the 1964 PONTIAC TEMPEST

BODY SHOP MANUAL

1964

PONTIAC BODY SHOP MANUAL

GENERAL

This manual contains the procedures for servicing bodies and chassis sheet metal on all 1964 Pontiac cars - Bonneville, Grand Prix, Star Chief, Catalina, LeMans, Tempest, and Tempest Custom. The information is current as of the time of publication.

CONTENTS

Arrangement of the material is shown in the table of contents on the right-hand side of this page. Black tabs on the first page of each section register with the index at the right. A more detailed table of contents at the beginning of each section and an alphabetical index in the back of the manual provide ready reference to service information on all body parts.

PONTIAC MOTOR DIVISION

GENERAL MOTORS CORPORATION

PONTIAC 11, MICHIGAN

S-6404-B AUGUST 1963 Litho in U.S.A.

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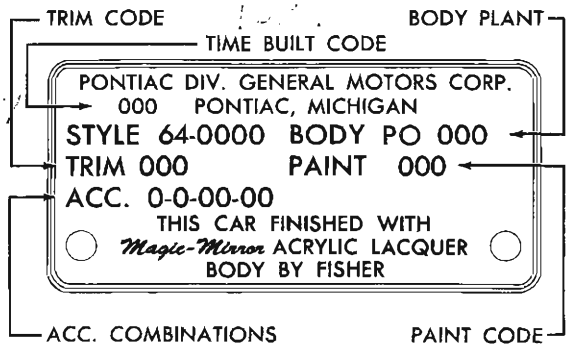
1964 BODY STYLES AND MODEL INFORMATION

Style, Trim, Body number, and Paint identification can be obtained from a plate attached to the left side of the cowl under the rear edge of the hood. The Vehicle Identification number is embossed on a metal strip attached to the left front hinge pillar post.



BODY PLANTS

PONTIAC MODELS		TEMPEST MODELS
PO—PONTIAC	BK—KANSAS CITY	PO—PONTIAC
BT—ARLINGTON	BL—LINDEN	*BA—BALTIMORE
BA—ATLANTA	BC—SOUTH GATE	BF—FREMONT
		*KC—KANSAS CITY

*C Plants, all others are BOP Plants

The table below contains 1964 Pontiac body styles and series identification for reference in using this manual.

1964 BODY STYLES AND MODEL INFORMATION

Body Styles	Tempest	Tempest Custom	LeMans	Catalina	Star Chief	Bonneville	Grand Prix
	Series 20	Series 21	Series 22	Series 23	Series 26	Series 28	Series 29
Convertible		2167	2267	2367		2867	
Sports Coupe	2027	2127	2267	2347		2847	2957
Sedan—2 Door				2311			
Sedan—4 Door	2069	2169		2369	2669		
Vista—4 Door				2339	2639	2839	
Safari (Station Wagon)—6-Pass., 2 Seat, 2nd Seat Folding	2035	2135		2335		2835 Custom	
Safari (Station Wagon)—6-Pass., 3 Seat, 2nd and 3rd Seats Folding				2345			
Cowl and Underbody (Heavy Duty Chassis)						2840 2850 2890	

Series	Wheelbase
20, 21 and 22	115"
23 and 29 (except 2335 and 2345)	120"
26 and 28 (except 2835)	123"
2335, 2345, 2835	119"

CHASSIS SHEET METAL

CONTENTS OF THIS SECTION

BUMPERS

Front and rear bumpers (Figs. 1-1 and 1-2) are of one piece construction. Attachment of these bumpers is such that slotted holes are appropriately located in the frame, bumper to frame bars, and bumper to frame braces to provide fore and aft as well as lateral adjustment location of the bumper.

The front or rear bumper may be adjusted as necessary by loosening the bracket to frame bolts and retightening after positioning the bumper. Front bumper height adjustment is controlled by eccentric bolts (one on each side at the front of the frame).

RADIATOR

The radiator assembly on all models is held secured by two cradle type brackets that fit into depressions in the radiator lower tank at the bottom and one such "cradle" that holds the radiator top tank. The upper cradle is part of the engine fan top shield assembly which bolts to the fender to radiator support brace. On cars with air conditioning the engine fan top shield also attaches to the fan shroud.

RADIATOR—REMOVE AND INSTALL

1. Drain radiator.

2. Remove engine fan top shield. Note that the upper portion of the radiator is held by a "cradle" type bracket on the bottom side of the engine fan top shield (Fig. 1-3).

3. Disconnect upper and lower engine coolant hoses.

4. On cars equipped with Hydra-Matic transmission, disconnect and plug transmission cooler lines.

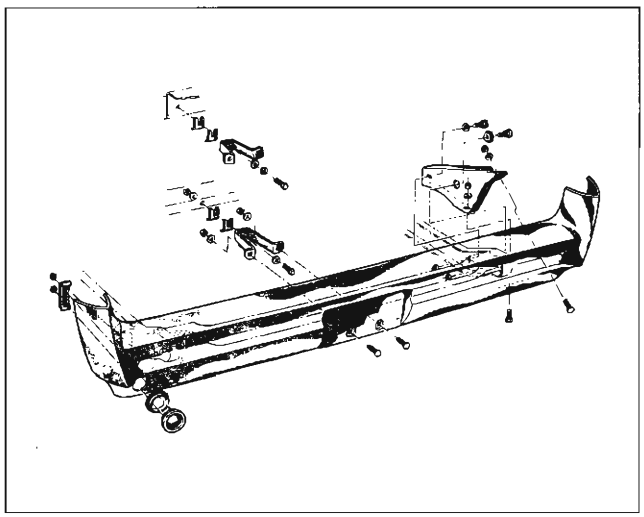


Fig. 1-1 Front Bumper Installation Details

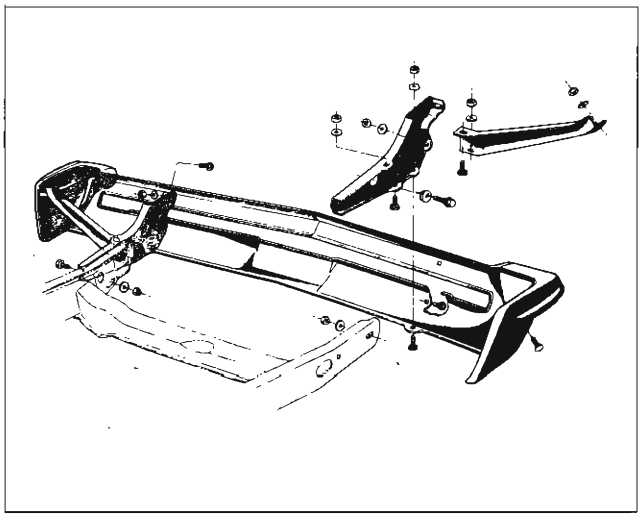


Fig. 1-2 Rear Bumper - Installation Details

5. On cars equipped with air conditioning remove the fan shroud.

6. Remove radiator by pulling straight up. Note that the radiator is held at the bottom by two "cradles" secured to the radiator shroud at bottom (Fig. 1-3).

7. Install radiator by reversing above steps making sure radiator lower cradles are located properly in the recess in radiator lower tank.

8. Refill radiator.

CHASSIS SHEET METAL ALIGNMENT

Proper alignment of the front end sheet metal will provide proper relationship of adjoining sheet metal parts, ease of hood operation, and eliminate squeaks, rattles and vibration. (See Figs. 1-3 and 1-4).

FENDER

Vertical and fore and aft adjustment is provided at rear of fenders by enlarged holes in the fender bracket at the attaching points.

Fenders can be moved closer to or farther from the cowl by shifting in the enlarged hole in the fender bolts and may be adjusted vertically by adding or removing shims.

1. Check the spaces between the front door to fender rear edge and adjust as necessary to obtain a parallel space.

2. Check to insure that all connections at the fender attaching bolts are tight.

3. Look between rubber mount and frame (minimum 1/16" shim is necessary.)

a. If mount is loose tighten to correct.

b. If mount is loose and car feels harsh or sheet metal seems to vibrate then add shims and recheck for fender rear edge to door alignment.

HOOD

The hood is of rigid sheet metal construction with the outer panel of single sheet metal with a rugged inner panel reinforcement. Further rigidity is given the hood by reinforcement braces and brackets strategically located not to interfere with adjustments or service repair conditions.

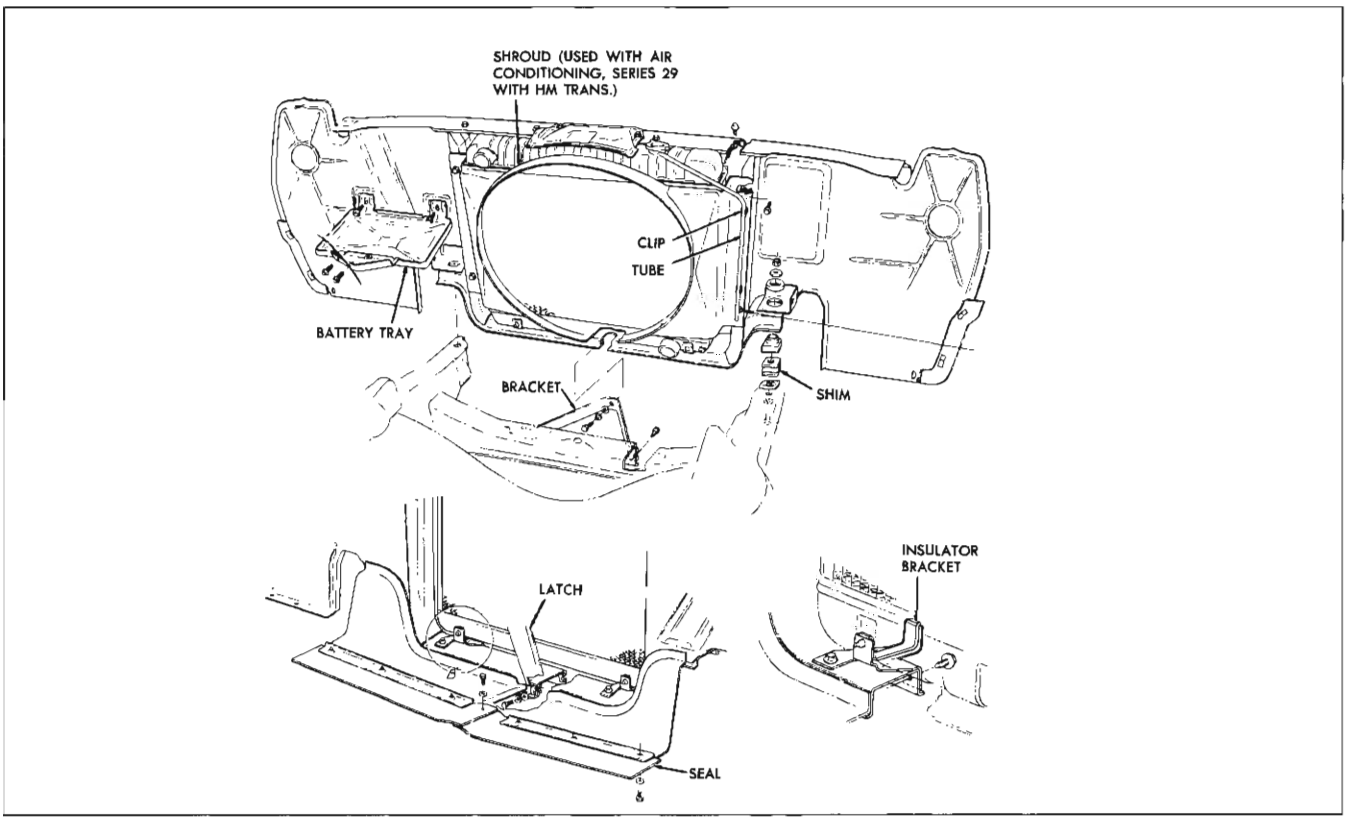


Fig. 1-3 Radiator Support and Baffle Assembly

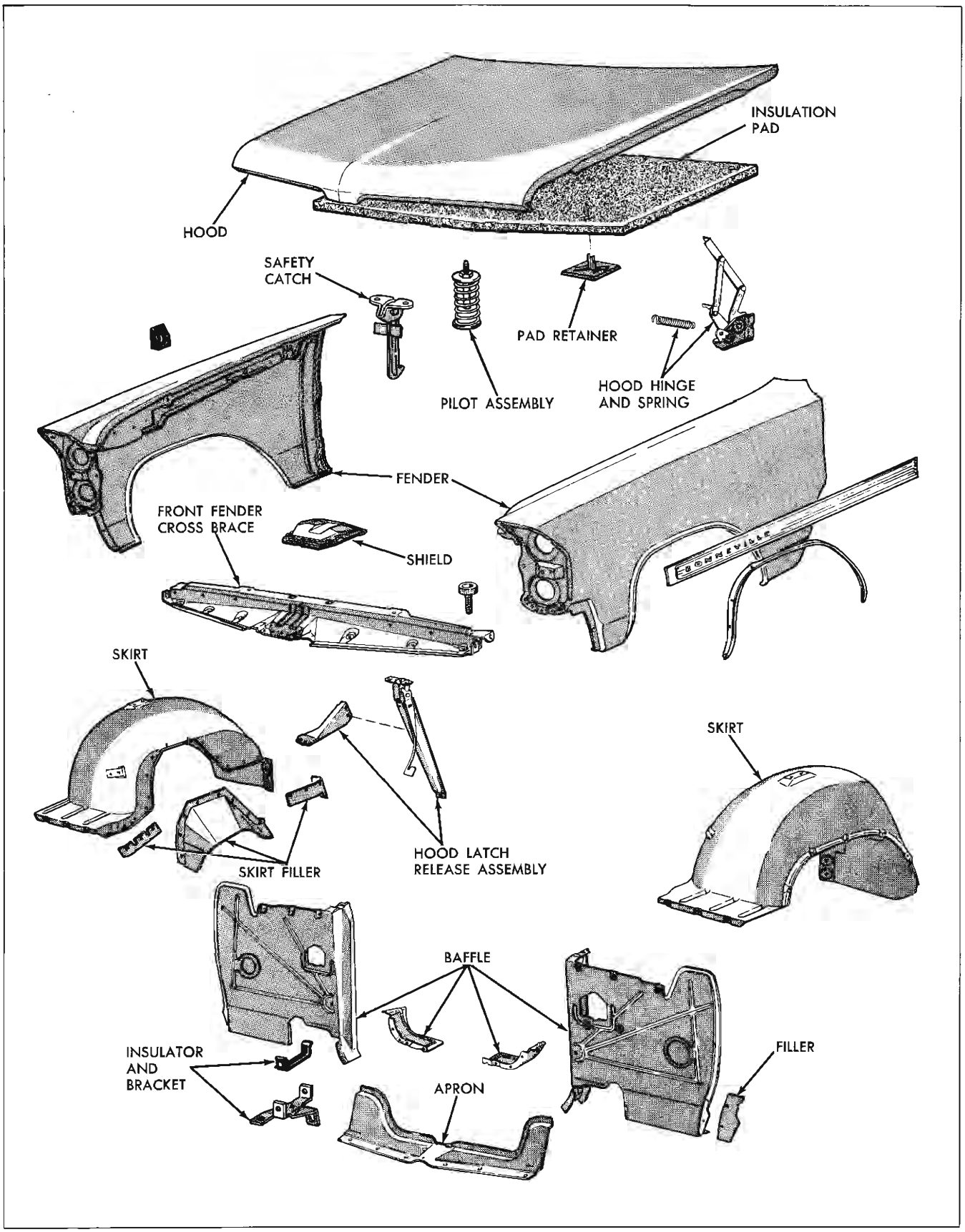


Fig. 1-4 Front End Sheet Metal

1. Slotted holes in the hinge bracket to hood are provided to align hood to obtain parallel space between hood sides and fender.

2. The rear corners of the hood should be held down against the rear bumpers to keep rear of hood from "dancing" or vibrating. Check for proper tightness and height of hood rear bumper (to hood) as follows:

a. Loosen front end of hinge mounting bracket to fender.

b. Hold hood open as high as possible and force front of hinge up as far as possible.

c. Tighten fender connection.

If this does not correct condition, raise entire hinge by loosening bolts to shroud and pulling up on hinge.

NOTE: The portion of the hood hinge that attaches to the shroud has elongated holes at the top and at the bottom to take care of any body variations (at the dash shroud.

HOOD LATCH

A positive locking hood latch is used consisting of three assemblies: the safety catch and pilot that fasten to the hood and the release latch that attaches to the grille lower panel and radiator support (Fig. 1-3).

The hood is opened by release latch under front bumper bar upper section (Fig. 1-6), which in turn opens the latch.

The safety catch is released by pulling the handle directly under the front center of the hood.

The latch bolt in the pilot (attached to the hood) may be adjusted longitudinally for alignment purposes, and can be vertically adjusted to obtain a tight hood to fender relationship.

HOOD PILOT LATCH BOLT—ADJUST

Should the hood release to safety latch position while driving on very bumpy or rough roads at high speed, loosen the pilot bolt on hood (Fig. 1-5) and move rearward so that latch bolt spring retainer is 7/8" to rear of safety catch hole in front of hood latch support.

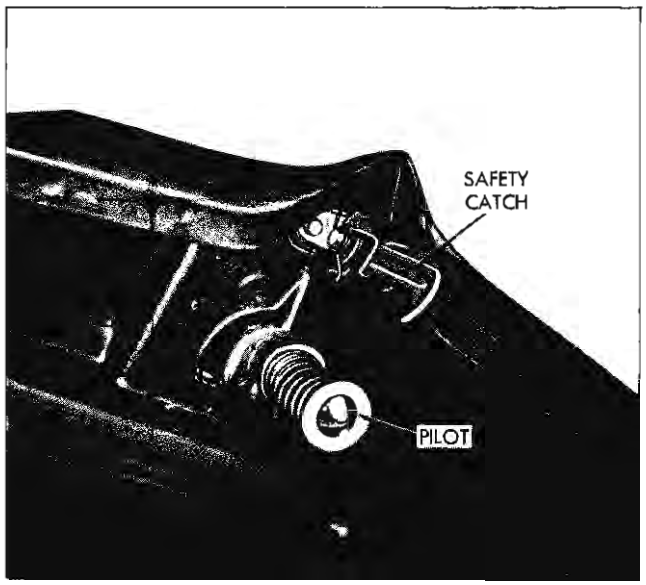


Fig. 1-5 Hood Safety Catch and Pilot

Proper adjustment of the hood latch bolt to provide for easy hood closing is as follows:

1. Check tightness of bracket from radiator support to hood latch striker plate.

2. Raise hood bumpers to align front of hood with fenders.

3. Press down on center of hood just forward of the molding.

a. If some "give" or looseness is noticed, hood is not tight and will vibrate and raise up on corners at high speeds. In this case shorten latch bolt and recheck.

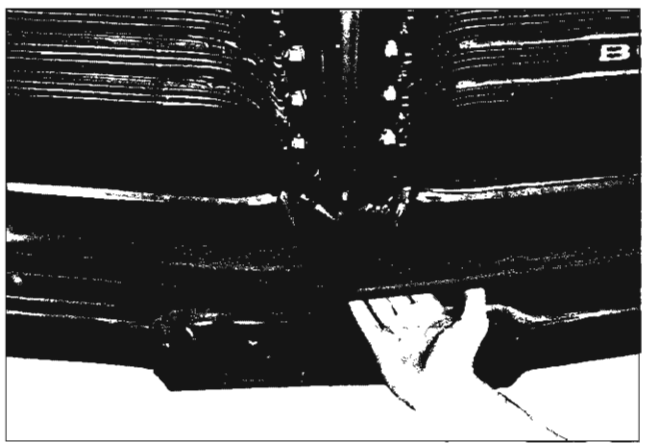


Fig. 1-6 Hood Release Latch

b. If hood is tight with no "give", then hood could be properly adjusted or could be too tight. Check as follows:

(1) Close hood.

(2) Release latch and raise hood 10"-12".

(3) Let hood fall of own weight.

(4) Adjust hood latch bolt to permit hood to close easily when hood drops of its own weight from 10"-12" from closed position.

(5) Recheck 3 above.

HOOD HINGES

The hood is mounted on gear type hinges (Fig. 1-7), mounted on the front of the dash. Double assist overcenter springs are used, (one at each hood hinge) both ends of which are fastened to the arms of the hinge. This construction provides hold-open power.

A hood to hinge reinforcement bracket which has two points of attachment is used. Fore and aft adjustment of the hood is provided for by slotted holes in the bracket.

SHEET METAL—REMOVE AND REPLACE

FRONT FENDER—REMOVE AND REPLACE

NOTE: If the same fender is to be replaced, note position, location and number of alignment shims used.

1. Disconnect left and right hand parking lamp assemblies.

2. Remove front bumper by removing bumper to frame attaching bolts, then pull bumper straight out.

3. Remove head lamp doors, head lamps and head lamp frames.

4. Remove three screws—lower grille extension to fender and remove two screws—extensions to grille and grille panel.

5. Remove one screw—grille to front fender head lamp frame.

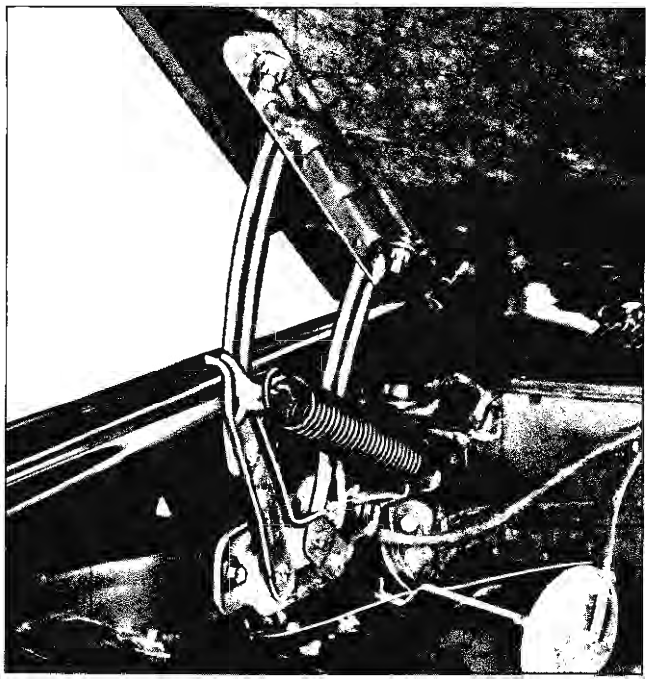


Fig. 1-7 Hood Hinge

6. Remove one screw—upper grille panel to fender.

7. Remove two screws—front fender cross brace to fender.

8. Remove two screws—fender to skirt.

9. Remove forward hood hinge bolt.

10. Remove fender to shroud bolt.

11. Disconnect fender from cowl at door opening and rocker panel area.

12. For installation, reverse steps.

13. Align fender with other body and sheet metal parts.

GRILLE—REMOVE AND REPLACE

1. Remove two grille panel to front fender bolts (one each side).

2. Remove eight screws—front fender cross brace to upper grille panel.

3. Remove two screws (each side)—lower grille panel extension to grille end panel.

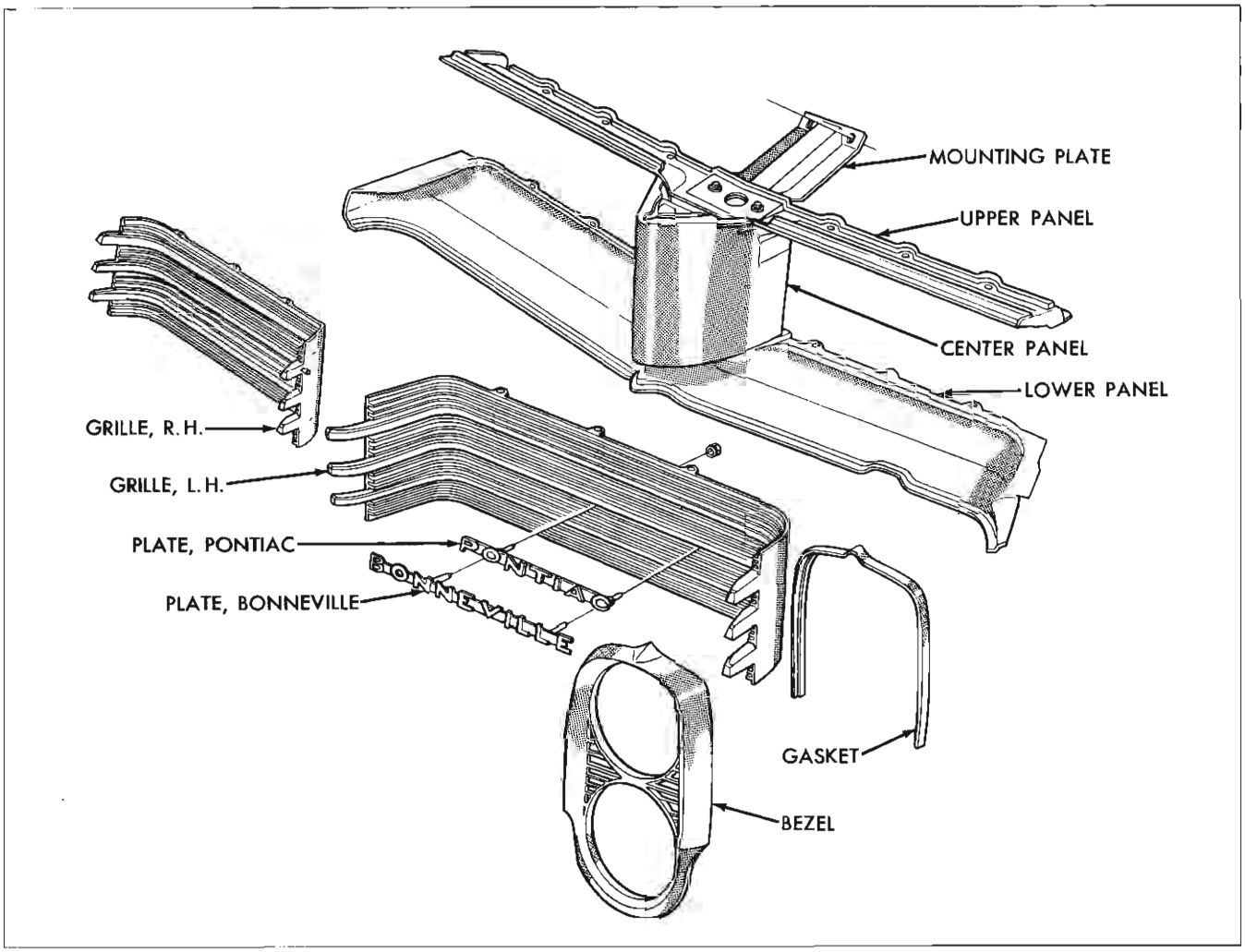


Fig. 1-8 Details of Radiator Grille - Except Grand Prix

4. Remove two screws—hood latch brace to lower grille panel.

5. Remove one screw (each side) grille to front fender head lamp frame.

6. Pull grille panel forward to remove.

7. To install, reverse steps.

GRILLE—REMOVE AND REPLACE

NOTE: Grilles can be removed from grille panel without removing complete panel from car.

1. Remove head lamp door.

2. Remove one screw—grille to head lamp frame.

3. Remove eight screws—grille panel to grille.

4. Remove grille forward.

5. To install, reverse steps.

HOOD HINGE SPRING—REPLACE

Hood hinge springs can be removed by propping hood open, and pulling front spring off of hinge. When replacing the spring, hook the rear end on pin first, then stretch the spring out and hook it at front.

HOOD HINGE—REMOVE AND REPLACE

1. Open hood.

2. While one man holds hood, remove spring, hinge to fender and cowl attaching screws, hinge to hood attaching nuts, and remove hinge.

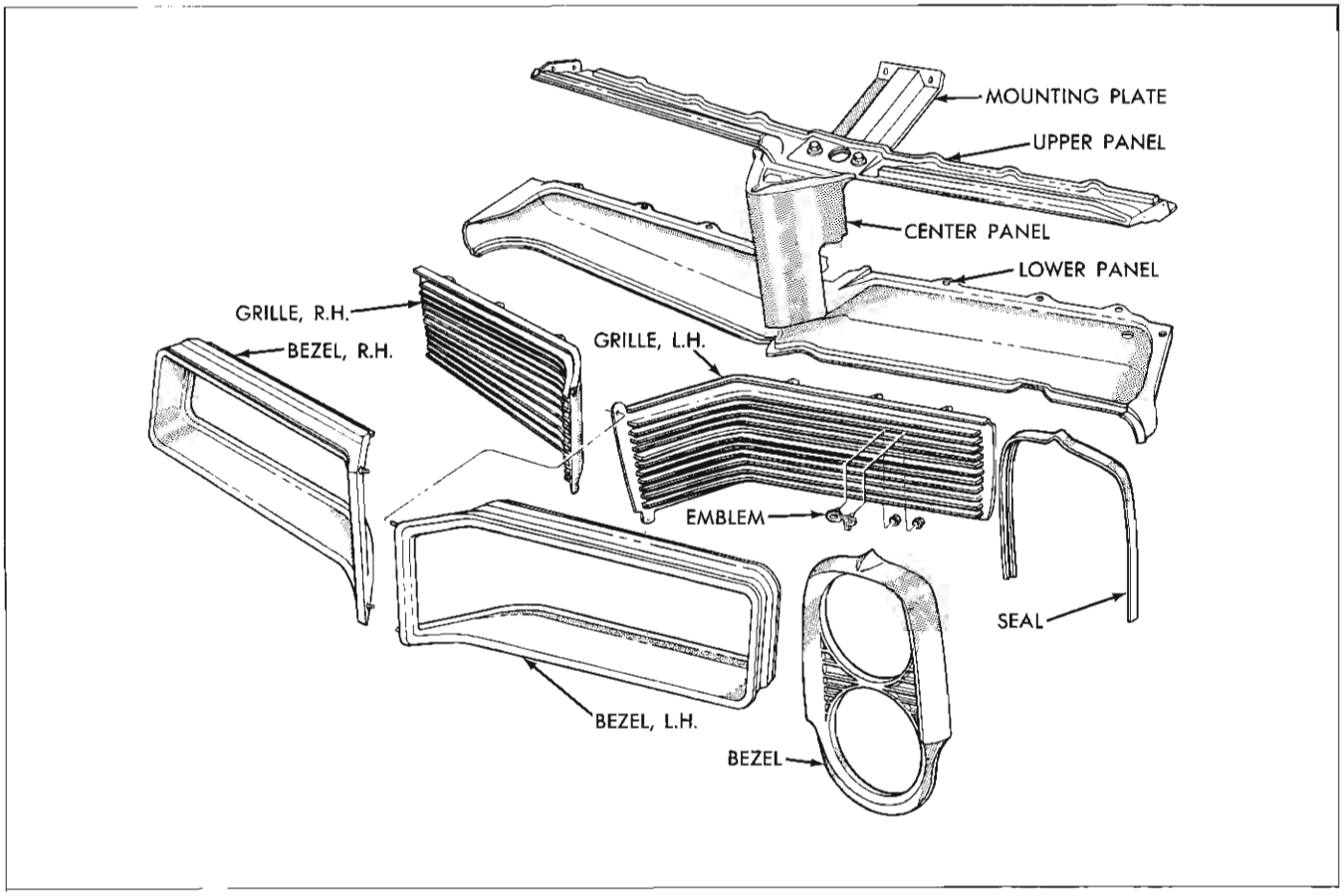


Fig. 1-9 Details of Radiator Grille - Grand Prix

3. Position new hinge to fender, install and tighten attaching screws.

4. Position hinge to hood and install flat washers, lock nuts and tighten just snug.

5. Replace spring.

6. Close hood and check hood alignment.

7. If hood is misaligned, measure amount of misalignment.

a. Open hood, mark position of hinge relative to hood.

b. Loosen hinge at hood and move hinge the amount it was off.

c. Tighten securely and recheck alignment.

HOOD—REPLACE

The hood can be removed very quickly by disconnecting it from the hinges at the hood reinforcement.

When replacing the hood, adjust the alignment, one hinge at a time, as outlined in steps 6 and 7 under HOOD HINGE—REMOVE AND REPLACE.

FRONT END

CONTENTS OF THIS SECTION

WINDSHIELD ASSEMBLY

WINDSHIELD GARNISH MOLDINGS

DESCRIPTION

The windshield garnish moldings consist of an upper right and left and side right and left. All moldings are secured by screws.

REMOVAL AND INSTALLATION

1. Place protective covering over front seat and instrument panel.

2. Remove moldings in following order: (1) side, (2) lower and upper moldings.

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 windshield garnish molding.

2. Remove support attaching screws and slide to one side and remove.

3. To install, reverse removal procedure (Figs. 2-1 and 2-2).

WINDSHIELD REVEAL MOLDINGS

DESCRIPTION

The windshield reveal moldings consist of a one piece upper, right and left side and right and left lower moldings. On all except 67 styles the upper reveal moldings are secured to the openings by clips.

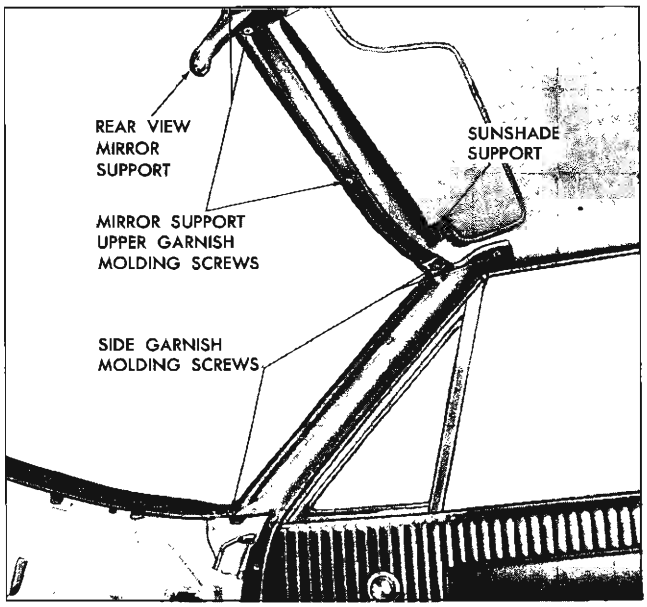


Fig. 2-1 Windshield Garnish Moldings

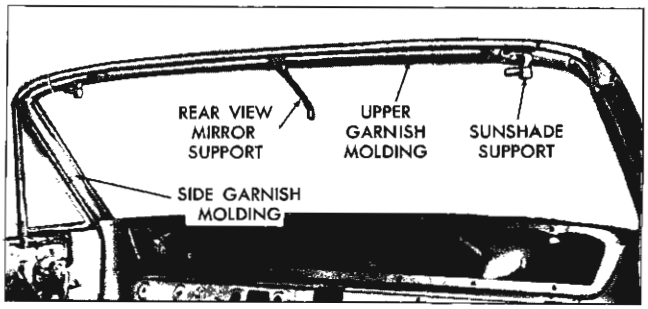


Fig. 2-2 Windshield Garnish Moldings

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 styles except 47 and 67 styles are secured to the opening by clips. On 47 and 67 styles and 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 outermost 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 clips are slotted allowing removal of the molding without completely removing the attaching screw (Fig. 2-3).

REMOVAL

1. Place protective covering over hood and front fenders.

2. Remove windshield wiper arms, escutcheon nuts and escutcheons.

3. Remove air intake grille attaching screws (Fig. 2-4).

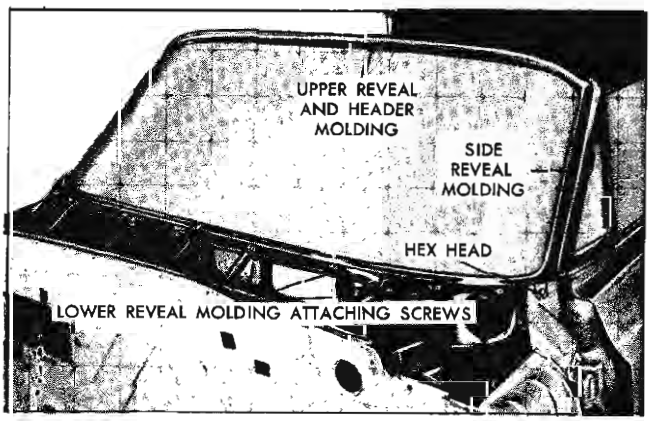


Fig. 2-3 Windshield Reveal Moldings

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. 2-3).

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

6. On all except 47 and 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. 2-5).

NOTE: In some instances a flat-bladed tool such as a putty knife or equivalent 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, etc.

7. On 47 and 67 styles, the side reveal moldings are secured by screws at the windshield pillar and roof rail. It is necessary to loosen the windshield 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.

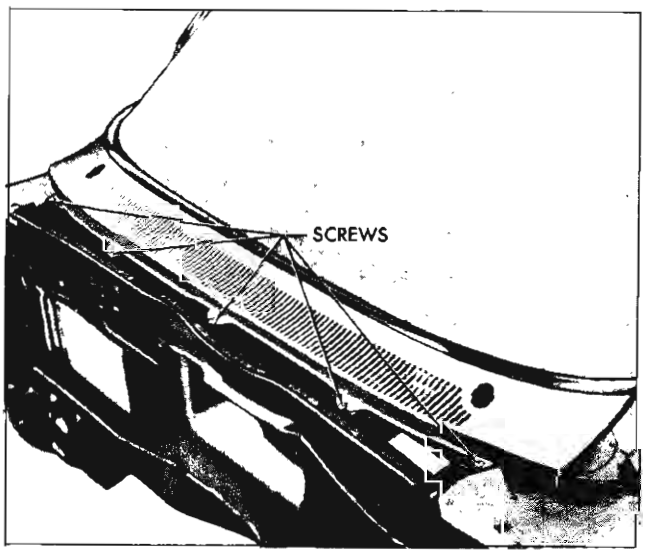


Fig. 2-4 Air Intake Grille

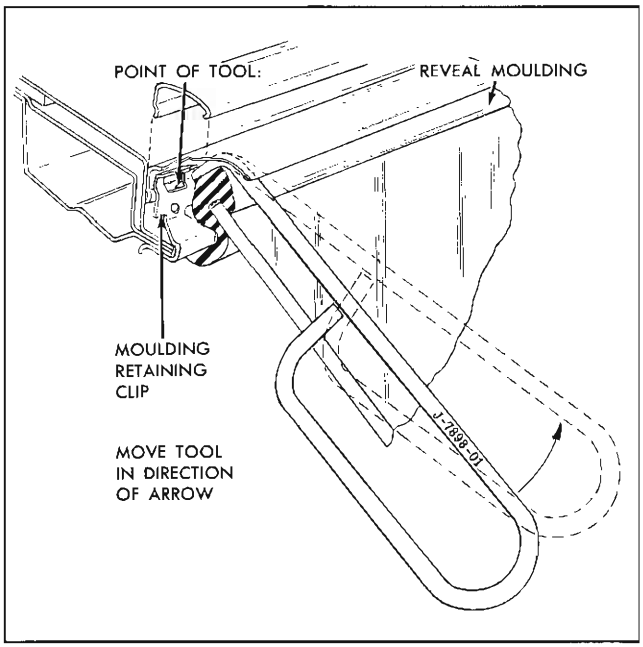


Fig. 2-5 Reveal Molding Removing Tool

8. On all except 67 styles, carefully remove the upper reveal molding with tool J-7898-01 (Fig. 2-5) or flat-bladed tool as required. On 67 styles remove screws at outer ends of molding; then, remove upper garnish molding to gain access to stud nuts. Remove nuts and moldings.

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. On all except 67 styles, snap upper reveal molding in place. On 67 styles, seal attaching studs and holes and install molding.

2. On 47 and 67 styles, seal attaching screw holes and install side reveal moldings.

3. On 47 and 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.

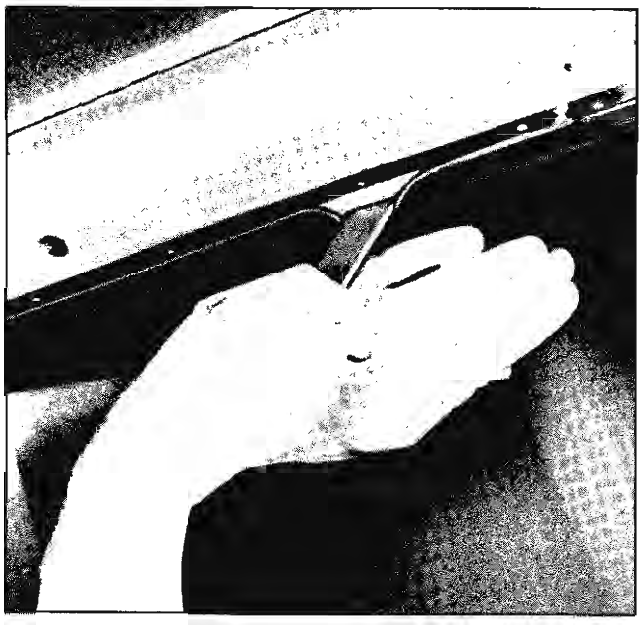


Fig. 2-6 Windshield Glass Removal

2. Place protective covering over hood and front fenders.

3. Remove garnish moldings.

4. Remove windshield wiper arms, escutcheon nuts and escutcheons.

5. Remove shroud top ventilator 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 windshield as follows: with palm of hand, apply pressure to glass near edge (Fig. 2-6) at same time use a blunt putty knife or other suitable tool and carefully assist rubber channel over pinchweld flange.

8. After windshield channel is free from pinchweld 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.

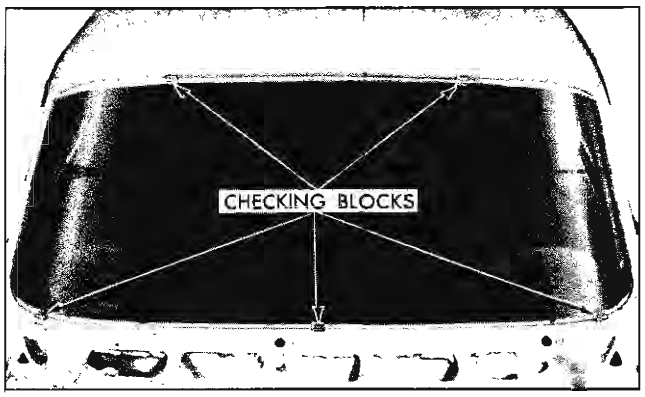


Fig. 2-7 Windshield Check Blocks

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.

4. Install five windshield checking blocks as follows: along lower retaining flange place one black twelve inches (12") inboard of each lower corner and one at center of windshield opening. Position one block over upper pinchweld flange midway between center block and each outboard block on lower retaining flange (Fig. 2-7).

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 (Figs. 2-7 and 2-8), check relationship of glass to body opening around entire perimeter of glass as follows:

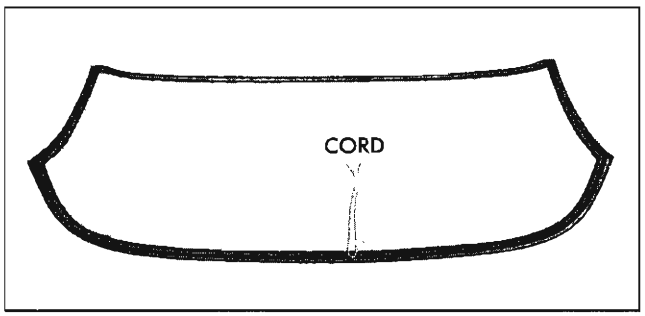


Fig. 2-8 Windshield Installation

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

b. The outer edge of glass should be a uniform distance from body metal, measured in plane of the glass. This dimension should be from 5/16" to 3/8".

NOTE: Windshield checking blocks (J-8942) may be used as shown in Fig. 2-7.

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

8. Recheck windshield opening as outlined above. 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 pinchweld cavity of rubber channel completely around windshield. Tie ends of cord and tape to inside surface of glass at bottom center of glass (Fig. 2-8).

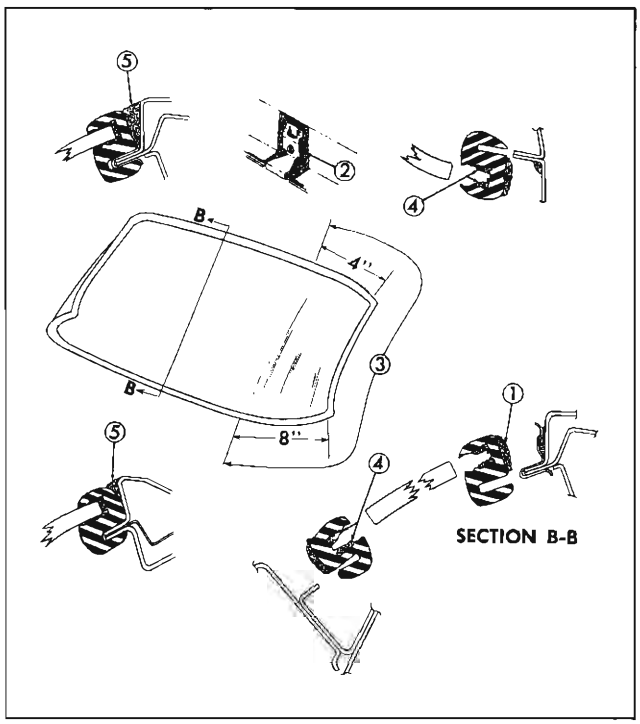


Fig. 2-9 Windshield Sealing

4. Apply a ribbon of medium-bodied sealer completely around base of rubber channel (No. 1 Fig. 2-9).

5. Inspect condition of each molding clip, install new clips where necessary, make certain clips are properly sealed to pinchweld and body (No. 2 Fig. 2-9) except 67 styles.

6. Apply a 1/4" bead of medium-bodied sealer to the base of windshield opening flange at pillar areas and extending 4" inboard along top of 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 an approved weatherstrip adhesive (No. 4 Fig. 2-9). Seals must extend completely around rubber channel.

10. Clean off excess sealer from windshield glass.

11. Apply medium-bodied sealer on outside of windshield between windshield rubber channel and opening across top and sides (No. 5 Fig. 2-9).

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

WINSHIELD GLASS REPLACEMENT ONLY 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. 2-6) at same time use a blunt putty knife or other suitable tool 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 or other suitable tool, 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 an approved weatherstrip adhesive (No. 4 Fig. 2-9). 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 (No. 5 Fig. 2-9).

7. Clean off excess sealer.

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

MINOR WATERLEAKS AT WINDSHIELD

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

1. Leaks between rubber channel and glass.

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

2. Leaks between rubber channel and body.

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.

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.

INSTRUMENT PANEL ASSEMBLY

INSTRUMENT PANEL COMPARTMENT DOOR

REMOVAL AND INSTALLATION

1. Mark location of compartment door hinge on door inner panel.

2. Remove attaching screws at door hinge and door stop from door inner panel and remove door (Fig. 2-10).

3. To install, reverse removal procedure and align as necessary.

ADJUSTMENTS

1. To position compartment door up or down in its opening, loosen hinge and hinge stop screws at door inner panel and shift door to desired position.

2. To reposition door right or left, loosen hinge to instrument panel attaching screws and shift door to desired position. Adjust stop as required.

3. The compartment door lock striker may be adjusted by loosening attaching screws and moving striker to desired position (Fig. 2-10).

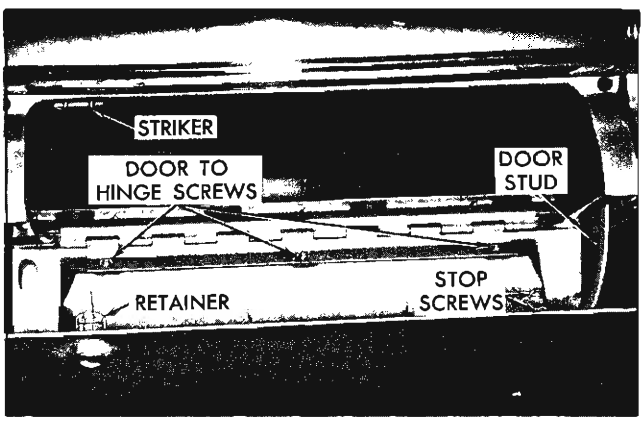


Fig. 2-10 Instrument Panel Compartment Door

INSTRUMENT PANEL COMPARTMENT DOOR HINGE STOP ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove hinge stop attaching screws (Fig. 2-10), disengage stop from instrument panel door and remove stop.

2. To install, reverse removal procedure. Check for proper alignment.

INSTRUMENT PANEL COMPARTMENT DOOR KNOB ASSEMBLY

REMOVAL AND INSTALLATION

1. Open compartment door, remove screw from retainer and remove knob assembly (Fig. 2-10).

2. To install, reverse removal procedure.

INSTRUMENT PANEL RADIO SPEAKER GRILLE

The radio speaker grille is attached to the upper instrument panel by studs and nuts.

REMOVAL AND INSTALLATION

1. Loosen lower garnish moldings.

2. From underside of instrument panel remove radio speaker grille attaching nuts and remove grille.

3. To install, reverse removal procedure.

INSTRUMENT PANEL TOP COVER PANEL—REMOVE AND REPLACE

1. Remove windshield side garnish moldings.

2. Remove six attaching screws, from the bottom, that secure top panel to center instrument panel casting.

3. Remove shroud top ventilator grille as described on page 2-7.

4. Remove two attaching nuts from studs that secure edge of instrument panel cover to cowl. These are accessible through the plenum chamber in the cowl after removing shroud top ventilator grille panel.

5. Disconnect speaker wire top instrument panel rearward and lift.

6. To install reverse removal procedure.

INSTRUMENT PANEL— REMOVE AND REPLACE

1. Remove panel top cover as previously described.

2. Remove all wires and cables attached to instrument gauges and controls and identify for reassembly.

3. Remove steering wheel and mass jacket assembly by removing two mass jacket to instrument panel attaching clamp bolts.

4. Break steering shaft at flexible coupling and remove shift linkage from lower end of mass jacket.

5. Disconnect horn, turn signal, and neutralizer switch wires.

6. Remove floor pan insert to allow the removal of steering wheel and mast jacket as an assembly.

7. Remove six instrument panel attaching bolts from the locations indicated in Fig. 2-11.

8. Remove complete panel assembly rearward.

IMPORTANT: Care should be exercised in panel removal and replacement to avoid damaging wind lace on both sides of panel by taping a piece of thin gauge metal over wind lace on both sides of panel.

9. To install, reverse above procedures making certain all wires are reinstalled in their original attaching points.

BODY VENTILATING SYSTEM

The body ventilating system incorporates the use of an air intake grille located on top of the shroud panel. The air entering the shroud top ventilator 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 inlet grille flows down the shroud side duct panel and is discharged through an opening in the rocker panel.

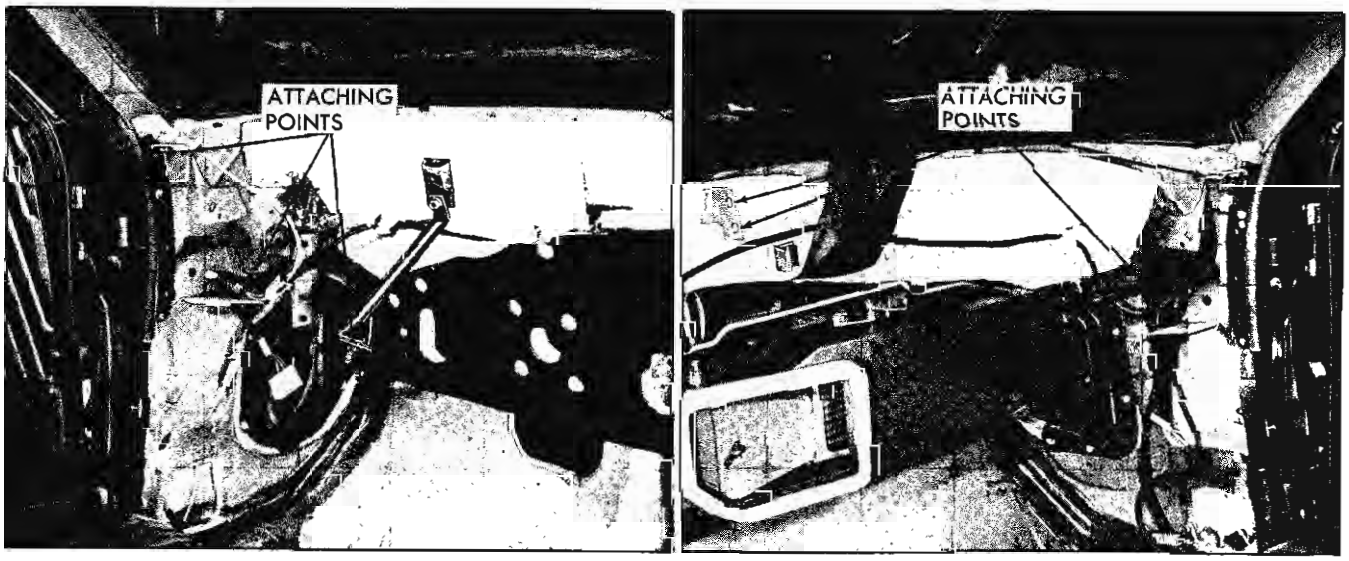


Fig. 2-11 Instrument Panel Attaching Points

SHROUD TOP VENTILATOR GRILLE

REMOVAL AND INSTALLATION

1. Place protective coverings over hood and fenders.

2. Remove windshield wiper arms, spanner nuts and escutcheons.

3. Raise hood, remove screws securing grille to shroud (Fig. 2-4).

4. Carefully raise front edge of grille and slide grille forward and remove grille.

5. To install, reverse removal procedure.

NOTE: Use care so that grille will not contact hood.

SHROUD SIDE FOUNDATION

REMOVAL AND INSTALLATION

1. Remove screws securing upper and lower end of air inlet grille.

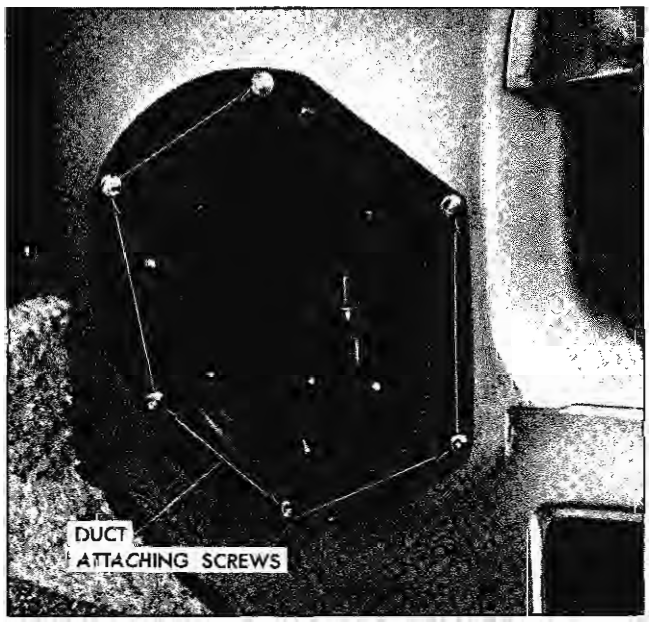


Fig. 2-12 Air Outlet Door

2. Slide foundation forward to disengage rear edge of foundation from retainer and remove foundation.

3. To install, reverse removal procedure.

SHROUD SIDE DUCT PANEL AIR OUTLET DOOR

REMOVAL AND INSTALLATION

1. Remove shroud side foundation.

2. Remove end control cable from pin.

3. Pry hinge pin downward and remove door.

4. To install, reverse removal procedure.

SHROUD SIDE VENT DUCT AIR OUTLET

REMOVAL AND INSTALLATION

1. Remove shroud side foundation.

2. Remove screws securing outlet to shroud panel, disengage cable from pin, on door, and remove outlet (Fig. 2-12).

3. To install, apply a bead of medium-bodied sealer (Fig. 2-13) to shroud panel at perimeter of air outlet opening in shroud panel and reverse removal procedure.

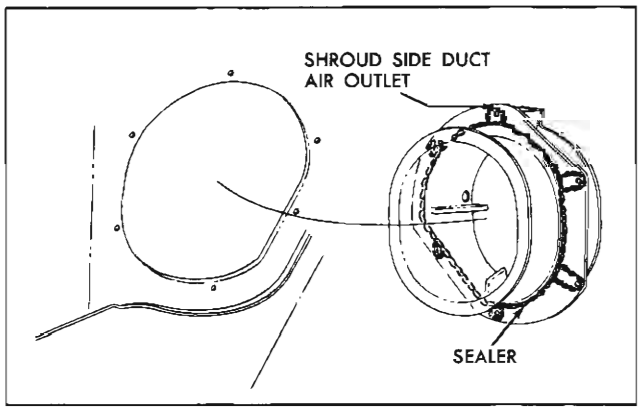


Fig. 2-13 Shroud Side Duct Air Outlet

DOORS

CONTENTS OF THIS SECTION

Service operations for doors are covered in the following order:

Service operations which are the same or similar for both front and rear doors.

Service operations for front doors only.

Service operations for rear doors only.

Service operations for side roof rail weatherstrips except convertible styles.

FRONT AND REAR DOORS

BOTTOM DRAIN HOLE SEALING STRIPS

Door bottom drain hole sealing strips (dust flaps) are attached to the 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, or other suitable flat-bladed tool, carefully pry out retaining plugs (Fig. 3-1).

2. To install, insert tip of a blunt tool (such as a dull ice pick) into retaining plug and push plug into retaining holes.

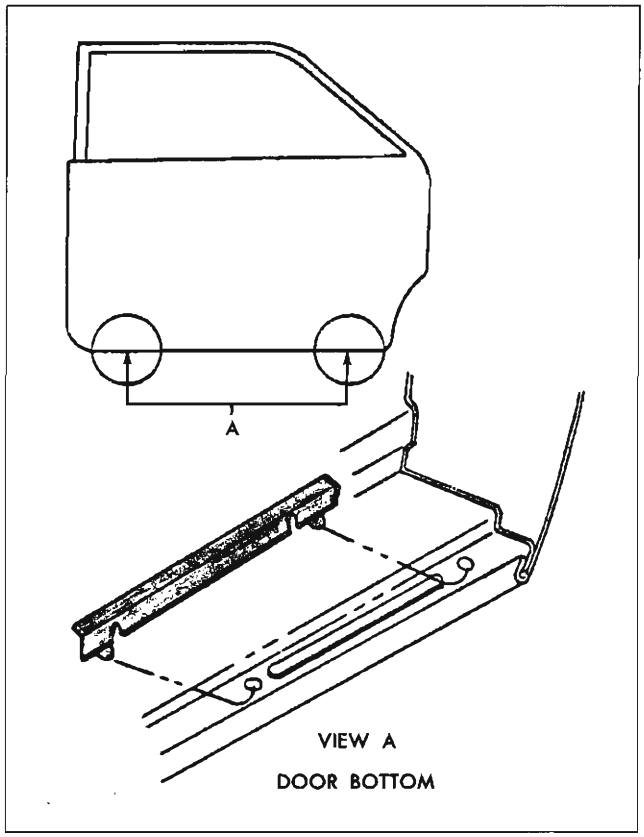


Fig. 3-1 Door Bottom Drain Hole Sealing Strip

GLASS RUN CHANNEL INNER AND OUTER STRIPS

Glass run channel strips are used on all doors 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. The inner strip is constructed of a pile fabric material with a metal backing and is secured top of door trim pad by a series of staples. The inner strip is not normally removed separately for service procedures. The outer strip 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 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 remains in a stationary position during operation of door glass. On the outer strip, 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

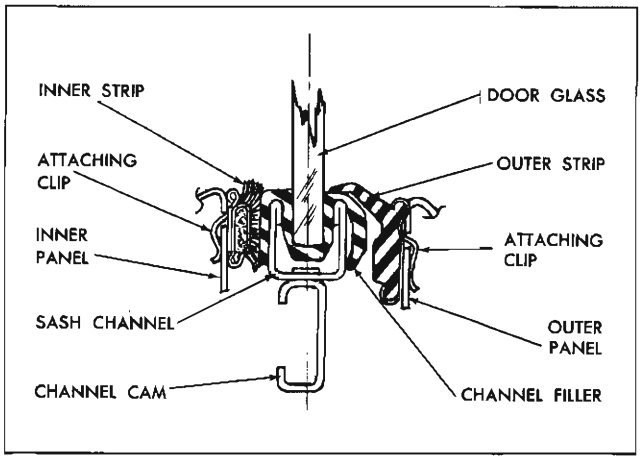


Fig. 3-2 Door Glass Channel

is raised. As shown in Fig. 3-2, the outer strip acts as an effective weatherseal with glass in the fully closed position.

REMOVAL AND INSTALLATION

1. Lower door window and apply masking tape over door outer panel adjacent to outer strip to protect paint finish.

2. Check outer strip 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

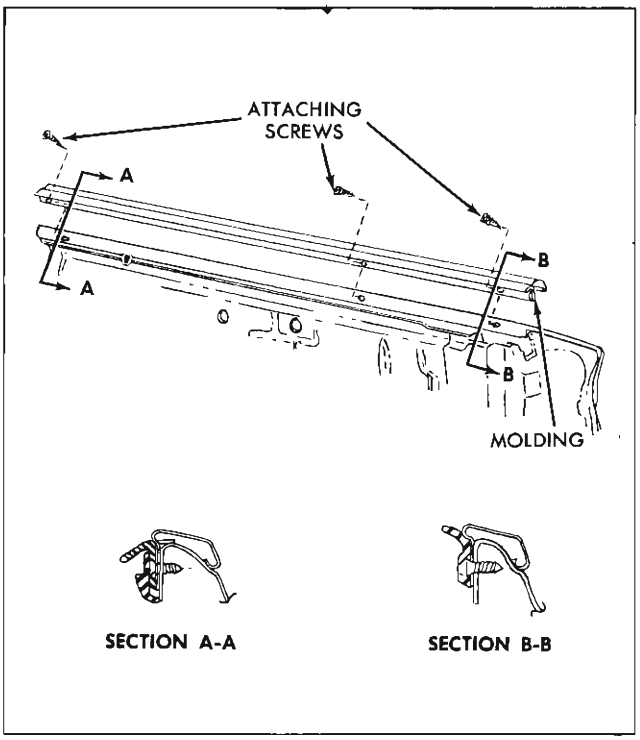


Fig. 3-3 Channel Outer Strip

to forward attaching screw. If necessary, remove the front door ventilator as described under FRONT DOORS in this section.

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 attaching screws. On some styles, it will be necessary to remove the rear door window.

4. Remove all outer strip attaching screws (three screws on styles equipped with a belt reveal molding and two screws on all other styles). See Fig. 3-3 for styles with a belt reveal molding and Fig. 3-4 for all other styles.

5. On styles equipped with a belt reveal molding, the outer strip and molding can now be removed.

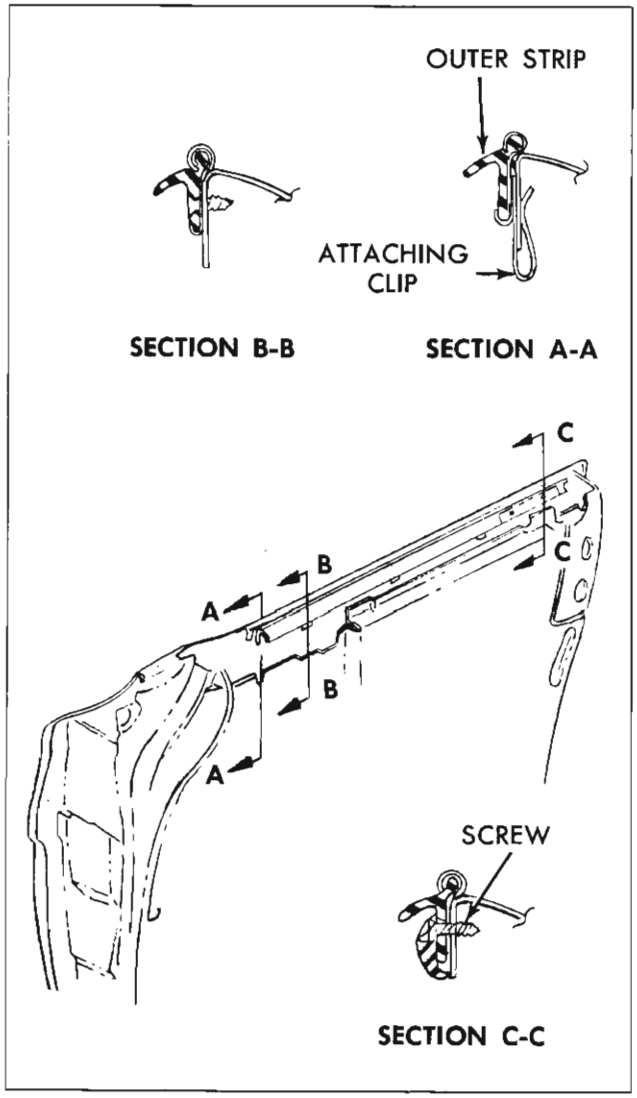


Fig. 3-4 Channel Outer Strip

6. On all other styles, firmly press outer strip in a downward motion to disengage attaching clips from door outer panel return flange and remove strip from door outer panel.

7. To install, reverse removal procedure.

WEATHERSTRIPS
39, 47 and 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.

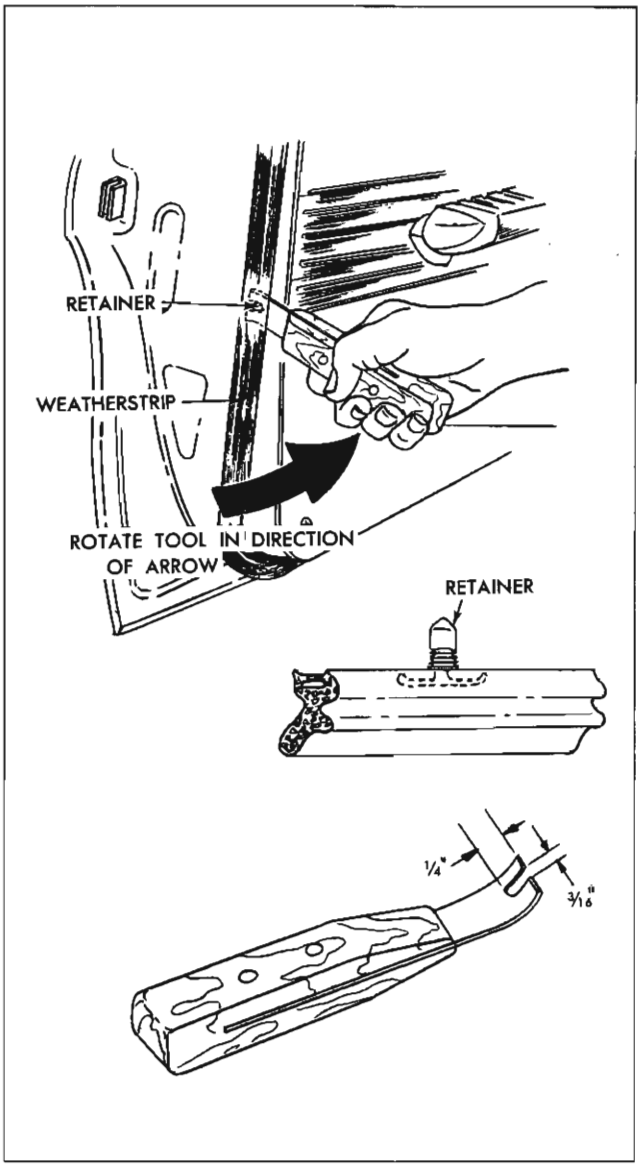


Fig. 3-5 Weatherstrip Removing Tool

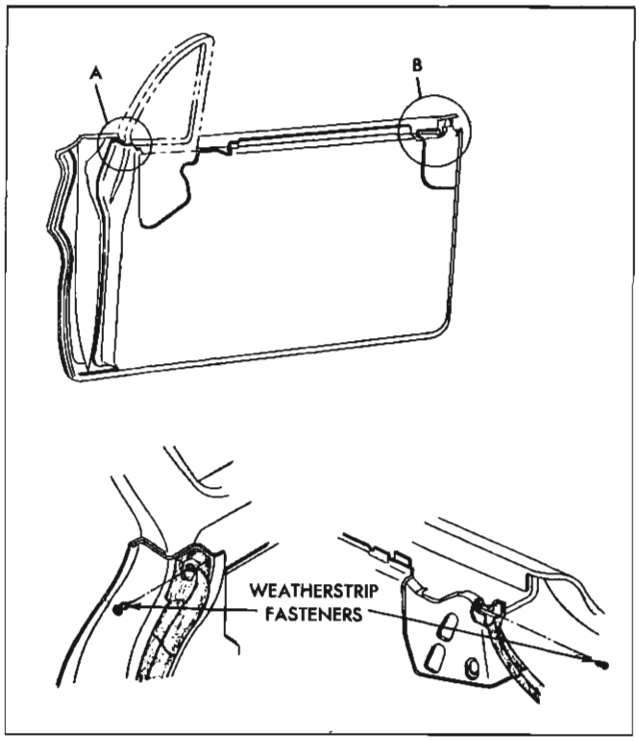


Fig. 3-6 Front Door Weatherstrip

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. 3-5.

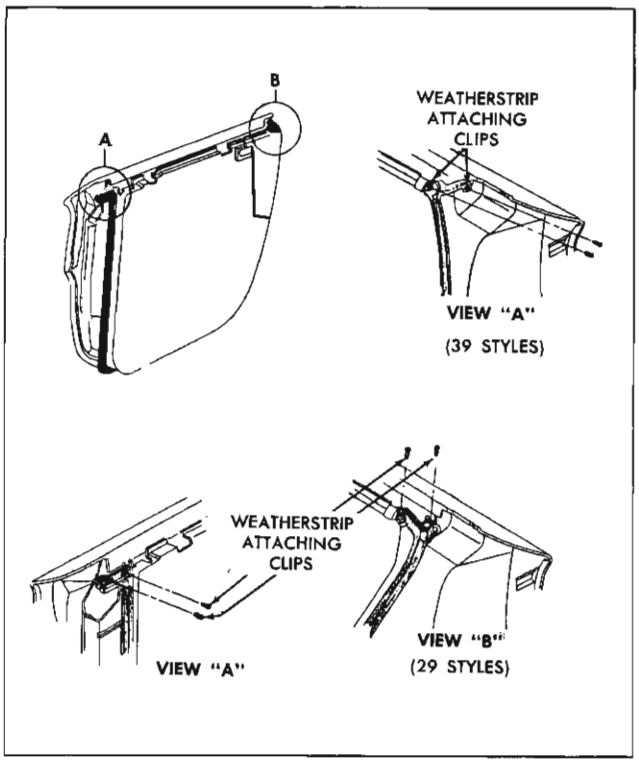


Fig. 3-7 Weatherstrip Attaching Clips

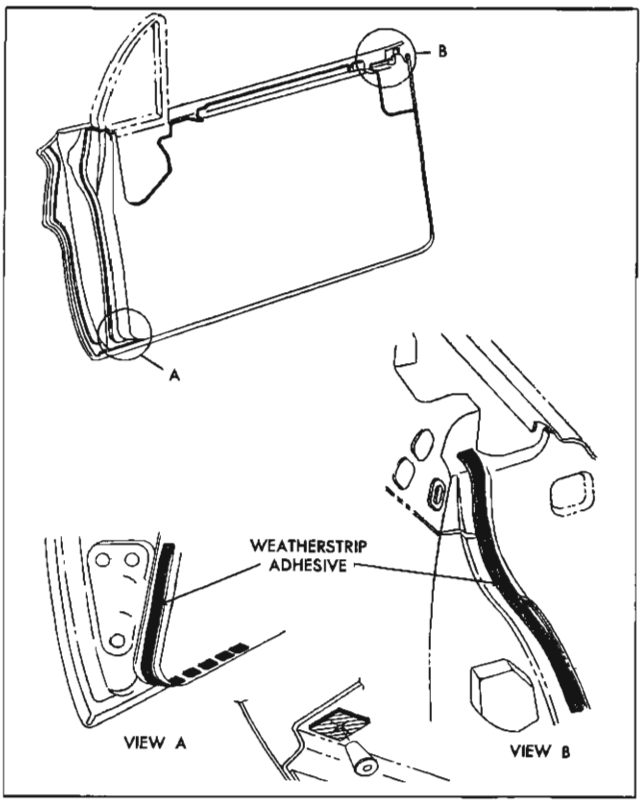


Fig. 3-8 Weatherstrip Adhesive - Front Door

If 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. 3-6).

2. On rear doors, remove snap fasteners securing ends of weatherstrip at belt line of door hinge and lock pillar panels (Fig. 3-7).

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. 3-8 for front door cement usage and Fig. 3-9 for rear door cement usage.

5. 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. 3-10). 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 depicted in Figs. 3-8 and 3-9.

NOTE: Cement usage is usually limited to the areas illustrated in the figures reference 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 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.

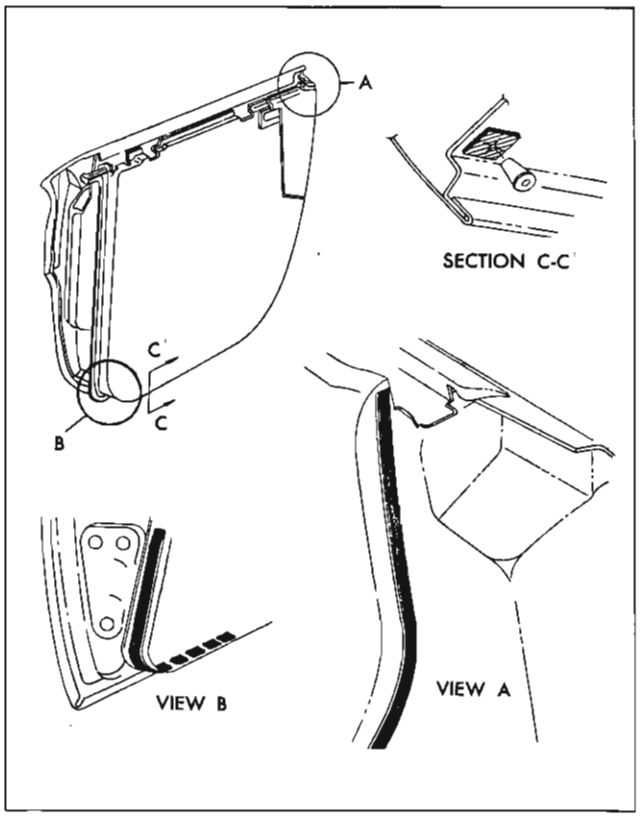


Fig. 3-9 Weatherstrip Adhesive - Rear Door

WEATHERSTRIPS
11, 35, 45 and 69 STYLES

Both front and rear doors are required 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. If this tool is not available, it can be fabricated from any other comparable metal tool as shown in Fig. 3-5.

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.

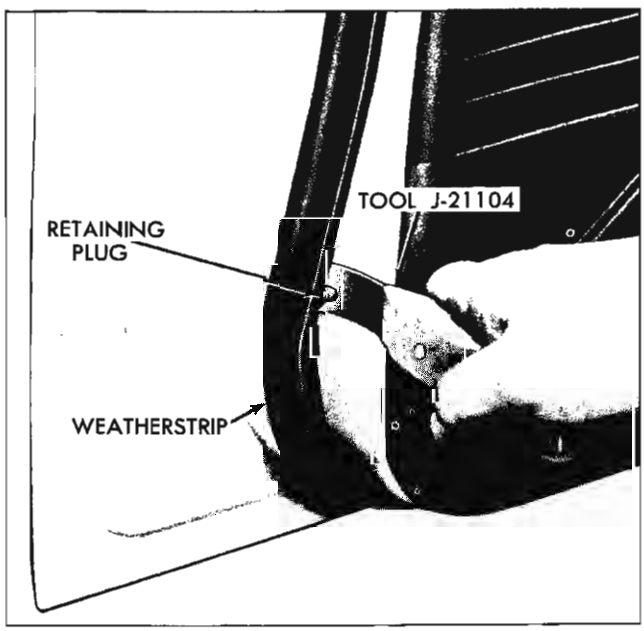


Fig. 3-10 Using Tool J-21104

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. 3-11 for front door cement usage and Fig. 3-12 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. 3-10).

CAUTION: Do not 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 depicted in Figs. 3-11 and 3-12.

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.

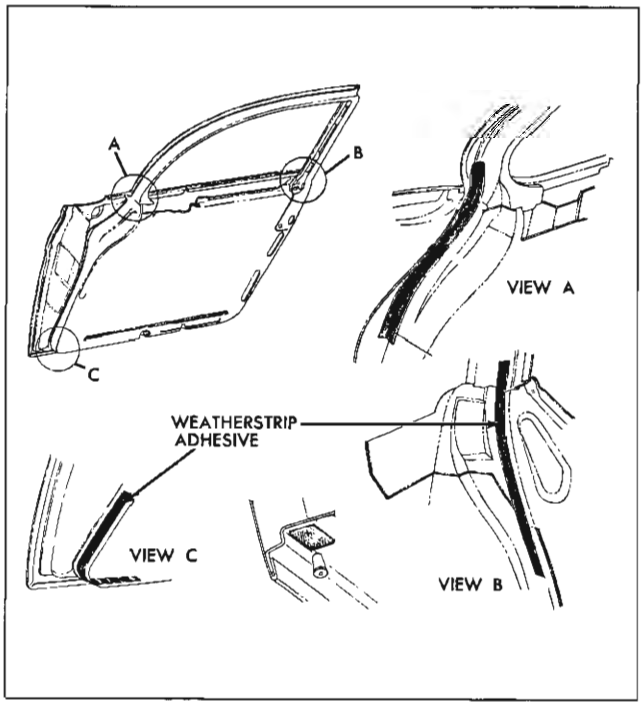


Fig. 3-11 Weatherstrip Adhesive

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.

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.

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

REAR DOOR HINGE PILLAR SEALING STRIP (AT BELT) 39 STYLE

REMOVAL AND INSTALLATION

1. Remove snap fasteners securing sealing strip to hinge pillar facing of rear door and remove strip assembly (Fig. 3-13).

2. To install, reverse removal procedure.

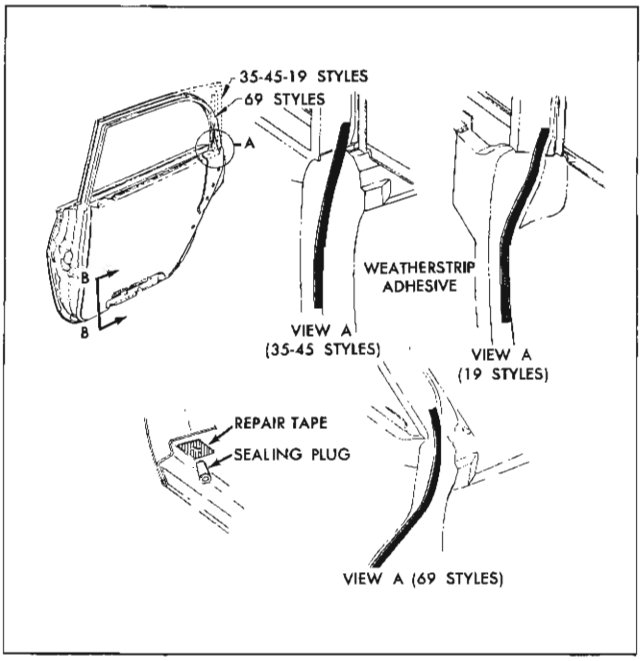


Fig. 3-12 Weatherstrip Adhesive

FRONT DOOR LOCK PILLAR SEALING STRIP (AT BELT) 39, 47 and 67 STYLES

REMOVAL AND INSTALLATION

1. Remove snap fasteners securing sealing strip to lock pillar facing of front door and remove strip assembly (Fig. 3-14)

2. To install, reverse removal procedure.

REAR DOOR LOCK PILLAR SEALING STRIP 69 STYLE

REMOVAL AND INSTALLATION

1. Remove the single snap fastener securing sealing strip to rear door lock pillar (at belt) and remove strip (Fig. 3-15).

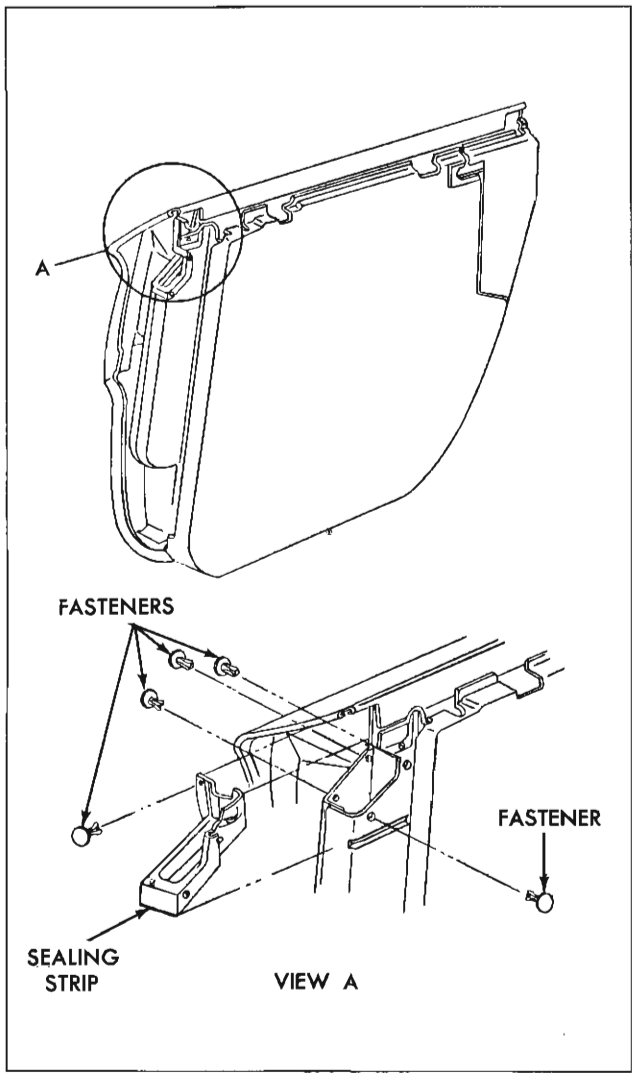


Fig. 3-13 Rear Door Hinge Pillar Sealing Strip

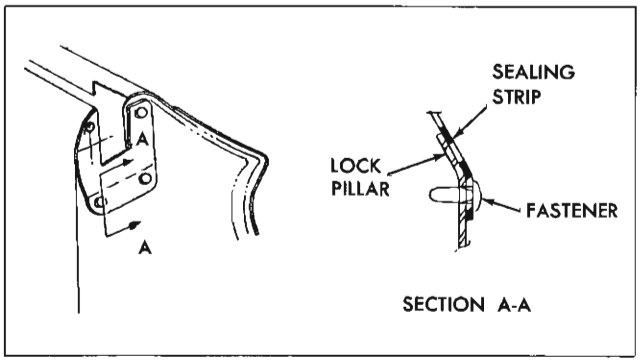


Fig. 3-14 Sealing Strip Snap Fasteners

2. To install, reverse removal procedure.

INSIDE HANDLES

REMOVAL AND INSTALLATION

A. On styles equipped with door inside remote control "paddle" handles, proceed as follows:

1. Remove door arm rest as described under FRONT AND REAR DOOR ARM RESTS.

2. Remove handle-to-remote attaching screw or bolt and remove handle from door.

3. 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 at handle, sufficiently to install tool J-7797 between handle and bearing plate.

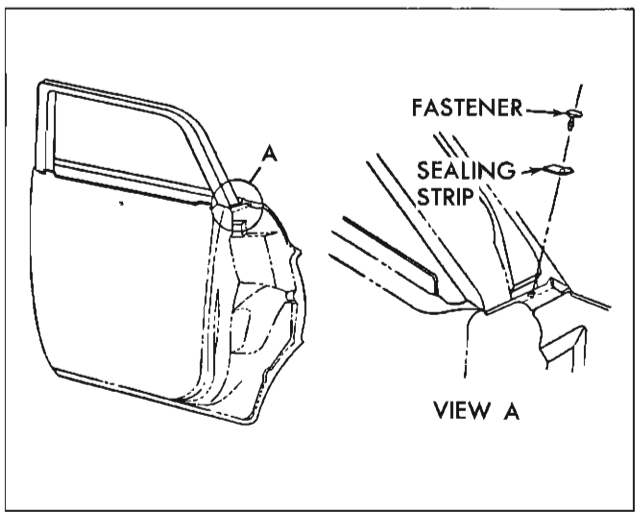


Fig. 3-15 Rear Door Lock Pillar Sealing Strip Fastener

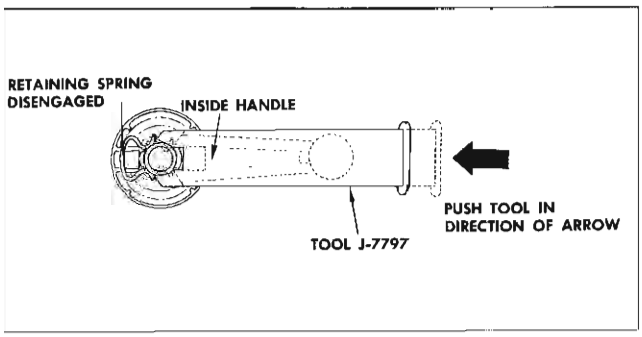


Fig. 3-16 Handle Retaining Spring

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. 3-16).

ARM RESTS

REMOVAL AND INSTALLATION

1. Remove screws securing arm rest to door inner panel and remove arm rest from door (Fig. 3-17).

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.

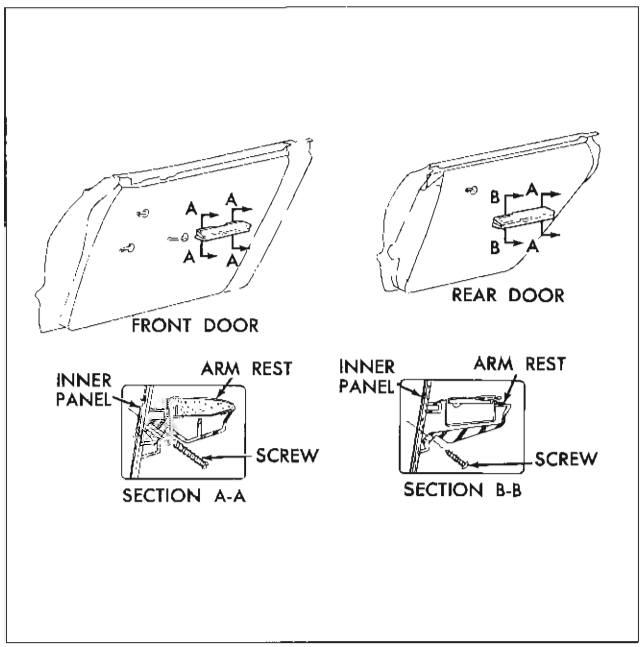


Fig. 3-17 Door Arm Rests

DOOR TRIM

All door trims are the hang-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. 3-18).

REMOVAL AND INSTALLATION

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

2. Remove screws securing trim to door inner panel (Fig. 3-18).

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

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

NOTE: Do not disturb inner panel water deflector.

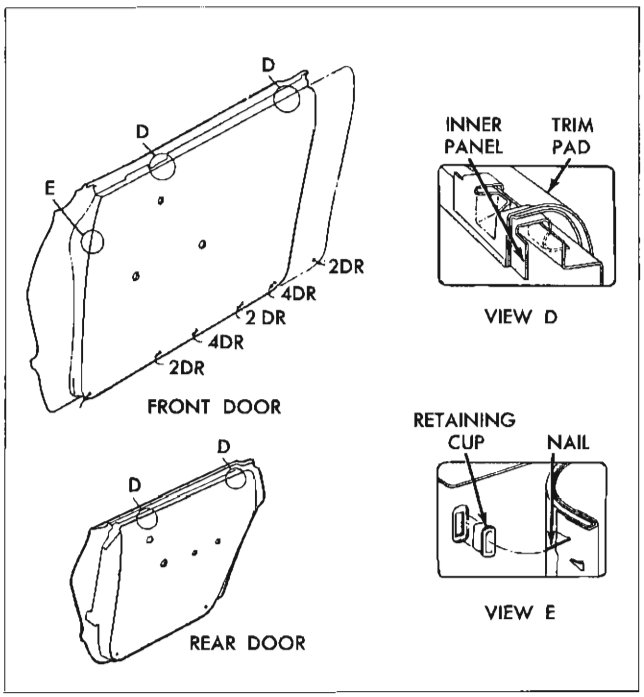


Fig. 3-18 Door Trim Pads

5. Lift trim up and carefully disengage trim from top of door inner panel; then remove trim from door.

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

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

WATER DEFLECTOR

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

1. Remove door trim.

2. Remove strips of waterproof body tape securing lower corners of water deflector.

3. 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.

4. Disengage lower edge of water deflector from retaining slot in door inner panel and remove water deflector.

INSTALLATION

1. 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.

2. 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).

3. If the door arm rest attaching screw holes are located in the door inner panel, seal these holes with body caulking compound.

4. 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.

5. Seal lower corners of water deflector with 2" or 2-1/2" waterproof body sealing tape.

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

LOCK 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 (See Fig. 3-19).

OUTSIDE HANDLE

REMOVAL AND INSTALLATION

1. Raise door window. Remove door trim and detach upper rear corner of inner panel water deflector sufficiently to gain access to door outside handle attaching screws.

2. Remove screws and door lock handle and gaskets from outside of body.

3. To install, reverse removal procedure.

DISASSEMBLY AND ASSEMBLY

1. Remove door outside handle.

2. Depress retainer slightly and turn one quarter turn. Remove retainer, push button, spring, and shaft and sealing ring from handle.

3. To assemble, reverse disassembly procedure (Fig. 3-20).

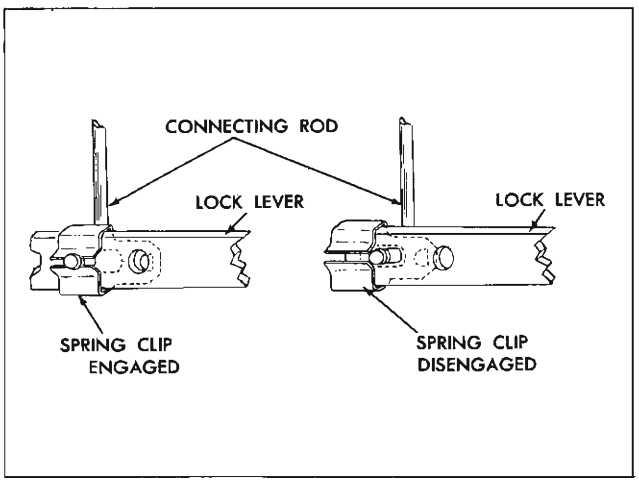


Fig. 3-19 Door Lock Spring Clip

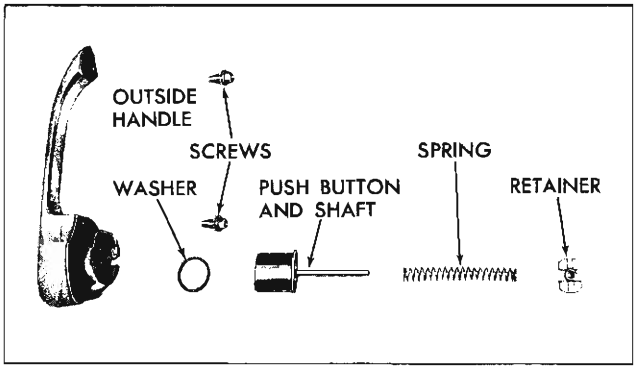


Fig. 3-20 Door Outside Handle

FRONT DOOR HARDWARE 39, 47 and 67 STYLES

Fig. 3-21 is typical of hard top coupe and sedan style front doors with the trim and inner panel water deflector removed. This illustration identifies the component parts of the front door assembly, their relationship and various attaching points.

FRONT DOOR HINGES

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

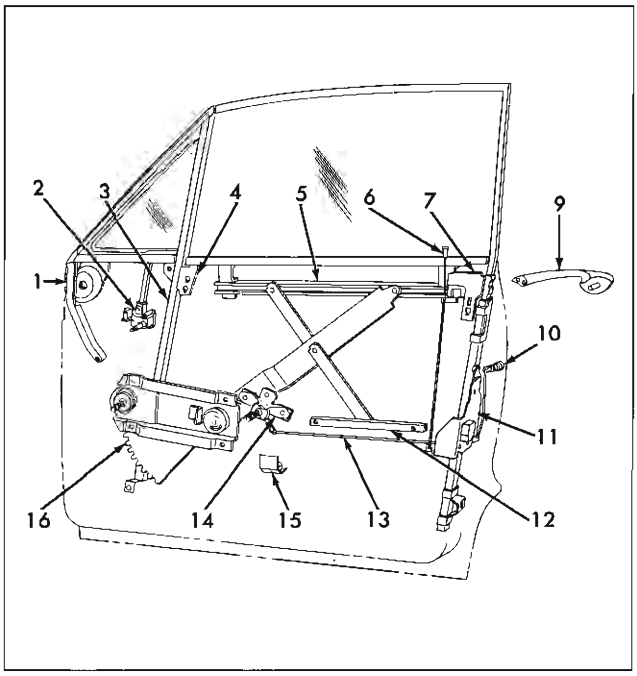


Fig. 3-21 Front Door

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

B. The door can be removed from the hinge straps.

REMOVAL

1. Place a protective covering over front fender at door opening to protect paint finish.

2. 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.

3. Mark hinge locations on door or hinge pillar depending on method of removal.

4. On bodies equipped with electrically powered window regulators, proceed as follows:

a. Remove door trim and detach inner panel water deflector sufficiently to gain access to wire connector(s) at motor(s).

b. Detach wire harness from inner panel as required and disconnect motor(s) from harness at connector(s).

NOTE: The wire harness connector for power operated front door ventilators is located approximately twelve (12) inches below the ventilator motor. For detailed illustrations of this connection, see the ELECTRICAL section.

c. Remove electric conduit from door and remove wire harness from between door panels through opening in door hinge pillar.

5. With door properly supported, remove bolts securing upper and lower hinges to front body hinge pillar or door hinge pillar. With aid of a helper, remove door from body. (Fig. 3-22).

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.

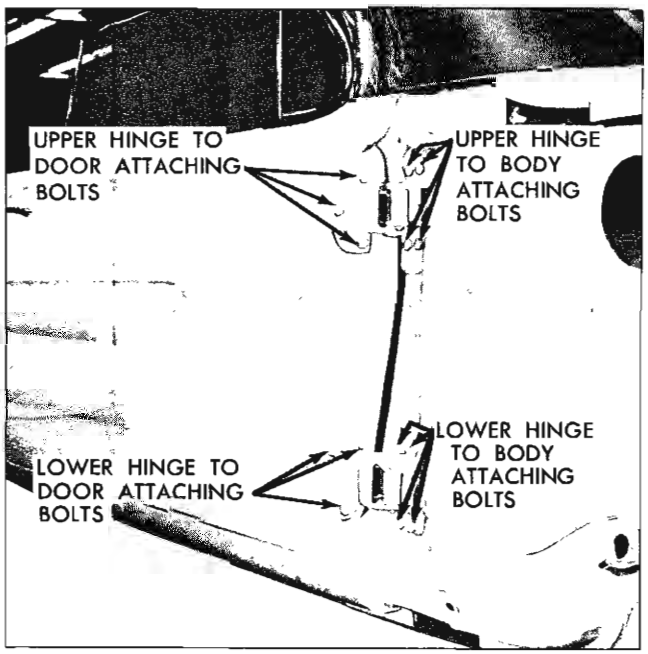


Fig. 3-22 Front Door Hinges

3. On bodies equipped with electrically-operated window regulators, proceed as follows:

a. Install wire harness between door panels and reinstall harness to door inner panel. Connect regulator motor(s).

b. Install conduit to door inner panel. Check operation of electric window assembly.

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 and up or 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 39, 47 or 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 our out and up or down adjustments, loosen hinge to door pillar attaching bolts (Fig. 3-17). 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 fore or aft, loosen hinge to body pillar attaching bolts (Fig. 3-17). 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, therefore, 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 box socket wrench.

LOCK STRIKERS

REMOVAL AND INSTALLATION

1. Mark position of striker on body pillar with a pencil.

2. Remove three striker attaching screws and remove striker and adjusting plates from pillar.

3. Prior to installation, seal all striker plate attaching screw clearance holes with body caulking compound.

4. Apply a 1/8" bead of body caulking compound around entire back surface of striker plate. No skips must exist in caulking compound. Place striker and adjusting plates within marks on pillar and install striker plate attaching screws.

5. Clean off all excess caulking compound.

NOTE: 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.

ADJUSTMENTS

1. 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.

2. To adjust striker up or down and in or out, loosen striker plate attaching screws, shift striker and adjusting plates as required and tighten attaching screws.

NOTE: Doors should be properly aligned before checking striker spacer requirements.

LOCK CYLINDER

REMOVAL AND INSTALLATION

1. Raise door window. Remove door trim and detach inner panel water deflector sufficiently to expose large access hole.

2. Through access hole, disengage door lock cylinder to lock connecting rod from door lock with a screwdriver or other suitable tool (see DOOR LOCK SPRING CLIP).

3. With a suitable flat-bladed tool, slide lock cylinder retaining clip out of engagement with lock cylinder and remove assembly 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 clip (Fig. 3-23).

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.

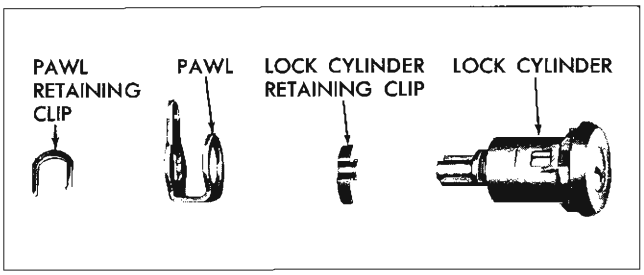


Fig. 3-23 Door Lock Cylinder

INNER PANEL CAM

REMOVAL AND INSTALLATION

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

2. Remove bolts securing door inner panel cam and disengage cam from regulator balance arm. Remove cam from door (Fig. 3-24).

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

Locks are the rotary bolt type lock with the safety interlock feature. With this feature, it is important that the lock extension and housing engage 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 and detach inner panel water deflector.

2. Through access hole, disengage spring clips securing lock cylinder rod, remote control connecting rod, inside locking rod to lock and disengage rods from lock (DOOR LOCK SPRING CLIPS).

3. On 39, 47 or 67 styles, remove door window rear glass run channel lower attaching screw, loosen upper attaching screws on lock pillar facing of door and at top of door inner panel to permit removal of lock.

4. On 11, 35, 45 or 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. 3-25).

6. To install, reverse removal procedure. Prior to installation, apply a ribbon of medium-bodied sealer (approximately 1/4" in diameter) across face

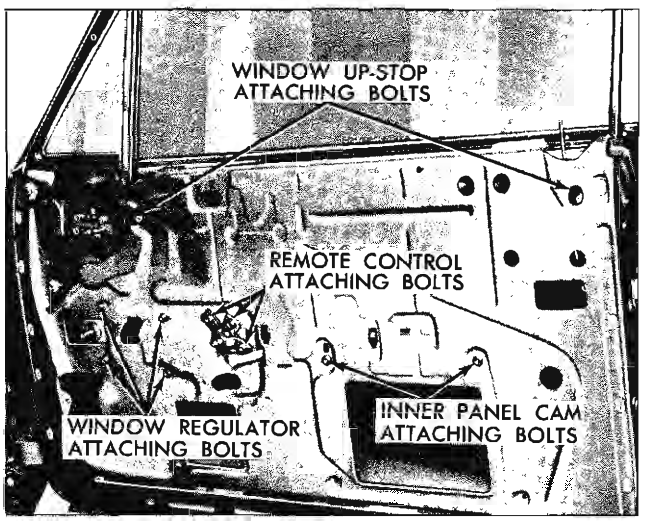


Fig. 3-24 Front Door Hardware

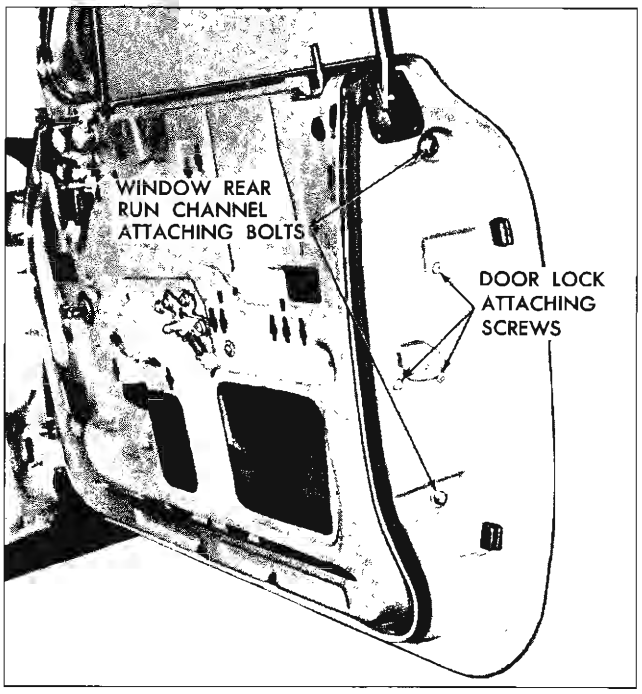


Fig. 3-25 Front Door Lock Pillar

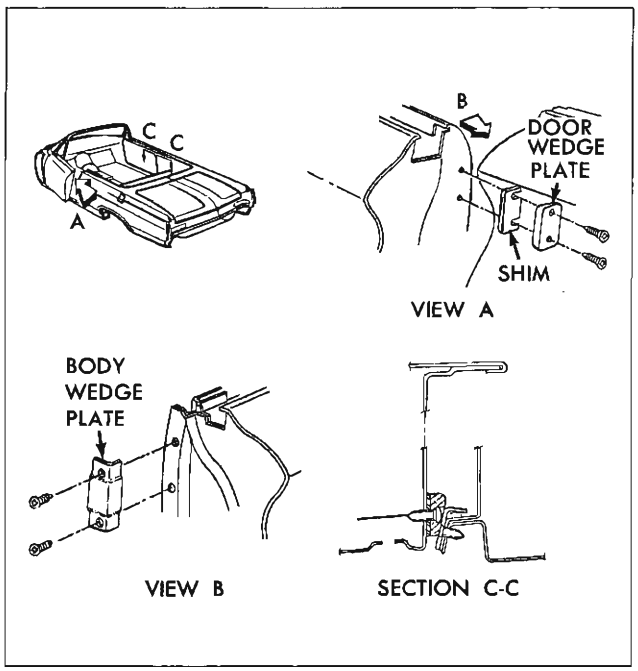


Fig. 3-26 Convertible Wedge Plates

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.

WEDGE PLATES CONVERTIBLE

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 constructed of metal and the door wedge plate is constructed of nylon. If necessary, shims can be installed under the door wedge plate. 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. 3-26).

2. To install, reverse removal procedure.

REMOTE CONTROL AND CONNECTING ROD

REMOVAL AND INSTALLATION

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

2. Remove remote control attaching screws and disengage remote control from connecting rod (Fig. 3-24).

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.

VENTILATOR REGULATOR MANUAL AND ELECTRIC

REMOVAL AND INSTALLATION

1. Raise door window. Remove door trim 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.

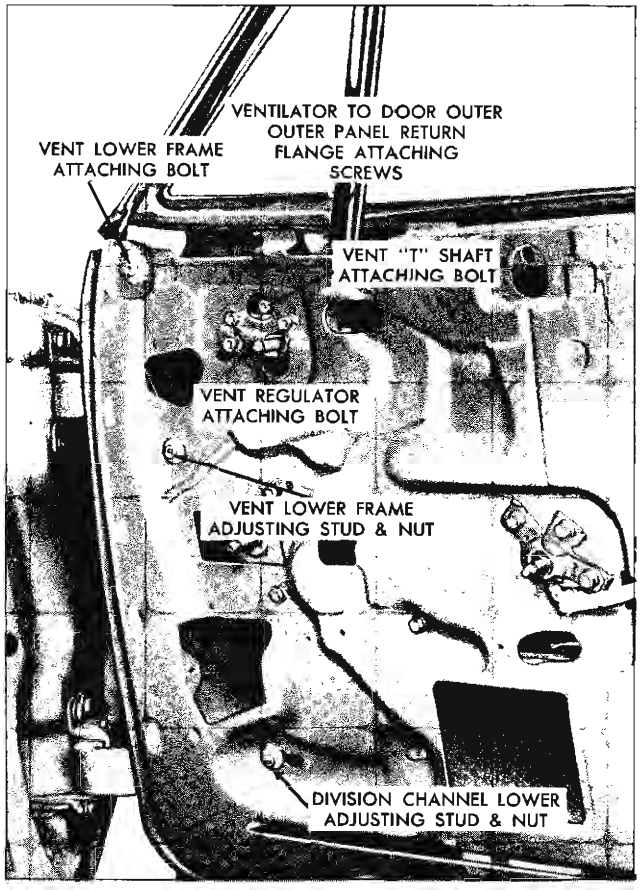


Fig. 3-27 Ventilator Attachment

NOTE: The wire harness connector for power operated front door ventilators is located approximately 12" below the ventilator motor. For detailed illustrations of this connection, see Electrical Section.

3. Remove ventilator tee shaft attaching bolt and ventilator regulator attaching bolts (Fig. 3-27).

4. Disengage ventilator regulator shaft from ventilator tee shaft and remove regulator and motor assembly from door through access hole.

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

VENTILATOR REGULATOR ADJUSTMENTS

1. Excessive play (flutter) of ventilator at pivot shaft, when ventilator is in an open position, can be corrected by tightening ventilator T shaft to regulator attaching bolt (Fig. 3-27).

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

VENTILATOR MANUAL AND ELECTRIC 39, 47 and 67 STYLES

REMOVAL AND INSTALLATION

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

2. Lower door window. Remove ventilator to door outer panel return flange attaching screw (Fig. 3-27).

3. Break cement bond securing front door hinge pillar sealing strip (at belt) to front of ventilator.

4. Remove ventilator division channel lower adjusting stud and nut.

5. On styles equipped with electrically operated ventilators, disconnect motor and regulator from ventilator frame and remove motor and regulator unit through large access hole in door inner panel.

6. Remove ventilator lower frame attaching bolt and ventilator lower frame adjusting stud nut.

7. Remove ventilator regulator.

8. Lift ventilator upward and remove from door.

9. To install, reverse removal procedure. Prior to installation of ventilator assembly, apply a strip of body sealing (waterproof) tape to door outer panel return flange along area contacted by ventilator. Adjust ventilator as described under FRONT DOOR VENTILATOR ADJUSTMENTS.

VENTILATOR ADJUSTMENTS 39, 47 and 67 STYLES

The front door ventilator 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.

To adjust the ventilator, proceed as follows:

1. Remove trim and detach inner panel water deflector.

2. Remove ventilator frame to outer panel attaching screw.

3. Loosen ventilator lower frame attaching bolt.

4. Loosen ventilator division channel lower adjusting stud nut and ventilator lower frame adjusting stud nut.

5. (a) To adjust ventilator 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.

(b) To adjust ventilator in or out, turn adjusting studs on either the lower frame, division channel or both, as required, and tighten nuts.

(c) 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.

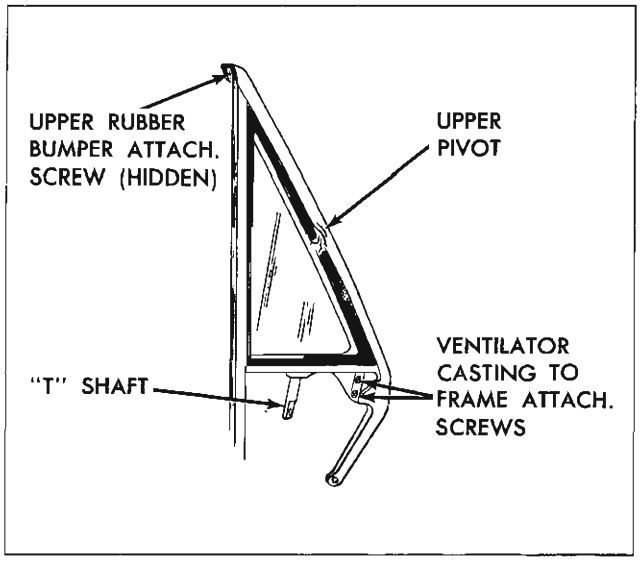


Fig. 3-28 Ventilator

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

VENTILATOR WEATHERSTRIP 39, 47 and 67 STYLES

REMOVAL AND INSTALLATION

1. Remove door ventilator.

2. 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. 3-28).

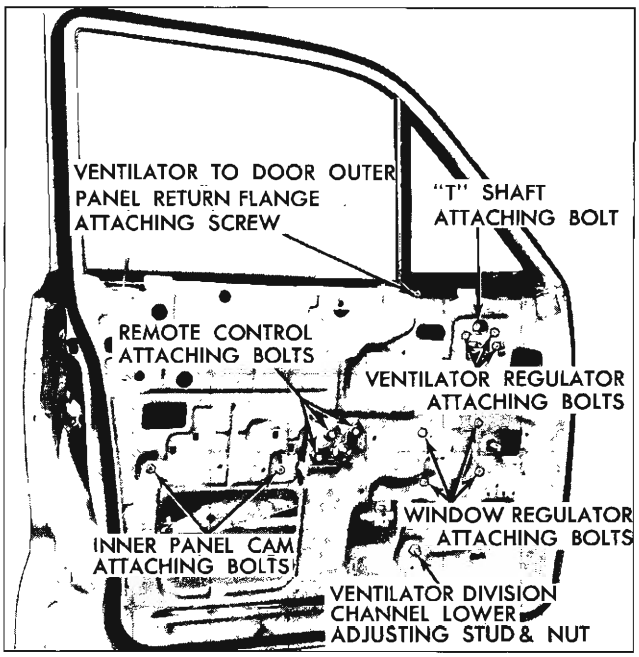


Fig. 3-29 Front Door Hardware Attachment

3. Remove division channel upper rubber bumper screw.

4. Remove two screws securing ventilator casting to frame and separate ventilator casting from frame so that the ventilator weatherstrip can be removed.

5. To install, reverse removal procedure. Prior to installation, however, a ribbon of medium bodied sealer should be applied between ventilator weatherstrip and casting.

VENTILATOR 11, 35, 45 and 69 STYLES

REMOVAL AND INSTALLATION

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

2. Remove ventilator regulator assembly.

3. Lower window. Remove ventilator to door outer panel return flange attaching screw.

4. Remove ventilator division channel lower adjusting stud and nut (Fig. 3-29).

5. Remove ventilator upper attaching screws along door upper frame (Fig. 3-30).

6. Lower ventilator sufficiently to tilt assembly inward, then lift ventilator upward and remove from door.

7. 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. 3-31). 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. 3-32.

ADJUSTMENTS

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

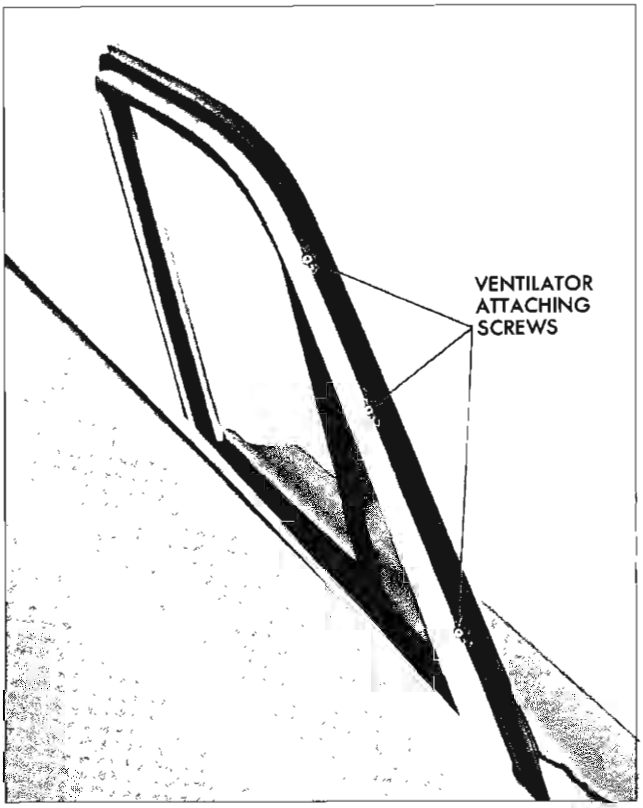


Fig. 3-30 Ventilator to Door Attachment

WINDOW MANUAL AND ELECTRIC 39, 47 and 67 STYLES

The front door window glass is a solid tempered safety plate glass. The glass fits into a lower sash channel 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.

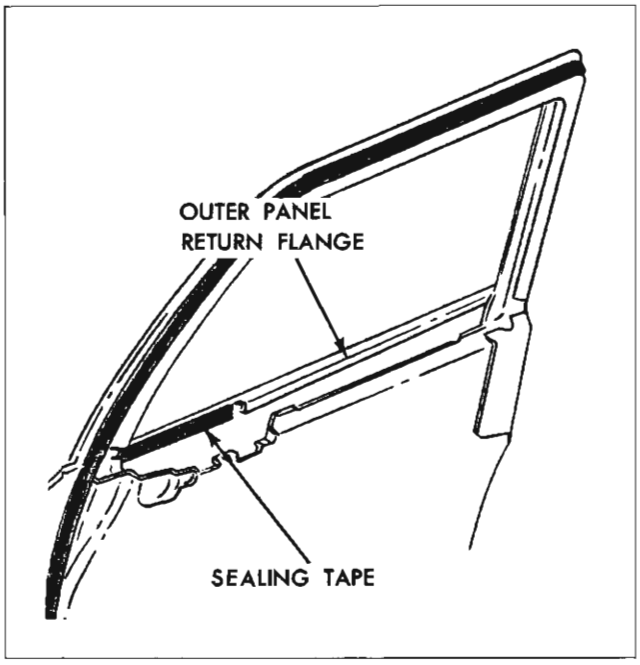


Fig. 3-31 Ventilator to Door Outer Panel Sealing

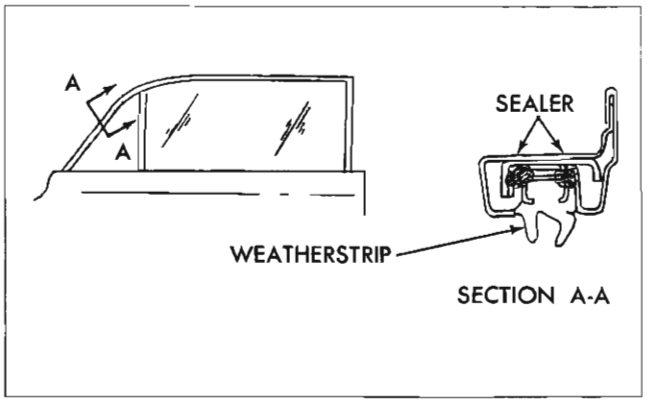


Fig. 3-32 Ventilator to Door Upper Frame Sealing

CAUTION: 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 window, remove door trim and detach inner panel water deflector.

2. Through door inner panel access holes, remove bolt securing window front up-stop and window assembly rear up-stop and remove stops from door. These stops are attached to the front and rear extensions (legs) of the window lower sash channel and are adjustable up or down (Fig. 3-33).

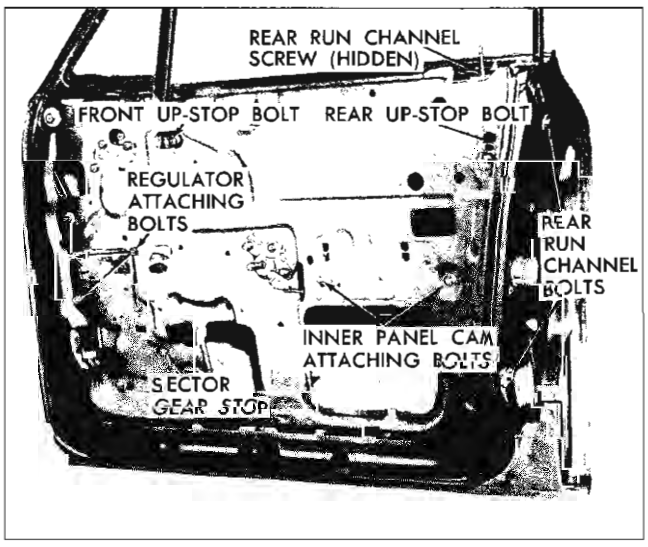


Fig. 3-33 Front Door Hardware Attachment

3. Remove door ventilator.

4. Remove window inner panel cam (Fig. 3-33).

5. While supporting front edge of glass by hand, simultaneously lower 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 window rearward to disengage lower sash channel from nylon rollers of regulator lift and balance arms and remove window from door.

NOTE: It may be necessary to remove the single screw securing the top section of window rear run channel to door inner panel. This can be done to gain more freedom of movement at rear section of window (Fig. 3-33).

CAUTION: Do not operate regulator motor after window 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.

WINDOW ADJUSTMENTS 39, 47 and 67 STYLES

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 and detach inner panel water deflector, where necessary, to gain access to hardware attaching points; then proceed as follows:

ADJUSTMENTS

1. 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. 3-33).

2. To adjust upper front portion of window in or out for proper contact with side roof rail weatherstrip, adjust ventilator in or out as described under FRONT DOOR VENTILATOR ADJUSTMENTS.

3. To adjust lower portion of ventilator division channel for alignment with window, lower door window and loosen 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. 3-27).

4. To adjust upper rear of window in or out for proper contact with side roof rail weatherstrip, or to adjust rear of window in or out at belt line, loosen two rear glass run channel attaching bolts at lock pillar facing of door and the single screw at top in door inner panel. Position channel in or out as required and tighten bolts and screw (Fig. 3-33).

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 for proper contact with side roof rail weatherstrip, raise door window and through inner panel access holes, loosen window front and rear stop attaching bolts. Adjust stops up or down as required, then tighten bolts (Fig. 3-33).

NOTE: Fig. (3-34) depicts typical misalignments and the correct alignment of the front door ventilator to the side roof rail weatherstrip. This alignment can be quickly checked by lowering window and inspecting proper fit of ventilator to side roof rail weatherstrip at top of ventilator division channel. If the ventilator 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 depicted for the front door ventilator.

6. The up travel of the window is additionally controlled by the window regulator sector gear stop (Fig. 3-33). This stop is adjustable up or down.

WINDOW MANUAL AND ELECTRIC 11, 35, 45 and 69 STYLES

The front door window glass is a solid tempered safety plate glass. The glass fits into a lower sash channel which incorporates a welded-on lower sash channel cam. With this type of design, the

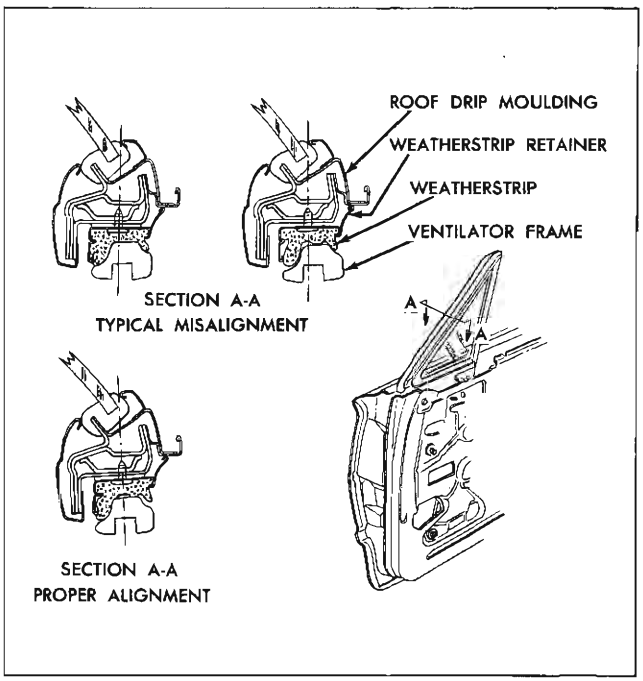


Fig. 3-34 Door Ventilator Alignment

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. Lower window, remove door trim and detach inner panel water deflector.

2. Remove door ventilator.

3. Remove window inner panel cam.

4. While supporting front edge of glass by hand, simultaneously lower 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 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. 3-29).

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

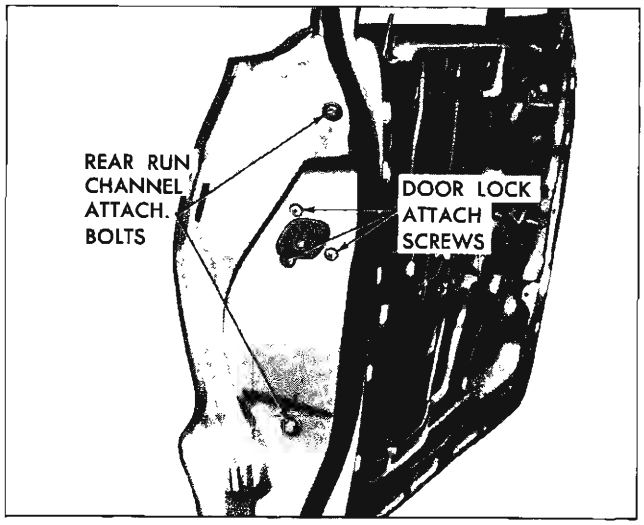


Fig. 3-35 Door Lock Pillar Hardware

5. 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 with 630 AAW Lubriplate or equivalent.

WINDOW ADJUSTMENTS (11, 35, 45 and 69 STYLES)

Adjustments have been provided to relieve a binding door glass due to misalignment of the glass run channels. The glass can also be adjusted to correct a condition of a rotated (cocked) door window. To perform the following adjustments, remove door trim and detach inner panel water deflector, where necessary, to gain access to the hardware attaching points.

ADJUSTMENTS

1. To adjust lower portion of ventilator division channel for proper alignment with window, 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. 3-29).

2. To adjust lower section of window rear glass run channel in or out for proper alignment with window, raise window. Loosen rear run channel lower attaching bolts, adjust channel as required and tighten bolts. (Fig. 3-35).

NOTE: Adjustments 1 and 2 must be coordinated to provide a proper operating window.

3. The window inner panel cam is adjustable at the forward section and can be utilized to correct a rotated (cocked) front door window (Fig. 3-29).

LOCK REMOTE CONTROL AND CONNECTING ROD

REMOVAL AND INSTALLATION

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

2. Using screwdriver or other suitable tool, disengage end of connecting rod from lock assembly. See DOOR LOCK SPRING CLIP.

3. Remove bolts securing remote control to door inner panel. Pull remote control away from inner panel and rotate assembly one-quarter turn to disengage connecting rod from control. Remove remote control assembly and connecting rod from door (Fig. 3-26).

4. To install, reverse removal procedure. Check operation of door lock and remote control prior to installation of inner panel water deflector and door trim.

WINDOW REGULATOR MANUAL AND ELECTRIC 39, 47 and 67 STYLES

REMOVAL AND INSTALLATION

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

2. Remove 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.

5. Remove window regulator attaching bolts and carefully remove regulator from door through large access hole (Fig. 3-30).

CAUTION: DO NOT OPERATE REGULATOR MOTOR after window 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.

WINDOW REGULATOR MANUAL AND ELECTRIC 11, 35, 45 and 69 STYLES

REMOVAL AND INSTALLATION

1. Raise window, remove door trim 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 door window.

4. Remove regulator attaching bolts and carefully remove regulator through large access hole in door inner panel (Fig. 3-29).

CAUTION: Do not operate regulator motor after window 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.

WINDOW REGULATOR ELECTRIC MOTOR

The electric motor, 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 by screws.

1. Remove window electric regulator and clamp assembly in a vise (Fig. 3-36).

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

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

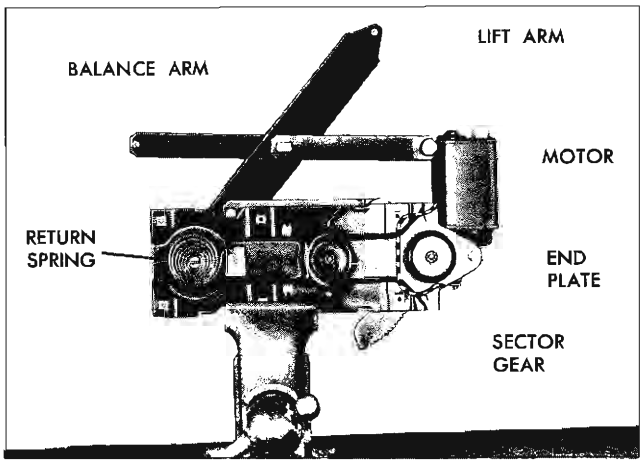


Fig. 3-36 Window Regulator and Motor

IMPORTANT: DO NOT drill into the motor housing, part of which is indicated by the dotted line illustrated in Fig. 3-52. 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 nut on the bolt. Do not tighten nut.

CAUTION: Be sure to perform steps 2 and 3 before attempting to remove motor from regulator. 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 (Fig. 3-33).

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, 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, cycle electric regulator several times before installing inner panel water deflector and door trim pad.

NOTE: Before installing assembly in door, be sure to remove temporary nut and bolt securing regulator back plate to regulator sector gear.

