, where necessary.
- j. Quarter upper trim finishing panel.
- k. Back body opening garnish moldings or finishing lace.
- l. Shoulder strap anchor plate and escutcheon.
3. Carefully remove tacks or staples securing headlining at windshield and back window opening or back body opening.
4. On styles using pronged retainer, 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 inner rails and supporting clips on longitudinal (front to rear) bow on styles so equipped (View "C" in Fig. 11-1). In like manner, working from rear of body, disengage listing wires from side roof rails and supporting clips on longitudinal bow. Exercise care to keep headlining material clean by gathering or folding headlining with listing wires on outside.
7. Depending on style, bend down tabs securing No. 3 listing wire or disengage No. 3 listing wire from plastic clips on structural bow 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.

Installation

1. If previously removed, install listing wires into corresponding pockets of new headlining assembly.
2. Apply an approved non-staining trim cement to headlining attaching surface at windshield, side roof rail and back window or back body

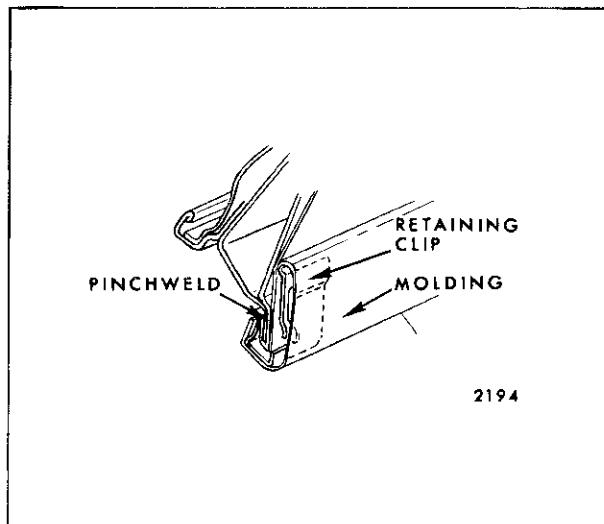


Fig. 11-2—Side Roof Rail Garnish Moldings

opening. On styles that utilize finishing lace be certain cement is applied to both sides of retainers (See View "A" in Fig. 11-1).

3. Lift headlining assembly into body and install No. 3 listing wire and listing wire pocket over metal tabs at roof bow and bend up tabs to secure wire to bow. On styles that incorporate plastic clips in place of metal tab, snap No. 3 listing wire into clips. Make certain headlining is cemented in body (See Views "B & C" in Fig. 11-1).
4. Working rearward from No. 3 listing wire, install listing wires in side roof rails and snap listing wires into plastic clips on longitudinal bow (on styles equipped with longitudinal bow). In like manner, working forward, install remaining listing wires (View "C" in Fig. 11-1).

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 (View "D" in Fig. 11-1).

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.

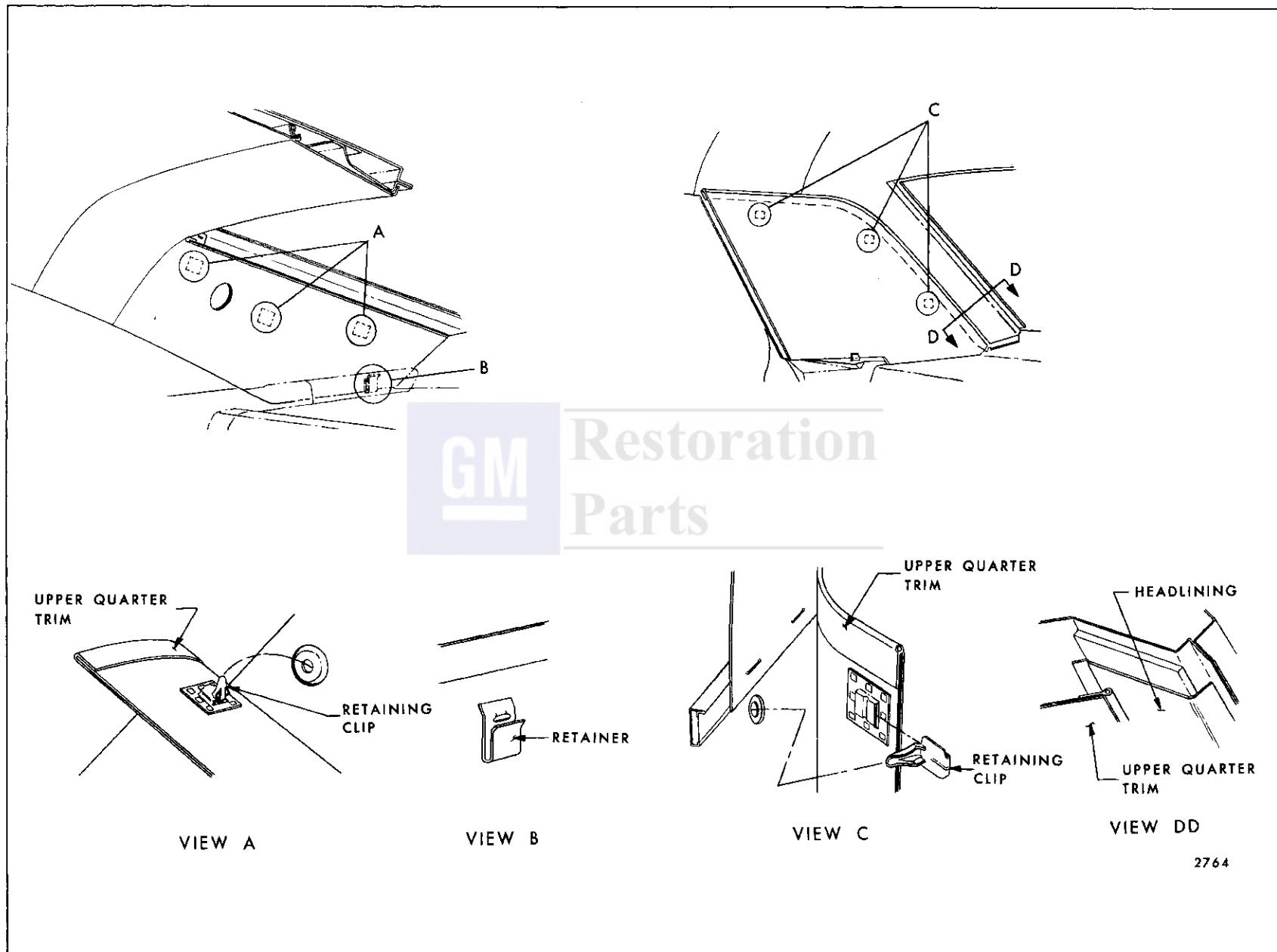


Fig. 11-3—Typical Upper Quarter Trim Finishing Panels

HEADLINING—FLOCKED HEADLININGS

DESCRIPTION

The flocked headlining assembly consists 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, coat hook spacers (if present) and shoulder strap anchor plates and escutcheons.
3. With flat-bladed tool, carefully pry one end of plastic moldings from retainer (View "C", Fig. 11-4). 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. 11-4). Retainer spacers are installed between the metal retainers and roof (View "D", Fig. 11-4).

Installation

1. If retainers were removed, make certain that retainer spacer shown in View "D", of Figure 11-4 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; then carefully snap remaining edge in other retainer. Snap plastic molding over retainers (View "C", Fig. 11-4).
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. 11-4).
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. 11-4). 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 which may be removed and replaced separately.

The front headlining is formed to the contour of the roof panel by concealed listing wires. The ends of the listing wires are installed into holes in the side roof inner rails (View "B", Fig. 11-5) and may be adjusted up and down or fore and aft.

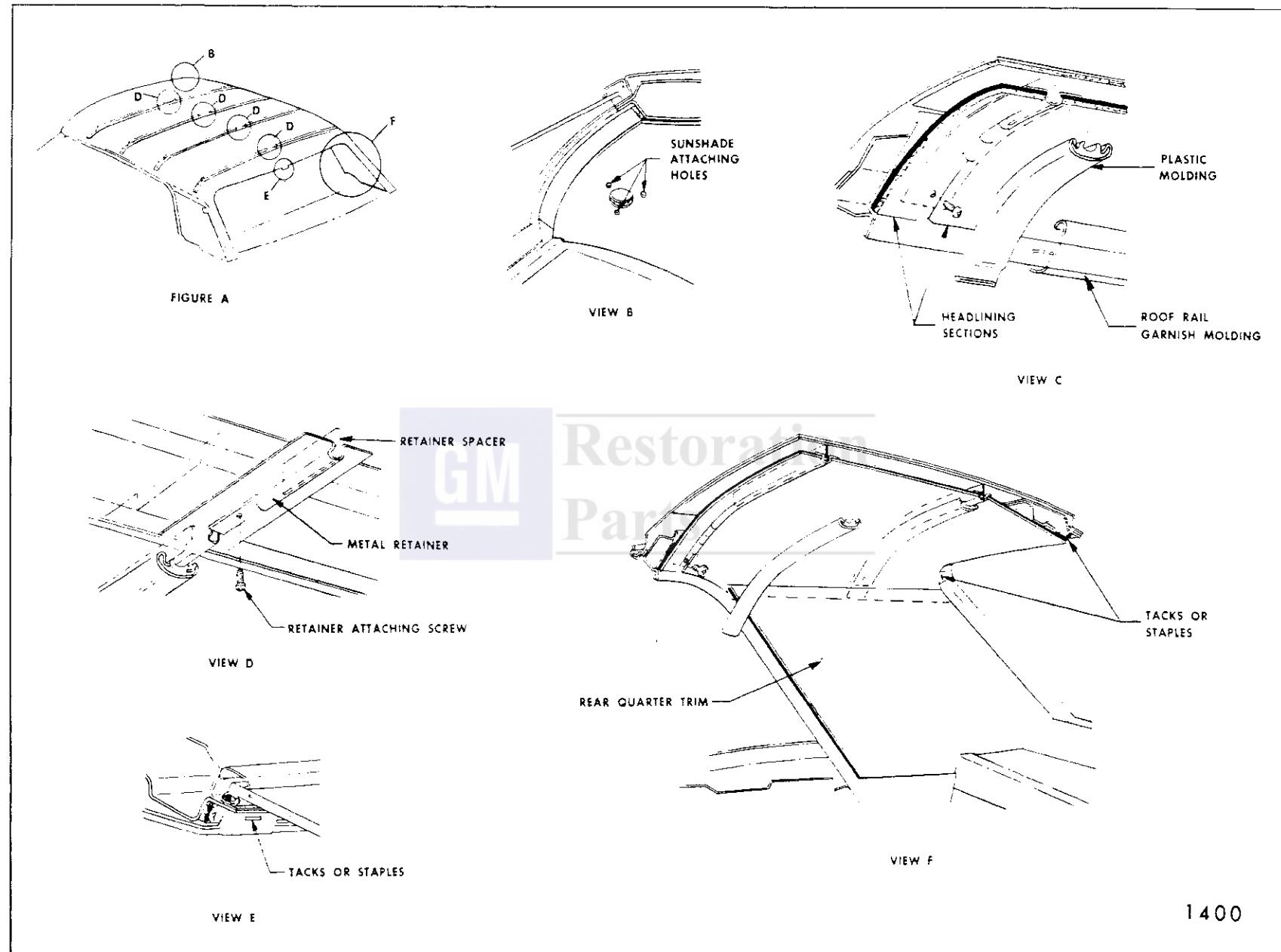


Fig. 11-4—Flocked Headlining Installation

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The headlining material is cemented to metal retainers and side roof rail pinchweld flanges (View "A", Fig. 11-5). 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. The ends of the listing wires are installed into clips which are secured to the side roof inner rails by screws (View "E", Fig. 11-5). The edges of the material are cemented to the retainer flanges. 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 headlining finishing lace.
 - i. Rear of headlining finishing lace.
 - j. Finishing lace over front and rear doors.
 - k. Shoulder strap anchor plate and escutcheon.
3. Starting at front, carefully detach all cemented edges of headlining material from retainers and flanges.
4. Disengage No. 2 listing wire from plastic clips on structural bow and remove listing wires from inner rails. Gather or roll headlining with listing wires on outside to keep headlining clean and remove old headlining assembly. (View "C", Fig. 11-5).

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.

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 rails and snap No. 2 listing wire into plastic clips on structural bow (View "B & C", Fig. 11-5).

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. Side skylight front upper garnish molding.
 - c. Rear roof headlining trim finish molding.
 - d. 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 "E", Fig. 11-5).
5. At rear listing wire, bend down tabs securing wire to bow (View "F", Fig. 11-5).
6. Gather or roll headlining with listing wires on outside to keep headlining clean and remove headlining assembly from car.

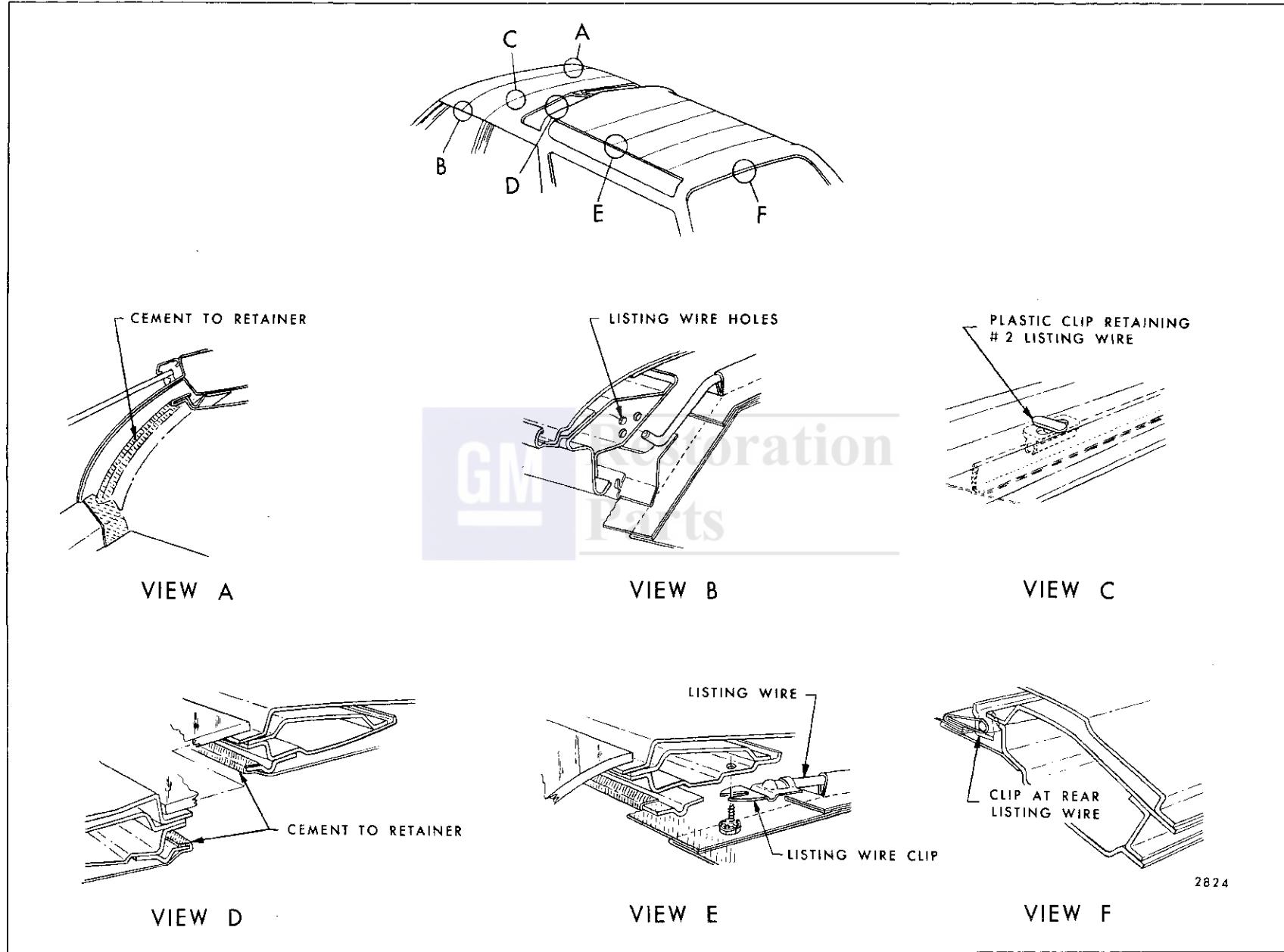


Fig. 11-5—Headlining Installation - "55" and "65" Styles

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 metal tabs at rear bow and bend down tabs (View "F", Fig. 11-5).

5. Working forward install remainder of listing wires into clips and secure clips to roof (View "E", Fig. 11-5).
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.

HEADLINING—VINYL—ONE PIECE FORMED (Hard)

DESCRIPTION

The one piece formed headlining consists of a continuous sheet of foam backed vinyl which is bonded to hard fibre board.

Due to this one piece formed design, the headlining must be removed and replaced as a complete assembly.

Removal

1. Remove the following items:
 - a. Courtesy lamps
 - b. Rear view mirror support
 - c. Coat hooks
 - d. Upper quarter trim finishing panels
 - e. Side roof rail moldings
 - f. Windshield and back window garnish moldings
 - g. Shoulder strap anchor plate and escutcheon.
2. Remove screw located in upper rear corners of headlining.
3. While supporting headlining with hand, remove right and left sunshade brackets.
4. Carefully lower headlining from roof panel and remove from car.

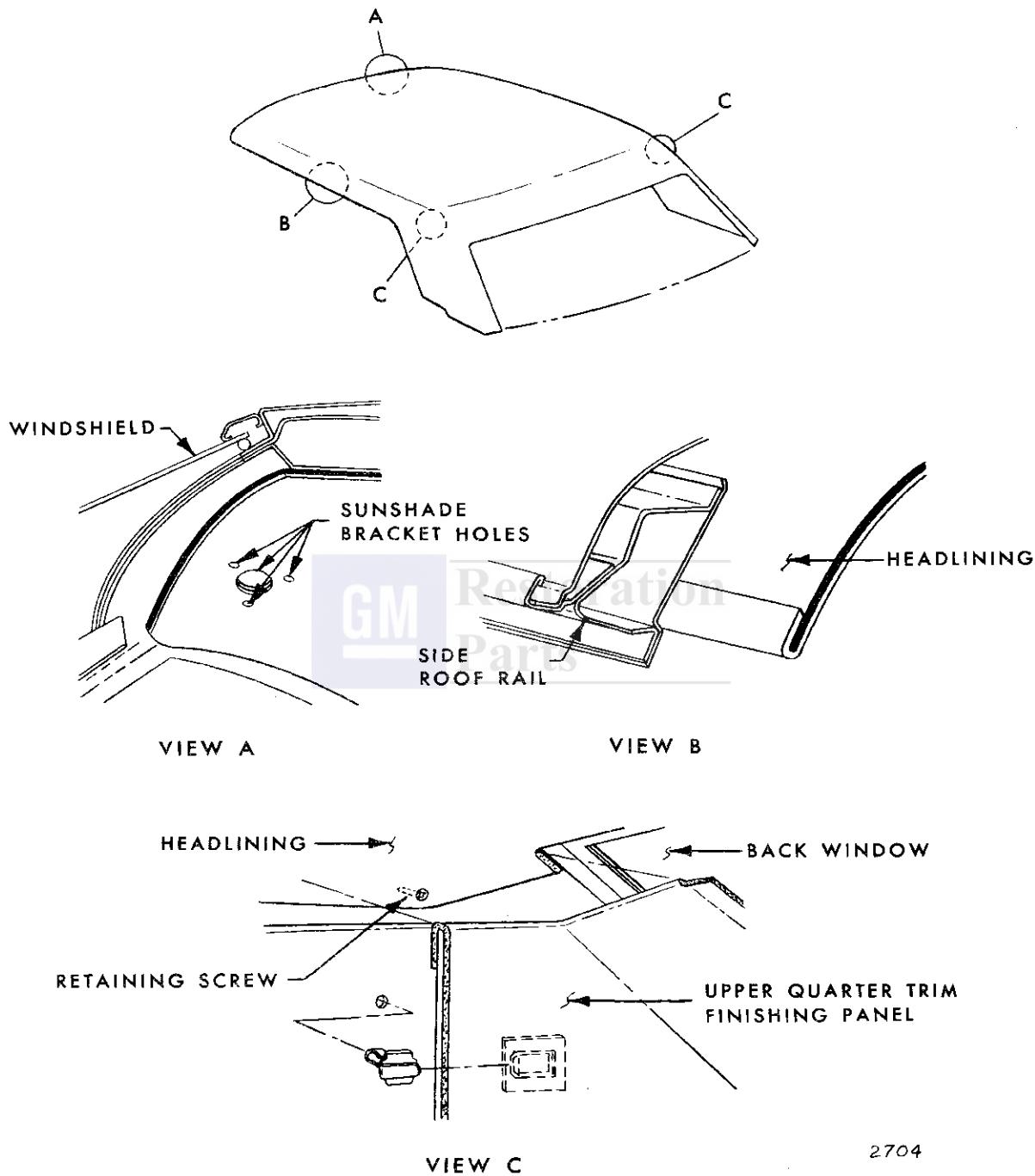
NOTE: In some instances it may be necessary to slightly press headlining upward and laterally in order to disengage headlining from side roof rails (See View "B" in Fig. 11-6).

Installation

1. Position headlining to roof panel making certain holes in rear of headlining align with holes in sail area and holes for sunshade brackets align with holes in roof panel (Views "A" and "C" in Fig. 11-6).

NOTE: Sides of headlining must rest on side roof rails (View "B" in Fig. 11-6). Headlining must also be held in place while the following steps are performed.

2. Install sunshade supports inserting one screw in each.
3. Install right and left coat hooks.
4. While firmly pressing on headlining, insert screws at upper rear corners of headlining. Make certain screws are completely driven. (View "C" in Figure 11-6).
5. Install balance of screws in right and left sunshade bracket.
6. Re-inspect headlining for proper alignment along front, rear and sides. Minor adjustments can be effected as necessary at screw locations.
7. Install all previously removed hardware.



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Fig. 11-6—One Piece Formed Headlining Installation

SECTION 12

ROOF COVER

INDEX

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FABRIC ROOF COVER (ALL STYLES EXCEPT STATION WAGONS)

DESCRIPTION

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

Depending upon the car and body type, the fabric cover is applied to the roof panel in one of the following two basic methods using a non-staining vinyl trim adhesive.

1. A padding is cemented to the roof panel surface and then the cover applied over the pad and cemented along the outer perimeter only.
2. The cover is cemented directly to the entire roof panel surface.

In addition, certain roof panel molding treatment may appear with either type of installation. The type of molding treatment will determine whether the cover will extend into the windshield or back window opening and drip molding.

On styles where the cover extends into the windshield and back window opening, the cover is retained in the opening by cement, clips installed over weld-on studs and drive nails or self-sealing screws. When the cover extends into the drip molding, it is retained in the drip by either a flexible retainer or the drip scalp molding.

Removal

1. The following parts must be removed prior to removing the fabric roof cover.
 - a. Upper and both side windshield and back window reveal moldings (except on styles where the cover does not extend into either the windshield or back window opening).

b. Roof drip molding scalps (when cover extends into drip molding).

c. Flexible retainers and Retainer clip in drip moldings (on styles so equipped).

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

e. Roof cover retainer to rear body lock pillar ("A-39" Styles).

f. Roof extension panel emblem or nameplate assembly (if present).

g. All roof panel moldings and molding retainers (on styles so equipped).

h. Quarter window lower reveal molding (on styles where fabric cover extends under reveal molding).

2. Remove reveal molding clips across top and sides of windshield and/or back glass openings. On styles where fabric cover extends below back window, remove reveal molding clips along bottom of back window opening.

NOTE: In the event an emergency type clip has been installed and retaining screw is not accessible, carefully trim roof cover around clip.

3. Remove all drive nails or self-sealing screws that are present in windshield and back window opening and at roof extension area.

CAUTION: When removing drive nails or screws, edge of glass must be protected. Two to three layers of cloth body tape should be used.

NOTE: Drive nails can best be removed by first driving a screwdriver or suitable tool under the

heads of 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.

- 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.

- Loosen all cemented edges of fabric roof cover, 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 to avoid damage to the pad.

- On styles equipped with pad, inspect padding and replace any 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.

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

Installation—Styles with Pad

- On style 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 cement will not contact paint or adhesive caulking material. On all other styles, mask windshield and back window, all doors and flat painted surfaces (hood, rear compartment lid, etc).
- 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 12-1 will aid in removing wrinkles.

- Determine center line of roof panel by marking center points on windshield and back window opening with tape or equivalent.
- Lay cover on roof panel and fold cover lengthwise, precisely at center location. Mark center location at front and rear of cover.
- Remove cover from roof panel and lay cover with lining side upward on a clean flat area.
- Apply nitrile type vinyl trim adhesive to that part of lining side of cover that will contact the metal portion of the roof panel. Cement should be applied so it will overlap the pad approximately 1".

NOTE: It is recommended that the vinyl trim adhesive be applied with a spray gun. As an alternate method, a brush or roller may be used. If spraying method is utilized, a spray gun with a pressure cup and specific Fluid Tip and air cap should be used as shown on chart below (or equivalent).

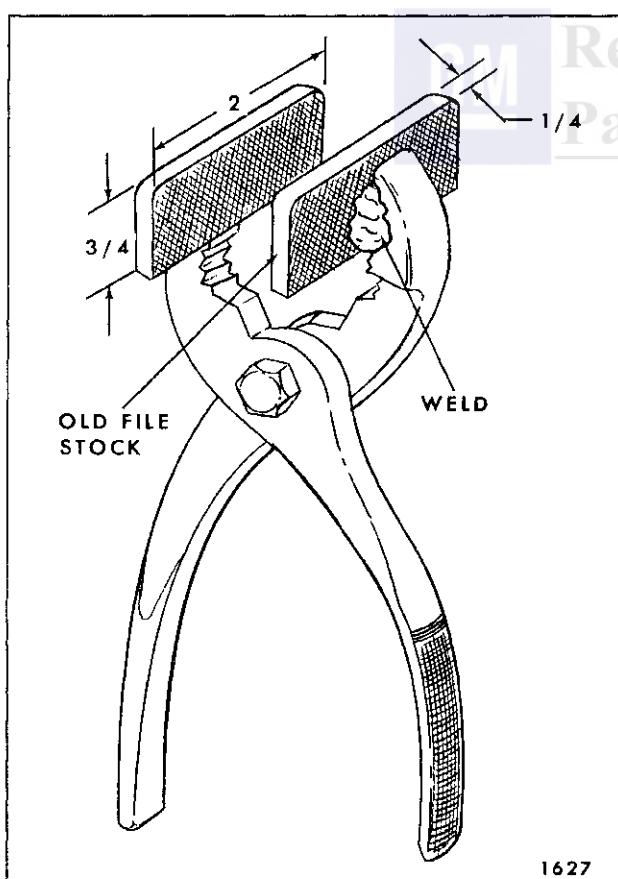


Fig. 12-1—Fabric Roof Cover Pliers

	Devilbiss		Binks	
Gun Model	MBC-510	JGA-502	62	18
1 Qt. Pressure	KB-519	KB-519	80-256	80-210
Air Cap	24	24	66PG	66PG
Fluid Tip	E	E	66	66
Fluid Needle	E	E	365	65

The recommended air pressures are as follows:

- A. Air Line Pressure - 50 lbs.
- B. Cup Pressure - 2 to 4 lbs.

Permalastic or 3M Vinyl Trim Adhesive purchased in the field is of spraying consistency. If rolling method is used, a mohair type roller should be utilized. Make certain cement is applied evenly and there are no highlights from excess cement build-up.

7. Allow cement on fabric roof cover to dry thoroughly.
8. Lay cover on roof panel and align to correspond with centerline of roof panel. Determine proper material overhang to windshield and back window openings (approximately 2" overhang at seam area at back window and windshield opening).
9. Cut relief notches in cover at all weld-on studs and angle cuts as required in corners of back window opening. Apply cement to back window opening and cement cover in opening. In the event a reveal molding clip could not be removed, trim cover around clip and cement cover down behind clip (See Figs. 12-2 & 3).
10. Making certain the edge of back glass is protected, install drive nails or self-sealing screws at seam areas, installing drive nails or screws as low in opening as possible.
11. Apply cement to one side of exposed roof panel (including drip molding except styles that are equipped with roof panel moldings) where cover is attached (make certain cement overlaps pad approximately 1") and cement cover to cemented areas. Where roof panel moldings are present, relief notches must be cut in cover at weld-on studs on roof panel. (View "A", Fig. 12-3).
12. Repeat step 11 on opposite half of roof panel.
13. Repeat steps 9 and 10 in windshield opening (except on styles with roof panel moldings).
14. On styles without roof panel moldings, install additional drive nails across top of windshield opening approximately 3" apart and 2 in each corner. (View "A", Fig. 12-2)
15. On all styles install drive nails across top and down sides of back window opening approximately 3" apart and 2 in each upper corner.

(View "D", Fig. 12-2 and View "C", Fig. 12-3).

16. Carefully install drive nails as low as possible above each reveal molding clip that could not be removed.

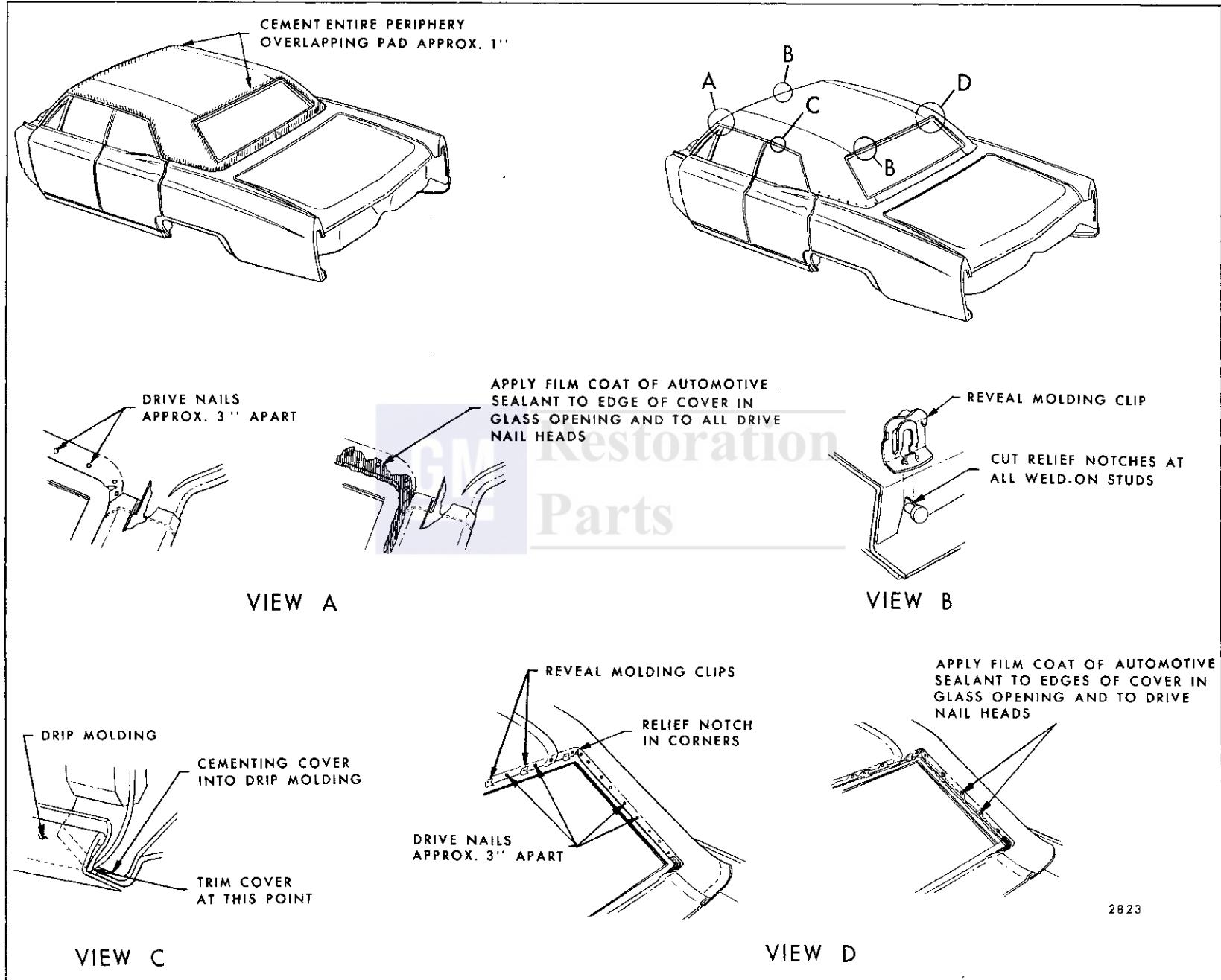
NOTE: When installing drive nails it is best to first use an awl or similar tool to initiate a hole in metal. Strike drive nails only hard enough to seat them. Installation of drive nails should also be as low as possible in windshield and/or back window opening.

17. Apply cement to roof extension areas overlapping pad by 1" and below back window opening.
18. Cement cover below back window opening, and then in roof extension area (right and left side).

NOTE: Cement cover at roof extension areas by pulling cover down and rearward. When operation is completed, fabric cover should be free of all wrinkles and draws in this area.

19. On styles equipped with roof panel moldings perform the following:
 - a. Position roof panel molding retainers over weld-on studs and install retaining clips.
 - b. Trim fabric cover in a line along retainers. 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. Re-cement fabric cover to roof panel. Remove masking tape from roof panel. (View "A", Fig. 12-3).
20. On styles without roof panel moldings, cement cover to windshield pillar.
21. Trim material along belt line at roof extension area and below back window, 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.
22. Trim cover just under lip on inside of drip molding (View "A", Fig. 12-4). When trimming cover, tool J-21092 or other suitable knife may be used (Fig. 12-5).
23. Install flexible retainer into drip molding with thin edge toward outboard side. Insert tool J-22710 into rear of drip molding and roll tool toward front end of strip to seat retainer in molding (See Views in Fig. 12-6). In the

Fig. 12-2—Typical Fabric Roof Cover Installation with Pad



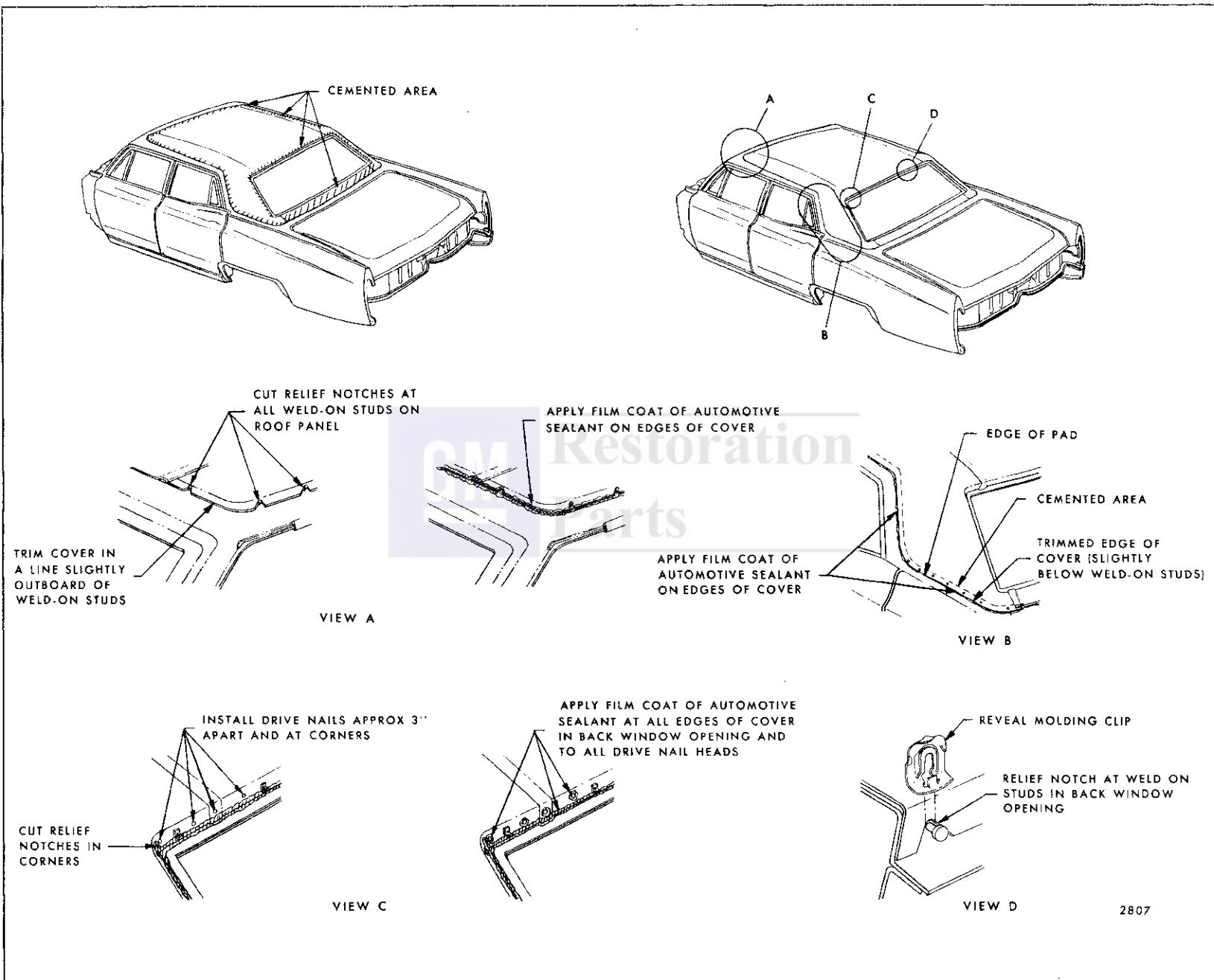
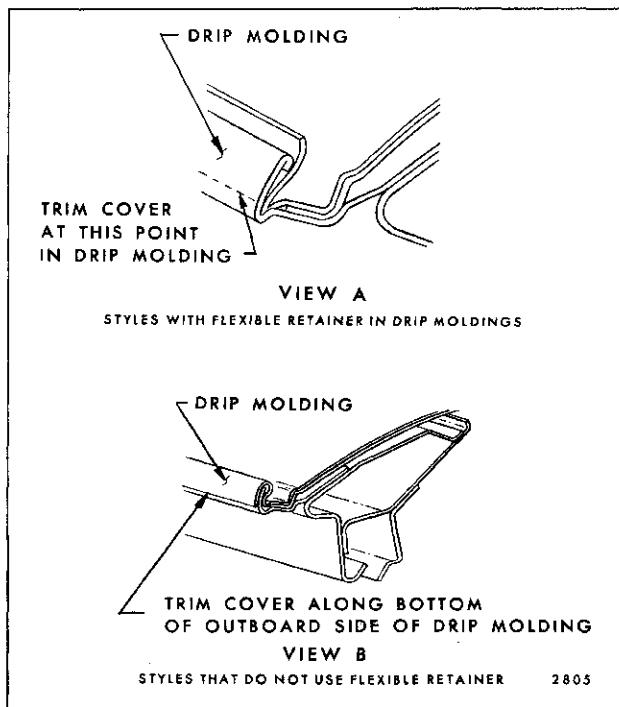


Fig. 12-3—Typical Fabric Roof Cover Installation with Pad and Roof Panel Moldings



Installation—Styles Without Pad

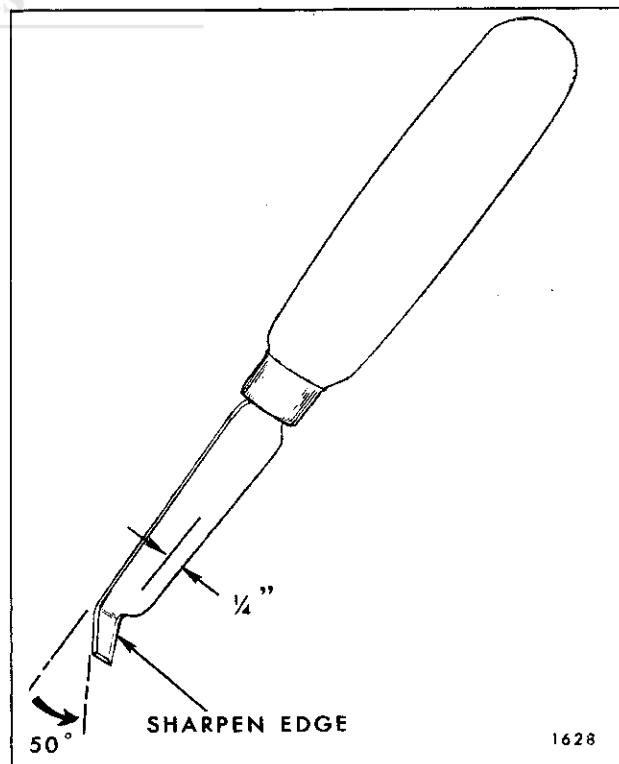
1. On styles equipped with roof panel moldings, completely mask off areas of roof panel which are not covered by fabric cover. Also, mask upper windshield or back window reveal moldings on styles where cover does not extend into these openings. On all styles, mask windshield, back window, all doors and flat painted surfaces (hood, rear compartment lid, etc.).
2. 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. In the event any metal finishing is performed on roof panel, repaired area must be painted.

NOTE: A xylol solvent such as 3M Adhesive Cleaner or equivalent should be used to remove

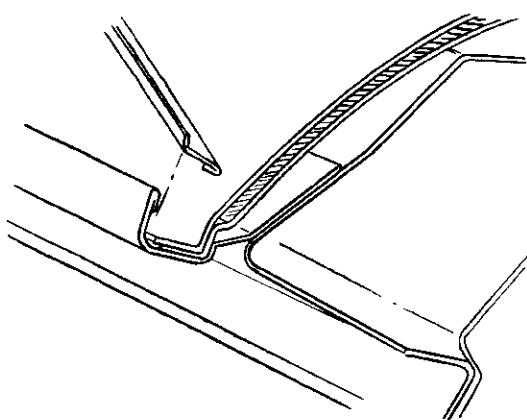
event tool J-22710 is not available, retainer can be seated in drip molding using a fibre block with slight concave end. When using this method, retainer is to be inserted so outside edge is just under lip of drip molding flange and then pushed downward with fibre block. **DO NOT DAMAGE RETAINER.**

24. Apply a "film" coat of silicone sealant such as Dow Corning Automotive Sealant, General Electric RVP Sealant, or equivalent to the edges of cover on windshield and back window opening, at belt area and at edges on roof when roof panel moldings are used. Make certain edge of material around all reveal molding clips that were not removed is also sealed (Figs. 12-2 & 12-3).
25. Remove all previously installed protective covering from windshield, back glass and body.
26. Install all previously removed moldings and assemblies.

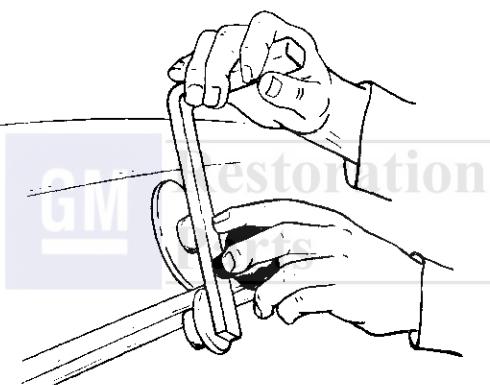
NOTE: Normally, minor creases of fold marks will gradually disappear after cover assembly has been in service.



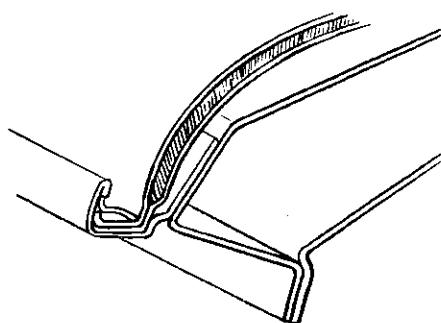
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VIEW A
PLACING RETAINER INTO DRIP MOLDING



VIEW B
SEATING RETAINER IN TO DRIP MOLDING WITH TOOL J-22710



VIEW C
CORRECT POSITION OF INSTALLED RETAINER

2804

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.

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 12-1 will aid in removing wrinkles.

4. Determine centerline of roof panel by marking center points on windshield and back window opening with tape or equivalent.
5. Lay cover on roof panel and fold cover lengthwise, precisely at center location. Mark center location at front and rear of cover.
6. Remove cover from roof panel and lay cover with lining side upward on a clean flat area.
7. Apply an even application of nitrile non-staining vinyl trim adhesive (such as 3M Vinyl Trim Adhesive or Permalastic Vinyl Trim Adhesive or equivalent) over entire lining side of fabric cover.

NOTE: It is recommended that the vinyl trim adhesive be applied with a spray gun. As an alternate method, a brush or roller may be used. If spraying method is utilized, a spray gun with a pressure cup and specific Fluid Tip and air cap should be used as shown on chart below (or equivalent).

	Devilbiss		Binks	
Gun Model	MBC-510	JGA-502	62	18
1 Qt. Pressure	KB-519	KB-519	80-256	80-210
Air Cap	24	24	66PG	66PG
Fluid Tip	E	E	66	66
Fluid Needle	E	E	365	65

The recommended air pressures are as follows:

- A. Air Line Pressure - 50 lbs.
- B. Cup Pressure - 2 to 4 lbs.

Permalastic or 3M Vinyl Trim Adhesive purchased in the field is of spraying consistency. If rolling method is used, a mohair type roller should be utilized. Make certain cement is

applied evenly and there are no highlights from excess cement build-up.

8. Allow cement on fabric roof cover to dry thoroughly.
9. Lay cover on roof panel and align to correspond with centerline of roof panel. Determine proper material overhang to windshield and back window openings (approximately 2" overhang at seam area at back window and windshield opening).
10. Fold one half of cover back at centerline and apply nitrile type vinyl trim adhesive to exposed half of roof panel (Do not include drip molding or roof extension area). Starting in center at centerline and working toward drip molding, cement cover to area while cement is wet. As cover is being "unfolded" and cemented, it should be thoroughly "slicked" down to avoid wrinkles or air bubbles.
11. Repeat Step 10 on opposite side of roof panel.

NOTE: Make certain that cover is free of wrinkles and seams are straight. Fabric cover pliers may be used in aiding removal of wrinkles.

12. On styles where the cover extends into the windshield or back window opening, perform the following (Fig. 12-7):
 - a. Cut relief notches in cover at weld-on studs across top of windshield and back window opening. Also, angle cut in corners as required.
 - b. Apply cement across the top of windshield and back window opening and cement cover. In the event any reveal molding clips could not be removed, trim cover around clip and cement cover down behind clip.

NOTE: Make certain a continuous and positive bead exists when cementing cover in windshield and back window openings.

13. Apply cement to roof extension areas and below back window opening on styles where cover extends below back window.
14. On styles where cover extends below back window opening, cement cover in that area prior to performing Step 17.
15. Cement cover at roof extension areas by pulling cover down and rearward. When operation is completed, fabric cover should be free of all wrinkles and draws in this area.

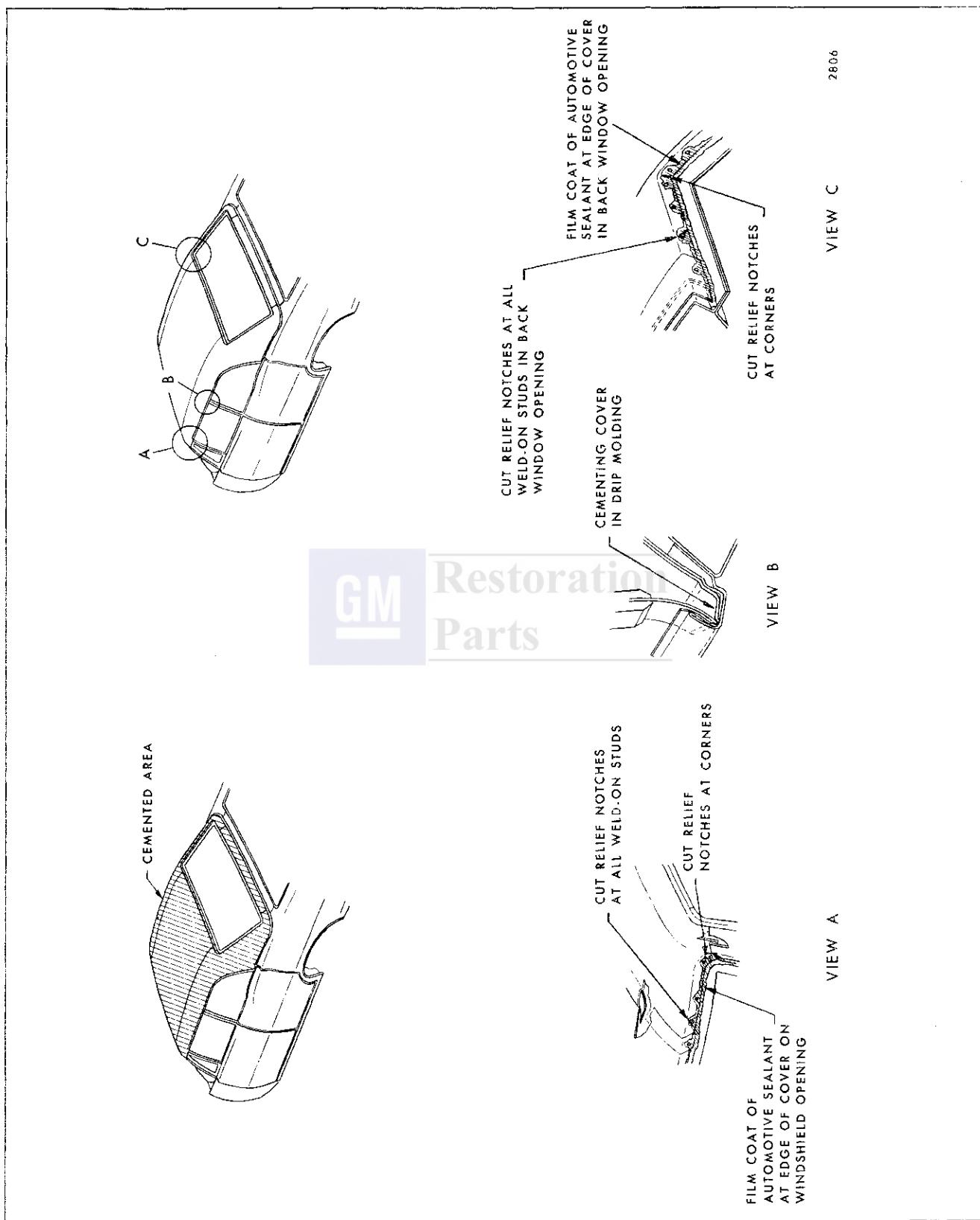
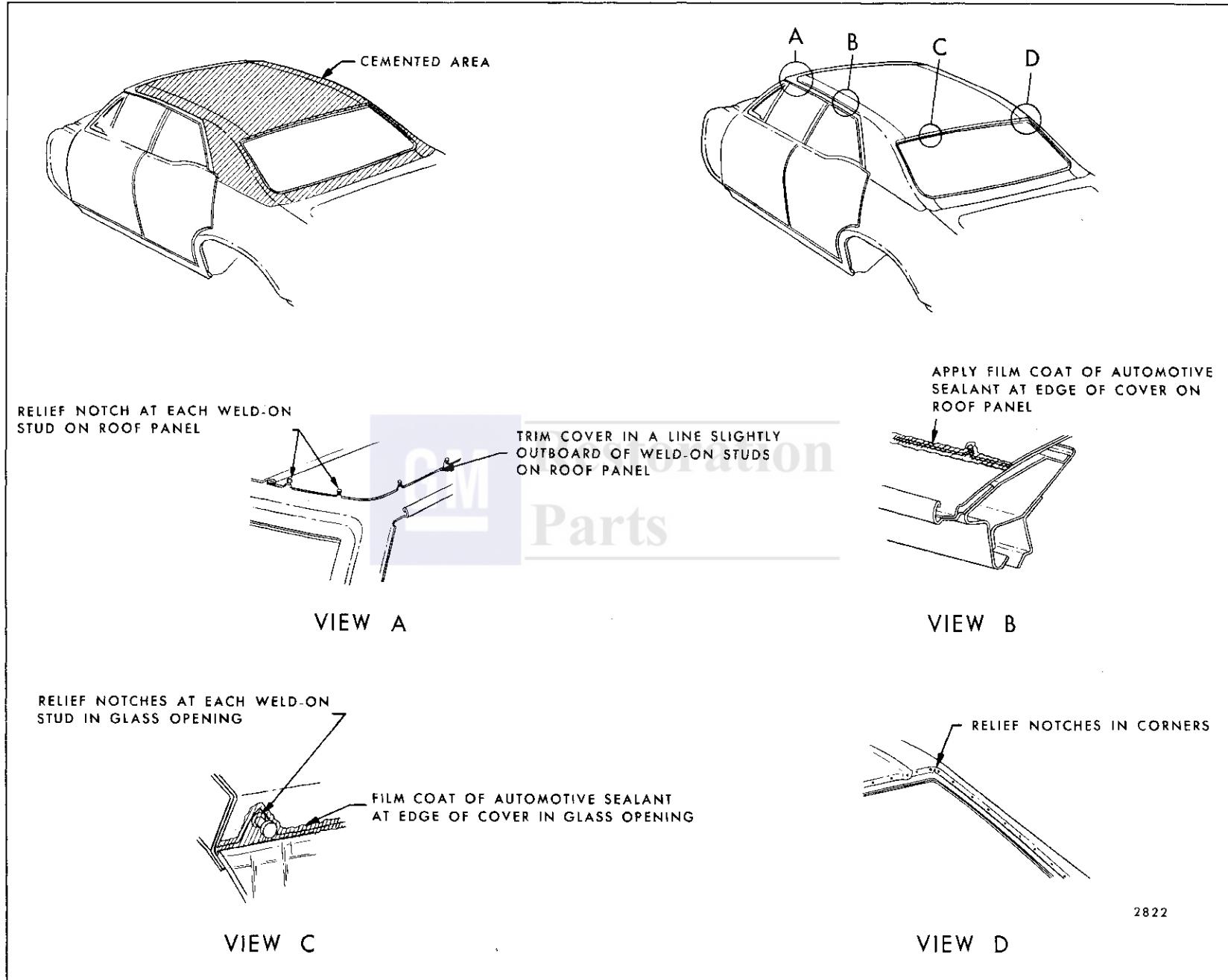


Fig. 12-7—Typical Fabric Roof Cover Installation without Pad or Roof Panel Moldings

Fig. 12-8—Typical Fabric Roof Cover Installation with Roof Panel Moldings and without Pad



16. Cement cover into side of back window opening. If weld-on studs are present, cut relief notches in cover.
 17. On styles where roof panel cover extends down windshield pillar, cement fabric roof cover to windshield pillar.
 18. On styles equipped with roof panel moldings, trim fabric cover in a line slightly outboard of weld-on studs on roof panel. 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. Remove masking tape from roof panel (Fig. 12-8).
 19. 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.
 20. On styles where roof cover extends into drip moldings perform the following:
 - a. On "B-47" styles and all "A" bodies except "69" and "80" styles, cement cover into and around outboard side of drip molding as shown in View B, Figure 12-4, and trim cover along outside bottom edge of molding.
 - b. On all other styles, cement cover into drip molding and trim cover just under lip on inside of drip molding (View "A", Fig. 12-4). When trimming cover, tool J-21092 or other suitable knife may be used (Fig. 12-5).
 21. On "B-47" styles and all "A" bodies (except "69" and "80" styles), install drip scalp moldings. On these styles, the drip scalp moldings aid in retaining the fabric roof cover.
 22. On all other styles, install flexible retainer into drip molding with thin edge toward outboard side. Insert tool J-22710 into rear of drip molding and roll tool toward front end of drip to seat retainer in molding (See Fig. 12-6). In the event tool J-22710 is not available, retainer can be seated in drip molding using a fibre block with slight concave end. When using this method, retainer is to be inserted so outside edge is just under lip of drip molding flange and then pushed downward with fibre block. DO NOT DAMAGE RETAINER.
 23. Apply a "film" coat of silicone sealant such as Dow Corning Automotive Sealant, General Electric RVP Sealant, or equivalent, to the edge of cover in windshield and back window opening and at belt area; also, at edges on roof panel when roof panel moldings are used. Make certain edge of material around all reveal molding clips that were not removed is also sealed (Figs. 12-7 & 8).
 24. Remove all previously installed protective covering from windshield, back glass and body.
 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. In the event slight bubbles or wrinkles exist in fabric cover, they can be repaired as follows:
- a. Pierce bubble with small needle.
 - b. Apply a dampened shop towel over area.
 - c. Using a low heat home-type flat iron, apply iron to dampened towel using back and forth strokes until wrinkle or bubble disappears. Be certain shop towel does not become dry as excess heat will permanently damage fabric roof 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 tail gate fabric cover procedure.

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

DESCRIPTION

The roof panel fabric cover is cemented to the surface of the roof panel and tail gate with nitrile type vinyl trim adhesive. The fabric cover is also attached in the windshield opening by clips installed on weld-on studs, drive nails or self sealing screws and cement. In the tail gate opening, the cover is retained by two screws, and cement. Cement is also used at the belt line at the back body.

opening pillar. A flexible retainer secures the fabric cover inside the right and left drip moldings.

Removal

1. The following parts must be removed prior to removing the roof panel fabric cover:
 - a. Windshield pillar drip molding.
 - b. Windshield reveal moldings and all clips on weld-on studs in windshield opening. Do not attempt to remove an emergency type clip where retaining screw is not accessible.
 - c. Back body opening upper and side reveal moldings.
 - d. Roof drip molding scalps.
 - e. Back body pillar cover finishing moldings.
 - f. Tail gate upper glass run channel.
2. Clean off any excess adhesive caulking material in opening adjacent to windshield.
3. Remove screws, drive nails or staples from edge of fabric roof cover in windshield and back body pillar opening. Make certain edges of windshield are protected. Several layers of body cloth tape may be used. Trim roof cover around any reveal molding clips that could not be removed.

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 and retainer clips securing fabric cover inside right and left drip moldings (See Section "AA" Fig. 12-9). 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 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. In the event any metal finishing is performed on roof panel, repaired area must be painted.

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

2. Mask all painted surfaces, windshield, and back body opening.

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 12-1 will aid in removing wrinkles.

4. Determine centerline 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. Remove cover from roof panel and lay cover with lining side upward on a clean surface.
7. Apply an even application of nitrile non-staining vinyl trim adhesive (such as 3M Vinyl Trim Adhesive or Permalastic Vinyl Trim Adhesive or equivalent) over entire lining side of fabric cover.

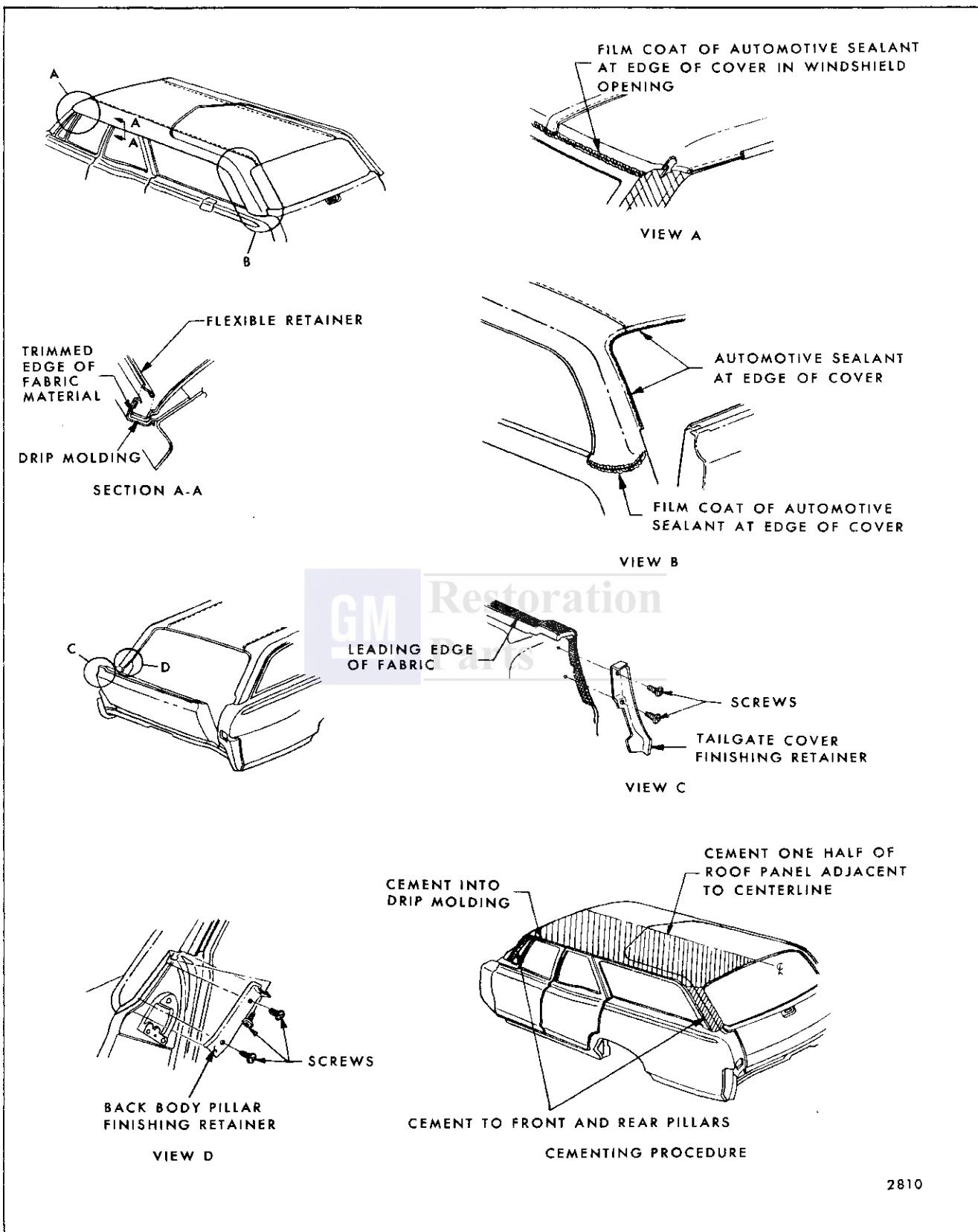


Fig. 12-9—Typical Fabric Roof Cover Installation on Station Wagon Styles

NOTE: It is recommended that nitrile vinyl trim adhesive be applied by spraying. As an alternate method, a roller or brush may be used. If spraying method is utilized, a spray gun with a pressure cup, and specific Fluid Tip and air cap should be used as shown on chart below (or equivalent).

	Devilbiss		Binks	
Gun Model	MBC-510	JGA-502	62	18
1 Qt. Pressure	KB-519	KB-519	80-256	80-210
Air Cap	24	24	66PG	66PG
Fluid Tip	E	E	66	66
Fluid Needle	E	E	365	65

The recommended air pressures are as follows:

A. Air Line Pressure - 50 lbs.

B. Cup Pressure - 2 to 4 lbs.

Permalastic or 3M Vinyl Trim Adhesive purchased in the field is of spraying consistency. If rolling method is used, a mohair type roller should be utilized. Make certain cement is applied evenly and there are no highlights from excess cement build-up.

8. Allow cement on fabric roof cover to thoroughly dry.
9. Lay cover on roof panel and align to correspond with center line of roof panel. Determine proper material overhang to windshield and back body openings (approximately 3" overhang at seam area at back body and windshield opening).
10. Fold one half of cover back at centerline and apply nitrile type vinyl trim adhesive to exposed half of roof panel (Including drip molding). Starting in center at centerline and working toward drip molding, immediately cement cover to area. As cover is being "unfolded" and cemented, it should be thoroughly "slicked" down with hands to avoid wrinkles or air bubbles.
11. Repeat Step 10 on opposite side of roof panel.

NOTE: When installing fabric cover to inside of drip molding, a small thin edge 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.

NOTE: Make certain that cover is free of wrinkles and seams are straight. Fabric cover pliers may be used in aiding removal of wrinkles.

12. Cut relief notches in cover at weld-on studs in windshield opening. Also, angle cut at corners as required.
13. Apply cement to windshield pillar and across top and down sides of windshield opening, at back body opening, and cement cover. In the event any reveal molding clips could not be removed, trim cover around clip and cement cover down behind clip.
- NOTE:** Make certain a continuous and positive bond exists when cementing cover in windshield opening.
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 (View "A" Fig. 12-4). A tool may be fabricated to trim material along roof drip rail moldings as illustrated in Figure 12-5.
16. Position flexible retainers into drip molding with thin edge of retainer toward outboard side. Insert tool J-22710 into drip molding at rear and roll tool toward front end of drip to seat retainer in molding (See Fig. 12-6). In the event tool J-22710 is not available, retainer can be seated in drip molding using fibre block with slight concave edge. When using this method, retainer is to be inserted in drip molding so outside edge is just under lip of drip molding flange and then pushed downward with fibre block. DO NOT DAMAGE RETAINER.
17. Apply a film coat of silicone sealant such as Dow Corning Automotive Sealant, or General Electric RVP, or equivalent, to the edge of cover in windshield and back body opening and at belt area. Make certain edges of material around all reveal molding clips that were not removed are also sealed. (Views A & B, Fig. 12-9).
18. Remove all protective covering.
19. Install all previously removed moldings and assemblies.

NOTE: Normally, minor creases or fold marks will gradually disappear after cover assembly

has been in service. In the event slight bubbles or wrinkles exist in fabric cover, they can be repaired as follows:

- a. Pierce bubble with small needle.
- b. Apply a dampened shop towel over area.

- c. Using a low heat home-type flat iron, apply iron to dampened towel using back and forth strokes until wrinkle or bubble disappears. Be certain shop towel does not become dry as excess heat will permanently damage fabric roof cover.

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 tail gate.

Removal

1. The following parts must be removed prior to removing the tail gate 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.
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 tail gate to protect painted surfaces.

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

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

4. Position and install fabric cover on tail gate 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 and allow to thoroughly dry.

NOTE: See Note under Step 7 in Fabric Roof Cover (Station Wagon Styles) installation procedure for method in applying cement.

- c. Apply adhesive material to exposed surface of tail gate panel including inner flange.
- d. Immediately position fabric to top leading edge of tail gate panel and work material down to molding attaching holes.
- e. Wrap fabric around flange on tail gate.
- f. Trim off excess material on tail gate flange (View "C", Fig. 12-9).

5. Install all previously removed moldings and assemblies.

NOTE: Normally, minor creases or fold marks will gradually disappear after cover assembly has been in service. In the event slight bubbles or wrinkles exist in fabric cover, they can be repaired as follows:

- a. Pierce bubble with small needle.
- b. Apply a dampened shop towel over area.
- c. Using a low heat home-type flat iron, apply iron to dampened towel using back and forth strokes until wrinkle or bubble disappears. Be certain shop towel does not become dry as excess heat will permanently damage fabric roof cover.

SECTION 13

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.

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.
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 top to "stacked" position.
7. Remove remaining side roof rail weatherstrip attaching screws; then remove weatherstrips from rails.
8. Remove front roof rail front and rear weatherstrips.
9. Detach top material from front roof rail (Fig. 13-1).
10. Detach top material flaps from side roof front rail (Fig. 13-1).

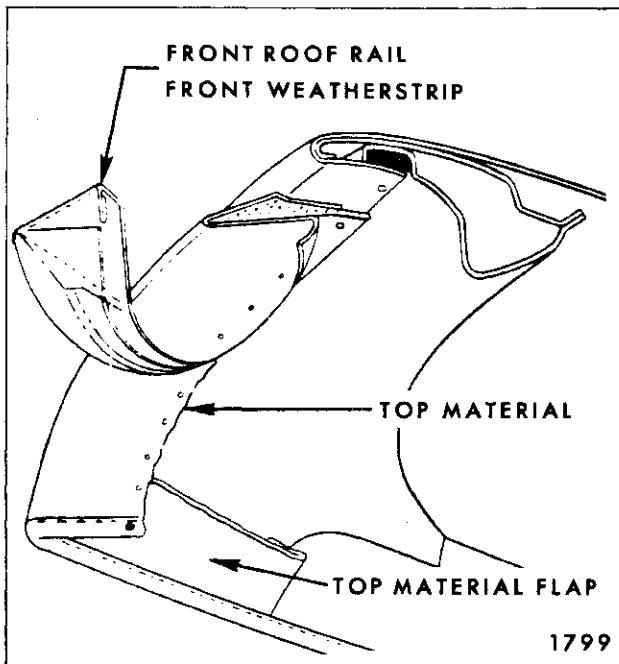


Fig. 13-1—Top Material At Front Roof Rail

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. 13-2.)
 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. 13-3).
 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. 13-4).
 17. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 13-5).
 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. 13-6). 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.
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 (Fig. 13-7). Reference marks for trim sticks should be transferred to new top material when step 26 of installation procedure is performed.

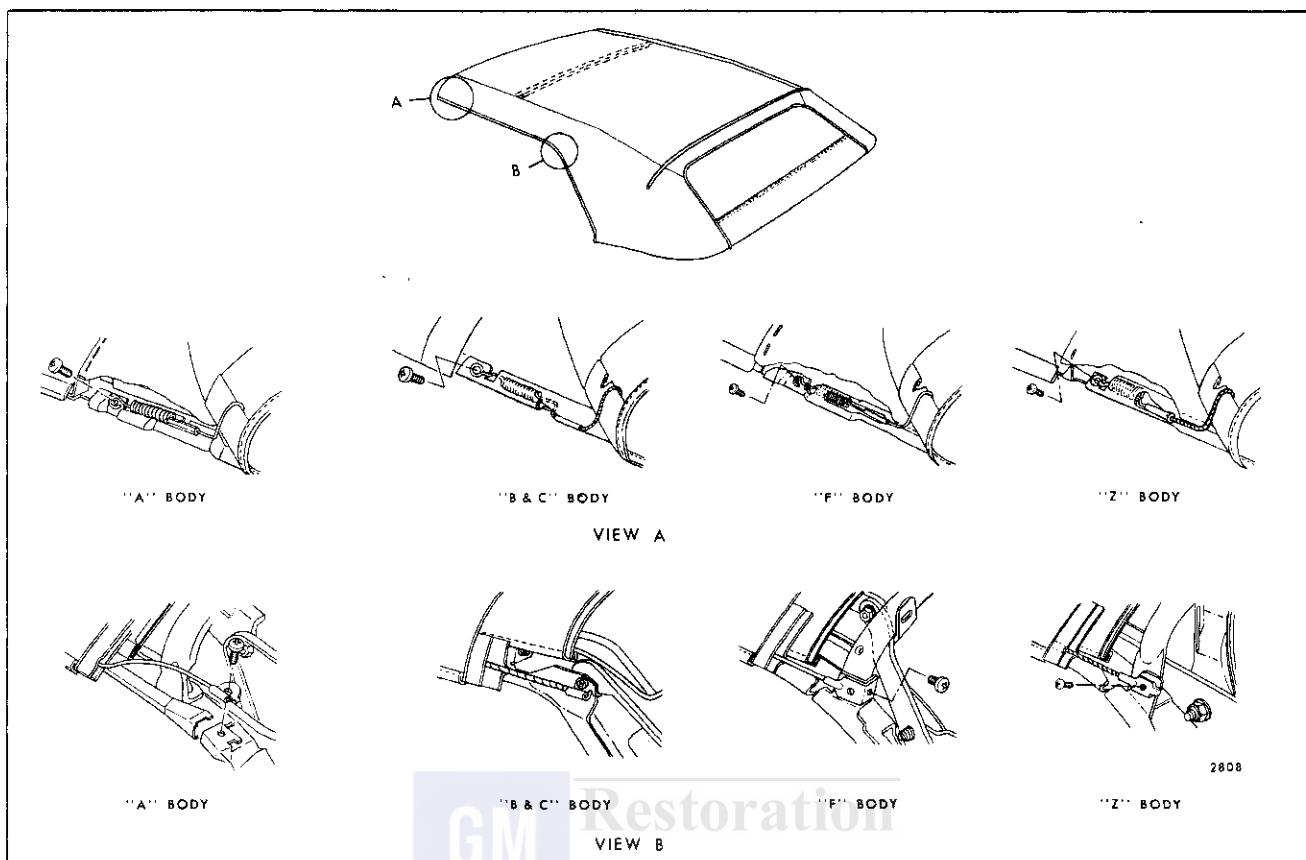


Fig. 13-2—Convertible Top Material Hold Down Cable

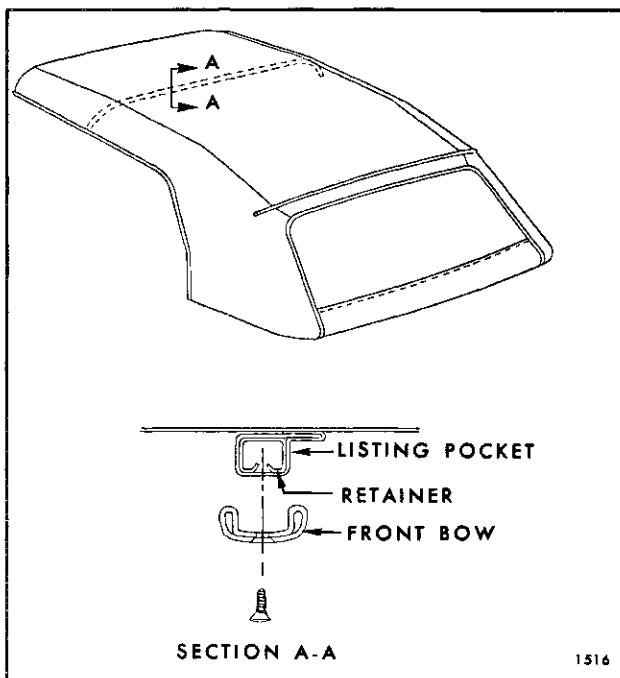


Fig. 13-3—Listing Pocket Retainer

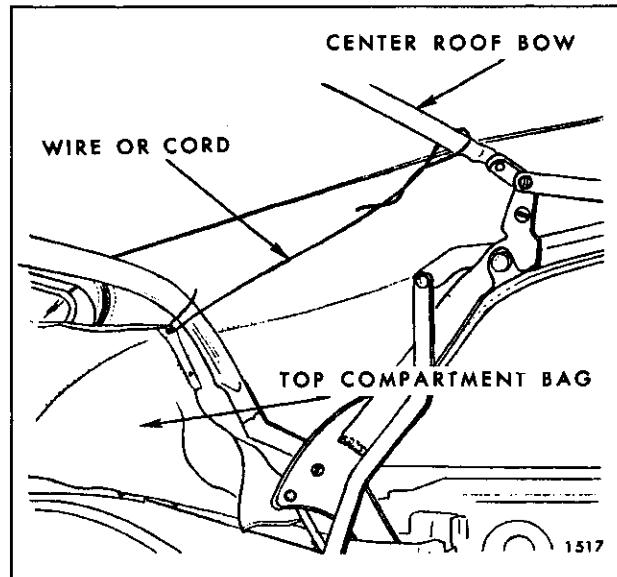


Fig. 13-4—Top Compartment Bag Tied to Center Bow

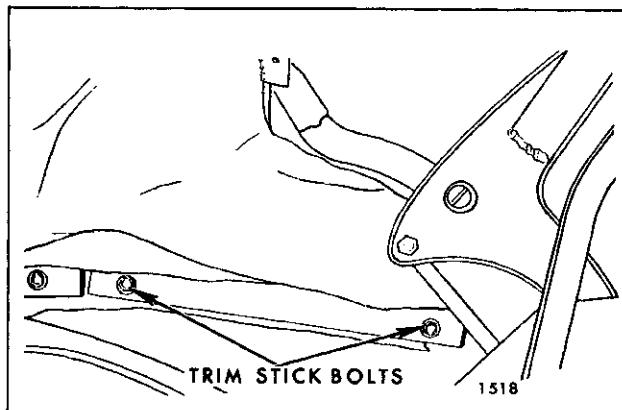


Fig. 13-5—Rear Quarter Trim Stick

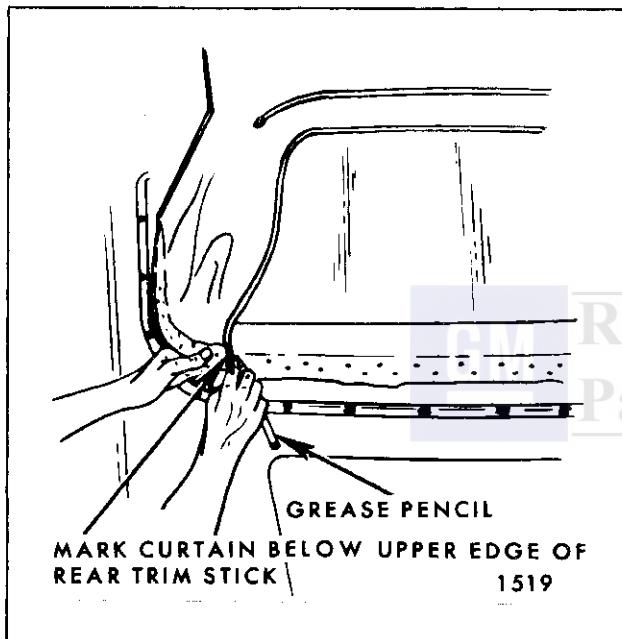


Fig. 13-6—Locating Edge of Top Material

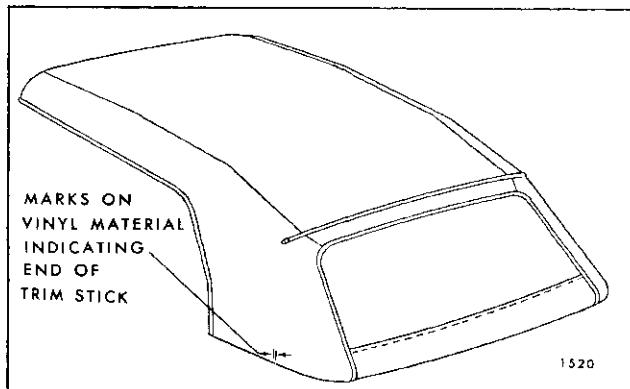


Fig. 13-7—Marking Top Material

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. 13-8).

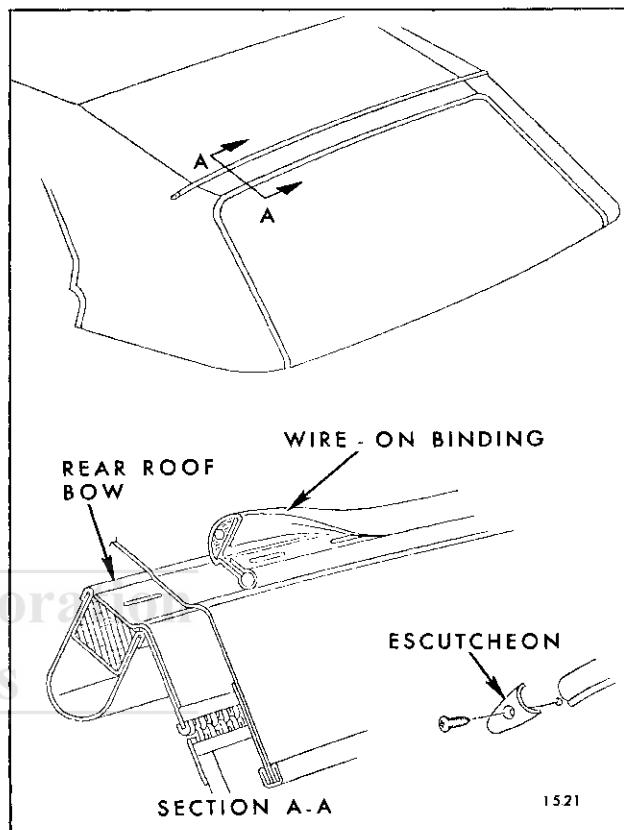


Fig. 13-8—Rear Roof Bow Wire-On Binding

23. 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. 13-9).

NOTE: For approximate dimension for location of spacer sticks, refer to step 1 of installation procedure.

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.

24. Spacer sticks may be fabricated as shown in Figure 13-10.

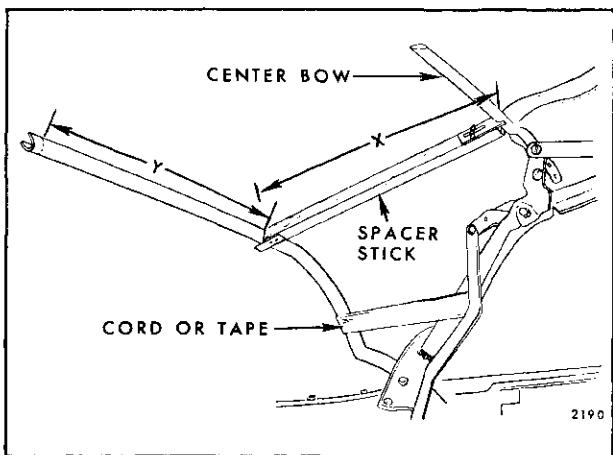


Fig. 13-9—Spacer Stick Installation

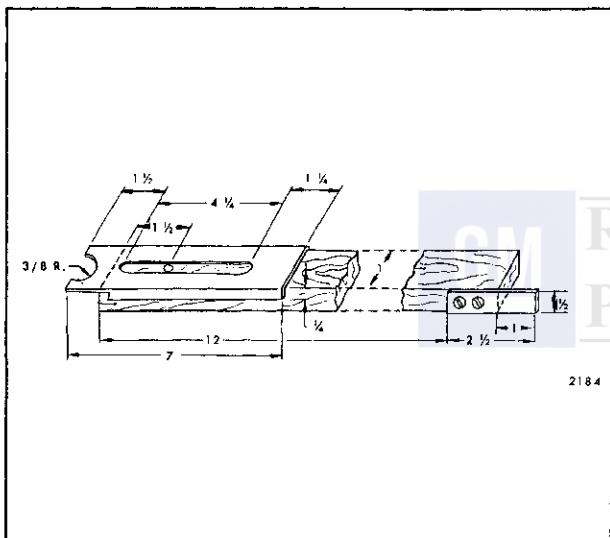


Fig. 13-10—Spacer Stick Dimensions

MATERIAL PER STICK

Wood - $1/2 \times 1 \times 14\text{-}1/2$
 Steel - $1/32 \times 1/2 \times 2\text{-}1/2$
 Steel - $1/32 \times 1\text{-}1/2 \times 7$
 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.

25. Temporarily tie or tape rear bow to rear side roof rails. (See Fig. 13-9.) Detach side stay pads and back curtain assembly from rear bow.
26. Remove rear trim stick with attached back curtain assembly and top compartment bag from body and place on clean, protected surface.

27. Using chalk, or other suitable material, mark ends of rear quarter trim sticks on vinyl surface of back curtain material (Fig. 13-11). Reference marks from trim sticks should be transferred to new back curtain material when step 6 of installation procedure is performed.

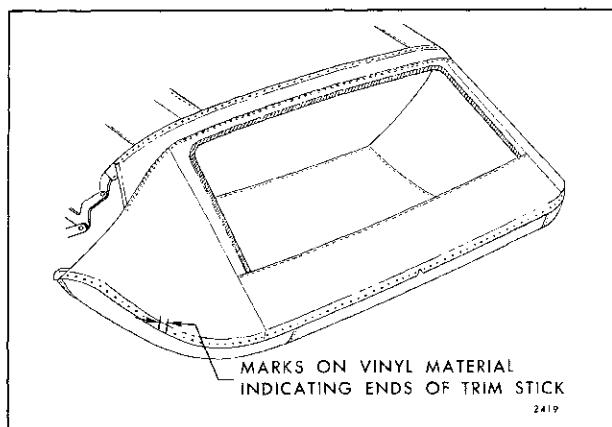


Fig. 13-11—Marking Back Curtain

28. Remove back curtain assembly from rear and rear quarter trim sticks.
29. Remove side stay pads. Stay pads are attached to front roof rail and front and rear bows with tacks; to center bow with screws.

NOTE: On Cadillac styles, silencer assembly must be removed prior to side stay pad webbing. For Removal and Installation procedure, refer to Silencer Assembly section.

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. 13-9). Adjust sticks so that dimension "X" in Figure 13-9 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 16-1/16" on "B & C" Styles, 13-3/16" on "F" Styles, 18-1/2" on "A" Styles and 16-5/8" on "Z" 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 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

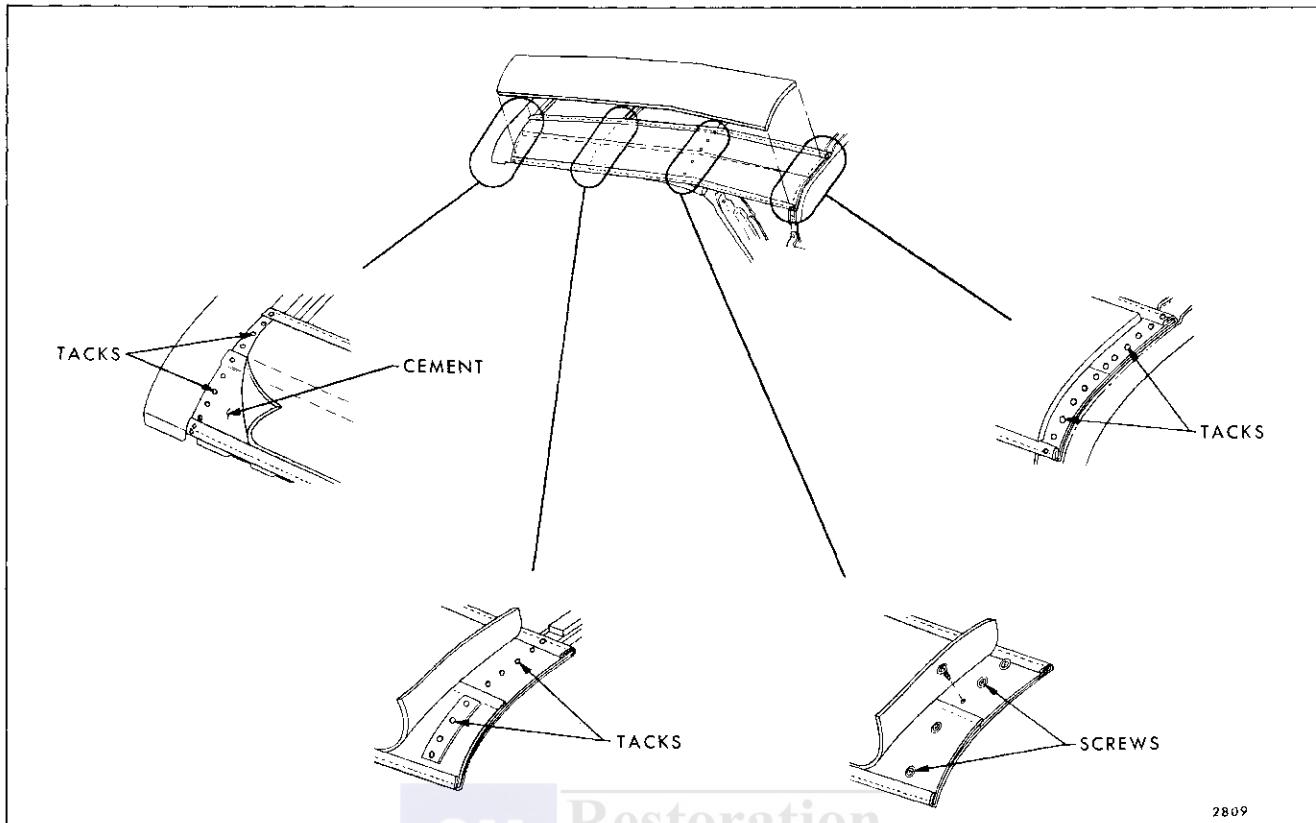


Fig. 13-12—Typical Side Stay Pad Installation

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 polyurethane stay pad in conventional manner using an approved trim cement (See Fig. 13-12).

3. Trim selvage end of side stay pads just forward of rear rolled edge of rear roof bow (Fig. 13-13).
4. Recheck position of rear roof bow. Distance from center of center bow to rolled forward upper edge of rear roof bow is 16-1/16" for "B & C" Styles, 13-3/16" for "F" Styles, 18-1/2" for "A" Styles and 16-5/8" for "Z" Styles.

NOTE: Dimension may vary $\pm 1/4"$ 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.

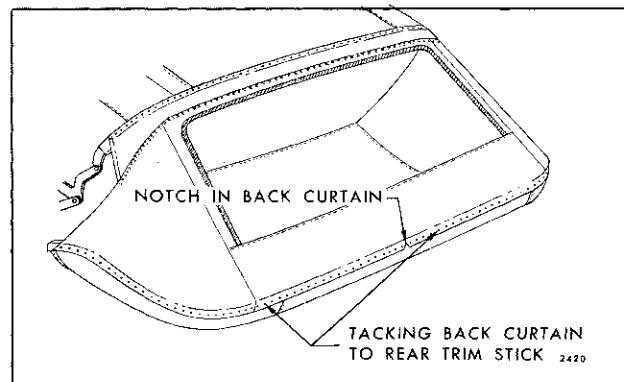


Fig. 13-13—Back Curtain Installation

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 19 and 27 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. 13-13). In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

8. Tack curtain to rear trim sticks (Fig. 13-13).
9. Tack remainder of back curtain material to rear quarter trim stick (Fig. 13-14).

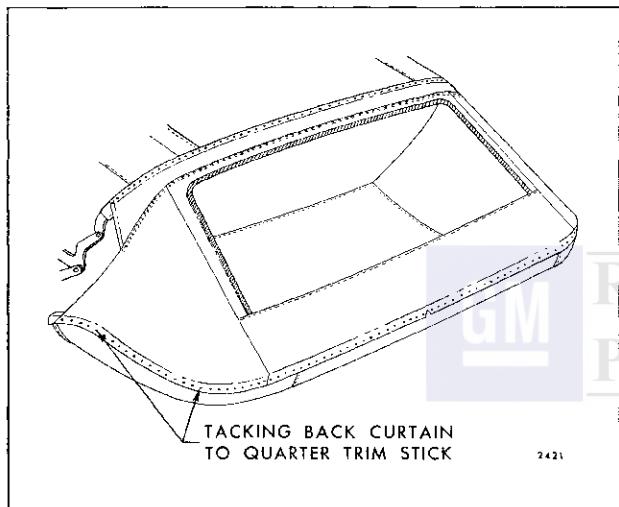


Fig. 13-14—Back Curtain Installation

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. Inspect mastic type trim stick fillers to body below pinchweld for sufficient seal at bolt holes (Fig. 13-15).
12. Secure back curtain with tacks to rear roof bow to prevent damage.
13. 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.

14. Working from body center progressively outboard to right and left sides, tack back curtain

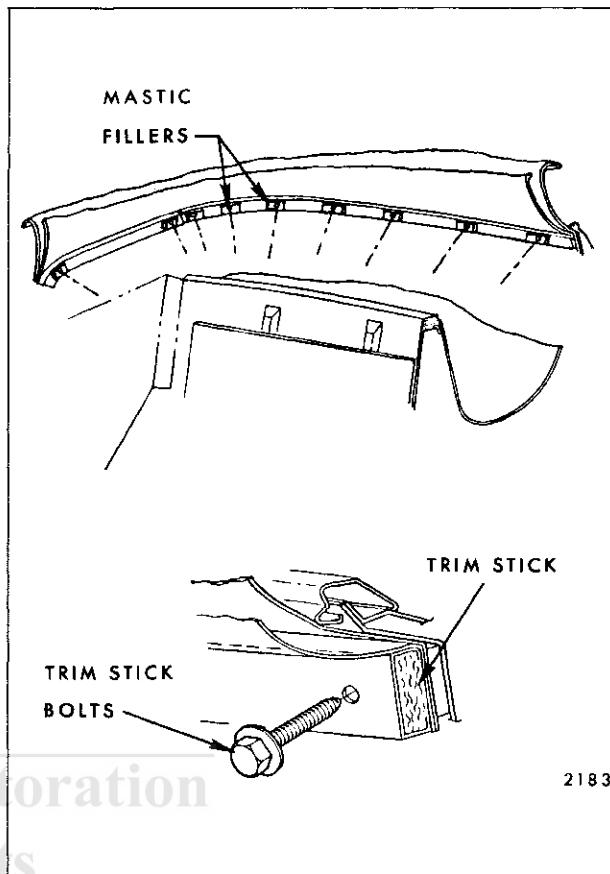


Fig. 13-15—Checking Trim Stick Fillers

to rear bow. Make sure all fullness has been drawn from curtain material (Fig. 13-16). Any excess material at rear bow may be carefully trimmed.

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

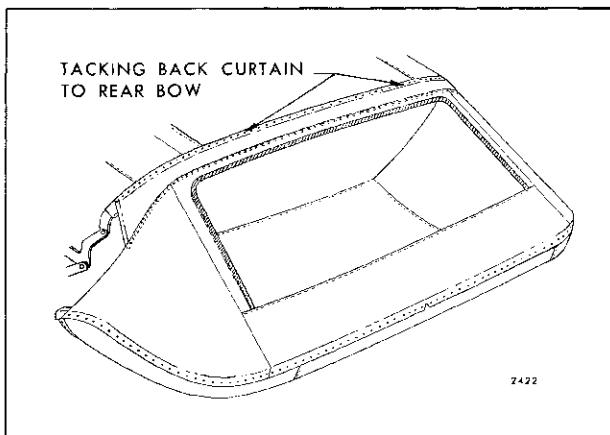


Fig. 13-16—Back Curtain Installed

16. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required (Fig. 13-17).

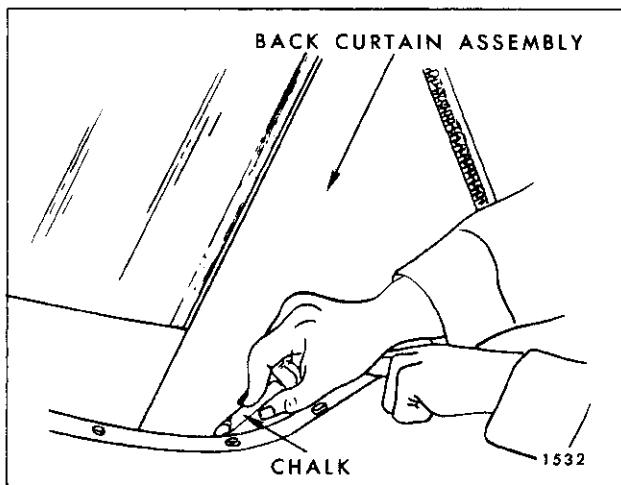


Fig. 13-17—Marking Back Curtain

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

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

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

20. Using a pencil, mark top material (mark should be approximately $1/2"$ in length) at deck seam $5-1/4"$ on "B, C & F" and $5-3/8"$ on "A" and $4"$ on "Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 13-18.)

21. Fold new top material in half so that inner lining of top material is exposed (Fig. 13-19). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 13-19). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

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

22. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear

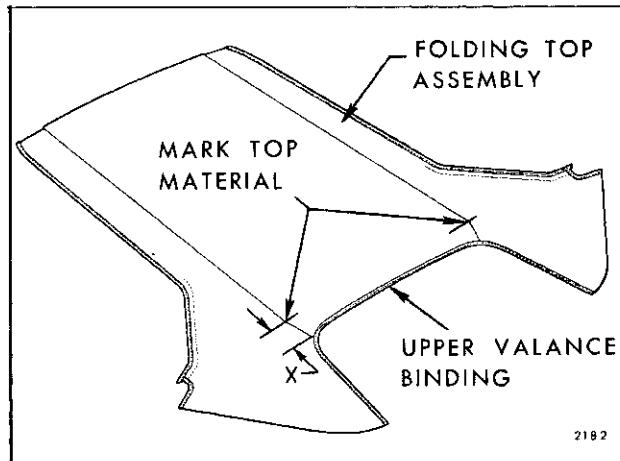


Fig. 13-18—Marking Top Material

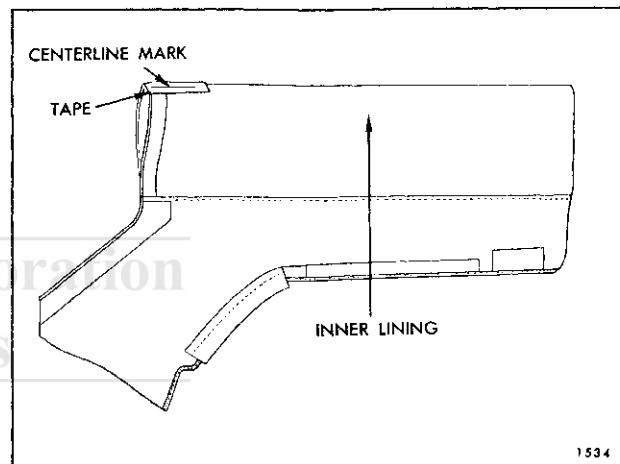


Fig. 13-19—Marking Folding Top Material

roof bow. Using a pencil, mark centerline of rear bow on tape (Fig. 13-20).

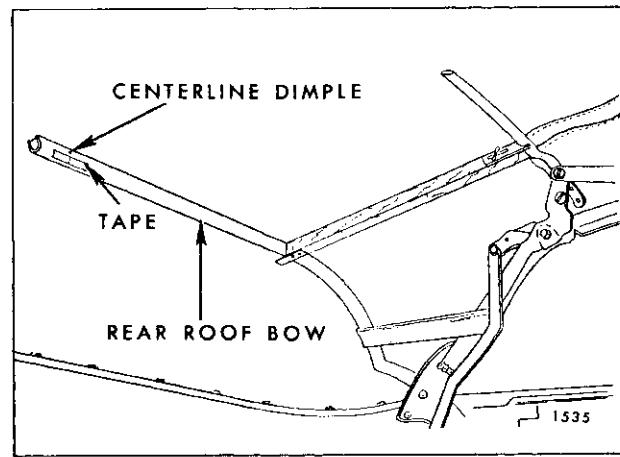


Fig. 13-20—Marking Rear Roof Bow

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

24. 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 ($\pm 1/4"$) 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.

25. Remove top trim material.

26. 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 20 and 21 of removal procedure.)

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

28. Install listing pocket retainer into listing pocket.

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

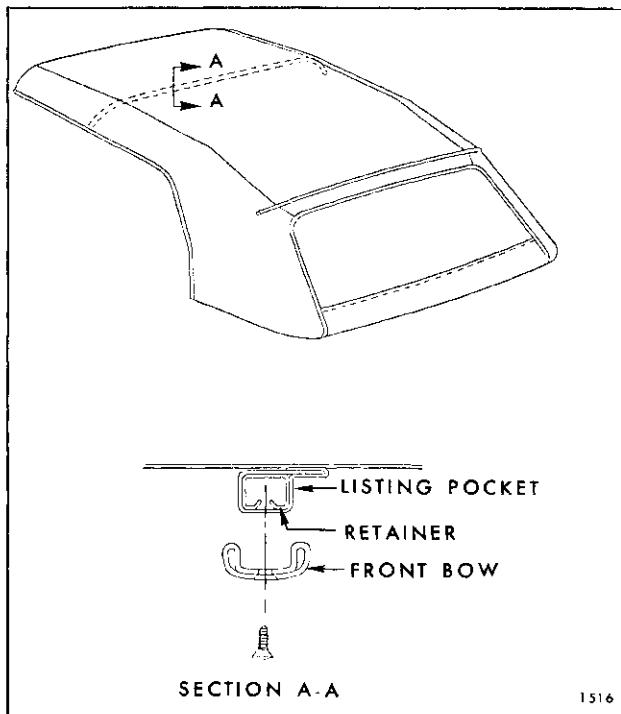
NOTE: Retainer should be evenly centered between side roof rail stay pads.

30. Install front bow to listing pocket retainer attaching screws (Fig. 13-21).

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

32. After cables have been inserted in hold-down pockets in top material, securely install front



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Fig. 13-21—Listing Pocket Retainer

and rear cable attaching brackets to side roof front and rear rails (Fig. 13-2).

33. 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 ($\pm 1/4"$) 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. 13-20.)

34. 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.

35. 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.

36. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Figure 13-22 shows top material installed to rear trim stick at inboard edge.

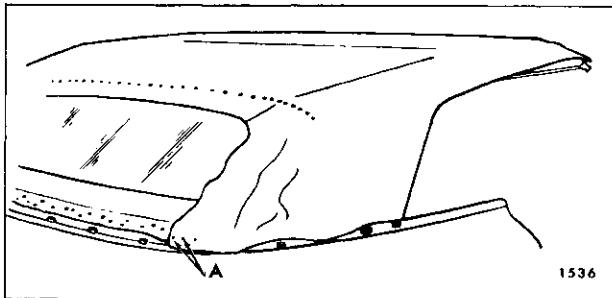


Fig. 13-22—Tacking Top Material

37. Cut or punch hole in top material for each trim stick attaching bolt.
38. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.
39. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.
40. 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.

41. 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.
42. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.

43. 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.

44. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.
45. 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. 13-23.) Tacks outboard of deck seams should be restricted to distance not to exceed $6"$, which is length wire-on binding extends past seam (Fig. 13-23).

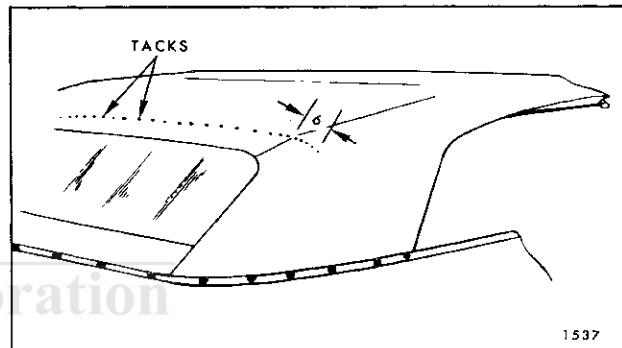


Fig. 13-23—Tacking Outboard Of Seams

46. 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. 13-24).

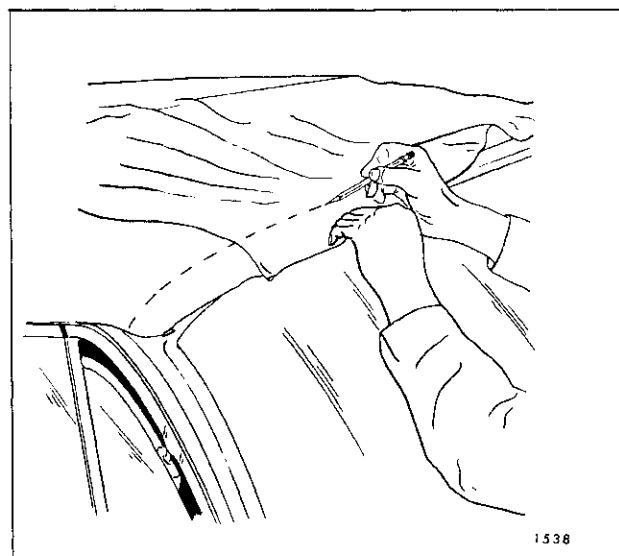


Fig. 13-24—Marking Top Material At Front Roof Rail

47. 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. 13-25).

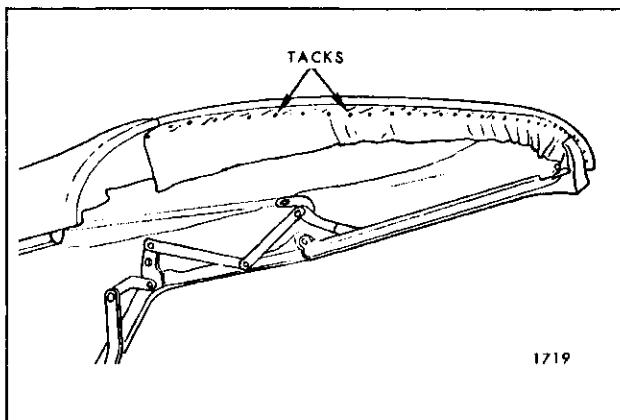


Fig. 13-25—Installation Of Top Material To Front Roof Rail

48. 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. 13-26.)
49. 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.)
50. Complete tacking of top trim to front roof rail and trim off excess material.

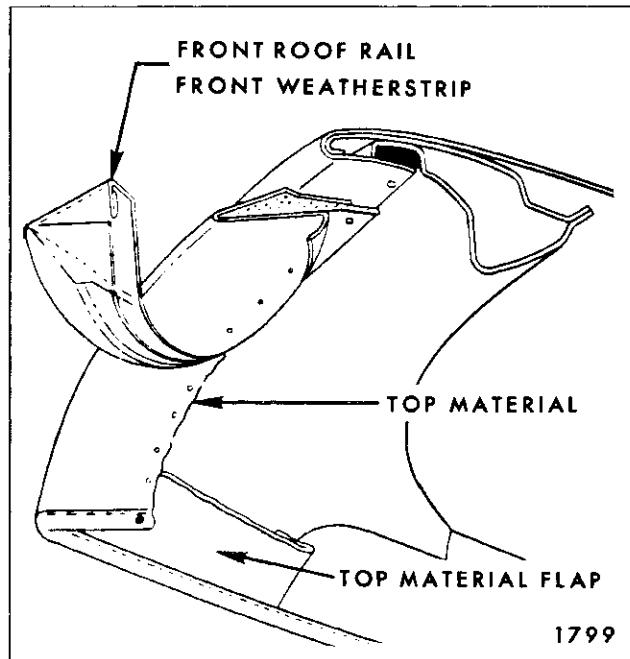


Fig. 13-26—Top Material At Front Roof Rail

51. 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.

52. 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.

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. 13-26).
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. 13-27.)
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. 13-28).
15. Push top material upward sufficiently until retainer is disengaged from bow; then, remove retainer from listing pocket.

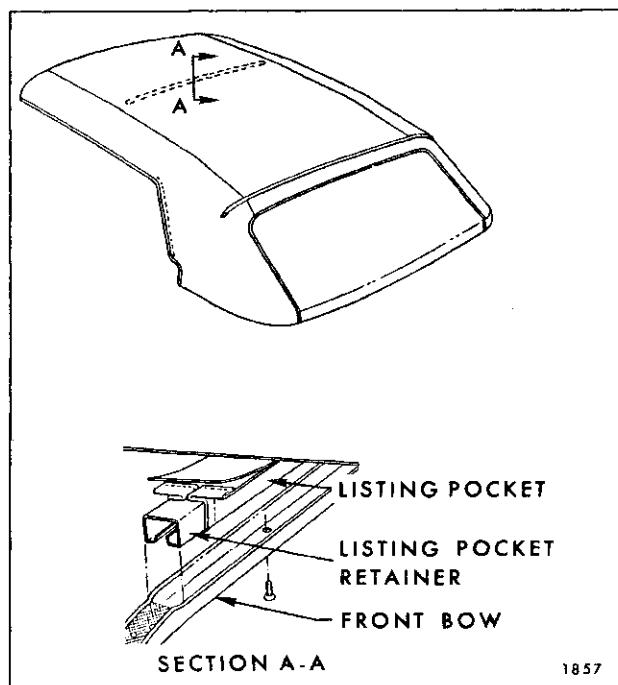


Fig. 13-28—Listing Pocket Retainer

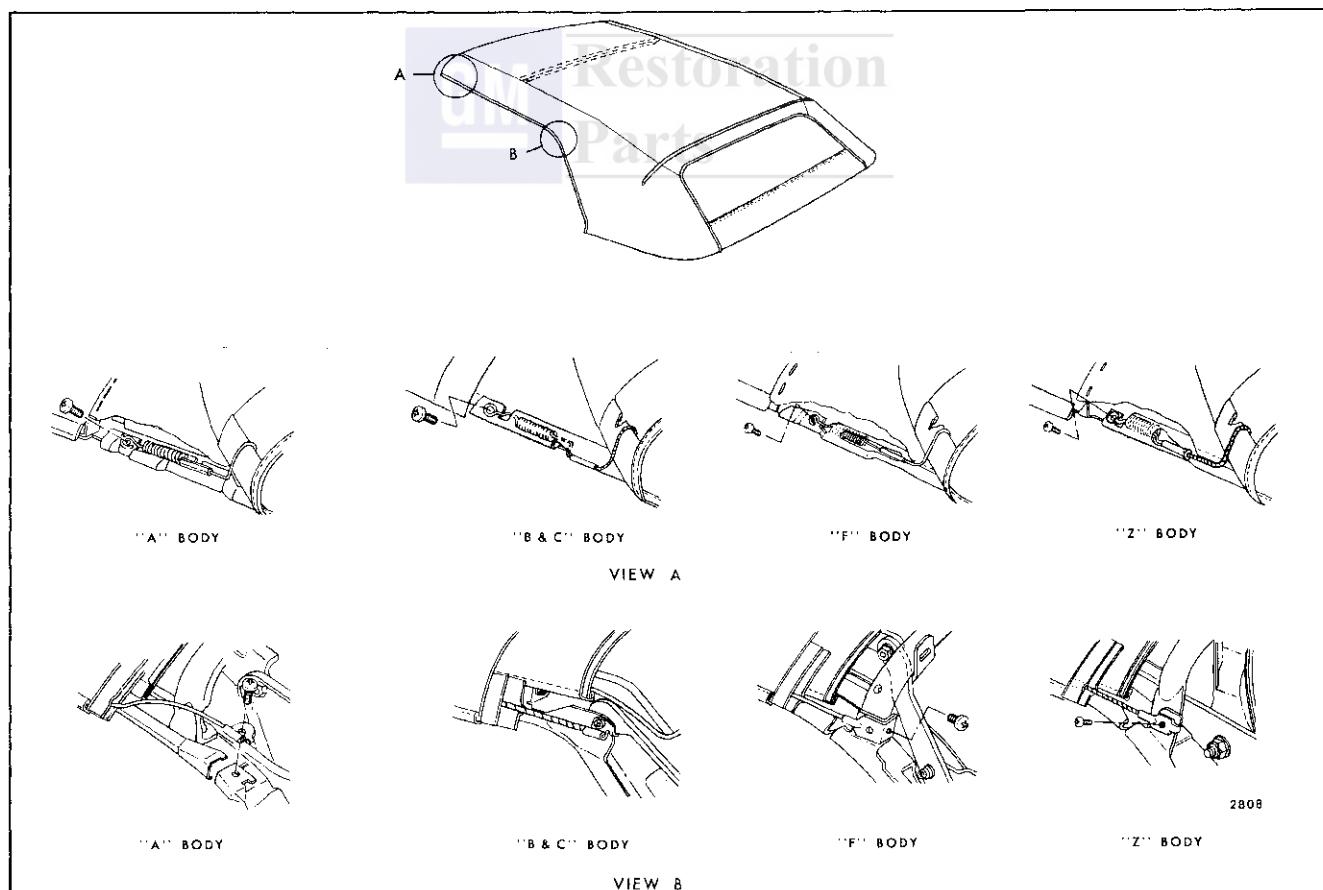


Fig. 13-27—Convertible Top Material Hold Down Cable

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. 13-29).

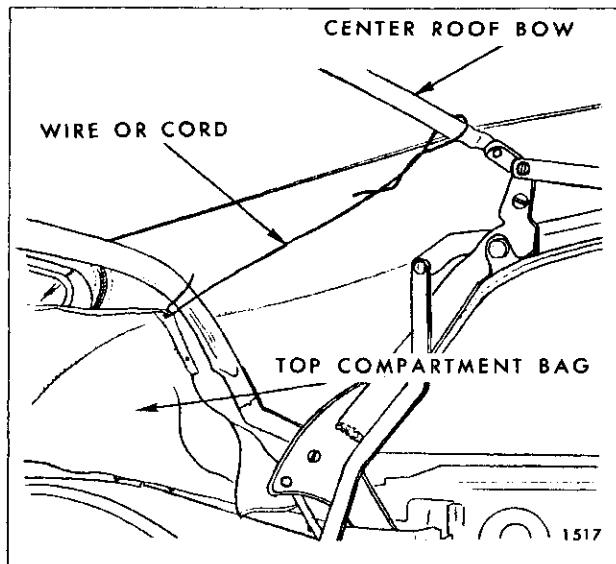


Fig. 13-29—Top Compartment Bag Tied to Center Rail

17. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 13-30).

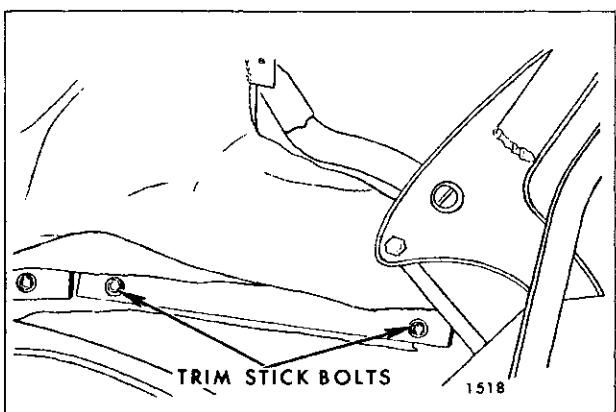


Fig. 13-30—Rear Quarter Trim Stick

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 cur-

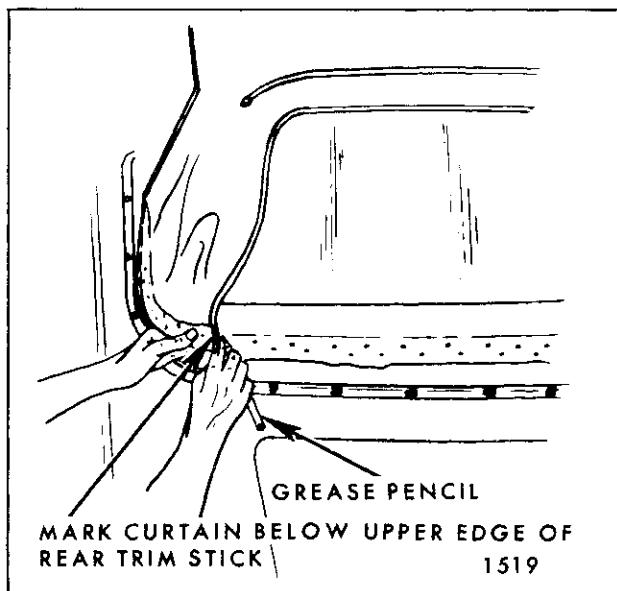


Fig. 13-31—Locating Edge Of Top Material

tain assembly at rear trim stick location, mark back curtain material at both locations with a grease pencil (Fig. 13-31).

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 13-32. Reference

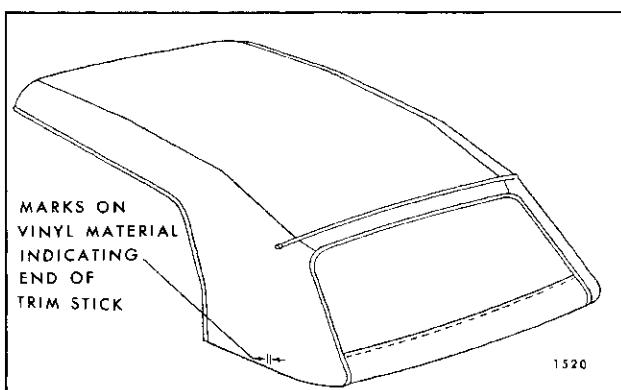


Fig. 13-32—Marking Top Material

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. 13-33).

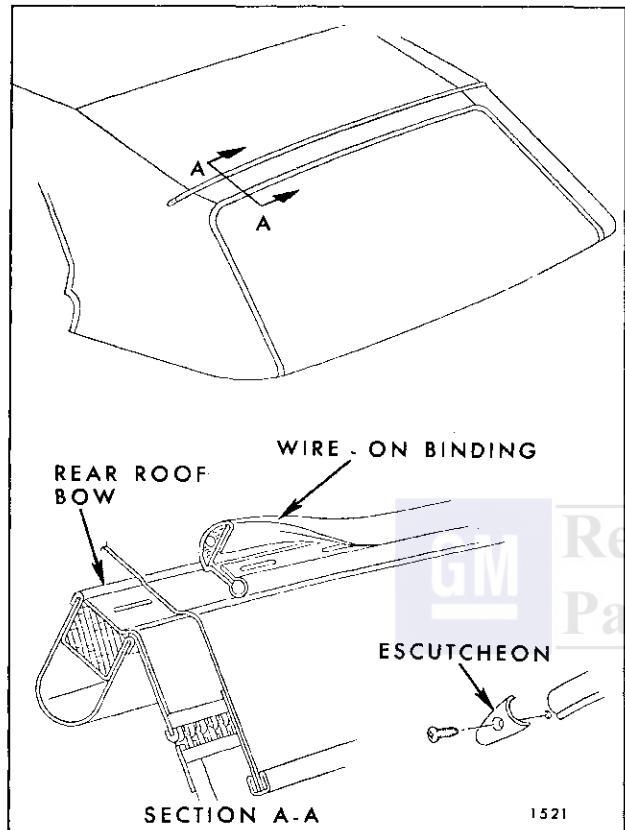


Fig. 13-33—Rear Roof Bow Wire-On Binding

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 & F" and 5-3/8" on "A and 4" on "Z" Styles from edge of top material upper valance binding. (See dimension "X" in Fig. 13-34.)

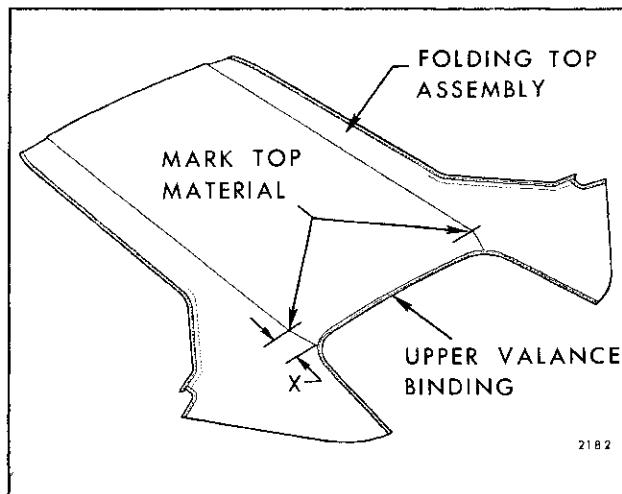


Fig. 13-34—Marking Top Material

4. Fold new top material in half so that inner lining of top material is exposed (Fig. 13-35). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 13-35). Using a pencil, mark the approximate centerline of new top material along entire length of tape.

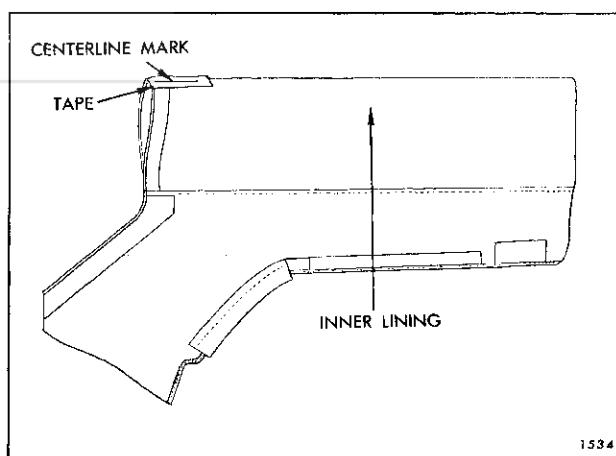


Fig. 13-35—Marking Folding Top Material

IMPORTANT: Be sure mark will be visible 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. 13-36).
6. Check position of rear roof bow in relation to new folding top trim assembly by placing new

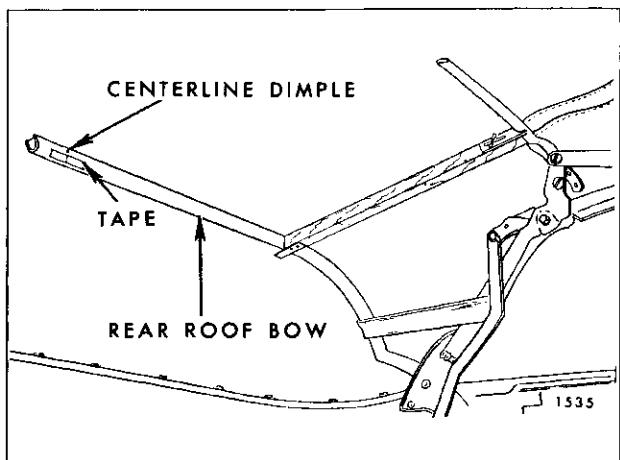


Fig. 13-36—Marking Rear Roof Bow

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 ($\pm 1/4"$) 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.

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 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. 13-28).
13. On right side of top material, at front of 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.

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. 13-27).
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 ($\pm 1/4"$) 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. 13-36).
16. Using nitrile cement or neoprene-type weatherstrip 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.
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 13-37 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

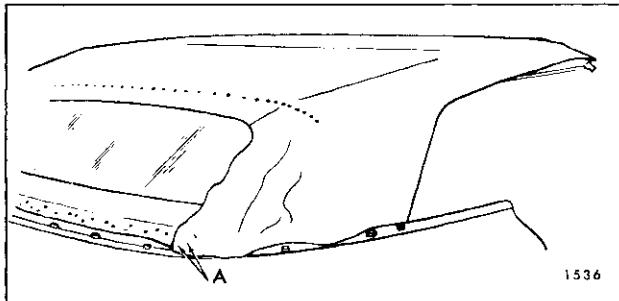


Fig. 13-37—Tacking Top Material

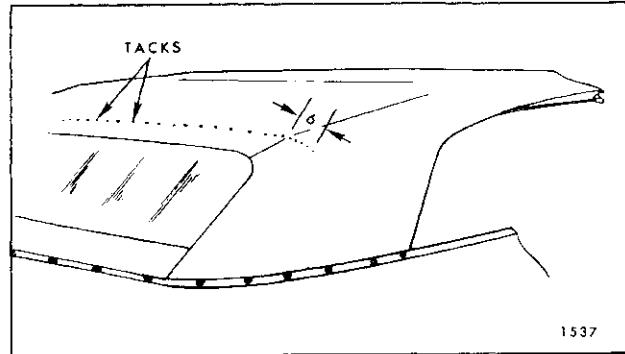


Fig. 13-38—Tacking Outboard of Seams

- 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.
 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. 13-38.) 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. 13-38).
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. 13-39).
-
- Fig. 13-39—Marking Top Material At Front Roof Rail
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. 13-40).
 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. 13-26.)

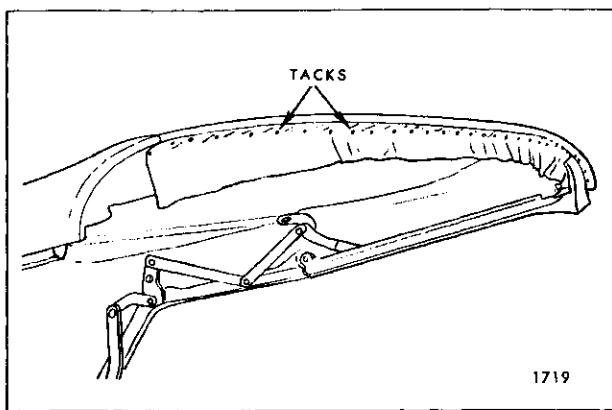


Fig. 13-40—Installation Of Top Material To Front Roof Rail

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.
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.

BACK CURTAIN ASSEMBLY (COMPLETE)

REMOVAL

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. 13-41).
4. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 13-42).
5. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

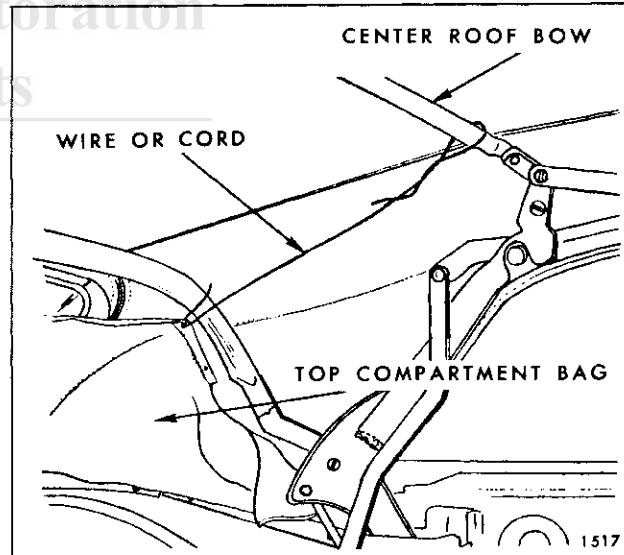


Fig. 13-41—Top Compartment Bag Tied To Center Rail

6. 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. 13-43). 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.

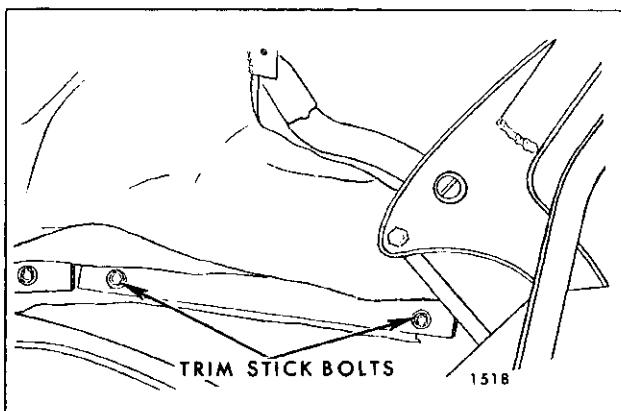


Fig. 13-42—Rear Quarter Trim Stick

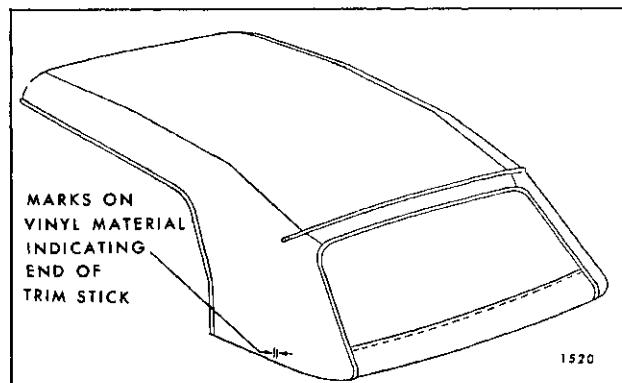


Fig. 13-44—Marking Top Material

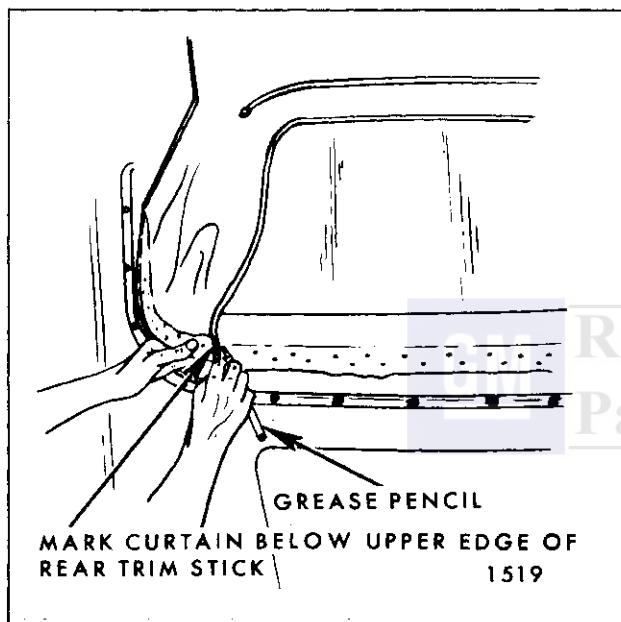


Fig. 13-43—Locating Edge Of Top Material

7. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 13-44).
8. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow (Fig. 13-45).
9. Detach folding top trim from rear roof bow and from rear and rear quarter trim sticks.
10. Carefully slide top trim forward exposing tacked edge of back curtain at rear roof bow.
11. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (Fig.

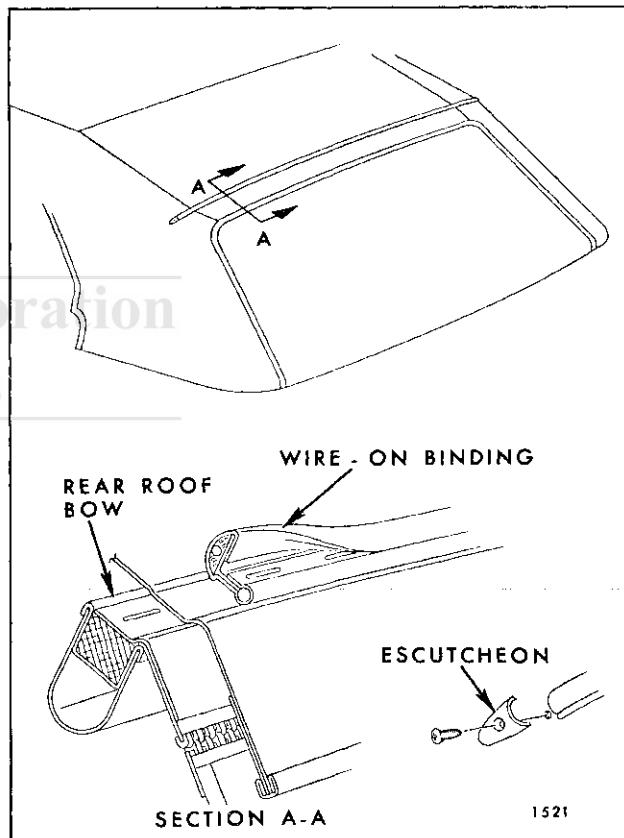


Fig. 13-45—Rear Roof Bow Wire-On Binding

13-46). Reference marks for trim sticks should be transferred to new back curtain material when step 3 of installation procedure is performed.

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

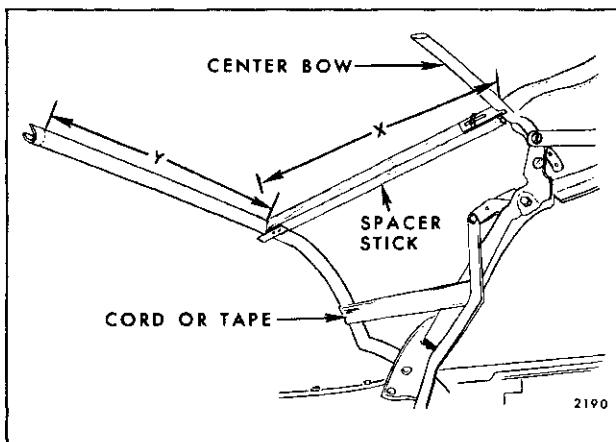


Fig. 13-46—Marking Back Curtain

INSTALLATION

- Preset spacer sticks to shortest length and install between center and rear roof bow (Fig. 13-47). Adjust sticks so that dimension "X" in Figure 13-48 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 16-1/16" on "B & C" Styles, 18-1/2" on "A" Styles, 13-3/16" on "F" Styles, and 16-5/8" on "Z" Styles.

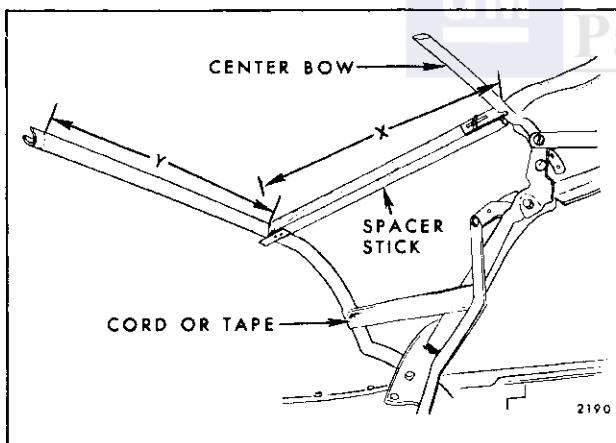


Fig. 13-47—Spacer Stick Installation

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

Tie or tape rear bow to rear side roof rails.

- Place new back curtain assembly on clean covered work bench with interior surface of back window facing down.
- 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 6 and 11 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.

- 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. 13-48.) In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

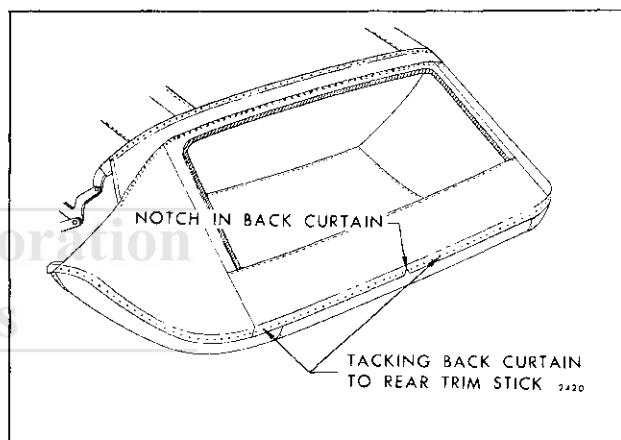


Fig. 13-48—Back Curtain Installation

- Tack curtain to rear trim sticks (Fig. 13-48).
- Tack remainder of back curtain material to rear quarter trim stick (Fig. 13-49).
- 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.
- Inspect mastic type trim stick fillers at body below pinchweld for sufficient seal at bolt holes (Fig. 13-50).
- Secure back curtain assembly with a sufficient number of tacks to rear bow to prevent accidental damage to back window.
- Install rear trim stick with attached back curtain assembly into body.

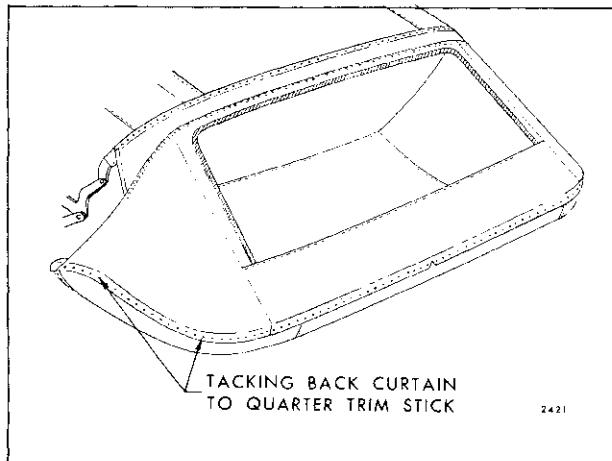


Fig. 13-49—Back Curtain Installation

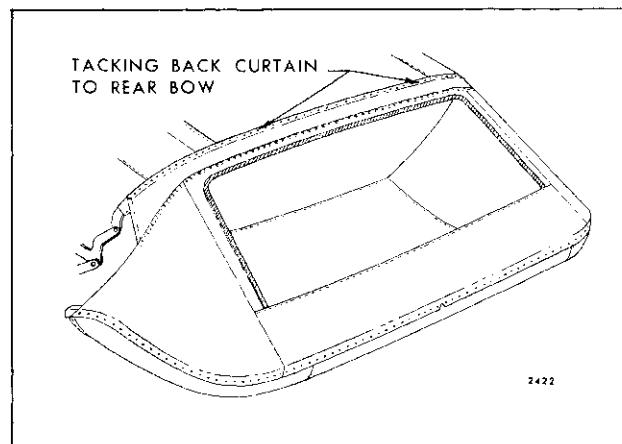


Fig. 13-51—Back Curtain Installed

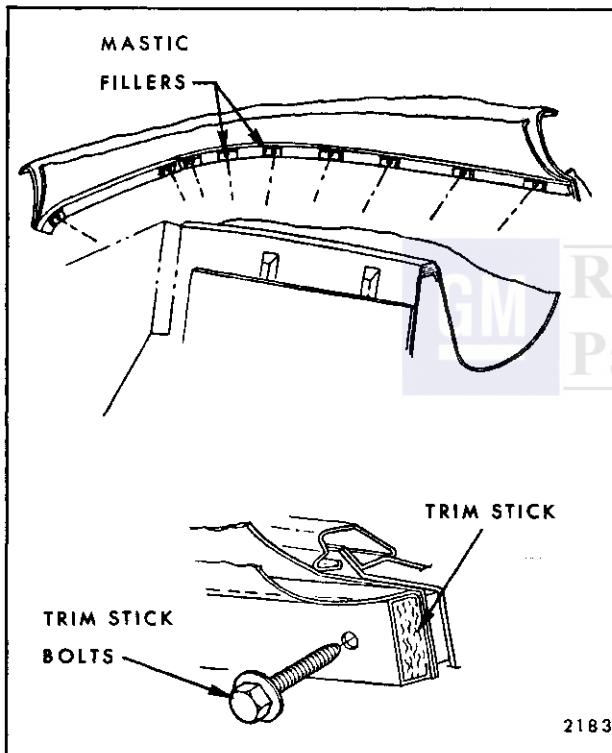


Fig. 13-50—Checking Trim Stick Fillers

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

- Working from body center progressively outboard to right and left sides, tack back curtain to rear bow. Make sure all fullness has been drawn from curtain material (Fig. 13-51). Any excess material at rear bow, may be carefully trimmed.

- Check contour of back curtain assembly to rear roof bow and at pinchweld molding.
- Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required (Fig. 13-52).

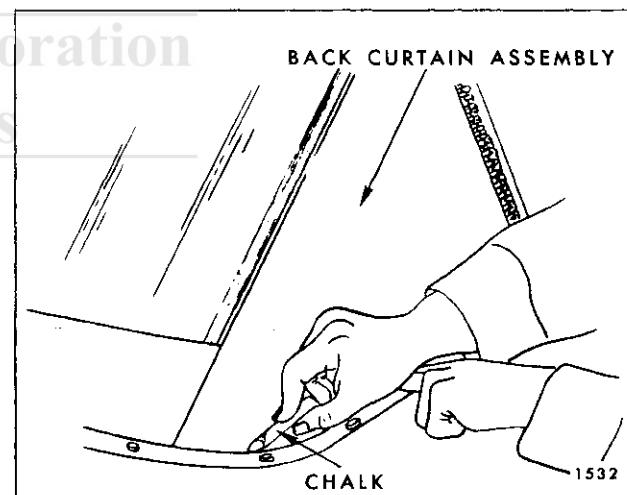


Fig. 13-52—Marking Back Curtain

- 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 re-installation of top material to its original position with a minimum of refitting.

- Install all previously removed trim and hardware.

FOLDING TOP SILENCER ASSEMBLY CADILLAC STYLES

DESCRIPTION

The Silencer Assembly consists of a piece of deadener material sewn to a lining type material which is serviced as a complete kit. The Silencer Assembly is installed in such a manner as to cover the area between the front roof rail and front roof bow, and from the right side stay pad to the left side stay pad.

Removal of Silencer Assembly

1. Lower top to stacked position.
2. Remove front roof rail front and rear weatherstrips.
3. Remove side rail front weatherstrips.

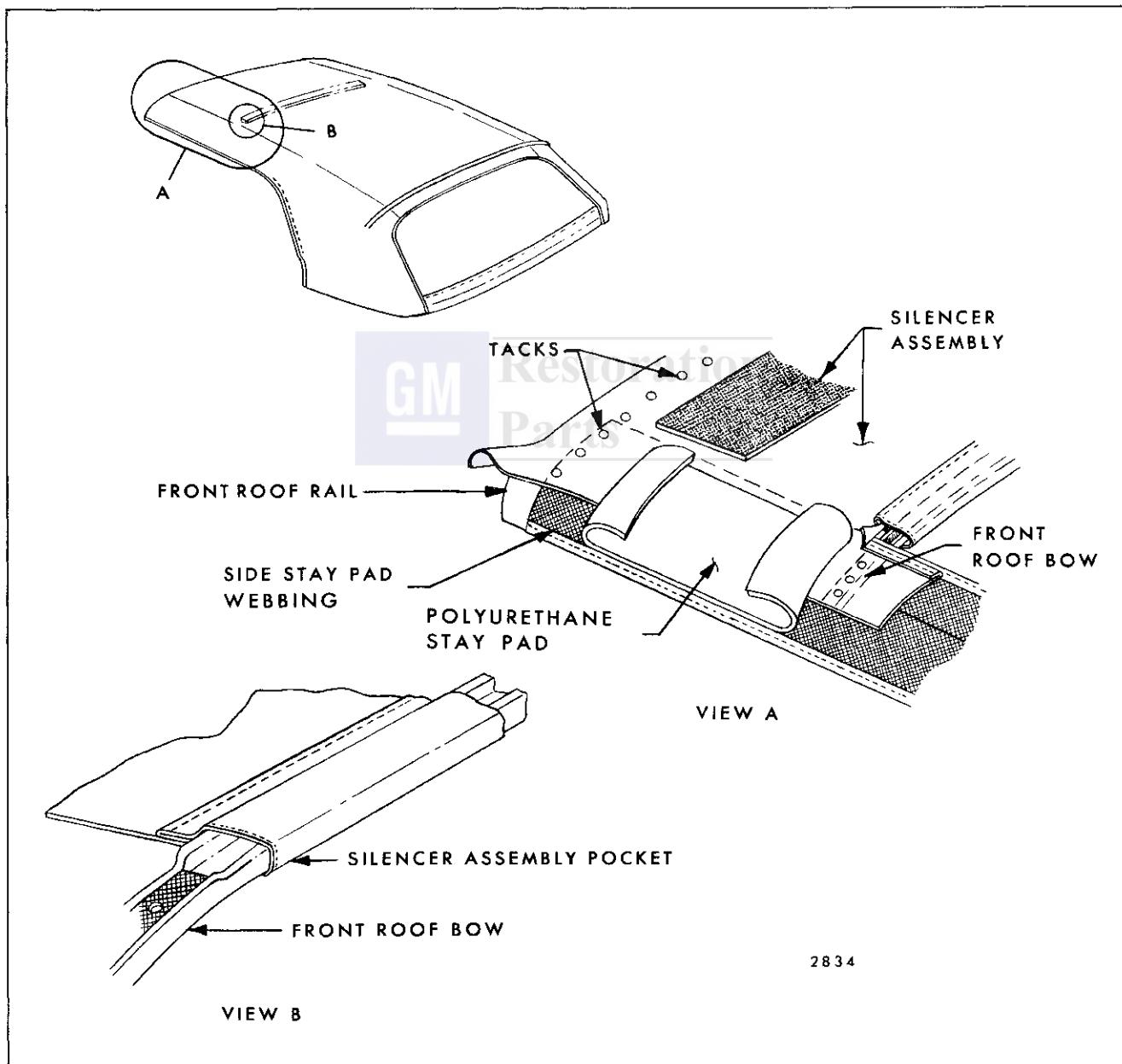


Fig. 13-53—Folding Top Silencer Assembly

4. Detach folding top material from front roof rail (Fig. 13-26).
5. Detach top material flaps from side roof front rails.
6. Raise top and lock to header.
7. Remove hold down cable attachment at front roof rails (View "A", Fig. 13-27).
8. At underside of front roof bow, remove screws securing listing pocket retainer to bow (Fig. 13-28).
9. "Peel" folding top material rearward until front roof bow is exposed.
10. From front roof rail to front roof bow, remove polyurethane stay pad.
11. Remove tacks from front roof rail securing Silencer Assembly.
12. Remove Silencer Assembly from entire front roof rail and stay pad webbing (silencer is cemented).
13. Remove screw securing front roof bow to right folding top side roof front rail to front bow link.

14. Slide pocket on Silencer Assembly off front roof bow and remove silencer from car.

Installation of Silencer Assembly

1. With deadener pad on top side of assembly, slip pocket on assembly over front roof bow (View "B", Fig. 13-53).
 2. Secure right side of front bow to folding top side roof front rail to front bow link.
 3. Apply nitrile type cement to stay pad webbing and to front roof rail.
 4. Stretching assembly taut, cement assembly to front roof rail and stay pad webbing.
- NOTE:** Prior to cementing make certain assembly is centered.
5. Tack outboard ends of assembly to front roof rail (View "A", Fig. 13-53).
 6. Cement side polyurethane stay pad to assembly.
 7. Refer to steps 28 thru 32 of Installation procedure of Folding Top Less Back Curtain.
 8. When completed, folding top should be free from wrinkles and draws. Install all previously removed hardware and weatherstrips.

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 support (Fig. 13-54). On the "B, C & F" Series the unit is installed in the body beneath the rear seat back panel (Fig. 13-55).

Figure 13-56 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 & F" 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. Remove clips securing wire harness and hydraulic hose to rear seat back panel and support.

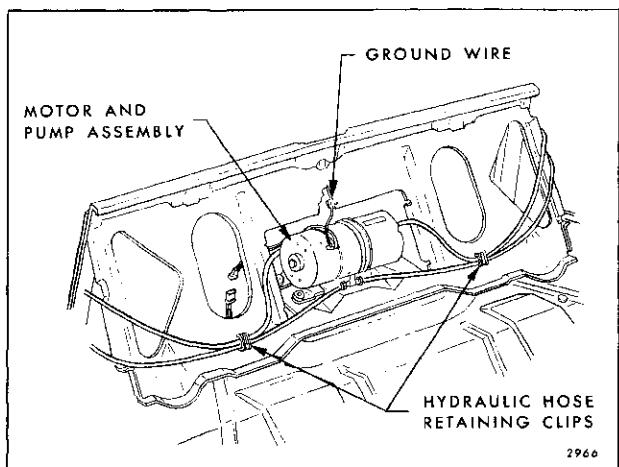


Fig. 13-54—Motor And Pump Assembly

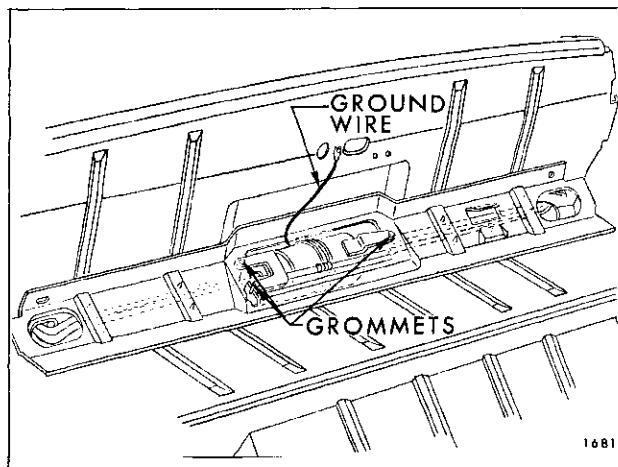


Fig. 13-55—Hydro-Lectric Motor And Pump Assembly

6. a. On "A" Body Styles disconnect motor leads from wire harness and ground attaching screws.
- b. On "B, C & F" Body Styles at rear seat back panel, disconnect wiring harness and remove ground wire attaching screw.
7. To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan on "B, C & F" and from rear seat back support on "A" Body Styles (Figs. 13-54 and 13-55).

8. Place absorbent rags below hose connections and end of reservoir.
9. Vent reservoir by removing filler plug; then install plug.

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.

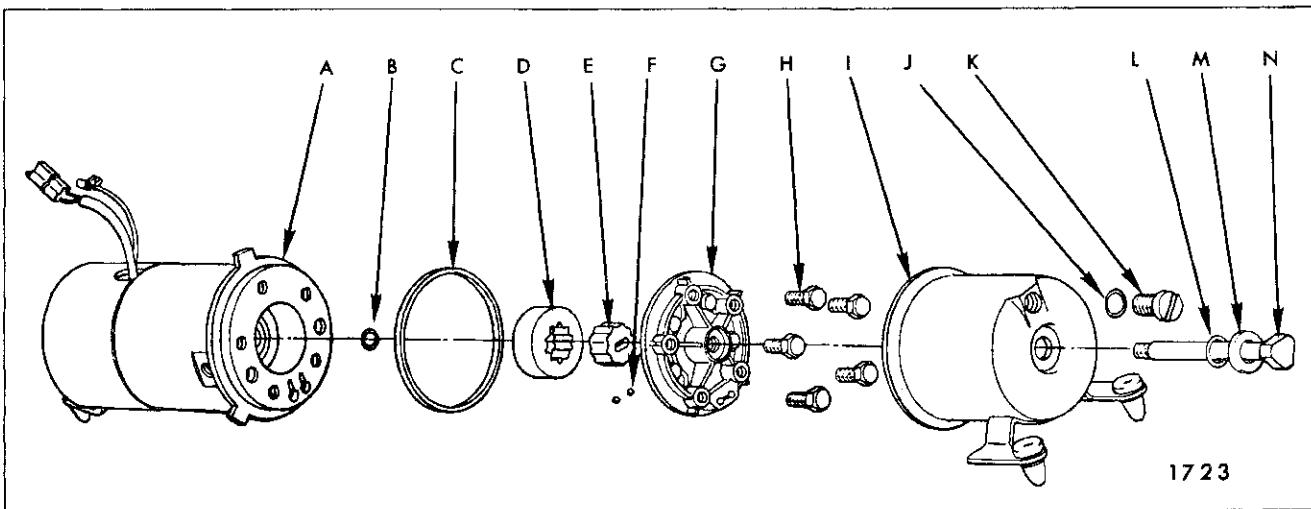


Fig. 13-56—Hydro-Lectric Motor And Pump Disassembled

- | | | |
|------------------------------|--------------------------------|--|
| A. Motor Assembly | F. Fluid Control Valve Balls | J. Reservoir Filler Plug |
| B. Motor Shaft "O" Ring Seal | G. Pump Cover Plate Assembly | K. Reservoir End Plate Attaching Bolt |
| C. Reservoir Seal | H. Pump Cover Attaching Screws | "O" Ring Seal |
| D. Outer Pump Rotor | I. Reservoir Tube and Bracket | L. Reservoir End Plate Attaching Bolt Washer |
| E. Inner Pump Rotor | Assembly | M. Reservoir End Plate Attaching Bolt |

10. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid (Figs. 13-54 and 13-55). 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 Type "A" transmission fluid. 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 Figure 13-57.

