1963 PONTIAC and TEMPEST

BODY SHOP MANUAL

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GENERAL

This manual contains the procedures for servicing bodies and chassis sheet metal on all 1963 Pontiac and Tempest cars. The information included is current as of the time of publication. Changes or additions will appear in the Service Craftsman News.

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 contents index on the right. A more detailed table of contents precedes each section and an alphabetical index is included in the back of the manual.

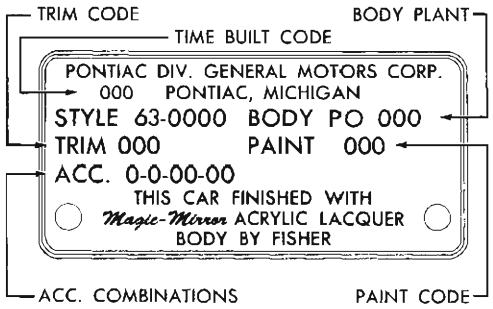
PONTIAC MOTOR DIVISION
GENERAL MOTORS CORPORATION
PONTIAC 11, MICHIGAN

S-6304-B NOVEMBER 1962 Litho in U.S.A.

Table of Contents

1963 BODY STYLES AND MODEL INFORMATION

Style, Paint and Trim identification can be obtained from the plate attached to the left side of the cowl under the rear edge of the hood.



BODY PLANTS

PO—PONTIAC	BK—KANSAS CITY
BA—DORAVILLE	BW—WILMINGTON
BL—LINDEN	BT—ARLINGTON
BC—SOUTH GATE	EP—EUCLID

The table below contains 1963 Pontiac and Tempest Body Styles and nomenclature. It may be used as reference in connection with this manual.

1963 BODY STYLES AND MODEL INFORMATION

Body Styles	Tempest		Catalina	Star Chief	Bonneville	Grand Prix
	Series 21	Series 22	Series 23	Series 26	Series 28	Series 29
Coupe—Convertible	2167	2267	2367		2867	
Sports Coupe—2 Door	2117	2217	2347		2847	2957
Coupe—2 Door	2127					
Sports Sedan—2 Door, 4 Window			2311			
Sedan—4 Door, 6 Window	2119					
Sedan—4 Door, 4 Window			2369	2669		
Vista—4 Door, 4 Window (Hard Top)			2339	2639		
Safari Station Wagon—4 Door, 2 Seat, 2nd Seat Folding			2345			
Cowl and Underbody (Heavy Duty Chassis)					2840 2850 2890	

Series	Wheelbase
21 and 22	112″
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 (Fig. 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 assembly 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 secure 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.

Seven radiator assemblies, each with a frontal core area of approximately 439 sq. in. and 2" or 2½" thick core, are used as indicated in the radiator chart in section 6A.

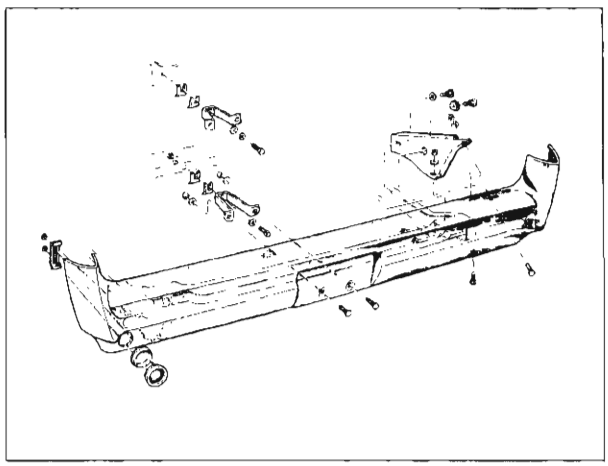


Fig. 1-1 Front Bumper Assembly—Installation Details

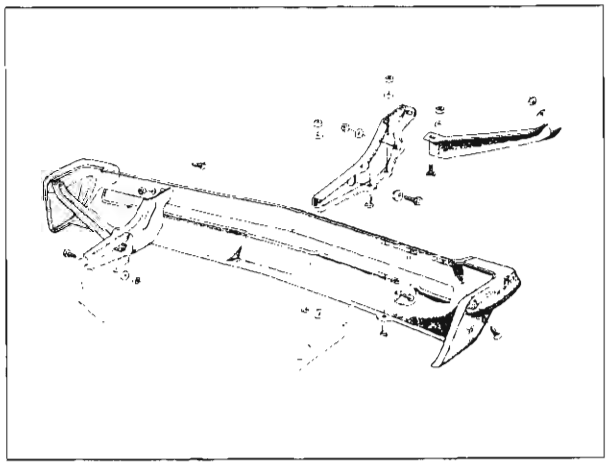


Fig. 1-2 Rear Bumper Assembly—Installation Details

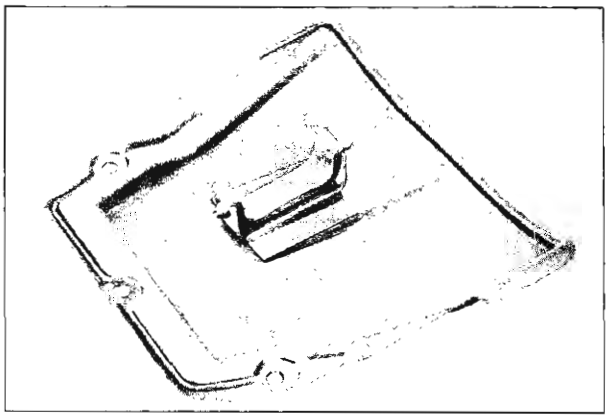


Fig. 1-3 Engine Fan Top Shield Assembly (Underside)

RADIATOR ASSEMBLY—REMOVE AND REPLACE

1. Drain radiator.

2. Remove engine fan top shield assembly. 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 assembly (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.

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

6. Remove radiator assembly by pulling straight up. Note that the radiator assembly is held at the bottom by two "cradles" secured to the radiator shroud at bottom (Fig. 1-4).

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

8. Refill radiator.

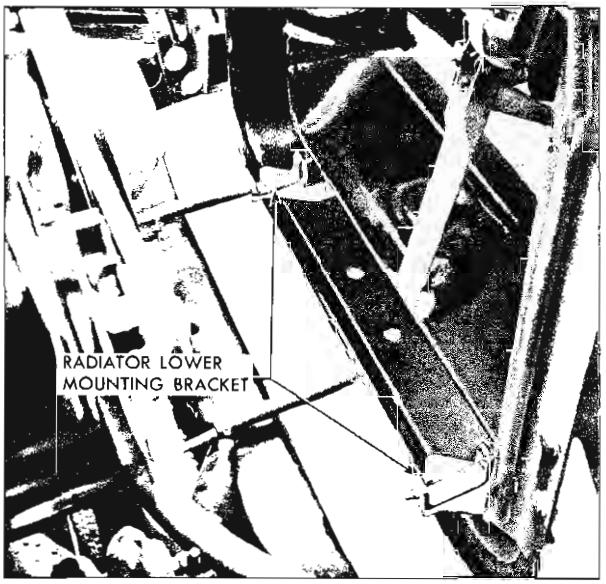


Fig. 1-4 Location of Radiator Assembly Lower Mounting Brackets

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. 1-5 and 1-6).

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 $\frac{1}{16}$" 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.

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

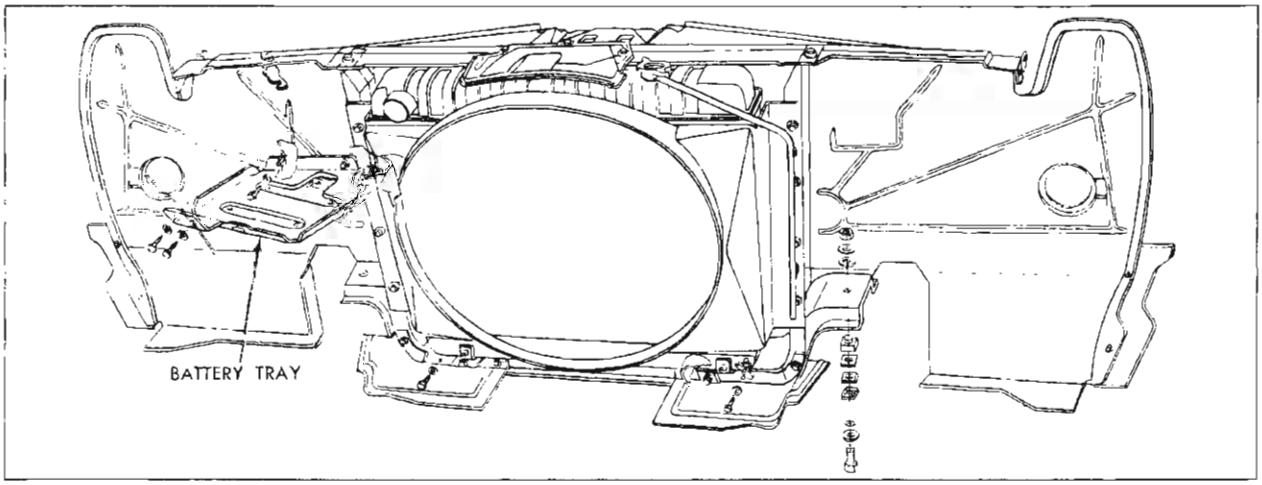


Fig. 1-5 Radiator Assembly—Installation Details

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: a latch bolt assembly (that fastens to the hood), a safety hook, and a latch assembly that fastens to the grille lower panel and radiator support assembly (Fig. 1-6).

The hood is opened by lifting release handle under front bumper bar upper section (Fig. 1-7), which in turn opens the latch.

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

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

HOOD LATCH BOLT (PILOT ASSEMBLY)—ADJUST

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

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 moulding.

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", 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.

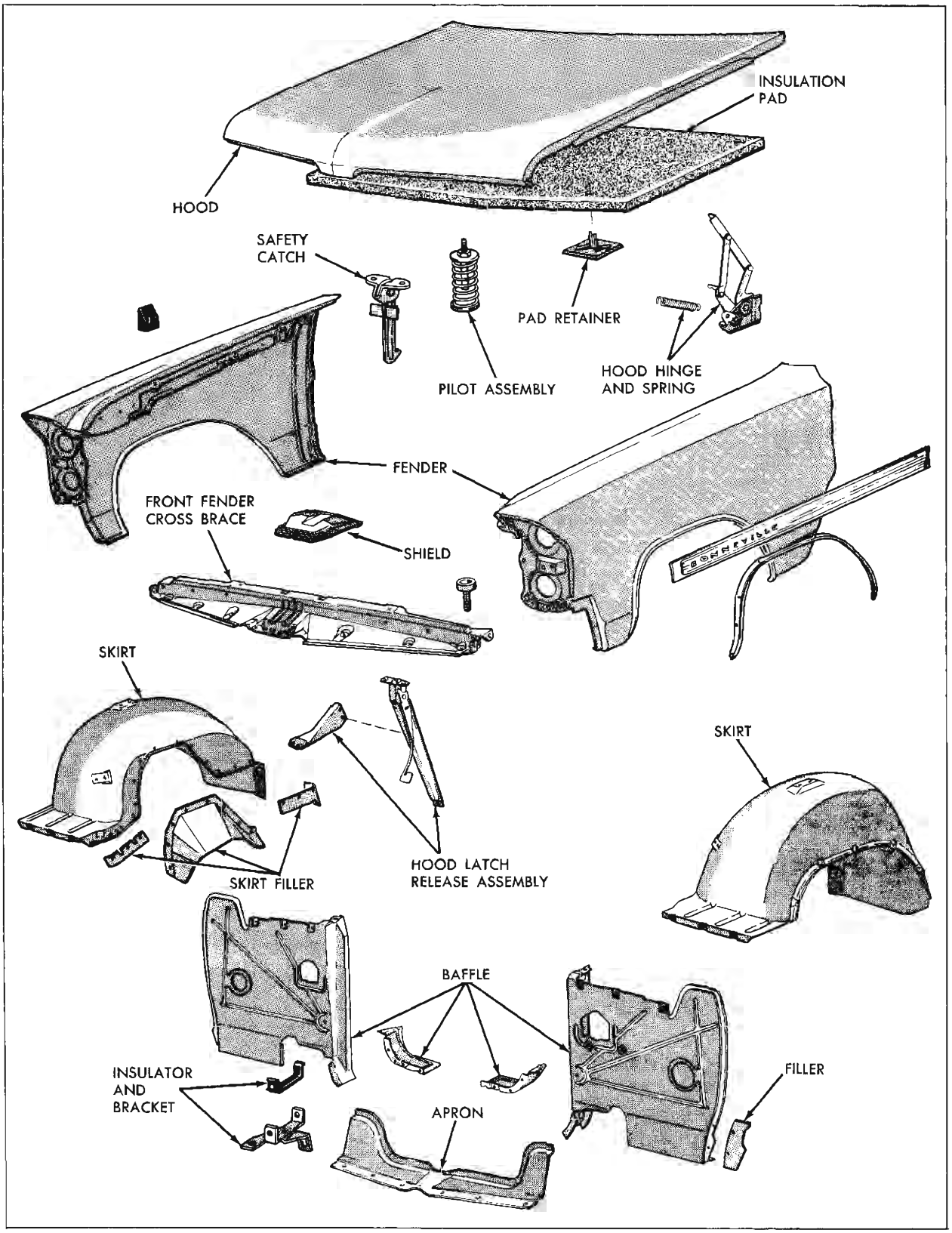


Fig. 1-6 Sheet Metal Parts—Installation Details

HOOD HINGES

The hood is mounted on gear type hinges (Fig. 1-9), 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.

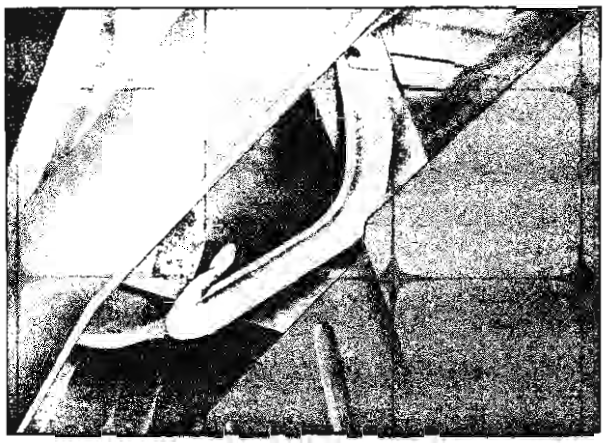


Fig. 1-7 Location of Hood Release

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 assembly be removing bumper to frame attaching bolts. Pull bumper assembly straight out.
3. Remove head lamp doors, head lamps and head lamp frames.
4. Remove three screws—lower grille panel extension to fender and remove two screws—extensions to grille and grille panel.
5. Remove one screw—grille to front fender head lamp frame.
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 assembly.
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.

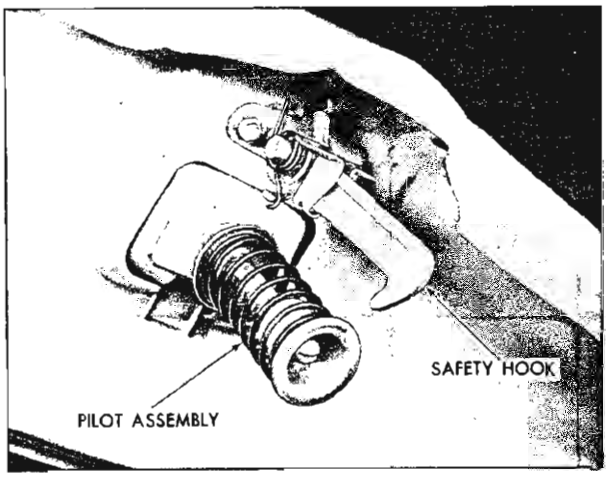


Fig. 1-8 Pilot Assembly and Safety Latch

GRILLE ASSEMBLY—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.

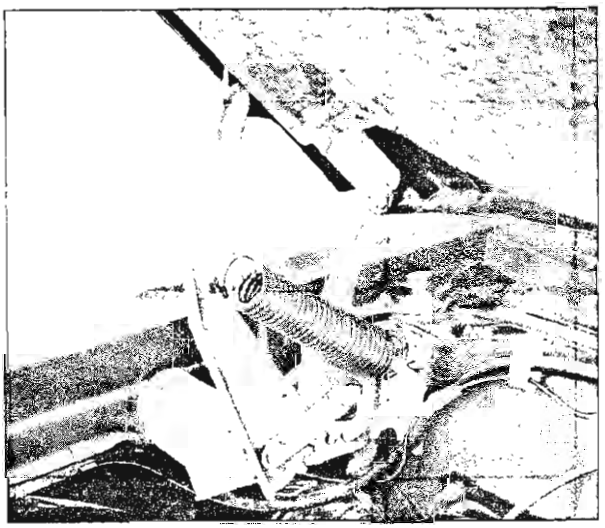


Fig. 1-9 Hood Hinge (Right Side)

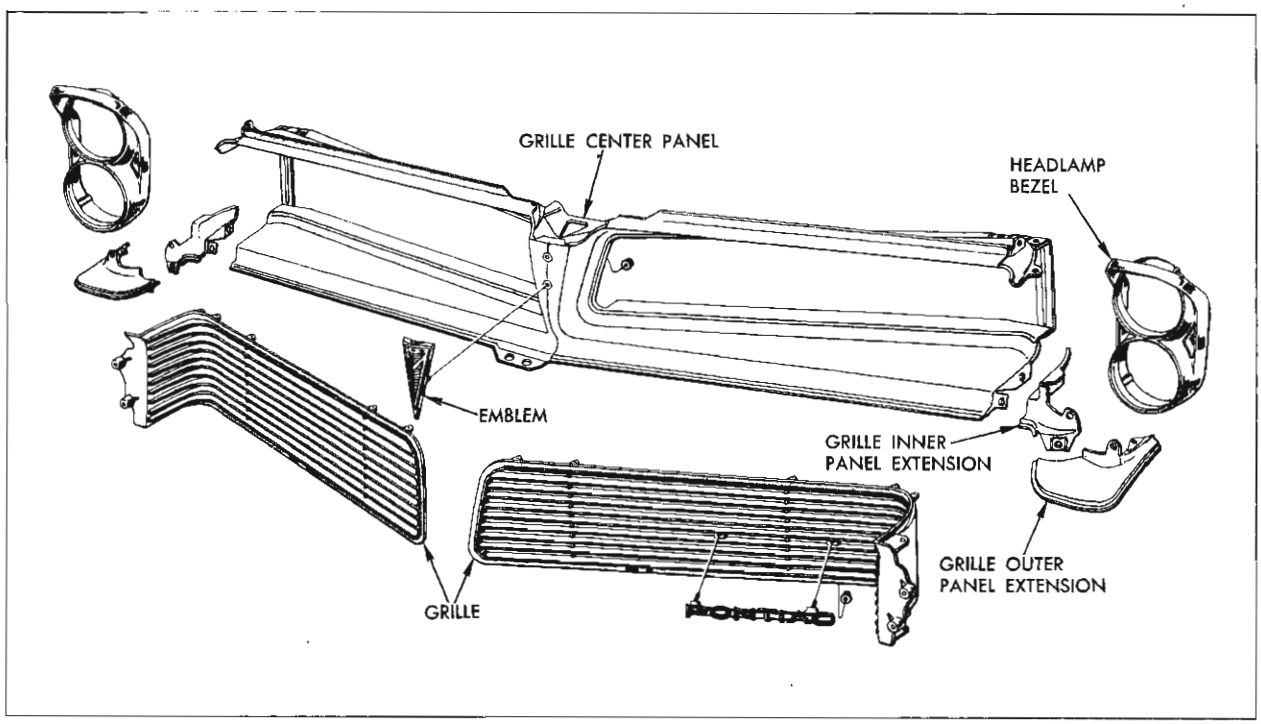


Fig. 1-10 Details of Radiator Grille Assembly

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

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 assembly forward to remove.

7. To install, reverse steps.

GRILLES—REMOVE AND REPLACE

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

1. Remove head lamp door.

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

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 of 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.

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.

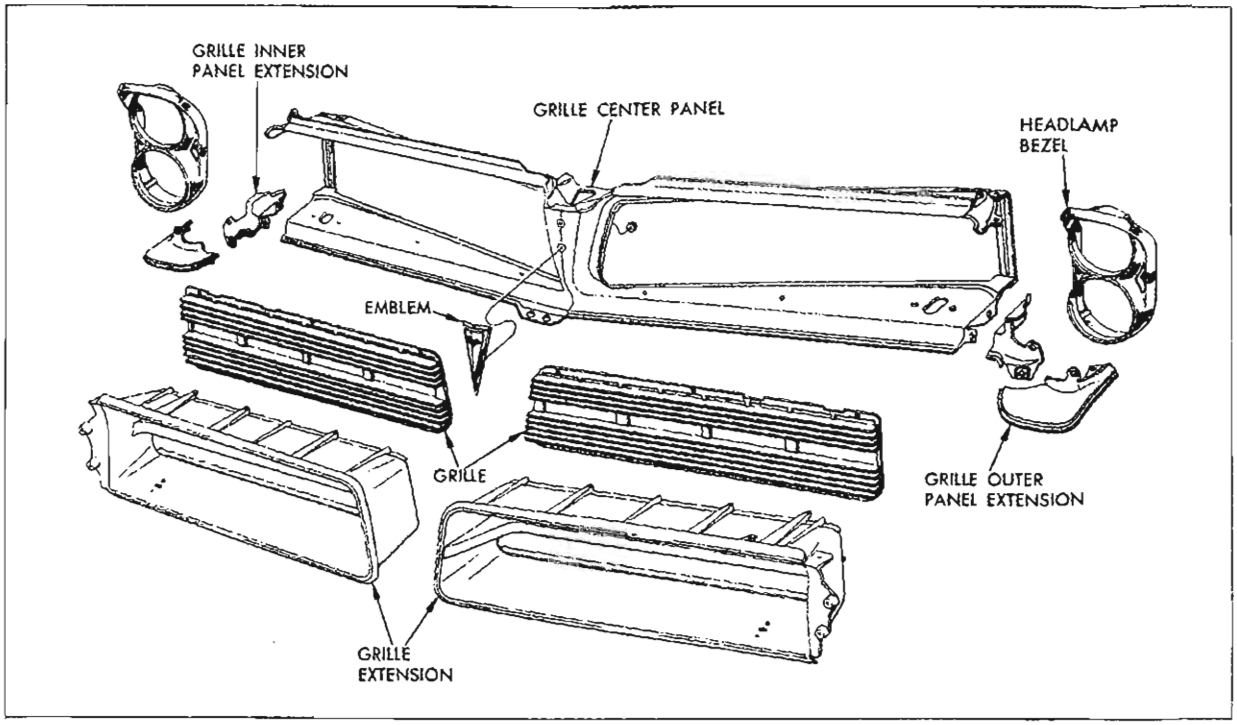


Fig. 1-11 Details of Radiator Grille Assembly—Grand Prix

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.

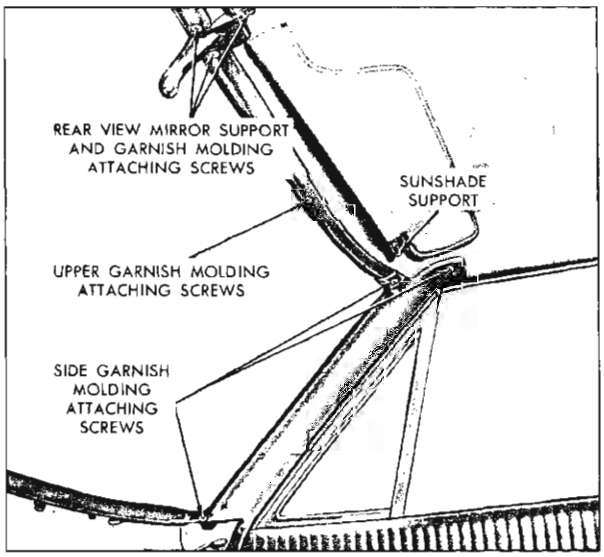


Fig. 2-1 Windshield Garnish Moldings

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

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

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

SUNSHADE SUPPORT

REMOVAL AND INSTALLATION

1. Remove attaching screws and support.

NOTE: On "67" styles raise top before removing support.

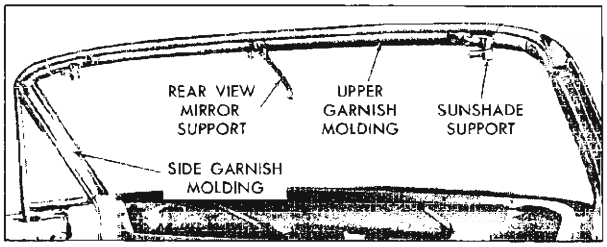


Fig. 2-2 Windshield Garnish Moldings

2. To install, reverse removal procedure.

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 styles except "67" styles the upper reveal moldings are secured to the openings by clips. On "67" styles the upper reveal molding is secured to the upper windshield frame by screws at each end and studs and nuts in the center. The side reveal moldings on all styles except "47" and all "67" styles are secured to the opening by clips. On "47" and all "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 attachng 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).

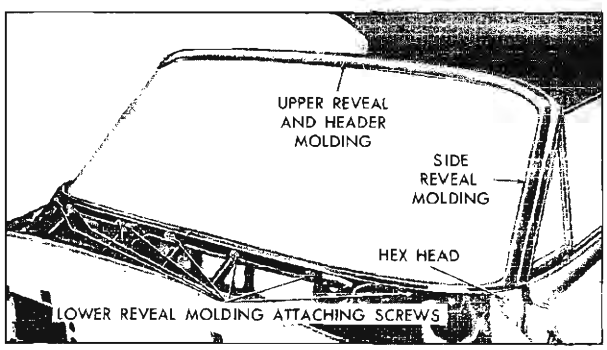


Fig. 2-3 Windshield Reveal Moldings

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).

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 styles except "B"—47 and all "67" styles tool J-7898-01 may be used to remove the side 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, 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.

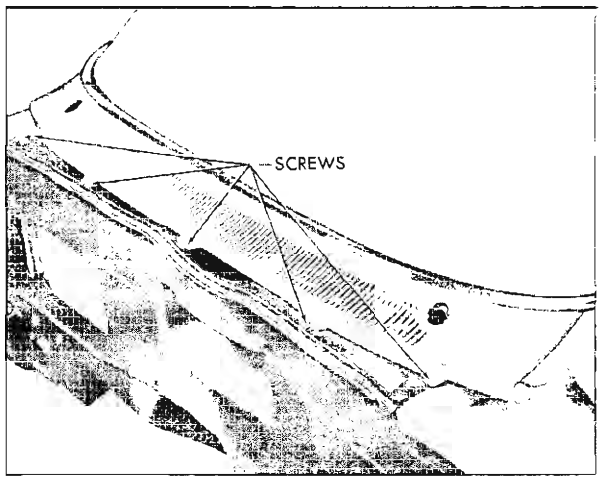


Fig. 2-4 Air Intake Grille

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

8. On all styles 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. Upper Reveal Moldings: On all styles except "67" styles, snap upper reveal molding in place. On "67" styles, seal attaching studs and holes and install molding.

2. Side reveal moldings: On "47" and all "67" styles, seal attaching screw holes and install moldings.

3. On "47" and all "67" styles, seal side roof rail and windshield pillar weatherstrips and retainers and install.

4. Install lower reveal molding and previously removed hardware parts.

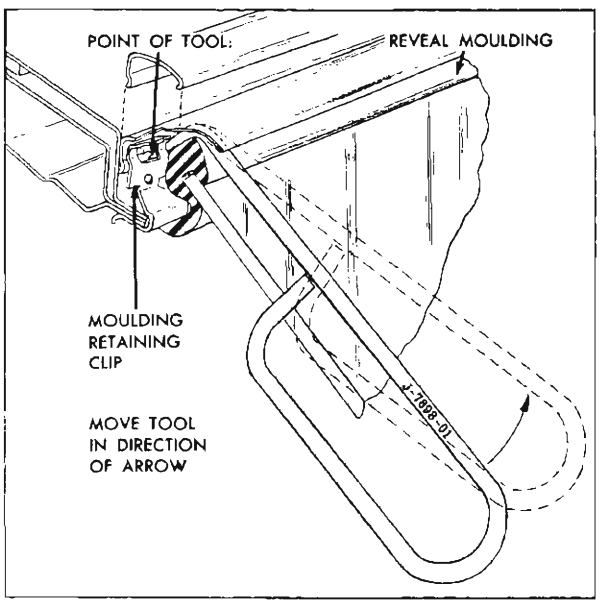


Fig. 2-5 Reveal Molding Removing Tool

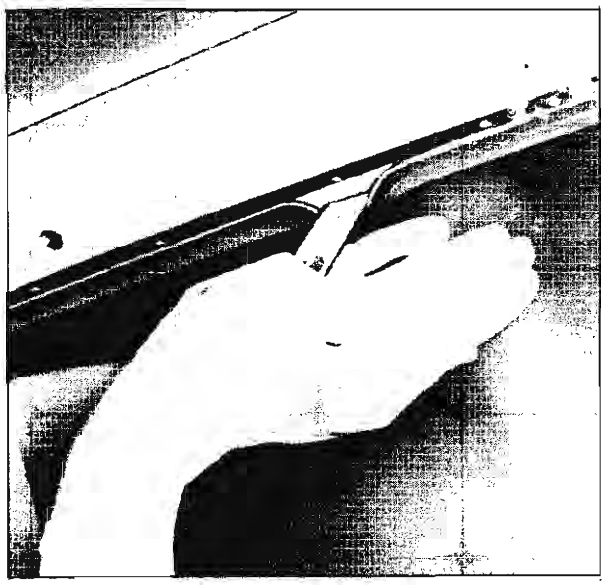


Fig. 2-6 Windshield Glass Removal

WINDSHIELD GLASS

REMOVAL

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

2. Place protective covering over hood and front fenders.

3. Remove garnish moldings.

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

5. Remove 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 out-

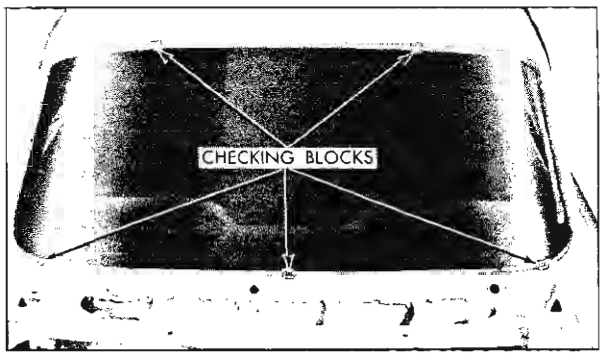


Fig. 2-7 Windshield Opening Check Blocks

lines the method which may be used to check the windshield opening.

1. Remove the windshield from body.

2. Check windshield rubber channel for any irregularities.

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

4. Install five (5) windshield checking blocks as follows: along lower retaining flange place one (1) black twelve inches (12") inboard of each lower corner and one (1) at center of windshield opening. Position one (1) 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, Fig. 2-8, check relationship of glass to body opening around entire perimeter of glass. Check glass to body relationship as follows:

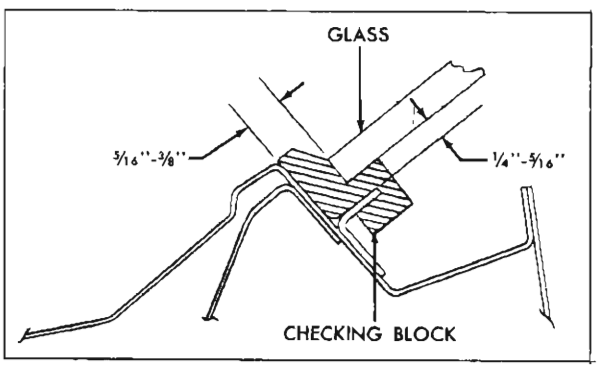


Fig. 2-8 Windshield Opening Checking Block

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. 2-9).

4. Apply a ribbon of medium-bodied sealer completely around base of rubber channel (See No. 1 Fig. 2-10).

5. Inspect condition of each molding clip, install new clips where necessary, make certain clips are properly sealed to pinchweld and body (see No. 2 Fig. 2-10) 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 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

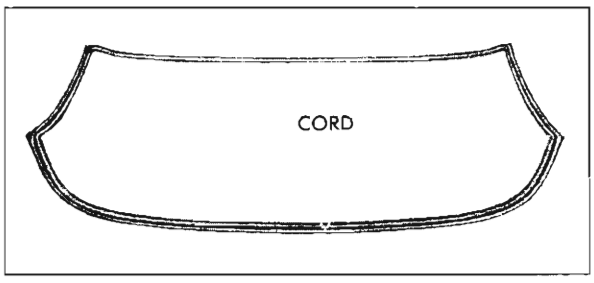


Fig. 2-9 Windshield Installation

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. 2-10). Seals are to extend completely around rubber channel.

10. Clean off excess sealer from windshield glass.

11. On outside of windshield apply medium-bodied sealer between windshield rubber channel and opening across top and sides (No. 5 Fig. 2-10).

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

WINDSHIELD 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 screw driver 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. 2-10). Seals are to extend completely around rubber channel.