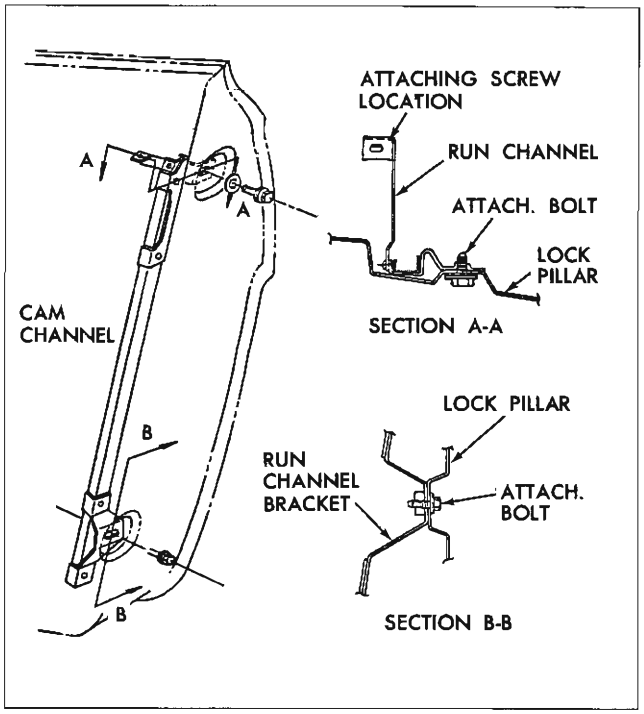


Fig. 3-37 Glass Run Channel

GLASS RUN CHANNEL 39, 47 and 67 STYLES

The door window travels in the ventilator division run channel at front edge of glass and in the glass run channel at rear edge of glass. The glass run channel is retained by two bolts at the door lock pillar and by a single screw at top rear section (belt line) of door inner panel (Fig. 3-30). 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 and detach inner panel water deflector.

2. Remove door window.

3. Remove the glass run channel two attaching bolts on lock pillar panel and the single attaching screw in door inner panel (Fig. 3-37).

4. Carefully lower and rotate glass run channel downward and remove assembly through large access hole in door inner panel.

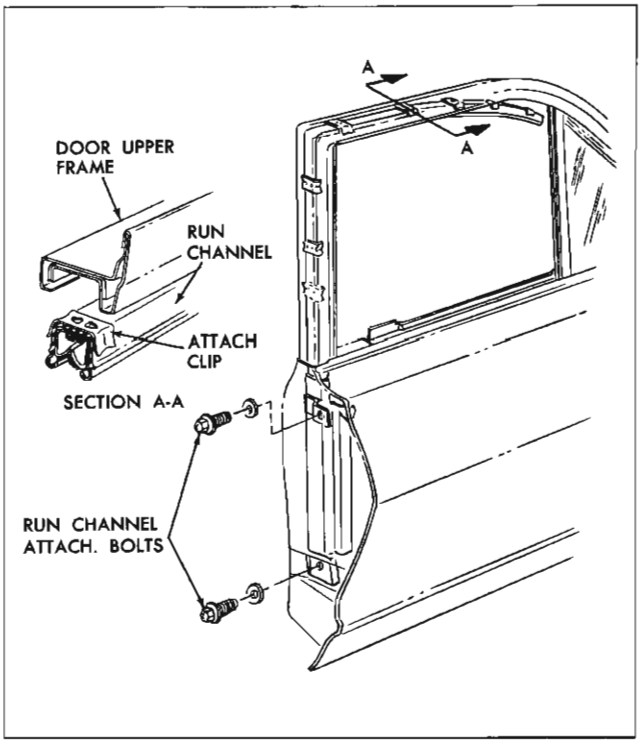


Fig. 3-38 Glass Run Channel

5. To install, reverse removal procedure. Cycle door window up and down prior to installing inner panel water deflector and door trim.

GLASS RUN CHANNEL
11, 35, 45 and 69 STYLES

The door window travels in the ventilator division run channel at front edge of glass and in the glass run channel at rear edge of glass. The glass run channel is retained by two bolts at the front door lock pillar (below belt line) and by clips inserted into the door upper frame (Fig. 3-38)

REMOVAL AND INSTALLATION

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

2. Remove front door ventilator 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. 3-38).

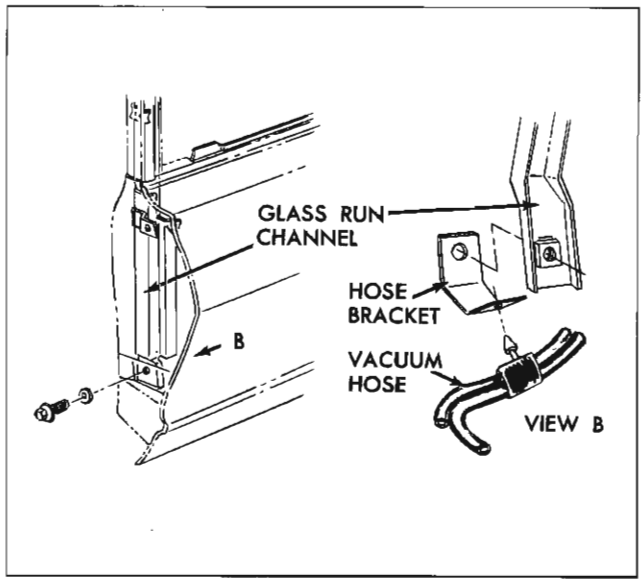


Fig. 3-39 Vacuum Hose Attachment

4. On styles equipped with vacuum door locks, disconnect vacuum hose from lower bracket of run channel (Fig. 3-39).

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 exercised at the retaining clips shown in Fig. 3-38. Extreme care should be exercised during removal of run channel as this part is easily damaged by rough treatment.

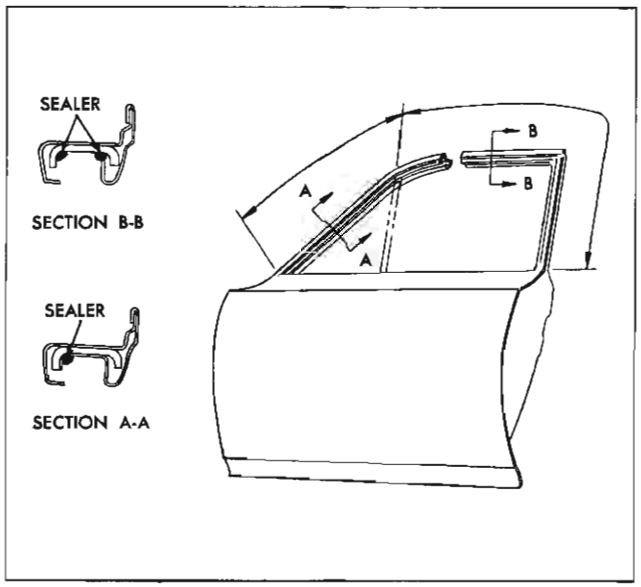


Fig. 3-40 Upper Frame Sealer

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. 3-38).

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 (Fig. 3-40). Cycle window up and down prior to installing inner panel water deflector and door trim.

REAR DOORS

HARDWARE

Fig. 3-41 is typical of sedan and station wagon style rear doors with the trim pad and inner panel water deflector removed. This illustration identifies the component parts of the rear door, their relationship and various attaching points.

Fig. 3-42 is typical of hard top sedan (39 style) rear doors with the trim and inner panel water deflector removed. This illustration identifies the component parts of the rear door, their relationship and various attaching points.

HINGES

The rear door hinges are attached to the center pillar with two butt-type hinges. The hinges are secured to the center pillar and door hinge 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 39 styles, lower door window.

2. Mark location of hinges on door hinge pillar or center pillar with pencil, depending on method of removal being used.

3. On bodies equipped with electrically powered window regulators, proceed as follows:

a. Remove door trim 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 hinge pillar or body center pillar, depending on method of removal (Figs. 3-43 and 3-44).

NOTE: On 39 styles, the lower hinge to center pillar middle attaching bolt is also the rear door jamb switch. Be sure to disconnect wire before removing door.

5. Remove door from body.

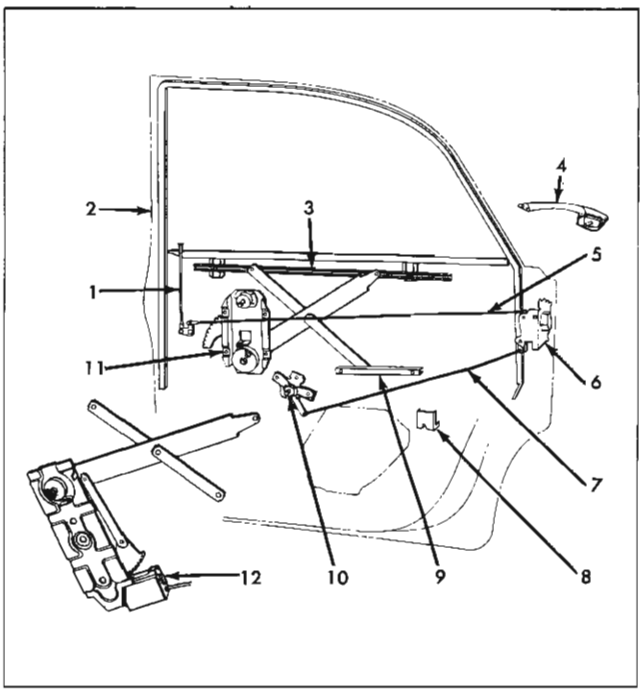


Fig. 3-41 Rear Door - Sedans and Station Wagons

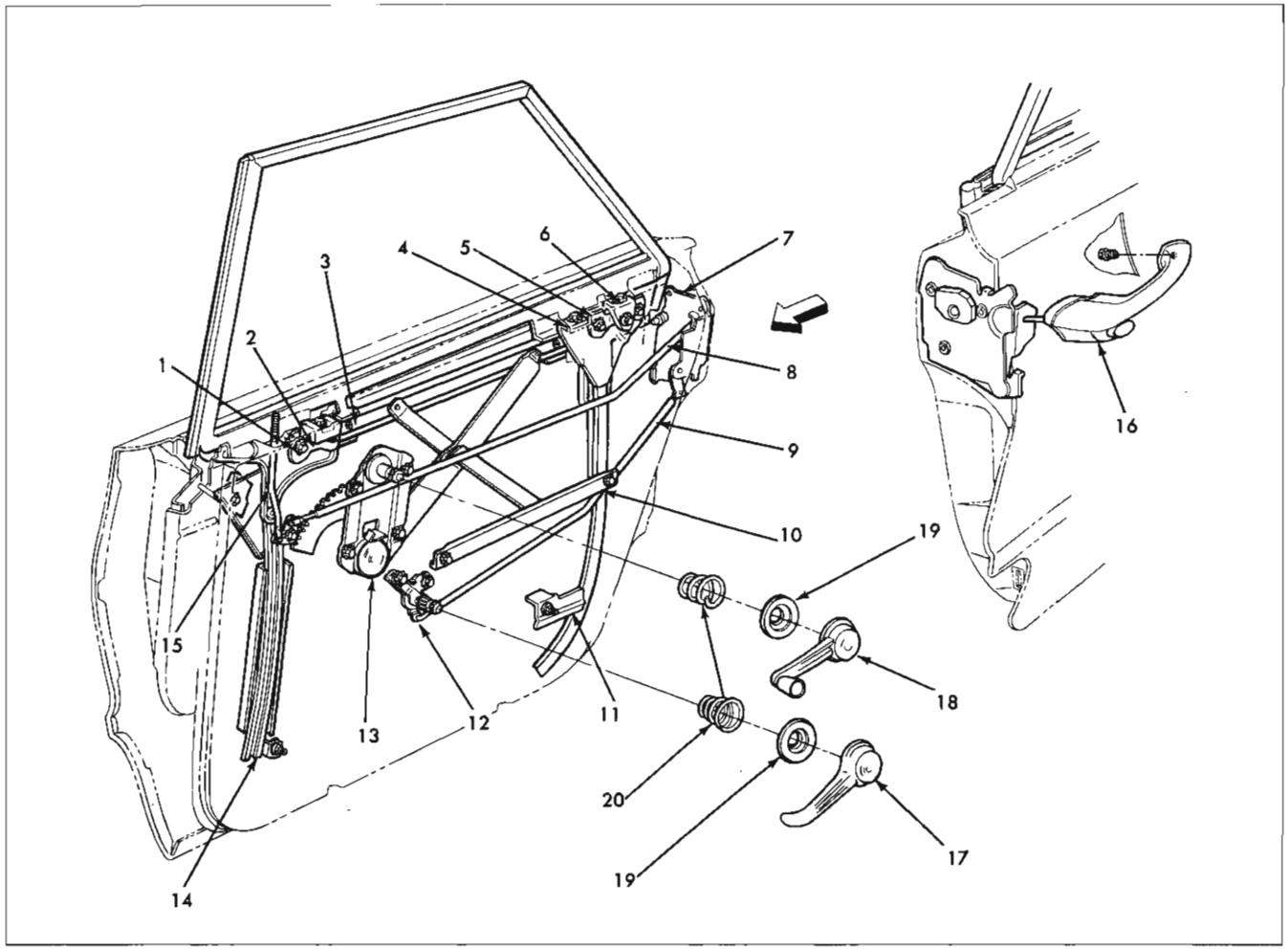


Fig. 3-42 Rear Door - Vista Sedans

INSTALLATION

1. Clean off old sealing compound at hinge attaching areas with a scraper and mineral spirits. Avoid 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. 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, proceed as follows:

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.

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 alignment, remove lock striker from body pillar to allow door to hang free on its hinges.

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

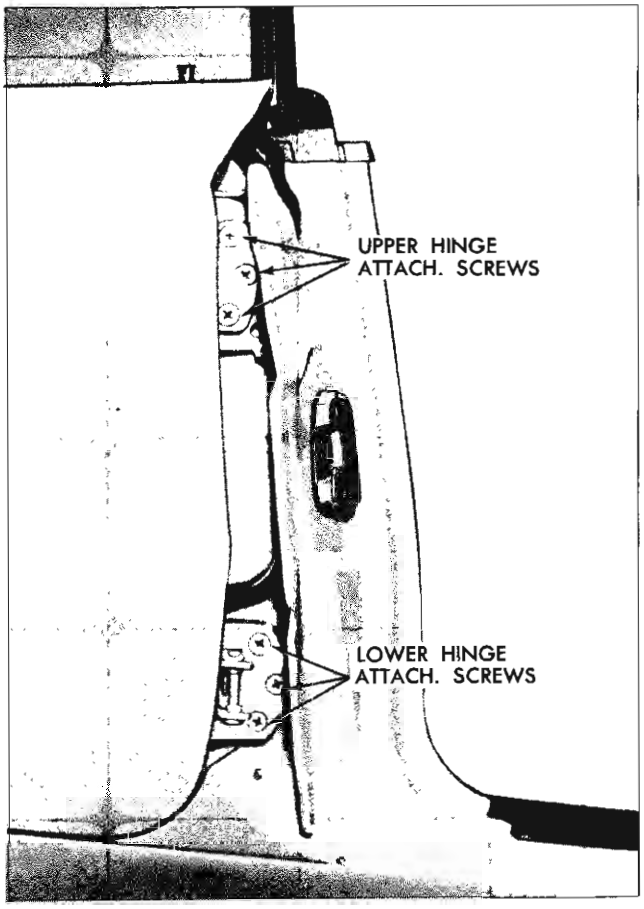


Fig. 3-43 Door Hinge Attachment - At Body Pillar

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. 3-41).

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 attaching screws (Fig. 3-40).

CAUTION: The upper hinge on 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.

LOCK

Locks are the rotary bolt type with the safety interlock feature. With this feature, it is very important that the lock extension engage properly

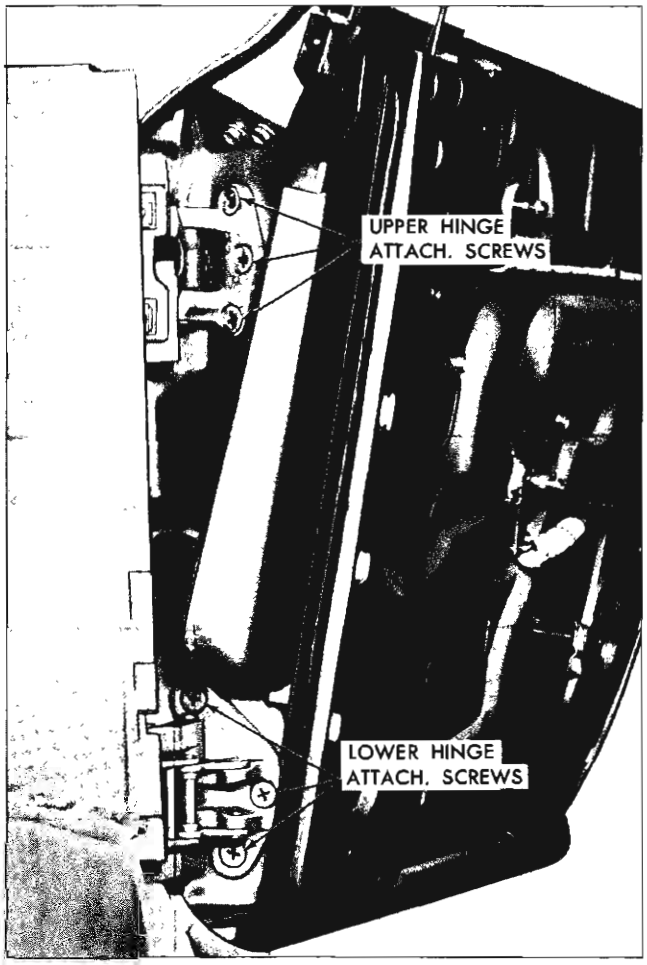


Fig. 3-44 Door Hinge Attachment - At Door Pillar

in the door lock striker notch and that, where necessary, striker emergency spacers of the proper thickness be used to obtain proper engagement.

REMOVAL AND INSTALLATION

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

2. On 35, 45 and 69 styles, through large access hole, remove bolt securing lower end of glass run channel at door lock pillar and raise end of channel to expose lock (Fig. 3-45).

3. Through access hole, disengage spring clips and detach inside lock connecting rod and remove remote control connecting rod from lock (see DOOR LOCK SPRING CLIPS).

4. At lock pillar facing, remove lock attaching screws and remove lock through access hole (Fig. 3-46.

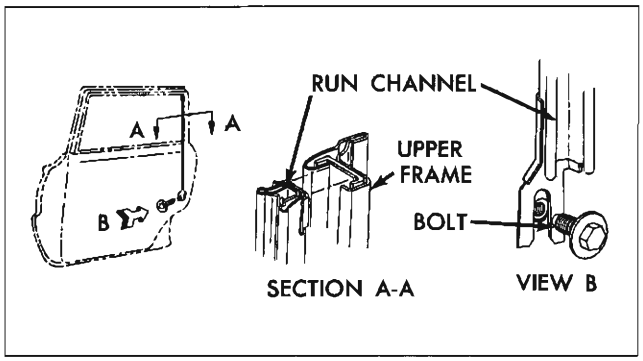


Fig. 3-45 Rear Channel Attachment

5. To install door lock, reverse removal procedure. Check all operations of door lock before installing door trim and inside hardware.

LOCK STRIKERS

REMOVAL AND INSTALLATION

1. Mark position of striker on body pillar with a pencil.

2. Remove three door lock striker attaching screws and remove striker and adjusting plates from pillar (Fig. 3-47).

3. Prior to installation, seal all striker plate attaching screw clearance holes with body caulking compound.

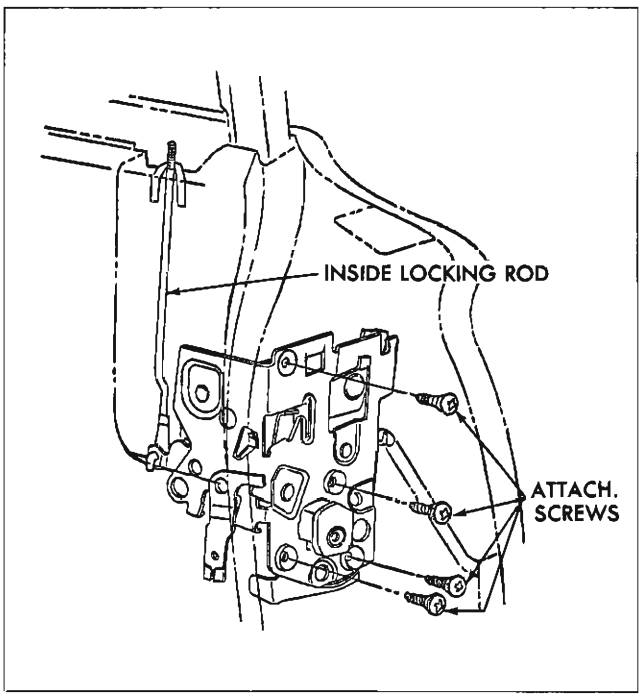


Fig. 3-46 Door Lock Attachment

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.

5. Clean off all excess caulking compound.

NOTE: 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 in production. This shim can be removed or additional shims 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: Doors should be properly aligned before checking striker spacer requirements.

INNER PANEL CAM

The inner panel cam is attached to the door inner panel by two 7/16" attaching bolts and is designed

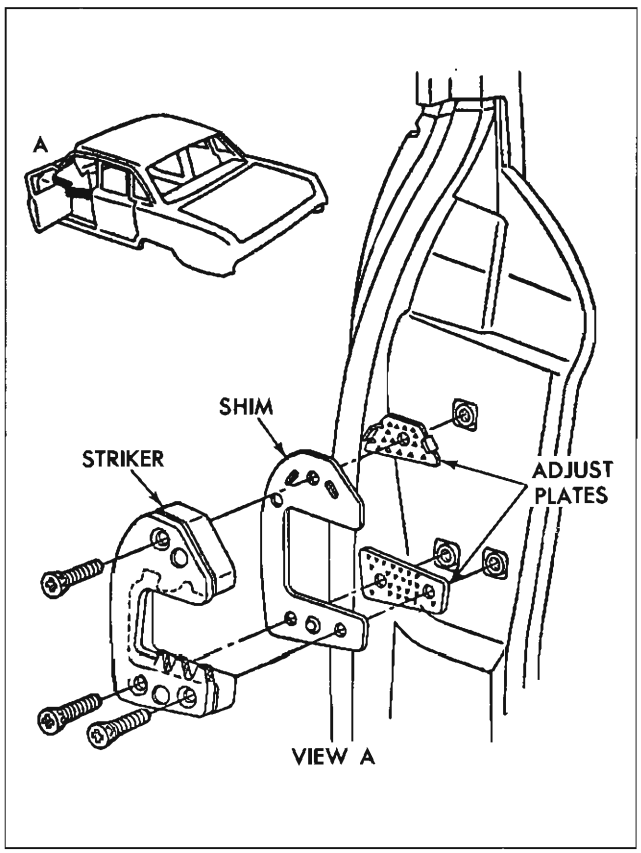


Fig. 3-47 Door Lock Striker

as a guide for the door window regulator balance arm.

REMOVAL AND INSTALLATION

1. Raise window, remove door trim pad and detach inner panel water deflector sufficiently to expose inner panel cam attaching bolts (Fig. 3-48).

2. Remove cam attaching bolts and disengage cam from regulator balance arm roller, then 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 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.

DOOR LOCKING ROD

REMOVAL AND INSTALLATION

1. Raise window, remove door trim pad and detach inner panel water deflector sufficiently to expose locking rod.

2. Remove inside locking rod knob from rod.

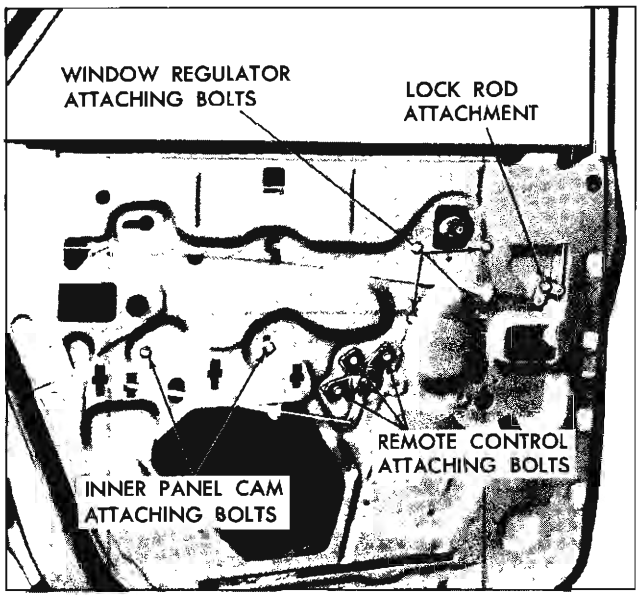


Fig. 3-48 Rear Door Hardware

3. On 35, 45 and 69 styles, remove bolt securing lower end of glass run channel at door hinge pillar to gain access to spring clip securing rod to lock (Fig. 3-42).

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 (see Figs. 3-42 and 3-45).

6. To install, reverse removal procedure. Check operation of inside locking rod before installing water deflector and door trim pad.

DOOR REMOTE CONTROL AND CONNECTING ROD

REMOVAL AND INSTALLATION

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

2. Remove remote control attaching bolts and remove control from connecting rod (Fig. 3-49).

3. On 35, 45 and 69 styles, remove bolt securing lower end of glass run channel at door hinge to gain access to spring clip securing rod to lock (Fig. 3-45).

4. Disengage connecting rod from lock and remove from door (Fig. 3-49).

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 inner panel water deflector and trim pad.

WINDOW LOWER SASH CHANNEL CAM 35, 39 and 45 STYLES

REMOVAL AND INSTALLATION

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

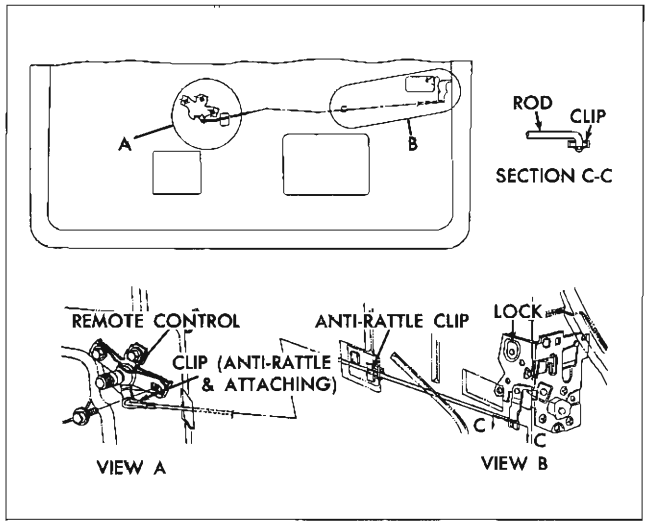


Fig. 3-49 Remote Control and Connecting Rod

2. Lower door window sufficiently to gain access to 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 lower 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 630 AAW Lubriplate or its equivalent. Check operation of window prior to installing inner panel water deflector and door trim pad.

WINDOW REGULATOR MANUAL AND ELECTRIC 35, 39 and 45 STYLES

REMOVAL AND INSTALLATION

1. Lower door window. Remove door trim 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 39 styles, equipped with electric window regulators, loosen rear guide cam upper attaching 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. 3-50 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 is disengaged from regulator. Operation of motor with load removed may damage unit.

5. Remove four regulator attaching bolts, disengage balance arm from inner panel cam and remove regulator through large access hole (Fig. 3-51).

6. To install, reverse removal procedure. Check operation of window before installing inner panel water deflector and door trim pad.

WINDOW REGULATOR ELECTRIC MOTOR

The electric motor 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 with bolts.

REMOVAL AND INSTALLATION

1. Remove electric window regulator from door and/or rear quarter and clamp securely in vise (Fig. 3-49).

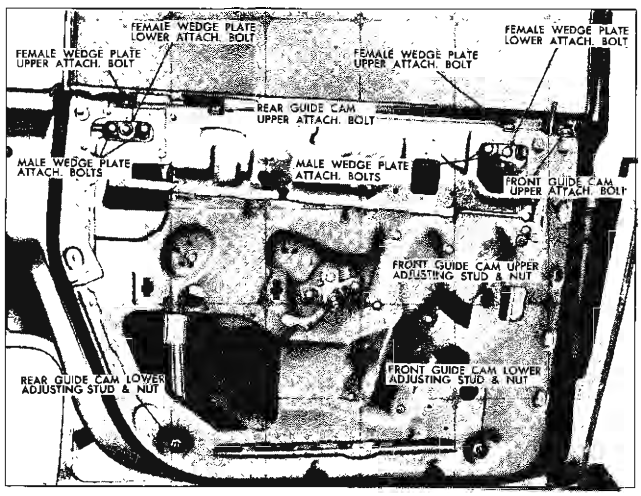


Fig. 3-50 Guide Cam and Wedge Plate Attachment

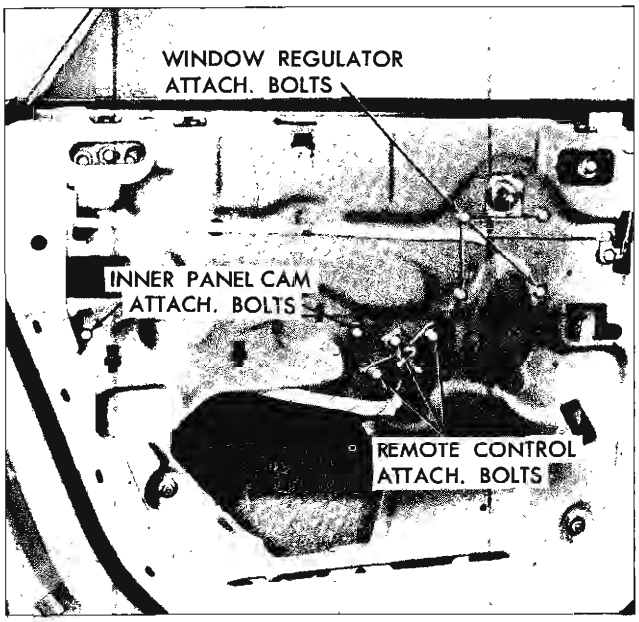


Fig. 3-51 Regulator and Remote Control Attachment

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.

2. 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. 3-36. In addition, locate hole a sufficient distance from edge of sector gear to insure proper retention of sector gear to back plate.

3. Insert a 3/16" bolt through hole in back plate and sector and install nut to bolt (do not tighten nut).

4. Remove motor attaching bolts and remove motor assembly from regulator (Fig. 3-52).

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

5. To install, reverse removal procedure. If difficulty is encountered when trying to line up motor 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.

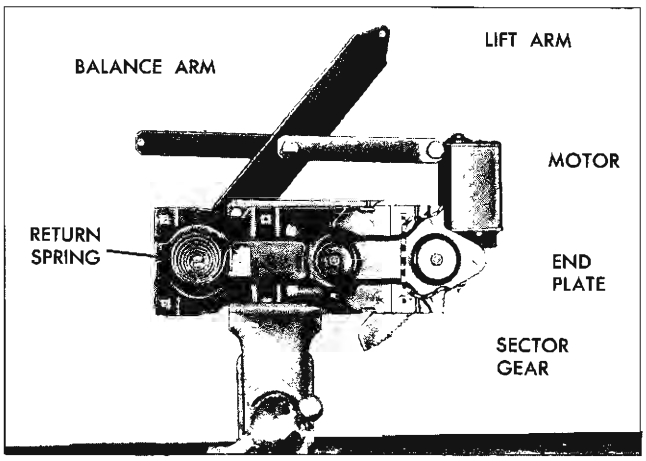


Fig. 3-52 Window Regulator and Motor

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

REAR DOOR WINDOW
35 and 45 STYLES

The rear door window glass is a solid tempered safety plate glass. The glass fits into a lower sash channel which incorporates a screwed-on lower sash channel cam.

CAUTION: Use care to assure 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. Lower window. Remove door trim and detach inner panel water deflector.

2. 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.

3. Rotate rear edge of glass upward and remove window assembly from door, inboard of door upper frame.

4. To install, reverse removal procedure. Prior to installation of lower sash channel cam, lubricate entire length of cam with 630 AAW Lubriplate or equivalent. Check operation of window and, where required, adjust window as described under REAR DOOR WINDOW ADJUSTMENTS prior to installation of inner panel water deflector and door trim.

WINDOW ADJUSTMENTS
35 and 45 STYLES

Window glass adjustments are provided to accomplish smooth operation of glass and to effect proper weatherseals.

ADJUSTMENTS

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

2. The window inner panel cam is adjustable at the forward attaching bolt and can be utilized in correcting a rotated (cocked) door window.

3. Closed style rear doors do not provide for mechanical adjustments of the glass run channels.

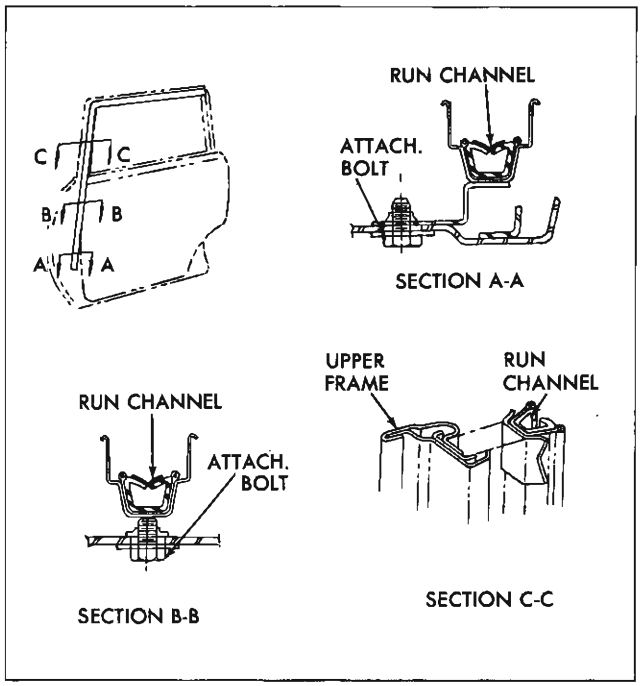


Fig. 3-53 Glass Run Channel - Station Wagon

In the event of excessively loose door glass, however, the run channels can be moved closer to glass by adding shims (washers) between door lock and/or hinge pillar panel and run channels at attaching bolt locations. Figs. 3-45 and 3-53 show 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.

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

REAR DOOR WINDOW
69 STYLE

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: Use care to assure 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 window, remove door trim and detach inner panel water deflector.

2. Remove rear door window inner panel cam (Fig. 3-48).

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.

3. 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 from door, inboard of door upper frame.

4. To install, reverse removal procedure. Prior to installation of inner panel cam, lubricate entire length of cam with 630 AAW Lubriplate or equivalent. Check operation of window and, where required, adjust window as described under REAR DOOR WINDOW ADJUSTMENTS prior to installation of inner panel water deflector and door trim.

WINDOW ADJUSTMENTS 69 STYLE

Window glass adjustments are provided to accomplish smooth operation of glass and to effect proper weatherseals.

ADJUSTMENTS

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

2. The window inner panel cam is adjustable at the forward attaching bolt and can be utilized in correcting a rotated (cocked) door window.

3. In the event of an excessively loose door glass, the run channels can be moved closer to glass by adding shims (washers) between door lock or hinge pillar panel and run channel at attaching bolt locations. Fig. 3-54 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.

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

WINDOW REGULATOR 69 STYLE

REMOVAL AND INSTALLATION

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

2. On electrically operated rear door window regulators, disconnect wiring harness feed wires from regulator connector at motor.

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

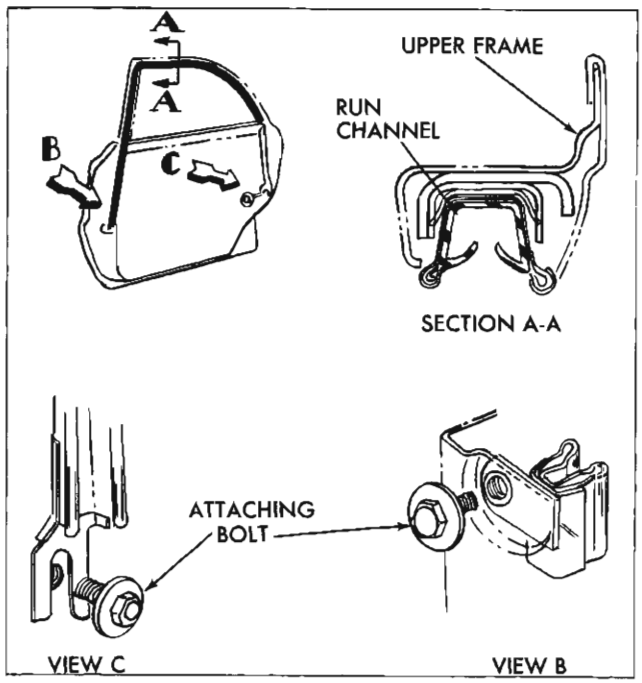


Fig. 3-54 Glass Run Channel - 4-Door Sedan

Operation of motor with load removed may damage unit.

3. Remove window inner panel cam (Fig. 3-48).

4. Remove rear door window.

5. Remove four regulator attaching bolts and remove regulator from door through large access hole.

6. To install, reverse removal procedure. Check operation of window before installing inner panel water deflector and rear door trim.

REAR DOOR WINDOW MANUAL AND ELECTRIC 39 STYLE

The rear door window glass is a solid tempered safety plate glass. The glass fits into a lower sash channel which incorporates a screwed-on lower sash channel cam.

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.

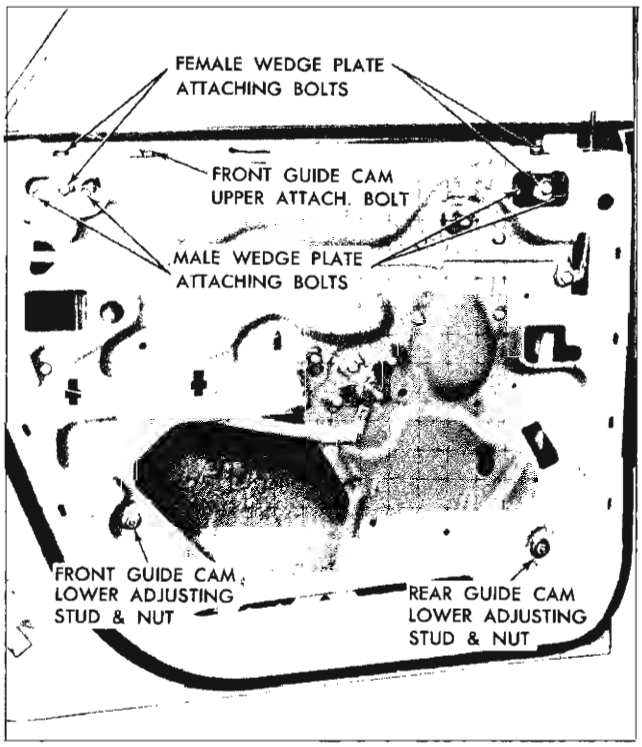


Fig. 3-55 Guide Cam and Wedge Plate Attachments

REMOVAL AND INSTALLATION

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

2. Through access holes in door inner panel, remove bolts securing window front and rear male wedge plates to lower sash channel and remove wedge plates (Fig. 3-55).

3. Lower 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.

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 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 cam, lubricate entire length of cam with 630 AAW Lubriplate or equivalent. Also lubricate lower sash channel cam rollers and pivot area of window rear guide. Cycle window up and down to insure proper operation prior to installing inner panel water deflector and door trim.

WINDOW ADJUSTMENTS 39 STYLE

Adjustments have been provided to insure proper contact of the rear door window with the side roof rail weatherstrip and the front door window. Unless otherwise specified, the following window adjustments are for both manually and electrically-operated windows.

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

ADJUSTMENTS

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

2. Up and down adjustment of door window:

a. Through inner panel access holes, loosen bolts securing front and rear male wedge plates to window lower sash channel.

b. Reposition window as required, adjust front and rear male wedge plates up or down as required; then tighten wedge plate attaching bolts. Check operation of window.

IMPORTANT: The front or rear of window 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.

3. Fore or aft adjustment of rear door window:

a. Loosen lower adjusting stud nut on both front and rear guide cams (Fig. 3-55).

b. Loosen bolts securing 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 or

rear male wedge plates fore or aft to insure proper contact with the 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.

4. The in and out adjustment of the rear door window can be obtained by 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.

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

(1) With window in the full-up position, loosen front guide cam lower adjusting stud nut (Fig. 3-51).

(2) Loosen front female wedge plate upper attaching bolt.

(3) Loosen two front guide cam support attaching bolts located on door hinge pillar facing (Fig. 3-56).

(4) Position front edge of window in or out as required and tighten front guide cam upper attaching bolts.

(5) Adjust female wedge plate in or out for proper relation to male wedge plate and tighten attaching bolts.

(6) Turn lower front guide cam adjusting stud in or out as needed and tighten adjusting stud nut.

(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 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. 3-55.

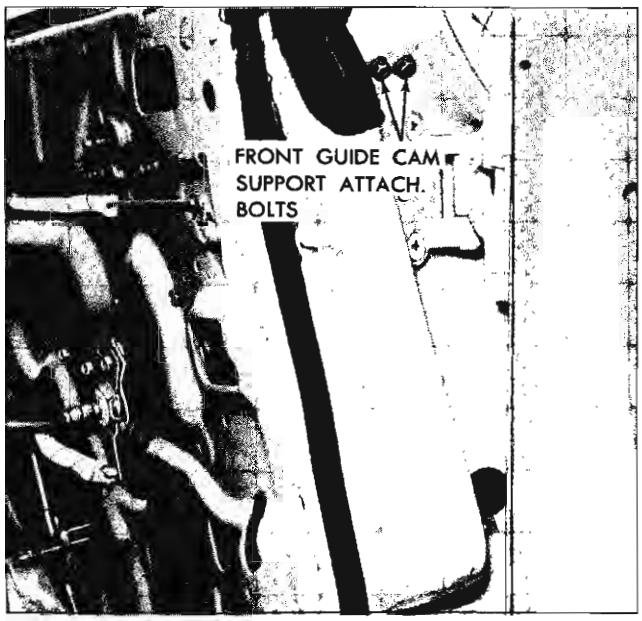


Fig. 3-56 Guide Cam Support Attachment

(2) Loosen rear guide cam lower adjusting stud nut.

(3) Position rear edge of window 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.

5. The rear door window inner panel cam forward attaching bolt (Fig. 3-51), is adjustable up or down. This adjustment can be utilized to correct a rotated (cocked) rear door window.

6. Check complete operation of window prior to installation of inner panel water deflector and door trim.

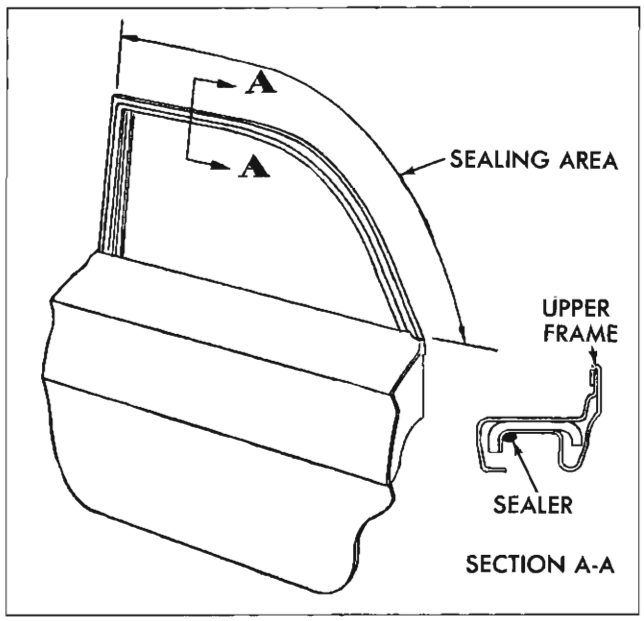


Fig. 3-57 Upper Frame Sealing

WINDOW GLASS RUN CHANNEL 69 STYLE

REMOVAL AND INSTALLATION

1. Remove door trim and detach inner panel water deflector. Disengage lower sash channel cam from sash channel.

2. Remove door window.

3. Remove front and rear attaching screws from hinge and lock pillar facing of door inner panel (Fig. 3-54).

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.

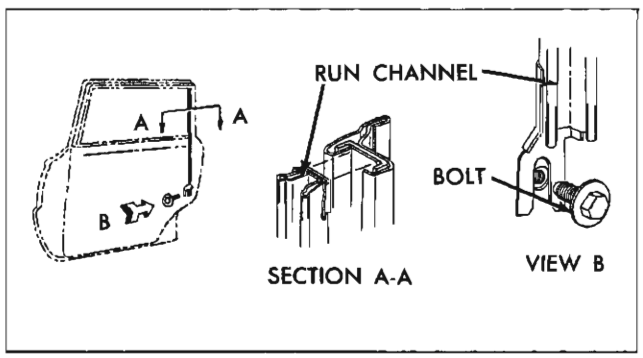


Fig. 3-58 Glass Run Channel Attachment

5. Prior to installation, apply a bead of medium bodied sealer along section of door window upper frame shown in Fig. 3-57.

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 DOOR WINDOW ASSEMBLY ADJUSTMENTS section for 69 style. Cycle rear door window up and down prior to installation of inner panel water deflector and door trim.

WINDOW REAR GLASS RUN CHANNEL 35 and 45 STYLES

REMOVAL AND INSTALLATION

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

2. From inside door, remove bolt securing lower end of glass run channel at door lock pillar facing (Fig. 3-58).

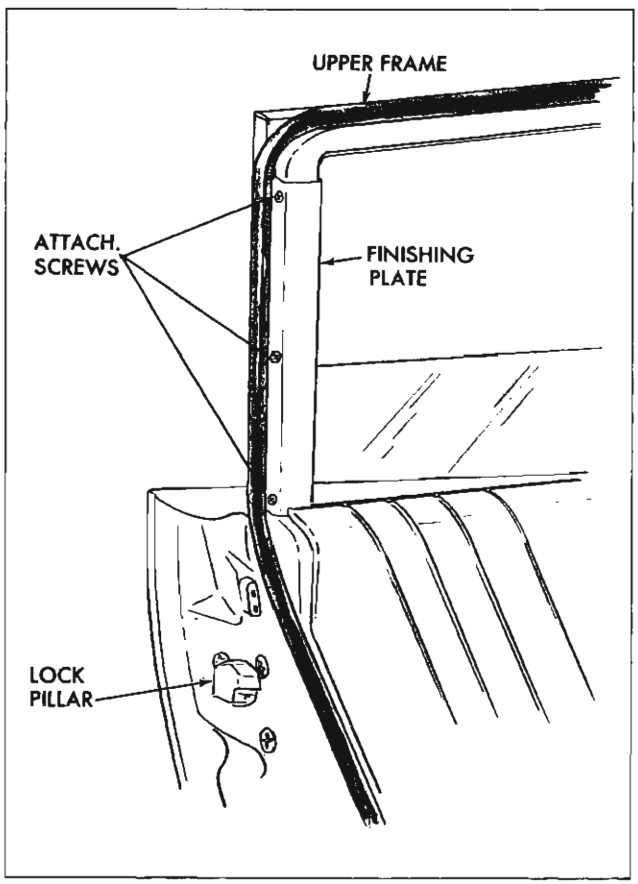


Fig. 3-59 Trim Support Finishing Plate

3. Remove three screws securing door belt trim support rear finishing plate and remove plate (Fig. 3-59).

4. Remove screws securing rear door window glass run channel rear retainer from rear of window frame and remove retainer.

5. Lower door window. Disengage run channel attaching clips along lock pillar portion of window frame. Then carefully raise rear run channel and remove from door.

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 DOOR WINDOW ASSEMBLY ADJUSTMENT for 35 and 45 styles. Cycle rear door window up and down prior to installation of inner panel water deflector and rear door trim.

WINDOW FRONT GLASS RUN CHANNEL 35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Remove rear door window rear glass run channel and remove rear door window.

2. Remove glass run channel lower attaching bolts from hinge pillar facing of door (Fig. 3-53).

3. Carefully disengage glass run channel attaching clips along top and hinge pillar portion of window frame. Then pull glass run channel inboard and upward and remove from door.

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 ADJUSTMENT for 35 and 45 styles. Cycle rear door window assembly up and down prior to installation of inner panel water deflector and rear door trim.

WINDOW GUIDE FRONT CAM SUPPORT 39 STYLE

REMOVAL AND INSTALLATION

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

2. Raise door window. Through inner panel access hole remove front guide cam upper attaching bolt (Fig. 3-51).

3. At door hinge pillar facing, remove two bolts securing guide cam support and remove support through inner panel access hole (Fig. 3-56).

4. To install, reverse removal procedure. Check operation of window assembly and, where required, adjust 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.

WINDOW GUIDE FRONT CAM 39 STYLE

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 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 630 AAW Lubriplate or equivalent. Reseal front guide cam lower adjusting stud and nut with body caulking compound.

5. Check operation of window 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.

WINDOW GUIDE REAR CAM 39 STYLE

REMOVAL AND INSTALLATION

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

2. Remove rear guide cam upper attaching bolt and lower adjusting stud and nut (Fig. 3-55).

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 630 AAW Lubriplate or equivalent. If exposed, seal cam lower adjusting stud and nut with body caulking compound.

5. Check operation of window and, were required, adjust window as described under REAR DOOR WINDOW ADJUSTMENTS. Cycle window up and down prior to installation of inner panel water deflector and door trim.

SIDE ROOF RAIL WEATHERSTRIPS

39 and 47 STYLES

DESCRIPTION

The side roof rail weatherstrip 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.

WEATHERSTRIP REMOVAL AND INSTALLATION

REMOVAL

1. Remove snap fasteners securing weatherstrip at front body hinge pillar.

2. Carefully disengage inner lip of weatherstrip from retainer. Using a flat-bladed tool, carefully break cement bond between weatherstrip and weatherstrip retainer and reveal molding.

3. Remove weatherstrip from body.

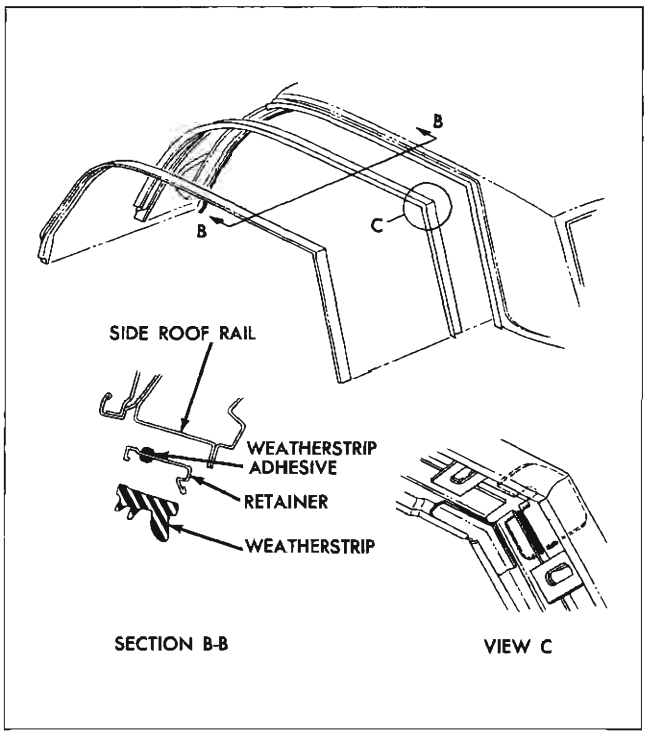


Fig. 3-60 Side Roof Rail Weatherstrip - 39 Style

INSTALLATION

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

NOTE: The side roof rail retainer to side roof rail sealing gasket (shown in Fig. 3-60 for 39 style and 3-61 for 47 style) 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 (see section B-B in Figs. 3-60 and 3-61).

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.

WEATHERSTRIP ADJUSTMENTS

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, 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 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.

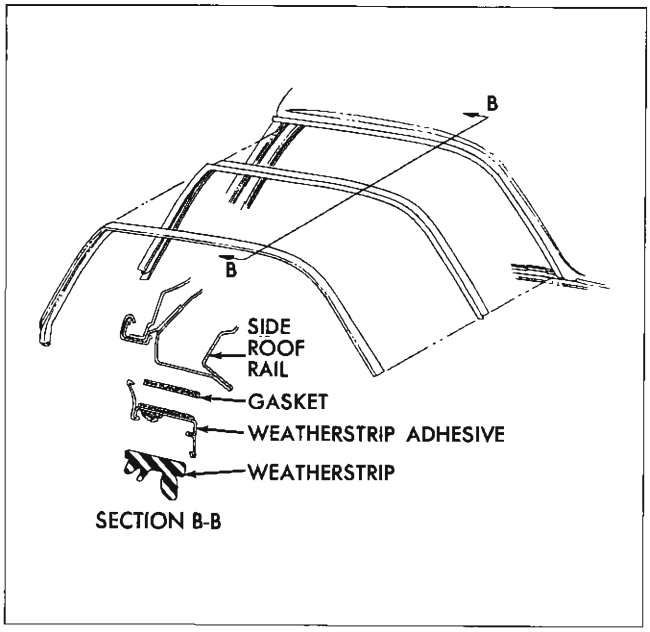


Fig. 3-61 Side Roof Rail Weatherstrip - 47 Style

REAR QUARTER

CONTENTS OF THIS SECTION

TRIM AND HARDWARE

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

Two Door Sedans (11 Styles)
Two Door Coupes (47 and 57 Styles)
Convertibles (67 Styles)
Four Door Sedans (39 and 69 Styles)
Station Wagons (35 and 45 Styles)

Figures 4-1, 4-2, 4-3, and 4-4 identify the major components of the rear quarter hardware on those styles incorporating 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.

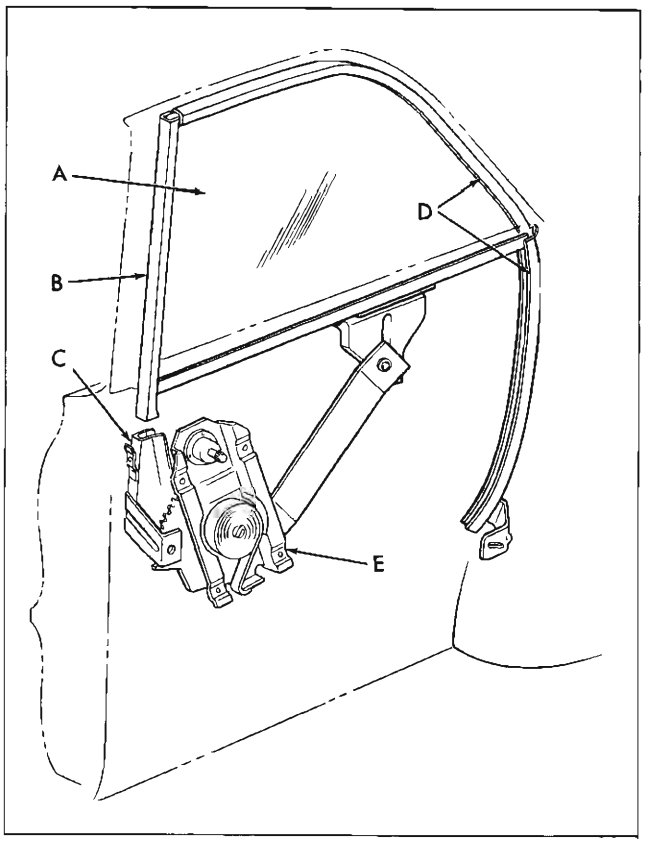


Fig. 4-1 Rear Quarter Hardware Manual - 11 Styles

TRIM ASSEMBLY

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back.

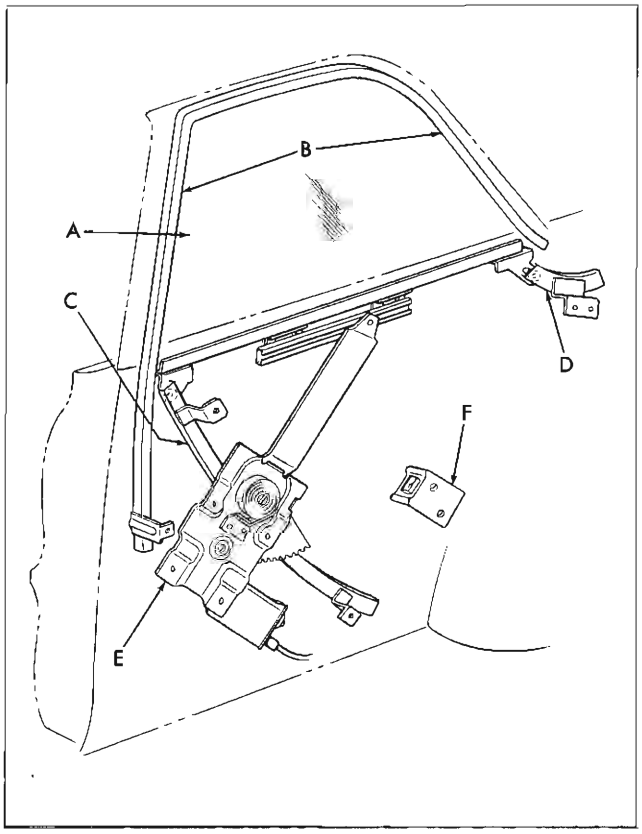


Fig. 4-2 Rear Quarter Hardware - 11 Electric Styles

2. Remove rear quarter garnish moldings and rear quarter arm rests. On styles with manually operated windows, remove window regulator handle.

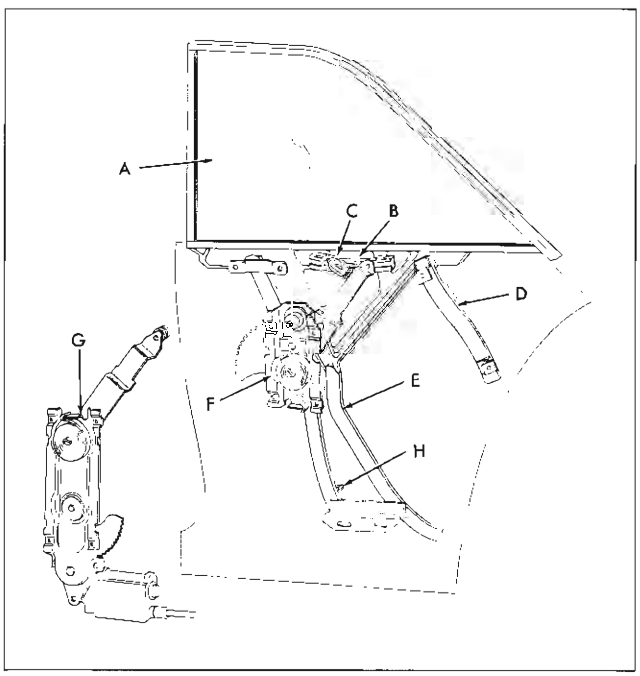


Fig. 4-3 Rear Quarter - 47 Style

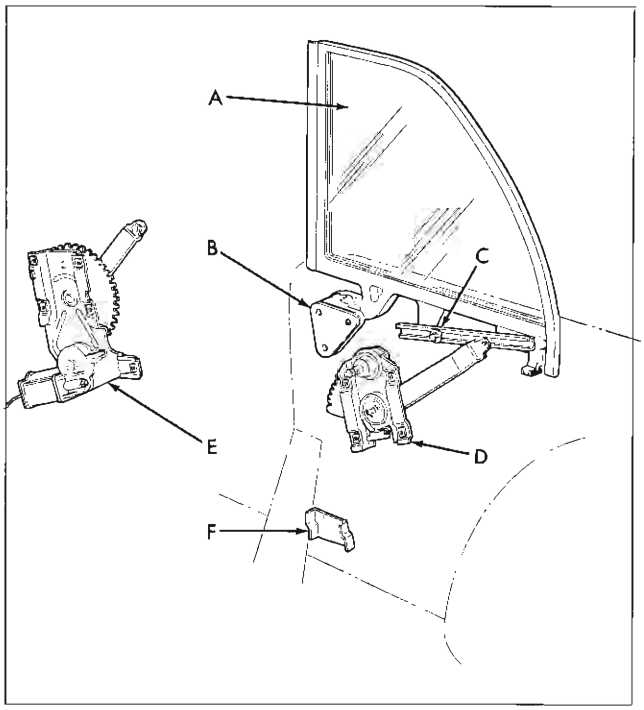


Fig. 4-4 Rear Quarter - 67 Style

3. Using trim panel remover J-6335, carefully pry rear quarter trim retaining nails from tacking strip; then lift trim upwards to disengage from retainers at top of rear quarter inner panel and remove assembly from quarter panel.

NOTE: On styles with electrically-operated windows disengage trim from retainers at top of inner panel; then disconnect window switch junction block from switch and remove trim.

4. To install rear quarter trim, reverse removal procedure.

REAR QUARTER WINDOW—MANUAL

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

2. Remove snap ring retainer securing regulator lift arm to pivot pin on window lower sash channel. (Fig. 4-5)

3. Disengage rear of window from rear glass run channel. Lower window sufficiently to disengage nylon guide on window front sash channel from run channel.

4. Remove glass from between the panels by lifting it inboard, front edge of glass coming out first.

5. To install, reverse the removal procedure.

REAR QUARTER WINDOW—ELECTRIC

11 STYLE

REMOVAL AND INSTALLATION

1. Lower rear quarter window. Remove rear quarter window garnish molding. Remove rear quarter arm rest and quarter trim.

2. Remove access hole cover from inner panel. Loosen window front guide upper attaching screw. Remove window rear guide attaching screws and remove guide (Fig. 4-6).

3. Lift rear quarter window upward and rearward and disengage window cam from regulator arm roller. Tilt window inward, disengage window from front guide and remove window from between rear quarter panels.

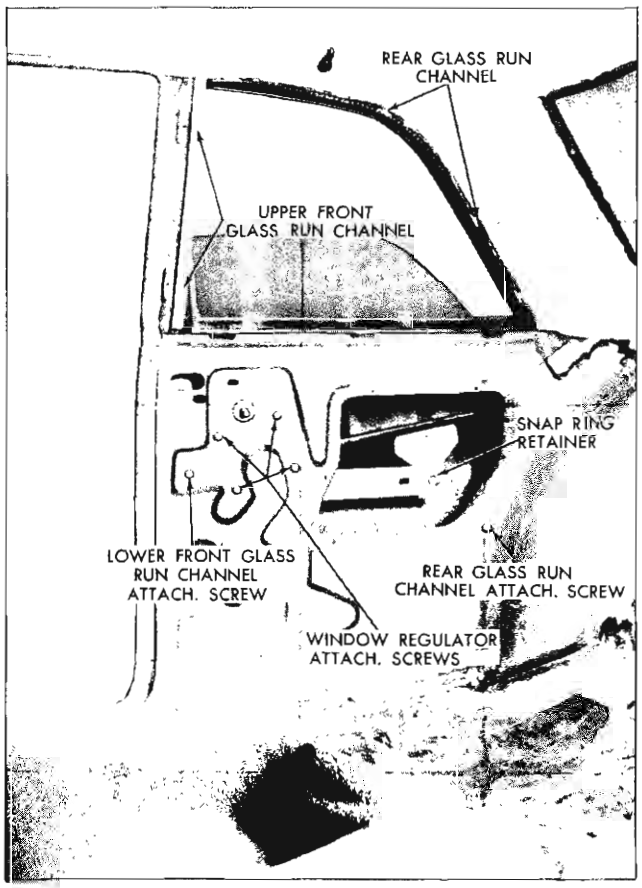


Fig. 4-5 Rear Quarter Hardware Manual - 11 Style

4. To install rear quarter window, reverse removal procedure. Prior to installing the window lower sash channel cam, lubricate channel of cam with Lubriplate or its equivalent along length of channel.

Adjust rear quarter window for proper alignment and operation as described under REAR QUARTER WINDOW ADJUSTMENT for 11 electric styles.

Seal large access hole cover and front and rear guide attaching screws as specified under REAR QUARTER INNER PANEL SEALING for 11 electric style.

WINDOW ADJUSTMENTS—MANUAL

11 STYLE

1. To obtain proper horizontal alignment so that the window seats properly in the upper glass run channels when the window is operated to the "up" position, proceed as follows:

a. Operate the window to the "full-up" position and loosen the window regulator attaching screws (Fig. 4-5).

b. Insert a flat-bladed tool under the window lower sash channel and pry the window upward until the lower sash channel is aligned with, and is making good contact with, the outer sealing strip.

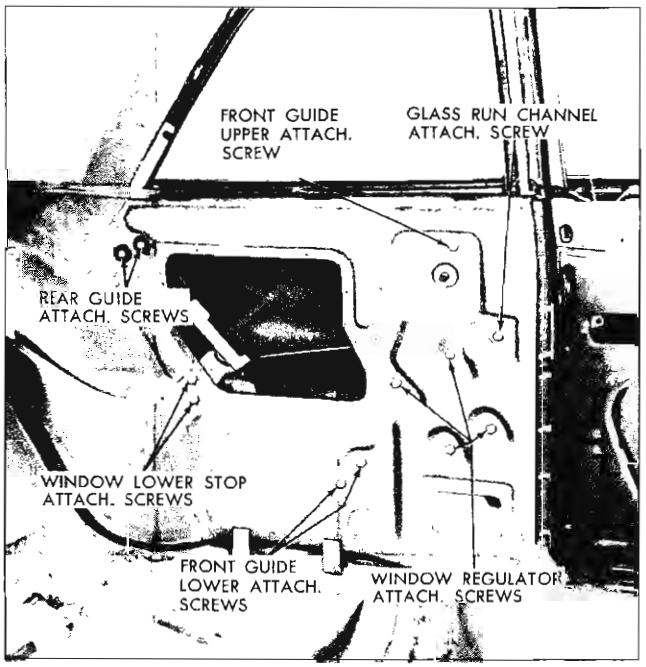


Fig. 4-6 Rear Quarter Hardware - 11 Electric Style

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 the window in the rear run channel when the window is operated to the full down position, proceed as follows:

a. Loosen rear glass run channel attaching screw (Fig. 4-5).

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 screws.

WINDOW ADJUSTMENT—ELECTRIC

11 STYLE

The upper front corner of the rear quarter window should seat properly in the front glass run channel through the complete window lowering and raising cycle. To accomplish this, loosen the front and rear guide attaching screws (Fig. 4-6); then adjust the front guide forward and the rear guide upward and forward and retighten the attaching screws.

WINDOW GLASS RUN CHANNEL OUTER STRIP ASSEMBLY—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

2. Remove window lower stop attaching screws and operate window to full down position.

3. Remove screws at front and rear of strip. Disengage strip clips from quarter outer panel return flange by forcing strip downward at clip locations. Remove strip from body.

NOTE: Use care not to damage strip or adjacent painted surfaces.

4. To install outer strip, reverse removal procedure.

WINDOW GLASS RUN CHANNEL ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Lower rear quarter window. Remove rear quarter window garnish molding, rear quarter trim.

2. Remove rear quarter window glass run channel attaching screw (Fig. 4-6). Carefully disengage glass run channel retainers from lock pillar and side roof rail and remove run channel.

3. To install glass run channel, reverse removal procedure.

WINDOW FRONT GUIDE—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim.

2. Remove access hole cover from inner panel.

3. Remove front guide upper and lower attaching screws (Fig. 4-6). Disengage guide from roller on window lower sash channel; move front guide rearward between panels sufficiently to allow upper end of guide to be started out through large access hole; then remove guide.

4. To install front guide, reverse removal procedure. Prior to installing guide, lubricate channel of guide with Lubriplate or its equivalent along entire length of channel.

Adjust window front guide for proper window alignment and operation as described under REAR QUARTER WINDOW ADJUSTMENTS for 11 style. Seal inner hole cover and front guide attaching screws as specified under REAR QUARTER INNER PANEL SEALING.

WINDOW REAR GUIDE—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim.

2. Remove large access hole cover from inner panel.

3. Remove rear guide attaching screws (Fig. 4-6).

4. Disengage rear guide from roller on window lower sash channel and remove rear guide from body.

5. To install rear guide assembly, reverse removal procedure. Prior to installation of guide, lubricate channel of guide with Lubriplate or its equivalent. Seal inner panel access hole cover and rear guide attaching screws as specified under REAR QUARTER INNER PANEL SEALING.

WINDOW REGULATOR—MANUAL

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

2. Remove snap ring retainer securing regulator lift arm to pivot pin on window lower sash channel (Fig. 4-5).

3. Support glass with one hand and disengage regulator lift arm from window. Lift window to "full up" and prop it in that position.

4. Remove regulator attaching screws (Fig. 4-5) and remove regulator through access hole.

5. To install, reverse removal procedure. Adjust regulator for proper window operation as described in REAR QUARTER WINDOW ADJUSTMENTS for manual 11 style.

WINDOW REGULATOR—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Lower rear quarter window and remove rear quarter trim.

2. Remove access hole cover from inner panel. Remove front guide upper attaching screw and glass run channel attaching screw (Fig. 4-6).

3. Disconnect regulator motor wire harness at inline connector mounted on inboard side of quarter inner panel.

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

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

5. Remove window regulator attaching screws (Fig. 4-6). Disengage regulator arm roller from window lower sash channel cam and remove regulator assembly through large access hole.

NOTE: The procedure for removing the electric motor from the regulator is described and illustrated under REAR DOOR WINDOW REGULATOR ELECTRIC MOTOR in section 3.

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

Adjust window front guide as specified under REAR QUARTER WINDOW ADJUSTMENTS for 11 electric styles.

Check operation of window prior to installing rear quarter trim and inside hardware.

UPPER FRONT GLASS RUN CHANNEL MANUAL STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter window front and rear garnish moldings. Operate rear quarter window to full down position.

2. Disengage upper forward end of rear glass run channel from side roof rail sufficiently to allow removal of front glass run channel.

3. Using a thin flat-bladed tool inserted between front glass run channel and body upper lock pillar, disengage snap-in type clips on run channel from lock pillar.

NOTE: Make certain prying tool is inserted behind clip to prevent clip from tearing loose from run channel.

4. Pull top of run channel inboard sufficiently to enable lifting channel upward to disengage it from nylon guide on window front sash channel.

5. To install, reverse removal procedure. Prior to installation, apply a bead of body caulking compound to rabbet of lock pillar to effect a weathertight seal.

LOWER FRONT GLASS RUN CHANNEL MANUAL STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim, and inner panel access hole cover.

2. Remove lower front glass run channel attaching screw (Fig. 4-5) and remove run channel through access hole.

3. To install, reverse removal procedure.

REAR GLASS RUN CHANNEL MANUAL STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim, quarter window garnish moldings, and inner panel access hole cover. Operate window to almost full down position.

2. Remove rear glass run channel attaching screw (Fig. 4-5).

3. Disengage glass run channel retainers from side roof rail by prying inboard at retainer locations. Disengage tab at rear of run channel from side roof rail by moving run channel downward and rearward.

4. Disengage lower end of run channel from window assembly and remove run channel from body.

5. To install, reverse removal procedure. Prior to installation, apply a bead of body caulking compound to rabbet of side roof rail to effect a weathertight seal.

After installation, adjust glass run channel attaching screw for proper window operation as described under REAR QUARTER WINDOW ADJUSTMENTS for manual 11 style.

WINDOW GLASS RUN CHANNEL OUTER STRIP—MANUAL

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

2. Disengage window from regulator lift arm by removing snap ring retainer (Fig. 4-5)

3. Lower window to bottom of quarter panel and rest it against outer panel.

4. Remove screws at front and rear of sealing strip. Disengage sealing strip clips from quarter outer panel return flange by forcing strip downward at clip locations. Remove sealing strip from body.

NOTE: Use care not to damage strip or adjacent painted surfaces.

5. To install outer sealing strip, reverse removal procedure.

REAR QUARTER ARM REST

47 and 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 carefully detach arm rest from rear quarter inner panel sufficiently to disconnect wire harness connectors.

4. Remove arm rest from rear quarter panel.

5. To install arm rest, reverse removal procedure. Check operation of any electrical devices.

REAR QUARTER TRIM
47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back assemblies.

2. Remove rear quarter arm rest. 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 remover J-6335, carefully pry trim retaining nails from tacking strip; then lift trim upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

6. To install rear quarter trim, reverse removal procedure.

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

REAR QUARTER WINDOW MANUAL OR ELECTRIC
47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back assemblies and rear quarter arm rest and trim. 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 disengage permanent connector at regulator motor.

2. Remove rear quarter window rear guide attaching screw (Fig. 4-7). Disengage rear guide from roller on window lower sash channel and remove guide.

3. With the quarter window in the half-down position, remove the lower sash channel cam attaching screws (Fig. 4-7). Detach cam from roller on regulator arm and remove cam.

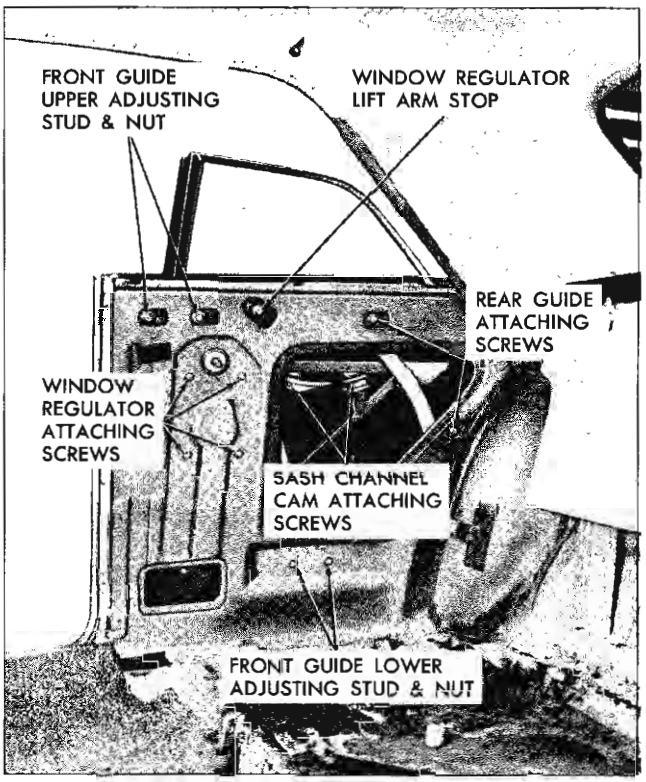


Fig. 4-7 Rear Quarter Hardware - 47 and 57 Styles

4. Remove quarter window front guide adjusting stud nuts (Fig. 4-7).

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 quarter window. Remove 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 ADJUSTMENTS
47 and 57 STYLES

1. Remove rear seat cushion and seat back assemblies. Remove rear quarter arm rest and trim.

2. To adjust the window fore or aft, loosen the front and rear guide attaching stud nuts (Fig. 4-7). Position the window and guides fore or aft as required; then tighten the attaching stud nuts.

3. To adjust the quarter window in or out, loosen the front guide upper attaching stud nuts (Fig. 4-7). Adjust the studs in or out as required; then tighten the stud nuts.

4. To adjust the top of the quarter window in or out, loosen the front guide lower attaching stud nut (Fig. 4-7). 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. 4-7). Operate window to full up position and tighten upper stud nuts on the front guide and forward attaching screw on rear 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. 4-7).

7. To limit the down travel of the rear quarter window, remove the inner panel large access hole cover, loosen the lower stop 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—MANUAL OR ELECTRIC
47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter window as described under REAR QUARTER WINDOW - MANUAL OR ELECTRIC.

2. 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. 4-7) 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.

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

WINDOW FRONT GUIDE
47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back. Remove rear quarter arm rest and trim. 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. 4-7).

3. Maneuver guide between rear quarter panels so that upper end of guide can be started out of large access hole; then remove guide.

4. To install front guide, reverse removal procedure. Prior to installation of the front guide, lubricate channels of guide with Lubriplate or its equivalent along full length of channels.

Adjust front guide 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
47 and 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. 4-7). 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.

Adjust rear guide for proper window alignment and operation as described under REAR QUARTER WINDOW ADJUSTMENTS for 47 and 57 styles.

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

WINDOW GLASS RUN CHANNEL OUTER STRIP
2347 and 2847 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; 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 downward.

NOTE: If necessary, use a screwdriver or other suitable tool 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
67 STYLE

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
67 STYLE

REMOVAL AND INSTALLATION

1. Remove folding top compartment side trim panel.

2. On styles with manually-operated windows, remove window regulator handle and anti-friction washer.

3. Using trim panel remover J-6335, carefully pry trim 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, reverse removal procedure.

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

QUARTER WINDOW MANUAL OR ELECTRIC
67 STYLE

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.

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. 4-8). Disengage window male hinge from female hinge plate; then raise window to disengage window lower sash channel cam from roller on window regulator lift arm and remove window.

4. To install rear quarter window, reverse removal procedure. Prior to installation, lubricate pivot hinge and window lower sash channel cam with Lubriplate or its equivalent.

Adjust rear quarter window for proper alignment and operation, as described under REAR QUARTER WINDOW ADJUSTMENTS for 67 style. Seal window pivot bolt and inner panel access hole cover as specified under REAR QUARTER INNER PANEL SEALING for 67 style.

QUARTER WINDOW ADJUSTMENTS
67 STYLE

1. To adjust the limit of the rear quarter window up travel, loosen the window guide upper attaching screws (Fig. 4-8); then adjust stop to desired position and tighten guide attaching screws.

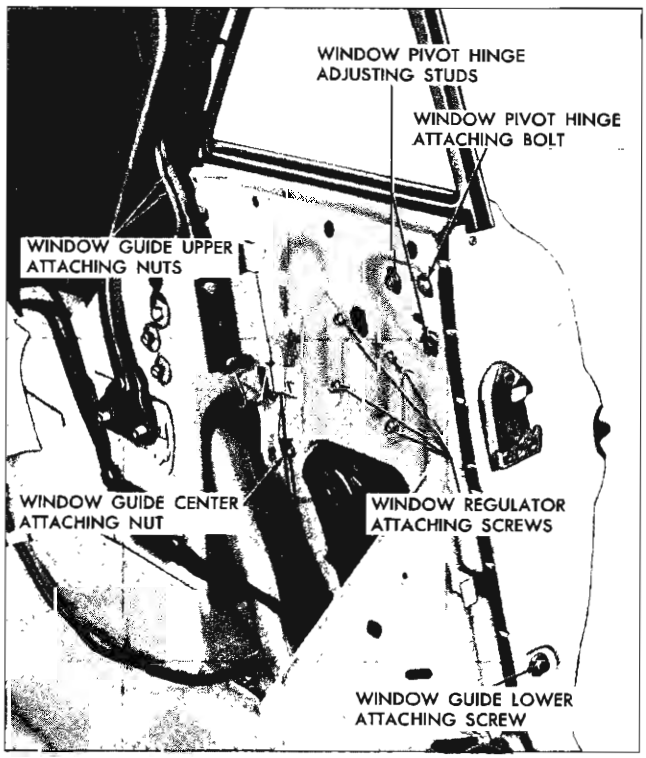


Fig. 4-8 Rear Quarter Hardware - 67 Style

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 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. 4-8). 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. 4-8).

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. 4-8). Adjust rear adjusting stud in or out, as required; then tighten both stud nuts. Adjust window guide for proper alignment with window and tighten upper attaching nuts and center stud nut.

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 style.

QUARTER WINDOW REGULATOR MANUAL OR ELECTRIC
67 STYLE

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and back, folding top compartment side trim panel and rear quarter trim.

2. Remove inner panel access hole cover.

3. Operate window to "full up" and prop in that position.

4. 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.

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

6. Remove window regulator attaching screws (Fig. 4-8). 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 Section 3.

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

QUARTER WINDOW GUIDE

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back. Remove folding top compartment side trim panel and rear quarter trim.

2. Remove inner panel access hole cover and rear quarter window. On styles equipped with electric window regulators, remove regulator assembly.

3. Remove window guide upper and center attaching nuts and lower attaching screw (Fig. 4-8). Disengage window guide and remove guide through large access hole.

4. To install rear quarter window guide, reverse removal procedure. Adjust the window guide for proper window alignment and operation as described under REAR WINDOW ADJUSTMENTS for 67 styles.

Seal window guide attaching screws, access hole plug at lock pillar and inner panel access hole cover as specified under REAR QUARTER INNER PANEL SEALING for 67 styles.

QUARTER WINDOW GLASS RUN CHANNEL OUTER STRIP
67 STYLE

1. Remove rear quarter window.

2. Remove screws securing sealing strip to outer panel and remove strip.

3. To install rear quarter window glass run outer strip, reverse removal procedure.

REAR QUARTER INNER PANEL SEALING
11, 47, 57, and 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 rear quarter inner panel openings and hardware attaching locations that must be sealed to prevent water entry and possible trim damage. The item number are referenced to illustrations as follows:

11 style (Manual) - Figure 4-9
11 style (Electric) - Figure 4-10
47 and 57 styles - Figure 4-11
67 style - Figure 4-12

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

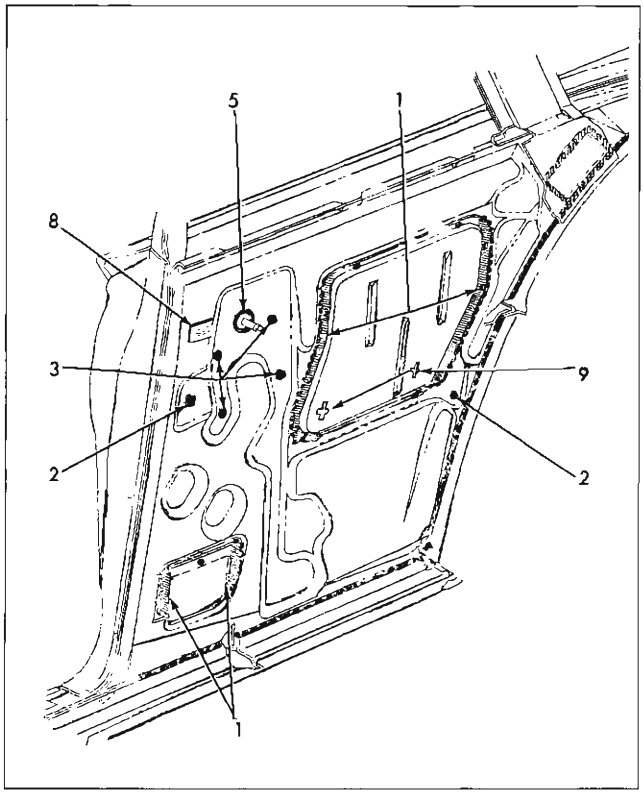


Fig. 4-9 Inner Panel Sealing - 11 Style Manual

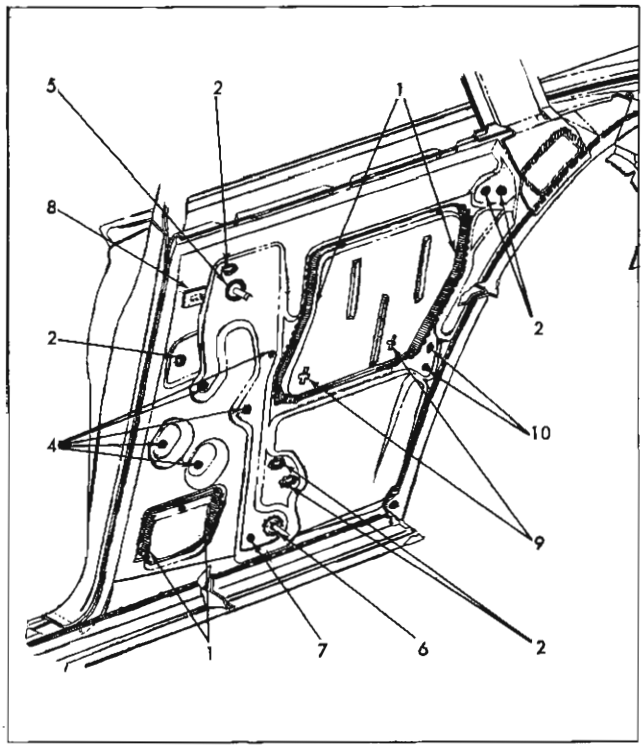


Fig. 4-10 Inner Panel Sealing - 11 Style Electric

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.

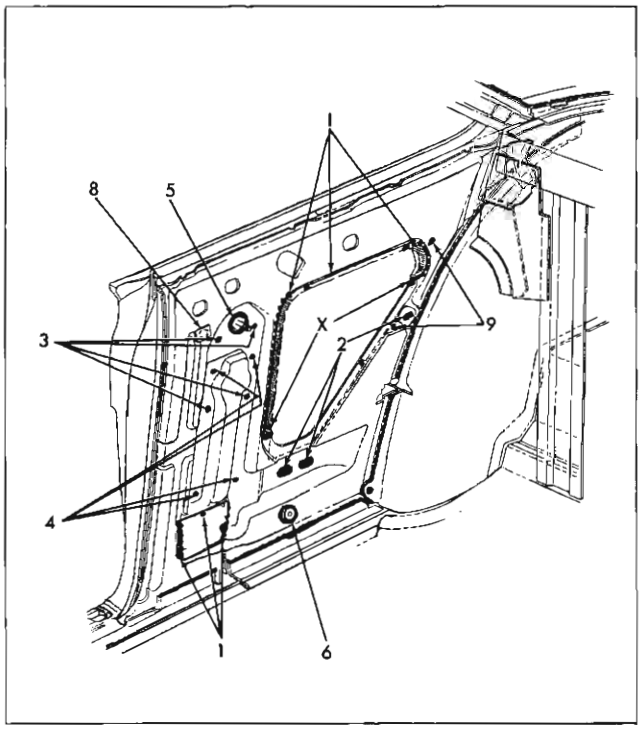


Fig. 4-11 Inner Panel Sealing - 47 and 57 Styles

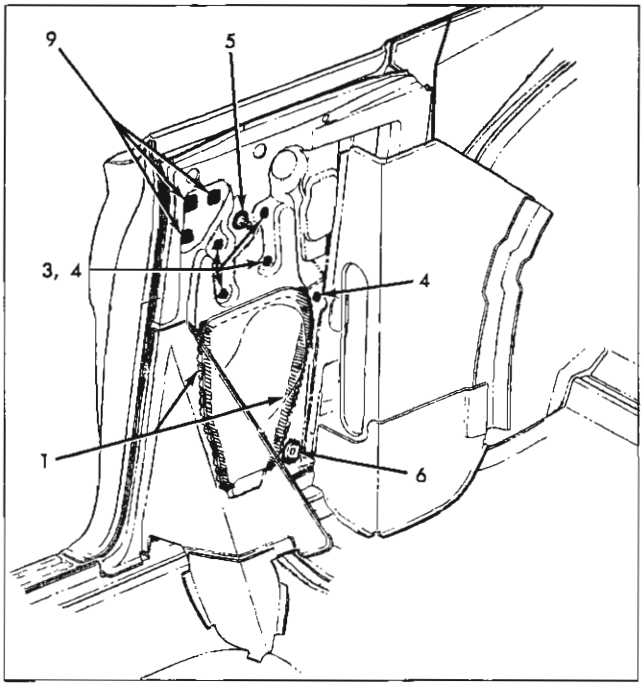


Fig. 4-12 Inner Panel Sealing - 67 Style

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. On convertible styles apply weatherstrip adhesive (black) around the window guide attaching hole plug to effect seal between inner panel and plug.

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

On convertible 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 of washer to seal pores of sponge rubber and joint between inner panel and washer.

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. Gage Slot - Apply waterproof body tape over slot.

9. Arm Rest Anchor Nut (11 style only) - Apply body caulking compound over anchor nut and hole to effect a seal around anchor nut, hole and attaching screw when arm rest is installed.

Arm Rest Anchor Nut Hole (11 style) - Where anchor nuts are not used, apply waterproof body tape over hole. Press tape firmly to effect a good bond.

10. Window Stop Attaching Screws (11 style with electrically operated windows) - Apply weatherstrip adhesive (black) over stop attaching screws.

11. Seat Back to Quarter Panel Filler Panel Attaching Screw Holes (47 and 57 styles, Fig. 4-11) - Apply weatherstrip adhesive (black) over filler panel attaching holes.

12. Window Hinge Attaching Screws (67 styles, Fig. 4-12) - Apply body caulking compound over hinge attaching screws. Press compound firmly to assure a good bond and watertight seal.

REAR QUARTER LOWER TRIM
39 and 69 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and back assemblies. Remove back window side garnish molding and side roof rail finishing molding.

2. Remove screw securing metal trim support in upper center of trim assembly (69 style).

3. Using trim panel remover J-6335, carefully pry trim retaining nails from tacking strip; then lift trim upward to disengage from retainers at top of rear quarter inner panel and remove trim from quarter panel.

4. To install rear quarter trim, reverse removal procedure.

REAR QUARTER UPPER TRIM
39 STYLE

REMOVAL AND INSTALLATION

1. Remove back window side garnish molding and side roof rail rear finishing moldings.

2. Carefully break cement bond securing trim foundation to roof extension inner panel; then remove trim.

3. 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
2347, 2847 and 2957 STYLES

REMOVAL AND INSTALLATION

1. Remove back window side garnish molding and side roof rail rear finishing molding. Remove quarter belt finishing molding, where present.

2. On styles with courtesy lamps in the upper trim, remove courtesy lamp lens and two screws securing reflector and remove lamp assembly.

3. Carefully insert trim panel remover J-6335 or other suitable tool between headlining and upper edge of upper trim. Disengage upper trim retaining clips

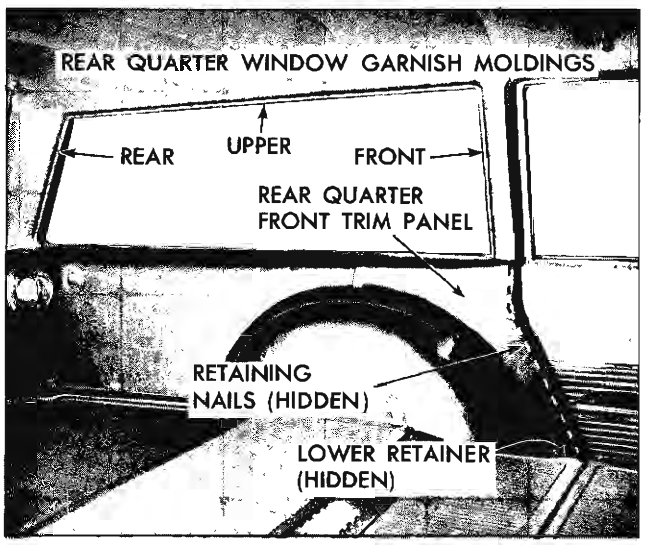


Fig. 4-13 Rear Quarter Trim - Station Wagon

from roof extension inner panel by pulling inboard at clip locations. Remove trim from body.

4. To install, reverse removal procedure.

REAR QUARTER FRONT TRIM PANEL
35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter stationary window front garnish molding.

2. Remove rear quarter front trim panel lower retainer.

3. Remove screws securing trim panel to body.

4. With a clean rubber mallet, tap trim along front edge to free trim retaining nails in slots.

5. With a suitable flat-bladed tool, carefully loosen trim from inner panel.

6. Lift panel upwards to disengage from quarter inner panel, and remove assembly from body (Fig. 4-13).

7. To install, reverse removal procedure.

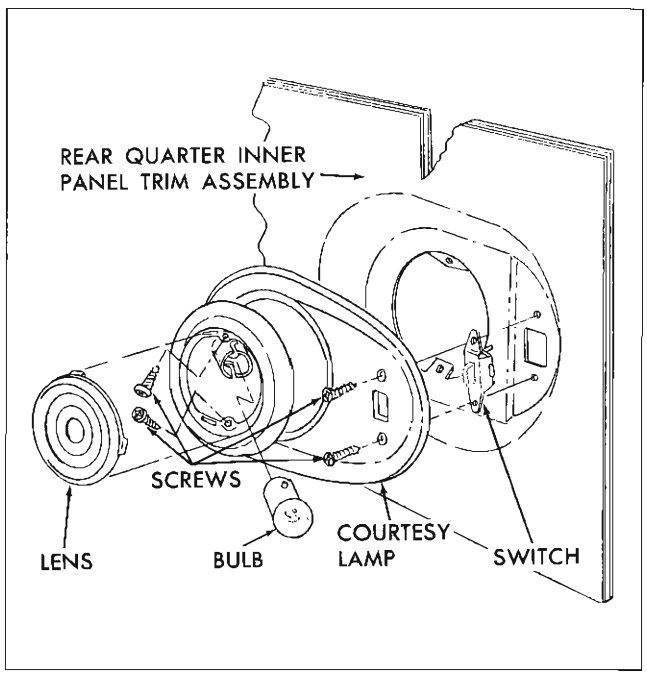


Fig. 4-14 Rear Quarter Courtesy Light

REAR QUARTER REAR TRIM PANEL (LEFT SIDE)

REMOVAL AND INSTALLATION

1. On 45 styles, remove screws securing courtesy lamp and switch assembly to trim panel and carefully remove assembly sufficiently to disengage wires at rear of lamp and switch. Remove rear finishing panel (Fig. 4-14).

2. Remove top screw in rear quarter front trim panel and all screws in rear quarter rear trim panel.

3. Lift panel slightly upward to disengage from quarter inner panel and rearward to disengage from rearward section of rear quarter front trim panel (see Fig. 4-13).

5. To install, reverse removal procedure.

REAR QUARTER WHEELHOUSE PANEL COVER (RIGHT SIDE)
35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Remove spare tire cover.

2. Remove attaching screw securing trim panel to quarter inner panel and spare tire cover support (Fig. 4-15).

3. Remove rear quarter front trim panel. Remove screws along front edge of wheelhouse cover panel.

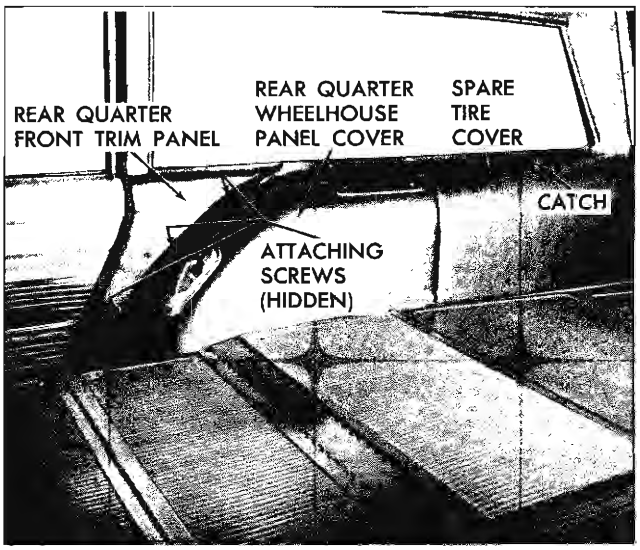


Fig. 4-15 Right Rear Quarter Trim - Station Wagon

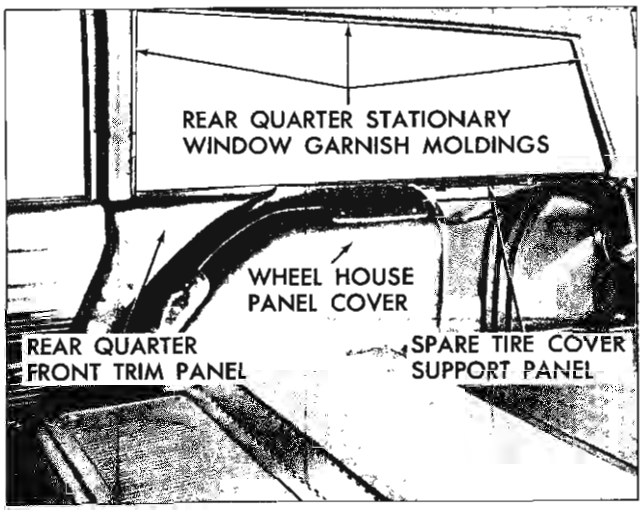


Fig. 4-16 Right Rear Quarter Trim

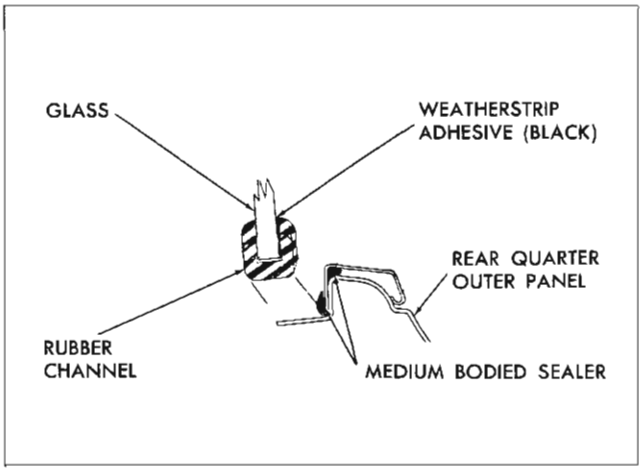


Fig. 4-17 Rear Quarter Stationary Window Sealing

4. Lift panel upward to disengage from quarter inner panel and remove panel from body.

5. To install, reverse removal procedure.

SPARE TIRE COVER PANEL

35 and 45 STYLES

The spare tire cover panel is secured to a retainer at the belt line by a folding catch type handle. To remove the panel disengage the catch and lift the panel upward. To install, reverse removal procedure.

REAR QUARTER STATIONARY WINDOW

35 and 45 STYLES

REMOVAL

1. Remove rear quarter stationary window garnish moldings.

2. Remove rear quarter front trim panels, rear quarter rear trim panel, rear quarter wheelhouse panel cover, spare tire cover, and spare tire cover support (Fig. 4-16).

3. Remove rear quarter stationary window channel lower retainers (one required for right side, two required for left side), (Fig. 4-16).

4. Using a suitable tool, carefully break seal between rubber channel and body opening. With aid of helper, carefully push glass and rubber channel inboard and remove window from opening.

NOTE: Rubber channel may be removed from glass as a bench operation.

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

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 completely around window opening.

3. Install window and window channel lower retainers.

4. Using a plews oiler or any other suitable applicator, apply an approved weatherstrip adhesive (black) between glass and outer wall of rubber channel completely around window. Clean off excess sealer (see Fig. 4-17).

5. Replace all previously removed parts.

REAR END

CONTENTS OF THIS SECTION

BACK WINDOW ASSEMBLY

DESCRIPTION

The back window, made of 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 pinchweld or retaining flange.

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

REVEAL MOLDING RETENTION

The window reveal moldings are retained by clips that snap over the 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 styles, another clip in the molding. Fig. 5-1 and 5-2 illustrate clip engagement and the tool procedure for disengaging the molding from the pinchweld type clip.

PINCHWELD CLIP DISENGAGEMENT

Insert point of remover J-7898-01 between window rubber channel and reveal molding. Slide tool along molding until clip is contacted, then engage point of tool between retaining clip and molding (Fig. 5-1). 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 deeper into molding making disengagement more difficult. If difficulty is 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 slide tool between molding and rubber channel.

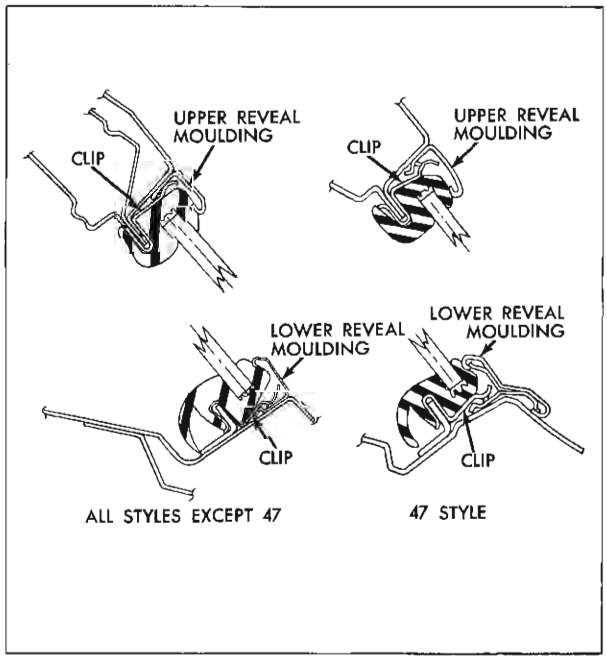


Fig. 5-1 Back Window Reveal Moldings

LOWER REVEAL MOLDING

47 STYLE

REMOVAL AND INSTALLATION

Remove belt reveal moldings as described in EXTERIOR MOLDINGS. Insert point of tool J-7898-01 between molding and rubber channel and push or pull molding clip sideways to slide it out of engagement from pinchweld clip (Fig. 5-2). Perform this operation at each molding clip location and remove molding from body.

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

BACK WINDOW REMOVAL AND INSTALLATION

REMOVAL

1. Place protective coverings over rear seat cushion, seat back, parcel shelf trim, and over painted surfaces around back window. Depending on body style, remove window garnish moldings or headlining retainer finishing lace from around window.

2. Remove window reveal moldings.

3. From inside body carefully break seal between lip of rubber channel and pinchweld flange completely around window.

4. Carefully push window and rubber channel 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: 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 (see 1 in View A, Fig. 5-3).

3. Apply a continuous 3/16" diameter ribbon of medium-bodied sealer on wall of rabbet, completely around opening (see 2 in section B-B, Fig. 5-3).

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 (see 3 in section B-B, Fig. 5-3).

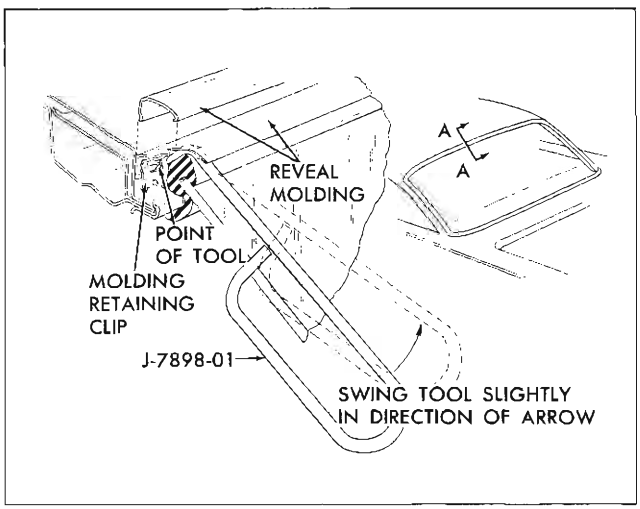


Fig. 5-2 Reveal Molding Remover

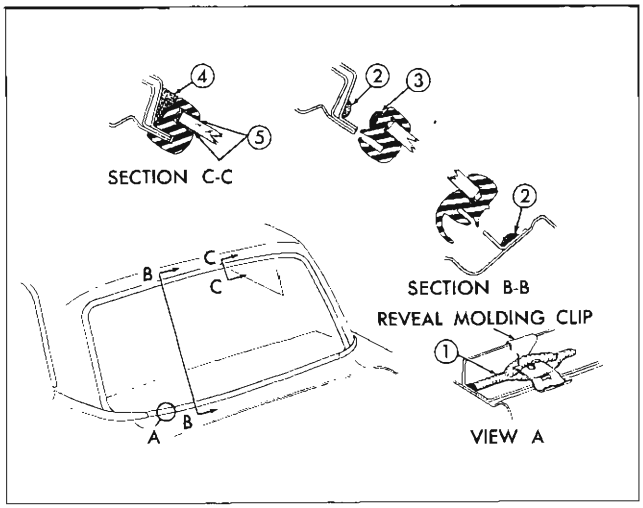


Fig. 5-3 Back Window Sealing

6. Position window in body opening. While helper applies hand pressure to outside surface of glass, use a hooked 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 to seat lip of rubber channel over body flanges across bottom, up sides, and across top of window opening.

IMPORTANT: If, during string-pulling operation, the rubber lip does not seat 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 into the opening. Using 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 (see 4 in section C - C, Fig. 5-3).

9. Using a pressure-type applicator (pistol-type oiler) apply a weatherstrip adhesive (black) between rubber channel and glass on inside and outside of glass around entire perimeter (see 5 in section C-C, Fig. 5-3). Application of adhesive should be continuous with no skips.

10. Install window moldings as described under REVEAL MOLDINGS.

11. Clean off excess sealer and cement, install previously removed parts, and remove protective coverings.

REAR COMPARTMENT LID

DESCRIPTION

The rear compartment lid employs two torque rods that are mounted between the hinges 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 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.

LID REMOVAL AND INSTALLATION

REMOVAL

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 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 A (Fig. 5-4) and remove lid.

INSTALLATION

1. To install rear compartment lid reverse removal procedure.

2. Align lid with scribe marks before tightening hinge attaching bolts.

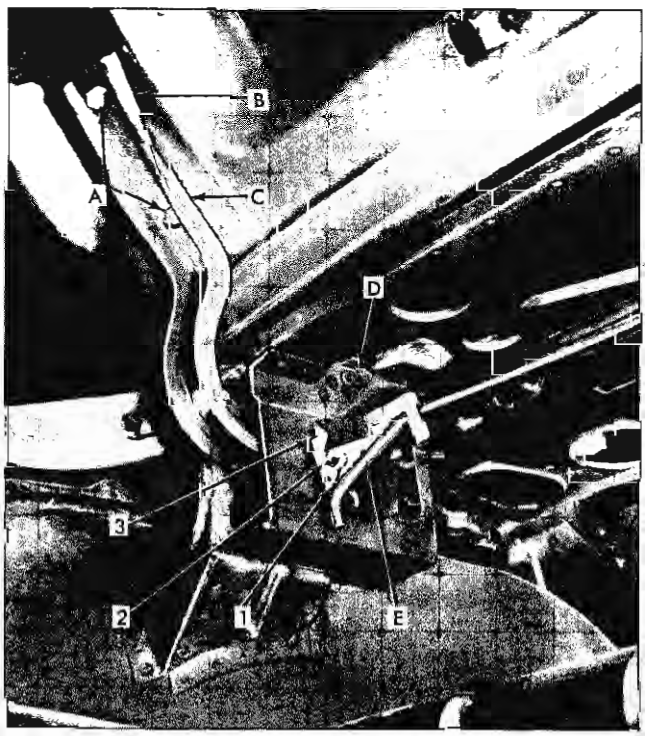


Fig. 5-4 Rear Compartment Lid Hinge and Torque Rod

LID ADJUSTMENTS

1. To adjust 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 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. 5-4.

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. 5-4.

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

LID HINGE REMOVAL AND INSTALLATION

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. Remove hinge torque rod covers.

3. Mark location of hinge strap on lid inner panel and remove bolts securing hinge strap to lid.

4. Disengage torque rod with suitable tool from notched retainer on inboard face of opposite hinge box E (Fig. 5-4).

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. 5-4); 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. Install wire harness if left hinge were removed.

7. Install all previously removed trim.

LID 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 No. 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 No. 3) the amount of effort to open the lid is the least and the amount of effort to close the lid is the greatest. See E (Fig. 5-4).

NOTE: It is not necessary to adjust the left and right hand torque rods at the same time or to the same final position (notch).

LID LOCK CYLINDER

REMOVAL AND INSTALLATION

1. Open rear compartment lid. 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 certain gasket mates properly with rear end panel to form watertight seal.

LID LOCK

REMOVAL AND INSTALLATION

1. Remove lid lock cylinder as previously described.

2. On styles equipped with rear compartment lid lock vacuum release option, remove vacuum release unit.

3. Remove lock attaching screws (Fig. 5-5) and remove lock from body.

4. To install, reverse removal procedure. Before tightening screws, check for proper engagement with lock striker and make any necessary lateral adjustments.

LID LOCK STRIKER

REMOVAL AND INSTALLATION

1. Open rear compartment lid. Mark vertical position of striker by scribing a line on striker at bottom of lid inner panel.

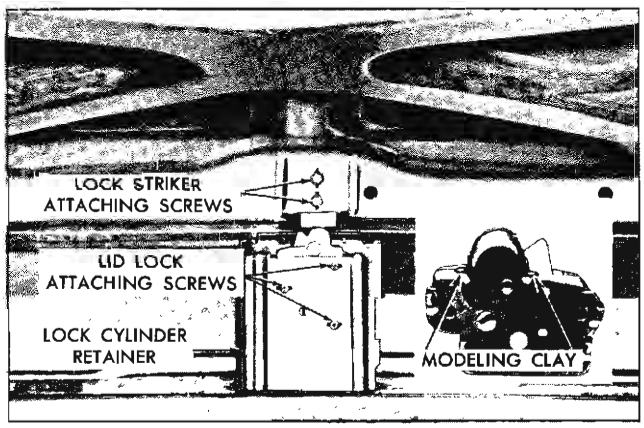


Fig. 5-5 Lid Lock Striker

2. Remove striker attaching screws (Fig. 5-5) and remove striker from lid.

3. To install, align scribe mark on striker with lower edge of lid inner panel and install attaching screws.

LID LOCK VACUUM RELEASE UNIT

REMOVAL AND INSTALLATION

1. Remove rear compartment lid lock cylinder as previously described.

2. Disconnect vacuum hose from vacuum release unit. Remove vacuum release unit attaching screws and remove unit from rear compartment.

3. To install, reverse removal procedure. Check unit for proper alignment and operation.

LID LOCK STRIKER ENGAGEMENT

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 lid lock bolt with striker, use the following procedure:

1. Insert a small quantity of modeling clay on frame of lock at both sides of the lock bolt (Fig. 5-5). Close lid with moderate force.

2. Open lid and check amount of engagement of striker with lock frame as indicated by compression of the clay. The striker bar impressions in the clay should be even on both sides of the lock frame. Where required, loosen striker or lock attaching screws, adjust lock sideways or striker up or down to obtain proper engagement; then, tighten screws.

TAIL GATE

DESCRIPTION

All tail gates incorporate either a manually or electrically operated tail gate window which can be lowered into the tail gate or raised into the upper portion of the back body opening. The manually operated tail gate window is operated by means of a window regulator control handle (folding type) located in the tail gate outer panel. The electrically operated tail gate 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 tail gate outer panel. A switch located at the right tail gate lock prevents

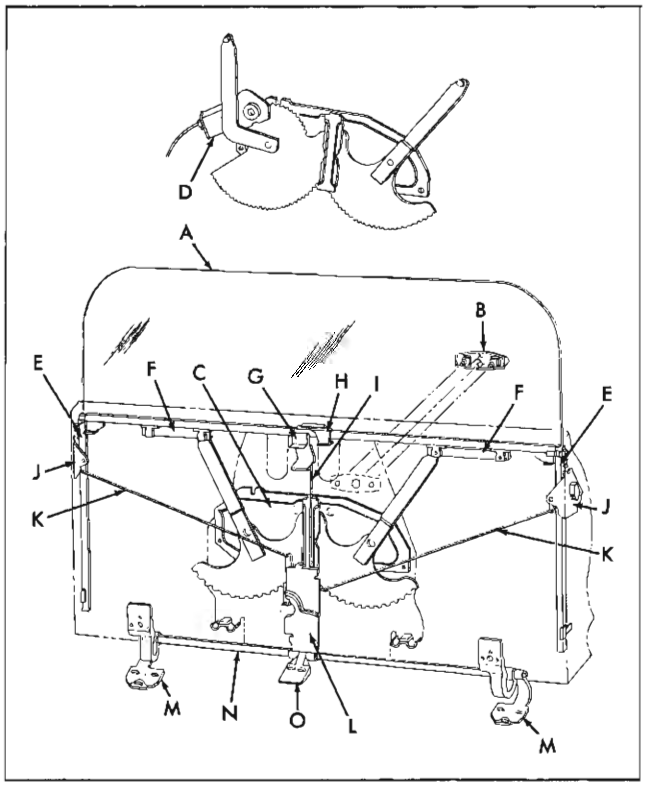


Fig. 5-6 Tail Gate Assembly

A. Tail Gate Window
B. Regulator Outside Handle or Lock Cylinder Switch and Escutcheon
C. Window Regulator (Manual)
D. Window Regulator (Electric)
E. Glass Side Run Channels
F. Lower Sash Channel Cams
G. Anti-Rattle Clip
H. Lock Remote Control Inside Handle
I. Inside Handle-to Remote
J. Tail Gate Locks
K. Tail Gate Lock-to-Remote Control Connecting Rods
L. Lock Remote Control
M. Tail Gate Hinges
N. Hinge Torque Straps
O. Torque Strap Center Support (Attached to Body)

the up cycle operation of the electrically operated tail gate window when the tail gate is not completely closed.

After lowering the tail gate window the tail gate can be opened by means of a tail gate lock remote control inside handle located at the tail gate belt finishing molding. On nine passenger styles the tail gate lock remote control incorporates a feature which prevents operation of the inside handle which prevents operation of the inside handle unless the tail gate window is in the full down position.

The tail gate hinges are secured to the body rear cross bar and the tail gate inner panel by screws, which are accessible upon removal of the cross bar hinge cover plate and tail gate inner cover panel.

The tail gate is counterbalanced by four torque straps used in pairs. One end of each pair is retained in a stationary torque strap retainer located at the center of the body rear cross bar while the other ends are retained in slots in the pivoting part of the tail gate hinges.

When the tail gate is opened the ends of the torque the gate while the ends secured at the retainer on the body rear cross bar remain stationary. This creates an assisting torque to hold the tail gate as the gate approaches and reaches the open position. This torque also assists in closing the tail gate. Fig. 5-6 is a phantom view which identifies the relationship of major component parts of the tail gate.

TAIL GATE REMOVAL AND INSTALLATION

REMOVAL

1. Open tail gate. Raise floor-to-tail gate filler panel and prop in up position.

2. Remove tail gate inner cover panel lower retainer and inner cover panel. On 2835 style, remove tail gate skid strips, tail gate inner cover panel finishing moldings and tail gate inner cover panel.

3. Carefully remove inner panel water deflector.

4. On styles equipped with electrically operated tail gate window remove window. Remove lock cylinder switch and escutcheon assembly as described under WINDOW LOCK CYLINDER SWITCH AND ESCUTCHEON. Disconnect harness connector from regulator motor, detach harness at clips inside tail gate and remove harness from tail gate.

5. Mark position of tail gate hinge (tail gate side) to facilitate installation in same position.

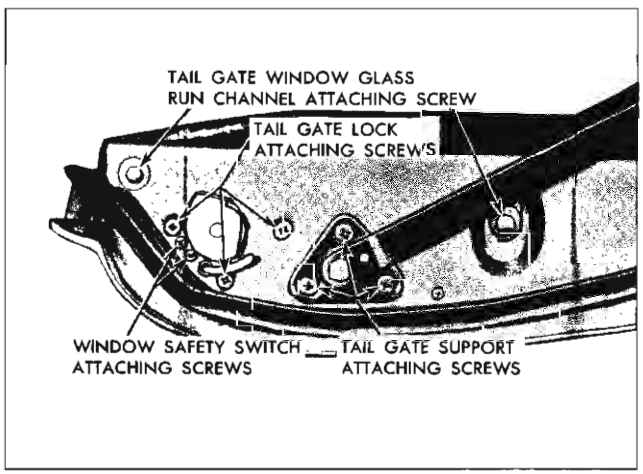


Fig. 5-7 Lock and Support

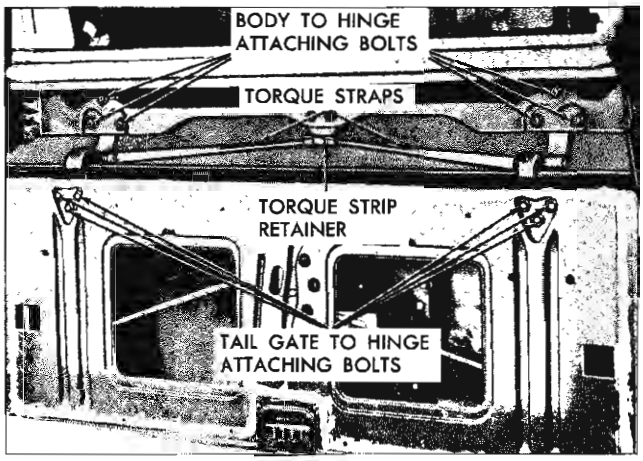


Fig. 5-8 Tail Gate Hinges

6. Support tail gate to facilitate detachment of tail gate supports; then remove support attaching screws (Fig. 5-7) from both sides of tail gate and fold tail gate supports against body.

7. Raise tail gate and remove rear bumper. Disengage clips retaining torque straps to both hinges and center retainer and remove torque straps.

8. Remove tail gate to hinge attaching bolts (Fig. 5-8) and remove tail gate from body.

INSTALLATION

1. To install, reverse removal procedure. Prior to installation clean off old sealer from hinge straps and apply a coat of heavy bodied sealer to attaching surface of hinge straps (Fig. 5-9).

2. Apply body caulking compound between hinge strap and hinge strap opening in tail gate panels (Fig. 5-9) to effect a watertight seal.

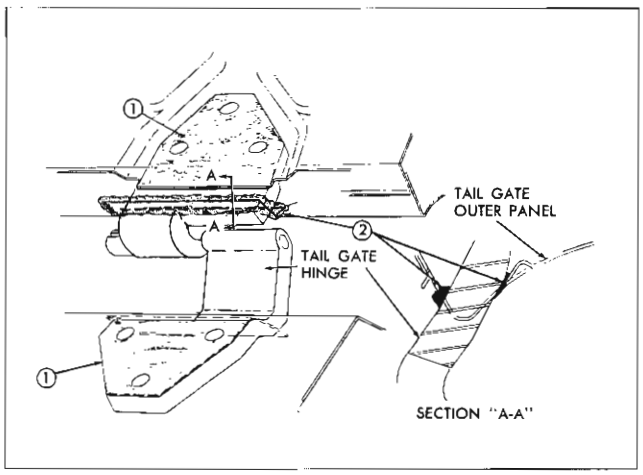


Fig. 5-9 Tail Gate Hinge

3. Check alignment of tail gate assembly and, where necessary, adjust tail gate hinges for proper tail gate alignment as specified under "Tail Gate Adjustments".

TAIL GATE HINGE

REMOVAL AND INSTALLATION

1. Remove tail gate, as previously described.

2. Scribe or mark position of hinge to facilitate installation in same position.

3. Remove hinge attaching bolts and remove hinge from body.

4. To install tail gate hinge, reverse removal procedure. Prior to installing hinge, coat attaching surface of hinge with heavy-bodied sealer (1 in Fig. 5-9). Install tail gate assembly as described under TAIL GATE INSTALLATION.

TAIL GATE HINGE TORQUE STRAPS

REMOVAL AND INSTALLATION

1. Remove rear bumper from car.

2. Remove torque strap retainer clip from each tail gate hinge and from torque strap center retainer (Fig. 5-8) and remove torque straps from body.

3. To install, reverse removal procedure.

TAIL GATE WINDOW MANUAL AND ELECTRIC

REMOVAL AND INSTALLATION

1. Remove inner cover panel lower retainer and inner cover panel. On 2835 style, remove tail gate

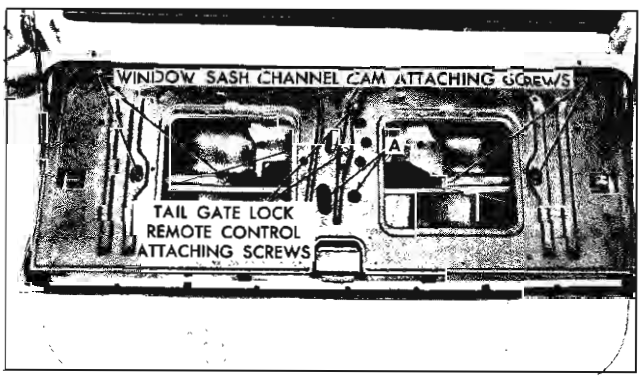


Fig. 5-10 Tail Gate Hardware

skid strips, tail gate inner cover panel finishing moldings and tail gate inner cover panel.

2. Detach tail gate inner panel water deflector sufficiently to gain access to window lower sash channel cam attaching screws (Fig. 5-10). Remove tail gate inner panel access hole covers.

3. Carefully operate window upward until the window lower sash right and left cam attaching bolts are accessible through access holes (Fig. 5-10).

4. Remove window lower sash channel right and left cam attaching bolts (Fig. 5-10) and disengage cams from window lower sash channel. Remove window from tail gate.

NOTE: To open the tail gate on styles with electric windows when window is removed, depress tail gate lock remote control locking lever through access hole at location A (Fig. 5-11) and at the same time operate the tail gate remote control inside handle.

5. To install tail gate window, reverse removal procedure. Prior to installing window lower sash channel cams, lubricate channel portion of cams with Lubriplate or its equivalent. Prior to resealing tail gate inner panel water deflector, check operation of window and tail gate locking mechanisms. Where necessary, adjust tail gate window, tail gate lock strikers or tail gate lock remote control for proper operation. Reseal tail gate inner panel water deflector as specified under TAIL GATE INNER PANEL SEALING.

If the tail gate cannot be opened due to the window becoming inoperative while in an up position, proceed as follows:

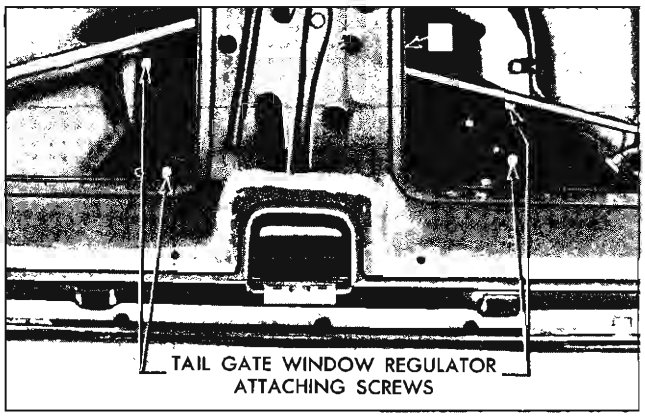


Fig. 5-11 Window Regulator

1. Remove spare tire cover panel.

2. Remove tail gate-to-body filler panel.

3. Using an offset screwdriver, remove tail gate inner cover panel attaching screws. Lift panel upward to disengage it from lower retainer.

NOTE: Due to inaccessibility, it may be necessary to cut lower left cover panel attaching screws by chisel. To make chisel, taper one end of an 18" x 1" x 1/8" piece of steel. Cut lower screws by inserting chisel between tail gate inner panel and tail gate cover panel.

4. Remove inner panel access hole cover upper attaching screws. Loosen access hole cover lower attaching screws and remove cover by lifting it upward.

5. Remove lower sash channel cam attaching screws and lower window into tail gate. Open tail gate.

In the event the window is inoperative in the full "up" position, the window regulator attaching screws can be removed and the window and regulator lowered sufficiently to allow removal of the window lower sash channel cam attaching screws.

TAIL GATE WINDOW ADJUSTMENTS

1. To adjust the tail gate window forward or rearward for proper alignment with the window glass run channels on the body and/or to eliminate a binding condition of the window in the tail gate glass run side channels, loosen lower attaching bolt at tail gate lock pillar, move lower end of channel forward or rearward, as required, and tighten lower attaching bolts.

NOTE: The vertical portion of the tail gate window glass upper run channels is adjustable forward or rearward for proper alignment with the tail gate glass.

2. To correct a condition where the glass is "cocked" in the glass run channels, loosen window regulator attaching screws (Fig. 5-11), rotate regulator clockwise or counterclockwise, as required, to eliminate "cocked" condition.

WINDOW REGULATOR—MANUAL OR ELECTRIC

REMOVAL AND INSTALLATION

1. Remove tail gate window, as described under TAIL GATE WINDOW - REMOVAL AND INSTALLATION.

2. Detach tail gate lock remote control right connecting rod from remote control at A (Fig. 5-11).

3. On styles equipped with electrically operated tail gate window, disconnect tail gate harness connector from regulator motor.

CAUTION: Do not operate regulator motor after window assembly is disengaged from the regulator or after the regulator is removed from the tail gate. Operation of the motor with the load removed may damage the unit and make it inoperative.

4. Remove regulator attaching screws through access holes at locations shown in Fig. 5-11. Remove regulator through large access hole.

NOTE: To remove electric motor from regulator assembly see TAIL GATE WINDOW REGULATOR ELECTRIC MOTOR - REMOVAL AND INSTALLATION.

5. To install tail gate window regulator assembly, reverse removal procedure. Prior to installing regulator, lubricate the teeth on the regulator sectors with Lubriplate or its equivalent.

Prior to resealing tail gate inner panel water deflector, check operation of window and tail gate locking mechanism. Where necessary, adjust tail gate window, tail gate lock strikers or tail gate lock remote control for proper operation.

WINDOW REGULATOR ELECTRIC MOTOR

The following method of removing and installing the tail gate window regulator electric motor can be used whether the motor is operative or inoperative; however, if the motor is inoperative with the window more than approximately half way down 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 tail gate and remove tail gate inner cover panel.

NOTE: If tail gate cannot be opened due to inoperative regulator motor, remove tail gate inner cover panel as described at end of "Tail Gate Window Assembly - Removal and Installation" procedure.

2. Remove or detach inner panel water deflector. Remove inner panel right access hole cover.

3. Disconnect wire harness connector from motor.

NOTE: If regular motor is inoperative with window more than half way down, remove inner panel left access hole cover; then remove both right and left window lower sash channel cam attaching screws (Fig. 5-10) and lift window sufficiently to gain access to motor attaching screws. Prop window in up position.

4. 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 counterbalance spring can cause serious injury if the motor is removed without locking the sector gears in position.

Drill a 1/8" hole through sector and back plate (Fig. 5-12) - 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 (10-12 x 5/8") in previously drilled 1/8" hole to lock sector gears and retain counterbalance spring tension.

