



1964

OLDSMOBILE

Service
manual

CONTENTS

SECTION 15 FRAME, BUMPERS,
CHASSIS SHEET METAL

SECTION 16 BODY

no. 5

1964 OLDSMOBILE

SERVICE MANUAL

NUMBER 5

MANUAL
NO.

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This manual is compiled to provide service procedures, adjustments and specifications for the 1964 Oldsmobiles. An understanding of the material contained herein and in monthly issues of the Oldsmobile Service Guild and Dealer Technical Information Bulletins, issued when necessary, will assist service personnel in properly maintaining the quality to which Oldsmobile cars are built.

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MANUAL NUMBER 5

SERVICE DEPARTMENT
OLDSMOBILE DIVISION
GENERAL MOTORS CORPORATION
LANSING, MICHIGAN

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FRAME, BUMPERS AND CHASSIS SHEET METAL

33-34-35-36-38 & 39 SERIES

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FRAME

When supporting car on a floor jack or floor stands, the car should be supported at the suspension points only. Under no conditions should the car be supported at the extreme ends of frame or at the center of a frame side rail.

When using a frame contact hoist the car should be lifted at the torque boxes (where the front and rear frame sections join the frame side rails). (Fig. 15-1)

CHECKING FRAME ALIGNMENT

The diagram shown in Fig. 15-2 can be used to check the alignment of a car frame that has been distorted.

The reference points indicated in the illustration are to be checked with a tram gauge. The dimensions between the various reference points will show where straightening operations are necessary.

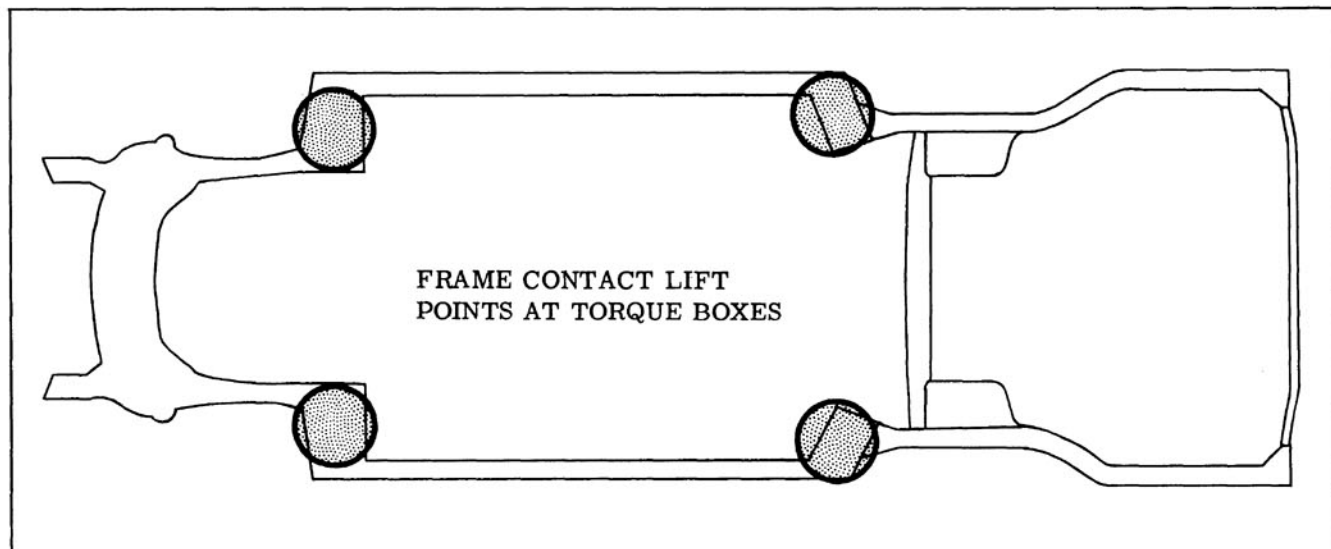


Fig. 15-1 Frame Lift Points

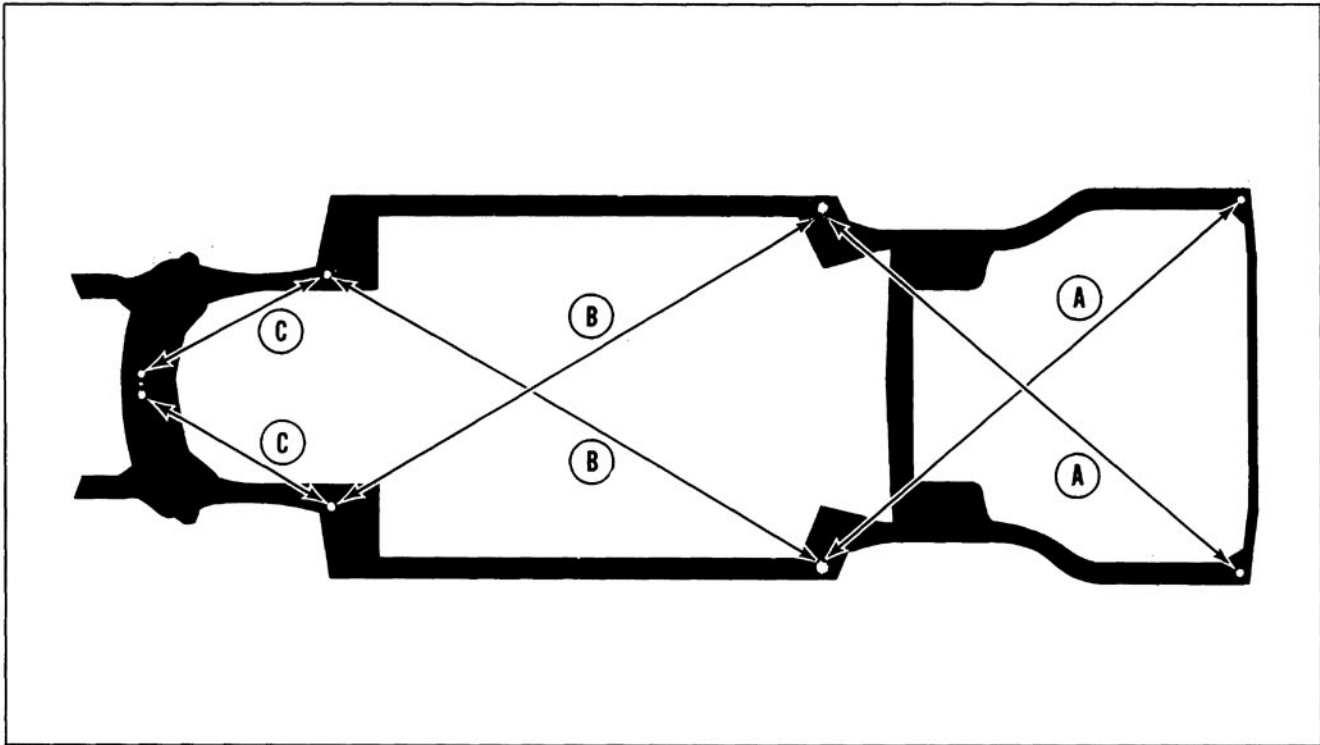


Fig. 15-2 Frame Alignment Diagram

NOTE: Corresponding measurements must be equal within 1/4".

1. Measure A-A. If not equal, rear end of frame is misaligned.
2. Measure B-B. If not equal, center portion of frame is misaligned.
3. Measure C-C. If not equal, then front suspension crossmember is misaligned.

STRAIGHTENING FRAME

In case of collision, frame members can often be satisfactorily straightened to the required limits. However, the front suspension crossmember is made to unusually close limits necessary for proper front wheel alignment; therefore, straightening of this unit may not be successful.

It is possible that the ordinary straightening methods will suffice for minor damage to the front suspension crossmember; however, in case of serious damage or fracture, the entire front suspension crossmember must be replaced. Before the member is replaced, it is essential that the frame alignment be checked, and corrected if necessary.

Whenever possible, frame members should be securely fastened with hot rivets. In case riveting equipment is not available, finished bolts snugly fitted in reamed holes may be used. The nuts

should be securely tightened and lockwashers used, care being taken that washers do not spread. (Cold driven rivets are not recommended unless the heavy power press equipment necessary to make secure fastening is available).

After frame members are riveted or bolted securely, all welded joints and areas that were cut to permit removal of a frame member should be welded.

When the frame repair is completed and inspected, the various parts of the suspension may be assembled.

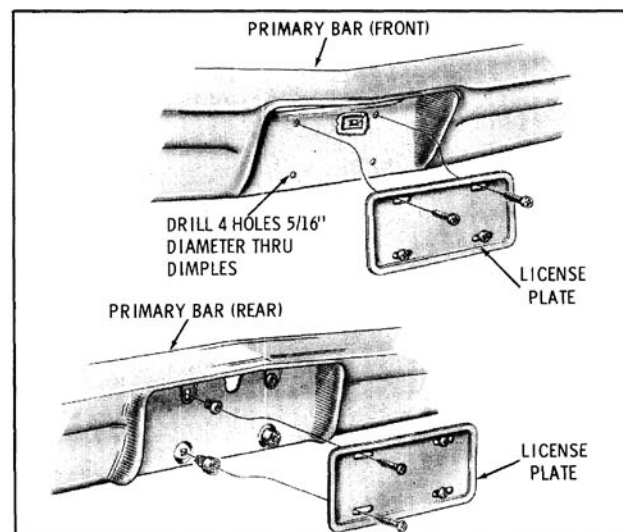


Fig. 15-3 License Plate Attachment

BUMPERS (Figs. 15-3,15-4,15-5,15-6 and 15-17)**BUMPER ALIGNMENT**

Vertical, horizontal, fore and aft, and angular alignment of the front and rear bumper assemblies is provided for through the use of elongated holes in the bumper to bracket and bracket to frame. Angular adjustment may be provided for by the use of washer(s) between the bumper and brackets.

NOTE: The front bumper bracket to frame bolts are serrated. To make fore and aft adjustments, the nuts must be loosened and the bolt tapped until serrations are clear of frame and bracket. Then position bumper and tighten nuts.

To align bumpers, loosen bumper bolts and shift bumper to desired position. Make sure that bumpers are horizontal and clearance between bumper and fenders is even on both sides. Torque bolts as indicated under Torque Specifications.

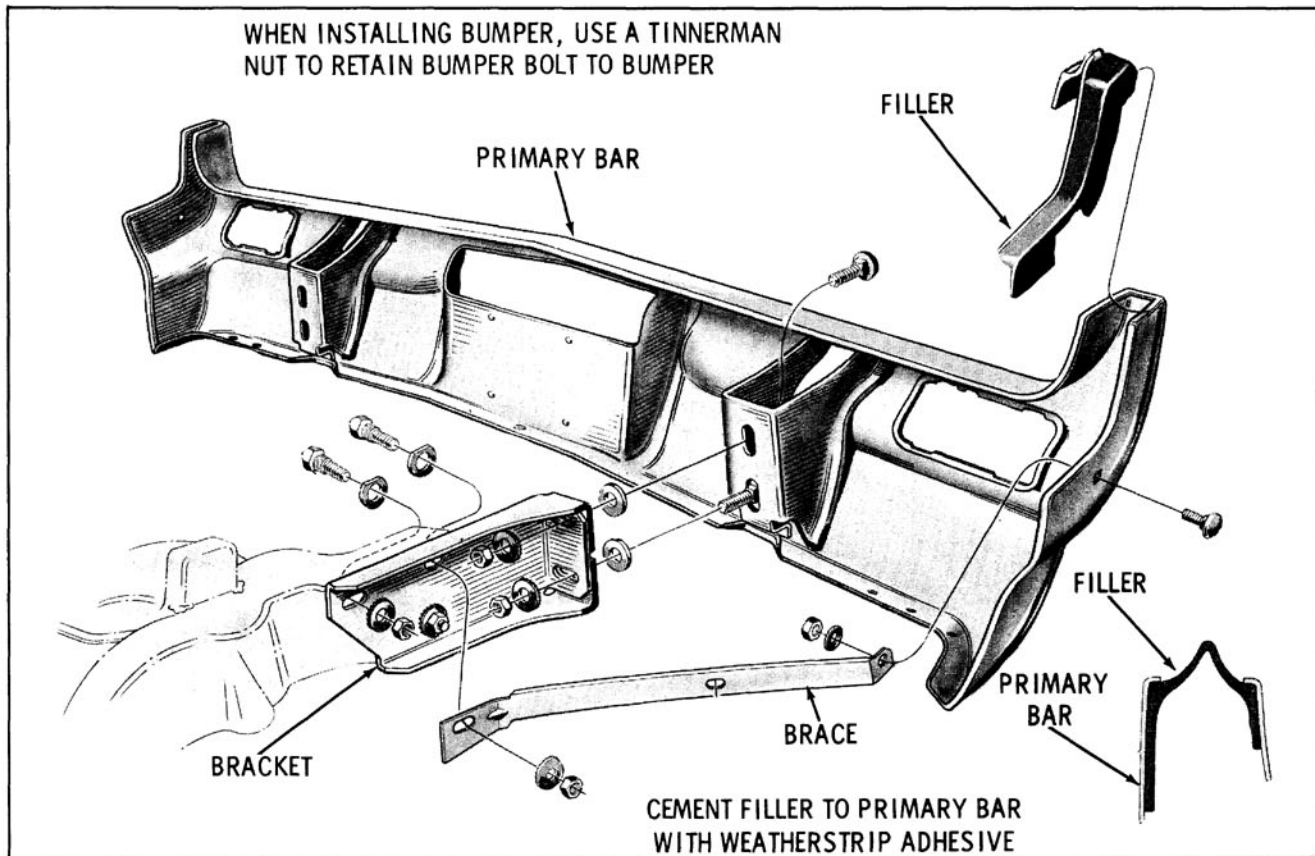


Fig. 15-4 Front Bumper

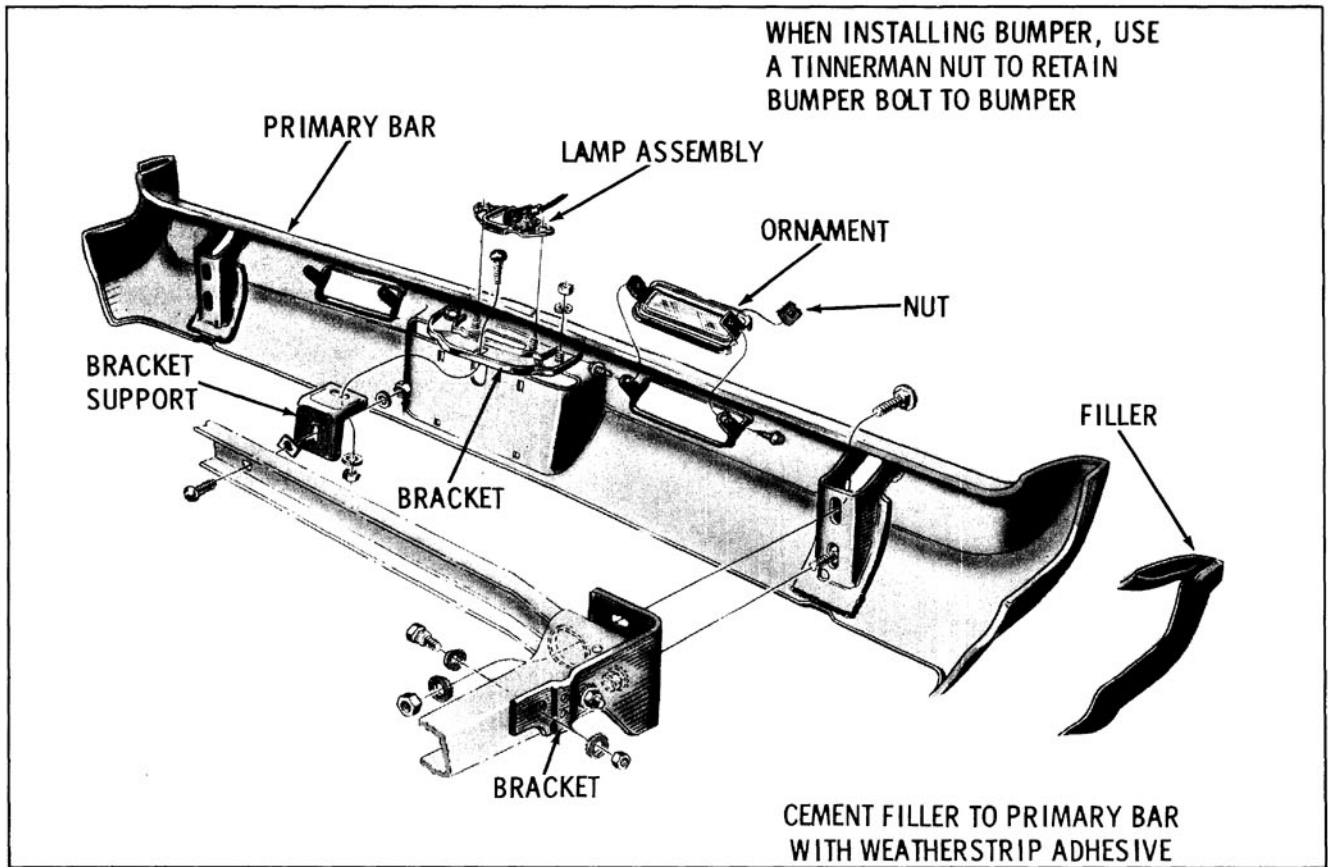


Fig. 15-5 Rear Bumper (33, 34, 35 & 36 Series, Except Fiesta)

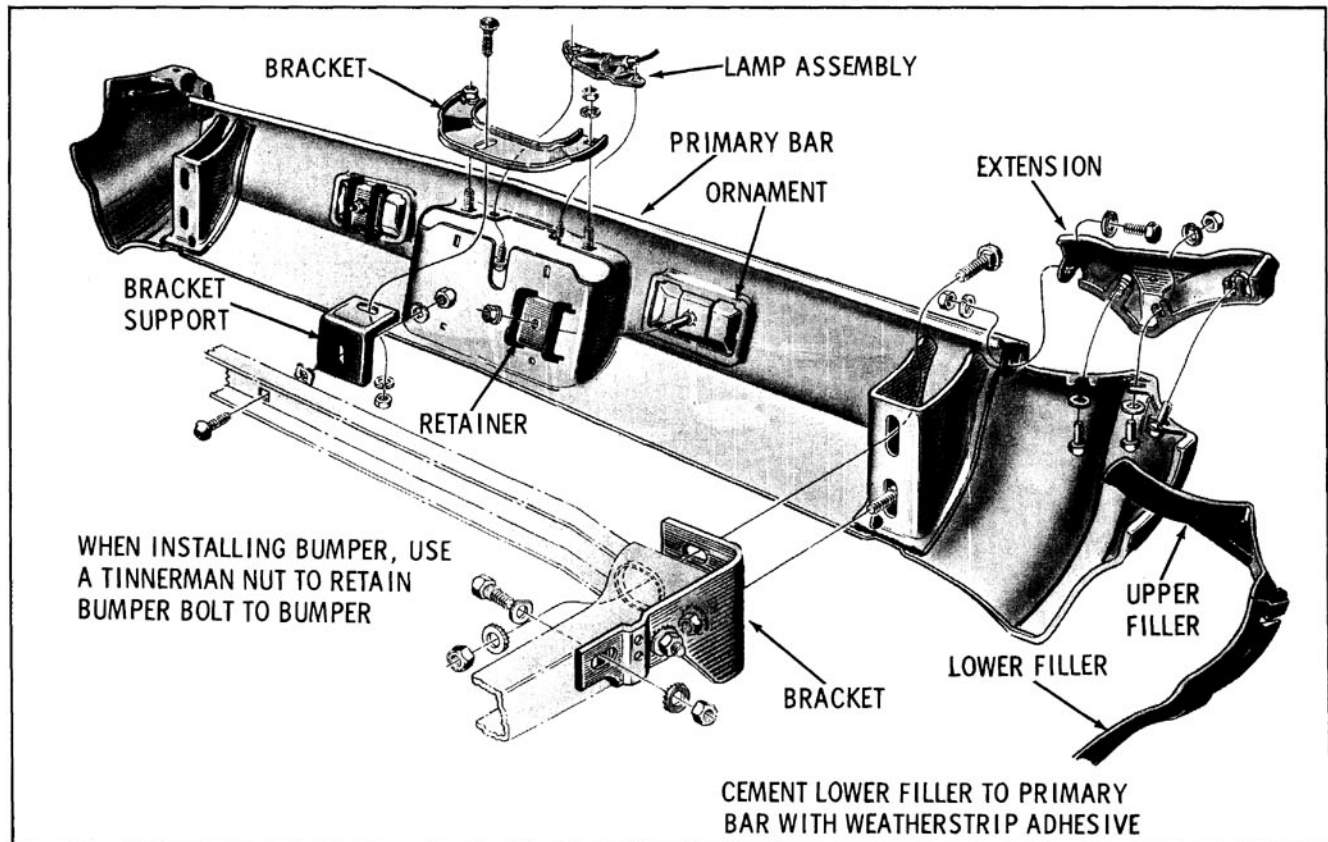


Fig. 15-6 Rear Bumper (38 & 39 Series)

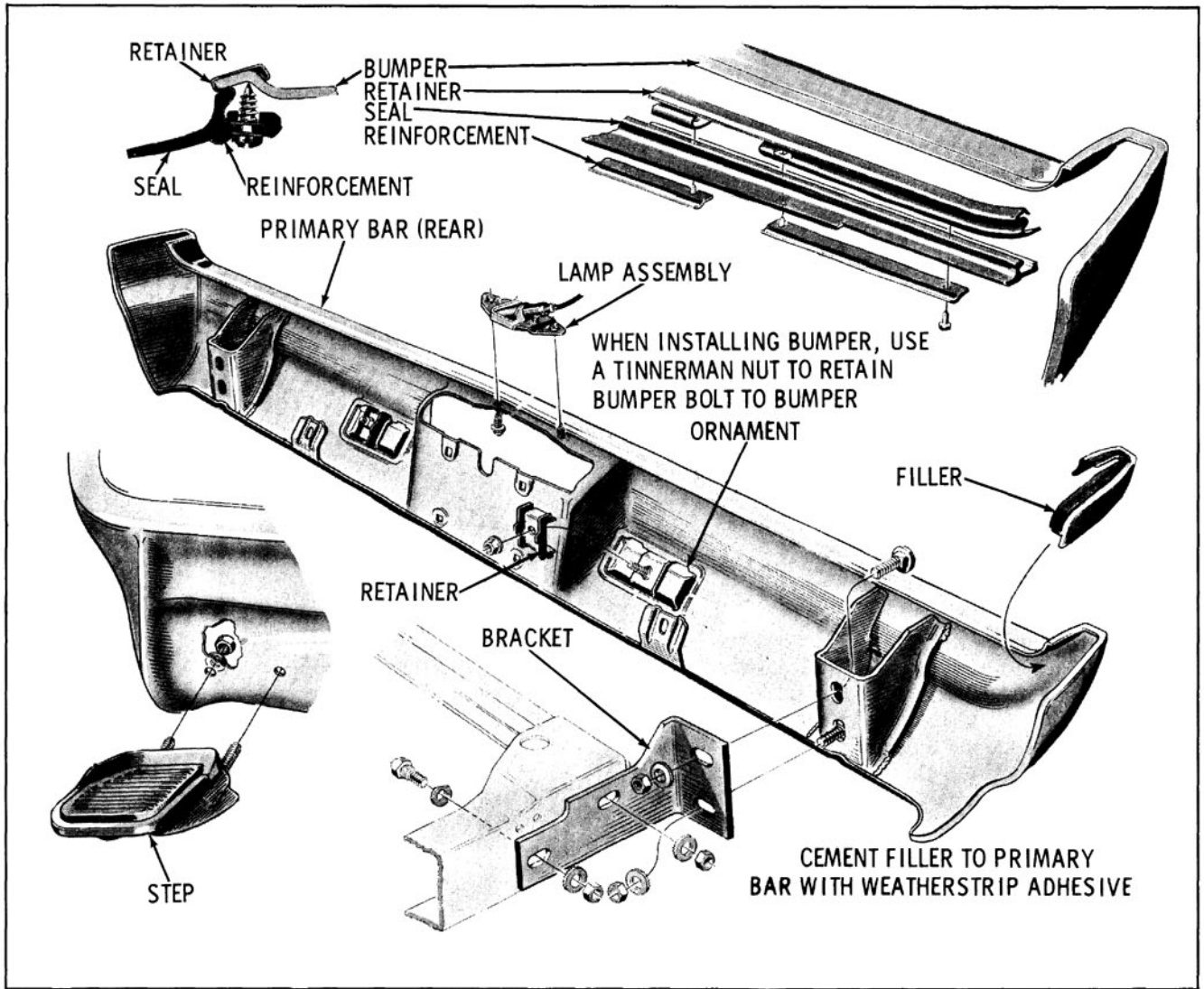


Fig. 15-7 Rear Bumper (3435 & 3445)

BUMPER TORQUE SPECIFICATIONS

NOTE: Specified torque is for installation of parts only. Checking of torque during inspection may be 15% below the specified minimum.

Application	Ft. Lbs.
FRONT BUMPER	
Extensions to Primary Bar	22 to 28
Reinforcement to Bracket	80 Min.
Bracket to Frame	80 Min.
Outer Support to Primary Bar	80 Min.
REAR BUMPER	
Back-up Light or Ornament to Bumper	6 Max.
Bumper to Bracket	80 Min.
Bracket to Frame	80 Min.
Step to Bumper (45 Style)	22 to 28
Center Support to Frame and Inner Support	30 to 40

CHASSIS SHEET METAL

HOOD ALIGNMENT

The hood hinge adjustment provides lateral and vertical alignment of the rear edge of the hood in relation to the cowl vent grille.

1. Raise hood and loosen hinge bracket to cowl bolts and the hinge bracket to fender bolt on each side of car. (Fig. 15-8) For fore or aft adjustment, loosen hood hinge to hood bolts.
2. Shift hood until clearances shown in Fig. 15-9 are obtained.
3. Tighten bolts and recheck alignment.

HOOD PILOT BOLT ADJUSTMENT

After aligning the hood hinges, the hood pilot bolts and rubber bumpers, located on the fender tie bar, should be adjusted. The pilot bolts position the hood as it is lowered. Vertical adjustment can be made by loosening the pilot bolt lock nuts and adjusting the threaded pilot bolts up or down for proper engagement with the latch assemblies. Lateral and fore and aft adjustment can be made by loosening the locknuts on the pilot bolts and moving the pilots right or left, or fore or aft. Front hood to fender clearances are 1/8" maximum. (Fig. 15-9)

The rubber bumpers must be adjusted for alignment of the forward edge of the hood with the forward edge of the fenders. Vertical adjustment can be made by loosening the locknuts on the rubber bumpers and turning bumpers either up or down.

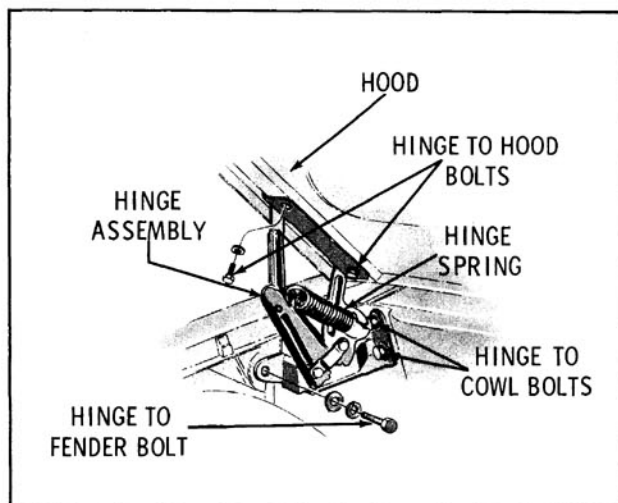


Fig. 15-8 Hood Hinge Attachment

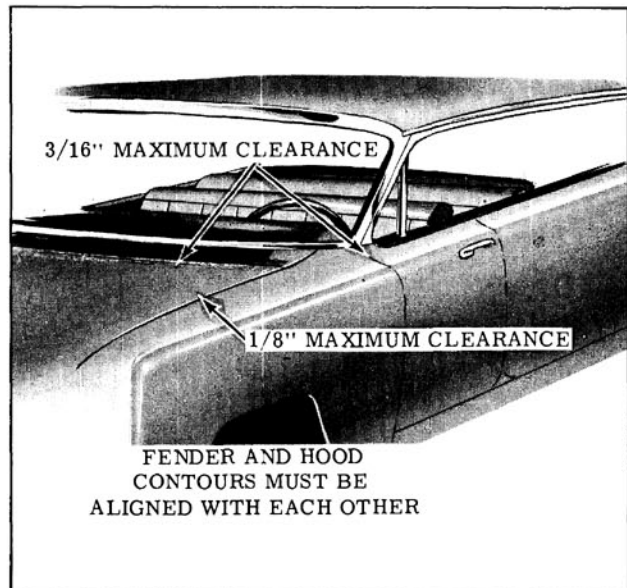


Fig. 15-9 Sheet Metal Clearances

HOOD ASSEMBLY REMOVE AND INSTALL

1. Raise hood and install protective coverings over cowl and fender areas to prevent damage to paint and moldings when removing or installing hood.
2. Disconnect underhood lamp wire.
3. Remove hinge to hood bolts on each side of hood. (Fig. 15-8)
4. While supporting hood, remove mounting stud nuts on each side of hood.
5. Remove hood assembly.

To install, reverse removal procedure and check hood alignment.

If necessary to install a new insulator, apply cement to within two inches of outer edges of insulator and install with smooth side exposed.

NOTE: The mounting holes in the hood hinge bracket are enlarged to provide a slight fore and aft adjustment of the hood panel.

HOOD HINGE SPRING REMOVE AND INSTALL

1. Raise hood just enough to place Tool J-6506-1 over the spring. (Fig. 15-10)
2. Raise hood and remove spring.

NOTE: When installing new spring, a suitable expander must be used to stretch the

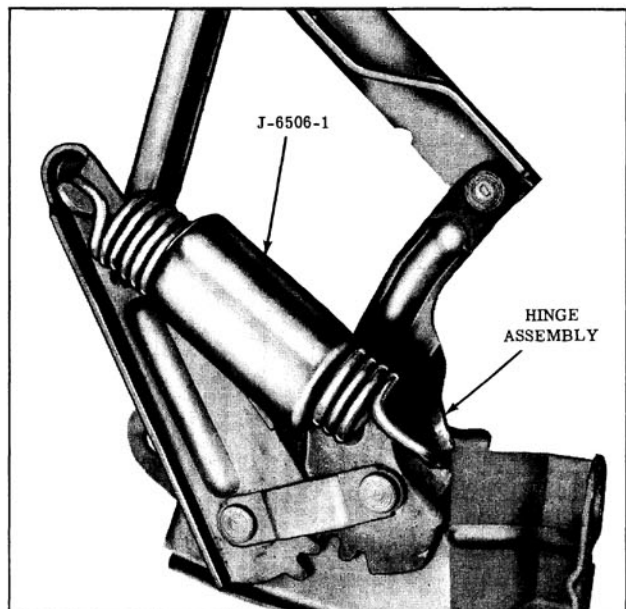


Fig. 15-10 Hinge Spring Tool in Position

spring so that Tool J-6506-1 can be placed over the spring. (Fig. 15-11)

3. Position spring (with tool in place) on hinge.
4. Lower hood slightly to expand spring, then remove Tool J-6506-1.

HOOD HINGE REMOVE AND INSTALL (With Spring Removed)

1. Mark the hinge outline on the cowl to facilitate alignment on installation.
2. While supporting hood, remove the hinge to hood bolts and nut, then remove the hinge to cowl and fender bolts.

To install, apply auto body caulking compound around cowl bolt holes and reverse removal procedure. Align hood after hinge is installed.

HOOD MOLDINGS AND LETTERS

The hood moldings and letters are attached by self-threading nuts which are accessible from the underside of the hood.

COWL VENT GRILLE

REMOVE AND INSTALL

1. Remove windshield wiper arms.
2. On all series except 33 and 34, remove wiper

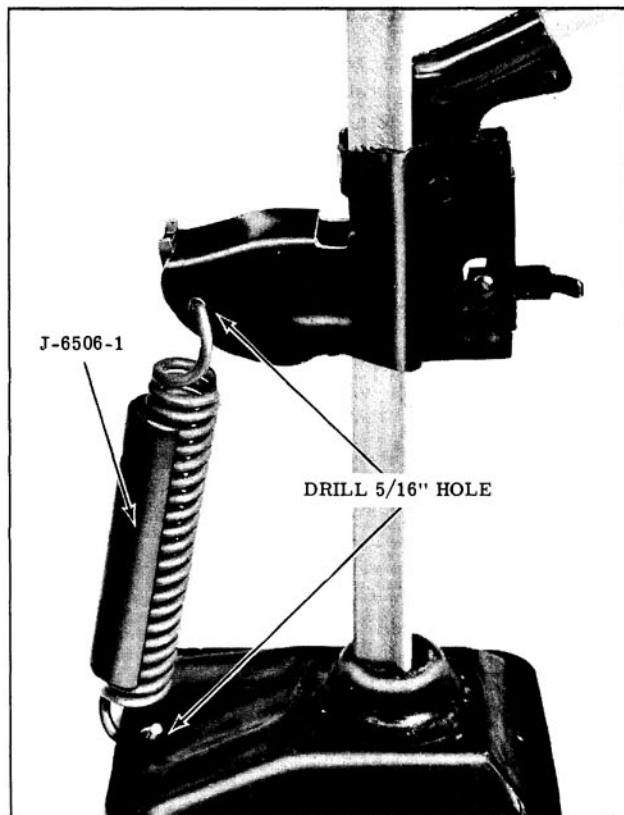


Fig. 15-11 Installing Hinge Spring Tool

transmission to escutcheon nut and escutcheon with Tool J-6592-02.

3. Raise hood and remove five cowl vent grille to cowl screws.
4. Remove cowl vent grille.

To install, apply a medium-bodied sealer around vent grille attaching screw holes and vent grille tab slots in cowl, also be sure anti-squeak tape is installed on both ends of the grille. Then, carefully slide grille rearward to engage rear edge of grille between windshield lower reveal moldings and molding attaching clips and reverse removal procedure.

FENDER

REMOVAL (Fig. 15-12)

Before removing and installing a fender, painted areas and moldings adjacent to the fender should be covered for protection against scratches. When installing a fender, it is important that all anti-squeaks and seals be reinstalled. If the anti-squeaks and seals are damaged, they should be replaced.

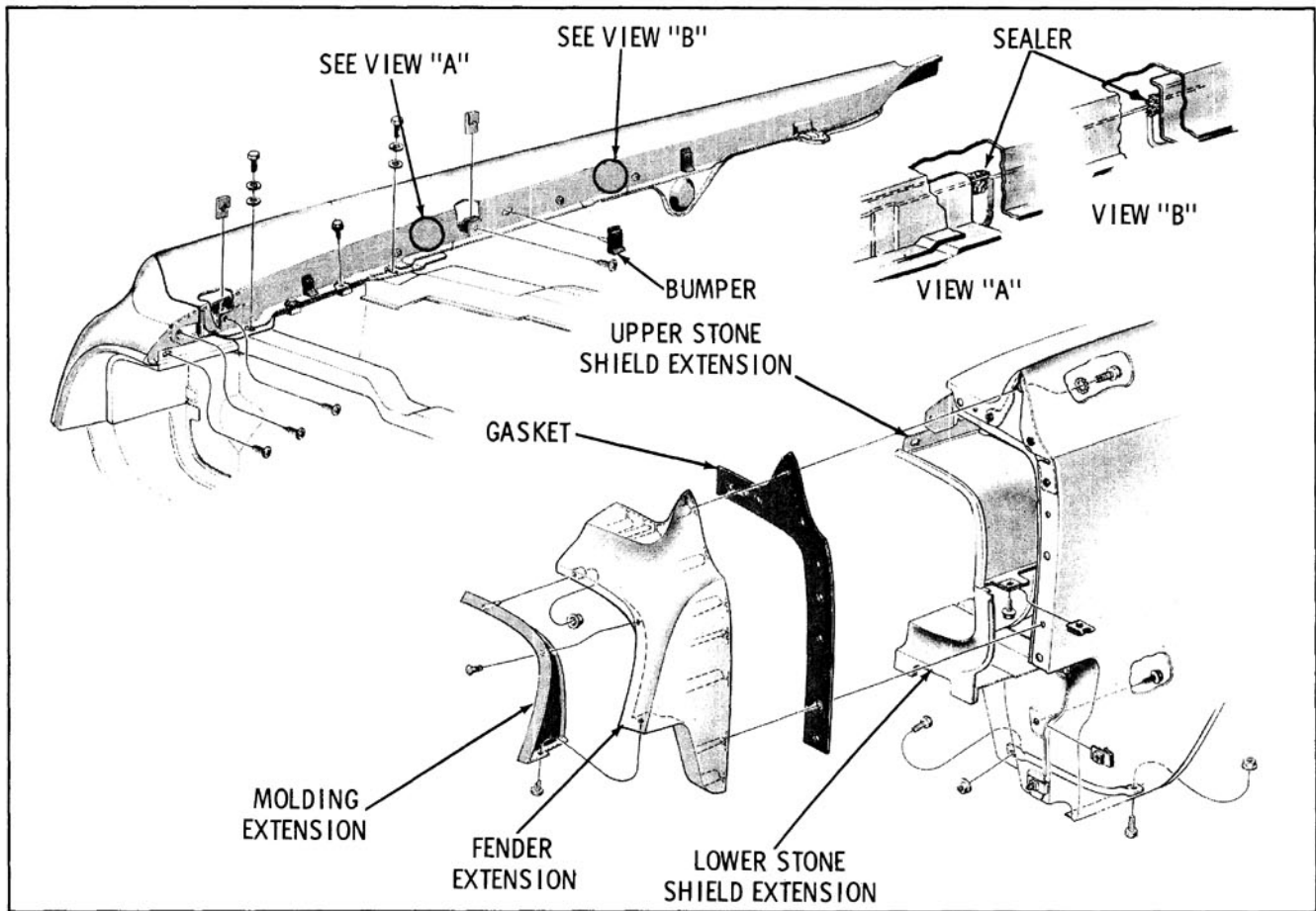


Fig. 15-12 Fender Attachment

FENDER ALIGNMENT

The holes in the fenders are enlarged to permit adjustment. When making installation, fender

should first be placed firmly into position, and before replacing any bolts, make sure the rear edge of the fender matches the contour of the door. (This adjustment is made by positioning fender in or out at upper and lower attachment by using shims as required.) After this contour adjustment, install and tighten all fender bolts just enough to permit shifting as required. After fender is properly positioned tighten all attaching screws and bolts.

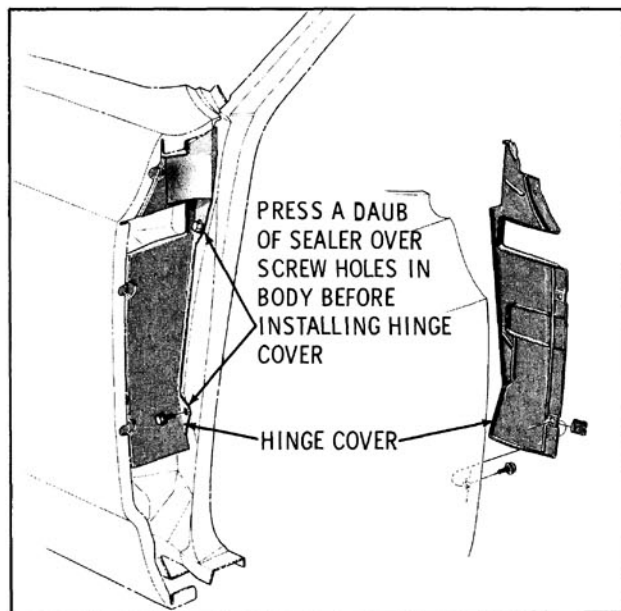


Fig. 15-13 Hinge Cover

FENDER FILLER PLATE
(Figs. 15-14, 15-15 and 15-16)

All necessary wiring and parts should be disconnected or removed before removing the fender filler plate. It is important that all seals and anti-squeaks be checked and replaced, if necessary, before installing.

When removing a fender, the baffle assembly unless damaged, should be left attached to the fender filler plate. If the baffle has been damaged and a new fender and baffle plate is to be installed, alignment of mounting holes is made easier by attaching the baffle to the filler plate first. After the fender has been installed, the baffle plate can be bolted to the fender.

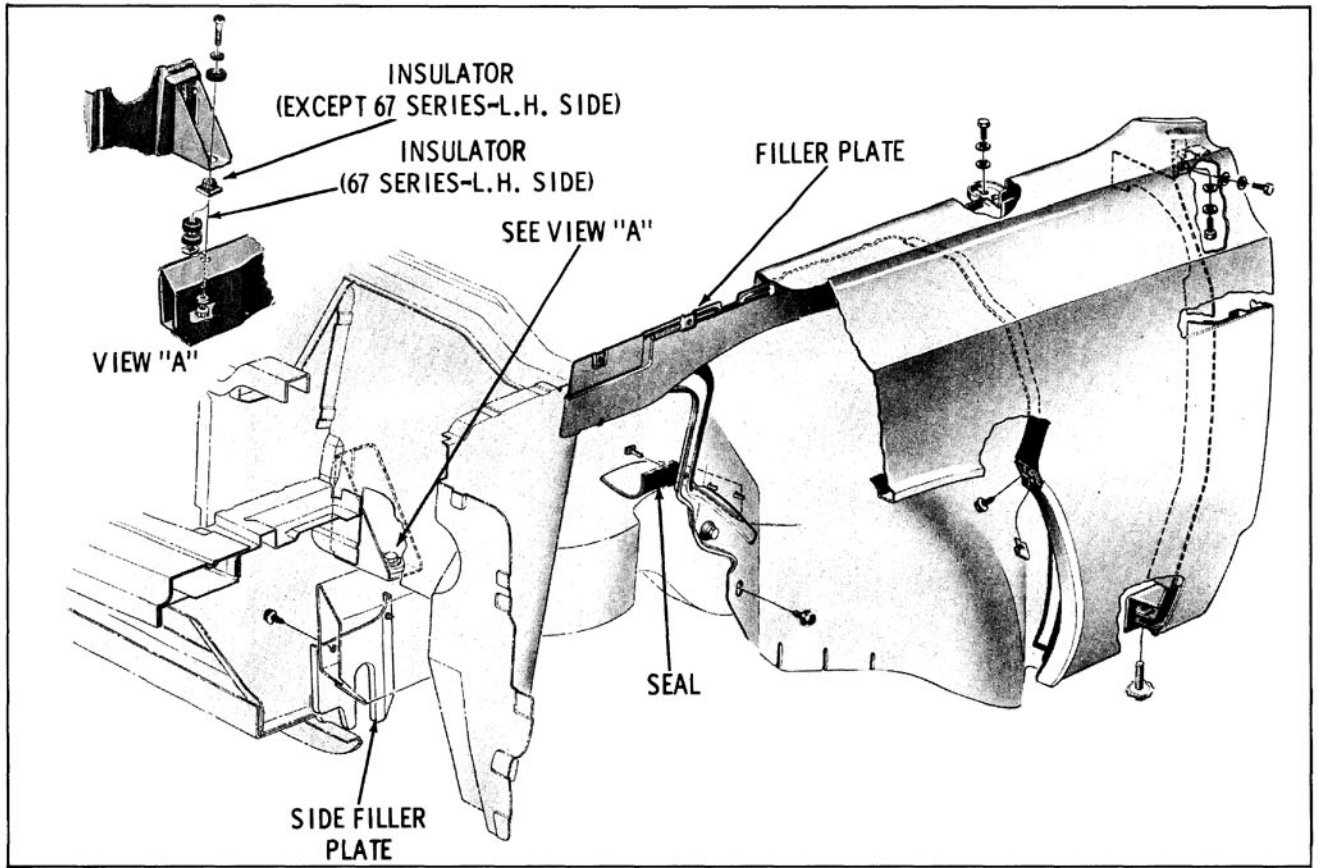


Fig. 15-14 Fender Filler Plate

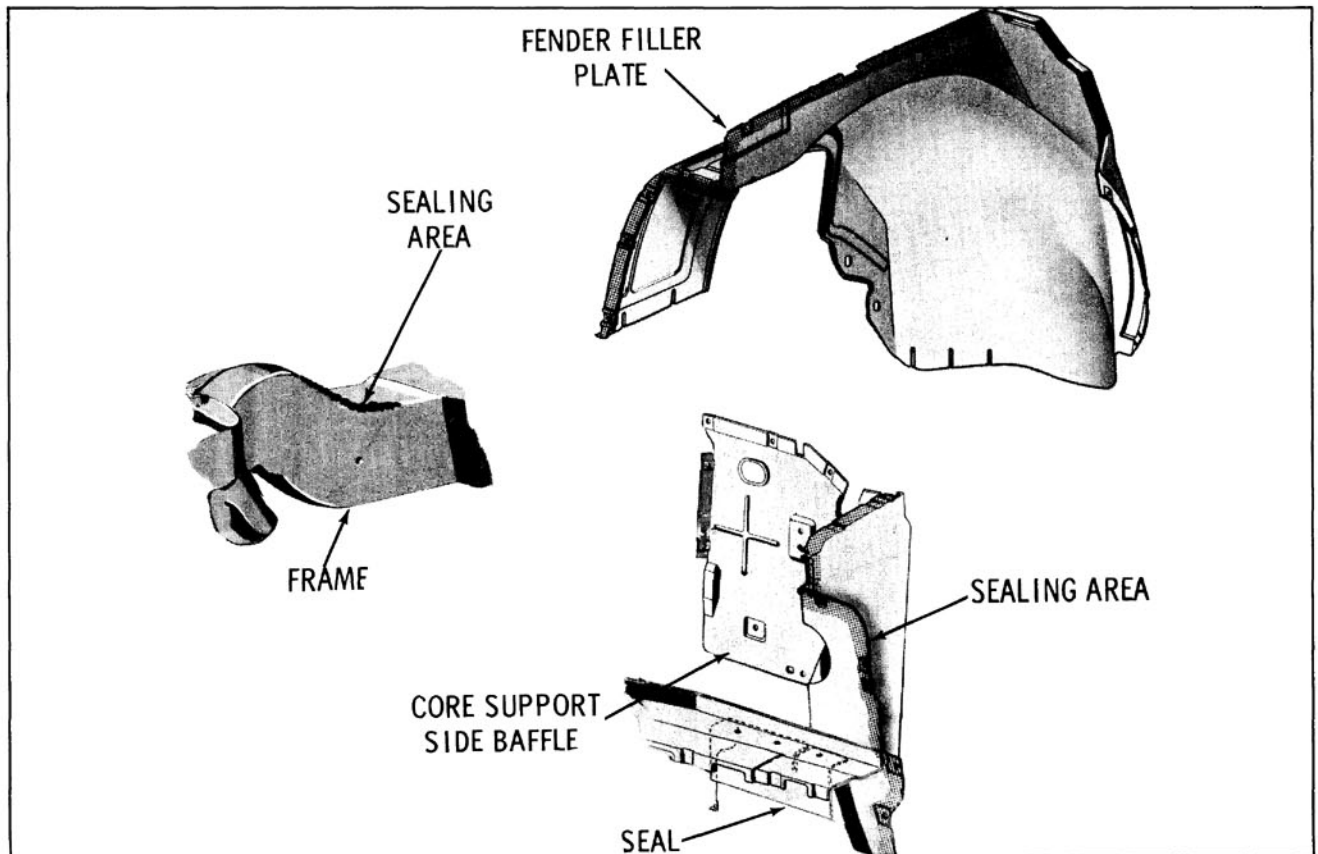


Fig. 15-15 Fender Filler Plate

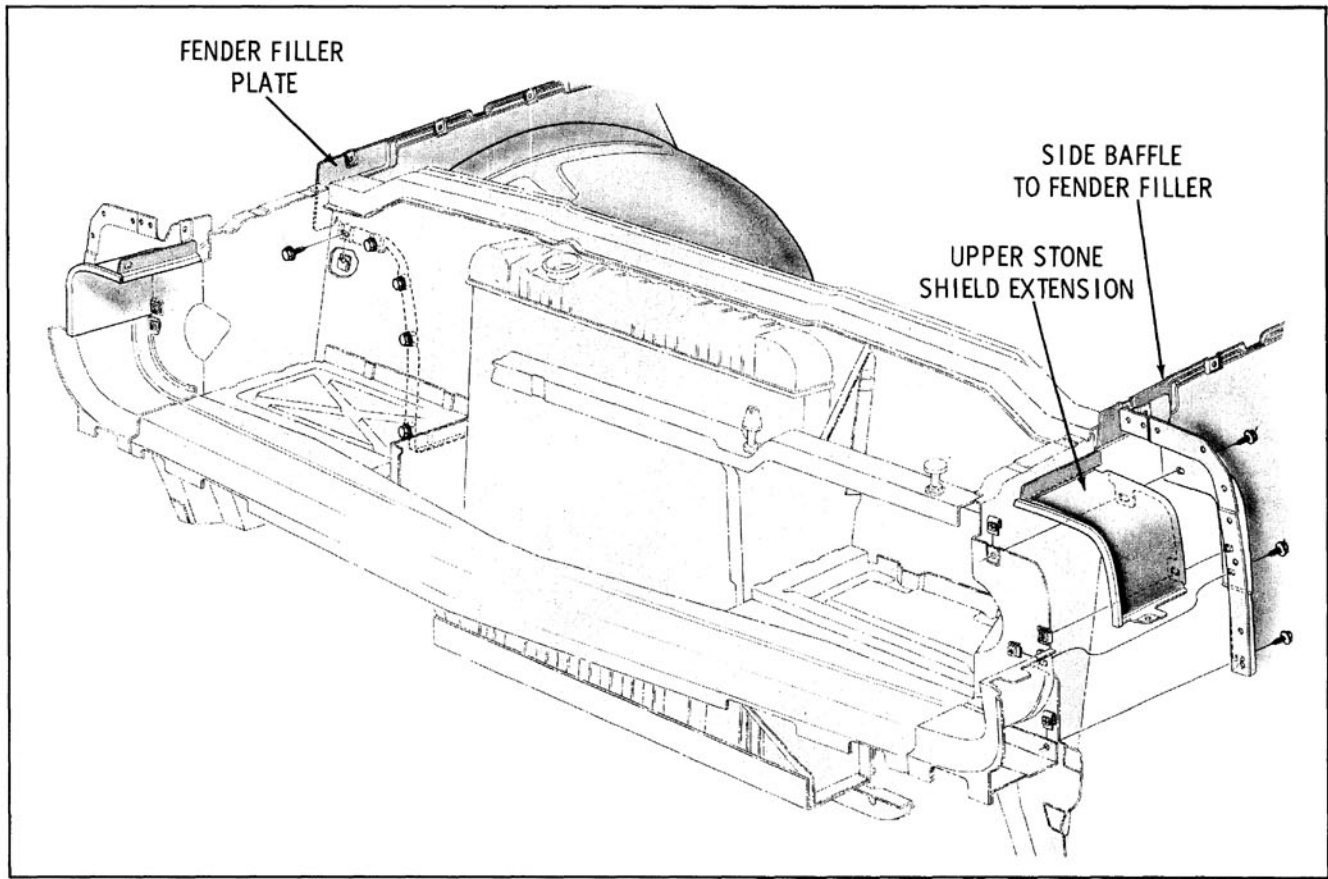


Fig. 15-16 Fender Filler Plate

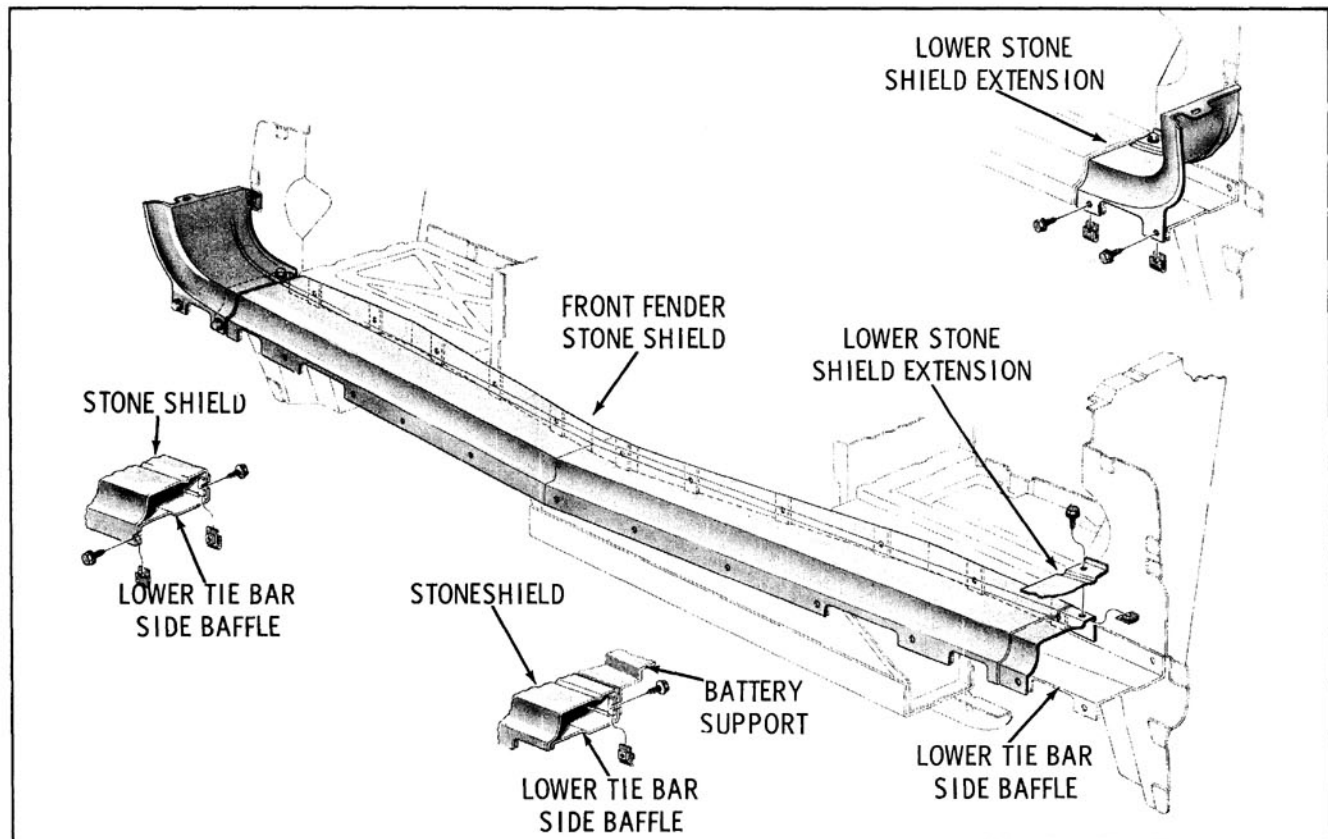


Fig. 15-17 Stone Shield Attachment

Fender Moldings and Script
(Figs. 15-18, 15-19, 15-20, 15-21 and 15-22)

To remove the fender side molding(s), it is necessary to loosen the fender at the cowl, dis-

connect it at the lower bracket then move fender outward to reach the rear molding attaching nuts.

NOTE: Brush a thick application of Sealer over studs and nuts of moldings and scripts after assembly.

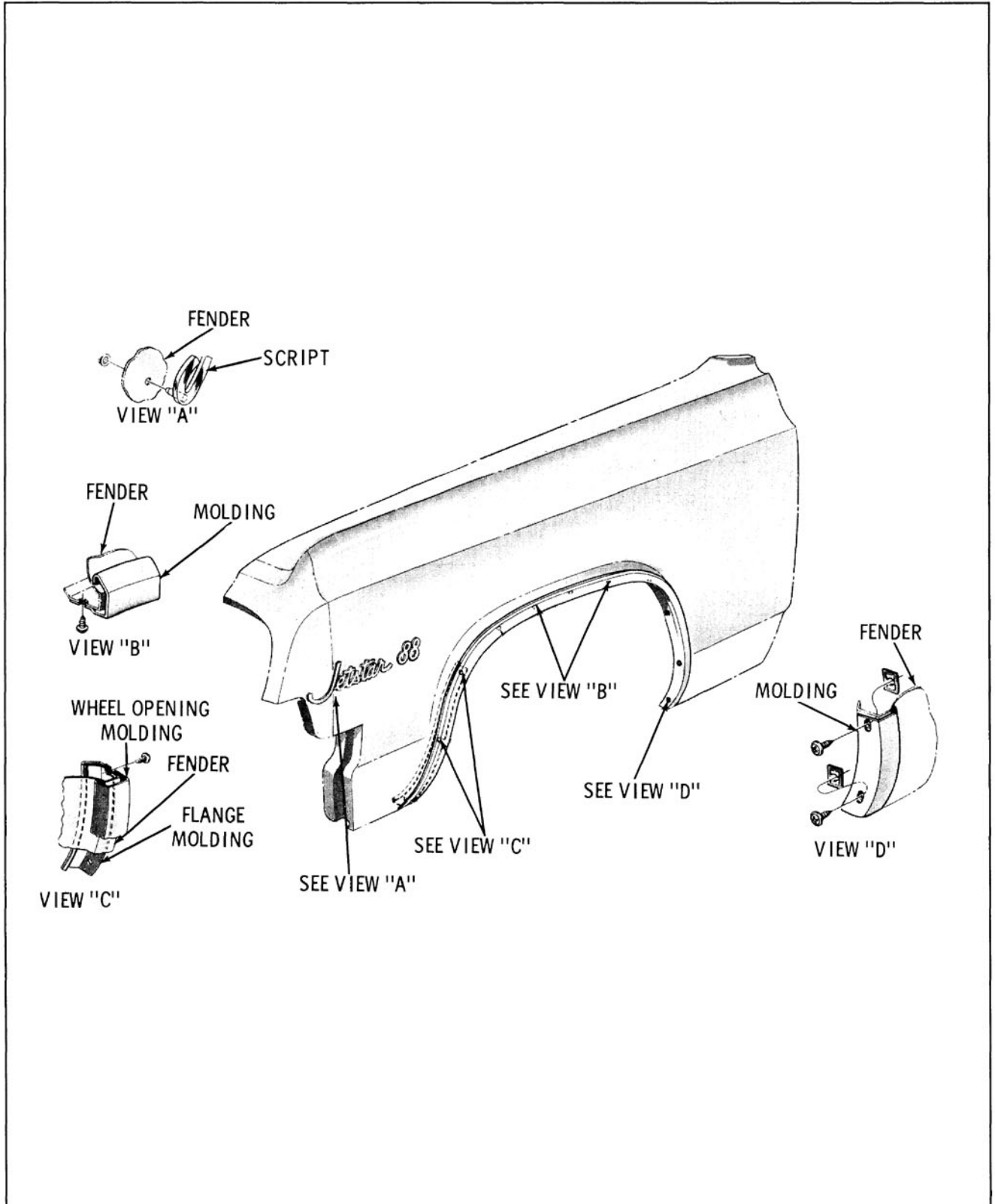


Fig. 15-18 Fender Moldings (33 Series)

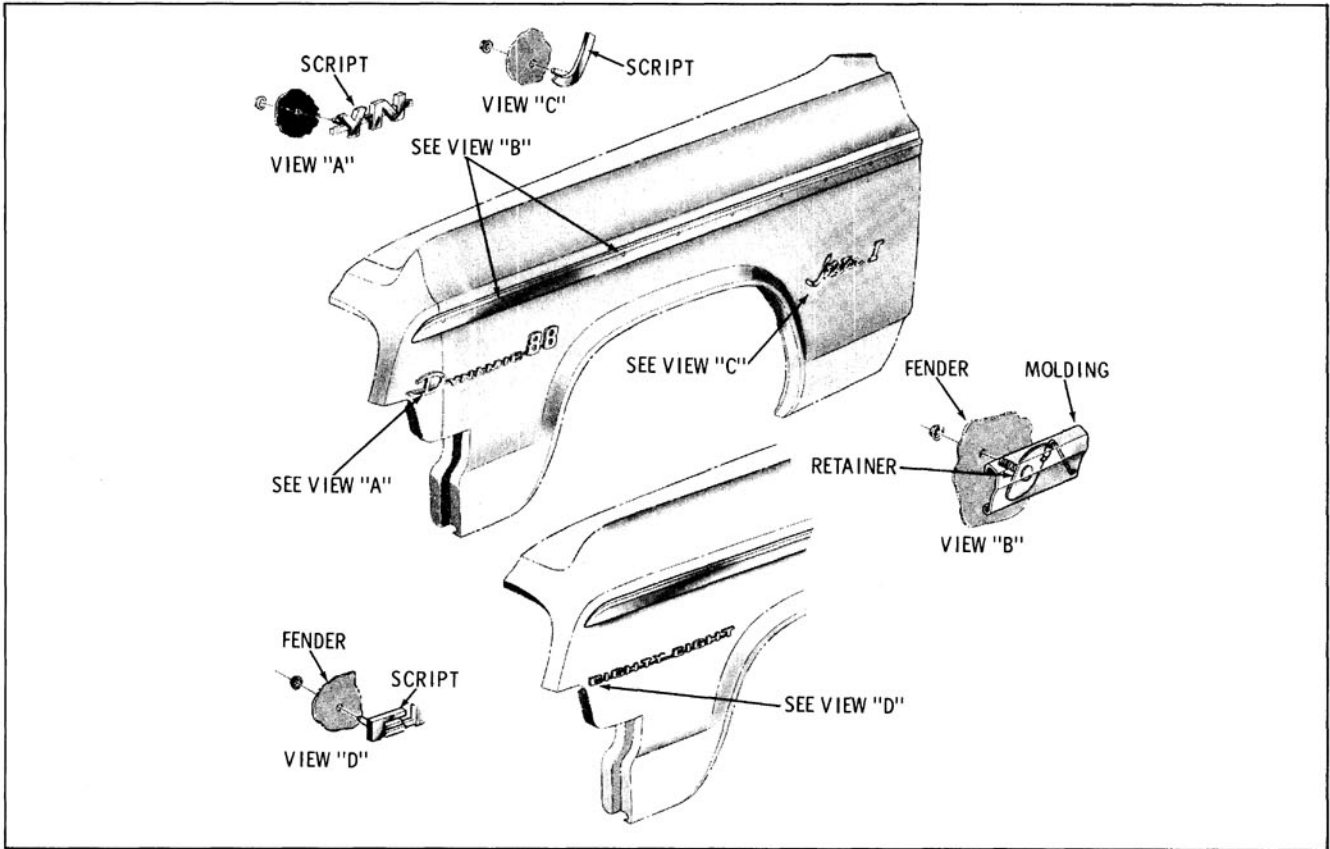


Fig. 15-19 Fender Moldings (34 Series)

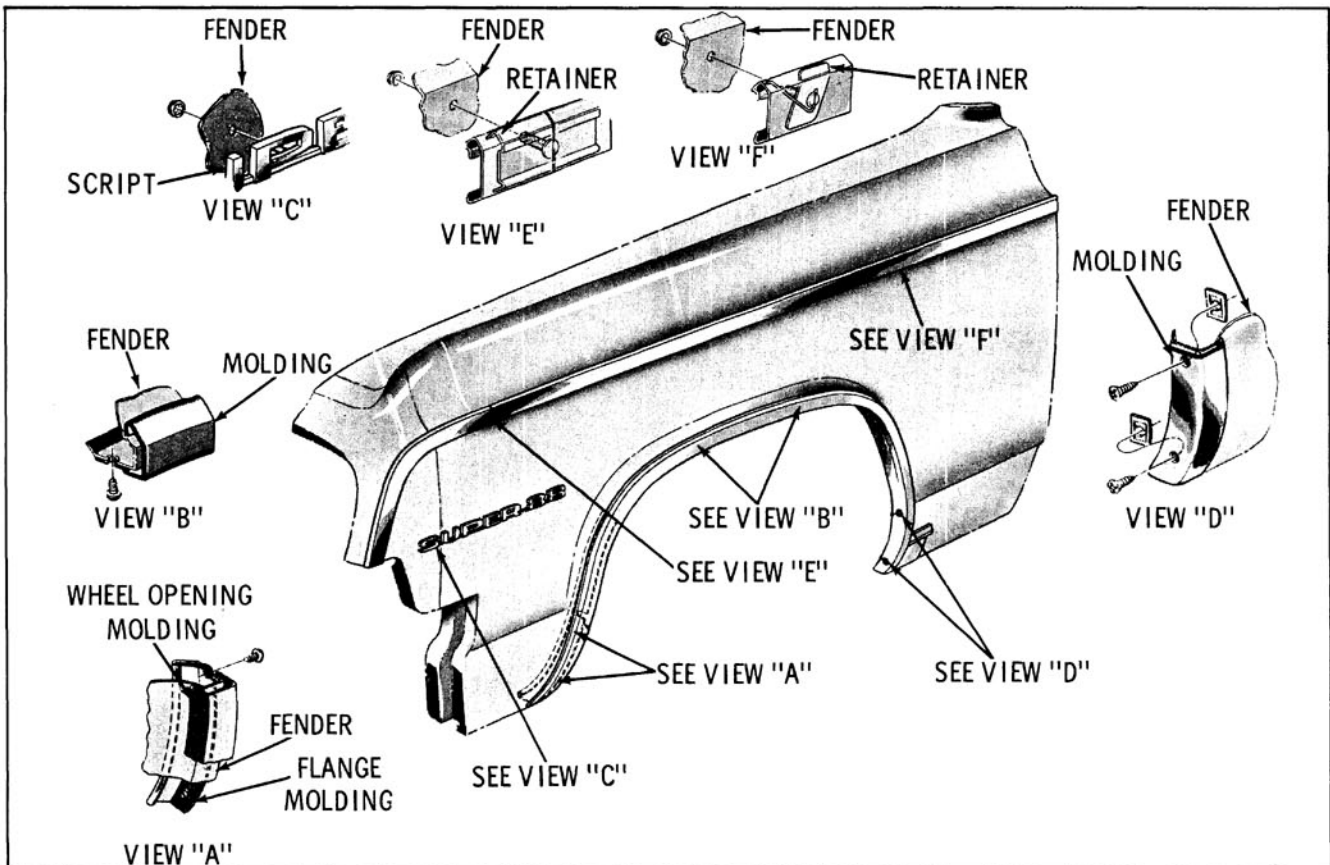


Fig. 15-20 Fender Moldings (35 Series)

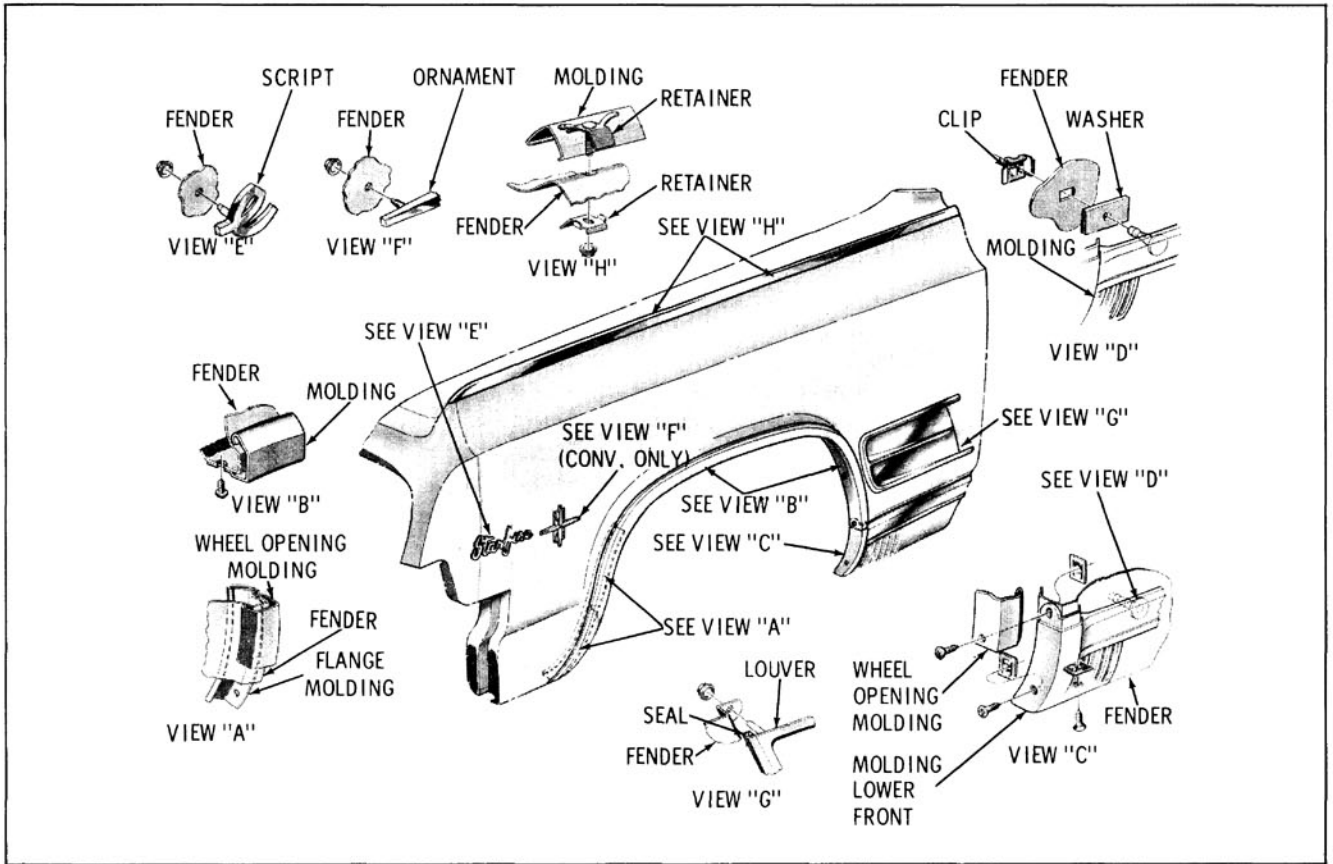


Fig. 15-21 Fender Moldings (36 Series)

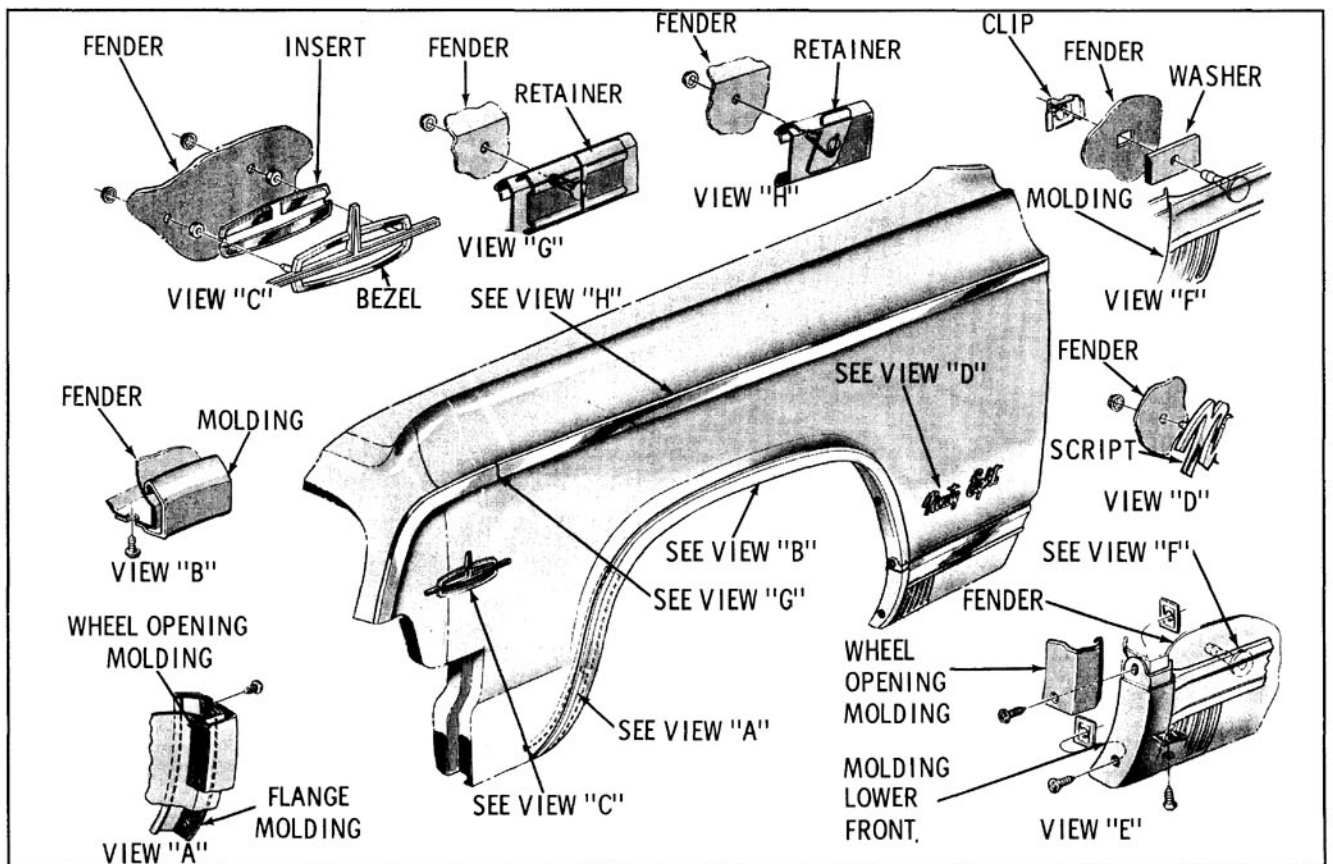


Fig. 15-22 Fender Moldings (38 & 39 Series)

RADIATOR SUPPORT AND BAFFLES

For construction and assembly details refer to Figs. 15-23, 15-24 and 15-25.

GRILLE ASSEMBLY

HEADLAMP HOUSINGS
(Figs. 15-26, 15-27, and 15-28)

The headlamp housings are retained by self-tapping sheet metal screws. To remove housing it is not necessary to remove the headlamp assemblies.

To install, reverse removal procedure. Check headlamp aim and adjust if necessary.

GRILLE (Figs. 15-26, 15-27 and 15-28)

The grilles are of one piece construction held in place by bolts through five grille brackets. (Fig. 15-29)

ROCKER PANEL MOLDING (Fig. 15-30)

The moldings are retained by screws and clips which are easily accessible.

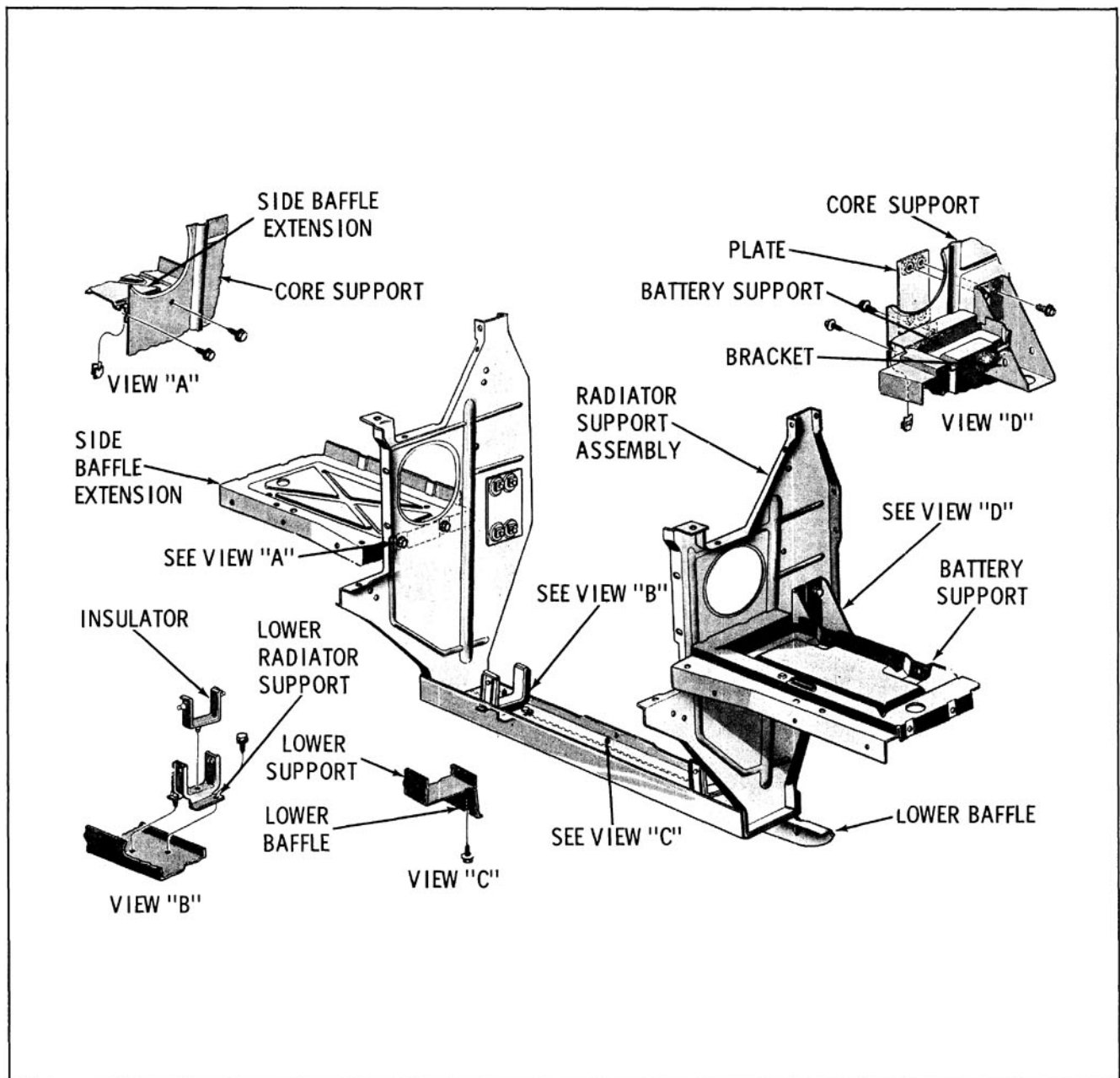


Fig. 15-23 Radiator Support

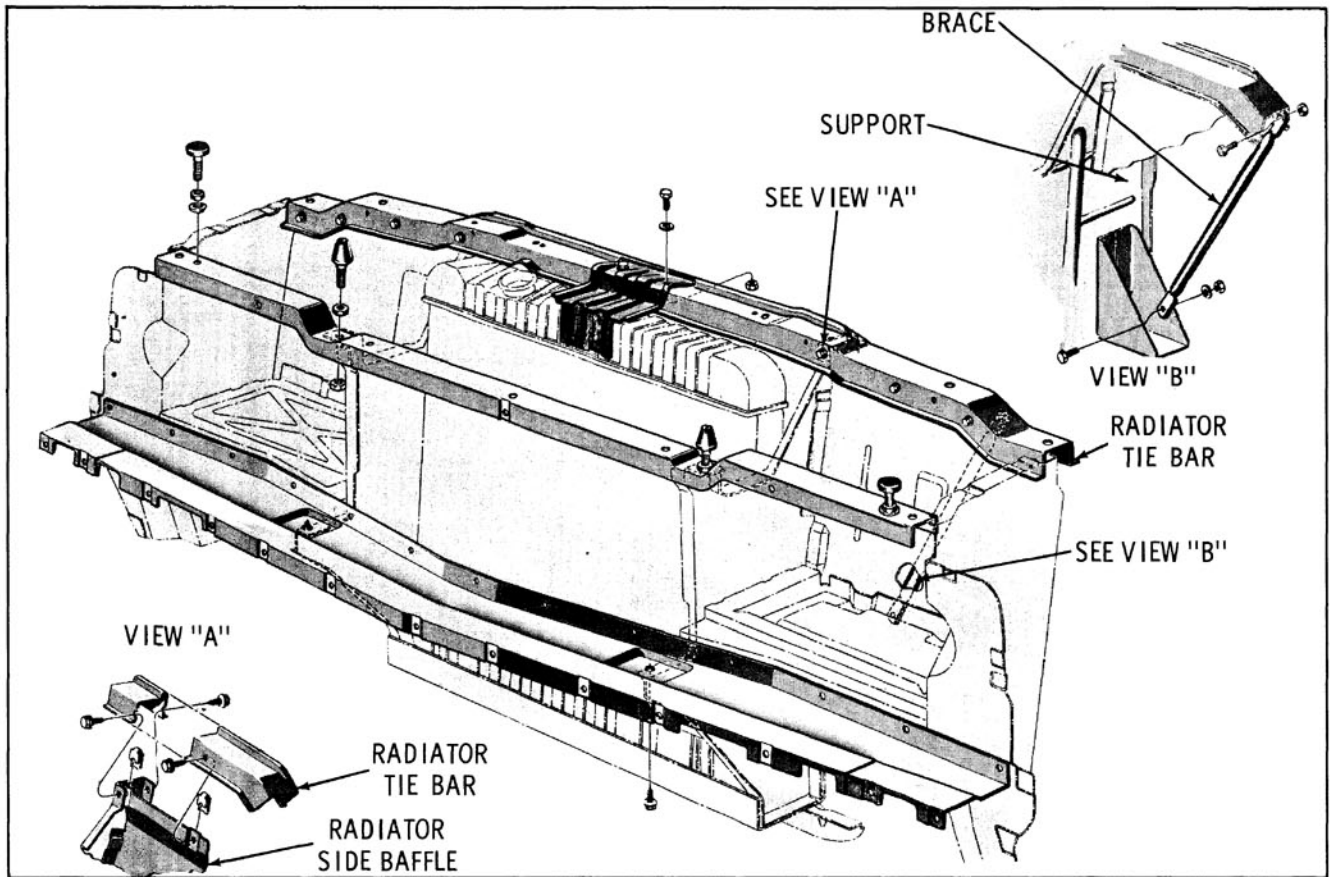


Fig. 15-24 Radiator Support Baffles and Tie Bars

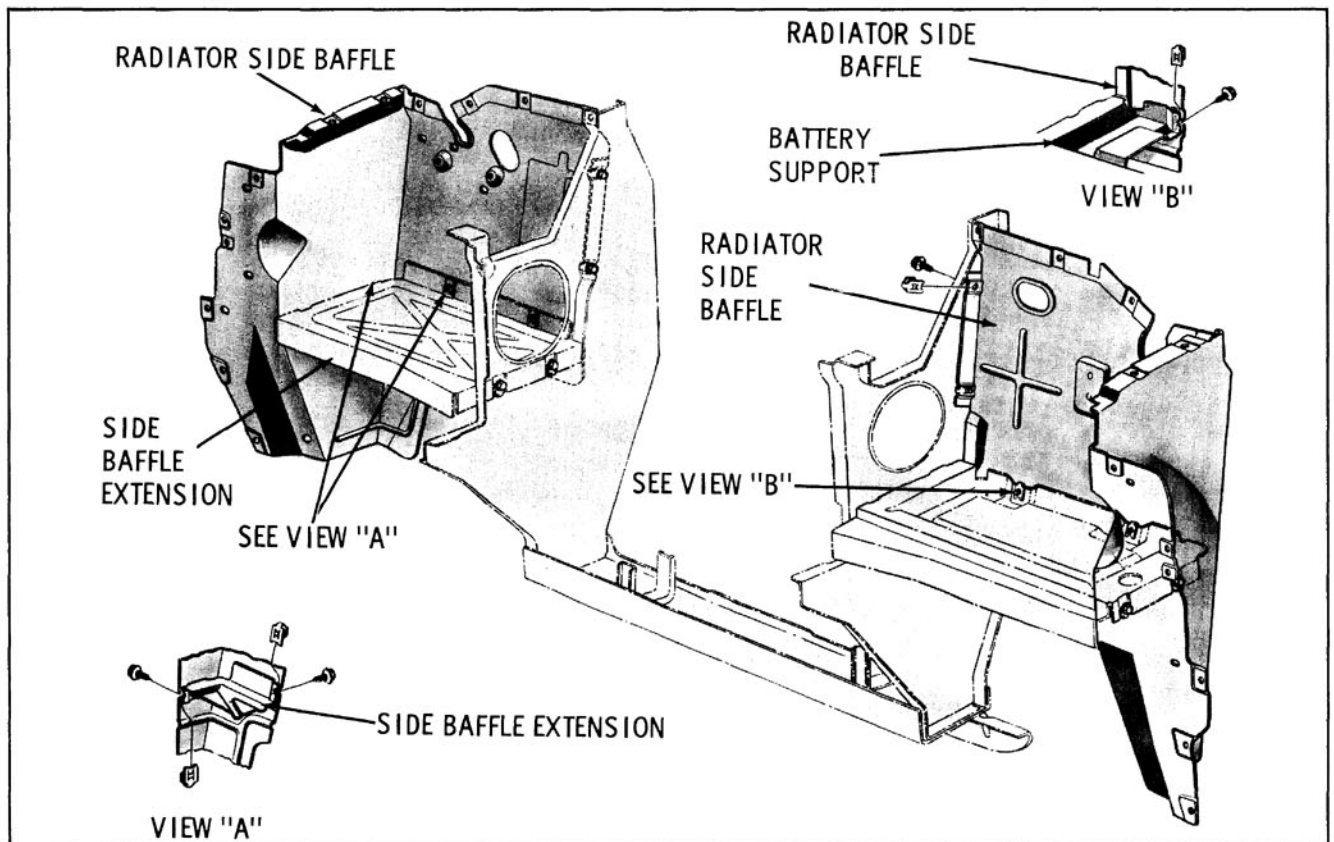


Fig. 15-25 Radiator Side Baffles

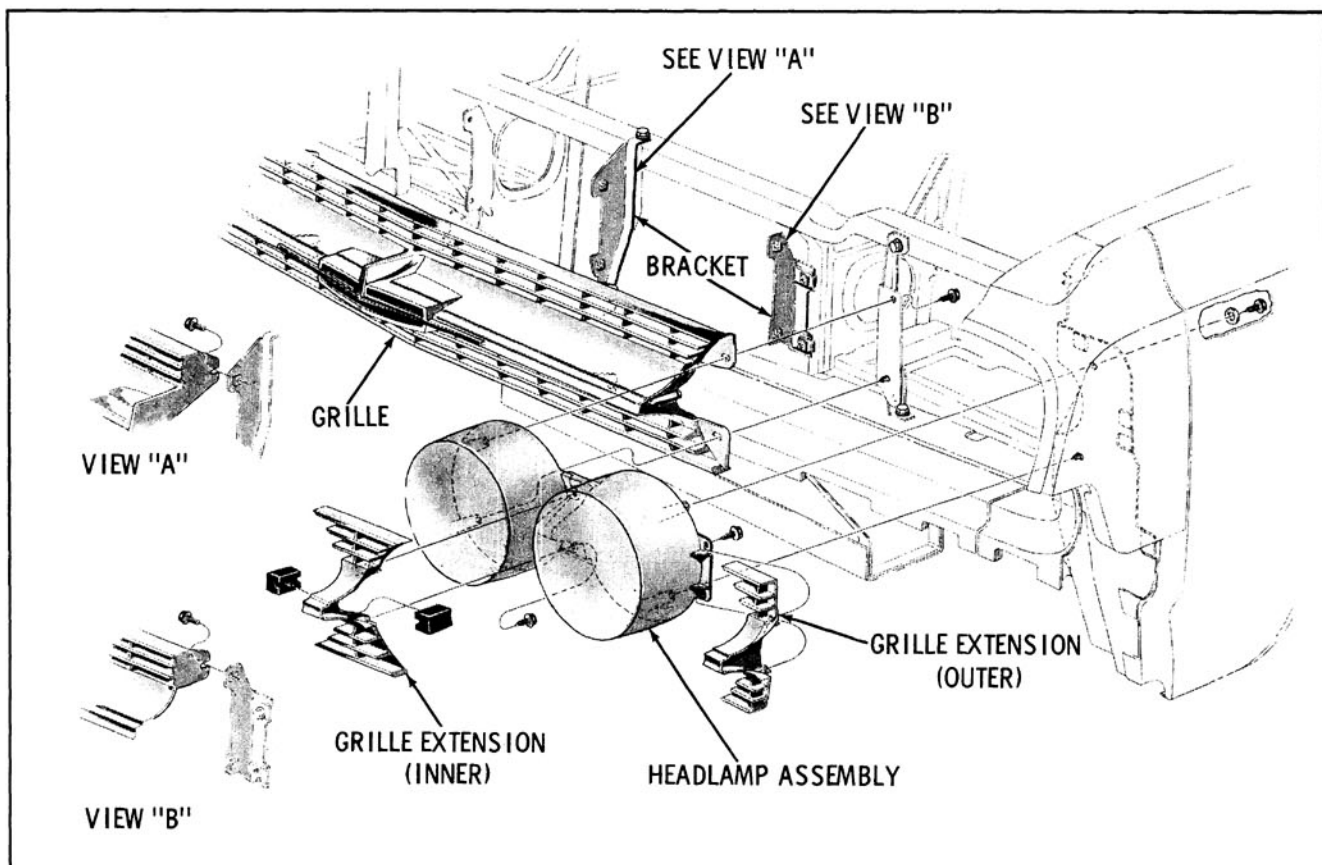


Fig. 15-26 Grille (33, 34 & 35 Series)

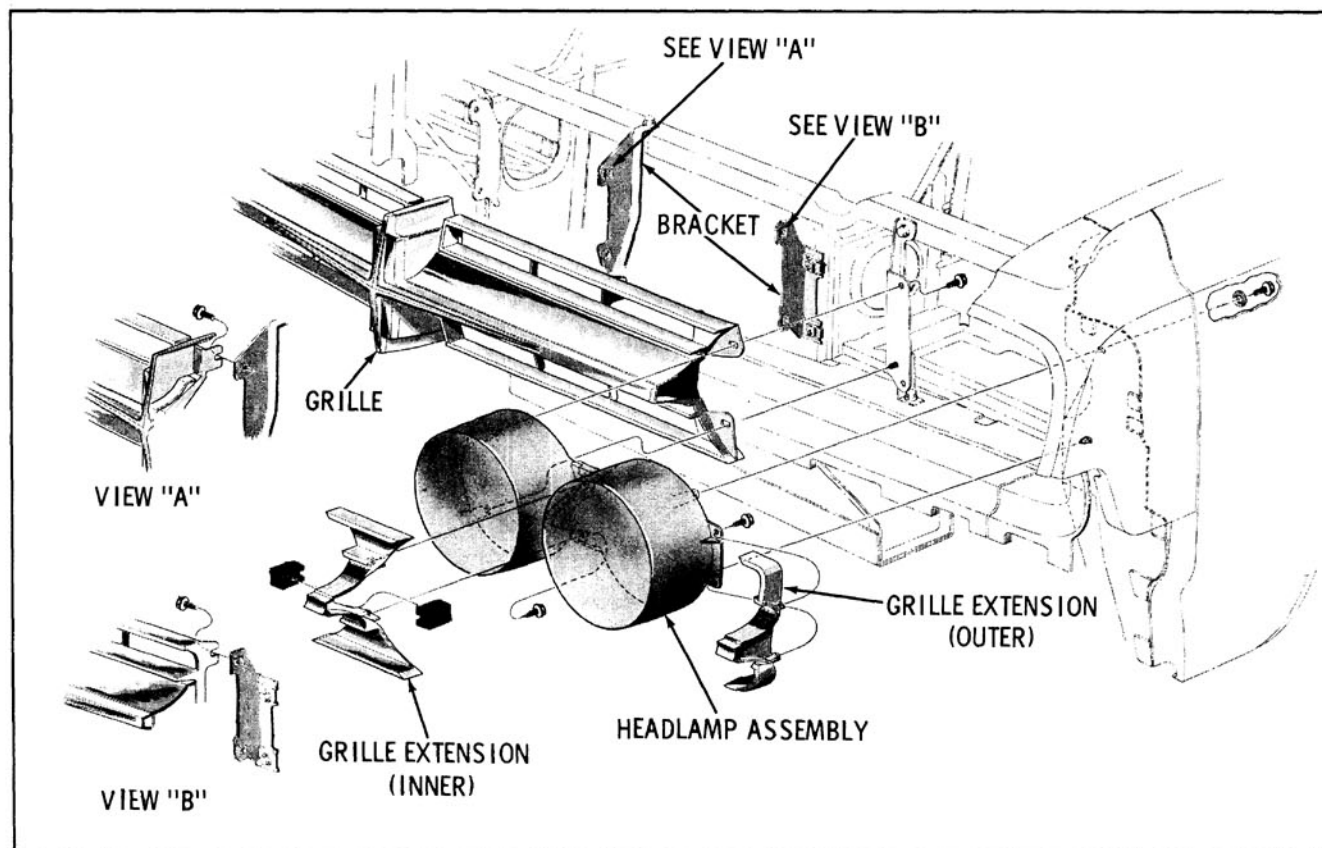


Fig. 15-27 Grille (36 Series)

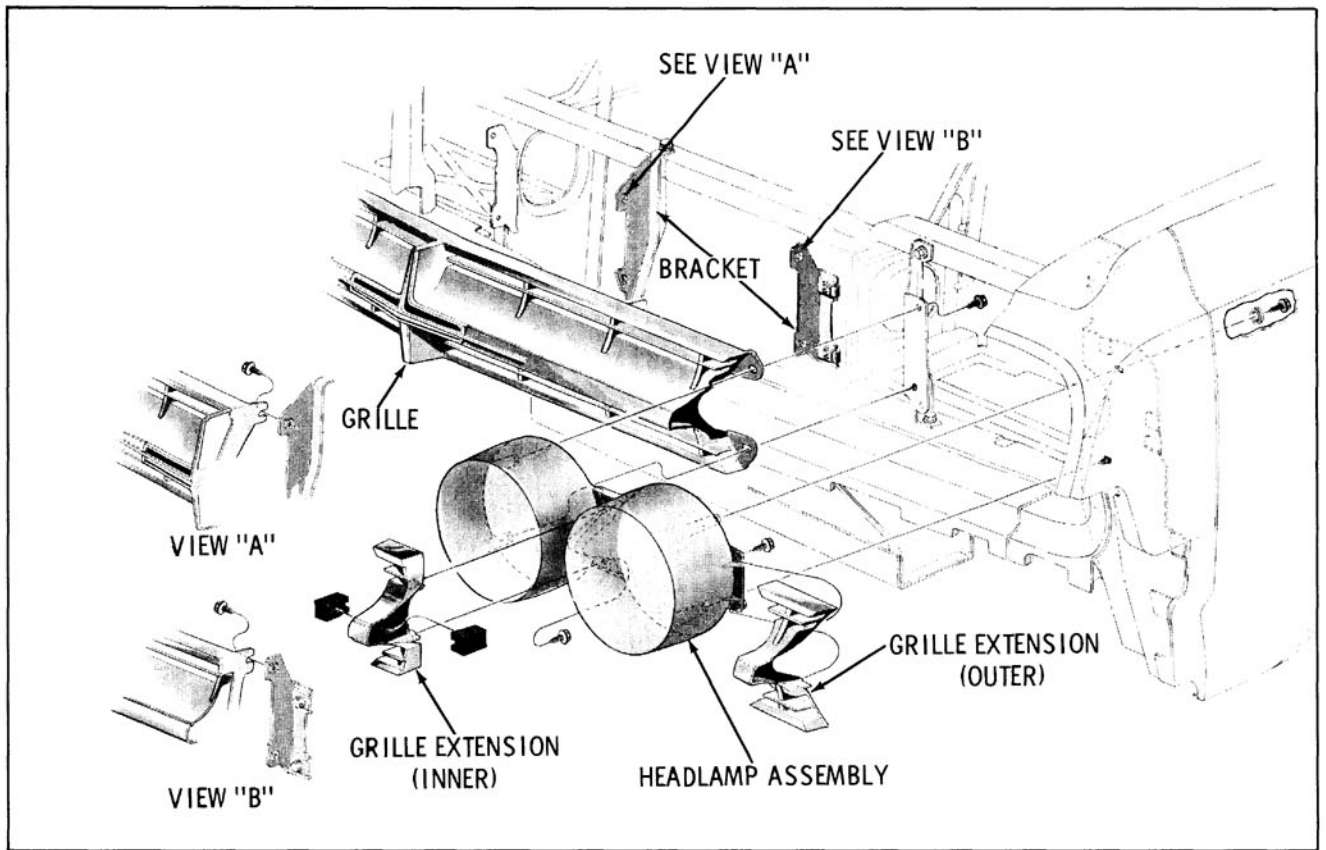


Fig. 15-28 Grille (38 & 39 Series)

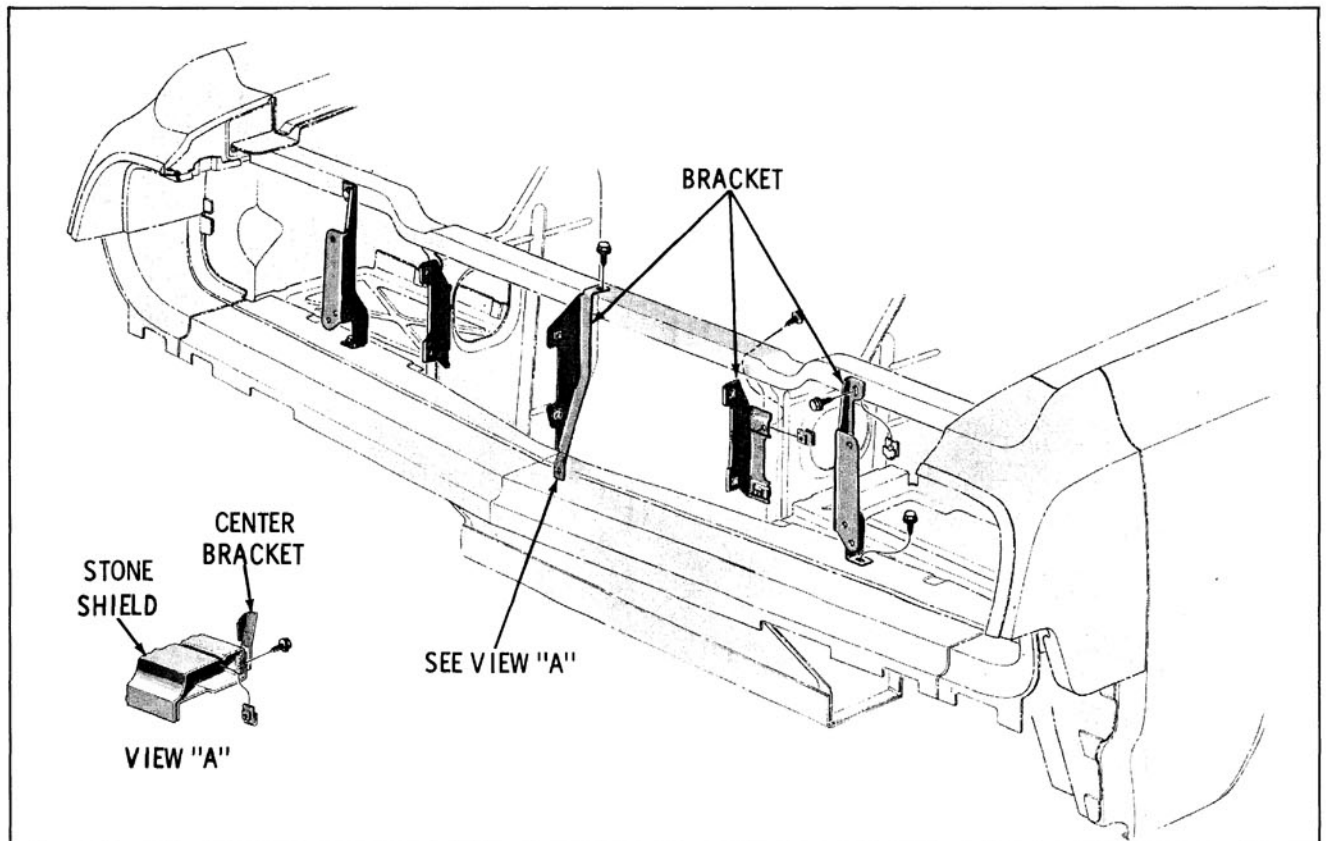


Fig. 15-29 Grille Brackets

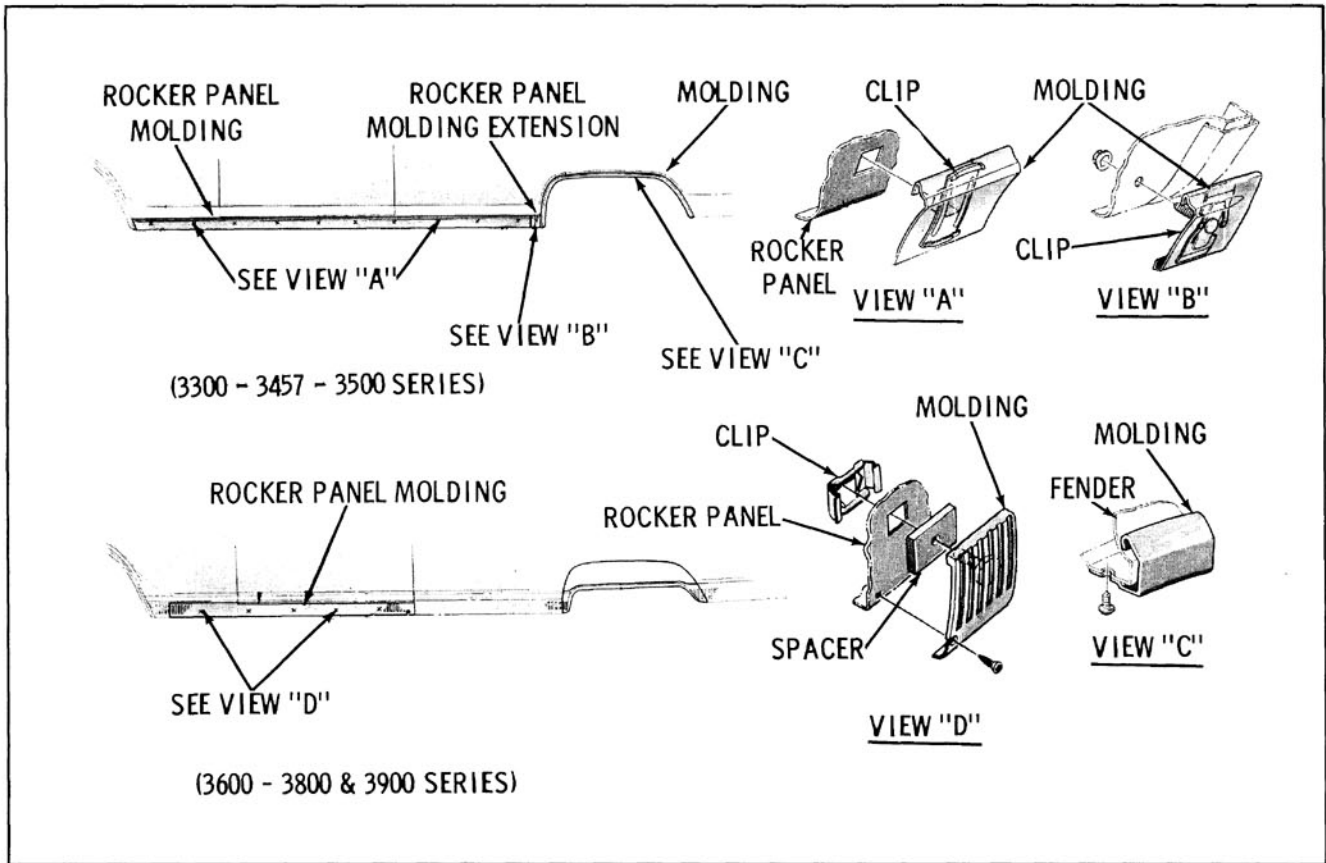


Fig. 15-30 Rocker Panel Moldings

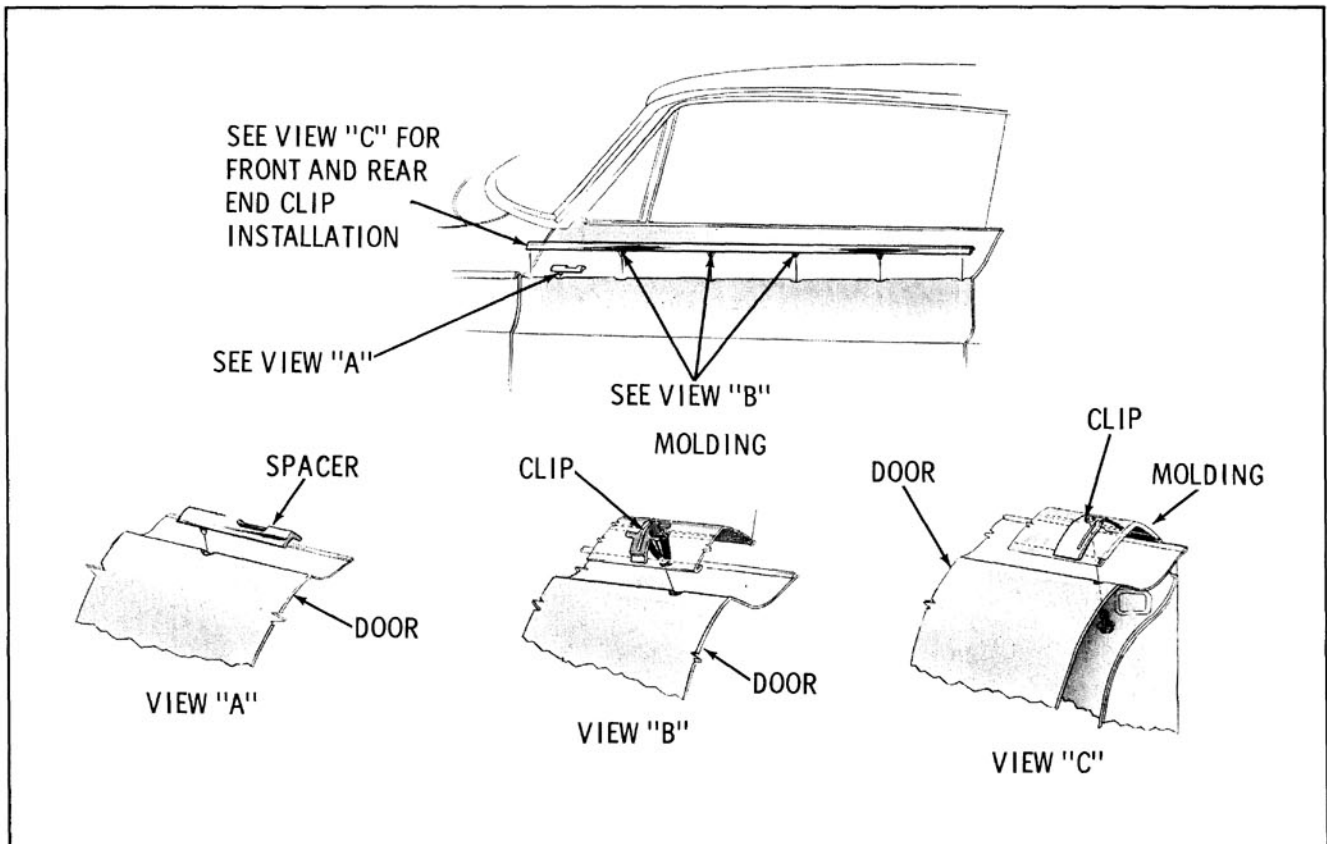


Fig. 15-31 Front Door Moldings (36 Series)

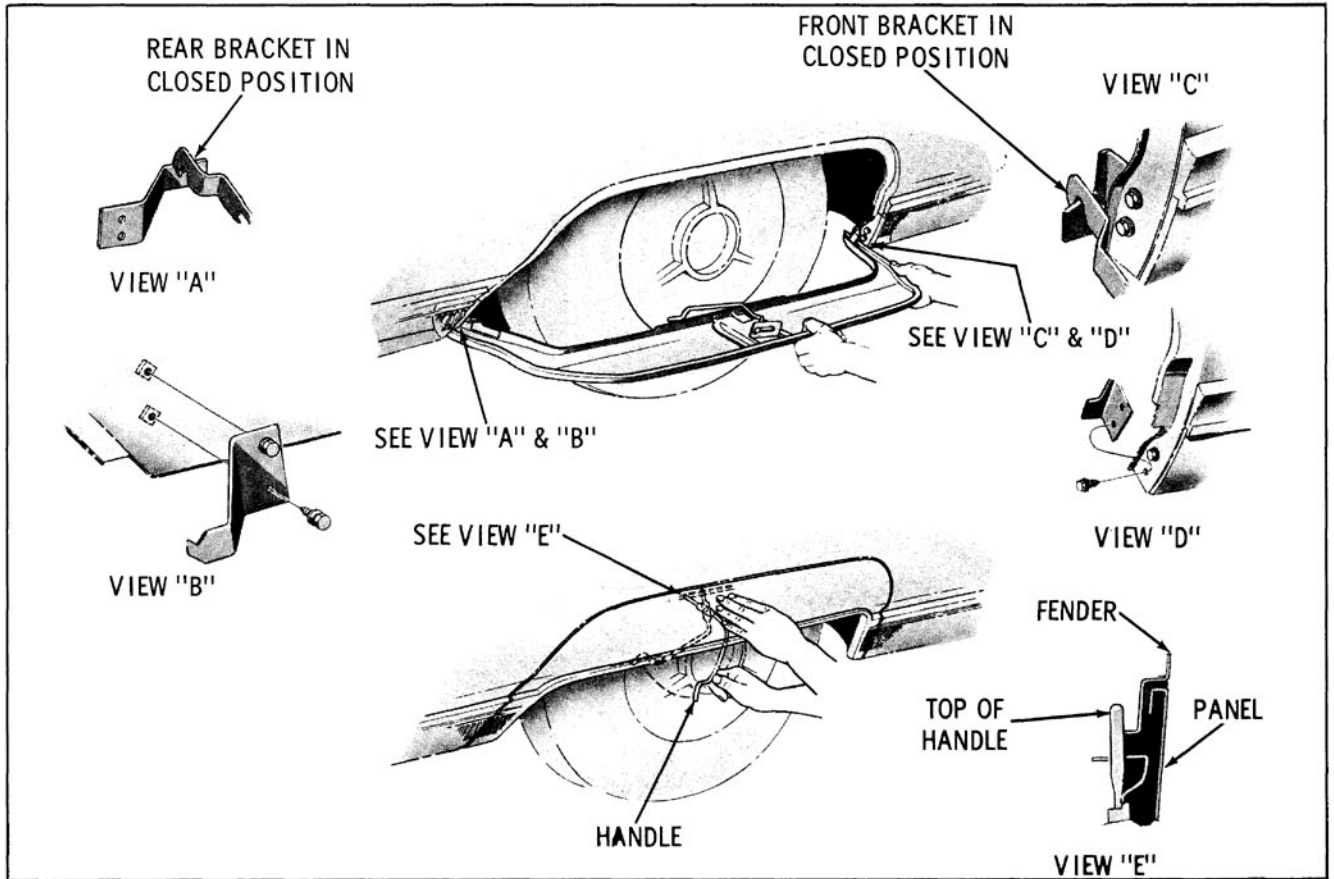


Fig. 15-32 Fender Panels (38 & 39 Series)

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FRAME, BUMPERS AND CHASSIS SHEET METAL

30-31-32 SERIES

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FRAME

When supporting car on a floor jack or floor stands, the car should be supported at the suspension points only. Under no conditions should the car be supported at the extreme ends of frame or at the center of a frame side rail.

When using a frame contact hoist, the car should be lifted at the points indicated in Fig. 15-101.

CHECKING FRAME ALIGNMENT

The diagram shown in Fig. 15-101 can be used to check the alignment of a car frame that has been distorted.

The reference points indicated in the illustration are to be checked with a tram gauge. The dimensions between the various reference points will show where straightening operations are necessary.

NOTE: Corresponding measurements must be equal within 1/4".

1. Measure A-A. If not equal, front cross-member is misaligned.
2. Measure B-B. If not equal, center portion of frame is misaligned.
3. Measure C-C. If not equal, then rear end of frame is misaligned.

STRAIGHTENING FRAME

In case of collision, frame members can often be satisfactorily straightened to the required limits. However, the front suspension crossmember is made to unusually close limits necessary for proper front wheel alignment; therefore, straightening of this unit may not be successful.

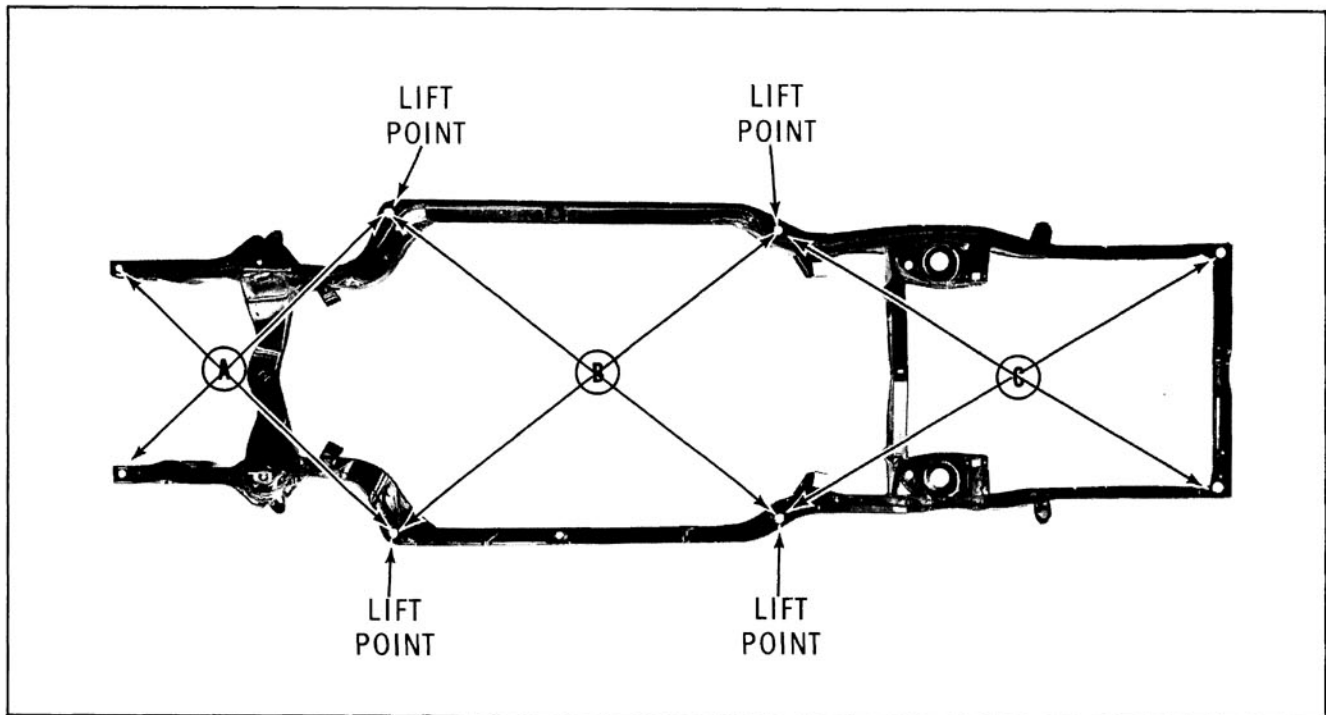


Fig. 15-101 Frame Alignment Diagram

It is possible that the ordinary straightening methods will suffice for minor damage to the front suspension crossmember; however, in case of serious damage or fracture, the entire front suspension crossmember must be replaced. Before the member is replaced, it is essential that the frame alignment be checked, and corrected if necessary.

Whenever possible, frame members should be securely fastened with hot rivets. In case riveting equipment is not available, finished bolts snugly fitted in reamed holes may be used. The nuts should be securely tightened and lockwashers used, care being taken that washers do not spread. (Cold driven rivets are not recommended unless the heavy power press equipment necessary to make secure fastening is available.)

After frame members are riveted or bolted securely, all welded joints and areas that were cut to permit removal of a frame member should be welded.

When the frame repair is completed and inspected, the various parts of the suspension may be assembled.

HOOD ASSEMBLY

REMOVAL AND INSTALLATION

Prior to removal of the hood, it is suggested that adjoining areas be covered to prevent damage.

With the hood supported, scribe the hinge position on the hood reinforcement and remove the two hinge to hood screws from each hinge. (Fig. 15-102)

When installing hood, position the hinges to the scribed lines. If further adjustment is necessary, follow the hood and hinge alignment procedure. If necessary to install a new hood insulator, refer to Fig. 15-103.

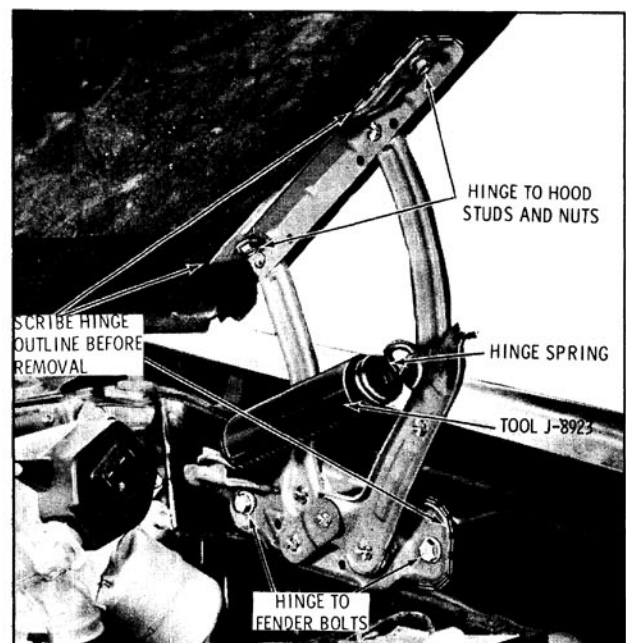


Fig. 15-102 Hood Hinge Spring Removal

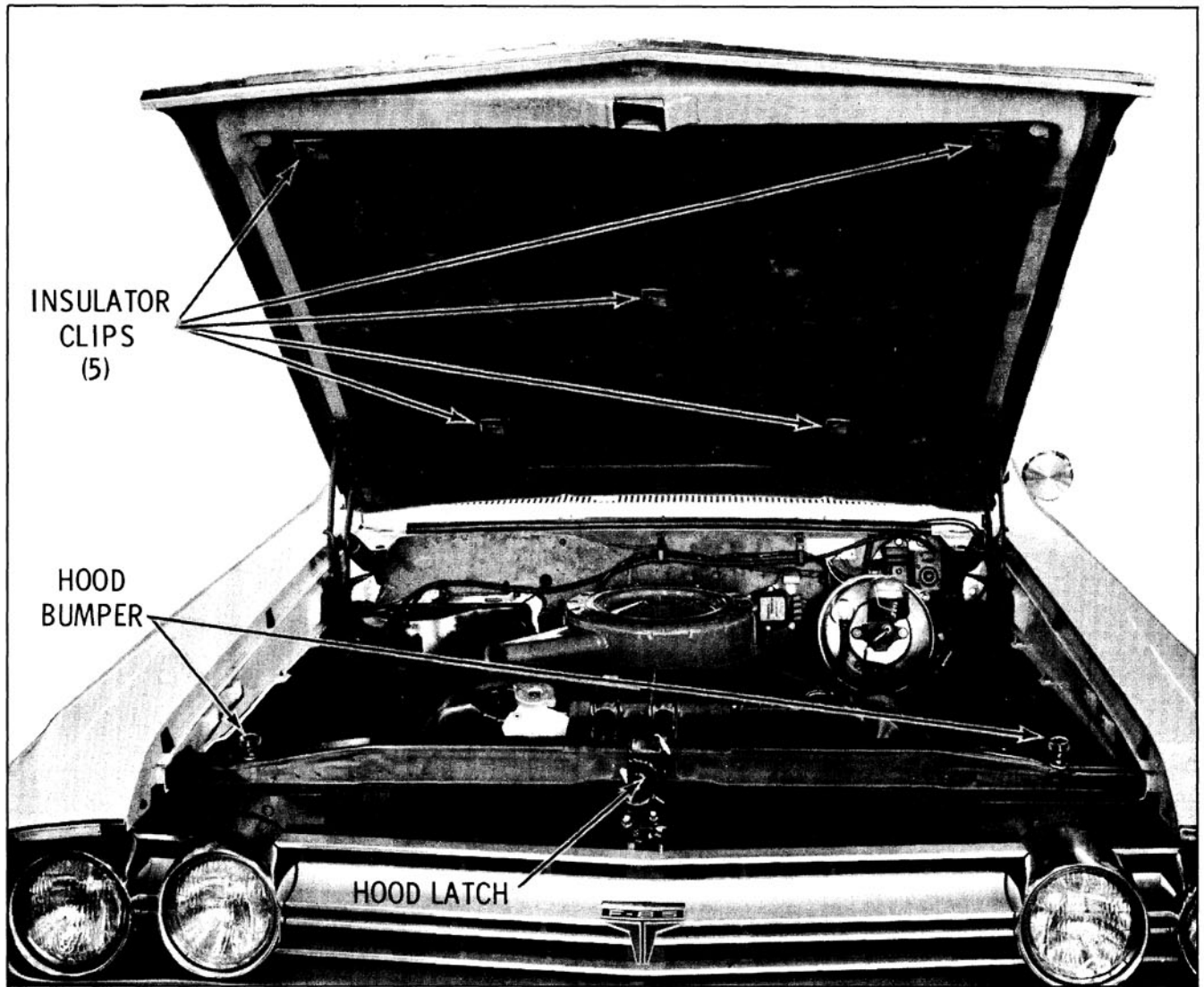


Fig. 15-103 Hood and Hood Latch

HOOD HINGE SPRING

REMOVAL AND INSTALLATION

To remove the spring from the hood hinge, raise hood approximately 12" and place Tool J-8923-1 over the spring. (Fig. 15-102) Raise hood and the spring will unhook. Block hood in this position and remove spring.

When installing a new spring, stretch the spring and place Tool J-8923-1 over the spring. Position spring (with tool in place) on hinge. Lower hood slightly to expand spring, then remove tool.

HOOD HINGE

REMOVAL AND INSTALLATION WITH SPRING REMOVED

Place protective covers on fender and grille at hinge area. Mark the hinge outline on wheelhouse

and hood to facilitate alignment. (Fig. 15-102) Support the hood at front and rear and remove the two hinge-to-hood screws, then remove the hinge-to-fender screws.

Using the scribe marks as a guide, install the hinge to fender screws and torque 24-28 ft. lbs. Torque hinge-to-hood screws 15-20 ft. lbs. Check hood alignment after hinge installation. The hinge is provided with elongated holes for alignment and if necessary, shift hood to properly align.

HOOD LATCH ASSEMBLY

The hood latch assembly is bolted to the fender tie bar and the hood latch support. The two bolts retaining the latch assembly to the tie bar are accessible from the bottom side and the single bolt, retaining the latch assembly to the hood latch support, is accessible from the top. The

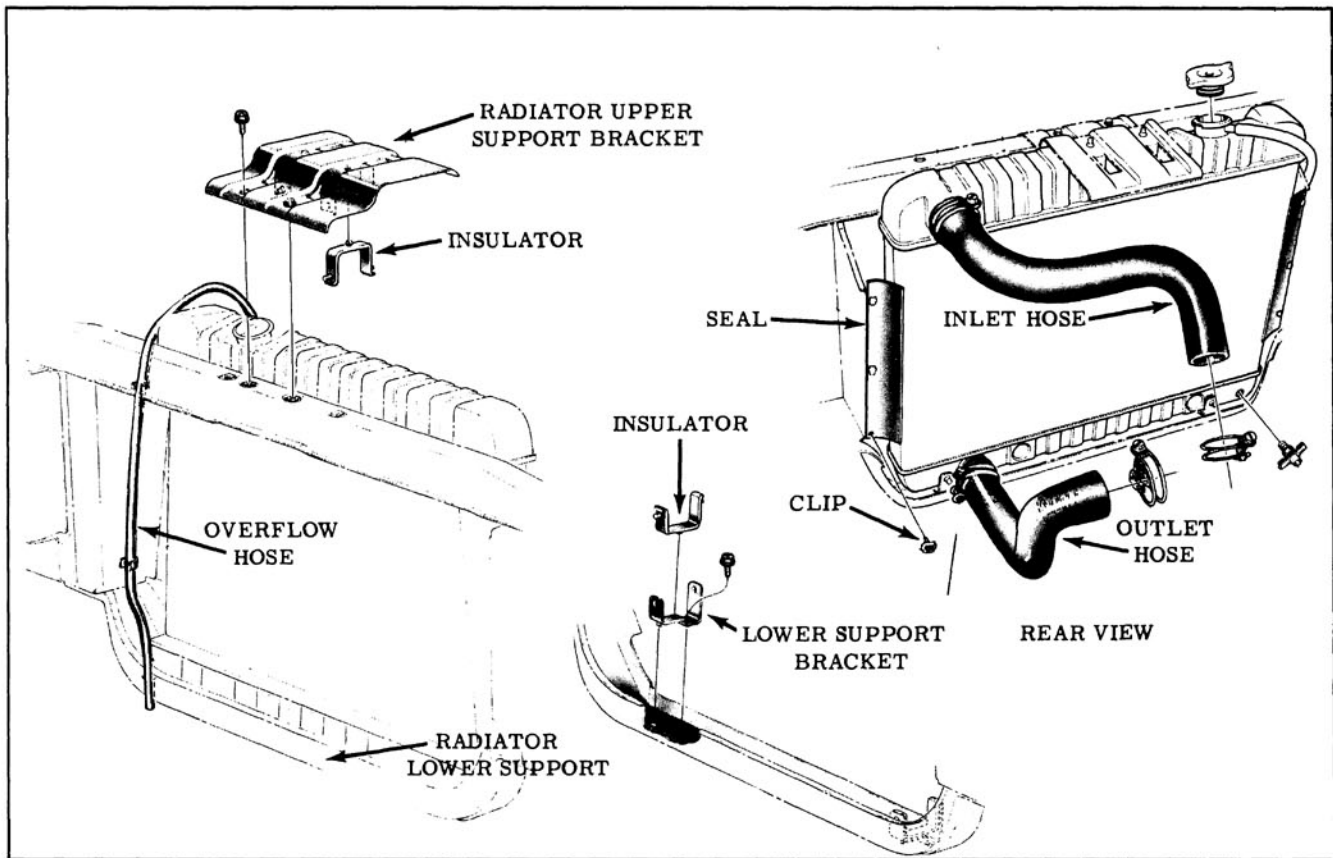


Fig. 15-104 V-8 Radiator Mounting

three bolt holes are elongated for alignment purposes. The assembly should be lubricated periodically with lubriplate. (Fig. 15-103)

HOOD MOLDINGS, INSULATORS AND BUMPERS

A hood top molding, front molding and letters are used on all series. The hood top molding, used on the 30 series, is retained by three nuts and the molding, for the 31 and 32 series, is retained by 10 nuts. A paper-type shim is used between the molding and the top of the hood at each stud location to prevent paint damage. Replacement of the molding does not require removal of the hood insulator; the stud and nut locations can be located by pressing up on the insulator. The front molding is retained by 10 snap-type retainers and nuts. The hood bumpers are attached as shown in Fig. 15-103 and are used to provide proper alignment at the front.

HOOD INSULATOR

The hood insulator is a fiberglass material and is held in position by five snap-in retainers, one on each corner and one in the center. (Fig. 15-103)

RADIATOR

REMOVAL V-8 (Fig. 15-104)

1. Drain radiator.
2. Remove two screws securing upper support bracket to tie bar and remove bracket with insulator attached.
3. Disconnect overflow hose.
4. Disconnect upper radiator hose at radiator.
5. Disconnect lower radiator hose at radiator.
6. If equipped with Jetaway, disconnect oil cooler lines.
7. Lift radiator upward to disengage from lower supports and remove from car.

REMOVAL V-6 (Fig. 15-105)

1. Drain radiator, disconnect overflow hose.
2. Reaching through fan blades, remove upper shroud attaching bolt.

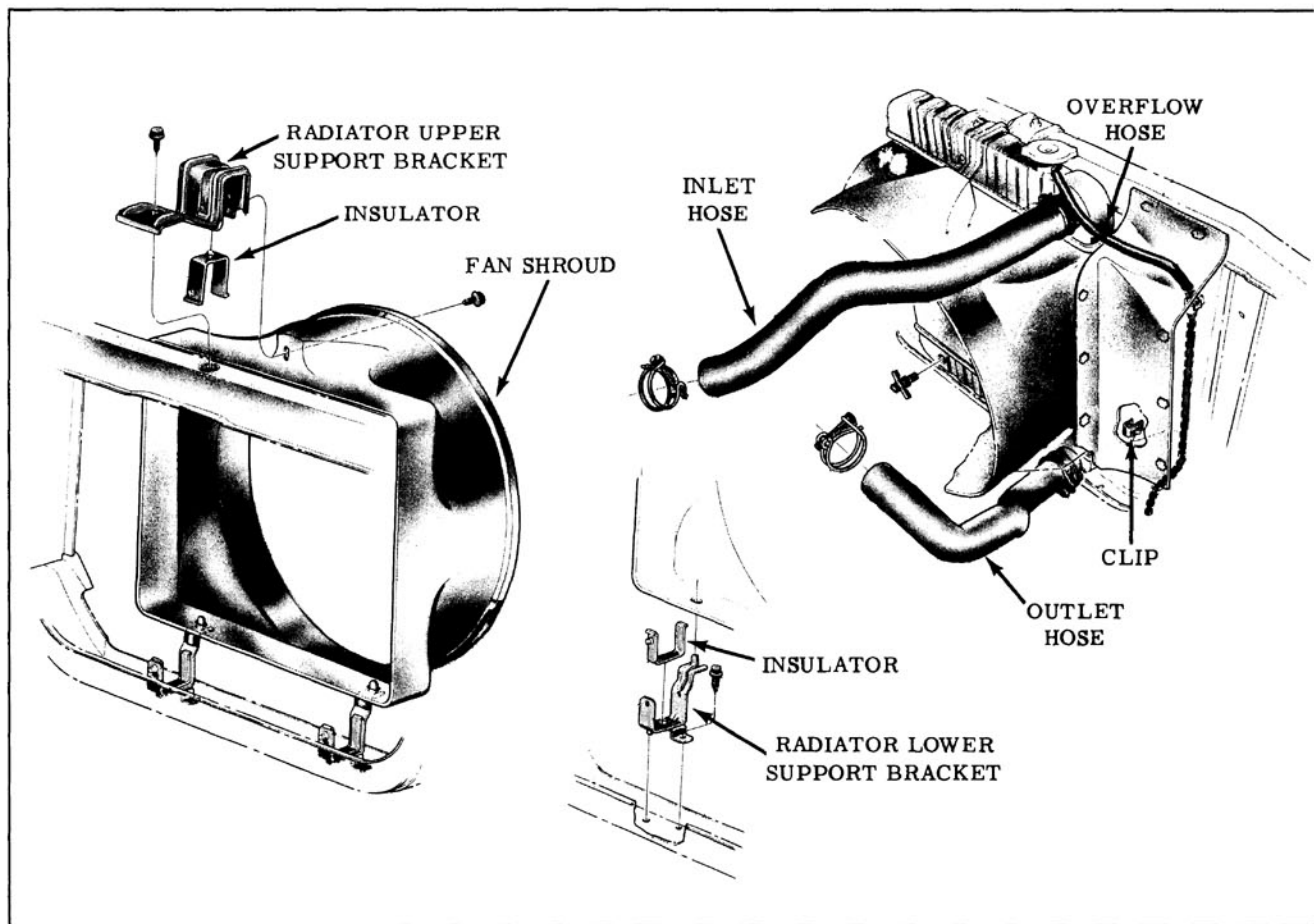


Fig. 15-105 V-6 Radiator Mounting

3. Disengage three seal retaining clips from each side of shroud.
4. Lift up on shroud to disengage from tangs on lower support brackets and position shroud rearward.
5. Disconnect upper and lower radiator hoses.
6. If equipped with Jetaway, disconnect oil cooler lines.
7. Remove upper support bracket with insulator.
8. Lift radiator upward to disengage from lower supports and remove from car.

Installation V-6 and V-8

Before installing the radiator, inspect the support bracket insulators for damage, replace if necessary. To install the radiator, reverse the removal procedure. After installing the radiator, check the position of the seals between the radiator and radiator side baffles.

RADIATOR SUPPORT ASSEMBLY (Fig. 15-106)

The radiator support assembly is a welded assembly consisting of four parts; two side baffles and upper and lower support. The radiator support assembly will be serviced as a complete assembly or individual pieces. If a side baffle only is to be replaced, the welds can be drilled out and sheet metal screws used to install new part.

FENDER ASSEMBLY

REMOVAL

1. Remove the screws indicated at shim points in Fig. 15-107.
2. Remove the screws shown in Fig. 15-108 and screw retaining fender-to-bumper baffle.
3. Remove upper fender attaching bolts.
4. Remove hood hinge to fender attaching screws and support hood.

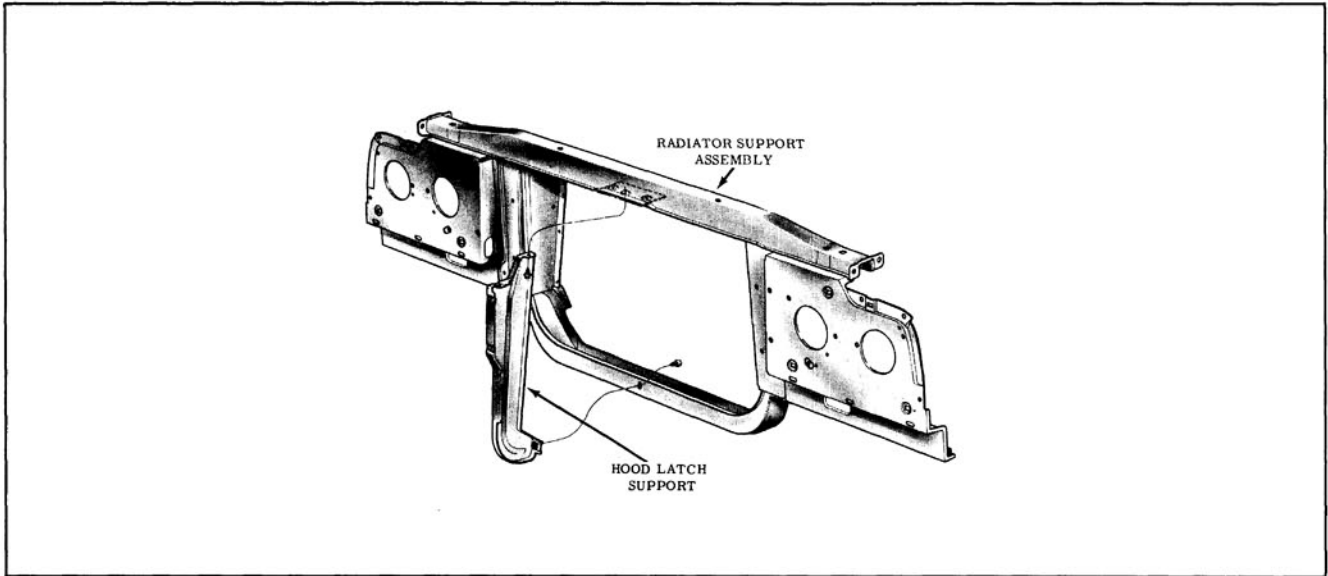


Fig. 15-106 Radiator Support Assembly

5. For right fender, if equipped with manual antenna, it will be necessary to:
- a. Loosen plastic nut and remove mast assembly.
 - b. Remove wiper arm and blade assembly.

- c. Remove nozzle attaching screw from each side.
- d. Remove the five vent grille attaching screws and remove grille.
- e. Remove the lead-in assembly mounting nut, upper spacer and gasket.

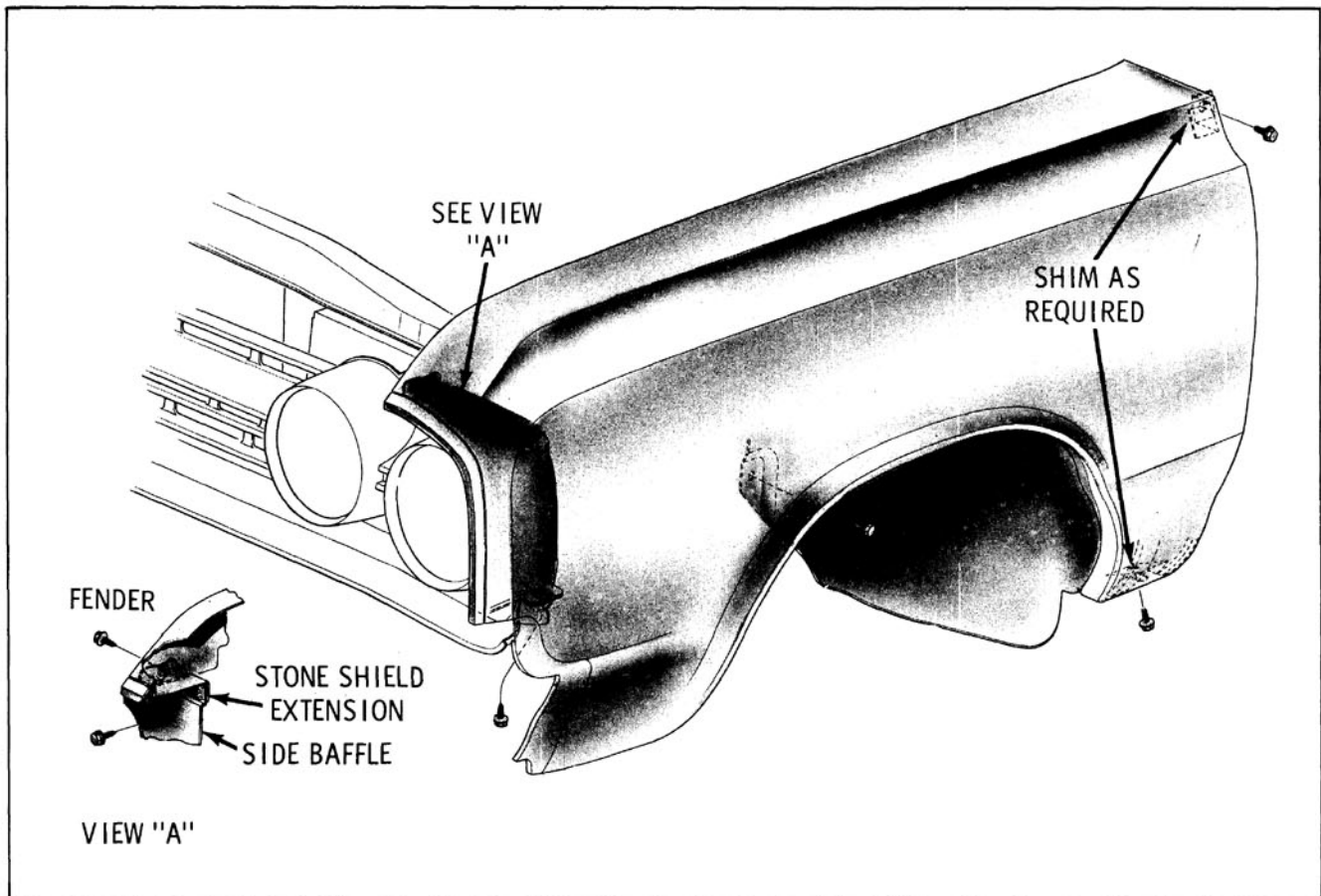


Fig. 15-107 Fender Mounting

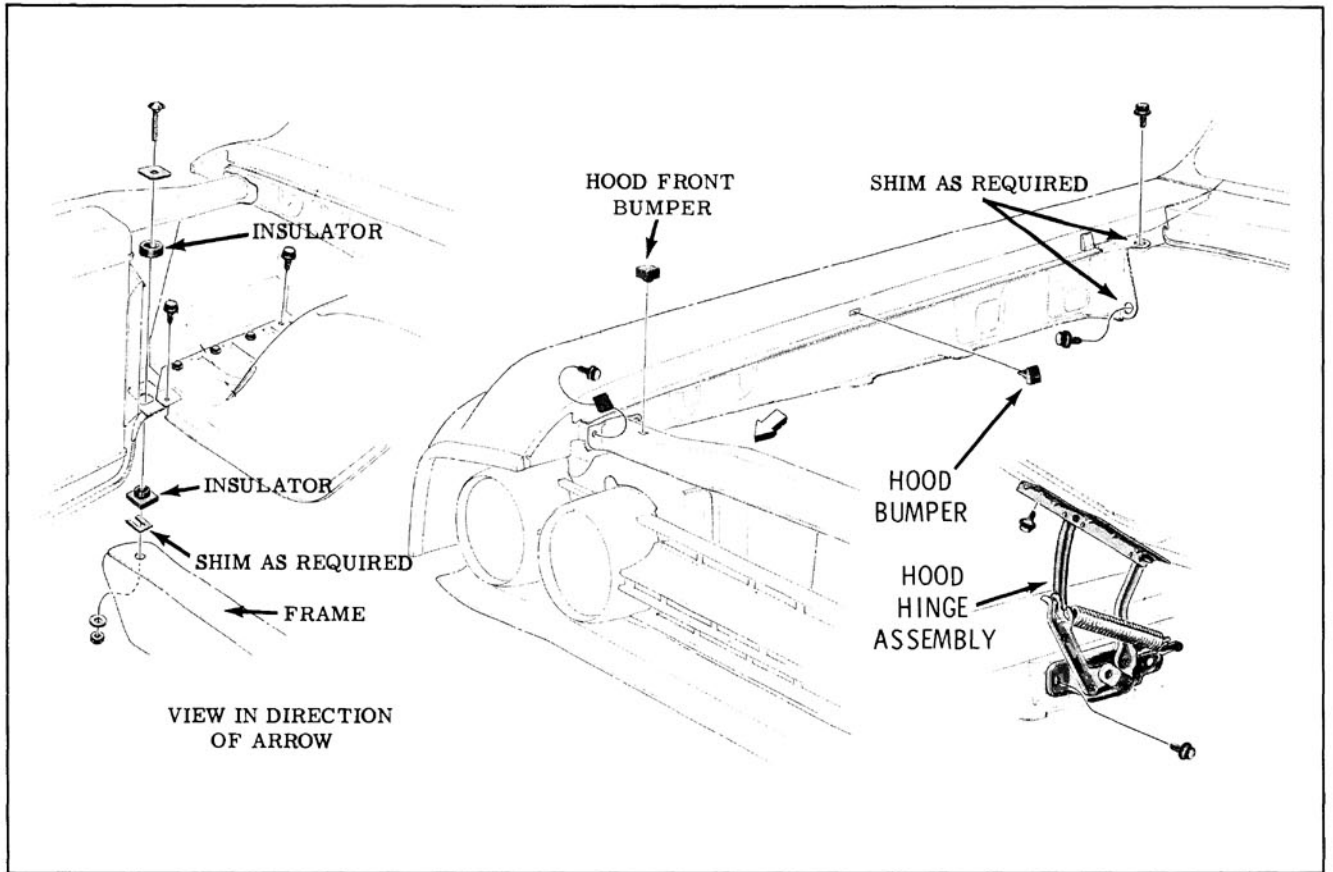


Fig. 15-108 Sheet Metal Attachment

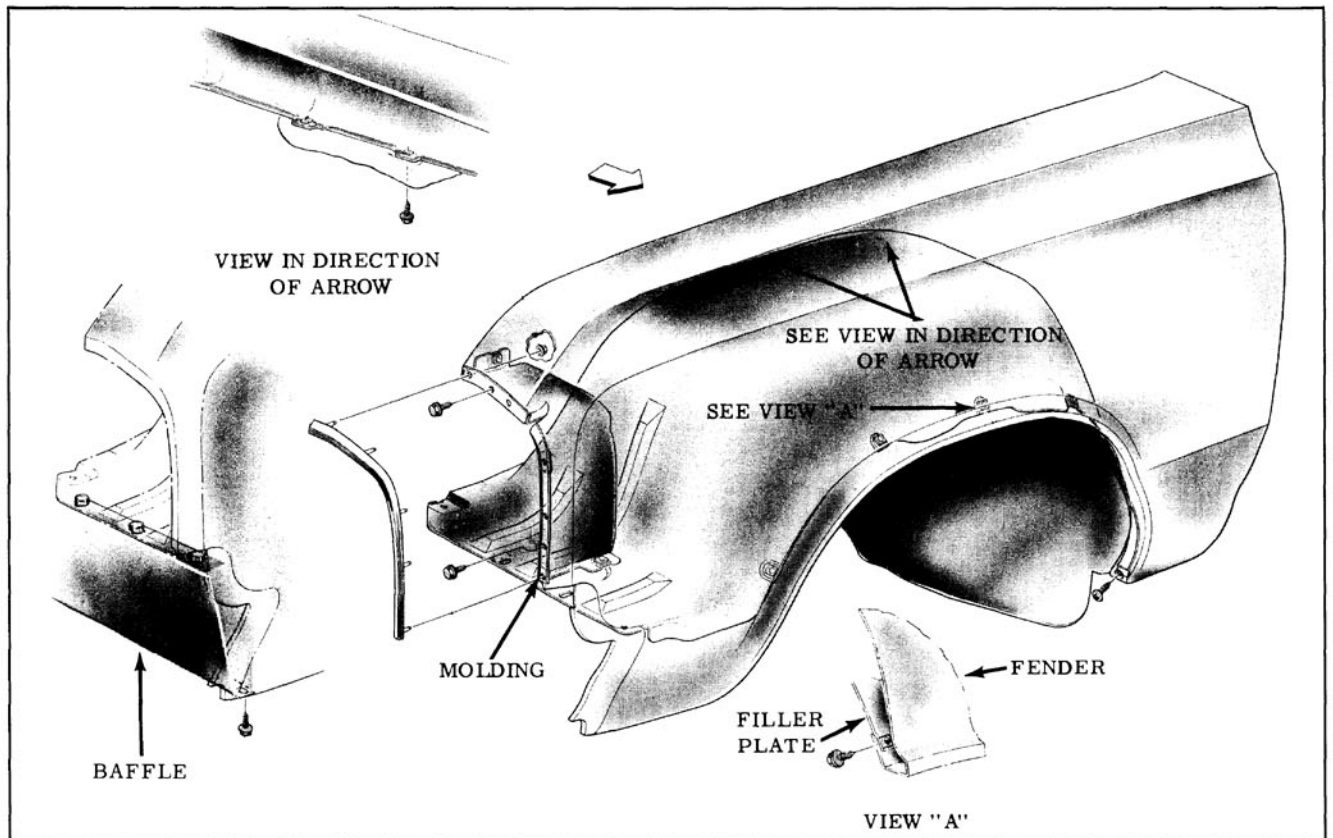


Fig. 15-109 Fender to Filler Fastening



Fig. 15-110 Hood and Fender Clearances

- f. Push the lead-in assembly down through the fender and body and remove by reaching through the plenum chamber.
6. Along inner fender flange, remove two screws securing fender filler to fender. (Fig. 15-109)
7. Along edge of wheel opening, remove six screws securing fender filler to fender. On some models, it may be necessary to loosen wheel opening molding to gain access.
8. Remove two fender to tie bar attaching screws and remove fender. If equipped with air conditioning, remove two screws securing muffler before removing fender.

INSTALLATION

To install the fender, reverse the removal procedure. Refer to INSTRUMENT PANEL AND ACCESSORIES section for manual antenna installation. The fender attaching bolt holes are elongated to permit adjustment and, in addition, there are shims available to be used at five locations. Four of the shim locations are used to obtain alignment of the fender to the door; the other shim location is at the fender tie bar and is used to obtain fender to hood alignment. (Fig. 15-110)

When installing a fender, tighten the attaching bolts just enough to permit shifting as required. After proper alignment is obtained, tighten all attaching screws and bolts. Torque fender-to-body bolts 24-28 ft. lbs.

FILLER PLATE (Fig. 15-109)

REMOVAL

1. Raise car, support on floor stands, remove wheel assembly.
2. If equipped with wheel opening molding, remove molding.
3. If side being serviced has battery support attached, remove battery, battery support and battery support front bracket.
4. For left side, remove windshield washer jar.
5. Disengage wiring harness clips from filler plate.
6. For left side, disconnect wiring from horn relay block.
7. Remove two screws securing filler plate to inner fender flange.
8. Remove screw securing filler plate to frame.
9. Remove six screws along inner edge of fender securing filler plate to fender.

If equipped with air conditioning for right side, remove two screws securing receiver-dehydrator bracket to filler plate.

MOLDINGS

ROCKER PANEL MOLDING (Fig. 15-111)

The rocker panel molding is secured to the front fender and rocker panel with clips and retainers. The molding slips in over the top of the clips and retainers and is fastened along the underside by screws. The molding can be removed by removing the lower attaching screws and lifting up to disengage the molding from the clips and retainer.

WHEEL OPENING MOLDINGS (Fig. 15-111 & 15-112)

The wheel opening moldings are retained by screws along the inner flange of the opening and can be removed by removing the attaching screws.

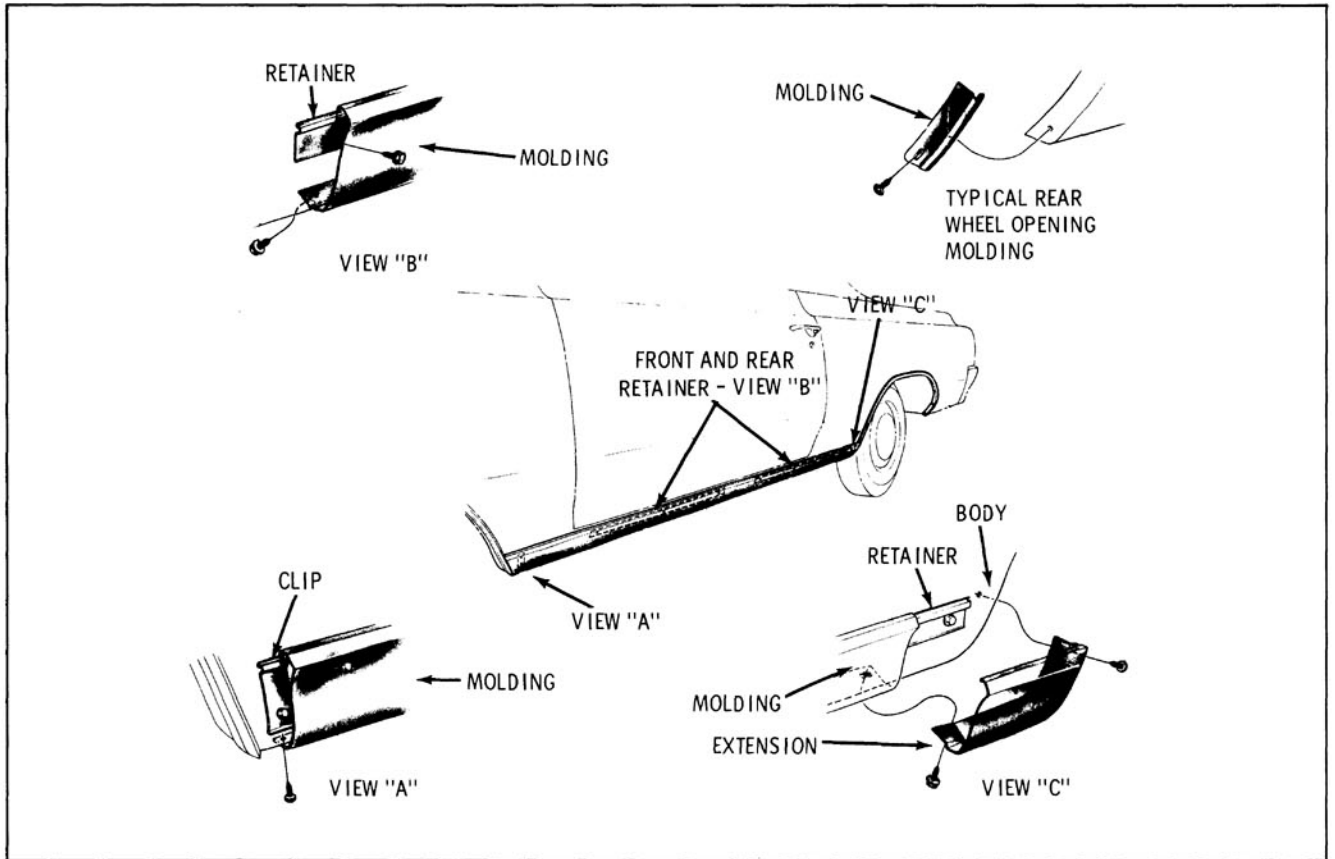


Fig. 15-111 Rocker Panel and Rear Wheel Opening Molding

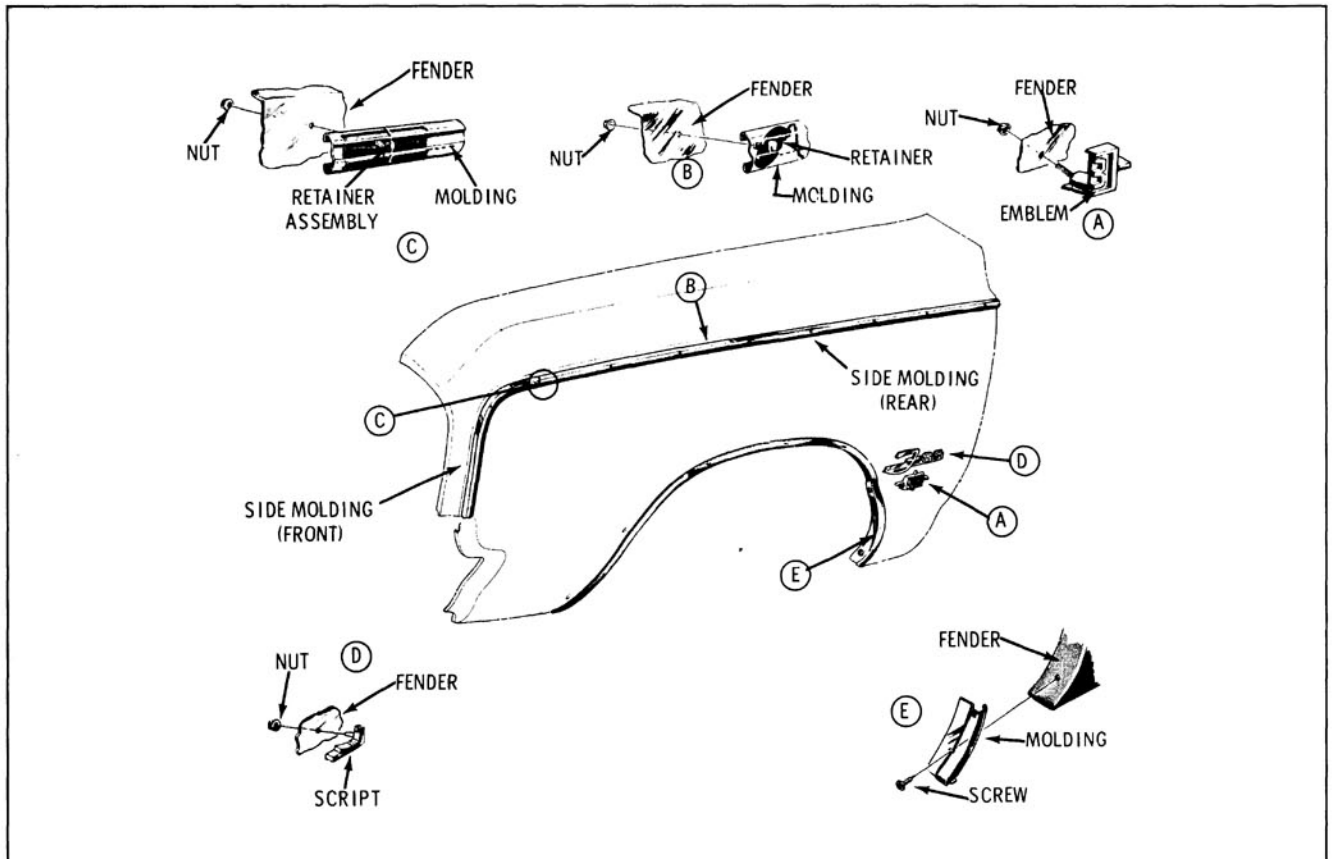


Fig. 15-112 Moldings

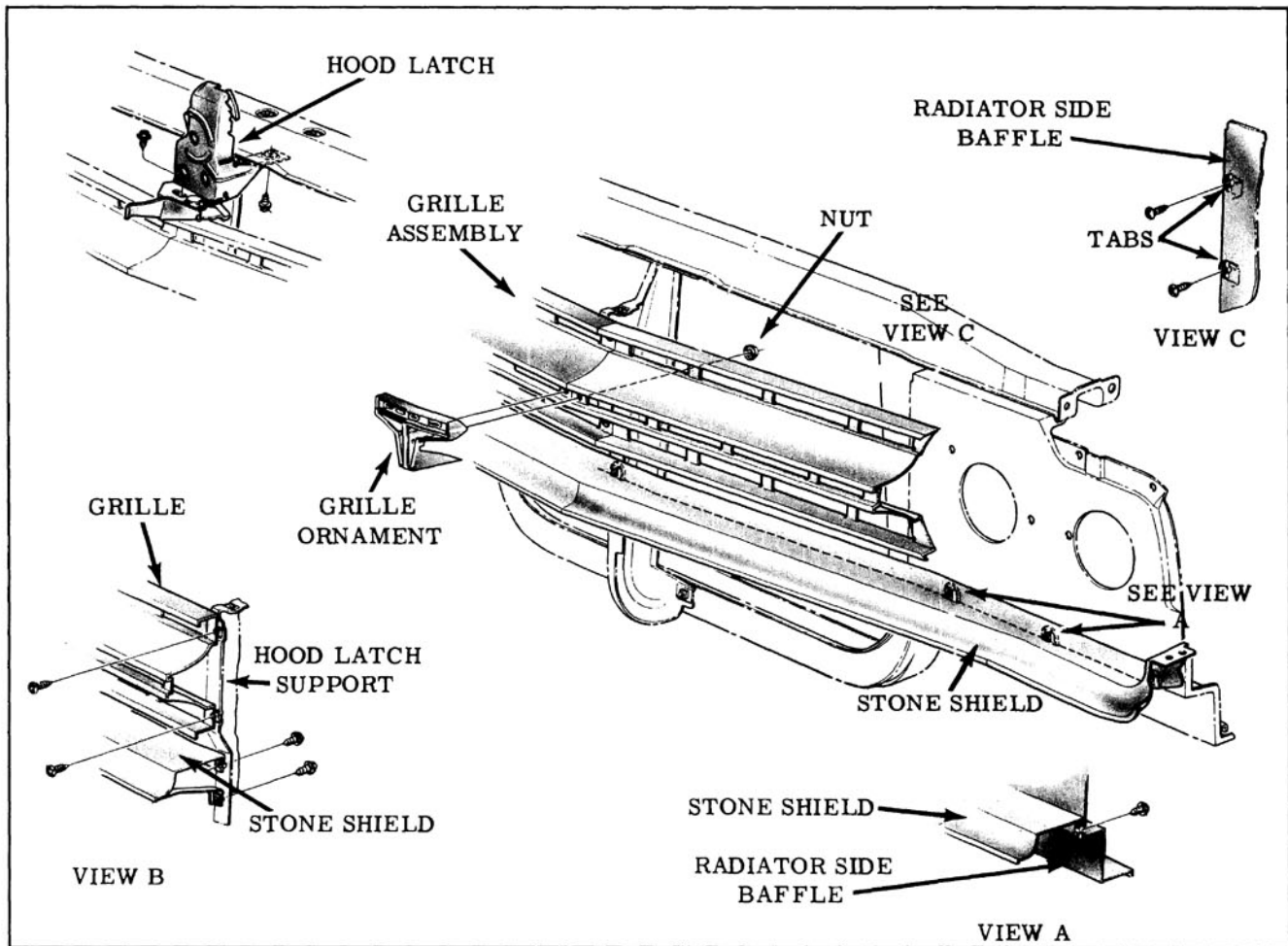


Fig. 15-113 Grille Attachment

FRONT FENDER MOLDING (Fig. 15-109)

The molding is retained by five nuts as shown in Fig. 15-112. To gain access, for V-8 left side, remove battery and washer jar. For V-6 left side, remove washer jar. For V-8 right side, it is not necessary to remove any parts to gain access. For V-6 right side, remove battery.

It is not necessary to disconnect air conditioning lines to gain access on the right side.

SCRIPT AND EMBLEM (Fig. 15-112)

REMOVAL AND INSTALLATION

1. Remove hood hinge to hood screws and support hood.
2. At the upper trailing edge of fender, remove the three attaching bolts.
3. At the lower trailing edge of fender, remove the attaching bolt.

4. If equipped with a rocker molding, it will be necessary to detach molding sufficiently to block out the fender.

5. Remove the script and/or emblem attaching nuts.

To install, reverse the removal procedure.

Torque fender-to-body bolts 24-28 ft. lbs.; torque hood hinge-to-hood screws 15-20 ft. lbs.

FRONT FENDER SIDE MOLDINGS (Fig. 15-112)

REMOVAL

It will be necessary on some series to remove the windshield washer jar and battery to gain access to the molding attaching nuts in addition to the regular procedure. An access hole is provided in the inner fender flange for one of the attaching nuts. The remaining nuts are accessible.

1. Remove hood hinge to hood screws and support hood.
2. At the upper trailing edge of fender, remove the three attaching bolts.

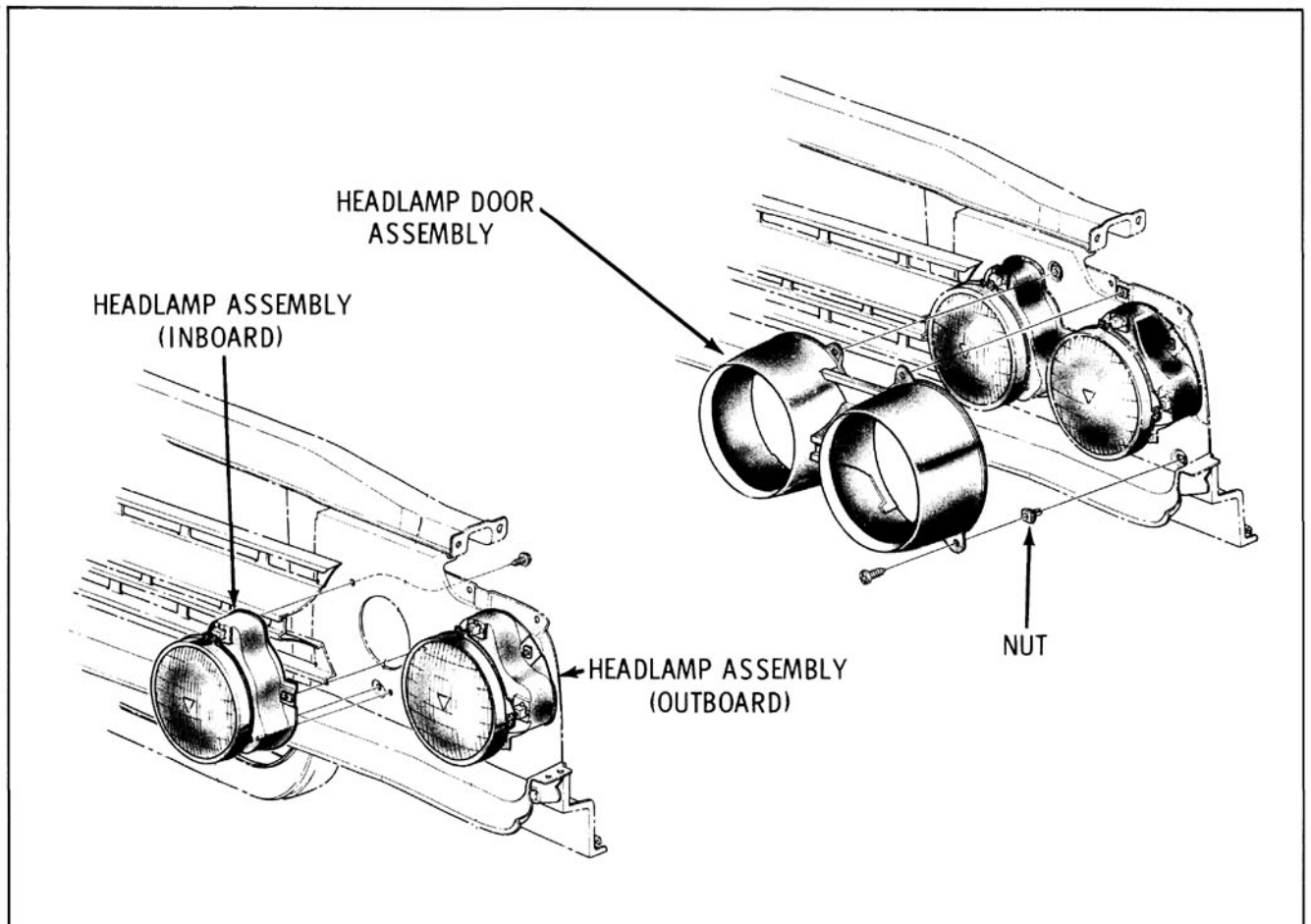


Fig. 15-114 Headlamp Assembly

3. At the lower trailing edge of fender, remove the attaching bolt.
4. If equipped with a rocker molding, it will be necessary to detach molding sufficiently to block out the fender, to gain access to the molding rear attaching nuts.

STONE SHIELD

REMOVAL (Fig. 15-113)

1. Disconnect parking lamps.
2. Remove front bumper.
3. Disconnect and remove battery.
4. Remove six screws from back side of radiator side baffles.
5. Remove one screw from each side securing stone shield-to-stone shield extension.
6. Remove two screws securing stone shield-to-hood latch support.

STONE SHIELD EXTENSION

REMOVAL

1. Remove headlamp door.
2. Remove lower fender-to-bumper baffle attaching screw.
3. Remove front fender molding.
4. Remove fender-to-stone shield extension attaching screws.
5. Remove stone shield-to-extension attaching screw.
6. Remove three extension-to-radiator side baffle attaching screws.

If car is equipped with air conditioning for right side, remove receiver-dehydrator assembly and discharge muffler.

7. Depending upon which side is being replaced and whether it is a V-6 or V-8 engine, it may be necessary to remove battery.
8. Move extension rearward to remove.

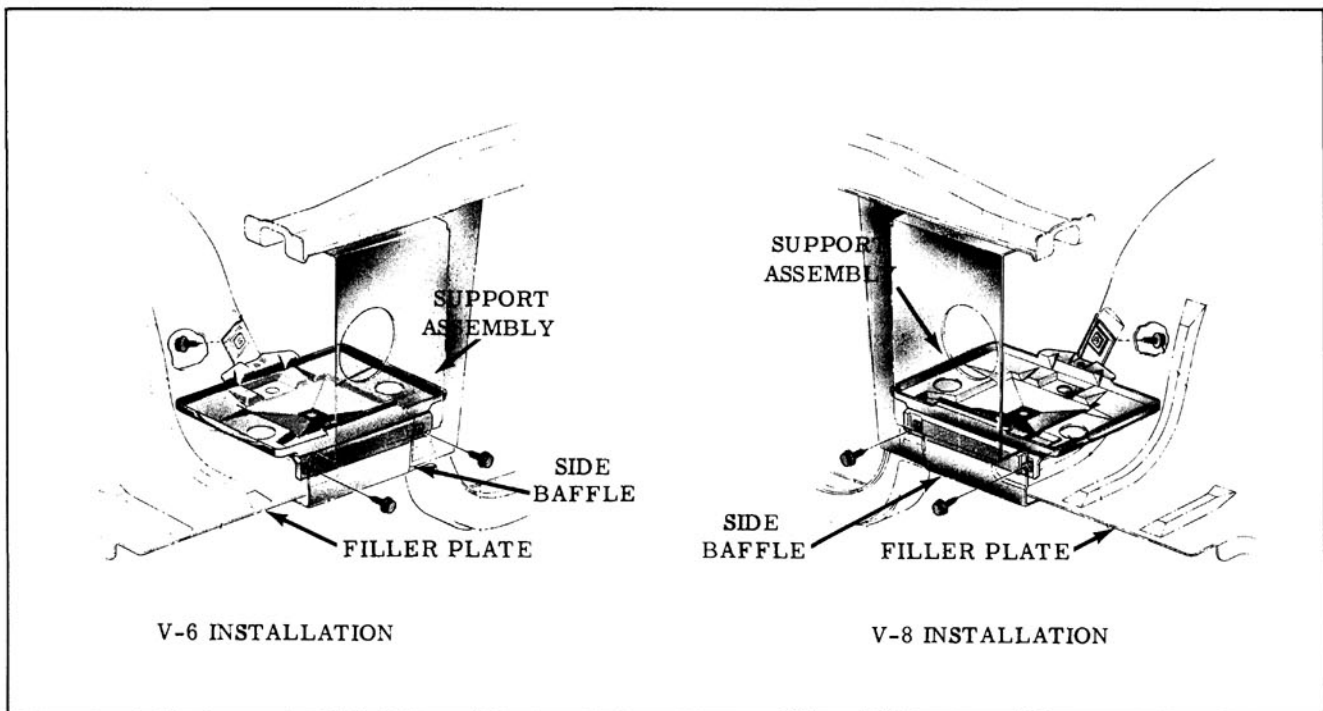


Fig. 15-115 Battery Support

GRILLE ASSEMBLY

The grille assembly is attached to the radiator side baffles and hood latch support by six sheet metal screws all accessible from the front side. (Fig. 15-113) The grille ornament is attached by two nuts and can be removed by removing the grille to gain access.

HEADLAMP ASSEMBLY (Fig. 15-114)

The headlamp door assembly is attached to the radiator side baffle by four screws accessible from the front side. The sealed beam units can be removed after removing the headlamp doors by disconnecting the spring located near the bottom of the unit, pulling sealed beam forward and disconnecting wiring connector. The sealed beam retaining ring can be removed by removing the two attaching screws. The headlamp assembly is retained to the radiator side baffle by three screws accessible from the back side of the side baffle. Depending upon which assembly is being replaced and whether it is a V-6 or V-8, it may be necessary to remove the battery to gain access.

COWL VENT GRILLE

REMOVAL

1. Remove windshield wiper arms.

2. Raise hood and remove cowl vent grille to cowl screws.
3. Remove windshield washer nozzle attaching screws.
4. Remove cowl vent grille by lifting up forward edge and pulling away from windshield.

INSTALLATION

Apply caulking around vent grille attaching screw holes and vent grille tab slots in cowl, then carefully slide grille rearward to engage rear edge of grille between windshield lower reveal moldings and molding attaching clips. Install grille to cowl screws and washer nozzle attaching screws.

BATTERY SUPPORT

The battery is located on the left side with the V-8 engine and on the right side with the V-6 engine.

REMOVAL (Fig. 15-115)

1. Disconnect battery cables.
2. Remove battery.
3. Remove four screws securing battery support-to-brackets and remove support.

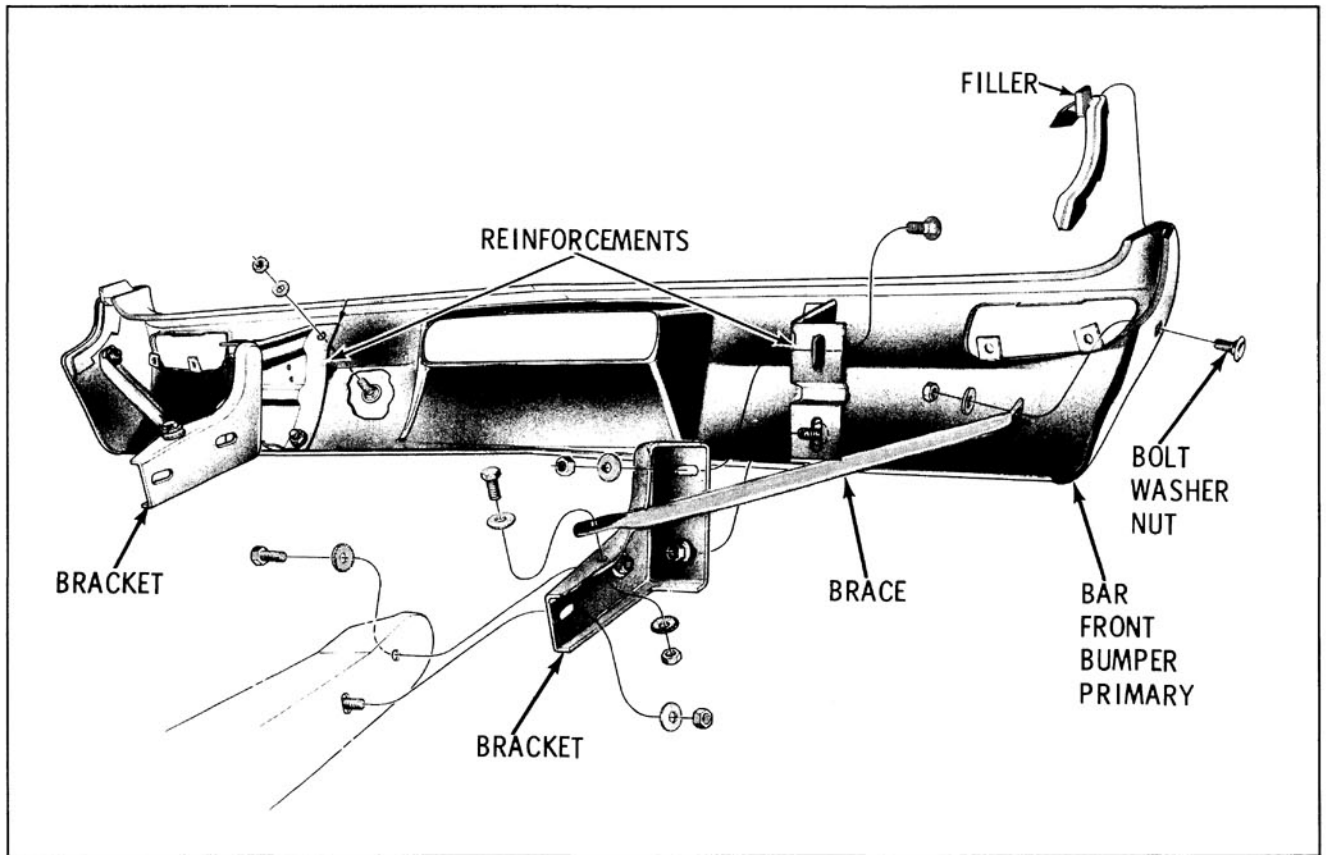


Fig. 15-116 Front Bumper

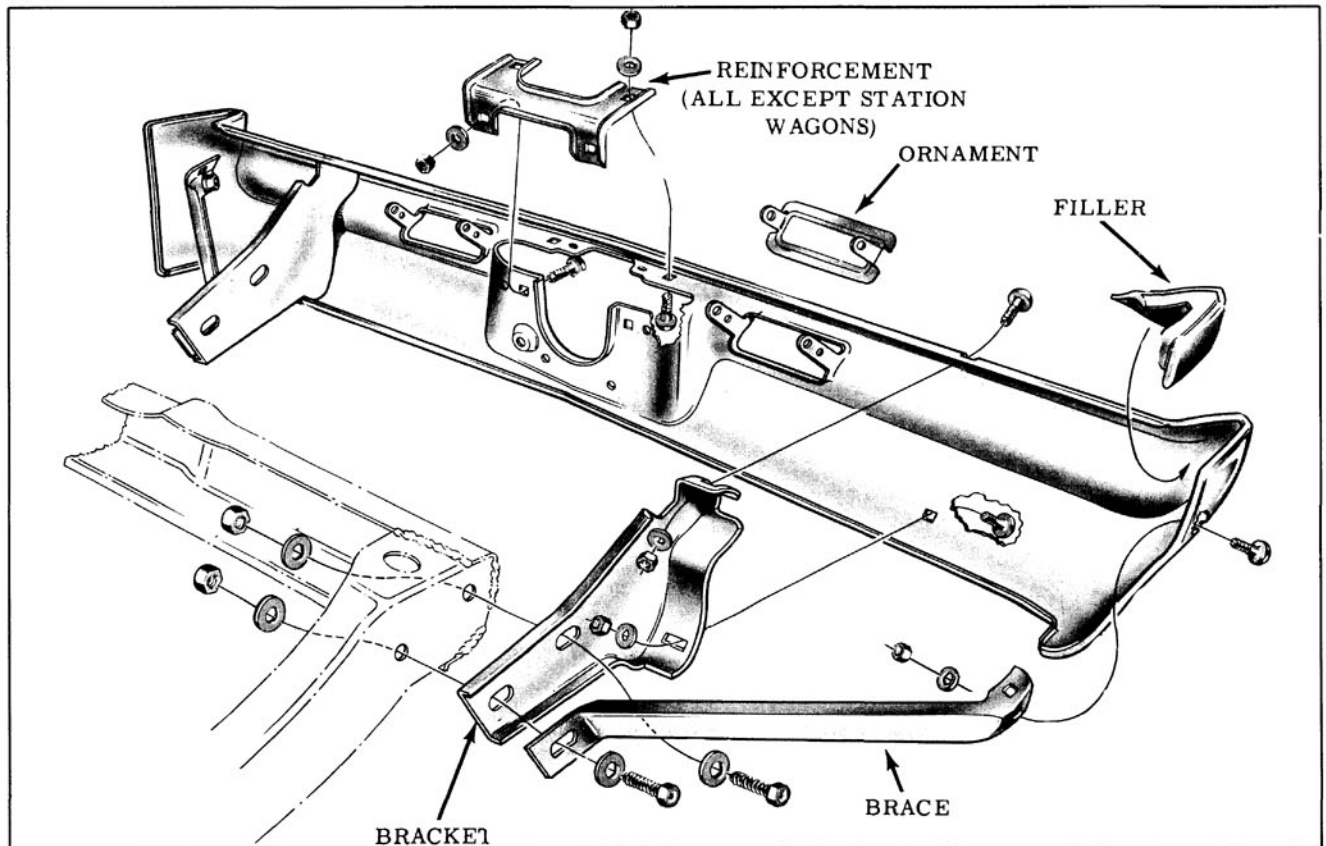


Fig. 15-117 Rear Bumper

The support bracket can be removed after removing the battery and support. The rear bracket is secured to the fender filler by two screws accessible from the bottom side. The front bracket is secured to the radiator side baffle by two screws accessible from the front side.

BUMPER BAFFLE

The baffle is secured to the lower forward edge of the front fender by one screw and to the radiator side support by four screws. Depending upon which baffle is being serviced, it may be necessary to remove the battery and battery support to gain access to the attaching screws.

BUMPERS

FRONT (Fig. 15-116)

Removal and Installation

Disconnect both parking lamps. Remove two bolts on each side retaining bumper brackets-to-frame and remove bumper assembly. Bumper alignment is provided for through the elongated holes in the reinforcements and brackets. When installing, tighten bolts just enough to permit

shifting for proper alignment. Bumper should be horizontal and centered. Torque bolts as indicated under TORQUE SPECIFICATIONS.