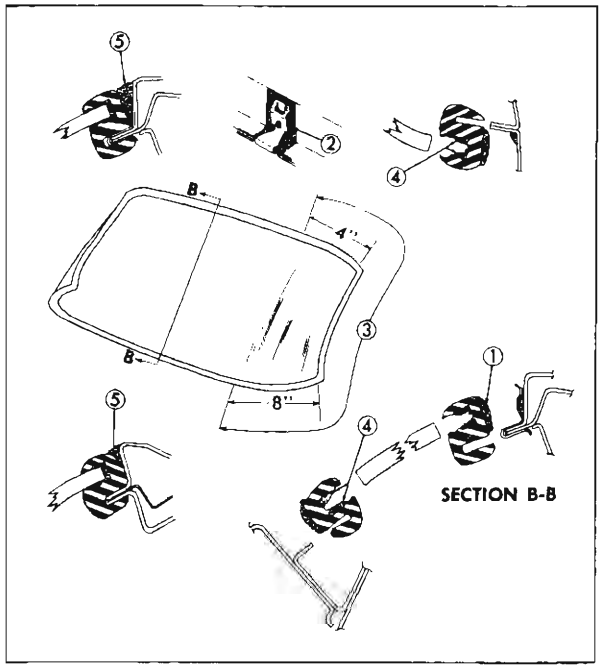


Fig. 2-10 Windshield Sealing

6. On outside of windshield, apply medium-bodied sealer between windshield rubber channel and opening across top and sides (No. 5 Fig. 2-10).

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.

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

2. Leaks between rubber channel and body.

a. Working from outside of the body along top and sides of body opening, remove side and/or upper reveal moldings. Apply sufficient amount of medium-bodied sealer to fill cavity between rubber channel and body opening.

b. Working from inside of body, remove inside garnish moldings, apply sufficient amount of medium-bodied sealer between inner lip of rubber channel and body opening. Water test and clean off excessive sealer.

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. 2-11).

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 assembly as required.

3. The compartment door lock striker may be adjusted by loosening attaching screws and moving striker to desired position (Fig. 2-11).

INSTRUMENT PANEL COMPARTMENT DOOR HINGE STOP ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove hinge stop attaching screws, (Fig. 2-11), disengage stop assembly from instrument panel door and remove stop.

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

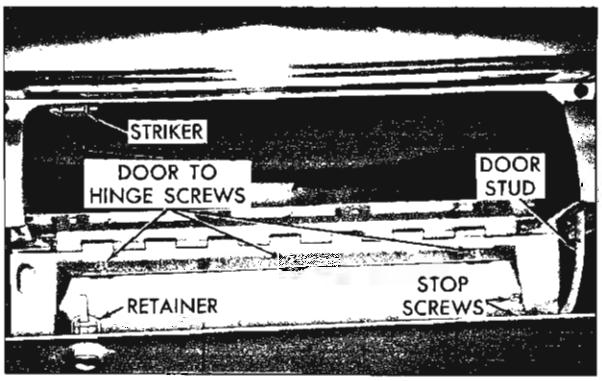


Fig. 2-11 Instrument Panel Compartment Door

INSTRUMENT PANEL COMPARTMENT DOOR KNOB ASSEMBLY

REMOVAL AND INSTALLATION

1. Open compartment door, remove screw from retainer and remove knob assembly (Fig. 2-11).

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 mouldings.

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 2 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.

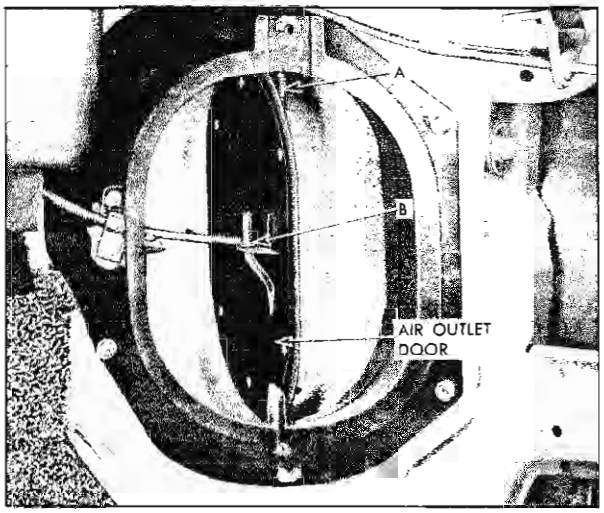


Fig. 2-14 Air Outlet Door

SHROUD SIDE FOUNDATION

REMOVAL AND INSTALLATION

1. Remove screws securing upper and lower end of air inlet grille (Fig. 2-13).

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.

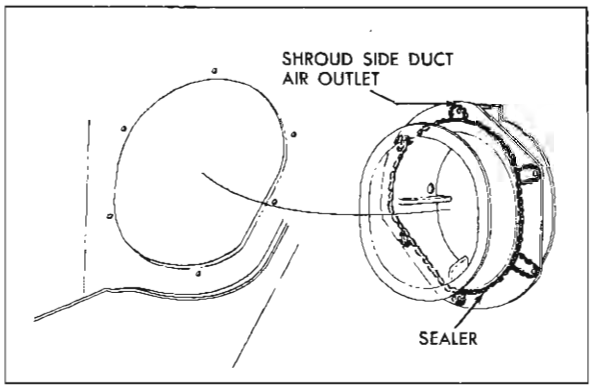


Fig. 2-15 Shroud Side Duct Air Outlet

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. 2-14).

3. To install, apply a bead of medium-bodied sealer (Fig. 2-15) to shroud panel at perimeter of air outlet opening in shroud panel and reverse removal procedure.

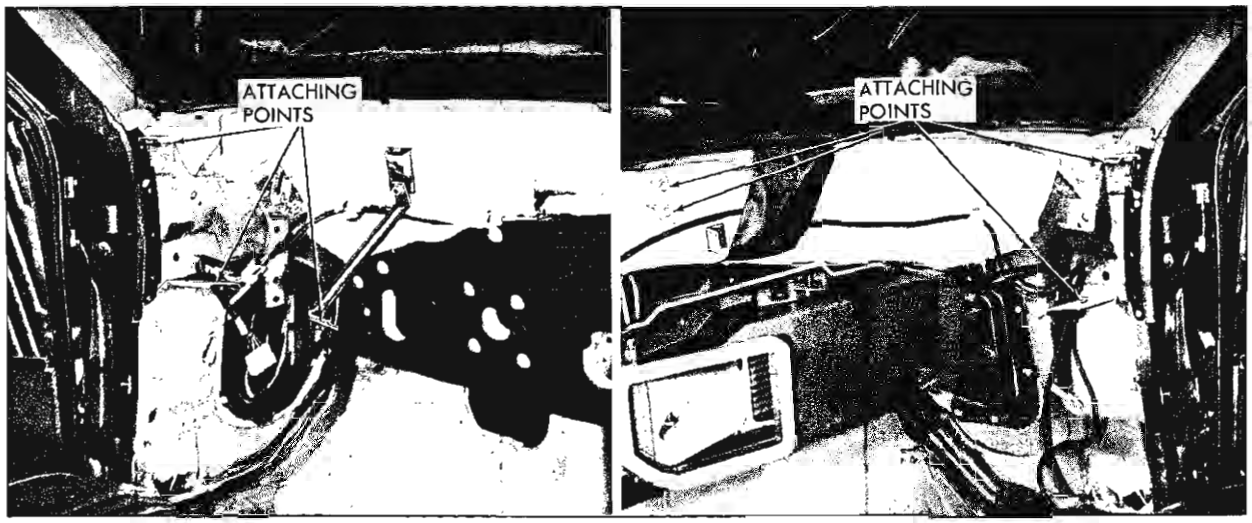


Fig. 2-12 Instrument Panel Attaching Points

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

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

7. Remove six instrument panel attaching bolts from the locations indicated in Fig. 2-12.

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 shroud side panel.

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. 2-3.)

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

5. To install, reverse removal procedure.

NOTE: Exercise care so that grille does not contact hood.

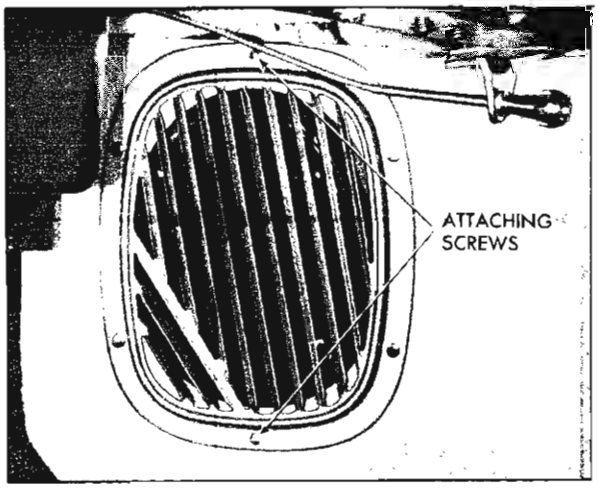


Fig. 2-13 Air Outlet Grille

DOORS

CONTENTS OF THIS SECTION

FRONT AND REAR DOORS

Service operations for doors are covered in the following sections:

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.

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 (Fig. 3-1).

2. To install, reverse removal procedure.

FRONT AND REAR DOOR BOTTOM DRAIN HOLE SEALING STRIPS

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

REMOVAL AND INSTALLATION

1. With a putty knife, or other suitable flat-bladed tool, carefully pry out retaining plugs (see Fig. 3-2).

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

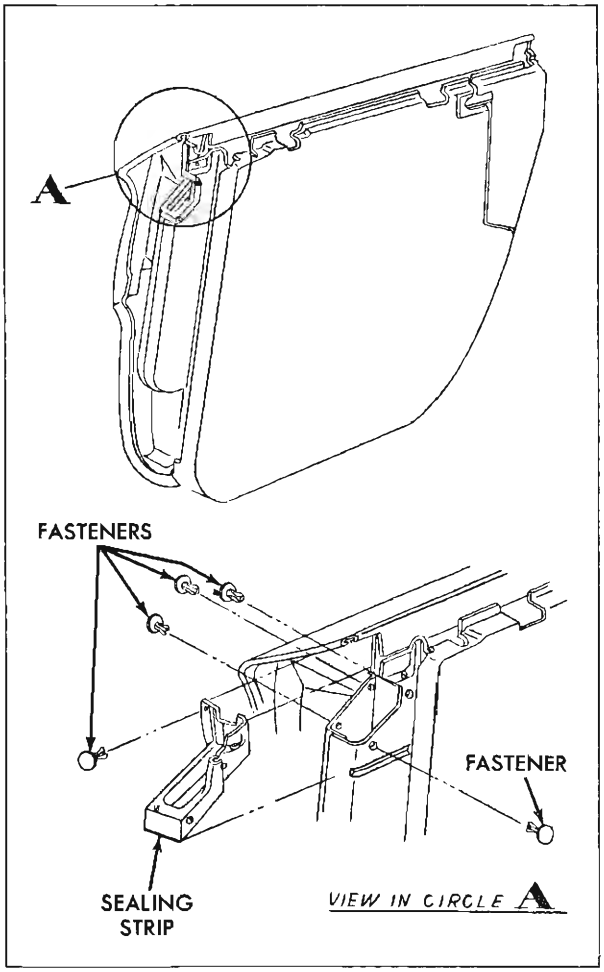


Fig. 3-1 Rear Door Hinge Pillar Sealing Strip

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. 3-3).

FRONT AND REAR DOOR WATER DEFLECTORS

A waterproof paper deflector is used to seal the door inner panel and prevent entry of water into the body. The polyethylene (black) side of the deflector is placed against the inner panel. The deflector fits into a retaining slot at the bottom of the door inner panel and deflects water to the bottom of the door and out the 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.

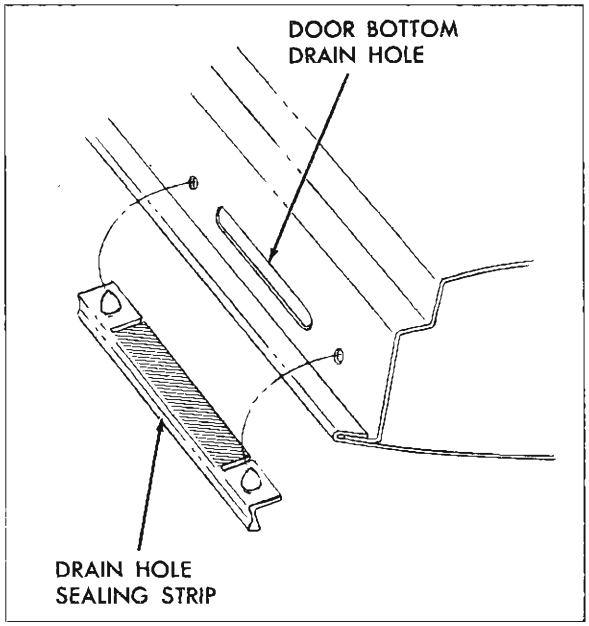


Fig. 3-2 Drain Hole Sealing Strip

Whenever work is performed on front or rear doors where the paper water deflector has been disturbed, the deflector must be properly sealed and taped to the inner panel to prevent serious waterleaks. It is important that all service personnel performing door hardware adjustments or sealing operations are aware of the importance of using the specified material and recommended removal and installation or replacement procedures. For service sealing, body caulking compound is recommended if additional sealing material is required.

When access to the inner panel is required to perform service operations, the deflector may be completely or partially detached from the inner panel. If the existing water deflector is damaged so that it will not properly seal the door, replacement of the deflector is required.

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

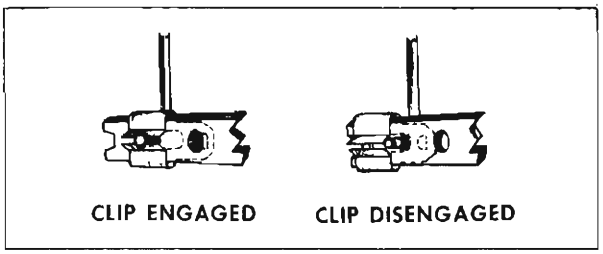


Fig. 3-3 Door Lock Spring Clip

REMOVAL

1. Remove door trim assembly.

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

3. Carefully break cement bond securing upper corner of water deflector to door inner panel. While holding string, located within sealer, against water deflector, carefully disengage edges of deflector from door. Exercise care not to damage water deflector.

NOTE: If necessary, a flat-bladed tool such as a putty knift can be used to help break cement bond.

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

INSTALLATION

1. Inspect water deflector and, where necessary, repair any tears or holes with waterproof body tape applied to both sides of deflector. In addition, if bond between polyethylene 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 new water deflector is to be installed, use old water deflector as a template, trim new deflector to proper size and cut holes for door inside hardware. If old sealer does not effect a satisfactory seal, clean off old cement from door inner panel and apply a continuous bead of body caulking compound (approximately $\frac{3}{16}$" diameter).

3. If necessary, seal all arm rest screw attaching 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. Firmly rool or press sealed areas to obtain a good bond between deflector and door inner panel.

5. Seal lower corners of deflector with 2 or $2\frac{1}{2}$" waterproof body sealing tape.

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

FRONT AND REAR DOOR INSIDE HANDLES

REMOVAL AND INSTALLATION

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 bolt and remove handle from door.

3. To install, reverse removal procedure.

On styles not equipped with paddle handles and for removal of manually operated door window and ventilator inside handles, proceed as follows:

1. Depress door trim assembly at handle sufficiently to install tool J-7797 between handle and bearing plate.

2. Push handle retaining spring out of engagement and remove handle and bearing plate from door.

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 (Fig. 3-4).

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

FRONT AND REAR DOOR ARM REST ASSEMBLIES

All arm rests are the applied type and are secured to the door inner panel by two (2) attaching screws. When a door arm rest is removed, it may be necessary to reseal the attaching screw holes with body caulking compound prior to installation.

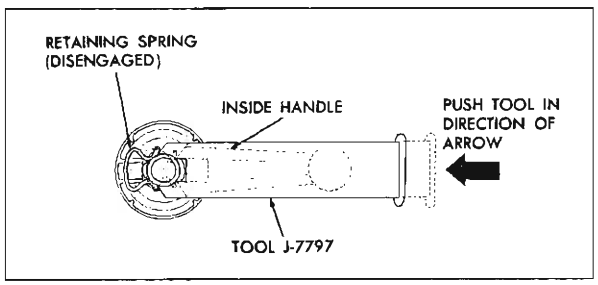


Fig. 3-4 Handle Retaining Spring

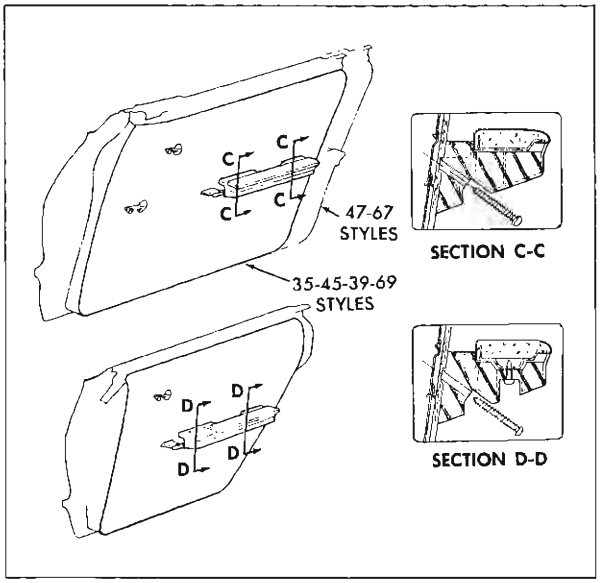


Fig. 3-5 Door Arm Rest Assemblies

REMOVAL AND INSTALLATION

1. Remove screws securing arm rest to door inner panel and remove assembly from door (see Fig. 3-5).

2. To install, reverse removal procedure. It may be necessary to seal arm rest attaching screw holes in door inner panel with body caulking compound prior to installation.

FRONT AND REAR DOOR TRIM ASSEMBLIES

REMOVAL AND INSTALLATION

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

2. Remove screws securing trim assembly to door inner panel.

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

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

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

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

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

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

FRONT AND REAR DOOR OUTSIDE HANDLE ASSEMBLY

REMOVAL AND INSTALLATION

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

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

3. To install, reverse removal procedure.

ASSEMBLY AND DISASSEMBLY OF DOOR OUTSIDE HANDLE PUSH BUTTON

1. Remove door outside handle.

2. Depress retainer slightly and turn one quarter (¼) turn. Remove retainer, spring, push button and shaft and sealing ring from handle.

3. To assemble, reverse disassembly procedure (see Fig. 3-6).

FRONT AND REAR DOOR WINDOW GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES

Glass run channel strip assemblies 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 assembly is constructed of a pile fabric material with a metal backing and is secured to top of door trim pad by a series of staples. The inner strip is not normally removed separately for service procedures.

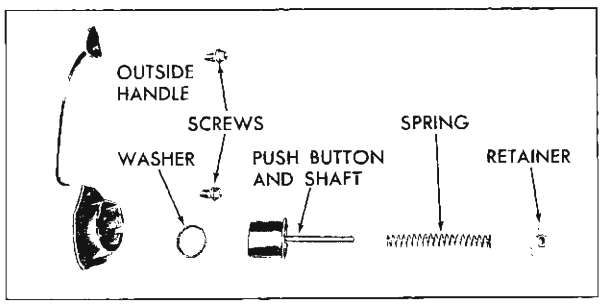


Fig. 3-6 Front Door Outside Handle

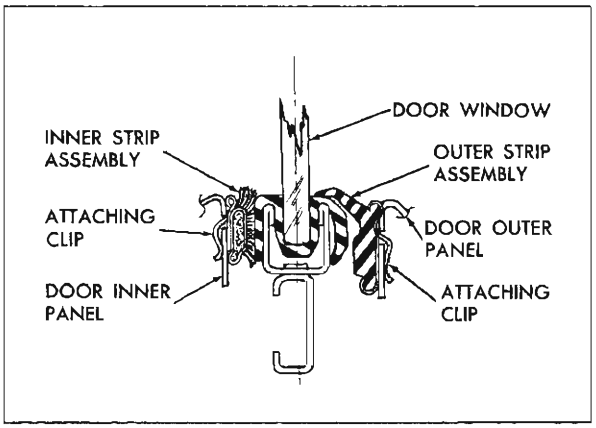


Fig. 3-7 Door Glass Channel

The outer strip assembly is constructed of a molded rubber and is secured to a metal retainer by a series of staples. On styles equipped with a door window belt reveal molding, the metal retainer is an integral part of this molding which is attached to the door outer panel by three screws. On styles not equipped with a molding the outer strip assembly is attached to the door outer panel by a series of attaching clips and is further retained by two attaching screws.

On all styles, the inner strip assembly remains in a stationary position during operation of door glass. On the outer strip assembly, however, the inboard section of the sealing lip is lifted and held in position by the door window lower sash channel or filler when door glass is raised. The outer strip assembly has been increased in length and thickness for the 1963 model and is an effective weatherseal with glass in the fully closed position (see Fig. 3-7).

REMOVAL AND INSTALLATION

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

2. Check outer strip assembly for location of attaching screws. This location varies with style and size of door, however; on most styles, the front door ventilator will have to be removed to gain access to forward attaching screw. If necessary, remove the front door ventilator assembly as described in the "Front Door" section of the body service manual.

3. On some styles it may be necessary to remove the

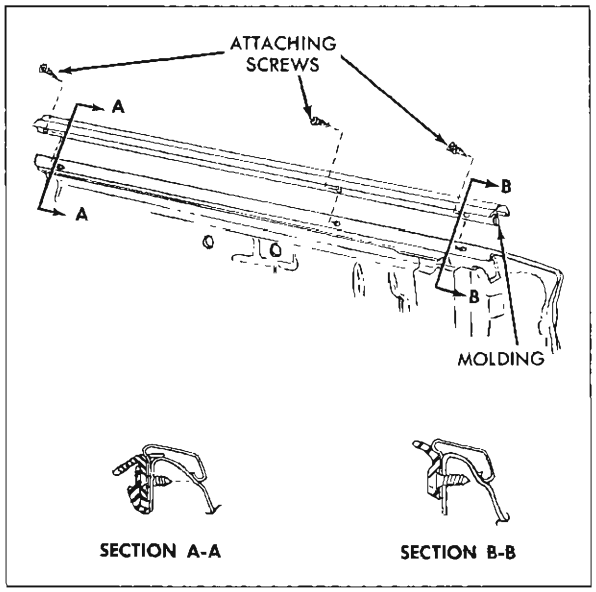


Fig. 3-8 Channel Outer Strip Assy.

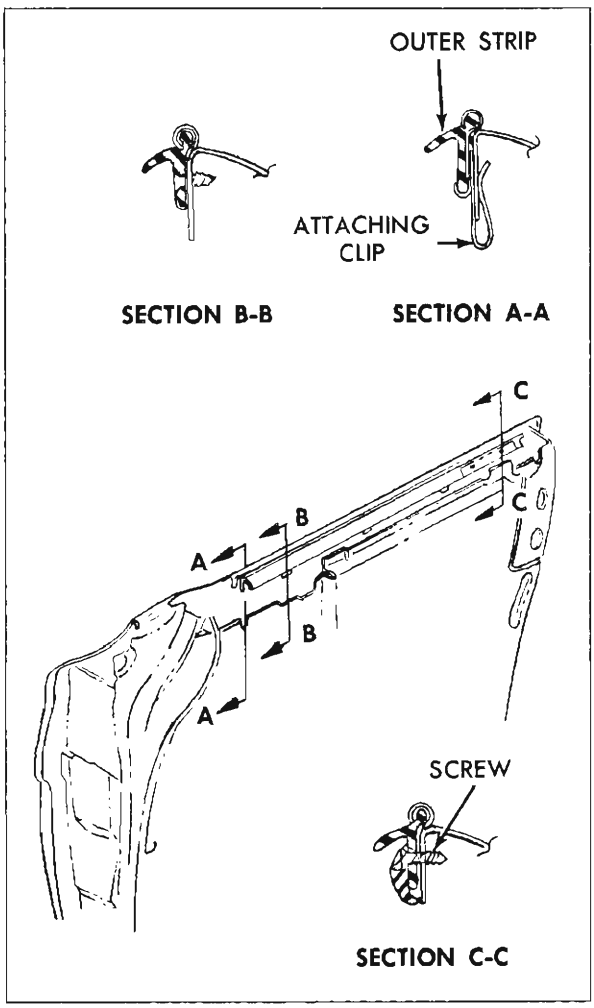


Fig. 3-9 Channel Outer Strip Assy.

door window lower stop or stop bumper and lower door window as far down as possible to gain access to the outer strip assembly attaching screws.

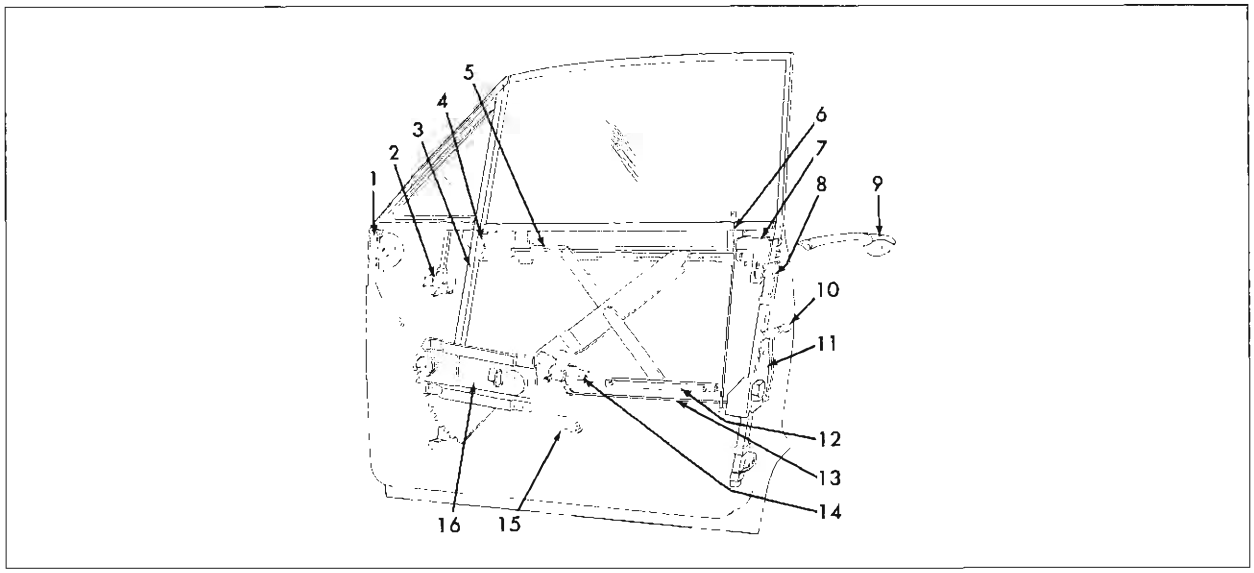
4. Remove all outer strip assembly attaching screws (three screws on styles equipped with a belt reveal molding and two screws on all other styles). See Figure 3-8 for styles with a belt reveal molding and Figure 3-9 for all other styles.

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

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

7. To install, reverse removal procedure.

FRONT DOORS



A. Ventilator Extension (Casting)
B. Ventilator Assembly
C. Ventilator Division Channel
D. Window Front Up-Stop
E. Window Lower Sash Channel Cam
F. Lock to Locking Lever Rod
G. Window Rear Up-Stop
H. Window Rear Guide Assembly
I. Outside Handle Assembly
J. Lock Cylinder and Connecting Rod
K. Lock Assembly
L. Window Inner Panel Cam
M. Remove control to Lock Connecting Rod
N. Remote Control Assembly
O. Window Lower Stop
P. Window Regulator Assembly

Fig. 3-10 Front Door Assembly Hardtop and Sedan

39, 47, 57, and 67 STYLES

Figure 3-10 is typical of hard top coupe and sedan 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.

11, 35, 45 and 69 STYLES

Figure 3-11 is typical of all "B" body closed style front doors, illustrating the proper position of a fully lowered door window for maximum glass stability.

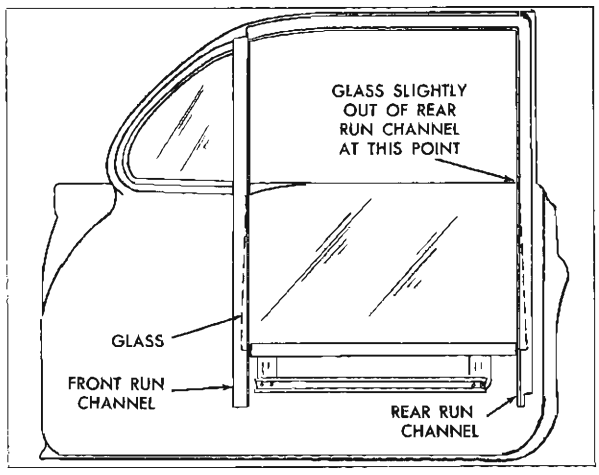


Fig. 3-11 Lowered Front Door Glass

FRONT DOOR WEATHERSTRIPS

39, 47, 57 and 67 STYLES

A new type of front door weatherstrip assembly has been designed which incorporates nylon component fasteners. This new fastener takes the place of wire clips and attaching clip sealing plugs used on rear door weatherstrip assemblies.

Cement usage, for the new weatherstrip, is similar to the 1962 model. The significant change is in the incorporation of the component nylon fastener. This fastener is the same size at all locations ($\frac{3}{16}$" diameter) and is available as a service part.

Tool J-21104 is designed for removal of the new weatherstrip. If this tool is not available, it can be fabricated from any other comparable metal tool as shown in Figure 3-12.

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.

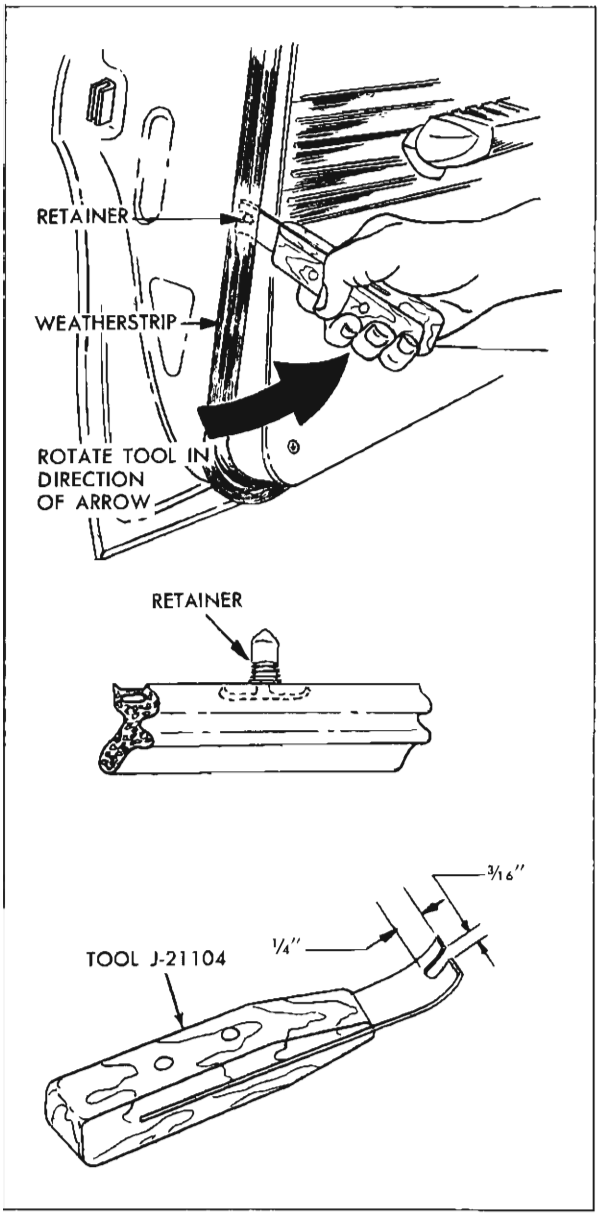


Fig. 3-12 Weatherstrip Tool

REMOVAL

1. Remove snap fasteners securing ends of weatherstrip at belt line of door hinge and lock pillar panels (See Fig. 3-13).

2. 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. 3-14).

3. 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 (See Fig. 3-15).

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

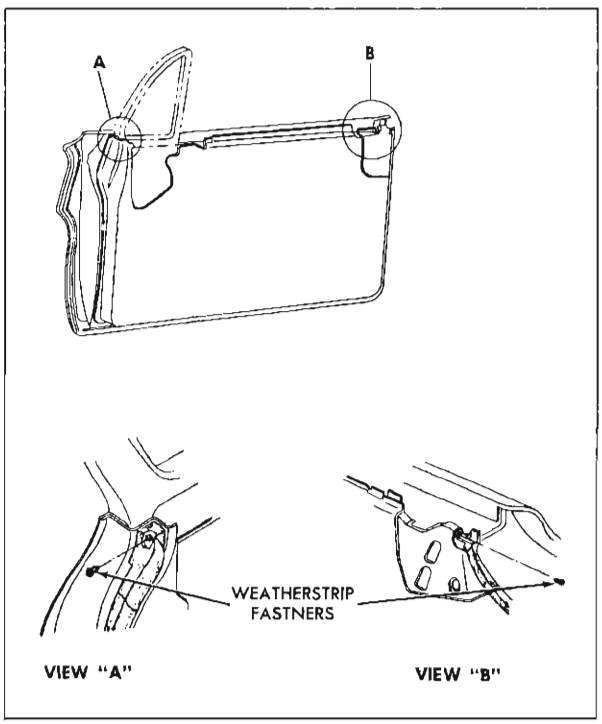


Fig. 3-13 Front Door Weatherstrip

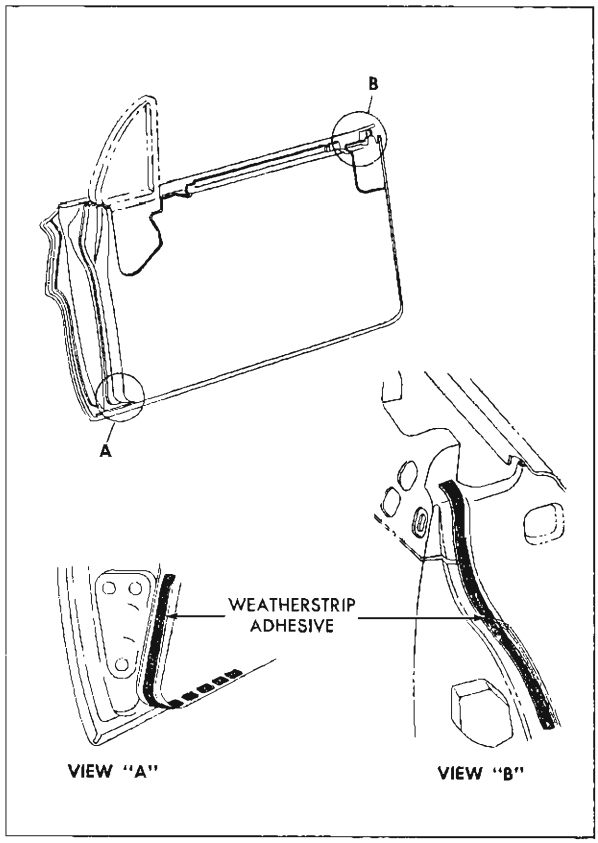


Fig. 3-14 Weatherstrip Cementing

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 lock pillar facing of door. Begin adhesive application at belt line and continue down door for approximately seven to nine inches (See Fig. 3-14).