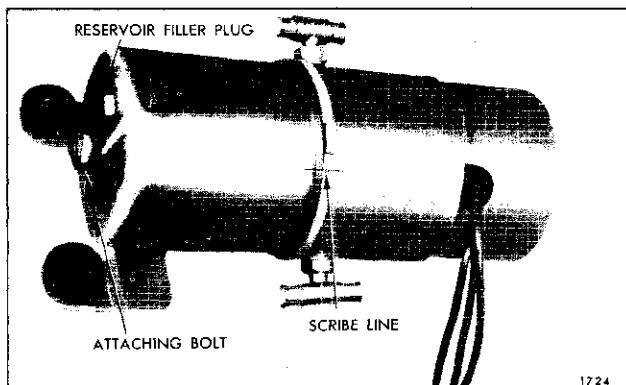


Fig. 13-57—Hydro-Lectric Motor And Pump Assembly

3. With a straight-bladed screwdriver, remove reservoir filler 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.
3. Place unit in horizontal position and fill with fluid until fluid level is within 1/4" of lower edge of filler plug hole.

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 13-58. 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.
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 13-59. The action of the pump rotors forces the fluid under pressure to

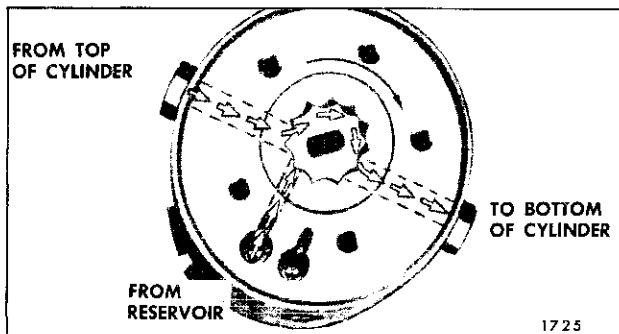


Fig. 13-58—Operation Of Pump To Raise Top

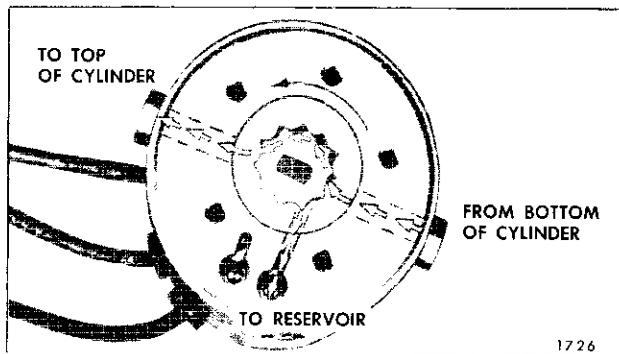


Fig. 13-59—Operation Of Pump To Lower Top

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 due 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 13-60 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 pump rotors and the reservoir. Figures 13-61 and Figure 13-62 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

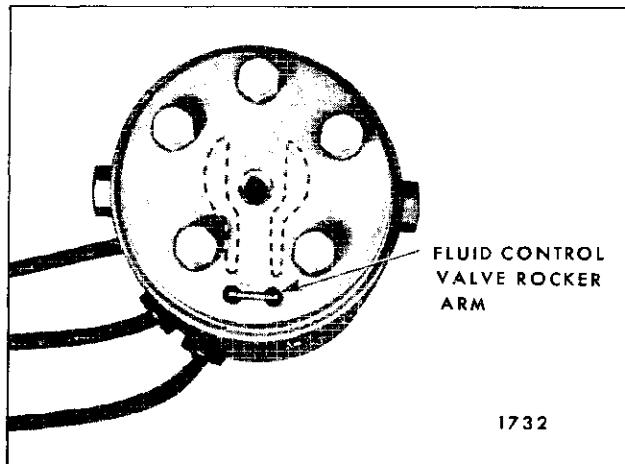


Fig. 13-60—Pump Cover Plate

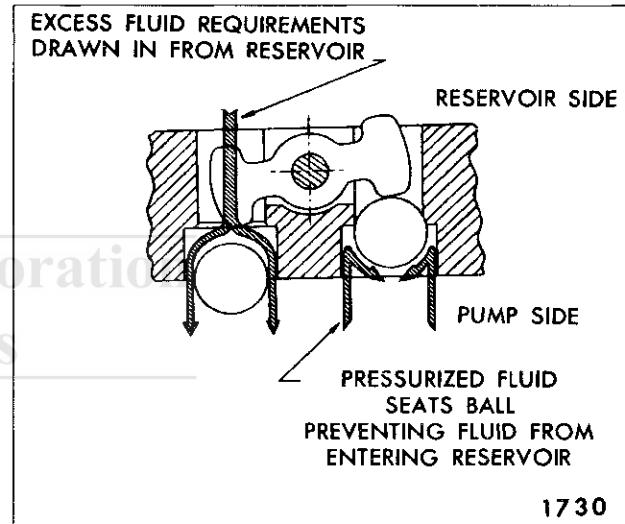


Fig. 13-61—Fluid Control Valve

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

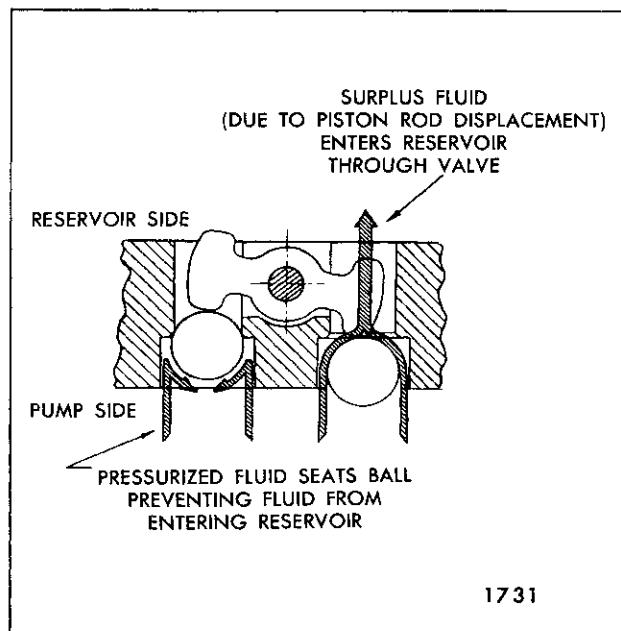


Fig. 13-62—Fluid Control Valve

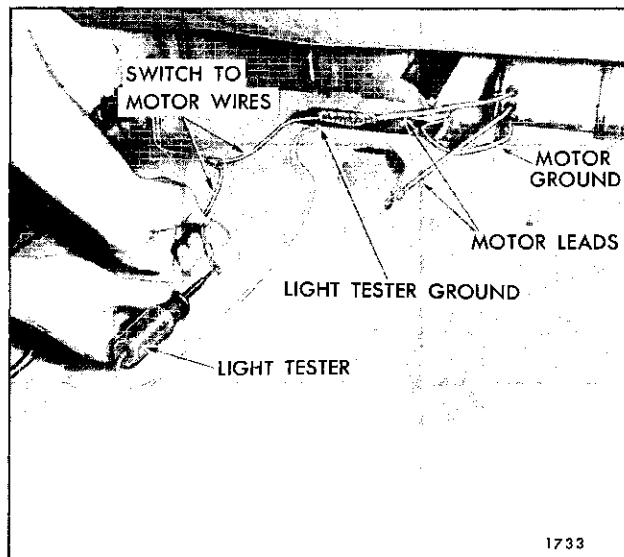


Fig. 13-63—Checking Motor Wiring

checking procedures, check battery according to recommended procedure.

1. Check for Current at Folding Top Control Switch

- Disengage terminal block from rear of switch.
- Connect light tester to central feed terminal of switch terminal block.
- Ground light tester ground lead to body metal.
- If light tester does not light, there is an open or short circuit between power source and switch.

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:

- 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.
- 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 13-63.

- Disconnect green switch-to-motor wire from motor lead in rear compartment.
- Connect a light tester to green switch-to-motor wire terminal.
- Ground light tester ground lead to body metal.
- Actuate switch to "down" position. If tester does not light, there is an open or short circuit in wire.
- Disconnect red switch-to-motor wire from motor lead.
- Connect light tester to red switch-to-motor wire terminal.
- 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. 13-54 and 13-55.)
- 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 all 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.
- c. Place absorbent rags below reservoir at filler plug.
- d. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within 1/4 inch of lower edge of filler plug hole.
- e. If fluid is low, add Type A transmission fluid to bring to specified level. See "Filling of Hydro-Lectric Reservoir".
- f. Install filler plug.
- g. 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 back and folding top compartment side panel assemblies. On "F" Body Styles only, remove the body lock pillar to main hinge support extension brace.
- 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 Type A transmission fluid to remove any oxidation and/or accumulated grime.

CAUTION: Exercise care so that transmission 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 13-64.
- 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.

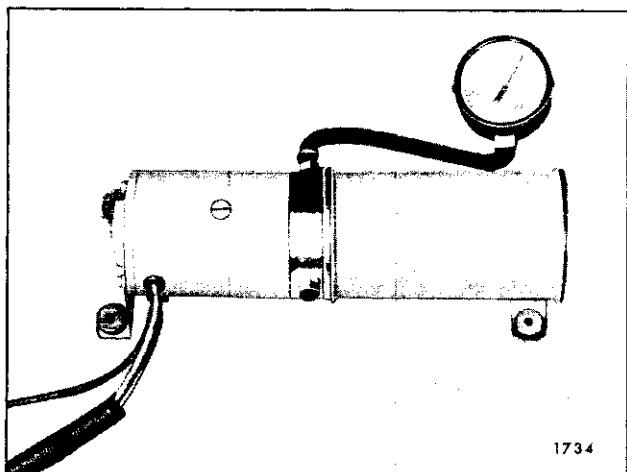


Fig. 13-64—Checking Pump Pressure

- 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.
3. Remove rear seat cushion and seat back.
4. Remove folding top compartment side trim panel assembly on side affected.

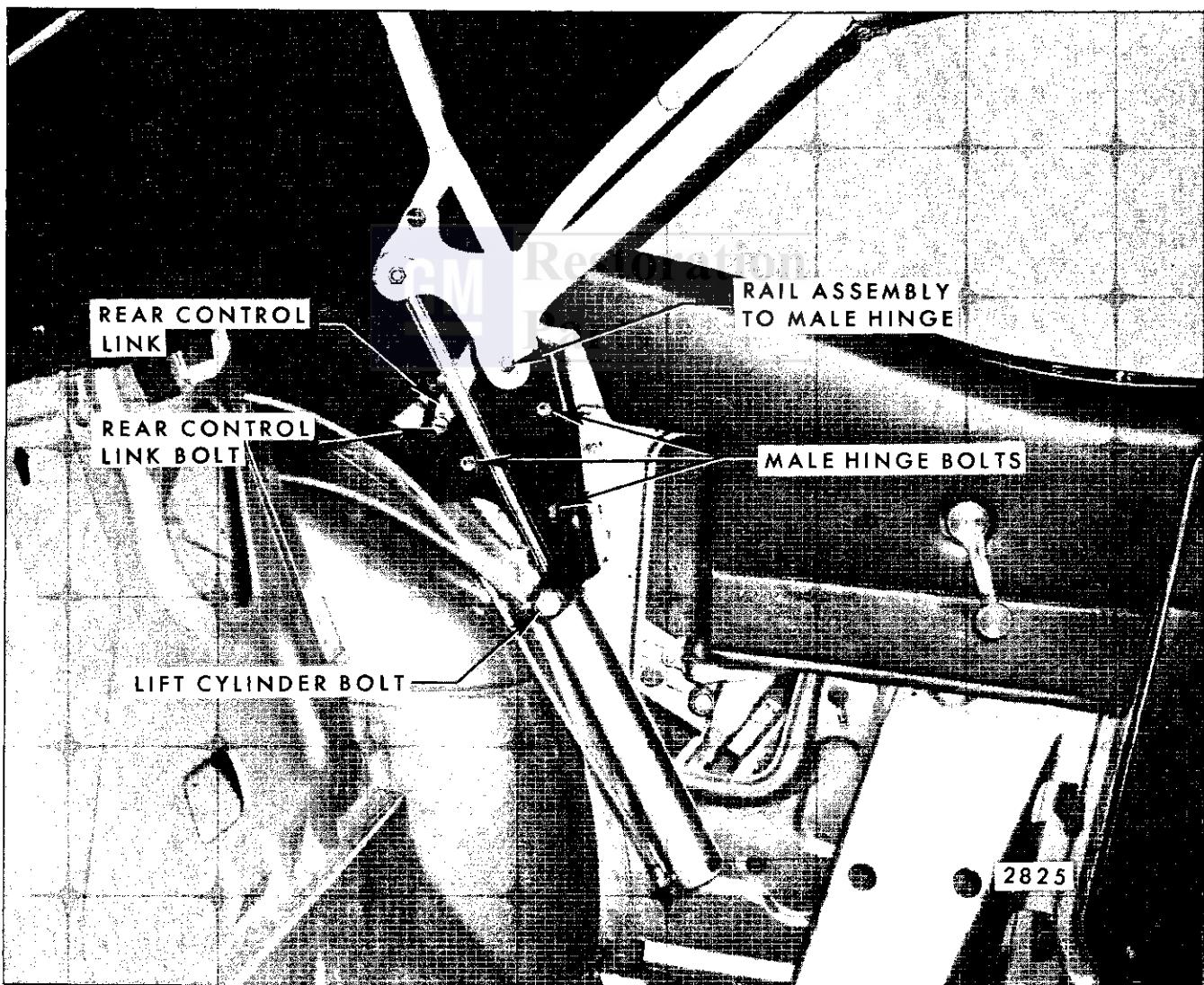


Fig. 13-65—"A" Body Hydraulic Lift Cylinder Attachment

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 13-65 and 13-66.

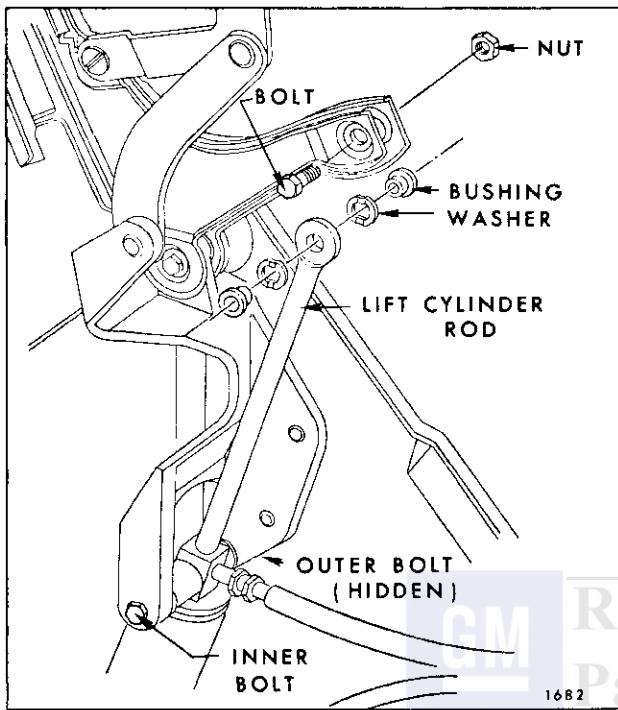


Fig. 13-66—"B and C" Body Hydraulic Lift Cylinder Attachment

7. Remove inner and outer bolt securing cylinder to male hinge (Fig. 13-66).
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.
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.

Fabrication of Rubber Filler Plug Adapter

1. Obtain a spare rubber filler plug (Part #7596442).
2. Cut approximately 1/2" off male end of plug (end inserted into reservoir) to permit insertion of tubing as shown in sketch.
3. Obtain a 2" length of metal tubing 7/32 O.D. x 5/32 I.D.
4. Insert reworked plug into filler hole in reservoir.
5. Insert metal tubing through hole in reworked filler plug.

NOTE: Figure 13-67 illustrates fabricated filler plug adapter.

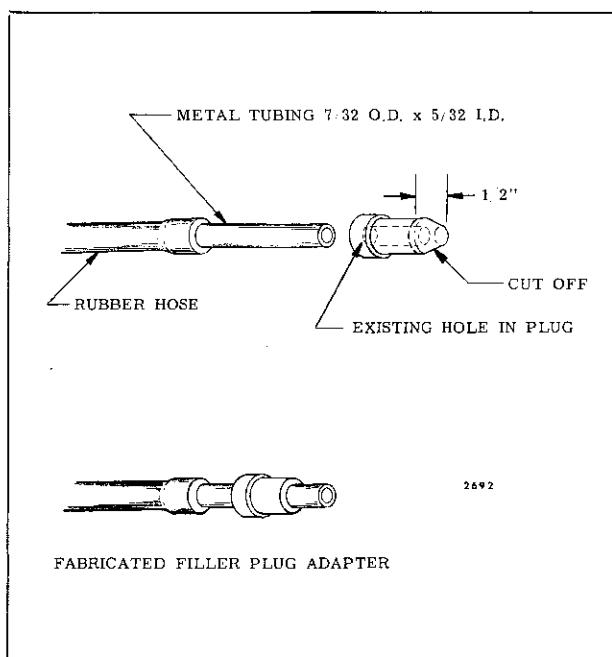


Fig. 13-67—Reservoir Filler Plug Adapter

Filling and Bleeding Reservoir

1. On all body styles, with top in raised position, remove folding top compartment bag material from rear seat back panel.

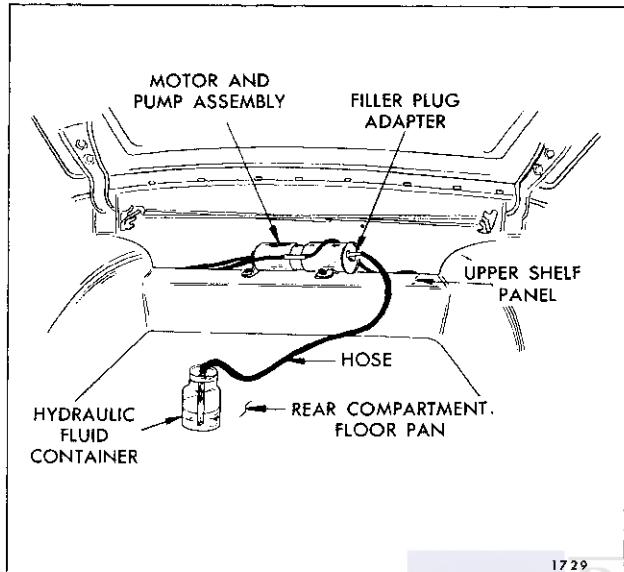


Fig. 13-68—Filling Reservoir

2. On "B-C & F" body styles, remove rear seat cushion and back.
3. Place absorbent rags below reservoir at filler plug. Using pliers, slowly pull filler plug from reservoir.

IMPORTANT: When installing new or over-hauled motor and pump assembly as a bench operation, fill reservoir with hydraulic fluid.

This priming operation is necessary prior to performing the following steps in order to avoid drawing excessive amount of air into hydraulic system.

4. Install filler plug adapter to reservoir and attach four or five foot length 5/32 inch I.D. rubber tubing or hose to filler plug tubing.
5. Install opposite end of hose into a container of Type "A" transmission fluid.

NOTE: Container should be placed in rear compartment area on "A" bodies and rear floor pan on "B-C & F" bodies, below level of fluid in the reservoir. In addition, sufficient fluid must be available in container to avoid drawing air into hydraulic system.

6. 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 filled with fluid.
7. Operate top up and down several times or until operation of top is consistently smooth in both up and down cycles and no further air bubbles are exhausted in container or fluid.

8. With top in down position, remove filler plug tubing and remove filler plug adapter from reservoir.

9. Check level of fluid in reservoir and re-install original filler hole plug.

NOTE: Fluid level should be within 1/4 inch of lower edge of filler plug with top in down position.

CAUTION: DO NOT OVER-FILL.

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. 13-69).
6. Mark location of control link adjusting plate on folding top compartment brace (Fig. 13-69).

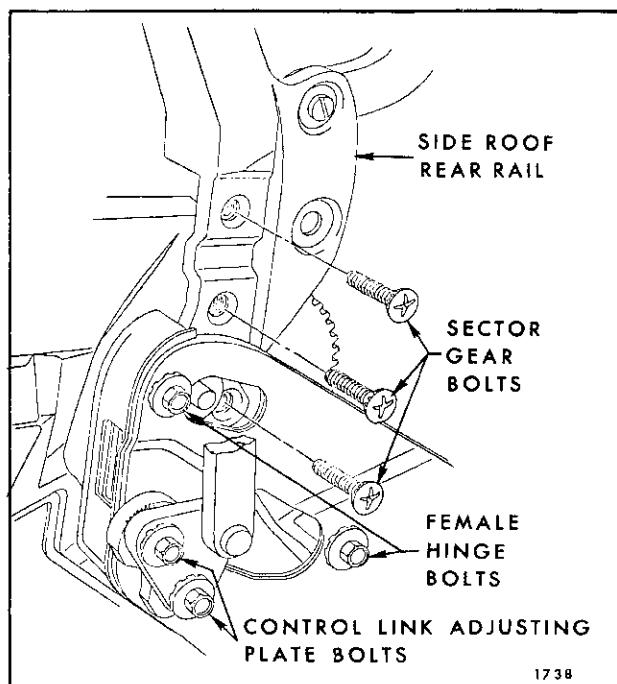


Fig. 13-69—Actuator Attachment

7. Remove control link adjusting plate attaching bolts.
8. Mark location of female hinge attaching bolt washers on folding top compartment brace (Fig. 13-69).
9. Remove female hinge attaching bolts and remove actuator assembly from body.

INSTALLATION

1. Install female hinge attaching bolts to new actuator assembly, using washer scribe marks as guide (Fig. 13-69).
2. Install control link adjusting plate attaching bolts, using scribe mark of control link as guide (Fig. 13-69).

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. 13-69).

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. 13-70).

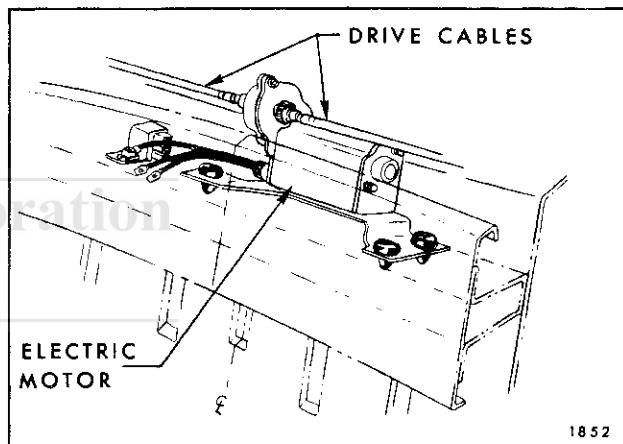


Fig. 13-70—Folding Top Electric Motor and Cables

- 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. 13-70).
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.

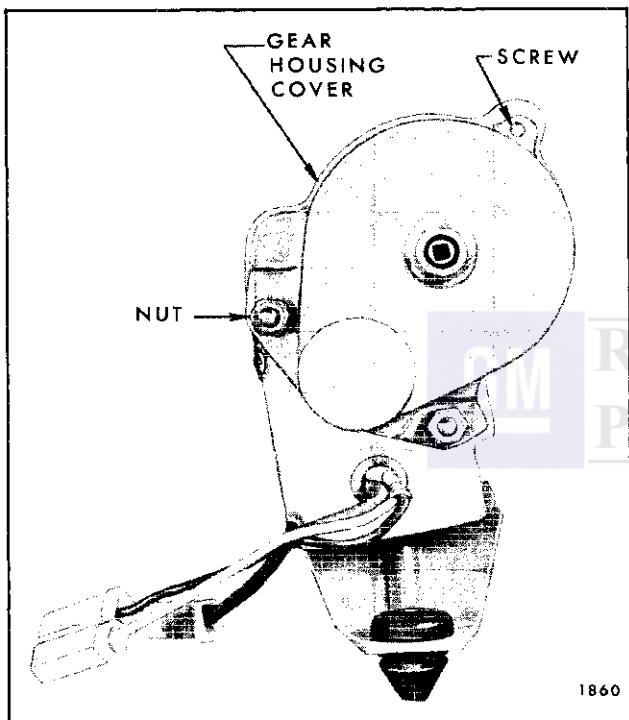


Fig. 13-71—Folding Top Lift Assembly

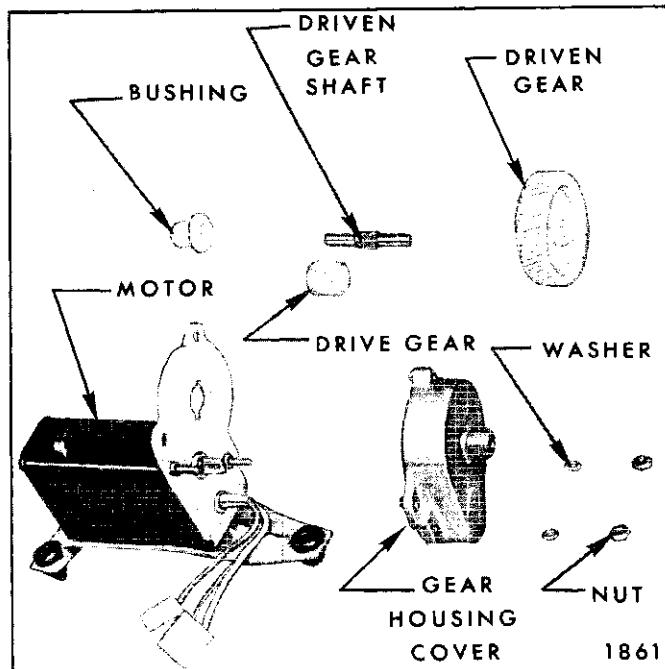


Fig. 13-72—Folding Top Lift Disassembled

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. 13-71).
4. Disassemble folding top lift assembly as shown in Figure 13-72.
5. To assemble, reverse disassembly procedure.

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. On all styles remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected. On "F" Body

Styles only, remove the body lock pillar to main hinge support extension brace.

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. On "F & Z" bodies, remove inner and outer bolt securing lift assembly to male hinge; then remove assembly from body. On "A" bodies, remove inner bolt and slightly move lift assembly inboard and remove. (Fig. 13-73 for "A" body, Fig. 13-74 for "F" body, and Fig. 13-75 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.

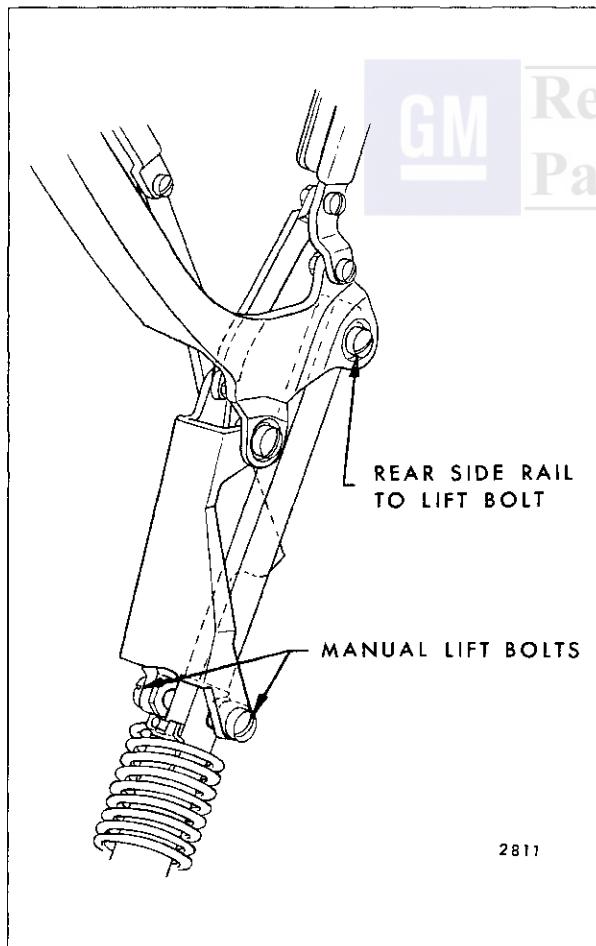


Fig. 13-73—"A" Body Manual Lift Assembly

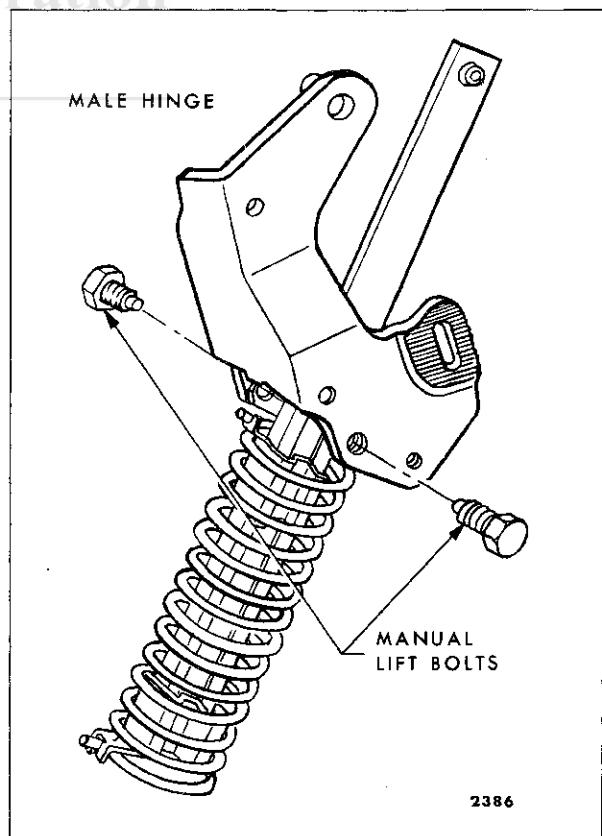


Fig. 13-74—"F" Body Manual Lift Attachment

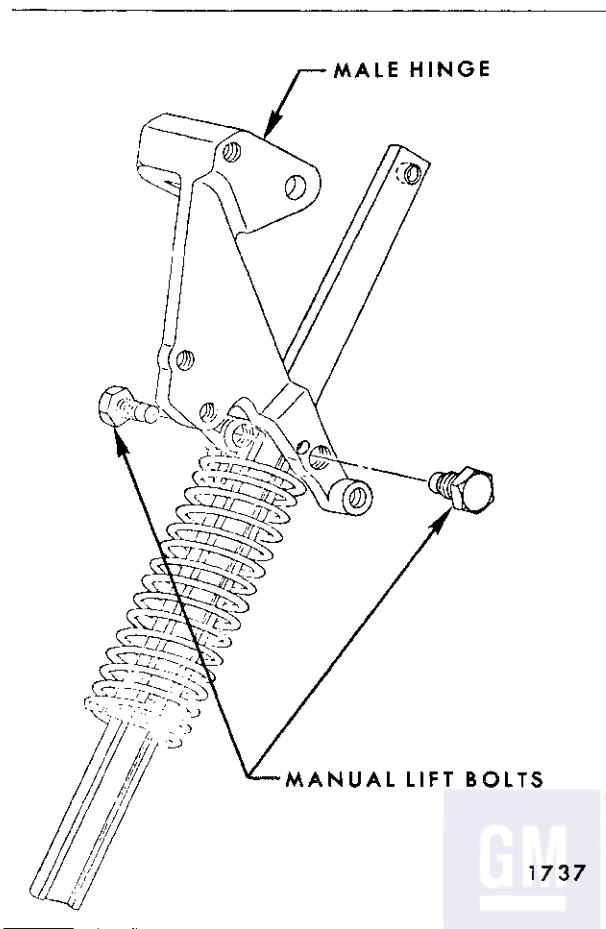


Fig. 13-75—"Z" Body Manual Lift Attachment

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 (See "Folding Top Adjustments") require corresponding adjustments to the catch clips.

Restoration
Parts

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 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. 13-76.)

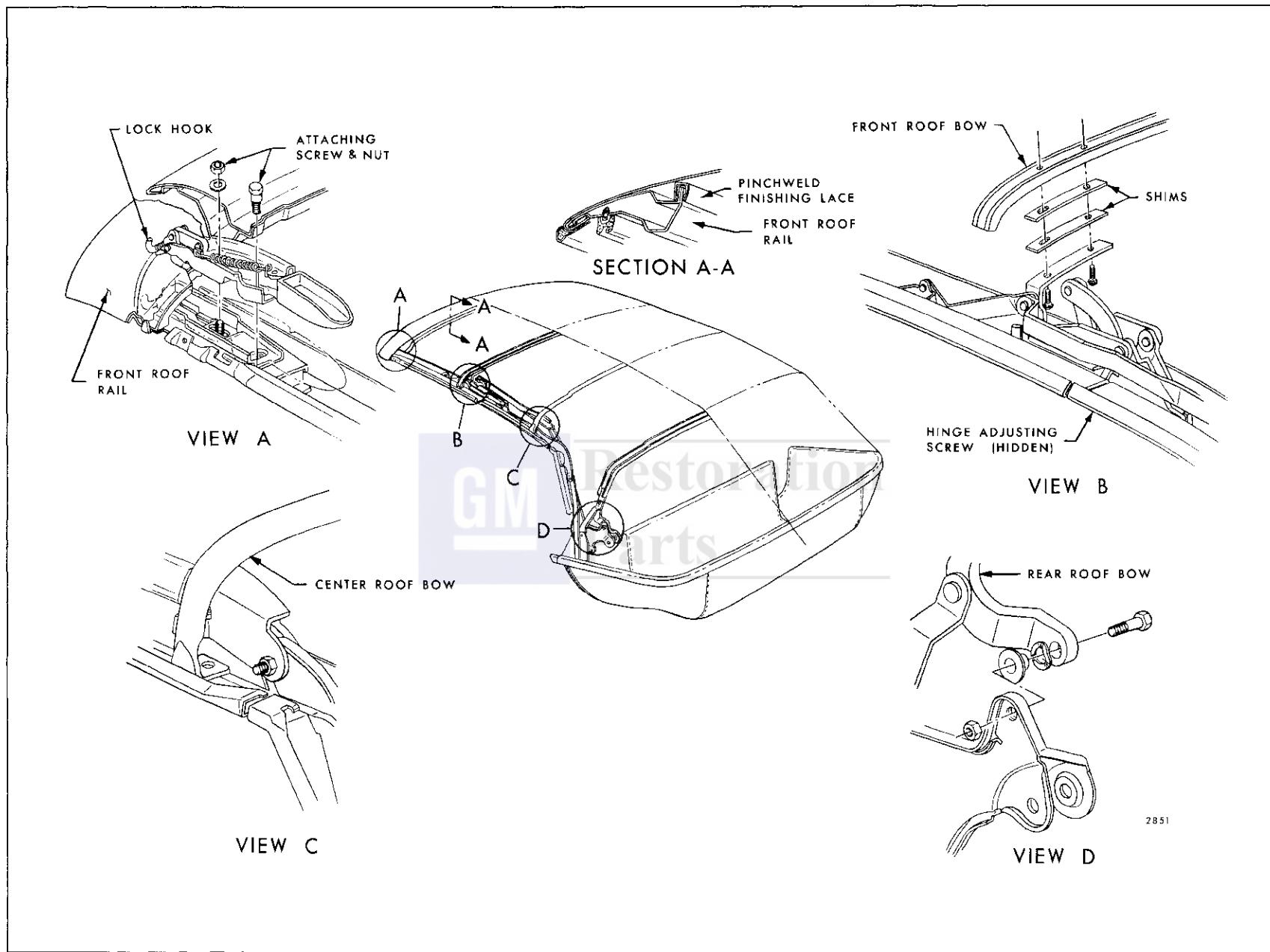


Fig. 13-76—“A” Body Folding Top Adjustments

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. 13-76.)

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.

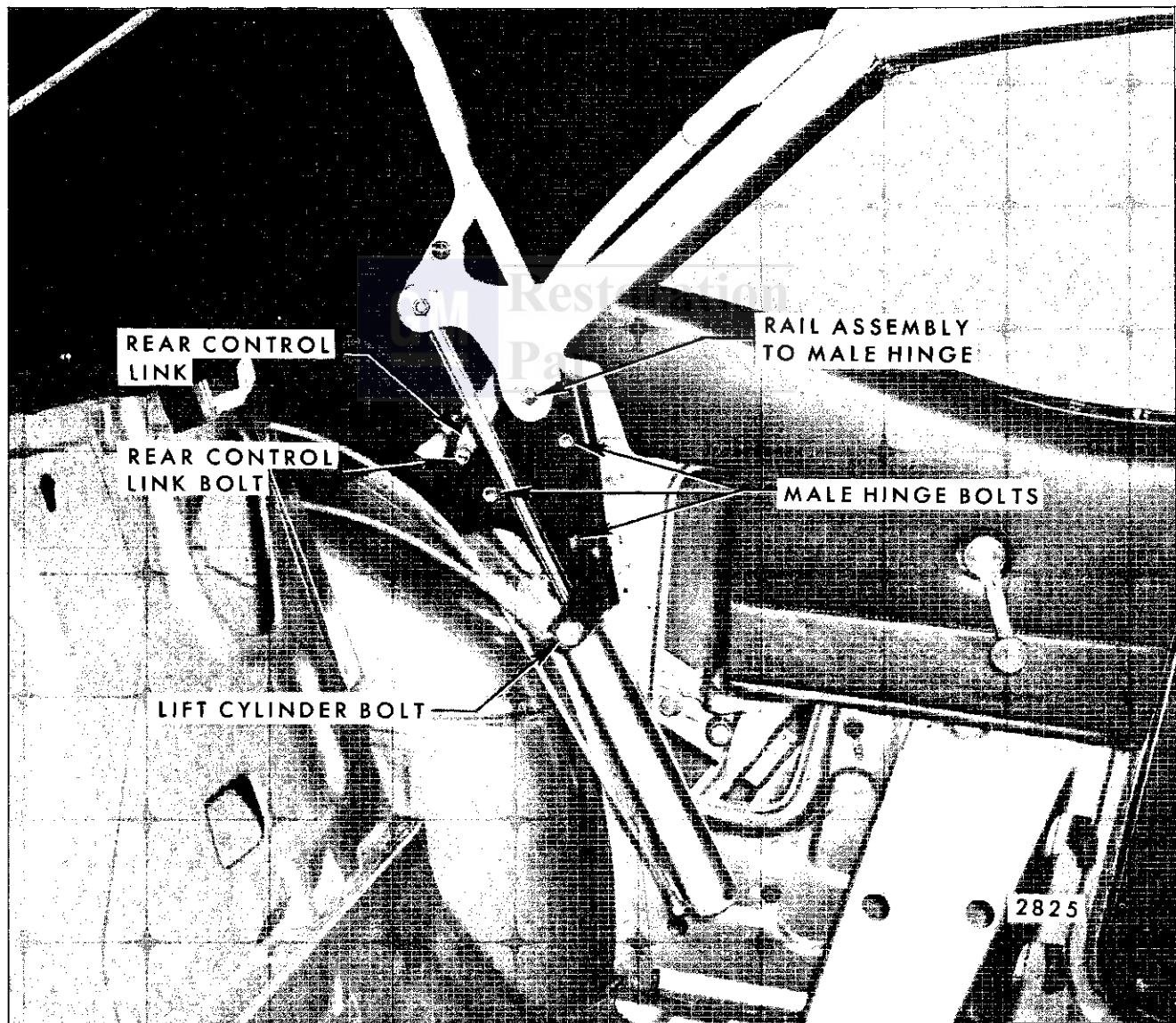


Fig. 13-77—"A" Body Convertible Top Linkage Attachments

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. Loosen one bolt securing control link sufficiently to permit adjustment of link (See Fig. 13-77).
 - b. Adjust side roof rail up or down allowing link to move up or down over serrations on support as required; then tighten bolt.

NOTE: Removal of trim is not necessary to adjust the control link.

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.

TROUBLE SHOOTING CHART

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front	<ol style="list-style-type: none"> 1. Lock hook improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned. 	<p>Adjust lock hook counterclockwise. (See View "A" in Fig. 13-76).</p> <p>Loosen, realign and retack front roof rail front weatherstrip.</p> <p>Adjust front roof rail. (View "A" in Fig. 13-76).</p>
B. Top does not lock tight enough to windshield header.	<ol style="list-style-type: none"> 1. Lock hook improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned. 	<p>Adjust lock hook clockwise. (See View "A" in Fig. 13-76).</p> <p>Loosen, realign and retack front roof rail front weatherstrip.</p> <p>Adjust front roof rail.</p>
C. Top travels too far forward.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 	<p>Adjust front roof rail rearward (See View "A" in Fig. 13-76).</p>
D. Top does not travel forward far enough.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 	<p>Adjust front roof rail forward (See View "A" in Fig. 13-76).</p>
E. Sag at front to center side roof rail joint.	<ol style="list-style-type: none"> 1. Control link misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted. 	<p>Adjust control link downward. (Fig. 13-77).</p> <p>Adjust screw counterclockwise. (See View "B" in Fig. 13-76).</p>
F. Front and center side roof rails bow upward at hinge joint.	<ol style="list-style-type: none"> 1. Control link misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted. 	<p>Adjust control link upward. (Fig. 13-77).</p> <p>Adjust screw clockwise. (See View "B" in Fig. 13-76).</p>
G. Folding top dust boot is difficult to install.	<ol style="list-style-type: none"> 1. On manual tops, due to improperly adjusted catch slips. 	<p>Adjust catch clips downward as required.</p>

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
H. Folding top dust boot fits too loosely.	1. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips upward as required.
I. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed. 2. Excessive width in top material.	*Install one or two 1/8" shims between front roof bow and slat iron. (See View "B" in Fig. 13-76). 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.
J. 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. 13-76).
K. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted. 2. Top material improperly installed to center or rear quarter trim stick.	Adjust rear quarter trim stick on side affected. Retack top material as required.
L. Wind whistle or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.

*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 adjustments 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 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:

1. Raise top assembly to half-open position.

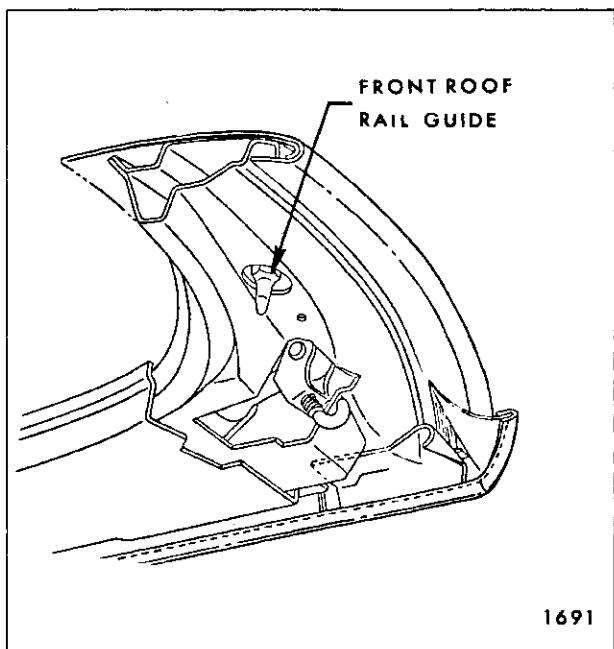


Fig. 13-78—Guide Adjustment

2. Loosen guide sufficiently to permit adjustment (Fig. 13-78).
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. 13-79).

NOTE: If additional adjustment is required, it can be made at the folding top male hinge.

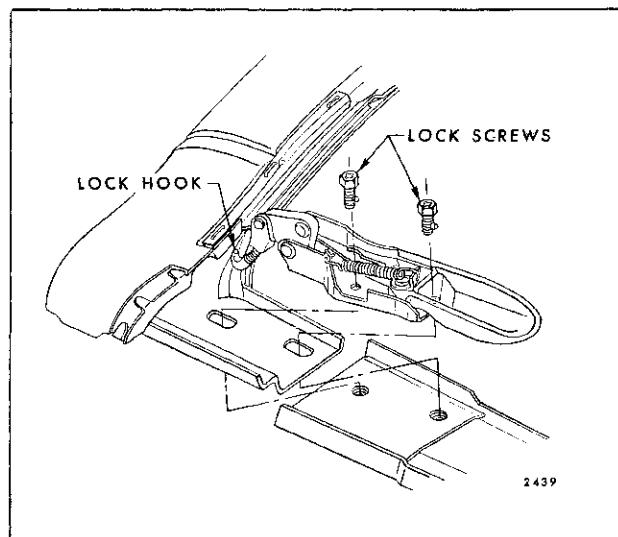


Fig. 13-79—Lock Attachment

3. When front roof rail is properly adjusted, tighten lock 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. 13-79).
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 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. 13-80).

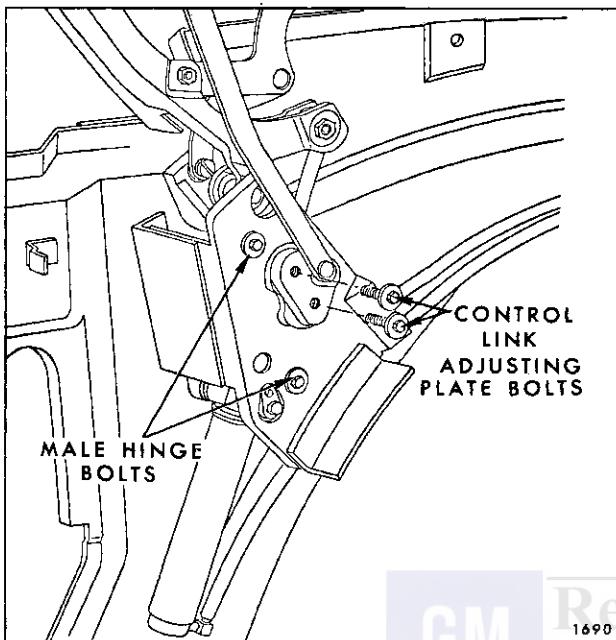


Fig. 13-80—Male Hinge Attachment

- 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.

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 attached bolts (Fig. 13-80).
 - 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. 13-80).

- 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. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned.	Adjust lock hook counterclockwise. Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail.
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned.	Adjust lock hook clockwise. Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned. 2. Male hinge assembly misaligned.	Adjust front roof rail rearward (Fig. 13-81). Adjust male hinge assembly rearward (Fig. 13-80).
D. Top does not travel forward far enough.	1. Front roof rail misaligned. 2. Male hinge assembly misaligned.	Adjust front roof rail forward (Fig. 13-81). Adjust male hinge assembly forward (Fig. 13-80).
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. 13-80).
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. 13-80) 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. 13-80).

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
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. 2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust control link adjusting plate downward (Fig. 13-80). Adjust screw counterclockwise (Fig. 13-81).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust control link adjusting plate upward (Fig. 13-80). Adjust screw clockwise (Fig. 13-81).
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned control link adjusting plate. 2. Misaligned folding top dust boot female fastener. 3. Rear seat back assembly is too far forward.	Adjust control link plate rearward or forward as required (Fig. 13-80). Where possible, align female with male fastener. Relocate rear seat back panel rearward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is $21-11/16'' \pm 1/16''$. The dimension is measured at approximate centerline of body.
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned control link adjusting plate. 2. Rear seat back assembly is too far rearward.	Adjust control link plate forward (Fig. 13-80). Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is $21-11/16'' \pm 1/16''$. 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. 2. Excessive width in top material.	*Install one or two $1/8''$ shims between front roof bow and slat iron (Fig. 13-81). 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.

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
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. 13-81).
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted. 2. Top material improperly installed to center of rear quarter trim stick.	Adjust rear quarter trim stick on side affected. Retack top material as required.
P. Wind whistles or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip. 2. Front roof rail contour does not conform to windshield header.	Retack front weatherstrip to front roof rail. Contour of front roof rail may be changed slightly by reforming rail.

*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.



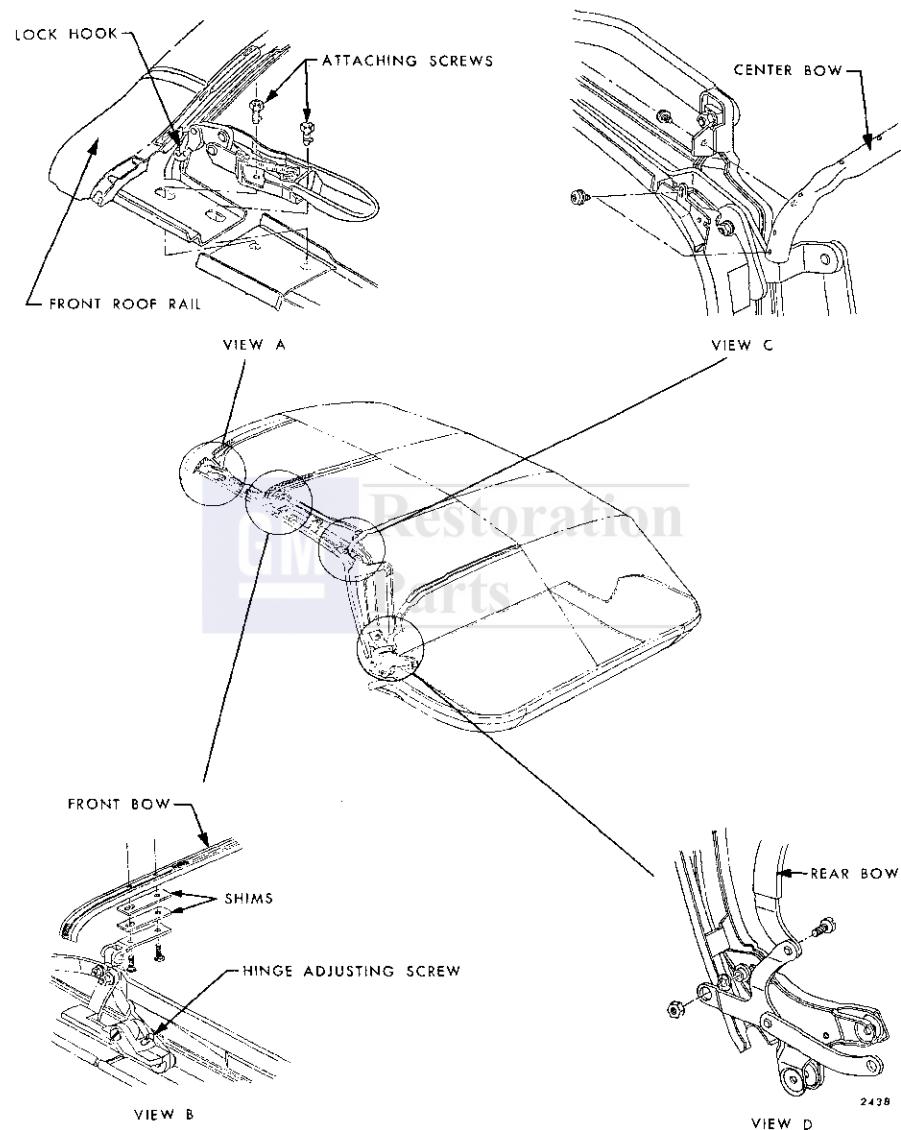


Fig. 13-81—"B and C" Body Folding Top Adjustments

FOLDING TOP ADJUSTMENTS "F" 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 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. 13-83.)

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. 13-83.)
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 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. 13-82).
 - 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:
 - a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.
 - b. Loosen male hinge assembly (Fig. 13-82).
 - 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; 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".)

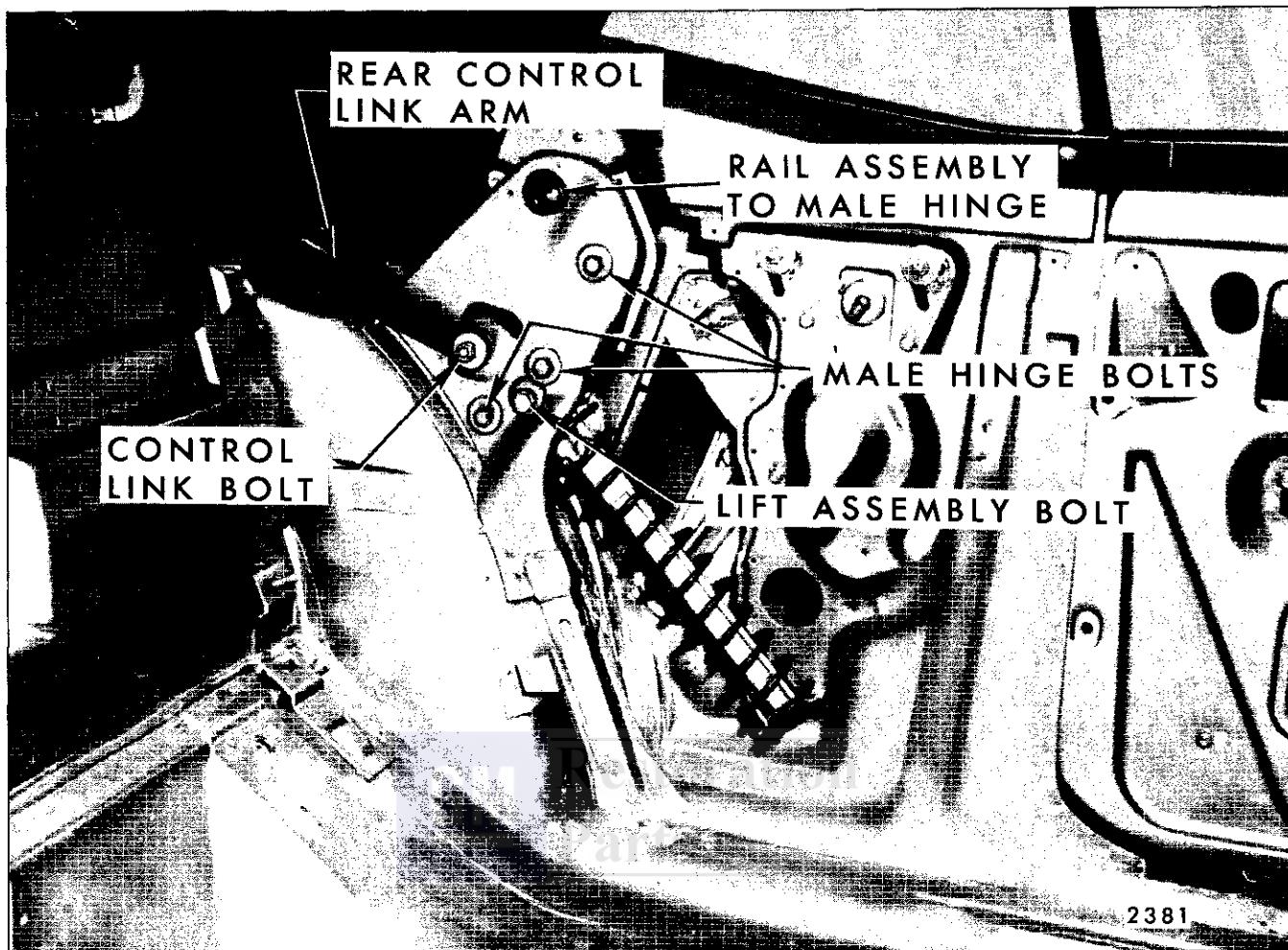


Fig. 13-82—"F" Body Convertible Top Linkage Attachments

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. 13-82).
 - 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. 13-82).

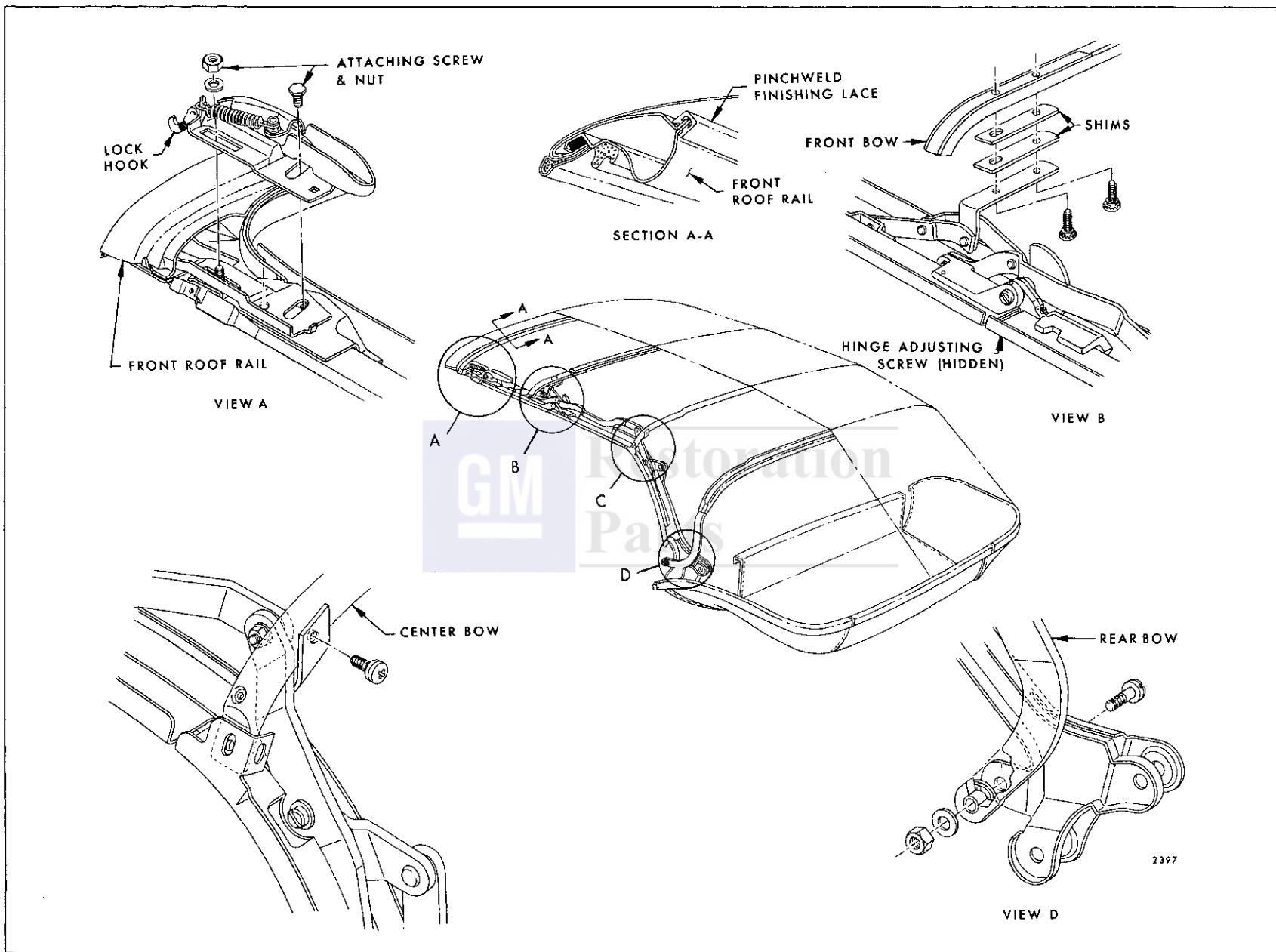


Fig. 13-83—"F" Body Folding Top Adjustments

NOTE: When rotating male hinge be certain position of rear rail to male hinge is maintained (Fig. 13-82).

- 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 misalignment conditions, their apparent causes and the recommended procedure for their correction.

TROUBLE SHOOTING CHART

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Lock hook improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned.	Adjust lock hook counterclockwise. (See View "A" in Fig. 13-83.) Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail. (View "A" in Fig. 13-83.)
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned.	Adjust lock hook clockwise. (See View "A" in Fig. 13-83.) Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned. 2. Male hinge assembly misaligned.	Adjust front roof rail rearward. (See View "A" in Fig. 13-83.) Adjust male hinge assembly rearward. (Fig. 13-82.)
D. Top does not travel forward far enough.	1. Front roof rail misaligned. 2. Male hinge assembly misaligned.	Adjust front roof rail forward. (See View "A" in Fig. 13-83.) Adjust male hinge assembly forward. (Fig. 13-82.)
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. 13-82.)
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. 13-82).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward. (Fig. 13-82.)

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
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. 13-82.)
I. Sag at front to center side roof rail joint.	1. Control link misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust control link downward. (Fig. 13-82.) Adjust screw counterclockwise. (See View "B" in Fig. 13-83.)
J. Front and center side roof rails bow upward at hinge joint.	1. Control link misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust control link upward. (Fig. 13-82.) Adjust screw clockwise. (See View "B" in Fig. 13-83.)
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned male hinge assembly. 2. On manual tops, due to improperly adjusted catch clips.	Rotate male hinge forward or rearward as required. (Fig. 13-82.) Adjust catch clips downward as required.
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned male hinge assembly. 2. On manual tops, due to improperly adjusted catch clips.	Rotate male hinge assembly rearward as required. (Fig. 13-82.) Adjust catch clips upward as required.
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed. 2. Excessive width in top material.	*Install one or two 1/8" shims between front roof bow and slat iron. (See View "B" in Fig. 13-83.) 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. 13-83.)
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted. 2. Top material improperly installed to center or rear quarter trim stick.	Adjust rear quarter trim stick on side affected. Retack top material as required.

TROUBLE SHOOTING CHART (CONT'D)

CONDITION	APPARENT CAUSE	CORRECTION
P. Wind whistle or waterleak along front roof rail.	1. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.

*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—"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. 13-84).
3. Using a file, slot inboard screw hole in wedge plate.
4. Install wedge plate and attaching screws.

NOTE: Do not tighten screws.

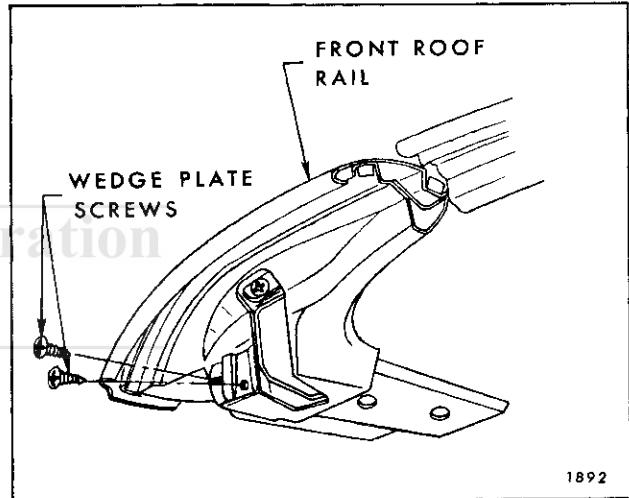


Fig. 13-84—Front Roof Rail Wedge Plate

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. 13-85).

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 weather-strip 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. 13-85).
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. 13-86).
2. To reduce or decrease locking action, turn lock hook counterclockwise (Fig. 13-85).

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. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate (Fig. 13-86).
 - b. 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.

- c. Loosen male hinge assembly and control link attaching bolts (Fig. 13-86).
- d. Rotate male hinge assembly forward or rearward around linkage pivot point, as required; then tighten attaching bolts (Fig. 13-87).
- e. On styles equipped with manually operated folding top, adjust both folding top catch

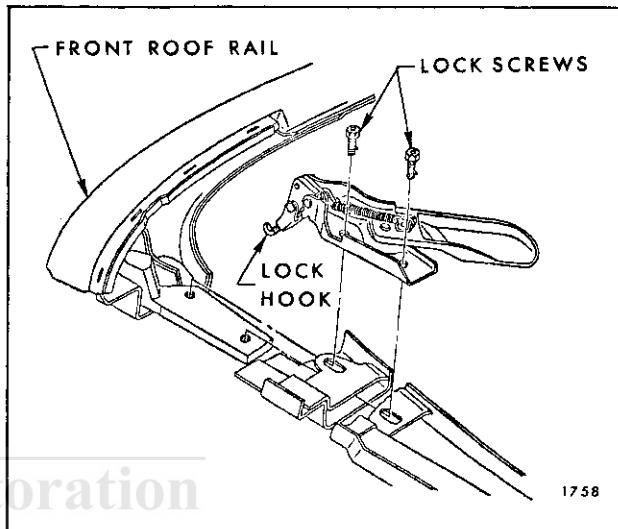


Fig. 13-85—Front Roof Rail Adjustment

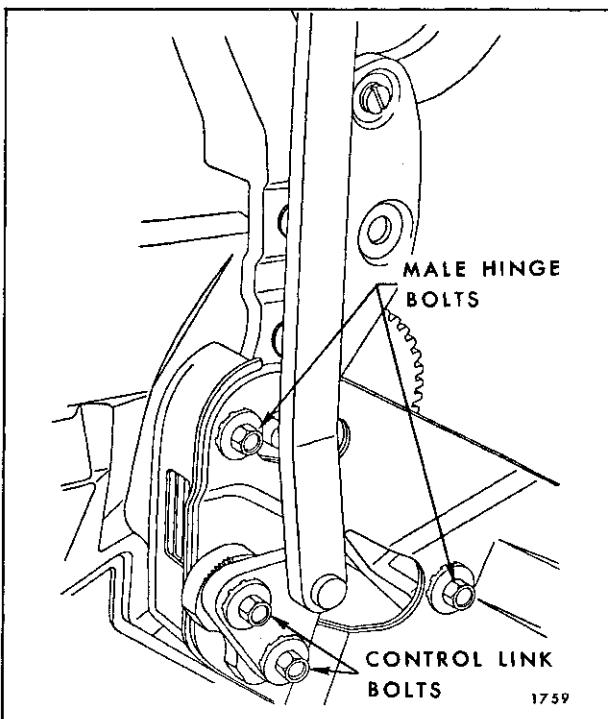


Fig. 13-86—Male Hinge Adjustment

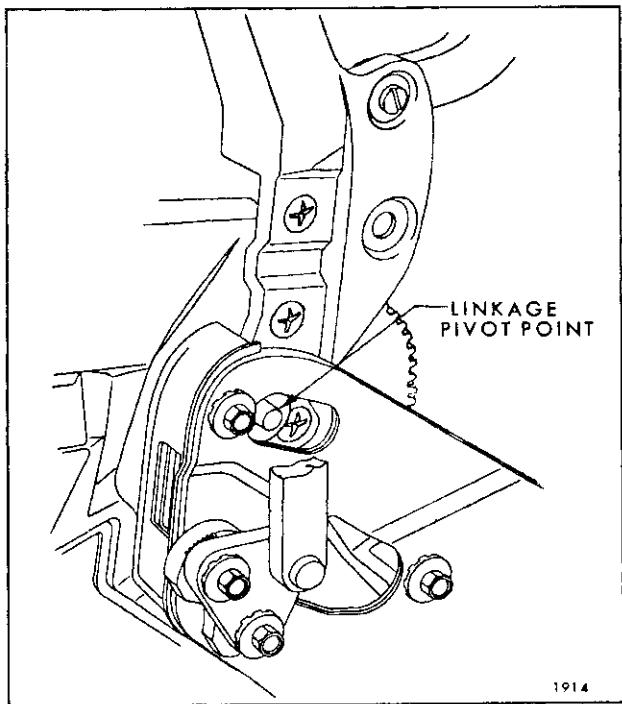


Fig. 13-87—Linkage Pivot Point

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. 13-86).
 - 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 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 and control link attaching bolts (Fig. 13-86).
 - 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".)

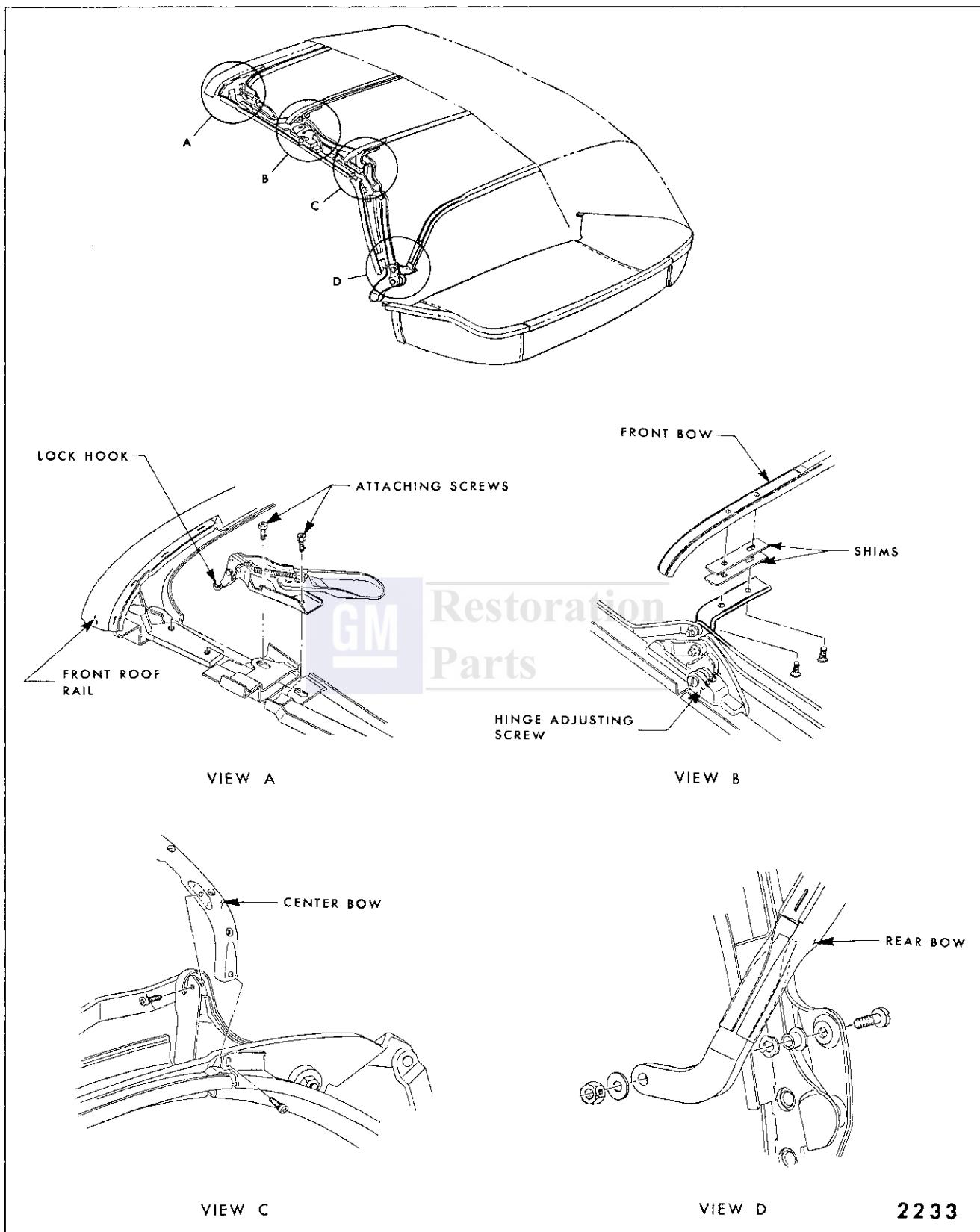


Fig. 13-88—"Z" Body Folding Top Adjustments

TROUBLE SHOOTING CHART

The following procedure describes and illustrates various types of folding top misalignment condi-

tions, their apparent causes and the recommended procedure for their correction.

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	2. Lock hook improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned.	Adjust lock hook counterclockwise. (View "A" in Fig. 13-88.) Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail. (View "A" in Fig. 13-88.)
B. Top does not lock tight enough to windshield header.	1. Lock hook improperly adjusted. 2. Misaligned front roof rail front weatherstrip. 3. Front roof rail misaligned.	Adjust lock hook clockwise. (View "A" in Fig. 13-88.) Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned. 2. Male hinge assembly misaligned.	Adjust front roof rail rearward (View "A" in Fig. 13-88.) Adjust male hinge assembly rearward (Fig. 13-86).
D. Top does not travel forward far enough.	1. Front roof rail misaligned. 2. Male hinge assembly misaligned.	Adjust front roof rail forward. (View "A" in Fig. 13-88.) Adjust male hinge assembly forward (Fig. 13-86).
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. 13-86).
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. 13-86).
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	Adjust male hinge upward (Fig. 13-86).
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. 13-86).
I. Sag at front of center side roof rail joint.	1. Control link adjusting plate misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust control link adjusting plate downward (Fig. 13-86). Adjust screw clockwise. (View "B" in Fig. 13-88.)

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
J. Front and center side roof rails bow upward at hinge joint.	<ol style="list-style-type: none"> 1. Control link adjusting plate misaligned. 2. Center side roof rail hinge adjusting screw improperly adjusted. 	<p>Adjust control link adjusting plate upward (Fig. 13-88).</p> <p>Adjust screw counterclockwise (View "B" in Fig. 13-88.)</p>
K. Folding top dust boot is difficult to install.	<ol style="list-style-type: none"> 1. Improper stack height due to misaligned male hinge. 2. Misaligned folding top dust boot female fastener. 3. Rear seat back assembly is too far forward. 	<p>Rotate male hinge rearward around pivot point as required (Fig. 13-87).</p> <p>Where possible, align female with male fastener.</p> <p>Relocate rear seat back rearward until dimension between upper rear edge of rear seat back to forward edge of pinch-weld finishing molding is $13'' \pm 1/16''$. The dimension is measured at approximate center line of body.</p>
L. Folding top dust boot fits too loosely.	<ol style="list-style-type: none"> 4. On manual tops, due to improperly adjusted catch clips. 1. Improper stack height due to misaligned male hinge. 2. Rear seat back assembly is too far rearward. 	<p>Adjust catch clips downward as required.</p> <p>Rotate male hinge forward around pivot point as required (Fig. 13-87).</p> <p>Relocate rear seat back panel forward 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.</p>
M. Top material is too low over windows or side roof rails.	<ol style="list-style-type: none"> 3. On manual tops, due to improperly adjusted catch clips. 1. Front roof bow improperly shimmed. 2. Excessive width in top material. 	<p>Adjust catch clips upward as required.</p> <p>*Install one or two $1/8''$ shims between front roof bow and slat iron. (View "B" in Fig. 13-88.)</p> <p>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.</p>
N. Top material is too high over windows or side roof rails.	<ol style="list-style-type: none"> 1. Front roof bow improperly shimmed. 	<p>*Remove one or two $1/8''$ shims from between front roof bow and slat iron. (See View "B" in Fig. 13-88.)</p>

TROUBLE SHOOTING CHART (CONT'D.)

CONDITION	APPARENT CAUSE	CORRECTION
O. Top material has wrinkles or draws.	<ol style="list-style-type: none"> 1. Rear quarter trim stick improperly adjusted. 2. Top material improperly installed to center or rear quarter trim stick. 	<p>Adjust rear quarter trim stick on side affected.</p> <p>Retack top material as required.</p>
P. Wind whistle or water-leak along front roof rail.	<ol style="list-style-type: none"> 1. Misaligned front roof rail front weatherstrip. 	Retack front weatherstrip to front roof rail.

*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 14

DOOR, QUARTER AND SHELF TRIM

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INTRODUCTION

This section of the manual contains the service operations that are necessary for the removal and installation of door, rear quarter and compartment shelf trim assemblies.

Body series or style references in the procedures are explained under "General Information", Section I of this manual.

DOOR PULL HANDLES

Two methods are used to secure door pull handles on 1968 model passenger vehicles. The most common method attaches the handle to the trim pad with clips or screws on the outboard (reverse) side of the trim assembly prior to trim installation, and, then, additionally secures the handle to the door with screws installed from the inboard side after trim installation. With this method of installation, to remove only the pull handle requires removal of the entire door trim assembly. This type of handle is used on all styles except Buicks and Chevrolet and Pontiac "F" Styles.

The door pull handle on Buick styles and Chevrolet and Pontiac "F" Styles is retained by screws inserted through the handle hinges into the door inner panel after trim installation. As shown in Figure 14-1 the handle can be removed simply by removing the screws.

To remove the door trim assembly on any style with a door pull handle requires removal of the screws inserted through the handle hinges or escutcheons into the door inner panel. On Cadillac

68069-169 Styles, it is necessary to remove snap-on escutcheons from the handle hinges to expose the screws.

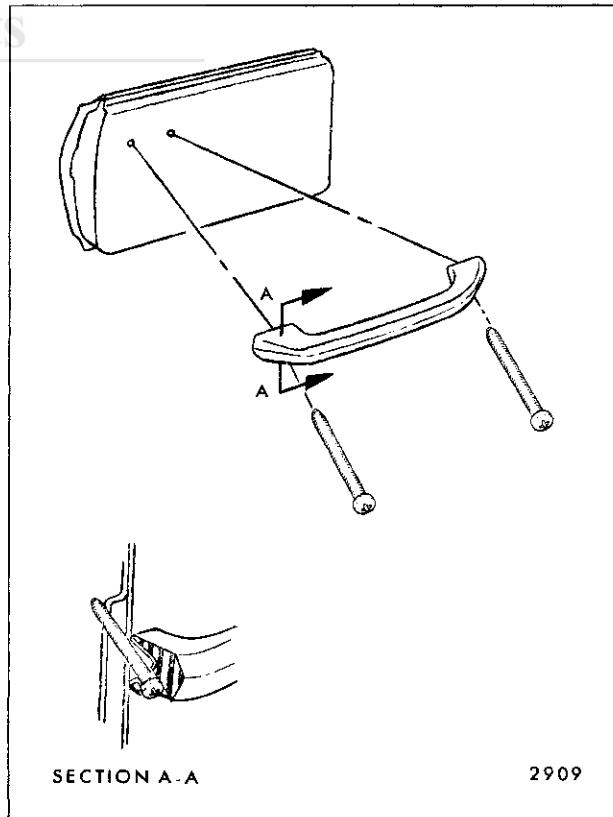


Fig. 14-1—Applied - Type Door Pull Handle

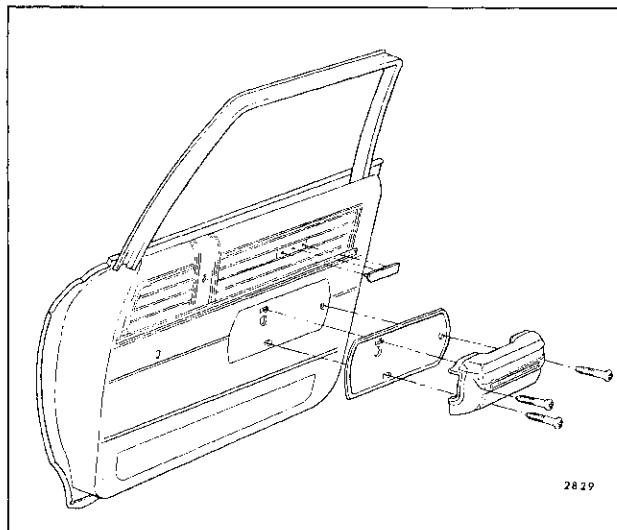


Fig. 14-2—Applied - Type Door Arm Rest - "A" Style Shown, "B-X" Styles Similar

DOOR ARM RESTS

There are three basic types of door arm rests: those applied after door trim installation, those assembled to the door trim prior to trim installation and arm rests which are an integral part of the door trim assembly and, consequently, are not serviced as a separate service part.

Arm rests can be removed independent of the door trim assembly on all styles except Buick 48400 series and "E" body styles with deluxe trim, Cadillac Styles, Pontiac 26200 series, and Oldsmobile 38400-38600 series except the 38469 Style. On Cadillac styles and Pontiac 26200 series styles, the arm rest is an integral part of the door trim assembly and cannot be removed as a separate item (Fig. 14-5). On the remaining styles described above, the arm rest can be removed in a bench operation after the door trim and arm rest assembly has been removed from the door (Fig. 14-4).

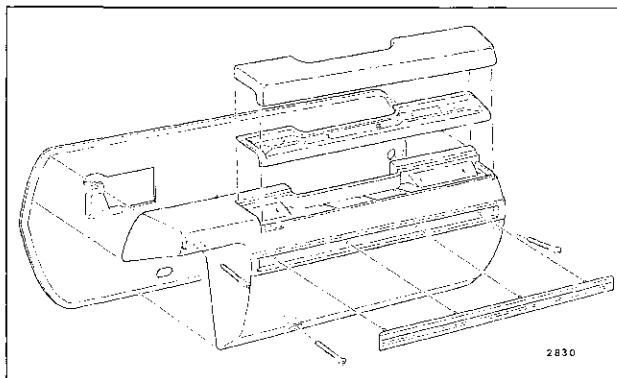


Fig. 14-3—Applied - Type Door Arm Rest - Buick - Oldsmobile "E" Styles with Standard Trim

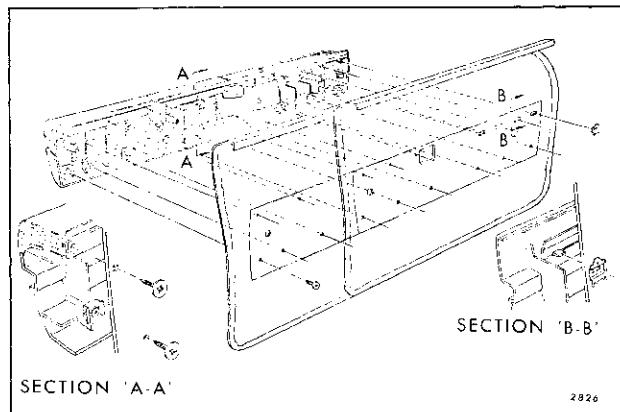


Fig. 14-4—Door Arm Rest Installation - "C" and "E" Styles

DOOR INSIDE HANDLES

Door inside handles are retained either by screws or spring clips. On styles with screw retained handles, the screws are either exposed or covered only by an applied type arm rest that can be removed by the removal of several screws (Fig. 14-6).

Spring-clip retained handles require the use of tool J-7797 to disengage the clip from the window regulator or remote control spindle.

Removal and Installation (Spring-Clip Retained)

1. Depress door trim assembly sufficiently to

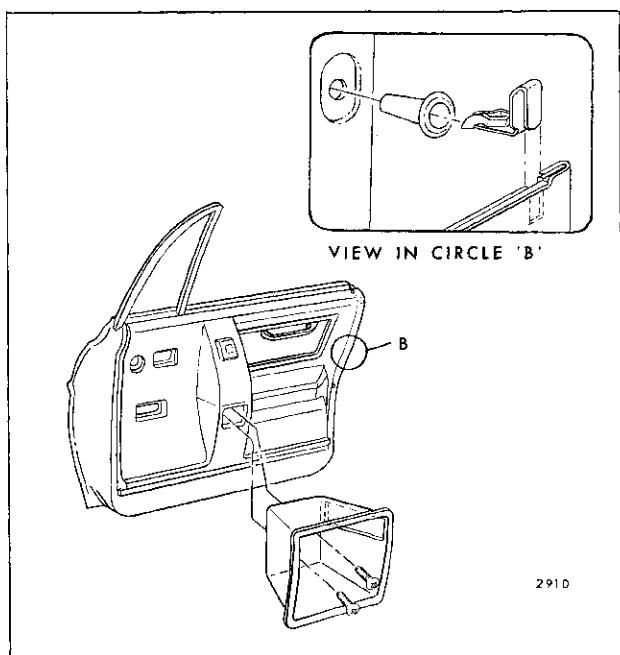


Fig. 14-5—Door Trim Assembly with Integral Arm Rest - Pontiac Shown, Cadillac Similar

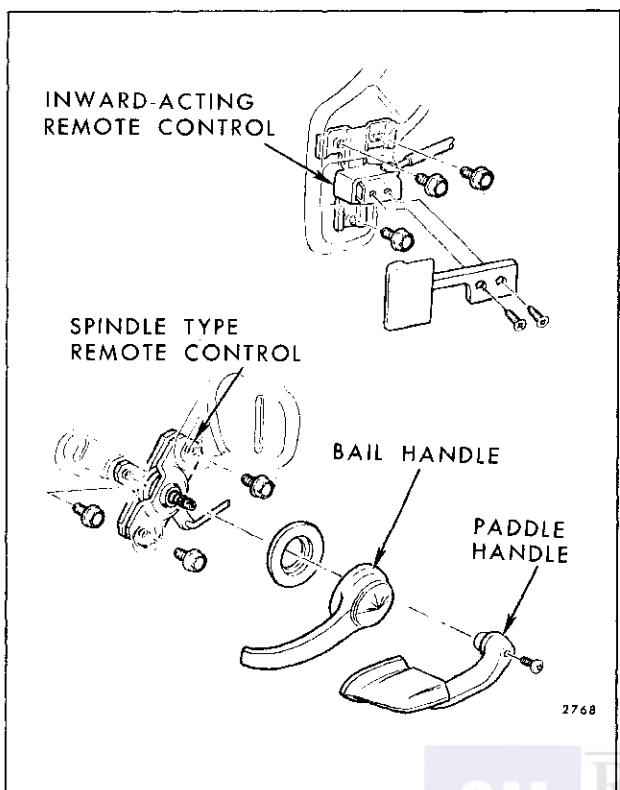


Fig. 14-6—Door Lock Remote Control Handles

permit inserting tool J-7797 between handle and plastic bearing plate.

2. With tool in same plane as handle as shown in Figure 14-7, push tool as indicated to disengage clip. Pull handle inboard to remove from spindle.
3. To install, engage retaining clip on handle. On ventilator and window regulator spindles, position handle at same angle as opposite side handle and press handle outboard until clip engages spindle. On remote control spindles, put handle in horizontal position.

DOOR TRIM ASSEMBLIES (All Styles Except Corvair)

On all styles except the Chevrolet Corvair, the door trim assembly is secured to the door by a metal trim support which hangs over the door inner panel across the top, by clips or nails down the sides, and by screws across the bottom. On some upper series styles, additional retention is obtained from arm rest and pull handle attaching screws (Fig. 14-8).

Removal and Installation

1. Remove all door inside handles as previously described.

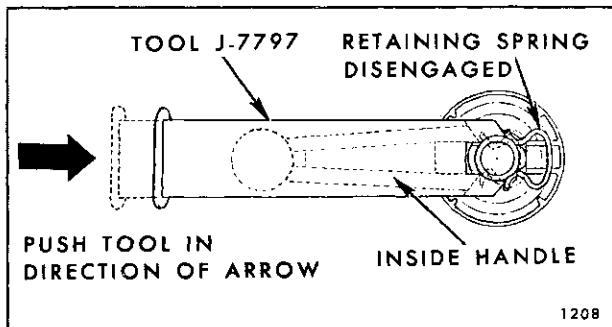


Fig. 14-7—Door Inside Handle Removal - Spring Clip Retained

2. Remove door 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 these screws removes handle. On most styles, handle will still be retained to trim pad. Refer to "Door Pull Handles" for specific types of retention.
- NOTE:** On Buick 48400 and 49400 series, screws hidden under pull handle must be removed to permit trim pad removal (Fig. 14-9).
4. On styles with switch cover plate in door arm rest (Fig. 14-10), remove screws securing cover plate and disconnect switches and vacuum door lock actuator, if present, from wire harness connectors and vacuum hoses.
5. On Cadillac styles, Pontiac 26200 series styles and "E" body styles, remove screws securing remote control cup (Fig. 14-11) and remove cup. On Cadillac styles only, remove screws previously hidden by cup which secure arm rest base to door inner panel (Fig. 14-11).
6. On Oldsmobile 38000 and Buick 48000 series, remove arm rest moldings to expose arm rest to door inner panel attaching screws located under moldings (Fig. 14-10).

To remove moldings, remove screw at front of front molding and rear of rear molding. Slide molding off retainer as indicated in illustration.

7. On Cadillac styles, remove door warning lamp as indicated in Figure 14-12 to enable removing trim pad retaining screw located behind lamp.
8. On styles with pull cup in door arm rest, remove screws inserted through base of cup into arm rest hanger plate.

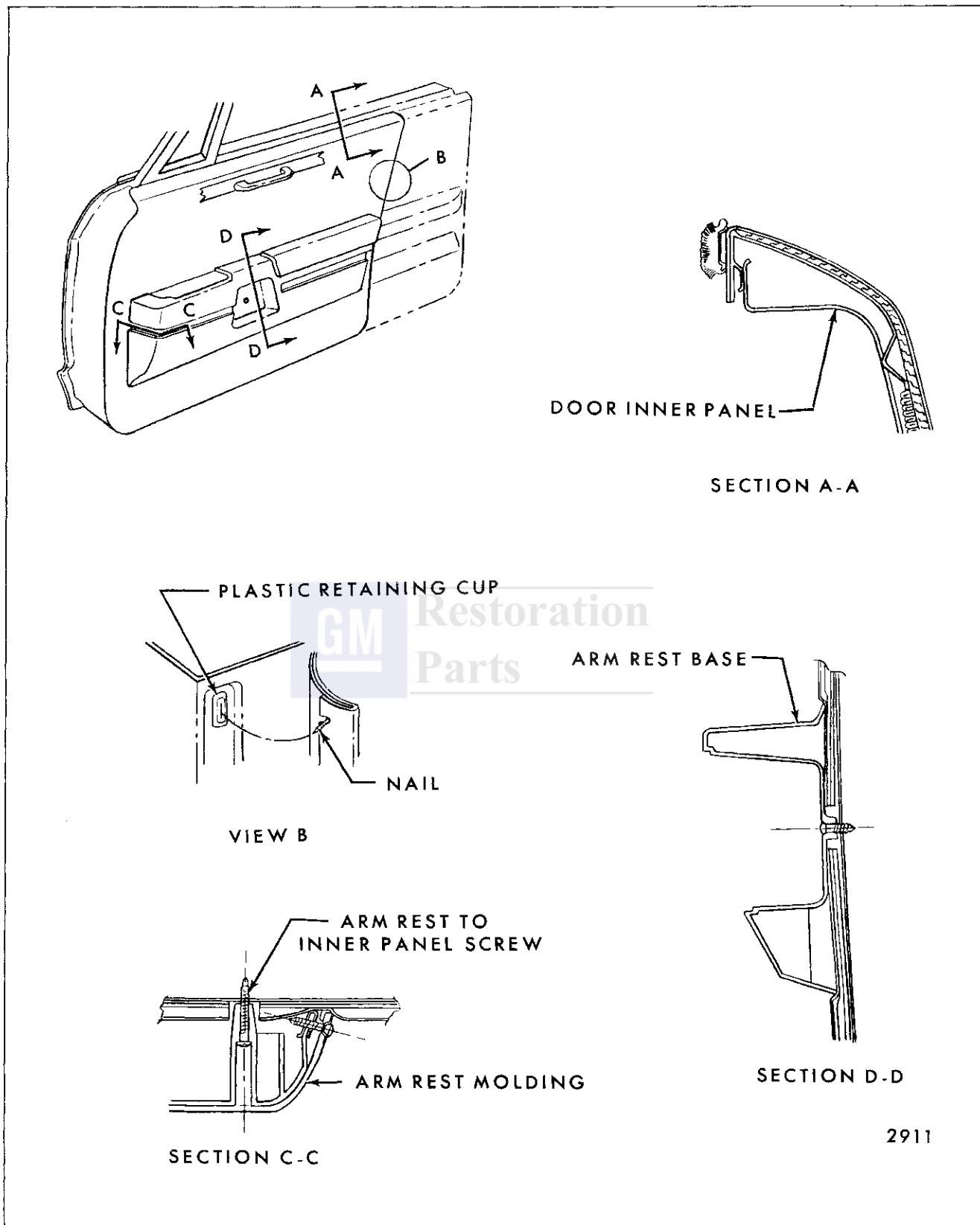


Fig. 14-8—Door Trim Assembly Retention

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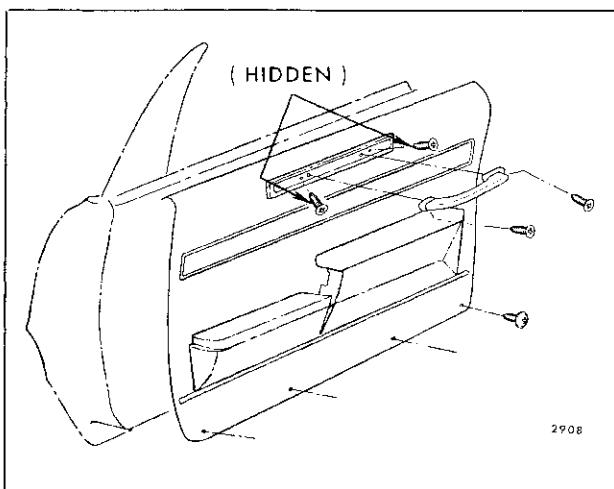


Fig. 14-9—Door Trim Panel and Pull Handle Retention
Buick 48400 Series

9. On Cadillac "E" styles, remove ash tray and cigar lighter at rear of left side door arm rest to expose trim retaining screw.

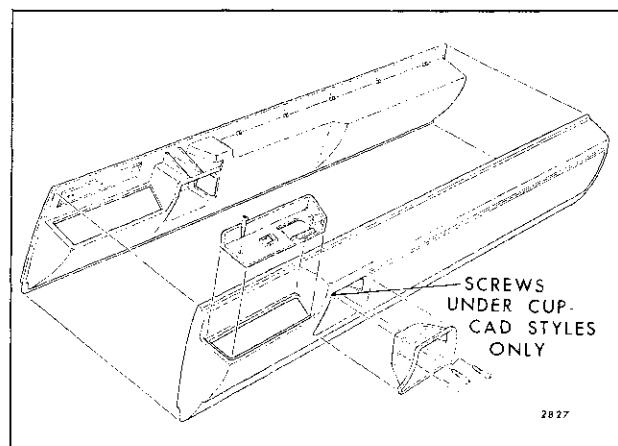


Fig. 14-11—Door Arm Rest — Cadillac Styles

10. Remove all screws down both sides and across bottom of door trim pad.
11. Starting at a lower corner, insert tool J-6335 between door inner panel and trim assembly. Working upward, carefully disengage retaining

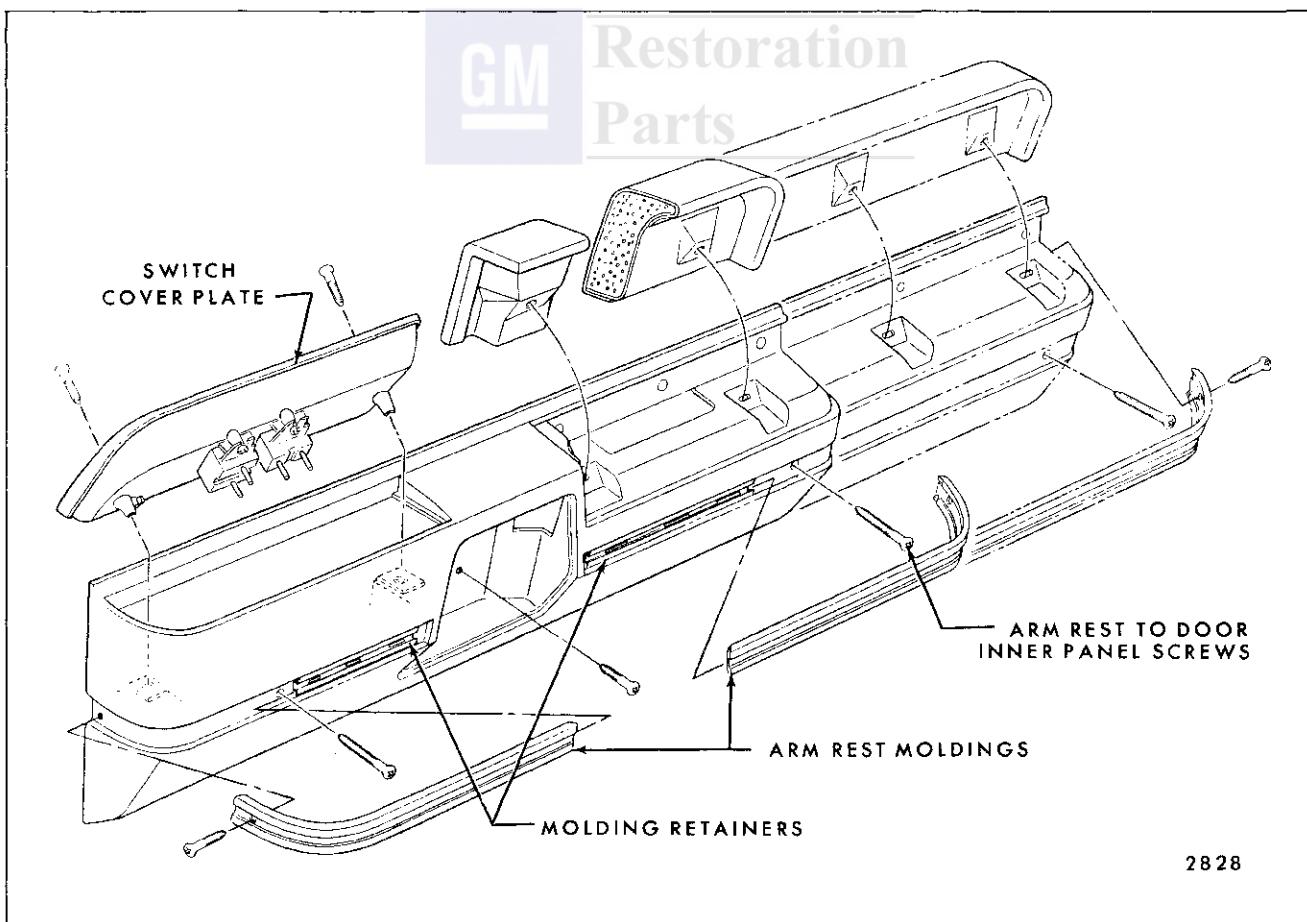


Fig. 14-10—Door Trim Pad Removal — Oldsmobile - Buick "C" Styles

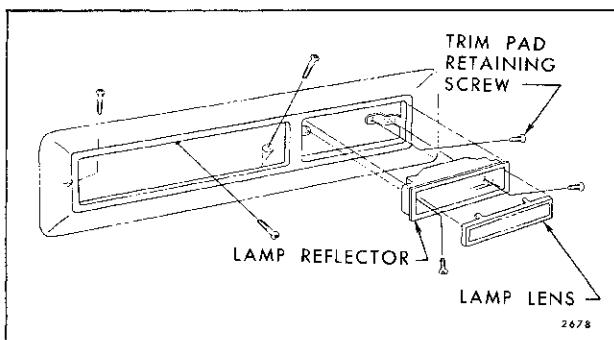


Fig. 14-12—Door Warning Lamp - Cadillac Styles

nails or clips from plastic cups inserted in door inner panel (Fig. 14-5 or 14-8).

NOTE: Use care not to damage door inner panel water deflector or plastic cups as they must form a watertight seal.

12. Lift trim assembly upward and slide it slightly rearward to disengage it from door inner panel at the beltline. On styles with vacuum door lock or electric window switches located in the door trim assembly, disconnect vacuum hoses and/or wire harness and remove trim assembly from door.
13. To install door trim assembly, reverse removal procedure.

On "B-C" hardtop styles, the door trim assembly can be adjusted in-or-out at the rear so as not to restrict door window operation. On styles without a door window ventilator,

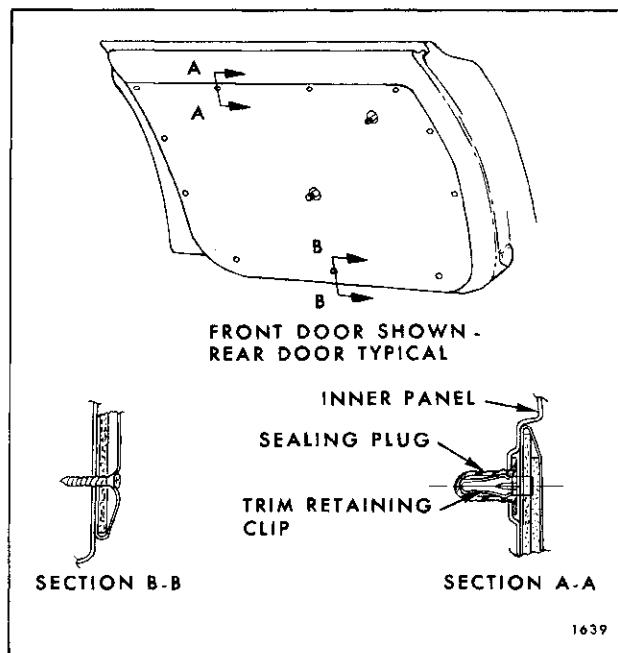


Fig. 14-14—Door Trim Pad Removal - Corvair Styles

the trim assembly can be adjusted in-or-out at both the front and rear (Fig. 14-13).

DOOR TRIM ASSEMBLIES Corvair 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.

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. 14-14).
4. Remove screws from across bottom and remove trim pad from door.
5. To install, reverse removal procedure.

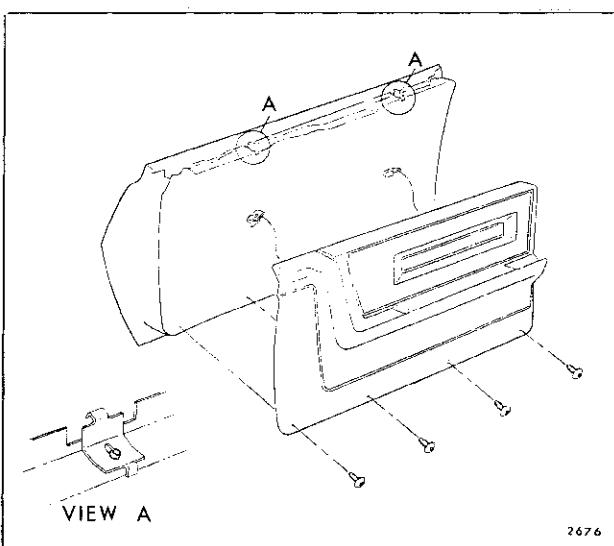


Fig. 14-13—Door Trim Assembly Adjustment - Cadillac "E" Style Shown

REAR QUARTER TRIM

REAR QUARTER WINDOW REGULATOR HANDLE

Removal and Installation

1. Depress quarter trim assembly sufficiently to permit insertion of tool J-7797 between handle and plastic bearing plate (Fig. 14-15). As shown in illustration, tool must be in same plane as handle.
2. Push tool to disengage handle spring from spindle and remove bearing plate and handle.
3. To install, engage retaining spring on handle (open end of clip toward handle). Position handle on spindle at same angle as opposite side handle and push outboard until spring engages spindle.

REAR QUARTER ARM REST

There are three types of arm rests:

- A. Applied arm rests, which are retained by two screws inserted through the arm rest base into the quarter inner panel (Fig. 14-16).
- B. Floor mounted arm rests which are retained by screws inserted through the arm rest assembly into brackets on the inner panel (Fig. 14-17).

NOTE: On all convertible styles except Cadillac, the floor mounted arm rest is subassembled to the folding top compartment side trim panel and must be removed as an assembly (Fig. 14-18).

- C. Arm rests which are an integral part of the quarter trim assembly and cannot be removed or serviced independently.

Removal and Installation

1. On styles equipped with applied arm rest, re-

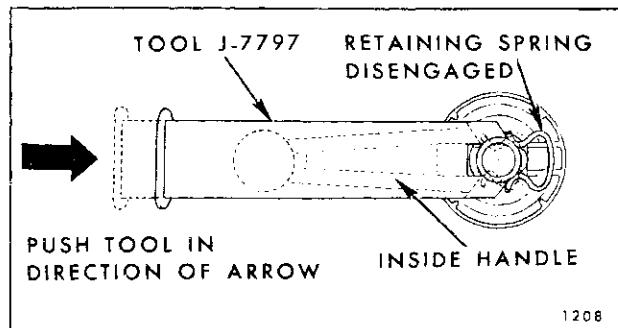


Fig. 14-15—Quarter Window Handle Removal

move two screws in arm rest base and remove arm rest from trim pad.

2. On styles equipped with floor mounting arm rest, perform the following:
 - a. Remove rear seat back and cushion assemblies as described under "Rear Seats".
 - b. On "C" Body "47" Styles equipped with shoulder straps, remove lower screw on shoulder strap buckle retainer as described in "Seat Belt" Section.
 - c. On convertible styles, remove exposed screws securing folding top compartment side trim panel (Fig. 14-18).
 - d. On styles equipped with seat back to quarter filler panel, except "F" and Buick-Olds "E" Styles, remove attaching screws and remove filler panel.

On "F" Styles, filler panel is removed with arm rest as an assembly. Remove compartment front trim panel to expose filler panel inboard attaching screws (Fig. 14-19).

On Olds - Buick "E" Styles, filler panel is removed after arm rest.

- e. On all styles remove all arm rest attaching screws present at front, rear and bottom of arm rest assembly.

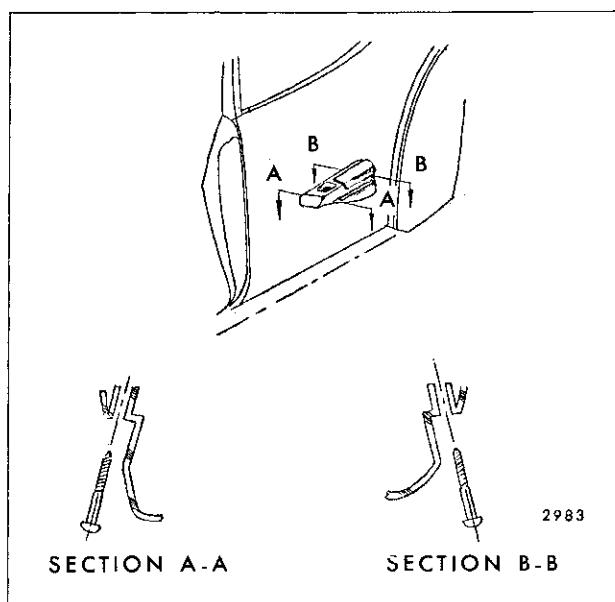


Fig. 14-16—Applied — Type Quarter Arm Rest

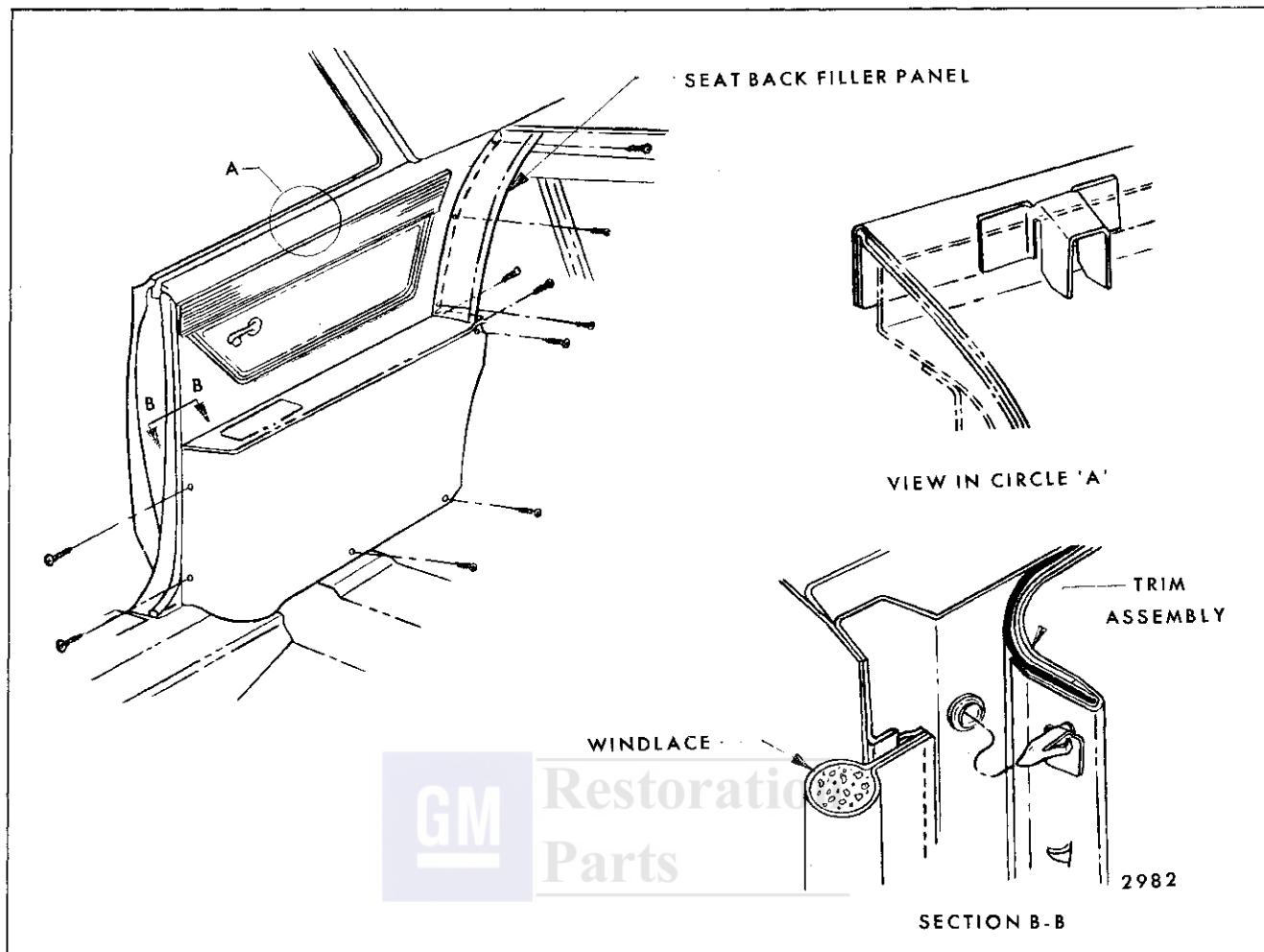


Fig. 14-17—Rear Quarter Trim - "A" Styles

- f. On styles equipped with rear quarter lamp assemblies, disconnect lamp as shown in Figure 14-20.
- g. On styles with other electrical devices in arm rest assembly, carefully detach arm rest from rear quarter inner panel sufficiently to disconnect wire harness connectors. Figures 14-21 and 14-22 are indicative of electrical installation in rear quarter arm rests. Lift arm rest in an upward, inboard movement and remove assembly from rear quarter inner panel.

NOTE: On convertible styles, folding top compartment side panel and arm rest are removed as an assembly. As a bench operation, the arm rest assembly can be removed from the folding top compartment side trim assembly by removing screws installed on reverse side.

NOTE: On all Cadillac styles, the arm

rest is an integral part of the quarter trim assembly and must be removed as an assembly with the quarter trim.

3. To install, reverse removal procedure.

REAR QUARTER TRIM ASSEMBLY— Two-Door Styles

Removal and Installation

1. On all except "F" Styles, with folding rear seat, remove rear seat back and cushion assemblies as described under "Rear Seats". On "F" Styles with folding rear seat, lower folding rear seat back.
2. Remove window regulator handle and shoulder strap buckle retainer if so equipped.
3. On styles with floor mounted or applied arm rest, remove arm rest as previously described.

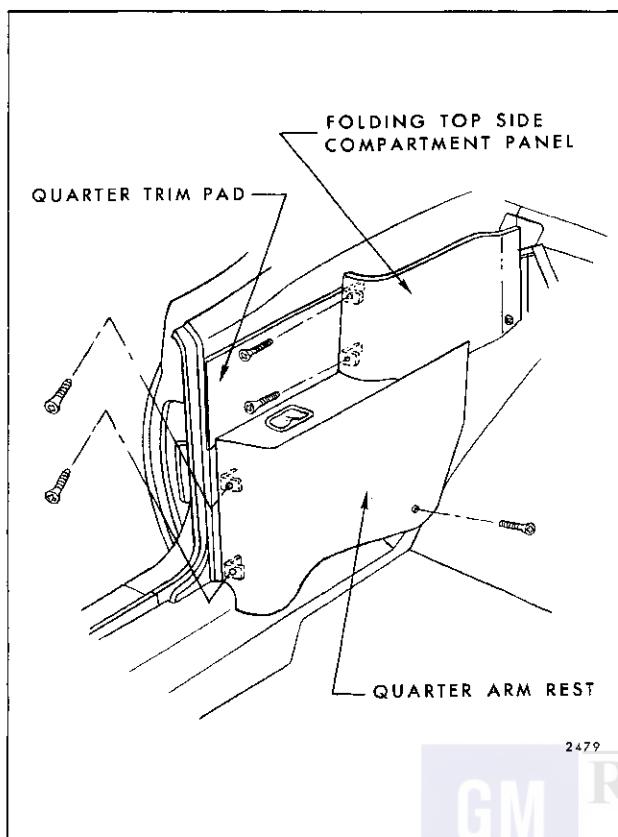


Fig. 14-18—Rear Quarter Trim - "67" Styles

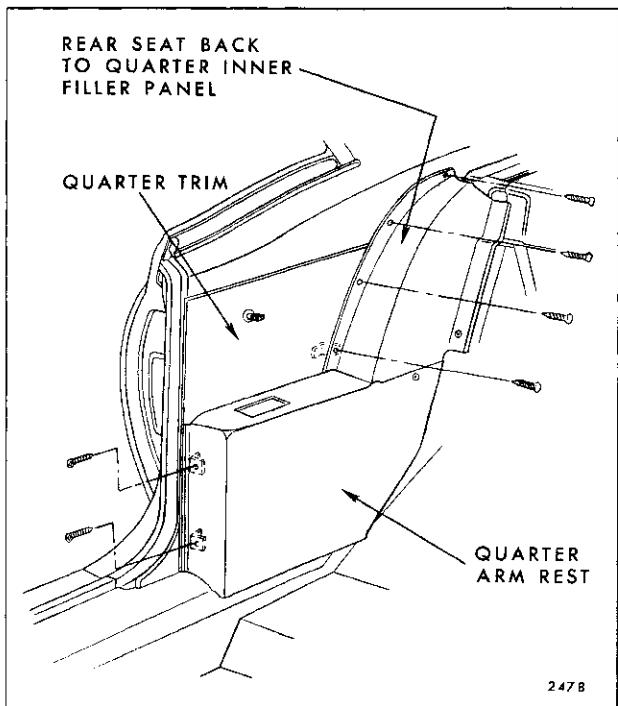


Fig. 14-19—Rear Quarter Trim - "F-37" Styles

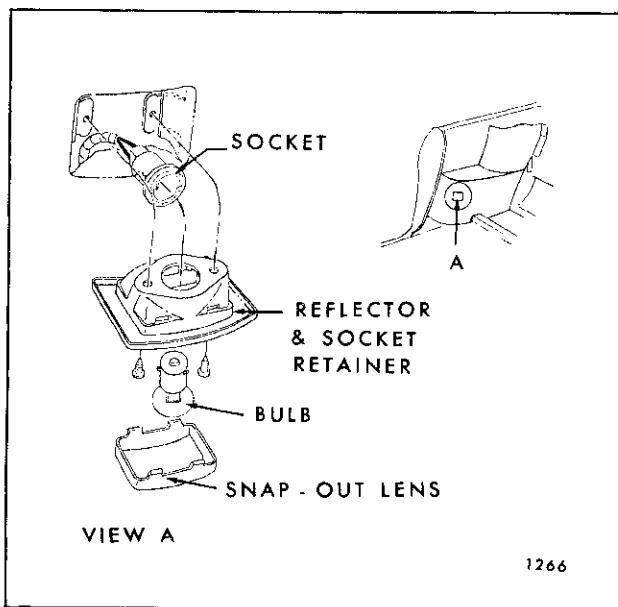


Fig. 14-20—Rear Quarter Arm Rest Courtesy Lamp

4. On Cadillac "E" Styles, remove screw securing compartment side finishing molding to quarter trim (Fig. 14-23).
5. Remove all screws securing trim assembly (Figs. 14-24, 14-25 and 14-23).
6. On styles with body lock pillar finishing lace, remove door sill plate and disengage finishing lace from lock pillar pinchweld flange. Carefully break cement bond securing leading edge

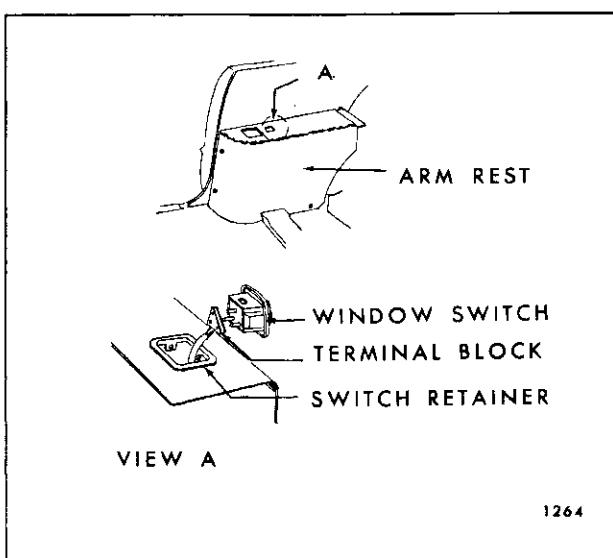


Fig. 14-21—Rear Quarter Arm Rest Window Switch

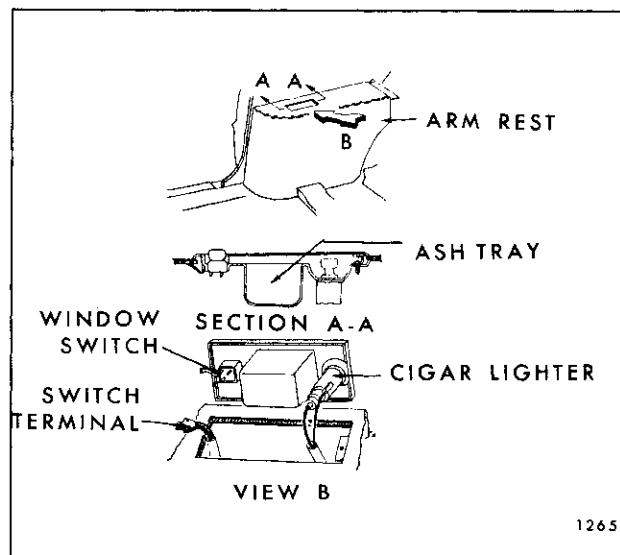


Fig. 14-22—Rear Quarter Arm Rest Ash Tray and Cigar Lighter

of trim assembly to pinchweld flange and remove trim assembly.

7. On styles with body lock pillar windlace, use trim panel removing tool J-6335 or equivalent to disengage retaining nails from tacking strip (Fig. 14-24) or retaining clips from plastic retaining plugs (Fig. 14-17).
8. Lift trim assembly upward to disengage from retainers at top of quarter panel and remove trim assembly from body.
9. To install rear quarter trim assembly, reverse removal procedure.

NOTE: Trim pad replacement nailing tabs, retaining clips and plastic retaining plugs are available as service parts.

REAR QUARTER LOWER TRIM “A-80” Style and All Four-Door Styles Except Station Wagons

Removal and Installation

1. Remove rear seat back and cushion assemblies.
2. Remove side roof rail rear finishing molding or rear body lock pillar pinchweld finishing lace.
3. On styles with exposed screws securing trim panel to quarter inner lower panel, remove screws.

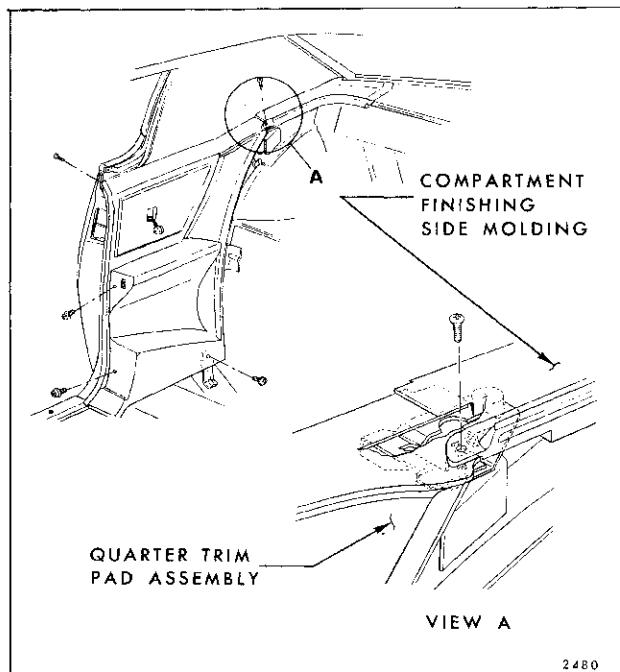


Fig. 14-23—Rear Quarter Trim Assembly - Cadillac “E” Styles

4. On “B” and “C” Styles, insert tool J-6335 or equivalent under leading edge of trim and pry retaining nails from tacking strip (Fig. 14-26).
5. On “A” and “X” Styles, carefully break cement bond securing leading edge of trim to lock pillar pinchweld flange (Figs. 14-27 and 14-28).
6. Lift trim assembly upward to disengage it from clip retainer at beltline and remove trim assembly from body.
7. To install trim assembly, 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 compartment pan side filler panel and compartment floor panel assembly (at kick-up) as described under “Station Wagon Rear Seats”.
3. Remove all screws securing trim panel to rear quarter inner panel (Fig. 14-29).

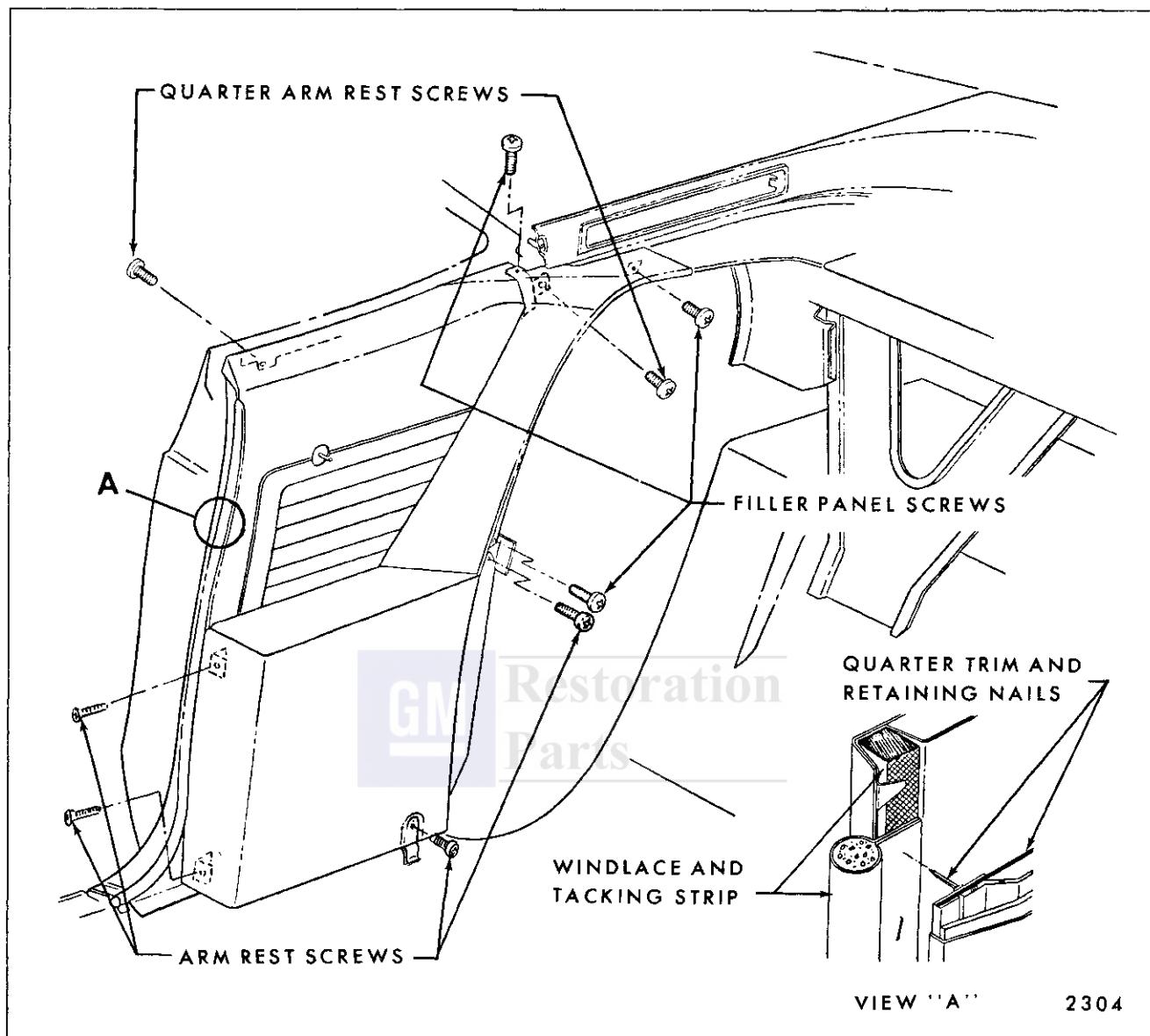


Fig. 14-24—Shelf Trim Removal - "39487" Style

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. 14-29).
5. 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. 14-29).

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.

REAR QUARTER WHEELHOUSE COVER PANEL (Right Side)— "B" Body Station Wagon Styles

Removal and Installation

1. Remove spare tire cover.

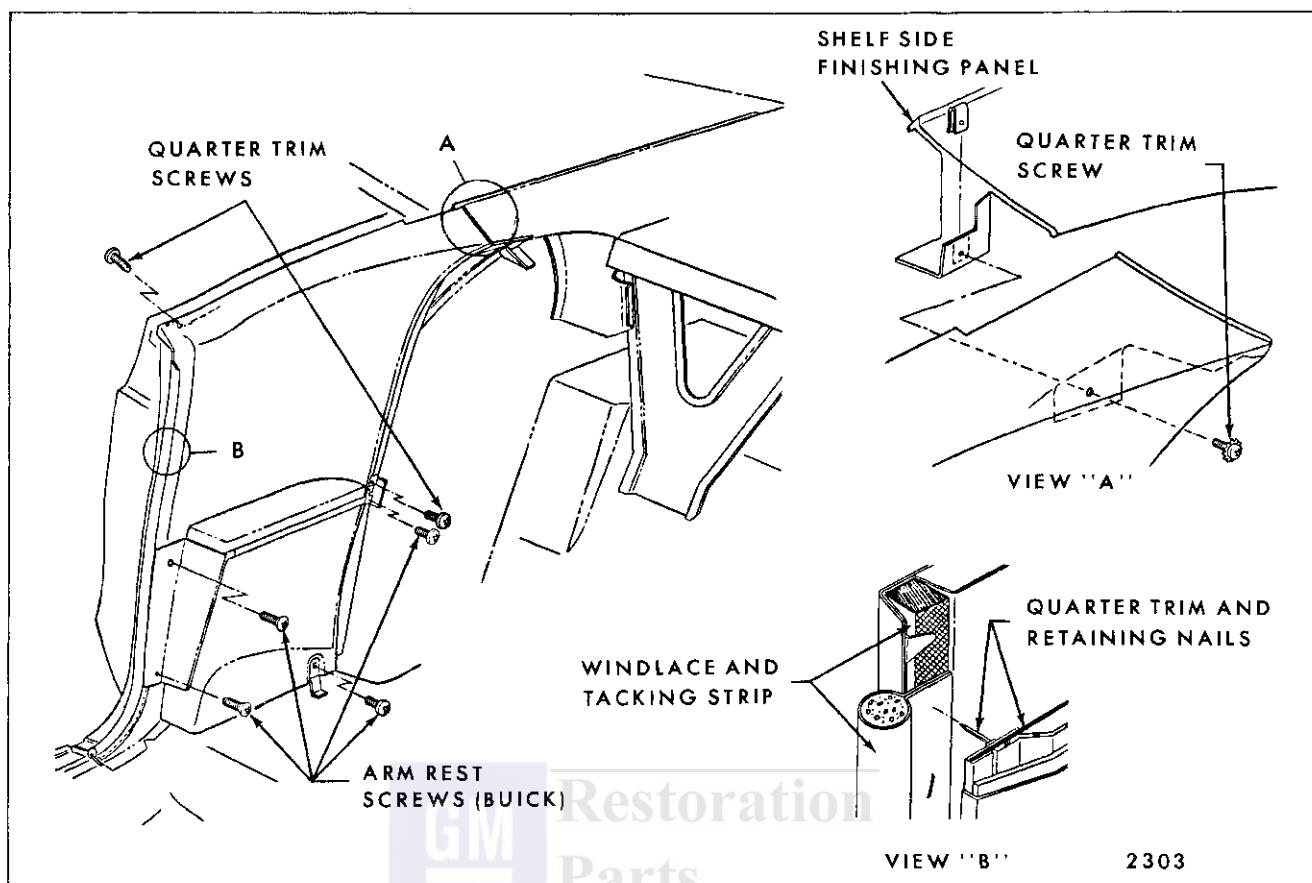


Fig. 14-25—Rear Quarter Arm Rest and Trim Assembly - "E" Styles

2. Remove compartment pan side filler panel and compartment floor panel assembly (at kick-up) as described under "Station Wagon Rear Seats".

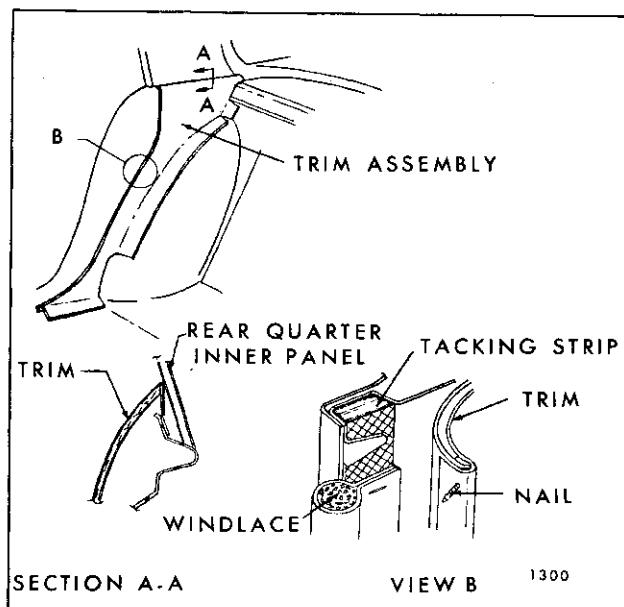


Fig. 14-26—Rear Quarter Lower Trim Assembly - "B-C 39-49-69" Styles

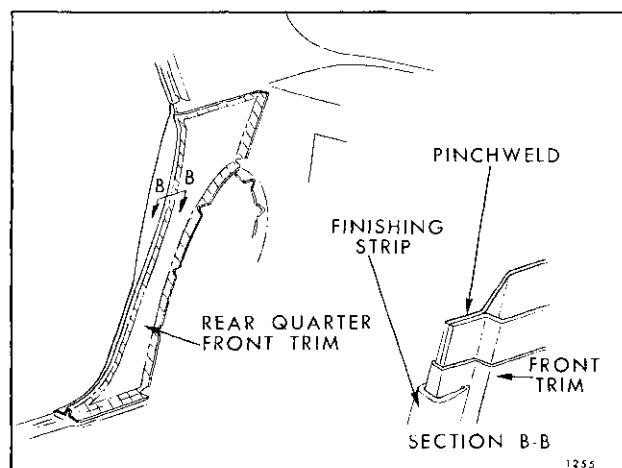


Fig. 14-27—Rear Quarter Trim Assembly - "A" Four - Door Styles

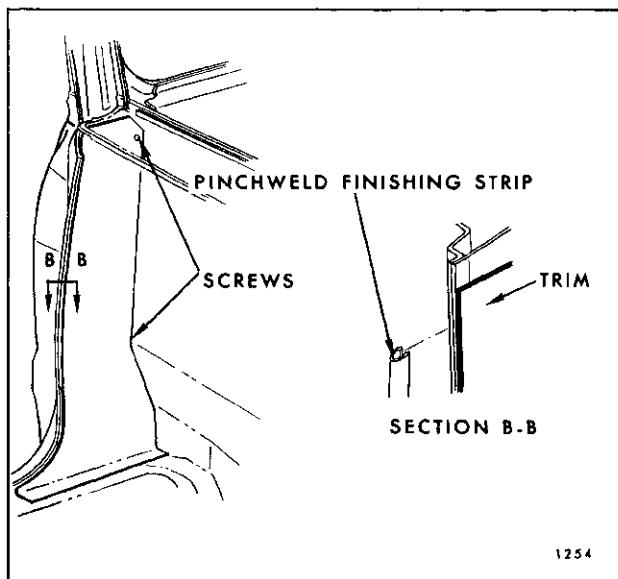


Fig. 14-28—Rear Quarter Trim Assembly - "A-80" Styles

3. Remove rear quarter stationary window front and lower garnish moldings.
4. Remove all screws securing trim panel to rear quarter inner panel (Fig. 14-30).

5. 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. 14-30)

6. Remove spare tire cover support.

7. Lift assembly upward slightly to disengage from rear quarter inner panel and remove assembly from body.

NOTE: On styles with tail gate window defogger, disconnect wire harness connectors and remove defogger with wheelhouse cover panel.

8. To install, reverse removal procedure.

SPARE TIRE COVER PANEL— Station Wagon Styles

Removal and Installation

The spare tire cover panel is retained at belt line 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. To install, reverse removal procedure.

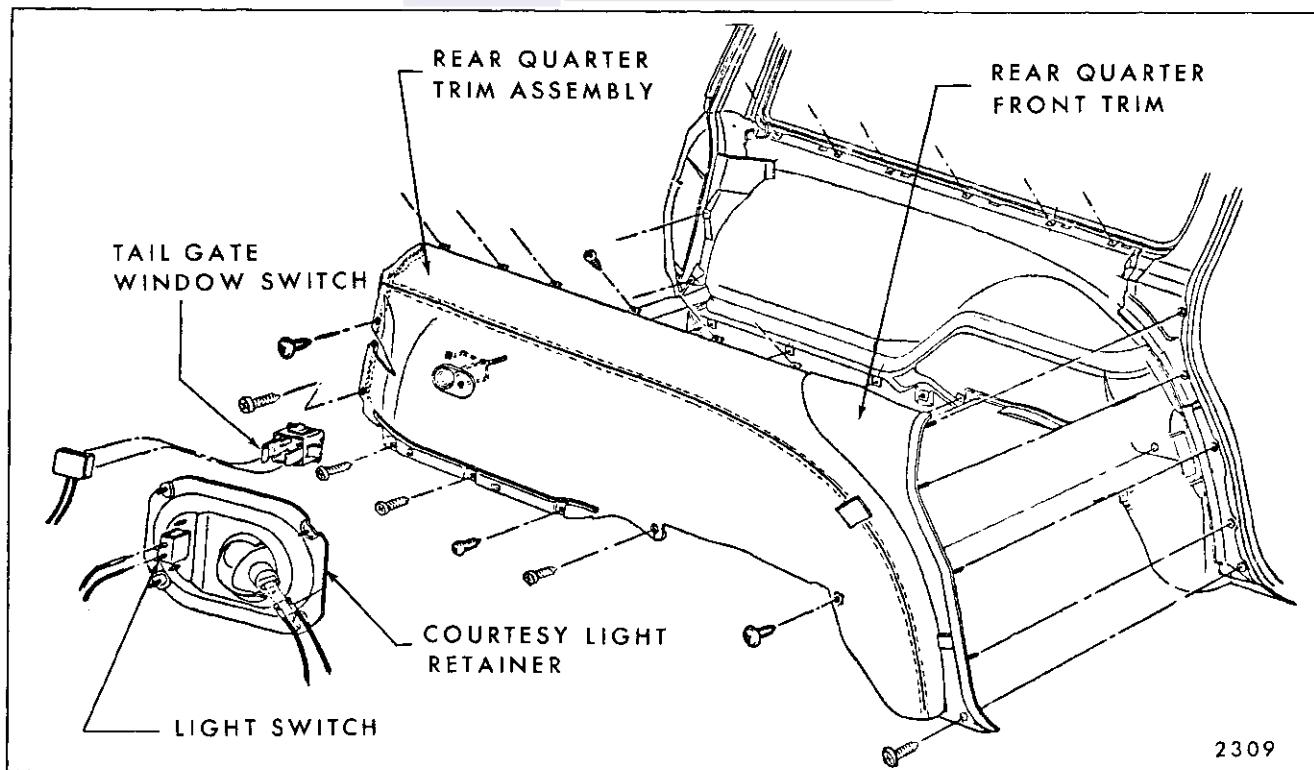


Fig. 14-29—Rear Quarter Trim Panel (Left Side) - "B" Station Wagons

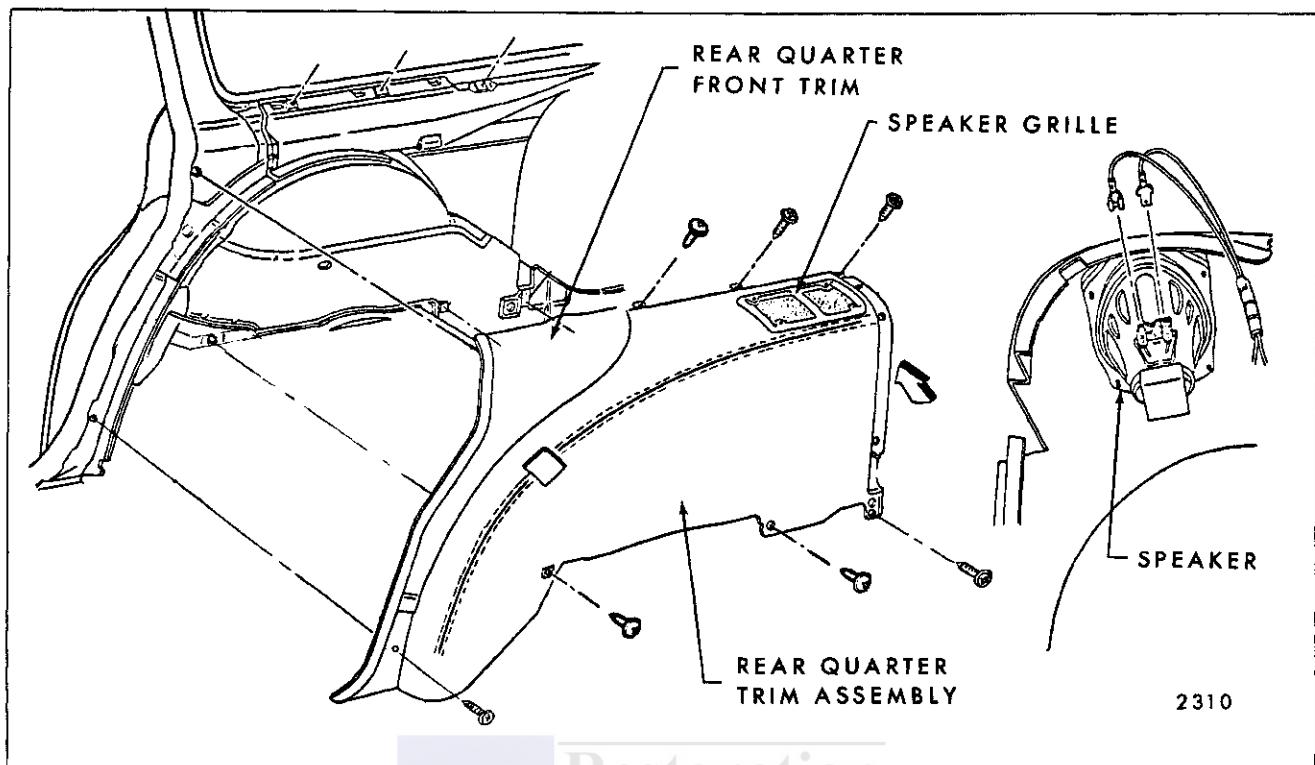


Fig. 14-30—Rear Quarter Trim Panel (Right Side) - "B" Station Wagons

REAR QUATER FRONT TRIM PANEL (Right or Left Side)— "A" Body Station Wagons

Removal and Installation

1. Remove quarter window lower garnish molding. Disengage side roof rail finishing molding sufficiently to allow removal of body lock pillar upper finishing panel and remove finishing panel.
2. Loosen rear of rear door sill plate.
3. Remove screws securing trim panel as shown in Figure 14-31.
4. Using a flat blade tool, disengage trim panel retaining clips from plastic retaining plugs in inner panel as shown in Figure 14-31 and remove trim panel.

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 panel and remove panel (Fig. 14-32).
4. To install, reverse removal procedure.

REAR QUATER REAR TRIM PANEL (Left Side)—All "A" Body Station Wagon Styles

Removal and Installation

1. Remove rear quarter front trim panel as previously described.
2. Remove screws at top, bottom, front and rear of trim panel as shown in Figure 14-33 and remove trim panel from body.

NOTE: On styles so equipped, disconnect rear radio speaker connectors as shown in view "A", Figure 14-33.

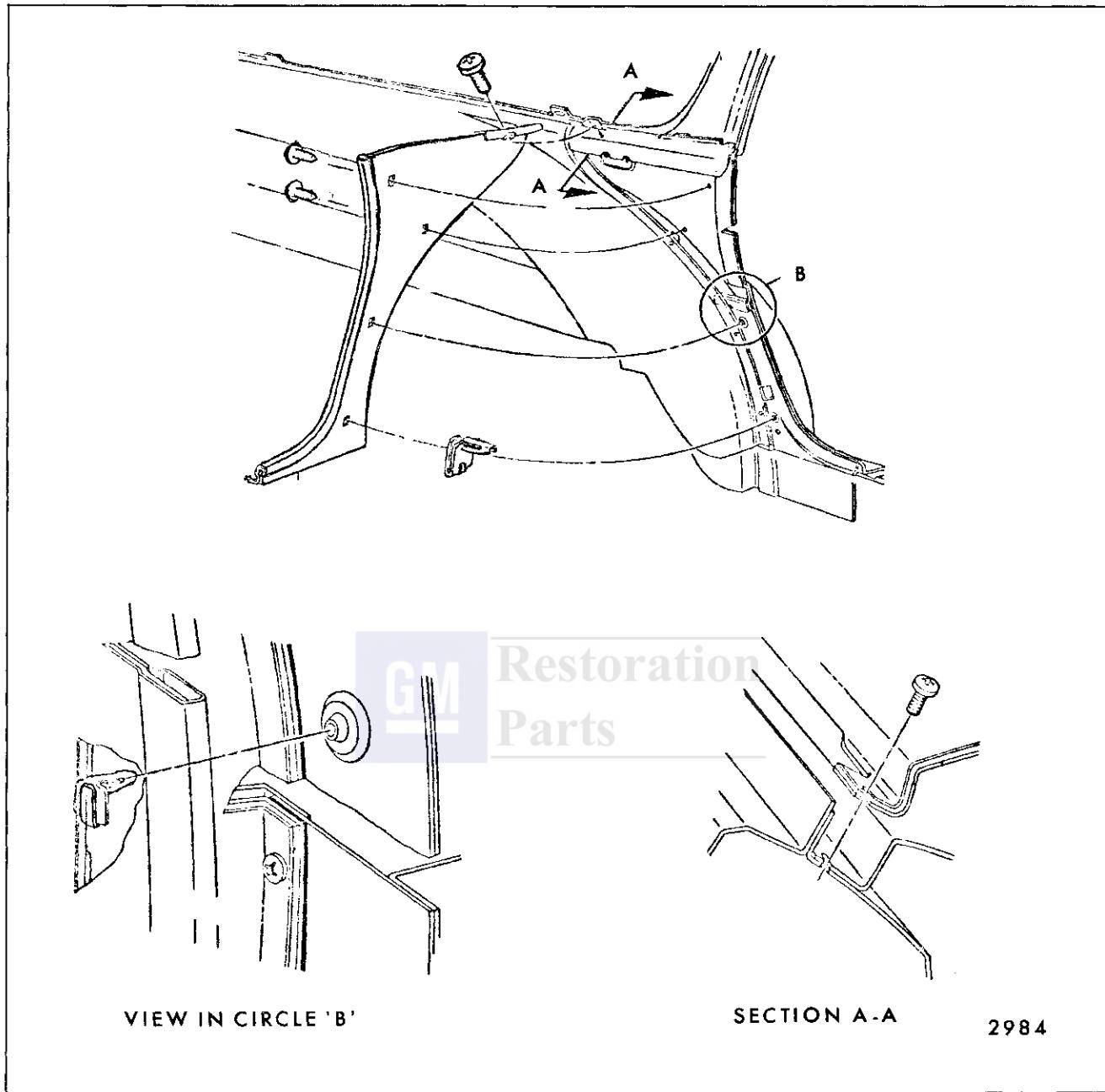


Fig. 14-31—Rear Quarter Front Trim Panel — "A" Station Wagons

COMPARTMENT SHELF TRIM

COMPARTMENT SHELF TRIM ASSEMBLY— All Styles Except "E" Series

Removal and Installation

1. Remove rear seat cushion and rear seat back assembly. Detach shoulder straps if so equipped.

2. Remove rear quarter upper trim as described under "Headlinings".
3. Loosen back window lower garnish molding.
4. Carefully break cement bond at compartment shelf trim panel valance to front of metal shelf panel.

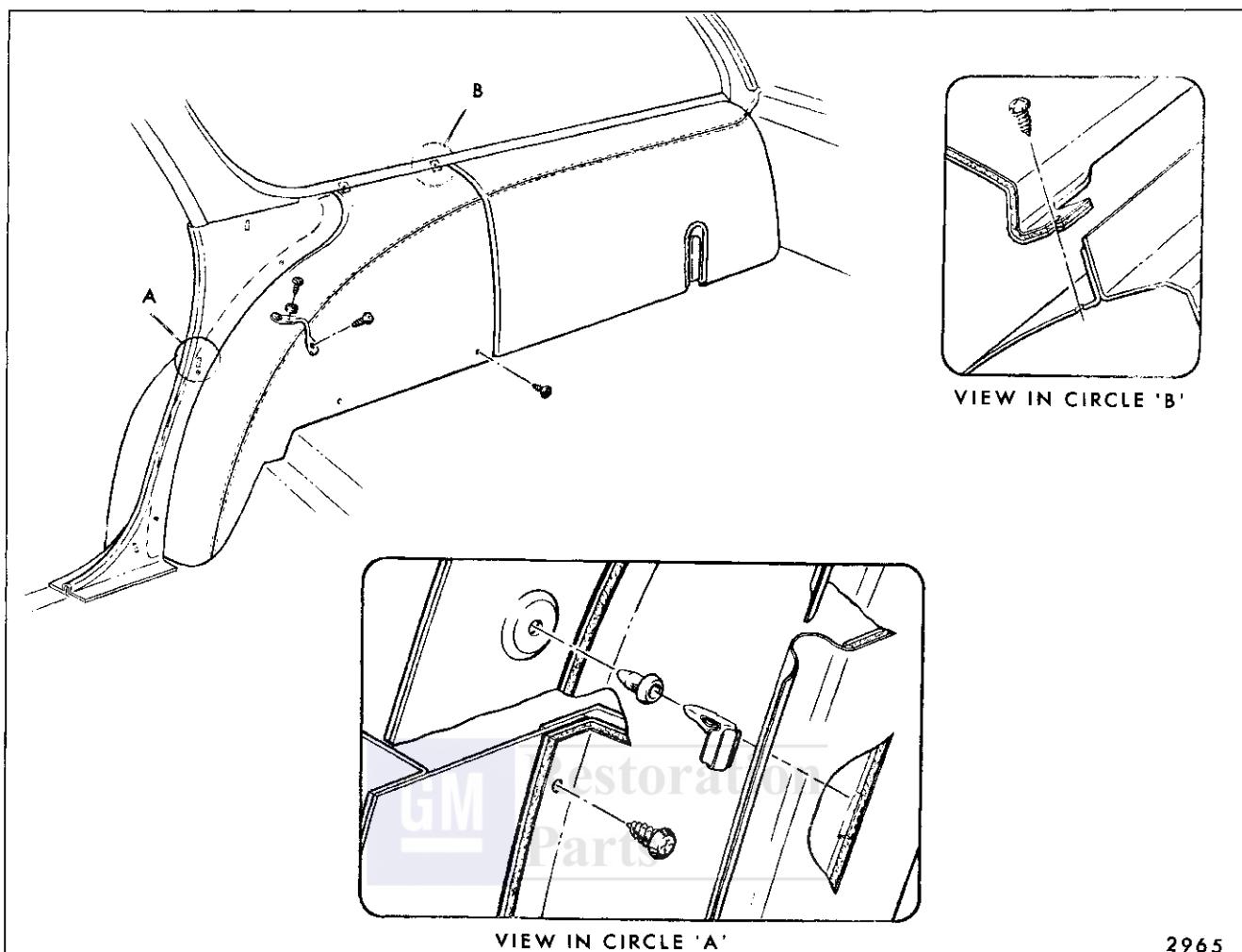


Fig. 14-32—Wheelhouse Cover Panel (Right Side) — "A" Station Wagons

5. Remove compartment shelf trim panel by lifting up front edge approximately 45° and pulling forward.
 6. To install, position trim assembly to shelf panel by inserting rear edge of trim assembly under garnish molding or feature strip. Push trim assembly rearward, align center notch with center depression in metal shelf panel.
 7. Re-cement compartment shelf trim assembly valance to front of metal shelf panel using non-staining vinyl trim adhesive.
 8. To install, reverse removal procedure.
- semblies as described under "Rear Seats".
2. From inside rear compartment, remove compartment shelf center finishing panel attaching nuts at locations shown in Section "A-A" in Figure 14-34.
 3. From inside body, pull center finishing panel forward sufficiently to disengage both front and rear edge of center finishing panel from retainers (see View "B", Fig. 14-34); then, lift panel upward and remove from shelf panel.
 4. To install, reverse removal procedure.