5. Loosen regulator right attaching screws (Fig. 5-12). Remove three motor attaching screws (Fig.

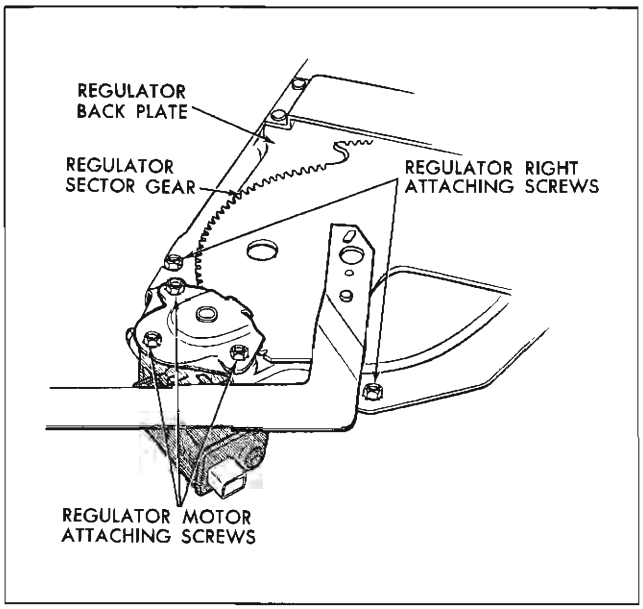


Fig. 5-12 Tail Gate Window Regulator

5-12) and remove motor from regulator and tail gate.

INSTALLATION

1. Lubricate motor drive gear and sector teeth with Lubriplate or equivalent.

2. With tail gate in open position, position regulator motor to regulator making sure motor pinion gear teeth mesh properly with sector gear teeth; then, install three motor attaching screws.

3. Tighten regulator upper right attaching screw.

4. IMPORTANT: If sector gears were locked, remove screw locking sector gears after motor assembly is secured to regulator.

5. Connect wire harness connector to motor. Check operation of tail gate window.

6. Install tail gate inner panel access hole cover, inner panel water deflector and inner cover panel.

WINDOW REGULATOR OUTSIDE HANDLE

REMOVAL AND INSTALLATION

1. Remove inner cover panel lower retainer and inner cover panel. On 2835 style, remove tail gate skid strips, tail gate inner cover panel finishing moldings and tail gate inner cover panel.

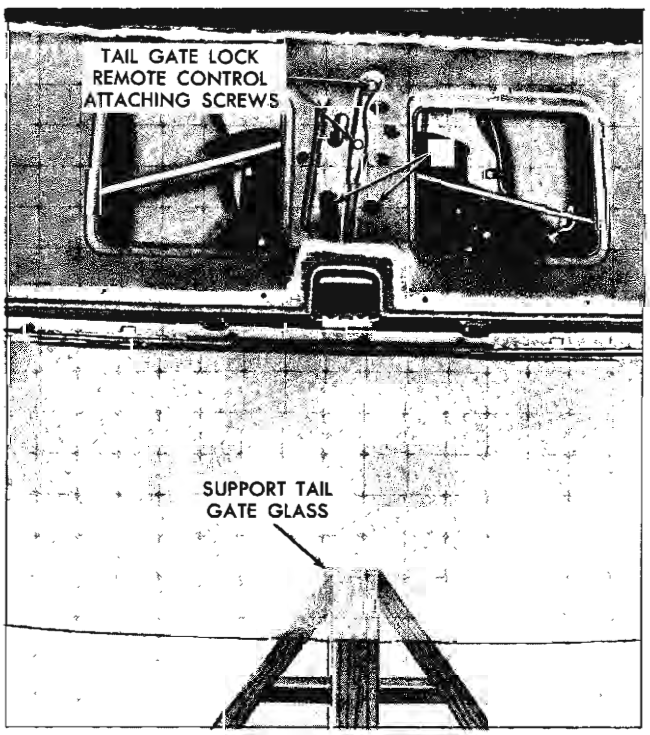


Fig. 5-13 Removing Outside Handle

2. Detach inner panel water deflector sufficiently to gain access to holes A for removal of handle attaching nuts (Fig. 5-13).

3. Carefully raise window until holes in regulator are aligned with holes A in inner panel.

4. Support portion of glass extending out of tail gate (Fig. 5-13).

5. Through holes A, remove outside handle attaching nuts and remove outside handle and gasket from tail gate.

To disassemble tail gate handle see TAIL GATE HANDLE - DISASSEMBLY AND ASSEMBLY.

6. To install tail gate handle, reverse removal procedure. Make sure sealing gasket is installed between tail gate 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 tail gate inner panel water deflector as specified under Tail Gate Inner Panel Water Deflector.

OUTSIDE HANDLE LOCK CYLINDER

REMOVAL AND INSTALLATION

1. Remove tail gate window regulator outside handle assembly from tail gate, as previously described.

2. Remove clutch retaining ring and slide clutch off shaft of handle driver (Fig. 5-14).

3. Insert key in lock cylinder and turn key to lock position. Depress locking pawl (Fig. 5-14), turn key (lock cylinder) approximately 1/4 turn counterclockwise and remove lock cylinder assembly, locking pawl and locking pawl spring from handle driver.

4. To install lock cylinder assembly, reverse removal procedure. Prior to installing clutch on handle driver lubricate frictional surfaces with Lubriplate or its equivalent.

TAIL GATE HANDLE

DISASSEMBLY AND ASSEMBLY

1. Remove tail gate window regulator outside handle from tail gate, as previously described.

2. Remove clutch retaining ring and slide clutch off shaft of handle driver (Fig. 5-14).

3. Remove retaining ring securing handle (Fig. 5-14), remove spring washer from shaft of handle driver and withdraw handle from escutcheon.

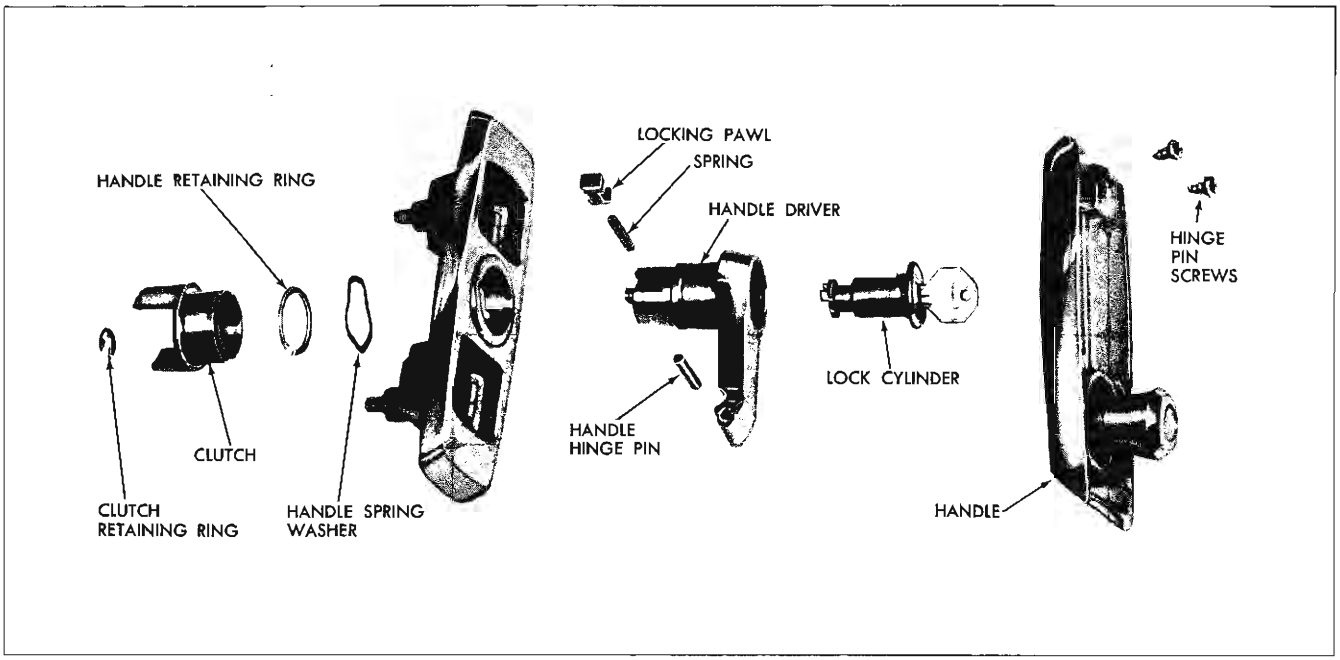


Fig. 5-14 Tail Gate Outside Handle

4. To remove handle, remove hinge pin screws (Fig. 5-14) and remove handle from driver.

5. To remove lock cylinder, locking pawl or locking pawl spring see OUTSIDE HANDLE LOCK CYLINDER.

To assemble outside handle, reverse disassembly procedure. Prior to assembly lubricate frictional surfaces with Lubriplate or its equivalent.

ELECTRIC WINDOW LOCK CYLINDER SWITCH AND ESCUTCHEON—REMOVAL AND INSTALLATION

REMOVAL AND INSTALLATION

1. Remove inner cover panel lower retainer and inner cover panel. On 2835 style, remove tail gate skid strips, tail gate inner cover panel finishing moldings and tail gate inner cover panel.

2. Detach tail gate inner panel water deflector sufficiently to gain access to holes A for removal of attaching nuts (Fig. 5-13).

3. Carefully operate window upward until holes in window regulator are aligned with holes A in inner panel.

CAUTION: Support portion of glass extending out of tail gate (Fig. 5-13).

Through holes A, remove electric window lock cylinder, switch and escutcheon attaching nuts, detach assembly from tail gate sufficiently to disconnect junction block from switch; then, remove assembly and gasket from tail gate.

4. To install tail gate electric window lock cylinder, switch and escutcheon, reverse removal procedure.

ELECTRIC WINDOW LOCK CYLINDER, SWITCH AND ESCUTCHEON

DISASSEMBLY

1. Remove tail gate electric window lock cylinder, switch and escutcheon as previously described.

2. Disengage lock cylinder case and switch retainer (Fig. 5-15) and remove lock cylinder case and switch from escutcheon.

3. Using a pointed tool inserted through holes in lock cylinder case, depress tab of switch retainers and remove retainers and switch (Fig. 5-15).

4. Using a suitable pliers, grasp pin of switch cam firmly and pull switch cam straight out from lock cylinder (Fig. 5-15).

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.

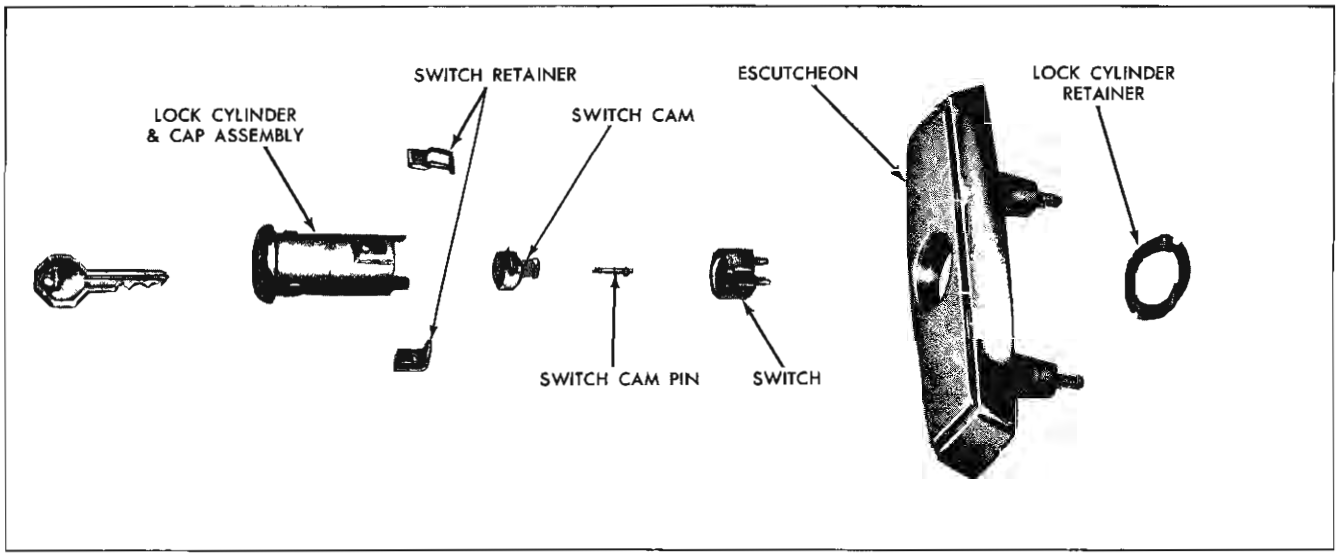


Fig. 5-15 Lock Cylinder, Switch and Escutcheon

7. 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.

8. 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.

9. Install switch into lock cylinder case.

10. Position lock cylinder and switch escutcheon and engage retainers.

TAIL GATE SUPPORT

REMOVAL AND INSTALLATION

1. Lower tail gate.

2. Support tail gate to prevent damage to tail gate outer panel.

3. Remove tail gate support attaching screws securing support plates to body and tail gate (Figs. 5-16 and 5-17) and remove support assembly.

4. To install tail gate support, reverse removal procedure. Install support plate to body with positioning dimple towards front of body (Fig. 5-16).

TAIL GATE SUPPORT ADJUSTMENT

Objectionable slack in either tail gate support (when tail gate is open) can be eliminated by rotating one or both support attaching plates at the body pillars.

1. Positioning dimple towards bottom shortens support approximately 3/8" from production installation.

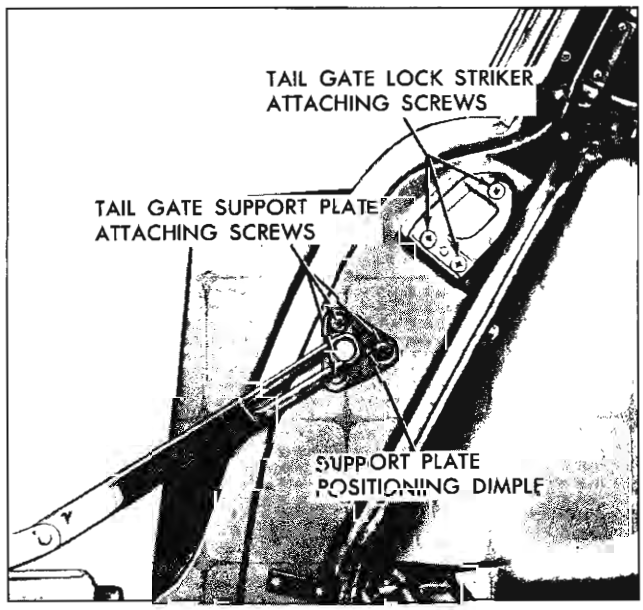


Fig. 5-16 Support and Lock Striker

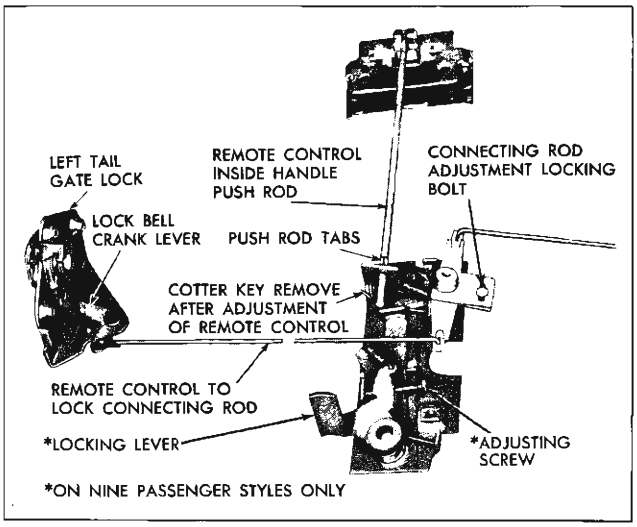


Fig. 5-17 Tail Gate Lock

2. Positioning dimple towards top shortens support approximately 3/4" from production installation.

TAIL GATE LOCK—RIGHT OR LEFT

REMOVAL AND INSTALLATION

1. Remove tail gate window.

2. Remove window glass run side channel attaching screws (Fig. 5-7) and remove channel from side of tail gate from which lock is being removed.

3. Disengage spring clip and detach lock remote control connecting rod from lock remote control (Fig. 5-17).

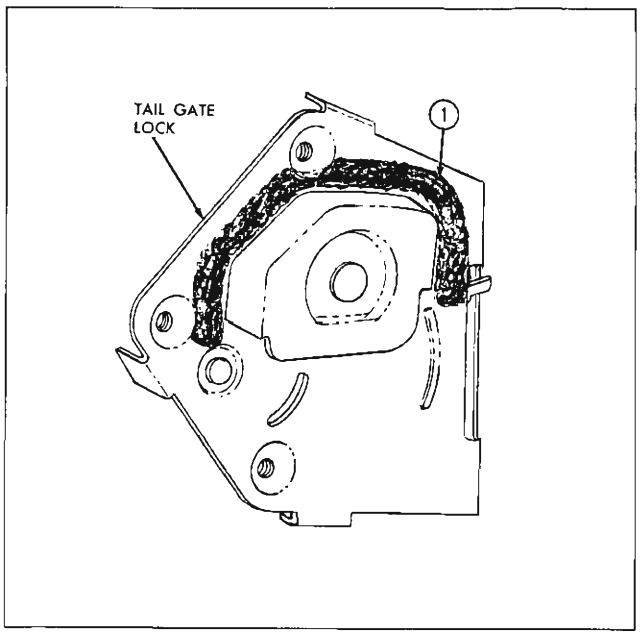


Fig. 5-18 Tail Gate Lock Sealing

If removing right lock on styles equipped with electrically operated tail gate window, remove two safety switch attaching screws at tail gate right side facing and remove switch assembly.

4. Remove tail gate lock attaching screws (Fig. 5-7) and remove tail gate lock; then, detach connecting rod from lock.

5. To install tail gate lock, reverse removal procedure. Prior to installing lock tail gate, apply a bead of body caulking compound to lock frame along the joint of the lock bolt housing (1 in Fig. 5-18).

6. To attach lock connecting rod to remote control lever, loosen connecting rod adjustment locking bolt at remote control (Fig. 5-17) then install rod to lever and tighten locking bolt.

NOTE: Check clips at ends of remote control levers for proper retention of connecting rods and replace if necessary.

7. Prior to resealing water deflector, check operation of tail gate locking mechanism.

TAIL GATE LOCK STRIKER

REMOVAL AND INSTALLATION

1. Open tail gate and with pencil, mark position of striker on body pillar.

2. Remove lock striker attaching screws and remove striker and adjusting plates from body pillar.

3. To install tail gate lock striker, place striker and adjusting plates within marks on body pillar and install striker attaching screws.

LOCK STRIKER ADJUSTMENTS

1. To adjust the tail gate lock striker up or down or forward or rearward, loosen striker attaching screws, shift striker and adjusting plates to desired position, then tighten striker attaching screws.

2. SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER EMERGENCY SPACERS.

a. Tail gate should be properly aligned before checking spacer requirements.

b. To determine if tail gate 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 tail gate to form a measurable impression in the clay or caulking compound, as shown in Fig. 5-19.

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 as directed.

Dimension "A"	No. of Spacers Required	Spacer Thickness	Striker Attaching Screws*
3/16" to 1/8"	1	1/16"	Original Screw
1/8" to 1/16"	1	1/8"	Emergency Screw (1/8" longer)
1/16" to 0	1 (1/8" Spacer) 1 (1/16" Spacer)	3/16" (Total)	Emergency Screw (1/4" longer)
0 to 1/16" Interference	2 (1/8" Spacers)	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 $\frac{1}{16}$".

LOCK REMOTE CONTROL INSIDE HANDLE

REMOVAL AND INSTALLATION

1. Remove tail gate belt finishing molding and tail gate inner cover panel. Detach inner panel water deflector sufficiently to gain access to inner panel.

2. Loosen tail gate lock remote control attaching screws (Fig. 5-13) and move remote control towards bottom of tail gate sufficiently to disengage end of handle push rod from hole in remote control lever.

NOTE: In some instances it may be necessary to reach into tail gate and actuate remote control lever to disengage push rod from lever.

3. Remove handle attaching screws located under handle and remove handle (includes push rod) from tail gate.

4. To install tail gate lock remote control handle, reverse removal procedure. Lubricate frictional points of inside handle assembly with Lubriplate or its equivalent.

NOTE: To engage end of handle push rod into hole in remote control lever, it may be necessary to raise window in tail gate to gain access to lever. Adjust remote control upward until tabs on handle push rod (Fig. 5-17) just contact remote control lever.

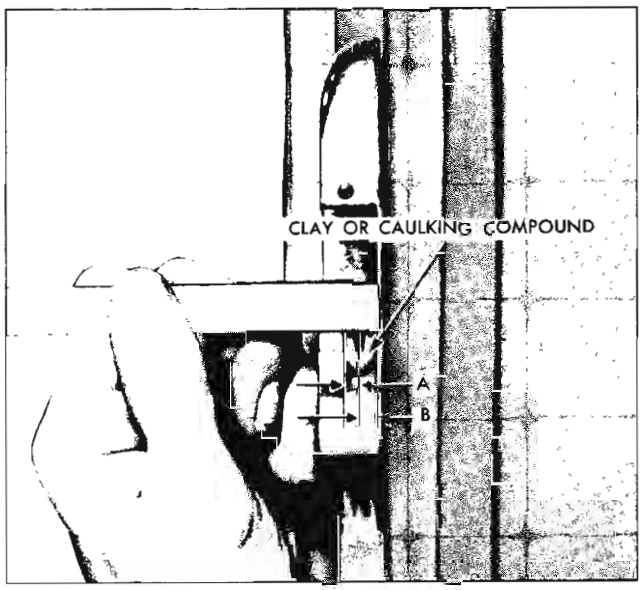


Fig. 5-19 Striker Engagement Check

5. Prior to resealing tail gate inner panel water deflector check operation of tail gate lock mechanism and, where necessary, adjust door lock strikers or remote control for proper operation.

LOCK REMOTE CONTROL

REMOVAL

1. Remove tail gate window assembly.

2. Disengage clips securing lock connecting rods to remote control (Fig. 5-17) and detach connecting rods from remote control.

3. Remove tail gate lock remote control attaching screws (Fig. 5-13). Disengage remote control from inside handle push rod and remove remote control from tail gate.

INSTALLATION

1. Engage inside handle push rod into hole in remote control lever.

2. Adjust remote control up or down until tabs on push rod (Fig. 5-17) just contact remote control lever.

3. To attach lock connecting rods to remote control lever, loosen connecting rod adjustment locking bolt (Fig. 5-17); then, install rods to levers and tighten locking bolt.

NOTE: Check clips at ends of remote control levers for proper retention of connecting rods and replace if necessary.

IMPORTANT: If a new remote control is being installed, remove cotter key (Fig. 5-17) after adjustment, to free locking lever.

4. Check operation of tail gate locking mechanism. To open tail gate on nine-passenger styles when window is removed, depress tail gate lock remote control locking lever at location B (Fig. 5-13) and at the same time operate the tail gate remote control inside handle.

5. Install tail gate window as described under TAIL GATE WINDOW - INSTALLATION.

6. On nine-passenger styles, lower window to approximately 1/2" up from full down position; then adjust remote control locking lever adjusting screw (Fig. 5-17) so that lever is just contacting window lower sash channel frame. Check operation of remote control inside handle - handle should remain locked until window is lowered to within 1/4" of the full down position.

TAIL GATE INNER PANEL WATER DEFLECTOR

A waterproof paper tail gate inner panel water deflector is sealed to the tail gate inner panel and deflects water into the bottom of the tail gate 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 access holes where the water can readily enter into the bottom of the tail gate.

Whenever any work is performed on the tail gate where the water deflector has been disturbed, the deflector must be properly sealed to the tail gate inner panel.

REMOVAL

1. Remove tail gate inner cover panel lower retainer and inner cover panel.

2. Using a sharp scraper or other suitable tool carefully lift up edge of deflector so as not to tear it and detach sealer and water deflector as required.

INSTALLATION OR RESEALING

1. If installing old deflector or resealing partially detached 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. If installing new deflector use old deflector or tail gate inner panel to trim new deflector to proper size.

3. Apply a bead of body caulking compound (approximately 3/16" diameter) to tail gate inner panel (Fig. 5-20).

IMPORTANT: The body caulking compound should be applied along the lower portion of the tail gate exactly as shown in illustration to assure proper drainage of water through designated inner panel access holes into bottom of tail gate.

4. Position water deflector to tail gate 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 tail gate inner panel.

5. Clean off all excess caulking compound; then, install previously removed tail gate inner cover panel.

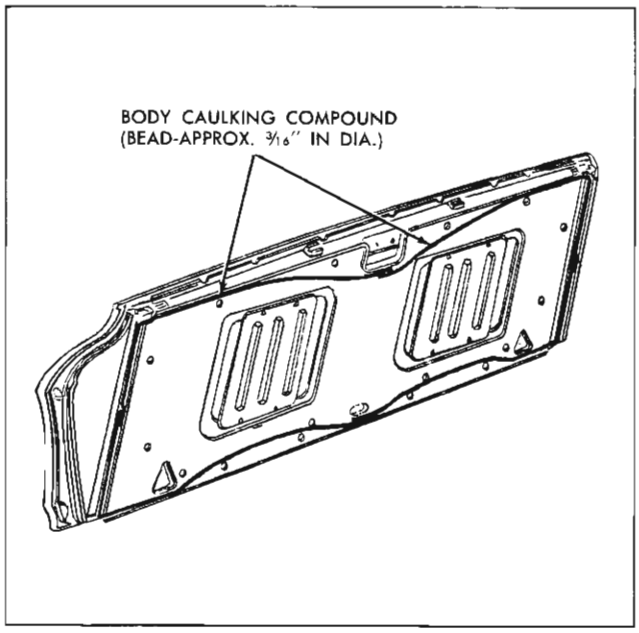


Fig. 5-20 Tail Gate Inner Panel

TAIL GATE WEATHERSTRIP

REMOVAL

1. Remove tail gate belt finishing molding.

2. At both sides of tail gate, disengage button type snap fasteners and screw securing upper ends of weatherstrip.

3. With a sharp scraper, carefully break cement bond securing weatherstrip along tail gate lock pillars.

4. Slide remover J-21104 or other suitable tool under weatherstrip at fastener locations and carefully pry fasteners out of holes (see Fig. 3-15 in FRONT OR REAR DOOR WEATHERSTRIP section for tool illustration).

CAUTION: Do not damage serrations on fasteners during removal as they are necessary to maintain a good weatherseal.

If 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.

INSTALLATION

1. Check weatherstrip nylon fasteners for damage and replace, if necessary.

2. Clean off old cement from tail gate to insure a clean cementing surface. Apply a bead of approved weatherstrip adhesive to lock pillar facing of tail gate starting at belt line and continuing down lock pillar for approximately 18".

NOTE: Weatherstrip adhesive usage is usually limited to lock pillar area; however, weatherstrip adhesive can be applied at any location where additional retention of weatherstrip is required.

3. Install button type fasteners and screw securing upper end of weatherstrip.

4. Install snap fasteners by pressing fasteners into holes in tail gate panel. A protected hammer can also be used, where necessary.

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

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

BOTTOM DRAIN HOLE SEALING STRIPS

REMOVAL AND INSTALLATION

1. With a flat-bladed tool carefully pry out snap-on fastener at each end of strip and remove sealing strip from tail gate.

2. To install sealing strips, reverse removal procedure. To prevent strip from adhering to the tail gate panel and blocking the drain holes, apply a sparing amount of silicone rubber lubricant on the center section of the sealing strip (see illustration under Front and Rear Door Bottom Drain Hole Sealing Strips).

EXTERIOR MOLDINGS

CONTENTS OF THIS SECTION

MOLDING IDENTIFICATION

The exterior moldings are identified in Figs. 6-1, 6-2, 6-3 and 6-4. 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. bath tub type snap-on clips
e. snap-in studs to pre-installed retainers
f. snap-in clips

Fig. 6-5 illustrates typical attachments for body side moldings.

Before using the molding charts (Fig. 1 through 4), 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 Moldings" column and must be removed first.

GENERAL PRECAUTIONS

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

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

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

SEALING OPERATION

Detailed sealing operations for each individual molding are not described on the MOLDING RETENTION CHART; however, the following information is given to assure 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.

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.

TOOLS AND CARE

For ease of molding removal it is sometimes important to start the removal at a particular location, generally at front or rear. This position is indicated when necessary in the Starting Location column of the molding chart.

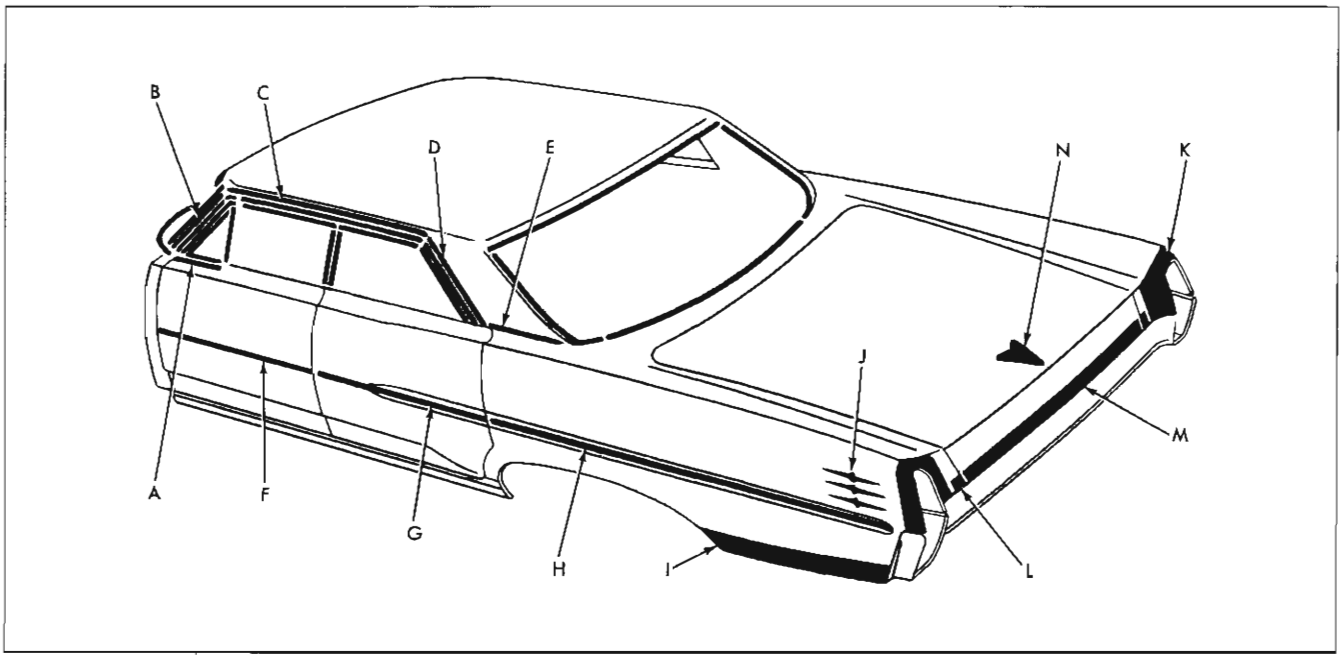
The following groups of moldings are listed with the name or description of the tool which is suitable for molding removal.

Roof Drip Scalps - pointed hook tool

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

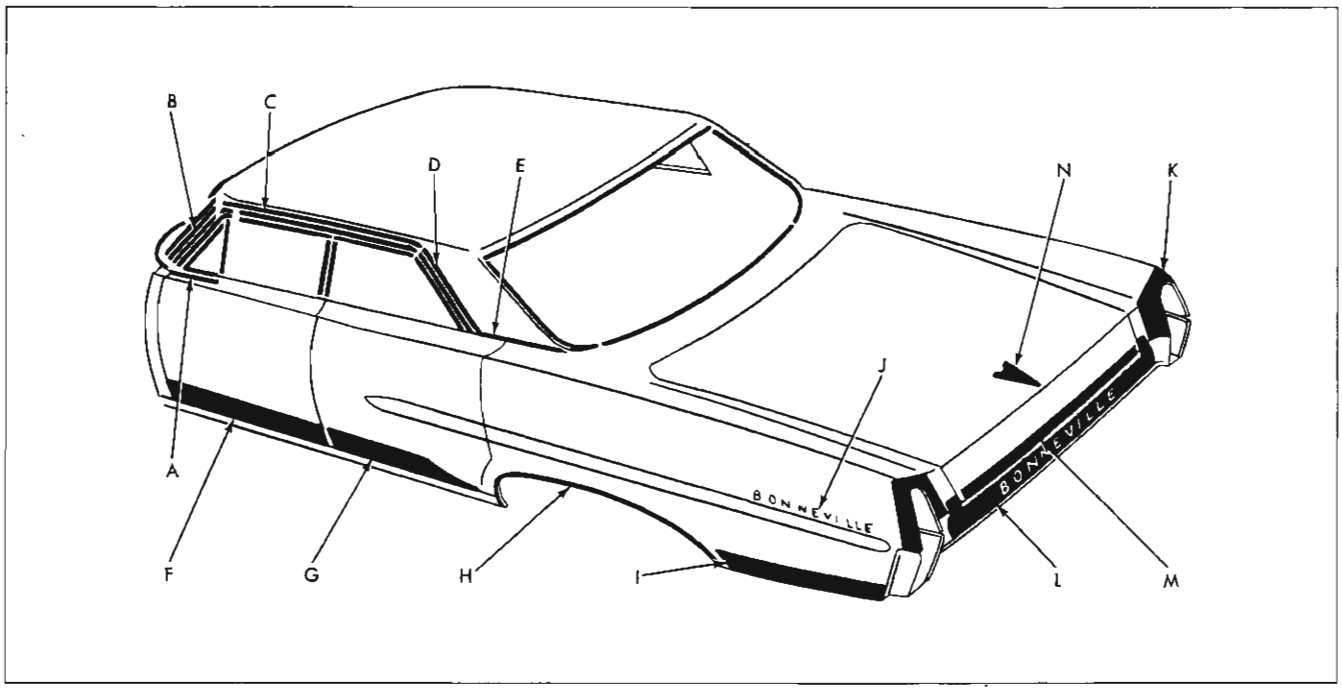
Snap-on Clips - thin flat-bladed tool (putty knife)

If it is necessary to replace a damaged "bath-tub" molding clip, use the following procedure for removal and installation:



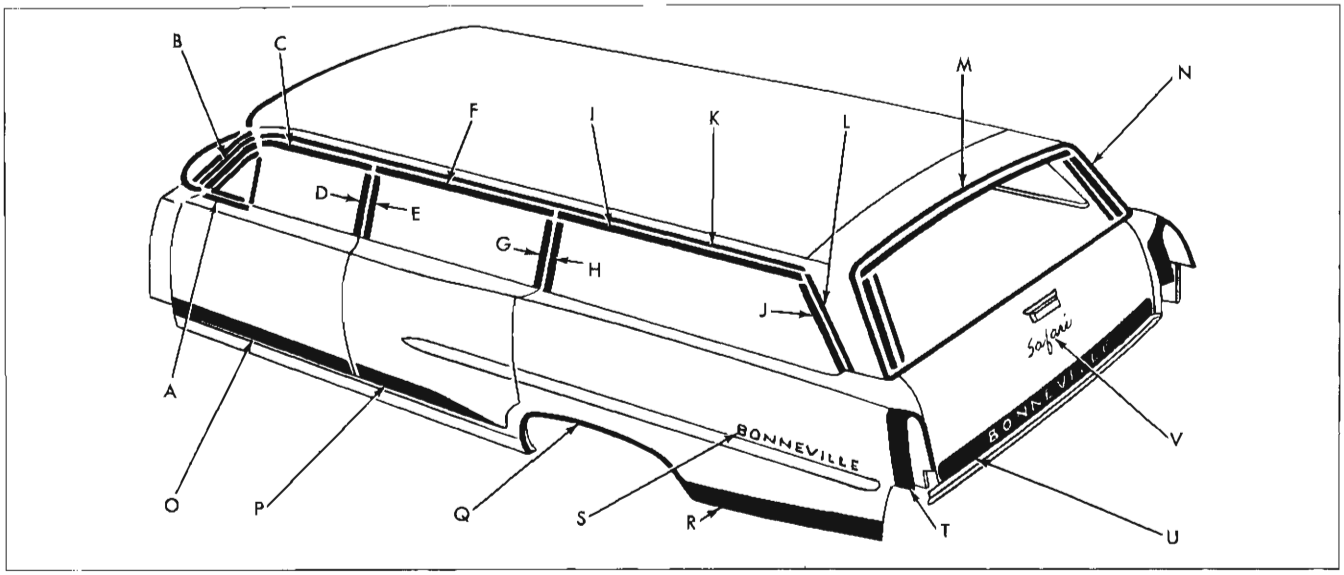
A. Front Door Vent Reveal Molding
B. Windshield Pillar Drip Molding Scalp
C. Roof Drip Molding Front Scalp
D. Roof Drip Molding Rear Scalp
E. Quarter Belt Reveal Molding
F. Door Outer Panel Lower Molding
G. Door Outer Panel Lower Molding
H. Fender Lower Molding
I. Rear Fender Molding
J. Fender Emblem
K. Fender Extension Molding
L. End Panel Side Molding
M. Compartment Lid Molding
N. Compartment Lid Emblem

Fig. 6-1 Exterior Moldings-2639 Style



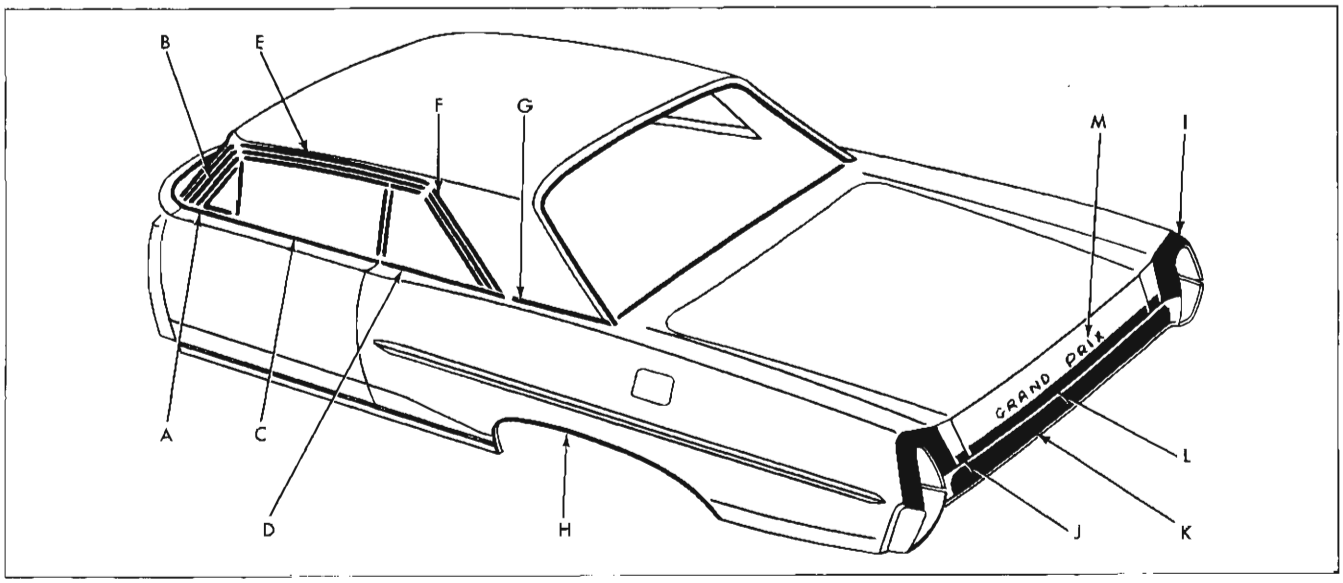
A. Front Door Vent Reveal Molding
B. Windshield Pillar Drip Molding Scalp
C. Roof Drip Molding Front Scalp
D. Roof Drip Molding Rear Scalp
E. Quarter Belt Reveal Molding
F. Door Outer Panel Lower Molding
G. Door Outer Panel Lower Molding
H. Rear Fender Molding
I. Rear Fender Molding
J. Fender Name Plate
K. Fender Extension Molding
L. End Panel Molding
M. Compartment Lid Molding
N. Compartment Lid Emblem

Fig. 6-2 Exterior Moldings-2839 Style



A. Front Door Vent Reveal Molding
B. Windshield Pillar Drip Molding Scalp
C. Door Window Upper Scalp Molding
D. Door Window Rear Vertical Scalp Molding
E. Door Window Front Vertical Scalp Molding
F. Door Window Upper Scalp Molding
G. Door Window Rear Vertical Scalp Molding
H. Quarter Window Front Reveal Molding
I. Quarter Window Upper Reveal Molding
J. Quarter Window Rear Reveal Molding
K. Roof Drip Molding Front Scalp
L. Roof Drip Molding Rear Scalp
M. Back Body Opening Upper Pinchweld Molding
N. Back Body Opening Side Pinchweld Molding
O. Door Outer Panel Lower Molding
P. Door Outer Panel Lower Molding
Q. Rear Fender Molding
R. Rear Fender Molding
S. Fender Name Plate
T. Fender Extension Molding
U. Tail Gate Outer Panel Molding
V. Tail Gate Outer Panel Name Plate

Fig. 6-3 Exterior Moldings-2835 Style



A. Front Door Vent Reveal Molding
B. Windshield Pillar Drip Molding Scalp
C. Door Window Reveal Molding
D. Quarter Window Reveal Molding
E. Roof Drip Molding Front Scalp
F. Roof Drip Molding Rear Scalp
G. Quarter Belt Reveal Molding
H. Rear Fender Molding
I. Fender Extension Molding
J. End Panel Side Molding
K. End Panel Lower Molding
L. Compartment Lid Molding
M. Compartment Lid Name Plate

Fig. 6-4 Exterior Moldings-2957 Style

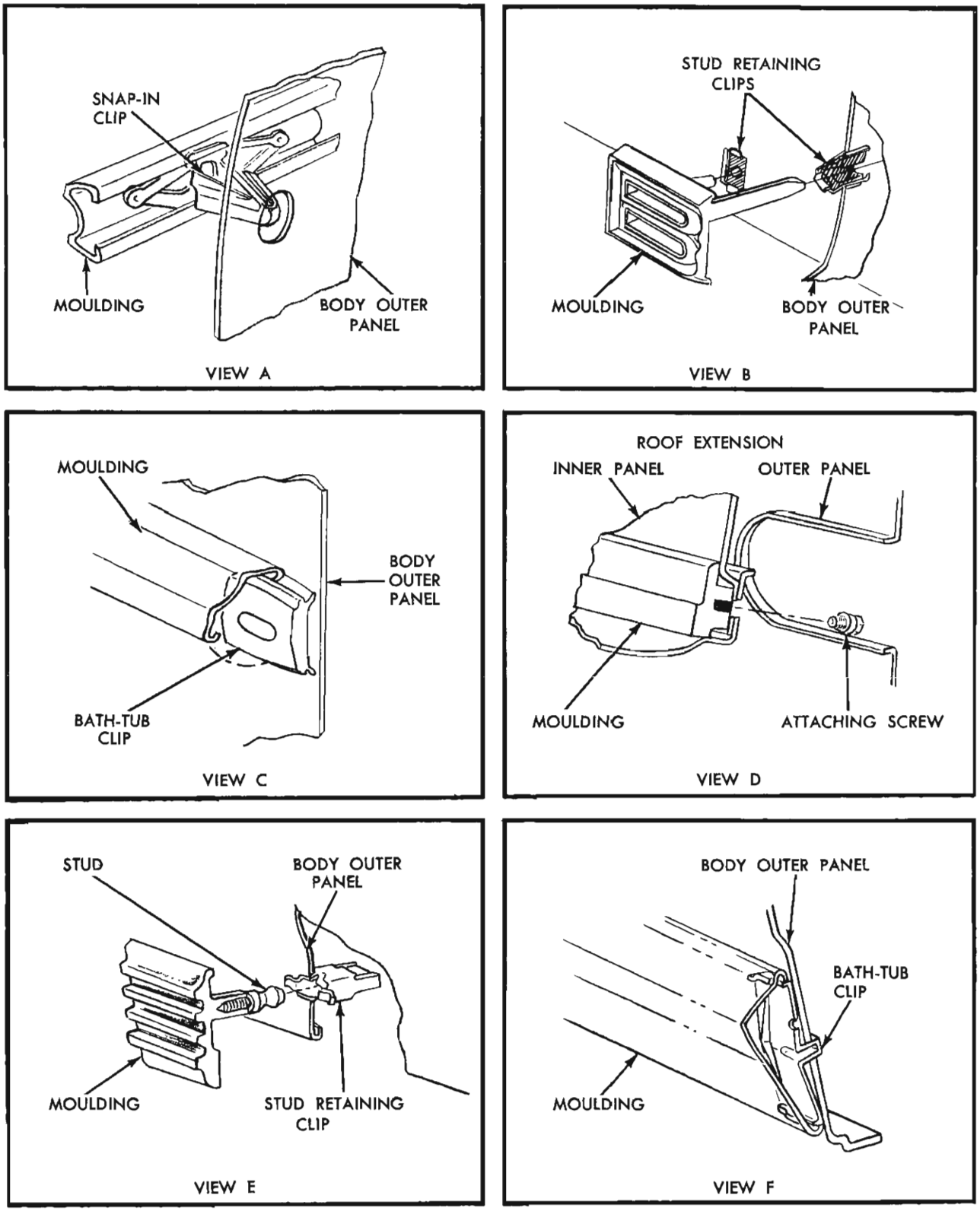


Fig. 6-5 Typical Methods of Attaching Body Moldings

Molding Name Other Parts are Designated	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 Drip Molding Scalp	2669,2835 2957,2639 2839	-	x	-	-	-	-	-	Lower Front Edge
Windshield Pillar to Roof Drip Molding Escutcheon	2311,35,45 47,69	-	x	-	-	-	-	Windshield Pillar Weatherstrip Retainer 47 Style	Lower Edge
Roof Drip Scalp	2669,2347 2847	-	x	-	-	-	Windshield Pillar Drip Molding Scalp	Side Roof Rail Weatherstrip Retainer and Molding on 47 Styles	Front Lower Edge
Roof Drip Front Scalp	2835,2957 and All 39 Styles	-	x	-	-	-	Windshield Pillar Drip Molding Scalp	-	Front Lower Edge
Roof Drip Rear Scalp	2835 & All 39 Styles	-	x	-	-	-	Roof Drip Molding Front Scalp	-	Front Lower Edge
	2957	x	-	-	-	-	Roof Drip Molding Front Scalp	-	-
Front Door Vent Window Reveal	2669,2835 2957,23-2639,2839 23-2847-67	x	-	-	-	-	-	Loosen Vent Upper Attaching Screws	-
Front Door Window Reveal	2957	x	-	-	-	-	Door Window Reveal (at vent)	Door Window Stop Bumper	-
Front Door Window Frame Upper Scalp	2669,2835 opt. 2311, 35,45 & 69	-	x	-	-	-	-	-	Rear Inner Edge
Front Door Window Rear Vertical Scalp	2669,2835 opt. 2311, 35,45 & 69	-	x	-	-	-	Over-lapped by Upper Scalp	-	Top Inner Edge
Rear Door Window Upper Scalp	2669,2835 opt. 2335, 45,69	-	x	-	-	-	-	-	Forward Inner Edge
Rear Door Window Front Vertical Scalp	2669,2835 opt. 2335, 45,69	-	x	-	-	-	Door Window Upper Scalp	-	Top Inner Edge
Rear Door Window Rear Vertical Scalp	2835 Opt. 2335,45	-	x	-	-	-	Door Window Upper Scalp	-	Top Inner Edge
Quarter Window Upper Scalp	2311	x	-	-	-	-	-	Quarter Window	-
Quarter Window Upper Reveal	35 and 45	x	-	-	-	-	-	Quarter Window	-
Quarter Window Front Reveal	2311 & All 35,45 Styles	x	-	-	-	-	Quarter Window Upper Reveal	-	-
Quarter Window Rear Reveal	35 and 45	x	-	-	-	-	Quarter Window Upper Reveal	-	-
Quarter Window Lower Reveal	2957	x	-	-	-	-	-	Quarter Window Lower Stops	-
Rear Quarter Belt Reveal	2347,2847	-	-	-	-	x	-	Quarter Upper Trim Panel	-
	2669,2367	x	-	-	x View A	-	-	-	-
	2311 Opt.	-	-	-	x View A	-	-	-	-

Fig. 6-6 Exterior Molding Retention Chart

Molding Name Other Parts are Designated	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	2339,2639 2839	x	-	-	x	x	Back Window Lower Reveal	Quarter Upper Trim Panel	-
	2957	x View D	-	-	-	-	-	Quarter Upper Trim Panel	-
Rear Quarter Pinchweld Finishing	67	x	-	x	-	-	-	Lower Top to Relieve Tension on Back Curtain	At The Radius
Front Door Outer Panel Lower	23,2600	x	-	x View C	-	-	-	-	-
	2800	x	-	x View E	-	-	-	-	-
Rear Door Outer Panel Lower	23-2600	x	-	x View C	-	x	-	-	-
	2800	x	-	x View E	-	x	-	-	-
Rear Fender Lower	23,2600 2335,45 Rt. Side	-	-	x	-	x	-	Spare Tire Cover on 35 & 45 Styles	-
	2335,45 Left Side	-	-	x View C	x View A	-	-	-	-
Rear Wheel Opening	2800,2957	x	-	-	-	-	-	-	-
Rear of Rear Wheel Opening	2300,2600	x	-	x View F	-	-	-	-	-
	2800	-	-	x View E	-	x	-	-	-
Rear Fender Emblem	2300,2600 except 2335-45 Left Side	-	-	-	-	x	-	-	-
	2335-45 Left Side	-	-	x View B	-	-	-	-	-
Rear Fender Name Plate	2800 Except 2835	-	-	-	-	x	-	-	-
	2835 Rt. Side	-	-	x View B	-	x	-	Spare Tire Cover	-
	2835 Lt. Side	-	-	x View B	-	-	-	-	-
Rear Compartment Lid Emblem	2300,2600 2800								
Rear Compartment Lid Name Plate	2957	-	-	-	-	x	-	-	-
Rear Compartment Lid Molding	2300,2600 2800,2957	-	-	-	-	x	-	-	-
Tail Gate Outer Panel Lower	2335,45 2835	-	-	-	-	x	-	Tail Gate Trim	-
Roof Extension Panel	2600	-	-	-	-	x	-	Quarter Upper Trim Panel	-
Rear End Outer Panel	2957	-	-	-	-	x	-	-	-
	2839,47,67	-	-	-	-	x	-	-	-
Rear End Outer Panel Side	2300,2600 Exc. Wag.	-	-	-	-	x	-	-	-

Fig. 6-6 Exterior Molding Retention Chart (Continued)

Molding Name Other Parts are Designated	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 of Rear Fender	2957	-	-	-	-	x	-	-	-
Tail Gate Name Plate	2335-45, 2835	-	-	-	-	x	-	Tail Gate Trim	-
Back Body Opening Upper Pinchweld Finishing	All 35 and 45 Styles	-	-	x	-	-	Back Body Opening Side Pinchweld Finishing	-	-
Back Body Opening Side Pinchweld	All 45 and 35 Styles	-	-	x	-	-	-	-	-
Rear Quarter Belt Reveal	2347,2847	-	-	-	-	x	-	Quarter Upper Trim Panel	-
	2669,2367	x	-	-	x View B	-	-	-	-
	2311 Opt.	-	-	-	x View B	-	-	-	-
Quarter Belt Reveal	2339,2639 2839	x	-	-	x	-	Back Window Lower Reveal	-	-
	2957	x View D	-	-	-	-	-	Quarter Upper Trim Panel	-
Rear Quarter Pinchweld Finishing	67	x	-	x	-	-	-	Lower Top to Relieve Tension on Back Curtain	At the Radius
Front Door Outer Panel Lower	23-2600	x	-	-	x View A	-	-	-	-
	2800	-	-	-	-	x	-	Door Trim	-
Rear Door Outer Panel Lower	23-2600	x	-	-	x View A	x	-	-	-
Rear Door Outer Panel Upper	23-2600	x	-	x View C	-	x	-	Door Trim Pad	-
Rear Fender Lower	23-2600 2335,45 Rt. Side	-	-	-	x View A	x	-	Spare Tire Cover on 35 & 45 Styles	-
	335,45 Left Side	-	-	-	x View A	-	-	-	-
Rear Fender Upper	23-2600 11,47,67	-	-	x View C	-	x	-	Rear Quarter Lower Trim Rear Compartment Side Trim	-
	39 & 69	-	-	x View C	-	- x	-	Rear Compartment Side Trim	-
	35 & 45	-	-	x View C	-	-	-	-	-
Rear Wheel Opening	2800,2957	x	-	-	-	-	-	-	-
Rear of Rear Wheel Opening	2800 Exc. 2835	x	-	x View F	-	-	-	-	-
Rear Fender Emblem	2800,2957 Exc. 2835 Left Side	-	-	-	-	x	-	Spare Tire Cover—35, 45 Styles	-
	2835 Left Side	-	-	x View E	-	-	-	-	-
Rear Compartment Lid Molding	All exc. 35 & 45 Styles	-	-	-	-	x	-	-	-

Fig. 6-6 Exterior Molding Retention Chart (Continued)

Molding Name Other Parts are Designated	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			
Tail Gate Outer Panel Lower	2835	-	-	-	-	x	-	Tail Gate Inner Cover Panel Water Deflector Access Hole Cover	-
Rear Compartment Lid Emblem	All exc. 35 & 45 Styles	-	-	-	-	x	-	-	-
Windshield Pillar Drip Molding Scalp	2669,2835 2957,2639 2839	-	x	-	-	-	-	-	Lower Front Edge
Windshield Pillar to Roof Drip Molding Escutcheon	2311,35 45,47,69	-	x	-	-	-	-	Windshield Pillar Weatherstrip Retainer 47 Style	Lower Edge
Roof Drip Molding Scalp	2669,2347 2847	-	x	-	-	-	Windshield Pillar Drip Molding Scalp	Side Roof Rail Weatherstrip Retainer and Molding on 47 Styles	Front Lower Edge
Roof Drip Molding Front Scalp	2835,2957 and All 39 Styles	-	x	-	-	-	Windshield Pillar Drip Molding Scalp	-	Front Lower Edge
Roof Drip Molding Rear Scalp	2835 and All 39 Styles	-	x	-	-	-	Roof Drip Molding Front Scalp	-	Front Lower Edge
	2957	x	-	-	-	-	Roof Drip Molding Front Scalp	-	-
Front Door Window Reveal (At Vent)	2669,2835 2957,23-2639,2839 23-2847-67	x	-	-	-	-	-	Loosen Vent Upper Attaching Screws	-
Front Door Window Reveal	2957	x	-	-	-	-	Door Window Reveal (At Vent)	Door Window Stop Bumper	-
Front Door Window Frame Upper Scalp	2669,2835 Opt. 2311, 35,45 & 69	-	x	-	-	-	-	-	Rear Inner Edge
Front Door Window Frame Rear Vertical Scalp	2669,2835 Opt. 2311, 35,45 & 69	-	x	-	-	-	Over-lapped by Upper Scalp	-	Top Inner Edge
Rear Door Window Frame Upper Scalp	2669,2835 Opt. 2335, 45,69	-	x	-	-	-	-	-	Forward Inner Edge
Rear Door Window Frame Front Vertical Scalp	2669,2835 Opt. 2335, 45,69	-	x	-	-	-	Door Window Frame Upper Scalp	-	Top Inner Edge
Rear Door Window Frame Rear Vertical Scalp	2835, Opt. 2335,45	-	x	-	-	-	Door Window Frame Upper Scalp	-	Top Inner Edge
Quarter Window Upper Scalp	2311	x	-	-	-	-	-	Quarter Window	-
Quarter Window Upper Reveal	35 & 45	x	-	-	-	-	-	Quarter Window	-
Quarter Window Front Reveal	2311 & All 35 & 45 Styles	x	-	-	-	-	Quarter Window Upper Reveal	-	-

Fig. 6-6 Exterior Molding Retention Chart (Continued)

Molding Name Other Parts are Designated	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 Window Rear Reveal	35 & 45	x	-	-	-	-	Quarter Window Upper Reveal	-	-
Quarter Window Lower Reveal	2957	x	-	-	-	-	-	Quarter Window Lower Stops	-
Roof Extension Panel Ornament	2600	-	-	-	-	x	-	Quarter Upper Trim Panel	-
Rear End Outer Panel	2957	-	-	-	-	x	-	-	-
	2839,47,67	-	-	-	-	x	-	-	-
Rear End Outer Panel Side	2300,2600 Exc. Wag.	-	-	-	-	x	-	-	-
Rear of Rear Fender	2957	-	-	-	-	x	-	-	-
Tail Gate Name Plate	2335-45, 2835	-	-	x	-	-	-	-	-
Black Body Opening Upper Pinchweld Finishing	All 35 & 45 Styles	-	-	x	-	-	Back Body Opening Side Pinchweld Finishing	-	-
Back Body Opening Side Pinchweld Finishing	All 35 & 45 Styles	-	-	x	-	-	-	-	-
Windshield Pillar Finishing	2957	x	-	-	-	-	-	Windshield	-

Fig. 6-6 Exterior Molding Retention Chart (Continued)

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. 6-7) 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 required to install the new plastic "bath-tub" clip.

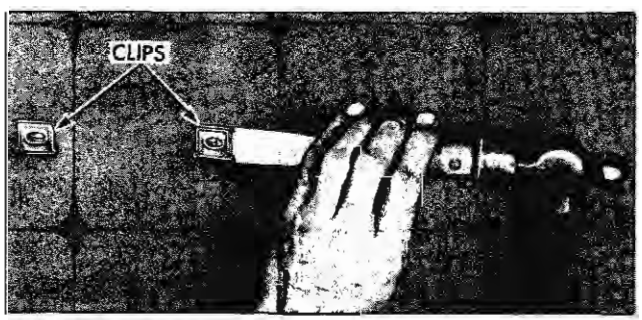


Fig. 6-7 Removing Bath-Tub Clip

HEADLINING

CONTENTS OF THIS SECTION

DESCRIPTION

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 or back body opening by tacks, staples, or cement.

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

HEADLINING REMOVAL AND INSTALLATION

REMOVAL

1. Place protective coverings over seat cushions and backs.

2. Prior to removing headlining, remove following hardware and trim 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. Rear quarter upper garnish moldings (2 door styles).

g. Side roof rail moldings.

h. Back window garnish moldings.

i. Rear quarter window front, rear and upper garnish moldings (35 and 45 styles).

j. Back body opening upper and side garnish moldings.

k. Center pillar finishing moldings.

l. Rear quarter trim, where necessary.

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

4. On 11, 69, 35 and 45 styles, use headlining inserting tool J-2772 or similar wide-bladed tool and carefully disengage headlining from pronged retainer on side roof rails over door openings. (view B, Fig. 7-2 and view C, Fig. 7-3).

On 47 styles, remove tacks or staples along side roof rails and rear quarter areas (view K, Fig. 7-4).

On 39 and 57 styles, remove plastic retainer from side roof rail pinchweld flange (view H, Fig. 7-1).

5. On 35 and 45 styles, remove tacks or staples securing headlining at rear quarter windows (view G, Fig. 7-2).

6. On 11 and 69 styles, remove back window finishing lace (view G, Fig. 7-3).

7. On 2311 style, remove tacks or staples securing headlining at rear quarter windows (view D, Figure 7-3).

8. Remove tacks or staples at roof panel extension areas, as required.

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

10. Working from front to rear of body on 11, 35, 45 and 69 styles, disengage headlining listing wires from side roof rails.

11. On 39 and 57 styles, starting at front of body carefully disengage No. 1 and No. 2 listing wires from holes in side roof inner rails and supporting tabs on longitudinal (front to rear) bow. In like

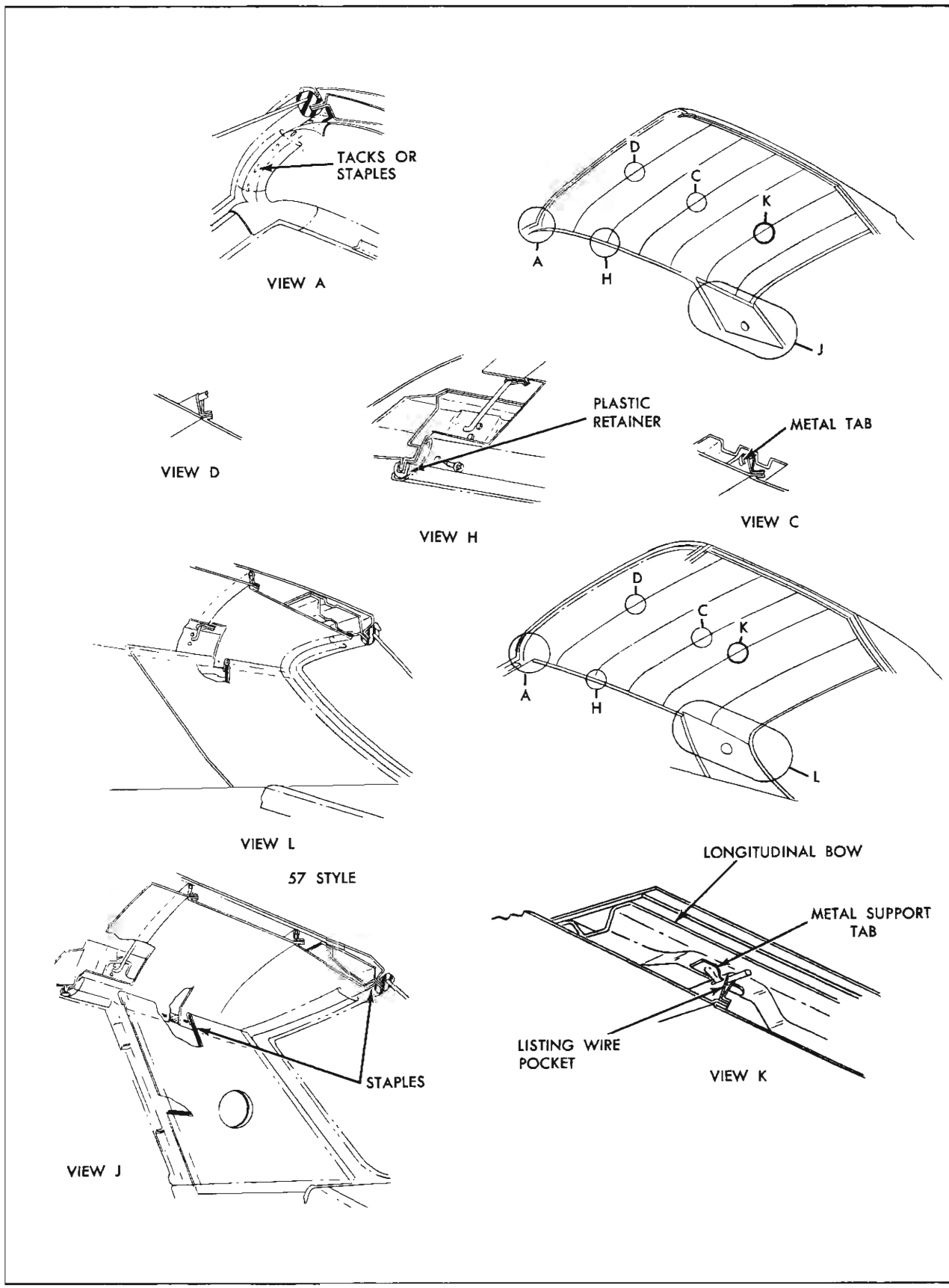


Fig. 7-1 Headlining Installation - 39 and 57 Styles

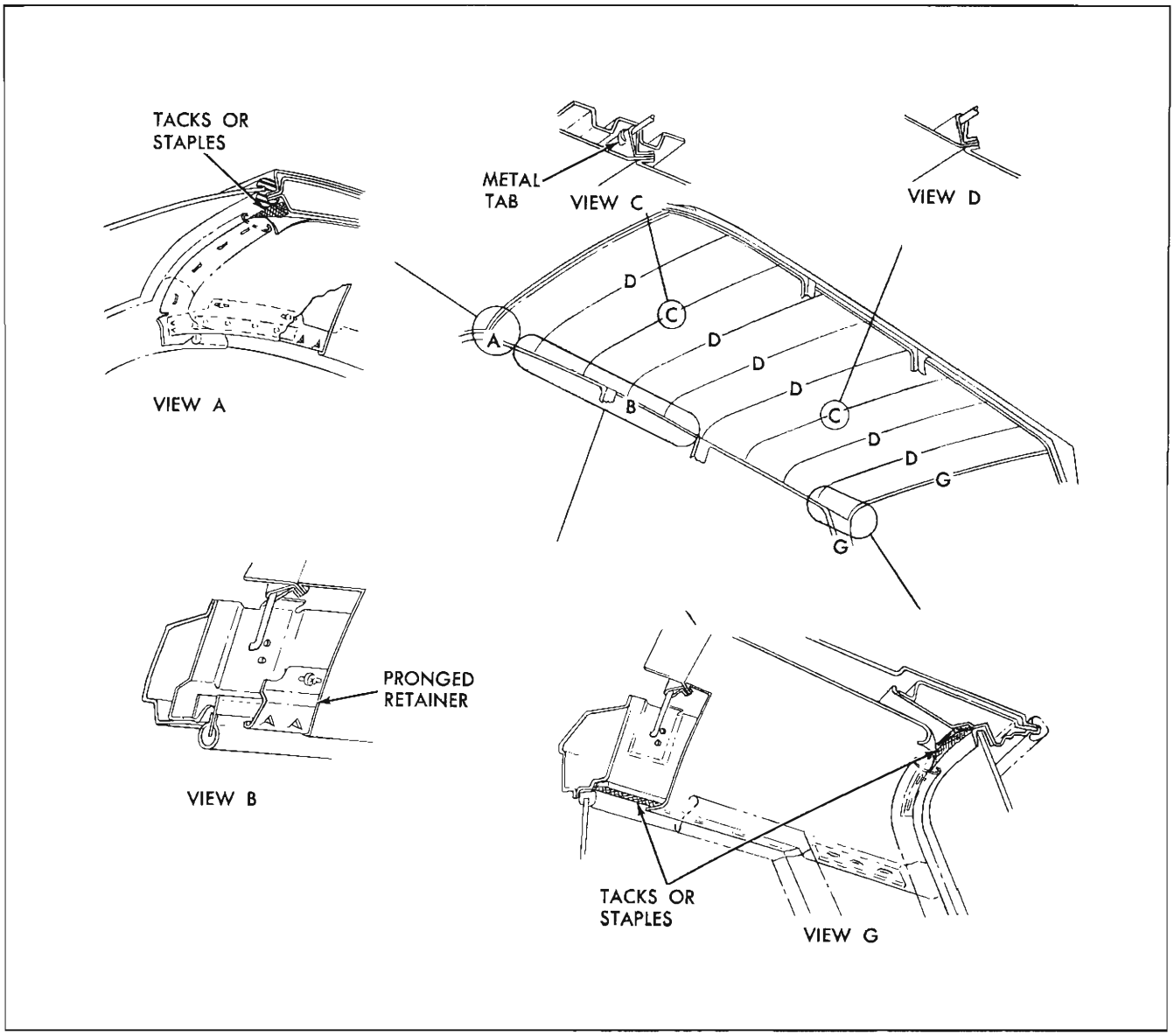


Fig. 7-2 Headlining Installation - 35 and 45 Styles

manner, working from rear of body disengage remaining listing wires (except No. 3) (see view K, Fig. 7-1). Keep headlining material clean.

IMPORTANT: Note in which holes ends of listing wires are installed in side roof inner rails to assure replacing in same holes.

12. At No. 1 roof bow, bend down metal tabs securing No. 3 listing wire (see view C, Fig. 7-1).

13. Remove headlining assembly from body.

14. If replacing with new headlining, remove listing wires from pockets of headlining old headlining.

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

INSTALLATION

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

2. Apply approved trim cement to headlining attaching surfaces at windshield, side roof rail, back window opening, and rear quarter window on 11, 35 and 45 styles.

3. Lift entire headlining assembly into body.

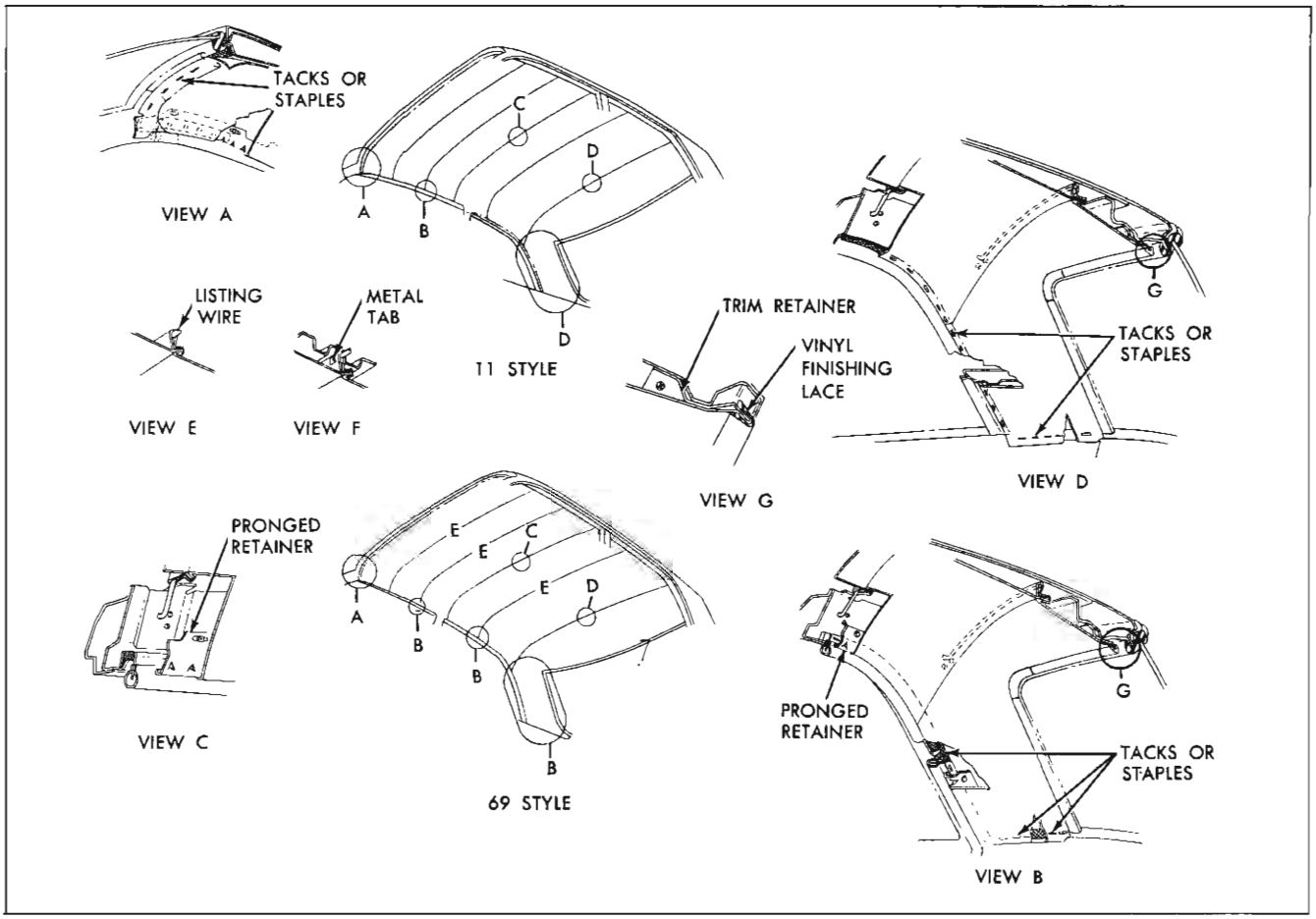


Fig. 7-3 Headlining Installation - 11 and 69 Styles

4. Working forward on 11, 35, 45 and 69 styles, install ends of listing wires in holes in side roof inner rail assemblies. Bend up metal tabs at roof bow securing listing wire and listing wire pocket (see view F, Fig. 7-3 and view C Fig. 7-2).

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

5. On 39 and 57 styles, 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 (see view C, Fig. 7-1). Be certain headlining material is centered in body. If new headlining is being installed, slit listing wire pockets at each tab location on longitudinal bow (approximately 1 1/2" in length) (see view K, Fig. 7-1). Working rearward from No. 3 listing wire, install listing wires into holes in side roof inner rails and over tabs on longitudinal bow. In 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 upper or lower holes in side roof inner rails, as required.

6. Apply cement to front edge of headlining and stretch and secure headlining along windshield opening. Temporarily tack headlining across windshield opening, allowing for possible repositioning.

7. Using headlining inserting tool J-2772 or suitable wide-bladed tool, install headlining around trim retainer at back window area on 2311 and 2369 styles. On 35, 39, 45, and 57 styles, stretch and secure headlining at back window and upper rear quarter area. Also, temporarily tack headlining at these areas.

8. Apply cement to side edges of headlining assembly except above door openings on 11, 35, 45 and 69 styles.

9. Carefully tuck edge of headlining material under pronged retainer above door openings on 11, 35, 45 and 69 styles (see view C, Fig. 7-3). Using

headlining inserting tool, permanently install edge of headlining around pinchweld flange of door openings on 39 and 57 styles (see view H, Fig. 7-1).

10. Inspect headlining and remove any draws or wrinkles by stretching and repositioning headlining at attached edges.

11. Trim excess material from edges of headlining around entire perimeter.

12. Permanently secure headlining by tacking at windshield, back window and upper rear quarter areas (see views A, B, and D in Fig. 7-3, views A, J, and L in Fig. 7-1, view A and G in Fig. 7-2).

13. Install plastic retainer along pinchweld flange of door and quarter window openings on 39 and 57 styles (see view H, Fig. 7-1.) Retainer should be evenly installed.

14. If installing new headlining, locate attaching holes for coat hooks and sunshade supports. Puncture headlining with an awl or suitable tool at these locations and install parts.

NOTE: If installing old headlining, be certain sunshade support and coat hook holes in headlining material line up with attaching provisions on body.

15. Install all other previously removed inside hardware and trim.

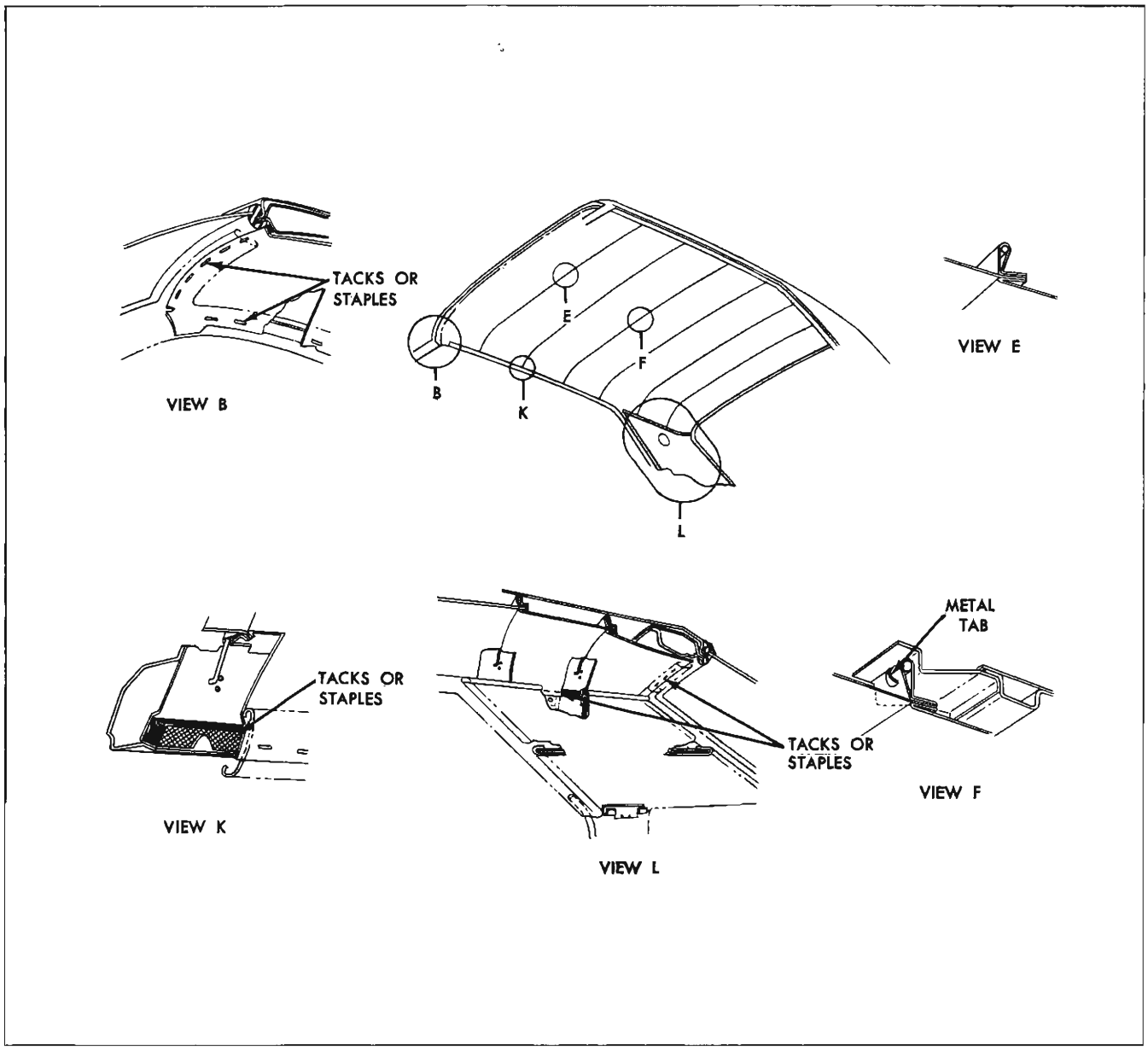


Fig. 7-4 Headlining Installation - 47 Style

SEATS

CONTENTS OF THIS SECTION

FRONT SEAT ALL STYLES—MANUALLY OPERATED

ALL STYLES

DESCRIPTION

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

REMOVAL AND INSTALLATION

1. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching bolts.

2. Operate seat to full rearward position.

3. At front of adjusters, remove adjuster-to-floor pan attaching bolts.

4. Operate seat to full forward position.

5. At rear of adjusters, remove adjuster-to-floor pan attaching bolts.

6. With aid of helper, remove seat from body.

7. To install, reverse removal procedure.

SEAT ADJUSTERS

1. Remove front seat with adjusters attached and place upside down on a clean protected surface.

2. Remove adjuster assist spring from adjuster to be removed (Fig. 8-1).

3. When removing left adjuster, it is necessary to remove the seat adjuster control knob (Fig. 8-1).

4. Squeeze hooked end of 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 adjuster.

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat (Fig. 8-1).

6. To install, reverse removal procedure.

7. Check operation of seat. 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.

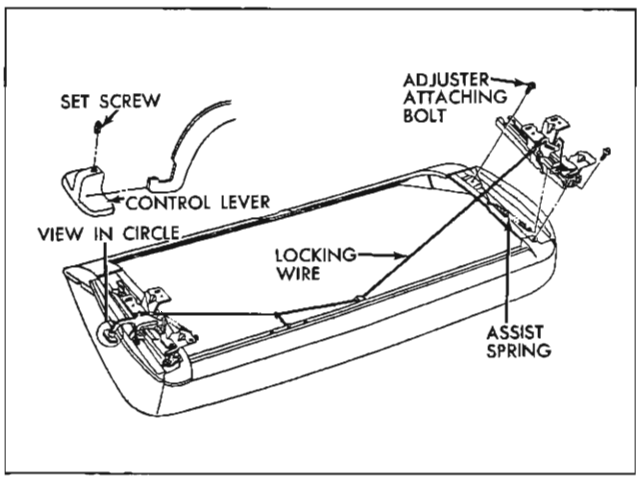


Fig. 8-1 Manual Seat Adjuster

REAR SEAT
ALL STYLES

SEAT CUSHION

REMOVAL

1. Push lower forward edge of cushion rearward and pull cushion upward until protrusions on seat bottom frame disengage from floor pan stops.

2. Pull cushion forward and carefully remove from body.

INSTALLATION

1. Carefully lift cushion into body to avoid damaging adjacent trim.

2. Position rear edge of cushion under rear seat back assembly.

3. 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.

4. Push forward edge of cushion rearward and downward until protrusions are properly engaged behind floor pan stops.

SEAT BACK (WITHOUT ARM REST)

REMOVAL AND INSTALLATION

1. Remove rear seat cushion.

2. Disconnect rear seat back speaker wire, if present.

3. Working over rear of rear seat back, remove screw securing rear end of folding top compartment side trim panel to rear of rear seat back frame.

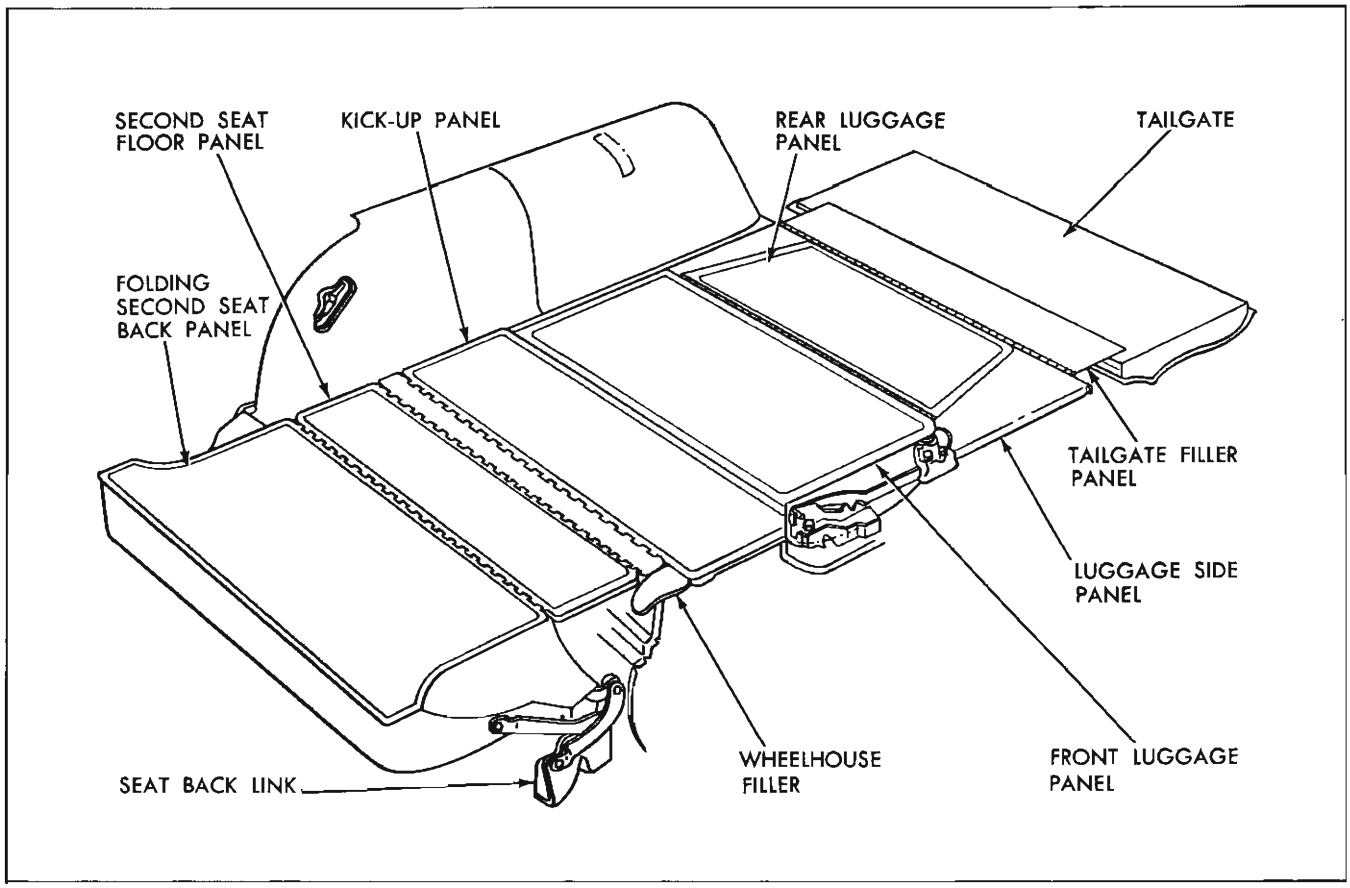


Fig. 8-2 Six Passenger Folding Seat and Rear Compartment Panels

4. At bottom of the seat back, remove two screws and washers which secure the seat back frame to the seat back support.

5. Raise seat back until seat back disengages from hangers on seat back panel and remove seat back from body.

6. To install, reverse removal procedure.

SEAT BACK (WITH ARM REST)

REMOVAL AND INSTALLATION

1. Remove rear seat cushion.

2. On styles with rear seat center arm rest, lower arm rest, disengage upper end of arm rest trim panel from seat back and lower trim panel; remove two bolts securing arm rest hanger plate to seat back support reinforcement.

3. At bottom of the seat back, bend the four tabs that secure the seat back to the floor panel and to wheelhouse panel. On 47 style, the lower end of the seat back is retained by two body tabs at the floor panel only.

4. Pull seat back out at bottom until it clears body tabs; then raise seat back upward until it disengages from hangers on the seat back panel support.

5. Remove seat back from body.

6. To install, reverse removal procedure, making certain that all attaching body tabs and hangers have industrial waterproof body tape applied to them to act as an anti-squeak.

CENTER ARM REST

REMOVAL AND INSTALLATION

1. Remove rear seat back and place upside down on a clean protected surface.

2. Remove four bolts securing arm rest support plate to seat back spring.

3. Lift up lower edge of seat back and disengage arm rest with attached arm rest trim panel from seat back spring and remove arm rest.

4. To install, reverse removal procedure.

5. Adjust support plate as required, so that arm rest, when in raised position, is centered in and flush to the seat back cushion.

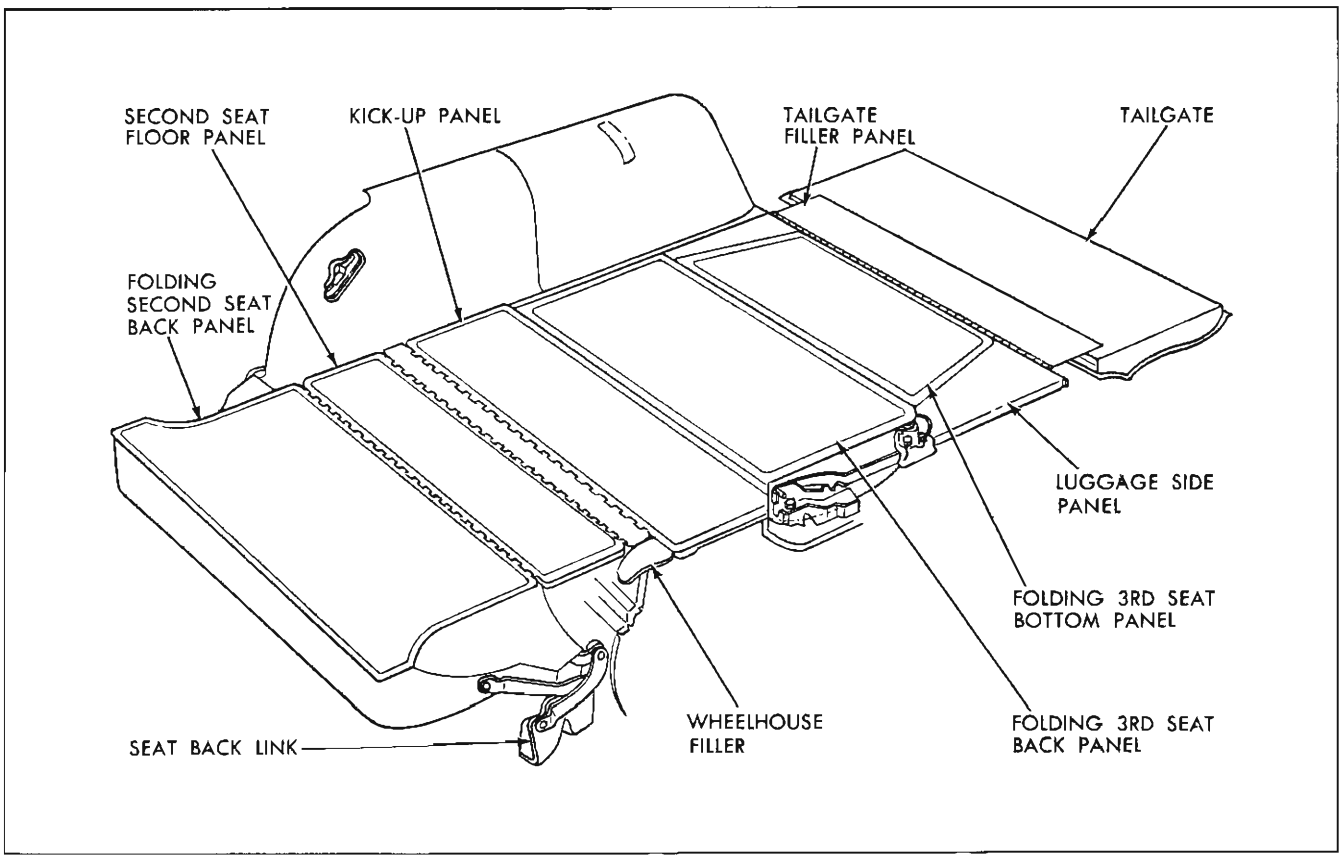


Fig. 8-3 Nine Passenger Folding Seat and Rear Compartment Panels

FOLDING REAR SEAT AND REAR COMPARTMENT FLOOR PANELS

35 AND 45 STYLES UNLESS OTHERWISE DESIGNATED

The following views are typical of the station wagon six and nine-passenger folding rear seat back and rear compartment floor panels. These illustrations identify the component parts of the rear compartment area and their relationship.

FOLDING 2ND SEAT SERVICE PROCEDURES

SEAT CUSHION REMOVAL AND INSTALLATION

1. Lift front edge of folding rear seat cushion to disengage protrusions in seat bottom frame from slots in rear seat support and remove cushion.

2. To install, reverse removal procedure. Make certain that protrusions are fully engaged in rear seat support.

SEAT BACK REMOVAL AND INSTALLATION (With Floor Filler Panel Attached)

1. Remove floor panel at kick-up.

2. Remove screws securing rear edge of rear floor filler panel to floor pan.

3. With folding 2nd seat back in down position, fold filler panel forward sufficiently to remove screws securing right and left lower corner moldings to seat back and remove moldings.

4. Remove bolts securing right and left links to seat back (Fig. 8-4) and remove seat back with attached filler panel from body.

5. To install, reverse removal procedure.

NOTE: When necessary to remove filler panel from seat back, as a bench operation, fold filler panel as shown in Figure 8-5 and remove screws which secure filler panel to seat back panel.

SEAT BACK LINK REMOVAL AND INSTALLATION

1. Release seat cushion and slide forward.

2. Turn back floor carpet sufficiently to remove screws securing rear door opening carpet support filler to floor pan and remove filler from body.

3. Remove bolts securing seat back support links to floor pan.

4. Fold seat back to down position.

5. Remove screws securing lower corner molding to seat back and remove molding from back.

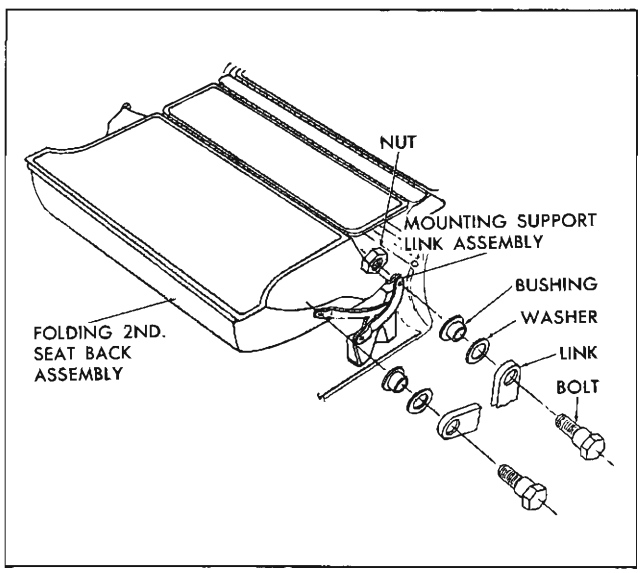


Fig. 8-4 Second Seat Support Link

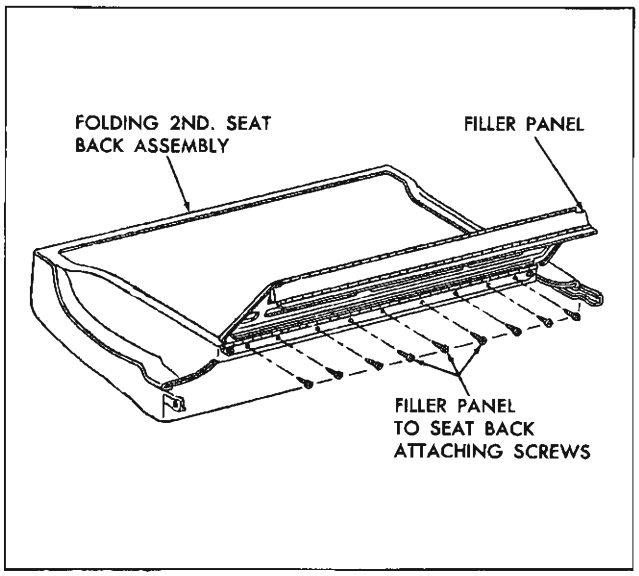


Fig. 8-5 Second Seat Floor Panel

6. Remove bolts securing support links to seat back and remove support links from body (Fig. 8-4).

7. To install, reverse removal procedure.

FOLDING 3RD SEAT SERVICE PROCEDURES 45 STYLE ONLY

SEAT BOTTOM PANEL REMOVAL AND INSTALLATION

1. Lift cushion panel to a half raised position or until cushion is approximately vertical to floor pan.

2. Lift left side of panel up to disengage panel from left floor pan support.

3. Move panel approximately 1/2" to left side of body (outboard) to disengage right side of cushion from right floor pan support; then lift cushion panel from body.

4. To install, reverse removal procedure.

SEAT BACK PANEL REMOVAL AND INSTALLATION

1. Raise seat back until it is approximately vertical to floor pan.

2. Disengage right and left seat back links from floor pan support.

3. Lift left side of back panel up to disengage panel from left floor pan support.

4. Move panel approximately 1/2" to left side of body (outboard) to disengage right side of cushion from right floor pan support and remove back cushion panel from body.

5. To install, reverse removal procedure.

REAR COMPARTMENT FLOOR, SIDE, AND FILLER PANEL SERVICE PROCEDURES

SECOND SEAT FLOOR PANEL REMOVAL AND INSTALLATION

1. Remove floor panel at kick-up.

2. Remove screws which secure rear edge panel to floor pan.

3. Fold panel forward sufficiently to remove screws which secure panel to folding 2nd seat back and remove panel from body (Fig. 8-5).

4. To install, reverse removal procedure.

KICK-UP PANEL REMOVAL AND INSTALLATION

1. On 45 style, remove folding 3rd seat back. On 35 style, remove front and rear panel assembly.

2. Remove screws which secure rear edge of floor panel to floor pan.

3. Lift rear edge of panel sufficiently to firmly grasp panel; then pull panel rearward to disengage front edge of panel from retaining clips on floor pan and remove panel from body.

4. To install, reverse removal procedure.

WHEELHOUSE FILLER REMOVAL AND INSTALLATION

1. Remove kick-up floor panel.

2. Remove two screws securing wheelhouse filler to floor pan and remove filler from body.

3. To install, reverse removal procedure.

FRONT AND REAR LUGGAGE FLOOR PANEL ASSEMBLY REMOVAL AND INSTALLATION 35 STYLE ONLY

1. Fold rear panel forward until it rests on front panel (Fig. 8-6).

2. Fold front and rear panel assembly to up or half open position (panels should be approximately vertical to the floor pan).

3. Lift left side of panel up to disengage panels from left floor pan support.

4. Move entire panel assembly approximately 1/2" to left side of body (outboard) to disengage right side of panel from right floor pan support, then lift front and rear panels as an assembly from body.

5. To install, reverse removal procedure.

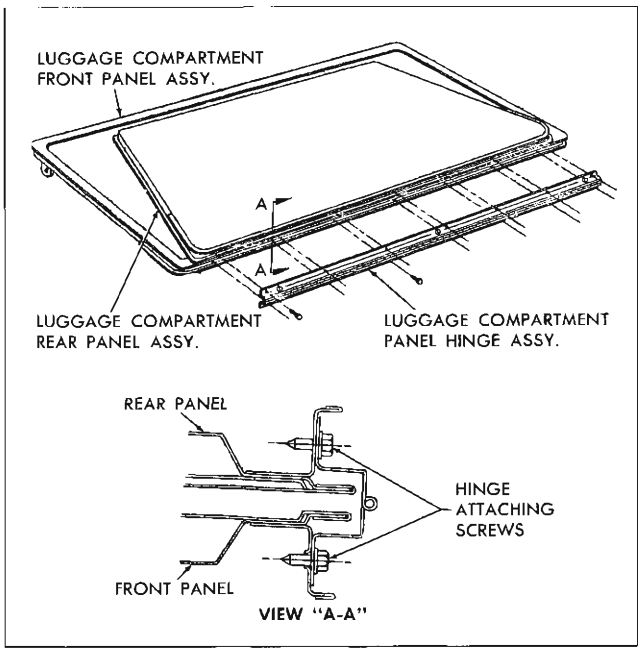


Fig. 8-6 Front and Rear Panel Hinge - 35 Styles

NOTE: When replacing front panel with new part, transfer rear panel with attached hinge to new front panel.

INSTALL NEW REAR LUGGAGE PANEL ON FRONT PANEL 35 STYLE ONLY

1. Fold rear panel forward until it rests on front panel (Fig. 8-4).

2. Remove screws securing hinge to rear panel.

3. Attach new rear panel to hinge with screws.

INSTALL NEW HINGE ON FRONT AND REAR LUGGAGE PANEL ASSEMBLY 35 STYLE ONLY

1. Fold rear panel forward until it rests on front panel.

2. Remove screws securing hinge to both front and rear panels and remove hinge. (View A-A, Fig. 8-4).

3. Attach new hinge to front and rear panel with screws.

TAIL GATE FILLER PANEL REMOVAL AND INSTALLATION

1. Lower tail gate.

2. Lift rear edge of filler panel sufficiently to expose attaching screws along forward edge of panel.

3. Remove panel attaching screws, then panel from body opening.

4. To install, reverse removal procedure.

LUGGAGE SIDE PANEL REMOVAL AND INSTALLATION

1. On 35 style, use handle and fold rear luggage compartment panel forward until it rests entirely on front luggage compartment panel (Fig. 8-4).

On 45 style, raise folding 3rd seat back to up position; then raise 3rd seat bottom cushion to up or sitting position.

2. For right floor side panel, remove spare tire cover panel.

For left floor side panel, remove rear quarter inner trim rear panel.

3. On left side, remove screw which secures floor side panel to panel support.

4. Remove screws which secure inboard and outboard side facing of panels to panel supports and remove panels from body.

5. To install, reverse removal procedure.

FRONT SEAT—ELECTRICALLY OPERATED

ALL STYLES

DESCRIPTION

The electrically-operated six-way front seat can be moved forward, rearward, up, down or tilted by means of the three manually-operated seat control knobs at switch on driver's side. The large center knob controls movement of the entire seat horizontally or vertically. The small front knob controls the vertical movement of the front of the seat causing the seat to tilt. The small rear knob controls vertical movement of the rear of the seat. To obtain the maximum vertical travel, engage the center knob

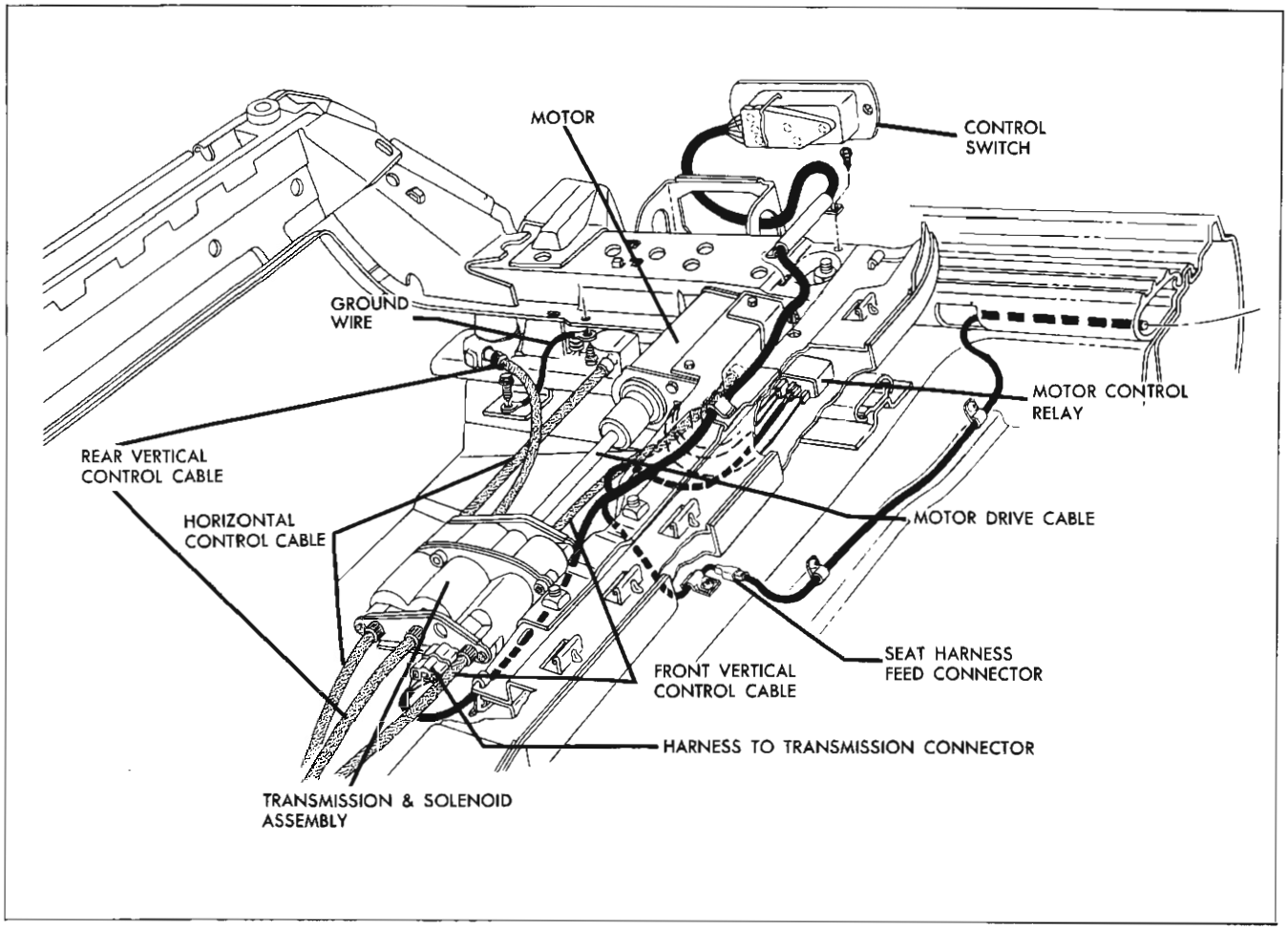


Fig. 8-7 Electrical Control Diagram

until the limit of travel is reached, then engage the small front or rear knob to complete the maximum travel.

The seat adjuster operating mechanism incorporates a transmission which includes three solenoids and six drive cables leading to the seat adjusters.

The center solenoid operates the blue drive cable which controls the vertical movement of the rear of the seat. The rear solenoid operates the black drive cable which controls the horizontal movement of the seat, and the front solenoid operates the yellow drive cable which controls the vertical movement of the front of the seat (Fig. 8-7).

When a control knob is actuated, the motor and solenoid 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 operate 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.

FRONT SEAT

REMOVAL AND INSTALLATION

1. Operate seat to fully raised and midway position.

2. 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.

4. With aid of a helper, remove seat with attached adjusters, motor and transmission from body.

5. To install seat reverse removal procedure. Make sure ground wire is securely attached at left seat adjuster and under seat adjuster-to-floor pan attaching bolt.

NOTE: Spacers are installed between the front and rear adjuster pedestals and floor pan. If lowering of entire seat is desired, all spacers may be removed, thus lowering the entire seat by 3/8".

SEAT ADJUSTER SERVICE PROCEDURES

Unless otherwise specified the following procedures on seat adjuster are performed with seat, adjusters, motor and transmission removed from body as described above.

ADJUSTER REMOVAL AND INSTALLATION

1. Detach three power drive cables from adjuster to be removed (Fig. 8-7).

2. Remove adjuster attaching bolts and remove adjuster from seat.

3. To install seat adjuster, 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 in body, seat adjusters must 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 control switch until one adjuster reaches full forward position. Detach horizontal drive cable from adjuster which has reached full forward position. Operate seat forward until other adjuster reaches full forward position- then, connect horizontal drive cable and check horizontal travel of seat.

b. Front or Rear Vertical Travel - Operate 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 8-8 identifies the component parts of the six-way seat adjuster. The following service procedures cover replacement of major parts of adjuster.

HORIZONTAL ACTUATOR REMOVAL AND INSTALLATION

NOTE: The horizontal actuator is easily accessible with seat in mid-way or approximate center position.

1. Detach three power drive cables from adjuster to be removed.

2. Remove screws securing seat adjuster to seat bottom frame and remove adjuster from seat.

3. Remove front and rear vertical gearnut attaching nuts at top of adjuster.

4. Remove front vertical gearnut spring (Fig. 8-8).

5. Lift on adjuster upper track; then remove rear vertical gearnut spring.

6. Lay adjuster on its side, remove screws securing horizontal actuator to adjuster upper channel, and remove actuator from adjuster.

IMPORTANT: The horizontal actuator is under tension from spring shown in Figure 8-8. When installing actuator, be sure actuator locating spring is properly engaged with actuator.

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. Readjust 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 body.

LOWER CHANNEL REMOVAL AND INSTALLATION

1. Remove horizontal actuator.

2. Slide adjuster lower channel from upper channel.

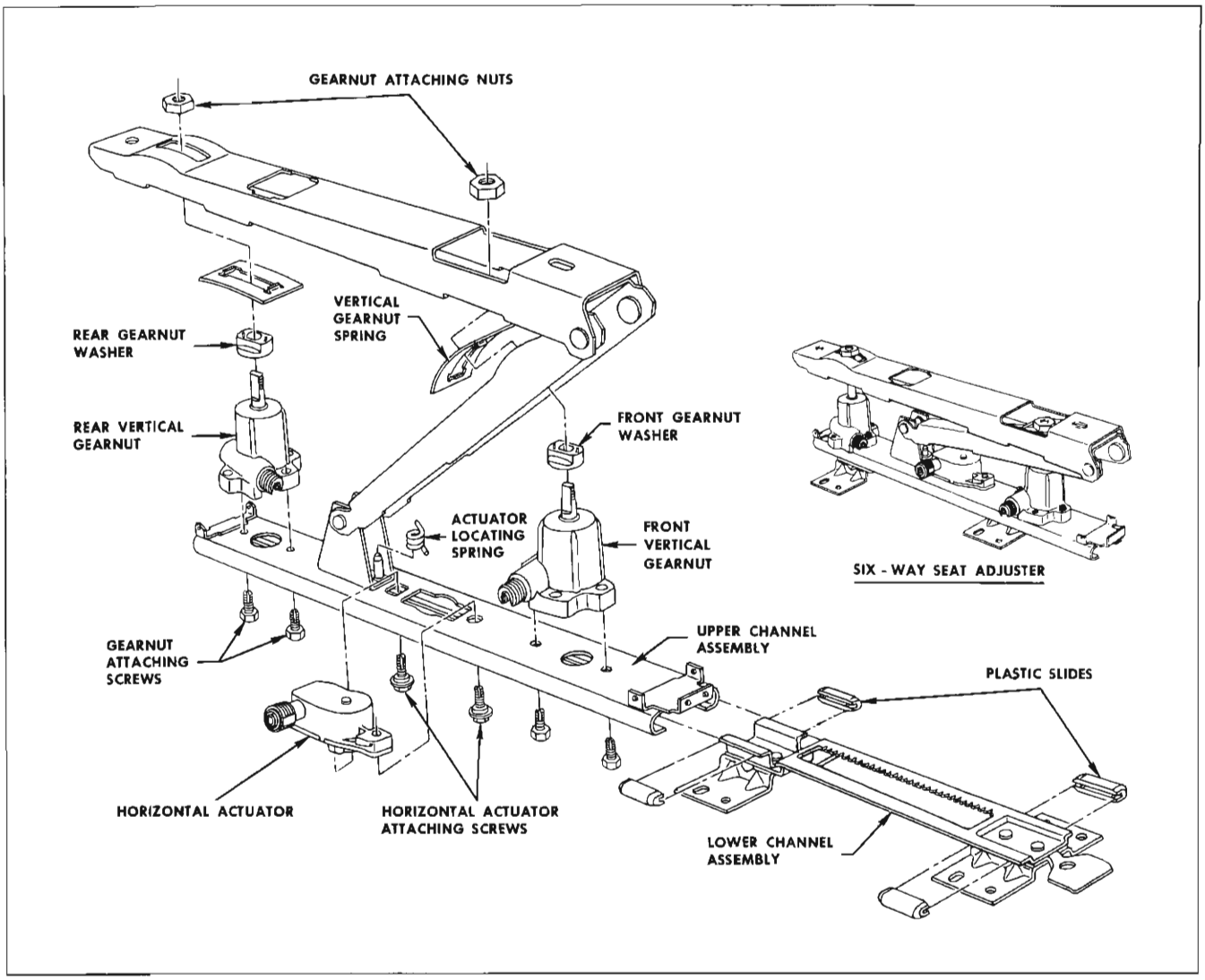


Fig. 8-8 Six-Way Seat Adjuster Parts

3. If lower channel is being replaced with a new part, transfer plastic slides to new part (Fig. 8-8).

4. Apply Lubriplate or equivalent on track of upper channel and on plastic slides and teeth of lower channel.

5. To install, reverse removal procedure. Be sure adjusters are in phase before installing seat body.

VERTICAL GEARNUT

FRONT OR REAR REMOVAL AND INSTALLATION

1. Detach three power drive cables from adjuster to be removed.

2. Remove screws securing adjuster to seat bottom frame and remove adjuster from seat.

3. Remove gearnut attaching nut at top of adjuster.

4. Raise upper channel from gearnut.

5. Remove gearnut spring (Fig. 8-8).

6. Lay adjuster on its side and remove gearnut attaching screws (Fig. 8-8) at under side of lower channel, then remove gearnut from adjuster.

7. If gearnut is being replaced with a new part, transfer spring to new gearnut.

NOTE: Front and rear springs are different. Therefore make sure springs are installed in correct position.

8. To install, reverse removal procedure. Gearnut spring must engage upper channel properly before tightening upper attaching nut. Adjusters must be in phase before installing seat body.

UPPER CHANNEL

REMOVAL AND INSTALLATION

1. Detach three power drive cables from adjuster to be removed.

2. Remove screws securing adjuster to seat bottom frame and remove adjuster from seat.

3. Remove horizontal actuator from upper channel.

4. Slide lower channel from upper channel and slide onto new upper channel.

NOTE: Sliding surfaces of upper and lower channels should be lubricated with Lubriplate or equivalent.

5. Transfer front and rear gearnuts to new upper channel (Fig. 8-8).

6. Transfer horizontal actuator and actuator locating spring to new upper channel.

7. Install adjuster to seat bottom frame; then check adjuster operation. Adjusters must be in phase.

8. After seat has been installed in body operate through several complete cycles to insure proper operation.

ELECTRIC MOTOR

REMOVAL AND INSTALLATION

1. Disconnect motor feed wires from motor control relay (Fig. 8-7).

2. Remove motor support-to-seat frame attaching bolts.

3. Remove motor-to-support attaching bolts; then move motor outboard (away from transmission) sufficiently to disengage motor from rubber coupling.

4. To install, reverse removal procedure making sure rubber coupling is properly engaged at both motor and transmission.

HORIZONTAL AND VERTICAL DRIVE CABLES REMOVAL AND INSTALLATION

1. Detach both horizontal and vertical cables from seat adjuster.

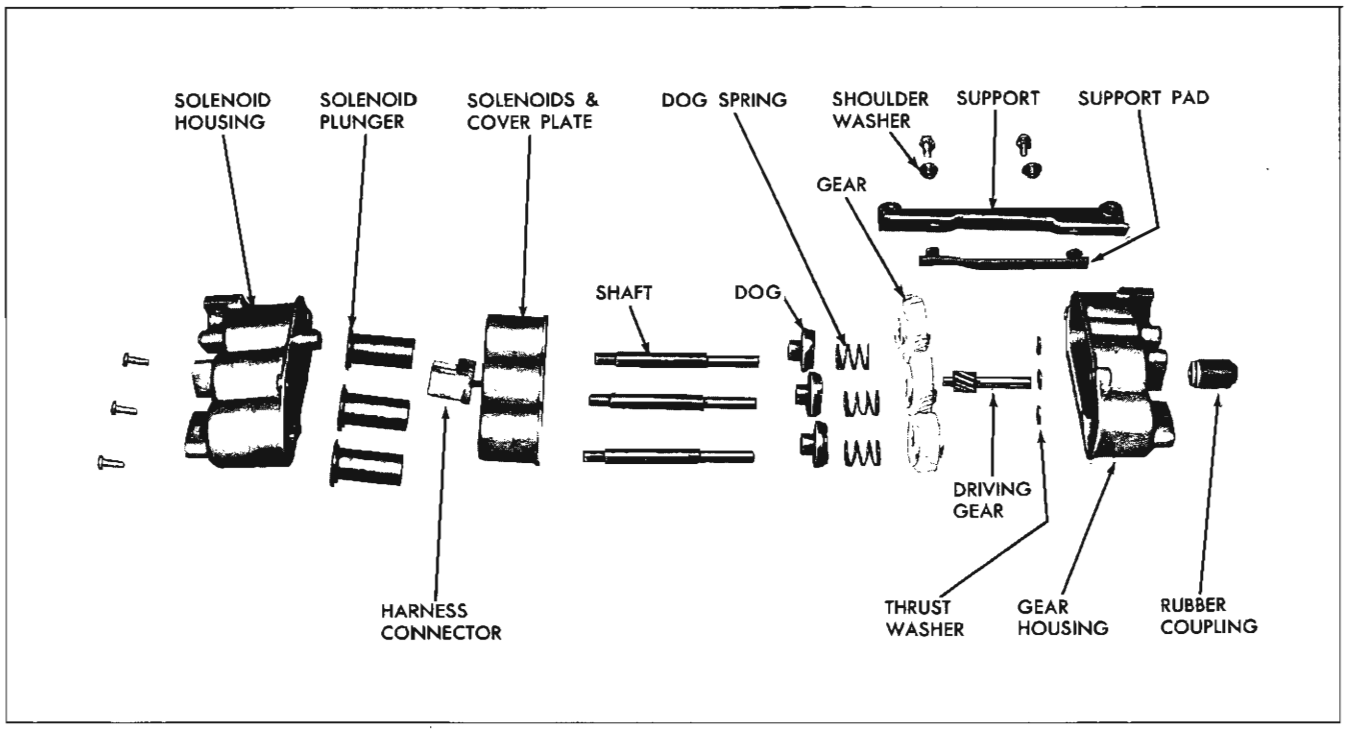


Fig. 8-9 Six-Way Seat Transmission Parts

2. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed. Then remove cables from seat and disengage cables from end plate.

3. To install horizontal and vertical cables, reverse removal procedure. Drive cables must be installed to proper gearnuts and horizontal actuator as shown in figure 8-7.

TRANSMISSION REMOVAL AND INSTALLATION

1. Disconnect harness connector from transmission (Fig. 8-7).

2. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.

3. Remove transmission to support attaching bolts; then disengage transmission from motor drive coupling and remove transmission from seat.

4. To install, reverse removal procedure.

TRANSMISSION DISASSEMBLY AND ASSEMBLY

1. With transmission removed remove screws securing gear housing to the solenoid housing; then, carefully separate housings and remove component parts of transmission (Fig. 8-9).

2. To assemble transmission, reverse removal procedure.

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

ELECTRICAL

CONTENTS OF THIS SECTION

POWER OPERATED WINDOWS

DESCRIPTION

The wiring harness for electrically operated windows consists of three major sections: a front cross-over harness and two rear door and quarter window harnesses, one at side of car.

The FRONT CROSS-OVER HARNESS is installed beneath the instrument panel and completes the circuit from the right to left door windows. The front harness also includes the wiring for the front door windows. (Fig. 9-1) The multiple connector located at the center of the front harness is used only for manufacturing purposes and should not be disengaged.

The REAR DOOR OR REAR QUARTER WINDOW HARNESS controls the operation of the right and left rear door or quarter windows. These harnesses are connected to the front crossover harness beneath the outer ends of the instrument panel. (Figs. 9-2 through 9-4)

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 door window motor connector is designed with a locking embossment to insure a positive connection. To disengage the harness connector from the door window motor, depress the thumb release. To install the harness, depress the

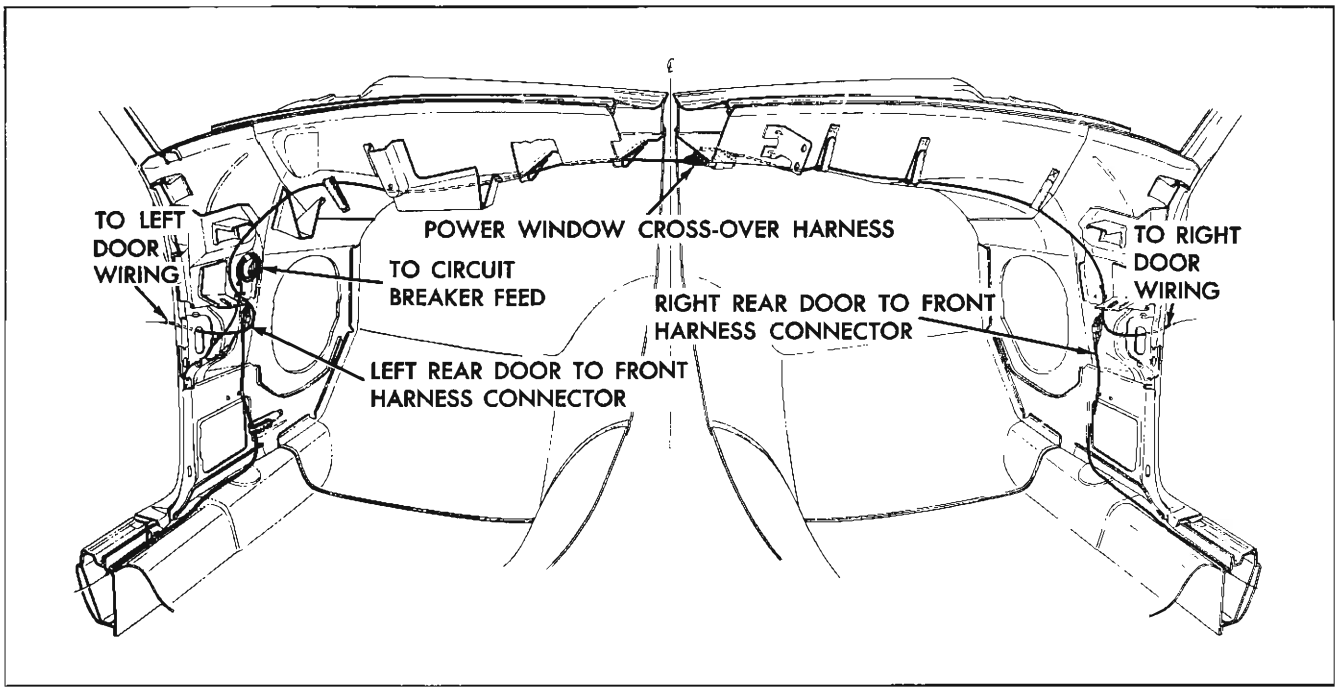


Fig. 9-1 Power Window Wiring Installation

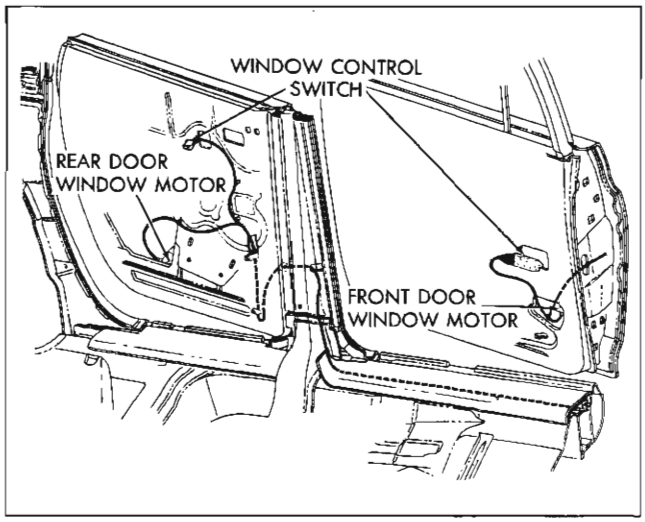


Fig. 9-2

thumb release 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 is designed with a locking type connector which must 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 and ventilator electrical circuit is protected by a 40 ampere circuit breaker located at the left side of engine compartment.

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 beneath the outer ends of the instrument panel for proper engagement.

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 and with light tester, check terminal from which wire was disconnected. If tester does not light, circuit breaker is inoperative.

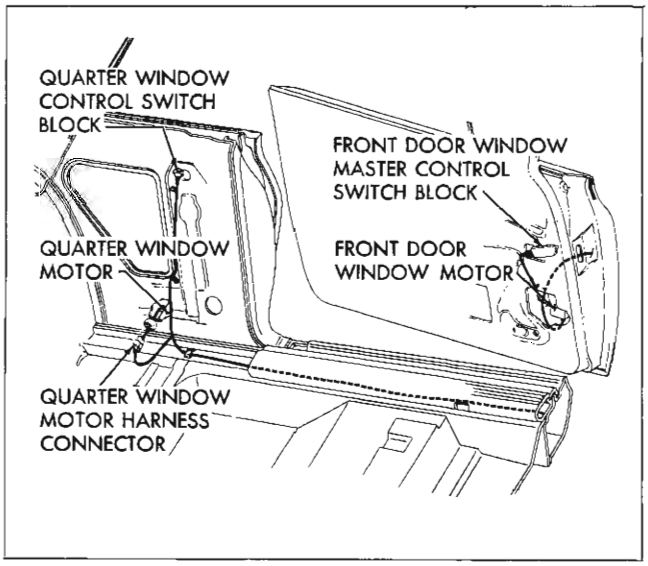


Fig. 9-3

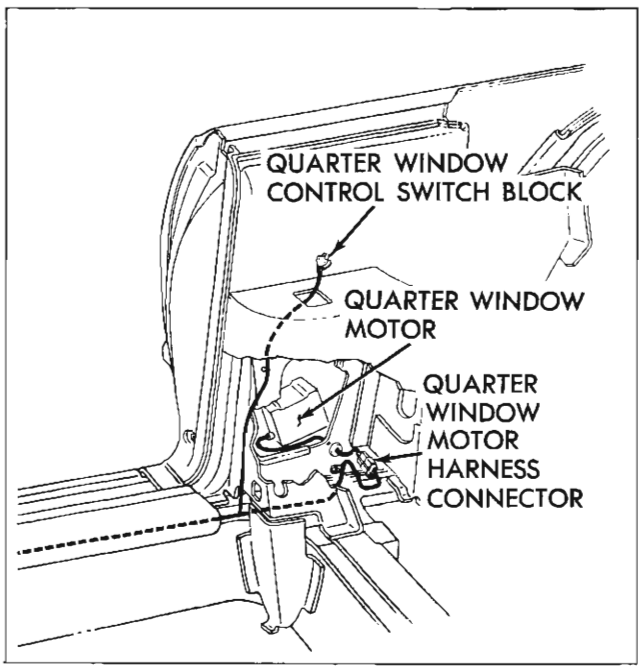


Fig. 9-4

B. Checking Feed Circuit Continuity at Window Control Switch

1. Connect one light tester lead to feed terminal of switch block and ground other tester lead to body metal (Fig. 9-5).

2. If tester does not light, there is an open or short circuit between switch and power source. defective.

C. 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. 9-6).

2. If the motor operates with the jumper wire, but does not operate with the switch, the switch is defective.

D. 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. 9-6).

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. 9-7).