NOTE: Cement usage is usually limited to door lock pillar panel (at belt line) and at forward lower corner of door. 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.

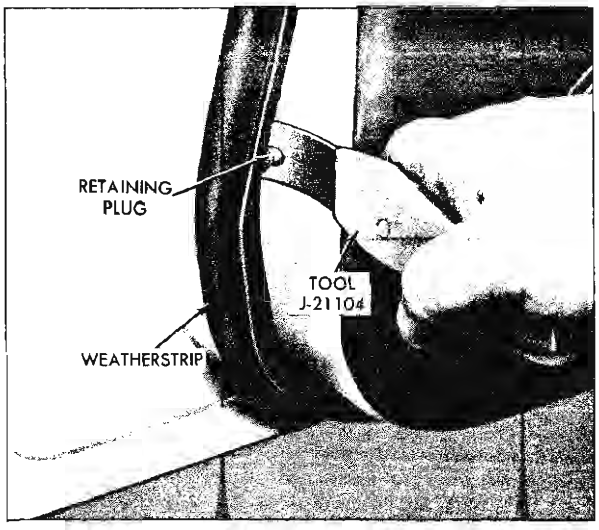


Fig. 3-15 Using Tool J-21104

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

FRONT DOOR WEATHERSTRIPS

11, 35, 45 and 69 STYLES

REMOVAL

1. Carefully break cement bond securing weatherstrip to door. If necessary, a flat-bladed tool, such as a putty knife, can be used to help break cement bond (See Fig. 3-16).

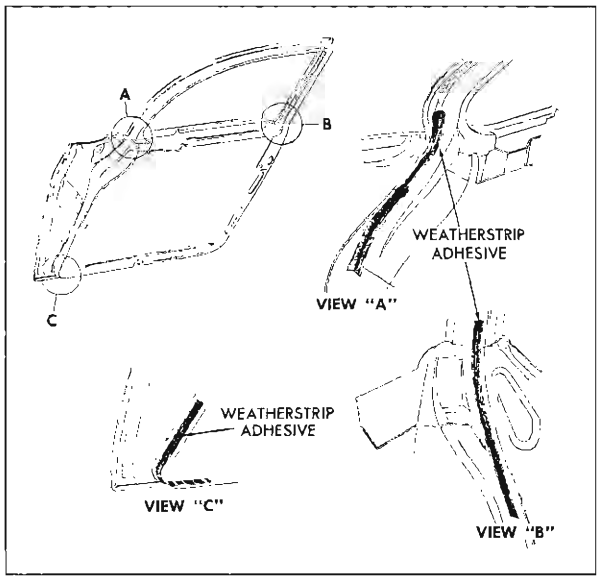


Fig. 3-16 Weatherstrip Adhesive Application

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 (See Fig. 3-15).

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 hinge and lock pillar facing of door. Begin adhesive application slightly above belt line and continue down door for approximately seven to nine inches. If necessary, weatherstrip adhesive can also be applied to lower forward corner of door (See Fig. 3-16).

NOTE: Cement usage is usually limited to door hinge and lock pillar panel (at belt line) and at forward lower corner of door. Cement, however, can be applied at any point where additional retention of weatherstrip is needed.

3. Position front door weatherstrip so that preformed section is at upper rear corner of door header and 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.

4. Clean off any excess weatherstrip adhesive.

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

FRONT DOOR ASSEMBLY AND HINGES

The front door hinges are the swing-out type with an integral door check on top hinge assembly and a two position hold open on lower hinge assembly. The hinges are attached to the front body hinge pillar and to the door assembly with bolts and anchor plates. Either of two (2) methods may be used to remove the door from the body.

A. The door and hinges can be removed as an assembly from 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 being used.

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

a. Remove door trim assembly 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).

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. Then with aid of helper, remove door assembly from body (Fig. 3-17).

INSTALLATION

1. As an anti-squeak precaution, before installing door, coat attaching surface of hinge with heavy-bodied sealer.

2. With aid of helper, reinstall door to body opening, align hinges within marks and tighten bolts. Check door for proper alignment.

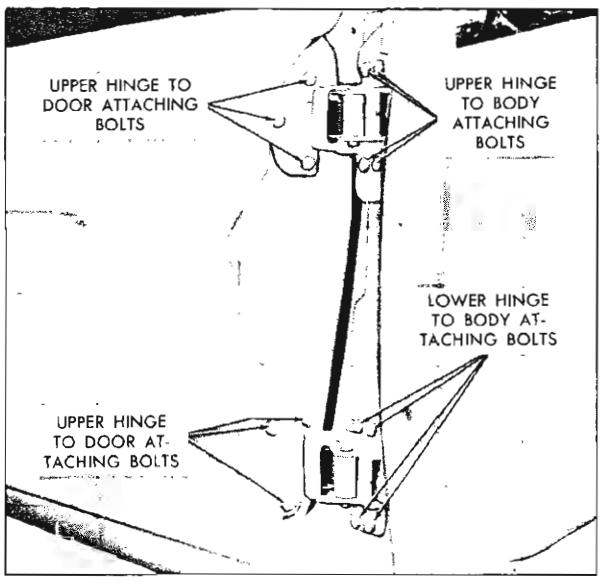


Fig. 3-17 Front Door Hinge Attachment

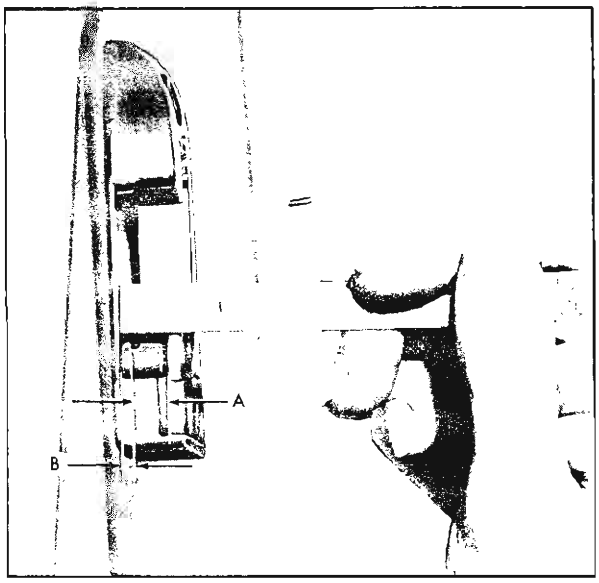


Fig. 3-18 Striker Engagement Check

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

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

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

4. Where required, seal door inner panel water deflector as specified in "DOOR INNER PANEL WATER DEFLECTOR" and reinstall previously removed parts.

5. For lubrication information see "LUBRICATION SECTION."

ADJUSTMENTS

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

NOTE: After performing any door adjustments on "39", "47", "57", or "67" styles, the front door ventilator and window should be checked for proper alignment with the side roof rail weatherstrip and adjusted, where required. In addition, the door lock extension-to-striker engagement should be checked, and, if necessary, adjusted as described under "DOOR LOCK STRIKER ADJUSTMENTS".

1. For in and out or up and down adjustments, loosen hinge to door pillar attaching bolts (see Fig. 3-17). Adjust door as required and tighten bolts.

NOTE: When performing in and out adjustments, adjust one (1) hinge at a time so as not to disturb up and down adjustment.

2. To adjust rear fore and aft, loosen hinge to body pillar attaching bolts (see Fig. 3-17). Adjust door as required and tighten bolts.

NOTE: One (1) 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 (3) 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.

FRONT DOOR LOCK STRIKERS

REMOVAL AND INSTALLATION

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

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

3. To install, seal all striker plate attaching screw clearance holes with body caulking compound.

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

IMPORTANT: Whenever a door has been removed and installed, or realigned, the door SHOULD NOT be closed completely until a visual check is made to determine if lock extension will engage in striker notch. Where required, door lock striker service spacers should be installed so that door can be closed and an accurate check made to determine spacer requirements.

5. Clean off all excess caulking compound.

ADJUSTMENTS

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

DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER SERVICE SPACERS

1. Door should be properly aligned before checking door spacer requirements.

2. To determine if door lock striker emergency spacers are required, apply modeling clay or body caulking compound in door lock striker notch where lock extension engages and then close door to form measurable impression in clay or caulking compound (Figure 3-18).

When dimension "A" from rear face of striker teeth to rear edge of depression in clay is less than 11/32", install service spacers and proper length striker attaching screws as indicated.

Dimension "A"	No. of Spacers Required	Thickness Spacer	Striker Attaching Screws*
11/32" to 9/32"	1	1/16"	Original
9/32" to 7/32"	1	1/8"	(1/8" longer)
7/32" to 5/32"	1—(1/16" Spacer) 1—(1/8" Spacer)	3/16"	(1/8" longer)
5/32" to 3/32"	2—(1/8" Spacer)	1/4"	(1/4" longer)

Note: Dimension "B" in the illustration should never be less than 1/8".

*Zinc or cadmium-plated flat-head cross recess screw with countersunk washer.

FRONT DOOR LOCK CYLINDER ASSEMBLY

REMOVAL AND INSTALLATION

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

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

3. On all except 39 models, with a suitable flat-bladed tool, slide lock cylinder retaining clip forward from door lock pillar facing sufficiently to permit removal of lock cylinder with attached connecting rod from door. On 39 models, disengage spring clip from inside of door.

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

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

DISASSEMBLY AND ASSEMBLY

1. Remove lock cylinder assembly from door.

2. Remove pawl retaining clip, pawl and lock cylinder retaining clip (Figure 3-19).

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.

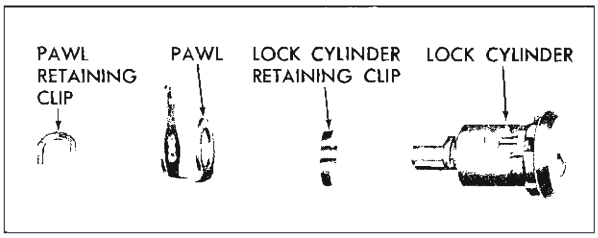


Fig. 3-19 Front Door Lock Cylinder

FRONT DOOR INNER PANEL CAM ASSEMBLY

REMOVAL AND INSTALLATION

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

2. Remove bolts securing door inner panel cam assembly, then disengage cam from window regulator balance arm and remove from door (Figure 3-20).

3. To install, reverse removal procedure. Prior to installation, lubricate entire length of cam with 630-AAW Lubriplate or equivalent.

ADJUSTMENTS

1. To correct a condition where the glass is cocked in the glass run channels, loosen inner panel cam attaching screws, adjust either end of cam up or down as required and tighten screws.

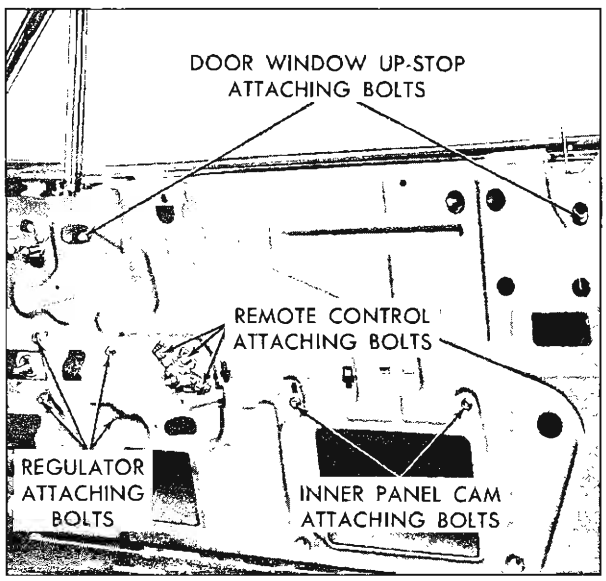


Fig. 3-20 Front Door Hardware—Hardtop Styles

FRONT DOOR LOCK ASSEMBLY

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

REMOVAL AND INSTALLATION

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

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

3. On "39", "47", "57" and "67" styles, remove door window rear glass run channel lower attaching screw and loosen upper attaching screws on lock pillar facing of door and at top of door inner panel to permit removal of lock. On 11-69-19-35-45 models, from inside door, remove rear glass run channel lower attaching nut or screw and pull channel forward.

4. Remove door lock attaching screws from lock pillar facing of door and remove lock assembly from door (Fig. 3-21).

5. To install, reverse removal procedure. Prior to installation of lock assembly, apply a ribbon of medium bodied sealer (approximately ¼" in diameter) across face of lock frame. Check unit for proper operation and, if necessary, adjust glass run channel for proper alignment prior to installation of inner panel water deflector.

FRONT DOOR REMOTE CONTROL ASSEMBLY AND CONNECTING ROD

REMOVAL AND INSTALLATION

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

2. Remove remote control attaching screws and disengage remote control from connecting rod (Fig. 3-20).

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 or 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.

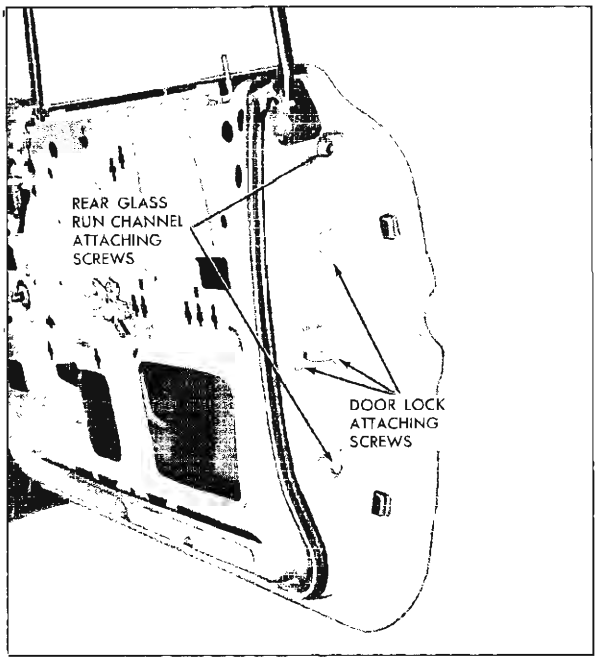


Fig. 3-21 Front Door Lock Pillar

FRONT DOOR VENTILATOR REGULATOR MANUAL AND ELECTRIC

REMOVAL AND INSTALLATION

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

2. On styles equipped with electric ventilator regulators, disconnect regulator motor wires at connector.

3. Remove ventilator tee shaft attaching bolt and ventilator regulator attaching bolts (see Fig. 3-22).

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.

FRONT DOOR 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 (see Fig. 3-22).

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

FRONT DOOR VENTILATOR ASSEMBLY—MANUAL AND ELECTRIC

39, 47, 57 and 67 STYLES

REMOVAL AND INSTALLATION

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

2. Lower door window. Remove ventilator to door outer panel return flange attaching screw (see Fig. 3-22).

3. At front of ventilator assembly, break cement bond securing front door hinge pillar sealing strip (at belt) to ventilator assembly.

4. Remove ventilator division channel lower adjusting stud and nut (see Fig. 3-22).

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

6. Remove ventilator lower frame attaching bolt and ventilator lower frame adjusting nut (see Fig. 3-22).

7. Remove ventilator regulator.

8. Lift ventilator assembly upward and remove from door.

9. To install, reverse removal procedure. Prior to installation of ventilator assembly, apply a bead of body caulking compound to door outer panel return flange along area contacted by ventilator assembly. Adjust ventilator assembly as described under "FRONT DOOR VENTILATOR ADJUSTMENTS".

FRONT DOOR VENTILATOR ADJUSTMENTS

39, 47, 57 and 67 STYLES

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

To adjust the ventilator assembly, proceed as follows:

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

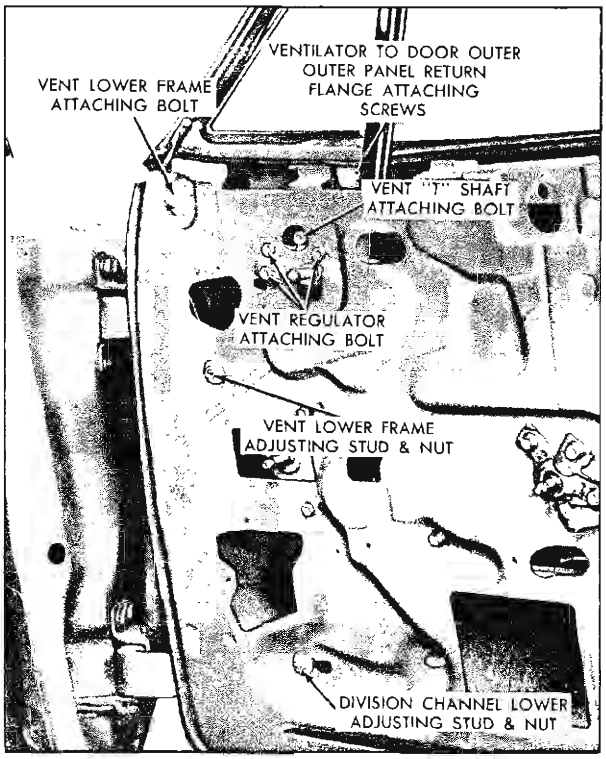


Fig. 3-22 Venilator Attachments

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 assembly fore or aft to windshield pillar side roof rail weatherstrip, position lower frame adjusting stud and nut and division channel stud and nut as required and tighten attaching nuts.

(b) To adjust ventilator assembly 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.

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

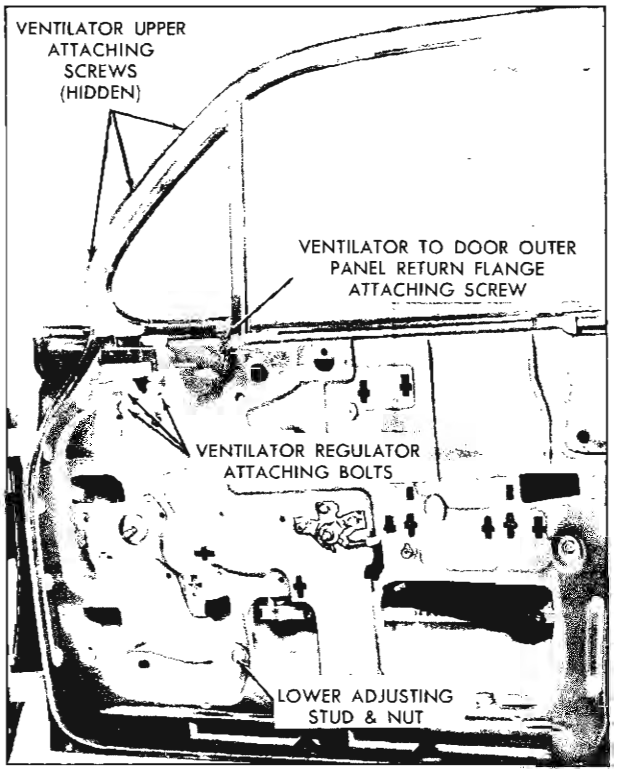


Fig. 3-23 Venilator Attachments

FRONT DOOR VENTILATOR ASSEMBLY

11, 35, 45 and 69 STYLES

REMOVAL AND INSTALLATION

1. Remove door trim assembly and detach inner panel water deflector.
2. Remove ventilator regulator assembly.
3. Lower door window. Remove ventilator to door outer panel return flange attaching screw.
4. Remove ventilator division channel lower adjusting stud and nut.
5. Remove ventilator upper attaching screws along window frame. (Fig. 3-23).
6. Lower ventilator assembly sufficiently to tilt assembly inward; then lift ventilator assembly upward and remove from door.
7. To install, reverse removal procedure.

ADJUSTMENTS

11, 35, 45 and 69 STYLES

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

FRONT DOOR WINDOW ASSEMBLY— MANUAL AND ELECTRIC

39, 47, 57 and 67 STYLES

REMOVAL AND INSTALLATION

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

2. Through holes in inner panel, remove screw securing window assembly front and rear stops to lower window sash channel. Then lower window slightly and remove stops (see Fig. 3-20).

3. Lower door window to expose window lower sash channel cam attaching screws. Then on styles equipped with electric window regulators, disconnect wiring harness feed wires from regulator motor at connector.

NOTE: It may be necessary to loosen the ventilator frame and tilt it forward to facilitate removal of door window.

4. Remove window lower sash channel cam attaching screws and disengage cam from window sash channel. Then lift window assembly upward and remove from door.

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

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

ADJUSTMENTS

The door window glass may be adjusted to provide proper contact with the side roof rail weatherstrip. Adjustments have also been provided to relieve a binding door glass due to misalignment of the glass run channels. To perform the following adjustments, remove door trim assembly and detach inner panel water deflector, where necessary, to gain access to hardware attaching points; then proceed as follows:

1. To correct a condition where glass is "cocked" in glass run channels, loosen inner panel cam attaching screws, adjust cam up or down as required and retighten screws.

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

3. To adjust lower portion of ventilator division channel for alignment with window assembly, lower door window and loosen ventilator division channel adjusting stud nut. Turn adjusting stud in or out or position lower end of channel fore or aft, as required; then, retighten adjusting stud nut (see Fig. 3-22).

4. To adjust upper rear of window assembly in or out for proper contact with side roof rail weatherstrip, or to adjust rear of window assembly in or out at belt line, loosen rear glass run channel attaching screws at lock pillar facing of door and screw at top of door inner panel. Position channel in or out as required and tighten screws (see Fig. 3-21).

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

5. To adjust limit of "up" travel of window assembly for proper contact with side roof rail weatherstrip, raise door window and through inner panel access holes loosen door window front and rear stop assembly attaching screws. Adjust stops up or down as required, then tighten attaching screws (Fig. 3-20).

FRONT DOOR WINDOW ASSEMBLY—MANUAL AND ELECTRIC

11, 35, 45 and 69 STYLES

REMOVAL AND INSTALLATION

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

2. Remove door ventilator assembly as previously described under "FRONT DOOR VENTILATOR—REMOVAL AND INSTALLATION."

3. On styles equipped with electric window regulators, disconnect wiring harness feed wires 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. Remove screws securing window lower sash channel cam to window assembly and carefully disengage cam from window lower sash channel.

5. Rotate rear edge of window assembly upward and remove window assembly from between inner and outer panels.

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

ADJUSTMENTS

1. To correct a condition where glass is "cocked" in glass run channels, loosen inner panel cam attaching screws, adjust cam up or down as required and tighten screws (see Fig. 3-23).

2. To adjust lower portion of ventilator division channel for proper alignment with door window assembly, lower door window and loosen ventilator adjusting stud nut. Turn adjusting stud in or out or position lower end of channel fore or aft as required; then tighten adjusting stud nut (see Fig. 3-23).

3. To adjust lower portion of window glass run channel in or out for proper alignment with door window, raise door window. From inside door, loosen glass run channel lower attaching nut or screw, adjust channel as required and tighten nut or screw (see Fig. 3-23).

FRONT DOOR WINDOW GLASS RUN CHANNEL ASSEMBLY

11, 35, 45 and 69 STYLES

REMOVAL AND INSTALLATION

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

2. Remove front door ventilator assembly and slide window forward slightly to expose lock pillar portion of glass run channel.

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

3. Through inner panel access hole loosen nut or screw securing lower end of glass run channel (see Fig. 3-23).

4. Squeeze glass run channel together along upper and lock pillar sections of window frame and pull or carefully pry channel assembly from window frame. Remove channel assembly from door.

5. To install, reverse removal procedure.

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC

39, 47, 57 and 67 STYLES

REMOVAL AND INSTALLATION

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

2. Remove ventilator division channel lower adjusting stud and nut. (See Fig. 3-22).

3. On styles equipped with manual window regulators, lower window. Remove window lower sash channel cam attaching screws and disengage sash channel cam from window lower sash channel; then raise window and prop in full up position. Disengage sash channel cam from window regulator arm rollers.

4. On styles equipped with electric window regulators, remove door ventilator assembly and front door window.

5. On styles equipped with electric window regulators, disconnect wire harness feed wires 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.

6. Remove window regulator attaching bolts. Disengage regulator balance arm roller from inner panel cam and carefully remove regulator assembly from door. (See Fig. 3-20).

NOTE: On some models only one end of inner panel cam is open sufficiently to permit removal of regulator arm roller.

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

FRONT DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC

11, 35, 45 and 69 STYLES

REMOVAL AND INSTALLATION

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

2. Remove ventilator division channel lower adjusting stud and nut. (See Fig. 3-23.)

3. On styles equipped with electric window regulators, disconnect wire harness feed wires from regulator motor at connector.

CAUTION: Do not operate regulator motor with load removed.

4. Remove door window lower sash channel cam. (See Fig. 3-23).

5. Roll window to a full up position and place a 2" or 2½" piece of body tape over door upper frame and top of door glass on both sides of glass. This is necessary to positively hold the door window in a full up position.

6. Remove inner panel cam and window regulator attaching bolts and carefully remove regulator assembly from door (See Fig. 3-23).

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

FRONT DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

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

REMOVAL AND INSTALLATION

1. Remove front door electric window regulator assembly from door as previously described and clamp it in a vise (See Fig. 3-24).

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

2. Drill a ¼" hole through back plate and sector at location indicated at either A, B, or C, depending on position of lift arm.

NOTE: Do not drill into motor housing, part of which is indicated by dotted line. In addition, locate hole a sufficient distance from edge of sector to insure proper retention of the sector.

3. Insert 3/16" bolt through hole in back plate and sector and install nut to 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, which is under tension from the counter-balance spring, can cause serious injury if motor assembly is removed without locking the sector in position with a nut and bolt.

4. Remove motor attaching bolts and remove motor assembly from regulator (See Fig. 3-24).

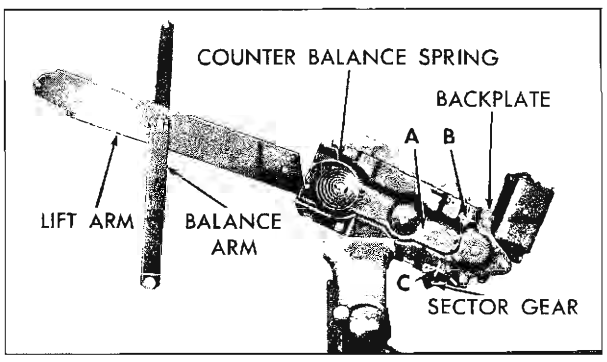


Fig. 3-24 Regulator and Motor

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

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 and regulator attaching holes will line up.

NOTE: Be sure to remove temporary nut and bolt from regulator before installing it in door.

DOOR WINDOW LOWER SASH CHANNEL CAM

REMOVAL AND INSTALLATION

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

2. Lower door window to expose lower sash channel cam attaching screws and remove screws.

3. Disengage cam from window lower sash channel and prop window in up position.

4. Disengage cam from window regulator, lift and balance arm rollers and remove from door.

5. To install, reverse removal procedure. Prior to installation, lubricate entire length of lower sash channel cam with 630AAW Lubriplate or equivalent.

FRONT DOOR WINDOW GLASS RUN CHANNEL ASSEMBLY

11, 35, 45 and 69 SYLES

REMOVAL AND INSTALLATION

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

2. Remove front door ventilator assembly and slide window forward slightly to expose lock pillar portion of glass run channel.

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

3. Through inner panel access hole loosen nut or screw securing lower end of glass run channel.

4. Squeeze glass run channel together along upper and lock pillar sections of window frame and pull or carefully pry channel assembly from window frame. Remove channel assembly from door.

5. To install, reverse removal procedure.

REAR DOORS

REAR DOORS

Fig. 3-25 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 assembly, their relationship and various attaching points.

Fig. 3-26 is typical of a hard top sedan "39" style rear door 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.

Fig. 3-27 is typical of "69" style rear doors. This illustration indicates a fully lowered door window in proper position for maximum glass stability.

Fig. 3-28 is typical of "35" and "45" style rear doors. This illustration indicates a fully lowered door window in proper position for maximum glass stability.

REAR DOOR WEATHERSTRIPS

39 STYLE

The rear door weatherstrip is a one-piece mechanical retained type. Mechanical retention consists of a series of weatherstrip attaching clips which fit into individual sealing plugs along door bottom and sides. The weatherstrip is also mechanically retained by nylon snap fasteners at belt line of hinge and lock pillar panels. In addition, "39" style rear door weatherstrips are further retained by a single weatherstrip attaching clip and screw at upper radius of lock pillar panel. Cement usage is limited to door lock pillar panels (at belt line) and at forward lower corners of door. Cement, however, can be applied at any point where additional retention of weatherstrip is needed.

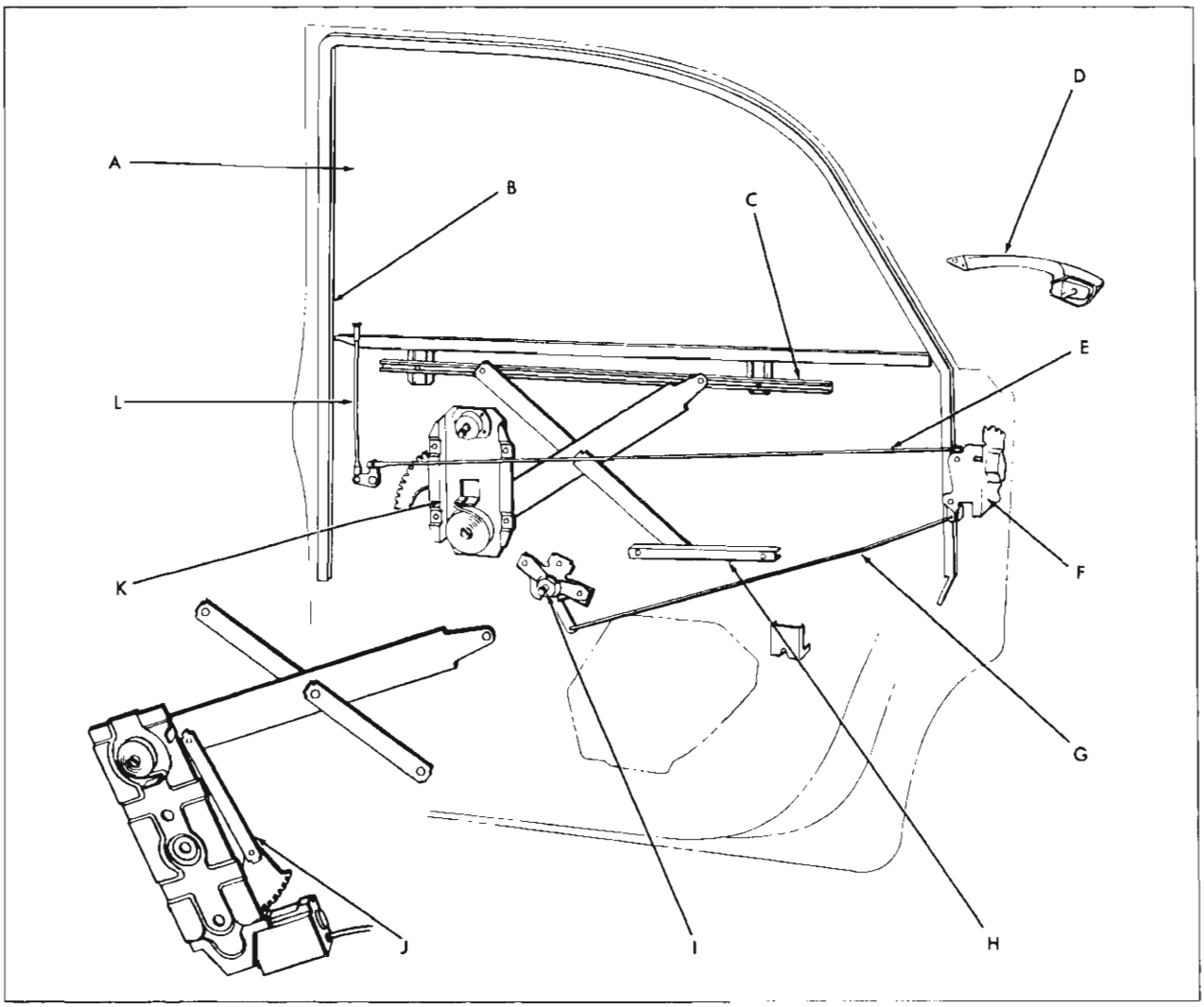
REMOVAL

1. Remove snap fasteners securing ends of weatherstrip at belt line of door hinge and lock pillar panels (see Fig. 3-29).