REAR (Fig. 15-117)

Removal and Installation

Disconnect license lamp wire in trunk compartment; if equipped with back-up lamps, disconnect leads. Remove two bolts from each side securing brackets-to-frame and remove bumper with brackets and braces attached. To install, install the four attaching bolts and tighten just enough to permit shifting for proper alignment. Bumper should be aligned horizontally and centered. Connect electrical leads and check operation. Torque bolts as indicated under TORQUE SPECIFICATIONS.

PARKING LAMP ASSEMBLY (Fig. 15-118)

The parking lamp assembly is retained to the front bumper by nuts accessible from the rear side of the bumper. The bulb can be replaced by removing the two lens attaching screws.

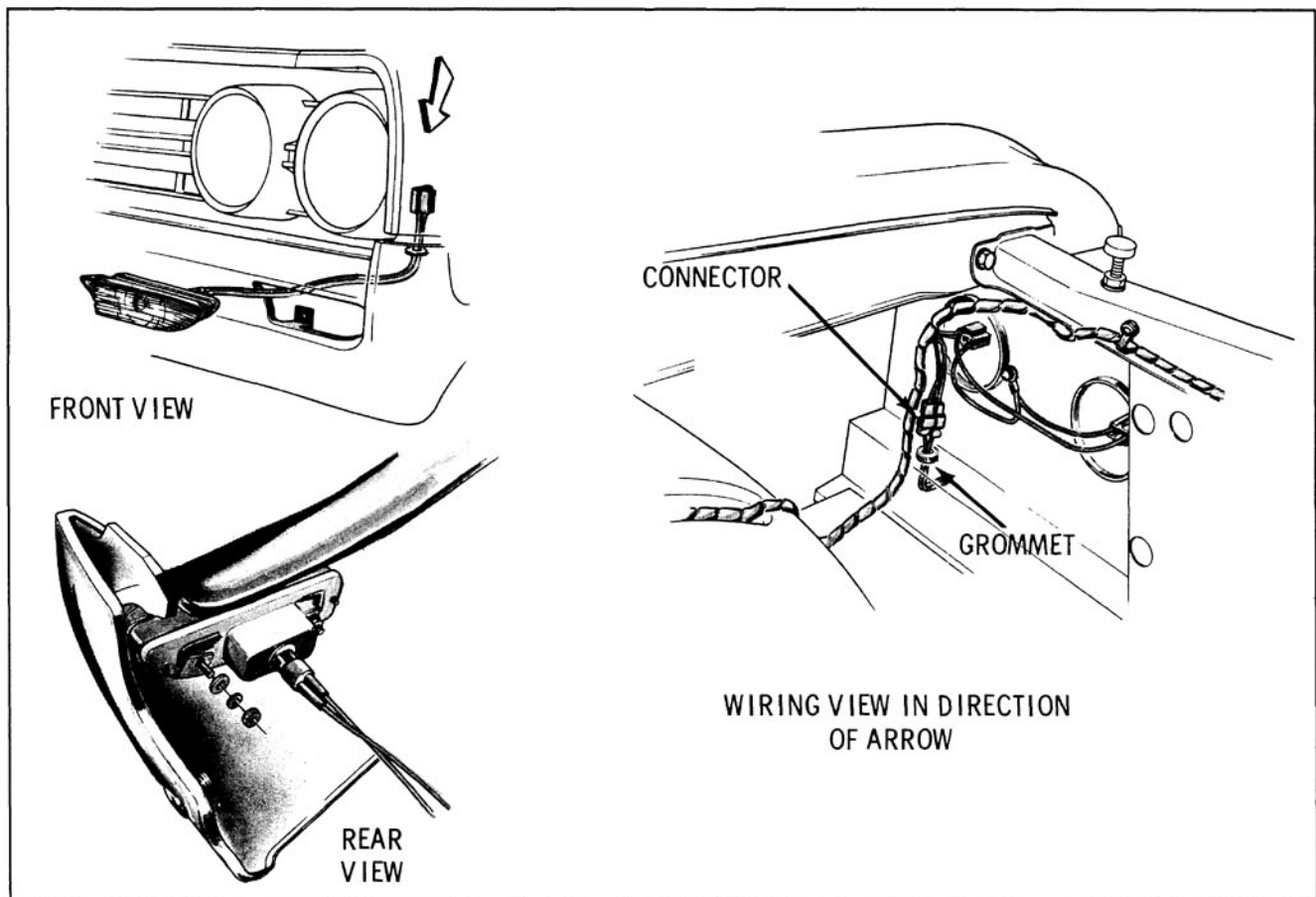


Fig. 15-118 Parking Lamps

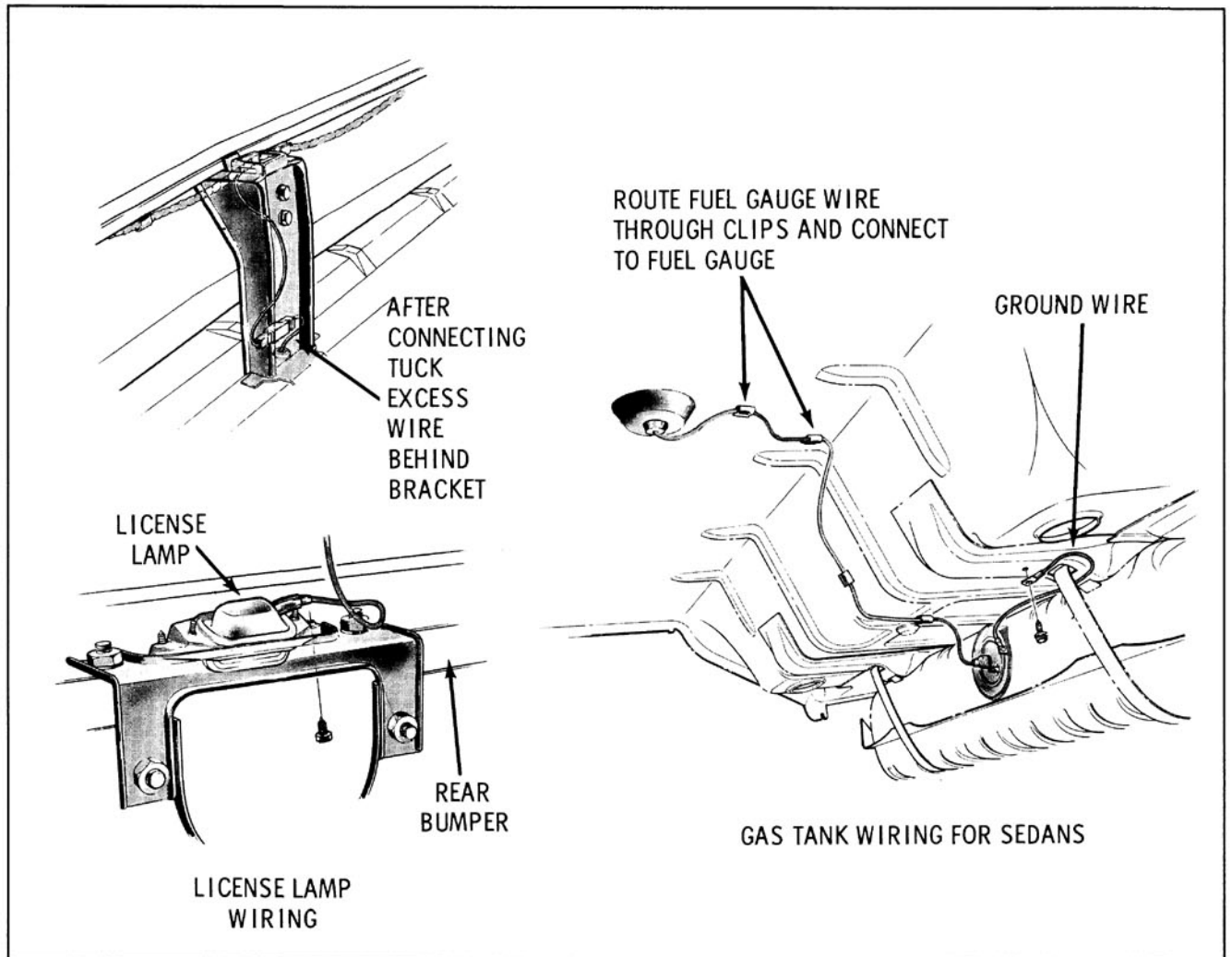


Fig. 15-119 License Lamp and Tank Wiring

BACK-UP ASSEMBLY

REMOVAL AND INSTALLATION

1. Disconnect wiring connector.
2. Loosen bumper bracket to frame bolts, both sides.
3. Pull bumper rearward.
4. Remove self-tapping screw from each side of lamp.
5. Maneuver lamp up over top of bumper brackets and remove.

To install, reverse the removal procedure. The bulb can be replaced by removing the two lens attaching screws.

LICENSE LAMP (Fig. 15-119)

The license lamp assembly can be removed by disconnecting the wiring connector inside of trunk compartment, and removing the two attaching screws. The bulb can be replaced by removing the two lens attaching screws. For license attachment refer to Fig. 15-120.

FUEL FILLER DOOR (Fig. 15-121)

The fuel filler door is attached to the rear bumper by two screws. The mounting brackets, hinge pins and retainers and door springs are available as replacement parts and can be serviced by removing the two door attaching screws.

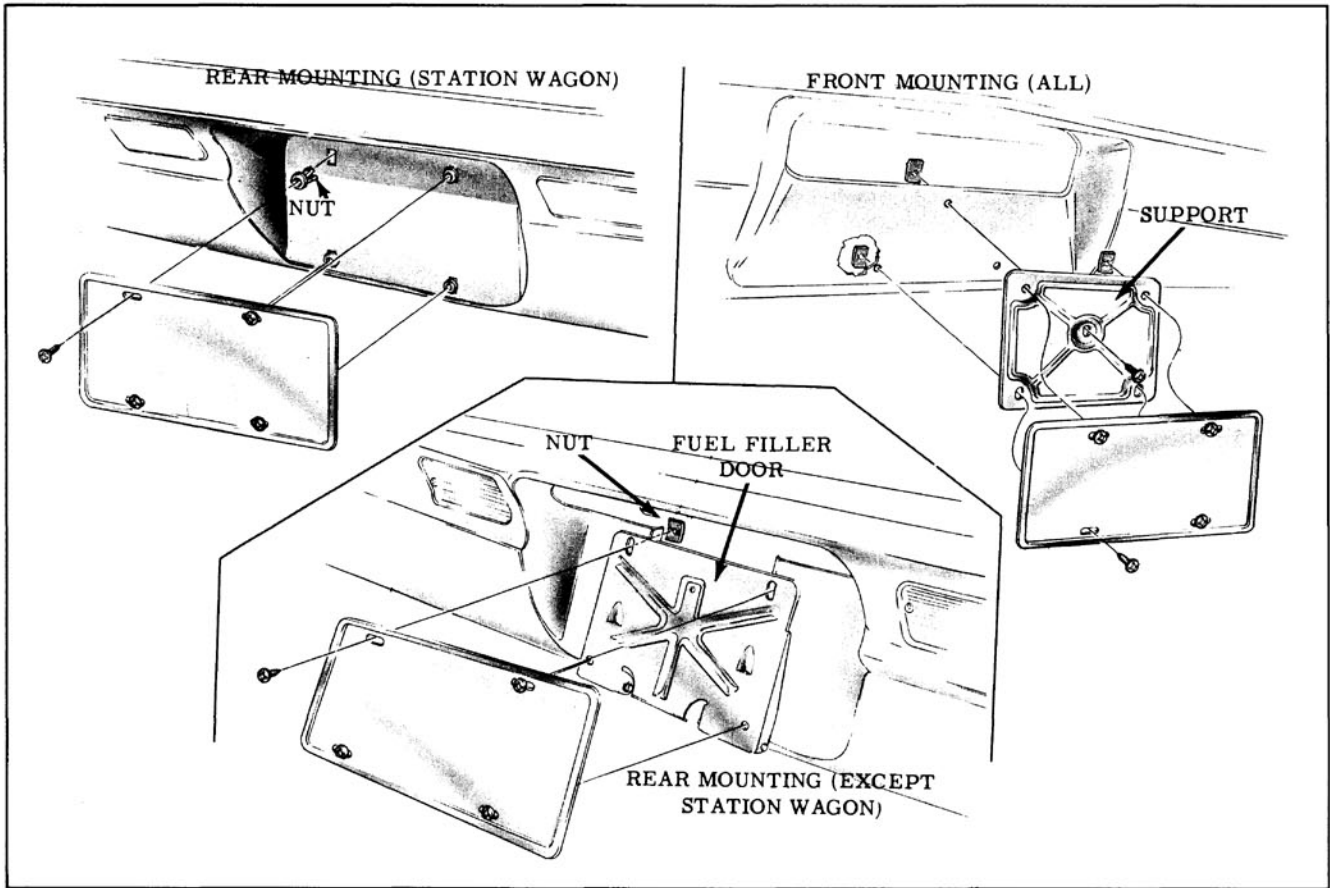


Fig. 15-120 License Mounting

BUMPER TORQUE SPECIFICATIONS

APPLICATION	FT. LBS.
FRONT BUMPER	
Brackets to Frame	65 to 70
Brace to Frame	65 to 70
Brace to Bumper	30 to 38
Bumper to Reinforcement . . .	30 to 38
Reinforcement to Bracket . . .	65 to 70
REAR BUMPER	
Brackets to Frame	65 to 70
Brackets to Bumper	30 to 38
Outer Brace to Bumper	30 to 38
Center Reinforcement	30 to 38

after removing the tail lamp assembly by removing the four studs.

STATION WAGON

To remove the tail lamp assembly, remove the four lens attaching screws, remove the lens and the two screws retaining the lamp assembly to the body. Pull the lamp rearward to gain access to the wiring connector and disconnect wiring. The lens or bulb can be replaced by removing the four lens attaching screws.

TAIL LAMP ASSEMBLY

ALL EXCEPT STATION WAGON

The tail lamp assembly can be removed by removing the four attaching nuts from inside the trunk compartment. The tail lamp bulbs can be replaced by removing the snap-in socket on the bottom of the assembly. The lens can be replaced

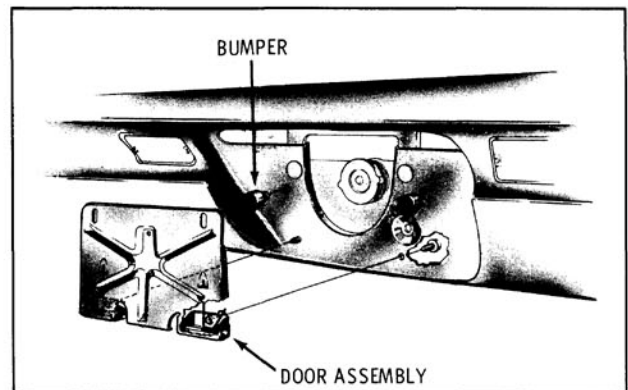


Fig. 15-121 Fuel Filler Door

BODY

33-34-35-36-38 & 39 SERIES

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WINDSHIELD ASSEMBLY

WINDSHIELD GARNISH MOLDINGS

Removal and Installation (Figs. 16-1 and 16-2)

1. Place protective covering over front seat and instrument panel.
2. Remove moldings in following order: side, lower and upper moldings.

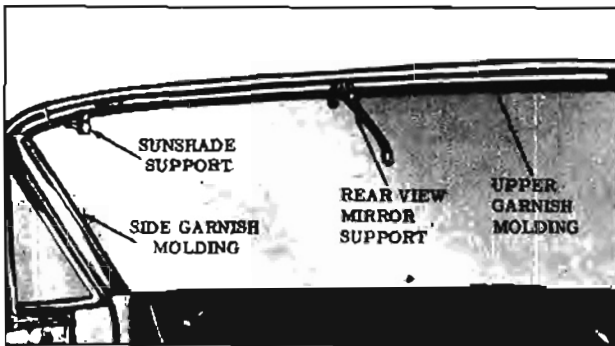


Fig. 16-1 Garnish Moldings and Supports



Fig. 16-3 Windshield Reveal Moldings

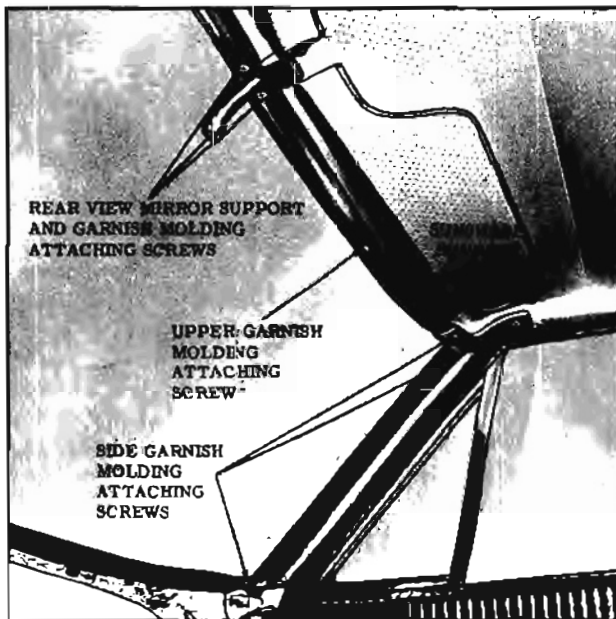


Fig. 16-2 Garnish Moldings and Supports

NOTE: On 67 styles, remove side garnish molding attaching screws. Raise top, remove screw attaching side reveal to windshield header, pry up corner of side reveal molding overlapping windshield header and remove side garnish molding. Remove sunshade supports prior to removing upper garnish moldings.

3. To install, reverse removal procedure.

REAR VIEW MIRROR SUPPORT

Removal and Installation

1. Remove one side of upper garnish molding.
2. Remove support attaching screws and slide support to one side and remove support.
3. To install, reverse removal procedure. (Fig. 16-1 and Fig. 16-2)

WINDSHIELD REVEAL MOLDINGS

The windshield reveal moldings consist of a one

piece upper, right and left side and right and left lower moldings. On all styles except 67 styles, the upper reveal moldings are secured to the openings by clips. On 67 styles, the upper reveal molding is secured to the upper windshield frame by screws at each end and studs and nuts in the center. The side reveal moldings on all except D88 and S88 47 styles and all 67 styles are secured to the opening by clips. On D88 and S88 47 styles and all 67 styles, the side reveal moldings are secured to the windshield pillars by screws, which are hidden by the windshield pillar weatherstrip retainers. The lower reveal moldings on all styles are secured to the upper shroud assembly by screws through the molding clip tabs.

NOTE: The outer most attaching screw on each side of the lower molding is hidden by the front fender and may be removed by opening the front door. The outer molding clip is slotted allowing removal of the molding without completely removing the attaching screw. (Fig. 16-3)

Removal

1. Place protective covering over hood and front fenders.



Fig. 16-4 Air Intake Grille

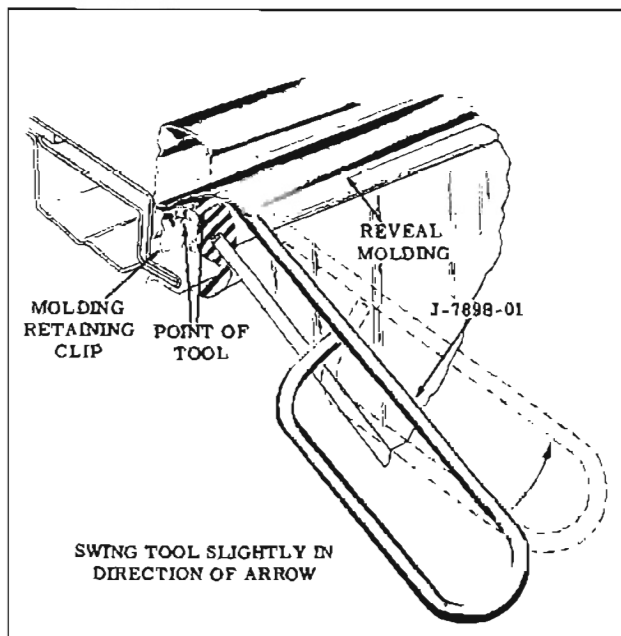


Fig. 16-5 Removing Reveal Molding

2. Remove windshield wiper arms, escutcheon nuts and escutcheons.
3. Remove air intake grille attaching screws. (Fig. 16-4)
4. Lift up grille and slide forward to remove.

CAUTION: Care should be exercised to make certain grille does not contact hood, chipping paint.

5. Remove lower reveal molding attaching screws except end screws, open door, loosen both end attaching screws, lift up molding disengaging slotted clip from screws and remove molding. (Fig. 16-3)

NOTE: Do not completely remove molding end attaching screws from body.

6. On all except D88 and S88 47 styles and all 67 styles, Tool J-7898-01 may be used to remove the side and upper reveal moldings. When using reveal molding removing Tool J-7898-01, carefully lift up edge of molding sufficiently to engage point of tool between molding and molding clip as indicated in illustration, to disengage prongs of clip from molding and lift molding free of clip. Repeat this operation at each molding clip. (Fig. 16-5)

NOTE: In some instances, a putty knife may be used to aid in removing the moldings from the opening. Care should be exercised when removing moldings to eliminate any damage to the moldings or body paint.

7. On D88 and S88 47 styles and all 67 styles, the side reveal moldings are secured by screws at the windshield pillar and roof rail and it is necessary to loosen the wind-

shield and side roof rail weatherstrip retainer to gain access to the attaching screws. On 67 styles, raise top to loosen windshield pillar weatherstrip, remove screws and molding.

8. On all styles except 67 styles, carefully remove the upper reveal molding with Tool J-7898-01. (Fig. 16-5) On 67 styles, remove screws at outer ends of molding; then, remove upper garnish molding to gain access to stud nuts. Remove nuts and molding.

Installation

Make certain there is sufficient sealer in cavity between windshield rubber channel and body. If sealer is required, apply necessary medium-bodied sealer.

1. Upper reveal moldings: On all except 67 styles, snap upper reveal moldings in place. On 67 styles, seal attaching studs and holes and install molding.
2. Side reveal moldings: On D88 and S88 47 styles and all 67 styles, seal attaching screw holes and install moldings.
3. On D88 and S88 47 styles and all 67 styles, seal side roof rail and windshield pillar weatherstrips and retainers and install.
4. Install lower reveal molding and previously removed hardware parts.

WINDSHIELD GLASS

Removal

1. Place protective covering over front seat and instrument panel.
2. Place protective covering over hood and front fenders.
3. Remove garnish moldings.
4. Remove windshield wiper arms, escutcheon nuts and escutcheons.
5. Remove air intake grille.
6. Remove windshield reveal moldings.

NOTE: If glass is broken or cracked, mark centerline of glass and body so alignment of glass to body opening may be checked to locate cause of glass break (glass off center, strain break, etc.).

7. On inside of body, loosen lip of rubber channel from pinchweld flange along top and sides of

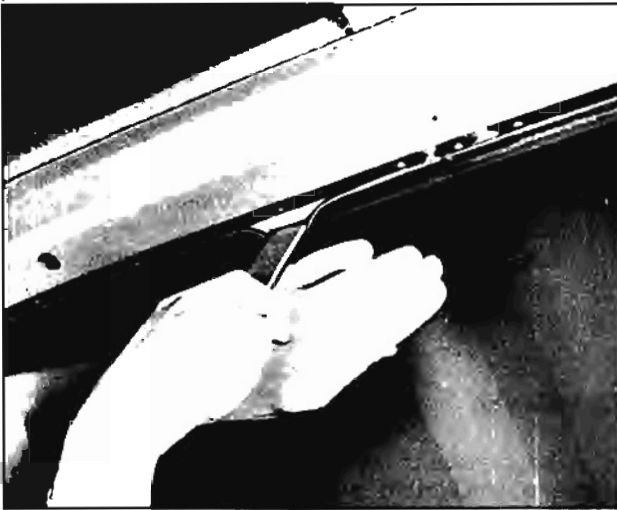


Fig. 16-6 Windshield Removal

windshield as follows: with palm of hand, apply pressure to glass near edge, (Fig. 16-6) at the same time, use a blunt putty knife and carefully assist rubber channel over pinch-weld flange.

8. After windshield channel is free from pinch-weld flange, with aid of helper, carefully lift windshield assembly from opening and place on a protected bench.

CHECKING BODY, WINDSHIELD OPENING

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

1. Remove the windshield from body.
2. Check windshield rubber channel for any irregularities.
3. Clean off old sealer around windshield opening and check entire body opening flange for any irregularities.

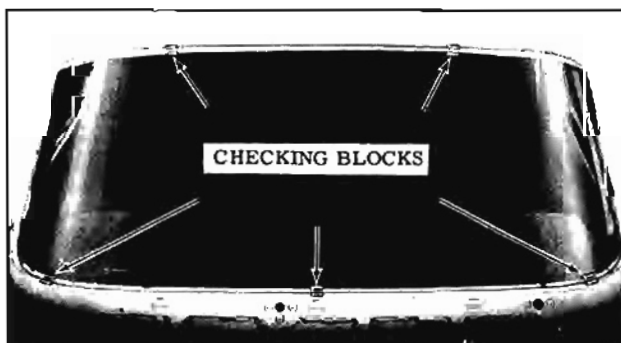


Fig. 16-7 Windshield Opening Check

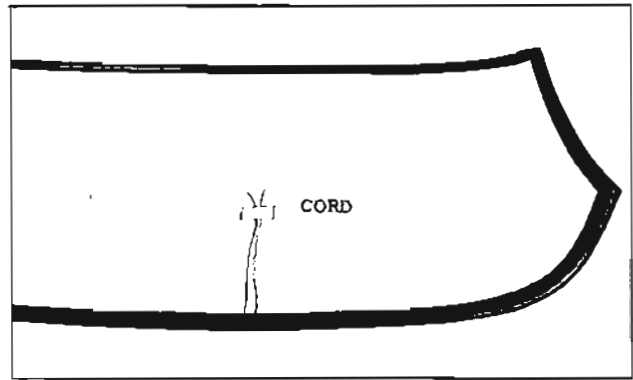


Fig. 16-8 Cord Installation

4. Install Windshield Checking Blocks J-8942, (Fig. 16-7)
5. With aid of helper, carefully position replacement glass on blocks in windshield opening.

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

6. With windshield supported and centered in the body opening by checking blocks, check relationship of glass to body opening around entire perimeter of glass. Check glass to body relationship as follows:
 - a. The inside surface of glass should be a uniform distance from pinch-weld flange. The dimension should be from 1/4" to 5/16"
 - b. The outer edge of glass should be a uniform distance from body metal, measured in plane of the glass. This dimension should be from 5/16" to 3/8".
7. Mark any sections of body to be re-formed, remove glass and re-form opening as required.
8. Re-check windshield opening, then mark the centerline on the glass and body so that glass can be accurately centered in the opening when installed.

Installation

1. Clean out old sealer in glass cavity of windshield rubber channel and around base of rubber channel.
2. Install rubber channel to glass.
3. Install a strong cord in pinch-weld cavity of rubber channel completely around windshield. Tie ends of cord and tape to inside surface of glass at bottom center of glass. (Fig. 16-8)

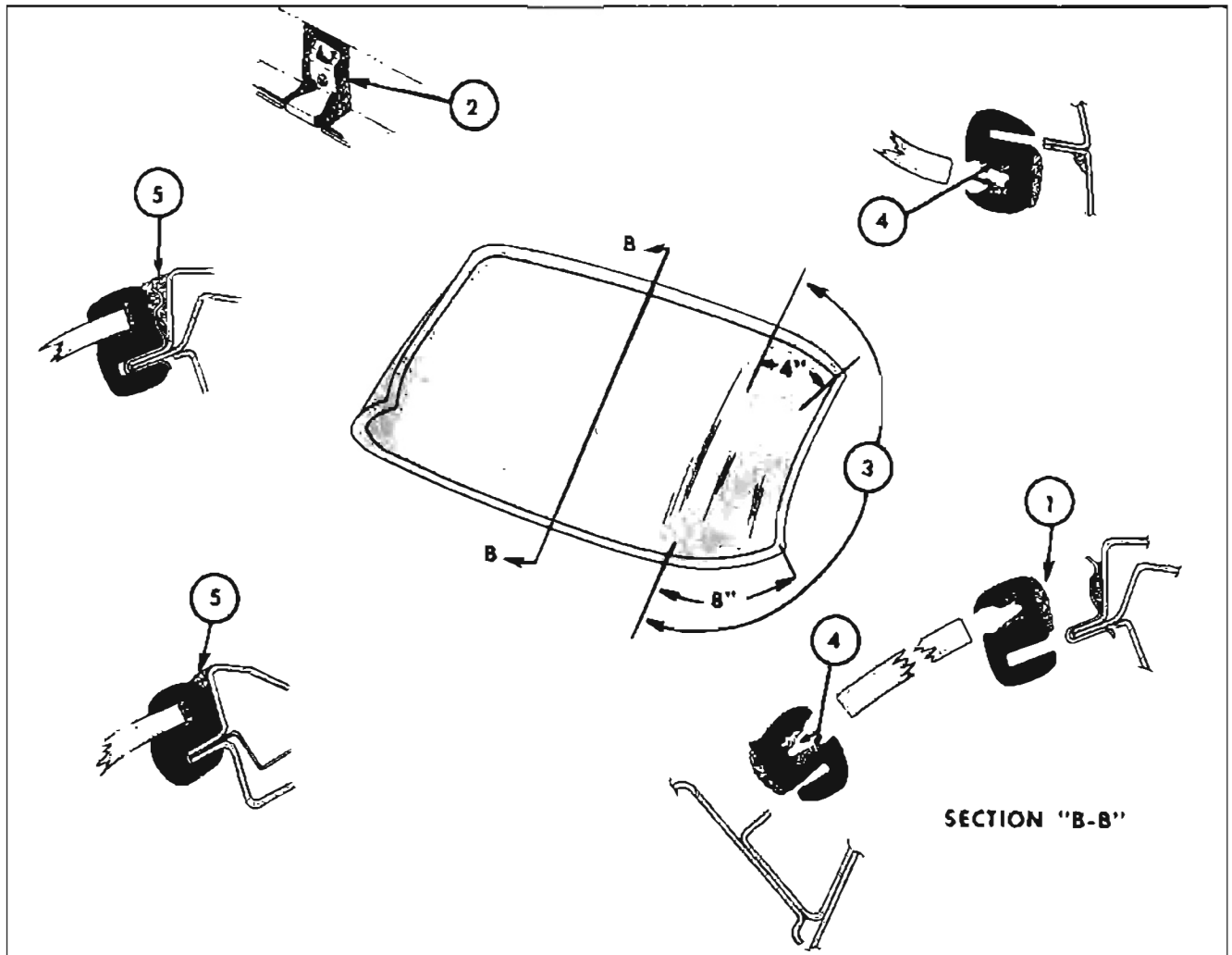


Fig. 16-9 Windshield Sealing

4. Apply a ribbon of medium-bodied sealer completely around base of rubber channel. (View 1, Fig. 16-9)
5. Inspect condition of each molding clip, install new clips where necessary, make certain clips are properly sealed to pinchweld and body (View 2, Fig. 16-9) except 67 styles.
6. Apply a 1/4" bead of medium-bodied sealer to the base of windshield opening flange at pillar areas extending 4" inboard along top edge and approximately 8" inboard along lower edge of windshield opening.
7. With aid of helper, carefully position and center windshield assembly in windshield opening.

CAUTION: Do not position by tapping or hammering glass at any time.
8. When the glass and channel are properly positioned in the opening, slowly pull both ends of cord starting at lower center of windshield to seat lip of rubber channel over pinchweld flange. Cord should be pulled first across bottom of windshield, then up each side and finally across top of windshield.
9. Using a pressure type applicator, seal inner and outer lips of rubber channel to glass with weatherstrip adhesive. (View 4, Fig. 16-9) Seals are to extend completely around rubber channel.
10. Clean off excess sealer from windshield glass.
11. On outside of windshield, apply medium-bodied sealer between windshield rubber channel and opening across top and sides. (View 5, Fig. 16-9)
12. Re-install all previously removed parts and remove protective coverings.

WINDSHIELD GLASS REPLACEMENT (WHEN CHECKING OF OPENING IS NOT REQUIRED)**Removal**

1. Place protective covering over front seat and instrument panel.
2. Place protective covering over hood and front fenders.
3. Remove upper and side garnish moldings and mirror support. On 67 styles, remove sunshade supports.
4. Remove upper and side reveal moldings.
5. Remove windshield wiper arms.
6. On inside of body, loosen lip of rubber channel from pinchweld flange along top and sides of windshield as follows: with palm of hand, apply pressure to glass near edge, (Fig. 16-6) at the same time, use a blunt putty knife and carefully assist rubber channel over pinchweld flange across top and sides only.
7. Tilt glass forward sufficiently to remove glass from channel and remove glass.

NOTE: Do not remove lower portion of rubber channel from pinchweld or break seal between rubber channel and lower pinchweld.

Installation

1. Clean out cavity of windshield rubber channel of all old sealer, etc.
2. Apply a mild soap solution to cavity and outer lip of rubber channel.
3. Place windshield glass in rubber channel.
4. Working from inside of body with a screwdriver, work the inner lip of the windshield channel over the pinchweld flange, up each side and across the top.

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

5. Using a pressure type applicator, seal inner and outer lips of rubber channel to glass with weatherstrip adhesive. (View 4, Fig. 16-9) Seals are to extend completely around rubber channel.
6. On outside of windshield, apply medium-bodied sealer between windshield rubber channel and opening across top and sides. (View 5, Fig. 16-9)

7. Clean off excess sealer.
8. Re-install all previously removed parts and remove protective coverings.

MINOR WATER LEAKS AT WINDSHIELD

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

1. Leaks between rubber channel and glass.
 - a. Working from outside of the body and using a pressure applicator with a narrow tip, apply weatherstrip adhesive (black) between glass and rubber channel on the outside of the glass completely around perimeter of glass.
2. Leaks between rubber channel and body.
 - a. Working from outside of the body along top and sides of body opening, remove side and/or upper reveal moldings. Apply sufficient amount of medium-bodied sealer to fill cavity between rubber channel and body opening.
 - b. Working from inside of body, remove inside garnish moldings, apply sufficient amount of medium-bodied sealer between inner lip of rubber channel and body opening. Water test and clean off excessive sealer.

FRONT AND REAR DOORS**DOOR BOTTOM DRAIN HOLE SEALING STRIPS**

Door bottom drain hole sealing strips (dust flaps) are attached to door inner panels over door bottom drain holes and are designed to prevent entry of dust and cold air at these areas. These strips are retained by two integral retaining plugs, are constructed of a vinyl material and do not require lubrication. Two sealing strips are used on each door.

Removal and Installation

1. With a putty knife, carefully pry out retaining plugs. (Fig. 16-10)
2. To install, insert tip of a blunt tool (such as a dull ice pick) into retaining plug and push plugs into retaining holes.

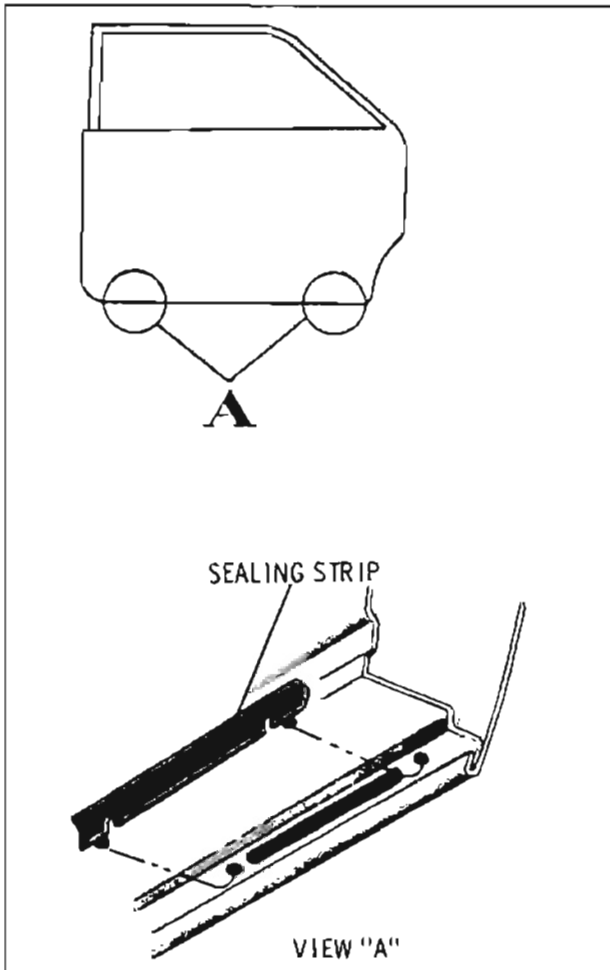


Fig. 16-10 Drain Hole Sealing Strip

WINDOW GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES

Glass run channel strip assemblies are used on all doors and are designed to prevent cold air and water from entering the body between the door window lower sash channel and door inner and outer panels. The inner strip assembly is constructed of a pile fabric material with a metal backing and is secured to top of door trim pad by a series of staples. The inner strip is not normally removed separately for service procedures. The outer strip assembly is constructed of a molded rubber and is secured to a metal retainer by a series of staples. On styles equipped with a door window belt reveal molding, the metal retainer is an integral part of this molding which is attached to the door outer panel by three screws. On styles not equipped with a molding, the outer strip assembly is attached to the door outer panel by a series of attaching clips and is further retained by two attaching screws.

On all styles, the inner strip assembly remains in a stationary position during operation of door glass. On the outer strip assembly, however, the inboard section of the sealing lip is lifted and

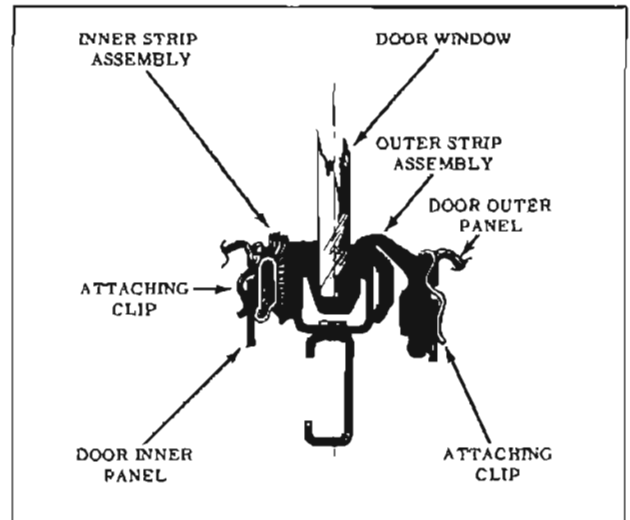


Fig. 16-11 Glass Run Channel Inner and Outer Assemblies

held in position by the door window lower sash channel or filler when door glass is raised. (Fig. 16-11)

Removal and Installation

1. Lower door window and apply masking tape over door outer panel adjacent to outer strip assembly to protect paint finish.
2. Check outer strip assembly for location of attaching screws. This location varies with style and size of door, however; on most styles, the front door ventilator will have to be removed to gain access to forward attaching screw. If necessary, remove the front door ventilator assembly as described under FRONT DOOR section.

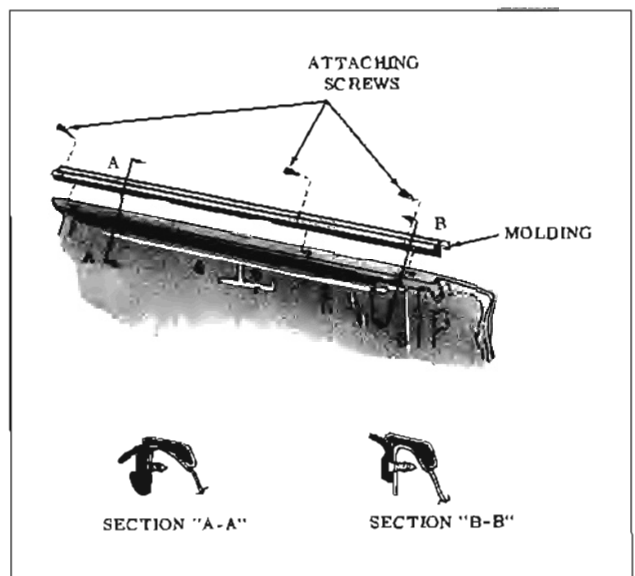


Fig. 16-12 Run Channel Outer Strip with a Belt Reveal Molding

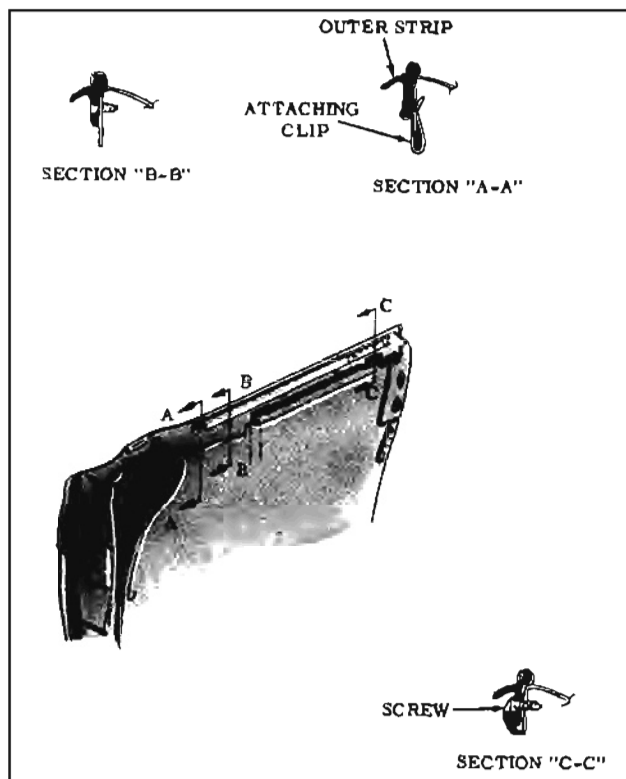


Fig. 16-13 Run Channel Outer Strip without a Belt Reveal Molding

3. On some styles, it may be necessary to remove the door window lower stop or stop bumper and lower door window as far down as possible to gain access to the outer strip assembly attaching screws.
4. Remove all outer strip assembly attaching screws (three screws on styles equipped with a belt reveal molding and two screws on all other styles). See Fig. 16-12 for styles with a belt reveal molding and Fig. 16-13 for all other styles.
5. On styles equipped with a belt reveal molding, the outer strip assembly and molding can now be removed.
6. On all other styles, firmly press outer strip assembly in a downward motion to disengage attaching clips from door outer panel return flange and remove strip assembly from door outer panel.
7. To install, reverse removal procedure.

WEATHERSTRIPS (29, 39, 47, 57 & 67 Styles)

Both front and rear doors are equipped with a mechanical weatherstrip incorporating nylon component fasteners. This fastener is the same size at all locations ($3/16$ " diameter) and is available as a service part.

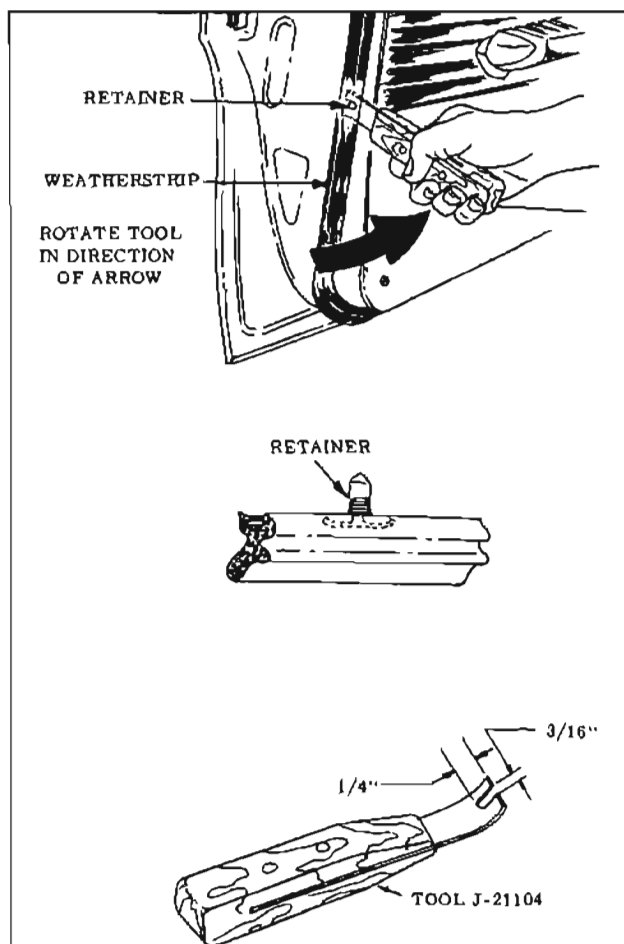


Fig. 16-14 Front Door Weatherstrip Removal

Tool J-21104 is designed for removal of door weatherstrips. If this tool is not available, it can be fabricated from any other comparable metal tool as shown in Fig. 16-14.

NOTE: When a removal tool is fabricated, make sure all sharp edges or metal burrs are removed so as not to damage weatherstrip or paint finish during its usage.

Removal

1. On front doors, remove snap fasteners securing ends of weatherstrip at belt line of door hinge and lock pillar panels. (Fig. 16-15)
2. On rear doors, remove snap fasteners securing ends of weatherstrip at belt line of door hinge and lock pillar panels. (Fig. 16-16)
3. On 39 style rear doors, remove the single weatherstrip attaching clip screw located at upper radius of door lock pillar panel.
4. Carefully break cement bonds securing weatherstrip to door. A flat-bladed tool, such as a putty knife, will prove helpful in breaking cement bond. See Fig. 16-17 for front door cement usage and Fig. 16-18 for rear door cement usage.

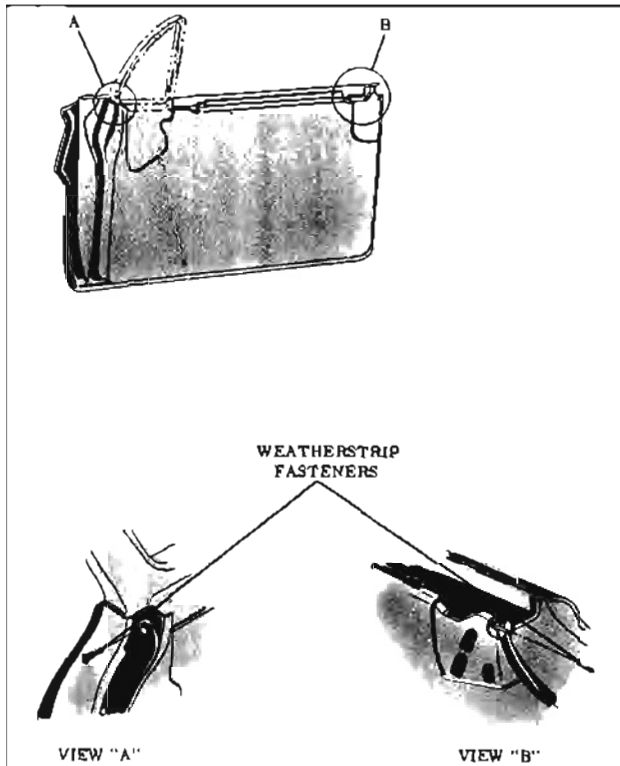


Fig. 16-15 Front Door Weatherstrip

5. Slide Tool J-21004, or other suitable tool, under weatherstrip at a fastener location and

grip fastener as close to door panel as possible; then, gently pry fastener out of its respective door piercing. (Fig. 16-19) Continue around door until all fasteners have been disengaged and remove weatherstrip from door.

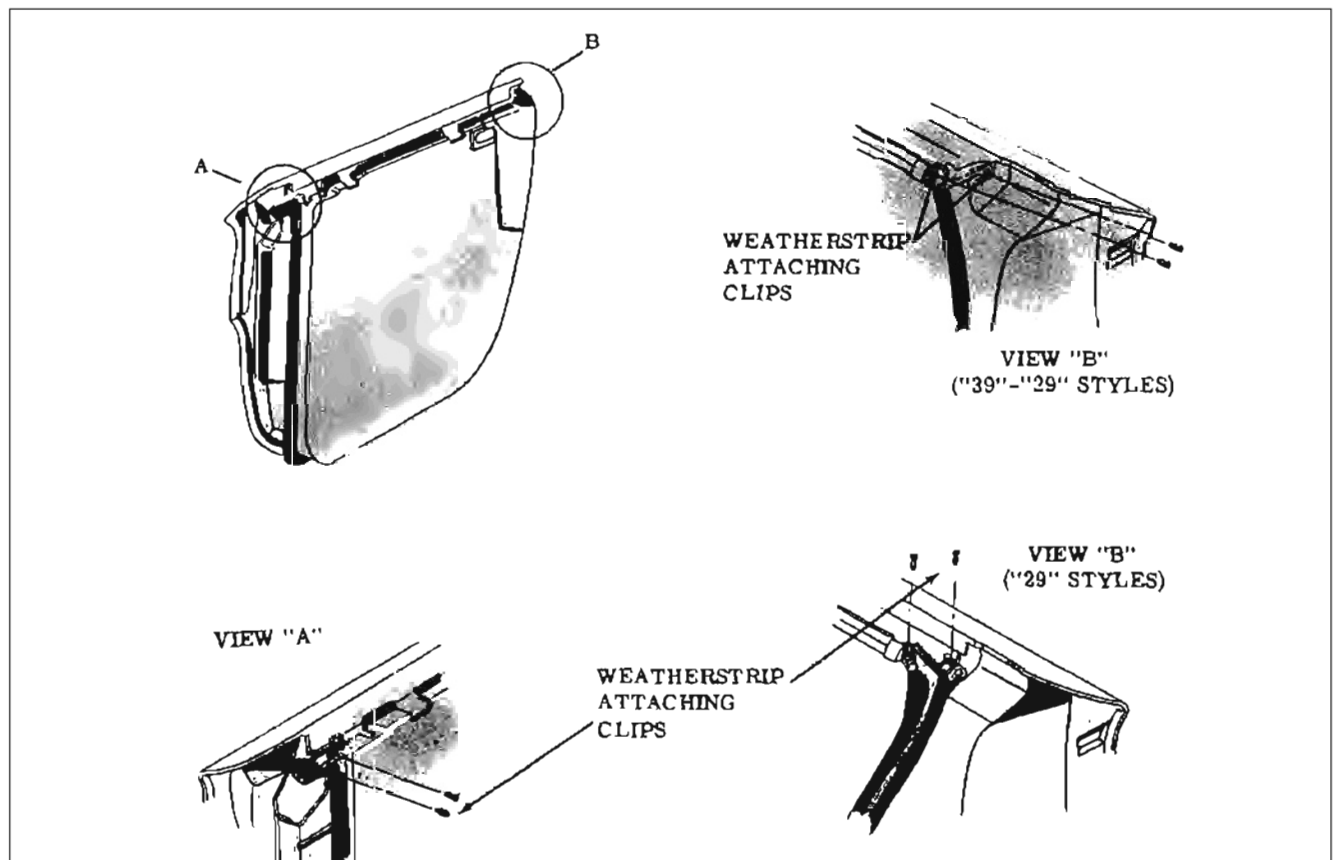
CAUTION: Exercise care not to damage serrations of fasteners during removal as they are necessary to maintain a good weatherseal.

Installation

1. Check weatherstrip nylon fasteners for damage and replace, if necessary.
2. Clean off old cement from door to insure a clean cementing surface. Apply a bead of an approved weatherstrip adhesive to door as shown in Figs. 16-17 and 16-18.

NOTE: Cement usage is usually limited to the areas illustrated in the figures referenced in Step 2. Cement, however, can be applied at any point where additional retention of weatherstrip is needed.

3. Beginning at either front or rear section of door, install snap fasteners. Install weatherstrip fasteners by pressing fasteners into



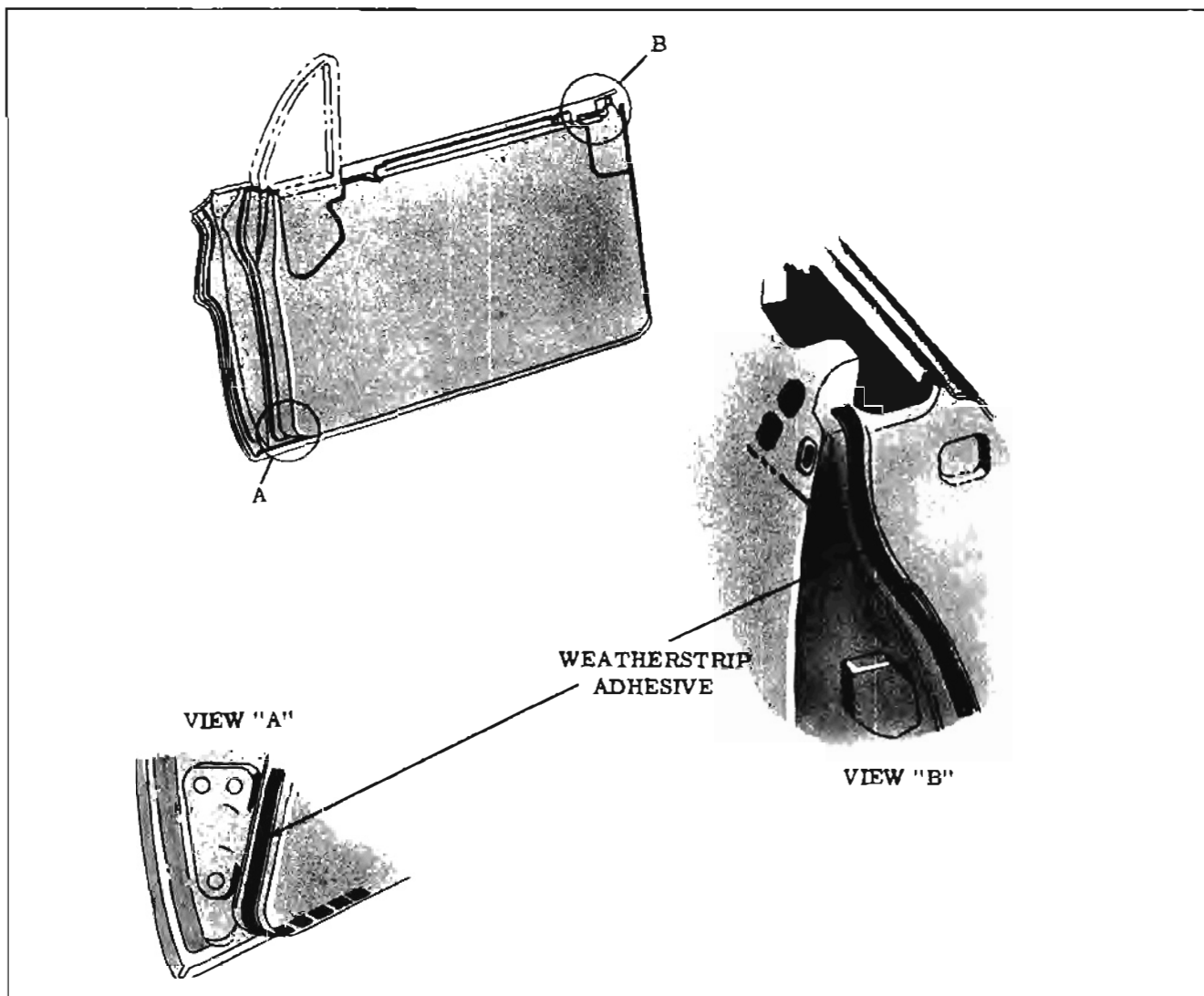


Fig. 16-17 Front Door Weatherstrip Cementing

door panel piercings. A protected hammer can also be used if necessary.

NOTE: In the event a weatherstrip becomes damaged at a fastener location and will not properly retain the fastener, remove fastener and cement weatherstrip into place. If, however, two or more consecutive fasteners will not remain engaged in the weatherstrip, replacement of the weatherstrip will probably be necessary.

All door weatherstrips are impregnated with a silicone lubricant and additional lubrication is not required.

WEATHERSTRIPS (19, 35, 45 & 69 Styles)

Both front and rear doors are equipped with a mechanical weatherstrip incorporating nylon component fasteners. This fastener is the same size at all locations ($3/16$ " diameter) and is available

as a service part. Tool J-21104 is designed for removal of door weatherstrips.

Removal

1. Carefully break cement bonds securing weatherstrip to door. A flat-bladed tool, such as a putty knife, will prove helpful in breaking cement bond. See Fig. 16-20 for front door cement usage and Fig. 16-21 for rear door cement usage.
2. Slide Tool J-21104, or other suitable tool, under weatherstrip at a fastener location and grip fastener as close to door panel as possible; then, gently pry fastener out of its respective door piercing. (Fig. 16-19)

CAUTION: Exercise care not to damage serrations of fasteners during removal as they are necessary to maintain a good weatherseal.

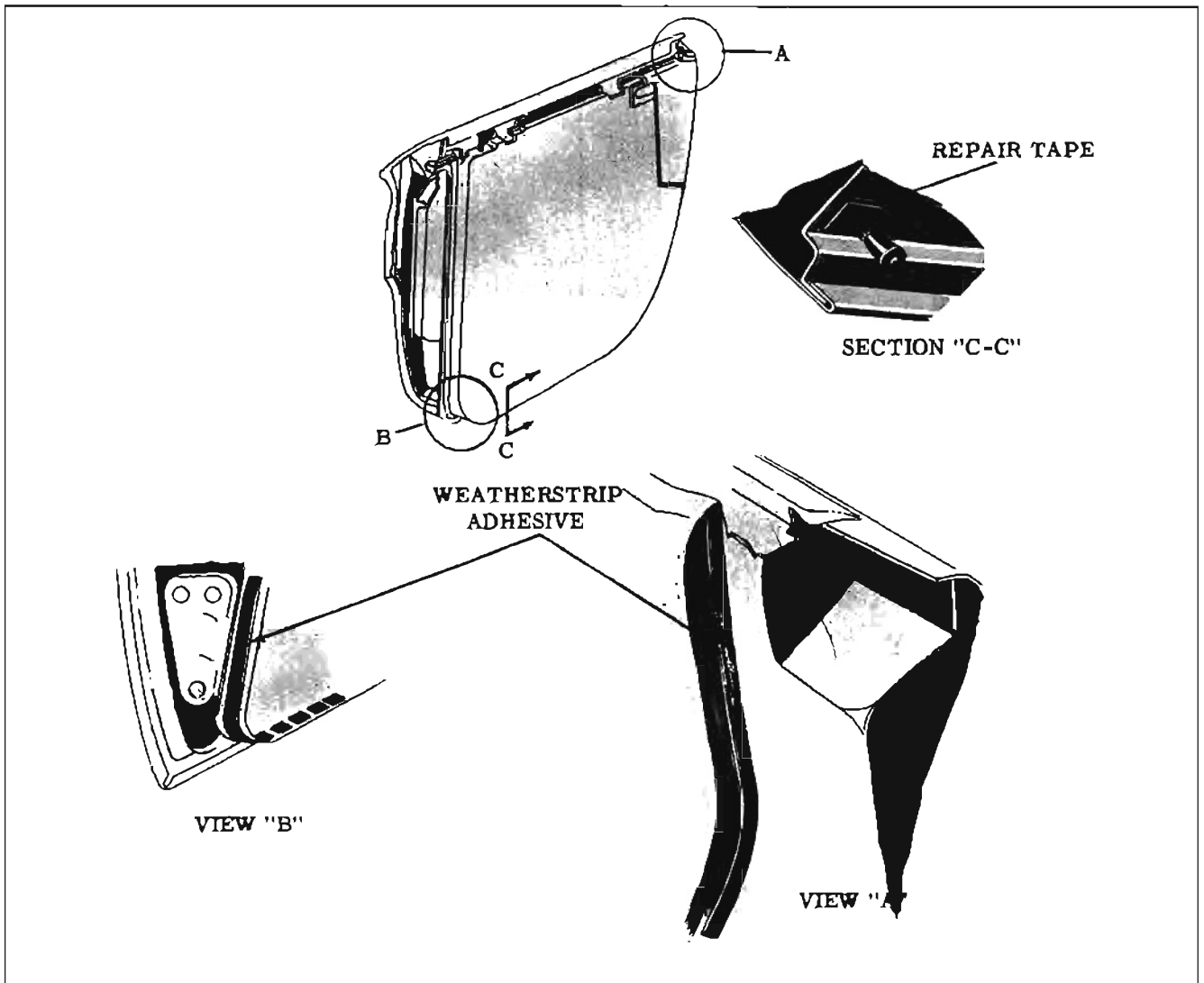


Fig. 16-18 Rear Door Weatherstrip Cementing

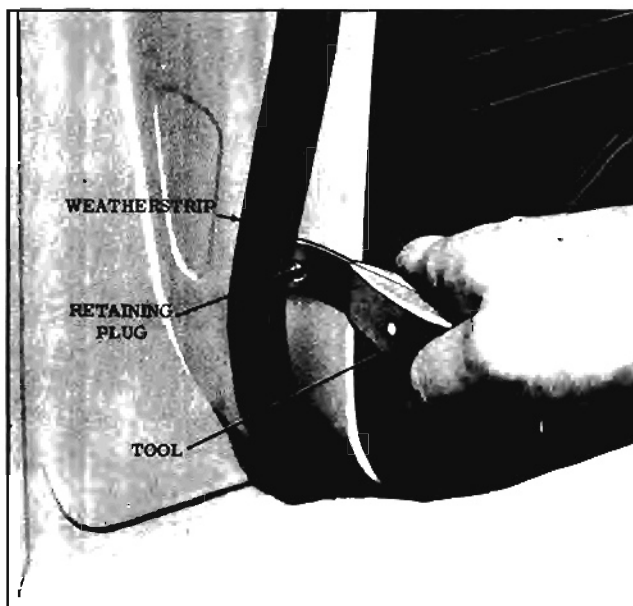


Fig. 16-19 Removing Retaining Plug

Installation

1. Check weatherstrip nylon fasteners for damage and replace, if necessary.
2. Clean off old cement from door to insure a clean cementing surface. Apply a bead of an approved weatherstrip adhesive to door, as shown in Figs. 16-20 and 16-21.

NOTE: Cement usage is usually limited to the areas illustrated in the figures referenced in Step 2. Cement, however, can be applied at any point where additional retention of weatherstrip is needed.

3. Install weatherstrip into door upper frame and then install weatherstrip fasteners. Fasteners are installed by pressing same into door panel piercings. A protected hammer can also be used if necessary.

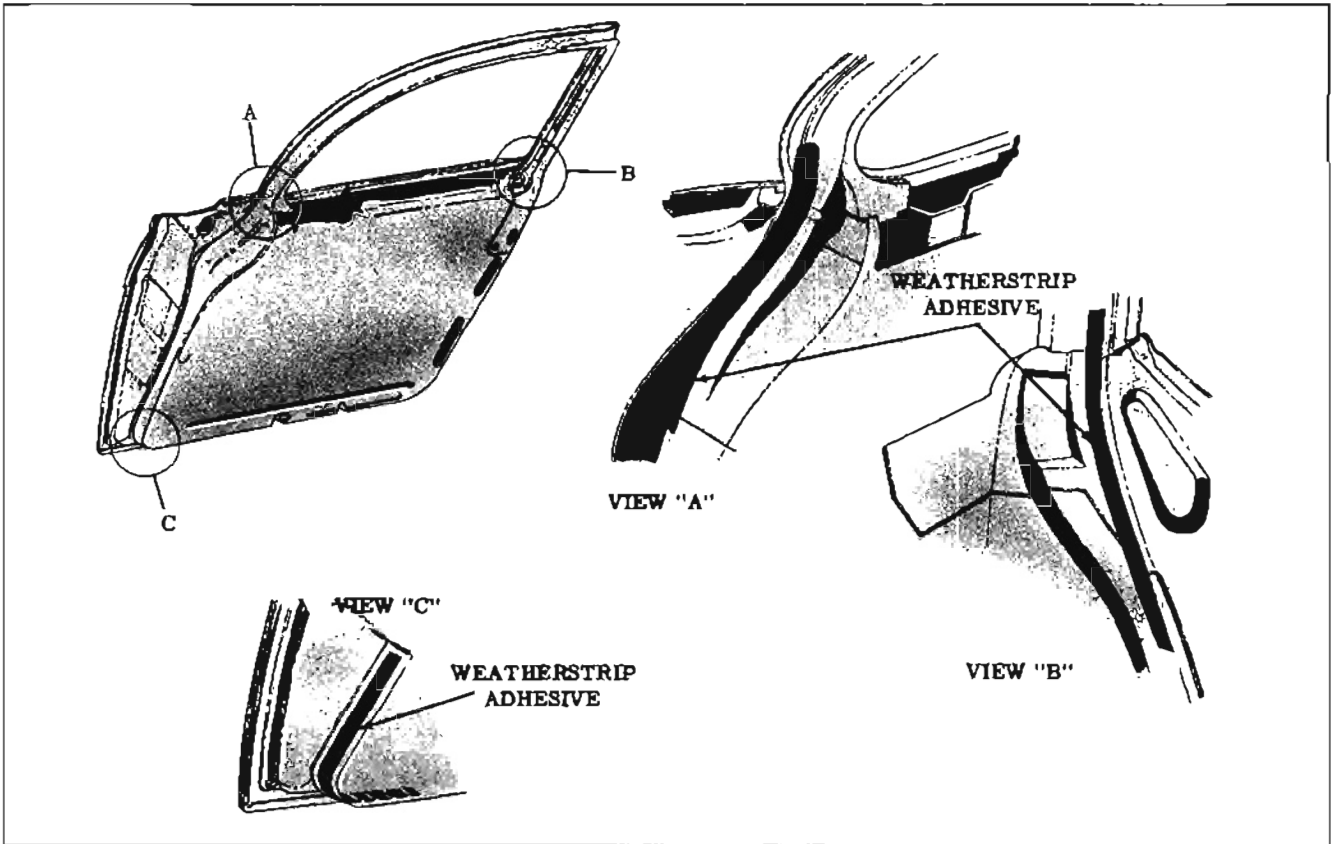


Fig. 16-20 Adhesive Application

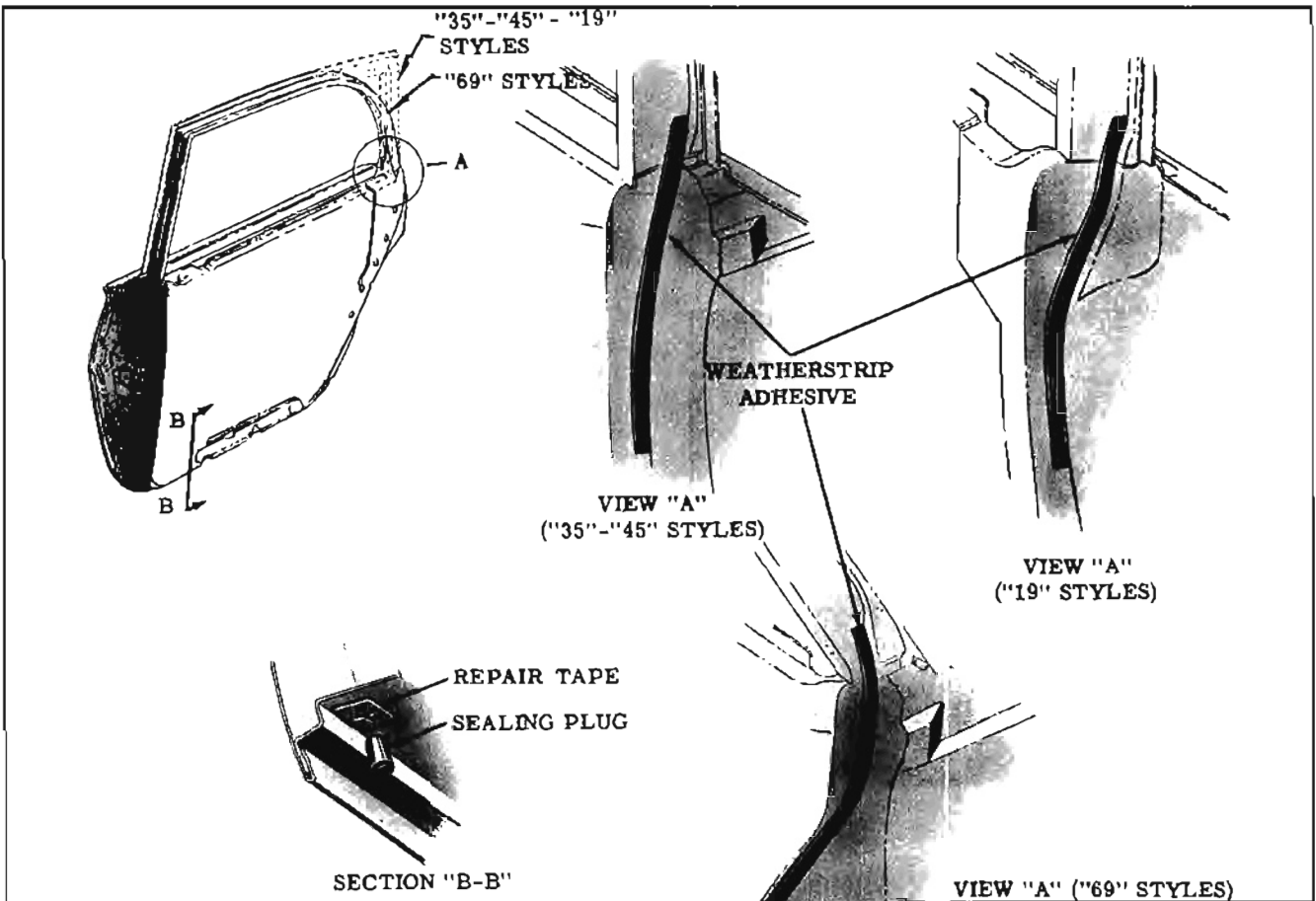


Fig. 16-21 Rear Door Weatherstrip Adhesive

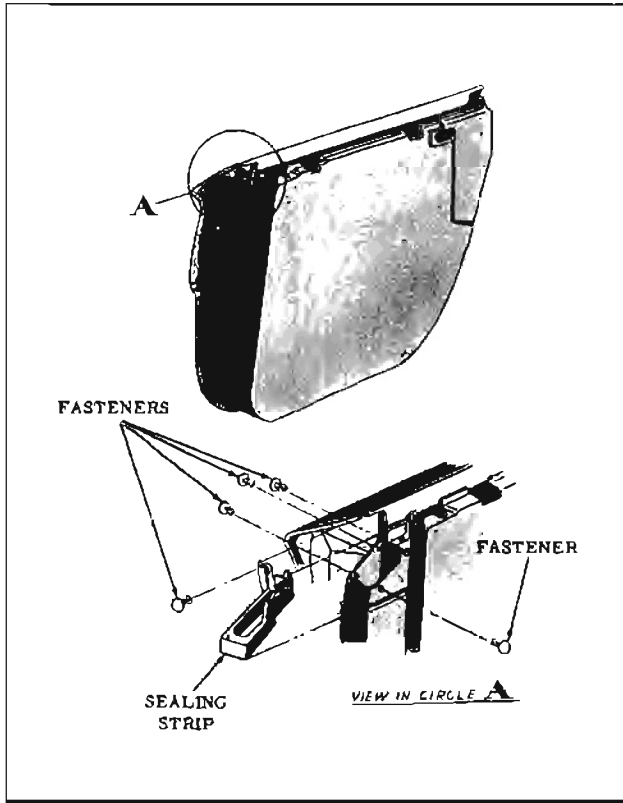


Fig. 16-22 Hinge Pillar Sealing (at Belt)

NOTE: In the event a weatherstrip becomes damaged at a fastener location and will not properly retain the fastener, remove fastener and cement weatherstrip into place. If, however, two or more consecutive fasteners will not remain engaged in the weatherstrip, replacement of the weatherstrip will probably be necessary.

4. Clean off any excess weatherstrip adhesive.

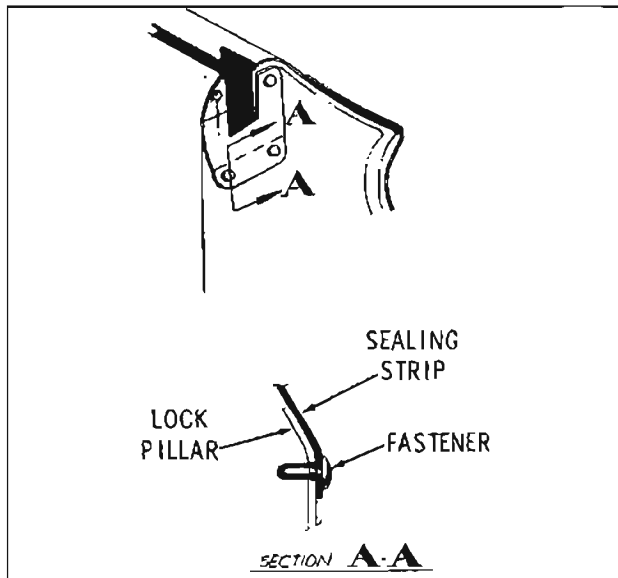


Fig. 16-23 Lock Pillar Sealing Strip

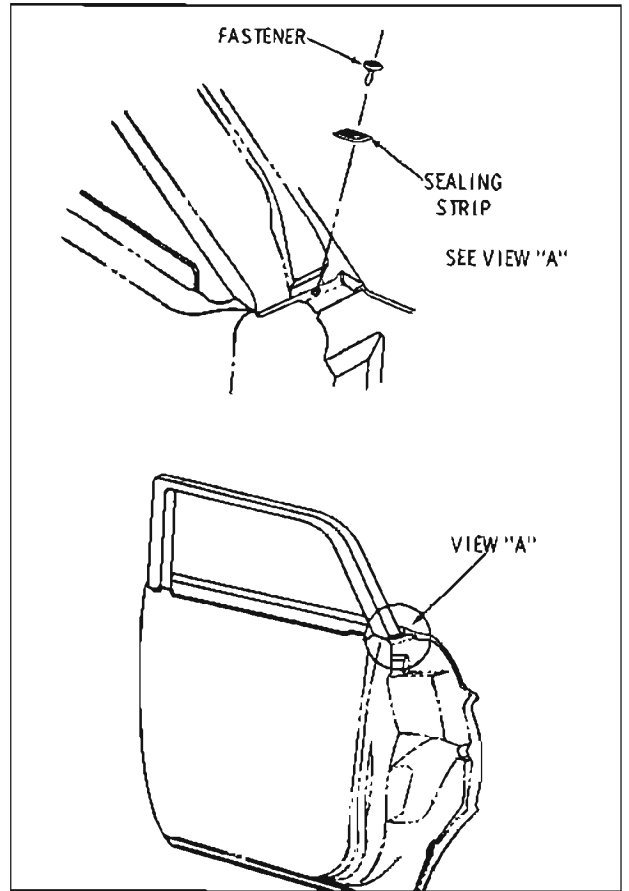


Fig. 16-24 Lock Pillar Sealing Strip (69 Styles)

NOTE: All door weatherstrips are impregnated with a silicone lubricant and additional lubrication is not required.

REAR DOOR HINGE PILLAR SEALING STRIP AT BELT (29 & 39 Styles)

Removal and Installation

1. Remove snap fasteners securing sealing strip to hinge pillar facing of rear door and remove strip assembly. (Fig. 16-22)
2. To install, reverse removal procedure.

FRONT DOOR LOCK PILLAR SEALING STRIP AT BELT (29, 39, 47, 57 & 67 Styles)

Removal and Installation

1. Remove snap fasteners securing sealing strip to lock pillar facing of front door and remove strip assembly. (Fig. 16-23)
2. To install, reverse removal procedure.

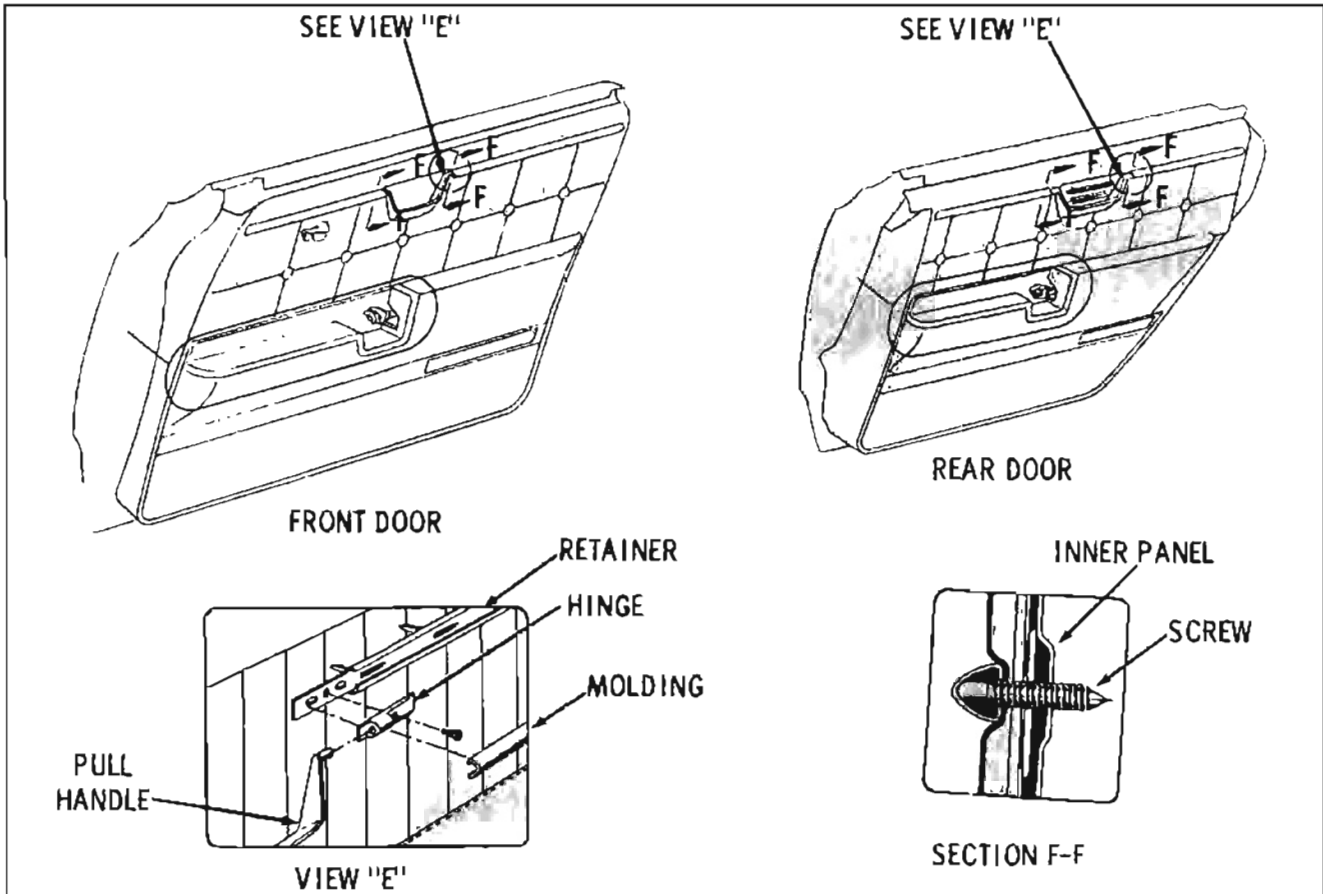


Fig. 16-25 Front and Rear Door Pull Handle

REAR DOOR LOCK PILLAR SEALING STRIP (69 Styles)

Removal and Installation

1. Remove the single snap fastener securing sealing strip to rear door lock pillar (at belt) and remove strip. (Fig. 16-24)
2. To install, reverse removal procedure.

hinge, however, need be removed to facilitate removal of the pull handle.

3. Slide door pull handle out of engagement with remaining hinge and remove assembly from door.
4. To install, reverse removal procedure. The pull handle attaching screw holes should be sealed with body caulking compound prior to installation.

FRONT AND REAR DOOR PULL HANDLE (3829 Style)

Removal and Installation

1. Insert end of a screwdriver or other suitable tool under edge of trim pad accent molding and snap molding out of engagement with retainer. (View "E" in Fig. 16-25)
2. Remove the single screw securing door pull handle hinge to trim pad and remove hinge. (View "E" in Fig. 16-25)

NOTE: The door pull handle is equipped with a front and rear hinge. Either hinge may be removed after disengagement of the front or rear trim pad accent molding. Only one

FRONT AND REAR DOOR ARM REST COVER PLATE ASSEMBLY (3839, 3867 & 3947 Styles)

Removal and Installation

1. Remove screws securing cover plate to arm rest and remove assembly from door. (View "G" in Fig. 16-26)
2. To install, reverse removal procedure.

FRONT AND REAR DOOR INSIDE HANDLES

Removal and Installation

- A. On styles equipped with door inside remote

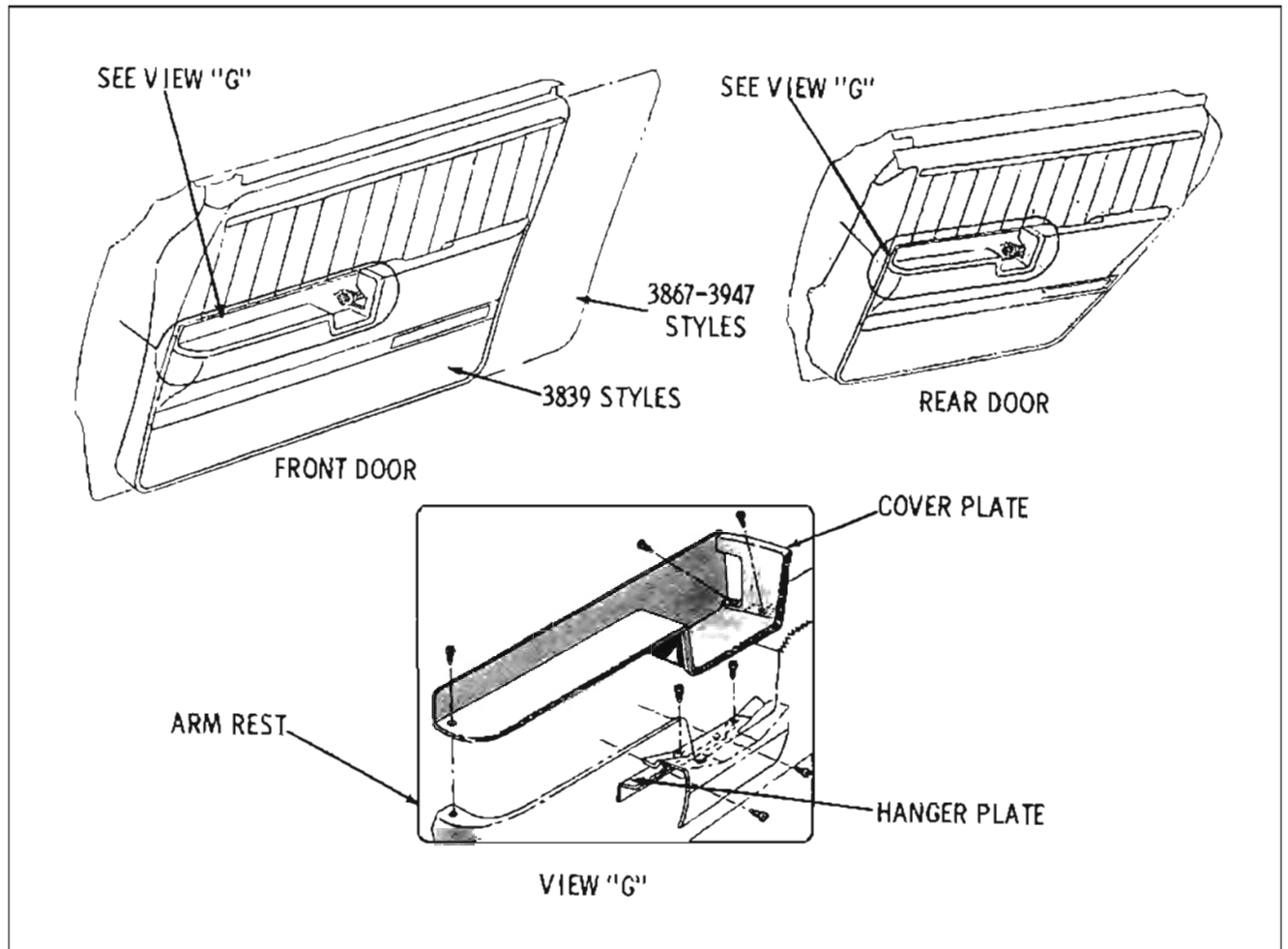


Fig. 16-26 Arm Rest Cover Plate

control "paddle" handles, proceed as follows:

1. Remove door arm rest as described under FRONT AND REAR DOOR ARM RESTS.
 2. On "C" body styles, equipped with arm rest cover plates, remove cover plates.
 3. Remove handle-to-remote attaching screw or bolt and remove handle from door.
 4. To install, reverse removal procedure.
- B. On styles not equipped with "paddle" handles and for removal of manually operated door ventilator and window inside handles, proceed as follows:

1. Depress door trim assembly at handle, sufficiently to install Tool J-7797 between handle and bearing plate.
2. Push handle retaining spring out of engagement and remove handle and bearing plate from door.

3. To install, position retaining spring on handle and bearing plate over regulator spindle. Position handle on spindle at same angle as handle on opposite door and push handle until spring is engaged. (Fig. 16-27)

NOTE: Handles are installed in a horizontal position with open end forward when glass is in a full up position.

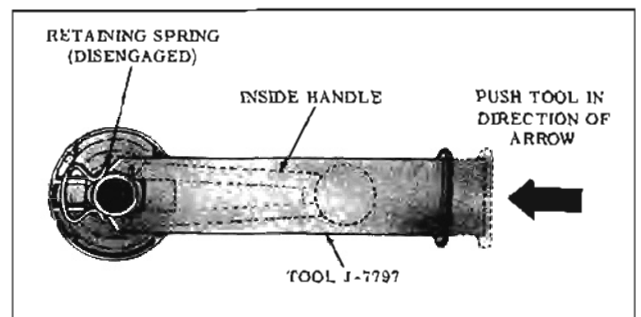


Fig. 16-27 Disengaging Inside Handle Spring

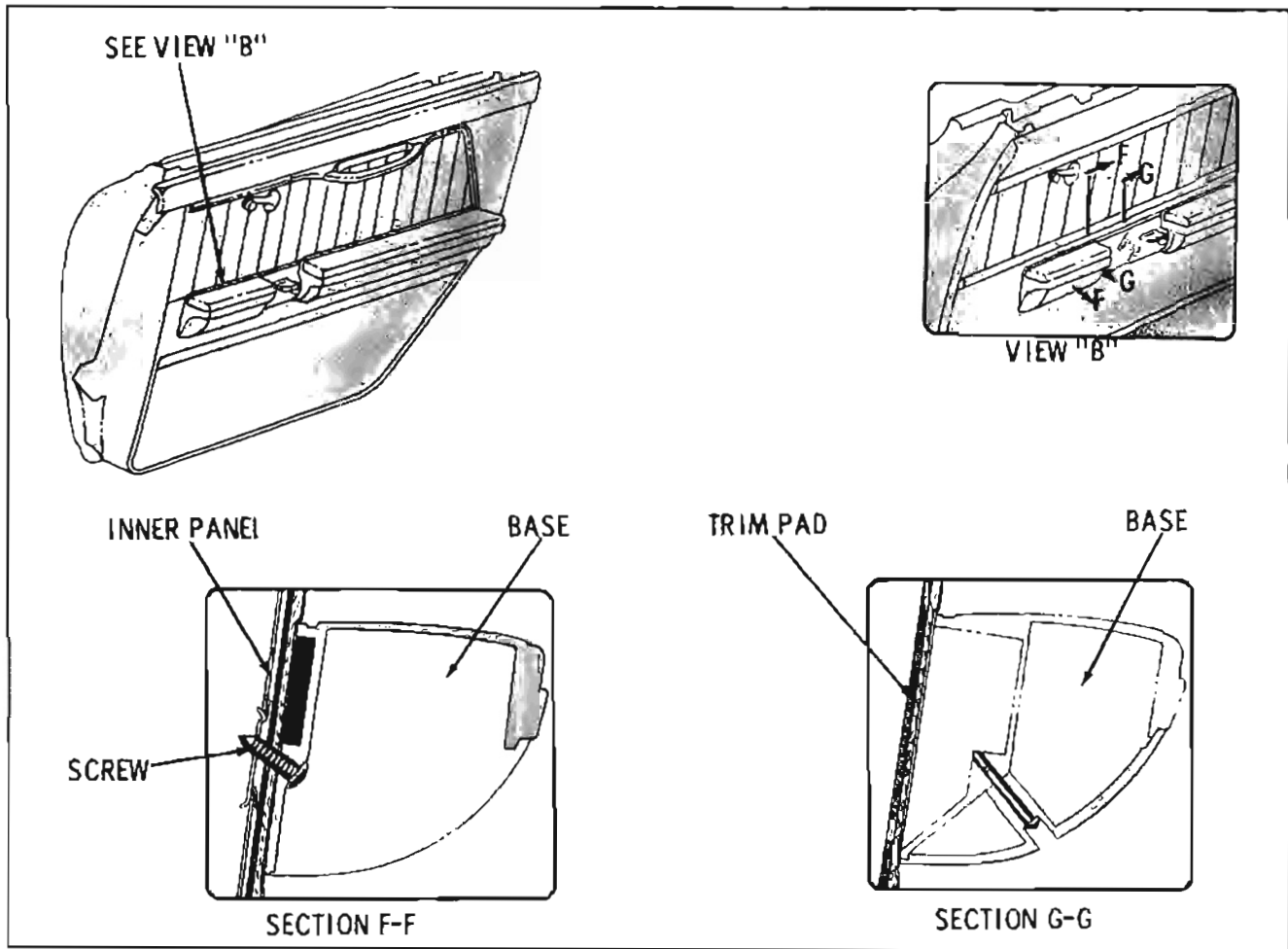


Fig. 16-28 Door Switch Mounting Base

FRONT AND REAR DOOR SWITCH MOUNTING BASE (3847 Styles and Optional on 3819 Styles)

Removal and Installation

1. Remove screws securing switch mounting base to door inner panel.

NOTE: Be sure to disconnect switch terminal block(s) from switch assembly and then remove switch mounting base.

2. To install, reverse removal procedure. The switch mounting base attaching screw holes should be sealed with body caulking compound prior to installation. (View "B" and Sections "F-F" and "G-G" in Fig. 16-28)

FRONT AND REAR DOOR ARM REST ASSEMBLIES (33, 34, 35 & 3600 Series)

Removal and Installation

1. Remove screws securing arm rest to door

inner panel and remove assembly from door. (Fig. 16-29)

2. To install, reverse removal procedure. Arm rest attaching screw holes in door inner panel should be sealed with body caulking compound prior to installation.

FRONT AND REAR DOOR ARM REST ASSEMBLY (38 & 3900 Series)

The arm rest is attached to the door trim pad on these styles and is not normally removed for service operations.

Removal and Installation

1. Remove door pull handle.
2. Remove arm rest cover plate.
3. Where applicable, remove switch plate and mounting base.
4. Remove door inside handles and door trim pad.

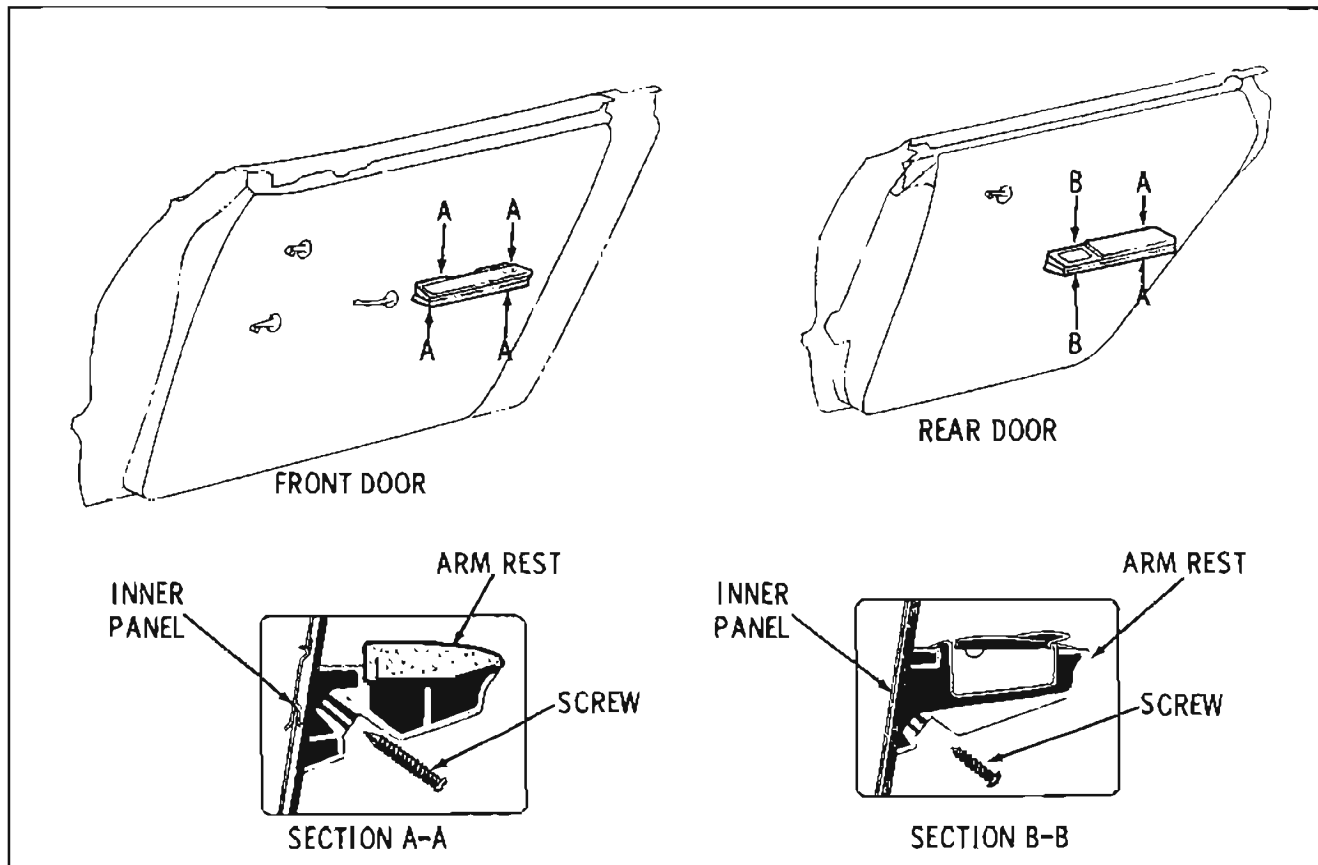


Fig. 16-29 Arm Rest Assemblies

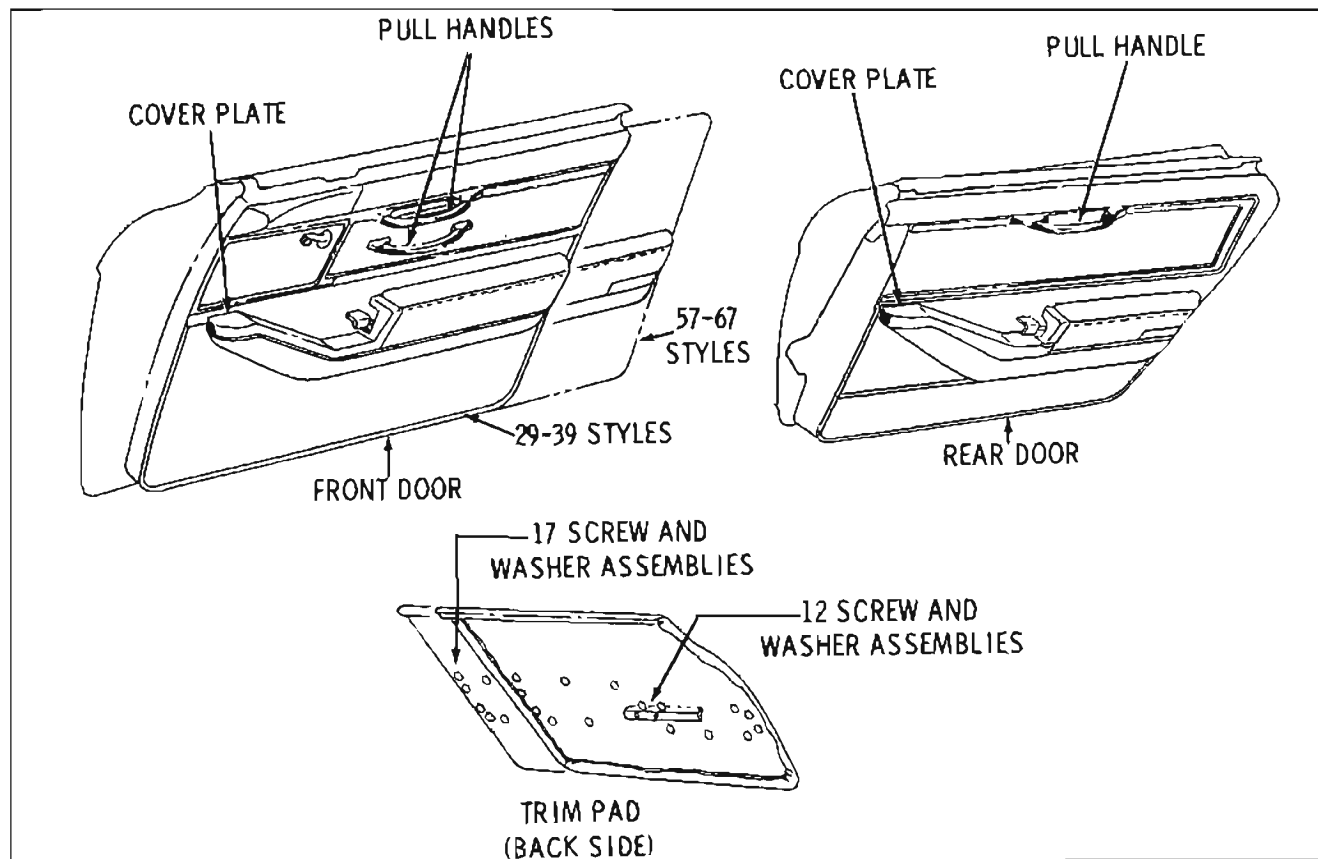


Fig. 16-30 Arm Rest Assemblies

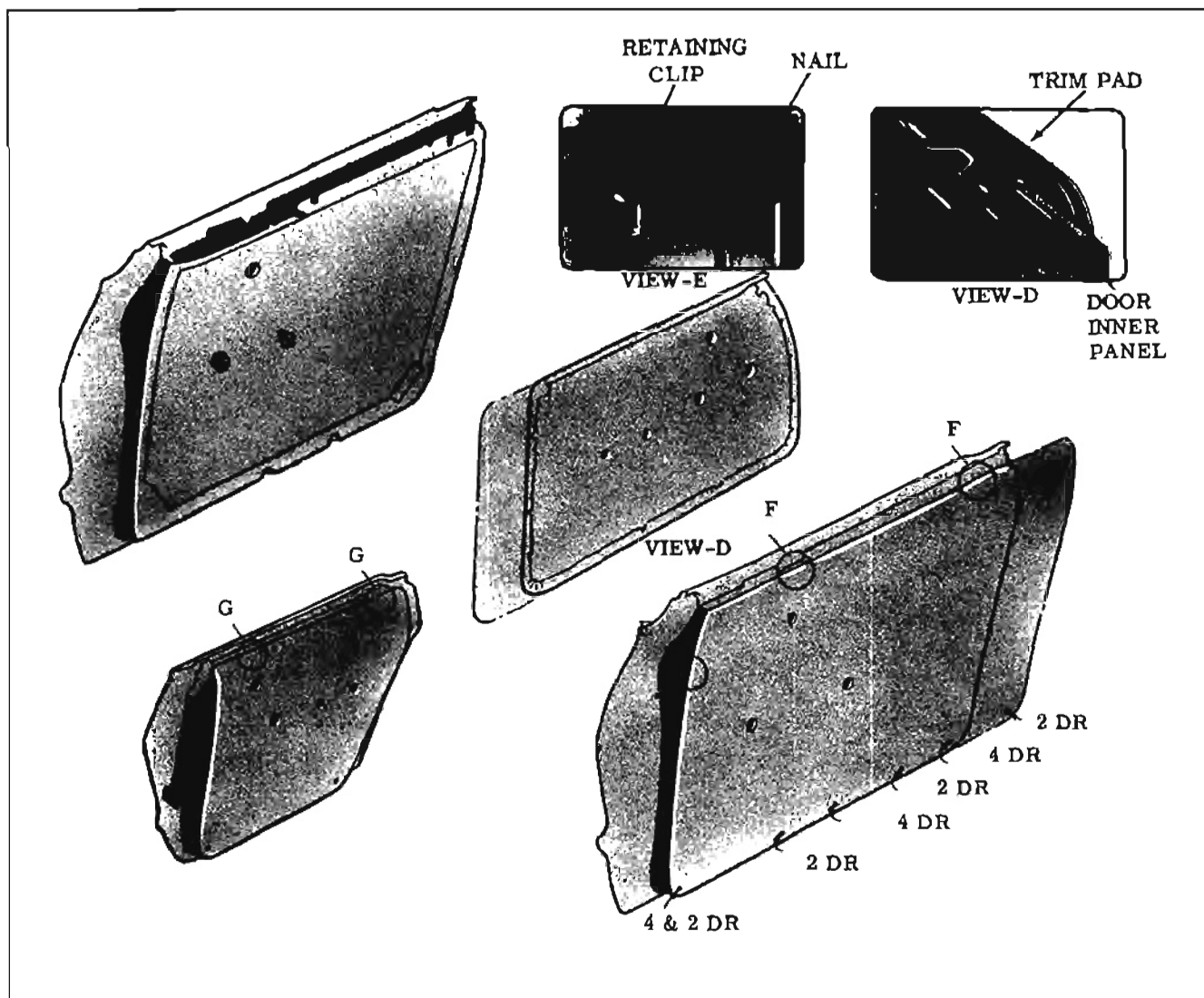


Fig. 16-31 Door Trim Assemblies

- Remove arm rest screw and washer assemblies and remove arm rest from door trim pad. (Fig. 16-30)

NOTE: This should be done as a bench operation.

- To install, reverse removal procedure.

FRONT AND REAR DOOR TRIM ASSEMBLIES

All door trim assemblies are the hand-on type and are further secured by attaching screws along bottom edge and by retaining nails inserted into plastic retaining cups in the door inner panel. (Fig. 16-31, Views "D" and "E")

Removal and Installation

- Remove door inside hardware, locking rod knob and arm rest assembly.

- Remove door arm rest cover plate, switch mounting base and door pull handle.

- Remove screws securing trim assembly to door inner panel. (Fig. 16-31)

- With a clean rubber mallet, tap trim assembly along front and rear edges to free trim assembly retaining nails in slots.

- Place Tool J-6335, or other suitable flat-bladed tool between water deflector and door trim assembly at lower edge of trim assembly. Working upward, carefully loosen front and rear edges of door trim assembly from door inner panel.

NOTE: Exercise care not to disturb inner panel water deflector.

- Lift trim assembly upwards and carefully disengage trim from top of door inner panel; then remove trim assembly from door.

NOTE: On styles equipped with electric window regulator, after trim assembly is disengaged from top of door inner panel, disconnect switch terminal block(s) from switch assembly(s).

- To install, reverse removal procedure. Broken retaining nails should be replaced with repair tabs, which are available as service parts.

OUTSIDE HANDLE PUSH BUTTON

Assembly and Disassembly

- Remove door outside handle.
- Depress retainer slightly and turn 1/4 turn. Remove retainer, spring, push button and shaft and sealing ring from handle.
- To assemble, reverse disassembly procedure. (Fig. 16-32)

FRONT AND REAR DOOR WATER DEFLECTOR (All Styles)

A waterproof paper deflector is used to seal the door inner panel and prevent entry of water into body. The polyethylene (black) side of the deflector is placed against the inner panel. The deflector fits into a retaining slot at the lower section of the door inner panel and deflects water to bottom of door and out door bottom drain holes. The deflector is further secured by a string-loaded sealing material along both front and rear edges and by the application of waterproof sealing tape at front and rear lower corners.

Whenever work is performed on front or rear doors where the water deflector has been disturbed, the deflector must be properly resealed and taped to the inner panel to prevent serious waterleaks. It is important that all service personnel performing door hardware adjustments or sealing operations are aware of the importance of using the specified material and the 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 door inner panel is required to perform service operations, the deflector may be partially detached or completely removed from the inner panel. If the existing water deflector is damaged so that it will not properly seal the door

inner panel, replacement of deflector is absolutely necessary.

The following procedure covers complete removal and installation of the water deflector. If only partial detachment is required, perform only those steps which are necessary to expose the required area of the door inner panel.

Removal

- Remove door trim assembly.
- Remove strips of waterproof body tape securing lower corners of water deflector.
- With a putty knife, or other suitable flat-bladed tool, carefully break cement bond securing upper corners of water deflector to door inner panel. Make sure string, located within sealer, is against water deflector and carefully slide putty knife between sealer and door inner panel along both sides of door to disengage sides of water deflector from door inner panel.
- Disengage lower edge of water deflector from retaining slot in door inner panel and remove water deflector.

Installation

- Inspect water deflector and repair any tears or holes with waterproof body tape applied to both sides of deflector. If bond between polyethylene and deflector paper has been torn, cut or damaged, apply waterproof body tape to both sides of deflector over damaged area to prevent water from wicking on uncoated side of deflector paper.
- If a new deflector is to be installed, use old water deflector as a template to trim new deflector to proper size and to cut holes for door inside hardware. If old sealer does not effect an adequate seal, remove all old cement from door inner panel and replace with a continuous bead of body caulking compound (approximately 3/16" diameter).
- If the door arm rest attaching screw holes are located in the door inner panel, seal these holes with body caulking compound.
- Position water deflector to door inner panel with polyethylene coated side (black) of deflector against inner panel. Insert lower edge of deflector in retaining slot and firmly roll or press sealed areas to obtain a good bond between deflector and door inner panel.
- Seal lower corners of water deflector with 2" or 2-1/2" waterproof body sealing tape.

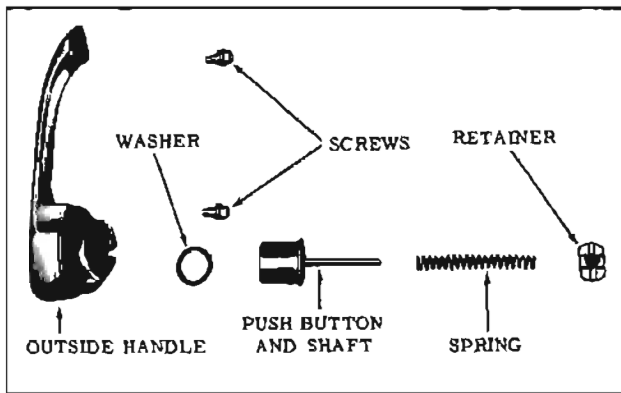


Fig. 16-32 Door Lock Spring Clip

- Clean off any excessive cement or caulking compound and install previously removed door trim and inside hardware.

SPRING CLIPS

A spring clip is used to secure remote control connecting rods and inside locking rod connecting links to door levers. A slot in the clip provides for disengagement of the clips, thereby, facilitating detachment of linkage.

To disengage a spring clip, use a screwdriver, or other suitable tool, to slide clip out of engagement. (Fig. 16-32)

FRONT AND REAR DOOR OUTSIDE HANDLE ASSEMBLY

Removal and Installation

- 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.
- Remove screws and door lock handle and gaskets from outside of body.
- To install, reverse removal procedure.

ASSEMBLY AND DISASSEMBLY OF DOOR OUTSIDE HANDLE PUSHBUTTON

- Remove door outside handle.
- Depress retainer slightly and turn one quarter turn. Remove retainer, pushbutton, spring, and shaft and sealing ring from handle.
- To assemble, reverse disassembly procedure. (Fig. 16-32)

FRONT DOOR HARDWARE (29, 39, 47, 57 & 67 Styles)

Fig. 16-34 is typical of hardtop coupe and sedan style front doors with the trim assembly and inner panel water deflector removed. This

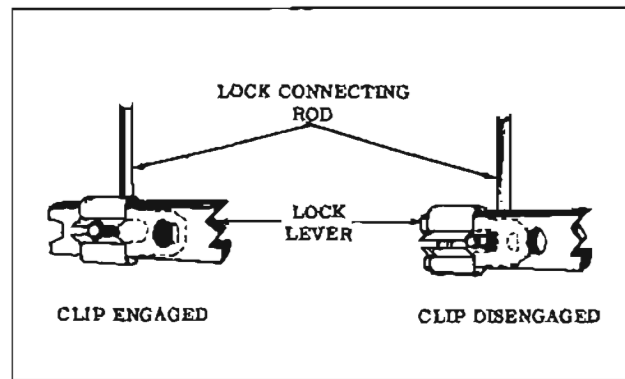


Fig. 16-33 Outside Handle Assembly

illustration identifies the component parts of the front door assembly, their relationship and various attaching points.

FRONT DOOR ASSEMBLY AND HINGES

The front door hinges are the swing-out type with an integral door check on the top hinge assembly and a two position hold open on the lower hinge assembly. The hinges are attached to the front body hinge pillar and to the door assembly with bolts and anchor plates. Either of two methods may be used to remove the door from the body.

- The door and hinges can be removed as an assembly from the body hinge pillar.
- The door can be removed from the hinge straps.

Removal

- Place a protective covering over front fender at door opening to protect paint finish.
- If door and hinges are to be removed from body pillar, additional access may be obtained at lower hinge by loosening front fender lower rear attaching bolt.
- Mark hinge locations on door or hinge pillar depending on method of removal being used.
- On bodies equipped with electrically powered window regulators:
 - Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to wire connector(s) at motor(s).
 - Detach wire harness from inner panel as required and disconnect motor(s) from harness at connector(s).
 - Remove electric conduit from door and remove wire harness from between door panels through opening in door hinge pillar.

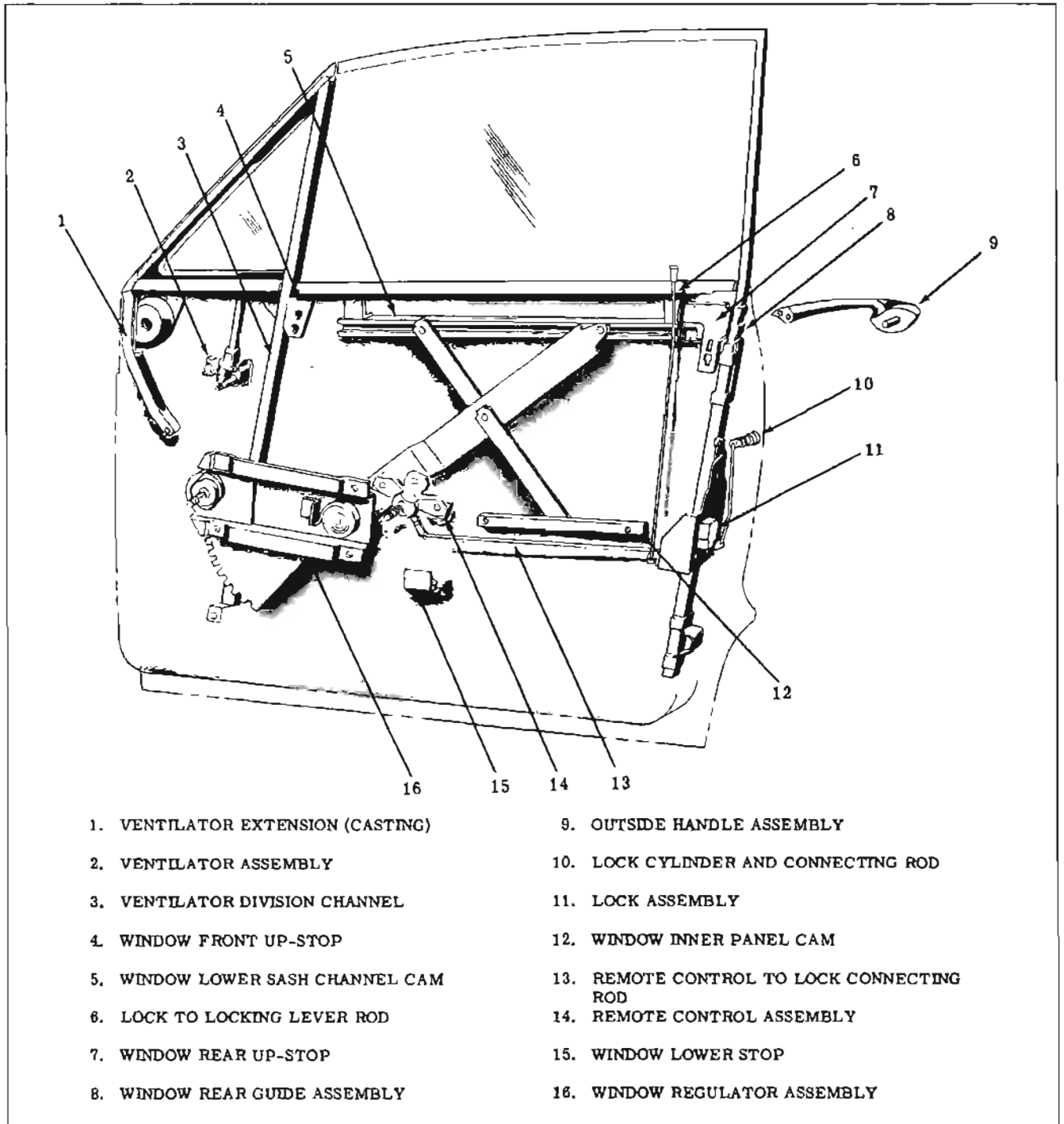


Fig. 16-34 Front Door Hardware (Typical of Holiday and Sedan)

5. With door properly supported, remove bolts securing upper and lower hinges to front body hinge pillar or door hinge pillar. (Fig. 16-35) With aid of a helper, remove door assembly from body.

Installation

1. As an anti-squeak precaution, before installing door, coat attaching surface of hinge with heavy-bodied sealer.
2. With aid of a helper, reinstall door to body

opening. Align hinges within scribe marks and tighten bolts. Check door for proper alignment.

3. On bodies equipped with electrically-operated window regulators:
 - a. Install wire harness between door panels and reinstall harness to door inner panel. Connect regulator motor.
 - b. Install conduit to door inner panel. Check operation of electric window assembly.

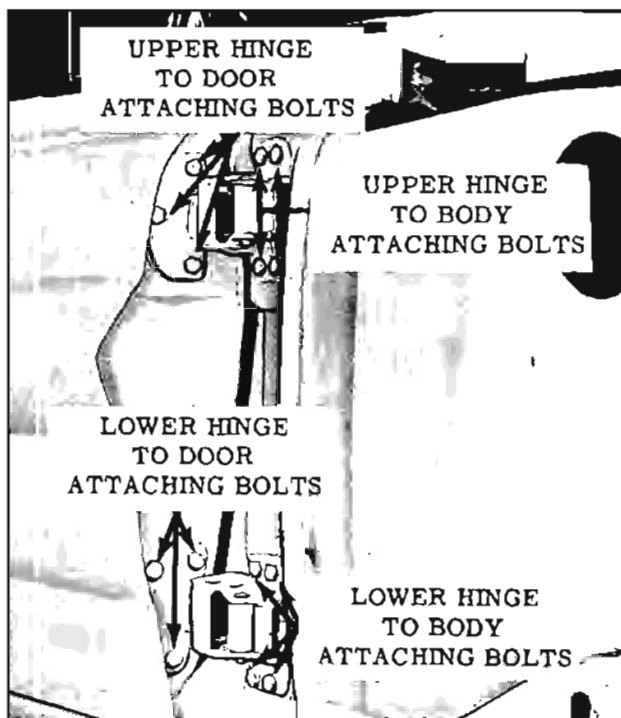


Fig. 16-35 Front Door Hinge Attachment

4. Where required, seal door inner panel water deflector as specified in DOOR INNER PANEL WATER DEFLECTOR and reinstall previously removed parts.
5. For lubrication information see LUBRICATION Section.

Adjustments

In or out or up and down adjustments are provided at door hinge pillar. Fore and aft adjustments are provided at front body hinge pillar.

NOTE: After performing any door adjustments on 29-39-47-57-67 styles, the front door ventilator and window should be checked for proper alignment with the side roof rail weatherstrip and adjusted as required. In addition, the door lock to striker engagement should be checked and adjusted if necessary.

1. For in and out or up and down adjustments, loosen hinge to door pillar attaching bolts. (Fig. 16-35) Adjust door as required and tighten bolts.

NOTE: When performing in and out adjustments, adjust one hinge at a time so as not to disturb up and down adjustment.

2. To adjust door fore or aft, loosen hinge to body pillar attaching bolts. (Fig. 16-35) Adjust door as required and tighten bolts.

NOTE: One or more of the attaching bolts

are not accessible due to inadequate wrench clearance. When fore and aft adjustments are performed, the recommended procedure is to remove the obstructing attaching bolt and perform adjustments with the remaining three bolts. After satisfactory adjustments have been made, replace the previously removed bolt. The removal of the obstructing bolt and subsequent adjustments can best be accomplished with a ratcheting boxsocket wrench.

FRONT DOOR LOCK STRIKERS

Removal and Installation

1. With a pencil, mark position of striker on body pillar.
2. Remove three door lock striker attaching screws and remove striker and adjusting plates from pillar.
3. To install, seal all striker plate attaching screw clearance holes with body caulking compound.
4. Apply a 1/8" bead of body caulking compound around entire back surface of striker plate. No skips must exist in caulking compound. Place striker and adjusting plates within marks on pillar and install striker plate attaching screws.

IMPORTANT: Whenever a door has been removed or realigned, the door SHOULD NOT be closed completely until a visual check is made to determine if lock extension will engage in striker notch. A single shim is installed behind the striker assembly in production. This shim can be removed or additional shims (available as service parts) can be installed as required. Removal or addition of shims provides fore or aft adjustment of the striker. To adjust striker up or down and in or out, loosen striker plate attaching screws and shift striker and adjusting plates as required and tighten attaching screws.

NOTE: Door(s) should be properly aligned before checking striker spacer requirements.

5. Clean off all excess caulking compound.

DOOR WEDGE PLATES (67 Styles)

Door wedge plates are used as a positive "hold" of front doors with doors in the closed position. Wedge plates are retained by two screws and are installed at the top section of the door and body lock pillars. The body wedge plate is

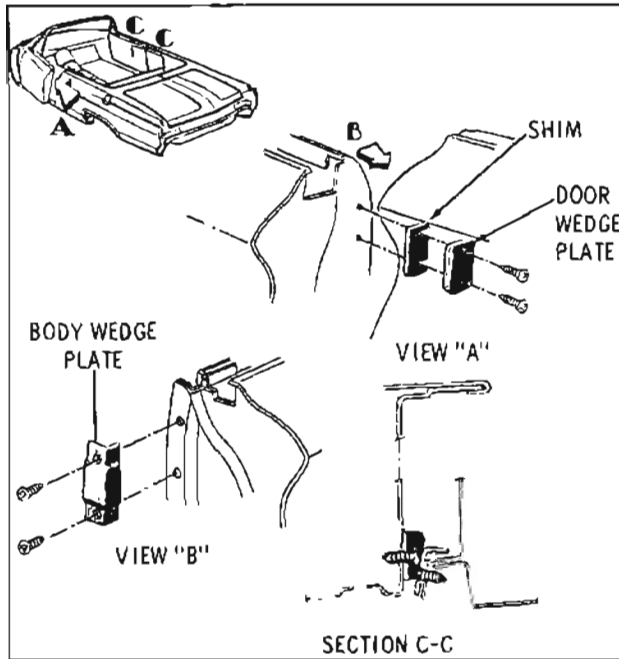


Fig. 16-36 Door Wedge Plates

constructed of metal and the door wedge plate is constructed of nylon. If necessary, shims can be installed under the door wedge plate. These shims are available as a service part.

Removal and Installation

1. Remove two screws securing wedge plate to body panel and remove wedge plate. (Fig. 16-36)
2. To install, reverse removal procedure.

LOCK CYLINDER ASSEMBLY

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to expose large access hole.
2. Through access hole, with a screwdriver,

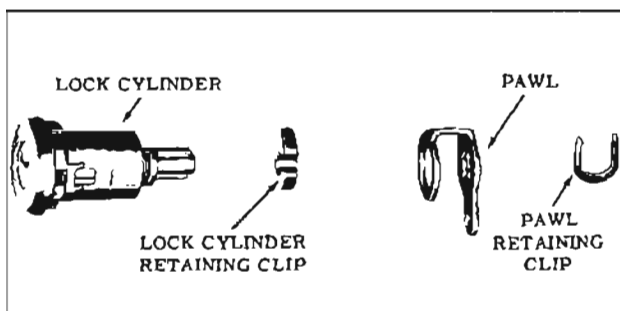


Fig. 16-37 Door Lock Cylinder Assembly

disengage door lock cylinder to lock connecting rod from door lock. (See DOOR LOCK SPRING CLIP)

3. With a flat-bladed tool, slide lock cylinder retaining clip forward from door lock pillar facing sufficiently to permit removal of lock cylinder with attached connecting rod from door.

NOTE: Door lock cylinder connecting rod may be removed from lock cylinder as a bench operation or prior to removing cylinder.

4. To install, reverse removal procedure. Check operation of lock cylinder and lock prior to installing inner panel water deflector.

Disassembly and Assembly

1. Remove lock cylinder assembly from door.
2. Remove pawl retaining clip, pawl and lock cylinder retaining clip. (Fig. 16-37)
3. To assemble, reverse disassembly procedure.

NOTE: The lock cylinder housing scalp used in production is usually damaged when removed and must be replaced by a new scalp which is available as a service part. The service lock cylinder housing scalp is secured by tabs.

INNER PANEL CAM ASSEMBLY

Removal and Installation

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

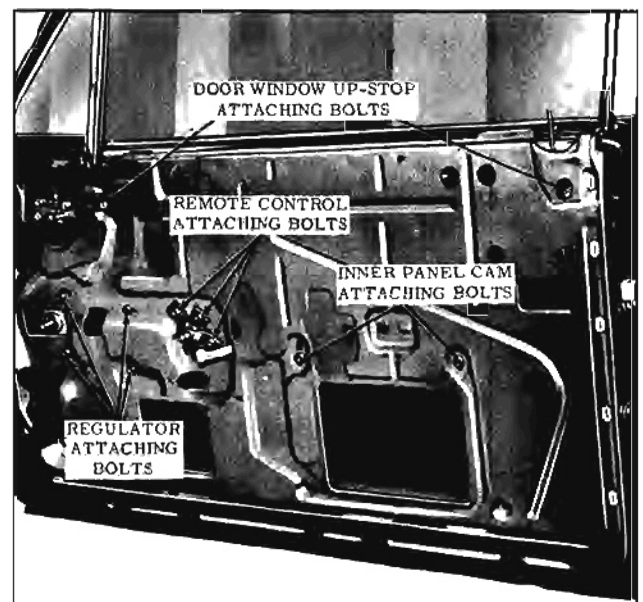


Fig. 16-38 Front Door Hardware (Typical Holiday)

2. Remove bolts securing door inner panel cam assembly and disengage cam from regulator balance arm and remove cam from door. (Fig. 16-38)
3. To install, reverse removal procedure. Prior to installation, lubricate entire length of cam with 630 AAW Lubriplate or equivalent.

NOTE: The inner panel cam is adjustable at the forward attaching bolt. This adjustment can be utilized to align a rotated (cocked) front door window.

DOOR LOCK ASSEMBLY

All locks are the rotary bolt type lock with the safety interlock feature. With the safety interlock feature, it is important that the lock extension and housing engages properly in the door lock striker and that, where necessary, striker emergency spacers of the proper thickness are used to obtain proper engagement.

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector.
2. Through access hole, disengage spring clips securing lock cylinder rod, remote control connecting rod and inside locking rod to lock and disengage rods from lock (See DOOR LOCK SPRING CLIPS).
3. On 29-39-47-57-67 styles, remove door window rear glass run channel lower attaching screw and loosen upper attaching screws on lock pillar facing of door and at top of door inner panel to permit removal of lock.
4. On 19-69 styles, from inside of door, remove rear glass run channel lower attaching nut or screw and pull channel forward to permit removal of lock.
5. Remove door lock attaching screws from lock pillar facing of door and remove lock assembly from door. (Fig. 16-39)
6. To install, reverse removal procedure. Prior to installation, apply a ribbon of medium-bodied sealer (approximately 1/4" in diameter) across face of lock frame. Check unit for proper operation and, if necessary, adjust glass run channel for proper alignment prior to installation of inner panel water deflector.

FRONT DOOR REMOTE CONTROL ASSEMBLY AND CONNECTING ROD

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector.
2. Remove remote control attaching screws and disengage remote control from connecting rod. (Fig. 16-38)
3. To remove remote control connecting rod, carefully disengage spring clip securing rod to lock and remove rod from lock. Disengage rod from spring clip on door inner panel where necessary, and remove rod.
4. To install, reverse removal procedure. Check door lock and remote control assemblies for proper operation prior to installing inner panel water deflector.

FRONT DOOR VENTILATOR REGULATOR—MANUAL AND ELECTRIC

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to regulator attaching bolts.
2. On styles equipped with electric ventilator regulators, disconnect regulator motor wires at connector.
3. Remove ventilator tee shaft attaching bolt and ventilator regulator attaching bolts. (Fig. 16-40)
4. Disengage ventilator regulator shaft from ventilator tee shaft and remove regulator and motor assembly from door through access hole.

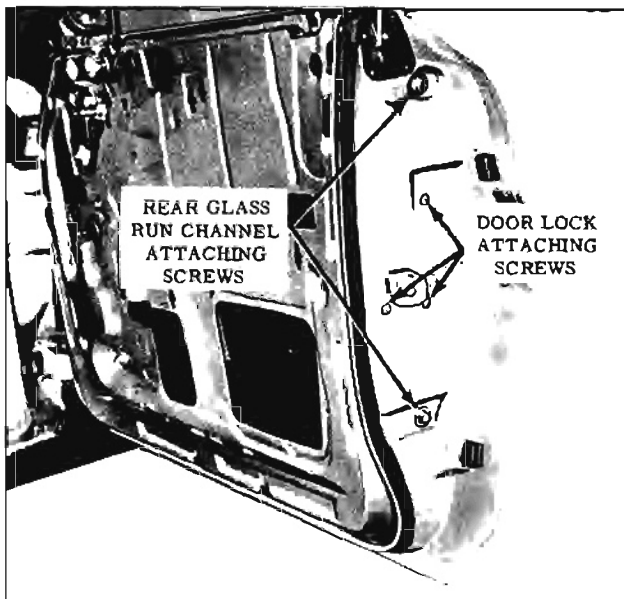


Fig. 16-39 Door Lock and Run Channel

- To install, reverse removal procedure. Check operation of ventilator assembly prior to installing inner panel water deflector.

Adjustments

Excessive "play" of ventilator at pivot shaft, when ventilator is in an open position, can be corrected by tightening ventilator tee shaft to regulator attaching bolt. (Fig. 16-40)

NOTE: Bolt should be tightened carefully to avoid stripping threads in regulator spiral gear shaft.

FRONT DOOR VENTILATOR ASSEMBLY— MANUAL AND ELECTRIC (29, 39, 47, 57 & 67 Styles)

Removal and Installation

- Remove door trim assembly and detach inner panel water deflector.
- Lower door window. Remove ventilator to door outer panel return flange attaching screw. (Fig. 16-40)
- At front of ventilator assembly, break cement bond securing front door hinge pillar sealing strip (at belt) to ventilator assembly.
- Remove ventilator division channel lower adjusting stud and nut. (Fig. 16-40)

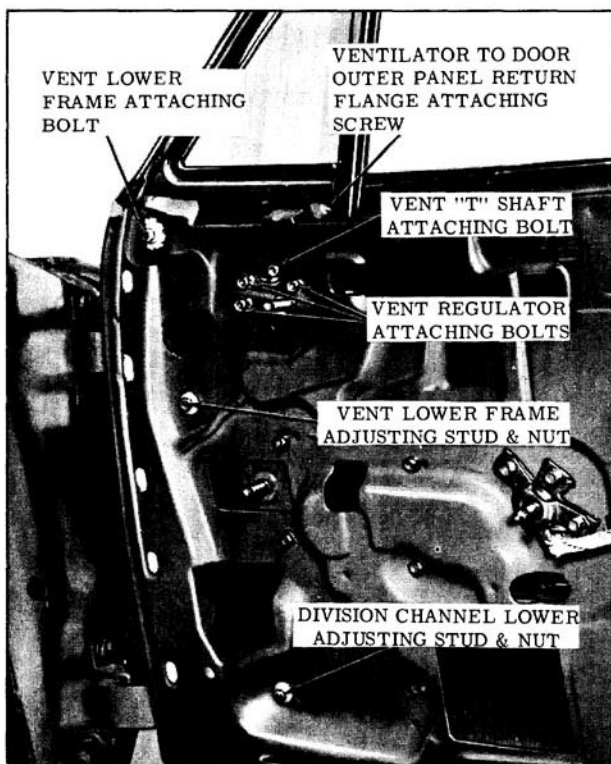


Fig. 16-40 Ventilator Assembly

- On styles equipped with electrically operated ventilator assemblies, disconnect motor and regulator assembly from ventilator frame and remove motor and regulator unit through large access hole in door inner panel.
- Remove ventilator lower frame attaching bolt and ventilator lower frame adjusting stud nut. (Fig. 16-40)
- Remove ventilator regulator.
- Lift ventilator assembly upward and remove from door.
- To install, reverse removal procedure. Prior to installation of ventilator assembly, apply a bead of body caulking compound to door outer panel return flange along area contacted by ventilator assembly. Adjust ventilator assembly as described under FRONT DOOR VENTILATOR ADJUSTMENTS.

Adjustments

The front door ventilator assembly can be adjusted up or down and in or out at the top and forward section for alignment in the door opening and proper weatherstrip contact in the ventilator area. The lower portion of the ventilator division channel can be adjusted in or out and fore and aft for alignment with the door window glass.

- Remove door trim assembly and detach inner panel water deflector.
- Remove ventilator frame to outer panel attaching screw.
- Loosen ventilator lower frame to outer panel attaching screw.
- Loosen ventilator division channel lower adjusting stud nut and ventilator lower frame adjusting stud nut.
- To adjust ventilator assembly fore or aft to windshield pillar side roof rail weatherstrip, position lower frame adjusting stud and nut and division channel stud and nut as required and tighten attaching nuts.
- To adjust ventilator assembly in or out, turn adjusting studs on either the lower frame, division channel or both, as required, and tighten nuts.
- After the necessary adjustments have been performed, tighten all nuts and bolts and replace ventilator to door outer panel attaching screw.

NOTE: In some cases it may be necessary to relocate ventilator to door outer panel return flange attaching screw.

- Seal water deflector to door inner panel and install door trim and inside hardware.

FRONT DOOR VENTILATOR ASSEMBLY WEATHERSTRIP (29, 39, 47, 57 & 67 Styles)

Removal and Installation

- Remove front door ventilator assembly.
- Remove ventilator glass and sash channel from ventilator frame by opening glass approximately 90° and pushing glass downward slightly to disengage glass unit from ventilator frame at upper pivot point and then upward to disengage lower tee shaft from frame. (Fig. 16-41)
- Remove ventilator division channel upper rubber bumper attaching screw.
- Remove two attaching screws securing ventilator casting to frame and separate ventilator casting from frame so that the ventilator weatherstrip can be removed. (Fig. 16-41)
- To install, reverse removal procedure. Prior to installation, however, a ribbon of medium-bodied sealer should be applied between ventilator weatherstrip and casting.

FRONT DOOR VENTILATOR ASSEMBLY (19, 35, 45 & 69 Styles)

Removal and Installation

- Remove door trim assembly and detach inner panel water deflector.
- Remove ventilator regulator assembly.

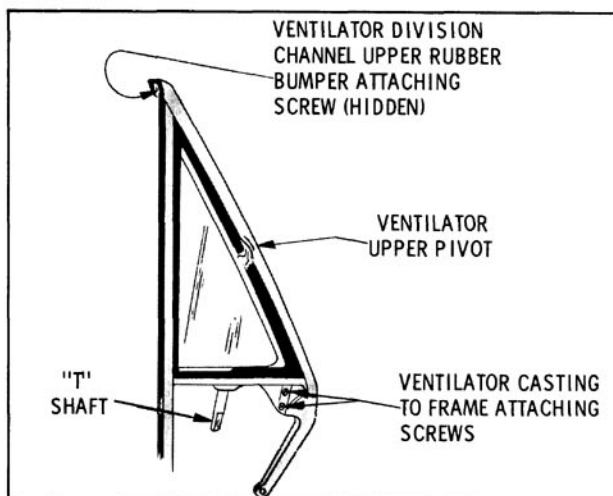


Fig. 16-41 Ventilator Assembly Weatherstrip

- Lower door window. Remove ventilator to door outer panel return flange attaching screw.
- Remove ventilator division channel lower adjusting stud and nut. (Fig. 16-41)
- Remove ventilator upper attaching screws along window frame. (Fig. 16-42)
- Lower ventilator assembly sufficiently to tilt assembly inward; then lift ventilator assembly upward and remove from door.
- To install, reverse removal procedure. Prior to installation, however, apply a strip of body waterproof sealing tape to door outer panel return flange along area contacted by ventilator weatherstrip. (Fig. 16-43) Also, apply a double bead of sealer (body caulking compound) in door upper frame at ventilator area as shown in Section A-A of Fig. 16-44.

Adjustments

To adjust ventilator division channel in or out or fore or aft, remove door trim assembly and detach inner panel water deflector sufficiently to loosen division channel lower adjusting stud nut. Adjust stud in or out as required or position channel fore or aft as required; then tighten stud nut.

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC (29, 39, 47, 57 & 67 Styles)

The front door window glass is a solid tempered

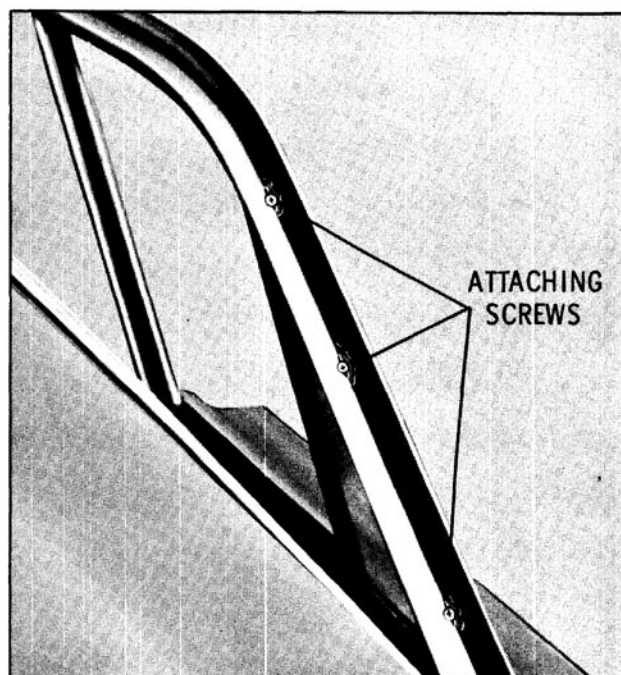


Fig. 16-42 Ventilator Attachment

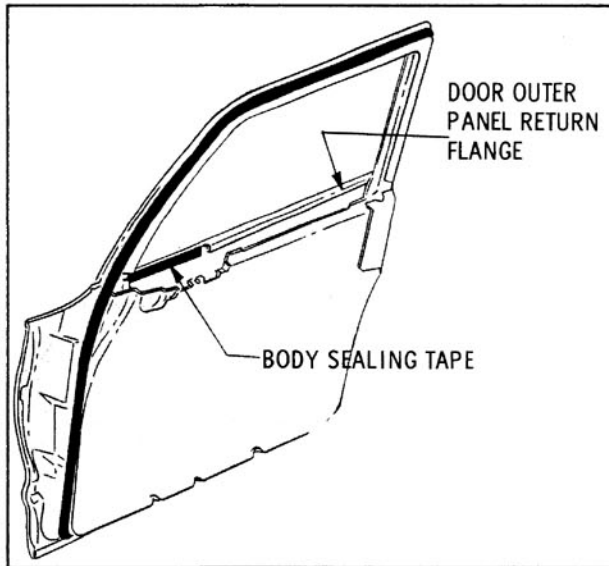


Fig. 16-43 Ventilator Sealing

safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design, the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Care should be exercised to make certain glass does not strike body metal during removal or installation procedures, as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Removal and Installation

1. Raise door window, remove door trim assembly and detach inner panel water deflector.
2. Through door inner panel access holes, remove bolt securing window assembly front up-stop and window assembly rear up-stop and remove stops from door. These stops are attached to the front and rear extensions

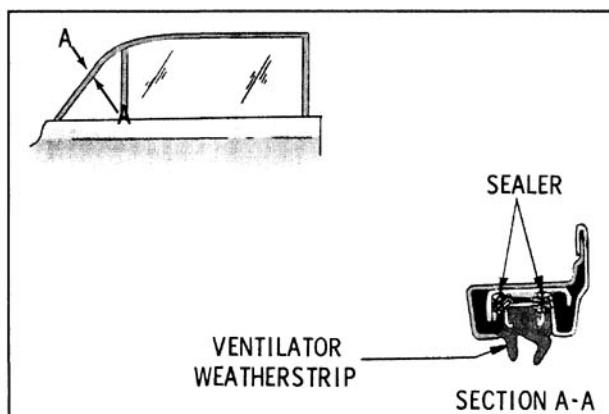


Fig. 16-44 Ventilator Sealing

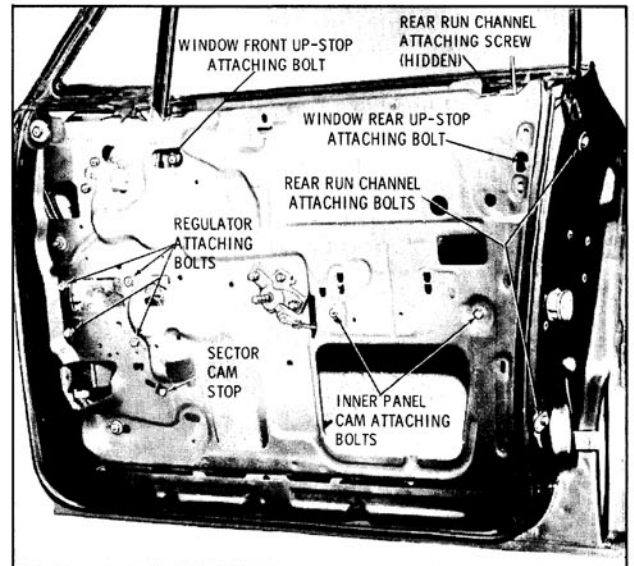


Fig. 16-45 Front Door Window Assembly

(legs) of the door window lower sash channel and are adjustable up or down. (Fig. 16-45)

3. Remove front door ventilator assembly.
4. Remove front door window inner panel cam. (Fig. 16-45)
5. While supporting front edge of glass by hand, simultaneously lower door window and tilt front edge forward and downward until rear leg of sash channel is above door inner and outer panels (belt line). Then, slide door window assembly rearward to disengage lower sash channel from nylon rollers of regulator lift and balance arms and remove door window from door.

NOTE: It may be necessary to remove the single screw securing the top section of door window rear run channel to door inner panel. This can be done to gain more freedom of movement at rear section of door window assembly. (Fig. 16-45)

CAUTION: DO NOT OPERATE REGULATOR MOTOR after window assembly is disengaged from regulator. Operation of motor with load removed may damage unit.

6. To install, reverse removal procedure. Before installing window lower sash channel cam, lubricate entire length of cam with 630 AAW Lubriplate or equivalent. Check window for proper operation prior to installing inner panel water deflector and door trim pad.

Adjustments

The door window glass may be adjusted to provide proper contact with the side roof rail

weatherstrip. Adjustments have also been provided to relieve a binding door glass due to misalignment of the glass run channels. To perform the following adjustments, remove door trim assembly and detach inner panel water deflector, where necessary, to gain access to hardware attaching points.

1. To correct a condition where glass is "cocked" in glass run channels, loosen inner panel cam attaching screws, adjust cam up or down as required and retighten screws. (Fig. 16-45)
2. To adjust upper front portion of window assembly in or out for proper contact with side roof rail weatherstrip, adjust ventilator assembly in or out as described under FRONT DOOR VENTILATOR ADJUSTMENTS.
3. To adjust lower portion of ventilator division channel for alignment with window assembly, lower door window and loosen ventilator division channel adjusting stud nut. Turn adjusting stud in or out or position lower end of channel fore or aft, as required; then retighten adjusting stud nut. (Fig. 16-40)

4. To adjust upper rear of window assembly in or out for proper contact with side roof rail weatherstrip, or to adjust rear of window assembly in or out at belt line, loosen rear glass run channel attaching bolts at lock pillar facing of door and screw at top of door inner panel. Position channel in or out as required and tighten screws. (Fig. 16-45)

NOTE: Adjustments 2, 3 and 4 must be coordinated to provide a properly operating front door window.

5. To adjust limit of "up" travel of window assembly for proper contact with side roof rail weatherstrip, raise door window and through inner panel access holes, loosen door window front and rear stop assembly attaching bolts. Adjust stops up or down as required, then tighten attaching bolts. (Fig. 16-45)

NOTE: Fig. 16-46 shows typical misalignments and the correct alignment of the front door ventilator assembly to the side roof rail weatherstrip. This alignment can be quickly checked by lowering front door window and inspecting proper fit of ventilator to side

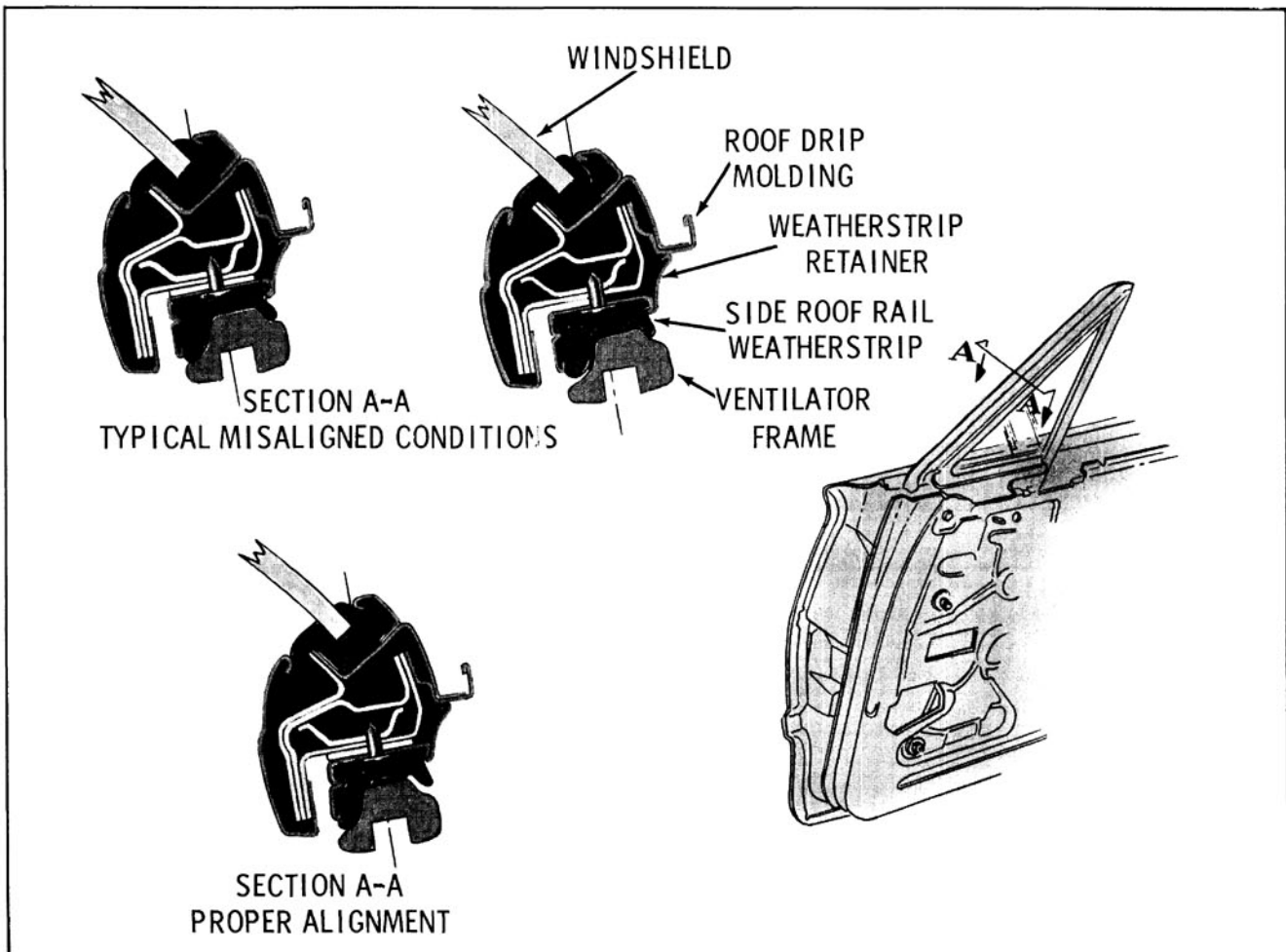


Fig. 16-46 Ventilator Adjustment

roof rail weatherstrip at top of ventilator division channel. If the ventilator assembly is correctly aligned and door glass is smooth in operation, it is usually safe to assume that the door glass upper sash channel is also correctly aligned to the side roof rail weatherstrip. This fit can be further verified by lowering rear door or rear quarter window and checking fit at top section of front door window rear sash channel to side roof rail weatherstrip. The weatherseal in this area should be the same as described for the front door ventilator assembly.

- The up travel of the front door window is additionally controlled by the window regulator sector gear stop. (Fig. 16-45) This stop is adjustable up or down.

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC (19, 35, 45 & 69 Styles)

Removal and Installation

- Lower door window, remove door trim assembly and detach inner panel water deflector.
- Remove front door ventilator assembly.
- Remove front door window inner panel cam.

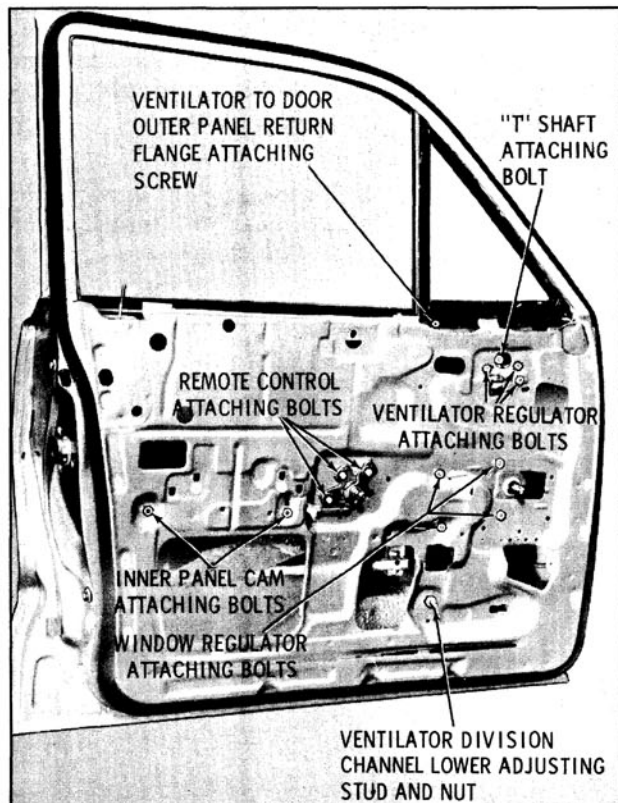


Fig. 16-47 Window Assembly

- While supporting front edge of glass by hand, simultaneously lower door window and tilt front edge forward and downward until rear leg of sash channel is above door inner and outer panels (belt line). Then, slide door window assembly rearward to disengage lower sash channel from nylon rollers of regulator lift and balance arms and remove door window inboard of door upper frame. (Fig. 16-47)

CAUTION: DO NOT OPERATE REGULATOR MOTOR after window assembly is disengaged from regulator. Operation of motor with load removed may damage unit.

- To install, reverse removal procedure. Check window for proper operation before installing inner panel water deflector. Prior to installation, lubricate entire length of lower sash channel cam with 630 AAW Lubriplate or equivalent.

Adjustments

Adjustments have been provided to relieve a binding door glass due to misalignment of the glass run channels. The glass can also be adjusted to correct a condition of 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.

- To adjust lower portion of ventilator division channel for proper alignment with door window assembly, lower door window and loosen ventilator adjusting stud nut. Turn adjusting stud in or out or position lower end of channel fore or aft as required; then tighten adjusting stud nut. (Fig. 16-47)
- To adjust lower section of door window rear glass run channel in or out for proper alignment with door window, raise door window. Loosen rear run channel lower attaching bolts, adjust channel as required and tighten bolts. (Fig. 16-48)

NOTE: Adjustments 1 and 2 must be coordinated to provide a properly operating front door window assembly.

- The door window inner panel cam is adjustable at the forward section and can be utilized to correct a rotated (cocked) front door window. (Fig. 16-47)

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC (29, 39, 47, 57 & 67 Styles)

Removal and Installation

- Raise door window, remove door trim assembly and detach inner panel water deflector.

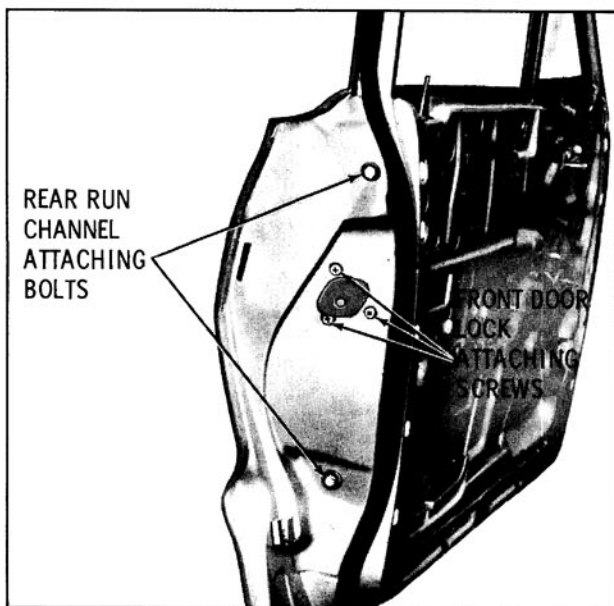


Fig. 16-48 Door Lock Attachment

2. Remove door window regulator sector gear stop.
3. On styles equipped with electric window regulators, disconnect wire harness feed wires from regulator motor at connector.
4. Remove front door window assembly.
5. Remove window regulator attaching bolts and carefully remove regulator assembly from door through large access hole. (Fig. 16-45)

CAUTION: DO NOT OPERATE REGULATOR MOTOR after window assembly is disengaged from regulator. Operation of motor with load removed may damage unit.

6. To install, reverse removal procedure. Check window for proper operation prior to installing inner panel water deflector and door trim pad.

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC (19, 35, 45 & 69 Styles)

Removal and Installation

1. Raise door window, remove door trim assembly and detach inner panel water deflector.
2. On styles equipped with electric window regulators, disconnect wire harness feed wires from regulator motor at connector.
3. Remove front door window assembly.
4. Remove window regulator attaching bolts and carefully remove regulator through large access hole in door inner panel. (Fig. 16-47)

CAUTION: DO NOT OPERATE REGULATOR MOTOR after window assembly has been disengaged from regulator. Operation of motor with load removed may damage unit.

5. To install, reverse removal procedure. Check window for proper operation prior to installing inner panel water deflector and door trim pad.

FRONT DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

The electric motor assembly which powers the window regulator on electrically operated windows, is a twelve volt, reversible direction motor with a built-in circuit breaker and a self-locking gear drive. The motor is secured to the regulator assembly by screws.

1. Remove front door window electric regulator and clamp assembly in a vise. (Fig. 16-49)

NOTE: The position of regulator assembly in vise will vary with type of regulator and position of lift arm.

2. Drill a 1/4" hole through regulator back plate and sector gear. The exact point of this hole will be dependent on the position of the regulator lift arm.

IMPORTANT: DO NOT drill into the motor housing, part of which is indicated by the dotted line illustrated in Fig. 16-49. In addition, locate hole a sufficient distance from edge of sector gear to insure proper retention of sector gear to back plate.

3. Install a 3/16" bolt through hole in regulator back plate and sector gear and install a nut on the bolt. DO NOT tighten nut.

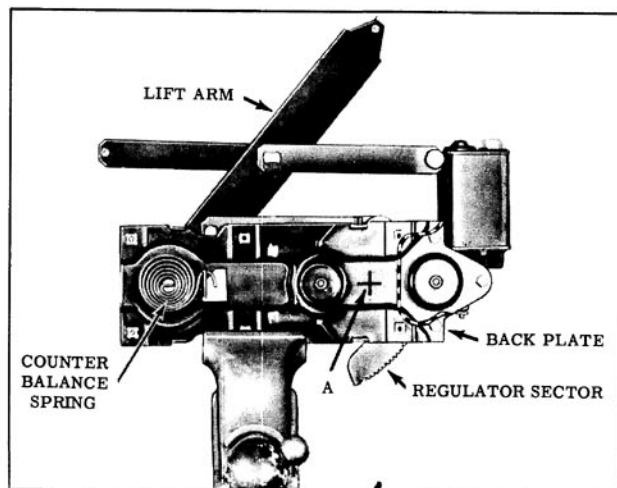


Fig. 16-49 Window Regulator

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 counter-balance 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. 16-49)

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.

FRONT DOOR WINDOW GLASS RUN CHANNEL ASSEMBLY (29, 39, 47, 57 & 67 Styles)

The front door window assembly travels in the ventilator division run channel at front edge of glass and in the glass run channel assembly at rear edge of glass. The glass run channel assembly is retained by two bolts at the front door lock pillar and by a single screw at top rear section (belt line) of door inner panel. The run channel is provided with a slight amount of in or out adjustment as an aid in obtaining proper alignment and smooth operation of front door window at rear edge.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove front door window assembly.
3. Remove the glass run channel two attaching bolts on lock pillar panel and the single attaching screw in door inner panel. (Fig. 16-50)
4. Carefully lower and rotate glass run channel downward and remove assembly through large access hole in door inner panel.
5. To install, reverse removal procedure. Cycle

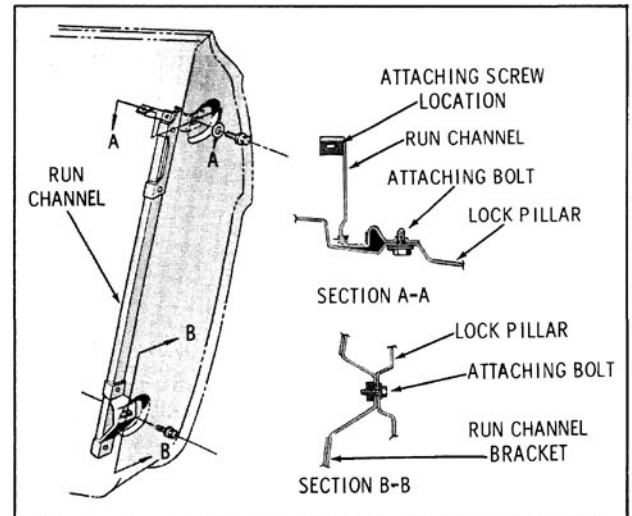


Fig. 16-50 Front Door Glass Run Channel

door window up and down prior to installing inner panel water deflector and door trim assembly.

FRONT DOOR WINDOW GLASS RUN CHANNEL ASSEMBLY (19, 35, 45 & 69 Styles)

The front door window assembly travels in the ventilator division run channel at front edge of

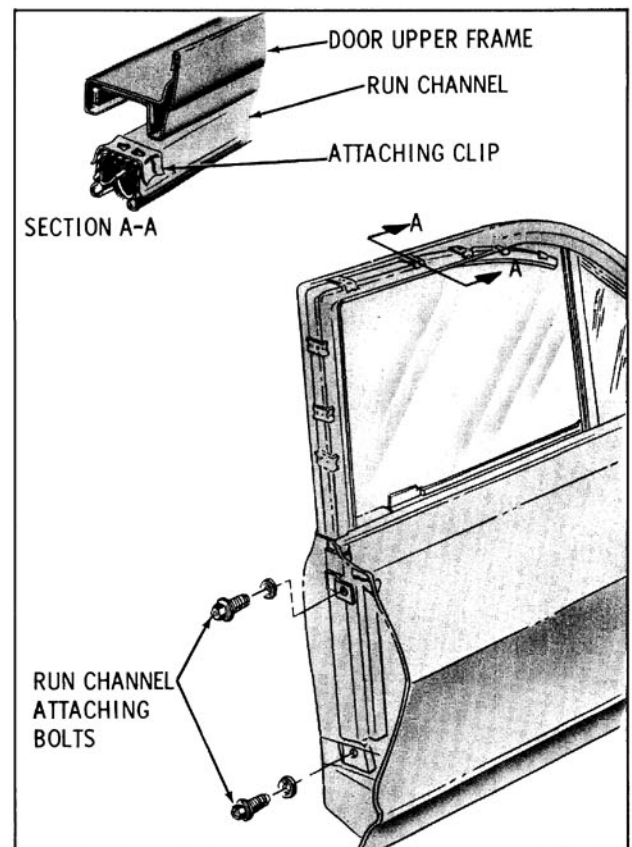


Fig. 16-51 Front Door Glass Run Channel

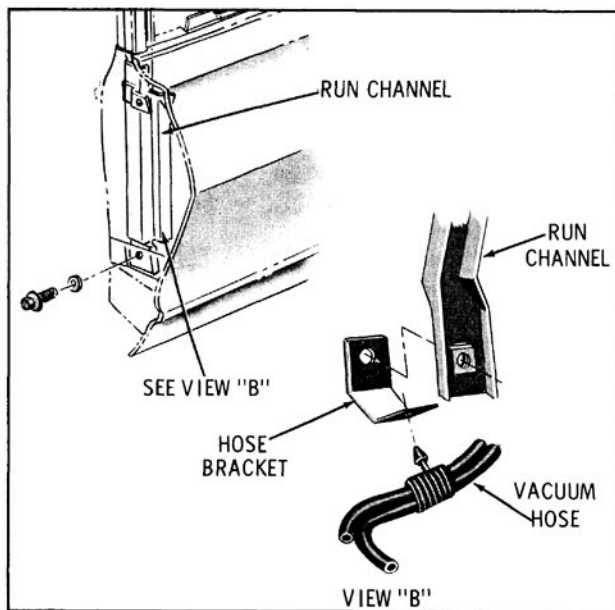


Fig. 16-52 Vacuum Hose Attachment

glass and in the glass run channel assembly at rear edge of glass. The glass run channel assembly is retained by two bolts at the front door lock pillar (below belt line) and by clips inserted into the door upper frame. (Fig. 16-51)

Removal and Installation

1. Raise door window, remove door trim assembly and detach inner panel water deflector.
2. Remove front door ventilator assembly and slide window forward slightly to expose lock pillar portion of glass run channel.

NOTE: Exercise care so that exposed front edge of glass does not come in contact with body metal.

3. Remove upper and lower bolts securing glass run channel to door lock pillar panel. (Fig. 16-51)
4. On styles equipped with vacuum door locks, disconnect vacuum hose from lower bracket of run channel. (Fig. 16-52)
5. Beginning at front section of glass run channel (located at top of ventilator division channel), squeeze run channel together along upper and lock pillar sections of door upper frame and pull or carefully pry run channel out of door upper frame.

NOTE: Pressure should be exerted at the retaining clips shown in Fig. 16-51. Extreme care should be exercised during removal of run channel as this part is easily damaged by rough treatment.

6. Once run channel has been removed from the

door upper frame, it can be pulled straight up at the lock pillar panel and removed from door inboard of door upper frame. (Fig. 16-51)

7. To install, reverse removal procedure. Prior to installation, apply a bead of medium-bodied sealer in door upper frame along entire area contacted by run channel and a double bead of sealer in door upper frame along area contacted by front door ventilator assembly. (Fig. 16-53) Cycle door window up and down prior to installing inner panel water deflector and door trim assembly.

REAR DOOR HARDWARE

Fig. 16-54 is typical of sedan and station wagon style rear doors with the trim pad and inner panel water deflector removed.

Fig. 16-55 is typical of a hard top sedan 3339-3439 and 3539 styles rear door with the trim assembly and inner panel water deflector removed.

Fig. 16-56 is typical of 3829 and 39 styles rear door with the trim assembly and inner panel water deflector removed.

Fig. 16-57 is typical of 19 style rear doors with the trim pad and inner panel water deflector removed.

REAR DOOR HINGES

The rear door hinges are attached to the center

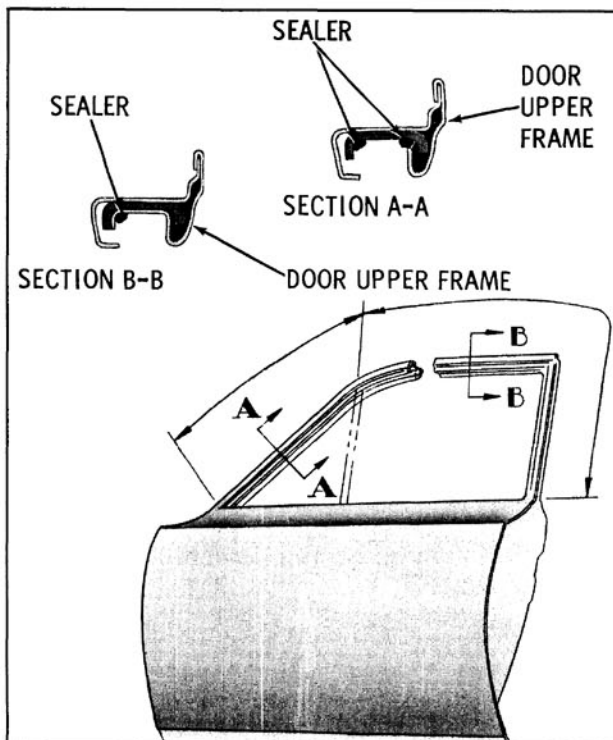
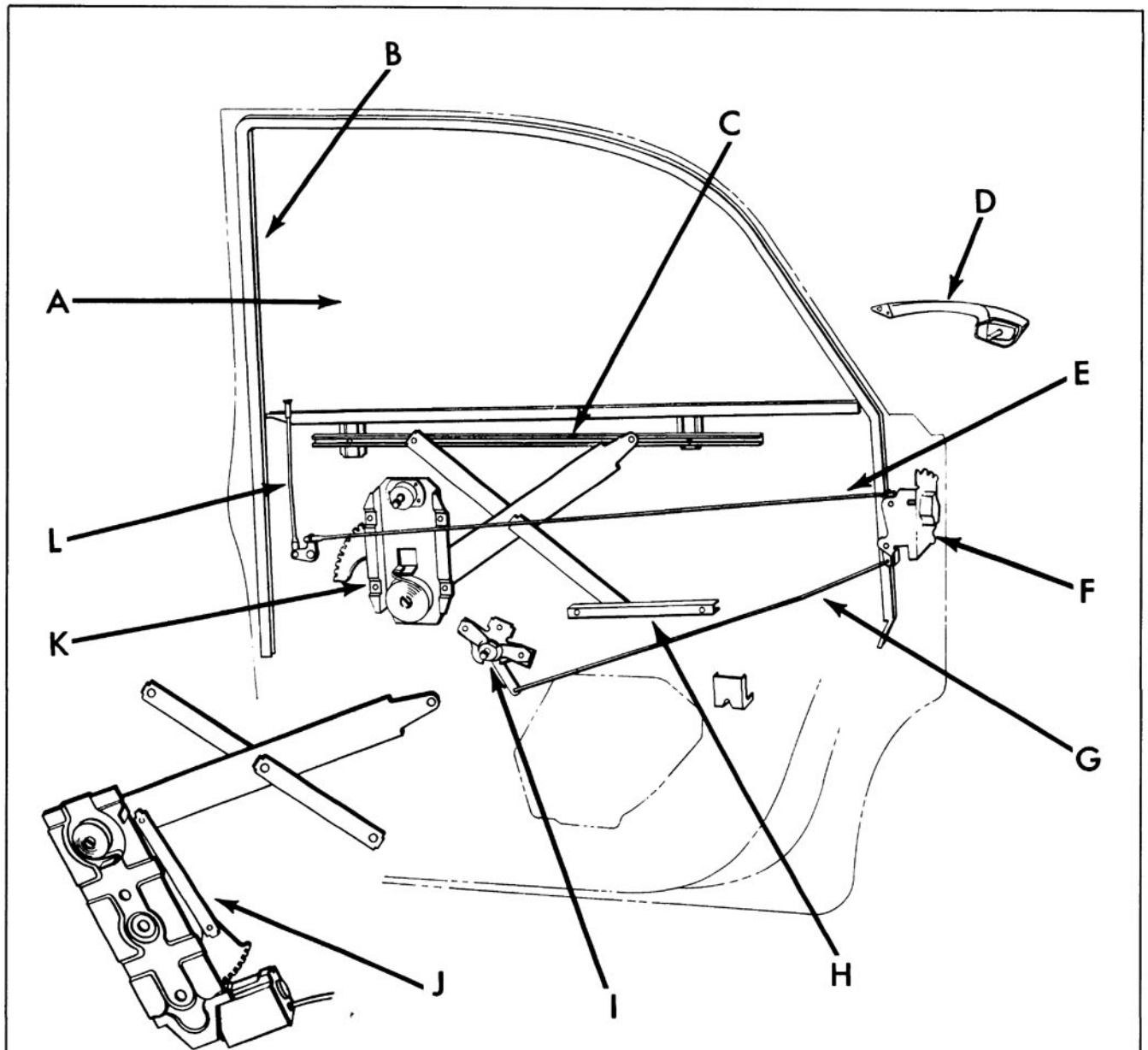
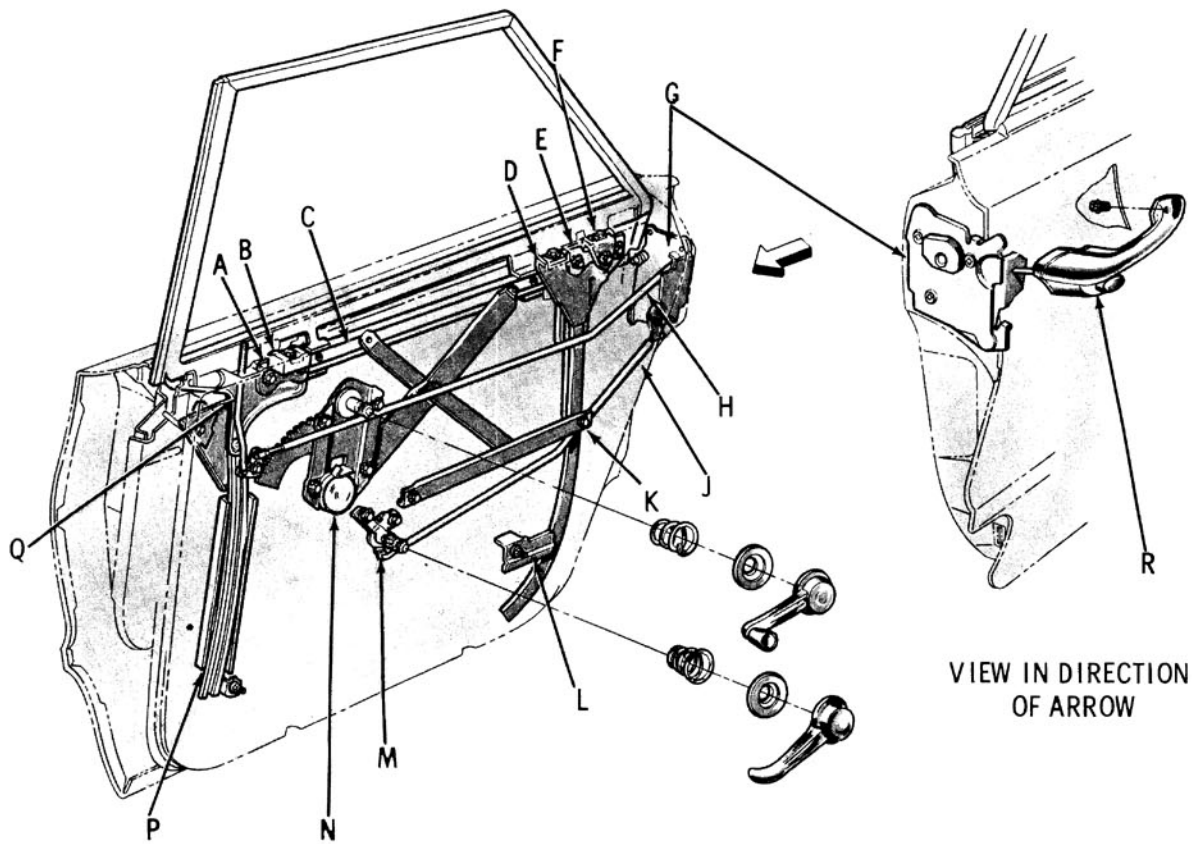


Fig. 16-53 Door Glass Sealing



- A. REAR DOOR WINDOW ASSEMBLY
- B. REAR DOOR WINDOW GLASS RUN CHANNEL ASSEMBLY
- C. REAR DOOR WINDOW LOWER SASH CHANNEL CAM
- D. REAR DOOR OUTSIDE HANDLE ASSEMBLY
- E. REAR DOOR INSIDE LOCKING TO LOCK ROD ASSEMBLY
- F. REAR DOOR LOCK ASSEMBLY
- G. REAR DOOR LOCK REMOTE CONTROL TO LOCK ROD ASSEMBLY
- H. REAR DOOR INNER PANEL CAM ASSEMBLY
- I. REAR DOOR LOCK REMOTE CONTROL ASSEMBLY
- J. REAR DOOR WINDOW ELECTRIC REGULATOR AND MOTOR ASSEMBLY
- K. REAR DOOR WINDOW REGULATOR ASSEMBLY
- L. REAR DOOR INSIDE LOCKING ROD

Fig. 16-54 Typical of Closed Body Styles



- | | |
|--|---|
| A. REAR DOOR WINDOW FRONT MALE WEDGE PLATE | H. REAR DOOR LOCK TO LOCKING LEVER CONNECTING ROD |
| B. REAR DOOR WINDOW FRONT FEMALE WEDGE PLATE | J. REAR DOOR REMOTE CONTROL CONNECTING ROD |
| C. REAR DOOR WINDOW LOWER SASH CHANNEL CAM | K. REAR DOOR INNER PANEL CAM |
| D. REAR DOOR WINDOW REAR GUIDE CAM ASSEMBLY | L. REAR DOOR WINDOW REAR GUIDE CAM LOWER BRACKET |
| E. REAR DOOR WINDOW REAR MALE WEDGE PLATE | M. REAR DOOR REMOTE CONTROL ASSEMBLY |
| F. REAR DOOR WINDOW REAR FEMALE WEDGE PLATE | N. REAR DOOR WINDOW REGULATOR ASSEMBLY |
| G. REAR DOOR LOCK ASSEMBLY | P. REAR DOOR WINDOW FRONT GUIDE CAM ASSEMBLY |
| | Q. REAR DOOR INSIDE LOCKING ROD |
| | R. REAR DOOR OUTSIDE HANDLE ASSEMBLY |

Fig. 16-55 Typical of Holiday Sedans (4-Window)

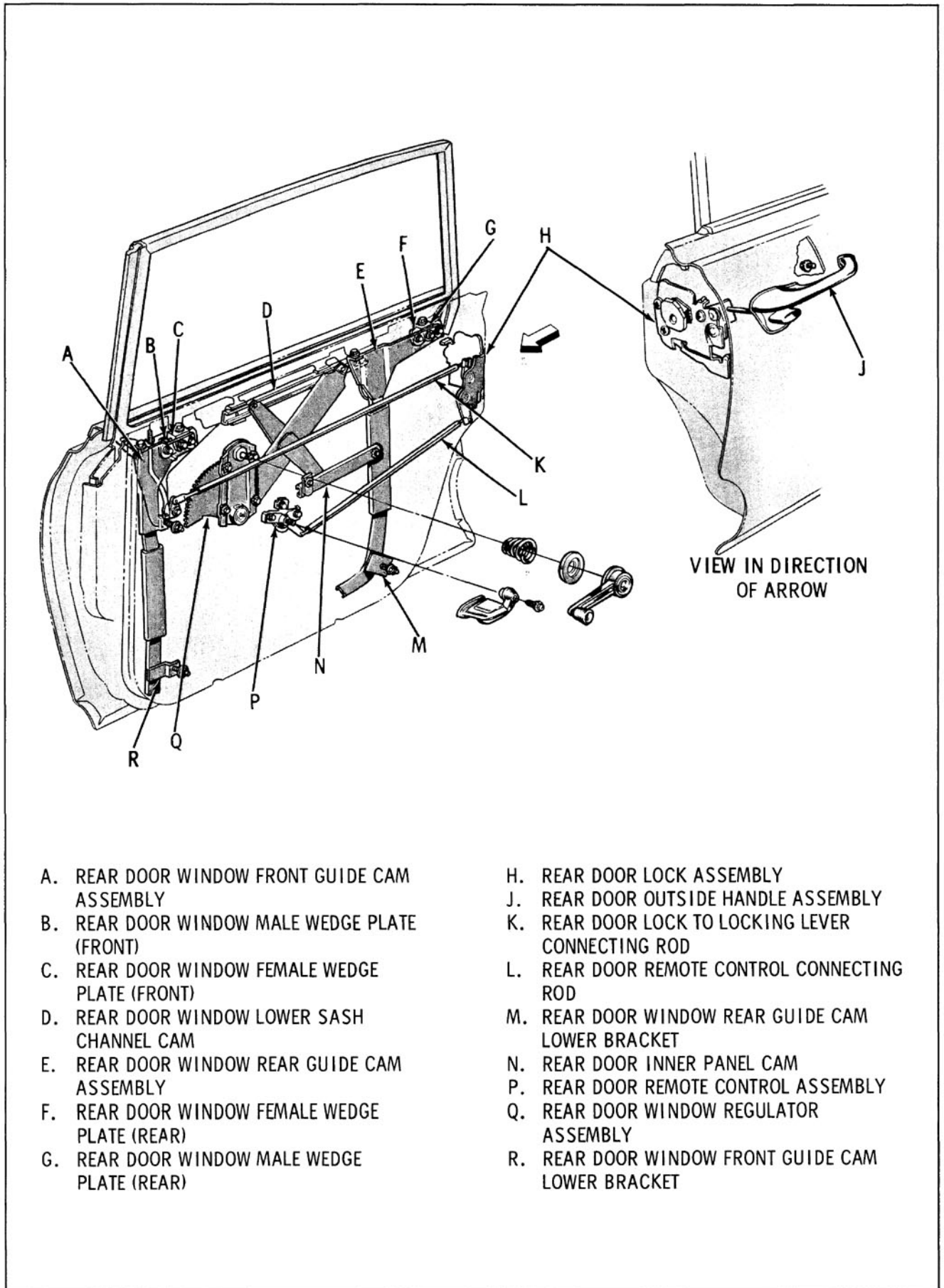
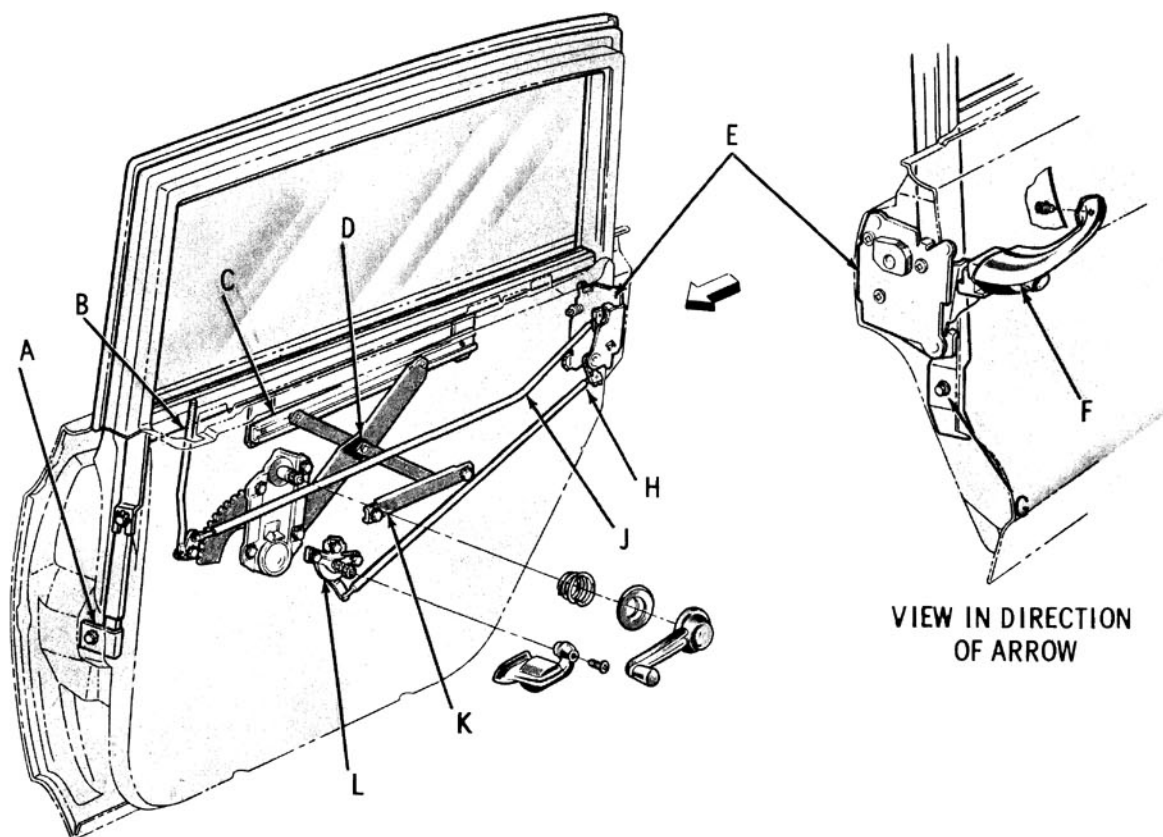


Fig. 16-56 Typical of 3829 and 39 Styles



- | | |
|---|--|
| A. REAR DOOR WINDOW FRONT GLASS RUN CHANNEL LOWER BRACKET | G. REAR DOOR WINDOW REAR GLASS RUN CHANNEL LOWER BRACKET |
| B. REAR DOOR INSIDE LOCKING ROD | H. REAR DOOR REMOTE CONTROL CONNECTING ROD |
| C. REAR DOOR WINDOW LOWER SASH CHANNEL CAM | J. REAR DOOR LOCK TO LOCKING LEVER CONNECTING ROD |
| D. REAR DOOR WINDOW REGULATOR ASSEMBLY | K. REAR DOOR INNER PANEL CAM |
| E. REAR DOOR LOCK ASSEMBLY | L. REAR DOOR REMOTE CONTROL ASSEMBLY |
| F. REAR DOOR OUTSIDE HANDLE ASSEMBLY | |

Fig. 16-57 Typical of 19 Style

pillar with two butt-type hinges. The hinges are secured to the center pillar and door hinge pillar by screws and anchor plates. The lower hinge incorporates an integral door check and hold-open.