COMPARTMENT SHELF CENTER FINISHING PANEL—Oldsmobile and Buick "E" Styles

Removal and Installation

1. Remove rear seat cushion and seat back as-

COMPARTMENT SHELF SIDE FINISHING PANELS—Oldsmobile and Buick "E" Styles

Removal and Installation

1. Remove compartment shelf center finishing panel.

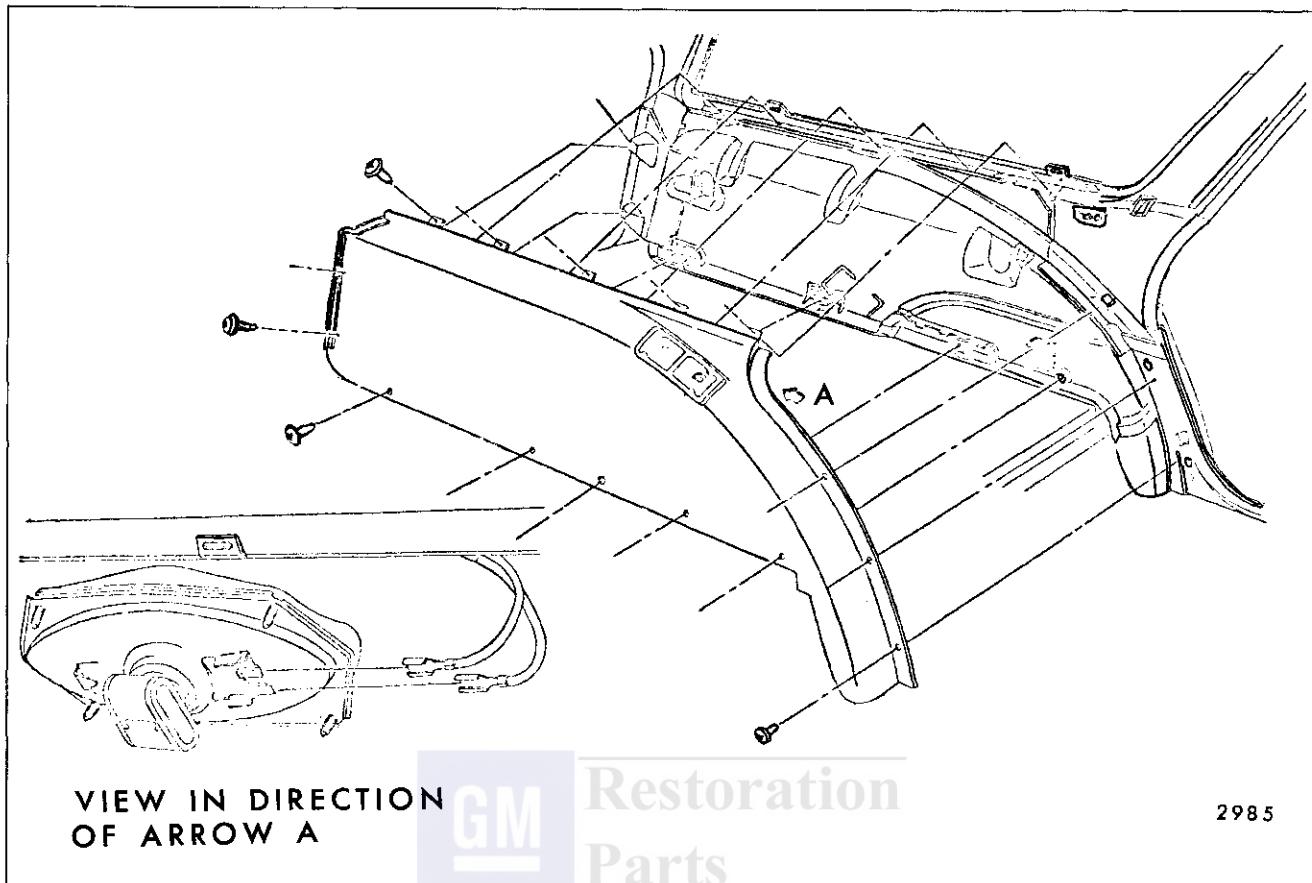


Fig. 14-33—Rear Quarter Rear Trim Panel (Left Side) - "A" Station Wagons

2. a. On 39487 Style, remove seat back filler panel attaching screw (Fig. 14-35).
- b. On 39687 and 49487 Styles, remove rear quarter trim assembly, as previously described.
3. Remove compartment shelf side finishing panel attaching screws (Fig. 14-35) and remove side finishing panel. On Oldsmobile styles, disconnect courtesy lamp feed wire.
4. To install, reverse removal procedure.

COMPARTMENT SHELF SIDE AND CENTER TRIM PANELS— Cadillac "E" Styles

The compartment shelf trim assembly consists of three individual panels joined together with screws to form a single unit. It is necessary to remove the assembly to service the individual sections. The assembly is retained with integral studs and nuts at five locations. Additional retention is obtained using bend-over metal tabs on the center trim section.

Removal and Installation

1. Remove rear seat cushion and rear seat back assemblies as described under "Rear Seats".
2. Remove rear quarter trim assembly as described under "Door and Rear Quarter Trim".
3. Remove back window lower garnish molding and back window lower corner escutcheons.
4. Remove rear compartment side panel attaching screws (View "A", Fig. 14-36). Loosen compartment shelf to metal foundation nuts as indicated in View "C". Remove center section attaching nuts (View "A & B", Fig. 14-37 and View "B", Fig. 14-36).
5. To remove compartment shelf trim panel from shelf panel, pull panel forward and straight out.
6. To remove the center trim panel, bend metal tabs (Fig. 14-37) to straight down position and detach from center base panel.
7. To install, reverse removal procedure.

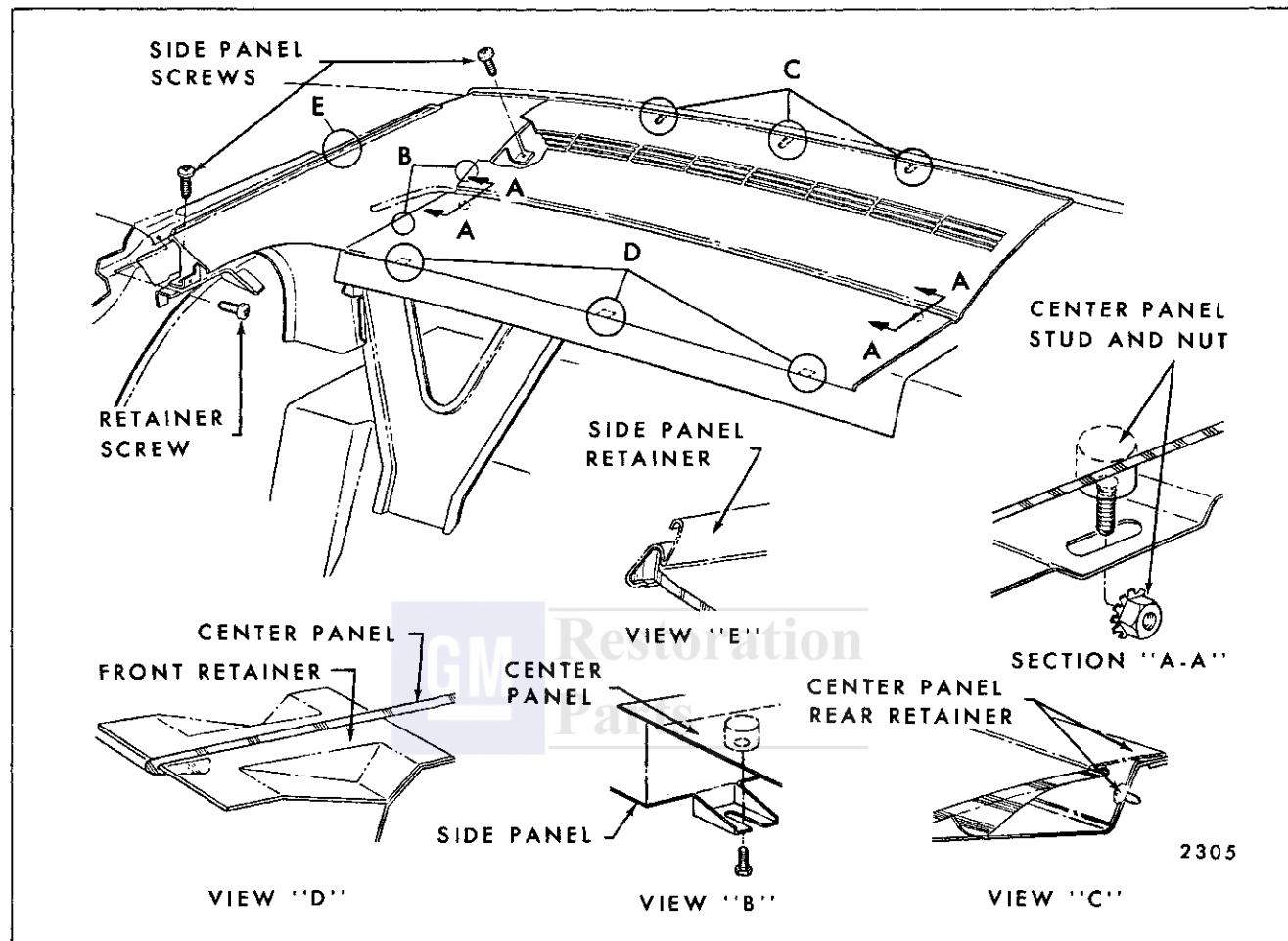


Fig. 14-34—Typical "E" Style Compartment Shelf Trim - Buick "E" Style Shown

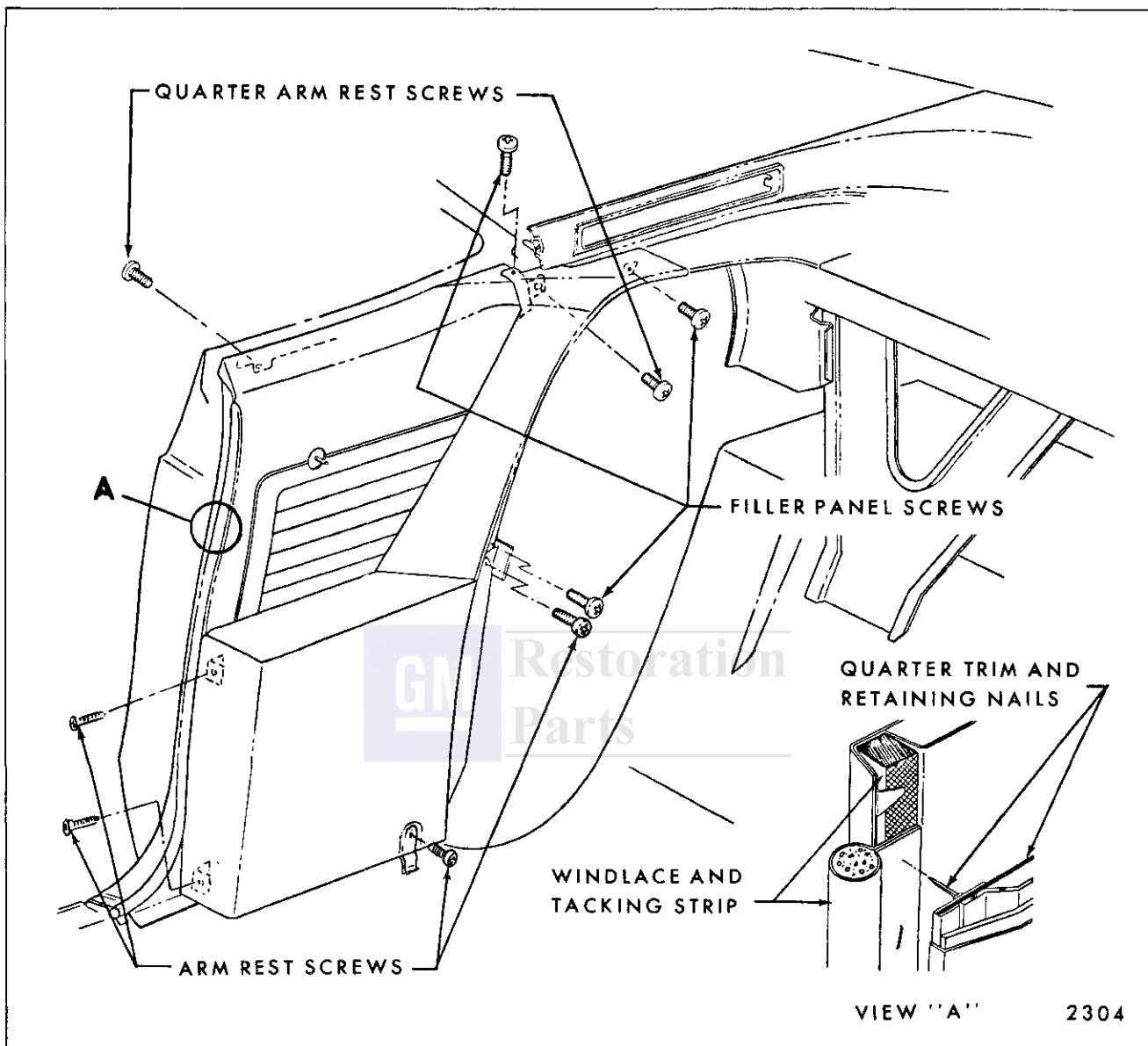


Fig. 14-35—Rear Quarter Trim Assembly - "39487" Style

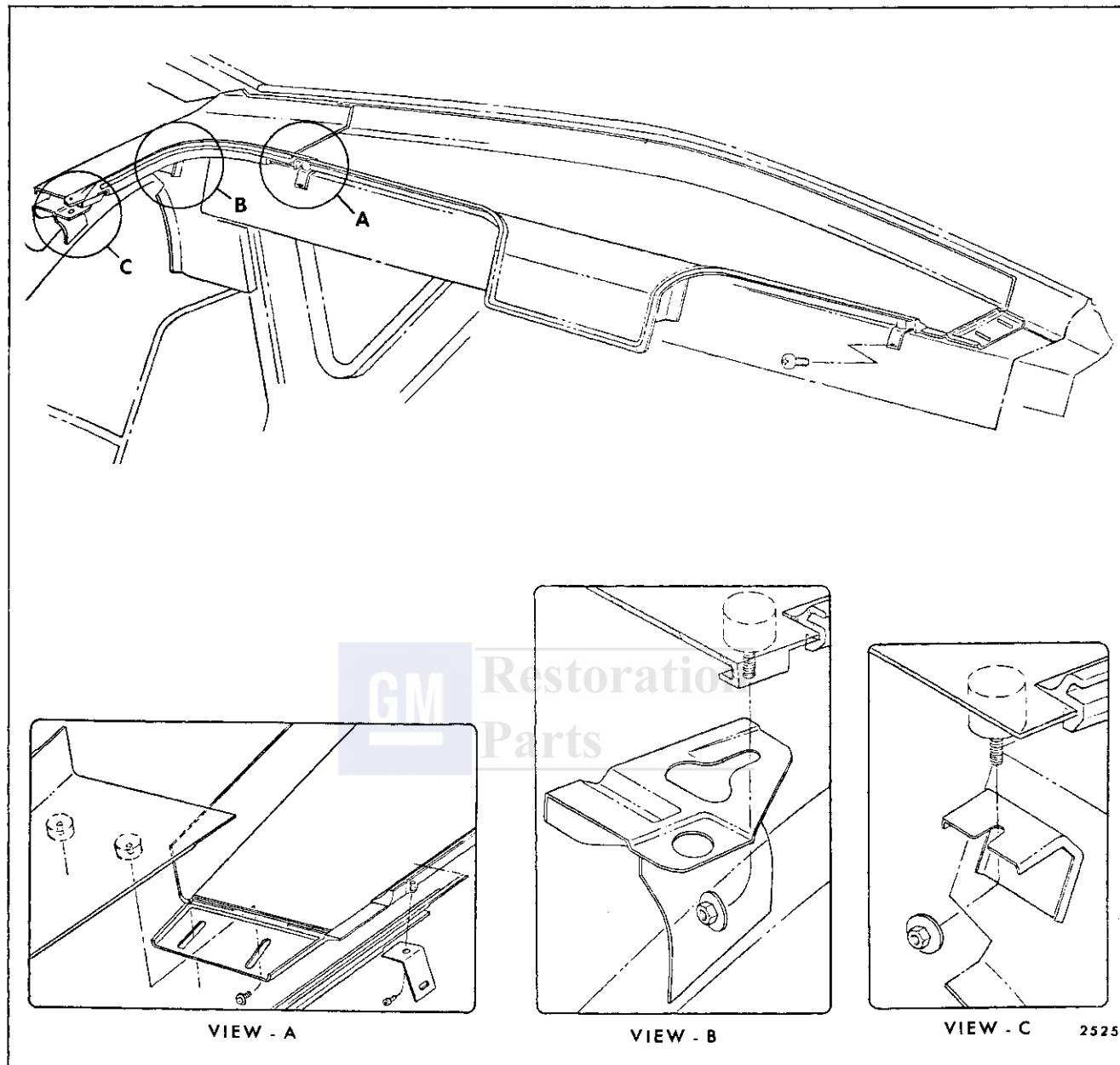


Fig. 14-36—Compartment Shelf Trim Panel — Cadillac "E" Styles

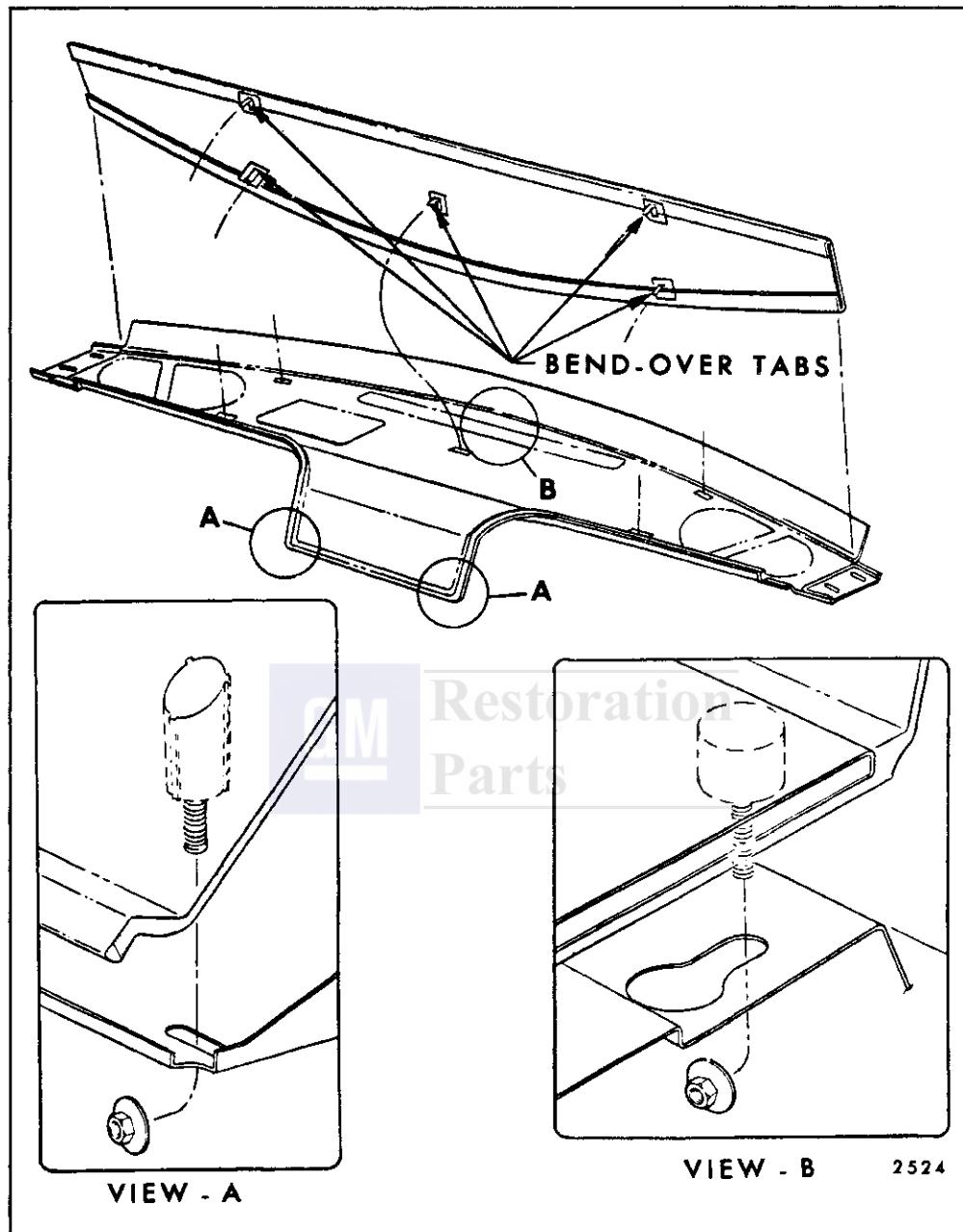


Fig. 14-37—Compartment Shelf Center Trim Panel —
Cadillac "E" Styles

SECTION 15

SEATS

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FRONT AND REAR SEATS

INTRODUCTION

In addition to the standard full width seats, the "Strato" full width and bucket seats are available on all styles except "F & Z" Body Styles. Standard seat back head rests are available for driver and passenger side on all standard full width seats. The "Strato" head rest is also available on both the drivers and passengers side of "Strato" seats. A reclining seat back with head rest is available on the passengers side only on some body styles.

NOTE: All two door style front seats feature a seat back lock on both the drivers and passengers seat back. On "A, B, F, X & Z" Styles with standard seats, the seat back lock is actuated by a control lever located at the lower rear outer side of the seat back. On the "C & E" Style standard seats and on all "Strato" seats the seat back lock is actuated by a control button located

at the upper outer side of the seat back. All station wagon second and third seats also feature seat back locks.

FRONT SEAT DEALER RELOCATION AND SHIMMING PROVISIONS

As illustrated in the following chart, the front seat assembly on some body styles may be repositioned forward or rearward to accomodate a customer's request.

CAUTION: Under no circumstances should attempts be made to reposition the front seat assembly beyond the specifications shown in the chart.

Also, to accomodate a customer's request, some front seat assemblies may be tilted slightly by

<u>BODY STYLES</u>	<u>DEALERS RELOCATION</u>	<u>RELOCATION PROVISIONS</u>
All "A" Body Styles	None	- - -
Chev., Buick & Cad. "B & C" (Except Station Wagons) Buick, Olds. & Cad. "E"	1" Rearward	Move rearward at floor pan attachment.
Pontiac & Oldsmobile "B & C" (Except Station Wagons)	1" Forward	Move forward at floor pan attachment.
Chevrolet & Pontiac "B" Station Wagons	None	- - -
Chevrolet & Pontiac "F" Styles	3/4" Forward	* Remove seat assembly. Remove screw from rear of adjuster upper channel - install screws at front of channel.
Chevrolet "Z" Bucket Seat - Chevrolet "X" Styles	3/4" Rearward	* Remove seat assembly. Remove screw from front of adjuster upper channel - install screw at rear of channel.
Chevrolet "Z" Full Width Seat	None	- - -

*Screw is a cross recess screw which is installed in the upper channel of both adjusters on full width seats and in the outer adjuster only on bucket seats. When screw is removed from one end of adjuster upper channel the screw MUST be installed in opposite end of channel.

NOTE: After repositioning screw in adjuster upper channel, check if adjuster locking lever engages in the last locking notch for the new adjusted position. If lower channel does not travel sufficiently to engage in the last locking notch, tap lower channel with a rubber or fibre mallet until locking lever engages in last notch.

adding or removing shims at the forward or rearward end of the adjuster. When shimming the seat assembly, precautions should be taken to allow proper clearances to the floor pan, floor tunnel and, if so equipped, to the center console when seat assembly is adjusted to full length of travel in each position.

NOTE: Shimming at any one location should not exceed 1/2 inch. Whenever shims thicker than 1/4 inch are used, it will be necessary to use a longer attaching bolt. Attaching bolts must have full thread engagement with threaded holes in seat bottom frame, when shimming between adjuster and seat bottom frame; with threaded holes in floor pan, when shimming between adjuster and floor pan.

MANUALLY OPERATED SEAT ADJUSTER CONTROL ARM KNOB— All Styles with Manually Operated Seat Adjusters

Manually operated seat adjuster control arm knobs are a press fit on the adjuster control arm. When replacing a manually operated left seat adjuster it will be necessary to remove the control arm knob from the old adjuster and install it on the new adjuster or install a new control arm knob.

NOTE: Control arm knobs can generally be removed and reinstalled several times without losing adequate retention.

Removal

Using a heavy body spoon, a long drift pin and a piece of wood as a fulcrum, as shown in Figure 15-1, carefully remove knob from adjuster control arm.

NOTE: Use Caution not to push drift pin down onto rocker panel sill plate.

Installation Equipment

The following equipment is required to install seat adjuster control knob.

1. One four inch "C" clamp.

NOTE: Swivel pad of "C" clamp should rotate freely. Where necessary add a drop or two of oil in swivel pad.

2. One round rubber plug (Part No. 4802102 or equivalent) to fit over "C" clamp swivel pad to help prevent swivel pad from slipping off control knob or damaging control knob.

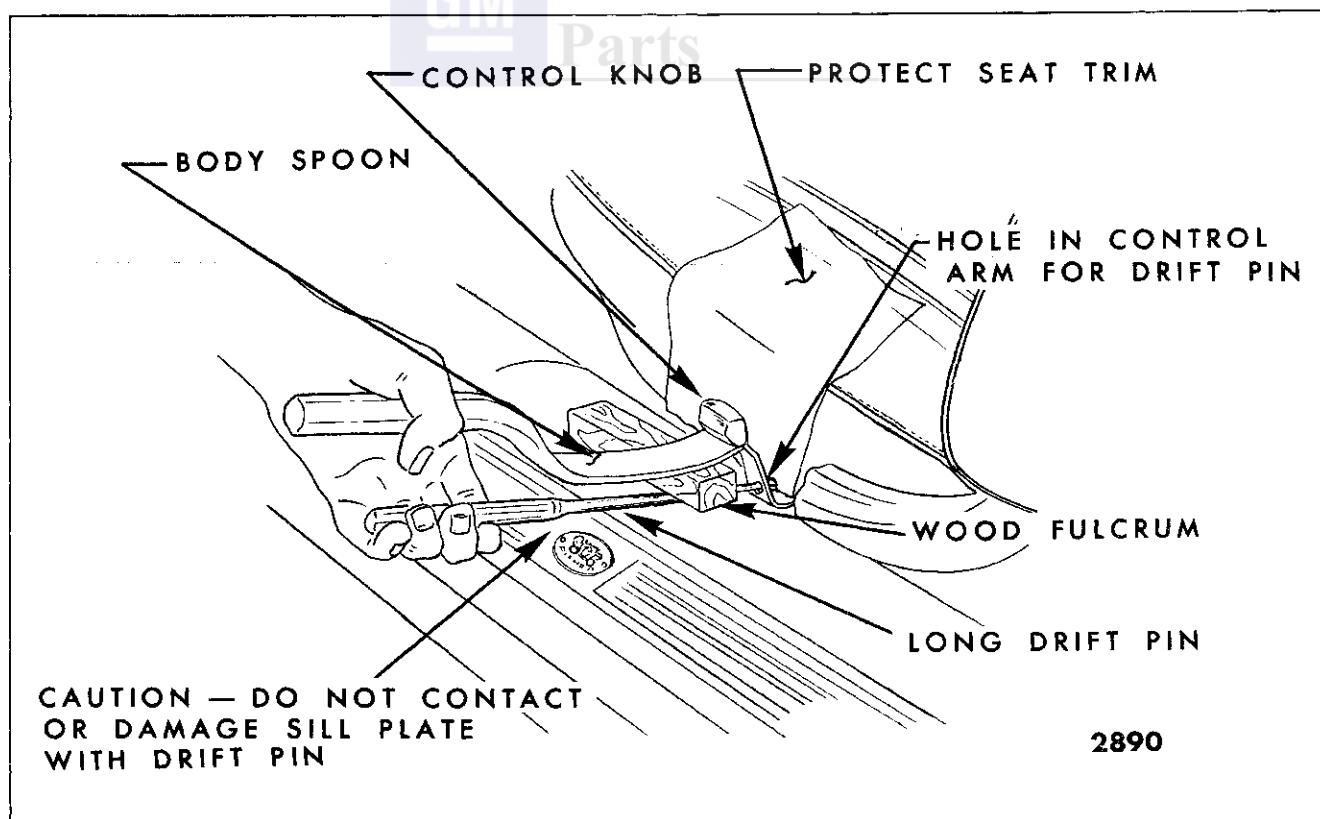


Fig. 15-1—Front Seat Adjuster Control Knob — Removal

3. One 1/8 inch diameter sheet metal screw approximately one inch long.

NOTE: Round off sharp point of screw to prevent possible damage to seat trim.

Installation Procedure

1. a. Place pencil mark on seat adjuster control arm, one inch down from top edge of arm as a guide for determining when knob is fully installed.
- b. Place seat adjuster control knob in position on control arm and start knob on by hand pressure making certain knob is started on straight.

NOTE: Install knob so that "gate" mark (on one face of knob) is facing seat and is not visible.

- c. Place protective cover over seat trim side facing.
2. Insert sheet metal screw in hole provided in adjuster control arm and place "C" clamp in position as shown in Figure 15-2. Use round rubber plug (Part No. 4802102 or equivalent) over swivel pad of "C" clamp to prevent damage to knob and to prevent "C" clamp swivel pad from slipping off knob.
3. Carefully press knob on control arm with "C" clamp until bottom edge of knob is down to mark (one inch below edge of arm).

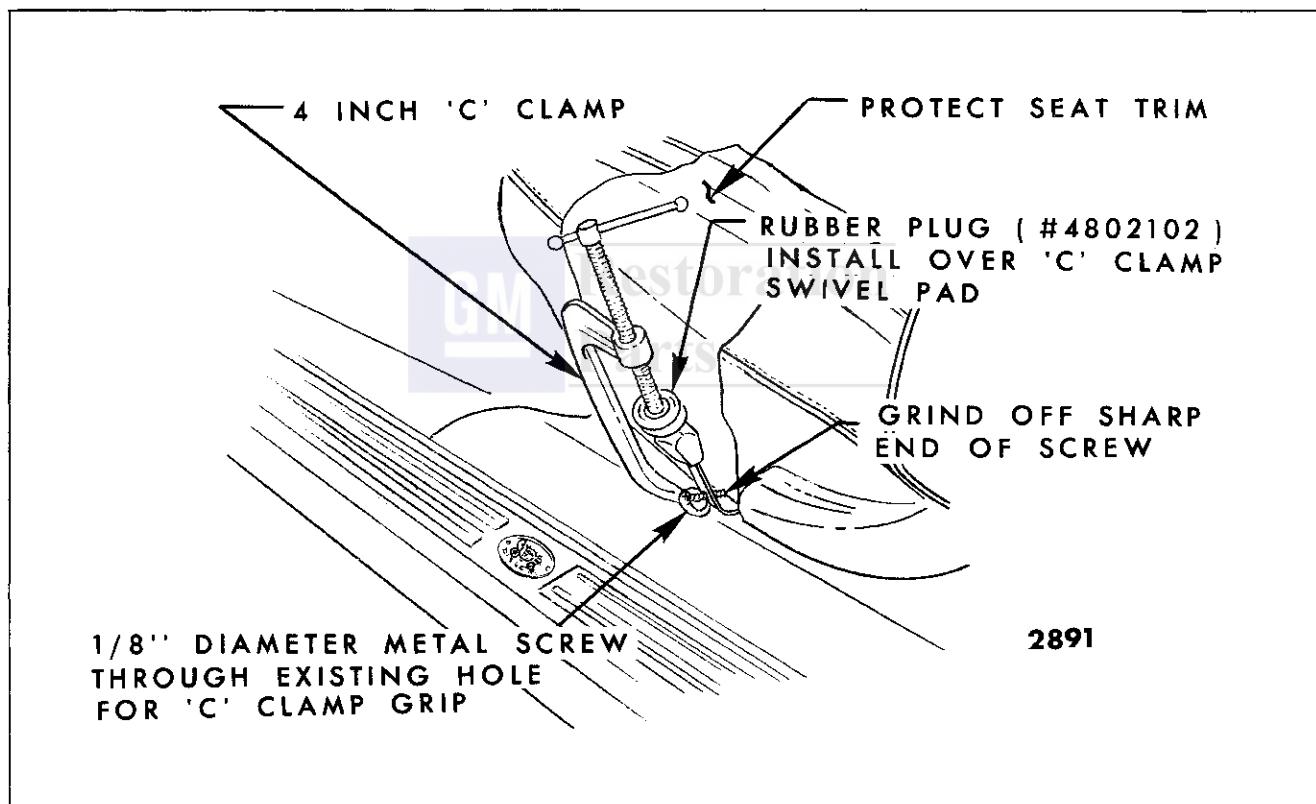


Fig. 15-2—Front Seat Adjuster Control Knob - Installation

STANDARD FRONT SEATS

FRONT SEAT ASSEMBLY— Manually Operated—Full Width

Description

The 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 (rearward on "F" Body Styles), 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 Figs. 15-3 and 15-4).

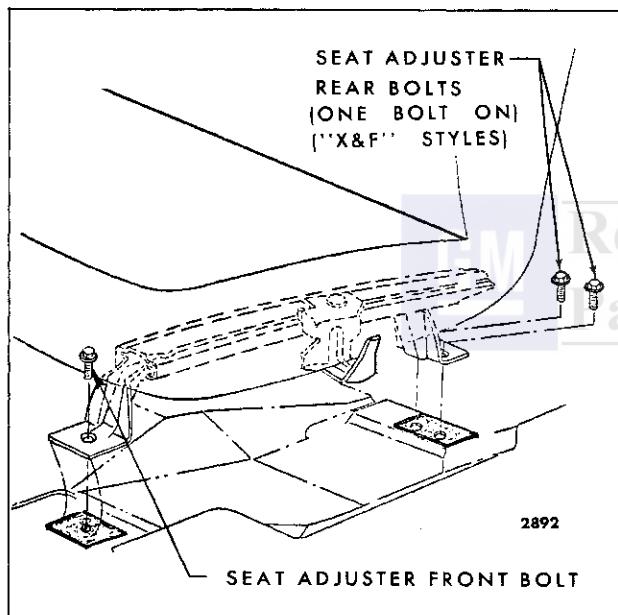


Fig. 15-3—Seat Adjuster Floor Pan Attachment — "A, F, X & Z" Full Width Seat

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. 15-3 and Fig. 15-4).

5. Operate seat to full rearward position. 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. 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. 15-5).
3. 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.
4. Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 15-5) and remove seat adjuster from seat.
5. To install, reverse removal procedure. If left adjuster is being replaced, install new adjuster control knob as described under "Manually Operated Seat Adjuster Control Arm Knob".

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. 15-5).

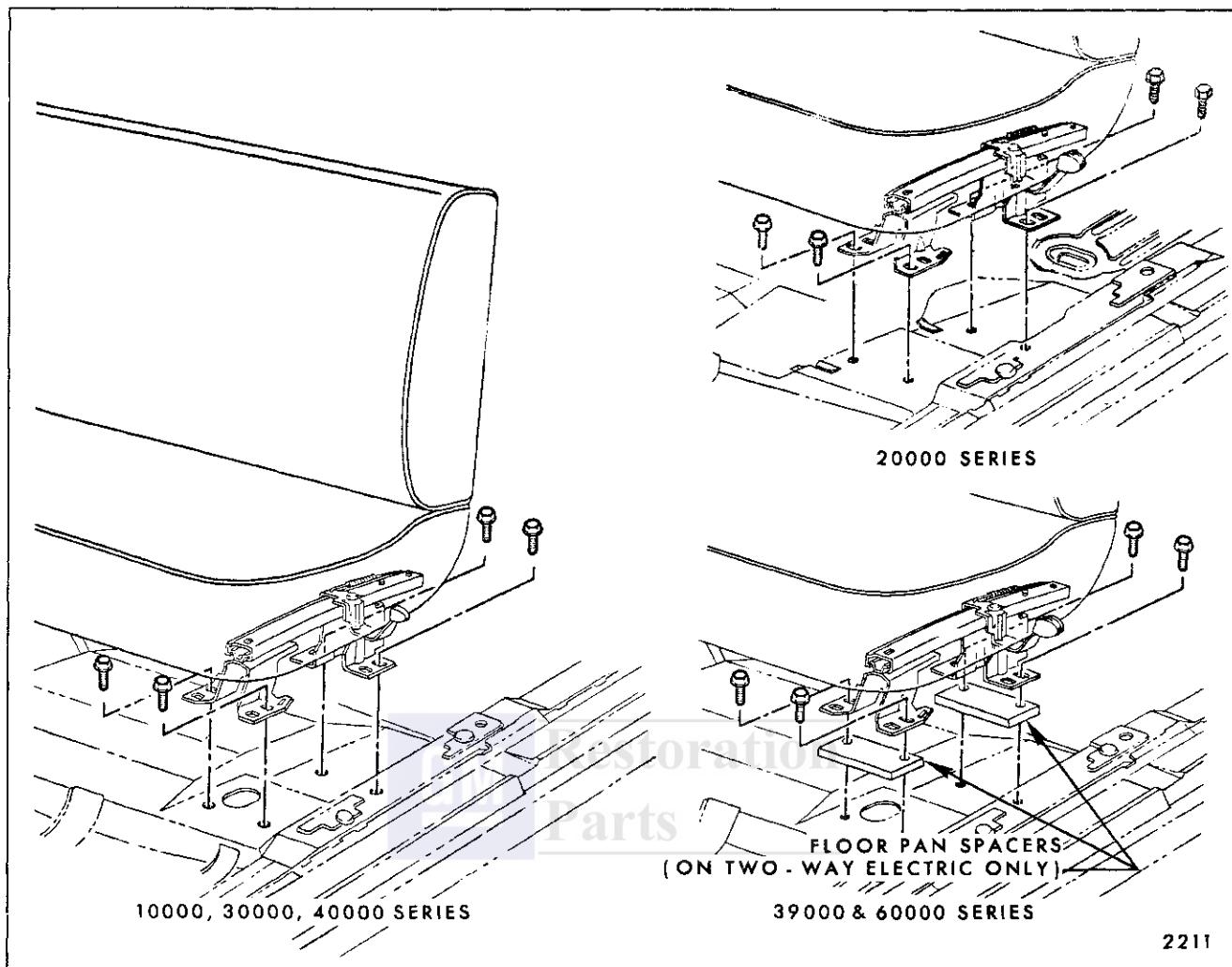


Fig. 15-4—Seat Adjuster Floor Pan Attachment - "B, C & E" Full Width Seat

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 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.

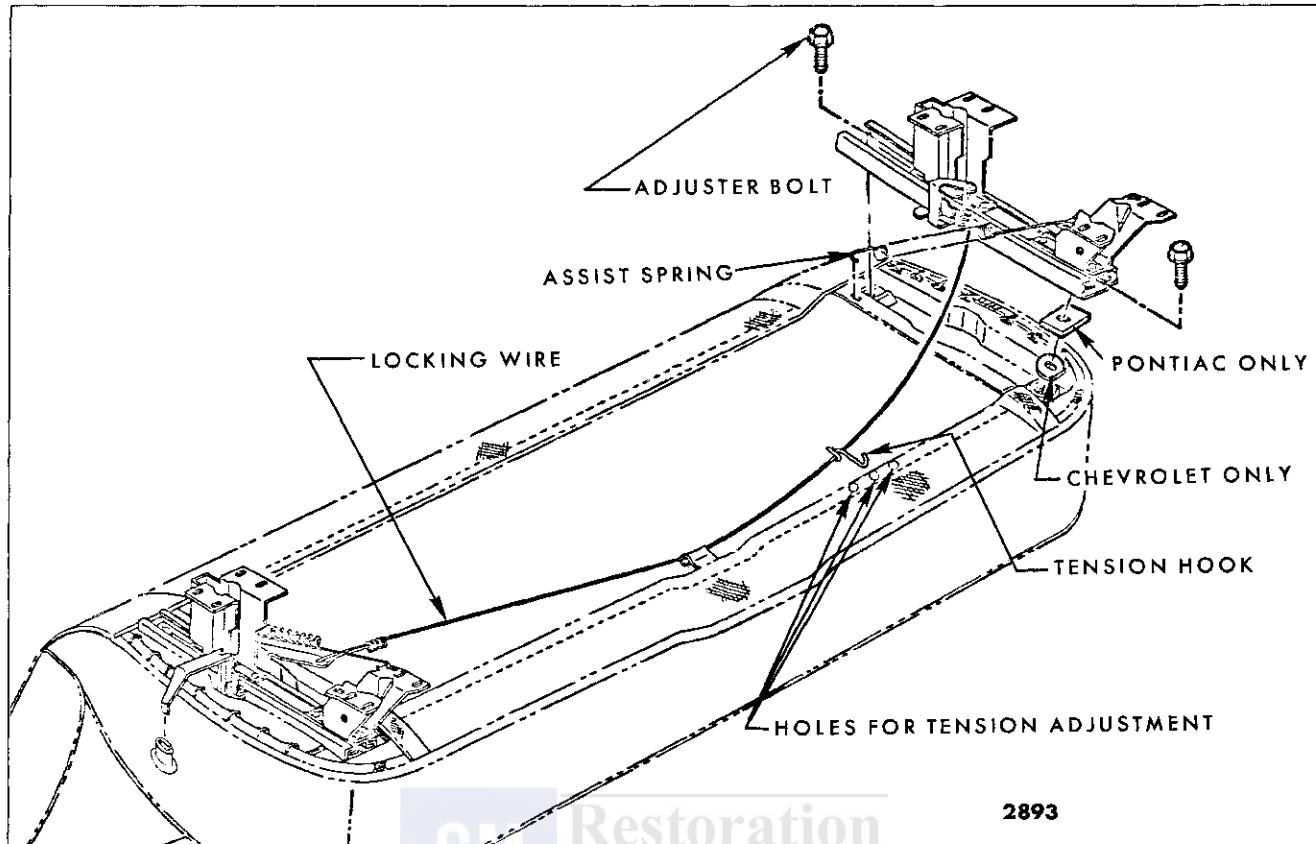


Fig. 15-5—Manual Seat Adjuster Installation — "B & C" Shown, "A, F, X & Z" Typical

2. Remove both driver and passenger inner seat belt floor pan attaching bolts. 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.
 4. Remove seat adjuster-to-floor pan rear attaching bolts (Figs. 15-3 and 15-4).
 5. Operate seat to full rearward position. Remove adjuster-to-floor pan front attaching bolts (Fig. 15-4). Tilt seat assembly rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan. 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. 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 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 of adjuster to be removed (Figs. 15-6, 15-7, 15-13 and 15-16).
4. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly (Figs. 15-6, 15-7, 15-13 and 15-16).
5. To install seat adjuster assembly, reverse removal procedure. On seats with adjuster upper track covers, make sure track covers are installed between adjuster and seat frame (Figs. 15-7, 15-13 and 15-16). Check operation of seat adjusters and make sure adjusters are "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.

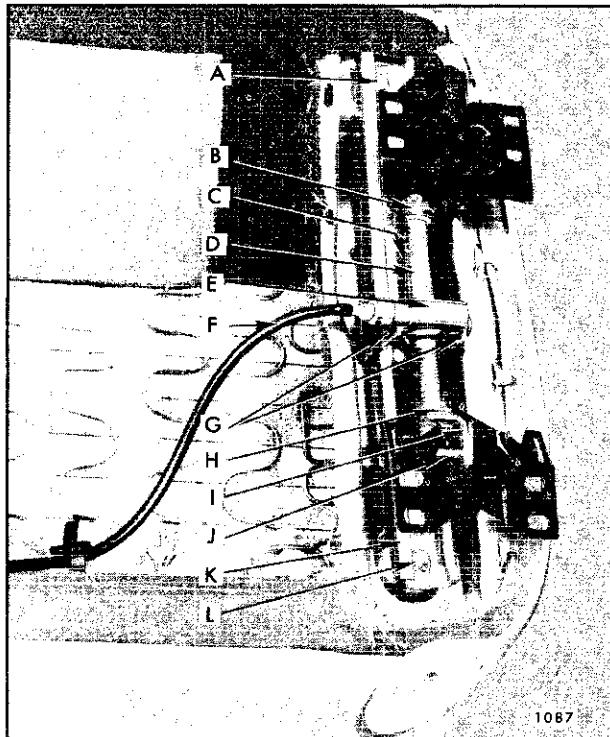


Fig. 15-6—Horizontal Power Adjuster - "C & E" Styles

- | | |
|----------------------------|----------------------------|
| a. Adjuster Attaching Bolt | g. Shoulder Bolts |
| b. Rear Stop | h. Front Stop |
| c. Adjuster Lower Channel | i. Stop Bracket |
| d. Jackscrew | j. Cross-Pin |
| e. Gearnut | k. Adjuster Upper Channel |
| f. Drive Cable | l. Adjuster Attaching Bolt |

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.
5. Remove screws securing motor to motor support bracket.
6. To install, reverse removal procedure. Check for proper seat operation to extreme limits of travel.

HORIZONTAL GEARNUT ASSEMBLY—"C" Body

Removal and Installation

1. Remove front seat assembly with adjusters attached 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. 15-6).
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 adjusters attached 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. 15-6).
4. Remove retainer that secures stop bracket crosspin to adjuster front pedestal and remove crosspin (Fig. 15-6).
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. 15-6).
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.
2. Disconnect wire harness from motor relay assembly.
3. Remove screws securing motor and transmission support to seat bottom frame (See Fig. 15-7).
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.

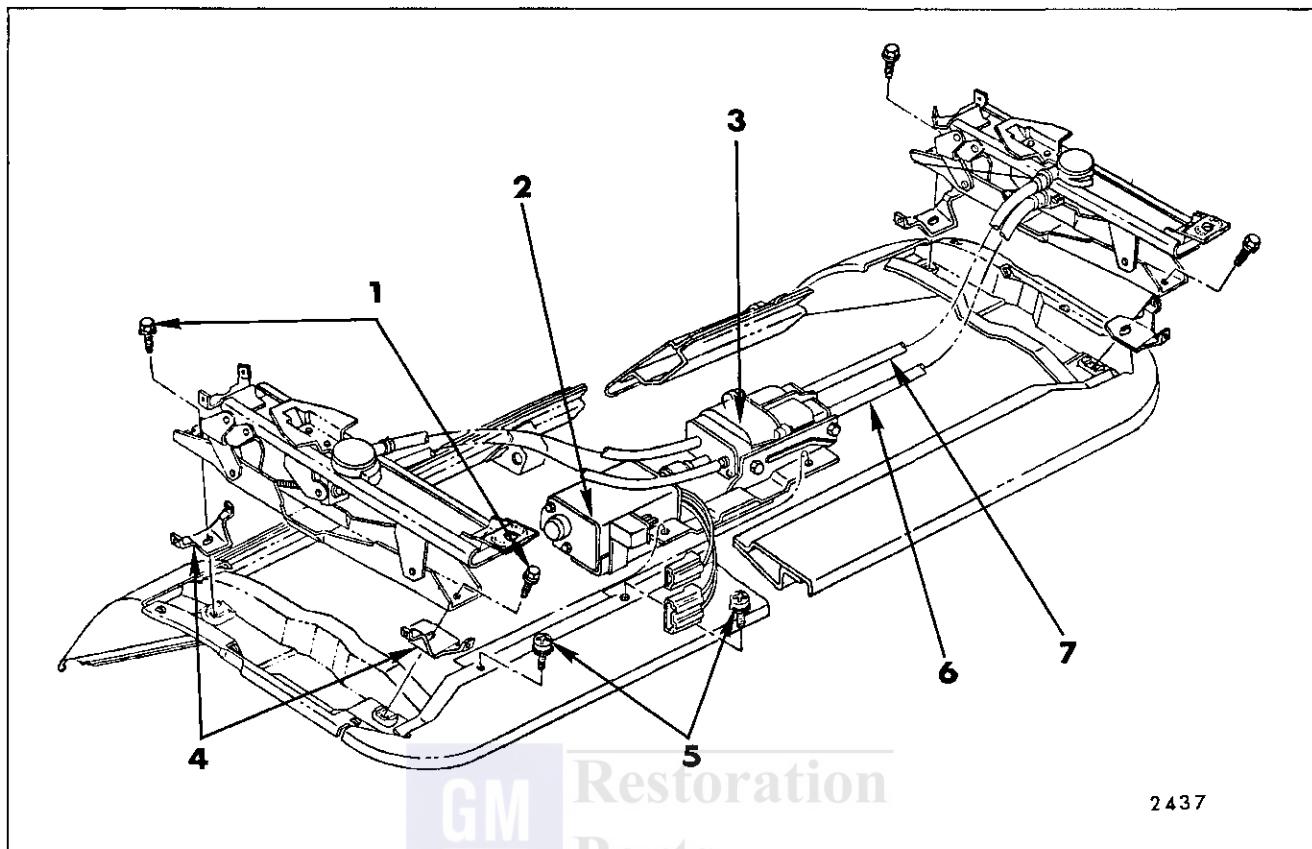


Fig. 15-7—Front Seat Assembly — Four-Way Tilt — "A" Styles

- | | |
|---|--|
| 1. Adjuster to Seat Frame Attaching Bolts
2. Motor Assembly
3. Transmission Assembly
4. Track Cover Supports | 5. Motor and Transmission Support
Attaching Screws
6. Vertical Cable (Yellow)
7. Horizontal Cable (Black) |
|---|--|

4. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut being replaced (Fig. 15-8).

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.

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".

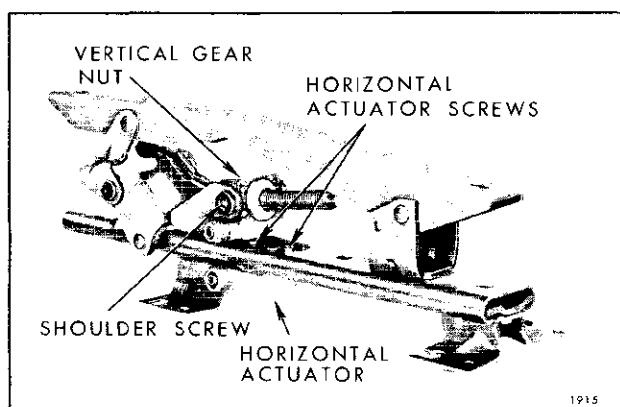


Fig. 15-8—Four-Way Seat Adjuster — "A" Styles

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. 15-8).
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 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. 15-7).
3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 15-9).

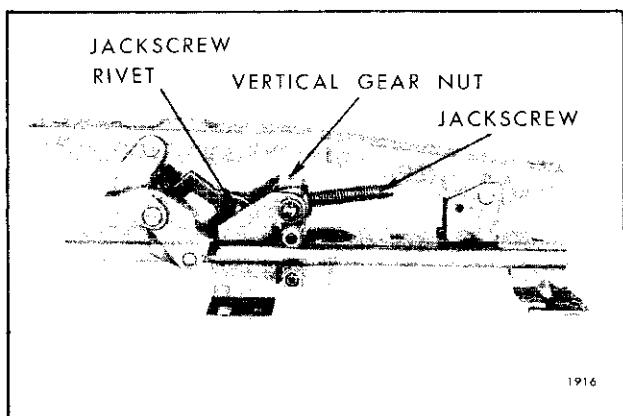


Fig. 15-9—Four-Way Seat Adjuster - "A" Styles

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 adjusters attached, 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. 15-7).
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 adjusters attached, motor and transmission and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission.
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.
2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 15-10).
3. To assemble transmission, reverse removal procedure.

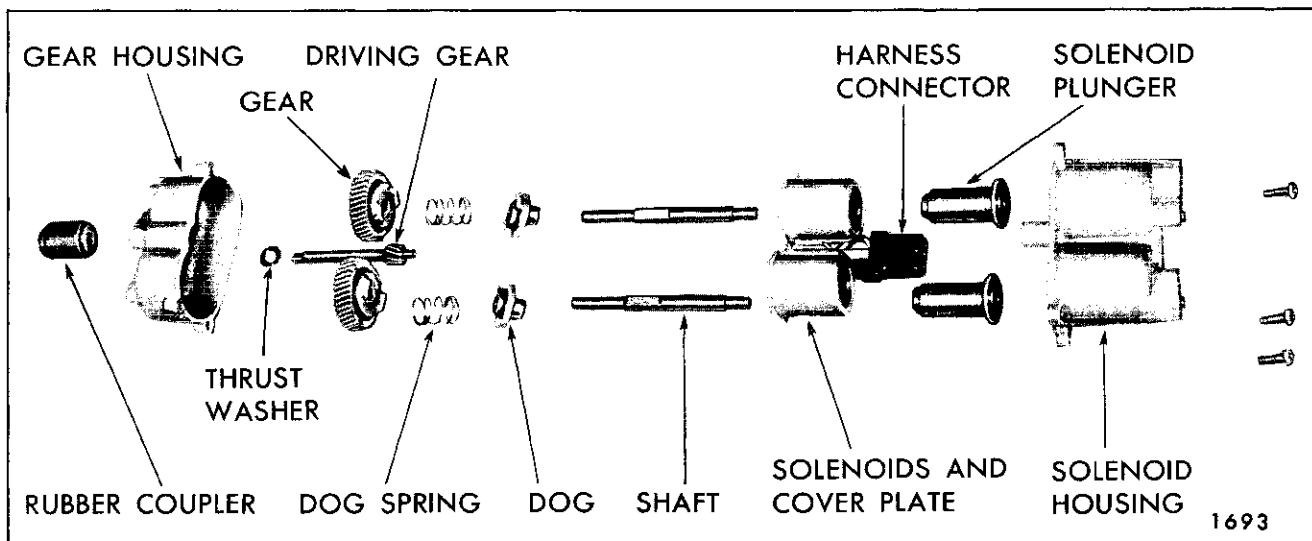


Fig. 15-10—Four-Way Seat Adjuster Transmission

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.
3. Remove screws securing motor and transmission support to seat bottom frame ("6", Fig. 15-13).
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. Check operation of seat to full limits of travel.

VERTICAL GEARNUT—Buick "B-C&E" Body

Removal and Installation

1. Operate seat to full rearward position; then, remove front seat assembly from body and remove seat adjuster from seat.
2. Remove vertical garnut attaching nut and garnut tension spring (Fig. 15-11).

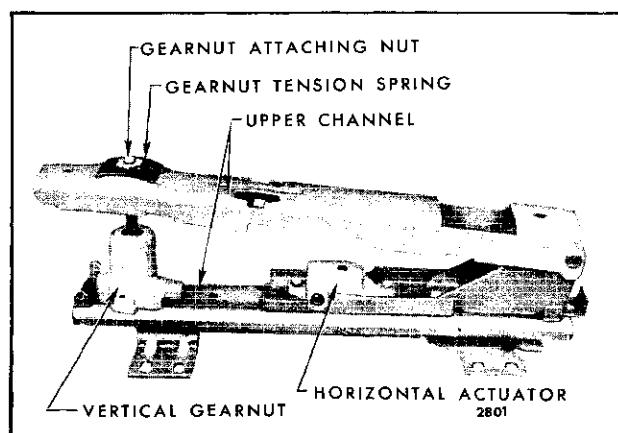


Fig. 15-11—Four-Way Seat Adjuster - Buick "B, C & E" Styles

3. Lay adjuster on its side and remove screws securing vertical garnut to adjuster lower track; then, remove garnut from adjuster (Fig. 15-11).

NOTE: If seat was not in rearward position when removed from car it may be necessary to manually operate the horizontal actuator to gain access to vertical gearnut attaching screws on bottom of lower channel.

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 from body and remove adjuster (from which horizontal actuator is being removed) from seat.

2. Remove vertical gearnut attaching nut and gearnut tension spring.

3. Raise upper portion of lower channel. Remove screws securing horizontal actuator assembly to adjuster lower track; then, remove actuator from adjuster assembly (Fig. 15-12).

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 is properly adjusted (Fig. 15-11 and 15-12), so that drive gear is fully engaged with teeth on lower channel.

NOTE: 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. 15-13).

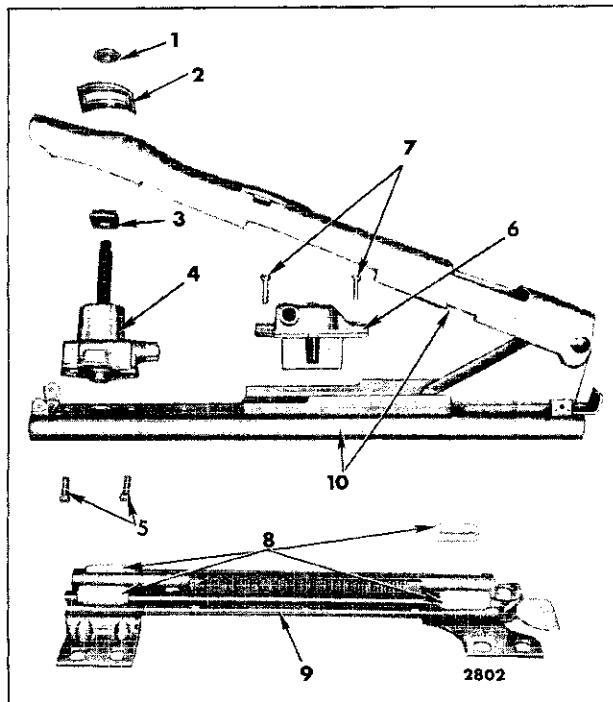


Fig. 15-12—Four-Way Seat Adjuster Components —
Buick "B, C & E" Styles

1. Upper Channel to Gearnut Attaching Nut
2. Vertical Gearnut Tension Spring
3. Vertical Gearnut Shoulder Nuts
4. Vertical Gearnut
5. Vertical Gearnut Attaching Screws
6. Horizontal Actuator
7. Horizontal Actuator Attaching Screws
8. Plastic Shoes
9. Lower Channel
10. Upper Channel

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.
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.

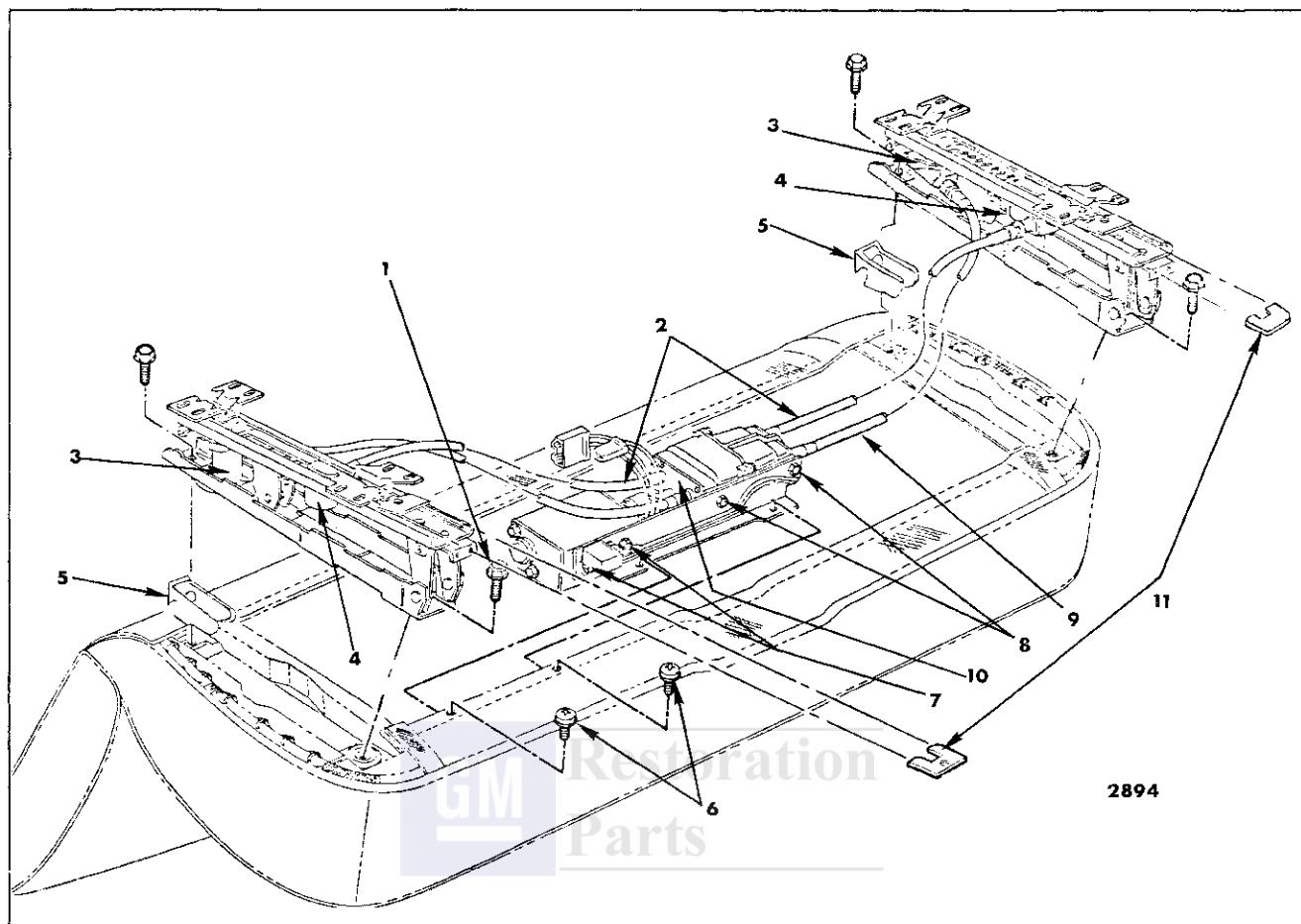


Fig. 15-13—Front Seat Assembly — Four-Way Tilt — Buick "B, C & E" Styles

- | | | |
|-------------------------------------|---|----------------------------------|
| 1. Adjuster-to-Seat Attaching Bolts | 5. Track Cover | 8. Transmission Attaching Screws |
| 2. Horizontal Cables - Black | 6. Motor and Transmission Support
Attaching Screws | 9. Rear Vertical Cables (Blue) |
| 3. Vertical Gearnut | 7. Motor Attaching Screws | 10. Drive Cable End Plate |
| 4. Horizontal Actuator | | 11. Carpet Retainers |

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 (Fig. 15-13); 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.
2. Remove screws securing gear and solenoid housings together; then, carefully separate

housings and remove component parts of transmission assembly (Fig. 15-10).

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" (630 AAW) or equivalent.

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 & 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.
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. 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.
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 and tension springs (Fig. 15-14).
5. Lift front of adjuster upper channel upward; then, remove screws securing horizontal actuator to adjuster upper channel assembly (Fig. 15-14) and remove actuator from adjuster.
6. To install, reverse removal procedure. When installing horizontal actuator, be sure actuator drive gear is fully engaged with teeth on lower channel. With actuator attaching screws tight, there should be no free motion between upper and lower adjusting 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

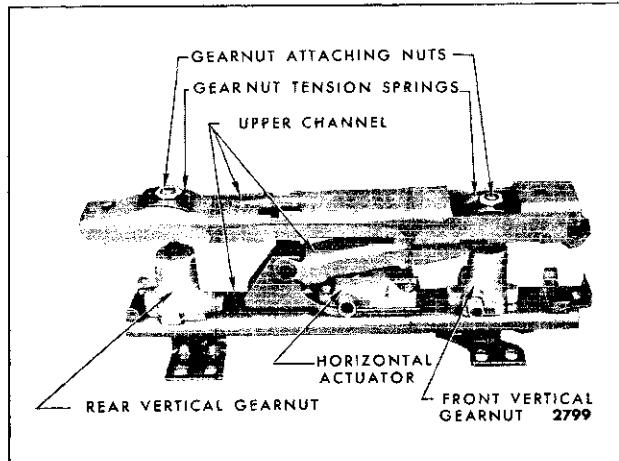


Fig. 15-14—Six-Way Seat Adjuster - "B, C & E" Styles

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 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 both vertical gearnut attaching nuts and tension springs (Fig. 15-15).
 6. Lay adjuster on its side and remove front vertical gearnut attaching screws (Fig. 15-15); then, remove gearnut from adjuster.
- NOTE:** If seat was not in forward position when removed from car, it may be necessary to manually operate the horizontal actuator to gain access to vertical gearnut attaching screws on bottom of lower channel.
7. If front vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly (Fig. 15-14).
 8. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing

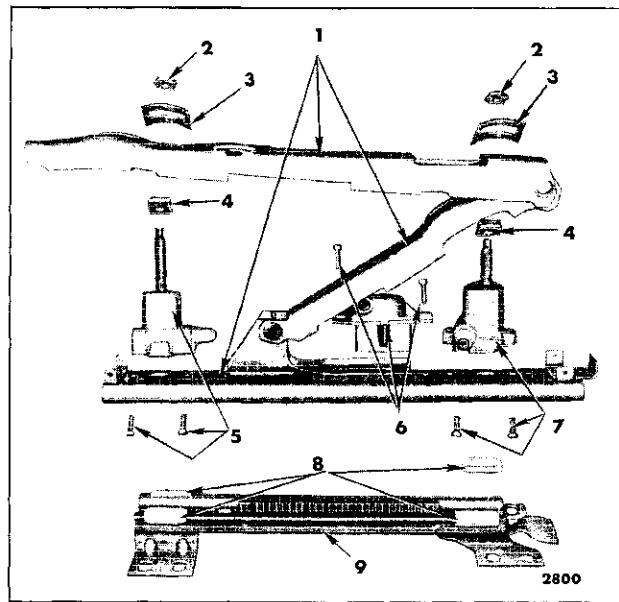


Fig. 15-15—Six-Way Seat Adjuster Components —
"B, C & E" Styles

1. Upper Channel Assembly
2. Upper Channel to Gearnut Attaching Bolts
3. Gearnut Tension Springs
4. Gearnut Shoulder Nuts
5. Rear Vertical Gearnut and Attaching Screws
6. Horizontal Actuator
7. Front Vertical Gearnut and Attaching Screws
8. Plastic Shoes
9. Lower Channel

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 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 both vertical gear-nut attaching nuts and tension springs (Fig. 15-14).

6. Lay adjuster on its side and remove rear vertical gearnut attaching screws; then, remove gearnut from adjuster (Fig. 15-15).

NOTE: If seat was not in rearward position when removed from car, it may be necessary to manually operate the horizontal actuator to gain access to vertical gearnut attaching screws on bottom of lower channel.

7. If rear vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly (Fig. 15-14).
8. To install, reverse removal procedure. Be sure rear gearnut spring is properly engaged over 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 OR UPPER CHANNEL AND PLASTIC SLIDES—"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. At top of adjuster, remove both vertical gear-nut attaching nuts and tension springs (Fig. 15-14). Lift front of adjuster upper channel upward; then, remove horizontal actuator attaching screws (Fig. 15-14) and remove horizontal actuator from adjuster.
5. Slide lower channel until it is completely disengaged from upper channel. Plastic slides may be removed from lower channel.
6. To install upper and lower channel, reverse removal procedure.
 - a. If replacing lower channel, transfer plastic slides to new lower channel.
 - b. If replacing upper channel, transfer vertical gearnuts to new upper channel.

NOTE: Make sure horizontal gear of lower channel and sliding surface of upper

channel are properly lubricated with "Lubriplate" (630 AAW) or equivalent.

Make sure adjusters are "in phase" prior to installing seat assembly into body (See step 6 under "Front Seat Assembly - Removal and Installation").

Check operation of seat to limits of both horizontal and vertical travel.

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.

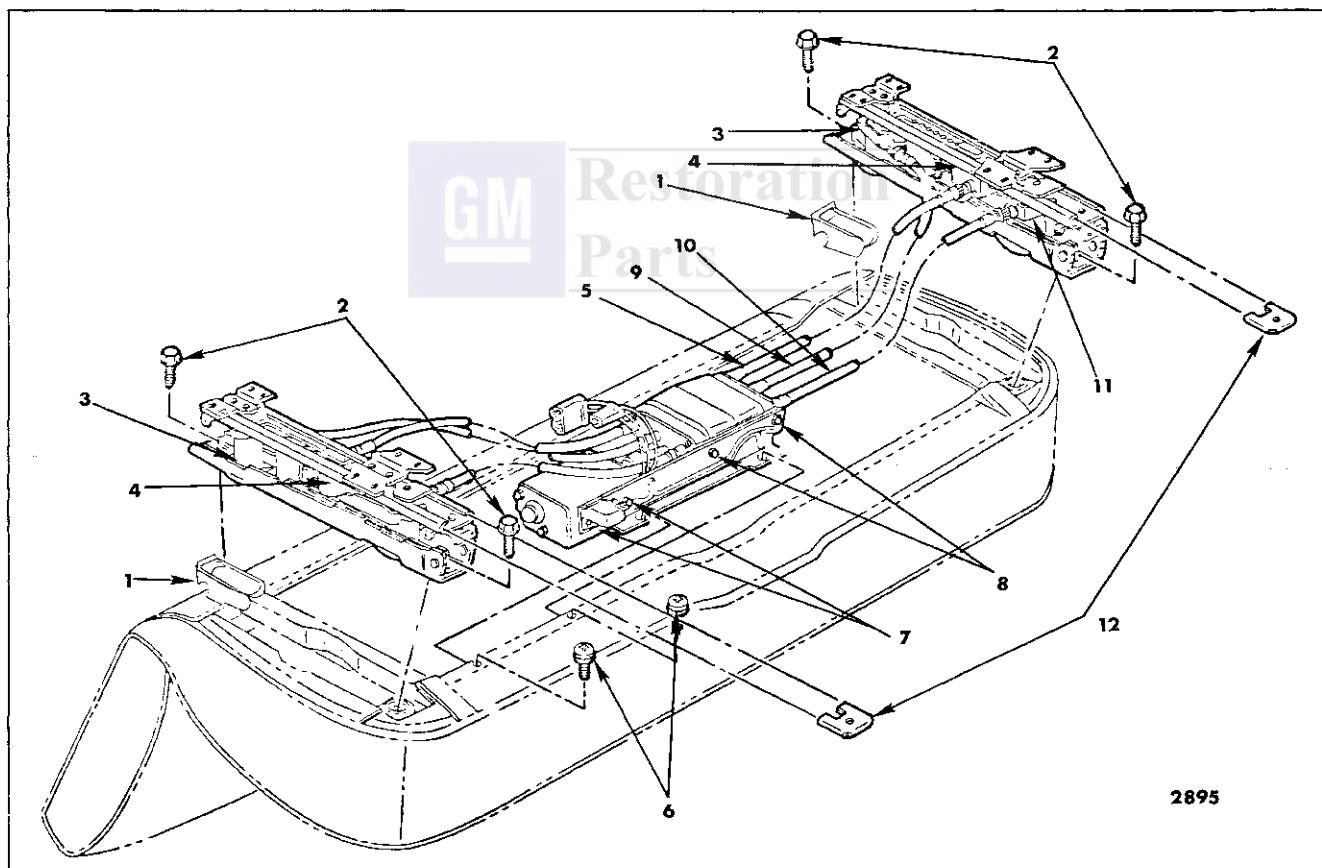
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed (Fig. 15-16) and remove cables from seat assembly; then, disengage cables from end plate.

4. To install horizontal and vertical cables, reverse removal procedure. Make sure colored drive cables are installed to proper gearnuts and horizontal actuator as shown in Figure 15-16.

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.



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Fig. 15-16—Front Seat Assembly - Six Way - "B & C" Styles

1. Track Cover
2. Adjuster-to-Seat Attaching Bolts
3. Rear Vertical Gearnut
4. Horizontal Actuator

5. Horizontal Cables - Black
6. Motor and Transmission
7. Motor Attaching Screws
8. Transmission Attaching Screws

9. Rear Vertical Cables - Blue
10. Front Vertical Cables - Yellow
11. Front Vertical Gearnut
12. Carpet Retainers

3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission (Fig. 15-16).
4. Remove transmission to support attaching (Fig. 15-16) bolts; then, disengage transmission from motor drive coupling and remove transmission from seat assembly.
5. To install, reverse removal procedure. Make sure seat wiring harness is properly secured to seat.

DISASSEMBLY AND ASSEMBLY OF TRANSMISSION

1. Remove front seat adjuster transmission from seat assembly.
2. Remove screws securing rear gear housing to the solenoid housing; then, carefully separate housings and remove component parts of transmission assembly (Fig. 15-17).
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" (630 AAW) or equivalent.

FRONT 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, detach fiberboard breakover foundation and bend out tabs on seat back frame securing seat cushion springs (Fig. 15-18). Disengage springs from tabs.
4. At each end of seat, remove hog rings securing lower edge of seat back trim to seat bottom

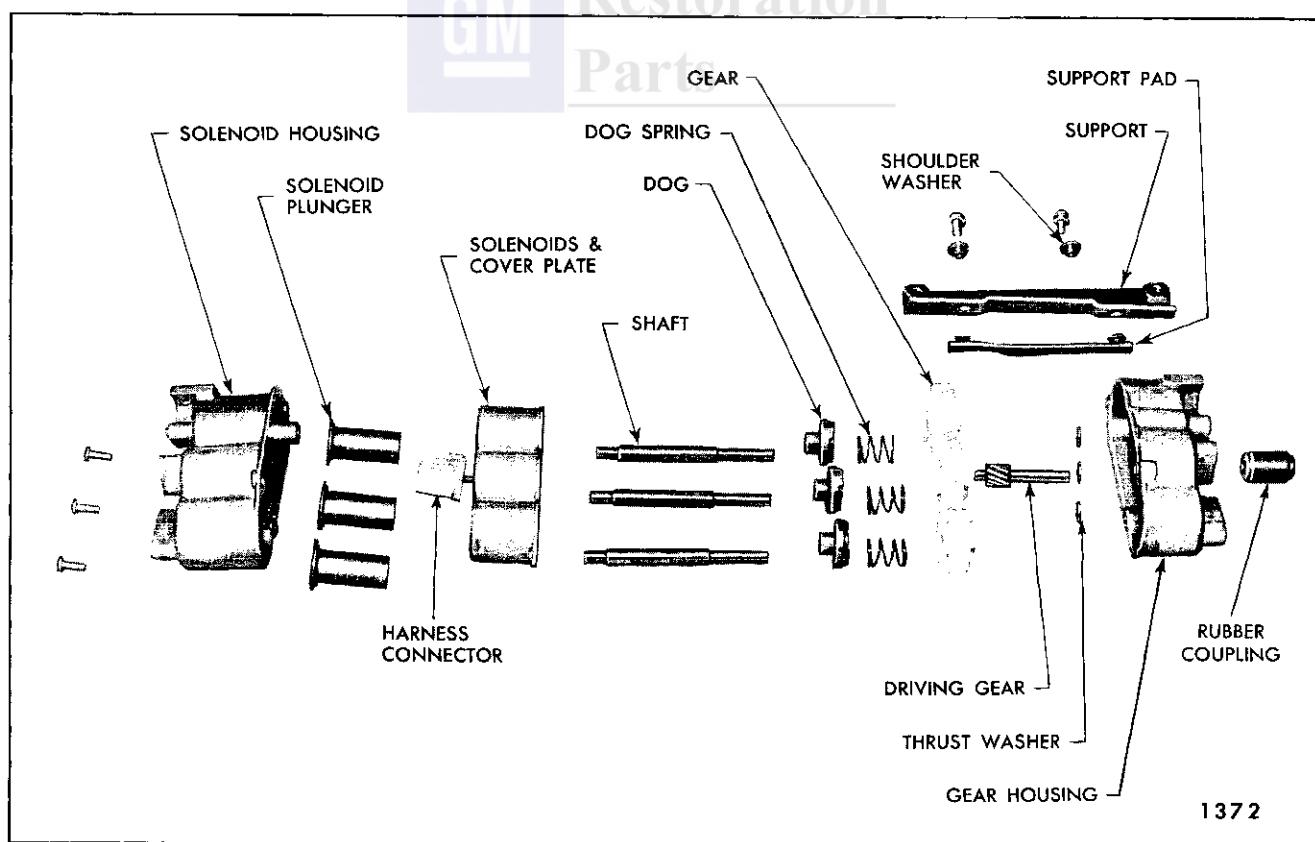


Fig. 15-17—Six-Way Seat Adjuster Transmission - "B & C" Styles

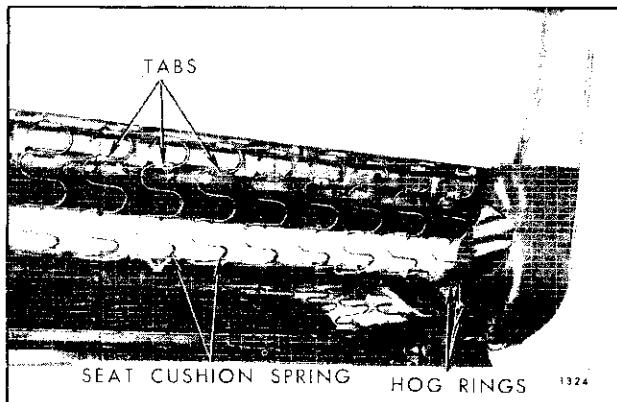


Fig. 15-18—Seat Cushion-to-Back Spring Attachment

frame. Raise or turn back seat back trim to expose bolts securing seat back frame to seat cushion frame (Fig. 15-19). Where seat back lighter or courtesy light is present, disconnect wire from seat cushion frame.



Fig. 15-19—Seat Back Attachment

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 or detach fastener 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.

FRONT SEAT BACK ASSEMBLY— (Right or Left)—“A” Body “39” Styles Full Width Seat with Center Arm Rest

Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean protected surface. Remove seat cushion side panels.
2. Remove hog rings securing lower edge of seat cushion trim bottom facing to seat cushion springs and frame (Fig. 15-20).
3. Remove outer hinge arm cover (Fig. 15-20); then, using a flat bladed tool carefully remove retainer securing seat back outer arm to hinge pin (Fig. 15-20).
4. Turn back seat back trim to expose seat back attaching bolt access holes; then, through access holes remove seat back frame to seat cushion frame attaching bolts (Fig. 15-20).
5. Turn seat assembly right side up. 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 (Fig. 15-20) and remove seat back from body.
6. To install seat back assembly, reverse removal procedure. If seat back outer arm retainer is damaged, install new retainer.

FRONT SEAT BACK LOCK—(Right or Left)— “A-B-X&Z” Body Two-Door Styles with Standard Full Width Seats

Removal and Installation

1. Remove front seat back assembly from front seat assembly, as previously described.

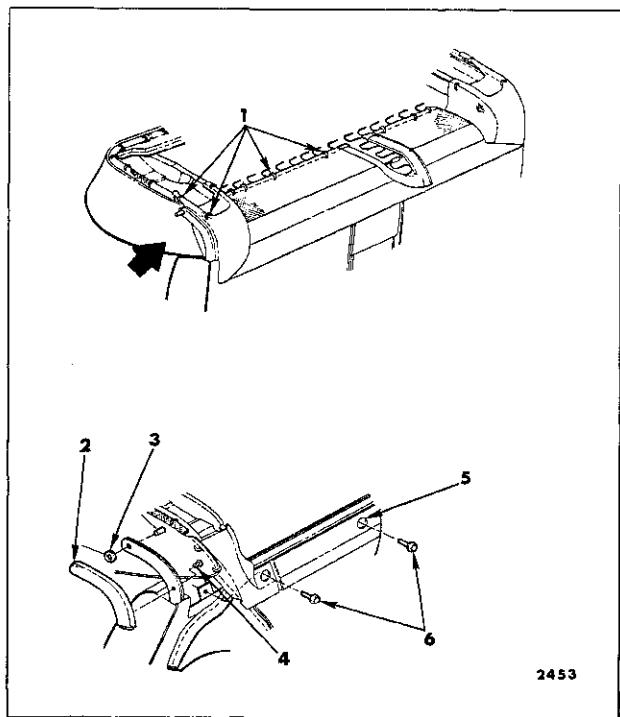


Fig. 15-20—Seat Back Removal (Right or Left) -
23739, 33839 and 44439 Styles

1. Hog Rings Securing Seat Cushion Trim Bottom Facing
2. Seat Back Outer Arm Cover
3. Seat Back Outer Arm Retainer
4. Seat Back Outer Arm Cover Fastener
5. Seat Back Attaching Bolt Access Hole
6. Seat Back Frame to Seat Cushion Frame Attaching Bolts

2. Remove front seat back outer side panel and side panel lower support, where present.

3. Remove seat back lock handle knob, lock handle escutcheon and lock handle (Fig. 15-21).

4. Remove hog rings securing seat back front and rear trim facings at bottom of seat back, then, turn up trim sufficiently to gain access to lock attaching bolts (Fig. 15-21).

5. Remove seat back lock attaching bolts (Fig. 15-21); then, remove lock assembly from bottom of seat back.

6. To install, reverse removal procedure. Check for proper operation of seat back lock.

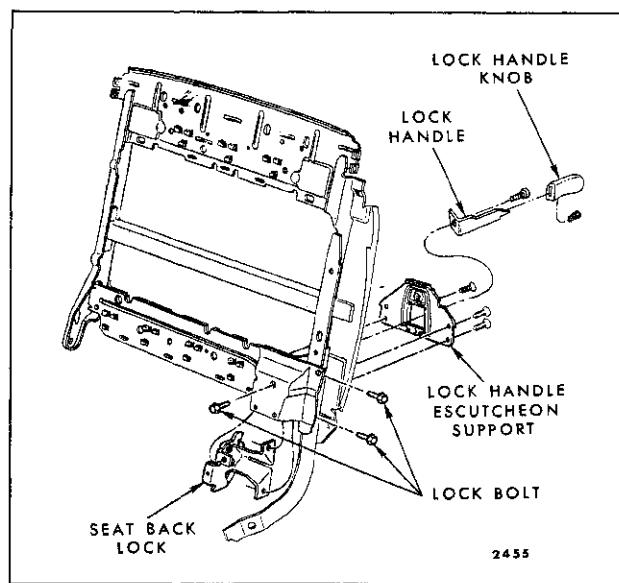


Fig. 15-21—Front Seat Back Lock - "A, B & X"
Two-Door Styles, Standard Full Width Seat

FRONT SEAT BACK LOCK, LOCK CONTROL AND LOCK ROD—"C&E" Body Two-Door Styles with Standard Full Width Seat

Removal and Installation

1. Remove front seat back assembly, as previously described.
2. On style with full seat back panel, remove seat back lock push button escutcheon and remove lock push button and ferrule; then, remove seat back panel (See View "B" in Fig. 15-22). On styles with seat side panel, remove seat side panel; then, remove lock push button and ferrule (See View "A" in Fig. 15-22).
3. Remove seat back outer panel. Remove hog rings securing seat back panel or seat back trim panel along bottom and sides of seat. If removing lock, turn seat back trim sufficiently to gain access to lock attaching bolts. If removing lock control or rod, turn up trim to gain access to lock control bolts (See Fig. 15-23).
4. a. To remove seat back lock, disengage lock rod clip at lock (Fig. 15-23) and detach rod from lock. Remove lock attaching bolts (Fig. 15-23) and remove lock from bottom of seat back.
b. To remove seat back lock control, disengage lock rod clip at control (Fig. 15-23) and detach lock rod from control. Remove lock control attaching bolts (Fig. 15-23) and remove lock control from seat back.

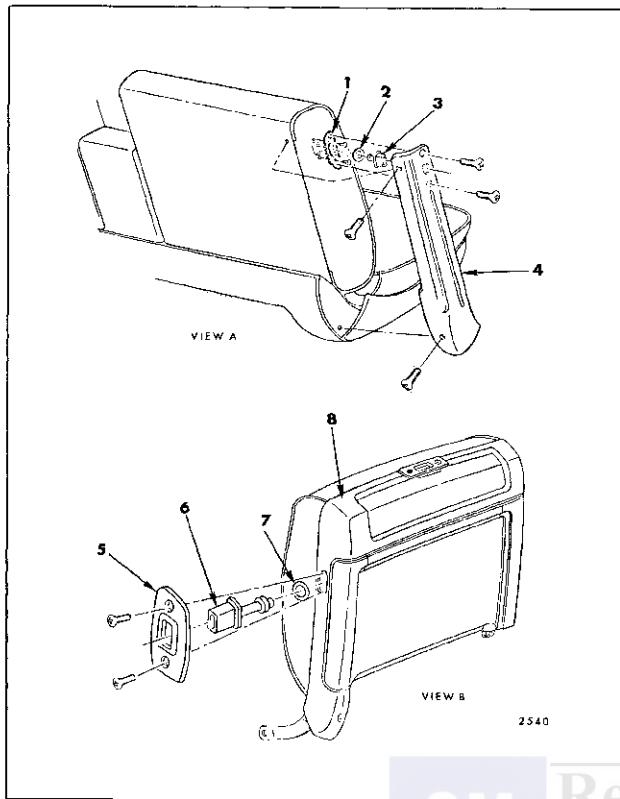


Fig. 15-22—Seat Back Lock Removal — "C & E"
Body Standard Seat

**View "A" — Typical of Styles with
Seat Back Side Panels**

- | | |
|------------------|----------------|
| 1. Trim Retainer | 3. Push Button |
| 2. Ferrule | 4. Side Panel |

View "B" — Typical of Styles with Seat Back Panel

- | | |
|----------------|--------------------|
| 5. Escutcheon | 7. Ferrule |
| 6. Push Button | 8. Seat Back Panel |

- c. To remove lock rod, disengage lock rod clip at lock and at control (Fig. 15-23), detach lock rod from control and lock and remove lock rod from seat back.
- 5. To install seat back lock, lock control or lock rod, reverse removal procedure. Make certain lock rod and clips are properly engaged and locked at lock lever and lock control lever. Check for proper operation of seat back lock.

FRONT SEAT BACK HEAD RESTRAINT— Standard Full Width Seat (Driver's or Passenger's Side)

The standard full width seat back head restraint is secured by a support which is screwed to the seat back frame. The support incorporates a detent spring which allows the headrest to be raised or lowered to three different height positions. The

head restraint can be removed from the seat back for storage by pulling the headrest to the full up position; then, where the support bar enters the seat back, insert end of car key into slot in bar escutcheon and move release spring forward to allow head restraint to be removed from the seat back. Pull headrest up and remove from seat back. To remove and install the head restraint support, the seat back trim must be removed and the support-to-seat back frame screws removed.

FRONT SEAT BACK HEAD RESTRAINT SUPPORT—Standard Full Width Seat (Driver's or Passenger's Side)

The front seat back head restraint support for the standard front seats consist of a support and support upper extension secured to the seat back frame by screws (Fig. 15-24). To remove the support and support upper extension, it is necessary to detach or remove the seat back trim assembly to gain access to the support attaching screws.

FRONT SEAT CENTER 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 hog rings securing curtain to flange of support plate (Fig. 15-25) and pull curtain forward to expose screws securing arm rest to support linkage.
3. Remove arm rest-to-support linkage screws (Fig. 15-25) 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 hog rings securing curtain to flange of support plate (Fig. 15-25).
3. Remove two screws securing arm rest to supports on seat back (Fig. 15-25); then, carefully lift arm rest and linkage upward to disengage hooks of arm rest from slots in supports and remove assembly from seat.

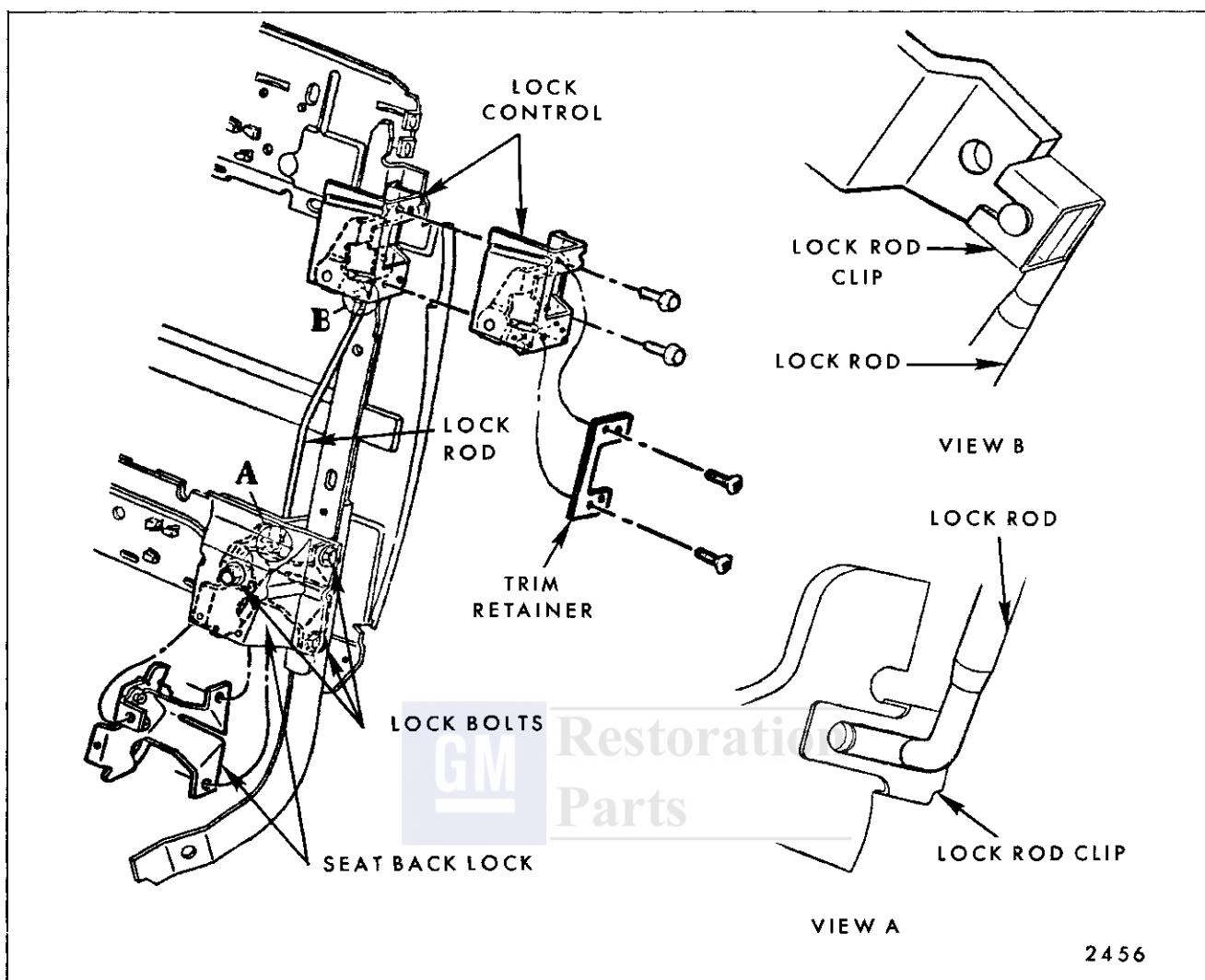


Fig. 15-23—Front Seat Back Lock - "C & E" Body Two-Door Styles, Standard Full Width Seat

- 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

- Lower arm rest to within approximately 2 inches of full down position.
- 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. 15-26).

- Remove screw finishing covers (Fig. 15-26). Disengage arm rest from support linkage and turn arm rest upside down on trim panel finishing cover with curtain retainer to trim panel finishing cover (Fig. 15-26); then, remove arm rest and curtain from seat.

- 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

- Place arm rest in up position.

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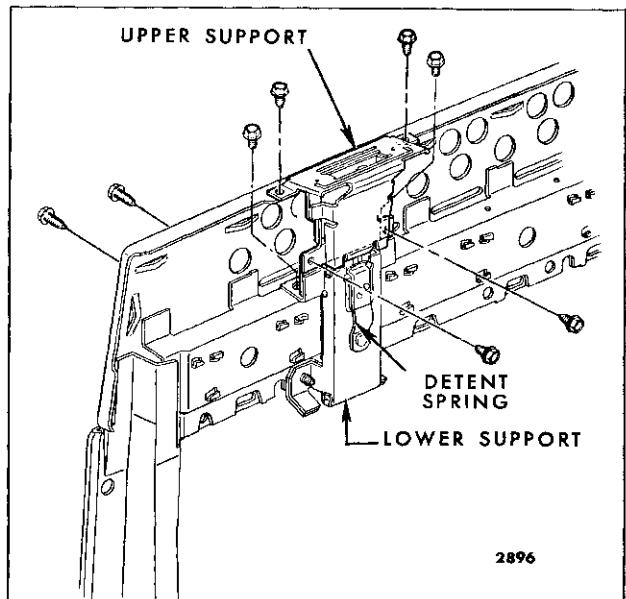


Fig. 15-24—Front Seat Back Standard Head Restraint Support

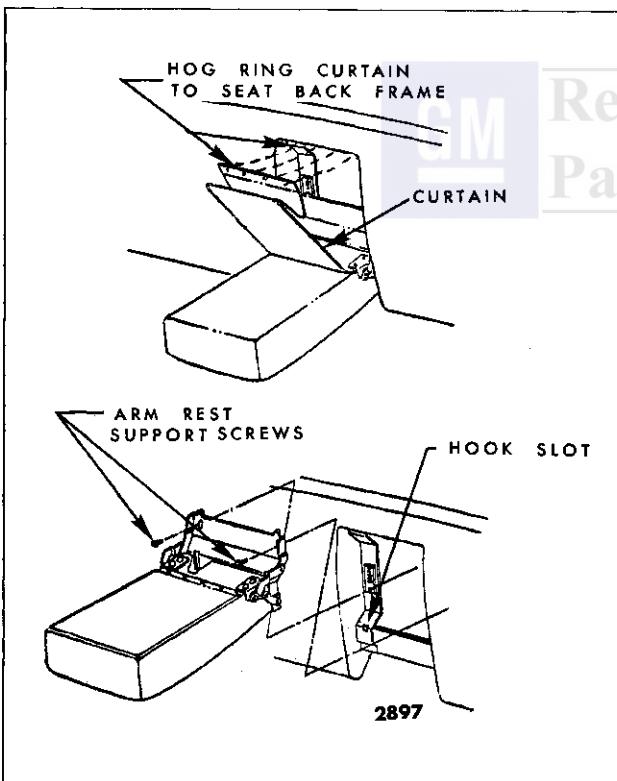


Fig. 15-25—Front Seat Back Center Arm Rest

2. Working between arm rest and seat back, remove fastener at both sides of arm rest securing front end of screw finishing covers (Fig. 15-26).

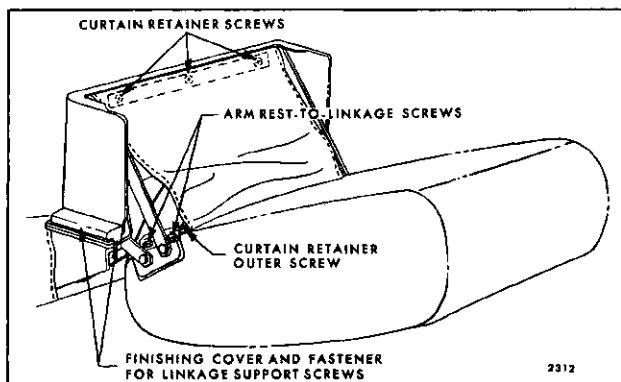


Fig. 15-26—Front Seat Center Arm Rest (Notch Down Seat Back)

3. Working at rear of seat, push one seat to full forward position. Carefully pull up front of screw finishing cover sufficiently to expose arm rest support attaching screws; then, remove screws (Fig. 15-27). 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. 15-27), note location and number of washers used to

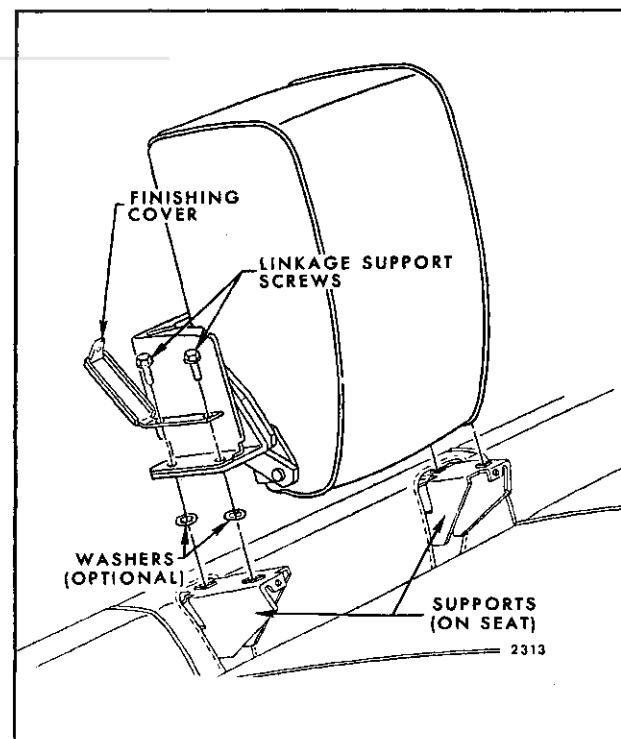


Fig. 15-27—Front Seat Center Arm Rest Support (Notch Down Seat Back)

facilitate installation in same position. Washer(s) are used to align arm rest to front seat back(s).

- 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. 15-27).

FRONT SEAT CENTER ARM REST SUPPORT—Front Seat with Notch Down Seat Back and Strato Front Seat

Removal and Installation

- Remove center arm rest assembly.
- Remove screws securing arm rest to support from arm rest, finishing cover and curtain.

- 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. 15-27).

FOOT REST ASSEMBLY— Cadillac 68169 Style

The folding foot rest assemblies shown in Figure 15-28 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. 15-28) and remove foot rest assembly from seat back. To remove trimmed foot rest board remove hinge-to-board attaching screws (Fig. 15-28) and remove hinges from foot rest board. To install, reverse removal procedure. When installing foot rest hinge-to-seat back attaching screws, install machine thread screws to upper attaching hole at each hinge.

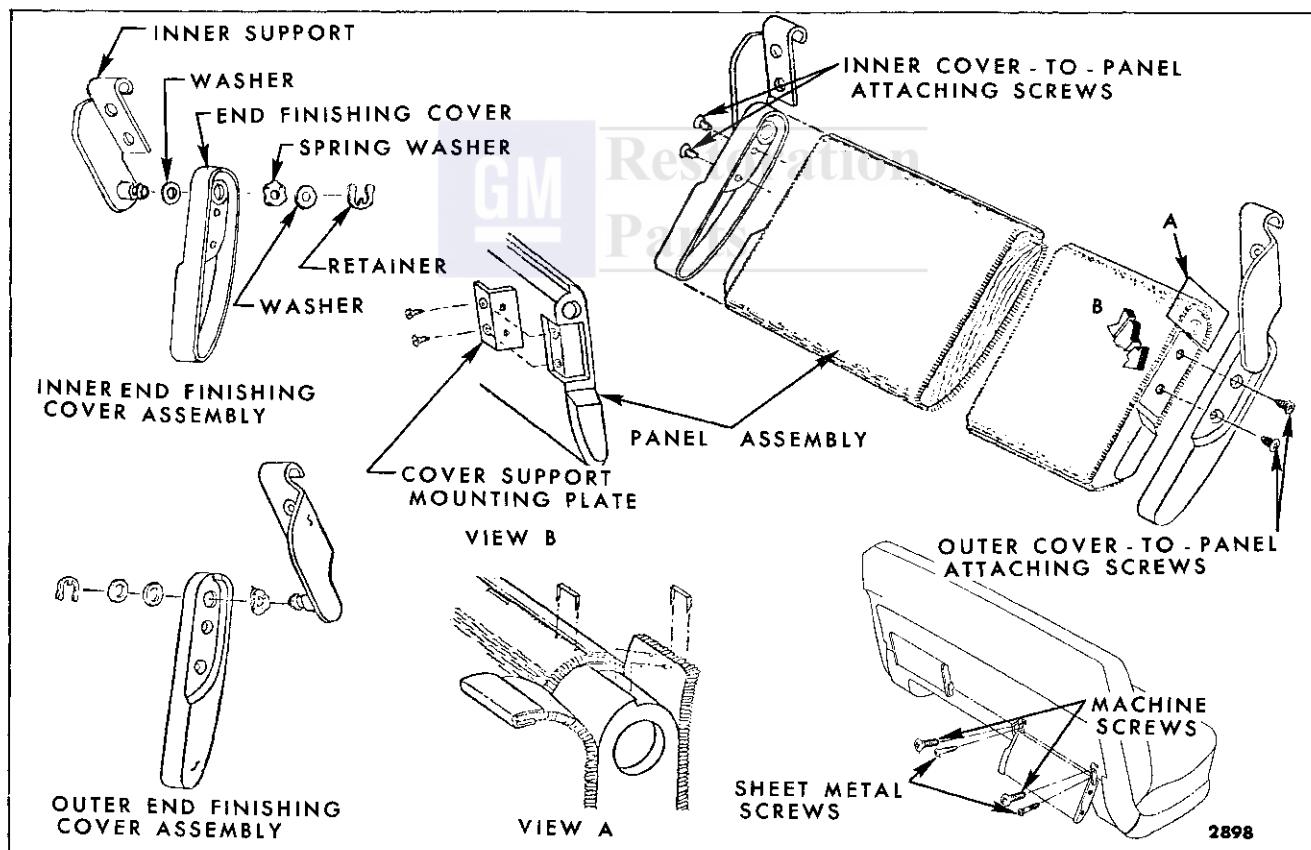


Fig. 15-28—Foot Rest Assembly - Cadillac 68169 Style

STRATO FRONT SEATS

STRATO FULL-WIDTH, STRATO BUCKET AND STANDARD BUCKET SEATS

Description

Strato seats are available on Chevrolet "A, B & X", Pontiac, Oldsmobile, Buick and Cadillac Styles. Chevrolet "F & Z" and Pontiac "F" body styles have a standard bucket seat. All two-door style strato full-width or bucket seats and standard bucket seats incorporate seat back locks on both the driver's and passenger's seat back. On Chevrolet "F & Z" standard bucket seats the seat back lock is actuated by a control lever located at the lower outboard corner on the rear of the front seat back. On the standard strato seats (two-door styles) the seat back lock is actuated by a control button located at the upper outer side of the seat back.

Optional adjustable head rests are available on all strato seats. On Pontiac, Oldsmobile, Buick and Cadillac styles, a reclining seat back is available on the passenger's side. 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 to approximately 30° from normal position. The head rest, which is available on all strato seat backs can be adjusted to four vertical positions and can be completely removed from the seat back.

STRATO FULL-WIDTH FRONT SEAT ASSEMBLY

Removal and Installation

The removal and installation procedures for the strato full width seat assembly, seat adjuster and seat adjuster components are the same as for the standard full width front seat assembly - Refer to the appropriate section under "Front Seat Assembly - Full Width".

MANUALLY OPERATED BUCKET SEAT ASSEMBLY

Removal and Installation

1. Operate seat to full rearward position.
2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts (Figs. 15-29 and 15-30).
3. Operate seat to full rearward position. Remove adjuster-to-floor pan front attaching bolts or nuts (Figs. 15-29 and 15-30). Operate seat to full forward position. Remove adjuster-to-floor

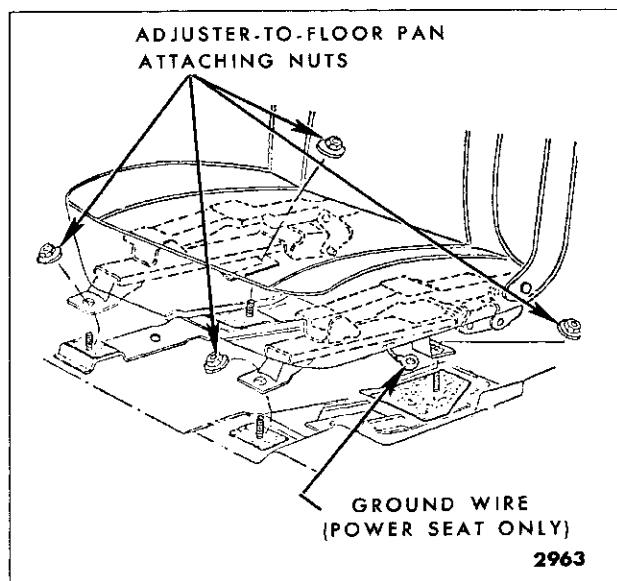


Fig. 15-29—Bucket Seat Floor Pan Attachment - "A, F, X & Z" Styles

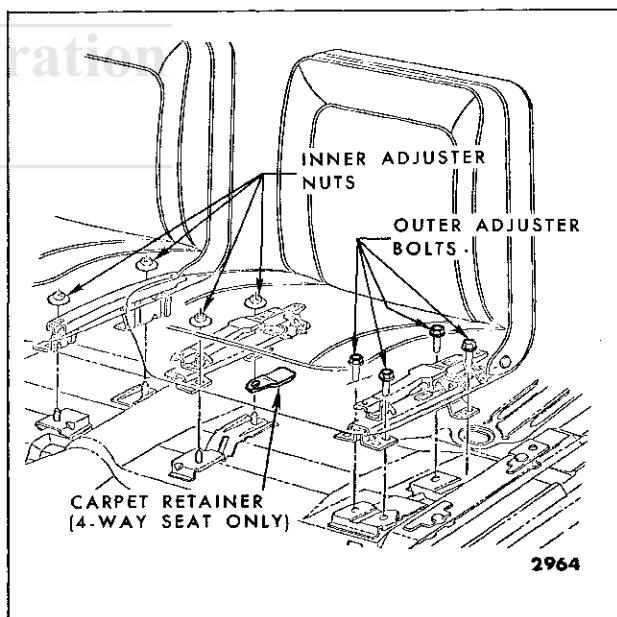


Fig. 15-30—Front Seat Assembly Attachments

pan rear attaching bolts or nuts and remove seat assembly from body.

4. To install, reverse removal procedure. 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 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 driver 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 (Figs. 15-29 and 15-30).
4. Operate seat to full rearward position. Remove seat adjuster-to-floor pan front attaching bolts (Figs. 15-29 and 15-30). Tilt seat rearward sufficiently to disconnect seat harness feed connector and detach harness from clip on floor pan; 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. Check operation of seat adjusters to full limits of travel. On "A" Body Styles make sure floor carpet is properly positioned around rear supports of adjuster prior to installing carpet retainer on adjuster stud and adjuster rear attaching nuts.

PASSENGER'S FRONT BUCKET SEAT BACK STOP CABLE—Chevrolet "F&Z" Styles with Bucket Seats

Removal and Installation

1. Using a flat-bladed tool inserted between passenger's seat back inner hinge arm cover and hinge arm, carefully disengage upper portion of cover from fastener and remove cover from inner hinge arm (Fig. 15-31).

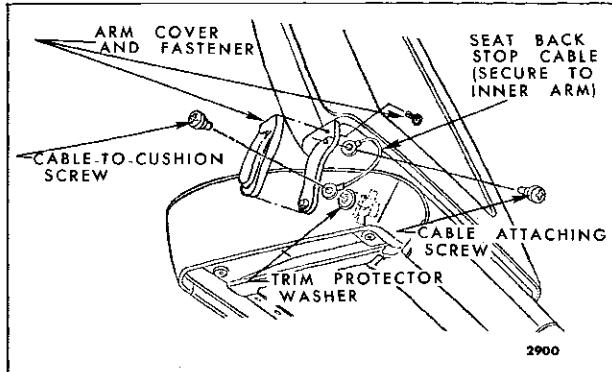


Fig. 15-31—Bucket Seat Back Stop Cable
"F & Z" Styles

2. At inner side of passenger's bucket seat cushion, remove screw securing seat back stop cable and trim protector washer to seat cushion frame (Fig. 15-31).
3. Remove bolt securing seat back stop cable to seat back inner hinge arm (Fig. 15-31) and remove cable from seat.
4. To install seat back stop cable, reverse removal procedure.

FRONT BUCKET SEAT BACK ASSEMBLY (Right or Left)—Standard Bucket Seat—"F&Z" Styles

Removal and Installation

1. Remove front seat assembly as previously described.
2. Using a flat-bladed tool inserted between seat back hinge arm and hinge arm cover, carefully disengage upper portion of cover from fastener and remove cover from both inner and outer hinge arms (See Fig. 15-31). If removing passenger's seat back on Chevrolet "F & Z" styles, remove screw securing seat back stop cable and trim protector washer to seat cushion frame (Fig. 15-31).

3. Carefully disengage and remove retainer securing both inner and outer hinge arms to seat cushion hinge pins (Fig. 15-31).
4. Pull seat back hinge arms outward sufficiently to disengage hinge arm from hinge pin and remove seat back from seat cushion.
5. To install, reverse removal procedure.

**FRONT SEAT BACK LOCK
(Right or Left)—"F&Z" Body Standard Bucket Seats**

Removal and Installation

1. Remove front seat back assembly, as previously described.
2. Remove seat back lock handle knob (See Fig. 15-32).

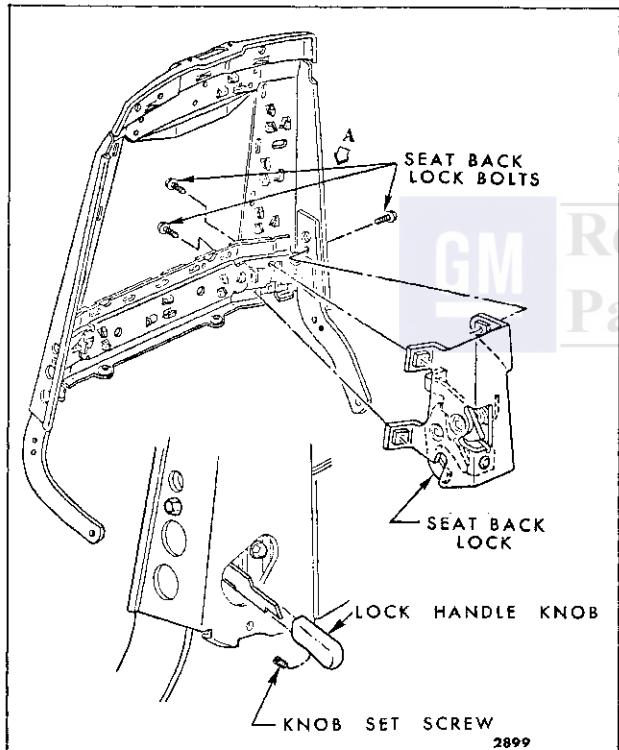


Fig. 15-32—Front Seat Back Lock - "F & Z" Standard Bucket Seats

3. Remove seat back panel and detach seat back trim outer side facing sufficiently to gain access to lock attaching bolts (Fig. 15-32).
4. Remove seat back lock attaching bolts (Fig. 15-32) and remove seat back lock from seat back.

5. To install, reverse removal procedure. Check for proper operation of seat back lock.

**"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. 15-33).

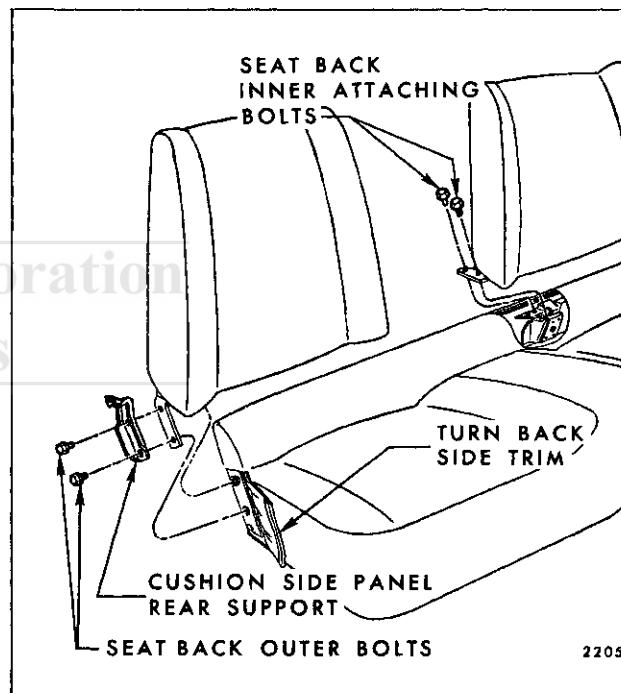


Fig. 15-33—Strato Full Width Seat Back Attachment

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. 15-33) 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 (Fig. 15-33).
3. Using a suitable open end wrench between seat back and seat cushion, at location "A", remove nut locking seat back at inner hinge (See View "A", Fig. 15-34).

4. Remove seat back outer arm attaching bolts (Fig. 15-33).
5. Carefully tilt seat back forward. Remove inner hinge bolt cover plate. Remove inner hinge bolts (Fig. 15-34) and carefully remove seat back from seat assembly.
6. To install, reverse removal procedure.

NOTE: It is important that removal procedure is reversed step by step when installing seat back assembly.

**STRATO FRONT SEAT BACK PANEL—
Four-Door Styles with Non-Folding
Seat Back**

Removal and Installation

1. Remove front seat assembly and front seat back assembly as previously described.

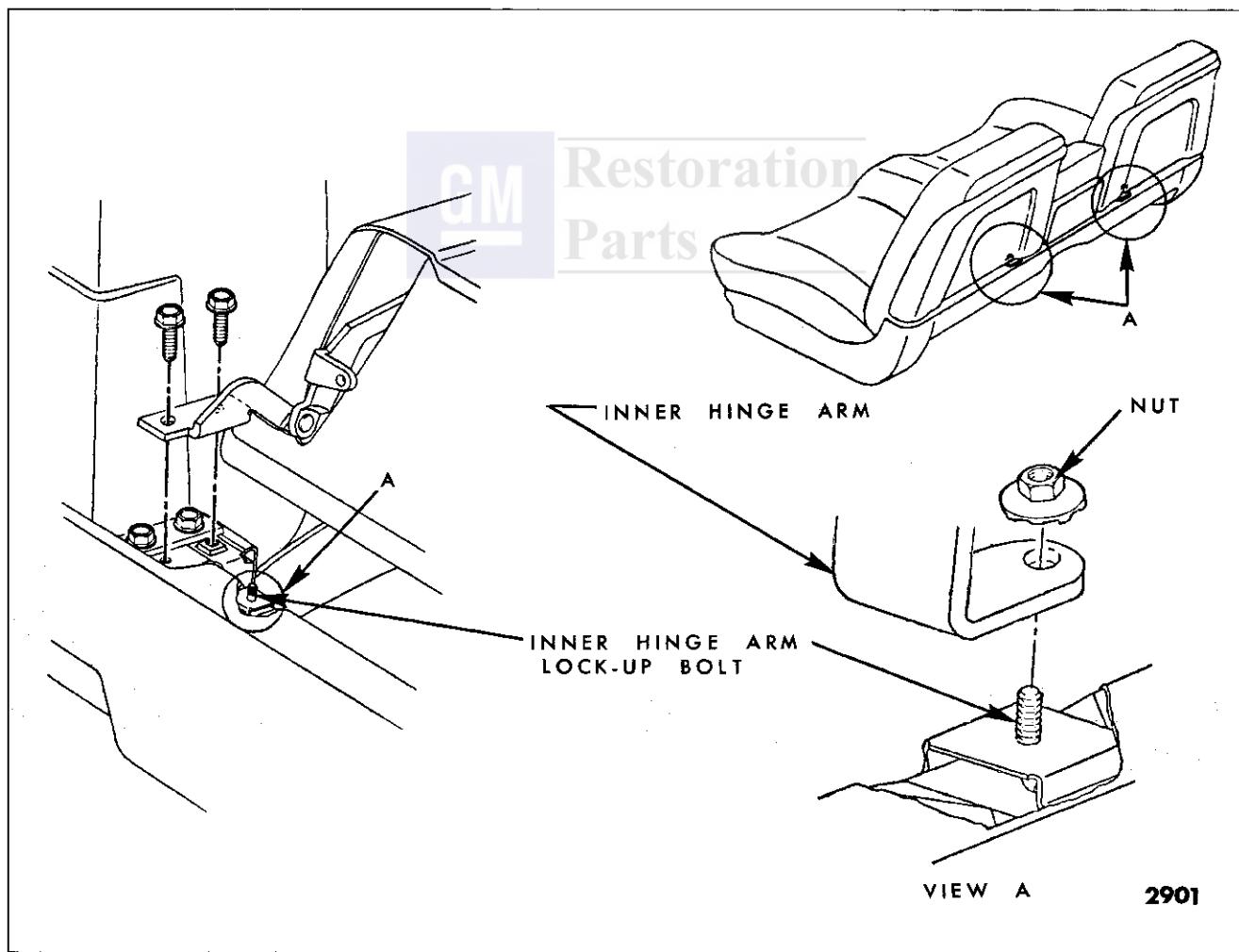


Fig. 15-34—Strato Front Seat Back Assembly (Right or Left) Full Width Seat - 16639 Styles

2. Remove three screws securing bottom of seat back panel to seat back frame (Fig. 15-35).

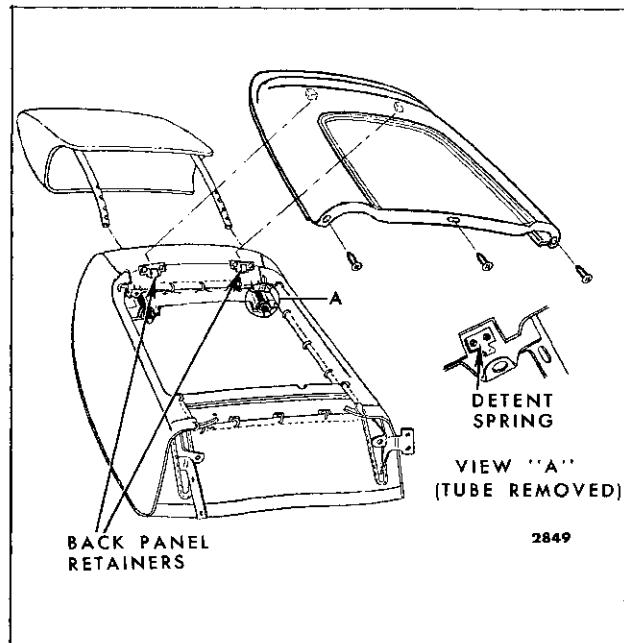


Fig. 15-35—Strato Seat Back Panel and Head Restraint

3. Pull bottom of seat back panel outward and lift panel upward to disengage panel from upper retainers; then, remove panel from seat back.
4. To install seat back panel, reverse removal procedure.

STRATO FRONT SEAT BACK PANEL— Two-Door Styles with Folding Seat Back

Removal and Installation

1. Remove seat back lock push button escutcheon attaching screws and remove push button escutcheon, push button and ferrule (Fig. 15-36).
2. If seat back is equipped with head rest, depress retaining springs and remove head rest from seat back.
3. Tilt seat back forward and remove two screws securing bottom of seat back panel to seat back frame.
4. Pull bottom of seat back panel outward and lift panel upward to disengage panel from upper retainers; then, remove panel from seat back.
5. To install seat back panel, reverse removal procedure.

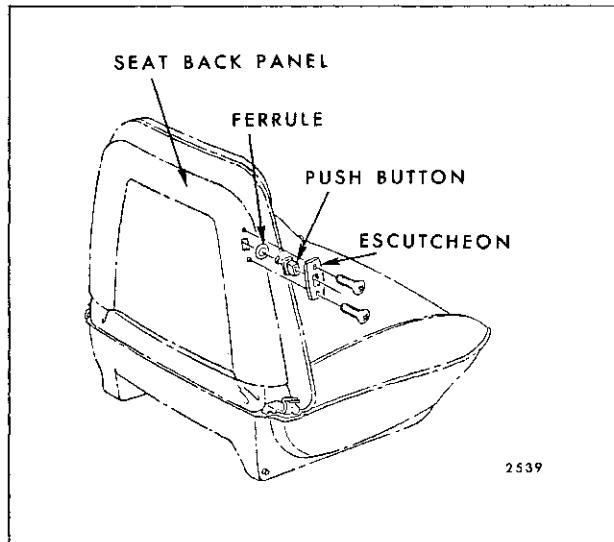


Fig. 15-36—Strato Seat Back Lock Push Button

STRATO SEAT BACK HEAD RESTRAINT

Description

All reclining seat backs are equipped with a head restraint which is adjustable to four different positions. The Strato head restraint is also available as an option on all Strato design seats on either the driver's or passenger's seat back. When desired, the head restraint can be removed from the seat back as follows:

Raise headrest to full "up" position. Where the right support bar enters the seat back, insert end of car key into slot in bar escutcheon and move release spring forward to allow headrest to be removed from the seat back (See Fig. 15-37).

STRATO SEAT BACK HEAD RESTRAINT SUPPORT GUIDE TUBE AND DETENT SPRING

Removal and Installation

1. Remove headrest assembly from seat back. Remove seat back panel.
2. Carefully snap off support finishing escutcheon and remove support escutcheon retainer attaching screws (Fig. 15-38).
3. Detach seat back trim cover sufficiently to expose upper end of support guide tube.
4. Pull plastic support guide tube out of support. If guide tube hangs up on detent spring, insert a screwdriver into guide tube and depress detent spring sufficiently to remove guide tube.

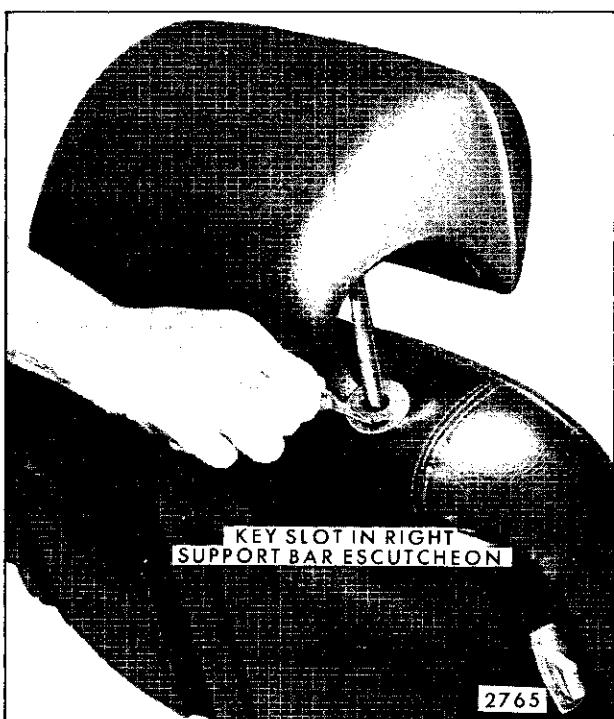


Fig. 15-37—Strato Seat Head Restraint Removal

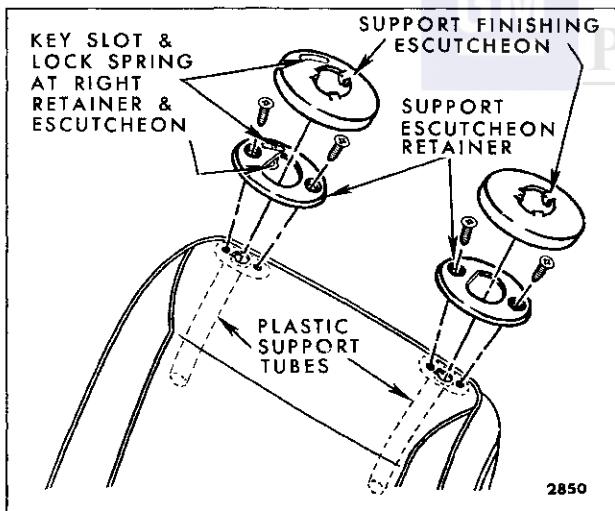


Fig. 15-38—Head Restraint Support Retainer and Escutcheon

With guide tube removed, detent spring may be removed (See Fig. 15-35).

- To install support guide tube, reverse removal procedure. Make certain lower end of plastic guide is inserted into hole in button of support and that cut out in guide for detent spring is facing forward. Check for proper operation of headrest.

STRATO BUCKET SEAT BACK ASSEMBLY— All Except "F&Z" Body Styles and Strato Reclining Seat Back

Removal and Installation

- Remove seat assembly from body, as previously described and place on a clean protected surface.
- With seat side panels removed, remove hog rings securing seat cushion trim at rear of seat and along bottom of seat and turn back trim sufficiently to expose seat back hinge-to-seat cushion frame attaching bolts (Fig. 15-39).

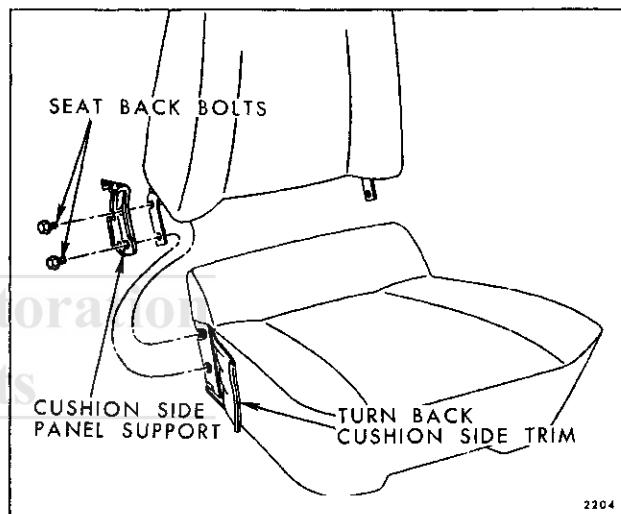


Fig. 15-39—Bucket Seat Back Removal (Without Reclining Seat Back) — All Except Corvair

- Remove seat back hinge-to-seat cushion frame attaching bolts (Fig. 15-39) from both sides of seat and remove seat back assembly from seat cushion.
- To install seat back assembly, reverse removal procedure. Check for proper operation of seat back lock.

STRATO FRONT SEAT BACK LOCK, LOCK CONTROL AND LOCK ROD— (Two-Door Style Full Width Strato Seat and Strato Bucket Seats Except Reclining Strato Seat Backs)

Removal and Installation

- Remove front seat assembly and front seat back assembly, as previously described. Remove seat back panel as previously described.

2. Remove hog rings securing seat back trim to seat back side bar; then, turn back trim sufficiently to gain access to seat back lock and lock striker attaching bolts (Fig. 15-40).
3. a. To remove seat back lock, disengage lock rod clip at lock (Fig. 15-40) and detach rod from lock. Remove bolts securing seat back lock to seat back outer hinge (Fig. 15-40) and remove lock from seat.
- b. To remove seat back lock control, disengage lock rod clip at control (Fig. 15-40) and detach lock rod from control. Remove lock control attaching bolts (Fig. 15-40) and remove lock control from seat back.
- c. To remove seat back lock rod, disengage lock rod clip at lock and at control (Fig. 15-40), detach lock rod from control and lock and remove from seat back.
4. To install seat back lock, lock control or lock rod, reverse removal procedure. Make certain lock rod and clips are properly engaged and locked at lock lever and lock control lever. Check for proper operation of seat back lock.

RECLINING FRONT SEAT BACK

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 operation 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

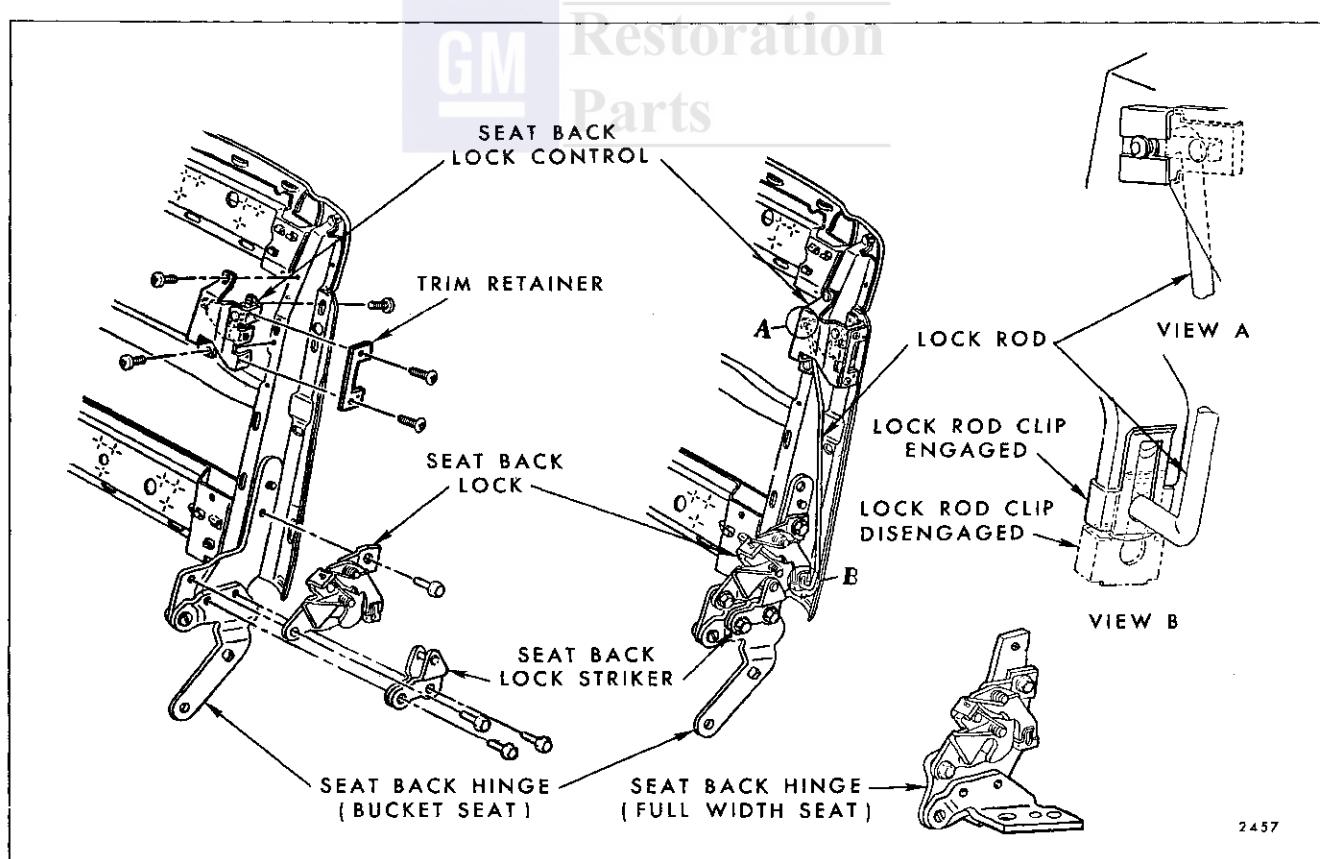


Fig. 15-40—Seat Back Lock, Lock Control and Lock Rod — Strato Full Width and Bucket Seats

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 previously described, and place on a clean protected surface.
2. On right side of seat with seat side panel removed, remove hog rings securing cushion 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. 15-41).
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. 15-41).
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. 15-41) 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 on a clean protected surface.
2. On right side of seat with seat cushion side panel removed, remove hog rings securing cushion 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. 15-41).

3. Remove seat back panel as described under "Strato Front Seat Back Panel - Removal and Installation".
4. Remove hog rings securing right side of seat back trim to seat back frame and turn trim forward sufficiently to expose positioning unit (Fig. 15-41).
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. 15-41).
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. 15-41); 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.

RECLINING SEAT BACK LOCK STRIKER, AND SEAT BACK LOCK—Strato Full Width or Bucket Seat

Removal and Installation

1. Remove front seat assembly, reclining seat back and seat back panel as previously described.
2. At seat back inner hinge assembly remove hog rings and detach seat back trim sufficiently to gain access to seat back lock and lock striker attaching bolts (Fig. 15-42).
3. Remove seat back lock striker attaching bolts (Fig. 15-42) and remove striker.
4. Disengage clip securing lock rod to lock (Fig. 15-42) and detach rod from lock.
5. Remove lock-to-hinge attaching bolts (Fig. 15-42) and remove lock assembly from seat back hinge.
6. To install seat back lock assembly, reverse removal procedure. Make certain lock rod and clip are properly engaged at lock lever. Check for proper operation of seat back lock.

RECLINING SEAT BACK LOCK CONTROL SUPPORT—Strato Full-Width or Bucket Seat

Removal and Installation

1. Remove front seat assembly, reclining seat back and seat back panel, as previously described.

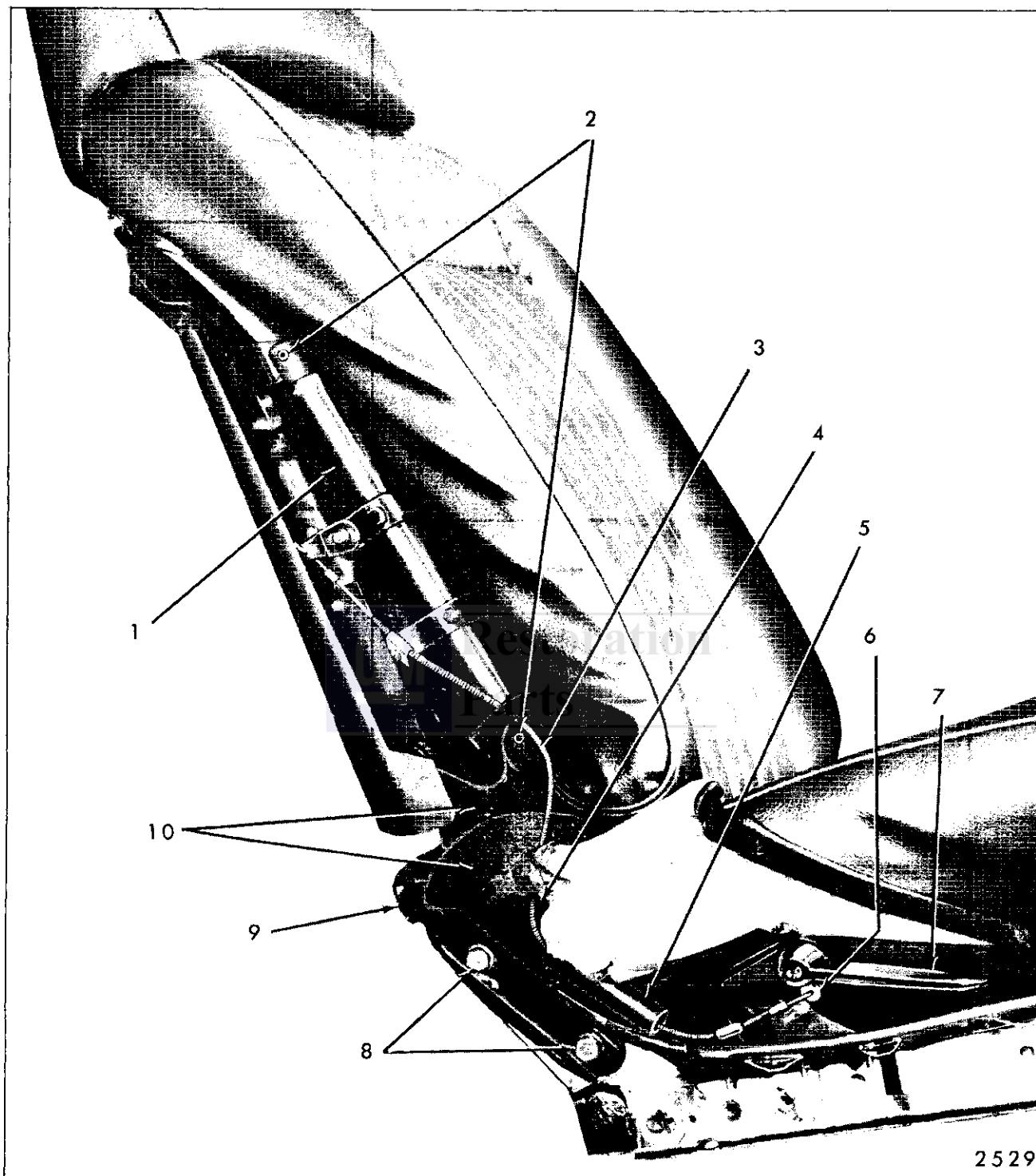


Fig. 15-41—Reclining Seat Back and Positioning Unit

- 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

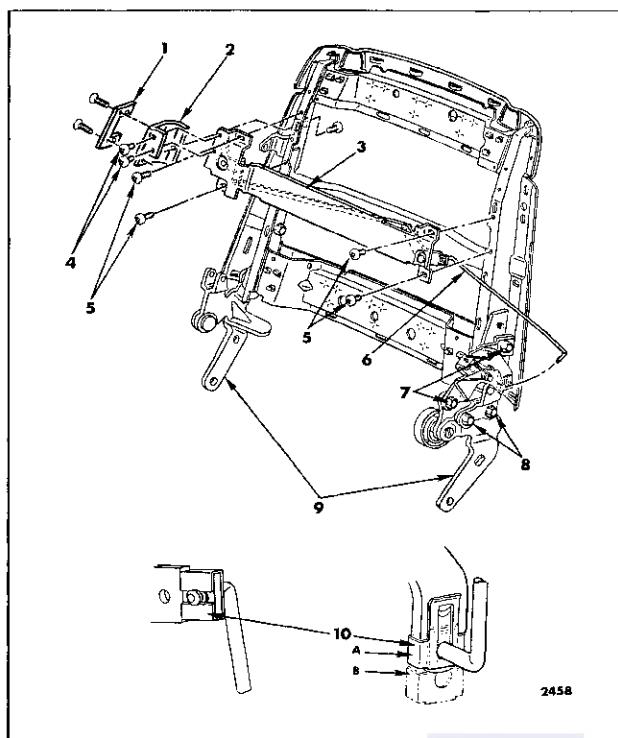


Fig. 15-42—Strato Reclining Seat Back Lock

- | | |
|---------------------------|--|
| 1. Trim Retainer | 7. Seat Back Lock Bolts |
| 2. Control Support | 8. Seat Back Lock Striker Bolts |
| 3. Control Assembly | 9. Reclining Seat Back Hinges |
| 4. Control Support Screws | 10. Lock Rod Clip -
a. Engaged Position
b. Disengaged Position |
| 5. Control Screws | |
| 6. Lock Rod | |

2. At right side of seat back remove hog rings and detach seat back trim sufficiently to gain access to seat back lock control support (Fig. 15-42).
3. Remove control support attaching screws (Fig. 15-42) and remove support.
4. To install lock control support, reverse removal procedure. Check for proper operation of seat back lock.

RECLINING SEAT BACK LOCK CONTROL ASSEMBLY—Strato Full-Width or Bucket Seats

Removal and Installation

1. Remove front seat assembly, reclining seat back and seat back panel, as previously described.

2. Remove hog rings securing seat back trim cover and padding to seat back frame and remove seat back trim cover and padding.
3. Disengage clip securing lock rod to control assembly (Fig. 15-42) and detach rod from control assembly.
4. Remove control support and control assembly attaching screws (Fig. 15-42); then, remove control assembly from seat back.
5. To install, reverse removal procedure. Prior to installing seat assembly in body, check for proper operation of seat back lock.

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. 15-43).
3. Operate adjuster so that both front and rear adjuster-to-seat frame attaching bolts (Fig. 15-43) are accessible; then, remove attaching bolts and remove adjuster from seat assembly.

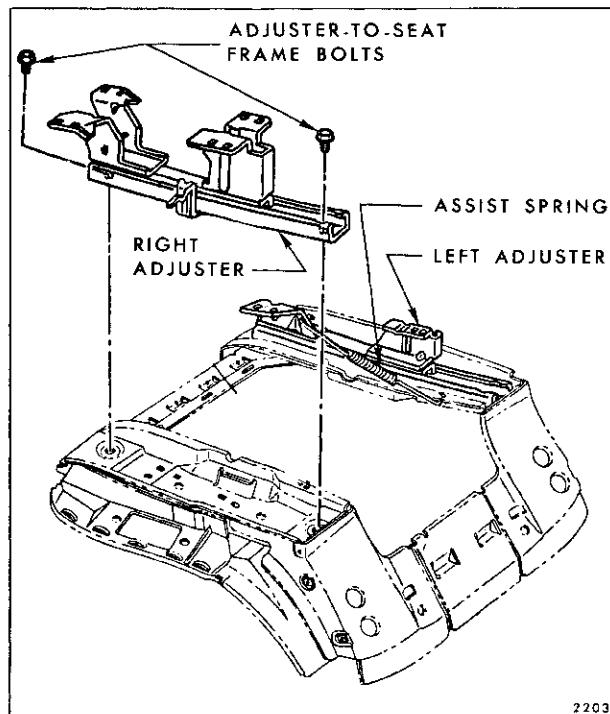


Fig. 15-43—Manual Bucket Seat Adjuster Removal

- To install, reverse removal procedure. If left adjuster is being replaced, install new adjuster control knob. Use rubber mallet to tap new knob on control lever.

POWER OPERATED HORIZONTAL BUCKET SEAT ADJUSTER

Removal and Installation

- Operate seat to a midway horizontal position. Remove bucket seat assembly, as previously described, and place seat upside down on a clean protected surface.
- Disconnect power drive cable from adjuster gearnut (Fig. 15-44).

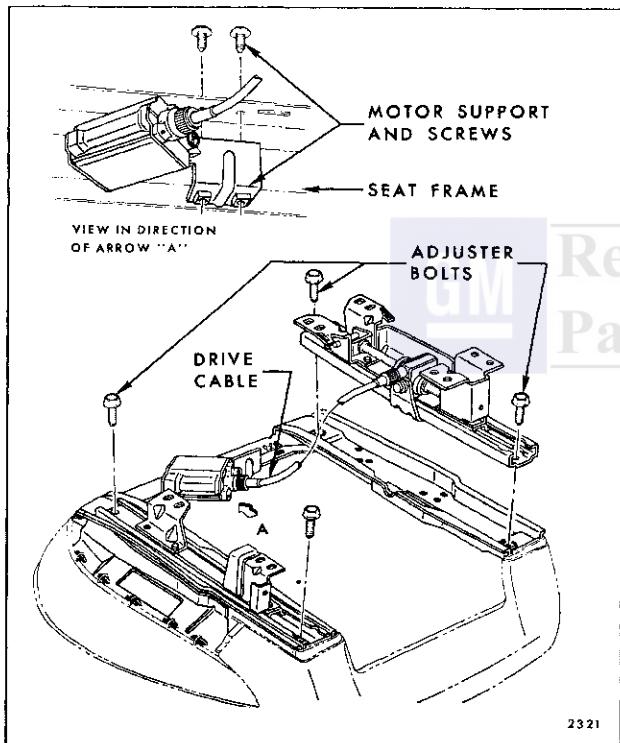


Fig. 15-44—Power Horizontal Bucket Seat Adjuster Removal

- Remove adjuster-to-seat bottom frame front and rear attaching bolts (Fig. 15-44) and remove adjuster from seat assembly.
- 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.

POWER OPERATED FOUR-WAY BUCKET SEAT ADJUSTER

Removal and Installation

- Operate seat assembly to fully raised and midway horizontal positions.
- Remove front seat assembly from body with attached adjusters, motor and transmission, as previously described, and place upside down on a clean protected surface.
- If outboard adjuster is being removed, disconnect both, horizontal and vertical, drive cables from vertical gearnut and horizontal actuator (Fig. 15-45).
- Remove nuts securing motor and transmission support to adjuster being removed (Fig. 15-46).
- Remove adjuster-to-seat bottom frame front and rear attaching bolts securing adjuster to be removed (Fig. 15-45).

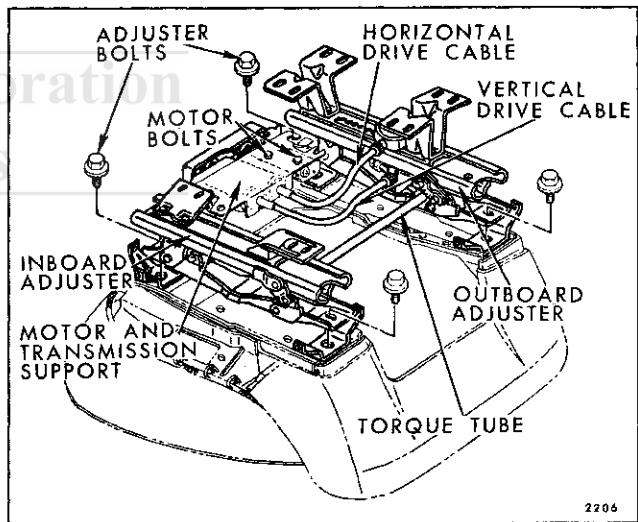


Fig. 15-45—Four-Way Bucket Seat Assembly

- Carefully disengage adjuster from support, and torque tube; then, remove adjuster from seat.
- 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.

MOTOR AND TRANSMISSION DRIVE BELT AND PULLEYS

Removal and Installation

- At front of seat remove motor and transmission drive belt cover attaching screws (Fig. 15-46) and remove cover.
- Remove drive belt (Fig. 15-46) from both motor and transmission drive pulleys. Pulleys may be removed from either motor or transmission by pulling pulleys off their respective shafts.

- To install drive belt, reverse removal procedure. Check for proper operation of seats to full limits of travel.

MOTOR ASSEMBLY

Removal and Installation

- If motor can be operated, operate seat assembly to full "up" position. Disconnect wire harness connector from motor relay.
- Remove motor-to-transmission drive belt cover and drive belt, as previously described.

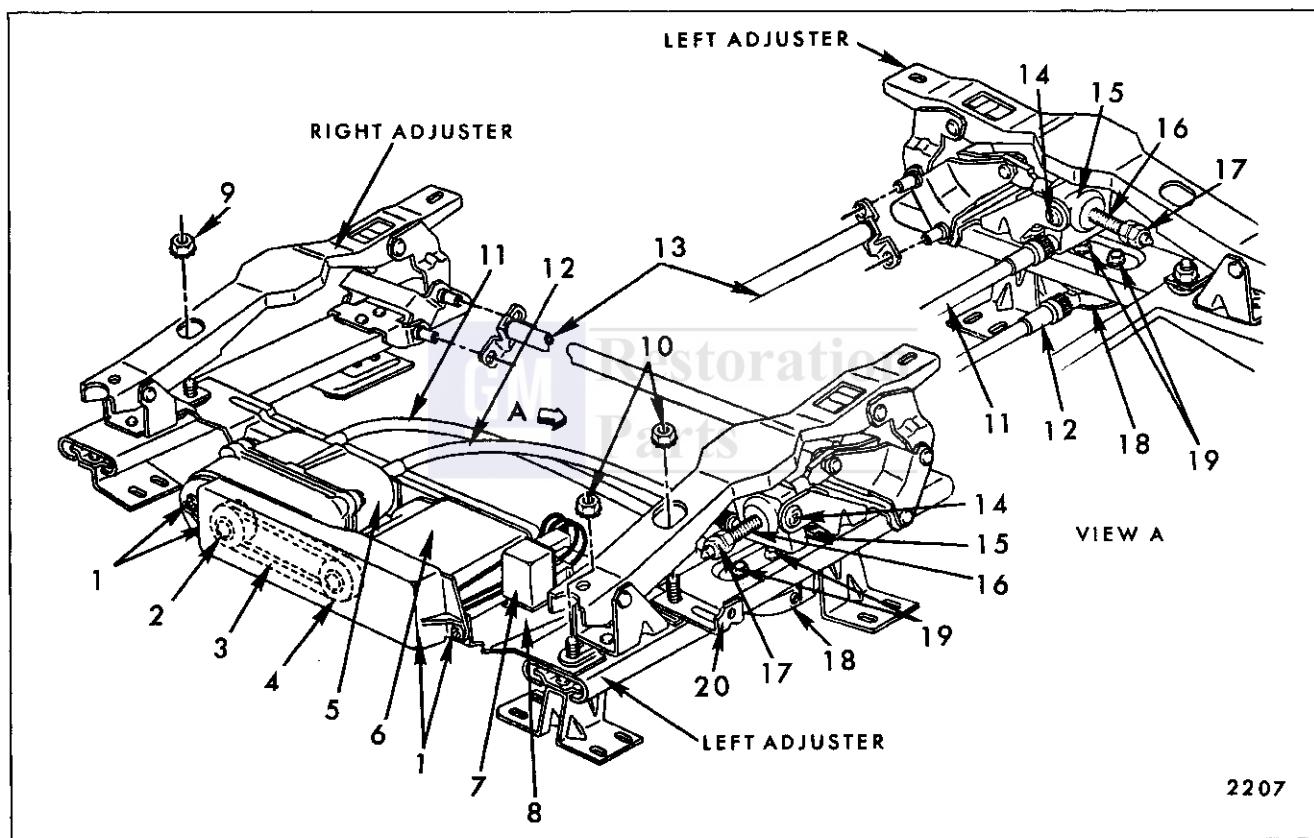


Fig. 15-46—Four-Way Bucket Seat Adjusters

- | | |
|--|---|
| 1. Motor and Transmission Drive Belt Cover and Attaching Screws | 11. Adjuster Horizontal Drive Cable |
| 2. Transmission Drive Pulley | 12. Adjuster Vertical Drive Cable |
| 3. Transmission and Motor Drive Belt | 13. Adjuster Torque Tube |
| 4. Motor Drive Pulley | 14. Adjuster Vertical Gearnut Shoulder Screw |
| 5. Transmission Assembly | 15. Adjuster Vertical Gearnut Assembly |
| 6. Electric Motor Assembly | 16. Adjuster Vertical Jackscrew |
| 7. Electric Motor Relay | 17. Adjuster Vertical Jackscrew Stop Nuts |
| 8. Motor and Transmission Support | 18. Adjuster Horizontal Actuator Assembly |
| 9. Motor and Transmission Support-to-Right Adjuster Attaching Nut | 19. Adjuster Horizontal Actuator Attaching Screws |
| 10. Motor and Transmission Support-to-Left Adjuster Attaching Nuts | 20. Seat Side Panel Support |

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. 15-46).
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.
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 full raised and mid-way 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. 15-46).
 4. Remove jackscrew "down" stop from jackscrew (Fig. 15-46).
 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. 15-46).