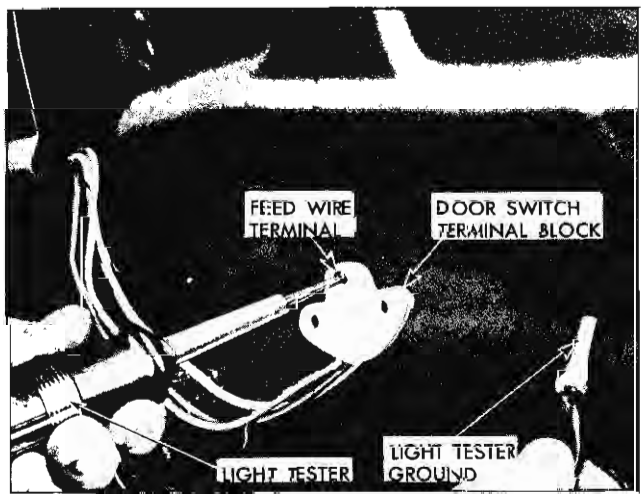


Fig. 9-5 Checking Feed Circuit

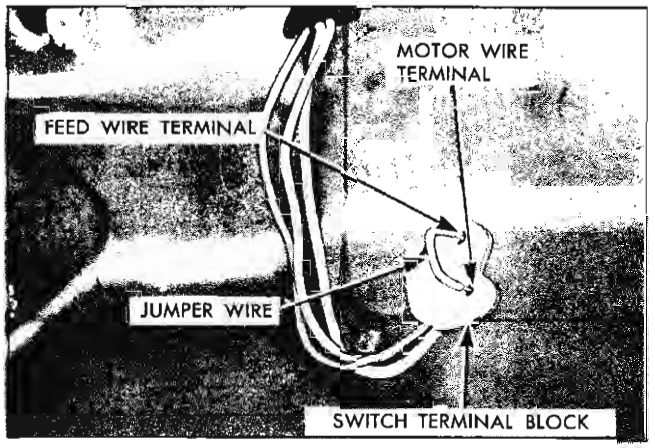


Fig. 9-6 Checking Window Control Switch

E. 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.).

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 harness between control switch and inline motor connector.

F. 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.

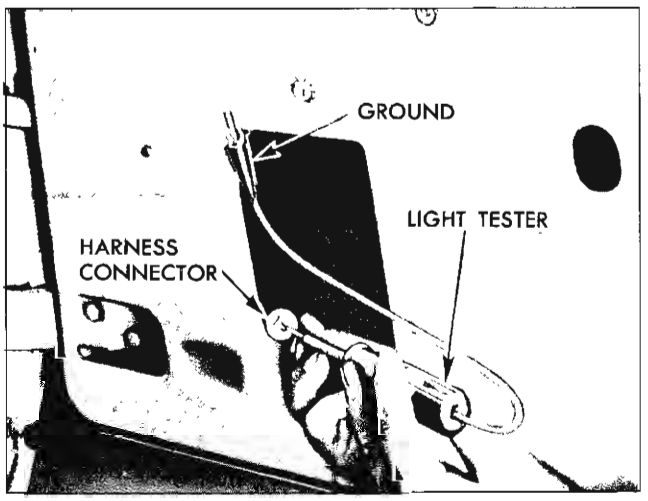
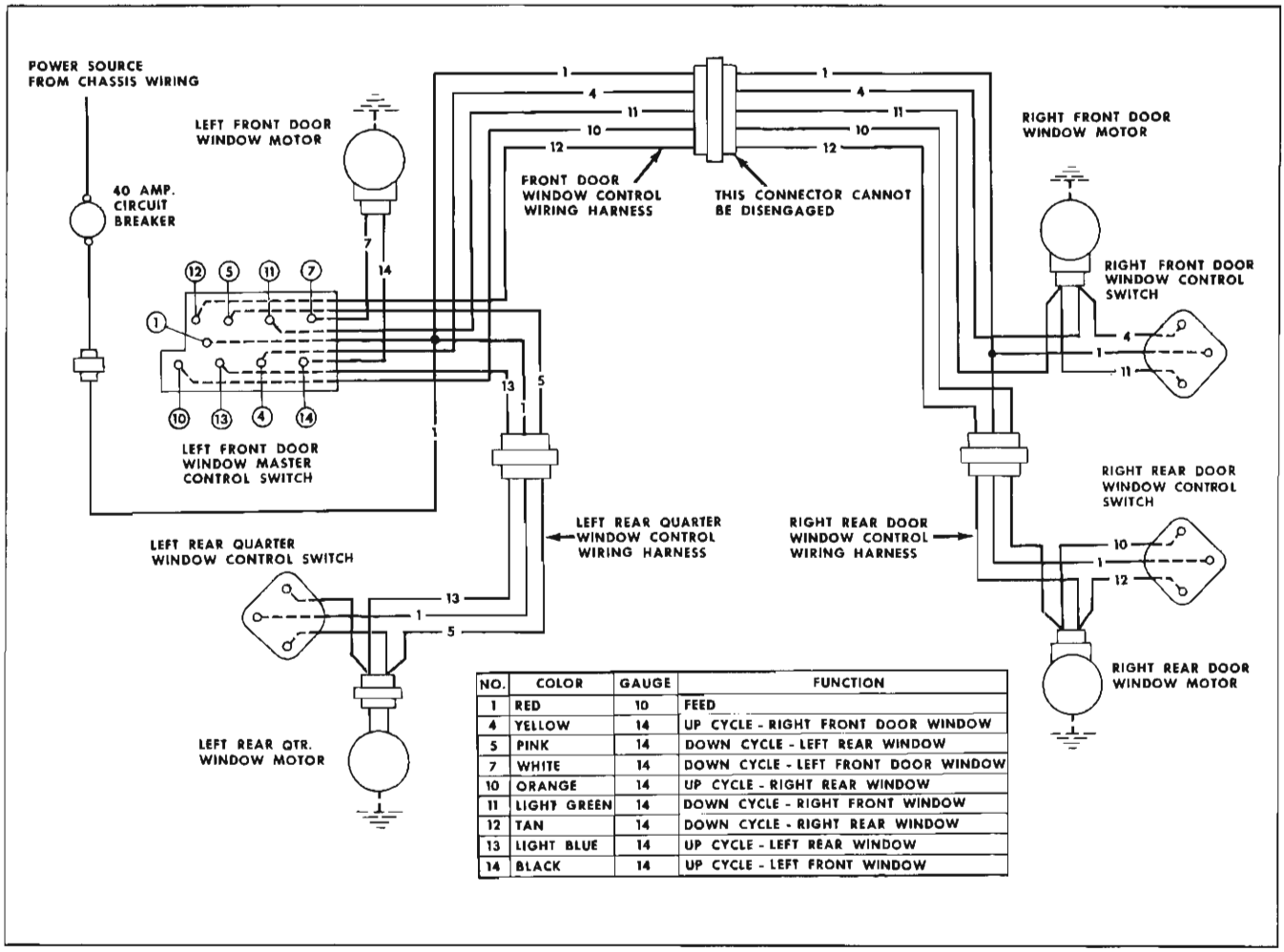


Fig. 9-7 Checking Circuit Between Switch and Motor



NO.	COLOR	GAUGE	FUNCTION
1	RED	10	FEED
4	YELLOW	14	UP CYCLE - RIGHT FRONT DOOR WINDOW
5	PINK	14	DOWN CYCLE - LEFT REAR WINDOW
7	WHITE	14	DOWN CYCLE - LEFT FRONT DOOR WINDOW
10	ORANGE	14	UP CYCLE - RIGHT REAR WINDOW
11	LIGHT GREEN	14	DOWN CYCLE - RIGHT FRONT WINDOW
12	TAN	14	DOWN CYCLE - RIGHT REAR WINDOW
13	LIGHT BLUE	14	UP CYCLE - LEFT REAR WINDOW
14	BLACK	14	UP CYCLE - LEFT FRONT WINDOW

Fig. 9-8

3. Connect one end of a no. 12 gauge jumper wire to a 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.

G. Typical Failures of Power Window

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. See circuit diagram shown in figure 9-8.

CONDITION	CAUSE	CORRECTION
1. None of the windows will operate.	1. Short or open circuit in power feed circuit.	1. Check circuit breaker operation. 2. 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.		

CONDITION	CAUSE	CORRECTION
2. Right rear door window does not operate (Cont'd.)	2a. Short or open circuit between right rear door harness and power window front harness.	2a. Check harness connectors beneath outer ends of instrument panel for proper installation.
	2b. Short or open circuit in affected window control switch or window motor circuit.	2b. Check wires in power window front harness for possible short or open circuit.
	2c. Possible mechanical failure or bind in window channels.	2c. Check operation of rear door window control switch.
	2d. Defective window motor.	2d. Check circuit from window control switch to window motor for short or open circuit.
		2e. Check window regulator and channels for possible mechanical failure or bind.
		2f. Check operation of motor.
3. Right door windows will operate from left door master control switch but will not operate from right door control switches. Left door windows operate.	3. Open or short circuit in front harness feed wire circuit.	3. Follow up feed wire in front harness for possible short or open circuit.

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. (Fig. 9-9)

The power ventilator circuit is 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.

ELECTRIC TAIL GATE WINDOW CIRCUIT

DESCRIPTION

The station wagon power-operated tail gate dropping window is controlled by a window regulator equipped with a rectangular shaped, 12 volt D.C., 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 in the engine compartment.

The tail gate window must be lowered before the gate can be opened. A mechanical safety feature in the gate prevents the tail gate handle from being actuated before the window is in the fully lowered position. The window may be lowered from the instrument panel control switch located at the driver's side of the panel or by inserting key in the tail gate lock cylinder switch and rotating to open or lower the window.

The tail gate window harness is a component part of the body wiring which consists of a front and rear section connected together at the right rear quarter (see Figs. 9-10, 9-11, 9-12, and 9-13).

A safety switch is located adjacent to the right tail gate lock to prevent the window from being operated

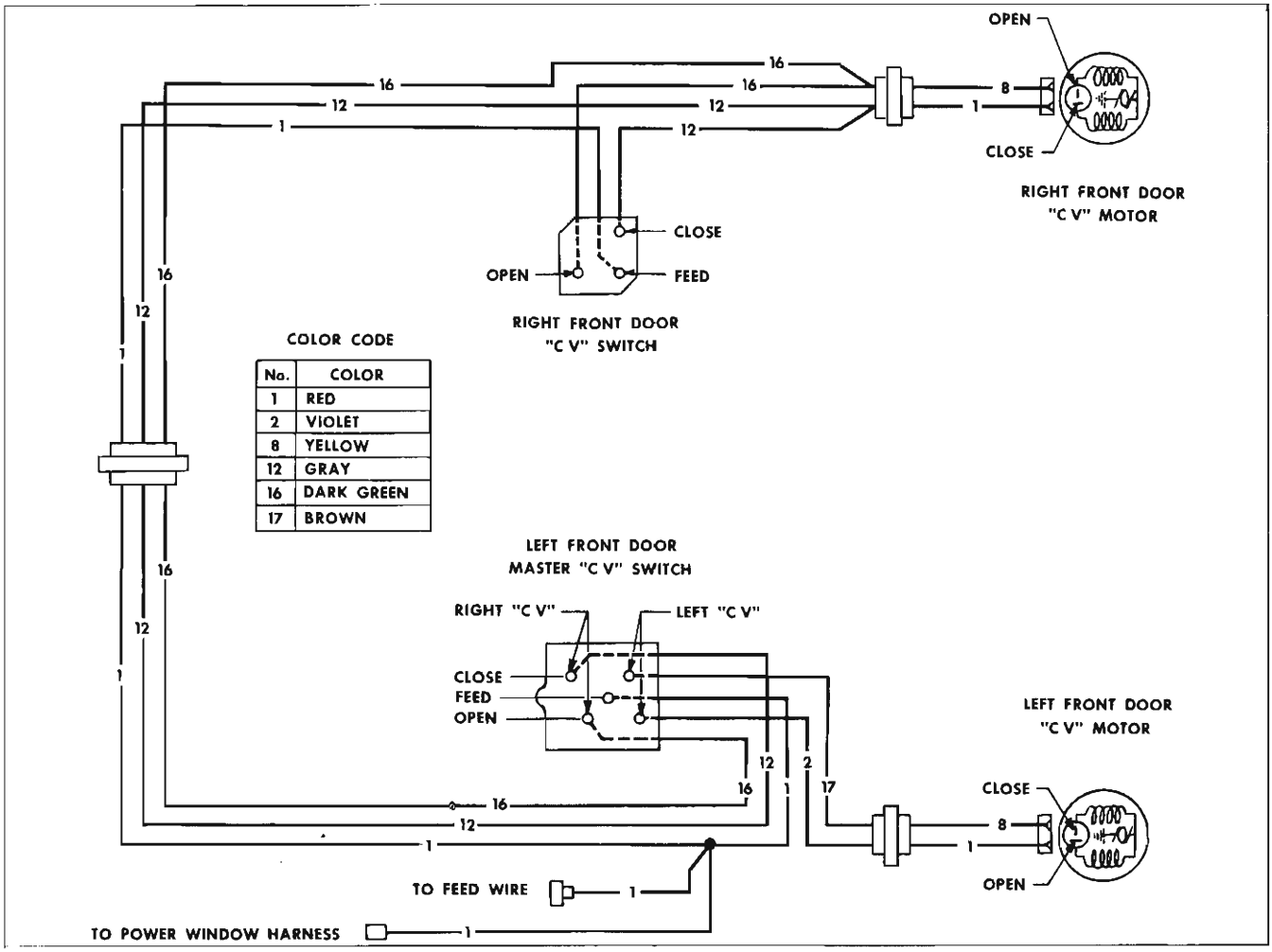


Fig. 9-9

to the up position when the tail gate has been lowered. The safety switch opens the ground circuit of the tail gate window motor, making it inoperative.

CHECKING PROCEDURES

Before performing an intensive checking procedure to determine the failure in the circuit, check the connectors at the front and rear body wiring harness. 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 figures 9-14 and 9-15 for power window circuits.

CHECKING CIRCUIT BREAKER

This procedure is the same as Checking the Circuit Breaker for the power window circuits.

Checking Feed Circuit Continuity at Control Switch on Instrument Panel

1. Connect one light tester lead to feed terminal of switch block and ground other test lead to body metal.

2. If tester does not light, there is an open or short circuit between switch and power source.

NOTE: See Chassis Manual for Instrument Panel Switch Circuitry.

CHECKING CONTROL SWITCH AT REAR QUARTER OR TAIL GATE

1. Disengage harness connector from switch.

2. Use a no. 12 gauge jumper wire and insert one end into the red wire (feed) terminal and the other end into one of the other terminals. Tail gate window motor should operate.

3. Repeat procedure for the other terminals. If the tail gate window motor operates with the jumper

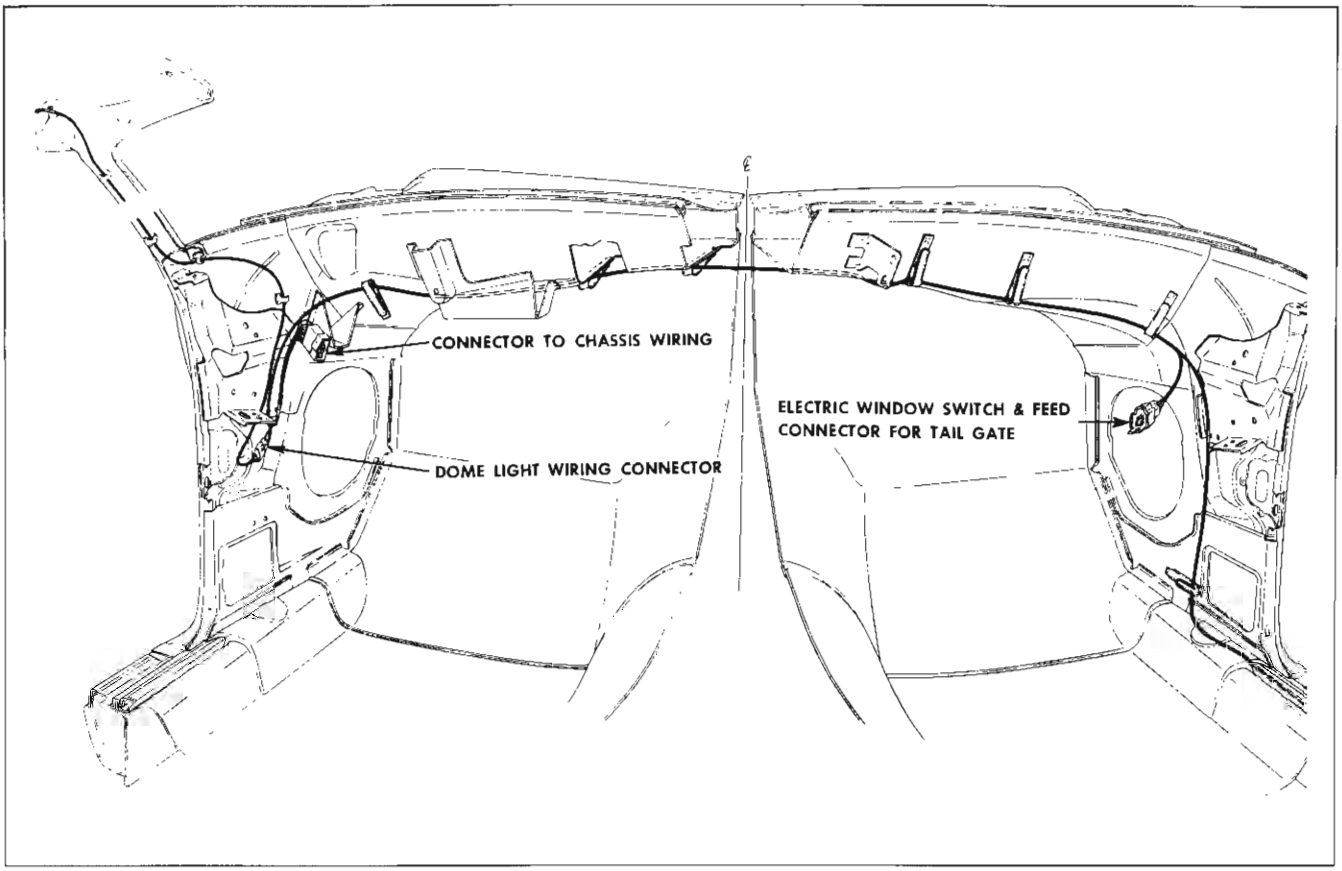


Fig. 9-10 Front End Wiring for Tail Gate Window

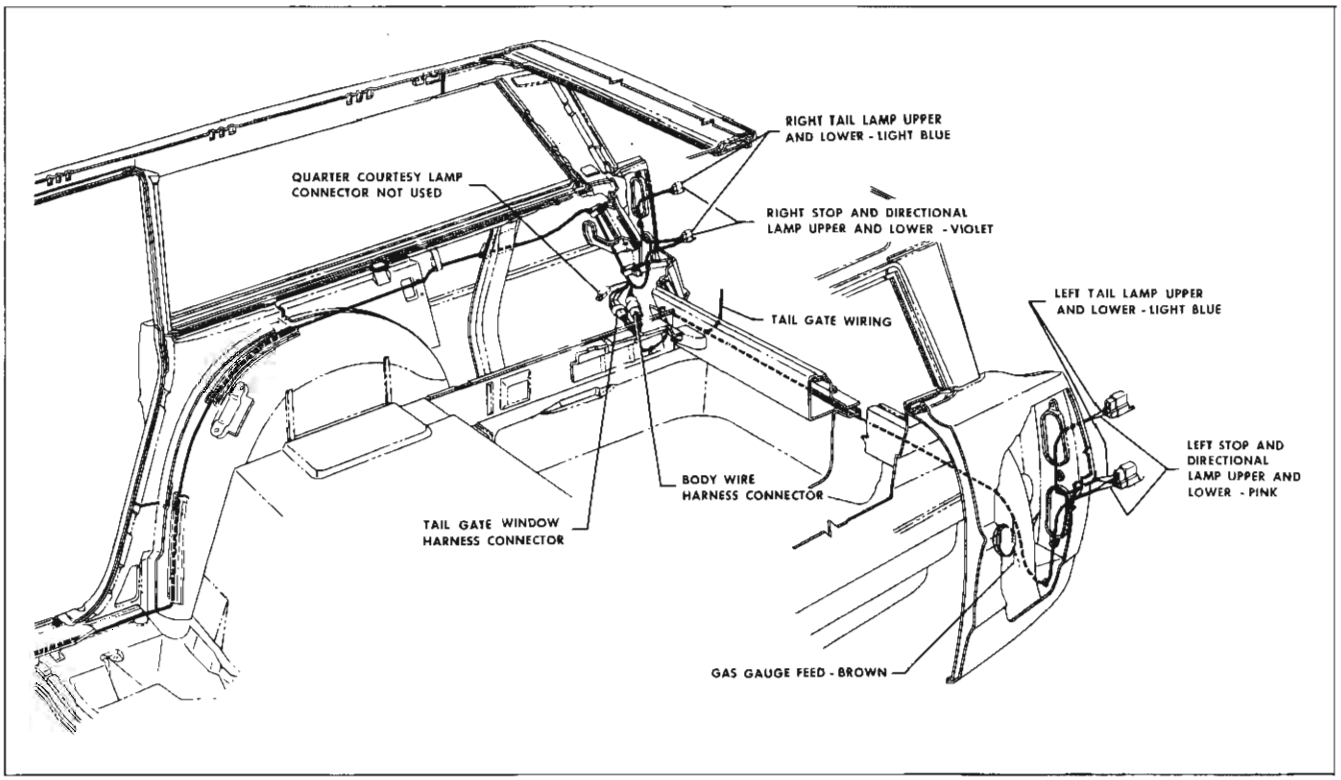


Fig. 9-11 Rear End Wiring for Tail Gate Window

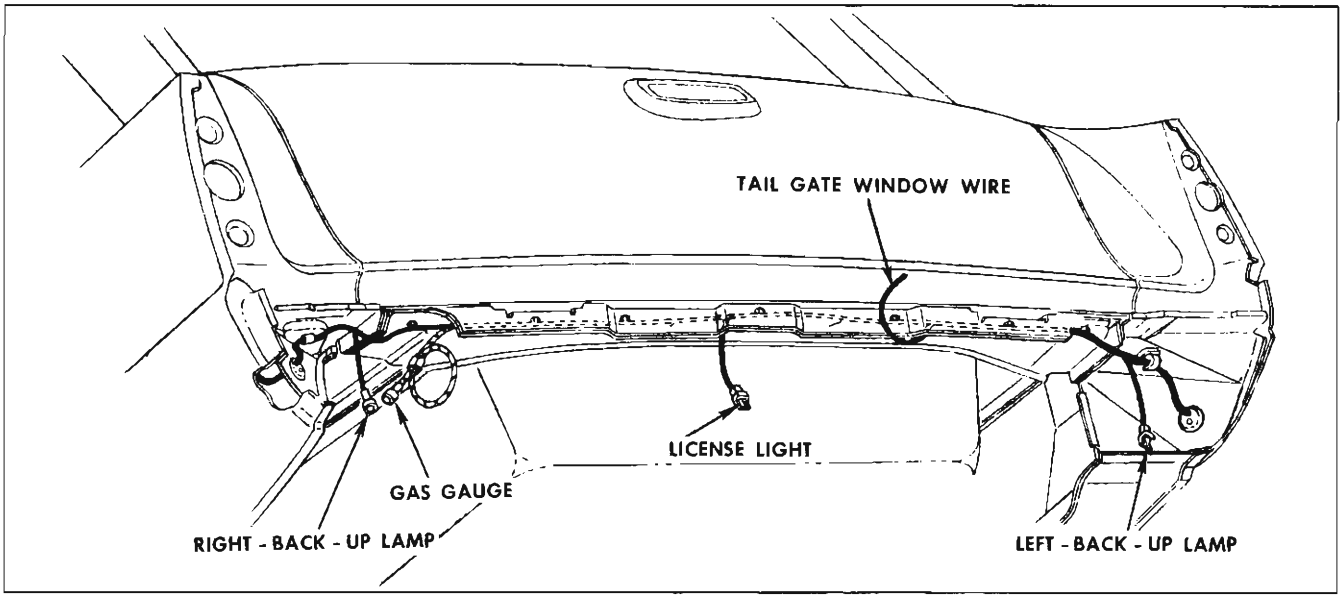


Fig. 9-12 Rear Cross Bar Wiring

wire but does not operate with the control switch, the switch is defective.

Check Control Switch at Rear Quarter or Tail Gate

First determine that there is current to the switch terminal block; then use a no. 12 gauge jumper and perform the same checking procedure as outlined for the door window motor control switch.

CHECKING CIRCUIT BETWEEN FRONT AND REAR HARNESS AT CONNECTOR

1. Remove right rear quarter trim to gain access to front and rear connector.

2. Check connector for proper engagement. If connector is engaged properly and motor does not operate, proceed as follows:

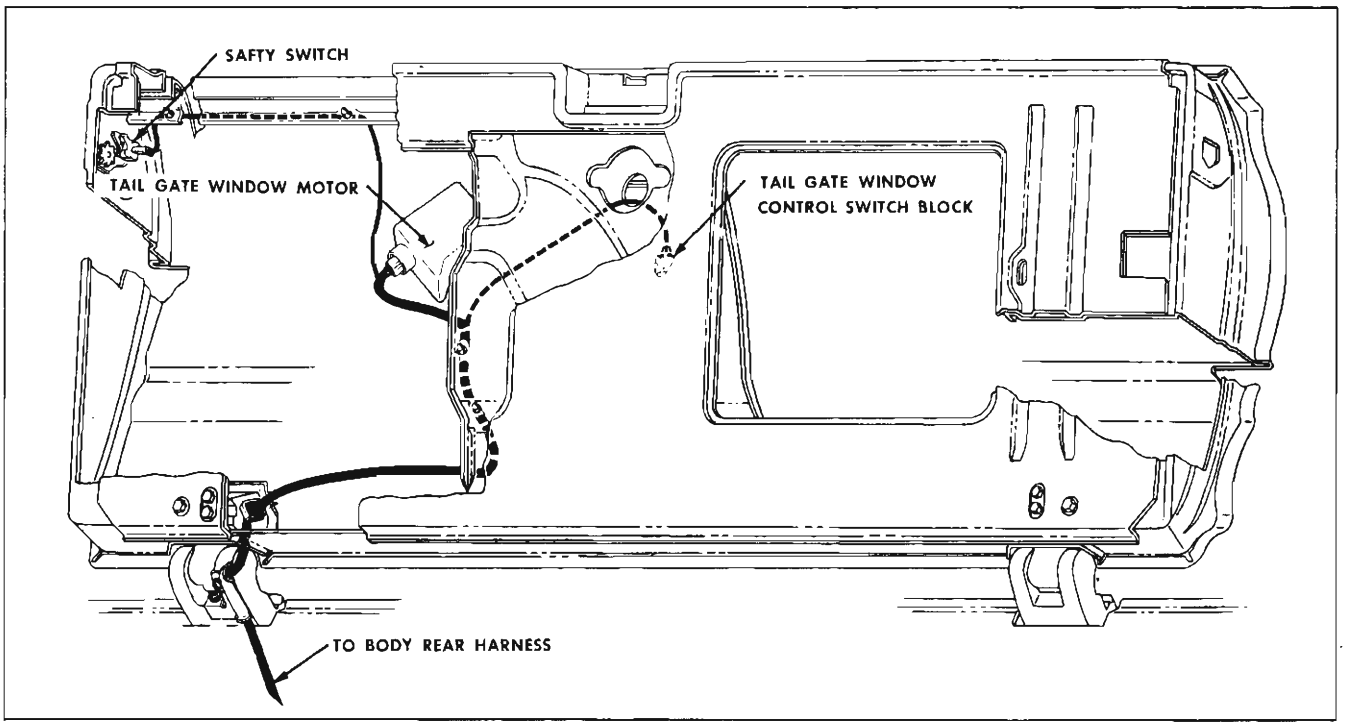


Fig. 9-13 Tail Gate Wiring

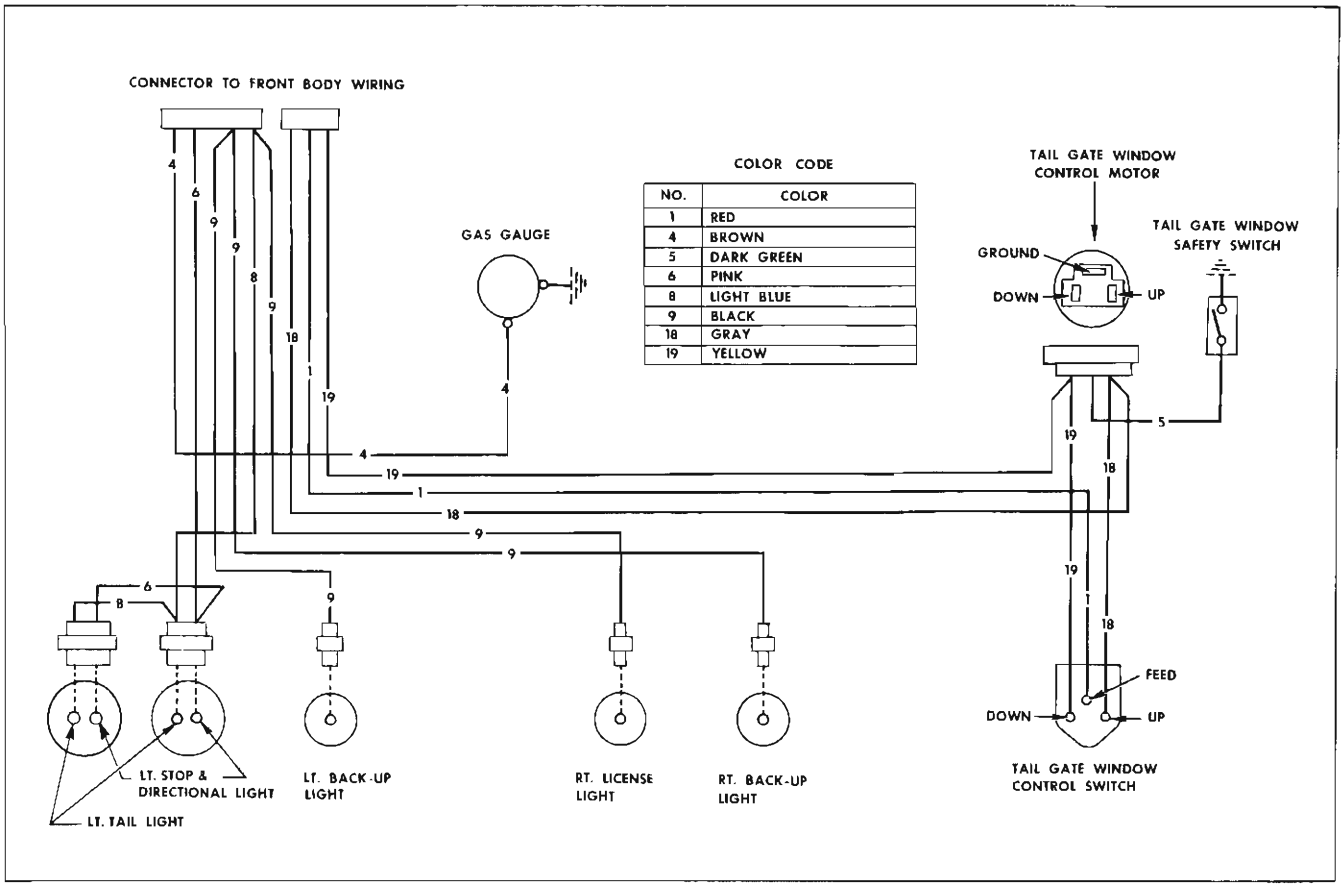


Fig. 9-14 Rear End Wiring Diagram

a. Disengage connector and check with test light for power (red). If tester does not light, there is a short of open circuit in the feed wire.

b. To check up and down cycle circuits, actuate window control switch at instrument panel or quarter trim panel. With test light, check continuity at wire terminal being energized.

CHECKING THE TAIL GATE WINDOW MOTOR

1. Disconnect harness connector from motor.

2. Connect the positive side of power source to the gray wire terminal 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.

CHECK OPERATION OF SAFETY SWITCH

1. With tail gate open, depress switch to simulate the gate being closed. If motor does not operate, either switch is defective or the circuit is open from the motor to the switch.

2. To check for defective switch, connect one end of test light to a source of power and the other lead to the safety switch terminal. If the tester lights when the switch lever is actuated, the switch is operative.

NOTE: Safety switch completes the ground circuit from the motor.

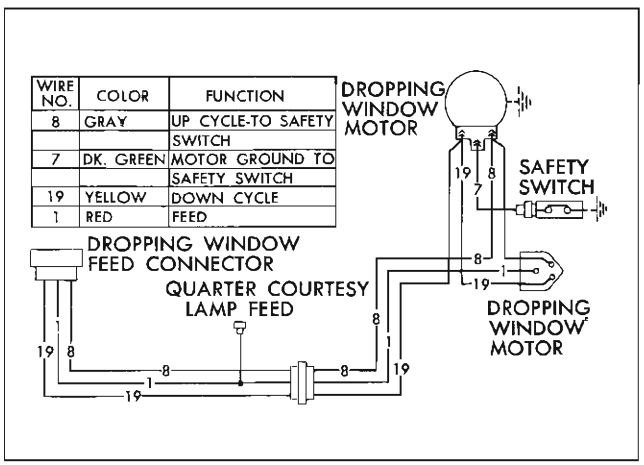


Fig. 9-15 Tail Gate Wiring Diagram

TYPICAL FAILURES

CONDITION	CAUSE	CORRECTION
The tail gate window operates up and down from the tail gate switch, and the rear quarter switch (9-passenger style), but does not operate from the switch at the instrument panel.	1. Open or short circuit from power source to control switch at instrument panel.	1. Check affected wiring for open or short circuit and check connector at switch for proper installation.
With tail gate closed, window operates downward but does not operate upward when switch at instrument panel, rear quarter or tail gate is actuated.	2. Defective or inoperative control switch. Open or short circuit in "up" cycle feed wire.	2. Check operation of switch. Check affected wiring for open or short circuit.
Window will not operate "up" or "down" from any control switches.	1. Open or short circuit in circuit from power source to switches or motor.	1. Check operation of circuit breaker.
	2. Safety switch inoperative or poor ground.	2. Check affected circuit for open or short circuit. Check front and rear harness connections for proper engagement.
	3. Mechanical bind or failure in tail gate window regulator mechanism.	3. Check connectors to safety switch and motor for proper engagement.
	4. Defective tail gate window regulator motor.	4. Check tail gate mechanical parts for bind or failure. 5. Check operation of tail gate motor.

FOUR-WAY TILT SEAT

DESCRIPTION

The seat adjusters for the bucket type seats are actuated by a 12 volt, reversible, shunt wound motor with a built-in circuit breaker (Fig. 9-16).

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 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 (Fig. 8-9). 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 and a spring returns the shaft dog and solenoid plunger to their original position disengaging the shaft dog from the large gear dog.

CHECKING PROCEDURES

It may be necessary to use only one or all of the

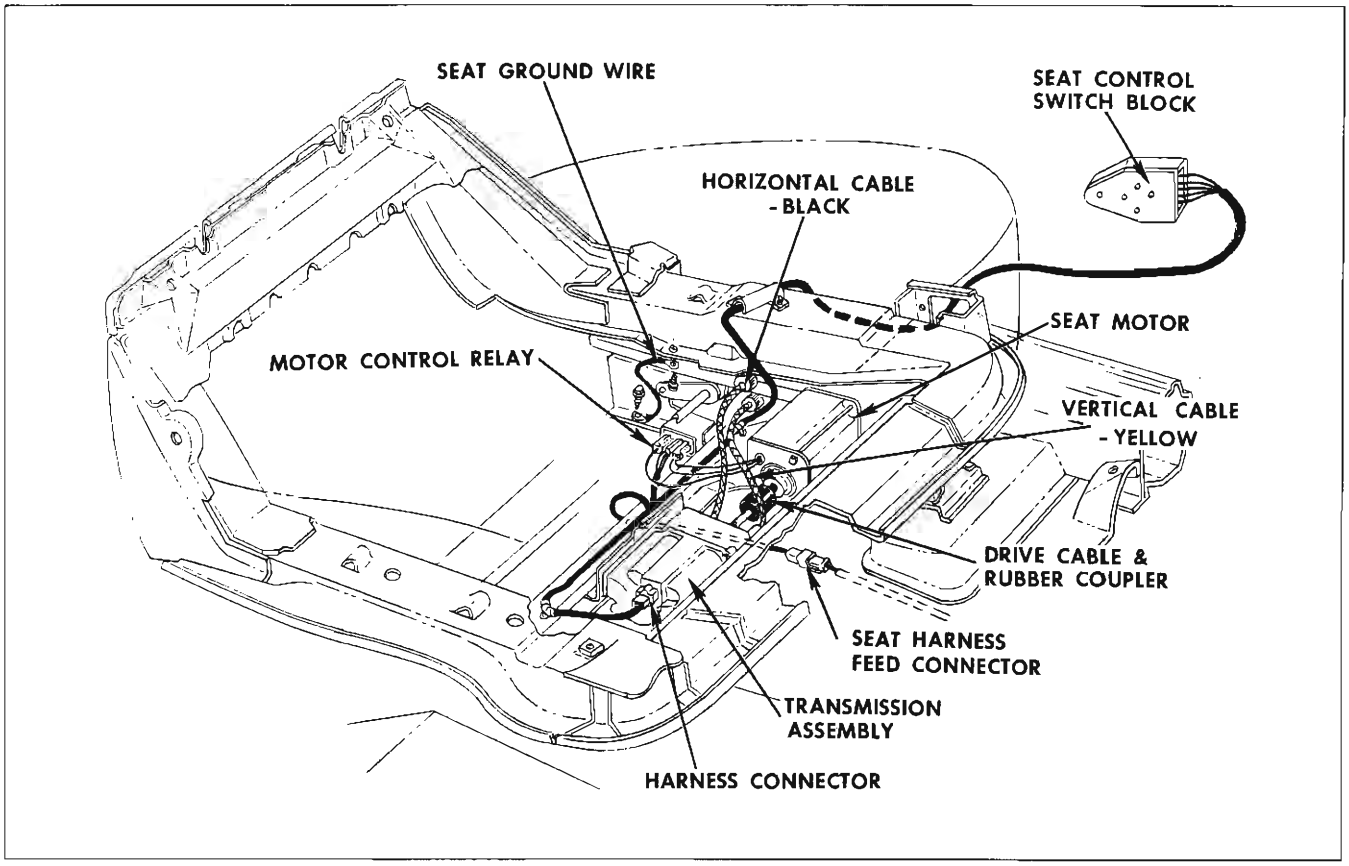


Fig. 9-16 Four-Way Seat Wiring

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 diagram to become familiar with the seat circuit (Fig. 9-17.

CHECKING FOR CURRENT AT CIRCUIT BREAKER

1. Connect one light tester lead to battery side of circuit breaker (located 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 FEED CIRCUIT CONTINUITY AT RELAY ON SEAT MOTOR

1. Disengage three-way connector body from the seat motor relay.

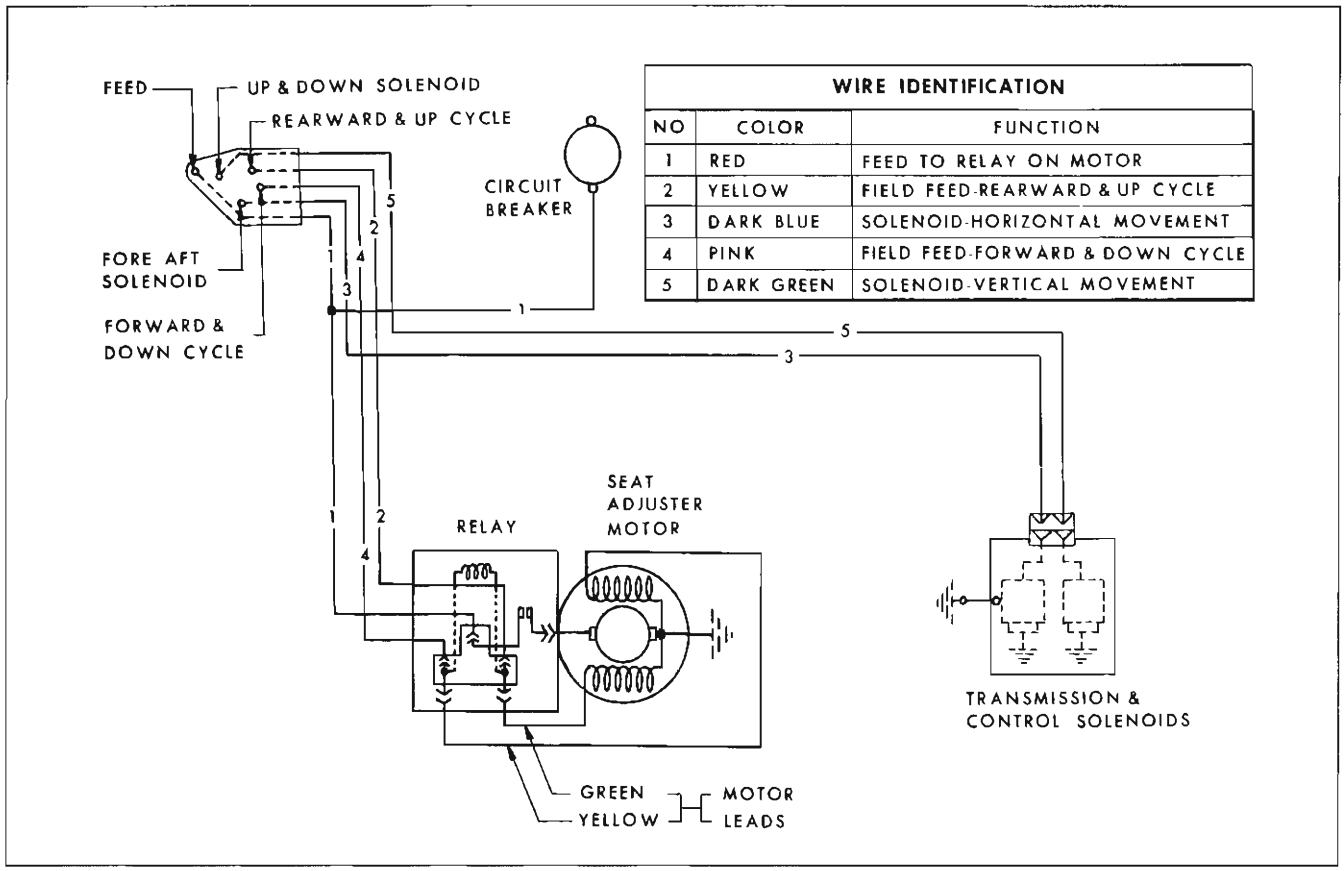
2. Insert one light tester lead into the relay power feed (red wire) connector slot on the harness, and ground other tester lead.

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 or short circuit between switch block and power source.

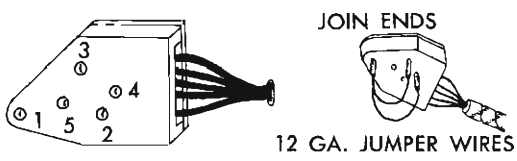


WIRE IDENTIFICATION		
NO	COLOR	FUNCTION
1	RED	FEED TO RELAY ON MOTOR
2	YELLOW	FIELD FEED-REARWARD & UP CYCLE
3	DARK BLUE	SOLENOID-HORIZONTAL MOVEMENT
4	PINK	FIELD FEED-FORWARD & DOWN CYCLE
5	DARK GREEN	SOLENOID-VERTICAL MOVEMENT

Fig. 9-17 Four-Way Seat Wiring Diagram

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 Fig. 9-18. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.



LOCATION	WIRE COLOR	FUNCTION
1	RED	SWITCH FEED
2	YELLOW	FIELD FEED-REARWARD & UP CYCLE
3	DARK BLUE	SOLENOID-HORIZONTAL MOVEMENT
4	PINK	FIELD FEED-FORWARD & DOWN CYCLE
5	DARK GREEN	SOLENOID-VERTICAL MOVEMENT

Fig. 9-18 Switch Block

NOTE: To make jumper wire, obtain two pieces of 12 gauge wire, each 4-1/2" long. Join one end of each wire as shown in diagram. The joined end can be inserted in the feed location in the switch block; one of the remaining ends can be inserted into one of the solenoid locations.

1. Obtain switch or jumper wire and connect to switch block.

2. Operate switch if used. If adjusters operate with switch or jumper wire, but did not operate with original switch, the original switch is defective or connector block was not sufficiently engaged.

IMPORTANT: To obtain a seat movement using a three-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations have to be connected simultaneously.

The switch locations to be connected to obtain a specific seat movement are outlined as follows:

a. To raise seat, place jumer 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

1. Disconnect three (3) 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

1. Disconnect motor field feed wires from motor.

2. Connect one end of a 12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.

3. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.

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 12 gauge jumper wire to the battery positive pole and the other end to the lead of the solenoid being checked.

CAUTION: To prevent damaging the solenoid, do not energize solenoid for more than one minute.

3. Operate switch, actuate adjuster motor and solenoid being checked.

4. If adjusters do not operate and there is no mechanical failure of the adjusters, the solenoid is defective.

NOTE: If solenoid is functioning properly, a "click" may be heard when solenoid plunger operates.

TYPICAL ELECTRICAL FAILURES OF FOUR-WAY POWER SEATS

CONDITION	CAUSE	CORRECTION
1. Seat adjuster motor does not operate.	1a. Short or open circuit between power source or switch and motor.	1a. Check circuit from power source and switch to motor to locate failure.
	1b. Defective motor relay.	1b. Replace relay.
	1c. Defective motor.	1c. Check motor. If defective repair or replace as required.
	1d. Defective switch.	1d. Replace switch.
	1e. Defective circuit breaker.	1e. Replace circuit breaker.
2. Seat adjuster motor operates in both directions but seat adjusters are not actuated.	2a. Short or open circuit between switch and affected solenoid.	2a. Check circuit from switch to solenoid to locate failure.
	2b. Defective solenoid.	2b. Check solenoid. If defective, repair or replace as required.
	2c. Defective switch.	2c. Replace switch.
3. Seat Adjuster motor operates in one direction only, seat moves down and forward, but does not move up and rearward.	3a. Short or open circuit between one of the motor relay wires and seat control switch.	3a. Check circuit between affected motor relay wire and seat switch.
	3b. Defective field coil in motor.	3b. Check motor. If defective repair or replace as required.
	3c. Defective switch.	3c. Replace switch.

SIX-WAY SEAT

DESCRIPTION

The seat adjusters are actuated by a 12-volt motor installed at the left side of the seat assembly (Fig. 9-19). The motor is energized by a three button-type control switch located in the left seat side panel.

When one of the control switch buttons is actuated, current flows to the transmission solenoid which controls the desired seat movement (Fig. 9-20). Energizing the solenoid coil results in the solenoid plunger dog engaging the gear mechanism to rotate the control cable. The same switch action which energized the solenoid produces a current flow through the motor control relay to one of the motor field coils. The current flows through the relay, closes the contacts between the relay power source and the armature motor lead wire, and results in the operation of the seat motor. When the control switch lever is released, the switch contacts open, a spring returns the shaft dog and solenoid plunger to their original position disengaging them from the gear dog.

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 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.

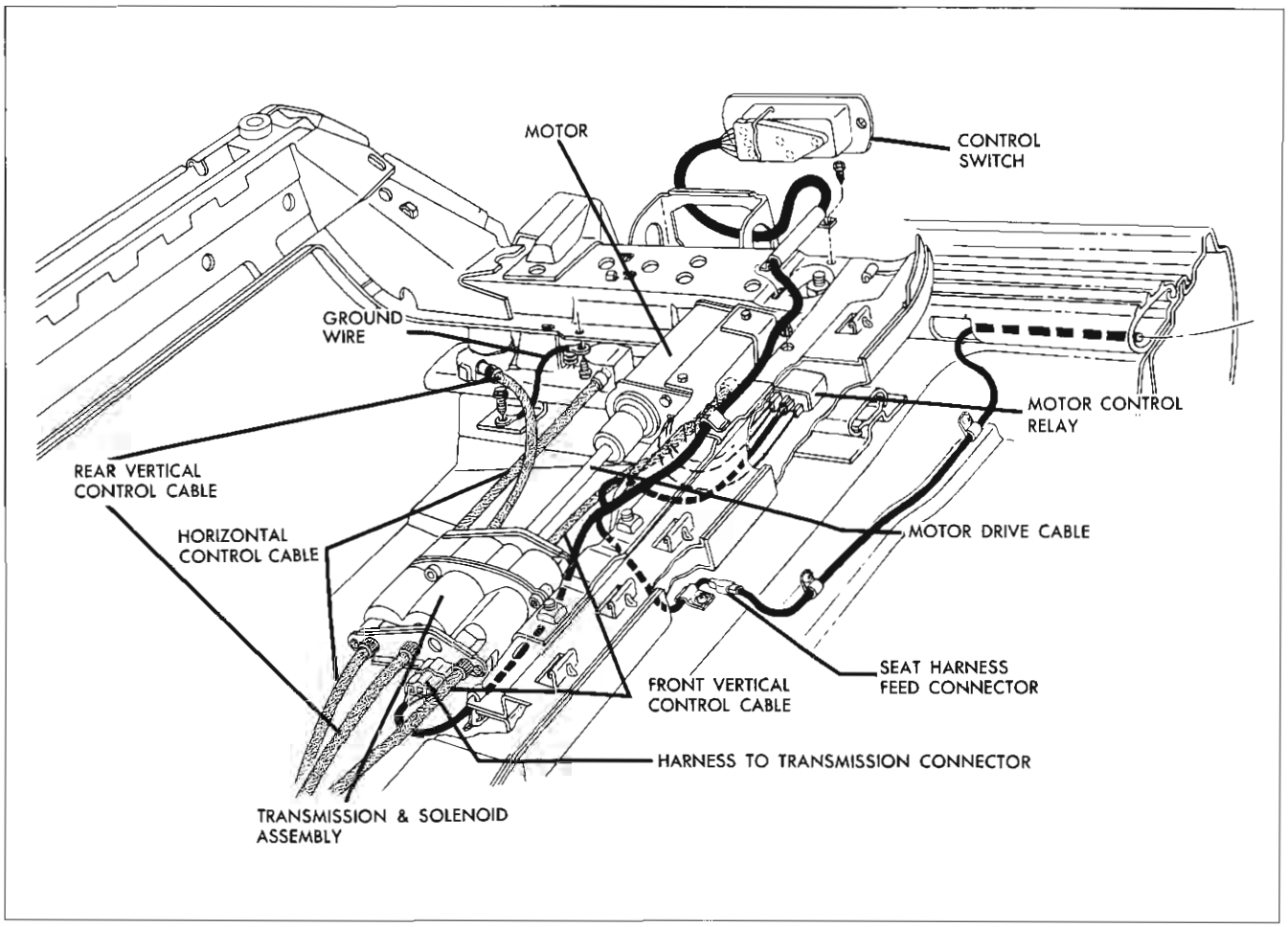


Fig. 9-19

CHECK FEED CIRCUIT CONTINUITY AT CIRCUIT BREAKER

1. Connect one light tester lead to battery side of circuit breaker and ground other lead. Circuit breaker is located in the engine compartment. 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.

CHECK FEED CIRCUIT CONTINUITY AT SEAT CONTROL SWITCH

1. Connect one light tester lead to feed terminal of switch block and ground other test lead to body metal (Fig. 9-21).

2. If tester does not light, there is an open or short circuit between switch and power source.

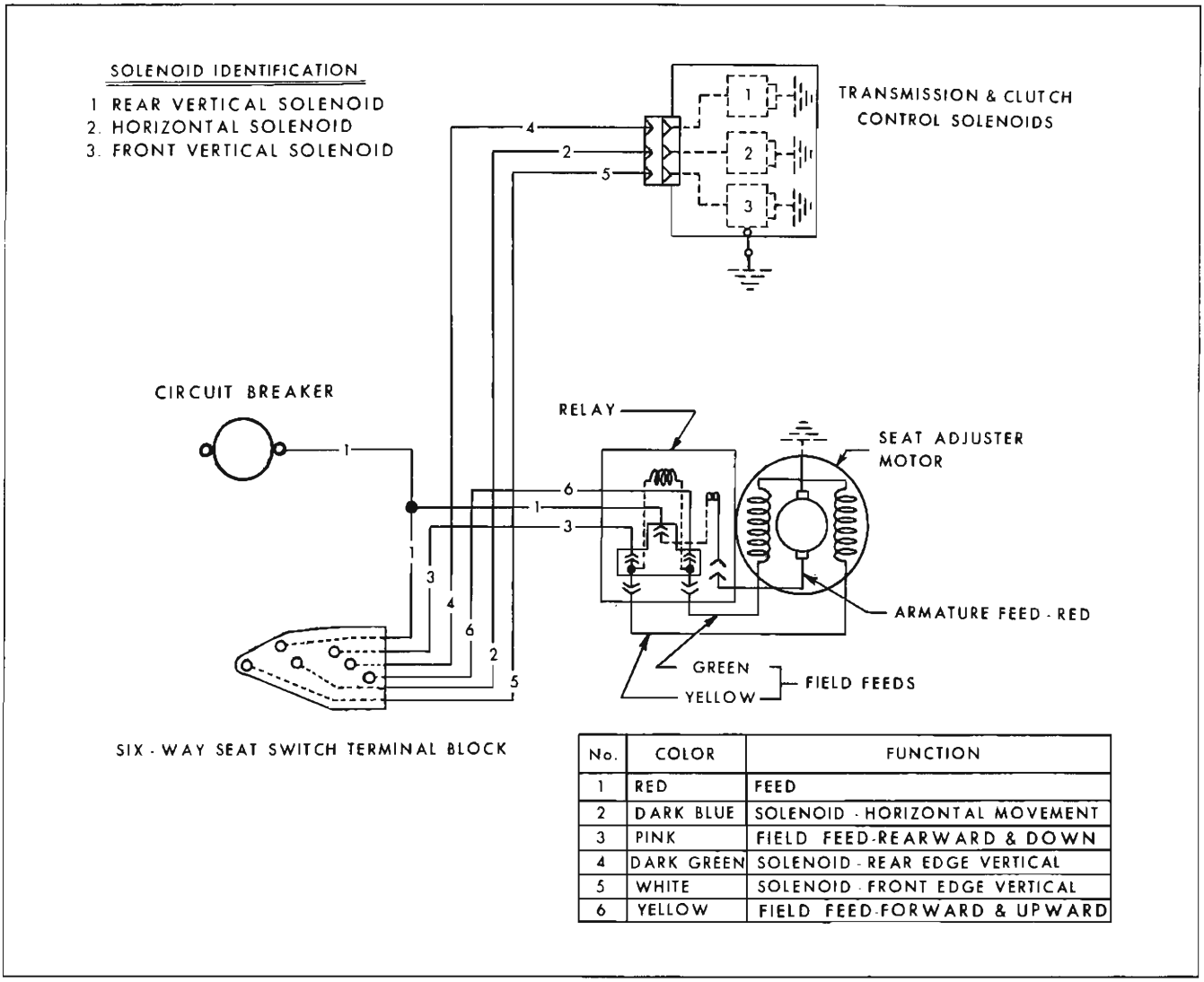
CHECK FEED CIRCUIT CONTINUITY AT RELAY ON SEAT MOTOR

1. Disengage 3-wire connector body from the seat motor relay terminal.

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.

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



No.	COLOR	FUNCTION
1	RED	FEED
2	DARK BLUE	SOLENOID - HORIZONTAL MOVEMENT
3	PINK	FIELD FEED-REARWARD & DOWN
4	DARK GREEN	SOLENOID - REAR EDGE VERTICAL
5	WHITE	SOLENOID - FRONT EDGE VERTICAL
6	YELLOW	FIELD FEED-FORWARD & UPWARD

Fig. 9-20

obtain a specific movement of the seat are shown in Fig. 9-21. If a jumper wire is used, number the locations on the switch block as indicated in the illustration. Details outlining the making and use of the jumper wire follow the checking procedures.

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 3-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.

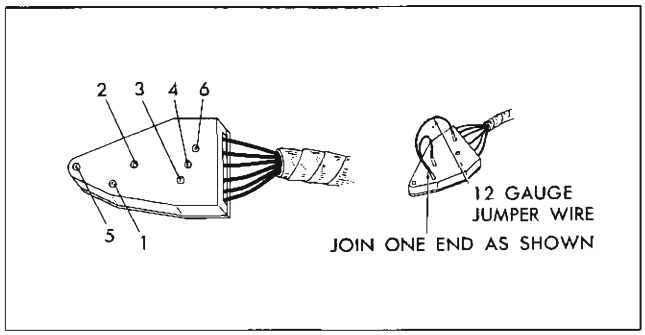


Fig. 9-21

CHECK THE RELAY

1. Disconnect three (3) motor leads from relay assembly. These are the wires leading from the motor to the relay.

2. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

3. Connect one end of 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

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 THE WIRE BETWEEN THE SOLENOID AND SWITCH

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 two pieces of No. 12 gauge wire, each 4-1/2" long, join one end of each wire as shown in figure 9-21. 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.

TYPICAL ELECTRICAL FAILURES OF SIX-WAY SEAT CIRCUITS

CONDITION	*CAUSE*	*CORRECTION*
Seat adjuster motor does not operate.	1. Short or open circuit between power source or switch and motor.	1. Check circuit from power source and switch to motor to locate failure.
Seat adjuster motor operates, but seat adjusters are not actuated.	2. Defective motor.	2. Check motor. If defective, repair or replace as required.
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.	1. Short or open circuit between switch and affected solenoid.	1. Check circuit from switch to solenoid to locate failure.
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.	2. Defective solenoid.	2. Check solenoid. If defective, repair or replace as required.
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.	1. Short or open circuit between one of the motor field wires and seat control switch.	1. Check circuit between affected motor field wire and seat switch.
	2. Defective field coil in motor.	2. Check motor. If defective, repair or replace as required.

CHASSIS SHEET METAL

CONTENTS OF THIS SECTION

SHEET METAL ALIGNMENT

Proper alignment of the front end sheet metal will provide proper relationship of adjoining sheet metal parts, ease of hood operation and eliminate squeaks, rattles and vibration.

FRONT FENDER ALIGNMENT

Vertical and fore and aft adjustment is provided at rear of fenders by enlarged holes in the fender bracket or body at the attaching points.

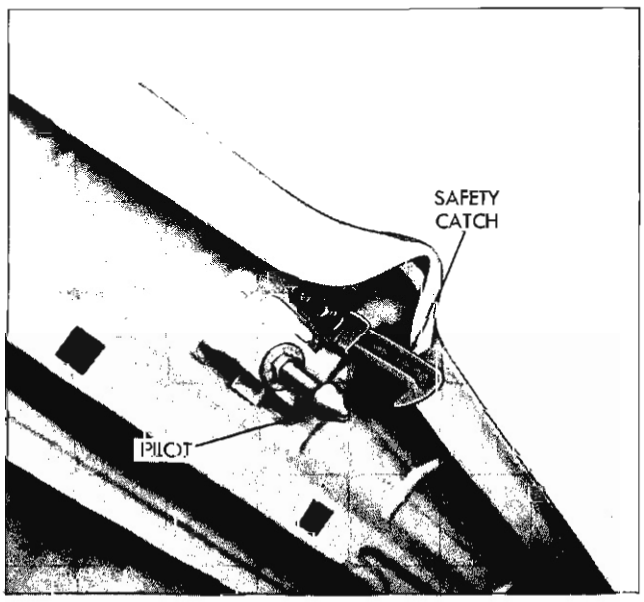


Fig. 10-1 Hood Safety Catch and Pilot

Fenders can be moved closer to or farther from the cowl by adding or removing shims between fender and bowl (Fig. 10-5). Fenders can also be adjusted vertically by shifting the fender on the enlarged bolt holes.

1. Check the space between the front door to fender rear edge and adjust as necessary to obtain a parallel space.

2. Check to insure that all connections at the fender attaching bolts are tight.

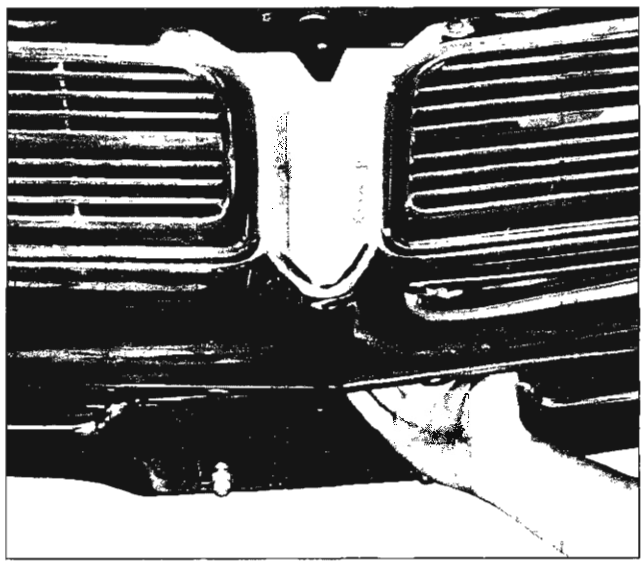


Fig. 10-2 Hood Release Latch

HOOD

The hood is of rigid sheet metal construction with the outer panel of single sheet metal with a rugged inner panel reinforcement frame. Further rigidity is given by reinforcement diagonal braces strategically located so as to give extra strength at stress points.

1. Slotted holes in the hinge bracket to hood are provided to align hood fore and aft (Fig. 10-5).

2. The parallel space between hood sides and fender is accomplished by the rubber wedges mounted to each fender.

3. The rear corners of the hood should be held down against the hood lacing to keep rear of hood from dancing or vibrating. The rear hood height is adjustable by moving hood hinge at body mount. The hinge bolt holes are enlarged giving room for adjustment.

HOOD HINGES

The hood is mounted on hinges (Fig. 10-7) mounted to wheel house. Double assist over center springs are used, (one at each hood hinge) both ends of which are fastened to the arms of the hinge. This construction provides hold-open power.

A hood to hinge reinforcement bracket which has two points of attachment is used. Fore and aft adjustment of the hood is provided for by slotted holes in the bracket.

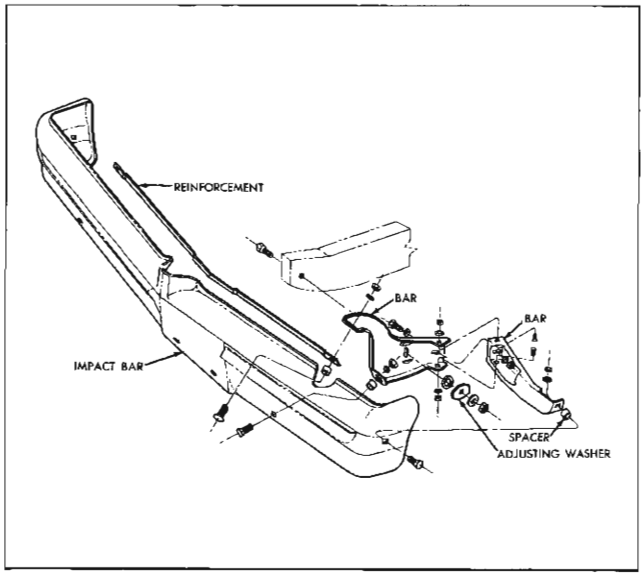


Fig. 10-3 Front Bumper

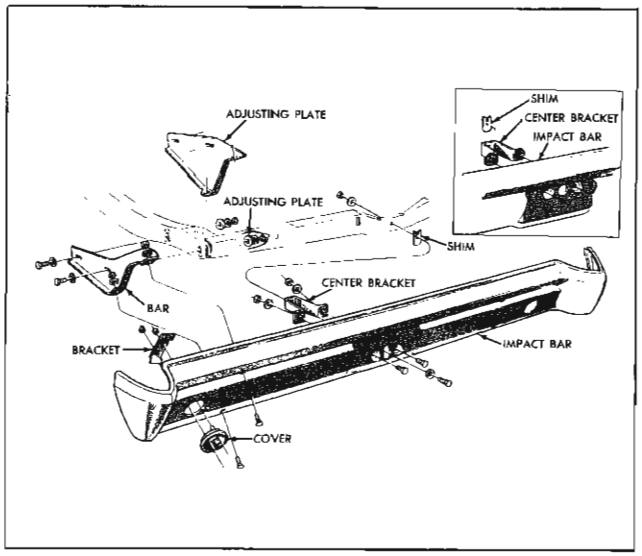


Fig. 10-4 Rear Bumper

HOOD LATCH

A positive locking hood latch is used and incorporates a safety hood latch and a pilot assembly (Fig. 10-1). The hood latch is fastened to the hood and both assemblies lock to the front fender cross brace when hood is closed. The hood is opened by reaching below the center of the front bumper and pushing release rod toward right front fender (Fig. 10-2). To release the safety latch, reach under partially opened hood and push release lever upward (Fig. 10-2).

HOOD LATCH ADJUSTMENT

Should the hood be difficult or even fail to release or close, there are 2 adjustments that can be made.

1. To adjust the hood latch fore and aft, shim front screw position.

2. To adjust hood latch, sideways loosen three attaching screws and align latch left or right.

Proper adjustment of hood latch to provide for easy hood closing is as follows:

1. Check tightness of hood latch bolts.

2. Raise or lower hood bumpers on front fender cross brace (Fig. 10-5).

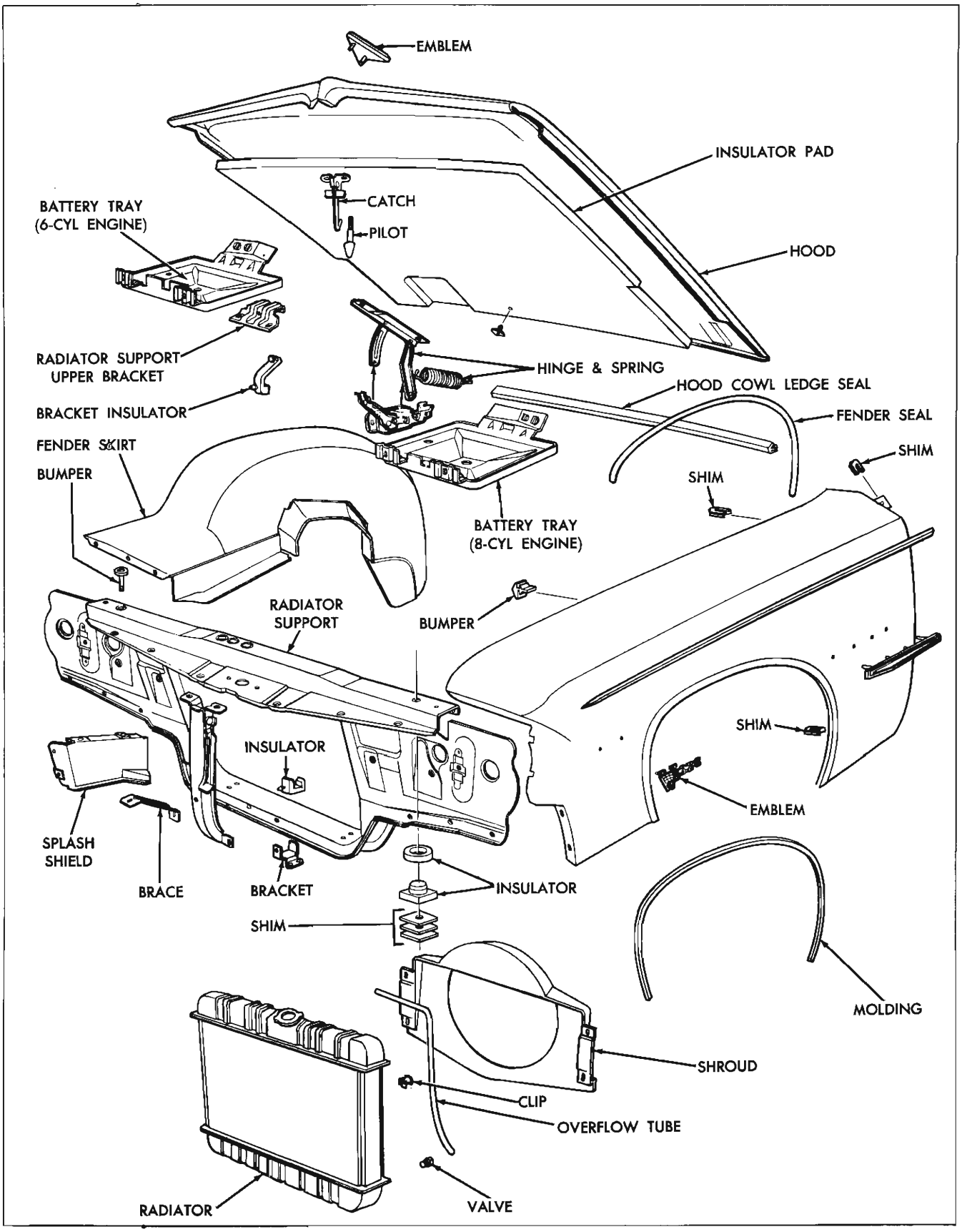


Fig. 10-5 Exploded View—Front End Sheet Metal

3. Press down on nose of hood.

a. If some give or looseness is noticed, hood is not tight and will vibrate and raise up on corners at high speeds. In this case, shorten latch bolt and recheck.

b. If hood is tight with no give, the hood could be properly adjusted or could be too tight.

CHECK AS FOLLOWS:

1. Close hood.

2. Release latch and raise hood 10"-12".

3. Manually close hood with sufficient effort to insure hood tightness.

4. Adjust hood latch assembly and bumpers to permit hood to close flush with fenders and upper grille panel.

BUMPER ALIGNMENT

FRONT AND REAR

The bumper mounting bracket is the only adjusting point for the front or rear bumper. This adjusting point is used for both fore and aft and vertical adjustments.

SHEET METAL REPLACEMENT

FRONT FENDER—REMOVE AND REPLACE

REMOVE

1. Remove front bumper.

2. Remove fender extension.

3. Remove head lamps and head lamp frame.

4. Remove three screws—fender to lower grille panel.

5. Remove two screws—front fender to front fender cross brace.

6. Remove nine screws—fender to body (upper).

7. Remove one screw—fender to rear upper shroud and one screw—fender to rear lower shroud.

8. Remove fender by lifting up and away.

NOTE: For right front fender removal, disconnect radiator and antenna mast, remove antenna nut, remove screw from fender rear brace to antenna and let assembly drop through fender.

REPLACE

To install fender, reverse the above procedure.

GRILLE PANEL (UPPER)—REMOVE AND REPLACE

1. Remove head lamp doors, head lamp and fender extensions.

2. Remove seven upper screws—grille panel to front fender cross brace.

3. Remove ten lower screws—lower to upper grille panel.

4. Lift panel and pull forward.

5. To replace upper grille panel, reverse above procedure.

GRILLE PANEL (LOWER)—REMOVE AND REPLACE

1. Remove bumper.

2. Remove three screws each side—front fender to lower grille panel.

3. Remove one screw each side—fender extension to lower panel.

4. Remove ten screws—lower panel to upper panel.

5. Remove 6 screws, lower panel to lower radiator right and left hand baffle assemblies.

6. Remove lower grille panel forward and down.

7. To replace lower grille panel, reverse the above procedure.

GRILLE (RIGHT AND LEFT)— REMOVE AND REPLACE

1. Remove upper grille panel assembly.

2. Unscrew and remove grille from upper grille panel assembly.

3. To install right or left grille, reverse the above procedure.

FRONT FENDER CROSS BRACE REMOVE AND REPLACE

1. Remove upper grille panel.

2. Remove two supports.

3. Remove battery.

4. Remove three screws each side—baffle assembly to front fender cross brace and two screws each side cross brace to fender.

5. Slide cross brace forward and remove.

6. To install front fender cross brace, reverse the above procedure.

HOOD HINGE SPRING—REPLACE

Hood hinge springs can be removed by propping hood open, and pulling front of spring off of hinge. When replacing the spring, hook the rear end of pin first, then stretch the spring out and hook it at front.

HOOD HINGE—REMOVE AND REPLACE

1. Open hood.

2. While one man holds hood, remove spring, hinge to fender and cowl attaching screws, hinge to hood attaching nuts, and remove hinge.

3. Position new hinge to fender, install and tighten attaching screws.

4. Position hinge to hood and install flat washers, lock nuts and tighten just snug.

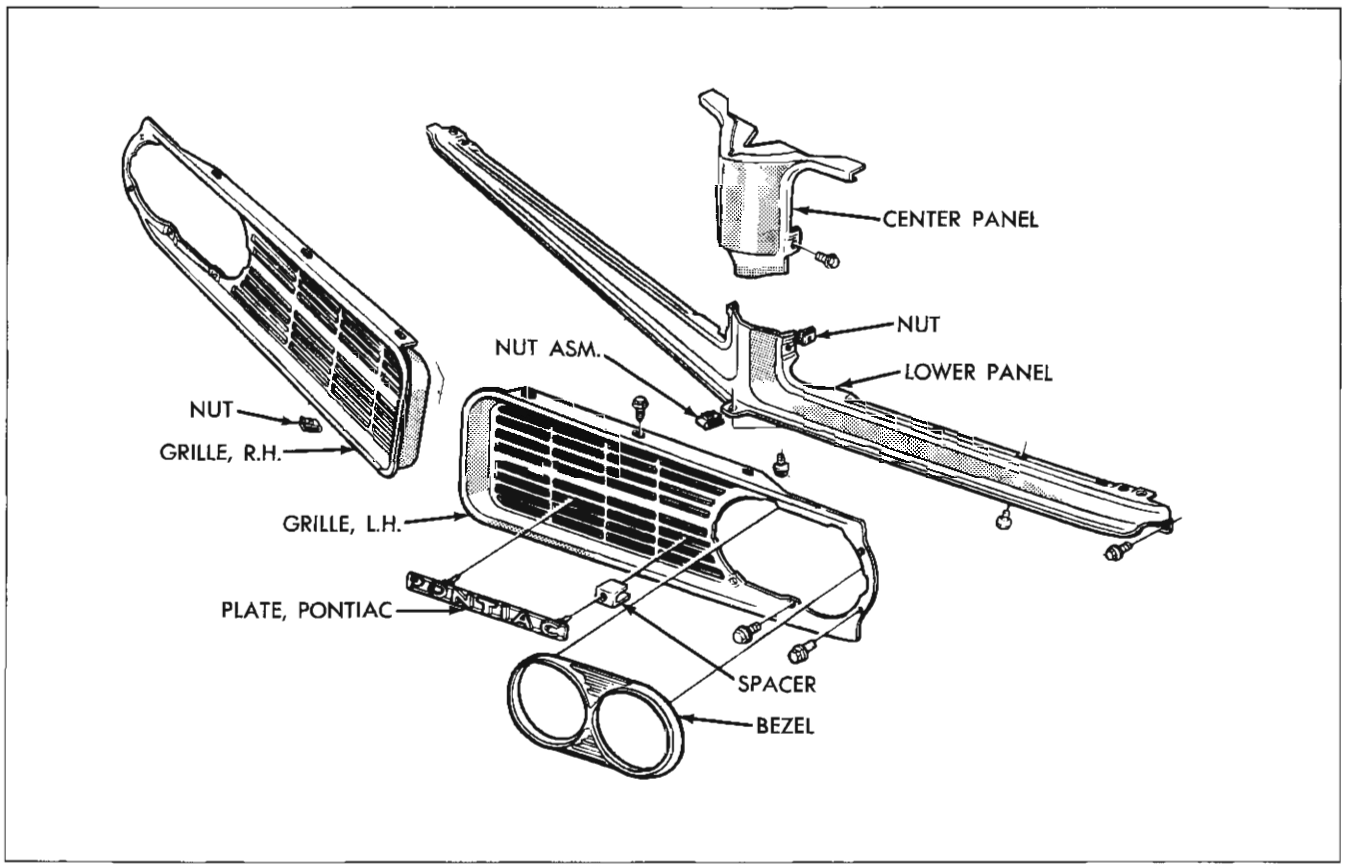


Fig. 10-6 Grille Details

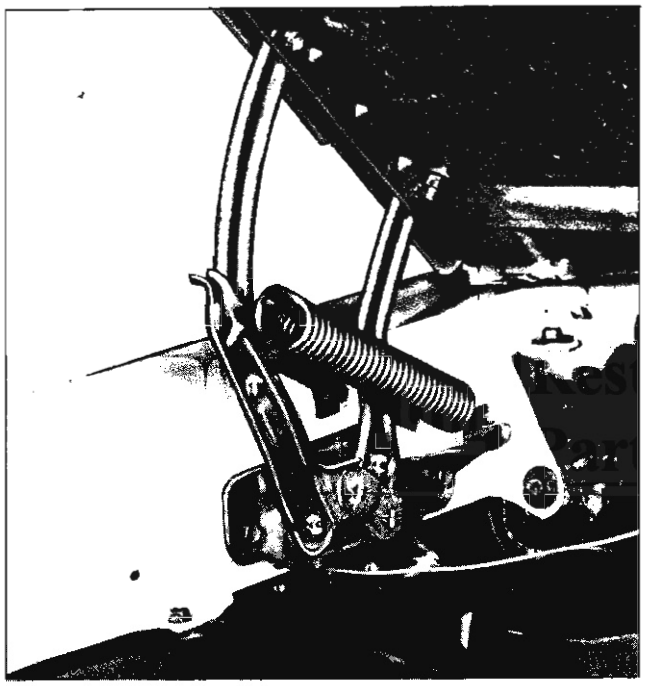


Fig. 10-7 Hood Hinge

5. Replace spring.

6. Close hood and check hood alignment.

7. If hood is misaligned, measure amount of misalignment.

a. Open hood, mark position of hinge relative to hood.

b. Loosen hinge at hood and move hinge the amount it was off.

c. Tighten securely and recheck alignment.

HOOD—REPLACE

The hood can be removed very quickly by disconnecting it from the hinges at the hood reinforcement.

When replacing the hood, adjust the alignment, one hinge at a time, as outlined in steps 6 and 7 under HOOD HINGE—REMOVE AND REPLACE.

RADIATOR—REMOVE AND REPLACE

1. Drain radiator.

2. Disconnect overflow, upper and lower radiator hoses.

3. Remove radiator fan shield.

4. Remove radiator.

5. To install radiator, reverse above procedure.

FRONT END

CONTENTS OF THIS SECTION

WINDSHIELD ASSEMBLY

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. 11-1 and 11-2).

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 molding. Clean off excess sealer and reverse removal procedure.

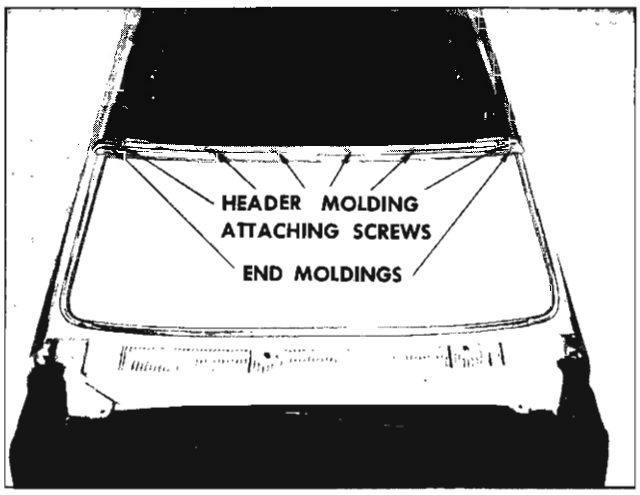


Fig. 11-1 Header Moldings - 67 Styles

REVEAL MOLDINGS

The windshield reveal moldings consist of left and right upper, side, and lower moldings (Fig. 11-3). All moldings are secured by clips.

REMOVAL AND INSTALLATION

The windshield reveal moldings may be removed in sequence as listed, using reveal molding clip disengagement tool, J-21549 (Fig. 11-4).

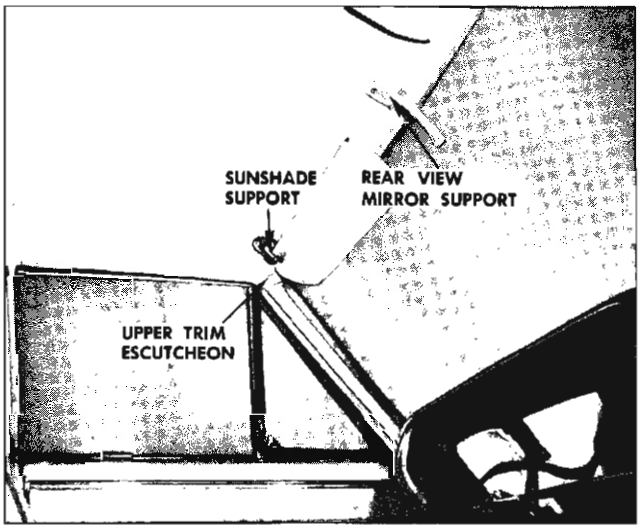


Fig. 11-2 Upper Trim Escutcheon, Sunshade Support, and Rear View Mirror Support

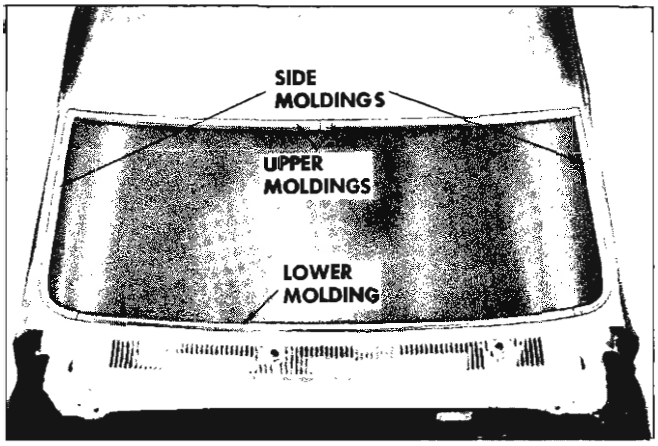


Fig. 11-3 Windshield Reveal Moldings

1. Remove upper moldings.

2. Remove side moldings.

3. Remove lower molding.

4. To install, reverse removal procedure.

WINDSHIELD GLASS INSTALLATION

Description: The adhesive caulked windshield installation is a concept of windshield installation which incorporates a synthetic rubber compound (Adhesive Caulking Material) in place of the conventional rubber channel. The installation also requires special rubber spacers, reveal moldings and molding clips. Caulking material, caulking tube nozzle, cutting wire and the adhesive caulking primer are furnished in Kit No. 4226000. This kit will service the installation of the windshield glass on the short method only.

Kit No. 4226000 Components:

A. One tube of Adhesive Caulking Material

B. One nozzle

C. Steel music wire

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

Additional Material Required:

A. Caulking gun (standard household type reworked as described in step No. 14 of extended method installation procedure).

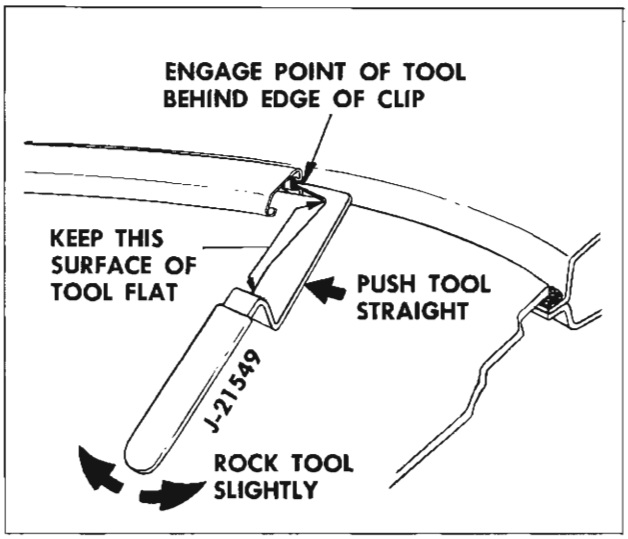


Fig. 11-4 Disengaging Molding From Clip

B. Two (2) pieces of wood for wire handles.

C. Paint Finish Primer (service part, used only on extended method).

NOTE: On the extended 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 necessary service parts and adhesive caulking materials may be obtained through regular service parts channels. 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 pages:

Short method

Extended method

ADHESIVE CAULKED WINDSHIELD REMOVAL AND INSTALLATION—SHORT METHOD

REMOVAL—SHORT METHOD

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.

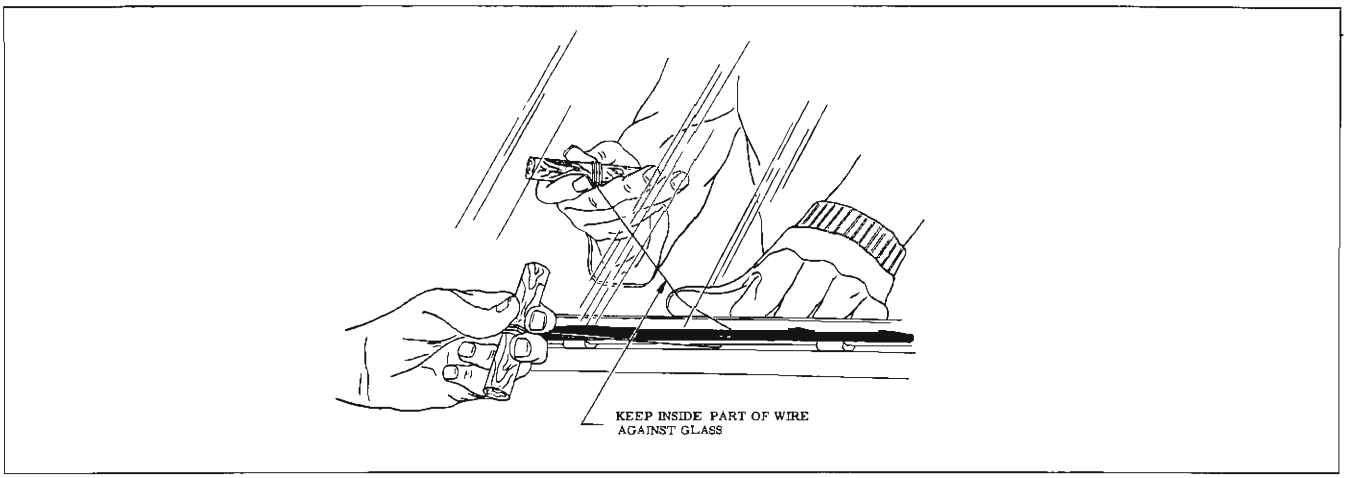


Fig. 11-5 Removing Glass

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 as follows: Use reveal molding clip disengagement tool, J-21549 (Fig. 11-4). Remove upper reveal moldings first. Next, disengage side reveal moldings and 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. 11-5). Make sure inside wire is held close to plane of glass to prevent cutting an excessive 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—SHORT METHOD

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 clip.

2. Apply 2" wide masking tape across front of instrument panel, with 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. 11-6). Application of masking tape will assist in clean-up after the glass is installed.

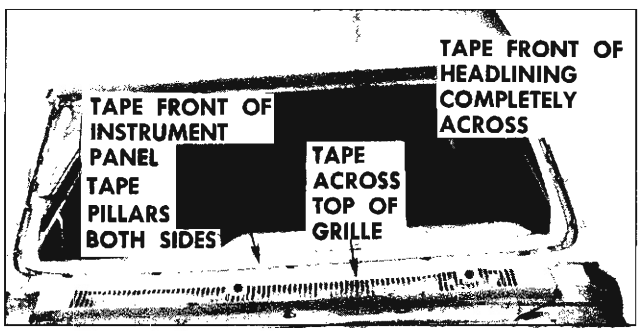


Fig. 11-6 Taping Windshield Opening and Instrument Panel

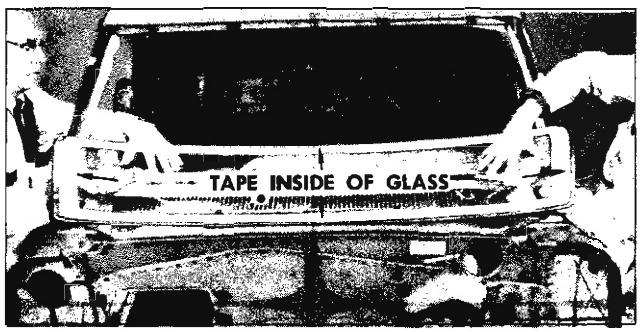


Fig. 11-7 Tap Applied to Inside of Windshield

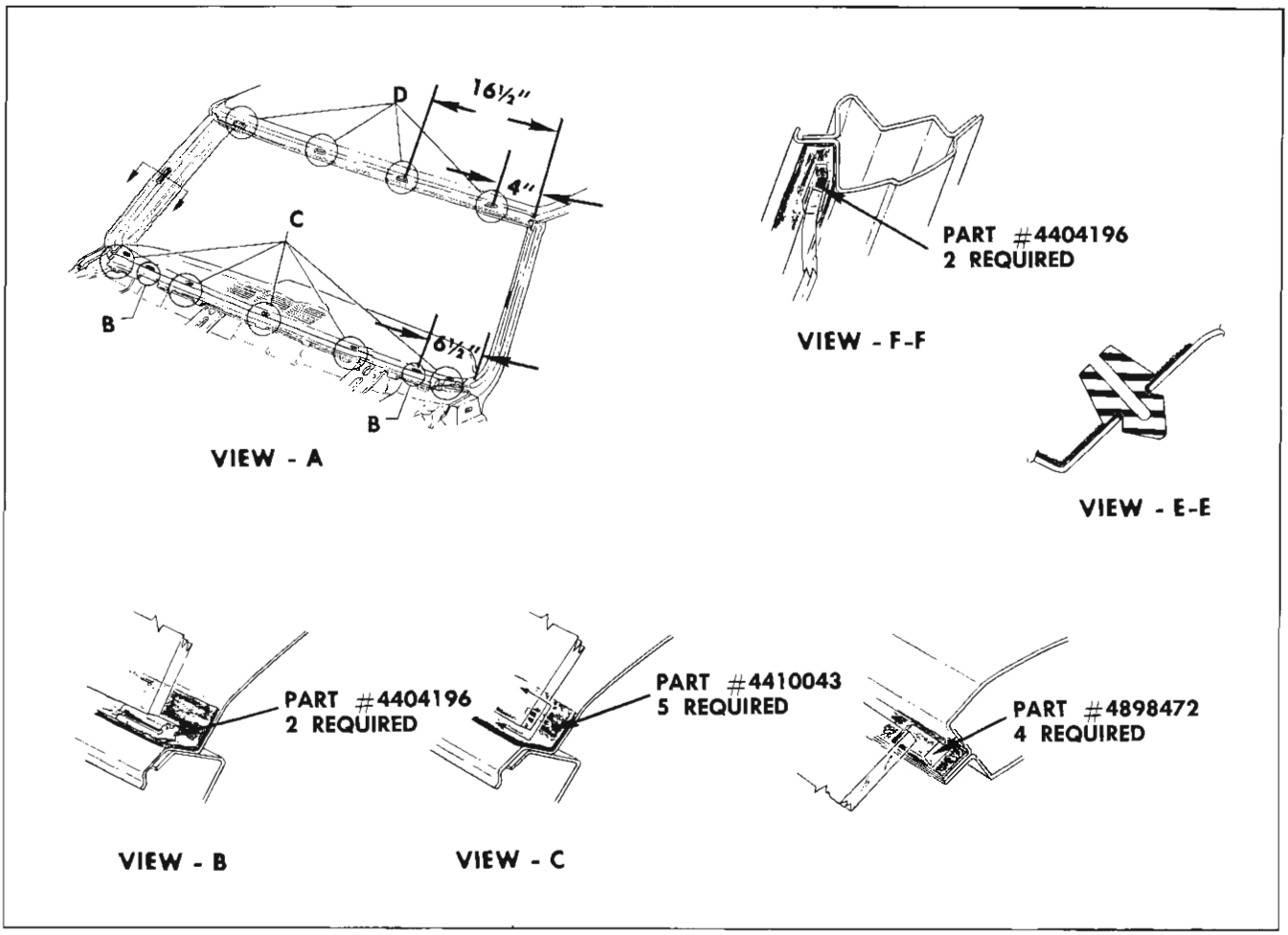


Fig. 11-8 Windshield Glass Spacers

3. Apply 2" wide masking tape to inside of windshield glass 1/4" inboard from edge of glass, first across top, each side, then bottom. (Fig. 11-7).

4. Inspect all spacers for damage. If replacement is necessary refer to Figure 11-8 for location of spacers and part numbers.

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. 11-9).

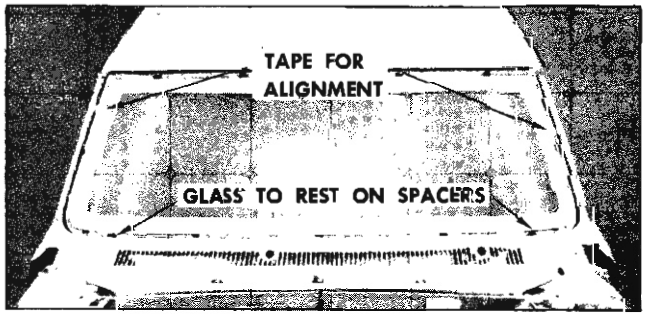


Fig. 11-9 Glass Alignment in Opening

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.

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. 11-10). 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.

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. 11-7). 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. 11-9).

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 glass to fill 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 of 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.

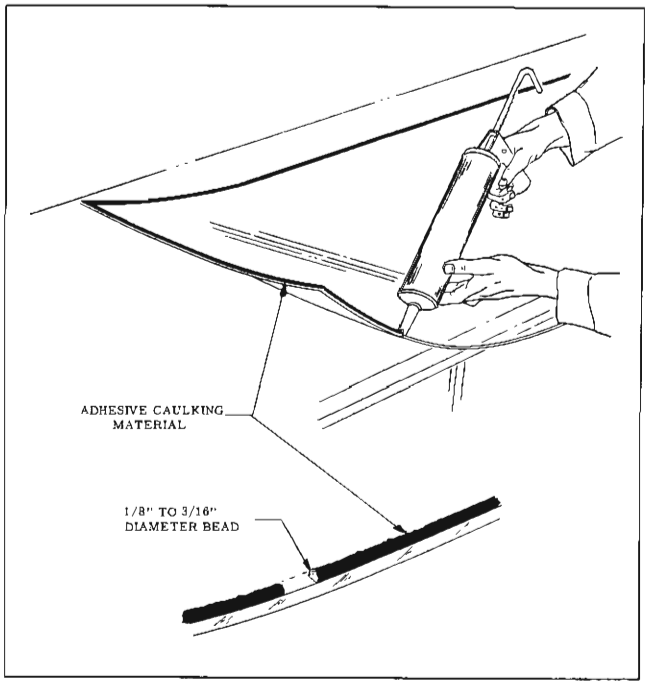


Fig. 11-10 Applying Adhesive Caulking - Short Method

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.

ADHESIVE CAULKED WINDSHIELD REMOVAL AND INSTALLATION—EXTENDED METHOD

The following procedure is applicable when the installation requires replacement of a complete bead of adhesive caulking material around the windshield opening.

NOTE: Two kits of material are required for the extended method of installation (see WINDSHIELD GLASS INSTALLATION).

REMOVAL—EXTENDED METHOD

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 as follows: Use reveal molding clip disengagement tool, J-21549 (Fig. 11-4). Remove upper reveal molding first. Next, disengage side reveal moldings and 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 and 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. 11-5). 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—EXTENDED METHOD

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 clip.

2. Apply 2" wide masking tape across front of instrument panel, with front edge of tape lined up with break line of instrument panel. Apply 2" wide masking tape to both inside windshield pillars. Apply masking tape across front edge of headlining. (Fig. 11-6). 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 top, each side and then bottom. (Fig. 11-7).

4. Cement four flat type rubber spacers 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. 11-8).

5. Cement two rubber spacers 4404196 to lower rabbet of windshield opening 6-1/2" inboard from windshield pillars at locations B View A (Fig. 11-8).

6. Inspect five rubber spacers 44010043 located in front of instrument panel at locations C, View A (Fig. 11-8), replace if necessary. Cement one rubber spacer 4404196 to each windshield pillar to assist in centering glass at time of installation at location F-F, View A (Fig. 11-8).

7. Set glass in opening and shim glass spacers as necessary to properly align glass to opening. Glass should overlap pinchweld flange 3/16" minimum. Mark glass to windshield pillars with tape to assist in proper alignment at time of installation (Fig. 11-9).

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 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. 11-11). This nozzle will be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle. This nozzle will be used to apply "smear bead" of adhesive caulking material to pinchweld flange.

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:

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 on will fit into large end of tube.

15. Positioning gun and nozzle as shown in Figure 11-11, 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

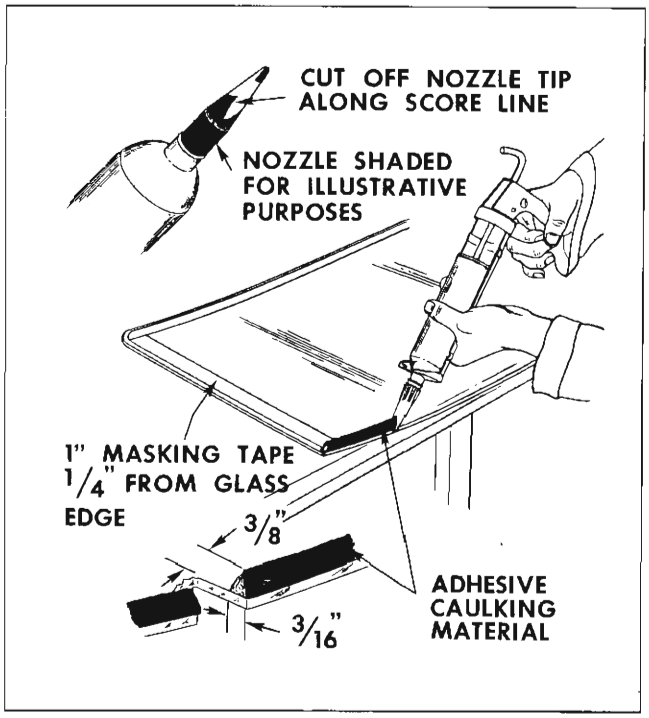


Fig. 11-11 Applying Adhesive Caulking - Extended Method

(Fig. 11-7). 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 a guide. (Fig. 11-9).

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 void.

20. 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.

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

21. Working from inside 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 and 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 WATERLEAK 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.

3. Seal leak point with liberal application of adhesive caulking material or black weatherstrip adhesive depending on what material is available and how surface was prepared in step 2.

4. Watertest and install all previously removed parts.

COMPARTMENT (INSTRUMENT PANEL) DOOR

COMPARTMENT DOOR

REMOVAL AND INSTALLATION

The instrument panel compartment door hinges and stops are an integral part of the door. The hinges and door assemblies are attached to the instrument panel by screws. To remove door and stop assemblies, remove attaching screws securing hinge to instrument panel, (Fig. 11-12) lift up door, rotate anti-clockwise to remove stop from opening in panel. To install, reverse removal procedure.

ADJUSTMENTS

1. To move door up or down, shim between hinge and instrument panel.

2. To move door in or out, loosin attaching screws and position door in or out as desired.

3. To move door right or left, loosen attaching screws and position door as desired.

4. Striker plates are adjustable on instrument panel. (Fig. 11-12).

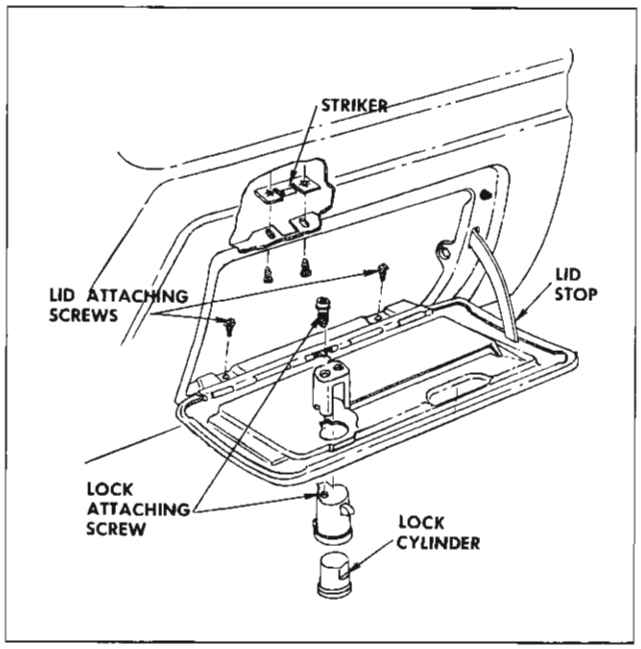


Fig. 11-12 Instrument Panel Compartment Door

DOOR LOCK

REMOVAL AND INSTALLATION

Remove attaching screws and remove lock assembly (Fig. 11-12). To install, reverse removal procedure.

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. The door in the outlet 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

Remove attaching screws and snap-in fastener (Fig. 11-13) and remove foundation assembly. To install, reverse removal procedure.

SHROUD SIDE AIR OUTLET DUCT

REMOVAL AND INSTALLATION

1. Remove shroud side foundation.

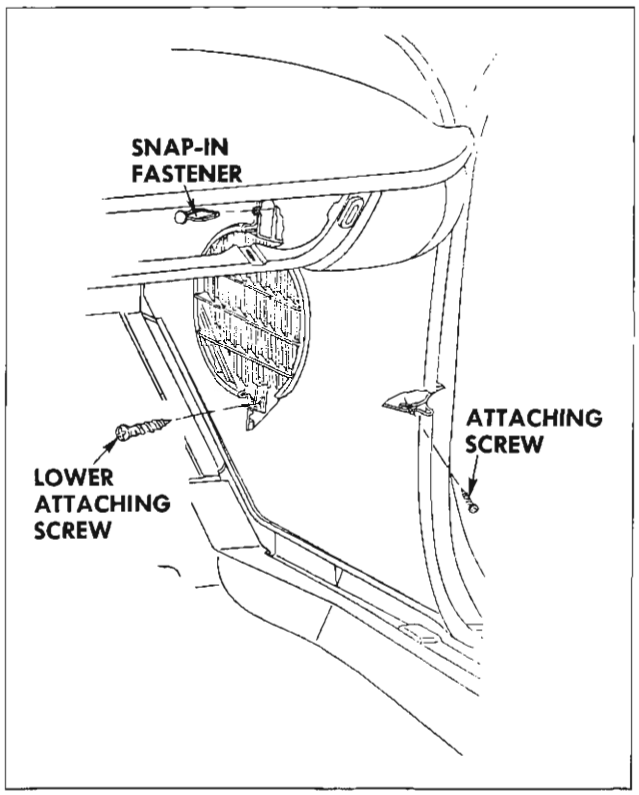


Fig. 11-13 Shroud Side Foundation

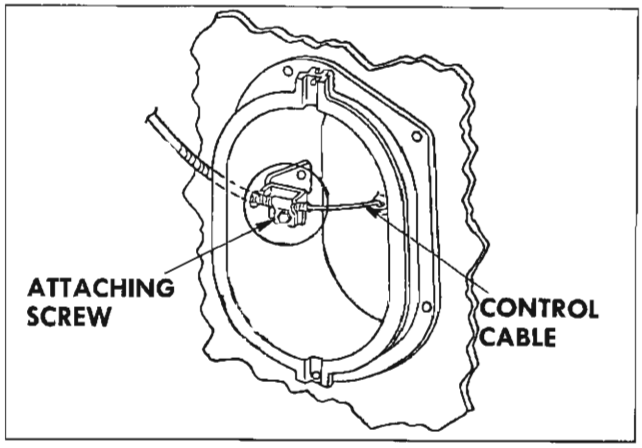


Fig. 11-14 Air Outlet Control Cable

2. Remove control cable from outlet, (Fig. 11-14) remove or loosen necessary heater parts to allow space to remove outlet assembly.

3. Remove screws securing outlet assembly to shroud side panel (Fig. 11-15) and remove assembly.

4. To install, apply medium-bodied sealer around entire inner flange of outlet assembly, to insure watertight seal to shroud, and reverse removal procedure (Fig. 11-15).

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. 11-15).

5. To install, reverse removal procedure.

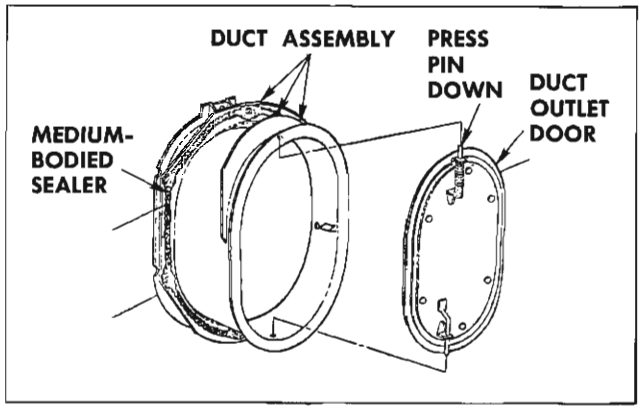


Fig. 11-15 Air Outlet Duct Assembly and Sealing

DOORS

CONTENTS OF THIS SECTION

FRONT AND REAR DOORS

The door section has been divided into the following parts:

A. Service operations which are the same or similar for both front and rear doors.

B. Service operations for front doors only.

C. Service operations for rear doors only.

WEATHERSTRIPS

The door weatherstrip incorporates nylon component fasteners. Cement usage, for the new weatherstrip, is similar to the 1963 model. The component nylon 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 weatherstrip fasteners from their respective piercings in the door inner panel. If this tool is not available, it can be fabricated from any other comparable metal tool as shown in Fig. 12-1.

When a removal tool is fabricated, make sure all sharp edges or metal burrs are removed so as not

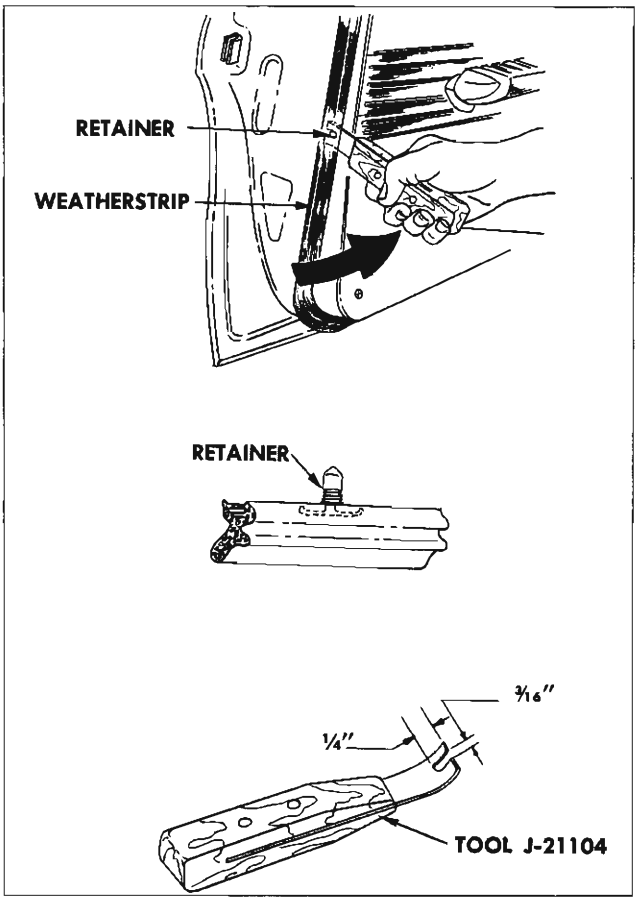


Fig. 12-1 Door Weatherstrip Removal

to damage weatherstrip or paint finish during its usage.

REMOVAL

1. Remove snap fasteners securing ends of weatherstrip at belt line of door hinge and lock pillar panels on hard top 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; 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 hard top and convertible styles weatherstrip can now be removed. On closed styles, proceed with step 5.

5. With a putty knife, or other suitable flat-bladed tool, remove weatherstrip from upper frame weatherstrip channel. Exercise care not to damage weatherstrip during this operation.

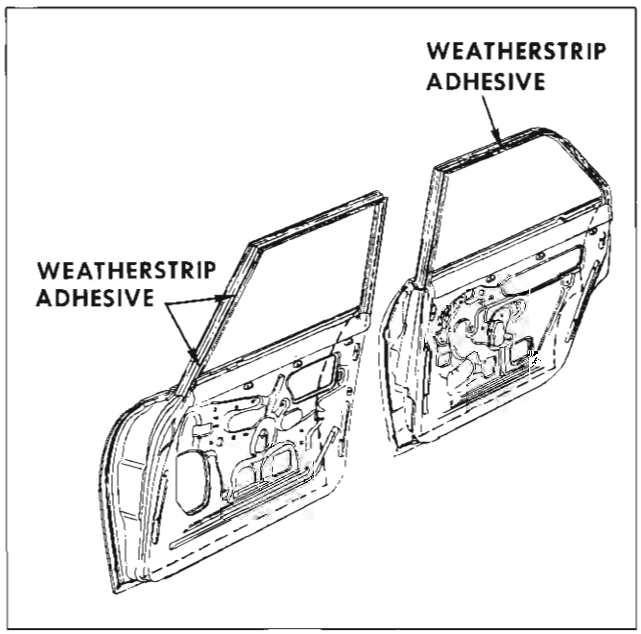


Fig. 12-2 Adhesive Application

INSTALLATION

1. Check nylon fasteners for damage and replace as necessary.

2. Clean off old cement to insure a clean cementing surface. On hard top 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 for approximately 7" to 9". On closed styles, begin adhesive application approximately 5" below belt line on hinge pillar side and continue around entire upper frame to 5" below belt line on lock pillar side. (Fig. 12-2).

NOTE: Cement usage is usually limited to areas indicated in step 2. However, cement can be applied at any point where additional retention of weatherstrip is needed.

3. On closed styles, install weatherstrip into upper frame weatherstrip channel. On all styles, install weatherstrip fasteners by pressing fasteners into door panel piercings. A protected hammer can be used if necessary.

NOTE: If a weatherstrip becomes damaged at a fastener location and will not properly retain the fastener, remove fastener and cement weatherstrip into place. If 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 STRIPS

Glass run channel strips are used on all styles incorporating a dropping window and are designed to prevent cold air and water from entering the body between the window lower sash channel and inner and outer panels. On all styles, the inner strip assembly is constructed of an extruded rubber lip, similar to the outer strip assembly. The inner strip is stapled to a metal backing and secured to the inner panel by a series of attaching clips on all styles. The outer strip assembly is constructed of rubber with a metal insert. On styles equipped with a window lower reveal molding, the rubber strip is stapled to the molding and the molding is attached to the outer panel by

attaching screws. On styles not equipped with a window lower reveal molding, the outer strip assembly is attached to the outer panel by a series of attaching clips only.

REMOVAL AND INSTALLATION

1. Lower window and apply masking tape over outer panel adjacent to outer strip to protect paint finish.

2. On front doors of styles equipped with a lower reveal molding, remove ventilator to gain access to forward attaching screw of lower reveal molding (see VENTILATOR).

3. On rear doors, remove window to gain access to attaching screws.

4. Remove window lower stop or stop bumper, on front doors, and lower window as far down as possible to gain access to outer strip attaching screws.

5. Where applicable, remove front and rear outer strip attaching screws.

6. With a flat-bladed tool, gently pry inner or outer strip up at attaching clip locations (Fig. 12-3).

7. To install, reverse removal procedure.

ARM RESTS

All arm rests are the applied type and are secured to the inner panel by two attaching screws which fit into self-threading piercings located in the inner panel. The arm rest attaching screws are sealed to the inner panel with body caulking compound.

REMOVAL AND INSTALLATION

1. Remove screws securing arm rest to inner panel and remove arm rest.

2. To install, reverse removal procedure.

INSIDE HANDLES

REMOVAL

1. On styles equipped with paddle handle, remove arm rest.

2. Remove handle-to-remote attaching bolt or screw and remove handle.

3. On all other styles, depress trim 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 (Fig. 12-4).

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.

TRIM PADS

Both the front and rear door trim pads are secured to the inner panel by trim pad retainers at top, retaining clips along both sides, and screws at the

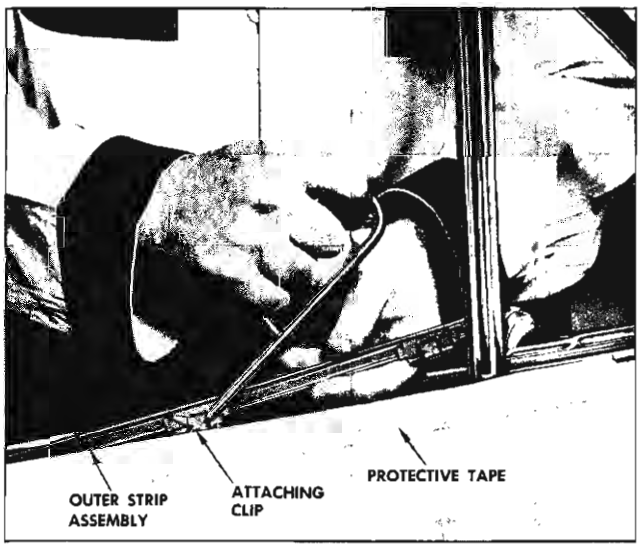


Fig. 12-3 Outer Panel Strip Removal

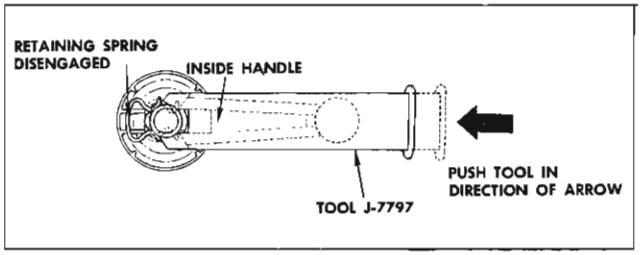


Fig. 12-4 Disengaging Inside Handle Retaining Spring

bottom. Trim pad retainers are attached to the inner panel by screws. The retaining clips (along sides) are pressed into plastic retainers or cups which fit into slots in the inner panel.

REMOVAL AND INSTALLATION

1. Remove inside handles and arm rest.

2. Remove attaching screws along bottom of trim pad.

3. Carefully insert tool J-6335, or a suitable flat-bladed tool, between trim assembly and inner panel at retaining clip locations and disengage clips from retaining plugs (Fig. 12-5).

NOTE: Broken or damaged retaining clips should be replaced.

4. Pull top edge of trim pad down slightly to disengage it from trim pad retainer and remove trim pad.

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 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 existing repair. This same procedure can be used to repair water leaks that develop around perimeter of retainer.

WATER DEFLECTORS

A waterproof paper deflector is used to seal the inner panel and prevent entry of water into the 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

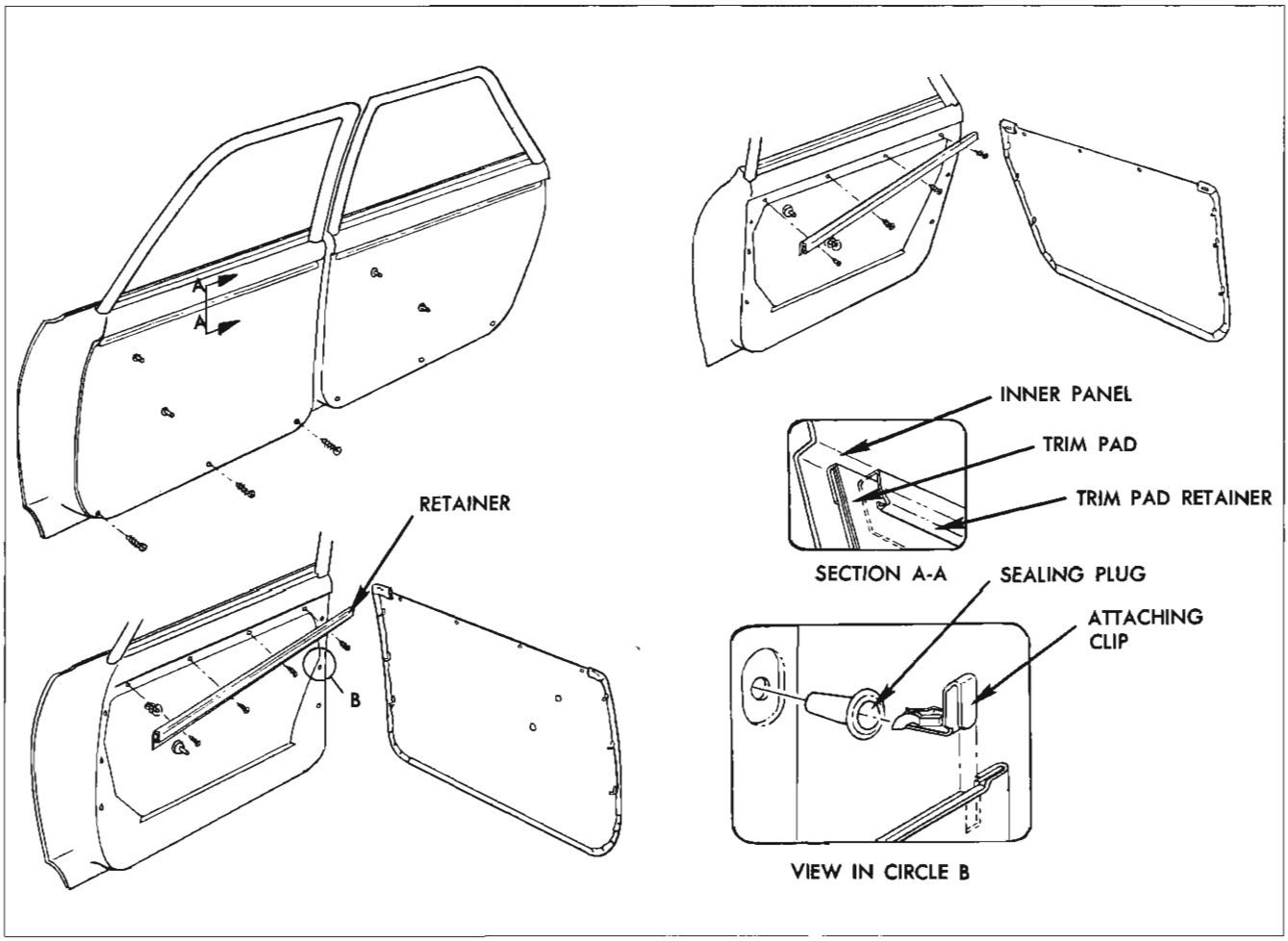


Fig. 12-5 Trim Pads

properly sealed and 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, replacement of the deflector is required.

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

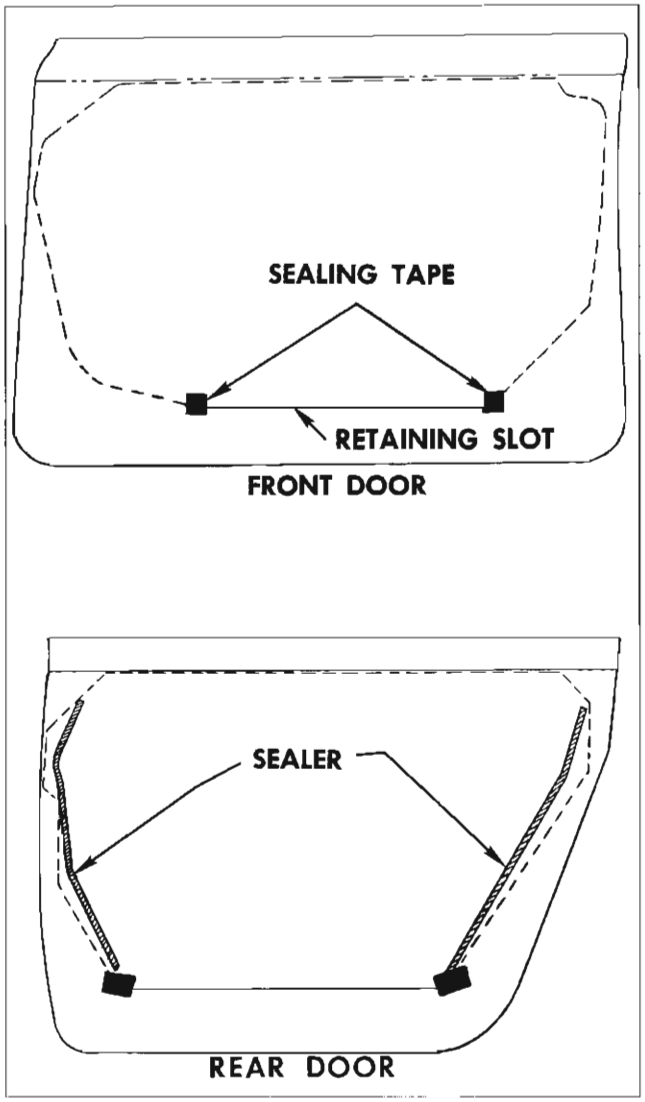


Fig. 12-6 Front and Rear Door Water Deflector

REMOVAL

1. Remove trim.

2. Remove trim pad upper retainer on all styles.

3. Remove strips of waterproof body tape securing lower corners of water deflector.

4. With a putty knife, or other suitable flat-bladed tool, carefully break cement bond securing upper corners of water deflector to inner panel. Make sure string, located within sealer, is against water deflector and carefully slide putty knife between sealer and inner panel along both sides of door to disengage sides of water deflector from inner panel.

5. Disengage lower edge of water deflector from retaining slot in inner panel and remove water deflector (Fig. 12-6).

INSTALLATION

1. Inspect water deflector and repair any tears or holes with waterproof body tape applied to both sides of deflector. If bond between polyethylene coating 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.

2. If a new water deflector is to be installed, use old water deflector as a template, trim new deflector

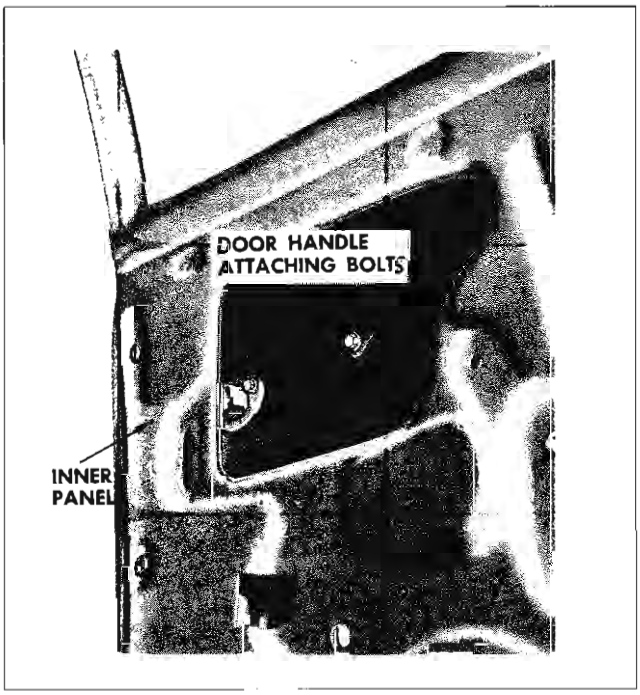


Fig. 12-7 Outside Handle Attachment

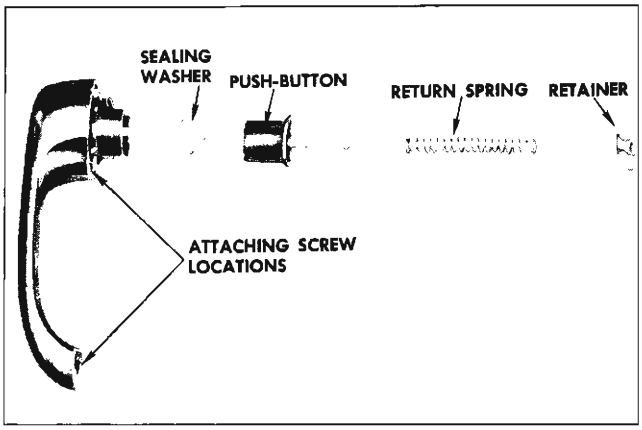


Fig. 12-8 Front Door Outside Handle

to proper size and cut holes for door inside hardware. If old sealer does not effect a satisfactory seal, apply a bead of body caulking compound (approximately 3/16" diameter) to inner panel at unsealed areas.

3. Position water deflector on inner panel with polyethylene coated side of deflector against inner panel. Insert lower edge of deflector in retaining slot. Firmly roll or press sealed areas to obtain a good bond between deflector and 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 trim and inside hardware.