Removal

The door and hinges can be removed as an assembly from the center pillar or the door can be removed from the hinge straps.

1. On 29 and 39 styles, lower door window.
2. Clean off excess sealer around each hinge strap and mark location on door hinge pillar or center pillar, depending on method of removal being used.
3. On bodies equipped with electrically powered window regulators:
 - a. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to wire connector at motor.
 - b. Detach wire harness from door inner panel and disconnect regulator motor from harness at connector.
 - c. Remove electrical conduit from door and remove wire harness from between door panels through opening in door hinge pillar.
4. With door properly supported, remove three upper and lower hinge attaching screws at door hinge pillar or center pillar depending on method of removal. (Fig. 16-58 and 16-59)

NOTE: On 29 and 39 styles, the rear door lower hinge to center pillar middle attaching bolt is also the rear door jamb switch.

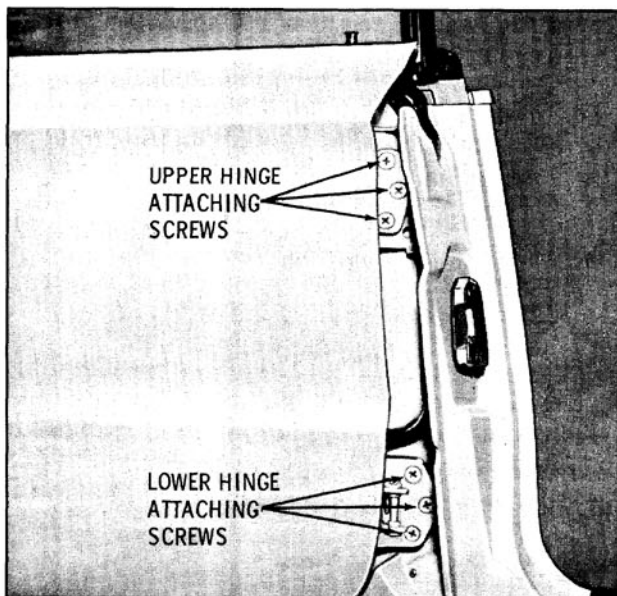


Fig. 16-58 Rear Door to Pillar Attachment

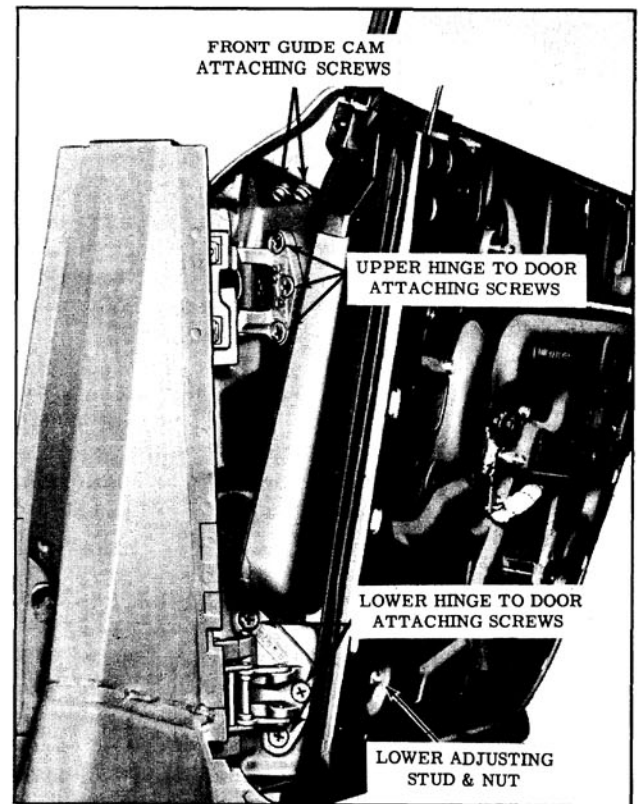


Fig. 16-59 Rear Door to Hinge Attachment

Be sure to disconnect wire before removing door.

5. With aid of helper, remove door from body.

Installation

1. With a scraper and mineral spirits, clean off old sealing compound at hinge attaching areas. This operation should be performed carefully to avoid the possibility of soiling adjacent trim material.
2. Apply a coat of heavy-bodied sealer to attaching surfaces of hinge straps or corresponding surfaces of door or body.
3. With a helper, lift door into position. Install screws loosely, align strap within scribe marks on pillar and tighten bolts. Check door for proper alignment.
4. On doors equipped with power operated windows:
 - a. Install wiring harness inside of door. Connect regulator motor and install wiring harness to inner panel.
 - b. Install conduit to door hinge pillar. Check operation of electric window assembly.
5. Where required, seal door inner panel water deflector as specified in DOOR INNER PANEL WATER DEFLECTOR and reinstall all previously removed parts.

6. For lubrication information see LUBRICATION Section.

Adjustments

In or out or up and down adjustments are provided at door hinge pillar. Fore and aft and a slight up and down adjustment are provided at center pillar. When checking the door for alignment, remove door lock striker from body pillar to allow door to hang free on its hinges.

NOTE: After performing any adjustments, the rear door window on 29 and 39 styles should be checked for proper alignment with the side roof rail weatherstrip. In addition, door lock extension to striker engagement should be examined and adjusted if necessary.

1. For in and out or up and down adjustment, loosen hinge to door pillar attaching screws, adjust door as required and tighten screws. (Fig. 16-59)

NOTE: When performing in and out or fore and aft adjustments, adjust one hinge at a time so that up and down adjustment is maintained.

2. To adjust door fore or aft, loosen hinge to center pillar attaching screws, adjust door fore or aft as required and tighten screws. (Fig. 16-58)

CAUTION: The rear door upper hinge on 19-35-45 and 69 styles is constructed of die cast aluminum which will break under strain of bending in an attempt to short-cut adjustments. Use only the recommended procedures for adjusting rear doors.

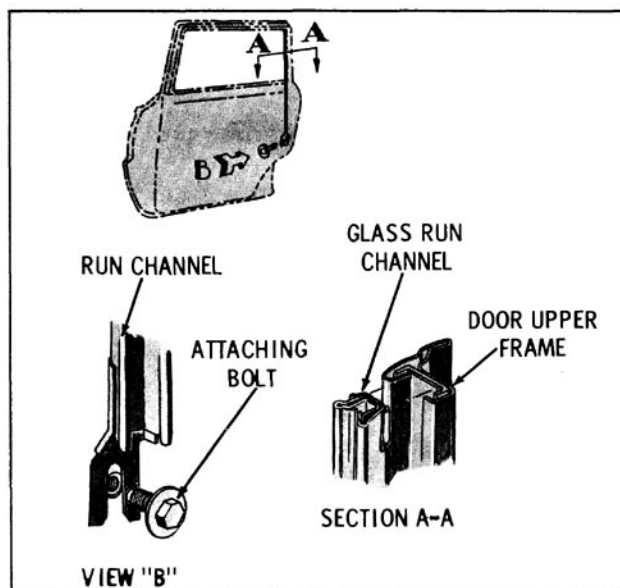


Fig. 16-60 Glass Run Channel (19-35-45 & 69 Styles)

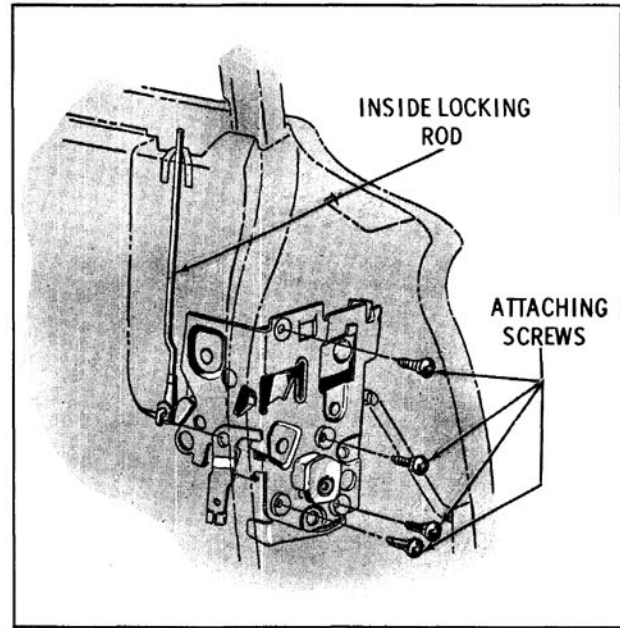


Fig. 16-61 Rear Door Lock Attachment

REAR DOOR LOCK ASSEMBLY

Locks are the rotary bolt type with the safety interlock feature. With the safety interlock feature, it is very important that the lock extension engages properly in the door lock striker notch and that, where necessary, striker emergency spacers of the proper thickness can be used to obtain proper engagement.

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector.
2. On 19-35-45 and 69 styles, through large access hole, remove screw securing lower end of glass run channel at door lock pillar and raise end of channel to expose lock assembly. (Fig. 16-60)
3. Through access hole, disengage spring clips and detach inside lock connecting rod and remote control connecting rod from lock assembly (see DOOR LOCK SPRING CLIPS).
4. At lock pillar facing, remove door lock attaching screws and remove lock assembly through access hole. (Fig. 16-61)
5. To install door lock, reverse removal procedure. Check all operations of door lock before installing door trim and inside hardware.

REAR DOOR LOCK STRIKERS

Removal and Installation

1. With a pencil, mark position of striker on body pillar.

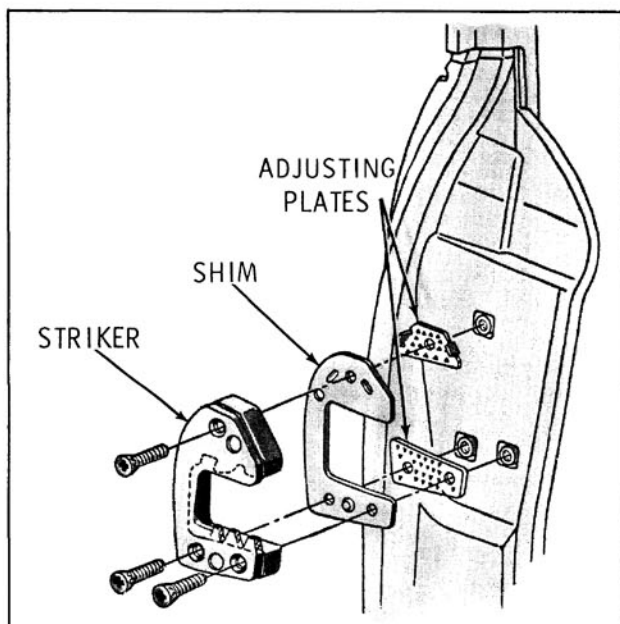


Fig. 16-62 Rear Door Lock Striker

2. Remove three door lock striker attaching screws and remove striker and adjusting plates from pillar. (Fig. 16-62)
3. To install, seal all striker plate attaching screw clearance holes with body caulking compound.
4. Apply a 1/8" bead of body caulking compound around entire back surface of striker plate; skips must not exist in caulking compound. Place striker and adjusting plates within marks on pillar and install striker plate attaching screws.

IMPORTANT: Whenever a door has been removed or realigned, the door **SHOULD NOT** be closed completely until a visual check is made to determine if lock extension will engage in striker notch. A single shim is installed behind the striker assembly in production. This shim can be removed or additional shims (available as a service part) can be installed if required. Removal or addition of shims provides fore or aft adjustment of the striker. To adjust striker up or down and in or out, proceed as follows:

Loosen striker plate attaching screws and shift striker and adjusting plates as required and tighten attaching screws.

NOTE: Door(s) should be properly aligned before checking striker spacer requirements.

5. Clean off all excessive body caulking compound.

REAR DOOR INNER PANEL CAM

The inner panel cam is attached to the door

inner panel by two 7/16" attaching bolts and is designed as a guide for the door window regulator balance arm.

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector sufficiently to expose inner panel cam attaching bolts. (Fig. 16-63)
2. Remove inner panel cam attaching bolts and disengage cam from window regulator balance arm roller and remove cam from door.
3. To install, reverse removal procedure. Prior to installation of inner panel cam, lubricate entire length of cam with 630 AAW Lubriplate or equivalent.

NOTE: The forward end of the inner panel cam is adjustable up or down. This adjustment can be used to help correct a rotated or cocked door window.

REAR DOOR LOCK TO LOCKING LEVER ROD

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector sufficiently to expose locking rod assembly.
2. Remove inside locking rod knob from rod.
3. On 19, 35, 45 and 69 styles, remove screw securing lower end of glass run channel at door

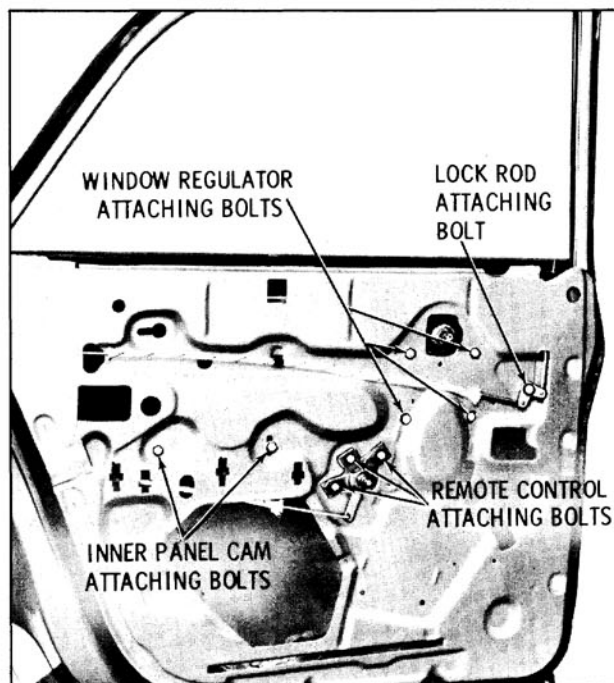


Fig. 16-63 Rear Door Hardware

hinge pillar to gain access to spring clip securing rod to lock. (Fig. 16-60)

4. Disengage spring clip securing inside locking rod assembly to door lock and disengage rod from lock.
5. Disengage rod from spring clip on door inner panel. Remove inside locking rod attaching bolt and remove assembly from door. (Fig. 16-63)
6. To install, reverse removal procedure. Check operation of inside locking rod assembly before installing water deflector and door trim pad.

2. Remove remote control attaching bolts and remove remote control from connecting rod. (Fig. 16-64)
3. On 19, 35, 45 and 69 styles, remove glass run channel lower attaching screw to gain access to spring clip securing rod to lock. (Fig. 16-60)
4. Disengage remote control connecting rod from lock and remove rod from door. (Fig. 16-64)
5. To install remote control and connecting rod, reverse removal procedure. Position remote control rearward sufficiently to take up slack in linkage so that all clearances are taken out of linkage in a rearward position. Check all operations of door lock before installing door inner panel water deflector and trim pad.

REAR DOOR REMOTE CONTROL ASSEMBLY AND CONNECTING ROD

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to remote control attaching bolts.

REAR DOOR WINDOW LOWER SASH CHANNEL CAM (19, 29 & 39 Styles)

Removal and Installation

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

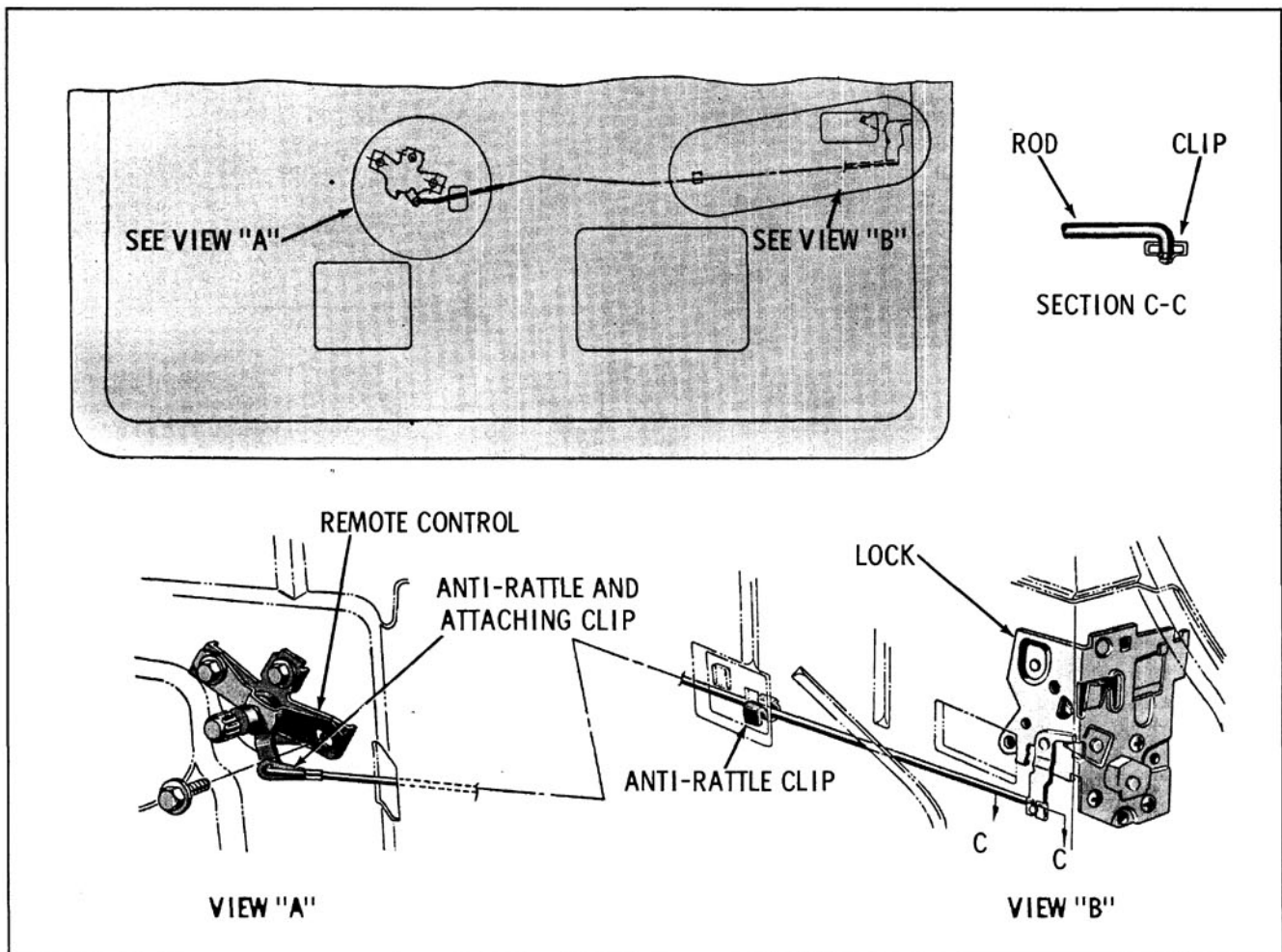


Fig. 16-64 Remote Control Attachment

2. Lower door window sufficiently to gain access to the sash channel cam two attaching screws (through access holes in door inner panel) and remove screws.
3. While supporting window by hand, carefully disengage cam from window sash channel and rollers on window regulator arms and remove cam from door.

CAUTION: After removal of lower sash channel cam, carefully lower door window to bottom of door to prevent damage to glass.

4. To install, reverse removal procedure. Prior to installation, lubricate entire length of window lower sash channel cam with 630AAW Lubriplate or its equivalent. Check operation of window prior to installing inner panel water deflector and door trim pad.

REAR DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC

Removal and Installation

1. Lower door window. Remove door trim

assembly and detach inner panel water deflector.

2. Remove door window lower sash channel cam. Then carefully raise window and prop in a raised position.
3. On styles equipped with electric window regulators, disconnect wiring harness feed wires from regulator motor at connector.
4. On 3829 and 39 styles equipped with electric window regulators, loosen rear guide cam upper attaching screw and bolt and remove lower adjusting stud and nut. This is necessary to move lower section of rear guide cam rearward far enough to permit removal of electric window regulator and motor assembly. Fig. 16-65 shows the rear guide cam attachments and is typical of rear guide cams equipped with power windows.

CAUTION: Do not operate regulator motor after window assembly is disengaged from regulator. Operation of motor with load removed may damage unit.

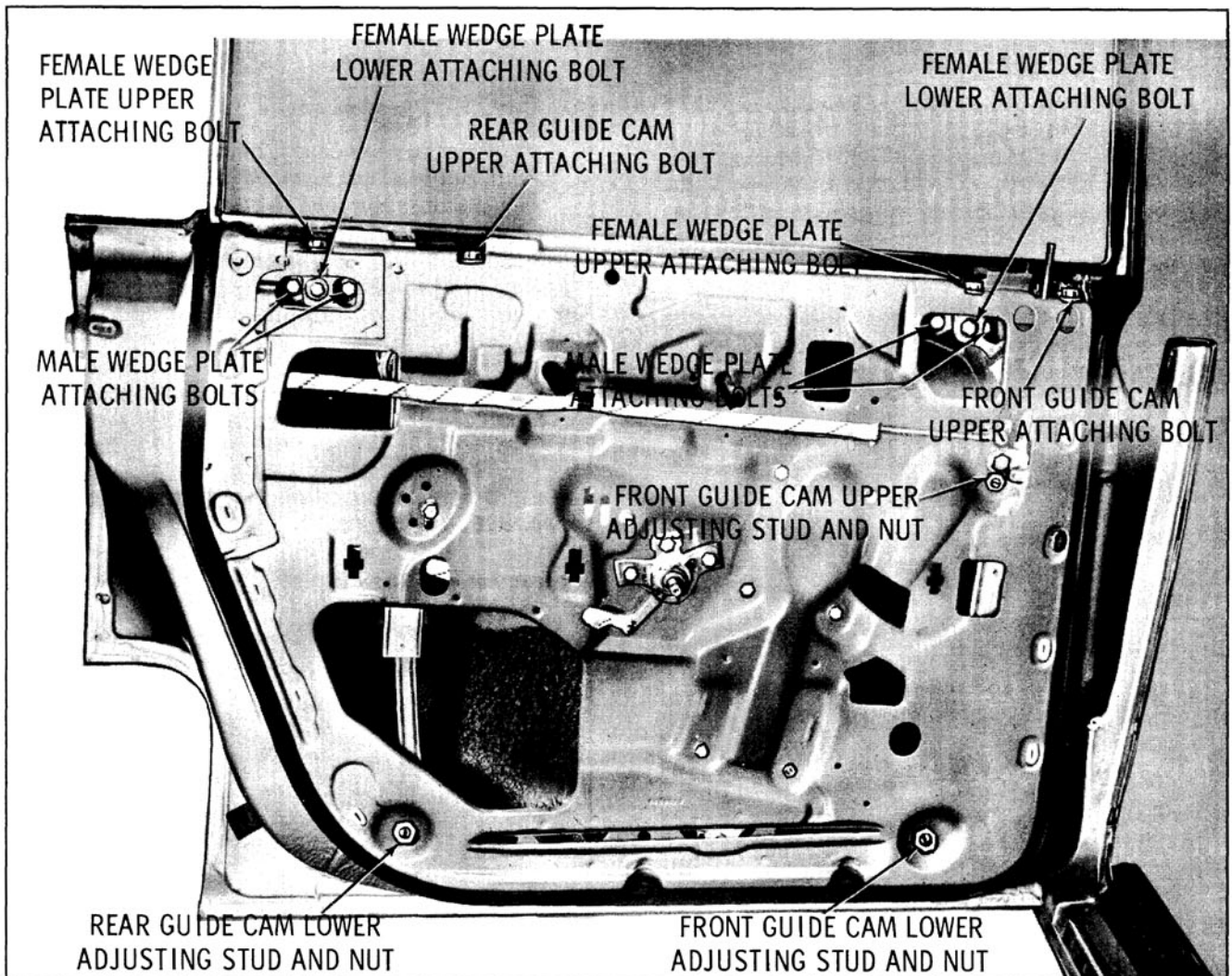


Fig. 16-65 Rear Door Hardware

- Remove regulator attaching bolts (four), disengage balance arm from inner panel cam and remove regulator assembly through large access hole. (Fig. 16-66)
- To install, reverse removal procedure. Check operation of window before installing inner panel water deflector and rear door trim pad.

REAR DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

The electric motor assembly, which powers the window regulator on electrically operated windows, is a 12-volt reversible motor with a built-in type circuit breaker and a self-locking gear drive. The motor is attached to the regulator assembly with bolts.

Removal and Installation

- Remove electric window regulator assembly from door and/or rear quarter and clamp securely in vise. (Fig. 16-67)

NOTE: The position of the regulator clamped in the vise will vary with type of regulator and position of lift arm.

CAUTION: BE SURE TO PERFORM STEPS 2 AND 3 BEFORE ATTEMPTING TO REMOVE MOTOR FROM REGULATOR. The regulator lift arm, which is under tension from the counterbalance spring, can cause serious injury if the motor is removed without locking the sector gear in position.

- Drill a 1/4" hole through regulator sector gear and back plate. The exact point of this hole will be dependent on the position of the regulator lift arm.

IMPORTANT: DO NOT drill into the motor housing, part of which is indicated by the dotted line illustrated in Fig. 16-67. In addition, locate hole a sufficient distance from edge of sector gear to insure proper retention of sector gear to back plate.

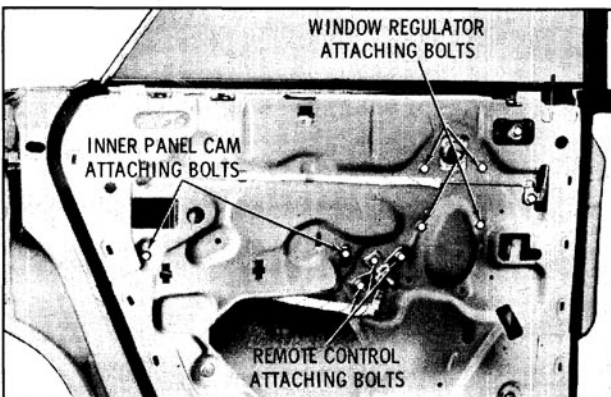


Fig. 16-66 Rear Door Hardware

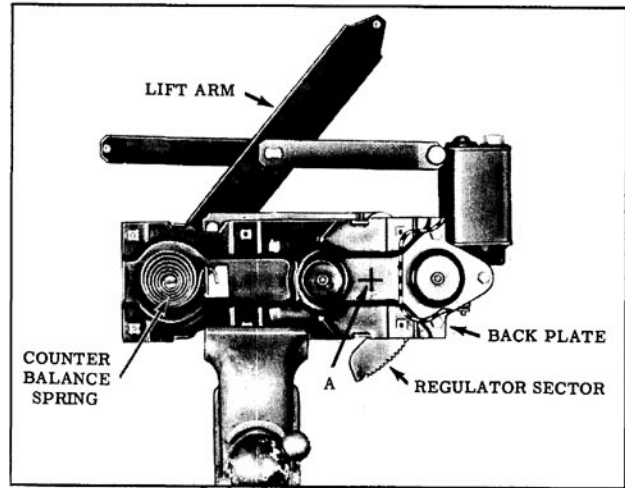


Fig. 16-67 Regulator and Motor Assembly

- Insert a 3/16" bolt through hole in back plate and sector and install nut to bolt (do not tighten nut).
- Remove motor attaching bolts and remove motor assembly from regulator. (Fig. 16-67)

NOTE: Clean off steel chips from regulator sector and motor pinion gear after drilling operation.

- To install, reverse removal procedure. If difficulty is encountered when trying to line up motor assembly attaching holes, the regulator lift arm may be moved up or down manually so that motor pinion gear will mesh with teeth on regulator sector gear, and regulator attaching holes will line up.

NOTE: Be sure to remove temporary nut and bolt from regulator before installing it into door or rear quarter panel.

REAR DOOR WINDOW FRONT GLASS RUN CHANNEL (19 Styles)

Removal and Installation

- Remove door trim assembly and detach inner panel water deflector.
- Carefully lower window assembly to bottom of door.
- Remove lower attaching bolts (two) from hinge pillar facing of door inner panel. (Fig. 16-68)
- Carefully disengage glass run channel attaching clips along front of door window frame. Pull glass run channel inboard and upward and remove channel from between inner and outer panel.

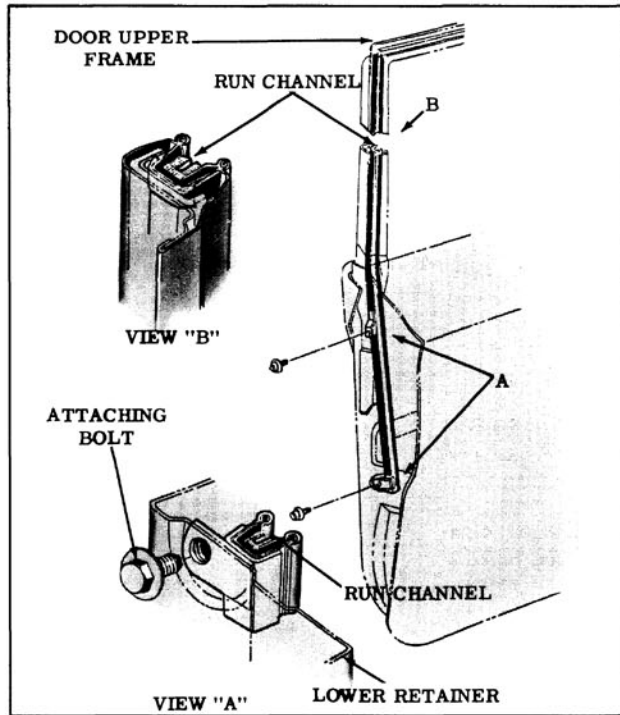


Fig. 16-68 Front Glass Run Channel
(19 Styles)

CAUTION: After glass run channel has been removed, front edge of door glass is left exposed and unprotected. Care should be exercised so that glass does not strike window frame at any point as glass may be damaged.

- To install, reverse removal procedure. Check operation of rear door window assembly and, where required, adjust glass run channel prior to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW ASSEMBLY (19 Styles)

Removal and Installation

- Lower door window. Remove door trim assembly and detach inner panel water deflector.
- Remove rear door window front glass run channel.
- Remove lower sash channel cam.

NOTE: On styles equipped with electric window regulators, disconnect wiring harness electrical feed plug from regulator motor at connector. **DO NOT** operate regulator motor after window assembly is disengaged from regulator. Operation of motor with load removed may damage unit.

- Rotate rear edge of window assembly upward and remove glass from door.

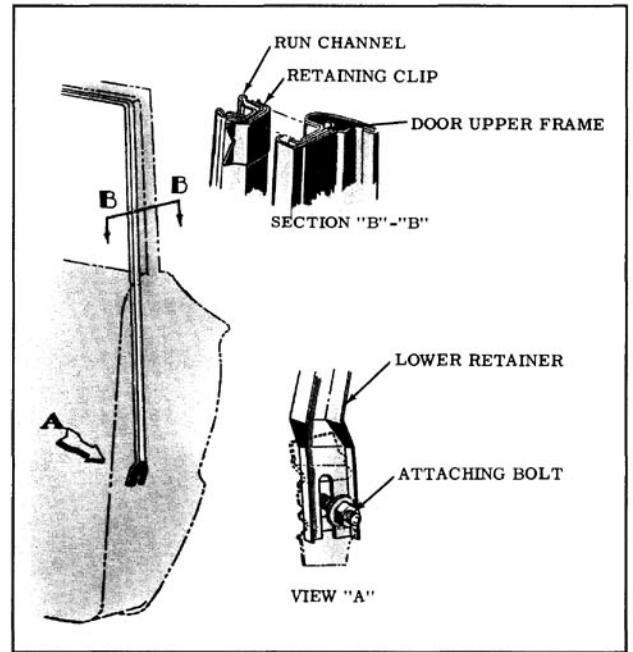


Fig. 16-69 Rear Glass Run Channel
(19 Styles)

- To install, reverse removal procedure. Prior to installation of window lower sash channel cam, lubricate entire length of cam with 630 AAW Lubriplate or equivalent. Check operation of window assembly and, where required, adjust window as described under REAR DOOR WINDOW ASSEMBLIES AND REAR DOOR INNER PANEL CAM.

REAR DOOR WINDOW ADJUSTMENTS (19 Styles)

Rear door window glass adjustments are provided to accomplish smooth operation of glass and to effect proper weatherseals.

Adjustments

- Raise door window, remove door trim assembly and detach inner panel water deflector.
- The rear door window inner panel cam is adjustable at the forward attaching bolt and can be utilized in correcting a rotated (cocked) door window.
- Closed style rear doors do not provide for mechanical adjustments of the glass run channels. In the event of excessively loose door glass, however, the run channels can be moved closer to glass by adding shim(s) (washers - not a service part) between door lock and/or hinge pillar panel and run channel(s) at attaching bolt locations. Figs. 16-68 and 16-69 show glass run channel attaching bolt locations on 19 styles.

NOTE: Care should be exercised during shimming operations of glass run channels so as not to cause a hard operating door glass.

- Following any door glass adjustments, the window assembly should be cycled up and down to check for proper operation prior to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW ASSEMBLY (35, 45 & 69 Styles)

The rear door window glass is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design, the door glass, sash channel and sash channel cam are removed from the door as a unit.

CAUTION: Care should be exercised to make certain glass does not strike body metal during removal or installation procedures, as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Removal and Installation

- Raise door window, remove door trim assembly and detach inner panel water deflector.
- Remove rear door window inner panel cam. (Fig. 16-63)

NOTE: On styles equipped with electric window regulators, disconnect wiring harness electrical feed plug from regulator motor at connector. DO NOT operate regulator motor after window assembly is disengaged from regulator. Operation of motor with load removed may damage unit.

- While lowering door window, rotate rear edge of glass downward until regulator balance arm roller is disengaged from lower sash channel cam. Then, slide glass upward to disengage regulator lift arm roller from lower sash channel cam and remove door window assembly from door, inboard of door upper frame.
- To install, reverse removal procedure. Prior to installation of inner panel cam, lubricate entire length of cam with Lubriplate or equivalent. Check operation of window assembly and, where required, adjust window as described under REAR DOOR WINDOW ADJUSTMENTS prior to installation of inner panel water deflector and door trim assembly.

ADJUSTMENTS (35, 45 & 69 Styles)

Rear door window glass adjustments are provided to accomplish smooth operation of glass and to effect proper weatherseals.

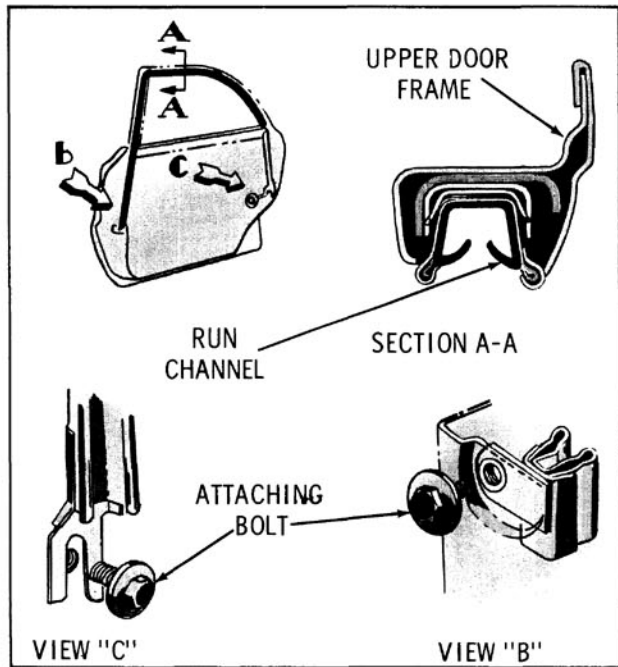


Fig. 16-70 Glass Run Attachments

- Raise door window, remove door trim assembly and detach inner panel water deflector.
- The rear door window inner panel cam is adjustable at the forward attaching bolt and can be utilized in correcting a rotated (cocked) door window.
- In the event of an excessively loose door glass, the run channels can be moved closer to glass by adding shim(s) (washers - not a service part) between door lock or hinge pillar panel and run channel at attaching bolt locations. Fig. 16-70 shows glass run channel attaching bolt locations.

NOTE: Care should be exercised during shimming operations of glass run channels so as not to cause a hard-operating door glass.

Following any door glass adjustments, the window assembly should be cycled up and down to check for proper operation prior to installation of inner panel water deflector and door trim assembly.

REGULATOR ASSEMBLY (35, 45, & 69 Styles)

Removal and Installation

- Raise door window, remove door trim assembly and detach inner panel water deflector.
- On electrically operated rear door window regulator assemblies, disconnect wiring harness feed wires from regulator connector at motor.

CAUTION: Do not operate regulator motor after window assembly is disengaged from

regulator. Operation of motor with load removed may damage unit.

3. Remove rear door window inner panel cam. (Fig. 16-63)
4. Remove rear door window assembly.
5. Remove window regulator attaching bolts (four) and remove regulator from door through large access hole. (Fig. 16-63)
6. To install, reverse removal procedure. Check operation of window assembly before installing inner panel water deflector and rear door trim assembly.

REAR DOOR WINDOW ASSEMBLY— MANUAL AND ELECTRIC (29 & 39 Styles)

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector.
2. Through access holes in door inner panel, remove bolts securing rear door window front and rear male wedge plates to window lower sash channel and remove wedge plates. (Fig. 16-71)
3. Lower door window and remove lower sash channel cam attaching screws.

NOTE: On styles equipped with electric window regulators, disconnect wiring harness electrical feed plug from regulator motor at connector.

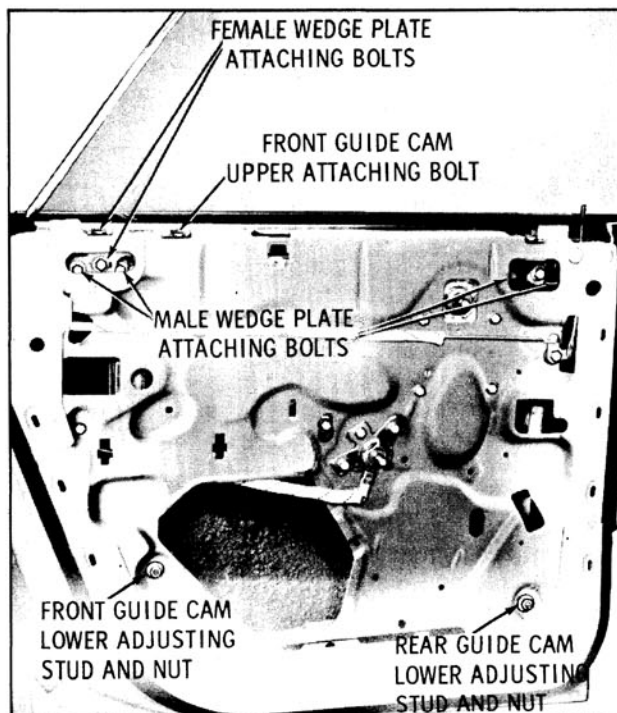


Fig. 16-71 Rear Door Hardware

CAUTION: DO NOT OPERATE REGULATOR MOTOR after window assembly is disengaged from regulator. Operation of motor with load removed may damage unit.

4. Carefully raise door window and remove from door.
5. To install, reverse removal procedure. Check window for proper alignment and, where necessary, align window as described under REAR DOOR WINDOW ADJUSTMENTS. Prior to installation of window lower sash channel cam, lubricate entire length of cam with 630 AAW Lubriplate or equivalent. Also lubricate lower sash channel cam rollers and pivot area of rear door window rear guide.

Adjustments

IMPORTANT: The rear door assembly should be properly aligned in the body opening before adjusting the rear door window.

Unless otherwise specified, the following window adjustments are for both manually and electrically operated windows.

NOTE: To perform the following rear door window adjustments, remove door trim assembly and detach inner panel water deflector.

1. Up and down adjustment:
 - a. Through inner panel access holes, loosen bolts securing front and rear male wedge plates to window lower sash channel.
 - b. Reposition window assembly as required, adjust front and rear male wedge plates up or down as required, then tighten wedge plate attaching bolts. Check operation of window assembly.

IMPORTANT: The front or rear of window assembly may be adjusted up or down by adjusting either front or rear male wedge plate up or down as required. In cases of major adjustment, however, both wedge plates should be adjusted.
2. Fore or aft adjustment:
 - a. Loosen lower adjusting stud nut on both front and rear guide cams on 39 styles. (Fig. 16-71) Loosen lower adjusting stud nut on rear guide cam and upper and lower adjusting stud nut on front guide cam on 29 styles. (Fig. 16-65)
 - b. Loosen bolt(s) securing upper end of front and rear guide cams, position window fore or aft as required and tighten all front rear guide cam attachments.

- c. Check window for proper operation and, if necessary, readjust rear door window front and/or rear male wedge plates fore or aft to insure proper contact with female wedge plates on door inner panel.

NOTE: On styles where lower adjusting stud and nut are not covered by a water deflector, seal stud and nut with body caulking compound.

3. In or out adjustment:

The in and out adjustment of the rear door window assembly can be obtained in adjusting the front and rear guide cams in or out as required. It is desirable, however, to adjust only one guide cam at a time in order to maintain the fore and aft adjustment of the window assembly.

a. To adjust front of window assembly in or out, proceed as follows:

- (1) With window in the full up position, loosen front guide cam lower adjusting stud nut on 39 styles (Fig. 16-66) and front guide cam upper and lower adjusting stud nuts on 29 styles (Fig. 16-65).
- (2) Loosen front female wedge plate upper attaching bolt. Loosen front guide cam upper attaching bolt on 29 styles. (Fig. 16-71)
- (3) On 39 styles, loosen two front guide cam support attaching bolts located on door hinge pillar facing. (Fig. 16-72)
- (4) Position front edge of window assembly in or out as required and tighten front guide cam upper attaching bolt(s).

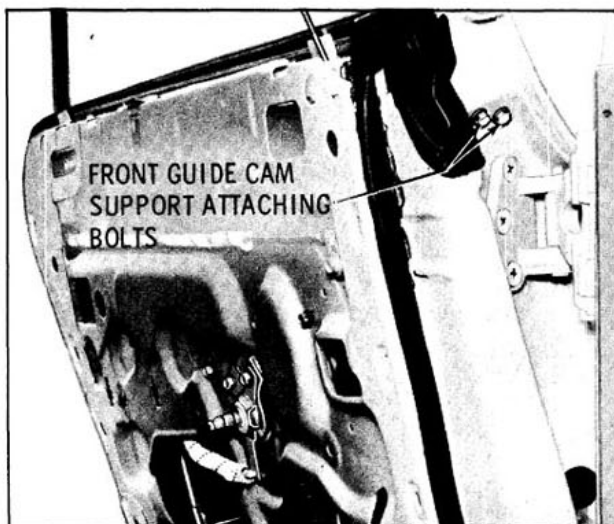


Fig. 16-72 Front Guide Cam Attachment

- (5) Adjust female wedge plate in or out for proper relation to male wedge plate and tighten attaching bolt.
- (6) Turn upper (29 styles) and then lower (29 and 39 styles) front guide cam adjusting stud(s) in or out as needed and tighten adjusting stud nut(s).

NOTE: On 29 styles, it may be necessary to reposition either or both upper and lower guide cam adjusting studs before glass can be moved in or out to a new position.

- (7) Check window for proper alignment and operation and seal front guide cam lower adjusting stud and nut with body caulking compound.

b. To adjust rear of window assembly in or out, proceed as follows:

- (1) With window in the full up position, loosen rear guide cam upper attaching bolt and female wedge plate upper attaching bolt.

NOTE: For rear guide cam attachment, refer to Fig. 16-65 (29 styles) or Fig. 16-71 (39 styles).

- (2) Loosen rear guide cam lower adjusting stud nut.
- (3) Position rear edge of window assembly in or out as required and tighten rear guide cam upper attaching bolt.
- (4) Adjust female wedge plate in or out for proper relation to male wedge plate and tighten attaching bolt.
- (5) Turn rear guide cam lower adjusting stud in or out as needed and tighten stud nut.

NOTE: It may be necessary to reposition the rear guide cam adjusting stud before glass can be moved in or out to a new position.

- (6) Inspect window for proper alignment and operation and seal the rear guide cam lower adjusting stud and nut with body caulking compound.

4. The rear door window inner cam forward attaching bolt on 69 styles (Fig. 16-66) and the rear attaching bolt on 29 styles (Fig. 16-65) is adjustable up or down. This adjustment can be utilized to correct a rotated (cocked) rear door window.

5. Check complete operation of window prior

to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW REAR GLASS RUN CHANNEL (19 Styles)

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to rear glass run channel lower attaching nut. Remove nut and disengage lower end of run channel. (Fig. 16-69)
2. Remove front run channel and rear door window.
3. Carefully disengage glass run channel attaching clips along top and lock pillar portion of window frame. Then pull rear door glass run channel inboard and upward and remove channel from between inner and outer panels.
4. To install, reverse removal procedure. Check operation of rear door window and, where required, adjust glass run channel for proper window operation as explained in the REAR DOOR WINDOW ASSEMBLY - ADJUSTMENTS Section for 19 styles. Cycle rear door window assembly up and down prior to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW GLASS RUN CHANNEL (34, 45 & 69 Styles)

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector. Disengage lower sash channel cam from window sash channel.
2. Remove door window assembly.
3. Remove front and rear attaching screws from hinge and lock pillar facing of door inner panel. (Fig. 16-70)
4. Carefully disengage glass run channel attaching clips. Beginning along front of door window frame, pull glass run channel inboard and upward and remove channel from between inner and outer panels.
5. Prior to installation, apply a bead of medium bodied sealer along section of door window upper frame shown in Fig. 16-73.
6. To install, reverse removal procedure. Check operation of rear door window and, where required, adjust glass run channel for proper window operation as explained in the REAR

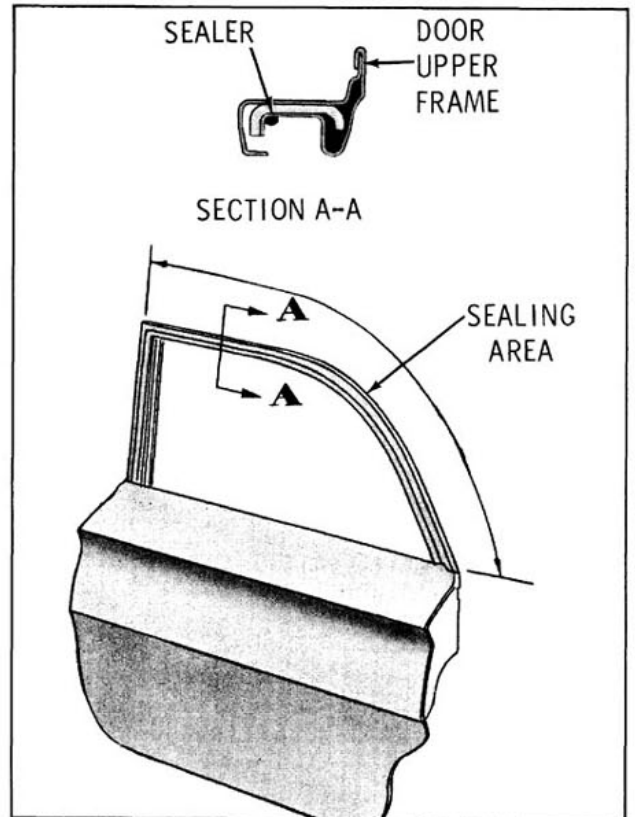


Fig. 16-73 Glass Sealing

DOOR WINDOW ASSEMBLY - ADJUSTMENTS Section for 69 styles. Cycle rear door window assembly up and down prior to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW GUIDE FRONT CAM SUPPORT (33, 34 & 3539 Styles)

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Raise door window. Through inner panel access hole, remove front guide cam upper attaching bolt. (Fig. 16-66)
3. At door hinge pillar facing, remove two bolts securing guide cam support and remove support through inner panel access hole. (Fig. 16-72)
4. To install, reverse removal procedure. Check operation of window assembly and, where required, adjust window as described under REAR DOOR WINDOW ADJUSTMENTS for 39 styles. Cycle window assembly up and down prior to installation of inner panel water deflector and rear door trim assembly.

REAR DOOR WINDOW GUIDE FRONT CAM ASSEMBLY (33, 34 & 3539 Styles)

The window guide front cam assembly incorporates an attaching support bracket at the upper edge of the guide cam which is attached to the door hinge pillar facing by two bolts. The front cam can be removed without removing this attaching bracket.

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector.
2. Through inner panel access hole, remove front guide cam upper attaching bolt and front guide cam lower adjusting stud and nut.
3. Carefully disengage guide cam from window lower sash channel roller and remove guide cam through access hole.
4. To install, reverse removal procedure. Prior to installation, lubricate entire length of guide cam with 630AAW Lubriplate or equivalent. Reseal front guide cam lower adjusting stud and nut with body caulking compound.
5. Check operation of window assembly and, where required, adjust window as described under REAR DOOR WINDOW ADJUSTMENTS. Cycle door window up and down prior to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW GUIDE REAR CAM ASSEMBLY (33, 34 & 3539 Styles)**Removal and Installation**

1. Raise door window. Remove door trim assembly and detach inner panel water deflector.
2. Remove rear guide cam upper attaching bolt and lower adjusting stud and nut. (Fig. 16-71)
3. Carefully disengage cam from roller on window guide assembly and remove rear cam through large access hole.
4. To install, reverse removal procedure. Prior to installation, lubricate entire length of cam with 630AAW Lubriplate or equivalent. If exposed, seal cam lower adjusting stud and nut with body caulking compound.
5. Check operation of window assembly and, where required, adjust window as described under REAR DOOR WINDOW ADJUSTMENTS. Cycle door window up and down prior to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW GUIDE FRONT CAM ASSEMBLY (3829 & 3839 Styles)**Removal and Installation**

1. Raise door window, remove door trim assembly and detach inner panel water deflector.
2. Remove guide cam attaching bolt and female wedge plate attaching bolts. (Fig. 16-65)
3. Remove guide cam upper and lower adjusting stud and nut.
4. Carefully disengage front guide cam from window lower sash channel roller and remove guide cam from door.
5. To install, reverse removal procedure. Reseal front guide cam lower adjusting stud and nut with body caulking compound. (Fig. 16-65)
6. Check window assembly for proper operation and, where required, adjust glass as described under REAR DOOR WINDOW ADJUSTMENTS. Cycle door window up and down prior to installation of inner panel water deflector and door trim assembly.

REAR DOOR WINDOW GUIDE REAR CAM ASSEMBLY (3829 & 3839 Styles)**Removal and Installation**

1. Raise door window, remove door trim assembly and detach inner panel water deflector.
2. Remove guide cam attaching bolt and female wedge plate attaching bolts. (Fig. 16-65)
3. Remove guide cam lower adjusting stud and nut.
4. Carefully disengage rear guide cam from window lower sash channel roller and remove guide cam from door.
5. To install, reverse removal procedure. Reseal lower guide cam adjusting stud and nut with body caulking compound.
6. Check window assembly for proper operation and, where required, adjust guide cam as described under REAR DOOR WINDOW ASSEMBLY ADJUSTMENT. Cycle rear door window up and down prior to installation of inner panel water deflector and door trim assembly.

SIDE ROOF RAIL WEATHERSTRIP (3347 & 3447 Styles)

The side roof rail weatherstrip assembly is a

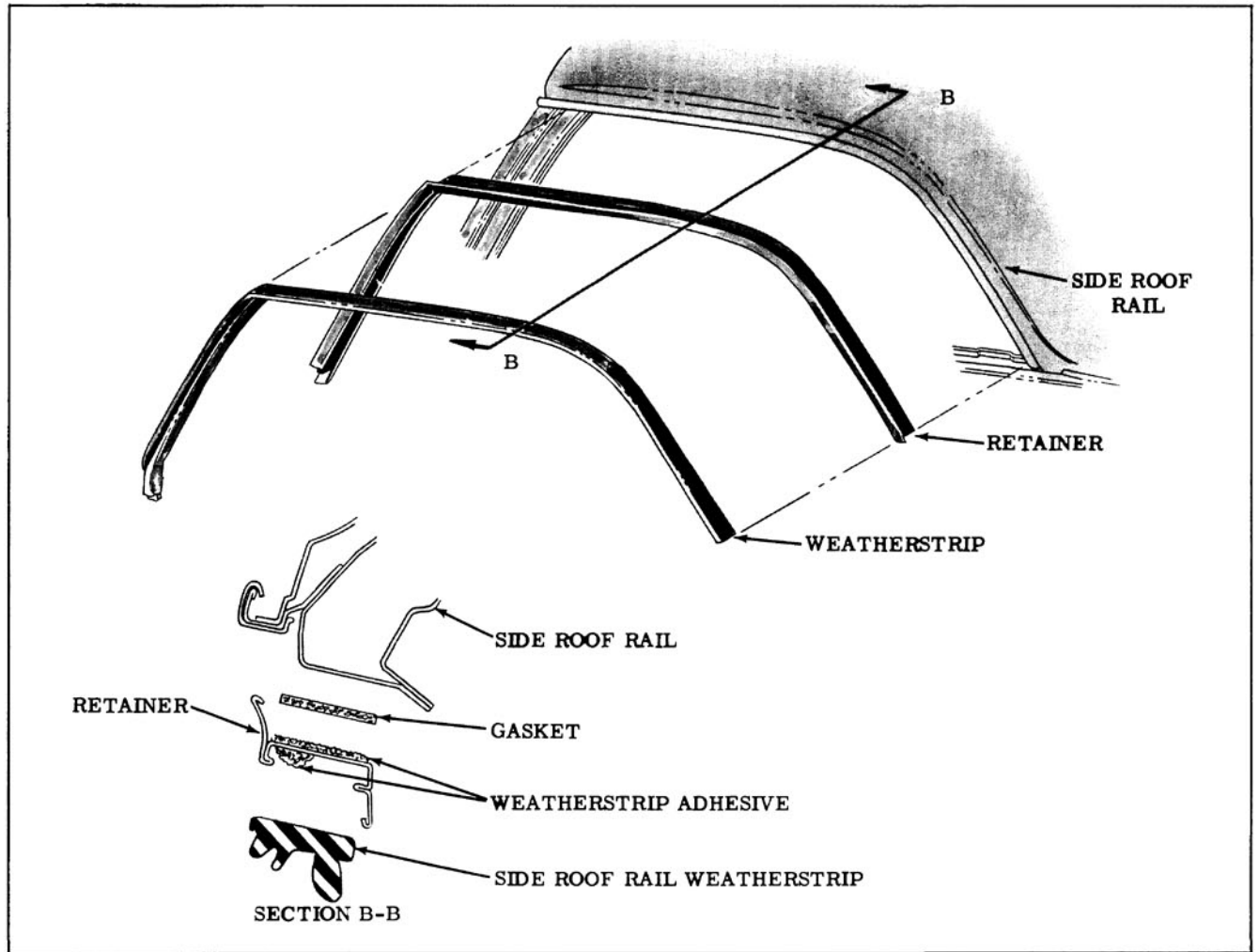


Fig. 16-74 Side Roof Rail Weatherstrip (47 Style)

one piece type which is secured to the front body hinge pillar with a snap fastener. The remainder of the weatherstrip is secured to the side roof rail by weatherstrip adhesive and a weatherstrip retainer and reveal molding assembly.

Removal

1. Remove snap fastener securing weatherstrip at front body hinge pillar.
2. Carefully disengage inner lip of side roof rail weatherstrip from retainer. Using a flat-bladed tool, carefully break cement bond between weatherstrip and weatherstrip retainer and reveal molding assembly.
3. Remove side roof rail weatherstrip from body.

Installation

1. Clean off old cement from side roof rail weatherstrip retainer to insure a clean cementing surface.

NOTE: The side roof rail retainer to side

roof rail sealing gasket (Fig. 16-74) is not installed in production, but is recommended for service sealing. This gasket can be cut to size from existing stock.

2. Apply a continuous bead (approximately 3/16" diameter) of weatherstrip adhesive along entire outboard surface of side roof rail weatherstrip retainer. (Section B-B, Fig. 16-74)
3. With a flat-bladed tool, engage inboard edge of weatherstrip and then outboard edge of weatherstrip into weatherstrip retainer.
4. Install snap fastener at front body hinge pillar and clean off all excessive weatherstrip cement.

SIDE ROOF RAIL WEATHERSTRIP (29 Styles)

The side roof rail weatherstrip assembly is a one-piece type which is secured to the front body hinge pillar with a snap fastener. The remainder of the weatherstrip is secured to the side roof rail by weatherstrip adhesive and a weatherstrip retainer and reveal molding assembly.

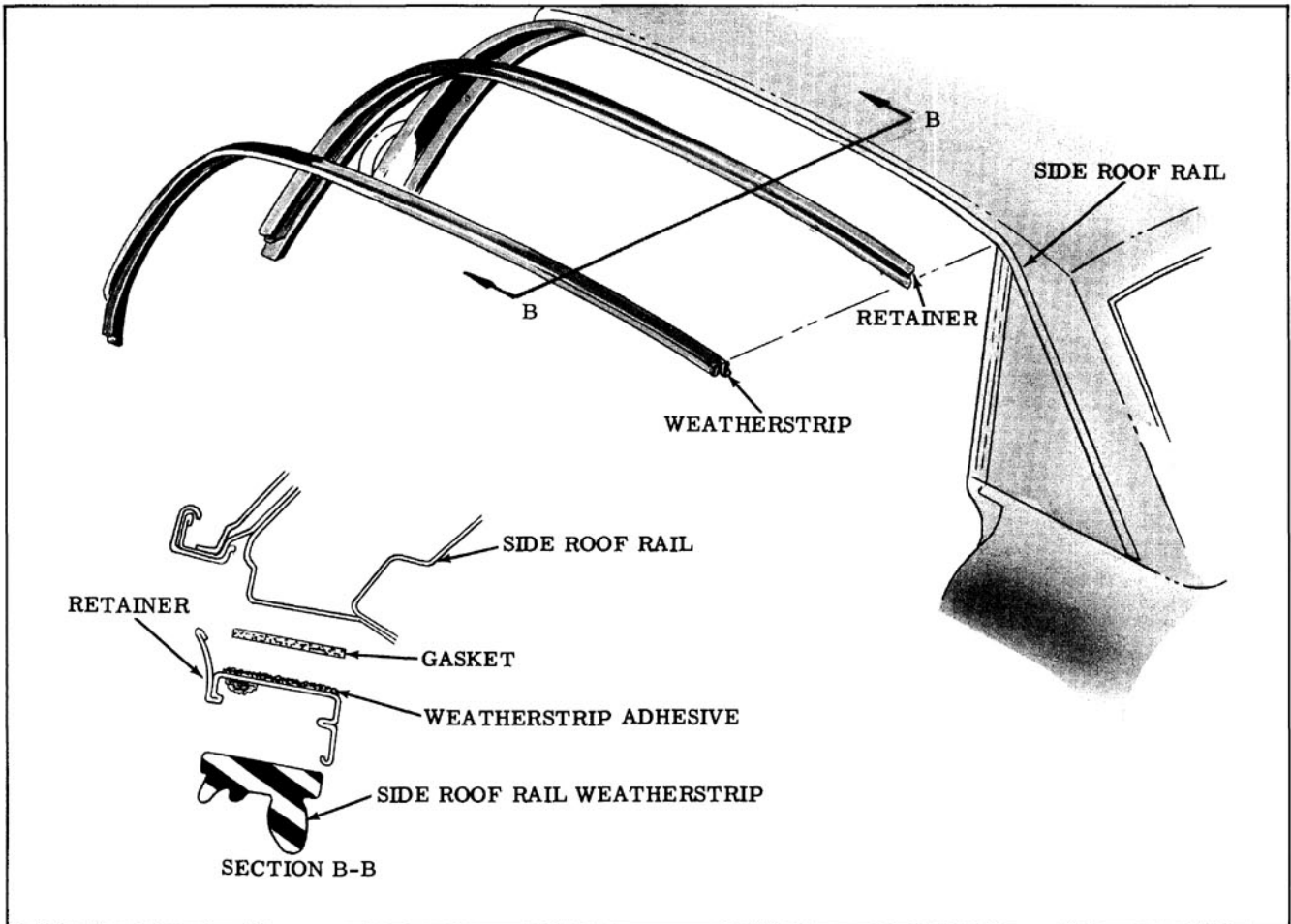


Fig. 16-75 Weatherstrip Assembly (29 Style)

Removal

1. Remove snap fastener securing weatherstrip at front body hinge pillar.
2. Carefully disengage inner lip of side roof rail weatherstrip from retainer. Using a flat-bladed tool, carefully break cement bond between weatherstrip and weatherstrip retainer and reveal molding assembly.
3. Remove side roof rail weatherstrip from body.
2. Apply a continuous bead (approximately 3/16" diameter) of weatherstrip adhesive along entire outboard surface of side roof rail weatherstrip retainer. (Section B-B, Fig. 16-75)
3. Apply weatherstrip cement to rear end of side roof rail weatherstrip and cement weatherstrip to front end of stationary rear quarter window.
4. With a flat-bladed tool, engage inboard edge of weatherstrip into weatherstrip retainer.
5. Install snap fastener at front body hinge pillar and clean off all excessive weatherstrip cement.

Installation

1. Clean off old cement from side roof rail weatherstrip and weatherstrip retainer to insure a clean cementing surface.

NOTE: The side roof rail retainer to side roof rail sealing gasket (Fig. 16-75) is not installed in production, but is recommended for service sealing. This gasket can be cut to size from existing stock.

SIDE ROOF RAIL WEATHERSTRIP (3339, 3439, 3457, 3539, 3657, 3847 & 3947 Styles)

The side roof rail weatherstrip assembly is a one-piece type which is secured to the front body hinge pillar with a snap fastener. The remainder of the weatherstrip is secured to the side roof rail by weatherstrip adhesive and a weatherstrip retainer and reveal molding assembly.

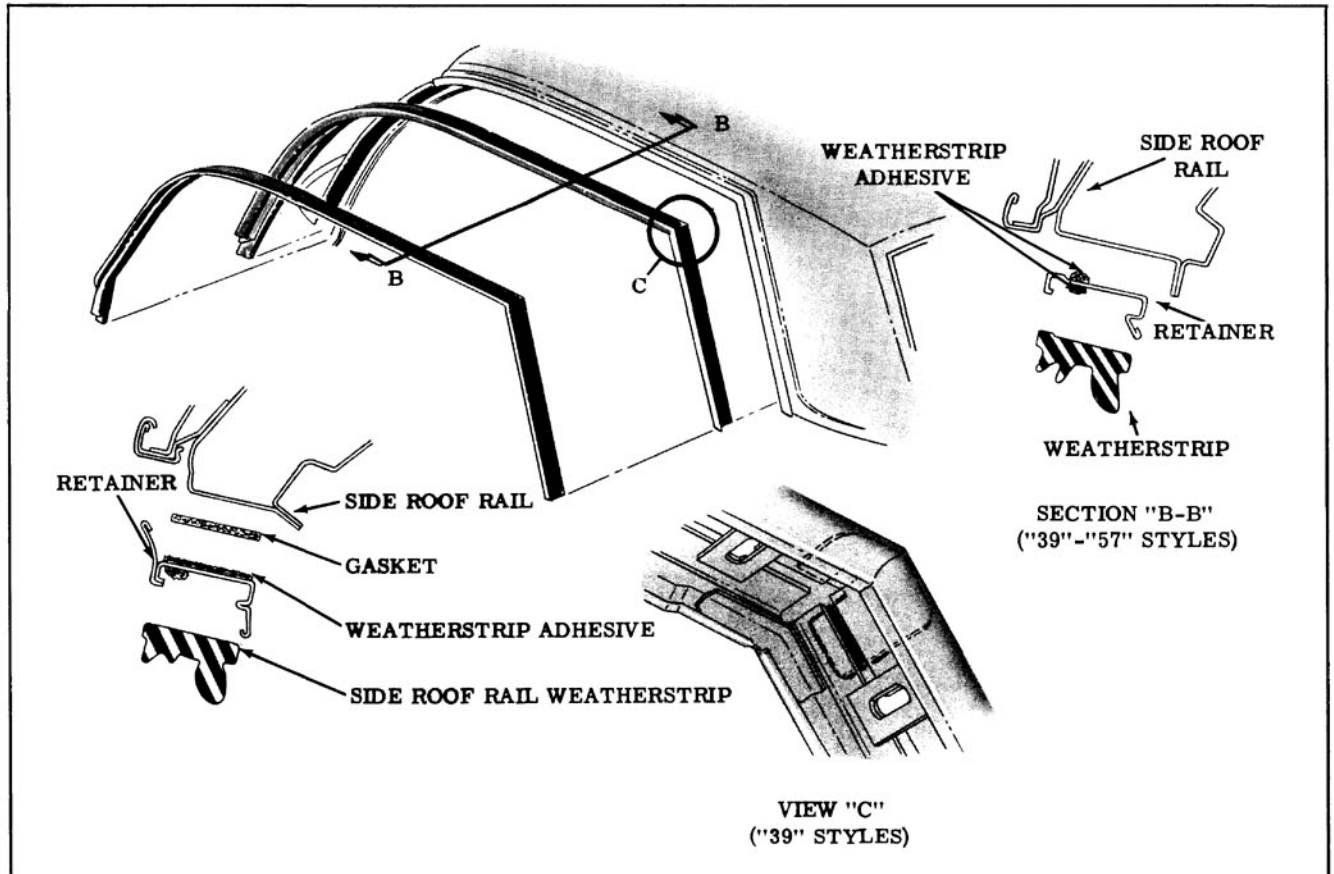


Fig. 16-76 Side Roof Rail Weatherstrip (39 & 57 Styles)

Removal

1. Remove snap fastener securing weatherstrip at front body hinge pillar.
2. Carefully disengage inner lip of side roof rail weatherstrip from retainer. Using a flat-bladed tool, carefully break cement bond between weatherstrip and weatherstrip retainer and reveal molding assembly.
3. Remove side roof rail weatherstrip from body.

Installation

1. Clean off old cement from side roof rail weatherstrip and weatherstrip retainer to insure a clean cementing surface.

NOTE: The side roof rail retainer to side roof rail sealing gasket (Fig. 16-76) is not installed in production, but is recommended for service sealing. This gasket can be cut to size from existing stock.

2. Apply a continuous bead (approximately 3/16" diameter) of weatherstrip adhesive along entire outboard surface of side roof rail weatherstrip retainer. (Section B-B, Fig. 16-76)

3. With a flat-bladed tool, engage inboard edge of weatherstrip and then outboard edge of weatherstrip into weatherstrip retainer.
4. Install snap fastener at front body hinge pillar and clean off all excessive weatherstrip cement.

SIDE ROOF RAIL WEATHERSTRIP ADJUSTMENTS (29, 39, 47 & 57 Styles)

With doors and windows closed, front door window and rear door or rear quarter window upper frames should make an even continuous contact with the side roof rail weatherstrip. If necessary, adjust weatherstrip, ventilator assembly, front door window and rear door or rear quarter window to obtain proper weatherstrip contact.

The attaching holes in the side roof rail weatherstrip retainer are elongated, allowing in and out adjustment of the side roof rail weatherstrip; however, the amount of adjustment is small and is not intended to correct improper ventilator or door window alignment. It is necessary to remove the weatherstrip to adjust the retainer.

IMPORTANT: Before attempting to adjust the side roof rail weatherstrip, first check that the

body side glass is properly aligned and, where necessary, adjust for proper alignment as directed under VENTILATOR, FRONT DOOR WINDOW, REAR DOOR WINDOW AND REAR QUARTER WINDOW ALIGNMENT.

1. To adjust the side roof rail weatherstrip in or out, first determine and mark retainer at area or areas to be adjusted.
2. Remove side roof rail weatherstrip.
3. Loosen retainer attaching screws slightly in area to be adjusted and adjust retainer in or out as required.
4. Tighten retainer attaching screws and install side roof rail weatherstrip.

REAR QUARTER WINDOW, TRIM AND HARDWARE

The procedures for servicing the rear quarter are arranged according to body style in the following sequence:

- Two Door Coupes (47 and 57 Styles)
- Convertibles (67 Styles)
- Four Door Sedans (19, 29, 39 and 69 Styles)
- Station Wagons (35 and 45 Styles)

Figs. 16-77, 16-78 and 16-79 identify the major components of the rear quarter hardware on styles having a dropping rear quarter window.

NOTE: Use caution when performing service operations on or near the rear quarter window as it is made of solid tempered safety plate glass and edge chips or deep scratches can cause it to shatter.

REAR QUARTER ARM REST ASSEMBLY (47 & 57 Styles)

Removal and Installation

1. Remove rear seat cushion, seat back, and seat back filler panel.
2. Remove attaching screws at front and rear of arm rest.
3. On styles with electrical devices in arm rest assembly, carefully detach arm rest from rear quarter inner panel sufficiently to disconnect wire harness connectors.
4. Remove arm rest assembly from rear quarter panel.
5. To install arm rest assembly, reverse removal procedure. Check operation of any electrical devices.

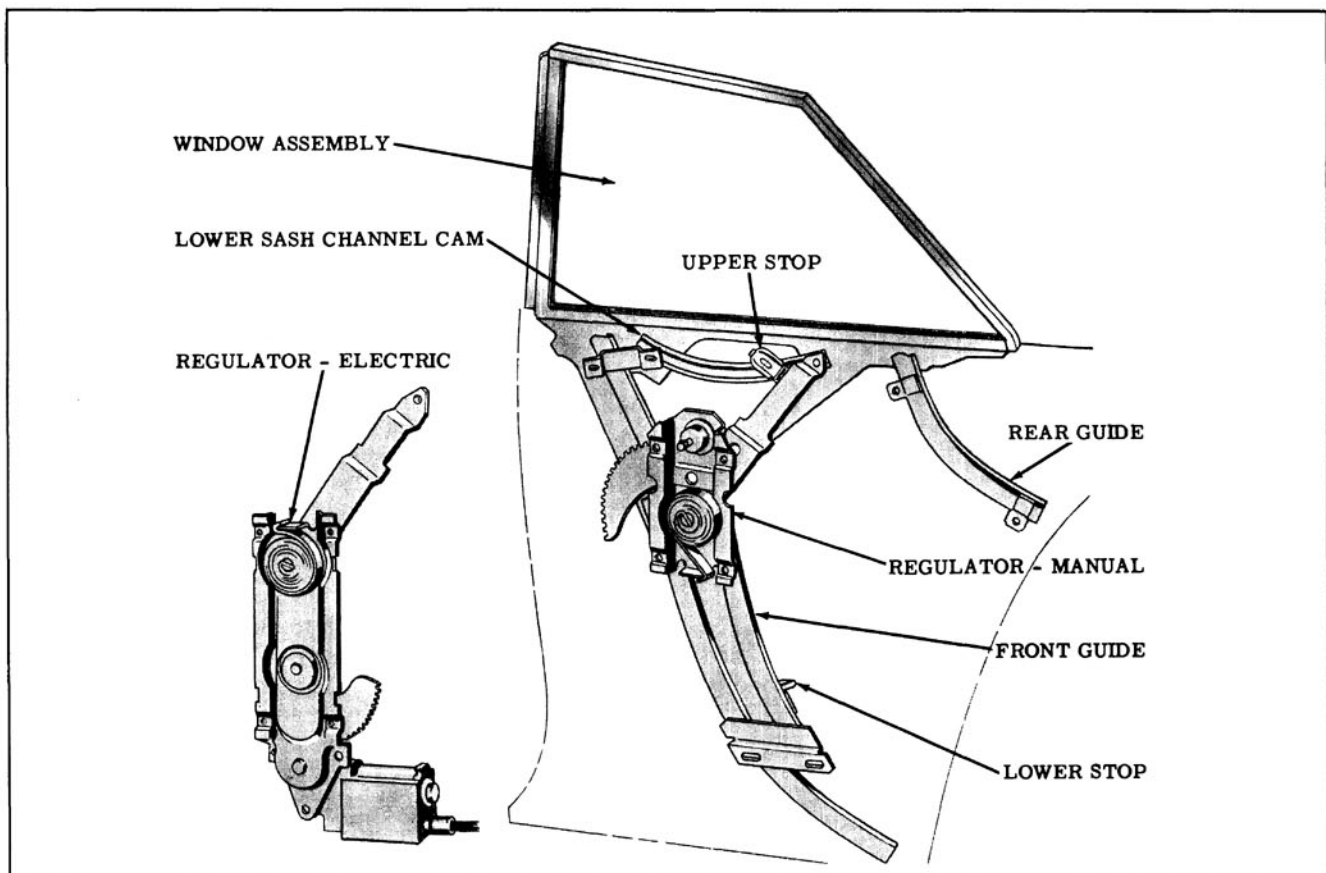


Fig. 16-77 Rear Quarter Hardware (3947 Style)

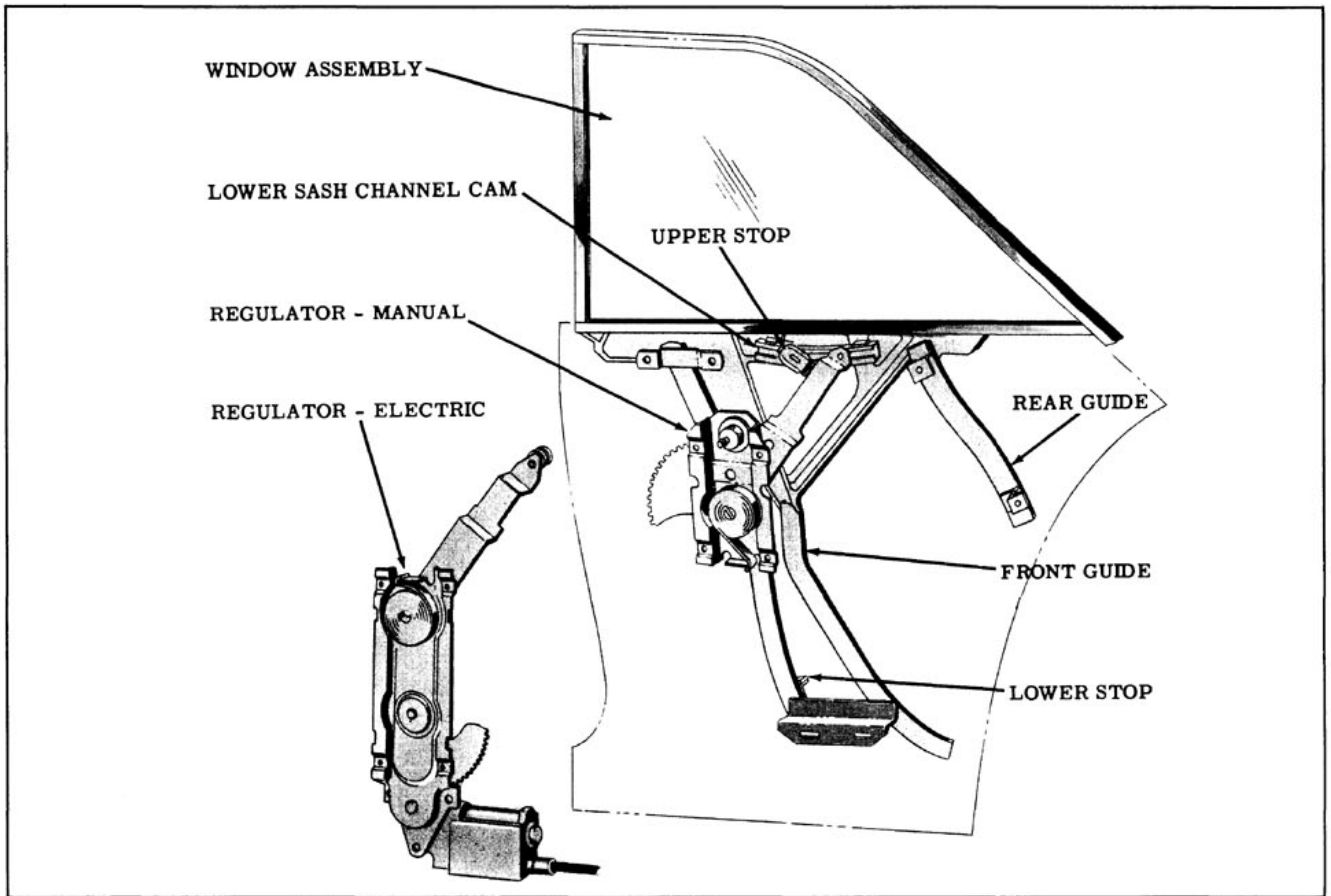


Fig. 16-78 Rear Quarter Hardware (3347 - 3447 & 3657)

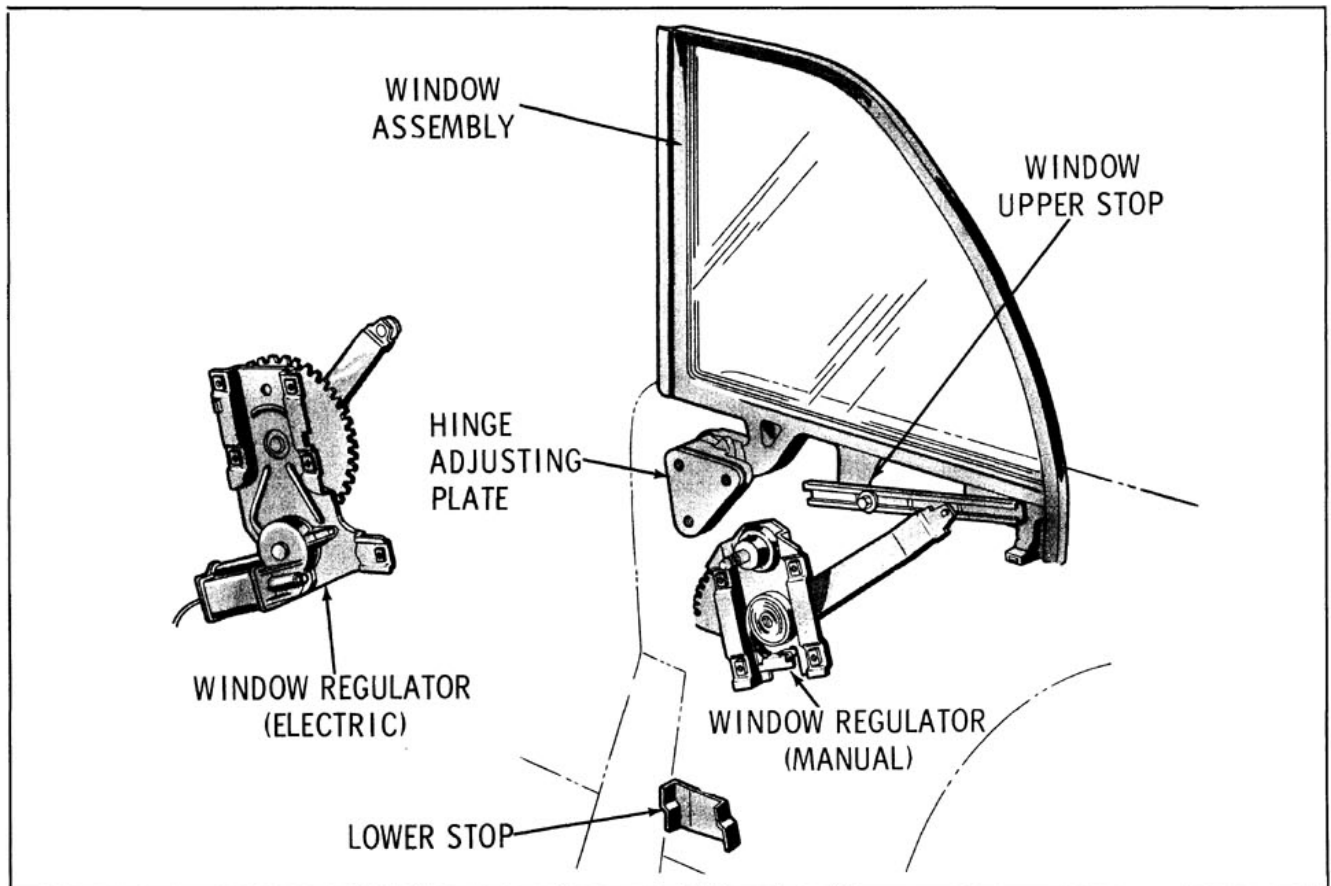


Fig. 16-79 Rear Quarter Hardware (67 Styles)

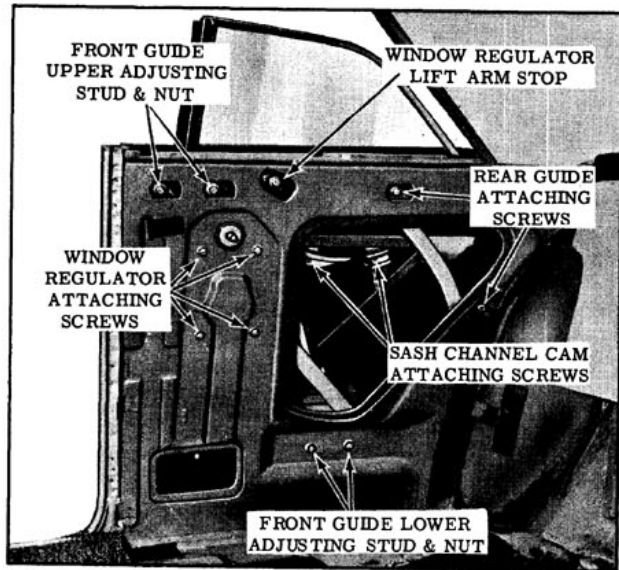


Fig. 16-80 Rear Quarter Hardware (47 Style)

TRIM ASSEMBLY (47 & 57 Styles)

Removal and Installation

1. Remove rear seat cushion and seat back assemblies.
2. Remove rear quarter arm rest assembly. Remove quarter belt finishing moldings where present.
3. On styles with manually operated windows, remove window regulator handle and anti-friction washer.
4. Remove screws securing rear quarter filler panel to quarter panel and remove filler panel.
5. Using a trim panel removing Tool J-16335, carefully pry trim assembly retaining nails from tacking strip; then, lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.
6. To install rear quarter trim assembly, reverse removal procedures.

NOTE: If any retaining nails are broken off, they can be replaced with door trim assembly nailing strip replacement tabs which are available as a service part.

WINDOW ASSEMBLY—MANUAL OR ELECTRIC (3347, 3447, 3457 & 3657 Styles)

Removal and Installation

1. Remove rear seat cushion and seat back

assemblies and rear quarter arm rest and trim assemblies. Remove inner panel access hole cover.

NOTE: On models equipped with electric window regulators, disconnect regulator harness at in-line connector located on inboard side of inner panel.

CAUTION: Do not attempt to disconnect permanent connector at regulator motor.

2. Remove rear quarter window rear guide attaching screw. (Fig. 16-80) Disengage rear guide from roller on window lower sash channel and remove guide.
3. With the rear quarter window in the half-down position, remove the lower sash channel cam attaching screws. (Fig. 16-80) Detach cam from roller on regulator arm and remove cam.
4. Remove rear quarter window front guide adjusting stud nuts. (Fig. 16-80)
5. With the rear quarter window in the half-down position, disengage the front guide adjusting studs from the adjusting stud holes in the rear quarter inner panel, then disengage front guide from rollers on rear quarter window. Remove rear quarter window from between the panels by lifting upward and inward.
6. To install rear quarter window, insert the window between the panels and prop in the up position. Engage front guide channels to rollers on window lower sash channel frame. Allow window to drop to the half-down position and insert front guide adjusting studs into the adjusting stud holes in the rear quarter inner panel. Install previously removed parts.

Prior to installation of window lower sash channel cam and the front and rear guides, lubricate the channels of the cam and guides with Lubriplate or its equivalent along the entire length of the channel.

Adjust rear quarter window for proper alignment and operation as described under REAR QUARTER WINDOW ADJUSTMENTS for 47 and 57 Styles. Seal all hardware attachments that have been disturbed and the inner panel access hole cover, as specified under REAR QUARTER INNER PANEL SEALING for 47 and 57 Styles.

WINDOW ASSEMBLY—MANUAL AND ELECTRIC (3847 & 3947 Styles)

Removal and Installation

1. Remove rear seat cushion and seat back

assemblies and rear quarter arm rest and trim assemblies. Remove inner panel access hole cover.

NOTE: On models equipped with electric window regulators, disconnect regulator harness at in-line connector located on inboard side of inner panel.

CAUTION: Do not attempt to disconnect permanent connector at regulator motor.

2. Remove rear quarter window rear guide attaching screws. (Fig. 16-80) Disengage rear guide from roller on window lower sash channel and remove guide.
3. With the rear quarter window in the half-down position, remove lower sash channel cam attaching screws. (Fig. 16-80) Detach cam from roller on regulator arm and remove cam.
4. Mark (scribe) position of window lower stop on front guide to enable reinstalling stop in same position. Loosen window lower stop attaching screw and slide stop to bottom of guide.
5. Lower window to run lower roller on window sash channel frame out of front guide channel at the bottom.
6. Lift window upward and inboard to disengage upper roller on window sash channel from rear channel on front guide. Remove window assembly from body.
7. To install, reverse removal procedure. Prior to installation, lubricate channel of window lower sash channel cam with Lubriplate or its equivalent. Seal all hardware attachments that have been disturbed, as specified under REAR QUARTER INNER PANEL SEALING for 47 and 57 Styles.

WINDOW ADJUSTMENTS (47 & 57 Styles)

1. Remove rear seat cushion and seat back assemblies. Remove rear quarter arm rest and trim assemblies.
2. To adjust the window fore or aft, loosen the front and rear guide attaching stud nuts. (Fig. 16-80) Position the window and guides fore or aft as required; then tighten the attaching stud nuts.
3. To adjust the rear quarter window in or out, loosen the front guide upper attaching stud nuts. (Fig. 16-80) Adjust the studs in or out as required; then tighten the stud nuts.

4. To adjust the top of the rear quarter window in or out, loosen the front guide lower attaching stud nut. (Fig. 16-80) Adjust the stud in or out as required, then tighten the stud nut.
5. To relieve a binding condition between the channels of the front and rear guide, loosen the front and rear guide adjusting stud nuts. (Fig. 16-80) Operate window to full up position and forward attaching screw on rear guide and tighten upper stud nuts on the front guide. Operate window to full down and tighten remaining nuts.
6. To limit the forward and upward travel of the rear quarter window, adjust the regulator lift arm stop as required. (Fig. 16-80)
7. To limit the down travel of the rear quarter window, remove the inner panel large access hole cover, loosen the lower stop assembly attaching bolt (located at the lower end of the window front guide cam) and adjust stop up or down as required.

NOTE: After performing window adjustments, seal hardware attaching screws which have been disturbed, as specified under REAR QUARTER INNER PANEL SEALING for 47 and 57 Styles.

WINDOW REGULATOR ASSEMBLY—MANUAL OR ELECTRIC (47 & 57 Styles)

Removal and Installation

1. Remove rear quarter window as described under WINDOW ASSEMBLY - MANUAL OR ELECTRIC - REMOVAL.

NOTE: On models equipped with electric window regulators, disconnect regulator harness at in-line connector located on inboard side of inner panel.

CAUTION: Do not attempt to disconnect permanent connector at regulator motor.

2. Disengage wire harness split grommet from inner panel. Feed harness and connector through grommet hole into opening between inner and outer panel.
3. Remove window regulator attaching screws (Fig. 16-80) and remove regulator through large access hole.

NOTE: The procedure for removing electric motor from window regulator is described and illustrated under DOOR AND QUARTER WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY in the DOOR Section.

4. To install, reverse removal procedure. Seal all broken inner panel seals as specified under REAR QUARTER TRIM INNER PANEL SEALING.

WINDOW FRONT GUIDE ASSEMBLY (47 & 57 Styles)

Removal and Installation

1. Remove rear seat cushion and seat back. Remove rear quarter arm rest and trim assemblies. Remove rear quarter inner panel large access hole cover.
2. With window in up position, remove the window front guide upper and lower attaching stud nuts. (Fig. 16-80)
3. Maneuver guide assembly between rear quarter panels so that upper end of guide can be started out of large access hole; then remove guide assembly.
4. To install rear quarter window front guide assembly, reverse removal procedure. Prior to installation of the front guide assembly, lubricate channels of guide with Lubriplate or its equivalent along full length of channels.

Adjust front guide assembly for proper window alignment and operation as described under REAR QUARTER WINDOW ADJUSTMENTS for 47 and 57 Styles.

Seal front guide attaching screws as specified under REAR QUARTER INNER PANEL SEALING for 47 and 57 Styles.

WINDOW REAR GUIDE ASSEMBLY (47 & 57 Styles)

Removal and Installation

1. Remove rear seat cushion and back assemblies. Remove rear quarter arm rest and trim assemblies. Remove rear quarter inner panel large access hole cover.
2. With the window in the up position, remove the window rear guide attaching screws. (Fig. 16-80) Disengage guide from roller on window lower sash channel and remove guide through access hole.
3. To install, reverse removal procedure. Prior to installation of the rear guide, lubricate the entire length of the channel with Lubriplate or its equivalent.
4. Adjust rear guide for proper window alignment and operation as described under REAR QUARTER WINDOW ADJUSTMENTS for 47 and 57 Styles.

5. Seal rear guide attaching screws as specified under REAR QUARTER INNER PANEL SEALING for 47 and 57 Styles.

WINDOW GLASS RUN OUTER SEALING STRIP (3347, 3447 & 57 Styles)

Removal and Installation

1. Remove rear seat cushion and back assemblies. Remove rear quarter arm rest and trim assemblies.
2. Remove rear quarter inner panel large access hole cover. Loosen window lower stop attaching screw located on lower end of window front guide assembly; then operate window to the extreme low position.
3. Remove screws at forward end of outer sealing strip securing outer sealing strip to rear quarter outer panel return flange. Disengage outer sealing strip retaining clips from rear quarter outer panel return flange by pressing strip assembly downward.

NOTE: If necessary, use a screwdriver to disengage retaining clips, however, use care not to damage painted surfaces or to distort shape of clips.

4. To install, reverse removal procedure.

FOLDING TOP COMPARTMENT SIDE TRIM PANEL ASSEMBLY (67 Styles)

Removal and Installation

1. Remove rear seat cushion and seat back.
2. Remove attaching screws securing front and rear of side trim panel.
3. Raise trim panel and move it inboard.
4. Disconnect electrical leads, where present, and remove side trim panel.
5. To install folding top compartment side trim panel, reverse removal procedure.

REAR QUARTER TRIM ASSEMBLY (67 Styles)

Removal and Installation

1. Remove folding top compartment side trim panel assembly.
2. On styles with manually-operated windows, remove window regulator handle and anti-friction washer.

3. Using a trim panel removing tool, J-6335, carefully pry trim assembly retaining nails from tacking strips; then lift assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.
4. To install rear quarter trim assembly, reverse removal procedure.

NOTE: If any retaining nails are broken off, they can be replaced with door trim assembly nailing strip replacement tabs which are available as a service part.

QUARTER WINDOW ASSEMBLY—MANUAL OR ELECTRIC (67 Styles)

Removal and Installation

1. Lower folding top and operate rear quarter window to half-down position. Remove rear seat cushion and seat back. Remove folding top compartment side trim panel and rear quarter trim assembly.
2. On styles equipped with electric window regulators disconnect regulator wire harness at the in-line connector mounted on inboard side of quarter inner panel.

CAUTION: Do not attempt to disengage permanent connector at regulator motor.

3. Remove window pivot bolt. (Fig. 16-81) Disengage window male hinge from female hinge plate; then raise window to disconnect window lower sash channel cam from roller on window regulator lift arm and remove window.
4. To install rear quarter window assembly, reverse removal procedure. Prior to installation, lubricate pivot hinge and window lower sash channel cam with Lubriplate or its equivalent.
5. Adjust rear quarter window for proper alignment and operation, as described under REAR QUARTER WINDOW ADJUSTMENTS for 67 Styles. Seal window pivot bolt and inner panel access hole cover as specified under REAR QUARTER INNER PANEL SEALING for 67 Styles.

ADJUSTMENTS (67 Styles)

1. To adjust the limit of the rear quarter window up travel, loosen the window guide upper attaching screws. (Fig. 16-81) Adjust upper stop to desired position and tighten guide attaching screws.

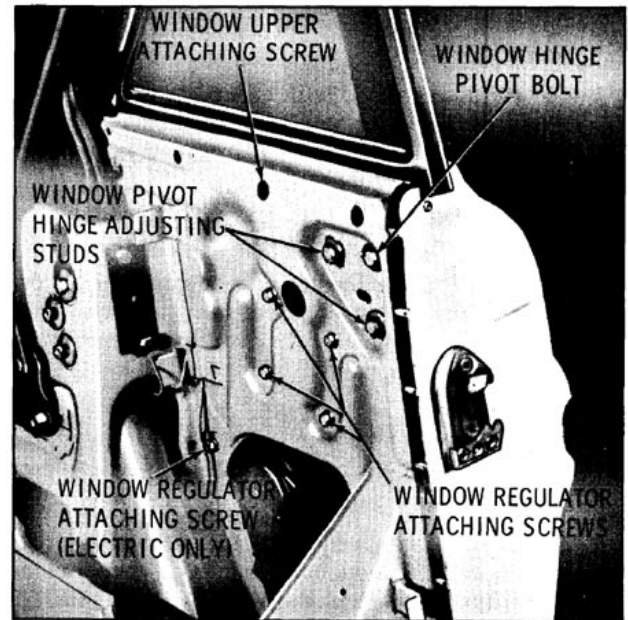


Fig. 16-81 Rear Quarter Hardware (67 Styles)

2. To adjust the rear quarter window up or down or fore or aft; or to adjust the top or the rear of the window in or out, the folding top compartment side trim panel and rear quarter trim assembly must be removed to gain access to the pivot bolt and adjusting studs.
 - a. Up or down or fore or aft window adjustment: Loosen pivot bolt and both adjusting stud nuts. (Fig. 16-81) Position window as required, then tighten pivot bolt and stud nuts.
 - b. In or out adjustment of top of window: Loosen lower adjusting stud nuts and slightly loosen rear stud nut. Adjust lower stud in or out, as required; then tighten both stud nuts. (Fig. 16-81)
 - c. In or out adjustment of rear of window: Loosen pivot hinge rear adjusting stud nut and lower adjusting stud nut (slightly). Loosen window guide upper attaching nuts and center stud nut. (Fig. 16-81) Adjust rear adjusting stud in or out as required, then tighten both stud nuts.

NOTE: After performing any rear quarter window adjustment, seal all attaching screws which have been disturbed as specified under REAR QUARTER INNER PANEL SEALING for 67 Styles.

QUARTER WINDOW REGULATOR—MANUAL OR ELECTRIC (67 Styles)

Removal and Installation

1. Remove rear seat cushion and back, folding

2. Operate window to full up and prop in that position.

3. On styles equipped with electric window regulators disconnect regulator motor wire harness at in-line connector mounted on inboard side of quarter inner panel.

CAUTION: Do not attempt to disengage permanent connector at regulator motor.

4. Disengage wire harness split grommet from inner panel. Feed harness and connector through grommet hole into opening between inner and outer panel.

5. Remove window regulator attaching screws. (Fig. 16-81) Disengage roller on regulator from sash channel cam and remove regulator through large access hole.

NOTE: The procedure for removing electric motor from window regulator is described and illustrated under DOOR AND QUARTER WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY in the DOOR Section.

6. To install, reverse removal procedure. Seal all broken inner panel seals as specified under REAR QUARTER INNER PANEL SEALING.

QUARTER WINDOW GLASS RUN OUTER SEALING STRIP (67 Styles)

1. Remove rear quarter window assembly.
2. Remove screws securing sealing strip to outer panel and remove strip.
3. To install rear quarter window glass run outer sealing strip, reverse removal procedure.

REAR QUARTER INNER PANEL SEALING (47, 57 & 67 Styles)

Whenever the rear quarter inner panel openings have been disturbed, the area must be resealed before the rear quarter trim is reinstalled.

Following are the rear quarter inner panel openings and hardware attaching locations that must be sealed to prevent water entry and possible trim damage. The item numbers are referenced to illustrations as follows:

(47 and 57 Styles - Figure 16-82)
(67 Styles - Figure 16-83)

NOTE: When body caulking compound is used, work compound firmly to metal surfaces to obtain good adhesion.

1. Large and Small Access Hole Covers - Prior to installation of access hole cover, apply a continuous bead of body caulking compound (1/8" in diameter) across top and down sides of opening contacted by cover.

After installation of cover, apply body caulking compound at lower corners where cover crosses over to inside of inner panel.

2. Window Guide and Glass Run Channel Attaching Screws - Apply body caulking compound over window guide attaching screws and holes to effect a weathertight seal.

3. Manual Window Regulator Attaching Screws - Apply weatherstrip adhesive (black) over attaching screws.

4. Electric Window Regulator Attaching Screws - Apply weatherstrip adhesive (black) over attaching screws.

5. Window Regulator Spindle Hole Sealing Washer - Apply weatherstrip adhesive over exposed surface of washer to seal pores of sponge rubber and joint between inner panel and washer.

On 67 Styles with electrically operated windows, apply weatherstrip adhesive (black) around the manual regulator spindle hole; then apply waterproof body tape over spindle hole.

6. Wire Harness and Grommet Hole (Styles with electrically operated windows) - Apply weatherstrip adhesive (black) around the grommet and wire to effect a seal between wire and grommet and between grommet and inner panel.

7. Wire Harness Clip Hole (Styles with electrically operated window) - Apply weatherstrip adhesive over hole.

8. Gauge Slot - Apply waterproof body tape over slot.

Item 9 for 47 and 57 Styles only. (Fig. 16-82)

9. Seat Back to Quarter Panel Filler Panel Attaching Screw Holes - Apply weatherstrip adhesive (black) over filler panel attaching holes.

Item 9 for 67 Styles only. (Fig. 16-83)

9. Window Hinge Attaching Screws - Apply body caulking compound over hinge attaching screws. Press compound firmly to assure a good bond and watertight seal.

REAR QUARTER LOWER TRIM ASSEMBLY (19, 29, 39 & 69 Styles)

Removal and Installation

1. Remove rear seat cushion and seat back.
2. Remove back window side garnish molding

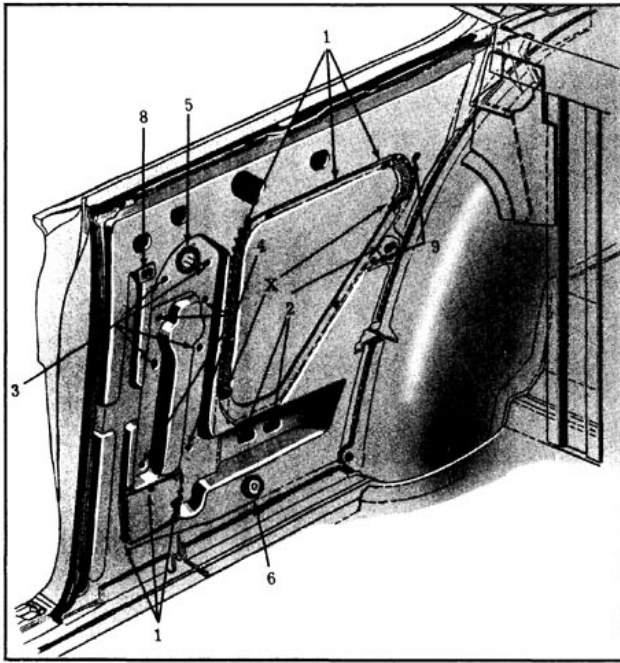


Fig. 16-82 Inner Panel Sealing (47 & 57 Styles)

and side roof rail rear finishing molding. On 19 and 29 Styles, remove rear quarter window front garnish molding. Remove screw securing metal trim support (69 Styles only).

- Using a trim panel removing tool, J-6335, carefully pry trim assembly retaining nails from tacking strip; then lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from quarter panel.
- To install rear quarter trim assembly, reverse removal procedure.

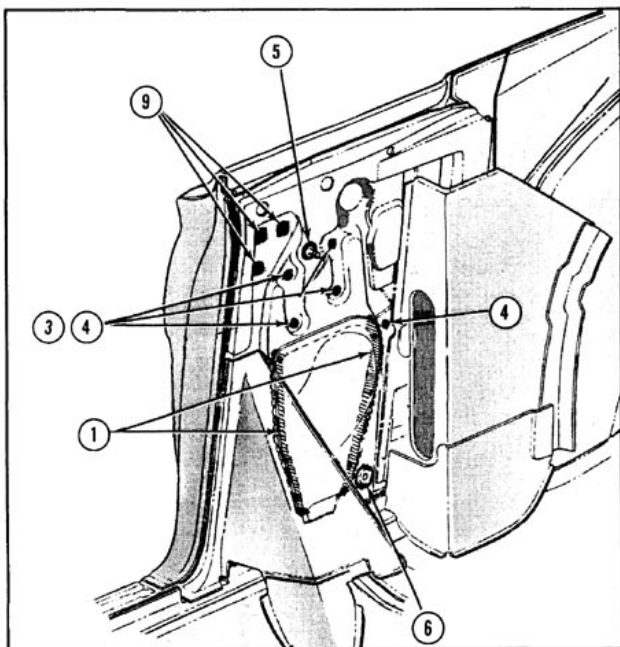


Fig. 16-83 Inner Panel Sealing (67 Styles)

REAR QUARTER UPPER TRIM ASSEMBLY (3339, 3439, 3539, 3819 & 29 Styles)

Removal and Installation

- Remove back window side garnish molding and side roof rail rear finishing molding.
- Carefully break cement bond securing trim foundation to roof extension inner panel; then remove trim assembly.

To install, first apply trim cement to contacting surfaces of trim foundation and roof extension inner panel. Position trim and press or roll to assure a good cement bond. Install back window side garnish molding and side roof rail rear finishing molding.

REAR QUARTER UPPER TRIM ASSEMBLY (3347, 3447 & 57, 3657, 3839 & 47, 3947 Styles)

Removal and Installation

- Remove back window side garnish molding and side roof rail rear finishing molding. Remove quarter belt finishing molding, where present.
- On styles with courtesy lamps in the upper trim assembly, remove courtesy lamp lens and two screws securing reflector and remove lamp assembly.
- Carefully insert a trim panel removing tool, J-6335, between headlining and upper edge of upper trim assembly. Disengage upper trim assembly retaining clips from roof extension inner panel by pulling inboard at clip locations. Remove trim assembly from body.

To install, reverse removal procedure.

QUARTER WINDOW (19 & 29 Styles)

Removal and Installation

- Remove rear seat cushion and seat back. Remove back window side garnish molding and rear quarter window front garnish molding. Remove rear quarter lower trim assembly.
- On 19 Styles, remove screws securing glass rubber channel retainer along bottom of window and retainer at front of window. On 29 Styles, remove screws securing three glass rubber channel retainers at bottom of window and retainer at top of window. Using a suitable tool, carefully break sealer bond between rubber channel and body opening.
- Carefully push rear quarter glass and rubber

channel assembly inward and remove assembly from opening.

NOTE: The rear quarter window rubber channel may be removed from the glass as a bench operation.

4. To install, reverse removal procedure. Prior to installing quarter window glass and rubber channel, clean off old sealer from rubber channel and body opening to insure a smooth sealing surface. Apply a ribbon of medium-bodied sealer in corner of rear quarter side outer panel rabbet (1, Fig. 16-84) completely around window opening. After glass and rubber channel have been installed, apply a bead of weatherstrip cement between outer surface of the glass and rubber channel (2, Fig. 16-84) completely around the window and rubber channel. Clean off excess sealer and cement.

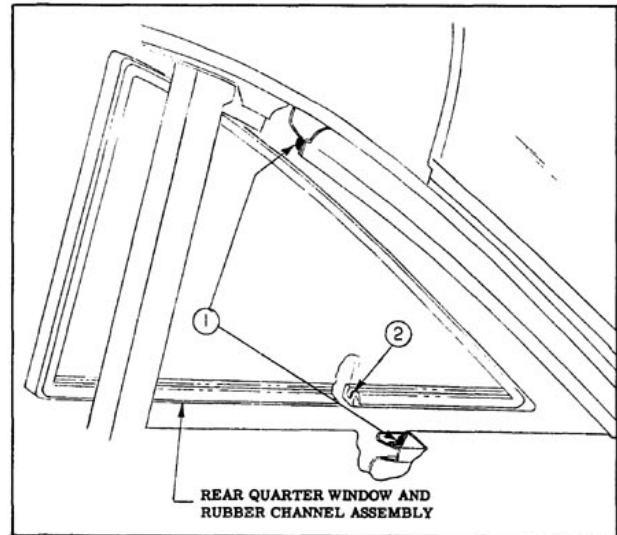


Fig. 16-84 Sealing Quarter Window

HEADLINING (All Styles except 3435, 45 & 3947)

The headlining assembly is formed to the contour of the roof panel by concealed listing wires. Both ends of the listing wires are located in holes in the side roof rails.

The headlining is secured at the windshield by cement and tacks or staples and along the side roof rails by tacks, staples, cement, or a pronged retainer. The headlining is secured at the back window by tacks or staples and cement.

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

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.
 - b. Rear view mirror support.
 - c. Sunshade supports.
 - d. Dome, side roof rail, or rear quarter courtesy lamps.
 - e. Coat hooks.
 - f. Side roof rail moldings.
 - g. Back window garnish moldings.
 - h. Center pillar finishing moldings.

- i. Rear quarter trim, where necessary.
3. Carefully remove tacks or staples securing headlining at windshield and back window opening.
4. Remove tacks or staples on side roof rails on the 29 and 47 Styles. (View K, Fig. 16-85 and Fig. 16-86) On 19 and 69 Styles, use headlining inserting tool J-2772 and carefully disengage headlining from pronged retainer along side roof rails. (View C, Fig. 16-86 and Fig. 16-87) Along side roof rails on 39 and 57 Styles, carefully remove plastic retainer on side roof rail pinchweld flange. (View P, Fig. 16-88)
5. Carefully detach cemented edge of headlining around entire perimeter.
6. Working from front to rear body, disengage headlining listing wires from holes in side roof rails, gathering or folding headlining with listing wires on outside to keep headlining clean.

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

7. At front roof bow, bend down metal tabs securing listing wires. (View F, Figs. 16-85, 16-86, 16-87 and 16-88)
8. On 39 and 57 Styles starting at front of body, carefully disengage No. 1 and 2 listing wires from holes in side roof inner rail assemblies and supporting tabs on longitudinal (front to rear) bow. In like manner, working from rear of body, disengage No. 6, No. 5 and No. 4 listing wires. (View D, Fig. 16-88) Exercise care to keep headlining material clean.

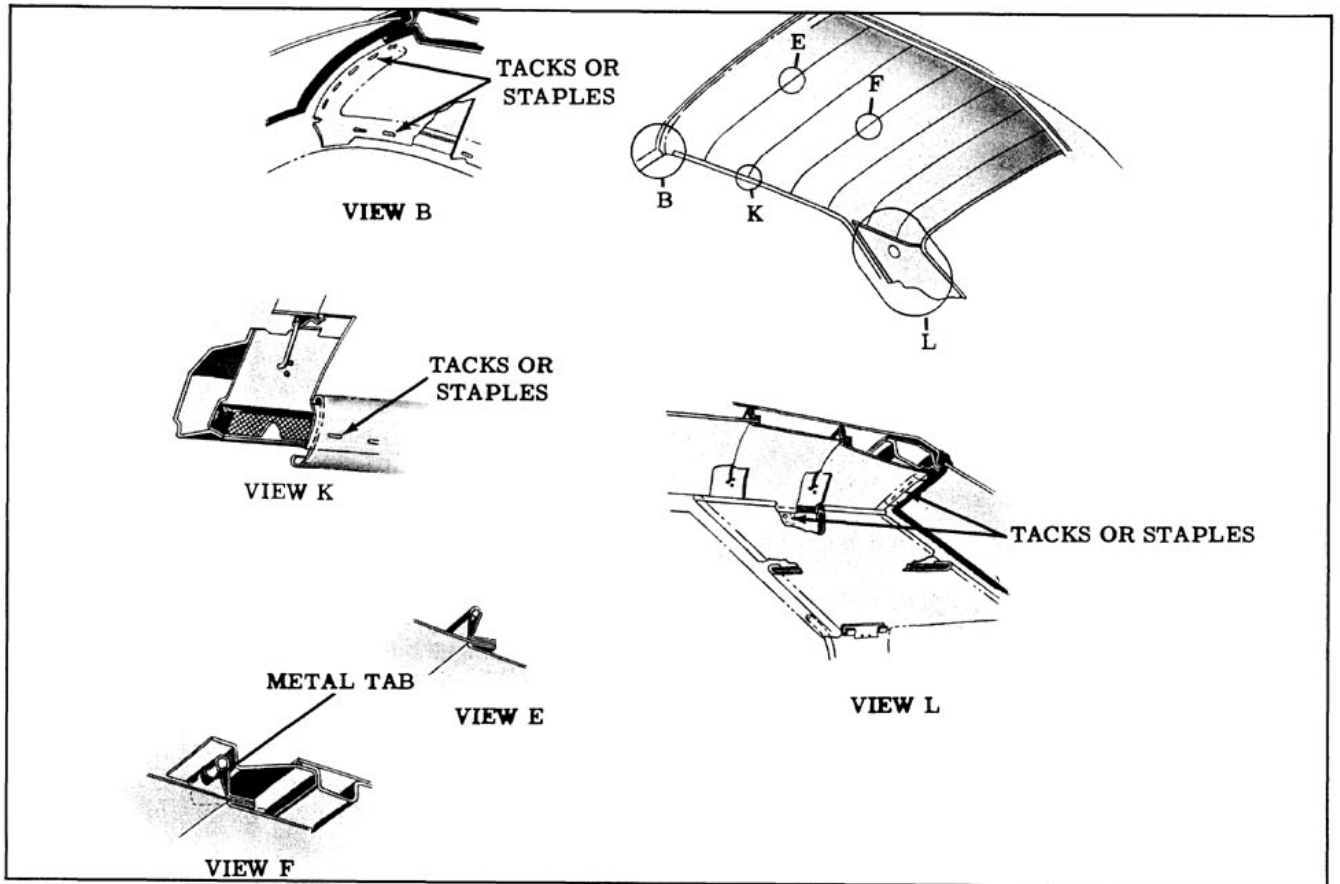


Fig. 16-85 Headlining Installation (29 & 47 Styles)

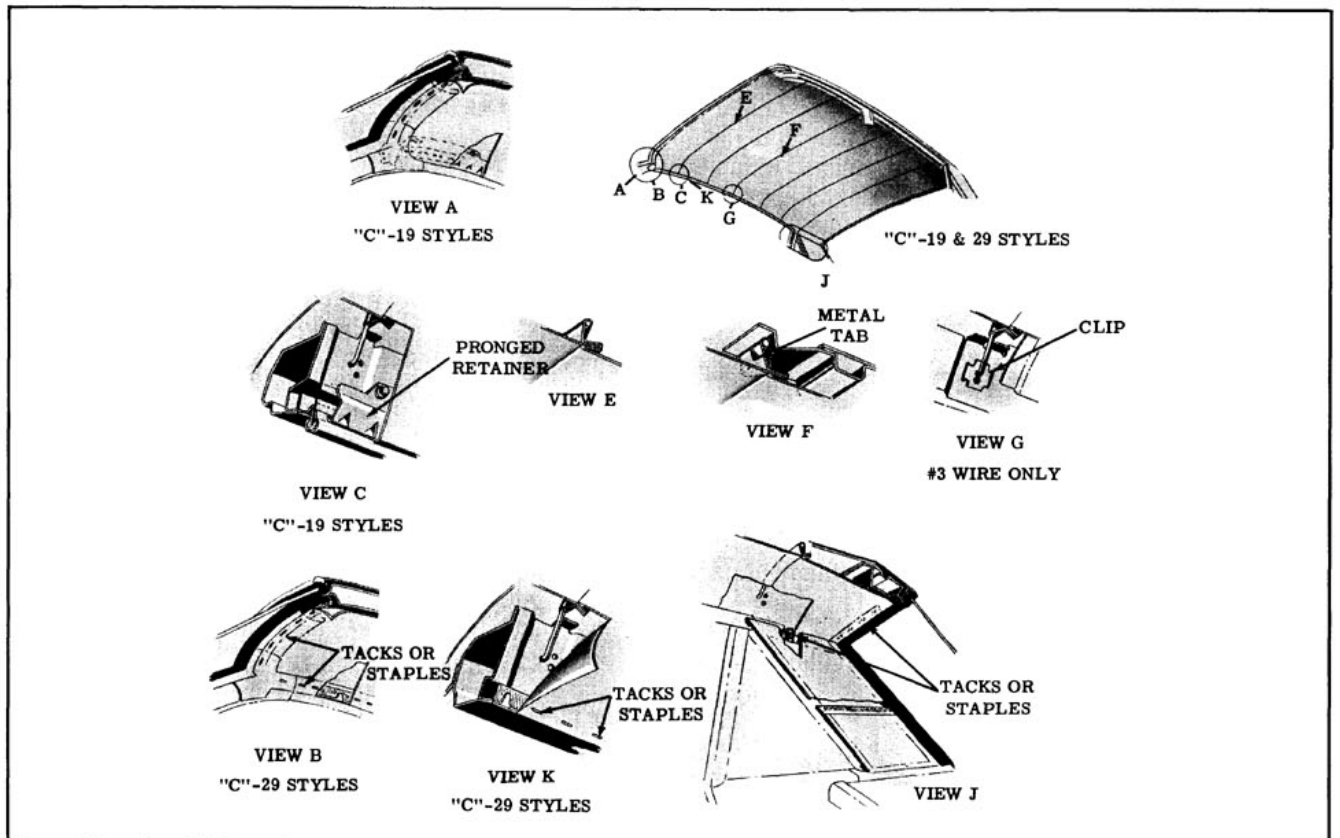


Fig. 16-86 Headlining Installation (19 & 29 Styles)

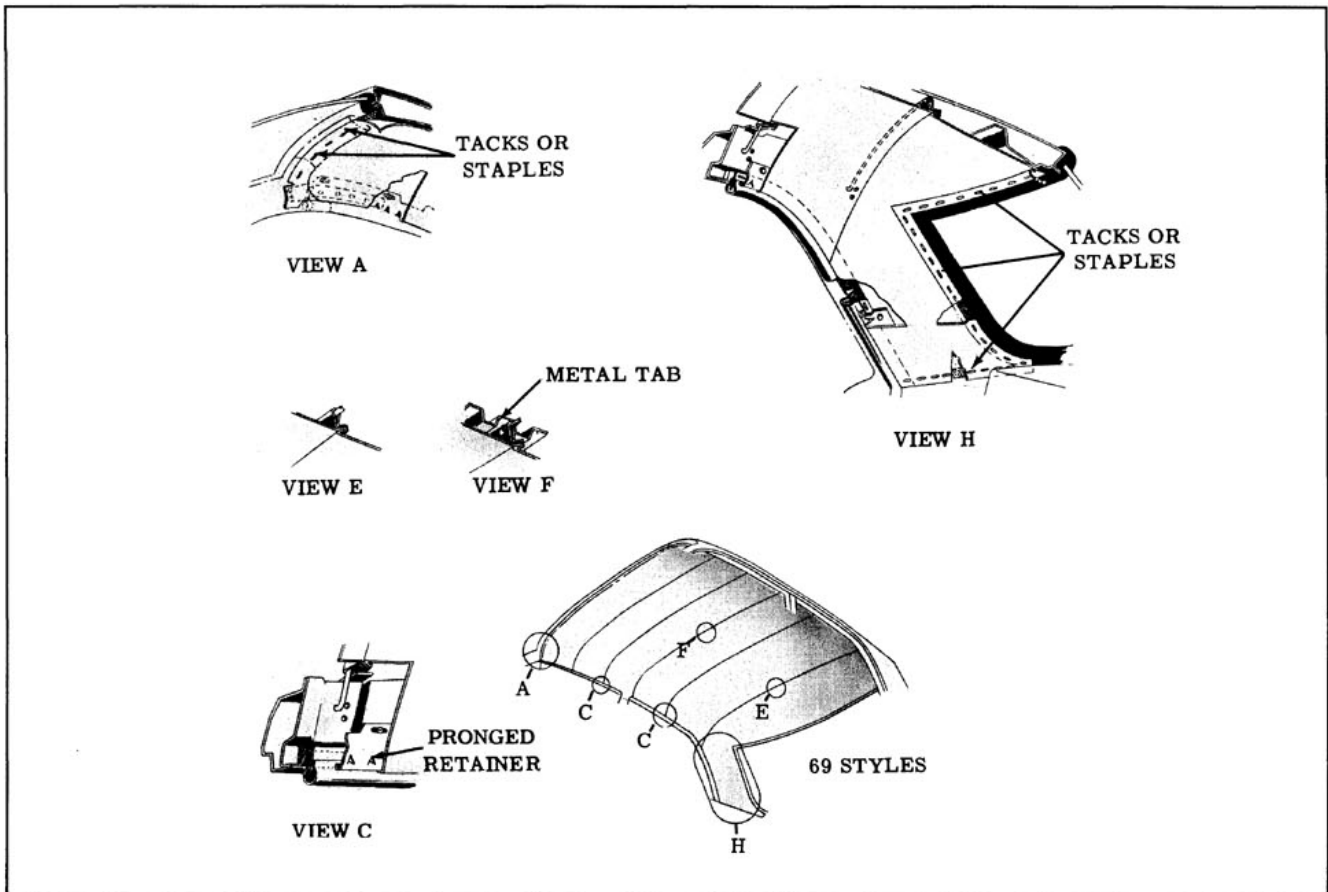


Fig. 16-87 Headlining Installation (19 & 69 Styles)

9. At No. 1 roof bow, bend down metal tabs securing No. 3 listing wire. (View F, Fig. 16-88)
10. Remove headlining from body.
11. If replacing headlining, remove listing wires from pockets of 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 pockets of new headlining assembly.
2. Apply trim cement to headlining attaching surfaces at windshield, side roof rail, and back window opening.
3. Lift entire headlining assembly into body and install rear listing wire.
4. Center and align rearward end of headlining and stay tack at center of back window opening.
5. Working forward, install ends of listing wires into listing wire holes in side roof rails.

NOTE: Each listing wire should rest against roof panel deadener after it is installed. Listing wires may be adjusted up or down by placing in appropriate holes in side roof inner rails.

6. At front roof bow, bend up metal tabs securing listing wire and listing wire pocket. (View F, Figs. 16-85, 16-86, 16-87 and 16-88)
7. Stretch and stay tack headlining along entire windshield and back window opening. Stay tack headlining in rear quarter area where required. (View H, Fig. 16-87, View L, Fig. 16-85, View J, Fig. 16-86 and View R, Fig. 16-88)
8. On 39 and 57 Styles lift entire headlining assembly into body and install No. 3 listing wire and listing wire pocket over metal tabs on No. 1 roof bow. Bend up metal tabs so listing wire is securely fastened to roof bow. (View F, Fig. 16-88) Be certain headlining material is centered in body.
9. If new headlining assembly is being installed, slit listing wire pockets at each tab location on longitudinal bow (approximately 1-1/2" in length). (View D, Fig. 16-88) Working rearward from No. 3 listing wire, install listing wires into holes in side roof inner rail assemblies and over tabs on longitudinal bow. In

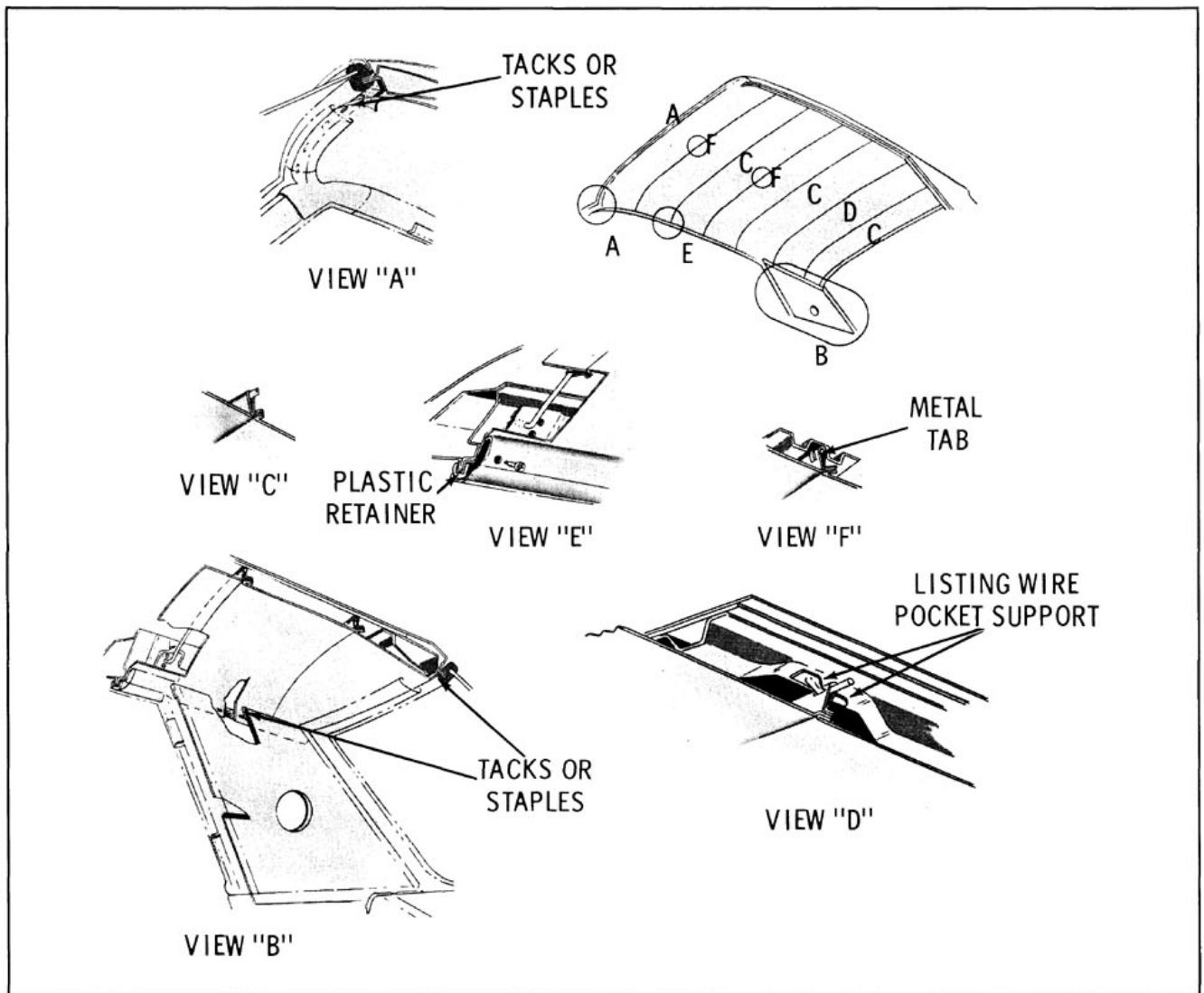


Fig. 16-88 Headlining Installation (39 & 57 Styles)

like manner, working forward, install No. 2 and No. 1 listing wires.

NOTE: Listing wires may be adjusted up or down by placing them in appropriate holes in side roof inner rails.

10. Apply cement to front edge of headlining and stretch and secure headlining along windshield opening. Temporarily tack headlining across windshield opening, allowing for possible re-positioning.
11. Apply cement to rear edge of headlining and stretch and secure headlining at back window and upper rear quarter area. Also, temporarily tack headlining at these areas.
12. Apply cement to side edges of headlining assembly.
13. Using headlining inserting tool, J-2772, permanently install edge of headlining around pinchweld flange of door openings. Stretch and install headlining at seam locations. Then, attach edge of headlining between the seams previously installed.
14. Apply approved trim cement to side roof rail edge of headlining except on 19 and 69 Styles. Remove all "fullness" or "draws" from headlining material and secure headlining to side roof rails.
15. Permanently tack headlining at windshield, back window and rear quarter areas.
16. Permanently tack or staple headlining at side roof rails on 29 and 47 Styles. (View K, Fig. 16-83 and 16-84) On 19 and 69 Styles, use headlining inserting tool J-2772 and carefully tuck edges of headlining under pronged retainer along both side roof rails. (View C, Figs. 16-86 and 16-87) On 39 and 57 Styles, using headlining inserting tool, permanently install edge of headlining around side roof rail pinchweld and replace plastic retainer. (View D, Fig. 16-88)

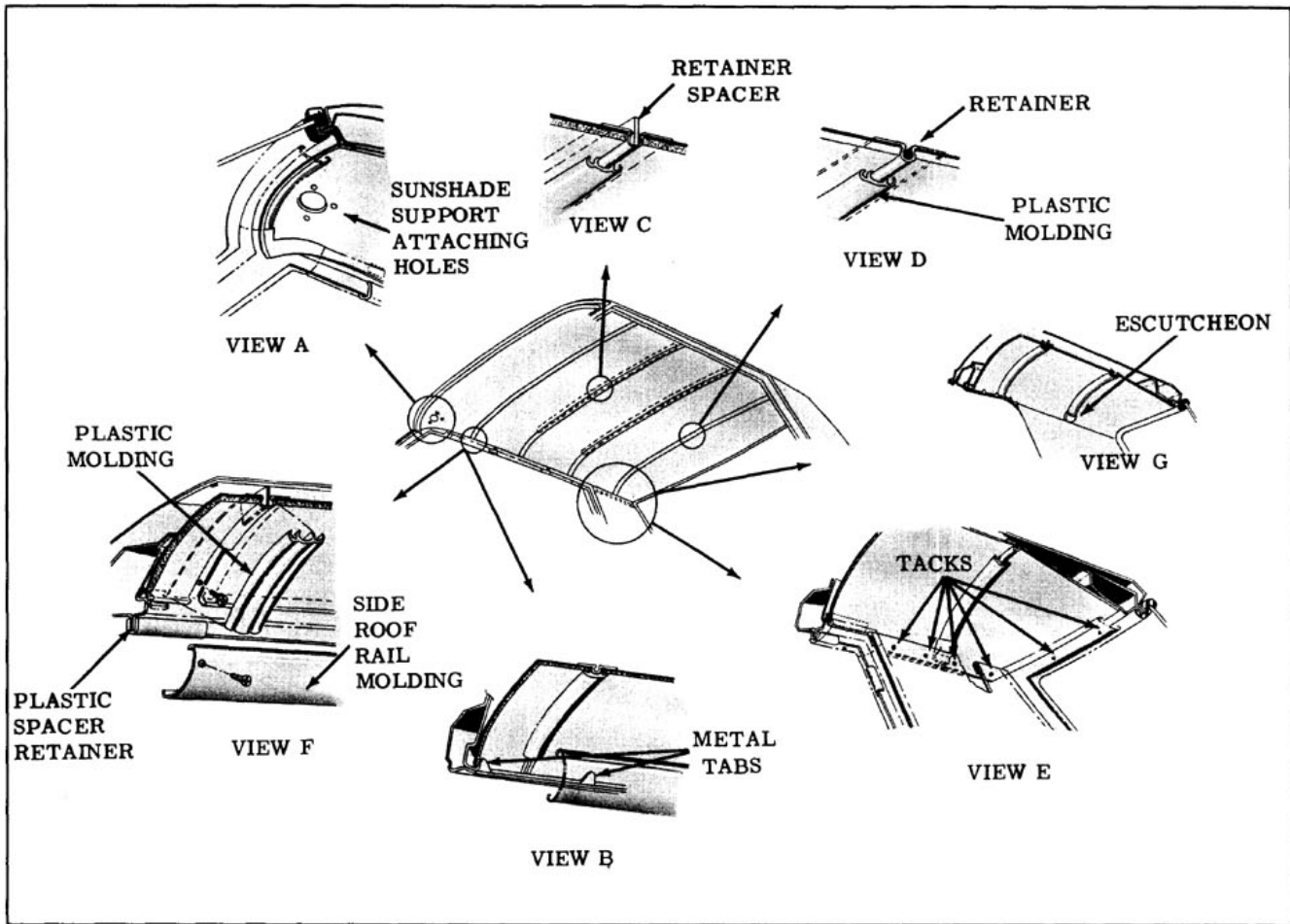


Fig. 16-89 Poly-Foam Headlining Installation

17. Trim excess material from edge of headlining around entire perimeter.
18. Install all previously removed hardware and trim assemblies and remove protective coverings.

POLYURETHANE FOAM HEADLINING

The headlining assembly consists of five polyurethane foam sections cemented to foundation boards.

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.

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 and rear quarter trim assembly to gain access to headlining attaching location at side roof rail area. If center sections are removed, where required, remove dome lamps, coat hooks, and coat hook spacers if present.
3. With flat-bladed tool, carefully pry one end of plastic molding from retainer and remove. (View F, Fig. 16-87) Remove plastic moldings from both retainers securing section of headlining being removed.
4. Carefully bend down metal tabs securing headlining section to side roof rails. (View B, Fig. 16-89) Headlining is secured at side roof rails by side roof rail moldings. (View F, Fig. 16-89)
5. When removing individual sections, use flat-bladed tool and carefully pry one edge of headlining section from retainer and remove from body.
6. If removing headlining section at back window,

remove tacks securing section at back window opening.

- When retainers are required to be removed, remove screws securing retainer to side roof rail. (View F, Fig. 16-89) Retainer spacers are installed in the No. 2 and No. 3 retainers. (View C, Fig. 16-89)

Installation

- If retainers were removed, make certain that retainer spacer shown in View C, Fig. 16-89 is installed prior to installing retainers.

NOTE: Retainers should be tight against roof panel deadener when installed. A slot in retainer at side roof rail attachment locations allows for adjustment.

- 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. Where present, bend side roof rail tabs over headlining section. Snap plastic molding over retainers. On rear plastic molding, install escutcheons on ends prior to installation. (View "G", Fig. 16-89)
- 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 "E", Fig. 16-89)
- 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 "A", Fig. 16-89) Install sunshade supports. Where present, bend up tabs on side roof rails to retain headlining section.

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

- Install all previously removed hardware and remove protective coverings.

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

FRONT SEATS (CONVENTIONAL)

FRONT SEAT ASSEMBLY (MANUALLY OPERATED)

Manually operated front seat adjusters provide fore and aft movement of the seat. When the knob at the left of the seat is pulled up, the seat adjusters unlock, permitting a horizontal travel of the seat. When the seat is in the desired position, the knob is released and the seat adjusters are locked.

FRONT SEAT ASSEMBLY

Removal and Installation

- Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching bolts.
- Operate seat assembly to full rearward position.
- At front of adjusters, remove adjuster-to-floor pan attaching bolts.
- Operate seat assembly to full forward position.
- At rear of adjusters, remove adjuster-to-floor pan attaching bolts.
- With aid of helper, remove seat assembly from body.
- To install, reverse removal procedure.

FRONT SEAT ADJUSTER (MANUAL)

Removal and Installation

- Remove seat assembly, with attached seat adjusters from body and place upside down on a clean protected surface.
- Remove seat adjuster assist spring from adjuster to be removed. (Fig. 16-90)
- When removing left adjuster, it is necessary to remove the seat adjuster control knob.
- Squeeze hooked end of seat adjuster locking wire together and slide retaining spring back over hump in locking wire, remove wire from retainer on seat bottom frame and disengage locking wire from seat adjuster.
- Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove seat adjuster from seat assembly. (Fig. 16-90)
- To install, reverse removal procedure.

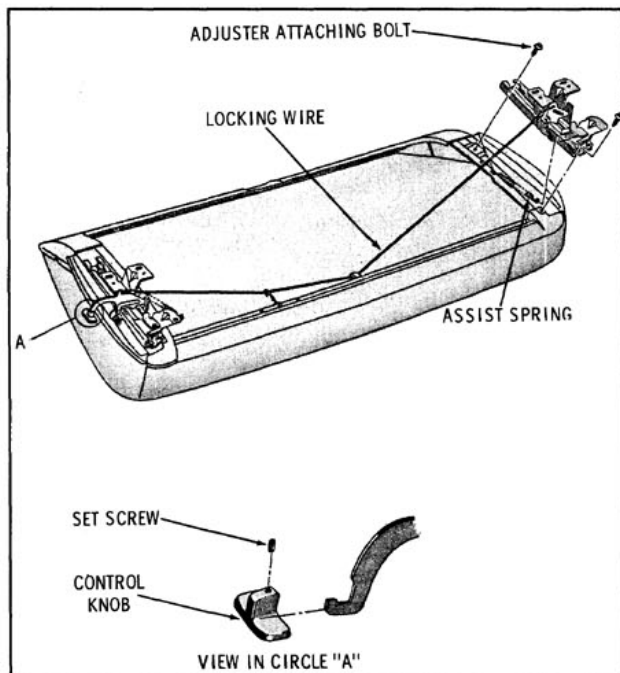


Fig. 16-90 Manual Seat Adjusters

7. Check operation of seat assembly. If right adjuster does not lock or unlock satisfactorily when control handle on left adjuster is operated, remove locking wire retainer from hole in seat bottom frame and adjust retainer by selecting another hole to obtain proper tension in locking wire.

FRONT SEAT ASSEMBLY—TWO-WAY ELECTRIC

The electrically operated two-way front seat assembly can be moved forward or rearward by means of a manually operated seat control switch.

Removal and Installation

1. Under front of seat, disconnect seat control switch wire harness from feed wire harness and detach control switch harness from clip on floor pan.
2. Turn back floor covering and remove seat adjuster-to-floor pan attaching bolts from each adjuster. This will also disconnect ground wire.
3. Remove seat assembly with attached adjusters from body.
4. To install, reverse removal procedure. Make sure ground wire is installed under seat adjuster attaching bolt.

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" (that is one

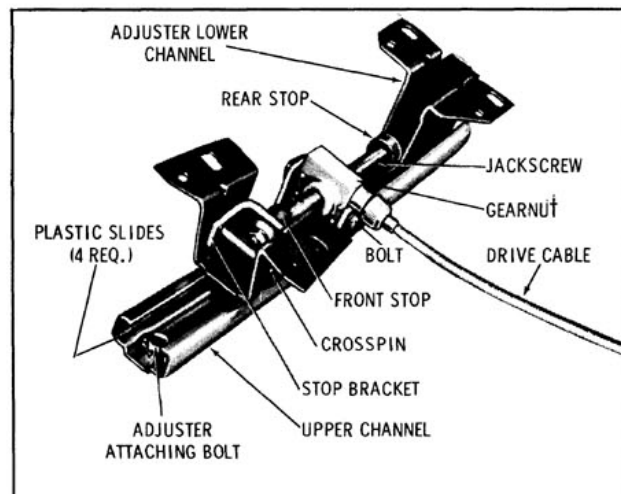


Fig. 16-91 Two Way Seat Adjuster

adjuster reaches its full forward or rearward travel before the other adjuster), proceed as follows:

- a. Operate seat control switch until one adjuster reaches full forward position. Detach horizontal drive cable from seat motor on side 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.

FRONT SEAT ADJUSTERS (TWO-WAY ELECTRIC)

Removal and Installation

1. Remove front seat assembly with attached adjusters and place upside down on a clean protected surface.
2. Detach power drive cable from gearnut of adjuster to be removed. (Fig. 16-91)
3. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts.
4. Remove adjuster from seat assembly.
5. To install, reverse removal procedure. Prior to installing seat assembly in body, be sure adjusters are "in phase". See Step 4 under FRONT SEAT ASSEMBLY - REMOVAL AND INSTALLATION.

FRONT SEAT ADJUSTER JACKSCREW ASSEMBLY (TWO-WAY ELECTRIC)

Removal and Installation

1. Remove front seat assembly with attached

adjusters and place upside down on a clean, protected surface.

2. Detach power drive cable from gearnut and jackscrew assembly to be removed.
3. Using a clutch-type screwdriver, remove two shoulder bolts securing gearnut to upper slide portion of seat adjuster assembly. (Fig. 16-91)
4. Remove retainer that secures stop bracket crosspin to adjuster front pedestal and remove crosspin. (Fig. 16-91)
5. Remove jackscrew assembly from seat adjuster assembly.
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.

FRONT SEAT ADJUSTER GEARNUT ASSEMBLY (TWO-WAY ELECTRIC)

Removal and Installation

1. Remove front seat assembly with attached adjusters and place upside down on a clean, protected surface.
2. Detach power drive cable from gearnut to be removed.
3. Using a clutch-type screwdriver or other suitable tool, remove two shoulder bolts securing gearnut to upper slide portion of seat adjuster. (Fig. 16-91)
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 4 under FRONT SEAT ASSEMBLY—REMOVAL AND INSTALLATION.

FRONT SEAT ADJUSTER PLASTIC SLIDES (TWO-WAY ELECTRIC)

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 clutch-type screwdriver, remove two shoulder bolts securing gear nut to upper slide portion of seat adjuster assembly. (Fig. 16-91)
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 shoes may now be disengaged from the positioning slots on the lower track.
4. To install, reverse removal procedure making sure that groove in plastic slide slips onto the lower track with the thinner section of the slide protruding above the surface of the track.

FRONT SEAT ADJUSTER ACTUATOR MOTOR (TWO-WAY ELECTRIC)

Removal and Installation

1. Remove front seat assembly.
2. Disconnect both power drive cables from actuator motor.
3. Remove screws that secure actuator motor support bracket to weld nuts at front of 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 and check seat operation to extreme limit of fore and aft travel.

FRONT SEAT ASSEMBLY—BENCH TYPE (FOUR-WAY TILT)

The seat adjusters are actuated by a 12-volt reversible, shunt wound motor with a built-in circuit breaker. The motor is installed at the left side of the seat assembly. (Fig. 16-92) The seat motor is energized by a toggle-type control switch installed in the left seat side panel.

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and four 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 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 switch contacts are opened, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

Removal and Installation

1. Under front of seat, disconnect seat control switch, cigar lighter and courtesy lamp wire harness (where present) from feed wire harness and detach control switch harness from clip on floor pan.
2. Remove both seat adjuster track covers; then turn back floor carpeting sufficiently to expose adjuster-to-floor pan attaching bolts.
3. Loosen adjuster-to-floor pan inner front attaching bolt; then, remove remaining adjuster-to-floor pan attaching bolts.
4. With aid of helper, carefully slide seat assembly rearward until front adjuster pedestal is disengaged from inner front attaching bolt; then remove seat assembly with attached adjusters from body.
5. To install seat assembly, reverse removal procedure. Make sure ground wire is securely attached at left seat adjuster and under seat adjuster-to-floor pan attaching bolt.

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" (or 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. **Vertical Travel** - operate seat control switch until one adjuster reaches fully raised position. Disconnect vertical drive cable from adjuster which has reached fully raised position. Operate seat upward

until other adjuster has reached fully raised position; then, connect vertical drive cable and check vertical travel of seat.

FRONT SEAT ADJUSTER ASSEMBLY (FOUR-WAY TILT)

Removal and Installation

1. Operate seat assembly to fully raised and midway position.
2. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface. (Fig. 16-92)
3. Detach the two power drive cables from adjuster to be removed.
4. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly. (Fig. 16-92)
5. To install seat adjuster assembly, reverse removal procedure. Black cable attaches to horizontal actuator. (Fig. 16-92)

NOTE: Check operation of seat adjusters and make sure adjusters are "in phase". See Step No. 5 under FRONT SEAT ASSEMBLY - REMOVAL AND INSTALLATION.

FRONT SEAT ADJUSTER GEARNUIT (FOUR-WAY TILT)

Removal and Installation

1. Operate seat assembly to fully raised and midway position.
2. Remove front seat assembly from body and place upside down on a clean protected surface.

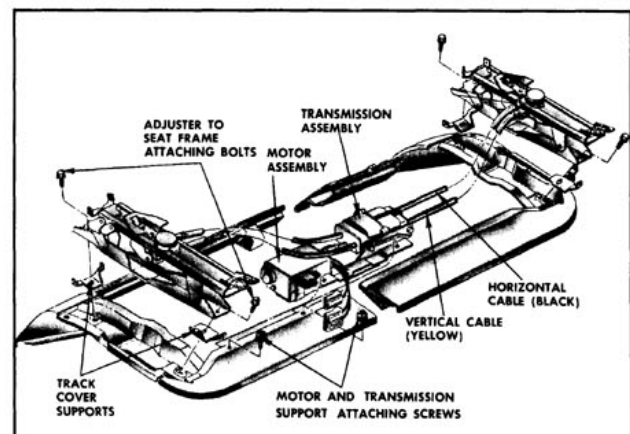


Fig. 16-92 Four-Way Tilt Seat Assembly

3. Remove vertical gearnut drive cable from gearnut opposite to gearnut which is being replaced.
4. Using a clutch-type screwdriver, remove shoulder screws securing linkage to vertical gearnut. (Fig. 16-93)
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, 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 No. 5 under FRONT SEAT ASSEMBLY - REMOVAL AND INSTALLATION.

FRONT SEAT ADJUSTER HORIZONTAL ACTUATOR ASSEMBLY (FOUR-WAY TILT)

Removal and Installation

1. Remove adjuster vertical gearnut.
2. Disconnect drive cable from horizontal actuator.
3. Remove screws securing horizontal actuator

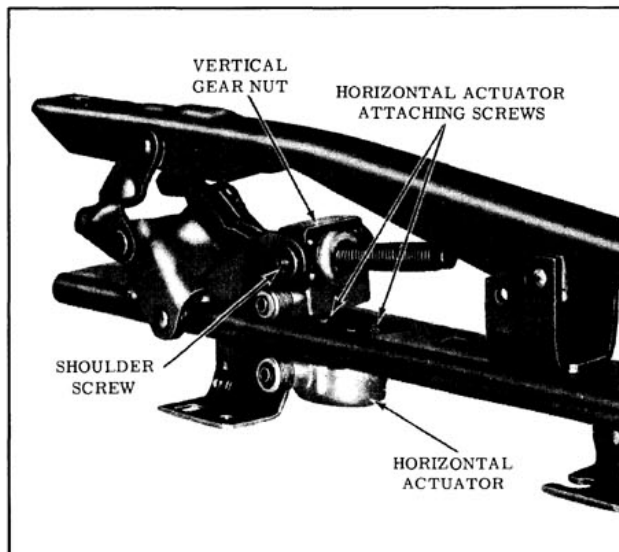


Fig. 16-93 Four-Way Tilt Seat Adjuster

assembly to adjuster lower track; then remove actuator from adjuster assembly. (Fig. 16-93)

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. Check operation of seat adjusters and make sure adjusters are "in phase". See Step No. 5 under FRONT SEAT ASSEMBLY - REMOVAL AND INSTALLATION.

FRONT SEAT ADJUSTER JACKSCREW (FOUR-WAY TILT)

Removal and Installation

1. Remove adjuster vertical gearnut.
2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts on side affected. (Fig. 16-92)
3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly. (Fig. 16-94)

NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain access to jackscrew attaching rivet.

4. To install, reverse removal procedure. Check operation of seat adjusters and make sure adjusters are "in phase". See Step No. 5 under FRONT SEAT ASSEMBLY - REMOVAL AND INSTALLATION.

FRONT SEAT ADJUSTER ELECTRIC MOTOR (FOUR-WAY TILT)

Removal and Installation

1. Remove front seat assembly.
2. Disconnect wire harness from motor relay assembly.
3. Remove screws securing motor and transmission support to seat bottom frame. (Fig. 16-92)
4. Remove motor-to-motor support attaching screws and remove motor assembly from support.

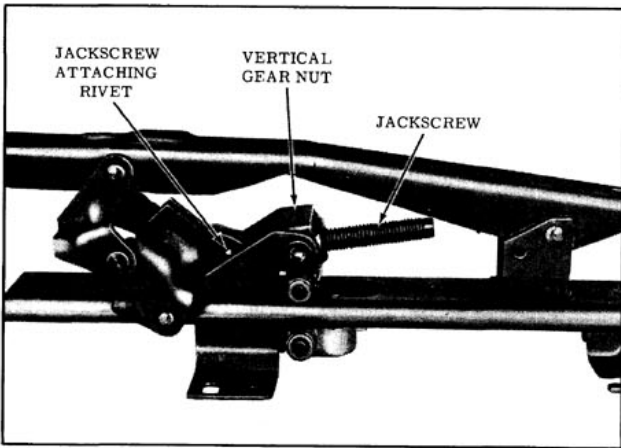


Fig. 16-94 Four-Way Tilt Seat Adjuster

5. To install, reverse removal procedure making sure rubber coupler is properly engaged at both motor and transmission ends.

FRONT SEAT ADJUSTER HORIZONTAL AND VERTICAL CABLES (FOUR-WAY TILT)

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
2. Detach both horizontal and vertical cables from seat adjuster.
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly. (Fig. 16-95)
4. Disengage cable to be replaced from end plate.
5. To install horizontal and vertical cable, reverse removal procedure.

FRONT SEAT ADJUSTER TRANSMISSION (FOUR-WAY TILT)

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.

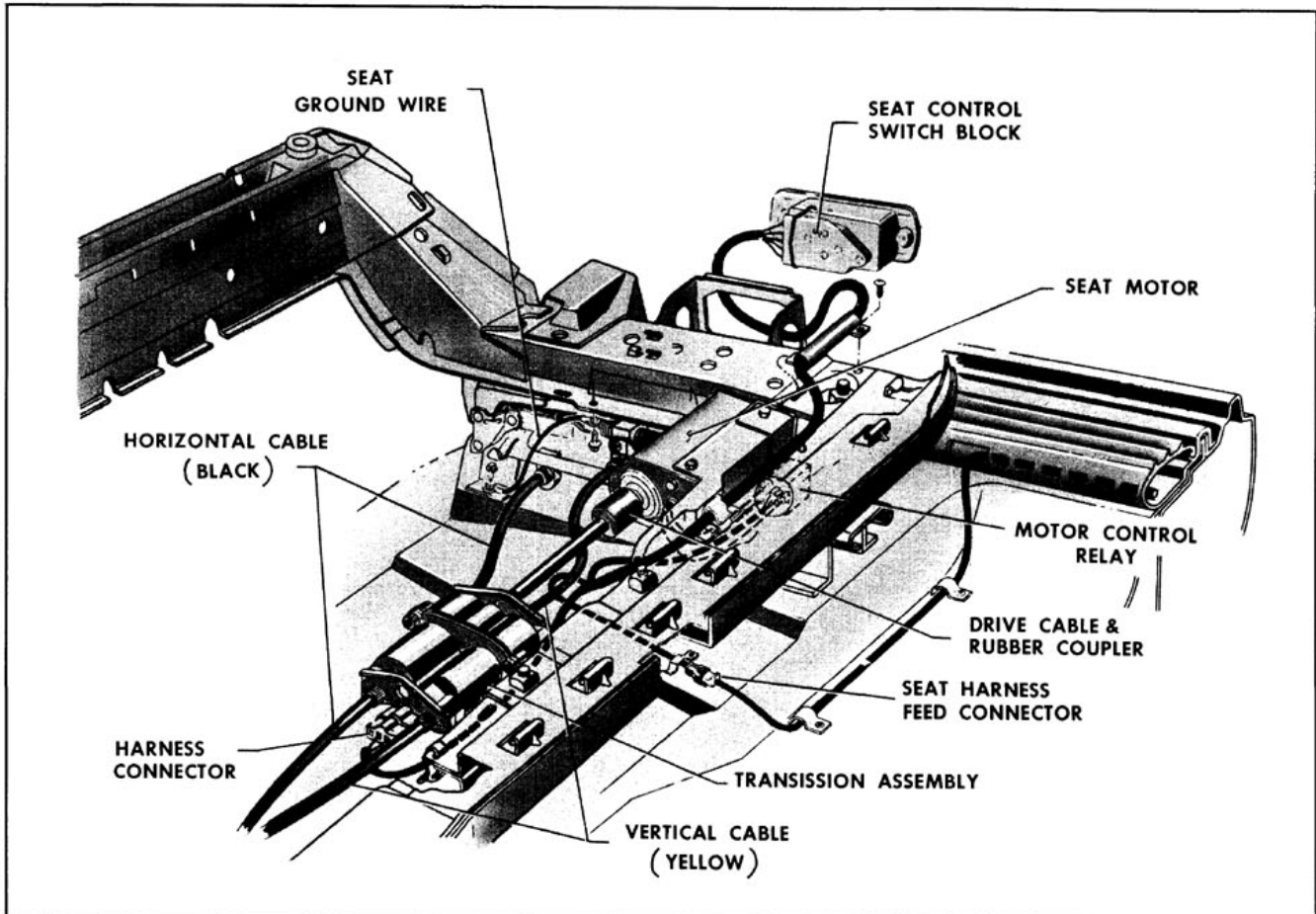


Fig. 16-95 Four-Way Seat Frame (Bench Type)

2. Disconnect wire harness connector from transmission. (Fig. 16-95)
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. 16-96)
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.

FRONT SEAT ASSEMBLY (SIX-WAY)

The electrically-operated six-way front seat

assembly can be moved forward, rearward, upward, downward or tilted by means of a manually-operated seat control switch. The large center control knob controls movement of the entire seat assembly horizontally or vertically. The smaller forward control knob controls the vertical movements of the front of the seat assembly causing the seat assembly to tilt. In the same manner, the rear control knob controls vertical movement of the rear of the seat assembly. To obtain maximum vertical travel, it will be necessary to engage the center vertical control until the limit of travel is reached, then engage the smaller forward or rear control knob to complete the maximum travel. This seat adjuster operating mechanism incorporates a transmission assembly which includes three solenoids and six drive cables leading to the seat adjusters.

The solenoid which operates the blue drive cable (Fig. 16-97), controls the vertical movement of the rear edge of the seat. The solenoid which operates the black drive cable, controls the horizontal movement of the seat. The solenoid which operates the yellow drive cable, controls the vertical movement of the front edge of the seat.

When one of the control switch buttons is actuated, the motor and one of the solenoids are energized simultaneously. The solenoid plunger engages the large gears with a driving gear. The driving gear rotates the large gears which rotates the drive cables and operates both adjusters. When the switch contacts are opened, a spring returns the solenoid plunger to its original position, disengaging the large gears from the driving gear.

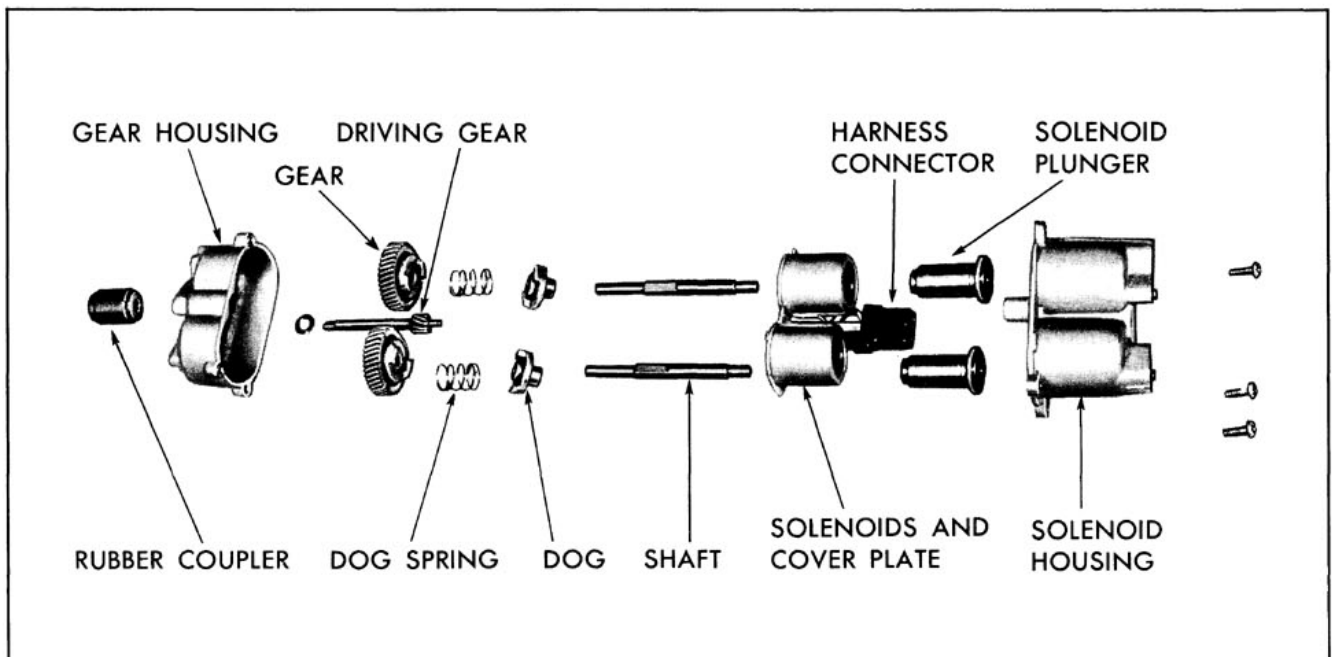


Fig. 16-96 Four-Way Seat Transmission

Removal and Installation

1. Operate seat to fully raised and midway position.
 2. Under front of seat, disconnect seat wire harness from feed wire harness.
 3. Turn back floor carpeting, remove both seat adjuster track covers and remove four seat adjuster-to-floor pan attaching bolts from each adjuster. Remove carpet retainers at front of seat adjusters.
 4. With aid of a helper, remove seat assembly with attached adjusters, motor and transmission assembly from body.
 5. To install seat assembly, reverse removal procedure. Make sure ground wire is securely attached at left seat adjuster and under seat adjuster-to-floor pan attaching bolt.
1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.
 2. Detach the three power drive cables from adjuster to be removed. (Fig. 16-97)
 3. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly.
 4. To install seat adjuster assembly, reverse removal procedure. Black cable attaches to horizontal actuator; yellow cable to front vertical gearnut and blue cable to rear vertical gearnut.

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" (that 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

FRONT SEAT ADJUSTER ASSEMBLY (SIX-WAY)

Removal and Installation

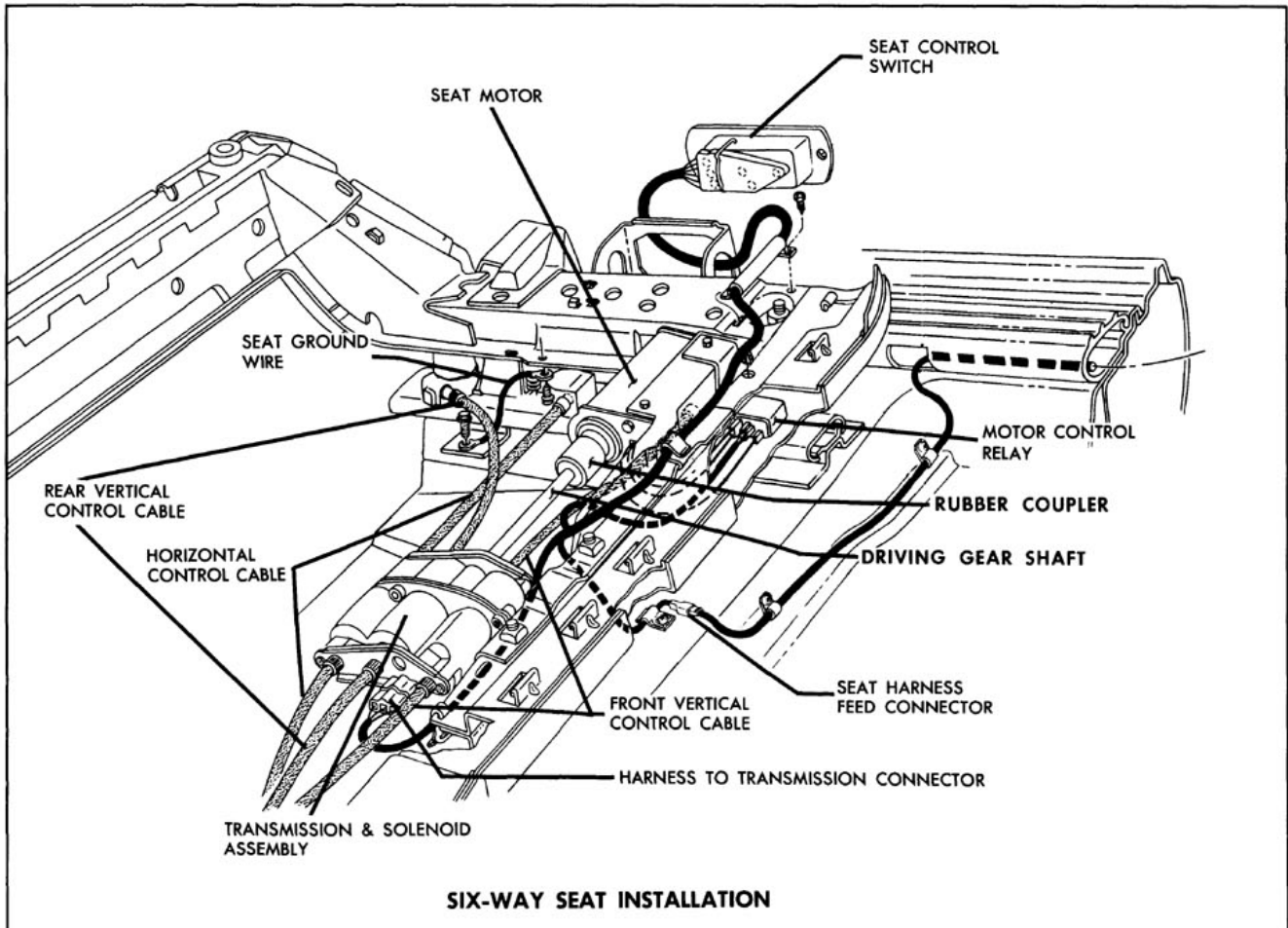


Fig. 16-97 Six-Way Seat Installation

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.

Figure 16-98 identifies the components of the six-way seat adjuster. The following service procedures include replacement of all major component parts of this adjuster.

FRONT SEAT ADJUSTER HORIZONTAL ACTUATOR

Removal and Installation

1. Remove seat assembly from body as previously described and place upside down on a clean protected surface.
- NOTE: Horizontal actuator is easily accessible with seat in mid-way or approximate center position.
2. Detach three power drive cables from adjuster to be removed.
 3. Remove screws securing seat adjuster-to-seat bottom frame and remove adjuster from seat assembly.
 4. At top of adjuster, remove front and rear vertical gearnut attaching nuts. (Fig. 16-99)
 5. Remove front vertical gearnut spring. (Fig. 16-99)
 6. Lift upward on adjuster upper track; then remove rear vertical gearnut spring. (Fig. 16-99)

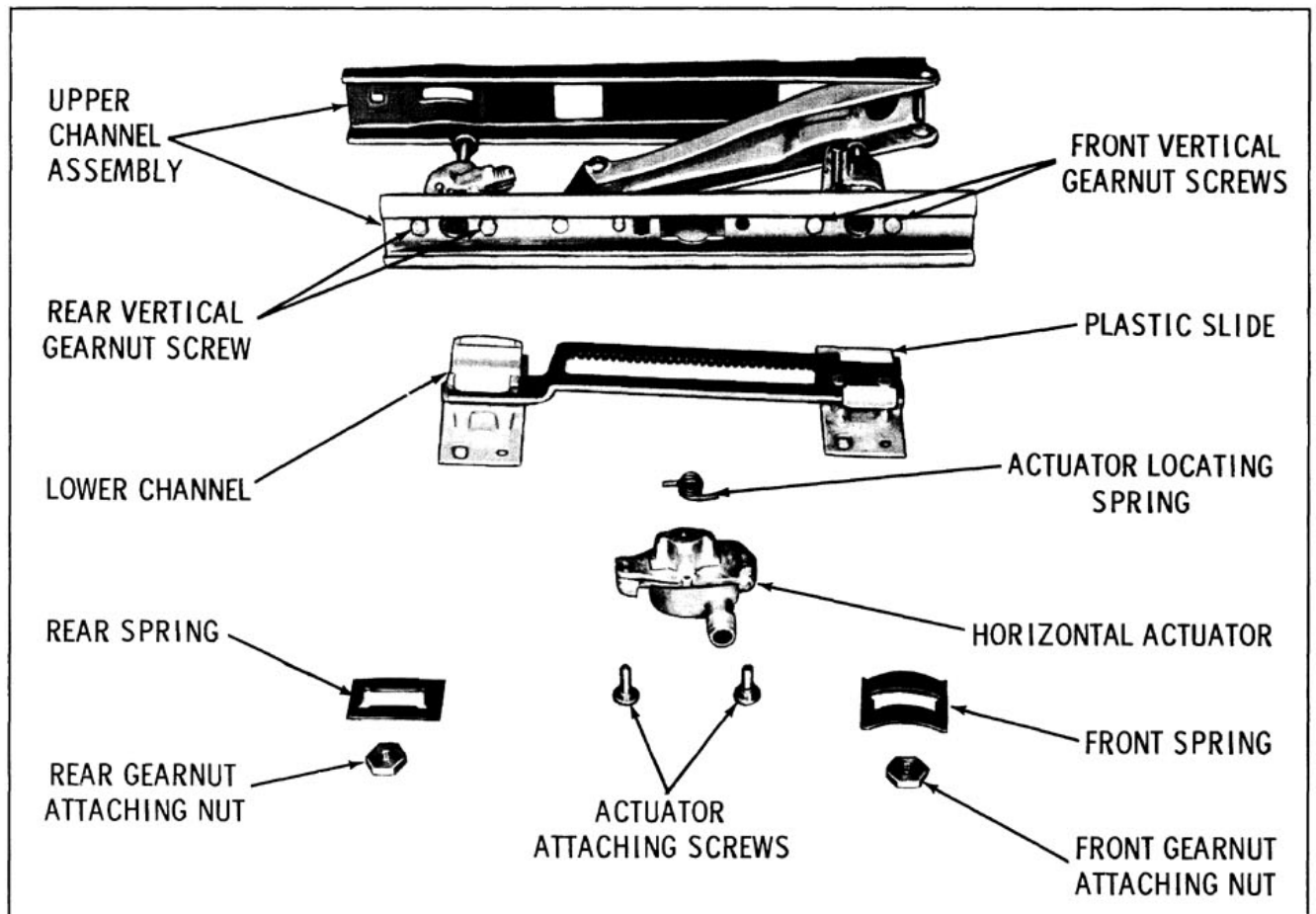


Fig. 16-98 Six-Way Seat Adjuster Components

7. Lay adjuster on its side; then remove screws securing horizontal actuator to adjuster upper channel assembly and remove actuator from adjuster.

IMPORTANT: Horizontal actuator is under tension from spring shown in Fig. 16-99. When installing actuator, be sure actuator locating spring is properly engaged with actuator assembly.

8. To install, reverse removal procedure. When installing horizontal actuator, be sure actuator drive gear is fully engaged with teeth on lower channel. With tension spring properly installed and actuator attaching screws tight, there should be no free motion between upper and lower adjuster channels. Re-adjust actuator "as required" until all free motion between channels has been removed. Be sure seat adjusters are "in phase", as previously described before installing seat assembly into body.

FRONT SEAT ADJUSTER LOWER CHANNEL

Removal and Installation

1. Remove horizontal actuator as previously described.
2. Slide seat adjuster lower channel from upper channel until lower channel is completely disengaged from upper channel.
3. If lower channel is being replaced with a new part, transfer plastic slides to new part. (Fig. 16-98)
4. Apply Lubriplate or equivalent to track portion of upper channel, plastic slides and teeth on lower channel.
5. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing seat assembly into body.

SEAT ADJUSTER FRONT VERTICAL GEARNUT

Removal and Installation

1. Operate seat to either full forward or full rearward position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
3. Detach three power drive cables from adjuster to be removed.
4. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.

5. At top of adjuster, remove front vertical gearnut attaching nut.

6. Remove front vertical gearnut spring. (Fig. 16-99)

7. Lay adjuster on its side and remove front vertical gearnut attaching screws (Fig. 16-98); then remove gearnut from adjuster.

8. If front vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly. (Fig. 16-99)

9. To install, reverse removal procedure. Be sure adjusters are "in phase" before installing seat assembly into body.

SEAT ADJUSTER REAR VERTICAL GEARNUT

Removal and Installation

1. Operate seat to full forward position.
2. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.
3. Detach three power drive cables from adjuster to be removed.
4. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
5. At top of adjuster, remove rear vertical gearnut attaching nut. (Fig. 16-99)
6. Lift rear of channel upward and remove rear vertical gearnut spring. (Fig. 16-99)
7. Lay adjuster on its side and remove rear vertical gearnut attaching screws; then remove gearnut from adjuster. (Fig. 16-98)
8. If rear vertical gearnut is being replaced with a new part, transfer gearnut washer to new gearnut assembly. (Fig. 16-99)
9. To install, reverse removal procedure. Be sure rear gearnut spring is properly engaged under adjuster upper channel before tightening rear gearnut upper attaching nut. In addition, be sure adjusters are "in phase", as previously described, prior to installing seat assembly into body.

FRONT SEAT ADJUSTER UPPER CHANNEL

Removal and Installation

1. Remove seat assembly from body as previously described and place upside down on a clean protected surface.

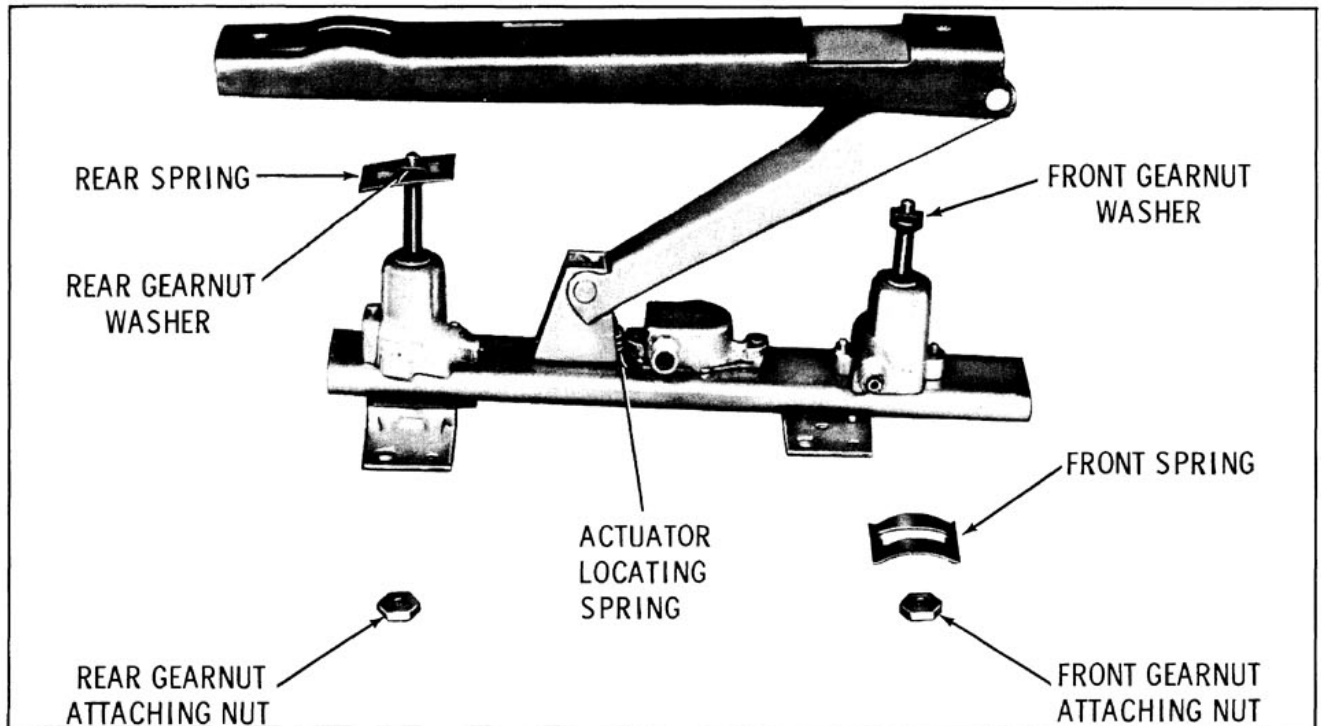


Fig. 16-99 Six-Way Seat Adjuster

2. Detach three power drive cables from adjuster to be removed.
 3. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat assembly.
 4. Remove horizontal actuator from upper channel as previously described.
 5. Slide lower channel until it is completely disengaged from upper channel; then transfer lower channel to new upper channel.
- NOTE: Be sure sliding surfaces of upper and lower channels are properly lubricated with Lubriplate or equivalent.
6. Transfer front and rear gearnuts to new upper channel. (Fig. 16-98)
 7. Install horizontal actuator and actuator locating spring to new upper channel.
 8. Install adjuster to seat bottom frame; then check all operations of adjusters. Be sure adjusters are "in phase" as previously described.
 9. Install seat assembly into body. Operate seat through several complete cycles to insure proper operation.

FRONT SEAT ADJUSTER ELECTRIC MOTOR

Removal and Installation

1. Remove front seat assembly as previously described.

2. Disconnect motor feed wires from motor control relay. (Fig. 16-97)
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 motor and transmission.

FRONT SEAT ADJUSTER HORIZONTAL AND VERTICAL DRIVE CABLES

Removal and Installation

1. Remove front seat assembly from body with adjusters, motor and transmission attached and place upside down on a clean protected surface.
2. Detach both horizontal and vertical cables from seat adjuster.
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly; then disengage cables from end plate.
4. To install horizontal and vertical cables,

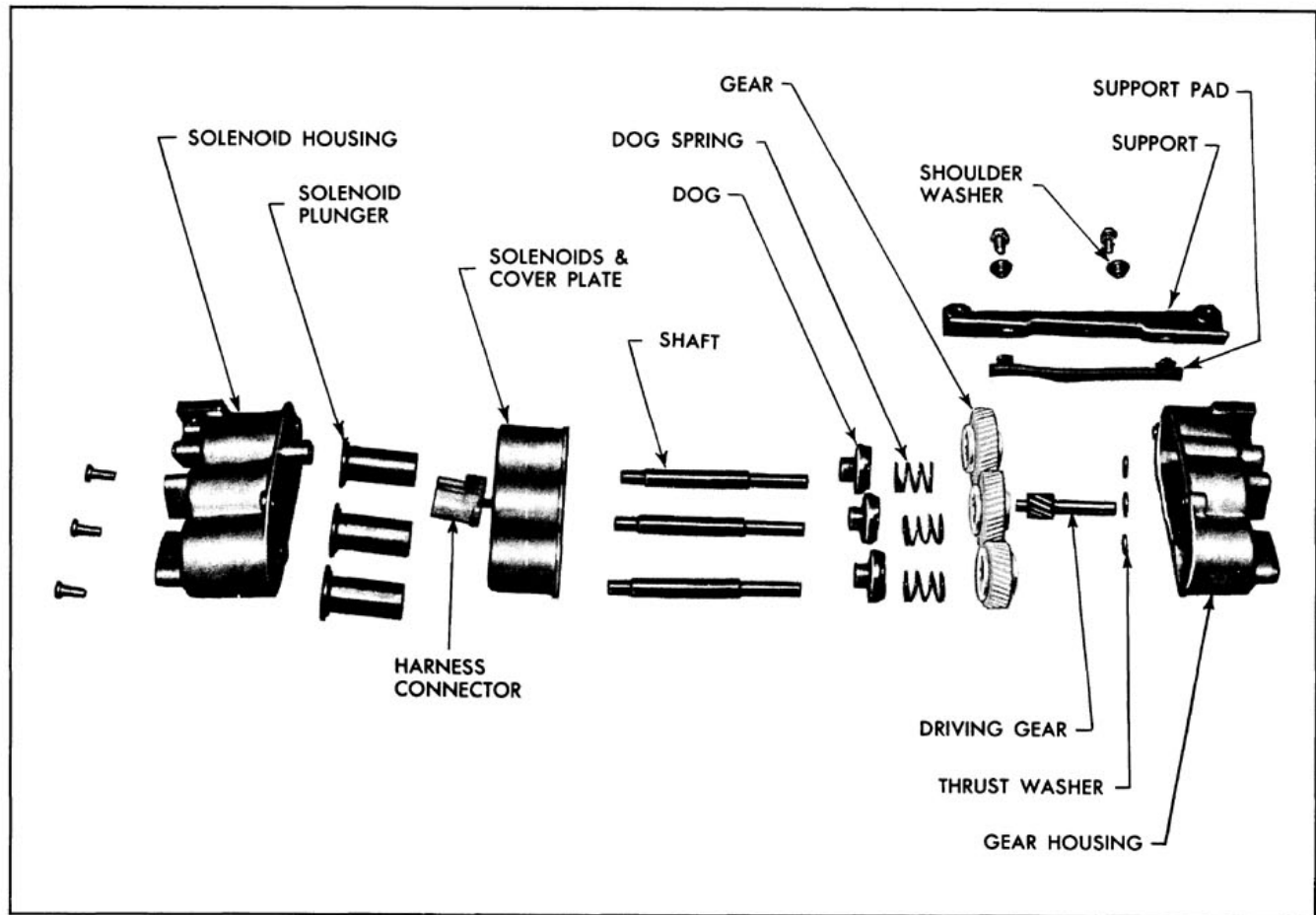


Fig. 16-100 Six Way Seat Transmission Assembly

reverse removal procedure. Make sure colored drive cables are installed to proper gearnuts and horizontal actuator as shown in in Fig. 16-97.

FRONT SEAT ADJUSTER TRANSMISSION

Removal and Installation

1. Remove front seat assembly from body with adjusters, motor and transmission attached and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission. (Fig. 16-97)
3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.
4. Remove transmission to support attaching bolts; then disengage transmission from motor drive coupling and remove transmission from seat assembly.
5. To install, reverse removal procedure.

Disassembly and Assembly

1. Remove front seat adjuster transmission from seat assembly as previously described.
2. Remove screws securing gear housing to the solenoid housing; then, carefully separate housings and remove component parts of transmission assembly. (Fig. 16-100)
3. To assemble transmission, reverse removal procedure.

IMPORTANT: Prior to or during installation, lubricate frictional surfaces of driving gear, thrust washers, large gears, dog washers, gear shafts and solenoid plungers with Lubriplate or equivalent.

BUCKET TYPE FRONT SEATS

All seat adjusters are bolted to the seat bottom frame; however, a combination of bolts and/or nuts are used to retain the adjusters to the floor pan assembly.

The 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 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 coupling connecting the motor and transmission. When the switch contacts are opened, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

BUCKET SEAT ASSEMBLY—MANUAL (DRIVER OR PASSENGER'S SIDE)

Removal and Installation

1. Operate seat assembly to rearward position.
2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts.
3. Remove adjuster-to-floor pan front attaching nuts or bolts.
4. Operate seat assembly to full forward position.
5. At rear of seat, remove adjuster-to-floor pan attaching nuts or bolts.
6. Remove seat assembly from body.
7. To install, reverse removal procedure. Check seat adjusters for proper operation.

BUCKET SEAT ASSEMBLY—TWO-WAY POWER OPERATED (DRIVER OR PASSENGER'S SIDE)

Removal and Installation

1. Operate seat assembly to rearward position.
2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan front attaching nut and bolts.
3. Remove inner attaching nut and outer attaching bolts.
4. Operate seat assembly to full forward position.

5. At rear of seat, remove adjuster-to-floor pan attaching nuts and bolts (including attachments at inner rear support).
6. Disconnect wiring harness from seat control switch and from actuator motor.
7. Remove seat assembly from body.
8. To install, reverse removal procedure. Check seat adjusters for proper operation.

BUCKET SEAT ASSEMBLY—FOUR-WAY TILT (Driver's Side Only)

Removal and Installation

1. Operate seat assembly to rearward position.
2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan front attaching nuts or bolts.
3. Remove adjuster-to-floor pan attaching nuts or bolts.
4. Operate seat assembly to full forward position.
5. At rear of seat, remove adjuster-to-floor pan and adjuster-to-inner support attaching nuts or bolts.
6. Disconnect wiring harness from seat control switch and from actuator motor.
7. Remove seat assembly with attached adjusters from body.
8. To install, reverse removal procedure. After seat assembly has been installed, check seat adjusters for proper operation.

FRONT SEAT BACK ASSEMBLY

Removal and Installation

1. Using a flat-bladed tool, carefully remove retainer from outer hinge pin. (Fig. 16-101)
2. Tilt seat back forward and remove retainer from inner hinge pin. (Fig. 16-101)
3. Carefully disengage front seat back outer hinge arm from pin.
4. Move entire seat back assembly inboard until inner hinge pin is disengaged from extension on seat assembly; then, remove seat back from body.
5. To install, reverse removal procedure. Prior to installation of back assembly, be sure inner

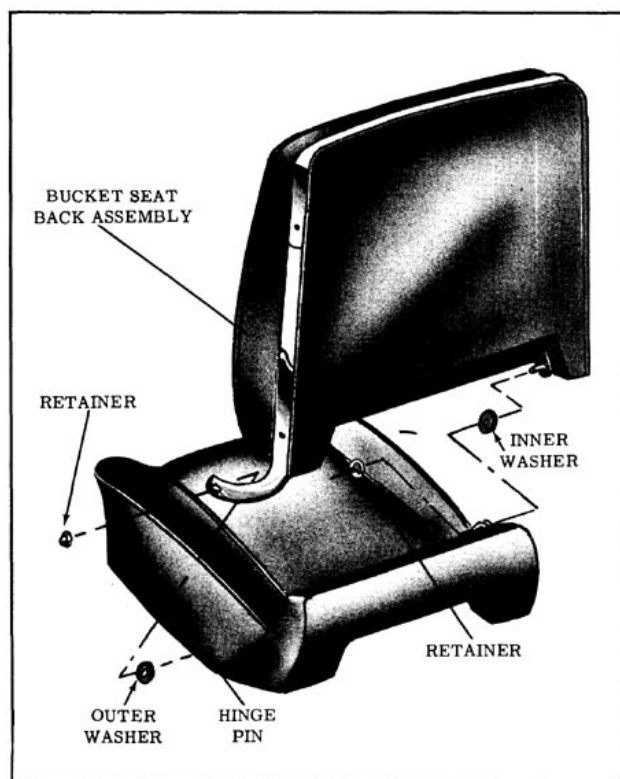


Fig. 16-101 Bucket Seat Back Removal

and outer washers are installed over the hinge pins. (Fig. 16-101) In addition, inspect hinge arm retainer. If retainer is damaged, replace retainer with new part.

FRONT SEAT ADJUSTERS (DRIVER OR PASSENGER—MANUAL OR TWO-WAY POWER-OPERATED)

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean, protected surface.
2. If adjuster to be replaced is equipped with an assist spring, remove spring from adjuster. (Fig. 16-102)
3. Operate adjuster so that both front and rear attaching bolts are accessible.
4. If power-operated outboard adjuster is being replaced, disconnect power drive cable from adjuster gearnut.
5. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly. (Fig. 16-102)
6. To install, reverse removal procedure.