2. Remove the single weatherstrip attaching clip screw located at upper radius of lock pillar (see Fig. 3-30).

3. Carefully break cement bond securing weatherstrip to door. A flat-bladed tool, such as a putty knife, will prove helpful in breaking cement bond (see Fig. 3-31).

4. Insert tip of tool J-5757, or any other suitable tool, at retaining clip locations and carefully snap clips from sealing plugs (see Fig. 3-32).



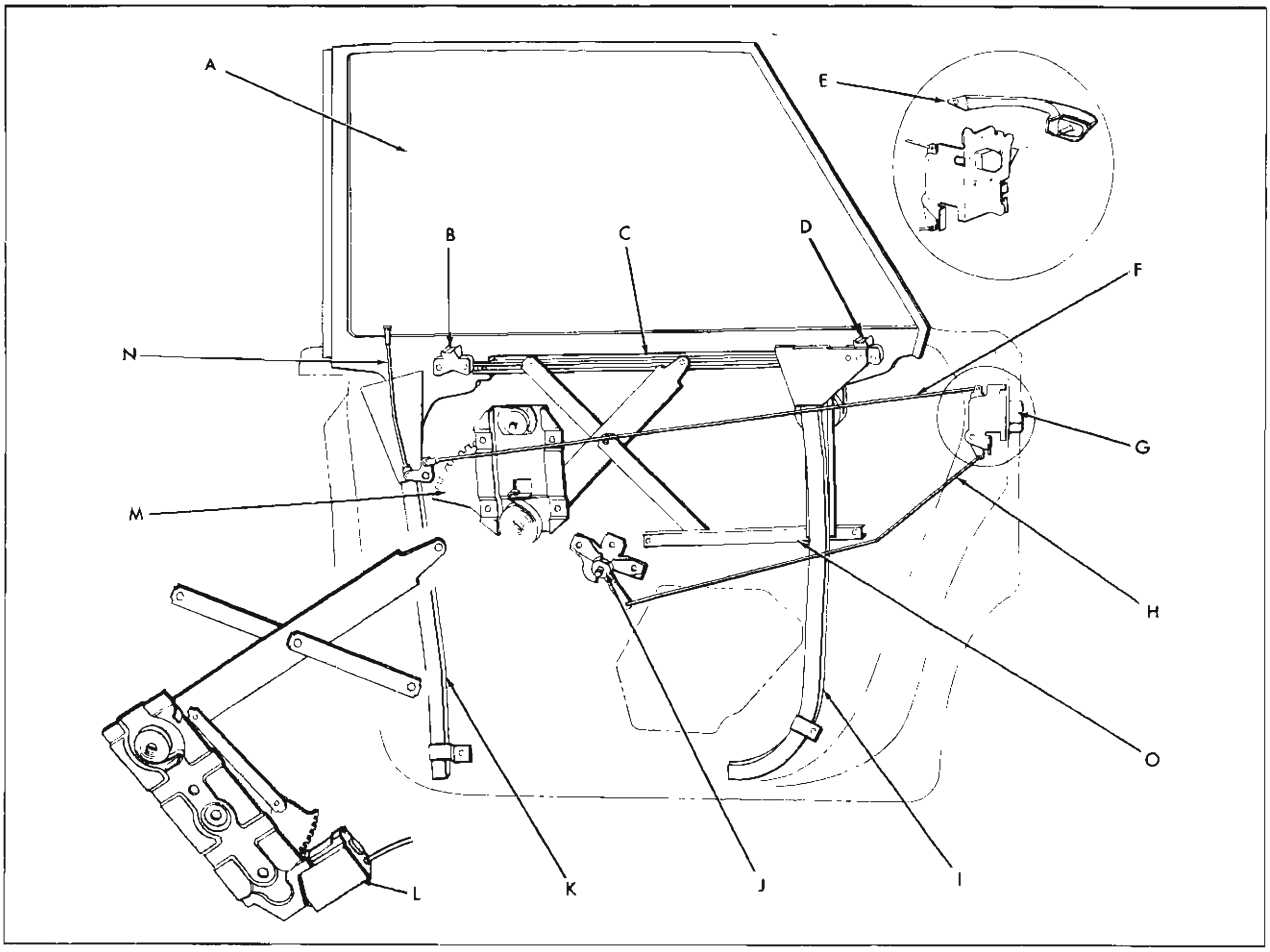
A. Window Assembly
B. Window Glass Run Channel
C. Window Lower Sash Channel Cam
D. Outside Handle Aassembly
E. Inside Locking to Lock Rod
F. Lock Assembly
G. Lock Remote Control to Lock Rod
H. Inner Panel Cam Assembly
I. Lock Remote Control Assembly
J. Window Electric Regulator and Motor
K. Window Regulator Assy.
L. Inside Locking Rod

Fig. 3-25 Rear Door Hardware—Closed Styles

INSTALLATION

1. Check weatherstrip attaching clips for proper contour and reform, if necessary, using clip reforming tool J-5984 (see Fig. 3-33).

2. Inspect all attaching clip sealing plugs. Any missing plugs should be replaced. A plug which is loose and will not remain engaged in the door panel piercing can be corrected by installing ½" by 1" piece of cloth-backed waterproof tape over piercing and marking an "X" pattern slit in tape to accommodate sealing plug. If, after this operation, the plug is still loose; install a second piece of tape over the existing repair. This procedure can also be used to repair any water leaks that develop at sealing plug locations. A damaged sealing plug must be replaced (see Section "D-D" in Figure 3-31).



A. Window Assembly
B. Window Front Female Wedge Plate
C. Window Lower Sash Channel Cam
D. Window Rear Female Wedge Plate
E. Outside Handle Assembly
F. Lock to Locking Lever Rod
G. Lock Assembly
H. Lock Remote Control to Lock Rod
I. Window Rear Guide Cam
J. Lock Remote Control Assembly
K. Window Guide Front Cam
L. Window Electric Regulator and Motor
M. Window Regulator—Manual
N. Inside Locking Rod
O. Window Inner Panel Cam

Fig. 3-26 Rear Door Hardware—Hard Top Styles

3. Clean off old cement from door to insure a clean cementing surface. Apply a bead of an approved weatherstrip adhesive to lock pillar facing of door and at lower front corner of door (see Views "B" and "C" in Fig. 3-31). When applying weatherstrip adhesive to lock pillar facing of door, begin application at belt line and continue down door for approximately seven to nine inches. If necessary, weatherstrip adhesive can also be applied to hinge pillar facing of door.

4. Beginning at either front or rear section of door, install snap fasteners. Install weatherstrip attaching clips into their respective sealing plugs by placing notched end of tool J-5757 into loop of wire clip and pushing clip into sealing plug (see Fig. 3-32).

NOTE: Do not distort weatherstrip attaching clips or unsatisfactory weatherstrip retention will result.

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

REAR DOOR WEATHERSTRIPS

35, 45, 69 STYLES

The rear door weatherstrip is a one-piece design, cemented at belt line and retained by weatherstrip attaching clips for the remainder of the door. Around bottom of door, from belt line of hinge pillar to belt line of lock pillar, the attaching clips fit into sealing plugs.

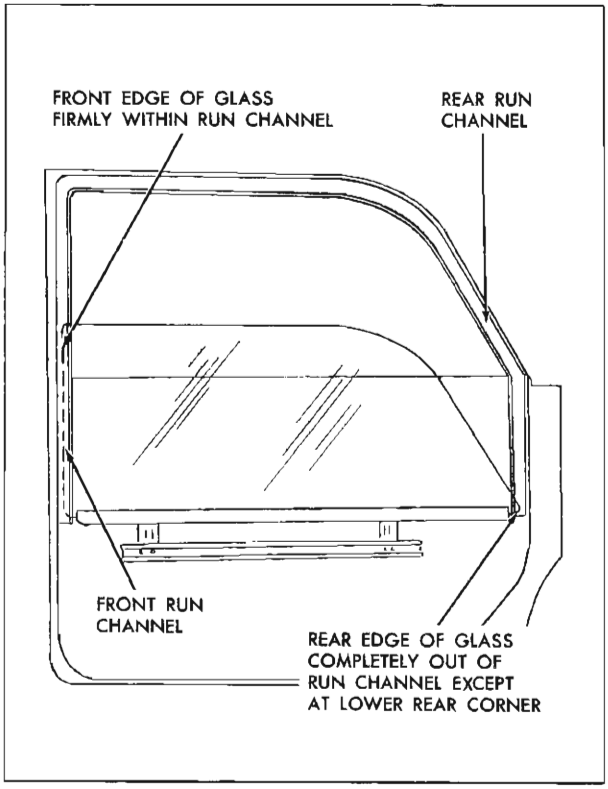


Fig. 3-27 Lowered Rear Door Glass

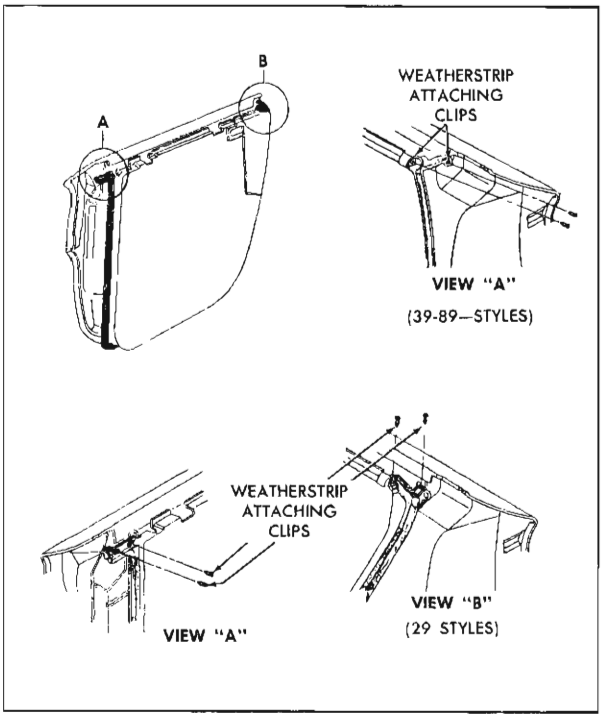


Fig. 3-29 Weatherstrip Attaching Clips

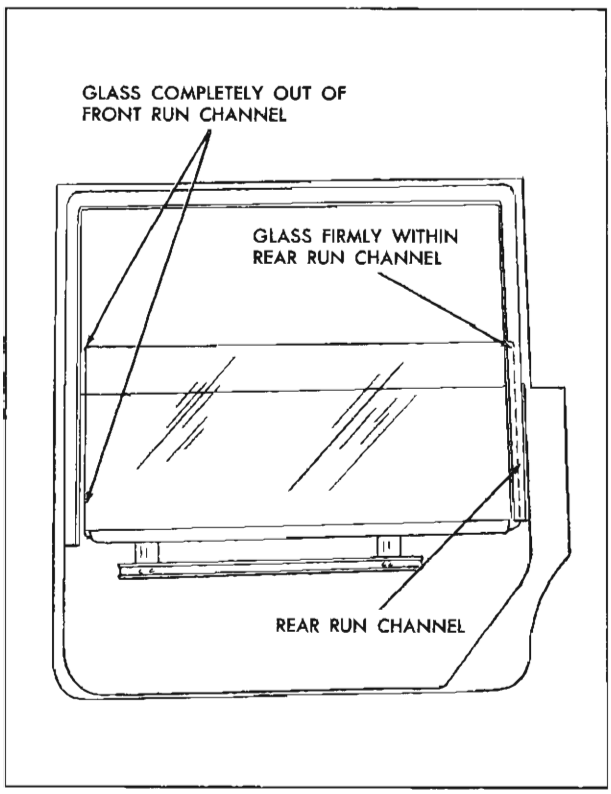


Fig. 3-28 Lowered Rear Door Glass—Sta. Wag.

REMOVAL

1. Insert tip of mechanically retained weatherstrip inserting tool J-5757, or other suitable tool, at clip locations and carefully snap clips from sealing plugs (see Fig. 3-32).

2. Some weatherstrips may be additionally secured by a two-prong clip, attached to lock and/or hinge pillar of door at belt line. This clip is attached by a single screw and must be removed prior to removal of weatherstrip. When clip is reinstalled, make sure both prongs are positioned over wire located in center of weatherstrip. Figure 3-34 shows clips attached to a front door weatherstrip but is typical of rear doors. This clip can be satisfactorily used to retain almost any area of a rear door weatherstrip that proves troublesome (see Fig. 3-34).

3. Carefully break cement bond securing weatherstrip to door. If necessary, a flat-bladed tool, such as a putty knife, can be used to help break cement bond (see Fig. 3-35).

4. Insert tool J-5757 at clip locations on door upper frame and carefully snap clips from piercings and remove weatherstrip from door.

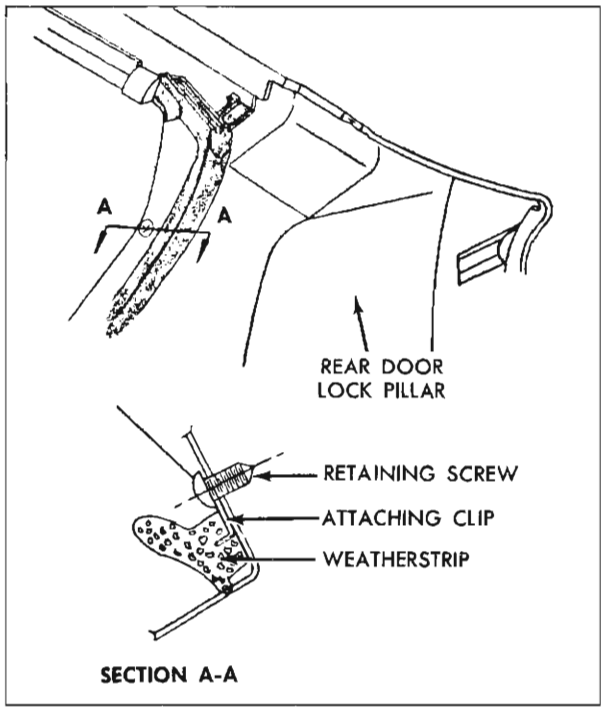


Fig. 3-30 "39" Style Weatherstrip Attaching Clip Screen

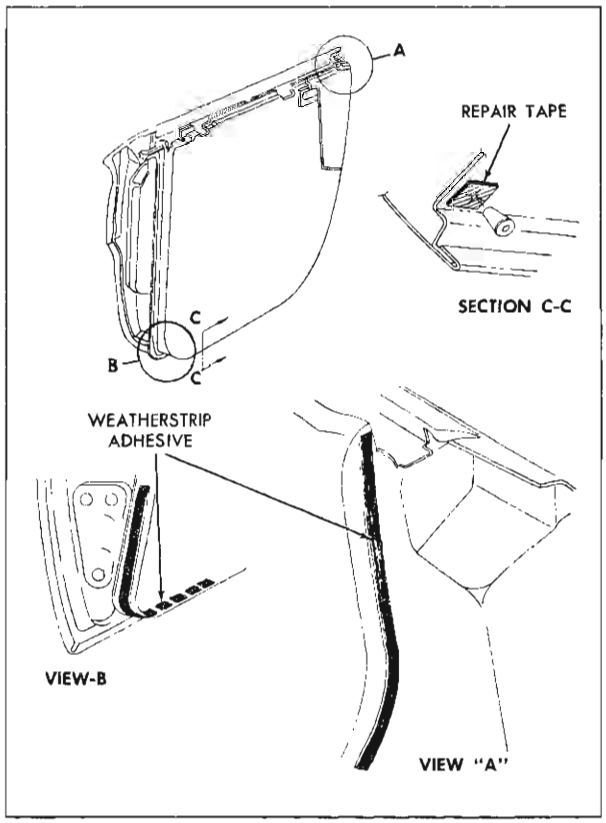


Fig. 3-31 Weatherstrip Adhesive Application

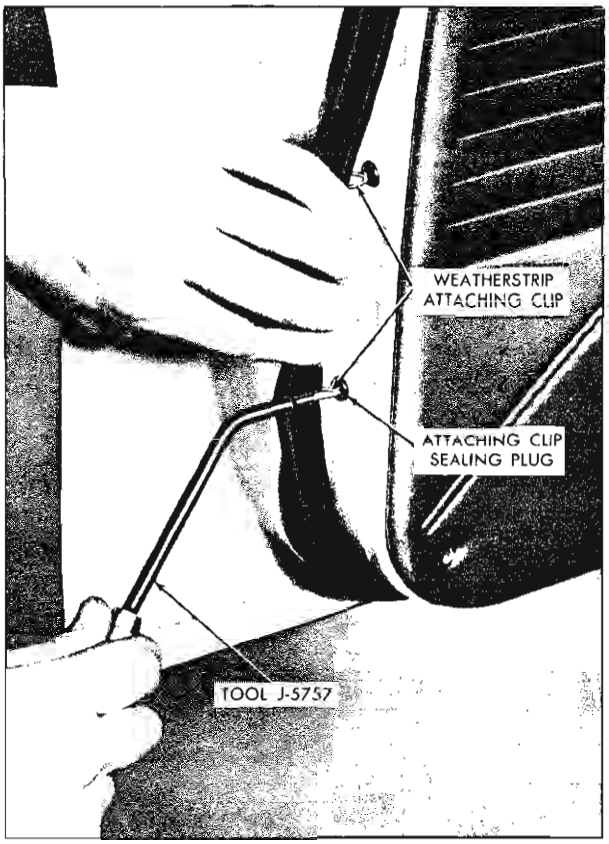


Fig. 3-32 Using Tool J-5757

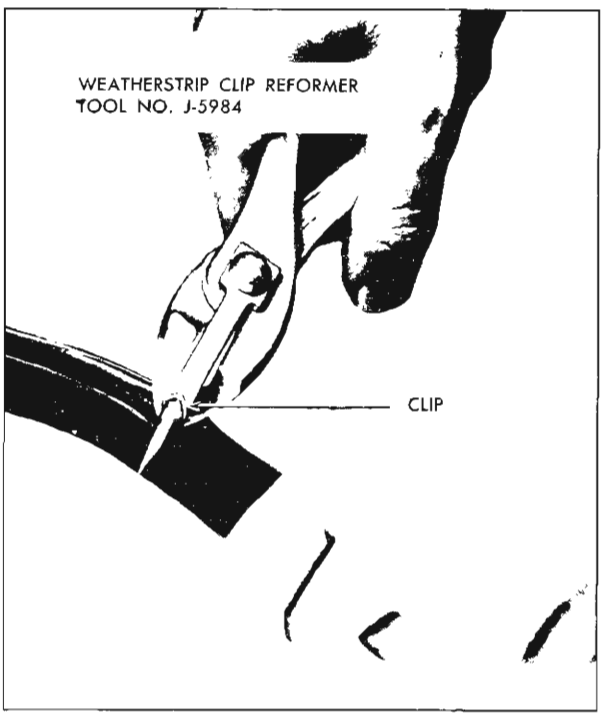


Fig. 3-33 Weatherstrip Clip Reformer

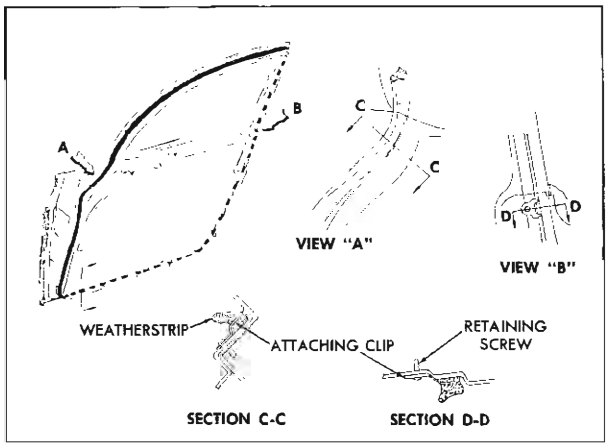


Fig. 3-34 Weatherstrip Attaching Clip

INSTALLATION

1. Check all weatherstrip attaching clips for proper contour and reform, if necessary, using clip reforming tool J-5984 (see Fig. 3-33).

2. Inspect all attaching clip sealing plugs. Any missing or damaged plug must be replaced. A plug that is loose and will not remain engaged in the door panel piercing can be corrected by installing a ½" by 1" piece of cloth-backed waterproof tape over piercing and making an "X" pattern slit in tape to accommodate sealing plug. If plug is still lose, repeat this operation by installing a second piece of tape over existing repair.

3. Clean off old cement from door to insure a clean cementing surface. Apply a bead of an approved weatherstrip adhesive to hinge and lock pillar facings of door. Begin adhesive application slightly above belt line and continue down door for approximately seven to nine inches. If necessary, weatherstrip adhesive can also be applied to lower corners of door (see Fig. 3-35).

4. Position rear door weatherstrip so that preformed section is at upper front corner of door header.

5. Install weatherstrip into door upper frame by inserting tool J-5757 into loop of wire clips and pushing clips into their respective piercings (see Fig. 3-32).

6. Press weatherstrip into place at cemented areas and, if applicable, reinstall weatherstrip two-prong attaching clip. Make sure prongs of clip are inserted over wire of weatherstrip (see Fig. 3-34).

7. Install weatherstrip into attaching clip sealing plugs by installing tool J-5757 into loop of wire clips and pushing clips into their respective plugs (see Fig. 3-32).

IMPORTANT: *Do not distort weatherstrip attaching clips as unsatisfactory weatherstrip retention will result.*

8. Clean off any excess weatherstrip adhesive.

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

REAR DOOR HINGES

The rear door hinges are attached to the center pillar with two (2) butt-type hinges. The hinge pillars are secured to the center pillar and door hinge pillar by screws and anchor plates. The lower hinge incorporates an integral door check and hold-open.

REMOVAL

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

1. On "39" style, lower door window.

2. Clean off excess sealer around each hinge strap and mark location on door hinge pillar or center pillar, depending on method of removal being used.

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

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

b. Detach wire harness from door inner panel and disconnect regulator motor from harness at connector.

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

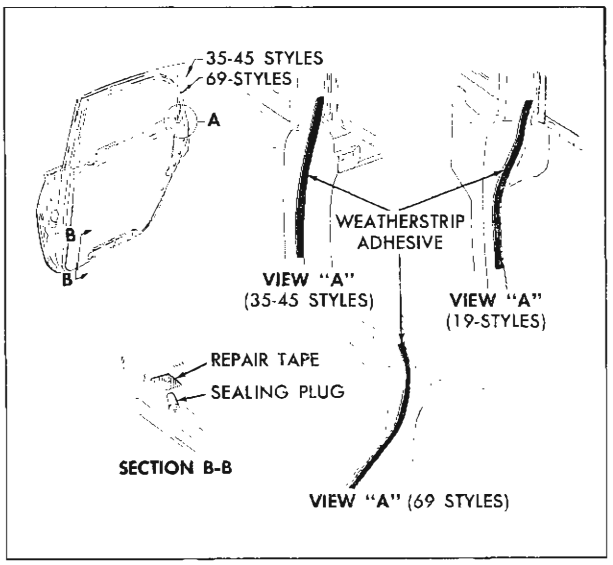


Fig. 3-35 Weatherstrip Adhesive Application

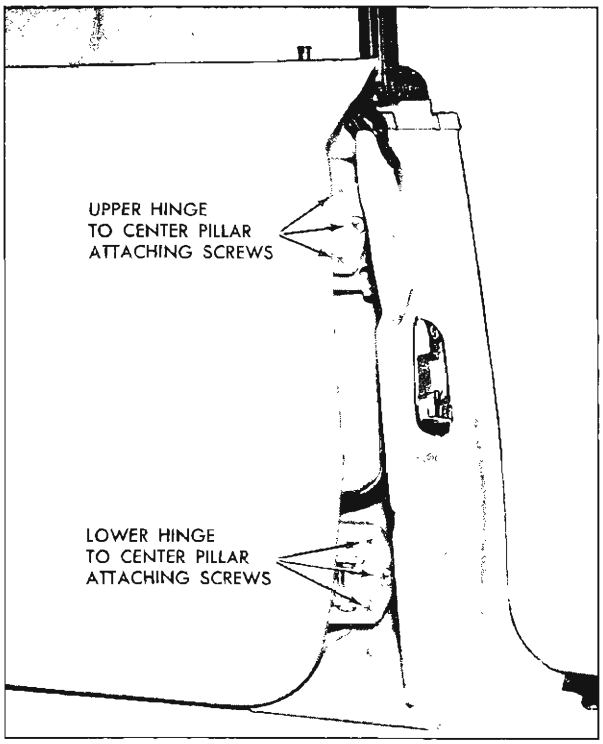


Fig. 3-36 Door to Pillar Attachment

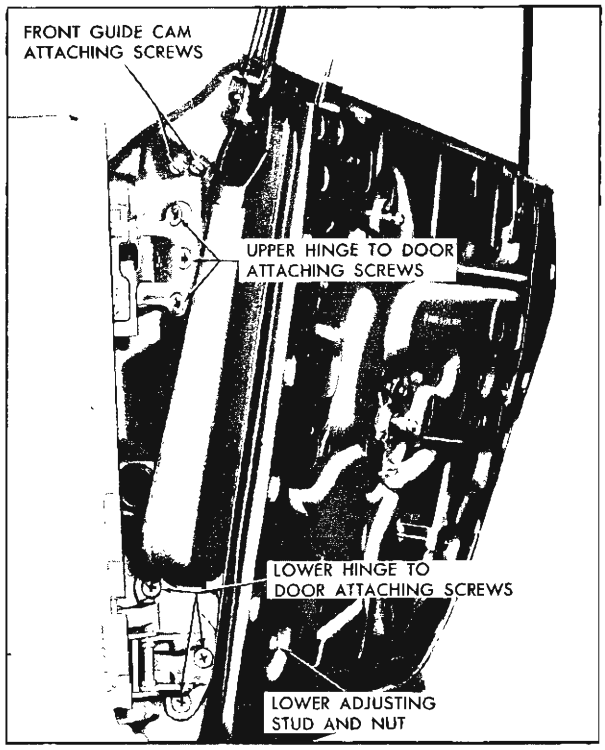


Fig. 3-37 Door Hinge Attachment

4. With door properly supported, remove three (3) upper and three (3) lower hinge attaching screws at door hinge pillar or center pillar depending on method of removal (Fig. 3-36 and 3-37).

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

INSTALLATION

1. With scraper and mineral spirits, clean off old sealing compound at hinge attaching areas. This operation should be performed carefully to avoid possibility of soiling adjacent trim material.

2. Apply a coat of heavy-bodied sealer to attaching surfaces of hinge straps or corresponding surfaces of door or body (Fig. 3-38).

3. With helper, lift door into position. Install screws loosely, align strap within scribe marks on pillar and tighten bolts. Check door for proper alignment.

4. On door 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 assembly.

5. Where required, seal door inner panel water de-deflector as specified in "DOOR INNER PANEL WATER DEFLECTOR" and reinstall all previously removed parts.

6. For lubrication information see "LUBRICATION" section.

ADJUSTMENTS

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

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

1. For in and out or up and down adjustment, loosen hinge to door pillar attaching screws (Fig. 3-37). Adjust door as required and tighten screws.

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 (Fig. 3-36). Adjust door fore or aft as required and tighten screws and bolts.

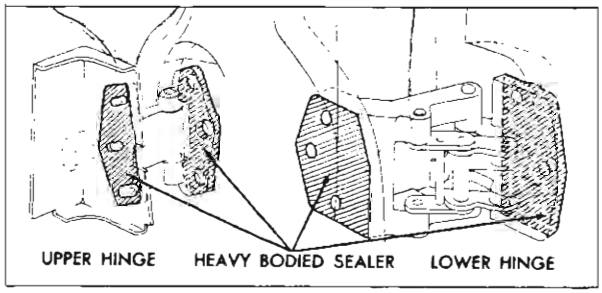


Fig. 3-38 Rear Door Hinge Sealer

CAUTION: The rear door 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.

REAR DOOR LOCK ASSEMBLY

REMOVAL AND INSTALLATION

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

2. On "35", "45" and "69" styles, through large access hole, remove screw securing lower end of glass run channel at door lock pillar and raise end of channel to expose lock assembly (Fig. 3-39).

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

4. At lock pillar facing, remove door lock attaching screws and remove lock assembly through access hole.

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

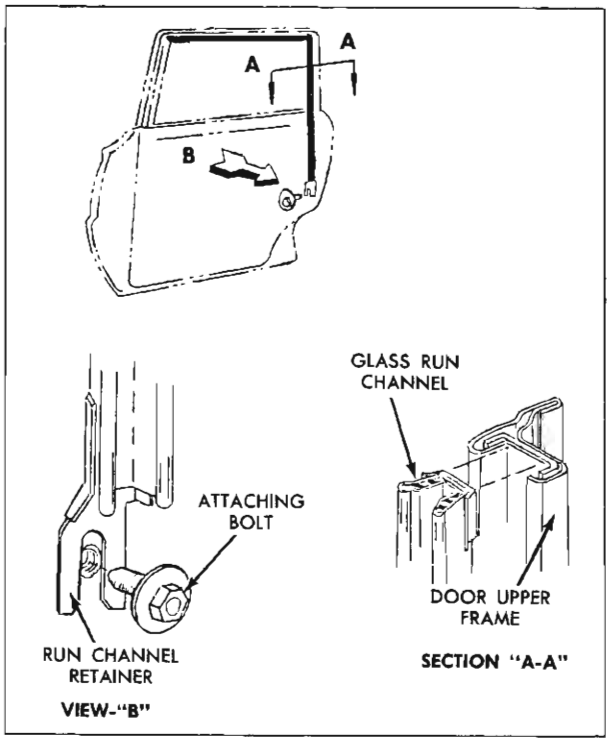


Fig. 3-39 Glass Run Channel

REAR DOOR LOCK STRIKERS

REMOVAL AND INSTALLATION

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

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

3. To install, seal all striker plate attaching screw clearance holes with body caulking compound.

4. Apply a 1/8" bead of body caulking compound around entire back surface of striker plate; skips must not exist in caulking compounds. Place striker and adjusting plates within marks on pillar and install striker plate attaching screws.

NOTE: Whenever a door has been removed and installed or realigned, the door SHOULD NOT be closed completely until a visual check is made to determine if lock extension will engage in striker notch. Where required, door lock striker service spacers should be installed so that door can be closed and an accurate check made to determine proper spacer requirements.

5. Clean off all excessive body caulking compounds.

ADJUSTMENTS

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

DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER SERVICE SPACERS

1. Door should be properly aligned before checking door spacer requirements.

2. To determine if door lock striker emergency spacers are required, apply modeling clay or body caulking compound in door lock striker notch where lock extension engages and close door to form a measurable impression in clay or caulking compound (Fig. 3-40).

When dimension "A" from rear face of striker teeth to rear edge of depression in clay is less than $^{11}/_{32}$", install emergency spacers and proper length striker attaching screws as indicated.

NOTE: Dimension "B" in the illustration should never be less than $^{1}/_{8}$".

Striker attaching screws should be zinc or cadium-plated flat-head cross recess screw with countersunk washer.

Dimension "A"	No. of Spacers Required	Spacer Thickness	Striker Attaching Screws
11/32" to 9/32"	1	1/16"	Original
9/32" to 7/32"	1	1/8"	Emergency (1/8" longer)
7/32" to 5/32"	1–(1/16" Spacer) 1–(1/8" Spacer)	3/16"	Emergency (1/8" longer)
5/32" to 3/32"	2–(1/8" Spacer)	1/4"	Emergency (1/4" longer)

Fig. 3-40 Striker Engagement Check

REAR DOOR INNER PANEL CAM

REMOVAL AND INSTALLATION

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to expose inner panel cam attaching bolts (Fig. 3-41).

2. Remove cam attaching screws and disengage cam from window regulator arm roller and remove from door.

3. To install, reverse removal procedure. Prior to installation of inner panel cam, lubricate entire length of cam with 630AAW Lubriplate or equivalent.

ADJUSTMENTS

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

REAR DOOR LOCK TO LOCKING LEVER ROD

REMOVAL AND INSTALLATION

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to expose lock rod assembly and gain access to rear door lock assembly.

2. Remove inside locking rod knob from rod.

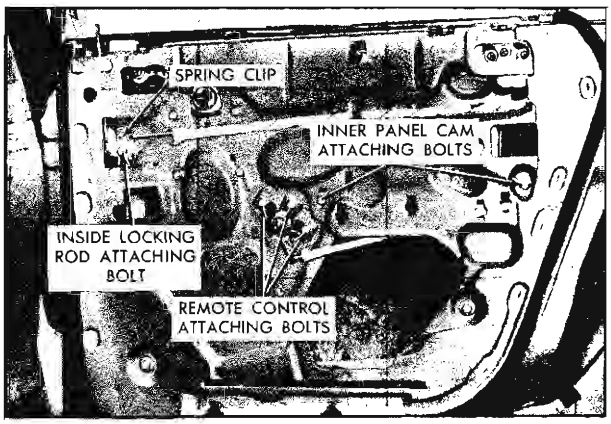


Fig. 3-41 Inner Panel Cam

3. On "35", "45" and "69" styles, through large access hole, remove screw securing lower end of glass run channel at door lock pillar to gain access to spring clip securing rod to lock (Fig. 3-39).

4. Through access hole, disengage spring clip securing inside locking rod assembly to door lock and disengage rod from lock (see "DOOR LOCK SPRING CLIPS").

5. Disengage rod from spring clip on door inner panel. Remove inside locking rod assembly attaching bolt and remove assembly from door (Fig. 3-41).