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. 15-46).
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. 15-46).
6. 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 hori-

zontal 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. 15-45 and 15-46) 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.

REAR SEATS

REAR SEAT CUSHION—All Styles (Except "A-65" Styles)

Removal

1. Push lower forward edge of seat cushion rearward; then, lift upward and pull forward on seat cushion frame to disengage cushion frame wires from retainers on rear seat pan (Fig. 15-47).

NOTE: If difficulty is experienced in disengaging the front edge of the rear seat cushion from retainers on rear seat pan it may be necessary to kneel (on four-door styles) or stoop (on two-door styles) on the rear floor pan. Grasp lower edge of seat cushion at location of retainer on one side of seat; then, lean forward (towards seat cushion) using leg pressure against hands or arms, exert sufficient rearward pressure to disengage seat from retainers (Fig. 15-47).

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. On "A" Body four-door styles make certain rear portion of seat cushion frame is engaged with retainer on rear seat pan.
3. Align wire protrusions on front of seat cushion frame with retainers on floor pan. Push seat

cushion assembly rearward until protrusions engage in retainers; then, press down and pull cushion forward to fully engage in retainers.

NOTE: If difficulty is experienced in engaging front of cushion in retainers, use the same method described under step 1 of "Removal", to engage cushion in retainers.

IMPORTANT: If seat cushion frame protrusions are not properly centered in relation to retainers on seat pan, proper engagement and placement of cushion will be extremely difficult.

REAR SEAT BACK ASSEMBLY— All Styles Except Station Wagons and "F&Z" Body with Folding Rear Seat Back

Removal and Installation

1. Remove rear seat cushion assembly.
2. At bottom of seat back bend out tabs and where present, remove screws securing the lower portion of the seat back to floor panel. On convertible styles, remove screw from rear side of seat back panel support securing upper corners of seat back to panel.

NOTE: If screws are used to secure center of rear side to seat back panel it will be necessary to work from inside rear compartment to remove screws.

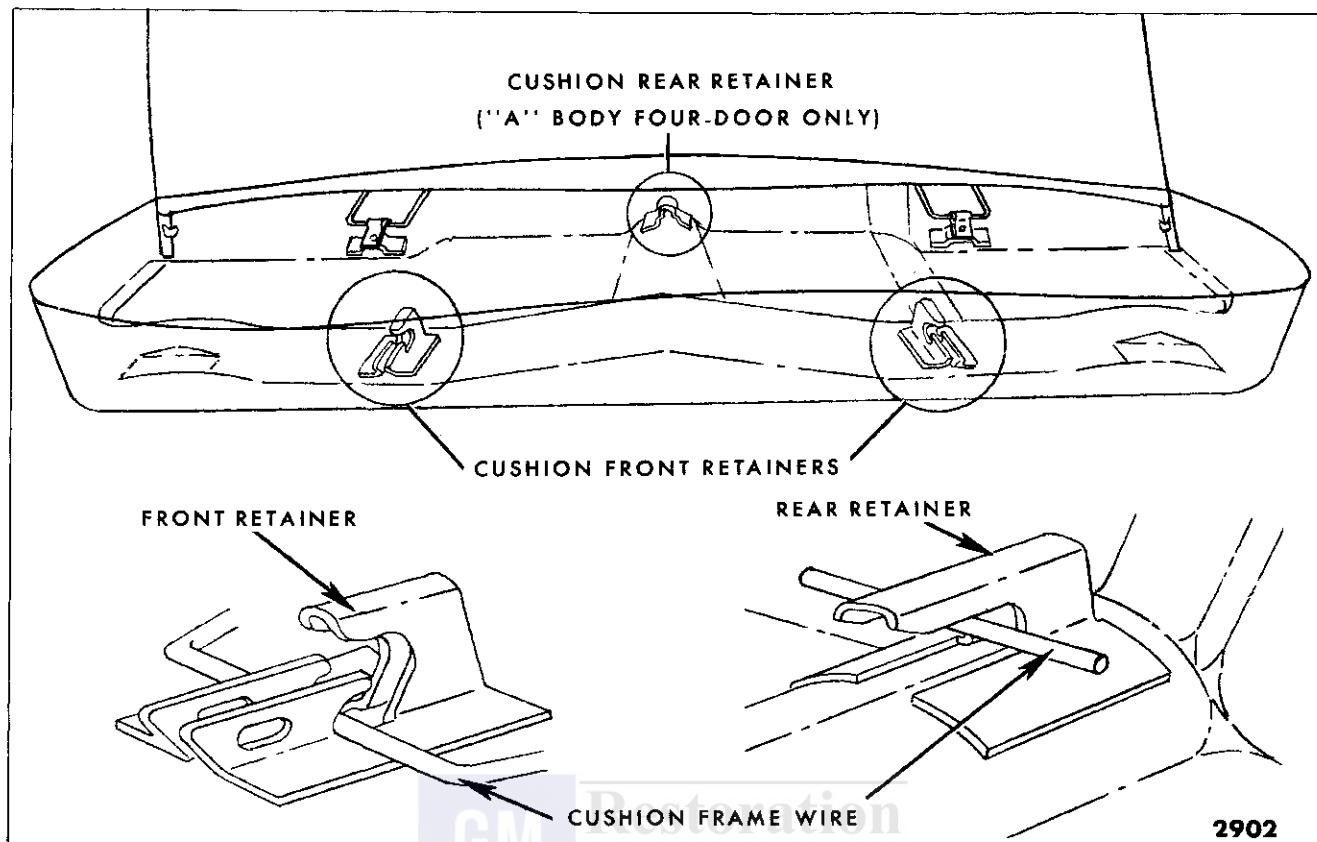


Fig. 15-47—Rear Seat Cushion Installation

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.

FOLDING REAR SEAT BACK— "F" Body Styles

Removal and Installation

1. Remove rear seat cushion and lower folding rear seat back.
2. At both right and left seat back link, remove stud nut securing seat back link to anchor plate on floor pan (Fig. 15-48).

3. Lift seat back assembly upward to disengage tab of link from slot in anchor plate (Fig. 15-48), and remove seat back assembly from body.
4. To install folding seat back assembly, reverse removal procedure.

FOLDING REAR SEAT BACK LOCK— "F" Body Styles

All "F" bodies equipped with a folding rear seat incorporate a positive rear seat back lock located at the right side of the seat back. When the seat back is raised to the "up" position, a lock striker secured to the right side of the seat back frame engages with the lock which is secured to the seat back support. To lower the seat back, raise the lock release lever at the right side of the seat back and lower the seat back.

Removal and Installation

1. Lower the folding rear seat back.
2. Remove rubber bumper (Fig. 15-48) and remove compartment front trim foundation.

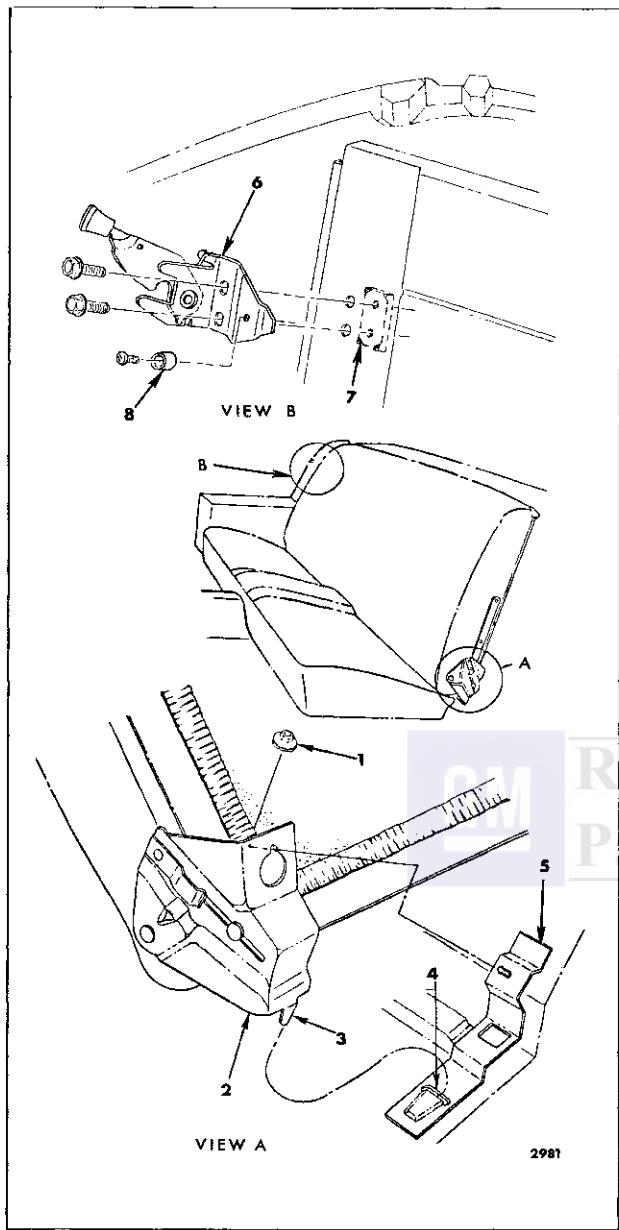


Fig. 15-48—Folding Rear Seat Back Assembly — "F" Body Styles

1. Link-to-Actuator Plate Stud Nut
2. Folding Seat Back Link
3. Link Tab
4. Anchor Plate Slot
5. Folding Seat Back Link Anchor Plate (on floor pan)
6. Back Lock Assembly
7. Lock Anchor Plate
8. Rubber Bumper

3. Mark location of seat back lock on seat back support panel.

4. While holding the lock anchor plate on the back side of the seat back support, remove lock attaching screws (Fig. 15-48, View "B") and remove lock and anchor plate.

5. To install rear seat back lock assembly, reverse removal procedure aligning lock with previously made marks.

Check for proper operation of lock and, if necessary, adjust lock up or down for proper operation.

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 (Fig. 15-49).
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—Corvair

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 (Fig. 15-49) 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—Corvair

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.

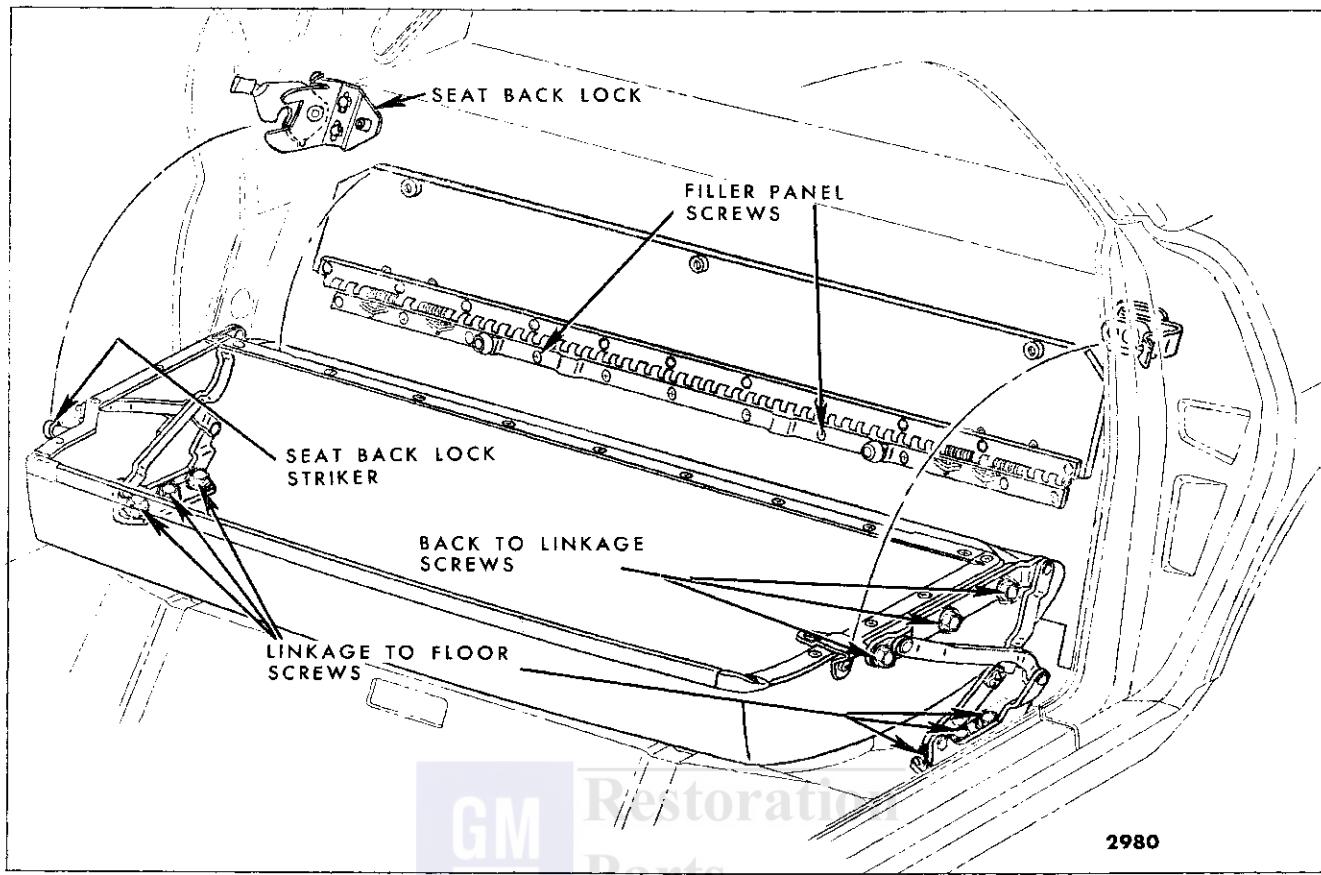


Fig. 15-49—Folding Rear Seat Back Assembly — Corvairs

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.

FOLDING REAR SEAT BACK LOCK—Corvair

1. Lower the folding rear seat back. Mark position of rear seat back lock to facilitate installation in same position.
2. Remove lock attaching screws (Fig. 15-49) and remove lock assembly from rear compartment front panel.
3. To install rear seat back lock assembly, reverse removal procedure aligning lock with previously made marks.

Check for proper operation of lock and, if necessary, adjust lock up or down for proper operation.

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 styles, 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.

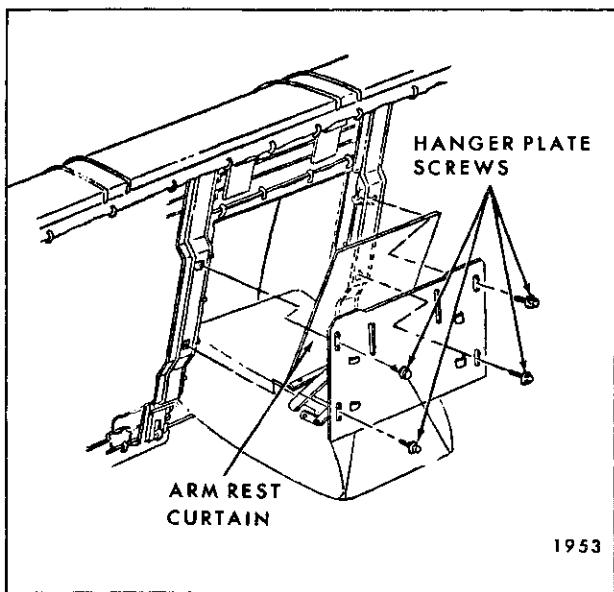


Fig. 15-50—Rear Seat Back Arm Rest and Hanger Plate

STATION WAGON REAR SEATS

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.

All station wagon full width second seats incorporate a seat back lock located on the upper right side of the seat back. On split second seat option, a seat back lock is located at the upper outer side of each seat back.

Figure 15-51 is typical of 15000 and 16000 two-seat station wagons.

Figure 15-52 is typical of 15000 and 16000 three-seat station wagons with split second seat option.

Figure 15-53 is typical of 25000 and 26000 two-seat station wagons.

Figure 15-54 is typical of 25000 three-seat station wagons with split second seat option.

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. 15-50).
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.

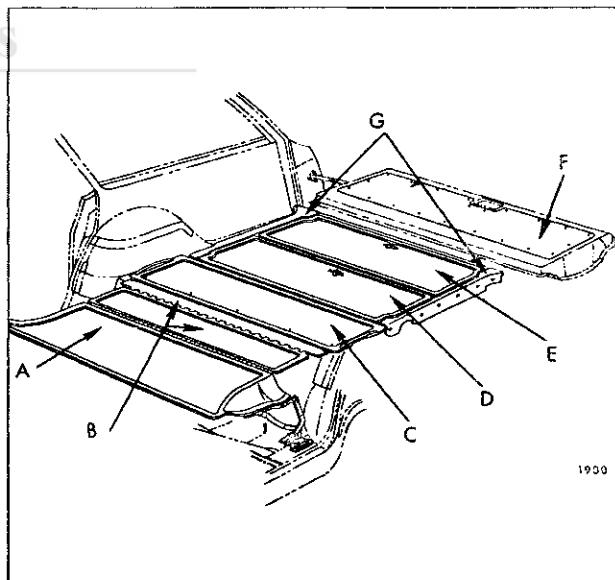


Fig. 15-51—Folding Seat and Floor Panels - Chevrolet "B-35" Styles

- 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

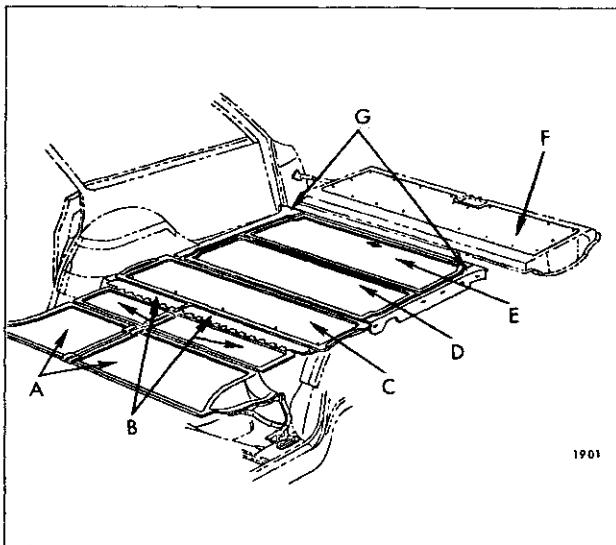


Fig. 15-52—Folding Seats and Floor Panels - Chevrolet "B-45" Styles

- 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

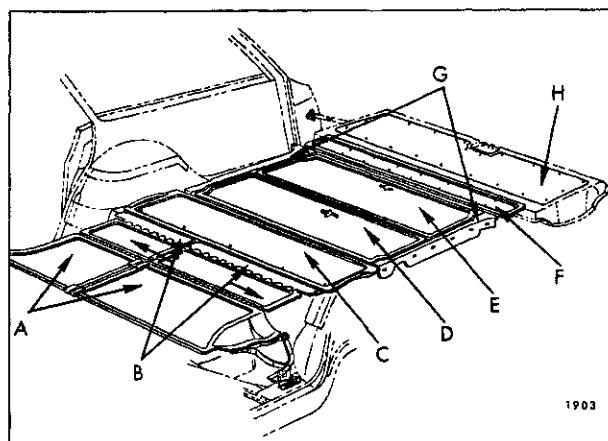


Fig. 15-54—Folding Seats and Floor Panels - Pontiac "B-45" Styles

- 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. Rear Floor-to-Tail Gate Panel
- G. Compartment Pan Side Filler Panels
- H. Tail Gate Inner Cover Panel

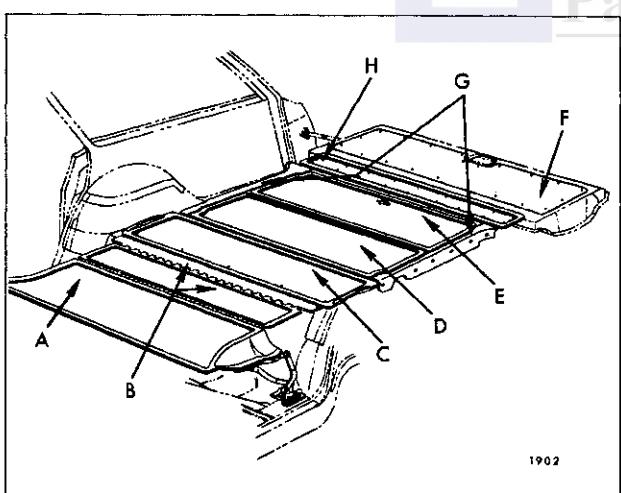


Fig. 15-53—Folding Seat and Floor Panels - Pontiac "B-35" Styles

- A. Second Seat Back Panel
- B. Rear Floor Filler Panel
- C. Compartment Floor Panel (at Kick-Up)
- D. Luggage Compartment
- E. Luggage Compartment Rear Panel
- F. Tail Gate Inner Cover Panel
- G. Compartment Pan Side Filler Panels
- H. Rear Floor-to-Tail Gate Panel

Restoration Parts

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.

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. 15-55).
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.

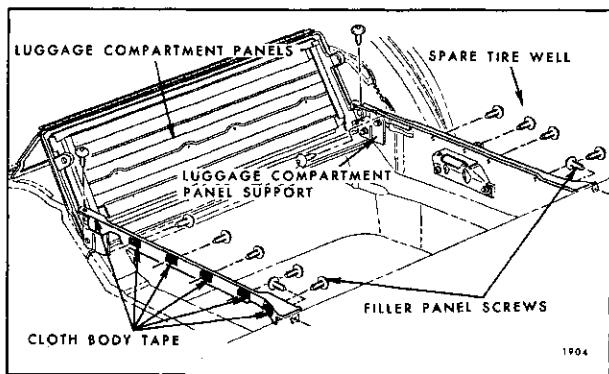


Fig. 15-55—Rear Compartment Pan Side Filler Panels

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. 15-55) 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. 15-55).

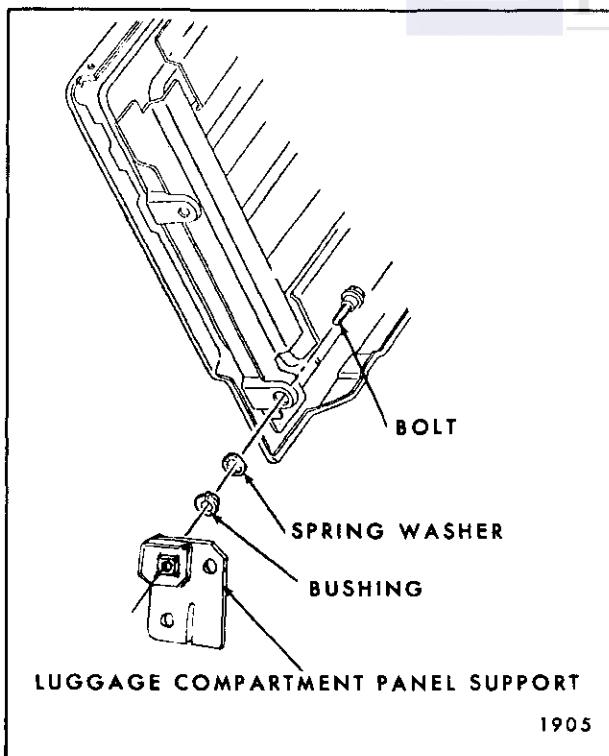


Fig. 15-56—Luggage Compartment Panel Attachment to Body

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. 15-55).
3. Remove bolt (Fig. 15-56) 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. 15-56).

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.

LUGGAGE COMPARTMENT FRONT AND REAR PANEL HINGE 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 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 half raised position or approximately vertical to floor pan (Fig. 15-57).

- Remove four seat cushion screws from rearward edge of cushion (Fig. 15-57).

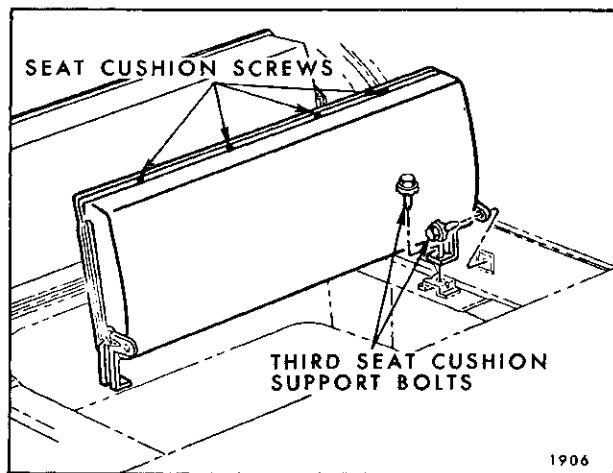


Fig. 15-57—Folding Third Seat Cushion

- 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.
- 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

- Lift third seat cushion to a half raised position or approximately vertical to floor pan. (See Fig. 15-57).
- Remove two bolts at each side of seat securing supports to body (Fig. 15-57), 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. 15-58).

- To install, reverse removal procedure. If support was removed from seat cushion panel, make sure bushing and spring washer are properly installed. (See Fig. 15-58).

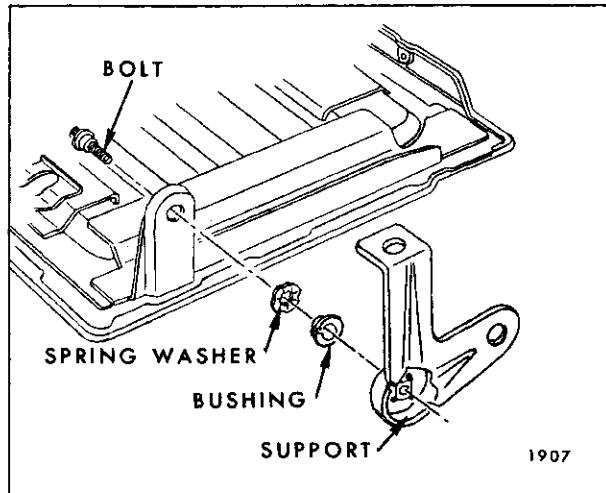


Fig. 15-58—Third Seat Cushion Panel and Support

FOLDING THIRD SEAT BACK TRIM ASSEMBLY—Three-Seat Styles

Removal and Installation

- Raise third seat back assembly - leave cushion assembly in down position.
- Remove four screws securing lower edge of seat back trim to seat back panel. (See Fig. 15-59).
- Pull lower edge of seat back trim slightly rearward; then, lift trim assembly upward to disengage trim border wire from four tabs on upper portion of panel. Remove trim assembly from body and place on a clean protected surface.
- 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.

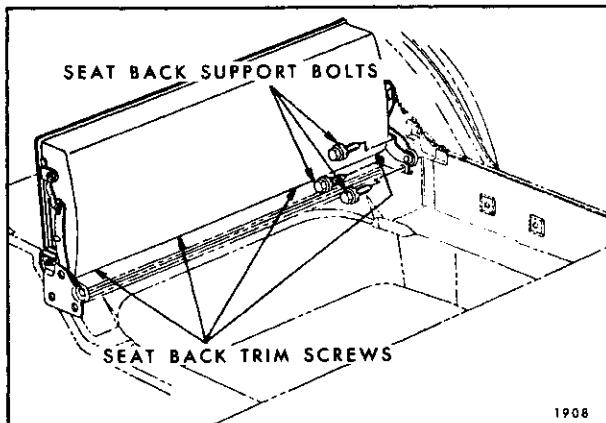


Fig. 15-59—Folding Third Seat Back

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. 15-60) and bolt securing seat back panel to support (Fig. 15-60), then remove seat back panel assembly from body.
3. To install, reverse removal procedure.

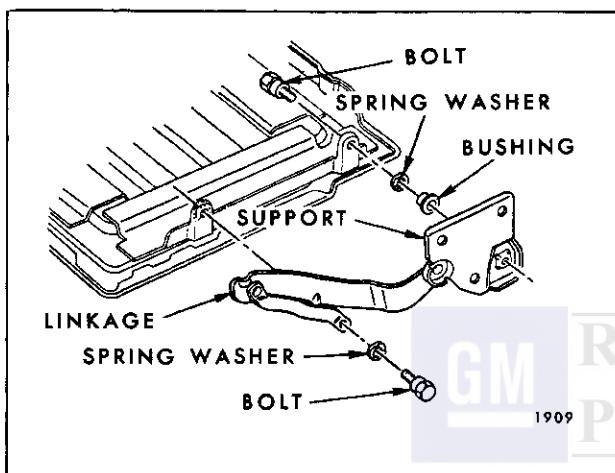


Fig. 15-60—Third Seat Back Panel and Linkage

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.

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.
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 15-61), full width seat (Fig. 15-62) 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. 15-63 for full width seat) (Fig. 15-64 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. 15-64).

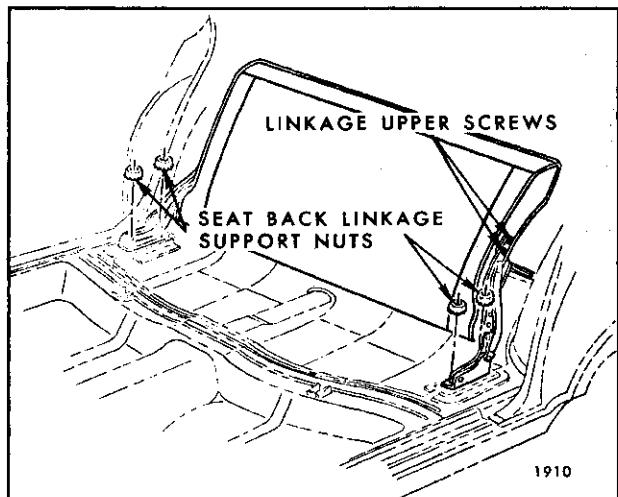


Fig. 15-61—Folding Second Seat Back Supports
(Full Width Seat)

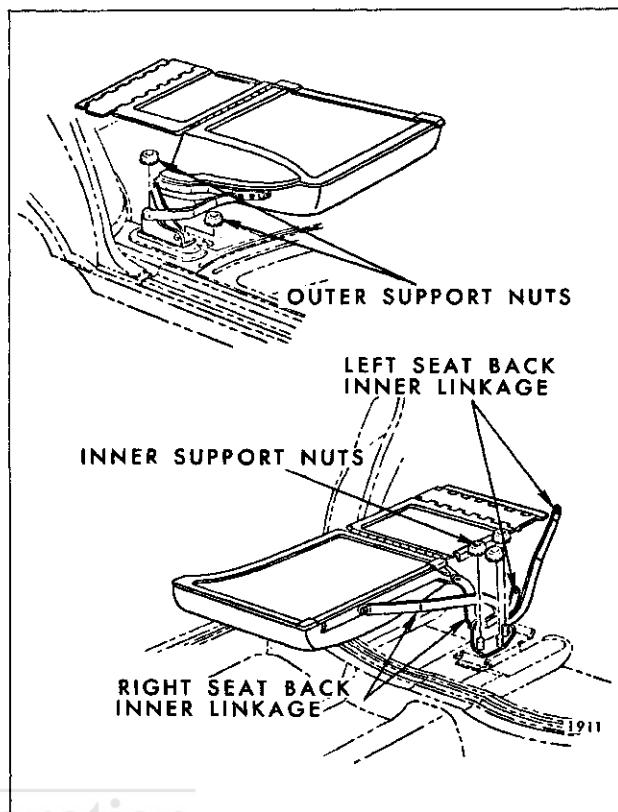


Fig. 15-62—Folding Second Seat Back Supports
and Linkages (Split Seat)

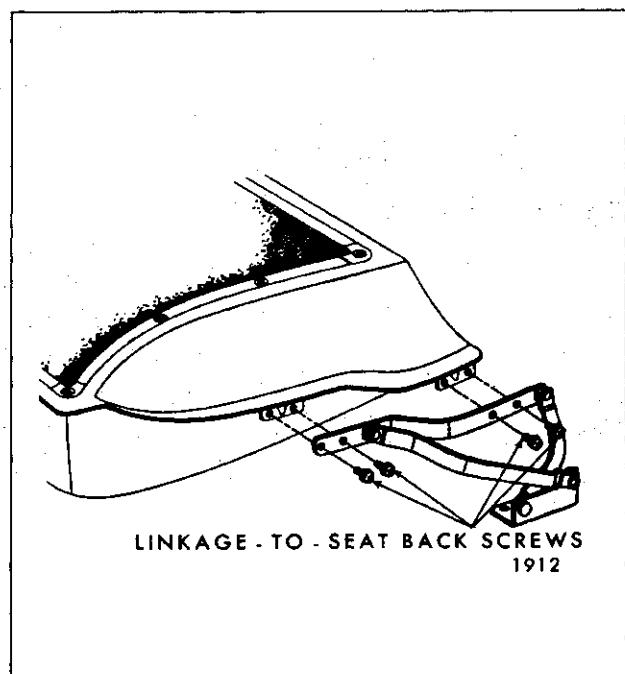


Fig. 15-63—Folding Second Seat Back Supports
and Linkage (Full Width Seat)

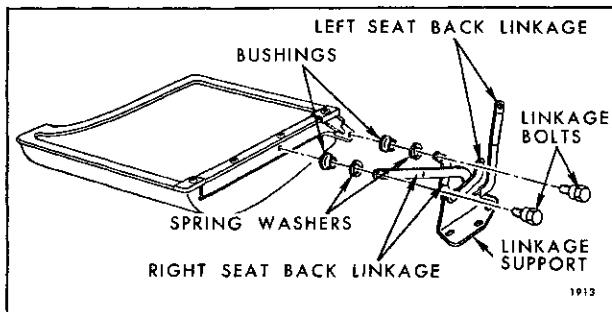


Fig. 15-64—Folding Second Seat Back Inner Linkage and Support

FOLDING SECOND SEAT BACK LINKAGE ASSEMBLY—(Full Width Seat— Right or Left Side Split Seat—Outer Linkage Only)

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. 15-63).
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. 15-63).
5. Remove nuts securing linkage support to floor pan (See Fig. 15-61), 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

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. 15-62).
4. Remove inner linkage-to-seat back bolts from both right and left seats (See Fig. 15-64); then carefully disengage inner linkage from seat backs and floor pan studs and remove linkage assembly.
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. 15-64).

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. 15-65), then turn lock cylinder with key until cylinder can be removed from case.
3. To install, reverse removal procedure.

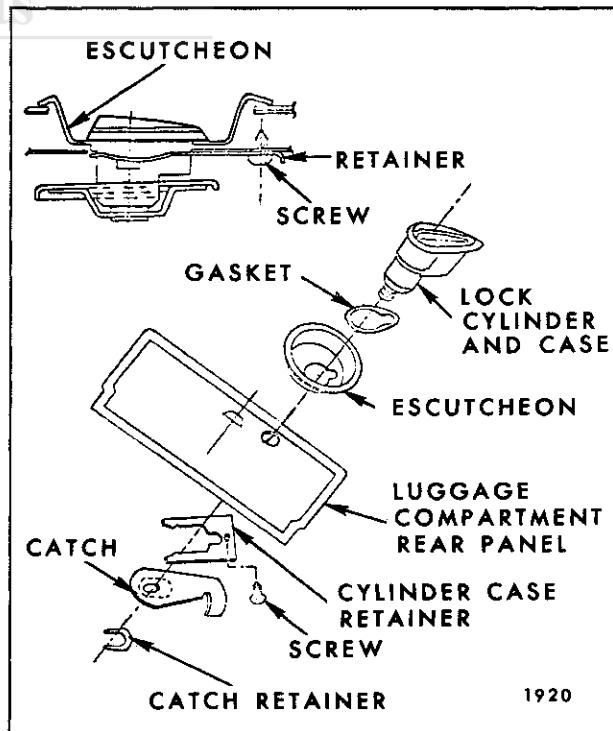


Fig. 15-65—Luggage Compartment Lock Chevrolet - "B" Styles

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. 15-65).
3. Remove lock cylinder case retainer screw and retainer (Fig. 15-65); then, remove lock cylinder and case, gasket and escutcheon from panel (Fig. 15-65).
4. To install, reverse removal procedure.

STATION WAGON FOLDING SEATS AND FLOOR PANELS—"A" Body Except "65" Styles

Description

Figures 15-66 and 15-67 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.

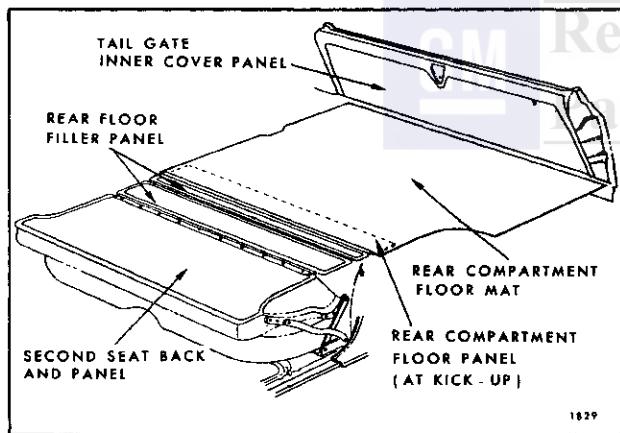


Fig. 15-66—Folding Second Seat and Rear Floor Panel Covers

REAR COMPARTMENT FLOOR PANEL COVERING—Styles with Rubber Mat

The rear compartment floor panel covering 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.

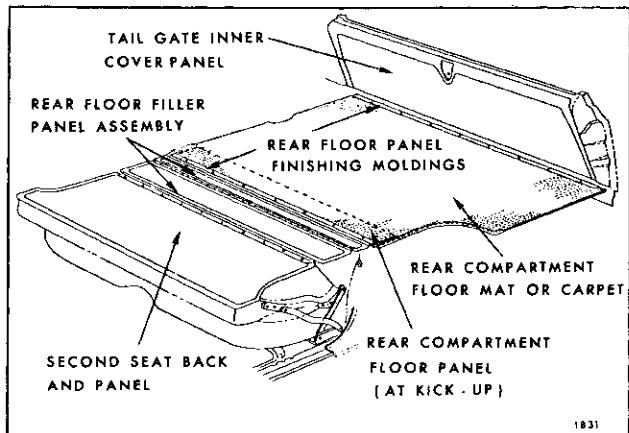


Fig. 15-67—Folding Second Seat and Rear Floor Panel Covering

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. 15-67). 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. Push lower forward edge of seat cushion rearward; then, lift upward and pull forward on seat cushion to disengage cushion frame wires from retainers on floor pan. (See Fig. 15-47 which is typical of station wagon two-seat styles).
2. To install, reverse removal procedure. Make certain wires on seat bottom frame are fully engaged in retainers on floor pan.

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.

- To install, reverse removal procedure.

REAR COMPARTMENT FLOOR PANEL (At Kick-Up—Two-Seat Styles)

Removal and Installation

- Turn back front edge of rear compartment floor panel covering and remove eight hexhead rear compartment floor panel attaching screws. On styles with carpet, remove front finishing molding prior to turning back carpet.
- To install, reverse removal procedure.

FOLDING REAR SEAT BACK AND PANEL ASSEMBLY—Two-Seat Styles

Removal and Installation

- 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.
- On both sides of seat back, remove screws securing seat back to folding linkage (Fig. 15-68), and remove seat back and panel assembly from body. See Figure 15-69 for center linkage attachments on split second seat.
- To install, reverse removal procedure.

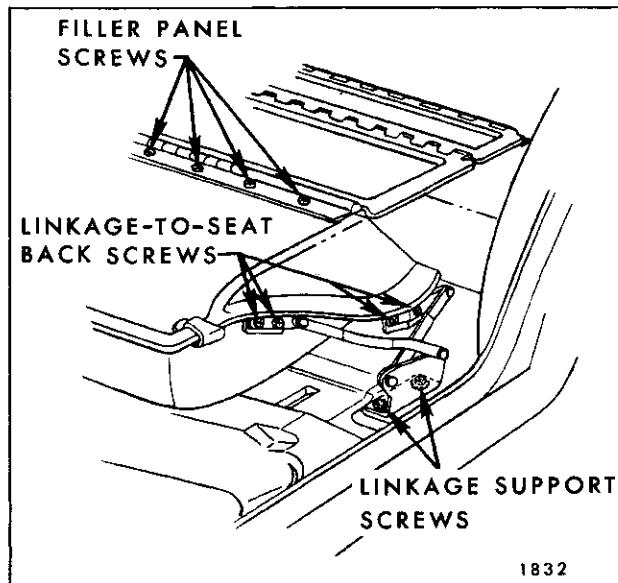


Fig. 15-68—Folding Second Seat Back Linkage and Filler Panel

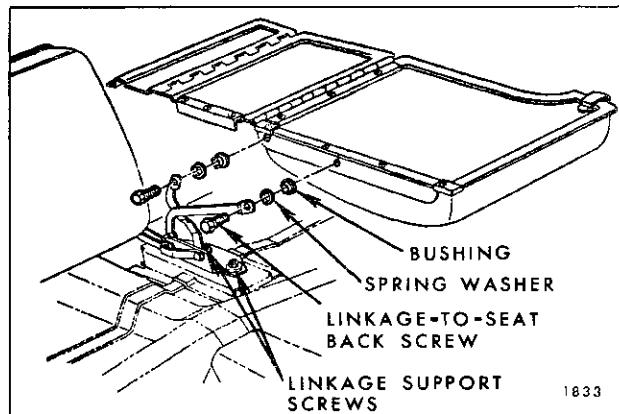


Fig. 15-69—Split Second Seat Center Linkage

REAR FLOOR FILLER PANEL ASSEMBLY

Removal and Installation

- Remove rear compartment floor panel (at kick-up) as previously described.
- Remove filler panel front and rear attaching screws and remove filler panel assembly.
- To install, reverse removal procedure.

FOLDING SECOND SEAT BACK LOCK (Full Width or Split Seat)—All "A&B" Styles (Except A-55 and 65 Styles)

Description

The station wagon full width folding second seat incorporates a seat back lock located on the upper right side of the seat back. On split second seat option a seat back lock is located at the upper outer side of each seat back. The folding second seats can be folded down by actuating the lock handle forward and pulling the seat back down.

FOLDING SECOND SEAT BACK LOCK (Full Width or Split Seat)—All "A&B" Styles (Except A-55 Styles with Split Second Seat Option and "65" Styles)

Removal and Installation

- Remove folding second seat back trim and spring assembly, as previously described.
- Remove seat back lock handle attaching screw (Fig. 15-70) and remove lock handle.
- Remove seat back lock attaching screws (Fig. 15-70) and remove seat back lock from seat back panel.
- To install seat back lock assembly, reverse removal procedure. A small amount of lock ad-

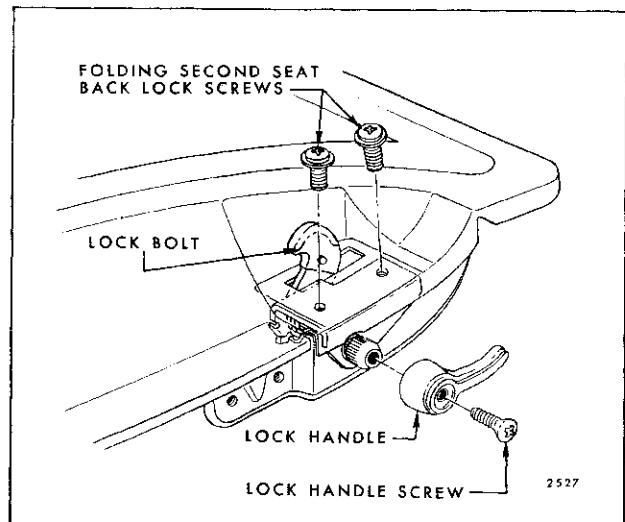


Fig. 15-70—Folding Second Seat Back Lock Installation — All "A & B" Station Wagons (Except "A-65" Styles)

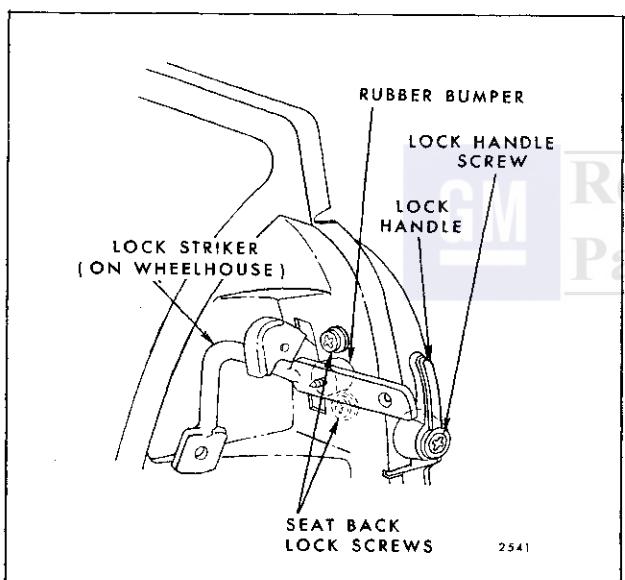


Fig. 15-71—Folding Second Seat Back Lock and Striker — All "A & B" Station Wagons (Except "A-65" Styles)

justment is available to obtain proper engagement of lock bolt with lock striker on wheelhouse as shown in Fig. 15-71.

STATION WAGON FOLDING SEATS AND FLOOR PANELS—"A" Body "55 (Split Second Seat Option) and 65" Styles

Description

The "55" Style Skylight station wagons have a full width folding second seat on which the seat back

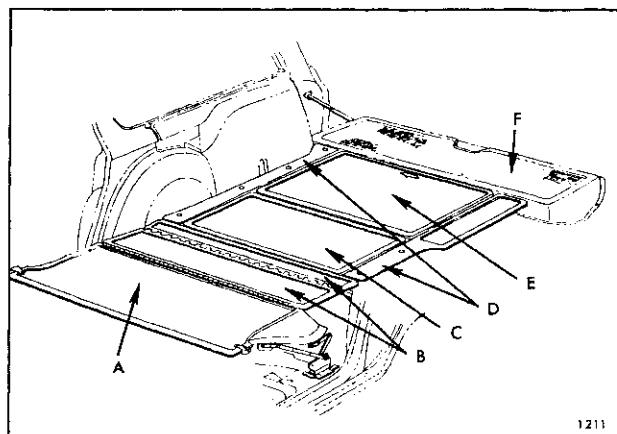


Fig. 15-72—Folding Seat and Rear Compartment Floor Panels — "A-55" Style Station Wagons

- 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

folds flush with the floor panels. A luggage compartment is provided under the luggage compartment floor panel. Figure 15-72 identifies the major load floor panels on the "55" Style station wagon.

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.

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 up position and pulled forward to release the lock and allow the seat to be folded.

Figure 15-73 identifies the major load floor panels on the "65" Style Skylight station wagon.

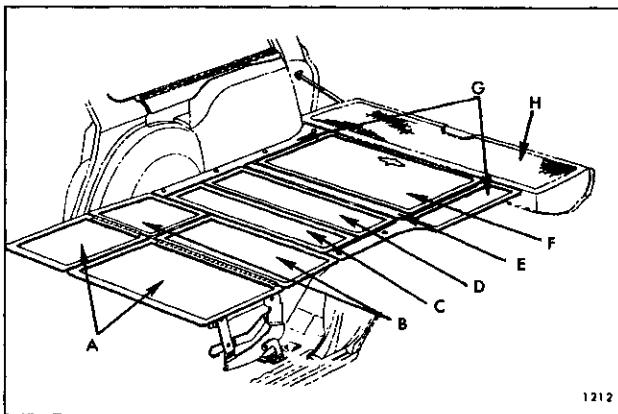


Fig. 15-73—Folding Seats and Rear Compartment Floor Panels - "A-65" Style Station Wagon

- 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 Panel Cover - Right and Left
- H. Tail Gate Inner Cover Panel

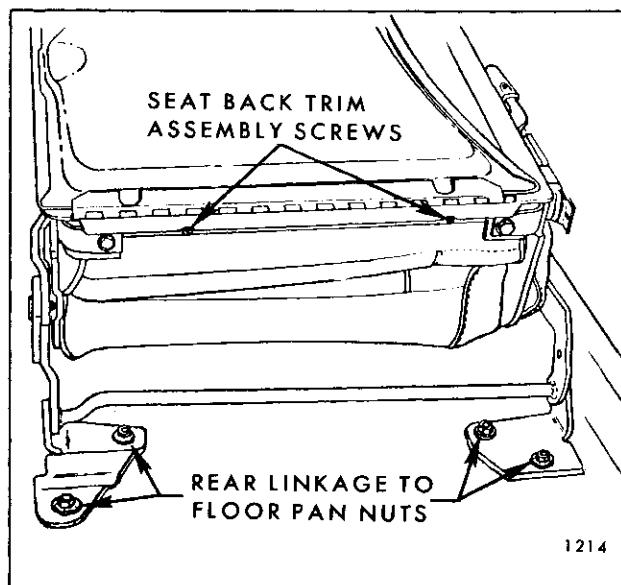


Fig. 15-74—Folding Second Seat Rear Linkage

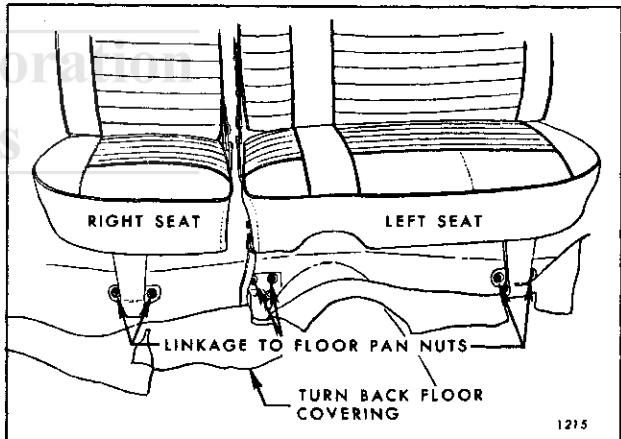


Fig. 15-75—Folding Second Seat Front Linkage

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 (Figs. 15-74 and 15-75).
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 (Figs. 15-74 and 15-75); 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. 15-76).
3. Remove three screws securing seat inner link to cushion frame (Fig. 15-77); 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.

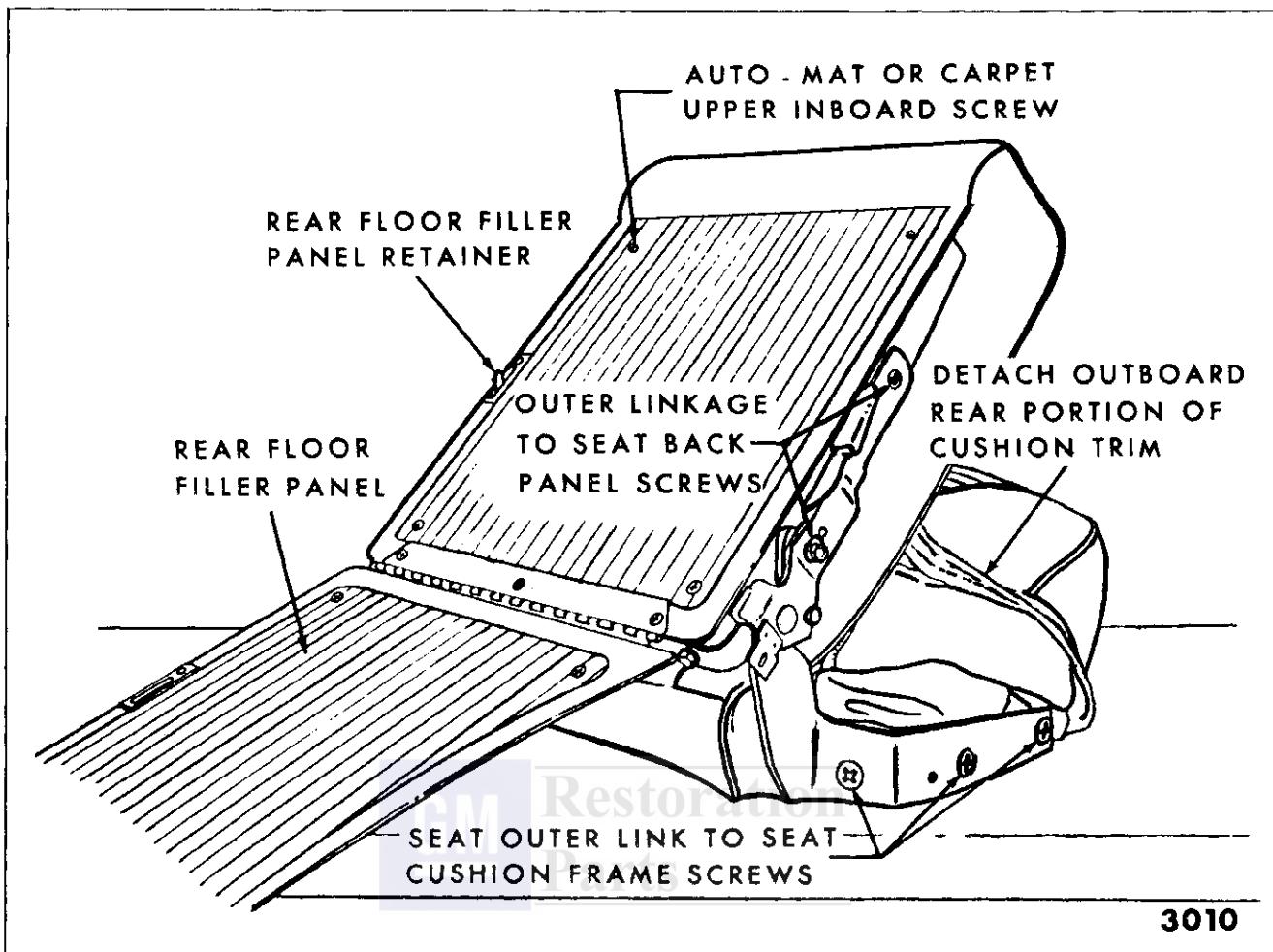


Fig. 15-76—Folding Second Seat Cushion Assembly (Right or Left Side) - "65" Styles

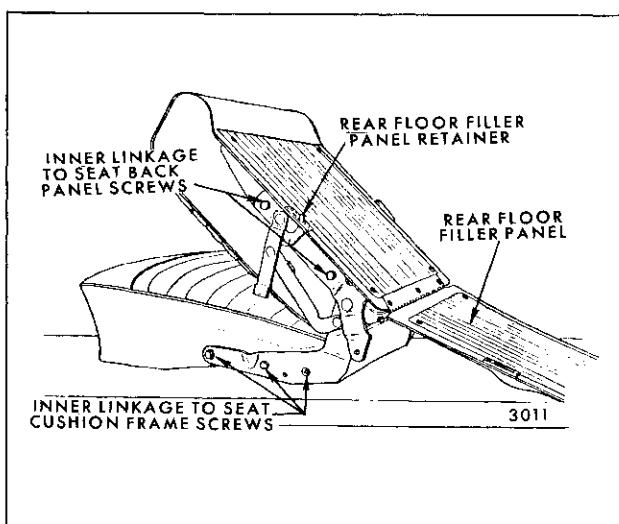


Fig. 15-77—Folding Second Seat Cushion Assembly (Right or Left Side) - "65" Styles

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. 15-74.)
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. 15-76). 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. 15-75); 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. 15-78); then, remove linkage assembly from seat.
3. To install, reverse removal procedure. Inserts in Figure 15-78 show relationship of linkage, bushings and attaching screws.

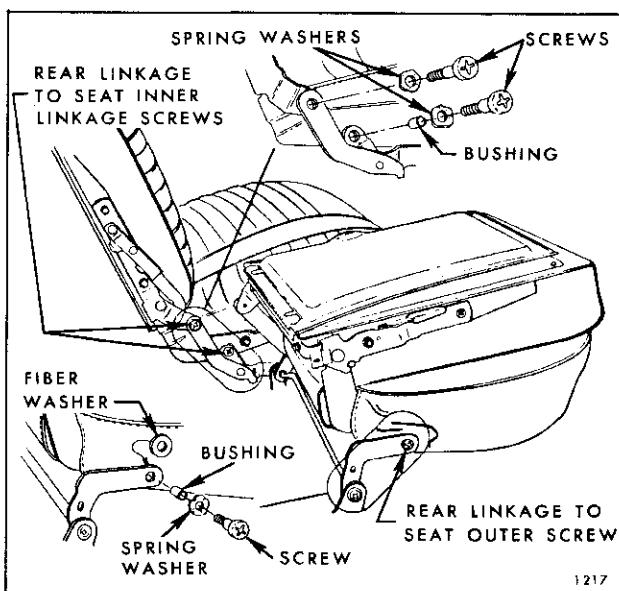


Fig. 15-78—Floor Pan Rear Linkage

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.
2. Remove floor pan rear linkage-to-seat inner linkage attaching screws (Fig. 15-78).
3. Remove seat inner linkage-to-seat back panel and seat cushion frame attaching screws (See Fig. 15-77); 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. 15-78).
3. Remove hog rings and detach rear portion of trim sufficiently to remove three screws securing outer linkage to seat cushion frame. (See Fig. 15-76.)
4. Remove outer linkage-to-seat back panel attaching screws (See Fig. 15-76); 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. 15-76).
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. 15-79).
3. Install lock handle attaching screw; then, install outer linkage to seat back panel attaching screws (Fig. 15-76).
4. Install seat back trim assembly and outer linkage cover.

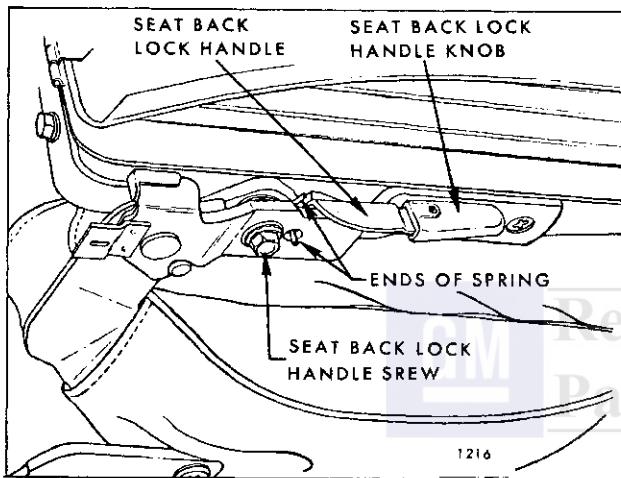


Fig. 15-79—Seat Back Lock

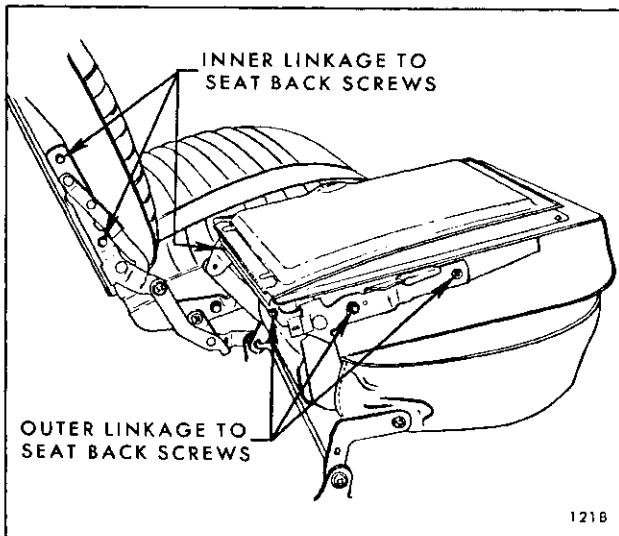


Fig. 15-80—Seat Inner and Outer Linkage

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.
2. Remove outer and inner linkage to seat back attaching screws (Fig. 15-80). 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. 15-73.)
2. Remove seat back linkage-to-compartment side pan attaching bolt (Fig. 15-81) at both right and left sides of seat.
3. At left side of seat remove seat back hinge pin retainer (Fig. 15-81).
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. 15-81).

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. 15-82).

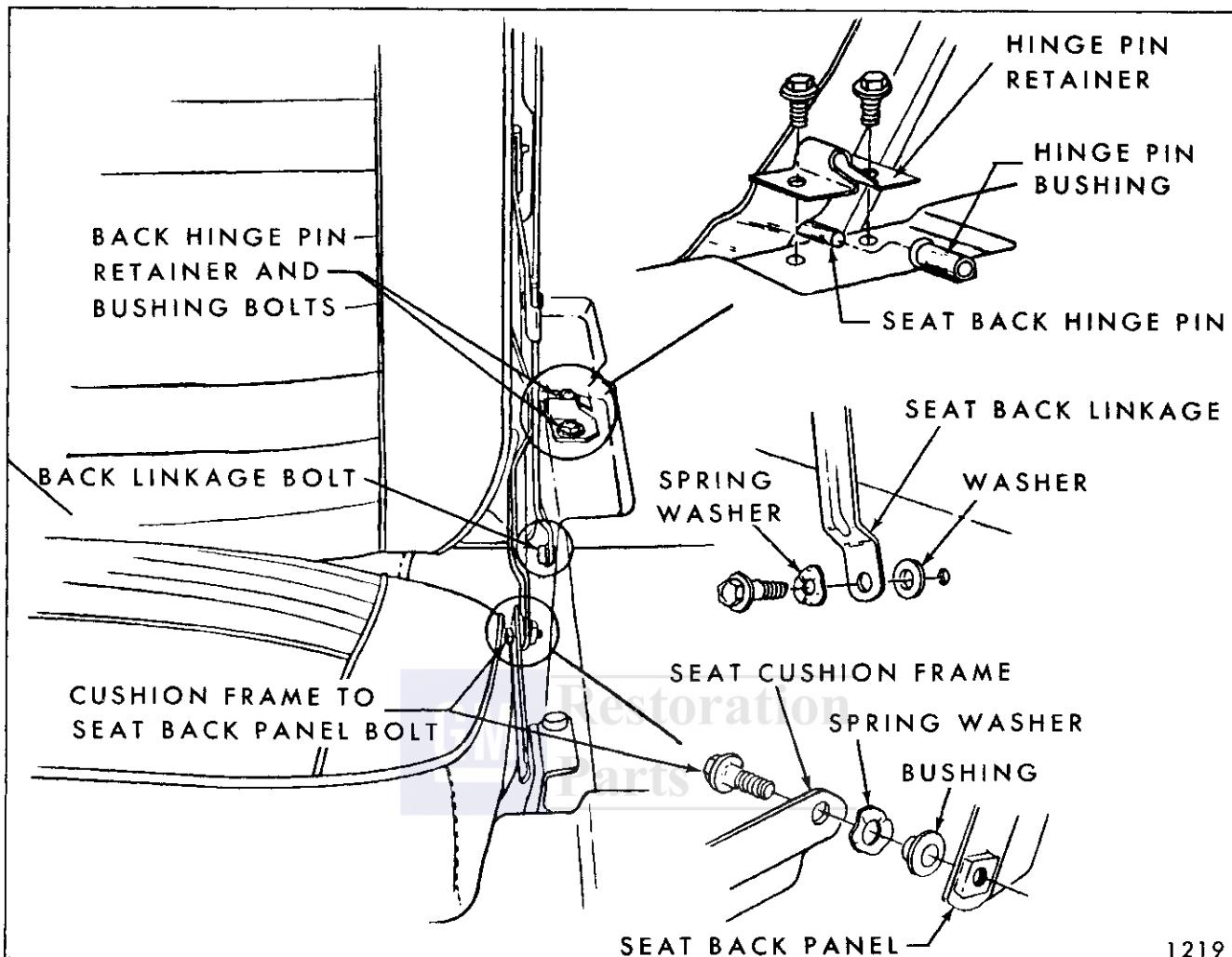


Fig. 15-81—Folding Third Seat

3. Remove seat cushion frame-to-seat back panel attaching bolt (Fig. 15-81) 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. 15-82) 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 15-81.

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. 15-82).
3. To remove seat back trim assembly remove seat back trim-to-seat back panel attaching screws (Fig. 15-82); then, lift trim assembly upward to disengage wire loops on seat back trim from slots in seat back panel and remove trim assembly.

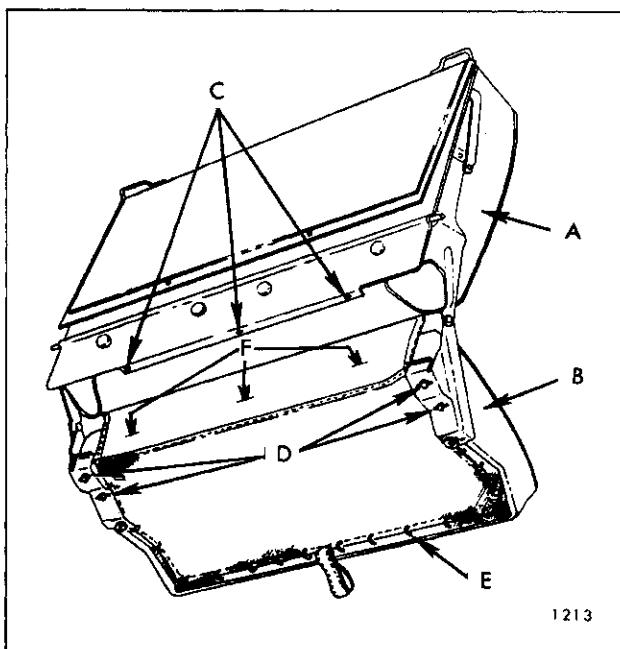


Fig. 15-82—Folding Third Seat Assembly

- 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)

4. To remove seat back panel assembly, remove seat cushion frame-to-seat back panel attaching bolt (Fig. 15-81); 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 15-81 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 AND SHOULDER STRAPS

GENERAL INFORMATION—All Styles

Front and rear seat belts and front seat shoulder straps are provided on all styles. Rear seat shoulder straps and station wagon second and third seat shoulder straps are available as optional equipment or as a dealer installed accessory.

1/2 inch - 13 UNC - 2A bolts are specified for all anchorages. Proper care of seat belts and shoulder straps will provide added security to driver and passengers.

1. Seat belts must be serviced in matched sets.
 - a. DO NOT replace only one-half of seat belt or shoulder strap set.
 - b. DO NOT intermix standard and deluxe seat belts or shoulder straps on front or rear seats.
2. Keep sharp edges and damaging objects away from seat belts or shoulder straps.

3. Use caution not to bend or damage any portion of the belt buckle or latch.
4. Do not bleach or re-dye belt webbing (clean with a mild soap solution and water).
5. When installing seat belt or shoulder strap anchor bolt, start bolt by hand to assure that bolt is threaded straight.
6. Tighten seat belt or shoulder strap anchor bolts to specified torque - 24 to 45 ft. lbs.

IMPORTANT: Specified 1/2 inch - 13 UNC - 2A bolts must be used for all anchorages.

Removal and Installation

The locations and types of seat belts and shoulder strap anchorages used on 1968 styles are shown in Figures 15-83 through 15-90.

To remove seat belts or shoulder straps, remove anchor provisions as illustrated (Figs. 15-83 through 15-93) for style involved.

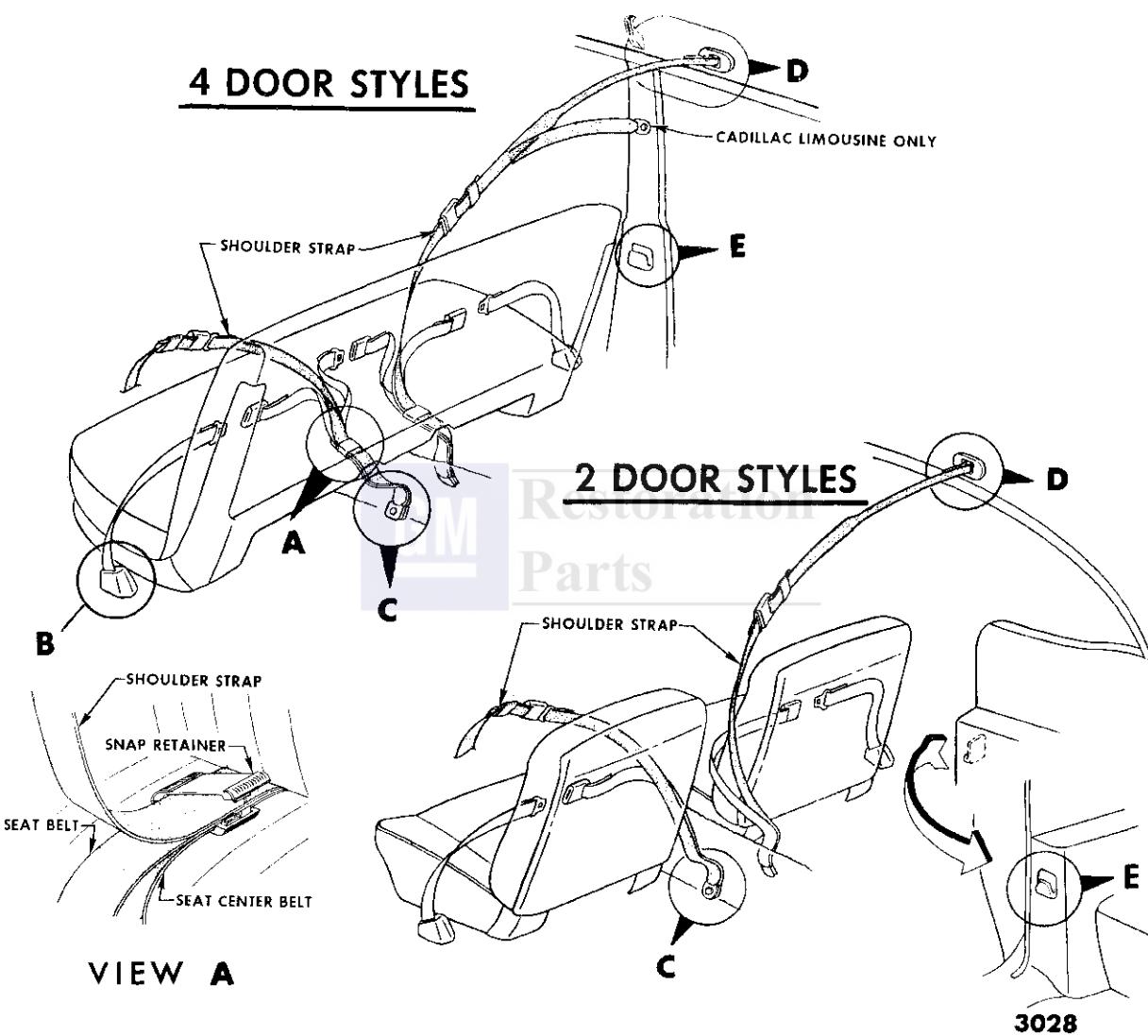
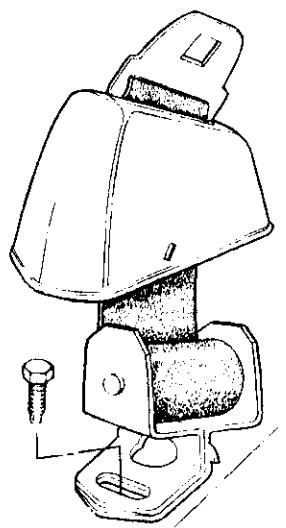
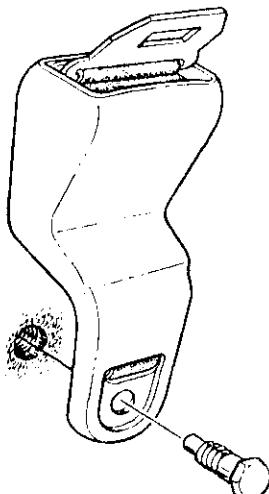
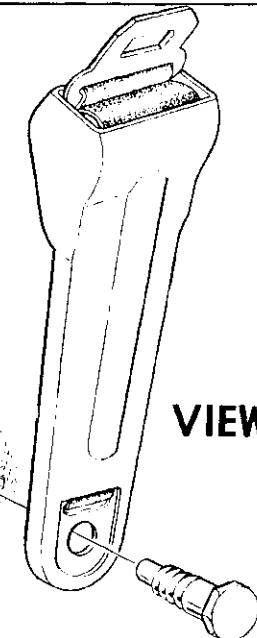


Fig. 15-83—Front Seat Belts and Shoulder Straps (All Styles Except Convertibles)

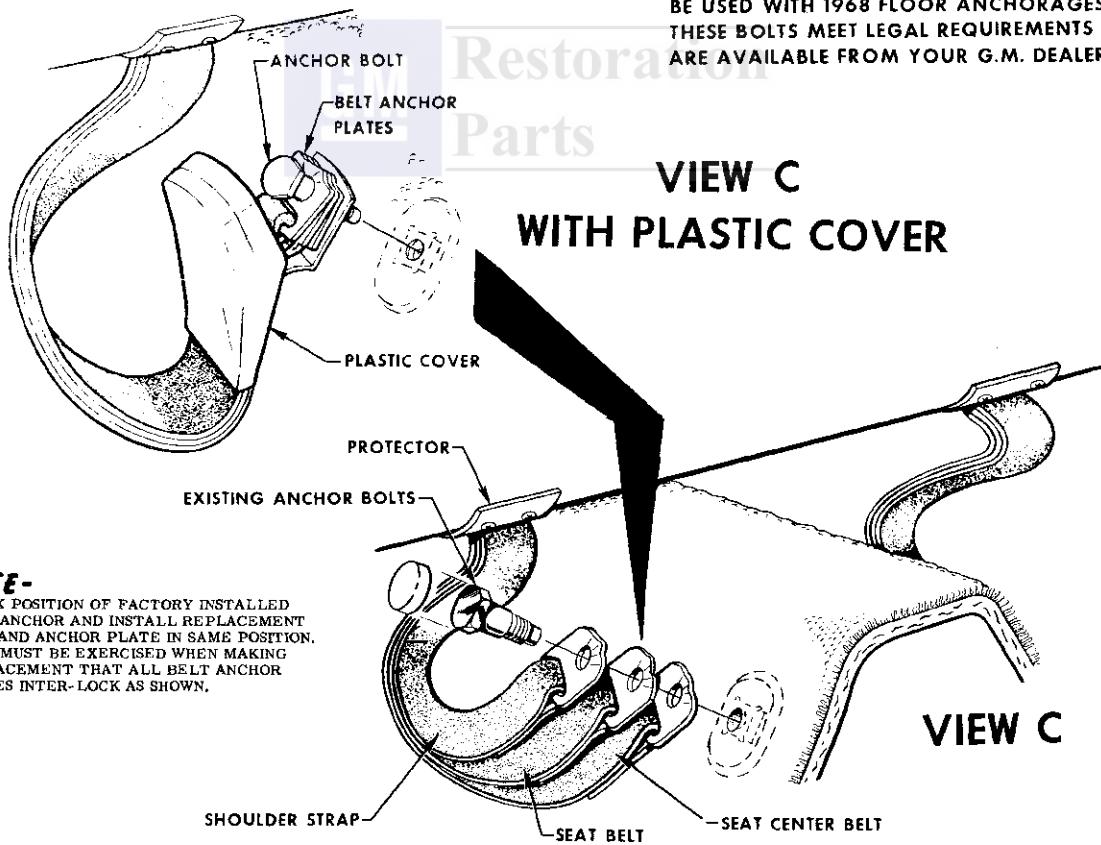
ALL EXCEPT CAMARO,
CORVAIR & FIREBIRD

CAMARO & FIREBIRD



CORVAIR

NOTE - SPECIFIED 1/2 INCH-13 UNC-2A BOLTS MUST BE USED WITH 1968 FLOOR ANCHORAGES. THESE BOLTS MEET LEGAL REQUIREMENTS AND ARE AVAILABLE FROM YOUR G.M. DEALER



VIEW C WITH PLASTIC COVER

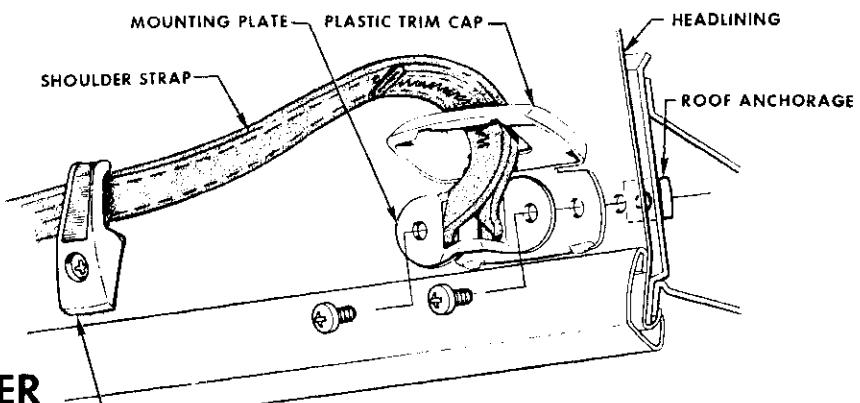
NOTE -
CHECK POSITION OF FACTORY INSTALLED BELT ANCHOR AND INSTALL REPLACEMENT BELT AND ANCHOR PLATE IN SAME POSITION. CARE MUST BE EXERCISED WHEN MAKING REPLACEMENT THAT ALL BELT ANCHOR PLATES INTER-LOCK AS SHOWN.

FLOOR ANCHORAGE

3029

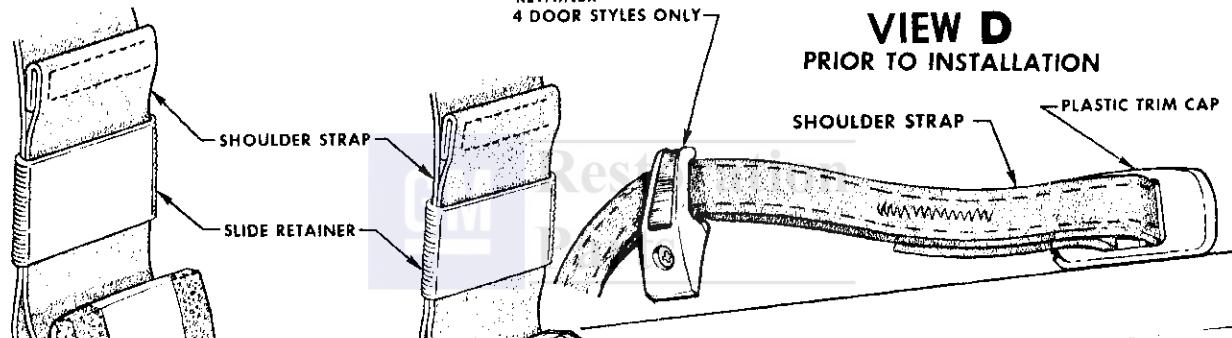
Fig. 15-84—Front Seat Belt Floor Anchorage

ROOF ANCHORAGE



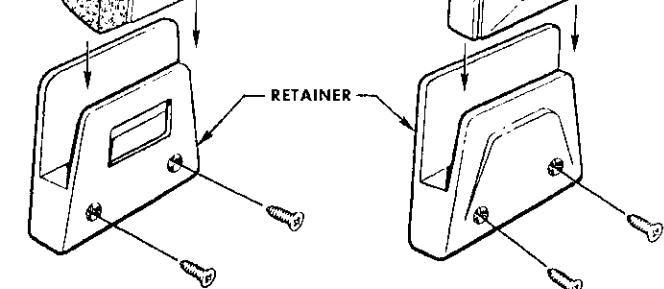
BUCKLE RETAINER

VIEW D PRIOR TO INSTALLATION



NOTE
ON 4 DOOR STYLES WEBBING MUST BE
REMOVED FROM RETAINER BEFORE
USING SHOULDER STRAP.

VIEW D AFTER INSTALLATION



STANDARD BUCKLE

VIEW E

DELUXE BUCKLE

NOTE: LAP BELT MUST BE WORN WHEN USING A SHOULDER STRAP

3030

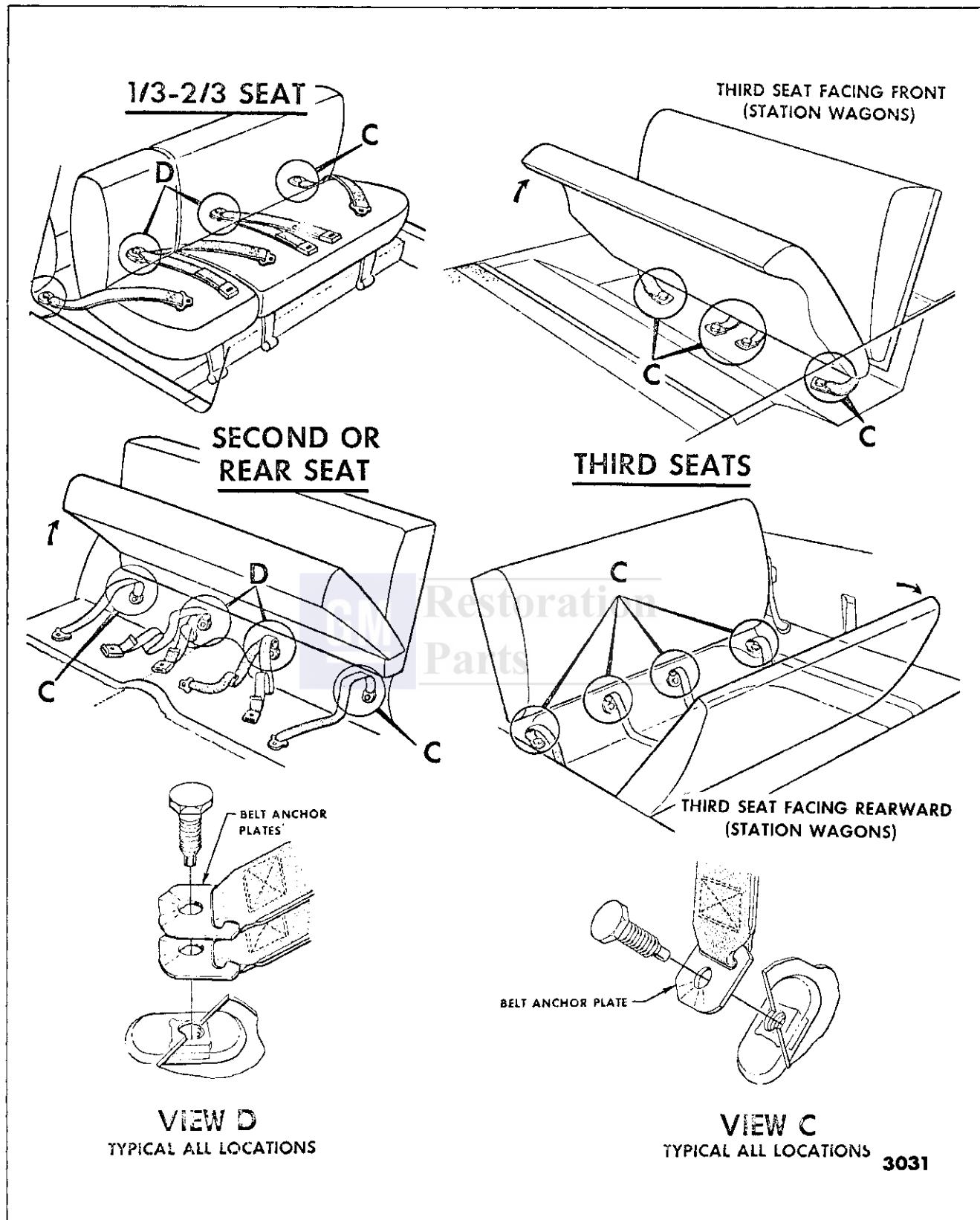
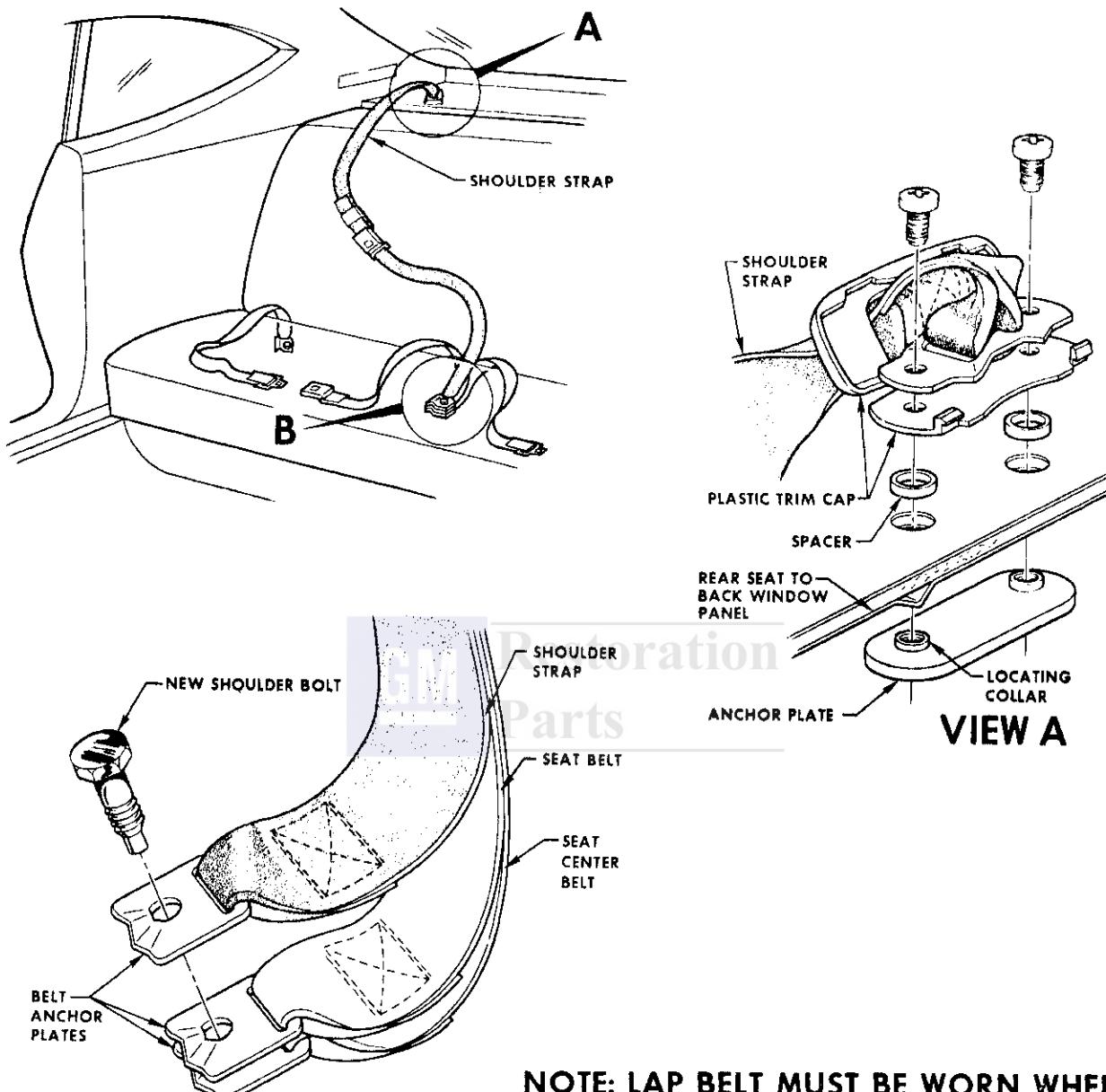


Fig. 15-86—Seat Belts – Station Wagon Second and Third Seats

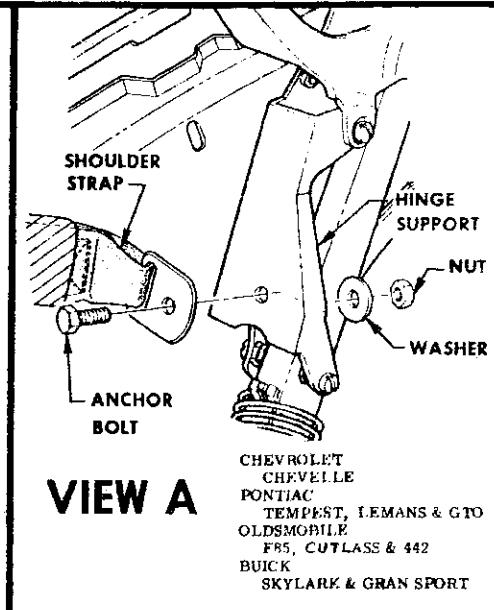
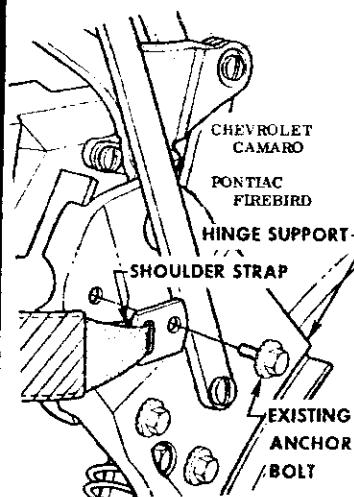
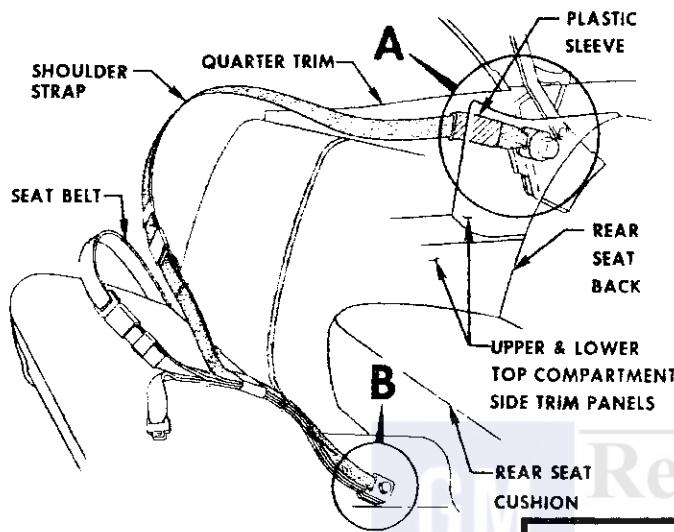


FLOOR ANCHORAGE

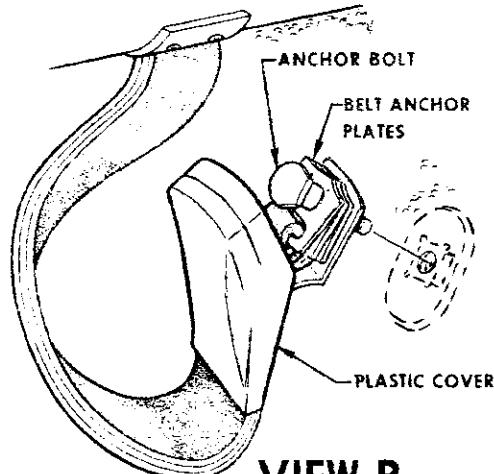
3032

Fig. 15-87—Rear Seat Shoulder Strap (Typical Installation - All Styles Except Station Wagons and Convertibles)

QUARTER ANCHORAGE

**VIEW A**

FLOOR ANCHORAGE



CHEVROLET
IMPALA
PONTIAC
CATALINA, GRAND PRIX &
BONNEVILLE
OLDSMOBILE
EIGHTY EIGHT & NINETY
EIGHT
BUICK
LA SABRE, WILDCAT, &
ELECTRA "225"
CADILLAC
DE VILLE

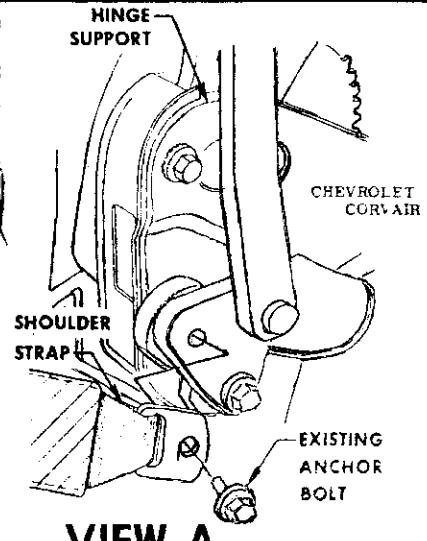
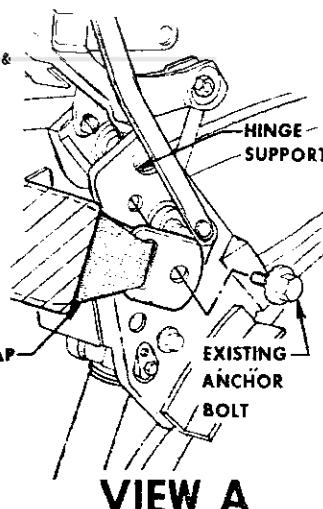
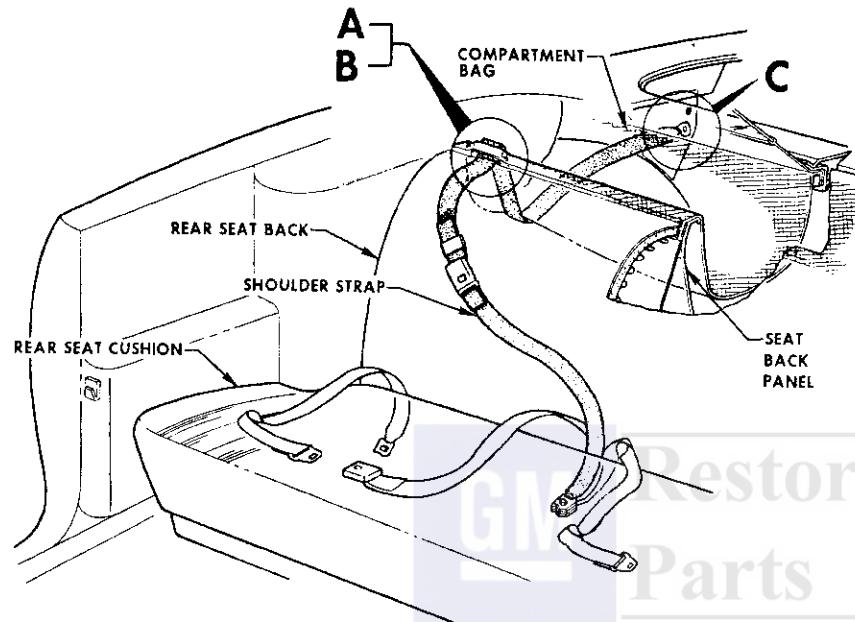
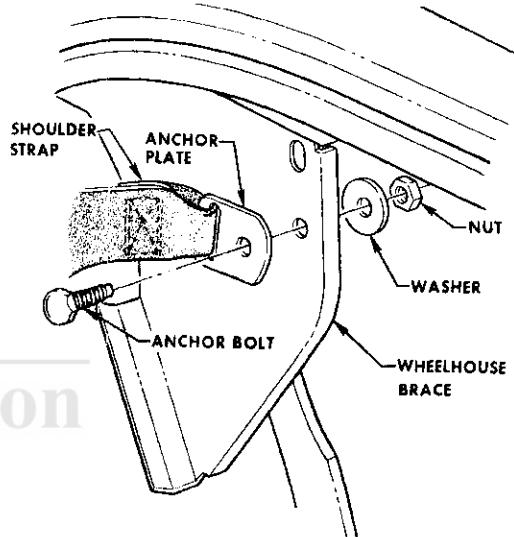
**VIEW A****3034**

Fig. 15-88—Front Seat Shoulder Straps - Convertible Styles

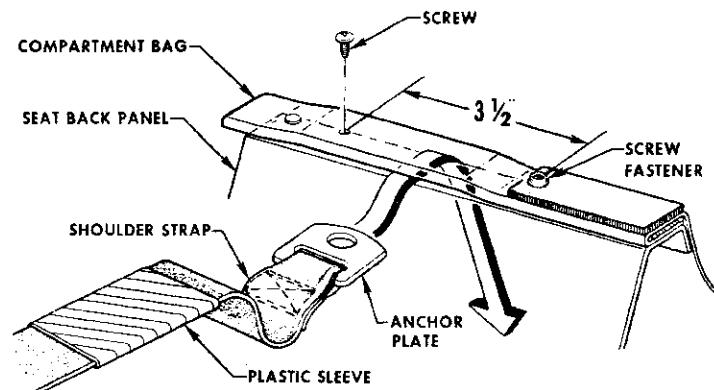
ALL STYLES EXCEPT CORVAIR



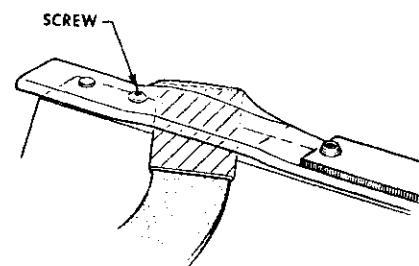
QUARTER ANCHORAGE



VIEW C



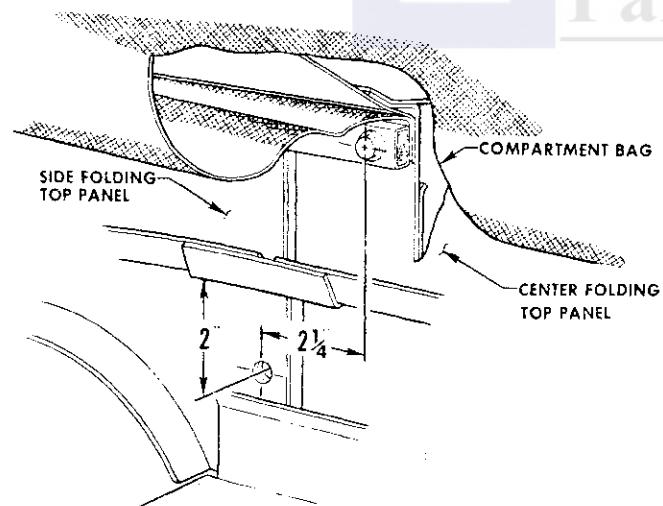
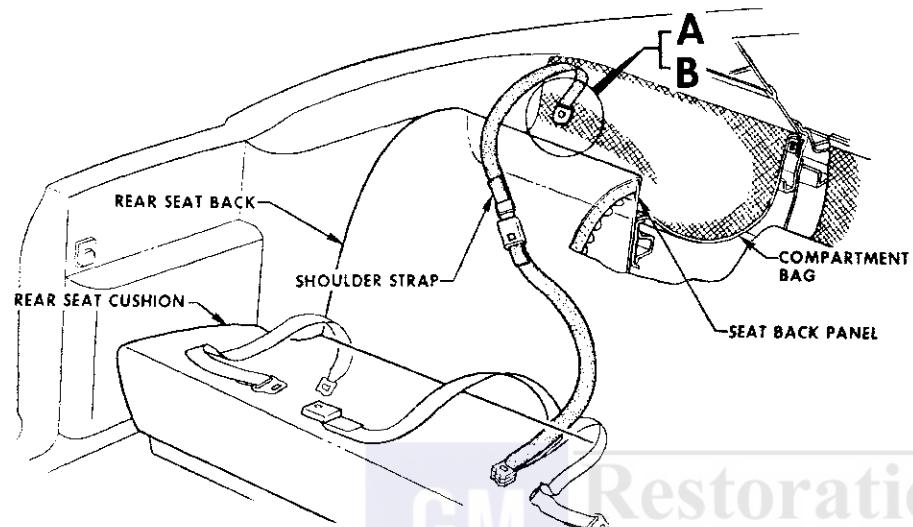
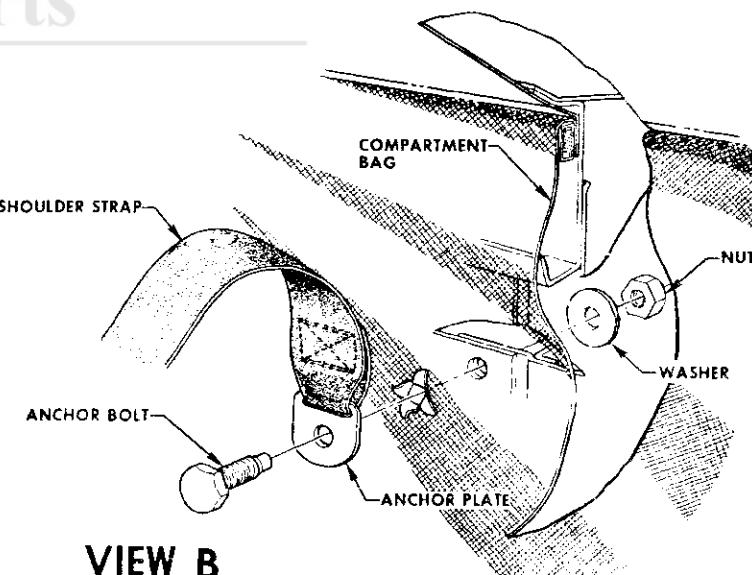
VIEW A



VIEW B

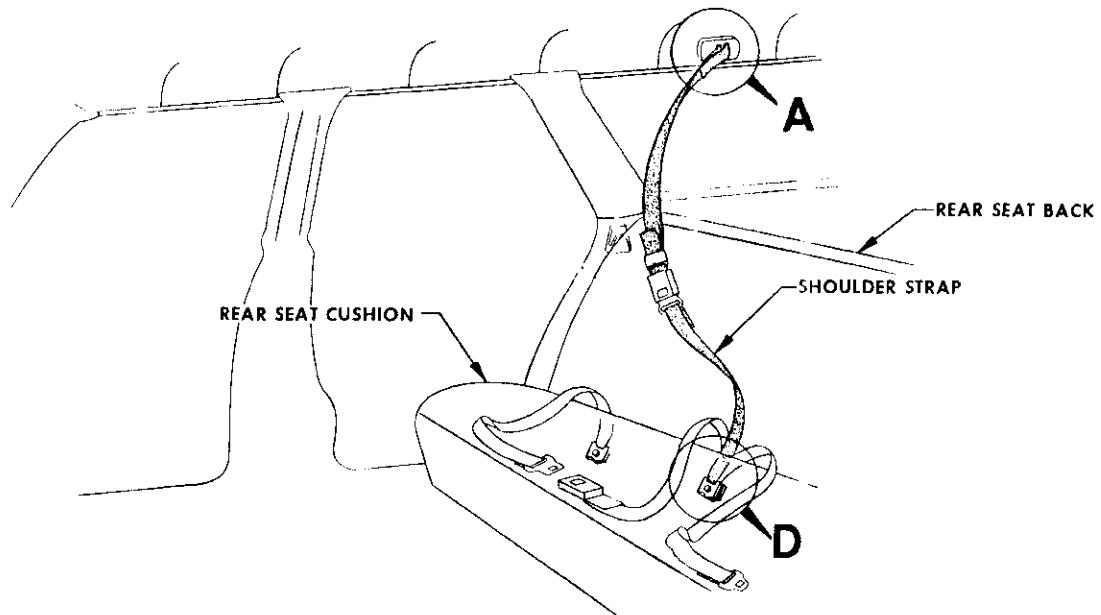
3035

Fig. 15-89—Rear Seat Shoulder Straps - All Convertibles Except Corvairs

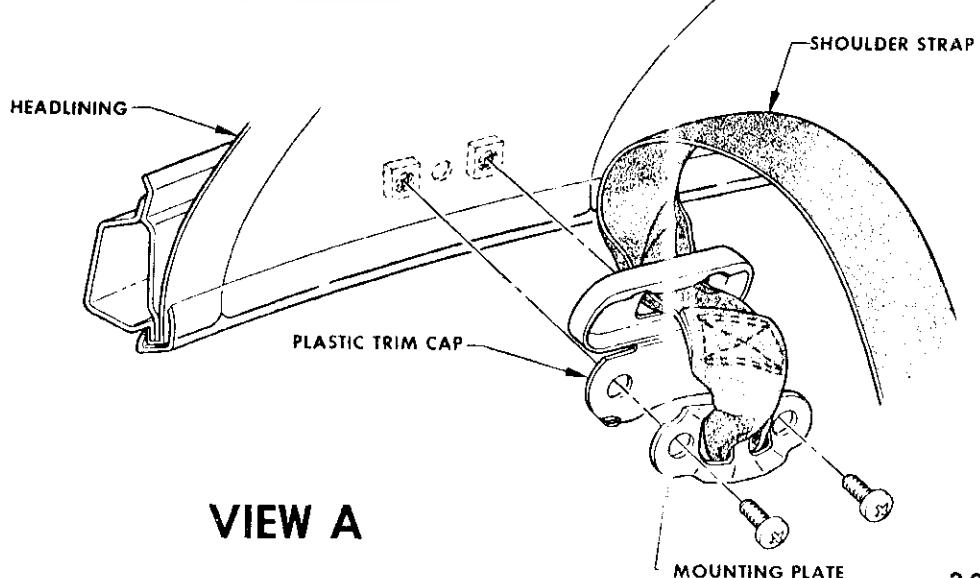
CORVAIR STYLES**VIEW A****VIEW B**

3036

Fig. 15-90—Rear Seat Shoulder Straps - Corvair Convertibles



GM Restoration
Parts



VIEW A

3048

Fig. 15-91—Second Seat Shoulder Straps - "B" Station Wagons

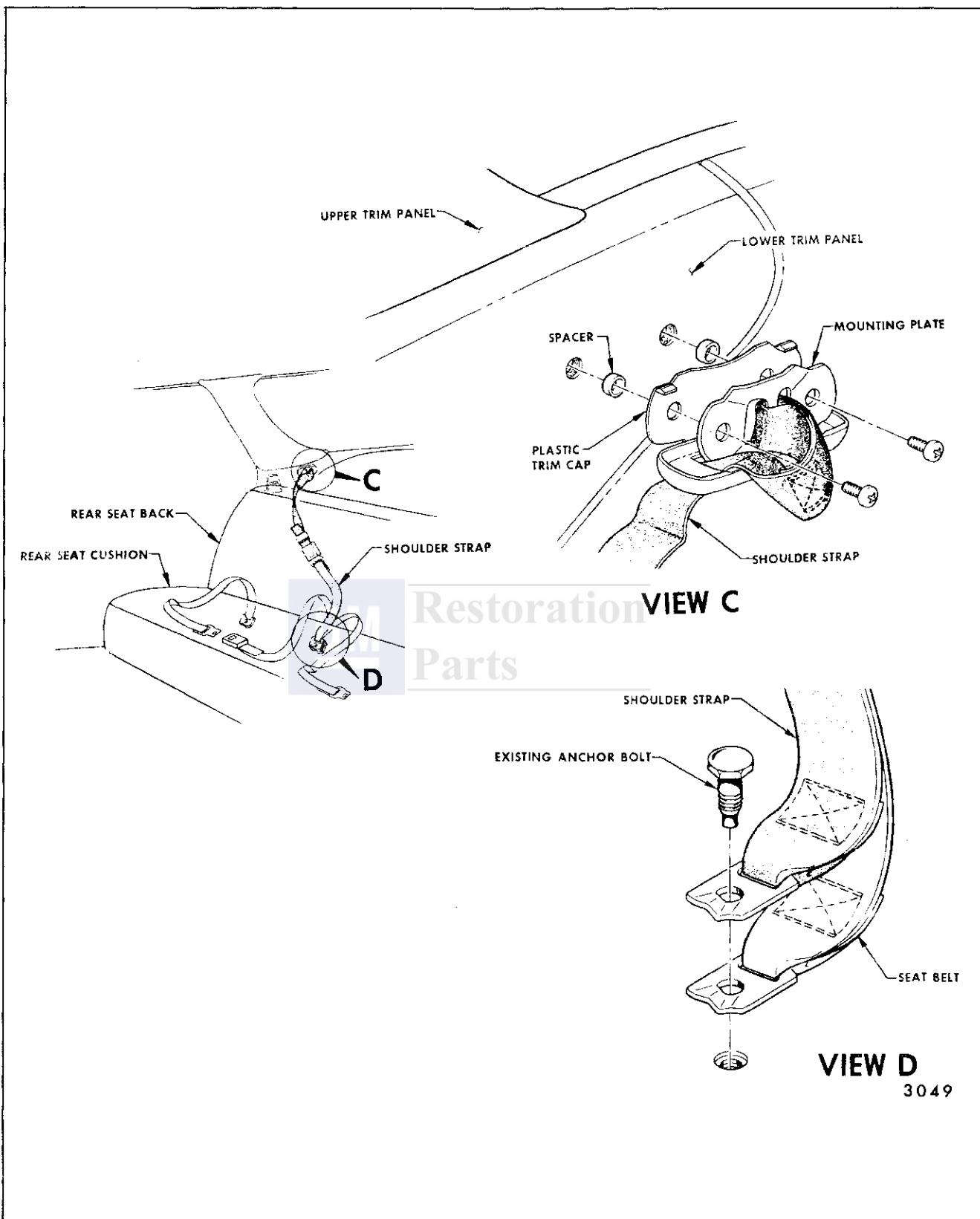
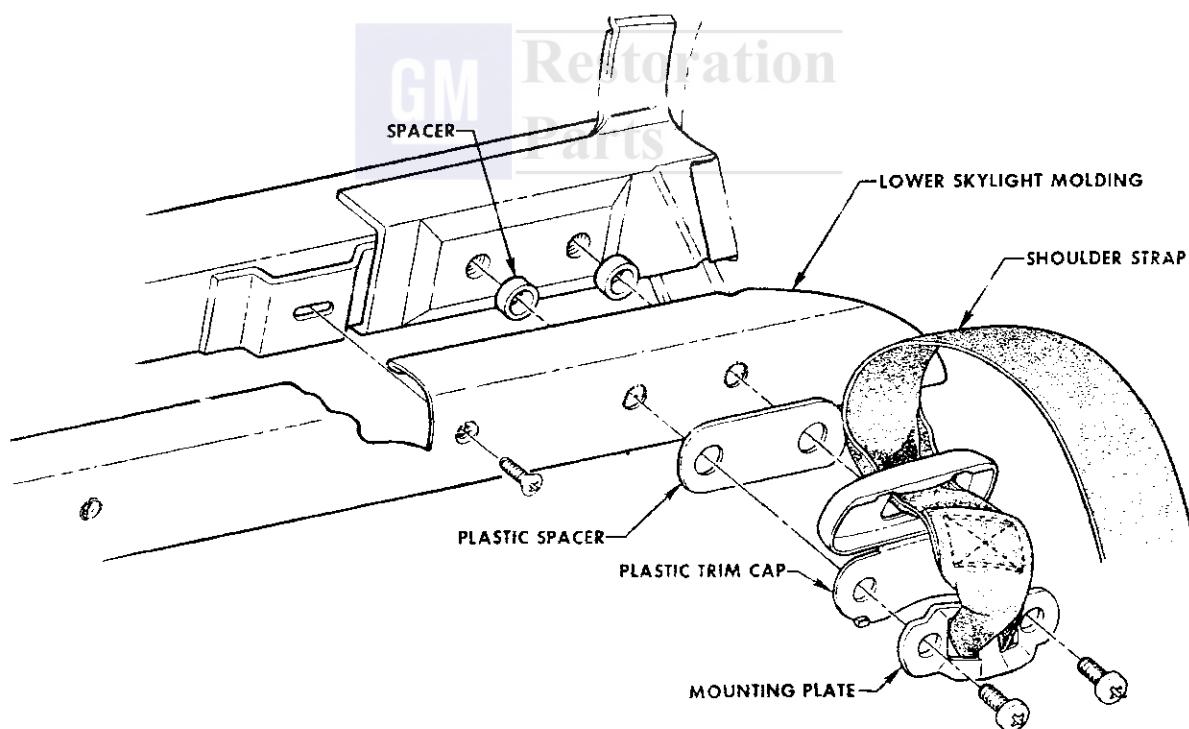
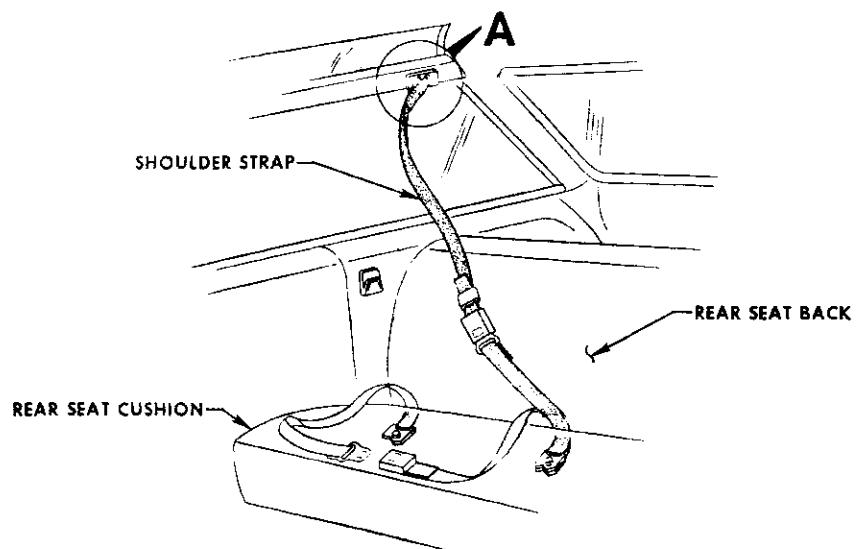


Fig. 15-92—Second Seat Shoulder Straps - "A" Station Wagons



3050

Fig. 15-93—Third Seat Shoulder Straps "A-65" Station Wagon

To remove full width seat inner seat belt(s) from seat, remove plastic trim protector at rear of seat and carefully pull floor anchor end of belt through seat. When installing belts tighten anchor bolts 24 to 45 ft. lbs.

STANDARD SEAT BELT RETRACTOR FLOOR MOUNT

To disengage standard seat belt retractor cover, carefully exert pressure in direction of arrows, Figure 15-94, to disengage the cover from tabs on the retractor. Lift cover to expose seat belt retractor anchor bolt and remove bolt.

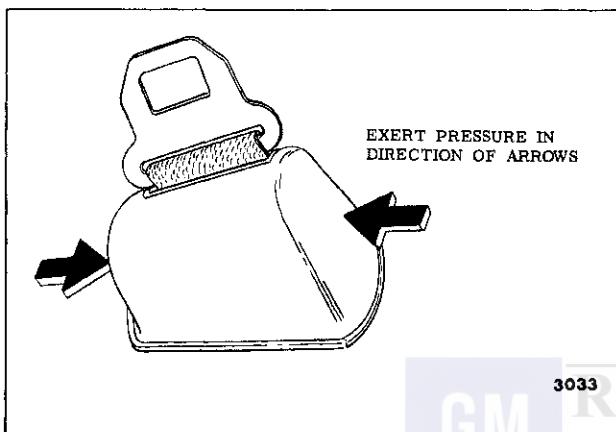


Fig. 15-94—Standard Front Seat Belt Retractor

DELUXE SEAT BELT RETRACTOR FLOOR MOUNT

With belt fully extended, insert screwdriver through belt opening in cover, as shown in Figure 15-95, apply just enough outward pressure to inside of cover adjacent to metal tabs to disengage cover from tabs. Lift up cover to expose seat belt retractor anchor bolt.

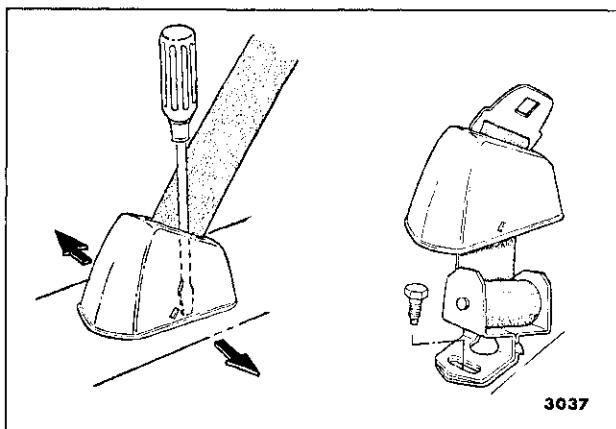


Fig. 15-95—Front Seat Deluxe Belt Retractor

REAR SEAT BELT BAIL TYPE RETRACTOR

As an option, seat belts are available with bail type seat belt retractors on the outboard rear seat belt only.

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. 15-96).
3. Using a flat-bladed tool pry open tabs that secure belt webbing on drum and remove retractor from belt (See Fig. 15-96).

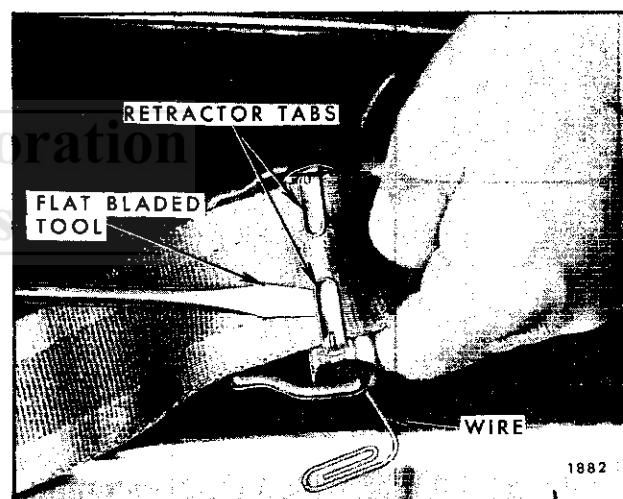


Fig. 15-96—Removal of Bail Type Retractor From Seat Belt

Installation

1. With seat belt fully extended, insert belt under tabs on retractor (tabs of retractor should be on inboard side of belt webbing and bail pointing forward) and position retractor at center of belt webbing.
2. Using pliers, lightly bend down tabs to secure retractor in correct position on belt webbing.
3. Remove wire from slot in drum (when installing a new retractor, remove retaining clip on retractor drum to release spring tension) and allow belt to roll up on retractor.

SECTION 16

ELECTRICAL

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INTRODUCTION

The body electrical equipment for all body styles is covered in the following sections:

Power Windows
Power Ventilators
Power Tail Gate Window
Power Seats
Tail and Side Marker Lamps.

Each section combines all styles and series together which incorporates the power equipment unless stated otherwise in the procedure.

Round wire is used for body wiring on all styles and for all options.

Typical body wiring circuit diagrams are located at the end of this section.

On styles where power windows are standard equipment, the body wiring circuits are shown in the "Power Window Checking Procedure."

It is important that inspection for mechanical binds and alignments be completed before electrical diagnosis is attempted.

Circuit wiring for power equipment is protected by a circuit breaker (40 ampere in most cases) and is located as follows:

<u>DIVISION</u>	<u>STYLE</u>	<u>LOCATION</u>
Chevrolet	All	Engine Compartment Bulk-head
Pontiac	All	In fuse block (plug-in type)
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-E"	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 the following major sections:

1. Cross-over harness
2. Feed harness to rear doors or quarter windows
3. Left and right rear door or quarter window harness
4. Left and right front door window harness

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.

On Cadillac "C" styles the cross-over harness is part of the body and rear door or quarter feed harness and is installed under the front seat.

On Cadillac "E" styles the cross-over harness is installed at the front of the floor pan.

FEED HARNESS FOR REAR DOORS OR QUARTER WINDOWS

This harness connects to the front cross-over harness on the left side of the shroud (fire wall) and extends rearward in the body wire harness under the driver's seat on all styles except Chevrolet and Pontiac "F" and Cadillac Styles. On all styles, this harness connects directly to the rear quarter window motor on 2-door styles and terminates at the base of the center pillar on 4-door styles.

On Chevrolet and Pontiac "F" styles, the feed harness is connected to the cross-over harness at the left and right shroud and is routed on top of the rocker inner panel on each side to the quarter window.

On Cadillac styles the wire harness is routed from the left shroud, along the left rocker inner panel to the front of the drivers seat, then, on 2-door styles, it crosses over to the body wire harness, is incorporated in the body wire harness conduit and extends rearward to the front of the rear seat area where it separates to each quarter window. On

4-door styles, the wires are routed from the left shroud along the rocker inner panel and separates at the front edge of the drivers seat. The left rear door wiring continues rearward to the left center pillar; the wires to the right center pillar run across the body under the front seat.

REAR DOOR WINDOW HARNESS

The left and right rear door harness connects to the feed harness in the base of the center pillar. To disengage the connector, pull harness inboard at base of center pillar for accessibility.

MOTOR DESCRIPTION

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. 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

All styles - In addition to the circuit breaker, a relay is used in the circuit, which prevents the operation of the power windows until the ignition switch is turned "on".

The relay is located at the left shroud area on all styles except Pontiac "B" and Buick "E". On Pontiac "B" styles, the relay is located on the parking brake support and on Buick "E" styles, in the center of dash panel under the instrument panel assembly.

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.

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 left in the "NORMAL" position when ignition switch is "ON" to permit normal operation of power windows from all switch locations. If the control button is in the "LOCK" 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.

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. 16-1 through 16-10.)

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.

b. Checking Relay Assembly at Shroud

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

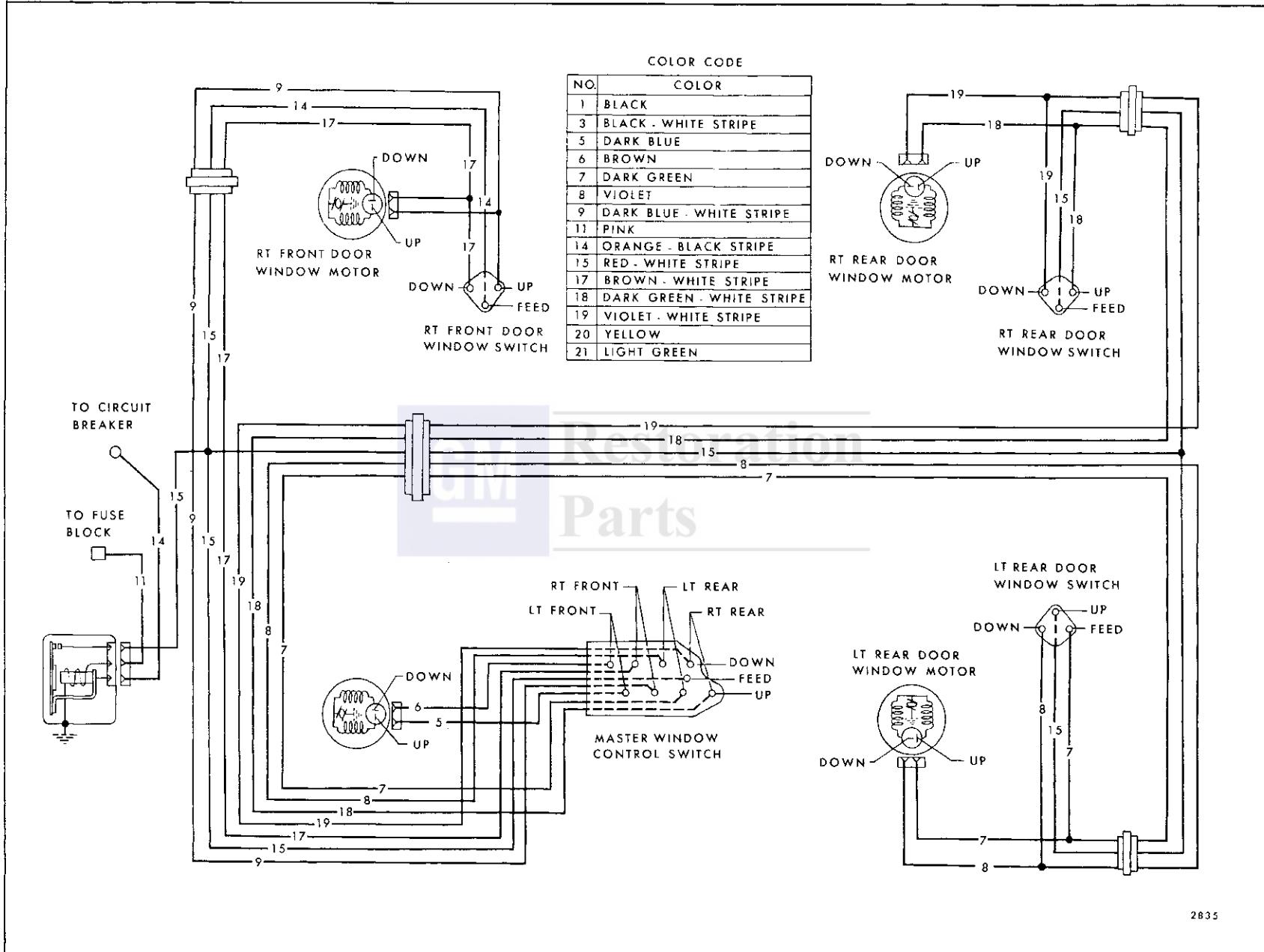


Fig. 16-1—Power Window Circuit - Typical All "A" Styles

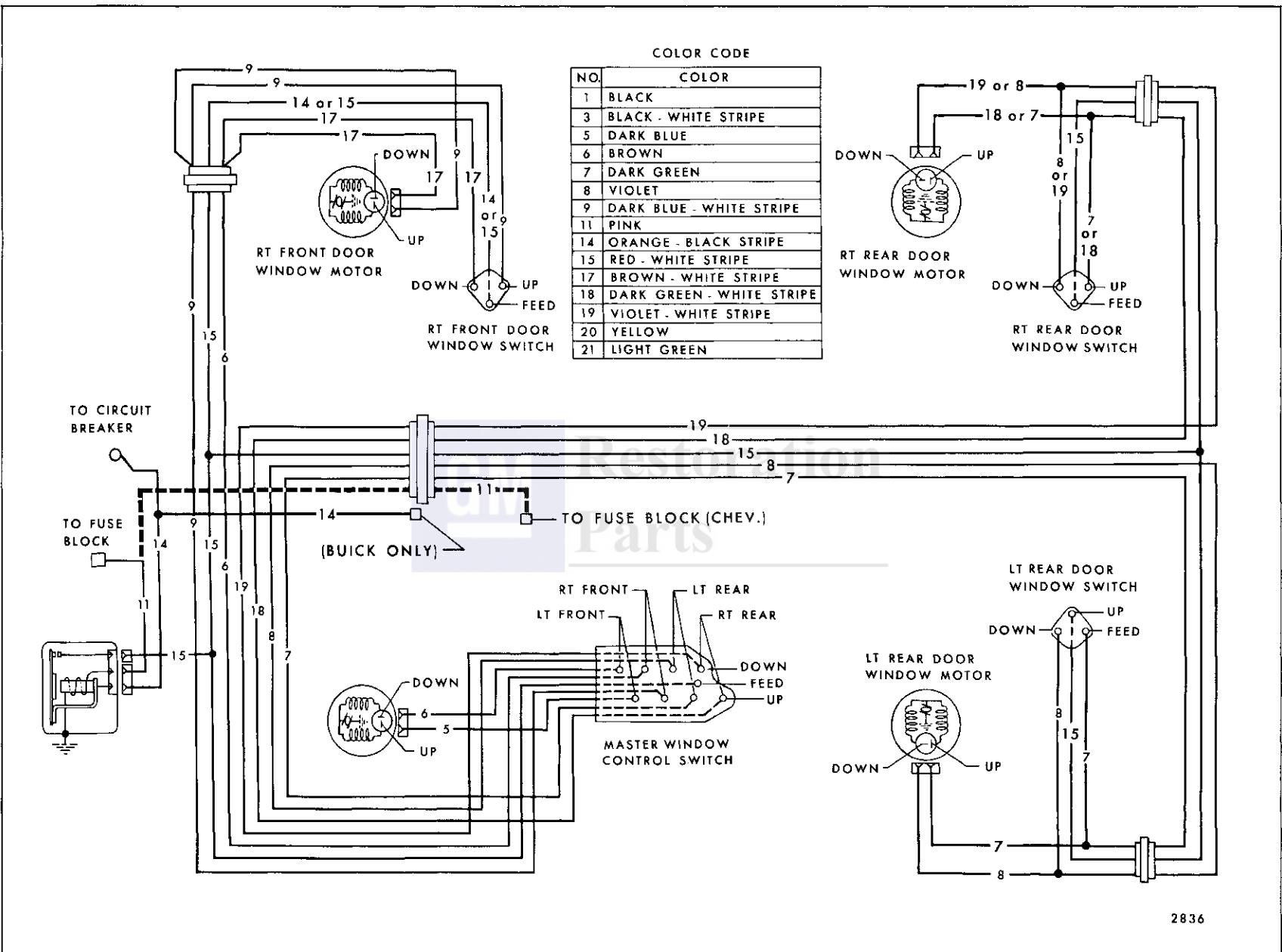


Fig. 16-2—Power Window Circuit — Typical All "B" Styles

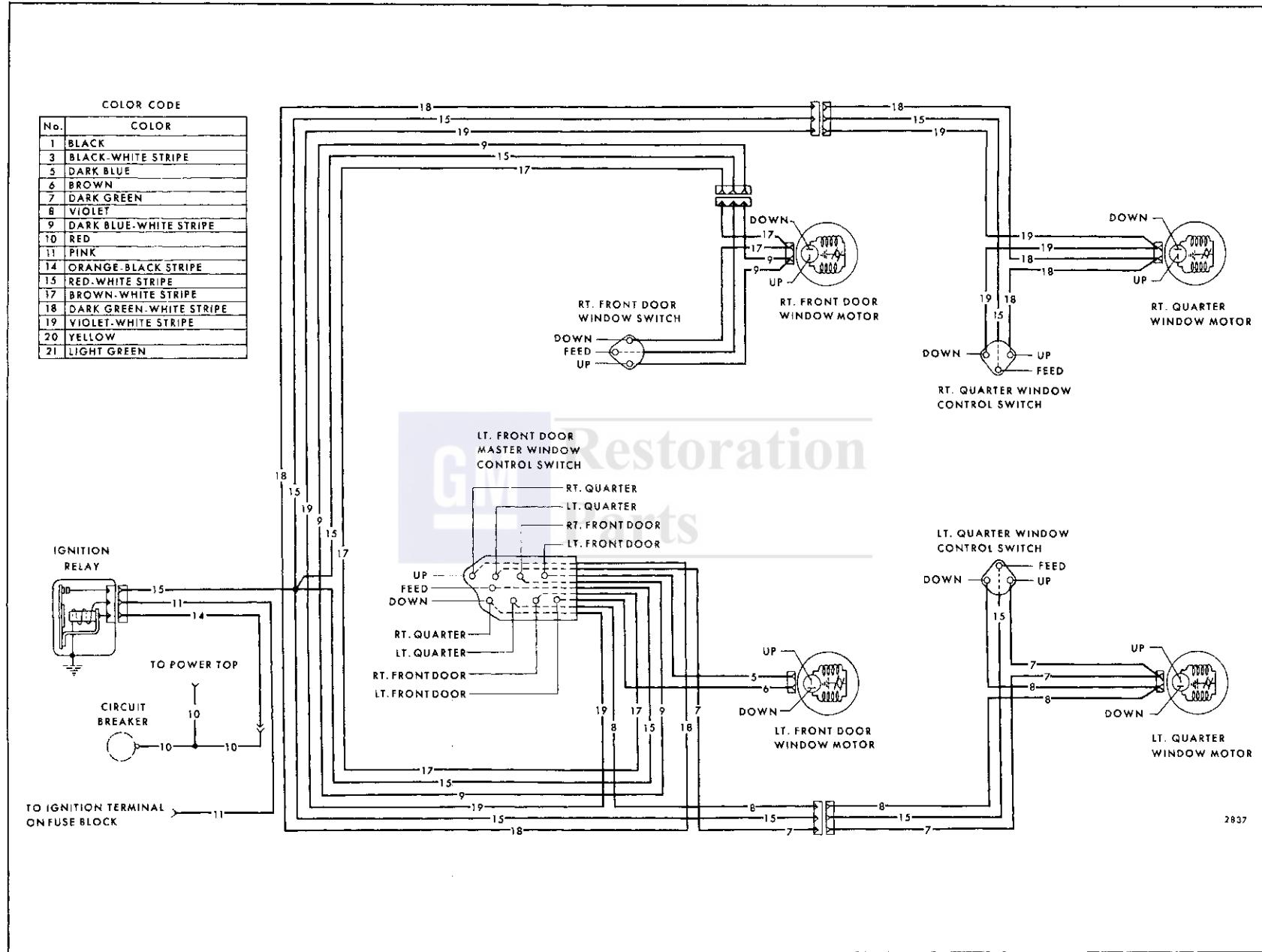


Fig. 16-3—Power Window Circuit — Chevrolet and Pontiac "F" Styles

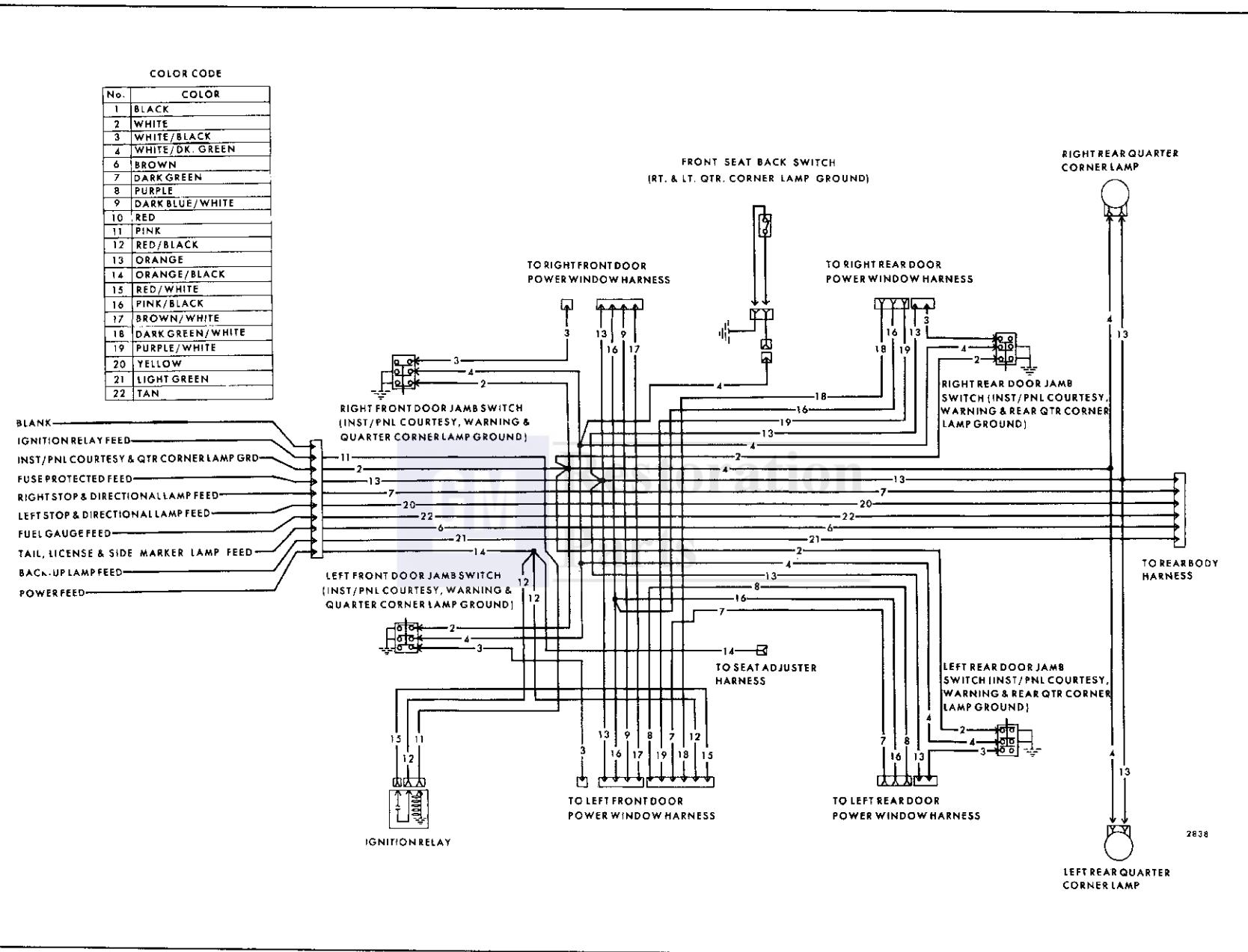


Fig. 16-4—Standard Wiring Circuit - Cadillac 68349 Body Section

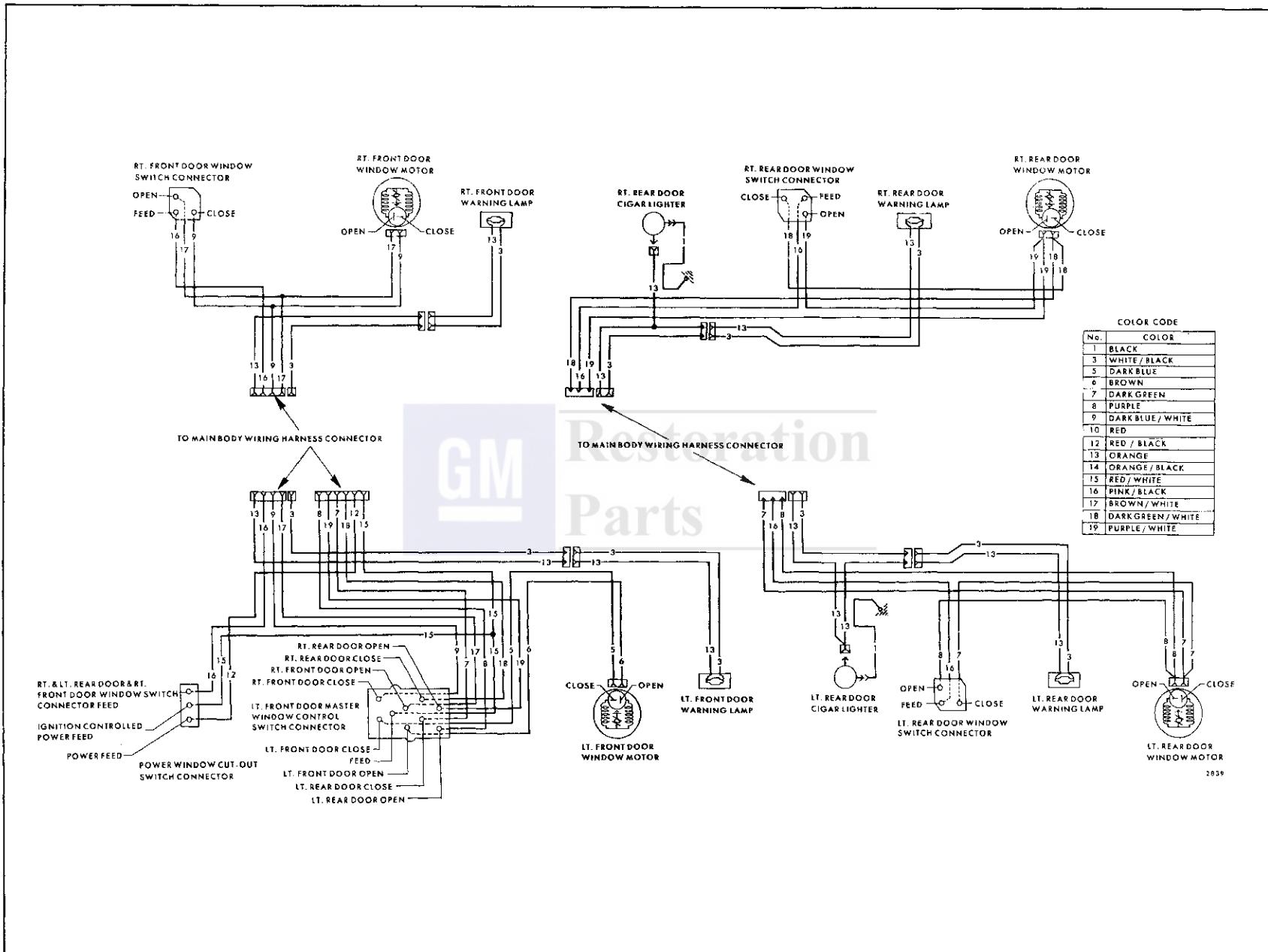
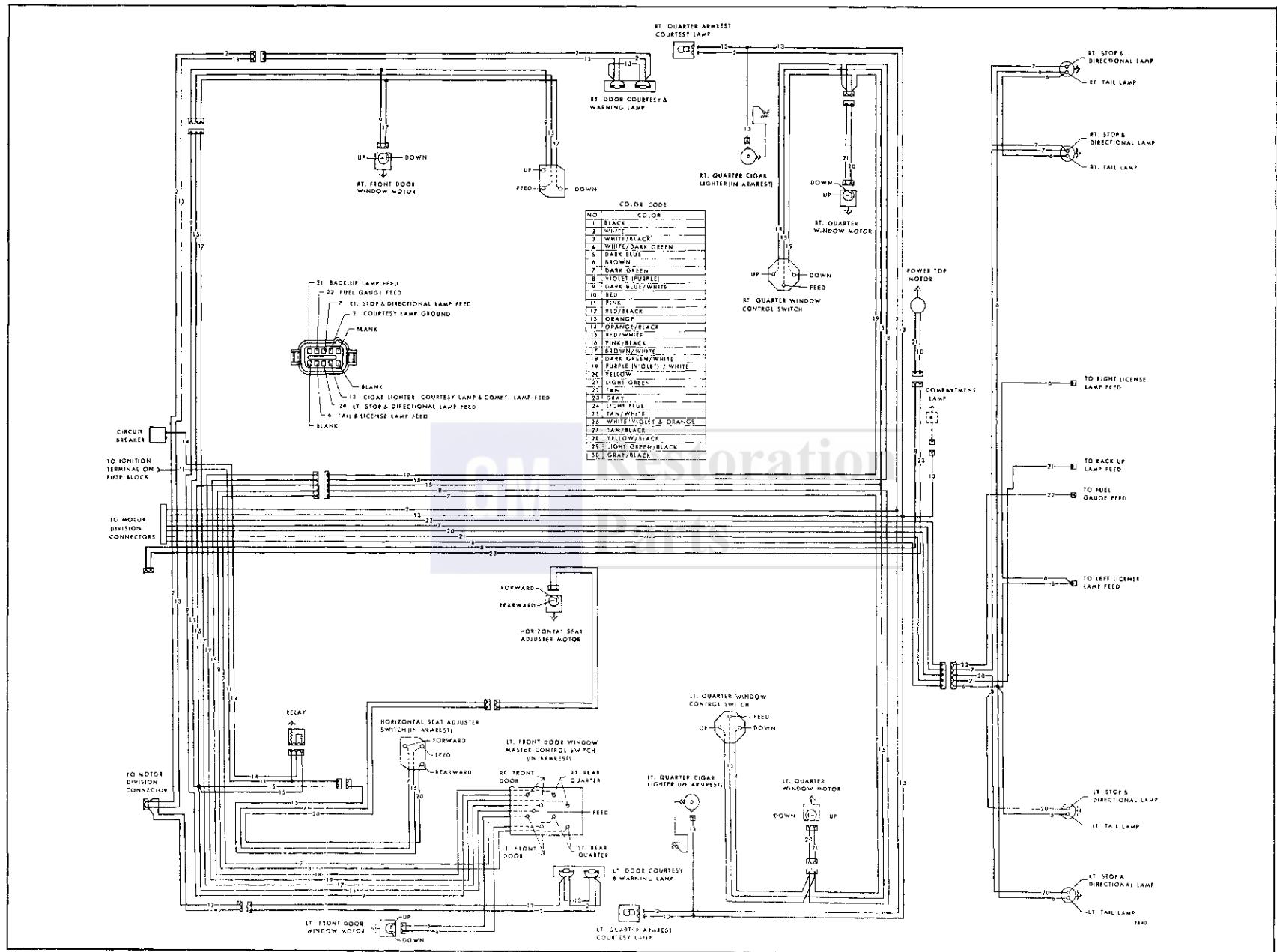


Fig. 16-5—Standard Wiring Circuit — Cadillac 68349 Door Section



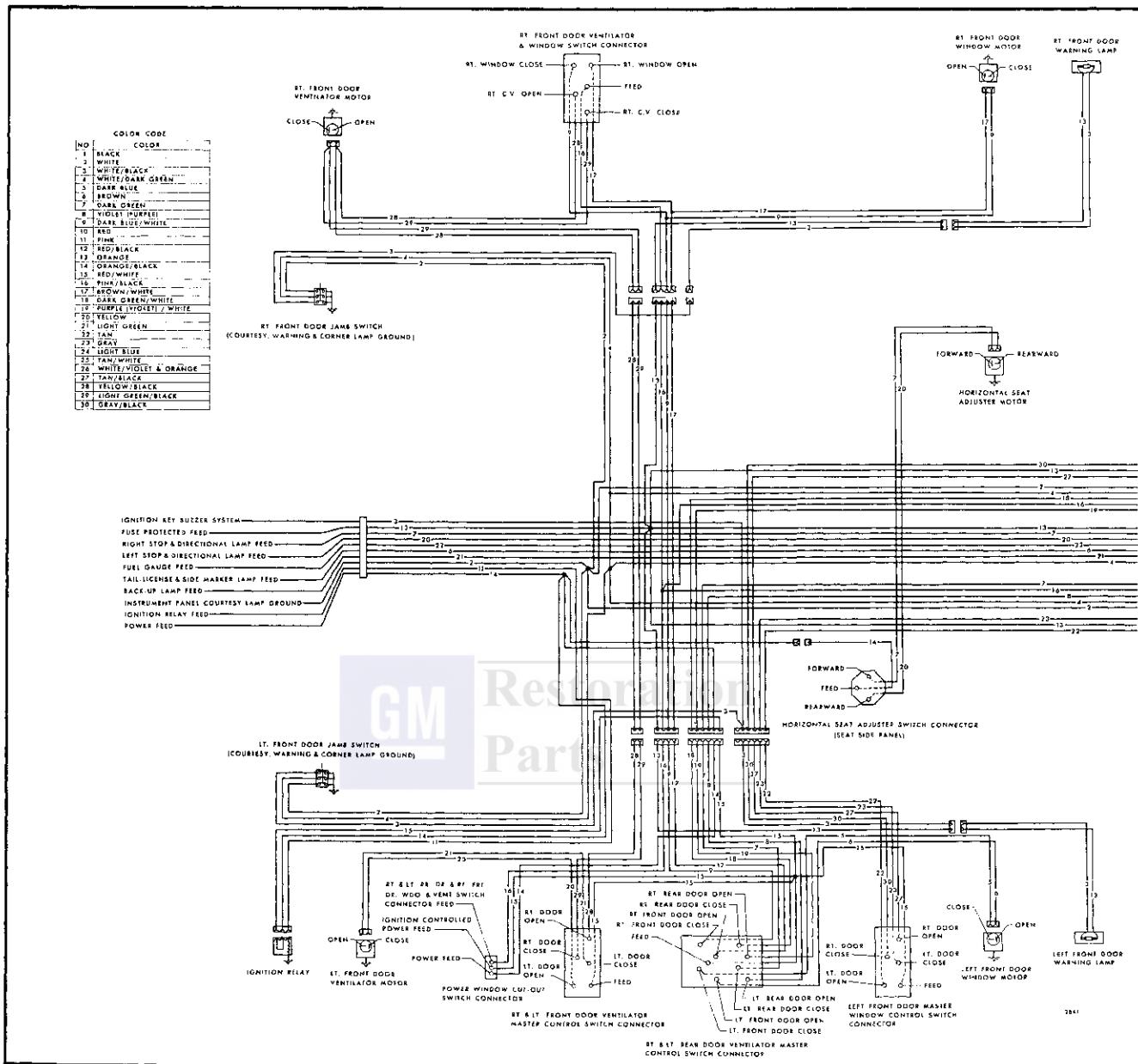
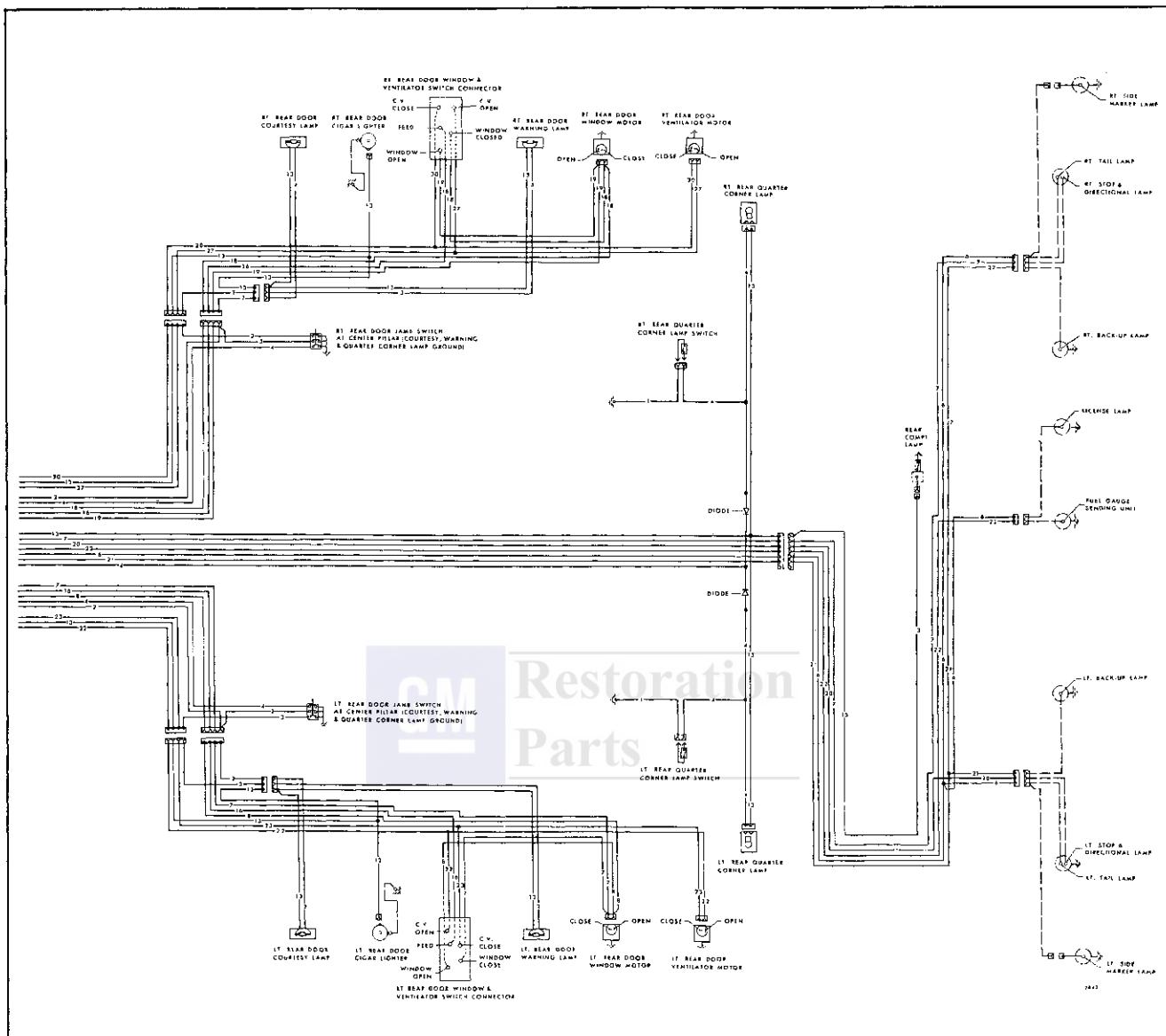


Fig. 16-7—Standard Wiring Circuit - Cadillac 68169



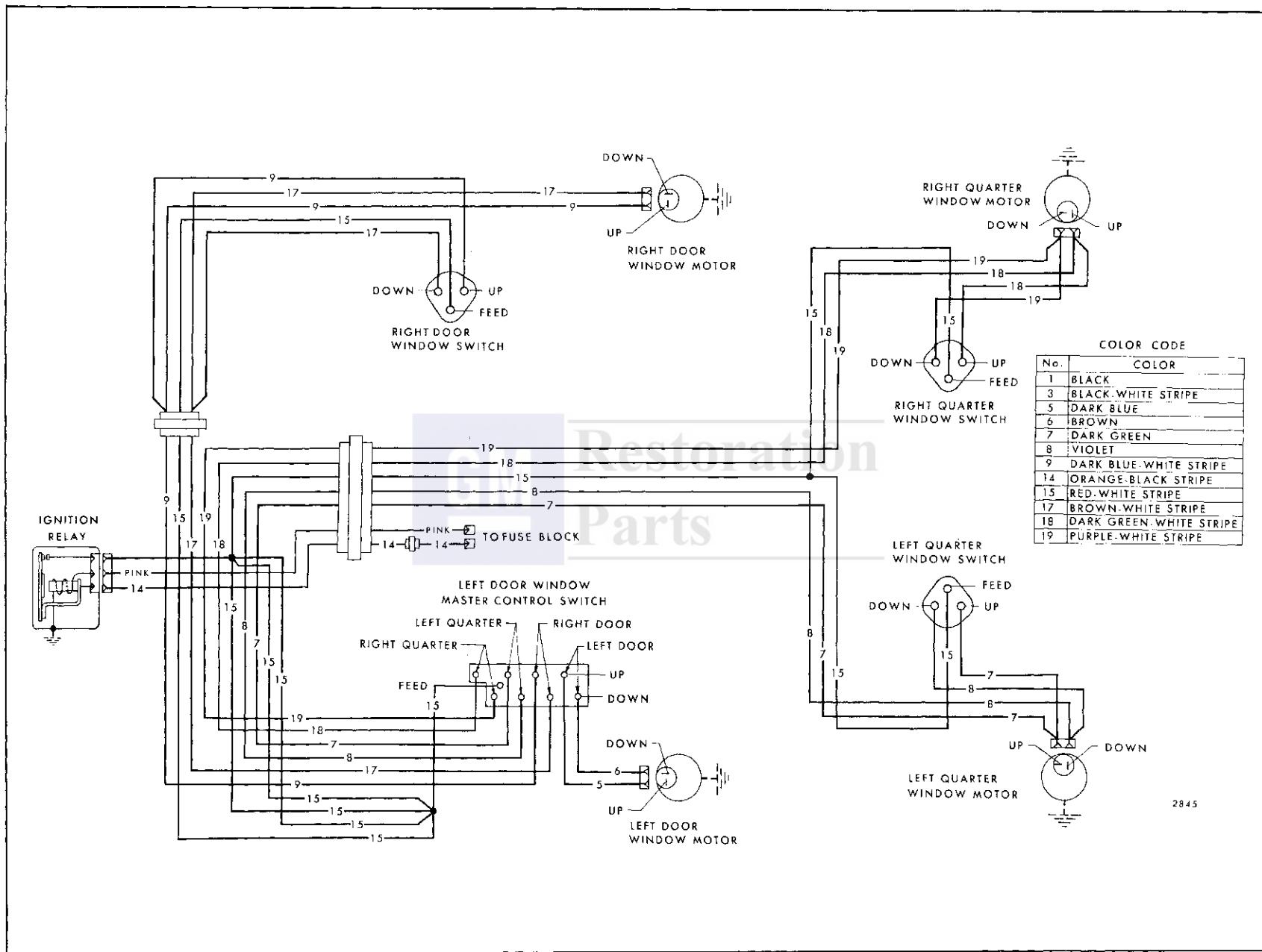
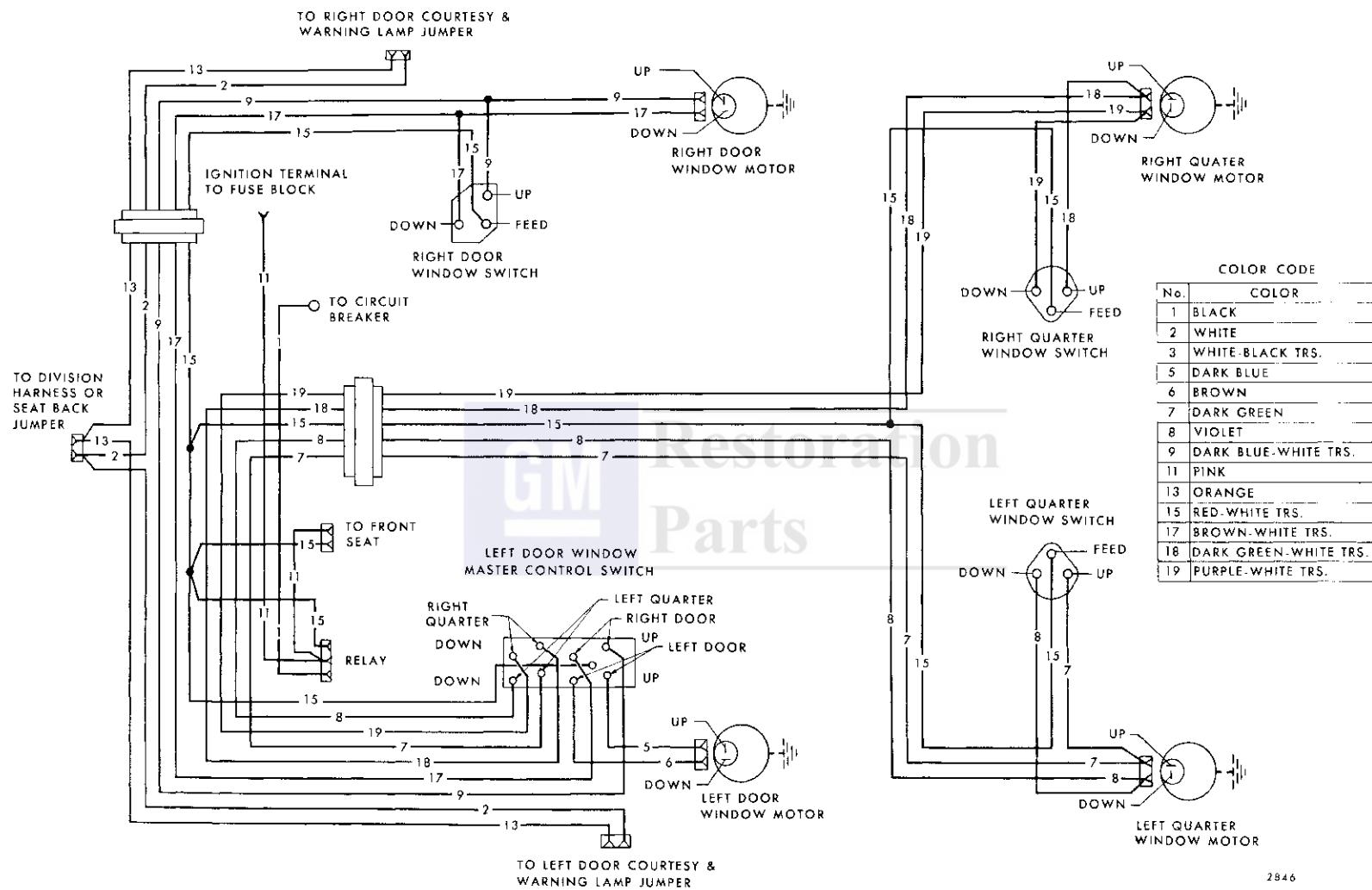


Fig. 16-8—Power Window Circuit - Buick "E" Styles



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Fig. 16-9—Power Window Circuit - Oldsmobile "E" Styles

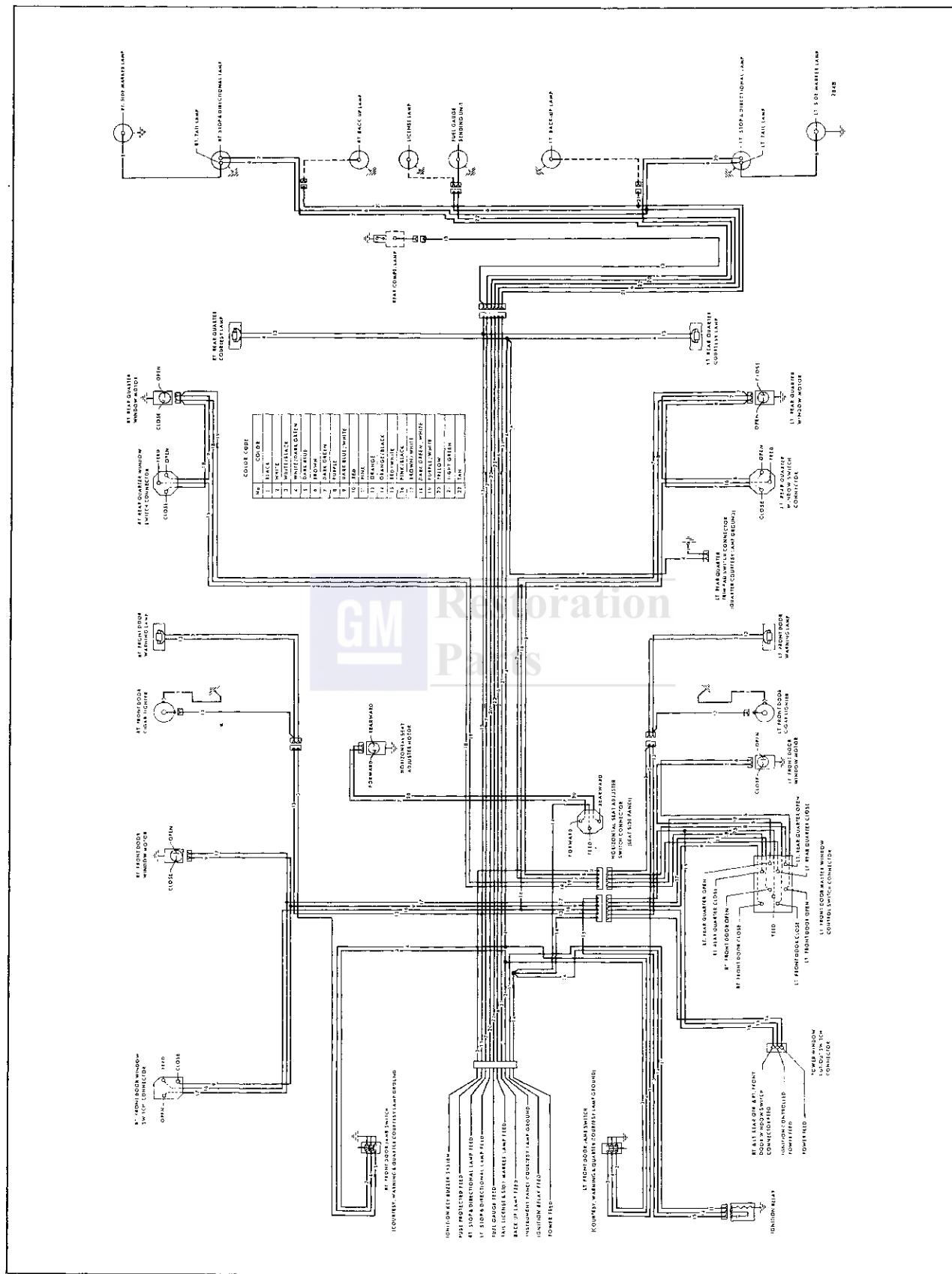


Fig. 16-10—Standard Wiring Circuit - Cadillac "E" Styles

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 cut-out 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.
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. 16-11).
2. If tester does not light, there is an open or short circuit between switch and power source.