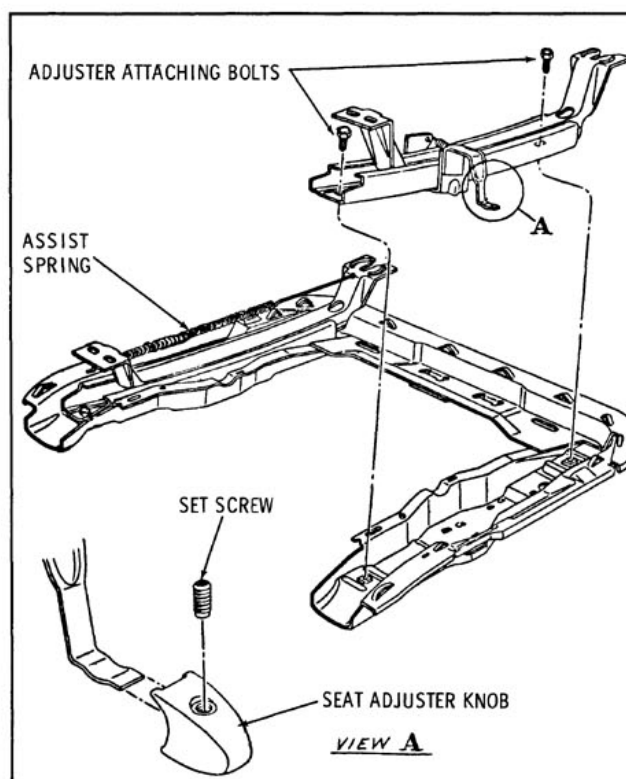


Fig. 16-102 Bucket Seat Adjusters

FRONT SEAT ADJUSTER ASSEMBLY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Operate seat assembly to fully raised and midway horizontal position.
2. Remove bucket seat assembly from body with adjusters, motor and transmission attached and place upside down on a clean protected surface.
3. If power-operated outboard adjuster is being removed, disconnect power drive cable from vertical gearnut and horizontal actuator.
4. Remove adjuster-to-seat bottom frame front and rear attaching bolts.
5. Remove nuts securing motor and transmission support-to-adjuster assembly. (Fig. 16-103 for outboard adjuster and Fig. 16-104 for inboard adjuster)
6. Carefully disengage adjuster from support and torque tube assembly; then remove adjuster from seat.
7. To install, reverse removal procedure. Check seat adjusters for proper operation.

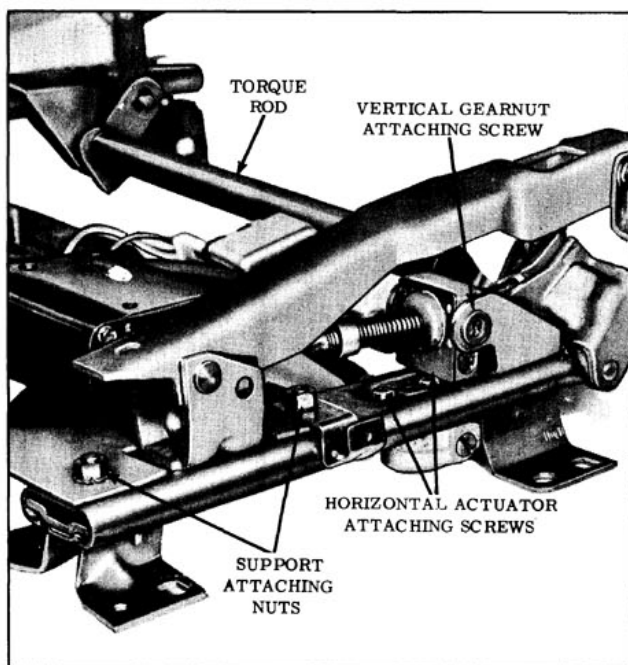


Fig. 16-103 Bucket Seat Adjuster (Outboard)

FRONT SEAT ADJUSTER VERTICAL GEARNUT— FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Operate seat assembly to fully raised and midway horizontal position.
2. Remove front seat assembly from body as previously described 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. 16-105)
4. Remove jackscrew down-stop from jackscrew. (Fig. 16-105)
5. Using a portable power source to energize the motor, actuate vertical gearnut until gearnut is disengaged from jackscrew.

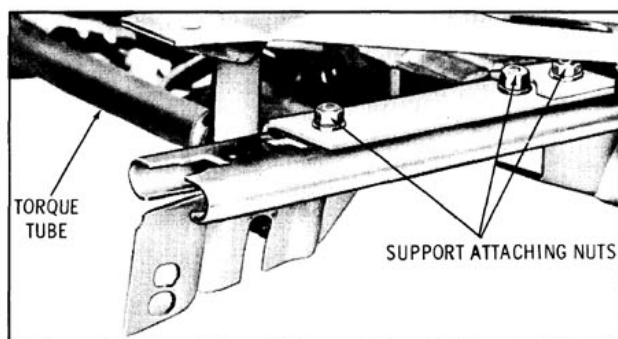


Fig. 16-104 Bucket Seat Adjuster (Outboard)

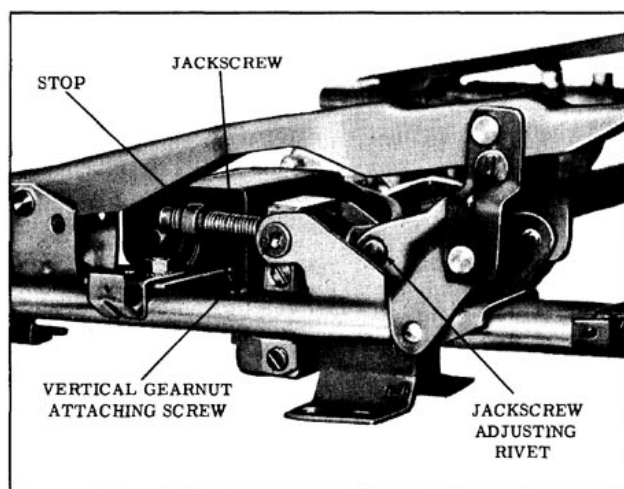


Fig. 16-105 Bucket Seat Adjuster (Outboard)

NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain clearance for removal of gearnut. Disconnect drive cable from gearnut. To install, reverse removal procedure. Check seat adjusters for proper operation.

FRONT SEAT ADJUSTER JACKSCREW— FOUR-WAY TILT (DRIVER'S SIDE ONLY)

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. 16-105)

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.

FRONT SEAT ADJUSTER HORIZONTAL ACTUATOR ASSEMBLY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body as previously described and place upside down on a clean protected surface.

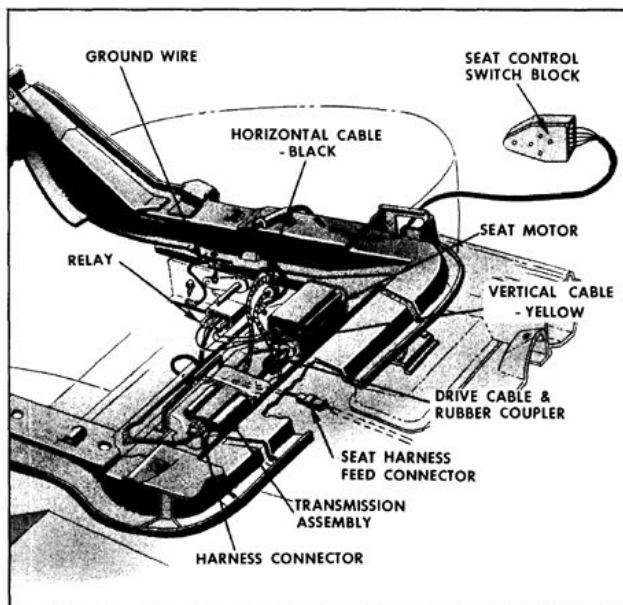


Fig. 16-106 Bucket Seat (Four-Way)

2. Using a clutch-type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut. (Fig. 16-103)
3. Using a portable power source, actuate vertical gearnut until gearnut is against down-stop on jackscrew assembly.
4. Disconnect drive cable from actuator assembly.
5. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly. (Fig. 16-103)
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 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 seat adjusters for proper operation.

FRONT SEAT ADJUSTER ELECTRIC MOTOR—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly as previously described.
2. Disconnect wire harness from motor relay assembly. (Fig. 16-106)

3. Remove motor-to-motor support attaching screws and remove motor assembly from support.
4. To install, reverse removal procedure, making sure rubber coupling is properly engaged at both motor and transmission ends. (Fig. 16-106)

FRONT SEAT ADJUSTER HORIZONTAL AND VERTICAL CABLES—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body with adjusters, motor and transmission attached 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. 16-106)
4. Disengage cable to be replaced from end plate.
5. To install cables, reverse removal procedure.

FRONT SEAT ADJUSTER TRANSMISSION—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body with adjusters, motor and transmission attached and place upside down on a clean protected surface.
2. Disconnect wire harness connector from transmission. (Fig. 16-106)
3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.
4. Remove transmission to support attaching bolts; then, disengage transmission from rubber coupler and remove transmission from seat assembly.
5. To install, reverse removal procedure.

Disassembly and Assembly of Transmission

1. Remove front seat adjuster transmission from seat assembly.

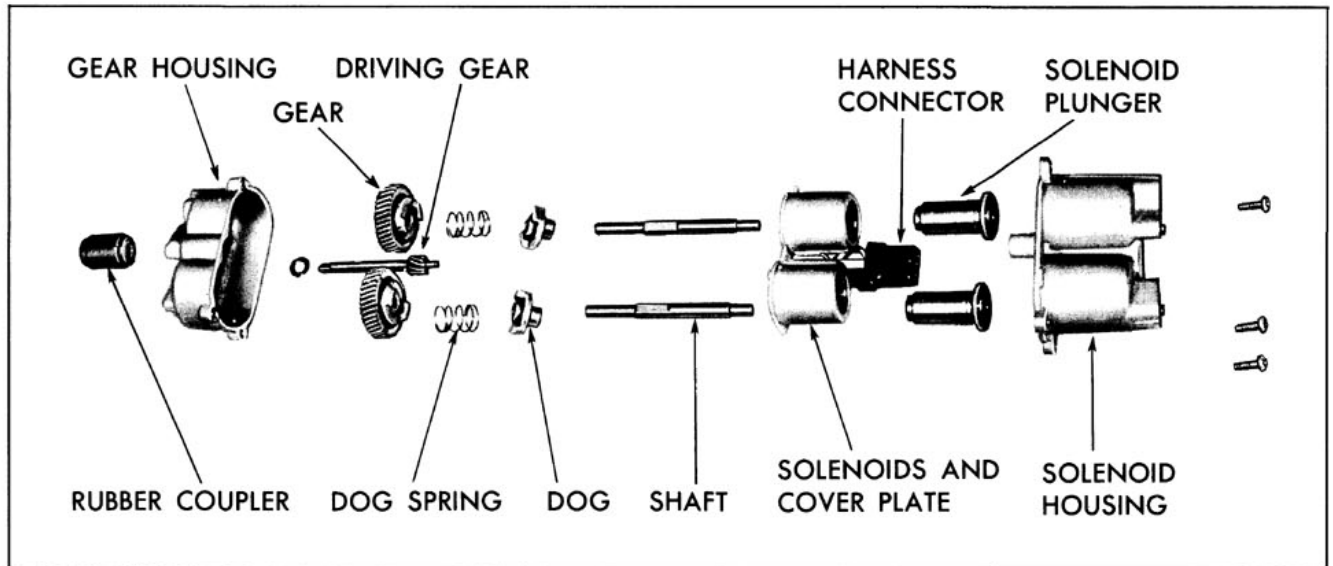


Fig. 16-107 Four-Way Seat Transmission

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly. (Fig. 16-107)

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 or equivalent.

TORQUE TUBE ASSEMBLY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean protected surface.
2. Remove adjuster to seat bottom frame front and rear attaching bolts.
3. Remove nuts securing motor and transmission support to inboard adjuster. (Fig. 16-104)
4. Carefully disengage adjuster from support and torque tube assembly; then, remove adjuster from seat.
5. Disengage torque tube from opposite adjuster and remove tube from seat assembly.
6. To install, reverse removal procedure. Check seat adjuster for proper operation.

MOTOR AND TRANSMISSION SUPPORT—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean protected surface.
2. Remove nuts securing support to both adjusters. (Fig. 16-103 for outboard adjuster and Fig. 16-104 for inboard adjuster)
3. Carefully remove support from adjusters with motor, transmission and relay assembly attached.
4. If replacing support, transfer motor, transmission and relay assembly to new part.
5. To install, reverse removal procedure. Check seat adjusters for proper operation.

MOTOR RELAY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean protected surface.
2. Disconnect motor-to-motor relay wire harness.
3. Remove nut securing relay to support and remove relay from seat assembly.
4. To install, reverse removal procedure.

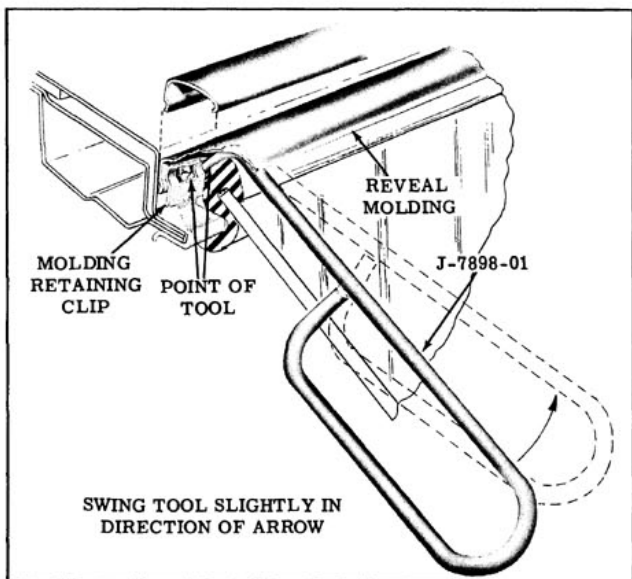


Fig. 16-108 Removing Back Window Reveal Molding

BACK WINDOW ASSEMBLY

The back window, solid tempered safety plate glass, is retained in the back body opening by a conventional rubber channel that has one cavity to accept the glass and another cavity which "lips over" and accepts the back window opening pinch-weld or retaining flange.

To remove the back window and rubber channel assembly, it is necessary to first remove the reveal moldings around the periphery of the back window.

BACK WINDOW REVEAL MOLDING RETENTION

The back window reveal moldings are retained by clips which snap over the back window pinchweld or retaining flange and engage, by means of barbed prongs, a flange on the molding, or as in the case of the lower reveal molding on 47 & 57 styles, another clip in the molding.

Figure 16-108 illustrates the tool to be used and the proper method for disengaging the molding from the pinchweld type clip.

Figure 16-109 illustrates the manner in which the various types of clips retain the molding.

Pinchweld Clip Disengagement

Insert point of Tool J-7898-01 between back window rubber channel and reveal molding. Slide tool along molding until a clip is contacted, then engage point of tool between retaining clip and

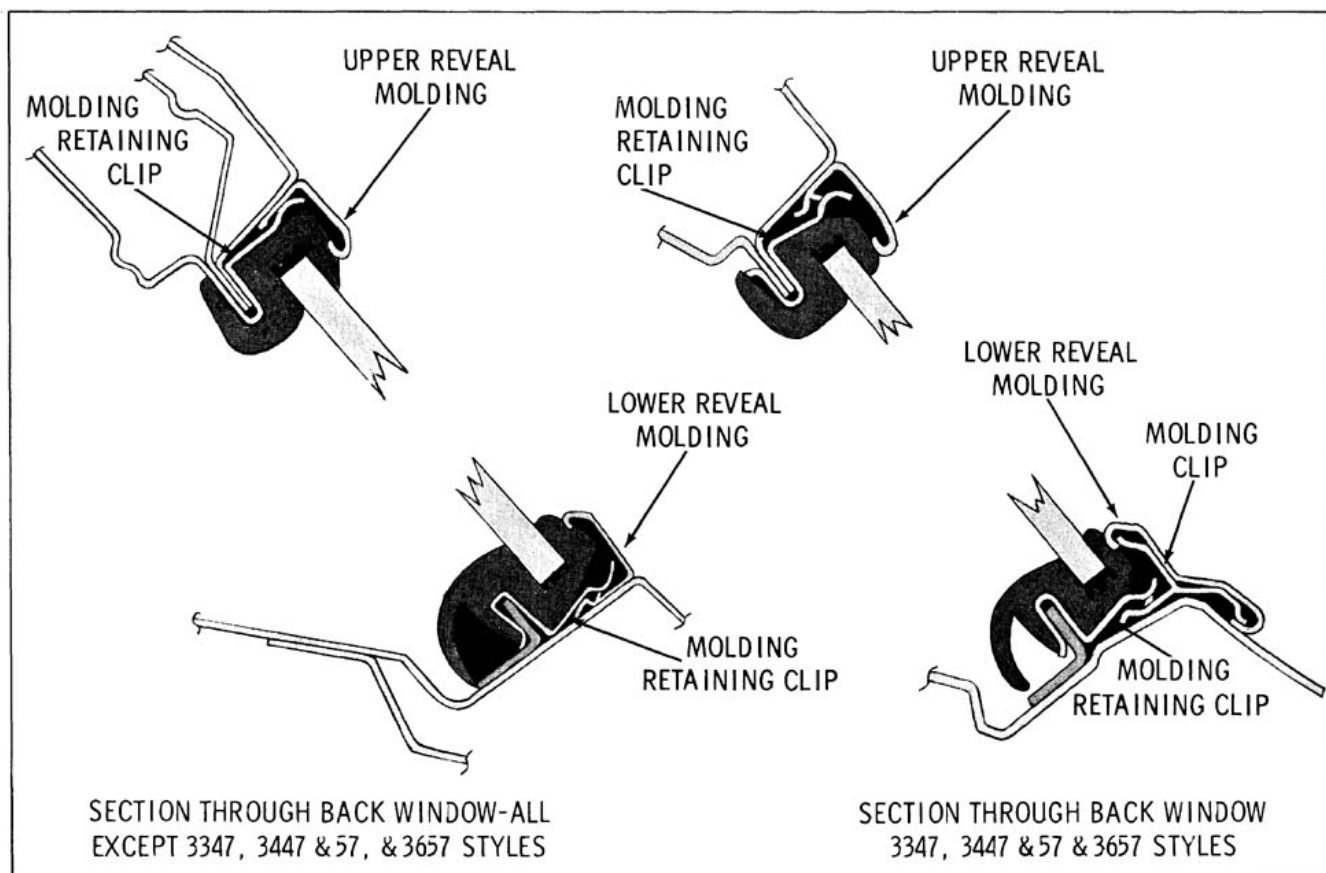


Fig. 16-109 Back Window Reveal Molding Attachment

molding. (Fig. 16-108) Swing tool slightly to disengage prongs of clip from molding and lift molding free of clip. Repeat this operation at each clip location.

NOTE: Do not lift excessively on molding. If clip is disengaged, molding will lift free of clip easily. If clip is not disengaged, any excessive lift on molding will cause prongs of clip to bite harder into molding making disengagement more difficult. If difficulty is being experienced in disengaging clip, push molding at clip location to relieve pressure of clip prongs while continuing efforts to disengage clip.

An occasional application of silicone lubricant to end of tool will help to slide tool between molding and rubber channel.

LOWER REVEAL MOLDING (3347 & 3447 Styles)

Removal and Installation

Remove belt reveal moldings as described in EXTERIOR MOLDINGS. Using reveal molding tool J-7898-01, insert point of tool between molding and rubber channel and push or pull molding clip sideways to slide it out of engagement from pinchweld retaining clip. (Fig. 16-109) Perform this operation at each molding clip location and remove molding from body.

To install, slide molding clips in molding so that they will be in position to engage pinchweld clips, then position molding to body and engage clips.

LOWER REVEAL MOLDING (3839 & 47, 3947 Styles)

Removal and Installation

The back window lower reveal molding is overlapped at the outer ends by the quarter belt reveal moldings. To remove the lower reveal molding, it is necessary to remove the quarter belt reveal molding from one side (Refer to EXTERIOR MOLDINGS for removal procedure); then, when pinchweld clips have been disengaged as described previously, pull molding from under other belt reveal molding.

If lower reveal molding is being removed for back window removal, remove both quarter belt reveal moldings.

BACK WINDOW ASSEMBLY

Removal

1. Place protective coverings over rear seat

cushion and seat back, over parcel shelf trim and over painted surfaces around back window. Remove back window garnish moldings.

2. Remove back window reveal moldings.
3. From inside body, carefully break seal between lip of rubber channel and pinchweld flange completely around back window.
4. Carefully push back window and rubber channel assembly outward until lip of rubber channel is disengaged from body pinchweld flange.
5. With the aid of a helper, lift complete assembly from body opening and place on a protected surface. Remove rubber channel from glass.

IMPORTANT: Care should be exercised to make certain glass does not strike body metal during installation as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Installation

1. Clean original sealer from back window body opening and rubber channel and install rubber channel to glass.

IMPORTANT: Before installing back window glass, check the back window body opening and pinchweld flange for any irregularities and correct, where necessary.

2. Check installation of reveal molding clips at pinchweld and retaining flanges and replace clips, where necessary. If replacing clips, apply medium-bodied sealer to opening rabbet, prior to installing clips. ("1", View "A", Fig. 16-110)
3. Apply a continuous 3/16" diameter ribbon of medium-bodied sealer on wall of rabbet, completely around opening. ("2", Section "B-B", Fig. 16-95)
4. Insert a strong cord into pinchweld cavity of rubber channel; tie ends together at bottom center and tape to inside surface of glass.
5. Apply a continuous ribbon of medium-bodied sealer (approximately 1/2" wide by 1/4" thick) to base of rubber channel across top and down sides. ("3", Section "B-B", Fig. 16-110)
6. With aid of a helper, position back window assembly into body opening. While helper is applying hand pressure to outside surface of glass, use a hooked tool or other suitable

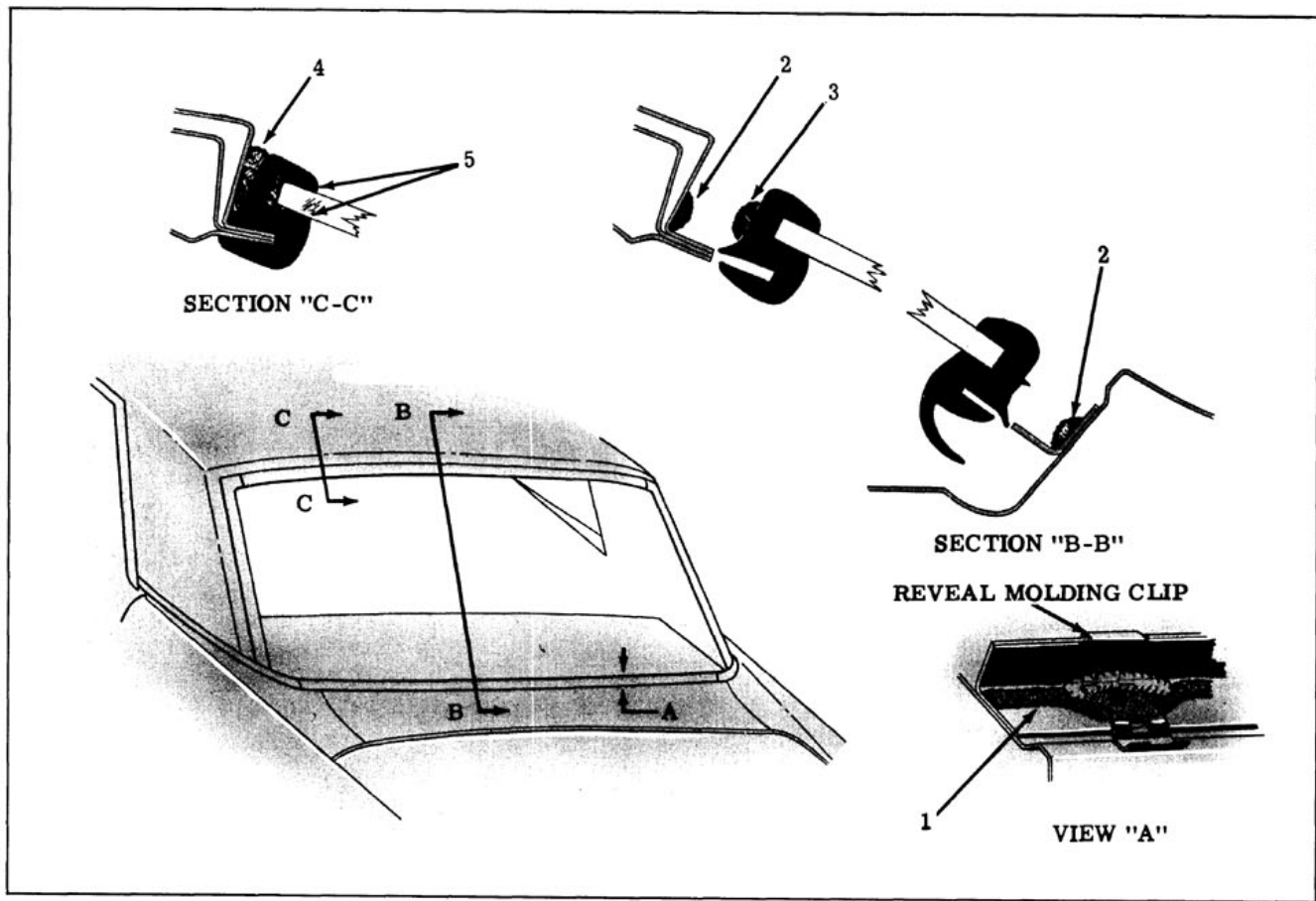


Fig. 16-110 Back Window Sealing

tool to pull inner lip of rubber channel (located along lower portion of channel) over retaining flanges along bottom opening.

7. With aid of helper applying hand pressure to outside surface of glass, pull cords in rubber channel and, where necessary, use a hooked tool to seat lip of rubber channel over body flanges across bottom, up sides and across top of window opening.

IMPORTANT: If, during the string-pulling operation, the rubber lip is not seating properly over the body flange, check for locations where rubber channel is tight against the body flange preventing forward movement of the glass and channel assembly into the opening. Using a hooked tool, seat the rubber lip over the body flange at any tight locations before proceeding with the cord pulling sequence.

8. Using a pressure-type applicator, apply sufficient medium-bodied sealer to completely fill any openings between rubber channel and body, completely around rubber channel. ("4", Section "C-C", Fig. 16-110)
9. Using a pressure-type applicator, apply weatherstrip adhesive (black) between rubber channel and glass on inside and outside of

glass around entire perimeter of glass. ("5", Section "C-C", Fig. 16-110) Application of adhesive should be continuous with no skips.

10. Install back window moldings as described under BACK WINDOW REVEAL MOLDINGS.
11. Clean off excess sealer and cement, install previously removed parts and remove protective coverings.

REAR COMPARTMENT

The rear compartment lid employs two torque rods that are mounted between the hinge assemblies to act as a counter-balance and hold-open for the lid. Notches at the stationary end of the rods allow for adjustment of the rods to increase or decrease operating effort of the lid.

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 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.

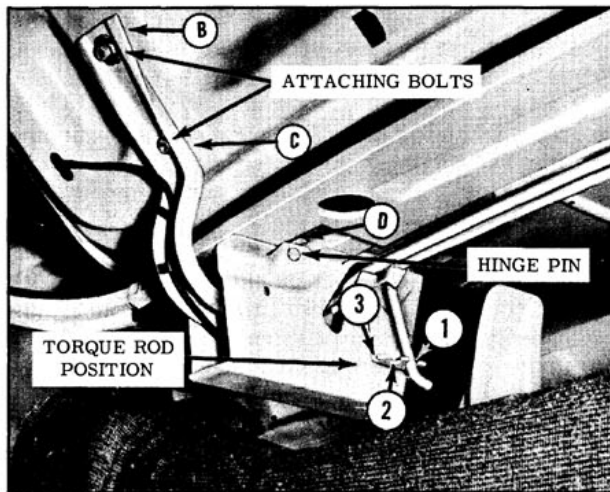


Fig. 16-111 Rear Compartment Hinge and Torque Rod

REAR COMPARTMENT LID

Removal and Installation

1. Open lid and place protective covering along edges of rear compartment opening to prevent damage to painted surface.
2. Disengage wire harness from clips on hinge and rear compartment lid inner panel and remove wire harness from lid where necessary.
3. Mark location of hinge straps on lid inner panel.
4. With aid of helper, remove lid attaching bolts (Fig. 16-111) and remove rear compartment lid.
5. To install rear compartment lid, reverse removal procedure. Align lid with scribe marks before tightening hinge attaching bolts.

Adjustments

1. To adjust compartment lid forward or rearward or from side to side in body opening, loosen both hinge strap attaching bolts and adjust lid as required; then tighten bolts.
2. To adjust compartment lid at hinge area up or down, install shims between lid inner panel and hinge straps as follows:
 - a. To raise front edge of lid at hinge area, place shim between lid inner panel and forward portion of one or both hinge straps at "C". (Fig. 16-111)
 - b. To lower front edge of lid at hinge area, place shim between lid inner panel and rearward portion of one or both hinge straps at "B". (Fig. 16-111)

3. To check lid lock bolt engagement with striker, see REAR COMPARTMENT LID LOCK STRIKER ENGAGEMENT CHECK.

REAR COMPARTMENT LID HINGE

Removal

1. Place protective covering over body around upper portion of rear compartment opening and provide support for lid on side where hinge is to be removed.
2. Remove rear compartment side trim foundation at hinge area if necessary. If left hinge is being removed, disengage wire harness from clip on left hinge.
3. Mark location of hinge strap on lid inner panel and remove bolts securing hinge strap to lid.
4. With a suitable tool, disengage torque rod from notched retainer on inboard face of opposite hinge box. (Fig. 16-111)

NOTE: Mark retainer notch before removing torque rod to insure that rod is installed in same position.

5. Disengage opposite end of torque rod from movable portion of hinge strap and remove rod.
6. Bend up hinge pin retaining tab on inboard face of hinge box "D" (Fig. 16-111). Remove hinge pin and then remove hinge from box.

Installation

1. Position hinge in hinge box and install hinge pin. Bend over retaining tab to secure hinge pin.
2. Position hinge strap within scribe marks on lid inner panel and install attaching bolts.
3. Install U-shaped end of torque rod to hinge box making certain outer end of rod is engaged in hole in outboard face of hinge box.
4. Engage torque rod to lower movable portion of hinge and engage other end of rod to correct retaining notch in inboard face of opposite hinge box.
5. Check alignment of rear compartment lid and make any necessary adjustments.
6. Replace wire harness if left hinge was removed.
7. Replace all previously removed trim.

TORQUE ROD ADJUSTMENT

The amount of effort required to open and close the rear compartment lid is determined by the position of the torque rod in the notches on the inboard face of the hinge boxes. If the torque rod is located in the lowest most forward notch (position 1), 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 or most rearward notch (position 3), the amount of effort to open the lid is the least and the amount of effort to close the lid is the greatest. (Fig. 16-111) A 24" length of 1/2" pipe can be used to adjust torque rods.

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).

REAR COMPARTMENT LID LOCK CYLINDER (3657 & 67 Styles)

Removal and Installation

1. Open rear compartment lid and remove screws securing retainer to lock anchor plate.
2. Push retainer toward right side of body to disengage retainer from lock cylinder, then remove lock cylinder and gasket from rear end panel.
3. To install, reverse removal procedure. Make sure gasket mates properly with rear end panel to form watertight seal.

REAR COMPARTMENT LID LOCK CYLINDER (All Except 36 Series)

Removal and Installation

1. Remove rear end panel molding as described

in the EXTERIOR MOLDING section of this manual and place upside-down on a clean, protected surface.

2. On 38 and 39 series, remove self-tapping screws securing lock cylinder assembly to rear end panel molding and remove lock cylinder.
3. On 33, 34 and 35 series, disengage lock cylinder retainer from projection on molding. Disengage retainer from lock cylinder by forcing retainer upward. Remove lock cylinder from outer surface of molding.
4. To install, reverse removal procedure. Make certain sealing gasket mates properly with rear end panel to effect a watertight seal.

REAR COMPARTMENT LID LOCK

Removal and Installation

1. Remove rear compartment lid lock cylinder.
2. If equipped with vacuum trunk release, remove release unit.
3. Remove lid lock attaching screws and remove lock assembly from body. (Fig. 16-112)
4. To install, reverse removal procedure. Check lock for proper operation.

REAR COMPARTMENT LOCK STRIKER

Removal and Installation

1. Open rear compartment lid. Mark vertical position of striker by scribing line on striker at bottom of lid inner panel.
2. Remove striker attaching screws and remove striker. (Fig. 16-112)
3. To install, align scribe mark on striker with lower edge of compartment lid inner panel and install attaching screws.

Engagement

IMPORTANT: Since the rear compartment lock frame acts as a guide when entering the striker, make sure rear compartment lid is properly positioned in body opening before performing striker engagement check. To check for proper engagement of rear compartment lid lock bolt with striker:

1. Insert a small quantity of modeling clay on frame of lock at both sides of the lock bolt. (Fig. 16-112) Close lid with moderate force.

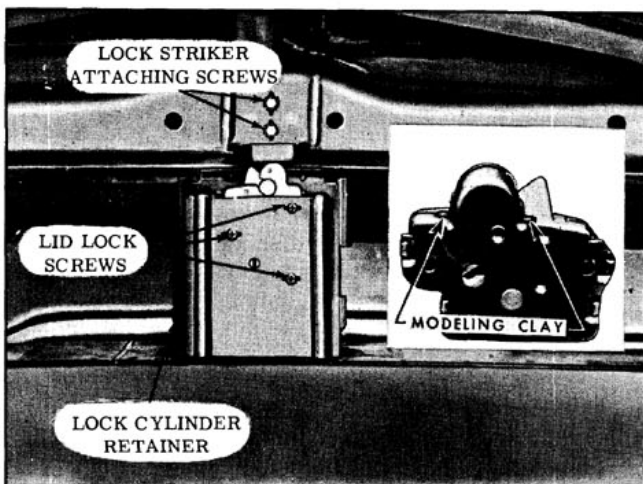


Fig. 16-112 Lid Lock and Striker

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.
3. Where required, loosen striker or lock attaching screws; adjust lock sideways or striker up or down to obtain proper engagement; then, tighten screws.

EXTERIOR MOLDINGS

The exterior moldings are identified in Figs. 16-113, 16-114, 16-115 and 16-116. The moldings are secured to the body by any one or a combination of the following attachments:

1. Attaching screws.

2. Bolt and clip assemblies with attaching nuts.
3. Integral studs with attaching nuts.
4. Bathtub-type snap-on clips.
5. Snap-in studs to pre-installed retainers.
6. Snap-in clips.

Figure 16-117 illustrates typical attachments for body side moldings.

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

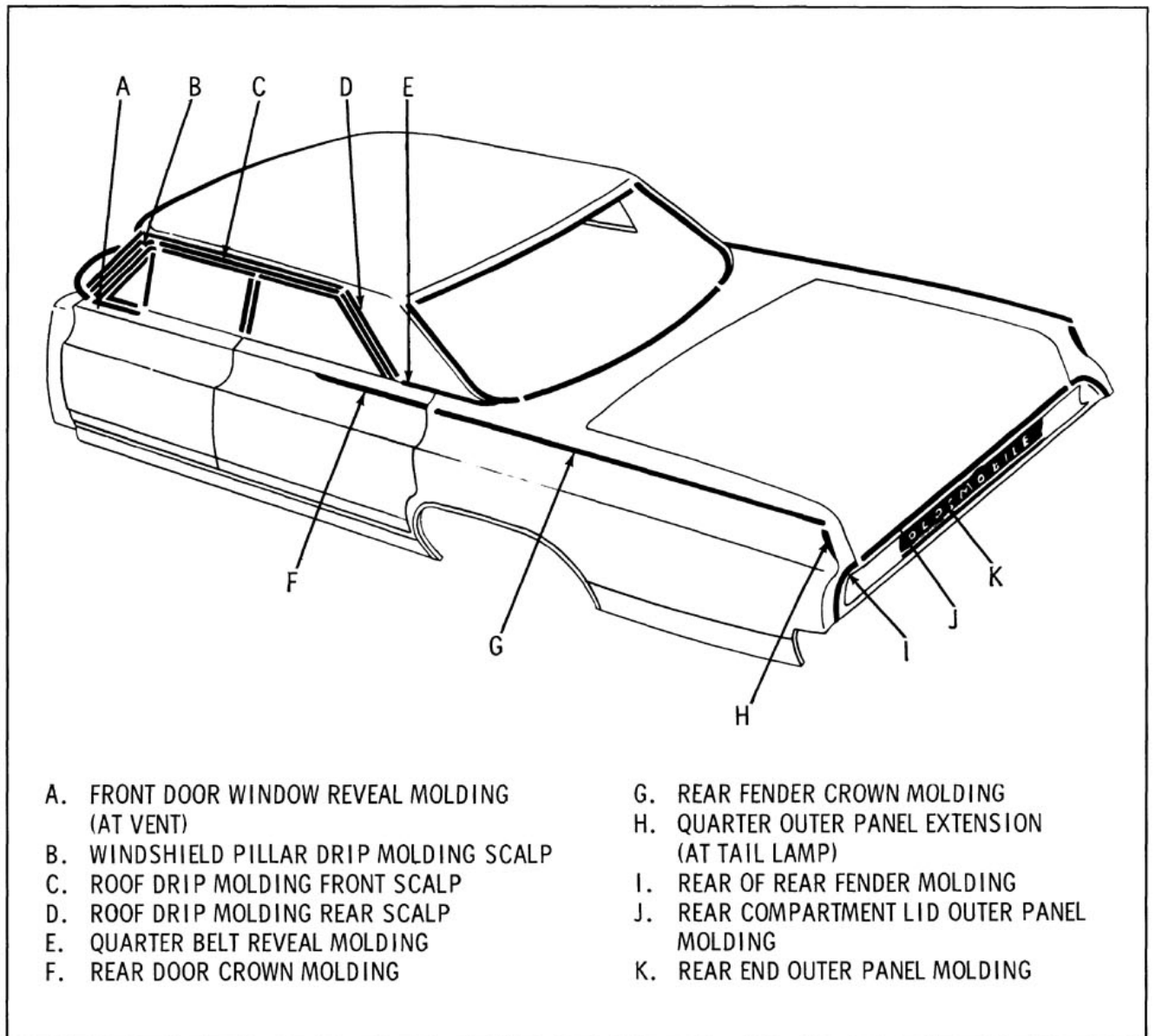


Fig. 16-113 Exterior Moldings (3339 Style)

naming the molding or other part which conceals the screw and, therefore, must be removed to gain access to the screw.

- When a molding is overlapped, the overlapping molding is indicated in the "Engages with other molding" column and must be removed first.

GENERAL PRECAUTIONS

When removing or installing any body exterior moldings, certain precautions should be exercised.

- Adjacent finishes should be protected with masking tape to prevent damage to finish.

- Proper tools and care should be employed to guard against molding damage.

SEALING OPERATION

Detailed sealing operations for each individual molding are not described on the MOLDING REMOVAL CHART, but the following information is given to permit a satisfactory sealing operation when necessary.

Medium-bodied sealer or body caulking compound are the sealers most frequently used to provide a watertight seal or for anti-rattle measures. Washers and gaskets are also used and should be replaced if damaged.

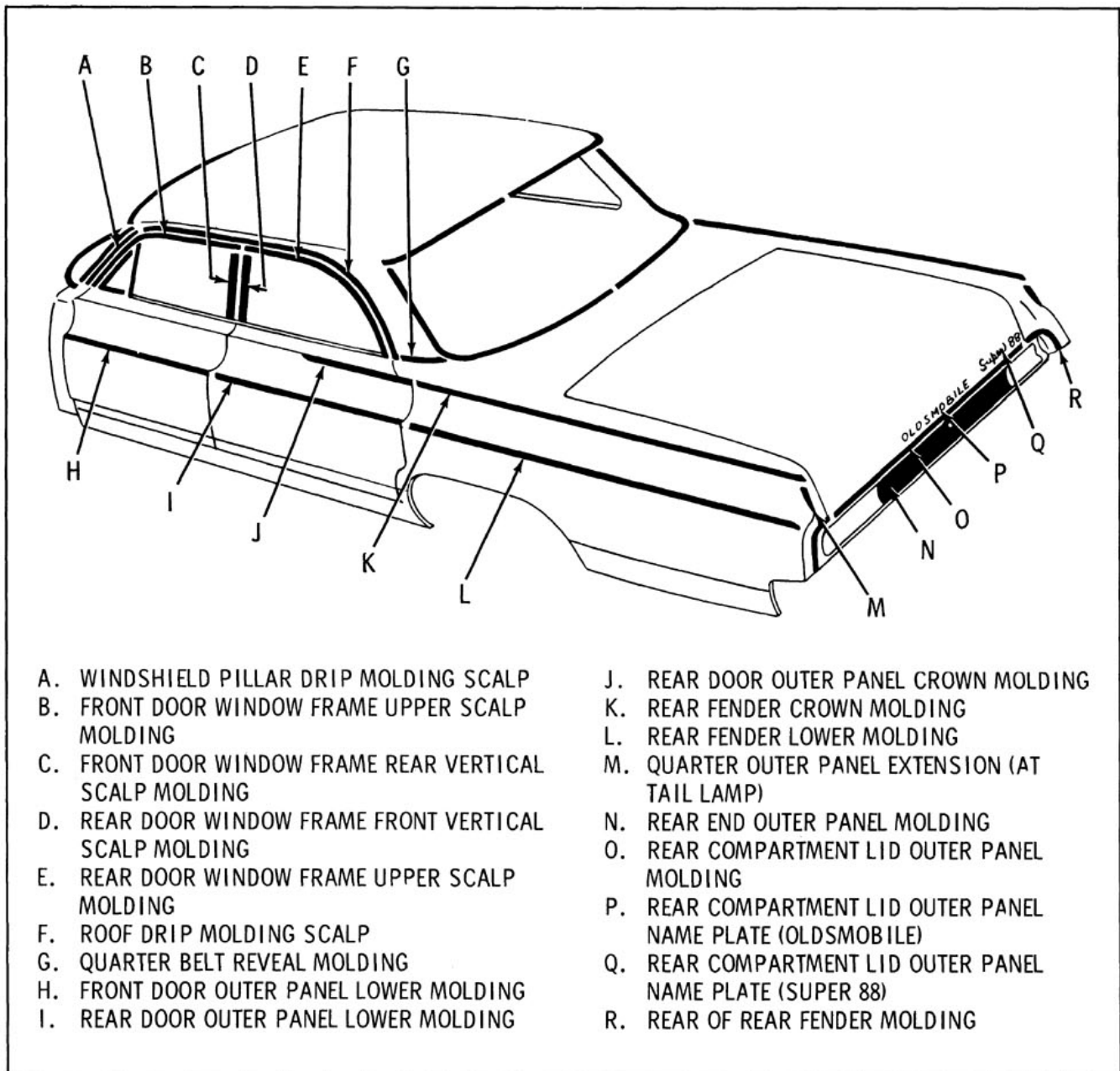


Fig. 16-114 Exterior Moldings (3569 Style)

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 pre-sealed 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 water proof tape over the entire pinchweld, prior to clip installation.

Removal

For ease of molding removal, it is sometimes

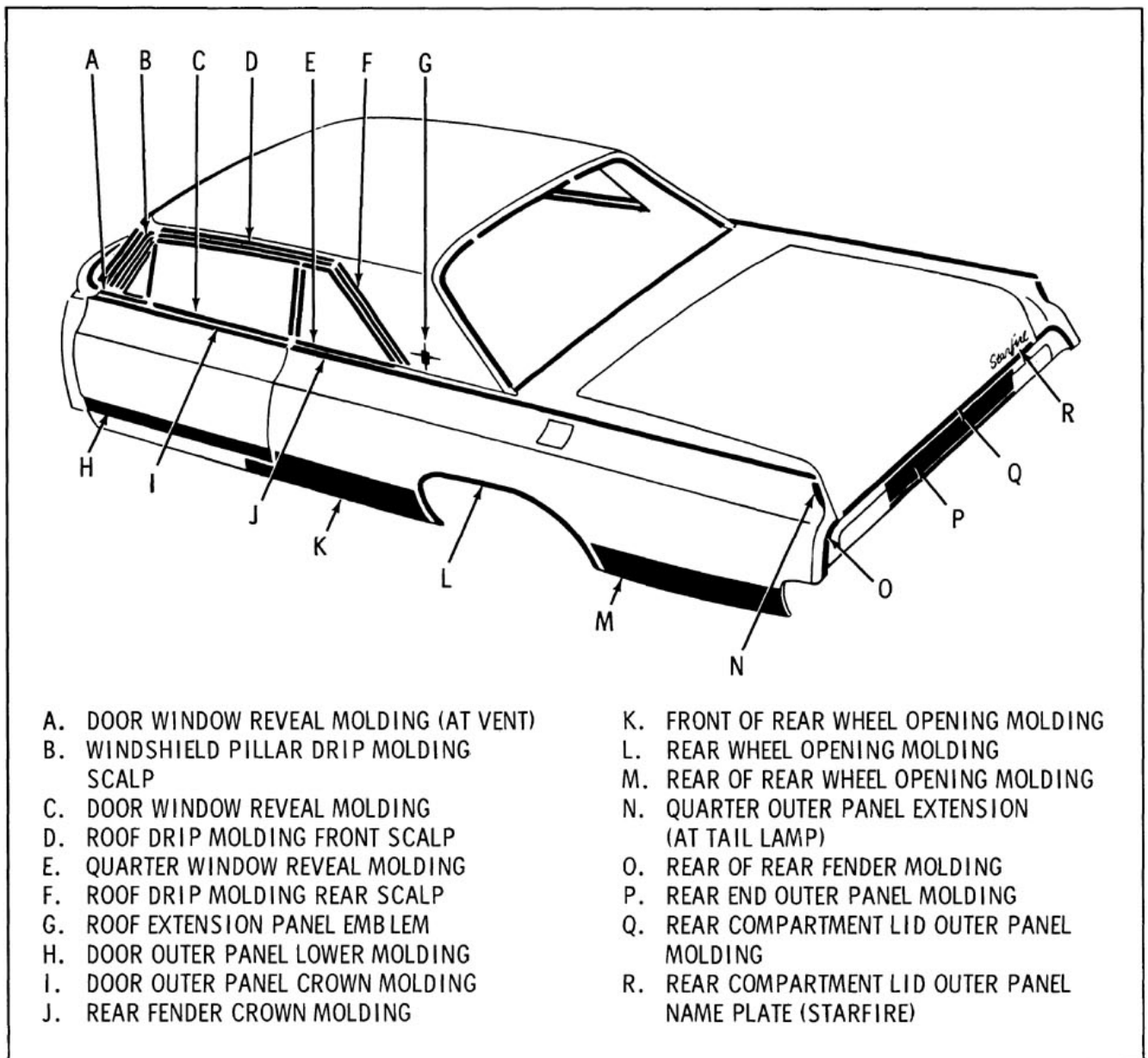
important to start the removal at a particular location which is generally the "front" or "rear" of the molding. This position is indicated when necessary in the "Starting Location" column of the molding chart.

The following groups of moldings are listed with the name or description of the tool which is suitable for molding removal.

Roof Drip Scalps - pointed hook tool

Door Window Scalps - thin flat-bladed tool (putty knife)

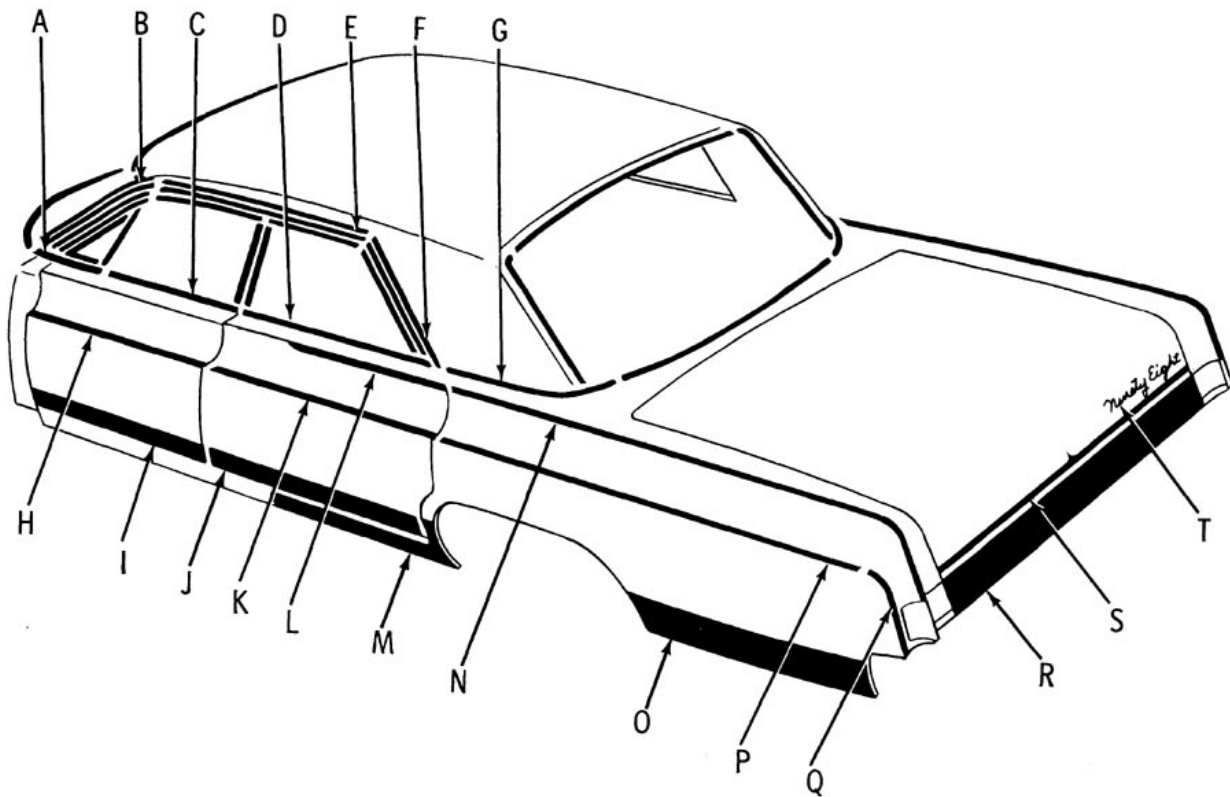
Snap-on Clips - thin flat-bladed tool (putty knife)



- A. DOOR WINDOW REVEAL MOLDING (AT VENT)
- B. WINDSHIELD PILLAR DRIP MOLDING SCALP
- C. DOOR WINDOW REVEAL MOLDING
- D. ROOF DRIP MOLDING FRONT SCALP
- E. QUARTER WINDOW REVEAL MOLDING
- F. ROOF DRIP MOLDING REAR SCALP
- G. ROOF EXTENSION PANEL EMBLEM
- H. DOOR OUTER PANEL LOWER MOLDING
- I. DOOR OUTER PANEL CROWN MOLDING
- J. REAR FENDER CROWN MOLDING

- K. FRONT OF REAR WHEEL OPENING MOLDING
- L. REAR WHEEL OPENING MOLDING
- M. REAR OF REAR WHEEL OPENING MOLDING
- N. QUARTER OUTER PANEL EXTENSION (AT TAIL LAMP)
- O. REAR OF REAR FENDER MOLDING
- P. REAR END OUTER PANEL MOLDING
- Q. REAR COMPARTMENT LID OUTER PANEL MOLDING
- R. REAR COMPARTMENT LID OUTER PANEL NAME PLATE (STARFIRE)

Fig. 16-115 Exterior Moldings (3657 Shown)



- | | |
|---|---|
| A. FRONT DOOR WINDOW REVEAL MOLDING (AT VENT) | K. REAR DOOR OUTER PANEL UPPER MOLDING |
| B. WINDSHIELD PILLAR DRIP MOLDING SCALP | L. REAR DOOR OUTER PANEL CROWN MOLDING |
| C. FRONT DOOR WINDOW REVEAL MOLDING | M. FRONT OF REAR WHEEL OPENING MOLDING |
| D. REAR DOOR WINDOW REVEAL MOLDING | N. REAR FENDER CROWN MOLDING |
| E. ROOF DRIP MOLDING FRONT SCALP | O. REAR OF REAR WHEEL OPENING MOLDING |
| F. ROOF DRIP MOLDING REAR SCALP | P. REAR FENDER LOWER FRONT MOLDING |
| G. QUARTER BELT REVEAL MOLDING | Q. REAR FENDER LOWER REAR MOLDING |
| H. FRONT DOOR OUTER PANEL UPPER MOLDING | R. REAR END OUTER PANEL MOLDING |
| I. FRONT DOOR OUTER PANEL LOWER MOLDING | S. REAR COMPARTMENT LID OUTER PANEL MOLDING |
| J. REAR DOOR OUTER PANEL LOWER MOLDING | T. REAR COMPARTMENT LID OUTER PANEL NAME PLATE (NINETY-EIGHT) |

Fig. 16-116 Exterior Moldings (3839 Shown)

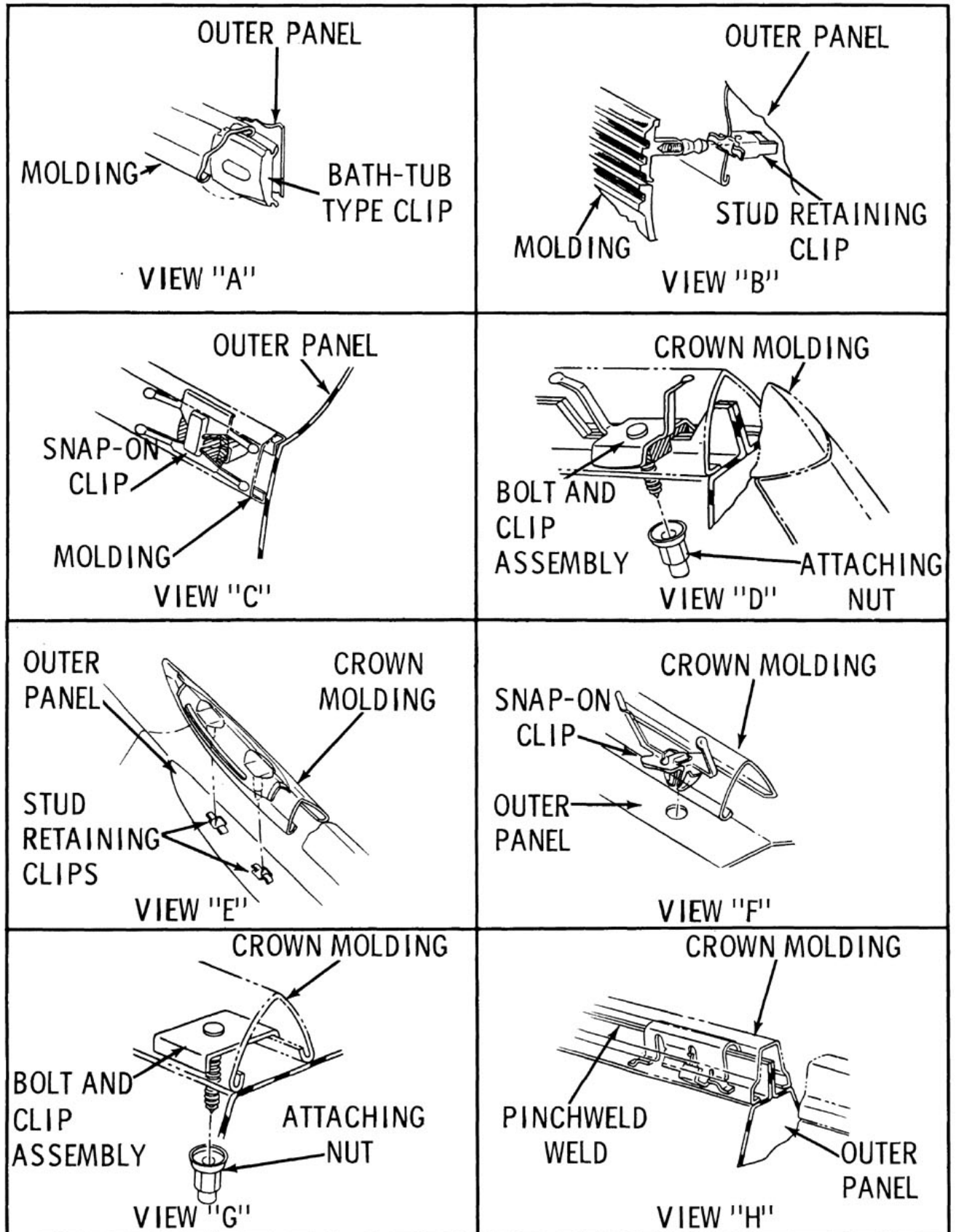


Fig. 16-117 Exterior Body Molding Attachments

EXTERIOR MOLDINGS

Molding Name	Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts			
Windshield Pillar Finishing	3657	x	-	-	-	-	Remove Windshield	-	
Windshield Pillar Drip Molding Scalp	All Styles Except 67	-	x	-	-	-	Windshield Pillar Weatherstrip Retainer on 47 Styles	Front Lower Edge	
Roof Drip Molding Scalp	All 47 & 69 Styles Except 3847 & 3947	-	x	-	-	-	Side Roof Rail Weatherstrip Retainer on 47 Styles	Front Lower Edge	
Roof Drip Molding Front Scalp	All 39, 57, 3947, All 3800 Except 67 Style	-	x	-	-	-	Side Roof Rail Weatherstrip Retainer on 47 Styles	Front Lower Edge	
Roof Drip Molding Rear Scalp	3800, 3947 Except 67	-	x	-	-	-	Quarter Window Upper Reveal on 29 Styles	Front Lower Edge	
Front Door Window Frame Rear Vertical Scalp	3339, 3439, 3457, 3539, 3657 3569, 3819 Option 3369, 3469	x	-	-	-	-	Side Roof Rail Weatherstrip Retainer	-	
		-	x	-	-	-	-	Upper Inner Edge	

EXTERIOR MOLDINGS - (Cont'd.)

Molding Name	Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts			
Front Door Window Frame Upper Scalp	3569, 3819 Option 3369, 3469	-	x	-	-	-	-	Rear Inner Edge	
Front Door Window Reveal (At Vent)	All Styles Std. and Option	x	-	-	-	-	Vent Upper Attaching Screws	-	
Front Door Window Lower Reveal	All Styles Std. and Option	x	-	-	-	-	Door Window Lower Bumper Stops	-	
Front Door Outer Panel Lower	3400, 3500	x	-	x View A	-	-	-	-	
	3600	x	-	x View B	-	-	-	-	
	3800, 3900	x	-	x View B	-	-	-	-	
Front Door Outer Panel Crown	3600	x	-	-	x View C	-	-	-	
Front Door Outer Panel Upper	3800	x	-	-	x View C	-	-	-	
Rear Door Window Frame Upper Scalp	3569, 3819 Option 3369, 3469	-	x	-	-	-	-	Front Lower Edge	
Rear Door Window Frame Front Vertical Scalp	3569, 3819 Option 3369, 3469	-	x	-	-	-	-	Upper Inner Edge	

EXTERIOR MOLDINGS - (Cont'd.)

Molding Name	Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts			
Rear Door Window Frame Rear Vertical Scalp	3819	-	x	-	-	-	Door Window Frame Upper Scalp	-	Upper Edge
Rear Door Window Lower Reveal	3539, 69 3800 Optional 3339, 69	x	-	-	-	-	Door Window Lower Bumper Stops	-	-
Rear Door Outer Panel Lower	3400, 3500	x	-	x View A	-	-	-	-	-
	3800	x	-	x View B	-	-	-	-	-
Rear Door Outer Panel Crown	All Styles	x	-	x View E	x View F	-	-	-	-
Rear Door Outer Panel Upper	3800	x	-	-	x View C	-	-	-	-
Quarter Window Front Reveal	3819, 29	x	-	-	-	Quarter Window Upper and Lower Reveal	Quarter Window	-	-
Quarter Window Upper Reveal	3819, 29	x	-	-	-	-	Quarter Window	-	-
Quarter Window Lower Reveal	3819, 29	x	-	-	-	Quarter Window Upper Reveal	Quarter Window	-	-
	47, 57	x	-	-	-	-	Quarter Window Lower Stops	-	-
	67	x	-	-	-	-	Quarter Window	-	-

EXTERIOR MOLDINGS - (Cont'd.)

Molding Name	Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts			
Quarter Belt Reveal	3347, 3447, 3457, 3657 All 39	-	-	-	-	x	Quarter Window Lower Reveal	Quarter Upper Trim Panel	-
		x	-	-	x	x	Quarter Window Lower Reveal	Quarter Upper Trim Panel	-
	3847, 3947	-	-	-	-	x	Back Window Lower Reveal Molding Clip	Quarter Upper Trim Panel	-
Quarter Pinch Weld Finishing	67	x	-	x	-	-	Quarter Window Lower Reveal	Lower Top To Relieve Tension On Back Curtain	At Radius
Rear Quarter Lower	3400, 3500	-	-	x	-	x	-	Rear Compartment Side Trim	-
Rear Quarter Lower Rear	3800	-	-	x	-	x	Rear Quarter Lower Front	Rear Compartment Side Trim	-
Rear Quarter Lower Front	3800	-	-	-	x	x	-	Rear Compartment Side Trim	-
Rear of Rear Quarter Panel	3300, 3400, 3500, 3600	-	-	-	-	x	-	-	-
Rear Quarter Panel Crown	3657, 67	-	-	x	x	x	-	Rear Quarter Trim	Front Attaching Nuts
	All 47, 57, 67 Except 3600	-	-	x	x	x	-	-	-
	19, 29, 39, 69	-	-	x	-	x	-	-	-

EXTERIOR MOLDING - (Cont'd.)

Molding Name	Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts			
Quarter Outer Panel Extension (At Tail Lamp)	3300, 3400, 3500, 3600	-	-	-	-	x	Rear Quarter Crown	Rear Quarter Side Trim	-
Front of Rear Wheel Opening	3600	x	-	x View B	-	x	Rear Quarter Crown	Rear Quarter Trim	-
Rear Wheel Opening	3800	x	-	x View B	-	-	Rear Wheel Opening	Rear Quarter Trim	-
Rear Wheel Opening	3600, 3800	x	-	-	-	-	-	-	-
Rear of Rear Wheel Opening	3600	x	-	x View B	-	x	Rear Wheel Opening Molding	-	-
Rear Wheel Opening	3800	x	-	-	-	x	Rear Wheel Opening Molding	-	-
Roof Extension Panel Ornament	3657	-	-	-	-	x	-	Quarter Upper Trim Panel	-
Rear Compartment Lid Name Plate	3400, 3500, 3600, 3800	-	-	x	-	-	-	-	-
Rear Compartment Lid	All	x	-	-	-	-	-	-	-
Rear End Panel	3300, 3400, 3500	-	-	-	-	x	-	-	-
	3600	x	-	-	-	-	Rear of Rear Quarter	Tail Lamp Assembly	-
	3800	-	-	-	-	x	-	Back-Up Lamp Assembly	-

If it is necessary to replace damaged "bathtub" molding clips, 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. 16-118), then disengage clip from hole.

NOTE: In some cases, it may be necessary to cut clip at opposite end of base also.

2. No special tool is needed to install new plastic clip.

FOLDING TOP

FOLDING TOP ADJUSTMENTS

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.

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.

FRONT ROOF RAIL CORNER BRACE ADJUSTMENT

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.

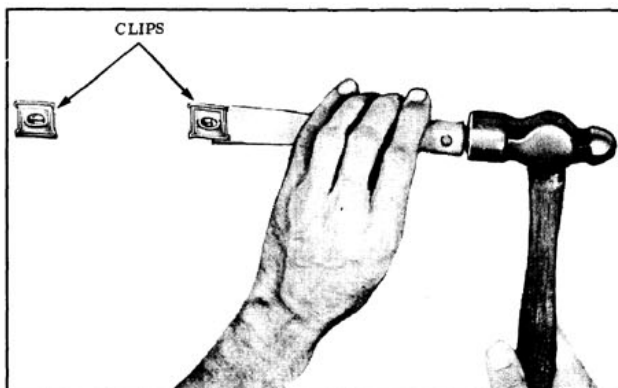


Fig. 16-118 Removing Bathtub-Type Clip

2. Loosen corner brace attaching bolts and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary, (Fig. 16-119)

NOTE: This adjustment is limited. If additional adjustment is required, it can be made at the folding top male hinge.

3. When front roof rail corner brace is properly adjusted, tighten attaching bolts and reinstall side roof rail front weatherstrip attaching screws. Check forward section of weatherstrip and reseal if necessary.

SUNSHADE AND STRIKER SUPPORT ASSEMBLY ADJUSTMENT

IF A DIFFICULT LOCKING ACTION, CAUSED BY MISALIGNMENT OF THE SUNSHADE AND STRIKER SUPPORT ASSEMBLY IS ENCOUNTERED AT THE FRONT ROOF RAIL, PROCEED AS FOLLOWS:

1. Unlatch top and raise it above windshield header.
2. Loosen striker support attaching screws and adjust striker laterally as required; then tighten attaching screws. (Fig. 16-120)

IF, AFTER ADJUSTING THE STRIKER SUPPORT, THE LOCKING ACTION OF TOP IS STILL UNSATISFACTORY, OR IF A CLOSER FIT OF THE FRONT ROOF RAIL TO WINDSHIELD HEADER IS DESIRED, THE HOOK LEVER ON THE FRONT ROOF RAIL LOCK ASSEMBLY MAY BE ADJUSTED AS FOLLOWS:

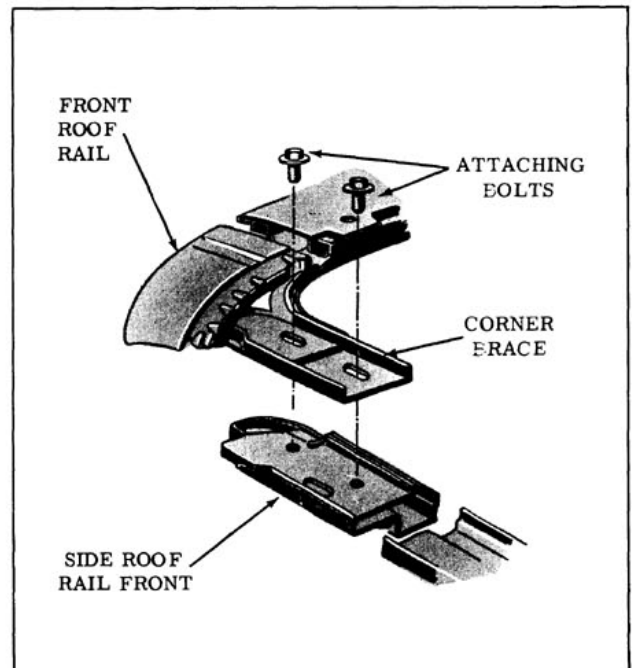


Fig. 16-119 Front Roof Rail Adjustment

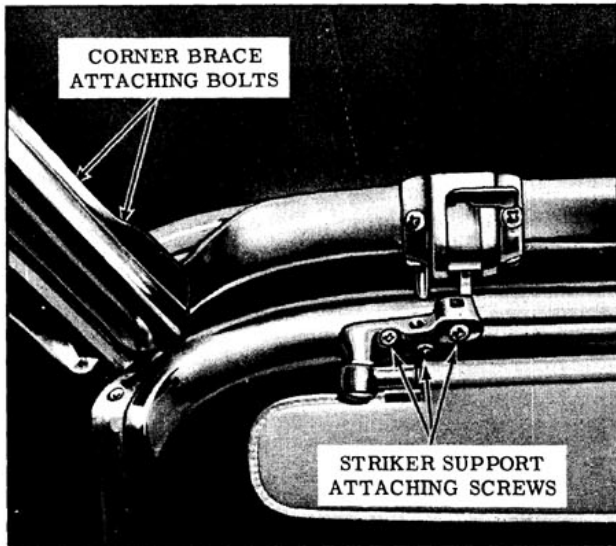


Fig. 16-120 Engaging Roof Header With Striker

1. To tighten locking action of top, turn hook lever clockwise.
2. To reduce locking effort of top, turn hook lever counterclockwise.

NOTE: Hook lever may be adjusted with finger pressure, no tools are required.

CONTROL LINK ADJUSTING PLATE ADJUSTMENT

WITH TOP IN UP POSITION, IF JOINT BETWEEN FRONT AND CENTER SIDE ROOF RAIL IS TOO HIGH OR TOO LOW, PROCEED AS FOLLOWS:

1. Remove folding top compartment side trim panel.

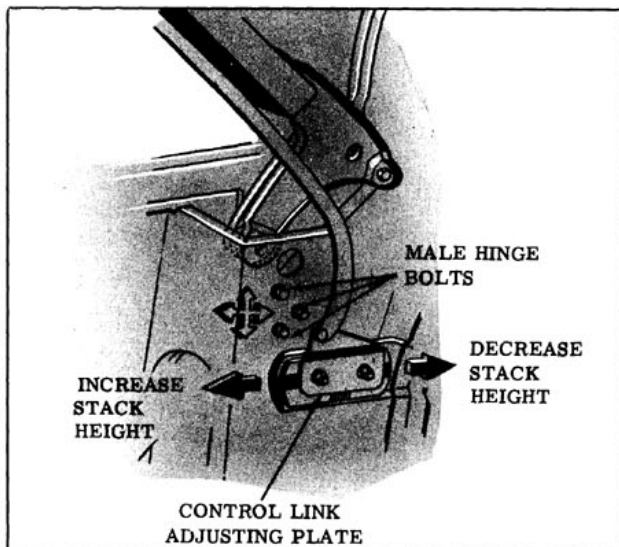


Fig. 16-121 Control Link Adjusting Plate

2. Mark location of control link adjusting plate on folding top compartment brace.
3. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate. (Fig. 16-121)
4. 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.

IF TOP ASSEMBLY DOES NOT STACK PROPERLY WHEN TOP IS IN DOWN POSITION, PROCEED AS FOLLOWS:

1. Mark location of control link adjusting plate on folding top compartment brace.
2. Loosen bolts securing control link adjusting plate sufficiently to permit adjustment of plate.
3. 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.

MALE HINGE SUPPORT ADJUSTMENT

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.

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:

1. Mark location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.
2. Loosen male hinge assembly attaching bolts. (Fig. 16-121)
3. 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: Entire male hinge assembly must be adjusted forward or rearward at a 90° angle to vertical line of male hinge attachment. (Use mark at washers as guide). DO NOT allow male hinge to rotate as rotation may cause damage to lift cylinder by allowing piston to bottom or rod to bend after top has been operated.

4. Lock front roof rail to windshield, (where required, adjust front roof rail), and check fit of top material at rear quarter trim stick area. If necessary, adjust trim stick; then tighten trim stick attaching bolts.
5. 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.

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, readjust male hinge assembly as required. Check top for proper operation.

IF SIDE ROOF RAIL IS TOO HIGH OR TOO LOW AT REAR QUARTER WINDOW AREA, PROCEED AS FOLLOWS:

1. Mark location of male hinge attaching bolt washers and control link on folding top compartment brace.

2. Loosen male hinge assembly attaching bolts. (Fig. 16-121)
3. 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.

IMPORTANT: Entire male hinge assembly must be adjusted straight upward or downward at 90° angle to horizontal line of male hinge attachment. (Use mark at washers as guide). DO NOT allow male hinge to rotate as rotation may cause damage to lift cylinder by allowing piston to bottom or rod to bend after top has been operated.

4. Tighten attaching bolts, while maintaining proper alignment of vertical scribe marks.
5. 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.
6. 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.

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, readjust male hinge assembly as required. Check top for proper operation.

FOLDING TOP DIAGNOSIS

CONDITION	APPARENT CAUSE	CORRECTION
A. Difficult locking action at front roof rail.	1. Sunshade support misaligned.	Adjust sunshade support laterally.
	2. Lock hook lever improperly adjusted.	Adjust lock hook lever counterclockwise.
	3. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	4. Front roof rail misaligned.	Adjust front roof rail.
B. Top does not lock tight enough to windshield header.	1. Sunshade support misaligned.	Adjust sunshade support laterally.
	2. Lock hook lever improperly adjusted.	Adjust lock hook lever clockwise.
	3. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	4. Front roof rail misaligned.	Adjust front roof rail.

FOLDING TOP DIAGNOSIS (Cont'd)

CONDITION	APPARENT CAUSE	CORRECTION
C. Top travels too far forward.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge assembly misaligned. 	<p>Adjust front roof rail rearward. (Fig. 16-119)</p> <p>Adjust male hinge assembly rearward. (Fig. 16-121)</p>
D. Top does not travel forward far enough.	<ol style="list-style-type: none"> 1. Front roof rail misaligned. 2. Male hinge assembly misaligned. 3. Improper spacing between rear trim stick and body metal. 	<p>Adjust front roof rail forward. (Fig. 16-119)</p> <p>Adjust male hinge assembly forward. (Fig. 16-121)</p> <p>Install an additional spacer between rear trim stick and body metal at each attaching bolt location.</p>
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge assembly rearward. (Fig. 16-121)
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge assembly forward (Fig. 16-121) 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.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge upward. (Fig. 16-121)
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	<ol style="list-style-type: none"> 1. Male hinge misaligned. 	Adjust male hinge downward and/or shim side roof rail weatherstrip downward as required.
I. Sag at front to center side roof rail 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 downward. (Fig. 16-121)</p> <p>Adjust screw counterclockwise. (Fig. 16-123)</p>
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. 16-121)</p> <p>Adjust screw clockwise. (Fig. 16-123)</p>
K. Folding top dust boot is difficult to install.	<ol style="list-style-type: none"> 1. Improper stack height due to misaligned control link adjusting plate. 	Adjust control link plate rearward or forward as required. (Fig. 16-121)

FOLDING TOP DIAGNOSIS (Cont'd)

CONDITION	APPARENT CAUSE	CORRECTION
K. Folding top dust boot is difficult to install. (Cont'd.)	<ol style="list-style-type: none"> 2. Misaligned folding top dust boot female fastener. 3. Rear seat back assembly is too far forward. 4. Excessive build-up of padding in side roof rail stay pads. 	<p>Where possible, align female with male fastener.</p> <p>Relocate rear seat back panel rearward until dimension "Z" between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is $19-1/2" \pm 1/16"$. The dimension is measured at approximate center line of body.</p> <p>Repair side stay pads as required.</p>
L. Folding top dust boot fits too loosely.	<ol style="list-style-type: none"> 1. Improper stack height due to misaligned control link adjusting plate. 2. Rear seat back assembly is too far rearward. 	<p>Adjust control link plate forward. (Fig. 16-121)</p> <p>Relocate rear seat back panel forward until dimension "Z" between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is $19-1/2" \pm 1/16"$. 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"> 1. Front roof bow improperly shimmed. 2. Excessive width in top material. 	<p>*Install one or two $1/8"$ shims between front roof bow and slat iron. (Fig. 16-123)</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. 2. Front roof bow felt silencer too high. 	<p>*Remove one or two $1/8"$ shims from between front roof bow and slat iron. (Fig. 16-123)</p> <p>Trim silencer to within $1/8"$ of top of front roof bow. (Fig. 16-123)</p>
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 waterleak along front roof rail.	<ol style="list-style-type: none"> 1. Top does not lock tight enough to windshield header. 	<p>Adjust sunshade support laterally and/or adjust lock hook lever clockwise.</p>

FOLDING TOP DIAGNOSIS (Cont'd)

CONDITION	APPARENT CAUSE	CORRECTION
P. Wind whistle or waterleak along front roof rail. (Cont'd.)	2. Misaligned front roof rail front weatherstrip. 3. 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.
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required, use attaching screw Part No. 4824789 (1/4-28x5/8" No. 12 oval head with external tooth lockwasher, type "T" thread cutting, chrome finish).

When one shim is required, use attaching screw Part No. 4837811 (1/4-28x3/4" No. 12 oval head with external tooth lockwasher, type "T" thread cutting, chrome finish).

When two shims are required, use attaching screw Part No. 4824257 (1/4-28x7/8" No. 12 oval head with external tooth lockwasher type "T" thread cutting, chrome finish).

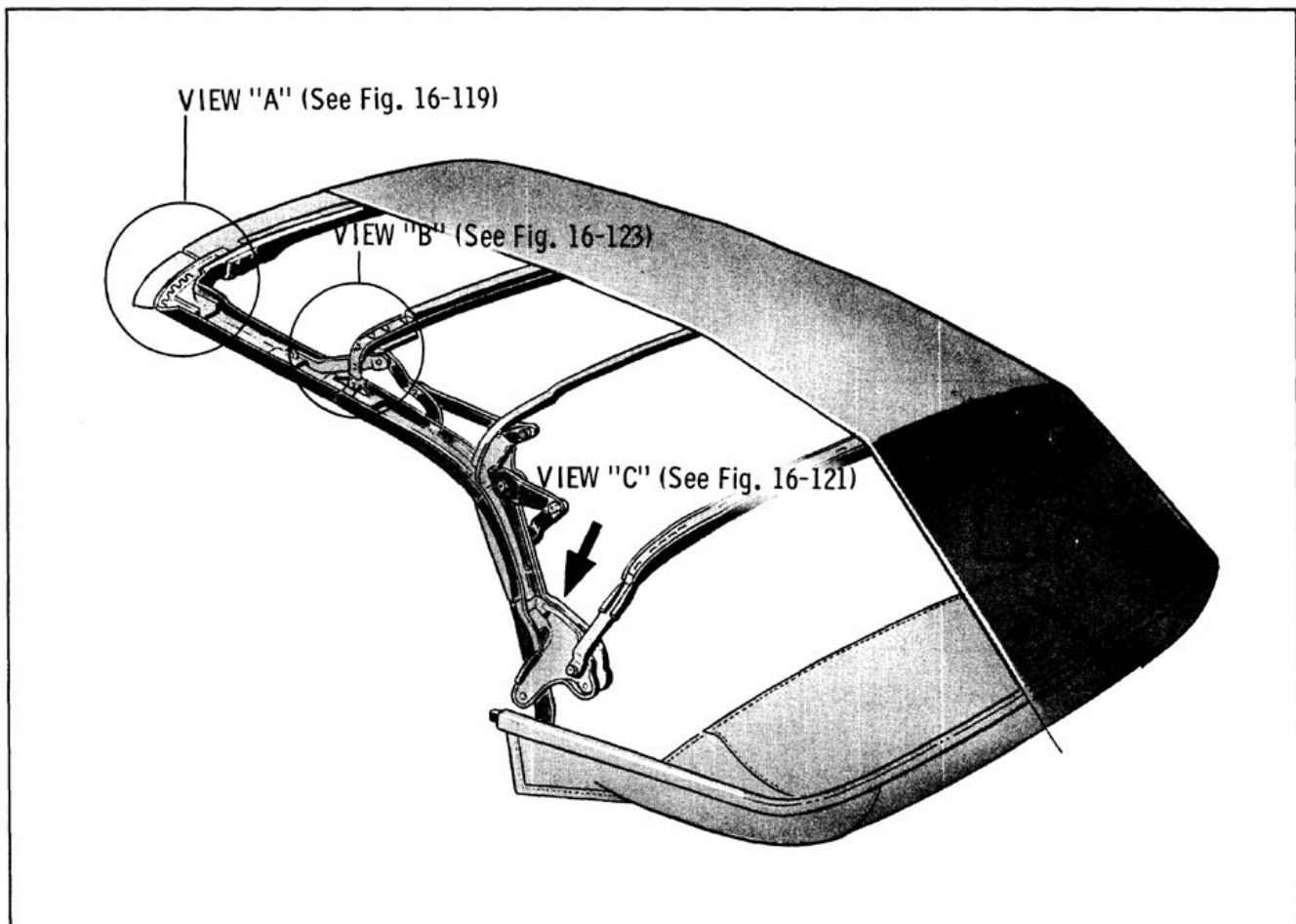


Fig. 16-122 Folding Top Adjustment

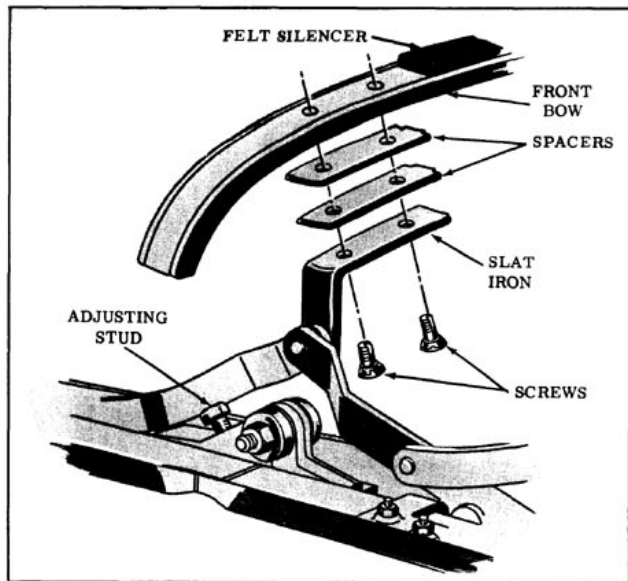


Fig. 16-123 Front Roof Bow Adjustment

FOLDING TOP TRIM ASSEMBLY COMPLETE

Convertible top trim cover assemblies incorporate a 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.

REMOVAL OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

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

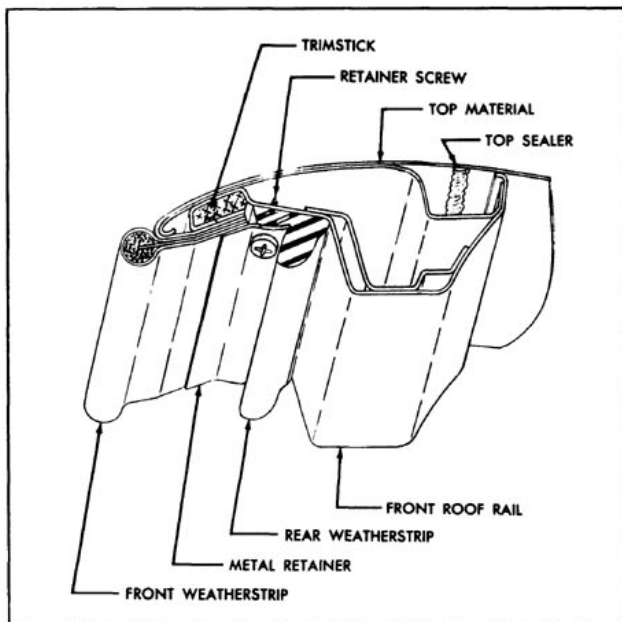


Fig. 16-124 Front Roof Rail Construction

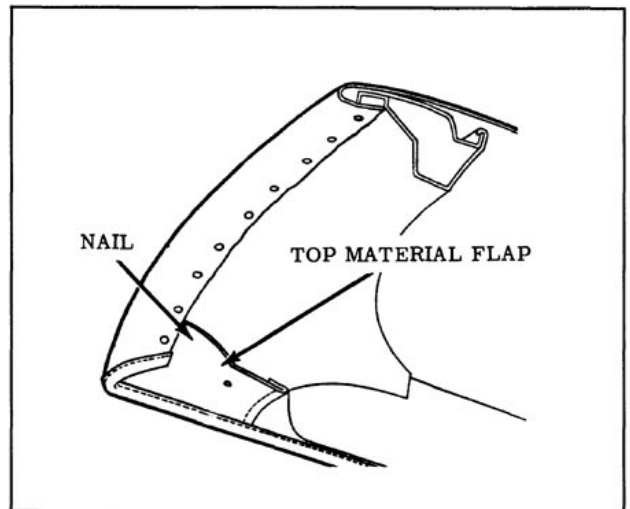


Fig. 16-125 Top Material Attachment at Roof Rail

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. At the front of body, raise front roof rail, remove retainers and front weatherstrips, detach top material from front roof rail. (Fig. 16-124)
4. Loosen front end of each side roof rail front weatherstrip sufficiently to detach top material flaps which are nailed and cemented to rails. (Fig. 16-125)
5. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (Views "A" and "B", Fig. 16-126)
6. At each side roof rear rail, pull hold-down cable forward until cable is completely removed from top material retaining pocket.
7. 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. 16-127)
8. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel. (Fig. 16-128)
9. Remove rear trim stick attaching bolts; then

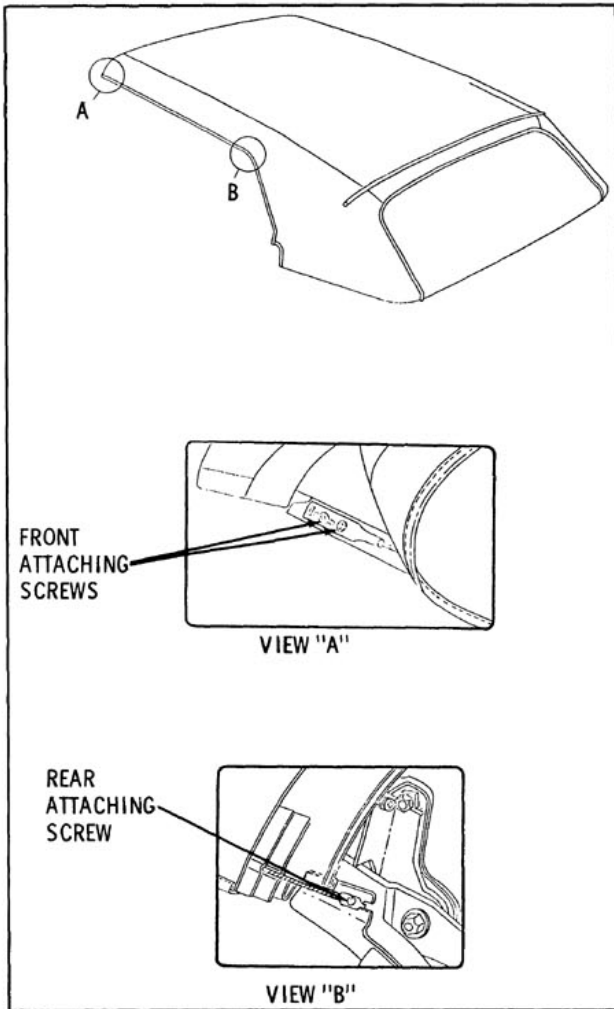


Fig. 16-126 Hold-Down Cable Attachment lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

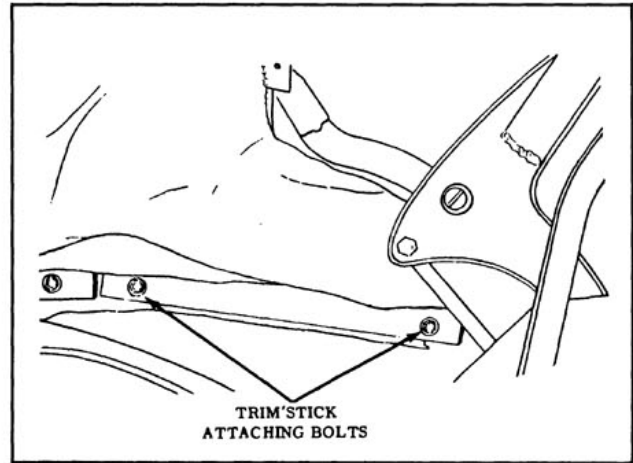


Fig. 16-128 Rear Quarter Trim Stick

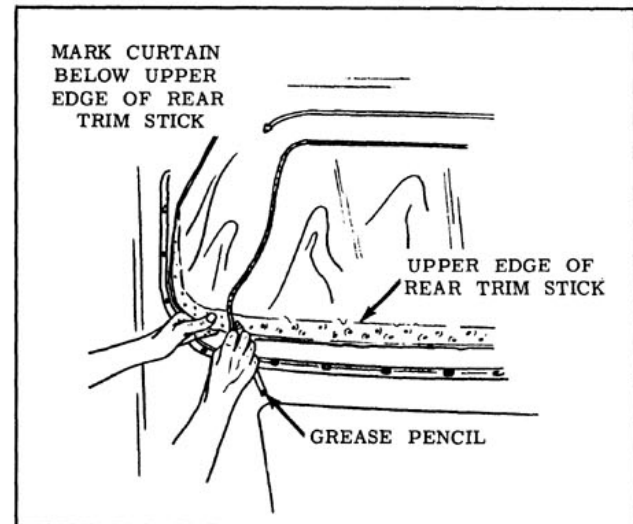


Fig. 16-129 Locating Edge of Top Material

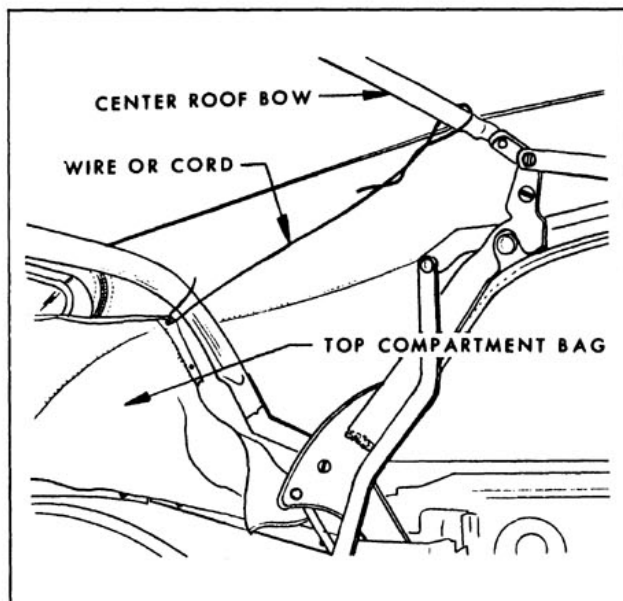


Fig. 16-127 Top Compartment Bag Held in Position

10. 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 vinyl at both locations with a grease pencil. (Fig. 16-129) 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.

11. 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.

12. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. (Fig. 16-130) Reference marks

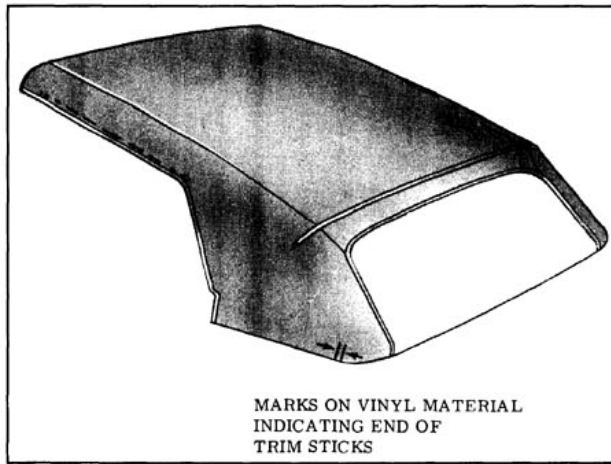


Fig. 16-130 Marking Top Material

for trim sticks should be transferred to new top material when Step 30 of installation procedure is performed.

13. 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.
14. 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. (Fig. 16-131) Spacer sticks should be installed along inboard edge of side stay pad.

NOTE: The approximate dimension for location of spacer sticks, measuring outboard from centerline dimple of rear roof bow, is 21".

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.

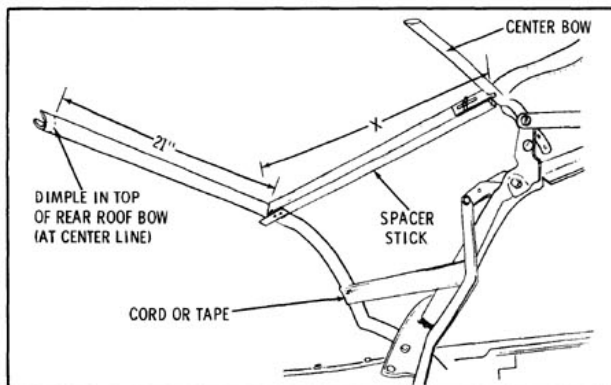


Fig. 16-131 Installation of Spacer Sticks

15. Spacer stick may be fabricated as shown in Fig. 16-132.
16. Temporarily tie or tape rear bow to rear side roof rails. (Fig. 16-131) Detach nylon webbing, side stay pads and back curtain assembly from rear bow.
17. Remove rear trim stick with attached back curtain assembly and top compartment bag from body and place on clean protected surface.
18. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material. (Fig. 16-133) Reference marks for trim sticks should be transferred to new back curtain material when Step 6 of installation procedure is performed.
19. Remove right and left nylon webbing from rear trim stick. (Fig. 16-133)
20. Remove back curtain assembly from rear and rear quarter trim sticks.
21. Remove side stay pads. Stay pads are attached to front roof rail and front and rear bows with tacks, to center bow, and side roof front rail with screws.

INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. If new top is being installed but it was impossible to perform Step 14 of removal procedure, preset spacer sticks to shortest length and install between center and rear roof bow. (Fig. 16-131) Adjust sticks so that dimension "X" in Fig. 16-131 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is $16\text{-}3/8" \pm 1/4"$.

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 rail. Make sure inboard edge of pad is properly aligned within depressions in bow and rail. Stay tack pad to front bow. Inboard edge of pad should be located within $1/4"$ of outboard edge of front bow felt silencer. Install pad to center bow with screws. Make sure inboard edge of pad is properly aligned within depression in bow. Install stay pad wadding using trim cement. (Fig. 16-134)

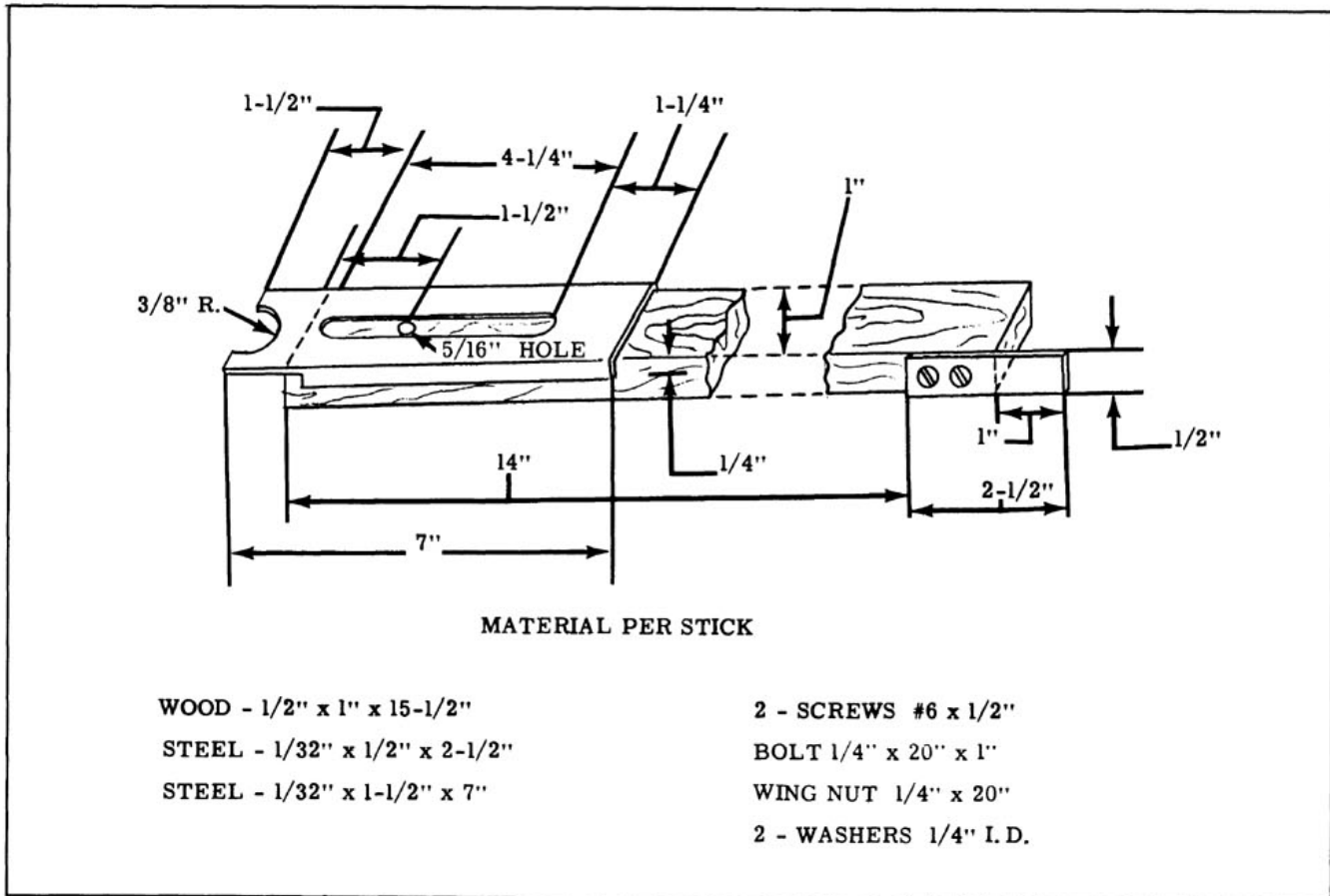


Fig. 16-132 Spacer Stick Dimensions

3. Trim selvage end of side stay pads just forward of rear rolled edge of rear roof bow. (Fig. 16-135)
4. Distance from center of center bow to rolled forward upper edge of rear roof bow should be $16-3/8" \pm 1/4"$.

Re-adjust spacer sticks and side roof rail pads as required.

5. Place new back curtain window assembly on clean covered work bench with interior (vinyl) surface of back window facing down.
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 10 and 18 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 vinyl, 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 compartment bag.

NOTE: Notch in back curtain vinyl at lower edge indicates centerline of back curtain assembly. (Fig. 16-136) In addition, back curtain lower edge should extend 1/2" below lower edge of trim sticks.

8. Tack curtain to rear and rear quarter trim sticks. On right side, tack zipper tape to forward edge of rear quarter trim stick. ("A", in direction of arrow, Fig. 16-136)

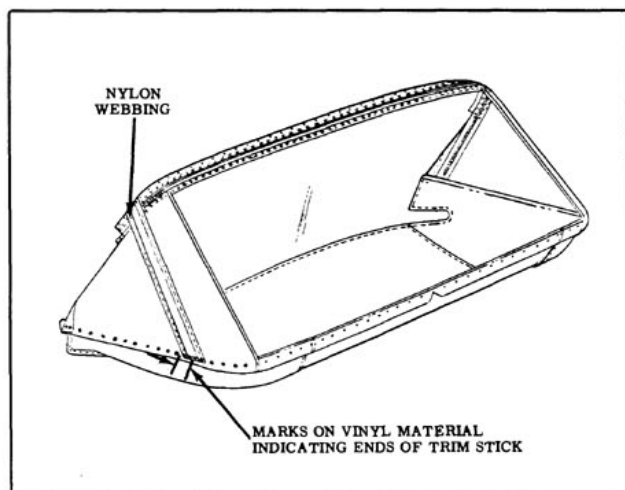


Fig. 16-133 Marking Back Curtain

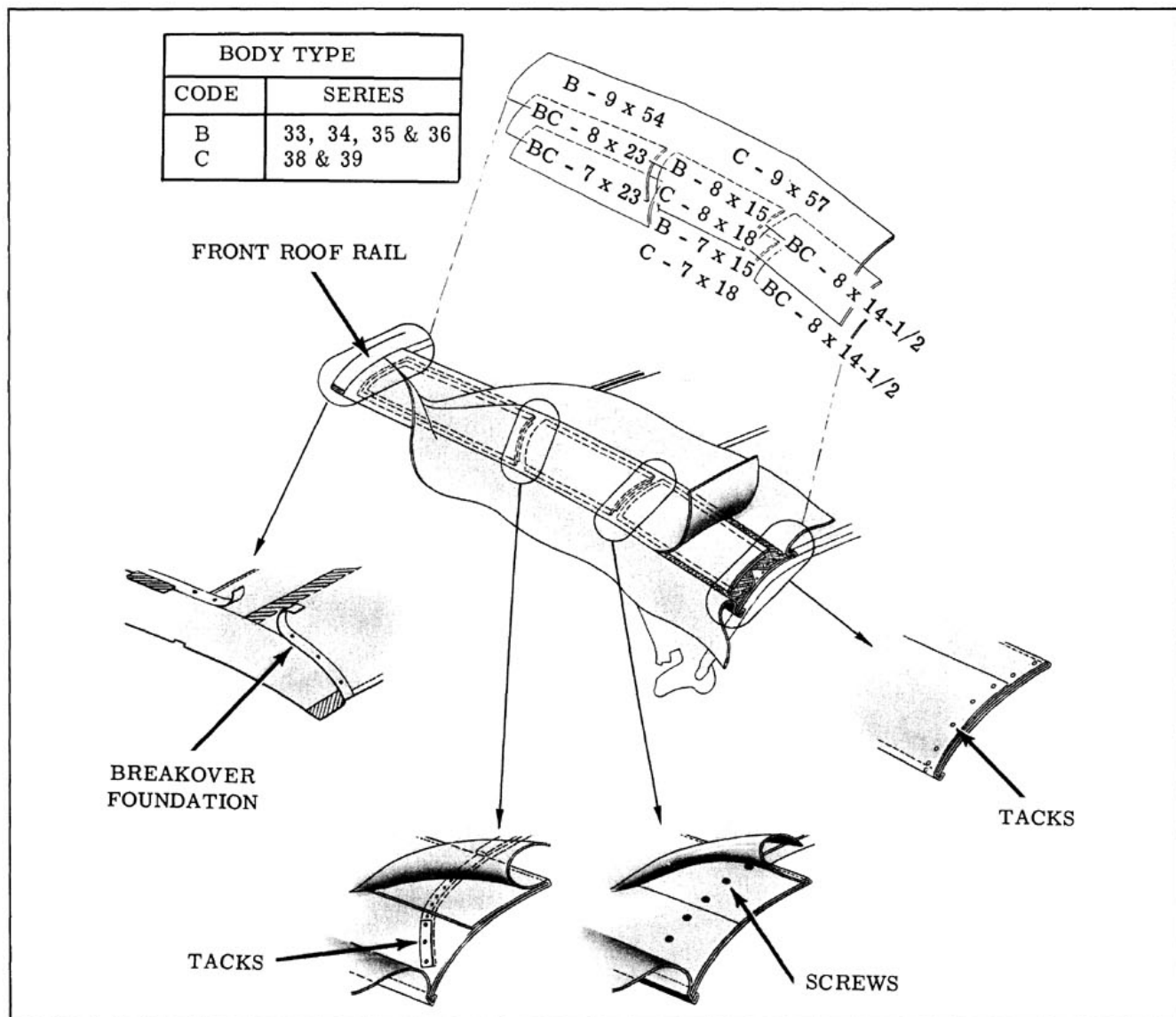


Fig. 16-134 Tacking Stay Pads

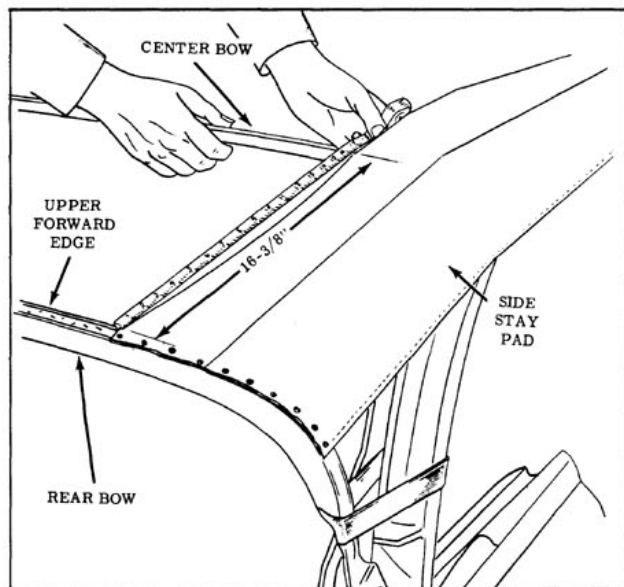


Fig. 16-135 Position of Rear Bow

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

9. Tack remainder of back curtain material to rear quarter trim stick, turning forward edge of material rearward to form a water barrier. (Fig. 16-136)
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. Tack nylon webbing to rear trim stick. Forward edge of webbing should be even with edge of rear trim stick. New webbing may be cut from a piece of non-staining type webbing 2" x 19". Excess webbing should be

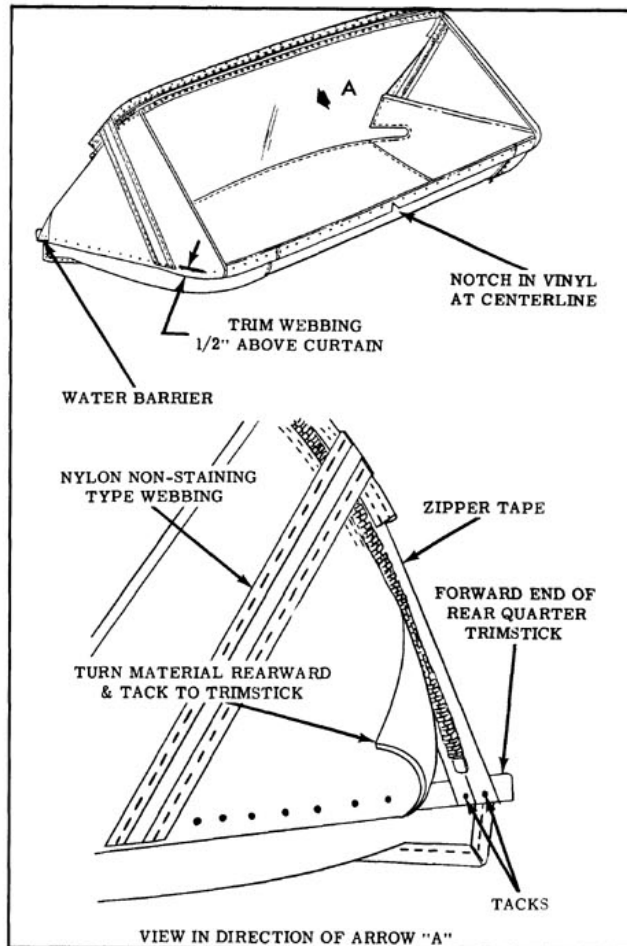


Fig. 16-136 Back Curtain Installation
trimmed off at rear trim stick, 1/2" above back curtain lower edge. (Fig. 16-136)

NOTE: Webbing used in build-up of side roof rail stay pads is recommended for the above operation.

12. Inspect rubber trim stick fillers cemented to body below pinchweld. Re-cement; if necessary. (Fig. 16-137)

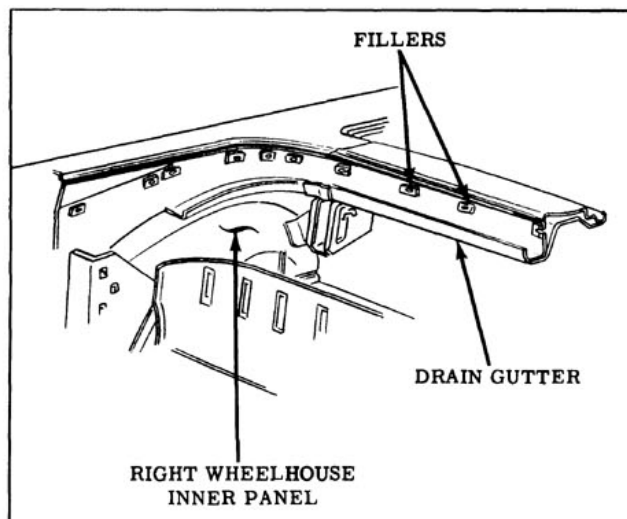


Fig. 16-137 Checking Trim Stick Fillers

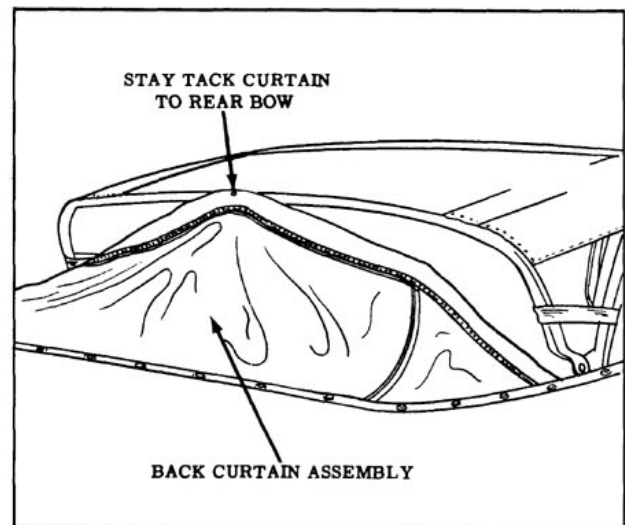


Fig. 16-138 Tacking Curtain at Rear Bow

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. Secure back curtain assembly with one tack to rear bow to prevent damage to plastic sheet. (Fig. 16-138)
15. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain assembly. Fold excess back curtain upper valance material rearward and tack to rear bow. (Fig. 16-139)

IMPORTANT: DO NOT CUT OFF EXCESS UPPER VALANCE MATERIAL AS MATERIAL MAY UNRAVEL.

16. Check contour of back curtain assembly at rear roof bow and at pinchweld molding.
17. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Readjust back curtain assembly as required. (Fig. 16-140)
18. Where required, adjust side stay pads; then tack side stay pads to front roof rail and front bow. Attach side stay pads to center bow with screws. Trim selvage end of side stay pads at front roof rail. Install stay pad covering material in conventional manner using an approved trim cement.

19. Tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

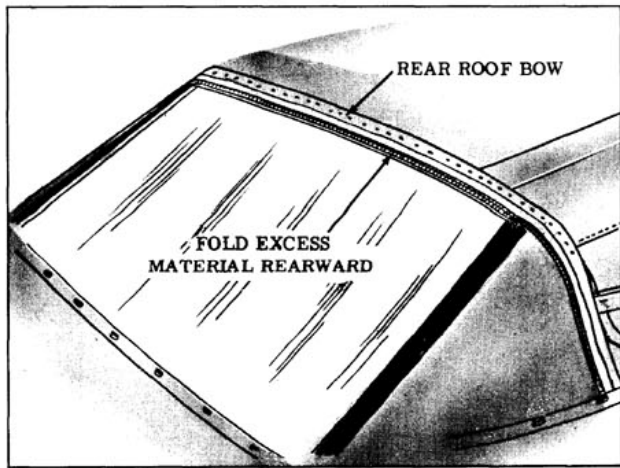


Fig. 16-139 Curtain Installation at Rear Bow

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

20. Detach rear trim stick with attached back curtain assembly from body.
21. Lay out new top material on clean protected surface with outer layer of material exposed.
22. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 4-1/4" from edge of top material upper valance binding. (Fig. 16-141)
23. Fold new top material in half so that inner lining of top material is exposed. (Fig. 16-142) Install a 6" piece of tape on inner surface at centerline fold of new top material. (Fig. 16-142) Using a pencil, mark the approximate centerline of new top material along entire length of tape.

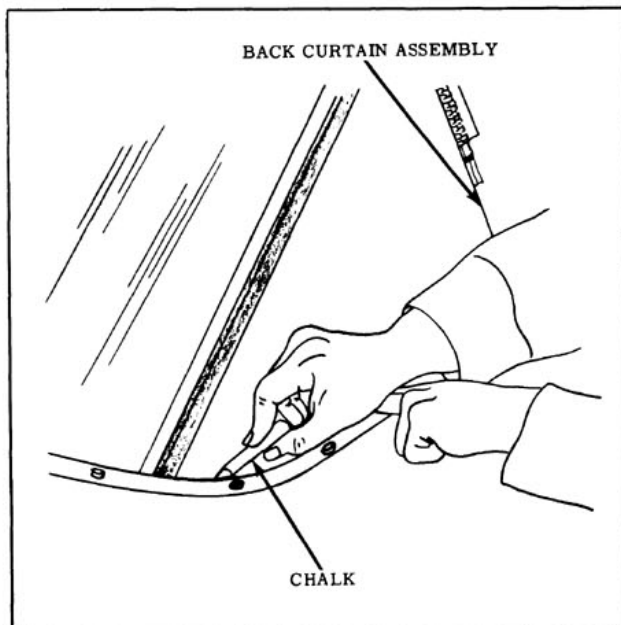


Fig. 16-140 Marking Back Curtain

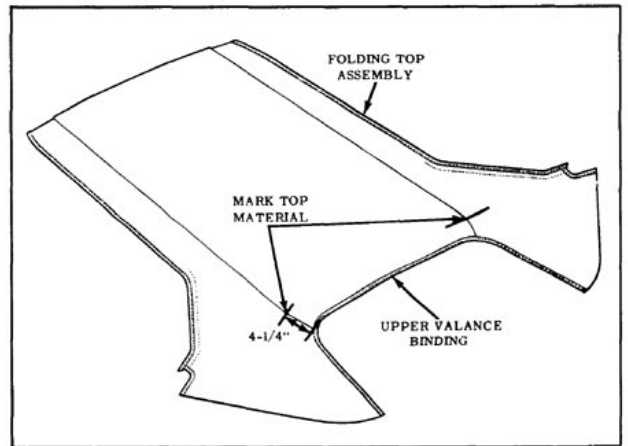


Fig. 16-141 Marking Top Material

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

24. Along forward surface of rear roof bow, install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape. (Fig. 16-143)
25. Remove rear bow spacer sticks and positioning tape or cord.
26. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly ($\pm 1/4"$) 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.

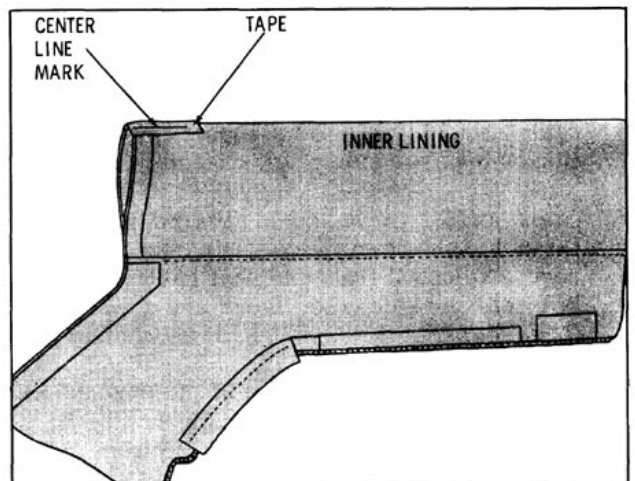


Fig. 16-142 Marking Top Material

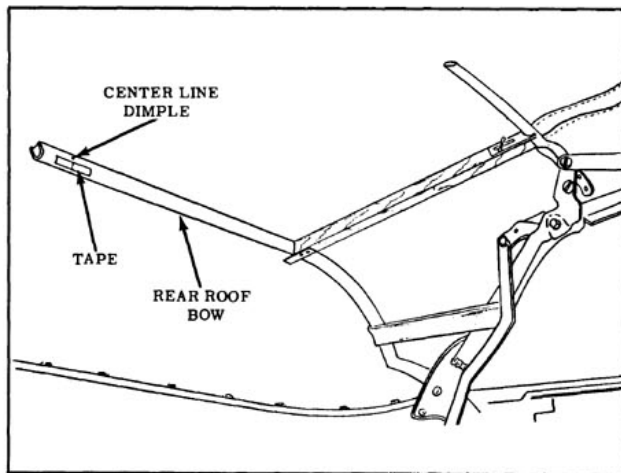


Fig. 16-143 Marking Rear Roof Bow

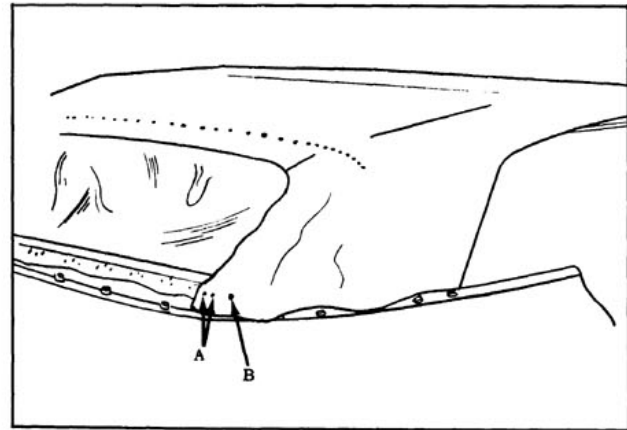


Fig. 16-144 Tacking Top Material

27. Remove top trim material.
28. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark edges of trim sticks on vinyl surface of new top material. (See Steps 11 and 12 of removal procedure).
29. Position top trim on framework and center assembly both fore and aft and side to side.
30. On right side of top material, at rear 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.

31. After cables have been filtered or pulled through hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails. (Fig. 16-126).
32. 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. 16-143)

33. Using neoprene-type weatherstrip adhesive, fasten rear quarters 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.

34. Cut or pierce flaps for side roof rail rear weatherstrip attaching bolts. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.
35. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Fig. 16-144 shows top material installed to rear trim stick at inboard edge.
36. Cut or punch hole in top material for each trim stick attaching bolt.
37. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in, to represent finished condition.
38. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.
39. 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.

40. 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.
41. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.
42. Recheck 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.
43. Where required, remove side roof rail rear weatherstrips. Readjust top material at side roof rails and reinstall weatherstrips.
44. 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. (Fig. 16-145). Tacks outboard of deck seams should be restricted to distance not to exceed 6", which is length wire-on binding extends past seam. (Fig. 16-145)

45. 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. 16-146)
46. Unlock top from windshield header and apply neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding

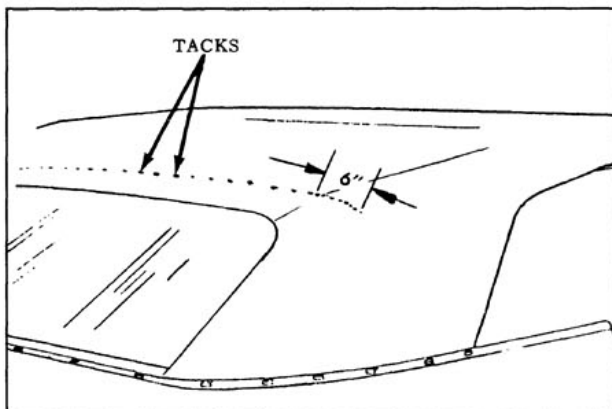


Fig. 16-145 Tacks Outboard of Seam

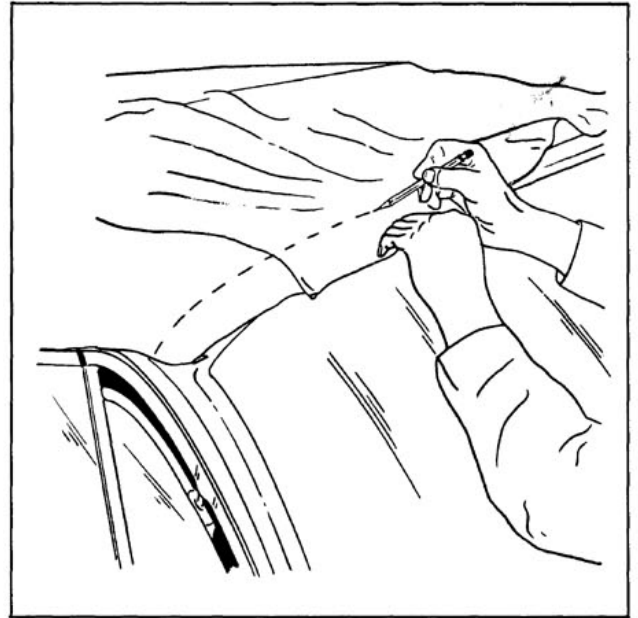


Fig. 16-146 Marking Top Material at Front Roof Rail

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. 16-147)

47. Apply neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails. (Fig. 16-125)
48. 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).
49. Complete tacking of top trim to front roof rail and trim off excess material.
50. Permanently tack top material to rear roof

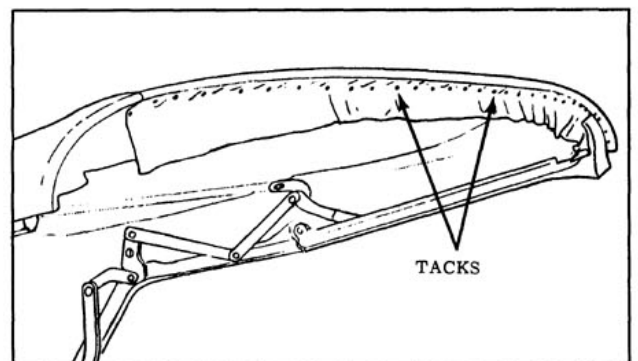


Fig. 16-147 Tacking Trim to Rail

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.

51. 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 curtain or pads.

FOLDING TOP TRIM (LESS BACK CURTAIN)

Removal

1. Remove folding top trim as described in Steps 1 through 9 of REMOVAL OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY.
2. 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 vinyl at both locations with a grease pencil. (Fig. 16-129)

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

3. 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.

4. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. (Fig. 16-130) Reference marks for trim sticks should be transferred to new top material when Step 8 of installation procedure is performed.
5. 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.

Installation

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 side stay pads as required.

2. Install new folding top trim as described in Steps 21 through 24 and 26 through 39 of INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY.
3. 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.
4. Complete installation of new folding top as described in Steps 41 through 51 of INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY.

BACK CURTAIN TRIM ASSEMBLY—COMPLETE

Removal

1. Perform Steps 1, 2, 7, 8, 9 and 10 as described in REMOVAL OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY.
2. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. (Fig. 16-130)
3. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow.
4. Detach folding top trim from rear roof bow and from rear and rear quarter trim sticks.
5. Carefully slide top trim forward exposing tacked edged of back curtain at rear roof bow.
6. Detach nylon webbing and back curtain from rear roof bow; then remove back curtain assembly with attached trim sticks and top compartment bag from body and place on a clean, protected surface.
7. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material. (Fig. 16-133) Reference marks for trim sticks should be transferred to new back curtain material when Step 6 of installation procedure is performed.
8. Remove right and left nylon webbing from rear trim stick (Fig. 16-133)
9. Remove back curtain assembly from rear and rear quarter trim sticks.

Installation

1. Install spacer sticks as described in Step 1

of INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY.

2. Seal and install back curtain assembly as described in Steps 5 through 17 of INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY.
3. Tack nylon webbing to rear roof bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

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

4. Detach rear trim stick with attached back curtain assembly from body and install top trim cover assembly.

NOTE: Extra care in positioning new curtain, at same location on trim stick as old curtain, and aligning of trim stick attaching bolt holes in top material, with holes in trim stick, will allow reinstallation of top material to its original position with a minimum of refitting.

5. Install all previously removed trim and hardware.

BACK CURTAIN ZIPPER REPLACEMENT

If only the back curtain zipper is being replaced, use the Removal and Installation procedure for "Back Curtain Trim Assembly (Complete)" and perform the following additional operations after the back curtain assembly has been removed from body (After Step 9 of removal procedure).

1. Using chalk or similar material, on old zipper tape mark location of zipper in relation to edges of back curtain vinyl and upper valance webbing.
2. Cut stitches securing zipper tape to back curtain assembly and to upper valance webbing.
3. Transfer reference marks to new zipper assembly.
4. Sew new zipper tape to back curtain vinyl and upper valance webbing.

NOTE: Zipper tape may be stapled to back curtain and upper valance webbing to aid in holding zipper in proper position during sewing operation.

5. Install back curtain assembly as described under Installation procedure for "Back Curtain Trim Assembly (Complete)".

BACK CURTAIN VINYL

Removal

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 folding top compartment side trim panel assemblies and side roof rail rear weatherstrips; then detach folding top quarter flaps from side roof rear rails.
4. Detach top compartment bag from seat back panel and remove all trim stick attaching bolts.
5. To establish the relationship of right and left inner vertical edge, of old top material, to back curtain assembly, at rear trim stick location, mark back curtain vinyl at both locations with a grease pencil. (Fig. 16-129) Reference marks should be transferred to new back curtain when Step 4 of installation procedure is performed.
6. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. Reference marks should be used as a guide when installing top material to trim sticks after new back curtain has been installed.
7. Remove folding top material from rear and rear quarter trim sticks; then carefully slide top trim forward sufficiently to expose back curtain zipper.
8. Detach zipper tape from rear quarter trim stick.
9. Using a pair of wire cutting shears, cut zipper stop along dotted line and remove both halves of stop from zipper. (Fig. 16-148)
10. Operate slide fastener off of zipper assembly.
11. Detach nylon webbing from rear trim stick.
12. Remove rear and rear quarter trim sticks with attached back curtain and compartment bag material from body and place on a clean protected surface.
13. Using chalk, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material. (Fig. 16-133) Reference marks for trim sticks should be transferred to new back curtain material when Step 4 of installation procedure is performed.

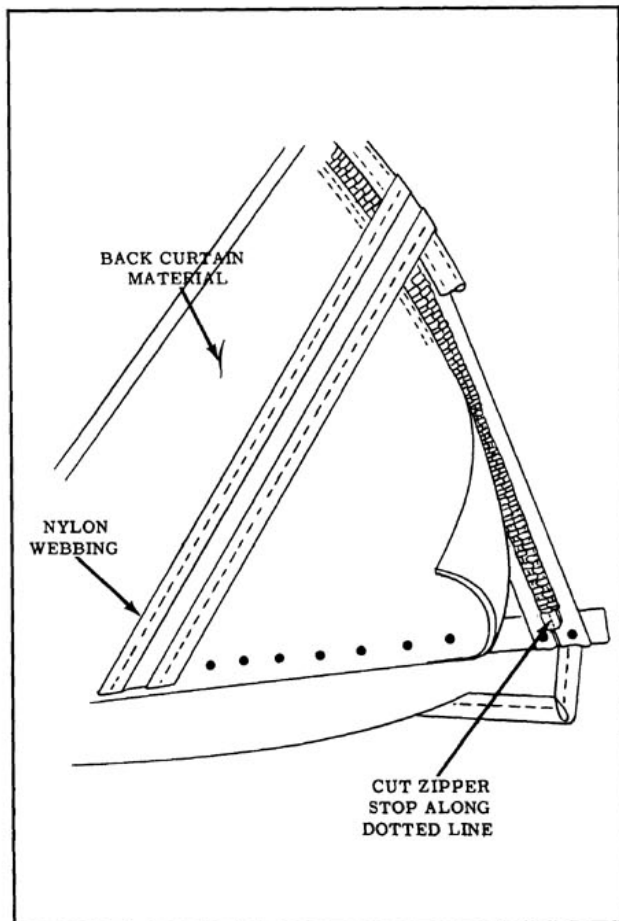


Fig. 16-148 Back Curtain Vinyl Replacement

14. Using chalk, mark zipper tape at upper edge of vinyl. (Fig. 16-149)
15. Remove back curtain assembly from rear and rear quarter trim sticks.
16. As a bench operation, cut stitches securing half of zipper assembly to back curtain vinyl.

NOTE: Back curtain vinyl and extensions (less zipper) are available as a service part.

Installation

1. Using chalk mark as guide, locate rear half of zipper to new back curtain vinyl. Zipper tape may be stapled to new back curtain to aid in holding zipper in proper position during sewing operation.
2. Sew zipper to new back curtain assembly.
3. Place back curtain window assembly on clean covered work bench with exterior (vinyl) surface of back window valance facing down. (Large pliable back window must be handled carefully to avoid possible damage due to scratches, abrasions, etc.).
4. Transfer marks on old back curtain to new back curtain assembly. See Steps 5 and 13 of removal procedure.

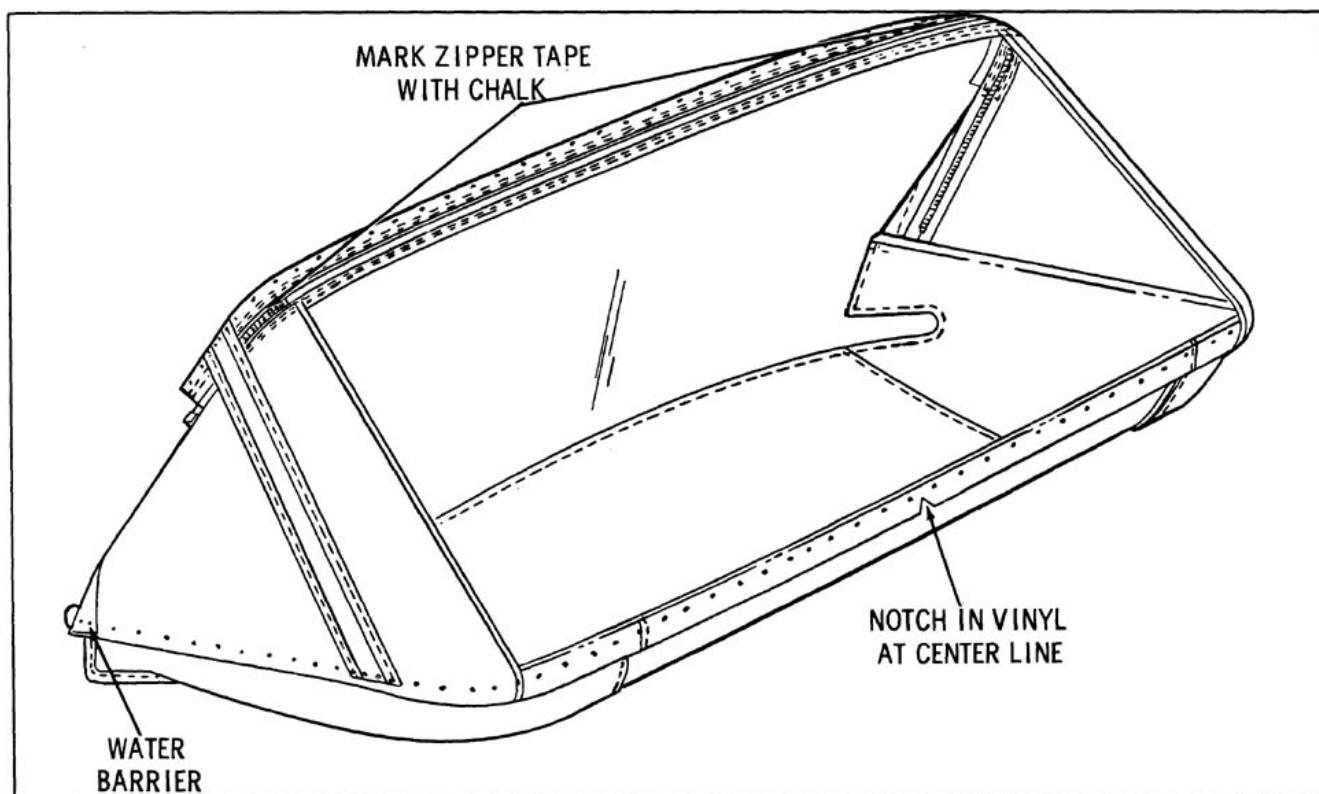


Fig. 16-149 Marking Zipper Tape

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

NOTE: Notch in back curtain vinyl at lower edge indicates centerline of back curtain assembly. (Fig. 16-149). In addition, back curtain lower edge should extend 1/2" below lower edge of trim sticks.

6. Tack curtain to rear and rear quarter trim sticks. Turn forward edge of material rearward to form a water barrier. (Fig. 16-149)
7. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim stick; then pierce or punch curtain assembly for each trim stick bolt.
8. Tack nylon webbing to rear trim stick. (Fig. 16-148)
9. Inspect rubber trim stick fillers cemented to body below pinchweld. Re-cement if necessary.
10. Install slide fastener onto zipper assembly.
11. Staple both sections of zipper tape together. Staples will aid in preventing zipper scoops from disengaging and also serve as a stop for the slide fastener. (Fig. 16-150)
12. Operate slide fastener to closed position.
13. Tack zipper tape to rear quarter trim stick. (Fig. 16-150) Zipper tape should not be pulled taut as zipper teeth may show through top material after top has been properly installed.

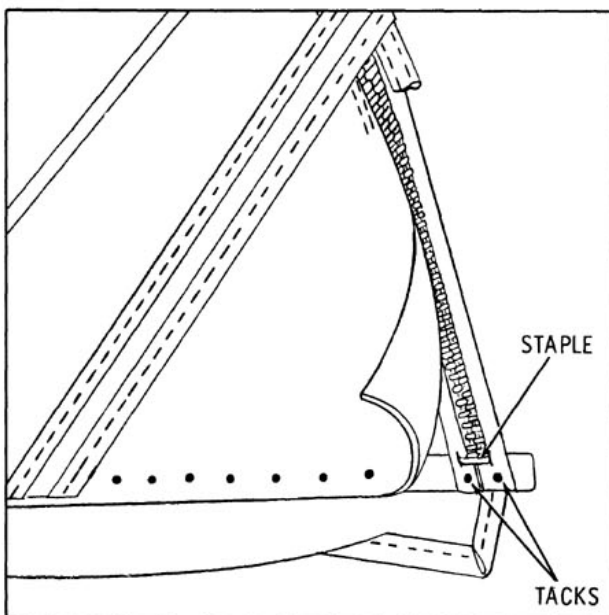


Fig. 16-150 Sealing Rear Quarter Trim Stick

14. Install trim sticks with attached back curtain assembly into body.

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

15. Check contour of back curtain assembly at pinchweld molding. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly by retacking curtain to rear or rear quarter trim sticks as required.
16. Detach rear trim stick with attached back curtain assembly from body.
17. Carefully replace top in position in rear quarter area.
18. Using neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rear rails. Make sure that rear quarter flap seam is even with forward edge of side roof rear rail. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.
19. Using previously marked lines (end of trim sticks) and bolt hole locations in top material as a locating reference, tack top material to rear and rear quarter trim sticks.
20. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.
21. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.
22. Where required, re-mark top material; then make necessary adjustments to top material by repositioning rear quarter trim sticks or by retacking top material to rear or rear quarter trim sticks.
23. After desired fit of top material has been obtained, install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.
24. Where required, remove side roof rail rear weatherstrips. Readjust top material at side roof rails and reinstall weatherstrips.
25. When completed, folding top and back curtain assembly should be free from all wrinkles and draws. Install all previously removed trim and hardware and clean any soilage from top material or back curtain assembly.

HYDRO-LECTRIC SYSTEM

The high pressure hydro-lectric unit consists of a 12 volt reversible type motor, a rotor-type pump, two hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. The unit is installed in the body directly behind rear seat back. (Fig. 16-151)

Fig. 16-152 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. Place protective covering over rear seat cushion and back.
4. Working inside body, detach front edge of folding top compartment bag from rear seat back panel.
5. Working on inside of body over rear seat back, remove pump and motor shield.

6. Remove clips securing wire harness and hydraulic hose to rear seat back panel. (View "A" and "B", Fig. 16-151)
7. Disconnect motor leads from wire harness and ground attaching screw. (View "C" Fig. 16-151)
8. To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan. (View "D", Fig. 16-151)
9. Place absorbent rags below hose connections and end of reservoir.
10. With a straight-bladed screwdriver, vent reservoir by removing filler plug; then reinstall plug. (View "E", Fig. 16-151)

NOTE: Venting reservoir is necessary to equalize air pressure in reservoir to that of the atmosphere. This operation prevents the possibility of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.

11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid. (View "F", Fig. 16-151). Use a cloth to absorb any leaking fluid, then remove unit from rear compartment.

Installation

1. If a replacement unit is being installed, fill

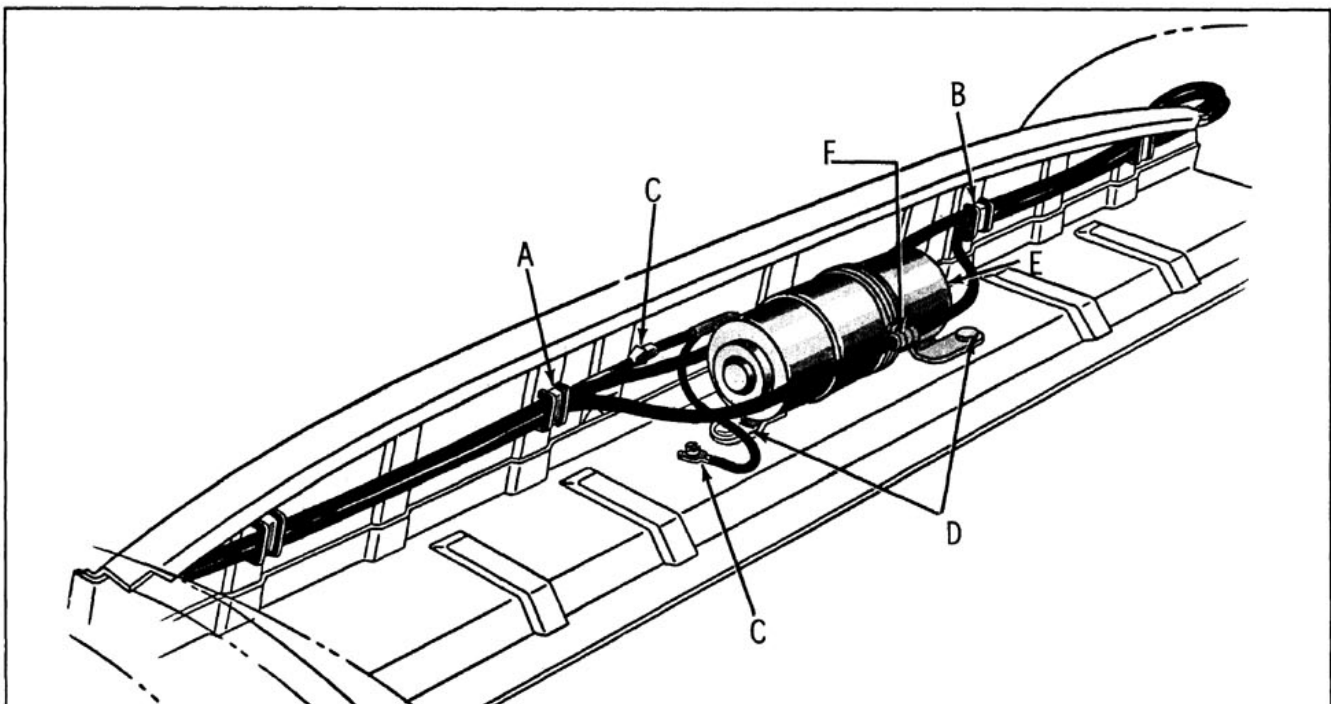


Fig. 16-151 Hydro-Lectric Motor and Pump Assembly

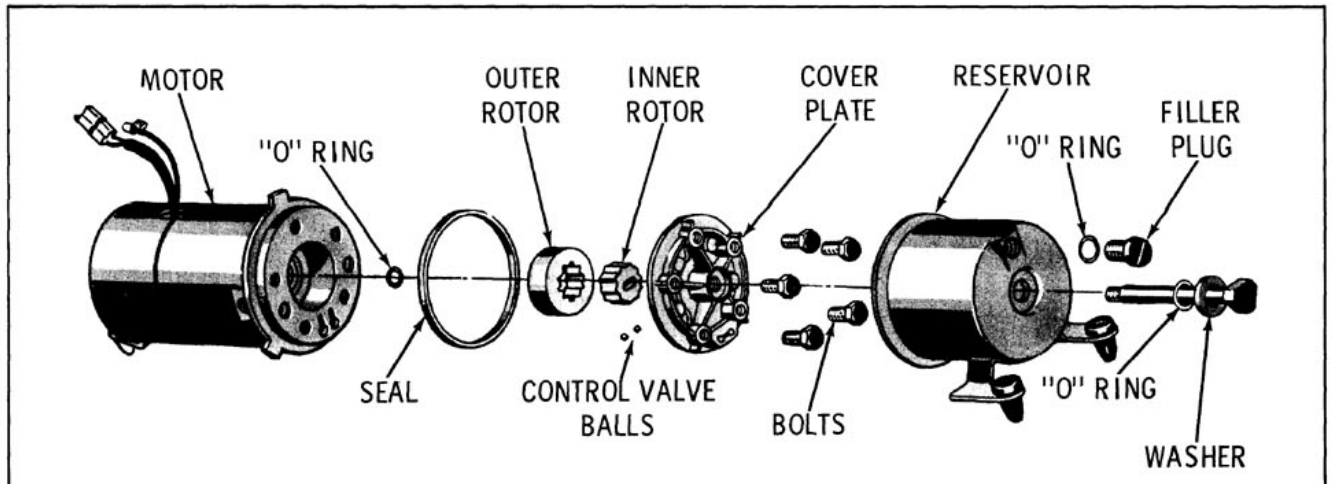


Fig. 16-152 Motor and Pump Disassembled

reservoir unit with Brake Fluid Super No. 11. 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 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. (Fig. 16-153)
3. With a straight-bladed screwdriver, remove reservoir filler plug. Note sealing ring around plug.
4. Drain fluid from reservoir into a clean container.
5. 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 assemble

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.
4. Make sure that sealing ring is on filler plug before installing filler plug.

OPERATION OF FOLDING TOP

When the control switch is actuated to the "up" position, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control switch knob is actuated to the "down" position, the feed wire is connected to the dark green motor lead and the motor and pump assembly operate in a reversed direction to force the hydraulic fluid through the hoses to the top of the cylinders. The fluid forces the piston rods in the cylinders downward, thus lowering the top. The fluid in the bottom of the cylinders returns to the pump for recirculation to the top of the cylinders.

PUMP ASSEMBLY

The motor 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:

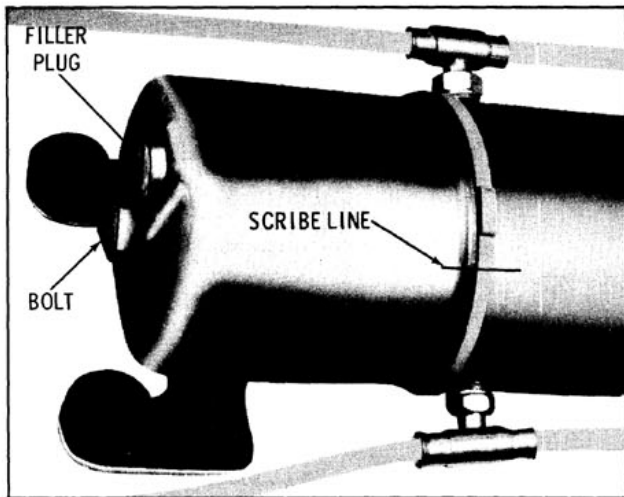


Fig. 16-153 Alignment Marks

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 Fig. 16-154. 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 Fig. 16-155. The action of the pump rotors forces the fluid under pressure to the top of each cylinder. This action causes the fluid below the piston in each cylinder to be forced into the pump which recirculates the fluid to the top of each cylinder. The surplus hydraulic fluid due to piston rod displacement flows into the reservoir.

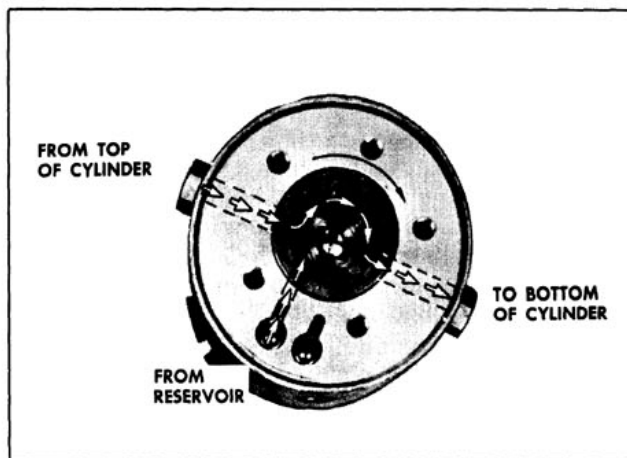


Fig. 16-154 Pump Operation to Raise Top

FLUID CONTROL VALVE

The fluid control valve consists of a rocker arm installed in the pump cover plate, and two steel balls. Fig. 16-156 shows the top surface of the pump coverplate. The dotted lines indicate the cavities on the bottom side of the coverplate. The cavities are designed to permit fluid flow between pump rotors and the reservoir.

Fig. 16-157 and Fig. 16-158 illustrates the operation of the fluid control valve.

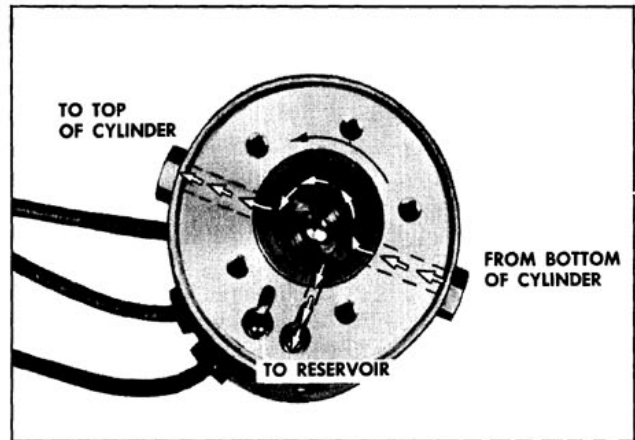


Fig. 16-155 Pump Operation to Lower Top

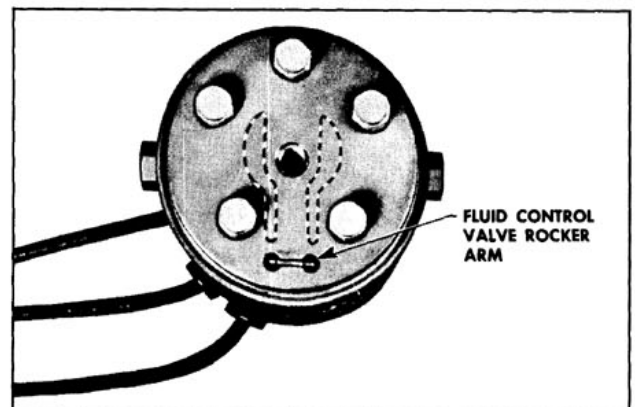


Fig. 16-156 Pump Cover Plate

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 a binding action. If a binding action is noted when the top is being locked at the header, check the alignment of the door windows, ventilators and rear quarter windows with relation to the side roof

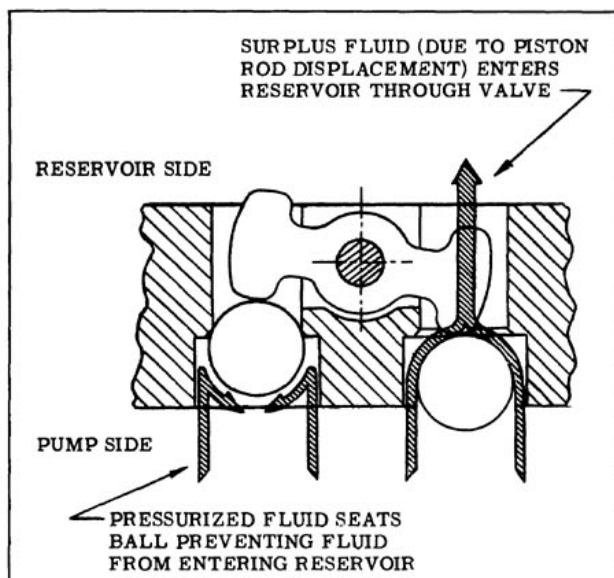


Fig. 16-157 Fluid Control Valve (Top Lowered)

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.

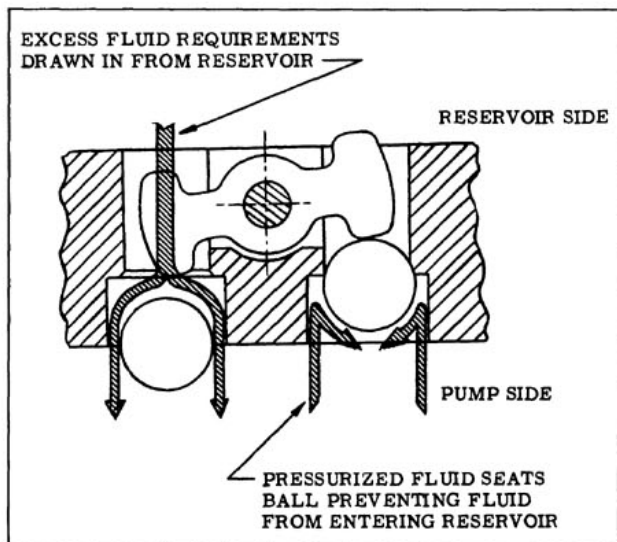


Fig. 16-158 Fluid Control Valve (Top Raised)

Before beginning checking procedures, check battery output.

Checking for Current at Folding Top Control Switch

1. Disengage terminal block from rear of switch.
2. Connect light tester to central feed terminal of switch terminal block.
3. Ground light tester ground lead to body metal.
4. If light tester does not light, there is an open or short circuit between power source and switch.

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:

1. Place a No. 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.
2. 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.

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: (Fig. 16-159)

1. Disconnect green switch-to-motor wire from motor lead in rear compartment.

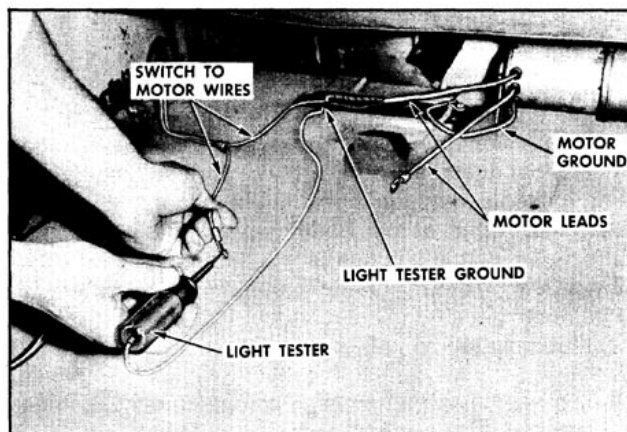


Fig. 16-159 Checking Motor Wiring

2. Connect a light tester to green switch-to-motor wire terminal.
3. Ground light tester ground lead to body metal.
4. Actuate switch to "down" position. If tester does not light, there is an open or short circuit in wire.
5. Disconnect red switch-to-motor wire from motor lead.
6. Connect light tester to red switch-to-motor wire terminal.
7. Actuate switch control knob to "up" position. If tester does not light, there is an open or short circuit in wire.

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:

1. Check connection of motor ground wire to body metal. (View "C" Fig. 16-151)
2. Connect 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.
3. Connect jumper wire to motor lead terminal that connects to red switch-to-motor wire. The motor should operate to raise top.
4. If motor fails to operate on either or both of these checks, it should be repaired or replaced.
5. 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.

Checking Hydraulic Fluid Level in Reservoir

1. Operate top to raised position.
2. At rear compartment, remove pump and motor shield, where present.
3. Place absorbent rags below reservoir at filler plug.

4. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within 1/4" of lower edge of filler plug hole.
5. If fluid is low, add Hydraulic Brake Fluid, Super No. 11, to bring to specified level. See FILLING OF HYDRO-ELECTRIC RESERVOIR.
6. Reinstall filler plug and pump and motor shield.

Checking Operation of Lift Cylinders

1. Remove rear seat cushion and folding top compartment side panel assemblies.
2. Operate folding top control switch and observe lift cylinders during "up" and "down" cycles for these conditions:
 - a. If movement of cylinder is not coordinated, or sluggish, when the motor is actuated, check hydraulic hoses from motor and pump to cylinder for kinks.
 - b. If one cylinder rod moves slower than the other, cylinder having slower moving rod is defective and should be replaced.
 - c. If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See CHECKING PRESSURE AT THE PUMP.

NOTE: To insure proper operation of the lift cylinders, the top lift cylinder rods should be cleaned and lubricated at least twice a year. To perform these operations, raise top to "up" position and wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation and/or accumulated grime. With another clean cloth, apply a light film of brake fluid to the piston rods to act as a lubricant.

CAUTION: Exercise care so that brake fluid does not come in contact with any painted or trimmed parts of the body.

Checking Pressure at Pump

1. Remove motor and pump assembly from rear compartment.
2. Install plug in one port, and pressure gauge in port to be checked. (Fig. 16-160)
3. 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.
4. Check pressure in other port.

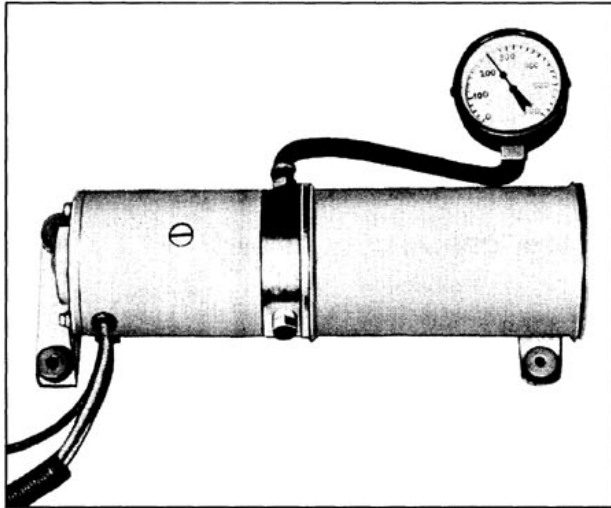


Fig. 16-160 Checking Pump Pressure

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.

5. If the pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

LIFT CYLINDER

Removal and Installation

1. Remove rear seat cushion and back.
2. Remove folding top compartment side trim panel assembly.
3. Lock top to windshield header.
4. Fully raise door and rear quarter window on side affected to provide support for side roof rail assembly.
5. Disconnect positive battery cable to prevent accidental operation of motor and pump assembly.
6. Remove attaching nut, bolt, bushing and washer from upper end of lift cylinder. (Fig. 16-161)
7. Remove side roof rear rail to male hinge attaching nut and bolt. (Fig. 16-161)
8. Mark location of male hinge attaching bolt washers on folding top compartment brace; then remove folding top male hinge attaching bolts (Fig. 16-161)

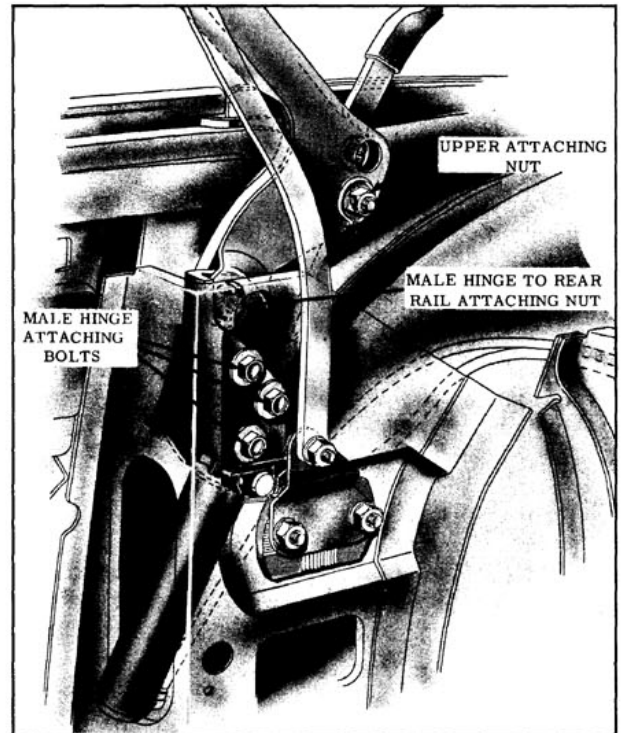


Fig. 16-161 Lift Cylinder Removal

9. Carefully pull male hinge with attached cylinder rearward until male hinge is disengaged from side roof rear rail; then move hinge and cylinder assembly to inboard side of top compartment brace.
10. Remove screws securing lift cylinder to male hinge; then remove hinge from cylinder.
11. Disconnect and cap hydraulic connections on cylinder on each hose; then remove cylinder.

CAUTION: Prior to disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid.
12. To install, reverse removal procedure with following exceptions:
 - a. To aid in installation of lift cylinder piston rod to folding top side roof rear rail, connect battery and use power to raise cylinder piston rod to extended position.
 - b. Operate folding top assembly down and up to insure proper linkage alignment of side rails. Where required, adjust male hinge assembly as described under FOLDING TOP ADJUSTMENTS.
 - c. Operate folding top assembly down and up several times, then check and correct level of hydraulic fluid in reservoir. See FILLING OF HYDRO-ELECTRIC RESERVOIR.

FILLING OF HYDRO-LECTRIC RESERVOIR

This procedure virtually eliminates discharge or spillage of hydraulic fluid and possible trim damage while filling and bleeding system.

Filler Plug Adapter

1. Drill 1/4" diameter hole through center of spare reservoir filler plug.
2. Install 2" length of metal tubing (1/4" OD x 3/16" ID) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection.

Filling and Bleeding of Reservoir

1. With top in raised position, remove folding top compartment bag material from rear seat back panel. Remove pump and motor shield.
2. Place absorbent rags below reservoir at filler plug. Using a straight-bladed screwdriver, slowly remove filler plug from reservoir.

IMPORTANT: When installing new or overhauled motor and pump assembly, as a bench operation, fill reservoir to specified level with hydraulic fluid. This operation is necessary as pump must be primed prior to operation to avoid drawing excessive amount of air into hydraulic system.

3. Install filler plug adapter to reservoir and attach 4' or 5' length of 3/16" ID rubber tubing or hose to filler plug tubing.
4. Install opposite end of hose into a container of hydraulic brake fluid Super No. 11.

NOTE: Container should be placed in rear compartment area of body, below level of fluid in the reservoir. In addition, sufficient fluid must be available in container to avoid drawing air into hydraulic system.

5. Operate top to down or stacked position. After top is fully lowered, continue to operate motor and pump assembly (approximately 15 to 20 seconds), or until noise level of pump is noticeably reduced. Reduction in pump noise level indicates that hydraulic system is filling with fluid.
6. Operate top several times or until operation of top is consistently smooth in both up and down cycles.
7. Remove hose from filler plug tubing and remove filler plug adapter from reservoir.
8. Check level of fluid in reservoir and re-install original filler hole plug.

NOTE: Fluid level should be within 1/4" of lower edge of filler plug hole.

POWER WINDOW AND VENTILATOR CIRCUITS

POWER OPERATED WINDOWS

Front Cross-Over Harness

This harness is installed beneath the instrument panel and completes the circuit from the right door to the left door windows. The front harness also includes the wiring for the front door windows. (Fig. 16-162, Fig. 16-163, Fig. 16-164) The multiple connector, located at the center of the front harness, is used only for manufacturing purposes and is not intended to be disengaged in service.

Rear Door or Rear Quarter Window Harness

A separate harness controls the operation of the right and left rear door or quarter windows. The right and left harnesses are connected to the front cross-over harness beneath the outer ends of the instrument panel. (Figs. 16-165, 166, 167, 168 and 169)

The 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 window motor connector is designed with a locking embossment to insure a positive connection. When disengaging the harness connector from the 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.

The rear quarter window motor and the ventilator motor are designed with a locking type connector which should not be disengaged. When testing or removing the motor, the inline connector located inboard of the inner panel should be disengaged. All tests are made at this location.

The power window electrical circuit is protected by a 40 amp. circuit breaker. The circuit breaker is located on the dash on the engine compartment shroud.

In addition to the circuit breaker, a relay is used in the circuit and installed at the left shroud. The relay prevents the operation of the power windows until the ignition switch is turned on.

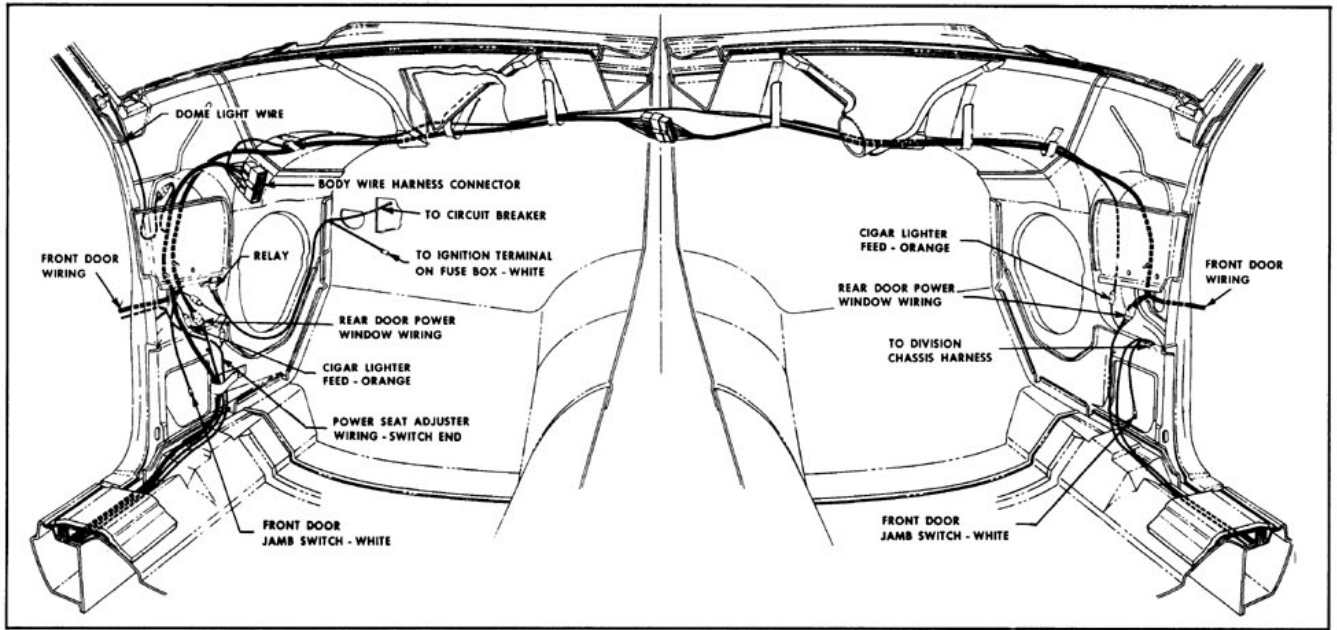


Fig. 16-162 Front Door Power Window Wiring

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 a 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 beneath the outer ends of the instrument panel for proper engagement.

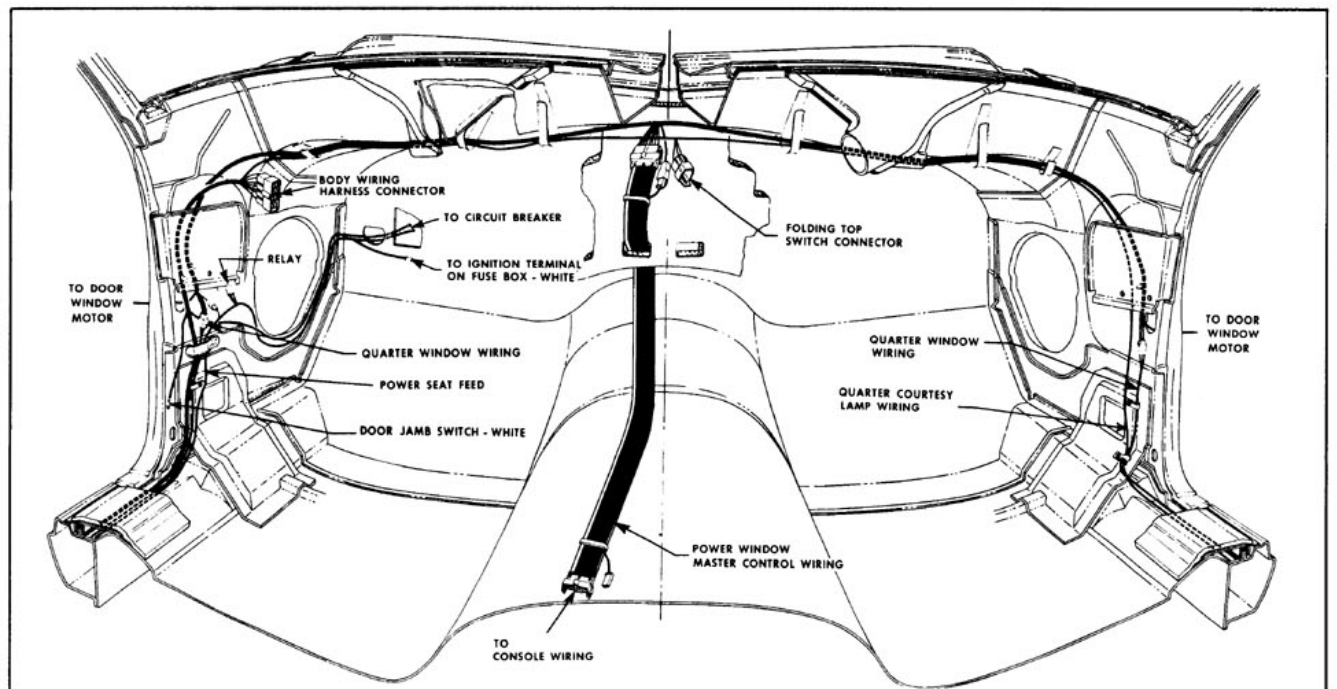


Fig. 16-163 Door Power Window Wiring

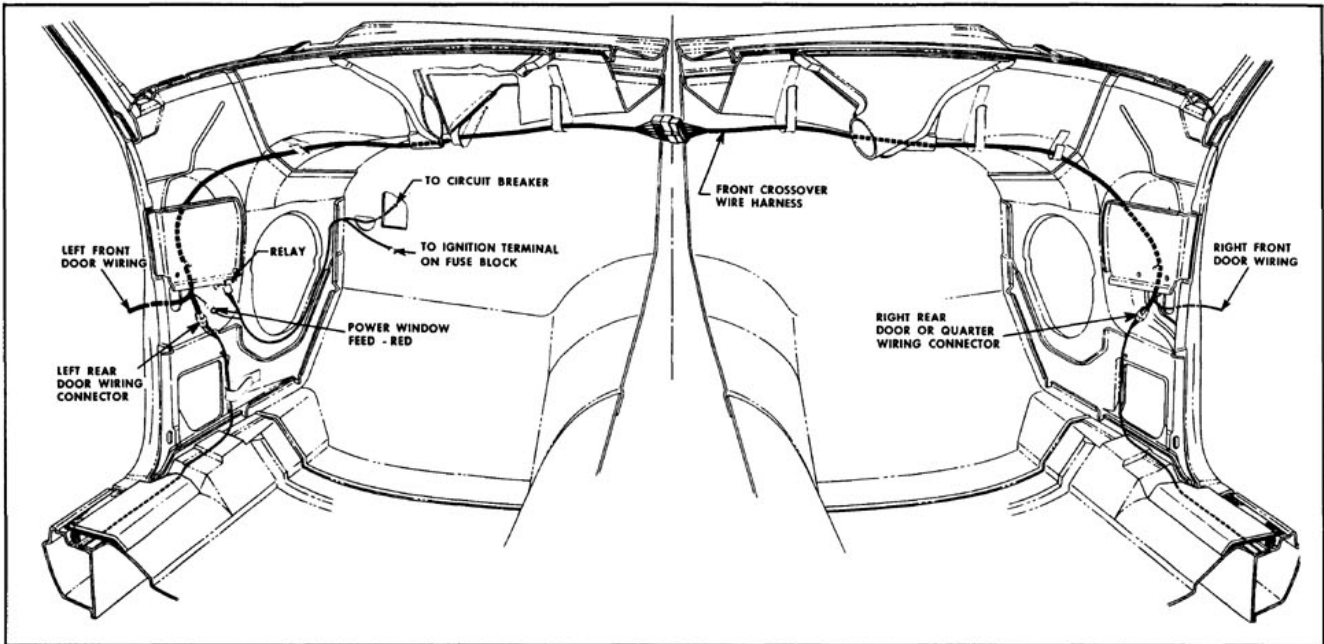


Fig. 16-164 Front Door Power Window Guide

Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one light tester 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 light tester, check terminal from which wire was disconnected. If tester does not light, circuit breaker is inoperative.

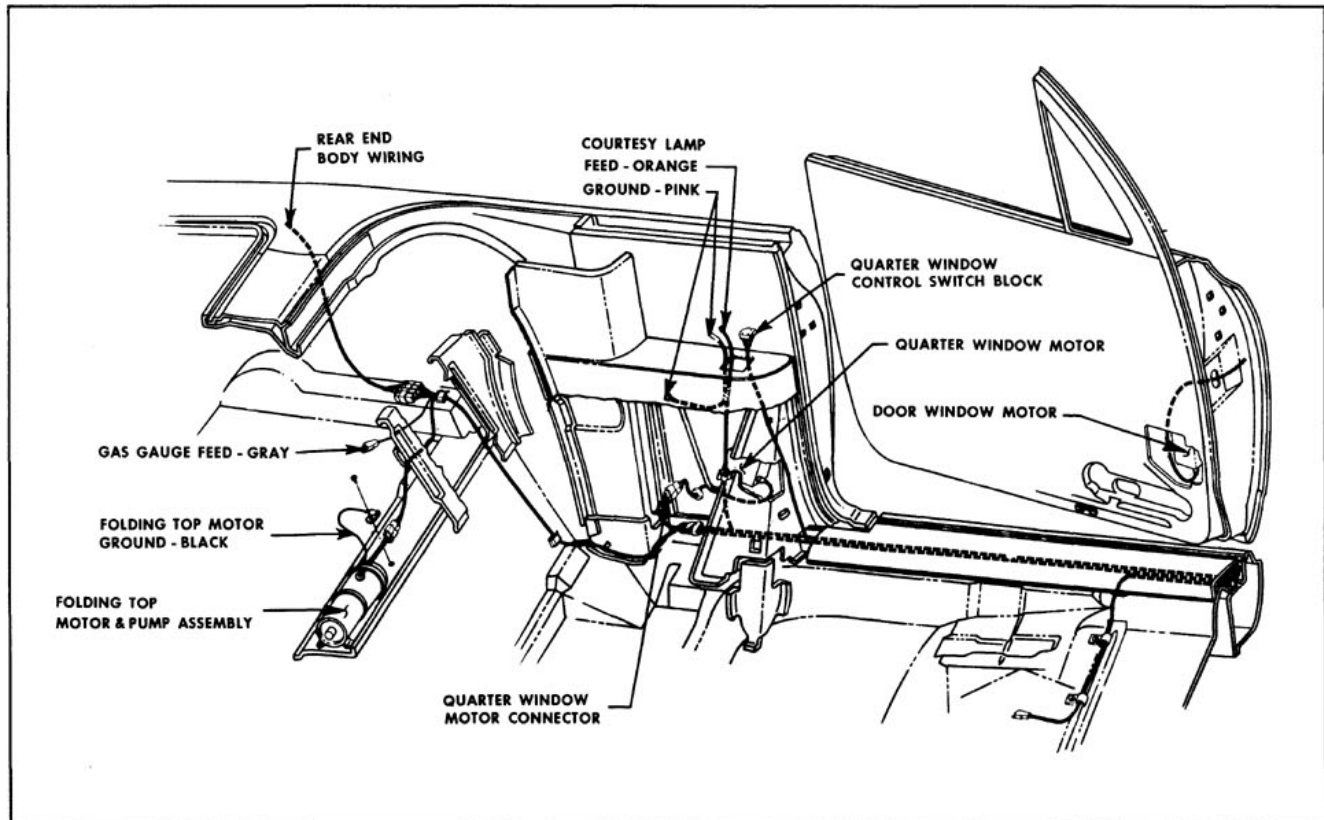


Fig. 16-165 Power Window Wiring at Doors

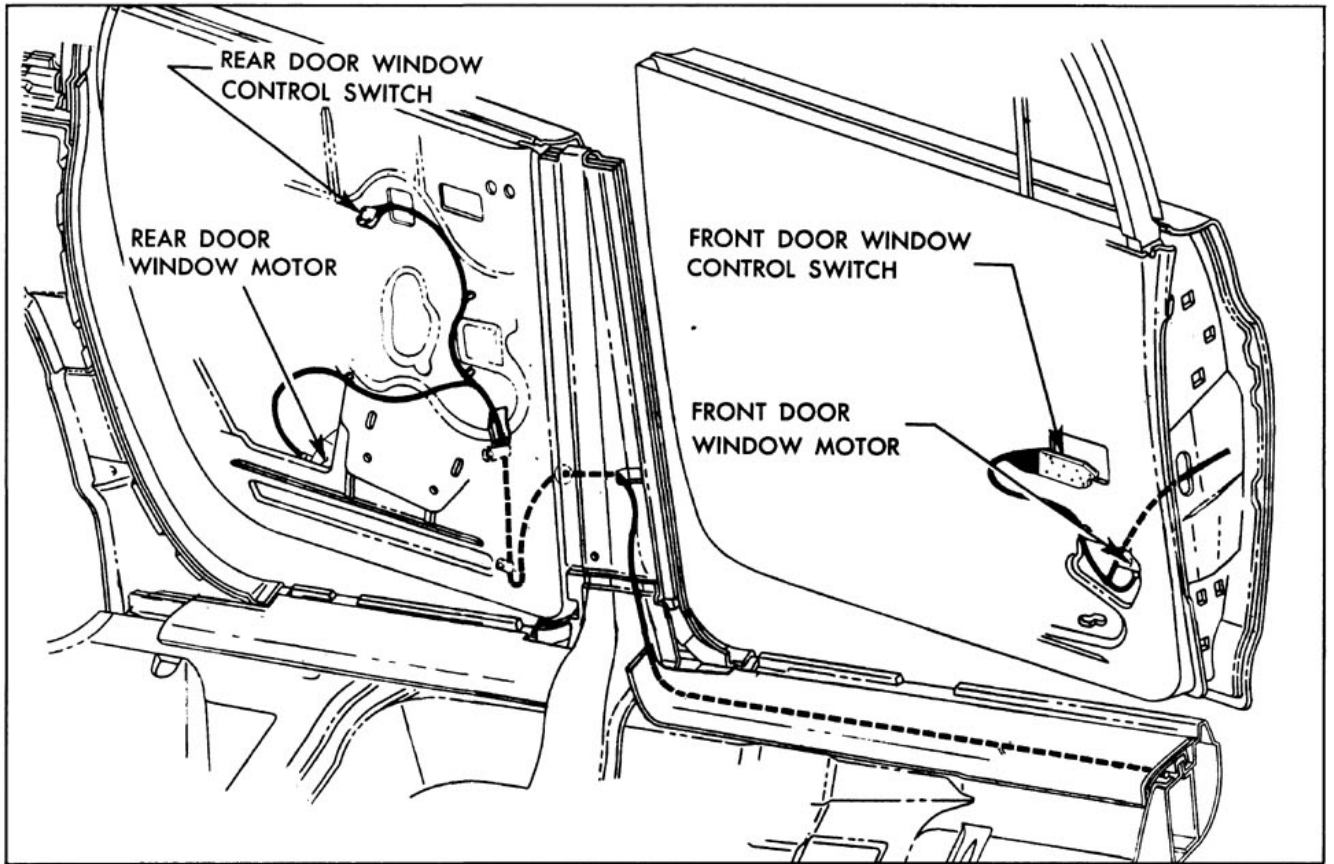


Fig. 16-166 Power Window Wiring at Doors

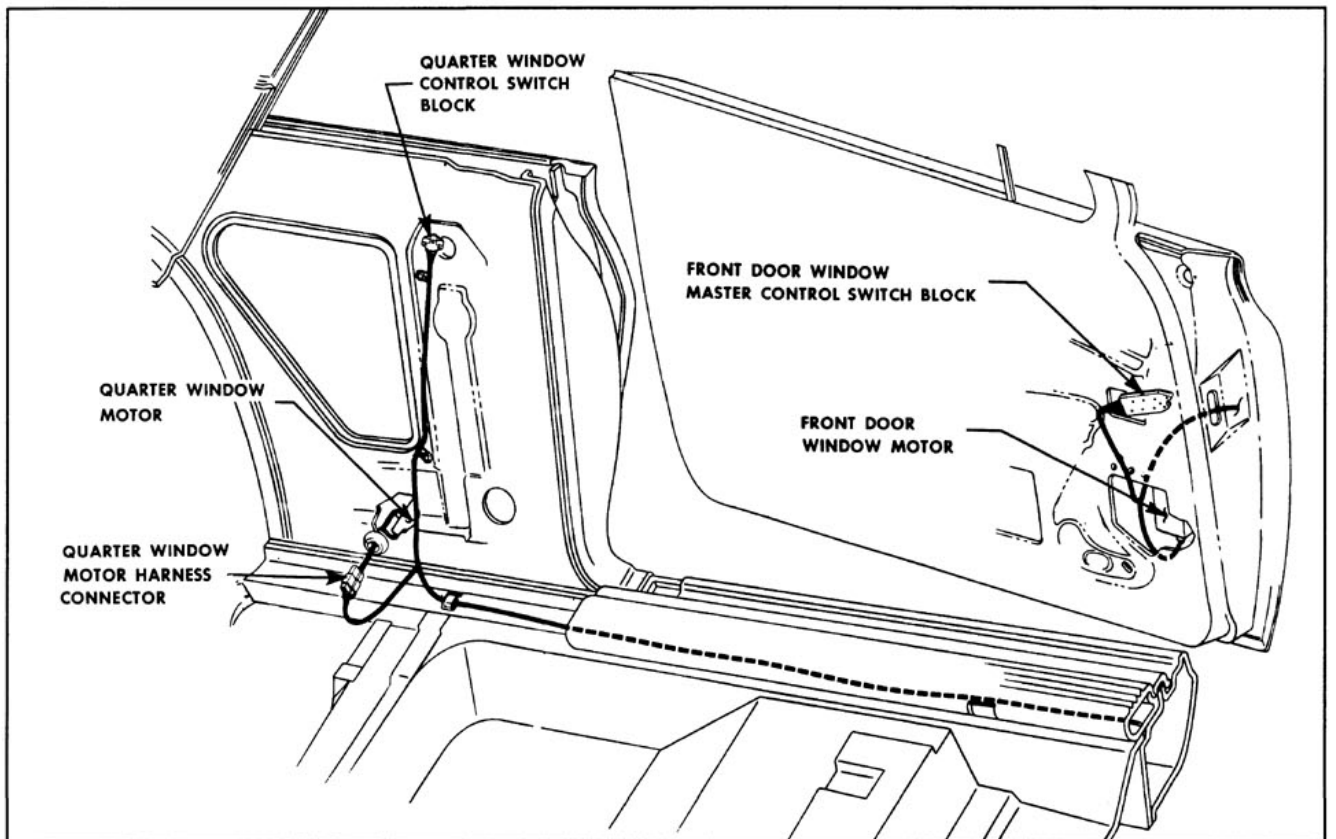


Fig. 16-167 Power Window Wiring at Doors

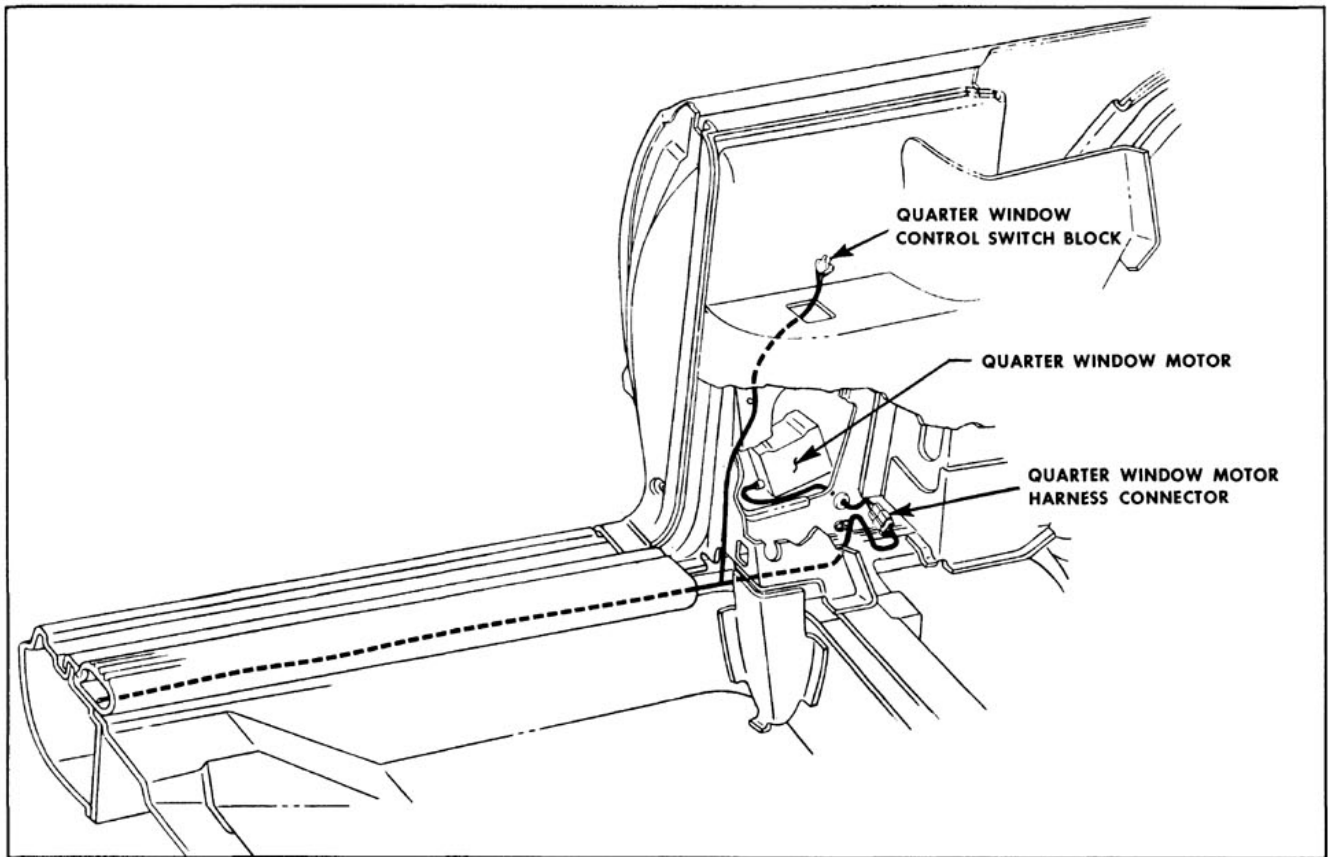


Fig. 16-168 Power Window Wiring at Doors

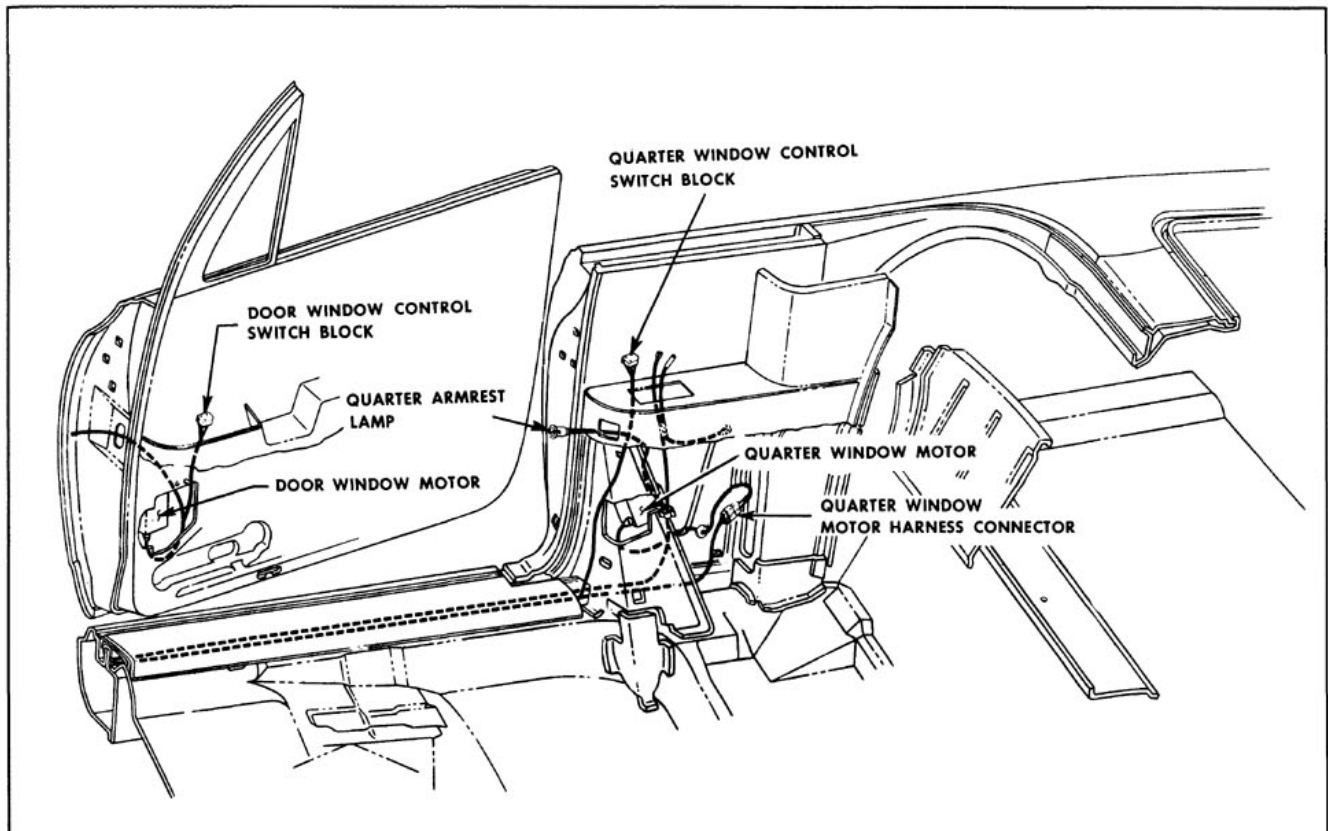


Fig. 16-169 Power Window Wiring at Doors

Checking Relay Assembly at Shroud

1. With light tester, check relay feed (dark blue wire terminal). If tester does not light, there is an open or short circuit between relay and circuit breaker.
2. Turn ignition switch on and with light tester, check output terminal of relay (red wire terminal). If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch (white wire) and relay assembly. (Check fuse at dash panel.)