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

REAR DOOR REMOTE CONTROL ASSEMBLY AND CONNECTING ROD

REMOVAL AND INSTALLATION

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

2. Remove remote control attaching bolts and remove remote control from connecting rod (Fig. 3-41).

3. On "35", "45" and "69" styles remove glass run channel lower attaching screw to gain access to spring clip securing rod to lock (Fig. 3-39).

4. Disengage remote control connecting rod from lock. Remove rod from door.

5. To install remote control and connecting rod, reverse removal procedure. Position remote control rearward sufficiently to take up slack in linkage so that all clearances are taken out of linkage in a rearward position. Check all operations of door lock before installing door inner panel water deflector and trim pad.

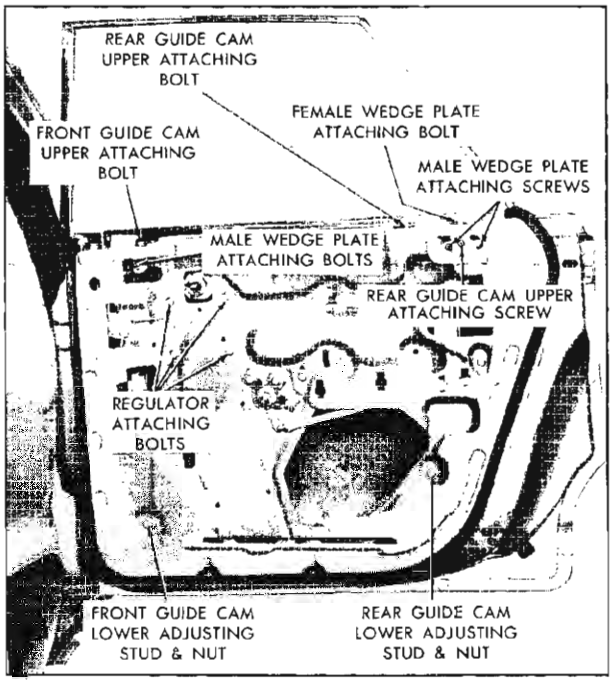


Fig. 3-42 Window Regulator

REAR DOOR WINDOW REGULATOR ASSEMBLY—MANUAL AND ELECTRIC

REMOVAL AND INSTALLATION

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

2. Remove door window lower sash channel cam. Then carefully raise window and prop in a raised position.

3. On styles equipped with electric window regulators, disconnect wiring harness feed wires from regulator motor at connector.

4. On 39 styles, equipped with electric window regulators, loosen rear guide cam upper attaching screw and bolt and remove lower adjusting stud and nut. This is necessary to move lower section of rear guide cam rearward far enough to permit removal of electric window regulator and motor assembly. Figure 3-42 shows the rear guide cam attachments and is typical of rear guide cams equipped with power windows.

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

5. Remove regulator attaching bolts (four), disengage balance arm from inner panel cam and remove regulator assembly through large access hole (see Figure 3-42).

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

REAR DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

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

REMOVAL AND INSTALLATION

1. Remove electric window regulator assembly from door and/or rear quarter and clamp securely in vise (Fig. 3-43).

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 in position.

2. Drill a ¼" hole through sector and back plate within area indicated by "A" (Fig. 3-43).

NOTE: Locate hole a sufficient distance from edge of sector to insure proper retention of the sector.

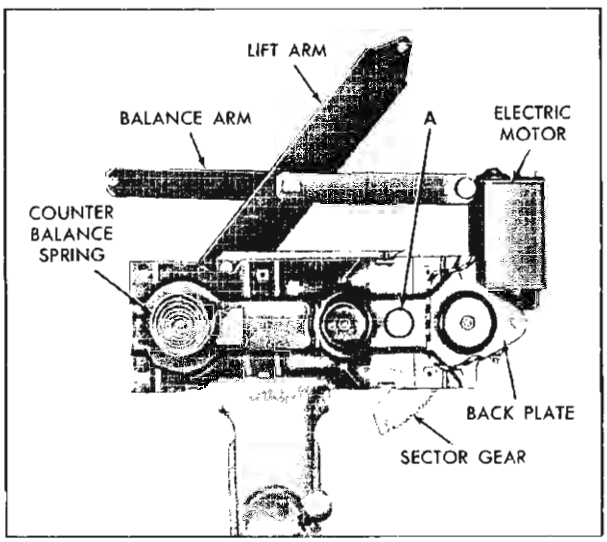


Fig. 3-43 Electric Window Regulator

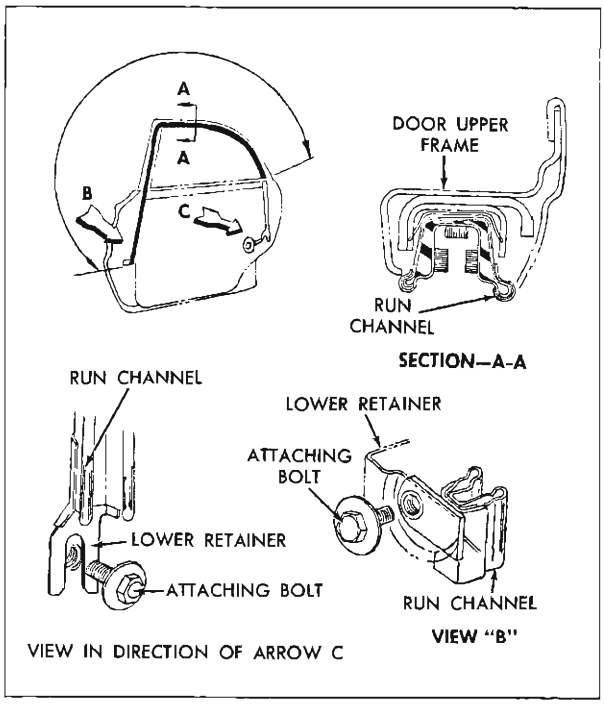


Fig. 3-44 Run Channel "69" Style

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 sector assembly from regulator (Fig. 3-43).

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 assembly attaching holes, the regulator lift arm may be moved up or down manually so that motor pinion gear will mesh with teeth on regulator sector, and regulator attaching holes will line up.

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

REAR DOOR WINDOW GLASS RUN CHANNEL ASSEMBLIES

69 STYLE

REMOVAL AND INSTALLATION

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

2. Remove door window assembly.

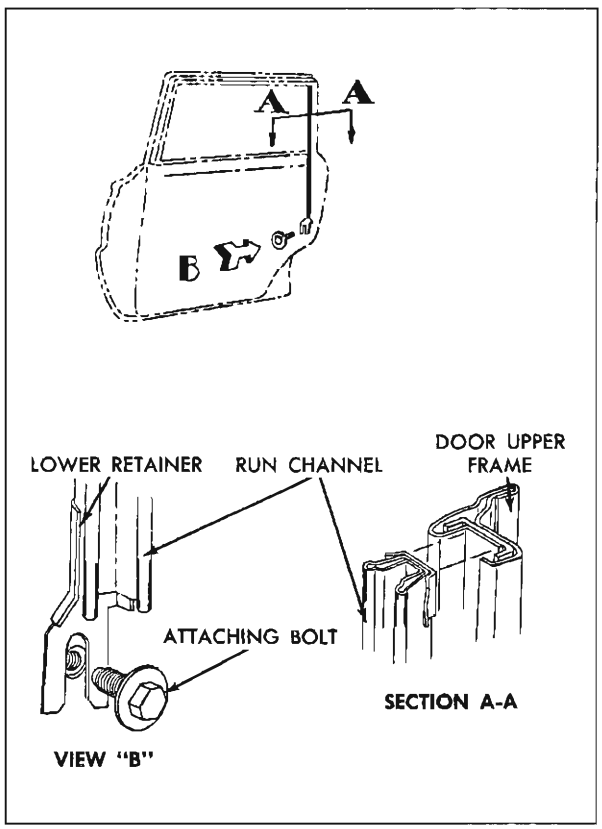


Fig. 3-45 Run Channel "35-45" Styles

3. Remove front and rear attaching screws from hinge and lock pillar facing of door inner panel. See Fig. 3-44).

4. Carefully disengage glass run channel attaching clips, beginning along front of door window frame. Pull glass run channel inboard and upward and remove channel from between inner and outer panels.

5. To install, reverse removal procedure. Check operation of rear door window and, where required, adjust glass run channel for proper operation of window assembly.

REAR DOOR WINDOW GLASS RUN CHANNEL ASSEMBLIES

35 and 45 STYLES

REAR GLASS RUN CHANNEL— REMOVAL AND INSTALLATION

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

2. From inside door, remove bolt securing lower end of glass run channel at door lock pillar facing (see Fig. 3-45).

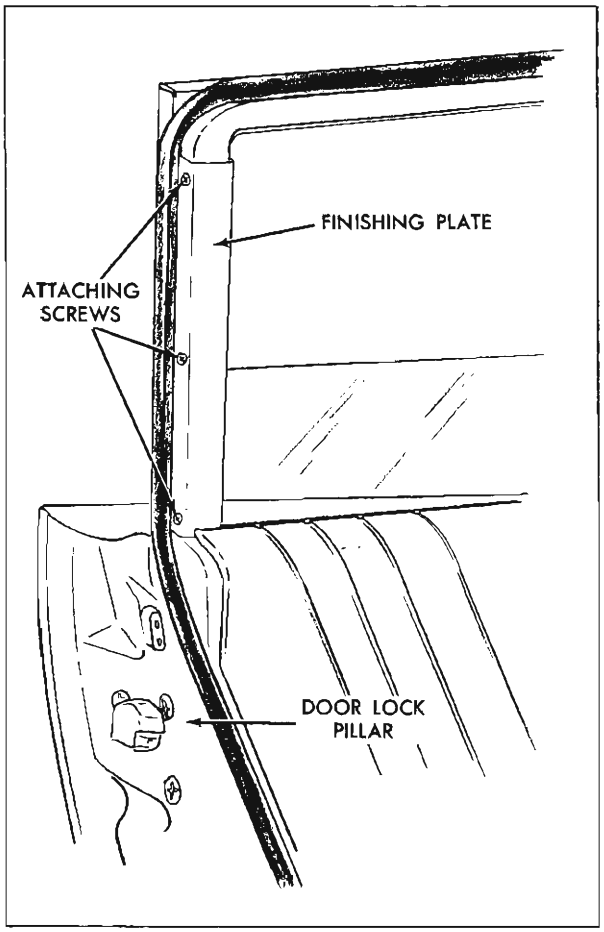


Fig. 3-46 Finishing Plate "35-45" Styles

3. Remove screws securing door belt trim support rear finishing plate and remove plate (see Fig. 3-46).

4. Remove screws securing rear door window glass run channel rear retainer from rear of window frame assembly 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 adjust rear glass run channel as required before installing water deflector.

FRONT GLASS RUN CHANNEL— REMOVAL AND INSTALLATION

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

2. Remove glass run channel lower attaching bolts from hinge pillar facing of door.

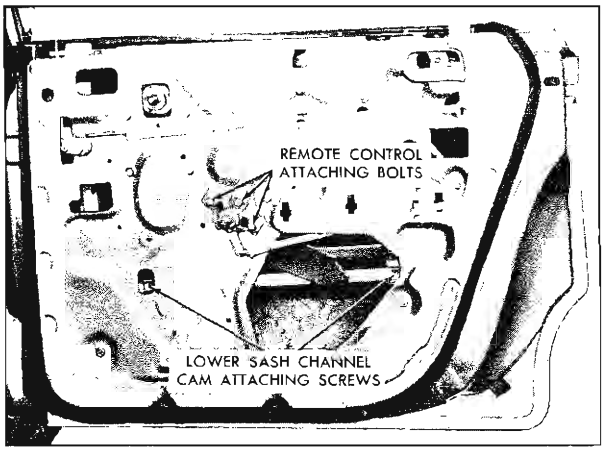


Fig. 3-47 Sash Channel Cam

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 adjust channel as required.

ADJUSTMENTS (35, 45 and 69 STYLES)

1. To adjust either glass run channel in or out or up or down, loosen channel attaching screw(s), adjust channel as required and tighten screws. After any adjustments, check window for proper operation.

NOTE: Adjustment of both channels must be coordinated to provide proper operation of the rear door window assembly.

REAR DOOR WINDOW LOWER SASH CHANNEL CAM

REMOVAL AND INSTALLATION

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

2. Lower door window sufficiently to gain access to lower sash channel cam attaching screws through access holes in door inner panel and remove screws (Fig. 3-47).

3. While supporting window by hand, carefully disengage cam from window lower sash channel and rollers on window regulator arms and remove from door. Carefully lower door window.

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

REAR DOOR WINDOW ASSEMBLY

35, 45 and 69 STYLES

REMOVAL AND INSTALLATION

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

2. Remove lower sash channel cam attaching screws and disengage cam from sash channel (see Fig. 3-48).

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.

3. Rotate rear edge of window assembly downward to remove assembly from door on "69" style.

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

REAR DOOR WINDOW GUIDE FRONT CAM ASSEMBLY

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 (2) bolts. The front cam can be removed without removing this attaching bracket.

REMOVAL AND INSTALLATION

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

2. Through inner panel access hole remove front guide cam upper attaching screw(s) and front guide cam lower adjusting stud and nut (Fig. 3-42).

3. Carefully disengage guide cam from window lower sash channel roller and remove guide cam through access hole.

4. To install, reverse removal procedure. Prior to installation, lubricate entire length of guide cam with 630AAW Lubriplate or equivalent. Reseal front guide cam lower adjusting stud and nut with body caulking compound.

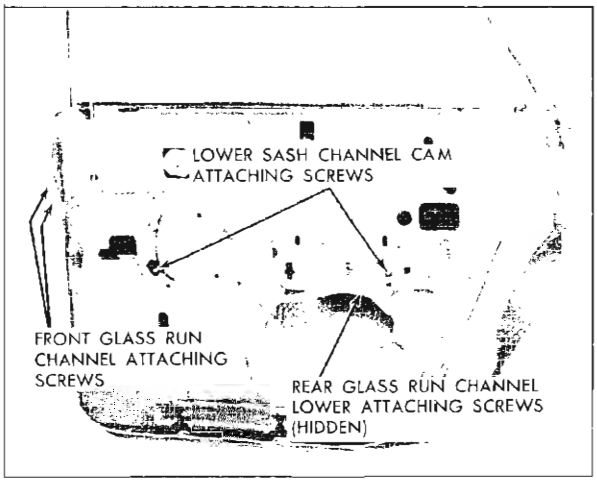


Fig. 3-48 Run Channel and Cam

5. Check operation of window assembly and, where required, adjust window as described under "REAR DOOR WINDOW ADJUSTMENTS".

REAR DOOR WINDOW GUIDE FRONT CAM SUPPORT

39 STYLE

REMOVAL AND INSTALLATION

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

2. Raise door window. Through inner panel access hole remove front guide cam upper attaching bolt (Fig. 3-42).

3. At door hinge pillar facing, remove two (2) screws securing guide cam support and remove support through access hole.

4. To install, reverse removal porcedure. Check operation of window assembly and, where required, adjust window as described under "REAR DOOR WINDOW ADJUSTMENTS".

REAR DOOR WINDOW GUIDE REAR CAM ASSEMBLY

39 STYLE

REMOVAL AND INSTALLATION

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

2. Remove rear cam upper attaching screws and lower adjusting stud and nut (Fig. 3-47).

3. Carefully disengage cam from roller on window guide assembly and remove rear cam through large access hole.

4. To install, reverse removal procedure. Prior to installation lubricate entire length of cam with 630AAW Lubriplate or equivalent. If exposed, seal cam lower adjusting stud and nut with body caulking compound.

5. Check operation of window assembly and, where required, adjust window as described under "REAR DOOR WINDOW ADJUSTMENTS".

REAR DOOR WINDOW ASSEMBLY— MANUAL AND ELECTRIC

39 STYLE

REMOVAL AND INSTALLATION

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

2. Through access holes in door inner panel remove screws securing rear door window front and rear male wedge plates to window lower sash channel and remove wedge plates (Fig. 3-42).

3. Lower door window and remove lower sash channel cam attaching screws (Fig. 3-47).

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 door window and remove from door.

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

ADJUSTMENTS

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

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

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

1. Up and down adjustment of door window assembly.

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

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

CAUTION The front or rear of window assembly may be adjusted up or down by adjusting either front or rear male wedge plate up or down as required. In cases of major adjustment, however, both wedge plates should be adjusted.

2. Fore or aft adjustment of rear door window assembly.

a. Loosen lower adjusting stud nut on both front and rear guide cams (Fig. 3-42).

b. Loosen screw(s) securing upper end of front and rear guide cams, position window fore or aft as required, then tighten screw(s) and lower stud nut on each cam.

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

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

3. The in and out adjustment of the rear door window assembly can be obtained by adjusting the front and rear guide cams in or out as required. It is desirable, however, to adjust only one (1) guide cam at a time in order to maintain the fore and aft adjustment of the window assembly.

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

(1) With window in full up position, loosen front guide cam adjusting stud nut (Fig. 3-42).

(2) Loosen front female wedge plate attaching screw.

(3) Loosen two (2) front guide cam support attaching screws on door hinge pillar facing.

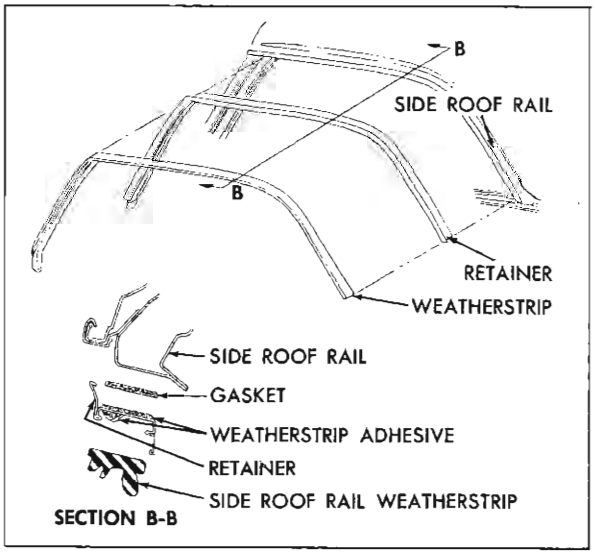


Fig. 3-49 Side Roof Rail Weatherstrip "47" Style

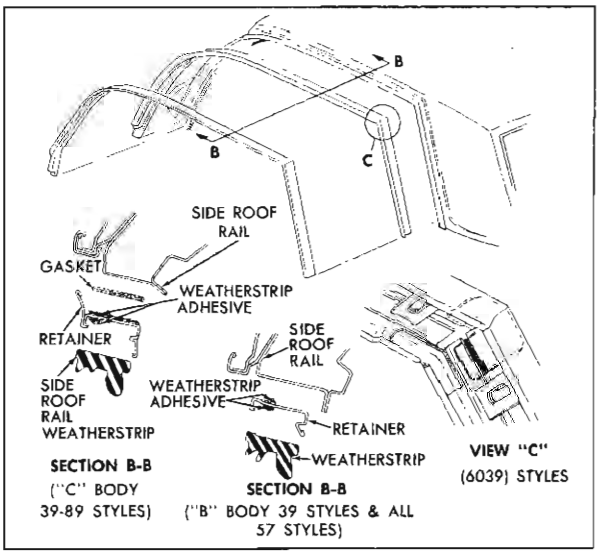


Fig. 3-50 Side Roof Rail Weatherstrip "39 & 57" Styles

(4) Position front of window assembly in or out as required and adjust front female wedge plate accordingly; then tighten wedge plate attaching screw.

(5) Adjust front guide cam lower adjusting stud in or out as required and tighten nut. Tighten front guide cam support attaching screws on door hinge pillar facing.

(6) Reseal lower adjusting stud and nut with body caulking compound.

(7) Position window assembly in or out as required; then tighten screws.

(8) Adjust lower adjusting stud in or out as required and tighten stud nut. Check window for proper operation.

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

SIDE ROOF RAIL WEATHERSTRIP

39, 47a and 57 STYLES

DESCRIPTION

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

REMOVAL

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

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

3. Remove side roof rail weatherstrip from body.

INSTALLATION

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

2. Apply a continuous bead (approximately $\frac{3}{16}$" diameter) of weatherstrip adhesive along entire outboard surface of side roof rail weatherstrip retainer (See Section "B-B" in Figure 3-49 for 47 styles and 3-50 for 39 and 57 styles.)

3. With a flat-bladed tool, engage inboard edge of weatherstrip and then outboard edge of weatherstrip into weatherstrip retainer.

4. Install snap fastener at front body hinge pillar and clean off all excessive weatherstrip cement.

SIDE ROOF RAIL WEATHERSTRIP ADJUSTMENTS

39, 47 and 57 STYLES

With doors and windows closed, front door window and rear door or rear quarter window upper frames should make an even continuous contact with the side

roof rail weatherstrip. If necessary, adjust weatherstrip, ventilator assembly, front door window and rear door or rear quarter window to obtain proper weatherstrip contact.

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

IMPORTANT: Before attempting to adjust the side roof rail weatherstrip, first check that the body side glass is properly aligned and, where necessary, adjust for proper alignment as directed under Ventilator, Front Door Window, Rear Door Window and Rear Quarter Window Alignment.

1. To adjust the side roof rail weatherstrip "in or out", first determine and mark retainer at area or areas to be adjusted.

2. Remove side roof rail weatherstrip.

3. Loosen retainer attaching screws slightly in area to be adjusted and adjust retainer in or out as required.

4. Tighten retainer attaching screws and install side roof rail weatherstrip.

CENTER PILLAR FINISHING CAP

39 STYLE

REMOVAL AND INSTALLATION

1. Remove two (2) screws from top of cap and remove cap from center pillar.

2. To install, apply a bead of body caulking compound to underside of cap; then, position cap on center pillar and install attaching screws.

CENTER PILLAR TRIM

39 STYLE

REMOVAL AND INSTALLATION

1. Remove center pillar finishing cap.

2. Carefully slide center pillar trim upward to disengage trim from pinchweld flanges and remove from body.

3. To install, reverse removal procedure.

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 Sedan ("11" Styles)

Two Door Coupes ("47" and "57" Styles)

Convertibles ("67" Styles)

Four Door Sedan ("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.

TRIM ASSEMBLY

11 STYLE

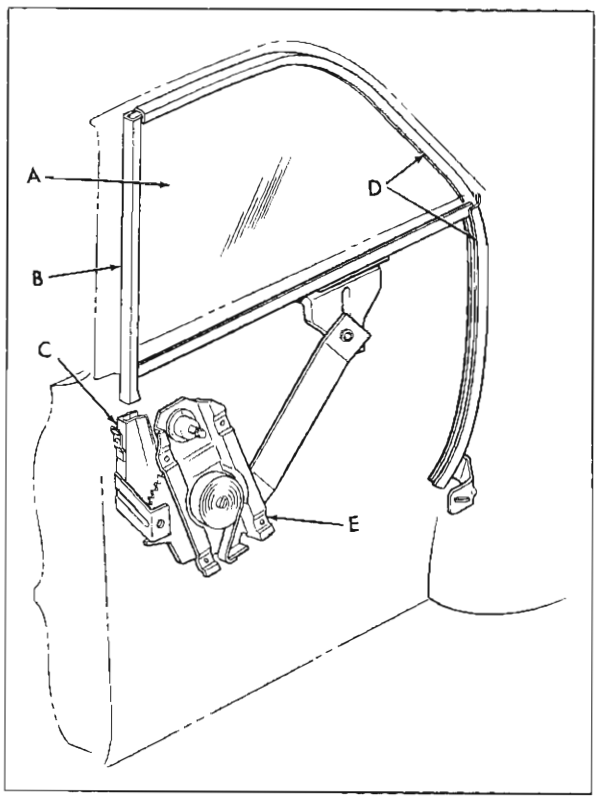
REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back assemblies.

2. Remove rear quarter garnish molding and rear quarter arm rest assembly. On styles with manually operated windows, remove window regulator handle.

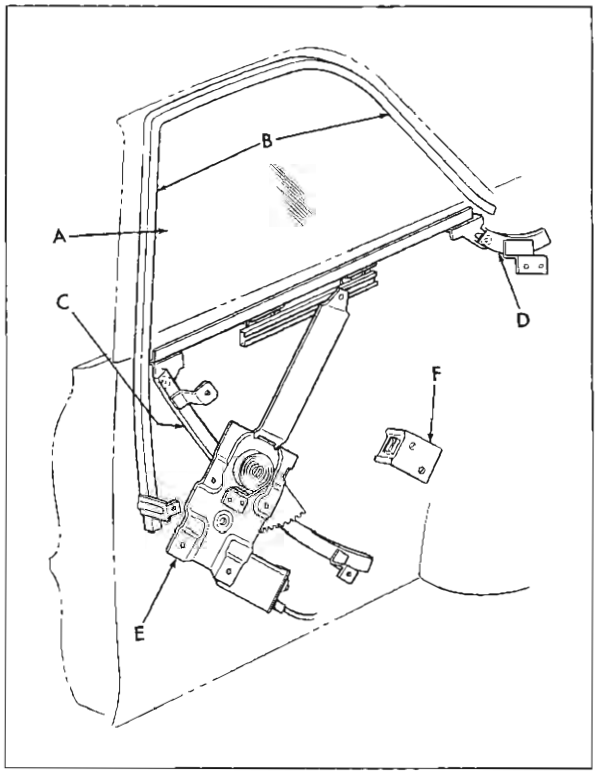
3. Using a trim panel removing tool J-6335, carefully pry rear quarter trim assembly retaining nails from tacking strip; then lift trim assembly upwards to disengage from retainers at top of rear quarter inner panel and remove assembly from quarter panel.

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



A. Window Assembly
B. Window Front Upper Glass Run Channel
C. Window Front Lower Glass Run Channel
D. Window Rear Glass Run Channel
E. Window Regulator

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



A. Window Assembly
B. Window Glass Run Channel
C. Window Front Guide
D. Window Rear Guide
E. Window Regulator
F. Window Lower Stop

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

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

REAR QUARTER WINDOW—MANUAL

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim assembly 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 window front glass 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.

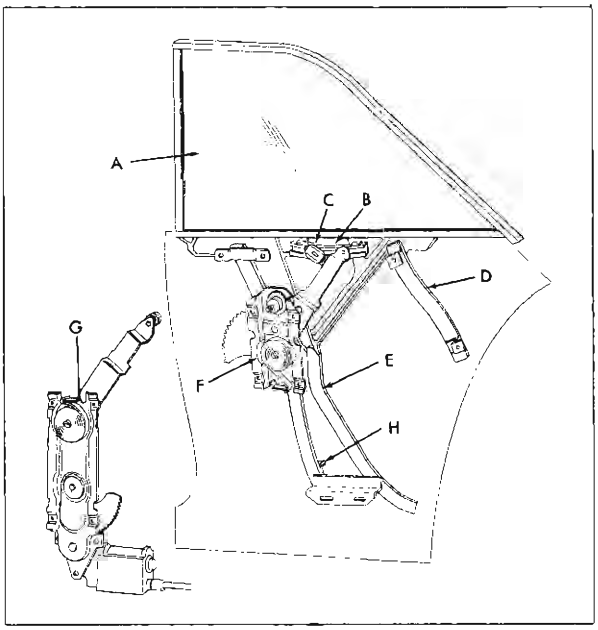
WINDOW ADJUSTMENTS—MANUAL

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.



A. Window Electric Motor and Regulator
B. Window Assembly
C. Window Hinge Bolt
D. Window Hinge Adjusting Plate
E. Window Lower Sash Channel Cam
F. Window Guide—Includes Window Upper Stop
G. Window Regulator—Manual
H. Window Lower Stop

Fig. 4-3 Rear Quarter—"47" Style

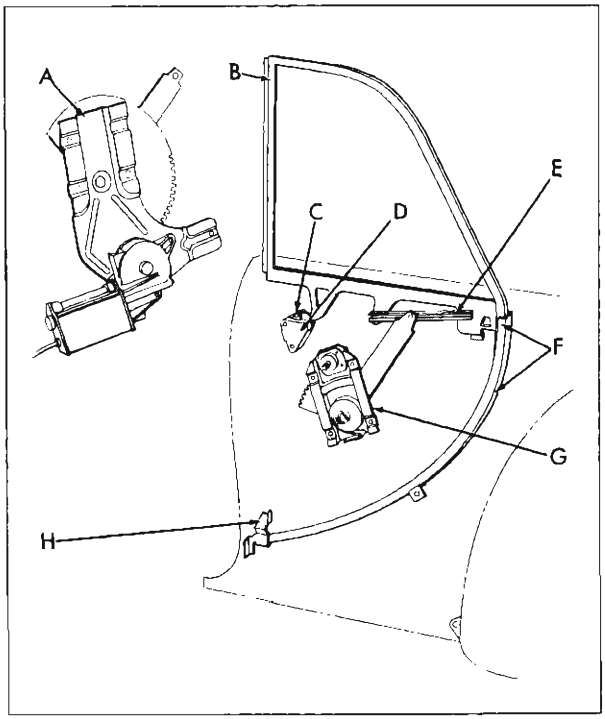
c. Operate window regulator handle rapidly back and forth a few times (one-eighth turn each way) to eliminate "slack" or "play" and then tighten regulator attaching screws.

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 screw.



A. Rear Quarter Window Assembly
B. Rear Quarter Window Lower Sash Channel Cam
C. Rear Quarter Window Upper Stop
D. Rear Quarter Window Rear Guide
E. Rear Quarter Window Front Guide
F. Rear Quarter Window Regulator—Manual
G. Rear Quarter Window Regulator—Electric
H. Rear Quarter Window Lower Stop

Fig. 4-4 Rear Quarter—"67" Style

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" styles.

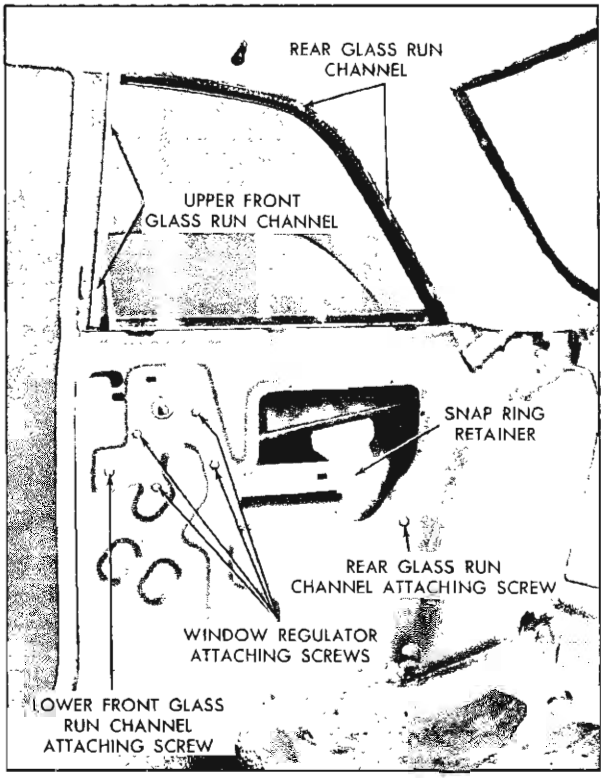


Fig. 4-5 Rear Quarter Hardware Manual—"11" Style

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 insert 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 assembly, 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 quater trim assembly, 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" styles.

WINDOW GLASS RUN OUTER SEALING STRIP—MANUAL

11 STYLE

REMOVAL AND INSTALLATION

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

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

3. Lower window assembly 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 assembly or adjacent painted surfaces.

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

REAR QUARTER WINDOW—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

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

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 assembly 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.

4. To install rear quarter window assembly, 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 styles.

WINDOW ADJUSTMENT—ELECTRIC STYLES

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.

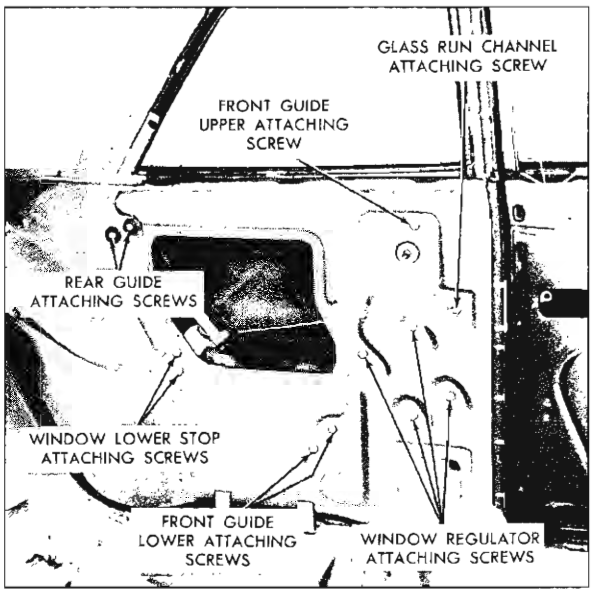


Fig. 4-6 Rear Quarter Hardware "11" Electric Styles

WINDOW GLASS RUN OUTER SEALING STRIP—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim assembly 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 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 assembly or adjacent painted surfaces.

4. Install outer sealing 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 assembly.

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 ASSEMBLY—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim assembly.

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 assembly rearward between panels sufficiently to allow upper end of guide to be started out through large access hole; then remove guide assembly.

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

Adjust rear quarter guide for proper window alignment and operation as described under "Rear Quarter Window Adjustments" for "11" styles. Seal inner panel hole cover and front guide attaching screws as specified under "Rear Quarter Inner Panel Sealing".

WINDOW REAR GUIDE ASSEMBLY—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

1. Remove rear quarter trim assembly.

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 ASSEMBLY—ELECTRIC STYLES

11 STYLE

REMOVAL AND INSTALLATION

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

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 feed wire plug from electric motor.