OUTSIDE HANDLE

REMOVAL AND INSTALLATION

1. Raise door window and remove door trim pad.

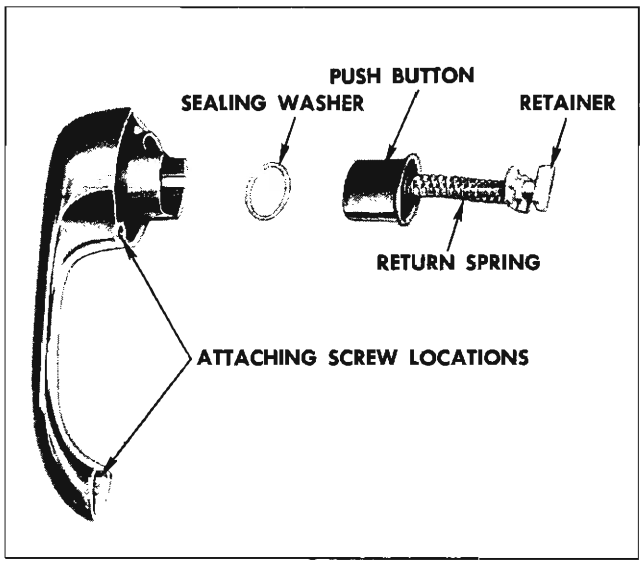


Fig. 12-9 Rear Door Outside Handle

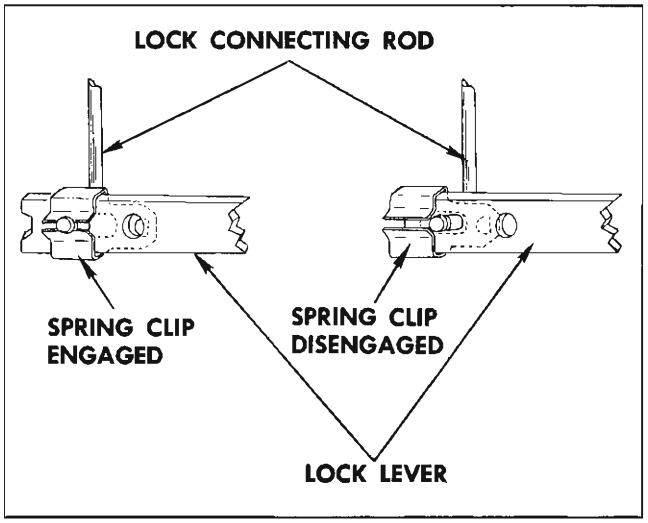


Fig. 12-10 Lock Spring Clip

2. Detach water deflector sufficiently to gain access to door outside handle attaching screws.

3. Remove screws through inner panel. Remove door handle and gaskets from outside of body (Fig. 12-7).

4. To install, reverse removal procedure.

OUTSIDE HANDLE DISASSEMBLY AND ASSEMBLY

1. Remove outside handle.

2. Depress and rotate retainer 1/4 turn. On front doors the retainer, pushbutton, pushbutton return spring and sealing washer can be removed separately. On rear doors the retainer, pushbutton and pushbutton return spring are serviced as one unit. See Fig. 12-8 for front doors and 12-9 for rear doors.

3. To assemble, reverse disassembly procedure.

LOCK SPRING CLIPS

A spring clip is used on the 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. 12-10 shows the lock spring clip engaged and disengaged.

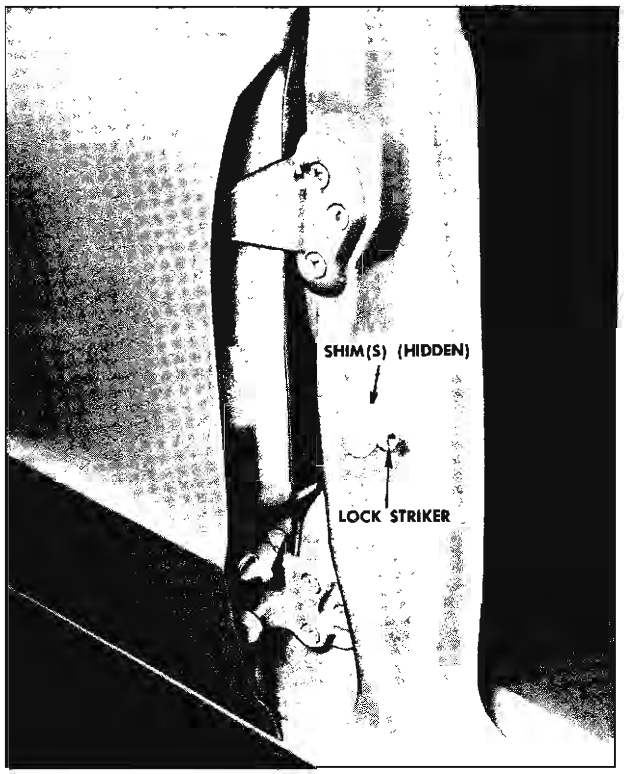


Fig. 12-11 Front Door Lock Striker

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 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.

2. Using a 5/16" hex head wrench (Allen), remove striker from lock pillar (Fig. 12-11).

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

1. To adjust striker up or down or in or out, loosen striker bolt and shift striker as required and tighten bolt.

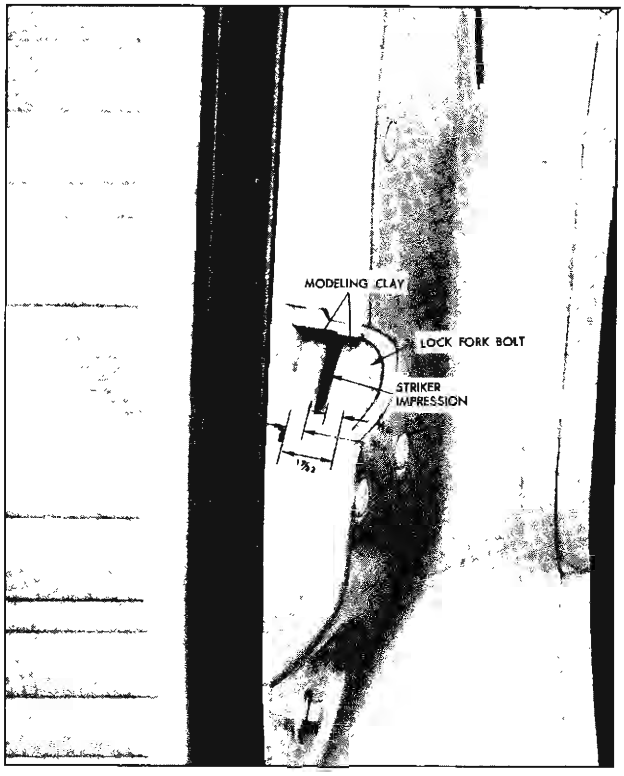


Fig. 12-12 Lock Striker Engagement

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 lock striker spacers are required, apply modeling clay or body caulking compound in lock where striker engages as shown in Fig. 12-12.

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. 12-12, a distance of 3/16" should exist on either side of striker impression. Although 3/16" is the preferred measurement, a tolerance of 1/32" is allowed on either side of striker engagement center area. The striker assembly is factory equipped with one spacer 5/32" in thickness. This factory spacer and three service spacers are available as service parts. Usage of these four spacers, in various combinations, can achieve the desired

fore and aft positioning of lock strikers. The minimum number of spacers required is zero. The maximum spacer width allowed is determined by need. Factory spacer (5/32") - 4420062, service spacer (1/16") - 4420063, service spacer (1/4") - 4446316, service spacer (5/16") - 4446317.

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.

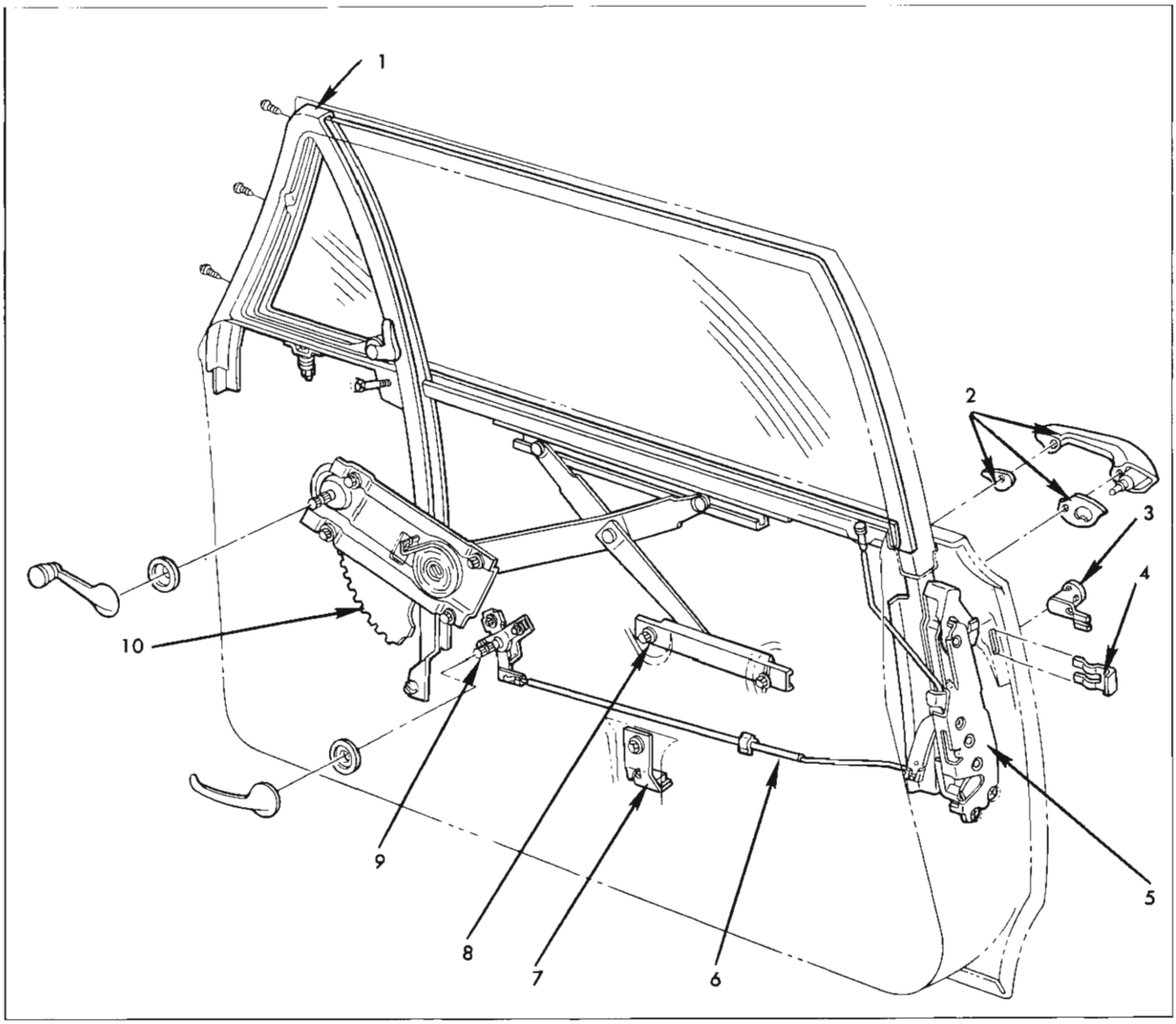


Fig. 12-13 Typical Closed Style Front Door - Trim and Inner Panel Water Deflector Removal

1. Ventilator Assembly
2. Outside Handle and Sealing Gaskets
3. Lock Cylinder Assembly
4. Lock Cylinder Retainer
5. Lock Assembly
6. Remote Control Connecting Rod
7. Window Lower Stop
8. Inner Panel Cam
9. Remote Control Assembly
10. Window Regulator Assembly

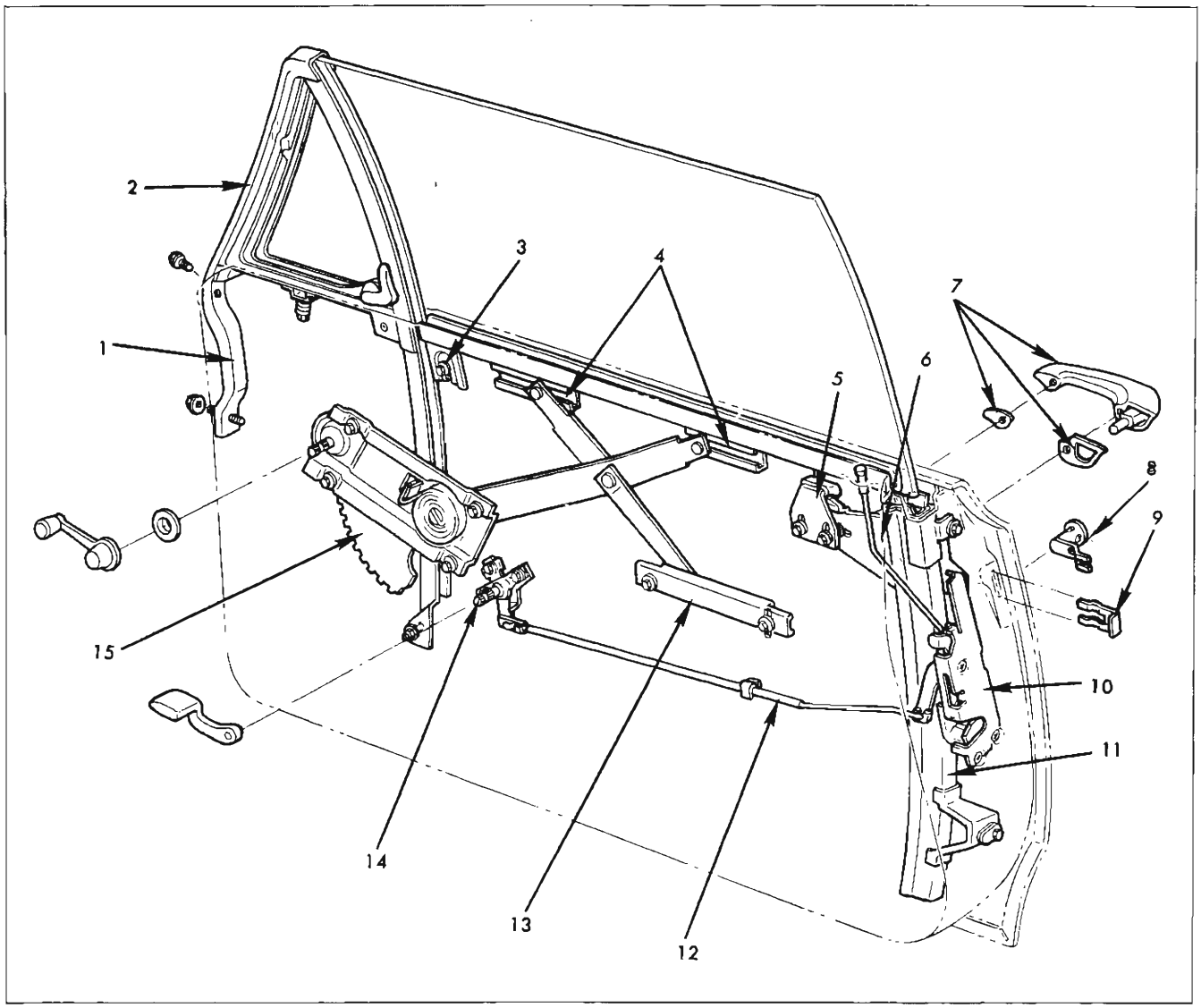


Fig. 12-14 Typical Open Style Front Door - Trim and Inner Panel Water Deflector Removed

1. Ventilator Lower Frame
2. Ventilator Assembly
3. Window Front Up-Stop
4. Window Lower Sash Channel Cams
5. Window Rear Up-Stop
6. Window Guide Plate
7. Outside Handle and Sealing Gaskets
8. Lock Cylinder Assembly
9. Lock Cylinder Retainer
10. Lock Assembly
11. Window Rear Guide Assembly
12. Remote Control Connecting Rod
13. Inner Panel Cam
14. Remote Control Assembly
15. Window Regulator Assembly

6. To install, reverse removal procedure.

Fig. 12-13 is typical of closed style front doors with the trim assembly and inner panel water deflector removed. This illustration identifies the component parts of the front door assembly, their relationship and various attaching points.

Fig. 12-14 is typical of hard top and convertible style front doors with the trim assembly and inner panel water deflector removed. This illustration identifies the component parts of the front door assembly, their relationship and various attaching points.

FRONT DOORS

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.

CAUTION: Use only the recommended procedures for adjusting front doors. The aluminum upper

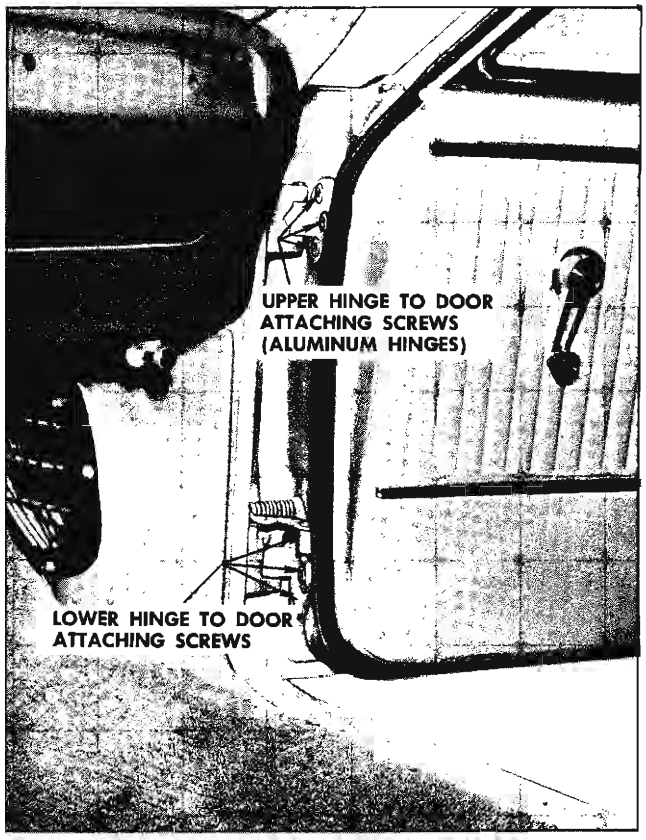


Fig. 12-15 Front Door Hinge Attachment

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 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 (less hinges) from body. Fig. 12-15 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. 12-16).

2. With aid of helper, reinstall door to body opening, align hinges within scribe marks and tighten

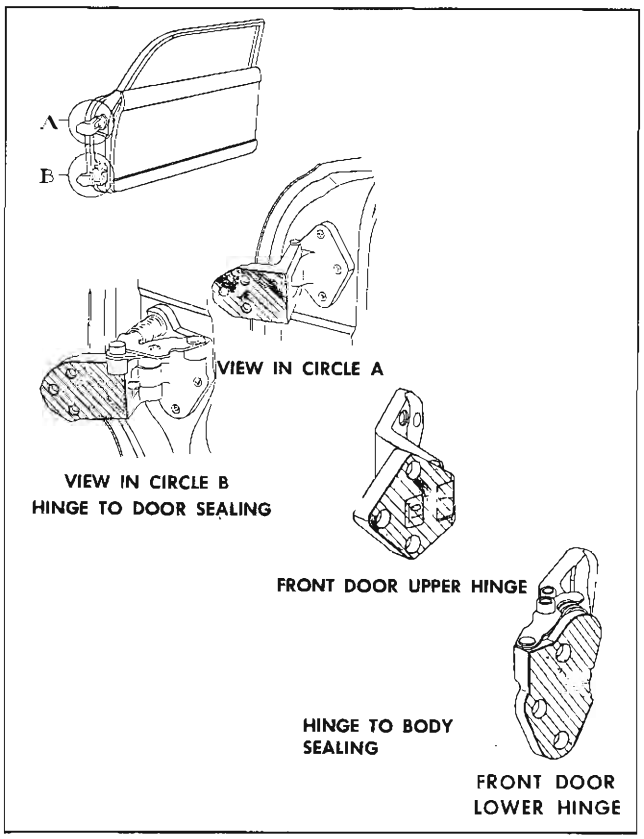


Fig. 12-16 Front Door Hinge Sealing

screws. Check door for proper operation and alignment and adjust door, if required, as described under ADJUSTMENTS.

NOTE: For lubrication of hinges, see BODY LUBRICATION.

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. 12-17). Usage of this tool eliminates the need of loosening the front fender. If tool J-21550 is not available of if additional clearance is desired, perform step 1 in the following procedure; otherwise, begin with step 2.

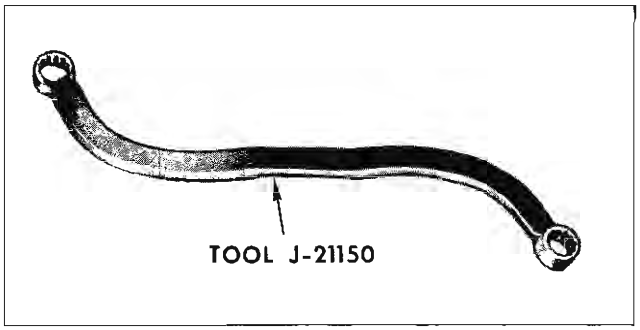


Fig. 12-17 Hinge Tool

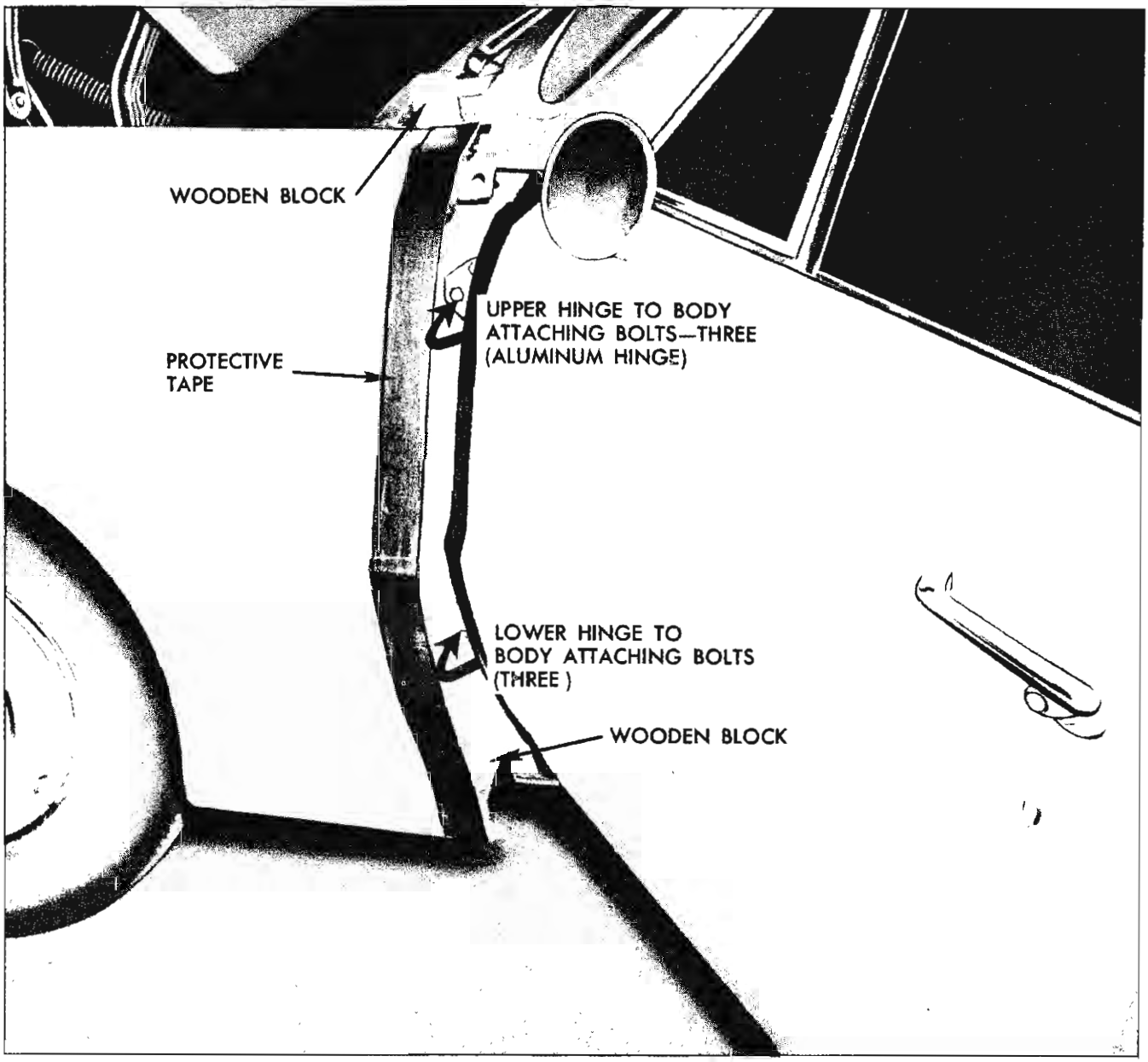


Fig. 12-18 Front Door Hinge Attachment

1. Loosen front fender as required. The preferred method is to remove the front fender to cowl attaching bolts and the first two or three (closest to cowl panel) fender to fender reinforcement attaching bolts. One or more of these latter bolts also serve as hood hinge attaching bolts. Then remove lower fender to rocker panel attaching bolts and the first four or five fender to fender skirt attaching bolts and prop rear of fender away from body with a wooden block.

NOTE: The number of fender bolts that must be removed to gain adequate looseness of the front fender is determined by the style involved.

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) (Fig. 12-18).

INSTALLATION

1. As an anti-squeak precaution and to prever entry of water into door at hinge attaching bolt lo cations, coat attaching surfaces of hinges with heavy bodied sealer prior to installing door (Fig. 12-19

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 ADJUSTMENTS.

3. Reinstall and tighten front fender attaching bolts.

NOTE: For lubrication of hinges see BODY LUBRICATION.

ADJUSTMENTS

Door adjustments are provided through the use of floating anchor plates at the door and body pillars. When checking for misalignment and before adjusting, remove the 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 above until desired adjustment is attained.

5. Reinstall door lock striker and check lock extension-to-striker engagement as described under LOCK STRIKERS.

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 above until desired adjustment is attained.

5. Reinstall lock striker and check lock extension-to-striker engagement as described under LOCK STRIKERS.

WEDGE PLATES
CONVERTIBLES

Door wedge plates are used in convertibles 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 a service part.

REMOVAL AND INSTALLATION

1. Remove two screws securing wedge plate to panel and remove wedge plate (Fig. 12-19).

2. To install, reverse removal procedure.

WINDOW LOWER SASH CHANNEL GUIDE PLATE

CONVERTIBLES

In convertibles, the window guide plate is attached to the door glass lower sash channel by two bolts and acts as a guide during operation of door glass. The guide plate also serves as the window rear up-travel stop.

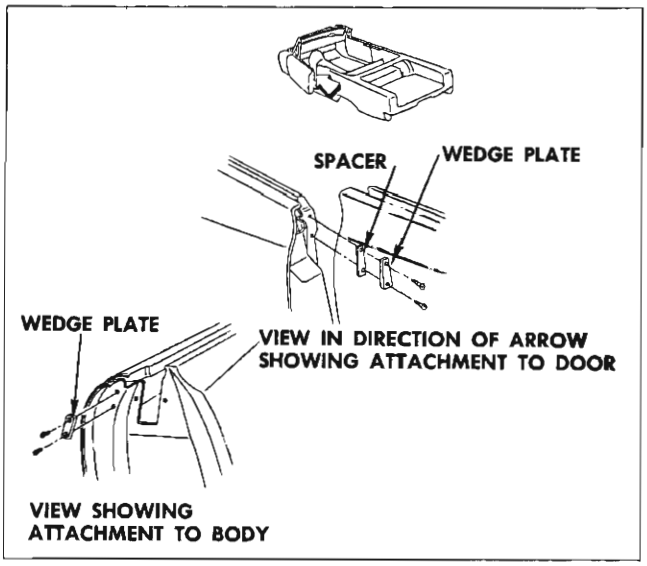


Fig. 12-19 Wedge Plate Installation

REMOVAL AND INSTALLATION

1. Raise window to a position almost fully closed.

2. Remove 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 lower sash channel and remove guide plate (Fig. 12-20).

4. To install, reverse removal procedure. Fore and aft adjustment of the guide plate is provided by usage of elongated attaching holes.

WINDOW UP-TRAVEL STOPS

CONVERTIBLES

REMOVAL AND INSTALLATION

1. Raise window to a position of almost fully closed.

2. Remove 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 inner panel and one bolt securing front up-travel stop to lower sash channel and remove stops (Fig. 12-21).

4. To install, reverse removal procedure.

WINDOW ASSEMBLY

CONVERTIBLES

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 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.

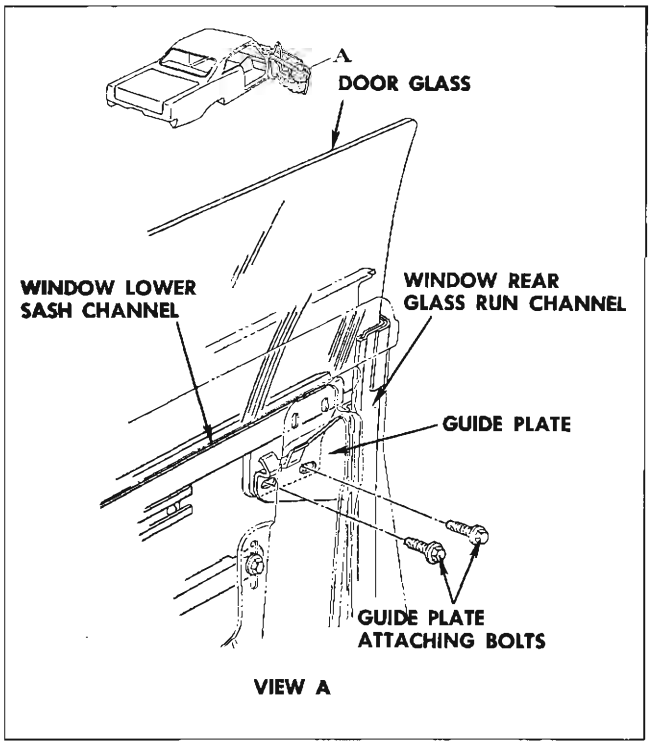


Fig. 12-20 Window Lower Sash Channel Guide Plate

REMOVAL AND INSTALLATION

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

2. Remove run channel inner strip assembly.

3. Raise window and remove lower sash channel guide plate and front and rear up-travel stops.

4. Remove inner panel cam.

5. The lower sash channel cams can now be moved even with or slightly higher than the belt line of outer panel. Move glass to this high point position and slide assembly rearward to disengage regulator arm rollers from front and rear sash channel cams and remove window (Fig. 12-21).

6. To install, reverse removal procedure.

WINDOW ADJUSTMENTS

CONVERTIBLES

The front door window is adjustable fore or aft by adjusting the guide plate (Fig. 12-21). 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

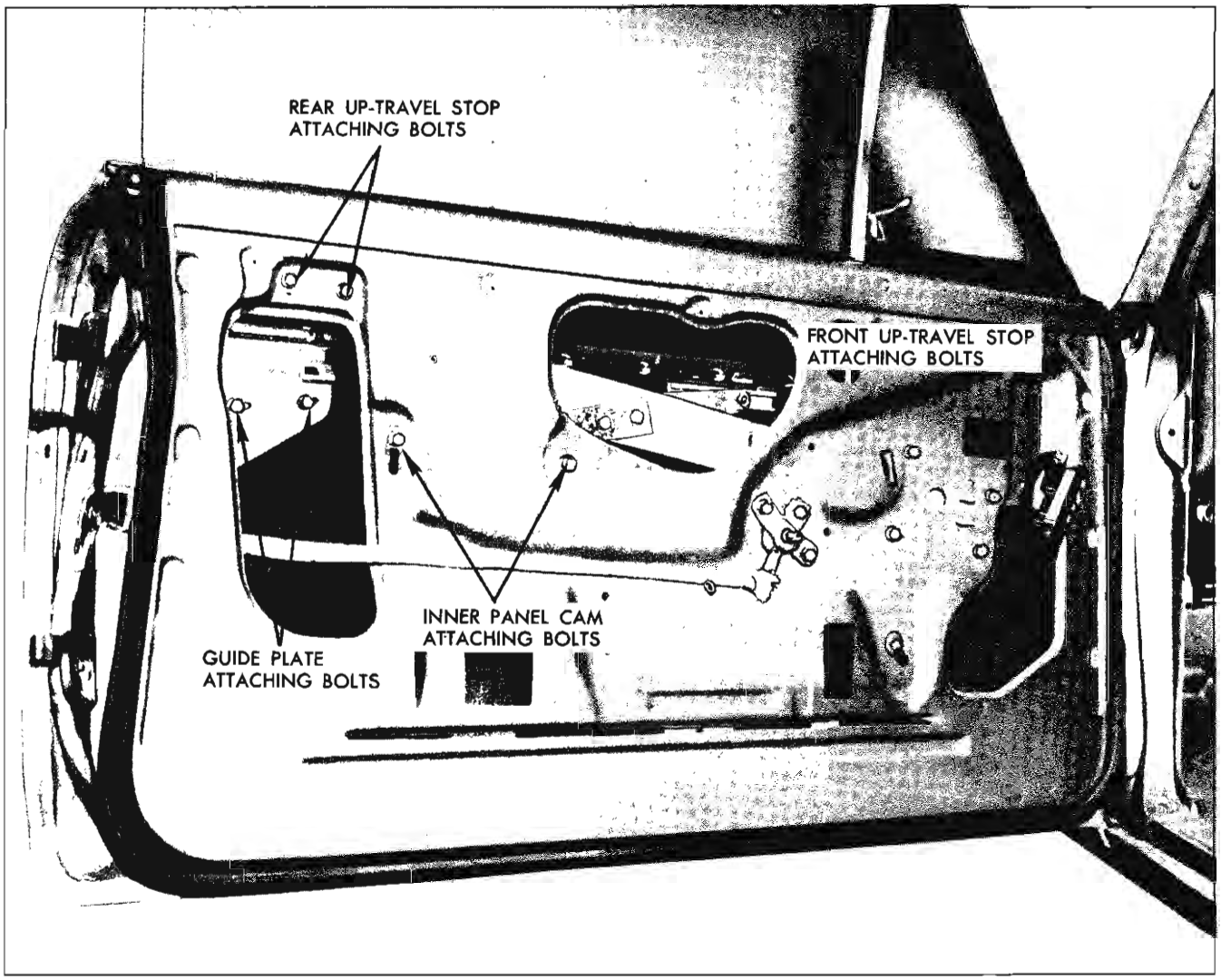


Fig. 12-21 Door Hardware

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 (See Fig. 12-21).

VENTILATOR

CONVERTIBLES

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

REMOVAL AND INSTALLATION

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

2. Remove window assembly.

3. Remove ventilator division channel lower adjusting stud nut (Fig. 12-22).

4. Remove door inner panel to ventilator attaching screw (Fig. 12-22).

5. On door hinge pillar, remove ventilator frame lower attaching bolt and ventilator frame lower adjusting stud nut (Fig. 12-23).

6. Lift ventilator assembly from between inner and outer panels.

7. To install, reverse removal procedure.

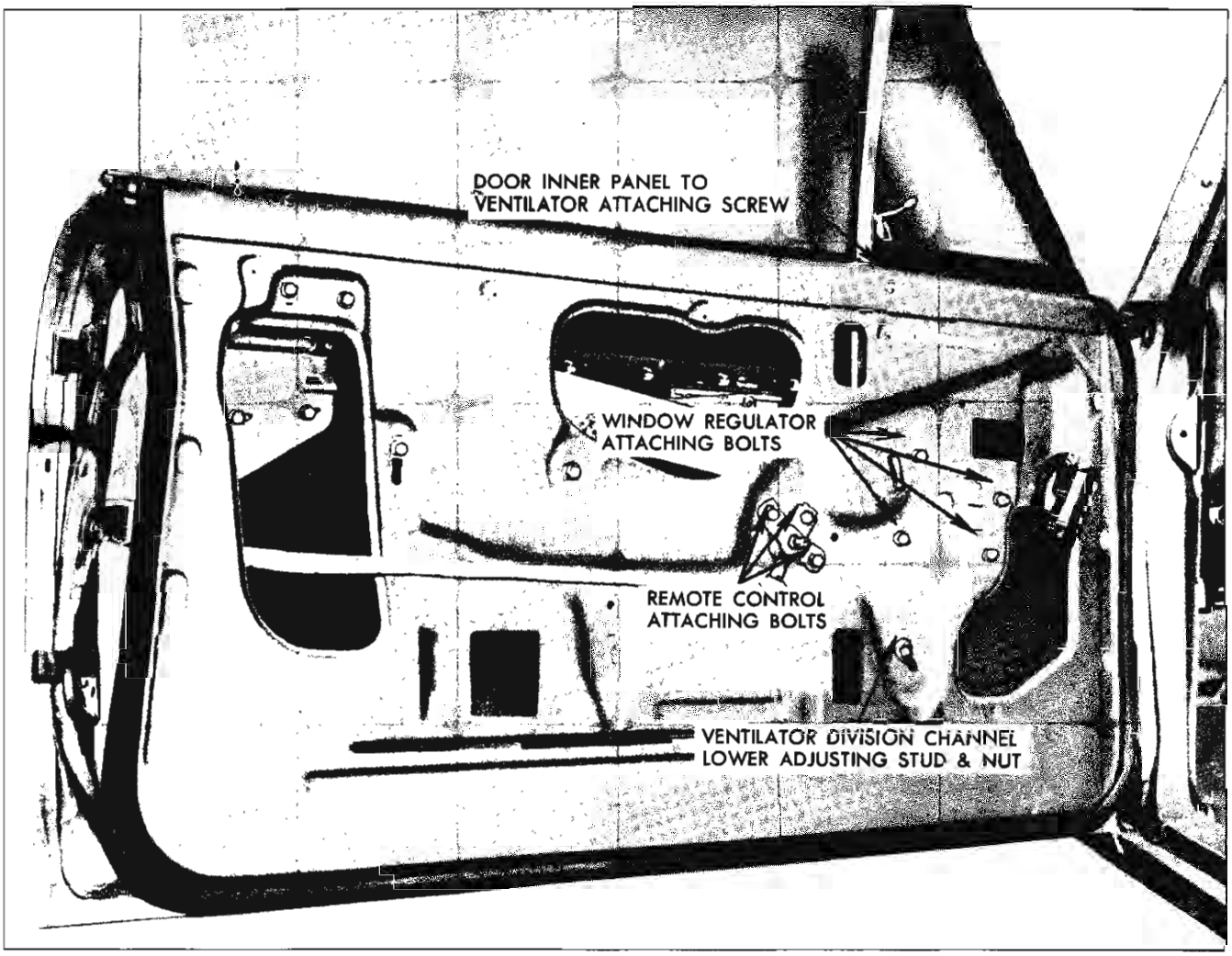


Fig. 12-22 Door Hardware

VENTILATOR ADJUSTMENTS

CONVERTIBLES

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 (Fig. 12-23). The division channel can also be positioned in or out by loosening nut and turning stud in or out as required and tightening nut.

2. The effort required to open or close the ventilator can be set by straightening retaining washer tab and tightening or loosening the adjusting nut Tightening the adjusting nut will increase effort and loosening adjusting nut will decrease effort. When desired adjustment has been obtained, bend down washer tab to lock nut in position (Fig. 12-24).

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.

VENTILATOR
27, 35 and 69 STYLES

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

REMOVAL AND INSTALLATION

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

2. Remove run channel lower rear retainer attaching screw and remove retainer through large access hole. Fig. 12-25 shows retainer retention on 15 and 80 styles, but is typical of all closed styles.

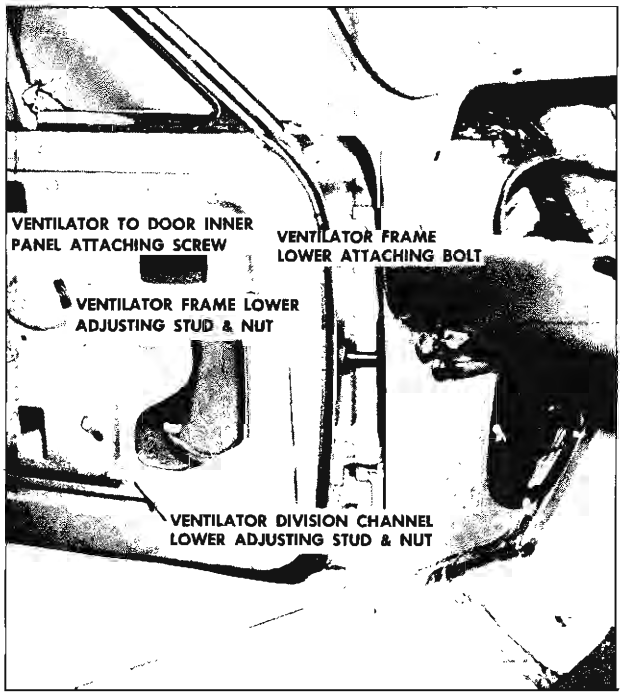


Fig. 12-23 Ventilator Attachment

3. Remove lower stop. Lower window completely 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. 12-26).

5. Remove 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. 12-26).

7. Rotate ventilator assembly in an outboard movement and remove unit outboard of door upper frame (View C, Fig. 12-26).

8. To install, reverse removal procedure.

VENTILATOR ADJUSTMENTS 27, 35 and 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 (Fig. 12-26). 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

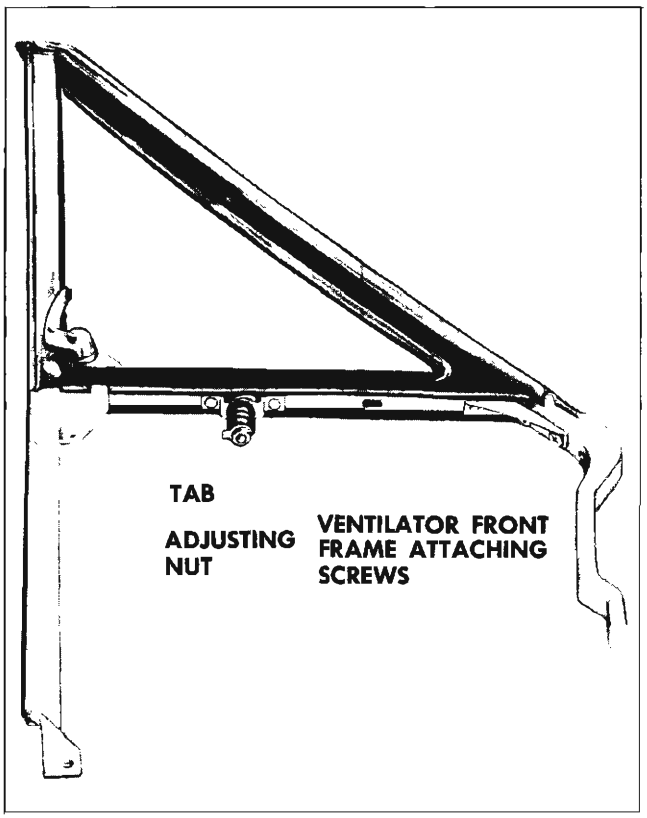


Fig. 12-24 Ventilator Assembly

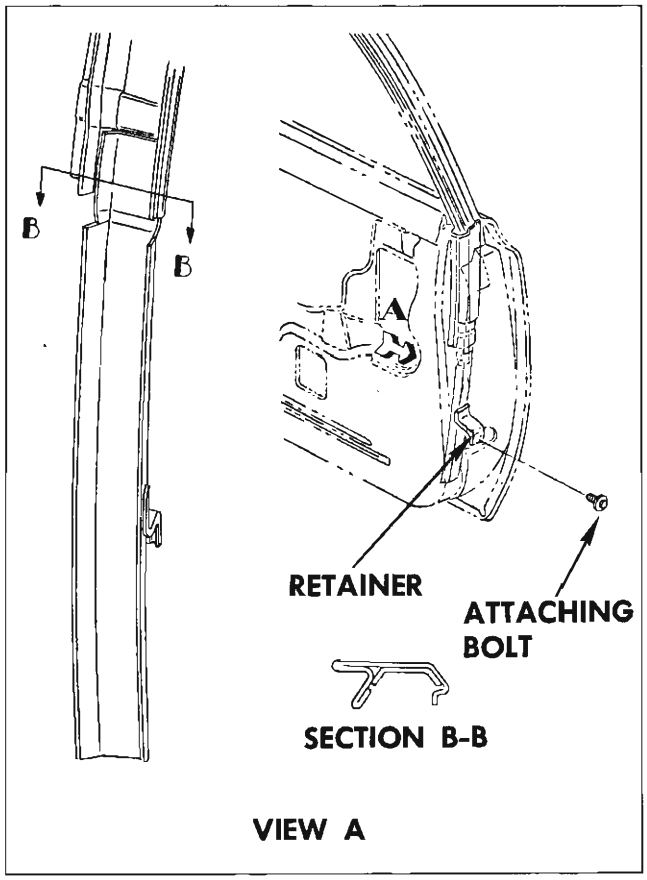


Fig. 12-25 Run Channel Lower Rear Retainer

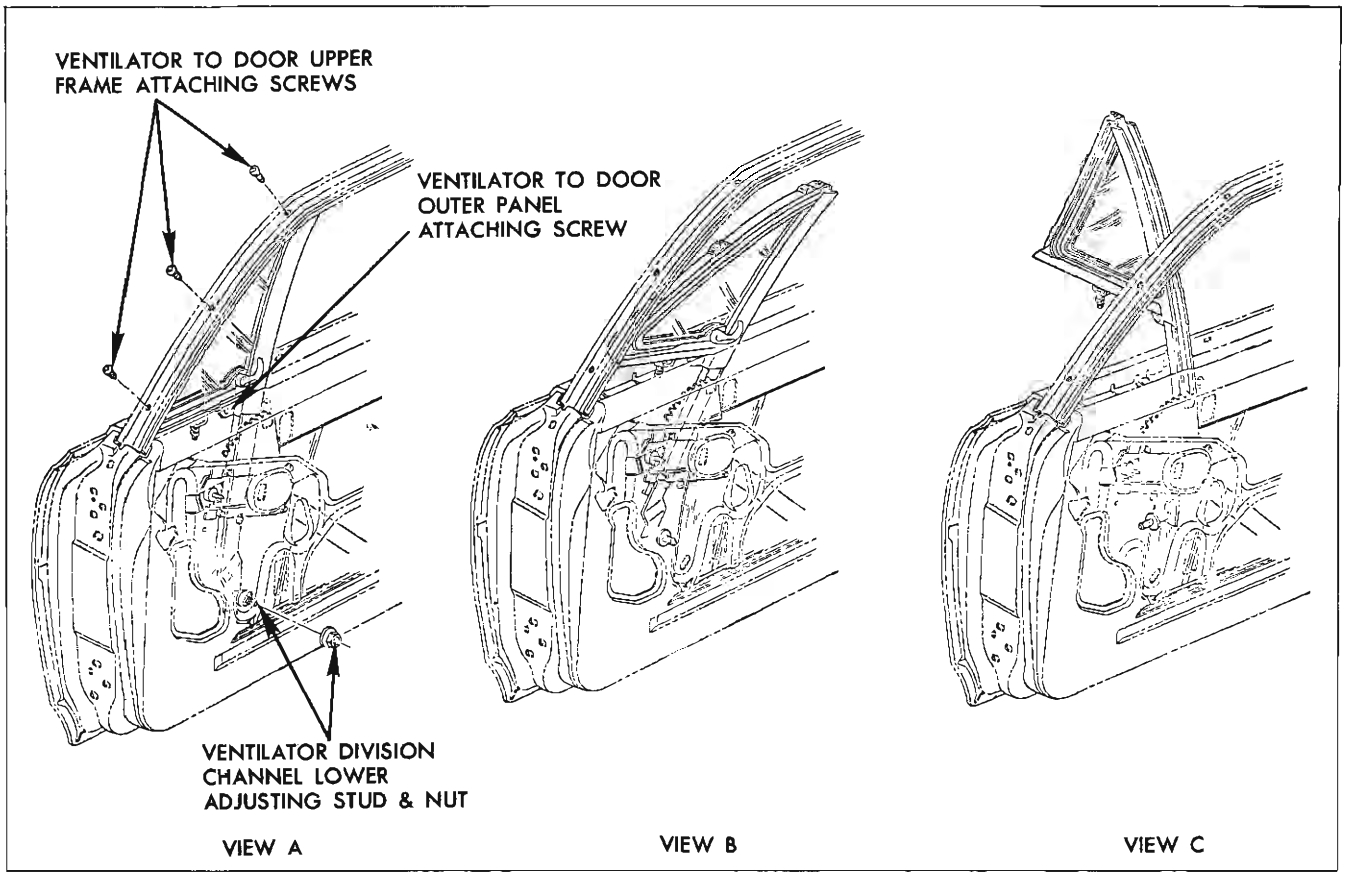


Fig. 12-26 Ventilator Removal

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 (Fig. 12-27).

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

INNER PANEL CAM

27 and 67 STYLES

All two-door styles are equipped with a window double-arm regulator, requiring usage of an inner panel cam. This cam houses one of the regulator balance arm rollers.

REMOVAL AND INSTALLATION

1. Raise window, remove 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. (Fig. 12-21).

3. To install, reverse removal procedure.

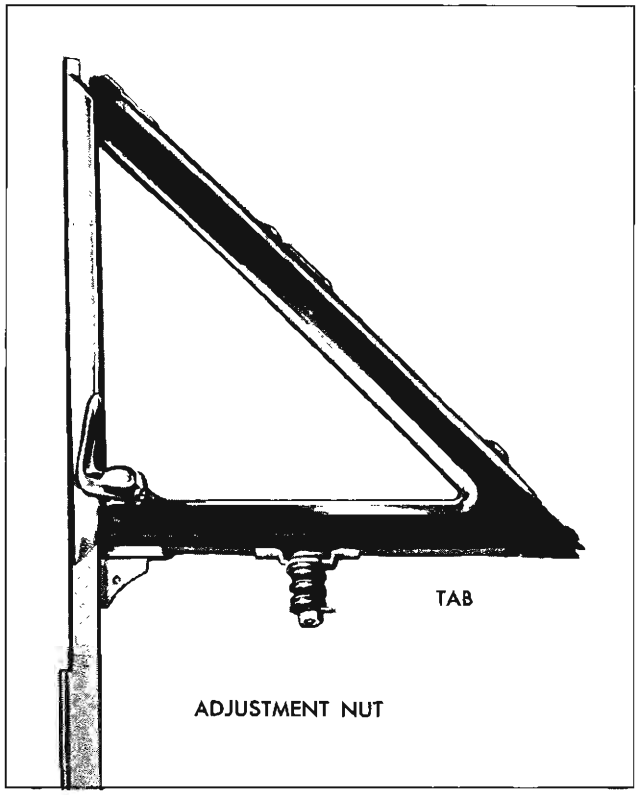


Fig. 12-27 Ventilator Friction Adjustment

The rear section of the inner panel cam is adjustable up or down to correct a rotated window.

WINDOW
27, 35 and 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 are removed 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 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 ventilator (Figs. 12-25 and 12-26).

4. Raise window to a position of almost fully closed on two-door styles and rotate regulator balance arm to a position in close relation with the regulator lift arm.

5. Move window forward to disengage regulator arm roller(s) from window lower sash channel cam and remove glass outboard of door upper frame (Fig. 12-28).

6. To install, reverse removal procedure.

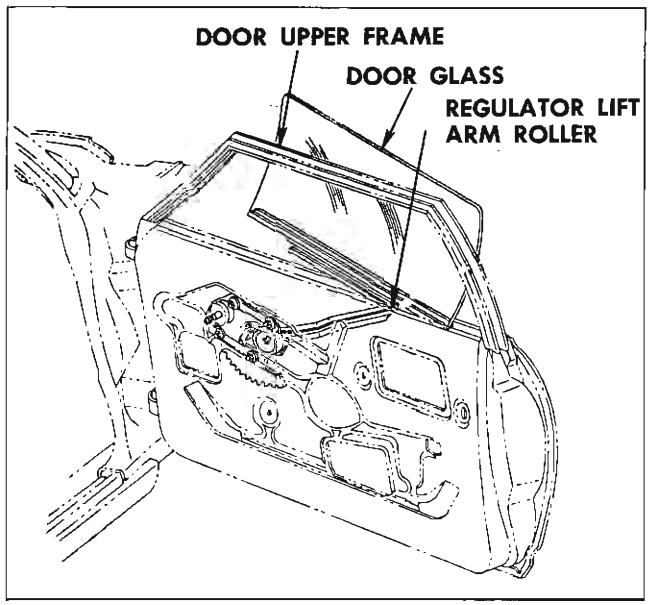


Fig. 12-28 Window Removal

WINDOW ADJUSTMENTS

A slight amount of fore or aft adjustment is available at the ventilator division channel lower adjusting stud and nut as required under VENTILATOR ASSEMBLY - Adjustments. On two-door styles, a rotated glass can be corrected by adjustment of the inner panel cam as explained under WINDOW INNER PANEL CAM.

LOCK REMOTE CONTROL AND CONNECTING ROD

REMOVAL AND INSTALLATION

1. Raise window, remove 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 LOCK SPRING CLIP.

3. Remove bolts securing remote control assembly to inner panel and detach remote control from connecting rod.

4. Remove remote control assembly and connecting rod (Fig. 12-29).

5. To install, reverse removal procedure. Check operation of lock prior to installation of inner panel water deflector.

WINDOW REGULATOR
27, 35 and 69 STYLES

REMOVAL AND INSTALLATION

1. Remove trim and detach inner panel water deflector.

2. On two-door styles, remove inner panel cam.

3. Raise 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 12" to 15" 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 regulator.

4. Remove ventilator division channel lower adjusting stud and nut.

5. Remove regulator attaching bolts and work regulator rearward to disengage lift arm from lower sash channel cam and remove regulator (Fig. 12-29).

6. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector.

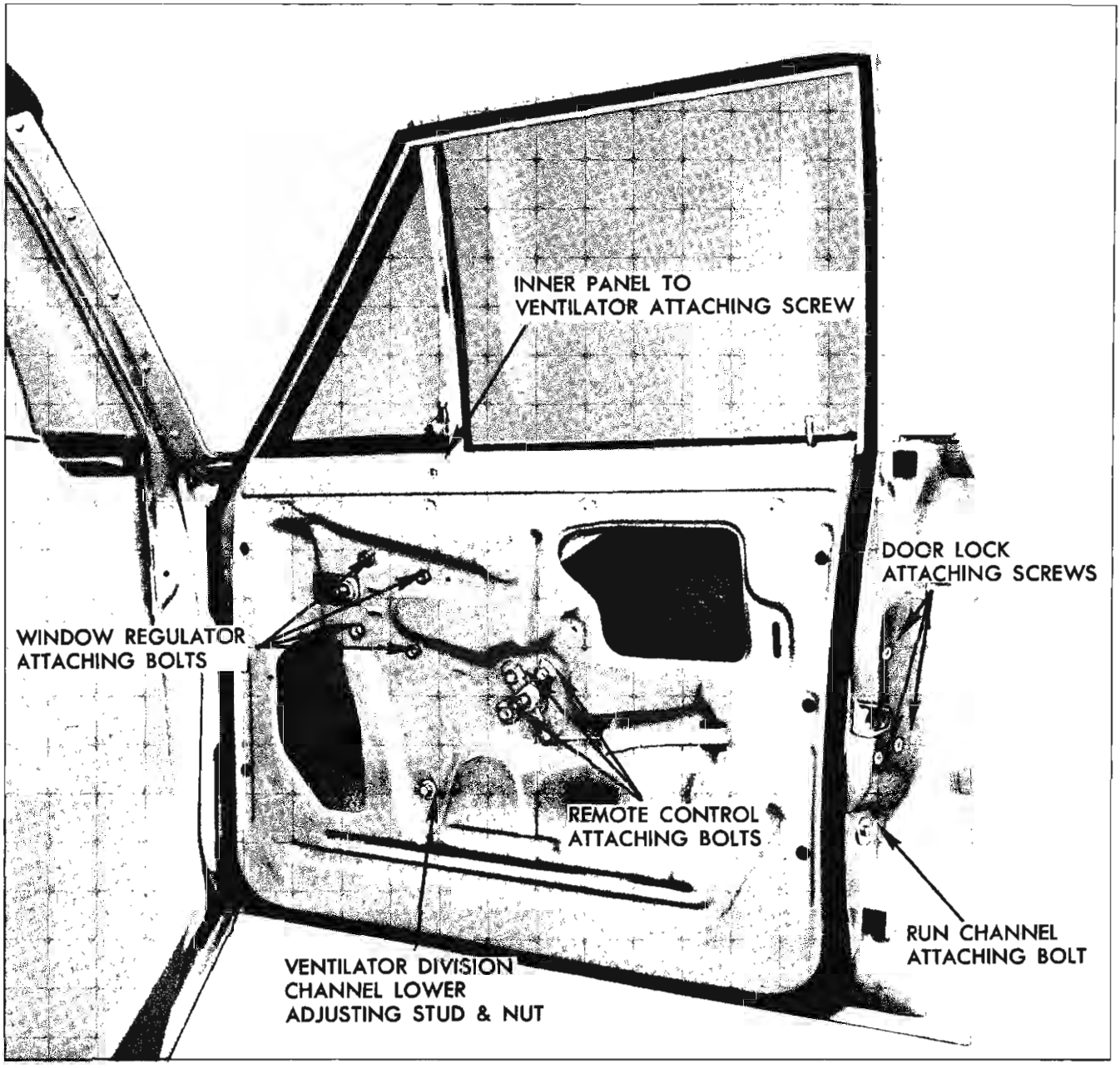


Fig. 12-29 Door Hardware

WINDOW REGULATOR
67 STYLE

REMOVAL AND INSTALLATION

1. Remove trim and detach inner panel water deflector.

2. Remove inner panel cam.

3. Prop window in a full up position and remove regulator attaching bolts (See Fig. 12-22).

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 trim pad.

POWER OPERATED WINDOW REGULATOR

OPTIONAL

The electrical motor that powers the 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 regulator proceed as follows:

REMOVAL AND INSTALLATION

1. Remove 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. 12-30).

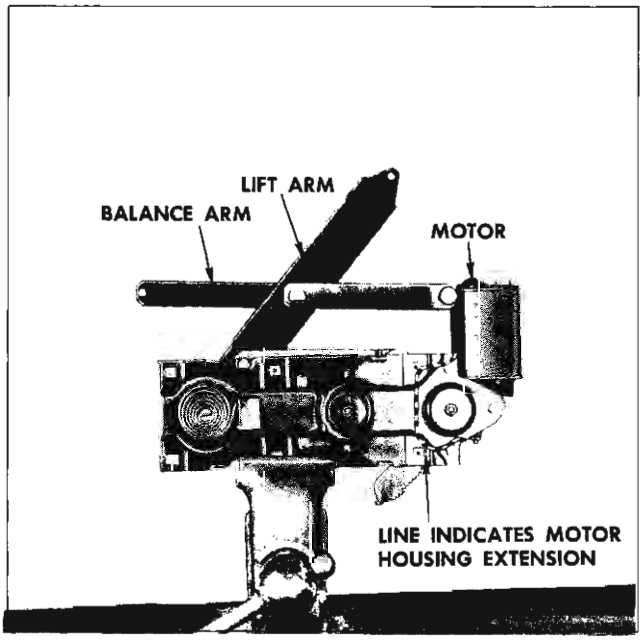


Fig. 12-30 Regulator and Electric Motor Assembly

3. Insert 3/16" bolt through hole in back plate and sector gear and install nut on 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 regulators.

DOOR LOCK

The lock assemblies are of the "keyless locking" type.

The striker mechanical components are incorporated into the lock assembly; specifically, the nylond shoe, shoe pin and shoe return spring. 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 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 window, remove trim and detach inner panel water deflector.

2. With a screwdriver, or other suitable tool, disengage remote control connecting link from lock assembly as described under LOCK SPRING CLIP.

3. Loosen rear glass run channel retainer on closed styles.

4. Remove lock attaching screws and remove lock assembly through inner panel access hole (Fig. 12-29).

5. To install, reverse removal procedure. If additional lubrication of lock assembly is required, 630 AAW Lubriplate, or its equivalent, is recommended. Check all operations of lock assembly prior to installation of inner panel water deflector.

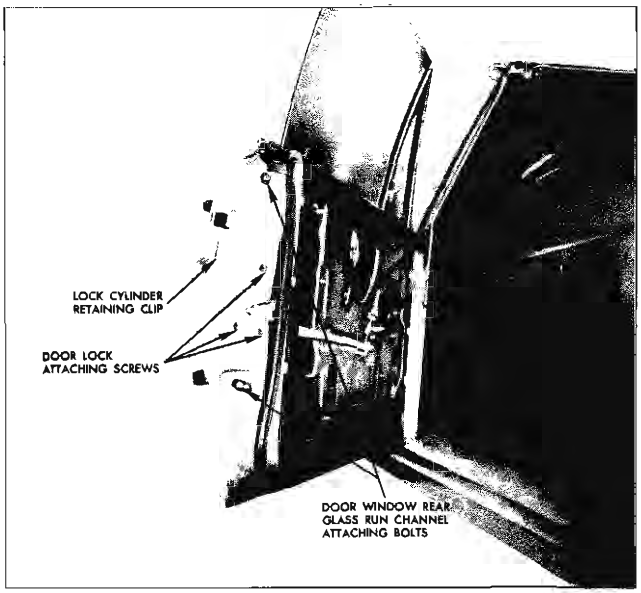


Fig. 12-31

LOCK CYLINDER

REMOVAL AND INSTALLATION

1. Raise 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. 12-31).

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.

DOOR LOCK CYLINDER DISASSEMBLY AND ASSEMBLY

1. Remove lock cylinder.

2. With a suitable tool, remove retaining clip and pawl. (Fig. 12-32).

3. To assemble, reverse disassembly procedure.

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

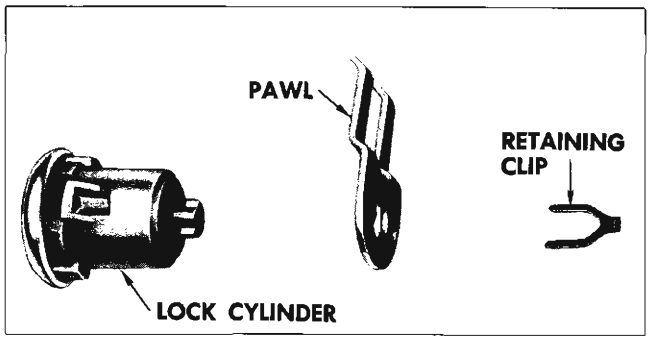


Fig. 12-32 Lock Cylinder

GLASS RUN CHANNELS 27, 35 and 69 STYLES

REMOVAL

1. Lower window. With finger pressure, pinch channel together at ventilator division channel (belt line) and pull channel out of door upper frame. Pull the run channel straight up to remove channel from retainer located below belt line (Fig. 12-33).

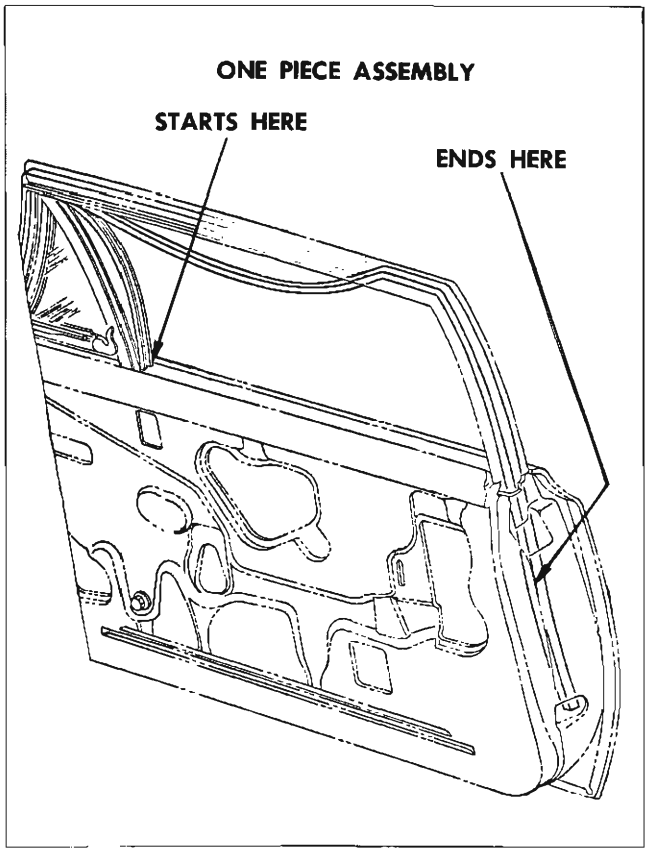


Fig. 12-33

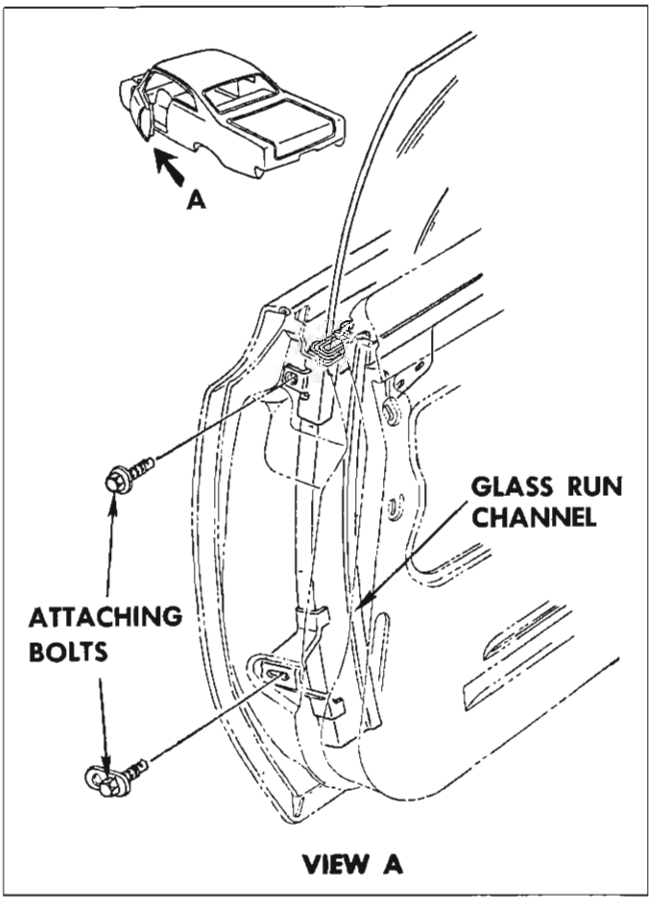


Fig. 12-34 Run Channel - 67 Styles

INSTALLATION

1. Remove run channel rear retainer.

2. Lower window, remove trim pad and detach inner panel water deflector.

3. Slide run channel into run channel rear retainer and then install channel up into door upper frame in reverse order of removal (Fig. 12-25).

4. Reinstall water deflector, trim pad and other previously removed parts.

GLASS RUN CHANNEL
67 STYLES

REMOVAL AND INSTALLATION

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

2. Remove window rear guide plate.

3. Remove upper and lower bolts securing run channel to lock pillar panel and remove (Fig. 12-31).

4. To install, reverse removal procedure (See Fig. 12-34).

REAR DOORS
35 and 69 STYLES

Fig. 12-35 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.

HINGES
35 and 69 STYLES

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 door may be removed with or without hinges attached.

REMOVAL

1. Mark hinge location on hinge pillar or center pillar depending on method of removal being used.

2. With door properly supported, remove upper and lower hinge attaching screws (Fig. 12-36 and Fig. 12-37).

3. With aid of helper, remove door.

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. 12-38).

3. With aid of a helper, lift door into position. Attach hinge loosely and align straps within marks on pillar. Tighten screws and check door for alignment.

DOOR ADJUSTMENTS

In or out and up or down adjustment of rear doors is provided at the door hinge pillar. Fore or aft and a slight amount of up or down adjustment is provided at body center pillar. When checking door

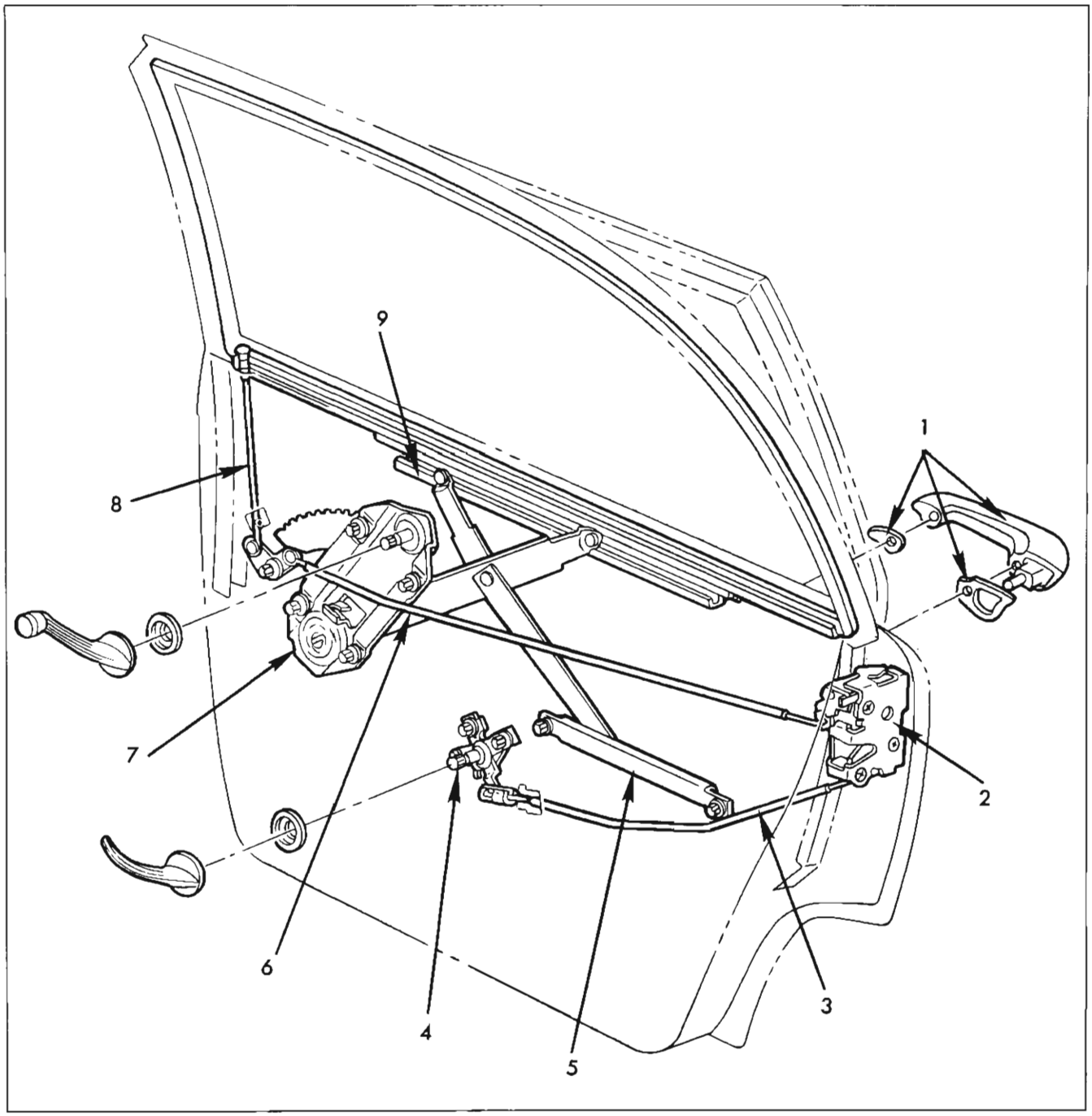


Fig. 12-35 Rear Door Assembly

1. Outside Handle and Sealing Gaskets
2. Lock Assembly
3. Remote Control Connecting Rod
4. Remote Control Assembly
5. Inner Panel Cam
6. Lock to Locking Lever Rod
7. Window Regulator Assembly
8. Inside Locking Rod
9. Window Lower Sash Channel Cam

for alignment, remove lock striker from center pillar to allow door to hang free on hinges.

ADJUSTMENTS

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.

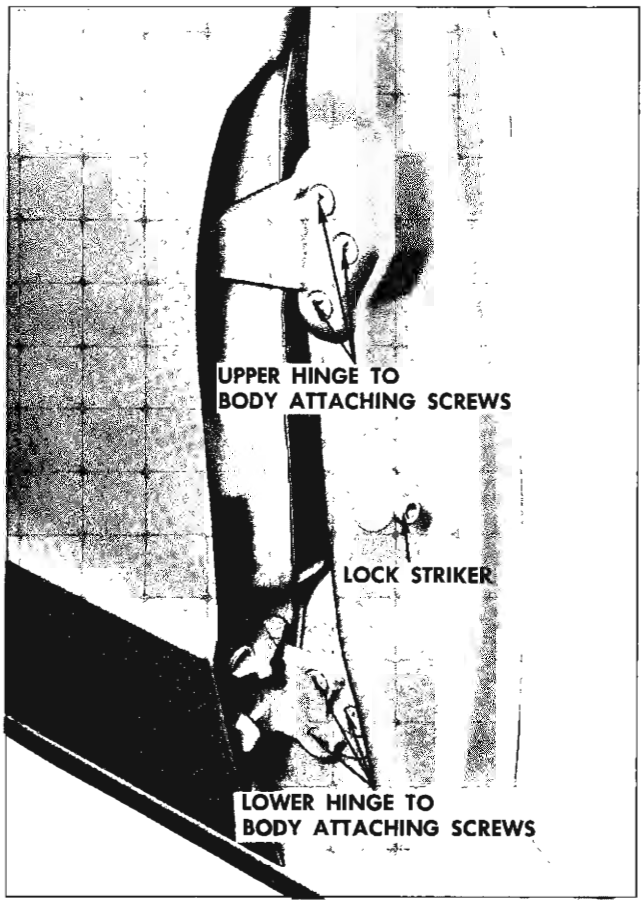


Fig. 12-36 Rear Door Hinge Body Attachment

3. Reinstall lock striker and check lock extension to striker engagement as described under LOCK STRIKER - Adjustments.

LOCK

35 and 69 STYLES

The principal feature of this lock is the "keyless locking" design.

The striker mechanical components are incorporated into the lock; specifically, the nylon shoe, shoe pin and shoe return spring. The 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 the lock assembly. The 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 spacers of the proper thickness are used to obtain proper engagement.

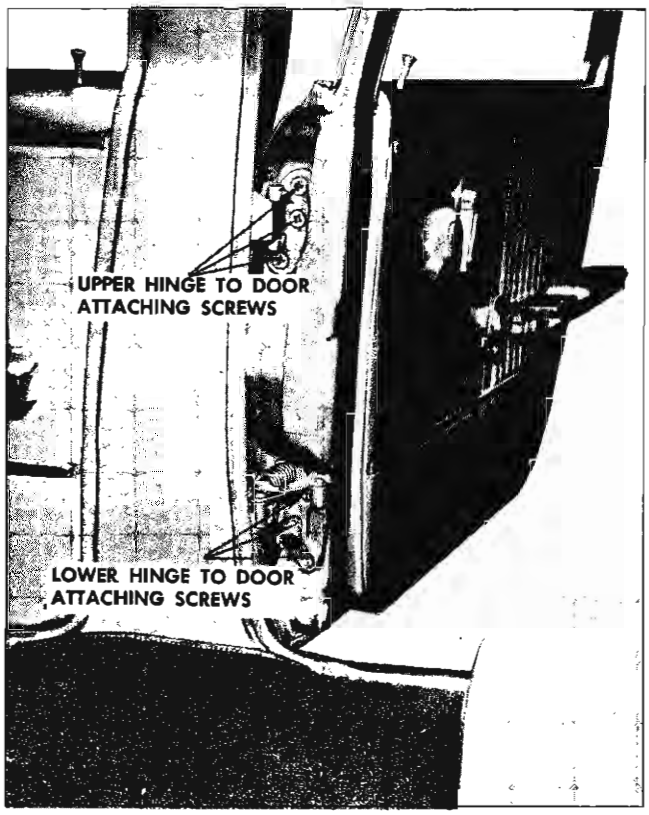


Fig. 12-37 Hinge to Door Attachment

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 window; remove door trim assembly and detach inner panel water deflector sufficiently to gain access to lock.

2. With a screwdriver, or other suitable tool, disengage spring clips and detach inside lock connecting rod and remote control connecting rod from lock.

3. Remove screws securing lock to door lock pillar facing and remove lock through inner panel access hole (Fig. 12-39).

4. To install, secure spring clips to lock levers and reverse removal procedure. Check operation 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.

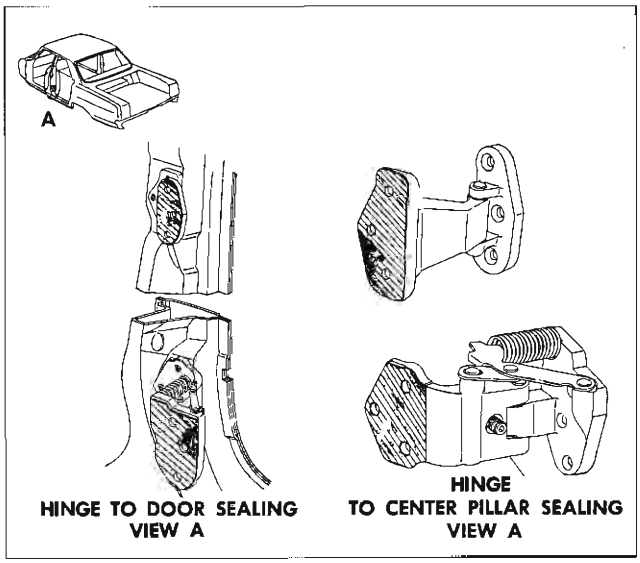


Fig. 12-38

REMOTE CONTROL
35 and 69 STYLES

REMOVAL AND INSTALLATION

1. Remove 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 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. 12-39).

LOCK TO LOCKING LEVER ROD
35 and 69 STYLES

REMOVAL AND INSTALLATION

1. Raise window. Remove trim 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. 12-39).

4. Through access hole, disengage spring clip securing inside lock connecting rod from lock and

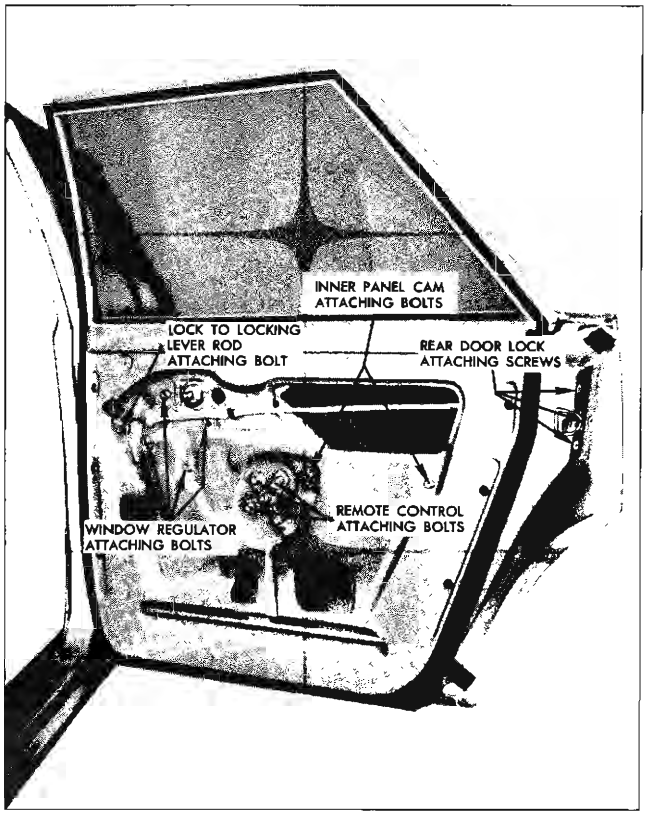


Fig. 12-39 Rear Door Hardware

disengage rod from lock, then remove inside locking rod assembly.

5. To install, reverse removal procedure. Check operation of inside locking rod assembly before installing inner panel water deflector.

WINDOW INNER PANEL CAM
35 and 69 STYLES

All rear doors are equipped with a window double-arm regulator, requiring usage of an inner panel cam. This cam houses one of the regulator balance arm rollers.

REMOVAL AND INSTALLATION

1. Raise window, remove 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 (Fig. 12-39).

3. To install, reverse removal procedure. The rear attachment of the inner panel cam is adjustable up or down to correct a rotated window.

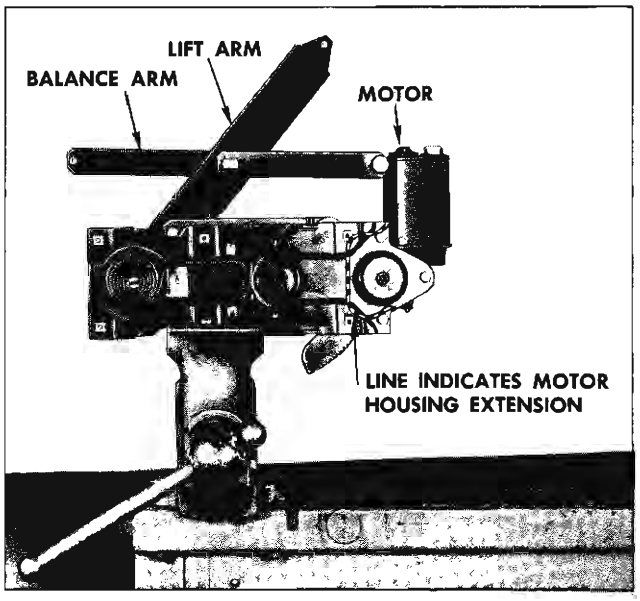


Fig. 12-40 Regulator and Electric Motor Assembly

NOTE: If additional lubrication of the inner panel cam is required, 630 AAW Lubriplate, or its equivalent, is recommended.

WINDOW REGULATOR

35 and 69 STYLES

REMOVAL AND INSTALLATION

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

2. Secure window in the full up position by installing a 12" to 15" piece of body tape (2" or 2-1/2" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of window regulator.

3. Remove inner panel cam.

4. Remove window regulator attaching bolts and move regulator assembly rearward to disengage lift and balance arm rollers from lower sash channel cam and remove regulator through large access hole (Fig. 12-39).

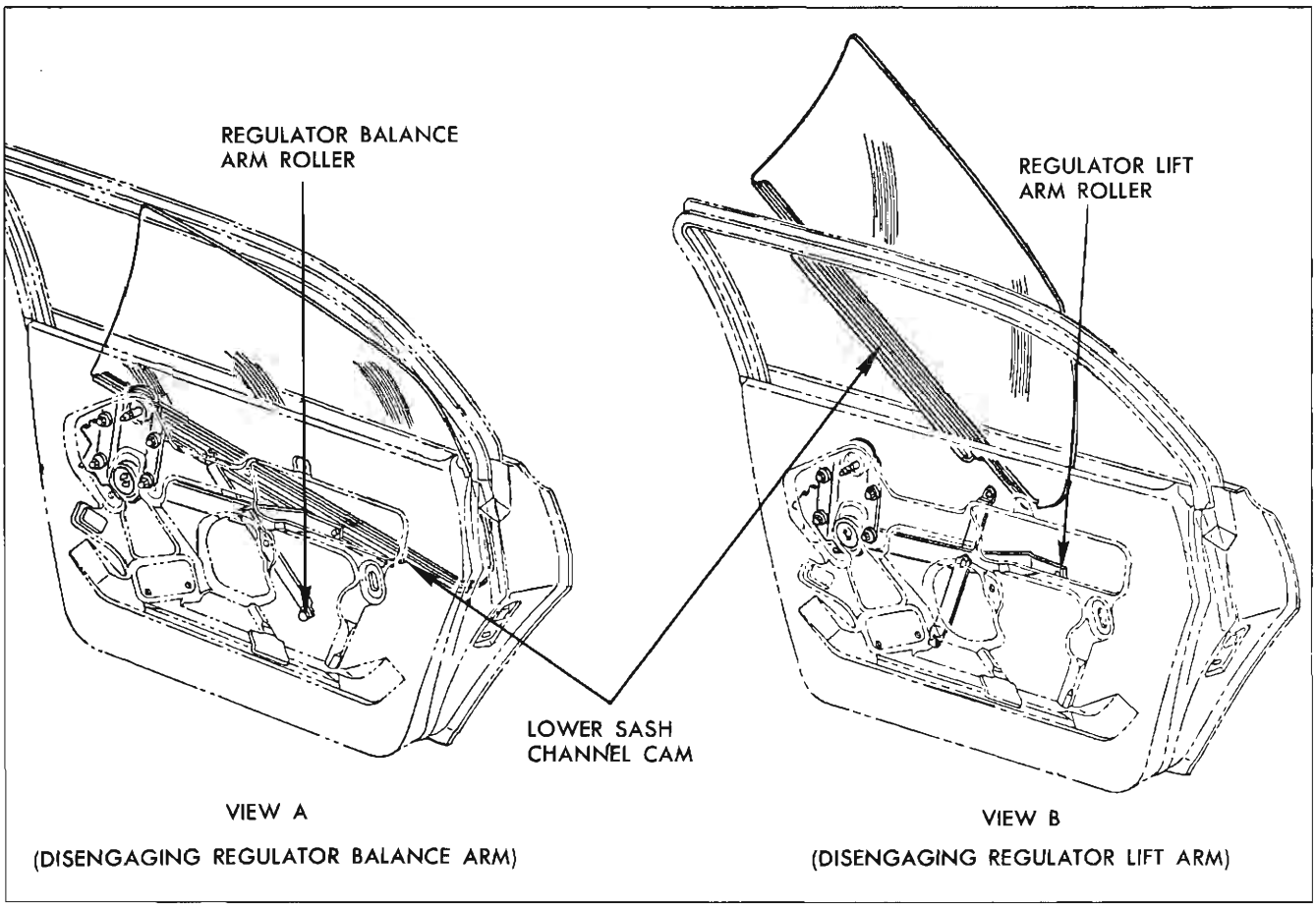


Fig. 12-41 Window Removal - 69 Style

5. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector and trim pad.

POWER OPERATED WINDOW REGULATOR

The electric motor 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 regulator, proceed as follows:

REMOVAL AND INSTALLATION

1. Remove 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. 12-40).

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. Cycle window several times to insure proper operation before installing water deflector and trim pad.

WINDOW
35 and 69 STYLES

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 glass, lower sash channel, and sash channel cam are removed as a unit. All rear door windows are curved glass design.

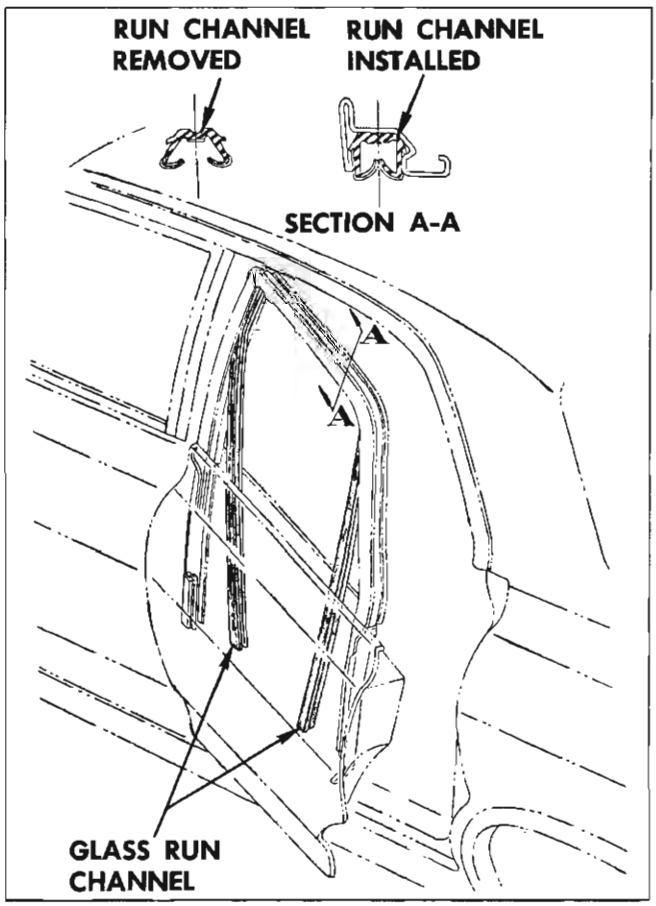


Fig. 12-42 Run Channel Assembly - 69 Style

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 window, remove 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.

4. Rotate glass upward and forward to disengage lower sash channel cam from regulator lift arm roller and remove window outboard of door upper frame (Fig. 12-41, View A and B).

5. To install, reverse removal procedure.

WINDOW ADJUSTMENTS 35 and 69 STYLES

A rotated window can be corrected by adjusting the inner panel cam (Fig. 12-39).

GLASS RUN CHANNEL 35 and 69 STYLES

A soft "flocked" run channel is used for all rear door windows.

REMOVAL AND INSTALLATION.

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

2. Remove window.

3. With finger pressure, squeeze run channel together and gently pull run channel out of rear door upper frame and remove (Fig. 12-42).

4. To install, reverse removal procedure.

IMPORTANT: The glass run channel must be properly seated and conform to shape of door upper frame to achieve proper glass operation.

REAR QUARTER

CONTENTS OF THIS SECTION

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

Two Door Sedans (27 Style)
Convertible (67 Style)
Station Wagons (35 Style)

Figures 13-1 and 13-2 identify the major components of the rear quarter hardware on those styles that incorporate 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 will shatter if deeply scratched or chipped.

TRIM ASSEMBLY
27 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat 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.

4. Beginning at rear, carefully pull upper edge of trim downward to disengage it from upper finishing molding (View B, Fig. 13-3).

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 foward overlapping edge of trim to pinchweld flange outboard surface (Fig. 13-3).

WINDOW 27 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

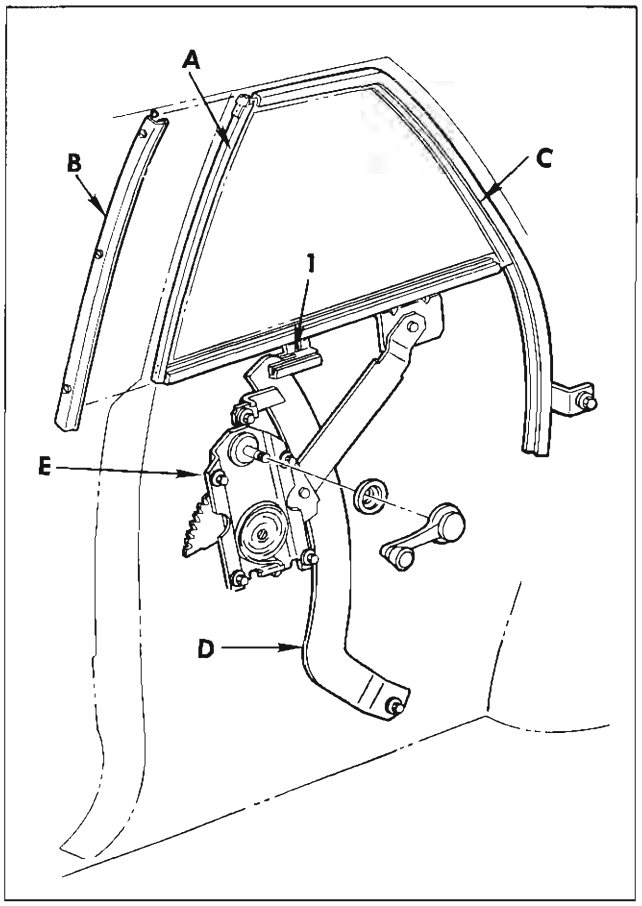


Fig. 13-1 Rear Quarter Hardware - 27 Styles

A. Window Assembly (Includes Clothespin Nylon Guide at 1)
B. Front Run Channel
C. Upper Run Channel
D. Window Guide
E. Window Regulator

2. Remove glass run channel inner strip as described in a following procedure (see GLASS RUN INNER STRIP ASSEMBLY).

3. With window in half-down position, remove snap-ring retainer securing regulator lift arm to pivot pin (Fig. 13-4).

4. While 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 "clothespin" 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 (1, Fig. 13-1).

6. Rotate glass slightly rearward and bring upper section of glass out first from between the panels.

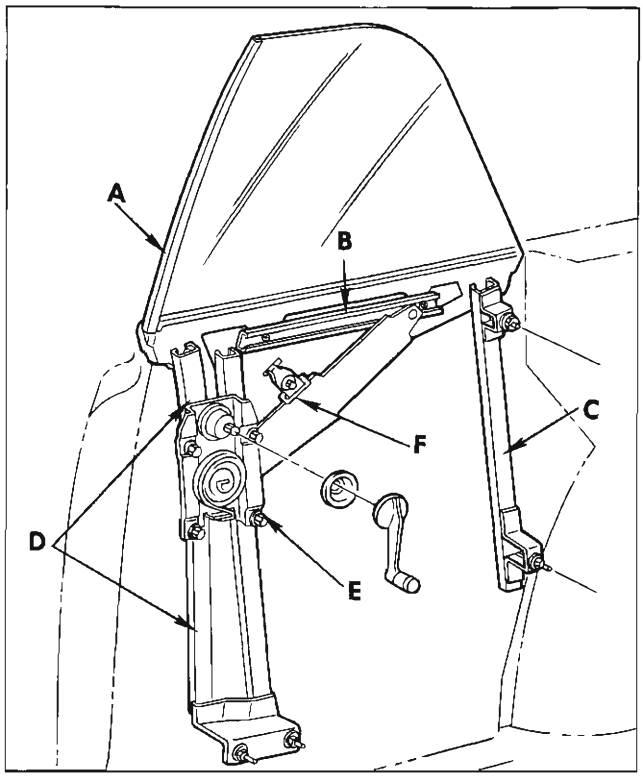


Fig. 13-2 Rear Quarter Hardware - 67 Styles

A. Window Assembly
B. Lower Sash Channel Cam
C. Rear Guide
D. Front Guide
E. Window Regulator
F. Window Upper Stop

7. To install, reverse removal procedure.

WINDOW REGULATOR (MANUAL AND ELECTRIC)
27 STYLES

REMOVAL AND INSTALLATION

1. Remove window as previously described.

2. Remove window guide upper adjusting stud and lower attaching screws (Fig. 13-4) 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.

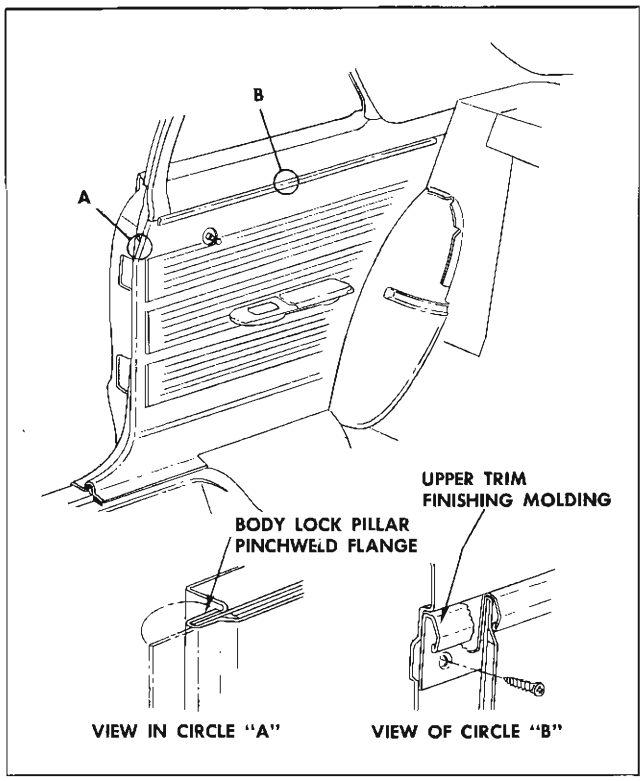


Fig. 13-3 Rear Quarter Trim

4. Remove regulator attaching screws (Fig. 13-4) and remove regulator through access hole.

NOTE: The procedure for removing the electric motor from the regulator is described under DOOR AND/OR QUARTER WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY.

5. To install window regulator, reverse removal procedure.

WINDOW GUIDE 27 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

2. With window in full up position, remove guide upper adjusting stud and lower attaching screw (Fig. 13-4). Disengage guide from nylon guide on lower sash channel and remove guide.

3. To install, reverse removal procedure.

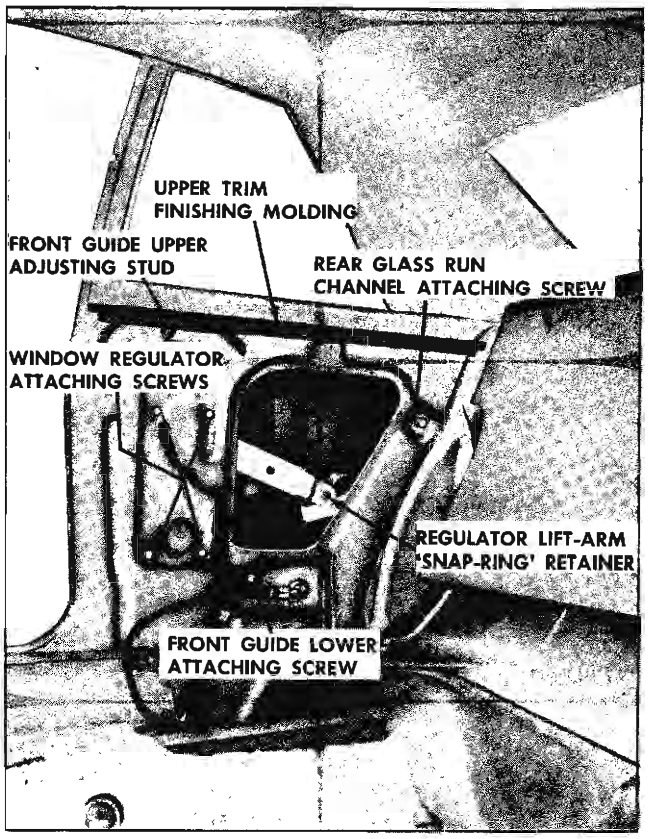


Fig. 13-4 Rear Quarter Hardware - 27 Styles

FRONT GLASS RUN CHANNEL
27 STYLES

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 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. 13-5).

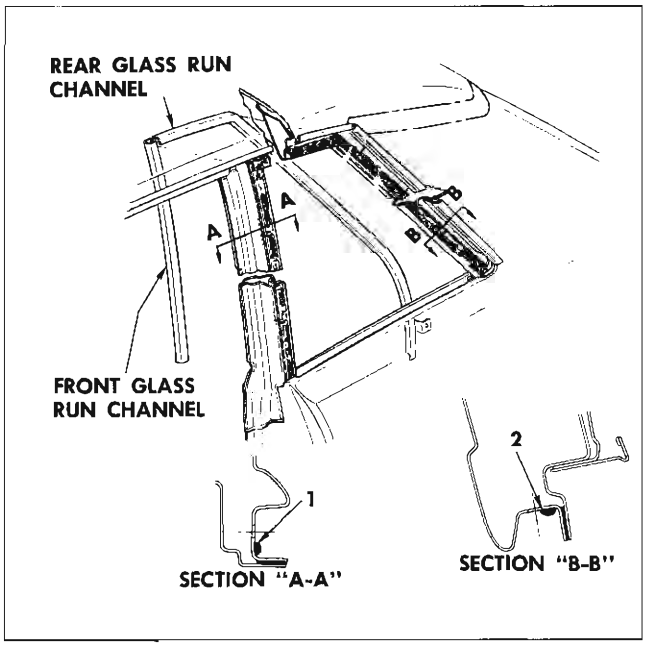


Fig. 13-5 Run Channel Sealing

REAR GLASS RUN CHANNEL
27 STYLES

REMOVAL AND INSTALLATION

1. Perform steps 1 through 5 of 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. 13-4).

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. 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. 13-5).

WINDOW ADJUSTMENTS 27 STYLES

1. To obtain proper horizontal alignment so that window seats properly in glass run channels when window is operated to up position, proceed as follows:

a. Operate window to full up position and loosen window regulator attaching screws (Fig. 13-4).

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. 13-4).

b. Operate window to full-down position.

c. Adjust rear glass run channel lower end so that it makes slight contact with window and tighten glass run channel attaching screw.

3. To insure proper engagement of nylon "clothespin" guide with window guide, 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 with window in both full-up and full-down positions.

GLASS RUN INNER STRIP
(At Beltline)

The inner strip 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, 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.

NOTE: Prior to removal, apply masking tape to adjacent painted surfaces to protect finish. Prior to installation, reform strip clips to assure adequate retention when installed.

GLASS RUN OUTER STRIP (At Beltline) 2027 AND 2167 STYLES

The outer strip is retained by integral clips, which engage slots in the quarter outer panel return flange. In addition, screws are inserted through the strip into the return flange.

To remove the strip, 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.

NOTE: Prior to removal, apply masking tape to adjacent painted surfaces to protect finish.

Prior to installation, reform strip clips to assure adequate retention when installed.

FOLDING TOP COMPARTMENT SIDE TRIM PANEL 67 STYLES

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.

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 can be removed from the folding top compartment side upper trim panel by removing screws installed on reverse side.

REAR QUARTER TRIM 67 STYLES

REMOVAL AND INSTALLATION

1. Remove folding top compartment side trim panel. If present, remove window regulator handle.

2. Disengage lock pillar pinchweld finishing lace overlapping forward edge of quarter trim.

3. Pull trim downward to disengage from trim upper finishing molding similar to B, Fig. 13-3.

4. Swing rear edge of trim forward and break cement bond at lock pillar pinchweld flange by carefully applying hand pressure to reverse side of trim.

5. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward overlapping edge of trim to pinchweld flange outboard surface similar to A, Fig. 13-3.

REAR QUARTER WINDOW 67 STYLES

REMOVAL AND INSTALLATION

1. Lower folding top. Remove rear quarter trim and inner panel access hole cover.

2. Remove glass run inner strip assembly at belt line.

3. Loosen rear guide adjusting stud nuts (Fig. 13-6).

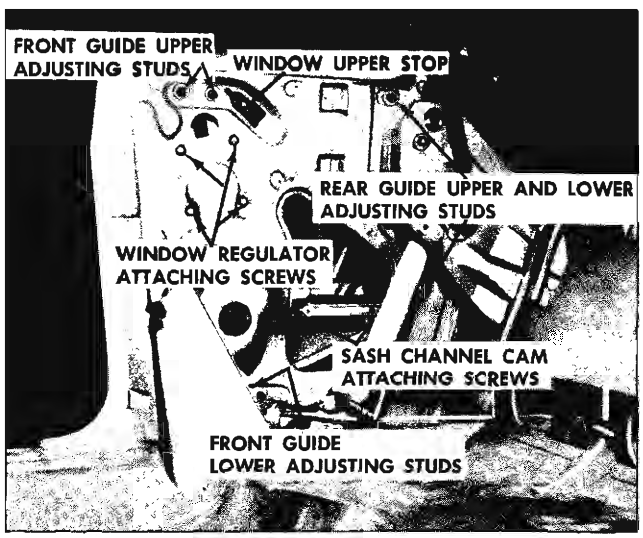


Fig. 13-6 Rear Quarter Hardware - 67 Styles

4. Operate window to full-down position and remove lower sash channel cam attaching screws (Fig. 13-6).

5. While supporting window with one hand, disengage sash channel cam from regulator lift arm roller and remove cam.

6. Raise window manually and remove it from between panels at belt line.

7. To install rear quarter window, reverse removal procedure.

WINDOW REAR GUIDE
67 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

2. With window in full-up position, remove rear guide upper and lower adjusting stud nuts (Fig. 13-6).

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 WINDOW ADJUSTMENTS.

WINDOW FRONT GUIDE
67 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter window as previously described.

2. Remove front guide upper and lower adjusting stud nuts (Fig. 13-6).

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 WINDOW ADJUSTMENTS.

WINDOW REGULATOR—MANUAL
67 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter trim and inner panel access hole cover.

2. Lower window to full-down position and remove sash channel cam attaching screws (Fig. 13-6). Disengage cam from roller on regulator lift arm and remove sash channel cam.

3. Remove window regulator attaching screws (Fig. 13-6) and remove regulator through access hole.

4. To install, reverse removal procedure.

WINDOW REGULATOR—ELECTRIC
67 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter window and front guide 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. 13-6) and remove regulator through access hole.

5. To install window regulator, reverse removal procedure.

NOTE: The procedure for removing electric motor from regulator is described under DOOR AND/OR QUARTER WINDOW REGULATOR ELECTRIC MOTOR in Section 12.

WINDOW ADJUSTMENTS
67 STYLES

1. Remove rear quarter trim as previously described.

2. To adjust window fore or aft, loosen front and rear guide adjusting stud nuts (Fig. 13-6). 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. 13-6). 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. 13-6). 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. 13-6). 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. 13-6).

7. To adjust front or rear of window in or out 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.

INNER PANEL SEALING
27 AND 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 as follows:

27 Styles - Figure 13-7
67 Styles - Figure 13-8

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

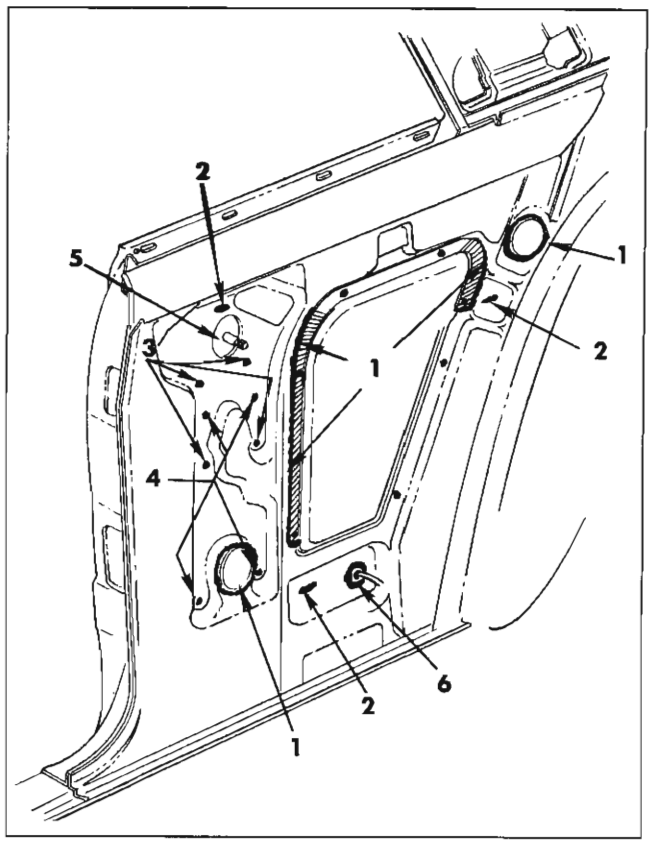


Fig. 13-7 Inner Panel Sealing - 27 Styles

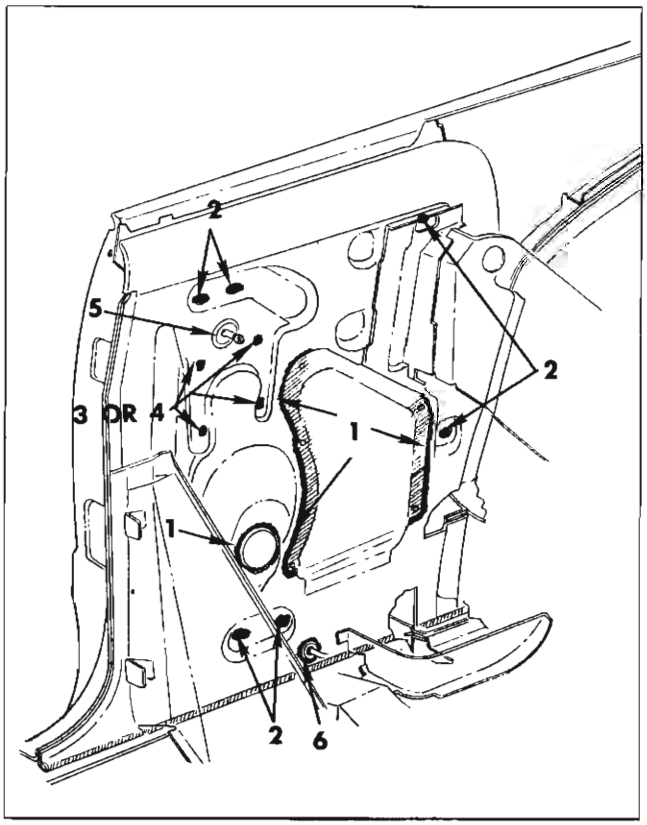


Fig. 13-8 Inner Panel Sealing - 67 Styles

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.

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.

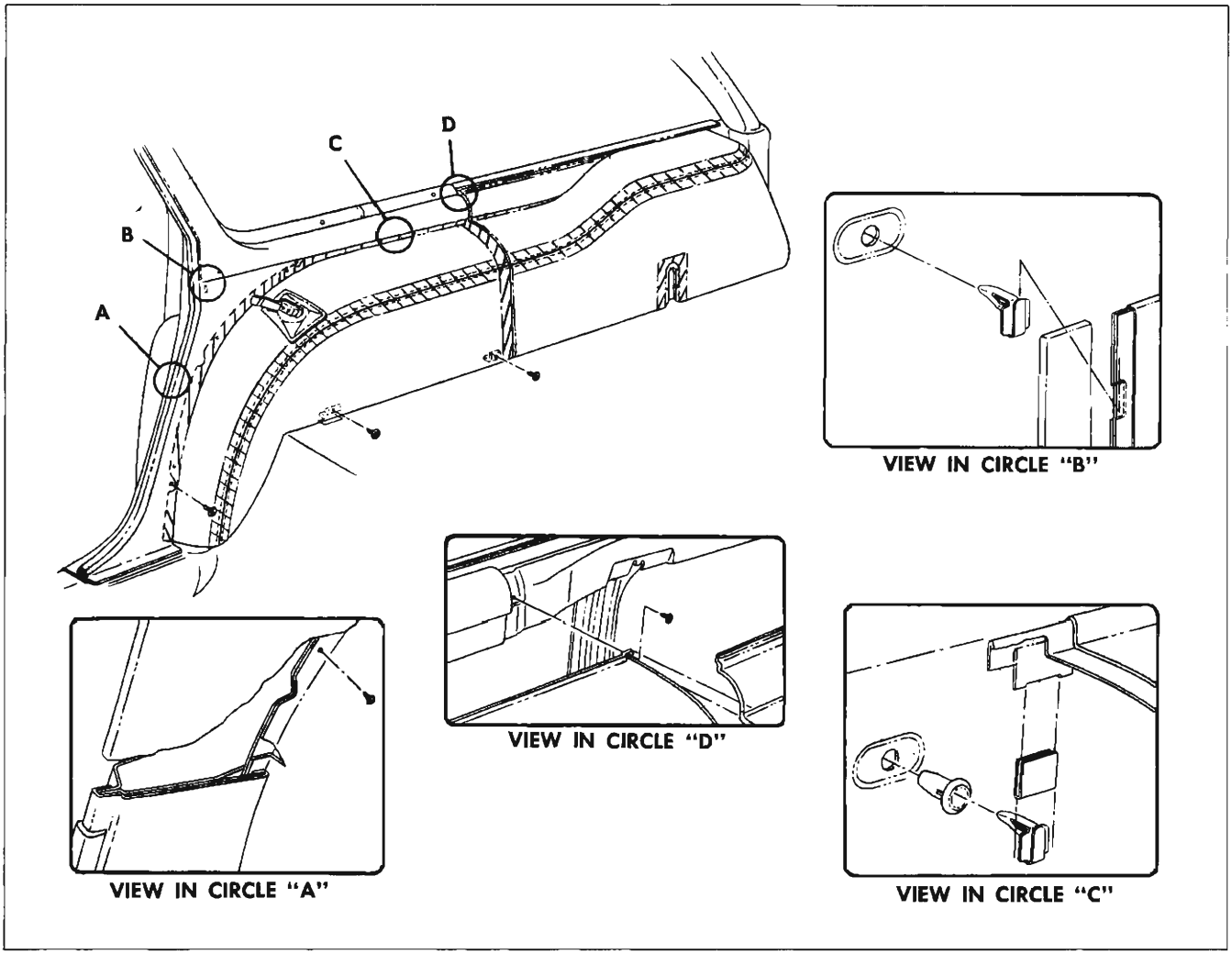


Fig. 13-9 Right Side Trim Installation

FRONT TRIM PANEL
(Left or Right)
35 STYLES

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 (Fig. 13-9 and Fig. 13-10). Beginning at rear upper edge, pry snap-in type clips from quarter inner panel along upper edge of trim panel (B, Fig. 13-9).

3. Swing rear edge of trim forward and break cement bond at body lock pillar by carefully applying hand pressure to reverse side of trim; then, remove trim assembly from body.

4. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, cement forward edge of trim to outboard surface of body lock pillar pinchweld flange.

SPARE TIRE COVER PANEL
35 STYLES

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.

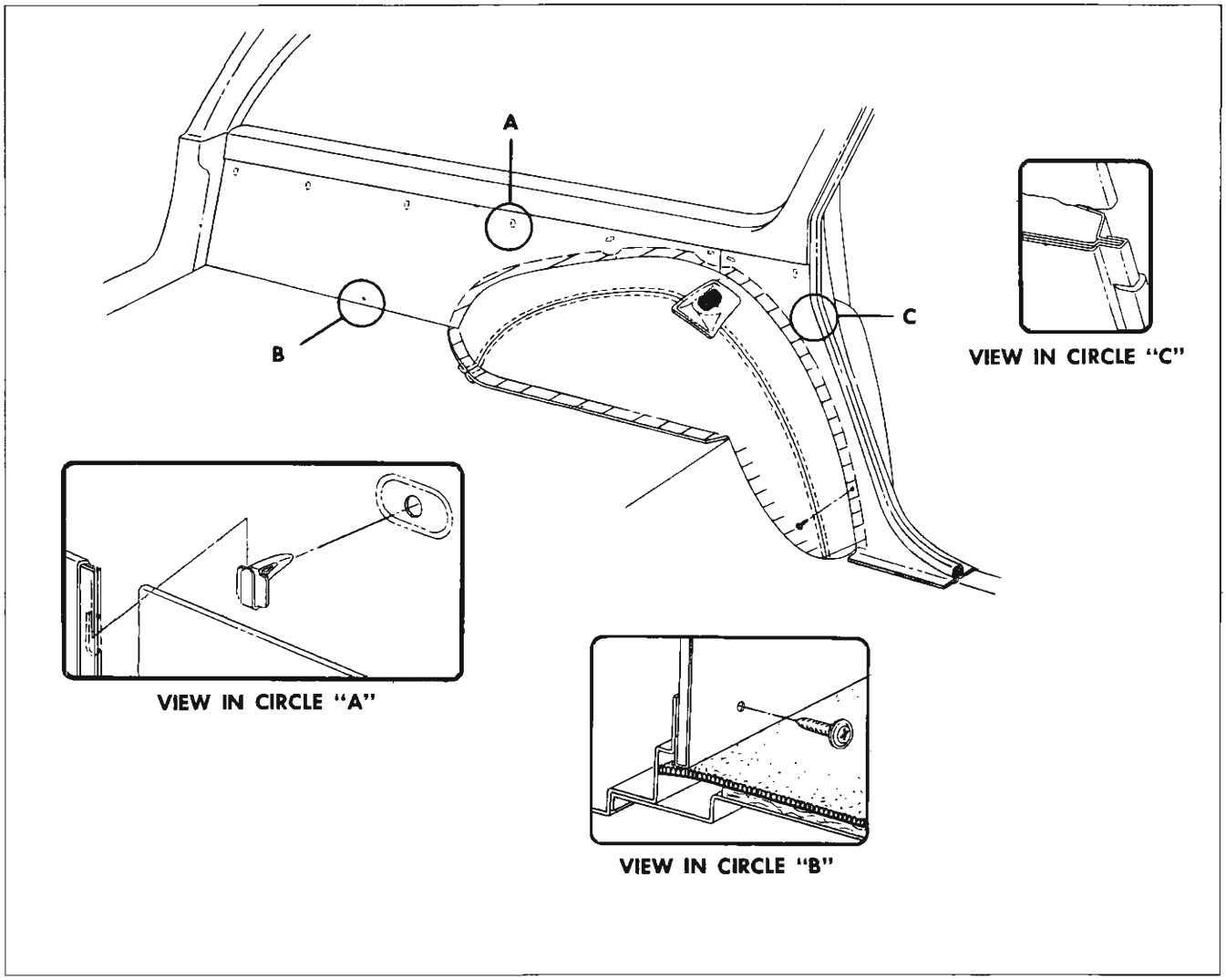


Fig. 13-10 Trim Installation

WHEELHOUSE TRIM COVER PANEL
35 STYLES (Right Side)

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. 13-9). 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. 13-9).

4. To install, reverse removal procedure. Prior to installation, replace any damaged plastic sealing plugs and/or retaining clips.

WHEELHOUSE TRIM COVER
35 STYLES EXCEPT 2035 (Left Side)

REMOVAL AND INSTALLATION

1. Remove rear quarter front and rear trim panel 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.

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.

REAR TRIM PANEL
35 STYLES EXCEPT 2035 (Left Side)

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. 13-10). Begin removal at front and work rearward.

3. Lift trim upward and remove trim assembly from body.

4. To install, reverse removal procedure.

REAR TRIM PANEL
2035 STYLES (Left Side)

REMOVAL AND INSTALLATION

1. Remove rear quarter front trim panel as previously described. Remove second folding seat back bumper assembly from wheelhouse.

2. Remove screws at front, rear and bottom of rear trim panel. Using a flat-bladed tool, pry snap-in clips on trim panel from plastic sealing plugs in inner panel along trim panel upper edge. Remove trim panel from body.

3. To install, reverse removal procedure.

WINDOW REVEAL MOLDINGS
35 STYLES

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. 13-11, section A-A) and slightly rock tool. Repeat this operation at each clip location and remove molding.

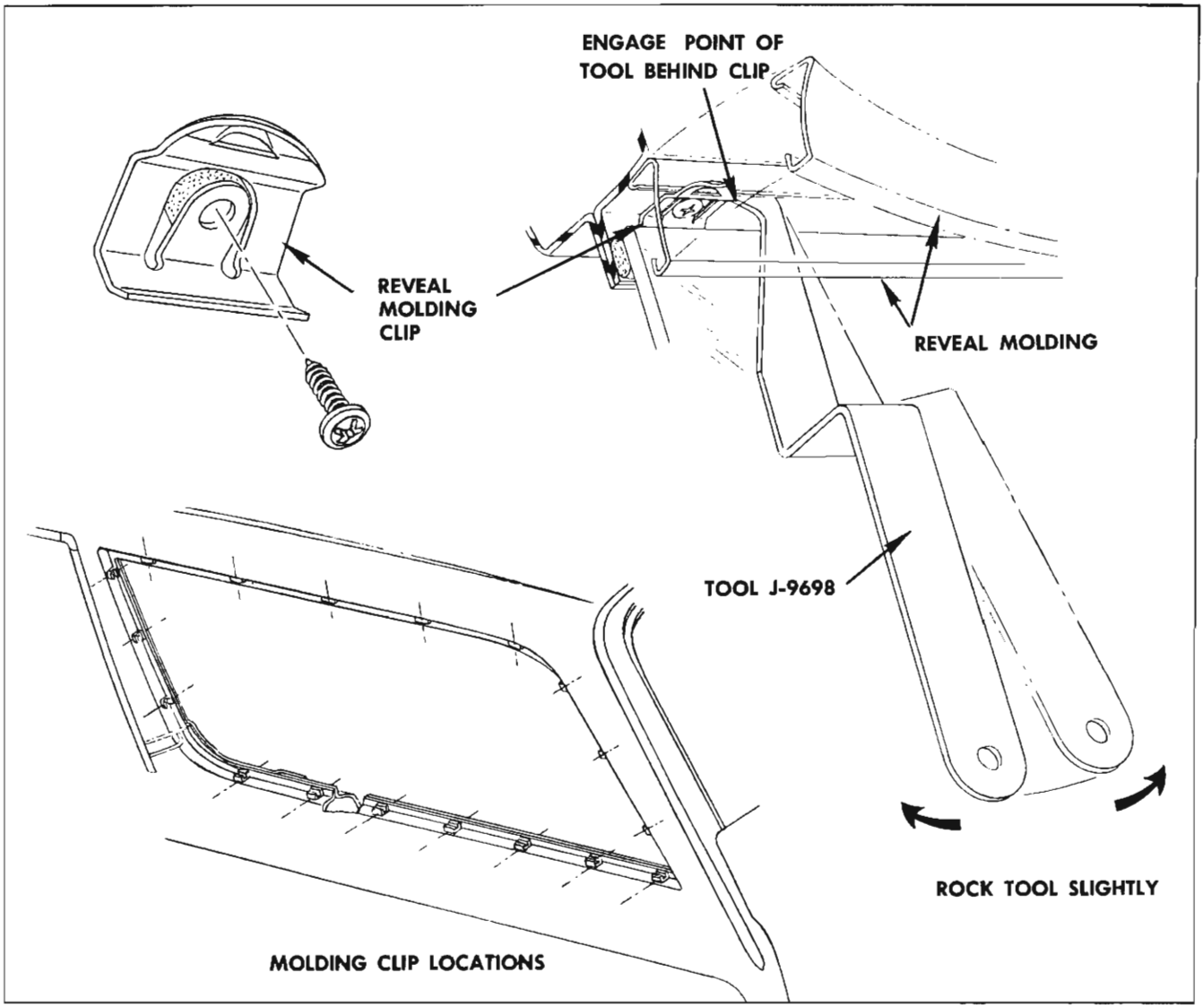


Fig. 13-11 Window Reveal Molding Removal

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.

STATIONARY WINDOW
35 STYLES

The 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.

Adhesive Caulking Kit 4226000, which is designed for a short method windshield installation, has some of the materials needed to remove and replace a stationary quarter window. The other materials that are needed to complete the installation are available either as service parts or at local supply houses.

Components of Adhesive Caulking Kit 4226000:

a. One tube of adhesive caulking material

b. One dispensing nozzle

c. Steel music wire

d. Adhesive caulking primer (for priming original caulking material remaining on pinchweld flange)

The materials that are required to remove and install a quarter window are as follows:

*a. Two Adhesive Caulking Kits 4226000

b. Caulking gun (standard household type reworked as described in step 15 of procedure)

c. Two pieces of wood for wire handles

d. Black weatherstrip adhesive

*e. Paint Finish Primer (needed only in pinchweld flange is repainted)

*f. Rubber glass-spacers (quantity and type depend on body style - see procedure)

.180 x .5 x 1.0	(Flat)	Part 4898472
.30 x .44 x 1.0	(Rectangular)	Part 4404196
.34 x .44 x 1.0	(Rectangular)	Part 4871330

*Available as service parts.

WINDOW REMOVAL (GLASS INTACT)

1. Remove window reveal moldings as previously described. Remove spare tire cover and lower rear garnish molding.

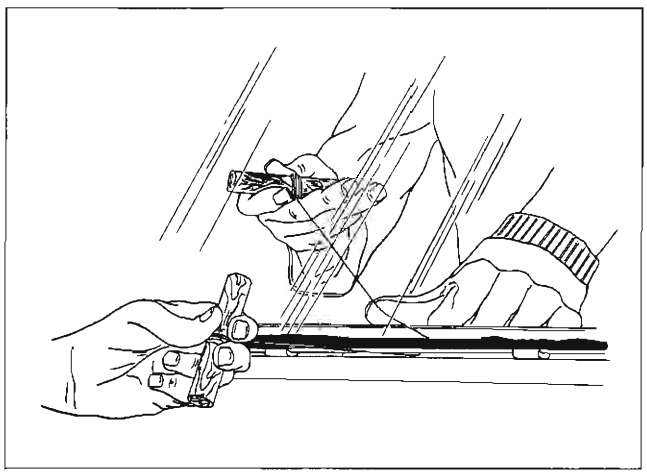


Fig. 13-12 Removal of Glass

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. 13-12).

3. With the aid of a helper, carefully cut (pull 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 upsidedown 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.

WINDOW INSTALLATION
35 STYLES

If new window is being installed because former glass shattered, perform steps 1 and 5 of 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", 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. 13-13.

NOTE: Use sufficient adhesive to protect against waterleaks at spacer locations which tend to be very vulnerable.

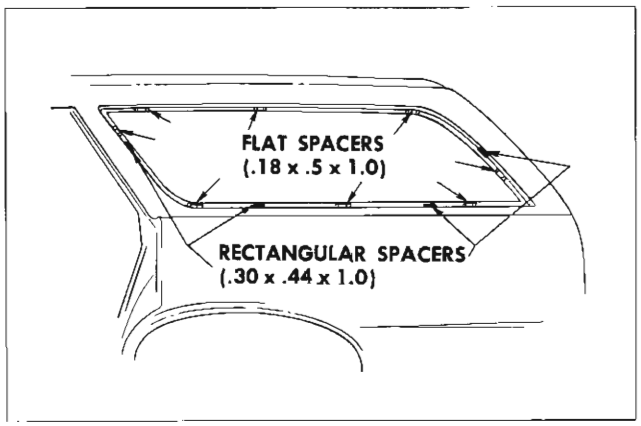


Fig. 13-13 Window Spacer Installation

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. 13-13).

4. With aid of a helper, carry glass to body as shown in figure 13-14. 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. 13-15. 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 service parts (see beginning of procedure).

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 starting 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.

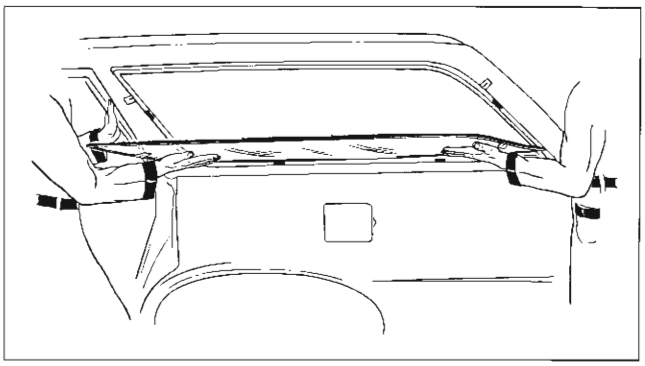


Fig. 13-14 Window Installation

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. 13-15). 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.