Checking Feed Circuit Continuity at Window Switch

1. Connect one light tester lead to feed terminal of switch block and ground other tester lead to body metal. (Fig. 16-170)
2. If tester does not light, there is an open or short circuit between switch and power source.

Checking Window Switch

1. Insert one end of a No. 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. (Fig. 16-171)
2. If the motor operates with the jumper wire, but does not operate with the switch, the switch is defective.

Checking Wires Between Door Window Switch and Motor

1. Disengage harness connector from window motor connector. The thumb release on the

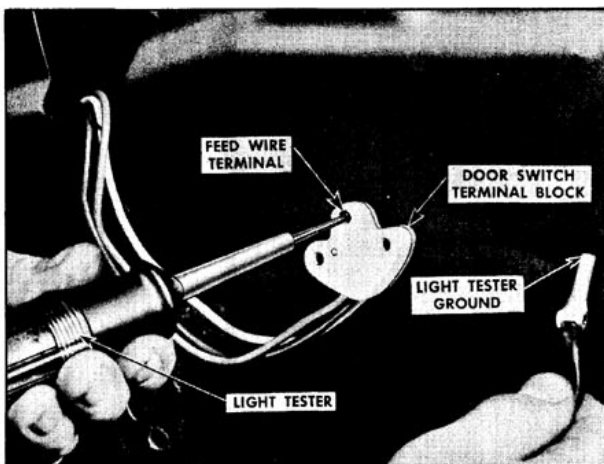


Fig. 16-170 Checking at Window Switch

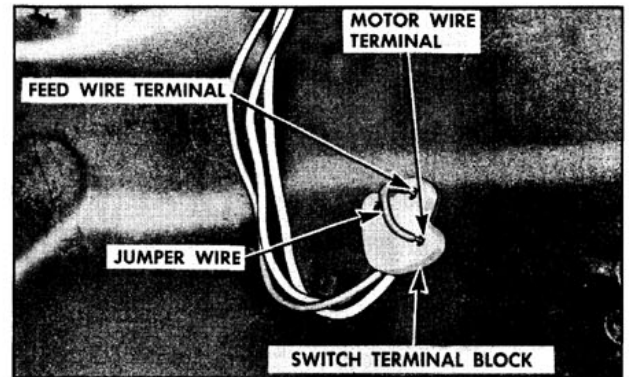


Fig. 16-171 Checking Window Control Switch

harness connector must be depressed before it can be disengaged from the motor.

2. Insert one end of a No. 12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block. (Fig. 16-171)
3. With light tester, check for current at terminal being checked. If tester does not light, there is an open or short circuit in the harness between the control switch and motor connector. (Fig. 16-172)

Checking Wires Between Quarter Window Switch and Quarter Window Motor

1. Disengage the inline connector inboard of the inner panel.
2. Insert one end of a No. 12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block. (Fig. 16-171)
3. With test light check for current at corresponding terminal at motor end. If tester does not light, there is an open or short circuit in

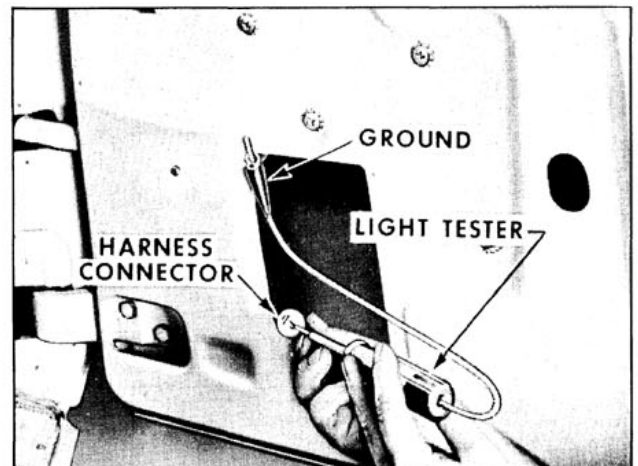


Fig. 16-172 Checking Wiring Between Switch and Door Motor

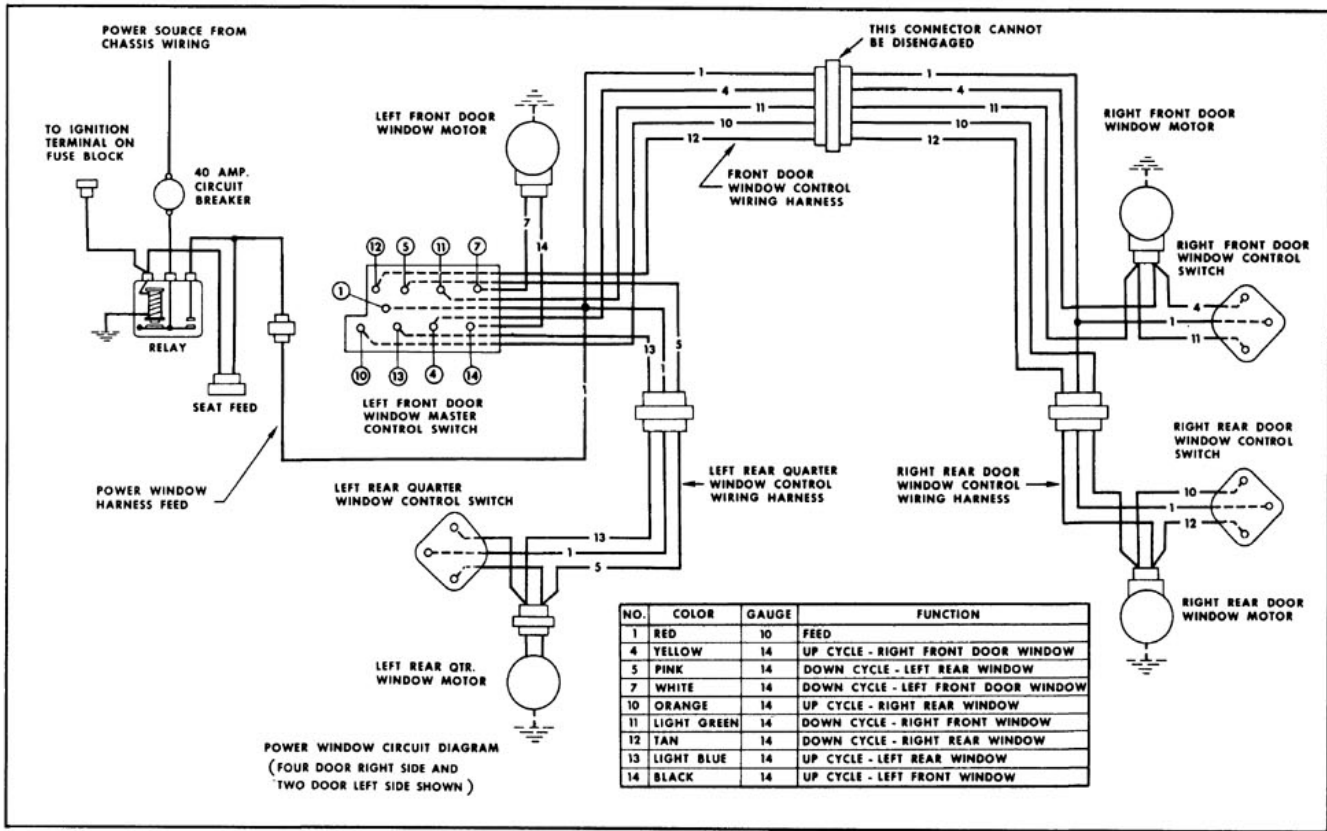


Fig. 16-173 Power Window Circuit

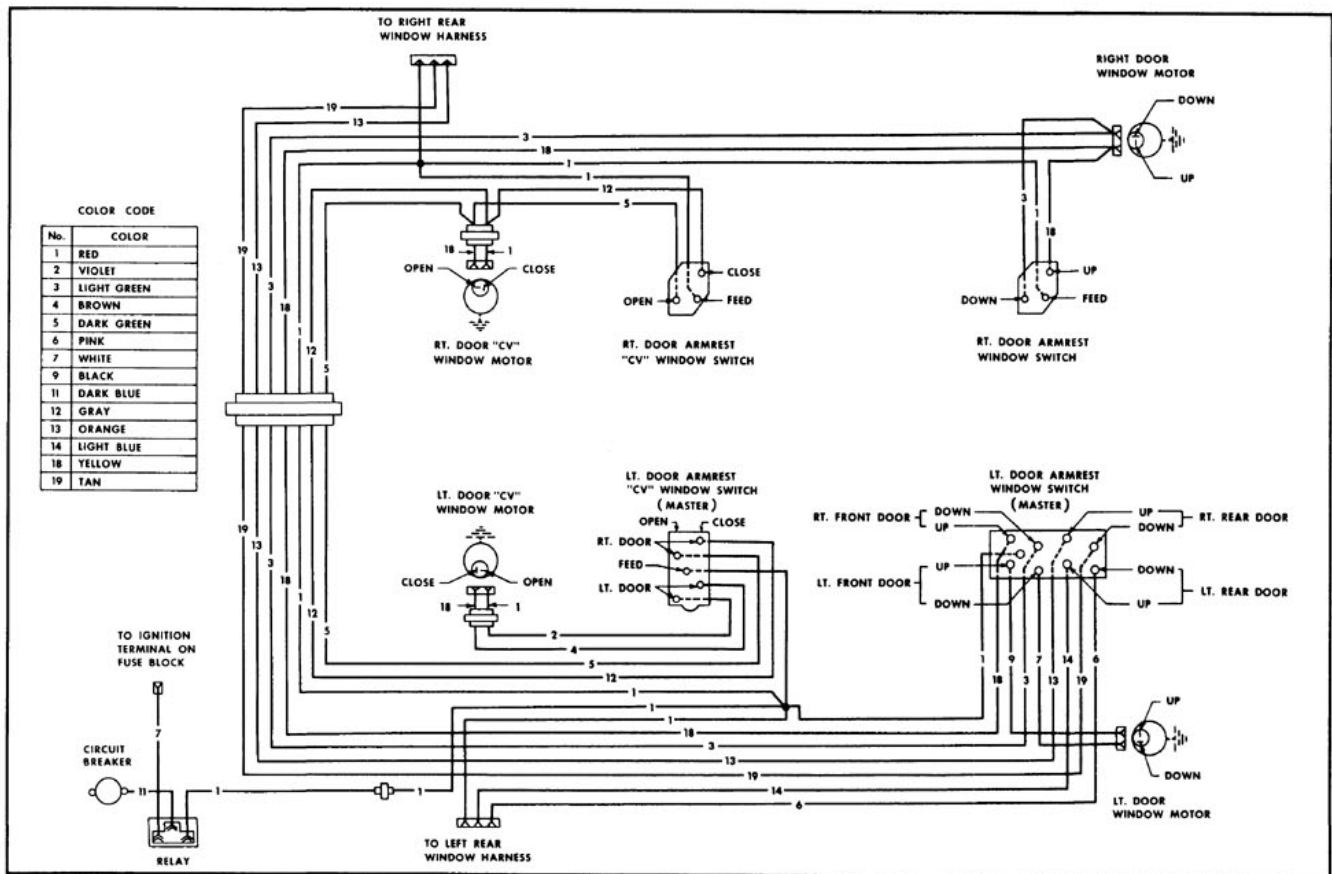


Fig. 16-174 Power Window and Vent Circuit

harness between control switch and inline motor connector.

Checking Door and Quarter Window Motor

1. Check window regulator and channels for possible mechanical bind of window.
2. Check attachment of window motor to inner panel to insure an effective ground.
3. Connect one end of a No. 12 gauge jumper wire to the power source and the other end to one of the terminals on the window motor or inline connector.
4. If the motor fails to operate with a jumper wire, the motor is defective and should be repaired or replaced as required. Check the other motor lead in the same manner.

DIAGNOSIS

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. (Fig. 16-173)

POWER OPERATED VENTILATORS

The power ventilators are operated by a rectangular shaped 12-volt series wound motor with an internal circuit breaker. The ventilator harness consists of one section routed from the right to the left door beneath the instrument panel. See Fig. 16-174 for circuit diagram.

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.

TYPICAL FAILURES OF POWER WINDOWS

CONDITION	CAUSE	CORRECTION
1. None of the windows will operate.	Short or open circuit in power feed circuit.	<ol 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.
2. Right rear door window does not operate from master control switch on left front door or from control switches on right rear door. Left door window operates.	<ol style="list-style-type: none"> 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. 	<ol style="list-style-type: none"> 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.

TYPICAL FAILURES OF POWER WINDOWS (Cont'd.)

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.
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HORIZONTAL SEATS (Fig. 16-157)

The seat adjusters are actuated by a 12-volt series wound motor located near the front left side of the seat bottom frame and energized by a control switch installed in the left seat side panel. On 3829, 39, 67 and 3947 styles, the control switch is located in the left front door arm rest.

TYPICAL FAILURES AND CORRECTIONS

The Seat Motor Does Not Operate in Either The Forward or Rearward Direction

Cause

1. Open or short circuit in feed harness.
2. Inoperative motor.

Correction

1. Connect one light tester 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.
2. Check operation of seat control switch with jumper wire. See CHECKING DOOR WINDOW CONTROL for similar operation.
3. Check circuit from control switch to motor for short or open circuit and check ground wire attachment at adjuster.
4. Check operation of motor with No. 12 gauge jumper wire. Connect one end of jumper wire to power source and the other end to one of the seat motor terminals. Motor should operate.

Perform same check at the other motor terminal. If motor does not operate, repair or replace motor as required.

The Seat Motor Operates in Only One Direction

Cause

1. Defective switch.
2. Open or short circuit in motor feed wires.
3. Defective seat motor.

Correction

1. Check operation of seat control switch with jumper wire.
2. Check circuit from control switch to motor for short or open circuit.
3. Check operation of motor with No. 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

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 Fig. 16-176 for bench-type seat, and Fig. 16-177 for bucket seat installation.

The seat motor is energized by toggle-type control switch installed in the left seat side panel. On 3829, 39, 67 and 3947 styles, the control switch is located in the left front door arm rest.

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and four drive cables on bench-type seats and two drive cables on bucket seats, leading to the seat adjusters. One solenoid controls the rear vertical movement of the seat,

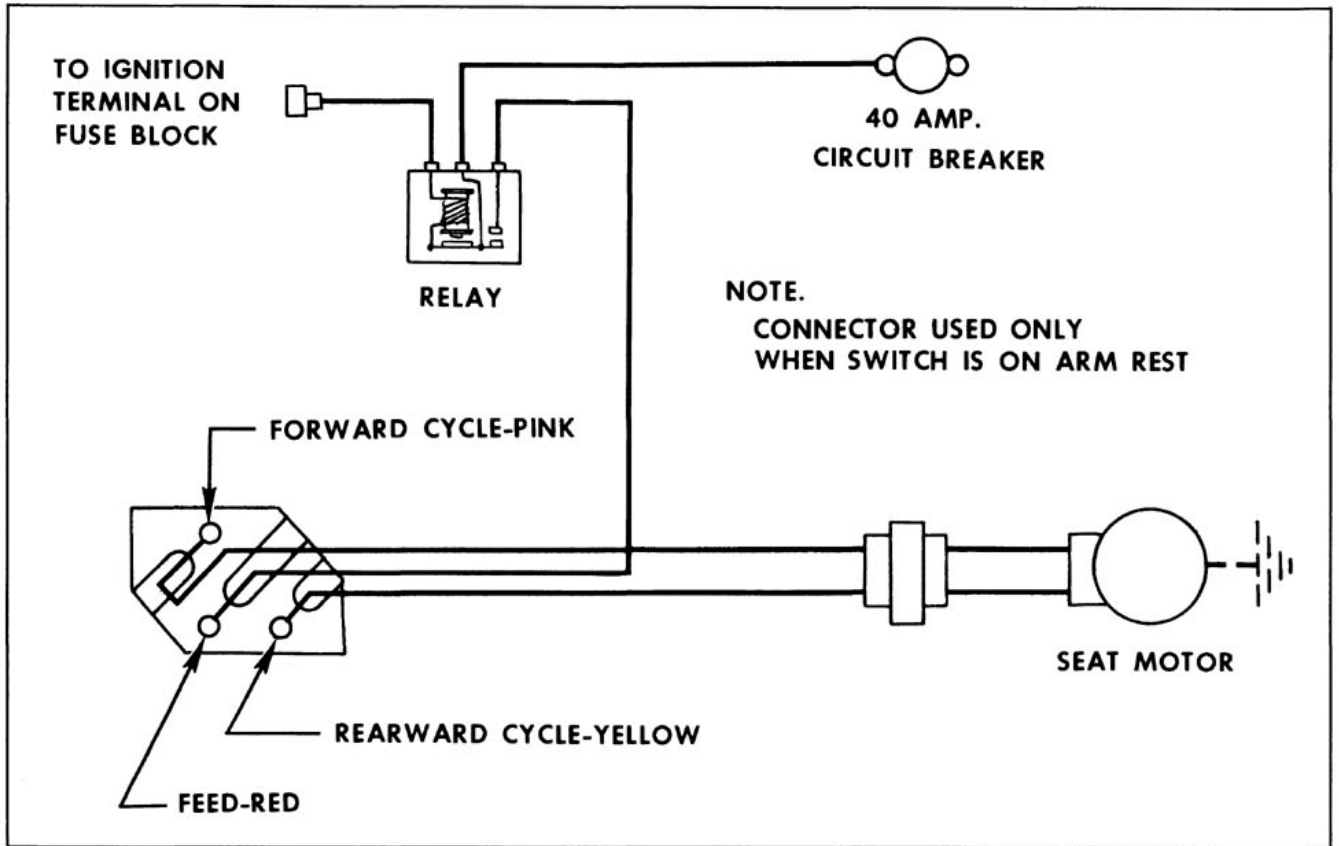


Fig. 16-175 Electric Horizontal Seat Circuit

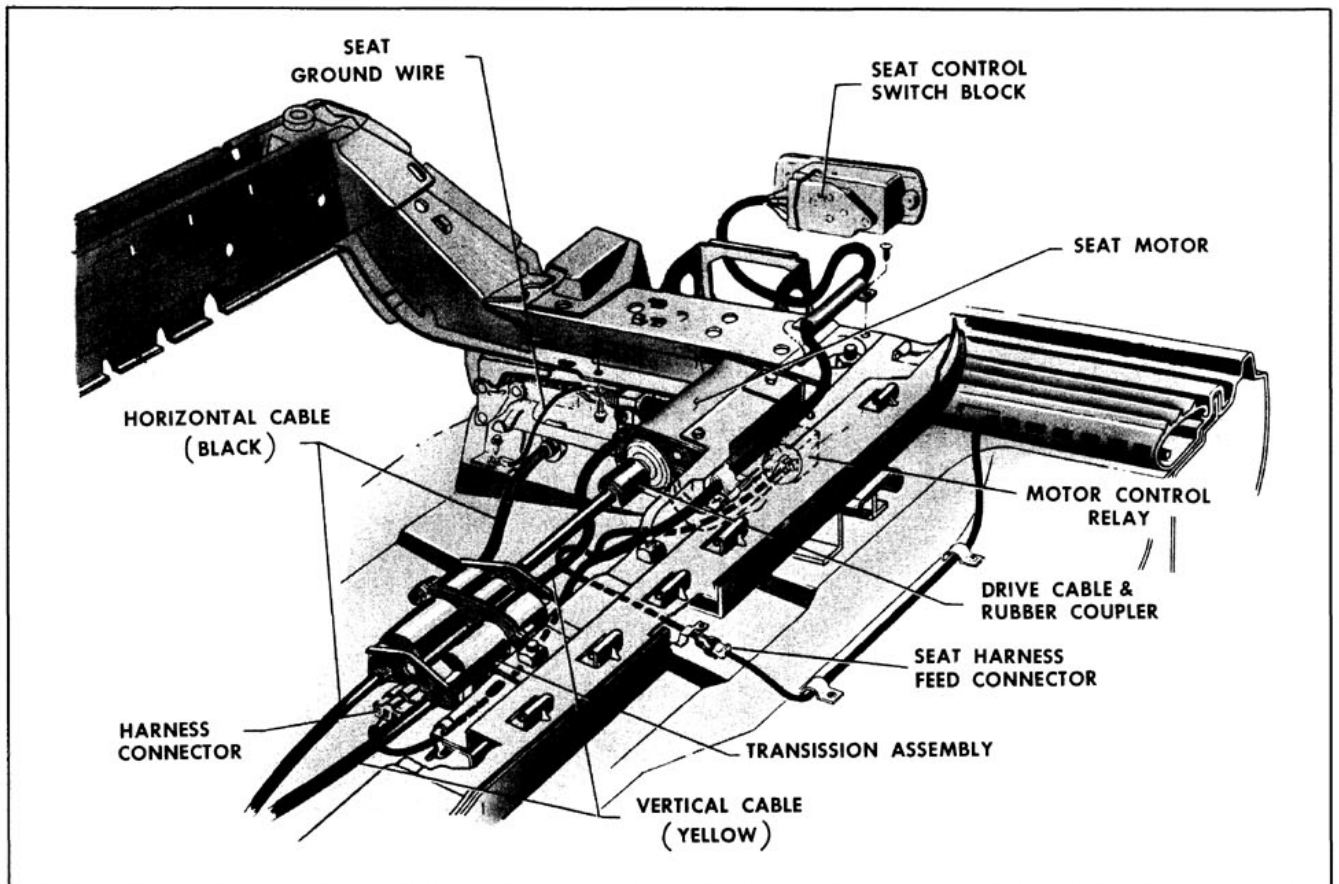


Fig. 16-176 Four-Way Seat Bench Type

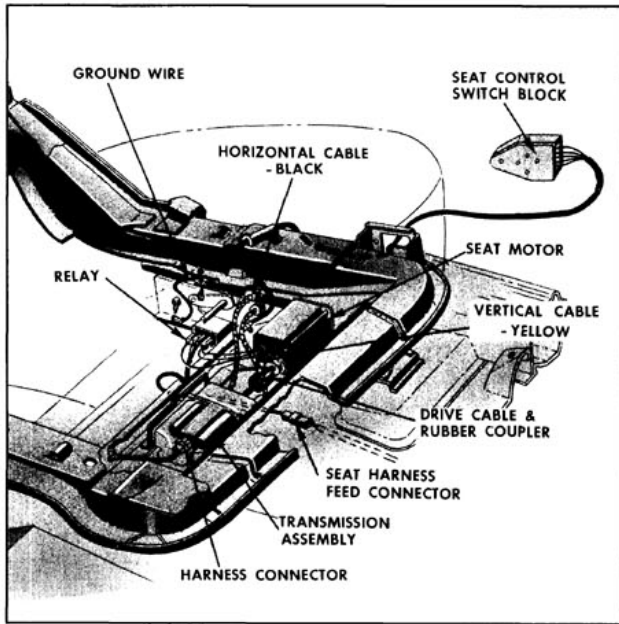


Fig. 16-177 Four-Way Seat (Bucket Type)

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 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. 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. (Figs. 16-178, 179, 180 and 181)

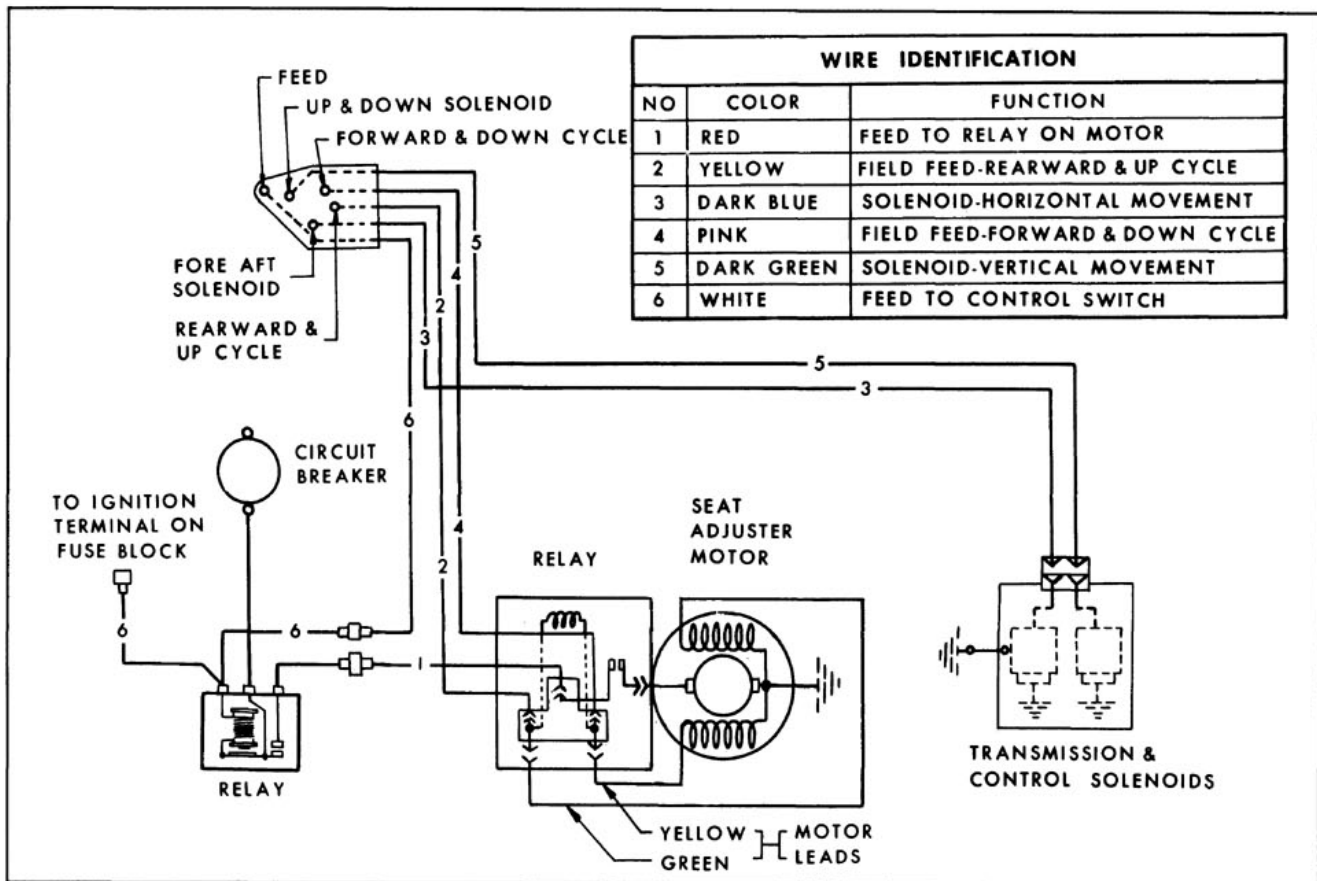


Fig. 16-178 Four-Way Bench Seat Wiring (Switch In Seat Panel)

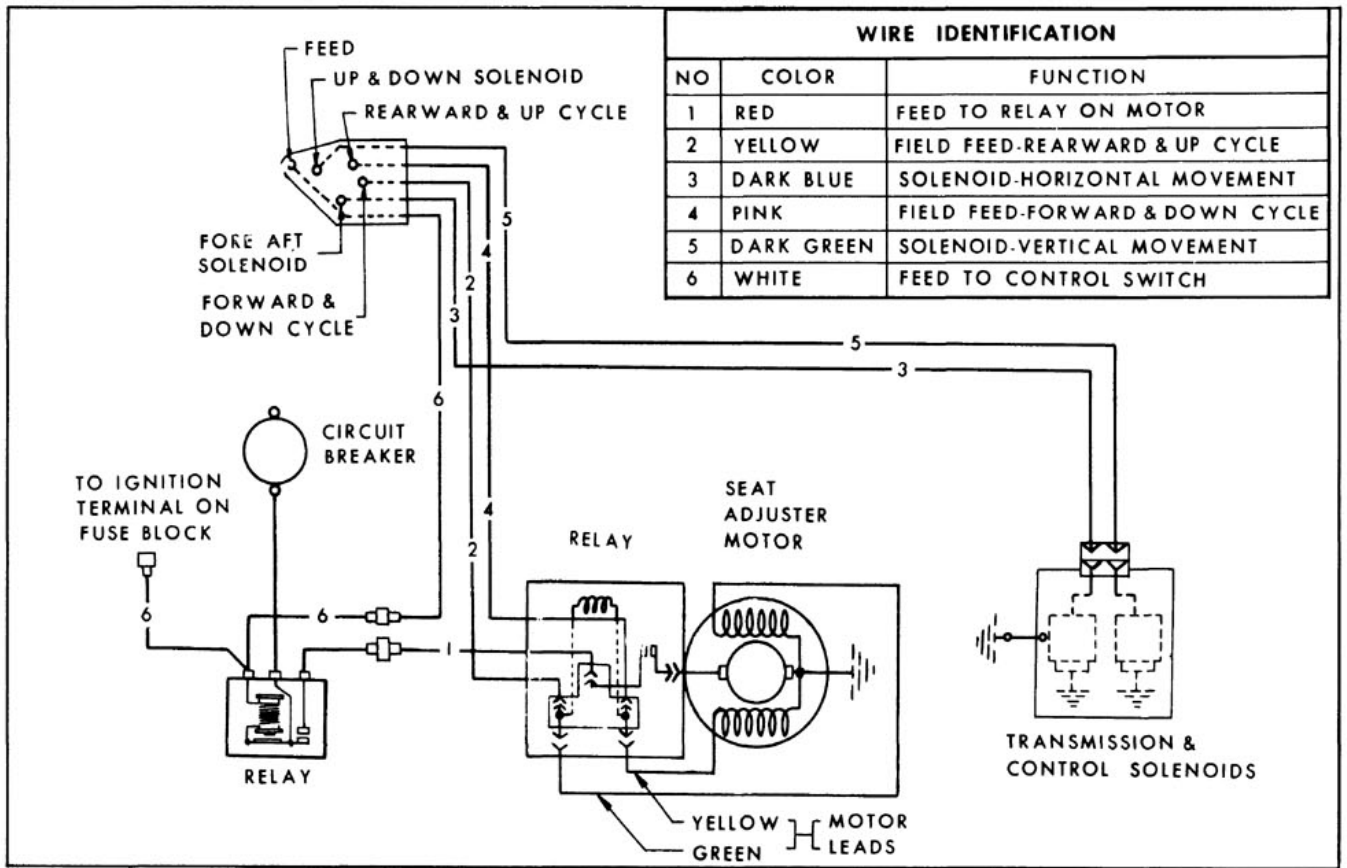


Fig. 16-179 Four-Way Bucket Seat Wiring (Switch In Seat Panel)

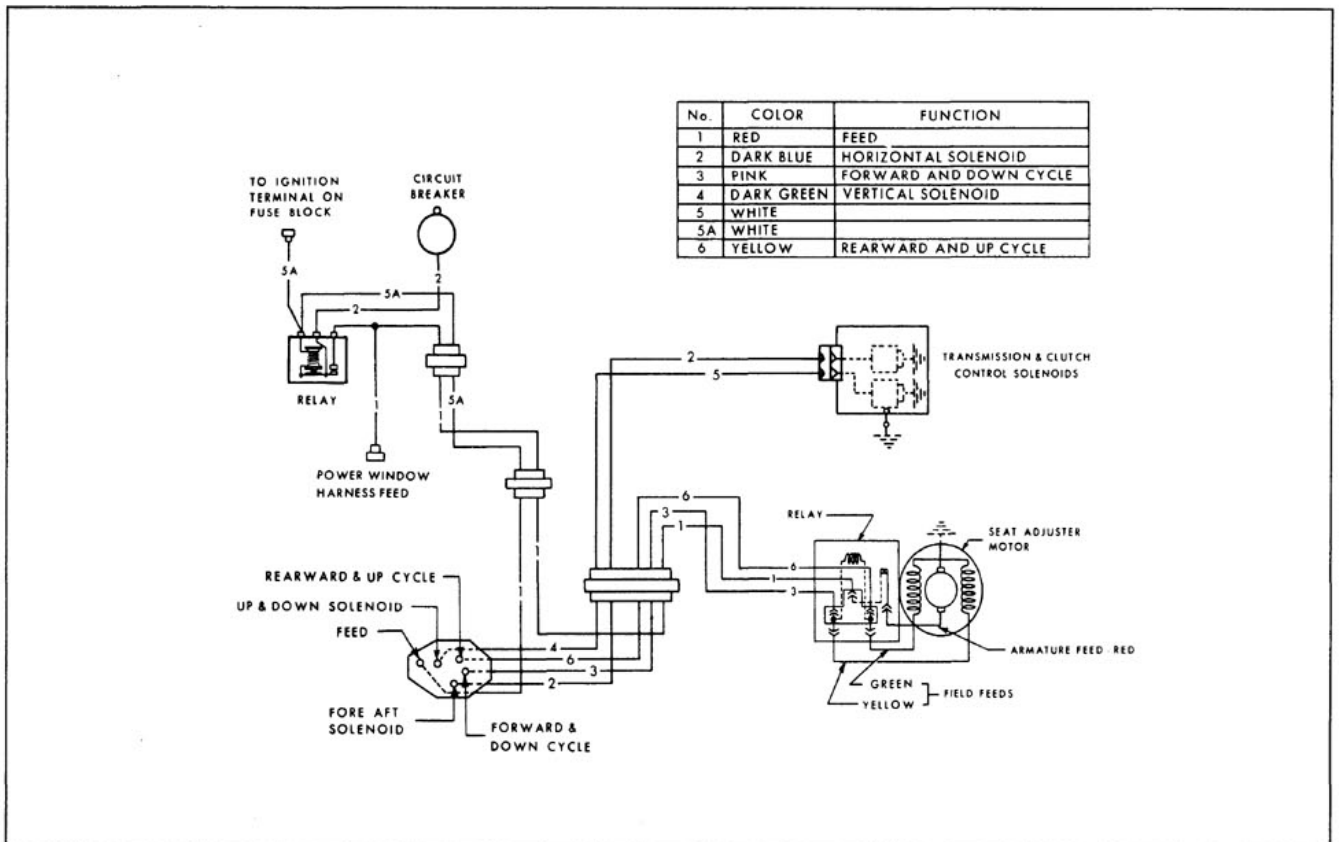


Fig. 16-180 Four-Way Bucket Seat (Arm Rest Switch)

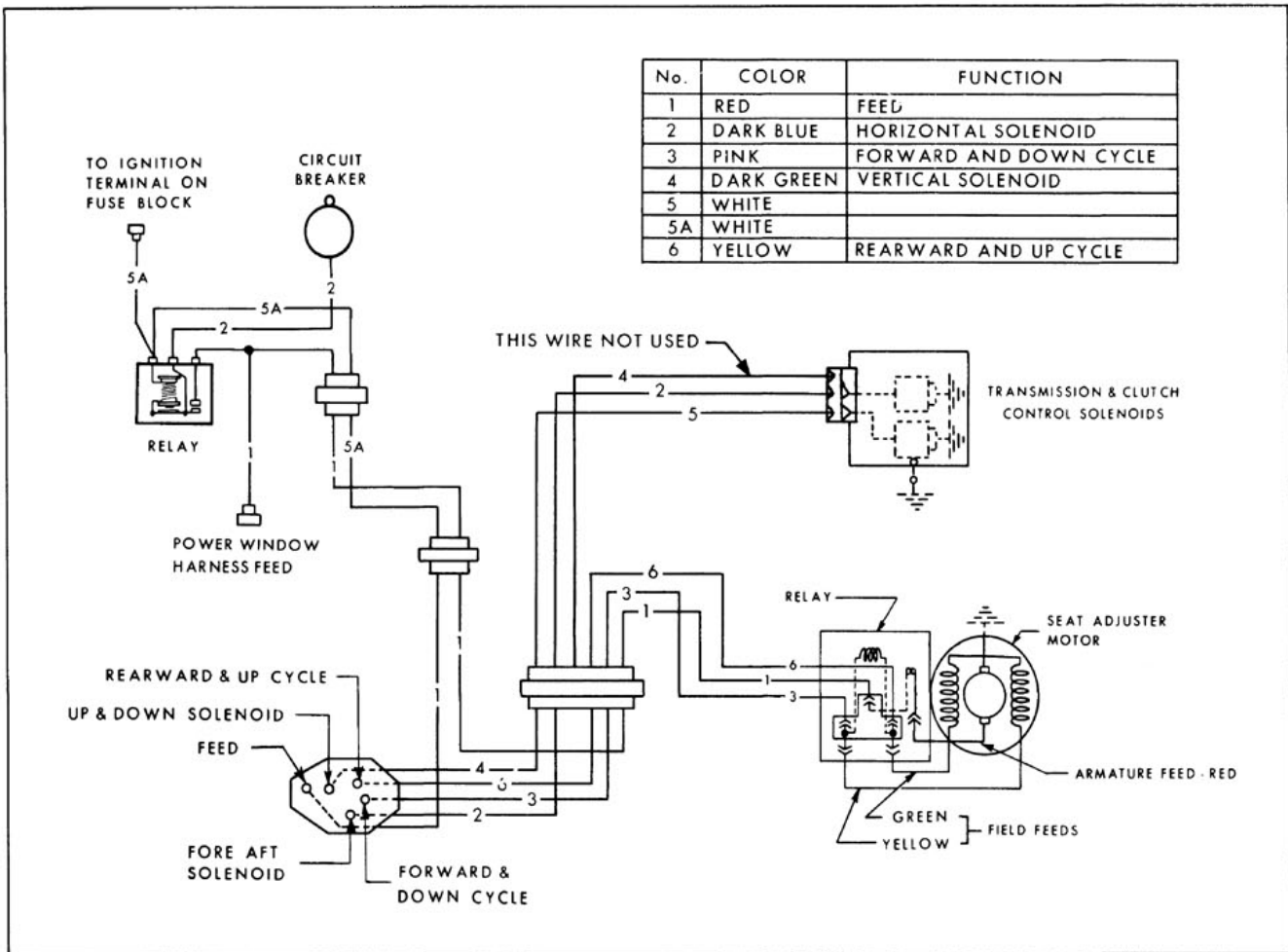


Fig. 16-181 Four-Way Bench Seat (Switch in Arm Rest)

Checking for Current at Circuit Breaker

1. Connect one light tester lead to battery side of circuit breaker (located at dash panel in engine compartment) and ground other lead. 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 light tester, check for current at switch side of circuit breaker. If tester does not light, there is no current flowing through circuit breaker.

Checking the Circuit Relay Assembly

1. With light tester, check for current at circuit breaker side of relay. If tester does not light, there is a short or open circuit between circuit breaker and relay assembly.
2. Turn ignition switch on and with a light tester, 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: Ignition switch must be on for performing the remainder of checking procedure.

Checking Feed Circuit Continuity at Relay on Seat Motor

1. Disengage three-way connector body from the seat motor relay.
2. Insert one light tester lead into the relay power feed (red wire) connector slot on the harness, and ground other tester lead.
3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short circuit in feed circuit.

Checking for Current at Seat Control Switch

1. Connect one light tester lead to feed terminal of switch block and ground other light tester lead to body metal.
2. If tester does not light, there is no current at switch block. Failure is caused by an open

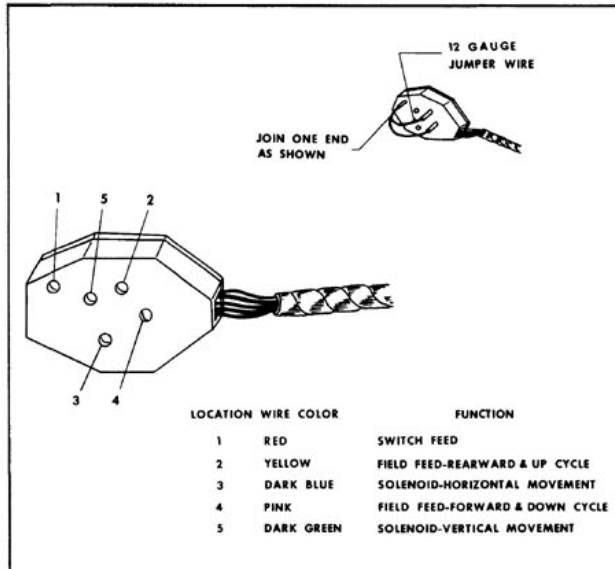


Fig. 16-182 Four-Way Seat Switch Block (Arm Rest)

or short circuit between switch block and power source.

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 Figs. 16-182 and 183. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.

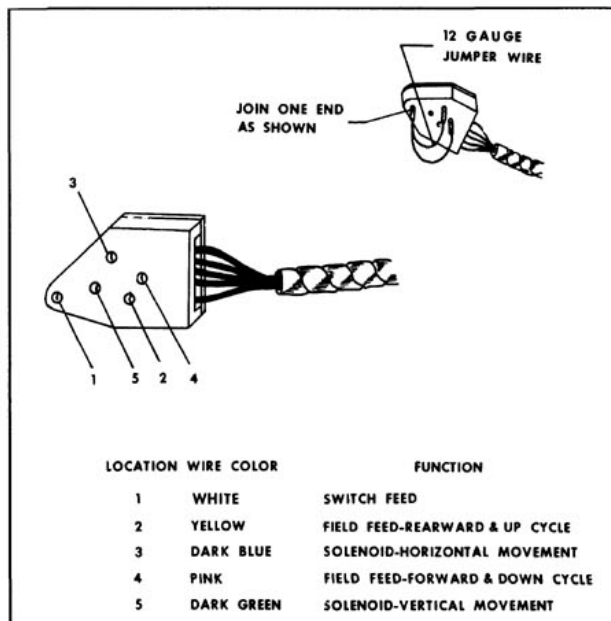


Fig. 16-183 Four-Way Seat Switch Block (Side Panel)

NOTE: To make jumper wire, obtain two pieces of No. 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 new 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 1, 2 and 5.
- b. To lower seat, place jumper wire in locations 1, 4 and 5.
- c. To operate seat forward, place jumper wire in locations 1, 3 and 4.
- d. To operate seat rearward, place jumper wire in locations 1, 2 and 3.

Checking Wires Between Control Switch and Motor Relay

1. Disengage three-wire harness connector from relay at motor.
2. Insert one light tester 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.

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 light tester 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.

Checking the Motor Assembly

1. Disconnect motor field feed wires from motor.
2. Connect one end of a No. 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.

Checking Wires Between Switch and Solenoids

1. Disconnect harness connector from transmission assembly.
2. Connect one light tester lead to one terminal

of power feed and ground other light tester lead to body metal.

3. Operate switch to wire being tested. If tester does not light, there is no current at the end of harness wire. Failure is caused by an open or short circuit between end of wire and switch or defective switch.
4. Check other wire in same manner.

NOTE: One wire in connector is a blank. Check wiring diagram for colors of wires actually used.

Checking the Solenoid

1. Check solenoid ground strap attachment for proper ground.
2. Connect one end of a No. 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 to 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.

TYPICAL FAILURES AND CORRECTIONS (FOUR-WAY SEATS)

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.

TYPICAL FAILURES AND CORRECTIONS (FOUR-WAY SEATS) (Cont'd.)

CONDITION	CAUSE	CORRECTION
2. Seat adjuster motor operates in both directions but seat adjusters are not actuated.	<p>a. Short or open circuit between switch and affected solenoid.</p> <p>b. Defective solenoid.</p> <p>c. Defective switch.</p>	<p>a. Check circuit from switch to solenoid to locate failure.</p> <p>b. Check solenoid. If defective, repair or replace as required.</p> <p>c. Replace switch.</p>
3. Seat Adjuster motor operates in one direction only, seat moves down and forward, but does not move up and rearward.	<p>a. Short or open circuit between one of the motor relay wires and seat control switch.</p> <p>b. Defective field coil in motor</p> <p>c. Defective switch.</p>	<p>a. Check circuit between affected motor relay wire and seat switch.</p> <p>b. Check motor. If defective, repair or replace as required.</p> <p>c. Replace switch.</p>

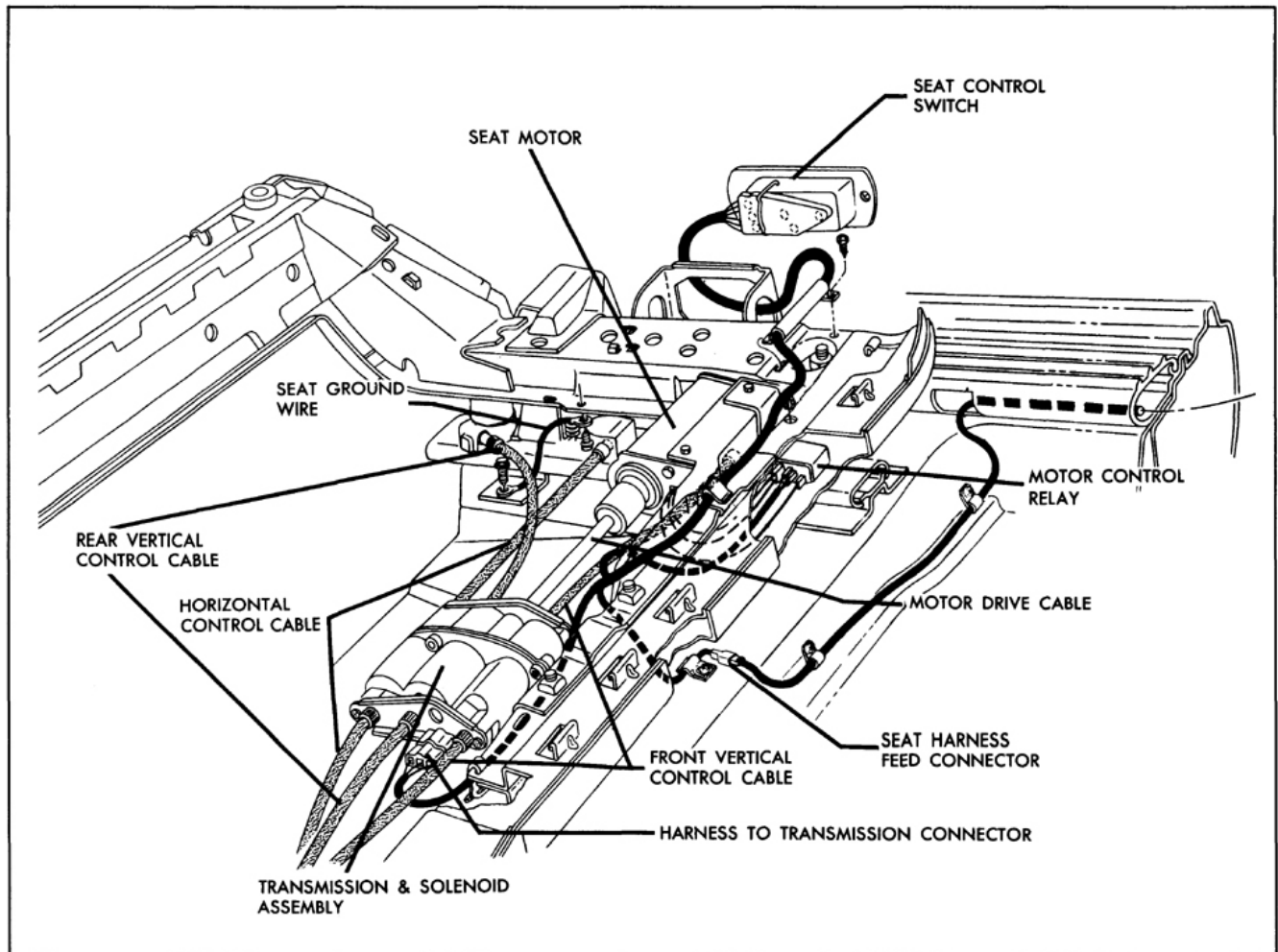


Fig. 16-184 Six-Way Seat Installation

SIX-WAY SEAT

The seat adjusters are actuated by a 12-volt motor installed at the left side of the seat assembly. (Fig. 16-184)

The motor is energized by a three button-type control switch located in the left side panel.

On 3829, 39 and 67 styles, the control switch is installed in the left front door arm rest.

ELECTRIC SEAT OPERATION (Figs. 16-185 and 16-186)

When one of the control switch buttons 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 the solenoid plunger to their original position disengaging them from the gear dog.

CIRCUIT CHECKING PROCEDURES

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident, follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Before performing any extensive check procedures, check the seat adjuster drive cables for proper attachment. In addition, study the seat circuit diagrams to become familiar with the seat circuit.

Check Feed Circuit Continuity at Circuit Breaker

1. Connect one light tester lead to battery side

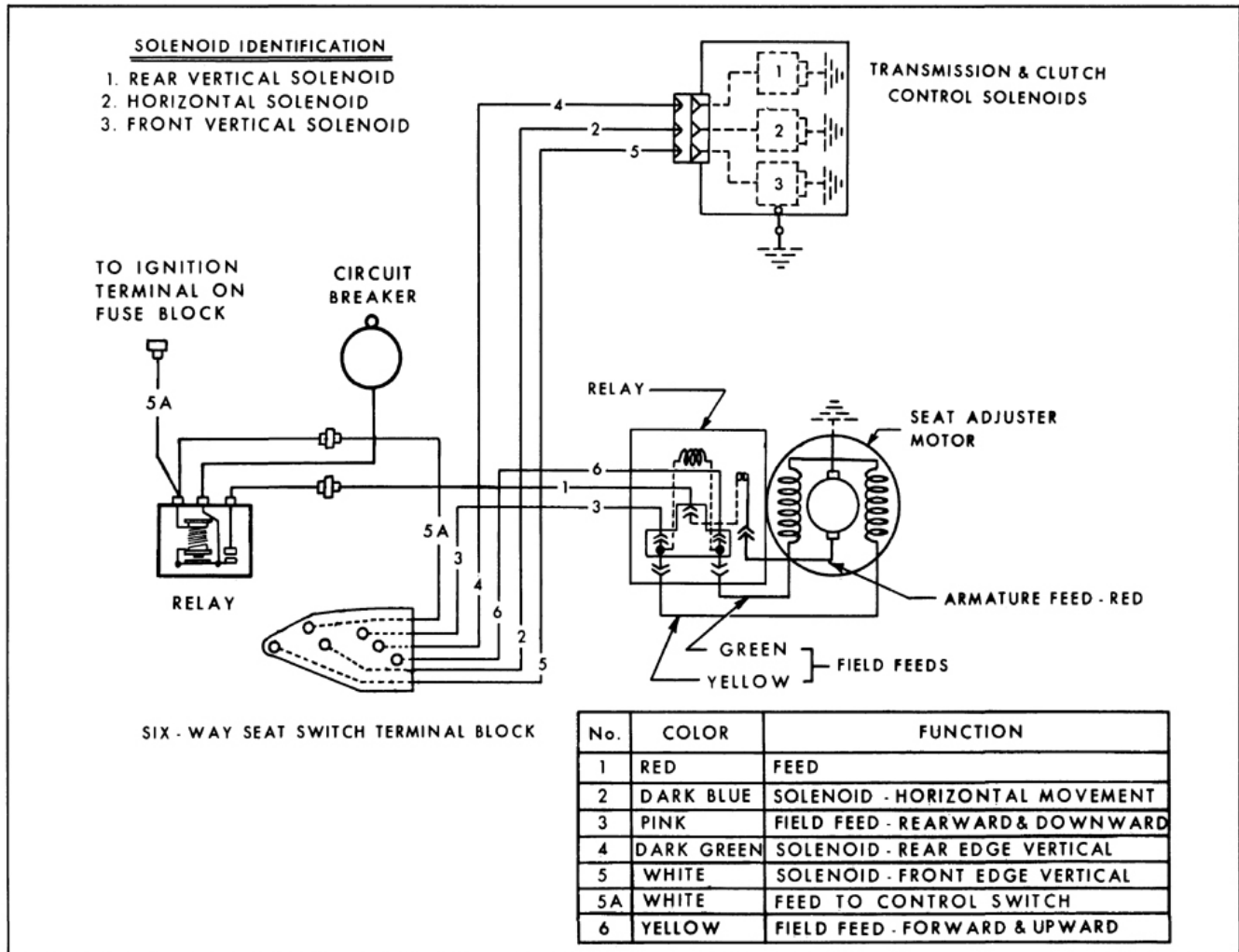


Fig. 16-185 Six-Way Seat Switch Block (In Arm Rest)

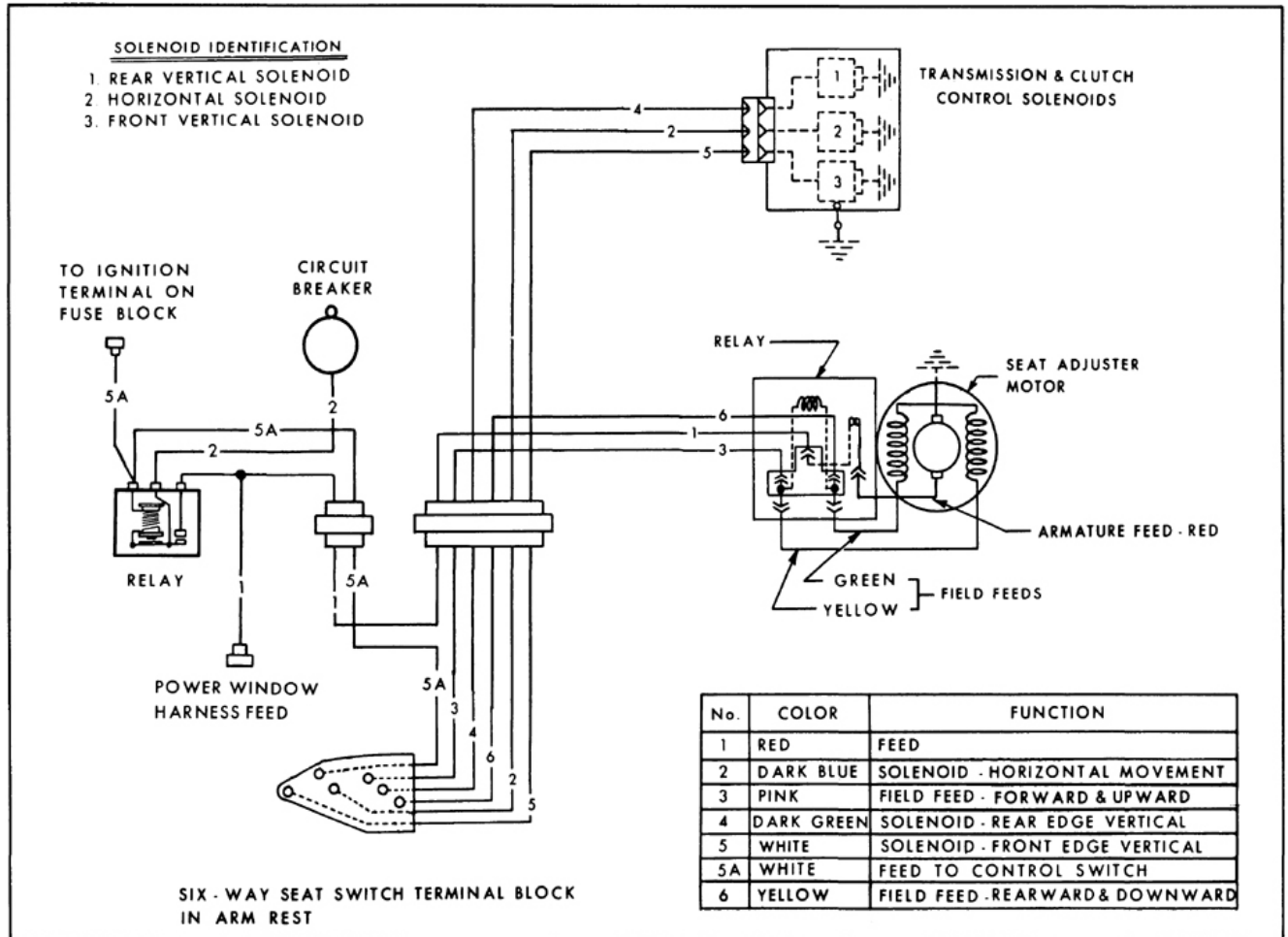


Fig. 16-186 Six-Way Seat Switch Block (In Arm Rest)

of circuit breaker and ground other lead. Circuit breaker is located at the left side in front of the dash panel. 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 light tester, check terminal from which wire was disconnected. If tester does not light, circuit breaker is inoperative.

Checking Relay Assembly at Shroud

1. With light tester, check relay feed (dark blue wire terminal). If tester does not light, there is an open or short circuit between relay and circuit breaker.
2. Turn ignition switch on and with light tester, check output terminal of relay (red wire terminal). If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch (white wire) and relay assembly. (Check fuse at dash panel).

Check Circuit Continuity at Control Switch

1. Connect one light tester lead to feed terminal of switch block and ground other test lead to body metal. (Figs. 16-187 and 188)
2. If tester does not light, there is an open or short circuit between switch and power source. The seat circuit incorporates two major feed circuits from the relay which is actuated by the ignition switch. The circuit from the ignition switch to the relay is protected by a 25 amp. fuse located at the fuse block on the dash. When the ignition switch is turned "on", current flows through the fuse to the white wire terminal on the relays and to the seat control switch. Simultaneously, the energizing of the relay results in the contacts within the relay closing and providing current to the seat motor armature on the relay.

Check Circuit Continuity at Relay on Seat Motor

1. Disengage three-wire connector body from the seat motor relay terminal.

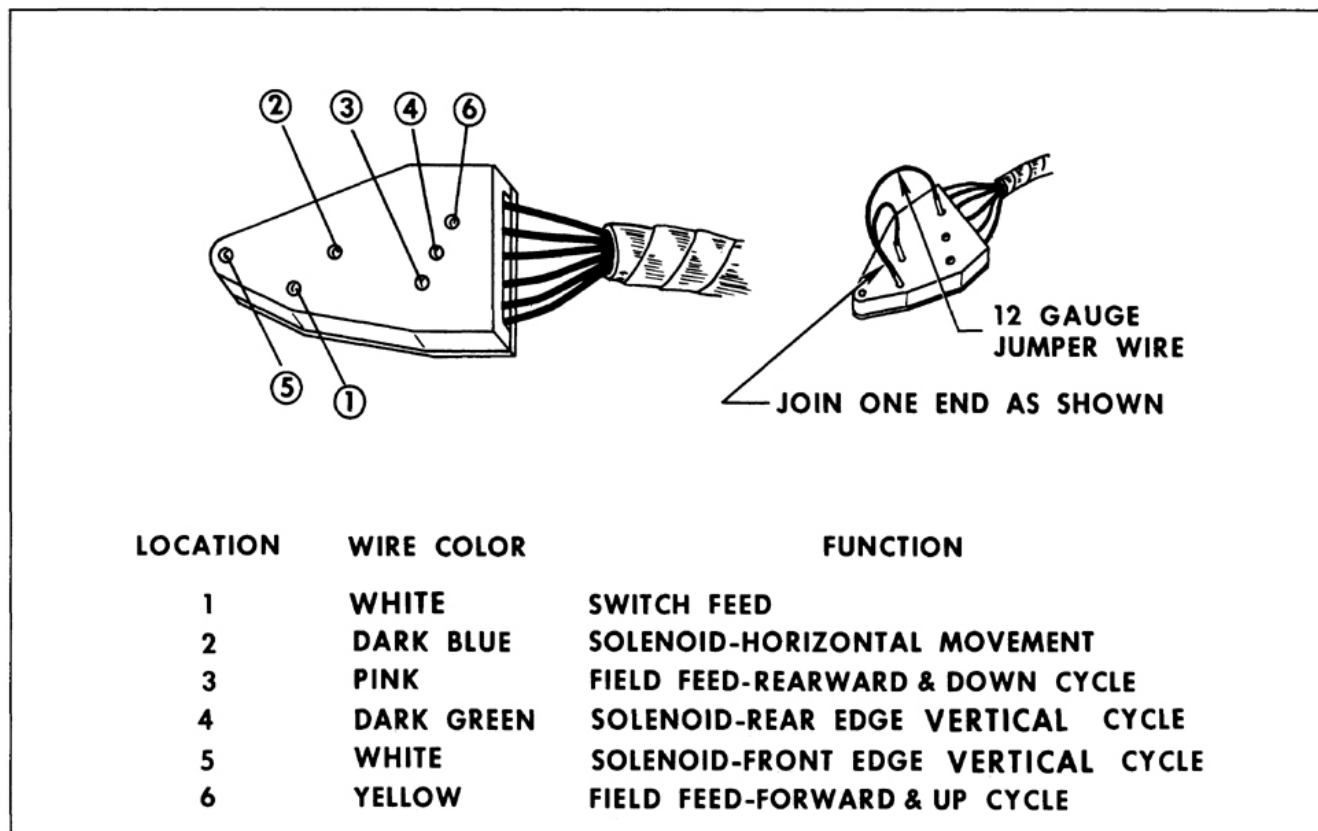


Fig. 16-187 Six-Way Seat Switch Block (In Seat Panel)

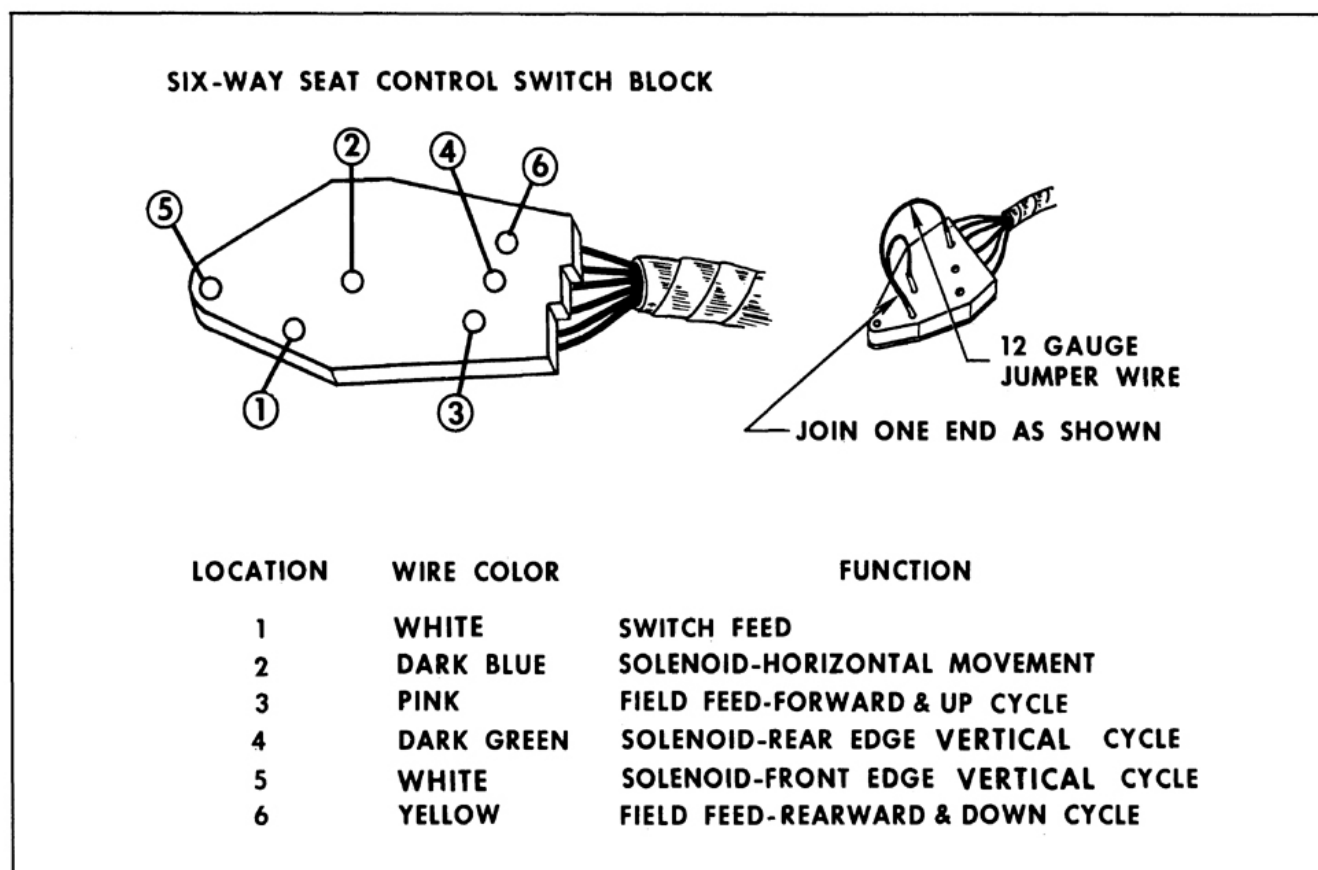


Fig. 16-188 Six-Way Seat Switch Block (In Arm Rest)

2. Insert one light tester lead into the relay power feed (red wire) connector slot on the harness, and ground the other light tester lead.
3. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short in feed circuit. The current for this circuit is controlled by the ignition switch and relay. The ignition switch must be turned "on" for current to be present at this terminal.

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 Figs. 16-187 and 188. If a jumper wire is used, number the locations on the switch block as indicated in the illustration. For details outlining the making and use of the jumper wire, refer to three-way jumper wire for checking seat switch.

Checking the Seat Control Switch

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.

Checking Wires Between Control Switch and Motor Relay

1. Disengage three-wire harness connector from relay at motor.
2. Insert one light tester lead into the motor field connector slot on harness and ground the other lead.
3. Actuate seat switch to energize field wire being tested.
4. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch. Check other motor field wire in the same manner.

Check 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.

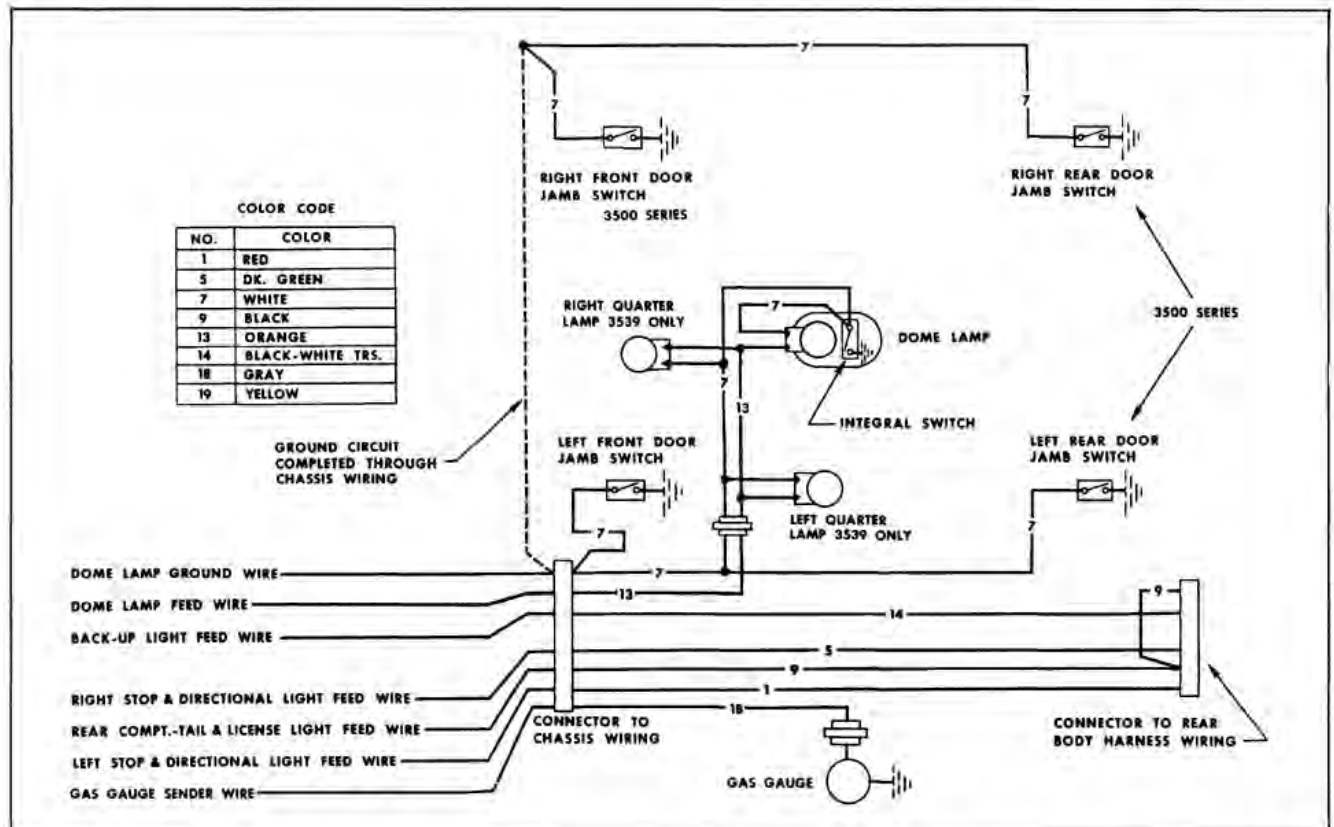


Fig. 16-189 Front Body Wiring Circuit (3339-47 & 69; 3439-47 & 69; 3839 & 69 Styles)

3. Connect one end of light tester to motor armature feed stud on relay and ground other light tester lead.
4. With a jumper wire, energize the field stud which is not grounded. If tester does not light, the relay is defective.

Check 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.

Checking Solenoid to Switch Wire

1. Disengage harness connector from transmission.
2. Connect one light tester lead to end of harness wire being tested and ground other lead.
3. Operate switch to energize wire being tested. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch.

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 2 pieces of No. 12 gauge wire, each 4-1/2" long, join one end of each

wire as shown in Fig. 16-186. The joined end can be inserted in the feed location in the switch block; one of the remaining ends can be inserted into one of the field locations in the switch block; the other end can be inserted into one of the solenoid locations.

IMPORTANT: To obtain a seat movement using a 3-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations must be connected.

On Bodies With Switch in Seat Side Panel

1. To raise front edge of seat, place jumper in locations 1, 6 and 5.
2. To lower front edge of seat, place jumper in locations 1, 3 and 5.
3. To raise rear edge of seat, place jumper in locations 1, 6 and 4.
4. To lower rear edge of seat, place jumper in locations 1, 3 and 4.
5. To move seat forward, place jumper in locations 1, 2 and 6.
6. To move seat rearward, place jumper in locations 1, 3 and 2.

On Bodies With Switch in Arm Rest

1. To raise front edge of seat, place jumper in locations 1, 3 and 5.
2. To lower front edge of seat, place jumper in locations 1, 6 and 5.
3. To raise rear edge of seat, place jumper in locations 1, 3 and 4.
4. To lower rear edge of seat, place jumper in locations 1, 6 and 4.
5. To move seat forward, place jumper in locations 1, 3 and 2.
6. To move seat rearward, place jumper in locations 1, 6 and 2.

TYPICAL ELECTRICAL FAILURES AND CORRECTIONS (SIX-WAY SEAT)

Seat Adjuster Motor Does Not Operate

Cause

- a. Short or open circuit between power source

or switch and motor.

b. Defective motor.

Correction

- a. Check circuit from power source and switch to motor to locate failure.
- b. Check ignition switch circuit through relay at left shroud.
- c. Check motor. If defective, repair or replace as required.

Seat Adjuster Motor Operates, But Seat Adjusters Are Not Actuated.

or

Seat Adjuster Motor Operates, Front Edge Of Seat Moves Up And Down And Seat Moves Forward And Rearward. The Rear Edge Of Seat Cannot Be Operated.

Cause

- a. Short or open circuit between switch and affected solenoid.
- b. Defective solenoid.

Correction

- a. Check circuit from switch to solenoid to locate failure.
- b. Check solenoid. If defective, repair or replace as required.

Seat Adjuster Motor Operates And Seat Adjusters Move Front And Rear Edge Of Seat Up And Forward, But Will Not Move The Seat Down And Rearward.

or

Seat Adjuster Motor Operates And Seat Adjusters Move Front And Rear Of Seat Down And Rearward, But Will Not Move The Seat Up And Forward.

Cause

- a. Short or open circuit between one of the motor field wires and seat control switch.
- b. Defective field coil in motor.

Correction

- a. Check circuit between affected motor field wire and seat switch.
- b. Check motor. If defective, repair or replace as required.

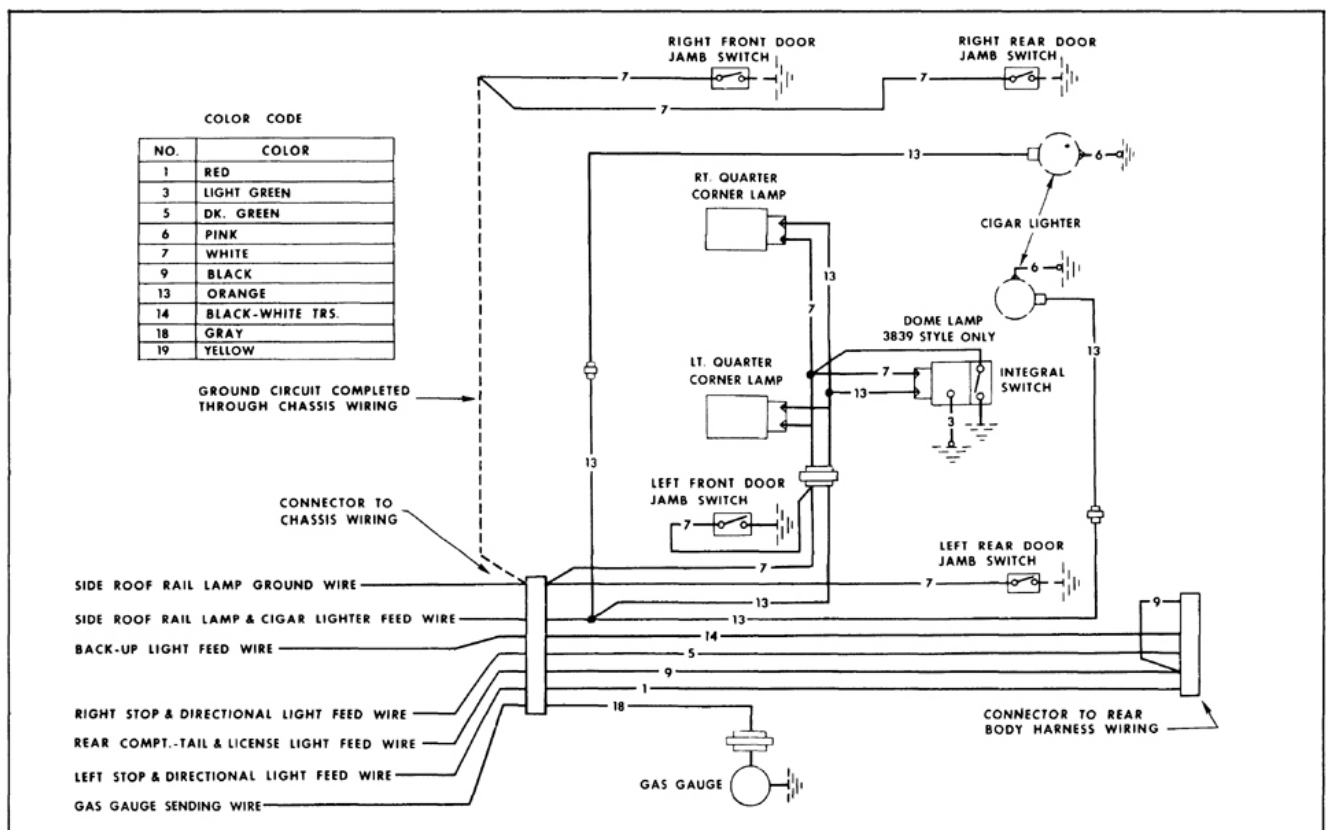


Fig. 16-190 Front Body Wiring Circuit (3829 & 39 Styles)

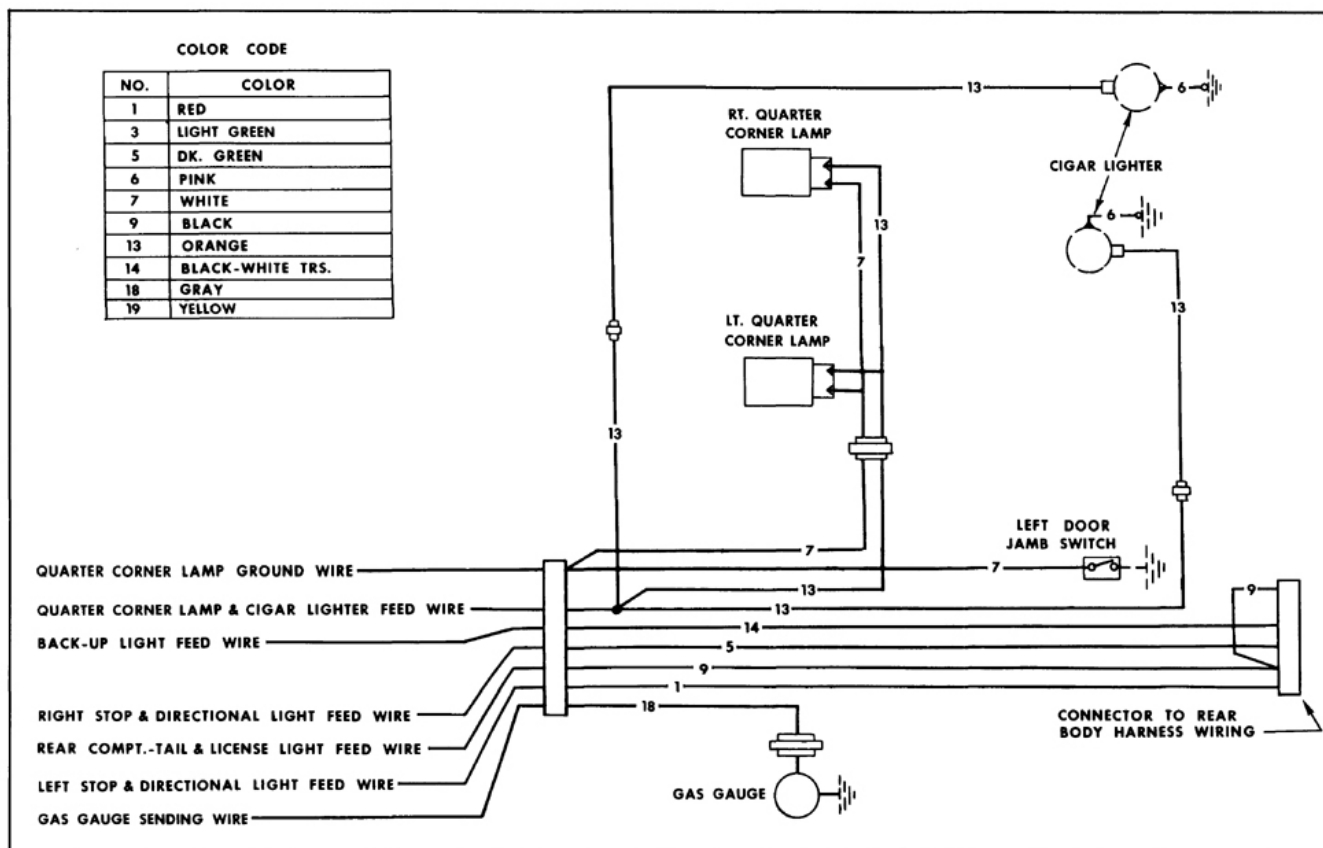


Fig. 16-191 Front Body Wiring Circuit (3657 and 3947)

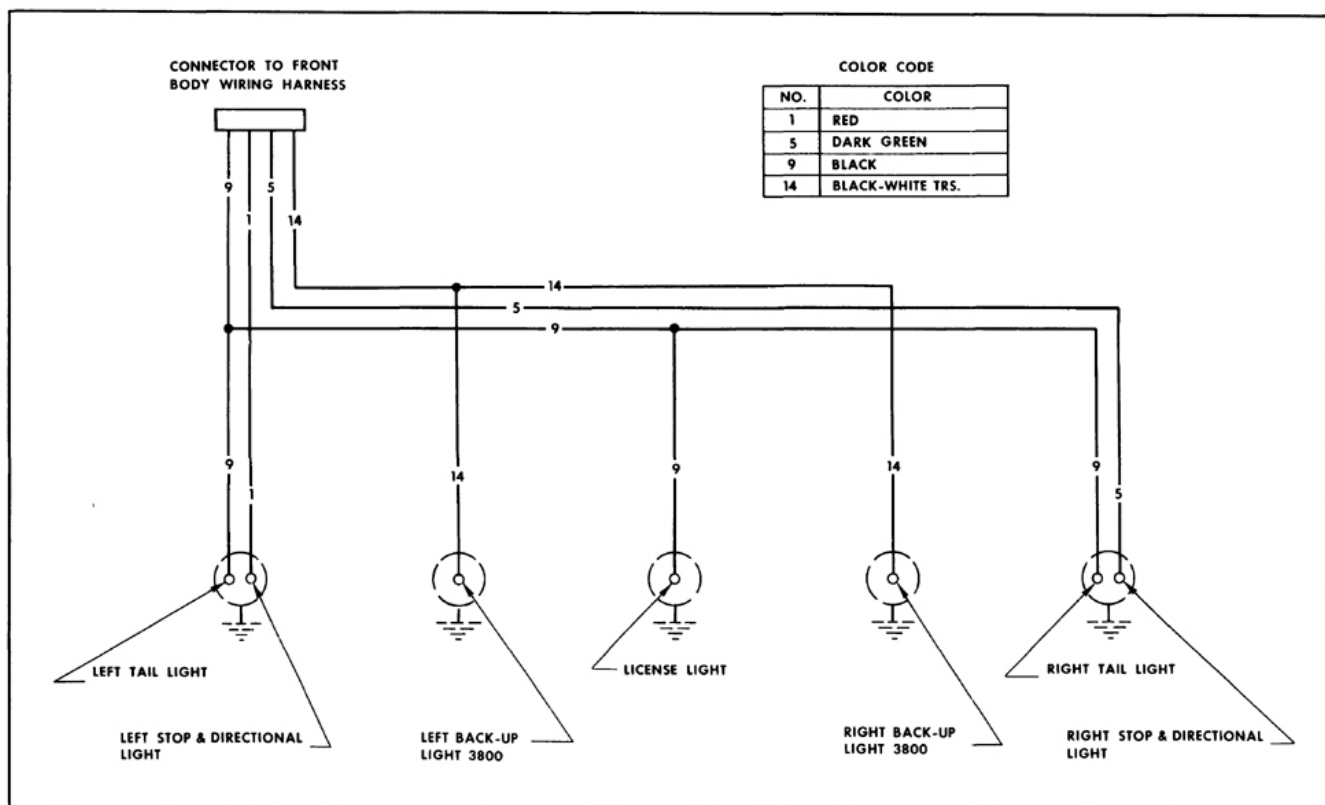


Fig. 16-192 Rear Body Wiring Circuit

FIESTA

GENERAL DESCRIPTION

The fiesta has a manually or electrically operated tail gate window. To provide for maximum cargo space, the second seat back(s) can be folded forward to obtain additional floor area.

A special option is available on two seat styles, which includes a vertically mounted spare tire in the right rear quarter panel, and a lock on the rear floor section. This option provides additional storage area, with security.

On three seat styles, the back of the third seat folds rearward into the floor. To raise the seat back, it is necessary to lift up on the floor panel while raising the seat back. (Fig. 16-193) On three seat styles, the third seat back lifts from the floor. (Fig. 16-194) The windshield, instrument panel front seat and front and rear doors are the same as used on sedans. For servicing of these items, refer to their respective procedures in the BODY SECTION.

OPERATION OF TAILGATE WINDOW

MANUAL REAR WINDOW CONTROL

To open the tailgate, it is **FIRST NECESSARY TO LOWER THE REAR WINDOW**. This is accomplished by pulling out the window control knob, placing the indicator on OPEN and turning the handle counterclockwise until the window is **COMPLETELY DOWN**. (Fig. 16-195) A mechanical safety device prevents the tailgate from being opened until the window is down completely. When lowering is completed, turn the indicator to FOLD. This places the control knob in "free wheeling" so it may be rotated to locate in the recess at the bottom of the control assembly when folded back into position.

When the window is completely down, the tailgate is opened by grasping the latch, located top



Fig. 16-193 Folding Rear Seat Back

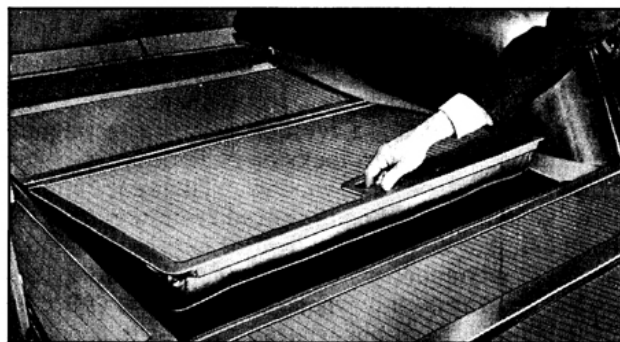


Fig. 16-194 Folding Third Seat (45 Style)

center of the inner panel of the tailgate, and pulling up and to the rear.

NOTE: The handle **CANNOT BE RECESSED** unless the cap cylinder is rotated from open to either fold or lock position.

To raise the window, pull out control knob, place indicator in OPEN position and turn knob clockwise. When the window is completely closed, turn the indicator to FOLD and replace control knob in closed position (Fig. 16-196)

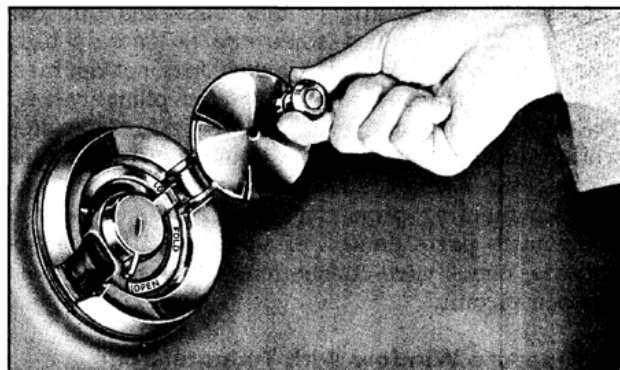


Fig. 16-195 Manual Window Control



Fig. 16-196 Manual Control Handle Latch

To lock the tailgate, lift the control handle, insert the door and ignition key and turn the indicator counterclockwise to LOCK. Remove key and replace control handle in closed position.

ELECTRIC REAR WINDOW CONTROL (Fig. 16-197)

The window is lowered from the outside by inserting the door and ignition key in the tailgate and turning counterclockwise. Turning the key clockwise raises the window. The rear window may also be raised and lowered from the driver's compartment with the control located in the center of the instrument panel above the radio. This switch operates only when the ignition is ON or in ACCESSORY position, whereas the switch on the tailgate operates independently of the ignition.

NOTE: Electric rear window switch located on left rear side panel of three seat models, operates only when ignition switch is in ON or ACCESSORY position.

As in the case of the manual control, the window must be completely down before the tailgate can be opened. When the tailgate is open, a switch automatically prevents the window from being raised.

IMPORTANT: Tailgate must be fully engaged in strikers to operate electric rear window. The nylon plunger located in the L.H. striker must be depressed by the tailgate lock case and this can only be accomplished when the tailgate is fully closed in the striker. If window does not operate, open gate, depress and hold nylon plunger (Fig. 16-199) and operate switches. If window operates while holding plunger fully compressed, this indicates the striker switch and tailgate lock case are not meeting properly. Adjust striker so that component parts mate. If window still does not operate, check wire connections for possible short or open circuit.

To Operate Window with Tailgate Open

When service requires that the glass be raised and lowered with the tailgate open, the manually operated window can be cranked up or down. On

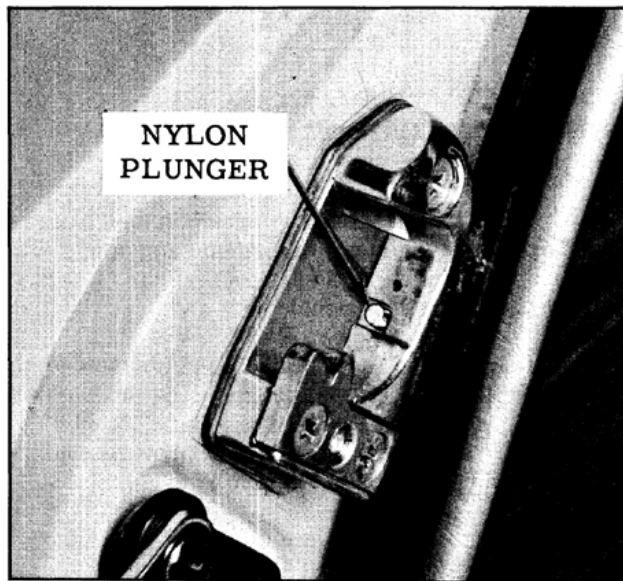


Fig. 16-198 Tail Gate Striker Switch

the electrically operated window, it will be necessary to depress the switch plunger which is located in the left tailgate striker plate (Figs. 16-198 and 16-199) and then operate window switch.

CAUTION: Tailgate glass must be fully down before closing the tailgate.

SERVICING INOPERATIVE TAILGATE WINDOW

If, due to a mechanical or electrical failure, the tailgate window will not lower, access to the regulating mechanism can be made by using the following procedure.

1. On three seat wagons and two seat wagons with luggage locker, unsnap the plastic spare tire cover from the top retainer by using two screwdrivers.

NOTE: Start at the rear and push down on top rear of cover to insert screwdrivers in top retaining flange. A wide-bladed putty knife will also aid in preventing cover from slipping back into the retainer.

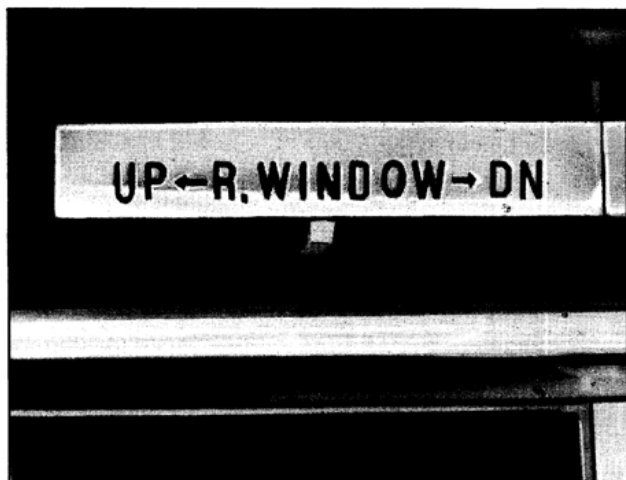


Fig. 16-197 Electrical Window Control

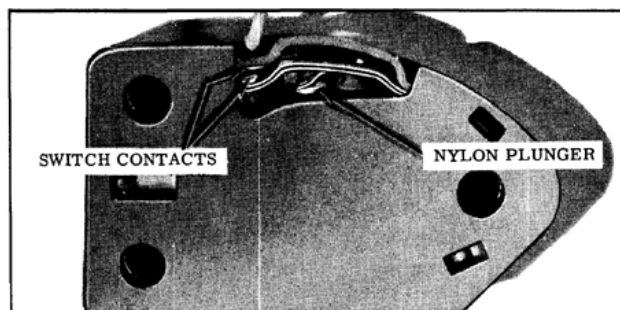


Fig. 16-199 Striker

2. Remove spare wheel.

NOTE: On two seat wagons without luggage locker, omit Steps 1 and 2.

3. Remove two bolts that retain the torsion rods on the underside of the follow board. This will allow the follow board to be pulled forward until it contacts the floor board to gain access for removal of the 14 screws that retain the tailgate trim panel.

NOTE: Do not remove skid pad screws.

4. Work trim panel loose from lower retainer with screwdriver and remove trim panel.
5. Disengage paper water deflector far enough to remove the inspection hole covers and remove covers.

This will permit inspection of regulator mechanism and correction of the difficulty. If necessary to open tailgate to make correction, disconnect cams from lower sash channel and lower window into tailgate. When assembling tailgate, be sure to re-seal water deflector.

SPARE TIRE

TWO SEAT STYLES (Fig. 16-200)

The spare tire and tire changing equipment are located under a hinged section of the rear floor. To gain access, lift the section using the finger hole provided. The section may be held open by swinging out the end of the support bar (located under rear side of the floor panel of the opened section) and placing it in the retaining hole which is in the left side.

SPECIAL OPTION AND THREE SEAT STYLES (Fig. 16-201)

On special option and three seat styles, the spare tire is mounted in a compartment in the R.H. quarter panel.

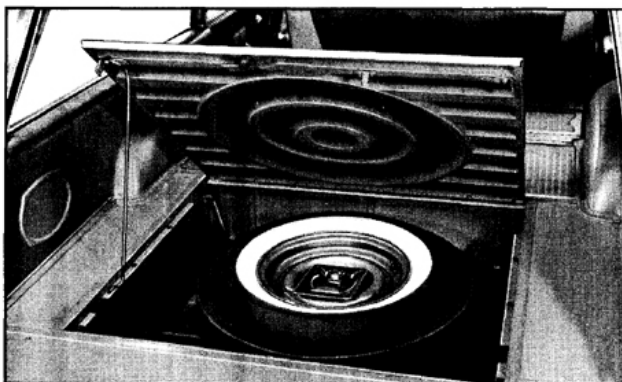


Fig. 16-200 Spare Tire Location (35 Style)

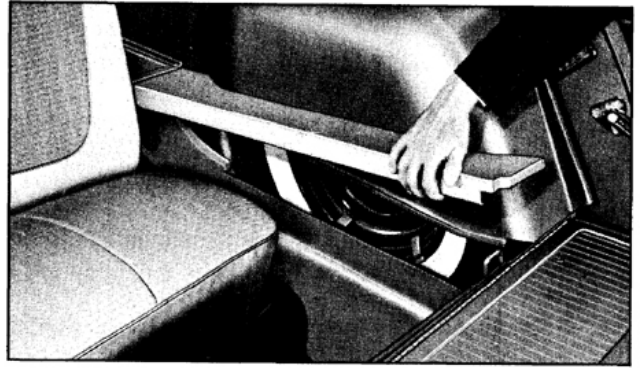


Fig. 16-201 Spare Tire (Special Option and 45 Style)

To remove tire, it is necessary to remove the tire cover, then lift up rear edge of auxiliary floor and pull rearward.

REAR SEAT ASSEMBLY

The rear seat cushion can be removed in the same manner as on conventional styles. The seat back trim assembly can be removed by first removing the rear seat cushion, then removing the trim to back panel attaching screws. The rear seat back floor pivot brackets can be removed by disconnecting the links and removing the bracket to floor pan bolts.

REAR SEAT BACK PANEL, AUXILIARY FLOOR AND HINGE ASSEMBLY

Removal and Installation

1. Remove the rear seat cushion.
2. Remove the hinge to auxiliary floor panel attaching screws.
3. Remove retainers and disengage links from the floor pivot brackets.
4. Remove the seat back panel, auxiliary floor and hinge assembly.

To install, reverse the removal procedure.

THIRD SEAT ASSEMBLY (45 STYLE)

The seat cushion of this seat can be removed by lifting up on rear edge of cushion (rear of car) approximately two inches, then pulling toward rear of car. It is important that cushion be lifted vertically first, due to type of clamp holding cushion in position.

Place backrest to up position and remove torque rod which is attached with four brackets and bolts. Remove four bracket to floor attaching bolts and remove assembly.

TAILGATE

REMOVE AND INSTALL

1. Lower window, open tailgate.
2. Remove the tailgate inner panel cover.
3. Disconnect water deflector around tailgate hinge.
4. If equipped with electric window lift or wiper:
 - a. Disconnect water deflector and remove large access hole cover(s).
 - b. Raise window, disconnect the wiring harness from the motor(s) and tailgate and remove harness from the bottom of the tailgate.
5. Fully open tailgate and support in this position.
6. Disconnect tailgate support arms at tailgate.
7. Remove the three hinge to tailgate attaching bolts from each hinge. Scribe around bolt holes for hinge location.
8. On manual operated windows, raise window approximately six inches.
9. Position the tailgate in the near closed position to relax the torque rods, then with aid of a helper lift tailgate from hinges.
10. To install, reverse the procedure, align the tailgate and reseal water deflector. Apply

body caulking compound around hinge where it enters the tailgate. (Fig. 16-202)

ADJUSTMENTS

The in and out and sidewise adjustment is provided at the body hinge and up and down adjustment is provided at the hinge on the tailgate. In and out adjustments at the top of the tailgate are provided at the lock strikers, which are adjusted the same as a door lock striker.

TORQUE RODS (Tailgate)

REMOVE AND INSTALL (Fig. 16-203)

1. Remove tailgate. (Refer to TAILGATE REMOVE AND INSTALL)
2. Block follow board securely in up position.
3. Remove two bolts securing each torque rod to the movable hinge. Pull torque rods out of stationary hinge.

To assemble, reverse the removal procedure. Install torque rods as shown in Fig. 16-203.

TORQUE RODS (Follow Board)

REMOVE AND INSTALL (Fig. 16-204)

1. Place follow board in down position.

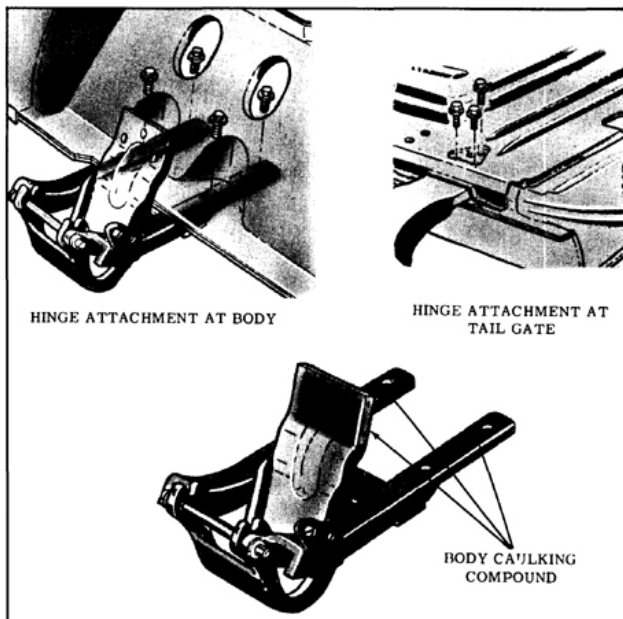


Fig. 16-202 Hinge Sealing and Installation

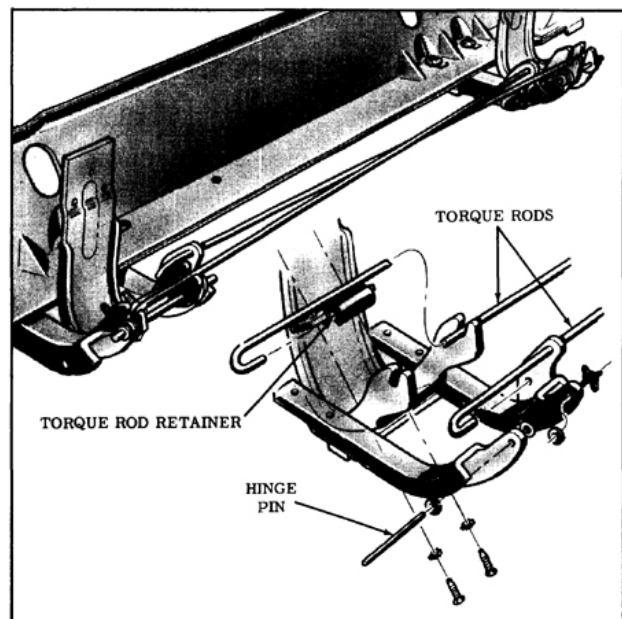


Fig. 16-203 Tailgate Torque Rods

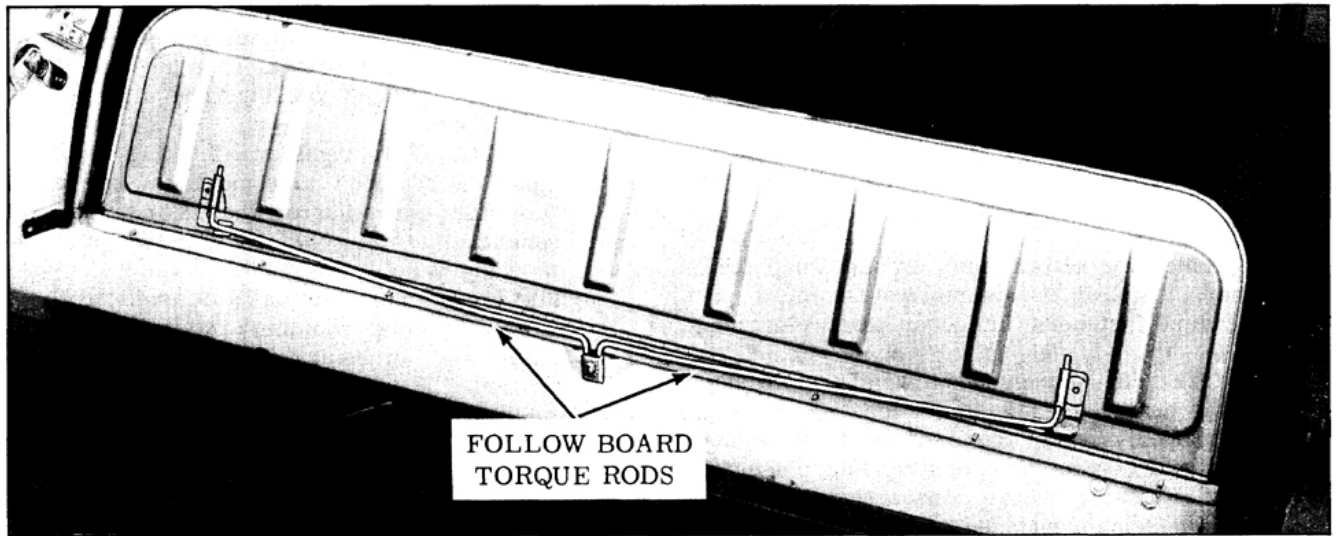


Fig. 16-204 Follow Board Torque Rods

2. Remove two outer screws in follow board. This will disconnect rods from follow board.
3. Lift up follow board.
4. Loosen torque rod clamp in center of body.

To install, reverse removal procedure. The outer torque rod clamps can be attached to follow board when in the down position by reaching under the follow board and holding a clamp to the follow board and by inserting screw..

HINGE REPLACEMENT

Either half of the tailgate hinge can be removed independently of the other.

1. Remove the tailgate assembly. (Refer to TAILGATE - REMOVE AND INSTALL.)
2. Disconnect torque rods from hinge to be removed. (Fig. 16-203)
3. Disconnect bumper to obtain clearance for hinge removal.
4. Scribe hinge location on body to aid in alignment upon installation.
5. Remove hinge assembly.
6. If only half of the hinge assembly is to be replaced, remove the hinge pin retainer and hinge pin.
7. To install, reverse the removal procedure. Apply heavy-bodied sealer to the attaching surfaces of hinge straps or corresponding surfaces of the body and tailgate. (Fig. 16-202)

TAILGATE WEATHERSTRIP

The weatherstrip assembly incorporates nylon component fasteners. This fastener is the same size on all locations (3/16" diameter) and is available as a service part.

A fastener removing tool can be fabricated as shown in Figure 16-14. When a removal tool is fabricated, make sure all sharp edges or metal burrs are removed so as not to damage weatherstrip or paint finish during its usage.

Removal

1. Remove snap fasteners securing ends of weatherstrip at belt line.
2. Carefully break cement bonds securing weatherstrip. A putty knife will prove helpful in breaking cement bond.
3. Slide tool under weatherstrip at a fastener location and grip fastener as close to panel as possible; then, gently pry fastener out. (Fig. 16-19)

CAUTION: Exercise care not to damage serrations or fasteners during removal as they are necessary to maintain a good weatherseal.

Installation

1. Check weatherstrip nylon fasteners for damage and replace, if necessary.
2. Clean off old cement from panel to insure a clean cementing surface. Apply a bead of

weatherstrip adhesive at belt line and continue down panel for approximately seven to nine inches.

NOTE: Cement usage is usually limited to panel at belt line. Cement, however, can be applied at any point where additional retention of weatherstrip is needed.

3. Beginning at either side, install snap fasteners. Install weatherstrip fasteners by pressing fasteners into door panel piercing.

NOTE: In the event a weatherstrip becomes damaged at a fastener location and will not properly retain the fastener, remove fastener and cement weatherstrip into place. If, however, two or more consecutive fasteners will not remain engaged in the weatherstrip, replacement of the weatherstrip will probably be necessary.

Weatherstrips are impregnated with a silicone lubricant and additional lubricant should not be required.

HEADLINER

REMOVE AND INSTALL

The headliner consists of five sections of perforated hardboard retained by plastic retainer finishing moldings. The plastic retainer finishing moldings snap onto retainers, which are attached to the roof top crossbows. Side aluminum retainers are retained by screws to the side roof inner rail. To remove the front headliner section, the windshield upper garnish moldings, rear view mirror support and sun visors must be removed. To remove the rear section, the roof top header garnish molding must be removed.

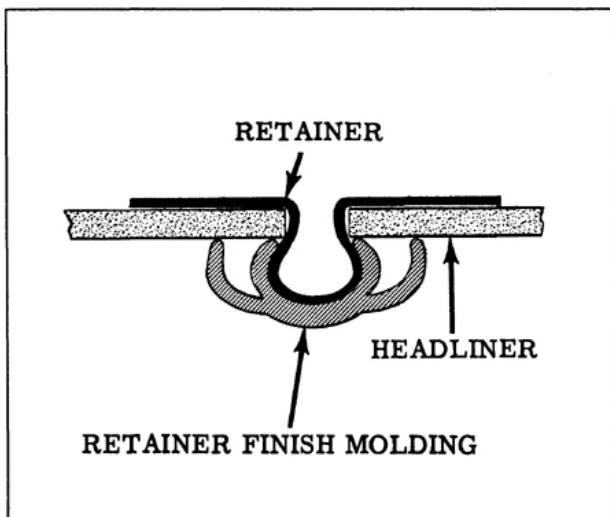


Fig. 16-205 Headliner and Retainer

1. With a screwdriver or suitable tool, pry one end of the plastic retainer finishing molding loose from its retainer. Then peel the plastic retainer finishing molding from its retainer. (Fig. 16-205)

NOTE: Two retainer finishing moldings must be removed to remove any one panel, with the exception of the front and rear panels.

3. Slide headliner section back sufficiently to clear finishing molding retainer, then lift sides out of side retainers and remove section.
3. To install, reverse removal procedure.

QUARTER TRIM PANELS

The quarter trim panels are retained as shown in Figs. 16-206 and 16-207.

NOTE: Tail lamp and bulbs can be replaced by removing the lens.

FLOOR AND TAILGATE TRIM COVERS

FLOOR TRIM COVERS

The auxiliary flooring is composed of individual panels with vinyl or carpet covering. All coverings are retained by an adhesive and in addition, carpet coverings are further retained by sheet metal screws. Any floor covering can be removed, after removal of carpet screws, by working the cemented covering loose from the panel with a putty knife. Use a waterproof adhesive for cementing new floor covering.

TAILGATE PANEL AND TRIM COVER

1. Fold back follow board and remove skid strips. Remove carpet screws.
2. Pull panel assembly outward to disengage it from lower molding.
3. With a putty knife or suitable tool, pry the vinyl or carpet from the panel.
4. To install, clean panel thoroughly and install new covering. Coat the back side of the covering as well as the panel with waterproof adhesive. Allow it to become tacky, then position the covering and press-roll onto panel.
5. Install the panel assembly, carpet screws and skid strips.

REAR QUARTER WINDOW ASSEMBLY

REMOVAL

1. Remove rear quarter window garnish moldings.
2. Remove the rear quarter trim panels.
3. Remove screws securing retainers at top, front and bottom of window assembly.
4. Using a suitable tool, carefully break seal

bond between rubber channel and body opening, then have helper carefully push glass and rubber channel inboard and remove assembly from opening.

NOTE: Rubber channel may be removed from glass as a bench operation.

INSTALLATION

1. Clean off old sealer from rubber channel and body opening to insure a smooth sealing surface.
2. Apply a ribbon of medium-bodied sealer in

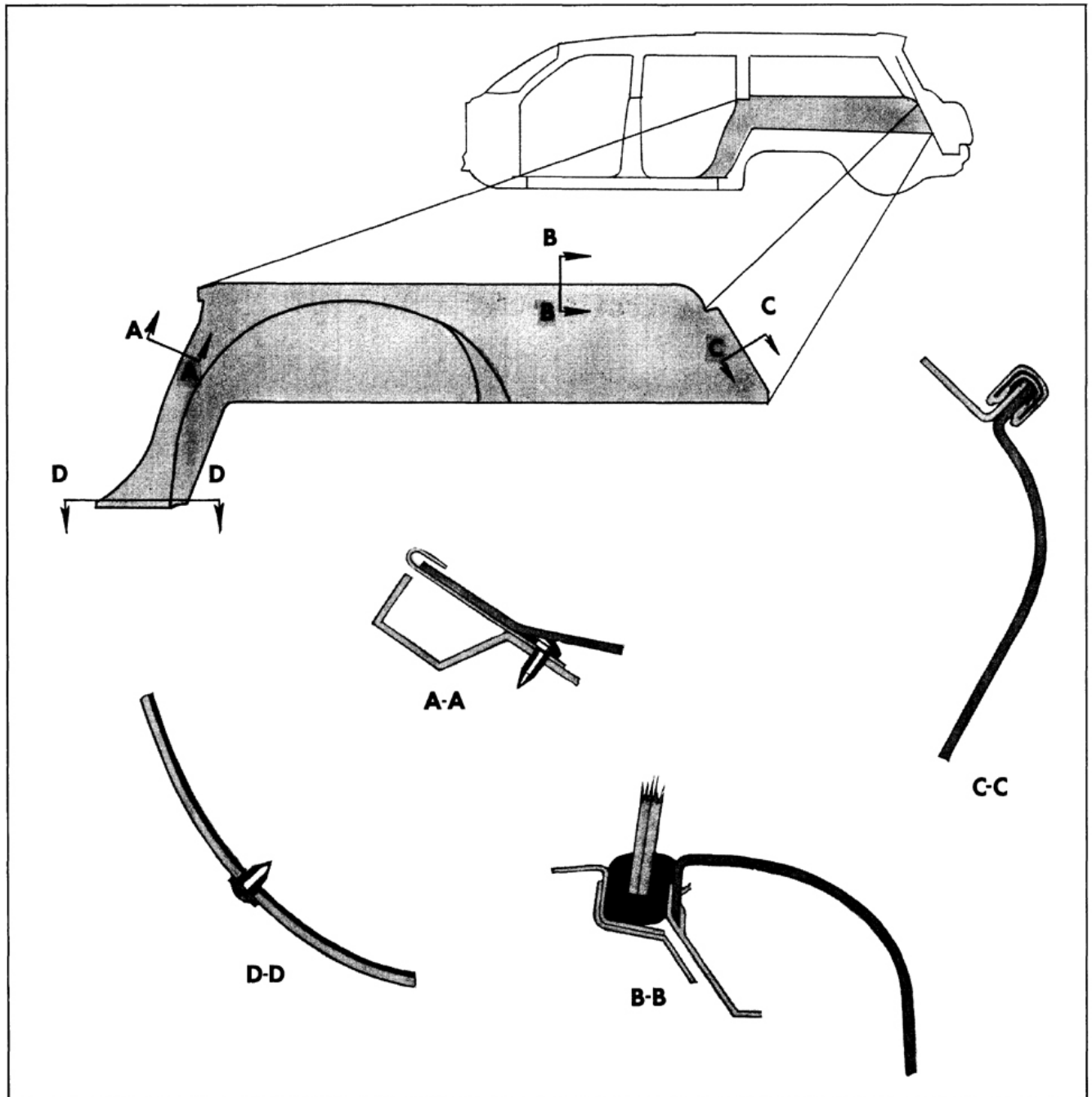


Fig. 16-206 Quarter Trim Panel (Two Seat without Luggage Option)

corner of rear quarter revel moldings completely around window opening.

3. Install quarter window assembly and install retainers and clips.
4. Using a plews oiler or any other suitable applicator, apply a bead of neoprene base weatherstrip cement between glass and outer wall of rubber channel completely around window. Clean off excess sealer.
5. Replace all previously removed parts and remove protective coverings.

NAME PLATE LETTERS AND MOLDINGS

NAME PLATE AND LETTERS (Fig. 16-208 & 16-209)

To remove the name plate or letters, it is necessary to remove the tailgate inner panel cover, disconnect the water deflector and remove the access hole cover(s). After the letters are installed, apply body caulking compound around the letter studs, reverse the removal procedure and reseal water deflector.

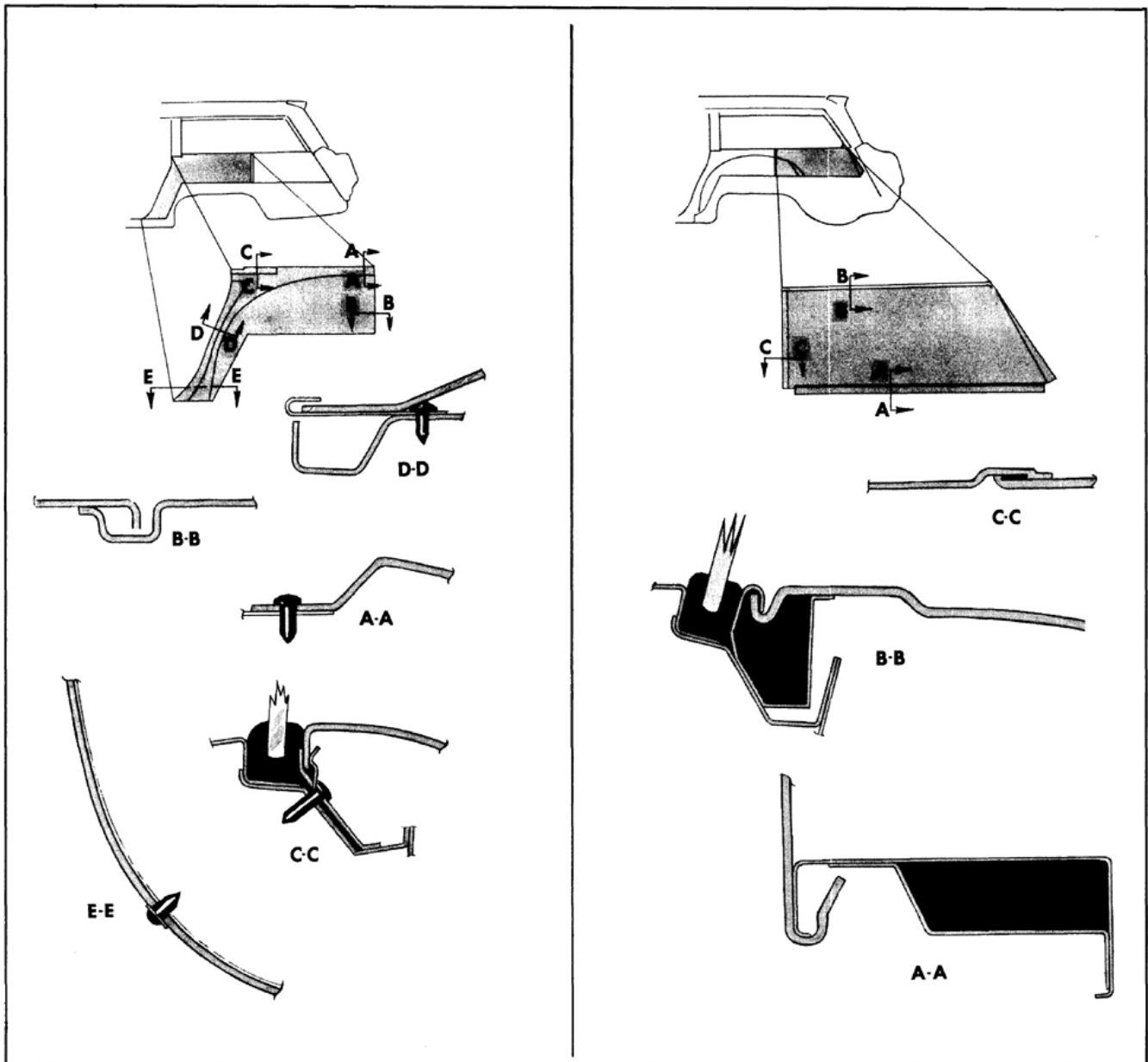


Fig. 16-207 Quarter Trim Panels (with Luggage Option or Third Seat)

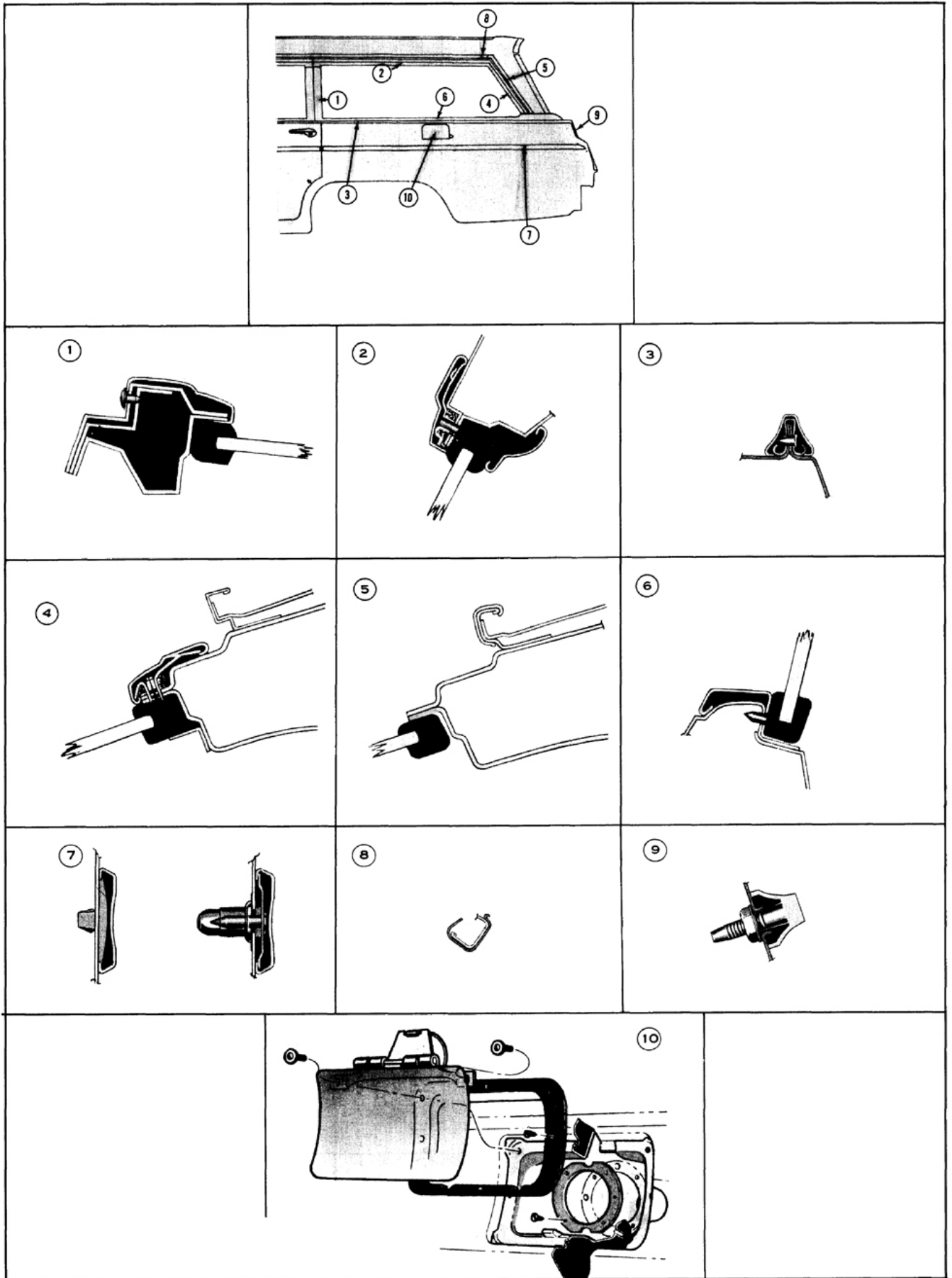


Fig. 16-208 Quarter Panel Exterior Molding Attachment

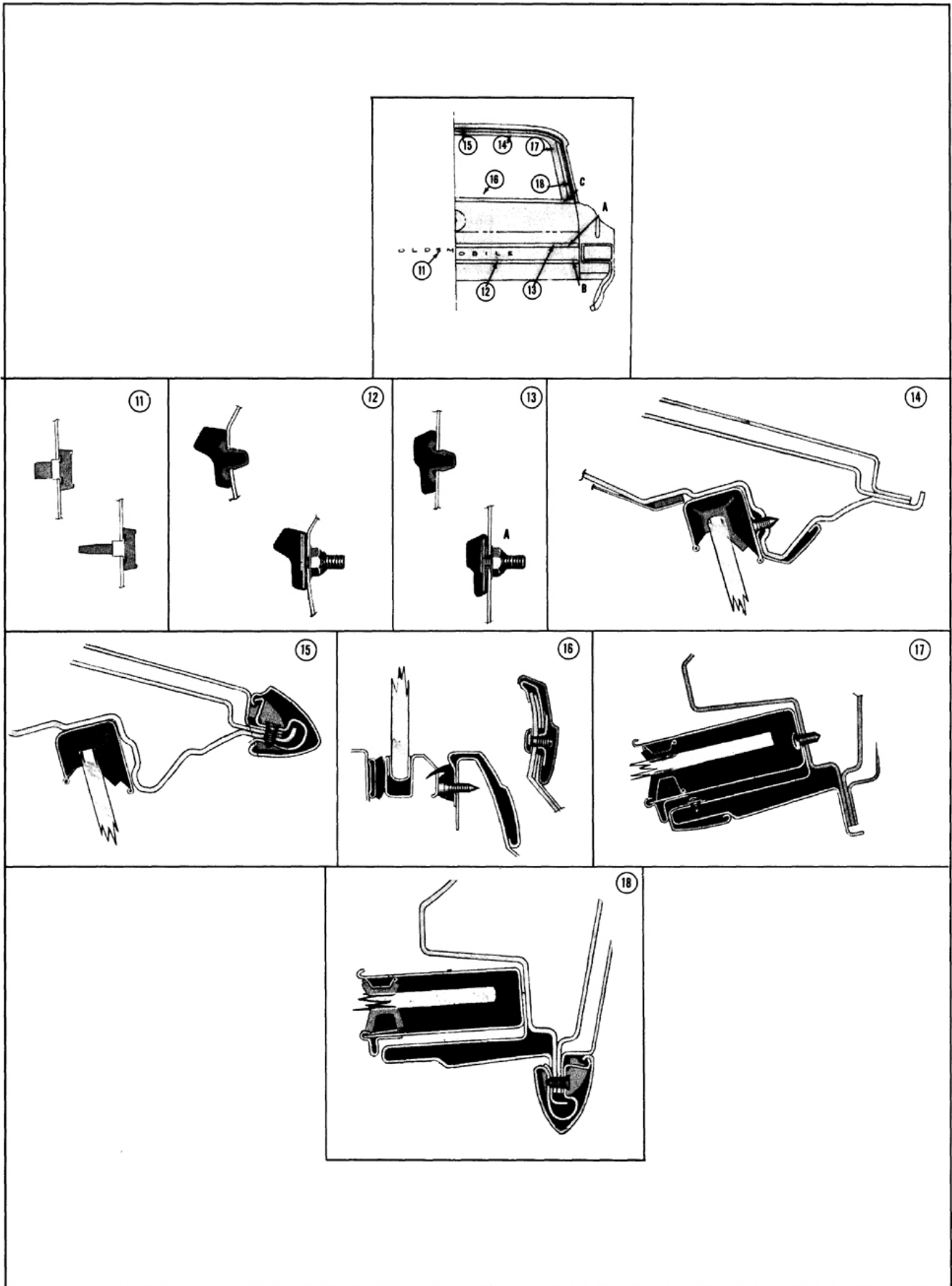


Fig. 16-209 Tailgate Letters and Exterior Molding Attachment

QUARTER WINDOW REVEAL MOLDING

The quarter window reveal moldings, upper, lower and rear, can be removed after the quarter window and rubber channel are removed.

QUARTER WINDOW SCALP

The quarter window scalp moldings, front, upper and rear, can be removed after the quarter window and rubber channel are removed.

REAR FENDER MOLDING

The rear fender molding is attached by eight snap-in clips and in addition uses a bolt and clip assembly at the rear end of the molding. The molding attaching nuts are accessibly by removing the rear quarter trim pad or upright spare tire, on cars so equipped.

ROOF DRIP MOLDING

The roof drip moldings are attached by snapping the molding over the roof drip rail.

BODY PINCHWELD FINISHING MOLDINGS

The body pinchweld finishing moldings are retained by snapping the moldings over retaining clips.

TAILGATE WINDOW REVEAL— UPPER, LOWER AND SIDE MOLDINGS

The tail gate window upper moldings, right and left, are secured to the body by attaching screws. The left reveal molding overlaps the right reveal molding at the center and the attachment is secured with a screw. Both upper reveal moldings are overlapped at the outer ends by the side reveal moldings.

To remove the moldings, remove the tailgate window upper glass run channels and the side reveal moldings. Remove the upper reveal molding attaching screws and remove the moldings. The moldings may be removed individually. Removal of either reveal molding individually requires detachment of the opposite side upper glass run channel at the center.

To install the moldings, apply a continuous ribbon of medium-bodied sealer (1/4" diameter) to the center of the inner surface of each molding and along the entire length of the molding. Position and install the right molding before the left molding. Seat and install the glass run channels and the side reveal moldings.

The tailgate window lower reveal molding is attached with screws which are accessible after the tailgate window is removed.

The tailgate window side moldings, right and left, are secured to the body by a slide-on attachment and by screws.

To remove the moldings, remove the rear body opening garnish moldings and panels and the tailgate window upper glass run channels. Remove the attaching screws and slide the moldings downward and inward from the body. When removing either molding individually, detach the opposite upper glass run channel at the center.

To install the moldings, apply a continuous ribbon of medium-bodied sealer to fill the cavity formed by the attaching surfaces of each molding. Position the moldings to the body and to the upper reveal moldings and install the attaching screws. Seal and install the upper glass run channels. Install the previously removed parts.

TAILGATE WINDOW ASSEMBLY MANUAL OR ELECTRIC) Fig. 16-210)

Removal and Installation

1. Remove the tailgate window garnish molding.
2. Carefully operate window fully outward until the window lower sash channel right and left cam attaching bolts are accessible.

NOTE: If cam attaching bolts are not accessible, bend the sheet metal until bolts are accessible. (Fig. 16-211)

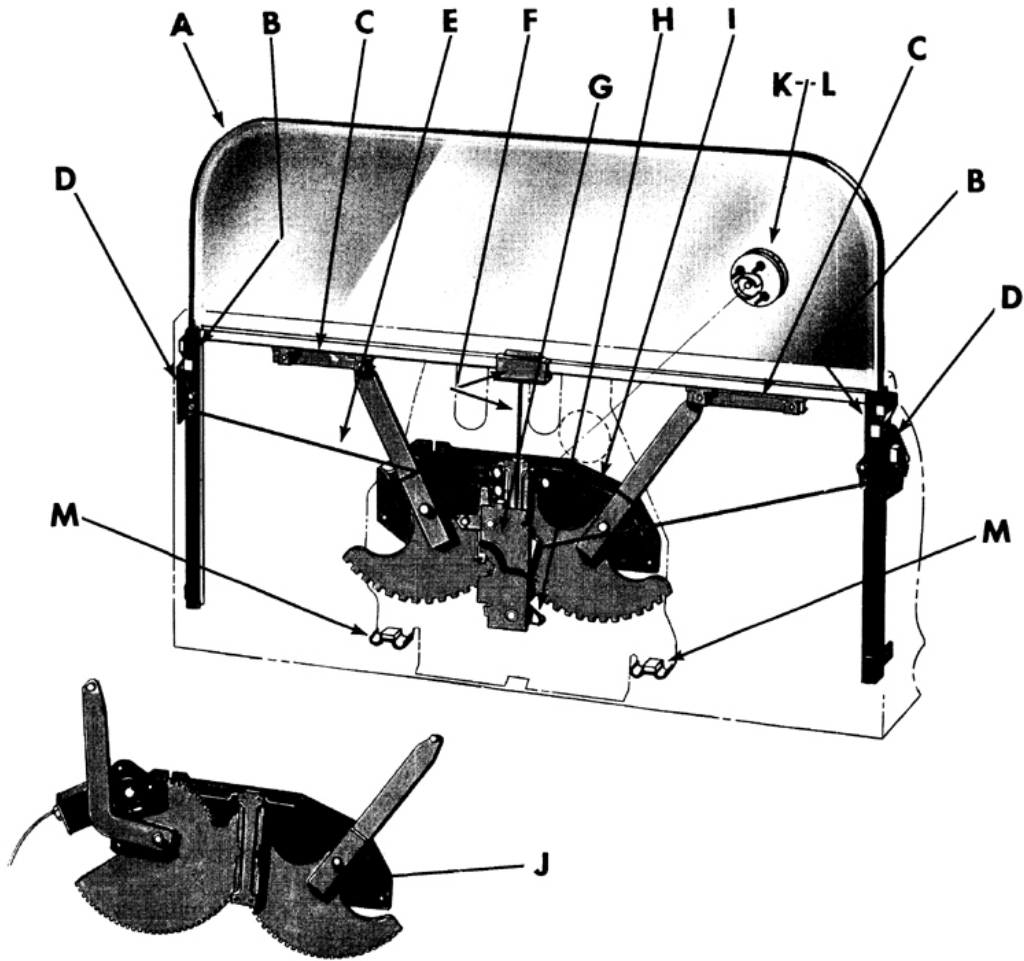
3. Remove window lower sash channel right and left cam attaching bolts. Disengage cams from window lower sash channel; then carefully remove window assembly.

CAUTION: DO NOT OPERATE REGULATOR MOTOR after the window assembly is disengaged from the regulator or removed from the tailgate. Operation of the motor with the load removed may damage the unit and make it inoperative.

4. To install tailgate window assembly, reverse removal procedure. Prior to installing window lower sash channel cams, lubricate channel portion of cam with Lubriplate or its equivalent.

TAILGATE WINDOW ADJUSTMENTS

1. To adjust the tailgate window forward or rearward for proper alignment with the window glass run channel (on body), and/or to eliminate a binding condition of the window



- A. Tail Gate Window Assembly
- B. Tail Gate Window Glass Side Run Channel Assembly - Right and Left
- C. Tail Gate Window Lower Sash Channel Cam - Right and Left
- D. Tail Gate Lock Assembly - Right and Left
- E. Tail Gate Lock Remote Control Connecting Rod - Right and Left
- F. Tail Gate Lock Remote Control Inside Handle Assembly - Includes Push Rod
- G. Tail Gate Lock Remote Control Assembly
- H. Tail Gate Lock Remote Control Locking Lever - Actuated By Window
- I. Tail Gate Window Regulator Assembly - Manual
- J. Tail Gate Window Regulator Assembly - Electric
- K. Tail Gate Window Regulator Outside Handle Assembly
- L. Tail Gate Window Regulator Outside Lock Cylinder Switch and Escutcheon Assembly
- M. Tail Gate Window Rubber Bumper Stops

Fig. 16-210 Tailgate Assembly

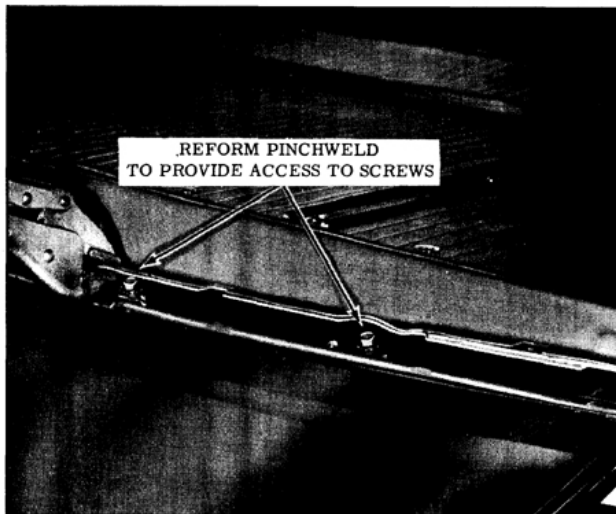


Fig. 16-211 Tailgate Window Removal

in the tailgate glass run side channels, loosen the tailgate glass run side channel(s) lower attaching bolt at tailgate lock pillar. Move lower end of channel forward or rearward, as required, and tighten lower attaching bolt.

NOTE: The vertical portion of the tailgate window glass upper run channels are adjustable forward or rearward for proper alignment with the tailgate glass.

2. To correct a condition where the glass is cocked in the glass run channels, loosen window regulator attaching screws, rotate regulator assembly clockwise or counterclockwise, as required, to eliminate cocked condition. (Fig. 16-212)

TAILGATE WINDOW REGULATOR ASSEMBLY (MANUAL OR ELECTRIC)

REMOVAL AND INSTALLATION

1. Remove tailgate window assembly, as described under TAILGATE WINDOW ASSEMBLY - Removal and Installation.
2. Remove the inner panel cover lower retainer, inner panel cover and skid strips.
3. Detach tailgate lock remote control right connecting rod from remote control.
4. On styles equipped with electrically operated tailgate window, disconnect tailgate harness connector from motor.

CAUTION: DO NOT OPERATE REGULATOR MOTOR after window assembly is disengaged from the regulator or after the regulator is removed from the tailgate. Operation of the motor with the load removed may damage the unit and make it inoperative.

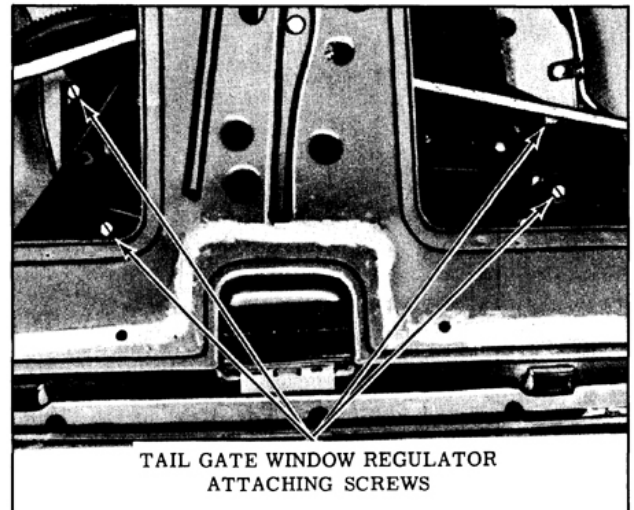


Fig. 16-212 Regulator Removal

5. Remove regulator attaching screws. (Fig. 16-212) Remove regulator assembly through access hole.

NOTE: To remove electric motor from regulator assembly see TAILGATE WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY - Removal and Installation.

6. To install tailgate window regulator assembly, reverse removal procedure. Prior to installing regulator, lubricate the teeth on the regulator section with Lubriplate.

Prior to resealing tailgate inner panel water deflector, check operation of window and tailgate locking mechanism. Where necessary, adjust tailgate window, tailgate lock strikers or tailgate lock remote control for proper operation.

TAILGATE WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

Removal and Installation

1. Remove tailgate window regulator and electric motor assembly as described under TAILGATE WINDOW REGULATOR ASSEMBLY - Removal and Installation.
2. Place regulator assembly in a vise as shown in Fig. 16-213.

CAUTION: BE SURE to perform Steps 3 and 4 before attempting to remove the motor from the regulator. The regulator lift arms, which are under tension from the counterbalance spring, can cause serious injury if the motor is removed without locking the sectors in position.

3. Drill a 1/4" hole through regulator backplate

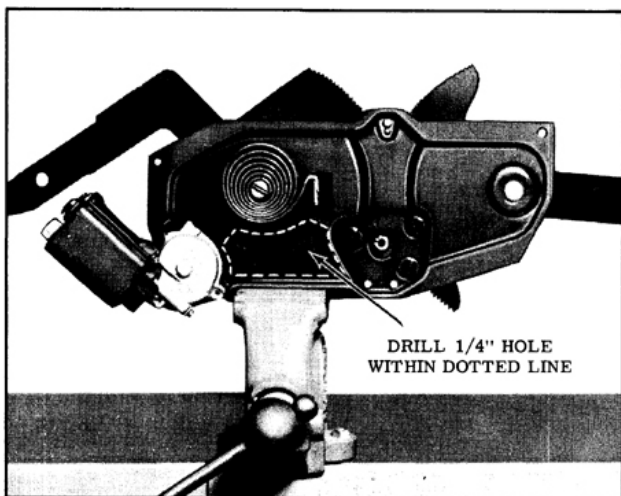


Fig. 16-213 Regulator Removal

and main sector within area indicated by dotted lines. (Fig. 16-213)

NOTE: Do not locate hole less than 1/2" away from edge of backplate, sector or holes in backplate and sector. Do not use holes in backplate or sector as they are too large and locking bolt can slip out.

4. Insert a 3/16" bolt through hole in backplate and sector and install nut to bolt. (Do not tighten nut.)
5. Remove three motor attaching bolts, and remove motor assembly from regulator.

NOTE: Clean off steel chips from the regulator sectors and motor pinion gear after drilling operation.

6. To install regulator electric motor assembly, reverse removal procedure.

NOTE: Be sure to remove nut and bolt locking sector after motor is installed.

TAILGATE WINDOW REGULATOR OUTSIDE HANDLE ASSEMBLY (Manually Operated)

Removal and Installation

1. Remove inner cover panel lower molding and inner cover panel.
2. Detach tailgate inner panel water deflector sufficiently to gain access to access holes, shown at A. (Fig. 16-214)
3. Carefully raise window until holes in window regulator are aligned with inner panel access holes A.

CAUTION: Support portion of window assembly extending out of tailgate.

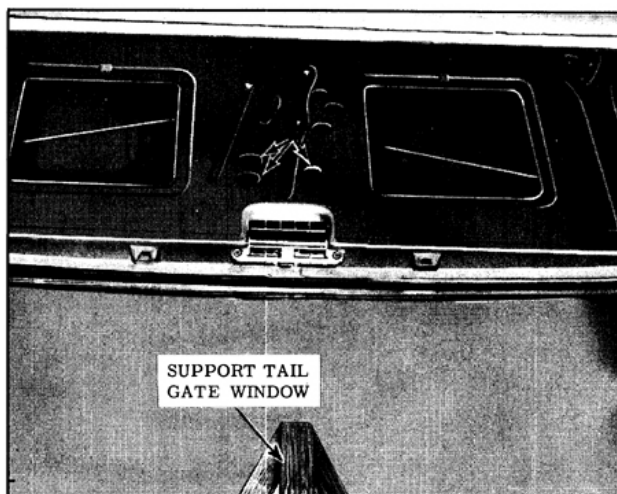


Fig. 16-214 Outside Handle Removal

4. Through access holes, remove tailgate handle attaching nuts and remove handle assembly and gasket from tailgate. To disassemble tailgate handle assembly, see TAILGATE HANDLE ASSEMBLY - Disassembly and Assembly.
5. To install tailgate handle assembly, reverse removal procedure. Make sure sealing gasket is installed between tailgate outer panel and handle escutcheon and make sure handle clutch is properly engaged with window regulator clutch. Check operation of window prior to resealing water deflector. Reseal tailgate inner panel water deflector as specified under TAILGATE INNER PANEL WATER DEFLECTOR.

TAILGATE WINDOW LOCK CYLINDER ASSEMBLY

Removal and Installation

1. Using an awl or suitable punch, carefully punch through webbed hole in face of lock cylinder cap (selector lever).
2. With key in lock cylinder and selector lever in Lock position, insert a piece of wire (paper clip) in hole on face of lock cylinder cap and depress plunger with wire sufficiently to allow key and selector lever to be turned counterclockwise approximately 1/8 turn; then, remove lock cylinder and cap assembly.
3. To install lock cylinder and cap assembly, reverse removal procedure. Prior to installation, lubricate frictional surfaces of lock cylinder and cap parts with Lubriplate or its equivalent.

TAILGATE WINDOW HANDLE ASSEMBLY Disassembly and Assembly (Fig. 16-215)

1. Remove window regulator handle assembly.
2. Using an awl, remove clutch spring retainer; then remove clutch washer and spring washer, and remove clutch and lock cylinder assembly from unit. (Fig. 16-215)
3. Using snap ring pliers or other suitable tool, remove housing spring retainer; then remove housing washer and spring washer, and remove backplate from handle and knob housing.

NOTE: Plastic shoes can be removed from handle and knob housing by carefully prying shoes from housing. (Fig. 16-215)

4. If replacing handle and knob assembly, remove screws securing handle and knob retainers; then disengage handle and knob including handle pin from housing.
5. To install handle assembly, reverse removal procedure. Prior to installation, lubricate frictional surfaces of part with Lubriplate.

TAILGATE WINDOW LOCK CYLINDER AND CASE ASSEMBLY Disassembly and Assembly

1. Remove window regulator handle assembly.

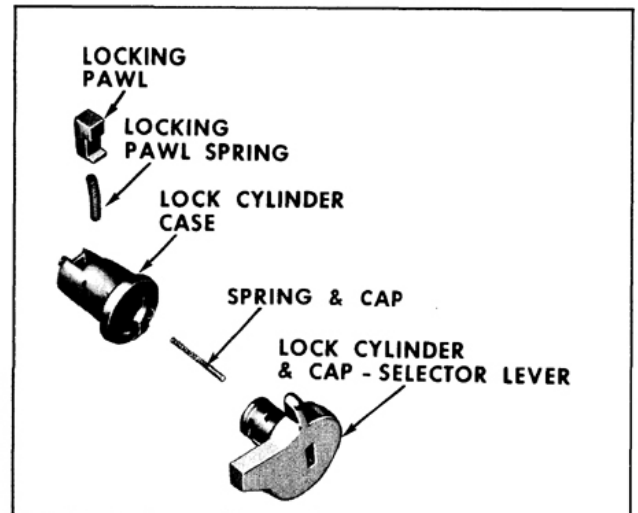


Fig. 16-216 Lock Cylinder and Case

2. Using an awl, remove clutch spring retainer; then remove clutch washer and spring washer, and remove clutch and lock cylinder assembly from unit. (Fig. 16-215)
3. Insert a piece of wire (paper clip) in hole on face of lock cylinder cap. While holding lock cylinder case, depress plunger with wire sufficiently to allow key and selector lever to be turned counterclockwise approximately 1/8 turn; then, remove lock cylinder and cap assembly and detent spring from handle assembly. (Fig. 16-216)

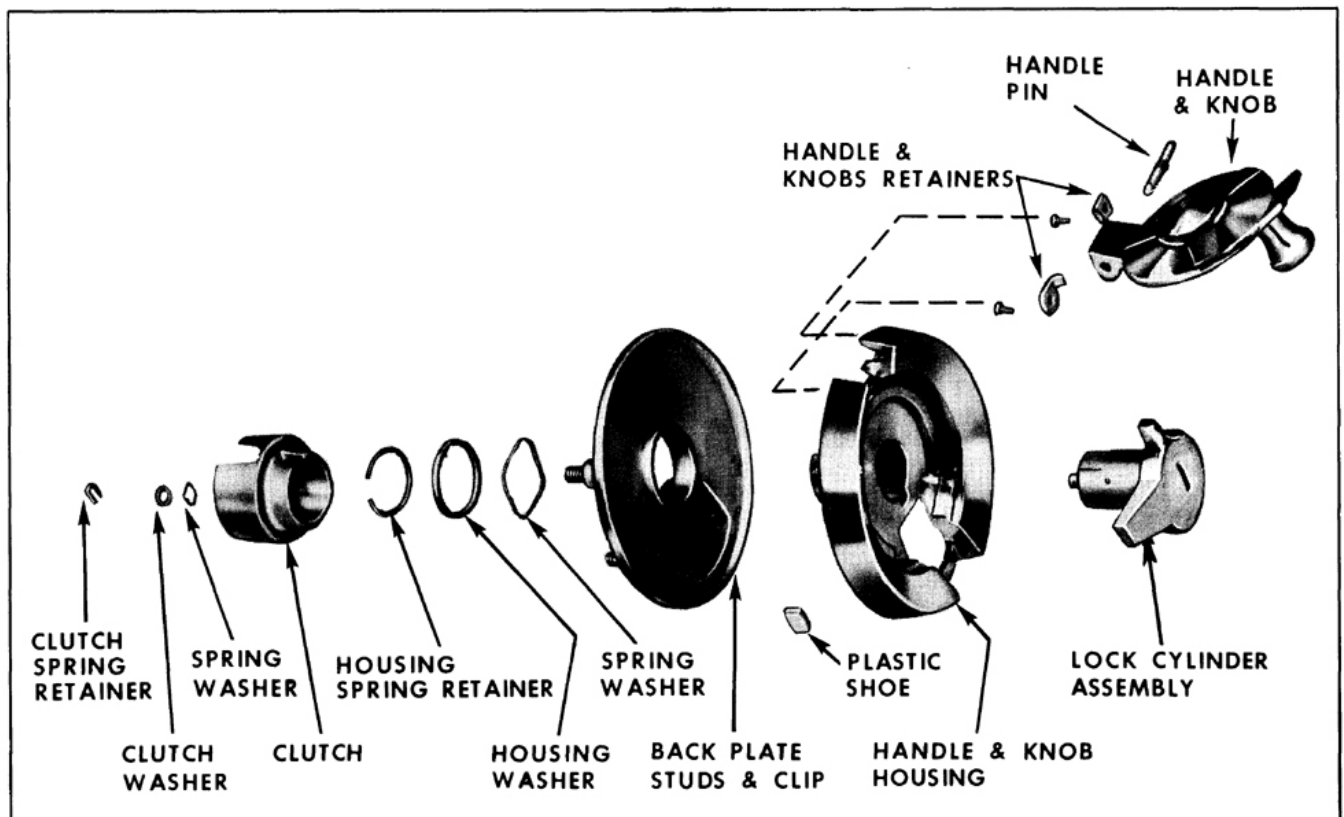


Fig. 16-215 Window Regulator Outside Handle Assembly

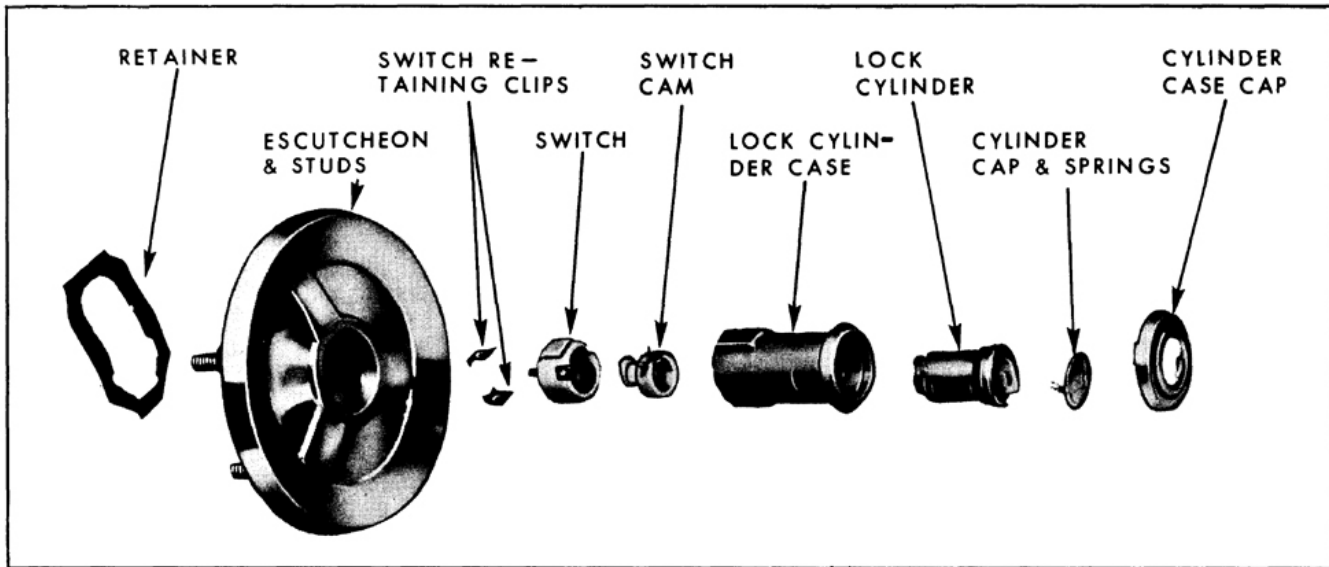


Fig. 16-217 Electric Lock Cylinder and Switch

NOTE: When removing lock cylinder and cap assembly from case, place finger over locking pawl to prevent pawl and spring from popping out. (Fig. 16-216)

4. Remove locking pawl and pawl spring from lock cylinder case.
5. To install lock cylinder and case assembly, reverse removal procedure. Prior to installation, lubricate frictional surfaces of parts with Lubriplate.

TAILGATE ELECTRIC WINDOW LOCK CYLINDER SWITCH AND ESCUTCHEON ASSEMBLY

Removal and Installation (Fig. 16-217)

1. Remove inner cover panel lower molding and inner cover panel.
2. Detach tailgate inner panel water deflector sufficiently to gain access to access holes A for removal of assembly attaching nuts. (Fig. 16-214)
3. Carefully operate window upward until holes in window regulator assembly are aligned with inner panel access holes.

CAUTION: Support portion of window extending out of tailgate.

4. Remove lock cylinder, switch and escutcheon assembly attaching nuts. Detach assembly from tailgate outer panel sufficiently to disconnect junction block from switch; then, remove assembly and gasket from tailgate.

To disassemble electric window lock cylinder, switch and escutcheon assembly see ELECTRIC WINDOW LOCK CYLINDER, SWITCH AND ESCUTCHEON ASSEMBLY - Disassembly and Assembly.

TAILGATE ELECTRIC WINDOW LOCK CYLINDER SWITCH AND ASSEMBLY

Removal and Installation

1. Remove tailgate electric window lock cylinder, switch and escutcheon assembly.
2. Disengage lock cylinder and switch retainer and remove lock cylinder and switch assembly from escutcheon. (Fig. 16-217)
3. To install lock cylinder and switch assembly, reverse removal procedure.

Disassembly and Assembly

1. Using a pointed tool inserted through holes in lock cylinder case, depress tab of switch clips and remove clips. (Fig. 16-217)
2. Carefully pull switch and switch cam from lock cylinder case. (Fig. 16-217)
3. Bend out crimped flange of lock cylinder case cap sufficiently to remove cap; then remove lock cylinder cap and springs.

NOTE: The crimped flange on lock cylinder case caps necessitates damaging cap during removal from lock cylinder case; however, service replacement caps are available which have four bend over tabs for installation.

- To assemble lock cylinder and switch assembly, reverse removal procedure. Prior to installation, lubricate frictional surface of lock cylinder and switch parts with Lubriplate or its equivalent. Install a new service replacement lock cylinder case cap.

TAILGATE LOCK ASSEMBLY (RIGHT OR LEFT)

Removal and Installation

- Remove tailgate window assembly and inner panel cover and disconnect water deflector.
- Remove tailgate window glass run side channel attaching screws and remove channel from side of tailgate from which lock is being removed. (Fig. 16-218 and 16-220)
- Disengage spring clip and detach lock remote control connecting rod from lock remote control. (Fig. 16-220)
- Remove tailgate lock attaching screws and remove tailgate lock with attached connecting rod. (Fig. 16-220) Detach connecting rod from lock.
- To install tailgate lock assembly, reverse removal procedure. Prior to installing lock assembly into tailgate, apply a bead of body caulking compound to lock frame along joint of lock bolt housing, as indicated at 1. (Fig. 16-219)

When attaching connecting rod to lock bellcrank lever, make sure bellcrank lever is in position shown in Fig. 16-220. When installing connecting rod to remote control, gently pull connecting rod towards remote control lever to seat bellcrank lever at lock. Turn remote control lever adjusting screw until hole in lever is aligned with end of connecting rod; then install connecting rod to lever. (Fig. 16-220)

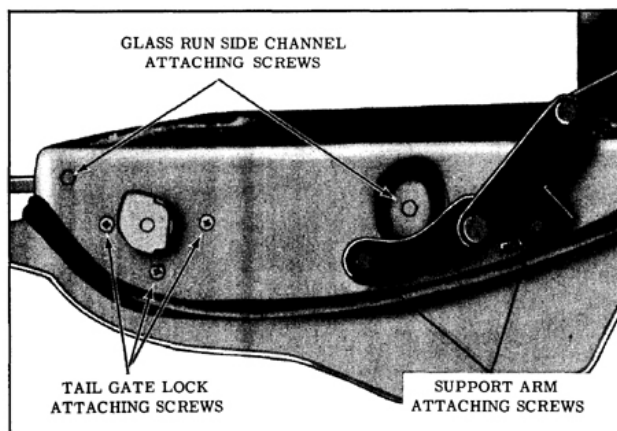


Fig. 16-218 Tailgate Lock and Support Arm

NOTE: Check clips at ends of remote control levers for proper retention of connecting rods and replace if necessary.

Prior to resealing water deflector, check operation of tailgate locking mechanism.

TAILGATE LOCK REMOTE CONTROL INSIDE HANDLE ASSEMBLY

Removal and Installation (Fig. 16-221)

- Remove tailgate belt finishing molding and tailgate inner cover panel. Detach inner water deflector sufficiently to gain access to inner panel.
- Loosen tailgate lock remote control attaching screws and move remote control toward bottom of tailgate sufficiently to disengage end of handle push rod from hole in remote control lever. (Fig. 16-221)

NOTE: In some instances it may be necessary to reach into tailgate and actuate remote control lever to disengage push rod from lever.

- Remove handle attaching screws located under handle and remove handle assembly (includes push rod) from tailgate.
- To install tailgate lock remote control inside handle assembly, reverse removal procedure. Lubricate frictional points of inside handle assembly with Lubriplate.

NOTE: To engage end of handle push rod into hole in remote control lever, it may be necessary to raise window to gain access to lever. Adjust remote control upward until tabs on handle push rod just contact remote control lever.

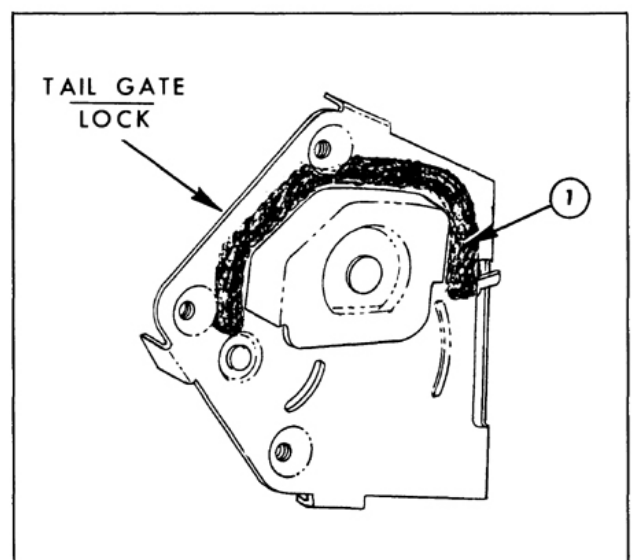


Fig. 16-219 Tailgate Lock Sealing

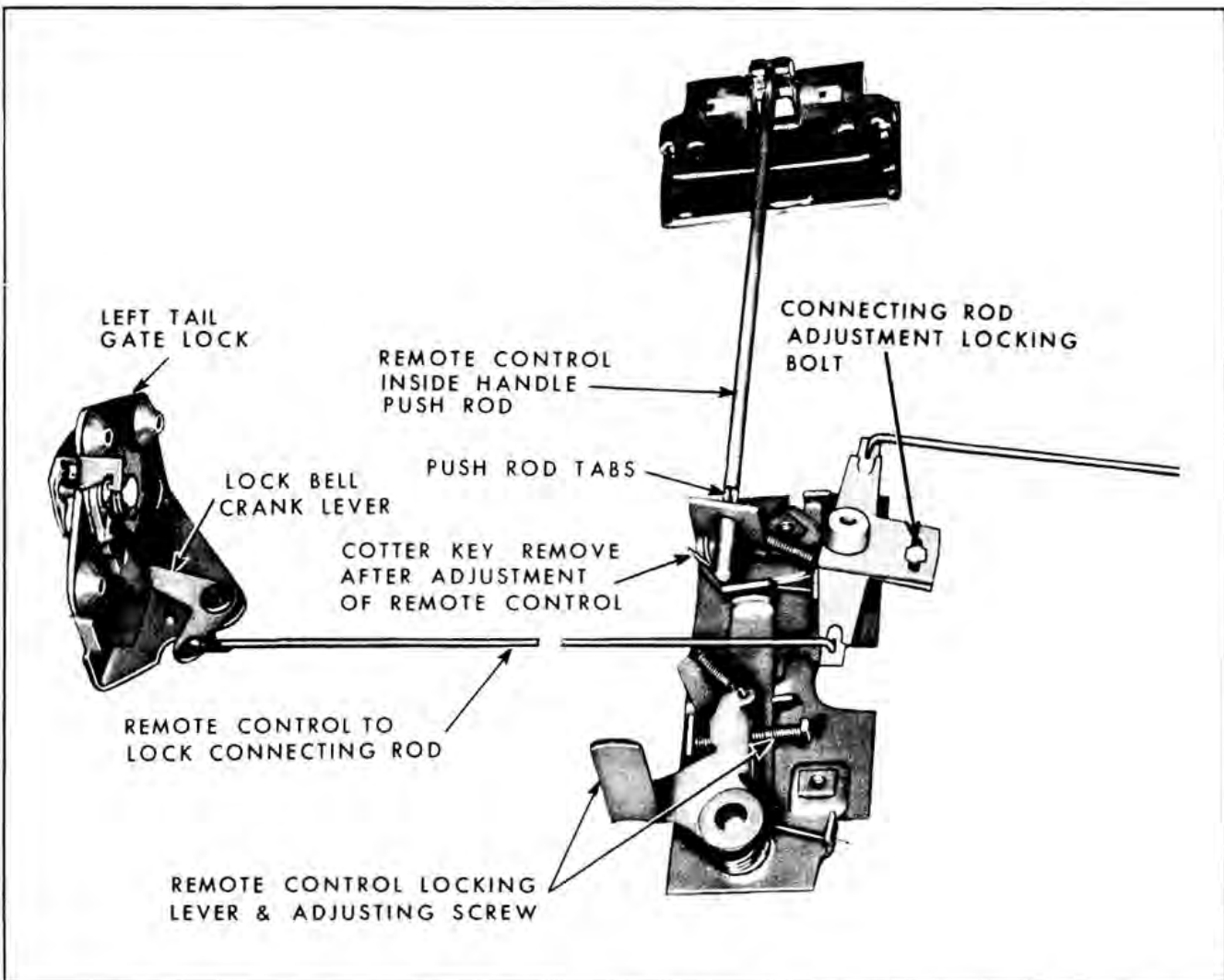


Fig. 16-220 Tailgate Lock Remote Control

Prior to resealing tailgate inner panel water deflector, check operation of tailgate locking mechanism and, where necessary, adjust door lock strikers or remote control for proper operation.

TAILGATE LOCK REMOTE CONTROL ASSEMBLY

Removal

1. Remove tailgate window assembly and inner panel cover and disconnect water deflector.
2. Disengage clips securing lock connecting rods to remote control and detach connecting rods from remote control. (Fig. 16-221)
3. Remove tailgate lock remote control attaching screws. Disengage remote control from inside handle push rod and remove remote control from tailgate.

Installation

1. Engage inside handle push rod into hole in

remote control lever, then loosely install remote control attaching screws.

2. Adjust remote control assembly up or down until tabs on push rod just contact remote control lever and tighten remote control attaching screws.

IMPORTANT: If installing a new remote control assembly, remove cotter key in Fig. 16-220, after adjustment, to free locking lever.



Fig. 16-221 Remote Control Removal

3. Gently pull lock connecting rod towards remote control lever to seat bellcrank lever at lock, turn remote control lever adjusting screw until hole in lever is aligned with end of connecting rod. (Fig. 16-221) Install connecting rod to lever.

NOTE: Check clips at ends of remote control levers for proper retention of connecting rods and replace, if necessary.

4. Check operation of tailgate locking mechanism. To open tailgate when window assembly is removed, depress tailgate lock remote control locking lever through access hole and at the same time operate the tailgate remote control inside handle. (Fig. 16-221)
5. Install tailgate window assembly as described under TAILGATE WINDOW ASSEMBLY - Installation.
6. Lower window just below the tailgate window side reveal moldings, then adjust remote control locking lever adjusting screw so that lever is just contacting window sash channel frame. Check operation of remote control inside handle. Handle should remain locked until window upper sash channel frame is below tailgate side reveal moldings.
7. Seal water deflector and install previously removed parts.

TAILGATE INNER PANEL WATER DEFLECTOR

A waterproof paper tailgate inner panel water deflector is cemented to the tailgate inner panel and deflects water into the bottom of the tailgate where it can drain out the bottom drain holes. The bottom of the water deflector is cemented to the inner panel in a manner that will deflect water towards designated access holes where the water can readily enter into the bottom of the tailgate.

IT IS IMPORTANT THAT WHENEVER ANY WORK IS PERFORMED ON THE TAILGATE WHERE THE WATER DEFLECTOR HAS BEEN DISTURBED, THE DEFLECTOR MUST BE PROPERLY SEALED TO THE TAILGATE INNER PANEL.

Partial Detachment

1. Remove tailgate cover panel assembly.
2. Carefully disengage deflector along top and sides inside cemented edge of deflector. (Fig. 16-222)

NOTE: DO NOT TEAR WATER DEFLECTOR.

3. Roll deflector back to gain access to tailgate inner panel.

Resealing Procedure

1. To reseal water deflector, first inspect water deflector for any tears or holes and, where necessary, repair any tears or holes with waterproof body tape applied to both sides of deflector.
2. Apply body caulking as shown in Fig. 16-222, properly position water deflector and press firmly to obtain a good bond and seal.
3. Install panel and cover panel assembly.

WATER DEFLECTOR REPLACEMENT

Removal

1. Remove tailgate cover panel assembly.
2. Break cement bond securing edges of water deflector to door inner panel and remove water deflector from tailgate.

Installation

1. Using old water deflector as template, trim new deflector to proper size.
2. Apply a bead of body caulking compound (approximately 3/16" diameter) to tailgate inner panel as indicated in Fig. 16-222.

IMPORTANT: That body caulking compound should be applied along the lower portion of the tailgate exactly as shown in illustration to assure proper drainage of water through inner panel access holes into bottom of tailgate.

3. Position water deflector to tailgate inner panel with polyethylene coated side of deflector against inner panel. Firmly press or roll sealed areas to obtain a good bond between deflector and tailgate inner panel.
4. Clean off all excess caulking compound, then install previously removed tailgate cover panel assembly.

TAILGATE WINDOW WIPER AND WASHER

The station wagon tailgate window washer and wiper is available as factory-installed optional equipment. Most of the individual components are similar to the conventional washer and wiper units.

WIPER MOTOR AND TRANSMISSION (Fig. 16-224)

Removal

1. Open tailgate.
2. Carefully operate window outward far enough for glass to clear access hole.
3. Remove tailgate trim, water deflector and access hole covers as previously described in Service Manual.

NOTE: Be sure to support glass to prevent breakage.

CAUTION: Be sure to disconnect battery before removing or installing the wiper motor since the lead to the wiper motor is always hot and will arc if the motor is not in the park position.

4. Remove the wiper motor and transmission. (Fig. 16-224)

To install, reverse removal procedure.

WASHER NOZZLE (Fig. 16-224)

Removal

1. Remove the rear quarter window rear garnish molding and facing panel.
2. Remove the two screws in the center of the upper run channel and the one from the attaching tab.
3. Slide the lower end of the run channel in-board to expose the attaching nut and remove the nut.
4. Pull nozzle from rear of body to remove washer hose and nut.

To install, reverse removal procedure.

WASHER AND PUMP

The washer and pump are located under the left floor side panel. (Fig. 16-225)

Removal

1. Remove the quarter trim panel floor moldings

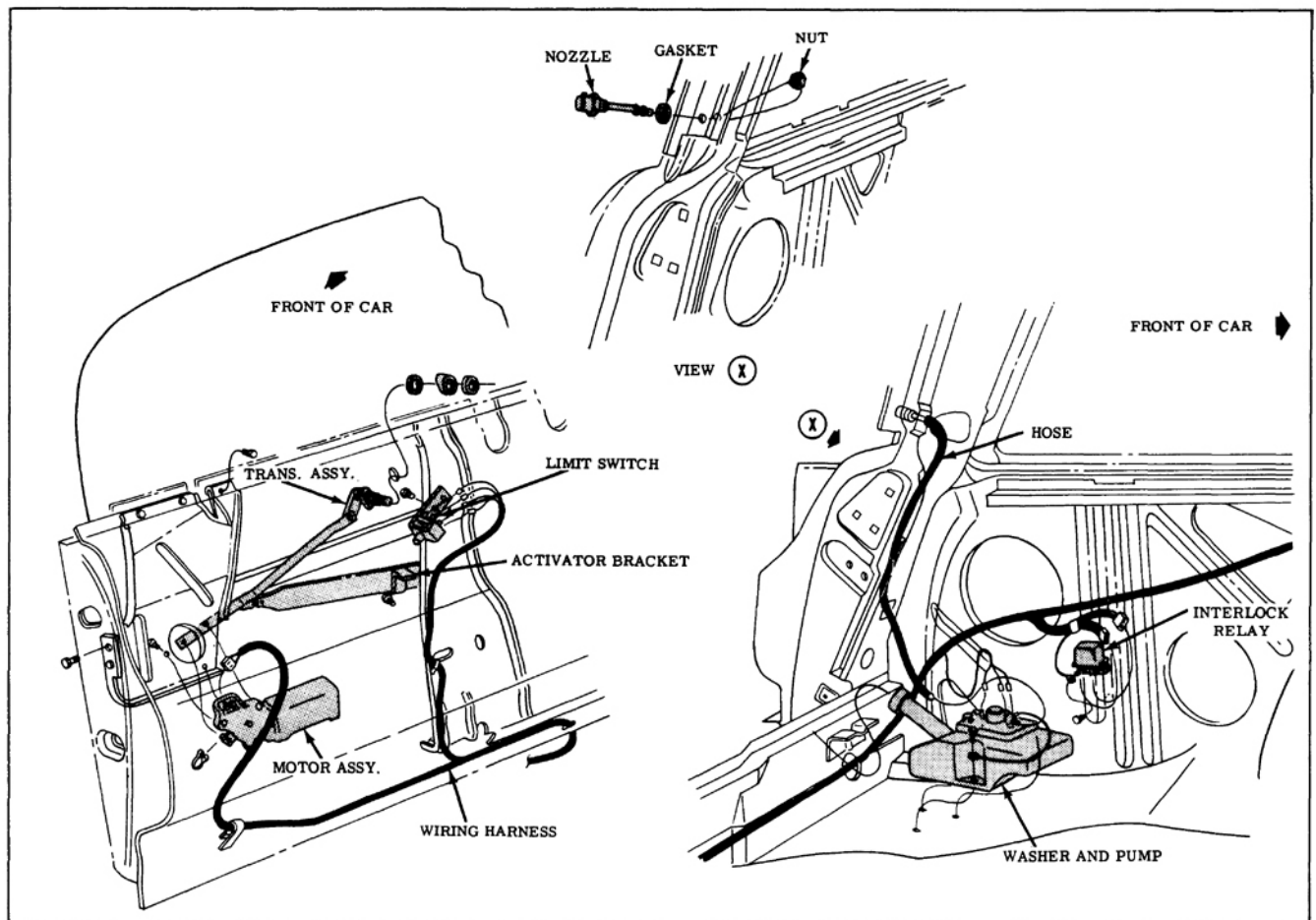


Fig. 16-224 Tailgate Window Washer Installation

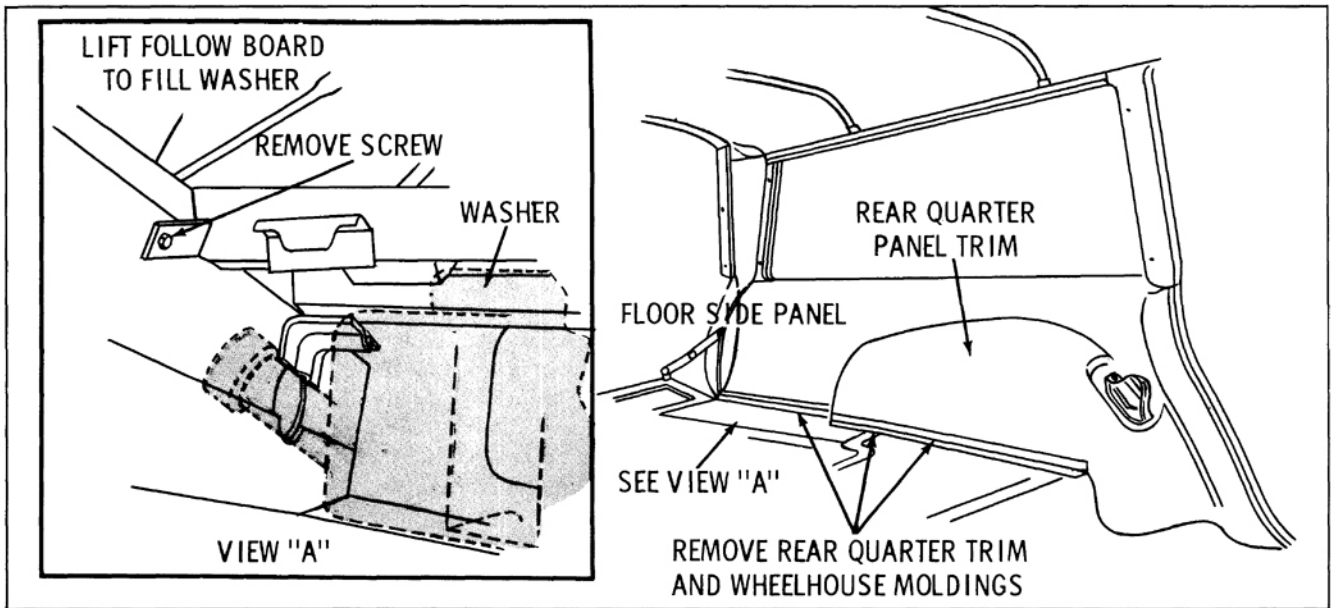


Fig. 16-225 Washer Jar Installation

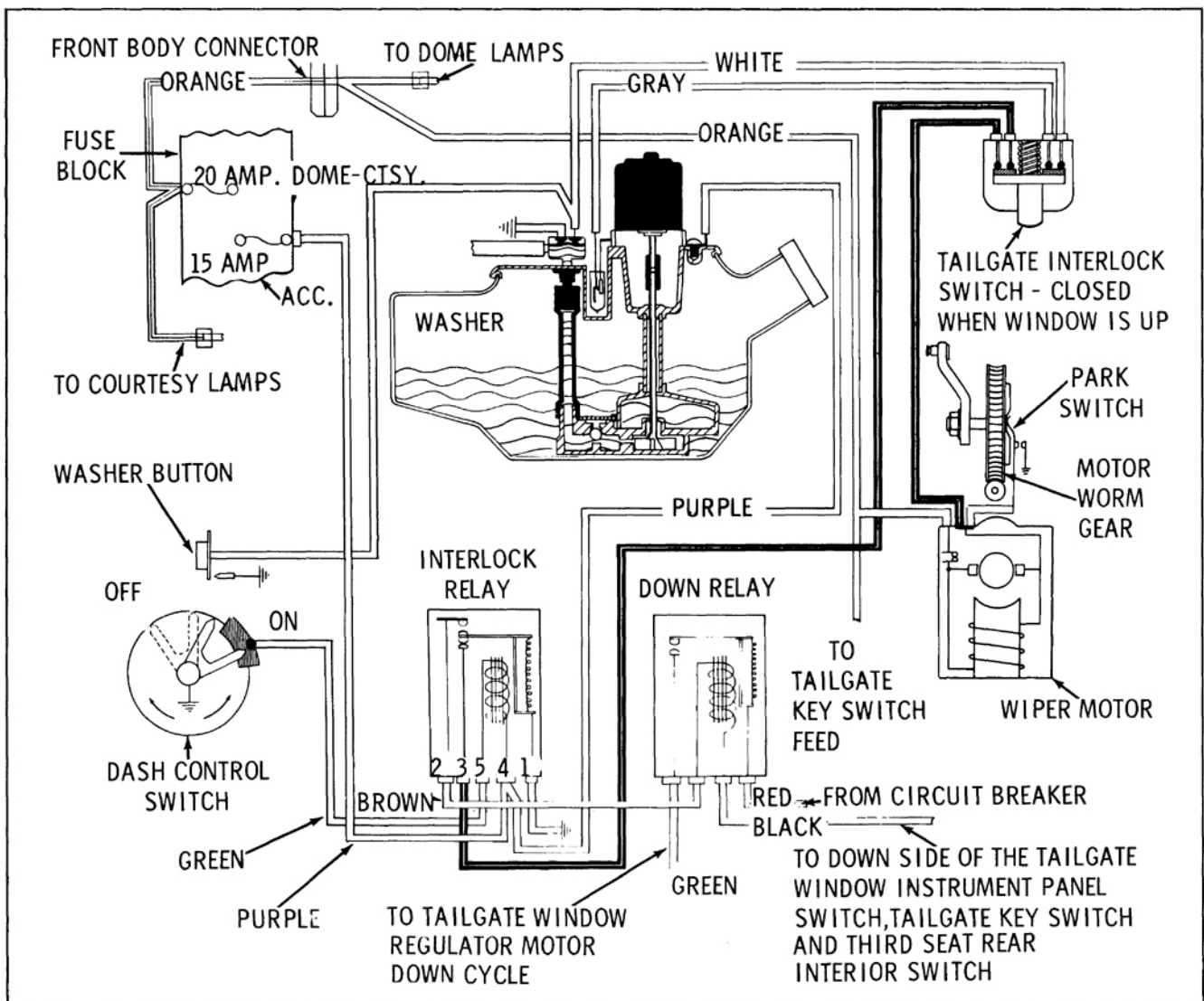


Fig. 16-226 Schematic Wiring Diagram of Tailgate Washer and Wiper

and spring the trim panel enough to gain access to the two outboard washer attaching screws. (Fig. 16-225)

2. Loosen but do not remove these screws.
3. Disconnect washer hose and electrical connector.
4. Remove inboard washer attaching screw which also retains the ground wire.
5. Remove the sheet metal screw from tab at rear of floor side panel. (View "A", Fig. 16-225)
6. Raise rear of floor side panel just enough to slide the washer assembly out.