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

4. 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 rear quarter window regulator is described and illustrated under "Rear Door and/or Rear Quarter Window Regulator Electric Motor Assembly in the Door Section.

5. To install window regulator assembly, reverse removal procedure. Prior to installing regulator, lubricate regulator and window guide cams with Lubriplate or its equivalent.

Seal access hole cover and any screws which have been disturbed 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.

REAR QUARTER ARM REST ASSEMBLY

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

4. Remove arm rest assembly from rear quarter panel.

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

TRIM ASSEMBLY
47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back assemblies.

2. Remove rear quarter arm rest assembly. Remove quarter belt finishing moldings where present.

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

4. Remove screws securing rear quarter filler panel to quarter panel and remove filler panel.

5. Using a trim panel removing tool (No. J-6335), carefully pry trim assembly retaining nails from tacking strip; then lift trim assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

6. To install rear quarter trim assembly, reverse removal procedures.

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

WINDOW ASSEMBLY— MANUAL OR ELECTRIC
47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back assemblies and rear quarter arm rest and trim assemblies. Remove inner panel access hole cover.

NOTE: On models equipped with electric window regulators, disconnect feed wire connector from electric motor.

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

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

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

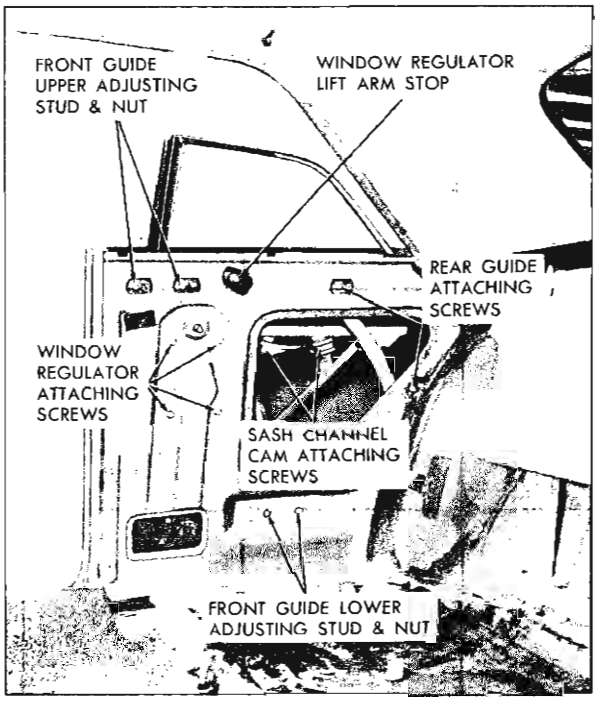


Fig. 4-7 Rear Quarter Hardware 47-57 Styles

4. Remove rear 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 rear quarter window. Remove rear quarter window from between the panels by lifting upward and inward.

6. To install rear quarter window, insert the window between the panels and prop in the "up" position. Engage front guide channels to rollers on window lower sash channel frame. Allow window to drop to the half down position and insert front guide adjusting studs into the adjusting stud holes in the rear quarter inner panel. Install previously removed parts.

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

Adjust rear quarter window for proper alignment and operation as described under "Rear Quarter Window Adjustments" for "47" and "57" styles. Seal all hardware attachments that have been disturbed and the inner panel access hole cover, as specified under "Rear Quarter Inner Panel Sealing" for "47 and "57" styles.

WINDOW ADJUSTMENTS

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

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

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

4. To adjust the top of the rear quarter window in or out, loosen the front guide lower attaching stud nut (Fig. 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 assembly attaching bolt (located at the lower end of the window front guide cam) and adjust stop up or down as required.

NOTE: After performing window adjustments, seal hardware attaching screws which have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "47" and "57" styles.

WINDOW REGULATOR ASSEMBLY—MANUAL OR ELECTRIC

47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter window as described under "Window Assembly—Manual or Electric—Removal".

NOTE: On styles equipped with electric window regulators, disconnect feed wire plug from electric motor.

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

2. Remove rear quarter window regulator attaching screws (Fig. 4-7); then remove regulator assembly through large access hole.

NOTE: The procedure for removing the electric motor from the rear quarter window regulator is described and illustrated under "Rear Door and/or Rear Quarter Window Regulator Electric Motor Assembly" in the Door Section.

3. To install, reverse removal procedure. Seal all hardware attaching locations that have been disturbed as specified under "Rear Quarter Inner Panel Sealing" for "47" and "57" styles.

WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

47 and 57 STYLES

REMOVAL AND INSTALLATION

See "Rear Door and/or Rear Quarter Window Regulator Electric Motor Assembly" in the Door Section.

WINDOW FRONT GUIDE ASSEMBLY

47 and 57 STYLES

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and seat back. Remove rear quarter arm rest and trim assemblies. Remove rear quarter inner panel large access hole cover.

2. With window in "up" position, remove the window front guide upper and lower attaching stud nuts (Fig. 4-7).

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

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

Adjust front guide assembly for proper window alignment and operation as described under "Rear Quarter Window Adjustments" for "47" and "57" styles.

Seal front guide attaching screws as specified under "Rear Quarter Inner Panel Sealing" for "47" and "57" styles.

WINDOW REAR GUIDE ASSEMBLY

47 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 OUTER SEALING STRIP

47 STYLE

REMOVAL AND INSTALLATION

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

2. Remove rear quarter inner panel large access hole cover. Loosen window lower stop attaching screw located on lower end of window front guide assembly; then operate window to the extreme low position.

3. Remove screws at forward end of outer sealing strip securing outer sealing strip to rear quarter outer panel return flange. Disengage outer sealing strip retaining clips from rear quarter outer panel return flange by pressing strip assembly downward.

NOTE: If necessary, use a screwdriver 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 ASSEMBLY

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 ASSEMBLY

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 a trim panel removing tool J-6335 carefully pry trim assembly retaining nails from tacking strips; then lift assembly upward to disengage from retainers at top of rear quarter inner panel and remove assembly from body.

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

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

QUARTER WINDOW ASSEMBLY— MANUAL OR ELECTRIC

67 STYLE

REMOVAL AND INSTALLATION

1. Lower folding top and operate rear quarter window to a half down position. Remove rear seat cushion and seat back. Remove folding top compartment side trim panel and rear quarter trim assembly.

2. On styles equipped with electric window regulators, remove access hole cover and disconnect the

wiring harness electrical feed plug from the regulator motor.

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

3. Remove window pivot bolt (Fig. 4-8). Disengage window male hinge from female hinge plate; then raise window to disconnect window lower sash channel cam from roller on window regulator lift arm and remove window.

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

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 upper stop to desired position and tighten guide attaching screws.

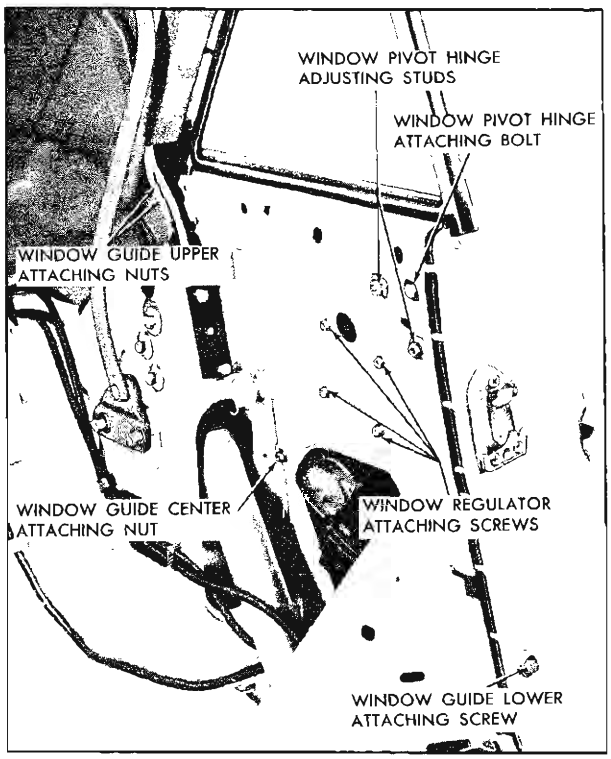


Fig. 4-8 Rear Quarter Hardware—"67" Style

2. To adjust the rear quarter window up or down; fore or aft; or to adjust the top or the rear of the window in or out, the folding top compartment side trim panel and rear quarter trim assembly must be removed to gain access to the pivot 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 bolt stud nuts (Fig. 4-8).

c. In or out adjustment of rear window: Loosen pivot hinge rear adjusting stud nut and (slightly) lower adjusting stud nut. 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 assembly.

2. Remove rear quarter inner panel access hole cover.

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

4. On styles equipped with electric window regulators, disconnect feed wire plug from electric motor.

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

5. Remove regulator attaching screws (Fig. 4-8). Disengage regulator lift arm roller from window lower sash channel cam and remove regulator.

6. To install window regulator assembly, reverse removal procedure.

Lubricate regulator sector, window cams and pivot hinge with Lubriplate or its equivalent.

Seal regulator attaching screws and inner panel access hole cover as specified under "REAR QUARTER INNER PANEL SEALING" for "67" style.

QUARTER WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY

67 STYLE

The procedure for removing the electric motor from the rear quarter window regulator assembly is similar to the procedure described under "REAR DOOR AND/OR REAR QUARTER WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY" in the Door Section.

QUARTER WINDOW GUIDE

67 STYLE

REMOVAL AND INSTALLATION

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

2. Remove inner panel access hole cover and rear quarter window assembly. On styles equipped with electric window regulators, remove window 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 QUARTER WINDOW ADJUSTMENTS" for "67" style.

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" style.

QUARTER WINDOW GLASS RUN OUTER SEALING STRIP

67 STYLE

1. Remove rear quarter window assembly.

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

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

QUARTER INNER PANEL SEALING

11, 47 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 numbers are referenced to illustrations as follows:

"11" styles (Manual)—Figure 4-9
"11" styles (Electric)—Figure 4-10
"47" and "57" styles—Figure 4-8, 4-11
"67" styles—Figure 4-9, 4-12

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

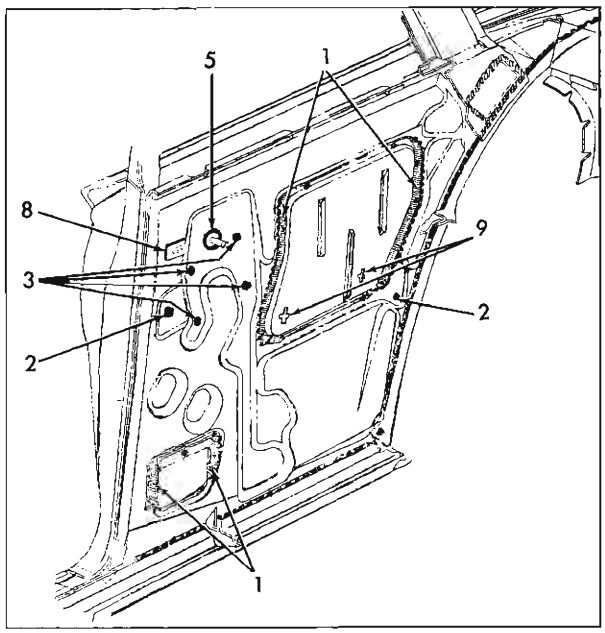


Fig. 4-9 Inner Panel Sealing—"11" Manual Style

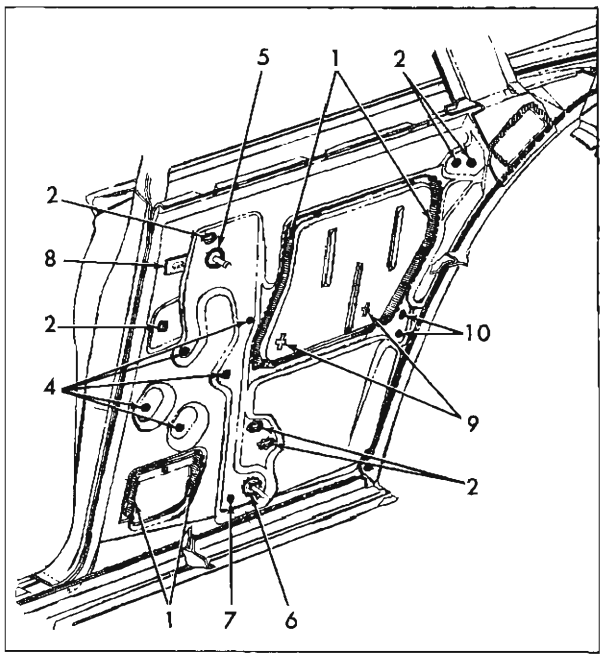


Fig. 4-10 Inner Panel Sealing—Electric "11" Style

1. Large and Small Access Hole Covers—Prior to installation of access hole cover, apply a continuous bead of body caulking compound (approximately ⅛" diameter) across top and down sides of opening contacted by cover.

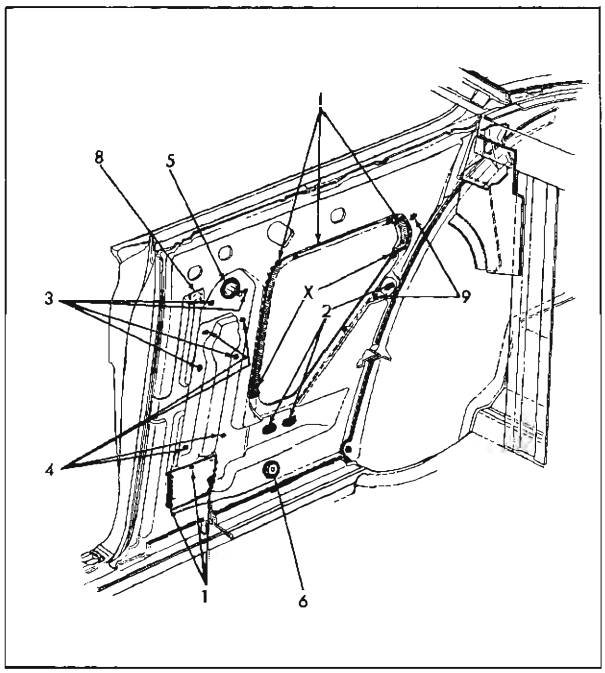


Fig. 4-11 Inner Panel Sealing—"47" and "57" Styles

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

2. Window Guide Attaching Screws—Apply body caulking compound over window guide attaching screws and holes to effect a watertight 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 of washer to seal pores of sponge rubber and joint between inner panel and washer.

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

6. Wire Harness and Grommet Hole—(Styles with Electrically Operated Windows)—Apply weatherstrip adhesive (black) around the grommet and wire to effect a seal between wire and grommet and between grommet and inner panel.

7. Wire Harness Clip Hole (Styles with Electrically Operated Windows) — Apply weatherstrip adhesive over hole.

8. Gage Slot—Apply waterproof body tape over slot. Items 9 and 10 for "11" style only.

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 only)—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.

Item 9 for "47" and "57" styles only (Fig. 4-11).

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

Item 9 for "67" style only (Fig. 4-12).

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

REAR QUARTER LOWER TRIM ASSEMBLY

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 only).

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

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

REAR QUARTER UPPER TRIM ASSEMBLY

39 STYLE

REMOVAL AND INSTALLATION

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

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

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 ASSEMBLY

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 assembly, remove courtesy lamp lens and two (2) screws securing reflector and remove lamp assembly.

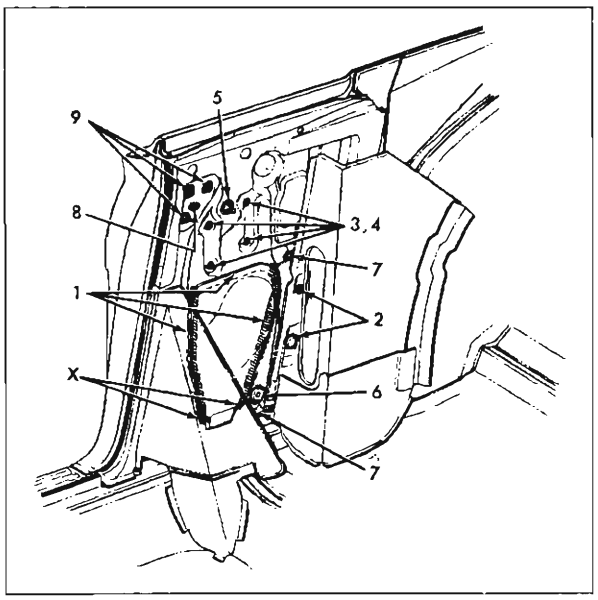


Fig. 4-12 Inner Panel Sealing—"67" Style

3. Carefully insert a trim panel removing tool J-6335 or other suitable tool between headlining and upper edge of upper trim assembly. Disengage upper trim assembly retaining clips from roof extension inner panel by pulling inboard at clip locations. Remove trim assembly from body.

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 assembly along front edge to free trim assembly retaining nails in slots.

5. With a suitable flat-bladed tool, carefully loosen trim assembly 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.

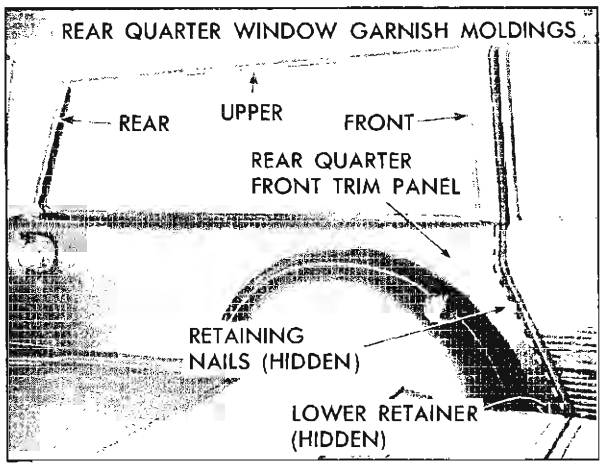


Fig. 4-13 Rear Quarter Trim—Station Wagon

REAR QUARTER REAR TRIM PANEL (LEFT SIDE)

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. On "45" style, 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.

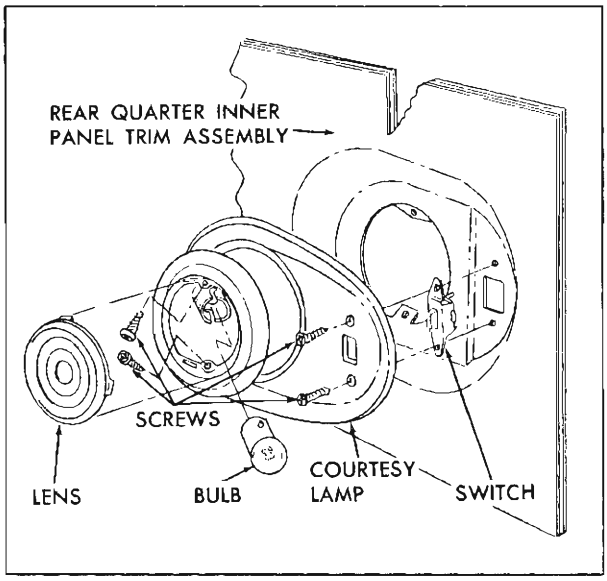


Fig. 4-14 Rear Quarter Courtesy Light

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

4. 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 screws 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.

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.

The handle can be adjusted "in" or "out" to increase or decrease closing effort. To adjust, loosen the handle attaching screws; position the handle as desired and tighten the screws.

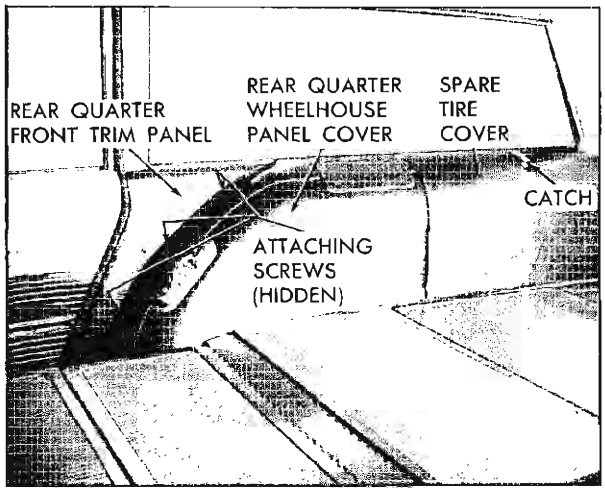


Fig. 4-15 Right Rear Quarter Trim—Station Wagon

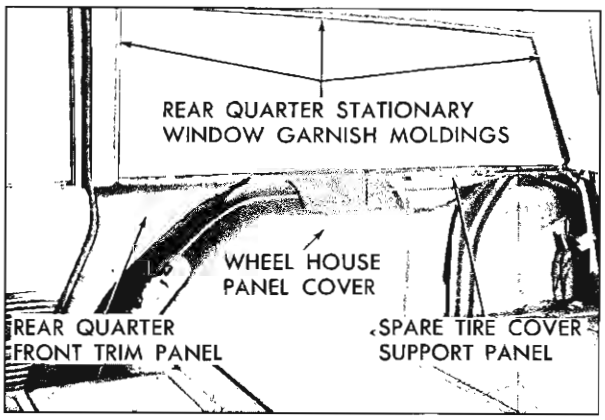


Fig. 4-16 Right Rear Quarter Trim

REAR QUARTER STATIONARY WINDOW ASSEMBLY

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 (1) required for right side, two (2) 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 assembly from opening.

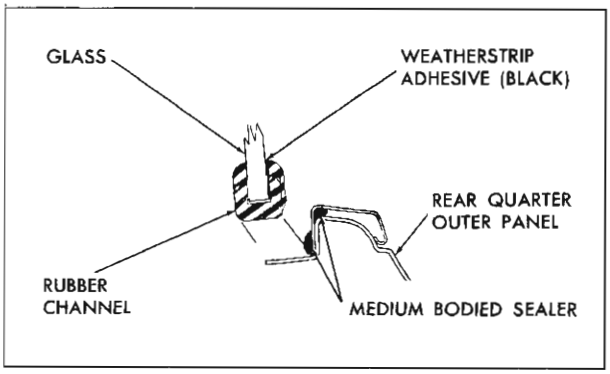


Fig. 4-17 Rear Quarter Stationary Window Sealing

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 assembly 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 (Fig. 4-17).

5. Replace all previously removed parts.

REAR END

CONTENTS OF THIS SECTION

BACK WINDOW ASSEMBLY

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

Following are the procedures for servicing the entire back window assembly, beginning with molding removal, then back window removal and, finally, back window installation.

BACK WINDOW REVEAL MOLDING RETENTION

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

Figures 5-1 and 5-2 illustrate the manner in which the various types of attachment retain the molding.

Figure 5-1 also illustrates the tool to be used and the proper method for disengaging the molding from the pinchweld type clip.

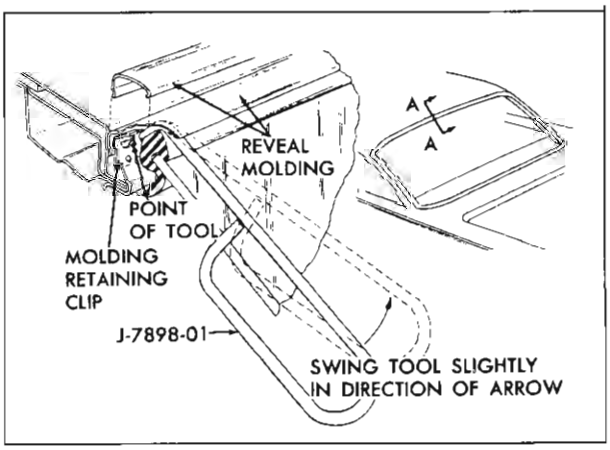


Fig. 5-1 Reveal Molding Removing Tool

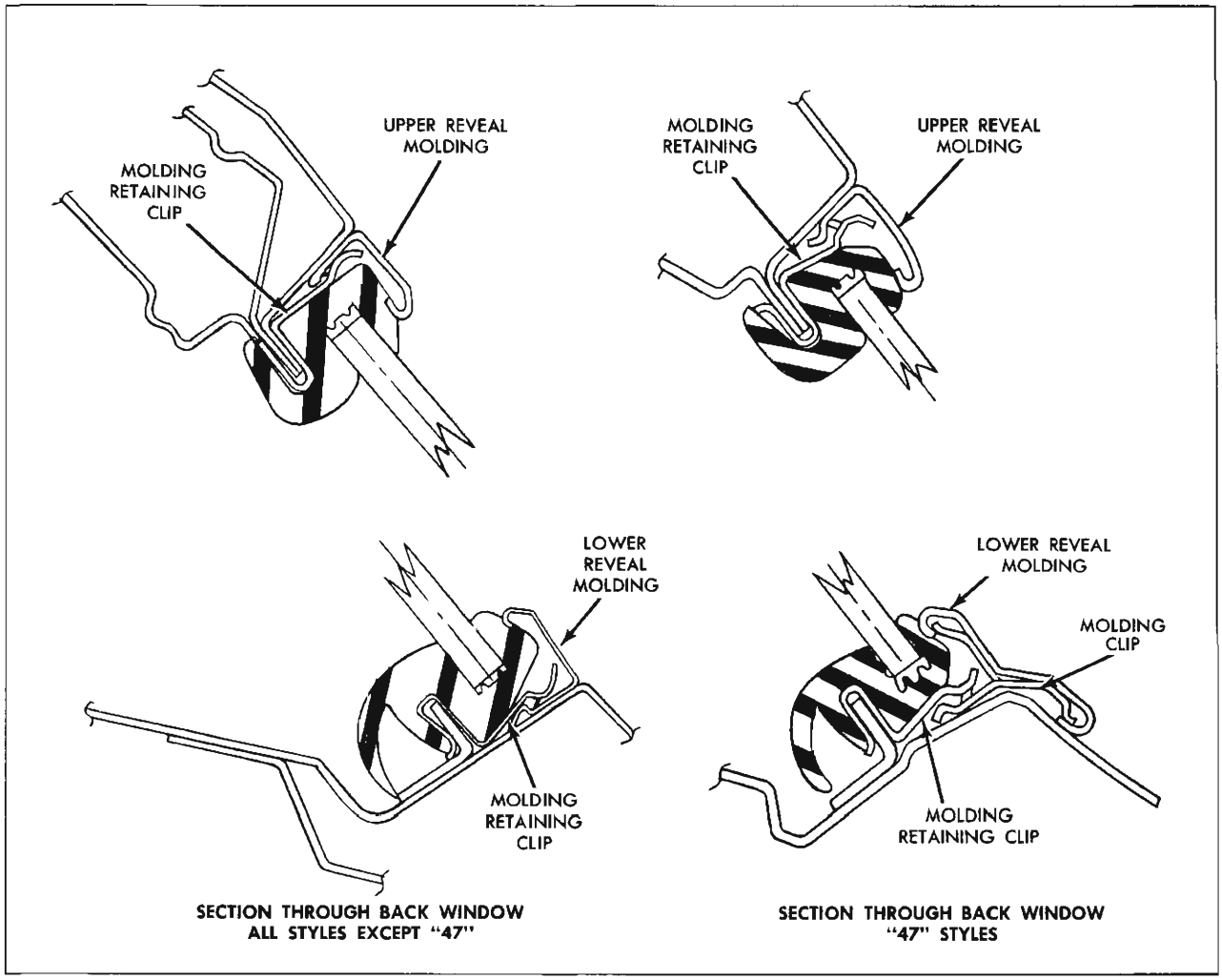


Fig. 5-2 Back Window Reveal Moldings

BACK WINDOW REVEAL MOLDINGS

REMOVAL AND INSTALLATION

With the exception of the lower reveal molding on "47" styles, the back window reveal moldings are retained entirely by pinchweld type clips. The procedure for removing a molding secured in this manner is described under "Pinchweld Clip Disengagement".

PINCHWELD CLIP DISENGAGEMENT

Insert point of tool J-7898-01 between back window rubber channel and reveal molding. Slide tool along molding until a clip is contacted, then engage point of tool between retaining clip and 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 harder into molding making disengagement more difficult. If difficulty is being experienced in disengaging clip, push molding at clip location to relieve pressure of clip prongs while continuing efforts to disengage clip.

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

LOWER REVEAL MOLDING

REMOVAL AND INSTALLATION

Remove belt reveal moldings as described in "Exterior Moldings". Using reveal molding tool J-7898-01

insert point of tool between molding and rubber channel and push or pull *molding clip* sideways to slide it out of engagement from *pinchweld retaining clip.* (Fig. 5-2). Perform this operation at each molding clip location and remove molding from body.

To install, first slide molding clips in molding so that they will be in position to engage retaining clips on body; then position molding to body and engage clips.

BACK WINDOW ASSEMBLY

REMOVAL

1. Place protective coverings over rear seat cushion and seat back, over parcel shelf trim and over painted surfaces around back window. Remove back window garnish moldings.

2. Remove back window reveal moldings.

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

4. Carefully push back window and rubber channel assembly outward until lip of rubber channel is disengaged from body pinchweld flange.

5. With the aid of a helper, lift complete assembly from body opening and place on a protected surface. Remove rubber channel from glass.

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

INSTALLATION

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

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

2. Check installation of reveal molding clips at pinchweld and retaining flanges and replace clips, where necessary. If replacing clips, apply medium-bodied sealer to opening rabbet, prior to installing clips (see "1" in View "A" Fig. 5-3).

3. Apply a continuous ribbon of medium-bodied sealer (approximately ½ inch wide by ¼ inch thick) on wall of rabbet, completely around opening (see "2" in Section "B-B" Fig. 5-3).

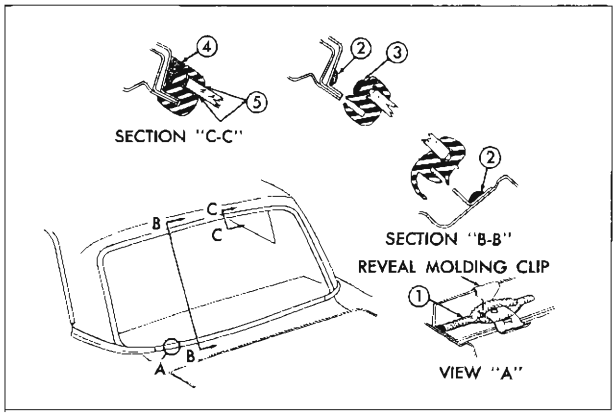


Fig. 5-3 Back Window Sealing

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 ½ inch wide by ¼ inch thick) to base of rubber channel across top and down sides (see "3" in Section "B-B" Fig. 5-3).

6. With aid of a helper, position back window assembly into body opening. While helper is applying hand pressure to outside surface of glass, use a hooked tool or other suitable tool to pull inner lip of rubber channel (located along lower portion of channel) over retaining flanges along bottom opening.

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

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

8. Using a pressure-type applicator, apply sufficient medium-bodied sealer to completely fill any openings between rubber channel and body completely around rubber channel (see "4" in Section "C-C" Fig. 5-3).

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

10. Install back window moldings as described under "Back Window Reveal Moldings".

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

REAR COMPARTMENT

DESCRIPTION

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

The rear compartment lid lock employs a side-action snap bolt mechanism that has provisions at the attaching locations for lateral adjustment. Up and down adjustment is available at the striker attaching locations.

All styles use a single section cement-on type weatherstrip which is cemented to the rear compartment gutter completely around the lid opening.

REAR COMPARTMENT LID

REMOVAL AND INSTALLATION

1. Open lid and place protective covering along edges of rear compartment opening to prevent damage to painted surface.

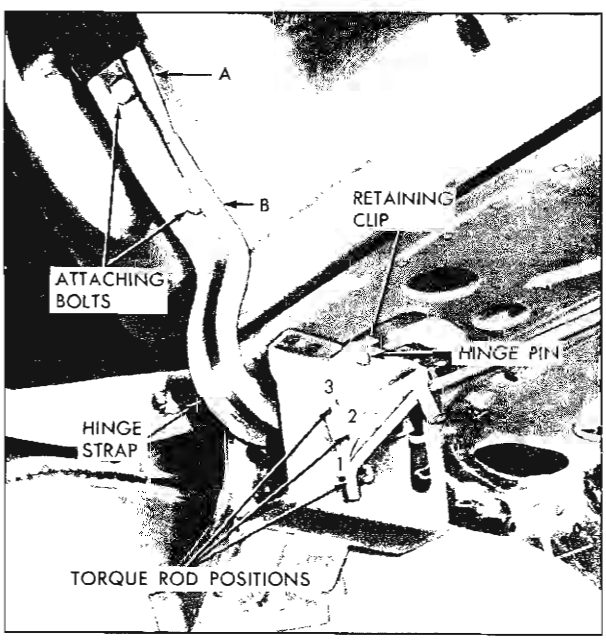


Fig. 5-4 Trunk Hinge and Torque Rod

2. Disengage wire harness from clips on hinge and rear compartment lid inner panel and remove wire harness from lid where necessary.

3. Mark location of hinge straps on lid inner panel.

4. With aid of helper, remove lid attaching bolts (Fig. 5-4) and remove rear compartment lid.

5. To install rear compartment lid reverse removal procedure. Align lid with scribe marks before tightening hinge attaching bolts.

REAR COMPARTMENT LID ADJUSTMENTS

1. To adjust compartment lid forward or rearward, or from side to side in body opening, loosen both hinge strap attaching bolts and adjust lid as required; then tighten bolts.

2. To adjust compartment lid at hinge area up or down install shims between lid inner panel and hinge straps as follows:

a. To raise front edge of lid at hinge area, place shim between lid inner panel and forward portion of one or both hinge straps at "B" (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 "A" (Fig. 5-4).