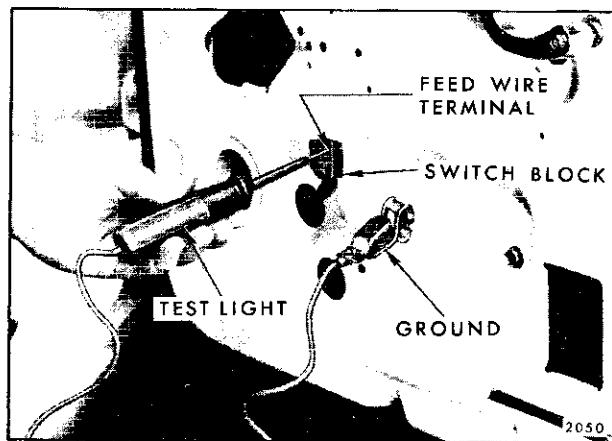


Fig. 16-11—Checking Feed Circuit

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. 16-12).
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

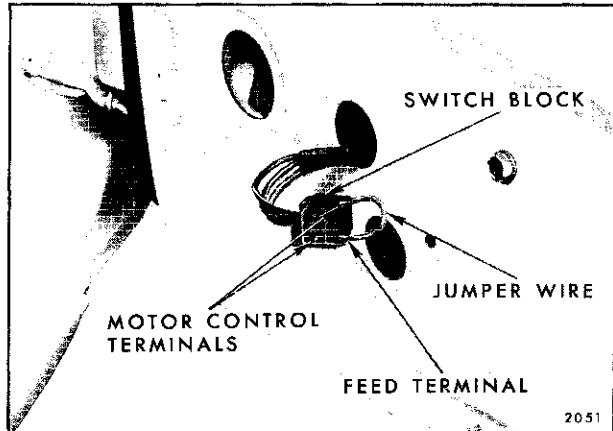


Fig. 16-12—Checking Window Control Switch

one of the motor lead terminals in the switch block (See Fig. 16-12).

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. 16-13).
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. 16-12).
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 (See Fig. 16-13).
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.

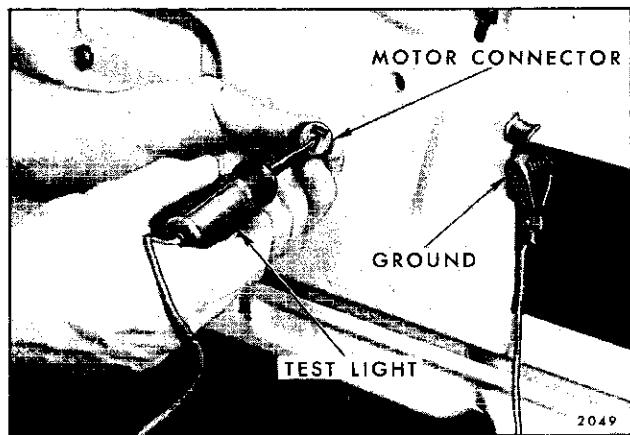


Fig. 16-13—Checking Circuit Between Switch and Motor

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 replaced. Check the other motor lead in the same manner.

j. Trouble Shooting 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.	<ul style="list-style-type: none"> 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.

CONDITION	CAUSE	CORRECTION
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.

POWER OPERATED VENTILATORS

DESCRIPTION

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 16-14.

The harness for the ventilator circuit is separate in Pontiac styles. On all other series, the harness is an integral part of the power window harness.

Circuits for power ventilators are shown in Figures 16-7, 16-15 and 16-16.

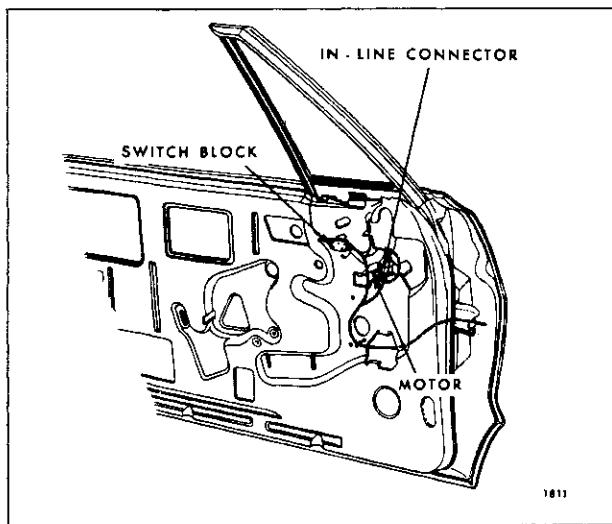


Fig. 16-14—Typical Power Ventilator Wiring Installation

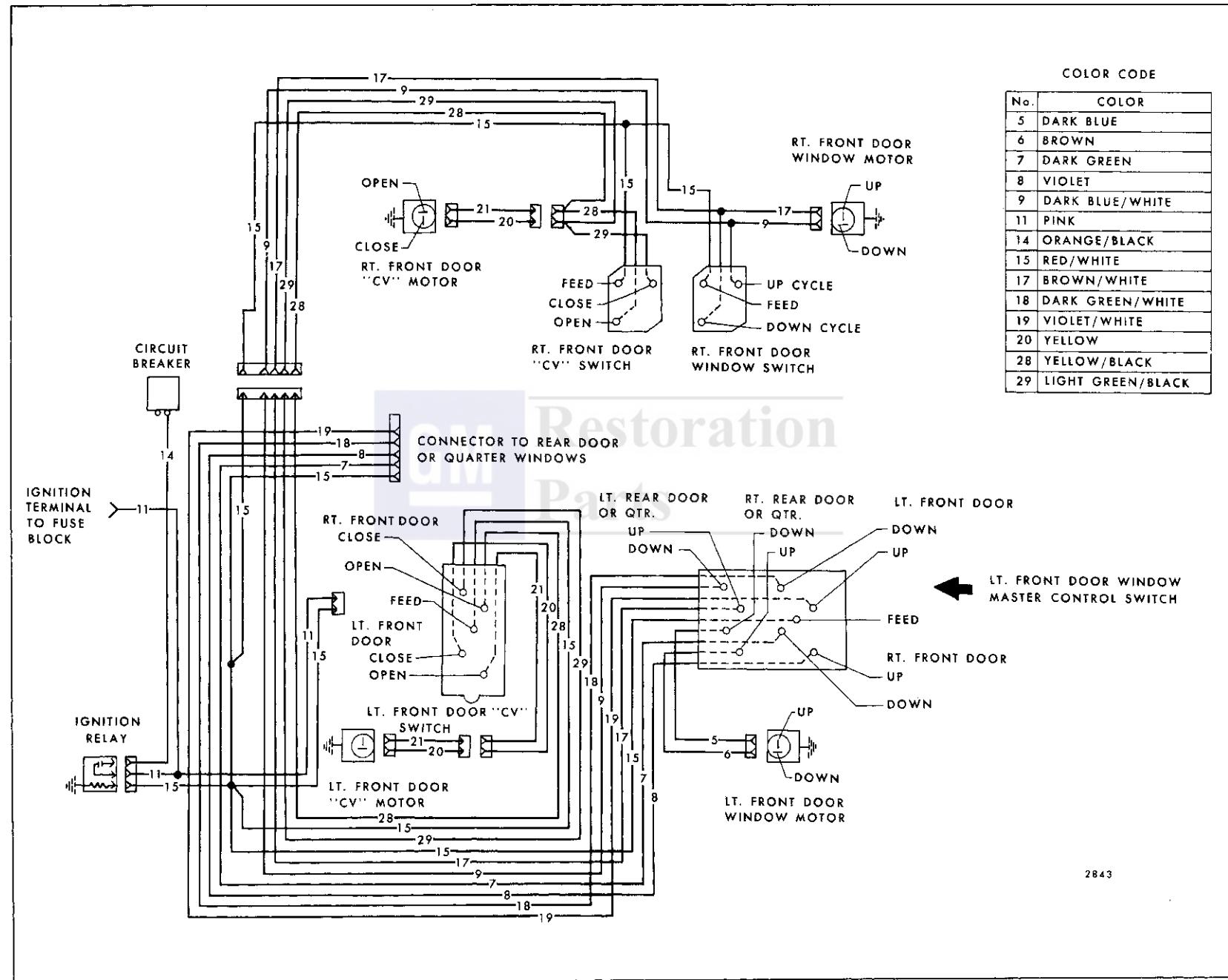


Fig. 16-15—Power Ventilator Circuit - Oldsmobile and Buick Styles

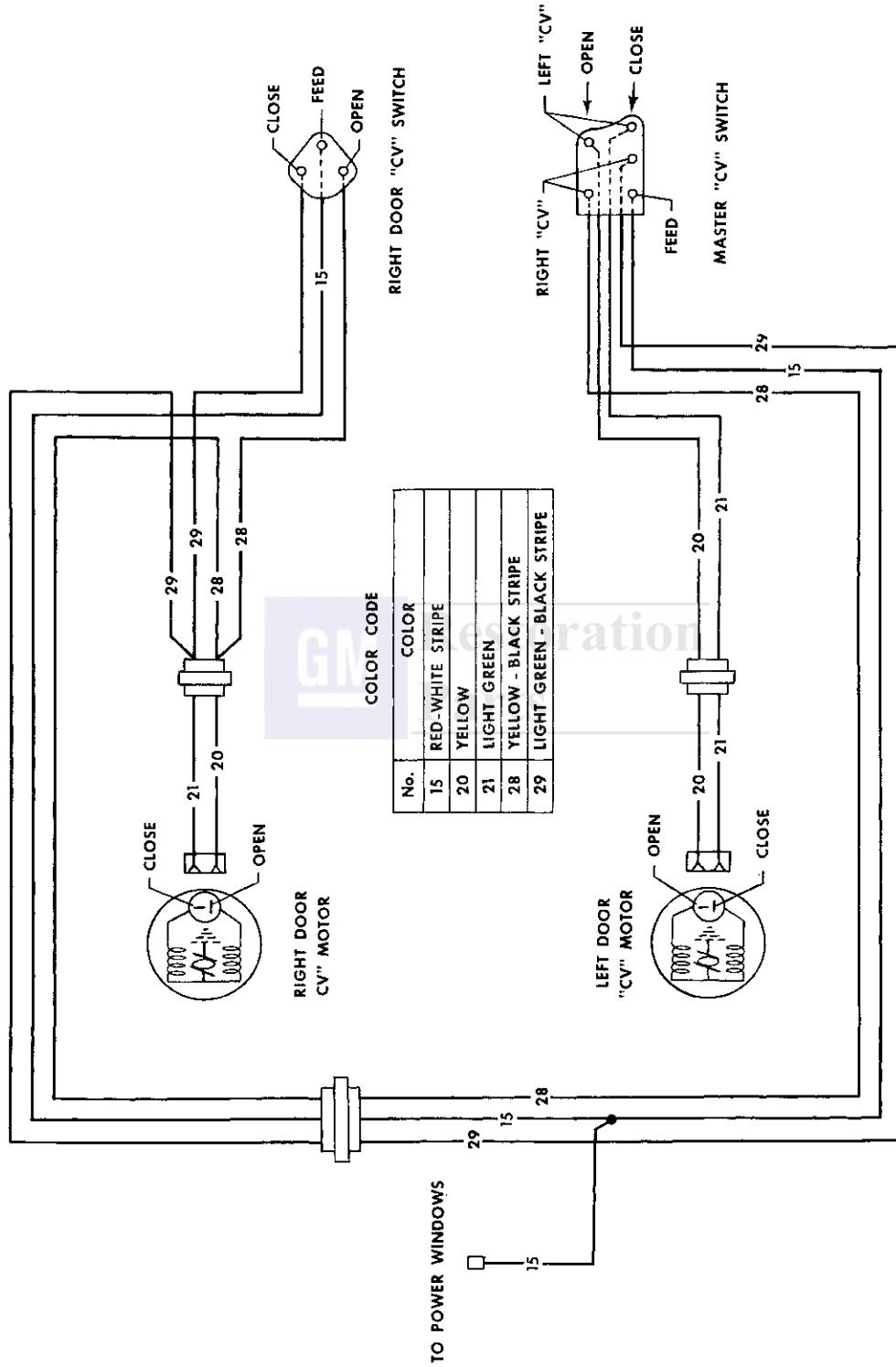


Fig. 16-16—Power Ventilator Circuit — Pontiac Styles

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).

All Styles - In addition to the circuit breaker, a relay is used in the circuit. The relay prevents the operation of the tail gate window from the instrument panel switch, until the ignition switch is turned "on". The relay is located at the left shroud on all styles except Pontiac "B" which is installed on the parking brake support.

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.

NOTE: The "up" cycle wire is not engaged in the switch block but may be connected upon owner request.

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.

The tail gate window harness is enclosed in the body wire harness conduit and consists of two sections. The front section extends from the left center of the toe pan to the rear of the right quarter panel. This harness crosses to the right side of the body behind the second folding seat. The rear section extends from the right quarter panel in to the tail gate to the motor and switch (See Fig. 16-17).

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 16-18 and 16-19).

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 Relay Assembly

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.

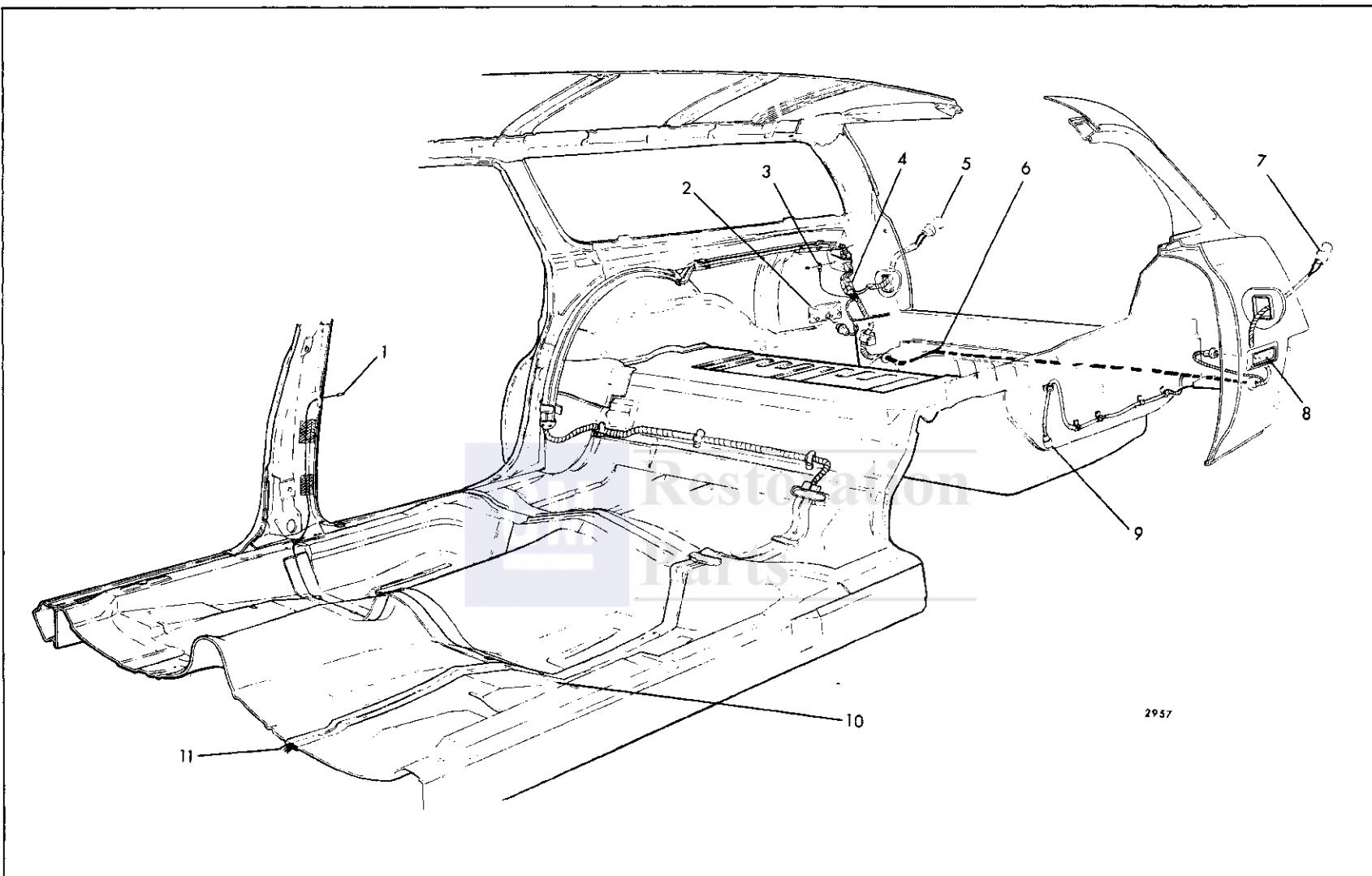


Fig. 16-17—Typical Wiring Installation for Wagons

- 1. Rear Door Jamb Switch Wire
- 2. Right Side Marker Lamp
- 3. Right Side Marker Lamp Ground
- 4. Front to Rear Wire Harness Connector
- 5. Right Tail Lamp
- 6. Wiring to Tail Gate
- 7. Left Taill Lamp
- 8. Left Side Marker Lamp
- 9. Gas Gage Feed
- 10. Wiring to Left Center Pillar
(Dome Light, Door Jamb Switch)
- 11. Wiring to Front End

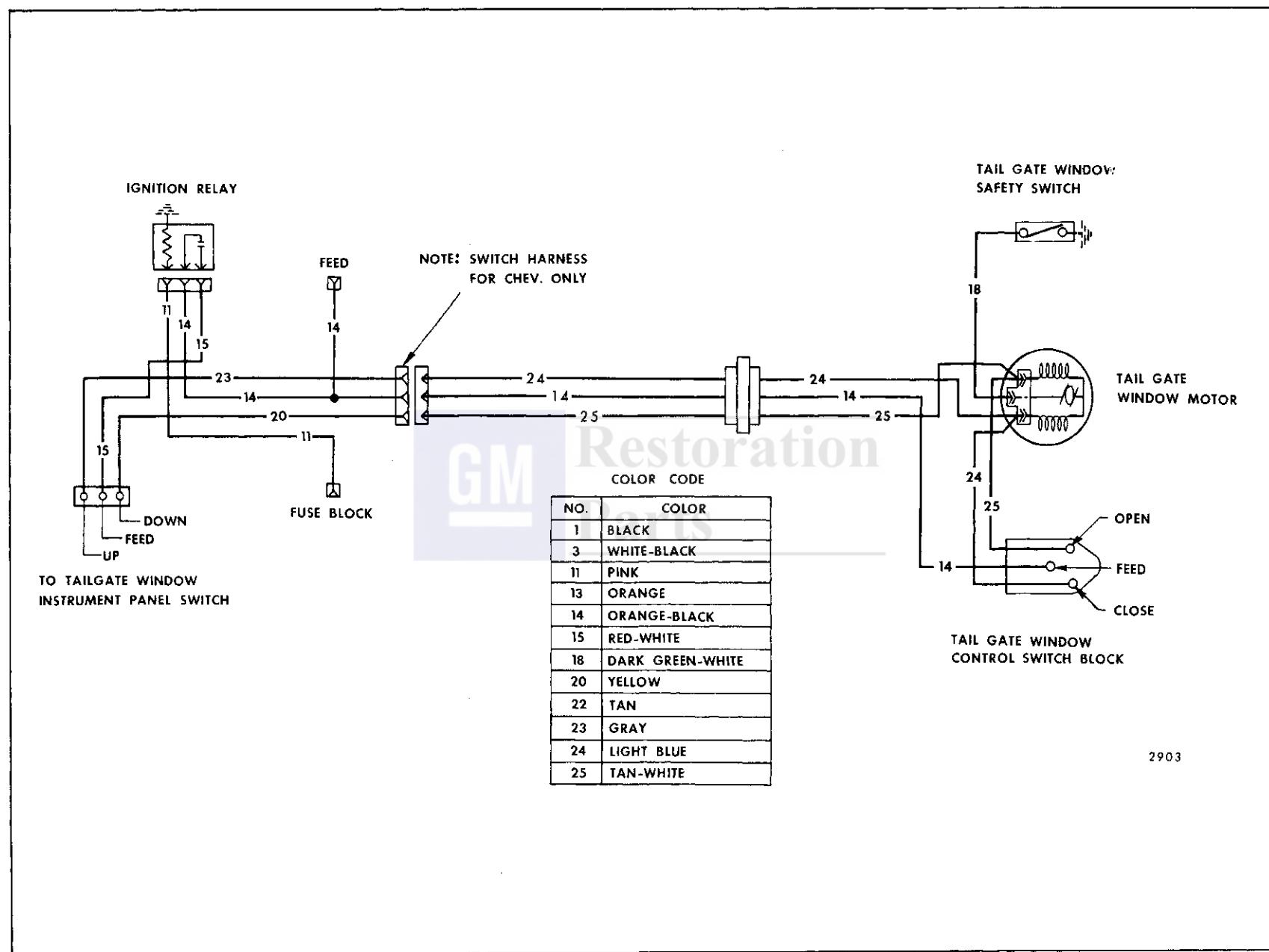


Fig. 16-18—Power Tail Gate Window Wiring Circuit - All Styles Except Chevrolet "45" Style

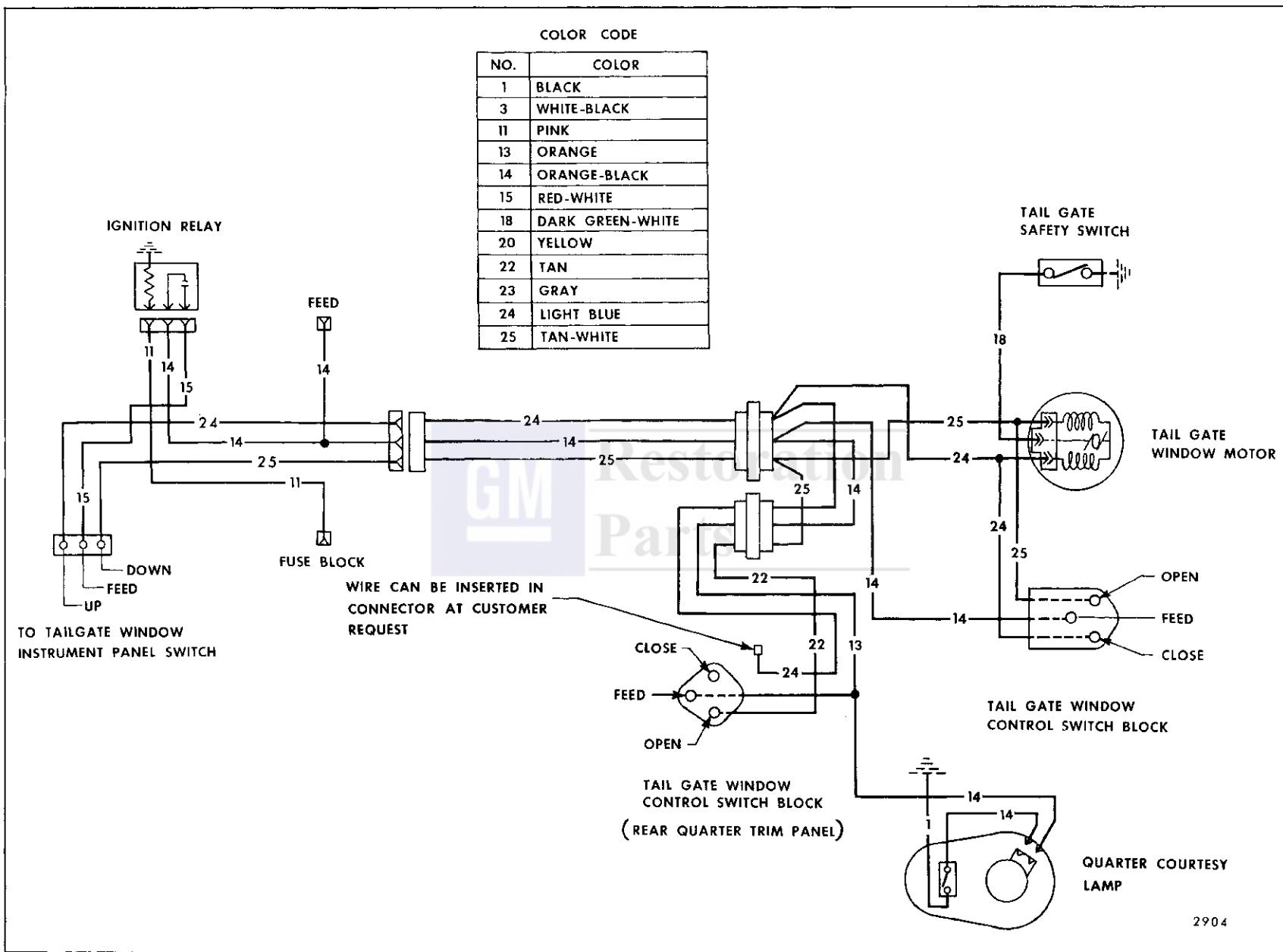


Fig. 16-19—Power Tail Gate Window Wiring Circuit - Chevrolet "45" Style

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 source to the tan - white wire terminal (open

cycle). If motor does not operate in both directions, replace motor.

g. Checking Operation of Safety Switch

1. With tail gate open, depress switch arm to simulate the tail gate being closed. 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.

NOTE: Safety switch completes the ground circuit from the motor.

h. Trouble Shooting

CONDITION	CAUSE	CORRECTION
1. The tail gate window operates up and down from the tail gate switch but does not operate from the switch at the instrument panel.	A. Open or short circuit from power source to control switch at instrument panel. B. Defective or inoperative control switch.	A. Check affected wiring for open or short circuit and check connector at switch for proper installation. B. Check operation of switch.
2. 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.	A. Open or short circuit in up cycle feed wire. B. Defective motor.	A. Check affected wiring for open or short circuit. B. Check operation of motor.
3. The window will not operate up or down from any of the control switches.	A. Open or short circuit in circuit from power source to switches or motor. B. Safety switch not connected or poor ground. C. Mechanical bind or failure in tail gate window regulator mechanism. D. Defective tail gate window regulator motor.	A. Check operation of circuit breaker. B. Check affected circuit for open or short circuit. C. Check connectors to safety switch and motor for proper engagement. D. Check tail gate mechanical parts for bind or failure. E. Check operation of motor.

POWER 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 16-20 for bucket-type seats and Figures 16-21 and 16-22 for bench-type seats.

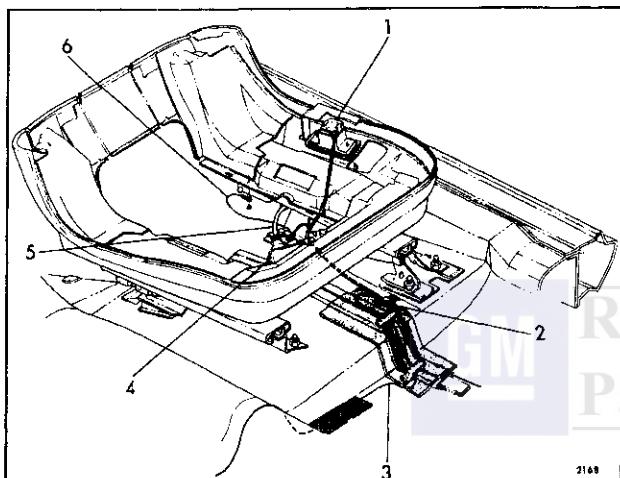


Fig. 16-20—Horizontal Bucket Seat Wiring

- | | |
|--------------------------------|------------------|
| 1. Control Switch | 4. Motor |
| 2. Feed Harness Connector | 5. Control Cable |
| 3. Feed Wire to Passenger Seat | 6. Ground Wire |

For circuit diagrams see Figures 16-23 and 16-24.

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.

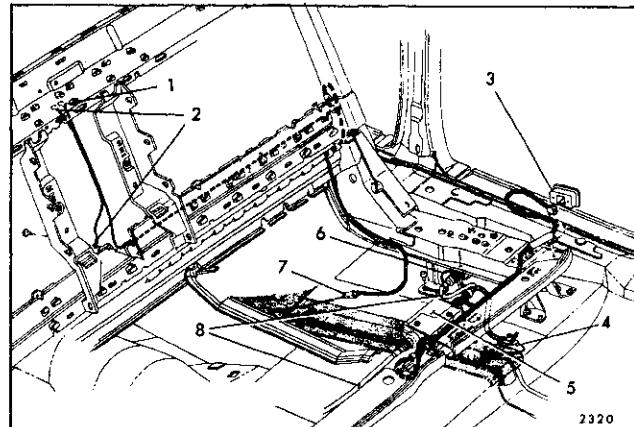


Fig. 16-21—Horizontal Bench Seat Wiring

- | | |
|---------------------------|-----------------------------|
| 1. Front Seat Back Switch | 5. Motor |
| Feed - White | 6. Ground Wire |
| 2. Front Seat Back Switch | 7. Front Seat Back |
| Ground - Black | Courtesy Lamp |
| 3. Control Switch | Feed Connector |
| 4. Harness Feed | (Cadillac Only) |
| Connector | 8. Horizontal Control Cable |

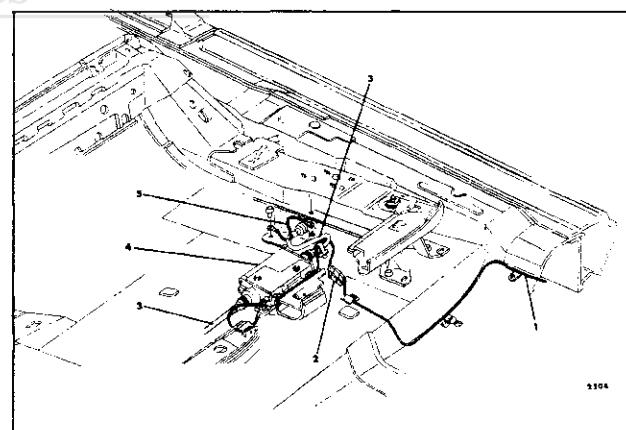


Fig. 16-22—Horizontal Bench Seat Wiring - Buick and Oldsmobile "C" Body

- | | |
|-------------------|------------------|
| 1. Wiring to Door | 3. Control Cable |
| Arm Rest Switch | 4. Seat Motor |
| 2. Feed Harness | 5. Ground Wire |
| Connector | |

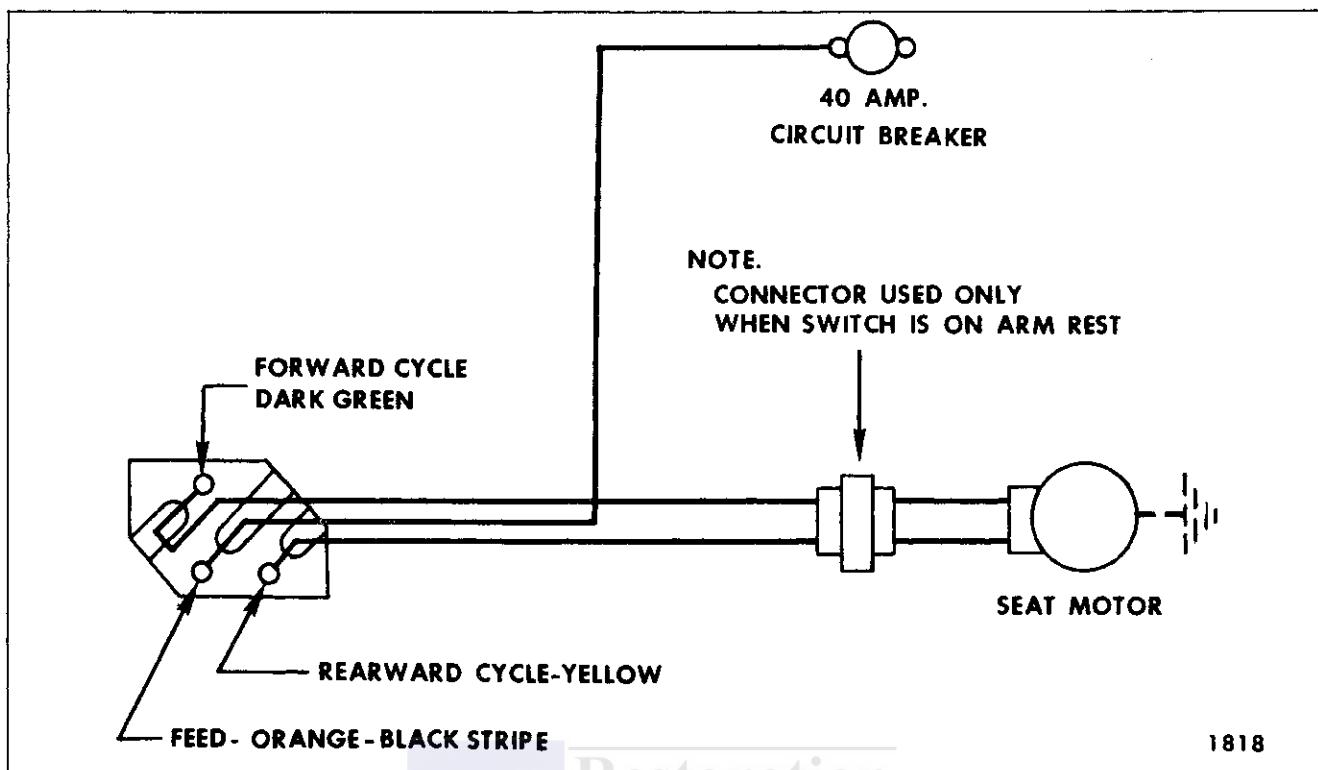


Fig. 16-23—Horizontal Seat Circuit — Oldsmobile Styles

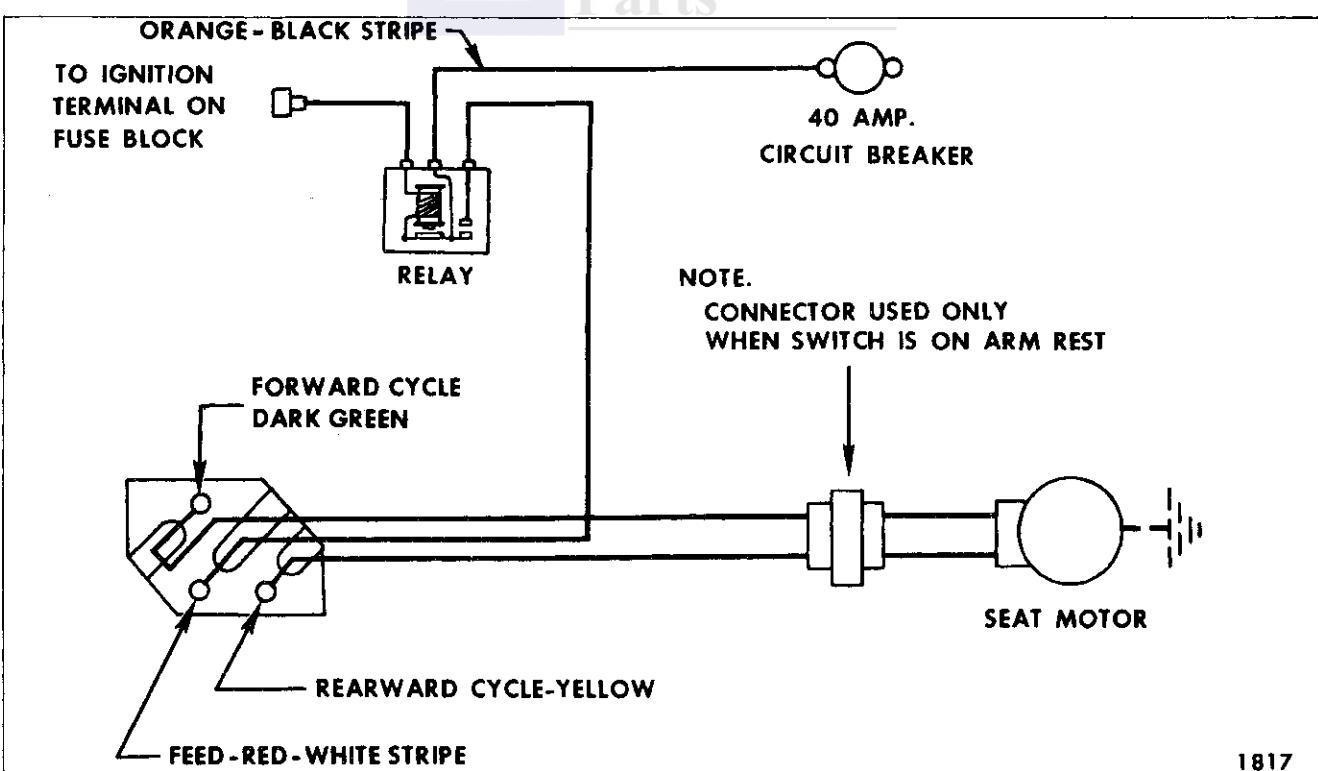


Fig. 16-24—Horizontal Seat Circuit — Buick, Cadillac Styles

Trouble Shooting of Horizontal Seat Circuit

CONDITION	CAUSE	CORRECTION
1. The seat motor does not operate in either the forward or rearward direction.	A. Open or short circuit in feed harness. B. Inoperative motor.	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. 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.
2. The seat motor operates in only one direction.	A. Defective switch. B. Open or short circuit in motor feed wires. C. Defective seat motor.	A. Check operation of seat control switch with jumper wire. B. Check circuit from control switch to motor for short or open circuit. 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 16-25 and 16-26 for the bench seat installation and Figure 16-27 for the bucket seat installation.

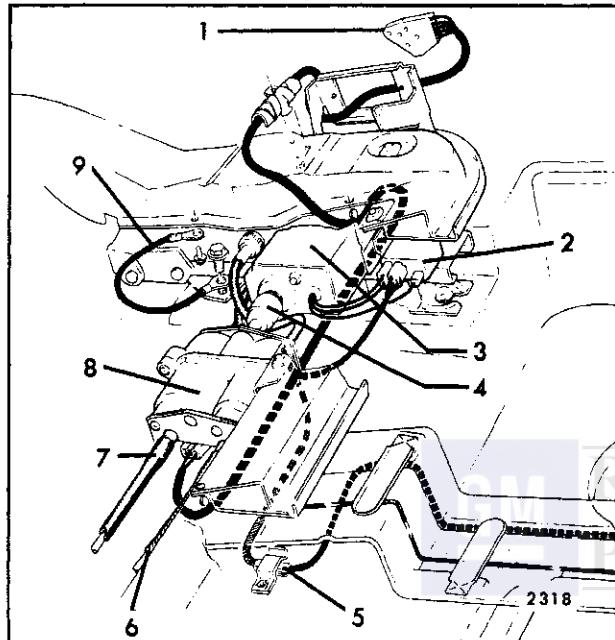


Fig. 16-25—Four-Way Bench Seat Wiring —
"A" Body Styles

- | | |
|------------------------------|--------------------------------------|
| 1. Control Switch Block | 6. Vertical Drive Cable
(Yellow) |
| 2. Motor Control Relay | 7. Horizontal Drive Cable
(Black) |
| 3. Motor | 8. Transmission Assembly |
| 4. Rubber Coupler | 9. Seat Ground Wire |
| 5. Harness Feed
Connector | |

The seat motor is energized by a toggle-type control switch installed in the left seat side panel or 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

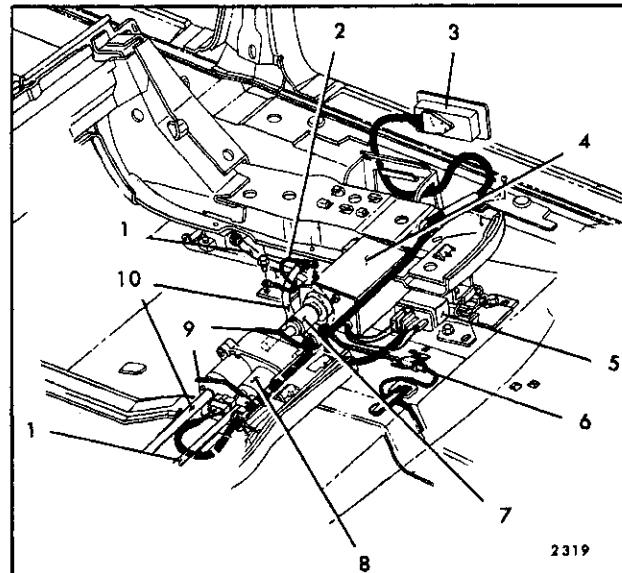


Fig. 16-26—Four-Way Bench Seat Wiring —
"B & C" Body Styles

- | | |
|---------------------------------------|---|
| 1. Vertical Control Cable
(Yellow) | 6. Harness Feed Connector |
| 2. Ground Wire | 7. Rubber Coupler |
| 3. Control Switch | 8. Transmission Assembly |
| 4. Motor | 9. Transmission End Plates |
| 5. Motor Control Relay | 10. Horizontal Control Cable
(Black) |

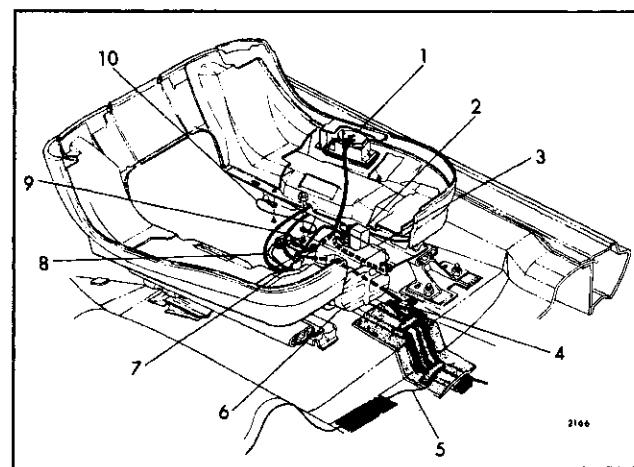


Fig. 16-27—Four-Way "Strato" Bucket Seat
Wiring - All Styles

- | | |
|------------------------------|--|
| 1. Control Switch | 7. Transmission and
Solenoid Assembly |
| 2. Motor Control Relay | 8. Vertical Control Cable
(Orange) |
| 3. Motor | 9. Horizontal Control Cable
(Black) |
| 4. Harness Feed Connector | 10. Ground Wire |
| 5. Feed to Passenger
Seat | |
| 6. Pulley Cover Plate | |

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 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. 16-28 and 16-29).

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.

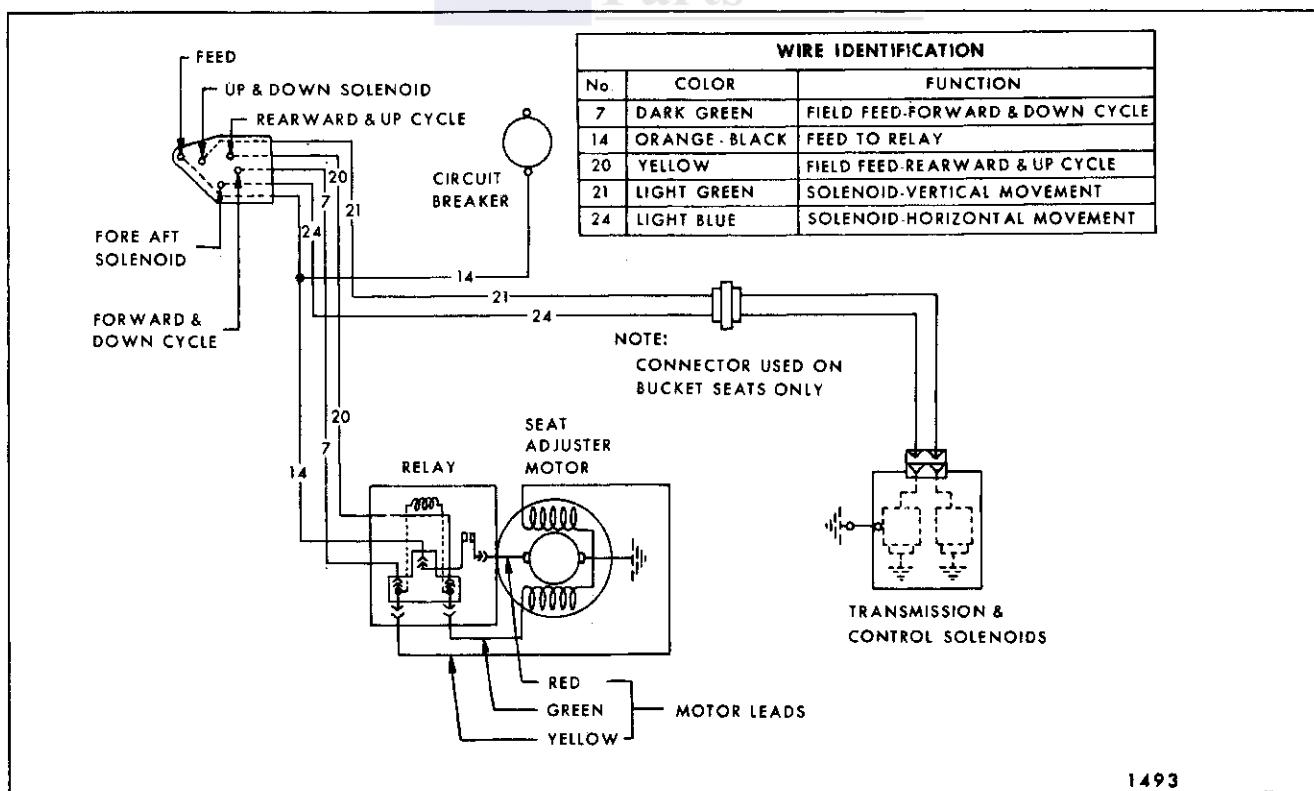


Fig. 16-28—Four-Way Seat Circuit - All Styles Except Oldsmobile "B & E" Styles

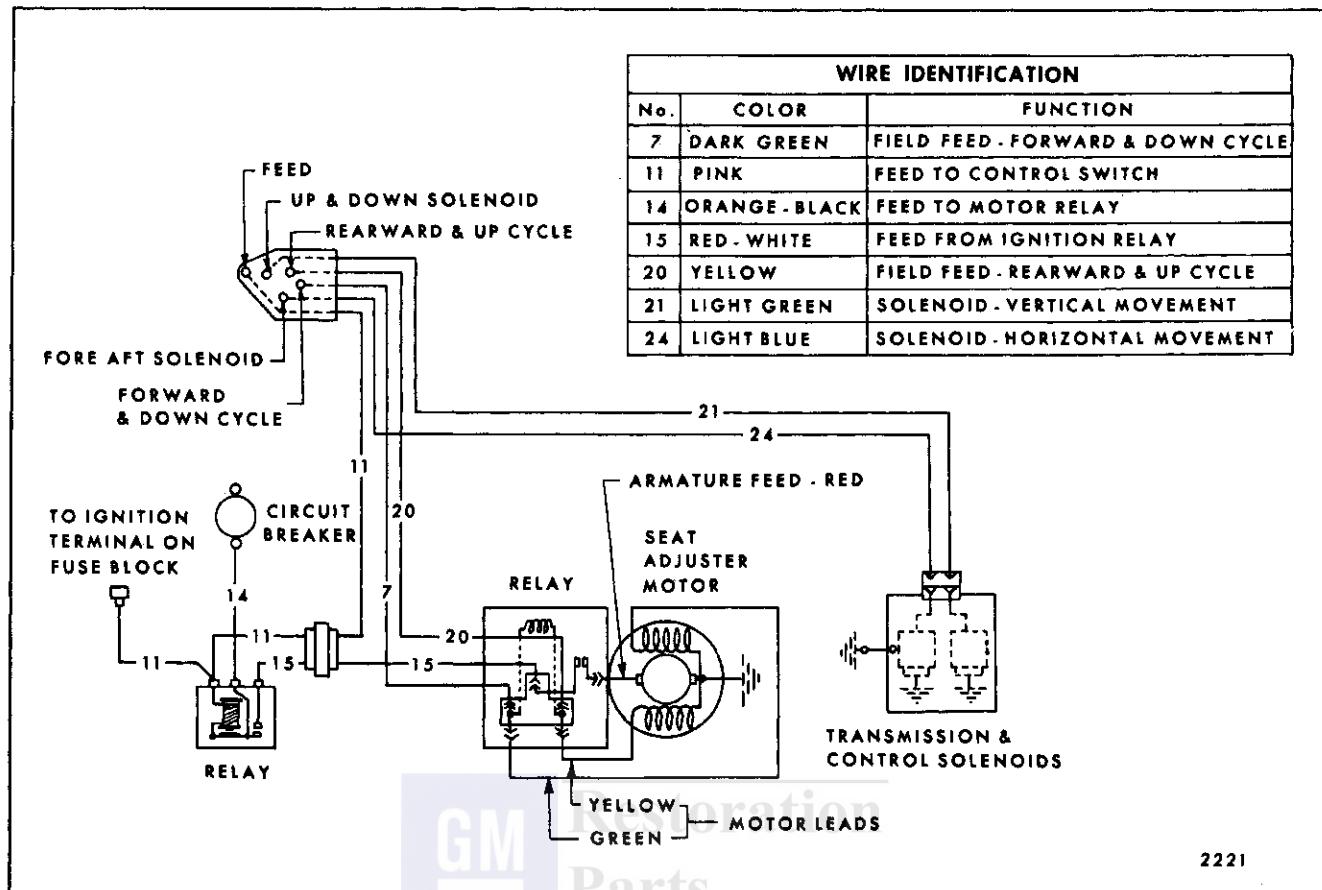


Fig. 16-29—Four-Way Seat Circuit — Oldsmobile "B & E" Styles

- Turn ignition switch on and with a test light check for current at output side of relay. If 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

- Disengage three-way connector body from the seat motor relay.
- Insert one test light lead into the relay power feed connector slot on the harness, and ground other tester lead.
- 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

- Connect one test light lead to feed terminal of switch block and ground other test light lead to body metal.
- 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 16-30 and 16-31. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.

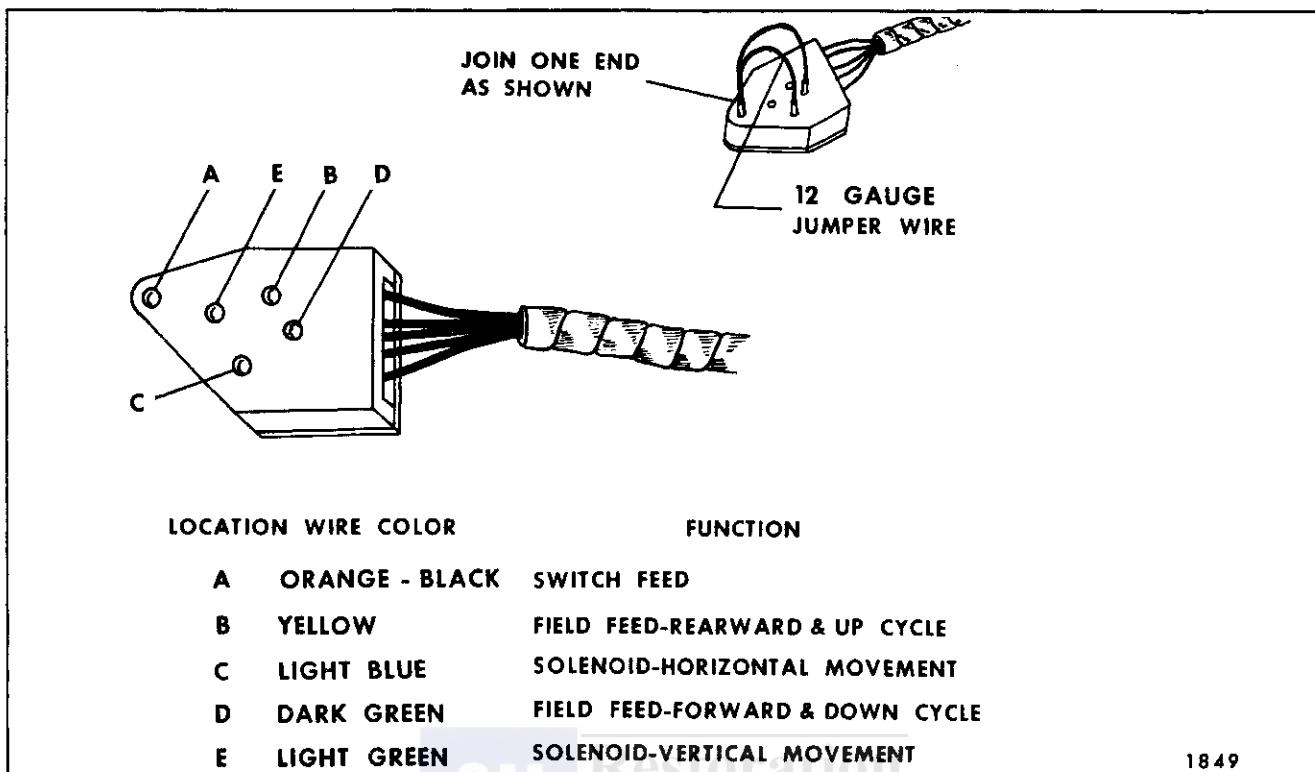


Fig. 16-30—Four-Way Seat Switch Block - All Styles Except Oldsmobile "B & E"

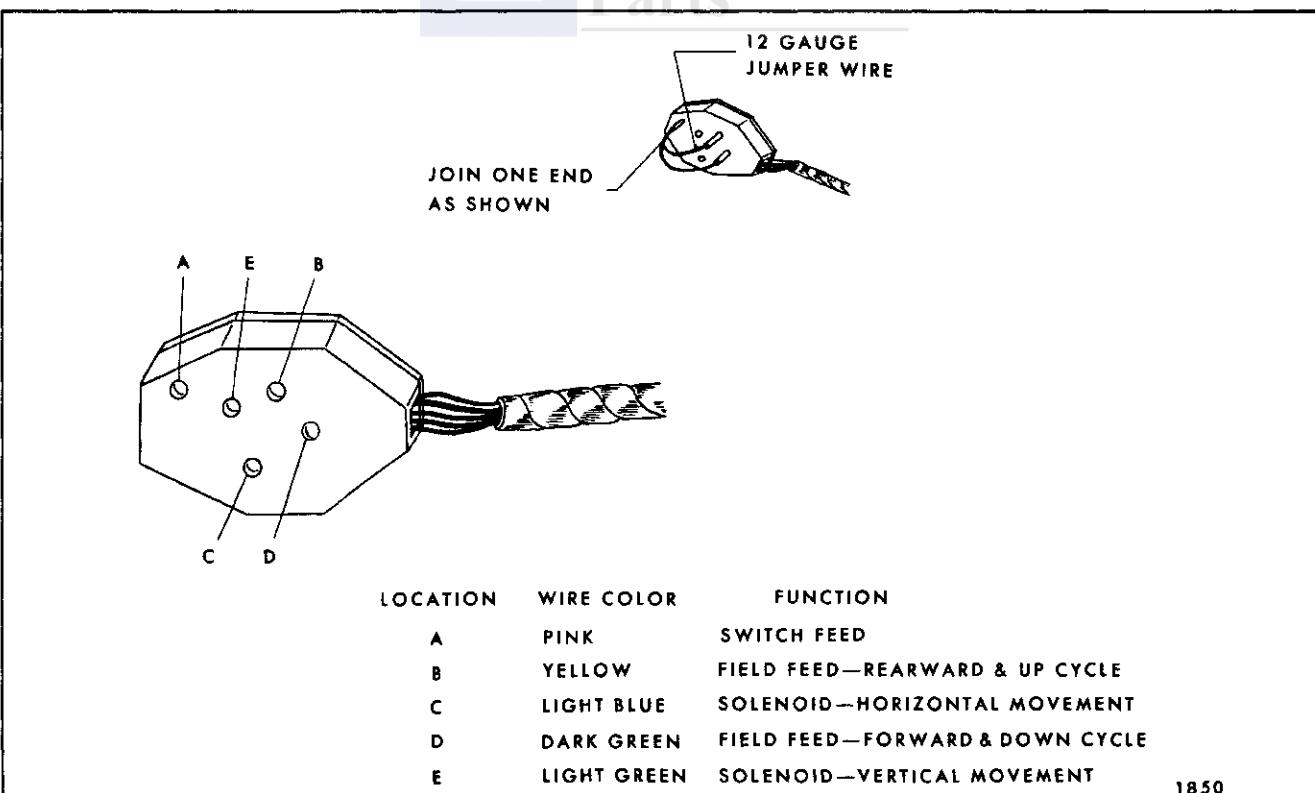


Fig. 16-31—Four-Way Seat Switch Block - Oldsmobile "B & E" Styles

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 & E".
- (b) To lower seat, place jumper wire in locations "A, D & E".
- (c) To operate seat forward, place jumper wire in locations "A, C & D".
- (d) To operate seat rearward, place jumper wire in locations "A, B & 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 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.

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 is 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. Trouble Shooting

CONDITION	CAUSE	CORRECTION
1. Seat adjuster motor does not operate.	A. Short or open circuit between power source or switch and motor. B. Defective motor relay. C. Defective motor. D. Defective switch. E. Defective circuit breaker.	A. Check circuit from power source and switch to motor to locate failure. B. Replace relay. C. Check Motor. If defective, repair or replace as required. D. Replace switch. 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. B. Defective solenoid. C. Defective switch.	A. Check circuit from switch to solenoid to locate failure. B. Check solenoid. If defective, repair or replace as required. 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. B. Defective field coil in motor. C. Defective switch.	A. Check circuit between affected motor relay wire and seat switch. B. Check motor. If defective, repair or replace as required. 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. 16-32 and 16-33). The motor is energized by a three button-type control switch located in the left seat side panel 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 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

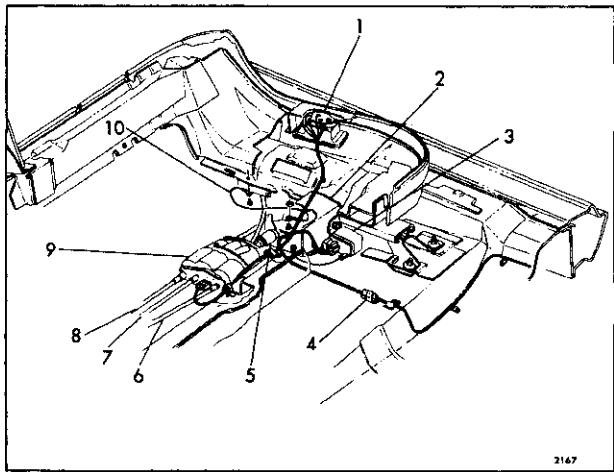


Fig. 16-32—Six-Way "Strato" Seat

- | | |
|--|---------------------------------------|
| 1. Control Switch | 7. Rear Vertical Control Cable (Blue) |
| 2. Motor | 8. Horizontal Control Cable (Black) |
| 3. Motor Control Relay | 9. Transmission and Solenoid Assembly |
| 4. Harness Feed Connector | 10. Ground Wire |
| 5. Rubber Coupler | |
| 6. Front Vertical Control Cable (Yellow) | |

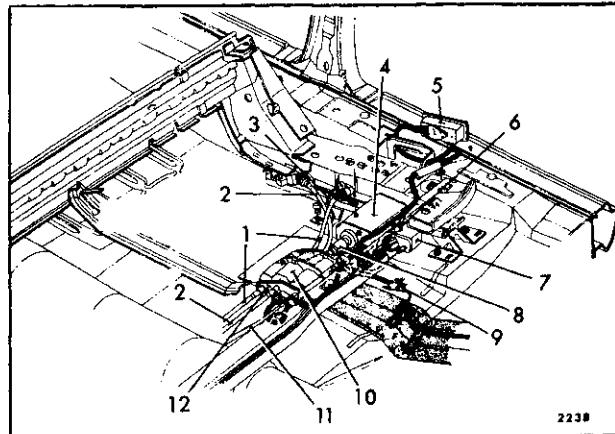


Fig. 16-33—Six-Way Standard Bench Seat

- | | |
|--|---|
| 1. Horizontal Control Cable (Black) | 7. Motor Control Relay |
| 2. Rear Vertical Control Cable (Blue) | 8. Rubber Coupler |
| 3. Ground Wire | 9. Harness Feed Connector |
| 4. Motor | 10. Transmission and Solenoid Assembly |
| 5. Control Switch | 11. Front Vertical Control Cable (Yellow) |
| 6. Front Vertical Control Cable (Yellow) | 12. Transmission End Plate |

circuit diagrams to become familiar with the seat circuit (See Figures 16-34, 16-35 and 16-36).

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.

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 16-37 - Oldsmobile styles with switch in seat side panel; 16-38 - Oldsmobile styles with switch in arm rest; 16-39 - Chevrolet, Pontiac, Buick and Cadillac styles. If a jumper

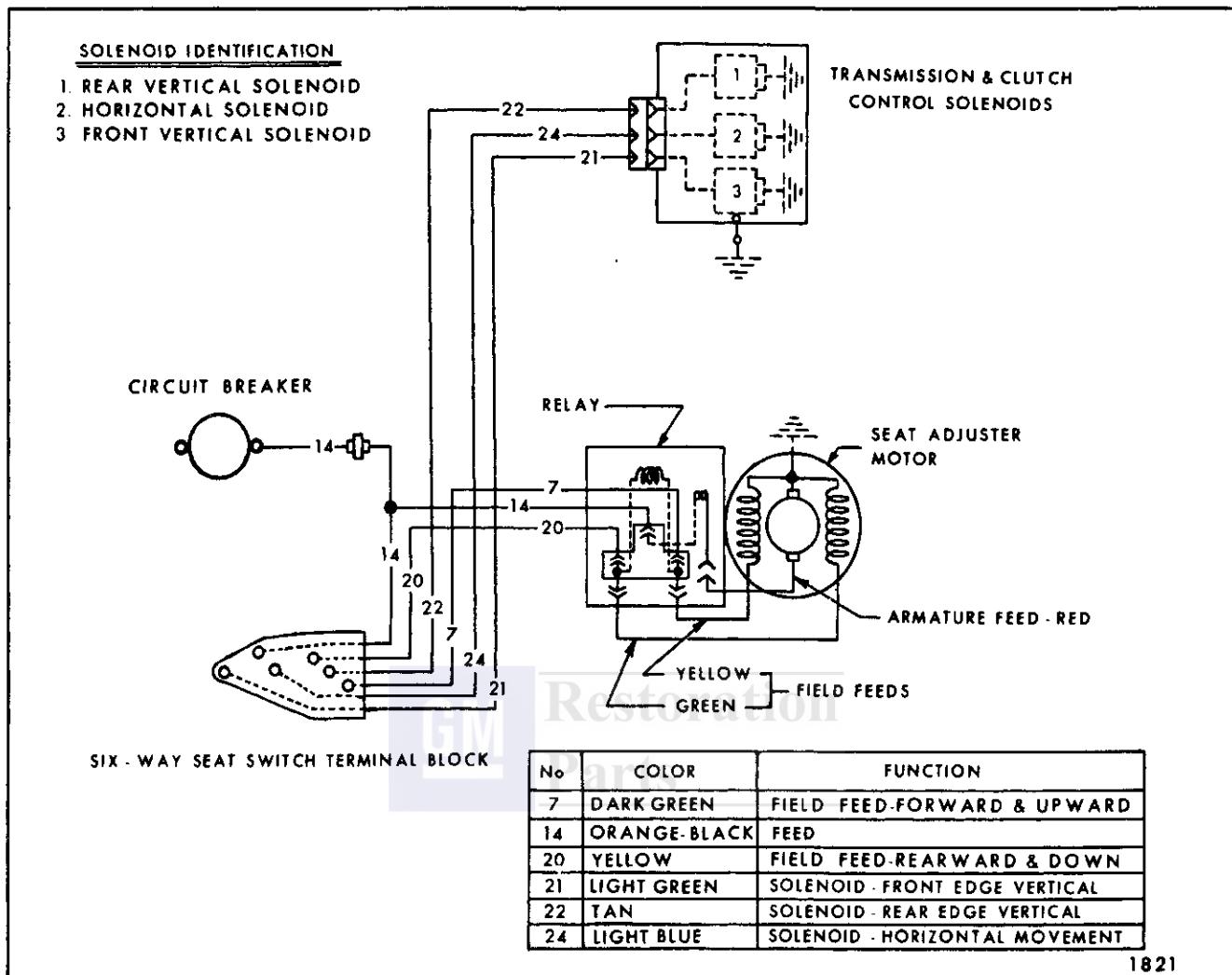


Fig. 16-34—Six-Way Seat Circuit - All Styles Except Oldsmobile Styles

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.
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.

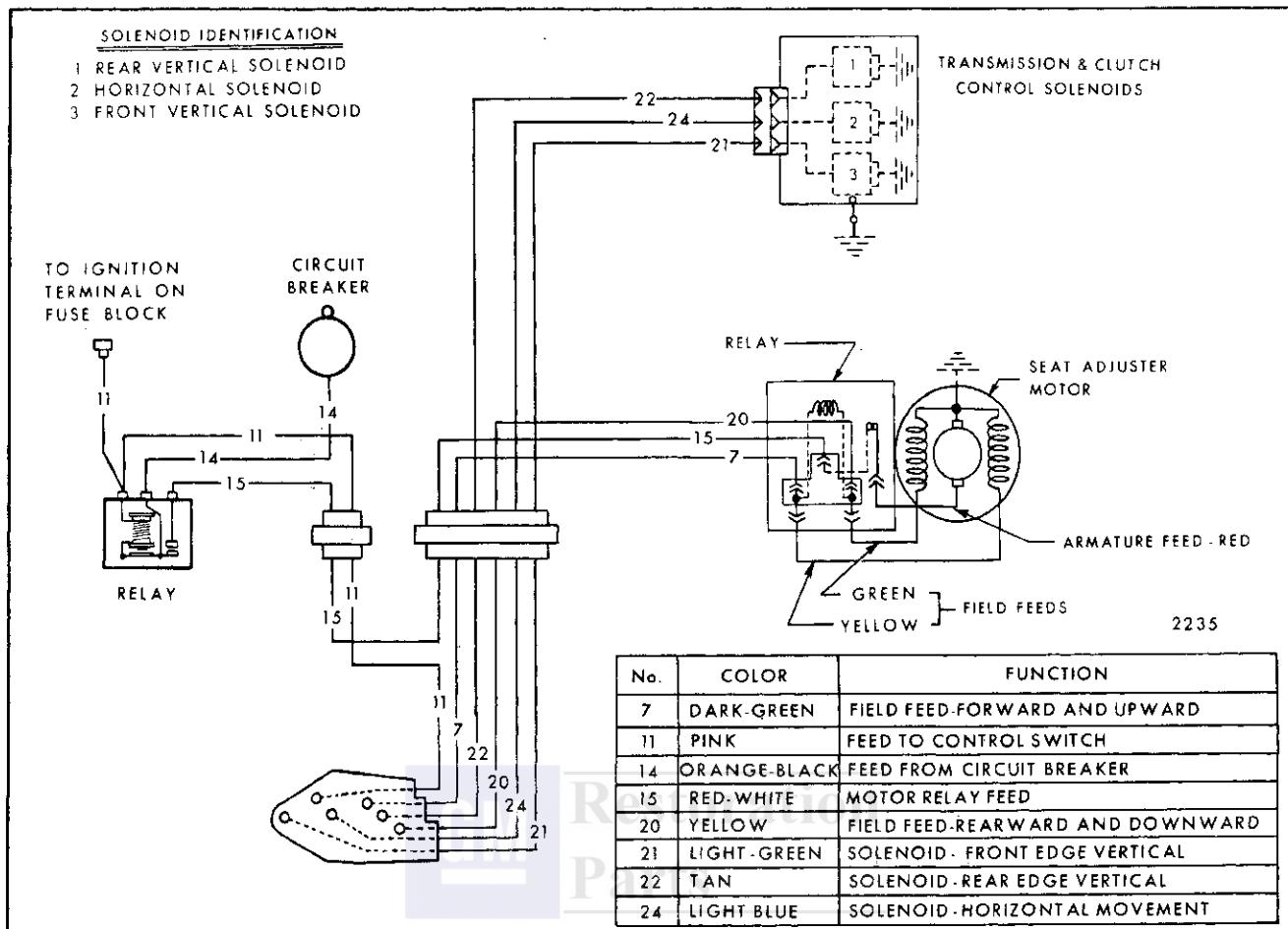


Fig. 16-35—Six-Way Seat Circuit - Switch in Arm Rest - Oldsmobile Styles

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.
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

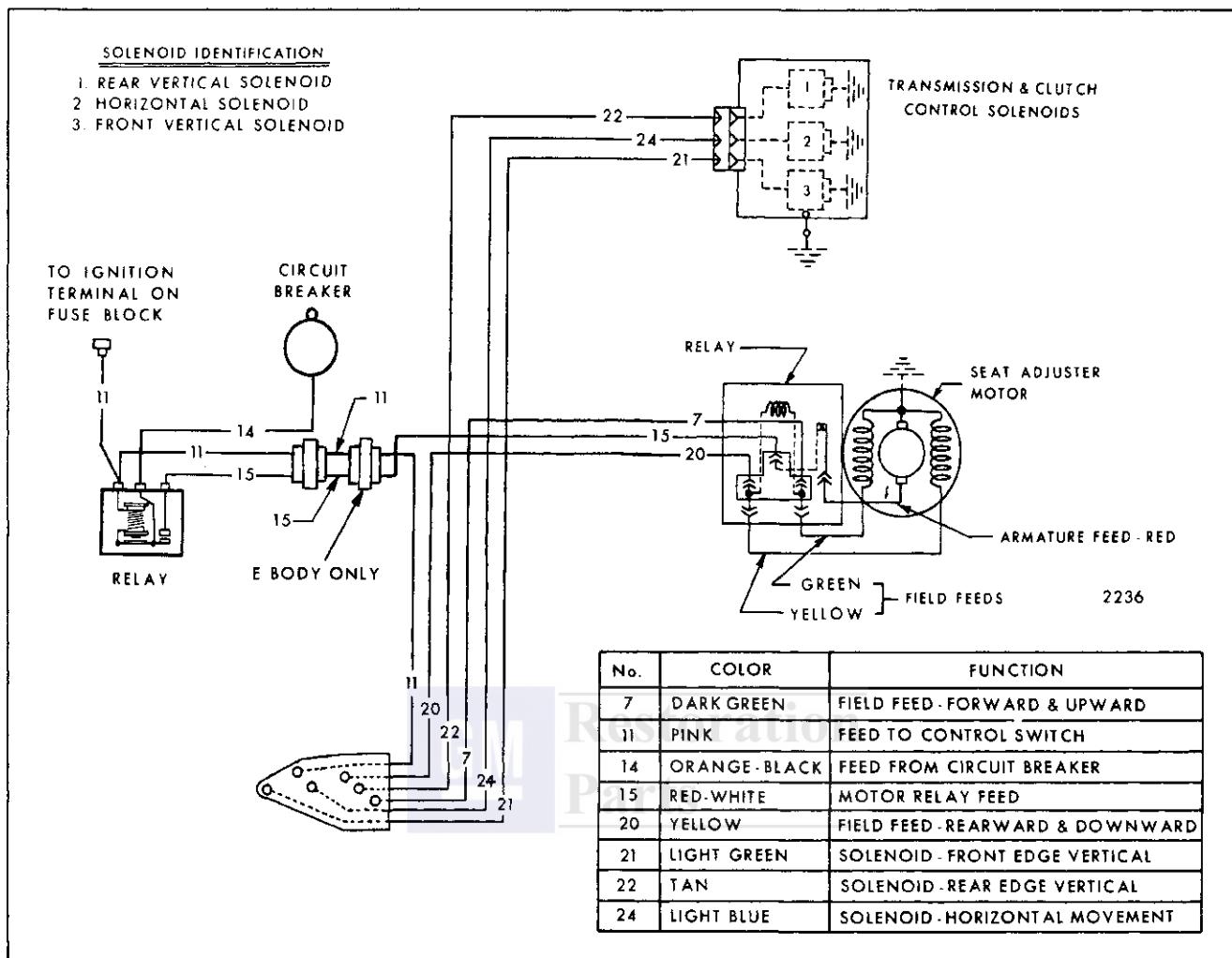


Fig. 16-36—Six-Way Seat Circuit — Switch in Seat Side Panel — Oldsmobile Styles

or short circuit between end of wire and switch.

i. 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.

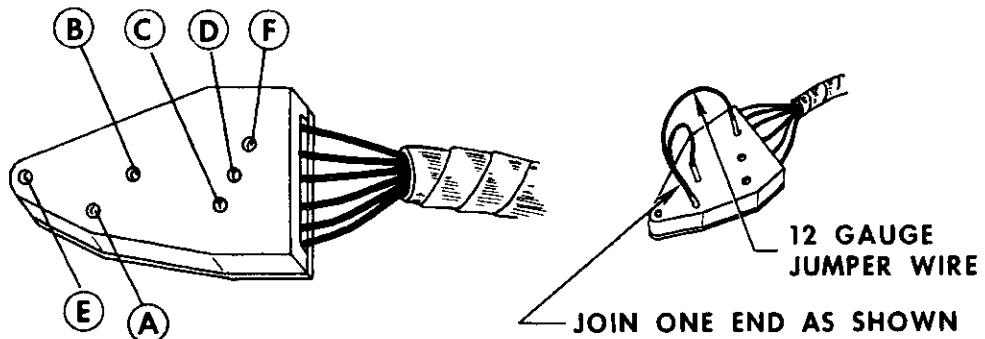
3. With solenoid energized, actuate seat control switch to energize adjuster motor.

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 16-39. 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 motor field wire locations and one of the solenoid locations.

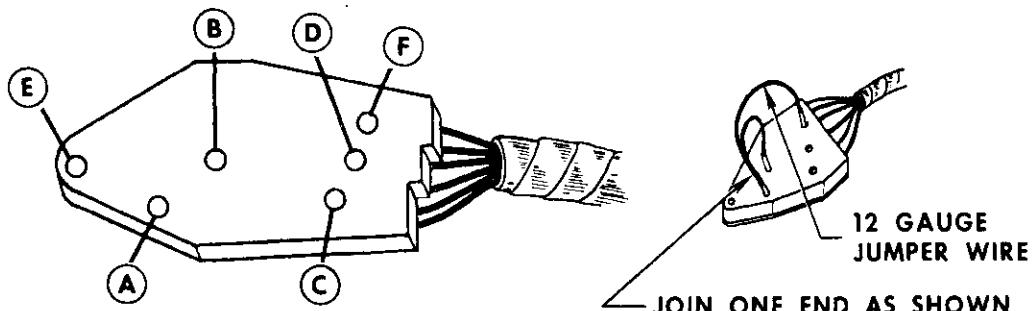
IMPORTANT: To obtain a seat movement using a 3-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations must be connected simultaneously.

SIX-WAY SEAT CONTROL SWITCH BLOCK

LOCATION	WIRE COLOR	FUNCTION
A	PINK	SWITCH FEED
B	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT
C	YELLOW	FIELD FEED-REARWARD & DOWN CYCLE
E	TAN	SOLENOID-REAR EDGE VERTICAL CYCLE
F	LIGHT GREEN	SOLENOID-FRONT EDGE VERTICAL CYCLE
D	DARK GREEN	FIELD FEED-FORWARD & UP CYCLE

1826

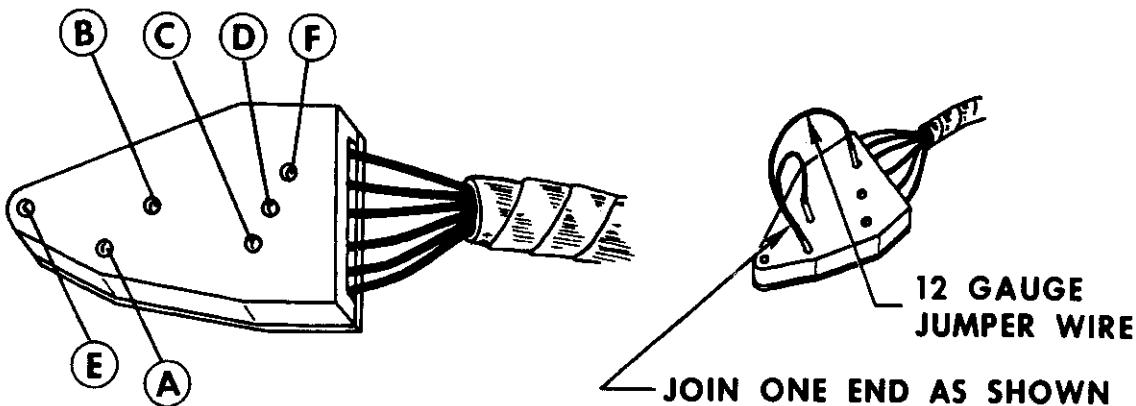
Fig. 16-37—Six-Way Seat Switch Block - Switch in Seat Side Panel - Oldsmobile

SIX-WAY SEAT CONTROL SWITCH BLOCK

LOCATION	WIRE COLOR	FUNCTION
A	PINK	SWITCH FEED
B	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT
C	DARK GREEN	FIELD FEED-FORWARD & UP CYCLE
D	TAN	SOLENOID-REAR EDGE VERTICAL CYCLE
E	LIGHT GREEN	SOLENOID-FRONT EDGE VERTICAL CYCLE
F	YELLOW	FIELD FEED-REARWARD & DOWN CYCLE

1827

Fig. 16-38—Six-Way Seat Switch Block - Switch in Arm Rest - Oldsmobile

SIX-WAY SEAT CONTROL SWITCH BLOCK

LOCATION	WIRE COLOR	FUNCTION
A	ORANGE-BLACK	SWITCH FEED
B	LIGHT BLUE	SOLENOID-HORIZONTAL MOVEMENT
C	YELLOW *	FIELD FEED-REARWARD & DOWN CYCLE
D	TAN	SOLENOID-REAR EDGE VERTICAL CYCLE
E	LIGHT GREEN	SOLENOID-FRONT EDGE VERTICAL CYCLE
F	DARK GREEN *	FIELD FEED-FORWARD & UP CYCLE

* ON STYLES WITH SWITCH IN ARM REST.
DARK GREEN CONTROLS FORWARD & UP CYCLE
YELLOW FIELD CONTROLS REARWARD & DOWN CYCLE

1825

Fig. 16-39—Six-Way Seat Switch Block - All Styles Except Oldsmobile

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.
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.

Trouble Shooting

CONDITION	CAUSE	CORRECTION
1. 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.
2. Seat adjuster motor operates, but seat adjusters are not actuated. or 3. 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.
4. 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 5. 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.

TAIL AND SIDE MARKER LAMPS**DESCRIPTION**

Various methods are employed to remove and install the components of tail lamp assemblies. The following charts (Figs. 16-40, 16-41, 16-42, 16-43 and 16-44) will provide a quick reference for performing the three basic service operations for each Car Division (Bulb Replacement, Lens Replacement and Housing Replacement) on styles where the tail lamp assembly is installed on the body. If the tail lamp assembly is installed in the bumper refer to the chassis manual for service operations.

CAUTION: Do not rework or alter the reflective surface of tail lamps or side marker lamps.

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 46 to 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.

SIDE MARKER LAMPS

All styles except Oldsmobile "A" Station Wagons are equipped with rear quarter side marker lamps. The lamps operate in conjunction with the tail lamp circuit.

There are three basic methods of retention for these lamp housings.

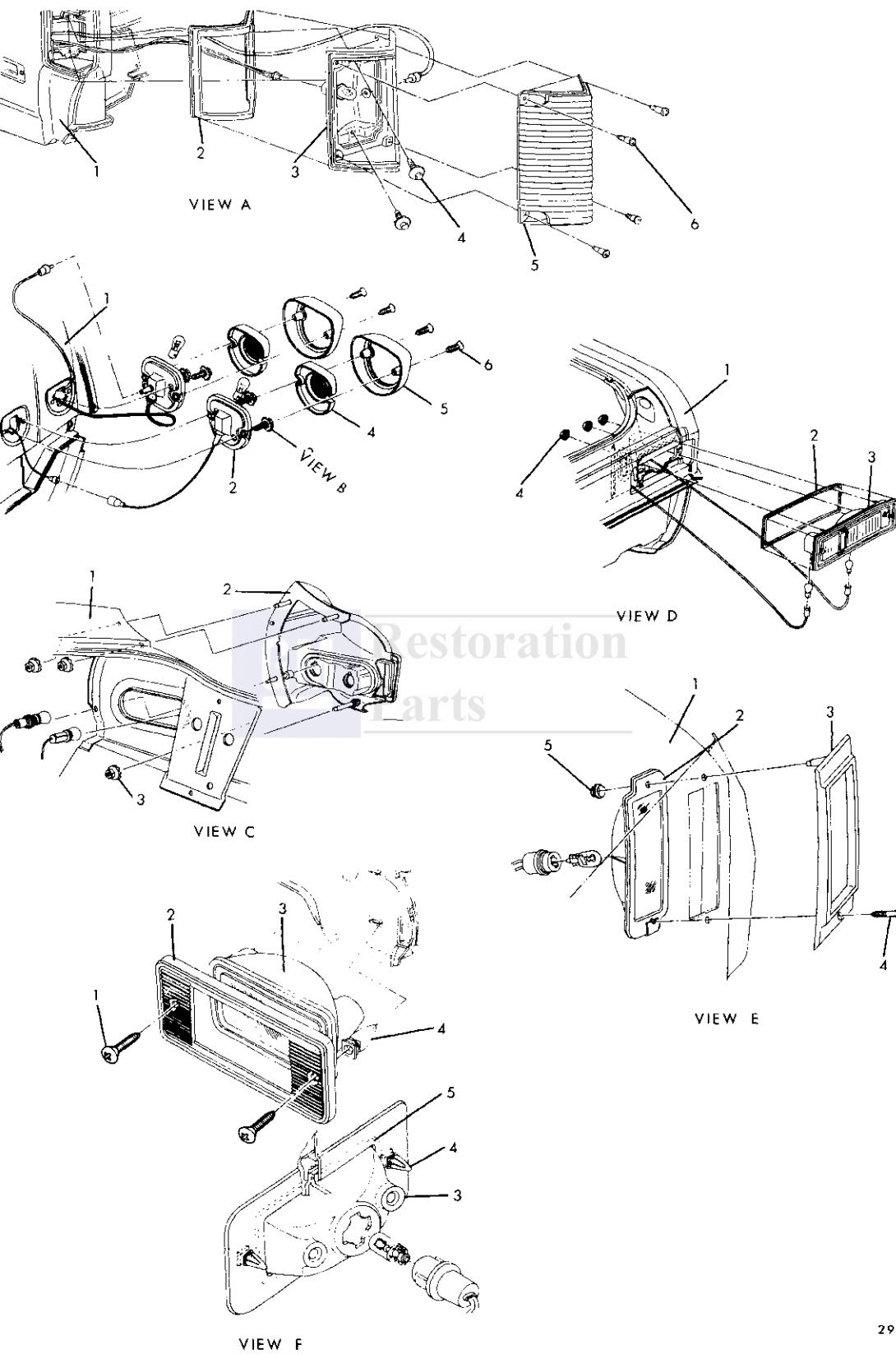
1. External Screws - Used on all station wagons.
2. Studs with Nuts Accessible from the Rear Compartment - all Except Buick and station wagons.
3. Slide-on Spring Retainer - Used on Buick styles only.

Views depicting lamp installations are shown with the respective tail lamp installation drawings.

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
193	2	Side Marker - Olds. & Cad. "E"
194	2	Side Marker - Chev. - Buick
1895	2	Side Marker - Pontiac





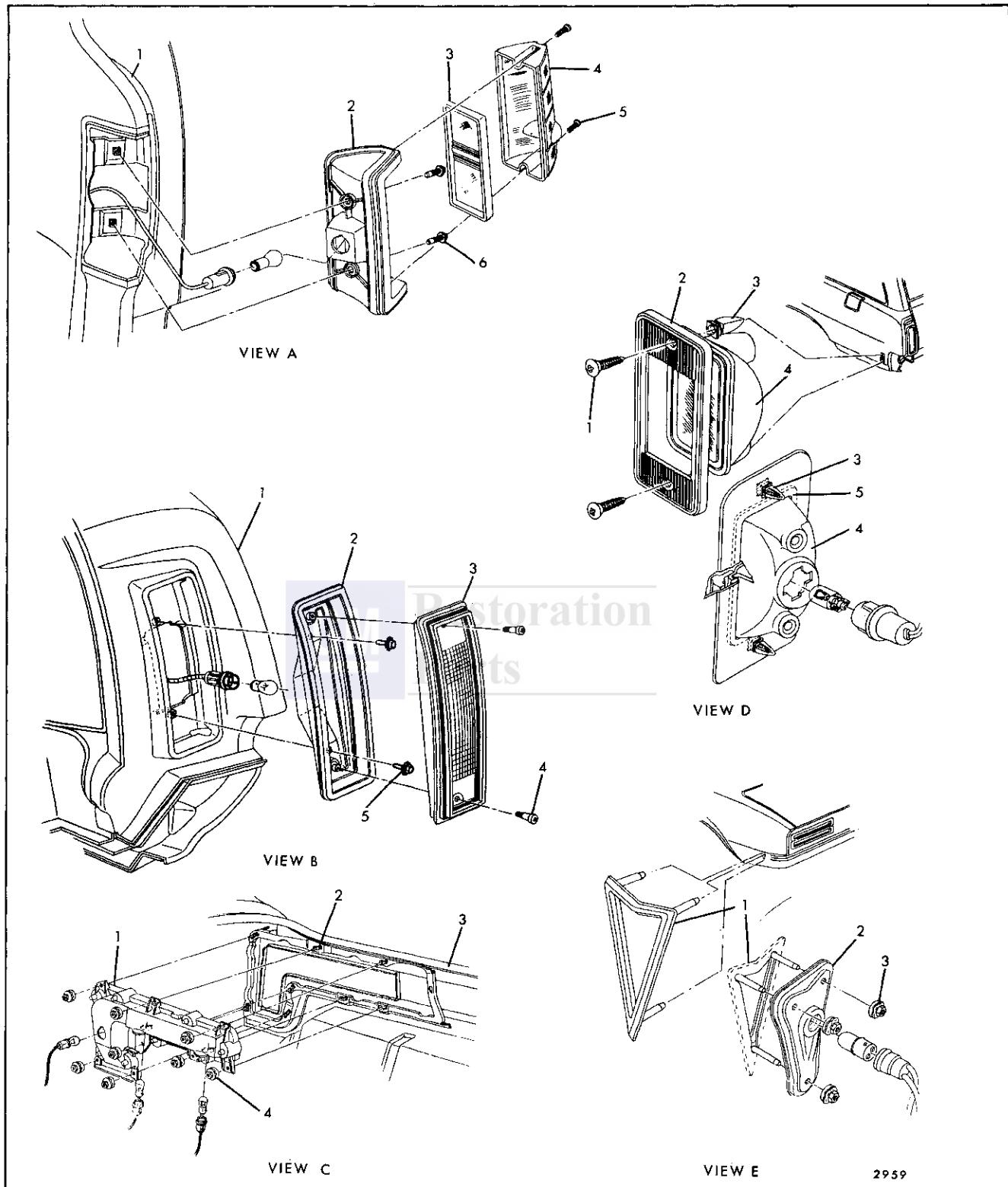
TAIL LAMP OPERATION — CHEVROLET — ACADIAN, BEAUMONT (CANADIAN)

FIG. 16-40

OPERATION	METHOD	A	BODY TYPE			
			A "35"	B "35 - 45"	F	X
Bulb Replacement	Remove Lens Outside		X	X		
	Remove Socket (Inside Rear Compartment)	X			X	X
Lens Replacement	Remove Retaining Screws (Outside)		X	X		X
	Remove Housing and Disassemble	X			X	
Housing Replacement	Remove from Outside (Retaining Nuts in Rear Compartment)	X VIEW "C"			X	X VIEW "D"
	Remove from Inside					
	Remove from Outside (Retaining Bolts Under Lens)		X VIEW "A"	X VIEW "B"		
	Lower Rear Bumper					I



- | | | | |
|----------|--|----------|---|
| VIEW "A" | 1. Quarter Panel
2. Lamp Housing Gasket
3. Lamp Housing
4. Lamp Housing Screw
5. Lens
6. Lens Screw | VIEW "D" | 1. Quarter Panel
2. Lamp Housing Gasket
3. Lamp Housing
4. Lamp Housing Nut |
| VIEW "B" | 1. Quarter Panel
2. Lamp Housing
3. Lamp Housing Screw
4. Lens
5. Bezel
6. Bezel and Lens Screw | VIEW "E" | 1. Quarter Panel
2. Lamp Housing
3. Bezel
4. Lamp Housing and Bezel Screw
5. Lamp Housing and Bezel Nut |
| VIEW "C" | 1. Quarter Panel
2. Quarter Extension and Lamp Housing
3. Quarter Extension Nut | VIEW "F" | 1. Lamp and Bezel Screw
2. Bezel
3. Lamp Housing
4. Panel Nut
5. Gasket |



TAIL LAMP OPERATION — PONTIAC

FIG. 16-41

OPERATION	METHOD	BODY TYPE			
		A "35"	B "35-45"	B 26600	F
Bulb Replacement	Remove Lens Outside	X	X		
	Remove Socket (Inside Rear Compartment)			X	X
Lens Replacement	Remove Retaining Screws (Outside)	X	X		
	Remove Housing and Disassemble			X	X
Housing Replacement	Remove from Outside (Retaining Nuts in Rear Compartment)				
	Remove from Inside			X VIEW "C"	X
	Remove from Outside (Retaining Bolts Under Lens)	X VIEW "A"	X VIEW "B"		
	Lower Rear Bumper				



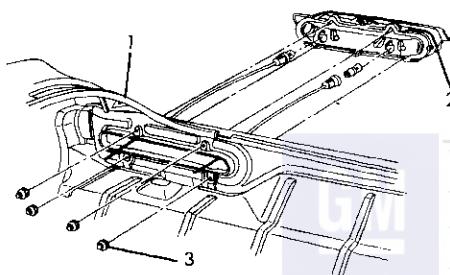
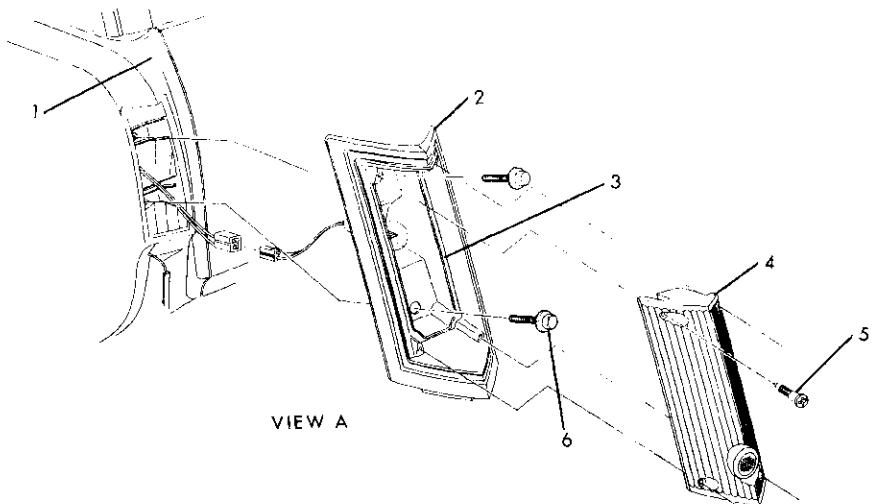
- VIEW "A" 1. Quarter Panel
 2. Lamp Housing
 3. Inner Lens
 4. Outer Lens
 5. Lens Screw
 6. Housing Screw

- VIEW "B" 1. Quarter Panel
 2. Lamp Housing
 3. Lens
 4. Lens Screw
 5. Housing Screw

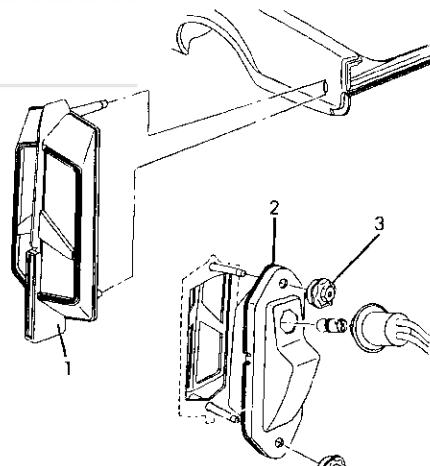
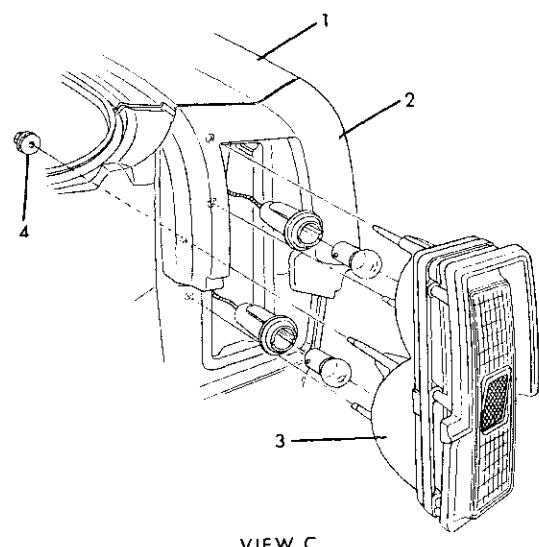
- VIEW "C" 1. Lamp Housing
 2. Bolt and Clip Assembly
 3. Rear End Panel
 4. Housing Nut

- VIEW "D" 1. Lamp and Bezel Screw
 2. Bezel
 3. Panel Nut
 4. Lamp Housing
 5. Gasket

- VIEW "E" 1. Bezel
 2. Lamp Housing
 3. Lamp and Bezel Nut



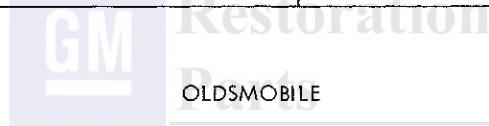
Restoration
Parts



TAIL LAMP OPERATION — OLDSMOBILE

FIG. 16-42

OPERATION	METHOD	BODY TYPE		
		A	A "35"	C
Bulb Replacement	Remove Lens Outside		X	
	Remove Socket (Inside Rear Compartment)	X		
Lens Replacement	Remove Retaining Screws (Outside)		X	
	Remove Housing and Disassemble	X		
Housing Replacement	Remove from Outside (Retaining Nuts in Rear Compartment)	X VIEW "B"		X VIEW "C"
	Remove from Inside			
	Remove from Outside (Retaining Bolts Under Lens)		X VIEW "A"	
	Lower Rear Bumper	X		X

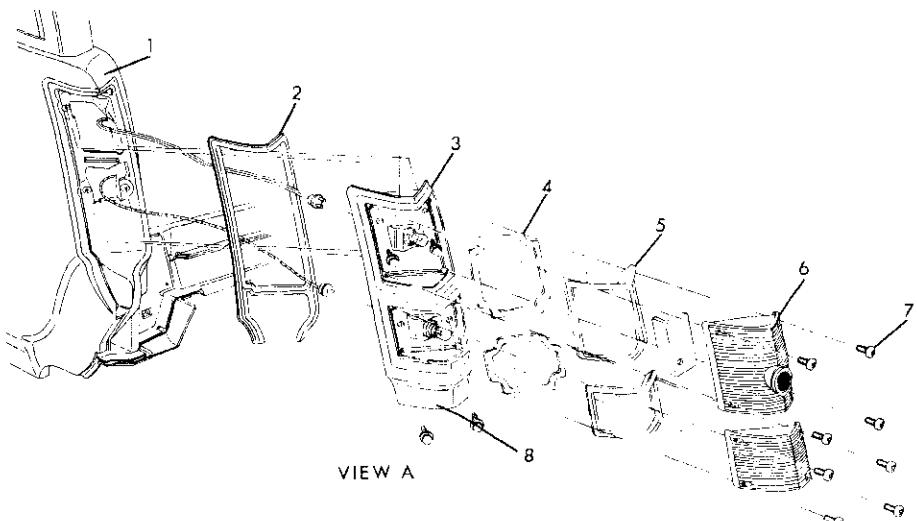


- VIEW "A" 1. Quarter Panel
 2. Lamp Housing
 3. Lens Gasket
 4. Lens
 5. Lens Screw
 6. Housing Screw

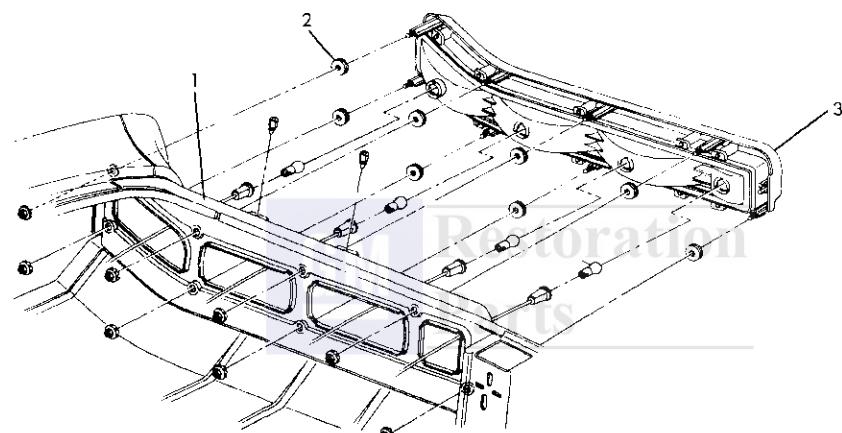
- VIEW "B" 1. Rear End Panel
 2. Lamp Housing
 3. Housing Nut

- VIEW "C" 1. Quarter Panel
 2. Quarter Extension
 3. Lamp Housing
 4. Housing Nut

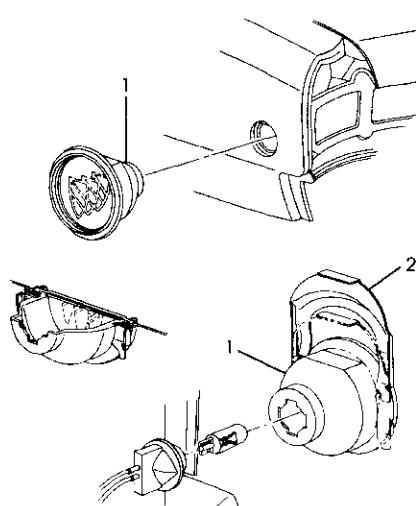
- VIEW "D" 1. Lamp Bezel
 2. Lamp Housing
 3. Bezel Nut



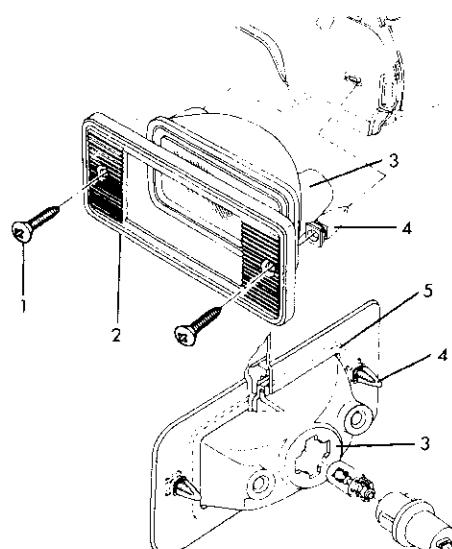
VIEW A



VIEW B



VIEW C



VIEW D

TAIL LAMP OPERATION -- BUICK

FIG. 16-43

OPERATION	METHOD	BODY TYPE	
		A "35-55-65"	B
Bulb Replacement	Remove Lens Outside	X	
	Remove Socket (Inside Rear Compartment)		X
Lens Replacement	Remove Retaining Screws (Outside)	X	
	Remove Housing and Disassemble		X
Housing Replacement	Remove from Outside (Retaining Nuts in Rear Compartment)		X VIEW "B"
	Remove from Inside		
	Remove from Outside (Retaining Bolts Under Lens)	X VIEW "A"	
	Lower Rear Bumper		

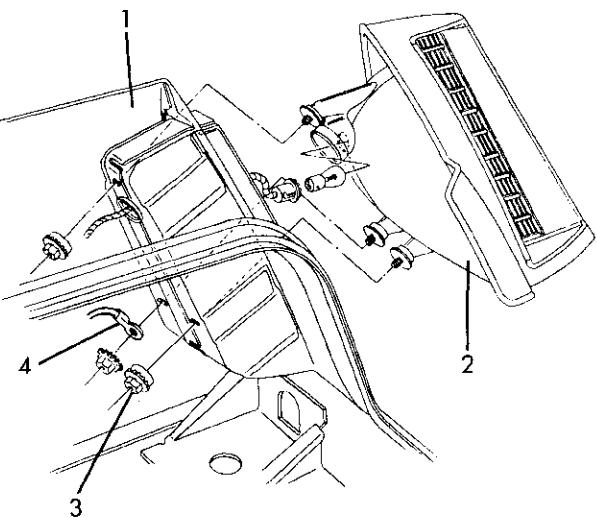


- VIEW "A" 1. Quarter Panel
 2. Housing Gasket
 3. Lamp Housing
 4. Lens Gasket - Upper and Lower
 5. Bezel - Upper and Lower
 6. Lens - Upper and Lower
 7. Lens Screw
 8. Housing Screw

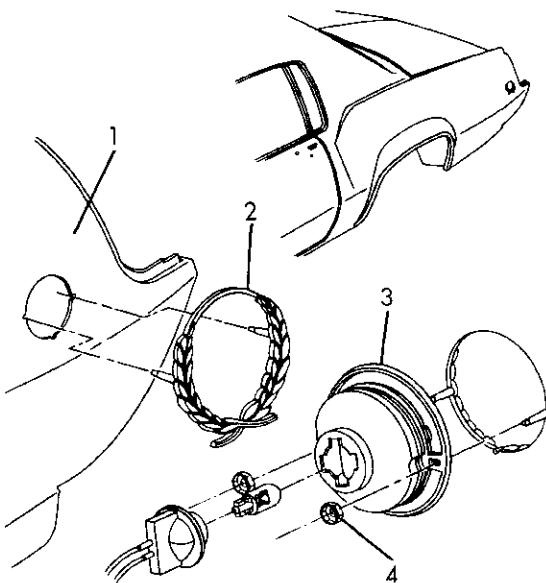
- VIEW "B" 1. Rear End Inner Panel
 2. Lamp Housing Washer
 3. Lamp Housing
 4. Housing Nut

- VIEW "C" 1. Lamp Housing
 2. Spring Clip Retainer

- VIEW "D" 1. Lamp and Bezel Screw
 2. Bezel
 3. Lamp Housing
 4. Panel Nut
 5. Gasket



VIEW A



VIEW B

2962

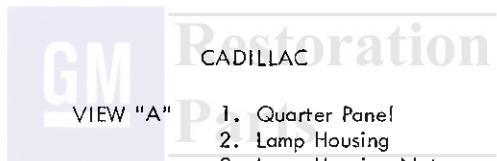


Restoration
Parts

TAIL LAMP OPERATION — CADILLAC "E"

FIG. 16-44

OPERATION	METHOD	BODY TYPE
Bulb Replacement	Remove Lens Outside	
	Remove Socket (Inside Rear Compartment)	X
Lens Replacement	Remove Retaining Screw (Outside)	
	Remove Housing and Disassemble	X
Housing Replacement	Remove from Outside (Retaining Nuts in Rear Compartment)	X VIEW "A"
	Remove from Inside	
	Remove from Outside (Retaining Bolts Under Lens)	
	Lower Rear Bumper	



VIEW "A" 1. Quarter Panel
 2. Lamp Housing
 3. Lamp Housing Nut
 4. Ground Wire

VIEW "B" 1. Quarter Panel
 2. Bezel
 3. Lamp Housing
 4. Bezel Nut

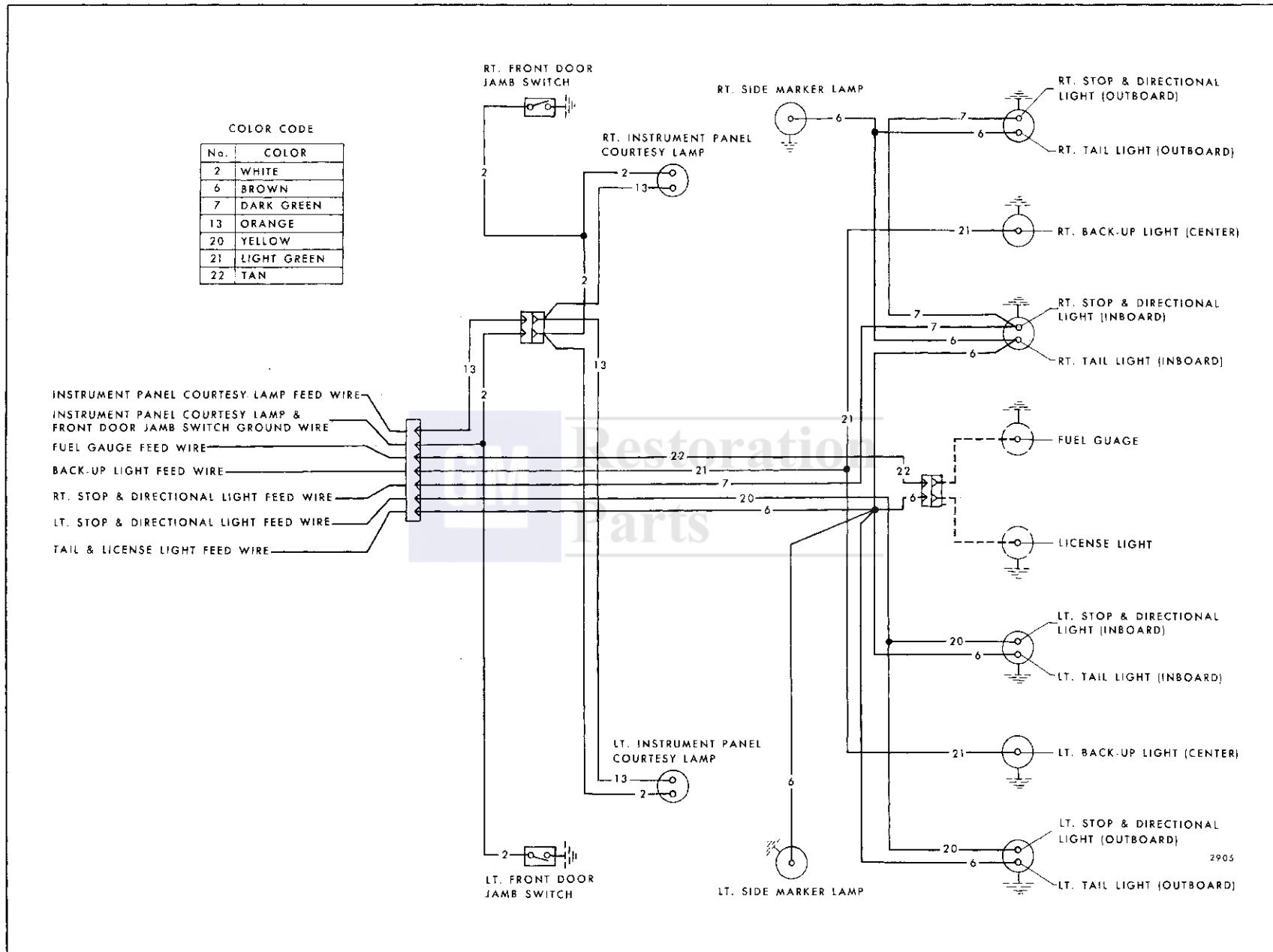


Fig. 16-45—Body Wiring Circuit Pontiac "F" 67 Style

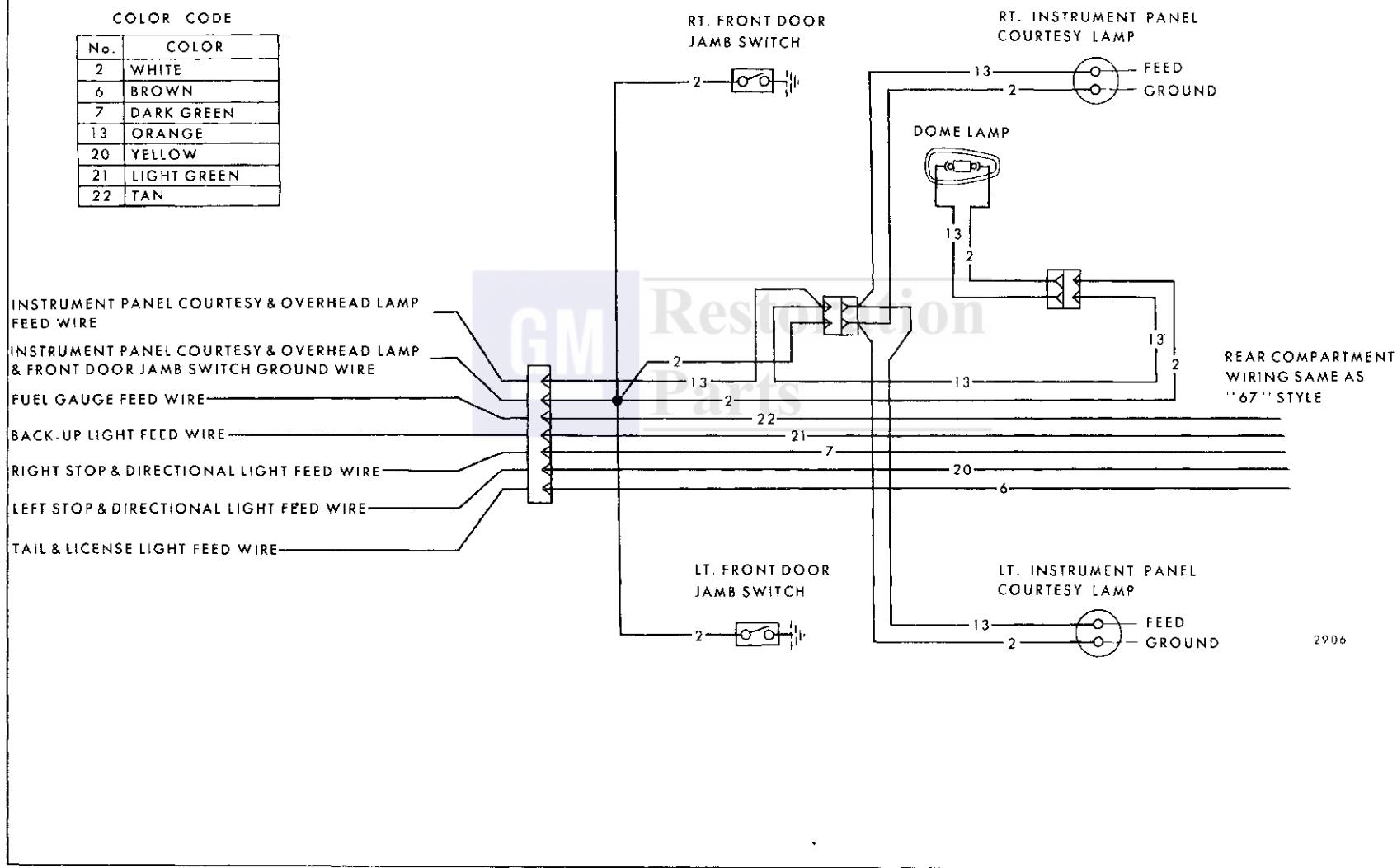


Fig. 16-46—Body Wiring Circuit - Pontiac "F" 37 Style

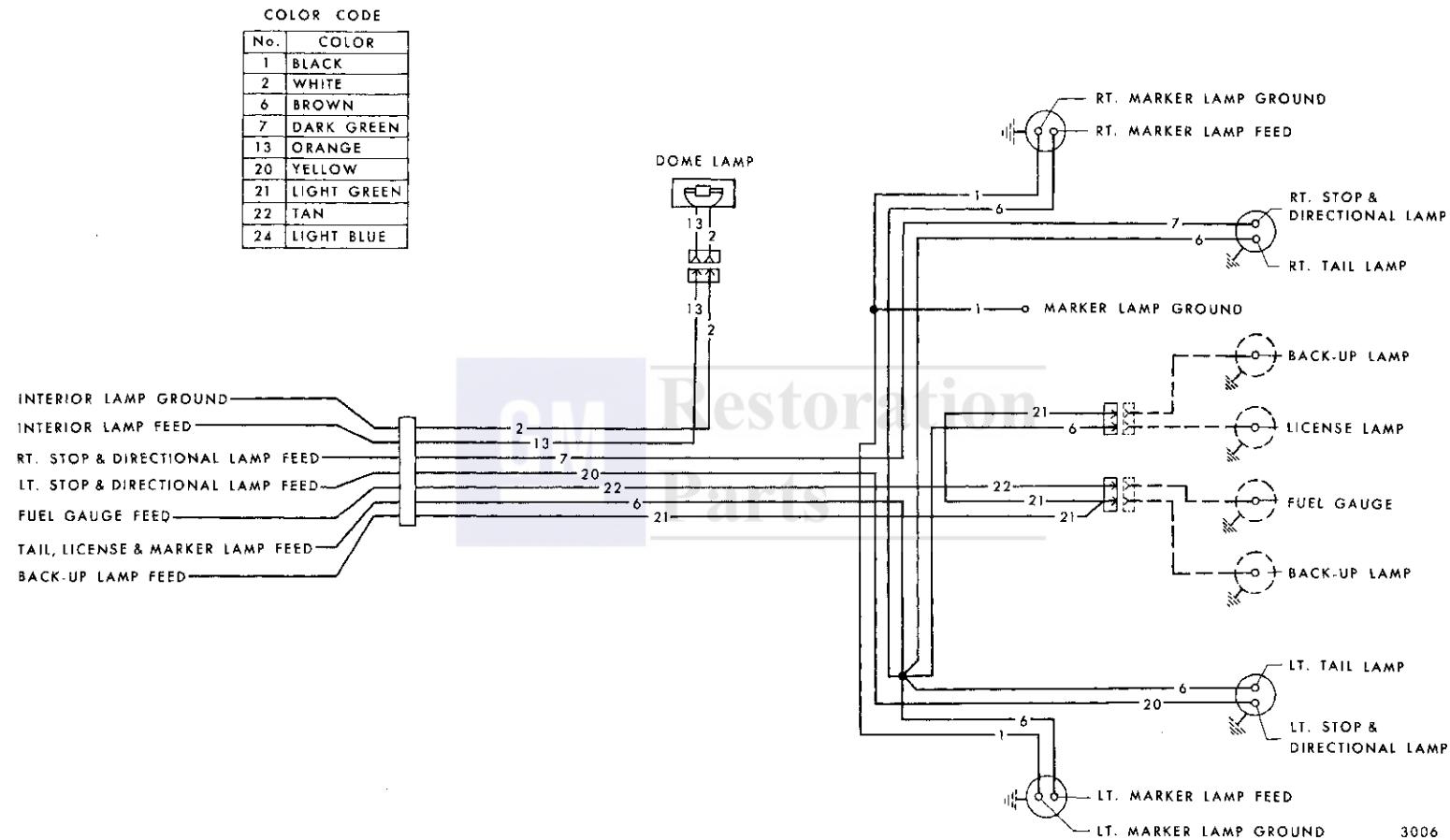


Fig. 16-47—Body Wiring Circuit - Chevrolet "A" Body Style

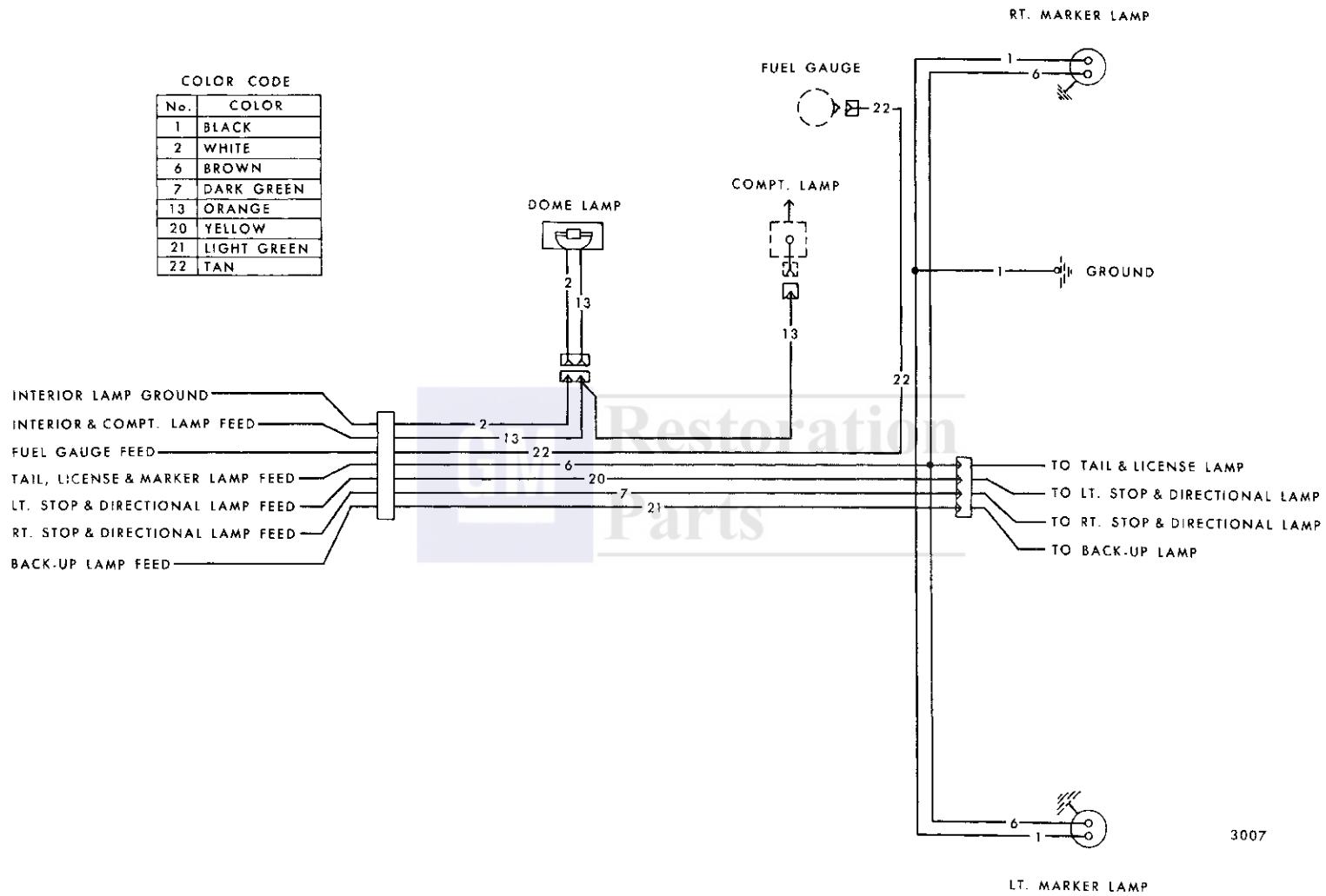


Fig. 16-48—Body Wiring Circuit - Buick "A" Body Style

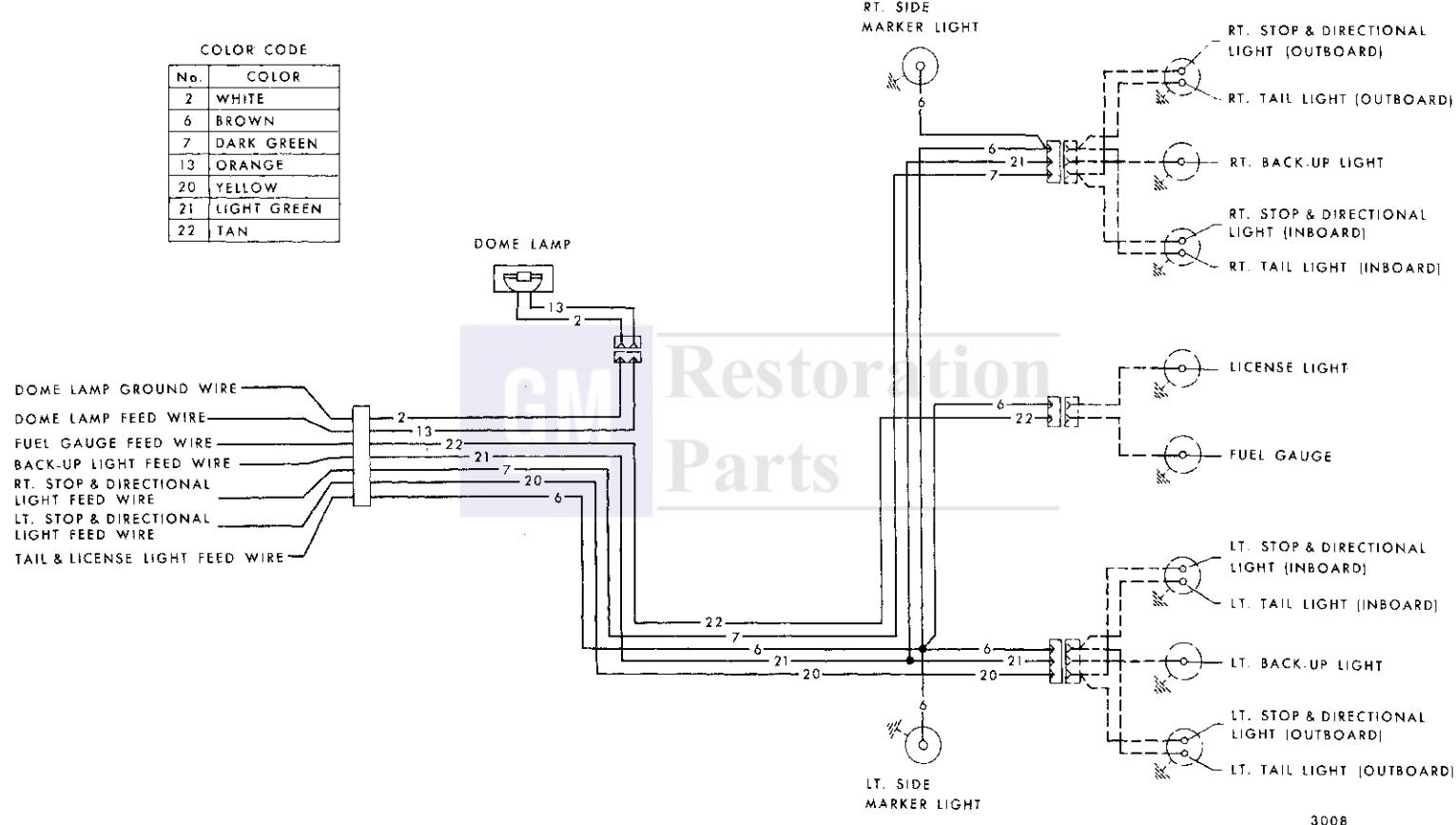


Fig. 16-49—Body Wiring Circuit — Pontiac "A" Body Style

INTERIOR LAMPS—ABOVE BELT**Lens Retention and Bulb Chart**

METHOD OF RETENTION	#1* DISENGAGE LENS THRU SLOTS IN RIM			#2* REMOVE LENS AND RIM TOGETHER			#3 REMOVE LENS ONLY - FINGER PRESSURE						#4 SET SCREW	
	LENS SHAPE		RECT.	ROUND	ROUND			ROUND			OVAL	RECT.		
BULB TYPE	12CP CART	6CP CART	6CP CART	12CP BAY	12CP CART	6CP CART	6CP CART	6CP BAY	15CP BAY	12CP CART	6CP CART	15CP BAY	15CP BAY	15CP BAY
CHEVROLET														
A	X													
B					X									
Z - F - X											X			
PONTIAC														
A	X													
F											X			
B - Standard					X									
B - Opt. Reading											X	X		
OLDSMOBILE														
A - Except 34287, 34239	X													
A - 34239			X											
A - 34287		X												
A - 55-65 Over Gate		X												
B - Except 39-87				X										
B - 39-87 and All C								X						
E										X				
BUICK														
A - Except 44437, 44637	X													
A - 44437, 44637 Opt. 43437 & 43537		X												
A - 55-65 Over Gate		X												
B - Except 44639-87				X							X			
B - 46639-87, C and E										X				
CADILLAC														
C - Except 68069-169 68069						X				X				
68169												X		
E							X							
D - FT Compt.								X		X				
D - A/C Grill									X		X			

*Use a small thin bladed screw driver for disengagement

SECTION 17

EXTERIOR MOLDINGS

INDEX

Subject	Page	Subject	Page
Description	17-1	"B-C" Body.	17-73
General Precautions	17-1	"E" Body.	17-84
Sealing Operation	17-1	Buick Styles	
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"F" Body.	17-59	"A" Body.	17-126
Oldsmobile Styles		"B" Body.	17-132
"A" Body.	17-62		

DESCRIPTION

The exterior moldings are secured to the body by any one or a combination of the following attachments (Figs. 17-1 and 17-2).

- 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. Side loading type snap-on clips.
- f. "W-base" type snap-in clips.
- g. Weld-on studs and clips.
- h. Snap-in studs on pre-installed retainers.
- i. Snap-in type studs and clips (bayonet type) - (clip is an integral part of the stud).
- j & k. Spring type (self retained).
- l. Pinchweld molding attaching clip (clip shown used on "A-80" style - skylight molding attaching clip similar).

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.

To use the molding charts, use the following procedure:

1. Locate the illustration of the body. The illustrations are separated by car line and body type.
2. Note the number of the molding to be removed.
3. Turn to the molding chart for that particular car line and body type and locate the number noted in step two (2).

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

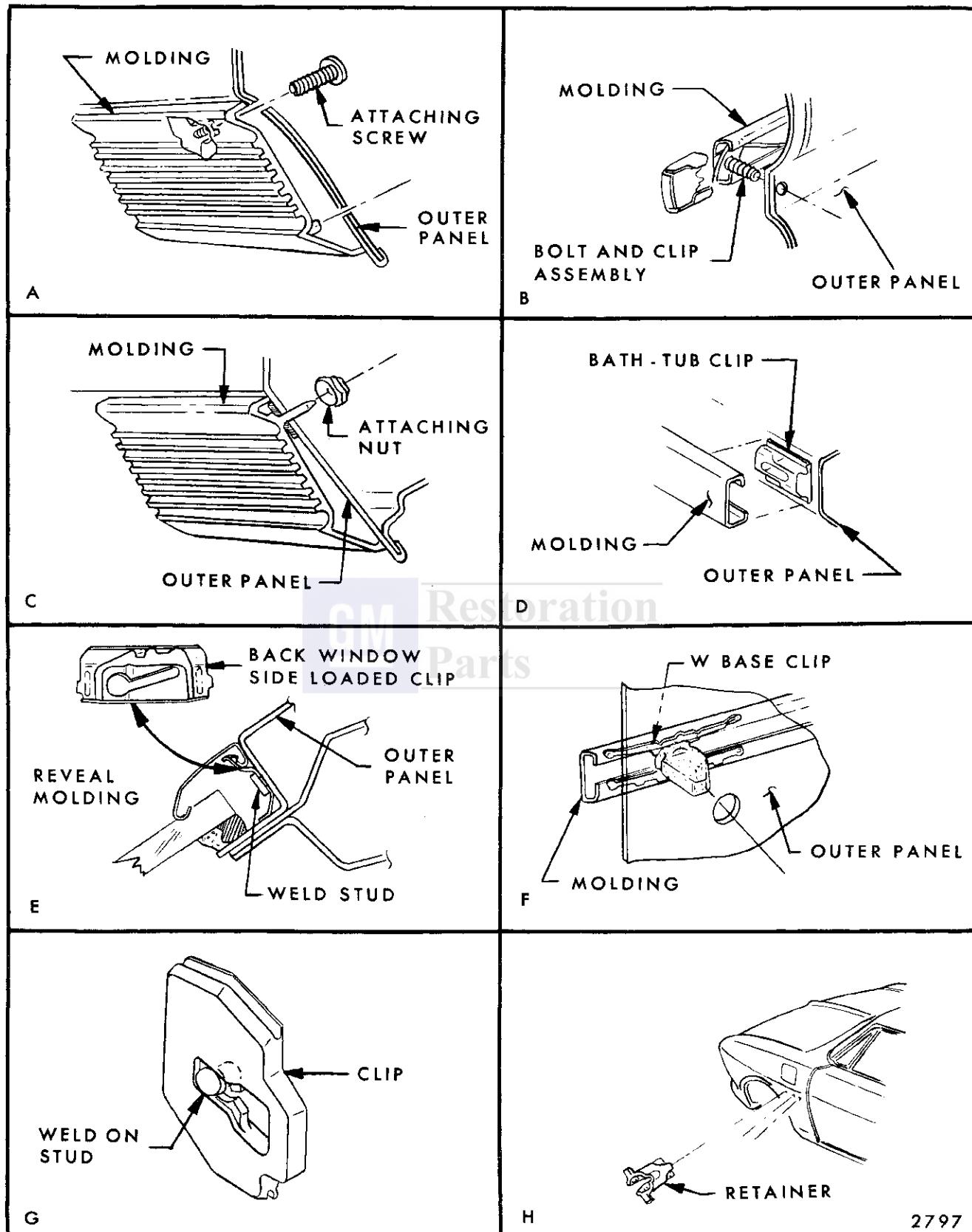


Fig. 17-1—Exterior Molding Attachments

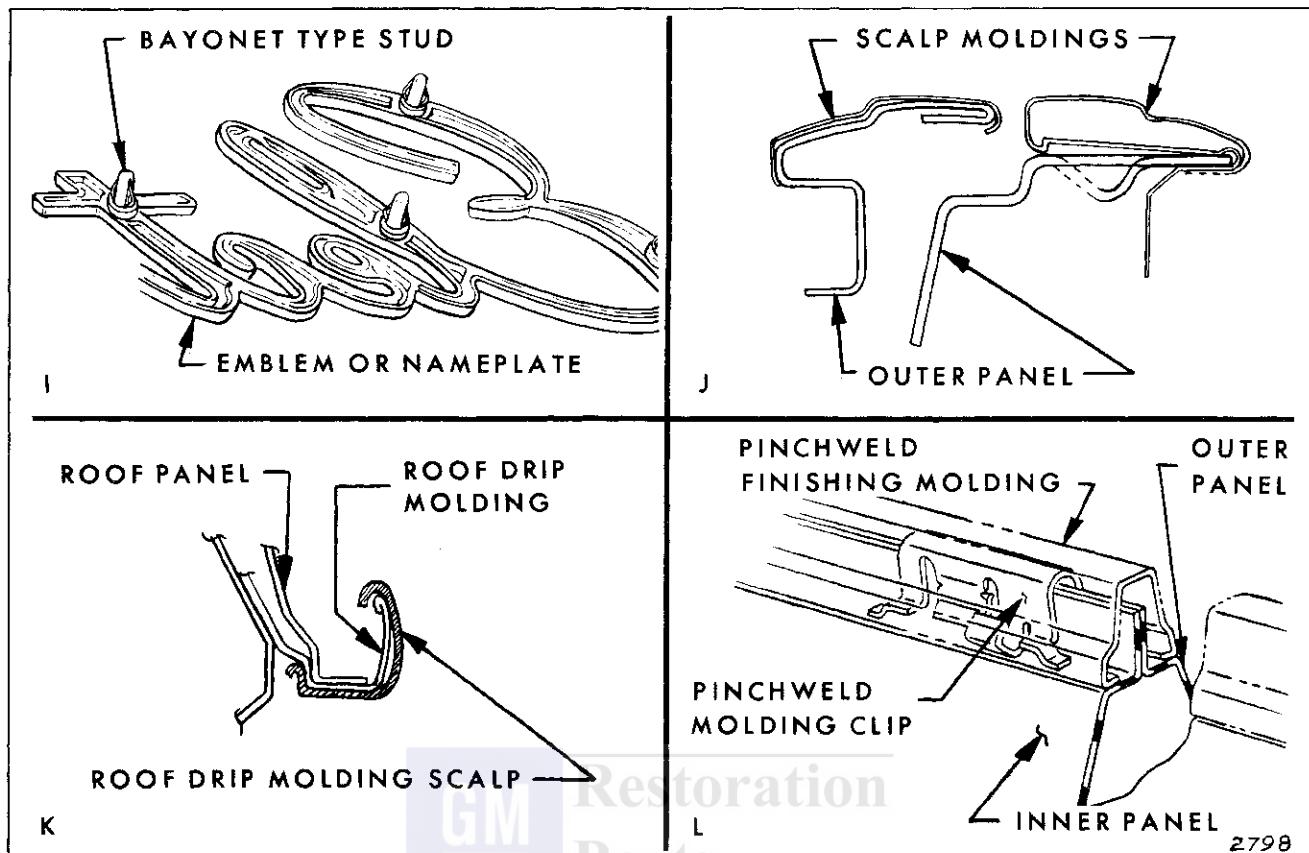


Fig. 17-2—Exterior Molding Attachments—

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.

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).

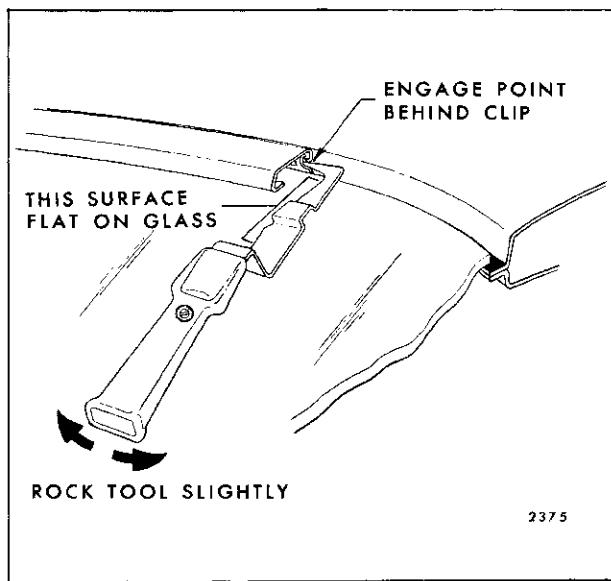


Fig. 17-3—Usage of Reveal Molding Removal Tool

Series	Windshield	Back Window	Quarter Window	Sky Light Window
All GM	J 21549-1 J 21549-5 J 21549-6	J 21549-1 J 21549-3 J 21549-5 J 21549-6	J 21549-1 J 21549-3 J 21549-5 J 21549-6	J 21549-1 J 21549-5 J 21549-6

Tool **DESCRIPTION**

- | | |
|-----------|---|
| J 21549-1 | Handle |
| J 21549-3 | Reveal Molding Remover (angle blade) (Use with J 21549-1) |
| J 21549-5 | Reveal Molding Remover (Rt.) (Use with J 21549-1) |
| J 21549-6 | Reveal Molding Remover (Lt.) (Use with J 21549-1) |

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 appropriate tool (see Chart) as shown in Figure 17-3.

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. 17-4) 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 an outer panel becomes damaged or broken off use the following procedure:

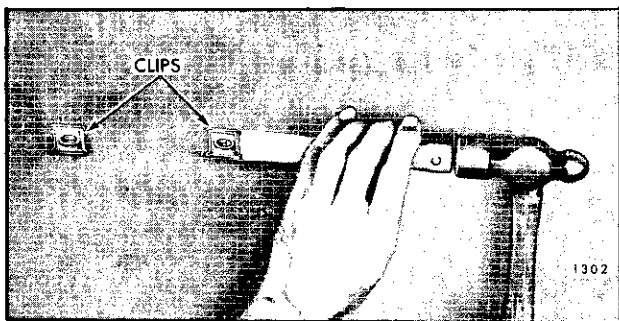


Fig. 17-4—Removal of Bath-Tub Type Molding Clip

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.

If a weld stud, attaching screw, or molding clip become damaged or broken off and must be replaced in a windshield, back window, or quarter window opening, use the following procedure:

1. Drill a small hole in the corner of the window opening rabbet adjacent to where original weld stud or screw was installed.
2. Insert a self-sealing screw through emergency replacement clip and into panel (Fig. 17-5).

CAUTION: Avoid contact with edge of glass during drilling operation and when installing clip.

ZINC ANODE CLIPS

As a corrosion preventative feature on certain 1968 styles (see chart on page 17-5), zinc-anode clips are used in the back window, quarter stationary window, and front lower skylight window rabbet areas, and are concealed by the reveal moldings. These clips are attached by standard weld-on type studs.