To install, reverse removal procedure.

FIESTA TAILGATE WINDOW WIPER AND WASHER CIRCUIT—3435 & 3445 (Fig. 16-226)

BODY MOUNTS

To minimize vibration and noise, the body mounts must be properly torqued. Body mounts which are not tightened sufficiently will cause body "chucking" and damage to the insulators. If body mounts are tightened excessively, the cushioning effect of the insulators is impaired resulting in squeaks and body "drumming". Body mount bolts and studs must be torqued 35 to 45 ft. lbs.

For installation of body mounts refer to Figure 16-228)

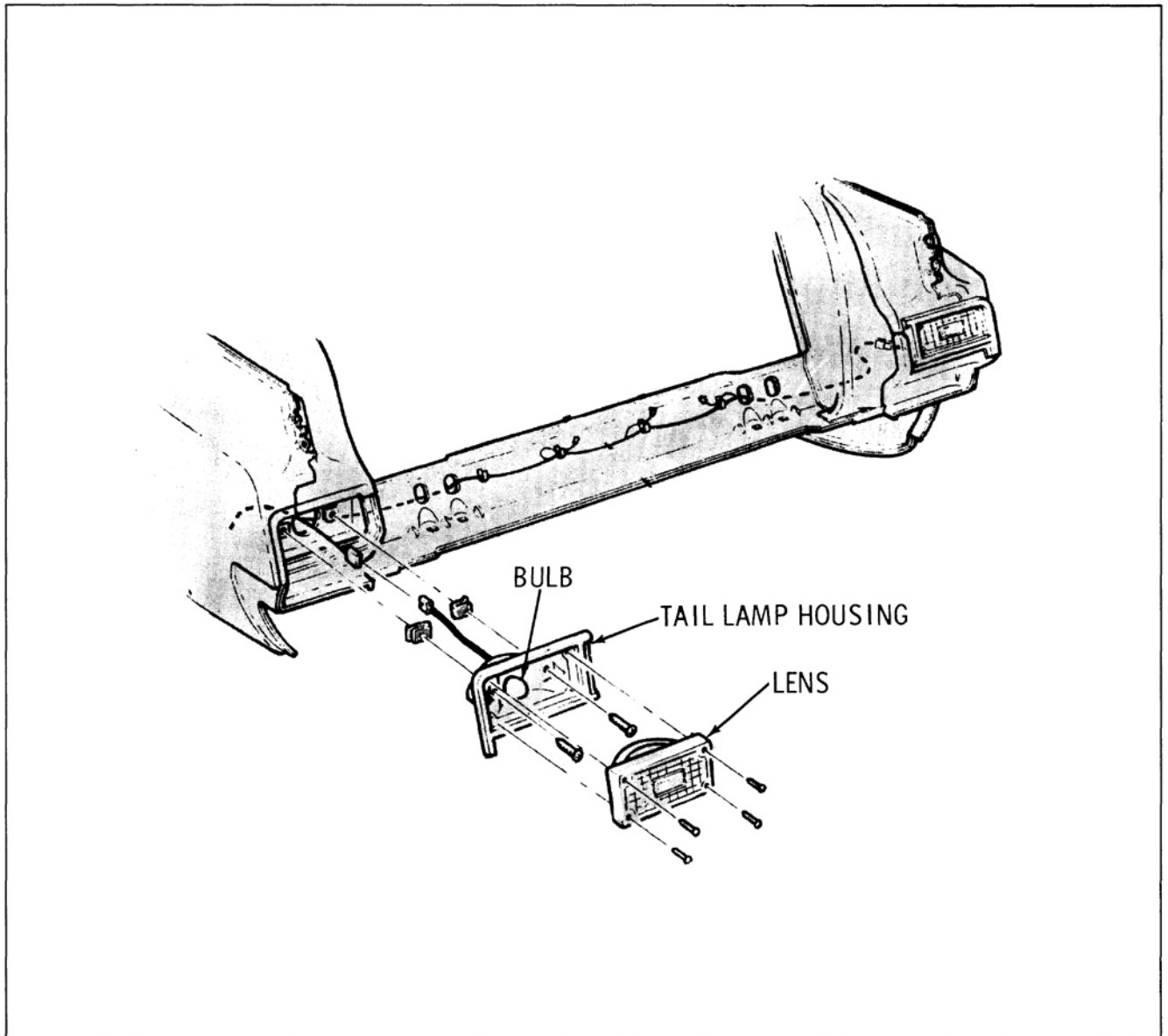
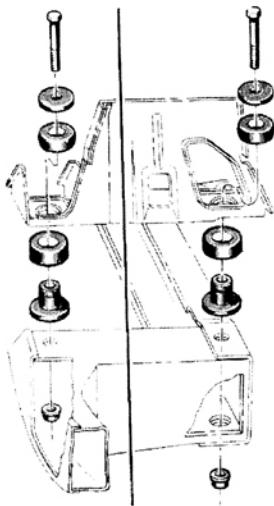
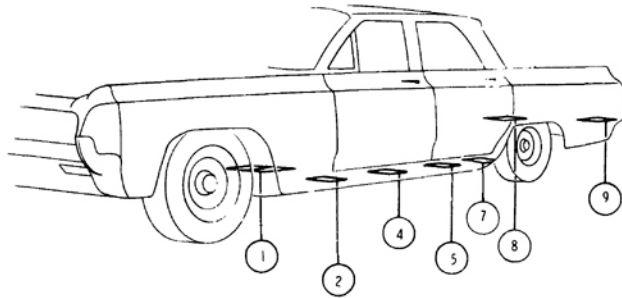
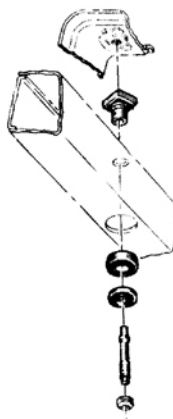


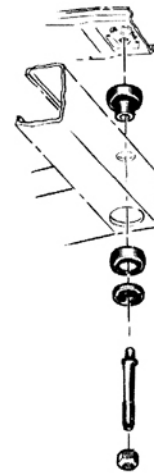
Fig. 16-227 Tail Lamp Installation (Fiesta)



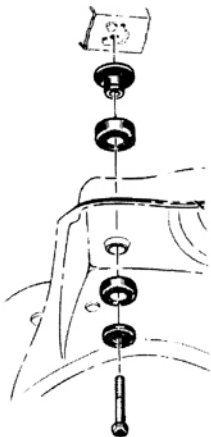
NO. 1 BOLT POSITION



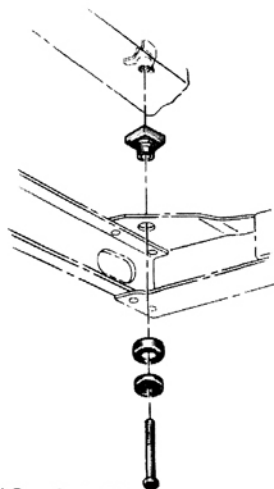
NO. 2, 4 & 5 BOLT POSITION



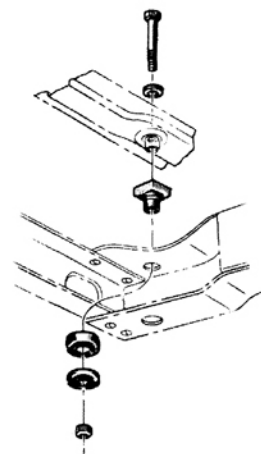
NO. 7 BOLT POSITION



NO. 8 BOLT POSITION



NO. 9 BOLT POSITION
(FIESTA ONLY)



NO. 9 BOLT POSITION
(EXCEPT FIESTA)

1964 PAINT SERVICE NUMBERS

EXTERIOR COLORS			
Comb. Code	Color Name	R.M. Stock No.	DuPont Stock No.
A	Ebony Black	A-946	88-L
C	Provincial White	A-1199	4024-L
D	Sheffield Mist	A-1477	4247-L
E	Jade Mist	A-1614	4534-L
F	Wedgewood Mist	A-1481	4250-L
H	Bermuda Blue	A-1615	4531-L
J	Fern Mist	A-1613	4532-L
K	Tahitian Yellow	A-1612	4530-LH
L	Regal Mist	A-1536R	4389-LH
P	Pacific Mist	A-1476	4253-L
Q	Aqua Mist	A-1611	4529-L
R	Cashmere Beige	A-1609	4526-L
S	Saddle Mist	A-1537	4392-L
V	Holiday Red	A-1538R	4387-LH
W	Midnight Mist	A-1539	4395-L
INTERIOR COLORS			
GLOSS			
Color	R.M. Stock No.	DuPont Stock No.	
Silver	62011	95552	
Parchment**	62T82	9000L	
Medium Olive	64031	4532-L	
Medium Saddle	62C82	9015-L	
Medium Blue	62024	9006-L	
Medium Aqua	62036	9005-L	
Medium Maroon	64061M	9090-L	
Medium Red	62T51M	9016-LH	
Dark Gray	62013	9009-L	
Midnight Olive	64032	4534-L	
Dark Blue	63021	96221*	
Dark Aqua	62031	9012-LH	
Dark Maroon	62051M	94969-H	
Dark Saddle	63081	9029-L	
Black	A-946	88-L	
Dark Red	63B62R	9095-LH	
*Duco Lacquer Formula			
**Garnish Moldings only.			
FLAT			
Color	DuPont Stock No.	Color	DuPont Stock No.
Dark Red	4438-LH	Dark Gray	4433-L
Dark Saddle	4436-L	Dark Aqua	4429-LH
Midnight Olive	4588-L	Dark Maroon	4431-LH
Dark Blue	4430-L	Black	4428-L
ACCENT STRIP			
Color	R.M. Stock No.	Color	R.M. Stock No.
Ebony Black	A946	Jade Mist	164033
Chariot Red	A1138R	Wedgewood Mist	163024
Provincial White	A1199	Aqua Mist	164025
Sheffield Mist	163011	Cashmere Beige	A1609

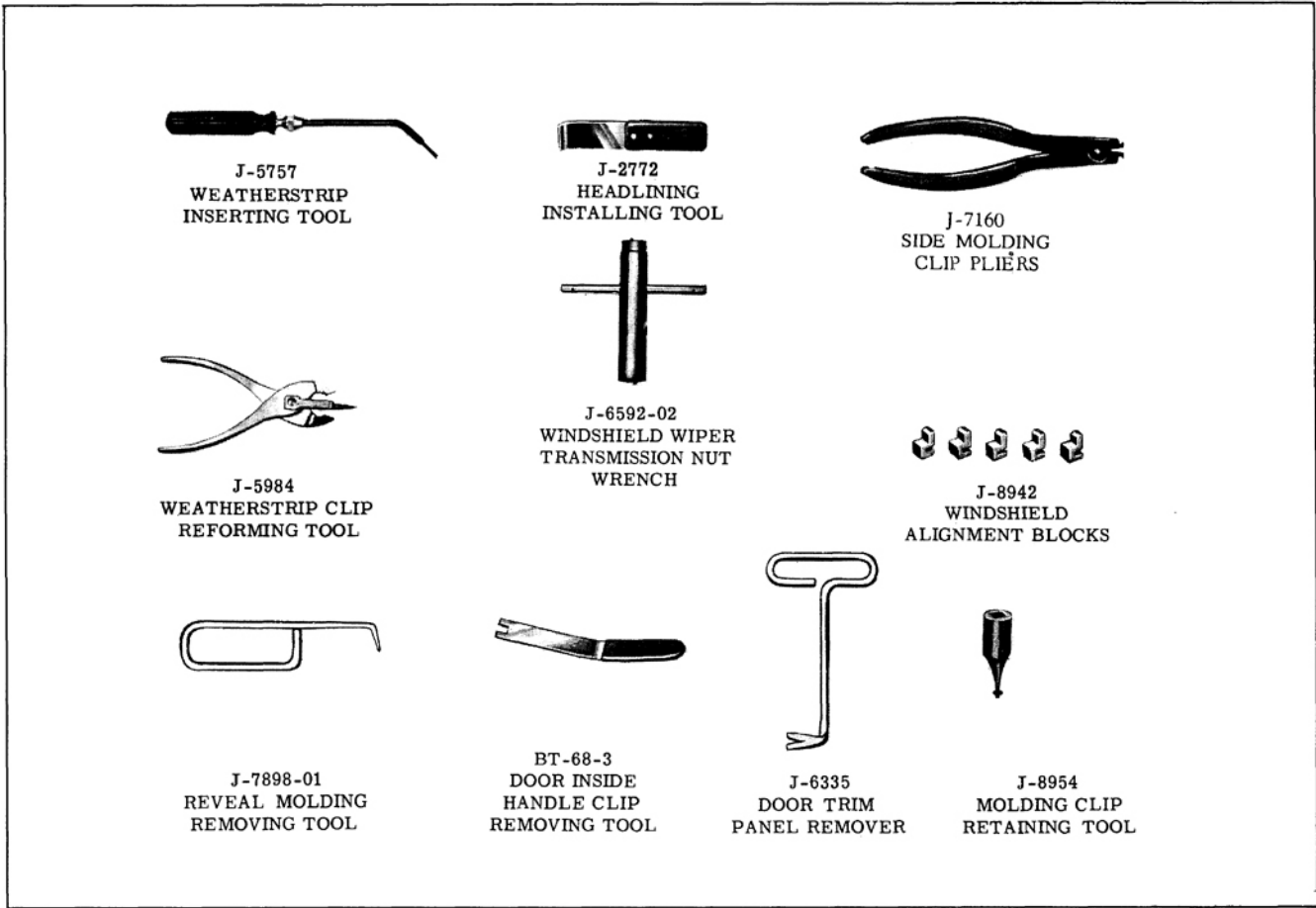


Fig. 16-229 Body Tools

BODY

(30-31-32 SERIES)

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WINDSHIELD ASSEMBLY

WINDSHIELD UPPER TRIM ESCUTCHEONS AND HEADER MOLDINGS

The windshield escutcheons on all styles except 67 styles consist of upper trim escutcheons. On 67 styles, the windshield header moldings consist of right and left end moldings and center molding. All moldings are secured by screws. (Figs. 16-301, 16-302)

Removal and Installation

1. On closed styles, remove screws attaching

upper trim escutcheons and remove escutcheons. On 67 styles, remove upper windshield reveal molding, rear view mirror support, sunshade supports and end moldings. Pry front edge of center molding loose at one end; then rotate molding rearward from front edge to remove.

2. To install, on 67 styles, apply a 3/16" bead of medium-bodied sealer under the entire length of the windshield header molding. Starting at either end, hook rear edge of molding under header, rotate molding forward, snapping front edge of molding in place. Apply additional sealer to underside of end molding to insure watertight seal at junction of center

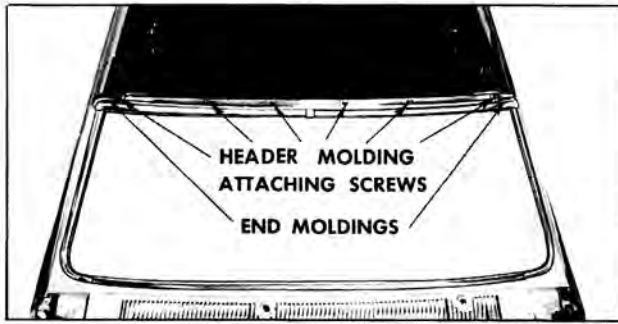


Fig. 16-301 Header Moldings 67 Styles

molding. Clean off excess sealer and reverse removal procedure.

REAR VIEW MIRROR

Removal and Installation

1. Remove attaching screws and support.
2. To install, reverse removal procedure.

SUNSHADE SUPPORT

Removal and Installation

1. Remove attaching screws and support. On 67 styles, raise top to remove.
2. To install, reverse removal procedure.

WINDSHIELD REVEAL MOLDINGS

The windshield reveal moldings consist of upper right and left, side right and left and lower moldings. All moldings are secured by clips. (Fig. 16-303)

Removal and Installation

The windshield reveal moldings may be re-

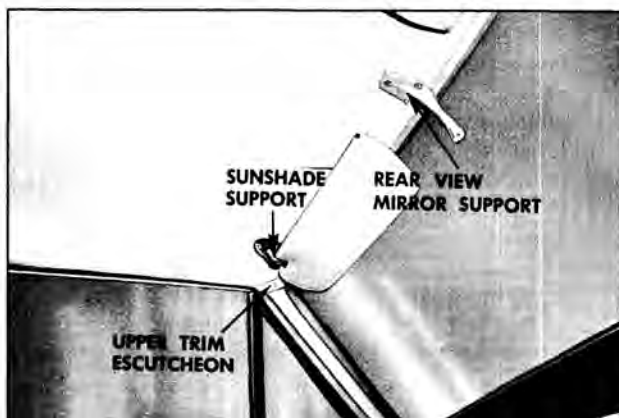


Fig. 16-302 Windshield Trim

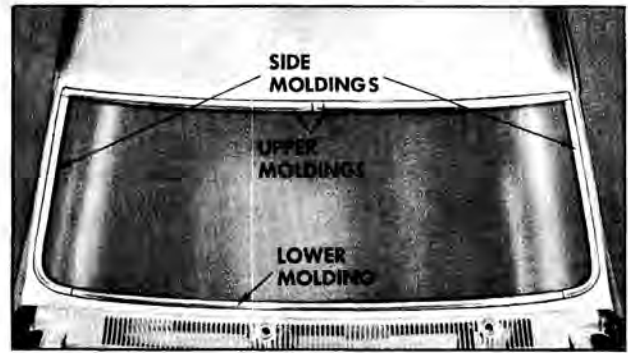


Fig. 16-303 Windshield Reveal Moldings

moved in sequence as listed, using reveal molding clip disengagement Tool J-21549. (Fig. 16-304)

1. Remove upper moldings.
2. Remove side moldings.
3. Remove lower molding.
4. To install, reverse removal procedure.

WINDSHIELD GLASS

The adhesive caulked windshield installation incorporates a synthetic rubber compound in place of the conventional rubber channel. The installation requires special rubber spacers, redesigned reveal moldings and molding clips. The design of the body windshield opening is entirely new for this type of installation. The caulking material, caulking tube nozzle, cutting wire and the adhesive caulking primer are furnished in a kit. This kit will service the installation of the windshield glass on the short method only. On the extended

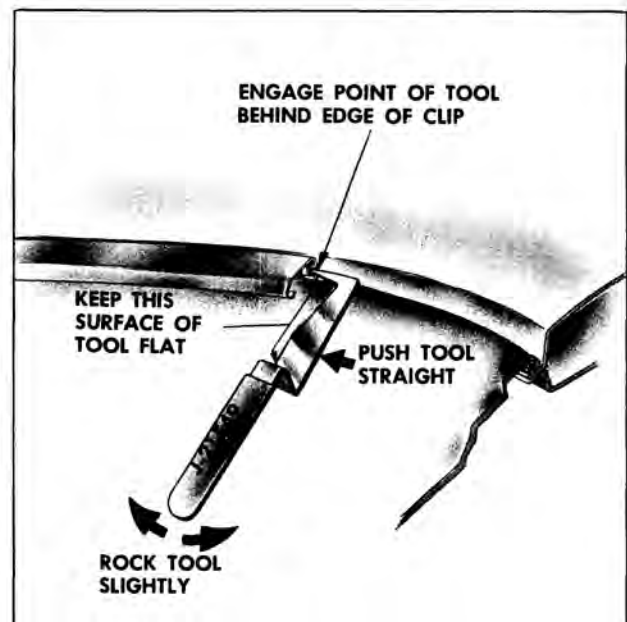


Fig. 16-304 Disengaging Molding from Clip

method installation, two kits of material will be necessary to properly install the glass due to the additional material required to compensate for removal of all old material around the windshield opening. The service procedures must be performed as specified to insure a watertight and proper windshield installation.

Two methods of removal and installation are described in the following:

- A. Short Method - This method is used for normal glass replacement. Using the short method allows a strip of adhesive to remain in the windshield opening flange after the glass is removed. During installation, the adhesive is applied to the glass and when the windshield is positioned, the new bead of adhesive will bond to the adhesive left in the opening.
- B. Extended Method - The extended method includes removing the adhesive material from the windshield opening and is used when collision damage or other factors require that the opening be cleaned in preparation for metal work.

SHORT METHOD

Removal

1. Place protective coverings over front seat, instrument panel, hood, air intake grille and front fenders.
2. Remove windshield wiper arm and blade assemblies. Remove radio antenna, if necessary, to allow ample working space.
3. Remove windshield upper trim escutcheons, rear view mirror support and headlining front finishing strip on closed styles. On 67 styles, remove rear view mirror support.
4. Remove windshield reveal moldings using reveal molding clip disengagement tool, J-21549. (Fig. 16-304) Remove upper reveal moldings first. Next, disengage side reveal moldings; then, remove lower reveal molding.
5. Secure one end of steel music wire to wood handle. Insert other end of wire through caulking material at lower corner of windshield; then secure end of wire to other wood handle.
6. With aid of helper, carefully cut (pull steel wire) through caulking material, up side of windshield, across top, down opposite side and across bottom of windshield. (Fig. 16-305) Make sure inside wire is held close to plane of glass to prevent cutting an excessive

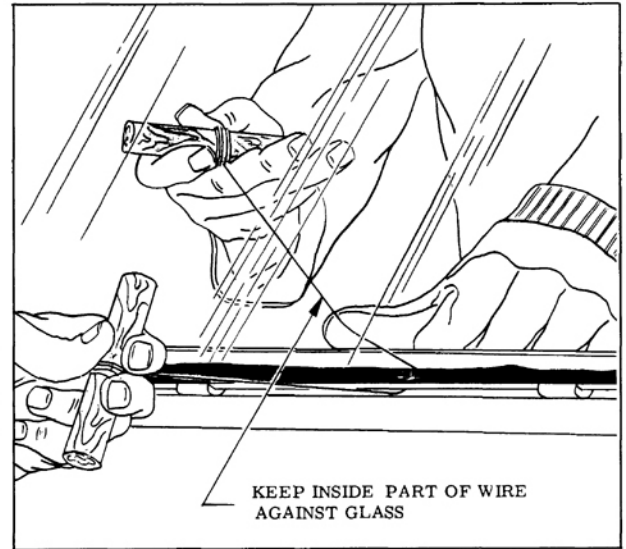


Fig. 16-305 Removing Windshield

amount of adhesive caulking material from opening. This can be accomplished by holding inside wire close to plane of glass with one hand while pulling wire with other hand. Keep tension on wire throughout cutting operation to prevent kinks in wire.

7. Remove windshield glass from body opening. Place replacement glass on a protected surface or glass holding fixture. If original glass is to be reinstalled, remove old caulking material from glass with sharp scraper or razor blade. Remove remaining traces with toluene or thinner dampened rag.

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

Installation

1. Check all reveal molding retaining clips for damage. If upper end of clip is bent away from body metal more than 1/32", replace or reform the clip.
2. Apply 2" wide masking tape across front of

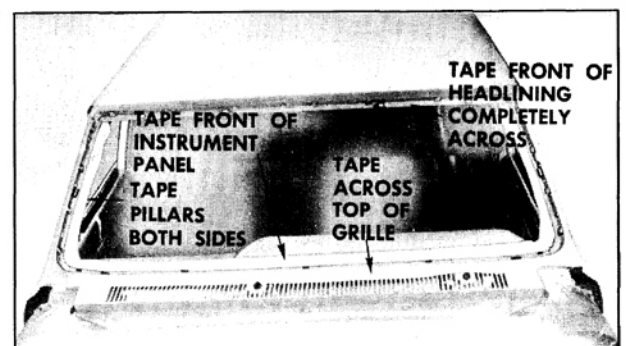


Fig. 16-306 Taping Locations

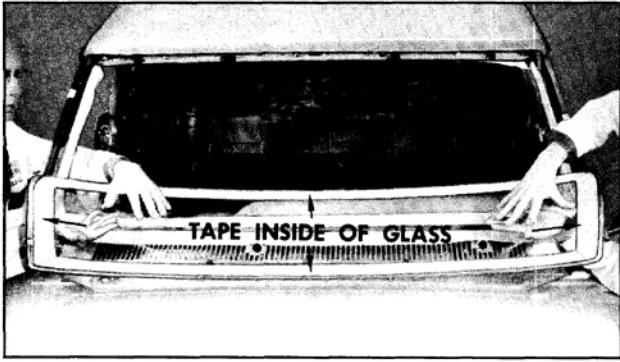


Fig. 16-307 Tape Applied to Inside of Glass

instrument panel with the front edge of tape lined up with break line of instrument panel. Apply 2" wide masking tape to both inside windshield pillars and across front edge of headlining. (Fig. 16-306) The application of masking tape will assist in clean-up after the glass is installed.

3. Apply 2" wide masking tape to inside of windshield glass 1/4" inboard from edge of glass, first across the top, each side, then the bottom. (Fig. 16-307)
4. Inspect all spacers for damage. If replacement is necessary, refer to Fig. 16-308.

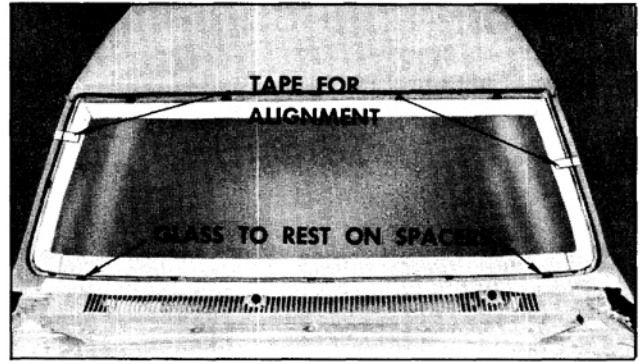


Fig. 16-309 Glass Alignment to Opening

5. Set glass in opening, shim glass spacers as necessary to properly align glass to opening. The glass should overlap the pinchweld flange 3/16". Mark glass to windshield pillars with tape to assist in proper alignment at time of installation. (Fig. 16-309)
6. Check relationship of glass contour to windshield opening. Glass should rest on adhesive material. Gap spaces may be filled by applying excess caulking material to the glass at the gap location.
7. Remove glass and place on protected bench or glass holding fixture.

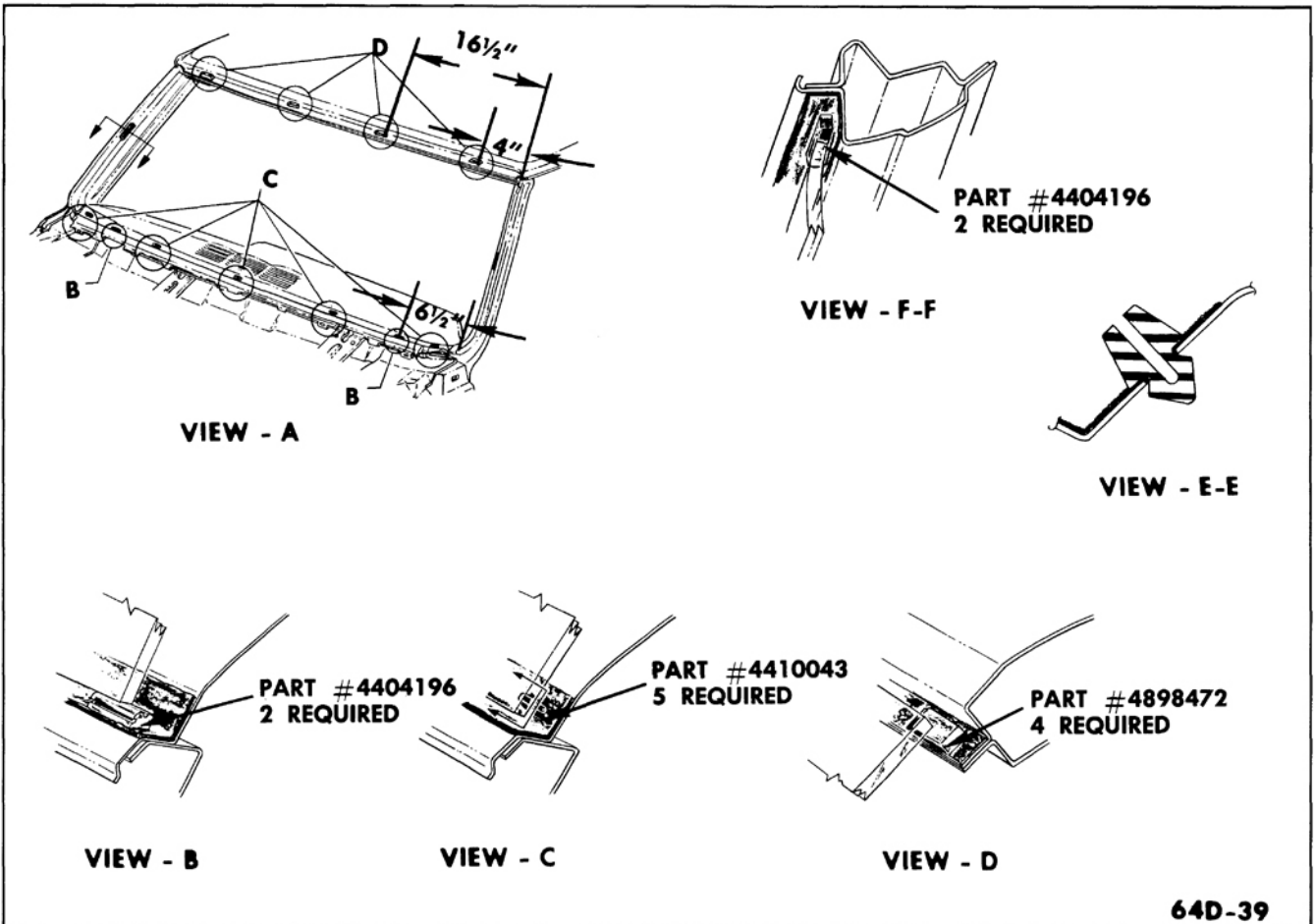


Fig. 16-308 Windshield Glass Spacers

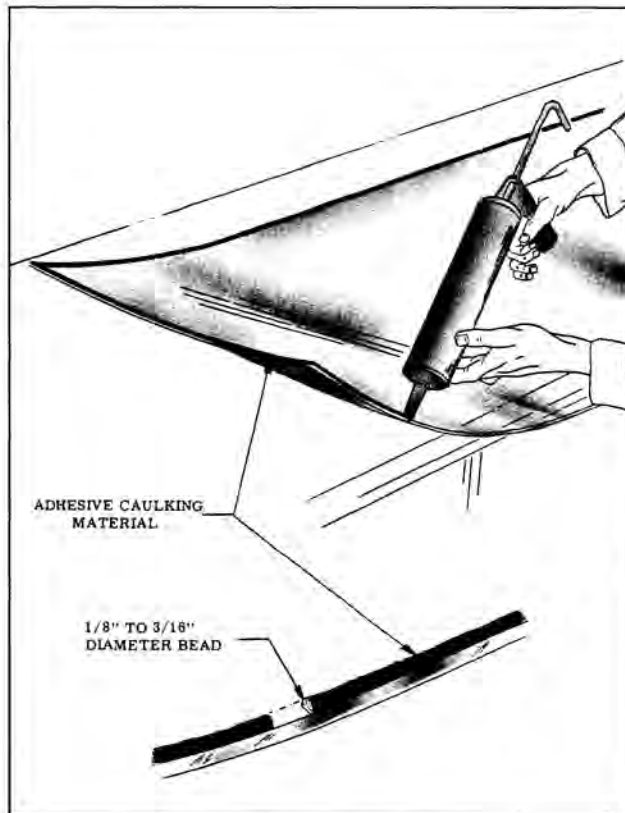


Fig. 16-310 Caulking Application (Short Method)

8. Using a clean lint-free cloth, briskly rub a generous amount of adhesive caulking primer on the freshly cut material in the windshield opening. If spacers are replaced, brisk application of primer is necessary to insure a good bond of material to spacers.

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

9. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened cloth. Dry glass with a clean dry rag.
10. Remove cap and protective end cover from tube of adhesive caulking material and install nozzle. Insert tube into reworked household type caulking gun.

NOTE: Nozzle is cut properly for short method bead.

11. Apply a smooth continuous bead of adhesive caulking material to inside surface of glass next to edge completely around glass. (Fig. 16-310) Material should be 1/8" to 3/16" in diameter.

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

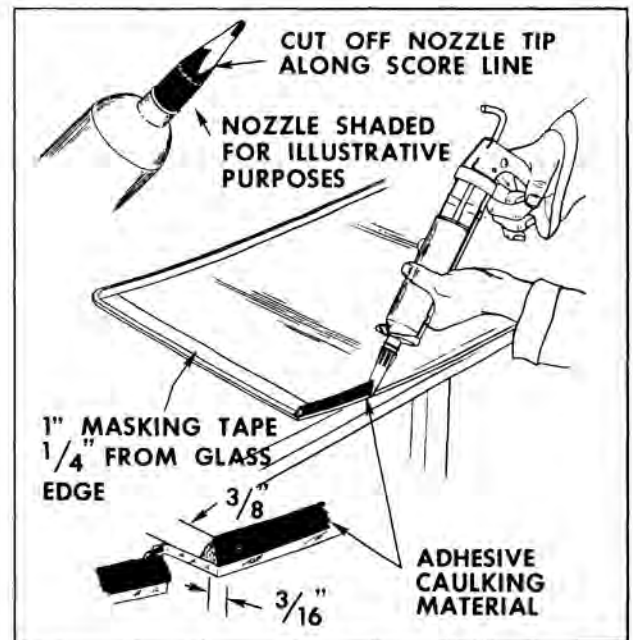


Fig. 16-311 Caulking Application (Extended Method)

12. With aid of helper, lift glass with one hand on outside of glass and one hand on inside of glass. Carefully move glass up to windshield opening, maintaining glass in a horizontal position.

While one man holds glass in this position, the second man can reach around the windshield pillar and hold glass; then, first man can reach around windshield pillar. (Fig. 16-307) Carefully position glass to plane of opening, making certain that glass is properly centered and positioned to opening and resting on lower spacers, using tape on glass and windshield pillars as a guide. (Fig. 16-309)

13. Press glass firmly to set caulking material.
14. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, use caulking gun to apply sufficient material from outside the glass to fill the void.
15. Watertest windshield immediately using cold water spray. If any waterleaks are encountered, use flat-bladed screwdriver or stick and work caulking material into leak point to correct leak. This operation is usually performed most effectively from outside the body.
16. Working from inside the glass, run a small flat stick, screwdriver or equivalent, around the entire opening to properly seal and remove excess material.
17. Remove masking tape from upper windshield, sides and lower. Remove masking tape from instrument panel, windshield pillars and headlining.

18. Install windshield lower and side reveal moldings; then, upper reveal moldings. Install headlining finishing strip, windshield upper trim escutcheons and previously removed parts.
19. Remove protective coverings and clean up.

EXTENDED METHOD

Removal

1. Place protective coverings over front seat, instrument panel, hood, air intake grille and front fenders.
2. Remove windshield wiper arm and blade assemblies. Remove radio antenna, if necessary, to allow ample working space.
3. Remove windshield upper trim escutcheons, rear view mirror support and headlining front finishing strip on closed styles. On 67 styles, remove rear view mirror support.
4. Remove windshield reveal moldings using reveal molding clip disengagement tool, J-21549. (Fig. 16-304) Remove upper reveal molding first. Next, disengage side reveal moldings then, remove lower reveal molding.
5. Secure one end of steel music wire to wood handle. Insert other end of wire through caulking material at lower corner of windshield; then, secure end of wire to other wood handle.
6. With aid of helper, carefully cut (pull steel wire) through caulking material, up side of windshield, across top, down opposite side and across bottom of windshield. (Fig. 16-305) To facilitate cutting through rubber spacers, use a sawing motion with steel wire. Avoid contact of steel music wire with instrument panel and windshield pillars by keeping inside wire close to plane of glass. Keep tension on wire throughout cutting operation to prevent kinks in wire.
7. Remove windshield glass from body opening. Place replacement glass on a protected surface or glass-holding fixture. If original glass is to be reinstalled, remove old caulking material from glass with sharp scraper or razor blade. Remove remaining traces with toluene or thinner dampened rag.

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

8. Using sharp scraper or wood chisel, remove major portion of adhesive caulking material from body pinchweld flange.

NOTE: It is not necessary to clean off all old caulking material completely from body opening; however, there should not be any loose pieces of caulking material left in the opening.

Installation

1. Check all reveal molding retaining clips for damage. If upper end of clip is bent away from body metal more than 1/32", replace or reform the clip.
2. Apply two inch wide masking tape across front of instrument panel with the front edge of tape lined up with break line of instrument panel. Apply two inch wide masking tape to both inside windshield pillars. Apply masking tape across front edge of headlining. (Fig. 16-306) The application of masking tape will assist in clean-up after the glass is installed.
3. Apply two inch wide masking tape to inside of windshield glass 1/4" inboard from edge of glass, first across the top, each side, then the bottom. (Fig. 16-307)
4. Cement four flat type rubber spacers Part No. 4898472 to upper windshield pinchweld flange, one each side 4" inboard from windshield pillar and one each side 16-1/2" inboard from windshield pillar at locations "D", View "A". (Fig. 16-308)
5. Cement two rubber spacers Part No. 4404196 to lower rabbet of windshield opening 6 1/2" inboard from windshield pillars at locations "B", View "A". (Fig. 16-308)
6. Inspect the five rubber spacers Part No. 4410043 located in the front of instrument panel at locations "C", View "A", replace if necessary. Cement one rubber spacer Part No. 4404196 to each windshield pillar to assist in centering glass at time of installation at location "F-F", View "A".
7. Set glass in opening and shim glass spacers as necessary to properly align glass to opening. The glass should overlap the pinchweld flange 3/16" minimum. Mark glass to windshield pillars with tape to assist in proper alignment at time of installation. (Fig. 16-309)
8. Check relationship of glass contour to windshield opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". Substitute glass, rework pinchweld flange, or apply more caulking material at excessive gap space.
9. Remove glass and place on protected bench or glass holding fixture.

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

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

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

11. Cut off tip of one nozzle along score line. (Fig. 16-311) This nozzle will be used to apply bead of adhesive caulking material to glass. Cup tip off other nozzle at a 45° angle 1" below end of nozzle. This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.

NOTE: Two kits are required for the extended method.

12. 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 dry rag.
13. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle (cut on score line in Step 11).
14. Insert tube in a standard household type caulking gun reworked as follows:
- Widen end-slot of caulking gun with a file to accept dispensing end of tube.
 - Grind down plunger disc on rod so that disc will fit into large end of tube.
15. Positioning the gun and nozzle as shown in Fig. 16-311, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.

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

16. Remove "glass bead" nozzle and insert "smear bead" nozzle (nozzle cut on 45° angle

in Step 11). Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.

17. With aid of helper, lift glass with one hand on outside of glass and one hand on inside of glass. Carefully move glass up to windshield opening, maintaining glass in a horizontal position. While one man holds glass in this position, the second man can reach around the windshield pillar and hold glass; then, first man can reach around windshield pillar. (Fig. 16-307) Carefully position glass to plane of opening, making certain that glass is properly centered and positioned to opening and resting on lower spacers. Use tape on glass and windshield pillars as guide. (Fig. 16-309)

18. Press glass firmly to set caulking material.

19. Inspect installation for proper seal between caulking material, glass and opening. If a gap is encountered, use caulking gun to apply sufficient material from outside the glass to fill the void.

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

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

21. Working from inside the glass, run a small flat stick, screwdriver or equivalent around the entire opening to properly seal and remove excess material.
22. Remove masking tape from lower windshield, sides and upper. Remove masking tape from instrument panel, windshield pillars and headlining.
23. Install windshield lower and side reveal moldings; then, upper reveal moldings. Install windshield garnish moldings and previously removed parts. Remove protective coverings and clean up.

NOTE: Unused adhesive caulking material remaining in tube can be stored for later use. To store, remove nozzle and insert end cap previously removed. Do not remove material from nozzle until it has cured. Once material has cured, it can be removed from ends of nozzle with a pair of pliers.

MINOR WATER LEAK CORRECTION

If a water leak develops, proceed as follows:

1. Remove reveal moldings from leak point.
2. (a) Using adhesive caulking material from the kit, clean adhesive caulking material around leak point with adhesive caulking primer and seal with a liberal application of adhesive.
(b) If adhesive caulking material is not available, clean adhesive caulking material around leak point with water and dry completely. Seal with a liberal application of black weatherstrip adhesive.
3. Water test and install all previously removed parts.

BODY VENTILATION

The body ventilating system incorporates the use of a detachable shroud top air intake grille, which is attached to the upper shroud panel by screws. The air entering the shroud top air intake grille flows through a duct which guides the air into the body through a shroud side duct panel air outlet assembly. The door in the outlet assembly regulates the flow of air and is adjusted by the use of a cable and knob control. Water entering the air intake grille flows down the shroud side duct panel and is discharged into the rocker panels. The rocker panels contain openings for drainage.

SHROUD SIDE FOUNDATION

Removal and Installation

1. Remove attaching screws and snap-in fastener (Fig. 16-312) and remove foundation assembly.
2. To install, reverse removal procedure.

SHROUD SIDE AIR OUTLET DUCT

Removal and Installation

1. Remove shroud side foundation.
2. Remove control cable from outlet, (Fig. 16-313). Remove or loosen necessary heater parts to allow space to remove outlet assembly.
3. Remove screws securing outlet assembly to shroud side panel (Fig. 16-314) and remove assembly.

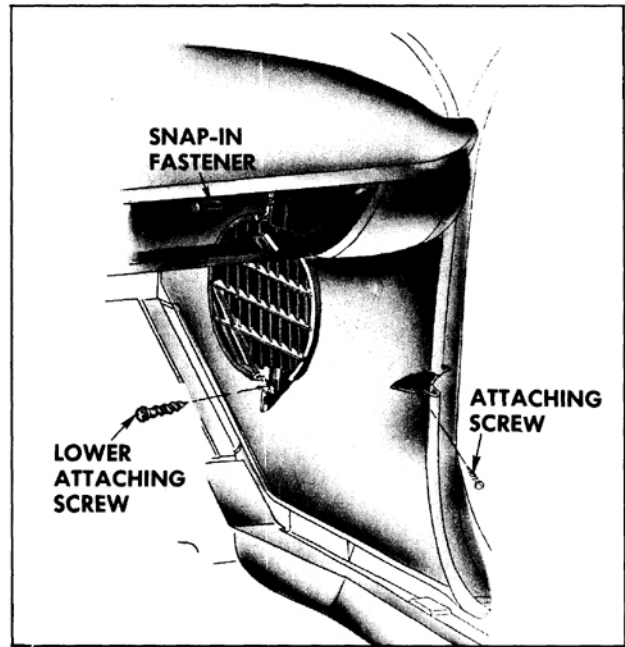


Fig. 16-312 Shroud Side Foundation

4. To install, apply medium-bodied sealer around entire inner flange of outlet assembly to insure watertight seal to shroud, and reverse removal procedure.

SHROUD SIDE DUCT AIR OUTLET DOOR

Removal and Installation

1. Remove shroud side foundation.
2. Remove control cable.
3. Remove shroud side duct air outlet assembly.
4. Depress upper door pin to disengage pin and remove door. (Fig. 16-314)
5. To install, reverse removal procedure.

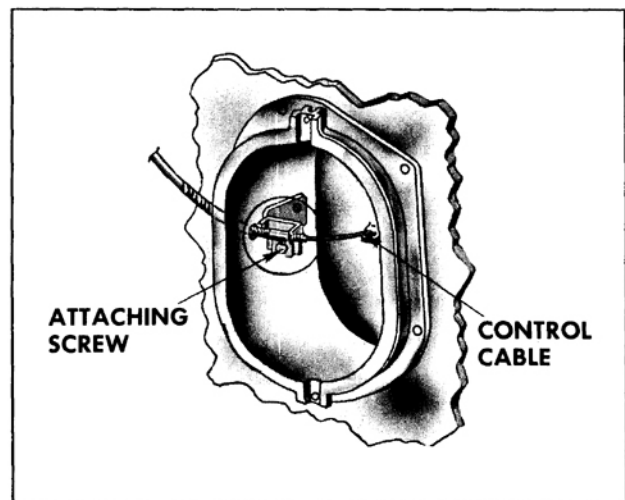


Fig. 16-313 Air Outlet Control Cable

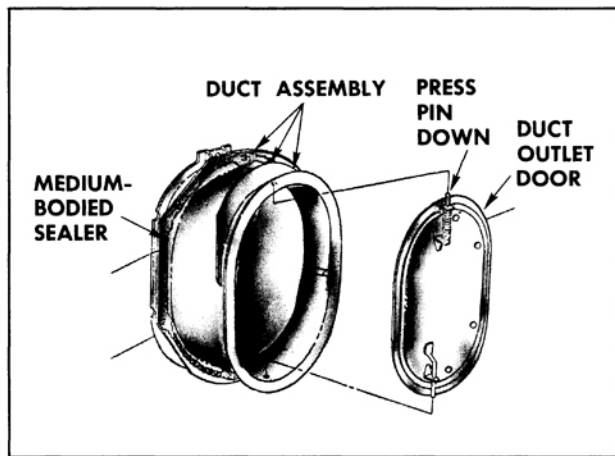


Fig. 16-314 Sealing Duct Assembly

FRONT AND REAR DOORS

WEATHERSTRIP

A new type of door weatherstrip assembly has been designed which incorporates nylon component fasteners. This new fastener takes the place of wire clips and attaching clip sealing plugs used on door weatherstrips of past model styles. Cement usage for the new weatherstrip is similar to the 1963 model. The significant change is in the incorporation of the component nylon fastener. This fastener is the same size at all locations ($3/16$ " diameter) and is available as a service part.

A tool for removal of the fasteners can be fabricated as shown in Fig. 16-315. Remove all sharp edges or metal burrs so as not to damage the weatherstrip or paint.

Removal

1. Remove snap fasteners securing ends of weatherstrip at belt line of door hinge and lock pillar panels on hardtop and convertible styles.
2. Carefully break cement bond securing weatherstrip to door at belt line. A flat-bladed tool, such as a putty knife, will prove helpful in breaking cement bond.
3. Slide weatherstrip removal tool under weatherstrip at each fastener location and grip fastener as close to door panel as possible; then, gently pry fastener out of its respective door piercing.

CAUTION: Exercise care not to damage serrations or fasteners during removal as they are necessary to maintain a good weatherseal.

4. On hardtop and convertible styles, the

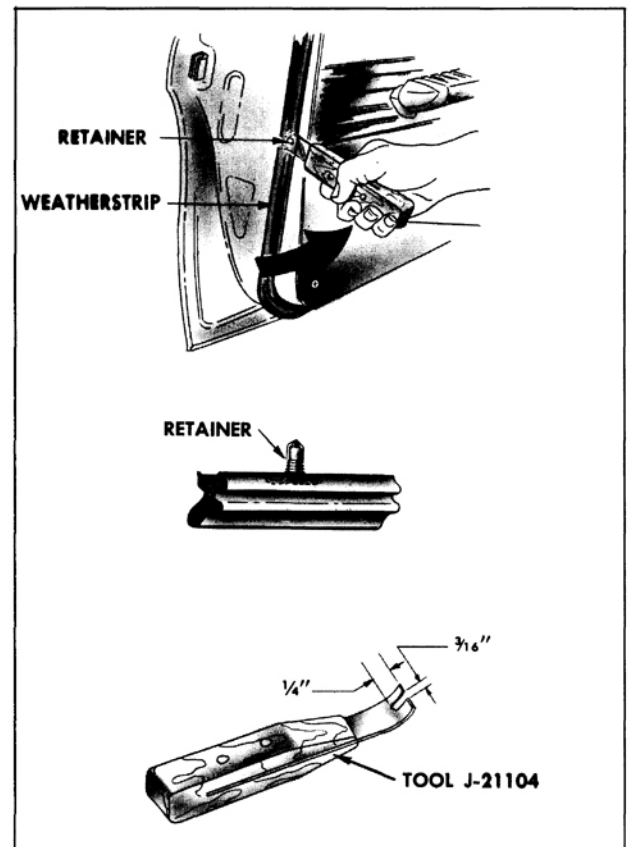


Fig. 16-315 Door Weatherstrip Removal

weatherstrip can now be removed.

5. On closed styles, using a putty knife, remove weatherstrip from door upper frame weatherstrip channel. Exercise care not to damage weatherstrip during this operation.

Installation

1. Check weatherstrip nylon fasteners for damage and replace if necessary.
2. Clean off old cement from door to insure a clean cementing surface. On hardtop and convertible styles, apply a bead of an approved weatherstrip cement to hinge and lock pillar facing of door. Begin adhesive application at belt line and continue down door for approximately seven to nine inches. On closed styles, begin adhesive application approximately five inches below belt line on hinge pillar side of door and continue around entire door upper frame to five inches below belt line on lock pillar side of door (Fig. 16-316). Cement is usually limited to these areas, however, it can be applied at any point where additional retention of weatherstrip is needed.
3. On closed styles, install weatherstrip into door upper frame weatherstrip channel. On all styles, install weatherstrip fasteners by

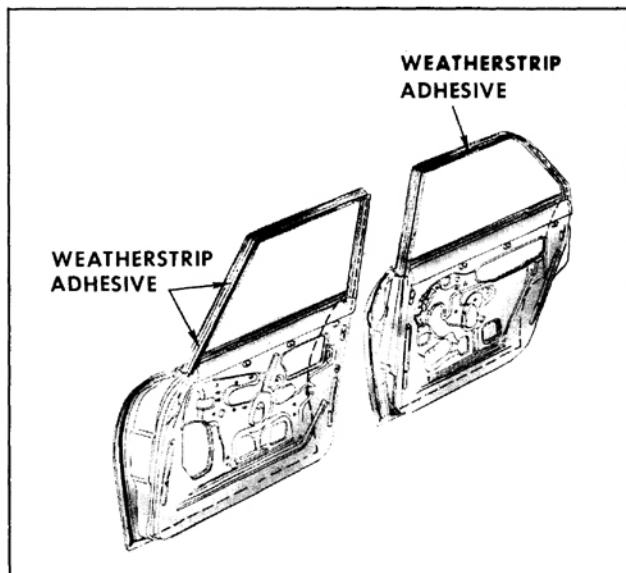


Fig. 16-316 Adhesive Application

pressing fasteners into door panel piercings. A protected hammer can be used if necessary.

NOTE: In the event a weatherstrip becomes damaged at a fastener location and will not properly retain the fastener, remove fastener and cement weatherstrip into place. If, however, two or more consecutive fasteners will not remain engaged in the weatherstrip, replacement of the weatherstrip will probably be necessary.

All door weatherstrips are impregnated with a silicone lubricant and additional lubrication is not required.

WINDOW GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES

Glass run channel strip assemblies are used on all styles incorporating a dropping window and are designed to prevent cold air and water from entering the body between the door window lower sash channel and door inner and outer panels. On all styles, the inner strip assembly is constructed of a pile fabric material. The inner strip is stapled to a metal backing and secured to the door inner panel by a series of attaching clips on all styles not equipped with a hang-on type door trim pad. On styles equipped with a hang-on trim pad, the inner strip assembly is attached to the top of the trim pad and is not normally removed for service procedures. The outer strip assembly is constructed of rubber with a metal insert. On styles equipped with a door window lower reveal molding, the rubber strip is stapled to the molding and the molding is attached to the door outer panel by attaching screws. On styles not equipped with a door window lower reveal molding, the outer strip assembly is attached to the door outer panel by a series of attaching clips only. On all styles,

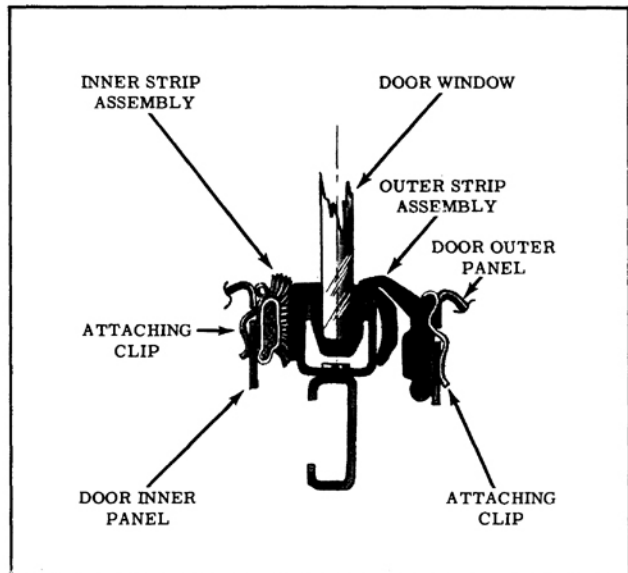


Fig. 16-317 Door Glass Inner and Outer Strips

the inner strip assembly remains in a stationary position during operation of door glass. On the outer strip assembly, however, the inboard section of the sealing lip is lifted and held in position by the door window lower sash channel or filler when door glass is raised. (Fig. 16-317)

Removal and Installation

1. Lower door window and tape door panel adjacent to outer strip assembly to protect paint finish.
2. On front doors of styles equipped with a lower reveal molding, remove the front door ventilator assembly, as described in the FRONT DOOR section, to gain access to the forward attaching screw of the door lower reveal molding.
3. On rear doors, remove rear door window to gain access to attaching screws.
4. On front doors, remove window lower stop and lower door window as far as possible to gain access to attaching screws.
5. Where applicable, remove the front and rear outer strip assembly attaching screws.
6. With a flat-bladed tool, gently pry inner or outer strip assembly up at the attaching clip locations. (Fig. 16-318)
7. To install, reverse removal procedure.

ARM RESTS

All arm rests are the applied type and are secured to the door inner panel by two attaching screws which fit into self-threading piercings



Fig. 16-318 Run Channel Outer Strip

located in the door inner panel. The arm rest attaching screws are sealed to the door inner panel with body caulking compound.

Removal and Installation

1. Remove screws securing arm rest to door inner panel and remove arm rest.
2. To install, reverse removal procedure.

INSIDE HANDLES

Removal

1. On styles equipped with a paddle handle, remove door arm rest.
2. Remove handle to remote attaching bolt or screw and remove handle from door.
3. On all other styles, depress door trim assembly at handle sufficiently to install Tool J-7797 between handle and bearing plate.
4. Push handle and retaining spring out of engagement and remove handle and bearing plate from door. (Fig. 16-319)

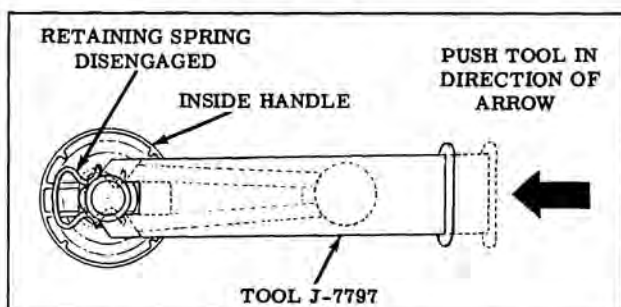


Fig. 16-319 Inside Handle Removal

Installation

1. Install retaining spring on handle and bearing plate over regulator spindle.
2. Position handle on spindle at same angle as handle on opposite door, and push handle until spring is engaged.

NOTE: Handles are installed in a horizontal position with free end forward when glass is in full up position.

DOOR TRIM PADS (3227, 3237 & 3267 Styles)

Trim assemblies on these styles are the hang-on type and are further secured by attaching screws along bottom edge and by retaining nails inserted into plastic retaining cups located in the door inner panel.

Removal and Installation

1. Remove door inside handles and arm rest assembly.
2. At bottom of door, remove screws securing trim assembly to door inner panel.
3. With a rubber mallet, tap along sides of trim pad to help free nails from retainers.
4. Starting at bottom of trim pad, carefully insert Tool J-6335, or a suitable flat-bladed tool, between door trim assembly and door inner panel at retaining nail locations and disengage nails from retainers. Remove door trim pad from door. (Fig. 16-320)
5. To install, reverse removal procedure.

CAUTION: Retaining nails must not pierce back of plastic retainers as waterleaks may develop. For this reason it is important that PROPER LENGTH repair tab nails (1/2") are used when replacing broken trim retaining nails.

NOTE: If plastic retainers are loose and will not remain engaged in door inner panel, install a 1/2" x 3/4" piece of cloth-backed waterproof body tape over retaining hole in door inner panel. Make two slits in tape to form an "X" pattern. Check retainer for snug fit. If retainer is still loose, repeat above operation by installing a second piece of tape over existing repair. This procedure may also be used to repair waterleaks which develop around perimeter of retainer.

DOOR TRIM PADS (All Except 3227, 3237 & 3267 Styles)

Both the front and rear door trim assemblies

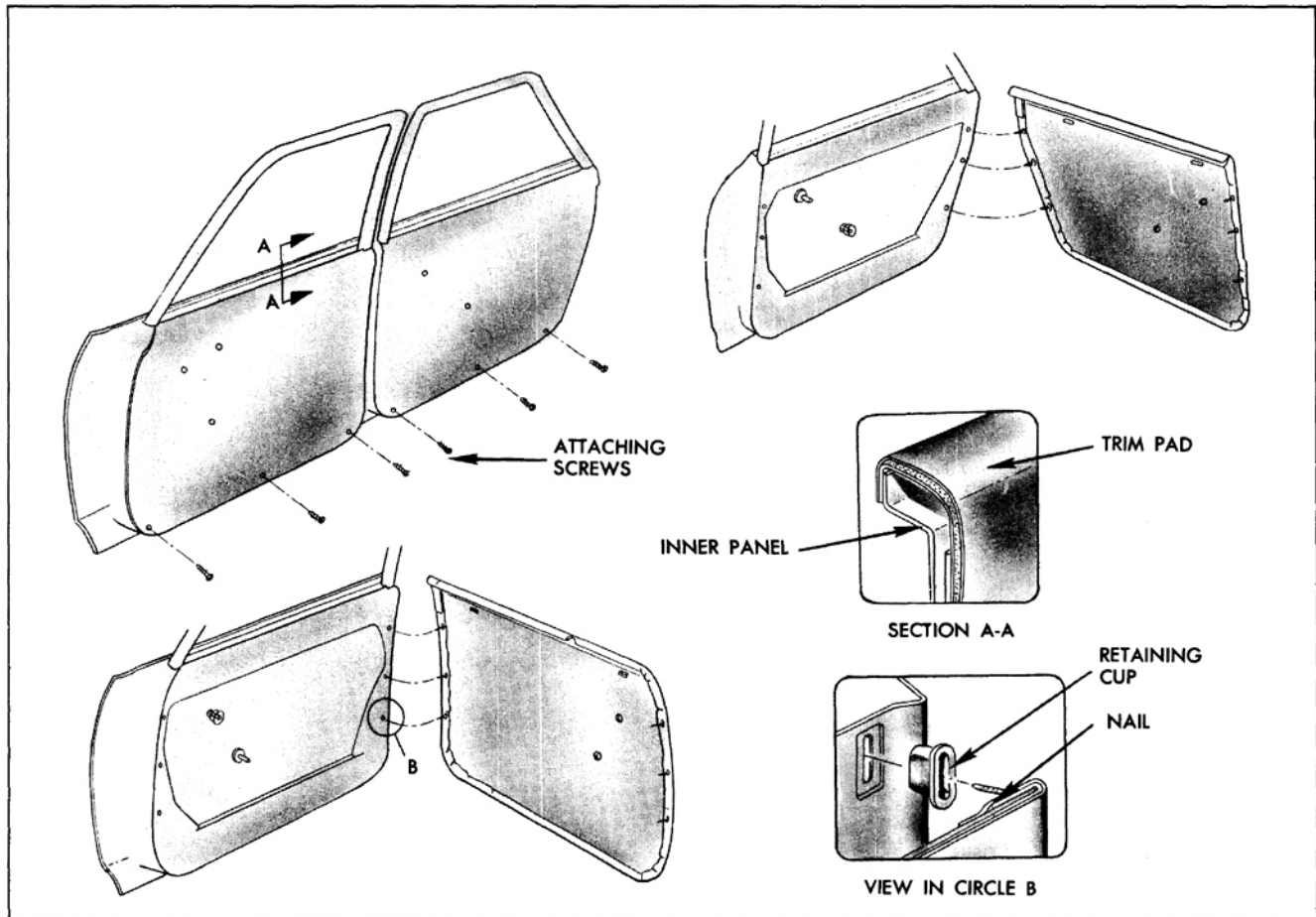


Fig. 16-320 Door Trim Pads (Hang-On Type)

are secured to the door inner panel by trim pad retainers at top, retaining clips along both sides and screws at the bottom. Trim pad retainers are attached to the door inner panel by screws. The retaining clips (along sides) are pressed into plastic retainers or cups which fit into slots in the door inner panel.

Removal and Installation

1. Remove door inside handles and arm rest assembly.
2. Remove attaching screws along bottom of door trim pad.
3. Carefully insert Tool J-6335, or a suitable flat-bladed tool, between door trim assembly and door inner panel at retaining clip locations and disengage clips from retaining plugs. (Fig. 16-321)

NOTE: Broken or damaged retaining clips should be replaced.

4. Pull top edge of trim pad down slightly to disengage it from the trim pad retainer and remove trim pad from door.

5. To install, reverse removal procedure. Exercise care not to disturb inner panel water deflector.

NOTE: If plastic retaining plugs are loose and will not remain engaged in door inner panel, install a 1/2" x 3/4" piece of cloth-backed waterproof body tape over retaining plug hole and door inner panel. Make two slits in tape to form an "X" pattern. Check retainer for a snug fit and, if still loose, repeat above operation by installing a second piece of tape over the existing repair. This same procedure can be used to repair water leaks which develop around perimeter of retainer.

DOOR WATER DEFLECTORS

A waterproof paper deflector is used to seal the door inner panel and prevent entry of water into body. The deflector is secured by a string loaded sealing material along both front and rear edges and by the application of waterproof sealing tape at front and rear lower corners. Whenever work is performed on front or rear doors where the paper water deflector has been disturbed, the deflector must be properly sealed and

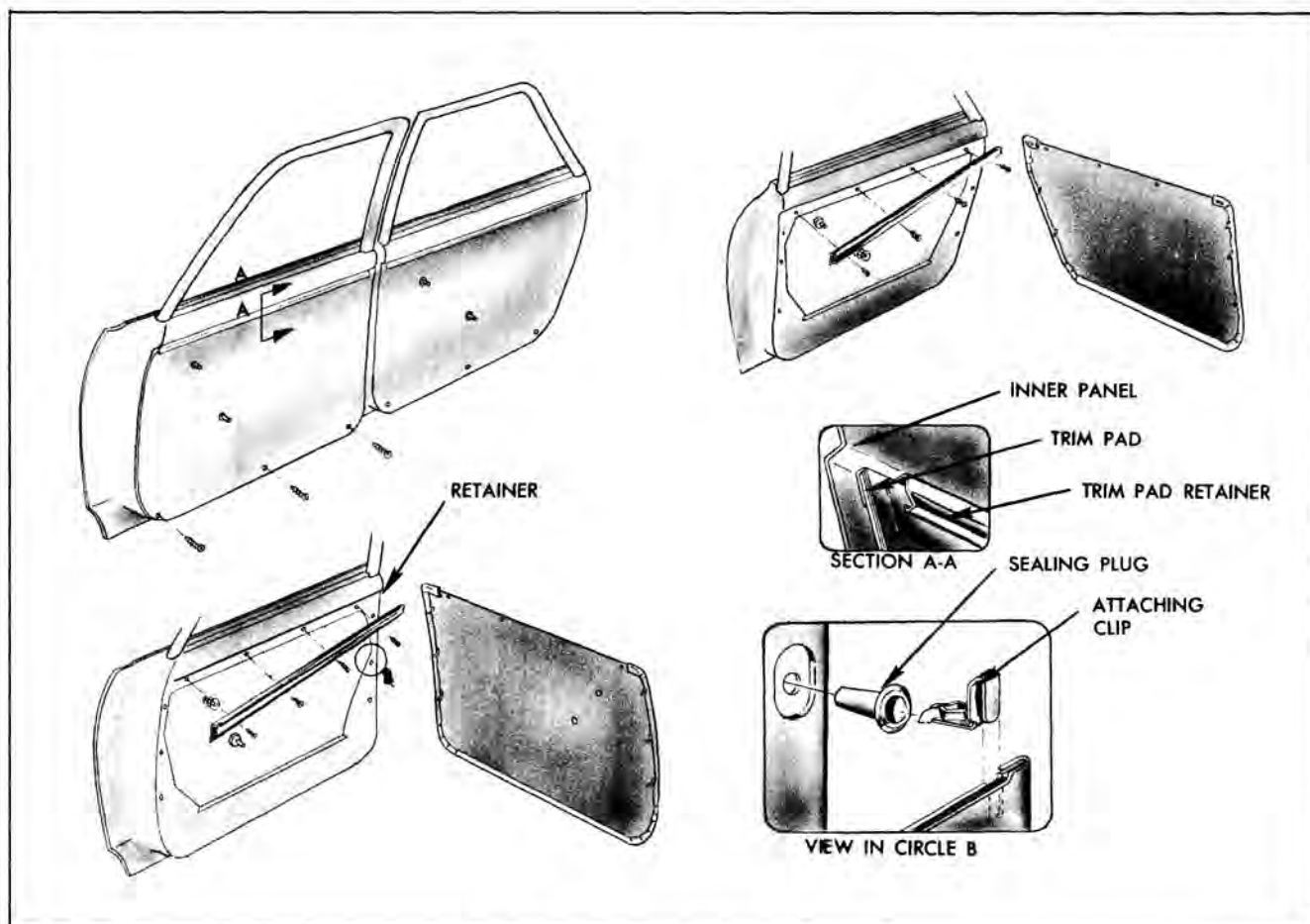


Fig. 16-321 Door Trim Pad Assemblies

taped to the inner panel to prevent serious water-leaks. It is important that all service personnel performing door hardware adjustments or sealing operations are 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.

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 door trim pad upper retainer on all styles except 3227, 3237 and 3267.

3. Remove strips of waterproof body tape securing lower corner of water deflector.
4. With a putty knife, carefully break cement bond securing upper corners of water deflector to door inner panel. Make sure string, located within sealer, is against water deflector and carefully slide putty knife between sealer and door inner panel along both sides of door to disengage sides of water deflector from door inner panel.
5. Disengage lower edge of water deflector from retaining slot in door inner panel and remove water deflector. (Fig. 16-322)

Installation

1. Inspect water deflector and, where necessary, repair any tears or holes with waterproof body tape applied to both sides of deflector. In addition, if bond between polyethylene coating and deflector paper has been damaged, apply waterproof body tape to both sides of deflector over damaged area to prevent water from wicking on uncoated side of deflector.
2. If a new water deflector is to be installed, use old water deflector as a template, trim new deflector to proper side and cut holes

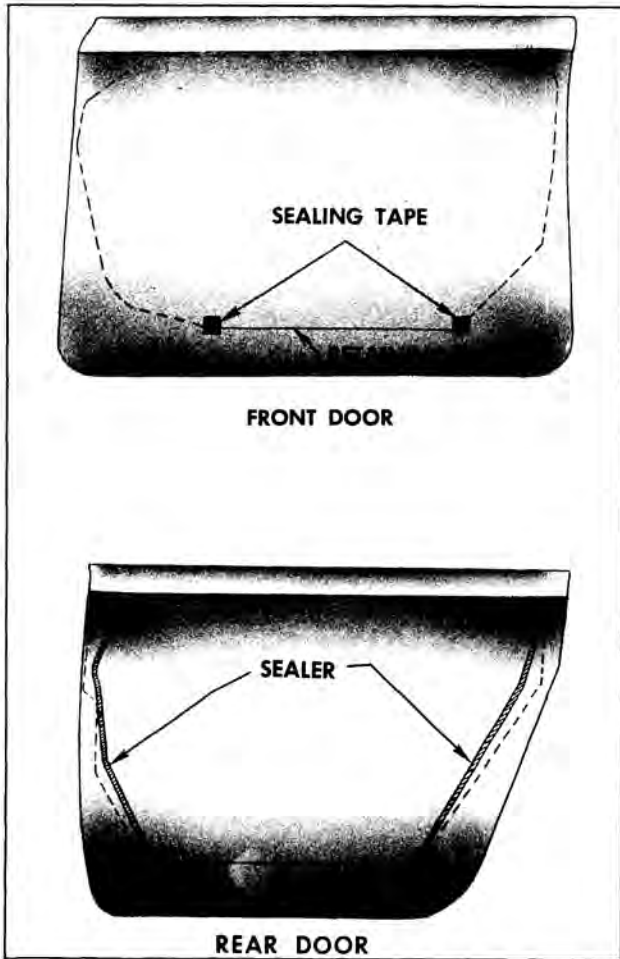


Fig. 16-322 Door Water Deflectors

for door inside hardware. If old sealer does not effect a satisfactory seal, apply a bead of body caulking compound (approximately 3/16" diameter) to inner panel at unsealed areas.

3. Position water deflector to door inner panel with polyethylene coated side of deflector against inner panel. Insert lower edge of deflector in retaining slot. Then firmly roll or press sealed areas to obtain a good bond between deflector and door inner panel.
4. Seal lower corners of deflector with 2" or 2-1/2" waterproof body sealing tape.
5. Clean off all excess cement or caulking compound and install previously removed door trim and inside hardware.

DOOR OUTSIDE HANDLE ASSEMBLY

Removal and Installation

1. Raise door window and remove door trim pad.
2. Detach water deflector sufficiently to gain access to door outside handle attaching screws.
3. Remove screws through inner panel. Remove



Fig. 16-323 Door Outside Handle Attachment

door handle and gaskets from outside of body. (Fig. 16-323)

4. To install, reverse removal procedure.

DISASSEMBLY AND ASSEMBLY OF DOOR OUTSIDE HANDLE

1. Remove door outside handle.
2. Depress and rotate retainer 1/4 turn. On front doors, the retainer, push-button, return spring and sealing washer can be removed separately. On rear doors the retainer, push-button and push-button return spring are serviced as one unit. (Figs. 16-324 and 16-325)
4. To assemble, reverse disassembly procedure.

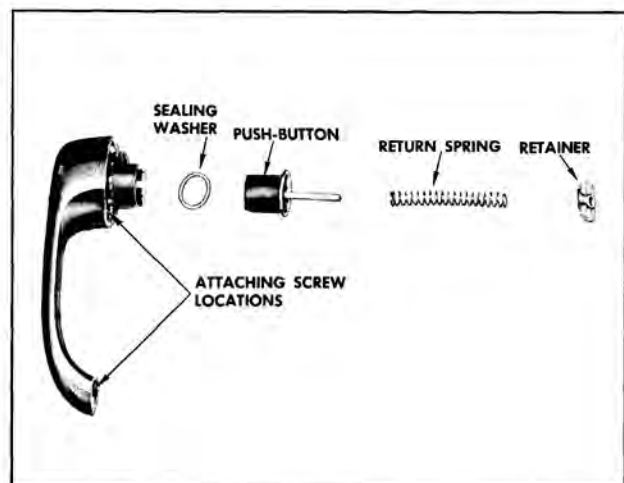


Fig. 16-324 Front Door Outside Handle Assembly

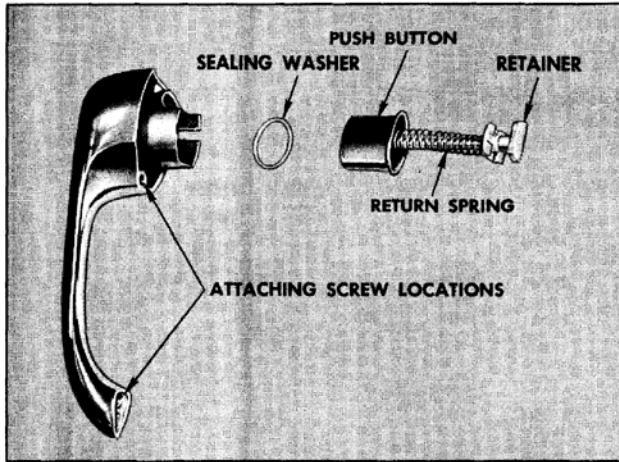


Fig. 16-325 Rear Door Outside Handle Assembly

DOOR LOCK SPRING CLIPS

A spring clip is used on the door lock levers to secure the remote control connecting rod and inside locking rod. A slot in the spring clip provides for disengagement of the clip, thereby facilitating detachment of the connecting rod from the lock lever.

To disengage the spring clip, use a screwdriver, or other suitable tool, to slide the clip out of engagement.

Fig. 16-326 shows the door lock spring clip engaged and disengaged.

DOOR LOCK STRIKERS

All lock strikers consist of a single metal bolt and washer assembly. Strikers are attached to a floating cage nut located in the body lock pillar panel. The head of the striker bolt utilizes a hex head (Allen) wrench fitting for removal and installation of the striker. Strikers are equipped with a rubber sleeve to act as a door closing silencer.

Removal and Installation

1. With a pencil, mark position of striker on body pillar.

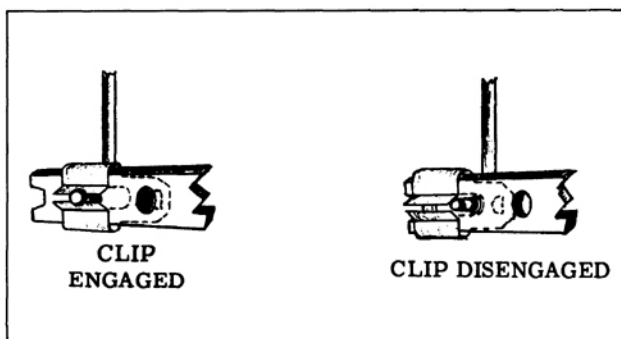


Fig. 16-326 Door Lock Spring Clip

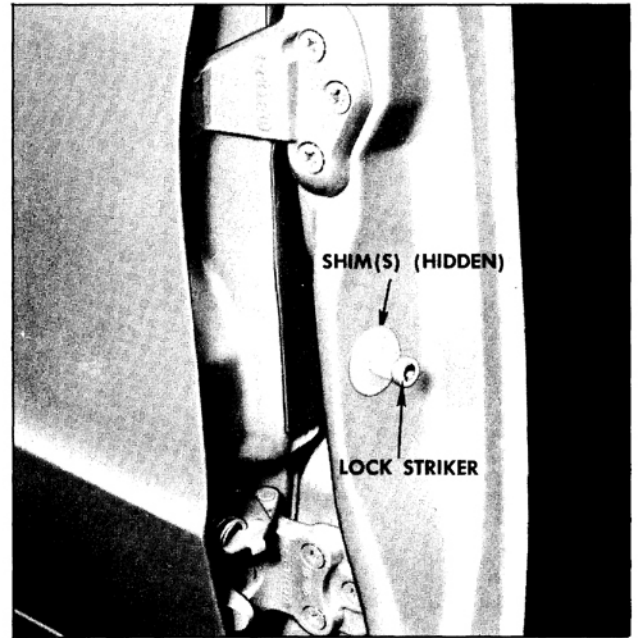


Fig. 16-327 Front Door Lock Striker

2. Using a 5/16" hex head wrench (Allen), remove striker from body lock pillar. (Fig. 16-327)
3. To install, place striker within locating marks on pillar and install striker.

IMPORTANT: Whenever a door has been removed and reinstalled or realigned, the door **SHOULD NOT** be closed completely until a visual check is made to determine if lock fork bolt will correctly engage with striker.

Adjustments

To adjust striker up or down or in or out, loosen striker bolt and shift striker as required and tighten bolt.

DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER SPACERS

1. Door(s) should be properly aligned before checking lock striker spacer requirements.
2. To determine if door lock striker spacers are required, apply modeling clay or body caulking compound in lock where striker engages as shown in Fig. 16-328. Close door to form a measurable impression in clay or caulking compound as depicted in this illustration.
3. The striker head should make an impression in center of clay to be properly aligned fore and aft. As shown in Fig. 16-328, a distance of 3/16" should exist on either side of striker impression. Although 3/16" is the preferred

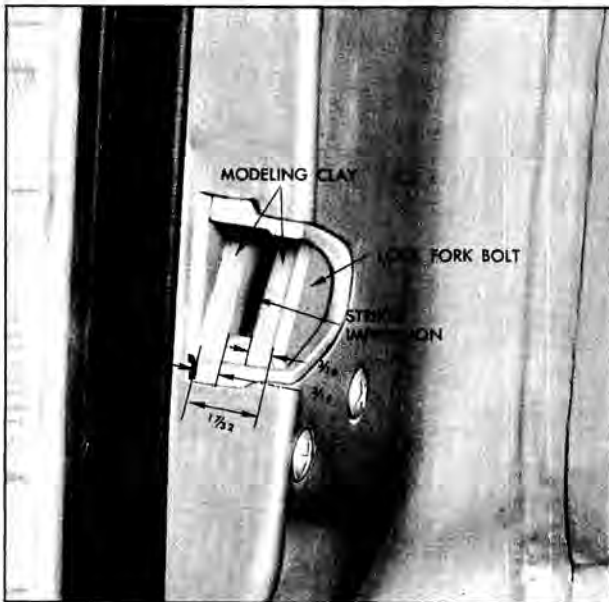


Fig. 16-328 Door Lock Striker Engagement

measurement, a tolerance of $1/32$ " is allowed on either side of striker engagement center area. Service spacers are available to achieve proper positioning of lock strikers.

DOOR PINCHWELD FINISHING STRIPS

On all styles, a pinchweld finishing strip is used around door openings. All strip assemblies are reinforced by a full metal insert and are retained by integral lips of the finishing strips.

Removal and Installation

1. Remove door sill plate.
2. On four-door styles, remove center pillar to roof rail finishing plate.
3. On two-door styles (except convertibles) remove rear quarter window upper corner finishing molding.
4. On station wagon styles, remove rear door upper lock pillar to roof rail finishing plate.
5. Beginning at either end of pinchweld finishing strip, carefully pull strip from pinchweld.
6. To install, reverse removal procedure.

FRONT DOORS

FRONT DOOR HINGES

The front door hinges for all styles are a swing-in type. The lower hinges are constructed of malleable iron and the upper hinges of die cast aluminum. A single stage hold-open is incorporated in the lower hinge.



Fig. 16-329 Front Door Hinge Attachment

CAUTION: Use only the recommended procedures for adjusting front doors. The aluminum upper hinge will break under strain of bending in any attempt to short-cut adjustments. Care should also be exercised when removing or replacing door assembly.

Removal

To remove the front door assembly without hinges attached, proceed as follows:

1. Open door and mark hinge locations on front door hinge pillar.
2. With the aid of a helper, to properly support door, remove screws securing upper and lower hinges to door and remove door assembly (less hinges) from body. Fig. 16-329 illustrates hinge to door attachment on a closed style but is typical of all styles.

Installation

1. As an anti-squeak precaution and to prevent entry of water into body at hinge attaching screw locations, coat attaching surfaces of hinges with heavy-bodied sealer prior to installing door. (Fig. 16-330)
2. With aid of helper, reinstall door to body opening, align hinges within scribe marks and tighten screws. Check door for proper operation and alignment and adjust door, if required, as described under FRONT DOOR ADJUSTMENTS.

NOTE: For lubrication of hinges, see PERIODIC MAINTENANCE Section.

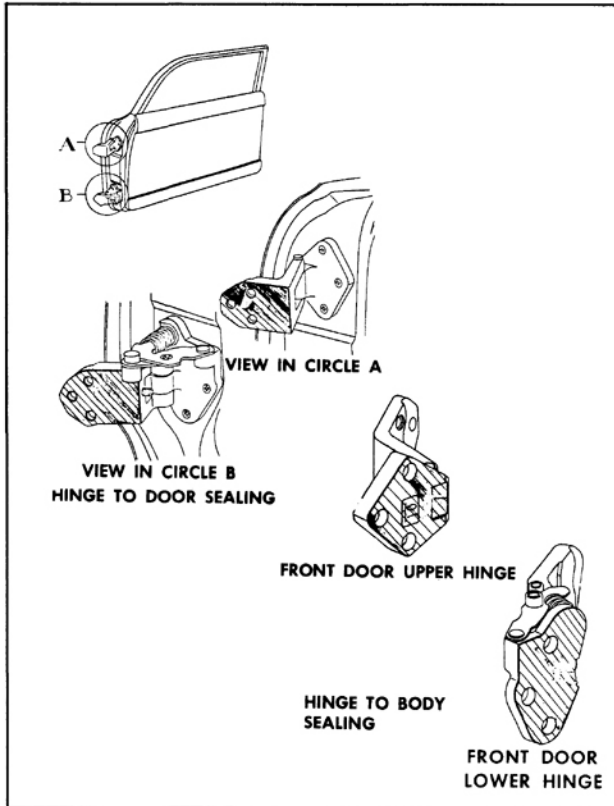


Fig. 16-330 Front Door Hinge Sealing

To remove the front door assembly with hinges attached, proceed as follows:

NOTE: Tool J-21550 is designed for adjustment of front door hinge to body attaching bolts. (Fig. 16-331)

Usage of this tool eliminates the need of loosening the front fender. If Tool J-21550 is not available or if additional clearance is desired, perform Step 1 in the following procedure; otherwise, begin with Step 2.

1. Loosen front fender as required. The preferred method is to remove the three front fender to cowl attaching bolts and the lower fender to rocker panel attaching bolt and prop rear of fender away from body with a wooden block.

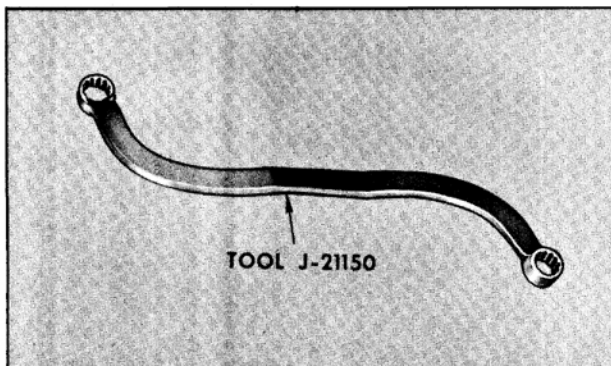


Fig. 16-331 Front Door Hinge Tool

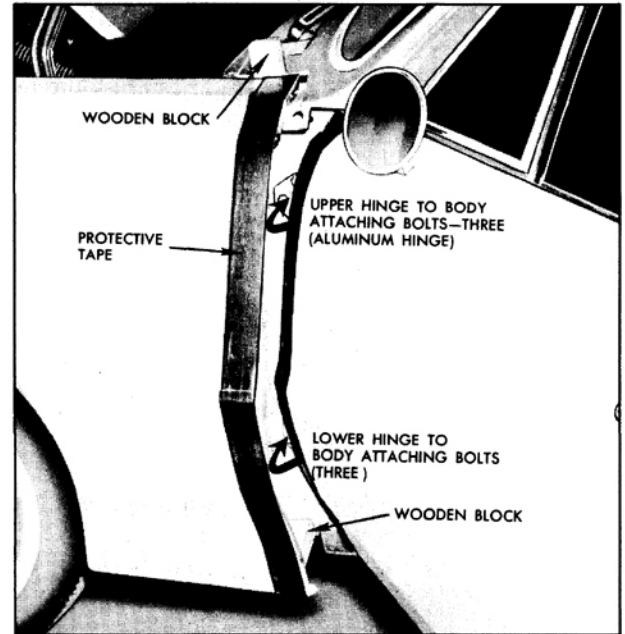


Fig. 16-332 Front Door Hinge Attachment

2. Mark hinge locations on body hinge pillar.
3. With the aid of a helper, to properly support door, remove bolts securing upper and lower hinges to body and remove door assembly (with hinges attached) from body. (Fig. 16-332)

Installation

1. As an anti-squeak precaution and to prevent entry of water into door at hinge attaching bolt locations, coat attaching surfaces of hinges with heavy-bodied sealer prior to installing door.
2. With the aid of a helper, reinstall door to body opening. Align hinges within scribe marks and tighten bolts. Check door for proper operation and alignment and adjust door, if required, as described under FRONT DOOR ADJUSTMENTS.
3. Reinstall and tighten front fender attaching bolts.

FRONT DOOR ADJUSTMENTS

Door adjustments are provided through the use of floating anchor plates at the door and body pillars. When checking the door for misalignment and before adjusting the door, remove the door lock striker from the body pillar to allow door to hang freely on hinges.

To adjust the door up or down and/or fore or aft at the front body hinge pillar, proceed as follows:

1. If Tool J-21550 is not available, loosen front fender as required.

2. Mark location of hinges on front body hinge pillar.
3. Loosen hinge attaching bolts and shift door to desired position and tighten hinge attaching bolts.
4. Check door for proper alignment and, where necessary, repeat Steps 2 and 3 until desired adjustment is attained.
5. Reinstall door lock striker and check lock extension-to-striker engagement as described under DOOR LOCK STRIKER ADJUSTMENTS.
6. If necessary, realign and tighten front fender.

To adjust door in or out at door pillar, proceed as follows:

1. Open front door.
2. Mark location of hinges on front door hinge pillar.
3. Loosen hinge attaching screws and shift door to desired position and tighten hinge attaching screws.
4. Check door for proper alignment and, where necessary, repeat Steps 2 and 3 until desired adjustment is attained.
5. Reinstall door lock striker and check lock extension to striker engagement as described under DOOR LOCK STRIKER ADJUSTMENTS.

FRONT DOOR WEDGE PLATES (3267 Style)

Door wedge plates are used as a positive "hold" of front doors with doors in the closed position. Wedge plates are retained by two screws and are installed at top section of door and body lock pillars. The body wedge plates are constructed of metal and the door wedge plate is constructed of nylon. If necessary, shims can be installed under the door wedge plate. These shims are available as service part.

Removal and Installation

1. Remove two screws securing wedge plate to panel and remove wedge plate. (Fig. 16-333)
2. To install, reverse removal procedure.

FRONT DOOR WINDOW LOWER SASH CHANNEL GUIDE PLATE (37 & 67 Styles)

The door window guide plate is attached to the door glass lower sash channel by two bolts and

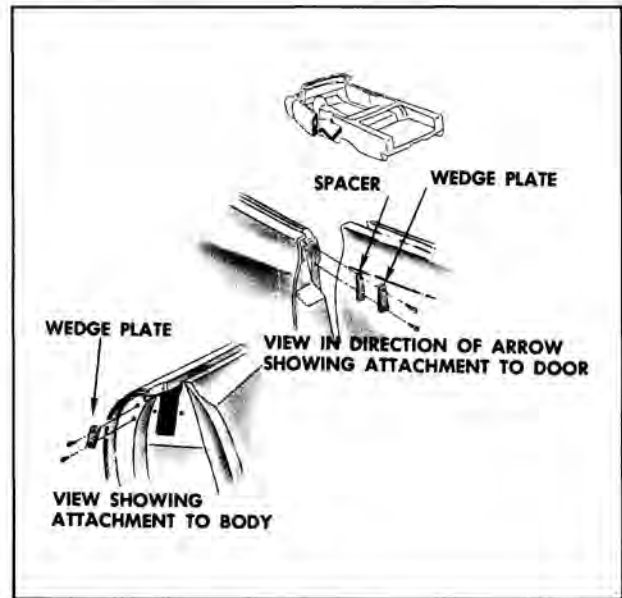


Fig. 16-333 Door Wedge Plate Installation

acts as a guide during operation of door glass. The guide plate also serves as the door window rear up travel stop.

Removal and Installation

1. Raise door window to a position almost fully closed.
2. Remove door trim pad and detach inner panel water deflector sufficiently to gain access to guide plate attaching bolts.
3. Remove two bolts securing guide plate to glass lower sash channel and remove guide plate. (Fig. 16-334)

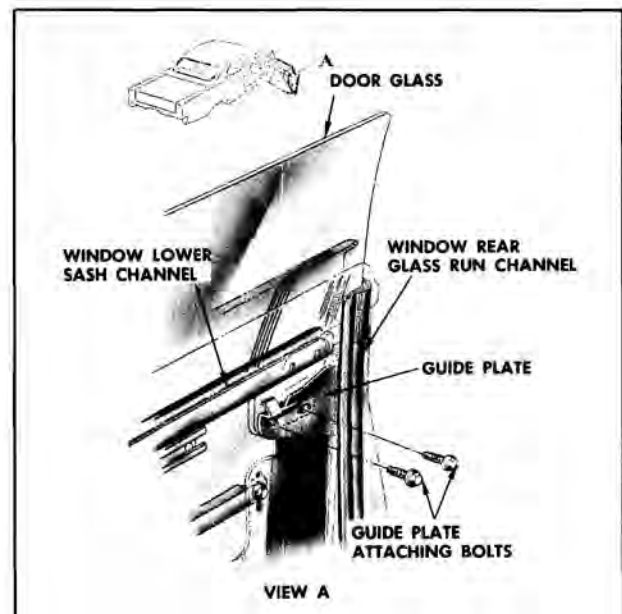


Fig. 16-334 Lower Sash Channel Guide Plate

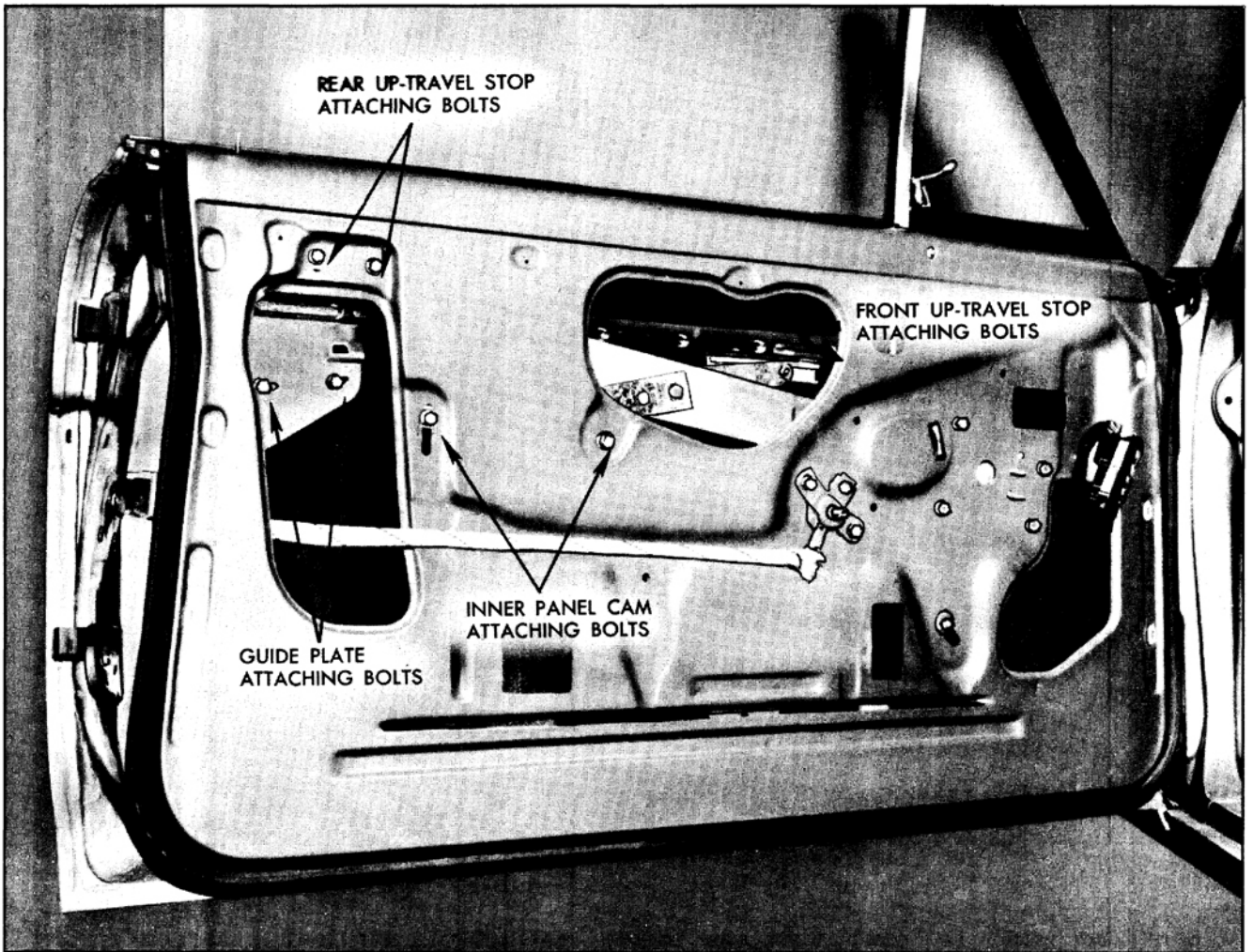


Fig. 16-335 Front Door Hardware

4. To install, reverse removal procedure. Fore and aft adjustment of the guide plate is provided by usage of elongated attaching holes.

FRONT DOOR WINDOW UP TRAVEL STOPS (37 & 67 Styles)

Removal and Installation

1. Raise door window to a position of almost fully closed.
2. Remove door trim pad and detach inner panel water deflector sufficiently to gain access to front and rear up-travel stop attaching bolts.
3. Remove two bolts securing rear up-travel stop to door inner panel and one bolt securing front up-travel stop to glass lower sash channel and remove stops from door. (Fig. 16-335)
4. To install, reverse removal procedure.

FRONT DOOR WINDOW ASSEMBLY (37 & 67 Styles)

The front door window is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates riveted front and rear lower sash channel cams. With this type of design, the door glass, lower sash channel and sash channel cams are removed from the door as a unit. All front door windows are a curved glass design.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation or removal procedure as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On styles not equipped with a hang-on door trim pad, remove glass run channel inner strip assembly.

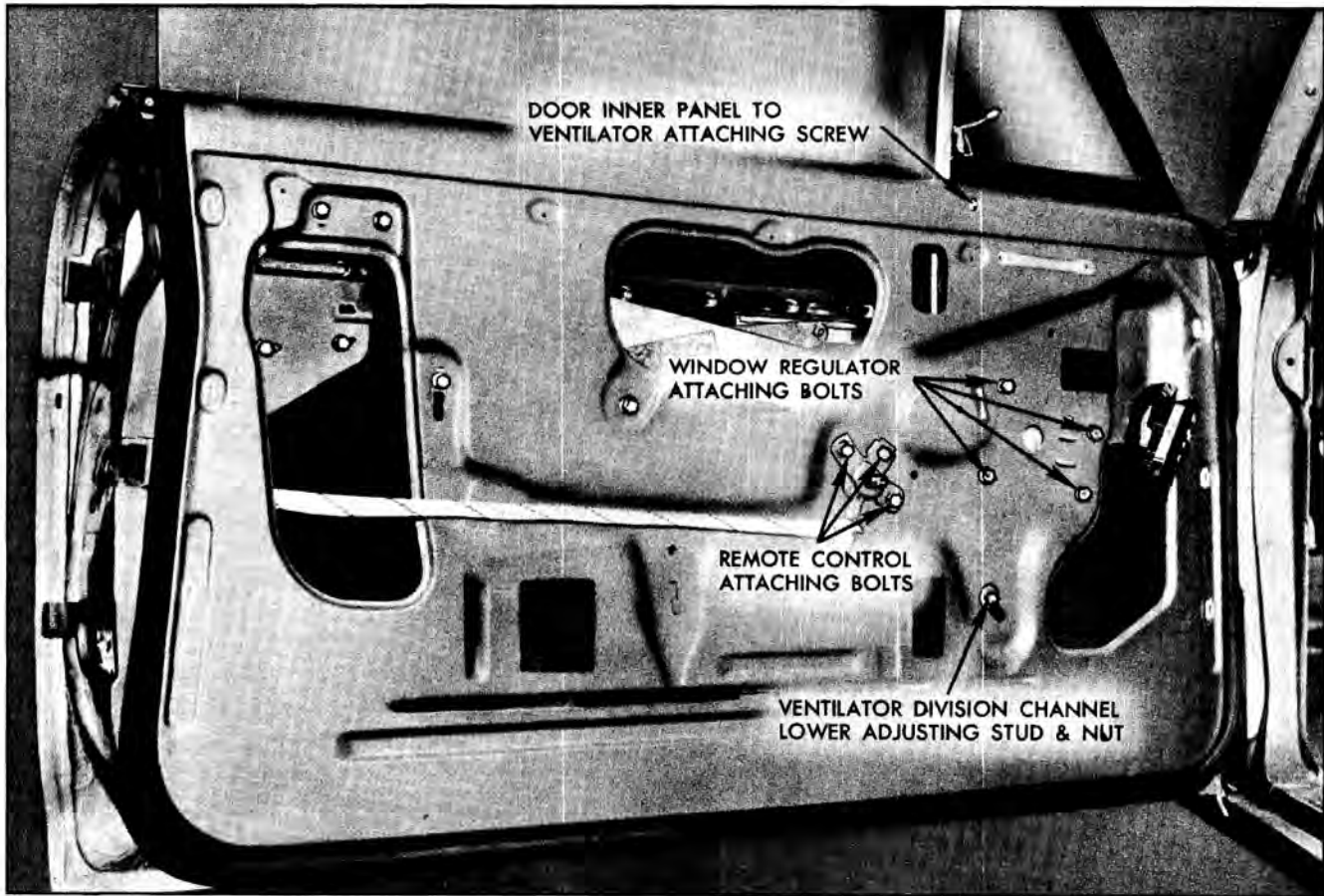


Fig. 16-336 Front Door Hardware

3. Raise door window and remove door window lower sash channel guide plate and front and rear up-travel stops.
4. Remove inner panel cam.
5. The door window lower sash channel cams can now be moved even with or slightly higher than the belt line of door outer panel. Move door glass to this high point position and slide assembly rearward to disengage regulator arm rollers from front and rear sash channel cams and remove door window from door.
6. To install, reverse removal procedure.

FRONT DOOR WINDOW ADJUSTMENTS

The front door window is adjustable fore or aft, by adjusting the guide plate. Up and down adjustment is available at the front and rear up-travel stops; rotation of glass is available at the inner panel cam and in and out adjustment at rear edge is available at the rear run channel lower attaching bolt. A slight fore and aft adjustment is available at front edge of glass by adjusting the ventilator division channel at lower adjusting stud and nut.

FRONT DOOR VENTILATOR ASSEMBLY (37 & 67 Styles)

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

Removal and Installation

1. Raise door window, remove door trim assembly and detach inner panel water deflector.
2. Remove front door window assembly.
3. Remove ventilator division channel lower adjusting stud nut. (Fig. 16-336)
4. Remove door inner panel to ventilator attaching screw.
5. On door hinge pillar, remove ventilator frame lower attaching bolt and ventilator frame lower adjusting stud nut. (Fig. 16-337)
6. Lift ventilator assembly from between door inner and outer panels.
7. To install, reverse removal procedure.

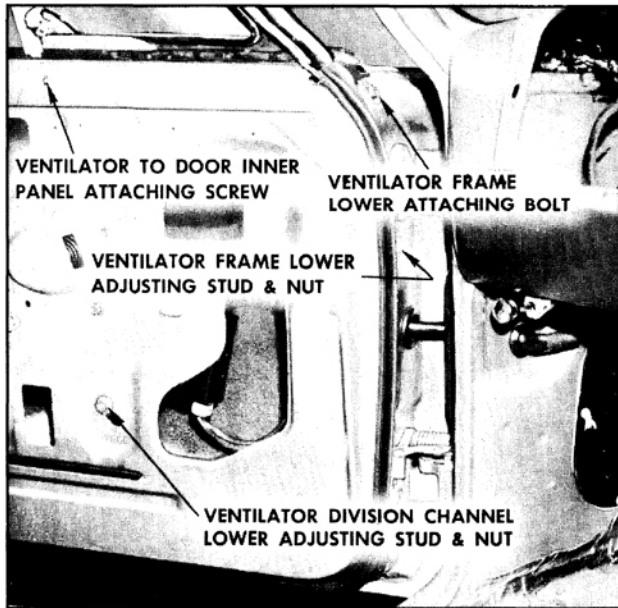


Fig. 16-337 Ventilator Attachment

FRONT DOOR VENTILATOR ADJUSTMENTS (37 & 67 Styles)

1. A slight fore and aft adjustment of the ventilator division channel is available at the lower adjusting stud and nut by loosening attaching nut and sliding nut in slot provided. The division channel can also be positioned in or out by loosening nut and turning stud in or out as required and tightening nut.
2. The effort required to open or close the ventilator can be set by straightening retaining washer tab and tightening or loosening the adjusting nut. Tightening the adjusting nut

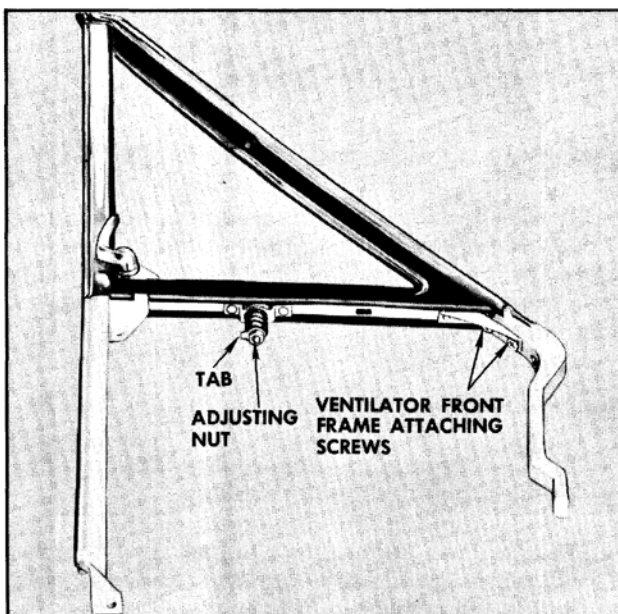


Fig. 16-338 Front Door Ventilator Assembly

will increase effort and loosening adjusting nut will decrease effort. When desired adjustment has been obtained, bend down washer tab to lock nut in position. (Fig. 16-338)

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

3. The ventilator frame lower adjusting stud and nut provides in or out adjustment by use of an oversize attaching hole and fore or aft adjustment by turning adjusting stud in or out, as required.

FRONT DOOR VENTILATOR ASSEMBLY (27, 35 & 69 Styles)

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

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.
2. Remove door window glass run channel lower rear retainer attaching screw and remove retainer through large access hole. (Fig. 16-339)
3. Remove window lower stop. Lower door window completely down and slide it as far rearward as possible.
4. Remove ventilator division channel lower adjusting stud nut, ventilator frame-to-door outer panel return flange attaching screw and three ventilator-to-door upper frame attaching screws. (View "A" Fig. 16-340)

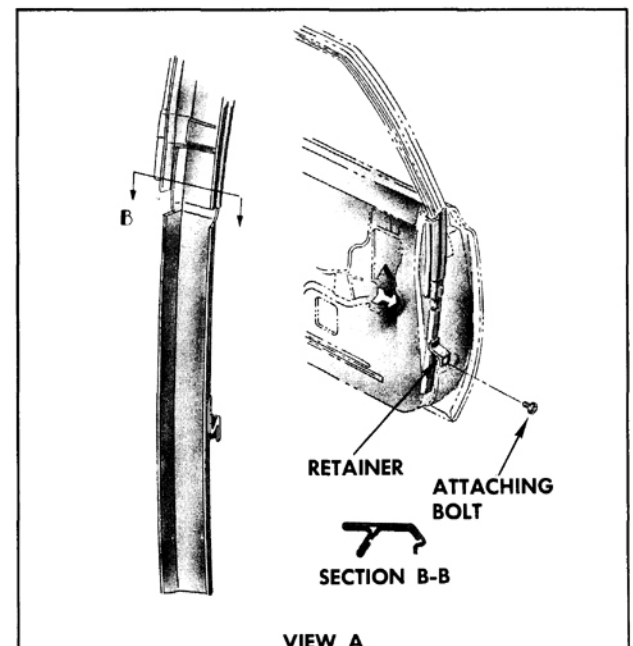


Fig. 16-339 Glass Run Channel Lower Rear Retainer

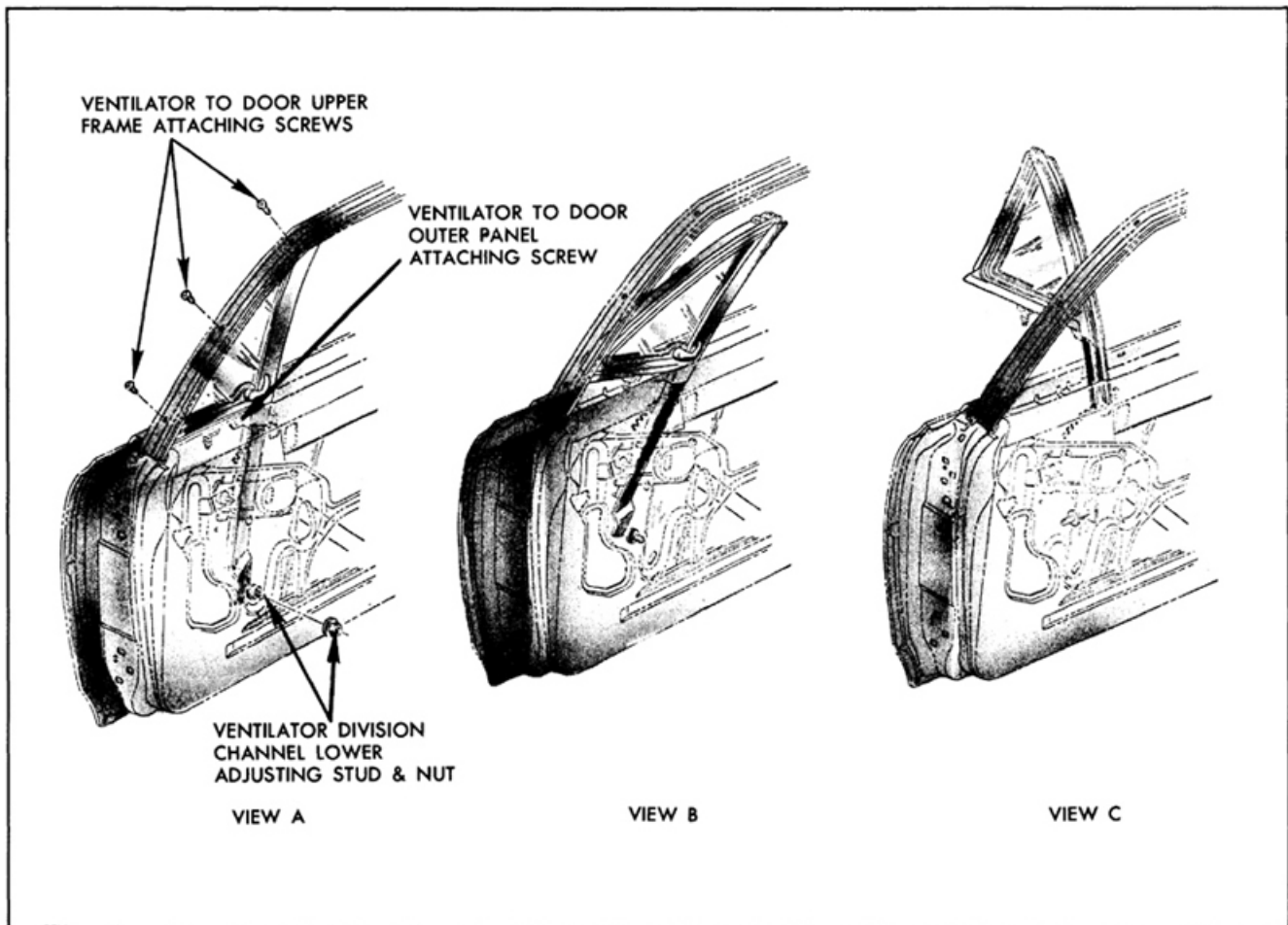


Fig. 16-340 Front Door Ventilator Assembly Removal

5. Remove glass run channel from ventilator division channel (above belt line).
6. Lift ventilator rearward and upward until lower forward corner of assembly is free of door upper frame. (View "B" Fig. 16-340)
7. Rotate ventilator assembly in an outboard movement and remove unit outboard of door upper frame. (View "C" Fig. 3-40)
8. To install, reverse removal procedure.

FRONT DOOR VENTILATOR ADJUSTMENTS (27, 35 & 69 Styles)

1. A slight fore or aft adjustment of the ventilator division channel is available at the lower adjusting stud and nut by loosening attaching nut and sliding nut 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. (Fig. 16-340)
2. The effort required to open or close the ventilator can be set by straightening retaining washer tab and tightening or loosening

the adjusting nut. Tightening the adjusting nut will increase operating effort and loosening adjusting nut will decrease operating effort. When the desired adjustment has been obtained, bend down washer tab to lock nut in position.

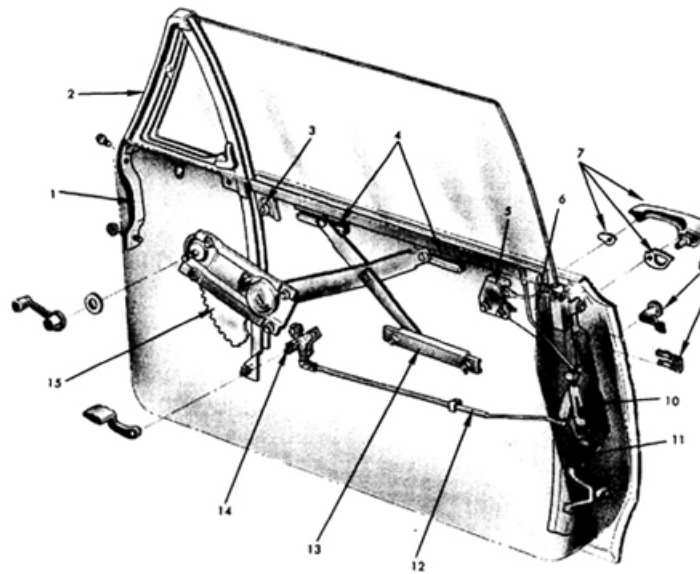
NOTE: This adjustment should be performed as a bench operation.

FRONT DOOR WINDOW INNER PANEL CAM

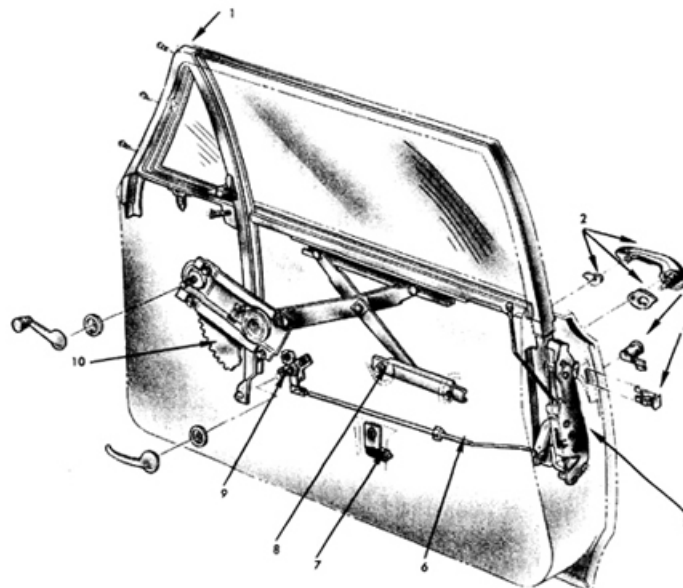
All two-door styles are equipped with a door window double-arm regulator, thereby requiring usage of a door window inner panel cam. This cam houses one of the window regulator balance arm rollers. (Fig. 16-341)

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.
2. Remove two attaching bolts and slide cam out of engagement with regulator balance arm roller and remove cam from door.
3. To install, reverse removal procedure.



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|--|--|
| 1. FRONT DOOR VENTILATOR LOWER FRAME | 8. FRONT DOOR LOCK CYLINDER ASSEMBLY |
| 2. FRONT DOOR VENTILATOR ASSEMBLY | 9. FRONT DOOR LOCK CYLINDER RETAINER |
| 3. FRONT DOOR WINDOW FRONT UP-STOP | 10. FRONT DOOR LOCK ASSEMBLY |
| 4. FRONT DOOR WINDOW LOWER SASH CHANNEL CAMS | 11. FRONT DOOR WINDOW REAR GUIDE ASSEMBLY |
| 5. FRONT DOOR WINDOW REAR UP-STOP | 12. FRONT DOOR REMOTE CONTROL CONNECTING ROD |
| 6. FRONT DOOR WINDOW GUIDE PLATE | 13. FRONT DOOR INNER PANEL CAM |
| 7. FRONT DOOR OUTSIDE HANDLE AND SEALING GASKETS | 14. FRONT DOOR REMOTE CONTROL ASSEMBLY |
| | 15. FRONT DOOR WINDOW REGULATOR ASSEMBLY |



- | | |
|---------------------------------------|----------------------------------|
| 1. VENTILATOR ASSEMBLY | 6. REMOTE CONTROL CONNECTING ROD |
| 2. OUTSIDE HANDLE AND SEALING GASKETS | 7. WINDOW LOWER STOP |
| 3. LOCK CYLINDER ASSEMBLY | 8. INNER PANEL CAM |
| 4. LOCK CYLINDER RETAINER | 9. REMOTE CONTROL ASSEMBLY |
| 5. LOCK ASSEMBLY | 10. WINDOW REGULATOR ASSEMBLY |

Fig. 16-341 Front Door Hardware

The rear section of the inner panel cam is adjustable up or down to correct a rotated door window.

FRONT DOOR WINDOW ASSEMBLY (27, 35 & 69 Styles)

The front door window is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design, the door glass, lower sash channel and sash channel cam is removed from the door as a unit.

CAUTION: Care should be exercised to make certain glass does not strike body metal during installation or removal procedure, as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On two-door styles, remove inner panel cam.
3. Remove glass run channel lower rear retainer and front door ventilator assembly. (Figs. 16-339 and 16-340)
4. Raise door window to a position of almost fully closed on two-door styles and rotate window regulator balance arm to a position in close relation with the regulator lift arm.
5. Move door window forward to disengage regulator arm roller(s) from window lower sash channel cam and remove door glass outboard

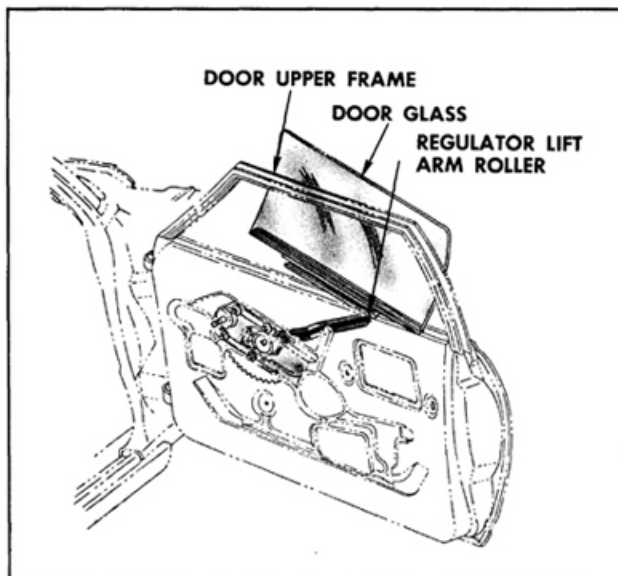


Fig. 16-342 Front Door Window Removal

of door upper frame. (Fig. 16-342)

6. To install, reverse removal procedure.

FRONT DOOR WINDOW ADJUSTMENTS (27, 35 & 69 Styles)

A slight amount of fore or aft adjustment is available at the ventilator division channel lower adjusting stud and nut as explained under FRONT DOOR VENTILATOR ASSEMBLY - ADJUSTMENTS. On two-door styles, a rotated glass can be corrected by adjustment of the inner panel cam as explained under FRONT DOOR WINDOW INNER PANEL CAM.

FRONT DOOR LOCK REMOTE CONTROL ASSEMBLY AND CONNECTING ROD

Removal and Installation

1. Raise door window, remove door trim pad and detach inner panel water deflector.
2. With a screwdriver or other suitable tool, disengage end of connecting link from lock assembly as described under DOOR LOCK SPRING CLIP.
3. Remove bolts securing remote control assembly to door inner panel and detach remote control from connecting rod.
4. Remove remote control assembly and connecting rod from door. (Fig. 16-343)
5. To install, reverse removal procedure. Check operation of door lock prior to installation of inner panel water deflector.

FRONT DOOR WINDOW REGULATOR ASSEMBLY (27, 35 & 69 Styles)

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. On two door styles, remove inner panel cam.
3. Raise door window. Place a protective piece of paper over window frame assembly and door weatherstrip to protect paint and weatherstrip from damage; then secure window in full up position by installing a twelve to fifteen inch piece of body tape (2" or 2-1/2" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of the window regulator.

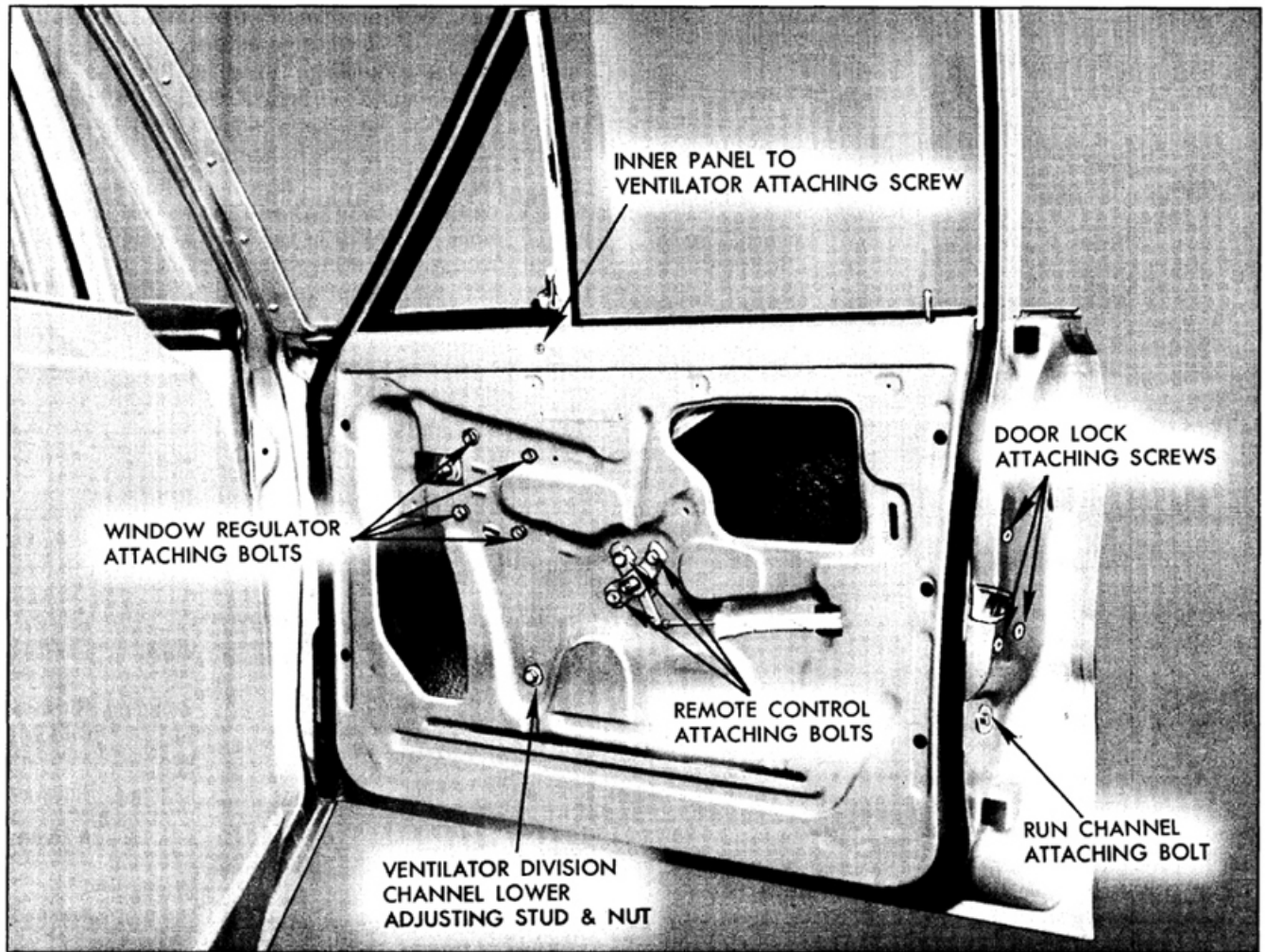


Fig. 16-343 Front Door Hardware

4. Remove ventilator division channel lower adjusting stud and nut.
 5. Remove window regulator attaching bolts and work regulator rearward to disengage lift arm from window lower sash channel cam and remove regulator from door. (Fig. 16-343)
 6. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector.
4. Remove ventilator division channel lower adjusting stud nut.
 5. Slide regulator forward to disengage lift and balance arm rollers from lower sash channel front and rear cams and remove regulator through center access hole.
 6. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector and door trim pad.

FRONT DOOR WINDOW REGULATOR ASSEMBLY (37 & 67 Styles)

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove inner panel cam.
3. Prop door window in a full up position and remove regulator attaching bolts.

POWER OPERATED FRONT DOOR WINDOW REGULATOR ASSEMBLY

The electric motor assembly which powers the window regulator on electrically operated windows is a 12-volt reversible direction motor with a built-in circuit breaker and a self-locking gear drive. The motor is secured to the regulator assembly by screws.

The removal and installation procedures are

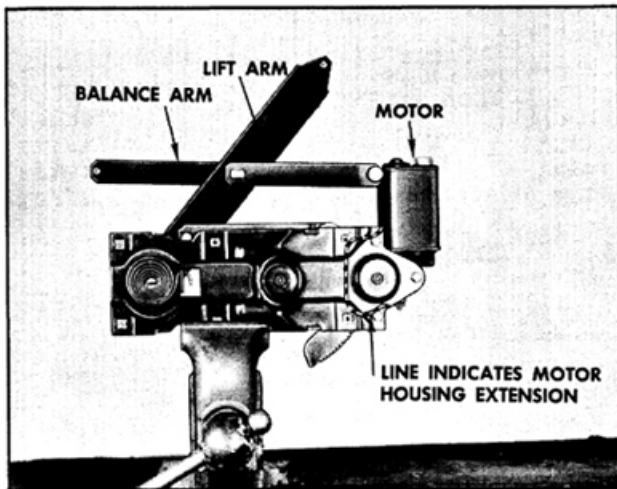


Fig. 16-344 Regulator and Motor Assembly

the same for manual or electric window regulators: however, to remove the electric motor assembly from its respective regulator, proceed as follows:

Removal and Installation

1. Remove front door electric motor and regulator assembly and clamp unit in a vise.

CAUTION: Be sure to perform Steps 2 and 3 below before attempting to remove motor from regulator. The regulator lift arm, which is under tension from the counter-balance spring, can cause serious injury if motor assembly is removed without locking the sector gear in position with a nut and bolt.

2. Drill a 1/4" hole through back plate and sector gear at a location dependent upon position of lift arm. Do not drill into motor housing. (Fig. 16-344)
3. Insert a 3/16" bolt through hole in back plate and sector gear and install nut to bolt. Do not tighten nut.
4. Remove motor attaching bolts and remove motor from regulator.

NOTE: Clean off any steel chips or filings from regulator sector gear and motor pinion gears.

5. To install, reverse removal procedure. Be sure to remove temporary nut and bolt from regulator before installing regulator in door.

FRONT DOOR LOCK ASSEMBLY

Lock assemblies for the 1964 model are all new in design and features. The principal feature of this new lock is the "keyless locking" design.

The basic design change of the 1964 lock is the incorporation of striker mechanical components into the lock assembly; specifically, the nylon shoe, shoe pin and shoe return spring. In addition, the rotary cam has been superseded by a fork bolt and all locks are fully housed.

It is very important that the striker bolt engages properly into the lock fork bolt and that, where necessary, striker emergency spacers of the proper thickness are used to obtain proper engagement.

CAUTION: DO NOT hammer or bend striker in any manner in an attempt to short-cut adjustments. Use only the established adjustments and avoid any practice that could create a safety hazard!

Removal and Installation

1. Raise door window, remove door trim assembly and detach inner panel water deflector.
2. With a screwdriver or other suitable tool, disengage remote control connecting link from door lock assembly as described under DOOR LOCK SPRING CLIP.
3. On front doors (closed styles) loosen rear glass run channel retainer.
4. Remove door lock attaching screws and remove lock assembly through inner panel access hole.
5. To install, reverse removal procedure. If additional lubrication of lock assembly is required, 630AAW Lubriplate, or its equivalent, is recommended. Check all operations of lock assembly prior to installation of inner panel water deflector.

FRONT DOOR LOCK CYLINDER ASSEMBLY

Removal and Installation

1. Raise door window.
2. With a screwdriver or other suitable flat-bladed tool, slide lock cylinder retaining clip (located on door lock pillar panel) out of engagement sufficiently to allow removal of cylinder and remove cylinder and gasket. (Fig. 16-345)

NOTE: When removing lock cylinder, use a protected tool to slide retaining clip out of engagement so as not to damage paint finish of lock pillar facing.

3. To install, reverse removal procedure.

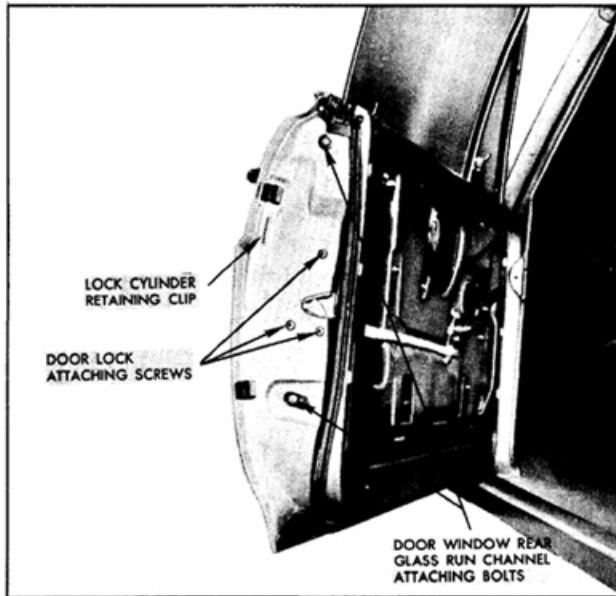


Fig. 16-345 Front Door Lock Pillar Hardware

ASSEMBLY AND DISASSEMBLY OF DOOR LOCK CYLINDER ASSEMBLY

1. Remove lock cylinder from door.
2. With a suitable tool, remove retaining clip and pawl. (Fig. 16-346)
3. To assemble, reverse disassembly procedure.

NOTE: The lock cylinder housing scalp used in production is usually damaged when removed and must be replaced by a new scalp available as a service part. The service lock cylinder housing scalp is secured by tabs.

FRONT DOOR WINDOW GLASS RUN CHANNELS

Removal

Lower door window. With finger pressure,

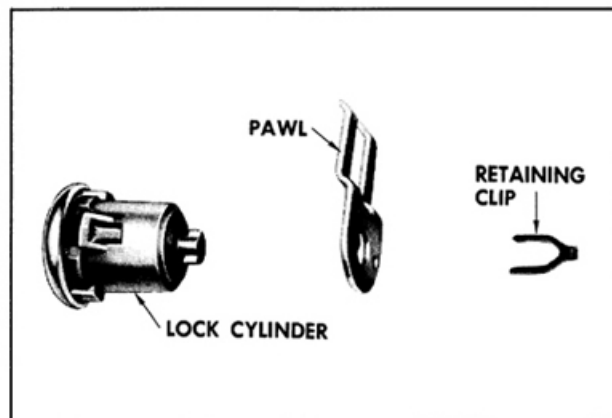


Fig. 16-346 Front Door Lock Cylinder Assembly

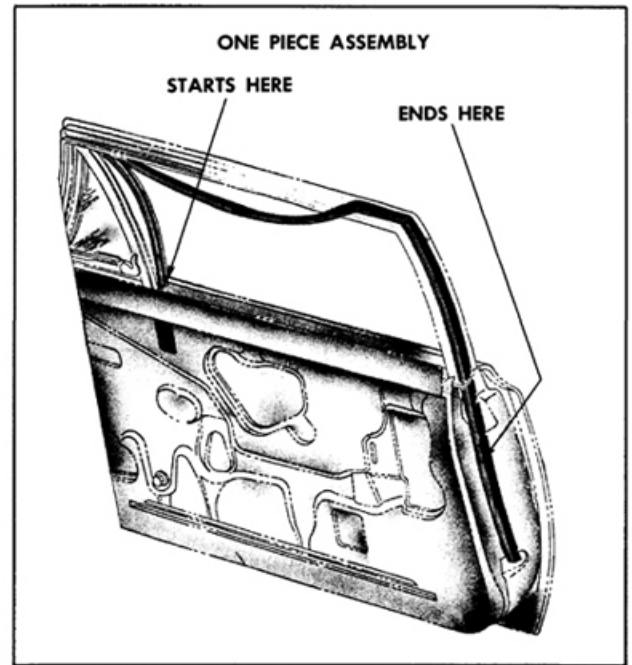


Fig. 16-347 Front Door Glass Run Channel (Typical of all Closed Styles)

pinch channel together at ventilator division channel (belt line) and pull channel out of door upper frame; then run channel should be pulled straight up to remove channel from retainer located below belt line. (Fig. 16-347)

Installation

1. Remove glass run channel rear retainer.
2. Lower door window, remove door trim pad and detach inner panel water deflector.
3. Slide run channel into door window glass run channel rear retainer and then install channel up into door upper frame in reverse order of removal.
4. Reinstall water deflector, trim pad and other previously removed parts.

FRONT DOOR WINDOW GLASS RUN CHANNEL

Removal and Installation

1. Remove door trim pad and detach inner panel water deflector.
2. Remove front door window rear guide plate.
3. Remove upper and lower bolts securing run channel to lock pillar panel and remove from door.

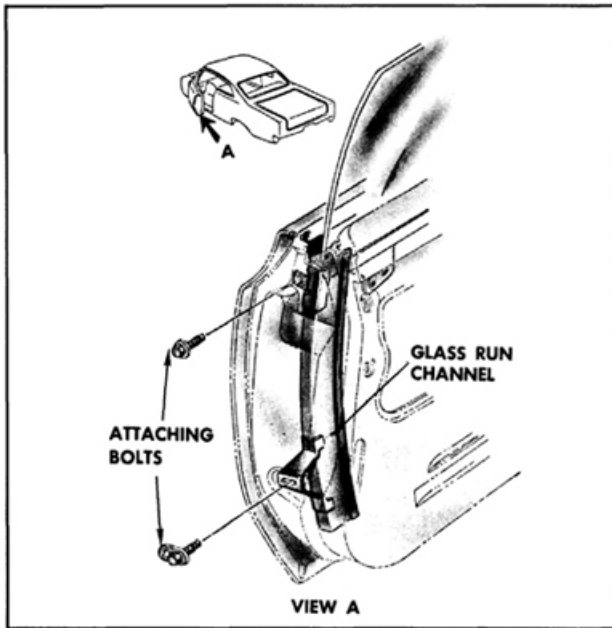


Fig. 16-348 Run Channel Attachment

4. To install, reverse removal procedure. (Fig. 16-348)

REAR DOORS

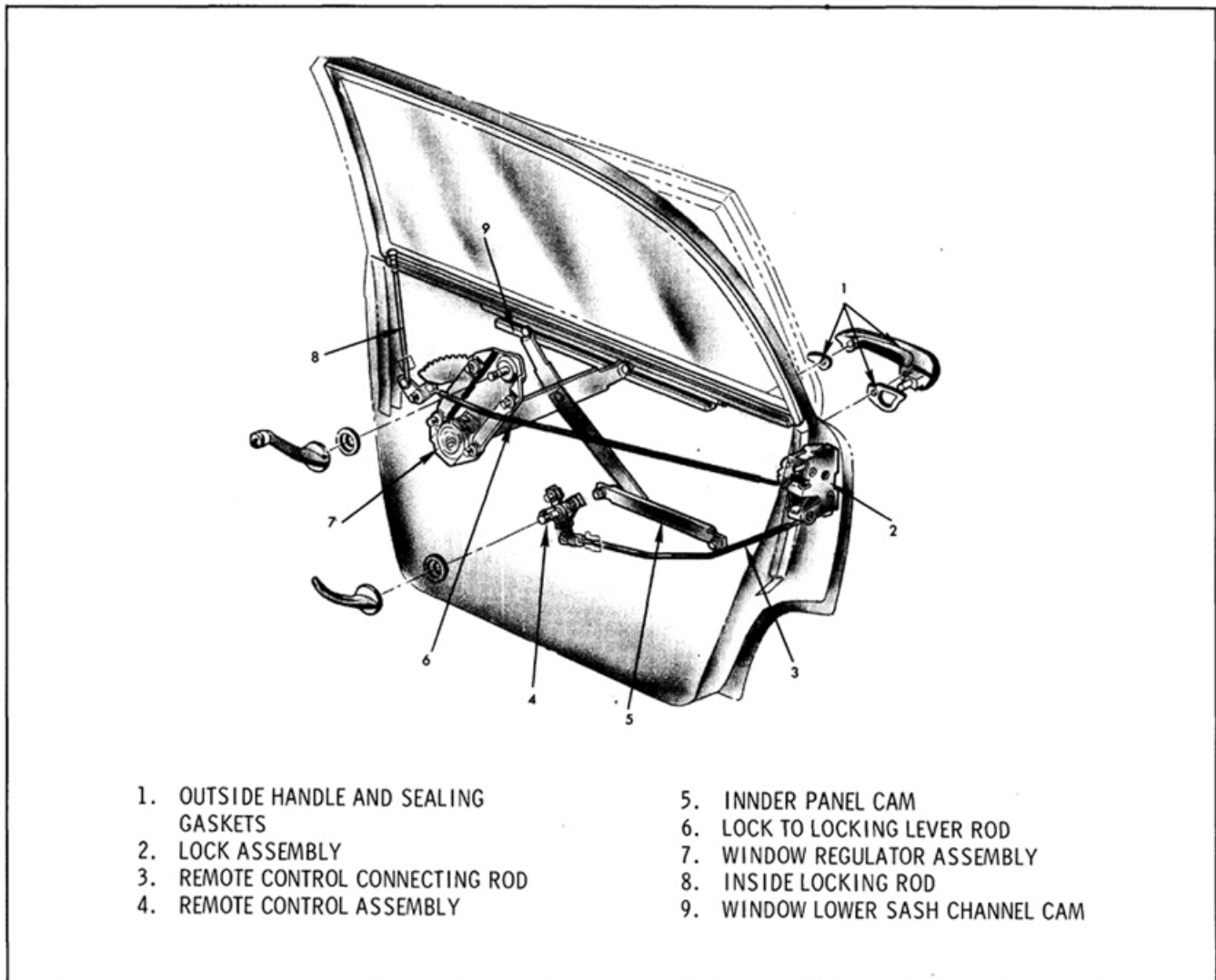
Figure 16-349 is typical of rear doors with the trim assembly and inner panel water deflector removed. This illustration identifies the component parts of the rear door assembly, their relationship and various attaching points.

REAR DOOR HINGES

Both rear door hinges are constructed of malleable iron, are the swing-in design and have a single stage hold-open incorporated in the lower hinge. The rear door may be removed with or without hinges attached.

Removal

1. Mark hinge location on door hinge pillar or



- | | |
|---------------------------------------|----------------------------------|
| 1. OUTSIDE HANDLE AND SEALING GASKETS | 5. INNER PANEL CAM |
| 2. LOCK ASSEMBLY | 6. LOCK TO LOCKING LEVER ROD |
| 3. REMOTE CONTROL CONNECTING ROD | 7. WINDOW REGULATOR ASSEMBLY |
| 4. REMOTE CONTROL ASSEMBLY | 8. INSIDE LOCKING ROD |
| | 9. WINDOW LOWER SASH CHANNEL CAM |

Fig. 16-349 Rear Door Assembly



Fig. 16-350 Rear Door Hinge Attachment

center pillar depending on method of removal being used.

2. With door properly supported, remove upper and lower hinge attaching screws. (Figs. 16-350 and 16-351)
3. With aid of helper, remove door from body opening.

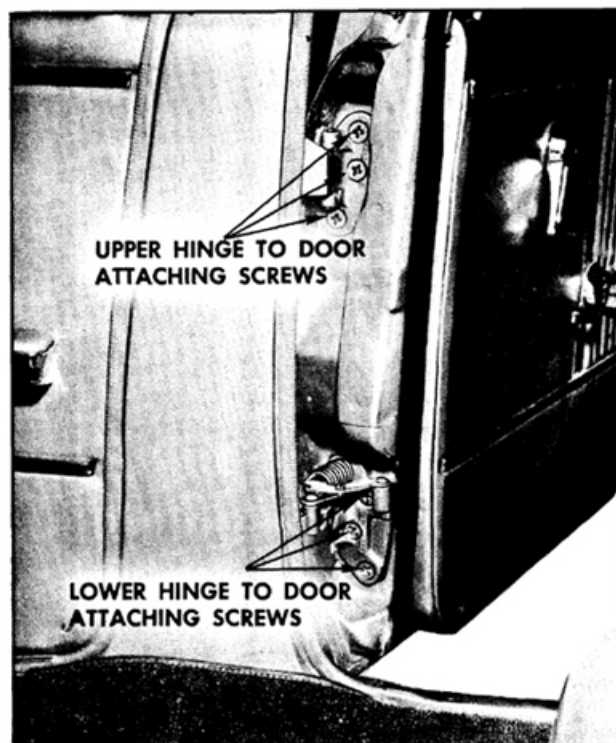


Fig. 16-351 Hinge to Door Attachment

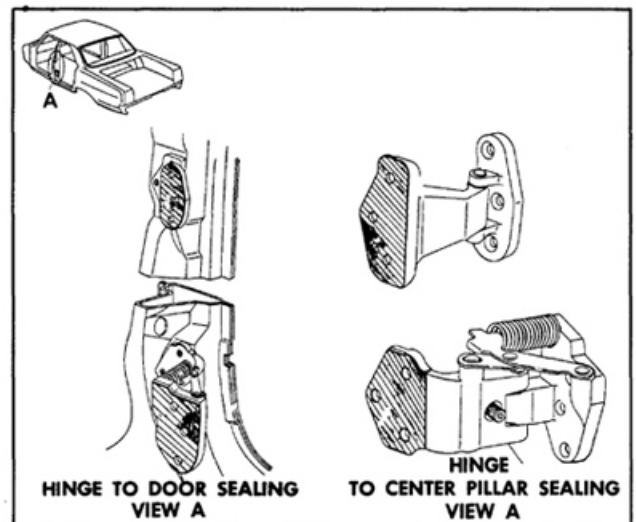


Fig. 16-352 Hinge Sealing Area

Installation

1. Carefully clean off old sealing compound at hinge areas.
2. As an anti-squeak precaution and to prevent entry of water at hinge attaching locations, apply a coat of heavy-bodied sealer to attaching surfaces of hinges. (Fig. 16-352)
3. With aid of a helper, lift door into position. Attach hinge loosely and align straps within marks on pillar, then tighten screws and check door for alignment.

REAR DOOR ADJUSTMENTS

In or out and up or down adjustment of rear doors is provided at door hinge pillar. Fore or aft and a slight amount of up or down adjustment is provided at body center pillar. When checking door for alignment, remove lock striker from center pillar to allow door to hang free on hinges.

1. For in or out and up or down adjustment, loosen hinge-to-door pillar attaching screws, adjust door as required and tighten screws.
2. For fore or aft adjustment, loosen hinge-to-center pillar attaching screws, adjust door as required and tighten screws.
3. Reinstall door lock striker and check lock extension to striker engagement as described under DOOR LOCK STRIKER - Adjustments.

REAR DOOR LOCK ASSEMBLY

Lock assemblies for the 1964 model are all new in design and features. The principal feature of this new lock is the "keyless locking" design.

The basic design change of the 1964 lock is the incorporation of striker mechanical components into the lock assembly; specifically, the nylon shoe, shoe pin and shoe return spring. In addition, the rotary cam has been superseded by a fork bolt and all locks are fully housed. The rear door lock push-button lever is as long as the lock itself to allow different positions of the rear door outside handle without changing the position of lock assembly. The rear door lock also includes the free wheeling safety feature.

It is very important that the striker bolt engages properly into the lock fork bolt and that, where necessary, striker emergency spacers of the proper thickness are used to obtain proper engagement.

CAUTION: Do not hammer or bend striker in any manner in an attempt to short-cut adjustments. Use only the established adjustments and avoid any practice that could create a safety hazard.

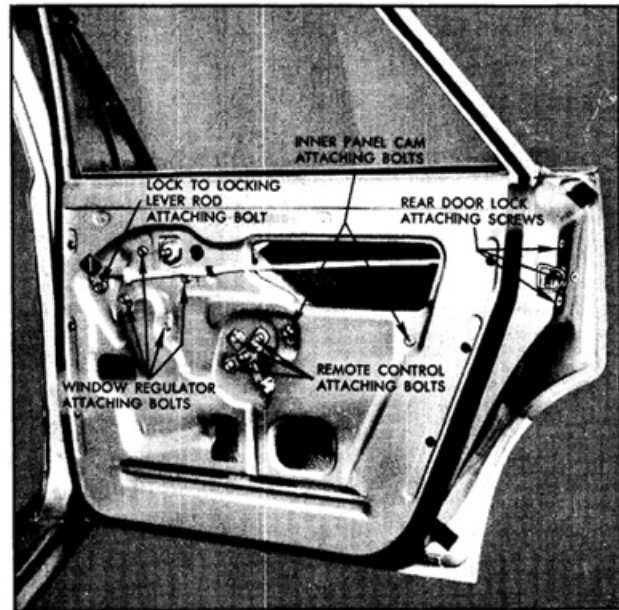


Fig. 16-353 Rear Door Hardware

Removal and Installation

1. Raise door window; remove door trim assembly and detach inner panel water deflector sufficiently to gain access to door lock.
2. With a screwdriver or other suitable tool, disengage spring clips and detach inside lock connecting rod and remote control connecting rod from door lock.
3. Remove screws securing lock to door lock pillar facing and remove lock through inner panel access hole. (Fig. 16-353)
4. To install, secure spring clips to lock levers and reverse removal procedure. Check operations of lock assembly prior to installation of inner panel water deflector. If additional lubrication of lock assembly is required, 630 AAW Lubriplate, or its equivalent, is recommended.

REAR DOOR REMOTE CONTROL ASSEMBLY

Removal and Installation

1. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to remote control attaching bolts.
2. Remove bolts securing remote control assembly to door inner panel and detach remote control from connecting rod.
3. Through access hole, disengage remote control connecting rod spring clip from lock assembly and disengage rod from lock.

4. To install, reverse removal procedure. Check lock for proper operation before installing water deflector. (Fig. 16-353)

REAR DOOR LOCK TO LOCKING LEVER ROD

Removal and Installation

1. Raise door window. Remove door trim assembly and detach inner panel water deflector.
2. Remove locking rod knob from rod.
3. Remove inside locking rod assembly attaching bolt and washer and detach connecting rod from clip on inner panel. (Fig. 16-353)
4. Through access hole, disengage spring clip securing inside lock connecting rod from door lock and disengage rod from lock, then remove inside locking rod assembly from door.
5. To install, reverse removal procedure. Check operation of inside locking rod assembly before installing door inner panel water deflector.

REAR DOOR WINDOW INNER PANEL CAM

All rear doors are equipped with a door window double-arm regulator, thereby requiring usage of a door window inner panel cam. This cam houses one of the window regulator balance arm rollers.

Removal and Installation

1. Raise door window, remove door trim pad

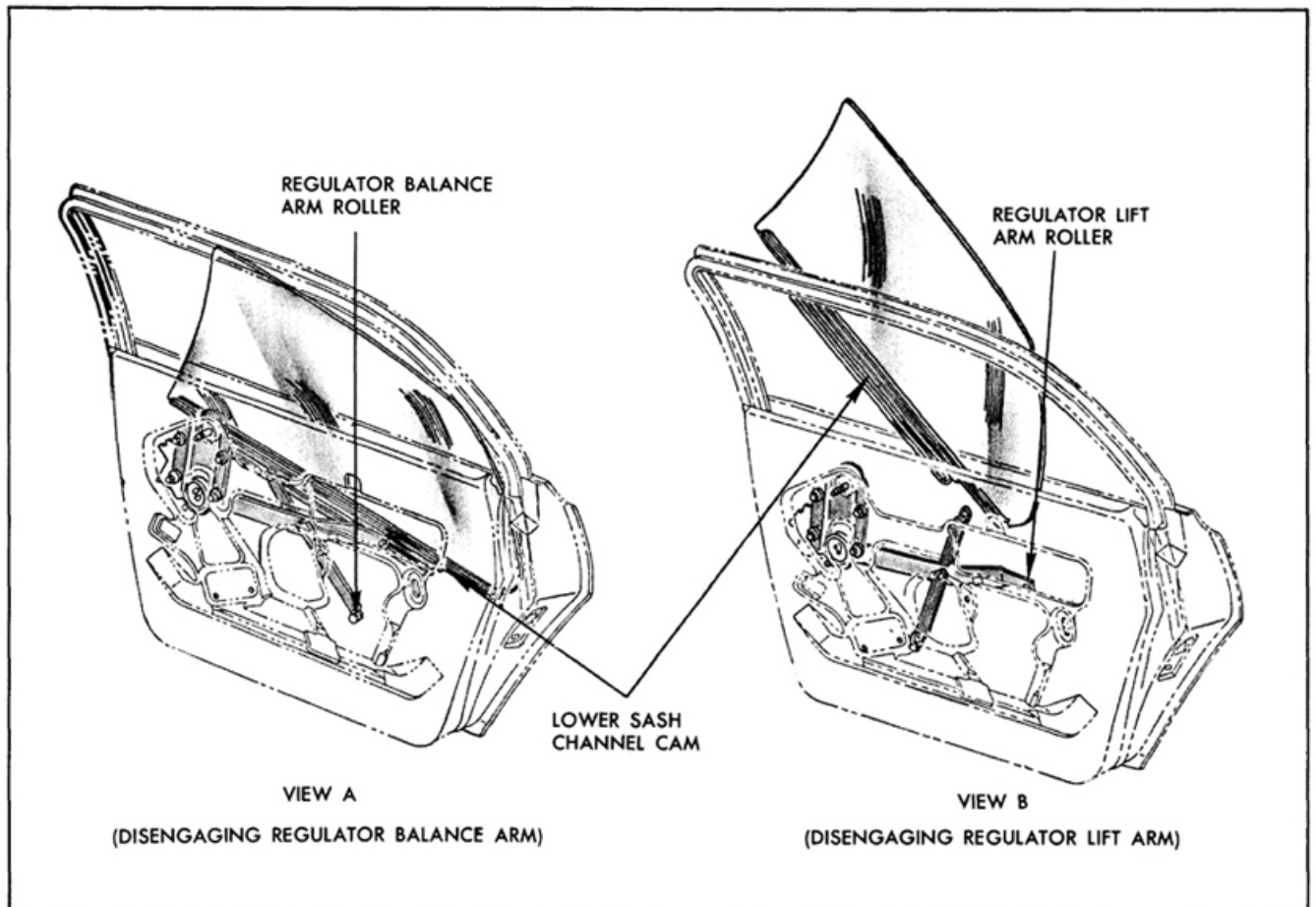


Fig. 16-354 69 Style - Rear Door Window Removal

- and detach inner panel water deflector.
- Remove two attaching bolts and slide cam out of engagement with regulator balance arm roller and remove cam from door. (Fig. 16-353)
 - To install, reverse removal procedure. The rear attachment of the inner panel cam is adjustable up or down to correct a rotated door window.

NOTE: If additional lubrication of the inner panel cam is required, 630 AAW Lubriplate, or its equivalent, is recommended.

REAR DOOR WINDOW REGULATOR ASSEMBLY

Removal and Installation

- Raise door window, remove door trim pad and detach inner panel water deflector.
- Secure window in the full up position by installing a twelve to fifteen inch piece of body tape (2" or 2-1/2" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of window regulator.
- Remove inner panel cam.
- Remove window regulator attaching bolts and move regulator assembly rearward to disengage lift and balance arm rollers from window lower sash channel cam and remove regulator through large access hole. (Fig. 16-353)
- To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector and door trim pad.

POWER OPERATED REAR DOOR WINDOW REGULATOR ASSEMBLY

The electric motor assembly which powers the window regulator on electrically operated windows is a 12-volt reversible direction motor with a built-in circuit breaker and a self-locking gear drive. The motor is secured to the regulator assembly by screws.

The removal and installation procedures are the same for manual or electric window regulators; however, to remove the electric motor assembly from its respective regulator, proceed as follows:

Removal and Installation

1. Remove rear door electric motor and regulator assembly and clamp unit in a vise.

CAUTION: Be sure to perform Steps 2 and 3 below before attempting to remove motor from regulator. The regulator lift arm, which is under tension from the counterbalance spring, can cause serious injury if motor assembly is removed without locking the sector gear in position with a nut and bolt.

2. Drill a 1/4" hole through back plate and sector gear at a location dependent upon position of lift arm. DO NOT drill into motor housing. (Fig. 16-344)
3. Insert a 3/16" bolt through hole in back plate and sector gear and install nut to bolt. DO NOT tighten nut.

4. Remove motor attaching bolts and remove motor from regulator.

NOTE: Clean off any steel chips or filings from regulator sector gear and motor pinion gears.

5. To install, reverse removal procedure. Be sure to remove temporary nut and bolt from regulator before installing regulator assembly to door. Cycle window several times to insure proper operation before installing water deflector and door trim pad.

REAR DOOR WINDOW ASSEMBLY

The rear door window is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam. With this type of design, the door glass, lower sash channel and sash channel cam is removed from the door as a unit. All rear door windows are a curved glass design.

CAUTION: Exercise care to make certain that glass does not strike body metal during removal or installation as edge chips can cause solid tempered safety plate glass to shatter. DO NOT attempt to grind glass.

Removal and Installation

1. Lower door window, remove door trim pad and detach inner panel water deflector.
2. Remove inner panel cam.
3. Rotate rear edge of glass downward until front edge is free of door upper frame and lower sash channel cam slides off of regulator balance arm roller.

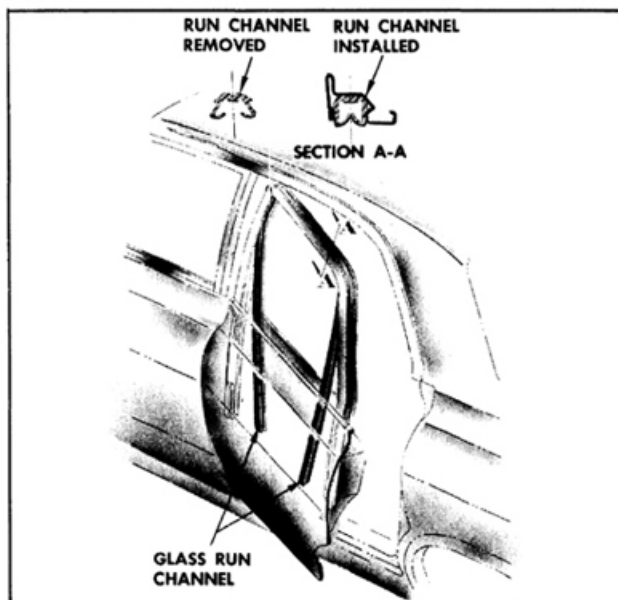


Fig. 16-355 69 Style - Rear Door Glass Run Channel Assembly

4. Rotate glass upward and forward to disengage lower sash channel cam from regulator lift arm roller and remove door window outboard of door upper frame. (Fig. 16-354)
5. To install, reverse removal procedure.

REAR DOOR WINDOW ADJUSTMENTS

A rotated door window can be corrected by adjusting the inner panel cam. (Fig. 16-353)

REAR DOOR WINDOW GLASS RUN CHANNEL

A soft "flocked" run channel is used for all rear door windows.

Removal and Installation

1. Remove rear door trim pad and detach inner panel water deflector.
2. Remove rear door window.
3. With finger pressure, squeeze run channel together and gently pull run channel out of rear door upper frame and remove from door. (Fig. 16-355)
4. To install, reverse removal procedure.

IMPORTANT: The glass run channel must be properly seated and conform to shape of door upper frame to achieve proper glass operation.

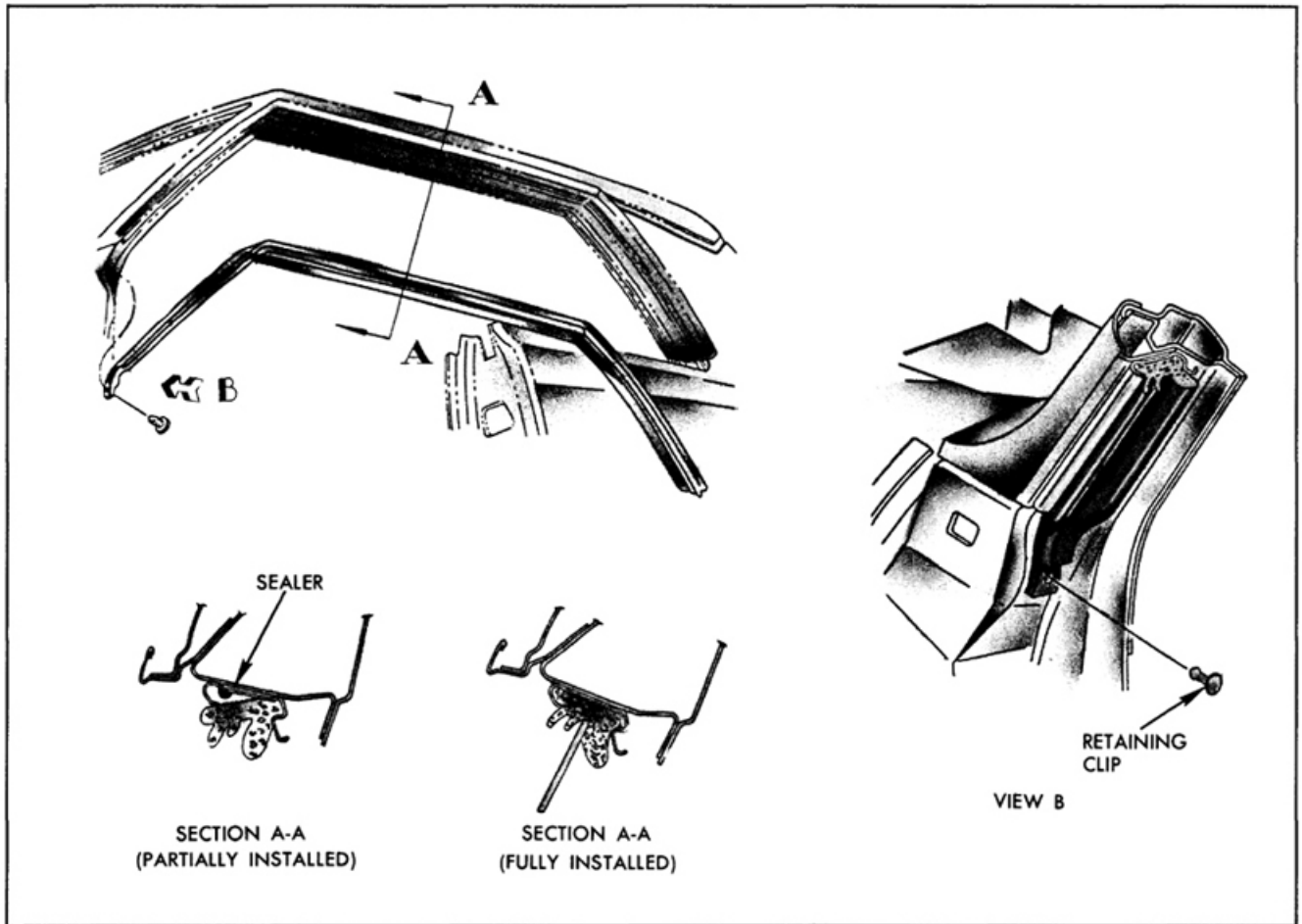


Fig. 16-356 Side Roof Rail Weatherstrip

SIDE ROOF WEATHERSTRIP (37 Styles)

The side roof rail weatherstrip assembly is a one-piece design and is secured to the front body hinge pillar by a retaining clip. The remainder of the weatherstrip is secured to the side roof rail by a weatherstrip retainer and reveal molding.

Removal

1. Remove retaining clip securing weatherstrip at front body hinge pillar. (View "B" in Fig. 16-356)
2. Carefully disengage inner lip of weatherstrip from retainer. Using a flat-bladed tool, carefully break cement bond between weatherstrip and side roof rail weatherstrip retainer and reveal molding.
3. Remove weatherstrip assembly from body.

Installation

1. Clean off old cement from side roof rail

weatherstrip and weatherstrip retainer to insure a clean cementing surface.

2. Apply a continuous bead (approximately 3/16" diameter) of weatherstrip adhesive along entire surface of side roof rail weatherstrip retainer as shown in Section A-A in Fig. 16-357.

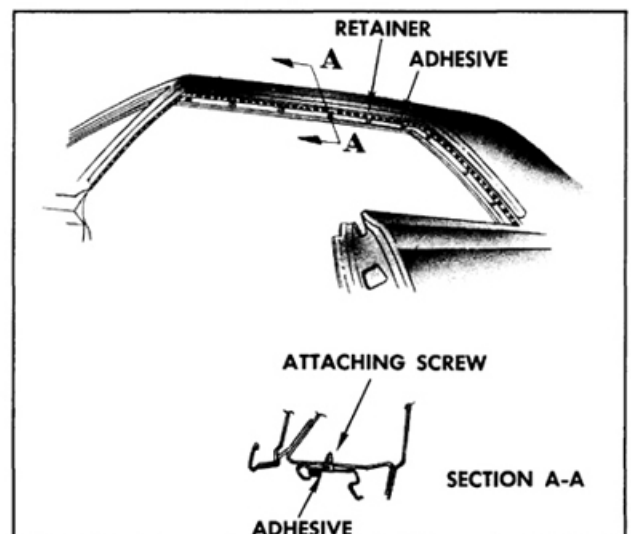


Fig. 16-357 Side Roof Rail Weatherstrip Sealing

3. Beginning at rear end of weatherstrip, carefully engage inboard edge of weatherstrip into weatherstrip retainer. Using a flat-bladed tool, install outboard edge of weatherstrip into weatherstrip retainer. Install retaining clip at front body hinge pillar. (Section A-A in Fig. 16-356)

SIDE ROOF RAIL WEATHERSTRIP ADJUSTMENTS (37 Styles)

With doors and windows closed, door and rear quarter window upper frames should make an even continuous contact with the side roof rail weatherstrip. If necessary, adjust weatherstrip, ventilator, door window or rear quarter window to obtain proper weatherstrip contact.

The attaching holes in the side roof rail weatherstrip retainer are elongated allowing "in and out" adjustment of the side roof rail weatherstrip; however, the amount of adjustment is small and is not intended to correct improper ventilator or window alignment. It is necessary to remove the weatherstrip to adjust the retainer.

IMPORTANT: Before attempting to adjust the side roof rail weatherstrip, first check that the ventilator and door and rear quarter windows are properly aligned and, where necessary, adjust for proper alignment as directed under ADJUSTMENT OF THE VENTILATOR AND DOOR WINDOW OR QUARTER WINDOW.

1. To adjust side roof rail weatherstrip "in or out" first determine and mark retainer at area or areas to be adjusted.
2. Remove side roof rail weatherstrip.
3. Loosen retainer attaching screws slightly in area to be adjusted and adjust retainer in or out as required.
4. Tighten retainer attaching screws and install side roof rail weatherstrip. (Fig. 16-357)

REAR QUARTER

REAR QUARTER TRIM ASSEMBLY (3027 Style)

Removal and Installation

1. Remove rear seat cushion and back assemblies. Remove front door sill plate.
2. Remove arm rest assembly and window regulator handle, if present.
3. Disengage pinchweld finishing strip from lock pillar pinchweld flange along forward edge of trim assembly.

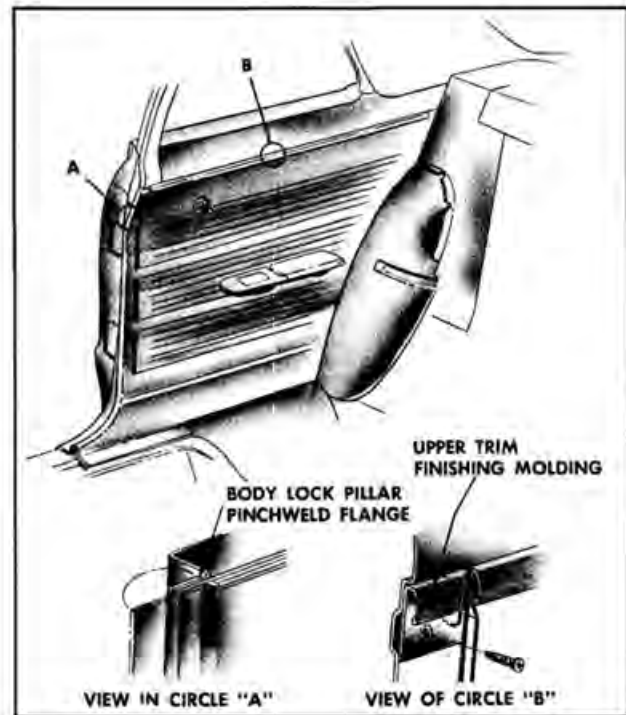


Fig. 16-358 Rear Quarter Trim Assembly

4. Beginning at rear, carefully pull upper edge of trim assembly downward to disengage it from upper finishing molding. (View "B", Fig. 16-358)

NOTE: If present, disconnect electric window switch from harness connector.

5. Swing rear edge of trim assembly forward and break cement bond at lock pillar pinchweld flange by carefully applying hand pressure to reverse side of trim assembly.
6. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward overlapping edge of trim assembly to pinchweld flange outboard surface. (Fig. 16-358)

REAR QUARTER ARM REST (3127 Style)

Removal and Installation

1. Remove rear seat cushion and seat back assemblies. Remove seat back filler panel to quarter inner panel attaching screws and remove filler panel. (Fig. 16-359)
2. Remove screws at front, rear and bottom of arm rest assembly. Remove assembly by lifting upward and inboard.

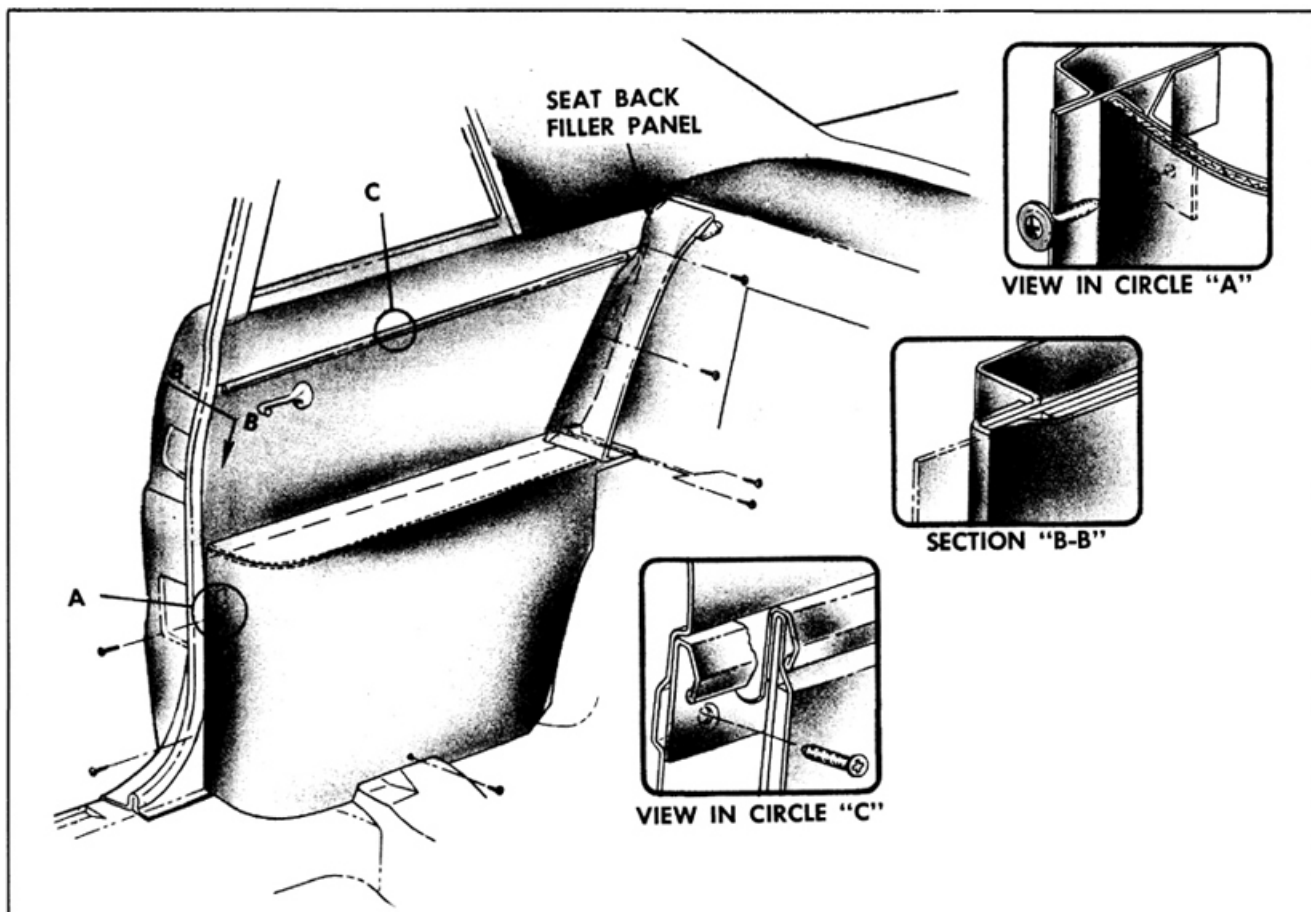


Fig. 16-359 Quarter Trim (3127 Style)

3. To install, reverse removal procedure.

REAR QUARTER TRIM ASSEMBLY (3127 Style)

Removal and Installation

1. Remove rear quarter arm rest as previously described. If present, remove window regulator handle.
2. Disengage pinchweld finishing strip from pinchweld flange adjacent to trim assembly.
3. Beginning at rear, carefully pull upper edge of trim assembly downward to disengage it from upper finishing molding. (View "C", Fig. 16-359)
4. Swing rear edge of trim assembly forward and break cement bond at lock pillar pinchweld flange by carefully applying hand pressure to reverse side of trim assembly.
5. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward overlapping edge of trim assembly to pinchweld flange outboard surface. (Fig. 16-359)

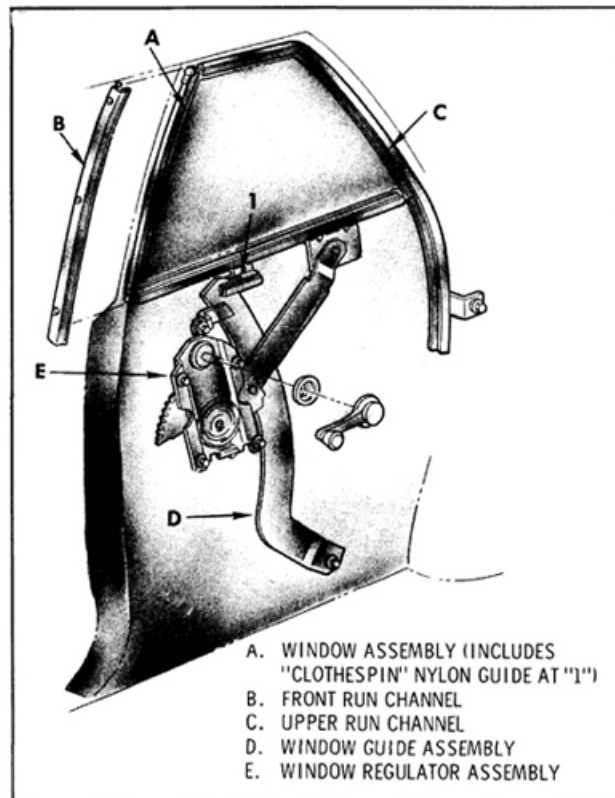


Fig. 16-360 Rear Quarter Window (27 Style)

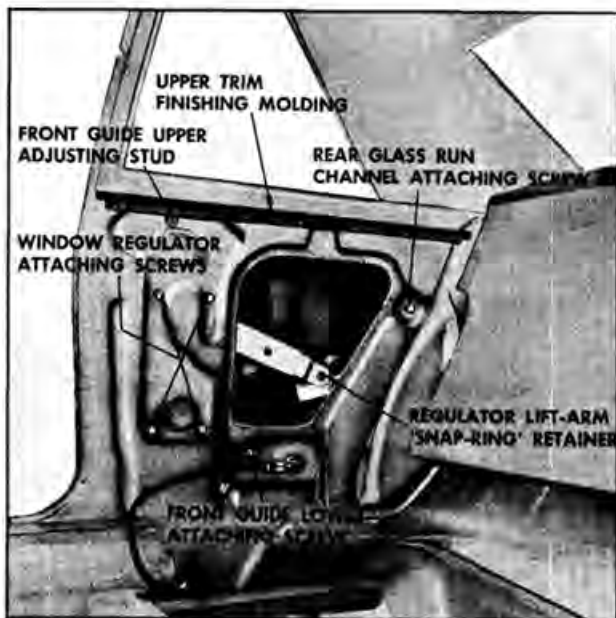


Fig. 16-361 Rear Quarter Hardware (27 Style)

REAR QUARTER WINDOW ASSEMBLY (27 Style—Fig. 16-360)

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover.
2. Remove glass run channel inner strip assembly as described in a following procedure.
3. With window in half-down position, remove snap ring retainer securing regulator lift arm to pivot pin on window lower sash channel. (Fig. 16-361)
4. Supporting window with one hand, disengage regulator lift arm from pivot pin. Raise regulator arm to remove it from access hole.
5. Lower window to disengage nylon "clothes-pin" guide on lower sash channel from window guide assembly at bottom, nylon guide on upper corner of front sash channel from front glass run channel, and rear edge of glass from rear glass run channel. (Fig. 16-360)
6. Rotate glass slightly rearward and bring upper section of glass out first from between the panels.
7. To install, reverse removal procedure.

WINDOW REGULATOR ASSEMBLY MANUAL AND ELECTRIC—(27 Style)

Removal and Installation

1. Remove rear quarter window as previously described.

2. Remove window guide upper adjusting stud and lower attaching screws (Fig. 16-361) and remove guide assembly.
3. On styles with electrically operated windows, disconnect regulator motor wire harness at in-line connector mounted on inboard side of quarter inner panel.

NOTE: Do not attempt to disengage permanent connector at regulator motor.

Disengage wire harness split grommet from quarter inner panel. Feed harness and connector through grommet hole into opening between inner and outer panel.

4. Remove regulator attaching screws (Fig. 16-361) and remove regulator through access hole.

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.

5. To install window regulator assembly, reverse removal procedure.

WINDOW GUIDE ASSEMBLY (27 Style)

Removal and Installation

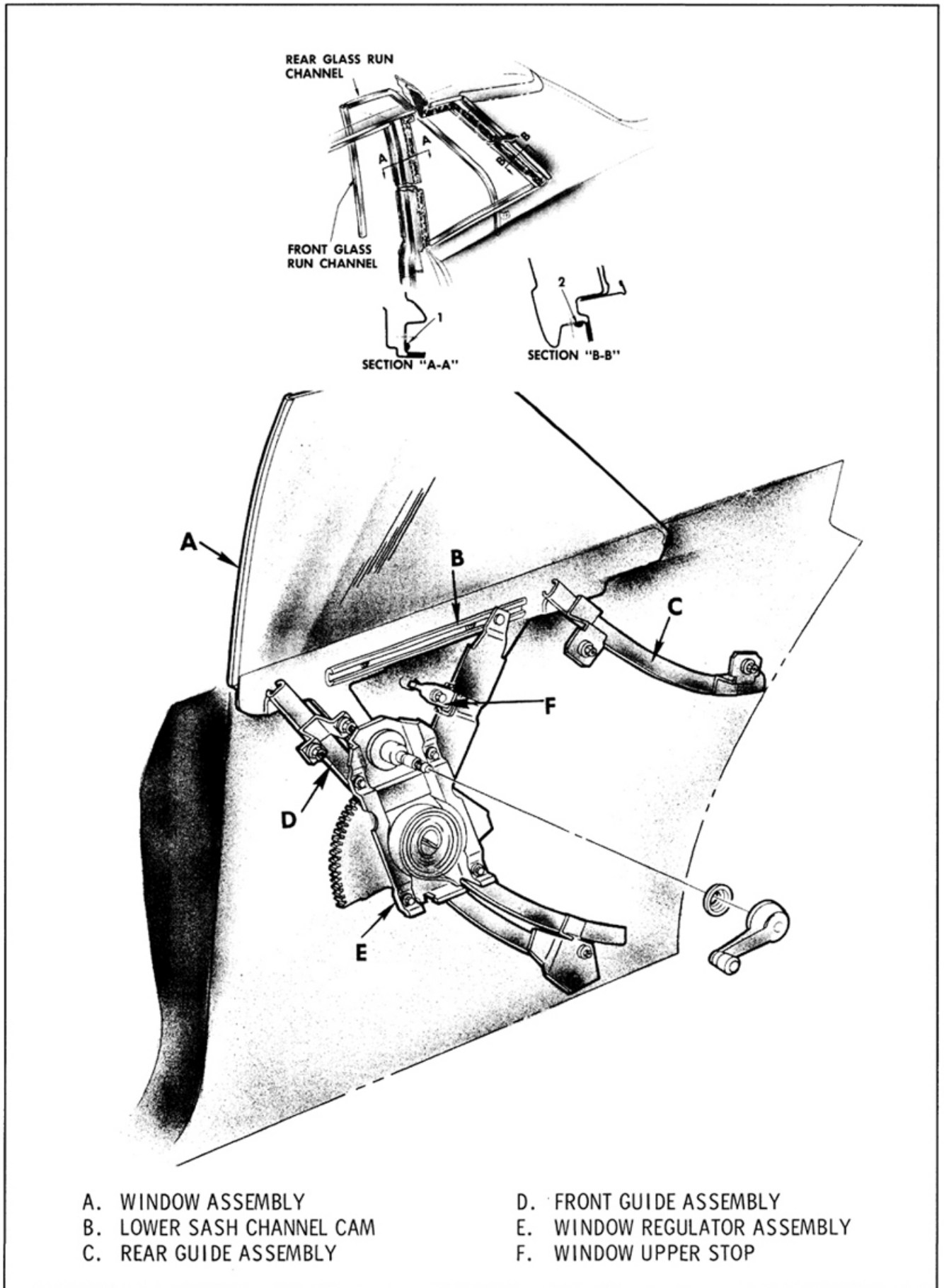
1. Remove rear quarter trim assembly and inner panel access hole cover.
2. With window in full up position, remove guide assembly upper adjusting stud and lower attaching screw. (Fig. 16-361) Disengage guide assembly from nylon guide on lower sash channel and remove guide assembly.
3. To install, reverse removal procedure.

FRONT GLASS RUN CHANNEL (27 Style)

Removal and Installation

1. Perform Steps 1 through 5 of quarter window removal procedure. Once window is disengaged from regulator and guide, lower and rest it against quarter outer panel.
2. Insert thin bladed tool behind lower end of run channel and pry snap-in clip on run channel from clip hole in lock pillar. Repeat operation at each fastener location and remove run channel.

NOTE: When disengaging clips, make certain that tool is behind clip. Prying force on



- | | |
|---------------------------|------------------------------|
| A. WINDOW ASSEMBLY | D. FRONT GUIDE ASSEMBLY |
| B. LOWER SASH CHANNEL CAM | E. WINDOW REGULATOR ASSEMBLY |
| C. REAR GUIDE ASSEMBLY | F. WINDOW UPPER STOP |

Fig. 16-362 Glass Run Channel Sealing and Quarter Window Mechanism

channel assembly can tear clip loose from channel.

3. Prior to installation, apply a bead of body caulking compound to upper body lock pillar outer rabbet outboard of clip holes to effect a watertight seal when run channel is installed. ("1", Fig. 16-362)

REAR GLASS RUN CHANNEL (27 Style)

Removal and Installation

1. Perform Steps 1 through 5 of quarter window removal procedure. Once window is disengaged from regulator and guide, lower and rest it against quarter outer panel. Remove front glass run channel.
2. Remove rear glass run channel attaching screw. (Fig. 16-361)
3. Beginning at upper front of rear run channel, disengage snap-in clips on run channel from side roof rail along upper and rear edges of window opening.
4. At belt line, disengage tab on rear run channel from side roof rail by moving run channel downward into opening between the panels; then, remove run channel from body.
5. To install, reverse removal procedure. Prior to installation of front and rear run channels, apply a bead of body caulking compound to upper body lock pillar and side roof rail outer rabbet outboard of clip holes to effect a watertight seal when run channel is installed. ("2", Fig. 16-362)

WINDOW ADJUSTMENTS (27 Style)

1. To obtain proper horizontal alignment so that window seats properly in glass run channels when window is operated to up position as follows:
 - a. Operate window to full up position and loosen window regulator attaching screws. (Fig. 16-361)
 - b. Insert a flat-bladed tool under window lower sash channel and pry window upward until lower sash channel is aligned with, and is making good contact with, outer sealing strip.
 - c. Operate window regulator handle rapidly back and forth a few times (one-eighth turn each way) to eliminate "slack" or "play" and then tighten regulator attaching screws.