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

REAR COMPARTMENT LID HINGE

REMOVAL

1. Place protective covering over body around upper portion of rear compartment opening and provide support for lid on side where hinge is to be removed.

2. Remove rear compartment side trim foundation at hinge area if necessary. If left hinge is being removed, disengage wire harness from clip on left hinge. Remove hinge torque rod covers.

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

4. With a suitable tool disengage torque rod from notched retainer on inboard face of opposite hinge box (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 (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. Replace wire harness if left hinge was removed.

7. Replace all previously removed trim.

REAR COMPARTMENT TORQUE ROD ADJUSTMENT

The amount of effort required to open and close the rear compartment lid is determined by the position of the torque rod in the notches on the inboard face of the hinge boxes. If the torque rod is located in the lowest most forward notch (position #1), the amount of effort required to open the lid is the greatest and the amount of effort required to close the lid is the least. If the torque rod is located in the top or most rearward notch (position #3), the amount of effort to open the lid is the least and the amount of effort to close the lid is the greatest. See (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).

REAR COMPARTMENT LID LOCK CYLINDER

REMOVAL AND INSTALLATION

1. Open rear compartment lid. Remove screws securing retainer to lock anchor plate.

2. Push or pull slotted 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.

REAR COMPARTMENT LID LOCK

REMOVAL AND INSTALLATION

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

2. Remove lid lock attaching screws (Fig. 5-5) and remove lock assembly from body.

3. To install, reverse removal procedure. Check lock for proper operation.

REAR COMPARTMENT LID LOCK STRIKER

REMOVAL AND INSTALLATION

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

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

3. To install, position striker within scribed marks. Install attaching screws and check striker for proper alignment.

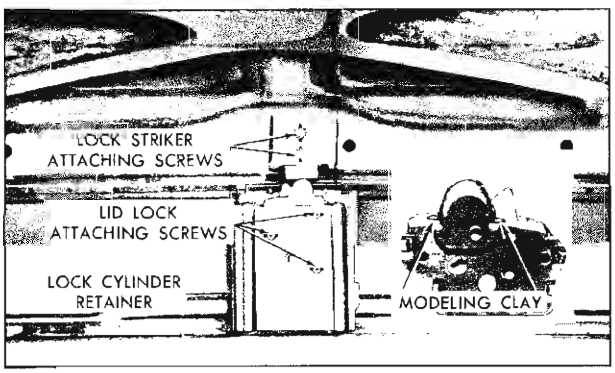


Fig. 5-5 Trunk Lock and Striker

REAR COMPARTMENT LID LOCK STRIKER ENGAGEMENT

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

a. 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.

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

TAIL GATE

35 and 45 STYLES

DESCRIPTION

All tail gates incorporate either a manually operated 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. In addition, on nine passenger station wagon styles, the window can be operated by a control switch located in the upper portion of the left rear quarter trim assembly. 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 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 styles with the electrically operated tail gate window the tail gate lock remote control incorporates a safety feature 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 straps retained in the tail gate hinges rotate with 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 assembly.

TAIL GATE ASSEMBLY

REMOVAL AND INSTALLATION

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 2735 style, remove tail gate skid strips, tail gate inner cover panel finishing moldings and tail gate inner cover panel.

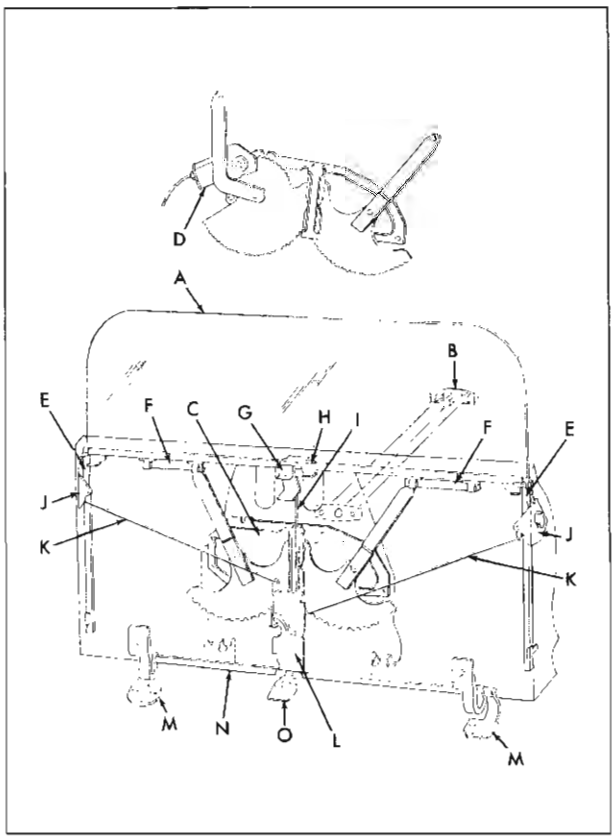
3. Carefully remove inner panel water deflector.

4. On styles equipped with electrically operated tail gate window remove window. Remove lock cylinder switch and escutcheon assembly as described under "Tail Gate Window Lock Cylinder Switch and Escutcheon Assembly". 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.

6. Suitably 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.



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

Fig. 5-6 Tail Gate Assembly

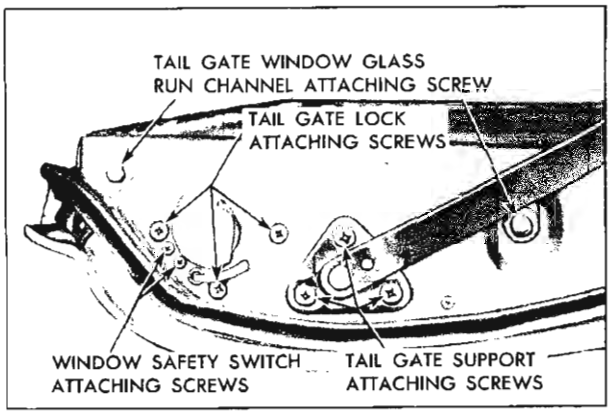


Fig. 5-7 Lock and Support

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

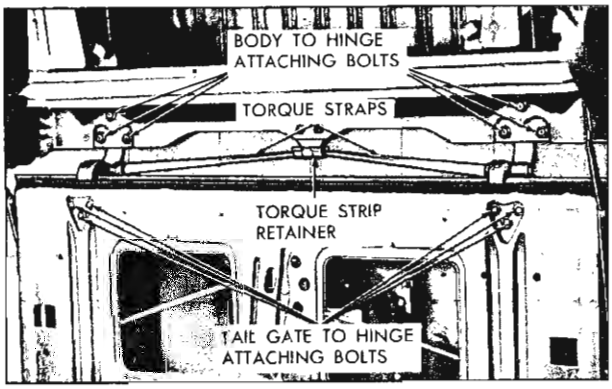


Fig. 5-8 Tail Gate Hinges

9. 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).

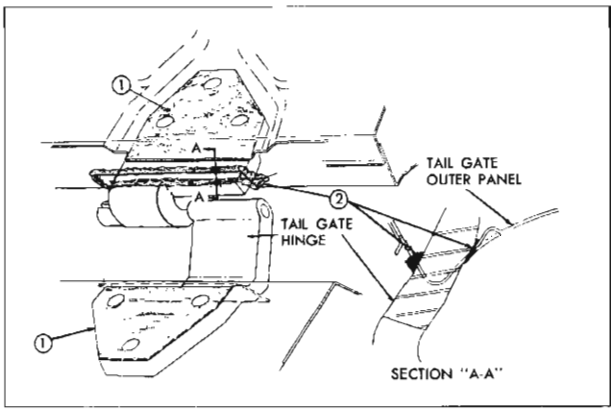


Fig. 5-9 Tail Gate Hinge

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

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

TAIL GATE HINGE ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove tail gate assembly, 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 assembly, 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 Assembly—Installation".

TAIL GATE HINGE TORQUE STRAP

REMOVAL AND INSTALLATION

1. Remove rear bumper assembly 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 ASSEMBLY—MANUAL AND ELECTRIC

REMOVAL AND INSTALLATION

1. Remove inner cover panel lower retainer and inner cover panel. On Pontiac "2735" style, remove tail gate skid strips, tail gate inner cover panel finishing moldings and tail gate inner cover panel.

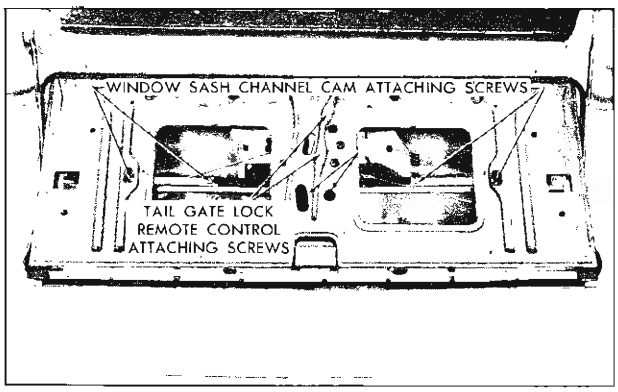


Fig. 5-10 Tail Gate Hardware

2. Detach tail gate inner panel water deflector sufficiently to gain access to window lower sash channel cam attaching bolts (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 assembly from tail gate.

NOTE: To open the tail gate on styles with electric windows when window assembly is removed, depress tail gate lock remote control locking lever through access hole at location "A", (Fig. 5-10), and at the same time operate the tail gate remote control inside handle.

5. To install tail gate window assembly 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".

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 channel(s), loosen lower attaching bolt at tail gate lock pillar; move lower end of channel forward or rearward, as required, and tighten lower attaching bolt.

NOTE: The vertical portion of the tail gate window glass upper run channels are 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 assembly clockwise or counterclockwise, as required, to eliminate "cocked" condition.

TAIL GATE WINDOW REGULATOR ASSEMBLY—MANUAL OR ELECTRIC

REMOVAL AND INSTALLATION

1. Remove tail gate window assembly, as described under "Tail Gate Window Assembly—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 assembly through large access hole.

NOTE: To remove electric motor from regulator assembly see "Tail Gate Window Regulator Electric Motor Assembly—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.

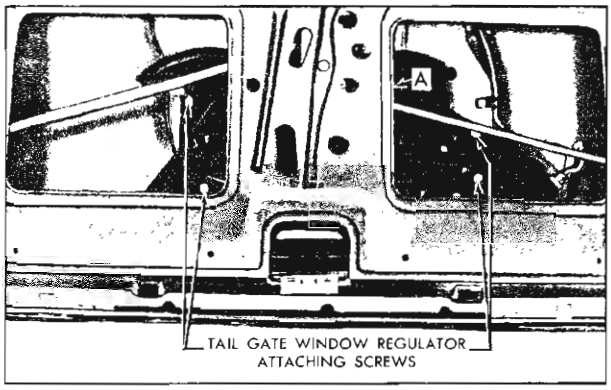


Fig. 5-11 Window Regulator

TAIL GATE WINDOW REGULATOR—ELECTRIC MOTOR ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove tail gate window regulator and electric motor assembly as described under "Tail Gate Window Regulator Assembly—Removal and Installation".

2. Place regulator assembly in a vise as shown in Fig. 5-12).

CAUTION: Be sure to perform steps 3 and 4 before attempting to remove the motor from the regulator. The regulator lift arms which are under tension from the counterbalance spring can cause serious injury if the motor is removed without locking the sectors in position.

3. Drill a ¼ inch hole through regulator backplate and main sector within area indicated by dotted lines (Fig. 5-12).

NOTE: Do not locate hole less than ½ inch away from edge of backplate, sector or holes in backplate and sector. Do not use holes in backplate or sector as they are too large and locking bolt can slip out.

4. Insert a 3/16 inch bolt through hole in backplate and sector and install nut to bolt. (Do not tighten nut.)

5. Remove three (3) motor attaching bolts, at locations shown in Fig. 5-12 and remove motor assembly from regulator.

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

6. To remove regulator electric motor assembly, reverse removal procedure.

NOTE: Be sure to remove nut and bolt locking sector after motor is installed.

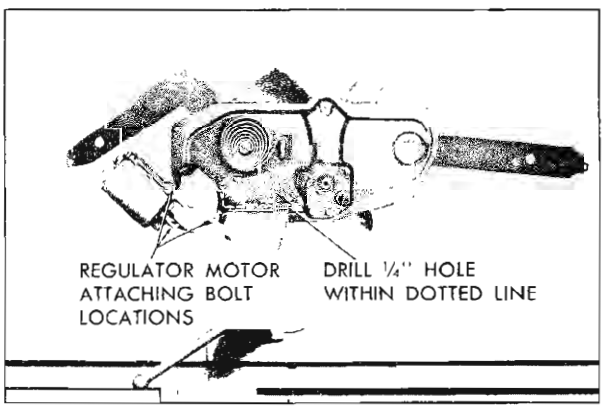


Fig. 5-12 Tail Gate Window Regulator

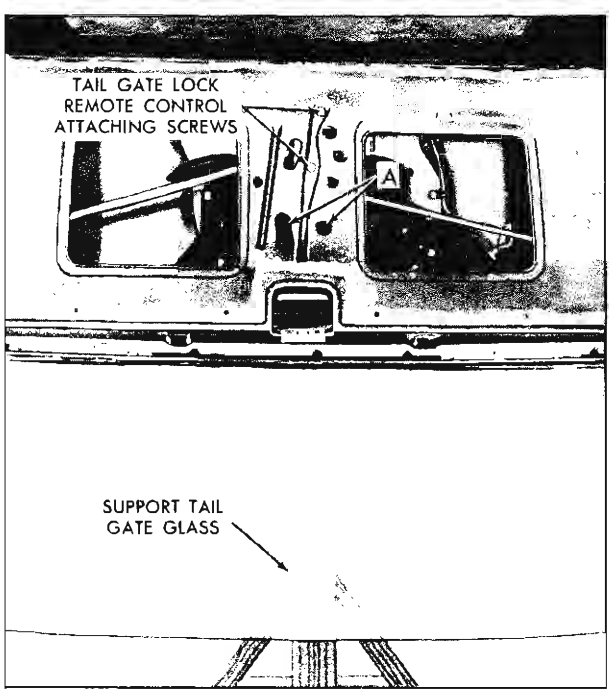


Fig. 5-13 Removing Outside Handle Assembly

TAIL GATE WINDOW REGULATOR OUTSIDE HANDLE ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove inner cover panel lower retainer and inner cover panel. On Pontiac "2735" 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 handle attaching units (see Fig. 5-13).

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

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

Through holes "A", remove outside handle attaching units and remove outside handle and gasket from tail gate.

To disassemble tail gate handle assembly, see "Tail Gate Window Regulator Outside Handle Assembly—Disassembly and Assembly".

4. To install tail gate handle assembly, 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".

TAIL GATE WINDOW REGULATOR OUTSIDE HANDLE ASSEMBLY

DISASSEMBLY AND ASSEMBLY

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 (see Fig. 5-14).

3. Using a snap ring removal tool, remove retaining ring securing handle assembly (see Fig. 5-14), remove washer and spring washer from shaft of handle driver and remove handle assembly from escutcheon.

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

5. To remove lock cylinder and cap assembly, locking pawl or locking pawl spring see "Tail Gate Window Regulator Outside Handle Lock Cylinder and Cap Assembly—Removal and Installation".

To assemble tail gate window regulator outside handle assembly, reverse disassembly procedure. Prior to assembly lubricate frictional surfaces with "Lubriplate 630AAW" or its equivalent.

TAIL GATE WINDOW REGULATOR OUTSIDE HANDLE LOCK CYLINDER AND CAP ASSEMBLY

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 (see Fig. 5-14).

3. Insert key in lock cylinder and turn key to lock position. Depress locking pawl (see Fig. 5-14), turn key (lock cylinder) approximately ¼ 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 630AAW" or its equivalent.

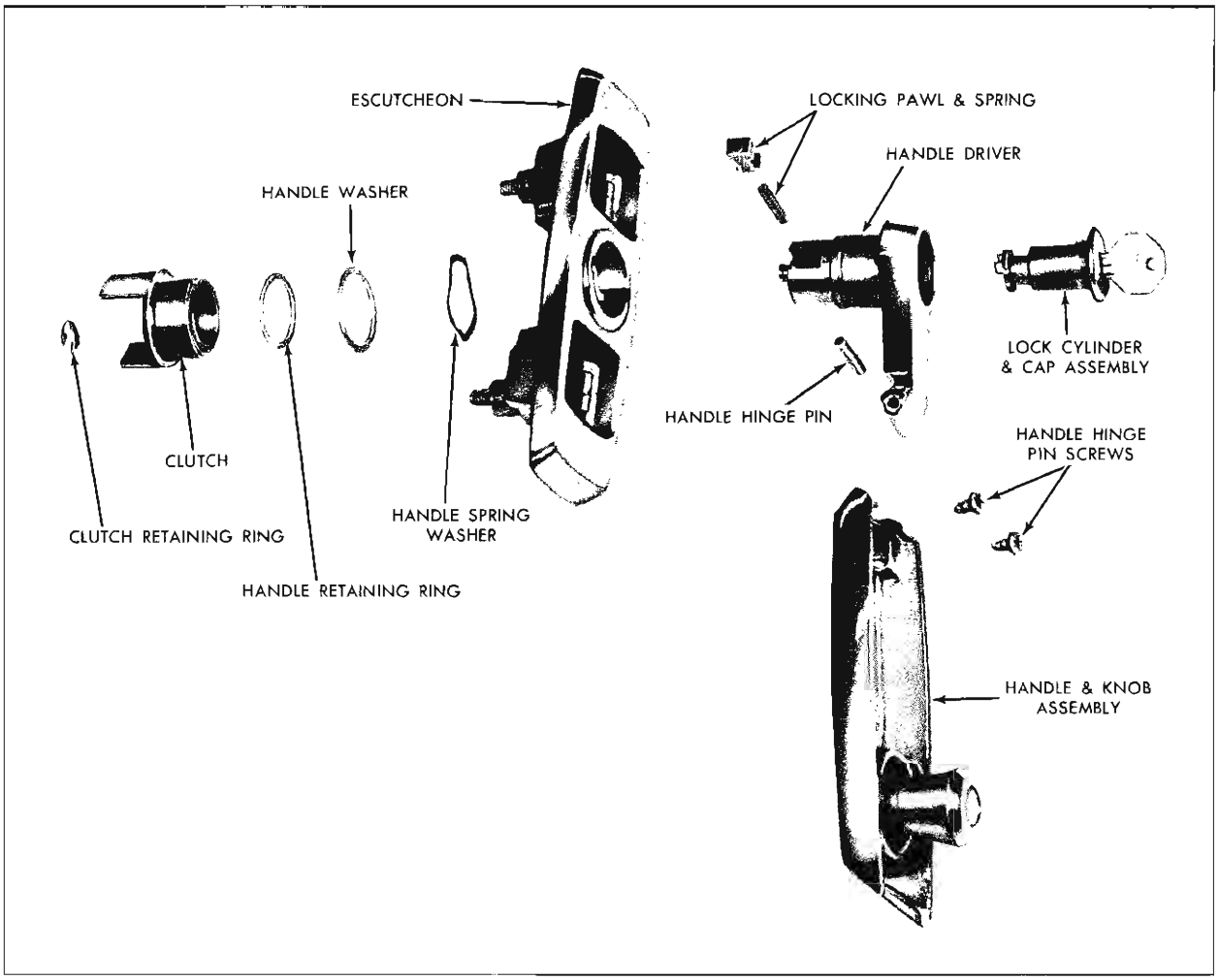


Fig. 5-14 Tail Gate Outside Handle Assembly

TAIL GATE ELECTRIC WINDOW LOCK CYLINDER, SWITCH AND ESCUTCHEON ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove inner cover panel lower retainer and inner cover panel. On Pontiac 2735 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 (see Fig. 5-13).

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

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

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

To disassemble tail gate electric window lock cylinder, switch and escutcheon assembly see "Tail Gate Electric Window Lock Cylinder, Switch and Escutcheon Assembly—Disassembly and Assembly".

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

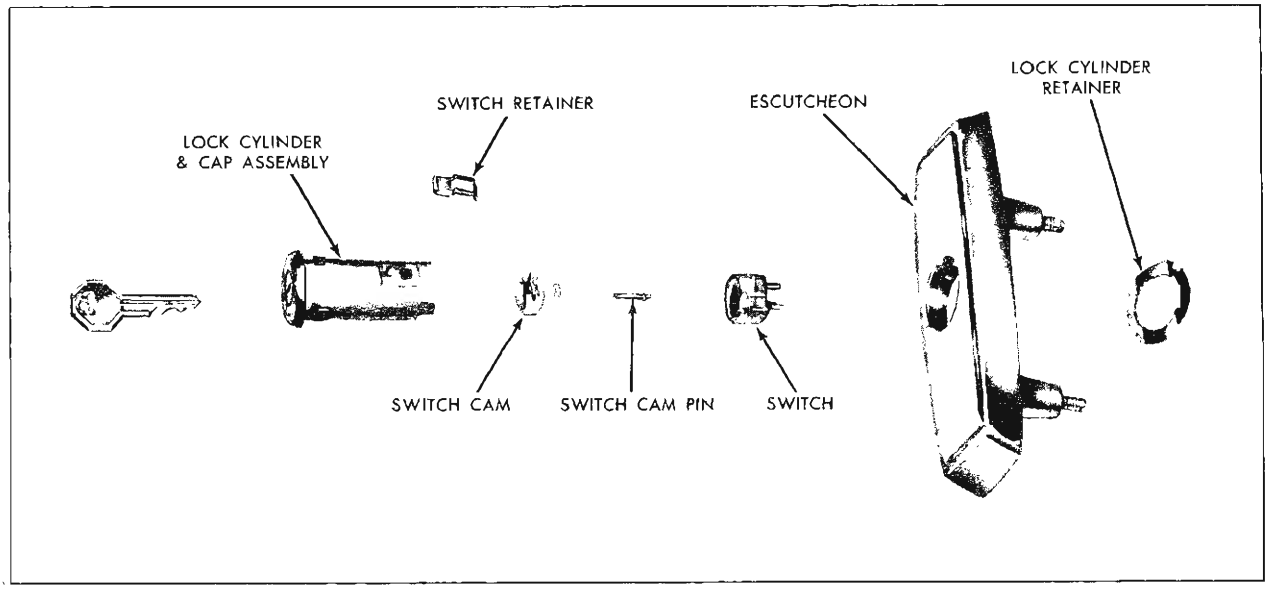


Fig. 5-15 Tail Gate Lock Cylinder, Switch and Escutcheon Assembly

TAIL GATE ELECTRIC WINDOW LOCK CYLINDER, SWITCH AND ESCUTCHEON ASSEMBLY

DISASSEMBLY AND ASSEMBLY

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

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

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

4. Using a suitable pliers, grasp pin of switch cam firmly and pull switch cam straight out from lock cylinder (see 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 (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 assembly into escutcheon and engage retainer.

TAIL GATE SUPPORT ASSEMBLY

REMOVAL AND INSTALLATION

1. Lower tail gate.

2. Suitably 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 (Fig. 5-16 and Fig. 5-7) and remove support assembly.

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

NOTE: 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 pillar(s). The following adjusments can be obtained by rotating the support plate.

1. Positioning dimple towards bottom shortens support approximately 3/8 inch from procedure installation.

2. Position dimple towards top shortens support approximately 3/4 inch from production installation.

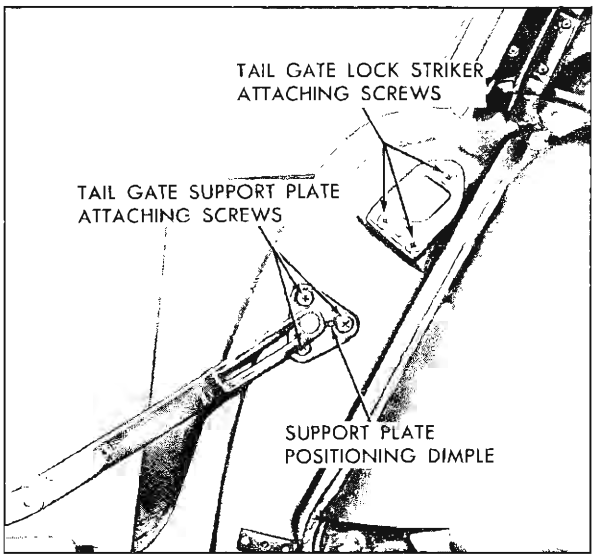


Fig. 5-16 Support and Lock Striker

TAIL GATE LOCK ASSEMBLY— RIGHT OR LEFT

REMOVAL AND INSTALLATION

1. Remove tail gate window assembly.

2. Remove tail gate 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).

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

5. To install tail gate lock assembly, reverse removal procedure. Prior to installing lock assembly into 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).

To attach lock connecting rod to remote control lever, first, 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.

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.

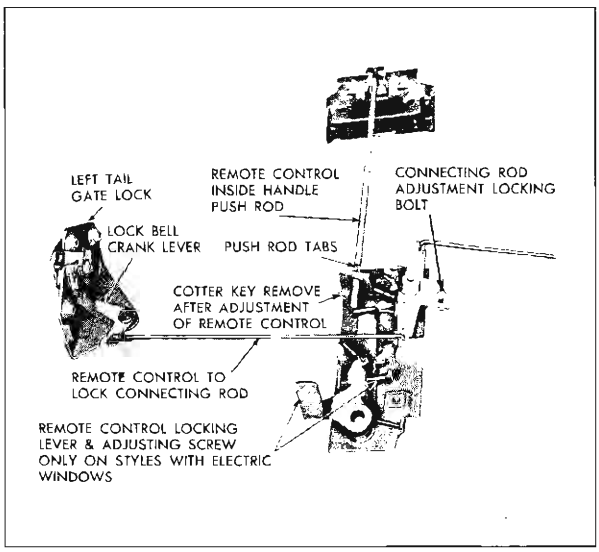


Fig. 5-17 Tail Gate Lock

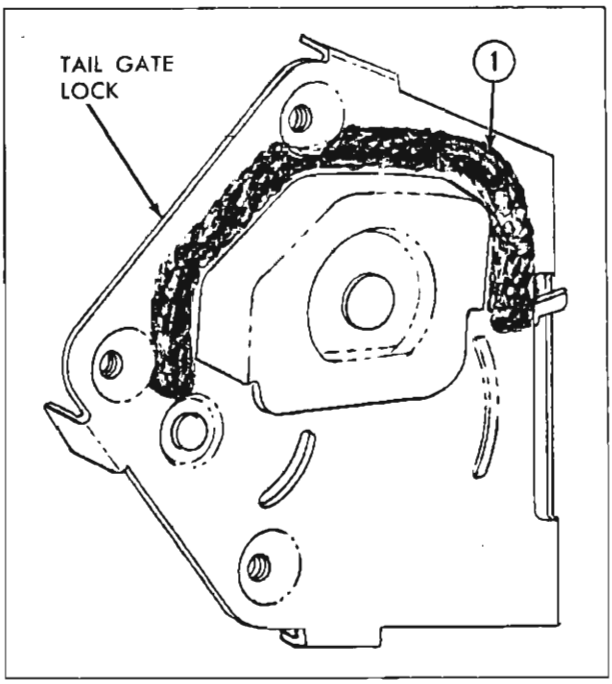


Fig. 5-18 Tail Gate Lock—Sealing

TAIL GATE LOCK STRIKER ADJUSTMENTS

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

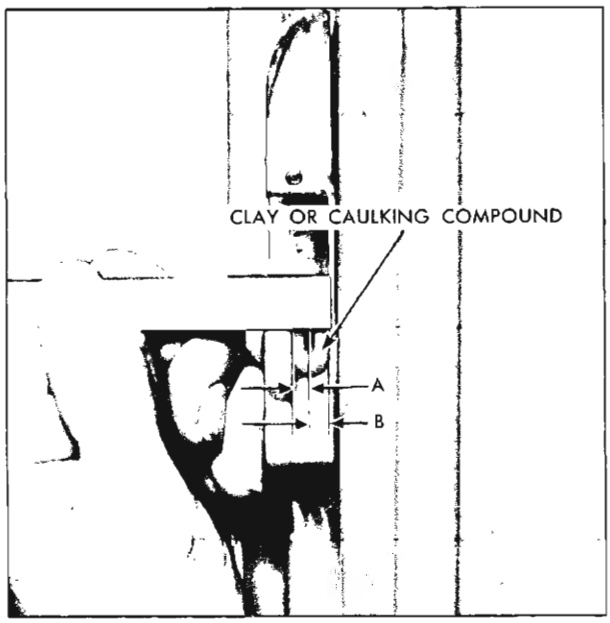


Fig. 5-19 Striker Engagement Check

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 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 $\frac{3}{16}$" 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 $\frac{1}{16}$".

TAIL GATE LOCK REMOTE CONTROL INSIDE HANDLE ASSEMBLY

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 assembly (includes push rod) from tail gate.

4. To install tail gate lock remote control handle assembly, 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.

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.

TAIL GATE LOCK REMOTE CONTROL ASSEMBLY

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 remote control from tail gate.

INSTALLATION

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

2. Adjust remote control assembly 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, first, 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 installing new remote control assembly, remove cotter key (Fig. 5-17) after adjustment to free locking lever.*

4. Check operation of tail gate locking mechanism. To open tail gate when window assembly 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 assembly as described under "Tail Gate Window Assembly—Installation".

6. Lower window to approximately ½ inch 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 ¼ inch of the "full-down" position.

TAIL GATE INNER PANEL WATER DEFLECTOR

On all station wagon styles 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.

It is important that 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 AND INSTALLATION

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 and detach sealer and water deflector as required.

NOTE: Do not tear water deflector.

INSTALLATION OR RESEALING PROCEDURE

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).

NOTE: 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 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.

TAIL GATE WEATHERSTRIP

A new type tail gate weatherstrip assembly is being used which incorporates nylon component fasteners in place of wire clips. The new nylon fasteners are the same size at all locations and are available as service replacement parts.

Tool J-21104 is designed for removal of the new weatherstrip. If this tool is not available, it can be fabricated from any other comparable metal tool. (See Fig. 3-10 in "FRONT OR REAR DOOR WEATHERSTRIP" Section). When a removal tool is fabricated, make sure all sharp edges or metal burrs are removed so as not to damage weatherstrip or paint finish during its usage.

REMOVAL

1. Remove 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 tool J-21104, or other suitable tool under weatherstrip at fastener locations and carefully pry fasteners out of holes (See Fig. 3-13 in "FRONT OR REAR DOOR WEATHERSTRIP" Section).

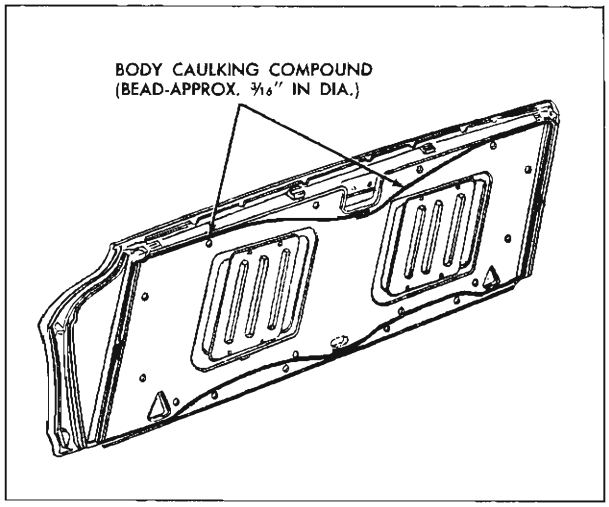


Fig. 5-20 Tail Gate Inner Panel

CAUTION: Exercise care not to damage serrations on 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 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 inches.

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.

TAIL GATE BOTTOM DRAIN HOLE SEALING STRIPS

REMOVAL AND INSTALLATION

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

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 strip. (See illustration under "Front and Rear Door Bottom Drain Hole Sealing Strips").

EXTERIOR MOLDINGS

CONTENTS OF THIS SECTION

BODY MOLDINGS

EXTERIOR MOLDINGS

The exterior moldings are identified in Figures 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

Figure 6-5 illustrates typical attachments for body side moldings. Fig. 6-6 shows the names of moldings, use, method of retention, and information for removal.

Before using the molding charts, the following information will be helpful when installing or removing exterior moldings.

1. Screw locations—the exact location for each screw is not shown or mentioned, but when hidden, the general location is indicated by naming the molding or other part which conceals the screw and, therefore, must be removed to gain access to the screw.

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

GENERAL PRECAUTIONS

When removing or installing any body exterior 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.