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. 13-16).

10. From inside of body, apply masking tape around window opening to protect painted and trimmed surfaces.

NOTE: Adhesive caulking compound is very difficult, if not impossible, to clean out of trim materials.

11. Using a clean, lint-free cloth liberally dampened with adhesive caulking primer, briskly rub

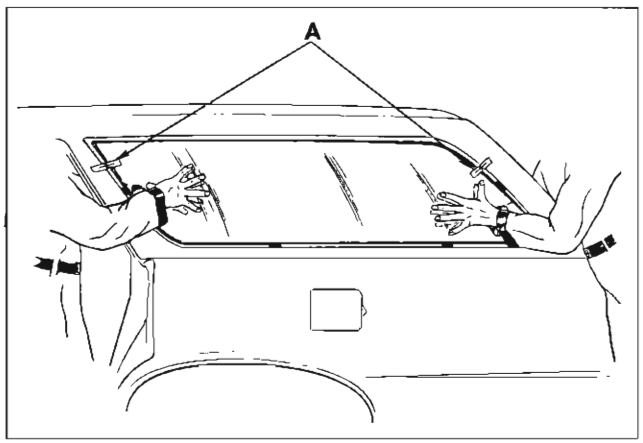


Fig. 13-15 Window Installation

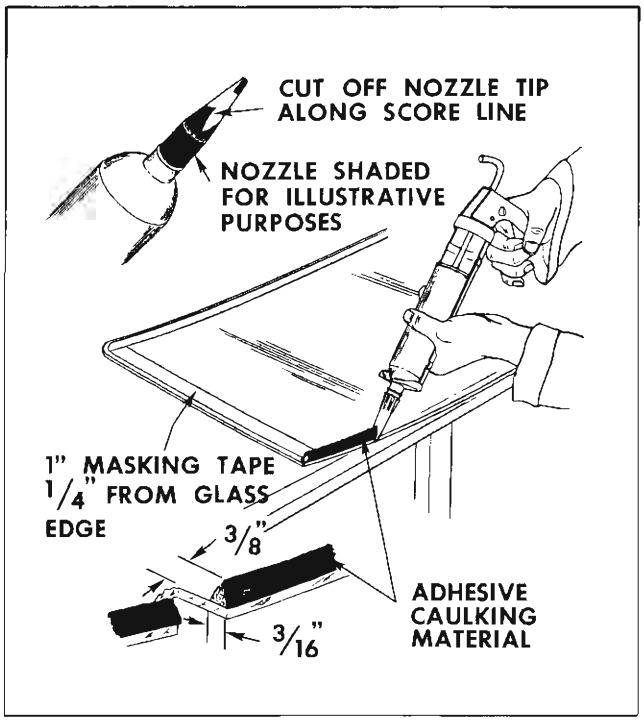


Fig. 13-16 Application of Adhesive Caulking

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. 13-16). 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. 13-16, 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 (Figs. 13-14 and 13-15). 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 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 WATERLEAK CORRECTION

If a waterleak develops in a cured adhesive caulked window installation, proceed as follows:

1. Remove reveal moldings from leak point.

2a. 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.

3. Seal leak point with liberal application of adhesive caulking material or black weatherstrip adhesive depending on what material is available and how surface was prepared in step 2.

4. Watertest and install all previously removed parts.

REAR END

CONTENTS OF THIS SECTION

BACK WINDOW

DESCRIPTION

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 in 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.

Adhesive caulking kit, part 4226000, is designed for a short method windshield installation. One kit contains half the material required to remove and replace a back window.

Components of Adhesive Caulking Kit 4226000:

a. One tube of adhesive caulking material

b. One nozzle

c. Steel music wire

d. Adhesive caulking primer (for priming old caulking material on pinchweld flanges)

The materials required to remove and install one window are:

*a. Two kits 4226000

b. Caulking gun (standard household type reworked as described in step 16 of procedure)

c. Two pieces of wood for wire handles

d. Black weatherstrip adhesive

*e. Paint finish primer (needed only if pinchweld flange is repainted)

*f. Rubber glass-spacers (quantity and type depend on body style - see procedure)

.180 x .24 x .74 (Insert Type)	4410043
.180 x .5 x 1.0 (Flat)	4898472
.30 x .44 x 1.0 (Rectangular)	4404196
.34 x .44 x 1.0 (Rectangular)	4871330

*Available as service parts, other items can be obtained from a local supply house.

WINDOW REMOVAL AND INSTALLATION

REMOVE WINDOW REVEAL MOLDINGS

The clips that retain the back window reveal moldings are attached to the body opening by screws 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 window glass. Slide blade flat on glass in molding flange until clip is contacted (Fig. 14-2); 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.

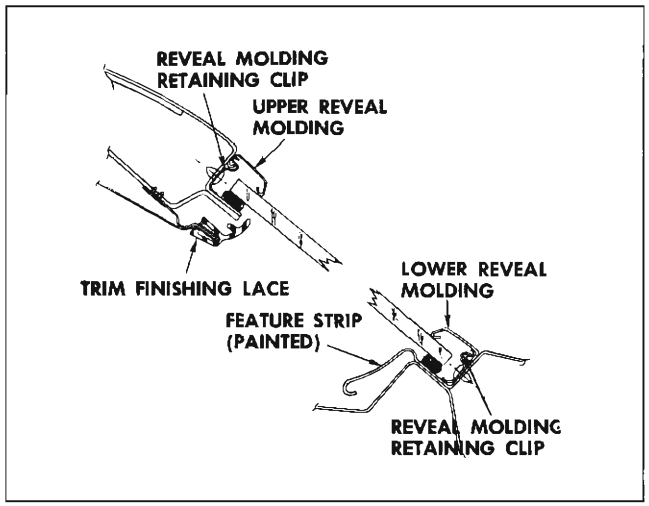


Fig. 14-1 Back Window Section

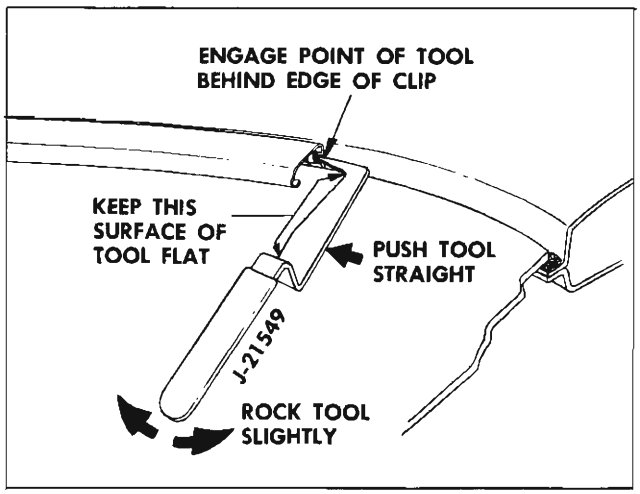


Fig. 14-2 Disengaging Molding from Clip

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.

REMOVE WINDOW (GLASS INTACT)

1. Remove window reveal moldings as previously described. On 69 styles, remove nuts from back window lower corner escutcheons (from inside rear compartment at 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 wood handle. Insert other end of wire through caulking material at a lower corner of window and secure that end to a second wood handle (Fig. 14-3).

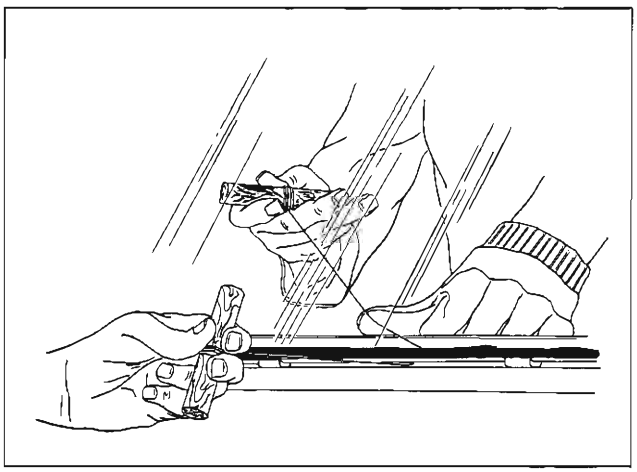


Fig. 14-3 Cutting Caulking Material

3. With aid of a helper, carefully cut caulking material around periphery of glass, working up one side, across top, down, 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.

4. Remove window from body opening. If same glass is to be re-installed, place it on a clean protected surface. Remove major traces of old caulking material from glass with sharp scraper or razor blade. 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. Remove major portion of old caulking material from pinchweld flange around back window opening with scraper or chisel. It is not necessary that all of it be removed, but no mounds of material or loose pieces should remain.

INSTALL WINDOW

If new window is being installed, perform steps 1 and 5 of 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" 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. 14-4.

a. Cement three spacers to upper pinchweld flange; one at body centerline and one to each side 20" outboard of centerline.

b. Cement one spacer to each side pinchweld flange slightly above center of flange.

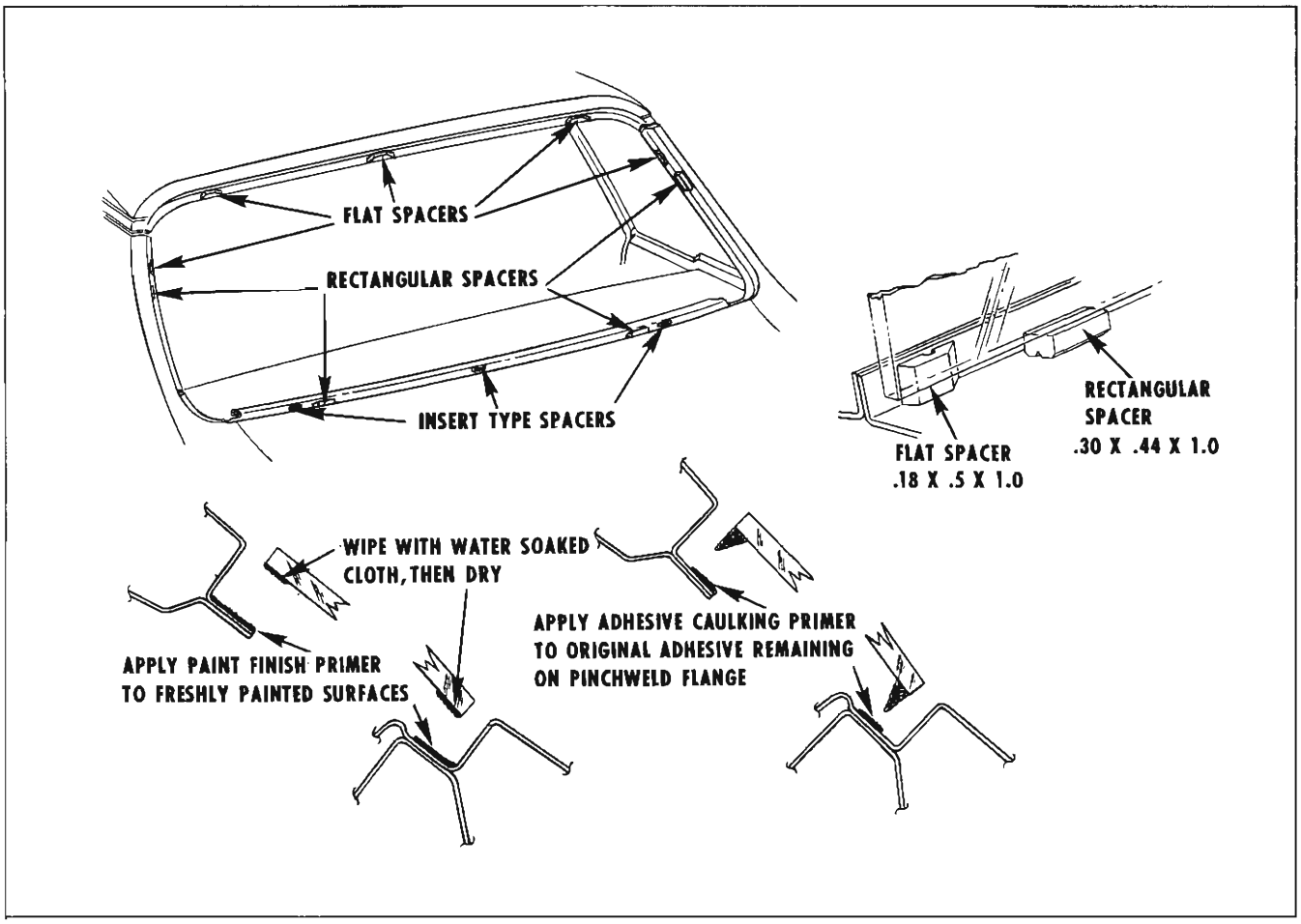


Fig. 14-4 Window Opening Prepared for Window Installation

3. Insert three .180 x .24 x .74 insert type spacers in slots in compartment front and shelf panel across lower edge of back window opening.

4. Using black weatherstrip adhesive, cement four .30 x .44 x 1.0 rectangular spacers to lower and side back window opening rabbet as described below and illustrated in Fig. 14-4.

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.

NOTE: The rectangular spacers across the bottom support the weight of the glass, therefore, make certain that they are well positioned so they will not rock or slide out.

5. Attach glass handling suction cups to outside surface of glass. If cups are not available, make tape handles from pieces of 2 1/2" cloth body tape as described below and illustrated in Fig. 14-5.

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.

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. 14-5).

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.

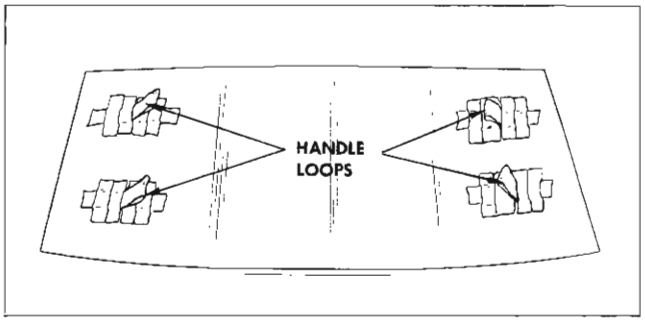


Fig. 14-5 Tape Handles Applied

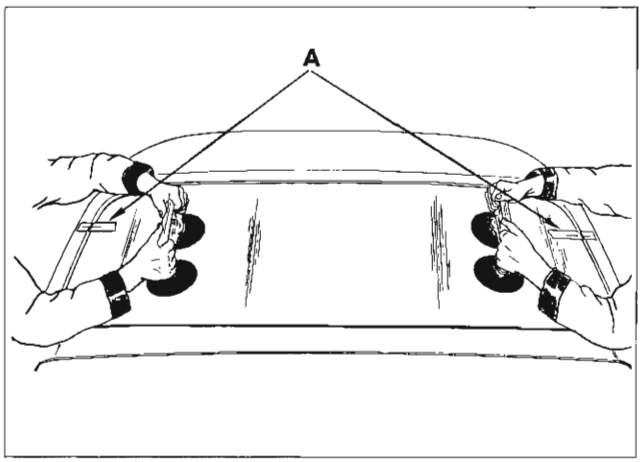


Fig. 14-6 Check Fit of Window in Opening

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 .30" with .34" spacers.

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.

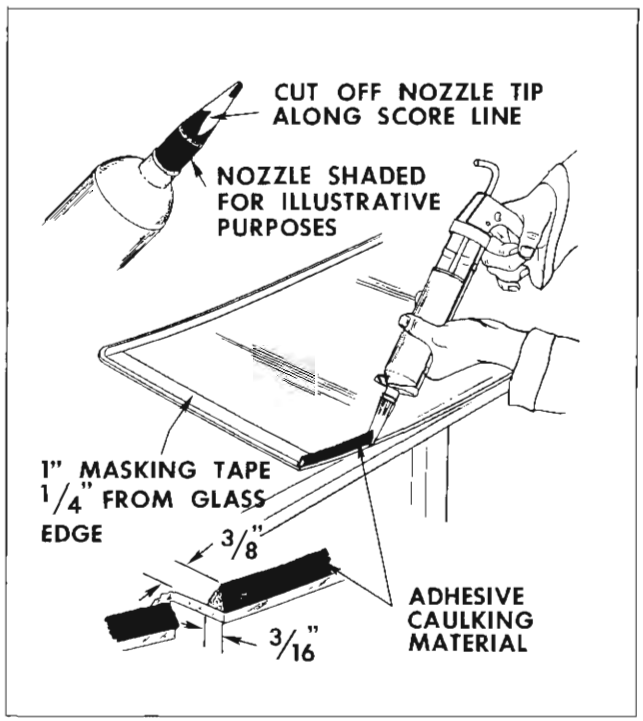


Fig. 14-7 Applying Adhesive Caulking Material

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 of glass and rear quarter extension (A, Fig. 14-6). Slit tape vertically at edge of glass so that when glass is being installed, tape on glass can be aligned with tape on body to serve as a guide.

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. 14-7). 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, rub primer briskly 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 were repainted, prime flange with Paint Finish Primer instead of adhesive primer. Paint Finish Primer is available as a service part.

13. Cut tip off of one nozzle along score line (Fig. 14-7), this nozzle to be used to apply bead of adhesive caulking material to glass. Cut tip off other nozzle at 45° angle 1" below end of nozzle, this nozzle to be used to apply "smear bead" of adhesive caulking material to pinchweld flange.

14. Wipe surface of glass to which bead of 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.

15. Remove cap and protective end cover from one tube of caulking material and insert glass bead nozzle (cut on score line in step 13).

16. Insert tube in a standard 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 gun and nozzle as shown in Fig. 14-7, 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 caulking material completely around pinchweld flange.

19. With aid of a helper, carefully install glass in body opening (Figs. 14-8 and 14-7). 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.

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.

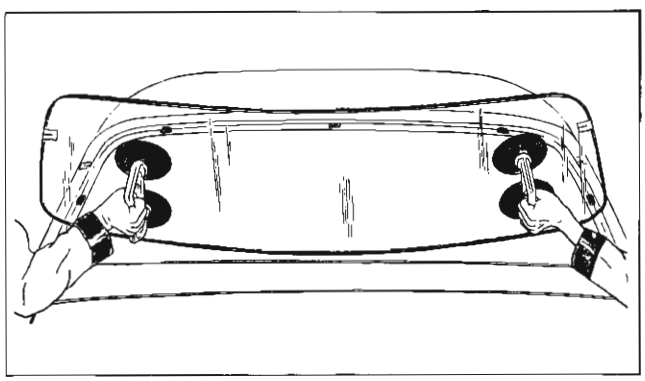


Fig. 14-8 Installing Window

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.

Install back window reveal moldings.

WATERTEST

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 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 WATERLEAK CORRECTION

If a waterleak developes 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 caulking material from kit 4226000, clean material around leak point with Adhesive Caulking Primer.

b. If one-part caulking material is not available, clean material around leak point with water and dry completely.

3. Seal leak point with liberal application of caulking material or black weatherstrip adhesive depending on what material is available and how surface was prepared in step 2.

4. Watertest and install all previously removed parts.

REAR COMPARTMENT

DESCRIPTION

The rear compartment lid employs two torque rods that are mounted between the hinges to act as a counterbalance 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 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.

All styles have a single section cement-on type weather-strip cemented to the rear gutter completely around the lid opening.

LID REMOVAL AND INSTALLATION

REMOVAL

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.

3. With aid of a helper, remove lid attaching bolts A and B (Fig. 14-9) and remove rear compartment lid.

INSTALLATION

Reverse removal procedure. Align marks on lid with hinge straps before tightening hinge attaching bolts.

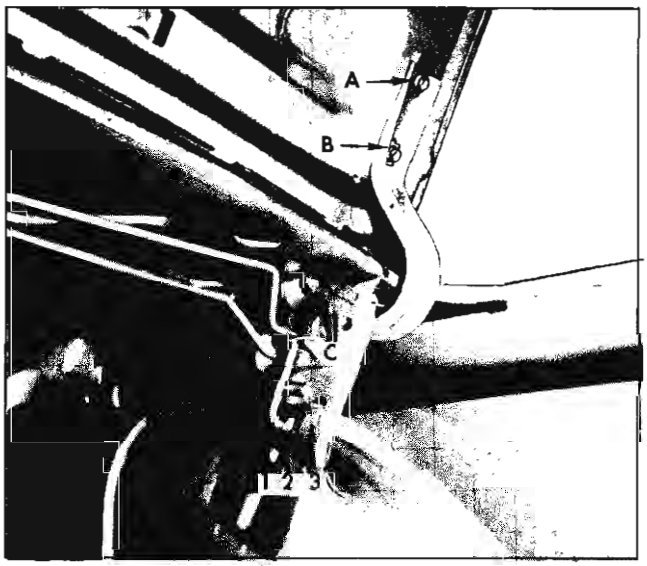


Fig. 14-9 Lid and Torque Rod Attachment

LID ADJUSTMENT

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. 14-9) 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 attaching bolt B (Fig. 14-9).

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. 14-9).

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. 14-9), 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. 14-9), the amount of effort required to open the lid is the least and to close the lid is the greatest. Figure 14-10 illustrates how to use tool J-21412 to perform these adjustments.

Figure 14-11 is a dimensional drawing of the 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 lid and provide support to hold it in full open position.

2. Engage torque rod adjusting tool J-21412 with torque rod to be removed as shown in Fig. 14-10.

3. Combining a rearward and upward pulling force, disengage lower end of torque rod from notch in hinge plate.

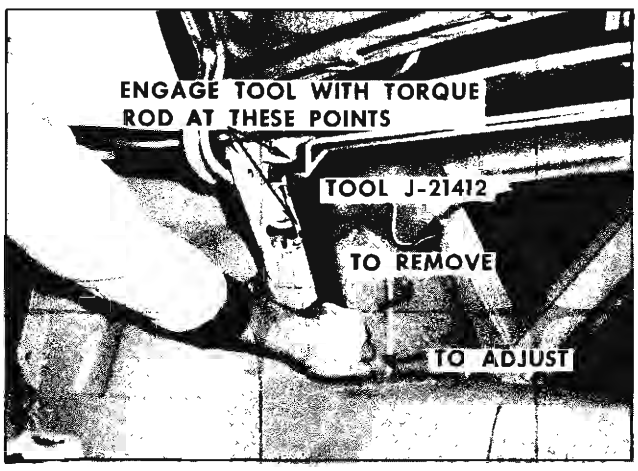


Fig. 14-10 Lid Torque Rod Adjustment

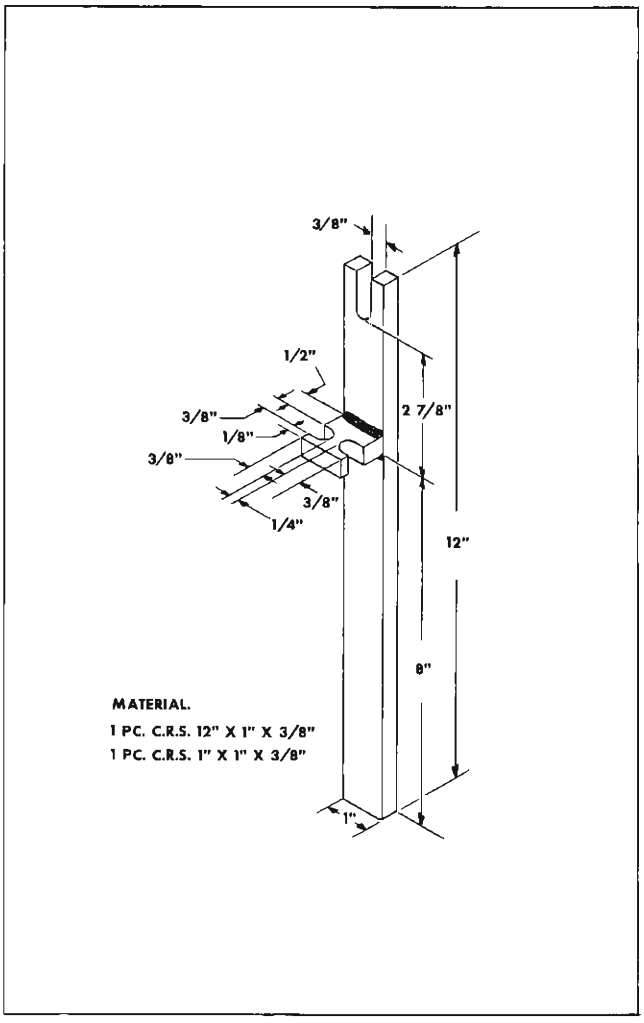


Fig. 14-11 Torque Rod Adjustment and Remover Tool

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 Lubrication section of this manual.

LID HINGE

REMOVAL AND INSTALLATION

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.

3. Disengage opposite, stationary end of torque rod that is engaged in hinge to be removed (refer to TORQUE ROD ADJUSTMENT OR REMOVAL.

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. 14-9).

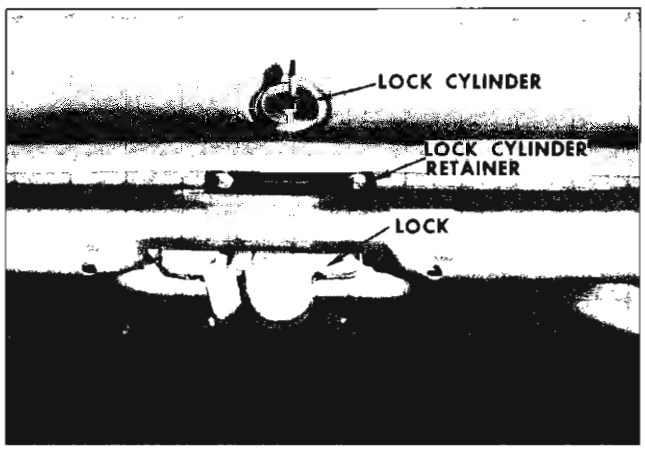


Fig. 14-12 Lid Lock Cylinder Retainer

6. Bend back hinge pin retaining tab (C, Fig. 14-9); 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. 14-12).

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. 14-13) and remove rear compartment lid lock.

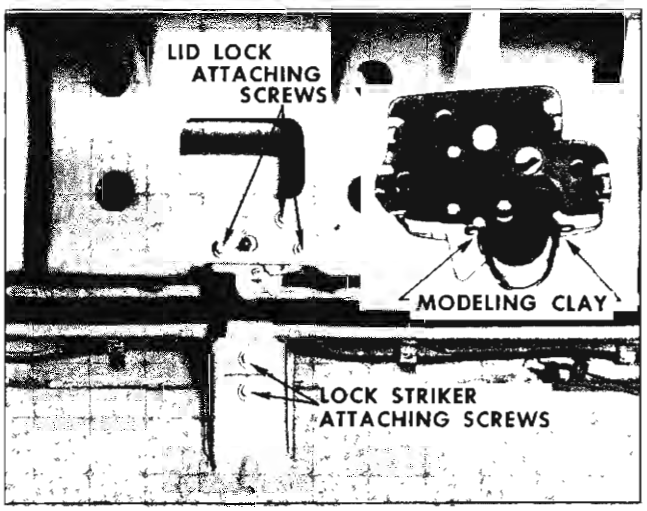


Fig. 14-13 Lid Lock and Striker

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. 14-13) 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 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. 14-13). 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 impression in the clay should be even on both sides of the lock frame. Where required, loosen striker or lock attaching screws; adjust lock sideways, or striker up or down, to obtain proper engagement; then, tighten 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 figure 14-14 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 figure 14-14 completely around gutter to insure a watertight seal.

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.

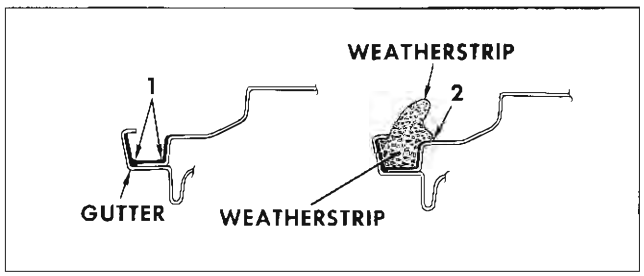


Fig. 14-14 Rear Compartment Weatherstrip

TAIL GATE

DESCRIPTION

Tail gates incorporate, either a manually operated or electrically operated window which can be lowered into the tail gate or raised into the upper portion of the back body opening. The manually operated window is operated by means of a window regulator control handle (folding type) located in the tail gate outer panel. The electrically operated window can be operated from any of two control switches: (1) control switch located on instrument panel; (2) lock cylinder control switch (key operated) located in tail gate outer panel. A switch located at the right tail gate lock prevents the up cycle operation of the

electrically operated tail gate window when the tail gate is not completely closed. After lowering the window the tail gate can be opened by means of a lock remote control inside a handle located at the tail gate belt.

The tail gate hinges are secured to the gate side facing by three screws and to the body opening pillar by three screws. The tail gate is counterbalanced by a single torque rod that is secured at the left rear body opening pillar by a mounting plate and between the panels by a retainer welded to the gate right side facing. When the tail gate 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.

Figure 14-15 is a phantom view that identifies and shows the relationship of major components of the tail gate.

INNER PANEL WATER DEFLECTOR

A waterproof paper water deflector is sealed to the tail gate inner panel to deflect water into the bottom of the tail gate 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 tail gate.

REMOVAL

1. Remove inner cover panel

2. Using a sharp scraper or other suitable tool, carefully lift up edge of deflector and detach sealer and water deflector as required.

NOTE: DO NOT TEAR WATER DEFLECTOR.

INSTALLATION OR RESEALING PROCEDURE

WHENEVER ANY WORK IS PERFORMED ON THE TAIL GATE WHERE THE WATER DEFLECTOR HAS BEEN DISTURBED, THE DEFLECTOR MUST BE PROPERLY SEALED TO THE TAIL GATE INNER PANEL.

1. If installing old deflector or resealing partially 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 inner panel to trim new deflector to proper size.

3. Apply a bead of body caulking compound (approximately 3/16" diameter) to inner panel (Fig. 14-16).

IMPORTANT: The body caulking compound should be applied along the lower portion of the inner panel exactly as shown in illustration to assure proper drainage of water through designated holes in inner panel into bottom of tail gate. The bead of body caulking compound should cover the inner cover panel attaching screw holes at the top and sides of the tail gate.

Also apply body caulking compount over each of the inner cover panel attaching screw holes across the bottom of the tail gate (Fig. 14-16).

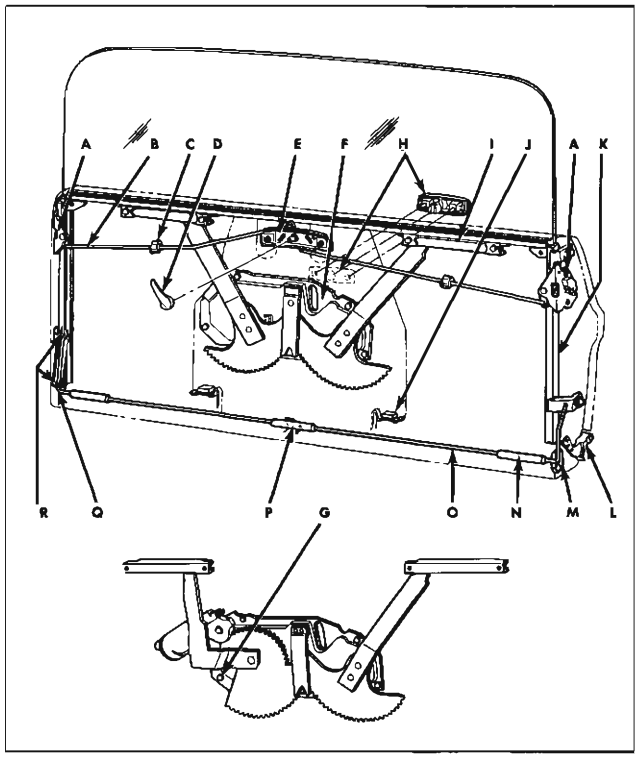


Fig. 14-15 Tail Gate Hardware

A. Tail Gate Lock
B. Lock Connecting Rod
C. Connecting Rod Silencer
D. Inside Remote Control Handle
E. Inside Remote Control
F. Window Regulator (Manual)
G. Window Regulator (Electric)
H. Regulator Outside Handle or Electric Switch and Escutcheon
I. Window Lower Sash Channel
J. Window Rubber Bumper
K. Window Lower Run Channel
L. Tail Gate Hinge
M. Torque Rod Bearing Plate
N. Torque Rod Silencer
O. Torque Rod
P. Torque Rod Clip
Q. Torque Rod Retainer
R. Torque Rod Silencer (on Retainer)

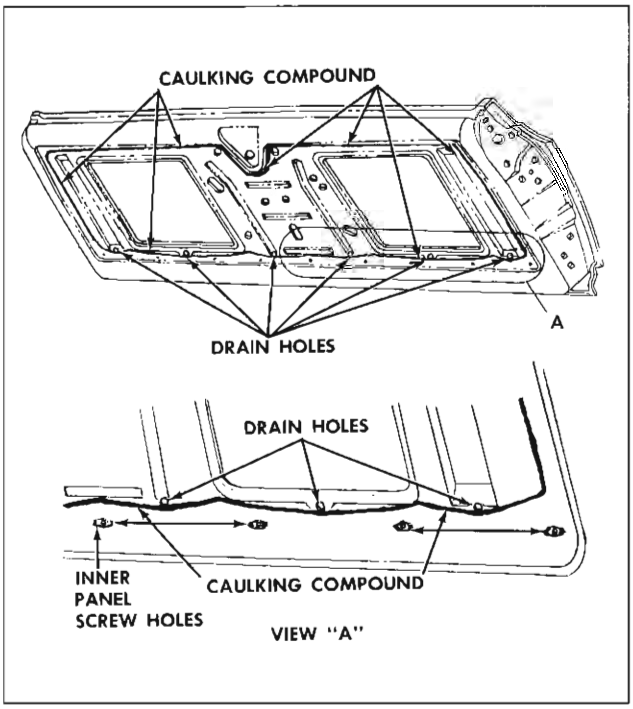


Fig. 14-16 Caulking Applied to Inner Panel

4. Position water deflector to tail gate 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 inner panel.

5. Clean off all excess caulking compound; then, install previously removed inner cover panel.

TAIL GATE
MANUALLY OPERATED WINDOW

REMOVAL AND INSTALLATION

1. Open tail gate. 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. 14-17).

2. With aid of a helper, remove tail gate support attaching screws (Fig. 14-18) and fold supports against rear body pillar.

3. Remove tail gate hinge attaching bolts at body pillar (Fig. 14-17) and remove tail gate 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 tail gate and, if necessary, adjust tail gate in body opening as specified under TAIL GATE ADJUSTMENTS.

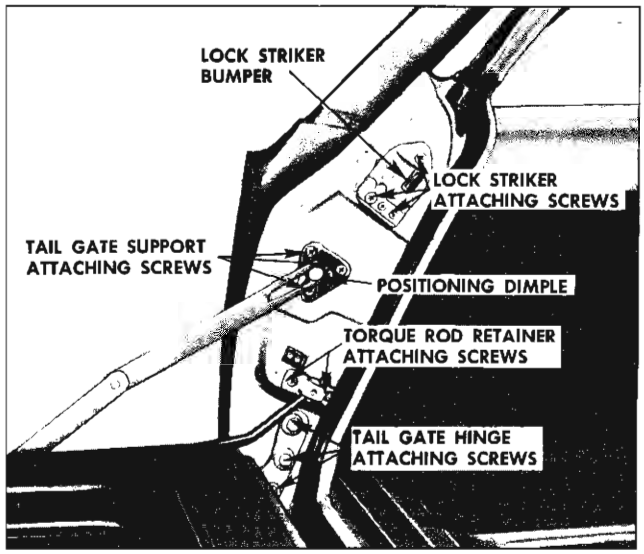


Fig. 14-17 Tail Gate Attaching Parts

TAIL GATE
ELECTRICALLY OPERATED WINDOW

REMOVAL AND INSTALLATION

1. Open tail gate. Remove tail gate window as described under TAIL GATE WINDOW - REMOVAL AND INSTALLATION.

2. Remove lock cylinder, switch, and escutcheon as described under LOCK CYLINDER, SWITCH, AND ESCUTCHEON - REMOVAL AND INSTALLATION; then, disconnect switch junction block.

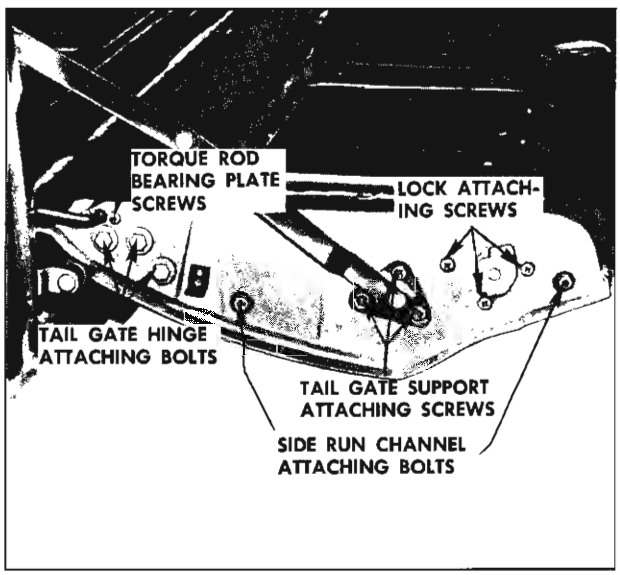


Fig. 14-18 Tail Gate Attaching Parts

3. Disconnect harness connector from regulator motor and from jamb switch at right tail gate lock pillar. Detach harness from clips inside tail gate, and harness grommet from tail gate bottom facing, and remove harness.

4. Complete tail gate removal by performing steps 1 through 3 as described under REMOVAL AND INSTALLATION procedures above for manual window tail gate.

5. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surfaces of hinge straps that contact tail gate.

Check operation of tail gate window and tail gate. If necessary, adjust tail gate in body opening as specified under "TAIL GATE ADJUSTMENTS".

TAIL GATE ADJUSTMENTS

To adjust the tail gate up or down or in or out in the body opening, loosen hinge attaching bolts at tail gate (Fig. 14-18); adjust tail gate as required and tighten hinge attaching bolts.

TAIL GATE HINGE

REMOVAL AND INSTALLATION

1. Open tail gate and provide support for gate on side from which hinge is to be removed.

2. Remove escutcheon covering hinge entrance hole in tail gate outer panel.

3. Remove hinge attaching bolts from tail gate (Fig. 14-18) and from body pillar (Fig. 14-17) and remove hinge from tail gate.

4. To install, reverse removal procedure. Prior to installation apply a coat of heavy-bodied sealer to surface of hinge strap that contacts tail gate.

Check alignment of tail gate in body opening and adjust gate, if necessary, as specified in TAIL GATE ADJUSTMENTS.

TAIL GATE TORQUE ROD

REMOVAL AND INSTALLATION

1. Remove tail gate window as described under TAIL GATE WINDOW - REMOVAL AND INSTALLATION. Remove glass run lower right channel and where necessary, loosen lower end of left channel.

2. With tail gate in approximately a vertical position to relieve tension from torque rod, remove torque rod retainer attaching screws on rear body left lock pillar (Fig. 14-17).

3. Loosen torque rod bearing plate attaching screws (Fig. 14-18). Disengage torque rod from retainer at right side of tail gate and retainer in bottom of tail gate (Fig. 14-15).

4. Carefully work right end of torque rod up between inner and outer panels and work left end of torque rod through hole in tail gate side facing. Then remove torque rod from tail gate. Remove torque rod rubber silencers from torque rod.

5. To install tail gate 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. 14-14).

TAIL GATE SUPPORTS

REMOVAL AND INSTALLATION

1. Open tail gate and provide support from side from which tail gate support is to be removed.

2. Remove support plate attaching screws from both gate and rear body pillar (Fig. 14-18) and (Fig. 14-17) and remove tail gate supports.

3. To install, reverse removal procedure. Install support plate to body pillar with positioning dimple towards front of body (Fig. 14-17).

NOTE: Objectionable slack in either tail gate support can be eliminated by rotating one or both support plates at the body pillar.

a. Positioning dimple towards bottom shortens support approximately 3/8" from production installation.

b. Positioning dimple towards top shortens support approximately 3/4" from production installation.

TAIL GATE WINDOW MANUAL OR ELECTRIC

REMOVAL AND INSTALLATION

1. Open tail gate. Remove tail gate inner cover panel.

2. Remove inner panel water deflector and inner panel access hole covers.

3. Carefully operate window upward until lower sash channel cam attaching screws are accessible through access holes; then, remove both right and left cam attaching screws (Fig. 14-19) and disengage cams from window sash channel.

4. Remove window and place 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.

WINDOW ADJUSTMENTS

To adjust the window forward or rearward for proper alignment with upper glass run channels on the body, or to eliminate a binding condition of the window in the glass run side channels, loosen the channel attaching bolts (Fig. 14-18). Loosen the attaching bolts, adjust the run channel forward or rearward as desired, and retighten the attaching bolt.

WINDOW GLASS SIDE RUN CHANNELS

REMOVAL AND INSTALLATION

1. Remove 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. 14-18) to facilitate installation in same position; then remove attaching screws.

3. Raise or operate window to up position (support glass if tail gate 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 TAIL GATE WINDOW ADJUSTMENTS.

WINDOW GLASS UPPER RUN CHANNEL AND RETAINER

REMOVAL

1. Lower window. Remove rear body opening finishing strip.

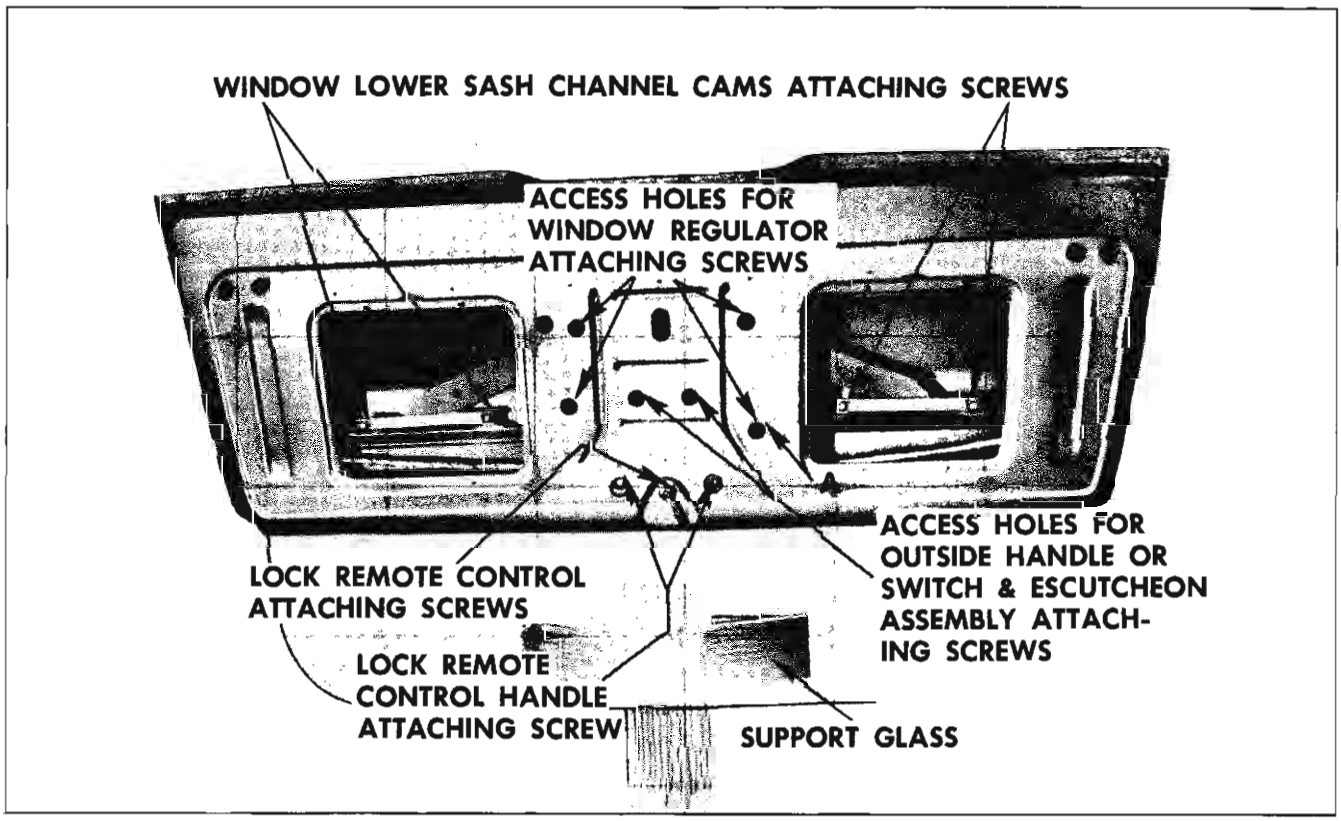


Fig. 14-19 Window Control Hardware

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 retainers.

2. Apply a bead of medium-bodied sealer up sides and across top of back body opening surfaces contacted by retainers. Install retainers.

3. Align end of glass run channel to end of retainer; then, install channel into retainer securely.

WINDOW REGULATOR MANUAL OR ELECTRIC

REMOVAL AND INSTALLATION

1. Remove window as previously described.

2. On styles with electric window regulators, disconnect harness connector from regulator motor.

CAUTION: Do not operate regulator motor after window is removed or after regulator is removed from tail gate. Operation of the motor with the load removed may damage the unit.

3. Through access holes remove window regulator attaching screws (Fig. 14-19) and remove regulator.

NOTE: To remove electric motor from regulator refer to TAIL GATE WINDOW REGULATOR ELECTRIC MOTOR - REMOVAL AND INSTALLATION.

4. To install window regulator, reverse removal procedure. Prior to installation lubricate regulator sector teeth with Lubriplate or its equivalent.

ELECTRIC WINDOW REGULATOR MOTOR

The following method of removing and installing the window electric regulator motor 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 3" 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 motor attaching screws.

REMOVAL

1. Open tail gate and remove tail gate inner cover panel.

NOTE: If tail gate cannot be opened due to an inoperative motor, perform removal operations from inside body.

2. Remove or detach inner panel water deflector. Remove 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 lower sash channel cam attaching screws (Fig. 14-19) 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 counterbalance 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 counterbalance spring tension.

5. Loosen regulator right attaching screws (Fig. 14-20). Remove three motor attaching screws and remove motor from regulator and tail gate.

INSTALLATION

1. Lubricate motor drive gear and regulator sector teeth with Lubriplate or equivalent.

2. With tail gate open, position regulator motor to regulator making sure motor pinion gear teeth mesh

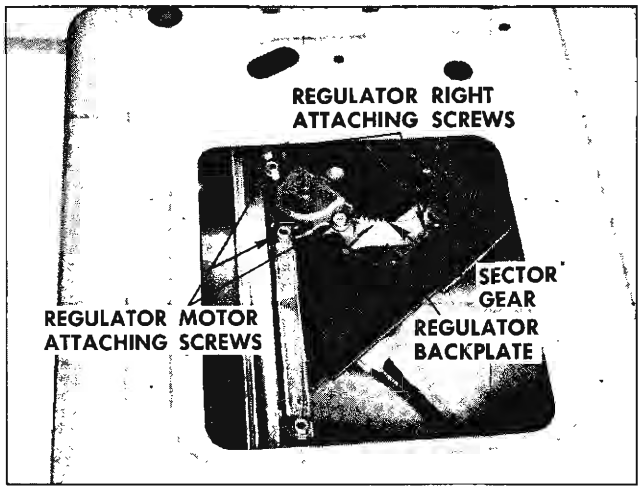


Fig. 14-20 Regulator Motor Attachment

properly with sector gear teeth; then, install three motor attaching screws.

3. Tighten regulator right attaching screws.

4. IMPORTANT: After motor is attached to regulator, remove screw locking sector gears, if sector gears were locked.

5. Connect wire harness connector to motor. Check operation of tail gate window.

6. Install inner panel access hole cover, inner panel water deflector and inner cover panel.

WINDOW REGULATOR OUTSIDE HANDLE

REMOVAL AND INSTALLATION

1. Open tail gate and remove inner cover panel. Detach upper portion of inner panel water deflector.

2. Operate window to full out (up) position.

CAUTION: Support window during operation and while window is in out position (Fig. 14-19).

3. Through access holes (Fig. 14-19) remove outside handle attaching nuts and remove outside handle.

To disassemble outside handle see WINDOW REGULATOR OUTSIDE HANDLE - DISASSEMBLY AND ASSEMBLY.

4. To install, reverse removal procedure. Make certain gasket seals properly with tail gate outer panel. Check operation of window prior to sealing water deflector and installing inner cover panel.

DISASSEMBLY AND ASSEMBLY

1. Remove outside handle from tail gate, as previously described.

2. Remove clutch retaining ring and slide clutch off shaft of handle driver (Fig. 14-21).

3. Using snap ring remover, remove retaining ring securing handle (Fig. 14-21), remove spring

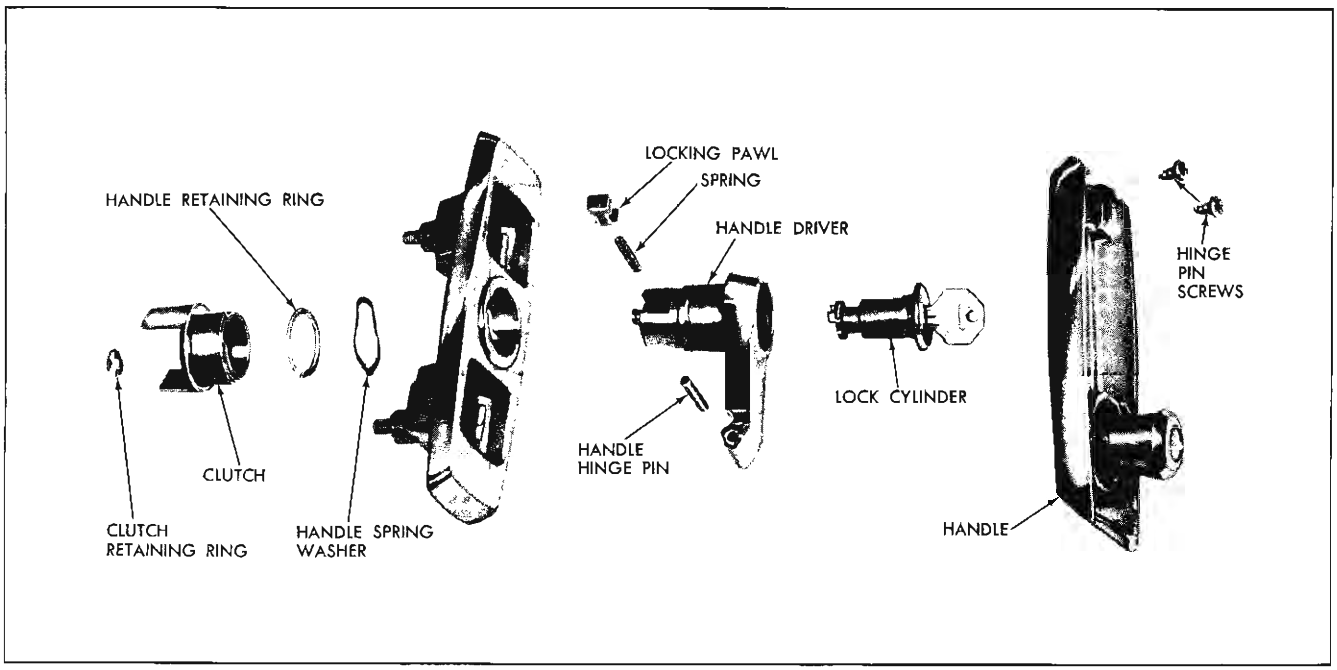


Fig. 14-21 Tailgate Outside Handle

washer from shaft of handle driver and remove handle from escutcheon.

4. To remove handle and knob, remove handle hinge pin screws (Fig. 14-21) and remove handle and knob from handle driver.

5. To remove lock cylinder and cap assembly, locking pawl or locking pawl spring see WINDOW REGULATOR OUTSIDE HANDLE LOCK CYLINDER AND CAP - REMOVAL AND INSTALLATION.

To assemble outside handle, reverse disassembly procedure. Prior to assembly lubricate frictional surfaces with Lubriplate or its equivalent.

WINDOW REGULATOR OUTSIDE HANDLE LOCK CYLINDER AND CAP

REMOVAL AND INSTALLATION

1. Remove outside handle from tail gate, as previously described.

2. Remove clutch retaining ring and slide clutch off shaft of handle driver (Fig. 14-21).

3. Insert key in lock cylinder and turn key to lock position. Depress locking pawl (Fig. 14-21), turn key (lock cylinder) approximately 1/4 turn counterclockwise and remove lock cylinder, locking pawl and locking pawl spring from handle driver.

4. To install lock cylinder, reverse removal procedure. Prior to installing clutch on handle driver lubricate frictional surfaces with Lubriplate or its equivalent.

ELECTRIC WINDOW LOCK CYLINDER, SWITCH, AND ESCUTCHEON

REMOVAL AND INSTALLATION

1. Open tail gate and remove inner cover panel. Detach upper portion of inner panel water deflector. Remove inner panel access hole cover.

2. Operate tail gate window to full out position.

CAUTION: Support window during operation and while window is in out position (Fig. 14-19).

3. Through access holes (Fig. 14-19) remove escutheon attaching nuts. Detach assembly from tail gate sufficiently to disconnect junction block from switch, then remove assembly and gasket from tail gate.

To disassemble lock cylinder, switch and escutcheon see DISASSEMBLY AND ASSEMBLY below.

4. To install, reverse removal procedure. Make sure gasket seals properly with tail gate outer panel. Check operation of window prior to sealing water deflector and installing inner cover panel.

DISASSEMBLY AND ASSEMBLY

1. Remove electric window lock cylinder, switch and escutcheon, as previously described.

2. Disengage lock cylinder case retainer (Fig. 14-21) and remove lock cylinder and switch from escutcheon.

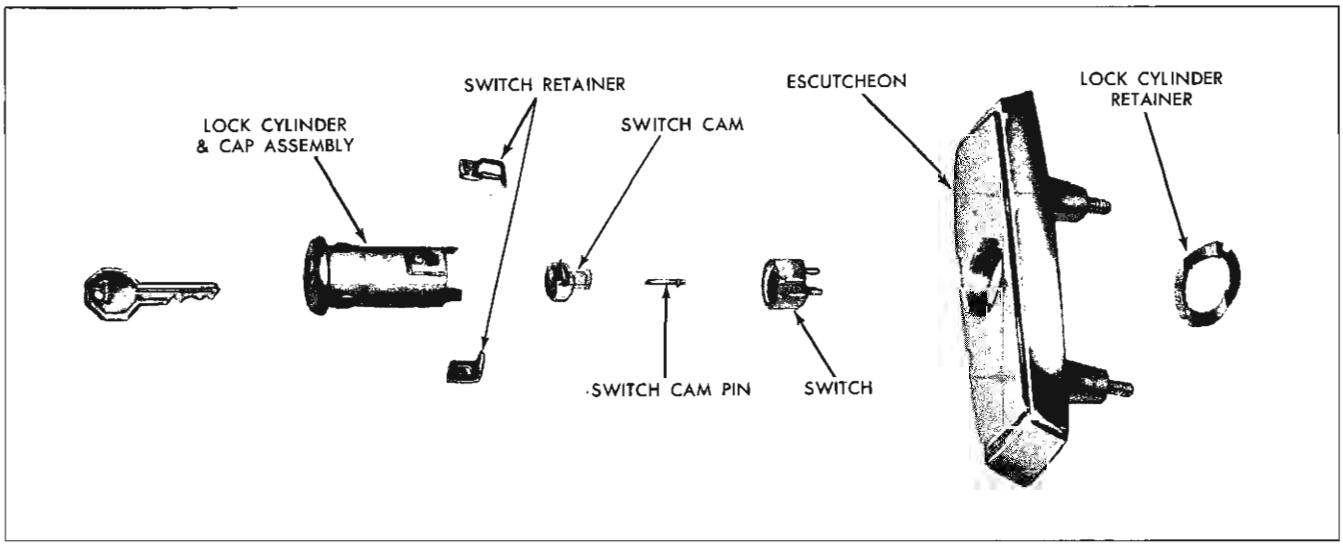


Fig. 14-22 Tailgate Handle and Lock Details

3. Using a pointed tool inserted through hole in lock cylinder case, depress tab of both switch retainers and remove retainers and switch (Fig. 14-22).

4. Using a suitable pliers, grasp pin of switch cam firmly and pull switch cam straight out from lock cylinder (Fig. 14-22).

NOTE: Pin is pressed into lock cylinder and may require a firm pull to release.

5. Using suitable tool, bend out crimped flange of lock cylinder cap sufficiently to remove cap; then, remove cap and springs.

NOTE: The crimped flange on cap necessitates damaging cap during removal from case; therefore, service replacement caps are available which have four (4) 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 in escutcheon and engage retainer.

TAIL GATE LOCK REMOTE CONTROL

REMOVAL AND INSTALLATION

1. Open tail gate. Remove 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. Remove remote control inside handle attaching screw and remove handle (Fig. 14-19).

3. Remove remote control attaching screws (Fig. 14-19) and remove remote control.

4. To install, reverse removal procedure.

TAIL GATE LOCK

REMOVAL AND INSTALLATION

1. Open tail gate. Remove 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 (Fig. 14-19) and remove channels.

2. Disconnect lock to remote control connecting rod at remote control. If removing right lock on styles equipped with electrically operated tail gate window, remove two safety switch attaching screws at right side facing and remove switch. Remove lock attaching screws (Fig. 14-18) and remove lock through access hole.

3. To install, reverse removal procedure. Prior to installation, apply body caulking compound across top and down sides of lock bolt housing and lock frame joint (Fig. 14-23).

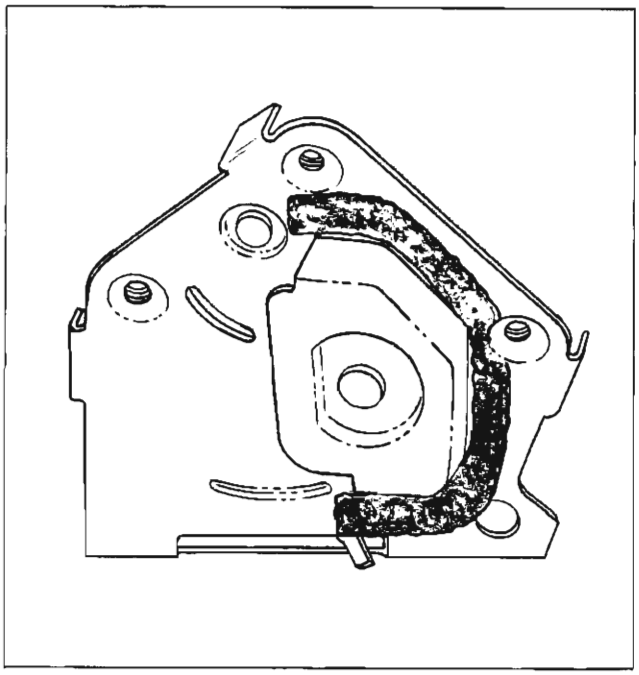


Fig. 14-23 Caulking Applied to Lock

TAIL GATE LOCK STRIKER

REMOVAL AND INSTALLATION

1. Open tail gate and with pencil, mark position of striker on body pillar.

2. Remove striker attaching screws (Fig. 14-19) and remove striker and adjusting plates from body pillar.

3. To install lock striker, place striker and adjusting plates within marks on body pillar and install striker attaching screws.

LOCK STRIKER ADJUSTMENTS

1. To adjust the 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. Tail gate should be properly aligned before checking spacer requirements.

b. To determine if lock striker spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages and then close the tail gate to form a measurable impression in the clay or caulking compound (Fig. 14-24).

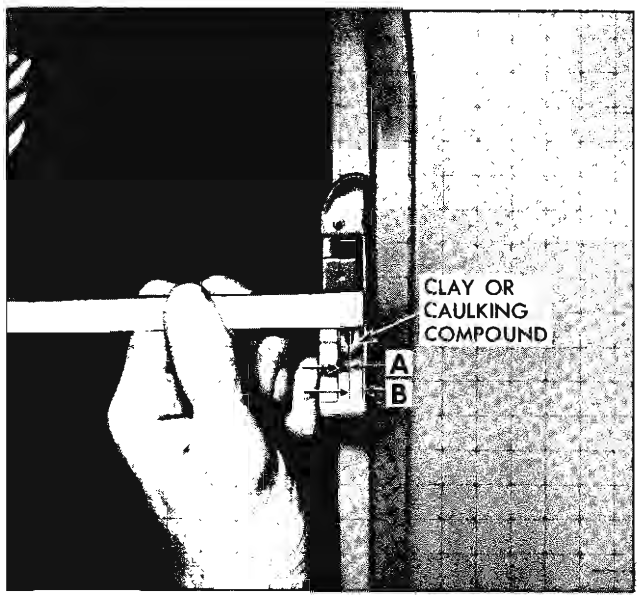


Fig. 14-24 Adjusting Lock Striker

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 as directed.

Dimension A	No. of Spacers Required	Spacer Thickness	Striker Attaching Screws*
3/16" to 1/8"	1	1/16"	Original Screw
1/8" to 1/16"	1	1/8"	Emergency Screw (1/8" Longer)
1/16" to 0	1 (1/8" Spacer) 1 (1/16" Spacer)	3/16" (Total)	Emergency Screw (1/4" Longer)
0 to 1/16" Interference	2 (1/8" Spacer)	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".

ELECTRIC WINDOW SAFETY SWITCH

REMOVAL AND INSTALLATION

1. Lower tail gate and remove inner panel cover.

2. Detach right half of inner panel water deflector and remove access hole cover.

3. Operate window up (out of tail gate) sufficiently to gain access to switch inside tail gate. Support glass when in "out" position.

4. Remove two switch attaching screws from right side facing at tail gate lock; then, detach wire from switch and remove switch from tail gate.

5. To install safety switch, reverse removal procedure.

TAIL GATE OPENING WEATHERSTRIP

REMOVAL

1. Open tail gate. Remove screw securing upper end of weatherstrip to body (section A-A, Fig. 14-25).

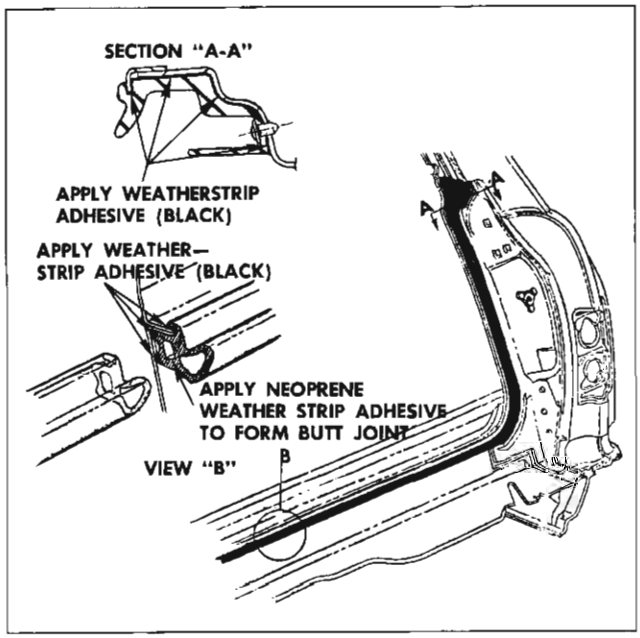


Fig. 14-25 Weatherstrip Application

2. Starting at upper end of weatherstrip, carefully break cement bond between weatherstrip and body with 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 (see sections A-A, B-B, C-C in Fig. 14-25).

3. Locate the upper end of weatherstrip to body opening making sure formed section of weatherstrip and attaching screw hole are properly aligned (see section A-A, Fig. 14-25). Insert remainder of weatherstrip into gutter along body pillar and on pinch-weld 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 at each end of weatherstrip; then, cement ends of weatherstrip together to form an even butt joint.

EXTERIOR MOLDINGS

CONTENTS OF THIS SECTION

The exterior moldings are identified in Figs. 15-1, 15-2 and 15-3. 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. "bath-tub" type snap-on clips
e. snap-in studs to pre-install retainers
f. snap-in clips

Fig. 15-4 illustrates typical attachments for body side moldings and cross sectional views 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

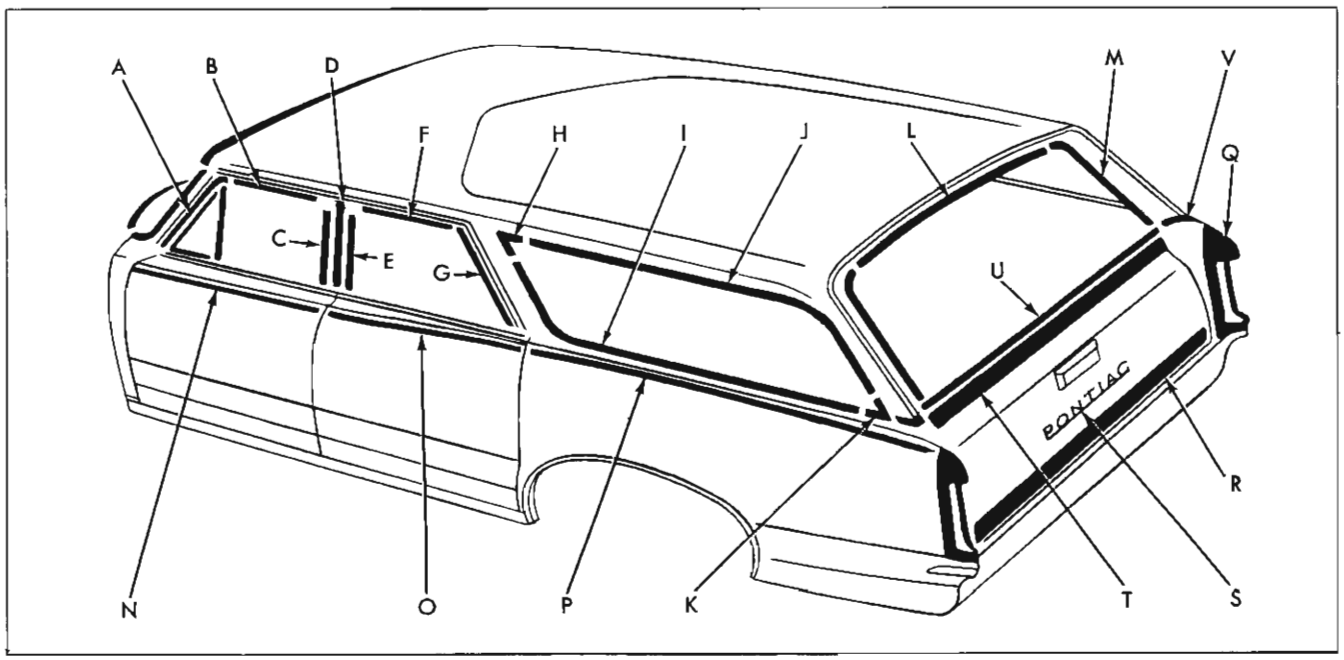


Fig. 15-1 Exterior Moldings - 2135 Style

A. Door Window Front Scalp Molding
B. Door Window Upper Scalp Molding
C. Door Window Rear Scalp Molding
D. Center Pillar Scalp Molding
E. Door Window Front Scalp Molding
F. Door Window Upper Scalp Molding
G. Door Window Rear Scalp Molding
H. Quarter Window Reveal Upper Front Escutcheon
I. Quarter Window Lower Reveal Molding
J. Quarter Window Upper Reveal Molding
K. Quarter Window Reveal Lower Rear Escutcheon
L. Tail Gate Window Upper Reveal Molding
M. Tail Gate Window Side Reveal Molding
N. Door Outer Panel Lower Molding
O. Door Outer Panel Lower Molding
P. Fender Lower Molding
R. Tail Gate Outer Panel Lower Molding
S. Tail Gate Outer Panel Name Plate
T. Tail Gate Outer Panel Belt Molding
U. Tail Gate Window Reveal Molding
V. Back Body Pillar Outer Panel Molding

therefore must be removed to gain access to the screw.

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

GENERAL PRECAUTIONS

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

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

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

SEALING OPERATION

Although detailed sealing operations for each individual molding are not described on the MOLDING REMOVAL CHART the following information is given to permit a satisfactory sealing operation.

Medium-bodied sealer or body caulking compound are the sealers most frequently used to provide a water-tight 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 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.

TOOLS AND CARE

For ease of molding removal, it is sometimes important to start the removal at a particular

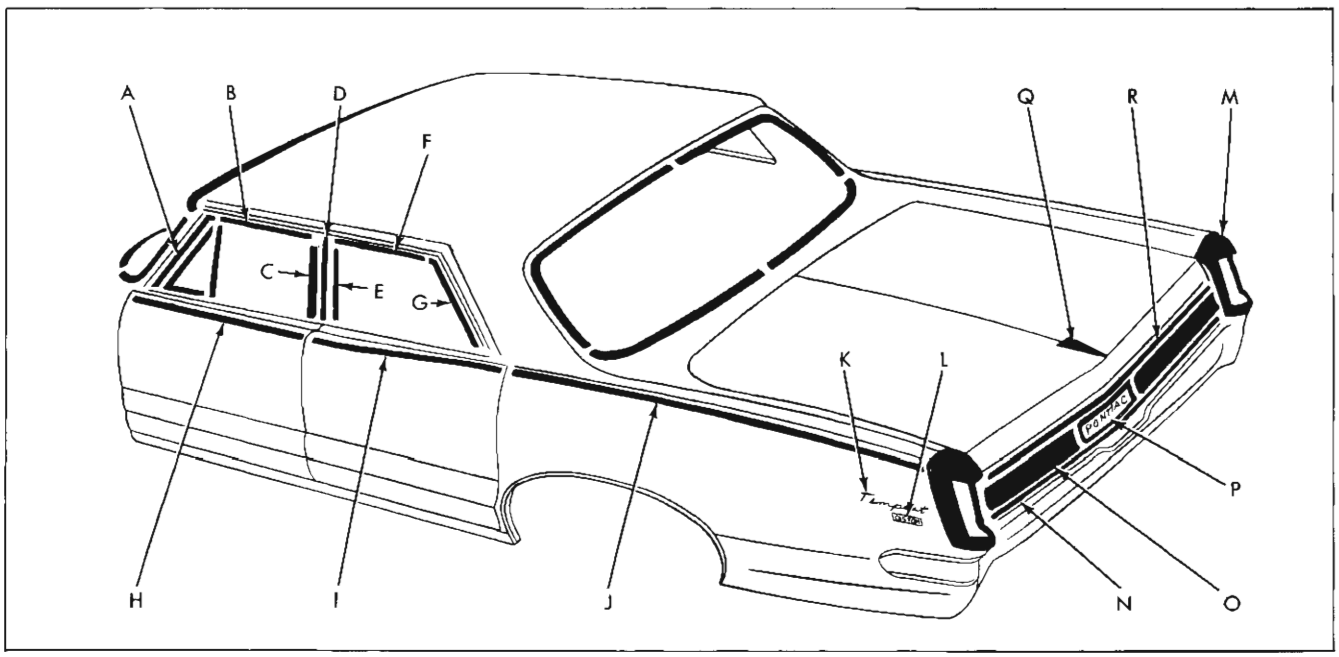


Fig. 15-2 Exterior Moldings - 2169 Style

A. Door Window Front Scalp Molding
B. Door Window Upper Scalp Molding
C. Door Window Rear Vertical Scalp Molding
D. Center Pillar Scalp Molding
E. Door Window Front Vertical Scalp Molding
F. Door Window Upper Scalp Molding
G. Door Window Rear Scalp Molding
H. Door Outer Panel Lower Molding
I. Door Outer Panel Lower Molding
J. Fender Lower Molding
K. Fender Script
L. Fender Name Plate
M. Fender Extension Molding
N. Rear End Outer Panel Lower Molding
O. Rear End Outer Panel Upper Molding
P. Gas Tank Filler Door Lower Molding
Q. Compartment Lid Outer Panel Emblem
R. Compartment Lid Outer Panel Lower Molding

location which is generally the "front" or "rear" of the molding. The 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)

If it is necessary to replace a damaged "bath-tub" molding clip, use the following procedure for removal and installation:

1. Insert sharp edge of flat-bladed tool, such as a putty knife, under edge of clip and hammer tool until base of clip is cut approximately half-way through (Fig. 15-5) 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 "bath-tub" type clip.

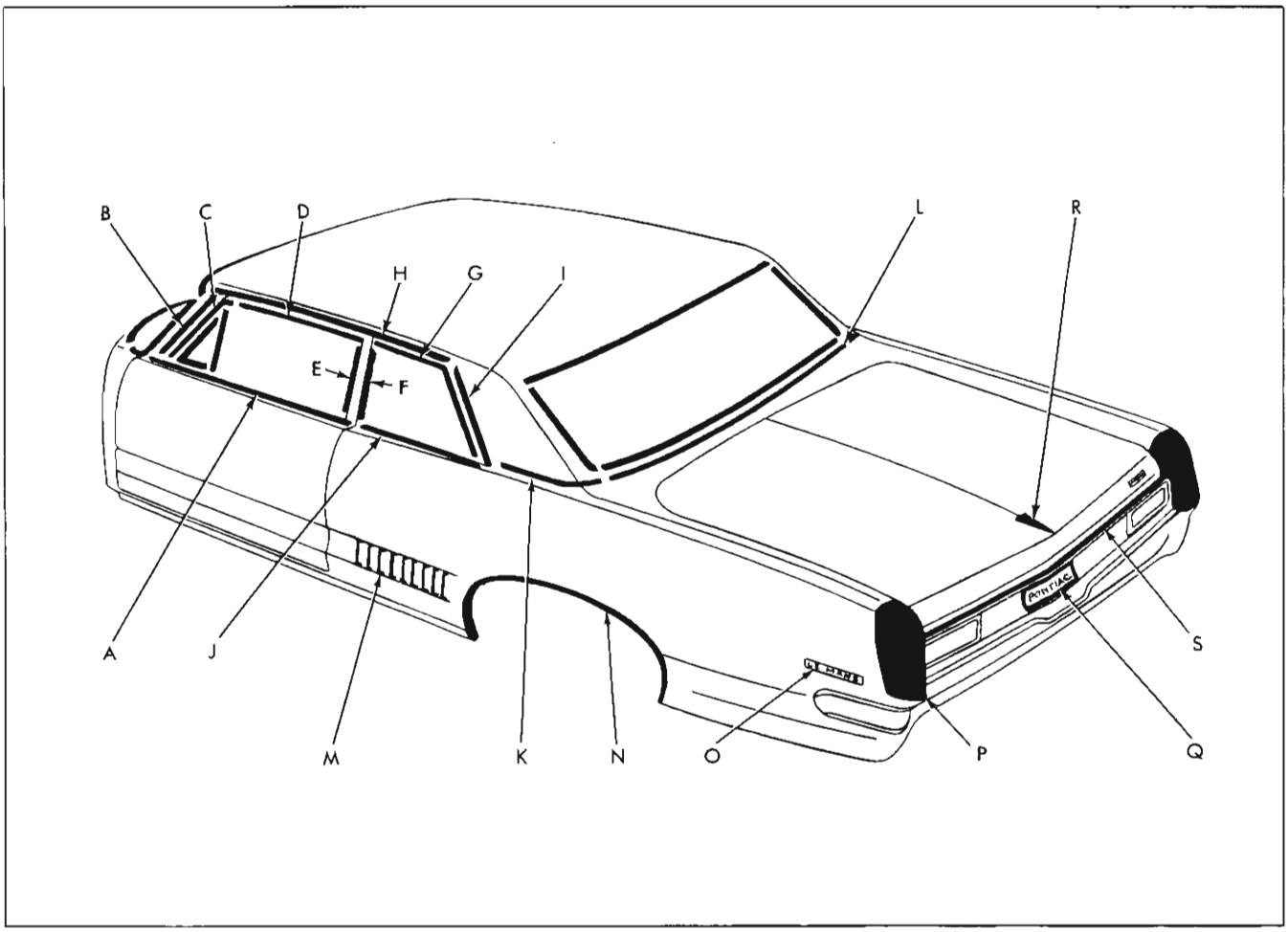


Fig. 15-3 Exterior Moldings - 2227 Style

A. Door Window Lower Reveal Molding
B. Windshield Pillar Molding
C. Door Window Front Scalp Molding
D. Door Window Upper Scalp Molding
E. Door Window Rear Vertical Scalp Molding
F. Quarter Window Front Reveal Molding
G. Quarter Window Upper Reveal Molding
H. Roof Drip Molding Front Scalp
I. Roof Drip Molding Rear Scalp
J. Quarter Window Lower Reveal Molding
K. Quarter Belt Reveal Molding
L. Rear End Belt Molding
M. Rear Fender Louvers
N. Rear Fender Molding
O. Fender Emblem
P. Fender Extension Molding
Q. Gas Tank Filler Door Molding
R. Compartment Lid Outer Panel Emblem
S. Compartment Lid Outer Panel Lower Molding

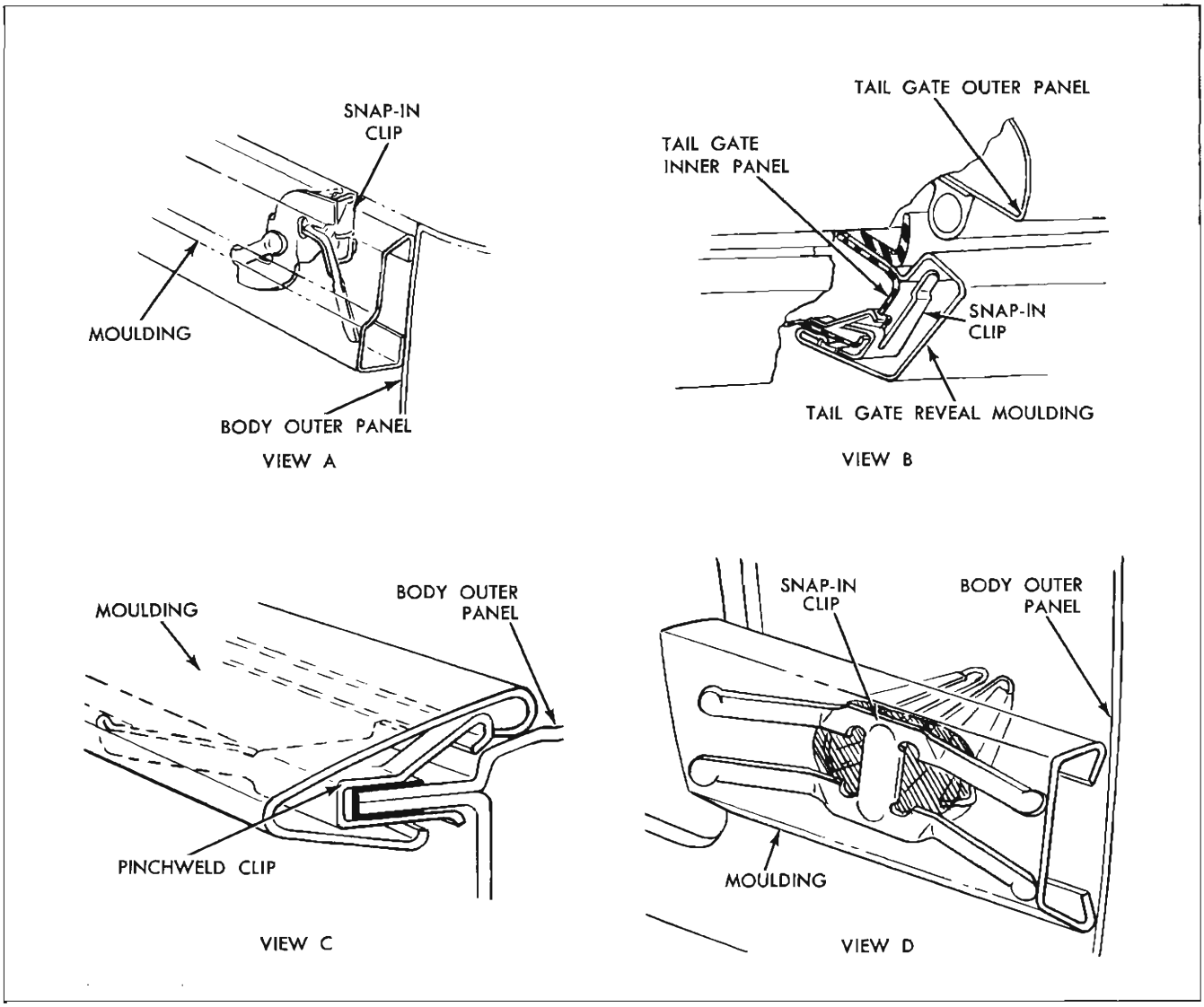


Fig. 15-4 Typical Molding Attachment

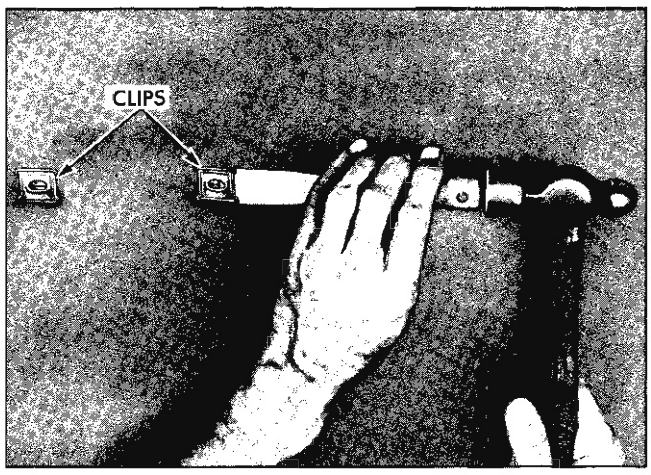


Fig. 15-5 Removing Clip

Molding Name Other Parts are Designated	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, 67	x x	- -	- -	- -	- -	- -	- Weatherstrip and Retainer	- -
Roof Drip Molding Front Scalp	27	-	x	-	-	-	-	-	Rear Lower Inner Edge
Roof Drip Molding Rear Scalp	27	-	x	-	-	-	Roof Drip Molding Front Scalp	-	Lower Inner Edge
Front Door Window 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 Vertical Rear Scalp	27,35,69	-	x	-	-	-	Front Door Window Frame Upper Scalp	-	-
Front Door Window Reveal	2227-67	x	-	-	-	-	-	Door Vent and Remove Window Lower Stops	-
Center Pillar Scalp	35,69	x	-	-	-	-	-	-	-
Rear Door Window Frame Vertical Front Scalp	35,69	-	x	-	-	-	Rear Door Window Frame Upper Scalp	-	-
Rear Door Window Frame Upper Scalp	35,69	-	x	-	-	-	Rear Door Window Frame Rear Scalp	-	-
Rear Door Window Frame Rear Scalp	35,69	-	x	-	-	-	-	-	-

Molding Name Other Parts are Designated	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			
(NOTE: Quarter Window Moldings on 35-45 Styles are covered in Rear Quarter Section due to glass installation)									
Quarter Window Front Reveal	27	-	-	x	-	-	Quarter Window Upper Reveal	-	-
Quarter Window Upper Reveal	27	-	-	x	-	-	-	-	-
Quarter Window Lower Reveal	27,67	x	-	-	-	-	-	Lower Quarter Window	-
Quarter Pinchweld Finishing	67 Styles	x	-	x View C	-	-	Quarter Window Lower Reveal	Rear Quarter & Rear End Trim Stick	Front Att. Screw
Rear End Pinchweld	67 Styles	-	-	x View C	-	-	Quarter Pinchweld Finishing	Rear Quarter & Rear End Trim Stick	-
Front Door Outer Panel Lower	2100 Series	x	-	-	x View A	-	-	-	-
Rear Door Outer Panel Lower	2100 Series	x	-	-	x View A	-	-	-	-
Rear Fender Lower	2127,67, 69	-	-	-	x View A	x	-	-	-
	2135	-	-	-	x View A	-	-	-	-
Rear Fender Louvers	2200 Series	-	-	-	-	x	-	Rear Quarter Trim	-
Rear Fender Name Plate	All Styles	-	-	-	-	x	-	-	-
Rear Wheel Opening	2200 Series	x	-	-	-	-	-	-	-

Molding Name Other Parts are Designated	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 of Rear Fender	2000 2100	x	-	-	x	-	-	-	-
Rear End Belt	27 & 69 Styles	-	-	-	-	x	Quarter Belt Reveal	-	-
Quarter Belt Reveal	27 & 69 Styles	-	-	-	x View D	x	-	-	-
Rear Compartment Lid Outer Panel	2000,2100 2200	x	-	-	-	x	-	-	-
Rear Compartment Lid Emblem	All Except Wagon	-	-	-	-	x	-	-	-
Rear End Outer Panel Lower	2000 2100	-	-	-	-	x	-	-	-
Rear End Outer Panel Upper	2100	-	-	-	-	x	-	-	-
Gas Tank Filler Door Lower	2000,2100 Except 35 Style	x	-	-	-	-	-	-	-
Gas Tank Filler Door Name Plate	All except 35 Style	-	-	-	-	x	-	-	-
Tail Gate Outer Panel Lower	2135	-	-	-	-	x	Tail Gate Window Reveal	Tail Gate Window Regulator	-
Tail Gate Outer Panel at Belt	2035,2135	-	-	-	-	x	-	Tail Gate Window	-
Tail Gate Name Plate	2135 Style	-	-	-	-	x	-	Tail Gate Window and Regulator	-

Molding Name Other Parts are Designated	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			
Tail Gate Window Reveal	35 Style	x	-	-	x View B	-	-	-	-
Tail Gate Window Opening Upper	35 Style	x	-	-	-	-	Tail Gate Window Opening Side	-	-
Tail Gate Window Opening Side	35 Style	x	-	-	-	-	Tail Gate Window Opening Upper	-	-
Back Body Pillar Outer Panel	2135	x	-	x	-	-	Quarter Window Lower Reveal	-	-
Windshield Pillar Drip	All Except 67 Styles	x	-	-	-	-	Roof Drip Molding Scalp	-	-
Windshield Pillar Finishing	67 Styles	x	-	-	-	-	-	-	-
Roof Drip Molding Scalp	Opt. 2117-27,2217	-	x	-	-	-	-	-	Front Lower Edge
Front Door Window Frame Rear Vertical Scalp	2119-35	-	x View D	-	-	-	Front Door Window Frame Upper Scalp	-	Upper Inner Edge
Front Door Window Frame Upper Scalp	2119-35	-	x View D	-	-	-	-	Door Vent	Rear Inner Edge
Front Door Outer Panel	All Styles	-	-	x View B	-	x View F	-	Door Trim Panel	-
Rear Door Window Frame Front and Rear Vertical Scalp	2119-35	-	x View D	-	-	-	Door Window Frame Upper Scalp	-	Upper Inner Edge
Rear Door Window Frame Upper Scalp	2119-35	-	x View D	-	-	-	-	-	Front Inner Edge

Molding Name Other Parts are Designated	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 Window Front Reveal	Opt. 2117-19-27-35 2217	-	-	x	-	-	Quarter Window Upper Reveal	-	-
Quarter Window Upper Reveal	Opt. 2117-19-27-35 2217	-	-	x View C	-	-	-	Quarter Window	-
Quarter Belt Reveal	2117,2217	-	-	-	x View A	-	-	-	-
Quarter Pinchweld Finishing	2167,2267	x	-	x	-	-	-	Lower Top to Relieve Tension on Back Curtain	At Radius
Rear Fender Emblem	All Styles	-	-	-	-	x	-	-	-
Rear End Panel	2100	-	-	-	-	x	-	-	-
Rear End Panel Molding and Tail Lamp Assembly	2200	-	-	-	-	x	-	Tail Lamp Assembly	-
Gas Tank Filler Door	2100,2200 Less 35 Style	-	-	-	-	x	-	-	-
Back Body Opening Side Upper Pinchweld Finishing	2135	-	-	x View E	-	-	-	-	-
Back Door Outer Panel Pinchweld Finishing	2135	x	-	x View E	-	-	-	-	-

HEADLINING

CONTENTS OF THIS SECTION

HEADLINING ASSEMBLY

DESCRIPTION

The headlining is formed to the contour of the roof panel by concealed listing wires. Both ends of the wires are installed in holes in the side roof rails on all styles except 27. On 27 styles, the listing wires are installed in holes in the side roof rail 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 45 styles, the rear quarter material is cemented to the body lock pillars and rear window or back body opening pinchweld flanges. On 27 and 69 styles, the headlining is attached to a tacking strip at the rear quarter area by tacks or staples (view J, Fig. 16-1). 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.

CAUTION: 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.

a. Sunshade supports.

b. Rear view mirror supports.

c. Dome lamp 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. 16-1). 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 11, 27 and 69 styles.

g. Windshield and back window finishing lace.

h. All pinchweld flange finishing lace over doors and rear quarter.

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 styles. On 27 styles remove listing wires from left side rail holes and clips on right side (view I, Fig. 16-1). 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. 16-1 and Fig. 16-2). Remove listing wires and pocket from support (view H, Fig. 16-1).

6. Remove headlining 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 in pockets of new headlining.

2. Apply approved trim cement to headlining attaching surfaces at windshield and back window

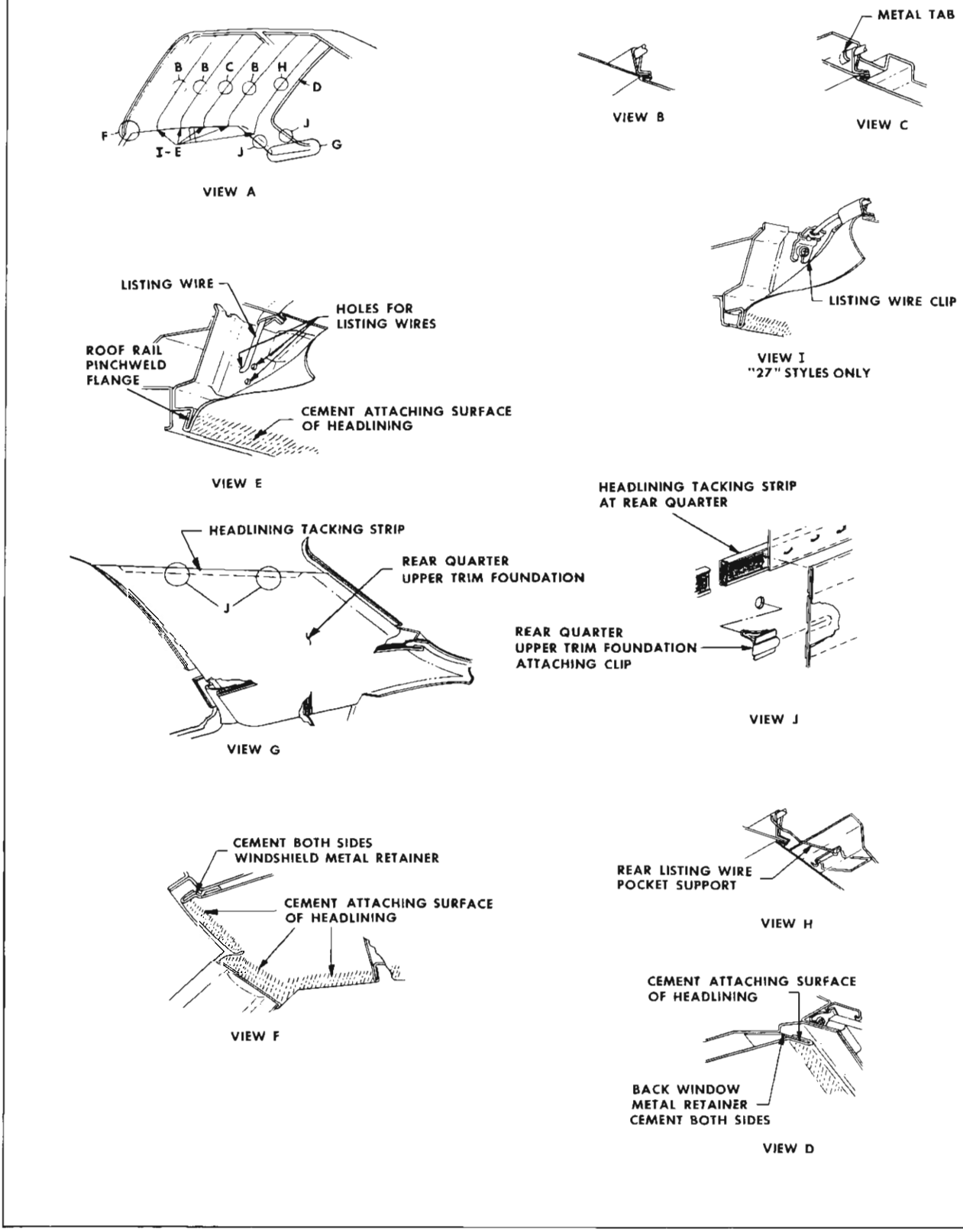
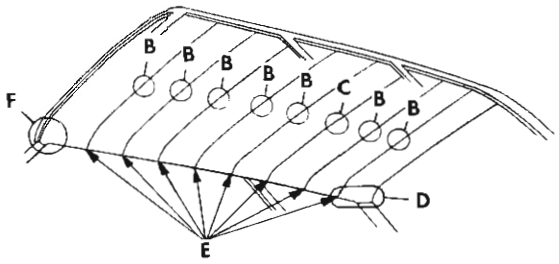
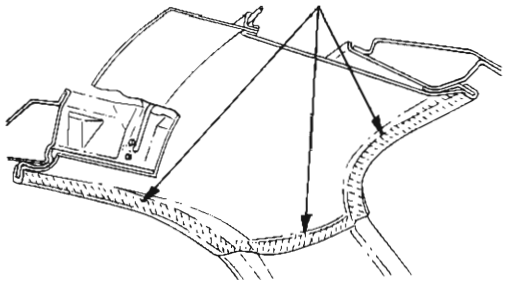


Fig. 16-1 Headlining Installation

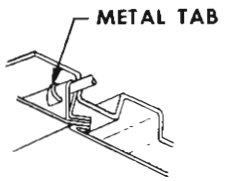


VIEW A

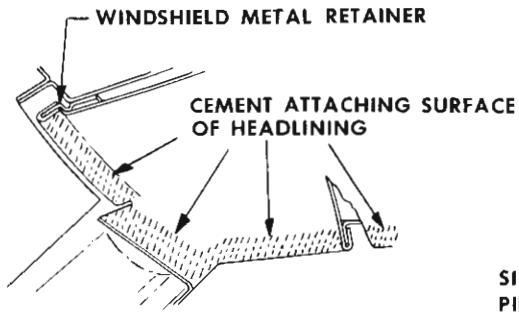
VIEW B



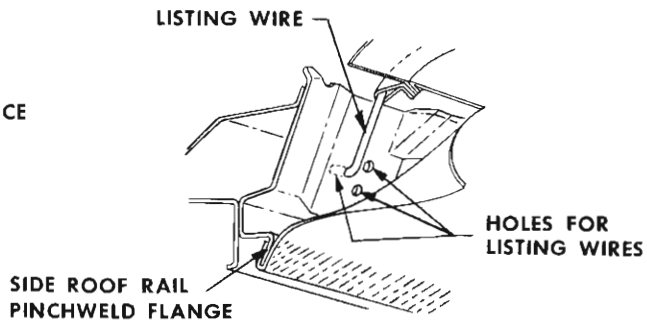
VIEW D



VIEW C



VIEW F



VIEW E

Fig. 16-2 Headlining Installation

openings. Cement must be applied to both sides of headlining retainers (views D and F, Fig. 16-1 and Fig. 16-2).

3. Apply approved cement to headlining attaching surfaces along side roof rails and rear quarter areas, except rear quarter areas on 27 and 69 styles.

4. Apply approved cement to pinchweld flanges of side roof rails.

5. Lift headlining into body and install rear listing wires in side roof rails except 27 and 37 styles (view E, Fig. 16-1, and Fig. 16-2). On 27 styles, install listing wires in left side roof rail and attach right side by clips. (view I, Fig. 16-1).

6. Center and align headlining in relation to back body opening and side roof rails. On 27 and 69 styles, insert rear listing wire support through listing wire pocket (view H, Fig. 16-1).

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, Fig. 16-1 and Fig. 16-2).

NOTE: 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 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.

12. Trim excess material from edges of headlining, at windshield, back window and around rear quarter areas except 27 and 69 styles. On 27 and 69 styles tack headlining to rear quarter trim stick (view J, Fig. 16-1).

13. Using a headlining inserting tool, install trimmed edges of headlining to outer surface of side roof inner rail and at windshield and back window retainers to give headlining a finished appearance (views D, E and F, Fig. 16-1 and views D, E and F, Fig. 16-2).

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

CONTENTS OF THIS SECTION

FRONT SEATS

MANUALLY OPERATED FRONT SEAT

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.

SEAT 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 to full forward position.

5. At rear of adjusters, remove adjuster-to-floor pan attaching bolts.

6. With aid of helper, slide seat rearward until front legs of adjuster are disengaged from under front attaching bolts. Remove seat 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.

SEAT ADJUSTER REMOVAL AND INSTALLATION

1. Remove front seat 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. 17-1).

3. If left adjuster is being replaced, remove adjuster control knob.

4. Squeeze hooked end of seat adjuster locking wire together and slide retaining spring back over hump in locking wire and remove locking wire from adjuster.

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove seat adjuster from seat.

6. To install, reverse removal procedure. Check seat for proper operation prior to installation.

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 (Fig. 17-1).

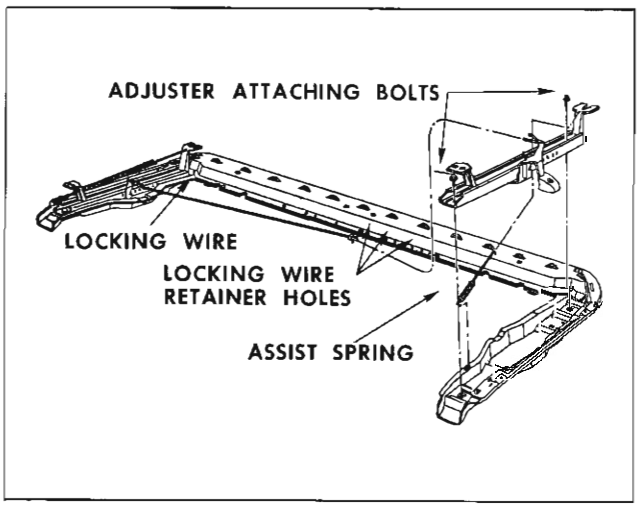


Fig. 17-1 Manual Seat Adjuster

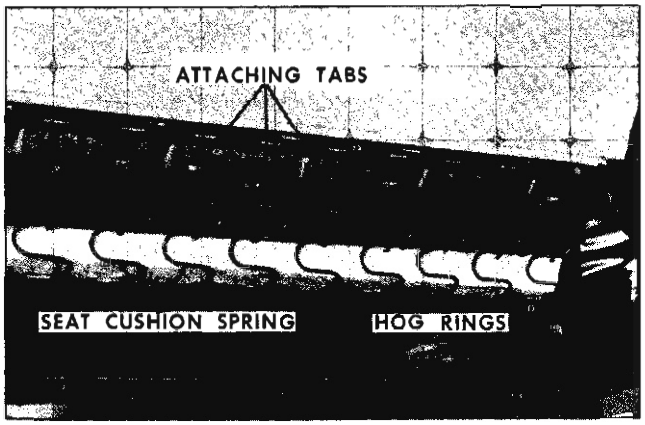


Fig. 17-2 Cushion Spring Attachment

SEAT BACK REMOVAL AND INSTALLATION

1. Remove front seat 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. 17-2).

4. Remove hog rings securing lower edge of seat back trim from seat bottom frame at each end of seat. Then raise trim to expose bolts securing seat back bottom frame (Fig. 17-3).

5. Bend open tabs securing seat cushion spring to seat back frame and carefully disengage springs from tabs (Fig. 17-2).

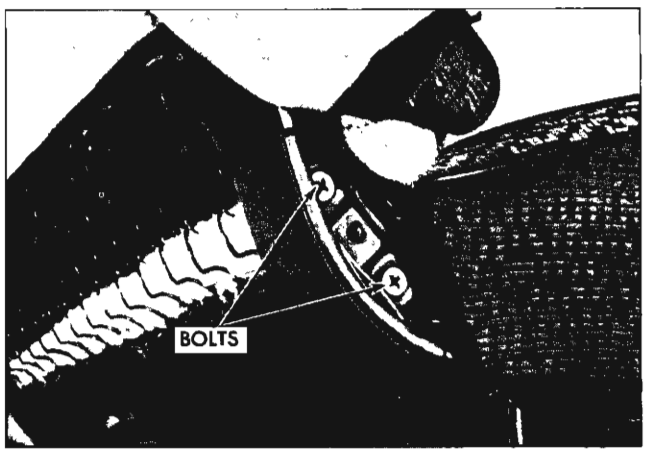


Fig. 17-3 Seat Back Attaching Bolts

6. Place seat in upright position. Then with a helper, holding seat back, remove attaching bolts on each side of seat and remove seat back.

7. To install, reverse removal procedure.

NOTE: Make certain rear edge of seat cushion spring is properly engaged to seat back frame and cardboard breakover foundation is properly positioned prior to hog ringing central portion of trim in place.

FOUR-WAY TILT FRONT SEAT

Tilt 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. 17-4). 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.

SEAT REMOVAL AND INSTALLATION

1. Disconnect seat control switch, cigar lighter and courtesy lamp wire harness (where present) from feed wire harness under front of seat. 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 rearward until front adjuster pedestal is disengaged from

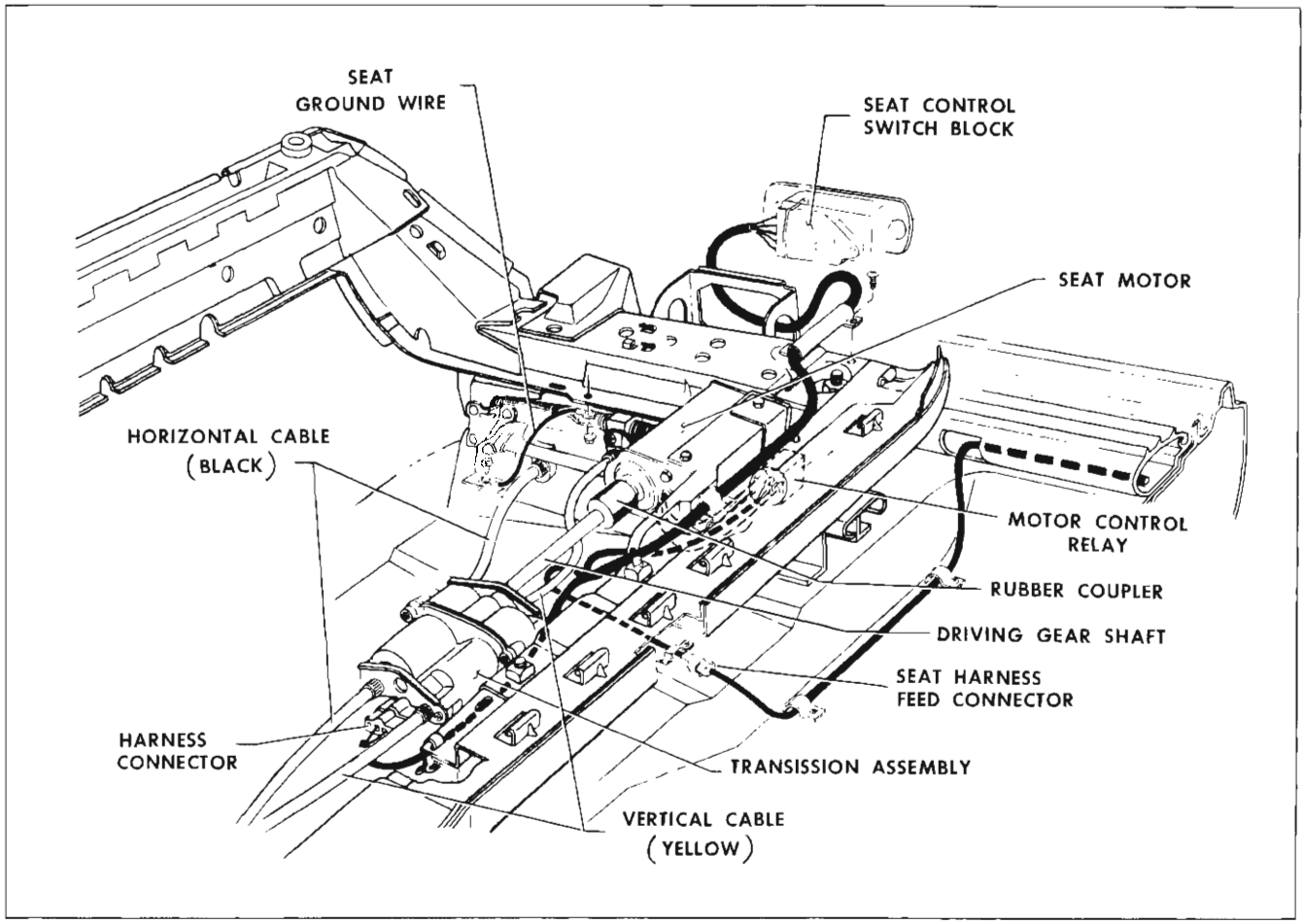


Fig. 17-4 Tilt Seat Circuit Diagram

front attaching bolt; then remove seat with attached adjusters from body.

5. To install seat, 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 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 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.

SEAT ADJUSTER REMOVAL AND INSTALLATION

1. Operate seat to fully raised and midway position.

2. Remove front seat from body with attached adjusters, motor and transmission and place upside down on a clean protected surface. (Fig. 17-5).

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. (Fig. 17-5).

5. To install seat adjuster, reverse removal procedure. Black cable attaches to horizontal actuator. (Fig. 17-5).

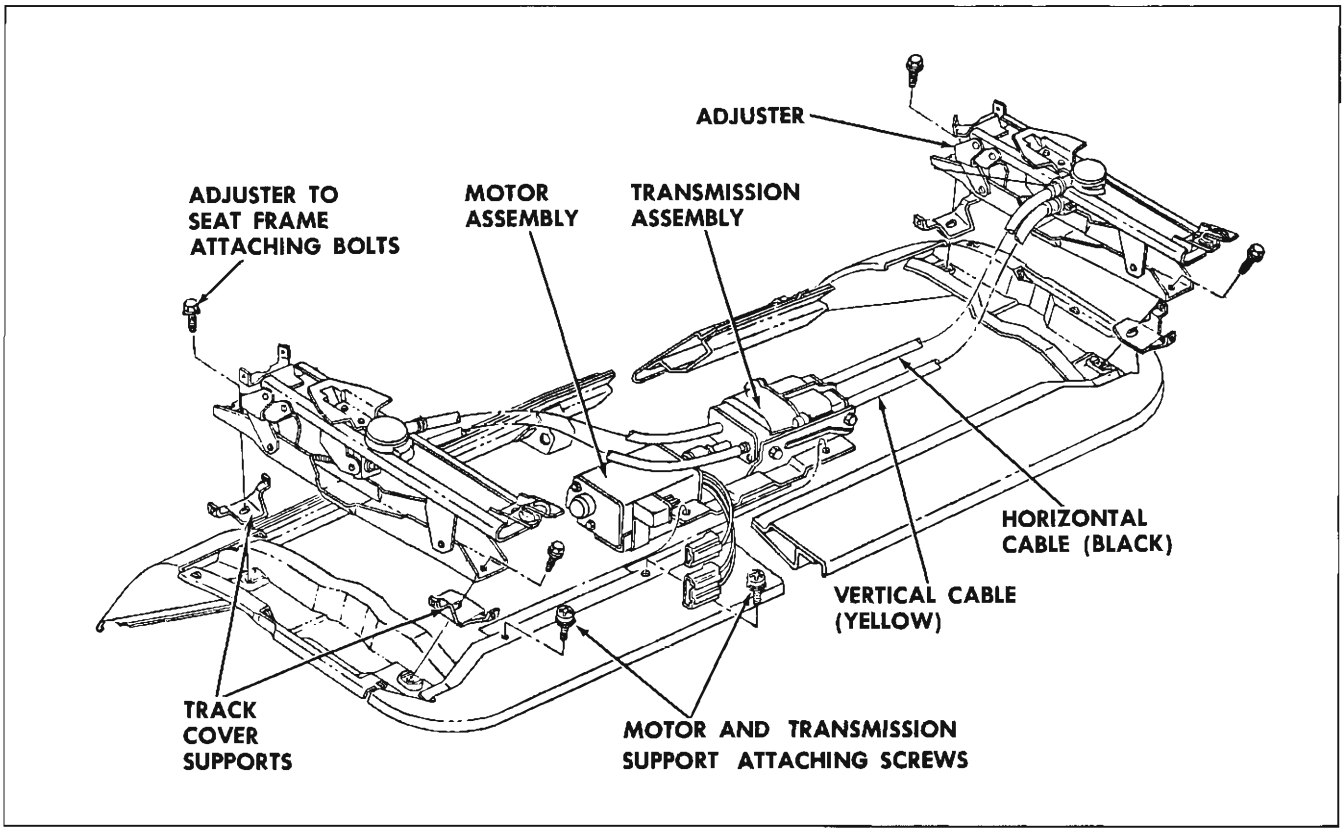


Fig. 17-5 Tilt Seat Operating Parts

NOTE: Check operation of seat adjuster and make sure adjusters are in phase.

ADJUSTER VERTICAL GEARNUT REMOVAL AND INSTALLATION

1. Operate seat to fully raised and midway position.

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

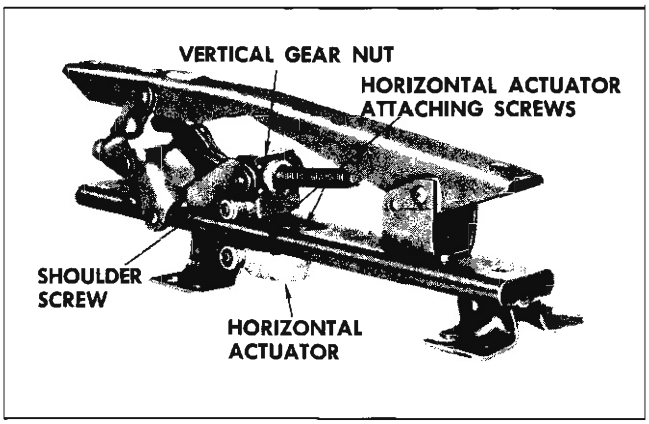


Fig. 17-6 Seat Adjuster

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. 17-6).

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 SEAT REMOVAL AND INSTALLATION.

ACTUATOR REMOVAL AND INSTALLATION

1. Remove adjuster vertical gearnut as previously described.

2. Disconnect drive cable from horizontal actuator.

3. Remove screws securing horizontal actuator. To adjuster lower track; then remove actuator from adjuster (Fig. 17-6).

4. To install, reverse removal procedure.

NOTE: When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth or 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 SEAT REMOVAL AND INSTALLATION.

ADJUSTER JACKSCREW 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. 17-5).

3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster (Fig. 17-7).

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 SEAT REMOVAL AND INSTALLATION.

ELECTRIC MOTOR REMOVAL AND INSTALLATION

1. Remove front seat assembly as previously described and place upside down on a clean protected surface (Fig. 17-5).

2. Disconnect wire harness from motor relay.

3. Remove screws securing motor and transmission support to seat bottom frame. (Fig. 17-5).

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.

HORIZONTAL AND VERTICAL CABLE REMOVAL AND INSTALLATION

1. Remove seat 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 (Fig. 17-4).

4. Disengage cable to be replaced from end plate.

5. To install cables, reverse removal procedure.

TRANSMISSION REMOVAL AND INSTALLATION

1. Remove seat 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. 17-4).

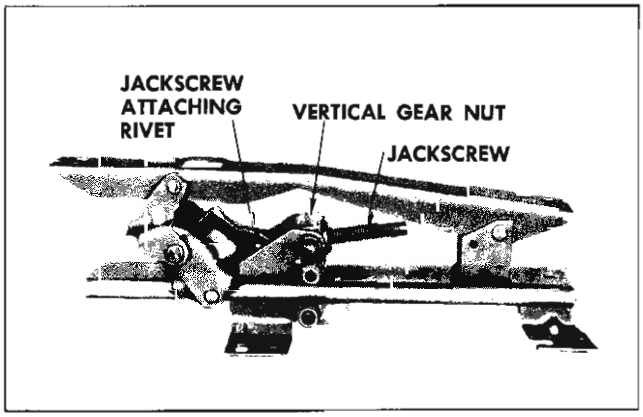


Fig. 17-7 Seat Adjuster

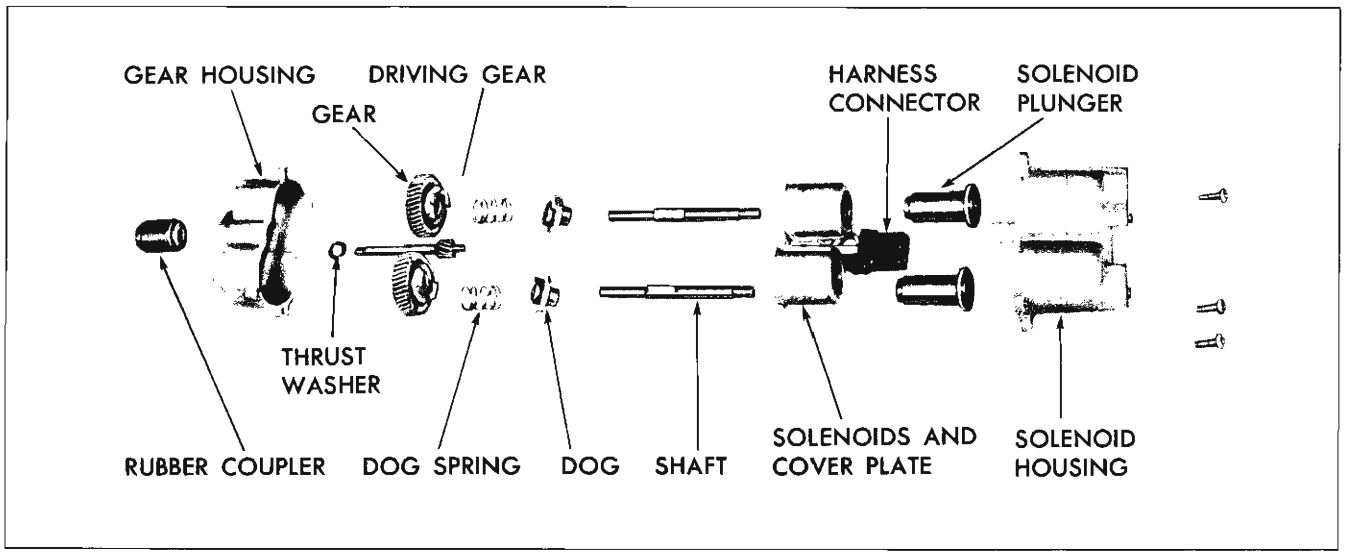


Fig. 17-8 Four-Way Seat Transmission

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.

5. To install, reverse removal procedure.

DISASSEMBLE AND ASSEMBLE TRANSMISSION

1. Remove front seat adjuster transmission from seat.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission (Fig. 17-8).

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.

REAR SEATS

REMOVAL

1. Push lower forward edge of cushion rearward and pull cushion upward until protrusions on seat bottom frame disengage from floor pan stops.

2. Pull cushion forward and carefully remove from body.

INSTALLATION

1. Lift cushion carefully into body to avoid damaging adjacent trim.

2. Position rear edge of cushion under rear seat back.

3. Center protrusions on seat bottom frame with stops on floor pan.

IMPORTANT: If frame protrusions are not properly centered in relation to floor pan stops, proper engagement and placement of cushion will be extremely difficult.

4. Push forward edge of cushion rearward and downward until protrusions are properly engaged behind floor pan stops.

SEAT BACK REMOVAL AND INSTALLATION

1. Remove rear seat cushion.

2. 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.

3. Pull seat back out at bottom until seat back clears body tabs; then, raise seat back upward until disengaged from hangers on the seat back panel support.

4. Remove seat back from body.

5. To install, reverse removal procedure, making certain that all attaching body tabs and hangers have industrial body tape applied to them to act as an anti-squeak.

FOLDING REAR SEAT AND COMPARTMENT FLOOR PANELS

FOLDING REAR SEAT

Fig. 17-9 is typical of six-passenger station wagon folding full second seat and rear compartment floor panels. The illustration identifies component parts, their relationship and various attaching points.

FLOOR PANEL COVERING

The rear compartment floor panel covering consists of a one-piece vinyl mat with a pad backing. The vinyl mat is installed loose with sides inserted under the rear quarter trim and wheelhouse trim. The 2135 style incorporates metal skid strips which are tabbed to the vinyl mat.

SEAT CUSHION REMOVAL AND INSTALLATION

1. Lift up front edge of cushion to disengage protrusions on seat bottom frame from slots in seat cushion support and remove cushion.

2. To install, reverse removal procedure. Make certain protrusions on seat bottom frame are fully engaged in slots in seat cushion support.

FLOOR PANEL (AT KICK-UP) REMOVAL AND INSTALLATION

1. Turn back front edge of rear compartment floor panel covering and remove eight hex-head rear compartment floor panel attaching screws.

2. To install, reverse removal procedure.

FLOOR FILLER PANEL 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.

3. To install, reverse removal procedure.

SEAT BACK TRIM AND SPRING 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.

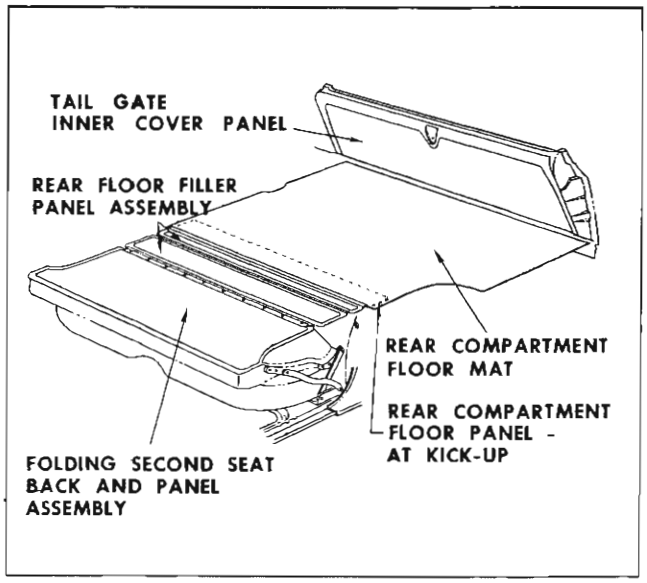


Fig. 17-9 Folding Seat and Floor Panels

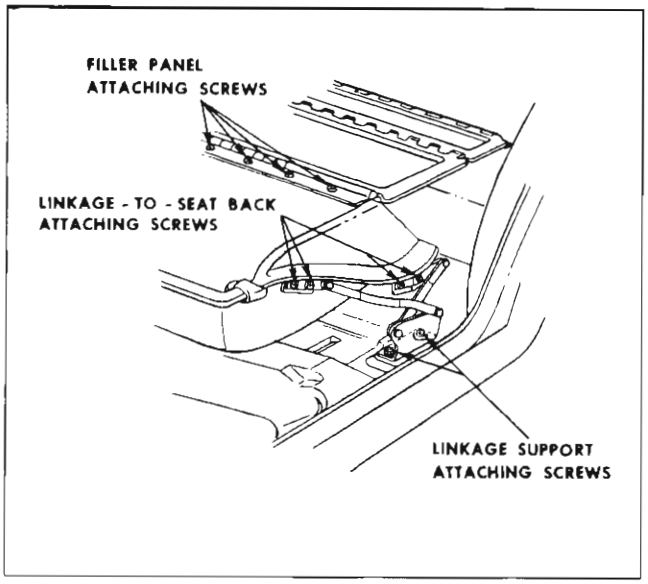


Fig. 17-10 Folding Seat Linkage

Lift trim and spring assembly to disengage retainers at top from slots in seat back panel; then, remove seat back trim and spring from seat back panel.

3. To install, reverse removal procedure.

SEAT BACK AND PANEL REMOVAL AND INSTALLATION

1. With second seat back in down position, remove screws securing rear floor filler panel to second seat back panel and detach filler panel from seat back.

2. On both sides of seat back, remove screws securing seat back to folding linkage (Fig. 17-10) and remove seat back and panel from body.

ELECTRICAL

CONTENTS OF THIS SECTION

POWER OPERATED WINDOWS

DESCRIPTION

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. 18-1).

FEED HARNESS FOR QUARTER WINDOWS

This harness of flat wire construction connects to the front cross-over harness on the left side of the shroud (fire wall) (Fig. 18-1) and extends rearward under the flat body wire harness. The harness divides at the rear of the rear seat on coupe styles (Fig. 18-2) and at the rear of the front seat on 4 door styles (Fig. 18-3).

Note that the body wire harness is installed on top of the power window harness in the body. (See Fig. 18-1).

QUARTER WINDOW HARNESS

The left and right round wire harness connects to the main flat feed harness behind the rear quarter

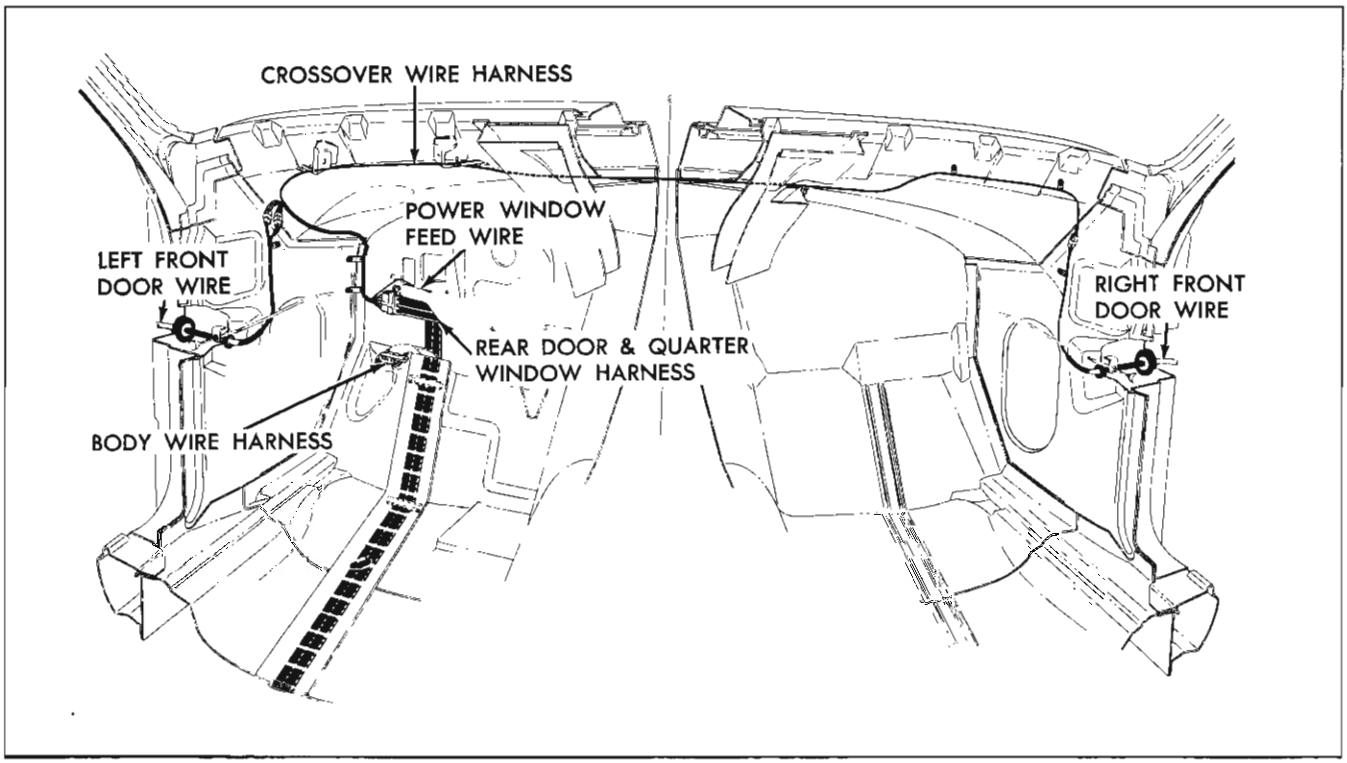


Fig. 18-1 Front End Power Window Wiring

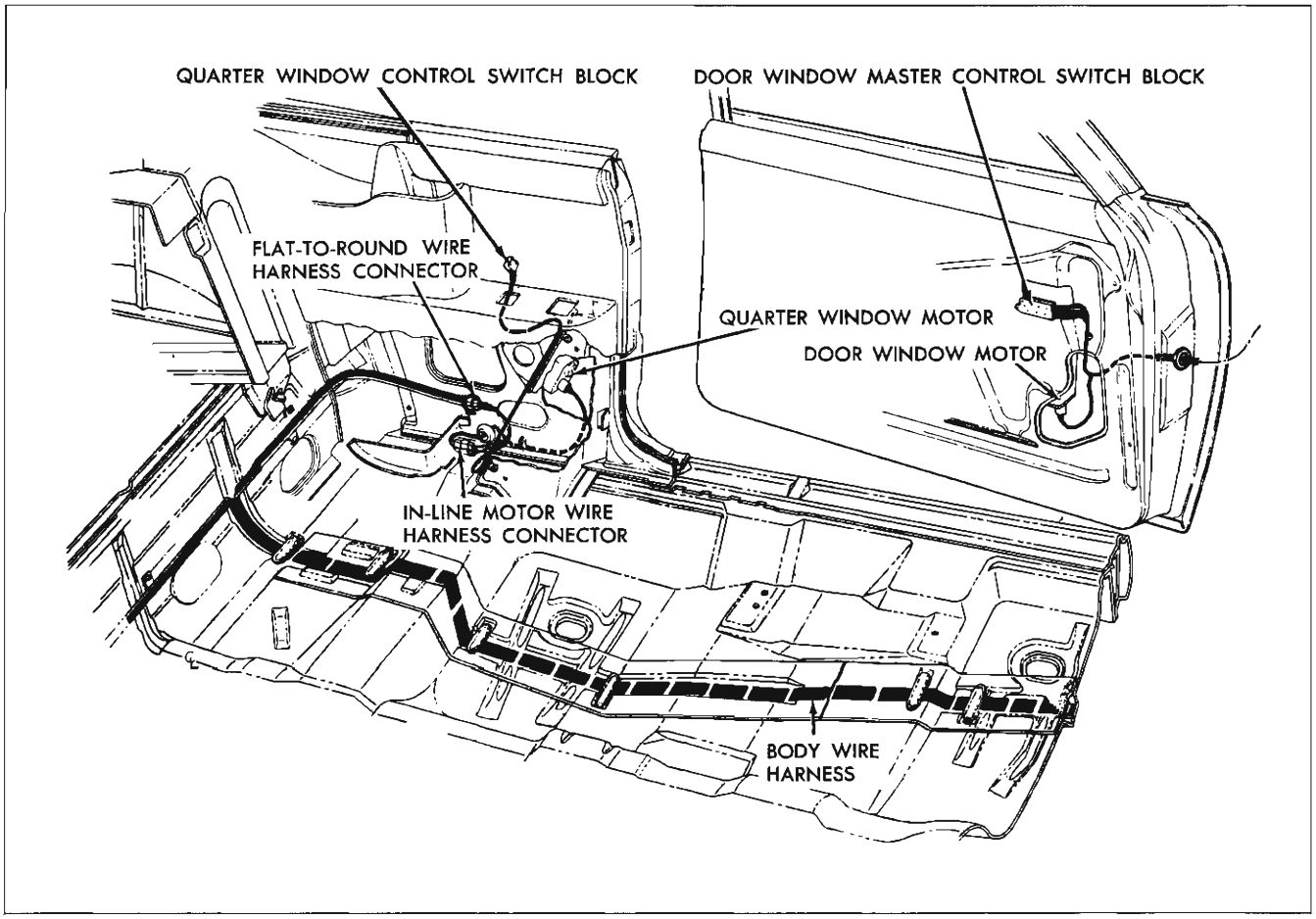


Fig. 18-2 Left Side Power Window Wiring - Convertible

arm rest foundation on covertible styles (Fig. 18-2) and under the rear seat cushion on 27, 37 styles (Fig. 18-4).