2. To insure proper operation and proper engagement of window in rear run channel when window is operated to full down position, proceed as follows:
 - a. Loosen rear glass run channel attaching screw. (Fig. 16-361)
 - b. Operate window to full down position.
 - c. Adjust rear glass run channel lower end so that it makes slight contact with window assembly and tighten glass run channel attaching screw.
3. To insure proper engagement of nylon "clothespin" guide with window guide assembly, adjust guide upper adjusting stud in or out as required; then, adjust guide sufficiently forward to permit nylon guide to ride freely over window guide assembly with window in both full up and full down positions.

REAR QUARTER ARM REST (3237 Style)

Removal and Installation

1. Remove rear seat cushion and seat back assemblies. Remove screws securing seat back filler panel to quarter inner panel and remove filler panel. (Fig. 16-363)
2. Remove attaching screws at front, rear and bottom of arm rest assembly and remove arm rest by lifting upward and inboard.
3. To install, reverse removal procedure.

REAR QUARTER TRIM ASSEMBLY (3237 Style)

Removal and Installation

1. Remove rear quarter arm rest, seat back

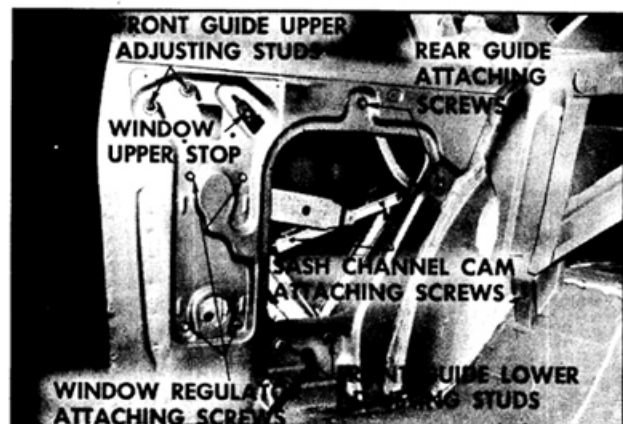


Fig. 16-363 Rear Quarter Window (37 Style)

filler panel, and, if present, window regulator handle.

2. Grasp trim assembly at lower forward edge and carefully pull inboard to disengage clips along forward edge of trim assembly from sealing plugs in inner panel. (View "B", Fig. 16-363)
3. Keeping trim assembly in plane of inner panel, lift assembly upward to disengage it from inner panel at belt line.
4. On styles equipped with power operated windows, disconnect switch in trim assembly from wire harness connector and remove trim assembly from body.
5. To install, reverse removal procedure. Prior to installation, replace any damaged sealing plugs or clips.

REAR QUARTER WINDOW (3237 Style—Fig. 16-362)

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover.
2. Remove rear guide attaching screws. (Fig. 16-363) Disengage guide from roller on window lower sash channel and remove rear guide.
3. Loosen front guide upper and lower adjusting stud and nuts. (Fig. 16-363) Disengage side roof rail weatherstrip from weatherstrip retainer above quarter window.
4. With window almost fully lowered, remove lower sash channel cam attaching screws. (Fig. 16-363) Disengage cam from regulator arm roller and remove cam.

CAUTION: Support window to prevent it from dropping when cam is removed.

5. Disengage window from front guide and from between quarter panels by lifting window upward and inboard.
6. To install, reverse removal procedure. To facilitate engaging lower sash channel rollers with front guide, turn front guide adjusting studs "out" (counterclockwise) as far as possible without removing from guide; then, in following order, engage lower roller in front guide rear cam and upper roller in front guide front cam. Once rollers are engaged, proceed with installation.

REAR QUARTER WINDOW REAR GUIDE (3237 Style)

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover.
2. With window in half-down position, remove rear guide attaching screws. (Fig. 16-363) Disengage guide from roller on window lower sash channel and remove guide.
3. To install, reverse removal procedure. Operate window to determine that guide is properly aligned.

REAR QUARTER WINDOW FRONT GUIDE (3237 Style)

Removal and Installation

1. Remove rear quarter window assembly as previously described.
2. Remove front guide upper and lower adjusting stud nuts. (Fig. 16-363) Rotate guide forward (clockwise - left side, counterclockwise - right side) so that lower end of guide is above wheelhouse and upper end of guide can be started out access hole, then remove guide.
3. To install, reverse removal procedure. Prior to installation, lubricate front guide cams with Lubriplate #630 AAW or its equivalent.

REAR QUARTER WINDOW REGULATOR (3237 Style)

Removal and Installation

1. Remove rear quarter window assembly and front guide as previously described.
2. On styles with power operated windows, disconnect regulator motor wire harness at in-line connector mounted on inboard side of quarter inner panel.

CAUTION: Do not attempt to disengage permanent connector at regulator motor.

3. Disengage wire harness split grommet from inner panel. Feed harness and connector through grommet hole into opening between inner and outer panel.
4. Remove window regulator attaching screws (Fig. 16-363) and remove regulator through large access hole.

NOTE: The procedure for removing motor

from regulator is described in the DOOR Section under DOOR AND QUARTER WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY.

5. To install, reverse removal procedure. Restore all broken inner panel seals as specified under REAR QUARTER INNER PANEL SEALING.

REAR QUARTER WINDOW ADJUSTMENTS (3237 Style)

To perform any rear quarter window adjustments, it is necessary to remove the rear quarter trim assembly.

1. To adjust window fore or aft, loosen front and rear guide adjusting stud nuts and attaching screws. (Fig. 16-363) Position window and guides as required, then tighten loosened nuts and screws.
2. To adjust window in or out at belt line, loosen front guide upper adjusting stud nuts. Adjust studs in or out as required, then tighten loosened stud nuts.
3. To adjust top of window in or out, loosen front guide lower adjusting stud nuts. (Fig. 16-363) Adjust studs in or out as required, then tighten stud nuts.
4. To relieve a fore or aft binding condition between front and rear guides, loosen front guide adjusting stud nuts and rear guide attaching screws. Operate window to full up position and tighten front guide upper adjusting stud nuts and rear guide upper attaching screw. Operate window to full down position and tighten remaining stud nuts and screws.

NOTE: When adjusting stud on front guide, make certain that adjacent studs are adjusted equally to prevent a bind between cam channels.

5. To limit forward and upward travel of window, adjust window upper stop as required. (Fig. 16-363)

WINDOW GLASS RUN INNER STRIP ASSEMBLY (At Beltline—All Except 3200 Series)

The inner strip assembly is retained by integral clips which engage slots in the return flange of the quarter inner panel. In addition, a screw is installed at the front.

To remove the strip assembly, first remove the screw; then, inserting a thin, hooked tool beneath the "tongue" of the clip inserted in the slot,

carefully pull upward. Repeat this operation at each clip location and remove strip assembly.

NOTE: Prior to removal, apply masking tape to adjacent painted surfaces to protect finish. Prior to installation, reform strip assembly clips to assure adequate retention when installed.

WINDOW GLASS RUN OUTER STRIP ASSEMBLY (At Beltline—3027 Style)

The outer strip assembly is retained by integral clips which engage slots in the quarter outer panel return flange. In addition, screws are inserted through the strip assembly into the return flange.

To remove the strip assembly, first remove the screws along the length of the strip; then, inserting a thin, hooked tool beneath the "tongue" of the clip inserted in the slot, carefully pull upward. Repeat this operation at each clip location and remove the strip assembly.

NOTE: Prior to removal, apply masking tape to adjacent painted surfaces to protect finish.

Prior to installation, reform strip assembly clips to assure adequate retention when installed.

FOLDING TOP COMPARTMENT SIDE TRIM PANEL ASSEMBLY (67 Style)

Removal and Installation

1. Remove rear seat cushion and seat back assemblies.
2. Remove exposed screws at front and rear of folding top compartment side trim panel assembly.
3. On styles with electrical devices in arm rest, pull assembly inboard sufficiently to disengage connectors.
4. Move assembly forward and inboard and remove it from body.
5. To install, reverse removal procedure.

NOTE: As a bench operation, the arm rest assembly can be removed from the folding top compartment side upper trim panel by removing screws installed on reverse side.

REAR QUARTER TRIM ASSEMBLY (3267 Style)

Removal and Installation

1. Remove folding top compartment side trim

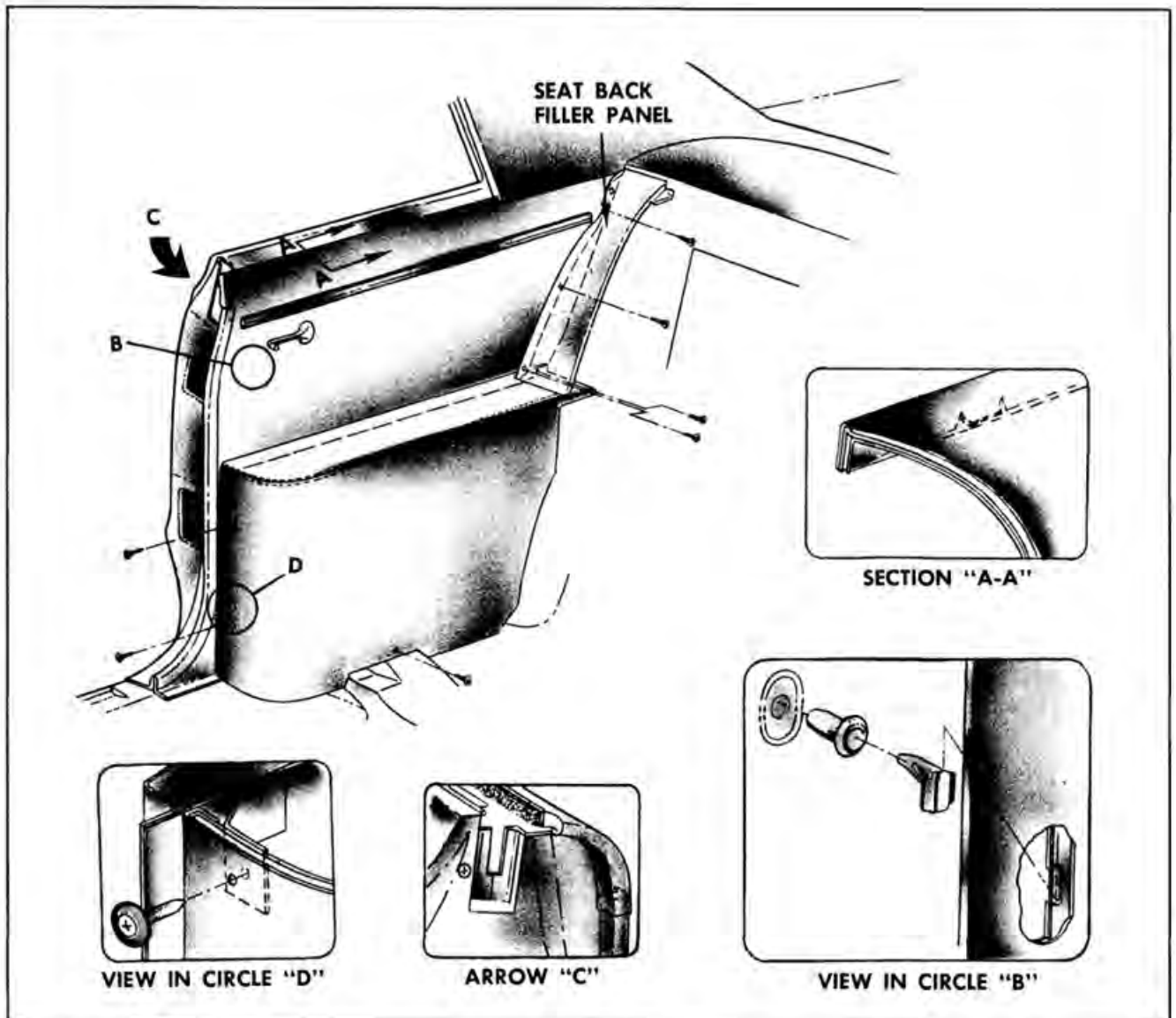


Fig. 16-364 Rear Quarter Trim (37 Styles)

panel assembly. If present, remove window regulator handle.

2. Grasp trim assembly at lower forward edge and carefully pull inboard to disengage clips along forward edge of trim assembly from sealing plugs in inner panel similar to "B", Fig. 16-364.
3. Keeping trim assembly in plane of inner panel, lift assembly upward to disengage it from inner panel at belt line.
4. On styles equipped with power operated windows, disconnect switch in trim assembly from wire harness connector and remove trim assembly from body.
5. To install, reverse removal procedure. Prior to installation, replace any damaged sealing plugs or clips.

REAR QUARTER WINDOW ASSEMBLY (67 Style—Fig. 16-365)

Removal and Installation

1. Lower folding top. Remove rear quarter trim assembly and inner panel access hole cover.
2. Loosen rear guide adjusting stud nuts. (Fig. 16-366)
3. Operate window to full down position and remove lower sash channel cam attaching screws. (Fig. 16-366)
4. Supporting window assembly with one hand, disengage sash channel cam from regulator lift arm roller and remove cam.
5. Raise window manually and remove it from between panels at belt line.

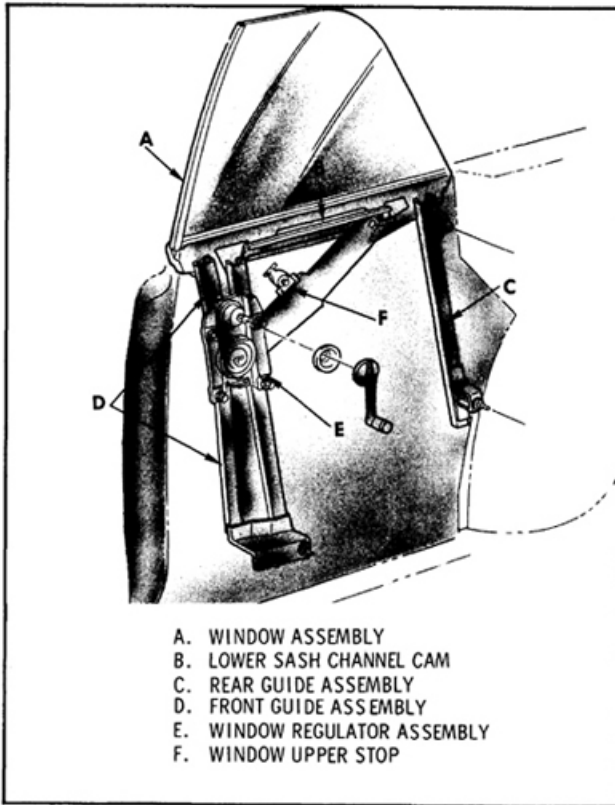


Fig. 16-365 Rear Quarter Window (67 Styles)

6. To install rear quarter window, reverse removal procedure.

REAR QUARTER WINDOW REAR GUIDE (67 Style)

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover.
2. With window in full-up position, remove rear guide upper and lower adjusting stud nuts. (Fig. 16-366)
3. Disengage guide lower adjusting stud from slot in inner panel. Disengage upper adjusting stud from inner panel; then, pull guide off roller on window lower sash channel and remove through access hole.
4. To install, reverse removal procedure. Prior to installation, lubricate guide channel with 630 AAW Lubriplate or equivalent. Adjust guide for proper window operation as described under REAR QUARTER WINDOW ADJUSTMENTS.

REAR QUARTER WINDOW FRONT GUIDE (67 Style)

Removal and Installation

1. Remove rear quarter window as previously

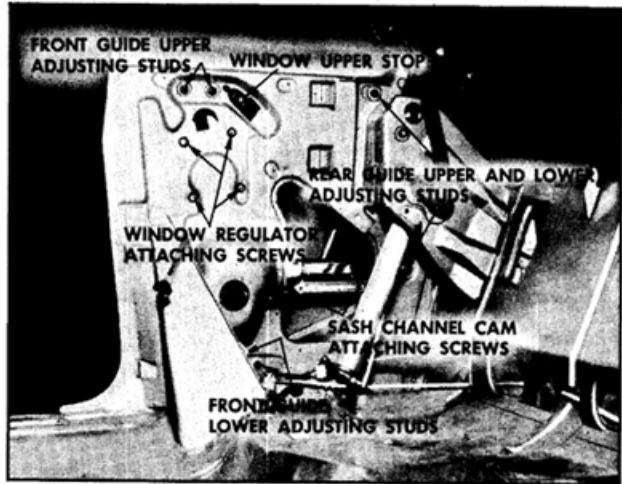


Fig. 16-366 Rear Quarter Hardware (67 Styles)

described.

2. Remove front guide upper and lower adjusting stud nuts. (Fig. 16-366)
3. Disengage guide adjusting studs from slots in quarter inner panel and remove through access hole.
4. To install, reverse removal procedure. Adjust guide for proper window operation as specified under REAR QUARTER WINDOW ADJUSTMENTS.

REAR QUARTER WINDOW REGULATOR (MANUAL) (67 Style)

Removal and Installation

1. Remove rear quarter trim assembly and inner panel access hole cover.
2. Lower window to full down position and remove sash channel cam attaching screws. (Fig. 16-366) Disengage cam from roller on regulator lift arm and remove sash channel cam.
3. Remove window regulator attaching screws (Fig. 16-366) and remove regulator through access hole.
4. To install, reverse removal procedure.

REAR QUARTER WINDOW REGULATOR (ELECTRIC) (67 Style)

Removal and Installation

1. Remove rear quarter window and front guide assemblies as previously described.

2. Disconnect regulator motor wire harness at in-line connector located on inboard side of quarter inner panel.

NOTE: Do not attempt to disengage permanent connector at regulator motor.

3. Disengage wire harness split grommet from quarter inner panel. Feed harness and connector through grommet hole into opening between inner and outer panel.
4. Remove regulator attaching screws (Fig. 16-366) and remove regulator through access hole.
5. To install window regulator assembly, 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 ADJUSTMENTS (67 Style)

1. Remove rear quarter trim assembly as previously described.
2. To adjust window fore or aft, loosen front and rear guide adjusting stud nuts. (Fig. 16-366) Position window and guides fore or aft as required; then tighten adjusting stud nuts.
3. To adjust window in or out at belt line, loosen front and rear guide upper adjusting stud nuts. (Fig. 16-366) Adjust studs in or out as required; then tighten adjusting stud nuts.

NOTE: Major adjustment at top of guides may require some adjustment at bottom.

4. To adjust top of window in or out, loosen front and rear guide lower adjusting stud nuts. (Fig. 16-366) Adjust studs in or out as required; then tighten stud nuts.
5. To relieve a fore and aft binding condition between front and rear guides, loosen front and rear guide adjusting stud nuts. (Fig. 16-366) Operate window to full up position and tighten front and rear guide upper stud nuts. Operate window to full down and tighten remaining stud nuts.
6. To limit forward and upward travel of window, adjust regulator lift arm stop as required. (Fig. 16-366)
7. To adjust front or rear of window in or out

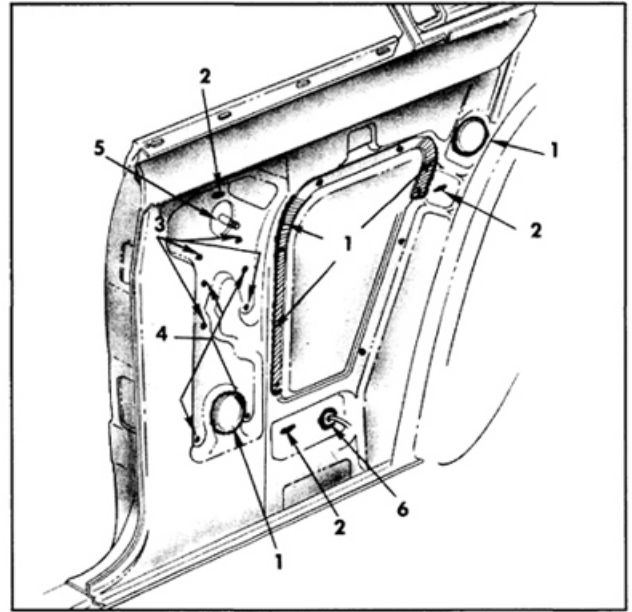


Fig. 16-367 Quarter Panel Sealing (27 Styles)

at belt line, loosen either (or both) front and rear guide upper adjusting stud nuts and adjust studs in or out as required; then tighten stud nuts.

REAR QUARTER INNER PANEL SEALING (27, 37 & 67 Styles)

Whenever the rear quarter inner panel seals have been disturbed, the area must be resealed before the rear quarter trim is reinstalled. Following are the inner panel openings and hardware attaching locations that require sealing and the recommended sealing material. The numbers of the respective items refer to corresponding numbers in the illustrations. (Figs. 16-367, 16-368 and 16-369)

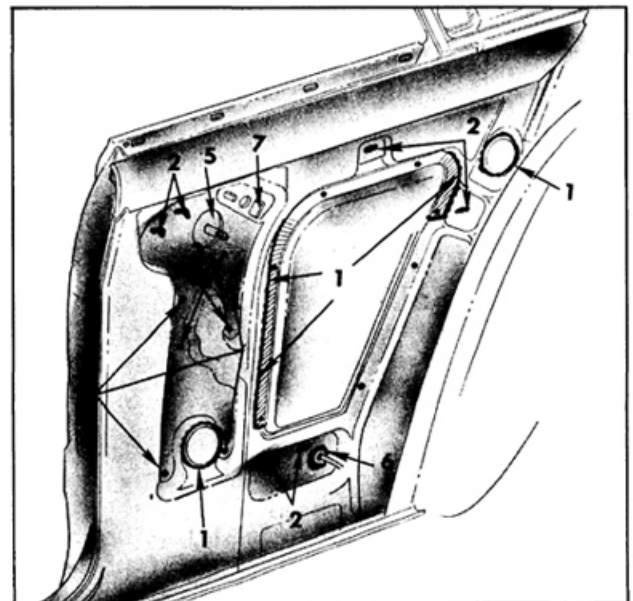


Fig. 16-368 Quarter Panel Sealing (37 Styles)

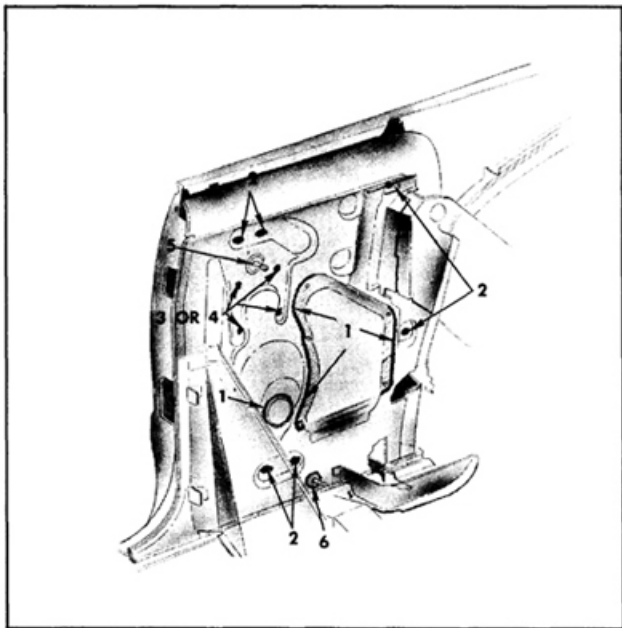


Fig. 16-369 Quarter Panel Sealing (67 Styles)

NOTE: When body caulking compound is used, work material firmly against metal surfaces to obtain good adhesion.

1. Access Hole Cover and Sealing Plugs - Prior to installation of access hole cover, apply a bead of body caulking compound across top and down sides of opening. After installation, apply another bead of caulking compound down outer edges of access hole cover at shaded areas in illustrations. Make certain to effect a good seal at screw locations and where cover crosses over to inside of inner panel. Prior to installation of sealing plugs, apply body caulking compound completely around opening to effect a seal when plug is installed.
2. Window Guide and Glass Run Channel Attaching Screws - Apply body caulking compound over attaching screws to effect a watertight seal.
3. Window Regulator Attaching Screws (Manual) - Apply body caulking compound over attaching screws to effect a watertight seal.
4. Window Regulator Attaching Screws (Electric) - Apply black weatherstrip adhesive over attaching screws and screw holes to effect a watertight seal.
5. Window Regulator Spindle Hole Sealing Washer - Apply black weatherstrip adhesive over exposed surface of washer to seal pores of sponge rubber and to effect a seal between washer and inner panel. On styles with power operated windows, apply waterproof body tape and body caulking compound around switch box.

6. Wire Harness and Grommet Hole (Power Operated Windows Only) - Apply black weatherstrip adhesive around grommet and wire to effect a seal between wire and grommet and between grommet and inner panel.
7. Regulator Lift Arm Up-Travel Stop - (37 Styles Only) - Apply body caulking compound over stop and attaching screw to prevent water entry.

Although not called out on the illustrations, but just as necessary, are seals at wire harness clip and seat back filler panel attaching screws, and small gauge holes and arm rest anchor nuts. When any of these seals have been disturbed, reseal with body caulking compound.

REAR QUARTER FRONT TRIM PANEL (Left or Right) (35 Style)

Removal and Installation

1. Disengage pinchweld finishing strip from rear body lock pillar adjacent to front trim panel. Loosen rear attaching screws of rear door sill plate.
2. Remove exposed screw at lower end of front trim panel. (Figs. 16-370 and 16-371) Beginning at rear upper edge, pry snap-in type clips from quarter inner panel along upper edge of trim panel. ("B", Fig. 16-370)
3. Swing rear edge of trim assembly forward and break cement bond at body lock pillar by carefully applying hand pressure to reverse side of trim assembly; then, remove trim assembly from body.
4. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward edge of trim assembly to outboard surface of body lock pillar pinchweld flange.

SPARE TIRE COVER PANEL (35 Style)

Removal and Installation

The spare tire cover panel is retained at the belt line by a screwed-on garnish molding and at the load floor level by a folding catch-type handle. To remove the cover, open the catch handle, then, swing the bottom edge of the assembly upward and disengage the upper edge from beneath the garnish molding.

To install the cover, reverse the removal procedure.

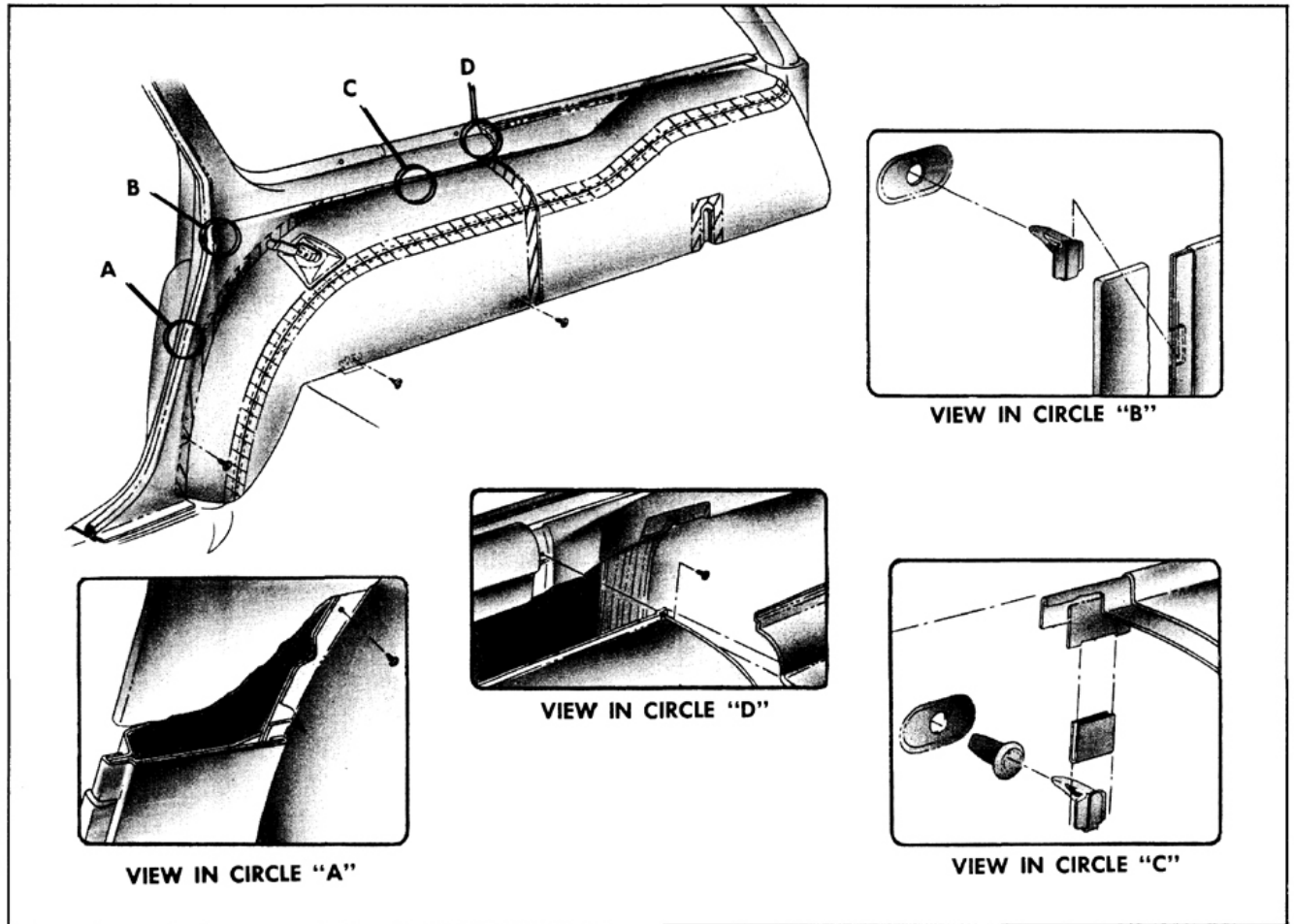


Fig. 16-370 Rear Quarter Trim

WHEELHOUSE TRIM COVER PANEL (Right Side) (35 Style)

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 screws at front, rear, and bottom of wheelhouse trim cover. (Fig. 16-370) Using a flat-bladed tool, disengage snap-in type clips from plastic sealing plugs in quarter inner panel along top of wheelhouse trim cover panel and remove panel from body. ("C", Fig. 16-370)
4. To install, reverse removal procedure. Prior to installation, replace any damaged plastic sealing plugs and/or retaining clips.

REAR QUARTER REAR TRIM PANEL (Left Side) (35 Style)

Removal and Installation

1. Remove exposed screw at bottom center of rear trim panel.

2. Using a flat-bladed tool, pry snap-in type clips on trim panel from piercings in inner panel along upper edge of trim panel. ("A", Fig. 16-371) Begin removal at front and work rearward.
3. Lift trim assembly upward and remove trim assembly from body.
4. To install, reverse removal procedure.

WHEELHOUSE TRIM COVER ASSEMBLY (Left Side) (35 Style)

Removal and Installation

1. Remove rear quarter front and rear trim panel assemblies as previously described. Remove second folding seat back bumper assembly from wheelhouse.
2. Fold back rubber mat from wheelhouse.
3. Starting at the outer edges and working toward the center, carefully break cement bond between wheelhouse and trim cover and remove trim cover.

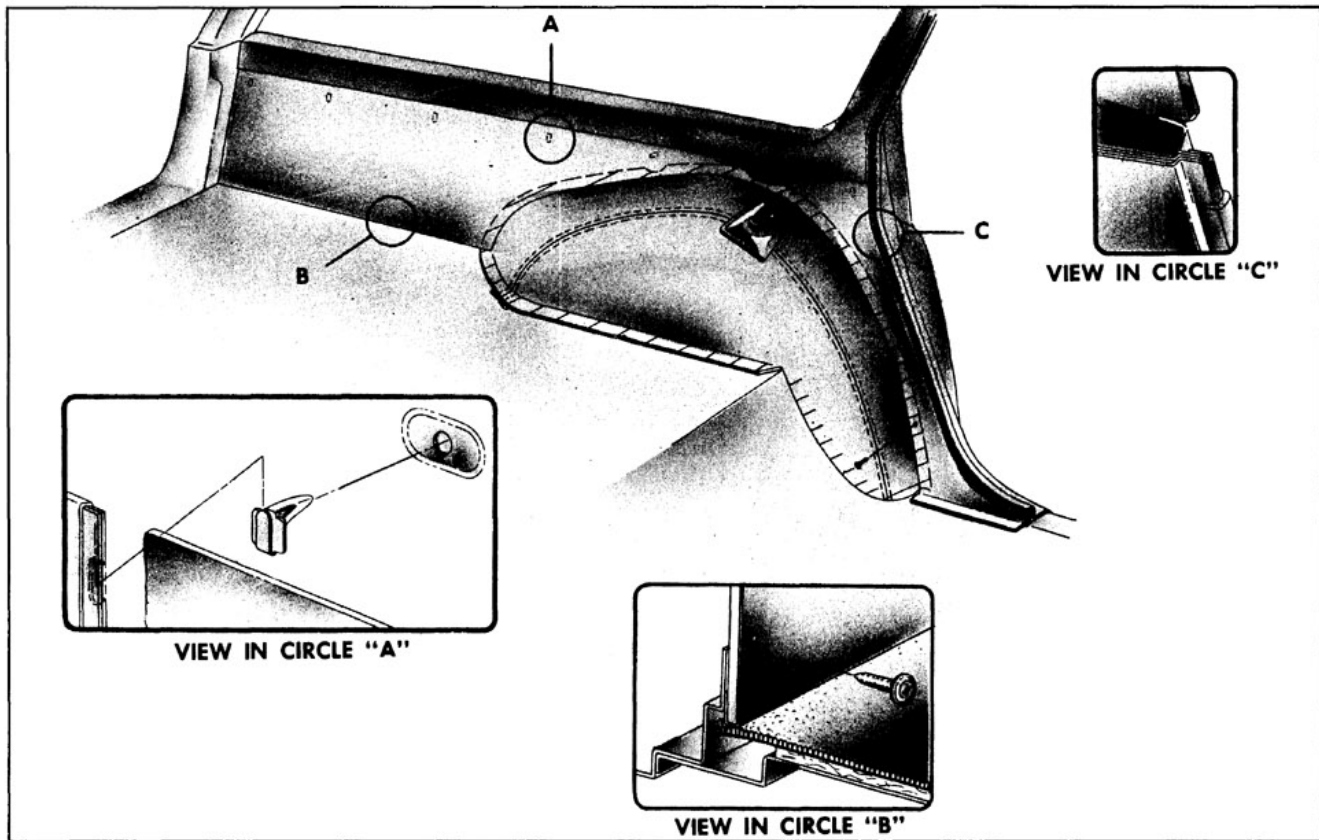


Fig. 16-371 Rear Quarter Trim

4. To install, reverse removal procedure. Prior to installation, clean off old cement from wheelhouse to assure a smooth cementing surface. Install cover in position and scribe line inside of folding seat back bumper cut-out to guide installation when adhesive is applied. Remove cover and apply trim adhesive over wheelhouse surfaces contacted by trim cover (Do not cover scribe lines).

With trim cover inside-out, align bumper cutout with scribe lines on wheelhouse. Apply cover to wheelhouse working from center of cover towards outer edges.

QUARTER WINDOW REVEAL MOLDINGS (35 Style)

The clips that retain the quarter window reveal moldings are attached to the window opening by screws that are inserted through the clip into the body metal. A projection on the clip engages the molding flange retaining the molding between clip and body metal. A self-sealing integral washer on the reverse side (body side) of the clip protects against waterleaks at the screw locations.

To disengage reveal molding from retaining clip, insert Tool J-9698 between molding and glass; then, engage tool point behind clip (Fig. 16-372, section "A-A") and slightly rock tool. Repeat this operation at each clip location and remove molding.

To install molding, position it to body and engage molding flange with clips.

NOTE: If difficulty is experienced inserting tool between molding and glass, pry rear edge of lower corner escutcheon outward to provide adequate clearance.

CAUTION: Use extreme care not to get point of tool behind edge of glass. Any prying force with tool in that position could cause the tempered safety plate glass to shatter.

REAR QUARTER STATIONARY WINDOW (35 Style)

The rear quarter stationary window is retained in the body opening by a self-curing, synthetic rubber adhesive caulking compound that adheres to both glass and window opening pinchweld flange.

Applied to the glass while in a soft state, the material begins to cure soon after exposure to air. Due to this fast curing characteristic, installation of glass into the body opening must follow quickly after application of material to glass.

Because the cured material adheres to both glass and body pinchweld flange, it is necessary to cut through it to remove the window.

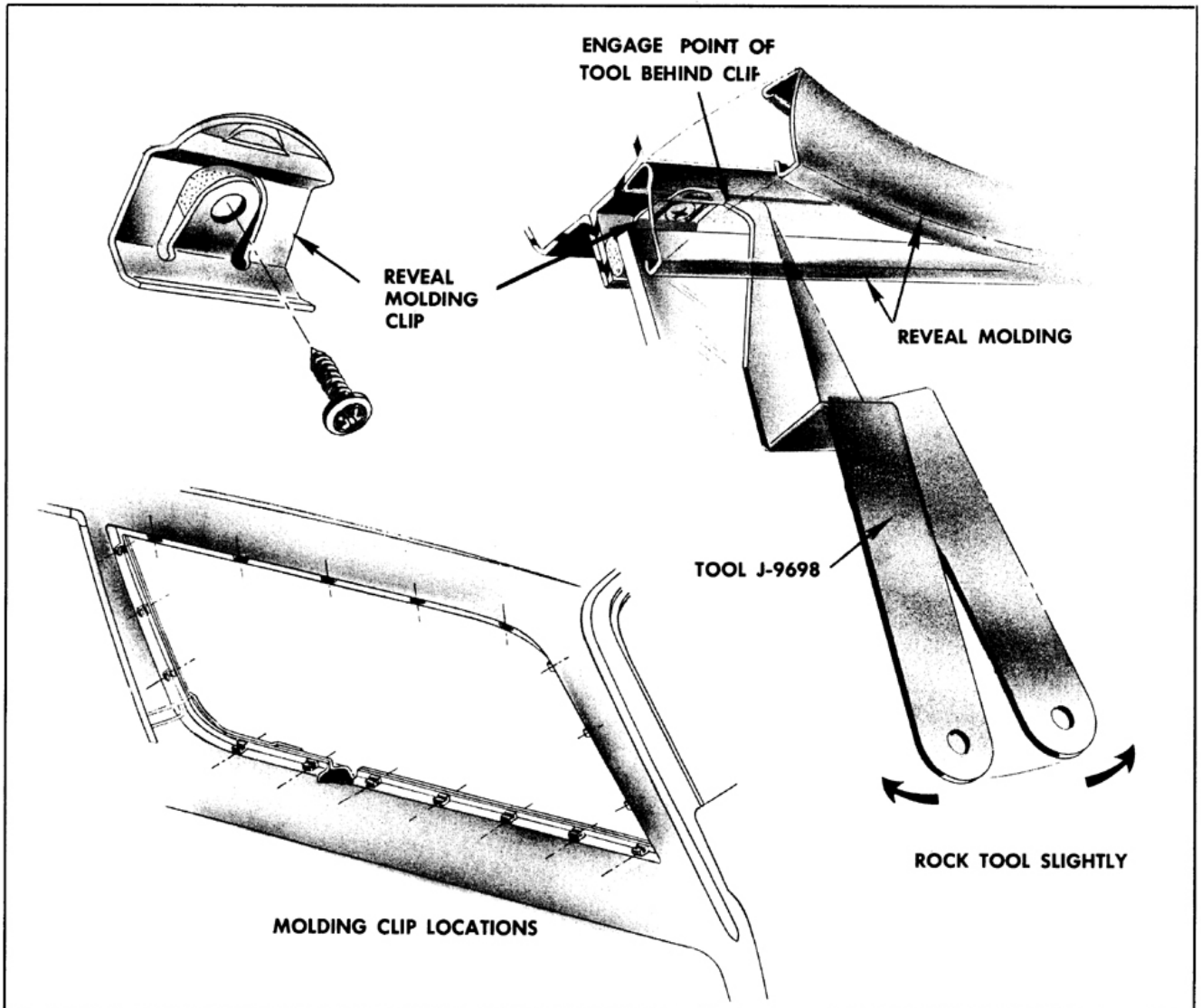


Fig. 16-372 Quarter Window Reveal Molding Removal

The Adhesive Caulking Kit designed for the "short method" windshield installation has some of the materials needed to remove and replace a stationary quarter window. The rubber spacers, paint primer and extra caulking kit are available as service parts. Two kits are required.

QUARTER WINDOW REMOVAL (Glass Intact) (35 Style)

1. Remove rear quarter window reveal moldings as previously described. Remove spare tire cover (right side only) and lower rear garnish molding.
2. Secure one end of steel music wire to a piece of wood that can serve as a handle. Insert other end of wire through caulking material at a lower corner of quarter window and secure that end to a second piece of wood. (Fig. 16-373)
3. With the aid of a helper, carefully cut (pull



Fig. 16-373 Glass Removal

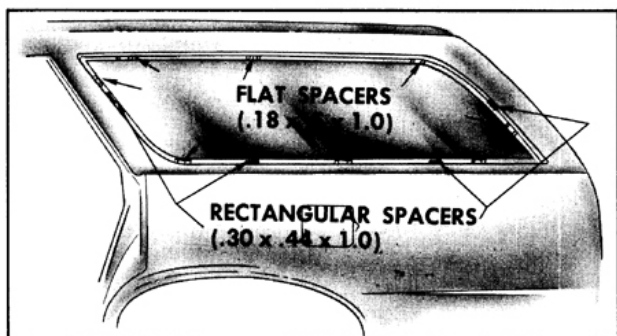


Fig. 16-374 Spacer Installation

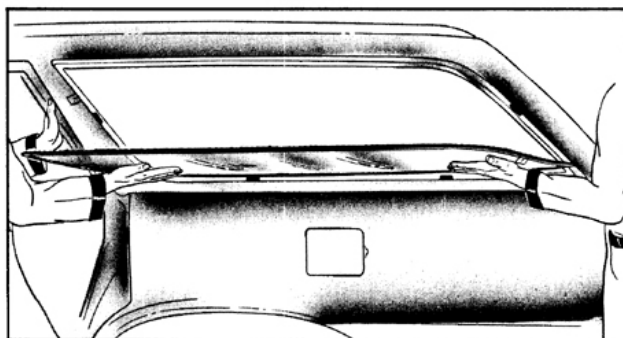


Fig. 16-375 Quarter Window Installation

wire through) caulking material up one side, across top, down opposite side and across bottom. If difficulty is encountered at rubber spacer locations, cut through spacers using a slow sawing motion. Do not use a quick motion as wire will heat-up and break. Keep tension on wire throughout cutting operation, to prevent "kinks" in wire.

4. Remove window from body opening. If same glass is to be re-installed, place it up-side-down on a clean protected surface. Using a sharp scraper or razor blade, remove major traces of old caulking material from glass. Remove all remaining traces with a toluene or thinner dampened rag.

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

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

QUARTER WINDOW INSTALLATION (35 Style)

If new window is being installed because former glass shattered, perform Steps 1 and 5 of QUARTER WINDOW REMOVAL procedure before proceeding with installation.

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, either reform or replace clip. Check all clip screws and tighten any found to be loose.
2. Cement eight flat spacers (.180 x .5 x 1.0) to window opening pinchweld flange with black weatherstrip adhesive as illustrated in Fig. 16-374.

NOTE: Use sufficient adhesive to protect against waterleaks at spacer locations which tend to be very vulnerable.

3. Using black weatherstrip adhesive, cement four rectangular spacers (.30 x .44 x 1.0) to quarter window lower and side opening rabbets in the depressions provided, two across lower rabbet and one on each side rabbet. (Fig. 16-374)
4. With aid of a helper, carry glass to body as shown in Fig. 16-375. Then, with helper supporting glass with both hands, reach one hand around body pillar and support glass while helper also reaches around pillar to assume position shown in Fig. 16-376. Position glass in opening by making contact along upper edge first, then swing in lower edge.
5. Check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers. Standard spacers are .30" thick, but .34" thick spacers are available as a service part.
6. Check relationship of glass contour to body opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, correction can be made by any one of the following methods:
 - a. Position another glass in opening to determine if a better fit can be obtained.
 - b. Rework pinchweld flange.
 - c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange or by allowing bead on glass to exceed specified 3/8" height at gap areas.
7. After final adjustments have been made and glass is in proper position, apply a piece of masking tape horizontally over front and rear edges of glass and body pillars. ("A", Fig. 16-376) Slit tape vertically at glass edge so that tape on glass can be aligned with tape on body and act as guide when glass is installed.

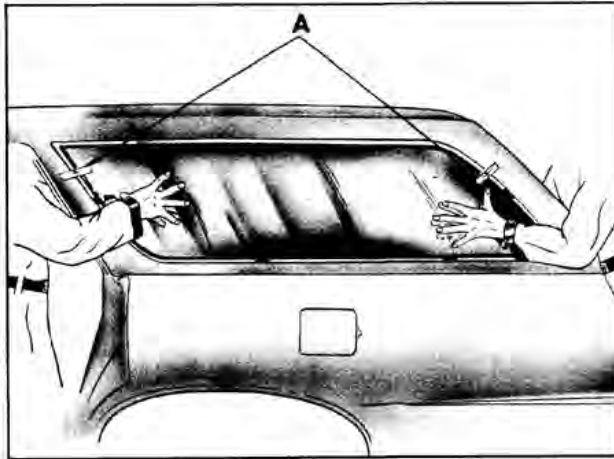


Fig. 16-376 Quarter Window Installation

8. Remove glass from body opening and place inner surface up on a glass holding fixture or clean protected surface.
9. Beginning at a corner, apply 1" masking tape completely around edge of glass inner surface 1/4" inboard from outer edge. (Fig. 16-377)
10. From inside of body, apply masking tape around window opening to protect painted and trimmed surfaces.

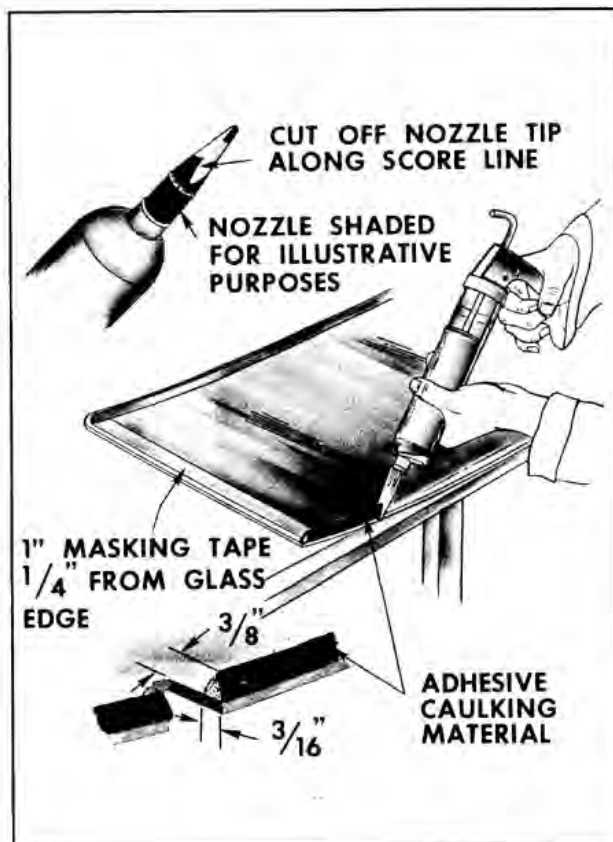
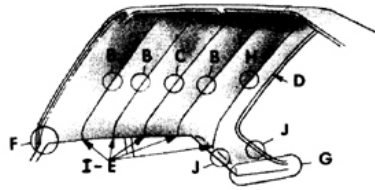


Fig. 16-377 Adhesive Caulking

11. Using a clean, lint-free cloth liberally dampened with adhesive caulking primer, briskly rub primer over and into original adhesive caulking material remaining on pinchweld flange completely around window opening. Perform following steps while allowing primer to dry 5 to 10 minutes. If pinchweld flange was repainted, prime pinchweld flange with paint finish primer instead of adhesive primer. Paint finish primer is available as a service part.
12. Cut off tip of one nozzle along score line. (Fig. 16-377). This nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at a 45° angle 1" below end of nozzle. This will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.
13. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened rag. Dry glass thoroughly with a clean, dry rag.
14. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle (nozzle cut on score line in Step 12).
15. Insert tube in a standard household type caulking gun reworked as follows:
 - a. Widen end-slot of caulking gun with a file sufficiently to accept dispensing end of tube.
 - b. Grind down disc on plunger rod so that disc will fit into large end of tube.
16. Positioning gun and nozzle as shown in Fig. 16-377, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead.

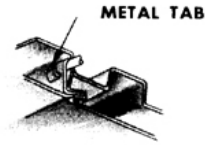
NOTE: Material begins to cure after 15 minutes exposure to air, therefore, perform following steps immediately and install glass in opening as quickly as possible.
17. Remove "glass bead" nozzle and insert "smear bead" nozzle (nozzle cut on 45° angle in Step 12). Holding caulking gun at an angle so that opening of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear bead" of adhesive caulking material completely around pinchweld flange.
18. With the aid of a helper, carefully install glass as described previously in Step 4.



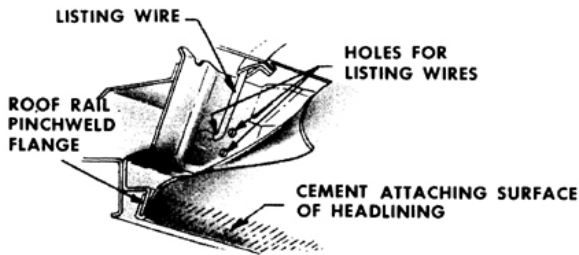
VIEW A



VIEW B



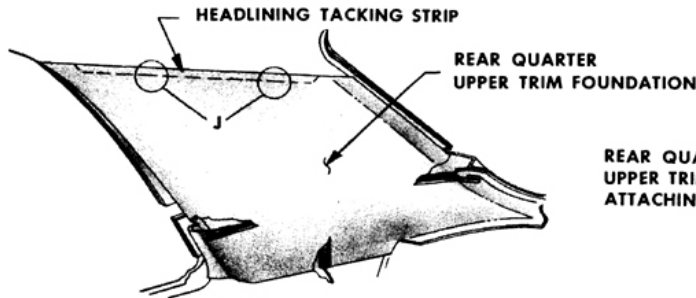
VIEW C



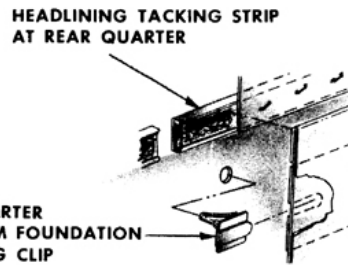
VIEW E



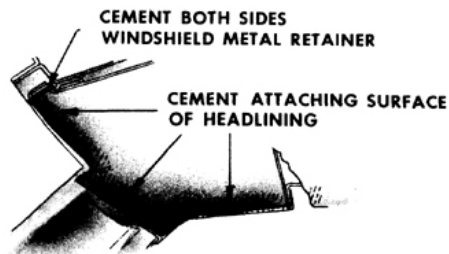
VIEW I
"27 and 37" STYLES ONLY



VIEW G



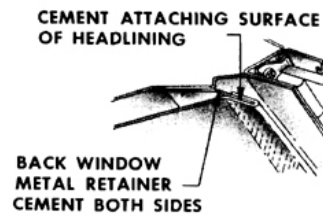
VIEW J



VIEW F



VIEW H



VIEW D

Fig. 16-378 Headlining Installation (27 - 37 - 69 Styles)

(Figs. 16-375 & 16-376) Make certain that glass sets properly on all spacers and does not have to be shifted after caulking material contacts pinchweld flange. Focus attention on tape guides that were applied to glass and body to properly align glass in opening.

NOTE: When setting glass in opening, make contact with upper edge of glass first, then swing in lower edge. Install reveal moldings to hold glass in opening.

19. Working inside the body, run a flat stick around window opening pinchweld flange to press squeeze-out material back into opening between glass and pinchweld flange.
20. Watertest car immediately with cold water spray. If any waterleaks are encountered, use flat-bladed tool to work material into leak point. Remove tape from inside surface of glass.
21. Install all previously removed parts and remove protective coverings.

NOTE: Unused adhesive caulking material remaining in tube can be stored for later use. To store, remove nozzle and insert end cap previously removed. Do not remove material from nozzle until it has cured. Once cured, material can be removed from nozzle in one piece with a pair of pliers.

MINOR WATER LEAK CORRECTION

If a water leak develops in a cured adhesive caulked window installation, proceed as follows:

1. Remove reveal moldings from leak point.
- 2a. Using adhesive caulking material from kit, clean adhesive caulking material around leak point with Adhesive Caulking Primer.
- b. If adhesive caulking material is not available, clean adhesive caulking material around leak point with water and dry completely.
3. Seal leak point with liberal application of adhesive caulking material or black weather-strip adhesive depending on what material is available and how surface was prepared in Step 2.
4. Watertest and install all previously removed parts.

HEADLINING ASSEMBLY

The headlining assembly is formed to the contour of the roof panel by concealed listing wires.

Both ends of the listing wires are installed into holes in the side roof rail assemblies on all styles except 27 and 37 styles. On 27 and 37 styles, the listing wires are installed into holes in the side roof rails on the left side and into clips on the right side. The headlining material is cemented around metal retainers at the windshield and back window or body opening. The sides of the material are cemented to the roof side inner rail pinchweld flanges. On 35 styles, the rear quarter material is cemented to the body lock pillars and rear window or back body opening pinchweld flanges. On 27, 37 and 69 styles, the headlining is attached to a tacking strip at the rear quarter area by tacks or staples. (View "J", Fig. 16-378) Finishing lace, rear quarter finishing moldings, two rear quarter trim foundations and pillar trim plates cover the headlining material edges and assist in holding the material in place. Clean hands are essential when working with headlining material.

Removal

1. Place protective covering over seat cushions and backs.
2. Prior to removing headlining, remove following hardware and trim assemblies.
 - a. Sunshade support assemblies.
 - b. Rear view mirror supports.
 - c. Dome lamp assembly and coat hooks.
 - d. Windshield and back body finishing moldings.
 - e. Body lock pillar finishing plates.
 - f. Loosen rear quarter upper trim foundation by prying upper foundation fasteners loose from roof extension inner panel. (View "J" Fig. 16-378) Fold trim foundation down on rear compartment shelf.

NOTE: It is not necessary to completely remove rear quarter trim foundation to install the headlining on 27, 37 and 69 styles.
 - g. Windshield and back window finishing lace.
 - h. All pinchweld flange finishing lace over doors and rear quarters.
3. Carefully detach headlining from windshield, back window, side roof rails and rear quarter areas.
4. Working from front to rear of body, disengage headlining listing wires from side roof inner rails except 27 and 37 styles. On 27 and 37 styles, remove listing wires from left side

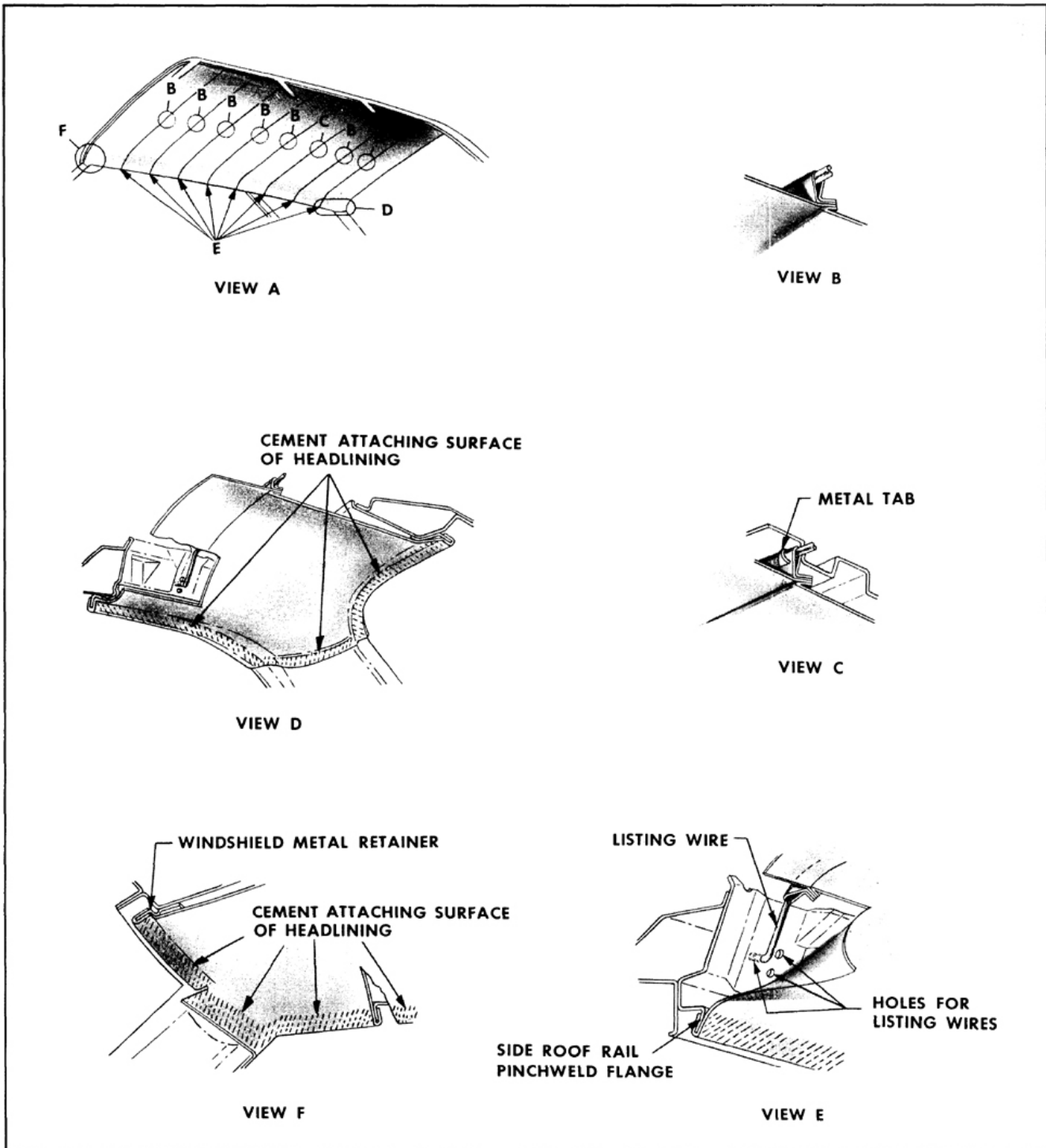


Fig. 16-379 Headlining Installation (35 Styles)

rail holes and clips on right side. (View "I", Fig. 16-378) Gather or roll headlining with listing wires on outside to keep headlining clean.

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

5. At No. 3 and 6 roof bows, bend down metal tabs securing listing wires and listing wire

pockets. (View "C", Fig. 16-378 and Fig. 16-379) Remove listing wires and pocket from support. (View "H", Fig. 16-378)

6. Remove headlining assembly from body.

7. If replacing headlining, remove listing wires from pockets of 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 pockets of new headlining assembly.
2. Apply approved trim cement to headlining attaching surfaces at windshield and back window openings. Cement must be applied to both sides of headlining retainers. (Views "D" and "F", Figs. 16-378 and 16-379)
3. Apply approved cement to headlining attaching surfaces along side roof rails and rear quarter areas except rear quarter areas on 27, 37 and 69 styles.
4. Apply approved cement to pinchweld flanges of side roof rails.
5. Lift headlining assembly into body and install rear listing wires into side roof rails except 27 and 37 styles. (View "E", Figs. 16-378 and 16-379) On 27 and 37 styles, install listing wires in left side roof rail and attach right side by clips. (View "I", Fig. 16-378)
6. Center and align headlining in relation to back body opening and side roof rails. On 27, 37 and 69 styles, insert rear listing wire support through listing wire pocket. (View "H", Fig. 16-378)
7. Working forward, install ends of listing wires into listing wire holes and clips in side roof rails.
8. Install headlining listing support wire over metal tabs on roof bow. Bend up tabs so that support wire is securely fastened to roof bow. (View "C", Figs. 16-378 and 16-379)

NOTE: Headlining listing wires may be adjusted up or down in different holes as required to compensate for headlining which may be too tight against the roof panel or too loose, making it difficult to remove draws or wrinkles. Listing wire SHOULD rest against roof deadener after it is installed.
9. Stretch and secure headlining along entire windshield and back body openings.
10. Apply trim cement to attaching edges of headlining assembly except rear quarter areas on 27, 37 and 69 styles.
11. Working toward front of body, install headlining to side roof inner rail, cutting headlining to shape at center pillar and upper rear body lock pillar. Remove all draws or wrinkles as required from headlining assembly.
12. Trim excess material from edges of headlining assembly at windshield, back window and around rear quarter areas except 27, 37

and 69 styles. On 27, 37 and 69 styles, tack headlining to rear quarter trim stick. (View "J", Fig. 16-378)

13. Using a headlining inserting tool, install trimmed edges of headlining to outer surfaces of side roof inner rail and at windshield and back window retainers to give headlining a finished appearance. (Views "D", "E", and "F", Fig. 16-378 and Views "D", "E" and "F", Fig. 16-379)
14. Install windshield and back window finishing strips.
15. Install door opening and rear quarter upper pinchweld finishing strips and all other previously removed inside hardware and trim assemblies.

SEATS

FRONT SEAT ASSEMBLY (Manual Full Width Seats)

Manually operated front seat adjusters provide fore and aft movement of the seat. When the lever at the left seat adjuster is raised, the seat adjusters unlock, permitting horizontal travel of the seat. When the seat is in the desired position, the lever is released and the seat is locked.

FRONT SEAT ASSEMBLY WITH SEAT ADJUSTERS ATTACHED

Removal and Installation

1. Turn back floor carpeting, where necessary, to expose seat adjuster-to-seat support attaching bolts.
2. Operate seat to full rearward position.
3. At front of adjusters, loosen adjuster-to-floor pan attaching bolts.
4. Operate seat assembly to full forward position.
5. At rear of adjusters, remove adjuster-to-floor pan attaching bolts.
6. With aid of helper, slide seat assembly rearward until front legs of adjuster are disengaged from under front attaching bolts. Remove seat assembly from body.
7. To install, reverse removal procedure.

NOTE: Make certain front legs of adjusters are completely engaged under retaining bolts before installing or tightening bolts.

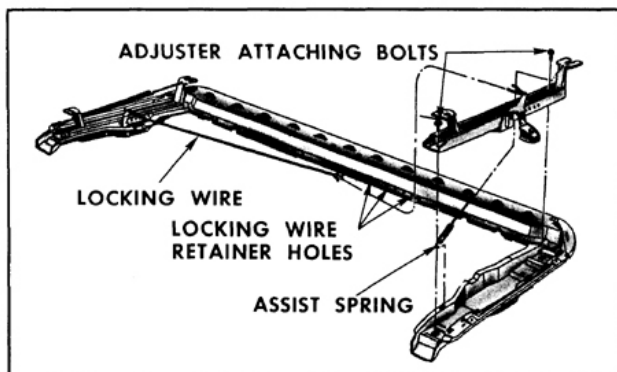


Fig. 16-380 Manual Seat Adjuster

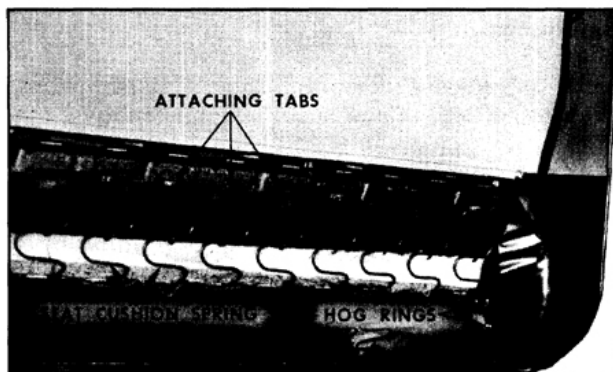


Fig. 16-381 Cushion Spring Attachment

FRONT SEAT ADJUSTERS

Removal and Installation

1. Remove front seat assembly with adjusters attached from body and place upside down on a clean, protected surface.
2. Remove seat adjuster assist spring from adjuster to be removed. (Fig. 16-380)
3. If left adjuster is being replaced, remove adjuster control knob. (Fig. 16-380)
4. Squeeze hooked end of seat adjuster locking wire together and slide retaining spring back over hump in locking wire and remove locking wire from adjuster.
5. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove seat adjuster from seat assembly. (Fig. 16-380)
6. To install, reverse removal procedure. Check seat assembly for proper operation prior to installing seat assembly.

NOTE: The right and left seat adjuster sliding mechanisms should be in same relative position when attaching adjuster to seat bottom frame.

7. 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.

FRONT SEAT BACK ASSEMBLY

Removal and Installation

1. Remove front seat assembly from body and place it upside down on a clean, protected surface.

2. Remove hog rings securing central portion of lower rear edge of seat back trim from front seat cushion spring assembly.
3. Raise trim and remove cardboard breakover foundation to expose seat cushion spring attachment to seat back frame along rear of seat and hog rings securing ends of seat back trim to seat bottom frame. (Fig. 16-381)
4. At each end of seat, remove hog rings securing lower edge of seat back trim from seat bottom frame; then raise seat back trim to expose bolts securing seat back reinforcement to seat bottom frame. (Fig. 16-382)
5. Bend open tabs securing seat cushion spring assembly to seat back frame and carefully disengage springs from tabs.
6. Place seat assembly in upright position; then with a helper, holding seat back assembly, remove seat back reinforcement-to-seat bottom frame attaching bolts on each side of seat and remove seat back assembly.

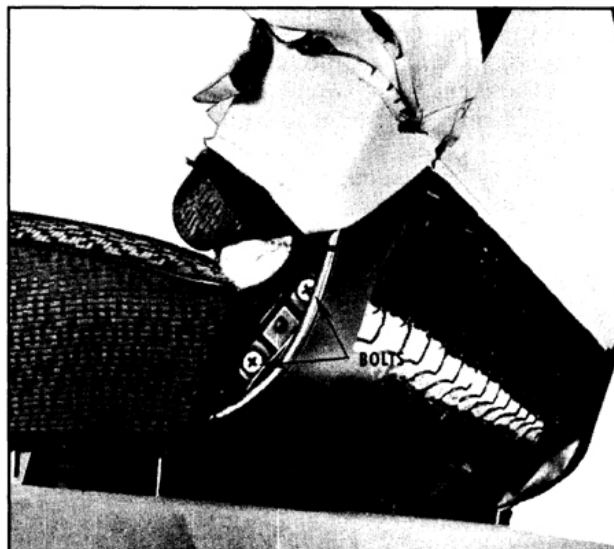


Fig. 16-382 Front Seat Back Attachment

- To install, reverse removal procedure.

NOTE: Make certain rear edge of seat cushion spring assembly is properly engaged to seat back frame and cardboard breakover foundation is properly positioned prior to hog ringing central portion of trim in place.

REAR SEAT ASSEMBLY

REAR SEAT CUSHION ASSEMBLY

Removal

- Push lower forward edge of cushion rearward and pull cushion upward until protrusions on seat bottom frame disengage from floor pan stops.
- Pull cushion forward and carefully remove from body.

Installation

- Carefully lift cushion into body to avoid damaging adjacent trim.
- Position rear edge of cushion under rear seat back assembly.

- Center protrusions on seat bottom frame with stops on floor pan assembly.

IMPORTANT: If seat bottom frame protrusions are not properly centered in relation to floor pan stops, proper engagement and placement of cushion will be extremely difficult.

- Push forward edge of cushion rearward and downward until protrusions are properly engaged behind floor pan stops.

REAR SEAT BACK ASSEMBLY

Removal and Installation

- Remove rear seat cushion assembly.
- At bottom of the seat back on all styles except convertibles, bend out the two tabs that secure the seat back to the floor panel. On convertibles, remove the two screws securing the seat back to the floor panel and at back of seat remove screws securing folding top compartment side trim panels to seat back assembly.
- Pull seat back assembly out at bottom until seat back clears body tabs; then, raise seat

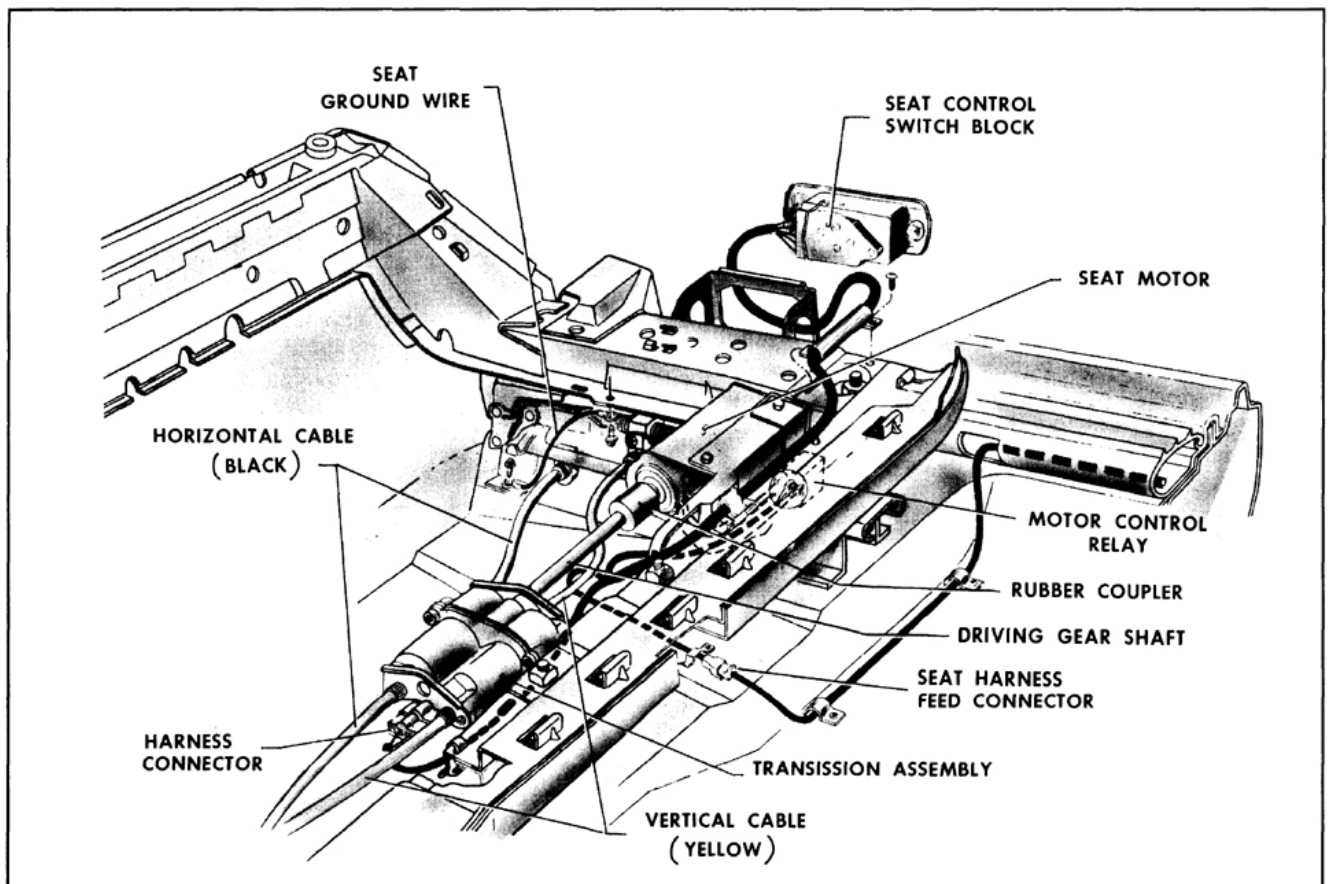


Fig. 16-383 Four-Way Tilt - Full Width

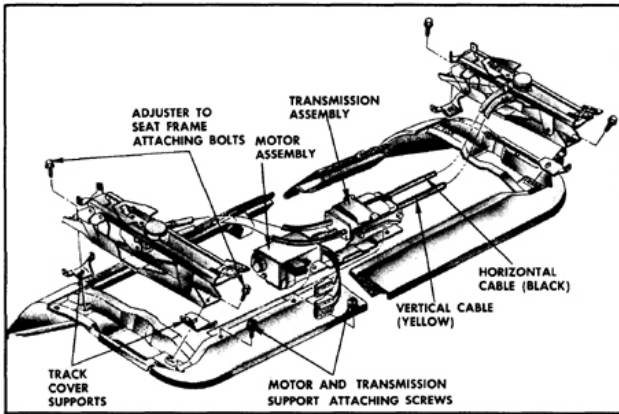


Fig. 16-384 Four-Way Seat Assembly
(Bench Type)

back upward until disengaged from hangers on the 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 body tape applied to them to act as an anti-squeak.

FRONT SEAT ASSEMBLY—FULL WIDTH FOUR-WAY (Tilt)

The seat adjusters are actuated by a 12-volt, reversible, shunt wound motor with a built-in circuit breaker. The motor is installed at the left side of the seat assembly. (Fig. 16-383) The seat motor is energized by a toggle-type control switch installed in the left seat side panel.

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and four 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 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 switch contacts are opened, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

FRONT SEAT ASSEMBLY— FOUR-WAY (TILT)

Removal and Installation

1. Under front of seat, disconnect seat control switch, cigar lighter and courtesy lamp wire

harness (where present) from feed wire harness and detach control switch harness from clip on floor pan.

2. Remove both seat adjuster track covers; then turn back floor carpeting sufficiently to expose adjuster-to-floor pan attaching bolts.
3. Loosen adjuster-to-floor pan front attaching bolt; then, remove both rear adjuster-to-floor pan attaching bolts.
4. With aid of helper, carefully slide seat assembly rearward until front adjuster pedestal is disengaged from front attaching bolt; then remove seat assembly with attached adjusters from body.
5. To install seat assembly, reverse removal procedure. Make sure ground wire is securely attached at left seat adjuster and under seat adjuster-to-floor pan attaching bolt.

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" (or 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. Vertical Travel - Operate seat control switch until one adjuster reaches fully raised position. Disconnect vertical drive cable from adjuster which has reached fully raised position. Operate seat upward until other adjuster has reached fully raised position; then, connect vertical drive cable and check vertical travel of seat.

FRONT SEAT ADJUSTER ASSEMBLY FOUR-WAY (TILT)

Removal and Installation

1. Operate seat assembly to fully raised and midway position.
2. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean, protected surface. (Fig. 16-384)
3. Detach the two power drive cables from adjuster to be removed.

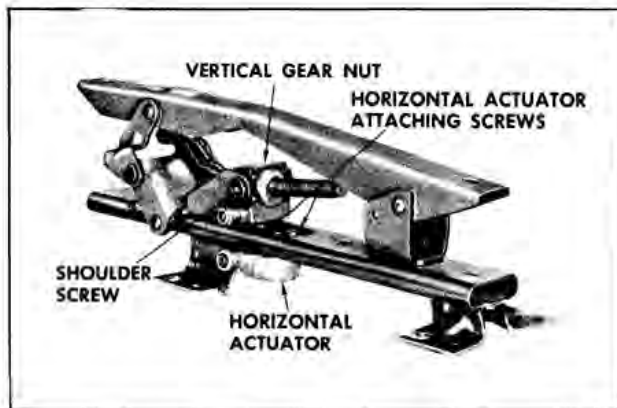


Fig. 16-385 Seat Adjuster - Four-Way (Tilt)

4. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly.
5. To install seat adjuster assembly, reverse removal procedure. Black cable attaches to horizontal actuator.

NOTE: Check operation of seat adjusters and make sure adjusters are "in phase". See Step 5 under FRONT SEAT ASSEMBLY - Removal and Installation.

FRONT SEAT ADJUSTER VERTICAL GEAR NUT FOUR-WAY (TILT)

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. Remove vertical gearnut drive cable from gearnut opposite to gearnut which is being replaced.
4. Using a clutch-type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gearnut being replaced. (Fig. 16-385)
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 5 under FRONT SEAT ASSEMBLY - Removal and Installation.

FRONT SEAT ADJUSTER HORIZONTAL ACTUATOR ASSEMBLY FOUR-WAY (TILT)

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. 16-385)
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 5 under FRONT SEAT ASSEMBLY - Removal and Installation.

FRONT SEAT ADJUSTER JACKSCREW FOUR-WAY (TILT)

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. 16-386)
3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly. (Fig. 16-386)

NOTE: It may be necessary to manually raise or lower upper rear portion of adjuster to gain access to jackscrew attaching rivet.

4. To install, reverse removal procedure. Check operation of seat adjusters and make sure adjusters are "in phase". See Step 5 under

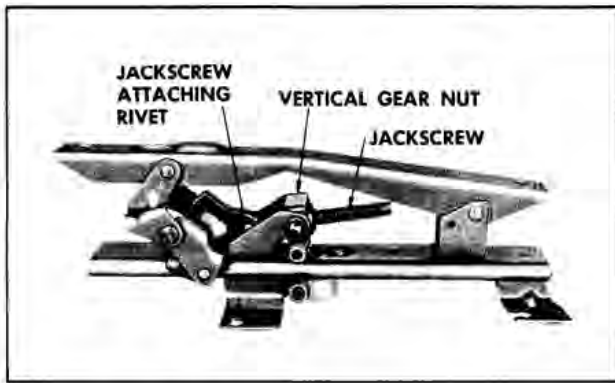


Fig. 16-386 Seat Adjuster - Four-Way Tilt

FRONT SEAT ASSEMBLY - Removal and Installation.

FRONT SEAT ADJUSTER ELECTRIC MOTOR

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean, protected surface. (Fig. 16-384)
2. Disconnect wire harness from motor relay assembly.
3. Remove screws securing motor and transmission support-to-seat bottom frame.
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.

FRONT SEAT ADJUSTER HORIZONTAL AND VERTICAL CABLES FOUR-WAY (TILT)

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean, protected surface.
2. Detach both horizontal and vertical cables from seat adjuster.
3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly. (Fig. 16-383)

4. Disengage cable to be replaced from end plate.
5. To install cables, reverse removal procedure.

FRONT SEAT ADJUSTER TRANSMISSION (FOUR-WAY (TILT))

Removal and Installation

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean, protected surface.
2. Disconnect wire harness connector from transmission. (Fig. 16-383)
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. 16-387)
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.

BUCKET TYPE FRONT SEATS

All seat adjusters are bolted to the seat bottom frame; however, a combination of bolts and nuts are used to retain the adjusters to the floor pan assembly.

The 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

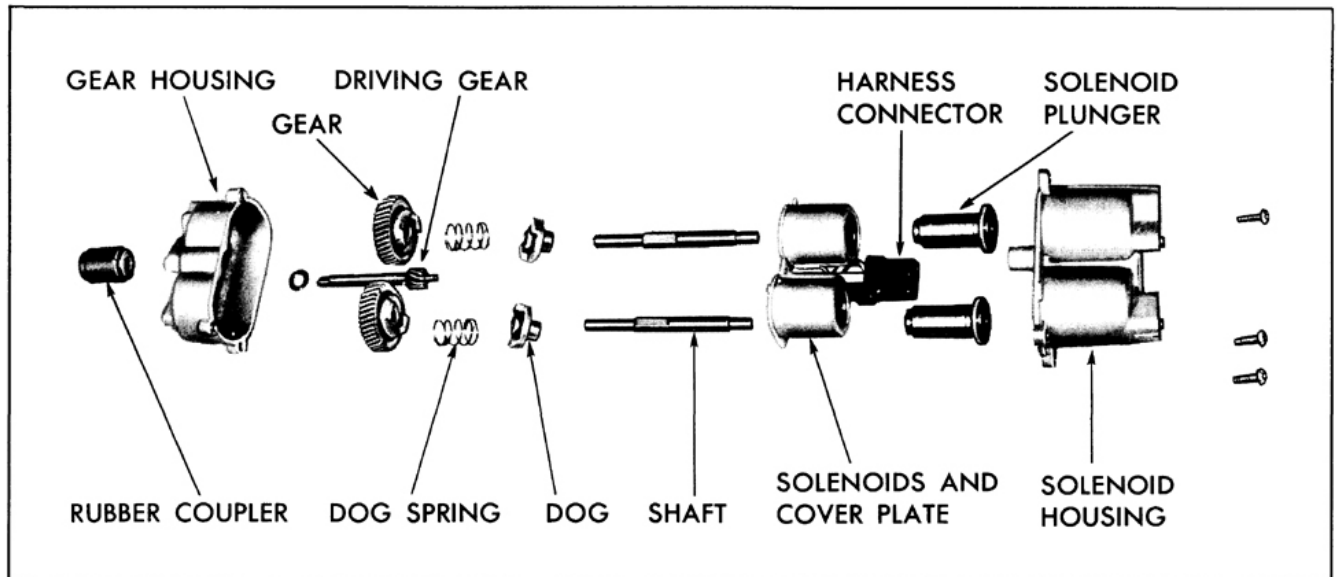


Fig. 16-387 Power Seat Transmission

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 and one of the solenoids are energized simultaneously. The solenoid plunger then engages with the driving gear dog. The driving gear rotates the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber coupling connecting the motor and transmission. When the switch contacts are opened, a return spring returns the solenoid plunger to its original position disengaging it from the driving gear dog.

BUCKET SEAT ASSEMBLY—MANUAL (Driver or Passenger's Side)

Removal and Installation

1. Operate seat assembly to rearward position.
2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts.
3. Loosen adjuster-to-floor pan front attaching bolt.
4. Operate seat assembly to full forward position.
5. At rear of seat, remove adjuster-to-floor pan attaching nuts or bolts.
6. Carefully slide seat assembly rearward until adjusters have been removed from under front floor pan attachments; then remove seat assembly from body.

7. To install, reverse removal procedure. Be sure adjusters are properly engaged under front floor pan attachments prior to installing rear attaching bolts. Check seat adjusters for proper operation.

BUCKET SEAT ASSEMBLY—FOUR-WAY TILT (Driver's Side Only)

Removal and Installation

1. Operate seat assembly to rearward position.
2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan front attaching nut and bolt.
3. Loosen inner attaching nut and outer attaching bolt.
4. Operate seat assembly to full forward position.
5. At rear of seat, remove adjuster-to-floor pan attaching nuts or bolts.
6. Disconnect wiring harness from seat control switch and from actuator motor.
7. Carefully slide seat assembly rearward until adjusters have been removed from under front floor pan attachments; then remove seat assembly with attached adjusters from body.
8. To install, reverse removal procedure. Be sure adjusters are properly engaged under front attaching nuts or bolts prior to installing rear attaching bolts. Check seat adjusters for proper operation.

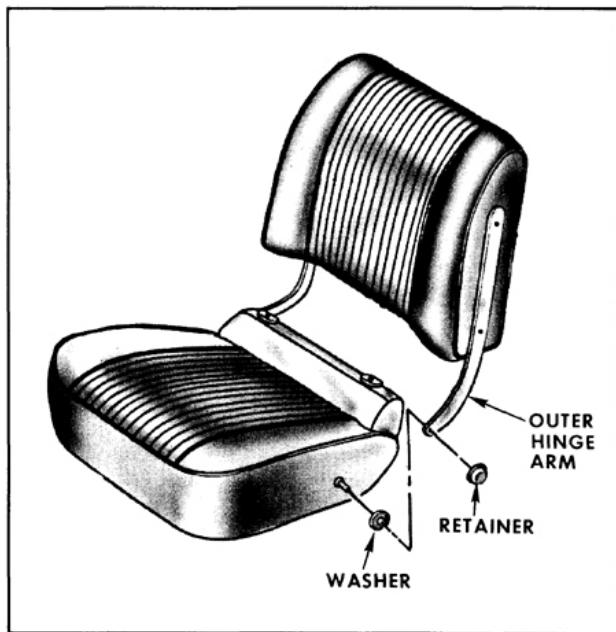


Fig. 16-388 Bucket Seat Back Removal

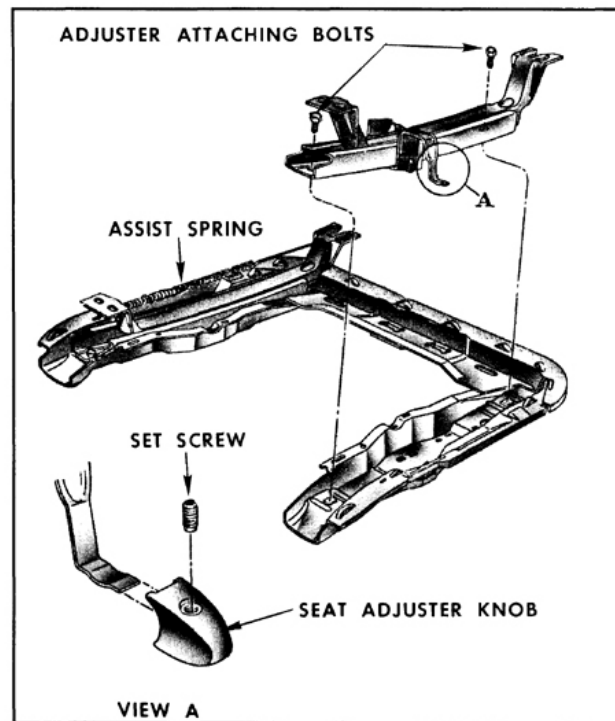


Fig. 16-389 Manual Bucket Seat Adjuster

FRONT SEAT BACK ASSEMBLY

Removal and Installation

1. Using a flat-bladed tool, carefully remove retainer from outer hinge pin. (Fig. 16-388)
2. At inboard side, remove retainer from inner hinge pin.
3. Carefully disengage inner and outer front seat back hinge arms from pins; then remove seat back assembly from body.
4. To install, reverse removal procedure. Prior to installation of back assembly, be sure inner and outer washers are installed over hinge pins. In addition, inspect hinge arm retainers. If retainers are damaged, replace retainers using new parts.

FRONT SEAT ADJUSTERS (DRIVER OR PASSENGER-MANUAL OR TWO-WAY POWER OPERATED)

Removal and Installation

1. Remove front seat assembly as previously described and place upside down on a clean, protected surface.
2. If adjuster to be replaced is equipped with an assist spring, remove spring from adjuster. (Fig. 16-389)
3. Operate adjuster so that both front and rear attaching bolts are accessible.

4. If power operated outboard adjuster is being replaced, disconnect power drive cable from adjuster gearnut.
5. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly. (Fig. 16-389)
6. To install, reverse removal procedure.

FRONT SEAT ADJUSTER ASSEMBLY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Operate seat assembly to fully raised and midway horizontal position.
2. Remove bucket seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean, protected surface.
3. If power operated outboard adjuster is being removed, disconnect power drive cable from vertical gearnut and horizontal actuator.
4. Remove adjuster-to-seat bottom frame front rear attaching bolts.
5. Remove nuts securing motor and transmission support to adjuster assembly (Fig. 16-390 for outboard adjuster and Fig. 16-391 for inboard adjuster).
6. Carefully disengage adjuster from support and

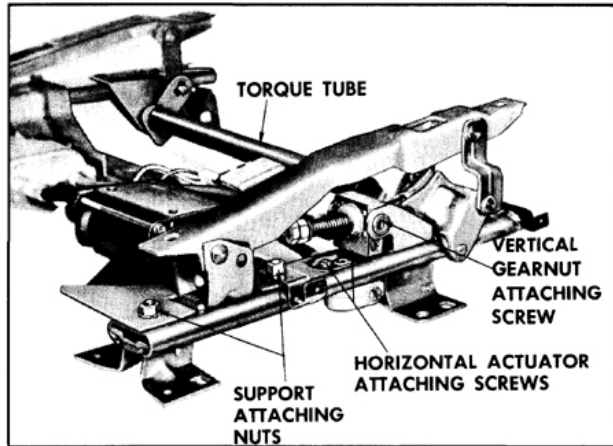


Fig. 16-390 Outboard Seat Adjuster

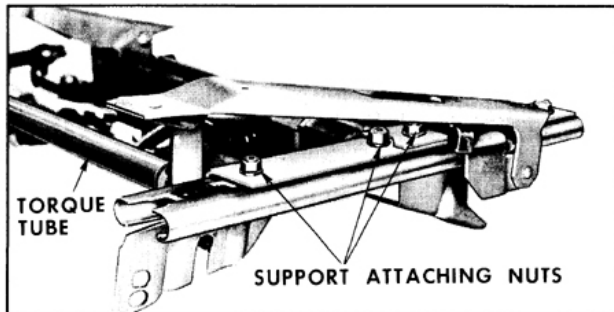


Fig. 16-391 Inboard Seat Adjuster

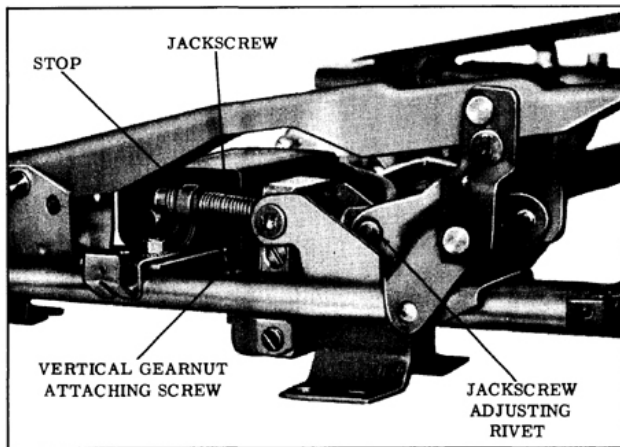


Fig. 16-392 Outboard Bucket Seat Adjuster

torque tube assembly; then remove adjuster from seat.

7. To install, reverse removal procedure. Check seat adjusters for proper operation.

FRONT SEAT ADJUSTER VERTICAL GEARNUT—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Operate seat assembly to fully raised and

midway horizontal position.

2. Remove front seat assembly from body as previously described 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. 16-392)
4. Remove jackscrew down stop from jackscrew. (Fig. 16-392)
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.

FRONT SEAT ADJUSTER JACKSCREW—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

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. 16-392)

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.

FRONT SEAT ADJUSTER HORIZONTAL ACTUATOR ASSEMBLY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

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. 16-390)
3. Using a portable power source, actuate vertical gearnut until gearnut is against down stop on jackscrew assembly.
4. Disconnect drive cable from actuator assembly.
5. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly. (Fig. 16-390)
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 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 seat adjusters for proper operation.

FRONT SEAT ADJUSTER ELECTRIC MOTOR FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly as previously described.
2. Disconnect wire harness from motor relay assembly.
3. Remove motor-to-motor support attaching screws and remove motor assembly from support.
4. To install, reverse removal procedure making sure rubber coupling is properly engaged at both motor and transmission ends.

FRONT SEAT ADJUSTER HORIZONTAL AND VERTICAL CABLES—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

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 verti-

cal 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.

FRONT SEAT ADJUSTER TRANSMISSION— FOUR-WAY TILT (DRIVER'S SIDE ONLY)

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.
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.
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.

TORQUE TUBE ASSEMBLY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean, protected surface.

2. Remove adjuster-to-seat bottom frame front and rear attaching bolts.
3. Remove nuts securing motor and transmission support to inboard adjuster.
4. Carefully disengage adjuster from support and torque tube assembly; then, remove adjuster from seat.
5. Disengage torque tube from opposite adjuster and remove tube from seat assembly.
6. To install, reverse removal procedure. Check seat adjuster for proper operation.

MOTOR AND TRANSMISSION SUPPORT— FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body and

place upside down on a clean, protected surface.

2. Remove nuts securing support to both adjusters.
3. Carefully remove support from adjusters with attached motor, transmission and relay assembly.
4. If replacing support, transfer motor, transmission and relay assembly to new part.
5. To install, reverse removal procedure. Check seat adjusters for proper operation.

MOTOR RELAY—FOUR-WAY TILT (DRIVER'S SIDE ONLY)

Removal and Installation

1. Remove front seat assembly from body and place upside down on a clean, protected surface.

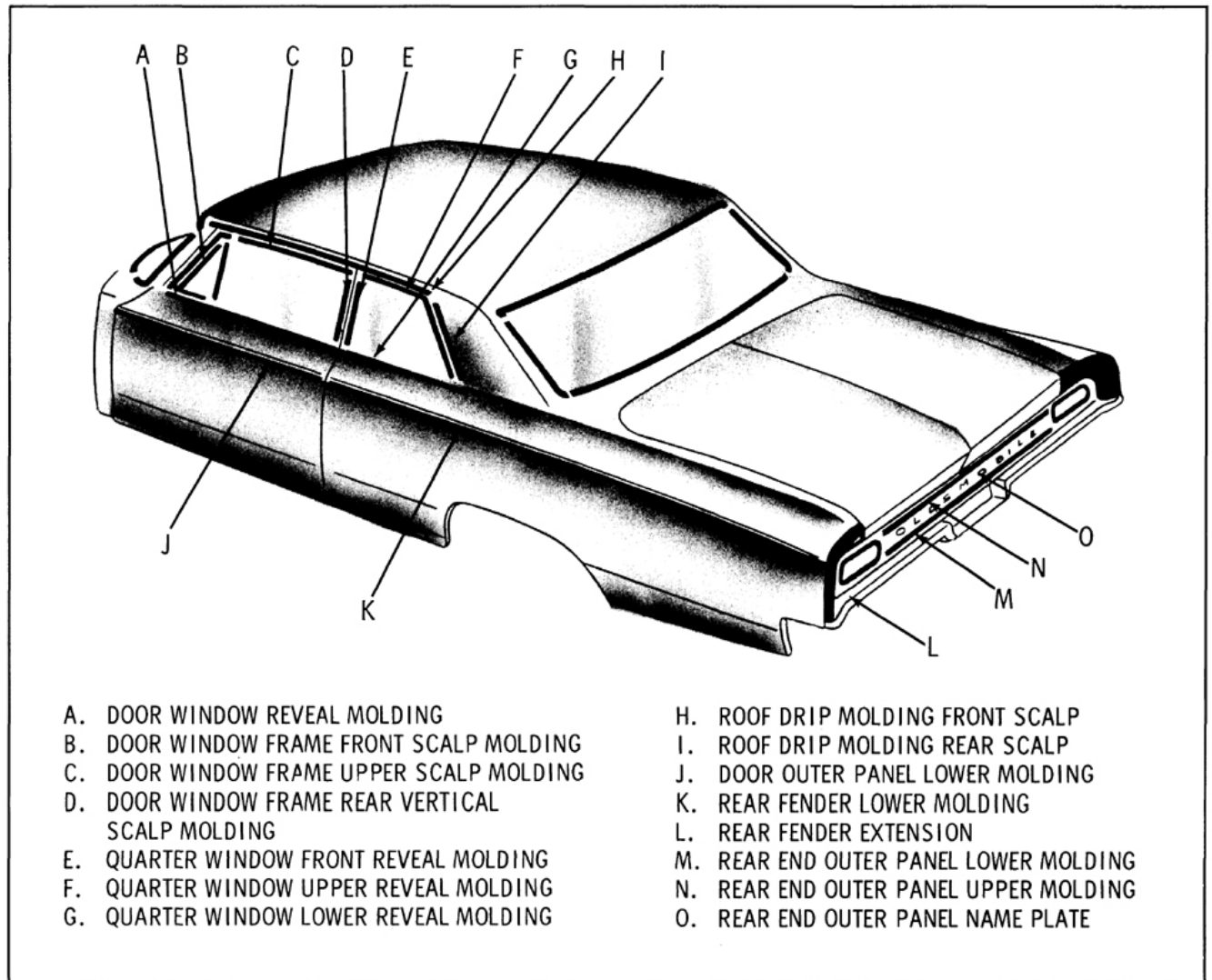
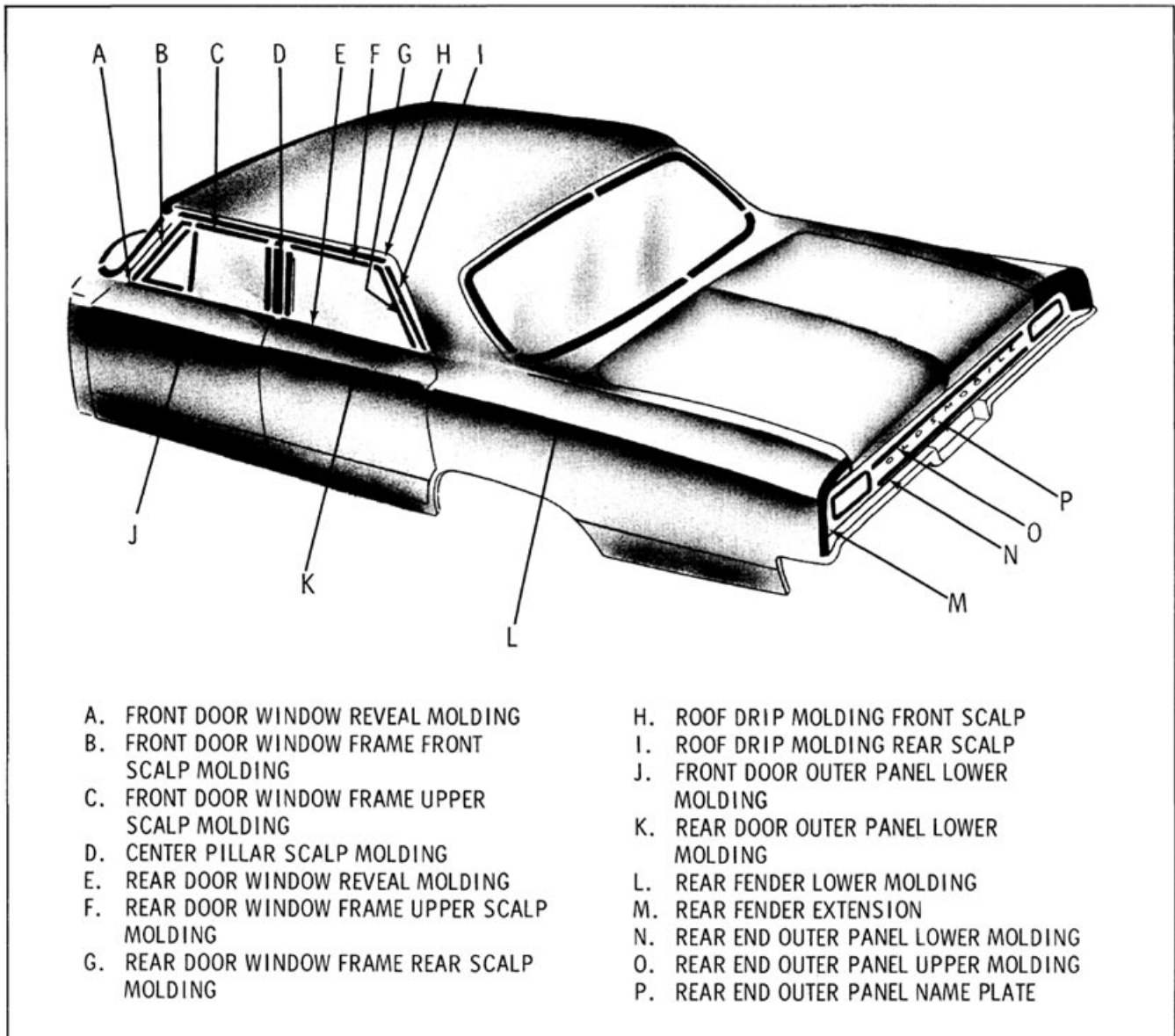


Fig. 16-393 Exterior Moldings (27 Style)



- | | |
|--|---|
| A. FRONT DOOR WINDOW REVEAL MOLDING | H. ROOF DRIP MOLDING FRONT SCALP |
| B. FRONT DOOR WINDOW FRAME FRONT SCALP MOLDING | I. ROOF DRIP MOLDING REAR SCALP |
| C. FRONT DOOR WINDOW FRAME UPPER SCALP MOLDING | J. FRONT DOOR OUTER PANEL LOWER MOLDING |
| D. CENTER PILLAR SCALP MOLDING | K. REAR DOOR OUTER PANEL LOWER MOLDING |
| E. REAR DOOR WINDOW REVEAL MOLDING | L. REAR FENDER LOWER MOLDING |
| F. REAR DOOR WINDOW FRAME UPPER SCALP MOLDING | M. REAR FENDER EXTENSION |
| G. REAR DOOR WINDOW FRAME REAR SCALP MOLDING | N. REAR END OUTER PANEL LOWER MOLDING |
| | O. REAR END OUTER PANEL UPPER MOLDING |
| | P. REAR END OUTER PANEL NAME PLATE |

Fig. 16-394 Exterior Moldings (69 Styles)

2. Disconnect motor-to-motor relay wire harness.
3. Remove nut securing relay to support and remove relay from seat assembly.
4. To install, reverse removal procedure.

EXTERIOR MOLDINGS

The exterior moldings are identified in Figures 16-393, 16-394, 16-395, and 16-396. The moldings are secured to the body by any one or a combination of the following attachments:

- a. attaching screws
- b. bolt and clip assemblies with attaching nuts
- c. integral studs with attaching nuts
- d. bathtub type snap-on clips
- e. snap-in studs to pre-installed retainers

- f. snap-in clips

Figure 16-393 illustrates typical attachments for body side moldings and cross sectional view for some scalp and reveal moldings.

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.

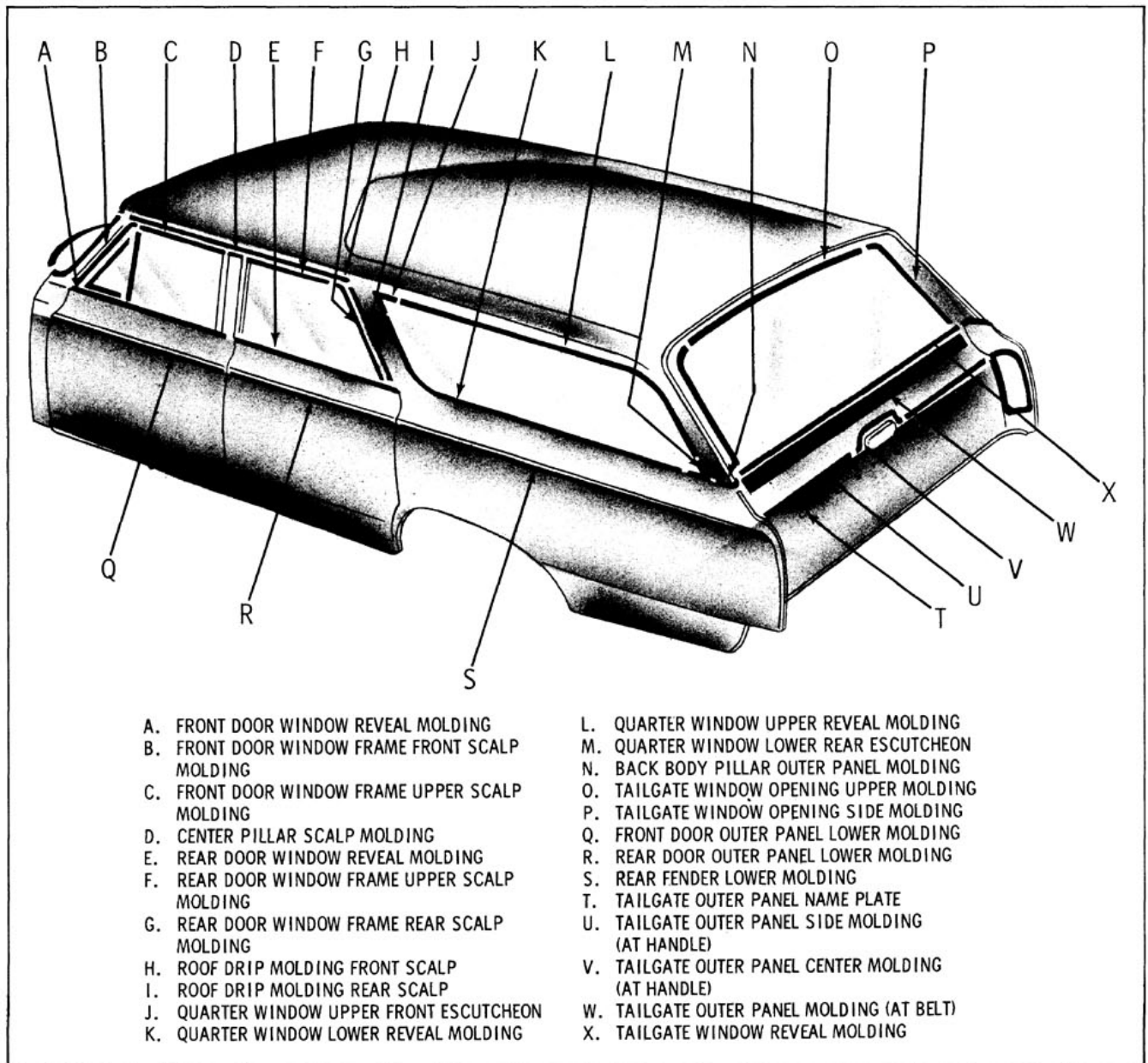


Fig. 16-395 Exterior Moldings (35 Styles)

GENERAL PRECAUTIONS

When removing or installing any body exterior molding, certain precautions should be exercised.

1. Adjacent finish should be protected with masking tape to prevent damage to finish.
2. Proper tools and care should be employed to guard against molding damage.

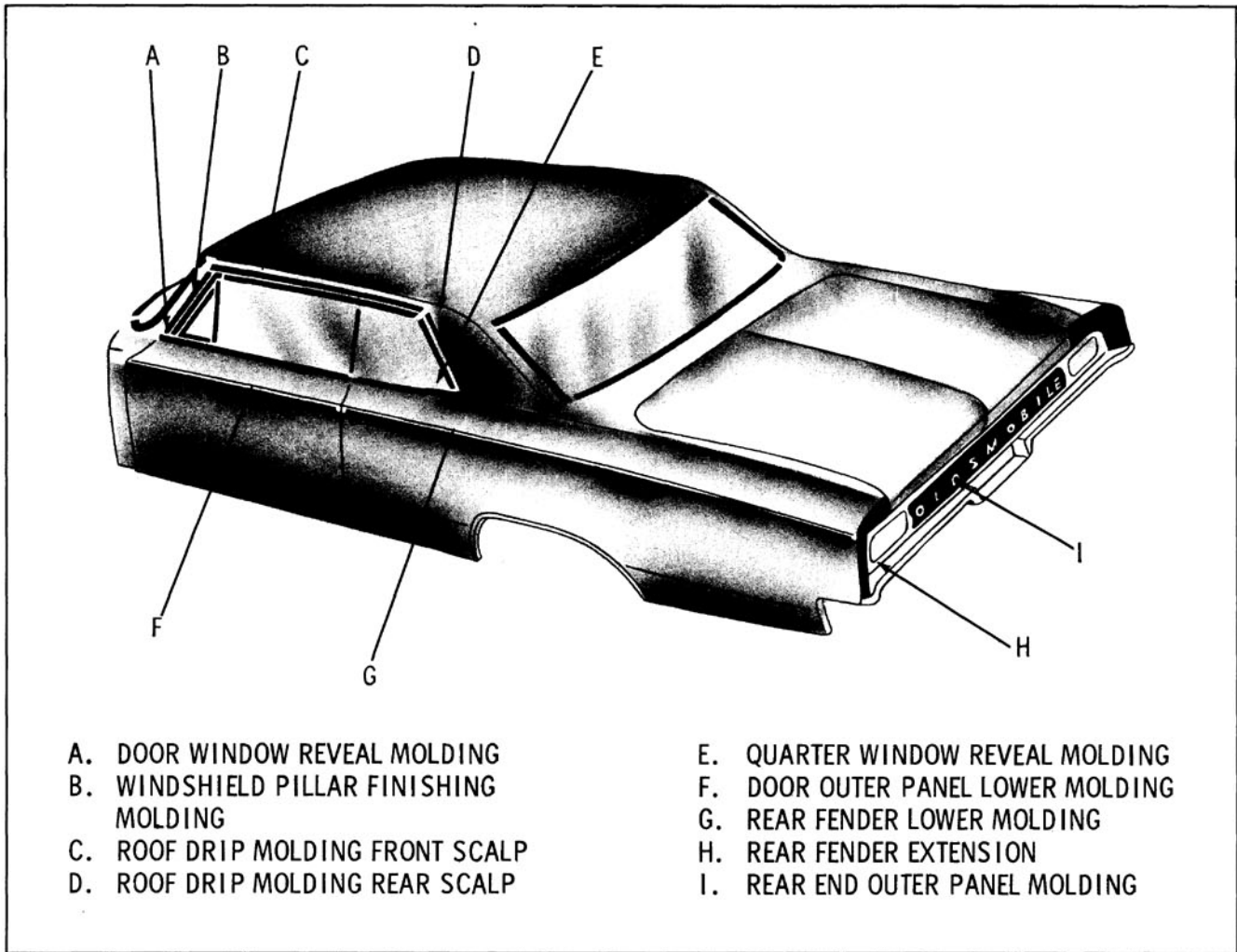
SEALING OPERATION

Although detailed sealing operations for each individual molding are not described on the "Molding Removal Chart" the following information is given to permit a satisfactory sealing operation.

Medium-bodied sealer or body caulking compound are the sealers most frequently used to provide a watertight seal or for anti-rattle measures.

Holes in body panels for screws, bolts, or clips that would permit water to enter the interior of the body should be sealed with body caulking compound or presealed screws, nuts or clips.

Drip moldings require a 1/4" bead of medium-bodied sealer along the full length of the inner attaching surface. Door window scalps and center pillar scalps require a 1/8" x 1/4" x 1/4" bead of caulking compound at 5" intervals for anti-rattle purposes. Pinchwelds require medium-bodied sealer on both sides when pinchweld clips are used. The exception is the rear quarter pinchweld on convertible styles which requires waterproof



- | | |
|---|---|
| <p>A. DOOR WINDOW REVEAL MOLDING
 B. WINDSHIELD PILLAR FINISHING MOLDING
 C. ROOF DRIP MOLDING FRONT SCALP
 D. ROOF DRIP MOLDING REAR SCALP</p> | <p>E. QUARTER WINDOW REVEAL MOLDING
 F. DOOR OUTER PANEL LOWER MOLDING
 G. REAR FENDER LOWER MOLDING
 H. REAR FENDER EXTENSION
 I. REAR END OUTER PANEL MOLDING</p> |
|---|---|

Fig. 16-396 Exterior Moldings (37 Style)

tape over the entire pinchweld, prior to clip installation.

TOOLS AND CARE

For ease of molding removal it is sometimes

important to start the removal at a particular location which is generally the "front" or "rear" of the molding. This position is indicated when necessary in the "Starting Location" column of the molding chart.

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

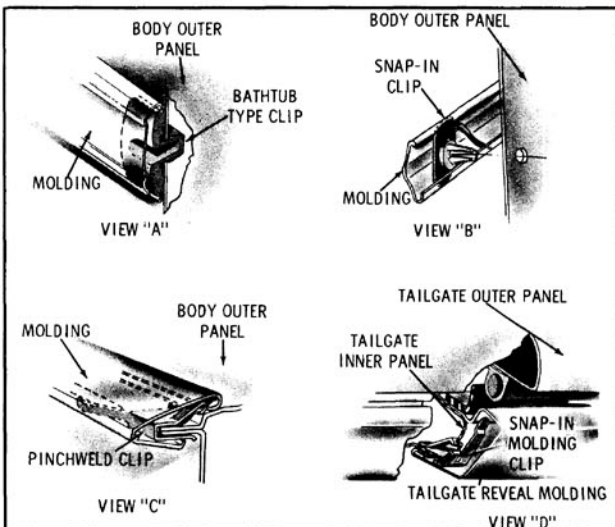


Fig. 16-397 Molding Attachment

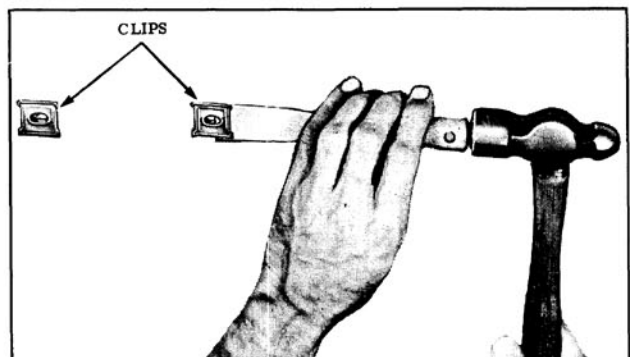


Fig. 16-398 Removing Bathtub Type Clip

OLDSMOBILE "A" EXTERIOR MOLDINGS

Molding Name	Styles	Method of Retention						Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts				
Windshield Pillar Finishing	27, 35, 69 37, 67	x x	- -	- -	- -	- -	- -	- -	- -	
Roof Drip Molding Front Scalp	27, 35, 37, 69	-	x	-	-	-	Weatherstrip and retainer	-	Rear lower inner edge	
Roof Drip Molding Rear Scalp	27, 35, 37, 69	-	x	-	-	-	Scalp escutcheon	-	Lower inner edge	
Roof Drip Molding Scalp Escutcheon	27, 35, 37, 69	-	x	-	-	-	-	-	-	
Front Door Window Frame Front Scalp	27, 35, 69	-	x	-	-	-	-	-	Upper inner edge	
Front Door Window Frame Upper Scalp	27, 35, 69	-	x	-	-	-	Front door window frame front scalp	-	Upper inner edge	
Front Door Window Frame Rear Vertical Scalp	27, 35, 69	-	x	-	-	-	Front door window frame upper scalp	-	-	
Front Door Window Reveal	Option on all styles	x	-	-	-	-	-	Door vent assembly and remove window lower stops	-	
Center Pillar Scalp	35, 69	x	-	-	-	-	-	-	-	

OLDSMOBILE "A" EXTERIOR MOLDINGS

Molding Name	Styles	Method of Retention						Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts				
Rear End Pinch Weld Finishing	67 Styles	-	-	x View C	-	-	Quarter pinch weld finishing	Rear quarter & rear end trim stock	-	
Front Door Outer Panel Lower	3100, 3200 3000 Opt.	x	-	x View A	-	-	-	-	-	
Rear Door Outer Panel Lower	3100 3000 Opt.	x	-	x View A	-	-	-	-	-	
Rear Fender Lower	3100, 3200 Except 35 Style 3000 Opt.	-	-	x View A	-	x	-	-	-	
	3135, 3035 Option	-	-	x View A	x View B	x	-	Spare tire cover & Lt. RR. Qtr. trim	-	
Rear End Panel	3237-67	-	-	-	-	x	-	-	-	
Rear End Outer Panel Upper	3127-69	-	-	-	-	x	-	-	-	
Rear End Outer Panel Lower	3127-69	-	-	-	-	x	-	-	-	
Rear End Outer Panel Name Plate	3027, 69 3127, 69	-	-	-	-	x	-	-	-	

OLDSMOBILE "A" EXTERIOR MOLDINGS

Molding Name	Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts			
Rear Door Window Frame Front Vertical Scalp	35, 69	-	x	-	-	-	Rear door window frame upper	-	-
Rear Door Window Frame Upper Scalp	35, 69	-	x	-	-	-	Rear door window frame rear	-	-
Rear Door Window Frame Rear Scalp	35, 69	-	x	-	-	-	-	-	-
Rear Door Window Reveal	Option on 35, 69	x	-	-	-	-	-	Remove door trim and window lower stops	-
(NOTE: Quarter window moldings on 35 styles are covered in rear quarter section due to glass installation)									
Quarter Window Front Reveal	3027 Opt. 3127 Std.	-	-	x	-	-	Quarter window upper reveal	-	-
Quarter Window Upper Reveal	3027 Opt. 3127 Std.	-	-	x	-	-	-	-	-
Quarter Window Lower Reveal	27, 37 Opt. 67 Std.	x	-	-	-	-	-	Lower quarter window	-
Quarter Belt Reveal	27, 37	-	-	-	x	x	-	-	Rear compt. Front att. screw
Quarter Pinch Weld Finishing	67 Styles	x	-	x	-	View C	Quarter window lower reveal	Rear quarter & rear end trim stick	-

OLDSMOBILE "A" EXTERIOR MOLDINGS

Molding Name	Styles	Method of Retention					Engages With Other Moldings	Remove Hardware Or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-On Clips Or Retainers On Panel	Snap-On Clips On Molding	Studs With Attaching Nuts			
Tailgate Outer Panel at Belt	3135	-	-	-	-	x	Tailgate window	-	
Tailgate Emblem and/or Name Plate	3035 3135	-	-	-	-	x	Tailgate window and regulator	-	
Tailgate Outer Panel Center at Handle	3135	x	-	-	-	-	-	-	
Tailgate Outer Panel Side at Handle	3135	-	-	-	-	x	Tailgate window and regulator	-	
Tail Gate Window Reveal	3035 3135	x	-	-	x View D	-	-	-	
Tail Gate Window Opening Upper Reveal	3035 3135	x	-	-	-	-	Tailgate window opening side	-	
Tailgate Window Opening Side Reveal	3035 3135	x	-	-	-	-	Tailgate window opening upper	-	
Back Body Pillar Outer Panel Finishing	3035 3135	x	-	x	-	-	Quarter window reveal lower molding and escutcheon	-	

Door Window Scalps - thin flat-bladed tool (putty knife)

Snap-on Clips - thin flat-bladed tool (putty knife)

If it is necessary to replace a damaged "bathtub" 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. 16-398) then disengage clip from hole.

NOTE: In some cases, it may be necessary to cut clip at opposite end of base also.

2. No special tool is needed to install new plastic, "bathtub" type clip.

ELECTRICAL

TAILGATE WINDOW CIRCUIT

The station wagon style power operated tailgate dropping window is controlled by a window regulator equipped with a rectangular shaped, 12-volt DC, reversible direction motor with an internal circuit breaker and a self-locking gear drive. The current for the motor is obtained through the circuit breaker located on the dash panel of

the engine compartment.

In addition to the circuit breaker, a relay is used in the circuit and installed at the shroud. The relay prevents the operation of the tailgate window from the instrument panel switch until the ignition switch is turned ON.

The window may be lowered from the instrument panel control switch, or from the tailgate window lock cylinder which rotates to open or lower the window.

The tailgate window harness is a separate harness that runs adjacent to the body wire and consists of two major sections. The front section of flat wire extends from the left side of the shroud (fire wall), rearward and connects to the rear harness at the right rear quarter area. (Figs. 16-399, 16-400, 16-401, 16-402 and 16-403)

To prevent the window from being operated to the up position when the tailgate has been lowered, a safety switch is located adjacent to the right tailgate lock. The safety switch opens the ground circuit of the tailgate window motor, making it inoperative.

Checking Procedure

Before performing an intensive checking procedure to determine any failure of the circuit,

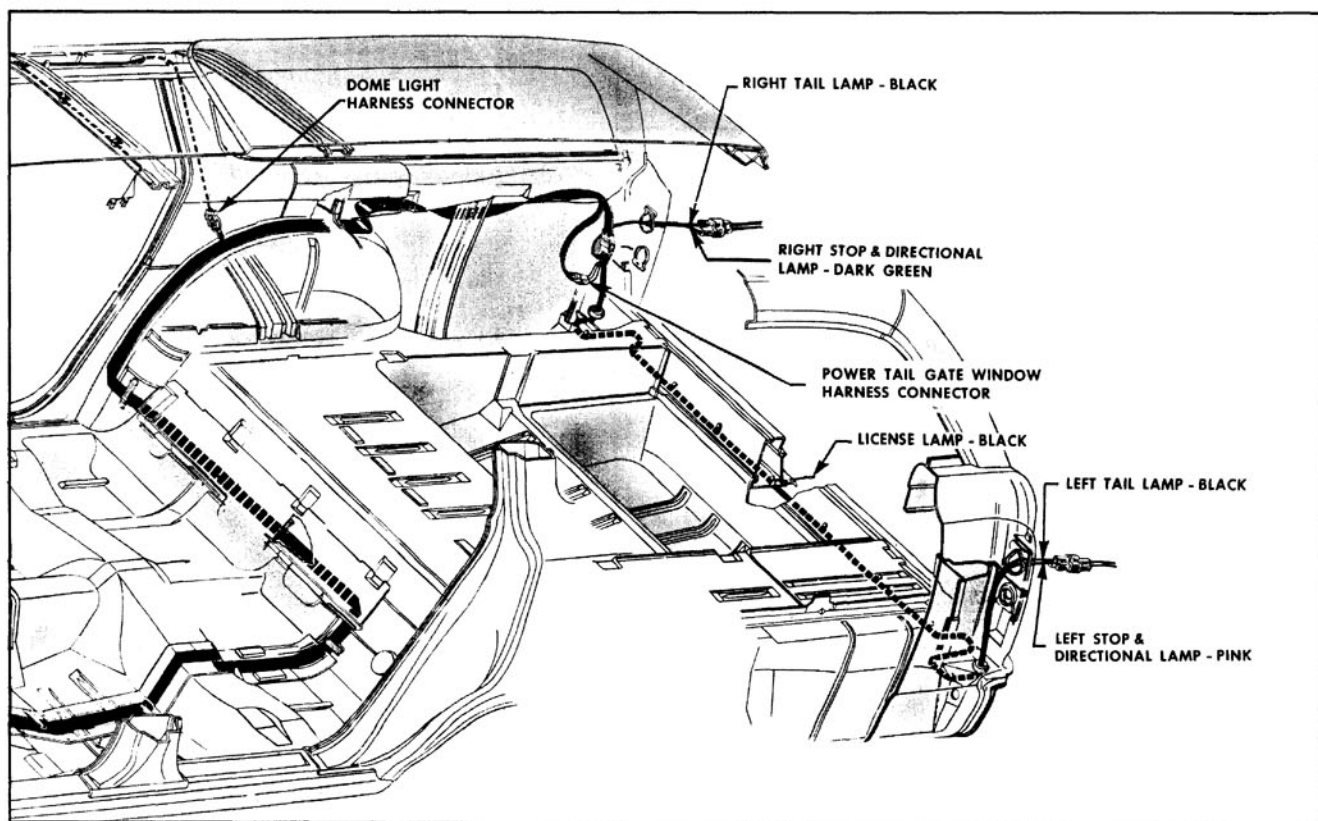


Fig. 16-399 Right Side and Tailgate Wiring

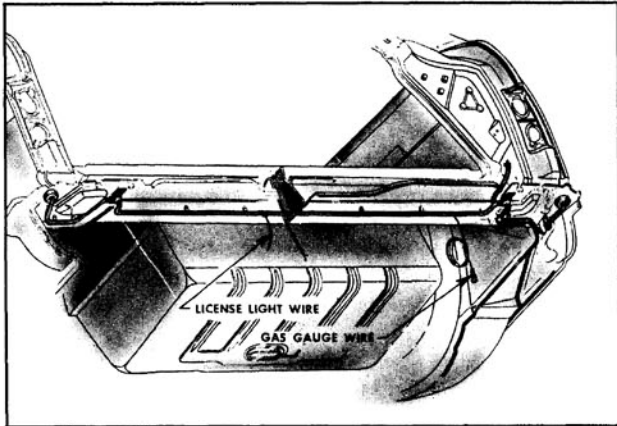


Fig. 16-400 Rear Cross Bar Wiring

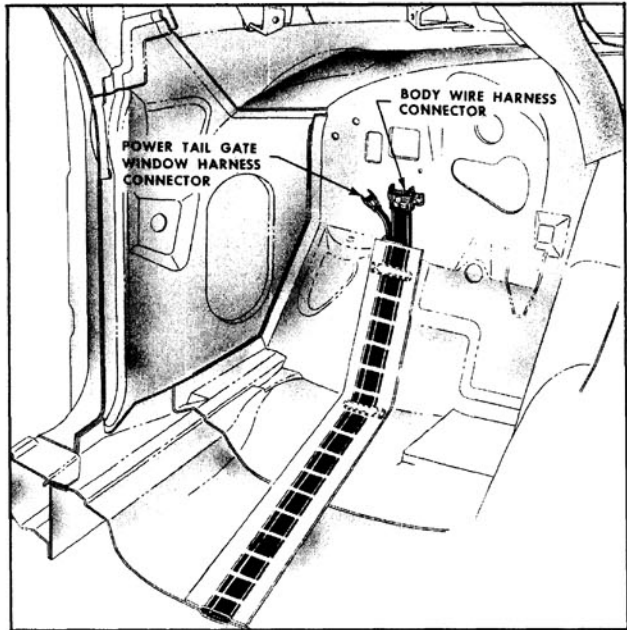


Fig. 16-401 Tailgate Wiring

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 diagram of the power window circuit. (Fig. 16-403)

A. Checking Feed Circuit Continuity at Circuit Breaker.

1. Connect one light tester 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 light tester lead to the output terminal and ground other lead. If tester does not light, circuit breaker is inoperative.

B. Checking Relay Assembly at Shroud.

1. With light tester, check relay feed. If tester does not light, there is an open or short circuit between relay and circuit breaker.

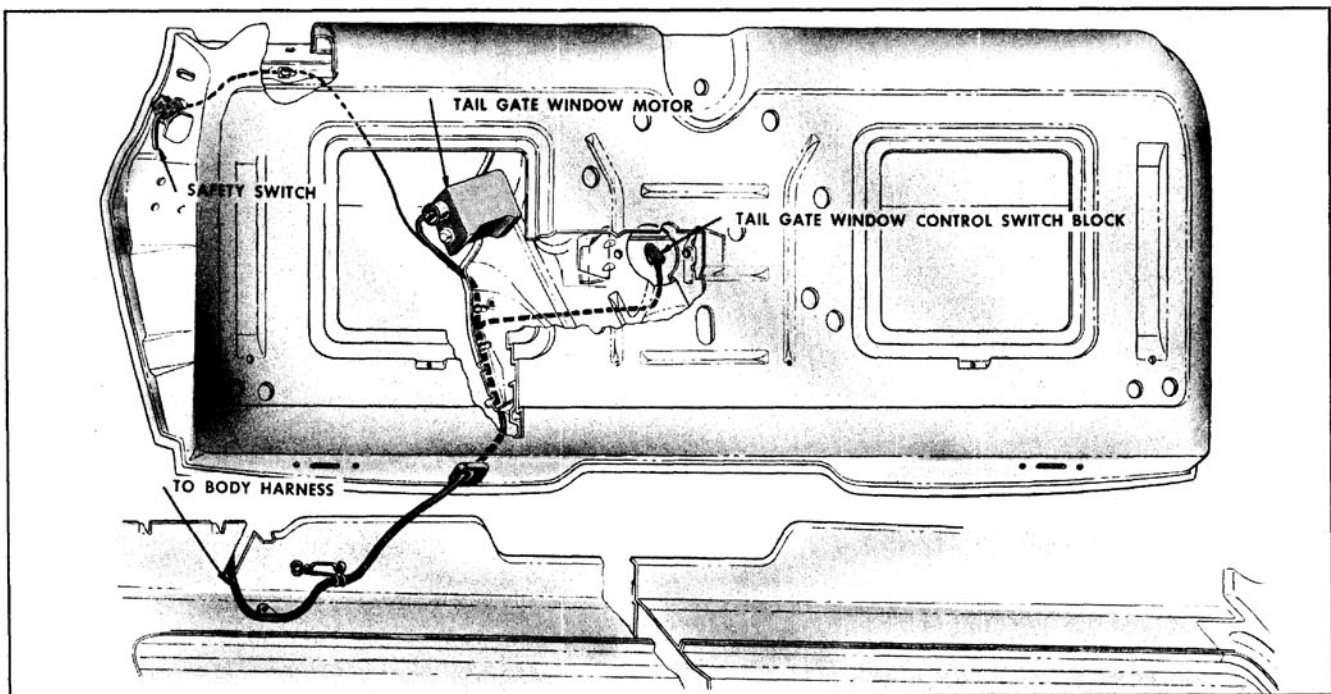


Fig. 16-402 Tailgate Wiring Installation

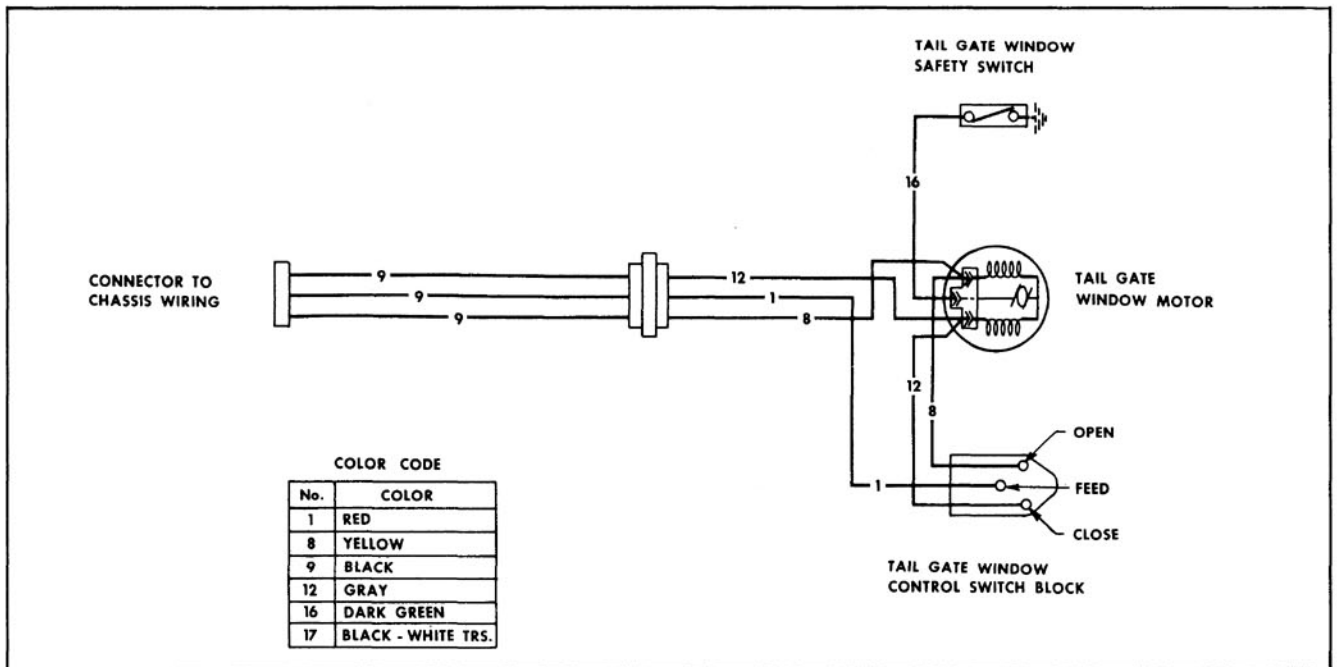


Fig. 16-403 Tailgate Window Circuit

- Turn ignition switch ON and with light tester, 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

- Disengage harness connector from switch. Connect one light tester 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.

NOTE: See Section 13 for instrument panel switch wiring.

D. Checking Control Switch at Instrument Panel

- Disengage harness connector from switch.
- Use a 12-gauge jumper wire and insert one end into the red wire (feed) terminal and the other end into one of the other terminals. Tailgate window motor should operate.
- Repeat procedure for the other terminals. If the tailgate window motor operates with the jumper wire but does not operate with the control switch, the switch is defective.

E. Checking Control Switch on Tailgate

Remove tailgate switch and escutcheon as described in TAILGATE 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 Tailgate Window Motor

- Disconnect harness connector from motor.
- Connect the positive side of power source to the gray wire terminal (close cycle) on the motor connector and the negative lead to the dark green (ground) wire terminal. Motor should operate. To check the reverse operation of the motor connect the power source to the yellow wire terminal (open cycle). If motor does not operate in both directions, repair or replace motor.

G. Check Operation of Safety Switch

- With tailgate open, depress switch arm to stimulate the tailgate 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.
- 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.

TAIL GATE WINDOW DIAGNOSIS

CONDITION	CAUSE	CORRECTION
Window operates up and down from the tailgate switch, but will not operate from the switch at the instrument panel.	Open or short circuit from power source to control switch at instrument panel. Defective or inoperative control switch.	Check wiring for open or short circuit and check connector at switch for proper installation. Check operation of switch.
With tailgate closed, the window operates downward but does not operate upward when the switch at the instrument panel or tailgate is actuated.	Open or short circuit in up cycle feed wire.	Check affected wiring for open or short circuit.
The window will not operate up or down from any of the control switches.	Open or short circuit from power source to switches or motor. Safety switch not connected or poor ground. Mechanical bind or failure in tailgate window regulator mechanism. Defective tailgate window regulator motor.	Check operation of circuit breaker. Check affected circuit for open or short circuit. Check connectors to safety switch and motor for proper engagement. Check tailgate mechanical parts for bind or failure. Check operation of tailgate motor.

POWER WINDOWS

The wiring harness for the electrically operated windows consists of four major sections.

Front Cross-Over Harness - This harness is installed beneath the instrument panel and completes the circuit from the right door to the left door windows. (Fig. 16-404)

Feed Harness for Quarter Windows - This harness of flat wire construction connects to the front crossover harness on the left side of the shroud (firewall) and extends rearward under the flat body wire harness. The harness divides at the rear of the rear seat on coupe styles (Fig. 16-405) and at the rear of the front seat on four-door styles (Fig. 16-406).

It is to be noted that the flat body wiring harness is positioned on top of the power window wire harness and the front connector of the body wire harness is in a lower position.

Quarter Window Harness - The left and right

round wire harness connects to the main flat feed harness behind the rear quarter arm rest foundation on convertible styles (Fig. 16-405) and under the rear seat cushion on 27 and 37 styles (Fig. 16-407).

Rear Door Window Harness - The left and right rear door harness connects to the main flat feed harness in the base of the center pillar. (Figs. 16-406 and 16-408) To disengage the connector, pull harness inboard at base of center pillar.

Power windows are optional equipment and 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.

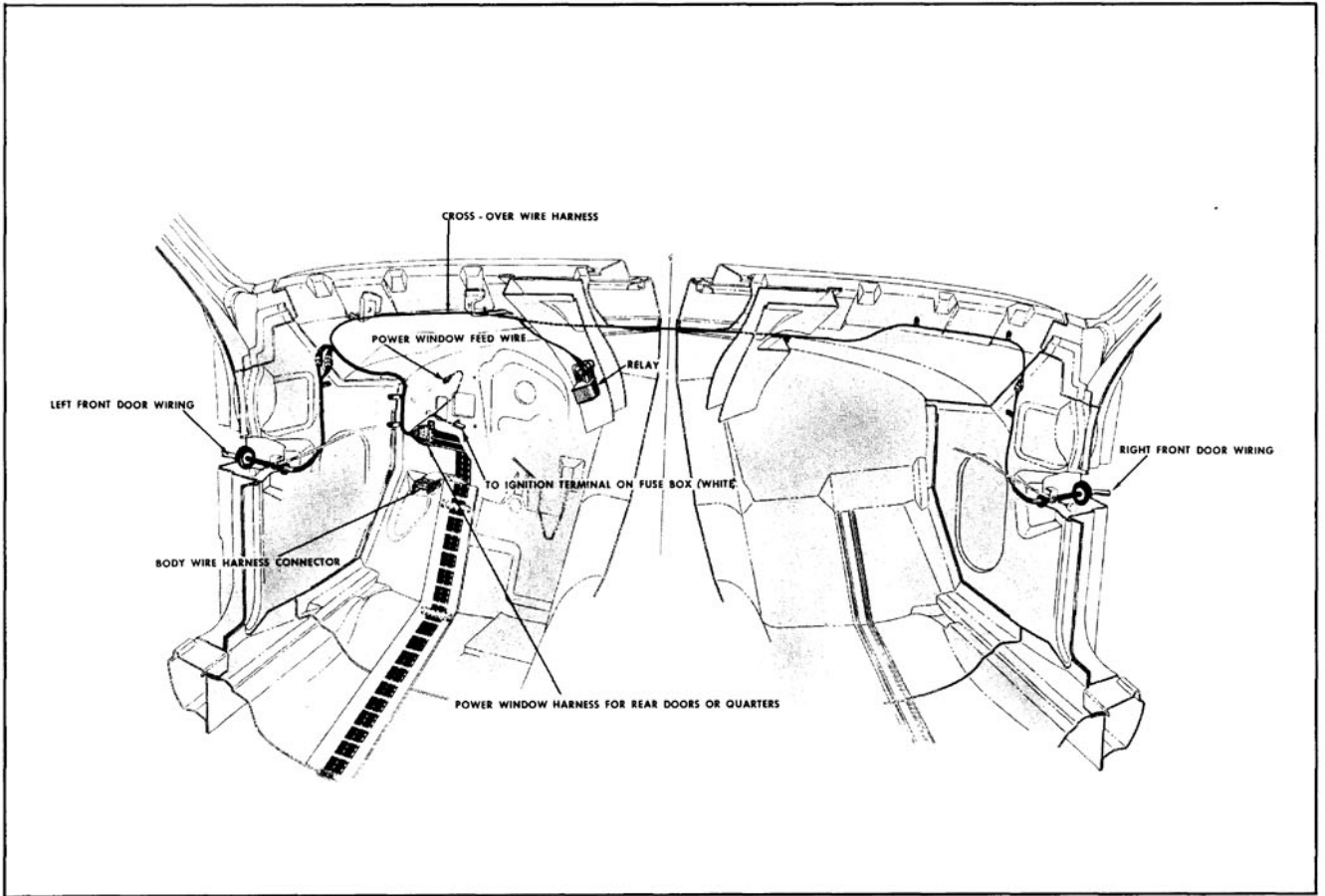


Fig. 16-404 Front End Power Window Wiring

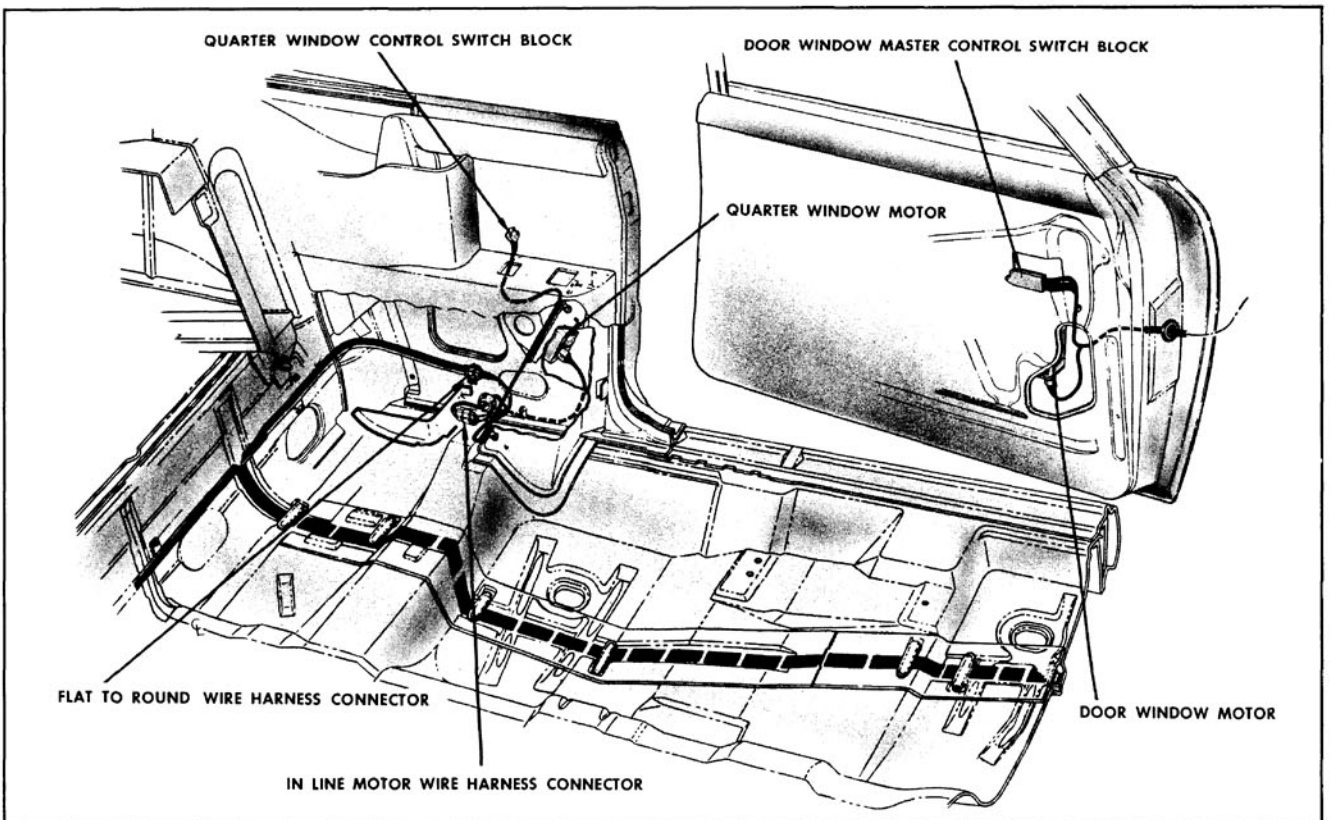


Fig. 16-405 Left Side Window Wiring (67 Style)

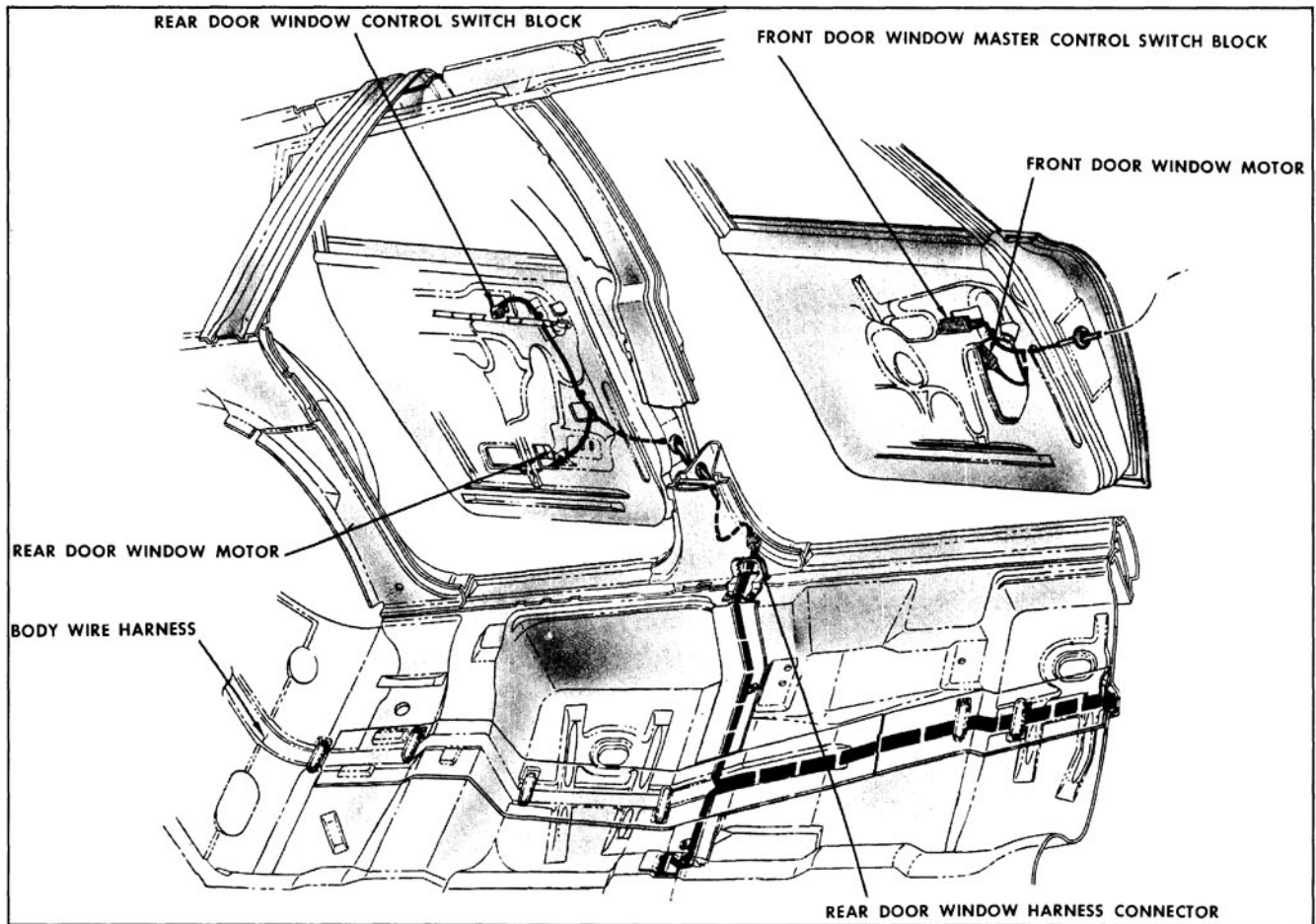


Fig. 16-406 Left Side Window Wiring (4-D Style)

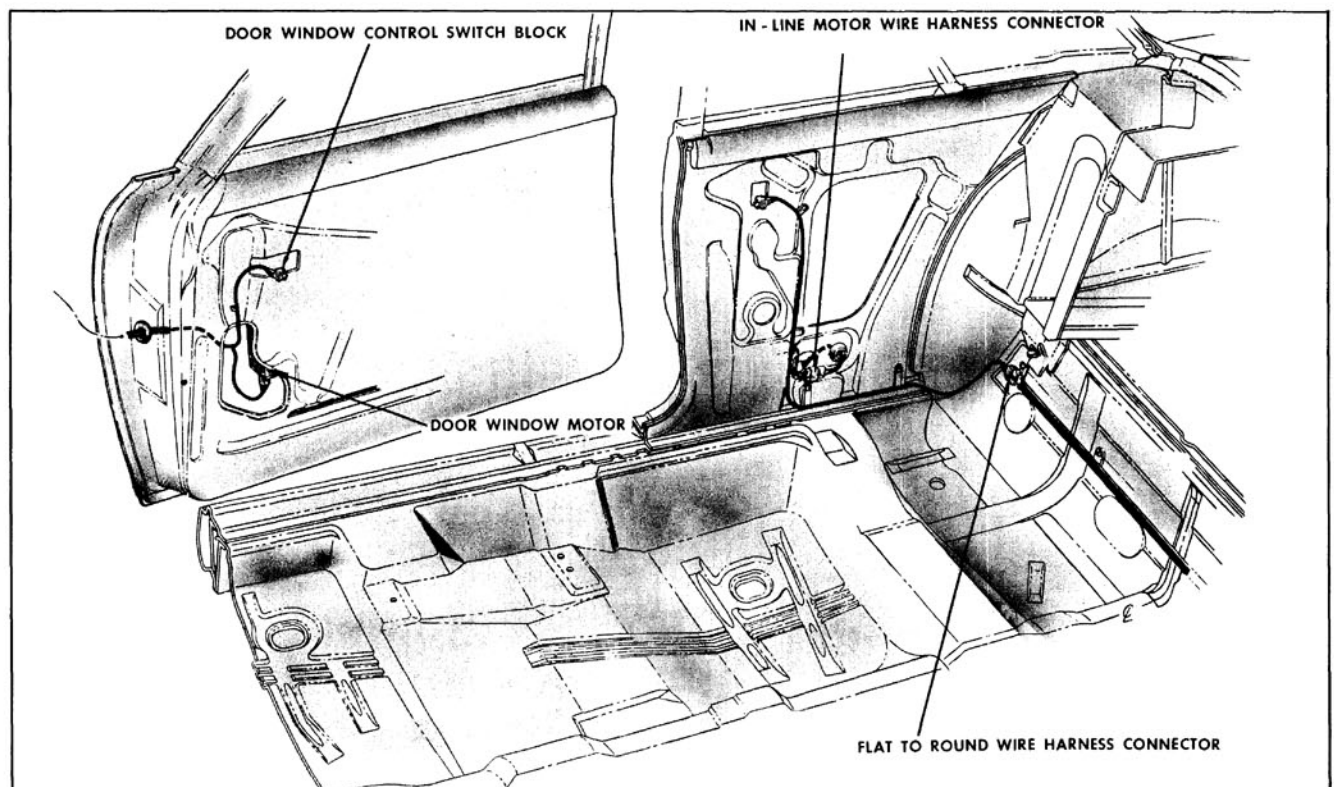


Fig. 16-407 Right Side Window Wiring (27 - 37 Style)

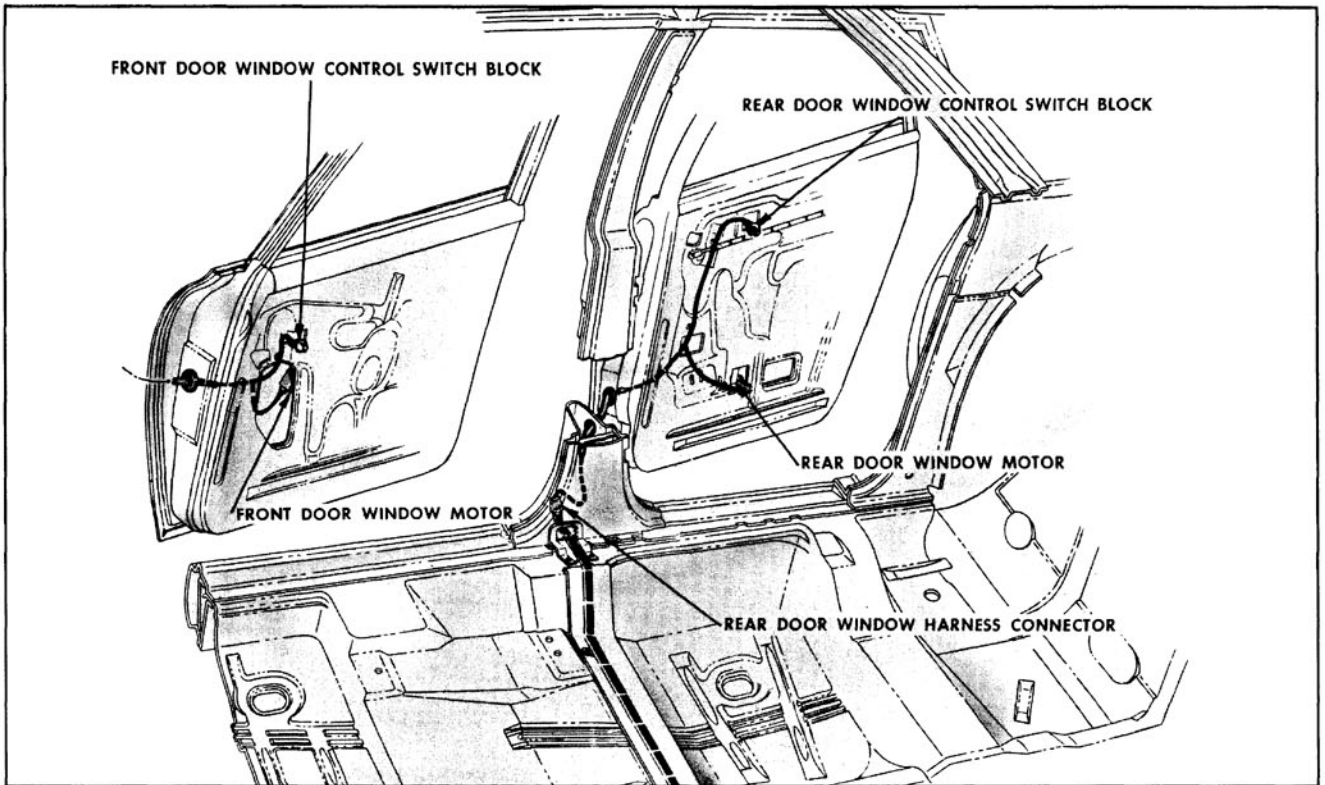


Fig. 16-408 Right Side Window Wiring (4-D Style)

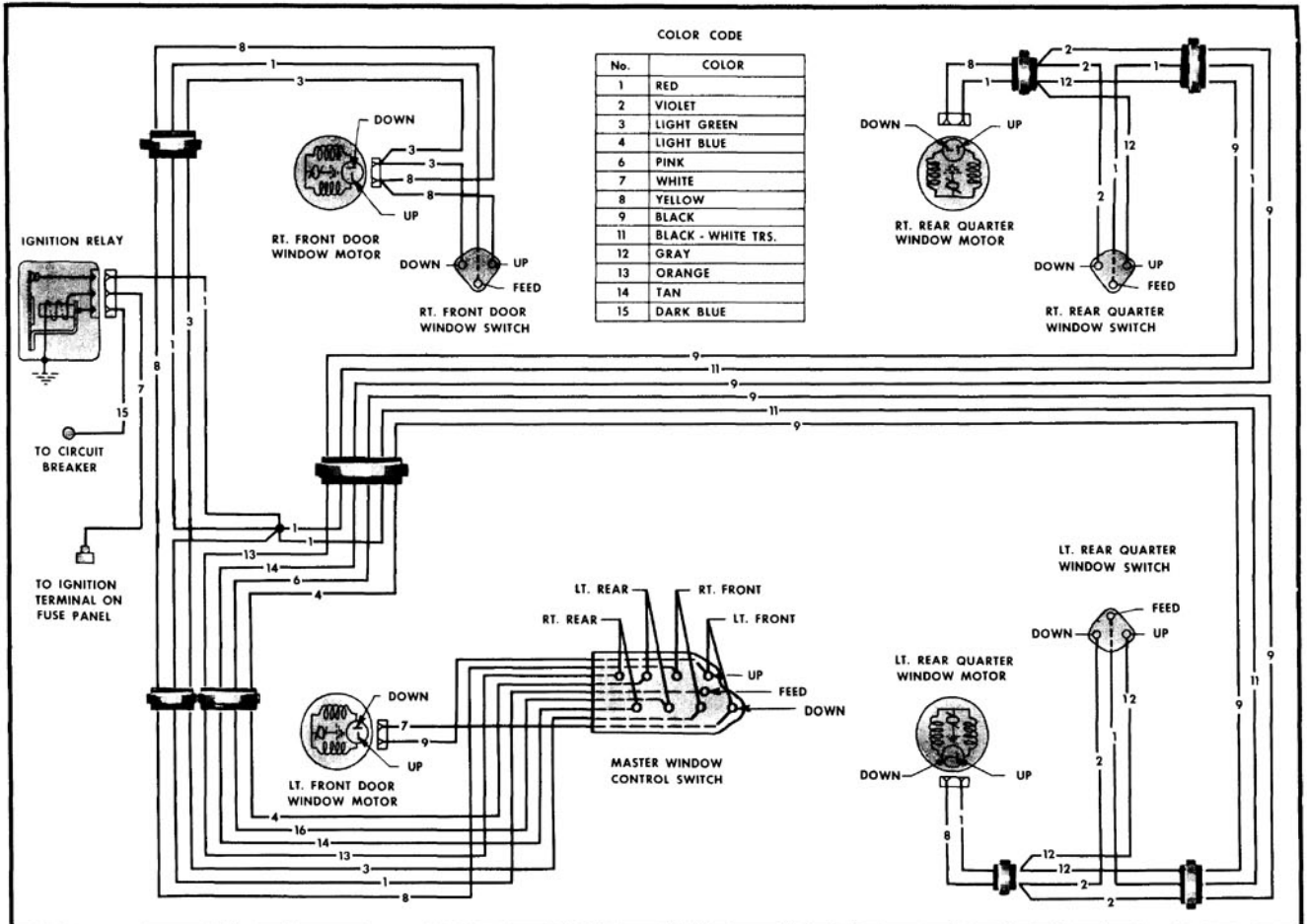


Fig. 16-409 Power Window Circuit

The rear quarter window motor is designed with a locking type wire harness connector which should not be disengaged. When testing or removing the quarter window motor, the inline wire harness connector located inboard of the quarter inner panel should be disengaged. Tests are made at this location.

The current for the motor is obtained through the circuit breaker, located on the dash panel of the engine compartment.

In addition to the circuit breaker, a relay is used in the circuit and installed under the instrument panel. The relay prevents the operation of the power windows until the ignition switch is turned ON.

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 circuit diagram. (Fig. 16-409)

A. Checking Feed Circuit Continuity at Circuit Breaker

1. Connect one light tester 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 the output feed wire from the breaker, connect one lead of the light tester to terminal from which wire was disconnected and ground other tester lead. If tester does not light, circuit breaker is inoperative.

B. Checking Relay Assembly at Shroud

1. With light tester, check relay feed (dark

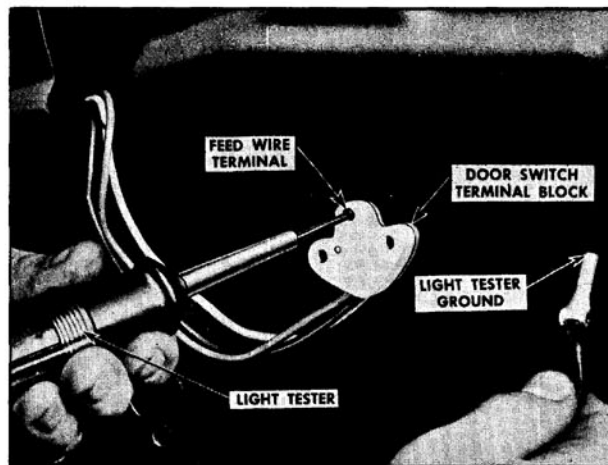


Fig. 16-410 Checking at Window Switch

blue wire terminal). If tester does not light, there is an open or short circuit between relay and circuit breaker.

2. Turn ignition switch ON and with light tester, check output terminal of relay (red wire terminal). If tester does not light, the relay is inoperative or there is a short or open circuit between ignition switch (white wire) and relay assembly. (Check fuse at dash panel.)

C. Check Feed Circuit Continuity at Window Control Switch Block.

1. Connect one light tester lead to feed terminal of switch block and ground other tester lead to body metal. (Fig. 16-410)
2. If tester does not light, there is an open or short circuit between switch and power source.

D. Checking Window Control Switch

1. Insert one end of a No. 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. (Fig. 16-411)

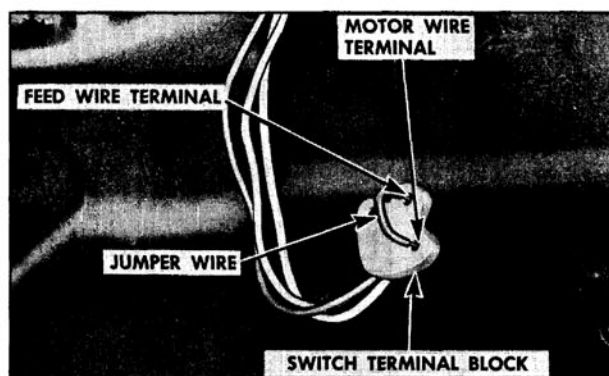


Fig. 16-411 Checking Window Control Switch

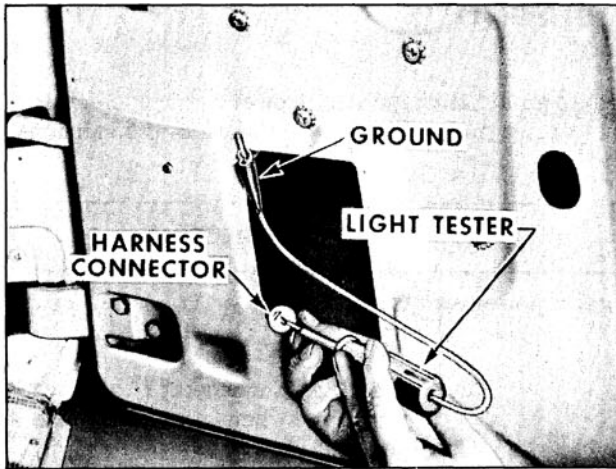


Fig. 16-412 Checking Wiring Between Switch and Motor

2. If the motor operates with the jumper wire but does not operate with the switch, the switch is defective.

E. 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 No. 12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block. (Fig. 16-411)
3. With test light, check for current at terminal being checked. If tester does not light, there is an open or short circuit in the harness between the control

switch and motor connector. (Fig. 16-412)

4. Check other terminal.

F. Checking Wires Between Quarter Window Switch and Quarter Window Motor

1. Disengage the inline connector located inboard of the quarter inner panel.
2. Insert one end of a No. 12 gauge jumper wire in the switch feed terminal and the other end in one of the motor lead terminals of the switch block. (Fig. 16-411)
3. With a test light, check for current at the corresponding terminal at the inline motor connector. If tester does not light, there is an open or short circuit between control switch and motor connector.

4. Check other terminal.

G. Checking Window Motor

1. Check window regulator and channels for possible mechanical bind of window.
2. Check attachment of window motor to insure an effective ground.
3. Connect one end of a No. 12 gauge jumper wire to the power source and the other end to one of the terminals on the door window motor or the inline connector for the quarter window motor.
4. If the motor fails to operate with a jumper wire, the motor is defective and should be repaired or replaced as required. Check the other motor lead in the same manner.

POWER WINDOW DIAGNOSIS

The following conditions and corrections have been listed as an aid in diagnosing power window electrical circuits. It should be noted that multiple conditions in the circuit may lead to a combination of conditions, each of which must be checked separately.

CONDITION	CAUSE	CORRECTION
None of the windows will operate.	Short or open circuits in power feed circuit.	Check circuit breaker operation. Check feed connector to power harness beneath instrument panel.
Right rear quarter window does not operate from master control switch on left door or from control switch on right rear quarter. Left door window operates.	Short or open circuit between right rear quarter harness and power window front harness. Short or open circuit in affected window control switch or window motor circuit. Possible mechanical failure or bind in window channels. Defective window motor.	Check harness connectors for proper engagement. Check wires in power window front harness for possible short or open circuit. Check operation of rear quarter window control switch. Check circuit from window control switch to window motor for short or open circuit. Check window regulator and channels for possible mechanical failure or bind. Check operation of motor.
Right side windows will operate from left door master control switch but will not operate from right side control switches. Left side 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.

FOUR-WAY TILT SEAT

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. Fig. 16-413 for bench type and Fig. 16-414 for bucket seat installation.

The seat motor is energized by toggle-type control switch installed in the left seat side panel.

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and four drive cables on bench type seats and two drive cables on bucket seats, leading to the seat adjusters. One solenoid controls the rear 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 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. When 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.

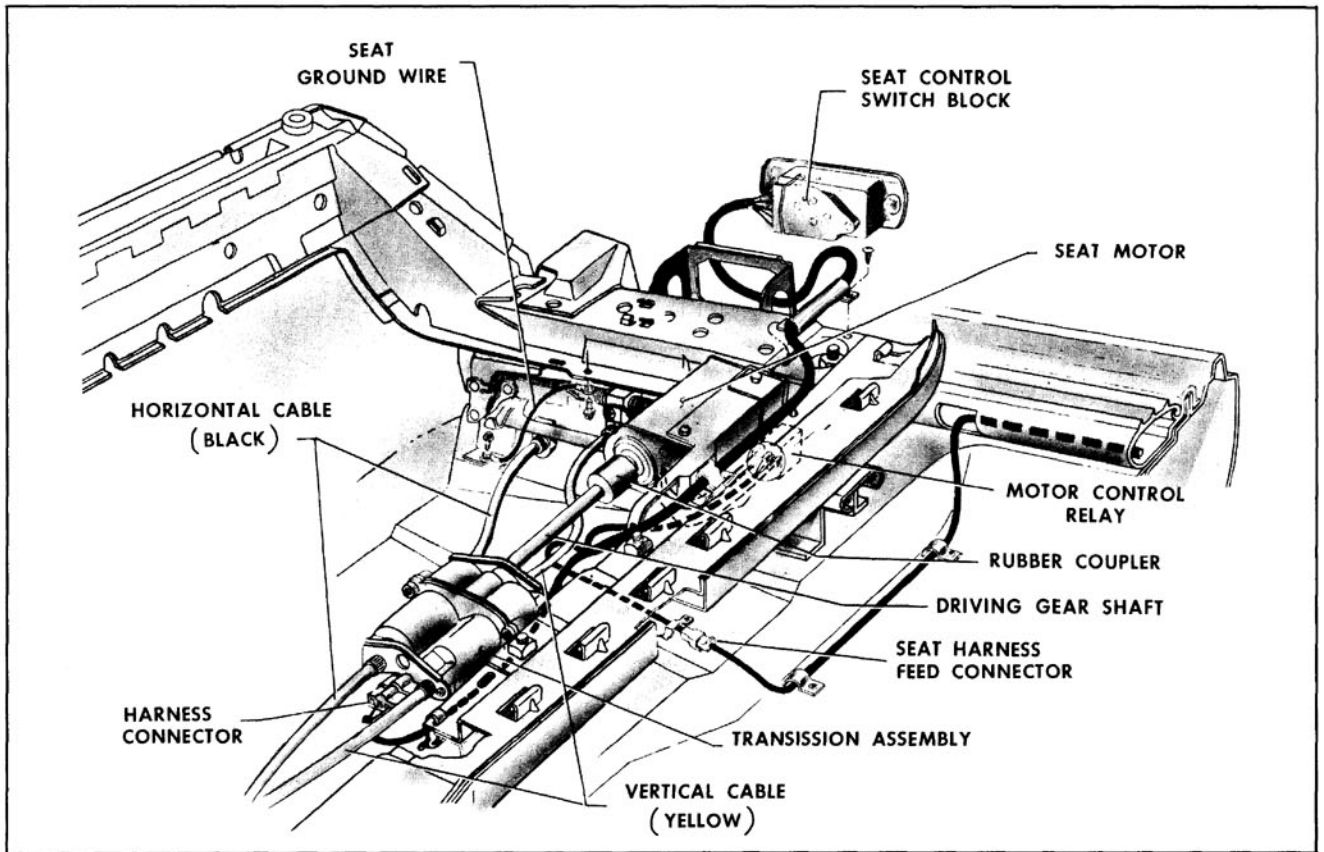


Fig. 16-413 Full Width (Four-Way)

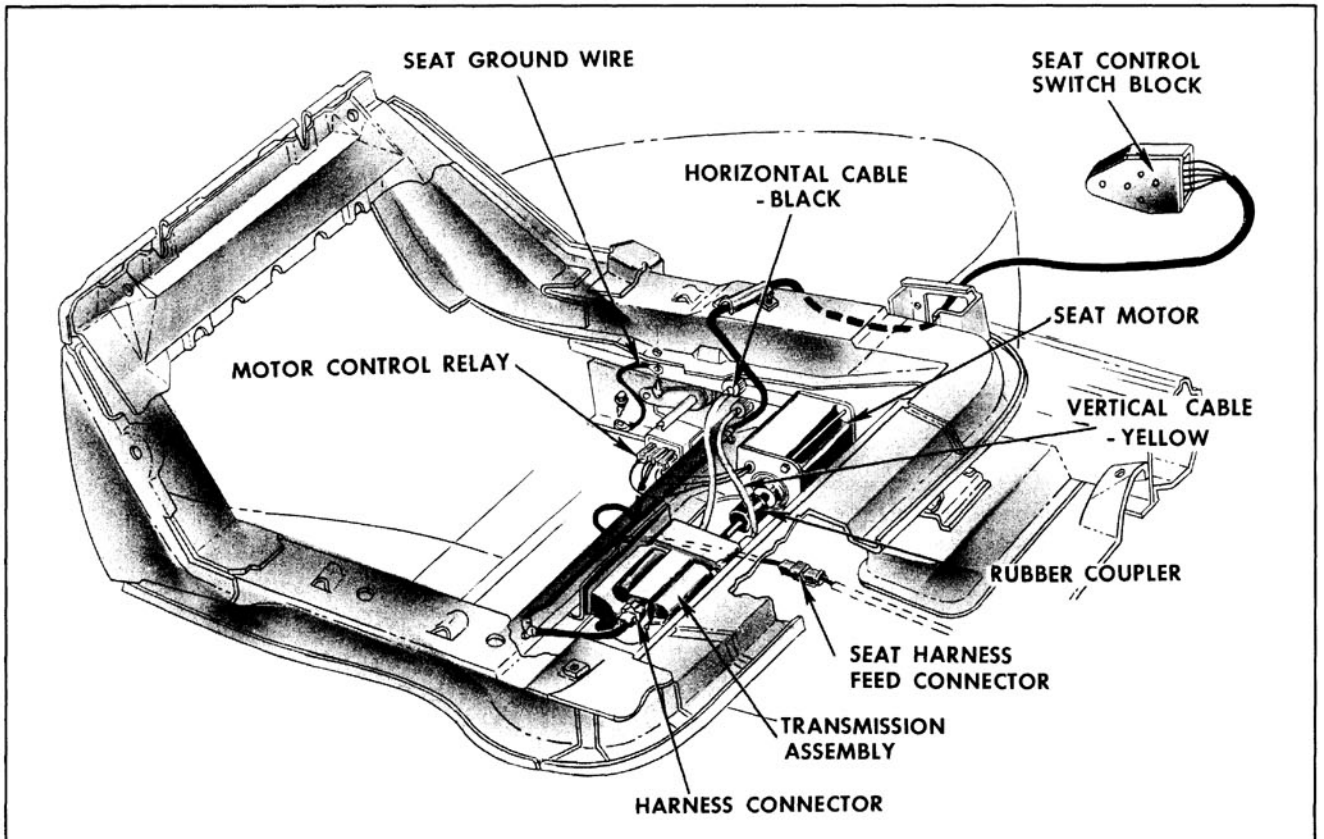


Fig. 16-414 Bucket Seat (Four-Way)

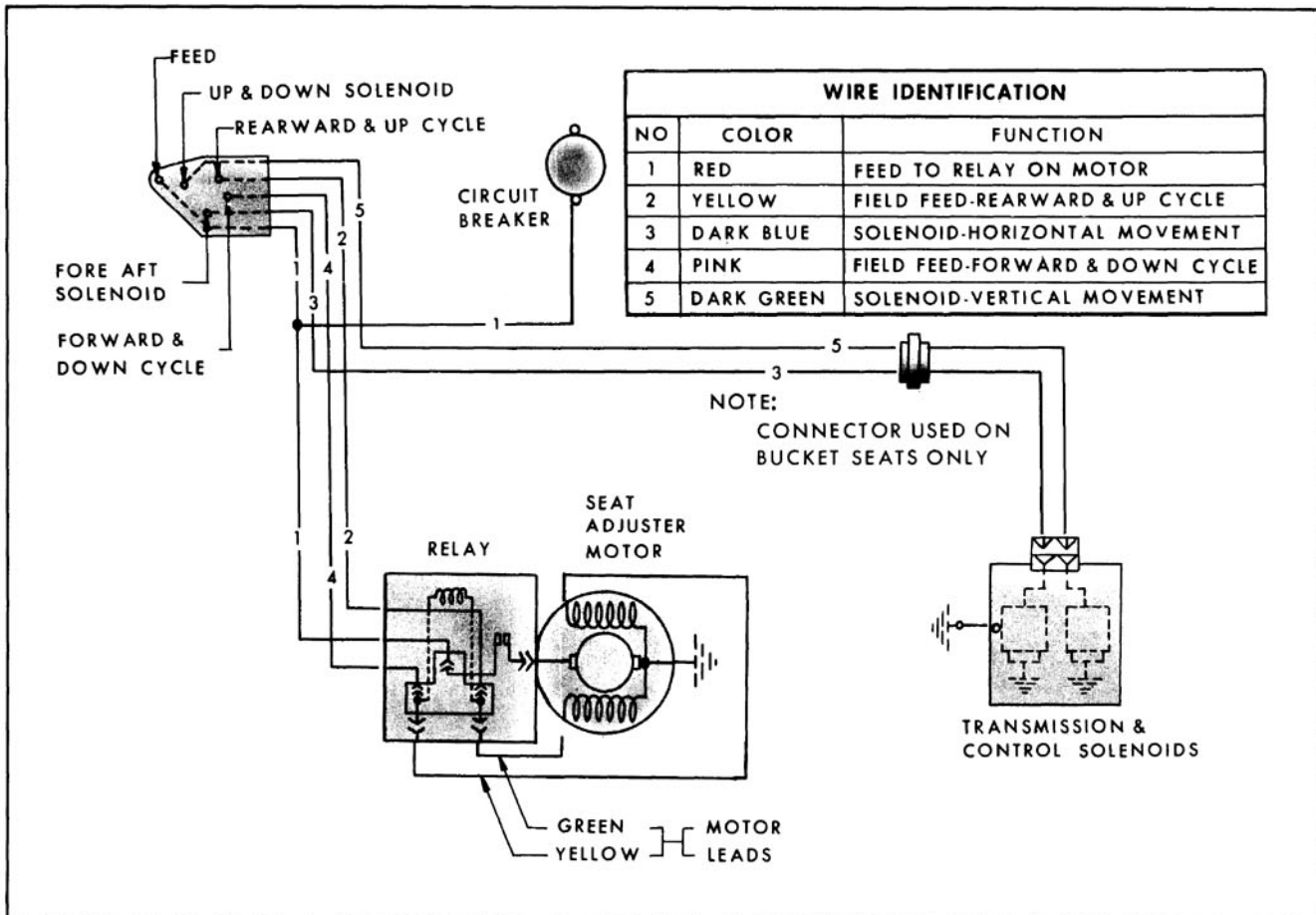


Fig. 16-415 Four-Way Seat Circuit

CHECKING PROCEDURE (4-WAY SEAT)

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. (Fig. 16-415)

1. Checking for Current at Circuit Breaker

- Connect one light tester lead to battery side of circuit breaker and ground other lead. If tester does not light, there is no current at battery side of circuit breaker.
- To check circuit breaker, disconnect switch feed wire from breaker and with a light tester, check for current at switch side of circuit breaker. If tester does not light, there is no current flowing through circuit breaker.

2. Checking Feed Circuit Continuity at Relay on Seat Motor

- Disengage three-way connector body from the seat motor relay.
 - Insert one light tester lead into the relay power feed (red wire) 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.
- 3. Checking for Current at Seat Control Switch**
- Connect one light tester lead to feed terminal of switch block and ground other light tester 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.
- 4. 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

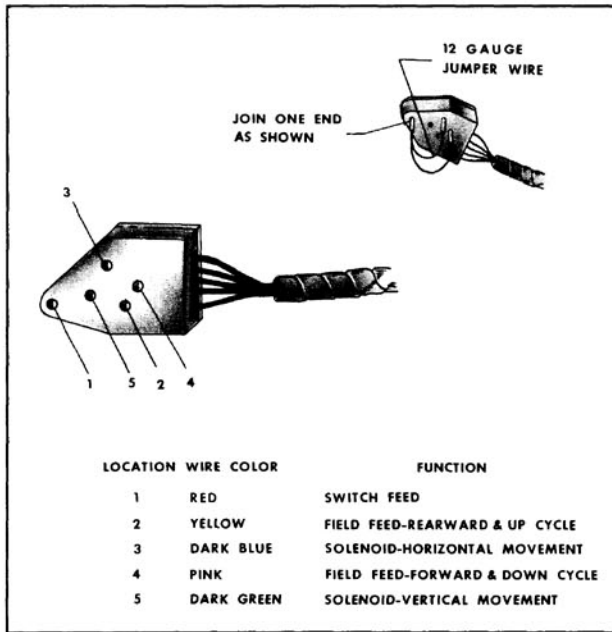


Fig. 16-416 Four-Way Switch Block

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 Fig. 16-416. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.

NOTE: To make jumper wire, obtain two pieces of No. 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.

- A. Obtain switch or jumper wire and connect to switch block.
- B. 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:

1. To raise seat, place jumper wire in locations 1, 2 and 5.
2. To lower seat, place jumper wire in locations 1, 4 and 5.

3. To operate seat forward, place jumper wire in locations 1, 3 and 4.

4. To operate seat rearward, place jumper wire in locations 1, 2 and 3.

5. Checking Wires Between Control Switch and Motor Relay

- A. Disengage three-wire harness connector from relay at motor.
- B. Insert one light tester lead into the motor field connector slot on harness and ground other lead.
- C. Actuate seat switch to energize field wire being tested.
- D. 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.

6. Checking the Relay Assembly

- A. Disconnect three leads from relay assembly. These are the wires leading from the motor to the relay.
- B. 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.
- C. Connect one light tester lead to motor armature feed stud on relay and ground other tester lead.
- D. 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.

7. Checking the Motor Assembly

- A. Disconnect motor field feed wires from motor.
- B. Connect one end of a No. 12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.
- C. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.

8. Checking Wires Between Switch and Solenoids

- A. Disconnect harness connector from transmission assembly.

- B. Connect one light tester lead to one terminal of power feed and ground other light tester lead to body metal.
- C. 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.
- D. Check other wire in same manner.

9. Checking the Solenoid

- A. Check solenoid ground strap attachment for proper ground.
- B. Connect one end of a No. 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.

- C. Operate switch, actuate adjuster motor and solenoid being checked.
- D. 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.

FOUR-WAY SEAT DIAGNOSIS

CONDITION	CAUSE	CORRECTION
Seat adjuster motor does not operate.	Short or open circuit between power source or switch and motor. Defective motor relay. Defective motor. Defective switch. Defective circuit breaker.	Check circuit from power source and switch to motor to locate failure. Replace relay. Check motor. If defective, repair or replace as required. Replace switch. Replace circuit breaker.
Seat adjuster motor operates in both directions but seat adjusters are not actuated.	Short or open circuit between switch and affected solenoid. Defective solenoid. Defective switch.	Check circuit from switch to solenoid to locate failure. Check solenoid. If defective, repair or replace as required. Replace switch.
Seat adjuster motor operates in one direction only, seat moves down and forward, but does not move up and rearward.	Short or open circuit between one of the motor relay wires and seat control switch. Defective field coil in motor. Defective switch.	Check circuit between affected motor relay wire and seat switch. Check motor. If defective, repair or replace as required. Replace switch.

FOLDING TOP

HYDRO-LECTRIC SYSTEM

The high pressure hydro-lectric unit consists of a 12-volt reversible type motor, a rotor-type pump, two hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. The unit is installed in the body directly behind rear seat back. (Fig. 16-417)

Fig. 16-418 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. Place protective covering over rear seat cushion and back.