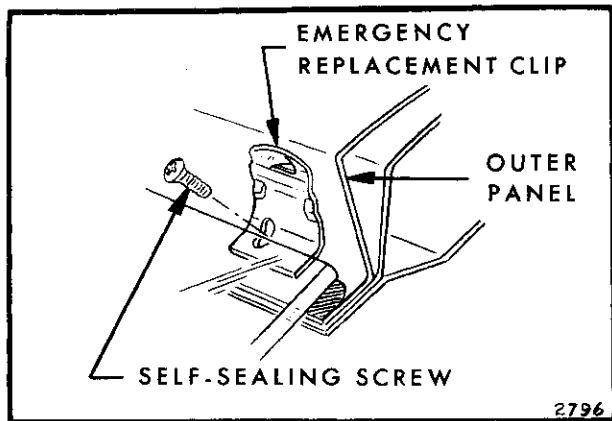


Fig. 17-5—Reveal Molding Clip Emergency Replacement

The clips are of a sacrificing type, so that corrosion attacks the anode clip rather than the body panel.

Replacement clips are available as service parts.

Zinc Anode Clip Locations	Styles	No. of Clips At Each Location
Back Window Lower Opening	All A-B-C-D-E-F-X-Z Bodies except 35-45-55-65 67-77-87 Styles	Total of 4 2 Each on Rt. & Lt. Sides
Quarter Window Lower Opening	All A-35-45-55-65 Styles All B-35-45 Styles	Total of 4 2 Each on Rt. & Lt. Sides
Front Skylight Window Lower Opening	All A-55 & 65 Styles	Total of 2 1 Each on Rt. & Lt. Sides

ZINC ANODE CLIP USAGE CHART

If a zinc anode clip attaching weld stud is damaged or broken off and replacement is necessary, the following procedure should be followed:

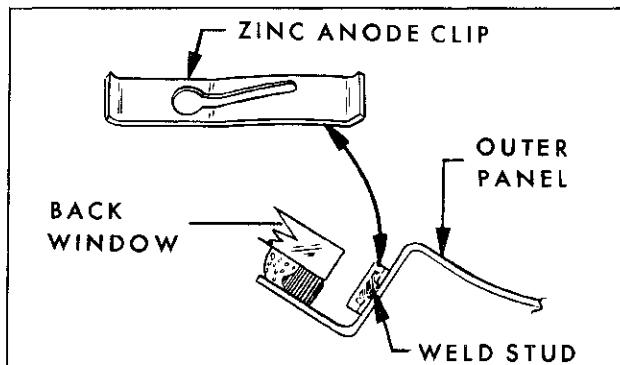


Fig. 17-6—Zinc-Anode Clip Installation

1. Drill a small hole adjacent to where the original stud was installed. (Glass should be protected and caution should be exercised when making this replacement.)
2. Install emergency replacement clip (Group 10.096) as shown in Figure 17-6. Use self sealing screw or apply body caulking compound around clip hole to effect a watertight seal.

NOTE:

1. Replacement of damaged weld stud may be realized without glass removal.
2. Both zinc anode clips and emergency replacement self-sealing screws are available as service parts.

METHODS OF MOLDING RETENTION
CHEVROLET "A" BODIES - 13000 SERIES
FIGURES 17-7 THROUGH 17-17

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All	X (67 Only)		X				
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	Cowl Air Intake Grille
4	Windshield Pillar Drip Scalp	All (Except 67)		View K				Roof Drip Molding Front Scalp Escutcheon	
5	Roof Drip Molding Front Scalp Escutcheon	All (Except 67)		View K				Windshield Pillar Drip Scalp and Roof Drip Scalp	
6	Roof Drip Molding Front Scalp	39 Style		View K				Roof Drip Molding Front Scalp Escutcheon	
7	Roof Drip Molding Rear Scalp	39 Style		View K				Roof Drip Molding Front Scalp	
8	Roof Drip Molding Scalp	All (Except 39-67)		View K				Roof Drip Molding Front Scalp Escutcheon	
9	Front Door Window Frame Front Scalp	27, 35, 69, 80		View J					
10	Front Door Window Frame Upper Scalp	27, 35, 69, 80		View J				Front Door Window Frame Front Scalp	
11	Front Door Window Frame Rear Scalp	27, 35, 69		View J				Front Door Window Frame Upper Scalp	
12	Center Pillar Scalp	69	X						
13	Rear Door Window Frame Front Scalp	35, 69		View J				Rear Door Window Frame Upper Scalp	
14	Rear Door Window Frame Upper Scalp	35, 69		View J					
15	Rear Quarter Window Reveal Front	27 Style			X			Rear Quarter Window Reveal Upper	

METHODS OF MOLDING RETENTION
CHEVROLET "A" BODIES - 13000 SERIES
FIGURES 17-7 THROUGH 17-17

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
16	Rear Quarter Window Reveal Upper	27 Style	X					Quarter Window Glass Run Channel	
17	Rear Quarter Belt Reveal Front Corner Escutcheon	27-37 39-69 (Optional)	X			View F	View B	Rear Quarter Belt Reveal (27-37 Styles)	
18	Rear Quarter Belt Reveal	27-37 39-69 (Optional)			X		View B	Rear Quarter Belt Reveal Rear Corner Escutcheon	Trim in Sail Area (39-69 Only)
19	Rear Quarter Belt Reveal Rear Corner Escutcheon	27-37 39-69 (Optional)					X	Rear End Belt Reveal Rear Quarter Belt Reveal	
20	Rear Belt Reveal	27-37 39-69 (Optional)			X		X		
21	Body Lock Pillar Belt Reveal	80 Style (Optional)			X				
22	Rear Quarter Pinchweld Finishing	67	X		X				Lower Top Halfway
23	Rear Quarter Window Reveal Front Upper Corner Escutcheon	35			X			Loosen Rear Quarter Window Reveal Upper and Lower at Corner	
24	Rear Quarter Window Reveal Upper	35			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	
25	Rear Quarter Window Reveal Lower	35			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	
26	Rear Quarter Belt Finishing At Back Window	80			X		View B		Rear Seat Back
27	Rear Quarter Pinchweld Belt Finishing Front	80	X					Rear Quarter Belt Finishing at Back Window & Rear Quarter Pinchweld Finishing Rear	

METHODS OF MOLDING RETENTION

CHEVROLET "A" BODIES - 13000 SERIES
FIGURES 17-7 THROUGH 17-17

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
28	Rear Quarter Pinchweld Belt Finishing Rear	80			View L				
29	Rear Quarter Pinchweld Belt Finishing Rear of Rear Upper	80	X				X	Rear Quarter Pinchweld Belt Finishing Rear and Rear of Rear Lower	Tail Lamp Pocket
30	Rear Quarter Belt Finishing Rear of Rear Lower	80					X		Tail Lamp Pocket
31	Front Door Outer Panel	13600 13800	X		X				
32	Rear Door Outer Panel	13600	X		X				
33	Front of Rear Wheel Opening	13600 13800	X			View F	X		
35	Rear Wheel Opening	13639 (Optional)	X						
36	Rear of Rear Wheel Opening	13800 13680				X	X		
37	Rear Quarter Outer Panel Emblem and/or Nameplate	80					X		Rear Quarter Inner Access Hole Cover
38	Front Door Outer Panel Upper	13835	X		X				
39	Front Door Outer Panel Lower	13835	X		X				
40	Rear Door Outer Panel Upper	13835	X		X				
41	Rear Door Outer Panel Lower	13835	X		X				
42	Rear Quarter Outer Panel (Rt. Side)	13835			X				
43	Rear Quarter Outer Panel Front (Lt. Side)	13835			X				

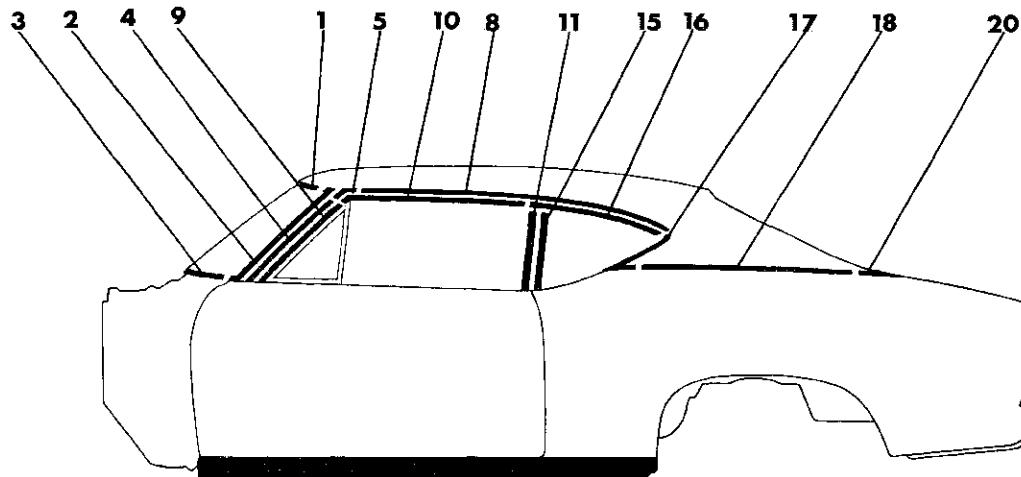
METHODS OF MOLDING RETENTION

CHEVROLET "A" BODIES - 13000 SERIES
FIGURES 17-7 THROUGH 17-17

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
44	Rear Quarter Outer Panel at Gas Filler Door (Lt. Side)	13835	X						
45	Rear Quarter Outer Panel Rear (Lt. Side)	13835			X				
46	Rear Quarter Outer Panel Rear Vertical Upper	13835	X			View F		Rear Quarter Outer Panel Transfer Finishing Rear (Lt. Side)	
47	Rear Quarter Outer Panel Rear Vertical Lower	13835	X			View F		Rear of Rear Wheel Opening Outer Panel Transfer Finishing	
48	Front of Rear Wheel Opening Outer Panel	13835	X						
49	Rear of Rear Wheel Opening Outer Panel	13835			X			Rear Quarter Outer Panel Transfer Finishing Rear Vertical Lower	
50	Rear End Panel Emblem and/or Name Plate	All					X		
51	Rear End Outer Panel	13639 (Optional)					X		
52	Rear End Outer Panel Upper	13600 13800					X		
53	Rear End Outer Panel Lower	13600 13800					X		
54	Back Window Reveal Upper and Sides	27 & 37			X				
55	Back Window Reveal Upper	39-69			X			Back Window Reveal Side	
56	Back Window Reveal Side and Lower	39-69			X				

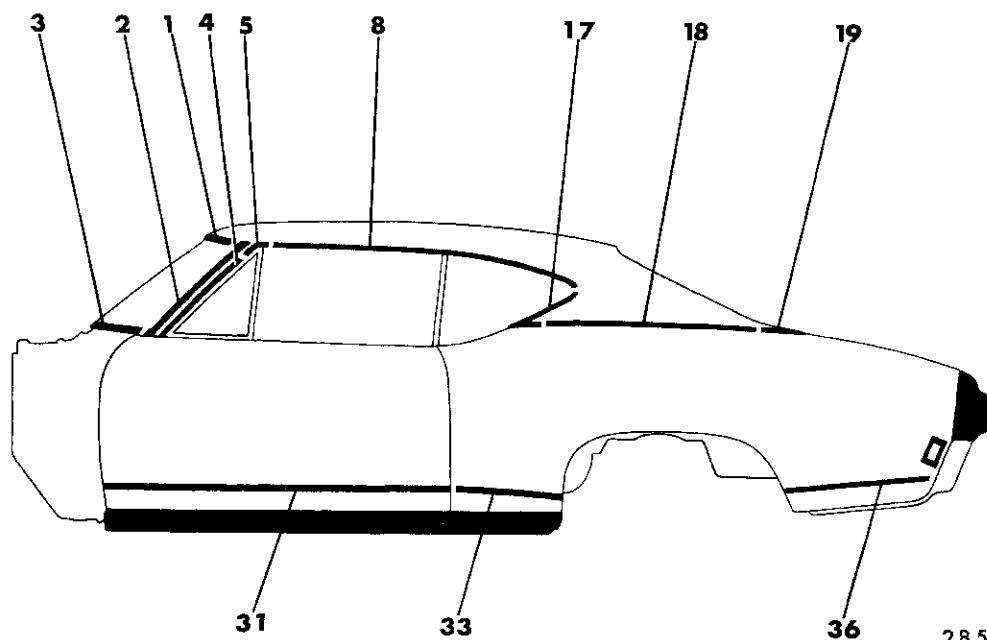
METHODS OF MOLDING RETENTION
CHEVROLET "A" BODIES - 13000 SERIES
FIGURES 17-7 THROUGH 17-17

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
57	Back Window Reveal Lower	27-37 80			X			Back Window Reveal Side	
58	Back Window Reveal Lower Corner Escutcheon	80						Loosen Lower Corner of Back Window Reveal Upper and Side and Loosen Back Window Lower Reveal	
59	Back Body Opening Upper Reveal	35	X					Back Body Opening Side Reveal	Tail Gate Window Glass Run Channel
60	Back Body Opening Side Reveal	35	X						Back Body Opening Pinchweld Finishing Lace
61	Roof Panel Emblem	80				X			
62	Tail Gate Outer Panel Emblem and/or Name Plate	35, 80					X		Tail Gate Trim Assembly
63	Tail Gate Outer Panel Upper	13635-80 13835						Tail Gate Outer Panel Side (13835 Only)	Tail Gate Trim Assembly
64	Tail Gate Outer Panel Lower	13635-80 13835					X	Tail Gate Outer Panel Side (13835 Only)	Tail Gate Trim Assembly
65	Tail Gate Outer Panel Side	13835					X		Tail Gate Trim Assembly
66	Tail Gate Belt Finishing	80					X		
67	Rear of Rear Quarter Outer Panel Upper	13635-80	X			View F			
68	Rear of Rear Quarter Outer Panel Lower	13635-80	X			View F			
69	Rear Wheel Opening Transfer Finishing	13835	X						



2852

Fig. 17-7—Chevrolet "A-27" Styles



2853

Fig. 17-8—Chevrolet "A-37" Styles ('67' Styles Similar)

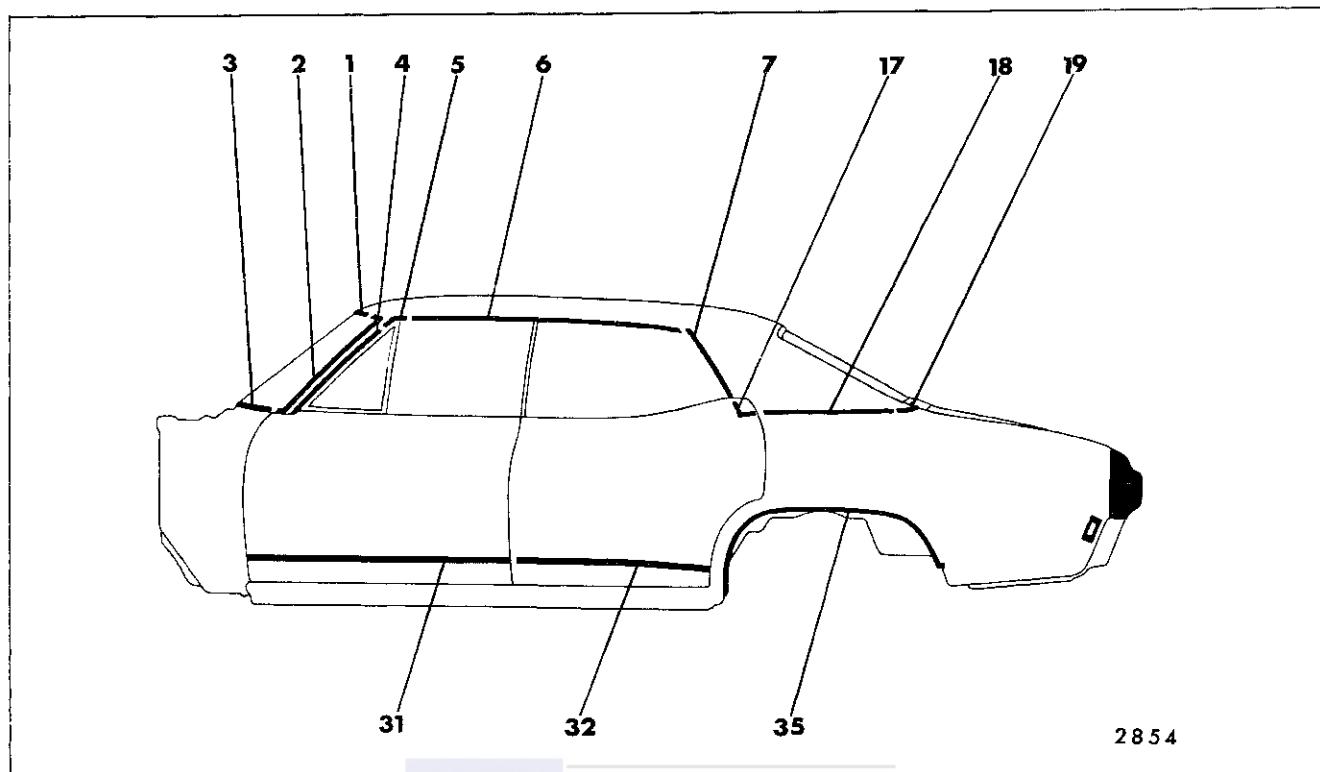


Fig. 17-9—Chevrolet "A-39" Styles

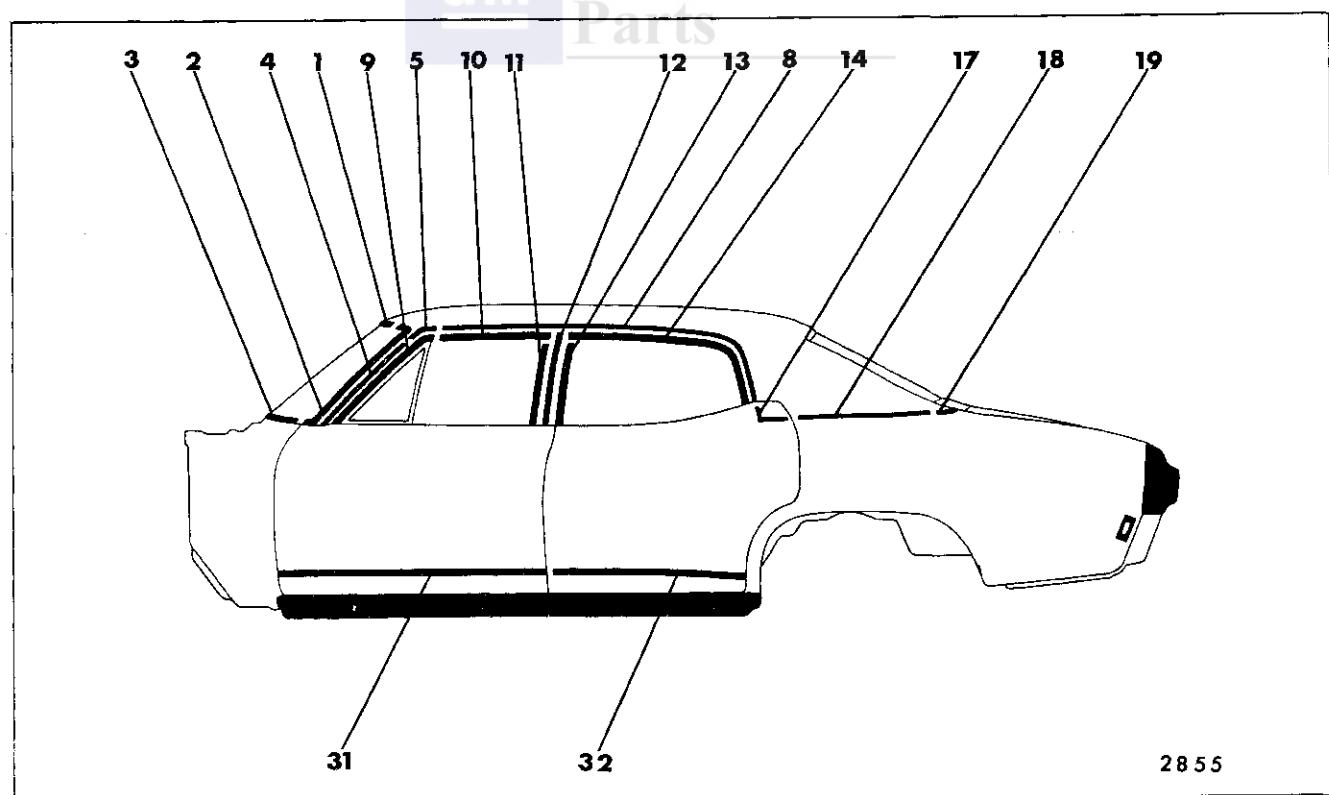


Fig. 17-10—Chevrolet "A-69" Styles

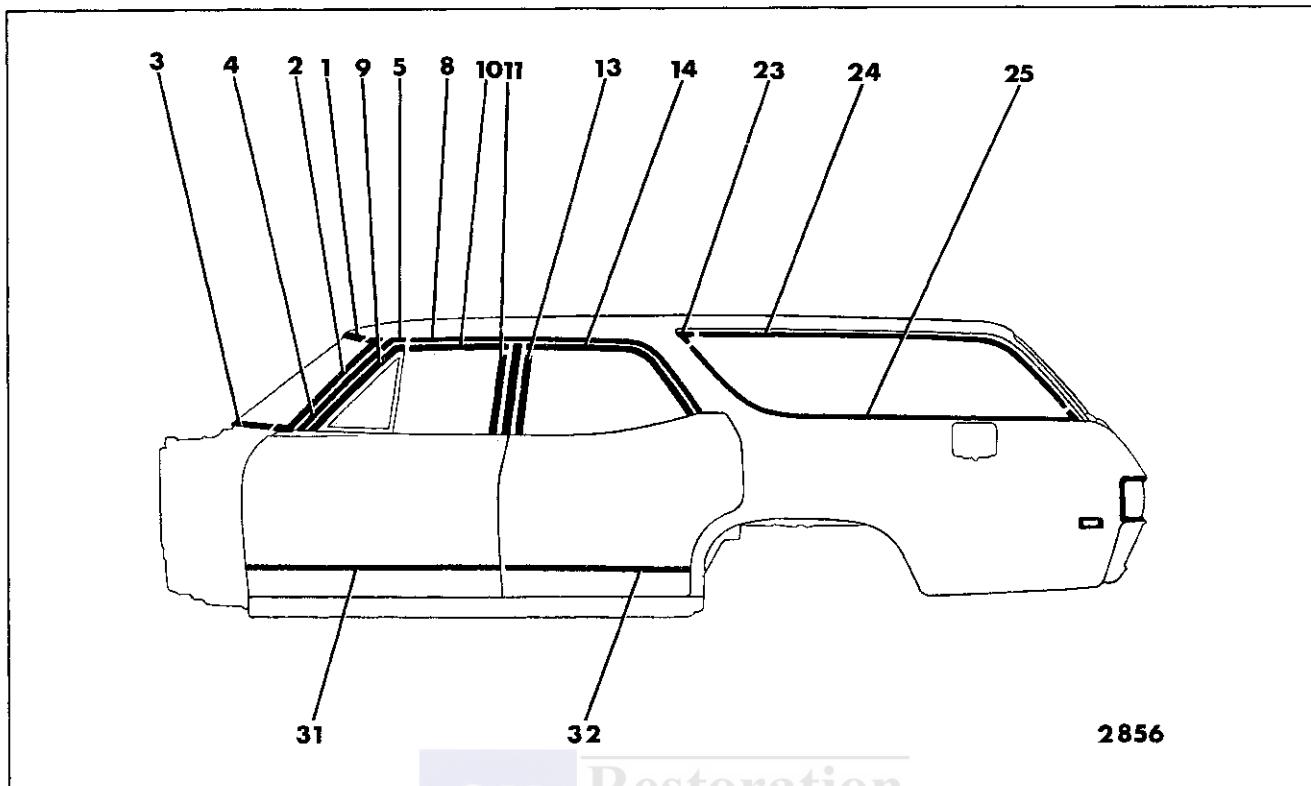


Fig. 17-11—Chevrolet "A-35" Styles (Less 13835 Style)

Restoration
Parts

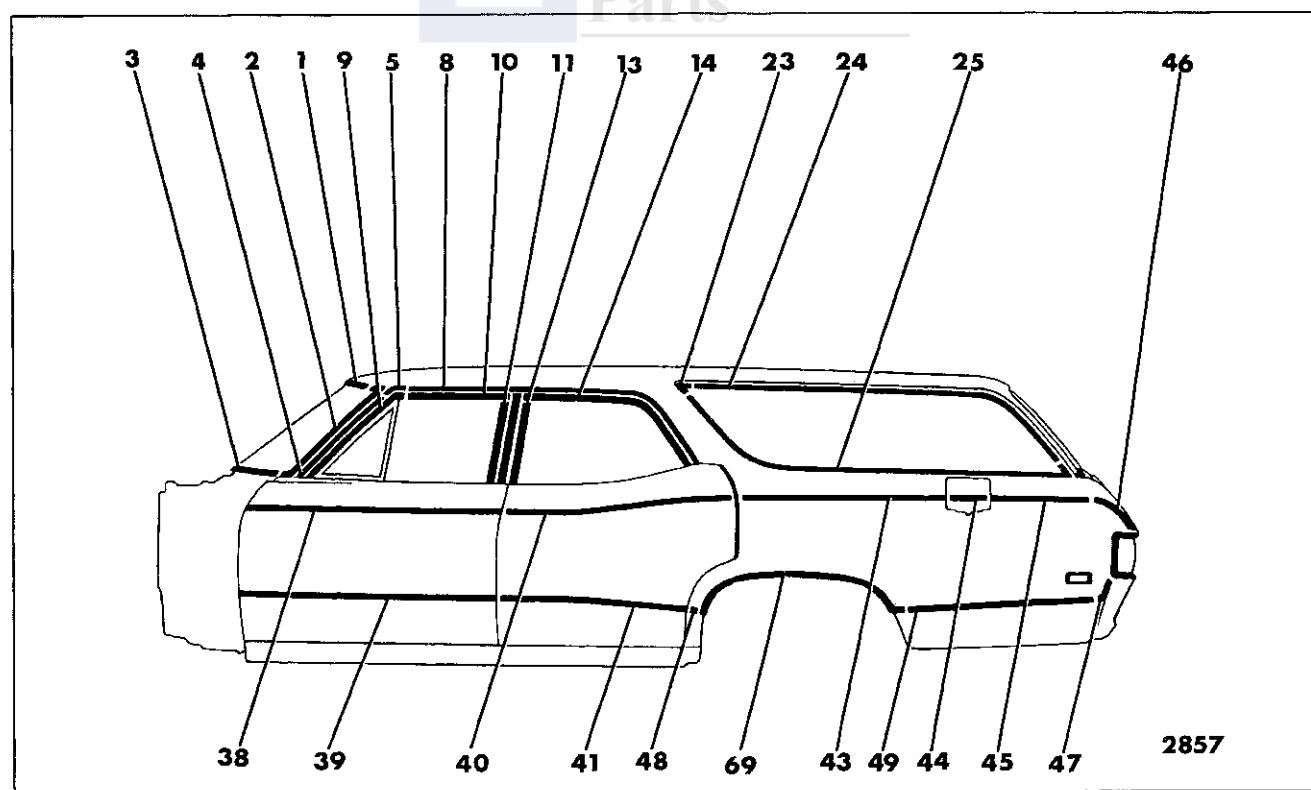


Fig. 17-12—Chevrolet 13835 Style

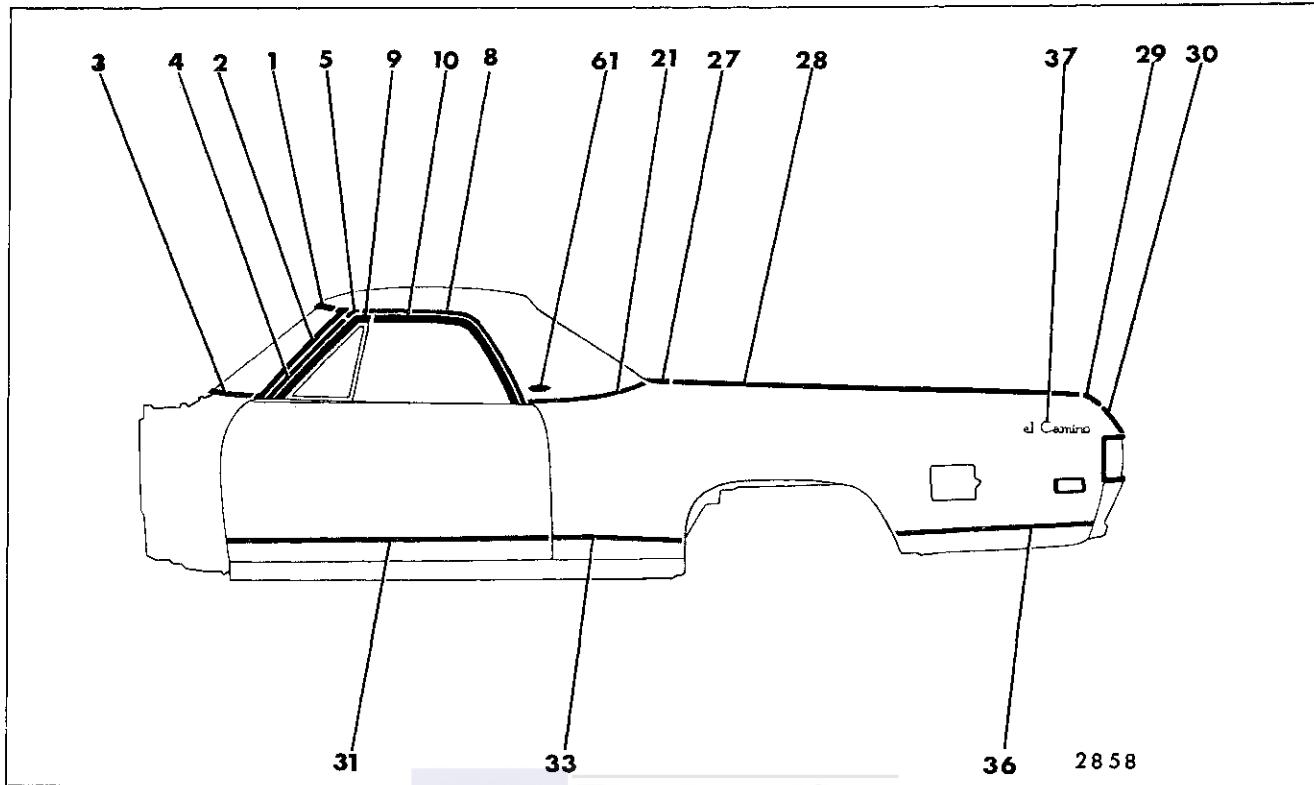


Fig. 17-13—Chevrolet "A-80" Styles

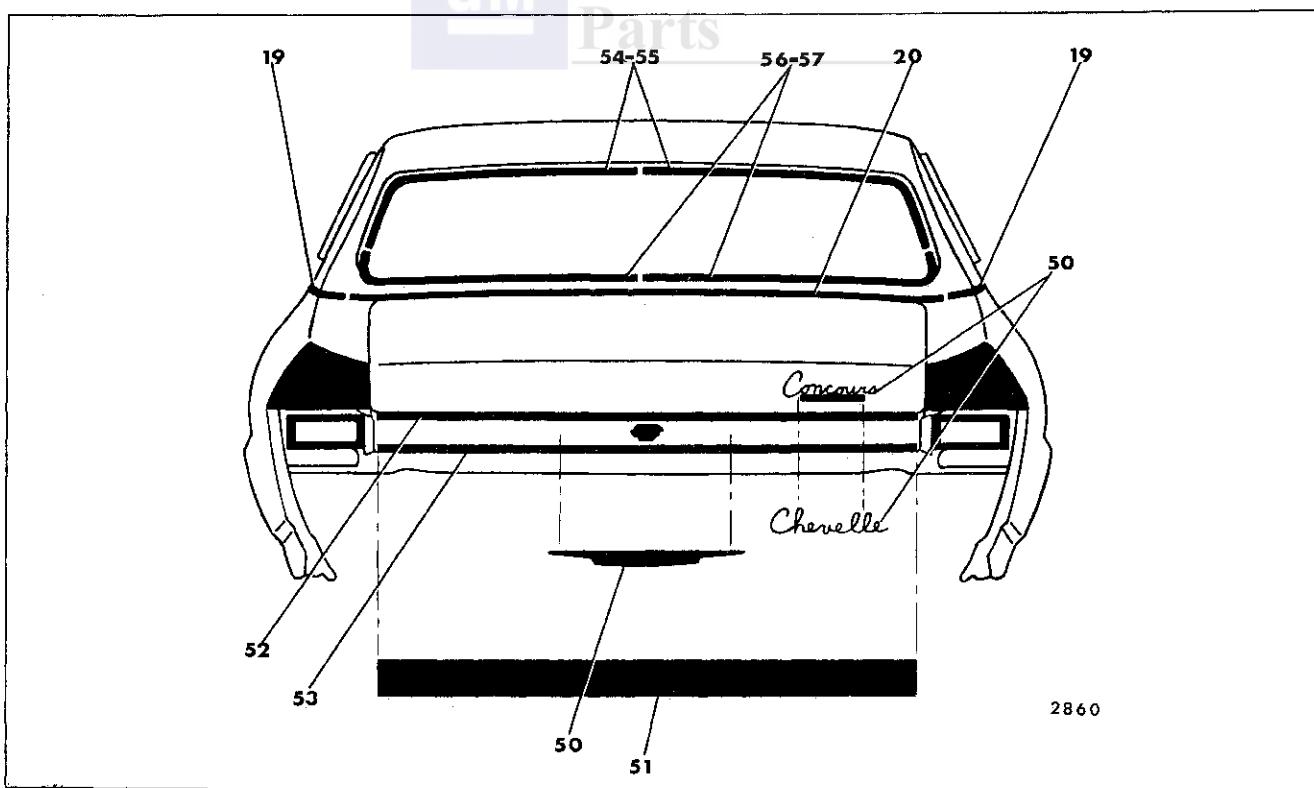


Fig. 17-14—Chevrolet 13200-13400-13600-13800 Styles (Less 35 Styles)

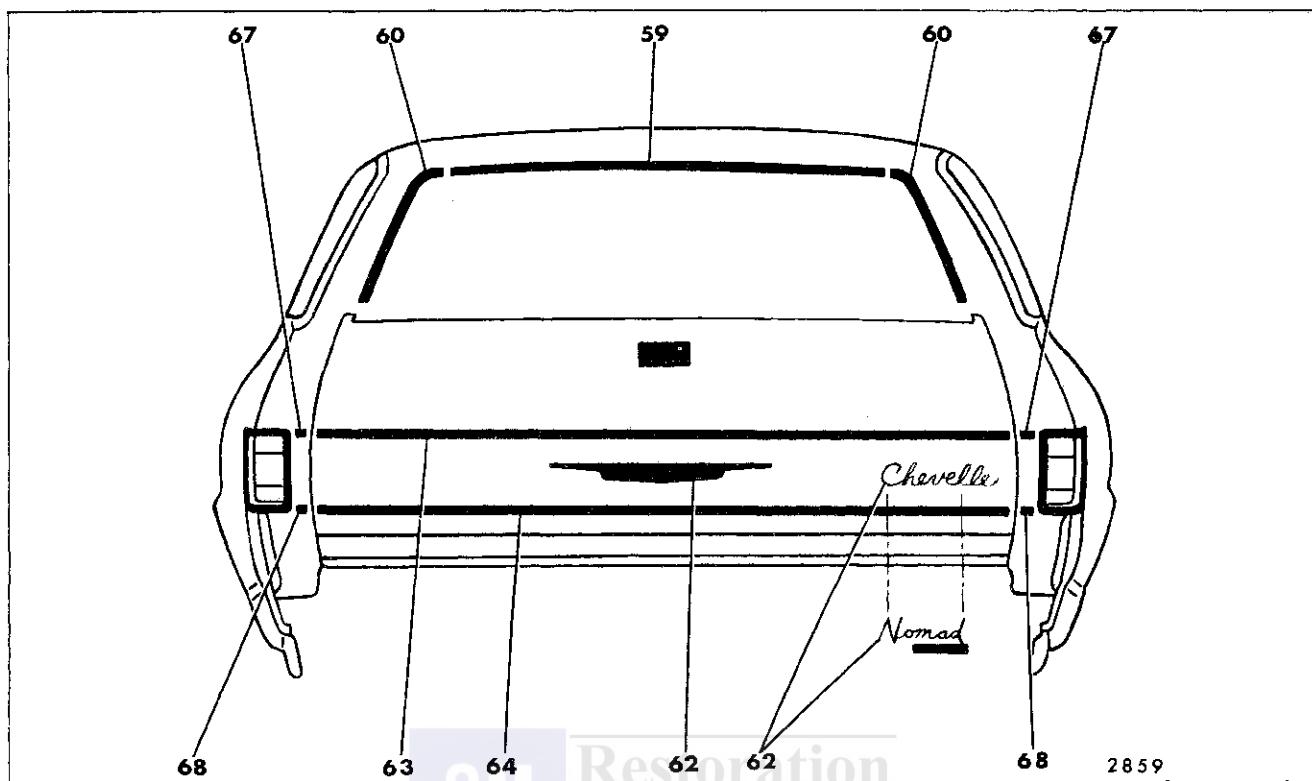


Fig. 17-15—Chevrolet "A-35" Styles (Less 13835 Style)

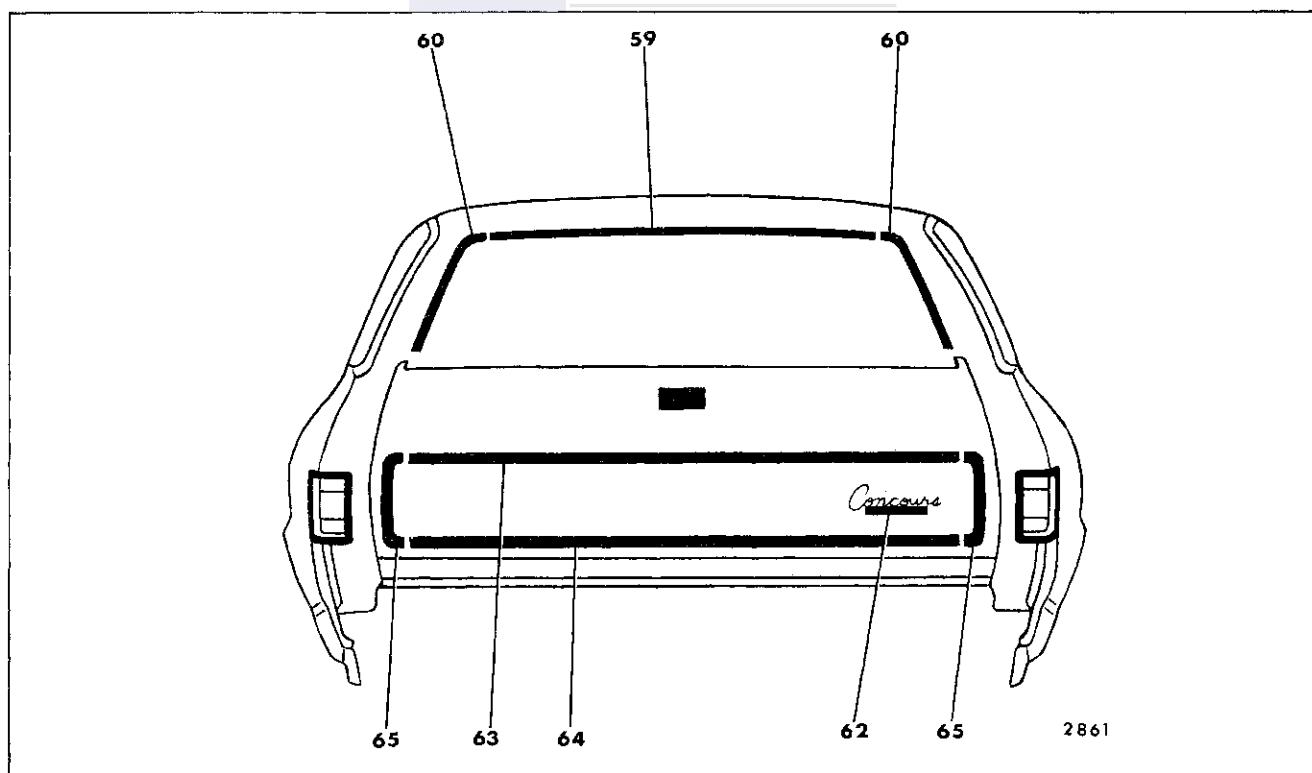


Fig. 17-16—Chevrolet 13835 Style

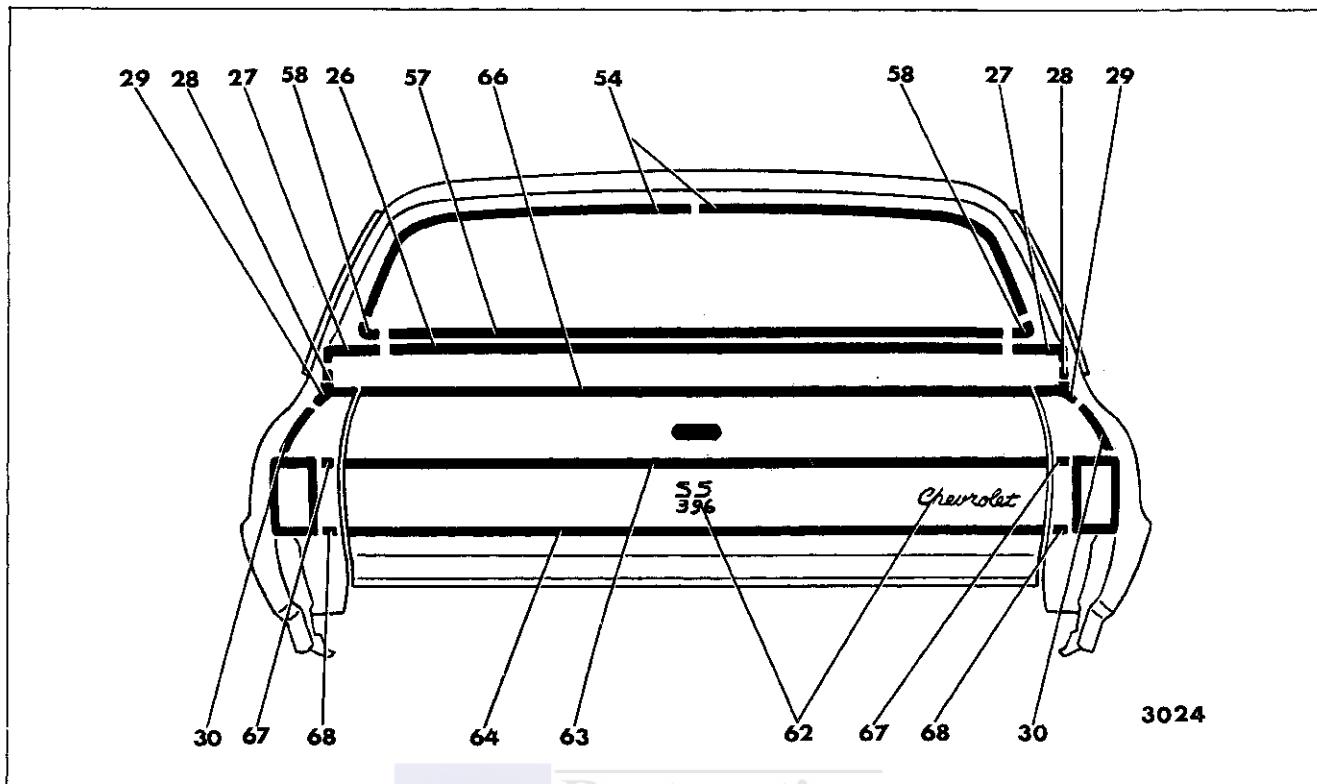


Fig. 17-17—Chevrolet "A-80" Styles

**GM Restoration
Parts**

METHODS OF MOLDING RETENTION
CHEVROLET "B" BODIES - 15000 AND 16000 SERIES
FIGURES 17-18 THROUGH 17-29

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attached Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower	
3	Windshield Reveal Lower	All	X						
4	Windshield Pillar	All (Except 67)	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
5	Windshield Pillar Finishing	67	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
6	Windshield Header	67	X					Windshield Pillar Finishing, Windshield Upper Reveal	Rear View Mirror Support Sunshade Support
7	Roof Drip Molding Scalp	11, 39, 69, 87		View K				Windshield Pillar Drip	
8	Roof Drip Molding Scalp Front	35, 45, 47		View K				Windshield Pillar Drip	
9	Roof Drip Molding Scalp Rear	35, 45 47	X	View K				Roof Drip Molding Scalp Front	Rear Garnish Molding & Quarter Window Glass Run Channel (47 Style Only)
10	Front Door Window Frame Scalp Front	11, 35, 45, 69		View J					
11	Front Door Window Frame Scalp Upper	11, 35, 45, 69		View J				Front Door Window Frame Scalp Front	

METHODS OF MOLDING RETENTION
CHEVROLET "B" BODIES - 15000 AND 16000 SERIES
FIGURES 17-18 THROUGH 17-29

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
12	Front Door Window Frame Scalp Rear	11, 35, 45, 69		View J				Front Door Window Frame Scalp Upper	
13	Front Door Window Belt Reveal (At Vent)	All (Less 16647)	X						Front Door Vent Assembly
14	Rear Door Window Frame Scalp Front	35, 45, 69		View J				Rear Door Window Frame Scalp Upper	
15	Rear Door Window Frame Scalp Upper	35, 45, 69		View J				Rear Door Window Frame Scalp Rear (35, 45 Styles Only)	
16	Rear Door Window Frame Scalp Rear	35, 45		View J					
17	Rear Quarter Window Reveal Front	11			X			Rear Quarter Window Reveal Upper	
18	Rear Quarter Window Reveal Upper	11	X						
19	Rear Quarter Window Reveal Upper	35, 45			X			Rear Quarter Window Reveal Lower Escutcheon	
20	Rear Quarter Window Reveal Lower	35, 45			X			Rear Quarter Window Reveal Upper	
21	Rear Quarter Window Reveal Lower Escutcheon	35, 45			X				
22	Rear Quarter Belt Reveal	11, 39, 47, 69, 87 (Optional)			X		X		Headlining At Rear Quarter Area
23	Rear Quarter Belt Pinchweld Finishing	67	X			X			
24	Front Door Outer Panel	15600, 16400 16639, 16647	X		X		View B (For 16639-47)	Front Door Trim Pad (For 16639-47)	

METHODS OF MOLDING RETENTION
CHEVROLET "B" BODIES - 15000 AND 16000 SERIES
FIGURES 17-18 THROUGH 17-29

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
25	Rear Door Outer Panel	15600, 16400, 16639	X		X			View B (For 16639)	Rear Door Trim Pad (For 16639)
26	Rear Quarter Outer Panel	15600-16400 15635-45 (Lt. Side)			X X			View B	Rear Quarter Trim Pad
27	Front of Rear Wheel Opening	16647	X		X			X	
28	Front of Rear Wheel Opening Corner	16639	X					X	
29	Rear Wheel Opening	16400 16600	X						
30	Rear of Rear Wheel Opening	16639-47				View F	View B		
31	Roof Panel Name Plate	16639-47						X	Headlining At Rear Quarter Area
32	Front Door Outer Panel Transfer Finishing Upper	16635-45	X		X				
33	Front Door Outer Panel Transfer Finishing Lower	16635-45	X		X				
34	Rear Door Outer Panel Transfer Finishing Upper	16635-45	X		X				
35	Rear Door Outer Panel Transfer Finishing Lower	16635-45	X		X				
36	Rear Quarter Outer Panel Transfer Finishing Upper	16635-45			X				
37	Front of Rear Wheel Opening Transfer Finishing Lower	16635-45	X					X	

METHODS OF MOLDING RETENTION
CHEVROLET "B" BODIES - 15000 AND 16000 SERIES
FIGURES 17-18 THROUGH 17-29

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attached Nuts	Engages With Other Moldings	Remove Hardware Or Trim
38	Rear of Rear Wheel Opening Transfer Finishing Lower	16635-45			X				
39	Rear Quarter Outer Panel Transfer Finishing Rear Vertical	16635-45				X			
40	Rear of Rear Quarter Outer Panel	16639-47	X				X		Rear of Rear Quarter Extension
41	Rear of Rear Quarter Outer Panel Transfer Finishing	16635-45	X			View F			
42	Rear of Rear Quarter Outer Panel Lower	16635-45	X						
43	Back Window Reveal Upper	All (Except 11, 35, 45, 67, 69)			X			Back Window Reveal Side	
44	Back Window Reveal Side	All (Except 11, 35, 45, 67, 69)			X				
45	Back Window Reveal Upper and Sides	11 and 69			X				
46	Back Window Reveal Lower	All (Except 35, 45, 67)			X			Back Window Reveal Side	
47	Back Body Opening Upper Reveal	35, 45	X					Back Body Opening Reveal Side	Upper Glass Run Channel
48	Back Body Opening Side Reveal	35, 45	X						
49	Tail Gate Window Reveal	35, 45	X			X			
50	Tail Gate Outer Panel Belt Reveal (Optional)	35, 45	X				X		

METHODS OF MOLDING RETENTION

CHEVROLET "B" BODIES - 15000 AND 16000 SERIES
FIGURES 17-18 THROUGH 17-29

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
51	Back Body Pillar Belt Finishing (Optional)	35, 45	X			X			
52	Rear Compartment Lid Outer Panel	16600	X						
53	Tail Gate Outer Panel Lower	16635-45	X		X				Tail Gate Trim Panel Assembly
54	Tail Gate Outer Panel Transfer Finishing Upper	16635-45	X		X				
55	Rear Compartment Lid Outer Panel Emblem	All (Except 35, 45)	X				X		
56	Rear Compartment Lid Outer Panel Name Plate	All (Except 35, 45)					X		
57	Tail Gate Outer Panel Emblem	35-45					X		Tail Gate Trim Panel Assembly
58	Tail Gate Outer Panel Name Plate	35-45					X		Tail Gate Trim Panel Assembly

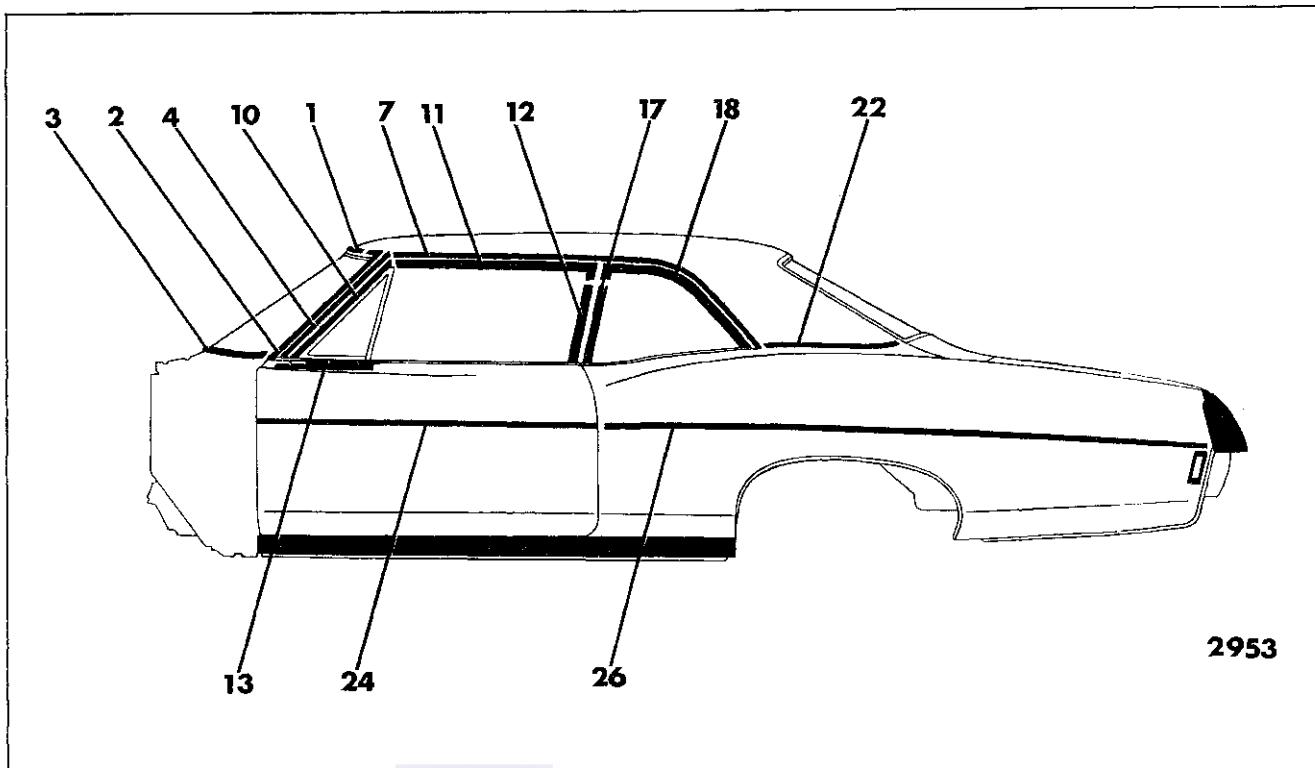


Fig. 17-18—Chevrolet "B-11" Styles

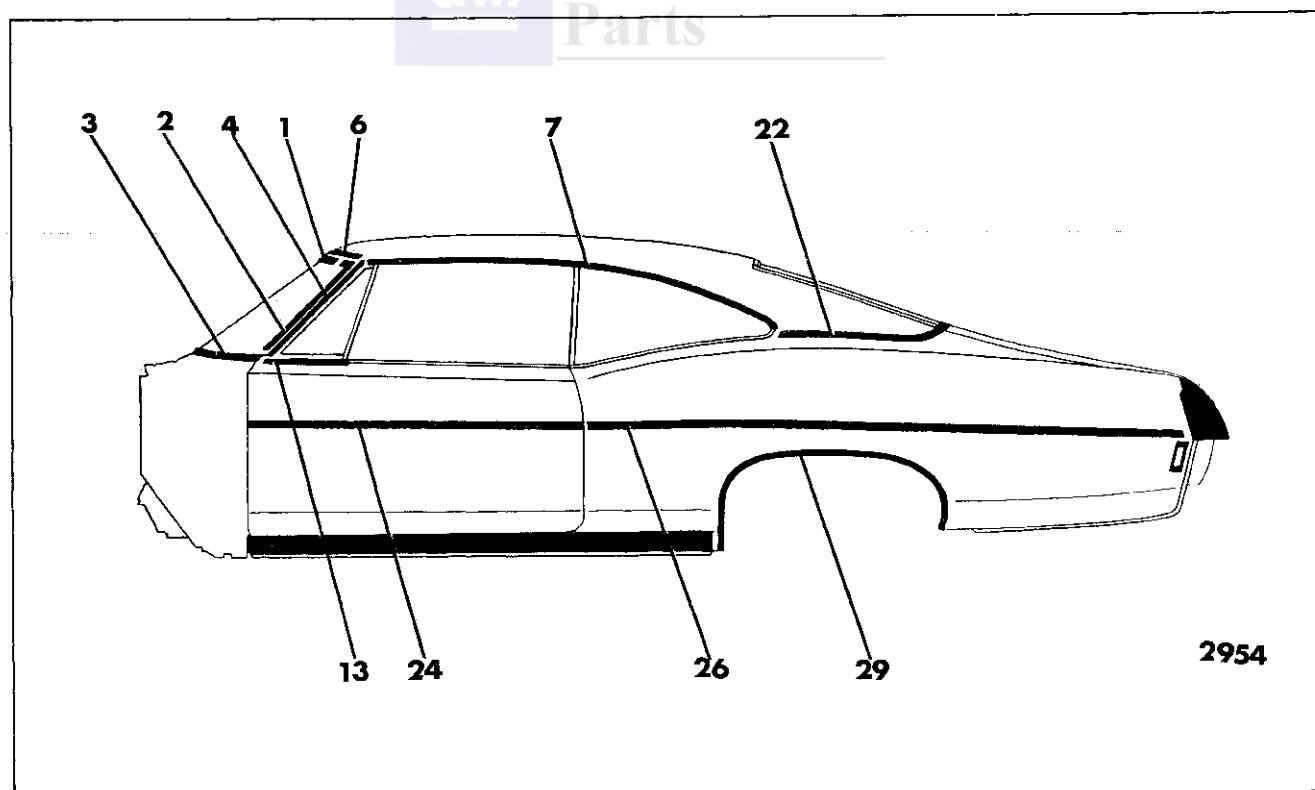


Fig. 17-19—Chevrolet 16487 Styles (16467 Style Similar)

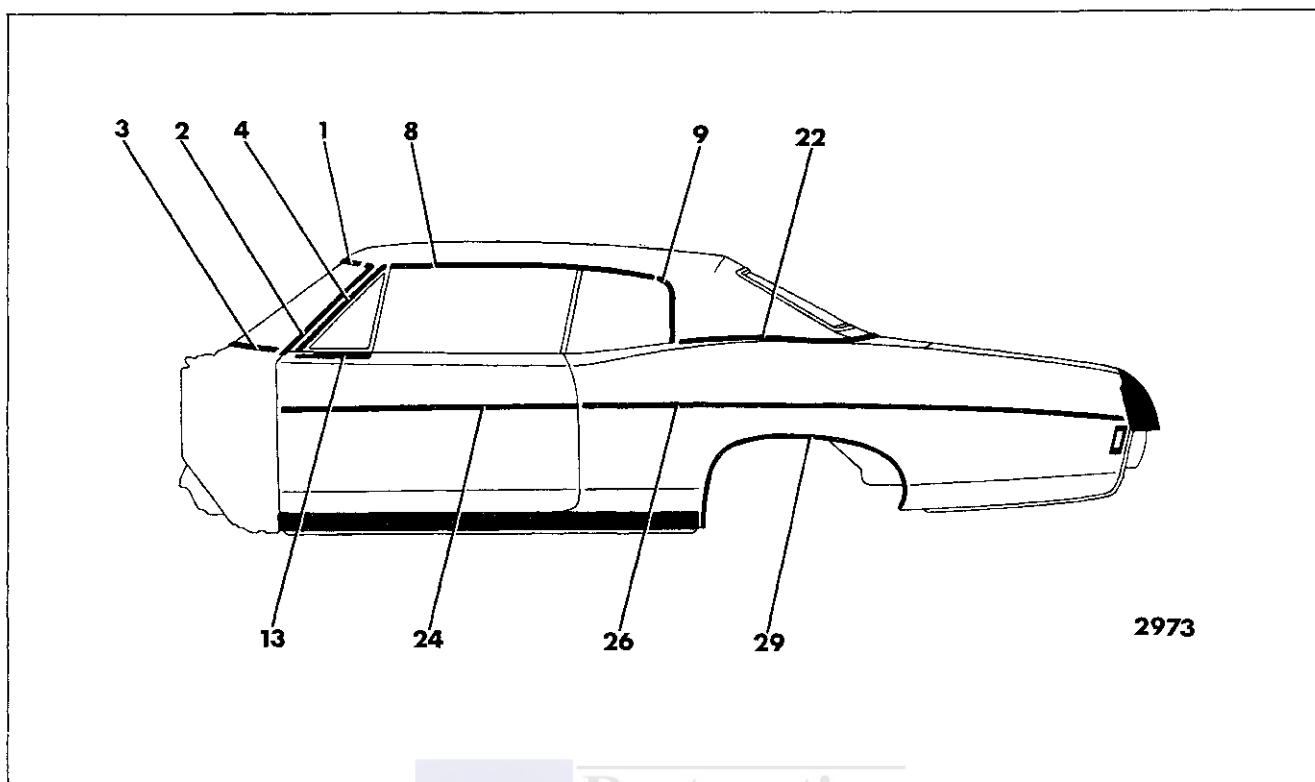


Fig. 17-20—Chevrolet 16447 Styles

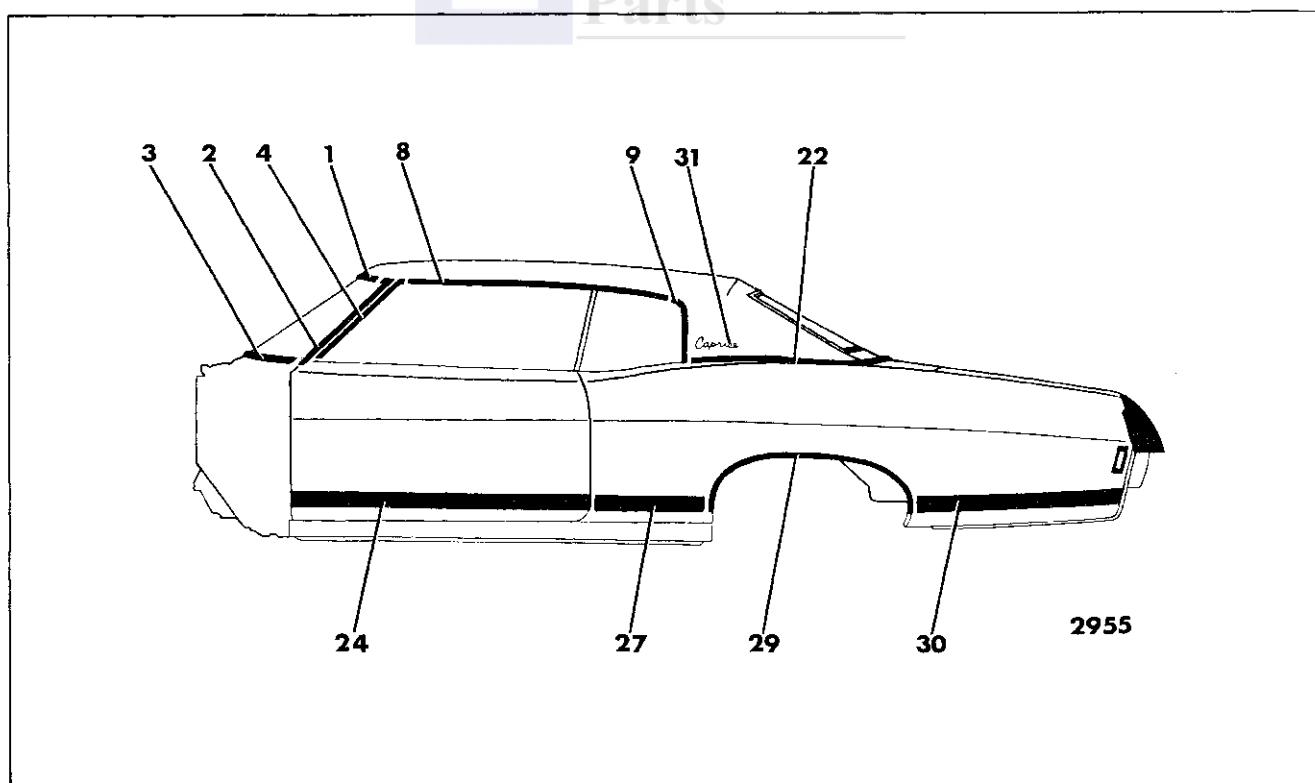


Fig. 17-21—Chevrolet 16647 Styles

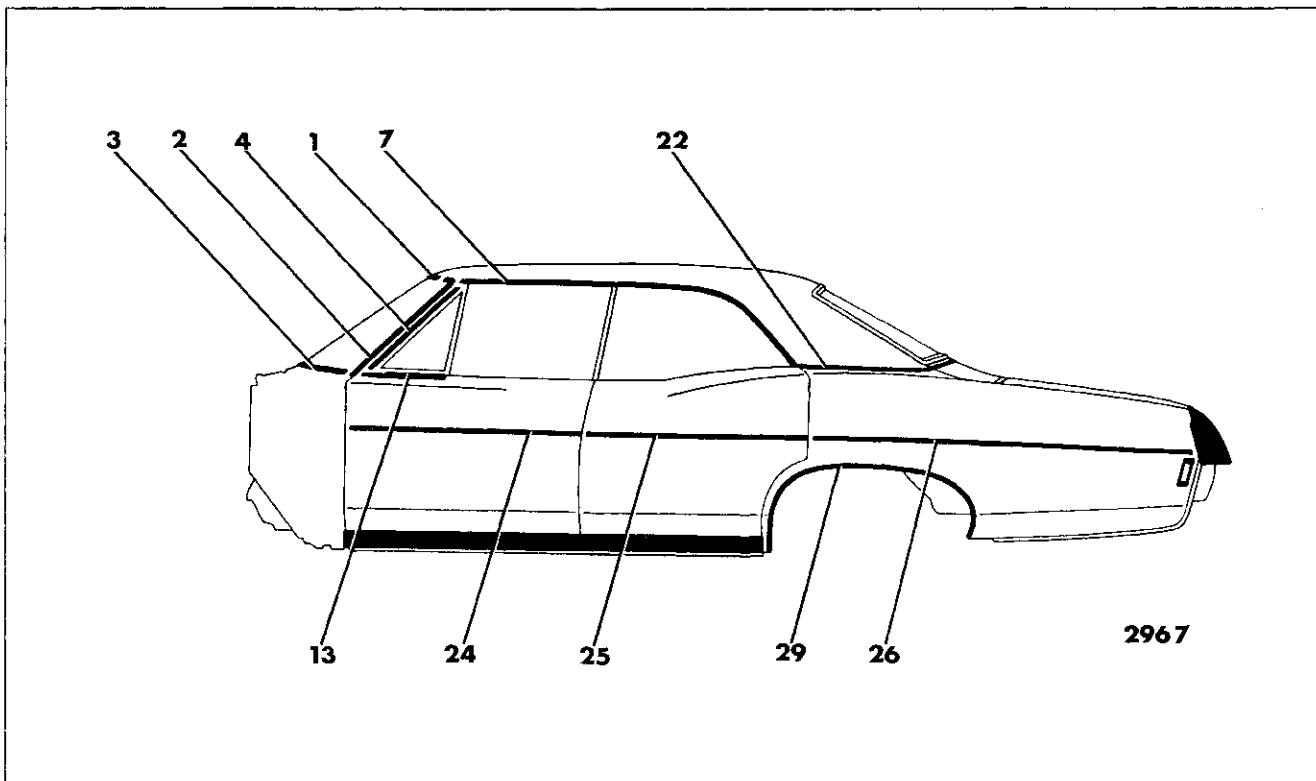


Fig. 17-22—Chevrolet 16439 Styles

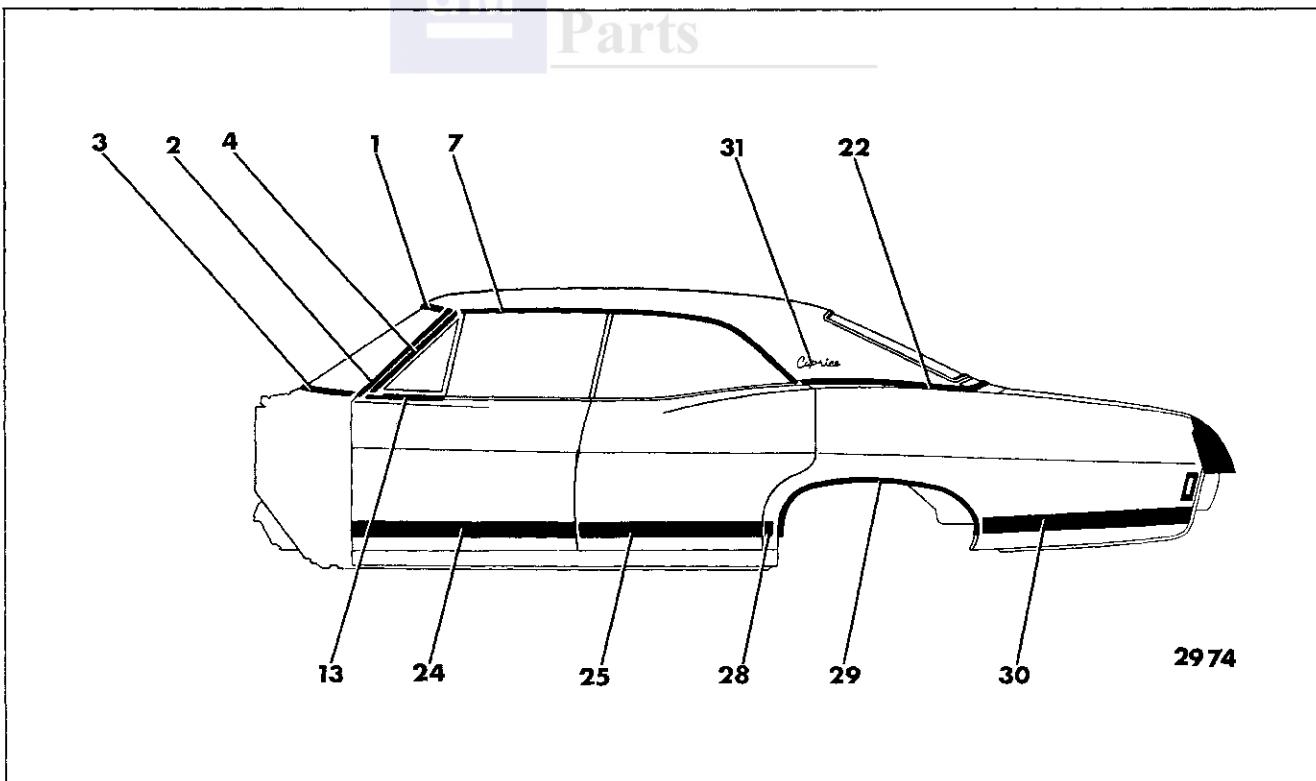


Fig. 17-23—Chevrolet 16639 Styles

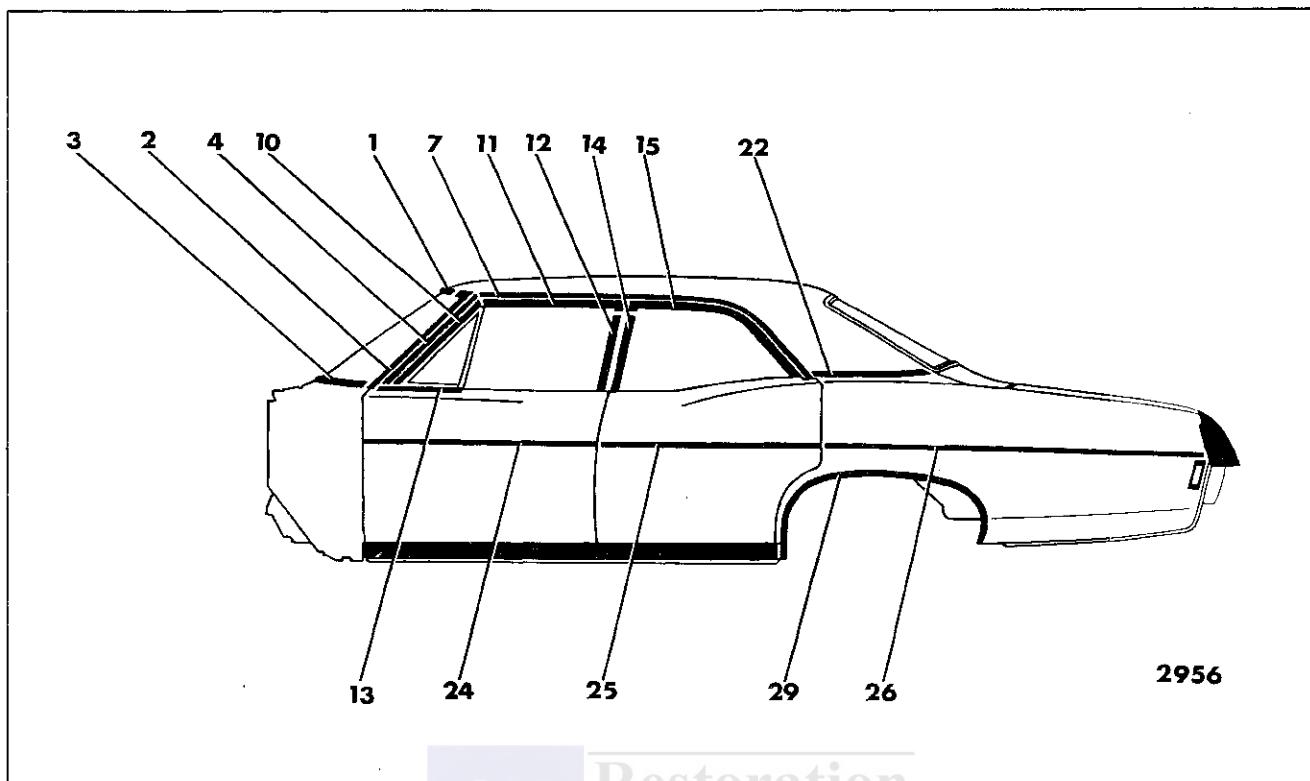


Fig. 17-24—Chevrolet "B-69" Styles

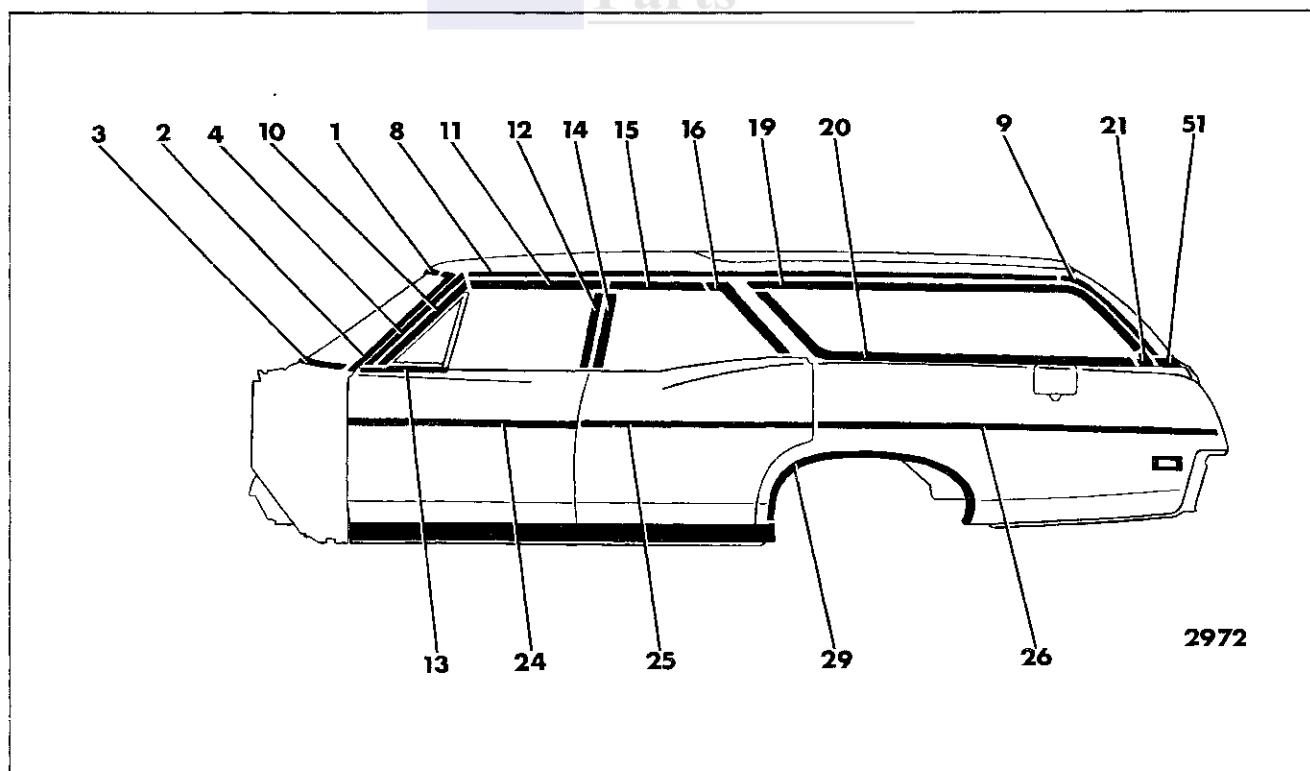


Fig. 17-25—Chevrolet "B-35-45" Styles (Less 16635-45 Styles)

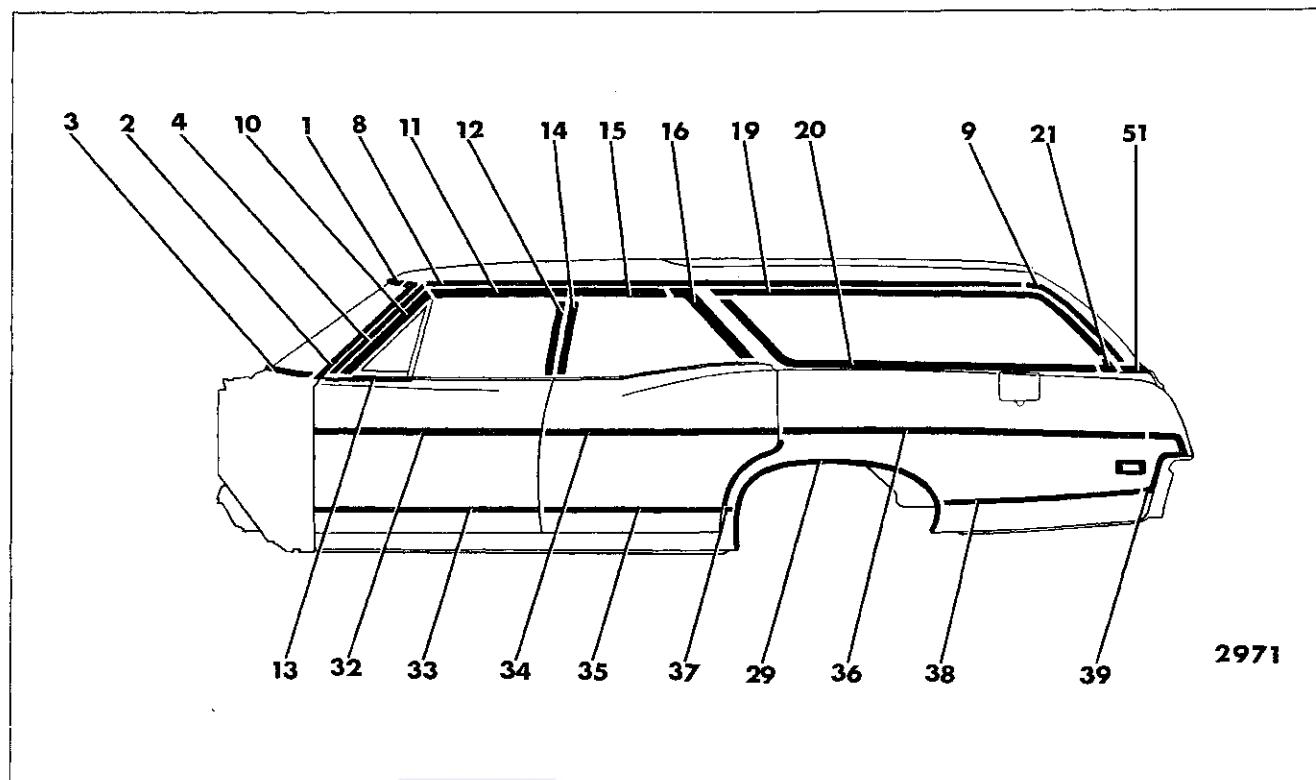


Fig. 17-26—Chevrolet 16635-45 Styles

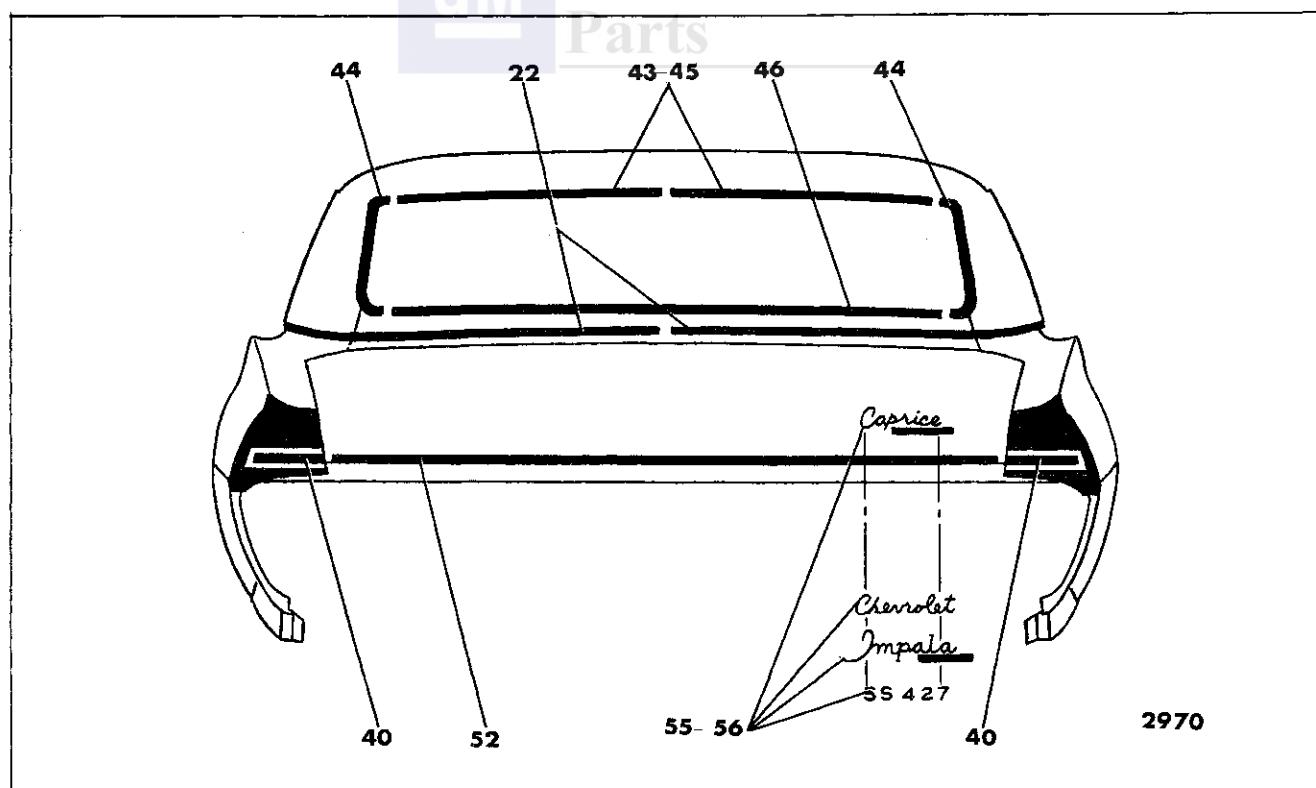


Fig. 17-27—Chevrolet 15400-15600-16400-16600 Styles (Less 35-45 Styles)

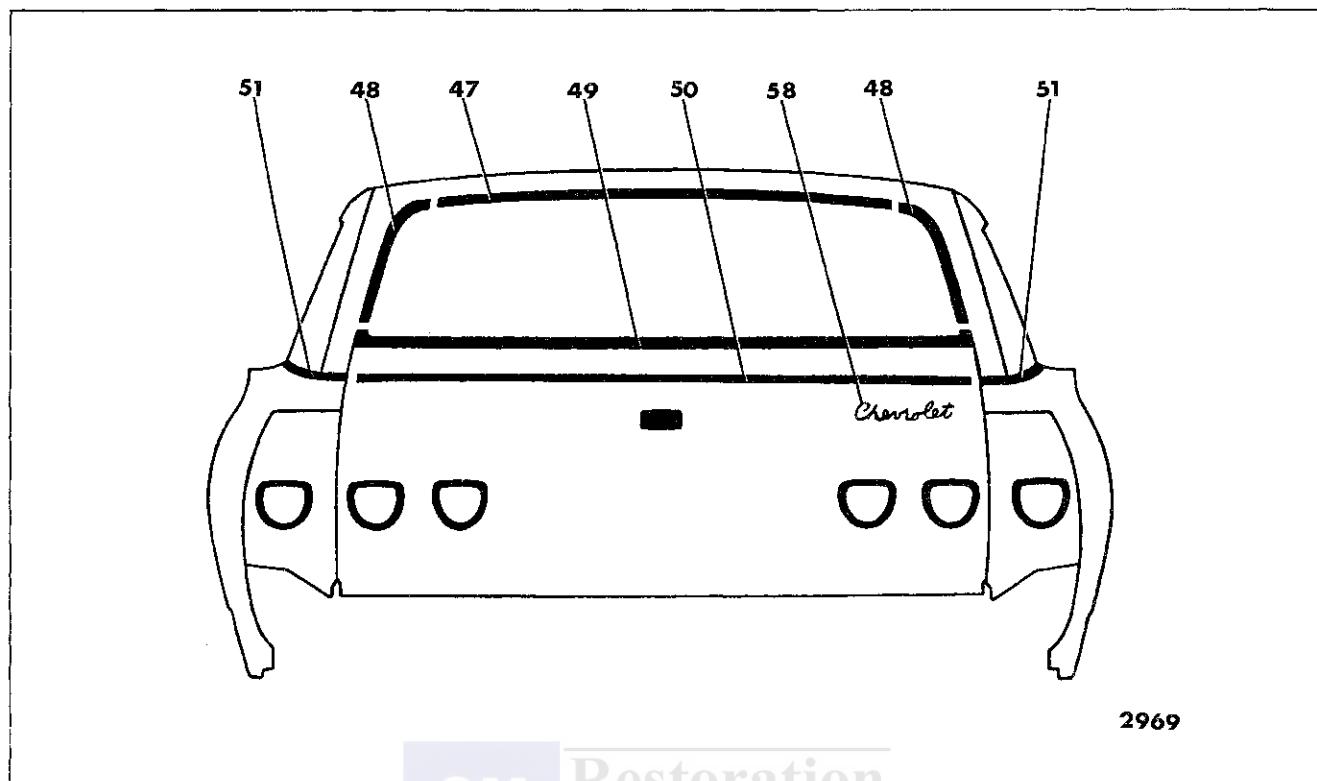


Fig. 17-28—Chevrolet "B-35-45" Styles (Less 16635-45 Styles)

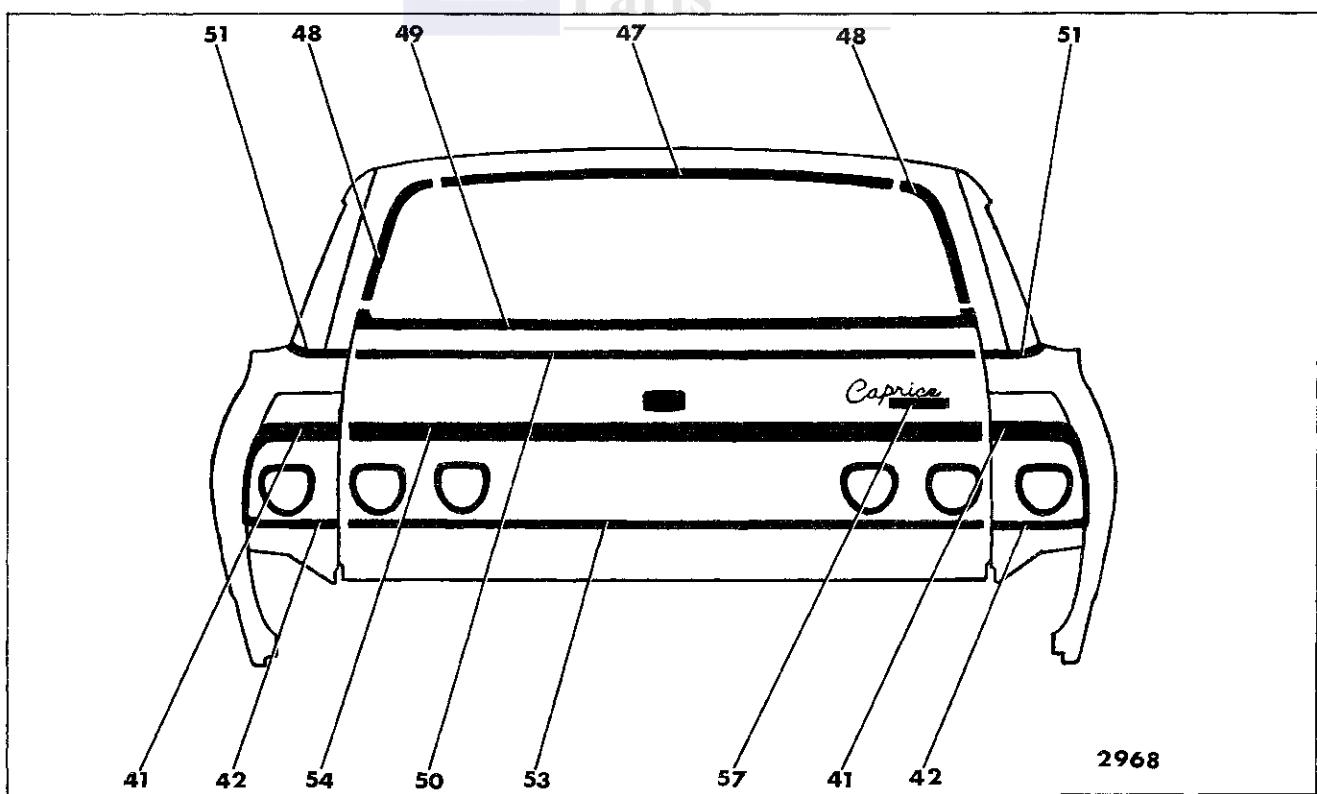


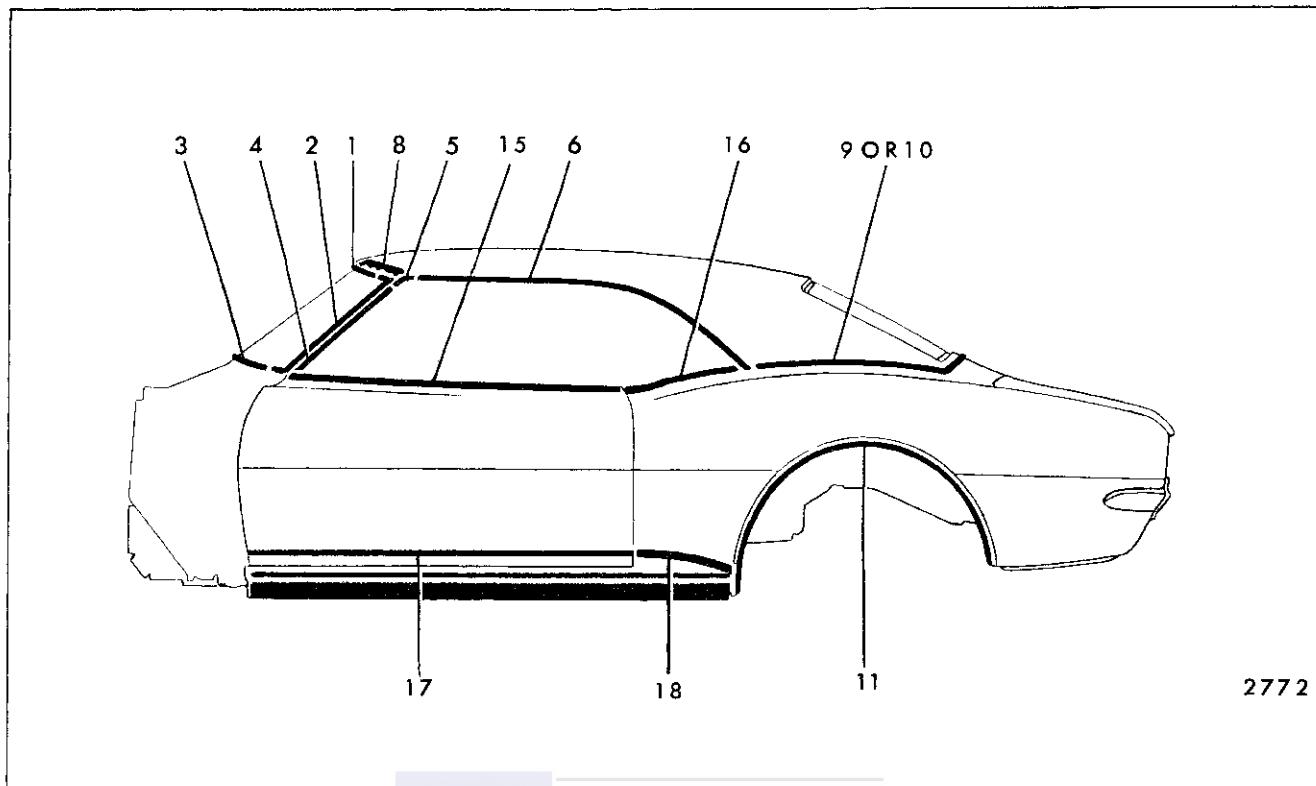
Fig. 17-29—Chevrolet 16635-45 Styles

METHODS OF MOLDING RETENTION
CHEVROLET "F" BODIES - 12000 SERIES
FIGURES 17-30 AND 17-31

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower	
3	Windshield Reveal Lower	All	X						Cowl Air Intake Grille
4	Windshield Pillar Drip Molding Scalp	37 Style	X					Windshield Pillar Drip Molding Scalp Escutcheon	
5	Windshield Pillar Drip Molding Scalp Escutcheon	37 Style		View K					
6	Roof Drip Molding Scalp	37 Style		View K				Windshield Pillar Drip Molding Scalp Escutcheon	
7	Windshield Pillar Finishing	67 Style	X					Windshield Header Windshield Reveal Side	Windshield Pillar Weatherstrip and Weatherstrip Retainer
8	Windshield Header	67 Style	X					Windshield Reveal Upper and Sides	Rear View Mirror Support, Sunshade and Striker Support Windshield Pillar Weatherstrip and Weatherstrip Retainer
9	Rear Quarter Belt Reveal	37 Style (Optional)			X		X		
10	Rear Quarter Pinchweld Finishing	67 Style	X		X				

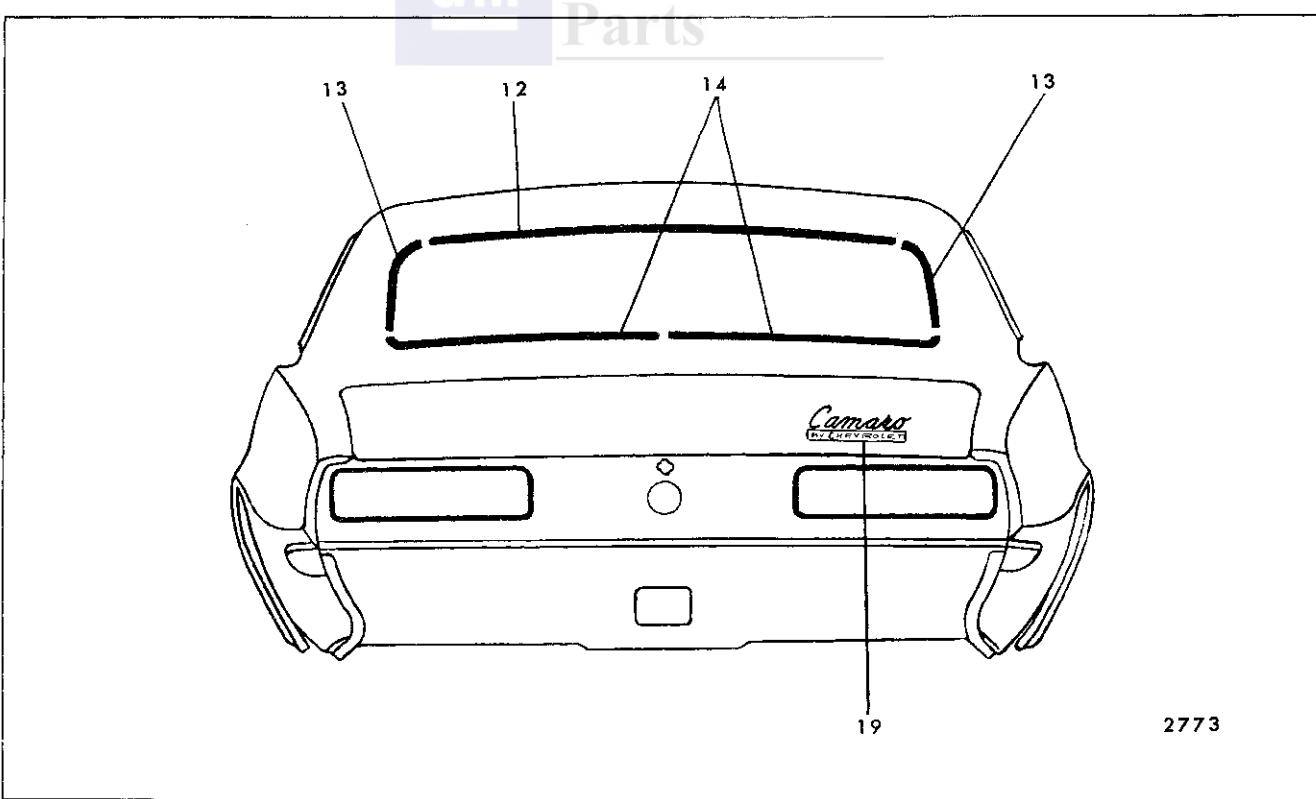
METHODS OF MOLDING RETENTION
CHEVROLET "F" BODIES - 12000 SERIES
FIGURES 17-30 AND 17-31

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
11	Real Wheel Opening	All (Optional)	X						
12	Back Window Reveal Upper	37 Style			X			Back Window Reveal Side	
13	Back Window Reveal Side	37 Style			X			Back Window Reveal Lower	
14	Back Window Reveal Lower	37 Style			X				
15	Front Door Window Belt Reveal	All (Optional)	X						Rubber Bumper on Front Door Window Lower Stop
16	Quarter Window Belt Reveal	All (Optional)	X						
17	Front Door Outer Panel	All (Optional)	X						
18	Rear Quarter Outer Panel	All (Optional)	X			X			Rear Quarter Trim Pad
19	Rear Compartment Lid Outer Panel Emblem and/or Name Plate	All					X		



2772

Fig. 17-30—Chevrolet "F-37-67" Styles



2773

Fig. 17-31—Chevrolet "F-37-67" Styles

METHODS OF MOLDING RETENTION
CHEVROLET "X" BODIES - 11000 SERIES
FIGURES 17-32 THROUGH 17-34

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper Sides	All			X			Windshield Reveal Lower	
2	Windshield Reveal Lower	All	X					Cowl Air Intake Grille	
3	Windshield Pillar Drip	All (Optional)	X						
4	Roof Drip Molding Scalp	All (Optional)		View K				Windshield Pillar Drip	
5	Rear Quarter Belt Reveal	All (Optional)			X				
6	Rear Quarter Belt Reveal Corner Escutcheon	All (Optional)	X				X		Rear Quarter Belt Reveal
7	Front Door Window Frame Front Scalp	All (Optional)		View J					
8	Front Door Window Frame Rear Scalp	All (Optional)		View J				Front Door Window Frame Front Scalp	
9	Rear Quarter Window Frame Front Scalp	27 Style (Optional)		View J					
10	Rear Quarter Window Frame Upper Scalp	27 Style (Optional)		View J				Rear Quarter Window Frame Front Scalp	
11	Center Pillar Scalp	69 Style (Optional)	X						
12	Rear Door Window Frame Front Scalp	69 Style (Optional)		View J				Rear Door Window Frame Upper Scalp	
13	Rear Door Window Frame Upper Scalp	69 Style (Optional)		View J					
14	Back Window Reveal Upper and Sides	All			X			Back Window Reveal Lower	

METHODS OF MOLDING RETENTION
CHEVROLET "X" BODIES - 11000 SERIES
FIGURES 17-32 THROUGH 17-34

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
15	Back Window Reveal Lower	All			X				
16	Front Door Outer Panel Lower	27 Style (Optional)	X		X				
17	Front of Rear Wheel Opening	27 Style (Optional)			X			View B	
18	Rear of Rear Wheel Opening	27 Style (Optional)			X	View F			
19	Rear of Rear Wheel Opening Lower	All (Optional)	X		X			View B	
20	Front Door Outer Panel	All (Optional)	X		X				
21	Rear Door Outer Panel	69 Style (Optional)	X		X				
22	Rear Quarter Outer Panel	All (Optional)			X			View B	
23	Rear Quarter Outer Panel Name Plate	All						X	
24	Rear End Outer Panel	All (Optional)					X		
25	Rear Compartment Lid Outer Panel Emblem	All					X		
26	Rear End Outer Panel Emblem	27 Style (Optional)					X		

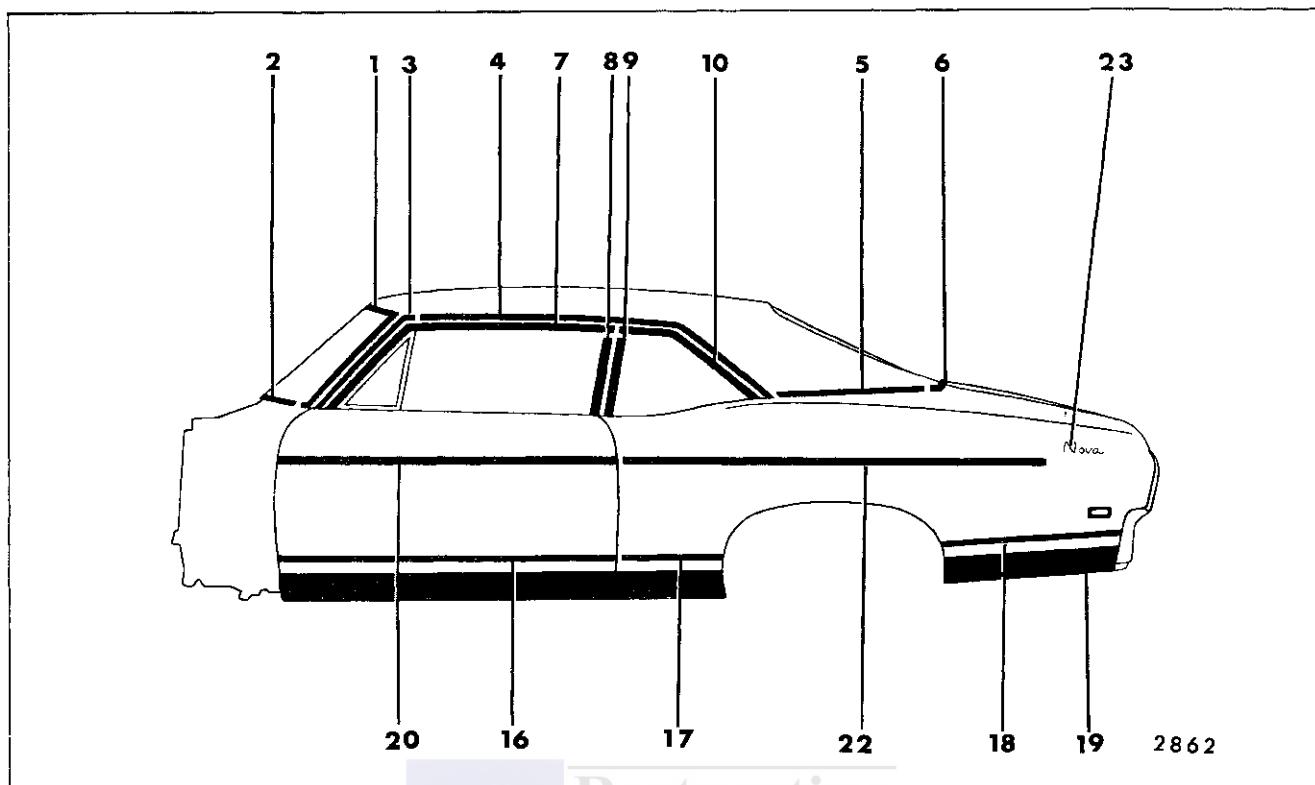


Fig. 17-32—Chevrolet "X-27" Styles

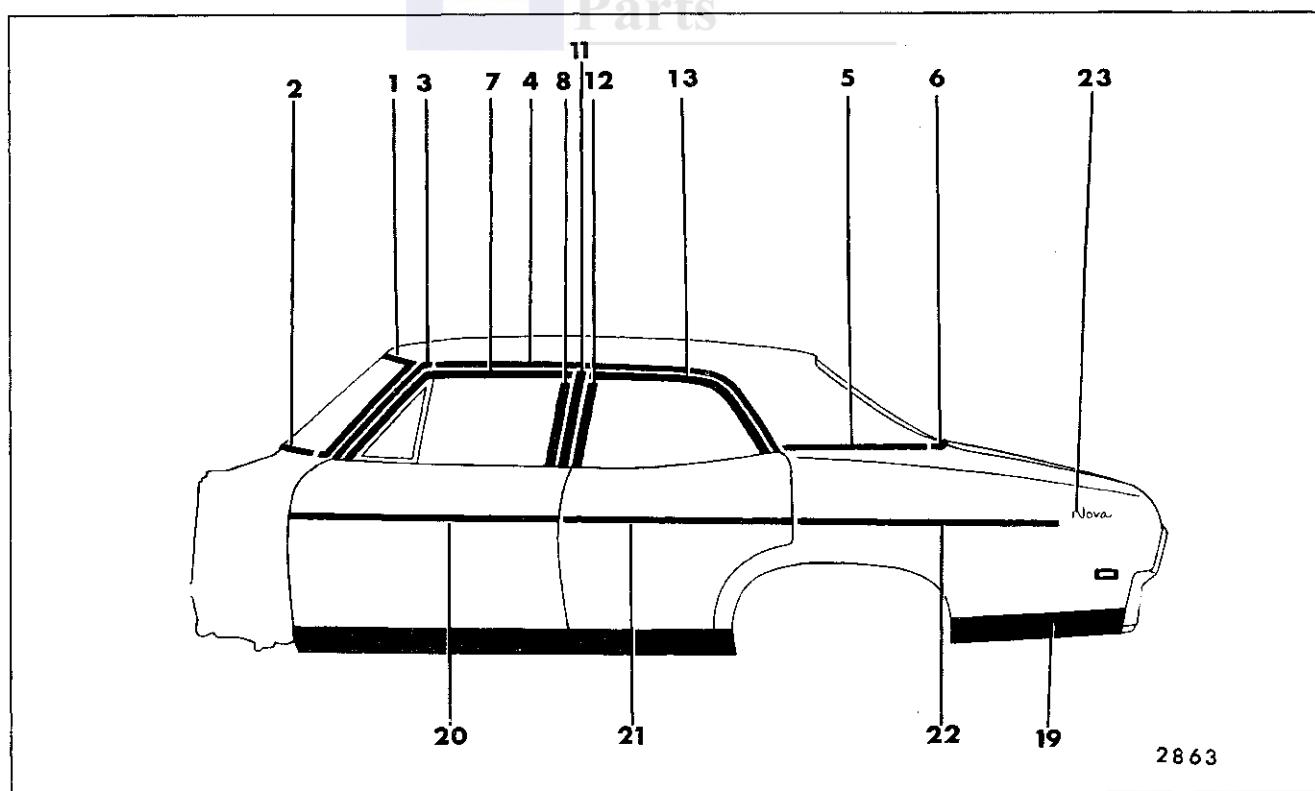


Fig. 17-33—Chevrolet "X-69" Styles

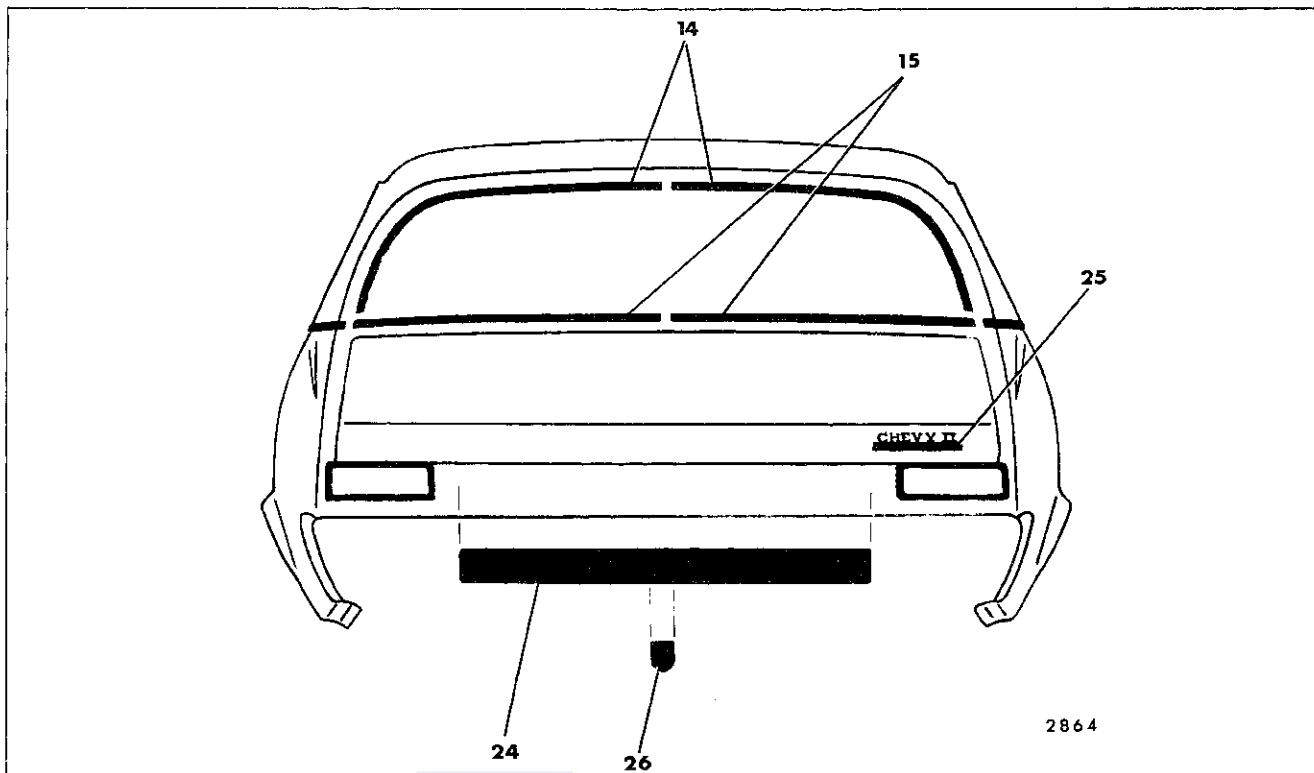


Fig. 17-34—Chevrolet "X-27-69" Styles

GM Restoration
Parts

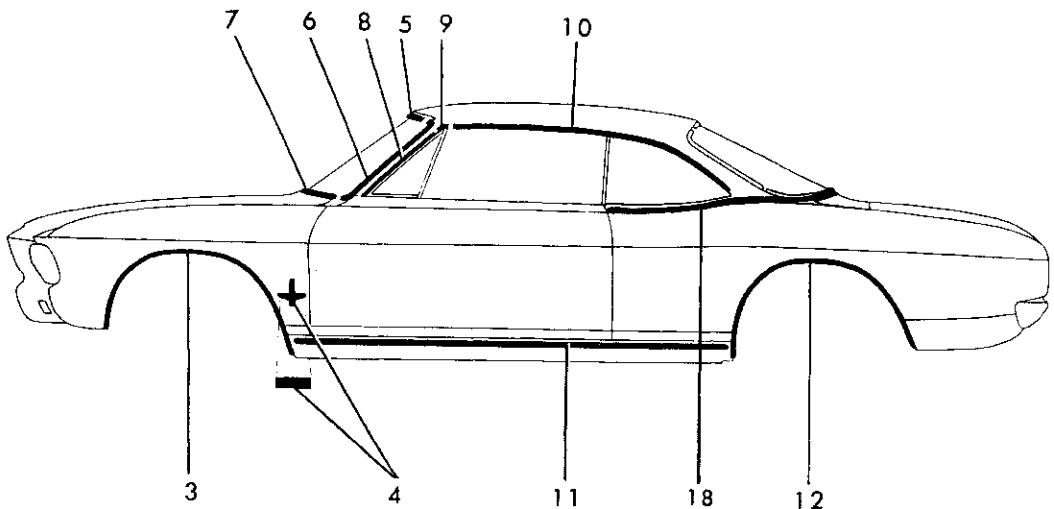
METHODS OF MOLDING RETENTION
CHEVROLET "Z" BODIES - 10000 SERIES
FIGURES 17-35 THROUGH 17-37

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Front End Outer Panel	All					X		Front Compartment Lock Cylinder and Retainer
2	Front End Outer Panel Name Plate	All					X		
3	Front Wheel Opening	10500	X						
4	Front Fender Emblem	All			View H		X		Front Cowl Trim Foundation
5	Windshield Reveal Upper	All				X			
6	Windshield Reveal Side	All				X			Windshield Reveal Upper
7	Windshield Reveal Lower	All				X			Windshield Reveal Side
8	Windshield Pillar Drip Molding Scalp	10537-67		View K					Windshield Pillar Drip Molding Scalp Escutcheon
9	Windshield Pillar Drip Molding Scalp Escutcheon	10537-67		View K					
10	Roof Drip Molding Scalp	10537		View K					Windshield Pillar Drip Molding Scalp Escutcheon
11	Rocker Outer Panel	10500	X		X				
12	Rear Wheel Opening	10500	X						
13	Back Window Reveal Upper	37 Styles			X				Back Window Reveal Sides
14	Back Window Reveal Side	37 Styles			X				
15	Back Window Reveal Lower	37 Styles			X				Back Window Reveal Sides

METHODS OF MOLDING RETENTION

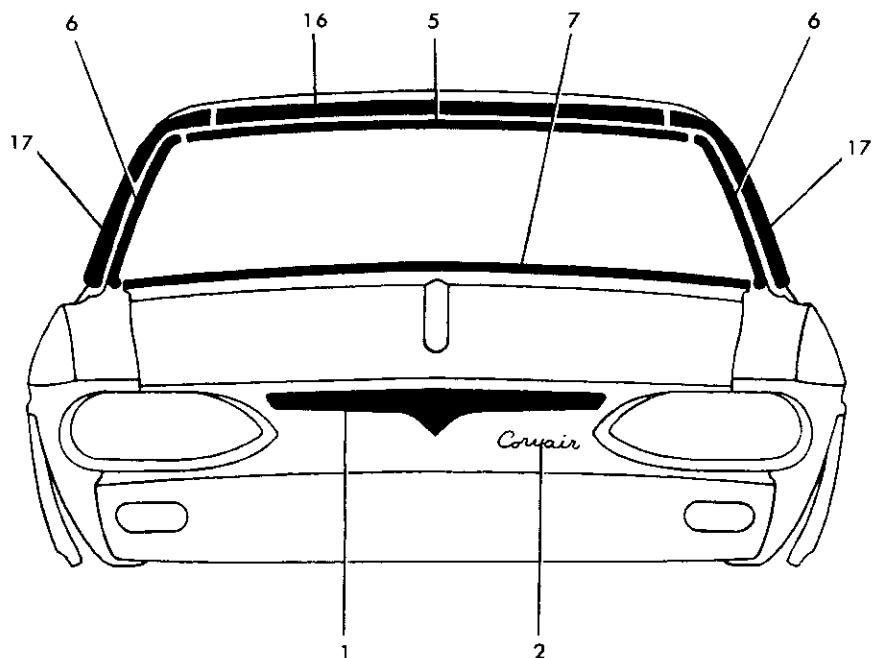
CHEVROLET "Z" BODIES - 10000 SERIES
FIGURES 17-35 THROUGH 17-37

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
16	Windshield Header Center	10567	X					Windshield Header Sides-Windshield Reveal Upper	Windshield Pillar Weather-strip Rear View Mirror Support Sunshade and Striker Support
17	Windshield Header-Sides	10567	X					Windshield Reveal Upper and Sides	Windshield Pillar Weather-strip Sunshade and Striker Support
18	Rear Quarter Pinch-Finishing	10567	X		X				
19	Rear of Rear Quarter	All					X		
20	Rear of Rear Quarter Finishing	10500	X					Rear of Rear Quarter	
21	Engine Compartment Lid	10500	X						
22	Engine Compartment Lid Name Plate	All					X		
23	Rear End Panel	10500					X	Rear of Rear Quarter Finishing	



2769

Fig. 17-35—Chevrolet "Z-37-67" Styles



2770

Fig. 17-36—Chevrolet "Z-37-67" Styles

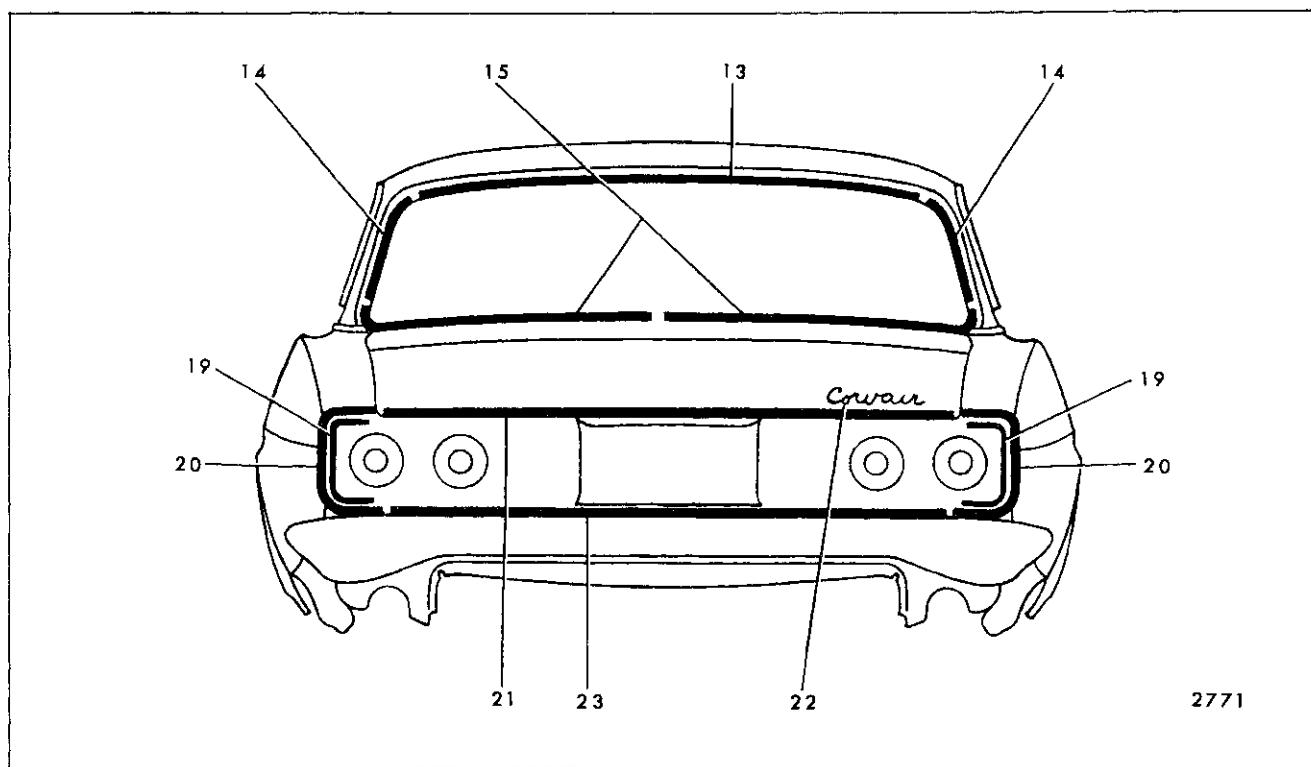


Fig. 17-37—Chevrolet "Z-37-67" Styles

GM
Restoration
Parts

METHODS OF MOLDING RETENTION

PONTIAC "A" BODIES - 23000 AND 24000 SERIES
FIGURES 17-38 THROUGH 17-45

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All	X (67 Only)		X				
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	Cowl Air Intake Grille
4	Windshield Pillar Drip Scalp	All (Except-67)		View K				Roof Drip Molding Front Scalp Escutcheon	
5	Roof Drip Molding Front Scalp Escutcheon	All (Except-67)		View K				Windshield Pillar Drip Scalp and Roof Drip Scalp	
6	Roof Drip Molding Front Scalp	39 Style		View K				Roof Drip Molding Front Scalp Escutcheon	
7	Roof Drip Molding Rear Scalp	39 Style		View K				Roof Drip Molding Front Scalp	
8	Roof Drip Molding Scalp	All (Except-39-67)		View K				Roof Drip Molding Front Scalp Escutcheon	
9	Front Door Window Frame Front Scalp	27, 35, 69		View J					
10	Front Door Window Frame Upper Scalp	27, 35, 69		View J				Front Door Window Frame Front Scalp	
11	Front Door Window Frame Rear Scalp	27, 35, 69		View J				Front Door Window Frame Upper Scalp	
12	Center Pillar Scalp	35-69	X	View J					
13	Rear Door Window Frame Front Scalp	35, 69		View J				Rear Door Window Frame Upper Scalp	
14	Rear Door Window Frame Upper Scalp	35, 69		View J					

METHODS OF MOLDING RETENTION

PONTIAC "A" BODIES - 23000 AND 24000 SERIES
FIGURES 17-38 THROUGH 17-45

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
15	Rear Quarter Window Reveal Front	27 Style			X				
16	Rear Quarter Window Reveal Upper	27 Style	X					Quarter Window Glass Run Channel	
17	Rear Quarter Belt Reveal Front Corner Escutcheon	27-37 (Optional)	X			View F		Rear Quarter Belt Reveal	
18	Rear Door Corner Finishing Molding	39-69 (Optional)					View B		
19	Rear Quarter Belt Reveal	27-37 39-69 (Optional)			X		View B	Rear Quarter Belt Reveal Rear Corner Escutcheon	Trim in Sail Area (39-69 Only)
20	Rear Quarter Belt Reveal Rear Corner Escutcheon	27-37 39-69 (Optional)					X	Rear Quarter Belt Reveal Rear End Belt Reveal	
21	Rear End Belt Reveal	27-37 39-69 (Optional)			X		View B		
22	Rear Quarter Pinch-weld Finishing	67	X		X				Lower Top Halfway
23	Rear Quarter Window Reveal Front Upper Corner Escutcheon	35			X			Loosen Rear Quarter Window Reveal Upper and Lower at Corner	
24	Rear Quarter Window Reveal Upper	35			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	
25	Rear Quarter Window Reveal Lower	35			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	
26	Rear Wheel Opening	23700 24200	X						
27	Rear of Rear Wheel Opening	23500 23700 24200	X		X				

METHODS OF MOLDING RETENTION

PONTIAC "A" BODIES - 23000 AND 24000 SERIES
FIGURES 17-38 THROUGH 17-45

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
28	Rear Quarter Outer Panel Emblem and/or Nameplate	23700 24200					X		
29	Front Door Outer Panel Transfer Finishing Upper	23935	X		X				
30	Front Door Outer Panel Transfer Finishing Lower	23935	X		X				
31	Rear Door Outer Panel Transfer Finishing Upper	23935	X		X			View B	Rear Door Trim Assembly
32	Rear Door Outer Panel Transfer Finishing Lower	23935	X		X				
33	Rear Quarter Outer Panel Transfer Finishing (Rt. Side)	23935			X				
34	Rear Quarter Outer Panel Transfer Finishing Front (Lt. Side)	23935			X				
35	Rear Quarter Outer Panel Transfer Finishing at Gas Filler Door (Lt. Side)	23935	X						
36	Rear Quarter Outer Panel Transfer Finishing Rear (Lt. Side)	23935			X				
37	Rear Quarter Outer Panel Transfer Finishing Rear Vertical	23935	X					View F	Rear Quarter Outer Panel Transfer Finishing (Rt. Side) Rear Quarter Outer Panel Transfer Finishing Upper Rear (Lt. Side) Rear of Rear Wheel Opening Transfer Finishing

METHODS OF MOLDING RETENTION
PONTIAC "A" BODIES - 23000 AND 24000 SERIES
FIGURES 17-38 THROUGH 17-45

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
38	Rear of Rear Wheel Opening Outer Panel Transfer Finishing	23935			X				
39	Rear Wheel Opening Transfer Finishing	23935				View F	View B	Rear of Rear Wheel Opening Outer Panel Transfer Finishing	
40	Rear Compartment Lid Outer Panel Emblem and/or Nameplate	All (Except 35)					X		
41	Back Window Reveal Upper and Side	27-37			X				
42	Back Window Reveal Upper	39-69			X			Back Window Reveal Side	
43	Back Window Reveal Sides and Lower	39-69			X				
44	Back Window Reveal Lower	27-37			X			Back Window Reveal Side	
45	Back Body Opening Upper Reveal	35	X					Back Body Opening Side Reveal	Tailgate Window Glass Run Channel
46	Back Body Opening Side Reveal	35	X						
47	Tailgate Outer Panel Emblem and/or Nameplate	35					X		Tailgate Trim Assembly
48	Tailgate Outer Panel Transfer Finishing Upper	23935			X		View C	Tailgate Outer Panel Transfer Finishing Side	Tailgate Trim Assembly
49	Tailgate Outer Panel Transfer Finishing Lower	23935			X			Tailgate Outer Panel Transfer Finishing Side	
50	Tailgate Outer Panel Transfer Finishing Side	23935					View C		Tailgate Trim Assembly

METHODS OF MOLDING RETENTION

PONTIAC "A" BODIES - 23000 AND 24000 SERIES
FIGURES 17-38 THROUGH 17-45

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
51	Bodylock Pillar Belt Reveal	35 (Optional)			View H		X		Bodylock Pillar Trim
52	Back Body Pillar Belt Reveal	35 (Optional)	X			View F			
53	Tailgate Outer Panel Belt Reveal	35 (Optional)	X		X				

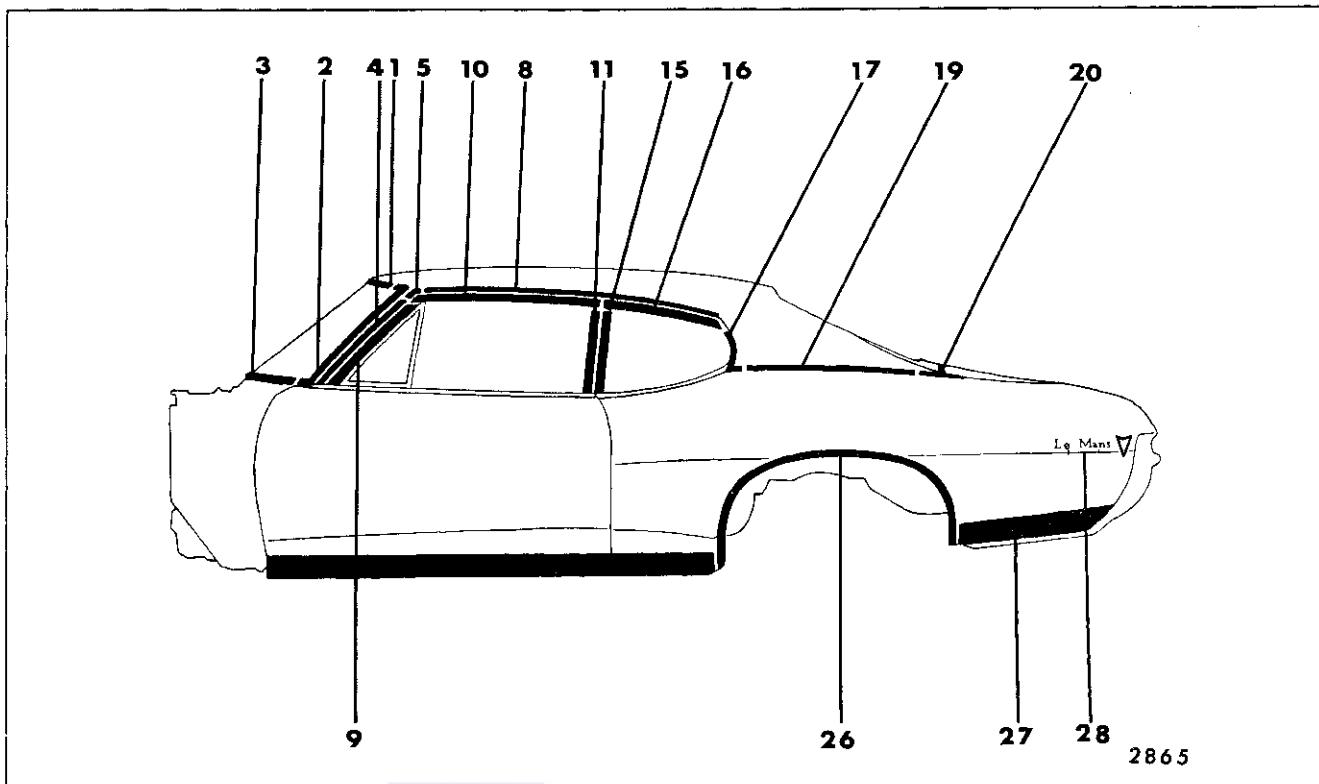


Fig. 17-38—Pontiac "A-27" Styles

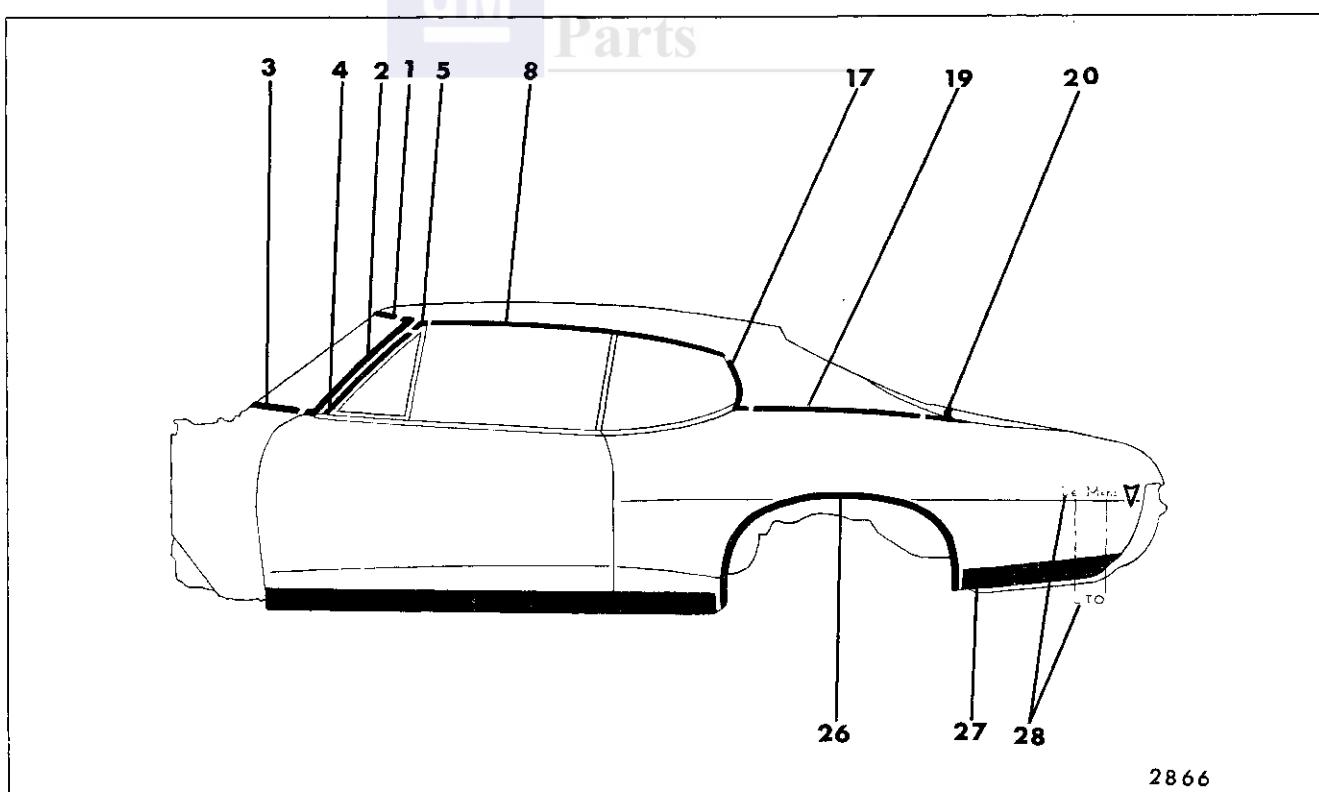


Fig. 17-39—Pontiac "A-37" Styles ('67' Styles Similar)

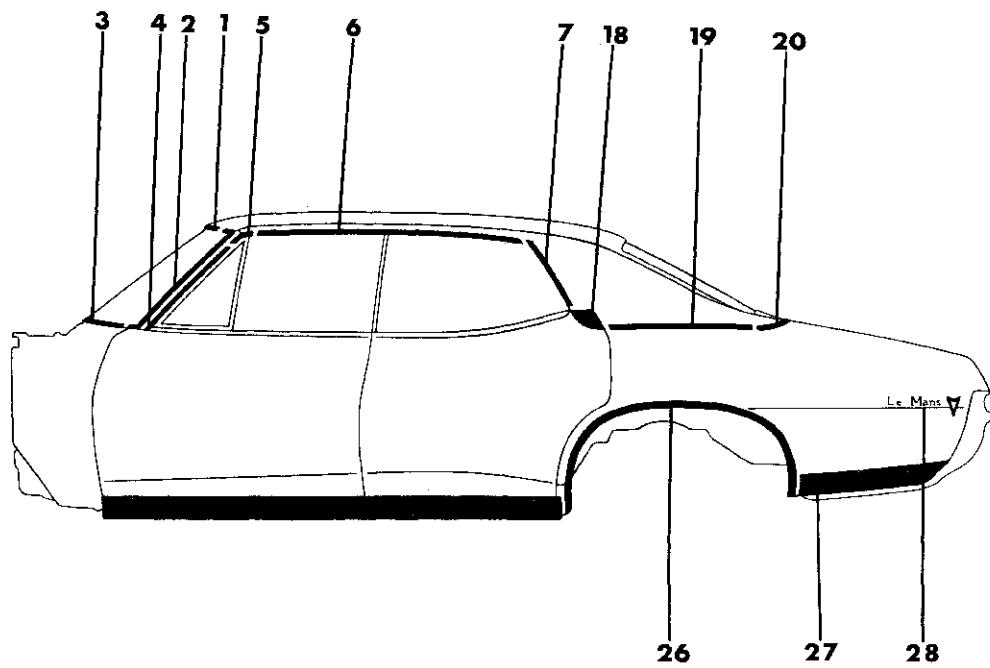


Fig. 17-40—Pontiac "A-39" Styles

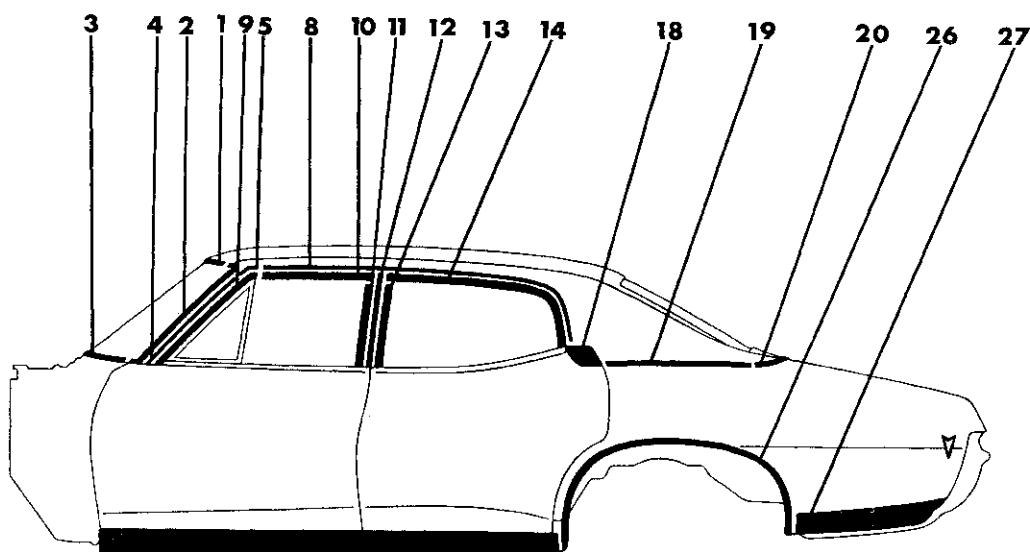


Fig. 17-41—Pontiac "A-69" Styles

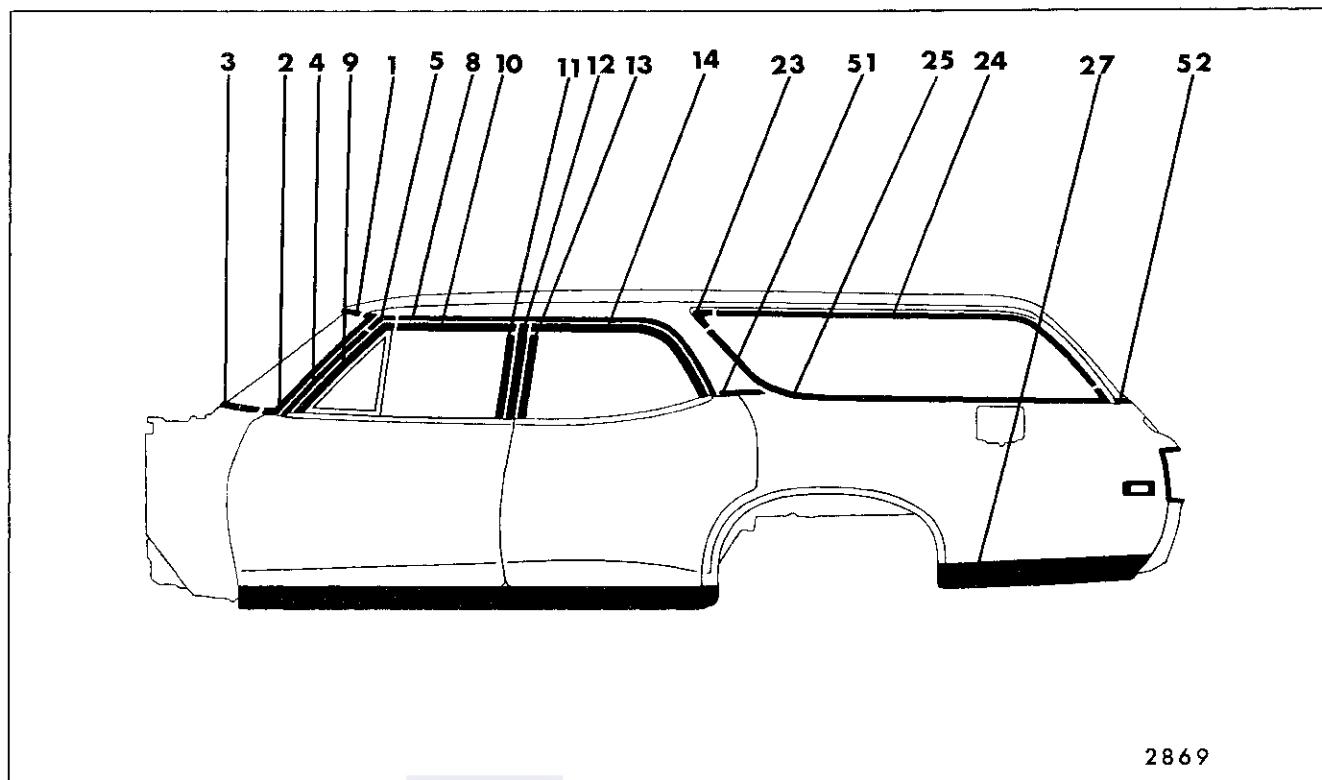


Fig. 17-42—Pontiac "A-35" Styles (Less 23935 Style)

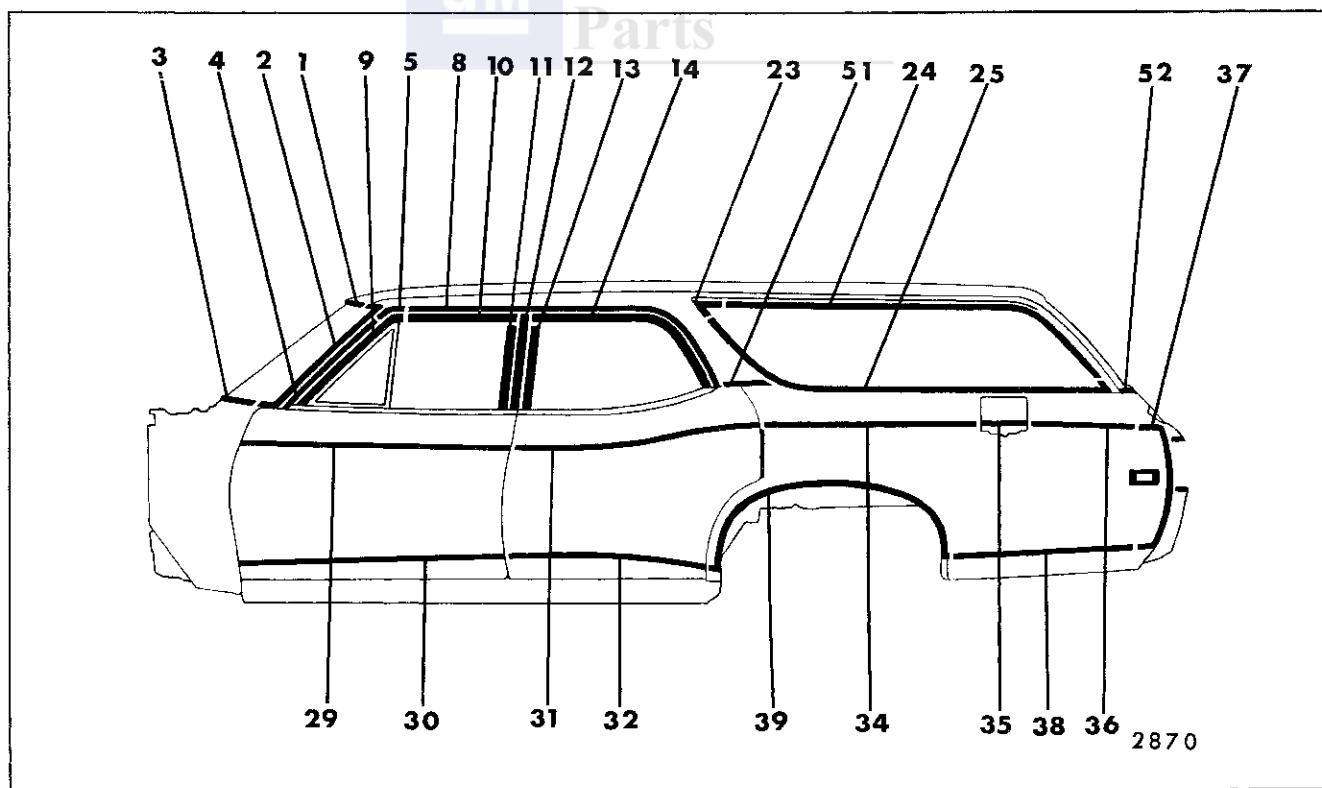


Fig. 17-43—Pontiac 23935 Style

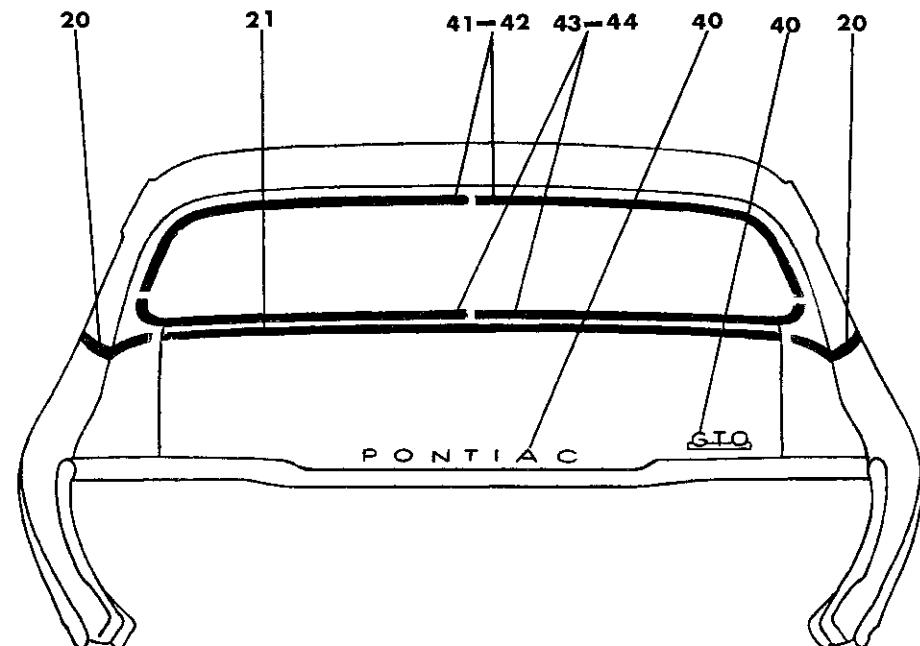


Fig. 17-44—Pontiac 23300-23500-23700-24200 Styles (Less 35 Styles)

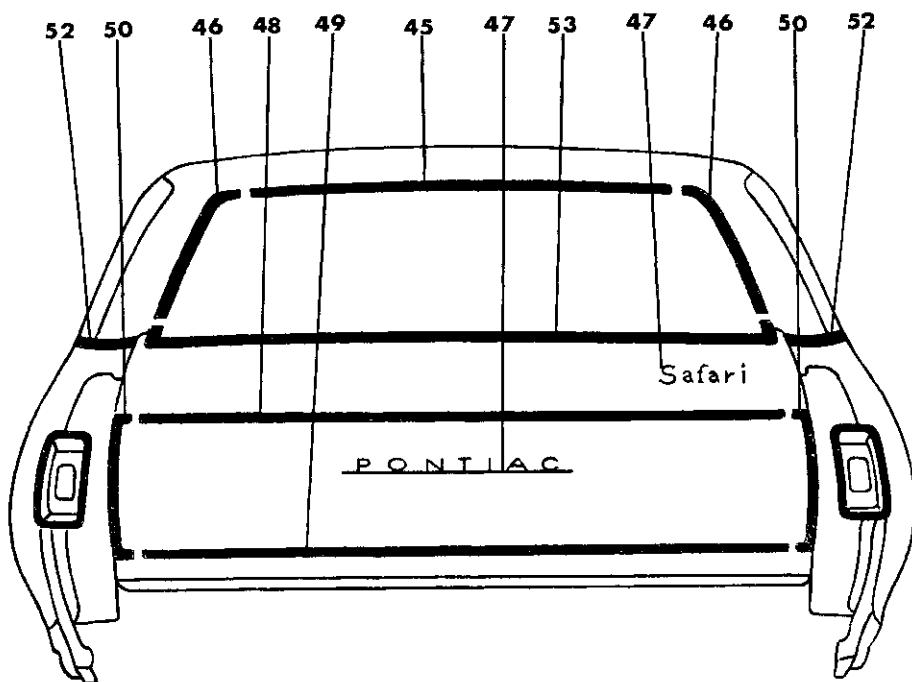


Fig. 17-45—Pontiac "A-35" Styles

METHODS OF MOLDING RETENTION

PONTIAC "B" BODIES - 25000 AND 26000 SERIES
FIGURES 17-46 THROUGH 17-56

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Side	
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	
4	Windshield Pillar Drip	All (Except 67)	X					Windshield Pillar Weatherstrip and Weatherstrip Retainer	
5	Windshield Pillar Finishing	67	X					Windshield Reveal Side	Windshield Pillar Weatherstrip and Weatherstrip Retainer
6	Windshield Header	67	X					Windshield Reveal Upper and Sides Windshield Pillar Finishing	Rear View Mirror Support Sunshade Support
7	Roof Drip Molding Scalp	11-39 57-69-87		View K				Windshield Pillar Drip	
8	Roof Drip Molding Scalp Front	35, 45		View K				Windshield Pillar Drip	
9	Roof Drip Molding Scalp Rear	35, 45		View K				Roof Drip Molding Scalp Front	
10	Roof Panel Name Plate	26239-87					X		Head Lining-Rear Quarter Trim
11	Front Door Window Frame Front Scalp	11-35-45-69		View J					
12	Front Door Window Frame Upper Scalp	11, 35, 45, 69		View J				Front Door Window Frame Front Scalp	
13	Front Door Window Frame Rear Scalp	11, 35, 45, 69		View J				Front Door Window Frame Upper Scalp	

METHODS OF MOLDING RETENTION

PONTIAC "B" BODIES - 25000 AND 26000 SERIES
FIGURES 17-46 THROUGH 17-56

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
14	Front Door Window Belt Reveal (At Vent)	All (Except 26657)	X						Front Door Vent Assembly
15	Front Door Window Belt Reveal	26600	X						Rubber Bumper on Door Glass Lower Stop
16	Rear Door Window Frame Front Scalp	35, 45, 69		View J				Rear Door Window Frame Upper Scalp	
17	Rear Door Window Frame Upper Scalp	35, 45, 69		View J				Rear Door Window Frame Rear Scalp	
18	Rear Door Window Frame Rear Scalp	35, 45		View J					
19	Rear Quarter Window Reveal Upper	11	X						
20	Rear Quarter Window Reveal Front	11			X			Rear Quarter Window Reveal Upper	
21	Rear Quarter Window Belt Reveal	26600	X						Rear Quarter Window Glass Lower Stop
22	Rear Quarter Belt Reveal	11, 39, 69, 87			X		X		
23	Rear Compartment Lid Front Molding	87 and 26657 with Vinyl Top	X				X	Rear Compartment Lid Finishing Molding	
24	Rear Compartment Lid Finishing Molding	87 and 26657 with Vinyl Top	X		X				
25	Real Quarter Pinchweld Finishing Molding	67	X		X				
26	Rear Quarter Window Reveal Upper	35, 45			X			Rear Quarter Window Reveal Lower	
27	Rear Quarter Window Reveal Lower	35, 45			X			Rear Quarter Window Reveal Lower Escutcheon	