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. 18-3 and 18-5). To disengage the connector, pull harness inboard at base of center pillar.

Power windows are operated by a rectangular shaped 12 volt series wound motor with an internal circuit breaker and a self-locking rubber coupled gear drive.

The harness to the door window motor connector is designed with a locking embossment to insure a positive connection. To disengage the connector from the door motor, depress the thumb release; to install the harness, depress the thumb, release until the embossment on connector is locked in hole of motor connector.

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 left fender skirt junction block of V-8 styles and top of starting motor solenoid of 6 cyl. styles.

CHECKING PROCEDURES

Failures in a circuit are usually caused by short circuits or open circuits. Open circuits usually are caused by breaks in the wiring, faulty connection or mechanical failure in a component such as a switch or circuit breaker. Short circuits usually are 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

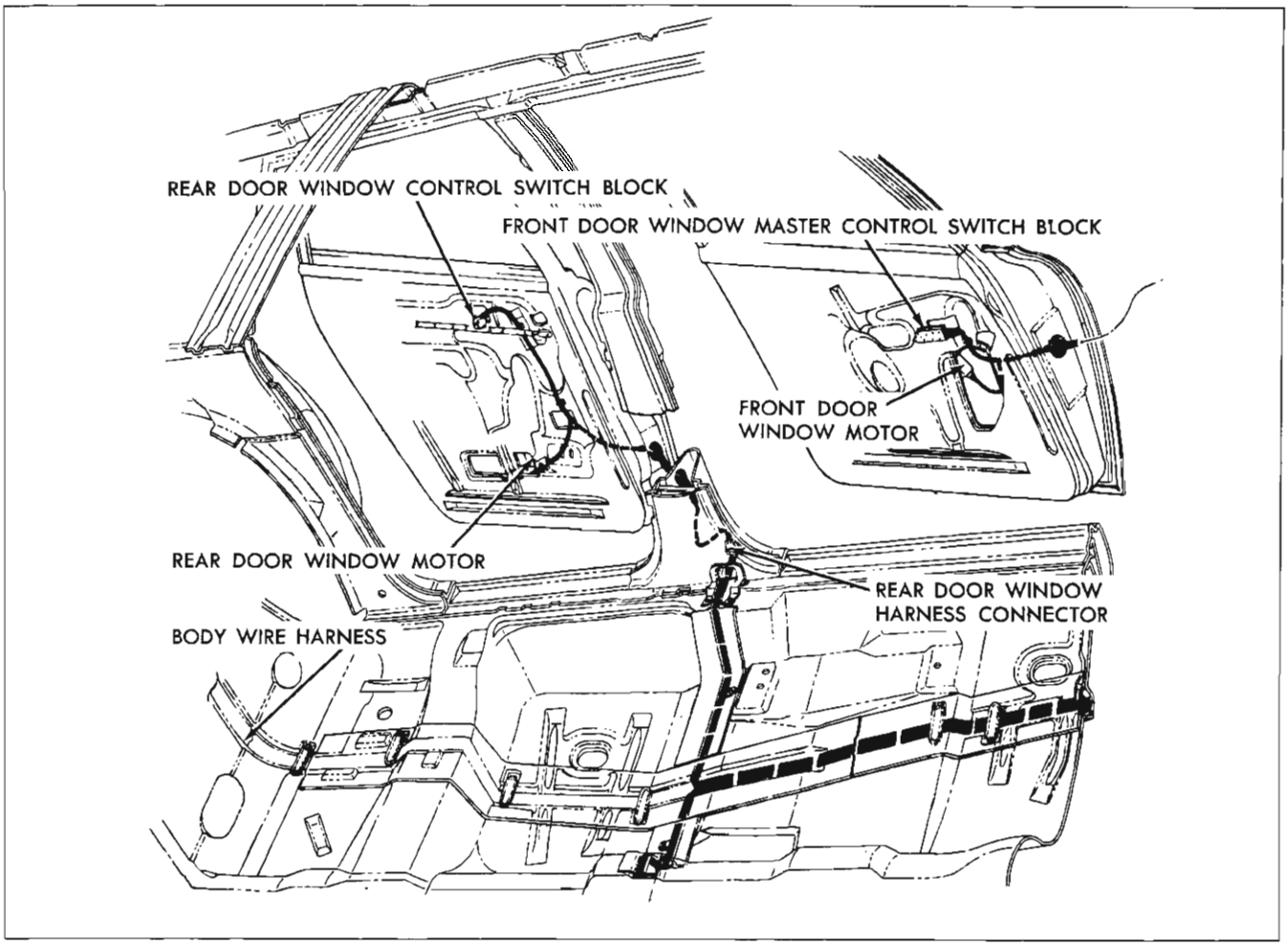


Fig. 18-3 Left Side Power Window Wiring - Sedan

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.

Before attempting to locate a short or open circuit check harness connectors for proper engagement and review the circuit diagram (Fig. 18-6).

CHECKING FEED CIRCUIT CONTINUITY AT CIRCUIT BREAKER

1. Connect one test 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 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.

CHECK FEED CIRCUIT CONTINUITY AT WINDOW CONTROL SWITCH BLOCK

1. Connect one light test lead to feed terminal of switch block and ground other test lead to body metal (Fig. 18-7).

2. If tester does not light, there is an open or short circuit between switch and power source.

CHECKING WINDOW CONTROL SWITCH

1. Insert one end of a 12 gauge jumper wire to the switch feed terminal and other end to one of the motor lead terminals in switch block. Repeat this check on the remaining motor lead terminal (Fig. 18-8).

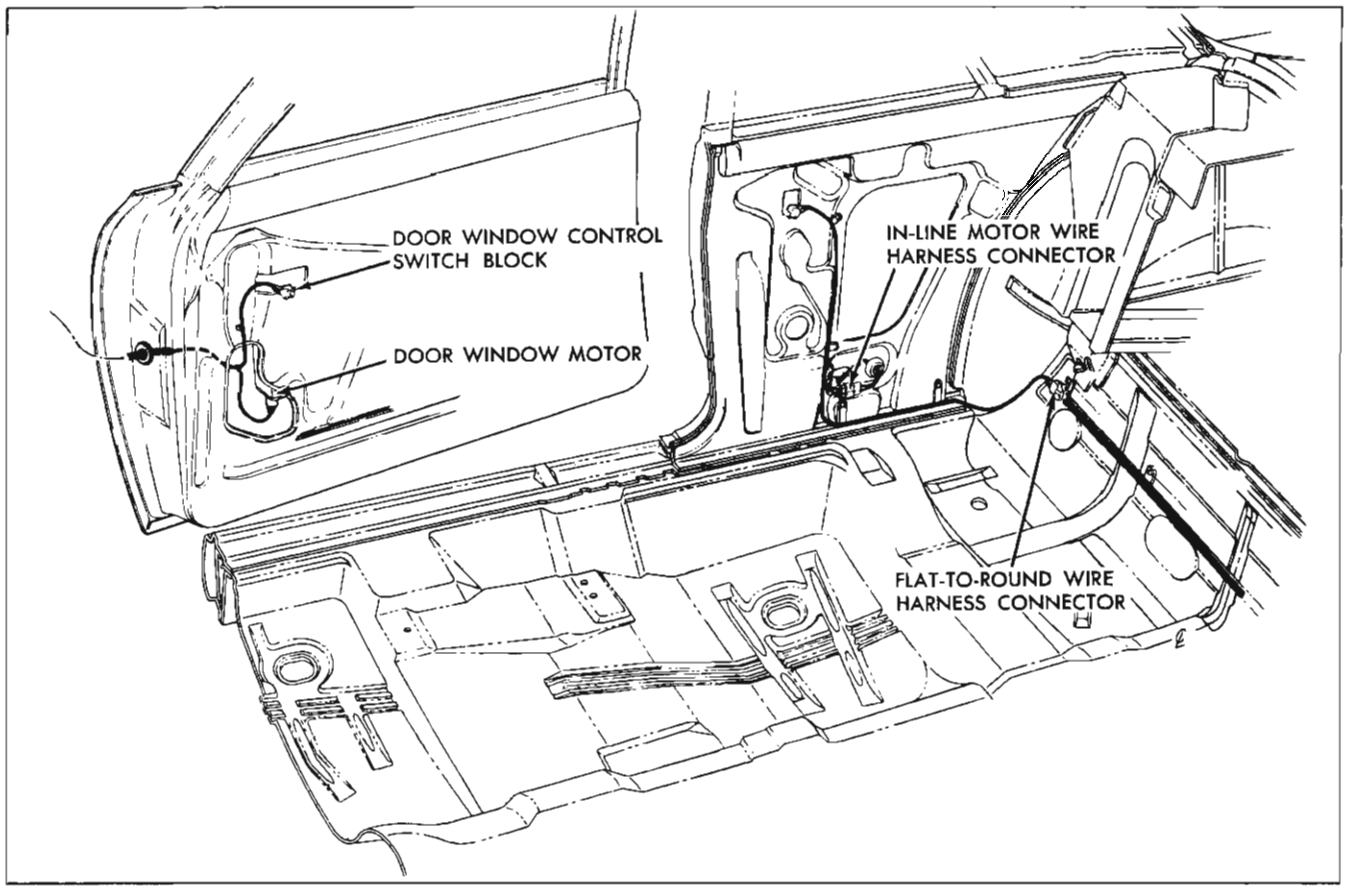


Fig. 18-4 Right Side Power Window Wiring - Coupe

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 DOOR WINDOW MOTOR

1. Depress thumb release and disengage harness connector from window motor connector.

2. Insert one end of a 12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block (Fig. 18-8).

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. 18-9).

4. Check other terminal.

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 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. 18-8).

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.

CHECKING WINDOW MOTOR

1. Check window regulator and channels for possible mechanical bind of window.

2. Check attachment of window motor to insure an effective ground.

3. Connect one end of a 12 gauge jumper wire to the power source and the other end to one of the terminals on the door window motor or the inline connector for the quarter window motor.

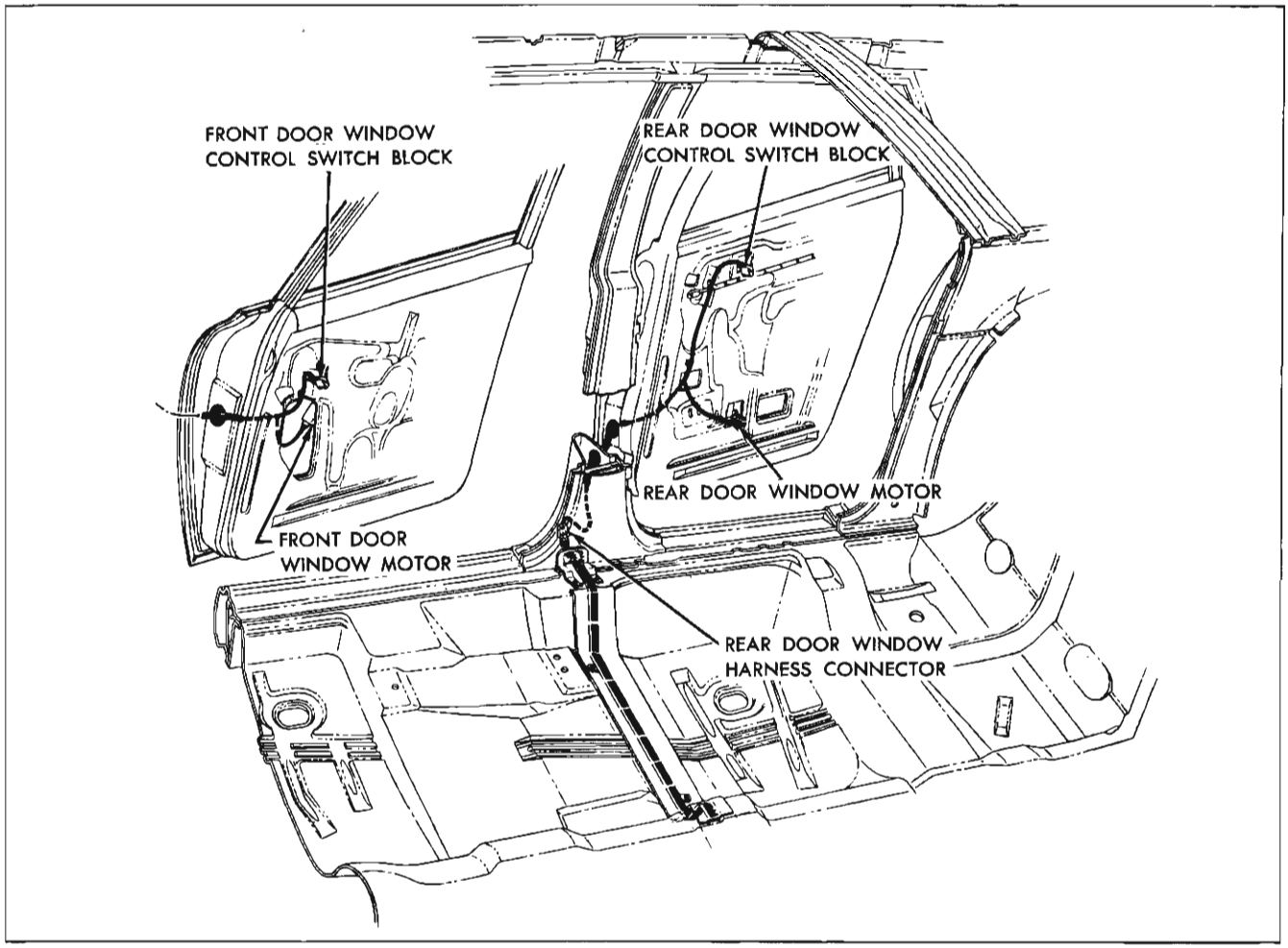


Fig. 18-5 Right Side Power Window Wiring - Sedan

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.

TROUBLE 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.

CONDITION	CAUSE	CORRECTION
1. None of the windows will operate.	1. Short or open circuits in power feed circuit.	1a. Check circuit breaker operation. 1b. Check feed connector to power harness beneath instrument panel.

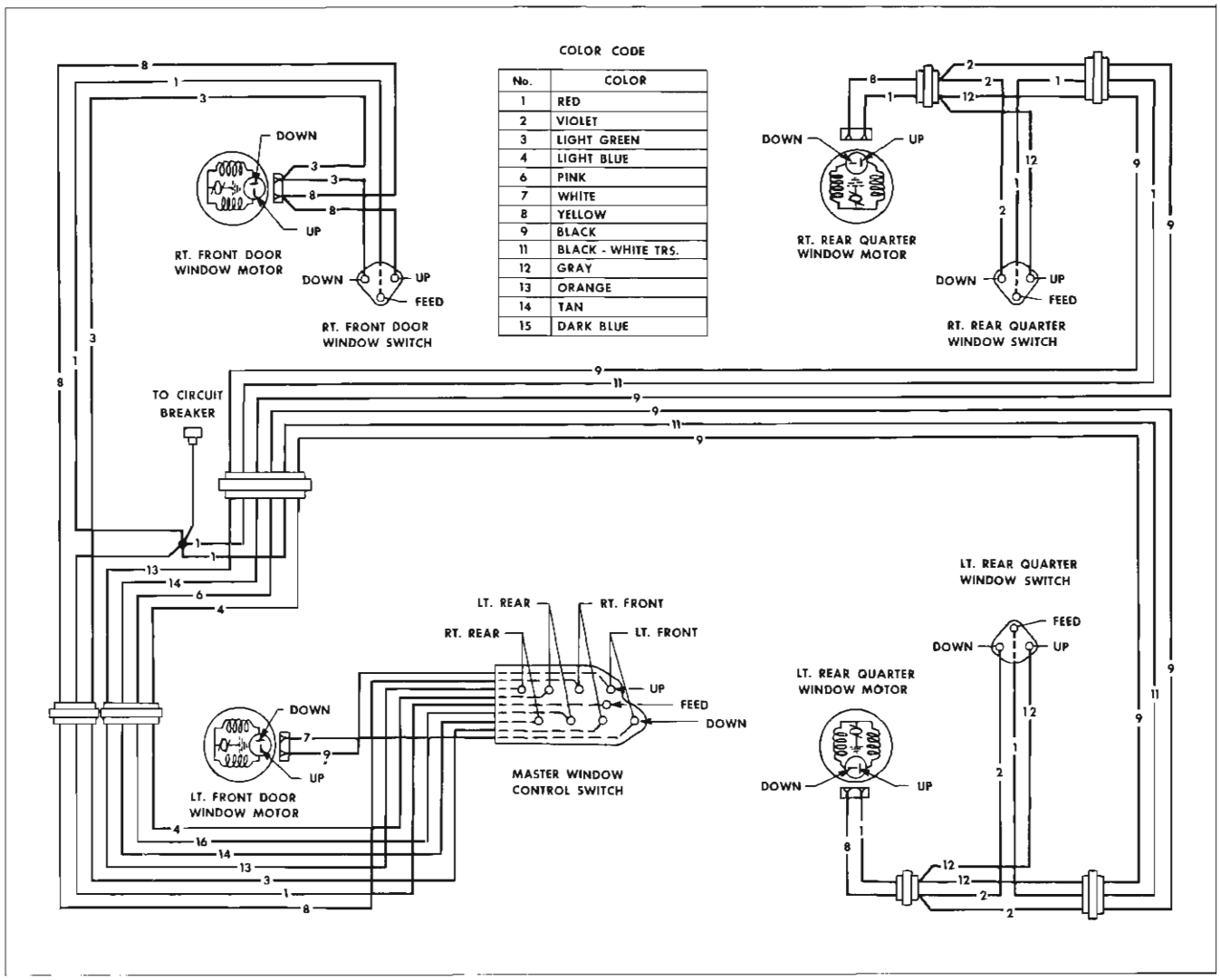


Fig. 18-6 Power Window Circuit Diagram

CONDITION	CAUSE	CORRECTION
2. 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.	2a. Short or open circuit between right rear quarter harness and power window front harness.	2a. Check harness connectors for proper engagement.
	2b. Short or open circuit in affected window control switch or window motor circuit.	2b. Check wires in power window front harness for possible short or open circuit.
	2c. Possible mechanical failure or bind in window channels.	2c. Check operation of rear quarter window control switch.
	2d. Defective window motor.	2d. Check circuit from window control switch to window motor for short or open circuit.

CONDITION	CAUSE	CORRECTION
2. 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. (Cont'd.)		2e. Check window regulator and channels for possible mechanical failure or bind. 2f. Check operation of motor.
3. Right side windows will operate from left door master control switch but will not operate from right side control switches. Left side windows operate.	3. Open or short circuit in front harness feed wire circuit.	3. Follow up feed wire in front harness for possible short or open circuit.

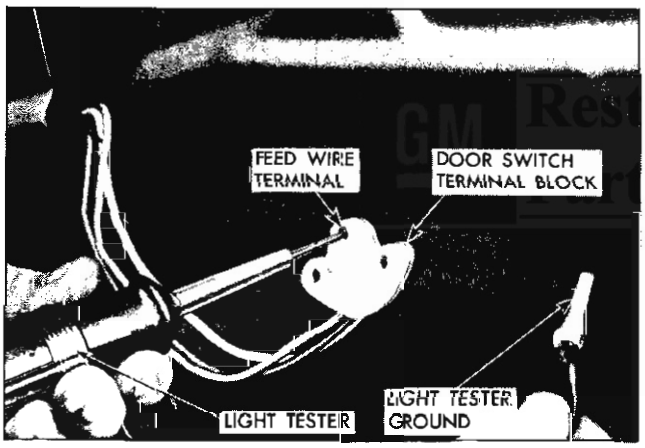


Fig. 18-7 Checking Feed Circuit

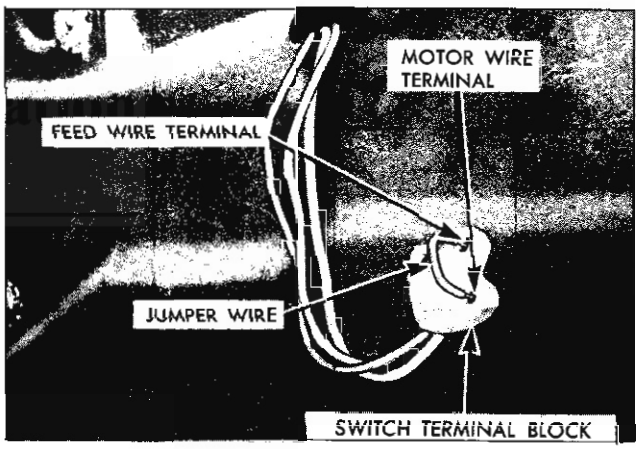


Fig. 18-8 Checking Window Control Switch

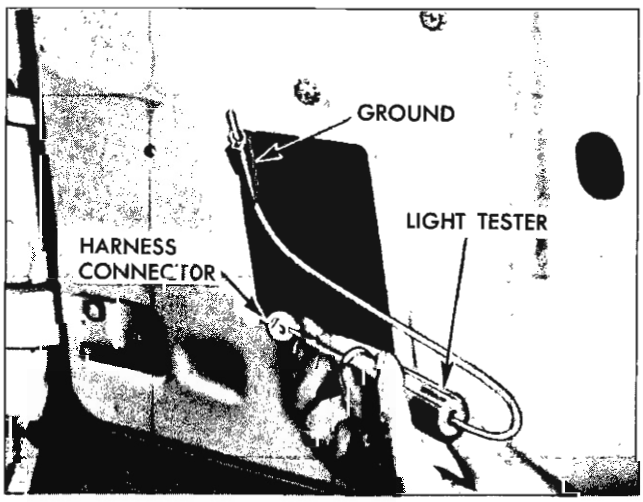


Fig. 18-9 Checking Circuit Between Switch and Motor

ELECTRIC TAIL GATE WINDOW CIRCUIT

DESCRIPTION

The station wagon power operated tail gate window is controlled by a window regulator equipped with a rectangular shaped, 12 volt D.C., 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 left fender skirt junction block (V-8 styles) or top of starting motor solenoid (6 cyl. styles).

The window may be lowered from the instrument panel control switch or from the tail gate window lock cylinder which rotates to open or lower the window.

The tail gate 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 (Fig. 18-10) and connects to the rear harness at the right rear quarter area (Fig. 18-11).

A safety switch is located adjacent to the right tail gate lock to prevent the window from being operated to the up position when the tail gate has been lowered. The safety switch opens the ground circuit of the tail gate window motor, making it inoperative.

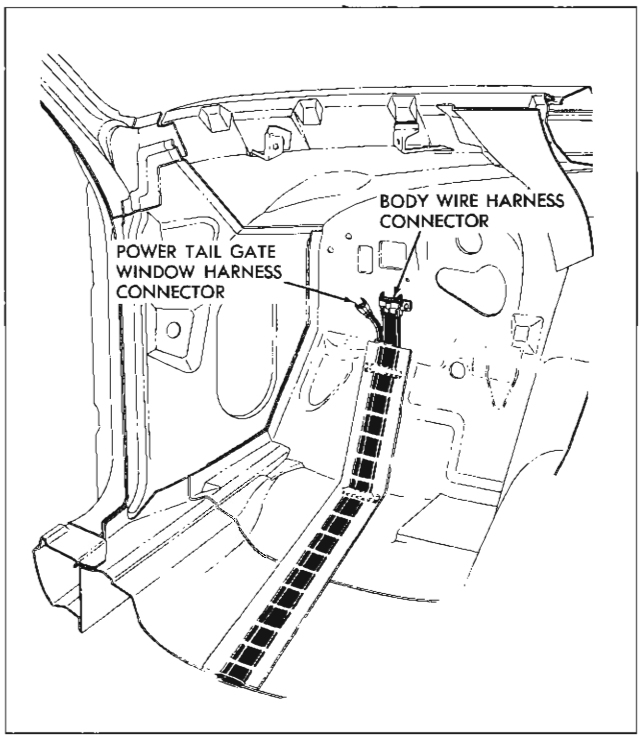


Fig. 18-10 Front End Wiring for Tail Gate

CHECKING PROCEDURE

Before performing an intensive checking procedure to determine any failure of the circuit, refer to circuit diagram and check all the connectors for proper installation (Fig. 18-14). 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.

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.

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 chassis manual for instrument panel switch wiring.

CHECKING CONTROL SWITCH AT INSTRUMENT PANEL

1. Disengage harness connector from switch.

2. Use a 12 gauge jumper wire and insert one end into the red wire (feed) terminal and the other end into one of the other terminals. Tail gate window motor should operate.

3. Repeat procedure for the other terminals. If the tail gate window motor operates with the jumper wire but does not operate with the control switch, the switch is defective.

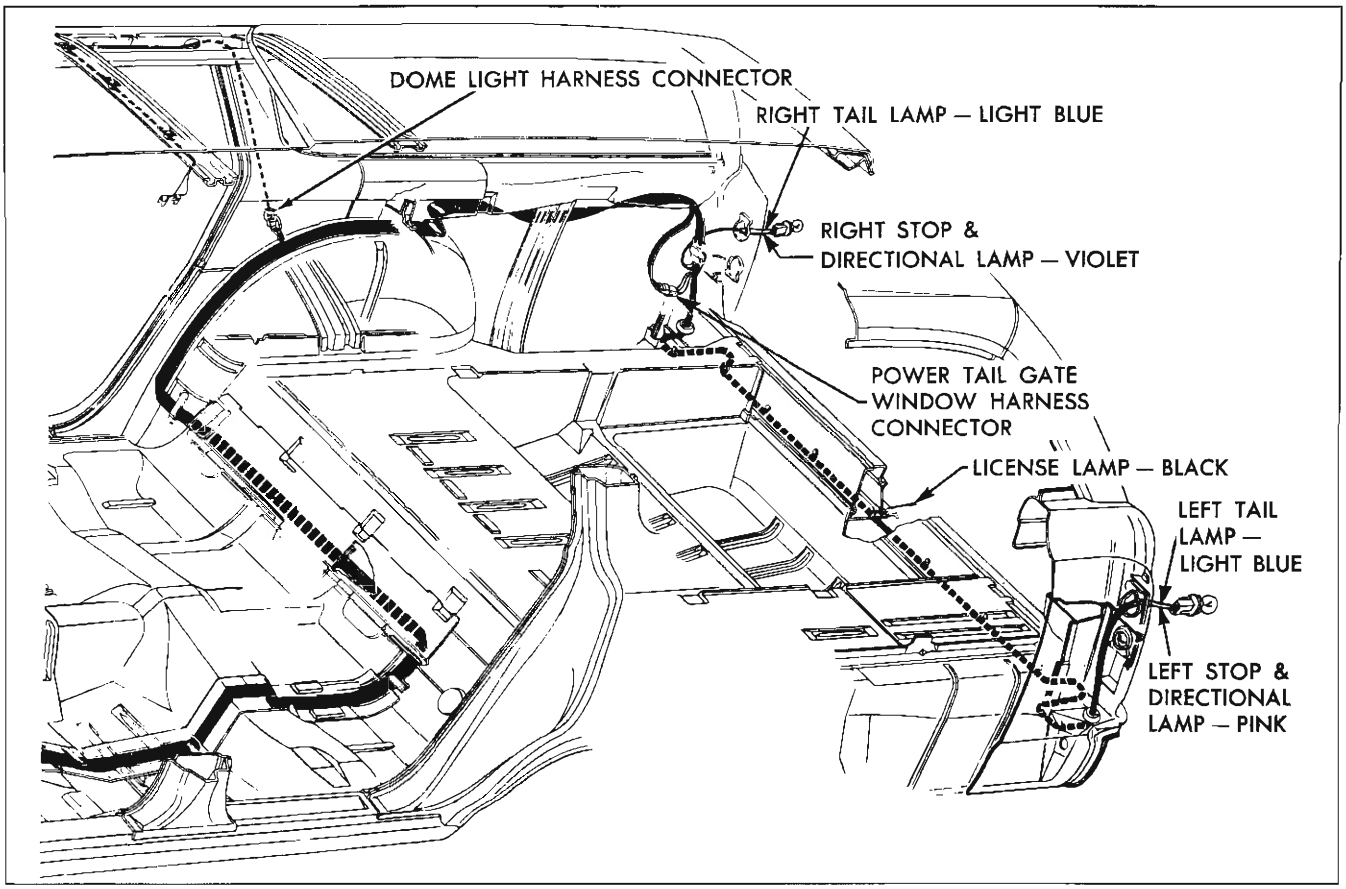


Fig. 18-11 Body Right Side and Tail Gate Wiring

CHECKING CONTROL SWITCH ON TAIL GATE

Remove tail gate switch and escutcheon as described in tail gate section. Disengage connector from switch and determine that there is current at terminal block; then, use a 12 gauge jumper and perform the same checking procedure as outlined for the control switch at the instrument panel.

CHECKING THE TAIL GATE WINDOW MOTOR

1. Disconnect harness connector from motor.

2. 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.

3. 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.

CHECK OPERATION OF SAFETY SWITCH

1. With tail gate open, depress switch arm to simulate the tail gate being closed. Operate control switch. If motor does not operate either switch is defective or the circuit is open from the motor to the switch.

2. To check for defective switch, connect one end of test light to a source of power and the other lead to the safety switch terminal. If the tester lights when the switch lever is actuated, the switch is operative.

NOTE: Safety switch completes the ground circuit from the motor.

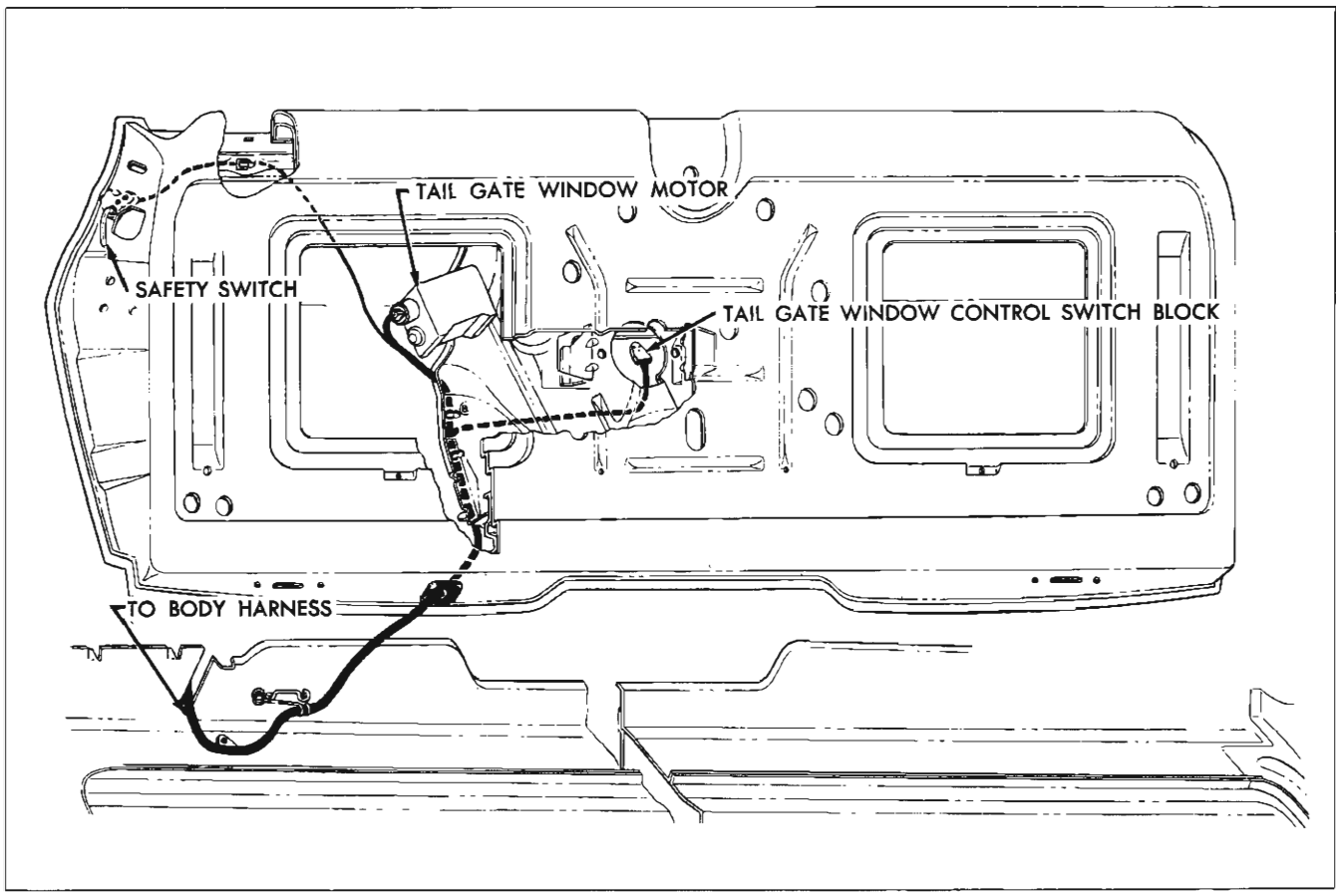


Fig. 18-12 Tail Gate Wiring

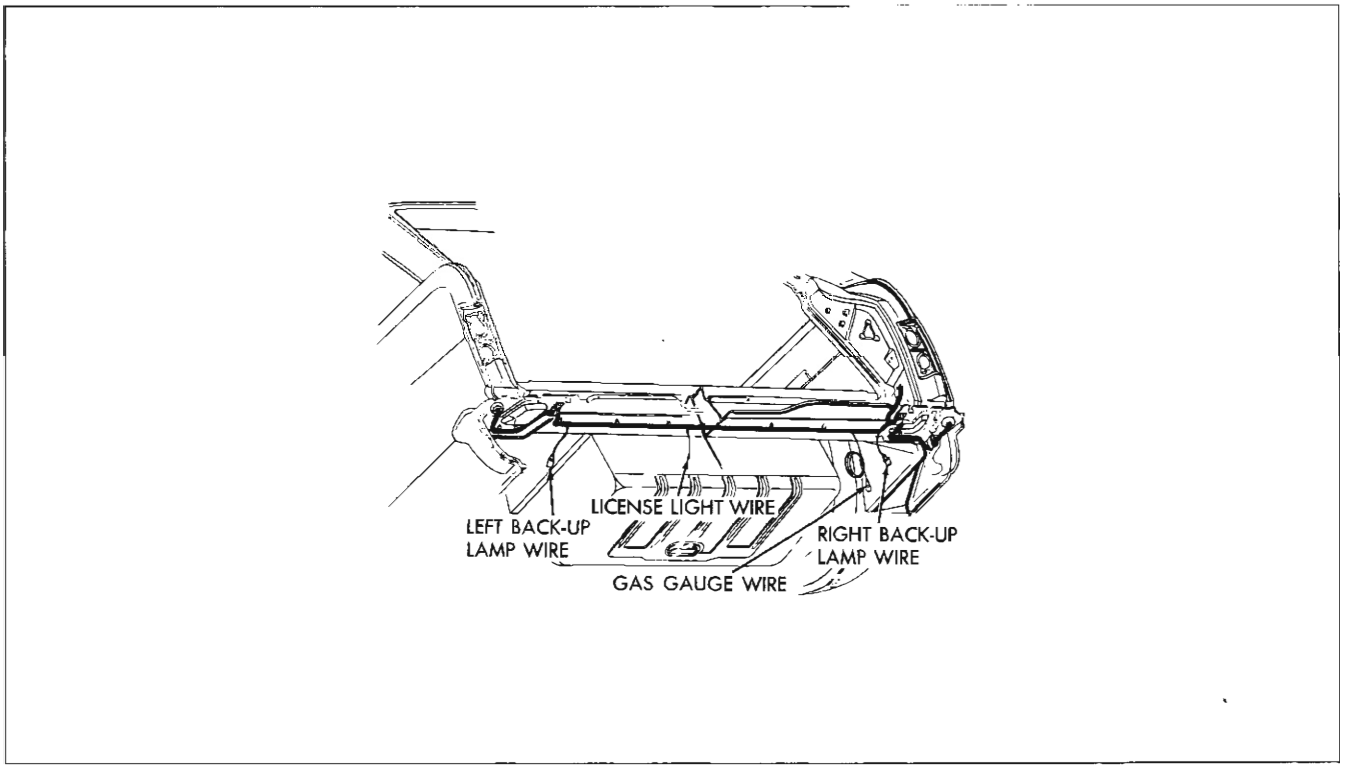


Fig. 18-13 Rear Cross Bar Wiring

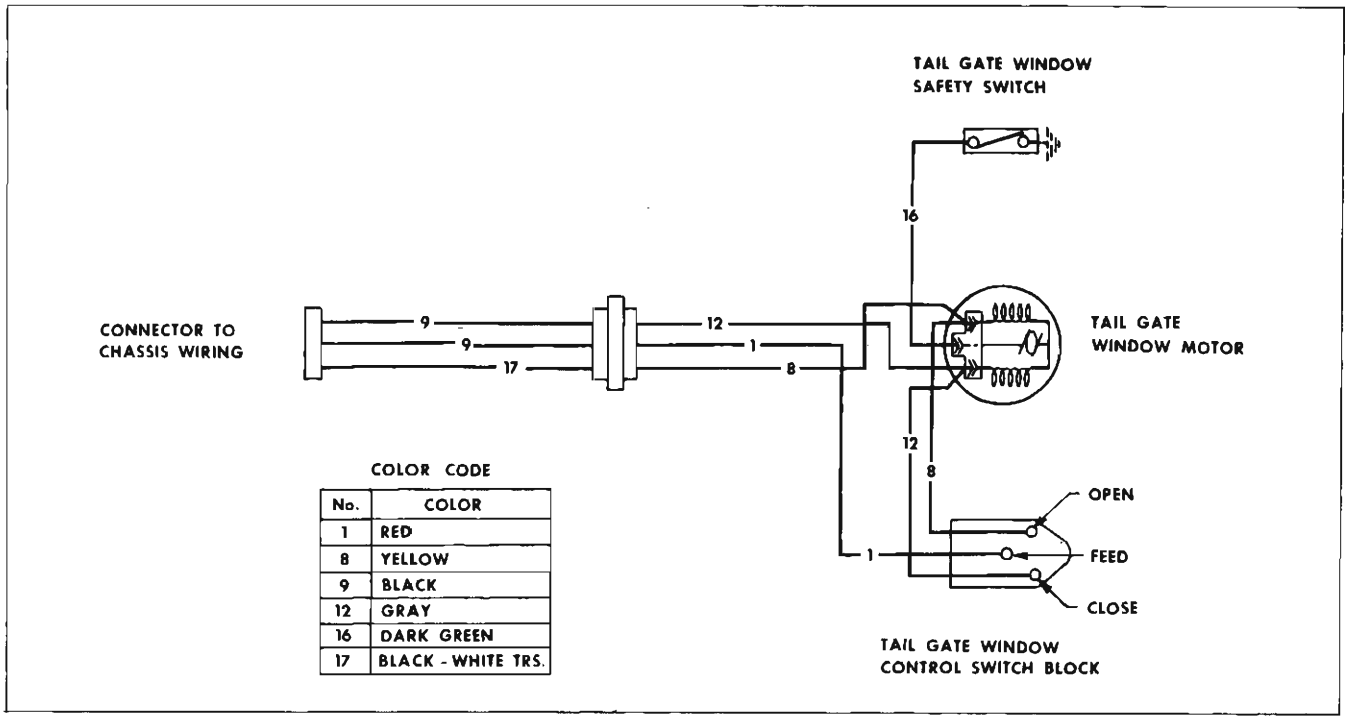


Fig. 18-14

TROUBLE DIAGNOSIS

CONDITION	CAUSE	CORRECTION
1. The tail gate window operates up and down from the tail gate switch but does not operate from the switch at the instrument panel.	1a. Open or short circuit from power source to control switch at instrument panel.	1a. Check affected wiring for open or short circuit and check connector at switch for proper installation.
	1b. Defective or inoperative control switch.	1b. Check operation of switch.
2. With the tail gate closed, the window operates downward but does not operate upward when the switch at the instrument panel or tail gate is actuated.	2. Open or short circuit in up cycle feed wire.	2. Check affected wiring for open or short circuit.
3. The window will not operate up or down from any of the control switches.	3a. Open or short circuit in circuit from power source to switches or motor.	3a. Check operation of circuit breaker.
	3b. Safety switch not connected or poor ground.	3b. Check affected circuit for open or short circuit.
	3c. Mechanical bind or failure in tail gate window regulator mechanism.	3c. Check connectors to safety switch and motor for proper engagement.
	3d. Defective tail gate window regulator motor.	3d. Check tail gate mechanical parts for bind or failure.
		3e. Check operation of tail gate motor.

FOUR-WAY TILT SEAT

DESCRIPTION

The seat adjusters for the bench type and bucket type seats are actuated by a 12 volt, reversible, shunt wound motor with a built-in circuit breaker. Fig. 18-15 illustrates wiring for bench type seats and Fig. 18-16 for bucket seats.

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.

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

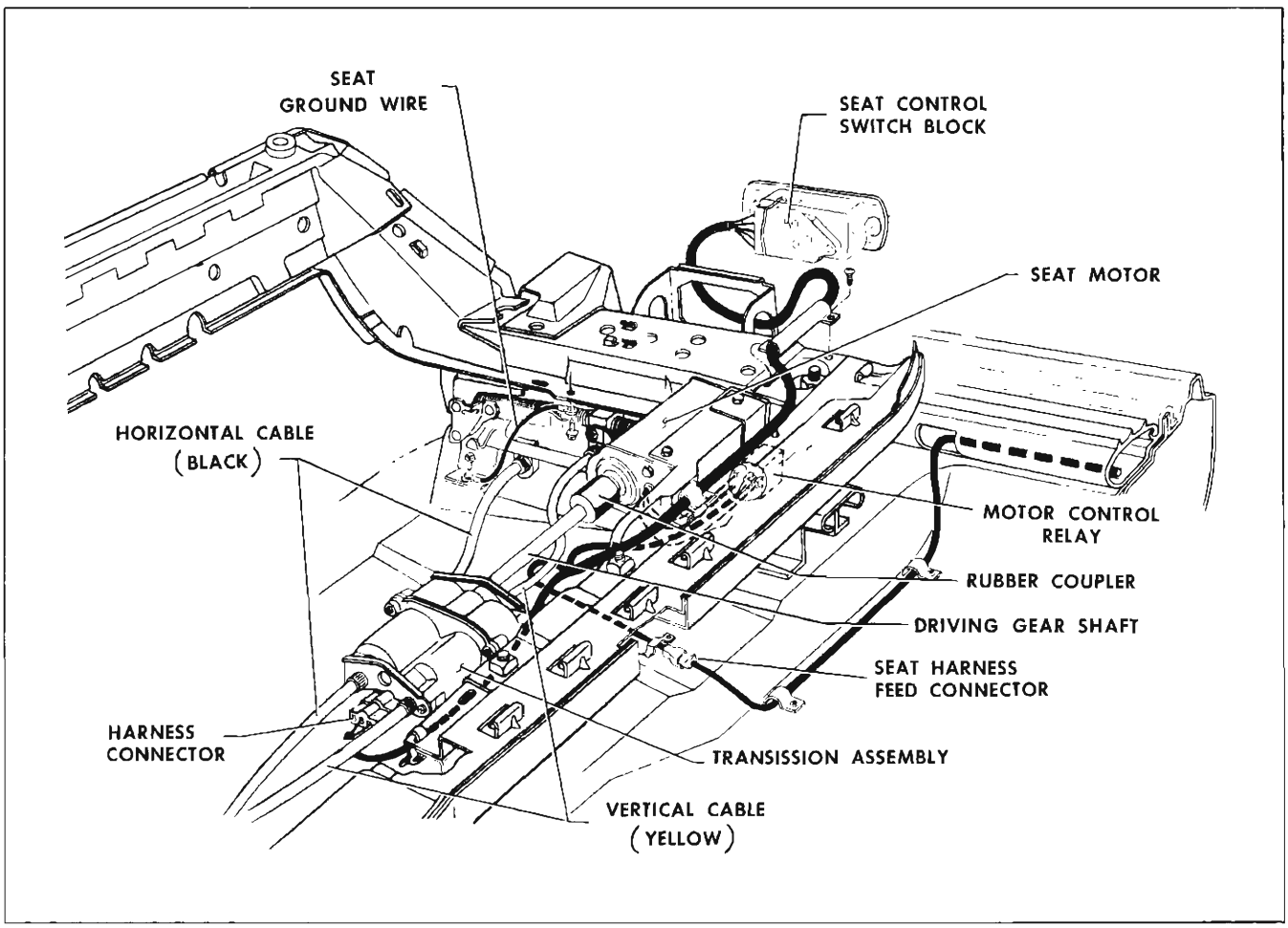


Fig. 18-15

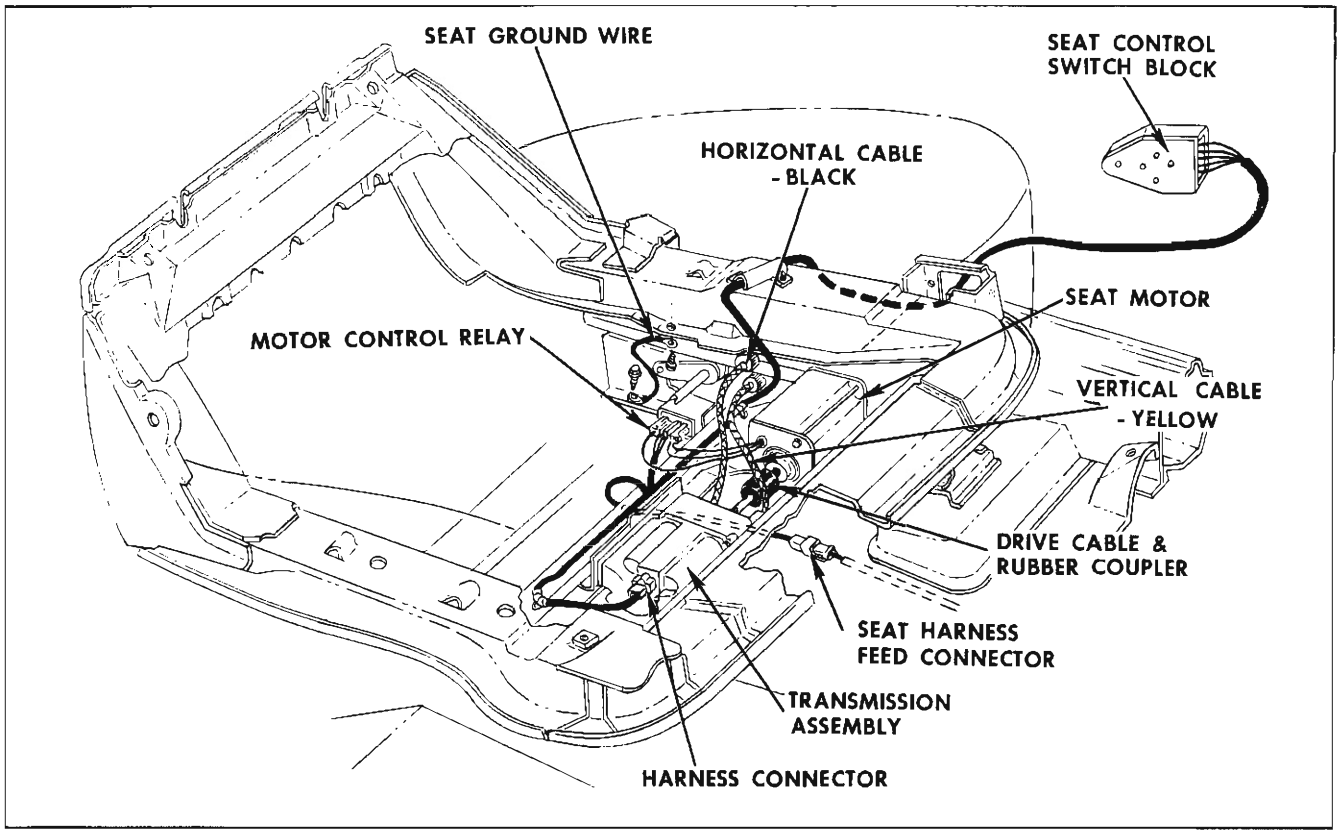


Fig. 18-16

not evident, follow the procedures as outlined. Before performing any extensive checking procedures, check the seat adjuster drive cables for proper attachment. Also, study the seat circuit diagram Fig. 18-17.

CHECKING FOR CURRENT 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 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 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 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 Fig. 18-18. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.

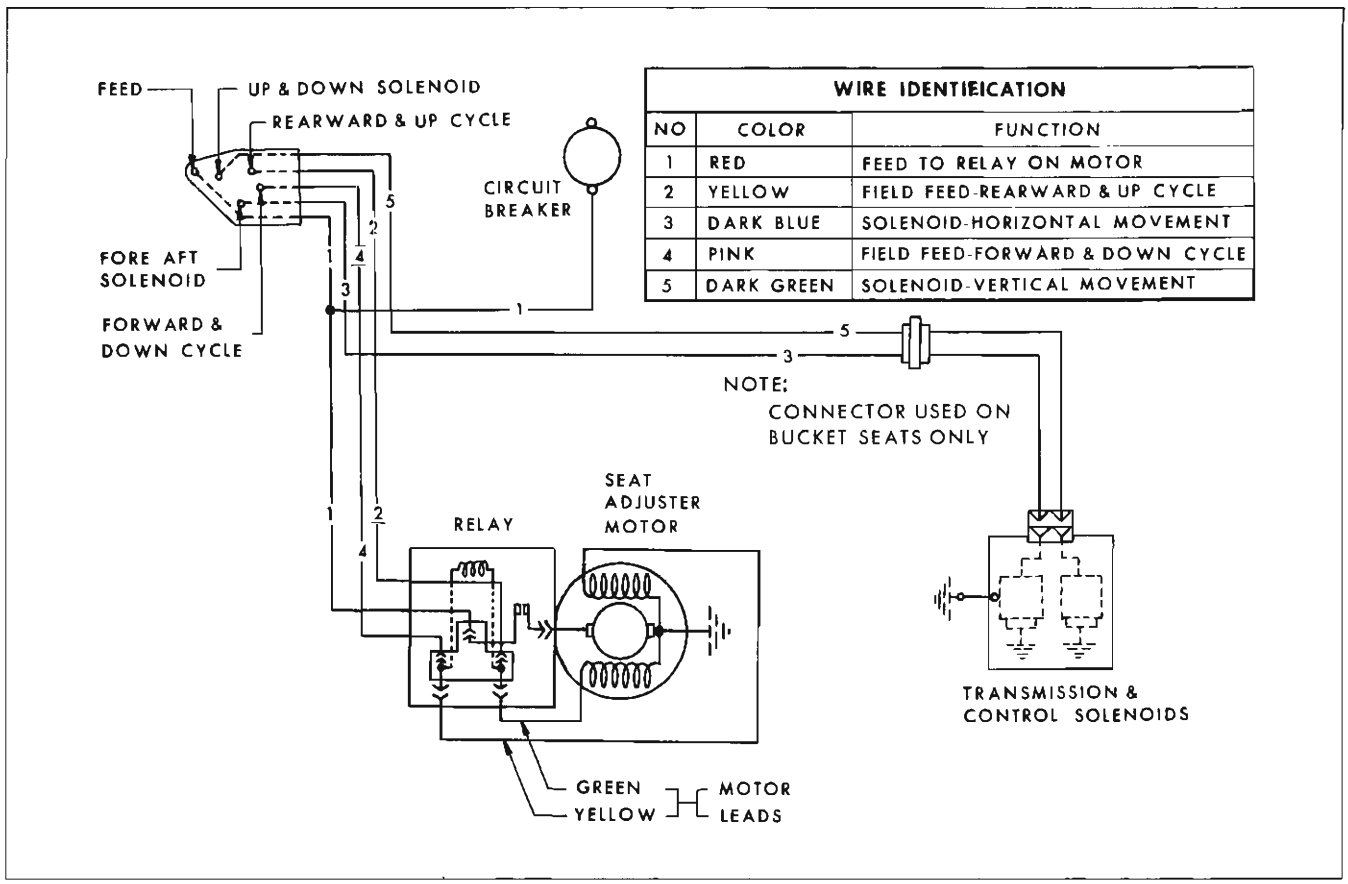


Fig. 18-17 Four-Way Seat Circuit Diagram

NOTE: To make jumper wire, obtain two pieces of 12 gauge wire, each 4-1/2" long. Join one end of each wire as shown in diagram. The joined end can be inserted in the feed location in the switch block; one of the remaining ends can be inserted into one of the solenoid locations.

1. Obtain switch or jumper wire and connect to switch block.

2. Operate switch if used. If adjusters operate with switch or jumper wire, but did not operate with original switch, the original switch is defective or connector block was not sufficiently engaged.

IMPORTANT: To obtain a seat movement using a three-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations have to be connected simultaneously.

The switch locations to be connected to obtain a specific seat movement are outlined as follows:

a. To raise seat, place jumper wire in locations 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.

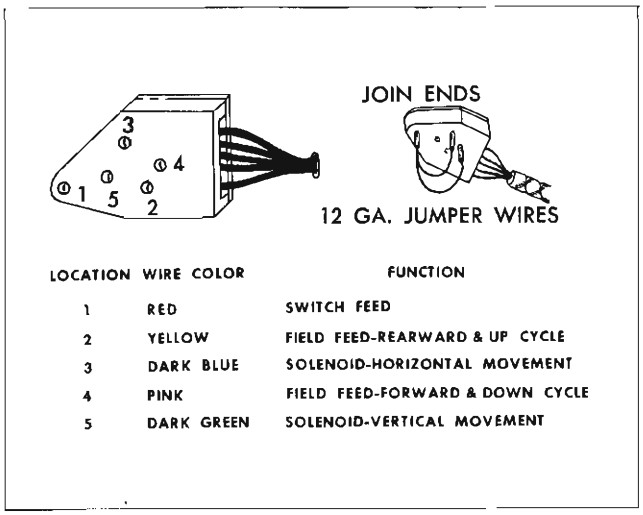
CHECKING WIRES BETWEEN CONTROL SWITCH AND MOTOR RELAY

1. Disengage three-way 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.



LOCATION	WIRE COLOR	FUNCTION
1	RED	SWITCH FEED
2	YELLOW	FIELD FEED-REARWARD & UP CYCLE
3	DARK BLUE	SOLENOID-HORIZONTAL MOVEMENT
4	PINK	FIELD FEED-FORWARD & DOWN CYCLE
5	DARK GREEN	SOLENOID-VERTICAL MOVEMENT

Fig. 18-18

CHECKING THE RELAY

1. Disconnect three leads from relay. 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

1. Disconnect motor field feed wires from motor.

2. Connect one end of a 12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.

3. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.

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.

CHECKING THE SOLENOID

1. Check solenoid ground strap attachment for proper ground.

2. Connect one end of a 12 gauge jumper wire to the batter positive pole and the other end to the lead of the solenoid being checked.

CAUTION: To prevent damaging the solenoid, do not energize solenoid for more than one minute.

3. Operate switch, actuate adjuster motor and solenoid being checked.

4. If adjusters do not operate and there is no mechanical failure of the adjusters, the solenoid is defective.

NOTE: If solenoid is functioning properly, a click may be heard when solenoid plunger operates.

TROUBLE DIAGNOSIS

CONDITION	CAUSE	CORRECTION
1. Seat adjuster motor does not operate.	1a. Short or open circuit between power source or switch and motor.	1a. Check circuit from power source and switch to motor to locate failure.
	1b. Defective motor relay.	1b. Replace relay.

CONDITION	CAUSE	CORRECTION
1. Seat adjuster motor does not operate. (Cont'd.)	1c. Defective motor.	1c. Check motor. If defective, repair or replace as required.
	1d. Defective switch.	1d. Replace switch.
	1e. Defective circuit breaker.	1e. Replace circuit breaker.
2. Seat adjuster motor operates in both directions but seat adjusters are not actuated.	2a. Short or open circuit between switch and affected solenoid.	2a. Check circuit from switch to solenoid to locate failure.
	2b. Defective solenoid.	2b. Check solenoid. If defective, repair or replace as required.
	2c. Defecitve switch.	2c. Replace switch.
3. Seat adjuster motor operates in one direction only, seat moves down and forward, but does not move up and rearward.	3a. Short or open circuit between one of the motor relay wires and seat control switch.	3a. Check circuit between affected motor relay wire and seat switch.
	3b. Defective field coil in motor.	3b. Check motor. If defective repair or replace as required.
	3c. Defective switch.	3c. Replace switch.

LUBRICATION

CONTENTS OF THIS SECTION

LUBRICATION

The movable mechanical parts of the body are lubricated at the factory to insure proper and quiet operation. If additional lubrication is required, the following items should be lubricated using specified materials at points indicated.

FRONT DOOR HINGE HOLD-OPEN

Wipe off dirt and apply a light coat of No. 630 AAW Lubriplate or its equivalent at points indicated (Fig. 19-1 and 19-2). The hinge pins should be lubricated with engine oil.

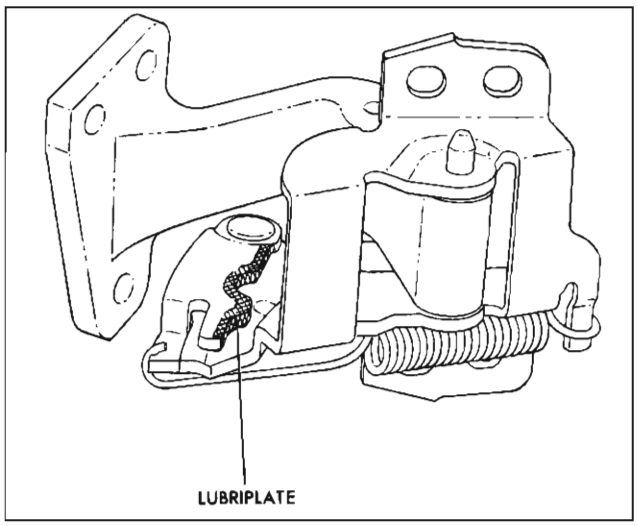


Fig. 19-1 Front Door Hinge and Hold Open - Pontiac

INSTRUMENT PANEL COMPARTMENT DOOR HINGE

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

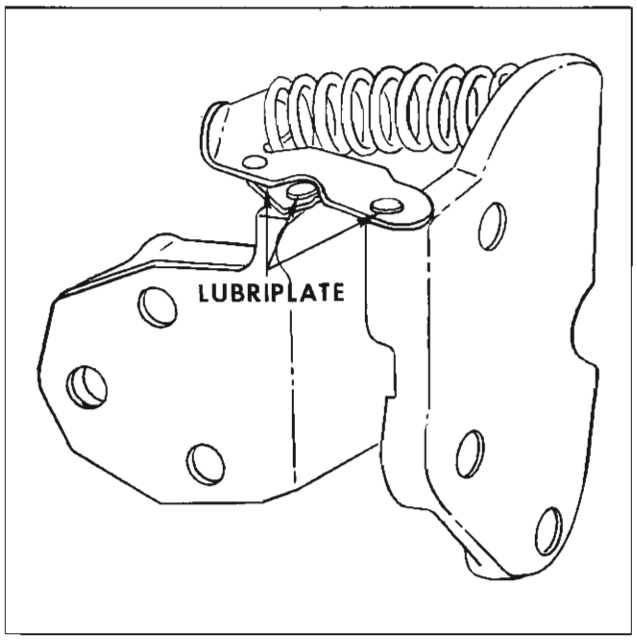


Fig. 19-2 Front Door Hinge and Hold Open - Tempest

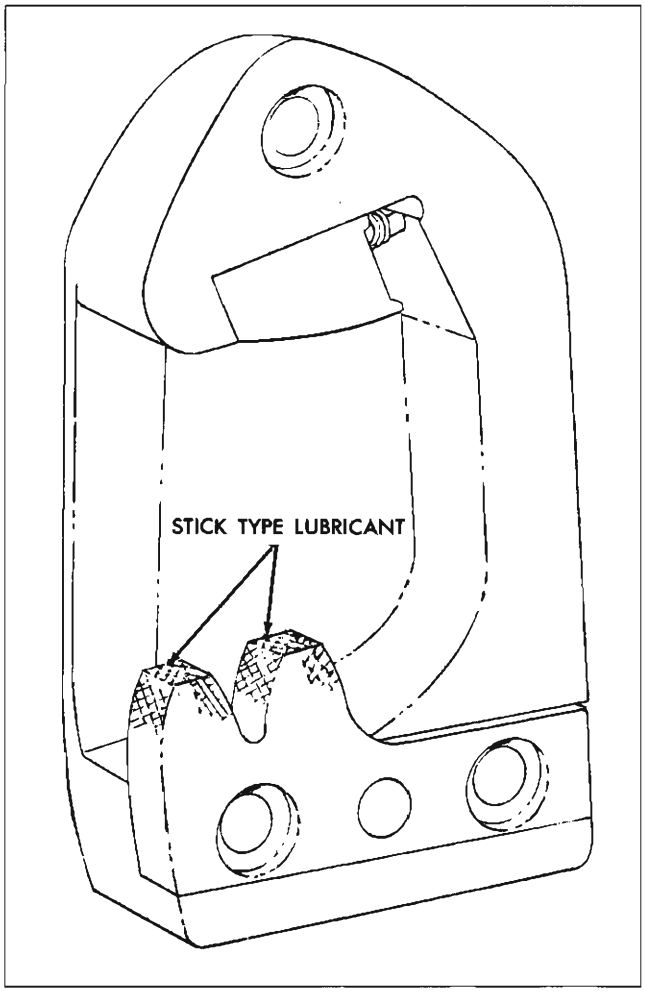


Fig. 19-3 Door Lock Striker - Pontiac

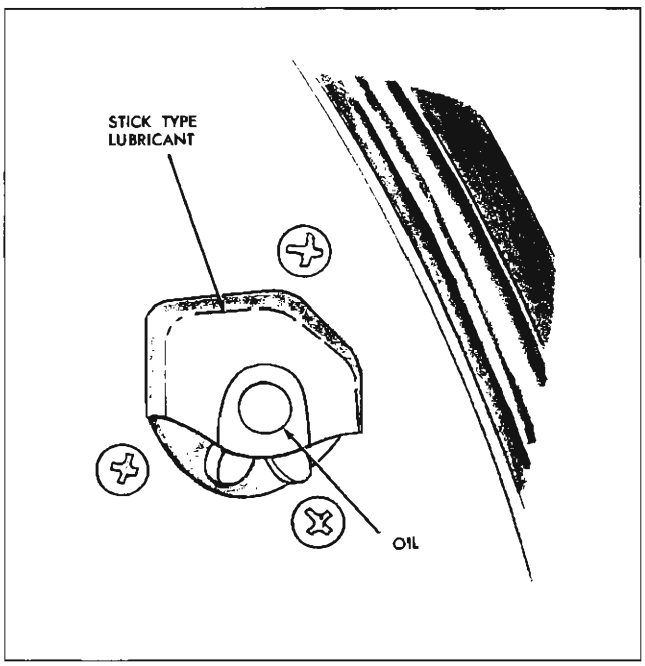


Fig. 19-4 Door Lock Rotory Bolt and Housing

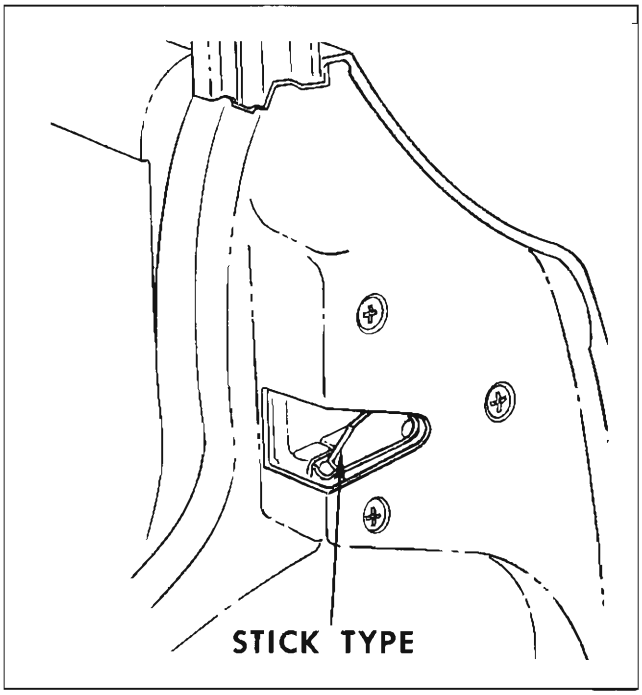


Fig. 19-5 Door Lock Fork Bolt

DOOR LOCK STRIKER—PONTIAC

Wipe off dirt and apply a thin coat of stick-type lubricant to top surface of lock bolt striker teeth (Fig. 19-3). After lubrication, close door several times and remove excess lubricant along side edge of teeth.

DOOR LOCK ROTARY BOLT AND HOUSING

Wipe off dirt and apply a thin coat of stick-type lubricant and oil (Fig. 19-4).

DOOR LOCK FORK BOLT—TEMPEST

Wipe off dirt and apply a thin coat of stick-type lubricant to contact point as indicated. (Fig. 19-5).

DOOR LOCK OUTSIDE HANDLE

Apply a thin coat of No. 630 AAW Lubriplate or equivalent to surface of lock cylinder shaft contacting bell crank. (Fig. 19-6).

DOOR LOCKING MECHANISM

Apply No. 630 AAW Lubriplate or equivalent to pivot points at ends of all connecting rods.

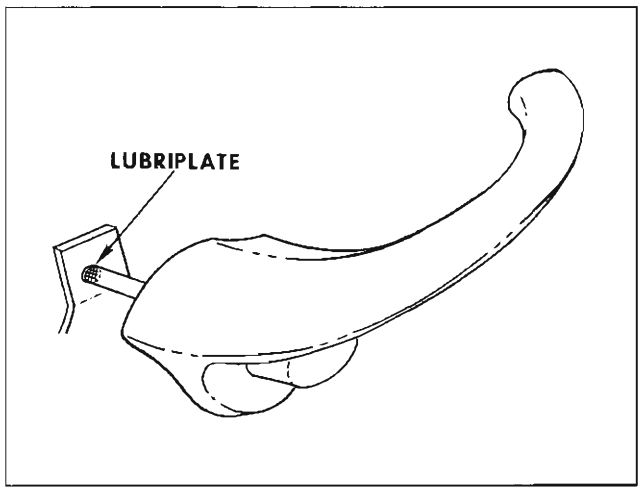


Fig. 19-6 Door Lock Outside Handle

DOOR LOCK PARTS

Lubricate moving parts of door lock with No. 630 AAW.

DOOR JAMB SWITCH

Wipe off dirt and apply a thin coat of No. 630 AAW Lubriplate or equivalent to the end surface of switch plunger. Wipe off excess lubricant.

DOOR WINDOW REGULATOR—PONTIAC

Apply a coat of No. 630 AAW Lubriplate or equivalent to areas indicated in Fig. 19-7. Lubrication of front door window regulator is typical of lubrication of rear door and quarter regulators.

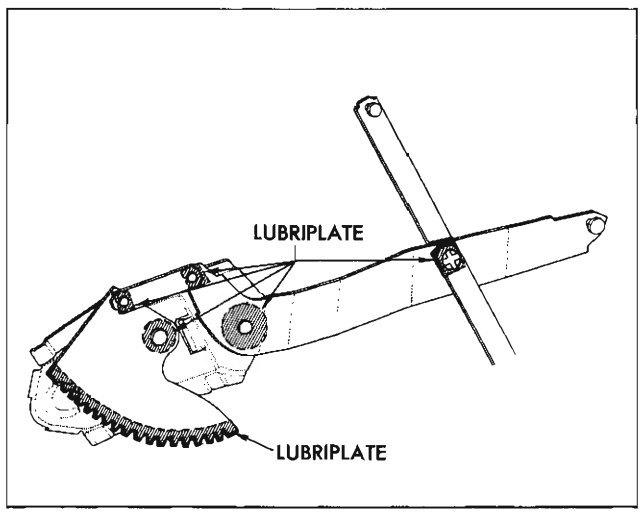


Fig. 19-7 Door Window Regulator - Pontiac

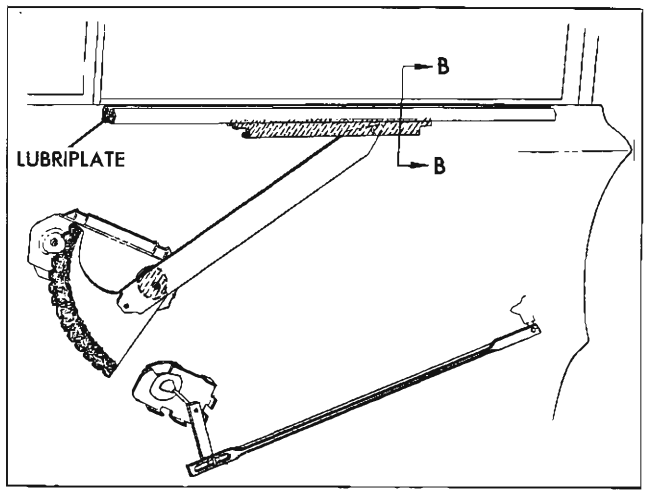


Fig. 19-8 Front Door Window Regulator Cams - Pontiac

DOOR WINDOW CAMS—PONTIAC

Apply a coat of No. 630 AAW Lubriplate or equivalent to channel portions of cams (Fig. 19-8 and Fig. 19-9).

REAR DOOR HINGE AND HOLD-OPEN

Wipe off dirt and apply a light coat of No. 630 AAW Lubriplate or equivalent, to frictional point (Fig. 19-10). Wipe off excess lubricant.

FRONT DOOR WINDOW REGULATORS AND CAMS—TEMPEST

Apply a coat of No. 630 AAW Lubriplate or equivalent to areas indicated (Fig. 19-9).

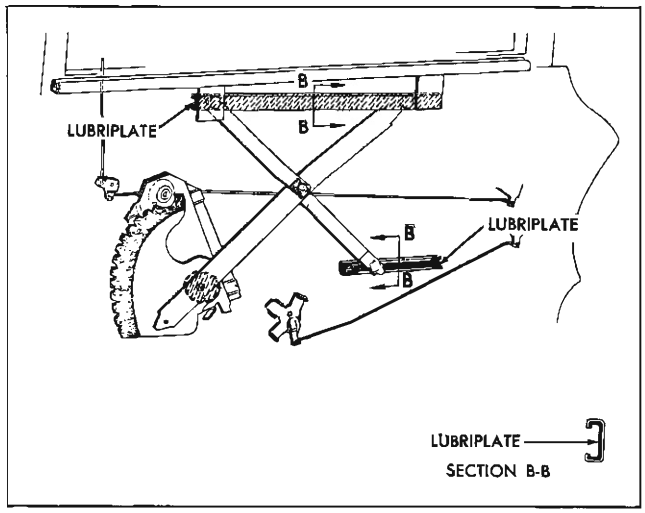


Fig. 19-9 Rear Door Window Regulator Cams - Pontiac

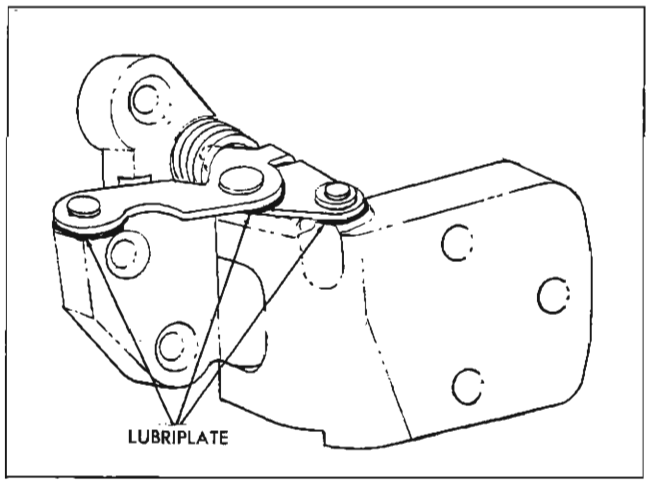


Fig. 19-10 Rear Door Hinge - Pontiac

REAR DOOR WINDOW REGULATORS AND CAMS

Apply a coat of No. 630 AAW Lubriplate or equivalent to areas indicated. (Fig. 19-11).

REAR QUARTER WINDOW CAMS

Apply a coat of No. 630 AAW Lubriplate or equivalent to channel portion of cam and guide assemblies (Fig. 19-12).

REAR QUARTER WINDOW REGULATOR CAMS AND GUIDES

Apply a coat of No. 630 AAW Lubriplate or equivalent to areas indicated (Fig. 19-13 and Fig. 19-14.

REAR COMPARTMENT LID AND TAIL GATE LOCKS

On rear compartment lid locks, apply a thin film of No. 630 AAW Lubriplate or its equivalent (Fig. 19-15). On tail gate locks, apply a thin film of 630 AAW Lubriplate or its equivalent to the bolt at the striker contact areas.

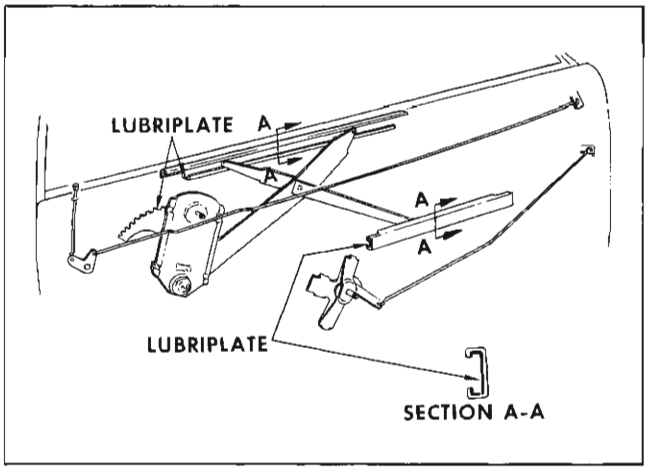


Fig. 19-11 Rear Door Window Regulator - Tempest

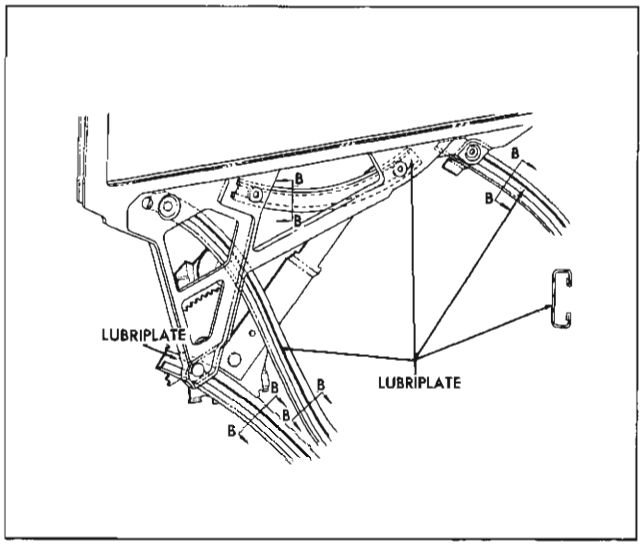


Fig. 19-12 Rear Quarter Window Cams and Guides - Pontiac

REAR COMPARTMENT LID HINGES AND TORQUE RODS—PONTIAC

Apply Lubriplate No. 630 AAW or equivalent, to hinge and torque rods at friction points.

REAR COMPARTMENT LID HINGE

Apply a thin coat of No. 630 AAW Lubriplate or equivalent to areas indicated (Fig. 19-16).

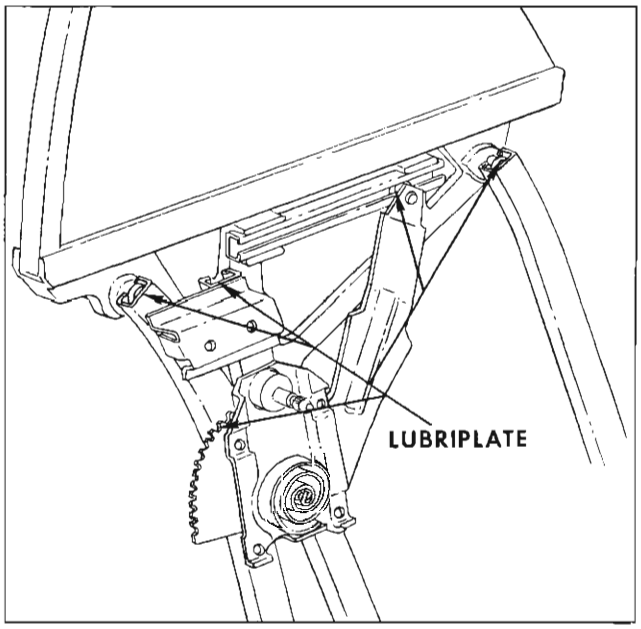


Fig. 19-13 Rear Quarter Window Cams and Guides - Tempest

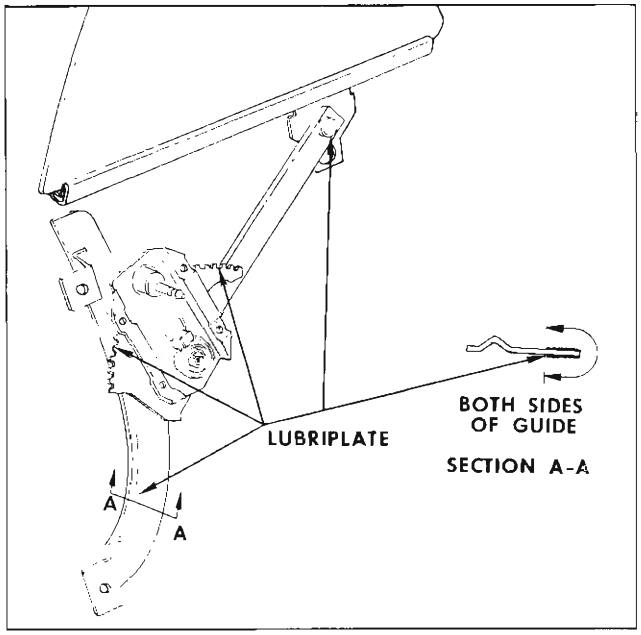


Fig. 19-14 Rear Quarter Window Cams and Guides - Tempest

GAS TANK FILLER DOOR HINGE

Apply a few drops of oil to frictional points of door hinge. Work door several times and wipe off excess lubricant.

FRONT SEAT ADJUSTER MECHANISM— MANUALLY OPERATED

A thin film of Lubriplate No. 630 AAW or its equivalent should be applied to the seat tracks.

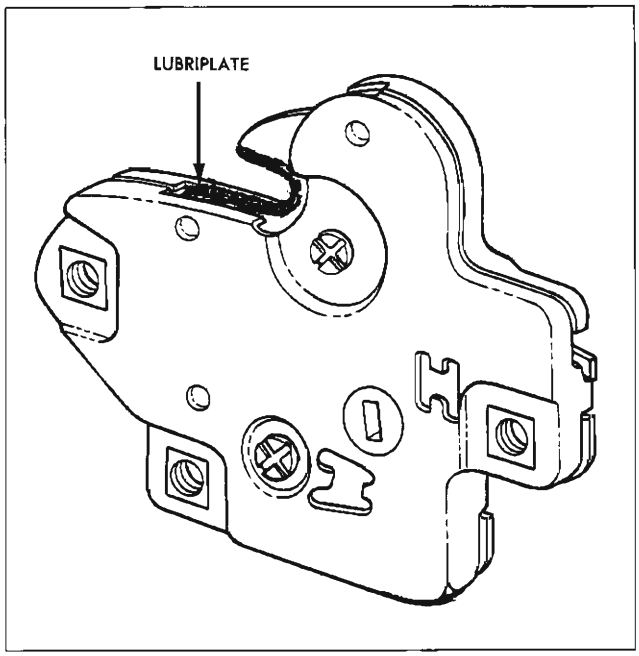


Fig. 19-15 Rear Compartment Lock

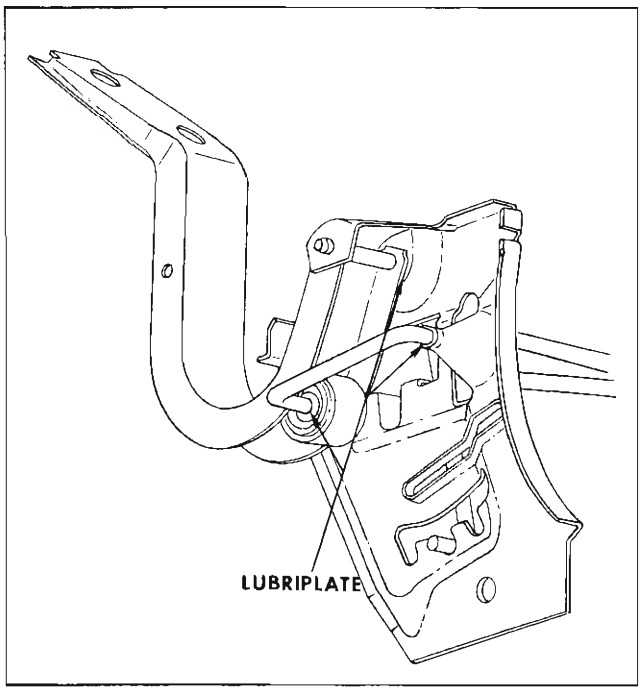


Fig. 19-16 Rear Compartment Lid Hinge - Tempest

FRONT SEAT ADJUSTER MECHANISM— ELECTRICALLY OPERATED

Thoroughly wipe off old lubricant from jackscrew. Apply a thin film of Lubriplate No. 630 AAW or its equivalent to jackscrew, being careful not to soil seat trim. Operate the seat adjuster to limit of all positions. Apply a small amount of dripless oil to linkage and wipe off excess lubricant.

FOLDING SEAT LINKAGE AND LOCK

Apply a sparing amount of dripless oil to all frictional points, work folding seat as required, wipe off excess lubricant.

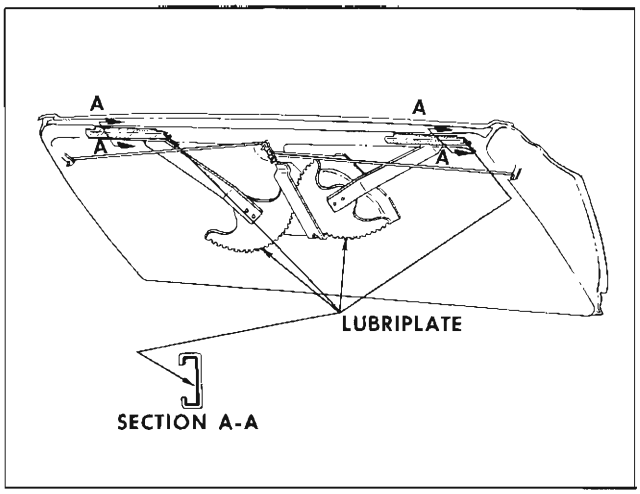


Fig. 19-17 Tail Gate Window Regulator and Cam

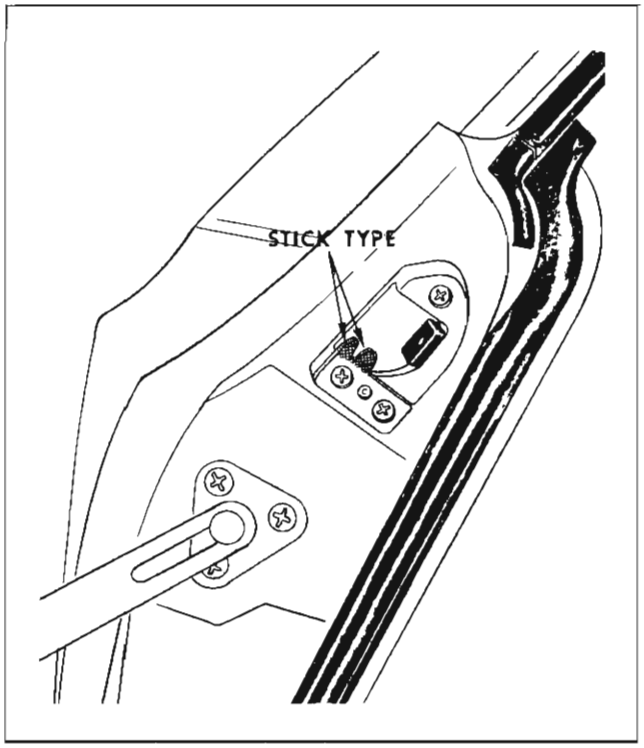


Fig. 19-18 Tail Gate Lock Striker

TAIL GATE HINGE

Wipe off dirt and apply a small amount of dripless oil to frictional areas.

TAIL GATE WINDOW REGULATOR AND CAMS

Apply No. 630 AAW Lubriplate or equivalent to areas indicated in (Fig. 19-17).

TAIL GATE LOCK STRIKER

Apply a thin coat of stick-type lubricant to surface of lock bolt striker teeth (Fig. 19-18). After lubrication, close door several times and remove excess lubricant.

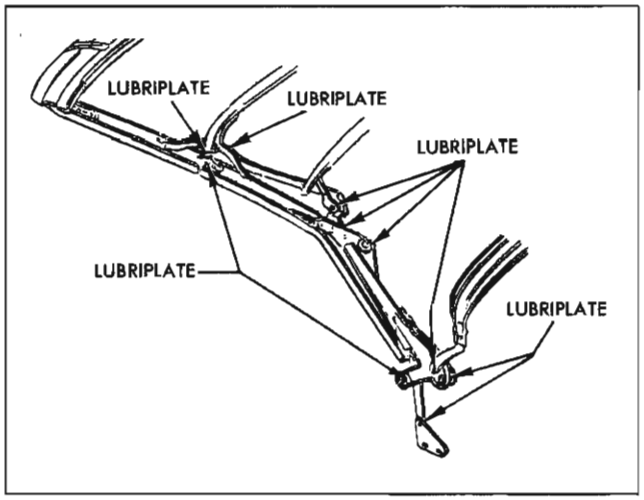


Fig. 19-19 Folding Top Linkage

FOLDING TOP LINKAGE

Apply a sparing amount of light oil to all bearing points (Fig. 19-19). Wipe off excess lubricant to prevent soiling trim.

CONVERTIBLE TOP LINKAGE

Apply a sparing amount of dripless oil to points No. 1 and 630 AAW Lubriplate or equivalent to point No. 2. (Fig. 19-20). Wipe off excess lubricant.

FOLDING TOP LIFT CYLINDER PISTON RODS

With folding top in raised position, wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation or accumulated grime. With another clean cloth, apply a light film of brake fluid to the piston rods to act as a lubricant.

NOTE: Use caution so that brake fluid does not come in contact with any painted or trimmed parts of the body.

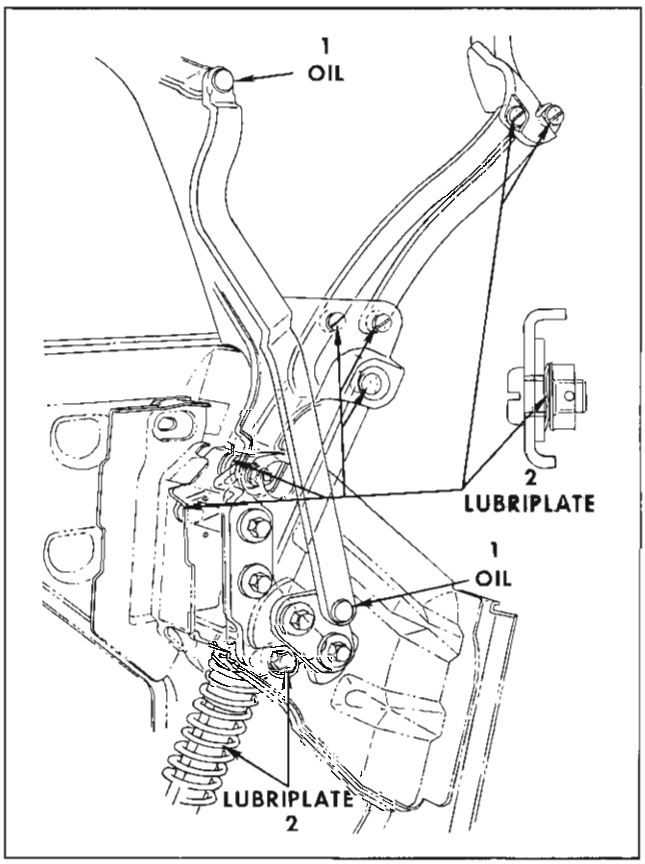


Fig. 19-20 Convertible Top Linkage - Tempest

FABRIC CLEANING

CONTENTS OF THIS SECTION

GENERAL INSTRUCTIONS

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

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

2. Genuine leather.

3. Coated fabrics (vinyl or mylar).

4. Polyurethane foam.

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

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

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

1. Nature and age of the spot or stain.

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

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

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

1. Volatile cleaners (colorless liquids).

2. Synthetic detergents.

3. Neutral soap (nonalkaline).

The volatile cleaners are recommended since they have great solvent powers for grease, oils and general road grime. Synthetic detergents generally loosen up stains satisfactorily, however, the use of improper type detergents involves risk of damage to the color or finish of fabrics. Therefore it is recommended that either GM Upholstery Cleaner or GM Spotter, available at Pontiac Dealers, be used as label directs.

PROCEDURE FOR CLEANING FABRICS WITH VOLATILE CLEANERS

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

1. Brush away all loose particles of dirt and soil.

2. Dampen a clean cloth (cheese cloth may be used) with the volatile cleaner. Open the cloth and allow a portion of the cleaner to evaporate so that the cloth is just slightly damp.

3. Using very light pressure and circular lifting motion, rub the stained area, starting at the outer edge and working toward the center until the entire area has been covered. Change to a clean portion of the cloth every few strokes.

4. Before proceeding, wait several minutes to allow most of the volatile cleaner to evaporate. This will avoid the danger of the cleaner penetrating to the padding under the upholstery. Certain cleaners will deteriorate sponge rubber which is often used as padding.

5. It may be necessary to repeat steps No. 2, 3, and 4 several times before the stain has been satisfactorily removed. Each time a clean cloth should be used.

6. If a ring should form on the fabric when removing a stain, the entire area of the trim assembly should be cleaned as described in the preceding steps.

7. The cleaned upholstery should be allowed to dry completely before using.

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

1. Always use in a well ventilated area. Car windows and garage doors must be open when such cleaners are used.

2. Avoid prolonged or repeated breathing of vapors from cleaner.

3. Avoid prolonged or repeated contact with the skin.

4. Keep away from eyes and mouth.

5. Some cleaners are flammable, and every precaution and care must be exercised in handling these cleaners.

6. Always follow the directions specified by the manufacturer of the product used (label directions).

PROCEDURE FOR CLEANING FABRICS WITH SYNTHETIC DETERGENTS

1. Make a solution of the synthetic detergent in lukewarm water, working up a thick, frothy suds.

2. With a clean cloth or sponge, dampened with lukewarm water, apply suds only to the surface of the upholstery using light to medium pressure, repeating several times, applying more suds with a clean portion of the cloth or sponge.

3. With a second clean cloth, dampened with lukewarm water, rub over the area with medium pressure to remove excess detergent and loose material.

4. Rub a clean dry cloth, wipe off all excess moisture. A vacuum cleaner may also be used.

5. Allow the upholstery to dry partially; then repeat the above treatment if necessary to remove stain.

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

PRECAUTIONS FOR CLEANING FABRICS

1. Solutions containing water are not recommended for general cleaning of broadcloths. Water has great destructive powers on the high face or high gloss finish of broadcloths, causing the nap to curl and roughen to such an extent that the finish is destroyed or made very unsightly. However, in some cases where it is necessary to use a solution containing water to remove a stain, the resultant disturbance to the finish of the material may be preferable to the stain.

2. Do not use as a cleaning solvent any gasoline which is colored or which contains tetraethyl lead.

3. Do not use solvents such as acetone, lacquer thinners, enamel reducers and nail polish remover, as a cleaning solvent.

4. Do not use laundry soaps, bleaches or reducing agents, such as the following: chloride of lime, javelle water, hydrogen peroxide, sodium hydrosulphite, potassium permanganate, chlorine or chlorine water, sulphurous acid (sulphur dioxide), sodium thiosulphate (Photographers' hypo). The use of these agents tends to weaken fabric and to change its color.

5. Do not use too much cleaning fluid; some interior trim assemblies are padded with rubber, and volatile cleaners are generally solvents for rubber. The application of too much cleaner may destroy these rubber pads.

PROCEDURE FOR CLEANING GENUINE LEATHER AND COATED FABRICS

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

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

2. The operation should be repeated, using only a damp cloth and no soap.

3. The surface should then be wiped dry with a soft cloth.

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

PROCEDURE FOR CLEANING POLYURETHANE FOAM MATERIAL

Normal soilage such as dirt and finger prints can be removed with a cleaning solution of approximately two (2) ounces of white detergent powder mixed in a gallon of water. Immerse a clean cellulose sponge in cleaning solution. Wring the sponge out thoroughly leaving suds only; then clean soiled area carefully. Rinse off the cleaned area with sponge and clean water—DO NOT soak the cleaned area.

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

PROCEDURE FOR CLEANING FOLDING TOP MATERIAL AND FABRIC ROOF COVER MATERIAL

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

If the top requires additional cleaning after using soap and water, a mild foaming cleanser can be used. Rinse the whole top with water; then apply a mild foaming type cleanser on an area of approximately two square feet. Scrub area with a small soft bristle hand brush, adding water as necessary until the cleanser foams to a soapy consistency. Remove the first accumulated soilage with a cloth or sponge before it can be ground into the top material. Apply additional cleanser to the area and scrub until the top is clean. Care must be exercised to keep the cleanser from running onto body finish as it may cause streaks if allowed to run down and dry. After the entire top has been cleaned, rinse the top generously with clear water to remove all traces of cleanser. If desired, the top can be supported from the underside during the scrubbing operations.

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

Do not use volatile cleaners or household bleaching agents on the top material.

PROCEDURE FOR CLEANING FLOOR CARPETS

Thoroughly brush or vacuum the floor carpet. In many instances the floor carpet may require no further cleaning. If carpet is extremely soiled remove carpet from car and thoroughly vacuum to remove loose dirt; then with a foaming type upholstery cleaner, clean approximately one (1) square foot of carpet at a time. After each area is cleaned, remove as much of the cleaner as possible with a vacuum cleaner. After cleaning the carpet use an air hose to "fluff" the carpet pile, then dry the carpet. After the carpet is completely dried, use an air hose to again "fluff" the carpet pile.

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

If oil or grease spots are still present on the carpet they may be removed by using a volatile cleaner.

INSTRUCTIONS FOR THE REMOVAL OF SPECIFIC STAINS FROM AUTOMOTIVE UPHOLSTERY (CLOTH) MATERIALS

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

BATTERY ACIDS

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

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

BLOOD

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

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

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

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

CANDY

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

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

Stains resulting from chocolate or milk chocolate can be removed by rubbing the stain with a cloth wet with lukewarm water. After the spot is dry, rub it lightly with a cloth dipped in a volatile cleaner.

CHEWING GUM

Harden the gum with an ice cube, and scrape off particles with a dull knife. If gum cannot be removed completely by this method, moisten it with a volatile cleaner and work it from the fabric with a dull knife, while gum is still moist.

FRUIT, FRUIT STAINS, LIQUOR AND WINE

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

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

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

GREASE AND OIL

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

Grease and oil stains may be removed by rubbing lightly with a clean cloth saturated with a volatile cleaner. Be sure all motions are toward the center of the stained area to decrease the possibility of spreading the stain.

ICE CREAM

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

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

NAUSEA

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

SHOE POLISH AND DRESSINGS

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

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

TAR

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

URINE

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

LIPSTICK

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

FOLDING TOP

CONTENTS OF THIS SECTION

FOLDING TOP ADJUSTMENTS

DESCRIPTION

The folding top linkage consists of three sections of right and left side roof rails and a front roof rail connected by bolts, hinges, and a series of connecting links and bows. The top linkage is attached to the body at the rear quarter area by a male hinge. The hinge is attached directly to the quarter panel brace. The front roof rail is locked at the windshield header by two hook type locks which are an integral part of the two locking handles.

The following information outlines and illustrates procedures which may be used to correct misaligned folding top linkage. To correct some top variations, only a single adjustment is required; other top variations require a combination of adjustments. In conjunction with adjustment of the folding top, it may be necessary to adjust the door, door glass, rear quarter glass, trim sticks or side roof rail weatherstrips.

CAUTION: When operating a manually operated folding top, hands must be kept clear of side roof rail hinges and connecting linkages.

FRONT ROOF RAIL GUIDE ADJUSTMENT TEMPEST ONLY

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 assembly to half-open position.

2. Loosen guide sufficiently to permit adjustment (see Fig. 21-1).

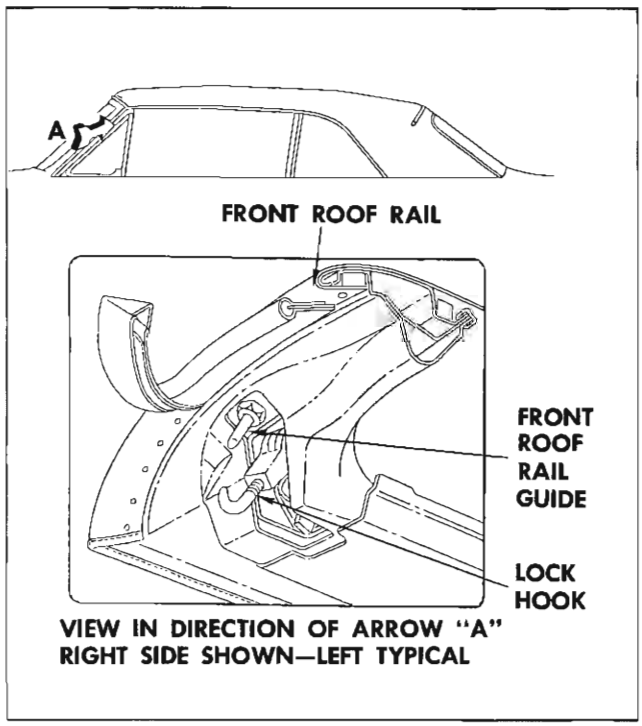


Fig. 21-1 Tempest Front Roof Rail Guide

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.

FRONT ROOF RAIL 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.

2. Loosen corner brace attaching screws and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary (see Fig. 21-2 view A, and 21-3).

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.

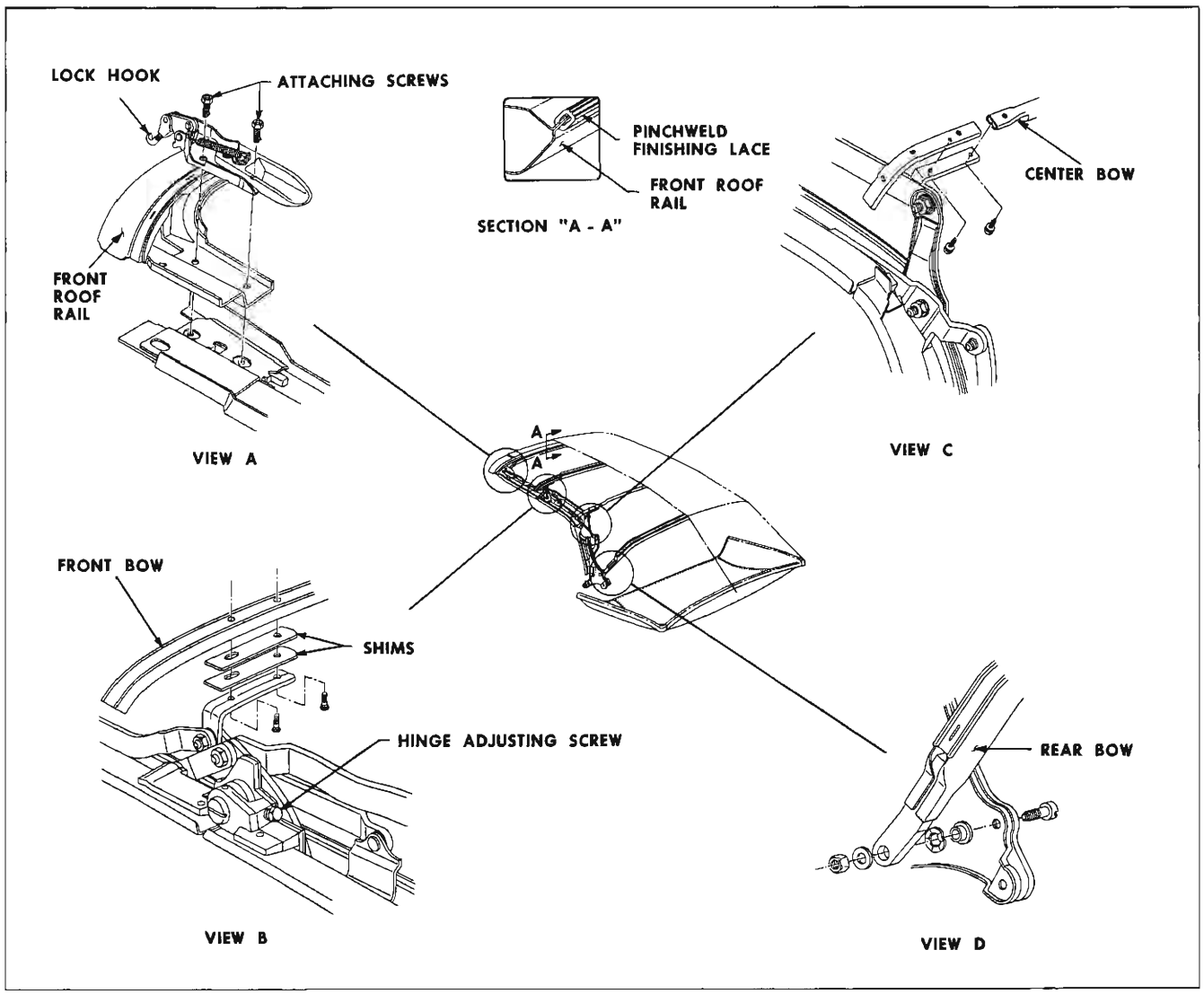


Fig. 21-2 Tempest Folding Top Linkage

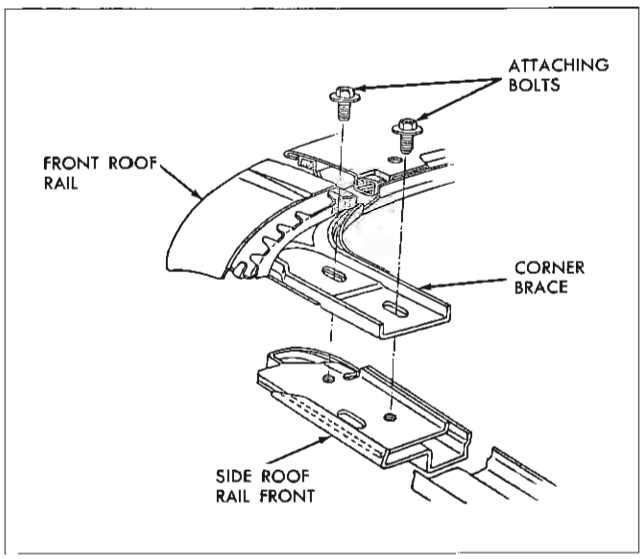


Fig. 21-3 Pontiac Front Roof Rail Adjustment

FRONT ROOF RAIL LOCK ASSEMBLY TEMPEST ONLY

REMOVAL AND INSTALLATION

1. Unlock top from windshield header.

2. With top in a half-open position, remove lock attaching screws; then remove lock assembly from front roof rail (see view A, Fig. 21-2).

3. To install, reverse removal procedure.

FRONT ROOF RAIL LOCK ADJUSTMENT TEMPEST ONLY

If the locking action of top is unsatisfactory, the hook on the lock assembly may be adjusted as follows:

1. To tighten or increase locking action, turn lock hook clockwise (see view A, Fig. 21-2).

2. To reduce or decrease locking action, turn lock hook counterclockwise.

SUNSHADE AND STRIKER SUPPORT ASSEMBLY ADJUSTMENT—PONTIAC ONLY

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 (see Fig. 21-4).

If, after adjusting the striker support, the locking action of top is still unsatisfactory, as if a closer fit of the front roof rail to windshield header is desired, the hook on the front roof rail lock assembly may be adjusted as follows:

1. To tighten locking action of top, turn hook clockwise.

2. To reduce locking effort of top, turn hook counterclockwise.

CONTROL LINK ADJUSTMENT

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. Mark 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 (Figs. 21-5 and 21-6).

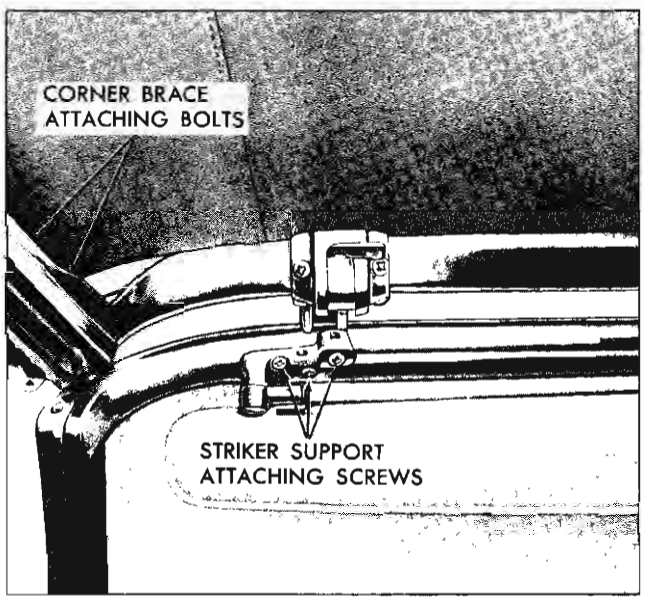


Fig. 21-4 Pontiac Striker Support

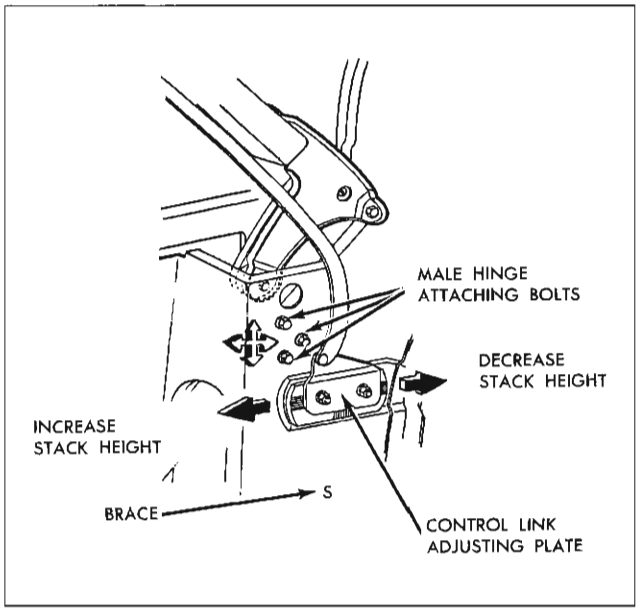


Fig. 21-5 Pontiac Control Link Adjustment

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. Mark location of control link adjusting plate on folding compartment brace.

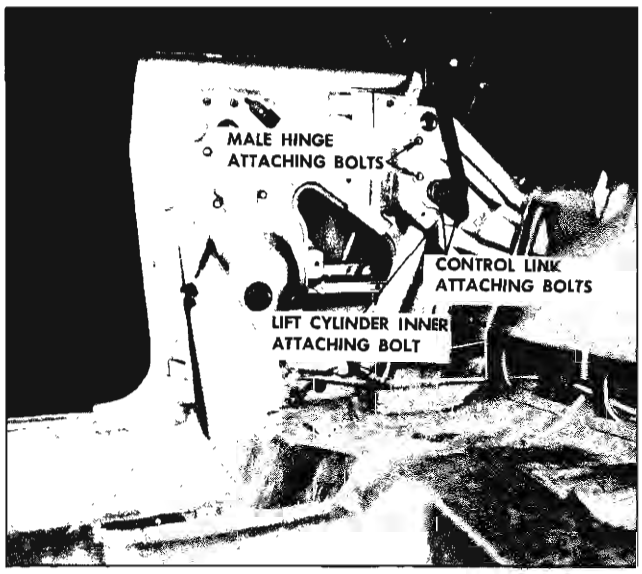


Fig. 21-6 Tempest Control Link Adjustment

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.

d. On Tempest styles equipped with manually operated folding top, adjust both folding top catch clips as required (see MANUALLY OPERATED FOLDING TOP HARDWARE).

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.

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.

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. Mark location of male hinge attaching bolt washers and control link assembly on folding top compartment brace.

b. Loosen male hinge assembly attaching bolts (see Figs. 21-5 and 21-6).

c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window; then tighten bolts.

IMPORTANT: On Pontiac styles, 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.

d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit of top material at rear quarter trim stick area. If necessary, adjust trim stick; then tighten trim stick attaching bolts.

e. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described (see steps 1 and 2 under CONTROL LINK ADJUSTMENT).

NOTE: If top cannot be fully raised or lowered, even after control link plate has been operated, readjust male hinge assembly as required. Check top for proper operation.

f. On Tempest styles equipped with manually operated folding tops, adjust both folding top catch clips as required (see MANUALLY OPERATED FOLDING TOP HARDWARE).

2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:

a. Mark location of male hinge attaching bolt washers and control link on folding top compartment brace.

b. Loosen male hinge assembly attaching bolts (see Figs. 21-5 and 21-6).

c. Without changing fore and aft location of male hinge, adjust male hinge up or down as required to obtain proper alignment between side roof rails and rear quarter windows.

IMPORTANT: On Pontiac styles, entire male hinge must be adjusted straight upward or downward at a 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.

d. Tighten attaching bolts, while maintaining proper alignment of vertical scribe marks.

e. Check fit of top material at rear quarter trim stick area and, if necessary, adjust trim stick. If adjustment is not necessary, tighten trim stick attaching bolts.

f. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described (see steps 1 and 2 under CONTROL LINK ADJUSTMENT).

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.

g. On styles equipped with manually operated folding tops, adjust both folding top catch clips as required (see MANUALLY OPERATED FOLDING TOP HARDWARE).

MISALIGNMENT TROUBLE DIAGNOSIS

DESCRIPTION

The following procedure describes and illustrates various types of folding top misalignment conditions, their apparent causes and the recommended procedure for their correction.

CONDITION	*APPARENT CAUSE*	*CORRECTION*
1. Difficult locking action at front roof rail.	1a. Sunshade support misaligned.	1a. Adjust sunshade support laterally.
	1b. Lock hook improperly adjusted.	1b. Adjust hook lock counterclockwise.
	1c. Misaligned front roof rail front weatherstrip.	1c. Loosen, realign and retack front roof rail front weatherstrip.
	1d. Front roof rail misaligned.	1d. Adjust front roof rail.

CONDITION	APPARENT CAUSE	CORRECTION
2. Top does not lock tight enough to windshield header.	2a. Sunshade support misaligned.	2a. Adjust sunshade support laterally.
	2b. Lock hook improperly adjusted.	2b. Adjust lock hook clockwise.
	2c. Misaligned front roof rail front weatherstrip.	2c. Loosen, realign and retack front roof rail front weatherstrip.
	2d. Front roof rail misaligned.	2d. Adjust front roof rail.
3. Top travels too far forward.	3a. Front roof rail misaligned.	3a. Adjust front roof rail rearward (Pontiac, Fig. 21-3; Tempest, Fig. 21-6).
	3b. Male hinge assembly misaligned.	3b. Adjust male hinge assembly rearward (Pontiac, Fig. 21-5; Tempest, Fig. 21-6).
4. Top does not travel forward far enough.	4a. Front roof rail misaligned.	4a. Adjust front roof rail forward (Pontiac, Fig. 21-3; Tempest Fig. 21-2).
	4b. Male hinge assembly misaligned.	4b. Adjust male hinge assembly forward (Pontiac, Fig. 21-5; Tempest Fig. 21-6).
	4c. Improper spacing between rear trim stick and body metal.	4c. Install an additional spacer between rear trim stick and body metal at each attaching bolt location.
5. Side roof rail rear weatherstrip too tight against rear of rear quarter.	5a. Male hinge assembly misaligned.	5a. Adjust male hinge assembly rearward (Pontiac, Fig. 21-5; Tempest, Fig. 21-6).
6. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	6a. Male hinge assembly misaligned.	6a. Adjust male hinge assembly forward (Pontiac, Fig. 21-5; Tempest, Fig. 21-6) and/or shim side roof rail rear weatherstrip forward as required.
7. Side roof rail rear weatherstrip too tight against top of rear quater window.	7a. Male hinge misaligned.	7a. Adjust male hinge upward (Pontiac, Fig. 21-5; Tempest, Fig. 21-6).
8. Gap between side roof rail rear weatherstrip and top of rear quarter window.	8a. Male hinge misaligned.	8a. Adjust male hinge downward and/or shim side roof rail weatherstrip downward as required.
9. Sag at front to center side roof rail joint	9a. Control link adjusting plate misaligned.	9a. Adjust control link adjusting plate downward (Pontiac, Fig. 21-5; Tempest, Fig. 21-6).
	9b. Center side roof rail hinge adjusting stud improperly adjusted.	9b. Adjust stud counterclockwise (Pontiac, Fig. 21-7; Tempest, Fig. 21-2).

CONDITION	APPARENT CAUSE	CORRECTION
10. Front and center side roof rails bow upward at hinge joint.	10a. Control link adjusting plate misaligned.	10a. Adjust control link adjusting plate upward (Pontiac, Fig. 21-5; Tempest, Fig. 21-6).
	10b. Center side roof rail hinge adjusting stud improperly adjusted.	10b. Adjust stud clockwise (Pontiac, Fig. 21-7; Tempest, Fig. 21-2).
11. Folding top dust boot is difficult to install.	11a. Improper stack height due to misaligned control link adjusting plate.	11a. Adjust control link plate rearward or forward as required (Fig. 62D-209B).
	11b. Misaligned folding top dust boot female fastener.	11b. Where possible, align female with male fastener.
	11c. Rear seat back assembly too far forward.	11c. (Pontiac) Relocate rear seat back panel rearward until dimension between upper rear edge of rear seat back to forward edge of pinch-weld finishing molding is 19-1/2" ± 1/16". The dimension is measured at approximate center line of body.
		11c. (Tempest) Relocate rear seat back rearward until dimension between upper rear edge of rear seat 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.
	11d. Excessive build-up of padding in side roof rail stay pads.	11d. Repair side stay pads as required.
	11e. On manual tops, due to improperly adjusted catch clips.	11e. Adjust catch clips downward as required.
12. Folding top dust boot fits too loosely.	12a. Improper stack height due to misaligned control link adjusting plate.	12a. Adjust control link plate forward (Pontiac, Fig. 21-5; Tempest, Fig. 21-6).

CONDITION	CAUSE	CORRECTION
12. Folding top dust boot fits too loosely. (Cont'd.)	12b. Rear seat back assembly is too far rearward.	12b. (Pontiac) Relocate rear seat back panel forward until dimension between upper rear edge of rear seat back to forward edge of pinchweld finishing molding is 19-1/2" ± 1/16". The dimension is measured at approximate center line of body.
		12b. (Tempest) 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.
	12c. On manual tops, due to improperly adjusted catch clips.	12c. Adjust catch clips upward as required.
13. Top material is too low over windows or side roof rails.	13a. Front roof bow improperly shimmed.	13a. *Install one or two 1/8" shims between front roof bow and slat iron (Pontiac, Fig. 21-7; Tempest, Fig. 21-2).
	13b. Excessive width in top material.	13b. 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.
14. Top material is too high over windows or side roof rails.	14a. Front roof bow improperly shimmed.	14a. *Remove one or two 1/8" shims from between front roof bow and slat iron (Pontiac, Fig. 21-7; Tempest, Fig. 21-2).
15. Top material has wrinkles or draws.	15a. Rear quarter trim stick improperly adjusted.	15a. Adjust rear quarter trim stick on side affected.
	15b. Top material improperly installed to center or rear quarter trim stick.	15b. Retack top material 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).

CONDITION	CAUSE	CORRECTION
16. Wind whistle or waterleak along front roof rail.	16a. Top does not lock tight enough to windshield header.	16a. Adjust sunshade support laterally (Pontiac only) and/or adjust lock hook clockwise.
	16b. Misaligned front roof rail front weatherstrip.	16b. Retack front weatherstrip to front roof rail.
	16c. Front roof rail contour does not conform to windshield header.	16c. Contour of front roof rail may be changed slightly by reforming rail.
17. Wind whistle or air leak between top material and side roof rail stay pads.	17a. Top material hold-down cables improperly adjusted.	17a. Adjust top material hold-down cables as required.

TEMPEST MANUALLY OPERATED FOLDING TOP HARDWARE

MANUAL LIFT ASSEMBLY

DESCRIPTION

The Tempest manual lift assembly incorporates a dual-action heavy duty spring, which helps compensate for the weight of the folding top mechanism when the top is at or near the full up or full folded positions. When the top is in the up position, the spring is under compression; when it is in the folded or stacked position, the spring is under tension.

CAUTION: Do not attempt to detach lift assembly when spring is under tension or compression.

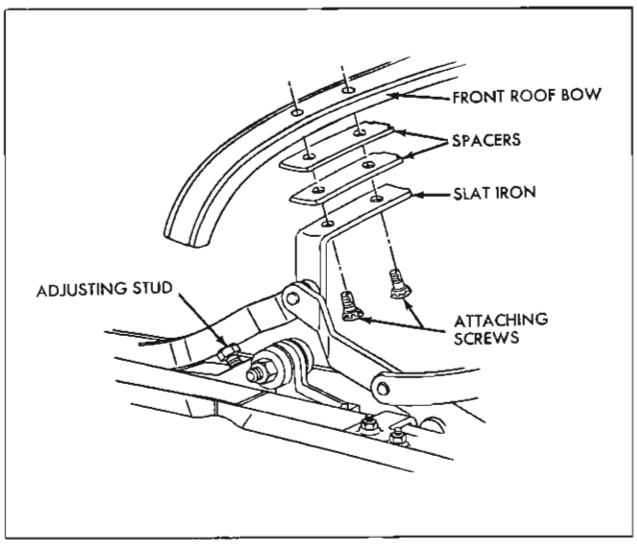


Fig. 21-7 Pontiac Hinge Adjusting Stud

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and back and folding top compartment side trim panel assembly on side affected.

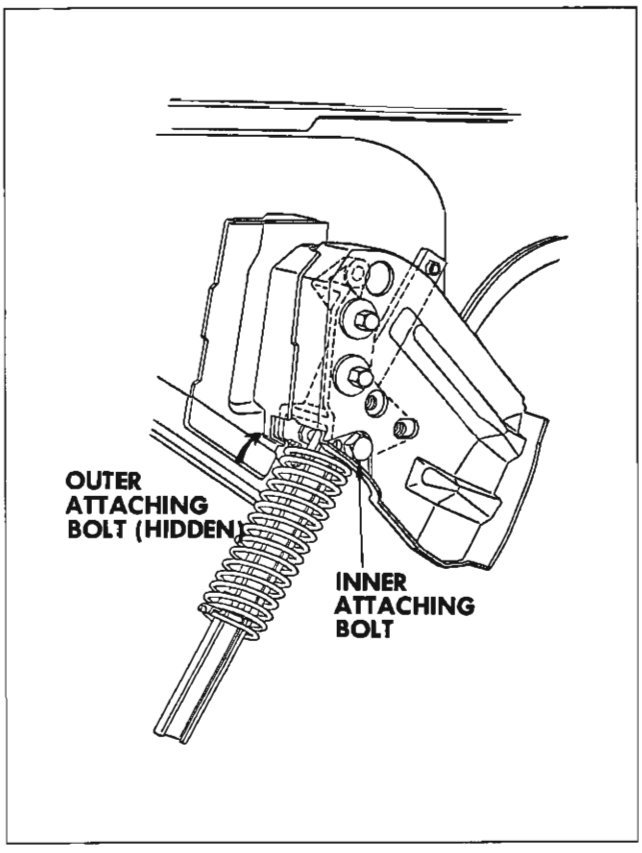


Fig. 21-8 Manual Lift Assembly

2. Move top to midway position to relieve the manual lift springs. If both lift assemblies are to be serviced, have helper support folding top or place supporting props under front roof rail.

3. Remove attaching nut, bolt, bushing and washer from upper end of lift assembly.

4. Remove inner and outer bolt securing lift assembly to male hinge and remove assembly from body (Fig. 21-8).

5. To install manual lift assembly, reverse removal procedure. Operate folding top assembly down and up several times to insure proper operation.

CATCH CLIPS

DESCRIPTION

The folding top catch clips snap over the folding top side roof center rails when the top is being lowered to the folded or stacked position. The catch clips prevent the spring-loaded manual lift arms from raising the top from this position. To raise the top, both catch clips must be disengaged from the side roof center rails. Each catch clip is attached to the top compartment brace by two screws. Any adjustments made to change stack height of the folding top (see FOLDING TOP ADJUSTMENTS) require corresponding adjustments to the catch clips.

TRIM ASSEMBLY

DESCRIPTION

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.

TOP AND BACK CURTAIN TRIM ASSEMBLY 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 retainers and front weatherstrips, and detach top material from front roof rail (Pontiac, Fig. 21-9; Tempest, Fig. 21-10).

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. 21-11).