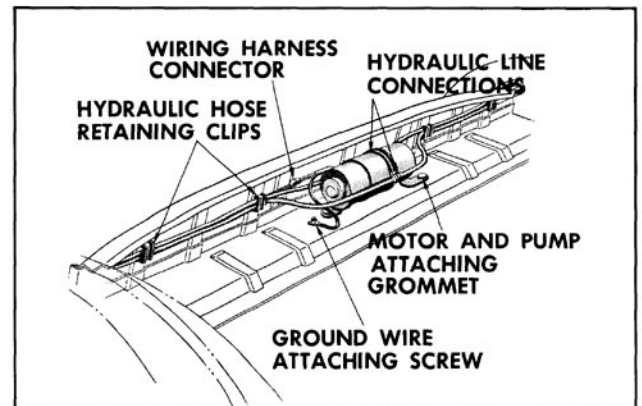


Fig. 16-417 Motor and Pump Assembly

4. Working inside body, detach front edge of folding top compartment bag from rear seat back panel.
5. Working on inside of body over rear seat back, remove pump and motor shield.
6. Remove clips securing wire harness and hydraulic hose to rear seat back panel. (Fig. 16-417)
7. Disconnect motor leads from wire harness and ground attaching screw. (Fig. 16-417)
8. To facilitate removal, apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan. (Fig. 16-417)

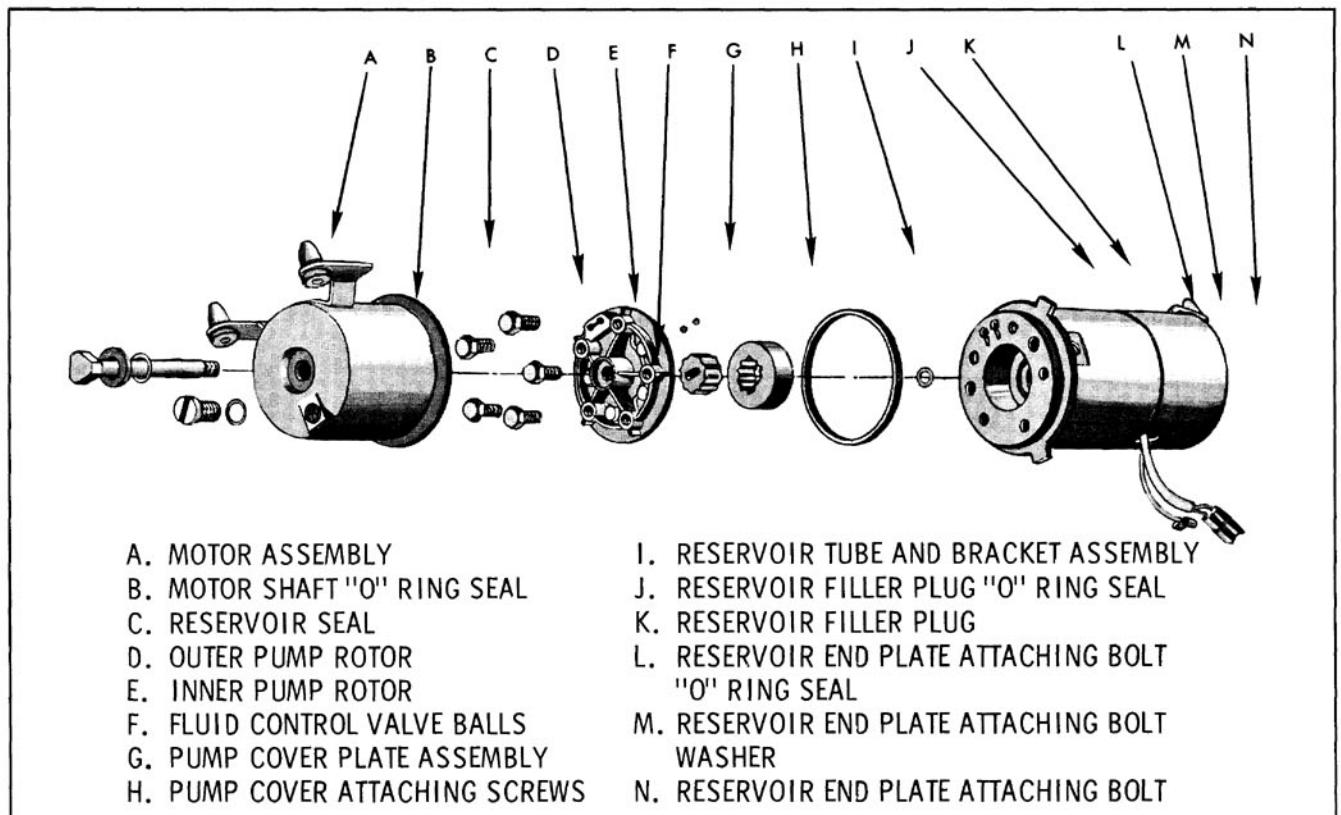


Fig. 16-418 Motor Assembly

9. Place absorbent rags below hose connections and end of reservoir.
10. With a straight-bladed screwdriver, vent reservoir by removing filler plug; then reinstall plug.

NOTE: Venting reservoir is necessary to equalize air pressure in reservoir to that of the atmosphere. This operation prevents the possibility of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.
11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid. (Fig. 16-417) 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 Brake Fluid Super No. 11. See FILLING OF HYDRO-ELECTRIC 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-ELECTRIC RESERVOIR.
4. Check connections for leaks and recheck fluid level in reservoir.
5. Install previously removed parts.

RESERVOIR TUBE

Disassembly From Motor and Pump Assembly

1. Remove motor and pump assembly from body.

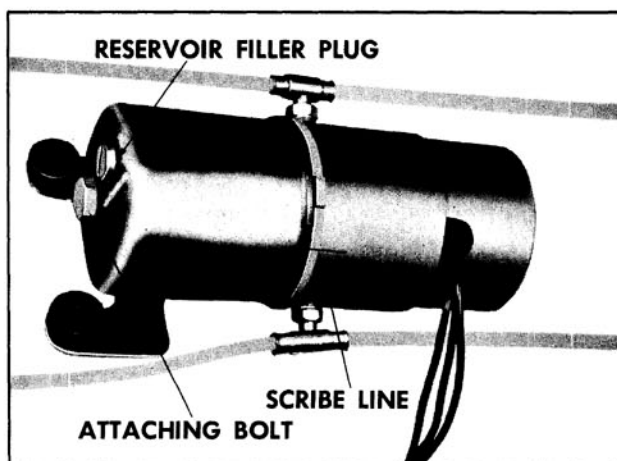


Fig. 16-419 Motor and Pump Assembly

2. Scribe a line across pump end plate and reservoir tube to insure a correct assembly of parts. (Fig. 16-419)
3. With a straight-bladed screwdriver, remove reservoir filler plug. Note sealing ring around plug.
4. Drain fluid from reservoir into a clean container.
5. 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 assemble 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 inch of lower edge of filler plug hole.
4. Make sure that sealing ring is on filler plug before installing filler plug.

OPERATION OF FOLDING TOP

When the control switch is actuated to the UP position, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control switch knob is actuated to the DOWN position, the feed wire is connected to the dark green motor lead and the motor and pump assembly operate in a reversed direction to force the hydraulic fluid through the hoses to the top of the cylinders. The fluid forces the piston rods in the cylinders downward, thus lowering the top. The fluid in the bottom of the cylinders returns to the pump for recirculation to the top of the cylinders.

OPERATION OF PUMP ASSEMBLY

The motor 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:

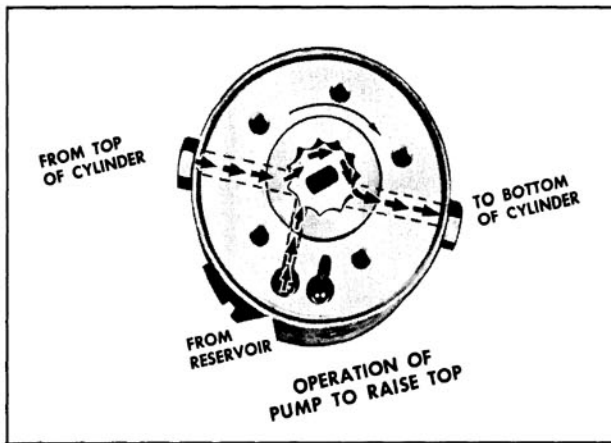


Fig. 16-420 Pump Operation to Raise Top

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 Fig. 16-420. 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 Fig. 16-421. The action of the pump rotors forces the fluid under pressure to the top of each cylinder. This action causes the fluid below the piston in each cylinder to be forced into the pump which recirculates the fluid to the top of each cylinder. The surplus hydraulic fluid due to piston rod displacement flows into the reservoir.

FLUID CONTROL VALVE

The fluid control valve consists of a rocker

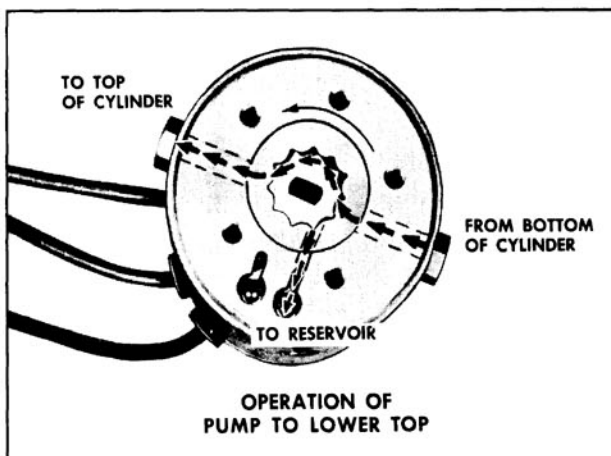


Fig. 16-421 Pump Operation to Lower Top

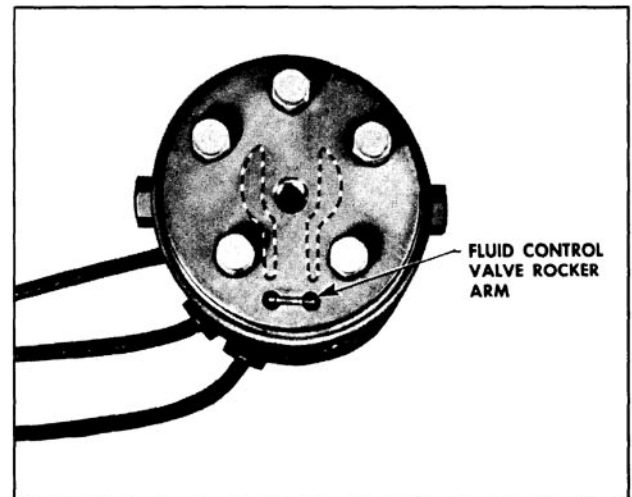


Fig. 16-422 Pump Cover Plate

arm installed in the pump cover plate, and two steel balls. Fig. 16-422 shows the top surface of the pump coverplate. The dotted lines indicate the cavities on the bottom side of the coverplate. The cavities are designed to permit fluid flow between pump rotors and the reservoir.

Fig. 16-423 and Fig. 16-424 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 a binding action. If a binding action is noted when the

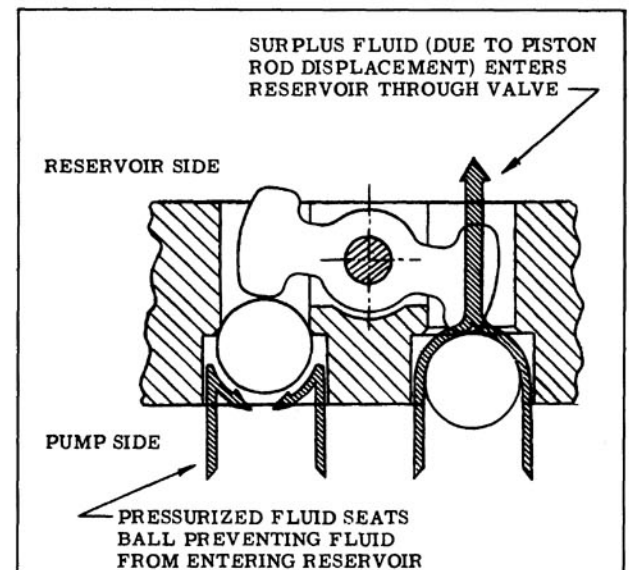


Fig. 16-423 Fluid Control Valve (Top Lowered)

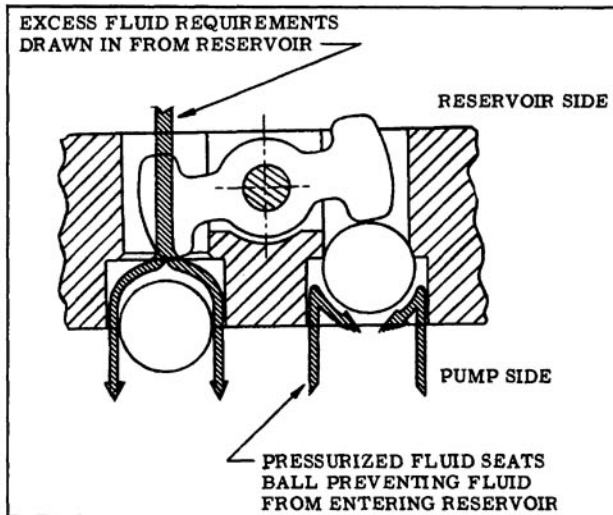


Fig. 16-424 Fluid Control Valve (Top Raised)

top is being locked at the header, check the alignment of the door windows, ventilators and rear quarter windows with relation to the side roof rail weatherstrips. Make all necessary adjustments for correct top alignment. See FOLDING TOP ADJUSTMENTS. If a failure continues to exist after a check for mechanical failure has been completed, the hydro-lectric system should then be checked for electrical or hydraulic failures.

ELECTRICAL CHECKING PROCEDURE

If a failure in the hydro-lectric system continues to exist after the mechanical operation has been checked, the electrical system should then be checked. A failure in the electrical system may be caused by a low battery, breaks in wiring, faulty connections, mechanical failure of an electrical component, or wires or components shorting to one another or to body metal. Before beginning checking procedures, check battery output.

Checking for Current at Folding Top Control Switch

1. Disengage terminal block from rear of switch.
2. Connect light tester to central feed terminal of switch terminal block.
3. Ground light tester ground lead to body metal.
4. If light tester does not light, there is an open or short circuit between power source and switch.

Checking the Folding Top Control Switch

If there is current at the feed wire terminal

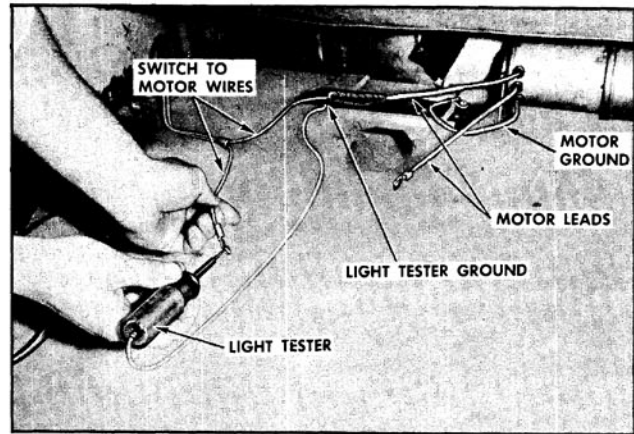


Fig. 16-425 Checking Motor Wiring

of the terminal block, operation of switch can be checked as follows:

1. Place a No. 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.
2. 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.

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: (Fig. 16-425)

1. Disconnect green switch-to-motor wire from motor lead in rear compartment.
2. Connect a light tester to green switch-to-motor wire terminal.
3. Ground light tester ground lead to body metal.
4. Actuate switch to DOWN position. If tester does not light, there is an open or short circuit in wire.
5. Disconnect red switch-to-motor wire from motor lead.
6. Connect light tester to red switch-to-motor wire terminal.
7. Actuate switch control knob to UP position. If tester does not light, there is an open or short circuit in wire.

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:

1. Check connection of motor ground wire to body metal. (Fig. 16-417)
2. Connect 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.
3. Connect jumper wire to motor lead terminal that connects to red switch-to-motor wire. The motor should operate to raise top.
4. If motor fails to operate on either or both of these checks, it should be repaired or replaced.
5. 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.

Checking Hydraulic Fluid Level in Reservoir

1. Operate top to raised position.
2. At rear compartment, remove pump and motor shield.
3. Place absorbent rags below reservoir at filler plug.
4. With a straight-bladed screwdriver, remove filler plug. Fluid level should be within 1/4 inch of lower edge of filler plug hole.
5. If fluid is low, add Hydraulic Brake Fluid Super No. 11 to bring to specified level. See FILLING OF HYDRO-LECTRIC RESERVOIR.
6. Reinstall filler plug, pump and motor shield.

Checking Operation of Lift Cylinders

1. Remove rear seat cushion and folding top compartment side panel assemblies.
2. Operate folding top control switch and ob-

serve lift cylinders during up and down cycles for these conditions.

- a. If movement of cylinder is not coordinated or sluggish when the motor is actuated, check hydraulic hoses from motor and pump to cylinder for kinks.
- b. If one cylinder rod moves slower than the other, cylinder having slower moving rod is defective and should be replaced.
- c. If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See CHECKING PRESSURE AT THE PUMP.

NOTE: To insure proper operation of the lift cylinders, the top lift cylinder rods should be cleaned and lubricated at least twice a year. To perform these operations, raise top to UP position and wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation and/or accumulated grime. With another clean cloth, apply a light film of brake fluid to the piston rods to act as a lubricant.

CAUTION: Exercise care so that brake fluid does not come in contact with any painted or trimmed parts of the body.

Checking Pressure at Pump

1. Remove motor and pump assembly from rear compartment.
2. Install plug in one port, and pressure gauge in port to be checked. (Fig. 16-426)
3. 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.

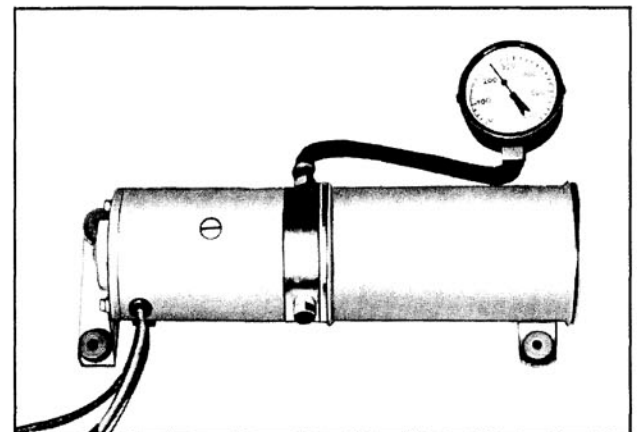


Fig. 16-426 Checking Pump Pressure

4. 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.

5. If the pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

REMOVAL OF FOLDING TOP LIFT CYLINDER

1. Lock top to windshield header.
2. Disconnect positive battery cable to prevent accidental operation of motor and pump assembly.
3. Remove rear seat cushion and back.
4. Remove folding top compartment side trim panel assembly.
5. Remove attaching nut, bolt, bushing and washer from upper end of lift cylinder.
6. Remove inner and outer bolt securing cylinder to male hinge. (Fig. 16-427)
7. Carefully move cylinder to inboard side of top compartment brace exposing hose connections.
8. Prior to disconnecting hoses, place protective coverings to absorb drippage.
9. Disconnect connections from old cylinder and transfer to new cylinder.
10. Install new cylinder to male hinge.

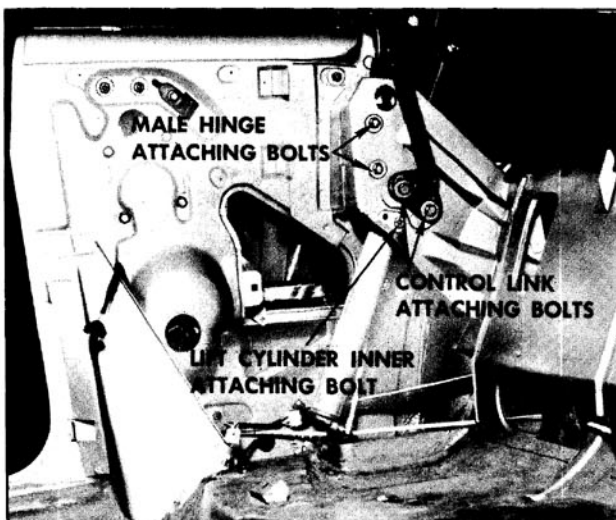


Fig. 16-427 Lift Cylinder Attachment

11. Connect positive battery cable.
12. Use power to raise cylinder piston rod to extended position.
13. Attach upper end of cylinder to linkage.
14. 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.

FILLING OF HYDRO-LECTRIC RESERVOIR

This procedure virtually eliminates discharge or spillage of hydraulic fluid and possible trim damage while filling and bleeding system.

Filler Plug Adapter

1. Drill 1/4 inch diameter hole through center of spare reservoir filler plug.
2. Install two inch length of metal tubing (1/4" OD x 3/16" ID) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection.

Filling and Bleeding At Reservoir

1. With top in raised position, remove folding top compartment bag material from rear seat back panel. Remove pump and motor shield.
2. Place absorbent rags below reservoir at filler plug. Using a straight-bladed screwdriver, slowly remove filler plug from reservoir.

IMPORTANT: When installing new or overhauled motor and pump assembly as a bench operation, fill reservoir to specified level with hydraulic fluid. This operation is necessary as pump must be primed prior to operation to avoid drawing excessive amount of air into hydraulic system.

3. Install filler plug adapter to reservoir and attach four or five foot length of 3/16 inch ID rubber tubing or hose to filler plug tubing.
4. Install opposite end of hose into a container of Hydraulic Brake Fluid Super No. 11.

NOTE: Container should be placed in rear compartment area of body, below level of fluid in the reservoir. In addition, sufficient fluid must be available in container to avoid drawing air into hydraulic system.

5. Operate top to down or stacked position. After top is fully lowered, continue to operate motor

and pump assembly (approximately 15 to 20 seconds), or until noise level of pump is noticeably reduced. Reduction in pump noise level indicates that hydraulic system is filling with fluid.

6. Operate top several times or until operation of top is consistently smooth in both up and down cycles.
7. Remove hose from filler plug tubing and remove filler plug adapter from reservoir.
8. Check level of fluid in reservoir and reinstall original filler hole plug.

NOTE: Fluid level should be within 1/4 inch of lower edge of filler plug hole.

FOLDING TOP ADJUSTMENTS

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 folding top, hands must be kept clear of side roof rail hinges and connecting linkages.

ADJUSTMENT OF FRONT ROOF RAIL GUIDE

If the front roof rail guides do not properly engage with the striker assemblies when the top is in an UP or raised position, the guides may be adjusted laterally as follows:

1. Raise top to half-open position.
2. Loosen guide sufficiently to permit adjustment. (Fig. 16-428)
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 AT FRONT ROOF RAIL

If the top, in the 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:

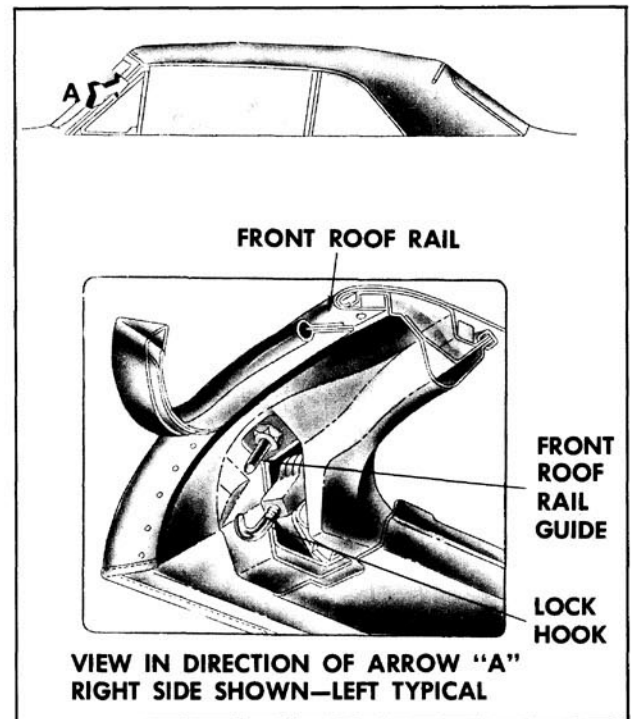


Fig. 16-428 Front Roof Rail Guide

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.
2. Loosen side roof front rail attaching screws and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary. (View "A", Fig. 16-429)

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. Check forward section of side roof rail front weatherstrip. Refit and recement as required, then 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. (View "A", Fig. 16-429)
3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT

If the locking action of top is unsatisfactory,

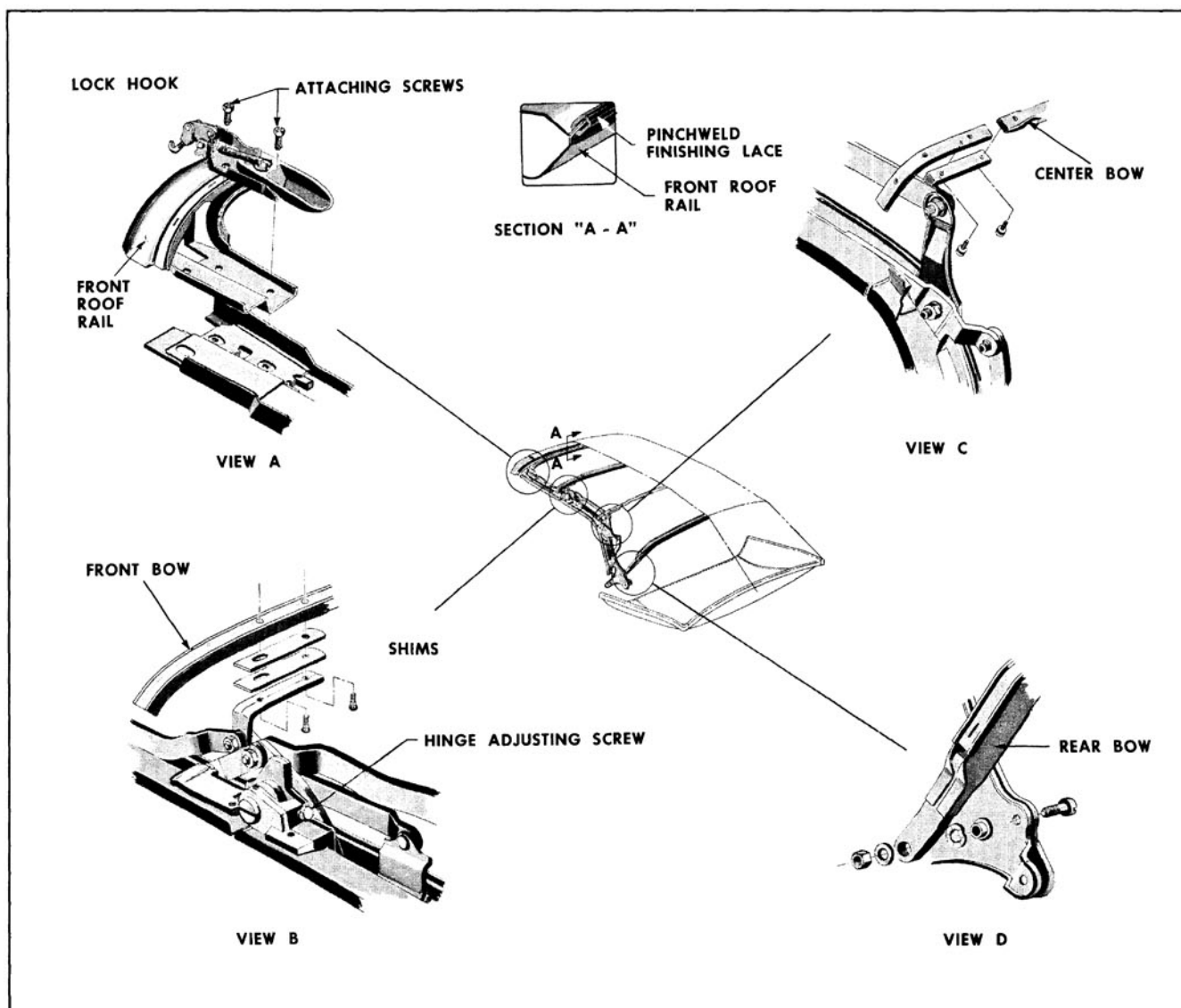


Fig. 16-429 Top Linkage

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 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. 16-427)
 - 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.

ADJUSTMENT 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. 16-427)
 - 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 previ-

ously 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.
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. 16-427)
 - 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. Check top assembly for proper stack height, adjust if necessary.

ALIGNMENT CONDITIONS

CONDITION	APPARENT CAUSE	CORRECTION
Difficult locking action at front roof rail.	Lock hook improperly adjusted. Misaligned front roof rail front weatherstrip. Front roof rail misaligned.	Adjust lock hook counterclockwise. Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail.
Top does not lock tight enough to windshield header.	Lock hook improperly adjusted. Misaligned front roof rail front weatherstrip. Front roof rail misaligned.	Adjust lock hook clockwise. Loosen, realign and retack front roof rail front weatherstrip. Adjust front roof rail.
Top travels too far forward.	Front roof rail misaligned. Male hinge assembly misaligned.	Adjust front roof rail rearward. Adjust male hinge assembly rearward.

ALIGNMENT CONDITIONS (Continued)

CONDITION	APPARENT CAUSE	CORRECTION
Top does not travel forward far enough.	<p>Front roof rail misaligned.</p> <p>Male hinge assembly misaligned.</p> <p>Improper spacing between rear trim stick and body metal.</p>	<p>Adjust front roof rail forward.</p> <p>Adjust male hinge assembly forward.</p> <p>Install an additional spacer between rear trim stick and body metal at each attaching bolt location.</p>
Side roof rail rear weatherstrip too tight against rear of rear quarter window.	Male hinge assembly misaligned.	Adjust male hinge assembly rearward.
Gap between side roof rail rear weatherstrip and rear of rear quarter window.	Male hinge assembly misaligned.	Adjust male hinge assembly forward and/or shim side roof rail rear weatherstrip forward as required.
Side roof rail rear weatherstrip too tight against top of rear quarter window.	Male hinge misaligned.	Adjust male hinge upward.
Gap between side roof rail rear weatherstrip and top of rear quarter window.	Male hinge misaligned.	Adjust male hinge downward and/or shim side roof rail rear weatherstrip downward as required.
Sag at front to center side roof rail joint.	<p>Control link adjusting plate misaligned.</p> <p>Center side roof rail hinge adjusting screw improperly adjusted.</p>	<p>Adjust control link adjusting plate downward.</p> <p>Adjust screw counterclockwise.</p>
Front and center side roof rails bow upward at hinge joint.	<p>Control link adjusting plate misaligned.</p> <p>Center side roof rail hinge adjusting screw improperly adjusted.</p>	<p>Adjust control link adjusting plate upward.</p> <p>Adjust screw clockwise.</p>
Folding top dust boot is difficult to install.	<p>Improper stack height due to misaligned control link adjusting plate.</p> <p>Misaligned folding top dust boot female fastener.</p> <p>Rear seat back assembly is too far forward.</p>	<p>Adjust control link plate rearward or forward as required.</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</p>

ALIGNMENT CONDITIONS (Continued)

CONDITION	APPARENT CAUSE	CORRECTION
Folding top dust boot is difficult to install. (Continued)	Excessive build-up of padding in side roof rail stay pads.	back to forward edge of pinch-weld finishing molding is 15 3/16" ± 1/16". The dimension is measured at approximate center line of body. Repair side stay pads as required.
Folding top dust boot fits too loosely.	Improper stack height due to misaligned control link. Rear seat back assembly is too far rearward.	Adjust control link plate forward as required. Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 15 3/16" ± 1/16". The dimension is measured at approximate center line of body.
Top material is too low over windows or side roof rails.	Front roof bow improperly shimmed. Excessive width in top material.	*Install one or two 1/8" shims between front roof bow and slat iron. 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.
Top material is too high over windows or side roof rails.	Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron.
Top material has wrinkles or draws.	Rear quarter trim stick improperly adjusted. Top material improperly installed to center or rear quarter trim stick.	Adjust rear quarter trim stick on side affected. Retack top material as required.
Wind whistle or water leak along front roof rail.	Top does not lock tight enough to windshield header. Misaligned front roof rail front weatherstrip.	Adjust lock hook clockwise. Retack front weatherstrip to front roof rail.
Wind whistle or air leak between top material and side roof rail stay pads.	Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required or when installing only one shim, use attaching screw part #4412844 (1/4-20 x 5/8" oval head with external tooth lockwasher, 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 lockwasher, type "T-T" tapping screw, chrome finish).

TOP TRIM ASSEMBLY (COMPLETE)

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

All back curtain assemblies incorporate, as an integral part of the back curtain upper valance, a 20" piece of elastic webbing. The elastic webbing is located in the upper right hand corner of the curtain. The elastic webbing reduces tension on the zipper assembly at the radius, providing improved zipper operation.

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. At the front of body, raise front roof rail, remove front weatherstrips; then, detach top material from front roof rail. (Fig. 16-430)
4. Loosen front end of each side roof rail front weatherstrip sufficiently to detach top mate-

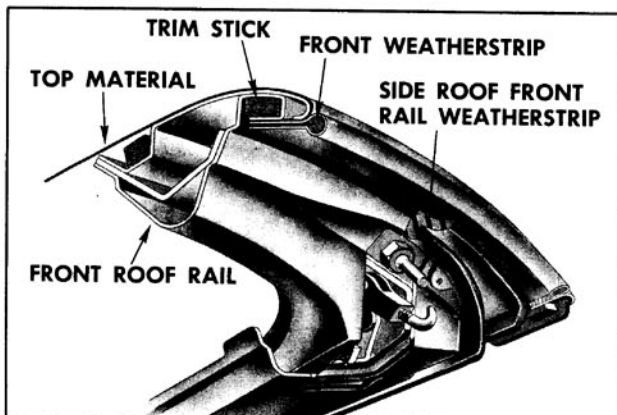


Fig. 16-430 Front Roof Rail Assembly

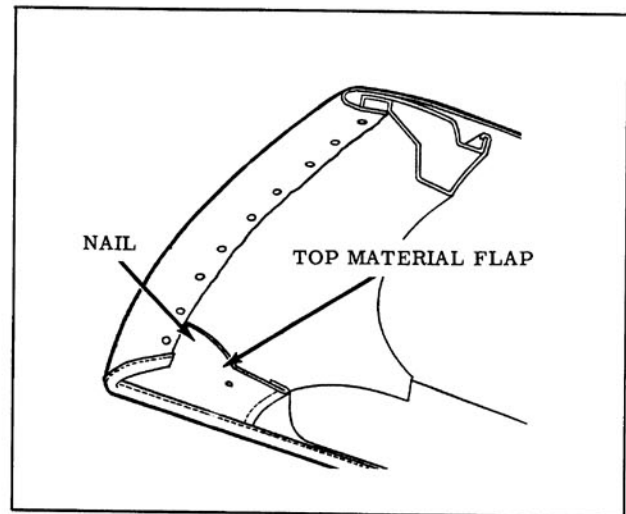


Fig. 16-431 Top Material Attachment at Roof Rail

rial flaps which are nailed and cemented to rails. (Fig. 16-431)

5. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (Views "A" and "B" in Fig. 16-432)

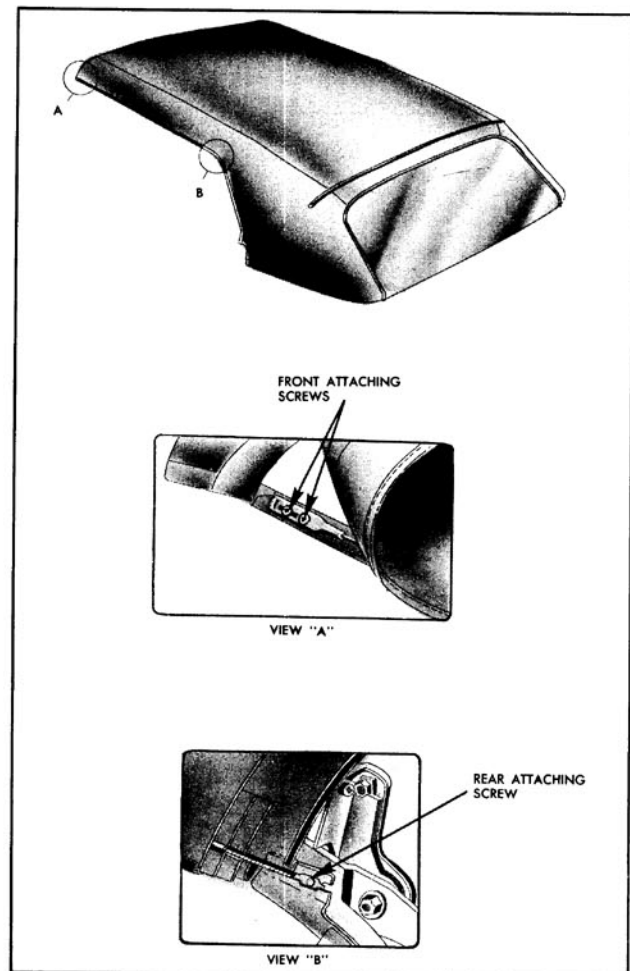


Fig. 16-432 Hold Down Cable Attachment

6. At each side roof rear rail, pull hold-down cable forward until cable is completely removed from top material retaining pocket.
7. At underside of front bow, remove screws securing listing pocket retainer to bow.
8. Push top material upward sufficiently until retainer is disengaged from bow; then remove retainer from listing pocket.
9. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. (Fig. 16-433) Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts.
10. Remove attaching bolts securing rear quarter trim sticks to rear quarter inner panel. (Fig. 16-433)
11. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.
12. 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 vinyl at both locations with a grease pencil. (Fig. 16-434) 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.

13. 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.

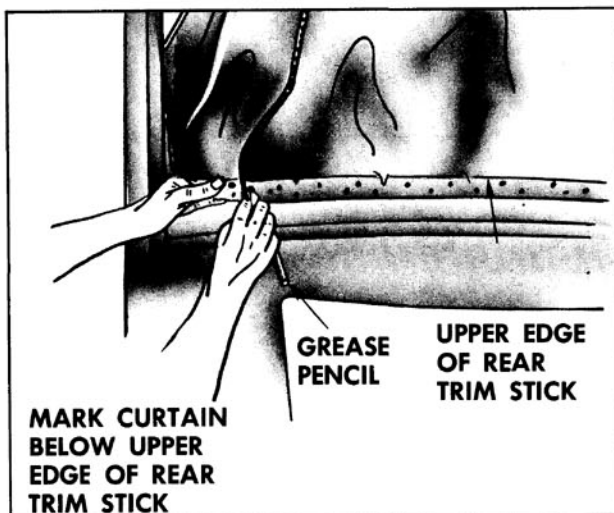


Fig. 16-433 Trim Stick Attachment

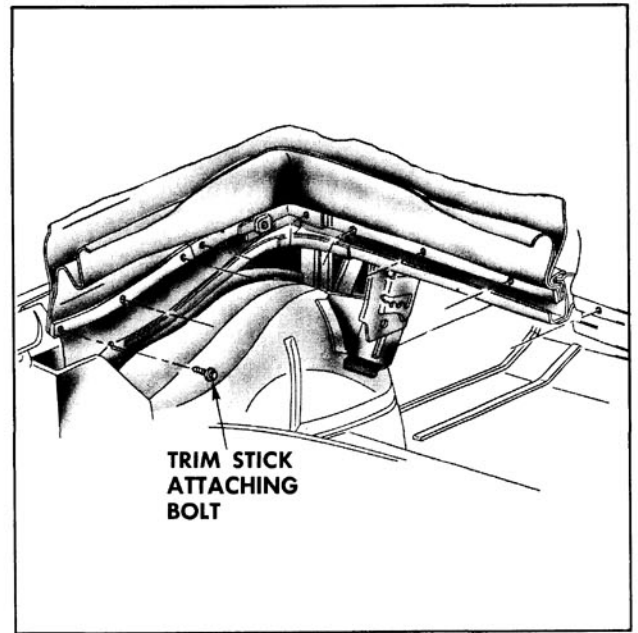


Fig. 16-434 Locating Edge of Top Material

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

14. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. (Fig. 16-435) Reference marks for trim sticks should be transferred to new top material when Step 28 of installation procedure is performed.
15. 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.
16. Lock top to windshield header. Install radius end of each adjustable spacer stick to fit against center roof bow. Install opposite end

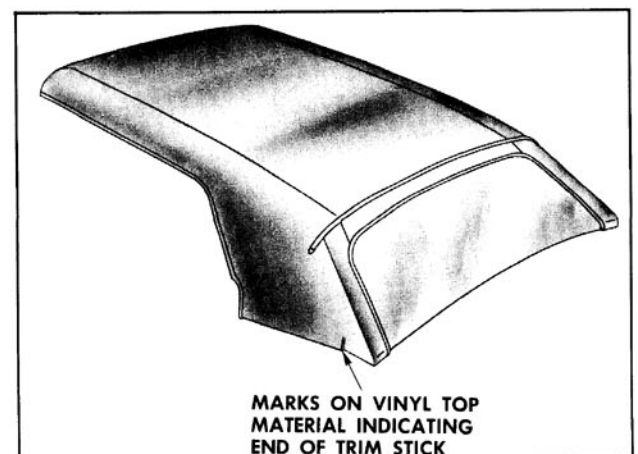


Fig. 16-435 Marking Top Material

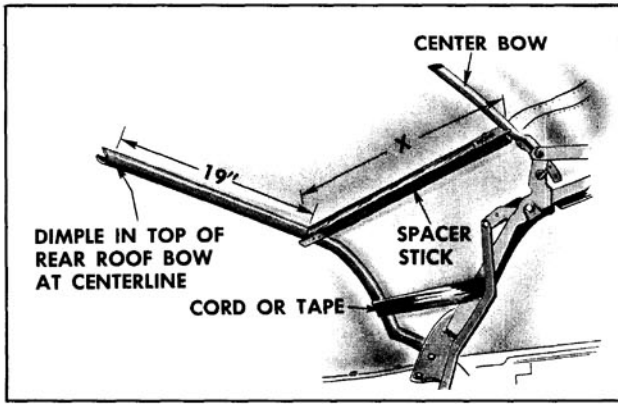


Fig. 16-436 Installing Spacer Stick

of spacer stick so that metal plate fits under rear roof bow. (Fig. 16-436) Spacer sticks should be installed along inboard edge of side stay pad.

NOTE: The approximate dimension for location of spacer sticks, measuring outboard from centerline dimple of rear roof bow is 19".

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.

17. Spacer stick may be fabricated as shown in Fig. 16-437.
18. Temporarily tie or tape rear bow to rear side roof rails. Detach nylon webbing, side stay pads and back curtain assembly from rear bow.
19. Remove rear trim stick with attached back curtain assembly and top compartment bag from body and place on clean, protected surface.

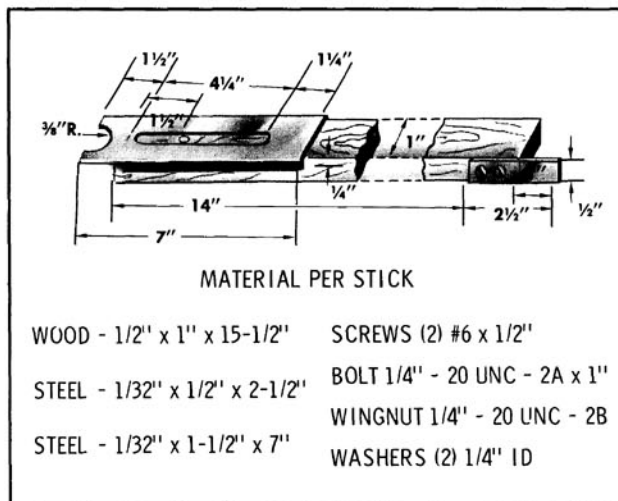


Fig. 16-437 Spacer Stick Dimension

20. Using chalk or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material. (Fig. 16-438) Reference marks for trim sticks should be transferred to new back curtain material when Step 6 of installation procedure is performed.
21. Remove right and left nylon webbing from rear trim stick.
22. Remove back curtain assembly from rear and rear quarter trim sticks.
23. Remove side stay pads. Stay pads are attached to front rail and front and rear bows with tacks; to center bow with screws.

Installation

1. If new top is being installed but it was impossible to perform Step 16 of removal procedure, pre-set spacer sticks to shortest length and install between center and rear roof bow. (Fig. 16-436) Adjust sticks so that dimension "X" (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 17-5/8". 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 rail. Make sure inboard edge of pad is properly aligned within depressions in bow and rail. Stay tack pad to front bow.

Install pad to center bow with screws. Make sure inboard edge of pad is properly aligned within depression in bow. Install stay pad wadding in conventional manner using an approved trim cement. (Fig. 16-439)

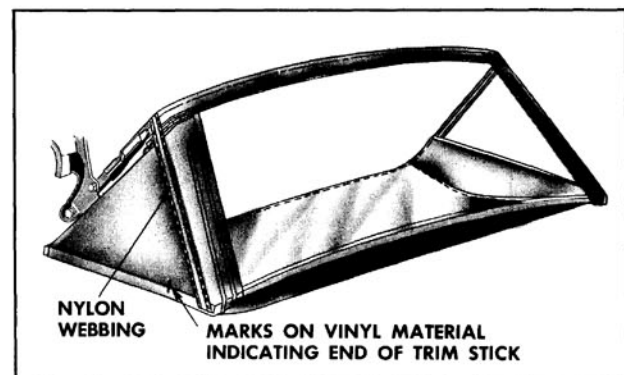


Fig. 16-438 Marking Back Curtain

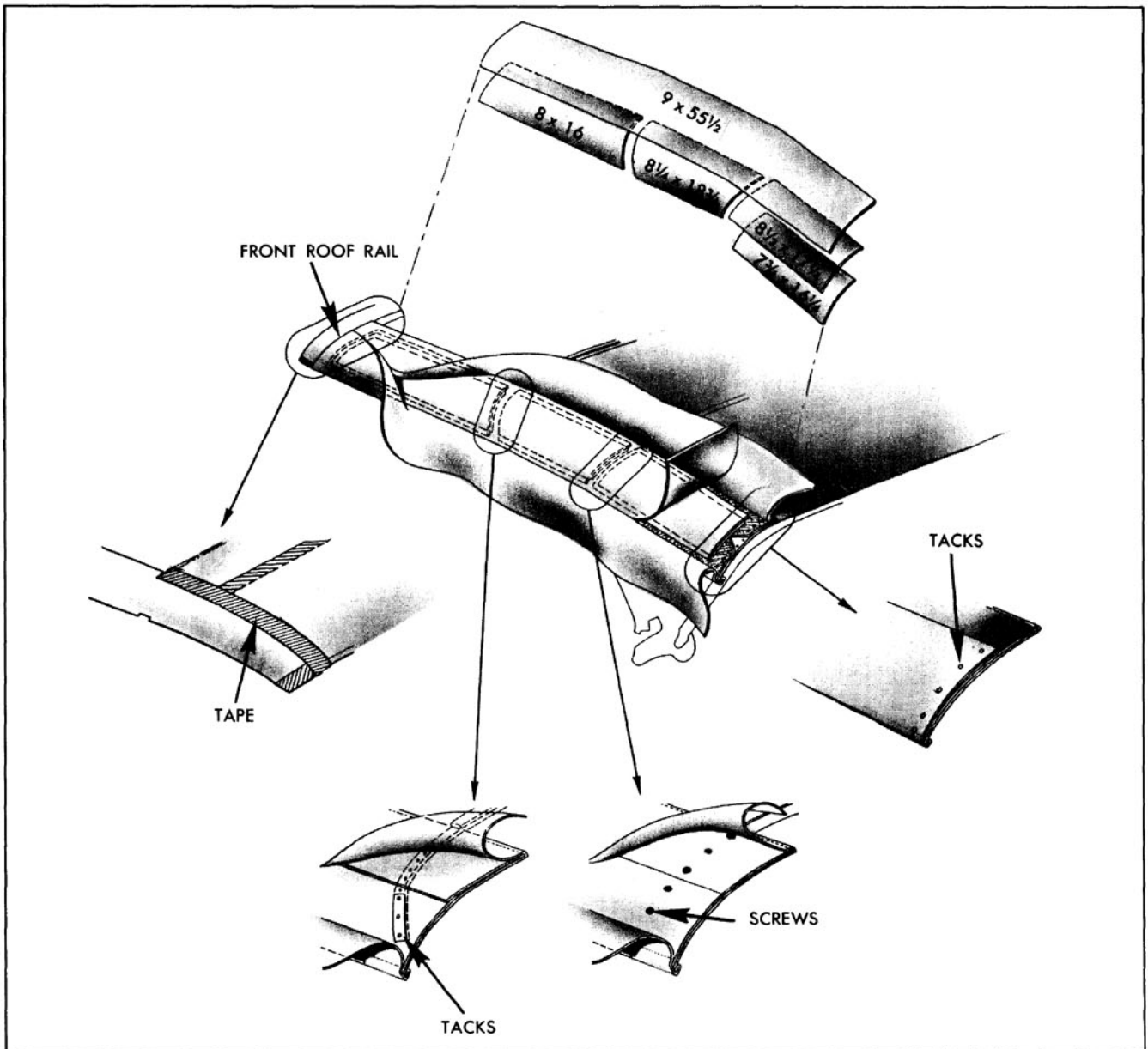


Fig. 16-439 Side Stay Pad Installation

3. Trim selvage end of side stay pads just forward of rear rolled edge of rear roof bow. (Fig. 16-440)
4. Distance from center of center bow to rolled forward upper edge of rear roof bow is 17-5/8".

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

Re-adjust spacer sticks and side roof rail pads as required if rear bow does not come within this position range.

5. Place new back curtain window assembly on clean covered work bench with interior (vinyl) surface of back window facing down.
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 12 and 20 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 vinyl, 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 vinyl at lower edge indicates centerline of back

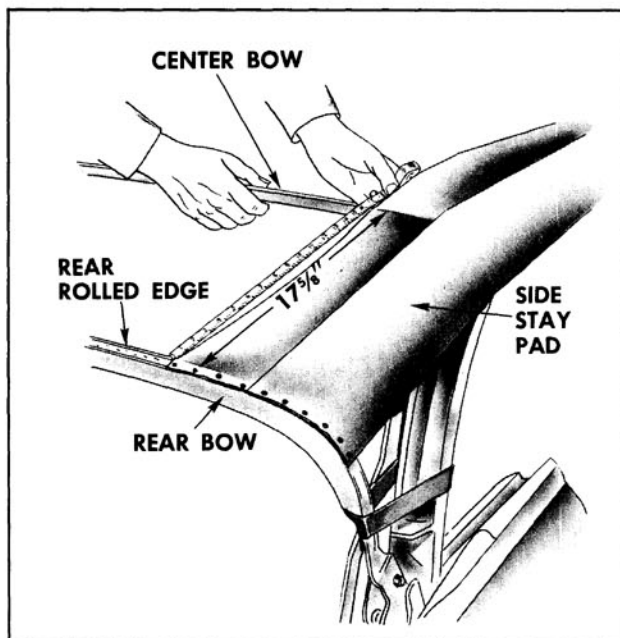


Fig. 16-440 Positioning Rear Bow

curtain assembly. (Fig. 16-441) In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

8. Tack curtain to rear and rear quarter trim sticks. On right side, tack zipper tape to forward edge of rear quarter trim stick. (Fig. 16-442)

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

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

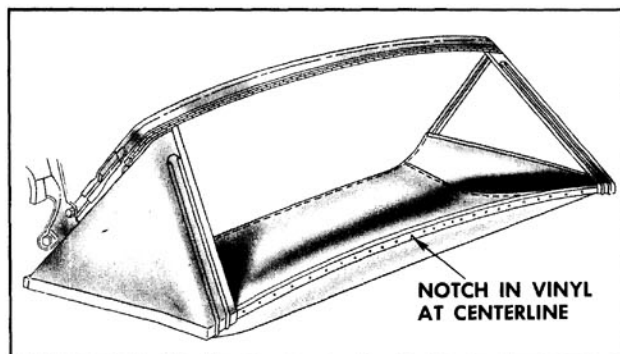


Fig. 16-441 Back Curtain Installation

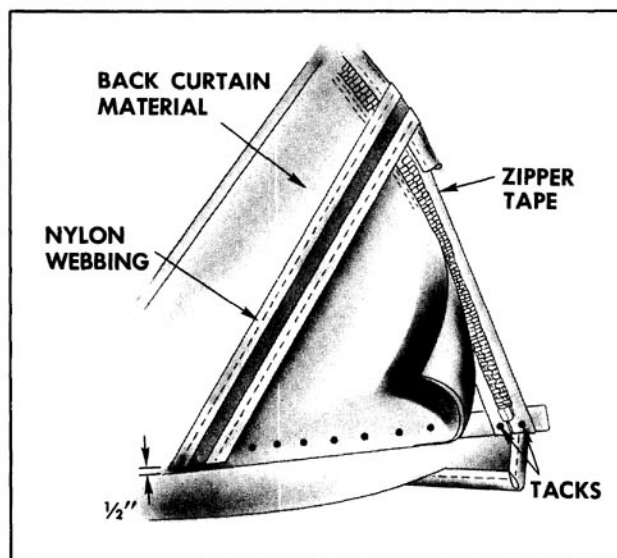


Fig. 16-442 Back Curtain Installation

11. Tack nylon webbing to rear trim stick. Lower rear edge of webbing should be even with corner of rear trim stick. New webbing may be cut from a piece of non-staining type webbing 2" x 19". Excess webbing should be trimmed off at rear trim stick, 1/2" above back curtain lower edge.
12. Inspect rubber trim stick fillers cemented to body below pinchweld. Re-cement, if necessary. (Fig. 16-443)
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. Secure back curtain assembly with one tack to rear bow to prevent damage to plastic sheet. (Fig. 16-444)
15. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain as-

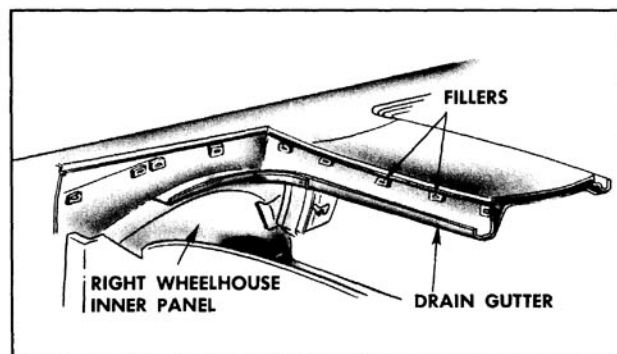


Fig. 16-443 Checking Trim Stick Fillers

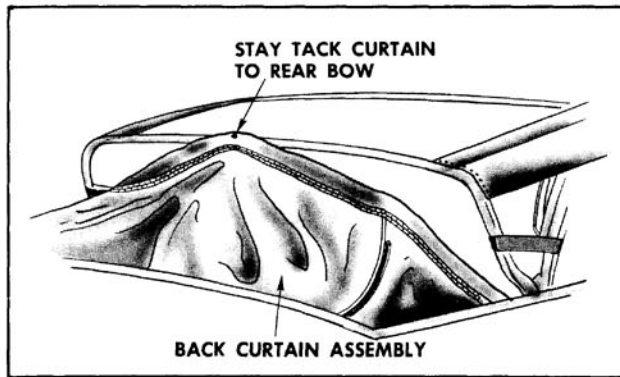


Fig. 16-444 Stay Tacking at Rear Roof Bow

sembly. Fold excess back curtain upper valance material rearward and tack to rear bow. (Fig. 16-445)

IMPORTANT: DO NOT CUT OFF EXCESS UPPER VALANCE MATERIAL AS MATERIAL MAY UNRAVEL.

16. Check contour of back curtain assembly at rear roof bow and at pinchweld molding.
17. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required. (Fig. 16-446)
18. Where required, adjust side stay pads; then tack side stay pads to front roof rail and front bow. Attach side stay pads to center bow with screws. Trim selvage end of side stay pads at front roof rail. Install stay pad covering material in conventional manner using an approved trim cement.
19. Tack nylon webbing to rear roof bow. Inboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

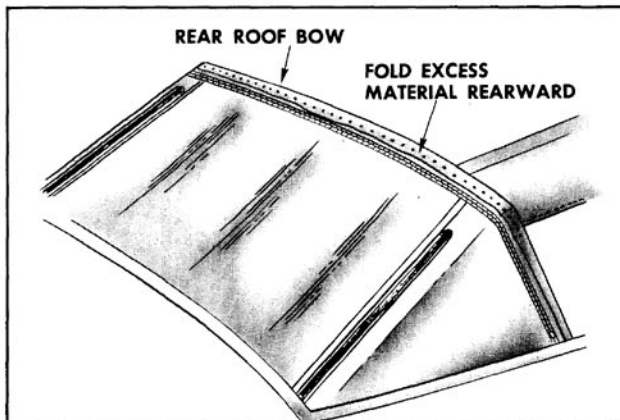


Fig. 16-445 Back Curtain at Rear Roof Bow

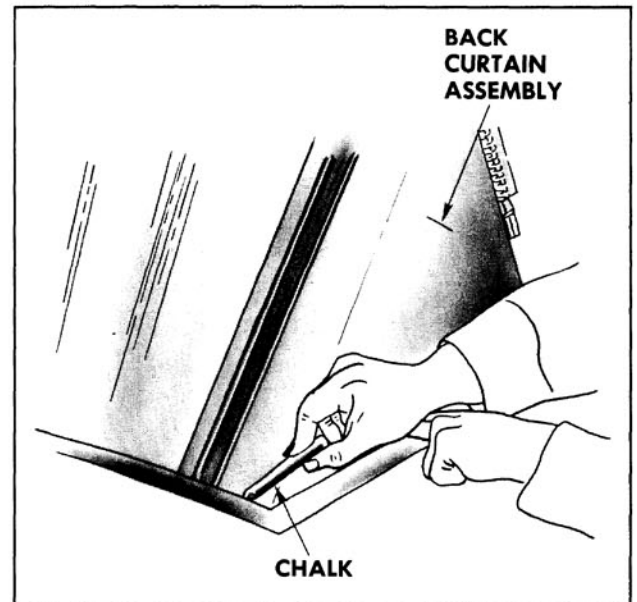


Fig. 16-446 Marking Back Curtain

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

20. Detach rear trim stick with attached back curtain assembly from body.
21. Lay out new top material on clean, protected surface with outer layer of material exposed.
22. Using a pencil, mark top material (mark should be approximately 1/2" in length) at deck seam 4-1/4" from edge of top material upper valance binding. (Fig. 16-447)
23. Fold new top material in half so that inner lining of top material is exposed. (Fig. 16-448) Install a 6" piece of tape on inner surface at centerline fold of new top material. Using a pencil, mark the approximate centerline of new top material along entire length of tape.

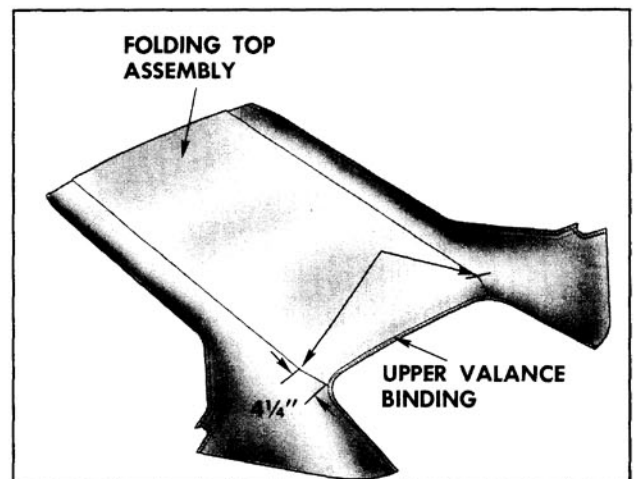


Fig. 16-447 Marking Top Material

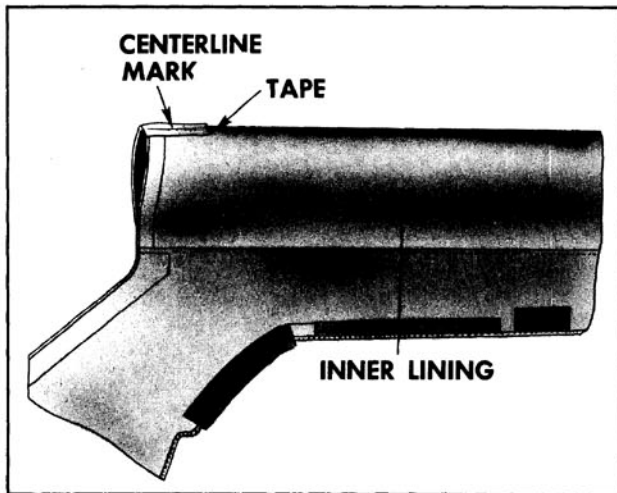


Fig. 16-448 Marking Top Material

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

24. Along forward surface of rear roof bow install a 1" piece of tape at centerline dimple of rear roof bow. Using a pencil, mark centerline of rear bow on tape. (Fig. 16-449)
25. Remove rear bow spacer sticks and positioning tape or cord.
26. Check position of rear roof bow in relation to new folding top trim assembly by placing new top trim over folding top framework. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly ($\pm 1/4"$) 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.

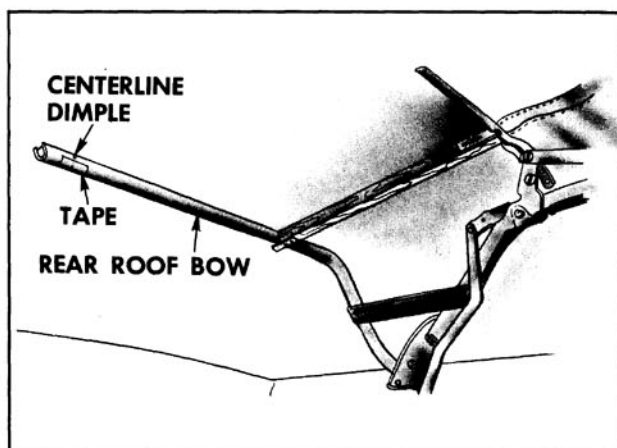


Fig. 16-449 Marking Rear Roof Bow

27. Remove top trim material.
28. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark edges of trim sticks on vinyl surface of new top material. (See Steps 13 and 14 of removal procedure.)
29. Position top trim on framework and center assembly both fore and aft and side to side.
30. Install listing pocket retainer into listing pocket.
31. Center retainer in listing pocket; then, install retainer into front bow.
32. Install front bow to listing pocket retainer attaching screws.
33. 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.

34. After cables have been filtered or pulled through hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails.
35. Check position of top trim at rear roof bow and at side roof rear rails. With quarter flaps properly folded over rear side roof rails (edge of rails should match stitch lines of quarter flap seams), marks on deck seam should be in center of rear roof bow.

NOTE: The deck seam mark will vary slightly ($\pm 1/4"$) 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.

36. Using nitrile cement or neoprene-type weatherstrip adhesive, fasten rear quarter

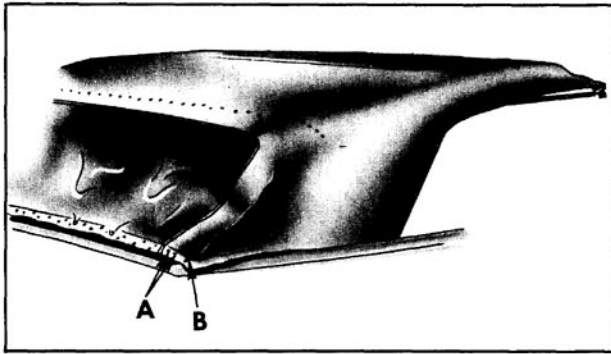


Fig. 16-450 Tacking Top Material

flaps to side roof rear rails. Make sure that quarter flap seam breaks at forward edge of side roof rear rail.

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

37. Cut or 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.
38. Using previously marked lines (end of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Fig. 16-450 shows top material installed to rear trim stick at inboard edge.
39. Cut or punch hole in top material for each trim stick attaching bolt.
40. Install top material into body. Make sure rear and rear quarter trim stick attaching bolts are completely driven in to represent finished condition.
41. Check fit of top material. Rear quarter trim sticks may be adjusted downward to remove minor wrinkles in top material in rear quarter area.

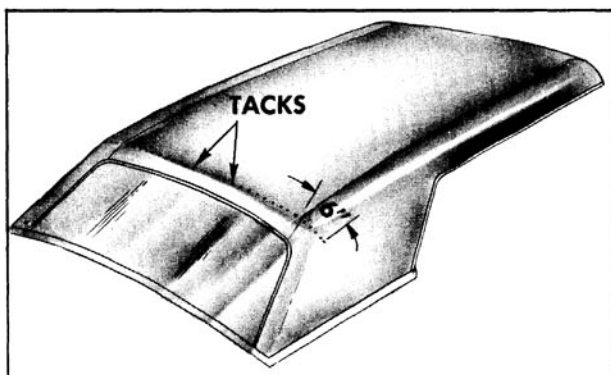


Fig. 16-451 Tacking Outboard of Seam

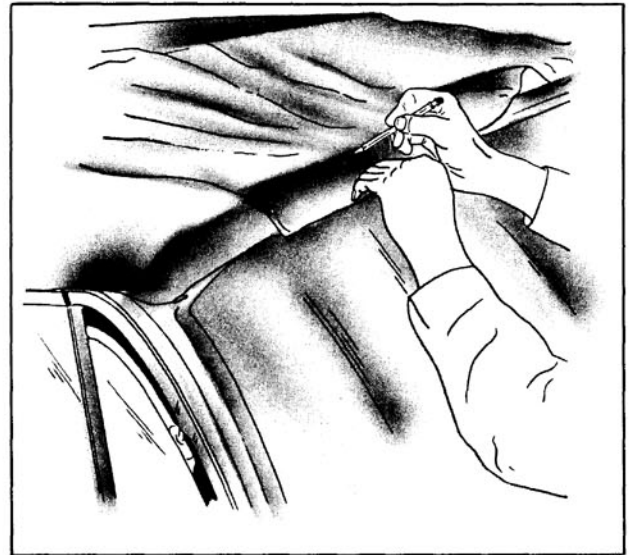


Fig. 16-452 Marking at Front Roof Rail

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

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

43. Remove trim sticks with attached top material from top compartment well. Back curtain should extend 1/2" below trim stocks. (See Step 7 of installation procedure.) In addition, top material must extend 1/2" to 5/8" below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.
44. Install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.
45. Re-check side roof rail flaps. Make sure mark at deck seams is in center of rear bow. Also re-check centerline mark on inner surface of top material at rear bow.
46. Where required, remove side roof rail rear weatherstrips. Re-adjust top material at side roof rails and reinstall weatherstrips.
47. While pulling top material slightly rearward, stay tack top material along rear roof bow.

IMPORTANT: Tacks must be installed along a straight line in center of rear bow. 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. 16-451)

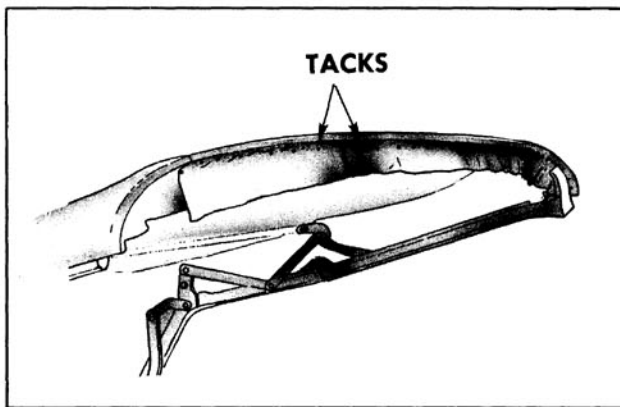


Fig. 16-453 Installation at Front Roof Rail

TOP TRIM COVER (LESS BACK CURTAIN)

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. At the front of body, raise front roof rail, remove front weatherstrips; then detach top material from front roof rail. (Fig. 16-430)
4. Loosen front end of each side roof rail front weatherstrip sufficiently to detach top material flaps which are nailed and cemented to rails. (Fig. 16-431)
5. 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. 16-432.)
6. At each side roof rear rail, pull hold-down cable forward until cable is completely removed from top material retaining pocket.
7. At underside of front bow, remove screws securing listing pocket retainer to bow.
8. Push top material upward sufficiently until retainer is disengaged from bow; then, remove retainer from listing pocket.
9. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. (Fig. 16-433) Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts.
10. Remove attaching bolts securing rear quarter trim sticks to rear quarter inner panel. (Fig. 16-433)
11. Remove rear trim stick attaching bolts; then lift trim assembly with attached quarter and rear trim sticks on top of rear compartment front panel.

48. At front roof rail, pull top trim material forward to desired tension. While maintaining tension on top trim, place a pencil mark on outer surface of trim material along forward edge of front roof rail. (Fig. 16-452)
49. Unlock top from windshield header and apply nitrile cement or neoprene-type weatherstrip adhesive to tacking area of front roof rail and corresponding surface of top material. Pull top trim material slightly forward so that pencil marks are on underside of front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail. (Fig. 16-453)
50. Apply nitrile cement or neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails.
51. Lock top to windshield header. Check appearance of top trim as well as operation and locking action of top. (If additional tension is desired in top trim, unlock top from header and reposition top trim by pulling trim further forward. Stay tack and re-check top appearance.)
52. Complete tacking of top trim to front roof rail and trim off excess material.
53. Permanently tack top material to rear roof bow. Apply bead of neoprene-type weatherstrip adhesive around each tack head, and into two holes pierced into top material for wire-on binding clip escutcheons.

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

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

12. 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 vinyl at both locations with a grease pencil. (Fig. 16-434)

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

13. 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.

14. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. (Fig. 16-435) Reference marks for trim sticks should be transferred to new top material when Step 8 of installation procedure is performed.
15. 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.

Installation

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 side stay pads as required.
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 4-1/4" from edge of top material upper valance binding. (Fig. 16-447)
4. Fold new top material in half so that inner lining of top material is exposed. (Fig. 16-448) Install a 6" piece of tape on inner surface at centerline fold of new top material. (Fig. 16-448) 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.

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. 16-449)

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

NOTE: The deck seam mark will vary slightly ($\pm 1/4"$) 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 13 and 14 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 attaching screws.
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 filtered or pulled through hold-down pockets in top material, securely install front and rear cable attaching brackets to side roof front and rear rails. (Fig. 16-447)

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. 16-449)

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. Cut or 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 Fig. 16-450 shows top material installed to rear trim stick at inboard edge.

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

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

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

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

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

23. Remove trim sticks with attached top material from top compartment well. Top material

must extend $1/2"$ to $5/8"$ below trim sticks to minimize water wicking on inner lining of back curtain material. Trim top material as required.

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

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

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. 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. 16-451)

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. 16-452)

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. 16-453)

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. (Fig. 16-431)

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 re-check 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 curtain 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. (Fig. 16-433) Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts.
4. Remove attaching bolts securing rear quarter trim sticks to rear quarter inner panel. (Fig. 16-433)

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.
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 vinyl at both locations with a grease pencil. (Fig. 16-434) 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.

7. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. (Fig. 16-435)

8. Remove screw securing escutcheon clip at each end of wire-on binding on rear bow. Remove wire-on binding from rear bow.
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. Detach nylon webbing and back curtain from rear roof bow; then remove back curtain assembly with attached trim sticks and top compartment bag from body and place on a clean, protected surface.
12. Using chalk or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material. (Fig. 16-438) Reference marks for trim sticks should be transferred to new back curtain material when Step 3 of installation procedure is performed.
13. Remove right and left nylon webbing from rear trim stick. (Fig. 16-438)
14. Remove back curtain assembly from rear and rear quarter trim sticks.

Installation

1. Preset spacer sticks to shortest length and install between center and rear roof bow. (Fig. 16-436) Adjust sticks so that dimension "X" (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is 17-5/8".

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

Tie or tape rear bow to rear side roof rails.

2. Place new back curtain window assembly on clean covered work bench with interior (vinyl) surface of back window facing down.
3. Carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See Steps 6 and 12 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 vinyl, marks must be below trim stick so that they will not show after curtain is installed in body.

4. Center and position back curtain assembly to

rear trim stick over attached compartment bag.

NOTE: Notch in back curtain vinyl at lower edge indicates centerline of back curtain assembly. (Fig. 16-441) In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

5. Tack curtain to rear and rear quarter trim sticks. On right side, tack zipper tape to forward edge of rear quarter trim stick. (Fig. 16-442)

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

6. Tack remainder of back curtain material to rear quarter trim stick.
7. Tacks securing back curtain assembly to trim sticks should be placed close to each side of every bolt hole in trim sticks; then pierce or punch back curtain assembly for each trim stick bolt.
8. Tack nylon webbing to rear trim stick. Lower rear edge of webbing should be even with corner of rear trim stick. (Fig. 16-438)
9. Inspect rubber trim stick fillers cemented to body below pinchweld. Re-cement if necessary. (Fig. 16-443)
10. 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.

11. Secure back curtain assembly with one tack to rear bow to prevent damage to plastic sheet. (Fig. 16-444)
12. Working from body center progressively outboard to right and left sides, tack back curtain upper valance to rear bow. Make sure all fullness has been drawn from curtain assembly. Fold excess back curtain upper valance material rearward and tack to rear bow. (Fig. 16-445)

IMPORTANT: DO NOT CUT OFF EXCESS UPPER VALANCE MATERIAL AS MATERIAL MAY UNRAVEL.

13. Check contour of back curtain assembly at rear roof bow and at pinchweld molding.
14. Where required, place reference chalk mark

on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required. (Fig. 16-446)

15. Tack nylon webbing to rear roof bow. Inboard edge of webbing should be installed even with outboard edge of side roof rail pad. Fold excess webbing rearward and tack to rear bow. Remove excess by trimming webbing just forward of rear rolled edge of rear roof bow.

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

16. Detach rear trim stick with attached back curtain assembly from body and install top trim cover assembly.

NOTE: Extra care in positioning new curtain at same location on trim stick as old curtain and aligning of trim stick attaching bolt holes in top material with holes in trim stick will allow reinstallation of top material to its original position with a minimum of refitting.

17. Install all previously removed trim and hardware.

BACK CURTAIN ZIPPER REPLACEMENT

If only the back curtain zipper is being replaced, use the Removal and Installation procedure for BACK CURTAIN TRIM ASSEMBLY (COMPLETE) and perform the following additional operations after the back curtain assembly has been removed from body (after Step 14 of removal procedure).

1. Using chalk or similar material, on old zipper tape, mark location of zipper in relation to edges of back curtain vinyl and upper valance webbing.
2. Cut stitches securing zipper tape to back curtain assembly and to upper valance webbing.
3. Transfer reference marks to new zipper assembly.
4. Sew new zipper tape to back curtain vinyl and upper valance webbing.

NOTE: Zipper tape may be stapled to back curtain and upper valance webbing to aid in holding zipper in proper position during sewing operation.

5. Install back curtain assembly as described under Installation procedure for BACK CURTAIN TRIM ASSEMBLY (COMPLETE).

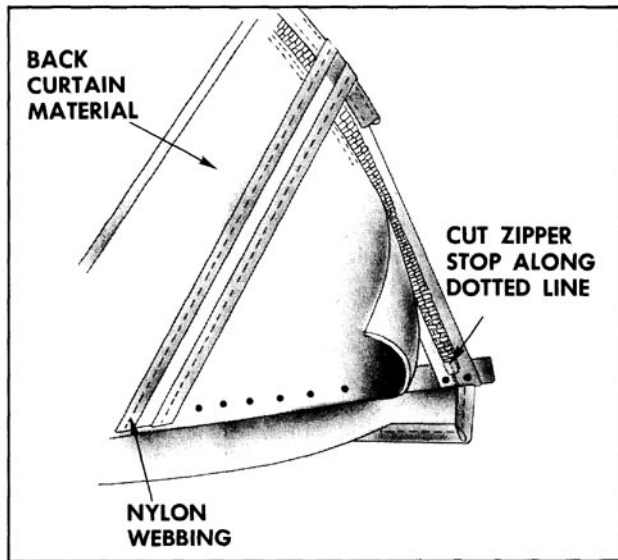


Fig. 16-454 Back Curtain Vinyl

BACK CURTAIN VINYL REPLACEMENT (INCLUDES EXTENSIONS)

Removal

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 folding top compartment side trim panel assemblies and side roof rail rear weatherstrips; then detach folding top quarter flaps from side roof rear rails.
4. Detach top compartment bag from seat back panel and remove all trim stick attaching bolts.
5. To establish the relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain vinyl at both locations with a grease pencil. (Fig. 16-434)

Reference marks should be transferred to new back curtain when Step 4 of installation procedure is performed.

6. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. Reference marks should be used as a guide when installing top material to trim sticks after new back curtain has been installed.
7. Remove folding top material from rear and rear quarter trim sticks; then carefully slide top trim forward sufficiently to expose back curtain zipper.

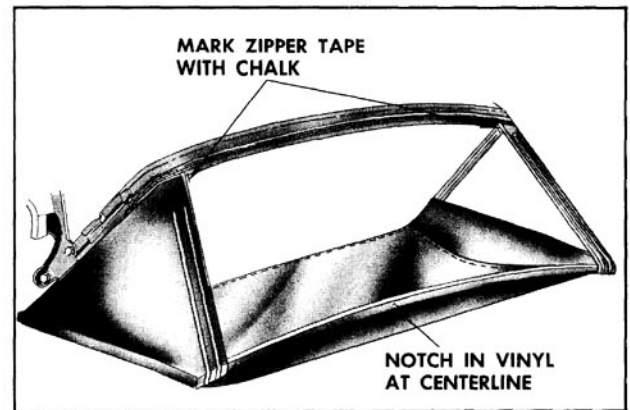


Fig. 16-455 Marking Zipper Tape

8. Detach zipper tape from rear quarter trim stick.
9. Using a pair of wire cutting shears or other suitable tool, cut zipper stop along dotted line and remove both halves of stop from zipper. (Fig. 16-454)
10. Operate slide fastener off of zipper assembly.
11. Detach nylon webbing from rear trim stick.
12. Remove rear and rear quarter trim sticks with attached back curtain and compartment bag material from body and place on a clean, protected surface.
13. Using chalk or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material. (Fig. 16-438) Reference marks for trim sticks should be transferred to new back curtain material when Step 4 of installation procedure is performed.
14. Using chalk or similar material, mark zipper tape at upper edge of vinyl. (Fig. 16-455)
15. Remove back curtain assembly from rear and rear quarter trim sticks.
16. As a bench operation, cut stitches securing half of zipper assembly to back curtain vinyl.

NOTE: Back curtain vinyl and extensions (less zipper) are available as a service part.

Installation

1. Using chalk mark as guide, locate rear half of zipper to new back curtain vinyl. Zipper tape may be stapled to new back curtain to aid in holding zipper in proper position during sewing operation.
2. Sew zipper to new back curtain assembly.

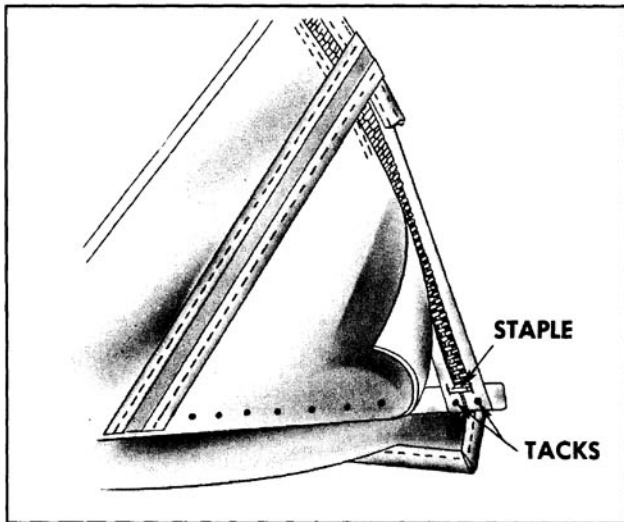


Fig. 16-456 Zipper Installation

(Fig. 16-456) Zipper tape should not be pulled taut as zipper teeth may show through top material after top has been properly installed.

14. Install trim sticks with attached back curtain assembly into body.

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

15. Check contour of back curtain assembly at pinchweld molding. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly by re-tacking curtain to rear or rear quarter trim sticks as required.

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

17. Carefully replace top in position in rear quarter area.

18. Using nitrile cement or neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rear rails. Make sure that rear quarter flap seam is even with forward edge of side roof rear rail. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.

19. Using previously marked lines (end of trim sticks) and bolt hole locations in top material as a locating reference, tack top material to rear and rear quarter trim sticks.

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

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

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

23. After desired fit of top material has been obtained, install trim sticks with attached top material into top compartment well and tighten side and rear trim stick attaching bolts.

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

3. Place back curtain window assembly on clean covered work bench with interior (vinyl) surface of back window valance facing down.

4. Transfer marks on old back curtain to new back curtain assembly. See Steps 5 and 13 of removal procedure.

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

NOTE: Notch in back curtain vinyl at lower edge indicates centerline of back curtain assembly. (Fig. 16-455) In addition, back curtain lower edge should extend approximately 1/2" below lower edge of trim sticks.

6. Tack curtain to rear and rear quarter trim sticks.

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

8. Tack nylon webbing to rear trim stick. (Fig. 16-454)

9. Inspect rubber trim stick fillers cemented to body below pinchweld. Re-cement if necessary.

10. Install slide fastener onto zipper assembly.

11. Staple both sections of zipper tape together. Staples will aid in preventing zipper scoops from disengaging and also serve as a stop for the slide fastener. (Fig. 16-456)

12. Operate slide fastener to closed position.

13. Tack zipper tape to rear quarter trim stick.

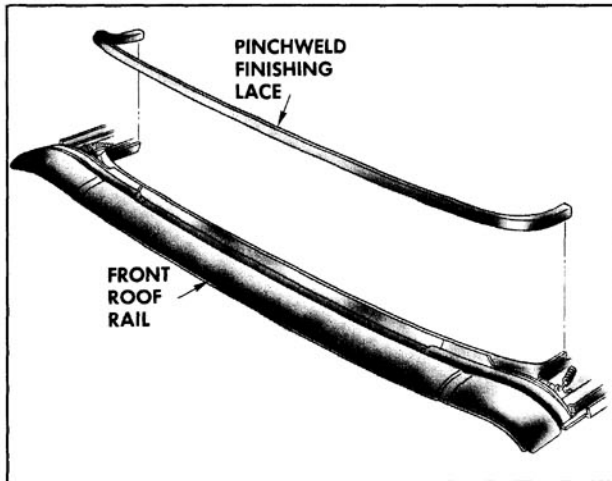


Fig. 16-457 Pinch Weld Finishing Lace

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

PINCHWELD FINISHING LACE

The upper rear pinchweld flange on the front roof rail assembly is covered by a one-piece snap-on pinchweld finishing lace. (Fig. 16-457)

Removal and Installation

1. Unlock top from windshield header; then raise top assembly to half-open position.
2. To remove lace, carefully pull lace assembly loose from pinchweld flange.
3. To install, press lace assembly over pinchweld flange. Be sure each end of lace is concealed by upper inboard flange of side roof front rail assembly.

REAR COMPARTMENT (ALL EXCEPT 35 STYLES)

The rear compartment lid employs two torque rods that are mounted between the hinge assemblies to act as a counter-balance and hold-open for the lid. Notches in the stationary part of the hinges allow for adjustment of the rods to increase or decrease the effort required to open and close the lid.

The rear compartment lid lock employs a side-action snap-bolt mechanism that has provisions at the attaching screw locations for lateral adjustment. Vertical adjustment is available at the striker attaching screw locations.

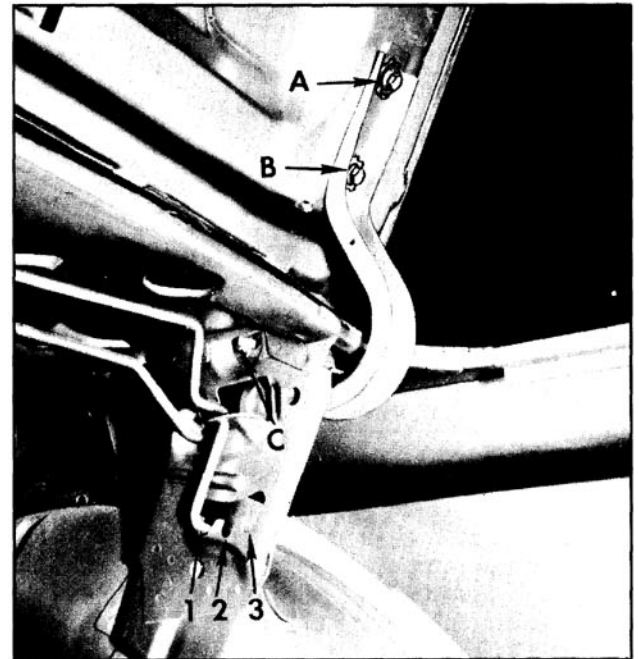


Fig. 16-458 Hinge and Torque Rod

All styles use a single section cement-on type weatherstrip that is cemented to the rear compartment gutter completely around the lid opening.

REAR COMPARTMENT LID

Removal and Installation

1. Open rear compartment lid and place protective covering along edges of rear compartment opening to prevent damage to painted surfaces.
2. Mark location of hinge straps on lid inner panel. On styles with rear compartment lid lock vacuum release option, remove vacuum hose from lid.
3. With aid of a helper, remove lid attaching bolts "A" and "B" (Fig. 16-458) and remove rear compartment lid.
4. To install, reverse removal procedure. Align marks on lid with hinge straps before tightening hinge attaching bolts.

LID ADJUSTMENTS

1. To adjust compartment lid forward or rearward, or from side to side in body opening, loosen both hinge strap attaching bolts, "A" and "B" (Fig. 16-458) and adjust lid as required; then tighten bolts.
2. To adjust compartment lid at hinge area up or down, install shims between lid inner panel and hinge straps as follows:

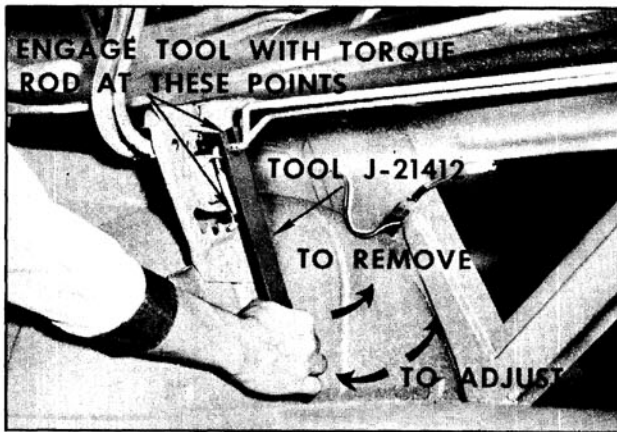


Fig. 16-459 Torque Rod Adjustment

- a. To raise front edge of lid at hinge area, place shim between lid inner panel and forward portion of one or both hinge straps at attaching bolt "B". (Fig. 16-458)
- b. To lower front edge of lid at hinge area, place shim between lid inner panel and rearward portion of one or both hinge straps at attaching bolt "A". (Fig. 16-458)

3. To check lid lock bolt engagement with striker, see REAR COMPARTMENT LID LOCK STRIKER ENGAGEMENT CHECK.

LID TORQUE ROD ADJUSTMENT

The amount of effort required to open or close the rear compartment lid is determined by the notch position of the torque rods in the hinge plates.

If the torque rod is located in the most forward notch ("1", Fig. 16-458), the amount of effort required to open the lid is the greatest and to close the lid is the least.

If the torque rod is located in the most rearward notch ("3", Fig. 16-458), the amount of effort required to open the lid is the least and to close the lid is the greatest. Figure 16-459 illustrates how to use Tool J-21412 to perform these adjustments.

Figure 16-460 is a dimensional drawing of a rear compartment lid torque rod adjusting tool.

NOTE: It is not necessary to adjust both rods, or to adjust both rods to the identical notch.

LID TORQUE ROD REMOVAL

1. Open rear compartment lid and provide support to hold it in full open position.

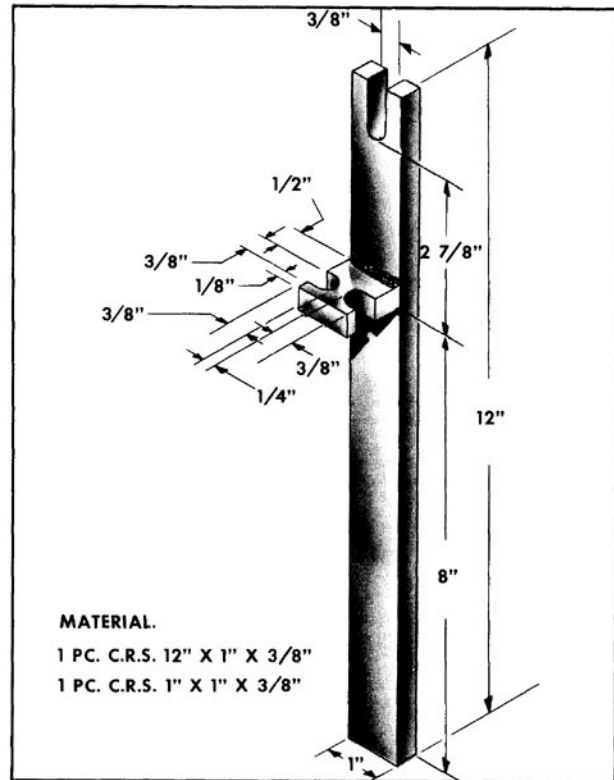


Fig. 16-460 Torque Rod Tool

2. Engage torque rod adjusting Tool J-21412 with torque rod to be removed as shown in Fig. 16-459.
3. Combining a rearward and upward pulling force, disengage lower end of torque rod from notch in hinge plate.
4. Holding tool firmly, relieve torque (tension) of rod by carefully allowing tool to ease forward. When tension on tool has been relieved, remove tool.
5. Disengage opposite end of torque rod from hinge plate and roller in hinge strap and remove rod from body.

NOTE: Roller is held in channel of hinge strap by "return crank" end of torque rod only and can be removed once stationary end of torque rod is disengaged.

6. To install, reverse removal procedure. Lubricate as specified in the PERIODIC MAINTENANCE section of this manual.

LID HINGE

1. Place protective covering over body around upper portion of rear compartment opening and provide support for lid on side from which hinge is to be removed.
2. Mark location of hinge strap on lid inner panel.

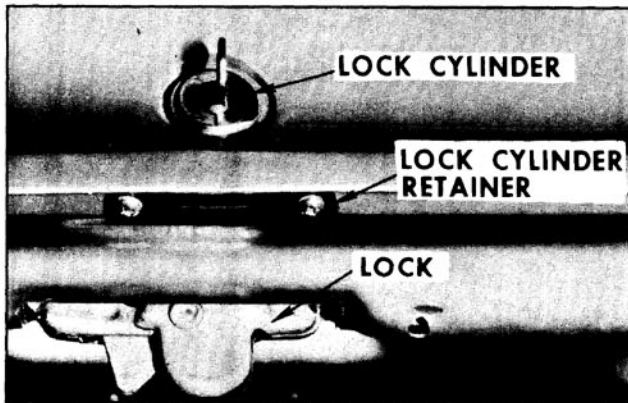


Fig. 16-461 Lid Lock Cylinder

3. Disengage opposite, stationary end of torque rod that is engaged in hinge to be removed (Refer to TORQUE ROD ADJUSTMENT OR REMOVAL in this manual).
4. Disengage torque rod from roller and hinge mounting plate on side from which hinge is being removed.
5. Remove hinge to lid inner panel attaching bolts "A" and "B". (Fig. 16-458)
6. Bend back hinge pin retaining tab ("C", Fig. 16-458); then remove hinge pin and hinge.
7. To install, reverse removal procedure.

LID LOCK CYLINDER

Removal and Installation

1. Open rear compartment lid and remove lock cylinder retainer attaching screws. (Fig. 16-461)
2. Pull retainer downward to disengage from lock cylinder and remove lock cylinder from compartment lid outer panel.
3. To install, reverse removal procedure. Make certain gasket seats properly against lid outer panel to effect a watertight seal.

LID LOCK

Removal and Installation

1. Remove rear compartment lid lock cylinder as previously described. Mark lateral position of lock to facilitate reinstallation.
2. Remove lid lock attaching screws (Fig. 16-462) and remove rear compartment lid lock. On styles equipped with rear compartment lid lock vacuum release option, remove vacuum release unit prior to lock removal.

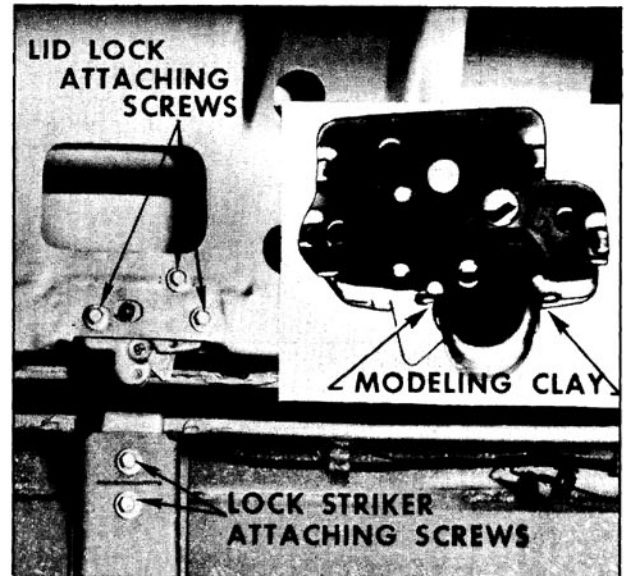


Fig. 16-462 Lid Lock and Striker

3. To install, reverse removal procedure. Check lateral alignment of lock to striker, then check operation of lock.

LID LOCK STRIKER

Removal and Installation

1. Open rear compartment lid. Mark vertical position of striker by scribing line on striker across top of striker support.
2. Remove striker attaching screws (Fig. 16-462) and remove striker.
3. To install, align scribe mark on striker with top of striker support and install attaching screws.

LID LOCK STRIKER ENGAGEMENT

Since the rear compartment lock frame acts as a guide when entering the striker, make certain that rear compartment lid is properly positioned in body opening before performing lock-to-striker engagement check.

To determine the alignment and engagement of lock to striker, proceed as follows:

- a. Insert a small quantity of modeling clay on frame of lock on both sides of lock bolt. (Fig. 16-462) Close lid with moderate force.
- b. 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 re-

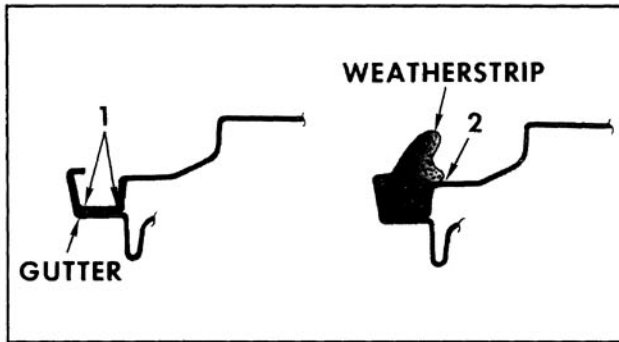


Fig. 16-463 Rear Compartment Weatherstrip

quired, loosen striker or lock attaching screws, adjust lock sideways, or striker up or down, to obtain proper engagement; then, tighten attaching screws.

REAR COMPARTMENT WEATHERSTRIP

Removal

1. Separate "butt" ends of weatherstrip at rear center of rear compartment opening.
2. Using a flat-bladed tool, break cement bond between weatherstrip and gutter around entire perimeter of rear compartment opening and remove weatherstrip.

Installation

1. Clean out gutter around entire rear compartment opening to provide a clean cementing surface.
2. Apply (brush) a continuous coat of neoprene weatherstrip adhesive along bottom, inner and outer walls of gutter as indicated at "1" in Fig. 16-463 around complete length of gutter.
3. Using a flat-bladed tool, insert weatherstrip into gutter, starting with one end of weatherstrip at rear center of gutter and working completely around gutter.
4. If installing new weatherstrip, trim ends of weatherstrip to form a butt joint at rear center of gutter. Brush black weatherstrip adhesive on both ends of weatherstrip and mate ends to form a butt joint.
5. Using a pressure type applicator, apply neoprene weatherstrip adhesive between gutter and weatherstrip as indicated at "2" in Fig. 16-463 completely around gutter to insure a watertight seal.

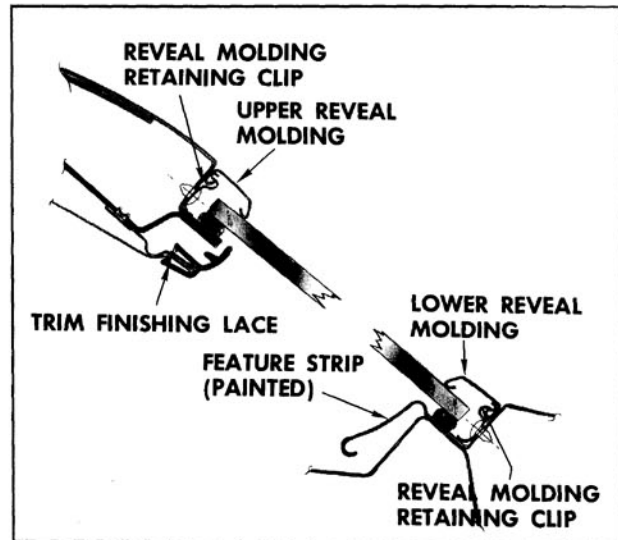


Fig. 16-464 Molding Removal

6. Roll or press weatherstrip to assure a good bond. Close lid and allow sufficient time for adhesive to dry before reopening (30 minutes or more) to assure proper positioning of weatherstrip and formation of a watertight seal.

LID LOCK VACUUM RELEASE UNIT

The rear compartment lid lock vacuum release unit is attached to the inboard side of the compartment lid inner panel in front of the compartment lid lock and is readily accessible with the lid in the open position.

To remove the unit, disconnect the vacuum hose and remove the screws securing the unit to the lid inner panel.

To install, reverse the removal procedure.

BACK WINDOW ASSEMBLY

The back window is retained in the back body opening by a synthetic, self-curing, rubber adhesive caulking compound that adheres to both the glass and back window opening pinchweld flange. Applied to the glass while in a soft state, the material begins to cure soon after exposure to air. Due to this fast curing characteristic, installation of the glass into the body opening must quickly follow application of material to glass.

Because the cured material adheres to both glass and body pinchweld flange, it is necessary to cut through the adhesive caulking compound to remove the back window.

Installation of the back window requires two

adhesive caulking kits. Rubber spacers and paint primer are available as service parts.

To remove the back window it is necessary to first remove the back window reveal moldings. The procedures for reveal molding and back window removal are as follows:

BACK WINDOW REVEAL MOLDINGS

The clips that retain the back window reveal moldings are attached to the back body opening by screws that are inserted through the clips into the body metal. A projection on the clip engages the reveal molding flange, retaining the molding between clip and body metal. An integral self-sealing washer on the reverse side (body side) of the clip protects against waterleaks at the screw locations.

To disengage reveal molding from retaining clip, insert point of Tool J-21549 between molding and back window glass. Keeping "blade" of tool flat on glass, slide tool in molding flange until clip is contacted (Fig. 16-464); then, engage point of tool between upper edge of clip and molding and slightly rock tool. Repeat this operation at each clip location and remove molding.

NOTE: Use care not to get point of tool behind edge of glass. Any prying force with tool in that position could shatter tempered safety plate glass.

BACK WINDOW REMOVAL (GLASS INTACT)

1. Remove back window reveal moldings as previously described. On 69 styles, remove nuts from back window lower corner escutcheons from inside rear compartment (one each side forward of lid hinge). Remove escutcheons from inside body. Disengage finishing lace from headlining retainer across top and down sides of back window. Place protective covering over rear seat and parcel shelf trim.
2. Secure one end of steel music wire to a piece of wood that can serve as a handle. Insert other end of wire through caulking material at a lower corner of back window and secure that end to a second piece of wood. (Fig. 16-465)
3. With aid of a helper, carefully cut (pull steel wire through) caulking material up one side, across top, down opposite side, and across bottom. If difficulty is encountered at rubber spacer locations, cut through spacers using a slow sawing motion. Do not use a fast sawing motion as wire will heat-up and break. Keep tension on wire throughout cutting operation to prevent "kinks".



Fig. 16-465 Glass Removal

4. Remove window from body opening. If same glass is to be re-installed, place it on a clean, protected surface. Using a sharp scraper or razor blade, remove major traces of old caulking material from glass. Remove all remaining traces with a toluene or thinner dampened rag.

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

5. Using a sharp scraper or chisel, remove major portion of old caulking material from pinchweld flange around back window opening. It is not necessary that all of it be removed, but there should not be any mounds of material or loose pieces left.

BACK WINDOW INSTALLATION

If new back window is being installed because former window shattered, perform Steps 1 and 5 of BACK WINDOW REMOVAL procedure before proceeding with installation.

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, replace or reform clip to insure adequate molding retention. Tighten all loose clip screws.
2. Cement five flat (.180" x .5" x 1.0") spacers to back window upper and side pinchweld flanges with black weatherstrip adhesive as described below and illustrated in Fig. 16-466.
 - a. Cement three spacers to upper pinchweld flange; one at body centerline and one to each side 20" outboard of centerline.

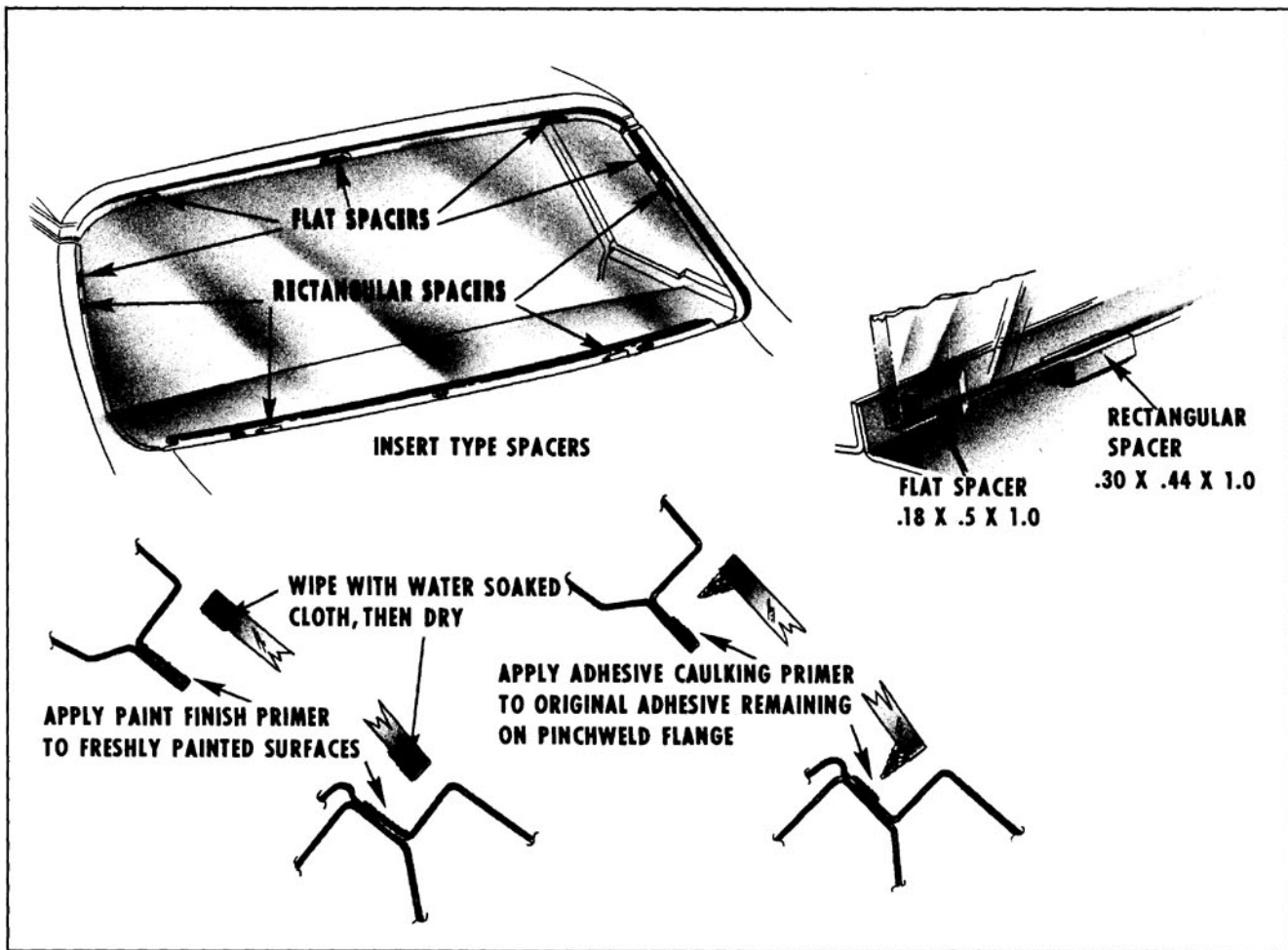


Fig. 16-466 Back Window Installation

- b. Cement one spacer to each side pinchweld flange slightly above center of flange.
3. Insert three .180 x .24 x .74 insert type spacers into slots in compartment front and shelf panel across lower edge of back window opening. (Fig. 16-466)
4. Using black weatherstrip adhesive, cement four rectangular spacers (.30 x .44 x 1.0) to lower and side back window opening rabbet as described below and illustrated in Fig. 16-466.
 - a. Cement two spacers to back window opening lower rabbet, one spacer to each side, approximately 9" inboard of back window lower corner.
 - b. Cement one spacer to each side of back window opening rabbet approximately 9" up from lower corner.
5. Attach glass handling suction cups to outside surface of glass to enable lifting glass into opening. If suction cups are not available, make tape handles from pieces of 2-1/2" cloth body tape as described below and illustrated in Fig. 16-467.
 - a. Allow center 10" of a 24" piece of 2-1/2" cloth body tape to adhere together to form a closed loop (handle).
 - b. Holding tape horizontally, apply it to outside surface of glass near one corner positioned so that end or edge of tape is at least 4" from any edge of glass.

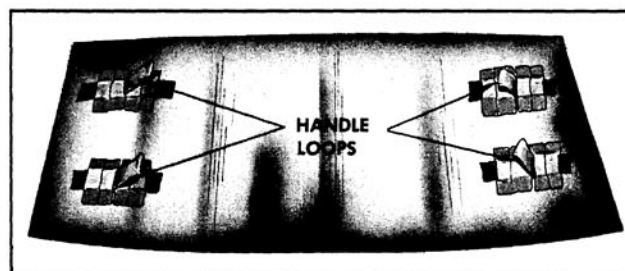


Fig. 16-467 Tape Handles

NOTE: The rectangular spacers across the bottom support the weight of the glass, therefore, make certain that they are well positioned so they will not rock or slide out.

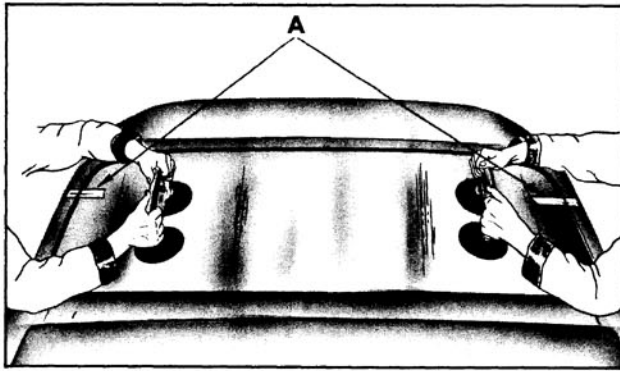


Fig. 16-468 Back Window Installation

- c. Apply four 8" pieces of 2-1/2" cloth tape vertically over "handle" previously applied, two pieces on each side of handle loop. (Fig. 16-467)
 - d. Repeat Steps A, B, and C at three remaining corners to make a total of four "handles".
6. Position glass in opening and check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/16". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers. Standard spacers are .30" thick but .34" thick spacers are available.
 7. Check relationship of glass contour to back window opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, corrections can be made by any one of the following methods.
 - a. Substitute another glass to determine if it will fit opening better.
 - b. Rework pinchweld flange.
 - c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange by allowing bead on glass to exceed specified 3/8" height at gap areas.
 8. After final adjustments have been made and glass is in proper position in opening, apply a piece of masking tape horizontally over each side edge of glass and rear quarter extension. ("A", Fig. 16-468) Slit tape vertically at edge of glass so that when glass is being installed, tape on glass can be aligned with tape on body and serve as a guide.

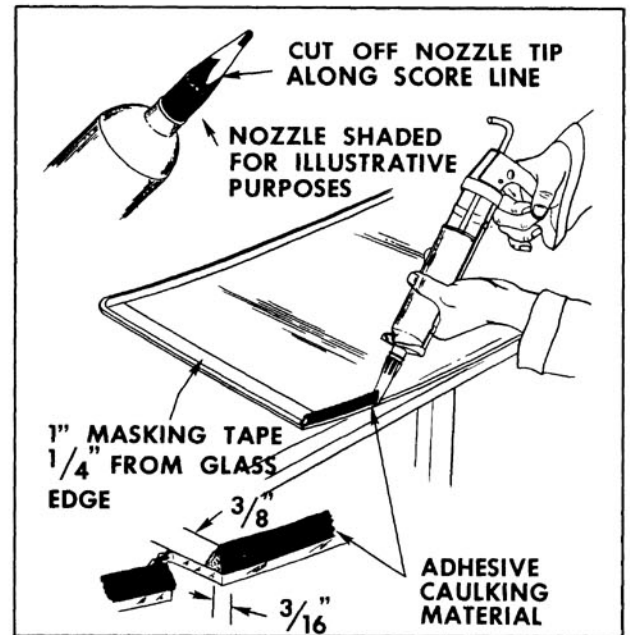


Fig. 16-469 Adhesive Caulking

9. Remove glass from body opening and place inner surface up on a glass holding fixture or clean protected surface.
10. Beginning at a lower corner of glass, apply 1" masking tape to inside surface of glass 1/4" inboard from outer edge, up both sides and across top. (Fig. 16-469) Do not apply tape to bottom edge of glass.
11. From inside of body, apply masking tape over painted feature strip below back window opening.
12. Using a clean, lint-free cloth liberally dampened with Adhesive Caulking Primer, briskly rub primer over original adhesive caulking compound remaining on pinchweld flange. Perform following steps while allowing primer to dry 5 to 10 minutes.

NOTE: If pinchweld flange was repainted, prime flange with Paint Finish Primer instead of adhesive primer. Paint Finish Primer is available as a service part.
13. Cut off tip of one nozzle along score line. (Fig. 16-469) This nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at a 45° angle 1" below end of nozzle. This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.
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 thoroughly with a clean, dry rag.

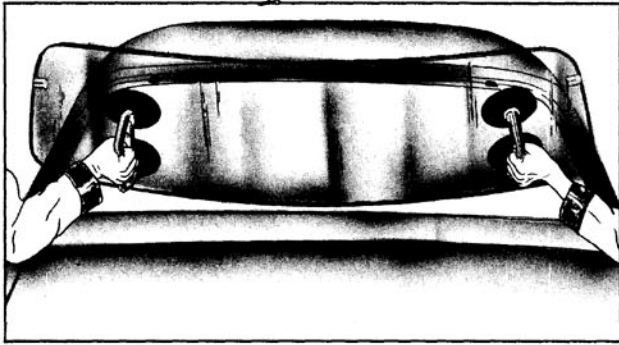


Fig. 16-470 Back Window Installation

15. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle (cut on score line in Step 13).
 16. Insert tube in a standard household type caulking gun reworked as follows:
 - a. Widen end-slot of caulking gun with a file to accept dispensing end of tube.
 - b. Grind down plunger disc on rod so that disc will fit into large end of tube.
 17. Positioning the gun and nozzle as shown in Fig. 16-469, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass. When material in first tube is dispensed, quickly insert second tube and continue application of bead. After application, check bead and fill all voids and air bubbles.
- NOTE: Material begins to cure after 15 minute exposure to air, therefore, perform following steps immediately and install glass in opening as soon as possible.
18. Remove "glass-bead" nozzle and insert "smear-bead" nozzle (nozzle cut on 45° angle in Step 13). Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear-bead" of adhesive caulking material completely around pinchweld flange.
 19. With the aid of a helper, carefully install glass in body opening. (Figs. 16-470 and 16-471) Make certain that glass sets properly on all spacers and does not have to be shifted after caulking material contacts pinchweld flange.

NOTE: When setting glass in opening, it should be in approximately the same plane as opening with top edge of glass making contact first, then lower edge. Focus attention on tape guides that were applied to glass and body to properly position glass in opening.

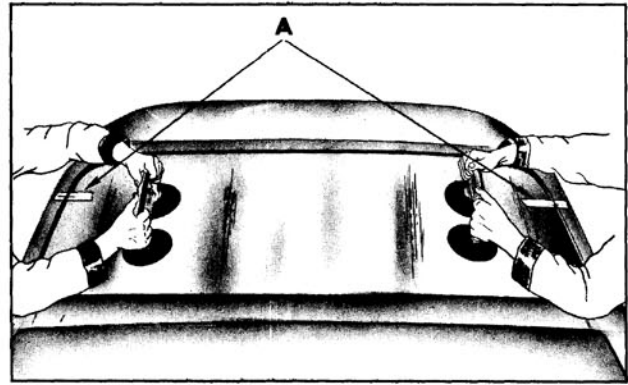


Fig. 16-471 Aligning Tape

20. Press glass lightly to adhere caulking material to pinchweld flange. Do not use too much pressure as excessive squeeze-out will be visible after reveal molding installation.
21. Working inside the body, run a flat-bladed tool or stick across top and up sides of opening to press squeeze-out material back into opening between glass and pinchweld flange.
22. Install back window reveal moldings and watertest immediately with cold water spray. If any waterleaks are encountered, use flat-bladed tool to work material into leak point from inside the body. Remove tape from inside surface of glass.
23. Install all previously removed parts and remove protective coverings.

NOTE: Unused adhesive caulking material remaining in tube can be stored for later use. To store, remove nozzle and insert end cap previously removed. Do not remove material from nozzle until it has cured. Once material has cured, it can be removed from nozzle in one piece with a pair of pliers.

MINOR WATER LEAK CORRECTION

If a waterleak develops in a cured adhesive caulked window installation proceed as follows:

1. Remove reveal moldings from leak point.
2. a. If leak is to be sealed with one part adhesive caulking material from Kit #4226000, clean adhesive caulking material around leak point with Adhesive Caulking Primer.
- b. If one-part adhesive caulking material is not available, clean adhesive caulking material around leak point with water and dry completely.

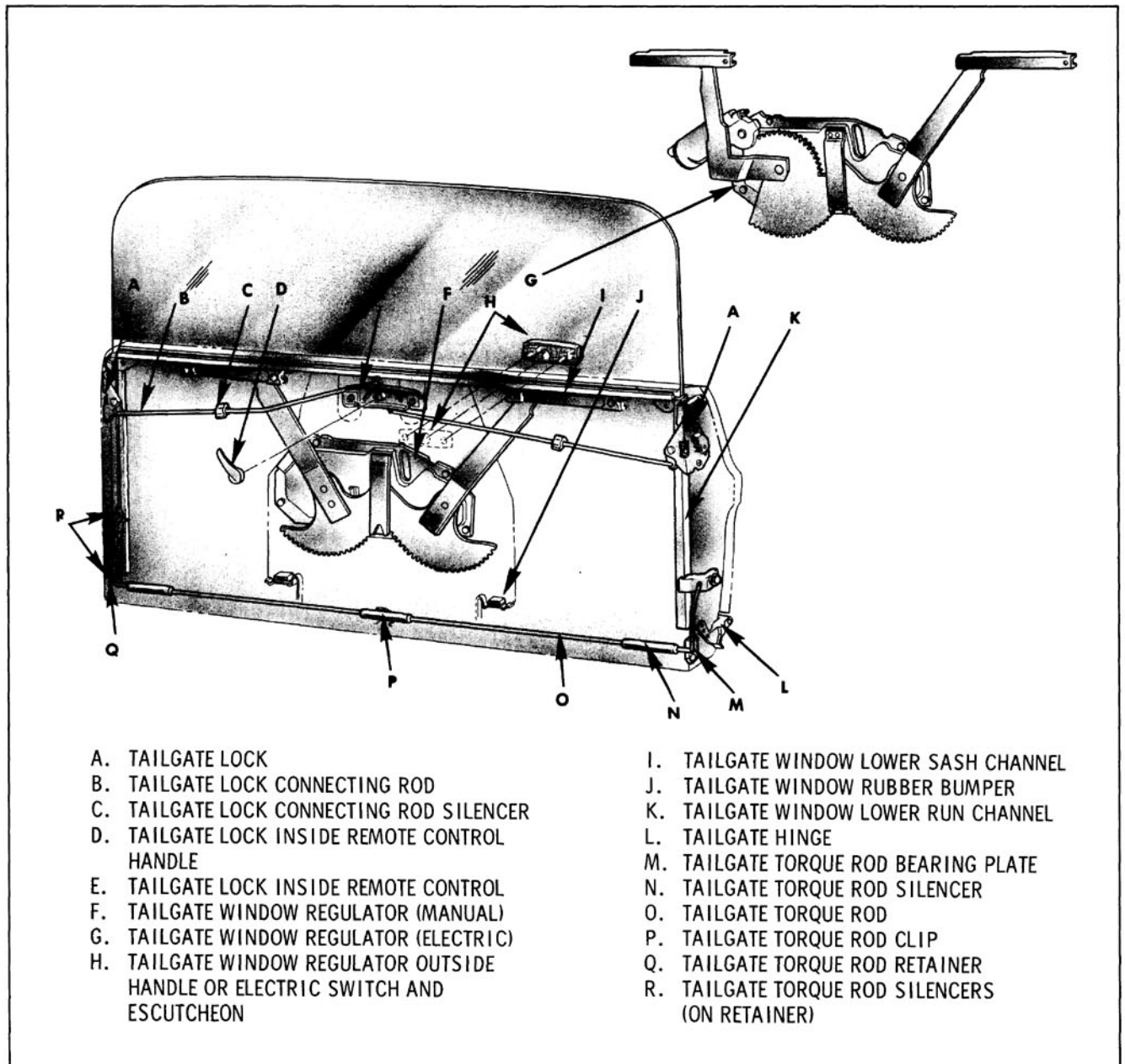


Fig. 16-472 Tailgate Hardware

3. Seal leak point with liberal application of adhesive caulking material or black weather-strip adhesive depending on what material is available and how surface was prepared in Step 2.
4. Watertest and install all previously removed parts.

TAILGATE ASSEMBLY

All tailgates incorporate either a manually operated or electrically operated tailgate window which can be lowered into the tailgate or raised into the upper portion of the back body opening. The manually operated tailgate window is oper-

ated by means of a window regulator control handle (folding type) located in the tailgate outer panel. The electrically operated tailgate window can be operated from any one of two control switches: (1) control switch located on instrument panel; (2) lock cylinder control switch (key operated) located in tailgate outer panel. A switch located at the right tailgate lock prevents the up cycle operation of the electrically operated tailgate window when the tailgate is not completely closed. After lowering the tailgate window, the tailgate can be opened by means of a tailgate lock remote control inside handle located at the tailgate.

The tailgate hinges are secured to the tailgate side facing by three screws and to the body opening pillar by three screws. The tailgate is

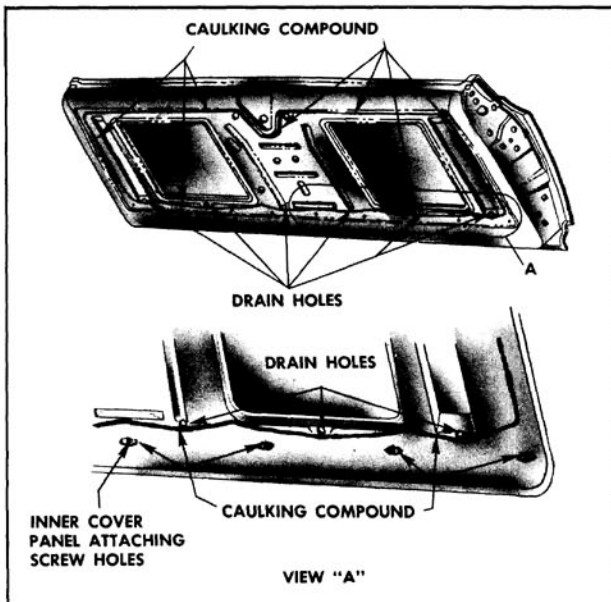


Fig. 16-473 Tailgate Inner Panel Sealing

counterbalanced by a single torque rod that is secured at the left rear body opening pillar by a mounting plate and between the tailgate panels by a retainer welded to the tailgate right side facing. When the tailgate is opened, the end of the torque rod secured to the body remains stationary while the remainder of the rod moves with the gate, thereby creating an assisting torque for both lowering and raising the gate. (Fig. 16-472)

TAILGATE INNER PANEL WATER DEFLECTOR

A waterproof paper tailgate inner panel water deflector is sealed to the tailgate inner panel and deflects water into the bottom of the tailgate where it can drain out the bottom drain holes. The bottom of the water deflector is sealed to the inner panel in a manner that will deflect water towards designated holes where water can readily enter into the bottom of the tailgate. Whenever any work is performed on the tailgate and deflector is disturbed, it must be sealed to the inner panel.

Removal

1. Remove tailgate inner cover panel.
2. Using a suitable tool, carefully lift up edge of deflector and detach sealer and water deflector as required.

NOTE: DO NOT TEAR WATER DEFLECTOR.

Installation

1. If installing old deflector or resealing par-

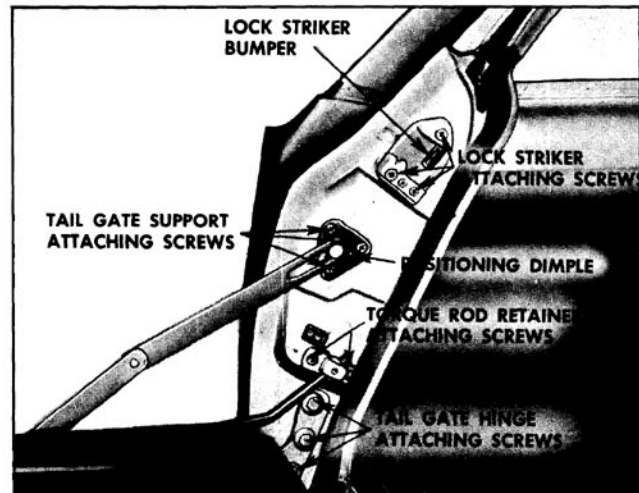


Fig. 16-474 Tailgate Mechanism

tially detached deflector, first inspect deflector for any tears or holes and, where necessary, repair any tears or holes with waterproof body tape applied to both sides of deflector.

2. If installing new deflector, use old deflector or tailgate inner panel to trim new deflector to proper size.
3. Apply a bead of body caulking compound (approximately 3/16" diameter) to tailgate inner panel. (Fig. 16-473)

IMPORTANT: The body caulking compound should be applied along the lower portion of the tailgate inner panel exactly as shown in illustration to assure proper drainage of water through designated holes in inner panel into bottom of tailgate. The bead of body caulking compound should cover the inner cover panel attaching screw holes at the top and sides of the tailgate.

Also apply body caulking compound over each of the inner cover panel attaching screw holes across the bottom of the tailgate. (Fig. 16-473)

4. Position water deflector to tailgate inner panel with polyethylene coated side of deflector against inner panel. Firmly press or roll sealed areas to obtain a good bond between deflector and tailgate inner panel.
5. Clean off all excess caulking compound; then, install previously removed tailgate inner cover panel.

TAILGATE ASSEMBLY (MANUALLY OPERATED WINDOW)

Removal and Installation

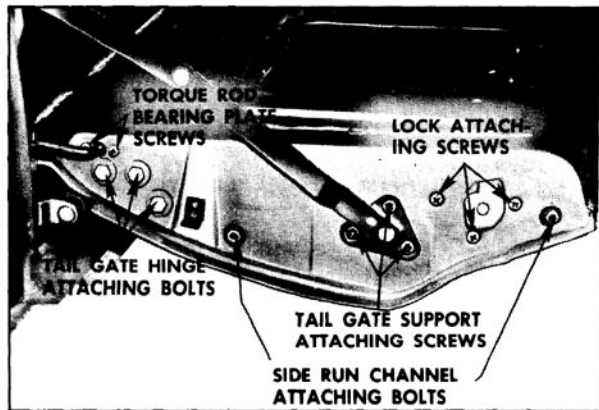


Fig. 16-475 Tailgate Attachment

1. Open tailgate. With gate in approximately a vertical position, to relieve tension from torque rod, remove torque rod retainer attaching screws on rear body lock pillar. (Fig. 16-474)
2. With aid of a helper, remove tailgate support attaching screws (Fig. 16-475) and fold supports against rear body pillar.
3. Remove tailgate hinge attaching bolts at body pillar (Fig. 16-474) and remove tailgate assembly from body.
4. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surfaces of hinge straps that contact body pillar.

Check operation of tailgate and, if necessary, adjust tailgate in body opening as specified under TAILGATE ADJUSTMENTS.

TAILGATE ASSEMBLY (ELECTRICALLY OPERATED WINDOW)

Removal and Installation

1. Open tailgate. Remove tailgate window as described under TAILGATE WINDOW - Removal and Installation.
2. Remove lock cylinder, switch and escutcheon assembly as described under LOCK CYLINDER, SWITCH AND ESCUTCHEON ASSEMBLY - Removal and Installation; then, disconnect switch junction block.
3. Disconnect harness connector from regulator motor and from jamb switch at right tailgate lock pillar. Detach harness from clips inside tailgate and harness grommet from tailgate bottom facing and remove harness.
4. Complete tailgate removal by performing Steps 1 through 3 as described in TAILGATE

ASSEMBLY (Manually Operated Window) - Removal and Installation.

5. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surfaces of hinge straps that contact tailgate.

Check operation of tailgate window and tailgate. If necessary, adjust tailgate in body opening as specified under TAILGATE ADJUSTMENTS.

TAILGATE ADJUSTMENTS

To adjust the tailgate assembly up or down or in or out in the body opening, loosen hinge attaching bolts at tailgate (Fig. 16-475); adjust tailgate as required and tighten hinge attaching bolts.

TAILGATE HINGE

Removal and Installation

1. Open tailgate and provide support for gate on side from which hinge is to be removed.
2. Remove escutcheon covering hinge entrance hole in tailgate outer panel.
3. Remove tailgate hinge attaching bolts from tailgate (Fig. 16-475) and from body pillar (Fig. 16-474) and remove hinge from tailgate.
4. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surface of hinge strap that contacts tailgate.

Check alignment of tailgate in body opening and adjust gate, if necessary, as specified in TAILGATE ADJUSTMENTS.

TAILGATE TORQUE ROD

1. Remove tailgate window as described under TAILGATE WINDOW - Removal and Installation. Remove glass run lower right channel and, where necessary, loosen lower end of left channel.
2. With tailgate in approximately a vertical position, to relieve tension from torque rod, remove torque rod retainer attaching screws on rear body left lock pillar (Fig. 16-474).
3. Loosen torque rod bearing plate attaching screws (Fig. 16-475). Disengage torque rod from retainer at right side of tailgate and retainer in bottom of tailgate (Fig. 16-472).
4. Carefully work right end of torque rod up

between inner and outer panels and work left end of torque rod through hole in tailgate side facing; then remove torque rod from tailgate. Remove torque rod rubber silencers from torque rod.

5. To install tailgate torque rod, reverse removal procedure. Prior to installing torque rod, lubricate frictional surfaces of torque rod and bearing plate with Lubriplate or its equivalent. Check that torque rod nylon silencers are properly positioned on retainer. After installation of torque rod, install rubber silencers on rod. (Fig. 16-472)

TAILGATE SUPPORTS

Removal and Installation

1. Open tailgate and provide support for side from which tailgate support is to be removed.
2. Remove tailgate support plate attaching screws from both tailgate and rear body pillar (Fig. 16-475) and (Fig. 16-474) and remove tailgate supports.
3. To install, reverse removal procedure. Install support plate to body pillar with positioning dimple towards front of body.

NOTE: Objectionable slack in either tailgate support can be eliminated by rotating one or both support plates at the body pillar.

1. Positioning dimple towards bottom shortens support approximately 3/8" from production installation.
2. Positioning dimple towards top shortens support approximately 3/4" from production installation.

TAILGATE WINDOW ASSEMBLY (MANUAL AND/OR ELECTRIC)

Removal and Installation

1. Open tailgate. Remove tailgate inner cover panel.
2. Remove tailgate inner panel water deflector and inner panel access hole covers.
3. Carefully operate window upward until window lower sash channel cam attaching screws are accessible through access holes; then, remove both right and left cam attaching screws (Fig. 16-476) and disengage cams from window sash channel.
4. Remove tailgate window and place window on a clean protected surface.

5. To install, reverse removal procedure. Prior to installation, lubricate channel portion of sash channel cams with Lubriplate or its equivalent.

TAILGATE WINDOW ADJUSTMENTS

To adjust the tailgate window forward or rearward for proper alignment with the window upper glass run channels on the body, or to eliminate a binding condition of the window in the tailgate glass run side channels, loosen the glass run channel attaching bolts (Fig. 16-475). By moving the attaching bolts, adjust the run channel forward or rearward as desired and tighten the attaching bolt.

TAILGATE WINDOW GLASS SIDE RUN CHANNELS

Removal and Installation

1. Remove tailgate inner cover panel, detach or remove inner panel water deflector and remove access hole cover.
2. Mark location of side run channel attaching screws (Fig. 16-475) to facilitate installation in same position; then remove attaching screws.
3. Raise or operate window to up position (support glass if tailgate is down); then, remove side run channel.
4. To install, reverse removal procedure aligning run channel with previously made marks. Check operation of window and, where necessary, adjust side run channels as described under TAILGATE WINDOW ADJUSTMENTS.

TAILGATE WINDOW REGULATOR (MANUAL OR ELECTRIC)

Removal and Installation

1. Remove tailgate window assembly as previously described.
2. On styles with electric window regulators, disconnect tailgate harness connector from regulator motor.

CAUTION: Do not operate regulator motor after window assembly is removed or after regulator is removed from tailgate. Operation of the motor with the load removed may damage the unit.

3. Through access holes, remove window regulator attaching screws (Fig. 16-476) and remove regulator.

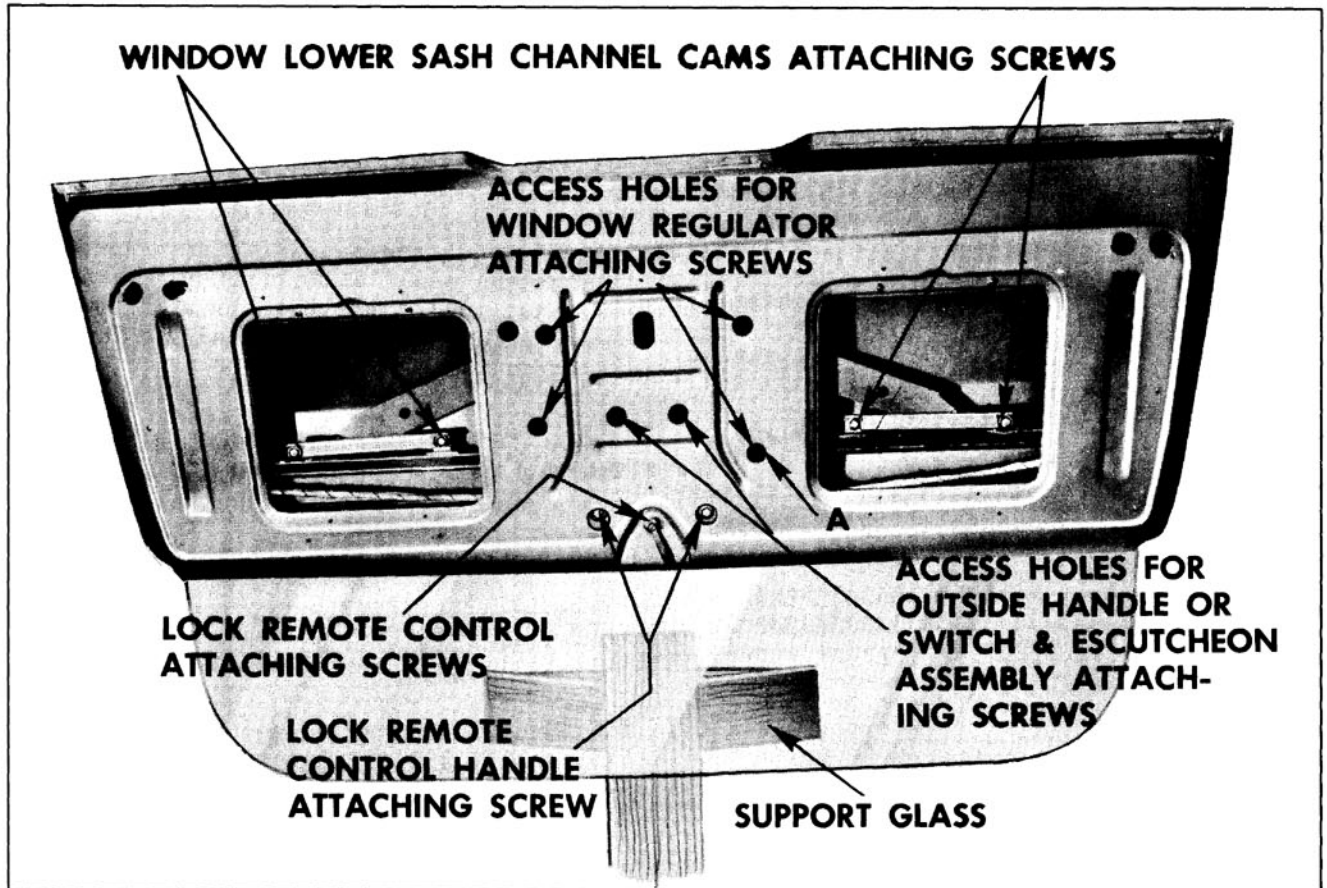


Fig. 16-476 Tailgate Hardware

4. To install window regulator, reverse removal procedure. Prior to installation, lubricate regulator sector teeth with Lubriplate or its equivalent.

TAILGATE WINDOW ELECTRIC REGULATOR MOTOR ASSEMBLY

The following method of removing and installing the tailgate window electric regulator motor assembly can be used whether the motor is operative or inoperative; however, if the motor is inoperative with the window in the full down position or within approximately three inches of the full down position, it will be necessary to detach the window from the regulator lift arms and lift the glass to gain access to the regulator motor attaching screws.

Removal

1. Open tailgate and remove tailgate inner cover panel.

NOTE: If tailgate cannot be opened due to an inoperative regulator motor, perform removal operations from inside body.

2. Remove or detach inner panel water deflector.

Remove tailgate inner panel right access hole cover.

3. Disconnect wire harness connector from motor.

NOTE: If window is inoperative in a down position, remove inner panel left access hole cover; then remove both right and left window lower sash channel cam attaching screws (Fig. 16-476) and lift window up sufficiently to gain access to regulator motor attaching screws. Prop window in up position.

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 backplate. DO NOT drill hole closer than 1/2" to edge of sector or backplate or holes in sector or backplate.

Install a pan head sheet metal tapping screw (No. 10-12 x 5/8) in previously drilled 1/8" hole to lock regulator sector gears and retain counter-balance spring tension.

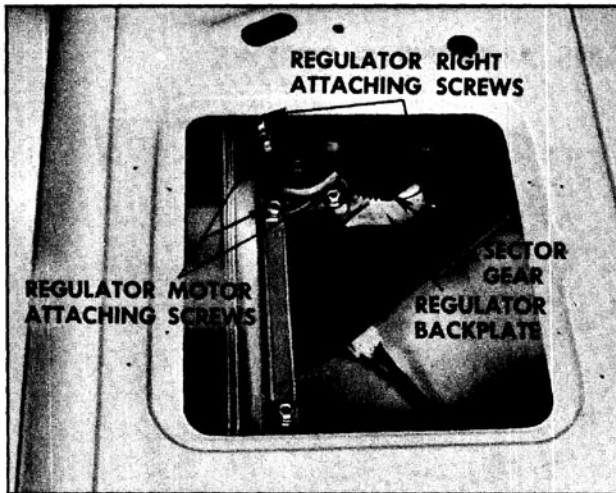


Fig. 16-477 Tailgate Window Motor

- Loosen regulator right attaching screws (Fig. 16-477). Remove three regulator motor attaching screws (Fig. 16-477) and remove motor assembly from regulator and tailgate.

Installation

- Lubricate motor drive gear and regulator sector teeth with Lubriplate or equivalent.
- With tailgate in open position, position regulator motor to regulator making sure motor pinion gear teeth mesh properly with sector gear teeth; then, install three regulator motor attaching screws.
- Tighten regulator right attaching screws.
- IMPORTANT:** After motor assembly is attached to regulator, remove screw locking sector gears, if sector gears were locked.
- Connect wire harness connector to motor. Check operation of tailgate window.
- Install tailgate inner panel access hole cover, inner panel water deflector and inner cover panel.

TAILGATE WINDOW REGULATOR OUTSIDE HANDLE ASSEMBLY

Removal and Installation

- Open tailgate and remove inner cover panel. Detach upper portion of inner panel water deflector.
- Operate tailgate window to full out (up) position.

CAUTION: Support window during operation and while window is in out position (Fig. 16-476).

- Through access holes, remove outside handle attaching nuts and remove outside handle.

To disassemble tailgate window regulator outside handle assembly, see TAILGATE WINDOW REGULATOR OUTSIDE HANDLE ASSEMBLY - Disassembly and Assembly.

- To install, reverse removal procedure. Make certain gasket seals properly with tailgate outer panel. Check operation of window prior to sealing water deflector and installing inner cover panel.

TAILGATE WINDOW REGULATOR OUTSIDE HANDLE LOCK CYLINDER AND CAP ASSEMBLY

Removal and Installation

- Remove tailgate window regulator outside handle assembly from tailgate, as previously described.
- Remove clutch retaining ring and slide clutch off shaft of handle driver (Fig. 16-478).
- Insert key in lock cylinder and turn key to lock position. Depress locking pawl, (Fig. 16-477), turn key (lock cylinder) approximately 1/4 turn counterclockwise and remove lock cylinder assembly, locking pawl and locking pawl spring from handle driver.
- To install lock cylinder assembly, reverse removal procedure. Prior to installing clutch on handle driver, lubricate frictional surfaces with Lubriplate or its equivalent.

TAILGATE WINDOW REGULATOR OUTSIDE HANDLE ASSEMBLY

Disassembly and Assembly

- Remove tailgate window regulator outside handle assembly from tailgate, as previously described.
- Remove clutch retaining ring and slide clutch off shaft of handle driver (Fig. 16-478).
- Using a snap ring removal tool, remove retaining ring securing handle assembly, remove spring washer from shaft of handle driver and remove handle assembly from escutcheon.
- To remove handle and knob assembly, remove handle hinge pin screws and remove handle and knob assembly from handle driver.
- To remove lock cylinder and cap assembly, locking pawl or locking pawl spring, see

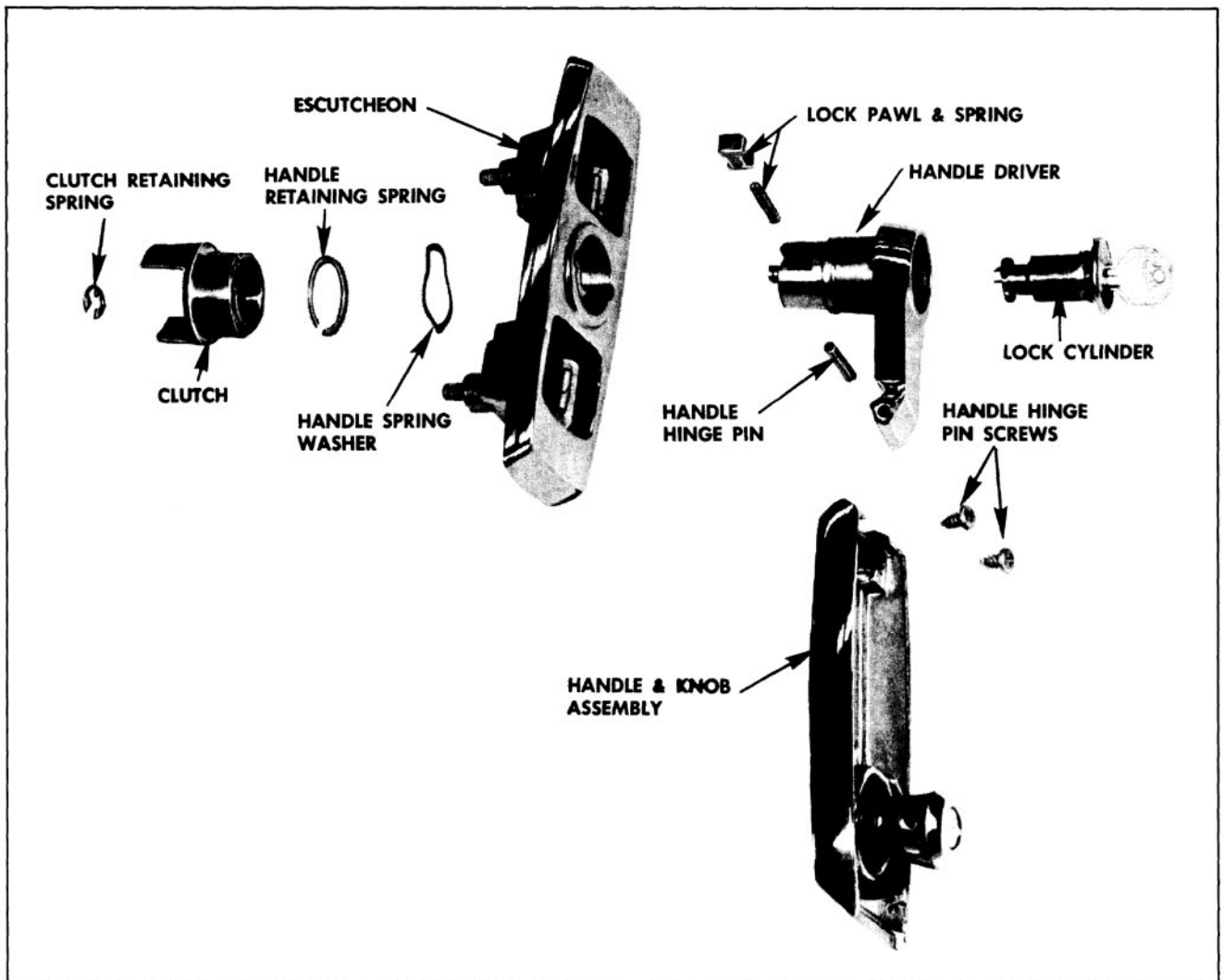


Fig. 16-478 Tailgate Outside Handle

TAILGATE WINDOW REGULATOR OUTSIDE HANDLE LOCK CYLINDER AND CAP ASSEMBLY—Removal and Installation

To assemble tailgate window regulator outside handle assembly, reverse disassembly procedure. Prior to assembly, lubricate frictional surfaces with Lubriplate or its equivalent.

TAILGATE ELECTRIC WINDOW LOCK CYLINDER SWITCH AND ESCUTCHEON ASSEMBLY

Removal and Installation

1. Open tailgate and remove inner cover panel. Detach upper portion of inner panel water deflector. Remove inner panel access hole cover.
2. Operate tailgate window to full out position.

CAUTION: Support window during operation and while window is in out position. (Fig. 16-476)

3. Through access holes, remove escutcheon attaching nuts. Detach assembly from tailgate sufficiently to disconnect junction block from switch, then remove assembly and gasket from tailgate.

To disassemble tailgate electric window lock cylinder, switch and escutcheon assembly, see TAILGATE ELECTRIC WINDOW LOCK CYLINDER, SWITCH AND ESCUTCHEON ASSEMBLY - Disassembly and Assembly.

4. To install, reverse removal procedure. Make sure gasket seals properly with tailgate outer panel. Check operation of window prior to sealing water deflector and installing inner cover panel.

TAILGATE ELECTRIC WINDOW LOCK CYLINDER, SWITCH, AND ESCUTCHEON ASSEMBLY

Disassembly and Assembly

1. Remove tailgate electric window lock cylinder, switch and escutcheon assembly, as previously described.
2. Disengage lock cylinder case retainer (Fig. 16-479) and remove lock cylinder and switch assembly from escutcheon.
3. Using a pointed tool inserted through hole in lock cylinder case, depress tab of both switch retainers and remove retainers and switch.
4. Using suitable pliers, grasp pin of switch cam firmly and pull switch cam straight out from lock cylinder.

NOTE: Pin is pressed into lock cylinder and may require a firm pull to release.

5. Using a suitable tool, bend out crimped flange of lock cylinder cap sufficiently to remove cap; then, remove lock cylinder cap and springs.

NOTE: The crimped flange on production lock cylinder cap necessitates damaging cap during removal from lock cylinder case; however, service replacement caps are available which have four bend over tabs for installation.

6. Prior to assembly of lock cylinder and switch, lubricate frictional surfaces with Lubriplate or its equivalent.

To assemble lock cylinder and switch, first insert lock cylinder in lock cylinder case, place cap and springs in position and install a new service replacement lock cylinder case cap.

Insert key in lock cylinder and turn key to OFF position (straight up and down). Carefully insert switch cam into lock cylinder, making sure notch in switch cam is engaged with pawl on end of lock cylinder and ends of spring are in cut-out of lock cylinder case. Holding switch cam in position, check operation of key (lock cylinder). If lock cylinder operates properly, apply a small amount of cement on serrated end of switch cam pin to assure that pin will be securely retained to lock cylinder; then install pin, press or tap pin in until shoulder of pin is flush against switch cam. Install switch into lock cylinder case. Position lock cylinder and switch assembly into escutcheon and engage retainer.

TAILGATE ELECTRIC WINDOW SAFETY SWITCH

Removal and Installation

1. Lower tailgate and remove inner panel cover.
2. Detach right half of tailgate inner panel water deflector and remove access hole cover.
3. Operate tailgate window up (out of tailgate) sufficiently to gain access to switch inside tailgate. Support glass when in out position.
4. Remove two safety switch attaching screws from tailgate right side facing at tailgate lock; then, detach wire from switch and remove switch from tailgate.
5. To install safety switch, reverse removal procedure.

TAILGATE LOCK REMOTE CONTROL ASSEMBLY

Removal and Installation

1. Open tailgate. Remove tailgate inner cover panel, inner panel water deflector and access hole covers. Operate window to full up position and support it in that position.
2. Disconnect remote control to lock connecting rods at remote control assembly. Remove remote control inside handle attaching screw and remove handle. (Fig. 16-476)
3. Remove remote control assembly attaching screws and remove remote control.
4. To install, reverse removal procedure.

TAILGATE LOCK ASSEMBLY

Removal and Installation

1. Open tailgate. Remove tailgate inner cover panel, inner panel water deflector and access hole cover. Operate window to full up and support it in that position. Remove glass run channel attaching screws and remove glass run channel.
2. Disconnect lock to remote control connecting rod at remote control assembly. If removing right lock on styles equipped with electrically operated tailgate window, remove two safety switch attaching screws at tailgate right side facing and remove switch assembly. Remove lock attaching screws (Fig. 16-475) and remove tailgate lock through access hole.
3. To install, reverse removal procedure. Prior

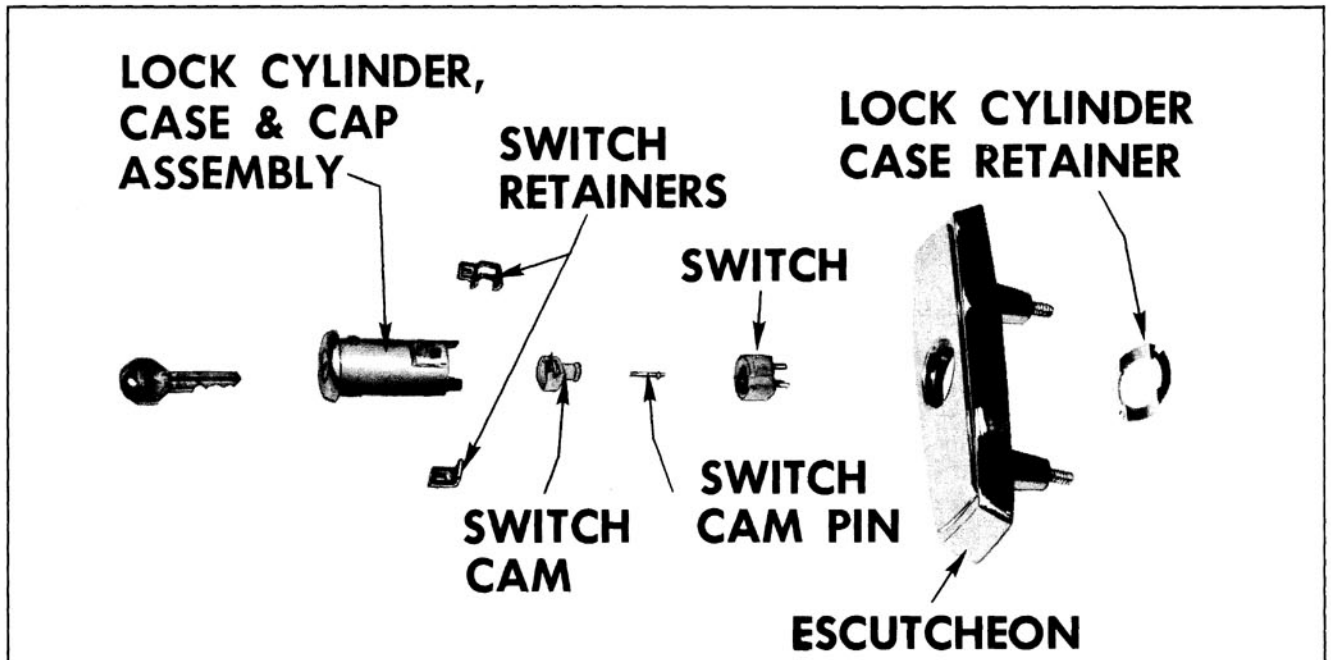


Fig. 16-479 Tailgate Outside Switch

to installation, apply body caulking compound across top and down sides of lock bolt housing and lock frame joint. ("1", Fig. 16-480)

TAILGATE LOCK STRIKER

Removal and Installation

1. Open tailgate and with pencil, mark position of striker on body pillar.
2. Remove lock striker attaching screws (Fig. 16-474) and remove lock striker and adjusting plates from body pillar.
3. To install tailgate lock striker, place striker and adjusting plates within marks on body pillar and install striker attaching screws.

TAILGATE LOCK STRIKER ADJUSTMENTS

1. To adjust the tailgate lock striker up or down or forward or rearward, loosen striker attaching screws, shift striker and adjusting plates to desired position, then tighten striker attaching screws.
2. DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER EMERGENCY SPACERS.

a. Tailgate should be properly aligned before checking spacer requirements.

- b. To determine if tailgate lock striker emergency spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages and then close the tailgate to form a measurable impression in the clay or caulking compound. (Fig. 16-481)

When dimension "A" from inside face of striker teeth to center of lock extension is less than $3/16$ ", install emergency spacers and proper length striker attaching screws.

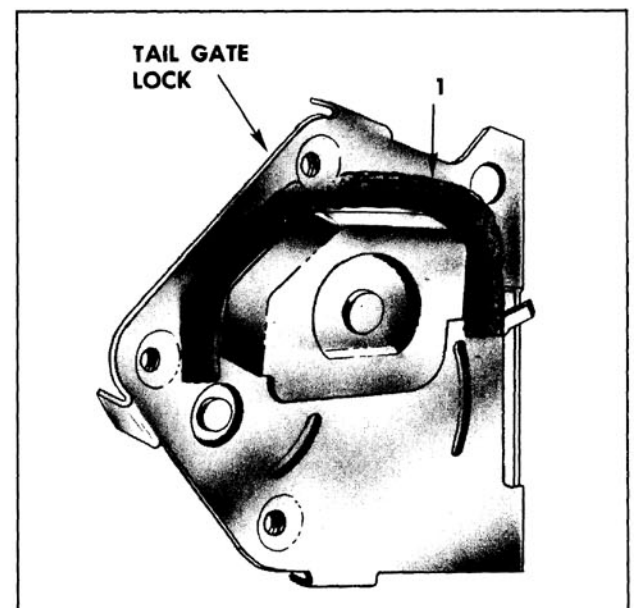


Fig. 16-480 Tailgate Lock Sealing

Dimension "A"	No. of Spacers Required
3/16" to 1/8"	1
1/8" to 1/16"	1
1/16" to 0	1 (1/8" Spacer)
	1 (1/16" Spacer)
0 to 1/16" Interference	2 (1/8" Spacer)
Spacer Thickness	Striker Attaching Screws*
1/16"	Original Screw
1/8"	Emergency Screw (1/8" Longer)
3/16" (Total)	Emergency Screw (1/4" Longer)
1/4" (Total)	Emergency 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".	

TAILGATE WINDOW UPPER GLASS RUN CHANNEL AND RETAINER

Removal

1. Lower tailgate window. Remove rear body opening finishing strip assembly.
2. Using a suitable hooked tool, carefully work one end of run channel out of retainer; then, carefully pull run channel out of retainer and remove channel from body.
3. Remove screws securing glass run channel retainers to body and remove right and/or left retainer.

Installation

1. If upper glass run channel retainers have been removed, clean off old sealer from body and glass run channel retainers.
2. Apply a bead of medium-bodied sealer up sides and across top of back body opening surfaces contacted by glass run channel retainers. Install glass run channel retainers.
3. Align end of glass run channel to end of glass run channel retainer; then, install channel into retainer securely.

TAILGATE OPENING WEATHERSTRIP

Removal

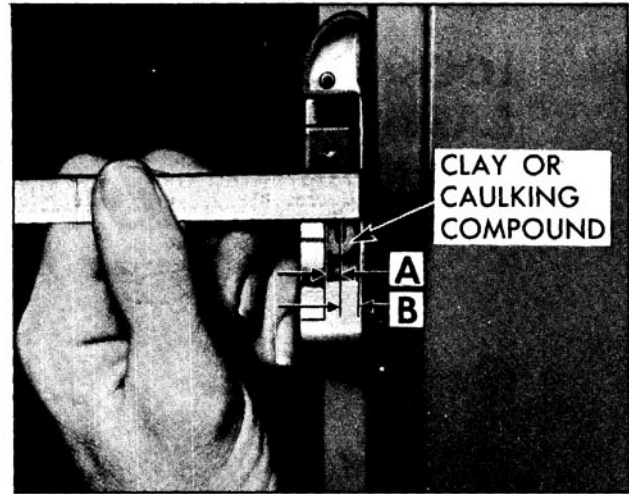


Fig. 16-481 Tailgate Striker

1. Open tailgate. Remove screw securing upper end of weatherstrip to body. (Section "A-A", Fig. 16-481)
2. Starting at upper end of weatherstrip, carefully break cement bond between weatherstrip and body using a flat-bladed tool and remove weatherstrip from body.

Installation

1. Clean old cement from body to provide a clean cementing surface.
2. Apply (brush) a continuous coat of weatherstrip adhesive (black) to attaching surfaces of weatherstrip and corresponding cementing surfaces on back body opening. (Sections "A-A", "B-B", "C-C" Fig. 16-482)
3. Locate the upper end of weatherstrip to body opening making sure formed section of weatherstrip and attaching screw hole are properly aligned. Insert remainder of weatherstrip into gutter along body pillar and on pinchweld flange along bottom of opening.
4. At bottom center of opening, trim excess weatherstrip with approximately 1/2" overlap between the two ends of weatherstrip to make a butt joint.
5. Apply neoprene weatherstrip adhesive to contacting surface each end of weatherstrip; then cement ends of weatherstrip together to form an even butt joint.

FOLDING REAR SEAT AND REAR FLOOR PANELS

Fig. 16-483 is typical of the station wagon folding full second seat and rear compartment floor

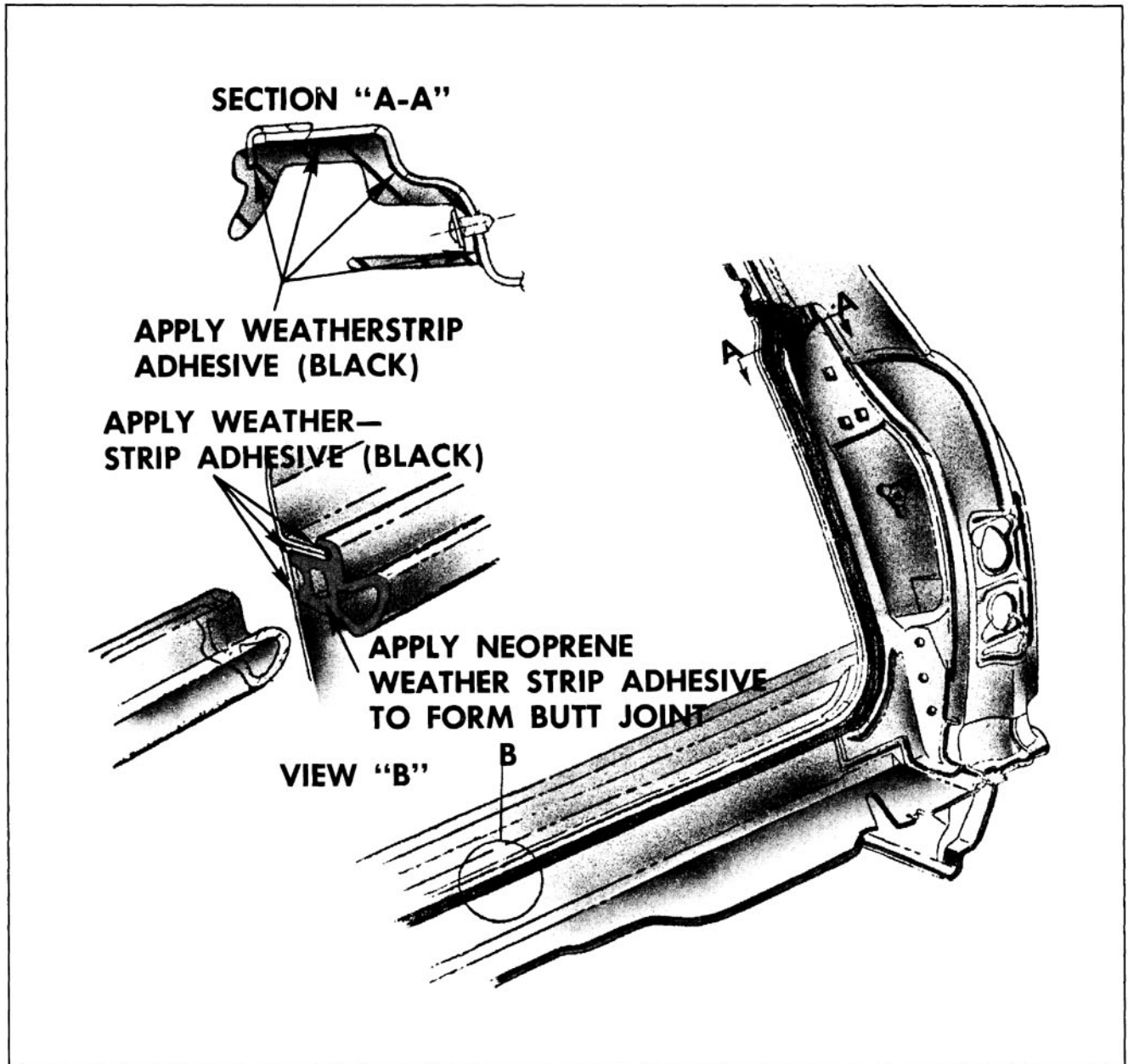


Fig. 16-482 Tailgate Weatherstrip

panels. The illustration identifies component parts, their relationship and various attaching points.

REAR COMPARTMENT FLOOR PANEL COVERING

The rear compartment floor panel cover 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. If equipped with carpeting, the carpet is retained by finishing moldings at the front and rear edges. The sides of the carpet are inserted under the quarter trim and wheelhouse trim. (Fig. 16-484)

SECOND SEAT CUSHION ASSEMBLY

Removal and Installation

1. Lift up front edge of cushion assembly to disengage protrusions on seat bottom frame from slots in seat cushion support and remove cushion assembly.
2. To install, reverse removal procedure. Make certain protrusions on seat bottom frame are fully engaged in slots in seat cushion support.

REAR COMPARTMENT FLOOR PANEL (AT KICK-UP)

Removal and Installation

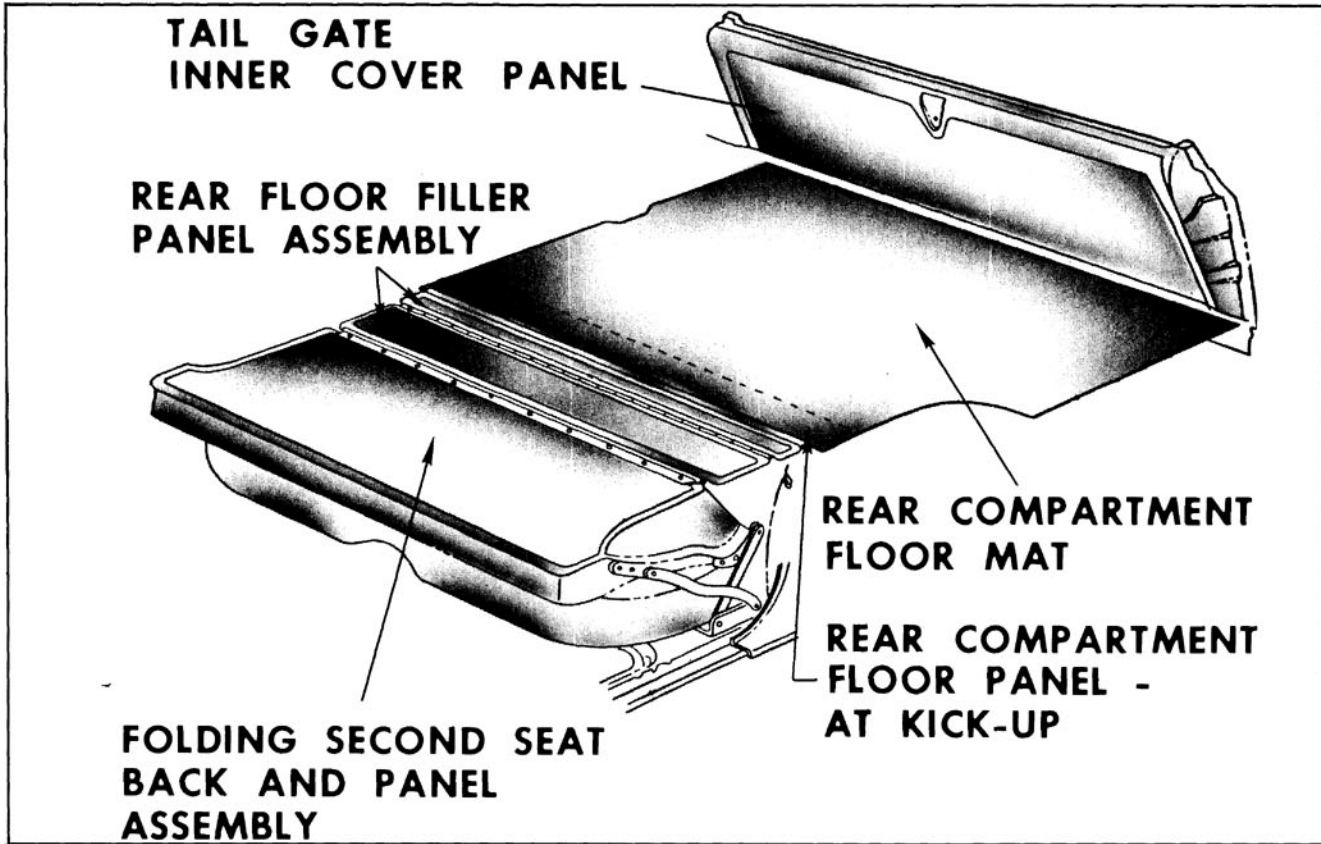


Fig. 16-483 Floor Panel Covering

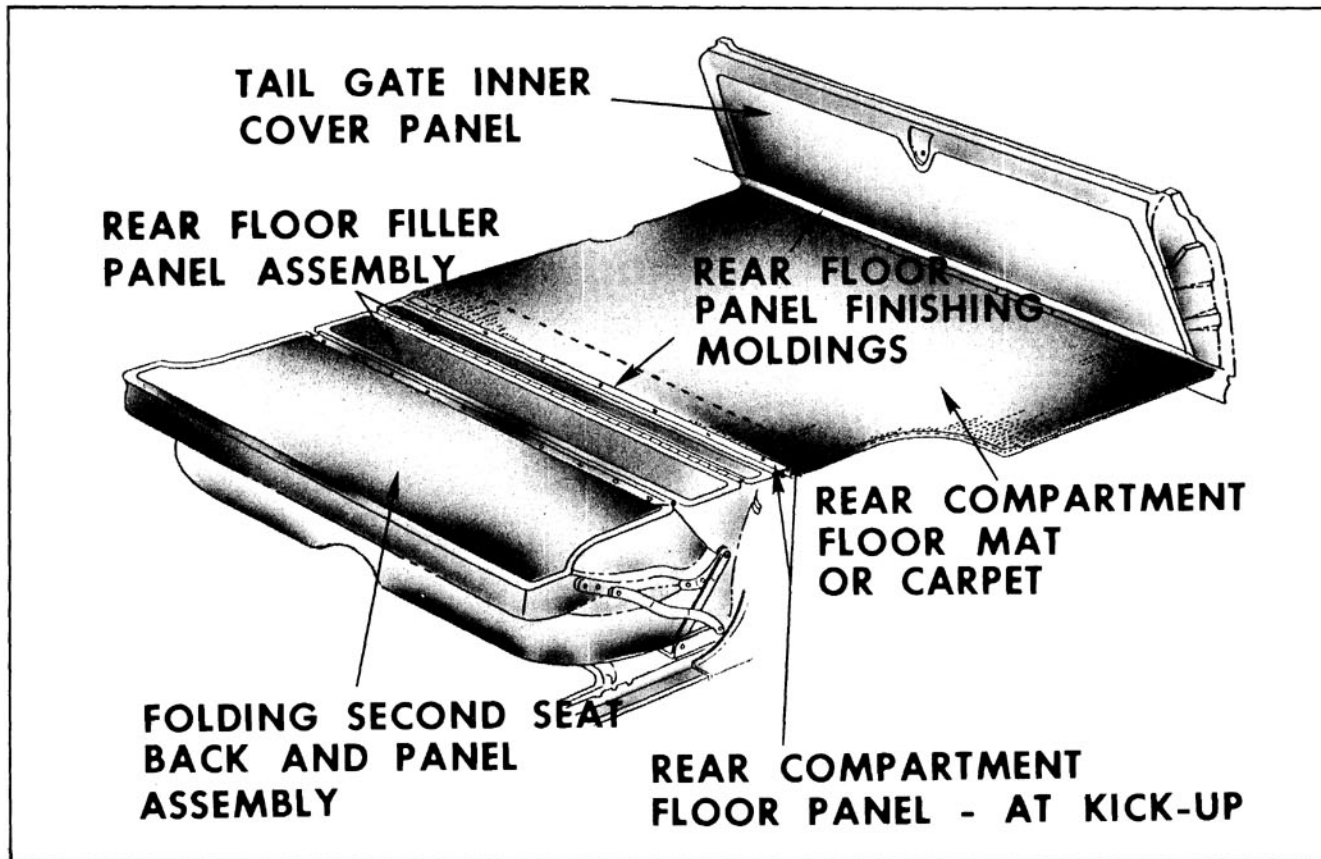


Fig. 16-484 Floor Panel Covering (Carpet)

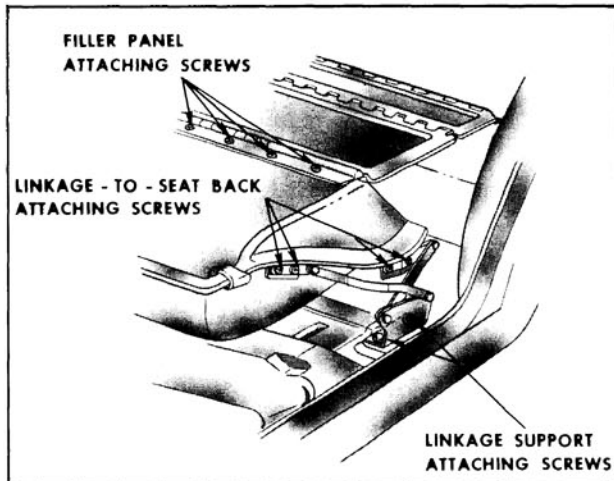


Fig. 16-485 Folding Second Seat Linkage

1. Turn back front edge of rear compartment floor panel covering and remove eight hex-head rear compartment floor panel attaching screws. If equipped with carpet, remove front finishing molding prior to turning back carpet.
2. To install, reverse removal procedure.

REAR FLOOR FILLER PANEL ASSEMBLY

Removal and Installation

1. Remove rear compartment floor panel (at kick-up) as previously described.
2. Remove filler panel front and rear attaching screws and remove filler panel assembly.
3. To install, reverse removal procedure.

FOLDING SECOND SEAT BACK TRIM AND SPRING ASSEMBLY

Removal and Installation

1. Remove second seat cushion.
2. With folding second seat back in up position, remove screws along bottom edge of seat back trim. Lift trim and spring assembly to disengage retainers at top from slots in seat back panel; then, remove seat back trim and spring assembly from seat back panel.
3. To install, reverse removal procedure.

FOLDING SECOND SEAT BACK AND PANEL ASSEMBLY

Removal and Installation

1. With second seat back in down position, re-

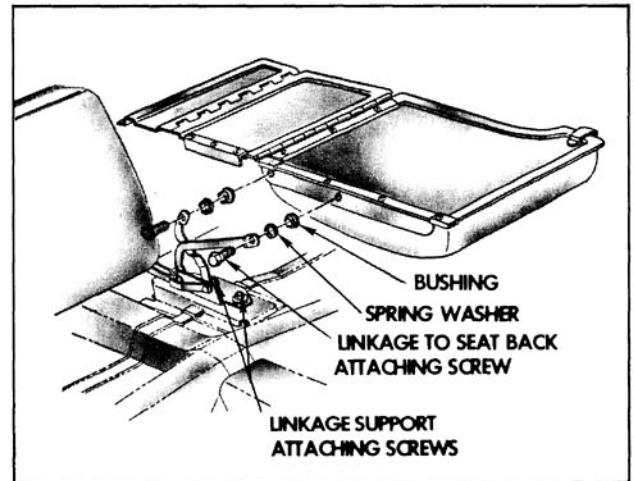


Fig. 16-486 Center Linkage Attachment

move screws securing rear floor filler panel to second seat back panel and detach filler panel from seat back.

2. On both sides of seat back, remove screws securing seat back to folding linkage (Fig. 16-485) and remove seat back and panel assembly from body.

Refer to Fig. 16-486 for center linkage attachments on split second seat.

3. To install, reverse removal procedure.

BODY MOUNTS

To minimize vibration and noise, the body mounts must be properly torqued. Body mounts which are not tightened sufficiently will cause body "chucking" and damage to the cushions. If body mounts are tightened excessively, the cushioning effect of the cushion is impaired, resulting in squeaks and body "drumming". Body mount bolts must be torqued 25 to 35 ft. lbs.

For installation of body mounts, refer to Fig. 16-487.

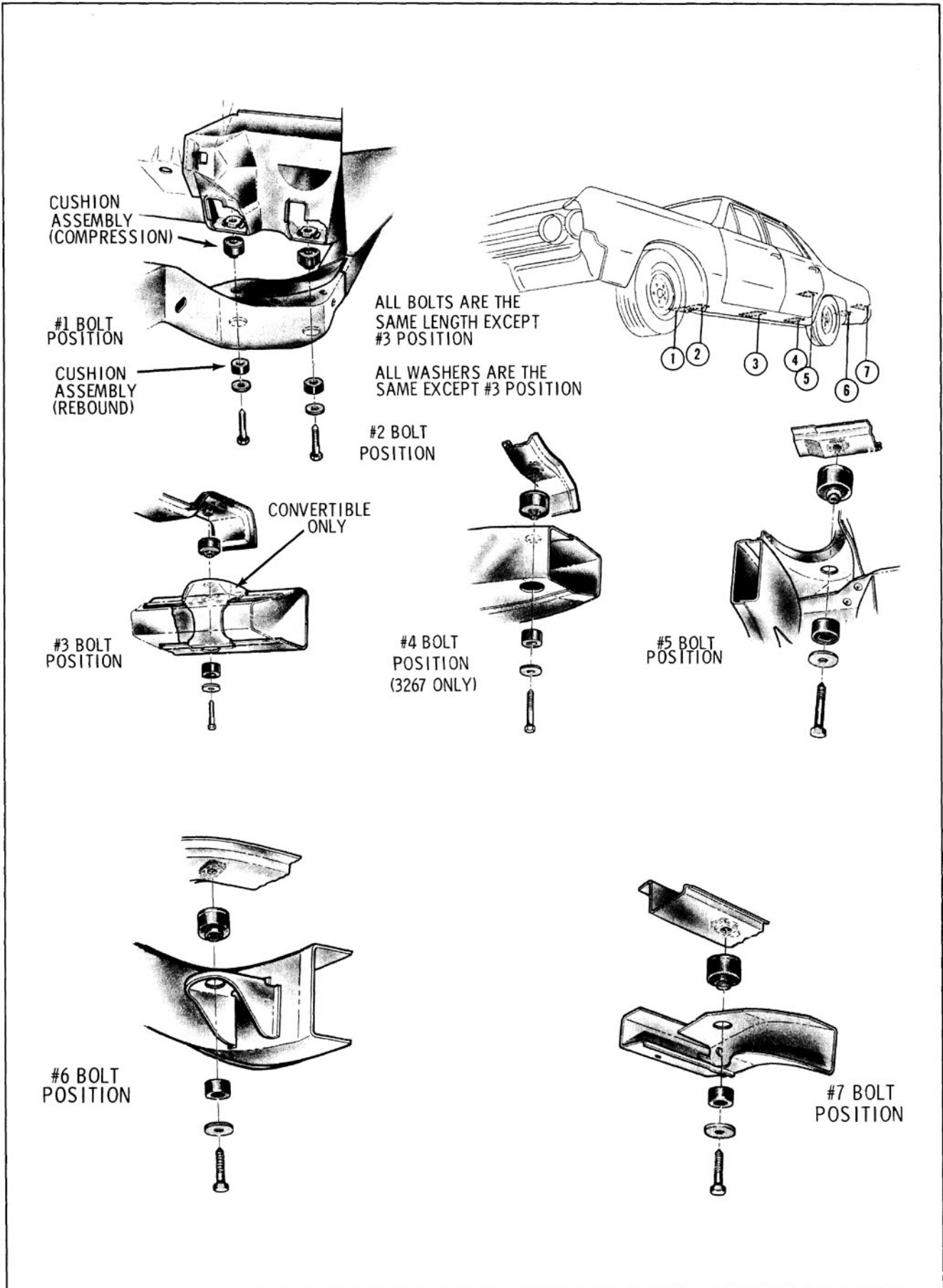


Fig. 16-487 Body Mounts

1964 PAINT SERVICE NUMBERS

EXTERIOR COLORS

Comb. Code	Color Name	DuPont Stock No.	R.M. Stock No.
A	Ebony Black	88-L	A-946
C	Provincial White	4024-L	A-1199
D	Sheffield Mist	4247-L	A-1477
E	Jade Mist	4534-L	A-1614
F	Wedgewood Mist	4250-L	A-1481
H	Bermuda Blue	4531-L	A-1615
J	Fern Mist	4532-L	A-1613
K	Tahitian Yellow	4530-LH	A-1612
L	Regal Mist	4389-LM	A-1536R
P	Pacific Mist	4253-L	A-1476
Q	Aqua Mist	4529-L	A-1611
R	Cashmere Beige	4526-L	A-1609
S	Saddle Mist	4392-L	A-1537
V	Holiday Red	4387-LH	A-1538R
W	Midnight Mist	4395-L	A-1539

INTERIOR COLORS

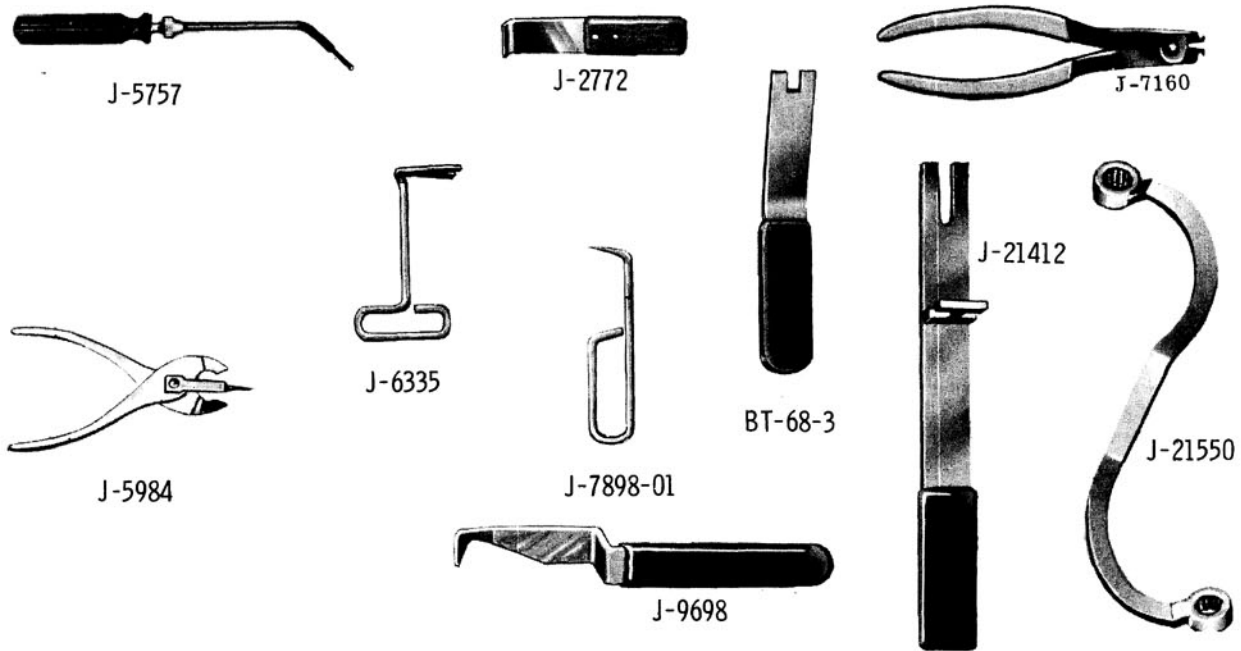
Color Name	DuPont Stock No.	R.M. Stock No.
Silver	9008-L	62011
Parchment**	9000-L	62T82
Medium Olive	4532-L	64031
Medium Saddle	9015-L	62C82
Medium Blue	9006-L	62024
Medium Aqua	9005-L	62036
Medium Maroon	9090-L	64061M
Medium Red	9016-LH	62T51M
Dark Gray	9009-L	62013
Midnight Olive	4534-L	64032
Dark Blue	96221*	63021
Dark Aqua	9012-LH	62031
Dark Maroon	94969-H	62051M
Dark Saddle	9029-L	63081
Black	88-L	A-946
Dark Red	9095-LH	63B62R

* Duco Lacquer Formula

** Garnish Moldings Only

FLAT

Dark Red	4438-LH
Dark Saddle	4436-L
Midnight Olive	4588-L
Dark Blue	4430-L
Dark Gray	4433-L
Dark Aqua	4429-L
Dark Maroon	4431-LH
Black	4428-L



J-5757	MECHANICAL WEATHERSTRIP INSTALLER	J-7898-01	REAR WINDOW UPPER MOLDING CLIP REMOVER
J-2772	HEADLINING INSTALLER	J-9698	WINDSHIELD REVEAL CLIP REMOVER
J-7160 (21214)	MOLDING CLIP TOOL	J-21412	REAR COMPARTMENT LID TORQUE ARM ADJUSTER
J-5984	WEATHERSTRIP CLIP REFORMING TOOL	J-21550	DOOR HINGE ADJUSTER WRENCH
J-6335	TRIM PANEL REMOVER	BT-68-3	DOOR HANDLE CLIP REMOVER

Fig. 16-488 Body Tools