METHODS OF MOLDING RETENTION
PONTIAC "B" BODIES - 25000 AND 26000 SERIES
FIGURES 17-46 THROUGH 17-56

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
28	Rear Quarter Window Reveal Lower Escutcheon	35, 45			X			Loosen Rear Quarter Window Reveal Upper and Lower	
29	Roof Panel Cover Side Finishing	26657			X			Roof Panel Cover Finishing Rear Corner Escutcheon	
30	Roof Panel Cover Finishing Rear Corner Escutcheon	26657	X				X		
31	Front Door Outer Panel	All (Except 25635-45 26657)	X		X				
32	Rear Door Outer Panel	All (Except 25635-45)	X		X				
33	Rear Quarter Outer Panel	All (Except 26657 25635-45)				X	X		
34	Rear Wheel Opening Front	25635-45	X						
35	Rear Wheel Opening Center	25635-45	X						
36	Rear Wheel Opening-Rear	25635-45	X						
37	Rear of Rear Quarter Outer Panel (In Bumper Cove)	26200 and 26600 (Less 45)	X						Rear Bumper
38	Rear Compartment Lid Outer Panel Emblem and/or Name Plate	All (Except 35-45)					X		
39	Rear End Panel Name Plate	All (Except 26200)					X		
40	Rear Quarter Outer Panel Name Plate	26657					X		Rear Compartment Side Trim

METHODS OF MOLDING RETENTION

PONTIAC "B" BODIES - 25000 AND 26000 SERIES
FIGURES 17-46 THROUGH 17-56

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
41	Front Door Outer Panel Transfer Finishing Upper	25635-45	X			X		Front Door Outer Panel Upper Insert	
42	Front Door Outer Panel Upper Insert	25635-45	X			X			
43	Front Door Outer Panel Transfer Finishing Lower	25635-45	X						
44	Rear Door Outer Panel Transfer Finishing Upper	25635-45	X			X		Rear Door Outer Panel Upper Insert	
45	Rear Door Outer Panel Upper Insert	25635-45	X			X			
46	Rear Door Outer Panel Transfer Finishing Lower	25635-45	X						
47	Rear Quarter Outer Panel Transfer Finishing	25635-45	X			X		Rear Quarter Outer Panel Insert	
48	Rear Quarter Outer Panel Insert	25635-45				X			
49	Rear Quarter Outer Panel Transfer Finishing Front	25635-45	X						
50	Rear Quarter Outer Panel Transfer Finishing Rear	25635-45	X						Loosen Rear Bumper
51	Back Window Reveal Upper	All (Except 11, 35, 45, 57, 67)			X			Back Window Reveal Sides	
52	Back Window Reveal Sides	All (Except 11, 35, 45, 57, 67)			X			Back Window Reveal Lower	
53	Back Window Reveal Upper and Sides	25211 26657			X			Back Window Reveal Lower	
54	Back Window Reveal Lower	All (Except 35, 45, 67)			X			Back Window Reveal Sides	

METHODS OF MOLDING RETENTION
PONTIAC "B" BODIES - 25000 AND 26000 SERIES
FIGURES 17-46 THROUGH 17-56

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attached Nuts	Engages With Other Moldings	Remove Hardware Or Trim
55	Back Body Opening Reveal Upper	35, 45	X					Back Body Opening Reveal Side	Tail Gate Glass Run Channel
56	Back Body Opening Reveal Side	35, 45	X					Back Body Opening Reveal Upper	
57	Tail Gate Window Reveal	35, 45	X			X			
58	Tail Gate Outer Panel Belt Reveal (Optional)	35, 45	X			X			
59	Tail Gate Outer Panel Emblem and/or Name Plate	35, 45					X		Tail Gate Trim Assembly
60	Tail Gate Outer Panel Transfer Finishing	25635-45					X		Tail Gate Trim Assembly
61	Tail Gate Outer Panel Lower	26245	X						Loosen Bumper
62	Back Body Pillar Belt Reveal (Optional)	35, 45	X			X			
63	Rear Compartment Lid Rear Molding	26657	X					Rear of Rear Quarter Outer Panel at Compartment Lid	
64	Rear of Rear Quarter Outer Panel at Compartment Lid	26657	X						
65	Rear End Panel	26200					X		
66	Rear Quarter Outer Panel Transfer Finishing Lower	25635-45	X		X				
67	Rear of Rear Quarter Outer Panel (At Tail Lamp)	26245	X						Loosen Bumper
68	Rear of Rear Quarter Outer Panel (At Tail Lamp)	All (Less 35-45)					X		Rear Bumper

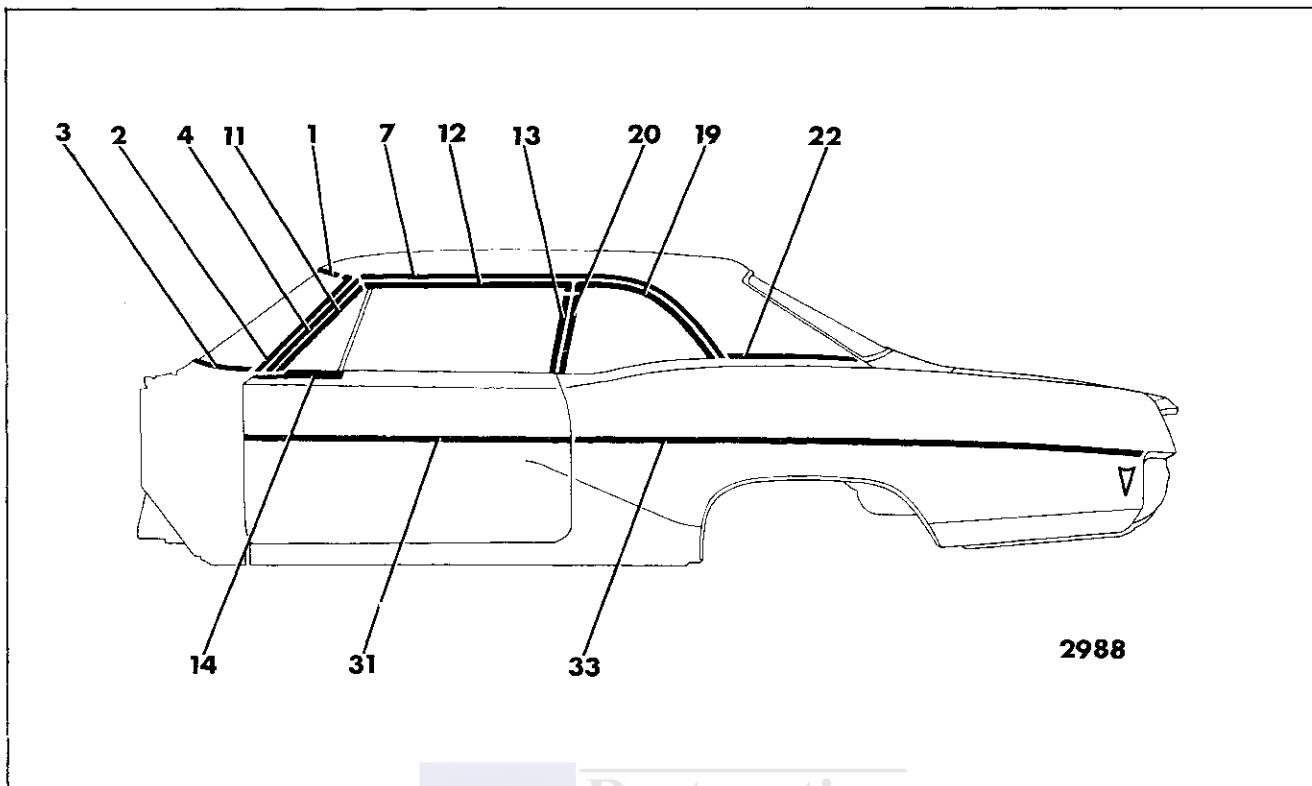


Fig. 17-46—Pontiac "B-11" Styles

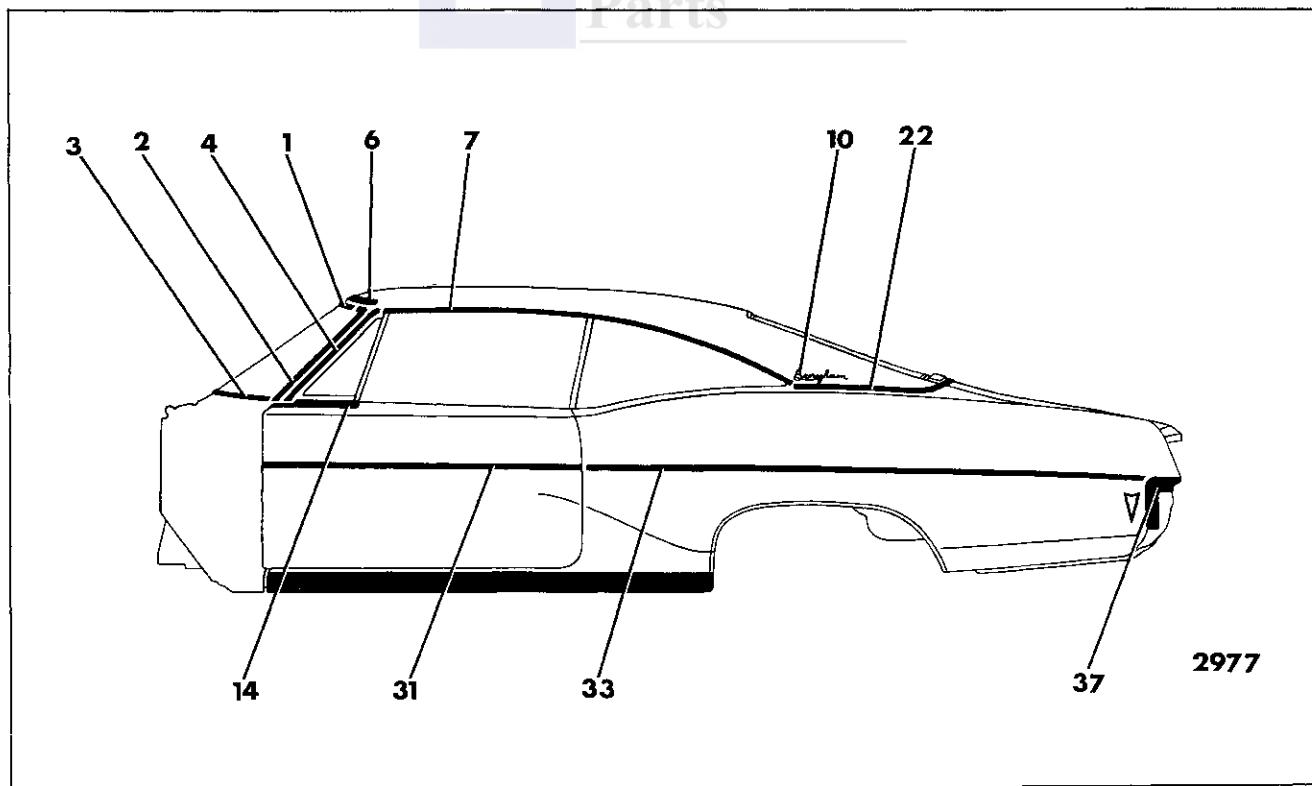


Fig. 17-47—Pontiac "B-87" Styles ("67" Styles Similar)

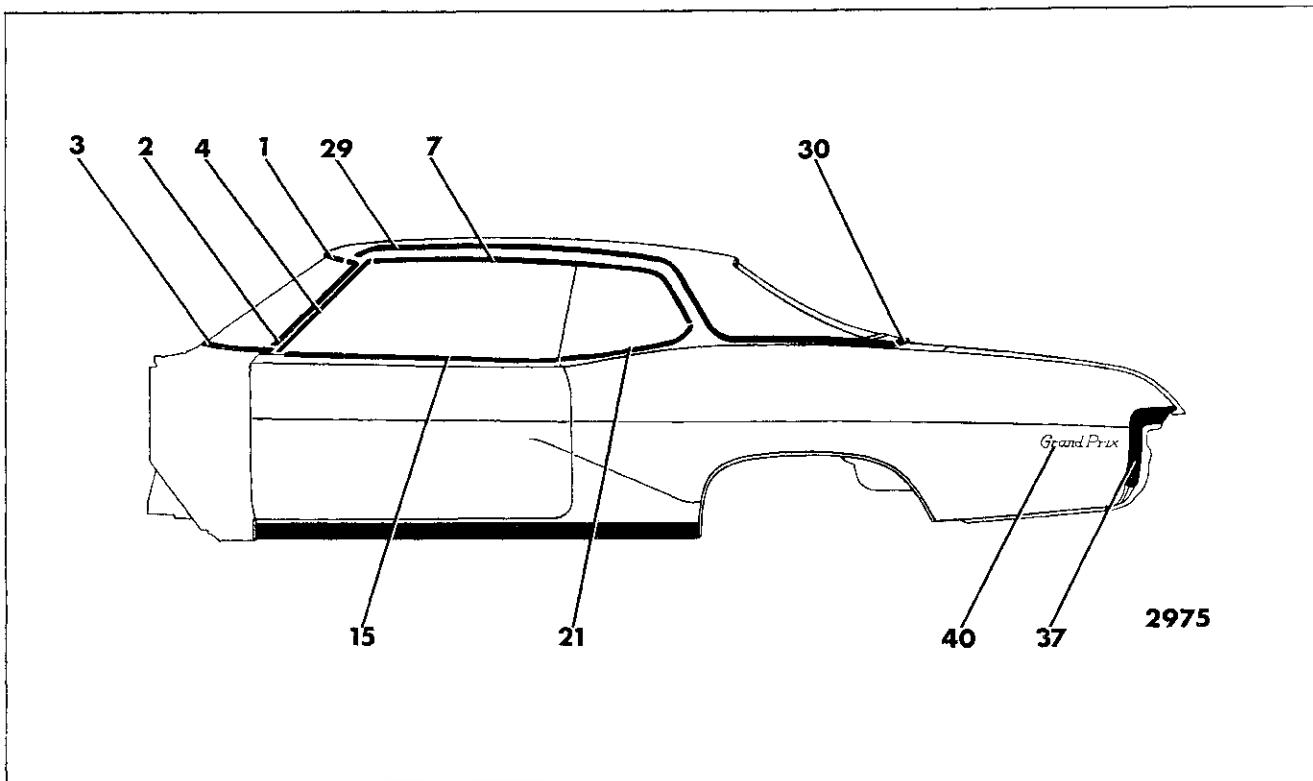


Fig. 17-48—Pontiac 26657 Styles

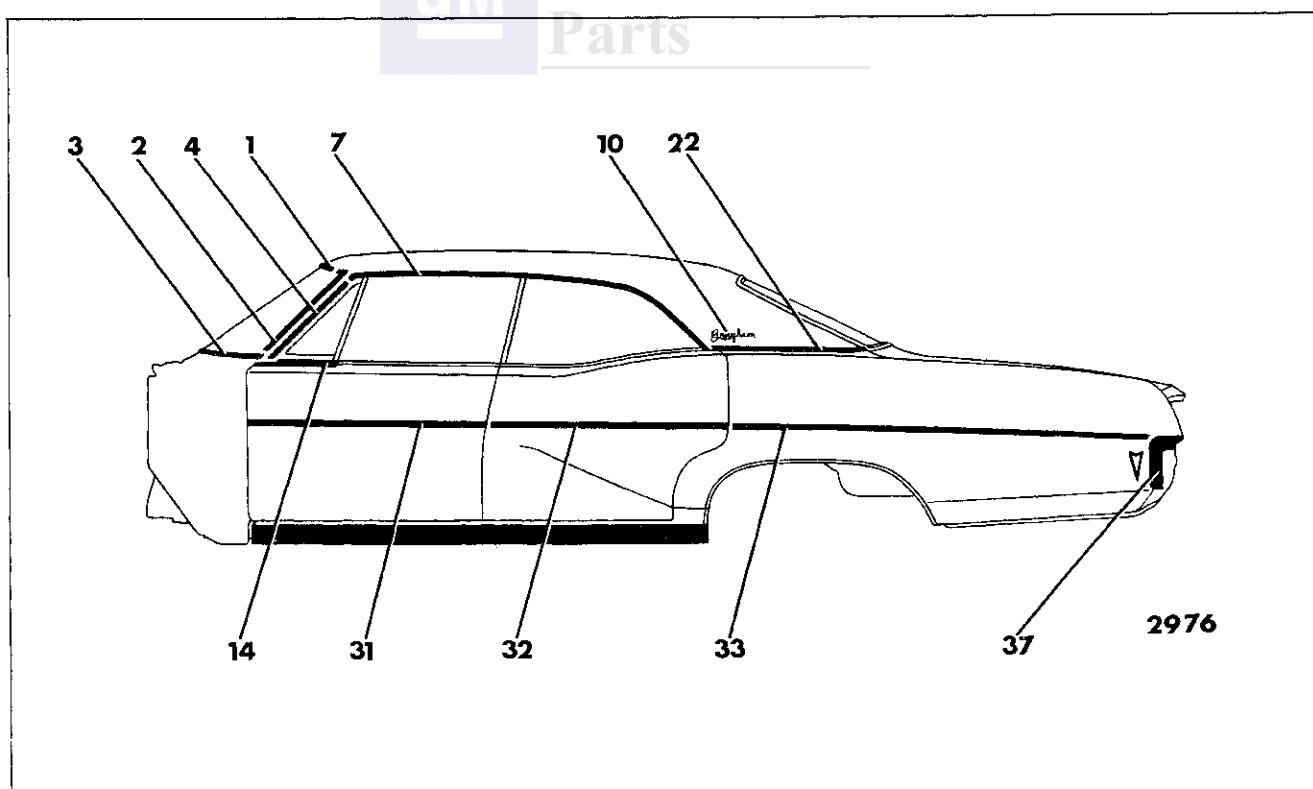


Fig. 17-49—Pontiac "B-39" Styles

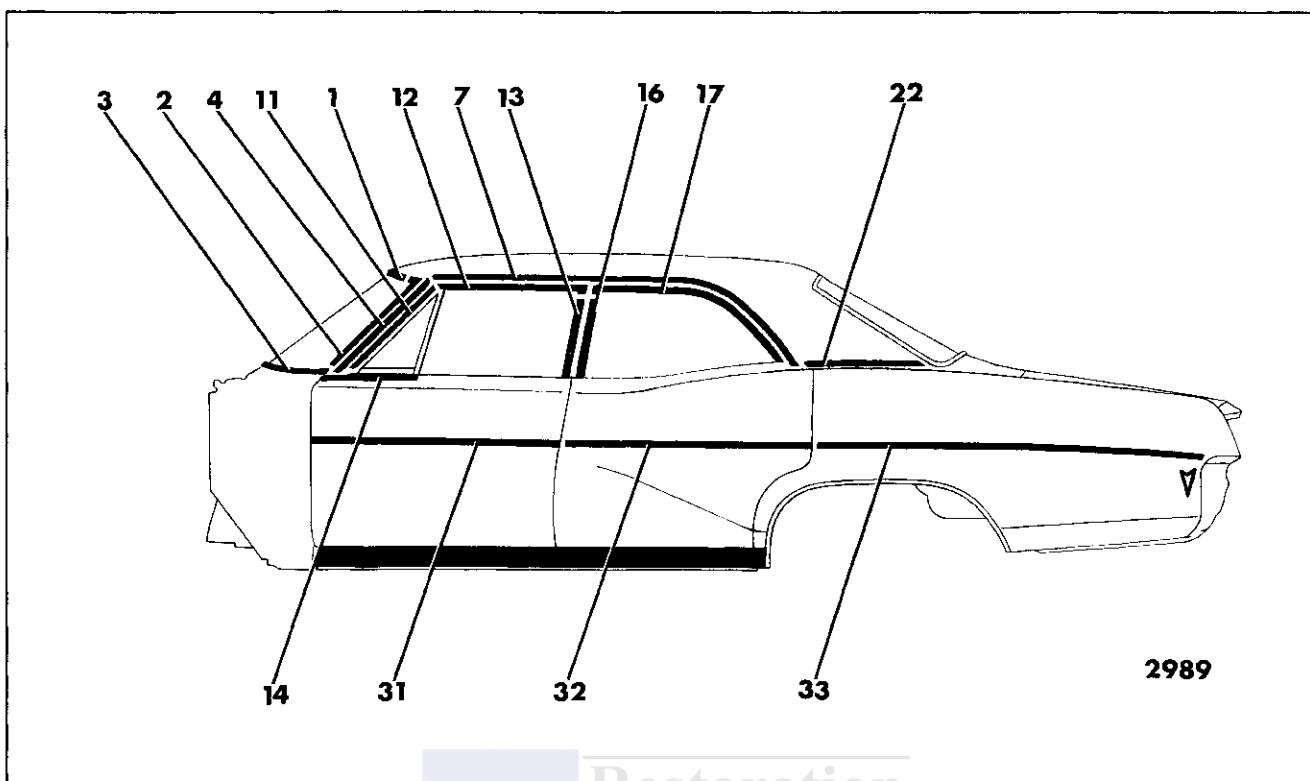


Fig. 17-50—Pontiac "B-69" Styles

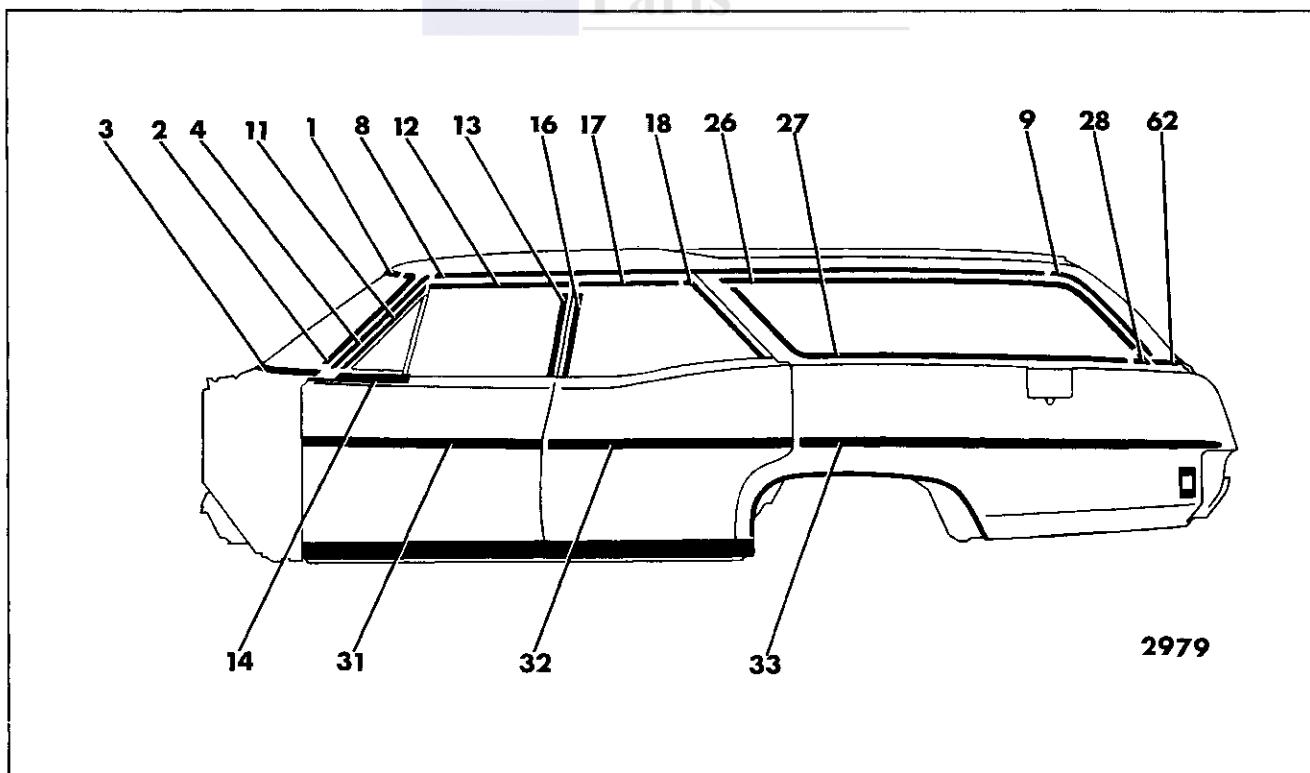


Fig. 17-51—Pontiac "B-35-45" Styles (Less 25635-45 Styles)

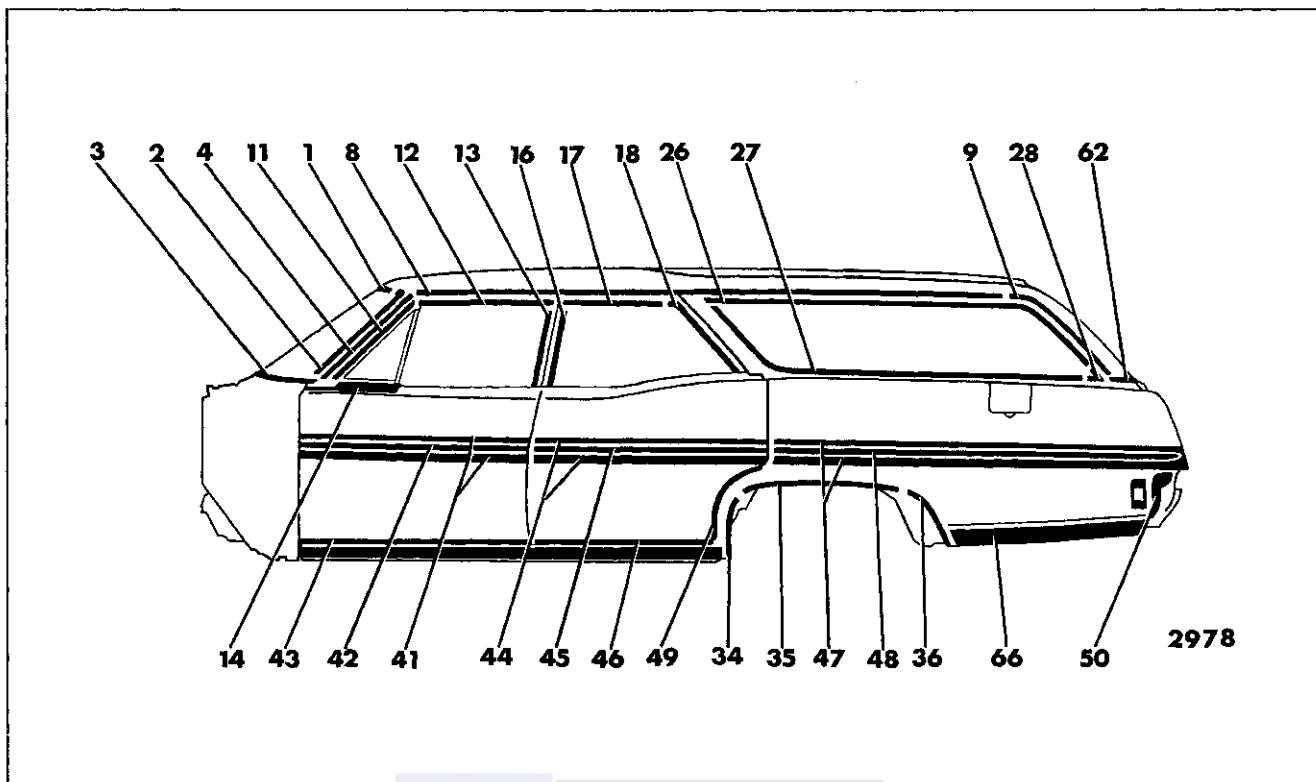


Fig. 17-52—Pontiac 25635-45 Styles

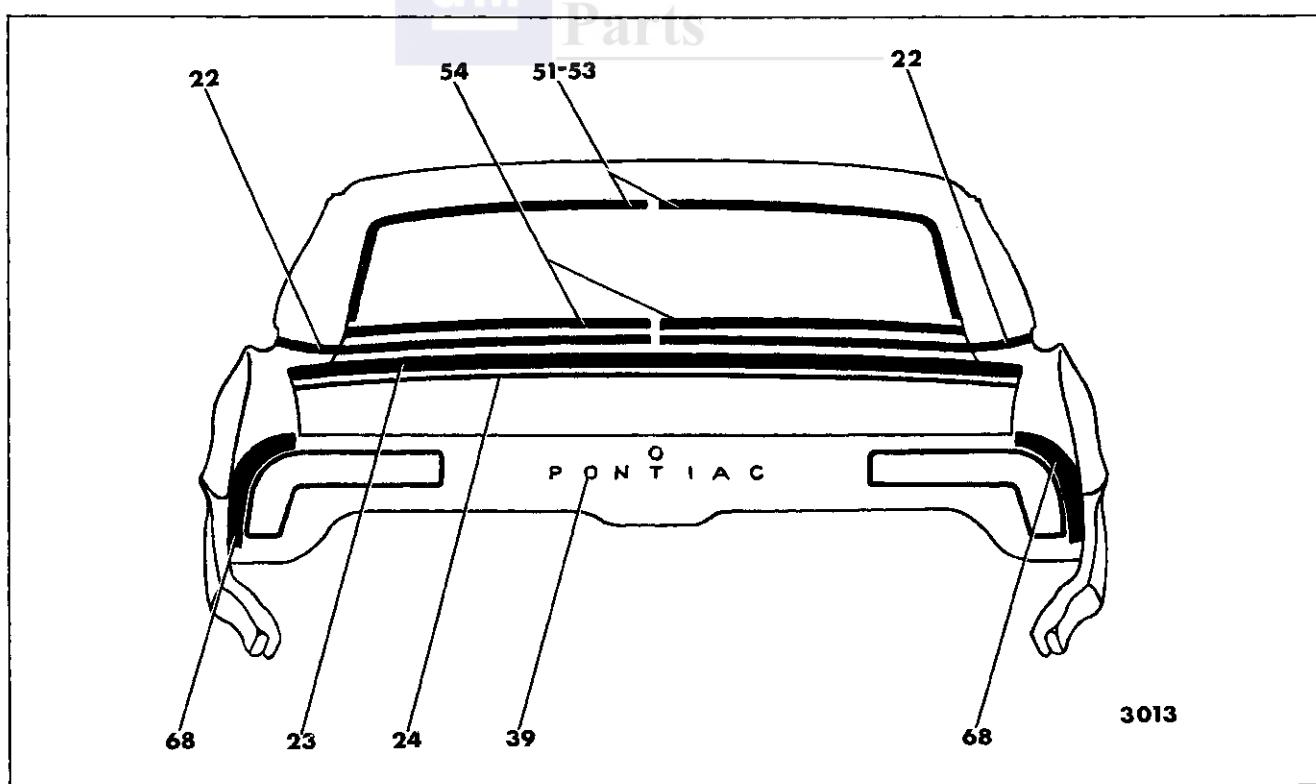


Fig. 17-53—Pontiac 25200-25600 Styles (Less 35-45 Styles)

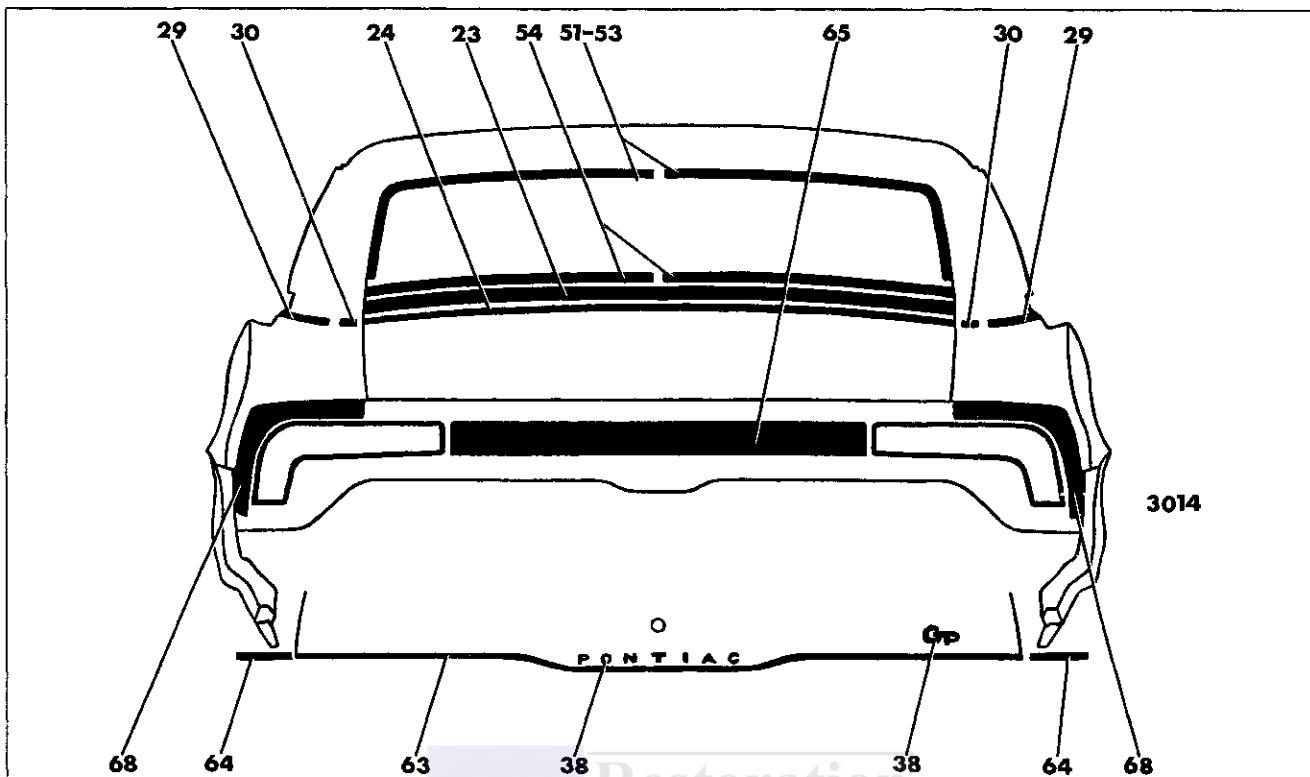


Fig. 17-54—Pontiac 26200-26600 Styles (Less 26245 Styles)

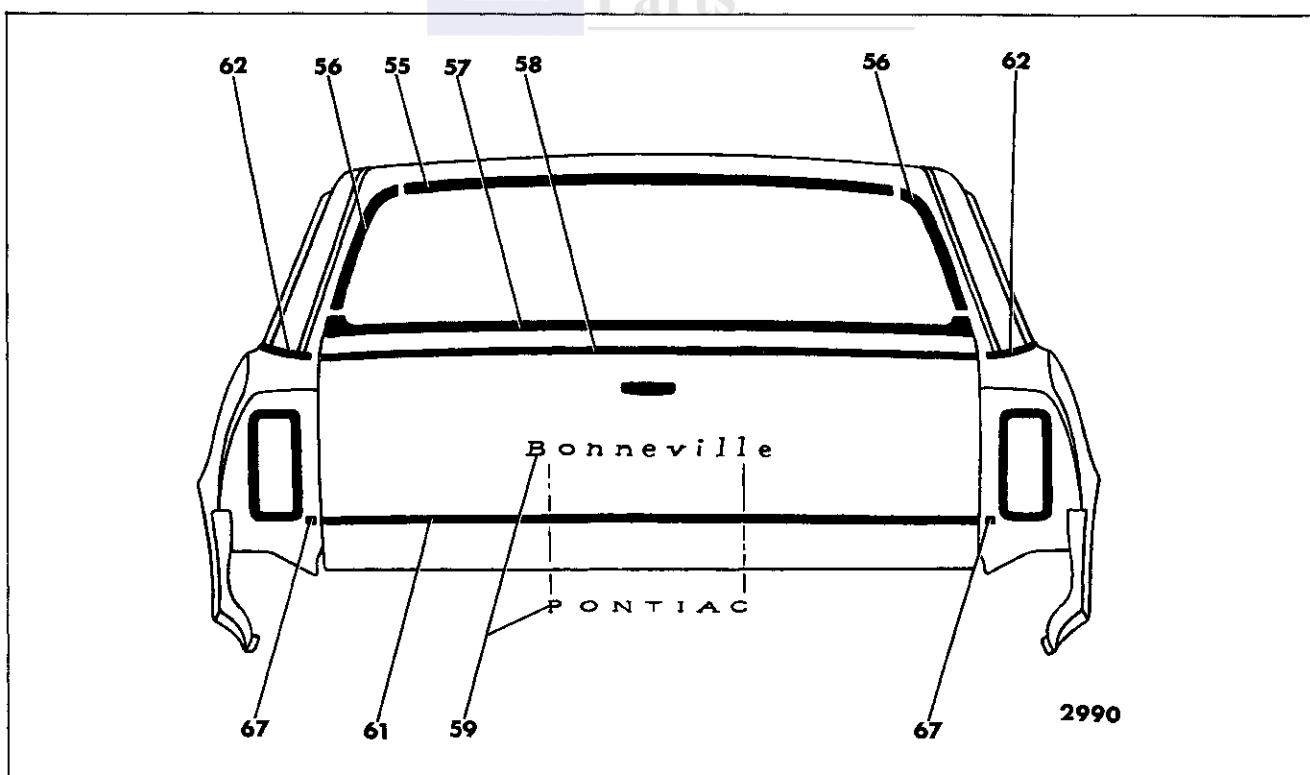


Fig. 17-55—Pontiac 25235-45-26245 Styles

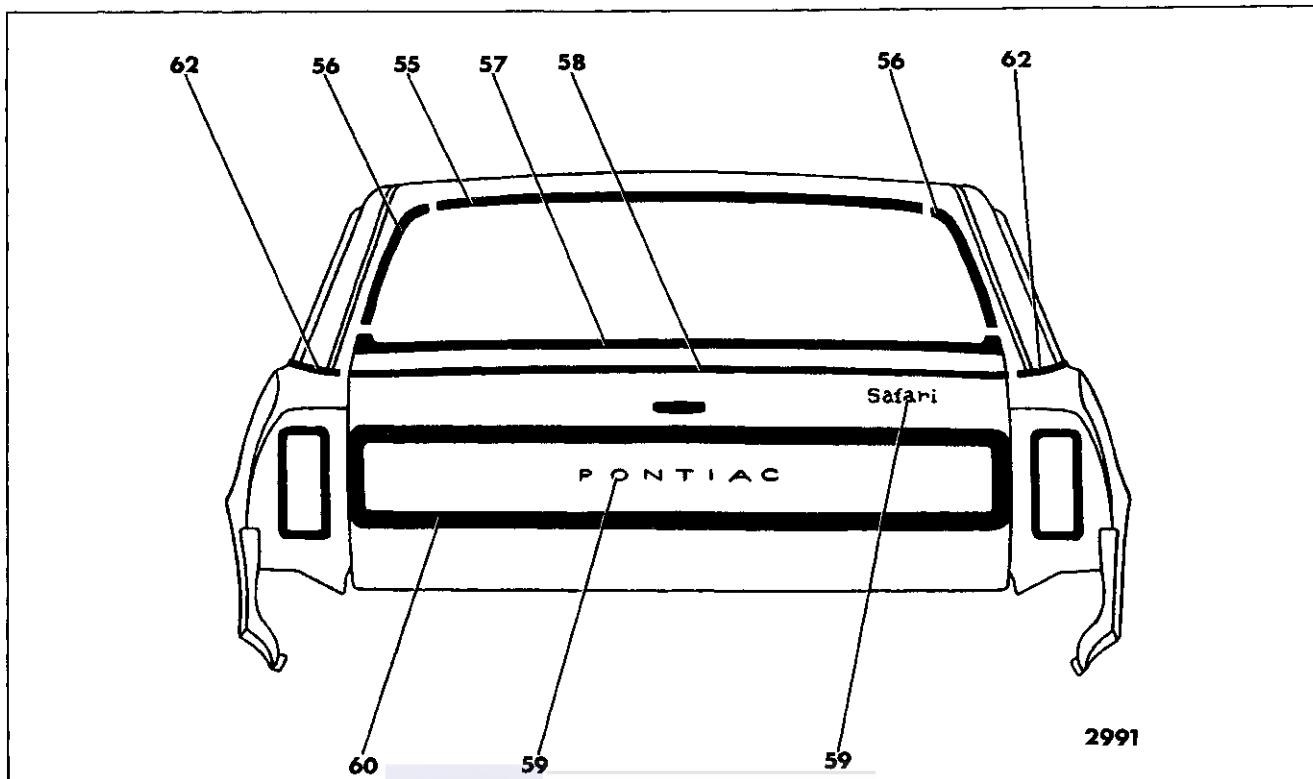


Fig. 17-56—Pontiac 25635-45 Styles
GM Restoration Parts

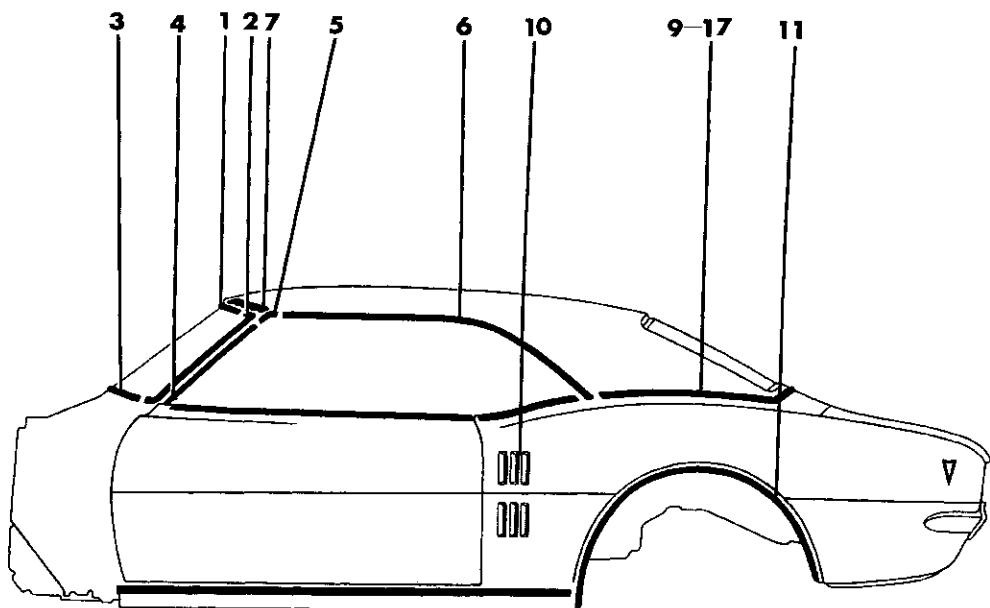
METHODS OF MOLDING RETENTION
PONTIAC "F" BODIES - 22000 SERIES
FIGURES 17-57 AND 17-58

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower	
3	Windshield Reveal Lower	All	X						Cowl Air Intake Grille
4	Windshield Pillar Drip Molding Scalp	All	X					Windshield Pillar Drip Molding Scalp Escutcheon	
5	Windshield Pillar Drip Molding Scalp Escutcheon	22637		View K					
6	Roof Drip Molding Scalp	22637		View K				Windshield Pillar Drip Molding Scalp Escutcheon	
7	Windshield Header	67 Style	X					Windshield Reveal Upper and Sides	Rear View Mirror Support Sunshade and Striker Support Windshield Pillar Weatherstrip and Weatherstrip Retainer
8	Windshield Pillar Finishing	67 Style	X					Windshield Header Windshield Reveal Side	Windshield Pillar Weatherstrip and Weatherstrip Retainer
9	Rear Quarter Belt Reveal	37 Style (Optional)				X	X		
10	Louvers-Body Side (6 Req'd, Per Side)	All					X		Rear Quarter Trim Pad
11	Rear Wheel Opening	All	X						
12	Back Window Reveal Upper	37 Styles			X			Back Window Reveal Side	

METHODS OF MOLDING RETENTION
PONTIAC "F" BODIES - 22000 SERIES
FIGURES 17-57 AND 17-58

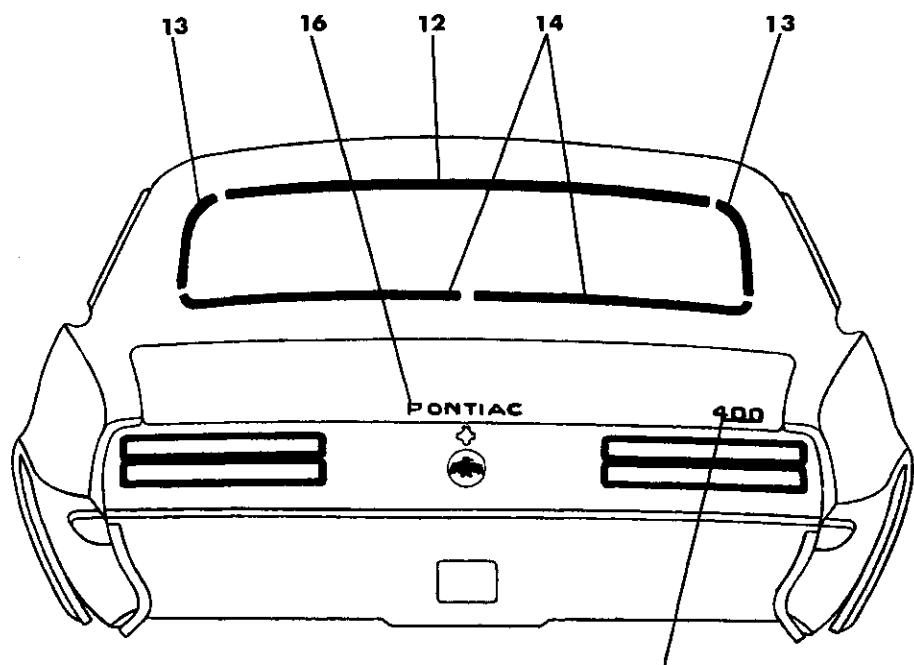
Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
13	Back Window Reveal Side	37 Style			X			Back Window Reveal Lower	
14	Back Window Reveal Lower	37 Style			X				
15	Rear Compartment Lid Emblem "400"	All (Optional)					X		
16	Rear Compartment Lid Name Plate	All					X		
17	Rear Quarter Pinch Weld Finishing	67 Style	X		X				





2873

Fig. 17-57—Pontiac "F-37-67" Styles



2874

Fig. 17-58—Pontiac "F-37-67" Styles

METHODS OF MOLDING RETENTION

OLDSMOBILE "A" BODY - 33000 AND 34000 SERIES
FIGURES 17-59 THROUGH 17-67

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attached Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All	X (67 Only)		X				
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	Cowl Air Intake Grille
4	Windshield Pillar Drip Scalp	All (Except 67)		View K				Roof Drip Molding Front Scalp Escutcheon	
5	Roof Drip Molding Front Scalp Escutcheon	All (Except 67)		View K				Windshield Pillar Drip Scalp and Roof Drip Scalp	
6	Roof Drip Molding Front Scalp	39 Style		View K				Roof Drip Molding Front Scalp Escutcheon	
7	Roof Drip Molding Rear Scalp	39 Style		View K				Roof Drip Molding Front Scalp	
8	Roof Drip Molding Scalp	All (Except 39-67)		View K				Roof Drip Molding Front Scalp Escutcheon	
9	Front Door Window Frame Front Scalp	35-55-65 69-77		View J					
10	Front Door Window Frame Upper Scalp	35-55-65 69-77		View J				Front Door Window Frame Front Scalp	
11	Front Door Window Frame Rear Scalp	35-55-65 69-77		View J				Front Door Window Frame Upper Scalp	
12	Center Pillar Scalp	35-55 65-69	X						
13	Rear Door Window Frame Front Scalp	35-55 65-69		View J				Rear Door Window Frame Upper Scalp	
14	Rear Door Window Frame Upper Scalp	35-55 65-69		View J					
15	Rear Quarter Window Reveal Front	77 Style			X			Rear Quarter Window Reveal Upper	

METHODS OF MOLDING RETENTION

OLDSMOBILE "A" BODY - 33000 AND 34000 SERIES
FIGURES 17-59 THROUGH 17-67

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
16	Rear Quarter Window Reveal Upper	77 Style	X						Quarter Window Glass Run Channel
17	Rear Quarter Belt Reveal Front Corner Escutcheon	77-87 (Optional)			X		X		Rear Quarter Upper Trim
18	Rear Door Corner Finishing	39-69 (Optional)					View B		
19	Rear Quarter Belt Reveal	77-87 39-69 (Optional)			X		View B	Rear Quarter Belt Reveal Rear Corner Escutcheon	Trim in Sail Area (39-69 Only)
20	Rear Quarter Belt Reveal Rear Corner Escutcheon	77-87 39-69 (Optional)					X	Rear End Belt Reveal (39-69 Style Only) Rear Quarter Belt Reveal	
21	Rear End Belt Reveal	39-69 (Optional)			X		View B		
22	Roof Panel Cover Front	39 Style			X			Roof Panel Cover Front Corner Escutcheon	
23	Roof Panel Cover Front Corner Escutcheon	39 Style	X						
24	Roof Panel Cover Side	39 Style			X			Roof Panel Cover Front Corner Escutcheon	
25	Roof Panel Cover Rear	39 Style			X			Roof Panel Cover Side	
26	Front Door Belt Reveal	All (Less 33677-87) (Optional)	X						Front Door Window Lower Stop
27	Rear Door Belt Reveal	35-39-55-65-69 (Optional)	X						Rear Door Window Lower Stop
28	Rear Quarter Window Belt Reveal	67 (Optional)	X						Quarter Window Lower Stop

METHODS OF MOLDING RETENTION

OLDSMOBILE "A" BODY - 33000 AND 34000 SERIES
FIGURES 17-59 THROUGH 17-67

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
29	Front Door Belt Reveal Lower	77-87-33667 (Optional)	X		X				
30	Rear Quarter Belt Reveal Lower	77-87 (Optional)			X		X		Rear Quarter Upper Trim
31	Compartment Lid	77-87 (Optional)	X					Compartment Lid Finishing Mldg.	
32	Compartment Lid Finishing Molding	77-87 (Optional)			X				
33	Rear Quarter Window Reveal Front Upper Corner Escutcheon	35 Style			X			Loosen Rear Quarter Window Reveal Upper and Lower at Corner	
34	Rear Quarter Window Reveal Upper	35 Style			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	
35	Rear Quarter Window Reveal Lower	35 Style			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	
36	Front Skylight Front Reveal	55-65			X			Front Skylight Rear Reveal	
37	Front Skylight Rear Reveal	55-65			X				
38	Side Skylight Upper Reveal	55-65			X			Loosen Front Upper Corner of Quarter Window Skylight Front Reveal	
39	Quarter Window Skylight Front Reveal	55-65			X			Quarter Window Skylight Rear Reveal	
40	Quarter Window Skylight Lower Reveal	55-65			X			Quarter Window Skylight Front Reveal	
41	Quarter Window Skylight Rear Reveal	55-65			X			Side Skylight Upper Reveal	

METHODS OF MOLDING RETENTION

OLDSMOBILE "A" BODY - 33000 AND 34000 SERIES
FIGURES 17-59 THROUGH 17-67

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
42	Side Skylight-Quarter Window Division Reveal	55-65				View L		Quarter Window Skylight Rear Reveal	
43	Bodylock Pillar Belt Reveal	35-55-65 (Optional)			View H		X		Bodylock Pillar Trim
44	Back Body Pillar Belt Reveal	35-55-65 (Optional)	X			View F			
45	Rear Quarter Pinch-weld Finishing	67	X		X				Lower Top Halfway
46	Front Door Outer Panel	33269-77 (Optional) 33635-39-69 34200-34800	X		X				
47	Front Door Outer Panel-Upper	34855-65 33667	X		X				
48	Rear Door Outer Panel	33269 (Opt.) 33635-39-69 34239-69 34855-65	X		X				
49	Rear Door Outer Panel Upper	34855-65	X		X				
50	Rear Wheel Opening-Front	33269-77 (Optional) 336-39-69 34200 34800	X			View I		Front of Rear Wheel Opening (34827 Only) Rear Wheel Opening Center	
51	Rear Wheel Opening-Center	33269-77 (Optional) 336-39-69 34200 34800					View B		
52	Rear Wheel Opening-Rear	34200 34800	X					Rear Wheel Opening Center Rear of Rear Wheel Opening	
53	Rear Wheel Opening	33667-77-87 33635	X						

METHODS OF MOLDING RETENTION

OLDSMOBILE "A" BODY - 33000 AND 34000 SERIES
FIGURES 17-59 THROUGH 17-67

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
54	Rear Wheel Opening Upper	34855-65					View B		
55	Front of Rear Wheel Opening	33277 (Optional) 34287			X				
56	Rear of Rear Wheel Opening	34239-69 34800					X		
57	Rear of Rear Wheel Opening Upper	34855-65				View I		Rear Wheel Opening Upper	
58	Rear of Rear Quarter Outer Vertical	34855-65	X		X			Rear of Rear Wheel Opening and Rear of Rear Wheel Opening Upper	
59	Rear Quarter Outer Panel Peak	33667			X		View B		Rear Quarter Trim
60	Rear Compartment Lid Rear	33639-67-69-77-87 33367-34239-69-87					X		
61	Rear of Rear Quarter Outer	33639-67-69-77-87 33367-34239-69-87	X						Rear Bumper Taillamp Assy.
62	Rear Compartment Outer Panel Emblem	33600 34200					X		
63	Rear Compartment Outer Panel Name-Plate	All					X		
64	Back Window Reveal Upper and Side	77-87			X				
65	Back Window Reveal Upper	39-69			X			Back Window Reveal Side	
66	Back Window Reveal Side and Lower	39-69			X				
67	Back Window Reveal Lower	77-87			X			Back Window Reveal Side	

GM Restoration Parts

METHODS OF MOLDING RETENTION
OLDSMOBILE "A" BODY - 33000 AND 34000 SERIES
FIGURES 17-59 THROUGH 17-67

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
68	Back Body Opening Upper Reveal	35-55-65	X					Back Body Opening Side Reveal	Tailgate Window Glass Run Channel
69	Back Body Opening	35-55-65	X						
70	Tailgate Outer Panel Belt Reveal	35-55-65	X		X				
71	Tailgate Outer Panel Emblem	35-55-65					X		Tailgate Trim Panel
72	Tailgate Outer Panel Nameplate	35-55-65					X		Tailgate Trim Panel
73	Tailgate Outer Panel Upper	34855-65			X			Tailgate Outer Panel Side	
74	Tailgate Outer Panel Lower	34855-65			X			Tailgate Outer Panel Side	
75	Tailgate Outer Panel Side	34855-65					X		

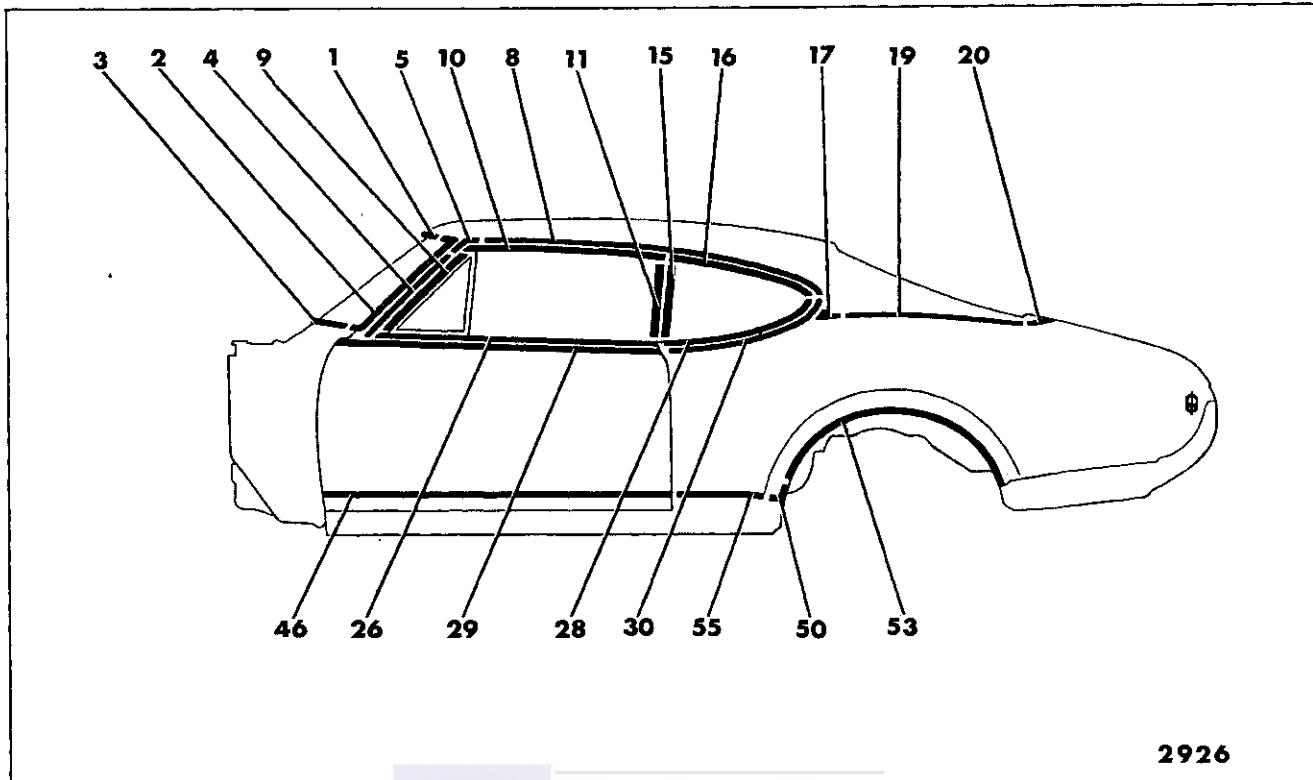


Fig. 17-59—Oldsmobile "A-77" Styles

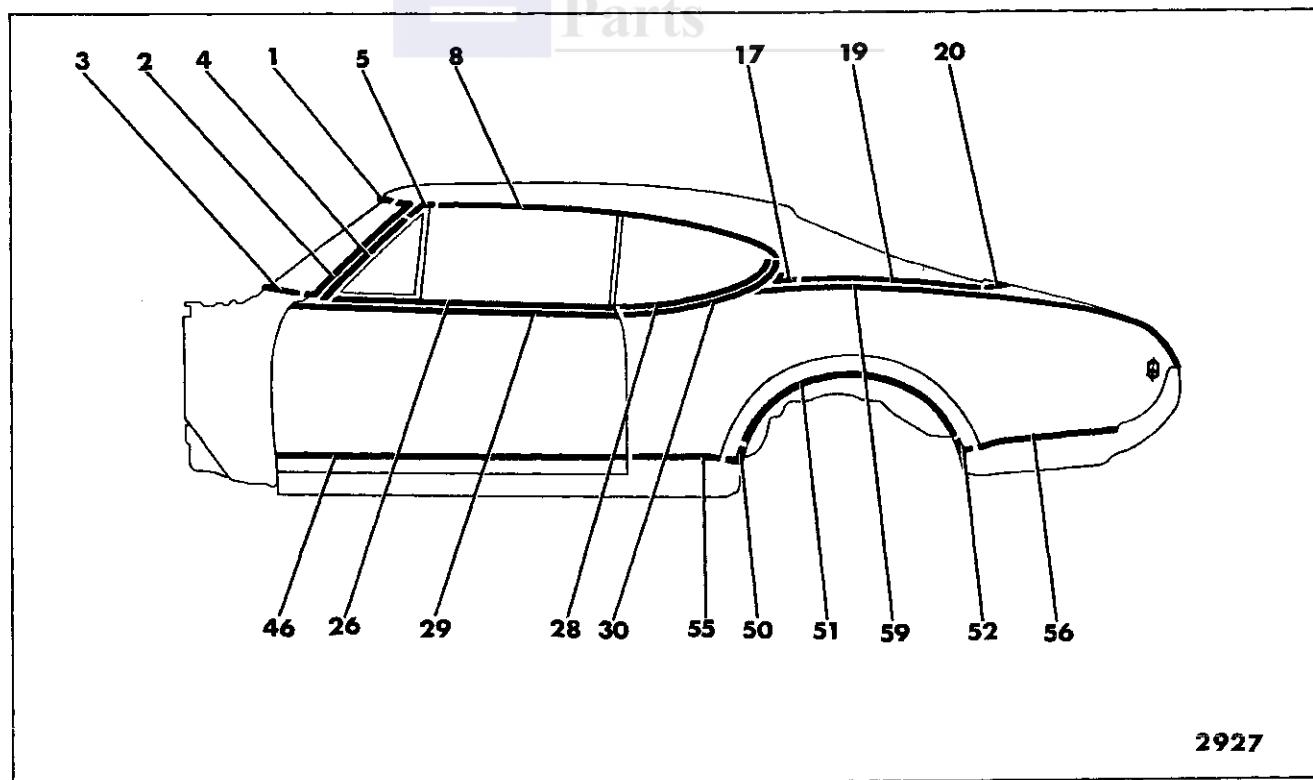


Fig. 17-60—Oldsmobile "A-87" Styles (33667 Style Similar)

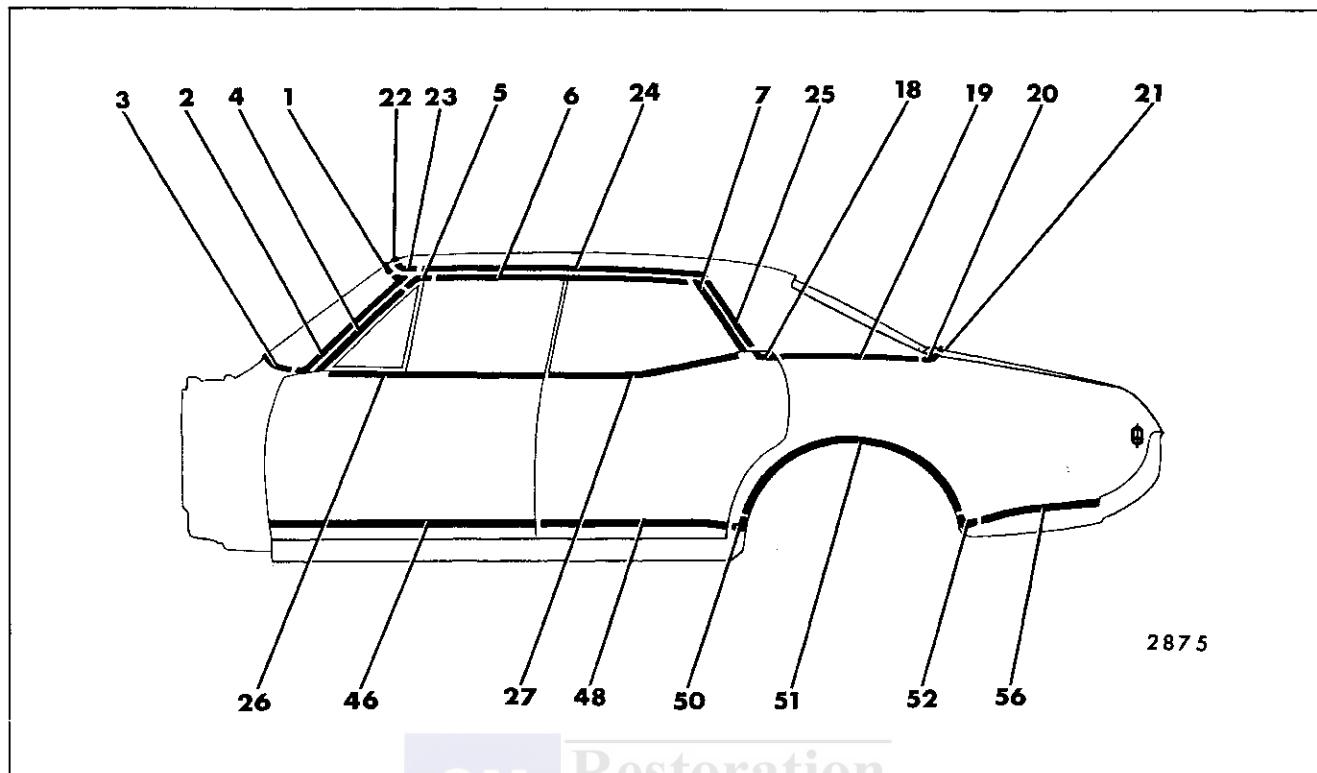


Fig. 17-61—Oldsmobile "A-39" Styles

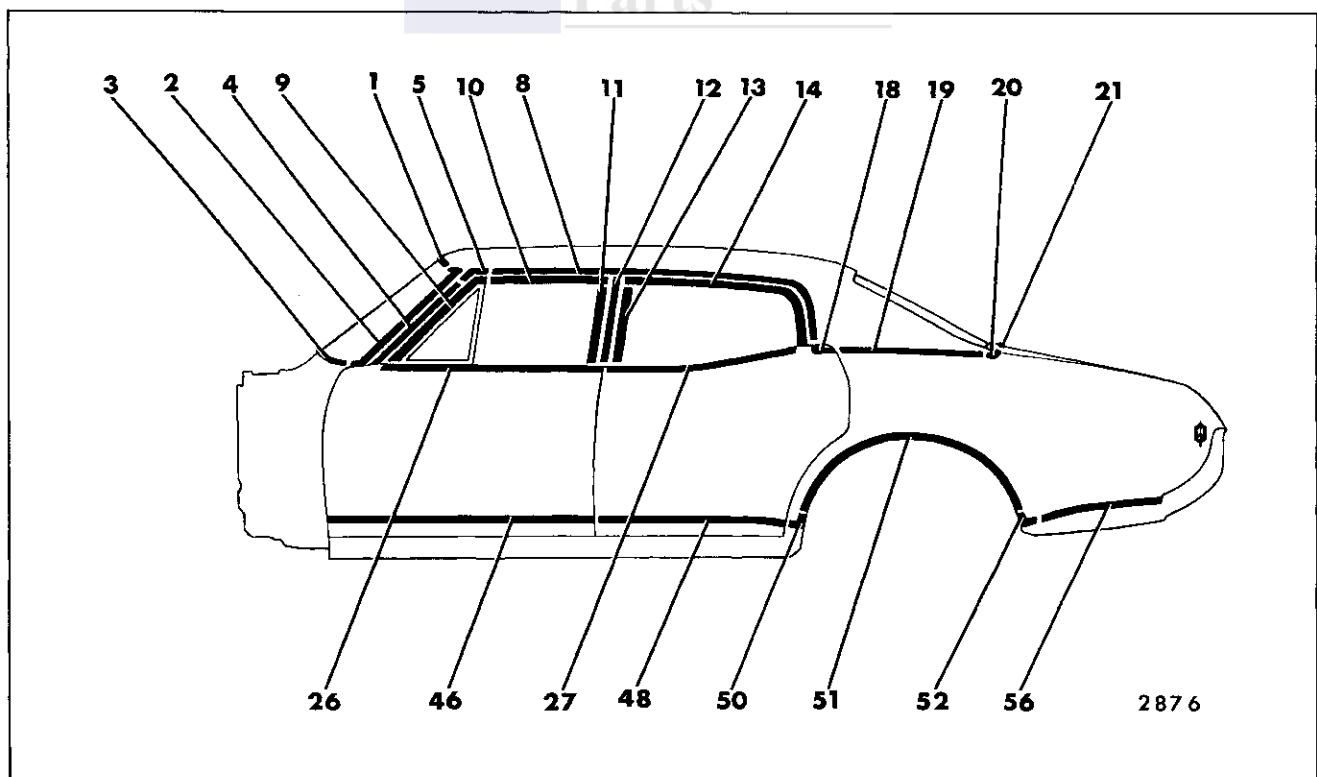


Fig. 17-62—Oldsmobile "A-69" Styles

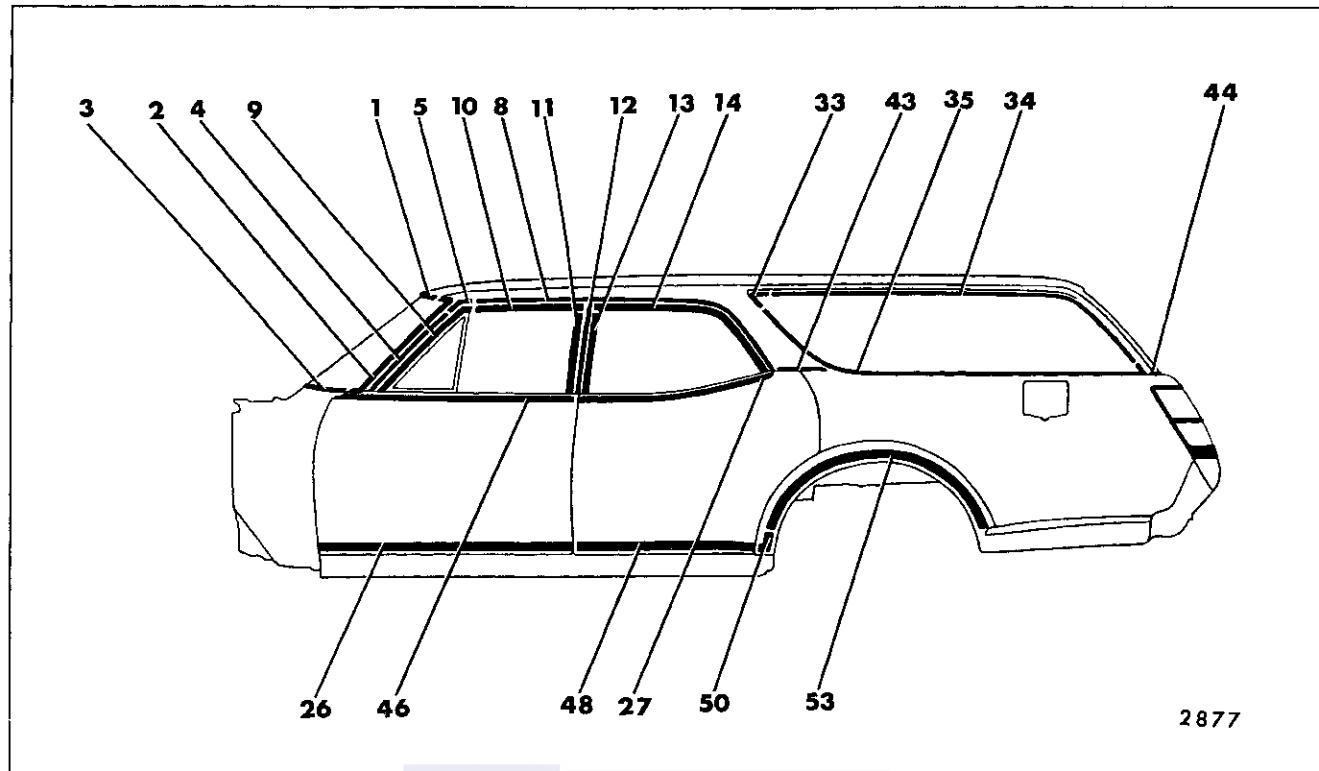


Fig. 17-63—Oldsmobile "A-35" Styles

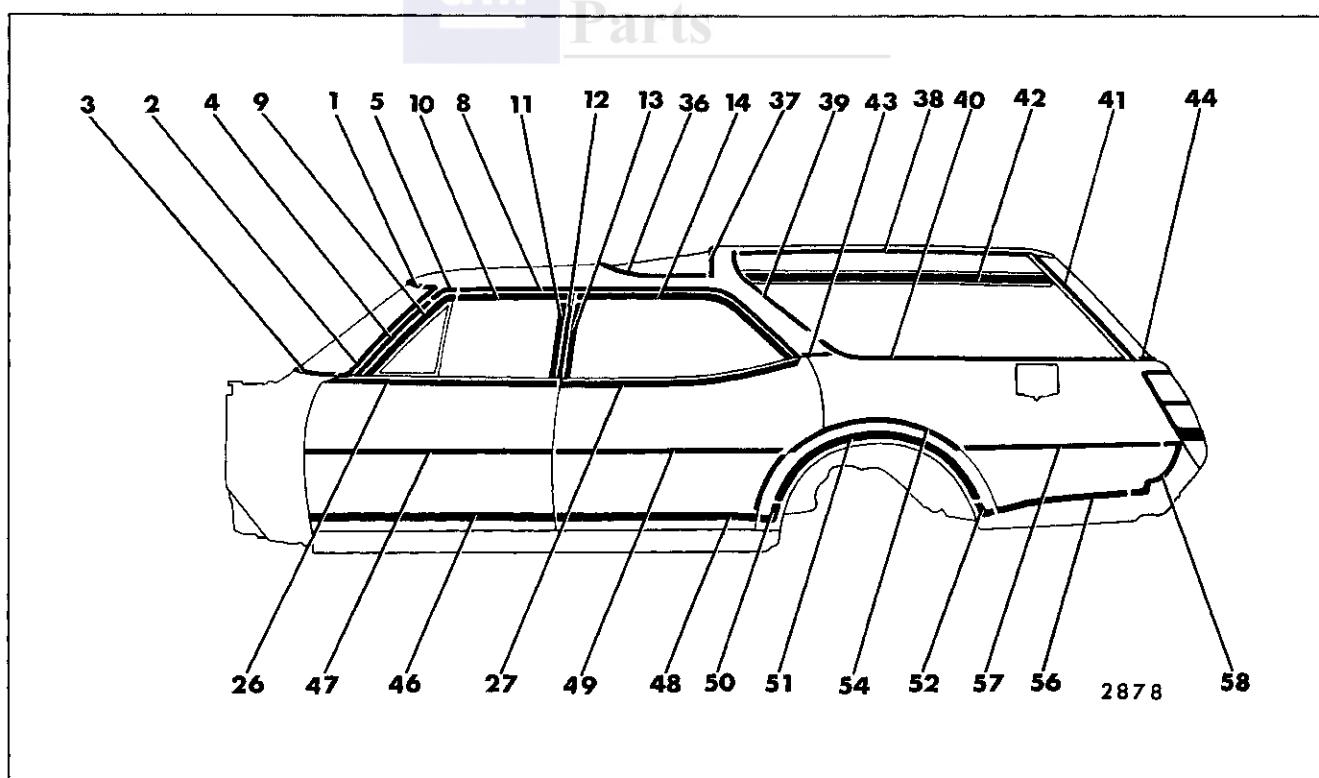


Fig. 17-64—Oldsmobile "A-55-65" Styles

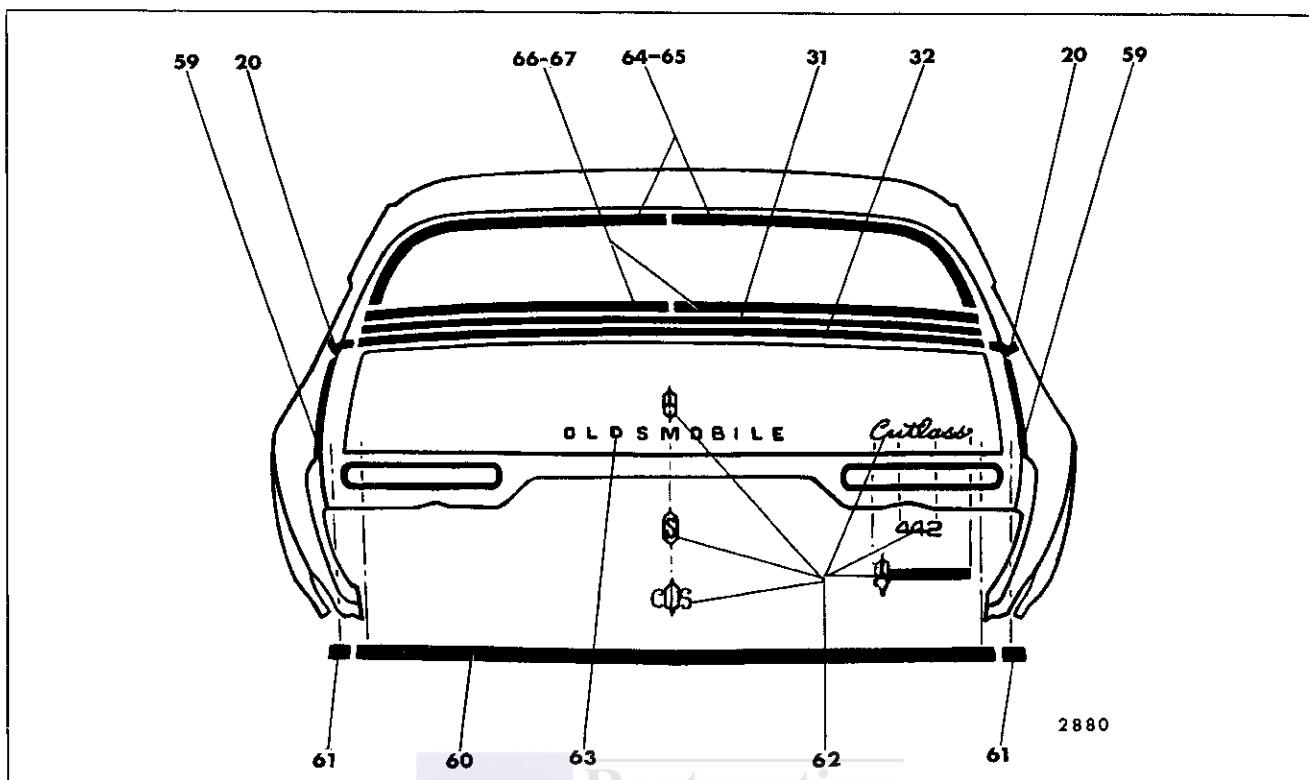


Fig. 17-65—Oldsmobile 33200-33600-34200 Styles (Less 35 Styles)

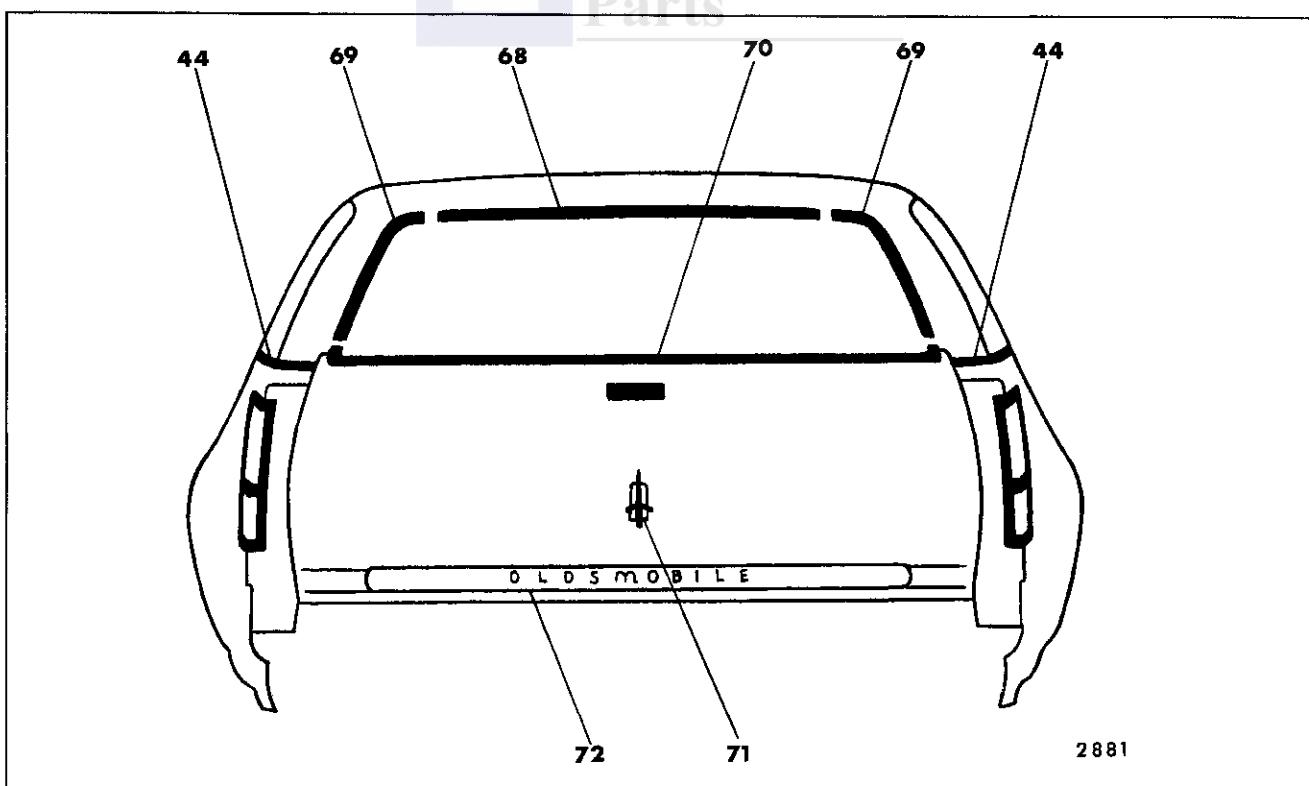


Fig. 17-66—Oldsmobile "A-35" Styles

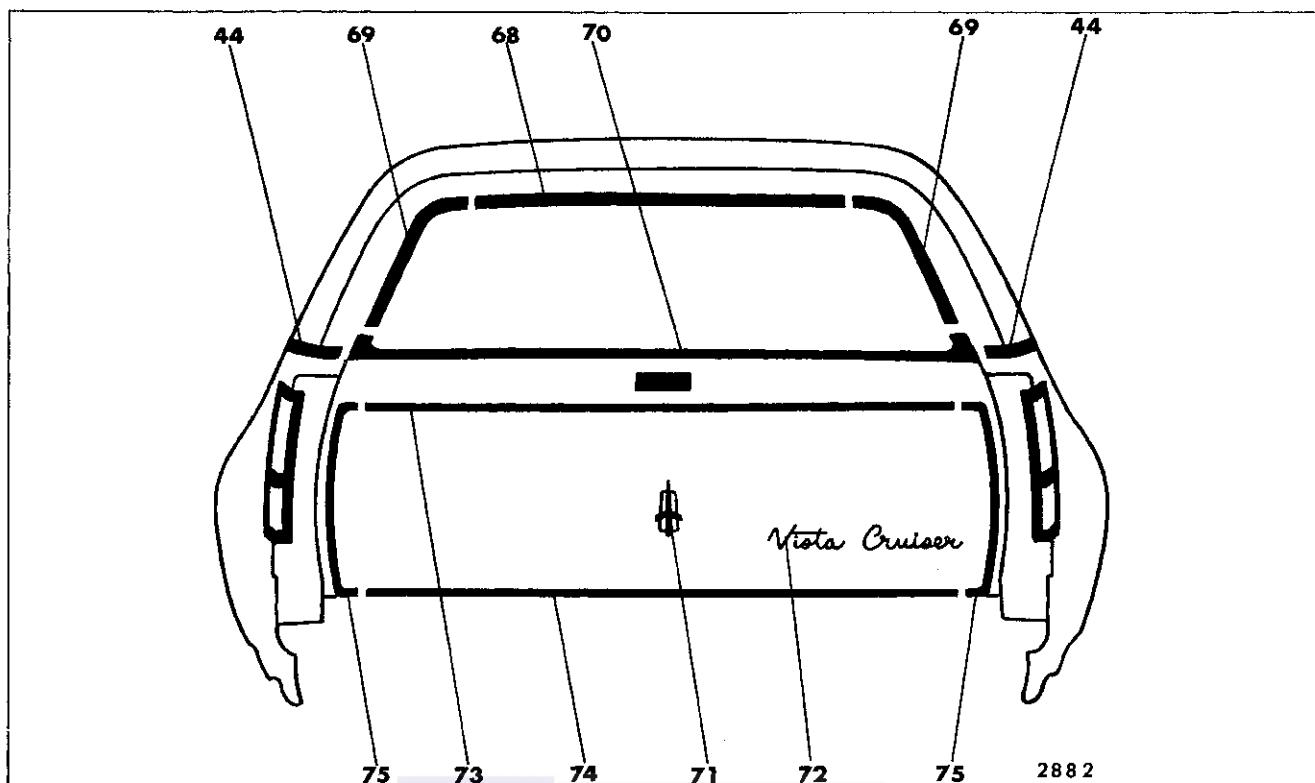


Fig. 17-67—Oldsmobile "A-55-65" Styles

GM Restoration Parts

METHODS OF MOLDING RETENTION

OLDSMOBILE "B-C" BODIES - 35000, 36000 AND 38000 SERIES
FIGURES 17-68 THROUGH 17-81

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower	
3	Windshield Reveal Lower	All	X						
4	Windshield Pillar Drip	All (Except 67)	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
5	Windshield Pillar Finishing	67	X					Windshield Reveal Side	Windshield Pillar Weatherstrip and Weatherstrip Retainer
6	Windshield Header	67	X					Windshield Pillar Finishing, Windshield Reveal Upper	Sunshade Support, Rear View Mirror Support
7	Roof Drip Molding Scalp	All (Except 67 and 38439-38457)		View K				Windshield Pillar Drip	
8	Roof Drip Molding Front Scalp	38439-57		View K				Windshield Pillar Drip	
9	Roof Drip Molding Rear Scalp	38439-57	X	View K				Roof Drip Molding Front Scalp	Side Roof Rail Weather Strip Retainer
10	Roof Panel Emblem	38669 (With Fabric Roof Cover)					X		Rear Quarter Upper Trim Panel
11	Front Door Window Frame Front Scalp	69 (Except 38000 Series)		View J					
12	Front Door Window Frame Upper Scalp	69 (Except 38000 Series)		View J				Front Door Window Frame Front Scalp	
13	Front Door Window Frame Rear Scalp	69 (Except 38000 Series)		View J				Front Door Window Frame Upper Scalp	

METHODS OF MOLDING RETENTION

OLDSMOBILE "B-C" BODIES - 35000, 36000 AND 38000 SERIES
FIGURES 17-68 THROUGH 17-81

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
14	Front Door Window Belt Reveal (at Vent)	All							Front Door Vent Assembly
15	Front Door Window Belt Reveal	All	X					Front Door Window Belt Reveal at Vent	Rubber Bumper on Front Door Window Lower Stop
16	Center Pillar Scalp	38469-38669	X						Side Roof Rail Weatherstrip Front and Rear
17	Rear Door Window Frame Front Scalp	69 (Except 38000 Series)		View J					Rear Door Window Frame Upper Scalp
18	Rear Door Window Frame Upper Scalp	69 (Except 38000 Series)		View J					
19	Rear Door Window Belt Reveal	39, 69	X						Rubber Bumper on Rear Door Window Lower Stop
20	Rear Quarter Window Belt Reveal	57, 67, 87	X						Rear Quarter Window Lower Stop
21	Rear Quarter Window Belt Reveal Escutcheon	87		X				Rear Quarter Window Belt Reveal	
22	Roof Panel Cover Front	35639-87 36439-87 36639-87	X		X			Roof Panel Cover Side	
23	Roof Panel Cover Side	35639-87 36439-87 36639-87			X			Rear Quarter Belt Reveal	
24	Rear Quarter Belt Reveal	All (Except 67)			X	X	X	Roof Panel Cover Side	
25	Rear Quarter Belt Reveal Corner Escutcheon	38469 38669					X	Rear Quarter Belt Reveal	
26	Rear Belt Reveal	38469 38669					X	Rear Quarter Belt Reveal Corner Escutcheon	

METHODS OF MOLDING RETENTION

OLDSMOBILE "B-C" BODIES - 35000, 36000 AND 38000 SERIES
FIGURES 17-68 THROUGH 17-81

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
27	Rear Quarter Pinch-weld Finishing Molding	67	X		X				
28	Front Door Outer Panel	36400-36600 38000	X X		X		X X		Front Door Trim Pad Front Door Trim Pad
29	Rear Door Outer Panel	36439-69 36639 38000	X X			X		View B X	Rear Door Trim Pad Rear Door Trim Pad
30	Front of Rear Wheel Opening Corner	36487	X				X		
31	Front of Rear Wheel Opening	36639 38457-67 36487 36687	X		X		X X	Wheel Opening Front of Rear Wheel Opening Corner Rear Wheel Opening Rear	Rear Quarter Trim Pad Rear Quarter Trim Pad Rear Quarter Trim Pad
32	Rear Wheel Opening	35600 36400 36600	X X X				X X		
33	Rear of Rear Wheel	All					X	Rear Wheel Opening (36000 Styles Only)	
34	Back Window Reveal Upper	All (Except 67)			X			Back Window Reveal Side	
35	Back Window Reveal Side	All (Except 67 & 35669)			X			Back Window Reveal Lower	
36	Back Window Reveal Lower	All (Except 67)			X				
37	Rear Compartment Lid Outer Panel Emblem and/or Name Plate	35600 and 36000 38000				X			
						View I			

METHODS OF MOLDING RETENTION

OLDSMOBILE "B-C" BODIES - 35000, 36000 AND 38000 SERIES
FIGURES 17-68 THROUGH 17-81

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attached Nuts	Engages With Other Moldings	Remove Hardware Or Trim
38	Rear of Rear Quarter	35600 36000	X				X		Rear Quarter Outer Extension, Loosen Rear Bumper
39	Rear Compartment Lid Outer Panel	All (Less 38000 Series)	X						
40	Rear Compartment Lid Outer Panel Lower Side	38000	X					Rear Compartment Lid Outer Panel Center	
41	Rear Compartment Lid Outer Panel Upper Side	38000	X					Rear Compartment Lid Outer Panel Center	
42	Rear Compartment Lid Outer Panel Center	38000					X	Rear Compartment Lid Outer Panel Upper and Lower Side	
43	Front Door Outer Panel Peak	39-69-87 (Optional)	X		X				
44	Rear Door Outer Panel Peak	39-69 (Optional)	X		X				
45	Rear Quarter Outer Panel Peak	87 (Optional)			X		View B		Rear Quarter Trim

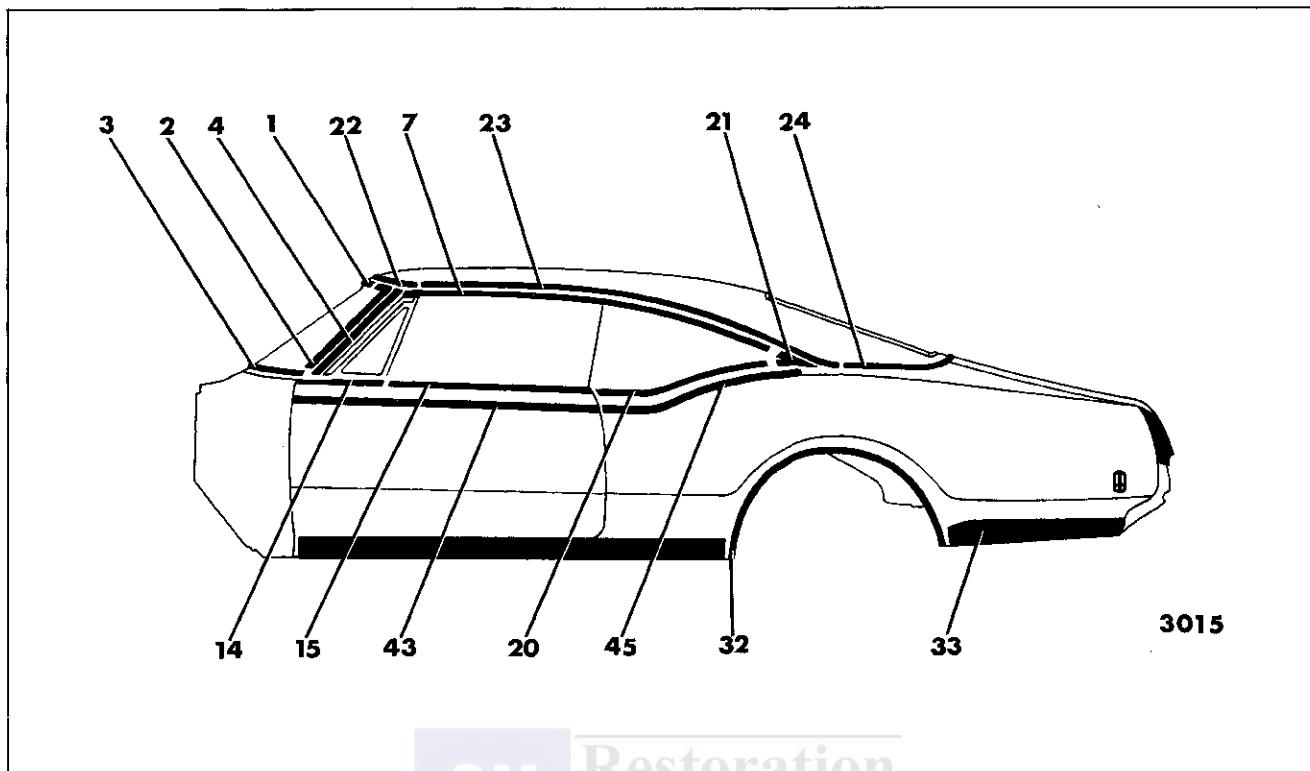


Fig. 17-68—Oldsmobile 35687 Styles (35667 Style Similar)

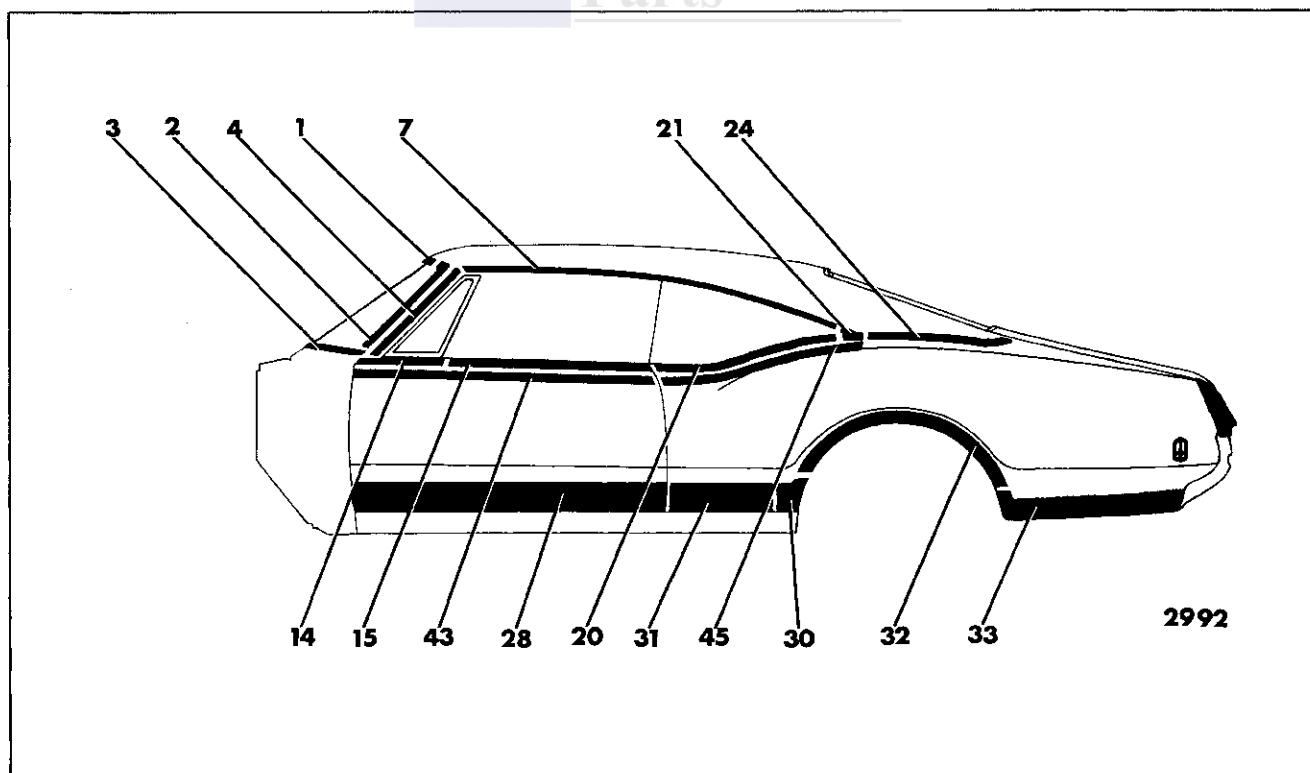


Fig. 17-69—Oldsmobile 36487 Styles

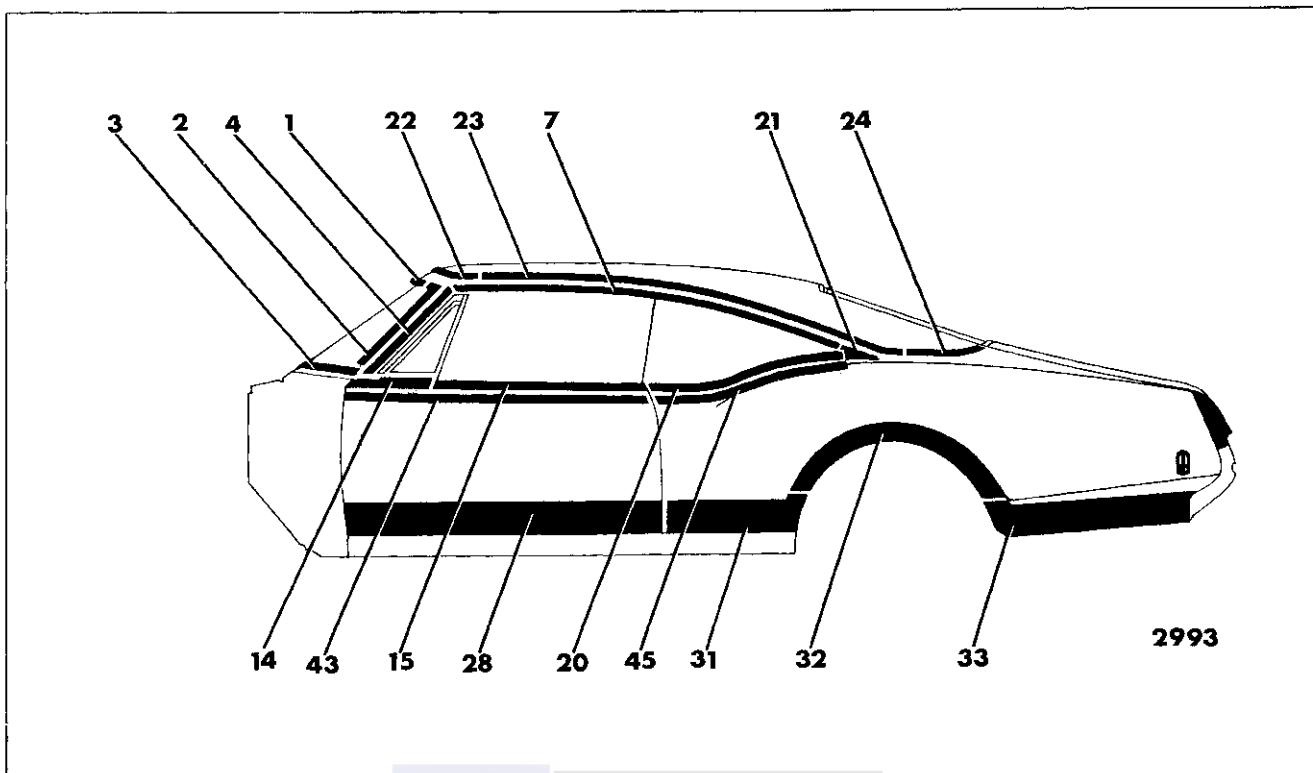


Fig. 17-70—Oldsmobile 36687 Styles

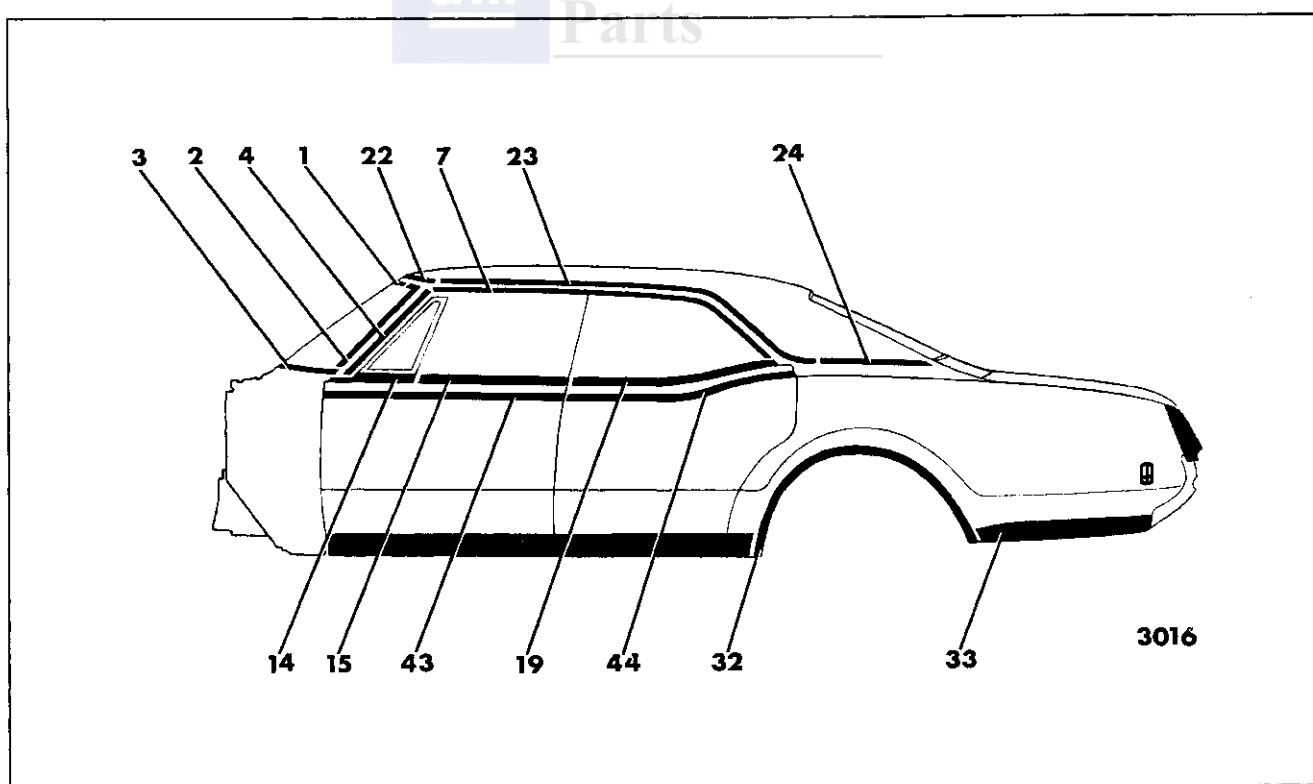


Fig. 17-71—Oldsmobile 35639 Styles

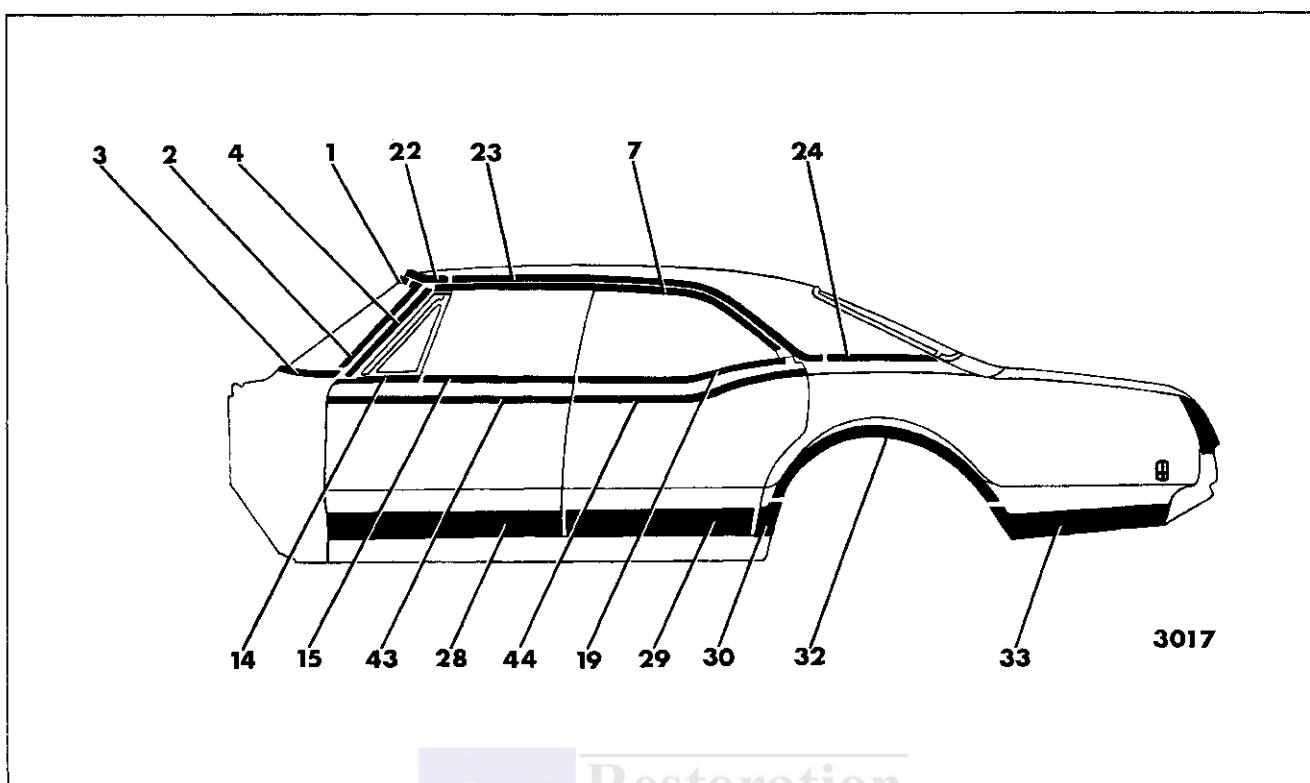


Fig. 17-72—Oldsmobile 36439 Styles

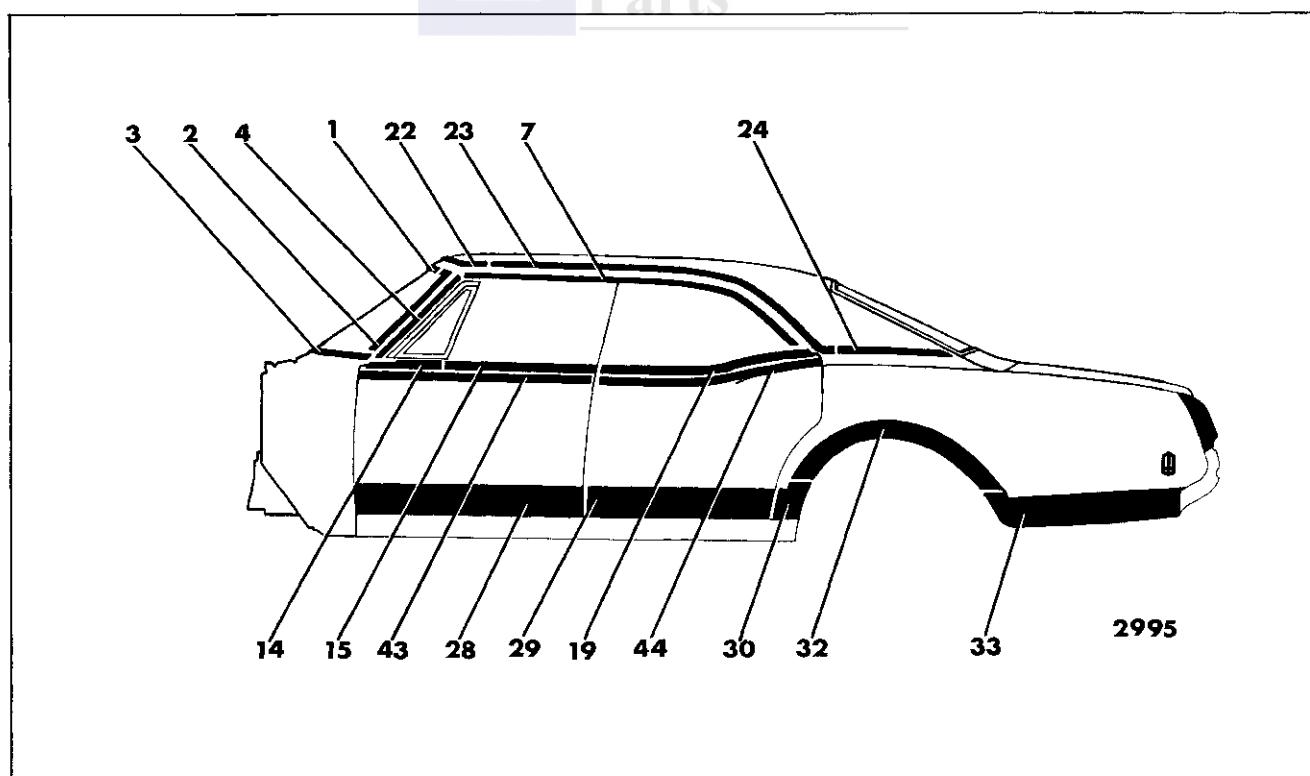


Fig. 17-73—Oldsmobile 36639 Styles

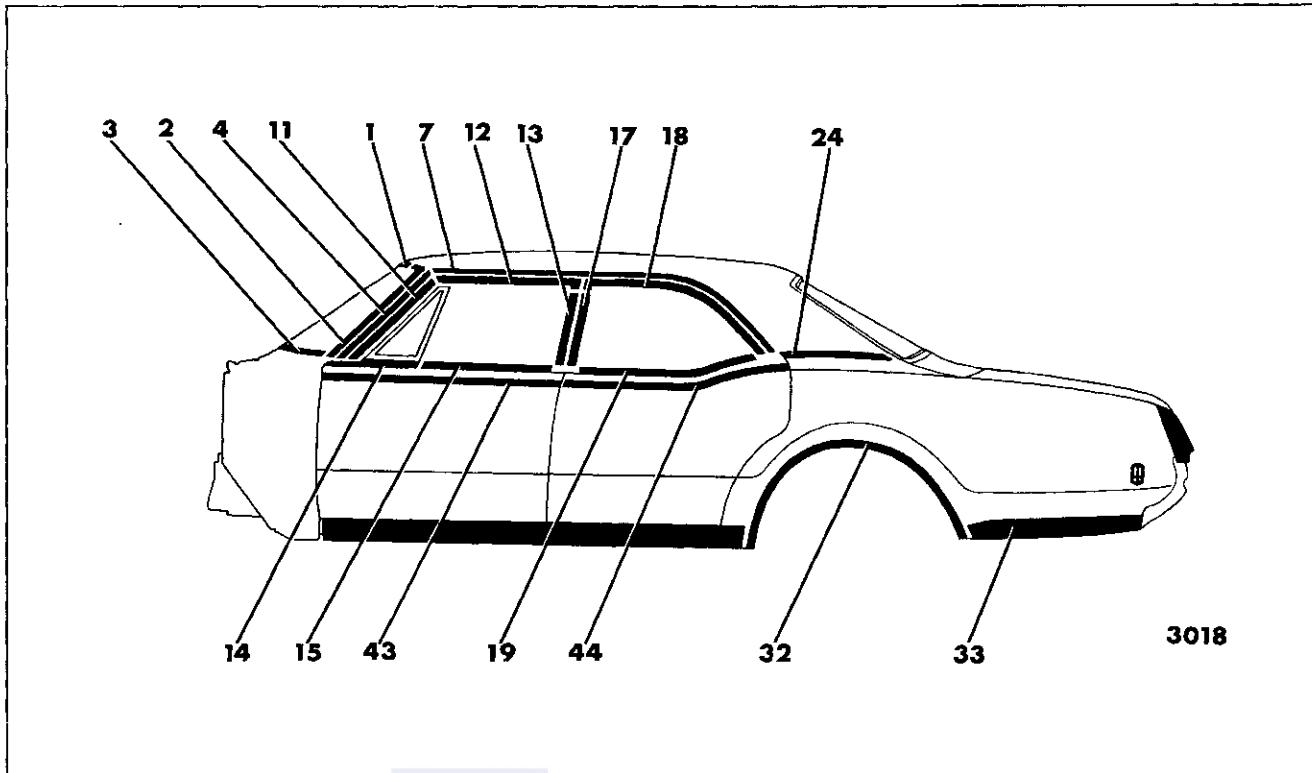


Fig. 17-74—Oldsmobile 35669 Styles

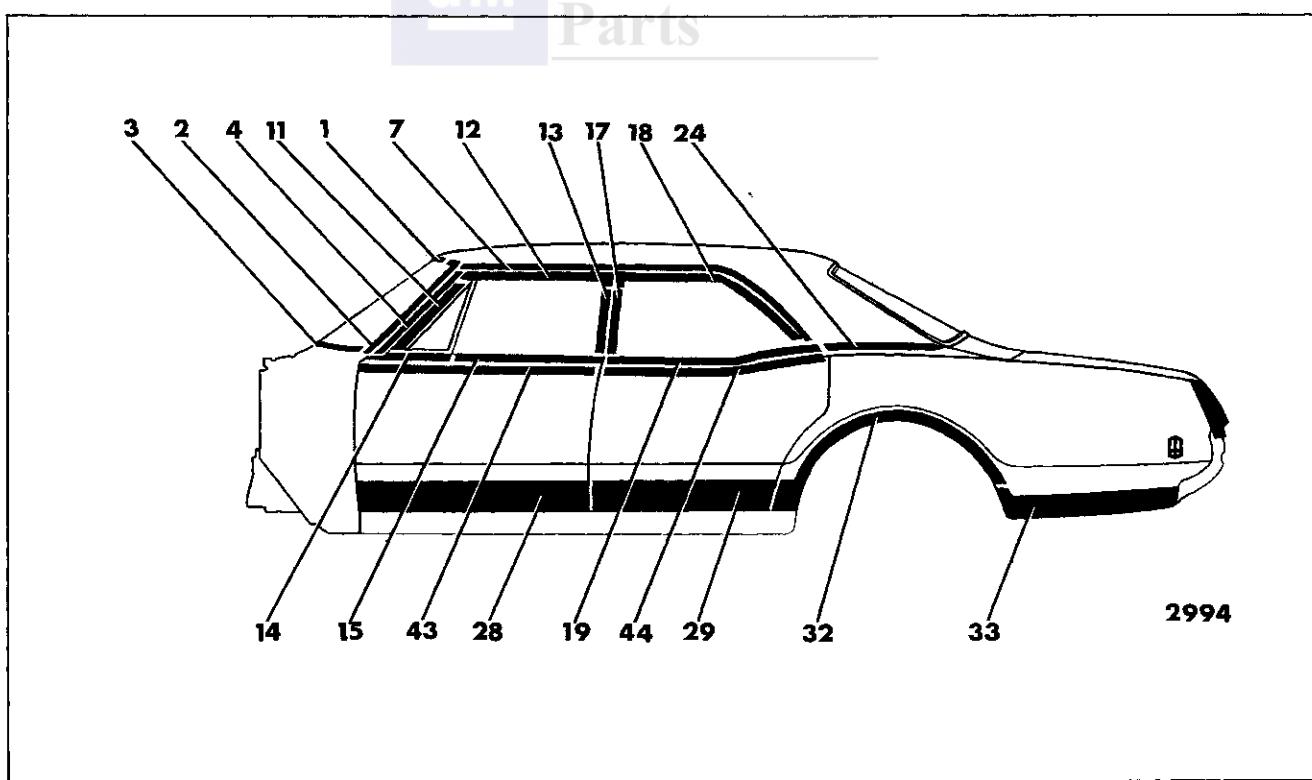


Fig. 17-75—Oldsmobile 36469 Styles

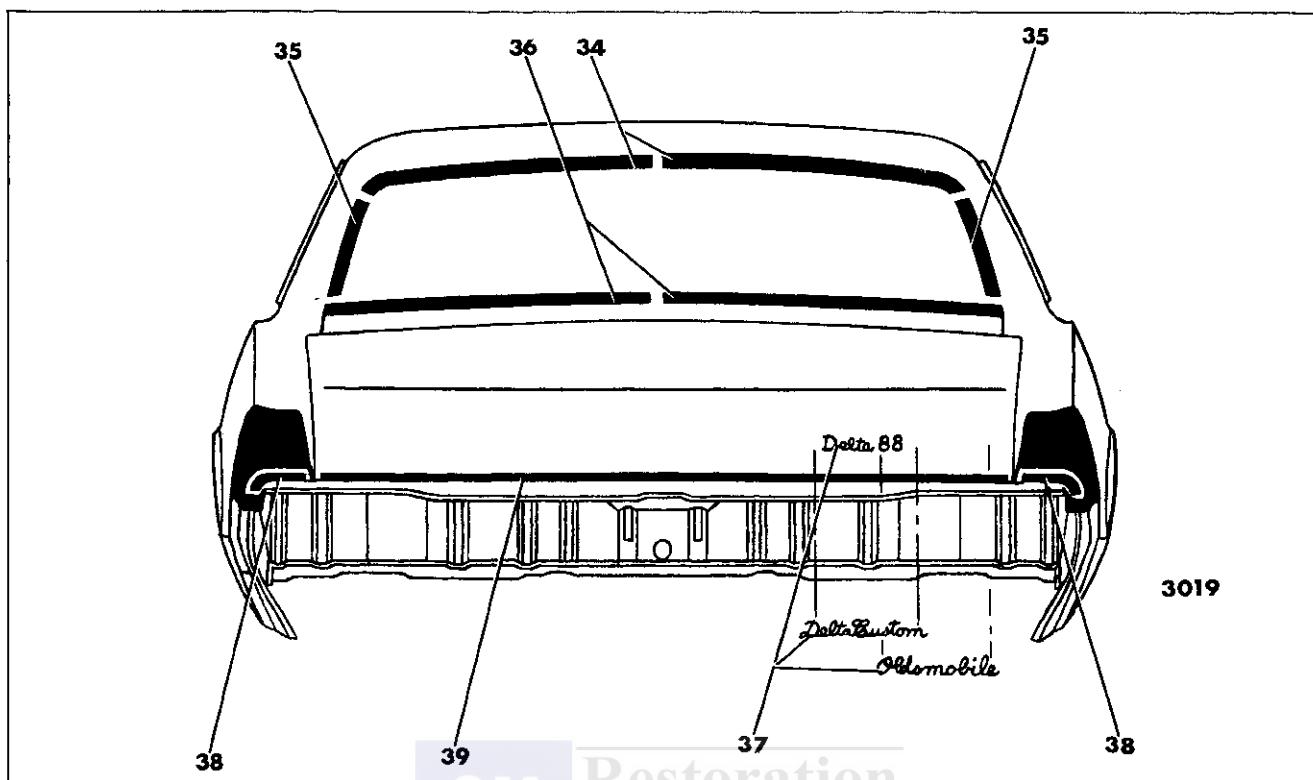


Fig. 17-76—Oldsmobile 35600-36400-36600 Styles

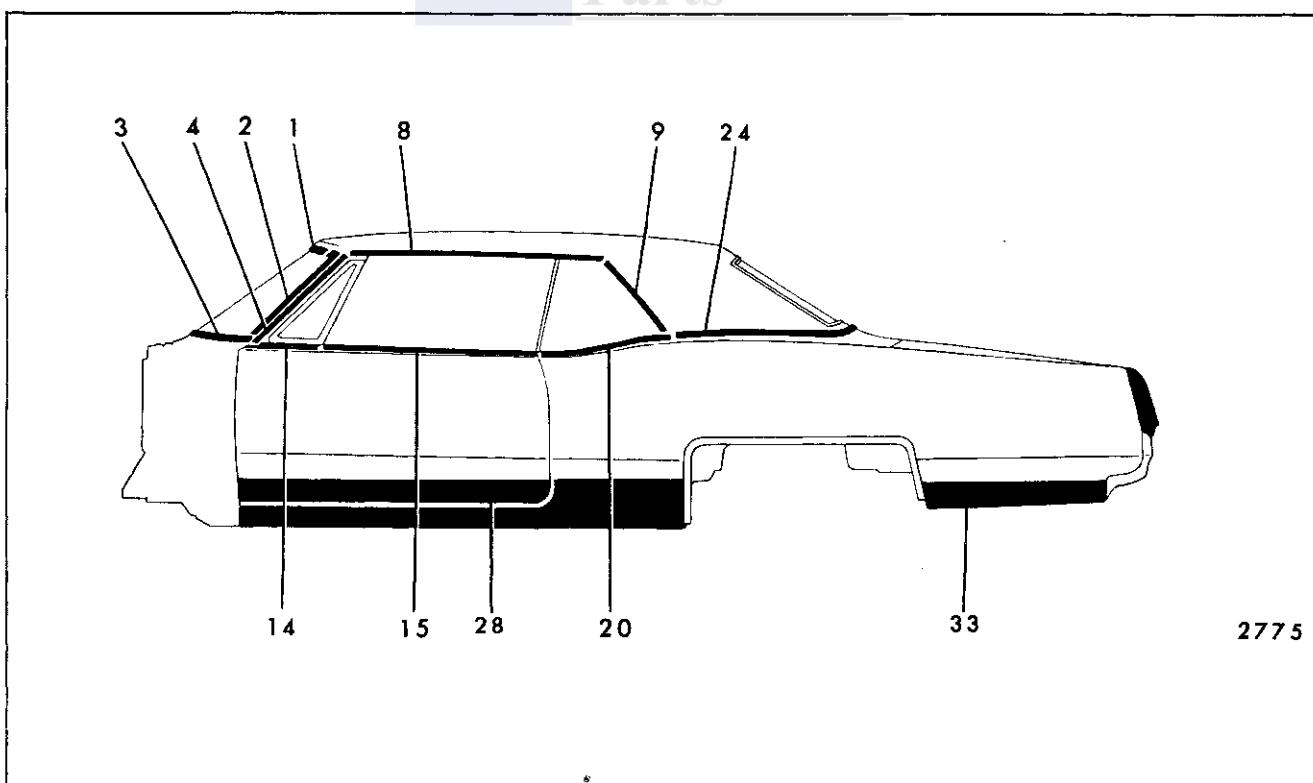


Fig. 17-77—Oldsmobile 38457 Style

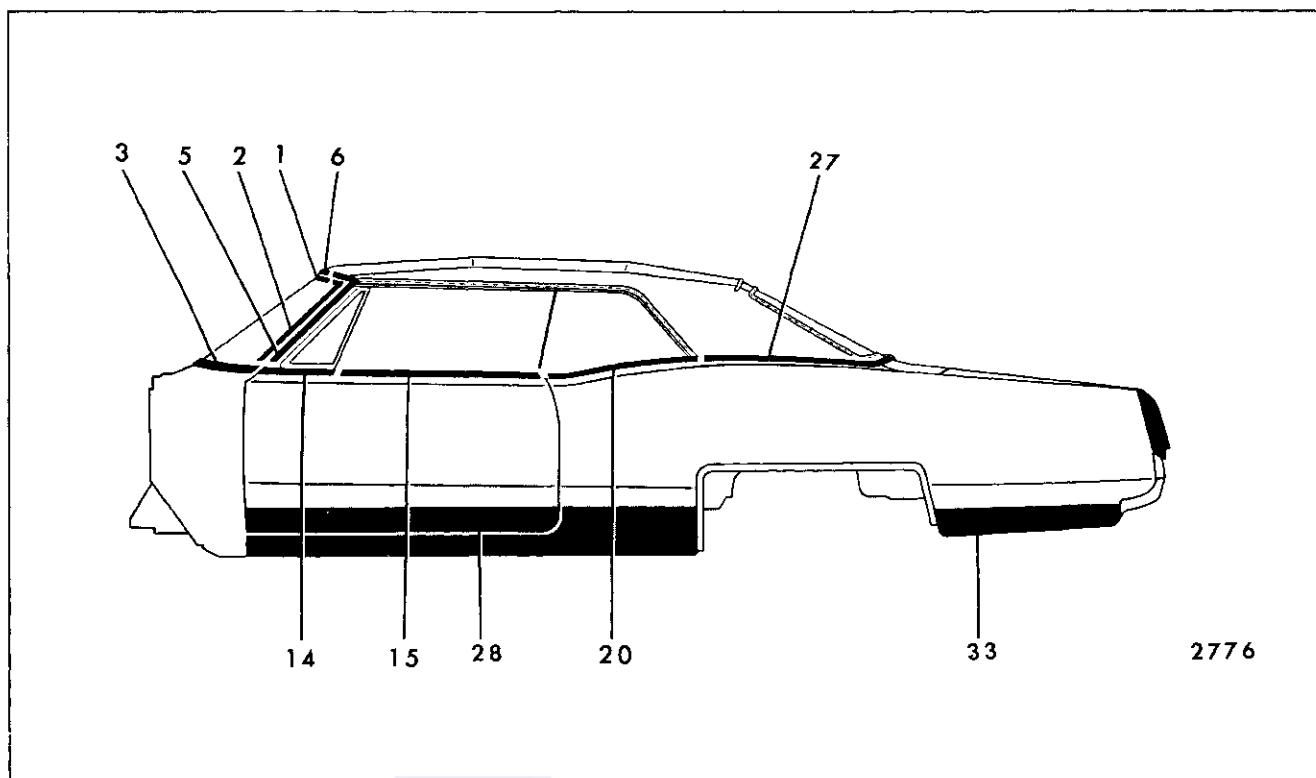


Fig. 17-78—Oldsmobile 38467 Style

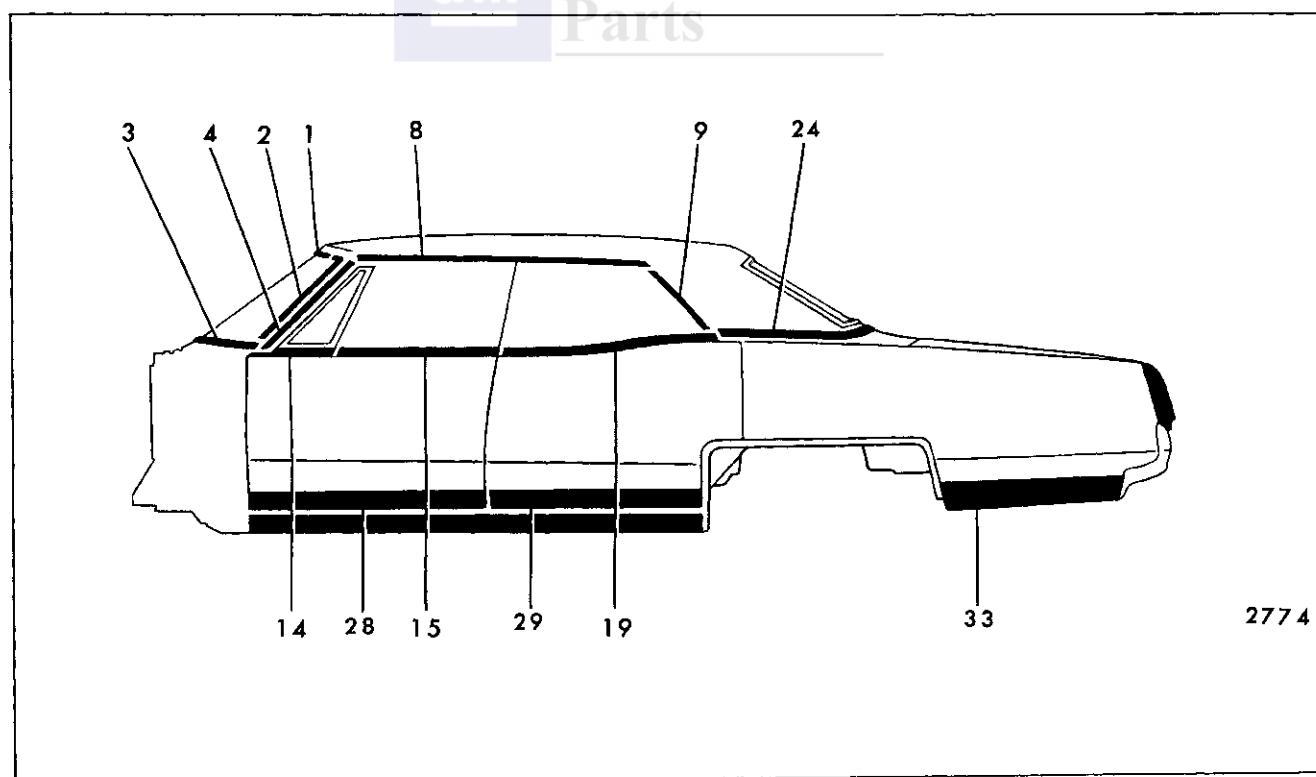


Fig. 17-79—Oldsmobile 38439 Style

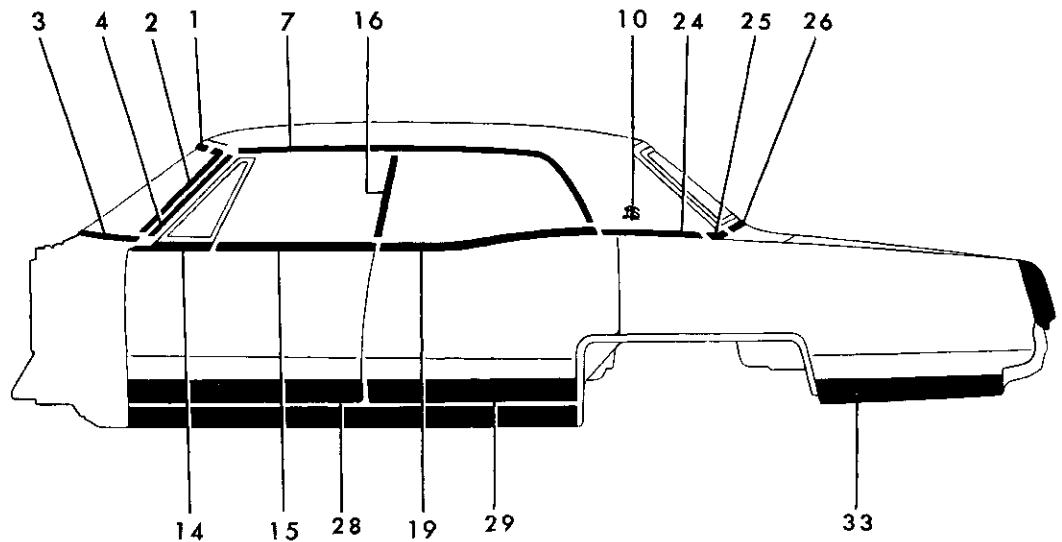


Fig. 17-80—Oldsmobile 38469-38669 Styles

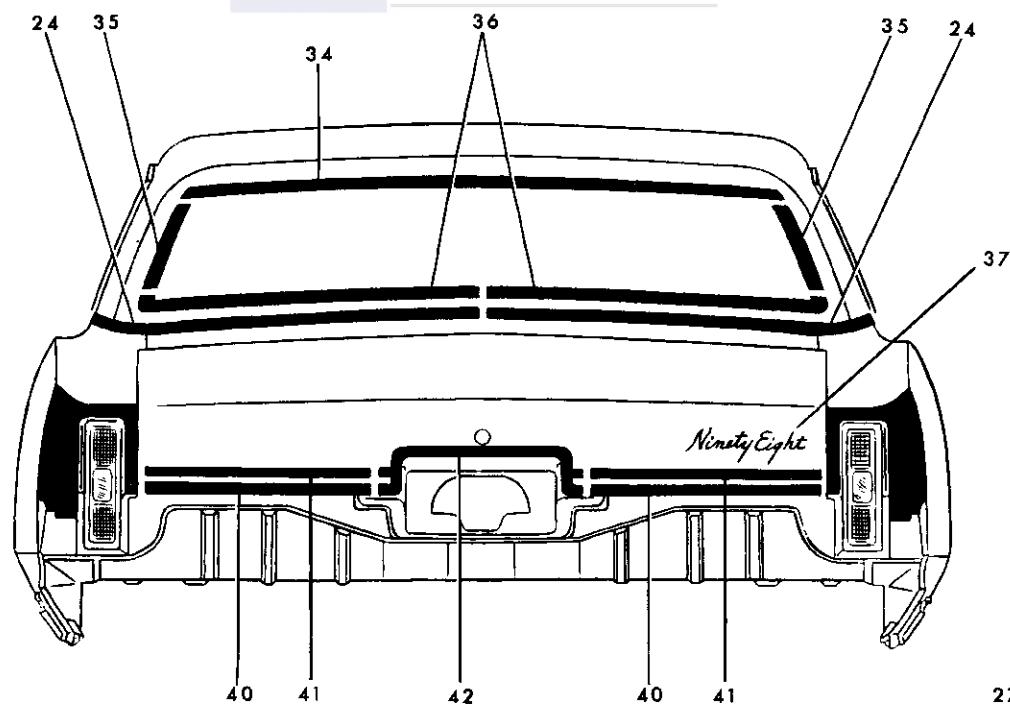


Fig. 17-81—Oldsmobile 38400-38600 Styles

METHODS OF MOLDING RETENTION
OLDSMOBILE "E" BODIES - 39000 SERIES
FIGURES 17-82 AND 17-83

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X				
2	Windshield Reveal Side	All			X			Windshield Reveal Upper	
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	
4	Windshield Pillar Drip Molding Scalp	All		View K					Windshield Pillar Weather-strip and Weatherstrip Retainer
5	Roof Drip Molding Scalp	All		View K				Windshield Pillar Drip Molding Scalp	
6	Front Door Window Belt Reveal	All	X		X				Rubber Bumper on Front Door Window Lower Stop
7	Rear Quarter Window Belt Reveal	All	X		X			Roof Drip Molding Scalp	Rear Quarter Window
8	Rear Quarter Belt Reveal	All (Optional)			X		X		Rear Compartment Side Trim Panel
9	Front Door Outer Panel	All	X		X				
10	Back Window Reveal Upper	All			X				
11	Back Window Reveal Side	All			X			Back Window Reveal Upper	
12	Back Window Reveal Lower	All			X			Back Window Reveal Side	
13	Roof Panel Cover Front Finishing	All (With Fabric Roof Cover)	X		X			Roof Panel Cover Front Finishing Corner Escutcheon	

METHODS OF MOLDING RETENTION

OLDSMOBILE "E" BODIES - 39000 SERIES
FIGURES 17-82 AND 17-83

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
14	Roof Panel Cover Front Finishing Corner Escutcheon	All (With Fabric Roof Cover)						Roof Panel Cover Side Finishing	
15	Roof Panel Cover Side Finishing	All (With Fabric Roof Cover)	X		X				
16	Rear Compartment Lid Front	All (With Fabric Roof Cover)			X		View B		
17	Gas Tank Filler Door Emblem	All					X		
18	Rear End Outer Panel Emblem and/or Name Plate	All				View I			

GM Restoration Parts

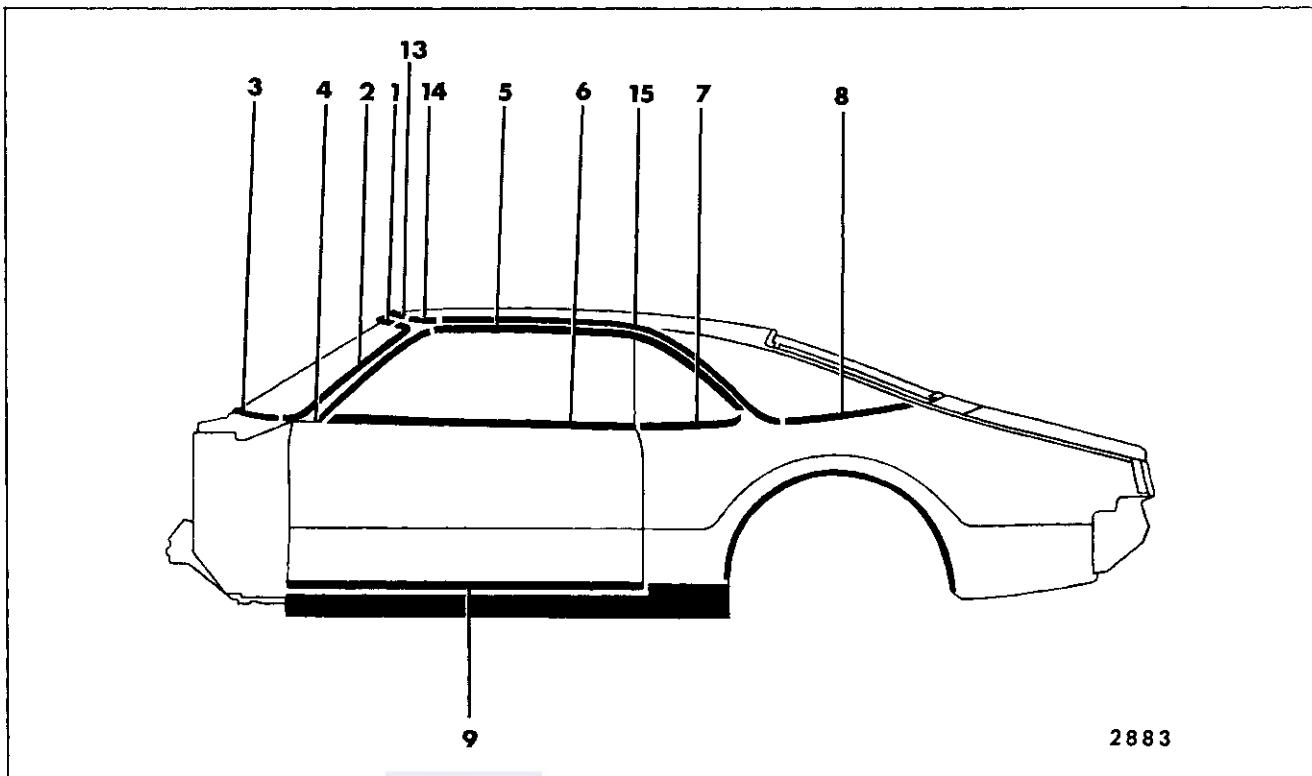


Fig. 17-82—Oldsmobile 39487-39687 Styles

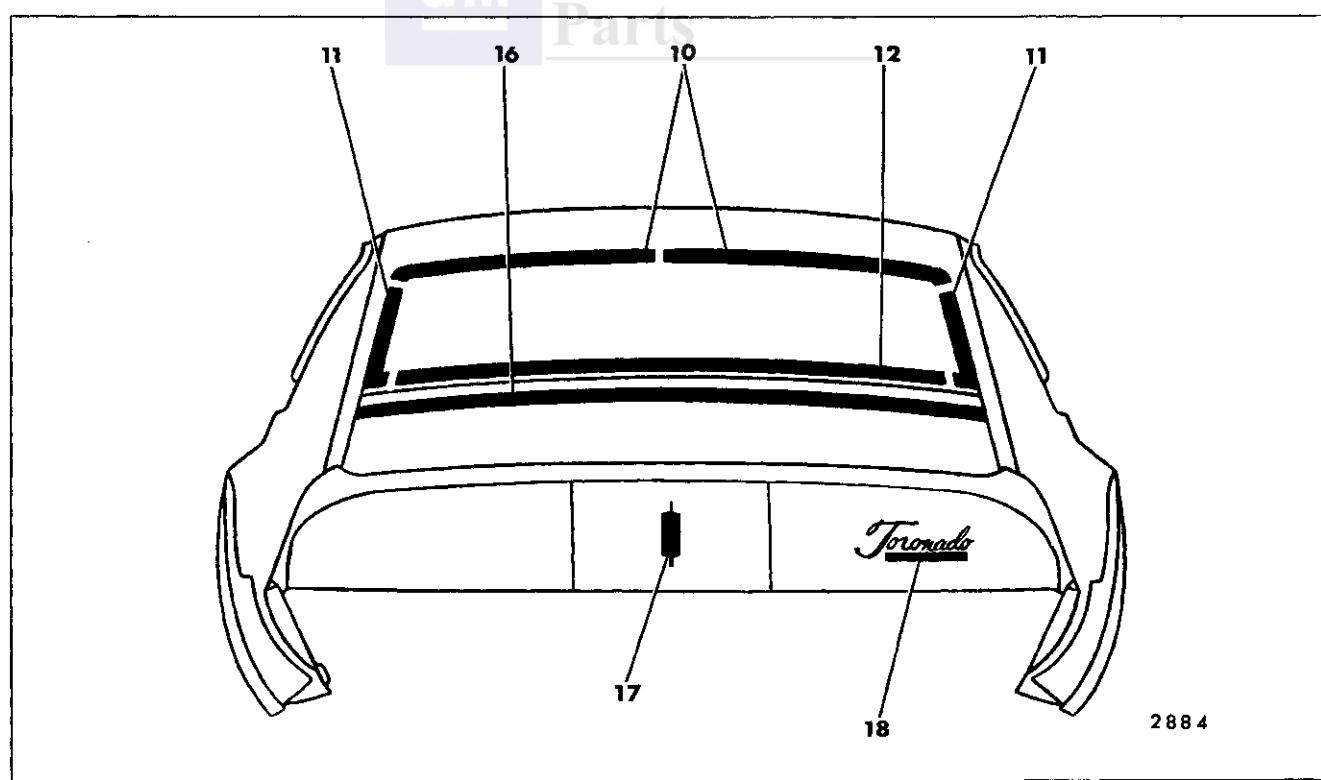


Fig. 17-83—Oldsmobile 39487-39687 Styles

METHODS OF MOLDING RETENTION

BUICK "A" BODIES - 43000 AND 44000 SERIES
FIGURES 17-84 THROUGH 17-91

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All	X (67 Only)		X				
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	Cowl Air Intake Grille (43300 Only)
4	Windshield Pillar Drip Scalp	All (Except 67)		View K				Roof Drip Molding Front Scalp Escutcheon	
5	Roof Drip Molding Front Scalp Escutcheon	All (Except 67)		View K				Windshield Pillar Drip Scalp and Roof Drip Scalp	
6	Roof Drip Molding Front Scalp	39 Style		View K				Roof Drip Molding Front Scalp Escutcheon	
7	Roof Drip Molding Rear Scalp	39 Style		View K				Roof Drip Molding Front Scalp	
8	Roof Drip Molding Scalp	All (Except 39-67)		View K				Roof Drip Molding Front Scalp Escutcheon	
9	Front Door Window Frame Front Scalp	27-35-55 65-69		View J					
10	Front Door Window Frame Upper Scalp	27-35-55 65-69		View J				Front Door Window Frame Front Scalp	
11	Front Door Window Frame Rear Scalp	27-35-55 65-69		View J				Front Door Window Frame Upper Scalp	
12	Center Pillar Scalp	35-55 65-69	X						
13	Rear Door Window Frame Front Scalp	35-55 65-69		View J				Rear Door Window Frame Upper Scalp	
14	Rear Door Window Frame Upper Scalp	35-55 65-69		View J					

METHODS OF MOLDING RETENTION
BUICK "A" BODIES - 43000 AND 44000 SERIES
FIGURES 17-84 THROUGH 17-91

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
15	Rear Quarter Window Reveal Front	27 Style			X			Rear Quarter Window Reveal Upper	
16	Rear Quarter Window Reveal Upper	27 Style	X					Quarter Window Glass Run Channel	
17	Front Door Belt Reveal	All (Optional)	X					Front Door Window Lower Stop	
18	Rear Door Belt Reveal	35-39-55 65-69 (Optional)	X					Rear Door Window Lower Stop	
19	Rear Quarter Window Belt Reveal	27-37-67 (Optional)	X					Quarter Window Lower Stop	
20	Rear Quarter Belt Reveal Front Corner Escutcheon	27-37 (Optional)				View F	X		Rear Quarter Trim
21	Rear Door Corner Finishing	39-69 (Optional)					X		
22	Rear Quarter Belt Reveal	27-37 39-69 (Optional)			X			Rear Quarter Belt Reveal Rear Corner Escutcheon	
23	Rear Quarter Belt Reveal Rear Corner Escutcheon	27-37 39-69 (Optional)			X		X		
24	Roof Panel Cover Rear Finishing Molding	27-37 39-69 (Optional)			X				
25	Rear Quarter Window Reveal Front Upper Corner Escutcheon	35			X			Loosen Rear Quarter Window Reveal Upper & Lower at Corner	
26	Rear Quarter Window Reveal Upper	35			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	

METHODS OF MOLDING RETENTION
BUICK "A" BODIES - 43000 AND 44000 SERIES
FIGURES 17-84 THROUGH 17-91

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
27	Rear Quarter Window Reveal Lower	35			X			Rear Quarter Window Reveal Front Upper Corner Escutcheon	
28	Front Skylight Front Reveal	55-65			X			Front Skylight Rear Reveal	
29	Front Skylight Rear Reveal	55-65			X				
30	Side Skylight Upper Reveal	55-65			X			Loosen Front Upper Corner of Quarter Window Skylight Front Reveal	
31	Quarter Window Skylight Front Reveal	55-65			X			Quarter Window Skylight Rear Reveal	
32	Quarter Window Skylight Lower Reveal	55-65			X			Quarter Window Skylight Front Reveal	
33	Quarter Window Skylight Rear Reveal	55-65			X			Side Skylight Upper Reveal	
34	Side Skylight-Quarter Window Division Reveal	55-65				View L		Quarter Window Skylight Rear Reveal	
35	Bodylock Pillar Belt Reveal	35-55-65 (Optional)			View H		X		Bodylock Pillar Trim
36	Back Body Pillar Belt Reveal	35-55-65 (Optional)	X		View F				
37	Rear Quarter Pinch-weld Finishing	67	X		X				Lower Top Halfway
38	Front Door Outer Panel	43300-43435 43500 44400 44800	X		X				
39	Front Door Outer Panel Peak	43327	X		X				

METHODS OF MOLDING RETENTION
BUICK "A" BODIES - 43000 AND 44000 SERIES
FIGURES 17-84 THROUGH 17-91

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
40	Rear Door Outer Panel	43369-43435 43569 44439-55-65-69-44855-65	X		X				
41	Rear Quarter Outer Upper Panel	43300 (43435 Rt. Side Only)			X		X		Rear Quarter Trim (Except 43435) Tail Lamp Assembly (43435)
42	Rear Quarter Outer Panel Peak	43327			X		X		Rear Quarter Upper Trim
43	Rear Quarter Outer Panel Peak Rear Corner Escutcheon	43327- (Without Fabric Roof Cover)	X					Rear Quarter Outer Panel Peak Roof Drip Molding Scalp	
44	Rear Quarter Outer Upper Panel-Front	43435 (Left Side)			X				
45	Rear Quarter Outer Gas Tank Filler	43435 (Left Side)					View B		
46	Rear Quarter Outer Upper Panel-Rear	43435 (Left Side)			X		X		Tail Lamp Assembly
47	Front of Rear Wheel Opening	43500 44400 44800	X (4 Door Styles Only)		X (2 Door Styles Only)		X (2 Door Styles Only)		Rear Quarter Trim (2 Door Styles)
48	Rear Wheel Opening	43327-69 43400 43500 44600 444-44855-65	X						
49	Rear Wheel Opening Cover	44400 (Less Station Wagon)					X		
50	Rear of Rear Wheel Opening	43500 44400 44800			X		X		
51	Rear of Recr Wheel Opening Lower	44800			X		X		

METHODS OF MOLDING RETENTION
BUICK "A" BODIES - 43000 AND 44000 SERIES
FIGURES 17-84 THROUGH 17-91

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
52	Rear of Rear Wheel Opening-Vertical	44800	X			View F		Rear of Rear Wheel Opening	
53	Rear Quarter Outer Panel Emblem and/or Name Plate	43300 43500 44400 44800				View I (Sport wagon Only)	X		
54	Rear Compartment Outer Panel Wind-split	All (Except 43300 and 35-55-65)			X		X		
55	Front of Rear Compartment Outer Panel Windsplit	All (Except 43300 and 35-55-65)					X		
56	Rear Compartment Lid Outer Panel Emblem and/or Name Plate	All (Except 35-55-65)				View I (Skylark and Custom Name Plates Only)	X		
57	Back Window Reveal Upper and Side	27-37			X				
58	Back Window Reveal Upper	39-69			X			Back Window Reveal Side	
59	Back Window Reveal Side and Lower	39-69			X				
60	Back Window Reveal Lower	27-37			X			Back Window Reveal Side	
61	Back Body Opening Upper Reveal	35-55-65	X					Back Body Opening Side Reveal	Tail Gate Window Glass Run Channel
62	Back Body Opening Side Reveal	35-55-65	X						

METHODS OF MOLDING RETENTION

BUICK "A" BODIES - 43000 AND 44000 SERIES
FIGURES 17-84 THROUGH 17-91

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
63	Tailgate Outer Panel Nameplate "Buick"	35-55-65			View H		X		Tailgate Trim
64	Tailgate Outer Panel Nameplate "Sport-wagon"	55-65					X		Tailgate Trim
65	Tailgate Outer Panel Upper	35-55-65			X			Tailgate Outer Panel Side	
66	Tailgate Outer Panel Lower	35-55-65			X			Tailgate Outer Panel Side	
67	Tailgate Outer Panel Side	35-55-65					X		
68	Roof Panel Emblem	43537-69 44437-39-69					X		Rear Quarter Upper Trim
69	Tailgate Outer Panel Belt Reveal	35-55-65	X		X				
70	Emblem-Rear Quarter Outer Panel	444-44855-65			View H				