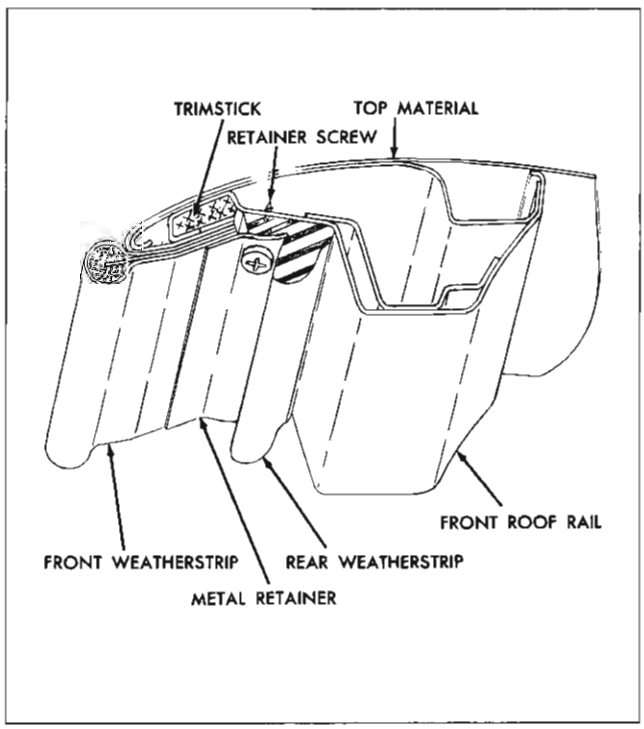


Fig. 21-9 Pontiac Front Roof Rail Assembly

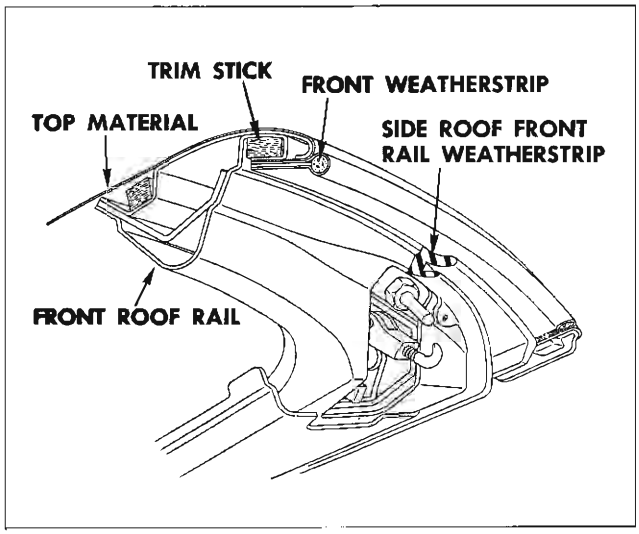


Fig. 21-10 Tempest Front Roof Rail Assembly

5. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws (Fig. 21-12).

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 and remove retainer from listing pocket.

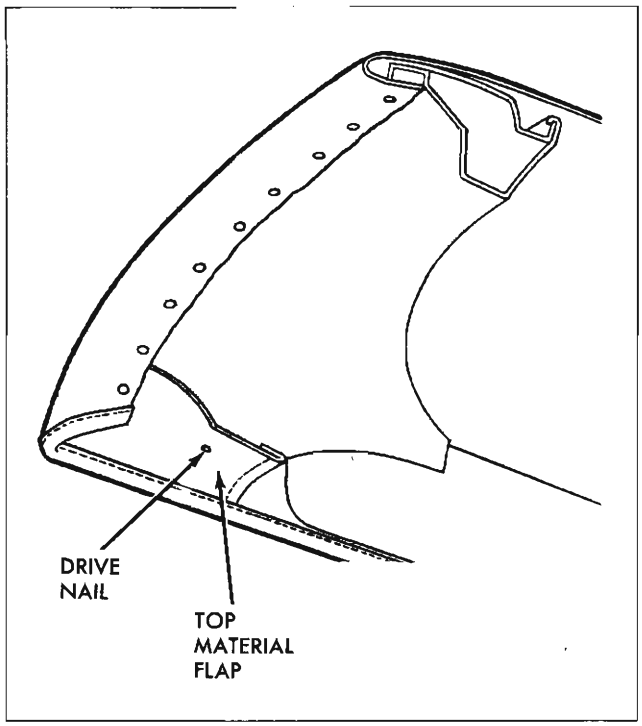


Fig. 21-11 Top Material at Front Roof Rail

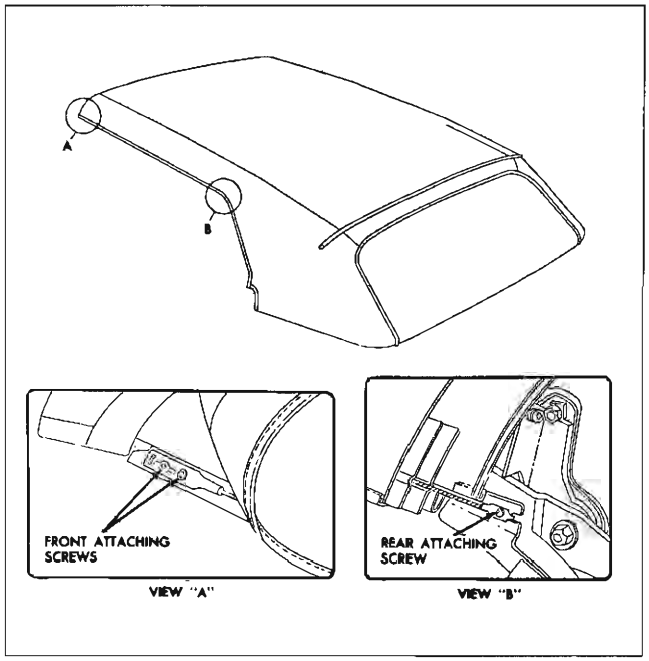


Fig. 21-12 Hold-Down Cable Attachment

9. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts (Fig. 21-13). Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 21-14).

10. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner panel (Fig. 21-15).

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

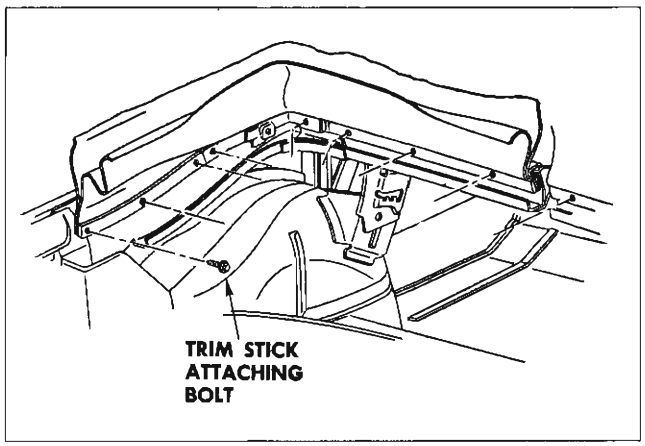


Fig. 21-13 Trim Stick Attachment

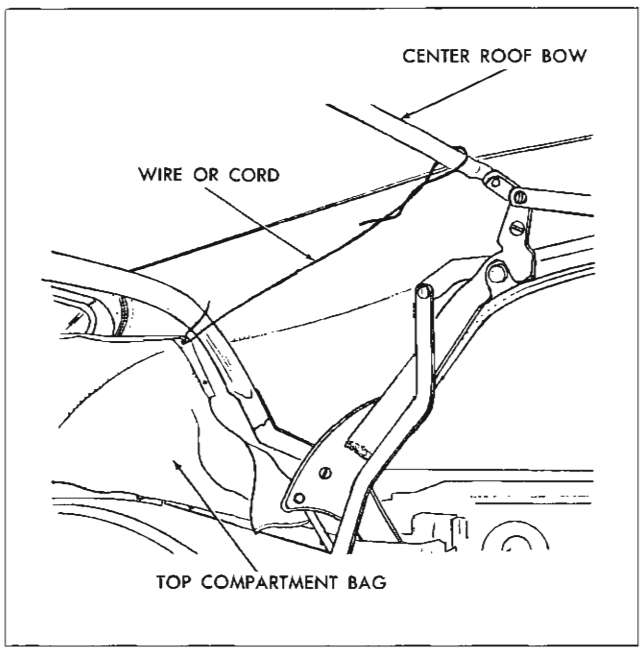


Fig. 21-14 Top Compartment Bag Tied to Center Bow

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. 21-16). 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.

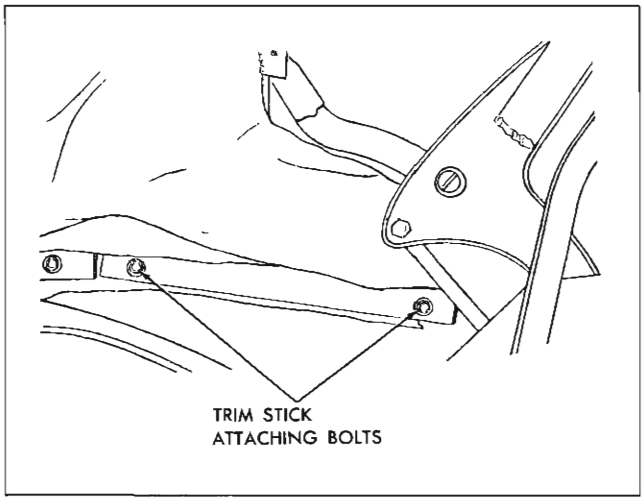


Fig. 21-15 Rear Quarter Trim Stick

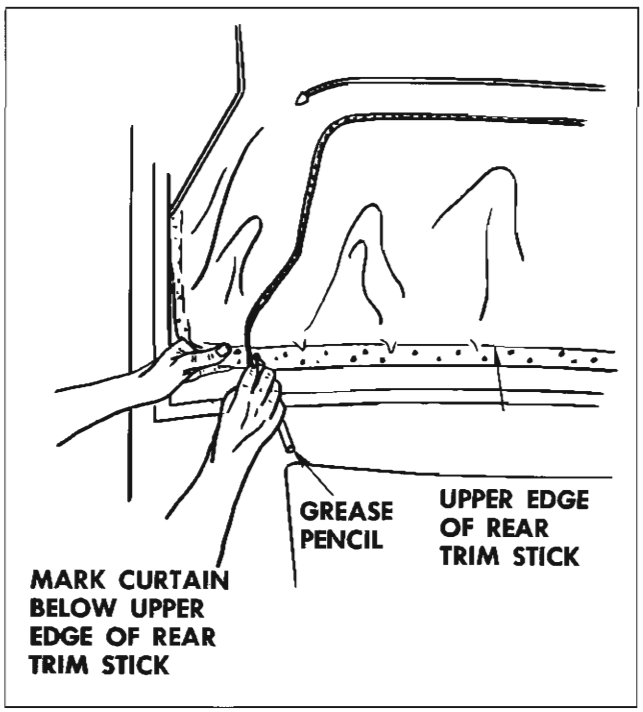


Fig. 21-16 Locating Edge of Top Material

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. 21-17). 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

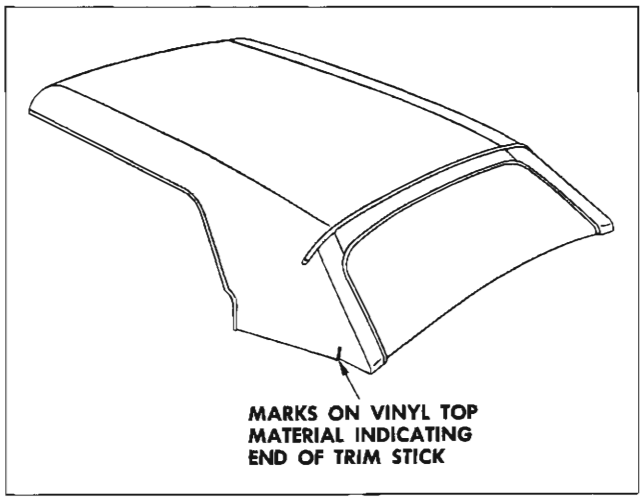


Fig. 21-17 Marking Top Material

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 of spacer stick so that metal plate fits under rear roof bow (Fig. 21-18 and 21-19). 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" for Pontiac and 19" for Tempest.

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. 21-19.

18. Temporarily tie or tape rear bow to rear side roof rails (Fig. 21-18). 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.

20. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (Fig. 21-20). Reference marks for trim sticks should be transferred to new back curtain material when step 6 of installation procedure is performed.

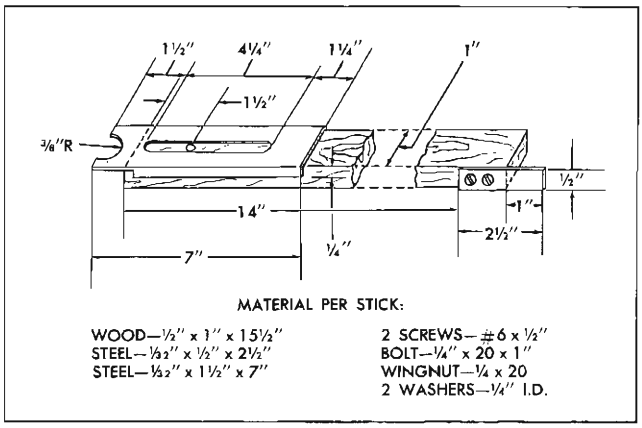


Fig. 21-19 Spacer Stick Dimensions

21. Remove right and left nylon webbing from rear trim stick (Fig. 21-20).

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

23. Detach edges of folding top roof silencer from right and left side stay pads (Pontiac only). Remove side stay pads. Stay pads are attached to front roof rail and front and rear bows with tacks; to center bow with screws.

TOP AND BACK CURTAIN TRIM ASSEMBLY 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. 21-18). Adjust sticks so that dimension X in Fig. 21-18 (measured along spacer stick from front upper rolled edge

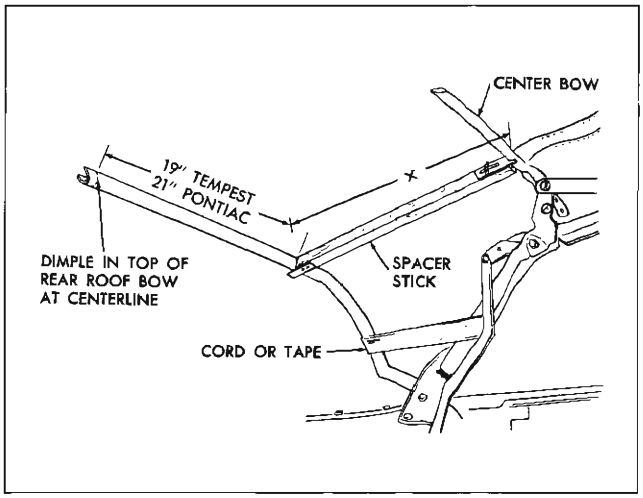


Fig. 21-18 Spacer Stick Installed

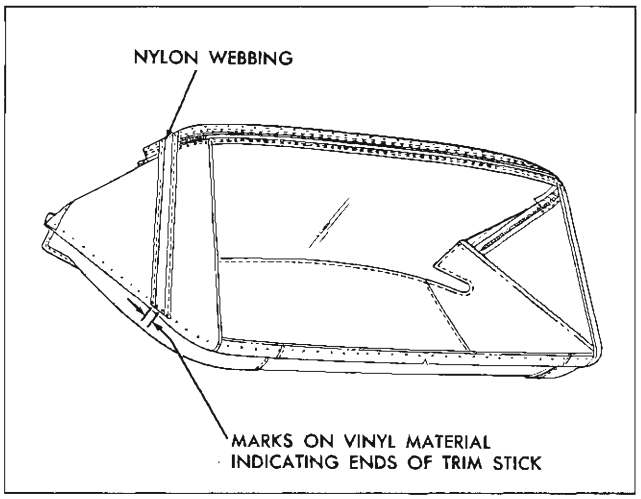


Fig. 21-20 Marking Back Curtain

of rear roof bow to center of center bow) is as follows: 16-3/8" for Pontiac, 17-5/8" for Tempest. Tie or tape rear bow to rear side roof rails.

NOTE: In all cases, above dimensions 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 (Pontiac, Fig. 21-21; Tempest, Fig. 21-22).

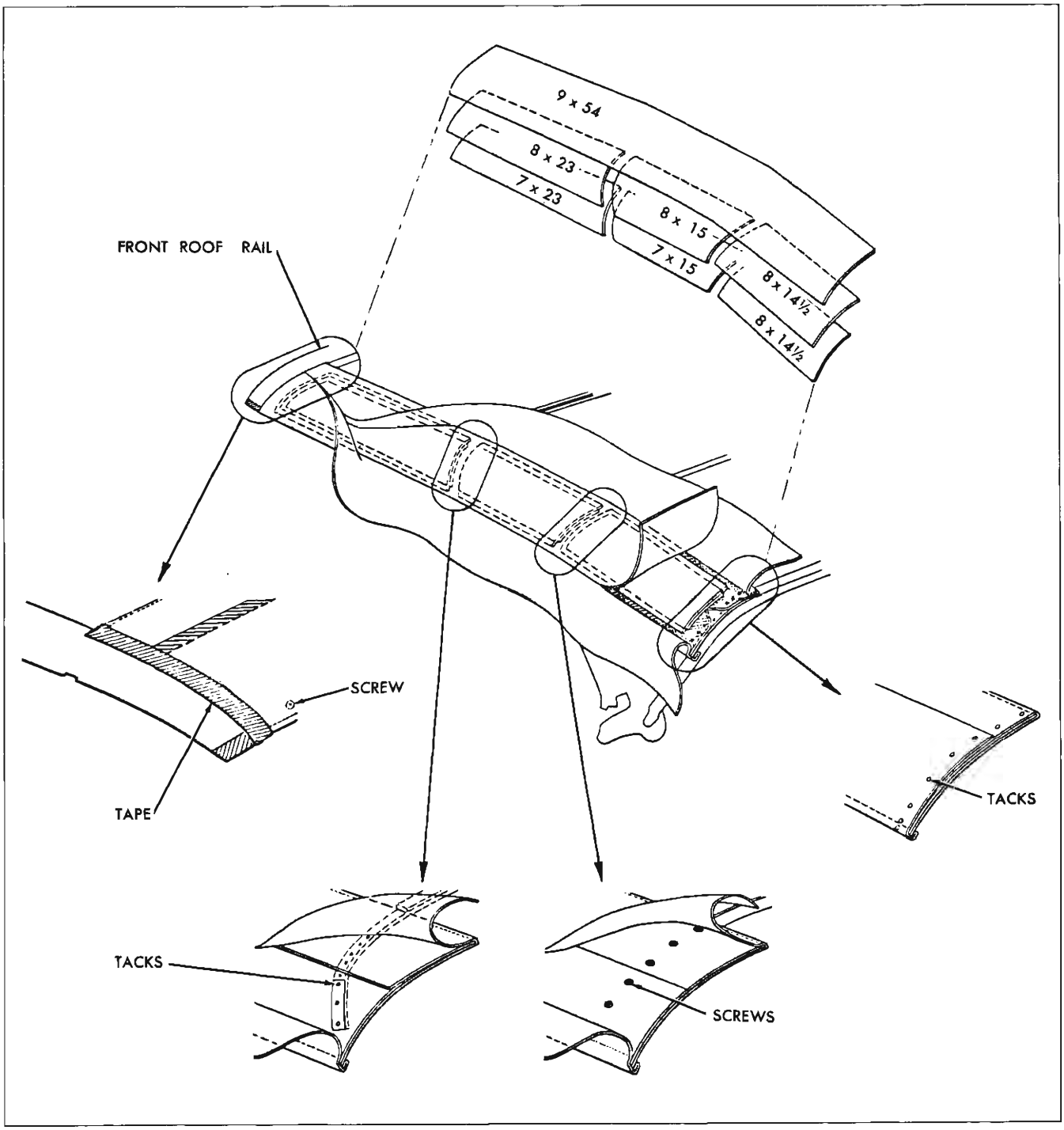


Fig. 21-21 Pontiac Side Stay Pad Installation

3. Trim selvage end of side stay pads just forward of rear rolled edge of rear roof bow (Fig. 21-23).

4. Distance from center of center bow to rolled forward upper edge of rear roof bow is 16-3/8" for Pontiacs and 17-5/8" for Tempests.

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

Readjust spacer sticks and side roof rail pads as required if rear bow does not come within this position range.

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

6. Carefully lay removed back curtain assembly

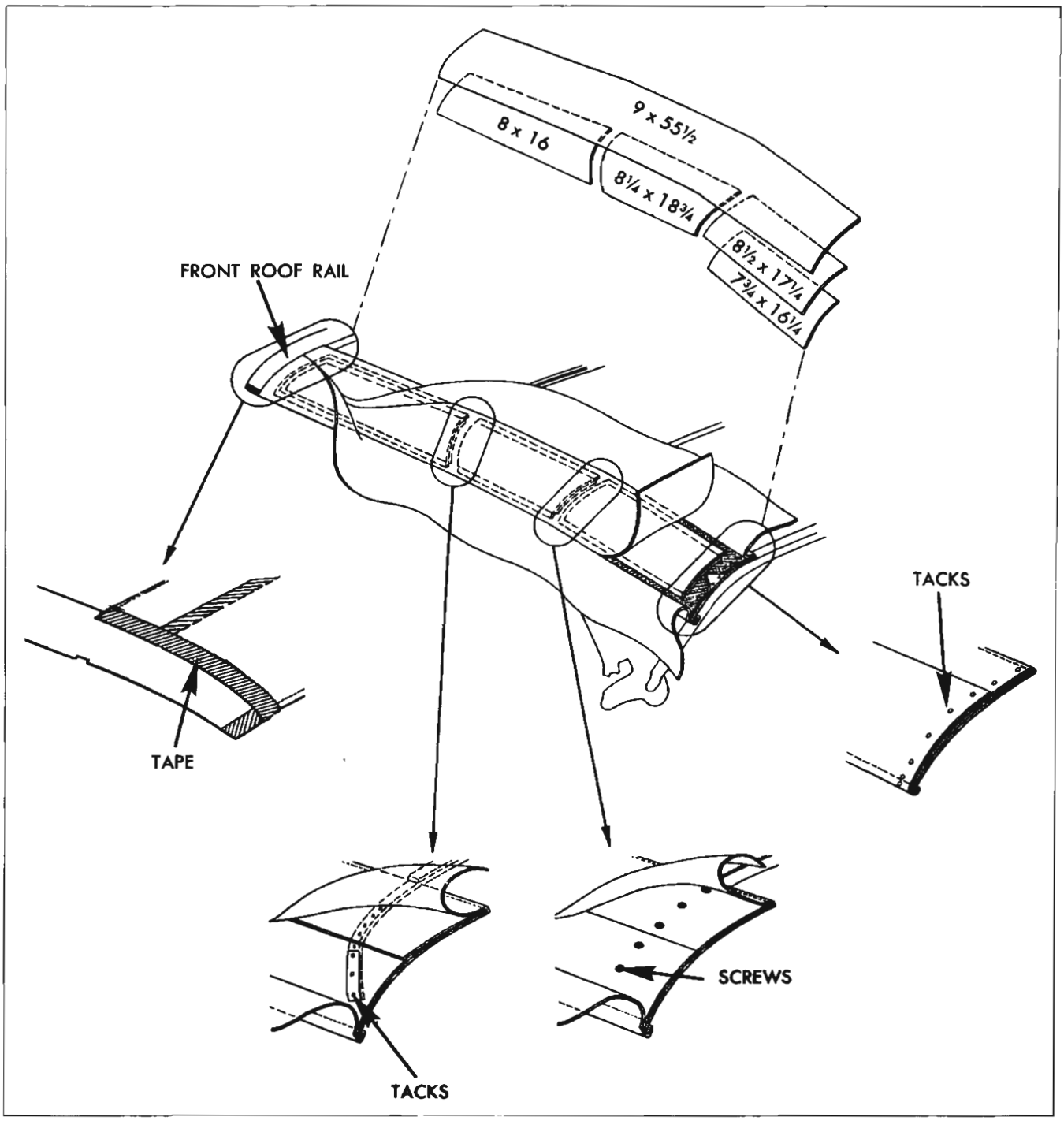


Fig. 21-22 Tempest Side Stay Pad Installation

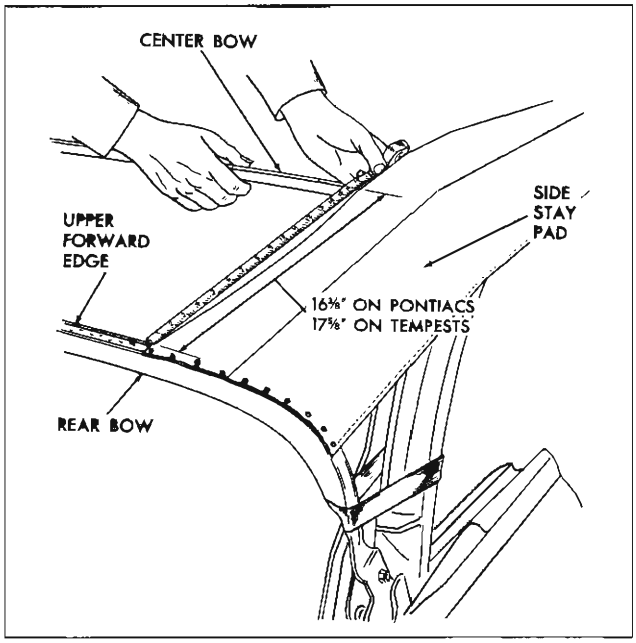


Fig. 21-23 Rear Bow Position

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 curtain assembly (Fig. 21-24). 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 (see A in direction of arrow in Fig. 21-24).

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. 21-24).

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 trimmed off at rear trim stick, 1/2" above back curtain lower edge (Fig. 21-24).

12. Inspect rubber trim stick fillers cemented to body below pinchweld. Re-cement, if necessary (Fig. 21-25).

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.

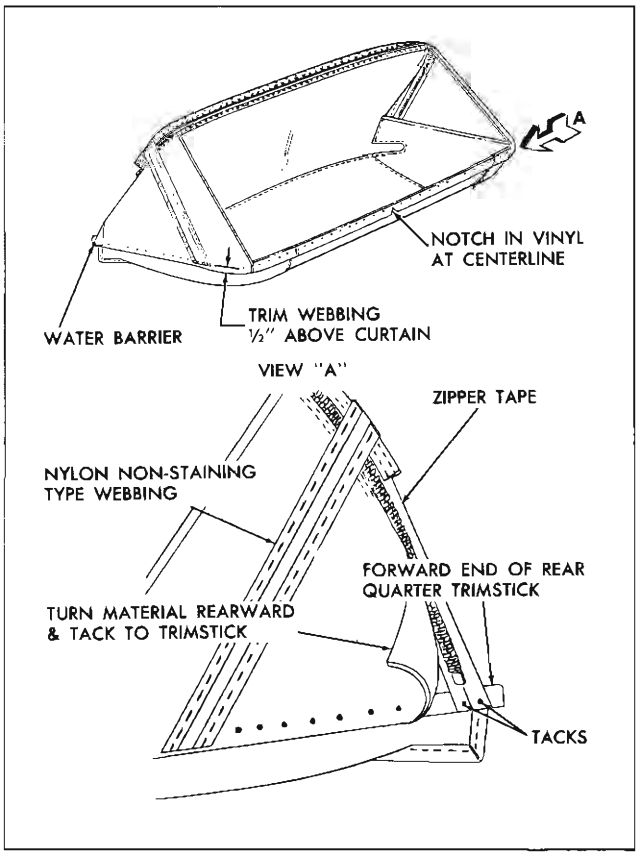


Fig. 21-24 Back Curtain Installation

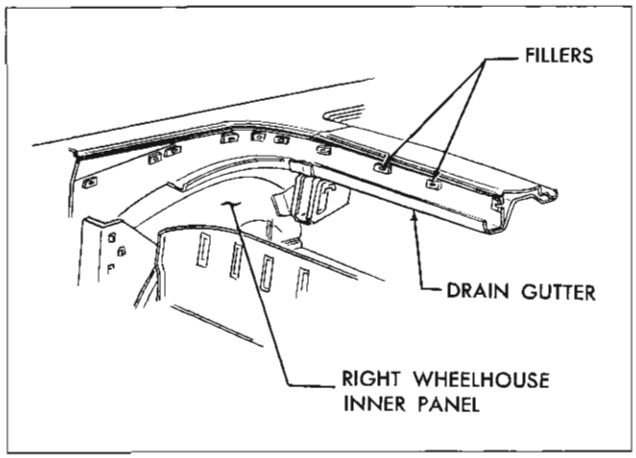


Fig. 21-25 Checking Trim Stick Fillers

14. Secure back curtain assembly with one tack to rear bow to prevent damage to plastic sheet (Fig. 21-26).

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. 21-27).

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. 21-28).

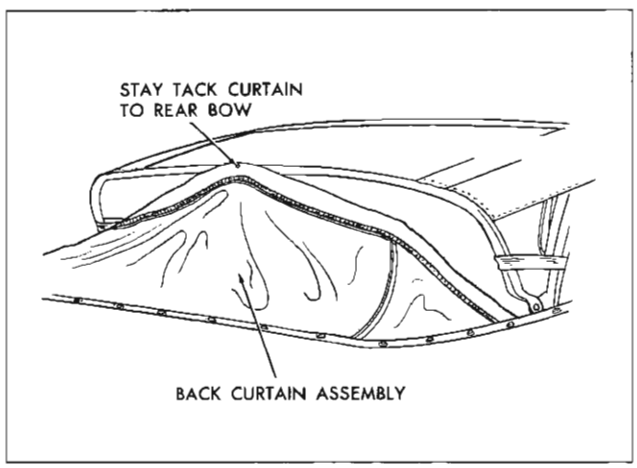


Fig. 21-26 Stay Tacking Back Curtain

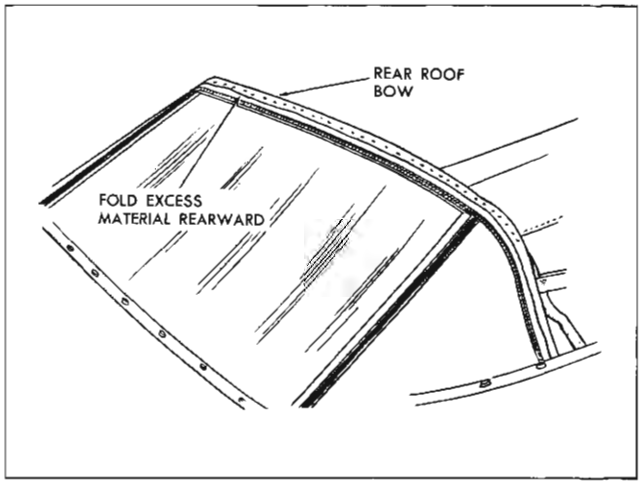


Fig. 21-27 Back Curtain Installation

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. Cement folding top roof silencer to stay pads (Pontiac only). Install stay pad top covering material to silencer and stay pad using nitrile or neoprene type trim cement.

NOTE: On Pontiac styles, be sure roof silencer is free of wrinkles and draws prior to installing stay pad top cover material.

19. Tack nylon webbing to rear roof bow. On Pontiac styles, outboard edge of webbing should be

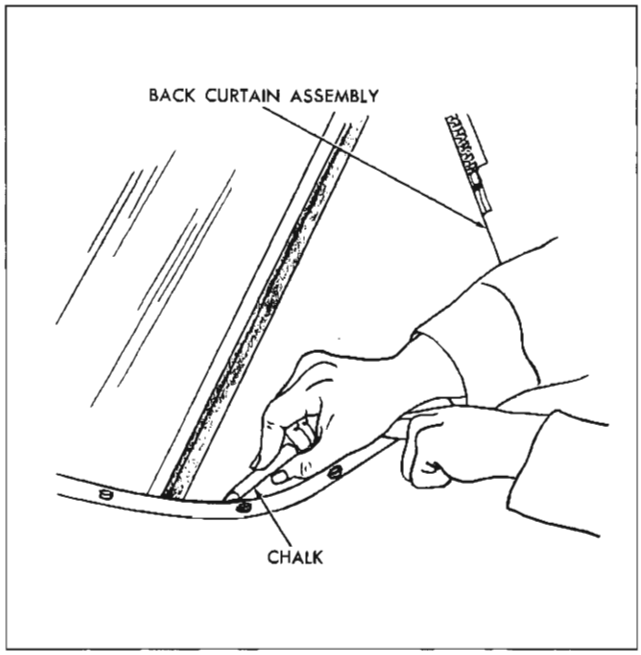


Fig. 21-28 Marking Back Curtain

installed even with outboard edge of side roof rail pad. On Tempest styles, 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.

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. 21-29).

23. Fold new top material in half so that inner lining of top material is exposed (Fig. 21-30). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 21-30). 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.

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. 21-31).

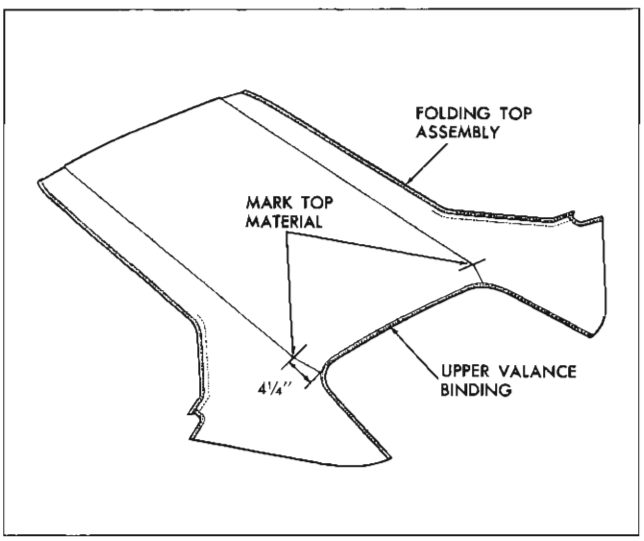


Fig. 21-29 Marking Top Material

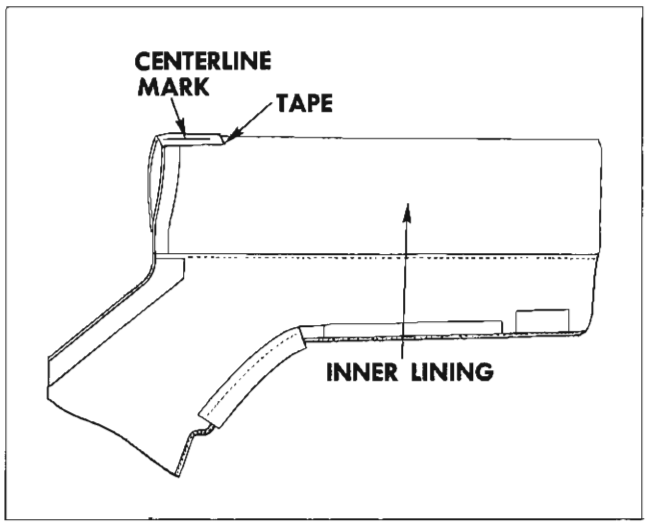


Fig. 21-30 Marking Top Material

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

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

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

27. Remove top trim material.

28. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over

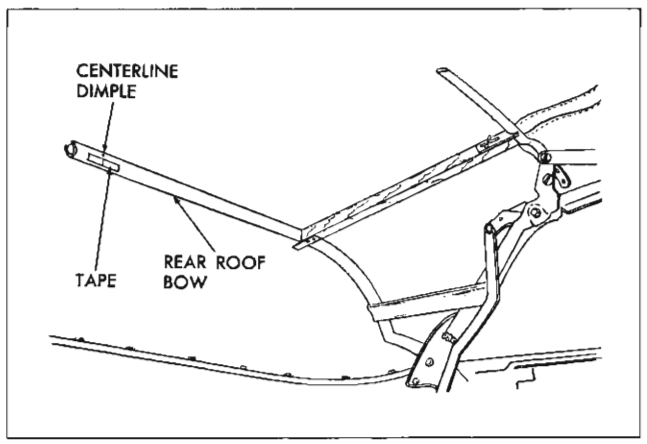


Fig. 21-31 Marking Rear Roof Bow

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.

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

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. 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 and 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 (Fig. 21-12).

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

NOTE: The deck seam mark will vary slightly (±1/4") depending upon position of rear roof bow. Also check centerline mark on inner lining of top material. Mark should correspond to centerline mark on rear roof bow (see Fig. 21-31).

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

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

37. 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.

38. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. A in Fig. 21-32 shows top material installed to rear trim stick at inboard edge.

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

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

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

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

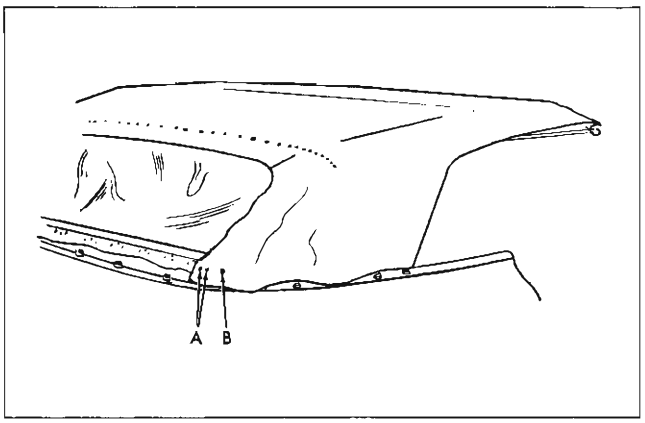


Fig. 21-32 Tacking Top Material

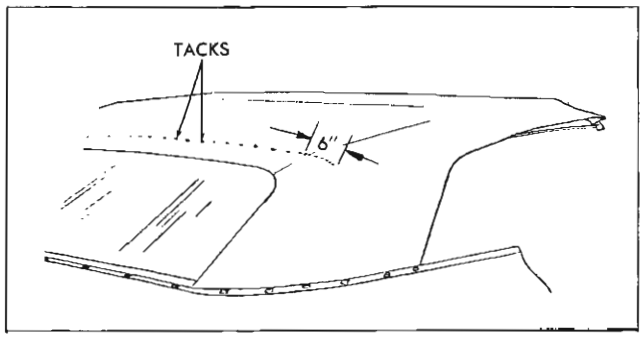


Fig. 21-33 Tacks Outboard of Seams

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

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

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

46. Where required, remove side roof rail rear weatherstrip. Readjust top material at side roof rails and reinstall weatherstrips.

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

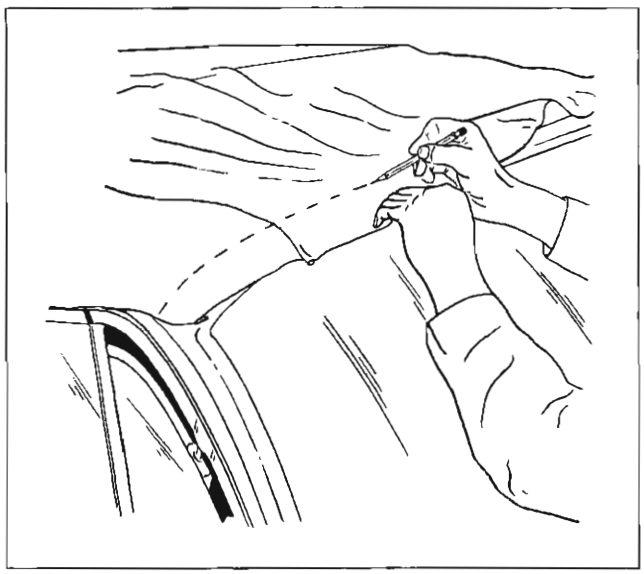


Fig. 21-34 Working Top Material

IMPORTANT: Tacks must be installed along a straight line in center of rear bow. (See Fig. 21-33). Tacks outboard of deck seams should be restricted to distance not to exceed 6", which is length wire-on binding extends past seam (Fig. 21-33).

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. 21-34).

49. Unloack 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. 21-35).

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 (Fig. 21-11).

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 recheck 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.

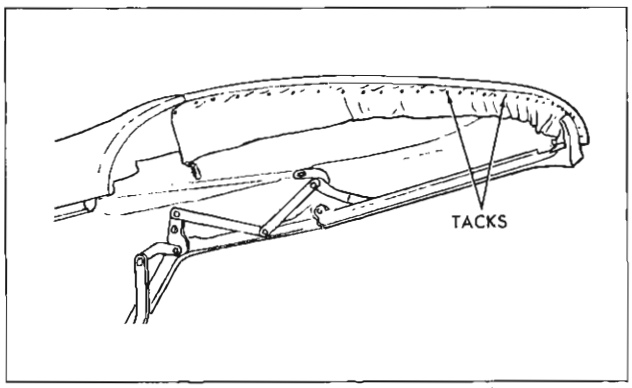


Fig. 21-35 Installation of Top Material

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.

TRIM COVER (LESS BACK CURTAIN)

REMOVAL

Remove trim cover as described in steps 1 through 15 of TOP AND BACK CURTAIN TRIM ASSEMBLY REMOVAL.

INSTALLATION

1. Prior to installation of new top trim material, check contour of back curtain roof silencer (Pontiac only), and side stay pads. Where required, adjust back curtain roof silencer (Pontiac only), and side and side stay pads as required.

2. Install new trim cover as described in steps 21 through 54 of TOP AND BACK CURTAIN TRIM ASSEMBLY INSTALLATION.

BACK CURTAIN TRIM

REMOVAL

1. Perform steps 1, 2, 9, 10, 11 and 12 as described in TOP AND BACK CURTAIN TRIM ASSEMBLY REMOVAL.

2. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material. (Fig. 21-17).

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

5. 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.

6. Perform steps 20, 21 and 22 as described in TOP AND BACK CURTAIN TRIM ASSEMBLY REMOVAL.

INSTALLATION

1. Install spacer sticks as described in step 1 of TOP AND BACK CURTAIN TRIM ASSEMBLY INSTALLATION.

2. Proceed as described in steps 5 through 19 of TOP AND BACK CURTAIN TRIM ASSEMBLY INSTALLATION.

3. Detach rear trim stick with attached back curtain assembly from body and install top trim cover assembly.

NOTE: Extra care in positioning new curtain at same location on trim stick as old curtain and aligning of trim stick attaching bolt holes in top material with holes in trim stick will allow re-installation of top material to its original position with a minimum of refitting.

4. 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 and perform the following additional operations after the back curtain assembly has been removed from body.

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 stamped 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.

BACK CURTAIN VINYL REPLACEMENT (INCLUDES TRANSFER OF ZIPPER TO NEW 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. 21-36). 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 or other suitable tool, cut zipper stop along dotted line and remove both halves of stop from zipper (Fig. 21-37).

10. Operate slide fastener off 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. 21-38). 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. 21-39).

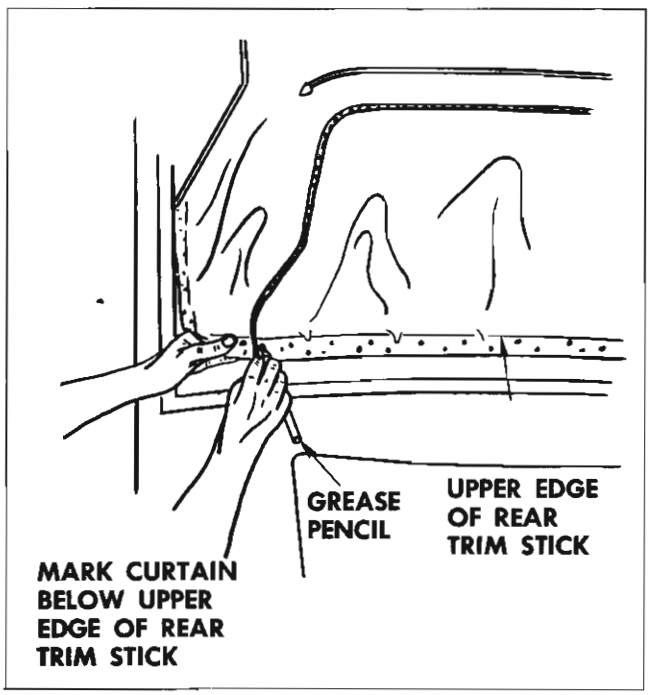


Fig. 21-36 Locating Edge of Top Material

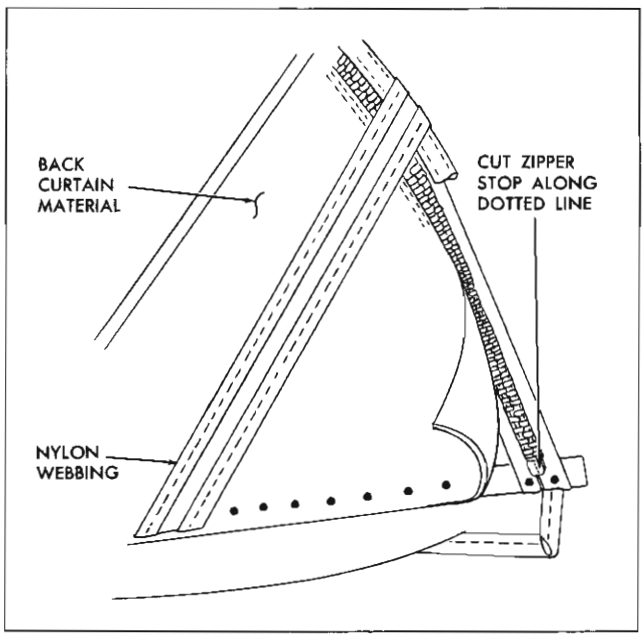


Fig. 21-37 Back Curtain Vinyl Replacement

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 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. (See Fig. 21-39). 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. Turn forward edge of material rearward to form a water barrier (Fig. 21-39).

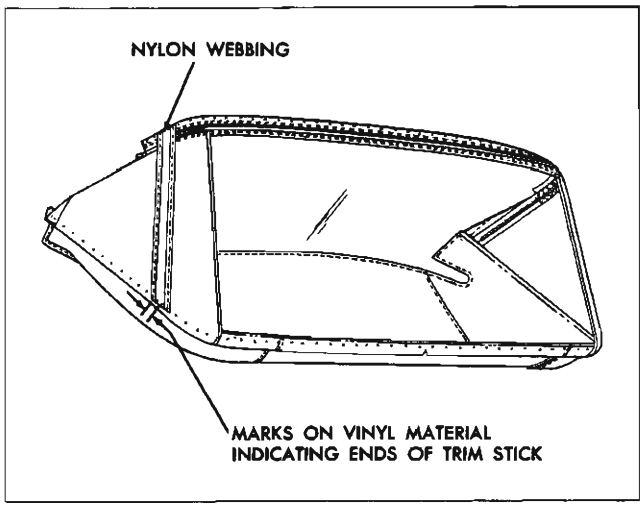


Fig. 21-38 Marking Back Curtain

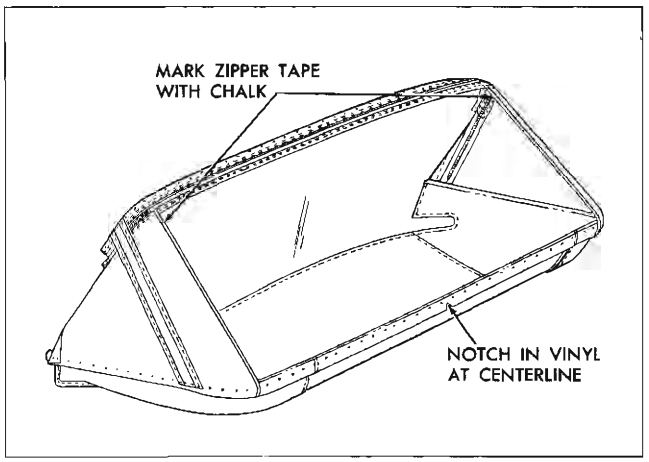


Fig. 21-39 Marking Zipper Tape

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. 21-37).

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. 21-40).

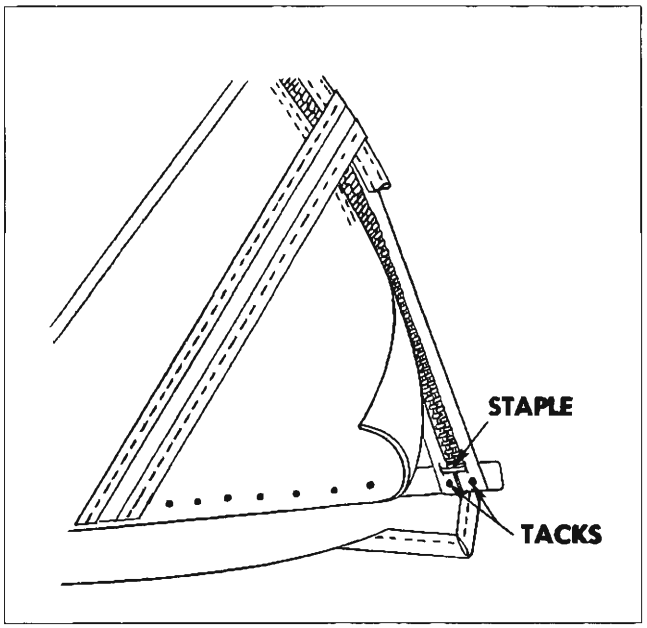


Fig. 21-40 Zipper Installation at Rear Quarter Trim Stick

12. Operate slide fastener to closed position.

13. Tack zipper tape to rear quarter trim stick (Fig. 21-40). 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. Readjust 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 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 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.

TEMPEST PINCHWELD FINISHING LACE

DESCRIPTION

The upper rear pinchweld flange on the front roof rail assembly is covered by a one-piece snap-on pinchweld finishing lace (Fig. 21-41).

REMOVAL AND INSTALLATION

1. Unlock top from windshield header. 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.

PONTIAC FOLDING TOP ROOF SILENCER

REMOVAL

1. Raise front roof rail sufficiently to remove retainers and front roof rail weatherstrips.

2. Loosen front end of each side roof rail front weatherstrip sufficiently to detach top material flaps which are nailed and cemented to rails (Fig. 21-42).

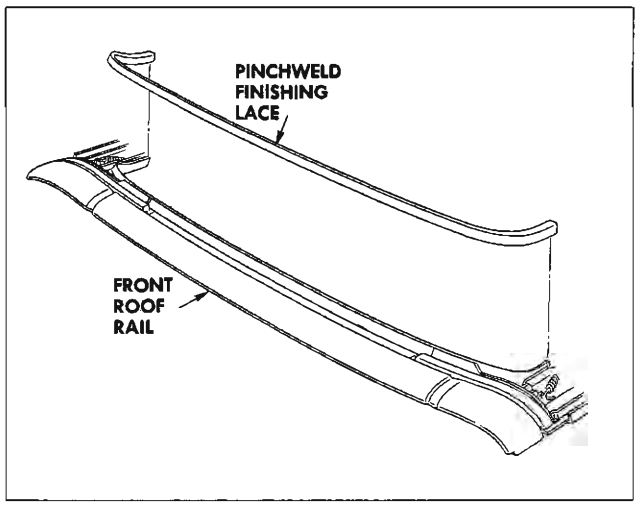


Fig. 21-41 Pinchweld Finishing Lace

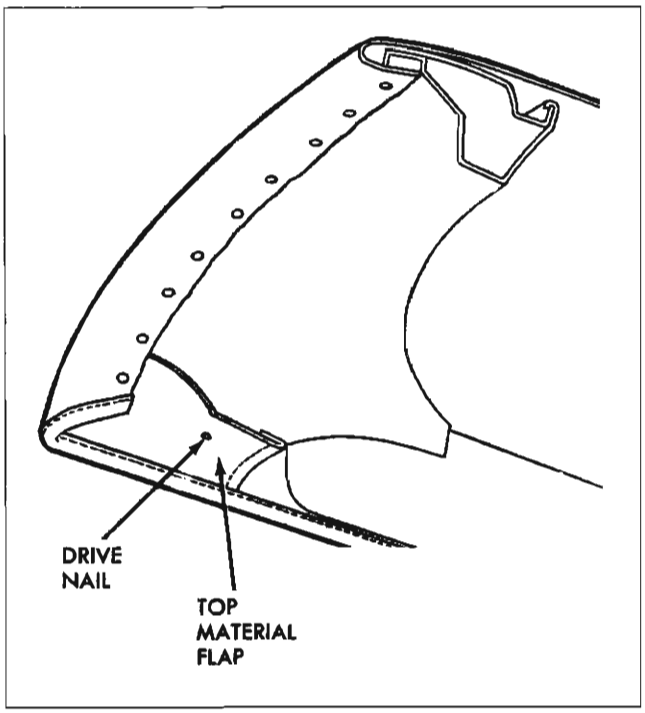


Fig. 21-42 Top Material at Front Roof Rail

3. Detach top material and roof silencer material from front roof rail (Fig. 21-43).

4. Remove right and left hold-down cable front attaching screws.

5. At underside of front bow, remove screws securing listing pocket to bow. Push top material upward sufficiently to disengage listing pocket and listing pocket retainer from front bow (Fig. 21-43).

6. Carefully slide folding top trim rearward until front bow is exposed.

7. Remove right and left side stay pad top cover material from stay pads sufficiently to gain access to roof silencer material.

8. Detach roof silencer material from right and left side stay pads.

9. At either right or left side, remove remaining portion of side stay pad from front bow. Stay pad is attached to front bow with tacks.

10. Unlock top from windshield header. Prop up top assembly approximately 12 inches above windshield header.

11. At underside of front bow, on side from which stay pad has been removed, remove screws securing front bow to slat iron. Also remove front bow spacers, if present.

12. Lift up edge of front bow and carefully slide folding top roof silencer outboard until silencer retaining pocket is removed from bow.

INSTALLATION

1. Lift up edge of front bow sufficiently to slide folding top roof silencer onto bow.

2. Install front bow spacers between front bow and slat iron; then install screws securing front bow to slat iron.

3. Install side stay pad (except top cover material) to front bow with tacks.

4. Stretch out roof silencer retaining pocket on front bow until pocket is free of wrinkles. Retaining pocket should be evenly centered between inboard edge of right and left side roof rail stay pads.

5. Lock top to windshield header. Pull roof silencer forward to desired tension. While maintaining tension on silencer, place chalk mark on outer surface of silencer along forward edge of front roof rail.

6. 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 silencer material. Pull silencer material forward and fasten material along cemented area of front roof rail, using previously made chalk mark along roof rail as guide.

7. Lock top to windshield header.

8. Using nitrile cement or neoprene-type weatherstrip adhesive, cement outboard edges of roof silencer material to right and left side stay pads.

9. Check interior appearance of roof silencer. Silencer material should be free of all wrinkles and draws. Readjust silencer as required.

10. Using nitrile cement or neoprene-type weatherstrip adhesive, cement side stay pad top covering material over silencer material; then tack stay pad cover material to front bow and front roof rail.

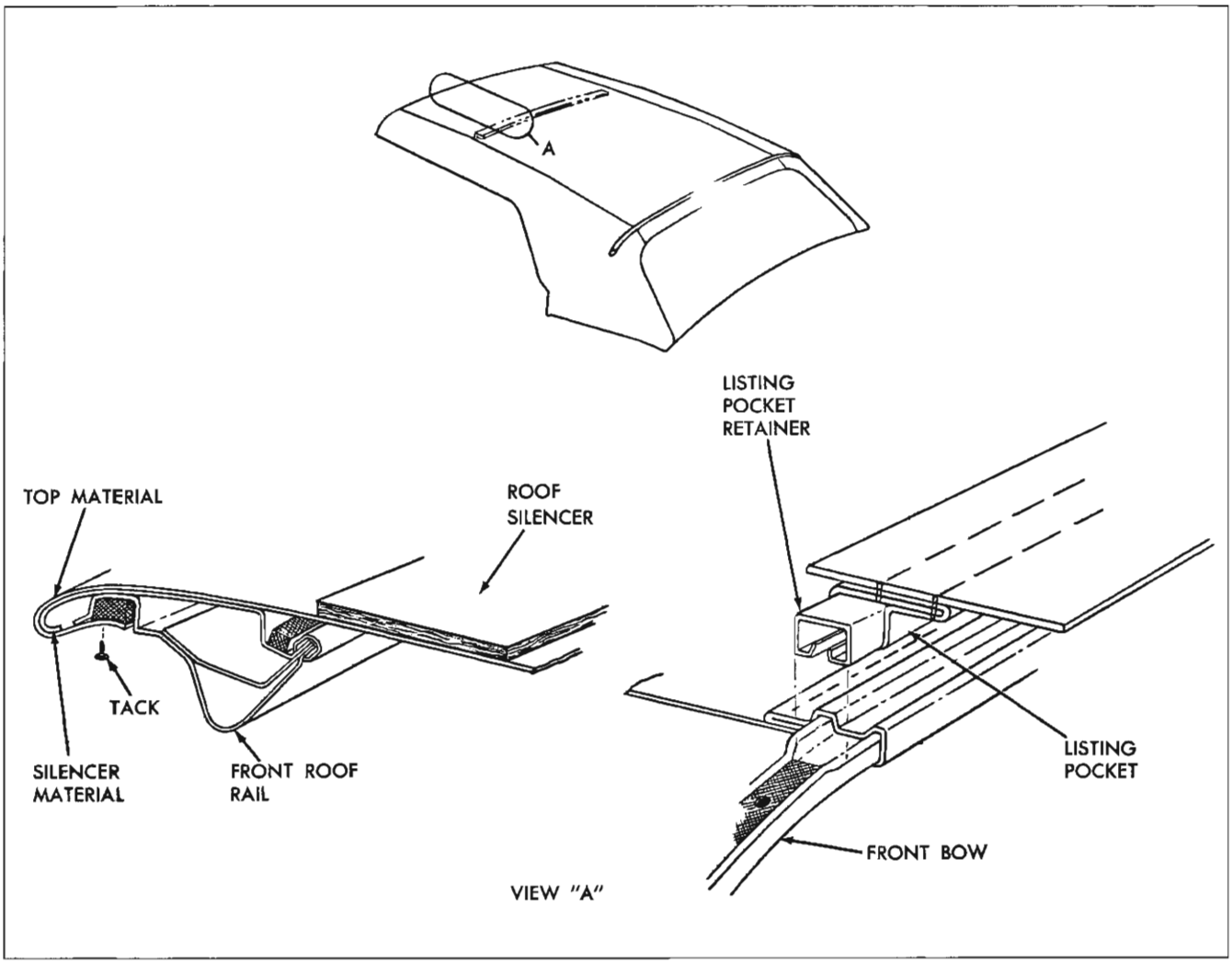


Fig. 21-43 Roof Silencer

11. Center listing pocket retainer in listing pocket; then install retainer into front bow (Fig. 21-43). Secure retainer to front bow using previously removed attaching screws.

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

12. Securely install right and left hold-down cable attaching brackets to side roof front rail.

13. 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; then fasten top trim to cemented area and stay tack trim to rail (Fig. 21-44).

14. 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. 21-42).

15. 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

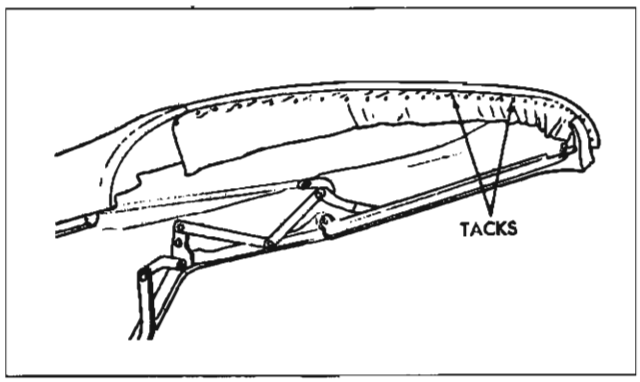


Fig. 21-44 Installation of Top Material

trim unlock top from header and reposition top trim by pulling trim further forward. Stay tack and recheck top appearance).

16. Complete tacking of top trim to front roof rail.

17. When completed, folding top should be free of all wrinkles and draws. Install all previously removed weatherstrips and weatherstrip retainers. Clean any soilage from top material, silencer or pads.

HYDRO-LECTRIC SYSTEM

DESCRIPTION

The high pressure hydro-lectric unit used in the convertible bodies, consists of a 12 volt reversible type motor, a rotor-type pump, two hydraulic lift cylinders, and an upper and lower hydraulic hose assembly. The unit is installed in the body directly behind rear seat back (Fig. 21-45).

Fig. 21-46 illustrates and identifies the individual parts of the motor and pump assembly.

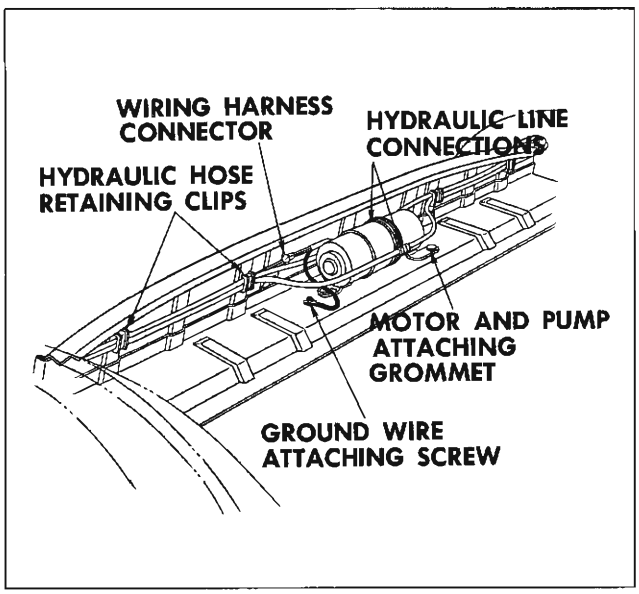


Fig. 21-45 Motor and Pump Assembly

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 (Fig. 21-45).

7. Disconnect motor leads from wire harness and ground attaching screws (Fig. 21-45).

8. To facilitate removal, apply a rubber lubricant to pump attaching grommets and carefully disengage grommets from floor pan (Fig. 21-45).

9. Place absorbent rags below hose connections and end of reservoir.

10. With a straight-bladed screwdriver, vent reservoir by removing filler plug; reinstall plug.

NOTE: Venting reservoir is necessary in this "sealed-in" unit to equalize air pressure in reservoir to that of the atmosphere. This operation prevents the possibility of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.

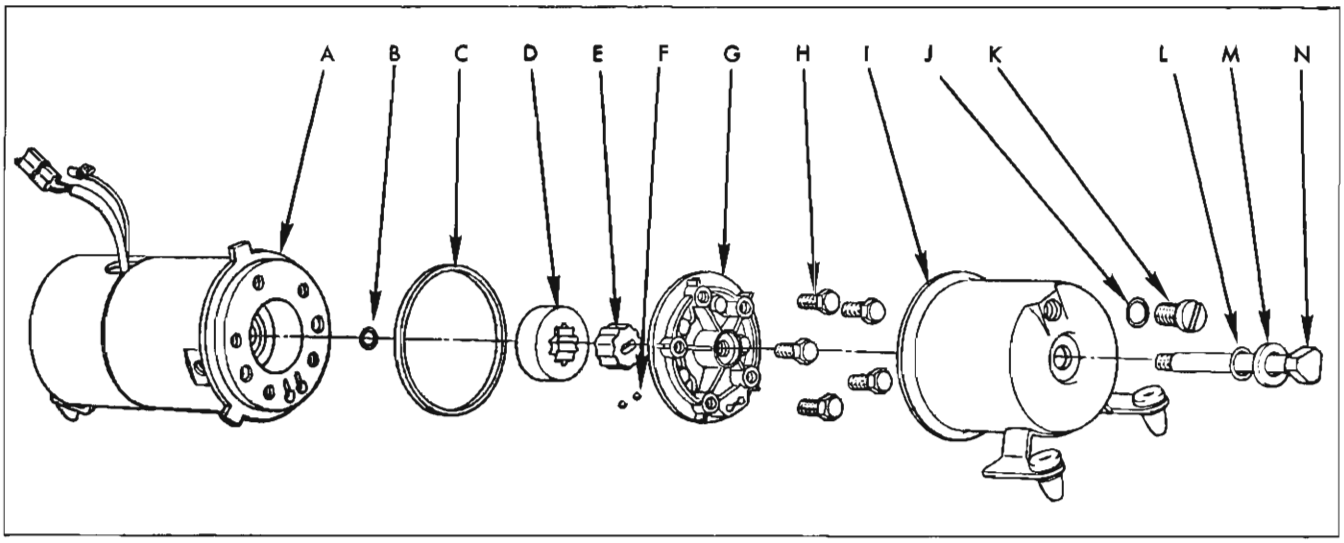


Fig. 21-46 Motor and Pump Assembly - Exploded View

11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid (Fig. 21-45). Use a cloth to absorb any leaking fluid, then remove unit from rear compartment.

INSTALLATION

1. If a replacement unit is being installed, fill reservoir unit with specified Delco No. 11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super No. 11, or its equivalent). See FILLING RESERVOIR.

2. Connect hydraulic hoses, engage attaching grommets in panel and connect wiring.

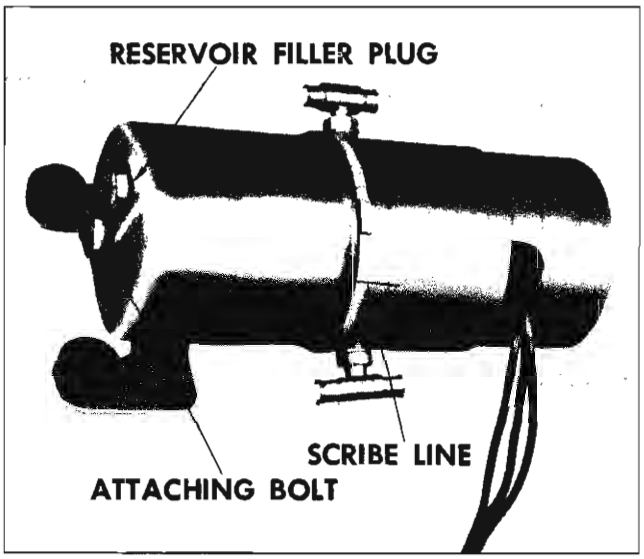


Fig. 21-47 Hydro-Lectric Assembly

3. Connect battery and operate top through its up and down cycles until all air has been "bled" from hydraulic circuit. See FILLING RESERVOIR.

4. Check connections for leaks and recheck fluid level in reservoir.

5. Install all previously removed parts.

RESERVOIR TUBE

DISASSEMBLY FROM MOTOR AND PUMP ASSEMBLY

1. Remove motor and pump assembly from body.

2. Scribe a line across pump end plate and reservoir tube to insure a correct assembly of parts (Fig. 21-47).

3. With a straight-bladed screwdriver, remove reservoir filler plug. Note sealing ring around plug.

4. Drain fluid from reservoir into a clean container.

5. With suitable tool, remove bolt from end of assembly and remove reservoir tube. Note sealing rings around bolt and between end of reservoir tube and pump cover plate assembly.

ASSEMBLY TO MOTOR AND PUMP ASSEMBLY

1. Position sealing ring on pump and 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.

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:

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. 21-48. The action of the pump rotors forces the fluid under pressure to the bottom of each cylinder forcing the piston upward. This action causes the fluid above the piston in each cylinder to be forced into the pump, which recirculates the fluid to the bottom of the cylinders. The additional fluid required to fill the cylinder due to piston rod displacement is drawn from the reservoir.

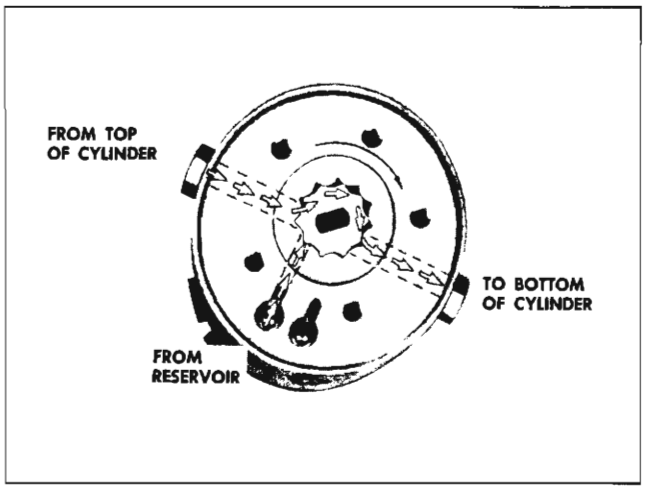


Fig. 21-48 Pump Operation - Raise Top

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. 21-49. 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 arm installed in the pump cover plate, and two steel balls. Fig. 21-50 shows the top surface of the pump cover plate. The dotted lines indicate the cavities on the bottom side of the coverplate. The cavities

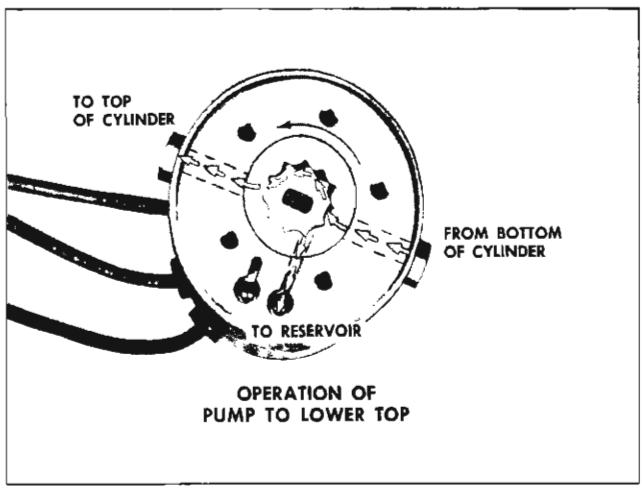


Fig. 21-49 Pump Operation - Lower Top

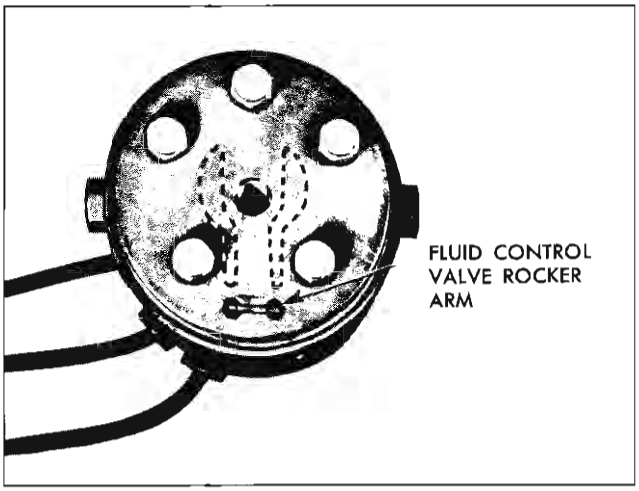


Fig. 21-50 Pump Cover Plate

are designed to permit fluid flow between pump rotors and the reservoir. Fig. 21-51 and Fig. 21-52 illustrate 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 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 window, ventilators

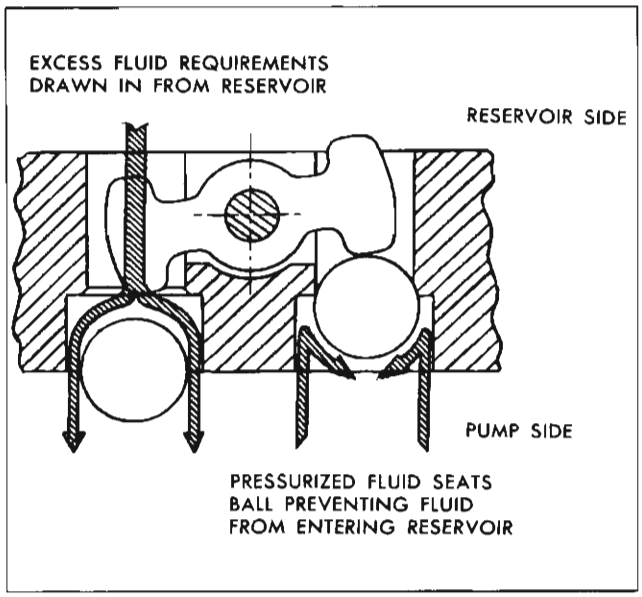


Fig. 21-51 Fluid Control Valve

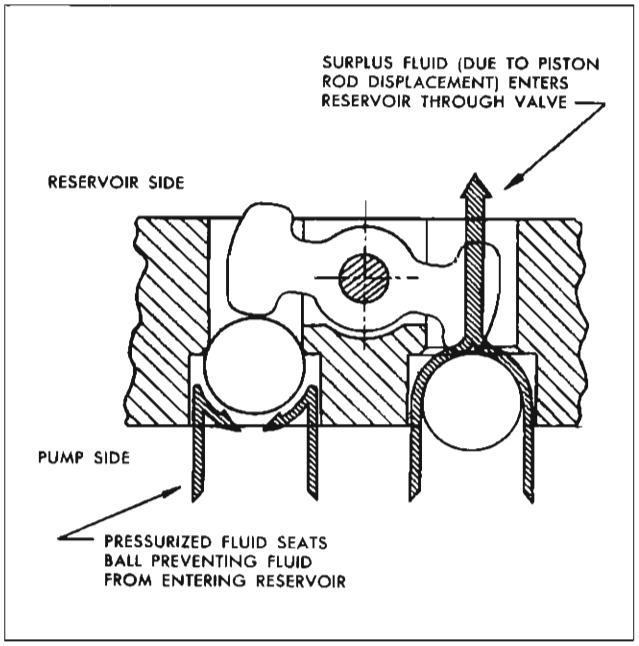


Fig. 21-52 Fluid Control Valve

and rear quarter windows with relation to the side roof rail weatherstrips. Make all necessary adjustments for correct top alignment, see FOLDING TOP ADJUSTMENTS. If a failure continues to exist after a check for mechanical failure has been completed, the hydro-lectric system should then be checked for electrical or hydraulic failures.

ELECTRICAL CHECKING PROCEDURE

If a failure in the hydro-lectric system continues to exist after the mechanical operation has been checked, the electrical system should then be checked. A failure in the electrical system may be caused by a low battery, breaks in wiring, faulty connections, mechanical failure of an electrical component, or wires or components shorting to one another or to body metal. Before beginning checking procedures, check battery according to recommended procedure.

CHECKING CURRENT AT 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 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 (Fig. 21-53)

If switch is found to be operating properly, the switch to motor lead wires can be checked as follows:

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.

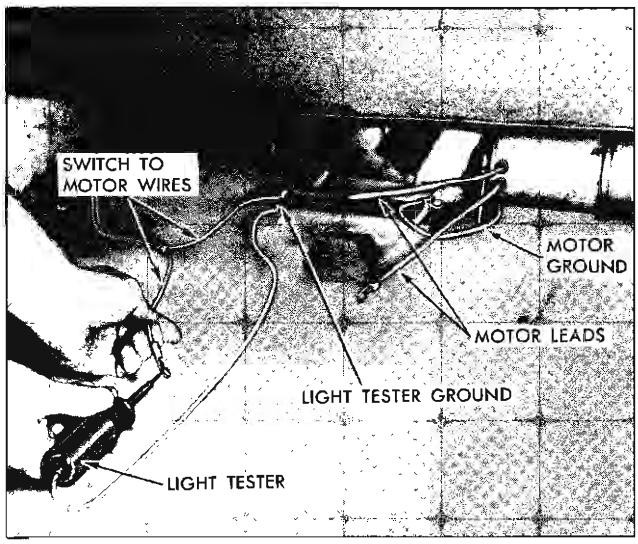


Fig. 21-53 Checking Motor Wiring

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 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. 21-45).

2. Connect a No. 12 jumper wire from battery positive pole to motor lead terminal that connects to green switch-to-motor wire. The motor should operate to lower top.

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 of 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 Delco No. 11 Hydraulic Fluid (GM Hydraulic Brake Fluid Super No. 11, or its equivalent) to bring to specified level (see FILLING 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 uncoordinated 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 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 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 PUMP PRESSURE

1. Remove motor and pump assembly from rear compartment.

2. Install plug in one port, and pressure gauge in port to be ckecked (see Fig. 21-54).

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.

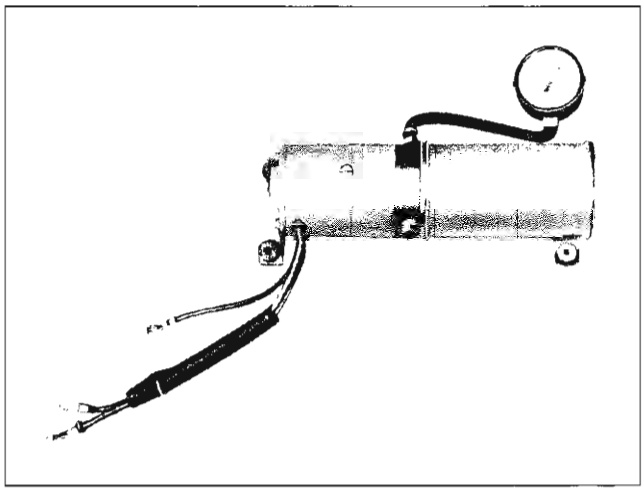


Fig. 21-54 Checking Pump Pressure

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 pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

PONTIAC FOLDING TOP LIFT CYLINDER

REMOVAL AND INSTALLATION

1. Lock top to windshield header.

2. Disconnect positive battery cable to prevent accidental operation of motor and pump, particularly when hydraulic hoses are disconnected from cylinder.

3. Remove rear seat cushion and seat back.

4. Remove folding top compartment side trim panel assembly on side affected.

5. Fully raise door and rear quarter window on side affected to provide support for side roof rail assembly.

6. Remove attaching nut, bolt, bushing and washer from upper end of cylinder (Fig. 21-55).

7. Remove side roof rear rail to male hinge attaching nut and bolt (Fig. 21-55).

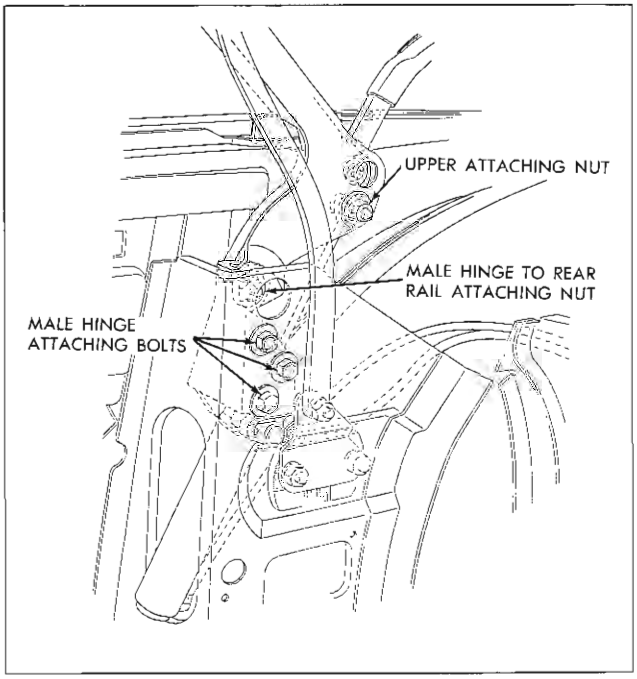


Fig. 21-55 Left Cylinder Removal

8. Mark location of male hinge attaching bolt washers on folding top compartment brace and remove folding top male hinge attaching bolts (Fig. 21-55).

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. Prior to disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid.

12. Disconnect hydraulic connections from old cylinder and transfer to new cylinder assembly.

13. Assemble new cylinder to male hinge.

14. Assemble male hinge to top compartment brace using previously removed attaching bolts (Fig. 21-55).

15. Connect positive battery cable to battery terminal.

16. Using power, raise cylinder piston rod to extended position.

17. Attach upper end of cylinder to folding top linkage using previously removed nut, bolt, bushing and washer.

18. 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.

19. Operate folding top assembly down and up several times, then check and correct level of hydraulic fluid in reservoir (see FILLING RESERVOIR).

TEMPEST FOLDING TOP LIFT CYLINDER

REMOVAL AND INSTALLATION

1. Lock top to windshield header.

2. Disconnect positive battery cable to prevent accidental operation of motor and pump, particularly when hydraulic hoses are disconnected from cylinder.

3. Remove rear seat cushion and seat back.

4. Remove folding top compartment side trim panel assembly on side affected.

5. Remove attaching nut, bolt, bushing and washer from upper end of cylinder.

6. Remove inner and outer bolt securing cylinder to male hinge (Fig. 21-56).

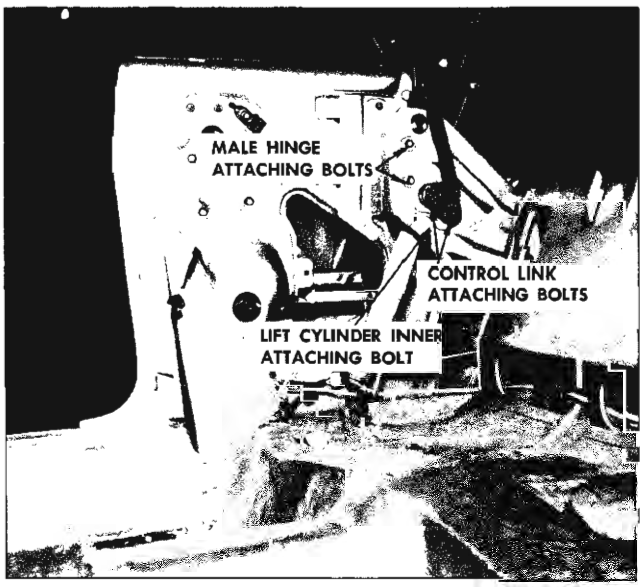


Fig. 21-56 Tempest Control Link Adjustment

7. Carefully move cylinder to inboard side of top compartment brace, exposing upper and lower hydraulic hose to cylinder connections.

8. Prior to disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid.

9. Disconnect hydraulic connections from old cylinder and transfer to new cylinder assembly.

10. Install new cylinder to male hinge.

11. Connect positive battery cable to battery terminal.

12. Using power, raise cylinder piston rod to extended position.

13. Attach upper end of cylinder to folding top linkage using previously removed nut, bolt and bushing and washer.

14. Operate folding top assembly down and up several times; then check and correct level of hydraulic fluid in reservoir (see FILLING RESERVOIR).

FILLING 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.

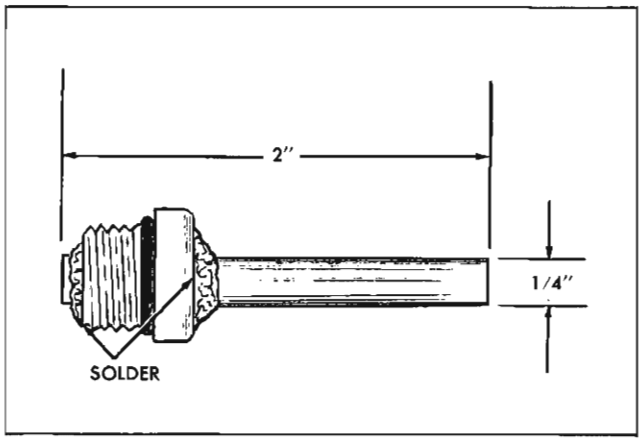


Fig. 21-57 Filler Plug Adapter

2. Install 2" length of metal tubing (1/4" O.D. x 3/16" I.D.) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection (Fig. 21-57).

FILLING AND BLEEDING RESERVOIR

1. With top in raised position, remove folding top compartment bag material from rear seat back panel. Remove pump and motor shield, where present.

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, fill reservoir to specified level with hydraulic fluid as a bench operation. 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" I.D. rubber tubing or hose to filler plug tubing.

4. Install opposite end of hose into a container of GM Hydraulic Brake Fluid Super No. 11 or equivalent (see Fig. 21-58).

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.

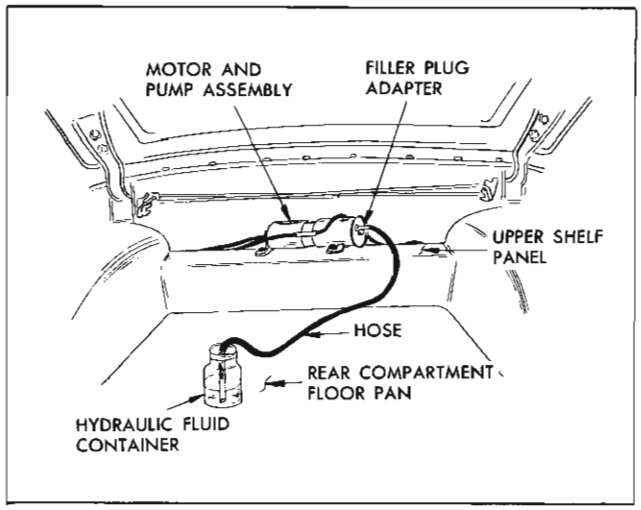


Fig. 21-58 Filling Reservoir

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" lower edge of filler plug hole.

BUCKET TYPE FRONT SEATS

CONTENTS OF THIS SECTION

DESCRIPTION

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.

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 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. 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—MANUAL (Driver or Passenger Side)

REMOVAL AND INSTALLATION

1. Operate seat to rearward position.

2. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts.

3A. On Pontiac styles remove adjuster-to-floor pan front attaching nuts or bolts.

3B. On Tempest styles, loosen adjuster-to-floor pan front attaching bolt.

4. Operate seat to full forward position. At rear of seat, remove adjuster-to-floor pan attaching nuts or bolts.

5A. On Pontiac styles, with aid of helper, remove seat assembly from body.

5B. On Tempest styles, carefully slide seat assembly rearward until adjusters have been removed from under front floor pan attachments; then remove seat assembly from body.

6. To install, reverse removal procedure. On Tempest styles, 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—PONTIAC TWO-WAY POWER OPERATED (Driver or Passenger Side)

REMOVAL AND INSTALLATION

1. Operate seat 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 from body.

8. To install, reverse removal procedure. Check seat adjusters for proper operation.

BUCKET SEAT—TEMPEST FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

1. Operate seat to rearward position

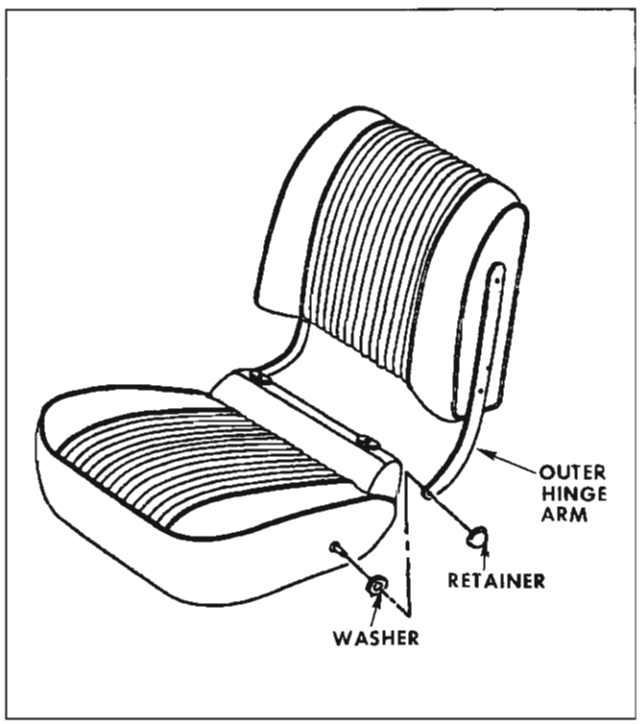


Fig. 22-1 Bucket Seat Back Removal

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 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 rearward until adjusters have been removed from under front floor pan attachments; then remove seat 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.

BUCKET SEAT—PONTIAC FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

1. Operate seat 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 to full forward position.

5. At rear of seat, remove adjuster to floor pan

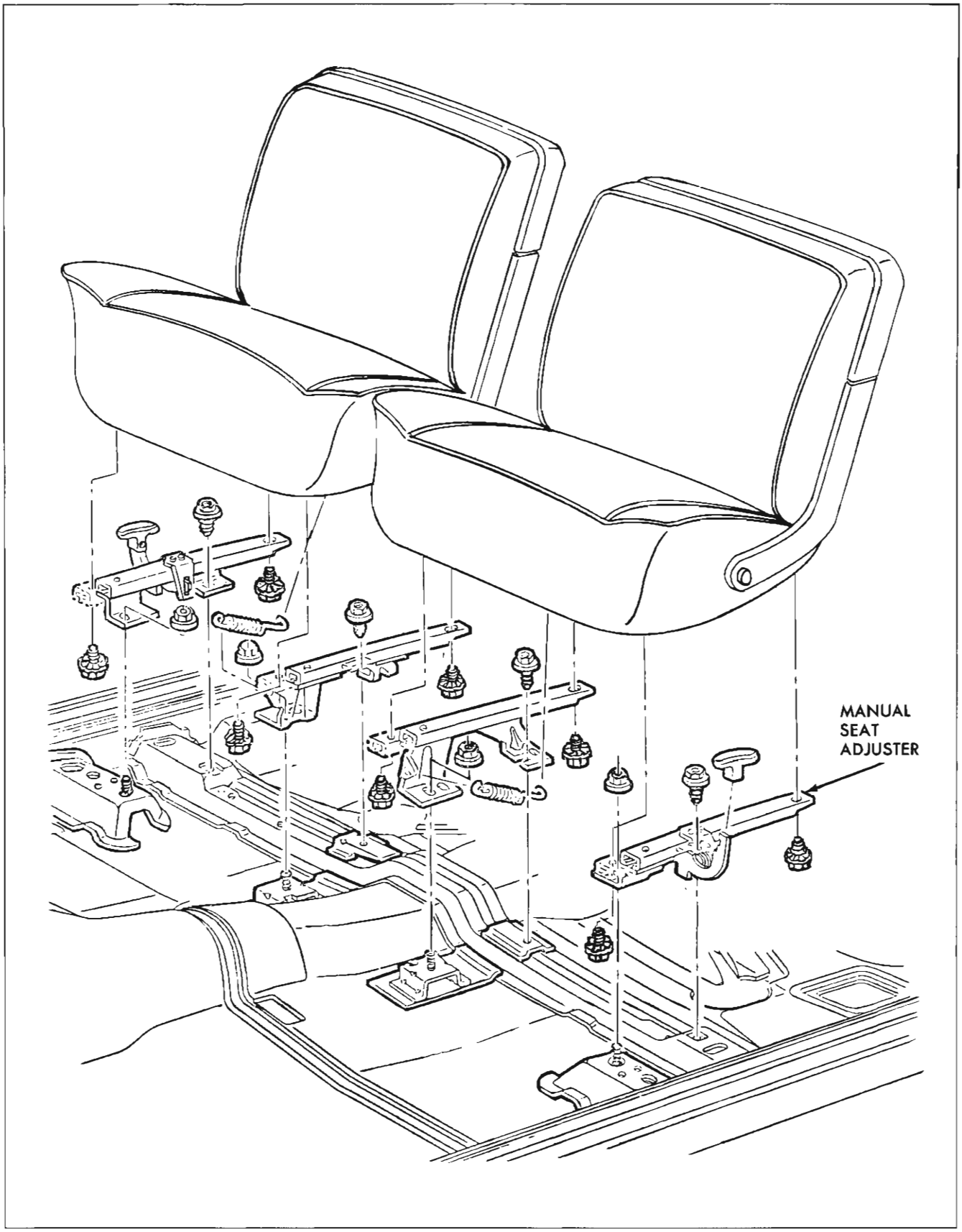


Fig. 22-2 Seat Back Removed

and adjuster-to-inner support attaching nuts or bolts.

6. Disconnect wiring harness from seat control switch and from actuator motor.

7. Remove seat with attached adjusters from body.

8. To install, reverse removal procedure. After seat has been installed, check seat adjusters for proper operation.

SEAT BACK—TEMPEST

REMOVAL AND INSTALLATION

1. Using a flat-bladed tool, carefully remove retainer from outer hinge pin (Fig. 22-1).

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.

SEAT BACK—PONTIAC

REMOVAL AND INSTALLATION

1. On all styles, using a flat-bladed tool, carefully remove retainer from outer hinge pin (Fig. 22-2).

2. Tilt seat back forward and remove retainer from inner hinge pin (Fig. 22-2).

3. Carefully disengage front seat back outer hinge arm from pin.

4. Move entire seat back inboard until inner hinge pin is disengaged from extension on seat; then, remove seat back from body.

5. To install, reverse removal procedure. Prior to installation of back, be sure inner and outer washers are installed over the hinge pins. (Fig. 22-2). In addition, inspect hinge arm retainer. If retainer is damaged, replace retainer with new part.

SEAT ADJUSTERS—Manual or Two-Way Power-Operated (Driver or Passenger Side)

REMOVAL AND INSTALLATION

1. Remove front seat 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. 22-3).

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.

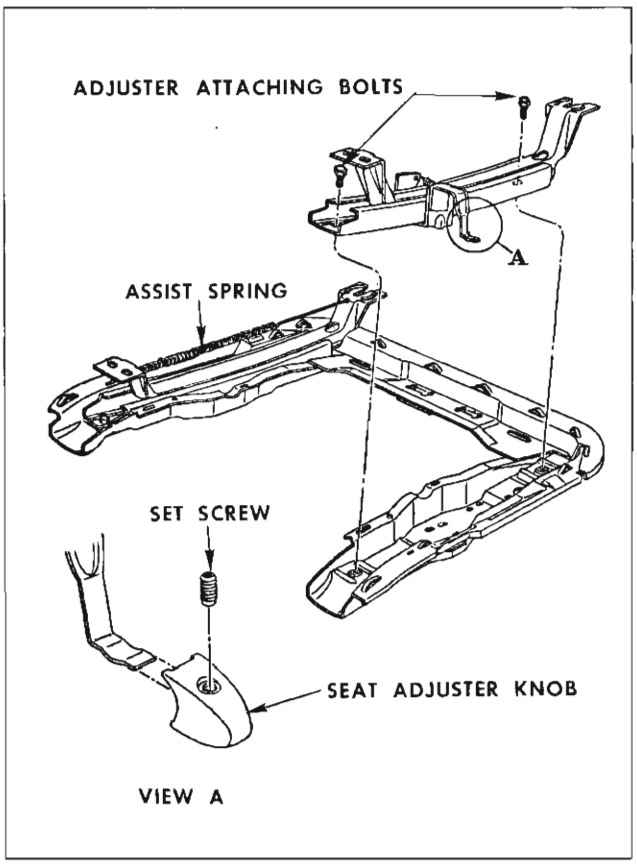


Fig. 22-3 Manual Bucket Seat Adjuster

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly (Fig. 22-3).

6. To install, reverse removal procedure.

On Pontiac styles equipped with manual seat adjusters, be sure 1/4" spacer is installed between adjuster and seat bottom frame at front attaching locations only.

SEAT ADJUSTER—FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

1. Operate seat to fully raised and midway horizontal position.

2. Remove bucket seat 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 and rear attaching bolts.

5. Remove nuts securing motor and transmission support to adjuster (See Fig. 22-4 for outboard adjuster and Fig. 22-5 for inboard adjuster).

6. Carefully disengage adjuster from support and torque tube assembly; then remove adjuster from seat.

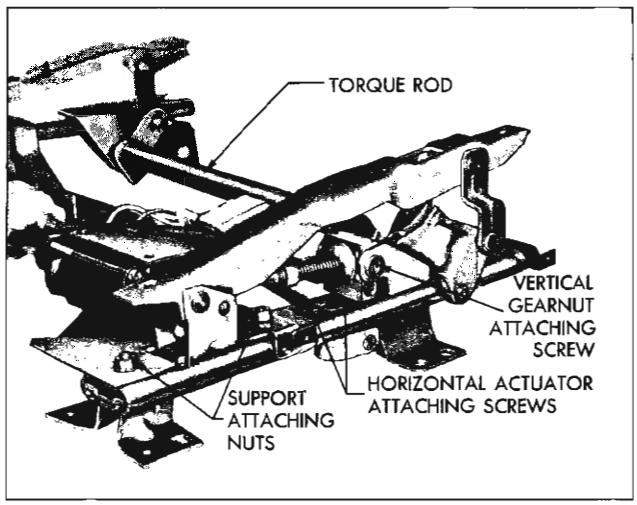


Fig. 22-4 Adjuster Mechanism

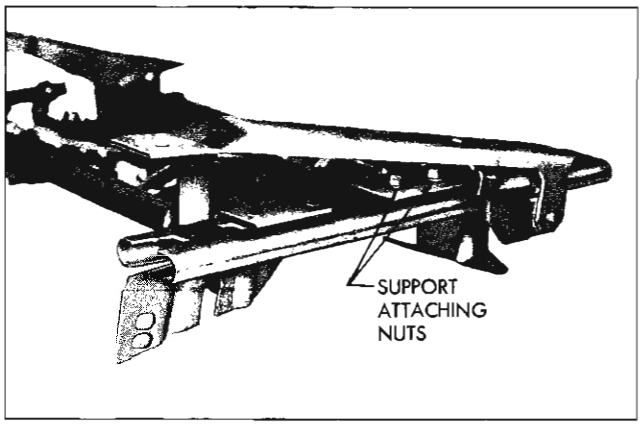


Fig. 22-5 Inboard Bucket Seat Adjuster

7. To install, reverse removal procedure. Check seat adjuters for proper operation.

SEAT ADJUSTER VERTICAL GEARNUT—FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

1. Operate seat to fully raised and midway horizontal position.

2. Remove front seat 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. 22-6).

4. Remove jackscrew "down" stop from jackscrew (Fig. 22-6).

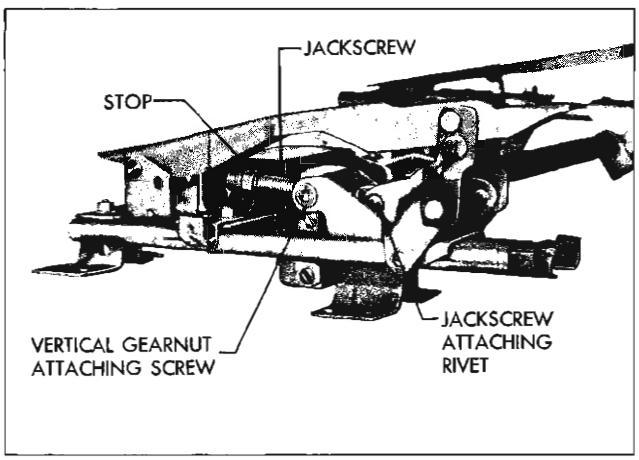


Fig. 22-6 Outboard Bucket Seat Adjuster

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.

SEAT ADJUSTER JACKSCREW—FOUR-WAY TILT (Driver 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 (Fig. 22-6).

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.

SEAT ADJUSTER HORIZONTAL ACTUATOR—FOUR-WAY TILT (Driver 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. 22-4).

3. Using a portable power source, actuate vertical gearnut until gearnut is against "down" stop on jackscrew assembly.

4. Disconnect drive cable from actuator.

5. Remove screws securing horizontal actuator to adjuster lower track; then remove actuator from adjuster assembly. (Fig. 22-4).

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.

SEAT ADJUSTER ELECTRIC MOTOR—FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

1. Remove front seat as previously described.

2. Disconnect wire harness from motor relay. (Fig. 22-7).

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. 22-7).

SEAT ADJUSTER HORIZONTAL AND VERTICAL CABLES—FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

1. Remove front seat 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 (Fig. 22-7).

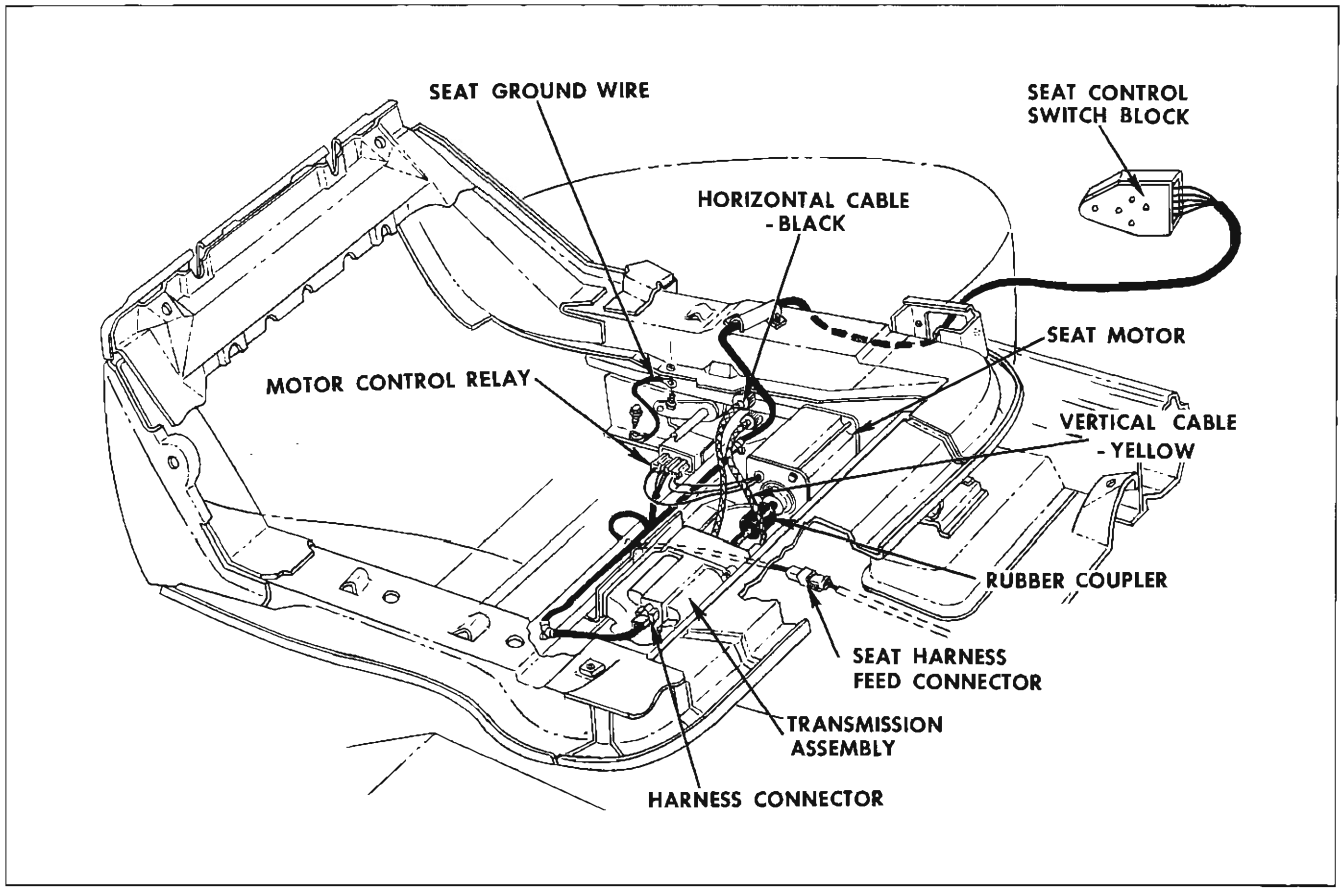


Fig. 22-7 4-Way Seat Installation

4. Disengage cable to be replaced from end plate.

5. To install cables, reverse removal procedure.

SEAT ADJUSTER TRANSMISSION— FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

1. Remove front seat 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. 22-7).

3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.

4. Remove transmission to support attaching bolts; then, disengage transmission from rubber coupler and remove transmission from seat.

5. To install, reverse removal procedure.

TRANSMISSION DISASSEMBLY AND ASSEMBLY

1. Remove front seat adjuster transmission from seat.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission (Fig. 22-8).

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—FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

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

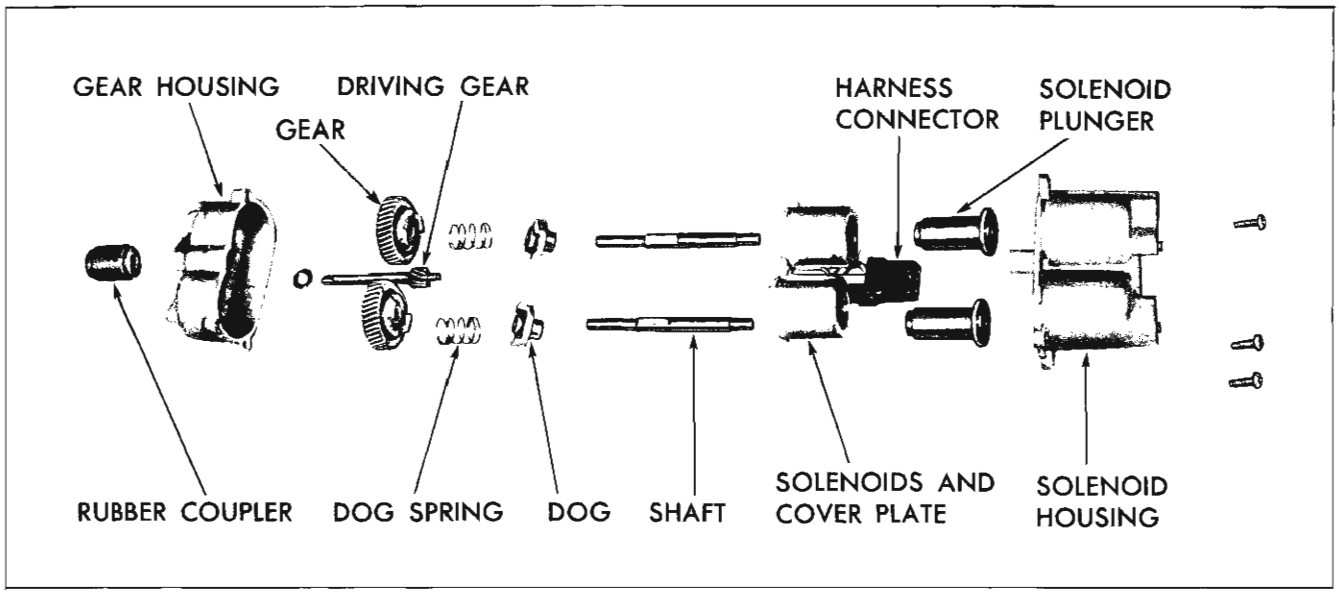


Fig. 22-8 4-Way Seat Transmission

2. Remove adjuster to seat bottom frame front and rear attaching bolts.

3. Remove nuts securing motor and transmission support to inboard adjuster (Fig. 22-5).

4. Carefully disengage adjuster from support and torque tube; then, remove adjuster from seat.

5. Disengage torque tube from opposite adjuster and remove tube from seat.

6. To install, reverse removal procedure. Check seat adjuster for proper operation.

MOTOR AND TRANSMISSION SUPPORT—FOUR-WAY TILT (Driver Side Only)

REMOVAL AND INSTALLATION

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

2. Remove nuts securing support to both adjusters. (See Fig. 22-4 for outboard adjuster and Fig. 22-5 for inboard adjuster).

3. Carefully remove support from adjusters with attached motor, transmission and relay.

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 Side Only)

REMOVAL AND INSTALLATION

1. Remove front seat 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.

4. To install, reverse removal procedure.

ROOF PANEL FABRIC COVER

CONTENTS OF THIS SECTION

DESCRIPTION

The roof panel fabric cover is a vinyl coated facric covering applied to the roof panel. The fabric covering is made of three parts with dielectrically joined center section to side section seams.

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

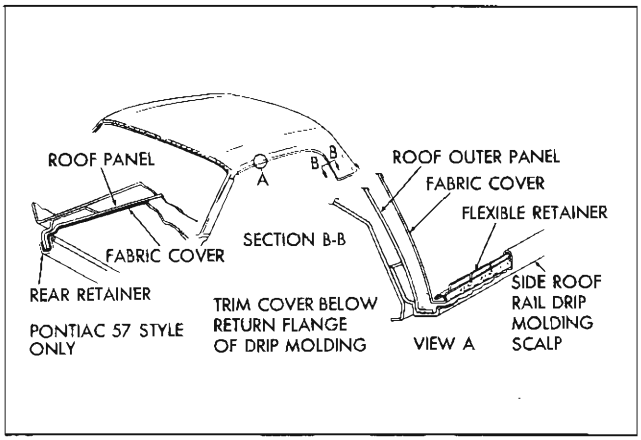


Fig. 23-1 Fabric Roof Cover - Pontiac

FABRIC COVER REMOVAL AND INSTALLATION

REMOVAL

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

   a. Windshield assembly.

   b. Back window assembly.

   c. Windshield pillar finishing moldings.

   d. Roof drip molding scalps.

   e. Rear quarter belt reveal moldings.

   f. Roof extension panel emblem and/or plate assembly.

2. Clean off all excess sealer from windshield and back window openings.

3. Remove drive nails from edge of fabric cover at windshield and back window openings. At roof panel extension (at belt) remove drive nails.

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

4. Remove flexible retainers securing fabric cover inside right and left drip moldings (view A, Fig. 23-1 or view D, Fig. 23-2). The retainers may be removed by inserting tip of screwdriver or similar tool under retainer at front of drip molding. While exerting slight outward force on drip molding with pliers, disengage fingers of retainer from drip molding flange. Do not damage drip molding. On 2957 style, remove fabric cover rear retainer at rear quarter window area (see section B-B, Fig. 23-1).

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

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

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

IMPORTANT: On 2839 style exercise care when removing fabric cover so felt pad will not be damaged.

7. Pontiac styles only, inspect felt padding and, if necessary, replace damaged area. Felt padding (1/16") should be used for replacement. Padding may be removed by applying xylol solvent such as

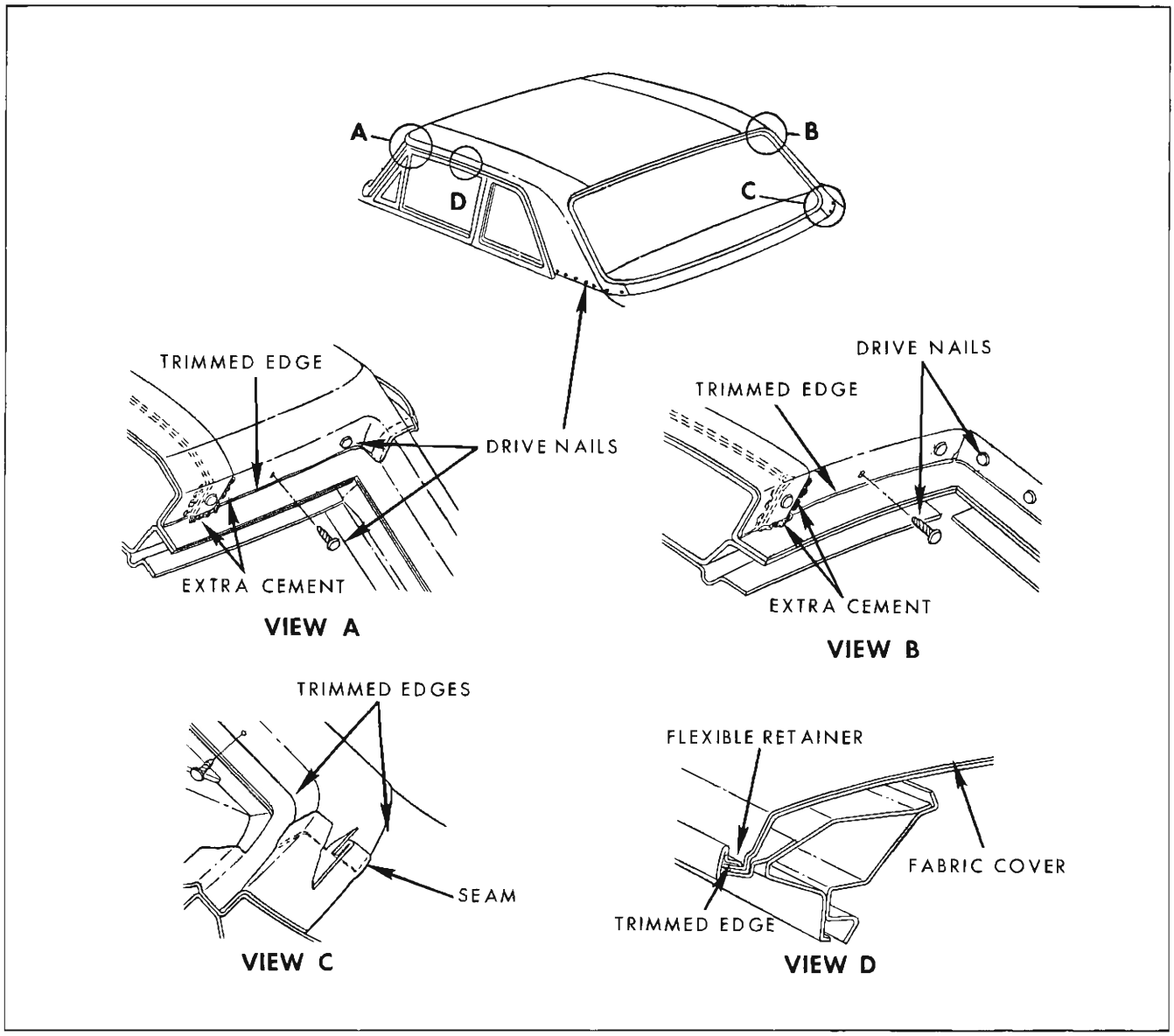


Fig. 23-2 Fabric Roof Cover - Tempest

3M Adhesive Cleaner to affected area. Allow solvent to dissolve adhesive and remove padding. Exercise care to avoid excessive damage to paint finish.

8. Pontiac styles only, replace felt pad by cementing felt pad to roof panel with nitrile vinyl trim adhesive.

9. Tempest styles only, completely mask pinch-weld flange of windshield and back window openings. Solvents and adhesive will affect the bond of the adhesive caulking material.

INSTALLATION

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

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

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

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

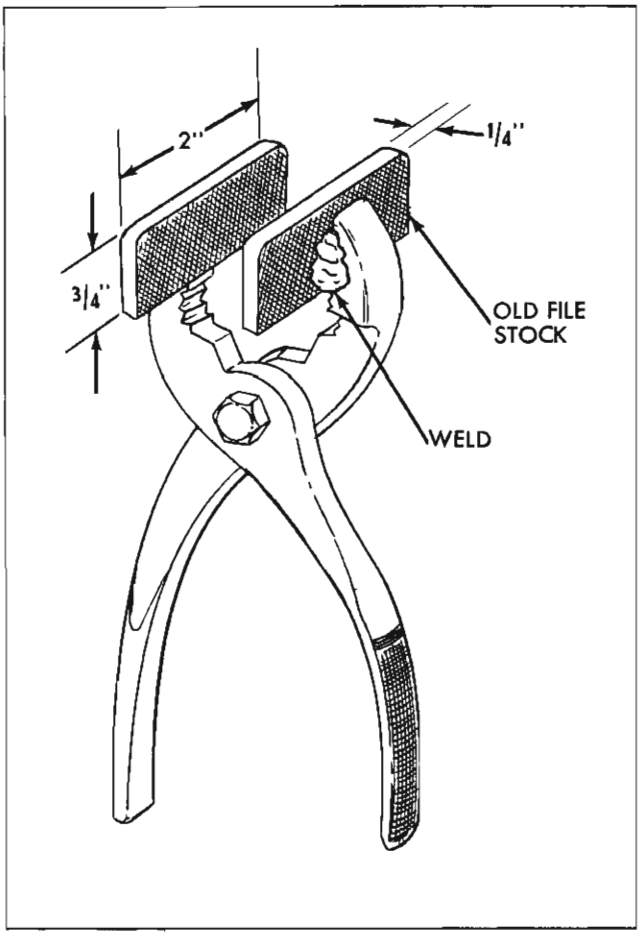


Fig. 23-3 Fabric Cover Pliers

NOTE: Where new cover is installed at temperatures below 72°, pliers fabricated as shown in Fig. 23-3 will aid in removing wrinkles.

3. Determine center line of roof panel by marking center points on windshield and back window openings with chalk or equivalent.

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

5. Lay cover on roof panel and align to correspond with center line of roof panel. Determine proper material overhang at windshield and back window openings.

6. On styles with felt pad, position and install fabric cover as follows:

a. Apply nitrile vinyl trim adhesive thin as possible to inner perimeter of fabric cover (3M Vinyl Trim Adhesive, Parmalastic Vinyl Trim Adhesive or equivalent). Allow to dry for fifteen minutes.

NOTE: If nitrile adhesive is not available, use neoprene type non-staining weatherstrip cement (3M Super Weatherstrip Cement or equivalent). Do not allow drying period.

IMPORTANT: No cement should come in contact with felt pad.

b. Install a drive nail at back window opening at each seam location. View A in Fig. 23-6 is typical of both seam locations at windshield and back window openings.

NOTE: When installing drive nails, it is best to first use an awl or similar tool to start a hole in

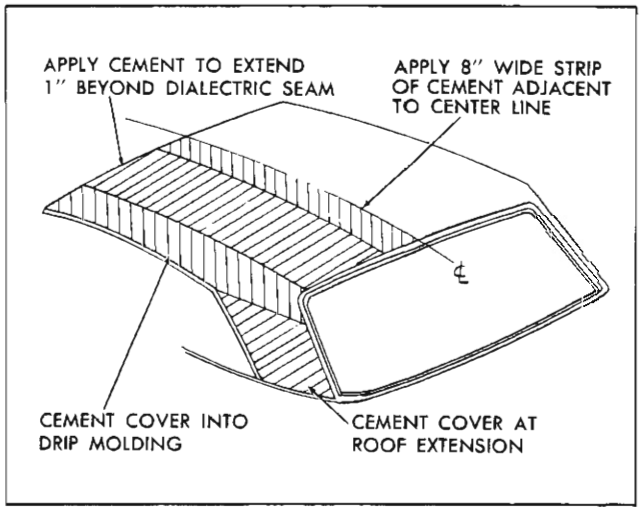


Fig. 23-4 Cementing Cover - Pontiac

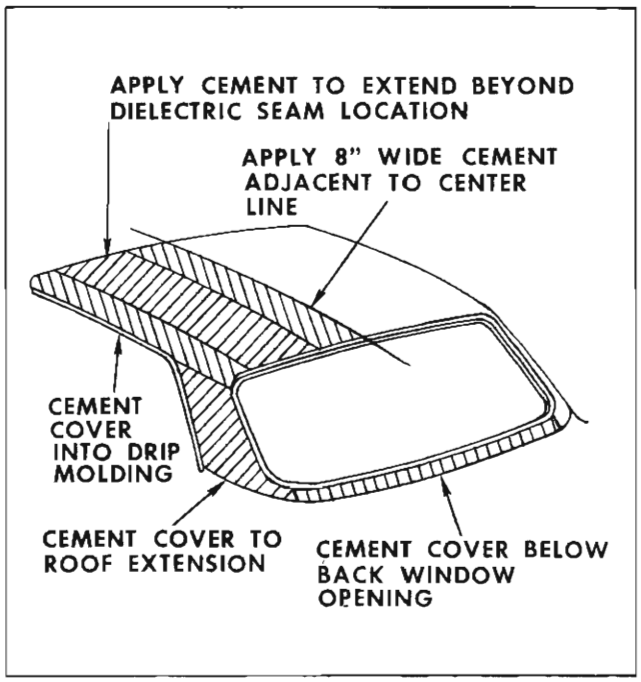


Fig. 23-5 Cementing Cover - Tempest

metal. Drive nails at seam locations should be installed only far enough to hold cover, since repositioning of the cover may be necessary. Installation of drive nails should also be as low as possible in windshield and back window opening to prevent cutting edge of fabric cover by hammer blows.

c. Apply extra bead of cement to each side of dielectric seams between fabric cover and roof panel at windshield and back window openings (view A, Fig. 23-6).

d. At front of body, carefully stretch fabric cover forward and install a drive nail in windshield opening at each seam location.

e. Carefully smooth out cover to each side roof rail and attach cover (cement only). Check fit of cover.

f. Pull fabric cover down and rearward at right rear quarter area and fasten (cement only) into back window opening. Also stretch and fasten cover (cement only) at rear quarter window. When operation is completed, fabric cover should be free of all wrinkles and draws in this area.

g. Repeat step f. at left rear quarter area.

h. Check fabric cover center to side section seams. Seams should be straight. Where necessary, adjust cover along side roof rails.

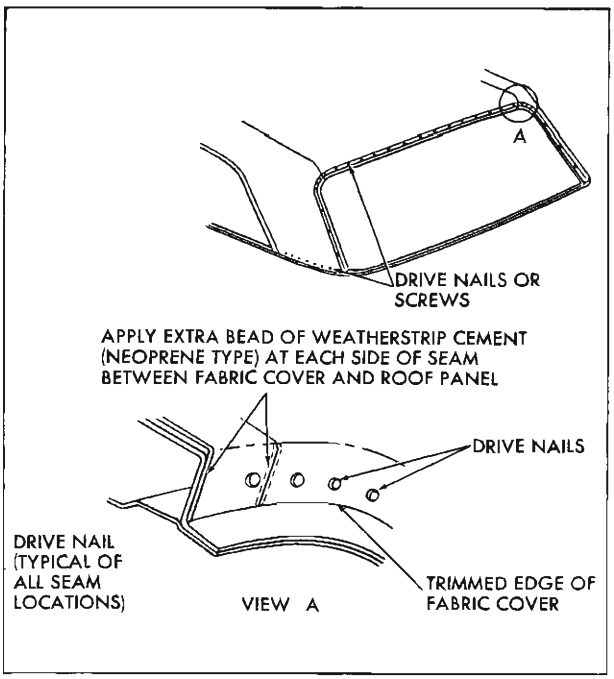


Fig. 23-6 Drive Nail Installation

i. Install cover into roof drip moldings. Be sure center to side section seams are straight after cover has been installed.

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

7. On styles without felt pad, position and install fabric cover as follows:

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

b. Apply nitrile non-staining vinyl trim adhesive such as 3M Vinyl Trim Adhesive, Permalastic Vinyl Trim Adhesive or the equivalent to entire inner layer of fabric cover. Allow to dry for minimum of fifteen minutes.

If nitrile non-staining cement is not available, neoprene type non-staining weatherstrip cement (3M Super Weatherstrip Cement or equivalent) may be used. Instead of applying neoprene cement to entire inner layer of cover in one application, a step procedure is used as shown in Fig. 4 (Pontiac) or 5 (Tempest). Begin by applying an 8" wide strip of cement adjacent to center line of fabric cover.

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

c. Fold cover on center line with inner layer of cover exposed and place on roof panel adjacent to center line. Apply an 8" wide strip of cement (nitrile or neoprene) on roof panel adjacent to center line of roof panel (Fig. 23-4 or 23-5).

d. With aid of helper, slide folded cover to center line of roof panel. Holding fabric cover securely at windshield and back window opening, turn over folded half of fabric cover and fasten to cemented portion of roof panel.

NOTE: This operation should center fabric cover on roof panel. Center marks on windshield and back window openings must correspond to center marks on fabric cover.

e. Once 8" strip of fabric cover is cemented to roof panel, fold over side portion of fabric cover. Apply nitrile cement to roof panel to extend approximately 1" beyond dielectric seam location. If neoprene type weatherstrip cement is used, apply cement to fabric cover and roof panel to extend 1" beyond dielectric seal location.

IMPORTANT: Application of cement should not overlap with previously cemented area, as "highlighting" of excess cement through fabric cover will result.

f. Cement prepared portion of fabric cover to roof panel making certain dielectric seam is straight.

g. Cement fabric cover to side portion of roof panel (except rear quarter area) and drip molding.

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

h. Cement fabric cover in rear quarter area. Be certain fabric cover is cemented at emblem or plate assembly attaching locations.

i. Repeat steps e, f, g and h on right side.

j. At windshield and back window openings cement cover into opening as shown in view A, Fig. 23-4. Apply extra bead of cement to each side of dielectric seam between fabric cover and roof panel at windshield and back window openings. (view A, Fig. 23-6).

8. Using hammer and flat end punch install drive nails at windshield and back window openings. View A in Fig. 23-6 shows typical drive nail installation.

NOTE: When installing drive nails it is best to first use an awl or similar tool to initiate a hole in metal. Strike drive nails only hard enough to seat them. Installation of drive nails should also be as low as possible in windshield and back window opening. This will aid in preventing cutting edge of fabric cover due to a missed hammer blow when drive nails are installed.

9. Install drive nails at belt line of rear quarter area (Fig. 23-6).

10. Trim off material at windshield, back window and rear quarters. View A in Fig. 23-6 shows where trimmed edge should occur in openings.

NOTE: Install fabric cover at windshield pillar area in same manner as original installation.

11. Using fabric cover trimming tool J-21092 or suitable small knife, trim fabric cover just under lip of roof drip molding (view A, Fig. 23-1). A tool may be fabricated to trim material along side roof rail moldings as illustrated in Fig. 23-7.

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

13. Install flexible retainer starting at radius area above rear door or quarter window. Working toward rear of body, carefully insert retainer into drip molding so that fingers are under drip molding flange (view A, Fig. 23-1). Use fibre or wood block with slight concave end to push retainer downward. DO NOT DAMAGE RETAINER.

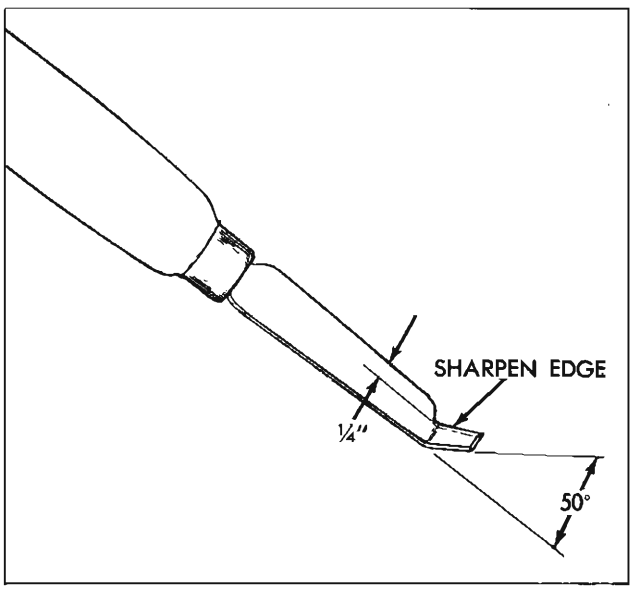


Fig. 23-7 Fabric Trimming Knife

14. On 2957 style, compress rear retainer to insure a tight fit and install on rear drip molding (section B-B, Fig. 23-1).

15. Install all previously removed moldings and assemblies.

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

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

16. Use mineral spirits, kerosene or equivalent to remove windshield and back window sealer from fabric cover.

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

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