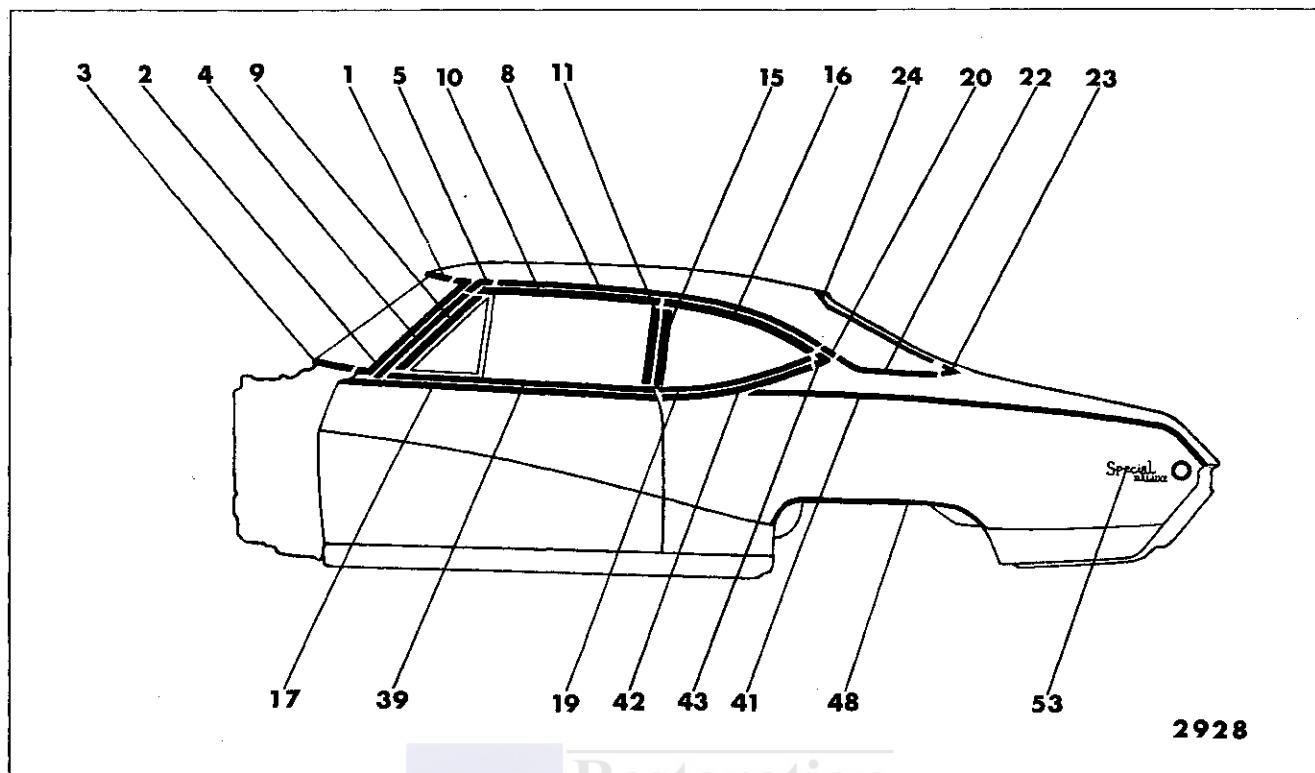


Fig. 17-84—Buick "A-27" Styles

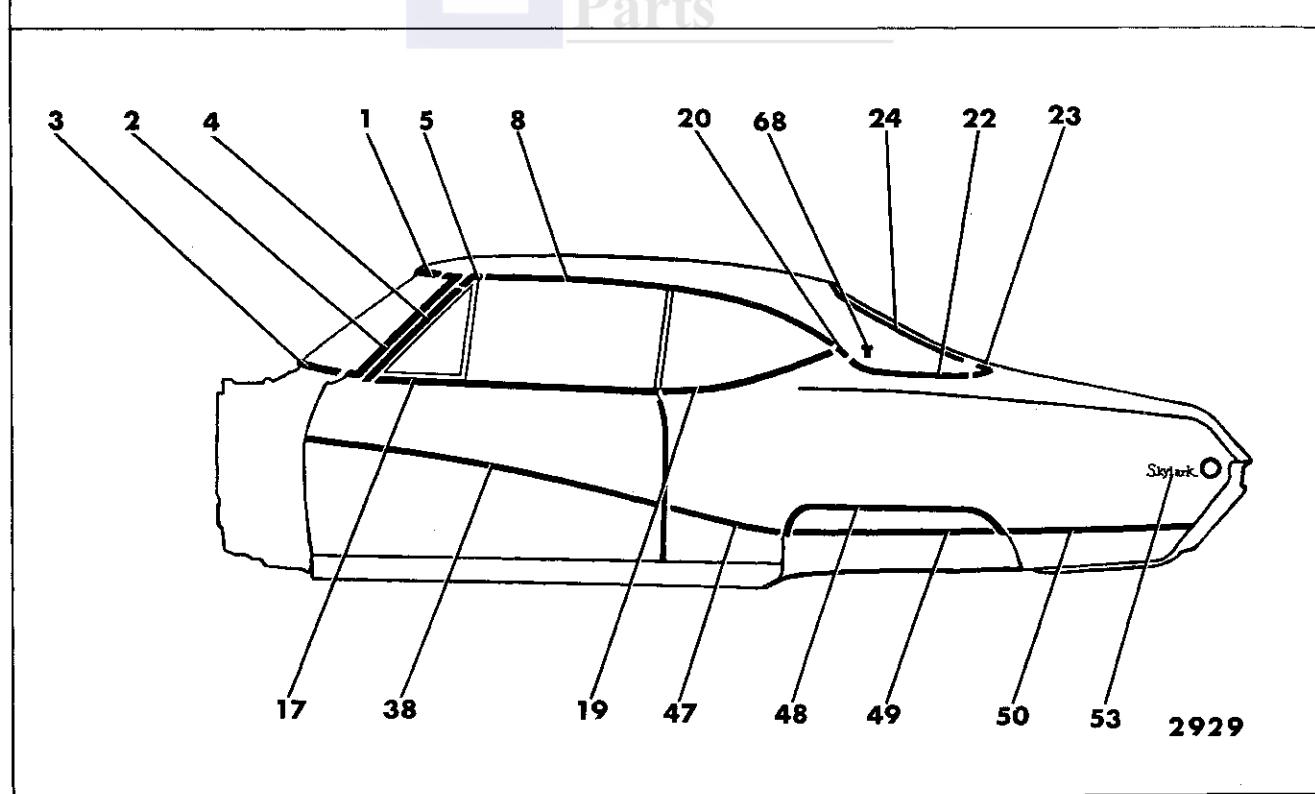


Fig. 17-85—Buick "A-37" Styles ('67' Styles Similar)

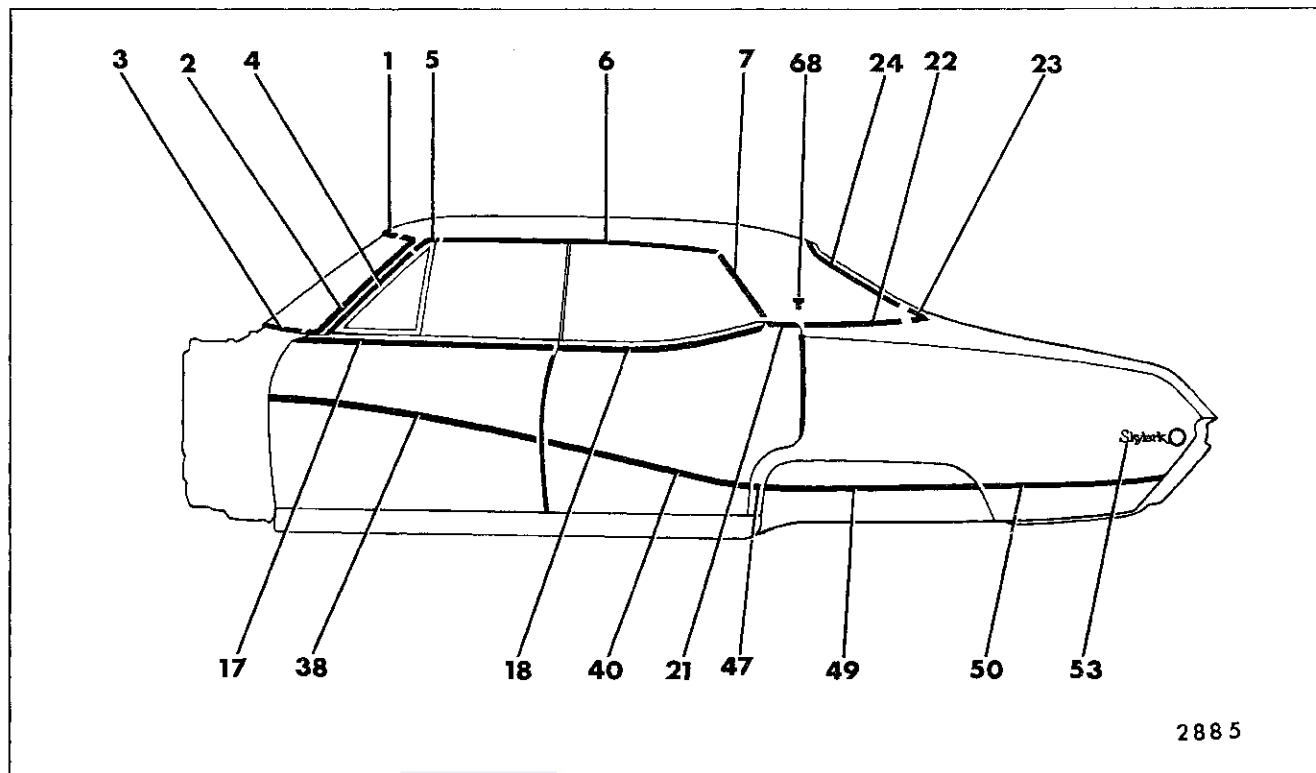


Fig. 17-86—Buick "A-39" Styles

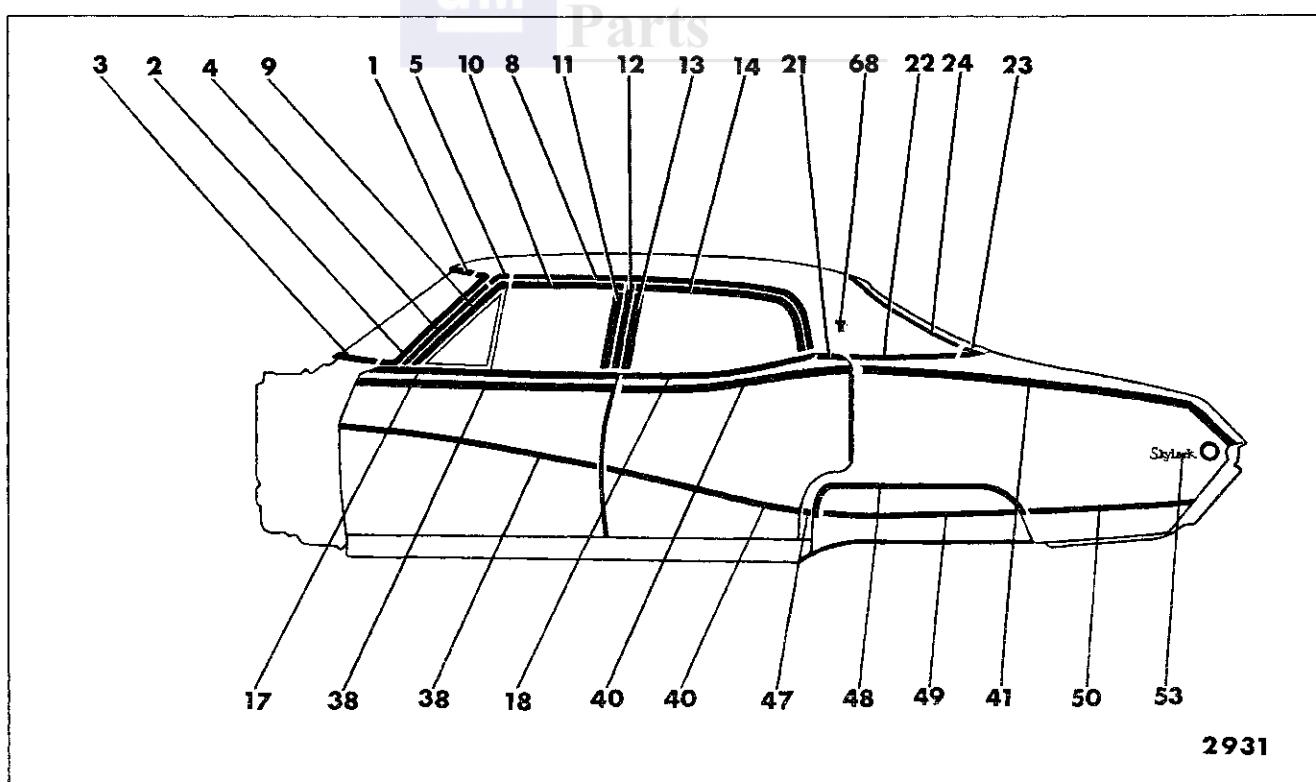


Fig. 17-87—Buick "A-69" Styles

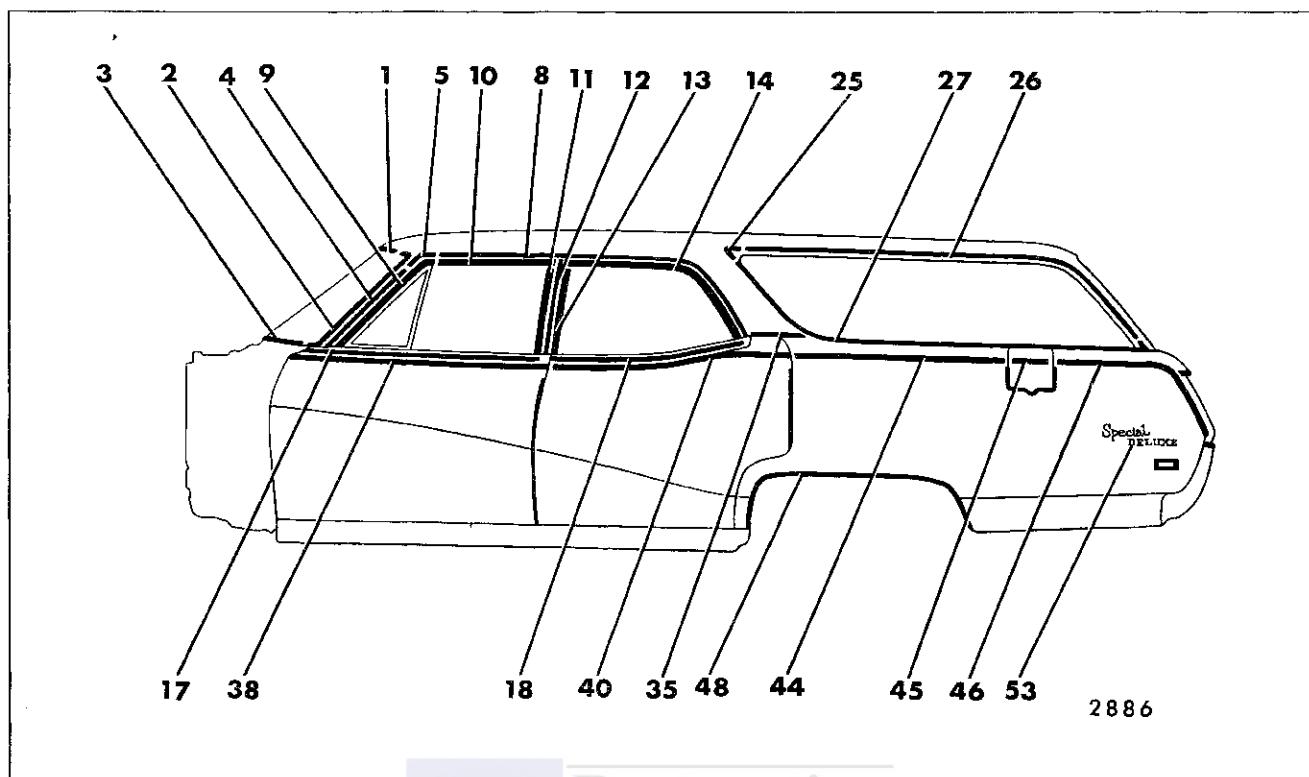


Fig. 17-88—Buick "A-35" Styles

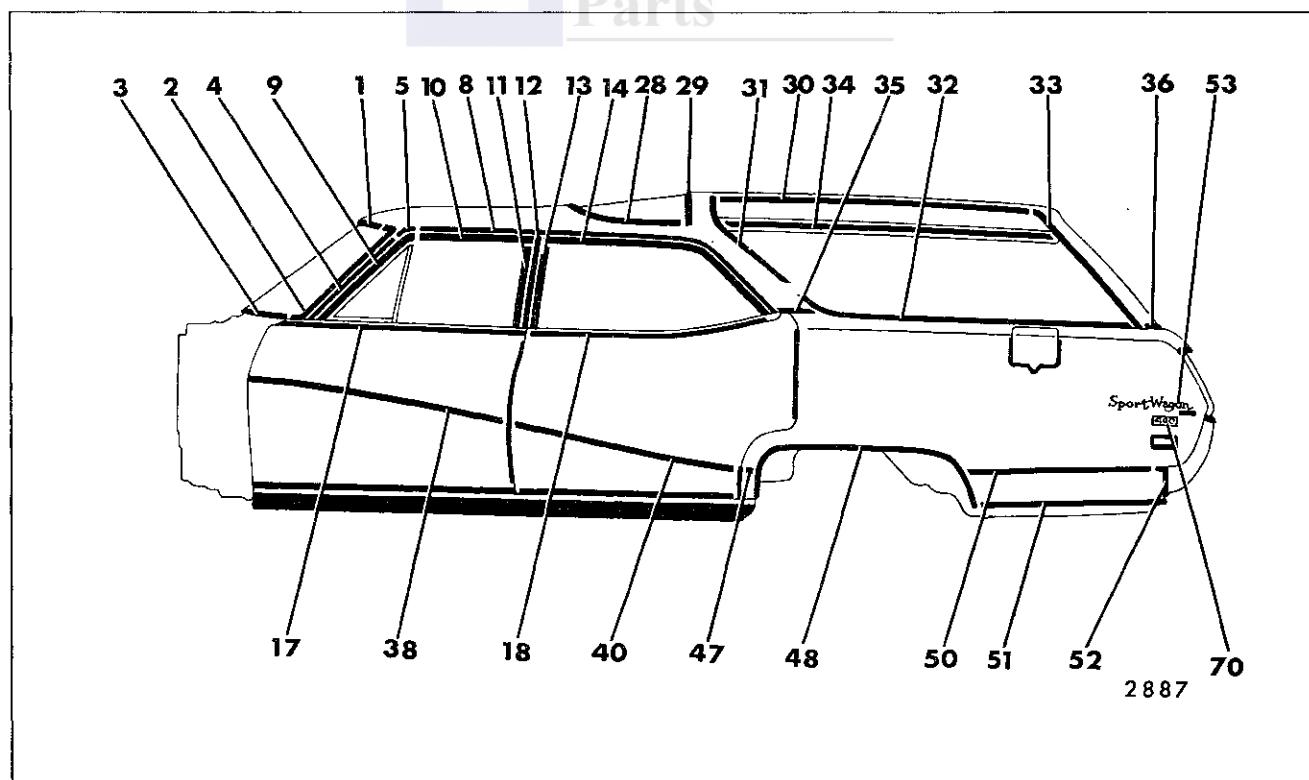


Fig. 17-89—Buick "A-55-65" Styles

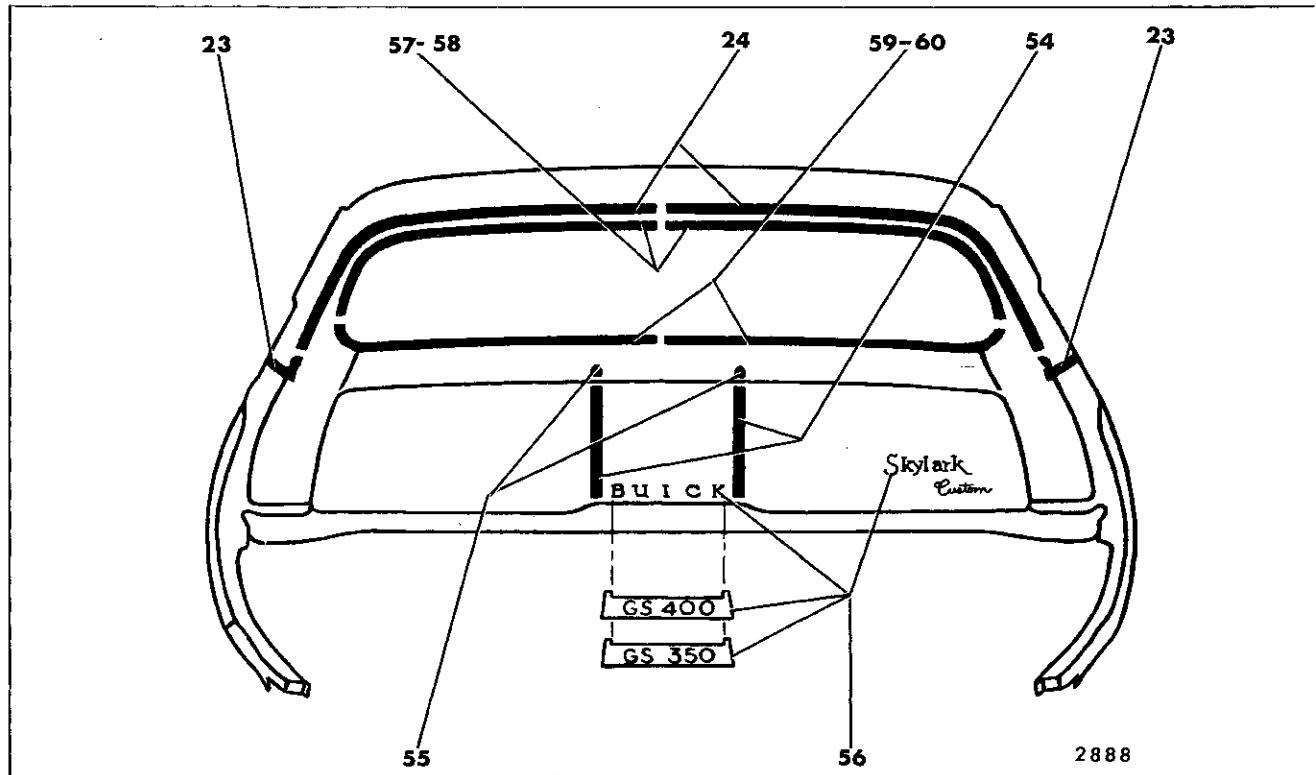


Fig. 17-90—Buick 43300-43400-43500-44400-44600 Styles (Less 35-55-65)

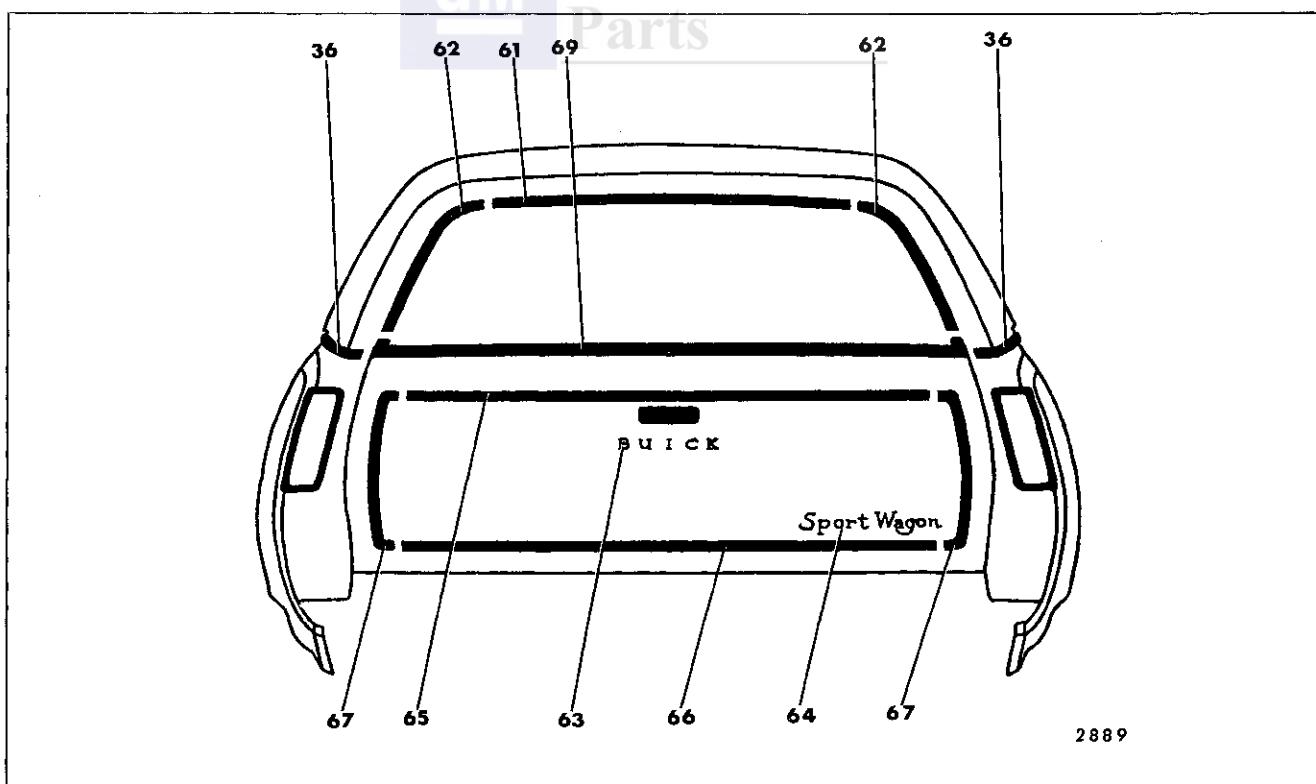


Fig. 17-91—Buick "A-35-55-65" Styles

METHODS OF MOLDING RETENTION

BUICK "B-C" BODIES - 45000, 46000 AND 48000 SERIES
FIGURES 17-92 THROUGH 17-100

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower	
3	Windshield Reveal Lower	All	X						
4	Windshield Pillar Drip,	All (Except 67)	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
5	Windshield Pillar Finishing	67	X					Windshield Reveal Side	Windshield Pillar Weatherstrip and Weatherstrip Retainer
6	Roof Drip Molding Scalp	B-39-87 46469 C-69		View K				Windshield Pillar Drip	
7	Roof Drip Molding Front Scalp	C-39-57		View K				Windshield Pillar Drip	
8	Roof Drip Molding Rear Scalp	C-39, 57	X	View K				Roof Drip Molding Front Scalp	Weatherstrip Retainer
9	Windshield Header	67	X					Windshield Pillar Finishing, Windshield Reveal Upper	Sunshade Support, Rear View Mirror Support
10	Front Door Window Frame Front Scalp	69 (Except 48000 Series)		View J					
11	Front Door Window Frame Upper Scalp	69 (Except 48000 Series)		View J				Front Door Window Frame Front Scalp	
12	Front Door Window Frame Rear Scalp	69 (Except 48000 Series)		View J				Front Door Window Frame Upper Scalp	
13	Front Door Window Belt Reveal (At Vent)	All	X						Front Door Vent Assembly

METHODS OF MOLDING RETENTION

BUICK "B-C" BODIES - 45000, 46000 AND 48000 SERIES
FIGURES 17-92 THROUGH 17-100

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
14	Front Door Window Belt Reveal	All	X					Front Door Window Belt Reveal (At Vent)	Rubber Bumper on Door Window Lower Stop
15	Center Pillar Scalp	48269 48469	X						Side Roof Rail Weatherstrip Front and Rear at Center Pillar
16	Rear Door Window Frame Front Scalp	69 (Except 48000 Series)		View J				Front Door Window Frame Upper Scalp	
17	Rear Door Window Frame Upper Scalp	69 (Except 48000 Series)		View J					
18	Rear Door Window Belt Reveal	39, 69	X						Rubber Bumper on Rear Door Window Lower Stop
19	Rear Quarter Window Belt Reveal	57, 67, 87	X						Rear Quarter Window Lower Stop
20	Rear Quarter Window Belt Reveal Escutcheon	87		X				Rear Quarter Window Belt Reveal, Roof Drip Molding Scalp	
21	Rear Quarter Belt Reveal	All (Except 67)			X	X	X		Rear Quarter Upper Trim Panel
22	Rear Quarter Belt Reveal Corner Escutcheon	48269 48469					X	Rear Quarter Belt Reveal, Rear End Belt Reveal	
23	Rear Quarter Belt Pinchweld Finishing	67	X		X				
24	Rear Door Outer Panel Crown	48239-69 48439-69	X				X		Rear Door Trim Pad
25	Rear Quarter Outer Panel Crown	48000	X		X		X	Rear of Rear Quarter Outer Panel Crown	Rear Compartment Side Trim, Quarter Trim

METHODS OF MOLDING RETENTION

BUICK "B-C" BODIES - 45000, 46000 AND 48000 SERIES
FIGURES 17-92 THROUGH 17-100

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
26	Rear of Rear Quarter Outer Panel Crown	48000	X		X				Loosen Rear Bumper
27	Rear Wheel Opening Front Corner	45400	X						
28	Rear Wheel Opening	45400	X					Rear Wheel Opening Front and Rear Corners	
29	Rear Wheel Opening Rear Corner	45400	X						
30	Rear Quarter Outer Panel Nameplate	45200-45400 46400-46600 48000				View I	X		
31	Roof Panel Emblem	48239-57 and 48457 (With Fabric Roof Cover)					X		Headlining at Rear Quarter
32	Roof Panel Nameplate	48439					X		Headlining at Rear Quarter Area
33	Rear Wheel Opening Cover	46000 48000	X X				X		
34	Rear of Rear Wheel Opening	45400 46400 46600 48000	X				X		
35	Back Window Reveal Upper	All (Except 67)			X			Back Window Reveal Side	
36	Back Window Reveal Side	All (Except 67 and B-69)			X			Back Window Reveal Lower	
37	Back Window Reveal Lower	All (Except 67)			X				
38	Rear of Rear Quarter Panel Outer	48000	X						Taillamp Assembly
39	Rear of Rear Quarter Panel-Inner	48000	X						Taillamp Assembly

METHODS OF MOLDING RETENTION

BUICK "B-C" BODIES - 45000, 46000 AND 48000 SERIES
FIGURES 17-92 THROUGH 17-100

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
40	Rear End Outer Panel	48000					X	Rear of Rear Quarter Panel Inner	
41	Rear Compartment Lid Outer Panel Nameplate	All					X		
42	Rear Compartment Lid Outer Panel Emblem	All (Except 48000)					X		



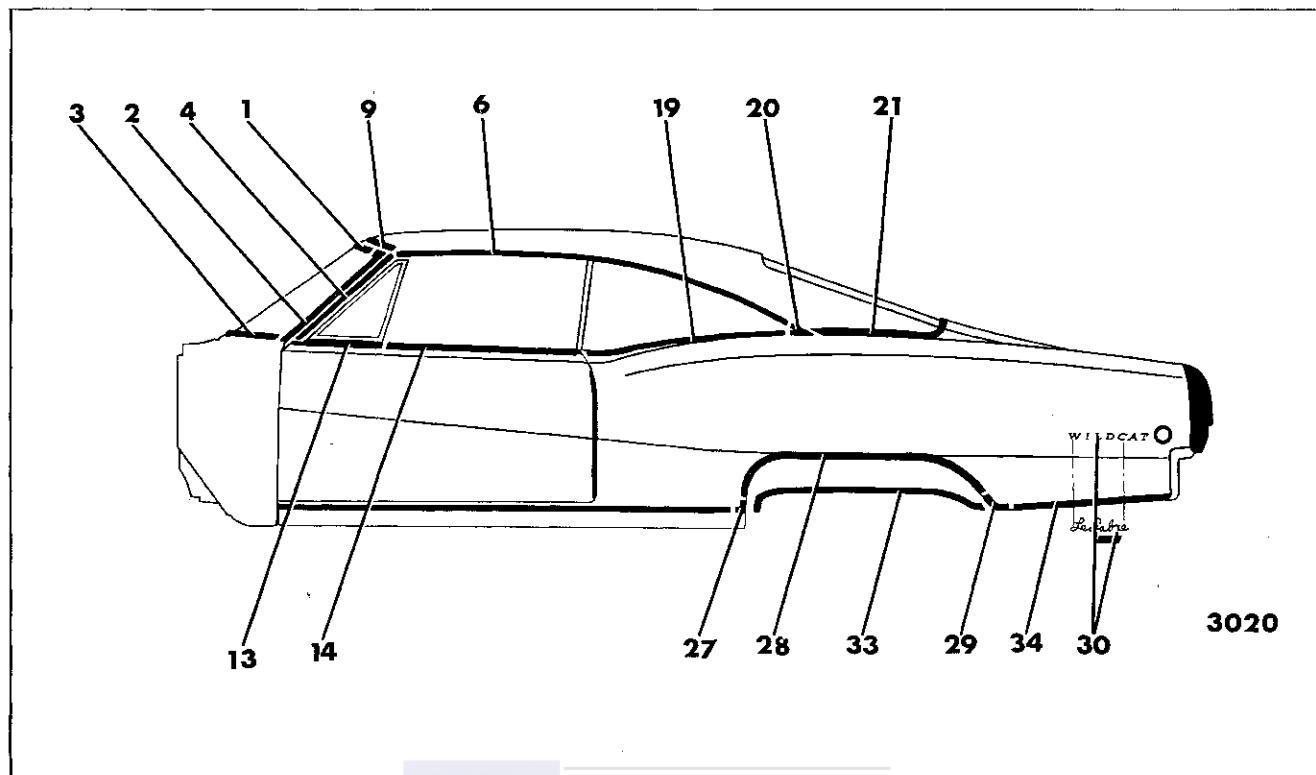


Fig. 17-92—Buick "B-87" Styles ("67" Style Similar)

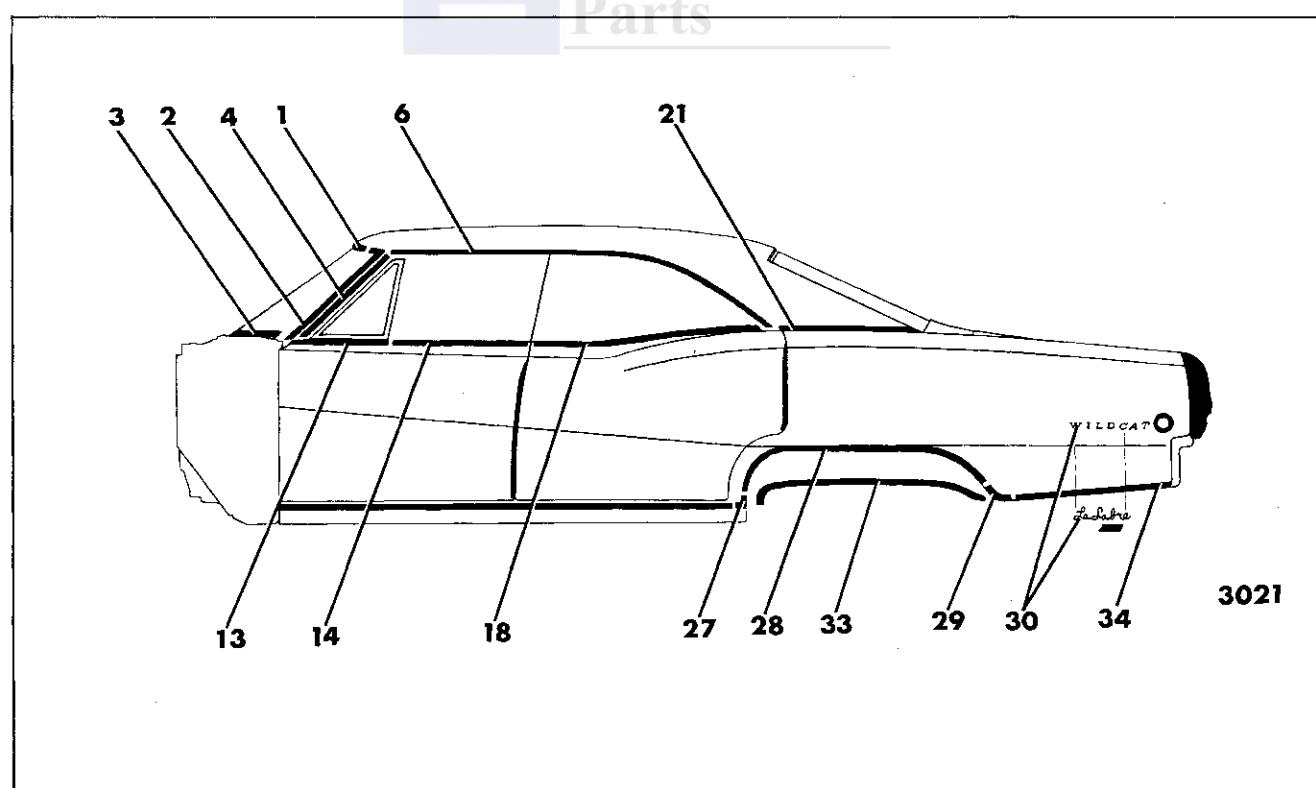


Fig. 17-93—Buick "B-39" Styles

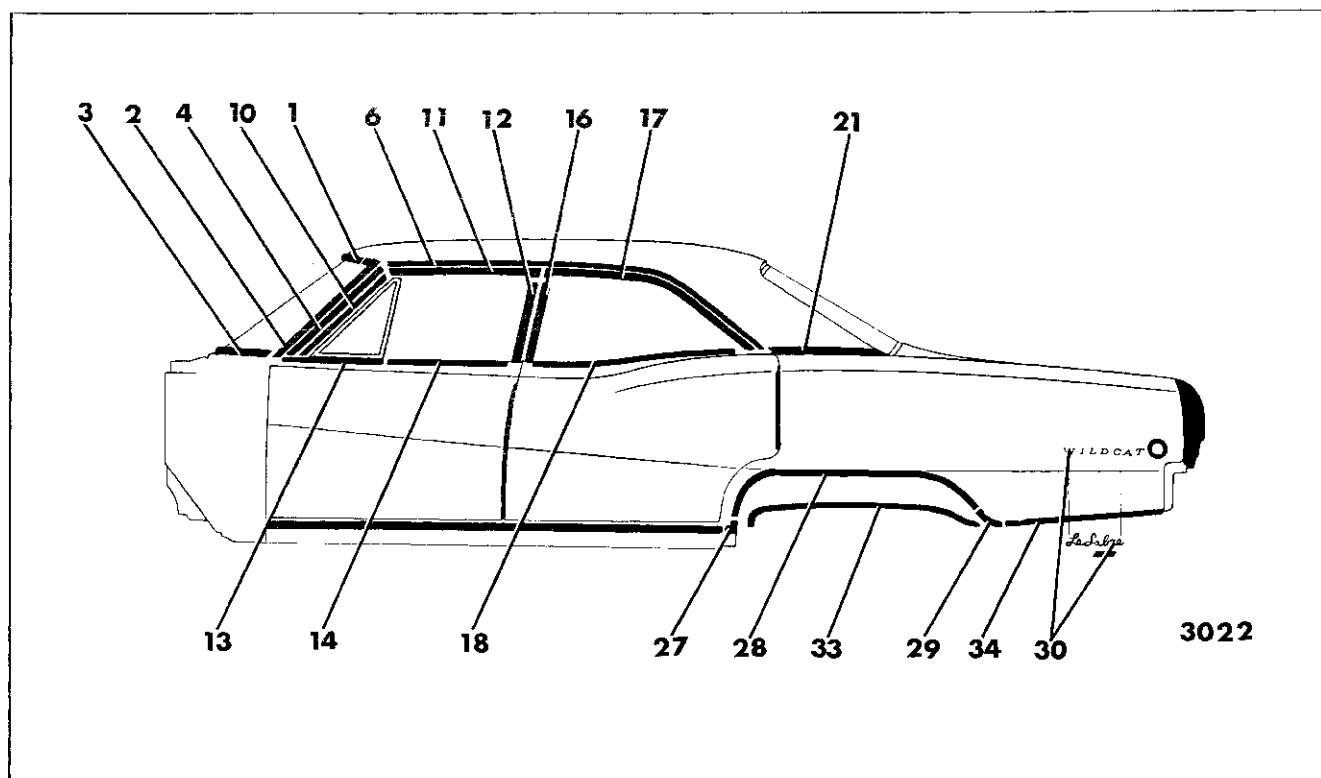


Fig. 17-94—Buick "B-69" Styles

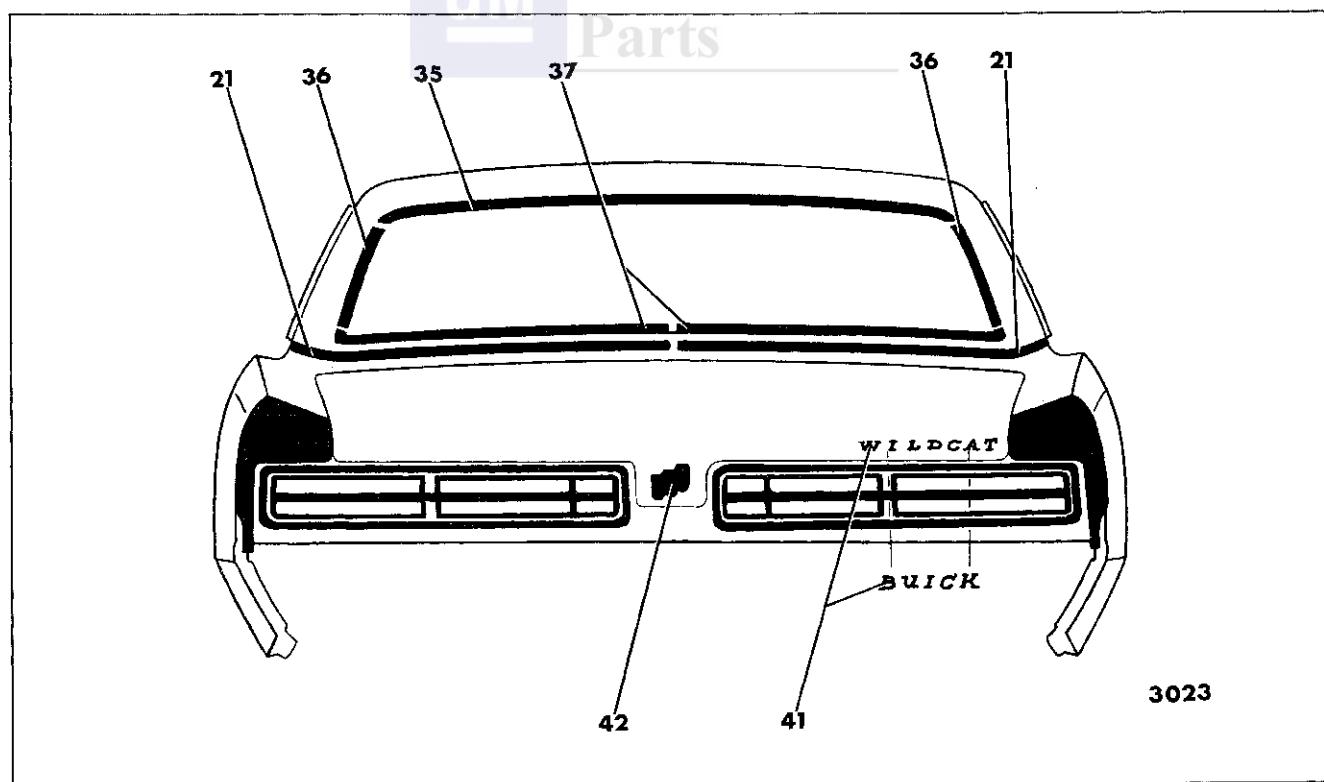


Fig. 17-95—Buick 45200-45400-46400-46600 Styles

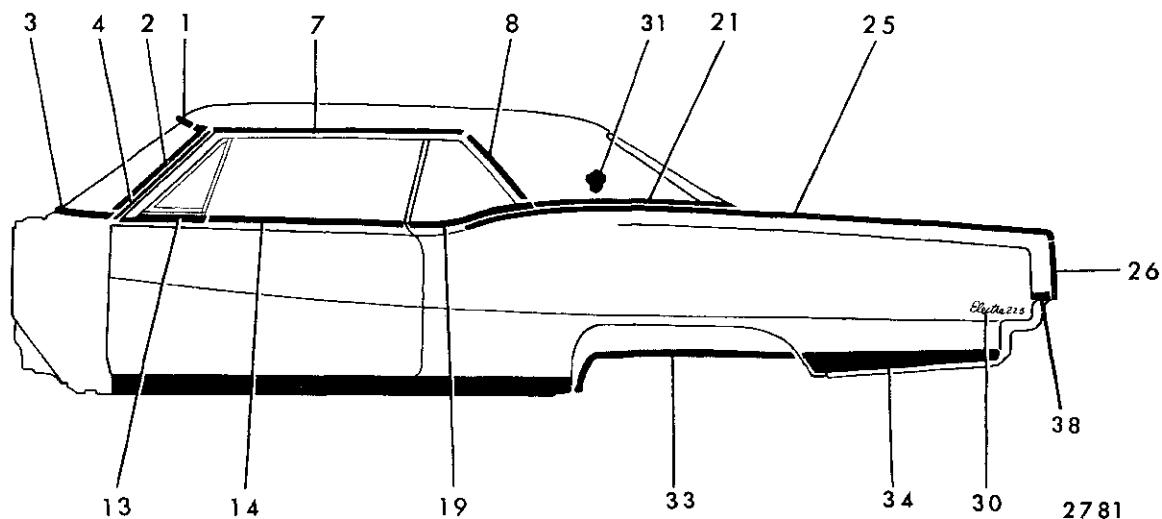


Fig. 17-96—Buick 48257-48457 Styles

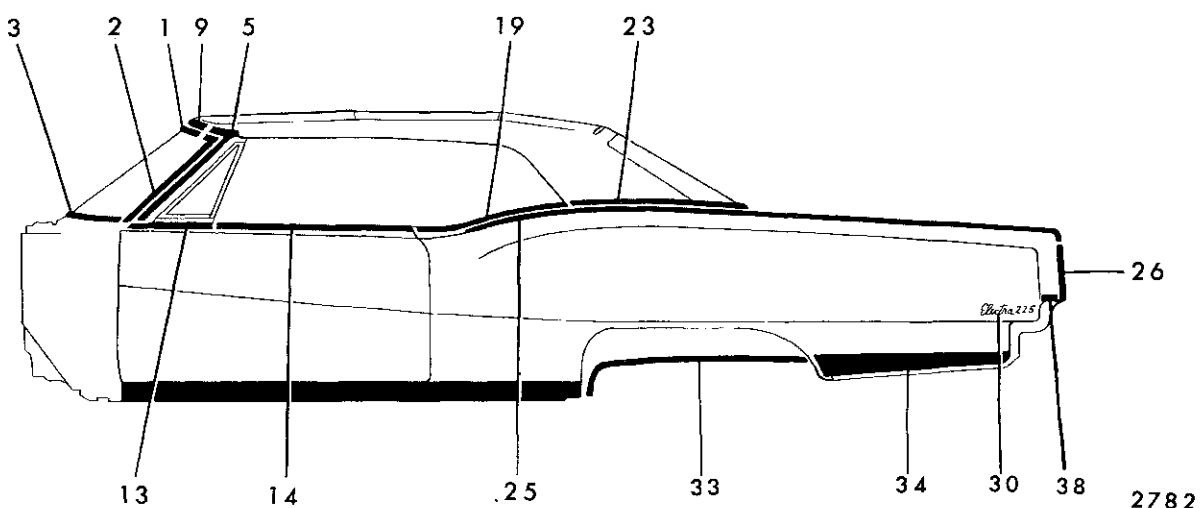


Fig. 17-97—Buick 48467 Style

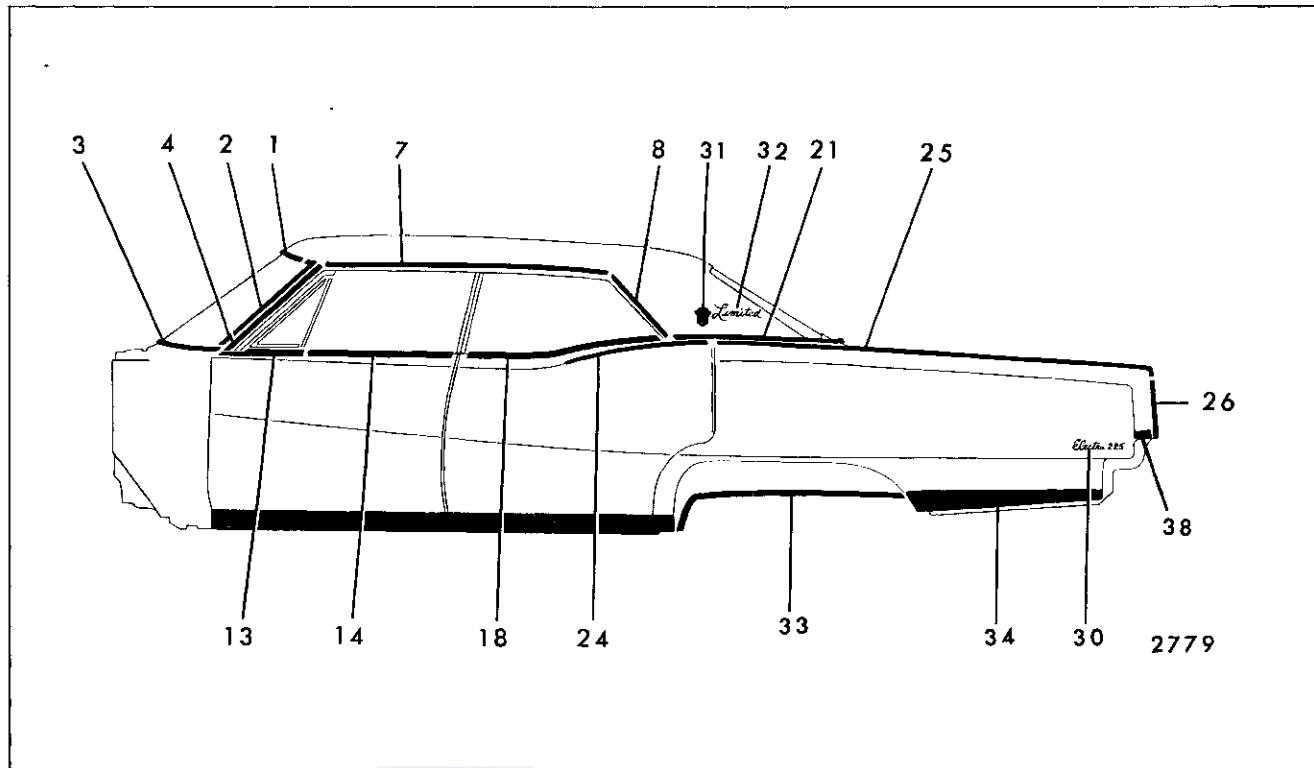


Fig. 17-98—Buick 48239-48439 Styles

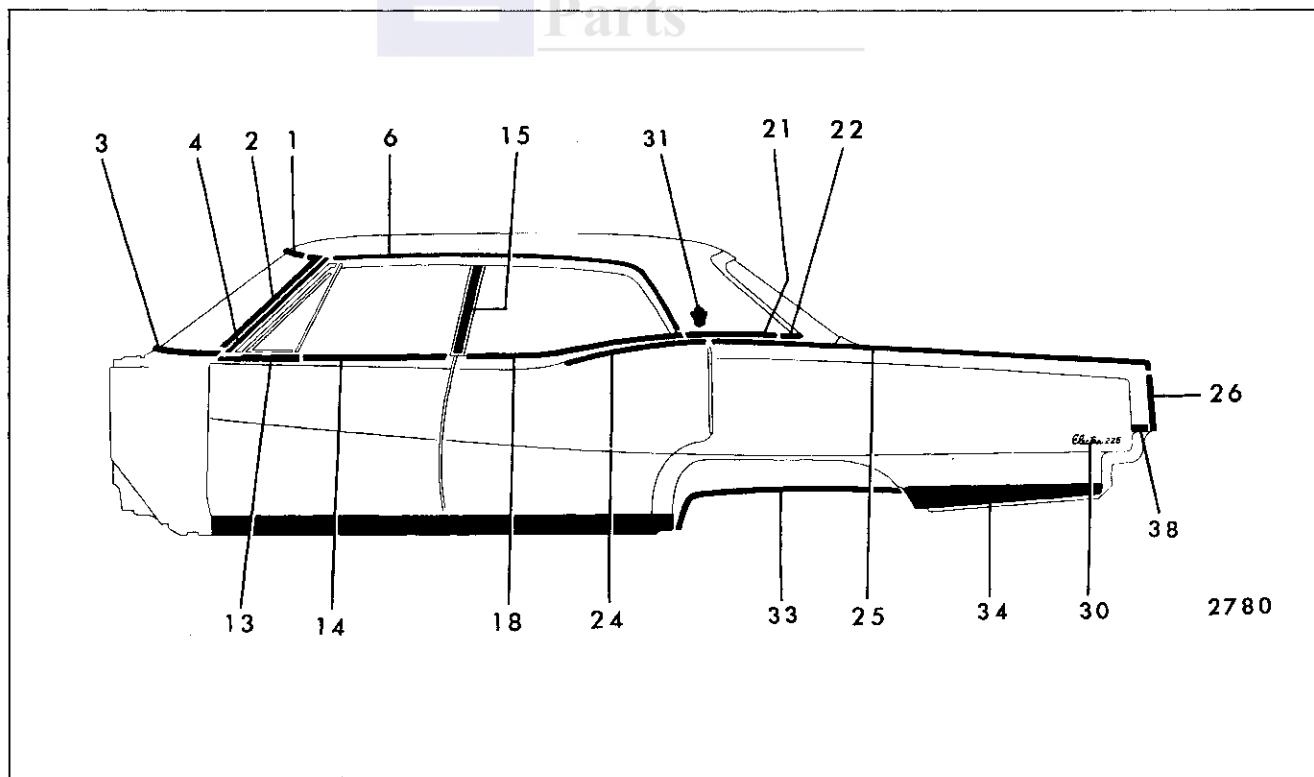


Fig. 17-99—Buick 48269-48469 Styles

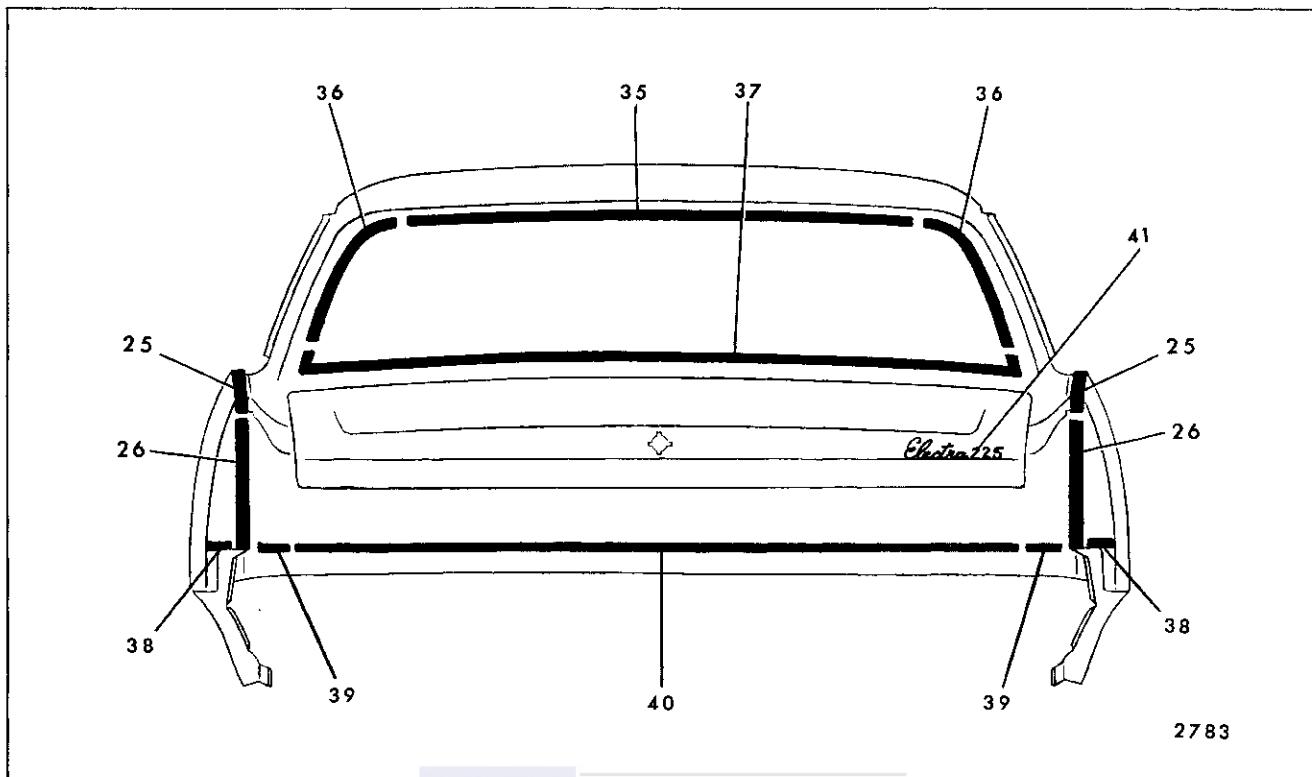


Fig. 17-100—Buick "C" Body Styles
GM Restoration Parts

METHODS OF MOLDING RETENTION
BUICK "E" BODIES - 49000 SERIES
FIGURES 17-101 AND 17-102

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X				
2	Windshield Reveal Side	All			X			Windshield Reveal Upper	
* 3	Windshield Reveal Lower	All	X					Windshield Reveal Side	
4	Windshield Pillar Drip Molding Scalp	All		View K					Windshield Pillar Weather-strip and Weatherstrip Retainer
5	Roof Drip Molding Scalp	All	X	View K				Windshield Pillar Drip Molding Scalp	
6	Front Door Window Belt Reveal	All	X			X			Rubber Bumper on Front Door Window Lower Stop
7	Rear Quarter Window Belt Reveal	All	X			X			Rear Quarter Window
8	Rear Quarter Belt Reveal	All (Optional)			X		X	Rear Quarter Belt Reveal Corner Escutcheon	Rear Compartment Side Trim Panel
9	Rear Quarter Belt Reveal Corner Escutcheon	All (Optional)			X		X		Rear Compartment Side Trim Panel
10	Rear Compartment Front Panel	All (Optional)					X		Rear Compartment Front Panel Grille
11	Front Door Outer Panel Upper	All	X		X				
12	Front of Rear Wheel Opening Upper	All					X		Quarter Trim Pad
13	Rear Wheel Opening	All	X					Rear of Rear Wheel Opening (Upper)	

*Check for hex-head Screw under fender at outer end of Reveal Molding.

METHODS OF MOLDING RETENTION

BUICK "E" BODIES - 49000 SERIES
FIGURES 17-101 AND 17-102

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
14	Rear of Rear Wheel Opening-Upper	All					X		
15	Front Door Outer Panel-Lower	All (Optional)	X					Front Door Outer Panel Upper	
16	Front of Rear Wheel Opening Lower	All (Optional)	X					Front of Rear Wheel Opening Upper	
17	Rear of Rear Wheel Opening Lower	All (Optional)	X					Rear of Rear Wheel Opening Upper	
18	Back Window Reveal Upper	All			X				
19	Back Window Reveal Side	All			X			Back Window Reveal Upper	
20	Back Window Reveal Lower	All			X			Back Window Reveal Side	

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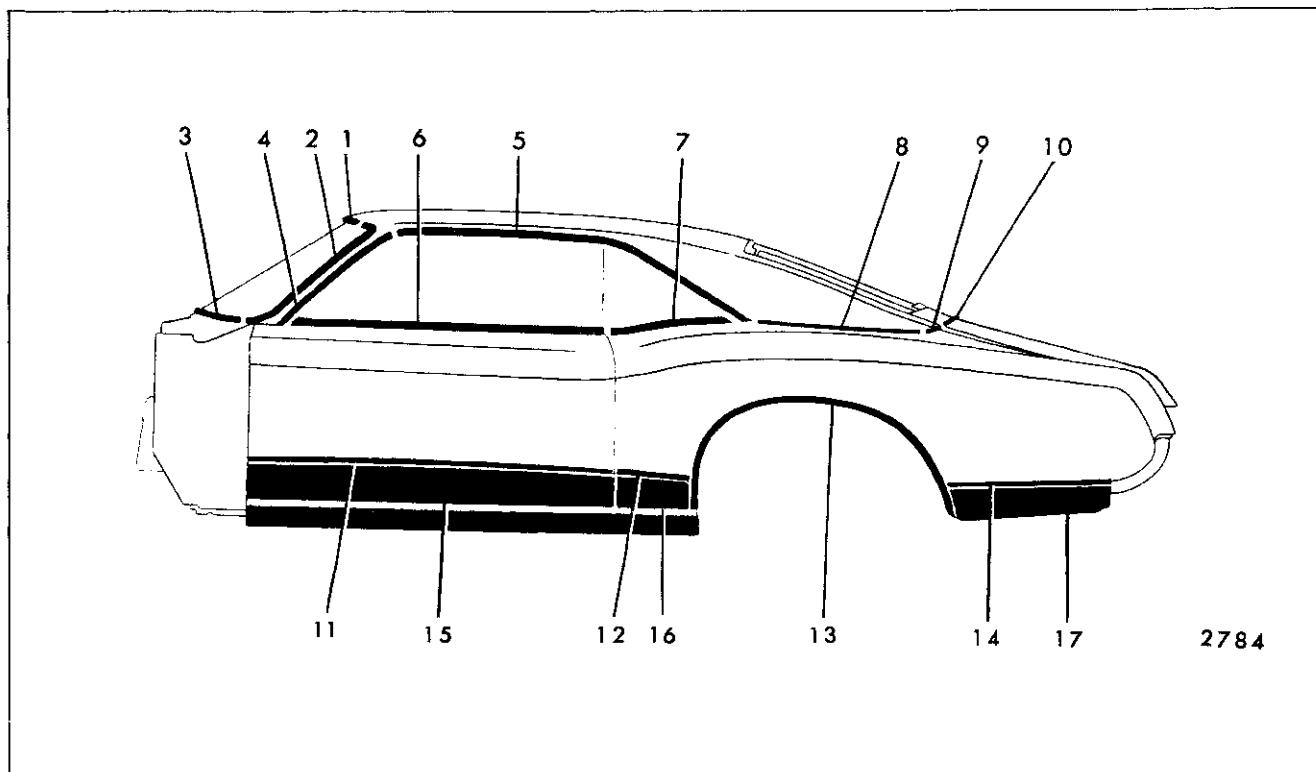


Fig. 17-101—Buick 49487 Style

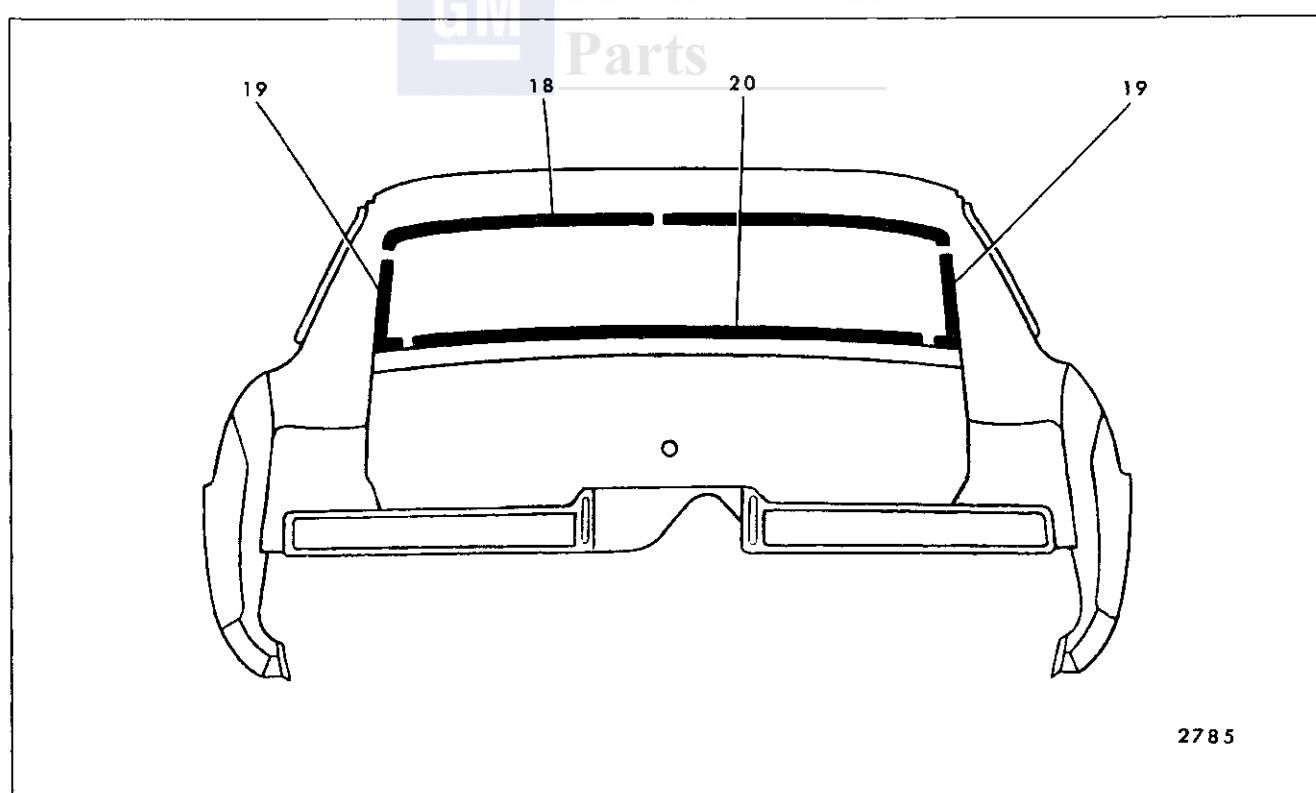


Fig. 17-102—Buick 49487 Style

METHODS OF MOLDING RETENTION

CADILLAC "C" BODIES - 68000 SERIES
FIGURES 17-103 THROUGH 17-109

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower Ends	
3	Windshield Reveal Lower-Center	All	X					Windshield Reveal Lower Ends	
4	Windshield Reveal Lower-Ends	All	X					Windshield Reveal Lower Center	
5	Windshield Pillar Drip	All (Except 67)	X						Windshield Pillar Weatherstrip and Weatherstrip Retainer
6	Windshield Pillar Finishing	67	X					Windshield Side Reveal	Windshield Pillar Weatherstrip and Weatherstrip Retainer
7	Windshield Header	67	X					Windshield Pillar Finishing, Windshield Reveal Upper	
8	Roof Drip Molding Scalp	68369		View K				Windshield Pillar Drip	
9	Roof Drip Molding Front Scalp	68069-68169 68247-49 68347-49		View K				Windshield Pillar Drip	
10	Roof Drip Molding Rear Scalp	68069-68169 68247-49 68347-49		View K				Roof Drip Molding Front Scalp	Side Roof Rail Rear Weatherstrip and Weatherstrip Retainer
11	Roof Panel Cover Front Finishing	68169	X		X			Roof Panel Cover Front Finishing Escutcheon	Front Section of Headlining
12	Roof Panel Cover Front Finishing Escutcheon	68169					X	Roof Panel Cover Side Front Finishing	Front Section of Headlining

METHODS OF MOLDING RETENTION
CADILLAC "C" BODIES - 68000 SERIES
FIGURES 17-103 THROUGH 17-109

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
13	Roof Panel Cover Side Front Finishing	68169		X			X	Roof Panel Cover Front Finishing Escutcheon Roof Panel Cover Side Rear Finishing	Headlining at Side Area
14	Roof Panel Cover Side Rear Finishing	68169					X	Rear End Belt Cover Finishing	Headlining at Rear Quarter Area
15	Roof Panel Emblem and/or Nameplate	68169					X		Headlining at Rear Quarter Area
16	Rear End Belt Cover Finishing	68169					X		Headlining at Rear Quarter Area
17	Center Pillar Scalp	68369	X						Weatherstrip and Weatherstrip Retainer at Center Pillar
18	Rear Quarter Belt Reveal	68347-49-69 68247-49 (With Fabric Roof Cover)			X	X	X		Headlining at Rear Quarter Area, Rear Compartment Side Trim
19	Rear Quarter Belt Reveal Corner Escutcheon	68369					X	Rear Quarter Belt Reveal	
20	Rear End Belt Reveal	68369					X	Rear Quarter Belt Reveal Corner Escutcheon	
21	Rear Quarter Pinch-weld Finishing	67	X		X			Rear Quarter Window Belt Reveal	
22	Front Door Window Belt Reveal (At Vent)	All	X						Front Door Vent Assembly
23	Front Door Window Belt Reveal	All	X					Front Door Window Belt Reveal (At Vent)	Rubber Bumper on Front Door Window Lower Stop

METHODS OF MOLDING RETENTION
CADILLAC "C" BODIES - 68000 SERIES
FIGURES 17-103 THROUGH 17-109

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
24	Rear Door Window Belt Reveal	49, 69	X				*		Rubber Bumper on Rear Door Window Lower Stop
25	Rear Quarter Window Belt Reveal	47, 67	X						Rear Quarter Window Lower Stop
26	Front Door Outer Panel	68200 68300	X		X				
27	Rear Door Outer Panel	68249 68349-69	X		X				
28	Rear Quarter Outer Panel	68247 68347-67				X	X		Rear Quarter Trim Panel Rear Compartment Side Trim. Rear Compartment Side Trim
		68249 68349-69				X	X		
29	Rear of Rear Wheel Opening	68069 68169	X		X				
30	Rear of Rear Quarter Outer Panel - Outer at Taillamp	68069 68169	X					Rear of Rear Wheel Opening	Rear Bumper Assembly
31	Rear of Rear Quarter Outer Panel - Inner at Taillamp	68069 68169	X					Rear of Rear Quarter Outer Panel - Outer at Taillamp	Rear Bumper Assembly
32	Rear of Rear Quarter Outer Panel at Compartment Lid	All	X				X	Rear of Rear Quarter Outer Panel - Inner at Taillamp (68069, 68169 Styles Only)	
33	Rear Compartment Lid Outer Panel	All	X						
34	Back Window Reveal Upper	All			X			Back Window Reveal Side	
35	Back Window Reveal Side	68200, 68300 68069, 68169			X			Back Window Reveal Lower Back Window Reveal Lower Corner Escutcheon	

METHODS OF MOLDING RETENTION
CADILLAC "C" BODIES - 68000 SERIES
FIGURES 17-103 THROUGH 17-109

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
36	Back Window Reveal Lower	All			X			Back Window Reveal Lower Corner Escutcheon (68069, 68169 Styles)	
37	Back Window Reveal Lower Corner Escutcheon	68069 68169			X				
38	Rear Compartment Lid Outer Panel Emblem	All					X		

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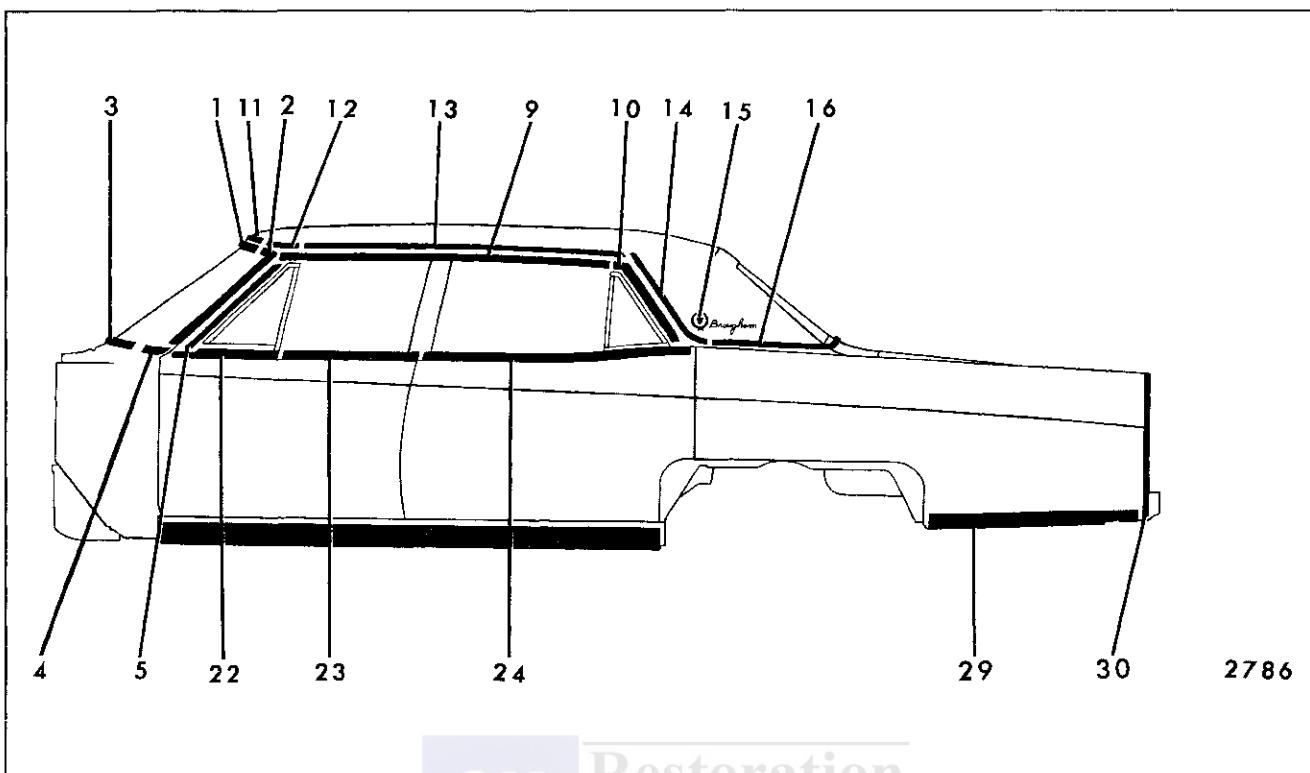


Fig. 17-103—Cadillac 68069-68169 Styles

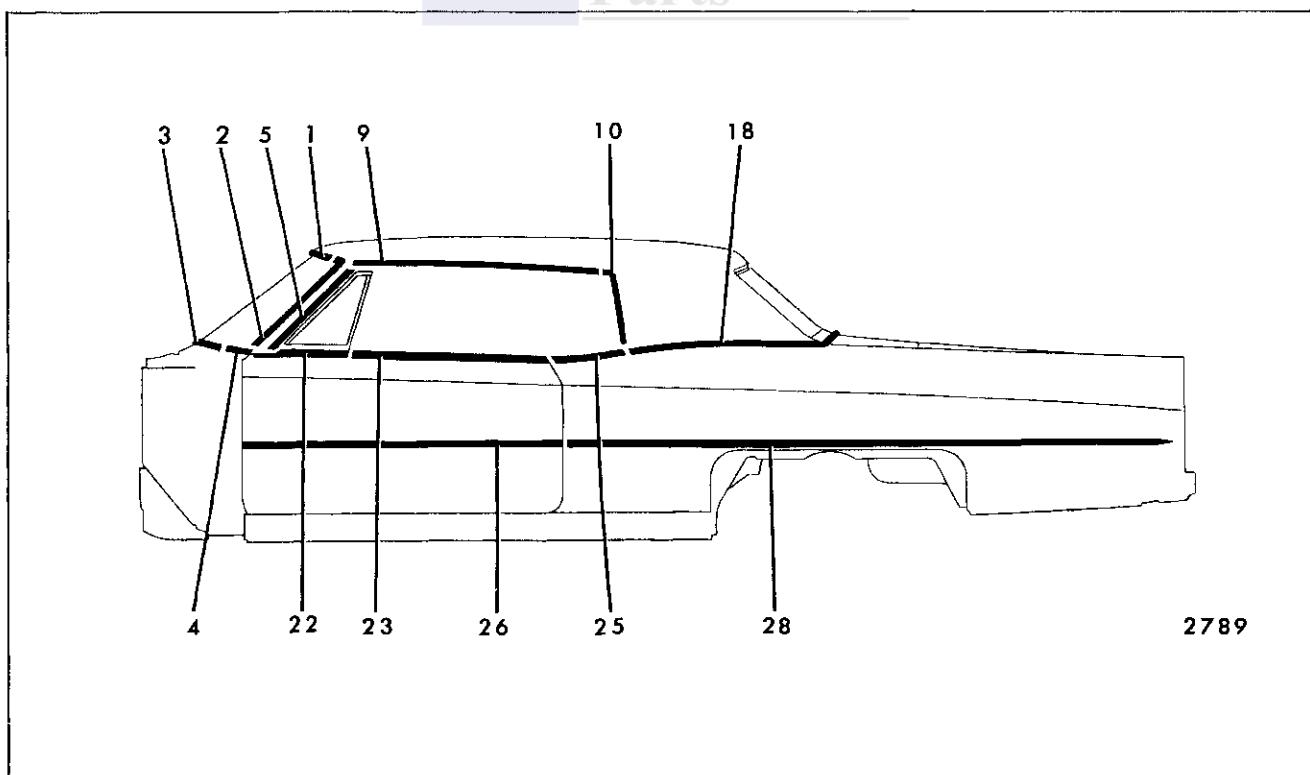
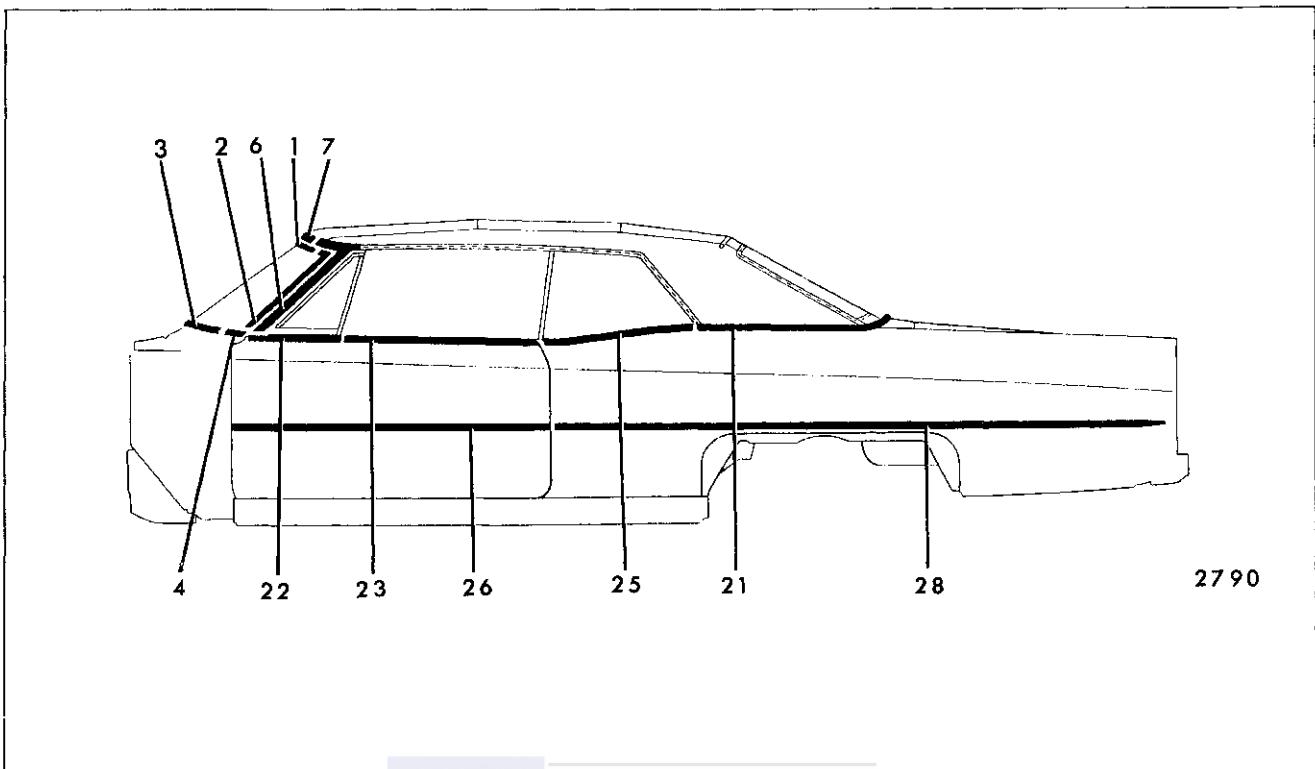


Fig. 17-104—Cadillac 68247-68347 Styles



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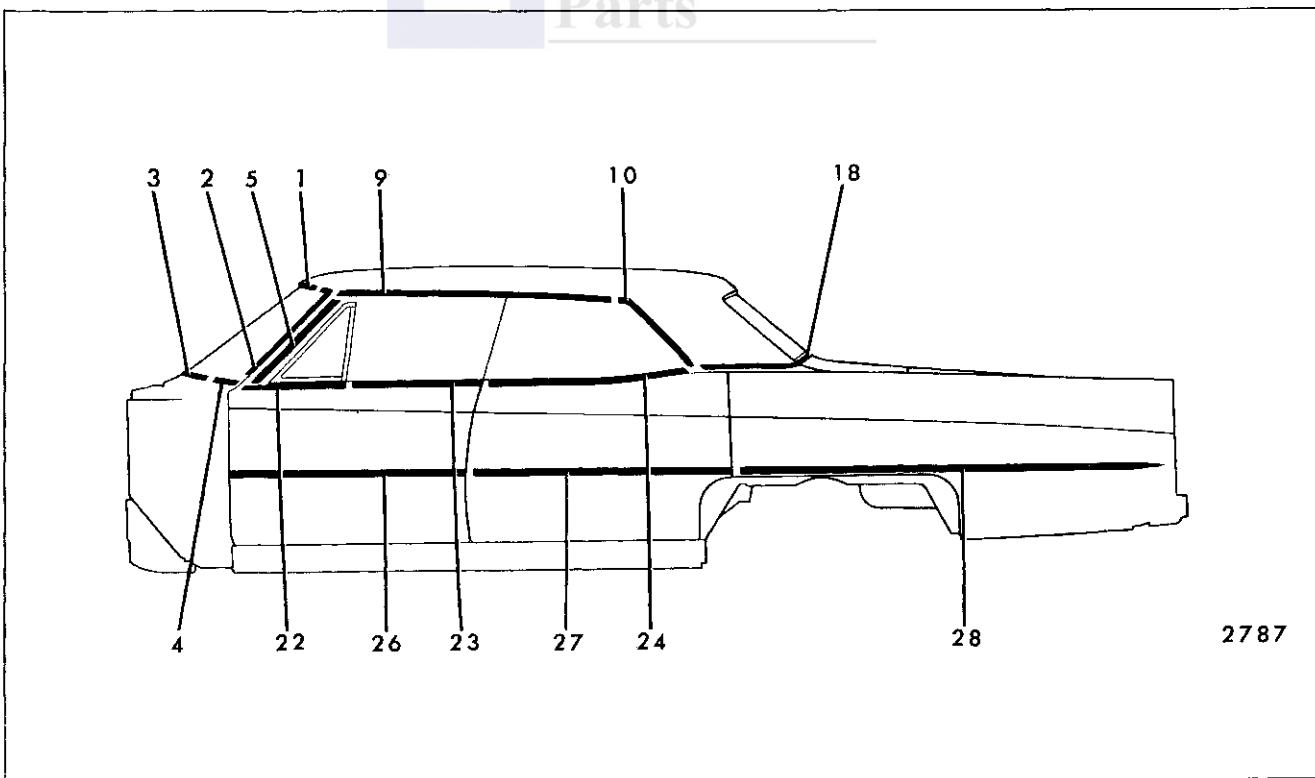


Fig. 17-106—Cadillac 68249-68349 Styles

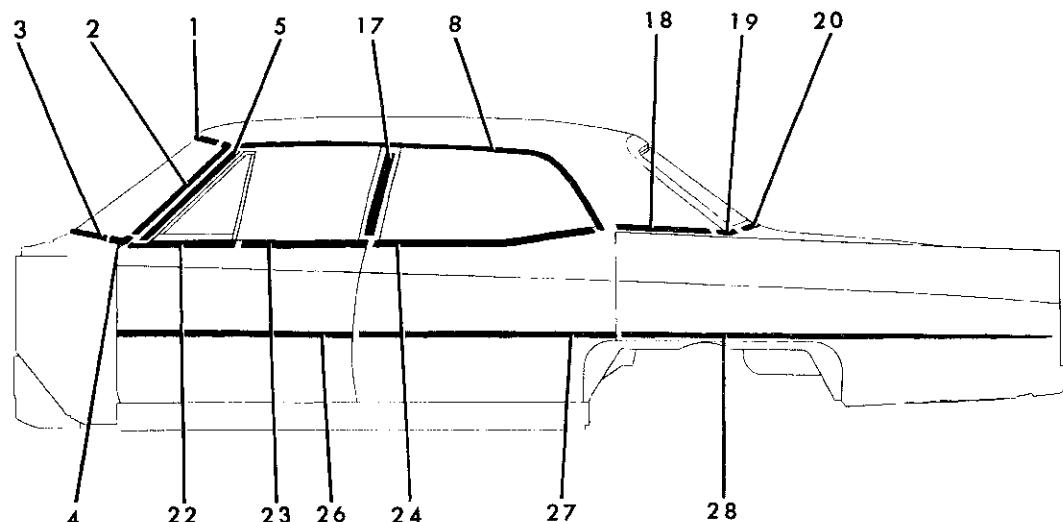


Fig. 17-107—Cadillac 68369 Styles

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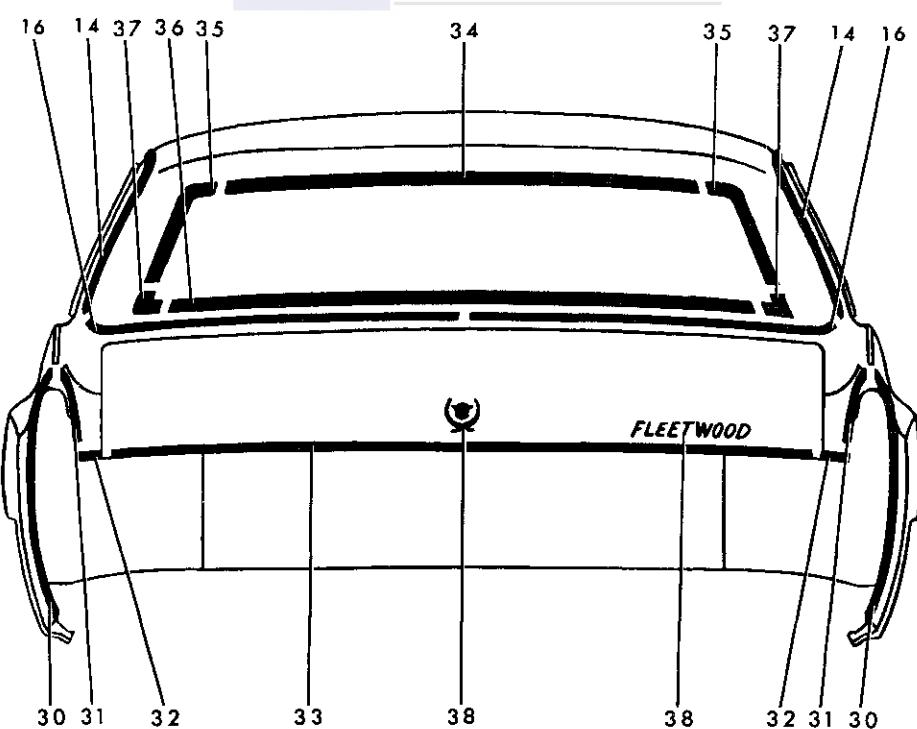


Fig. 17-108—Cadillac 68069-68169 Styles

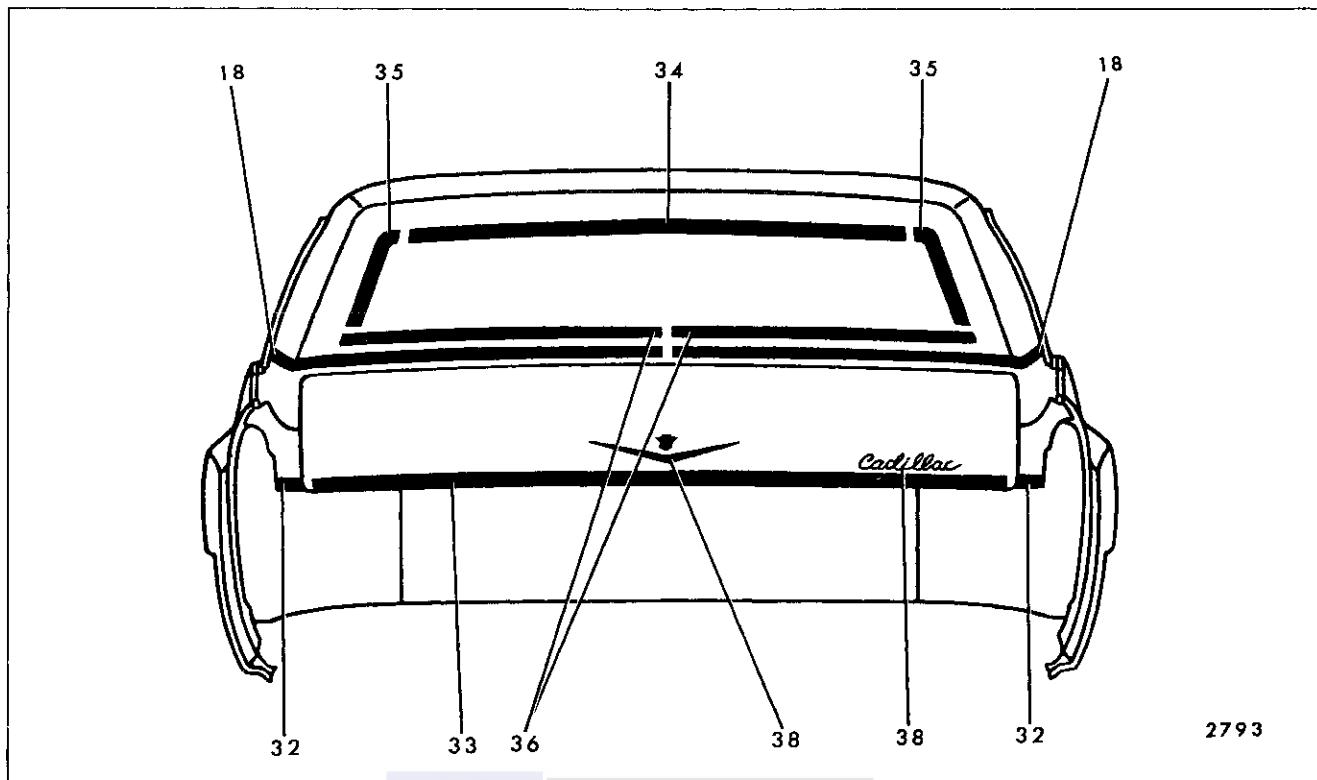


Fig. 17-109—Cadillac 68200-68300 Styles

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METHODS OF MOLDING RETENTION

CADILLAC "D" BODIES - 69700 SERIES
FIGURES 17-110 AND 17-111

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower Ends	
3	Windshield Reveal Lower Center	All	X					Windshield Reveal Lower Ends	
4	Windshield Reveal Lower Ends	All	X					Windshield Reveal Lower Center	
5	Front Door Window Frame Front Reveal	All	X						
6	Front Door Window Frame Upper Reveal	All	X					Front Door Window Frame Front Reveal	
7	Front Door Window Frame Rear Reveal	All		View J				Front Door Window Frame Upper Reveal	
8	Rear Door Window Frame Front Reveal	All		View J				Rear Door Window Frame Upper Reveal	
9	Rear Door Window Frame Upper Reveal	All	X						
10	Rear Door Window Frame Rear Reveal	All		View J				Rear Door Window Frame Upper Reveal	
11	Rear Quarter Window Reveal Vertical	All	X					Rear Quarter Window Reveal Upper Front, Rear Quarter Window Reveal Upper Rear and Lower	Weatherstrip and Retainer
12	Rear Quarter Window Reveal Upper Front	All	X						Headlining at Side Area
13	Rear Quarter Window Reveal Upper Rear and Lower	All	X					Rear Quarter Window Reveal Upper Front	Rear Quarter Trim Pad

METHODS OF MOLDING RETENTION
CADILLAC "D" BODIES - 69700 SERIES
FIGURES 17-110 AND 17-111

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
14	Roof Panel Emblem	All (With Fabric Roof Cover)					X		Headlining at Quarter Area
15	Front Door Window Belt Reveal (at Vent)	All	X					Front Door Vent Assembly	
16	Front Door Window Belt Reveal	All	X					Front Door Window Belt Reveal (at Vent)	Front Door Trim Pad
17	Rear Door Window Belt Reveal	All	X						Rear Door Trim Pad
18	Front Door Outer Panel	All	X		X				
19	Rear Door Outer Panel	All	X		X				
20	Rear Quarter Outer Panel	All				X	X		Rear Quarter Trim Pad. Rear Compartment Side Trim
21	Back Window Reveal Upper	All			X			Back Window Reveal Side	
22	Back Window Reveal Side	All			X				
23	Back Window Reveal Lower Corner Escutcheon	All						Back Window Reveal Side, Back Window Reveal Lower	
24	Back Window Lower Reveal	All			X				
25	Rear of Rear Quarter Panel at Compartment Lid	All	X				X		Rear Bumper Assembly
26	Rear Compartment Lid Outer Panel	X							
27	Rear Compartment Lid Outer Panel Emblem	All					X		
28	Rear of Rear Quarter Outer Panel at Taillamp Outer	All	X						Rear Bumper Assembly
29	Rear of Rear Quarter Outer Panel at Taillamp-Inner	All	X					Rear of Rear Quarter Outer Panel-Outer at Taillamp	Rear Bumper Assembly

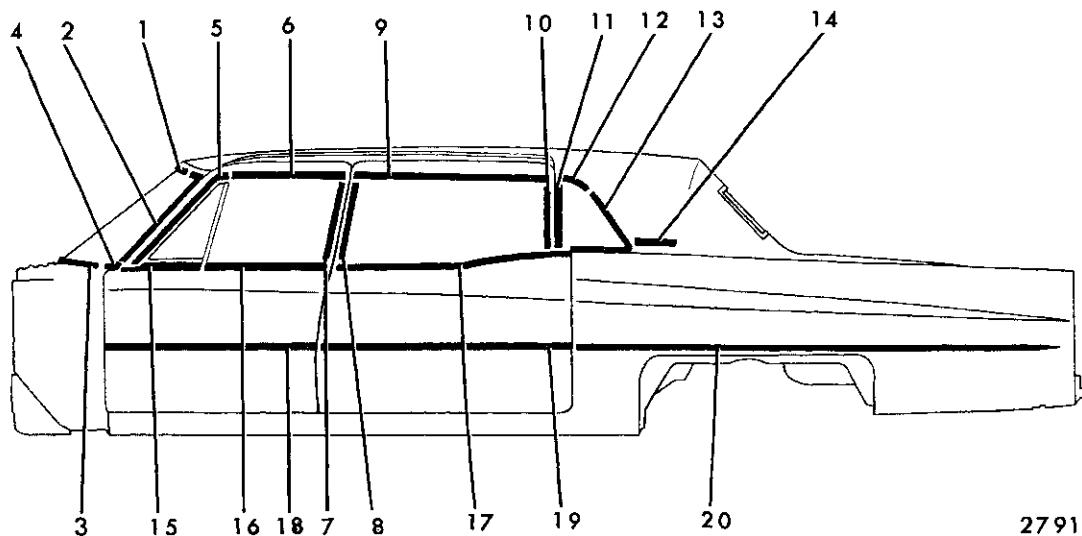


Fig. 17-110—Cadillac 69723-33 Styles

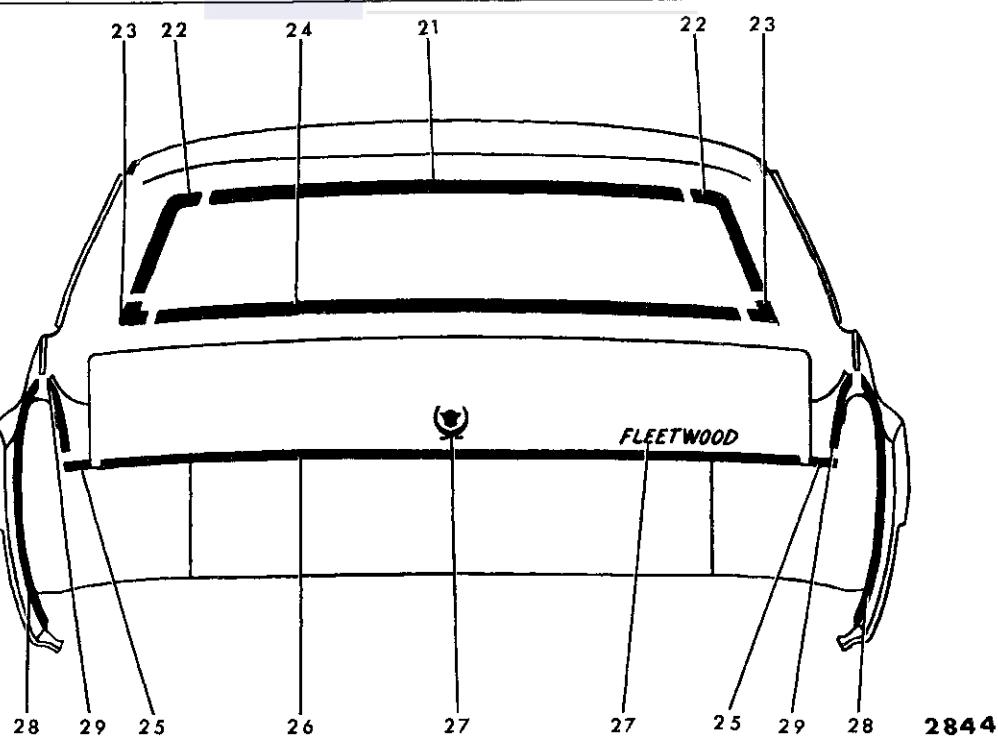


Fig. 17-111—Cadillac 69723-33 Styles

METHODS OF MOLDING RETENTION
CADILLAC "E" BODIES - 69300 SERIES
FIGURES 17-112 AND 17-113

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X			Windshield Reveal Lower Ends	
3	Windshield Reveal Lower Center	All	X					Windshield Reveal Lower Ends	
4	Windshield Reveal Lower-Ends	All	X					Windshield Reveal Lower Center	
5	Windshield Pillar Drip Scalp	All		View K					
6	Roof Drip Molding Front Scalp	All		View K				Windshield Pillar Drip Scalp	
7	Roof Drip Molding Rear Scalp	All	X	X				Roof Drip Molding Front Scalp	Rear Garnish Molding Quarter Trim Disengage Quarter Window Glass Rear Stop
8	Roof Panel Front Cover Finishing	All (With Fabric Roof Cover)	X	X				Windshield Pillar Drip	Windshield Reveal Upper
9	Front Door Window Belt Reveal	All	X			X			Rubber Bumper on Front Door Window Lower Stop
10	Rear Quarter Window Belt Reveal	All	X			X		Roof Drip Molding Rear Scalp	
11	Rear Quarter Belt Reveal	All (With Fabric Roof Cover)			X		X		Headlining at Rear Quarter Area
12	Front Door Outer Panel Lower	All	X		X				
13	Rear Wheel Opening	All	X		X				
14	Rear of Rear Wheel Opening	All	X		X				
15	Back Window Reveal Upper	All			X			Back Window Reveal Upper Corner Escutcheon	

METHODS OF MOLDING RETENTION
CADILLAC "E" BODIES - 69300 SERIES
FIGURES 17-112 AND 17-113

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
16	Back Window Reveal Side	All			X			Back Window Reveal Upper Corner Escutcheon	
17	Back Window Reveal Upper Corner Escutcheon	All			X				
18	Back Window Reveal Lower	All			X			Back Window Reveal Sides	
19	Rear of Rear Quarter Extension	All	X						
20	Rear Compartment Lid Outer Panel	All	X						
21	Gas Tank Filler Door	All	X						
22	Rear Compartment Lid Outer Panel Emblem	All					X		
23	Rear Compartment Lid Outer Panel Name Plate	All					X		

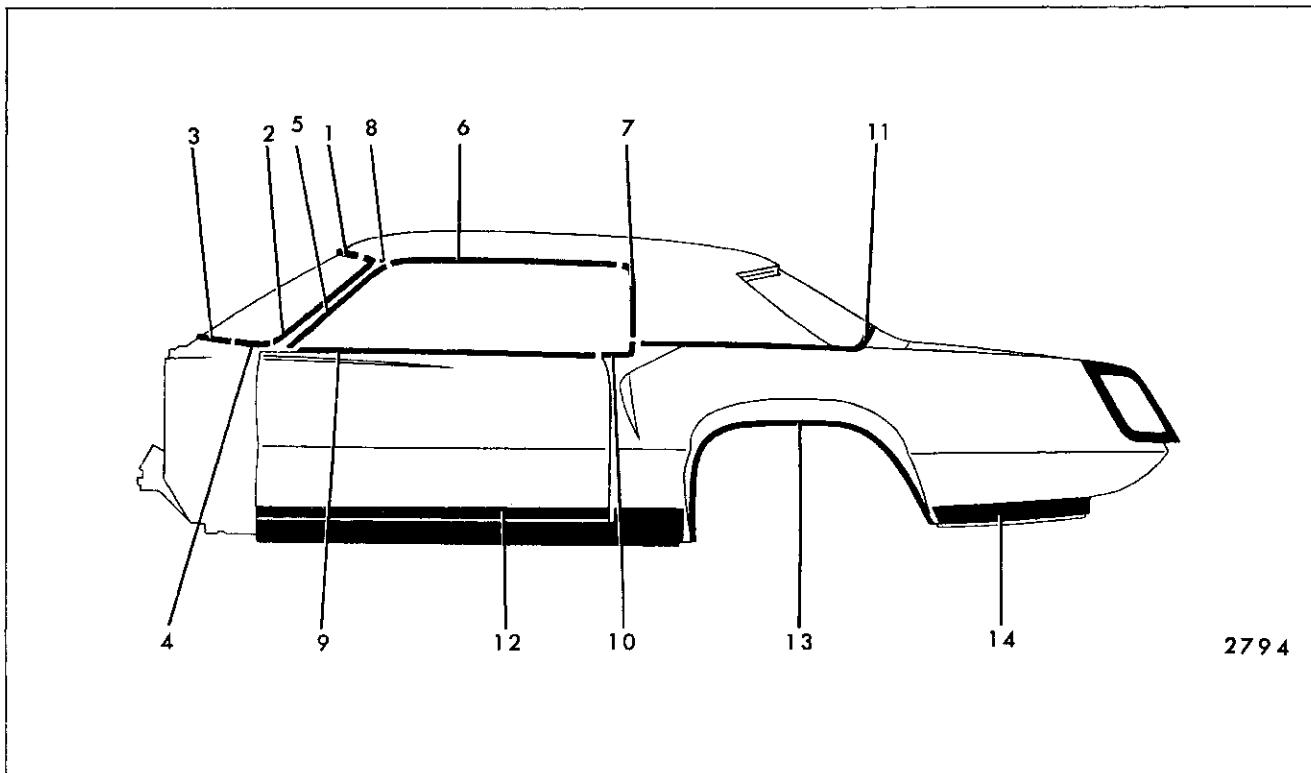


Fig. 17-112—Cadillac 69347 Styles

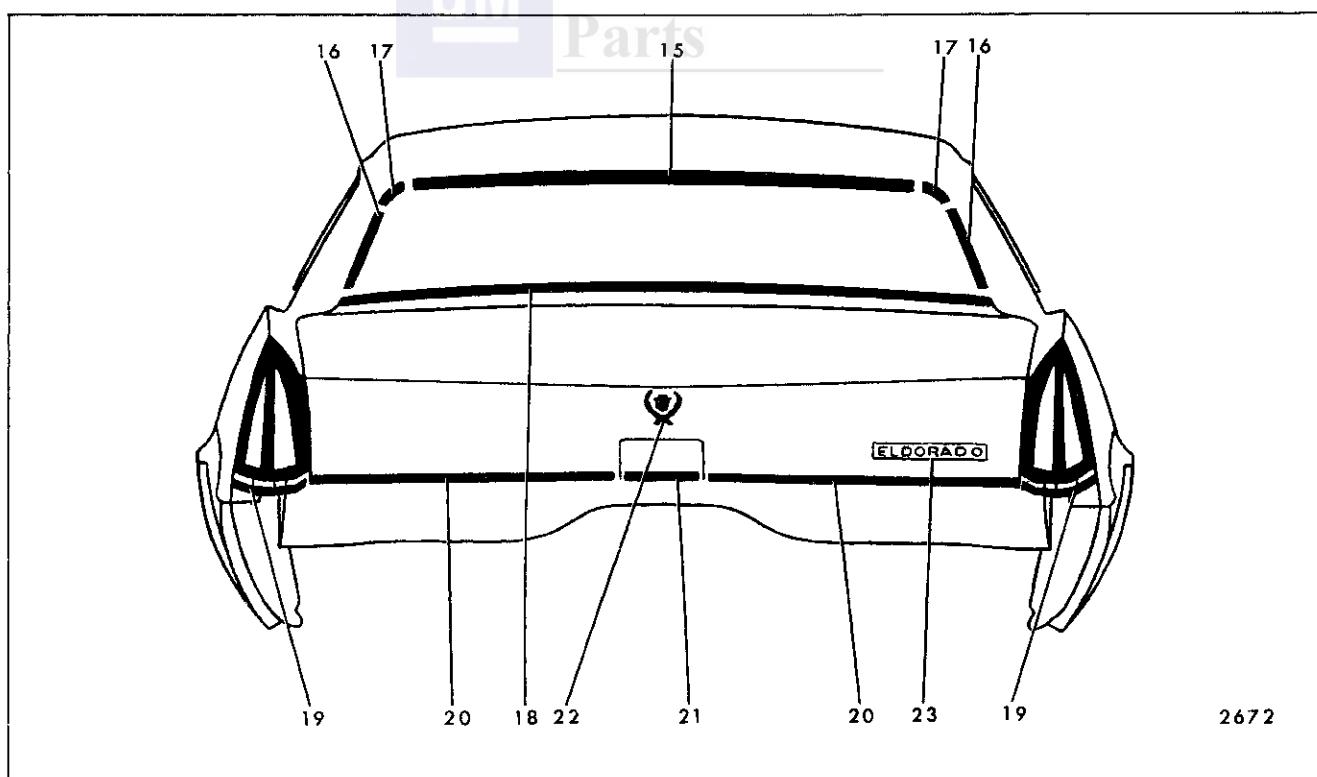


Fig. 17-113—Cadillac 69347 Styles

METHODS OF MOLDING RETENTION
ACADIAN "X" BODIES - 71000 SERIES
FIGURES 17-114 AND 17-115

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper Sides	All			X			Windshield Reveal Lower	
2	Windshield Reveal Lower	All	X					Cowl Air Intake Grille	
3	Windshield Pillar Drip	All (Optional)	X					Windshield Pillar Drip	
4	Roof Drip Molding Scalp	All (Optional)		View J		X			
5	Rear Quarter Belt Reveal	All (Optional)				X			
6	Rear Quarter Belt Reveal Corner Escutcheon	All (Optional)	X				X		Rear Quarter Belt Reveal
7	Front Door Window Frame Front Scalp	27-69 Styles (Optional)		View J					
8	Front Door Window Frame Rear Scalp	27-69 Styles (Optional)		View J				Front Door Window Frame Front Scalp	
9	Rear Quarter Window Frame Front Scalp	27 Style (Optional)		View J					
10	Rear Quarter Window Frame Upper Scalp	27 Style (Optional)		View J				Rear Quarter Window Frame Front Scalp	
11	Center Pillar Scalp	69 Style (Optional)	X						
12	Rear Door Window Frame Front Scalp	69 Style (Optional)		View J				Rear Door Window Frame Upper Scalp	
13	Rear Door Window Frame Upper Scalp	69 Style (Optional)		View J					
14	Back Window Reveal Upper and Sides	All			X			Back Window Reveal Lower	

METHODS OF MOLDING RETENTION
ACADIAN "X" BODIES - 71000 SERIES
FIGURES 17-114 AND 17-115

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attached Nuts	Engages With Other Moldings	Remove Hardware Or Trim
15	Back Window Reveal Lower	All			X				
16	Front Door Outer Panel	All Styles (Optional)	X		X				
17	Rear Door Outer Panel	69 Style (Optional)	X		X				
18	Rear Quarter Outer Panel	All (Optional)			X		X		
19	Rear Quarter Outer Panel Name Plate	All					X		
20	Rear End Outer Panel Upper	All (Optional)			X				
21	Rear End Outer Panel Lower	All (Optional)			X				
22	Rear End Outer Panel Name Plate	All					X		

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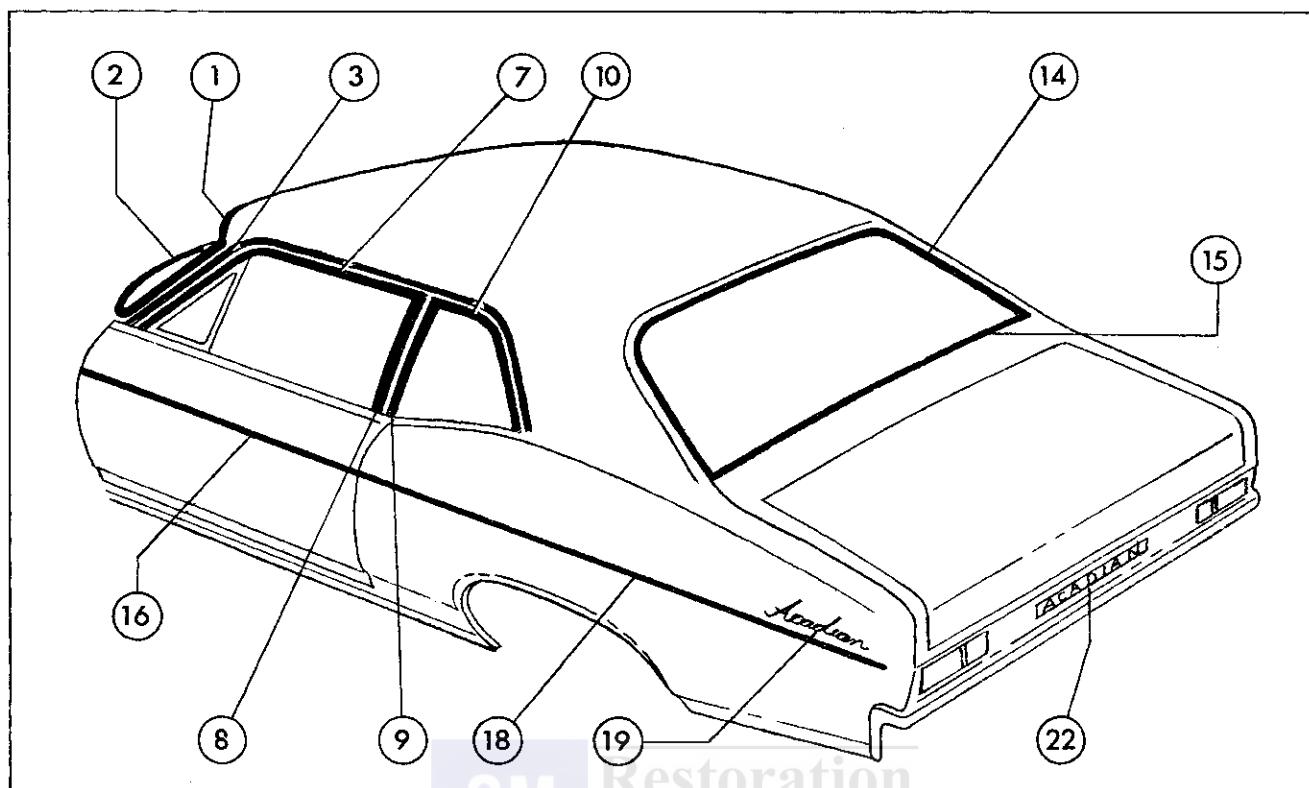


Fig. 17-114—Acadian 713-71427 Styles (Canadian)

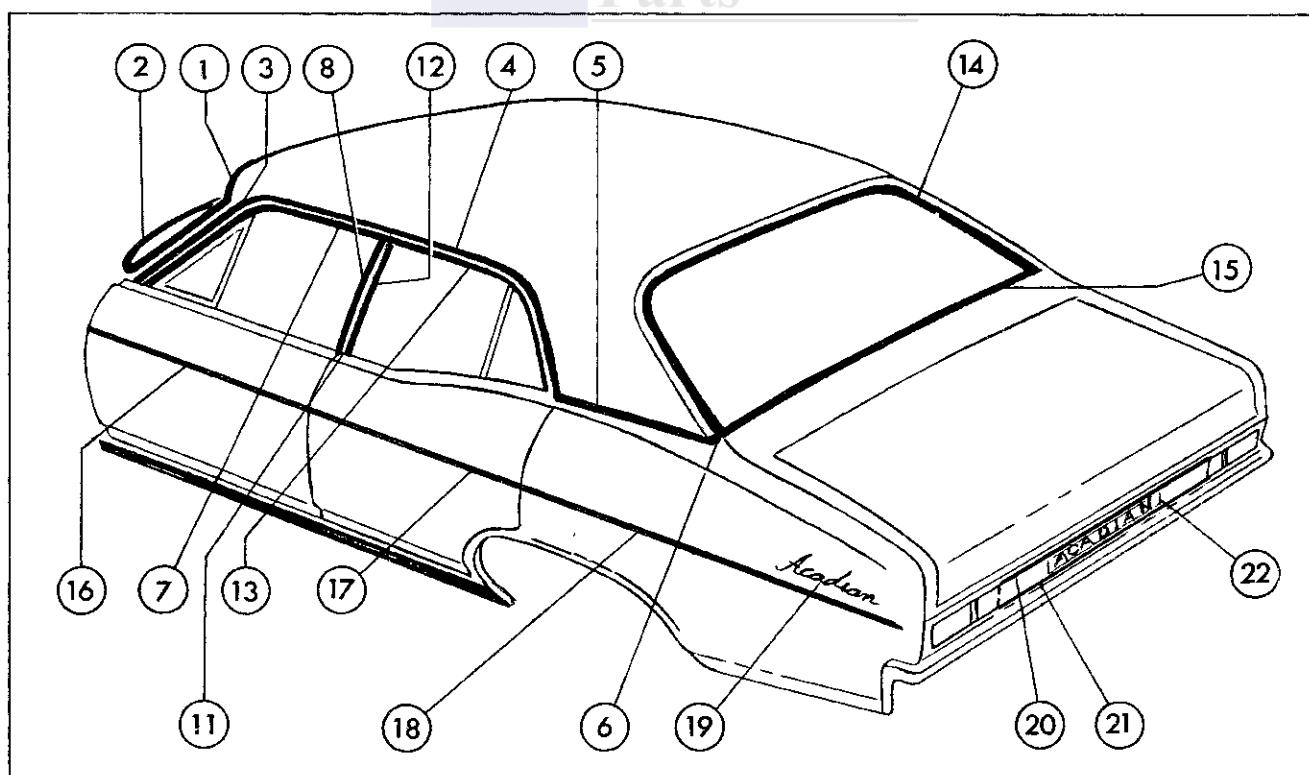


Fig. 17-115—Acadian 713-71469 Styles (Canadian)

METHODS OF MOLDING RETENTION

BEAUMONT "A" BODIES - 73000 SERIES (CANADIAN)
FIGURES 17-116 THROUGH 17-118

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X				
2	Windshield Reveal Side	All			X			Windshield Reveal Upper	
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	
4	Windshield Pillar Drip	27, 35, 69	X						
5	Windshield Pillar Finishing	67	X						Windshield Pillar Weather-strip and Weatherstrip Retainer
	Windshield Header Center	67	X					Windshield Header Side	Rear View Mirror Support
	Windshield Header Side	67	X					Windshield Reveal Upper and Sides	Sunshade Support Windshield Pillar Weatherstrip and Weather-strip Retainer
6	Windshield Pillar Drip Molding Scalp	37, 39 735-73635,69		X					
7	Roof Drip Molding Front Scalp	39		X				Roof Drip Molding Scalp Escutcheon	
8	Roof Drip Molding Scalp Escutcheon	37, 35, 39, 69		X					
9	Roof Drip Molding Rear Scalp	39		X				Roof Drip Molding Scalp Escutcheon	
	Roof Drip Molding Scalp	37, 35, 69		X					
	Front Door Window Frame Front Scalp (Optional)	27, 35, 69		X					
	Front Door Window Frame Upper Scalp (Optional)	27, 35, 69		X				Front Door Window Frame Front Scalp	

METHODS OF MOLDING RETENTION
BEAUMONT "A" BODIES - 73000 SERIES (CANADIAN)
FIGURES 17-116 THROUGH 17-118

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
	Front Door Window Frame Rear Scalp (Optional)	27, 35, 69		X				Front Door Window Frame Upper Scalp	
	Center Pillar Scalp (Optional)	35, 69	X						
	Rear Door Window Frame Front Scalp (Optional)	35, 69		X				Rear Door Window Frame Upper Scalp	
	Rear Door Window Frame Upper Scalp (Optional)	35, 69		X				Rear Door Window Frame Rear Scalp	
	Rear Quarter Window Rear Reveal (Optional)	27, 37	X				X		
	Rear Quarter Belt Reveal (Optional)	27, 37, 39, 69			X	X	X		
	Rear End Belt Side Reveal (Optional)	27, 37						X	
	Rear End Belt Reveal	27, 37			X			X	
	Center Reveal (Optional)	27, 37, 39, 69			X			X	
10	Rear Quarter Pinchweld Finishing	67	X		X				Rear Quarter and Rear End Trim Sticks
11	Rear Quarter Window Front Reveal	27				X			
12	Rear Quarter Window Upper Reveal	27	X						
	Rear Quarter Window Reveal Upper	35			X			Rear Quarter Window Reveal Lower	
	Rear Quarter Window Reveal Lower	35			X			Rear Quarter Window Reveal Upper	
13	Front Door Outer Panel - Lower	735-73600 73800			X				
14	Front Door Outer Panel - Upper	73800			X				

METHODS OF MOLDING RETENTION
BEAUMONT "A" BODIES - 73000 SERIES (CANADIAN)
FIGURES 17-116 THROUGH 17-118

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
15	Rear Door Outer Panel - Lower	735-73600			X				
	Rear Door Outer Panel Belt Reveal (Optional)	39, 69					X		
16	Front of Rear Wheel Opening - Lower	735-73635,69 735-73637,67 73800			X		X		
17	Front of Rear Wheel Opening - Upper	73800			X				
18	Rear of Rear Wheel Opening - Lower	735-73600 73800			X				
19	Rear of Rear Wheel Opening - Upper	73800			X				
20	Rear Quarter Outer Panel Name Plate	All (Except 73800)				X 35 Style L.H. Only	X		
21	Rear End Panel Molding and/or Name Plate	All (Except 35)					X		
22	Back Window Reveal Upper and Side	27, 37			X			Back Window Reveal Lower	
23	Back Window Reveal Lower and Side	39, 69			X				
24	Back Window Reveal Upper	39, 69			X			Back Window Reveal Lower and Side	
25	Back Window Reveal Lower	27, 37			X				
	Tailgate Window Opening Upper Reveal	35			X			Tailgate Window Opening Side Reveal	
	Tailgate Window Opening Side Reveal	35			X				

METHODS OF MOLDING RETENTION
BEAUMONT "A" BODIES - 73000 SERIES (CANADIAN)
FIGURES 17-116 THROUGH 17-118

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attached Nuts	Engages With Other Moldings	Remove Hardware Or Trim
26	Tailgate Outer Panel Molding and/or Name Plate	35					X		Tailgate Trim Assembly
	Tailgate Outer Panel Upper	735-73635	X		X				
	Tailgate Outer Panel Lower	735-73635	X		X				
	Rear of Rear Quarter Outer Panel Upper and Lower	735-73635	X			X			
	Rear Compartment Lid Emblem	73800					X		

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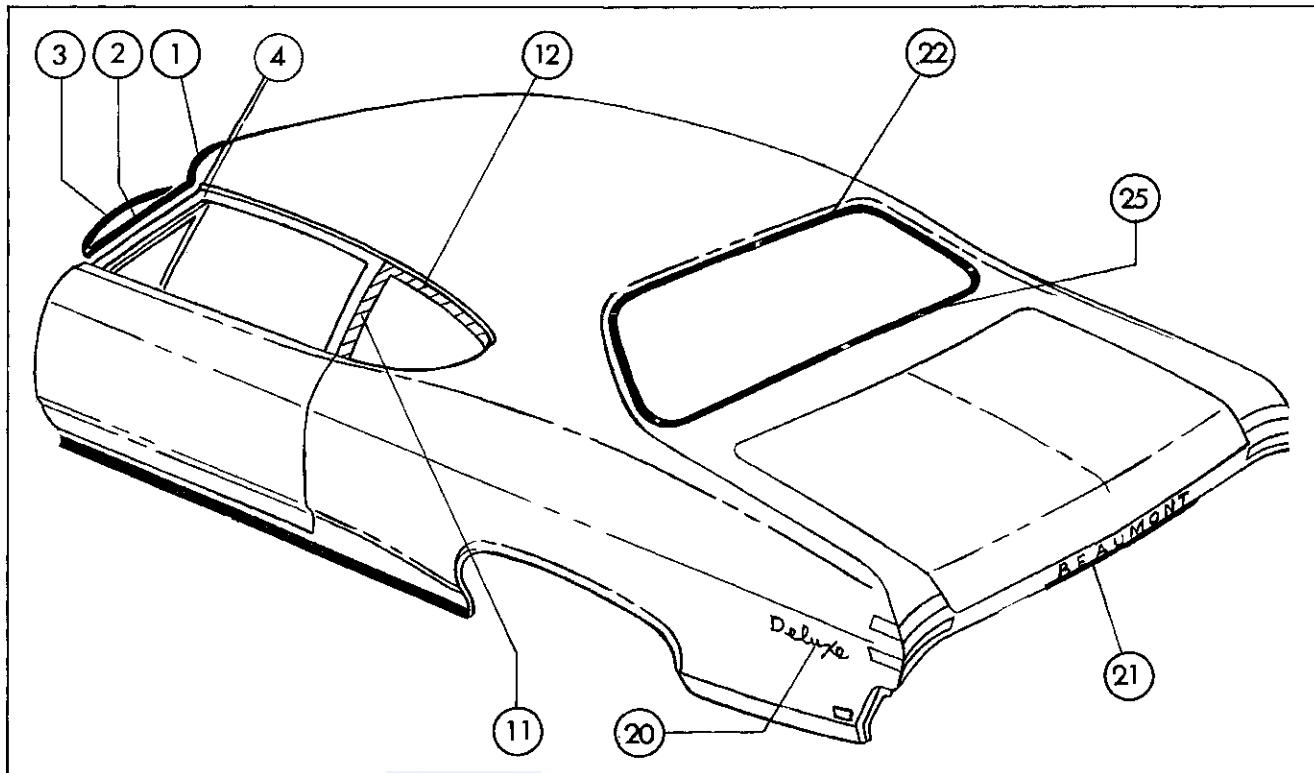


Fig. 17-116—Beaumont 733-73427 Styles (Canadian)

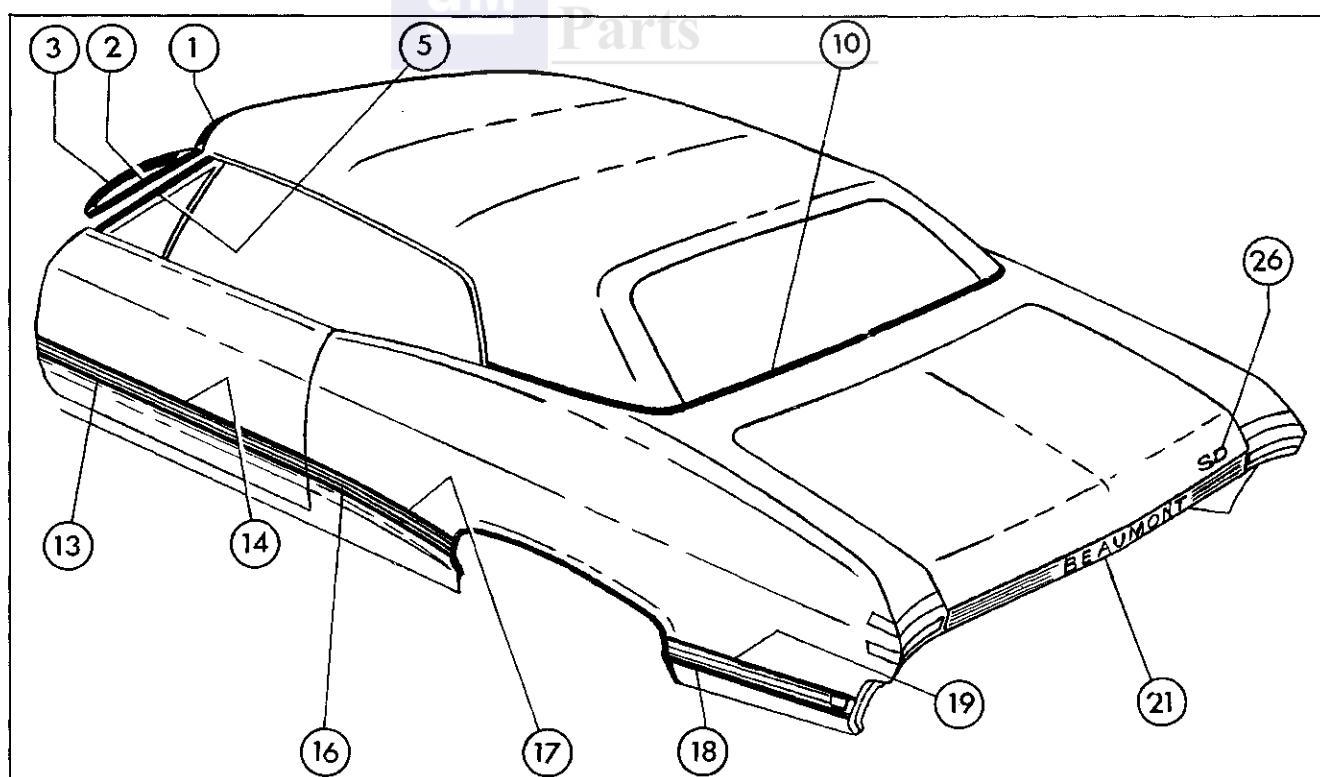


Fig. 17-117—Beaumont 73867 Styles (Canadian)

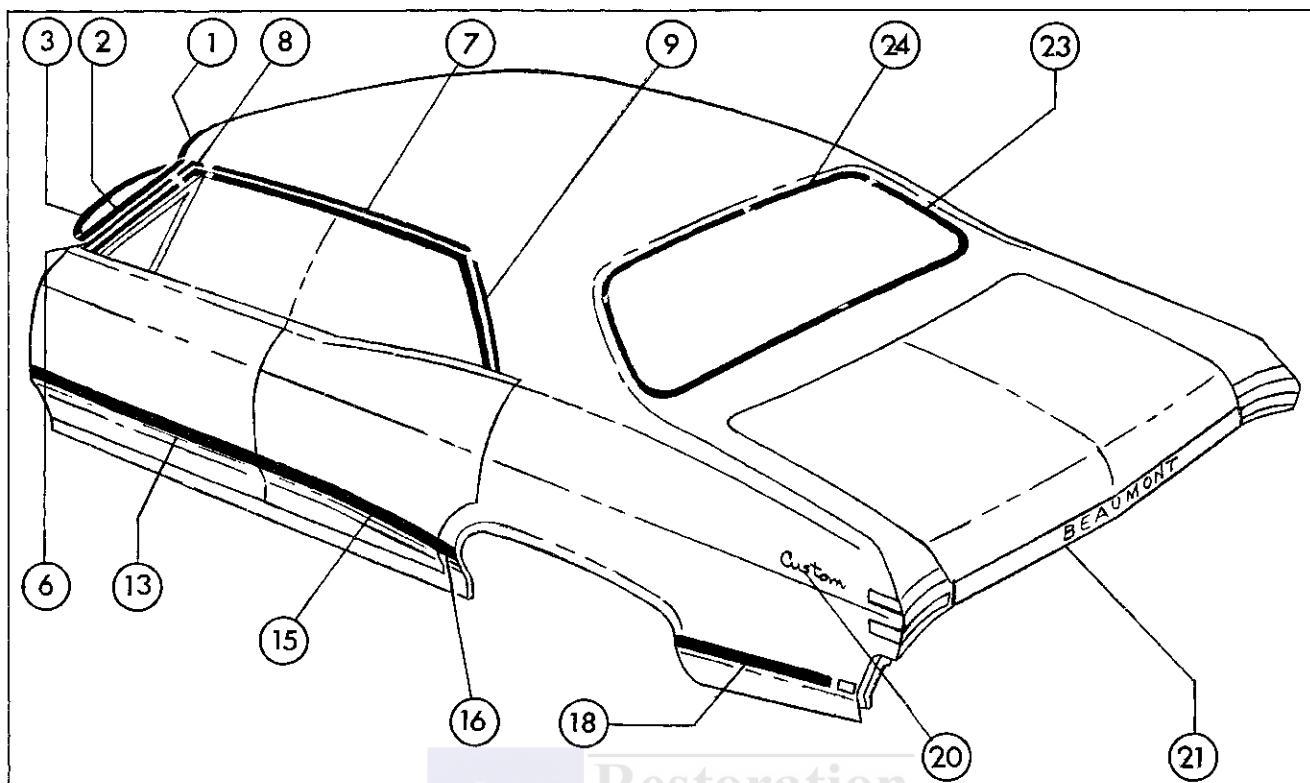


Fig. 17-118—Beaumont 735-73639 Styles (Canadian)

METHODS OF MOLDING RETENTION
PONTIAC "B" BODIES - 75-76000 SERIES (CANADIAN)
FIGURES 17-119 THROUGH 17-122

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
1	Windshield Reveal Upper	All			X			Windshield Reveal Side	
2	Windshield Reveal Side	All			X				
3	Windshield Reveal Lower	All	X					Windshield Reveal Side	
4	Windshield Pillar Drip	All (Except 67)	X					Windshield Pillar Weather-Strip and Weatherstrip Retainer (Hardtop Styles Only)	
	Windshield Pillar Finishing	67	X					Windshield Pillar Weather-Strip and Weatherstrip Retainer	
	Windshield Header	67	X					Windshield Pillar Finishing, Windshield Upper Reveal	Rear View Mirror Support, Sunshade Support
5	Roof Drip Scalp	11, 39, 69, 87		X				Windshield Pillar Drip	
	Roof Drip Molding Scalp Front	35, 45		X				Windshield Pillar Drip	
	Roof Drip Molding Scalp Rear	35, 45		X				Roof Drip Molding Scalp Front	
6	Front Door Window Frame Scalp Front	35, 45, 69		X					
7	Front Door Window Frame Scalp Upper	35, 45, 69		X				Front Door Window Frame Scalp Front	
8	Front Door Window Frame Scalp Rear	35, 45, 69		X				Front Door Window Frame Scalp Upper	

METHODS OF MOLDING RETENTION
PONTIAC "B" BODIES - 75-76000 SERIES (CANADIAN)
FIGURES 17-119 THROUGH 17-122

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
9	Front Door Window Belt Reveal(at Vent)	35, 45, 39 57, 67, 69 87 (Except 76687)	X						Front Door Vent Frame
10	Rear Door Window Frame Scalp Front	35, 45, 69		X				Rear Door Window Frame Scalp Upper	
11	Rear Door Window Frame Scalp Upper	35, 45, 69		X				Rear Door Window Frame Scalp Rear (35, 45 Styles Only)	
12	Rear Door Window Frame Scalp Rear	35, 45		X					
13	Rear Quarter Window Reveal Upper	35, 45			X			Rear Quarter Window Reveal Lower Escutcheon	
14	Rear Quarter Window Reveal Lower	35, 45			X			Rear Quarter Window Reveal Upper	
15	Rear Quarter Window Reveal Lower Escutcheon	35, 45			X				
	Rear Quarter Belt Reveal (Optional)	11, 39, 69, 87			X		X		
	Rear Quarter Belt Pinchweld Finishing	67	X			X			
16	Front Door Outer Panel	755-75600 76000	X X		X X		X		
17	Rear Door Outer Panel	755-75600 76000	X X		X X		X		
18	Rear Quarter Outer Panel	755-75600 763-76400 (Except 35, 45) 755-75600 -35, 45 Rt. 755-75600 -35, 45 Lt. 763-76400 (35, 45)	X X		X X		X		Rear Quarter Trim
					X		X		Rear Quarter Trim

METHODS OF MOLDING RETENTION
PONTIAC "B" BODIES - 75-76000 SERIES (CANADIAN)
FIGURES 17-119 THROUGH 17-122

Key	Molding Name	Series or Styles	Screws	Spring (Self-Re-tained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
19	Front of Rear Wheel Opening	76687 & 76639	X		X				
20	Rear of Rear Wheel Opening	763-76400, 76600, 76800	X		X				
21	Rear Quarter Outer Panel Name Plate or Emblem	All except 763-76400 (Except 35-45) 35-45 Rt. 35-45 Lt.					X X		Rear Quarter Trim
	Front Door Outer Panel Transfer Finishing Upper	76635					X	Front Door Outer Panel Transfer Finishing Upper Insert	
	Front Door Outer Panel Transfer Finishing Lower	76635	X						
	Front Door Outer Panel Transfer Finishing Upper Insert	76635	X		X				
	Rear Door Outer Panel Transfer Finishing Upper	76635						Rear Door Outer Panel Transfer Finishing Upper Insert	
	Rear Door Outer Panel Transfer Finishing Lower	76635	X						
	Rear Door Outer Panel Transfer Finishing Upper Insert	76635	X		X				
	Rear Quarter Outer Panel Transfer Finishing Upper	76635	X					Rear Quarter Outer Panel Transfer Finishing Upper Insert	
	Rear Quarter Outer Panel Transfer Finishing Upper Insert	76635					X		

METHODS OF MOLDING RETENTION
PONTIAC "B" BODIES - 75-76000 SERIES (CANADIAN)
FIGURES 17-119 THROUGH 17-122

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
	Rear Quarter Outer Panel Transfer Finishing Rear Vertical	76635	X						
22	Back Window Reveal Upper and/or Side	All (Except 35-45)			X				
23	Back Window Reveal Lower	All (Exc. 35-45, 87) 87	X		X			Back Window Reveal Side	
24	Back Body Opening Reveal Upper	35, 45	X					Back Body Opening Reveal Side	Upper Glass Run Channel
25	Back Body Opening Reveal Side	35, 45	X						
26	Tailgate Window Reveal	764-76635	X			X			
27	Tailgate Outer Panel Lower	76435	X						
	Tail Gate Outer Panel Belt Finishing (Optional)	35, 45 (Except 76635)	X			X			
	Back Body Pillar Belt Finishing (Optional)	35, 45 (Except 76635)	X		X	X			
	Rear Compartment Lid Outer Panel Belt Reveal	87 (With Options C08 or D99)	X		X				
	Rear Compartment Lid Outer Panel Finishing	87 (With C08)					X		
	Tailgate Outer Panel Transfer Finishing	76635					X		Tailgate Trim Panel Assy.
28	Rear of Rear Qtr. Outer Panel Lower	76435	X						

METHODS OF MOLDING RETENTION
PONTIAC "B" BODIES - 75-76000 SERIES (CANADIAN)
FIGURES 17-119 THROUGH 17-122

Key	Molding Name	Series or Styles	Screws	Spring (Self-Retained)	Snap-On Clips or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts	Engages With Other Moldings	Remove Hardware Or Trim
29	Rear Compartment Lid Outer Panel Emblem	766-76800 (Except 35-45)					X		
30	Rear End Outer Panel	76000 (Except 35-45)					X		
31	Rear End Outer Panel Name Plate	75000 (Except 35,45)					X		
32	Tailgate Outer Panel Name Plate	35-45					X		Tailgate Trim Panel Assy.
	Rear Quarter Panel Upper Name Plate	76639, 87 (With Option C08)					X		Rear Quarter Upper Trim

GM
Restoration
Parts

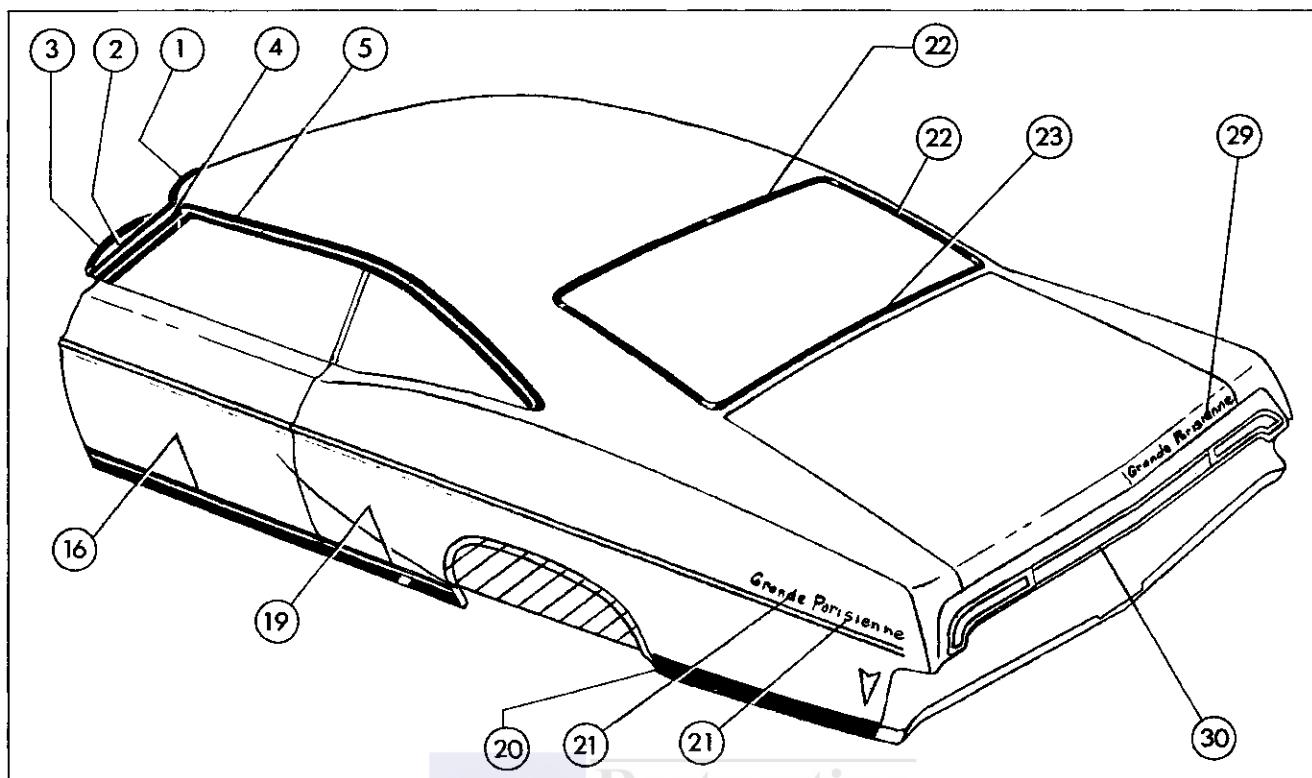


Fig. 17-119—Pontiac 76687 Styles (Canadian)

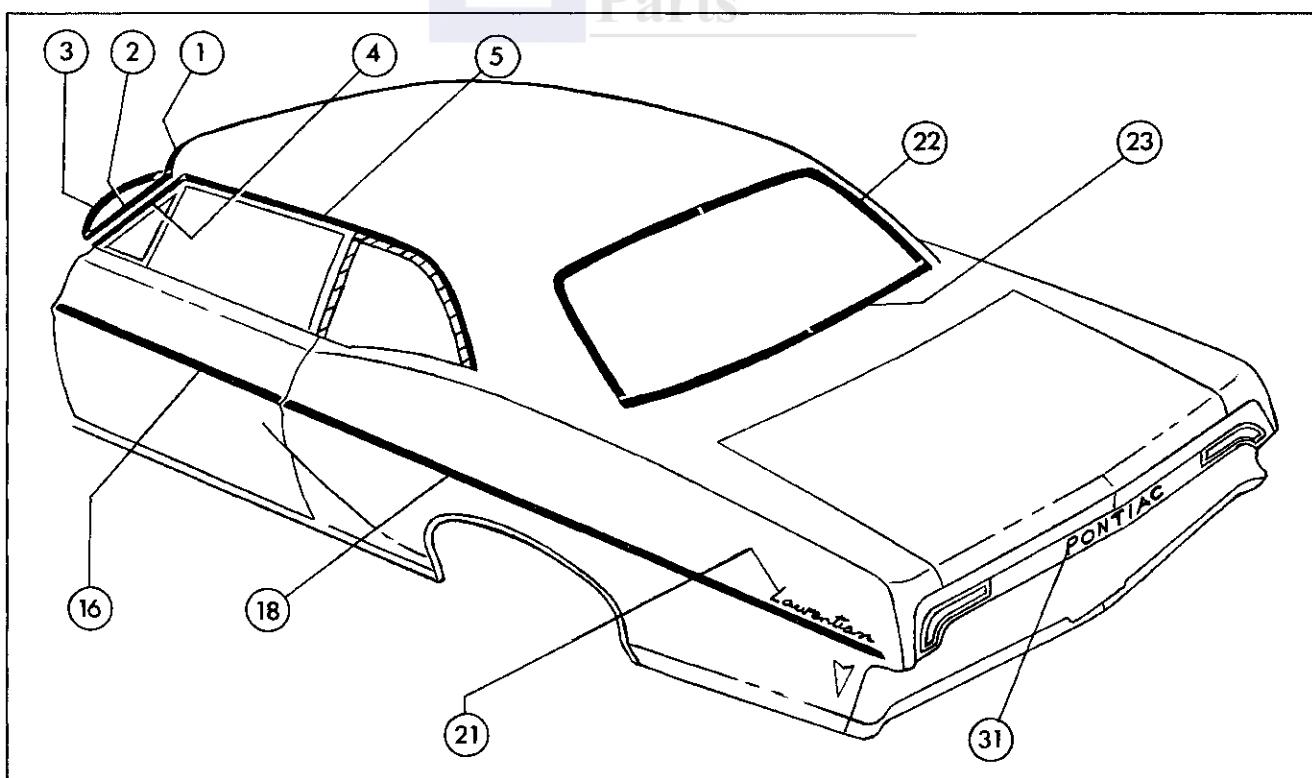


Fig. 17-120—Pontiac 755-75611 Styles (Canadian)

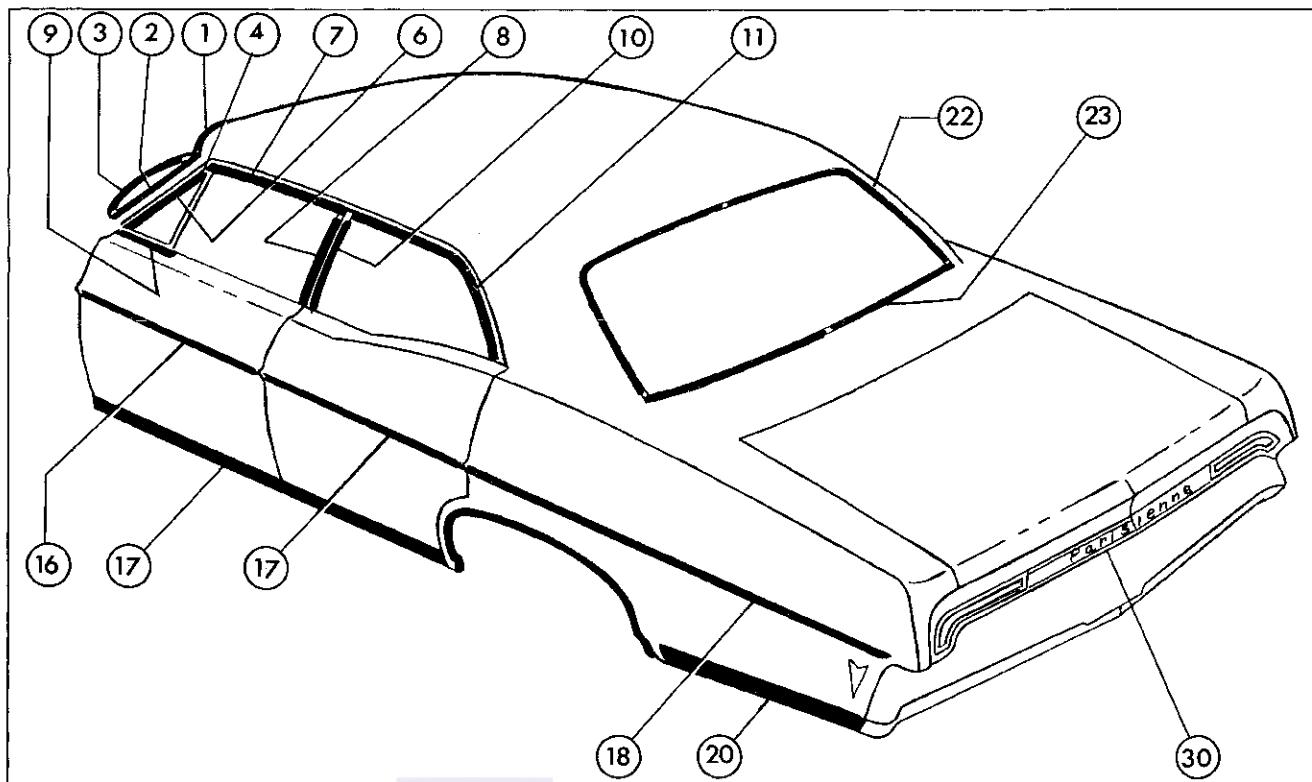


Fig. 17-121—Pontiac 763-76469 Styles (Canadian)

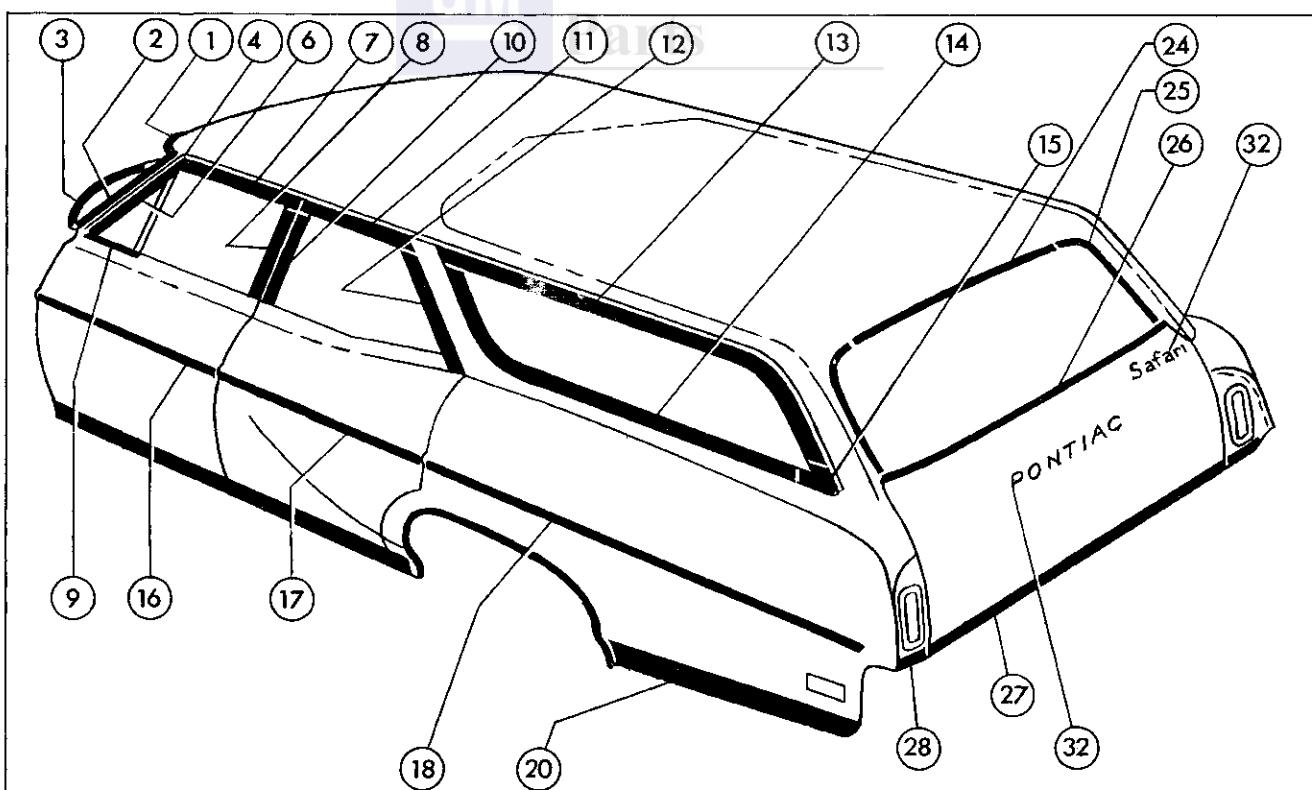


Fig. 17-122—Pontiac 76435 Styles (Canadian)

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