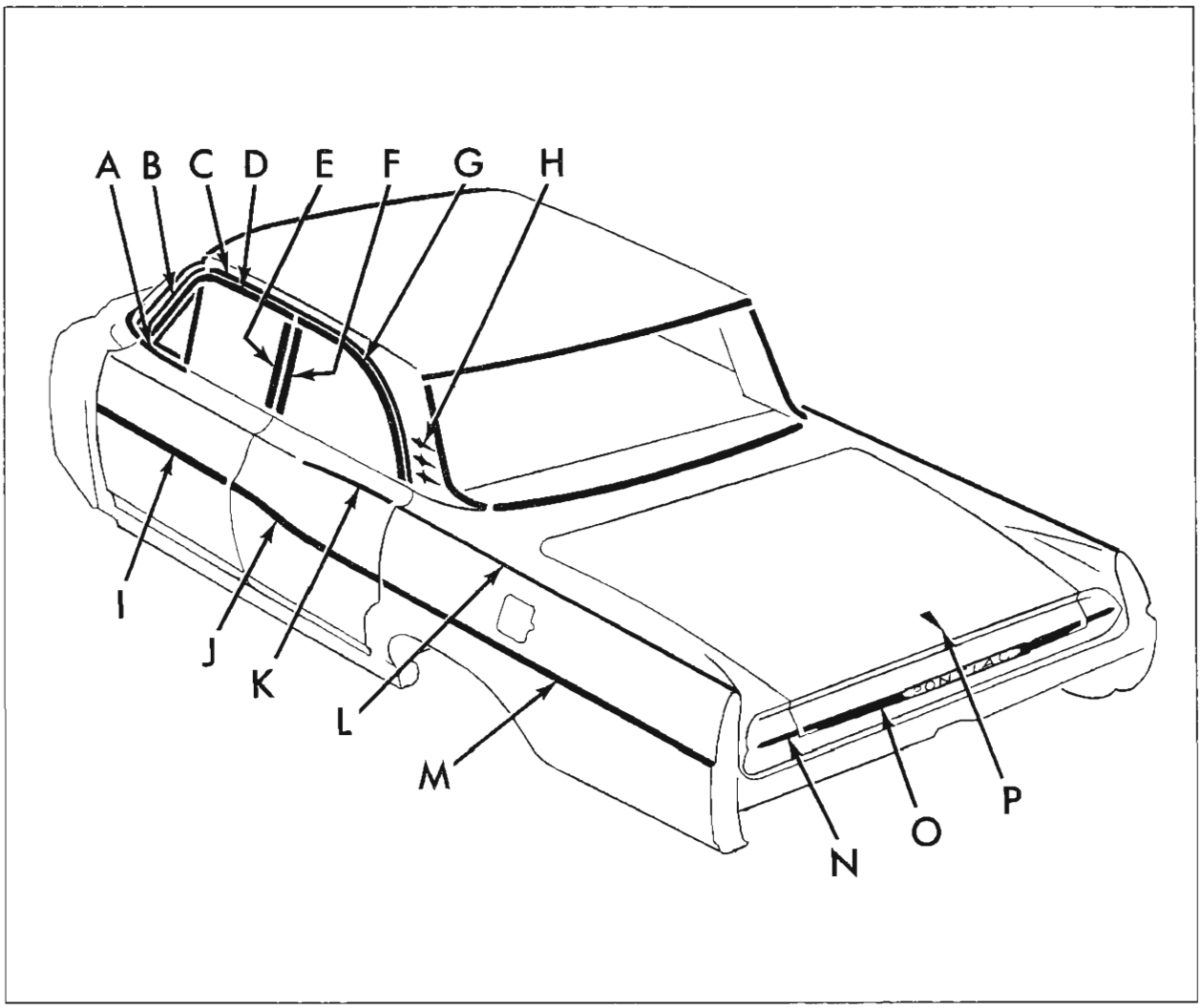
SEALING OPERATION

Detailed sealing operations for each individual molding are not described on the "Molding Removal Chart", but the following information is given to permit a satisfactory sealing operation when necessary.

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

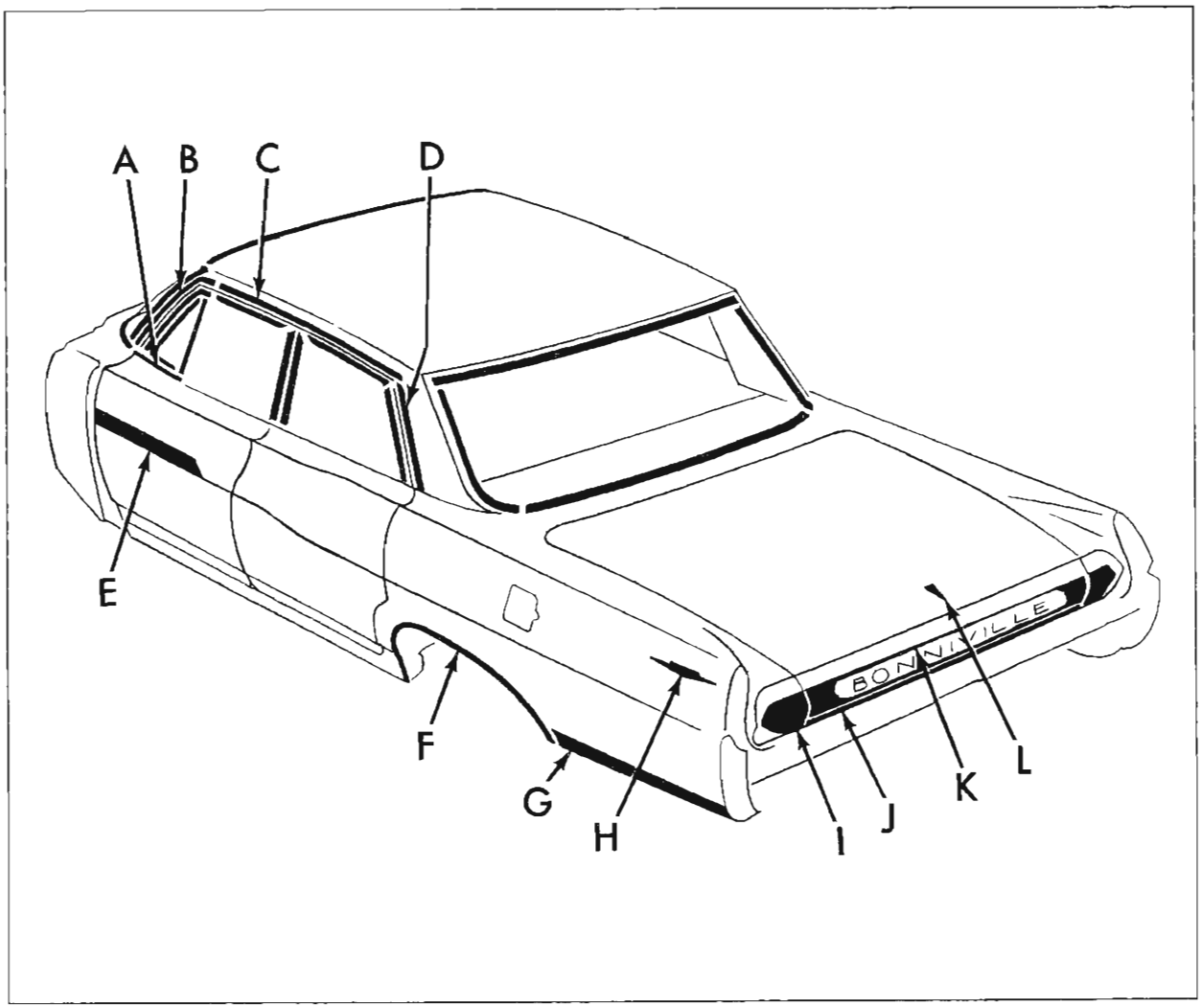
Holes in body panels for screws, bolts or clips that would permit water to enter the interior of the body should be sealed with body caulking compound or presealed screws, nuts or clips.

Drip moldings require a 1/4" bead of medium-bodied sealer along the full length of the inner attaching surface. Door window scalps and center pillar scalps require a 1/8" x 1/4" x 1/4" bead of caulking compound at 5" intervals for anti-rattle purposes. Pinchwelds require medium-bodied sealer on both sides when pinchweld clips are used. The exception is the rear quarter pinchweld on convertible styles which requires water proof tape over the entire pinchweld, prior to clip installation.



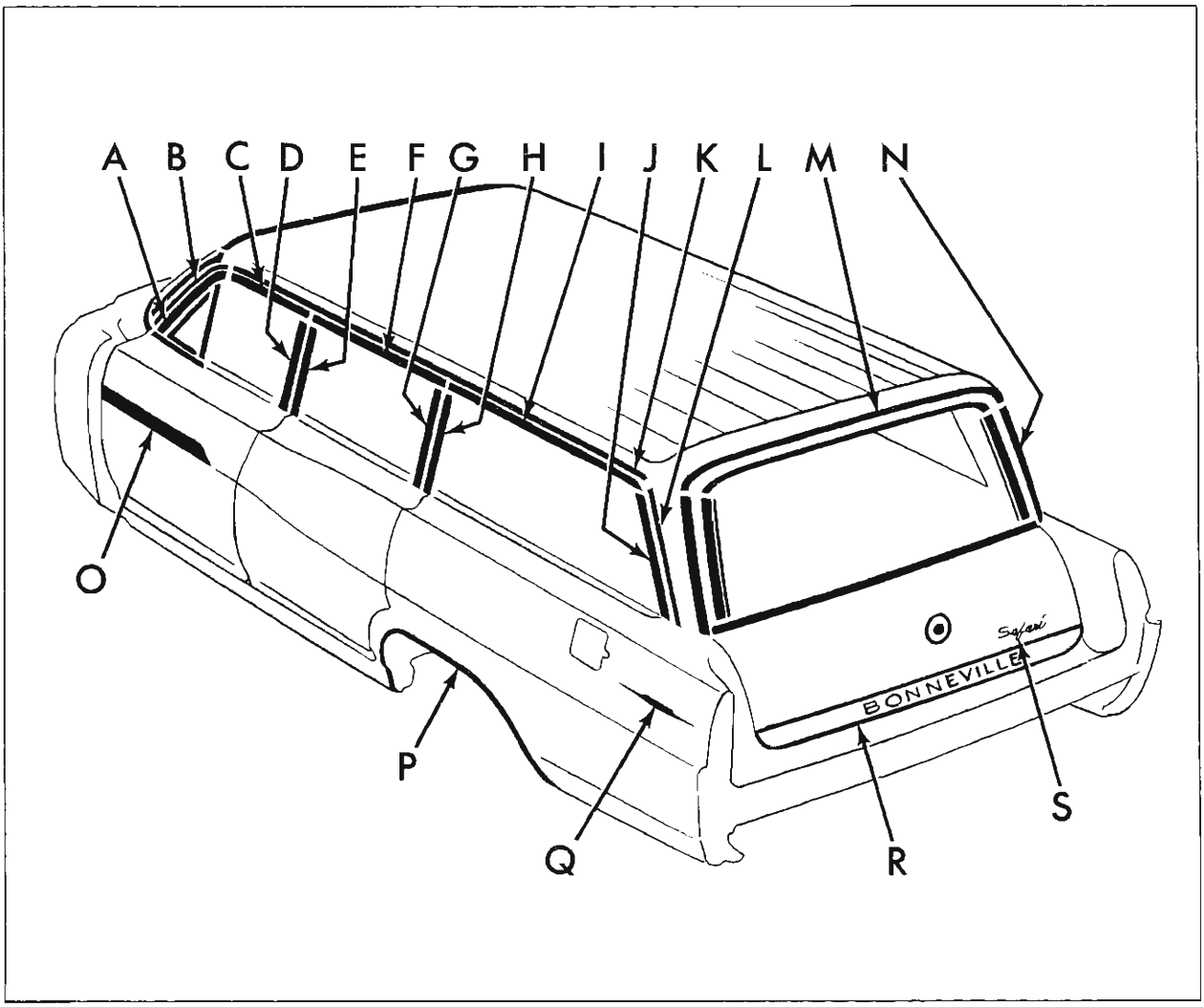
A. Front Door Reveal Molding (At Vent)
B. Windshield Pillar Drip Molding Scalp
C. Roof Drip Molding Scalp
D. Front Door Window Frame Upper Scalp Molding
E. Front Door Window Frame Rear Vertical Scalp Molding
F. Rear Door Window Frame Front Vertical Scalp Molding
G. Rear Door Window Frame Upper Scalp Molding
H. Roof Extension Panel Ornament
I. Front Door Outer Panel Lower Molding
J. Rear Door Outer Panel Lower Molding
K. Rear Door Outer Panel Crown Molding
L. Rear Fender Crown Molding
M. Rear Fender Lower Molding
N. Rear End Outer Panel Side Molding
O. Rear Compartment Lid Molding
P. Rear Compartment Lid Emblem

Fig. 6-1—Exterior Moldings—2669 Style



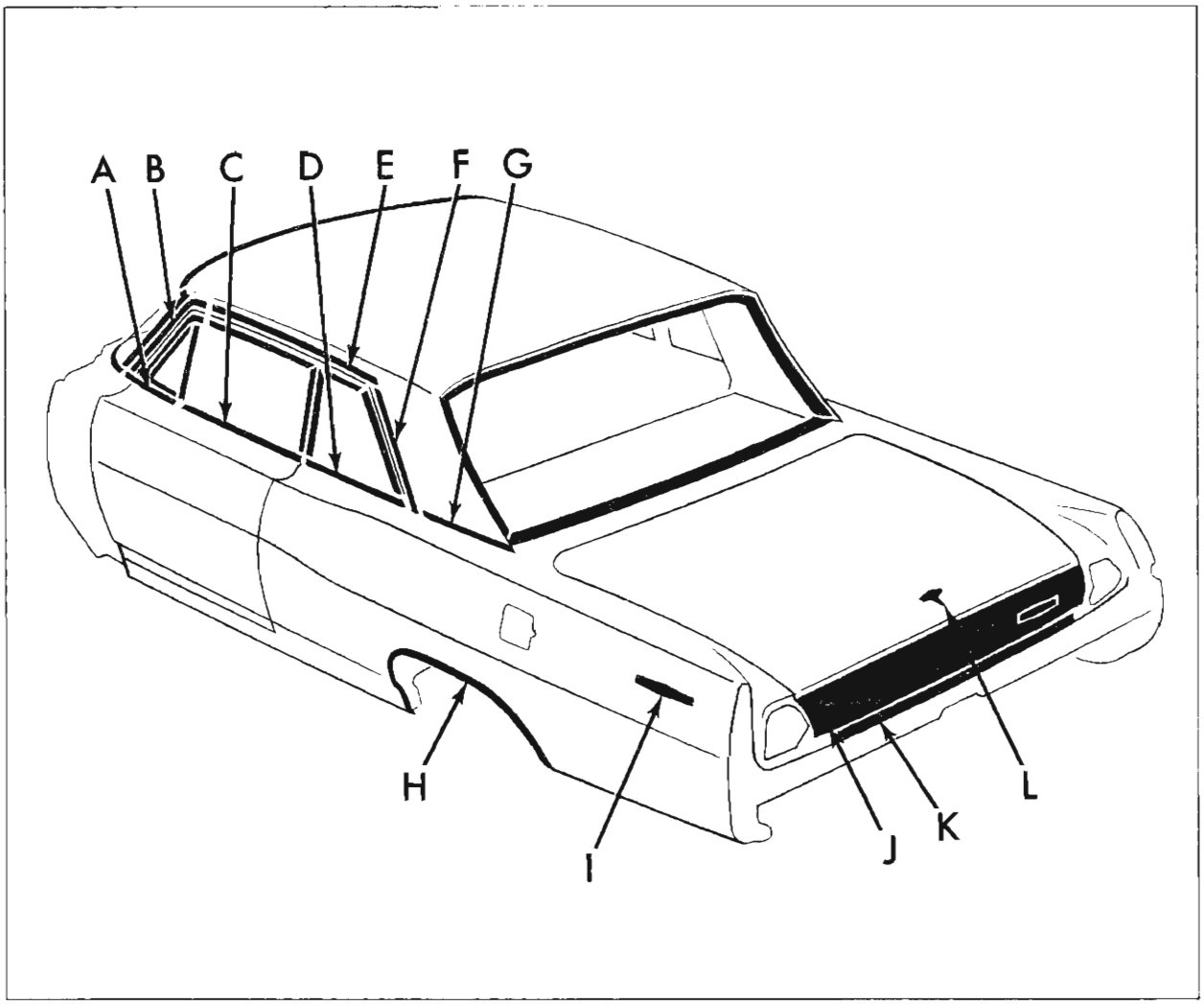
A. Front Door Reveal Molding (At Vent)
B. Windshield Pillar Drip Molding Scalp
C. Roof Drip Molding Front Scalp
D. Roof Drip Molding Rear Scalp
E. Front Door Outer Panel Lower Molding
F. Rear Wheel Opening Molding
G. Rear of Rear Wheel Opening Molding
H. Rear Fender Emblem
I. Rear End Outer Panel Side Molding
J. Rear End Outer Panel Center Molding
K. Rear Compartment Lid Molding
L. Rear Compartment Lid Emblem

Fig. 6-2 Exterior Moldings—2839 Style



A. Front Door Reveal Molding (At Vent)
B. Windshield Pillar Drip Molding Scalp
C. Front Door Window Frame Upper Scalp Molding
D. Front Door Window Frame Rear Vertical Scalp Molding
E. Rear Door Window Frame Front Vertical Scalp Molding
F. Rear Door Window Frame Upper Scalp Molding
G. Rear Door Window Frame 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 Finishing Molding
N. Back Body Opening Side Pinchweld Finishing Molding
O. Front Door Outer Panel Lower Molding
P. Rear Wheel Opening Molding
Q. Rear Fender Emblem
R. Tail Gate Outer Panel Lower Molding
S. Tail Gate Name Plate

Fig. 6-3 Exterior Moldings—2835 Style



A. Front Door Reveal Molding (At Vent)
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 Wheel Opening Molding
I. Rear Fender Emblem
J. Rear Compartment Lid Molding
K. Rear End Outer Panel Molding
L. Rear Body Eblem

Fig. 6-4 Exterior Moldings—2957 Style

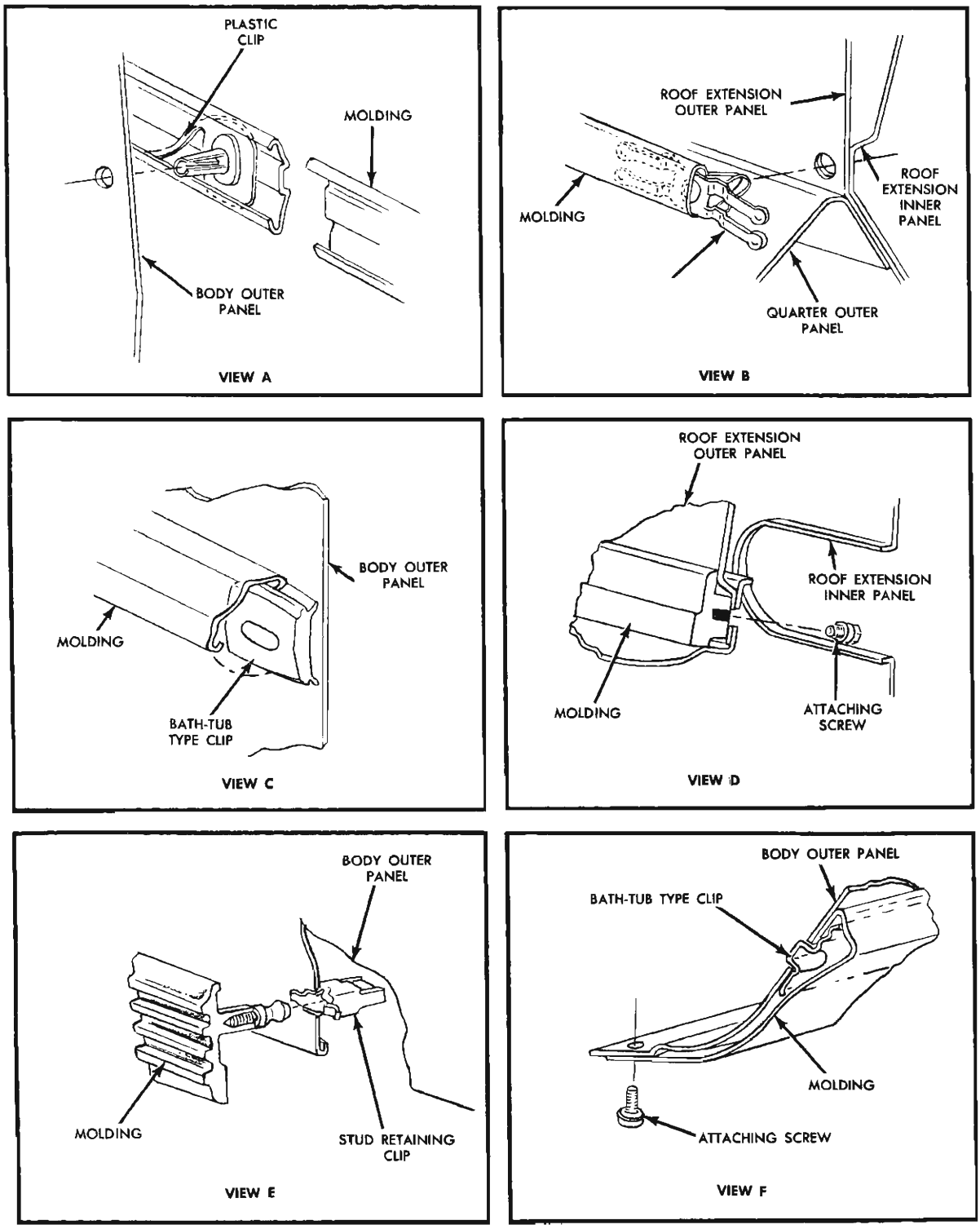


Fig. 6-5 Typical Methods of Attaching Body Molding

Molding Name	Styles	METHOD OF RETENTION					Engages With Other Moldings	Remove Hardware or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-on Clips or Retainers on Panel	Snap-on Clips on Molding	Studs With Attaching Nuts			
Rear 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 Pinch-weld 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			
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			

Fig. 6-6 Exterior Moldings

Molding Name	Styles	METHOD OF RETENTION					Engages With Other Moldings	Remove Hardware or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-on Clips or Retainers on Panel	Snap-on Clips on Molding	Studs With Attaching Nuts			
Windshield Pillar 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		
Quarter Window Rear Reveal	35 & 45	x					Quarter Window Upper Reveal		
Quarter Window Lower Reveal	2957	x						Qtr. Window Lower Stops	

Fig. 6-6 Exterior Molding (cont'd)

Molding Name	Styles	METHOD OF RETENTION					Engages With Other Moldings	Remove Hardware or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-on Clips or Retainers on Panel	Snap-on Clips on Molding	Studs With Attaching Nuts			
Roof Extension Panel Ornament	2600					x		Qtr. 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					
Back 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 (cont'd)

TOOLS AND CARE

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

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

Roof Drip Scalps–pointed hook tool

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

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

Bath-tub type clips, of metal construction, can be removed satisfactorily by cutting them part way through or all of he way through from the outer panel with a sharp, flat-bladed tool as shown in Fig. 6-7. In some cases, it may be necessary to cut the clip from each end to remove it.

Fig. 6-8 shows the special tool, J-7160, which is required to install the "bath-tub" type steel clips. Plastic "bath-tub" type clips do not require the use of a special tool for their installation.

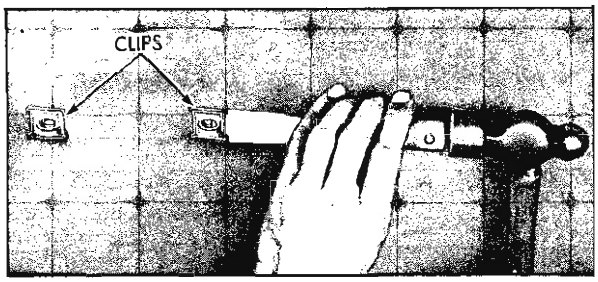


Fig. 6-7 Removing Bath-Tub Type Clip

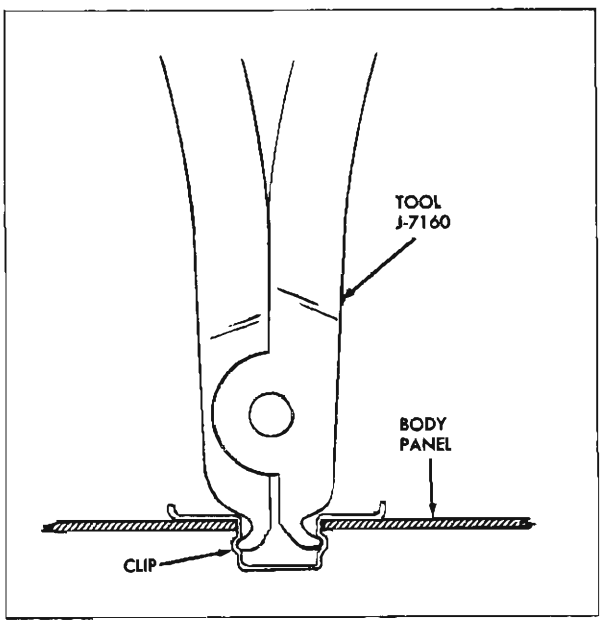


Fig. 6-8 Installing Clip

HEADLINING

CONTENTS OF THIS SECTION

HEADLINING ASSEMBLY

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 or staples.

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

REMOVAL

1. Place protective coverings over seat cushions and backs.

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

   a. Windshield side and upper garnish moldings.

   b. Rear view mirror support.

   c. Sunshade supports.

   d. Dome, side roof rail or rear quarter courtesy lamps.

   e. Coat hooks.

   f. Rear quarter upper garnish moldings (2 door styles).

   g. Side roof rail moldings.

   h. Back window garnish moldings.

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

   j. Back body window 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 windshield 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 C, Fig. 7-2 and Fig. 7-3).

On "47" style, 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 P, Fig. 7-1).

5. On "11", "35" and "45" styles, remove tacks or staples securing headlining at rear quarter windows (View D, Fig. 7-3 and View G, Fig. 7-2).

6. Remove tacks or staples at roof panel extension areas, as required.

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

8. Working from front to rear of body, disengage headlining listing wires from side roof rails, gathering or folding headlining with listing wires on outside to keep headlining clean.

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

9. At front roof bow, bent down metal tabs securing listing wire (View F, Fig. 7-1, Fig. 7-2, Fig. 7-3, Fig. 7-4).

10. Remove rear listing wire support on "39" styles (View T, Fig. 7-1).

11. Remove headlining assembly from body.

12. If replacing headlining, remove listing wires from pockets of headlining.

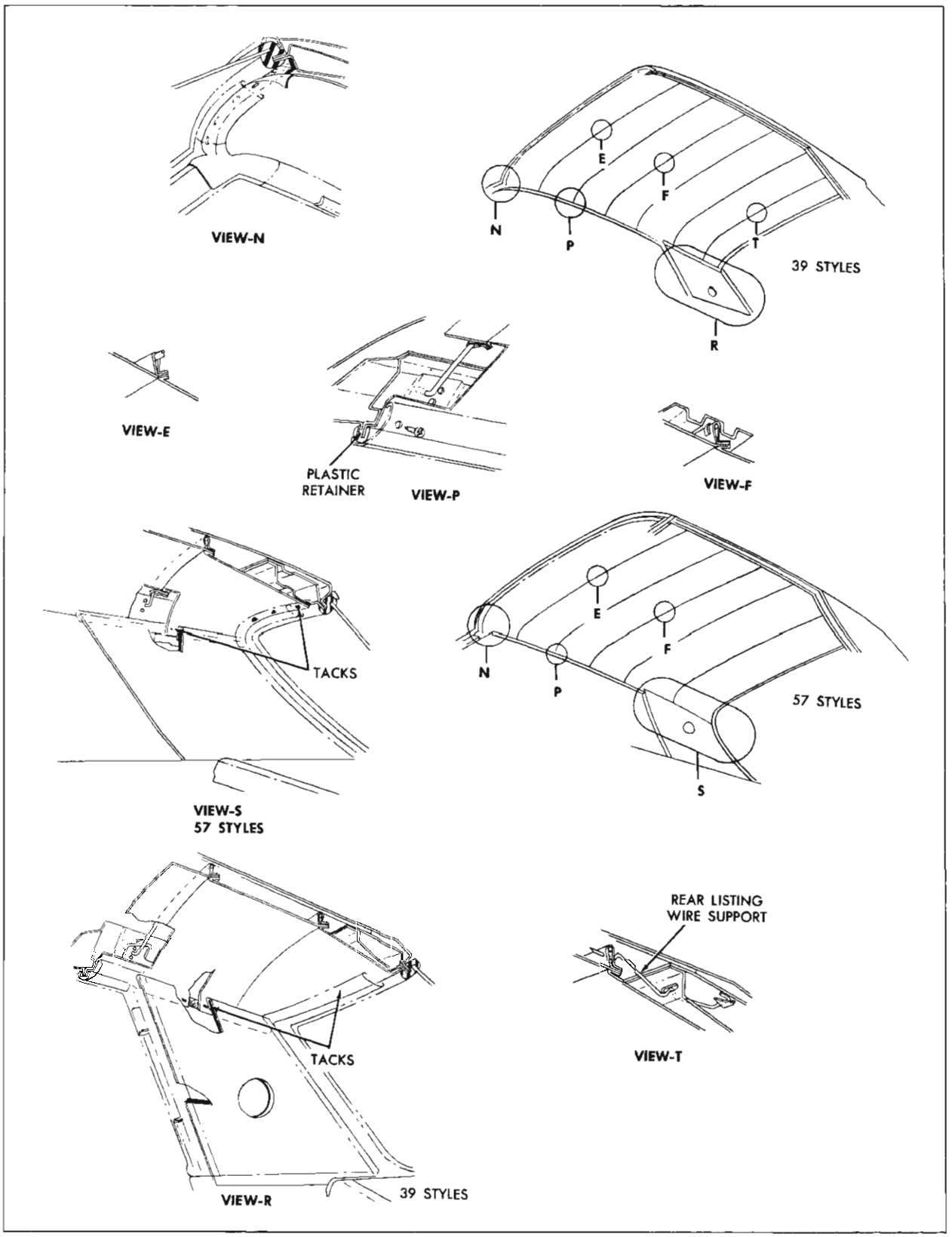


Fig. 7-1 Headlining Installation—39-57 Styles

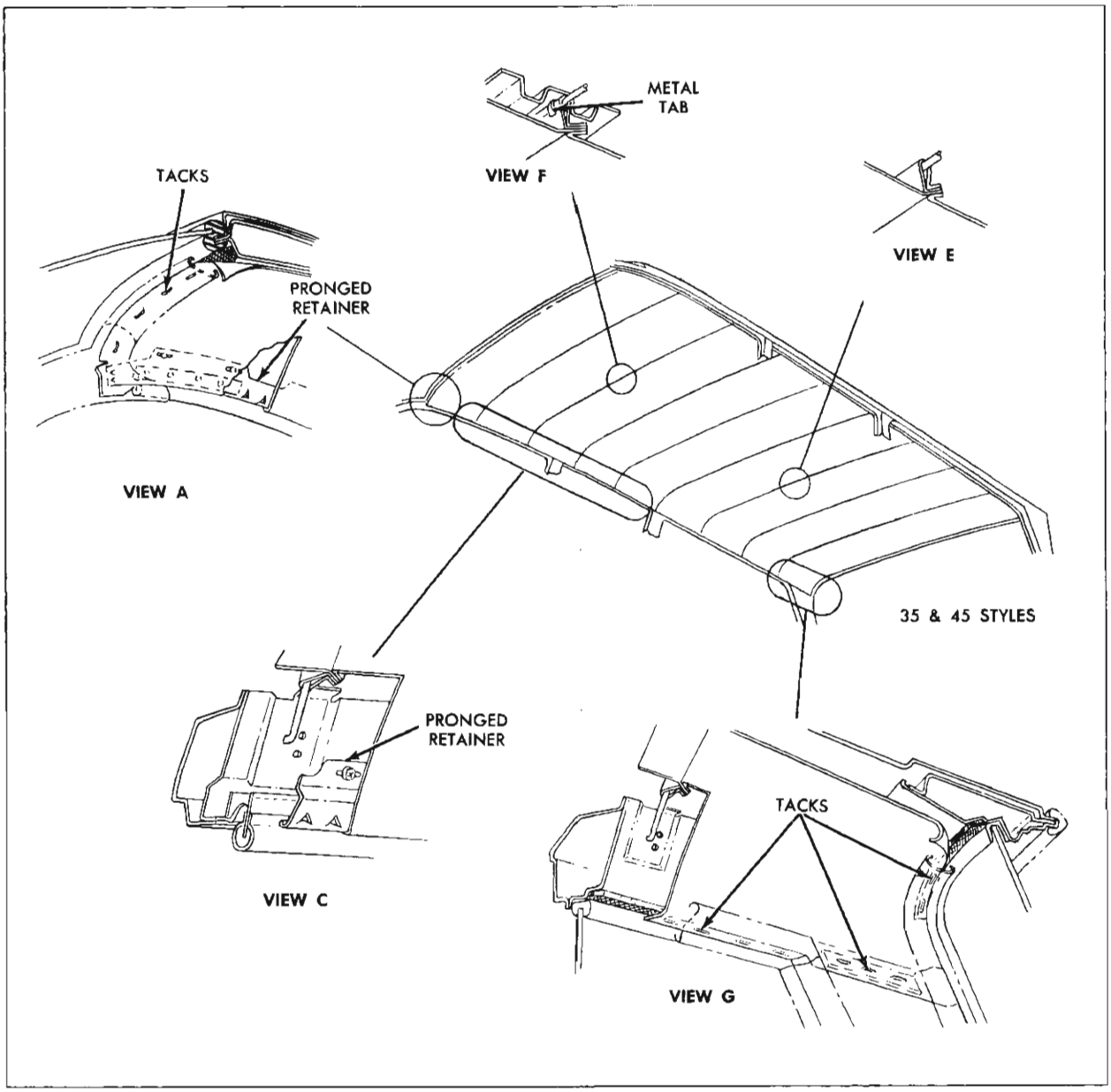


Fig. 7-2 Headlining Installation—35 & 45 Styles

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

INSTALLATION

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

2. Apply approved trim cement to heading attaching surfaces at windshield, side roof rail and back window opening.

3. Lift entire headlining assembly into body and install rear listing wire. On "39" styles, install rear listing wire support (View T, Fig. 7-1).

4. Center and align rearward end of headlining and stay tack at center of back window or back body opening.

5. Working forward, install ends of listing wires into listing wire holes in side roof rails.

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

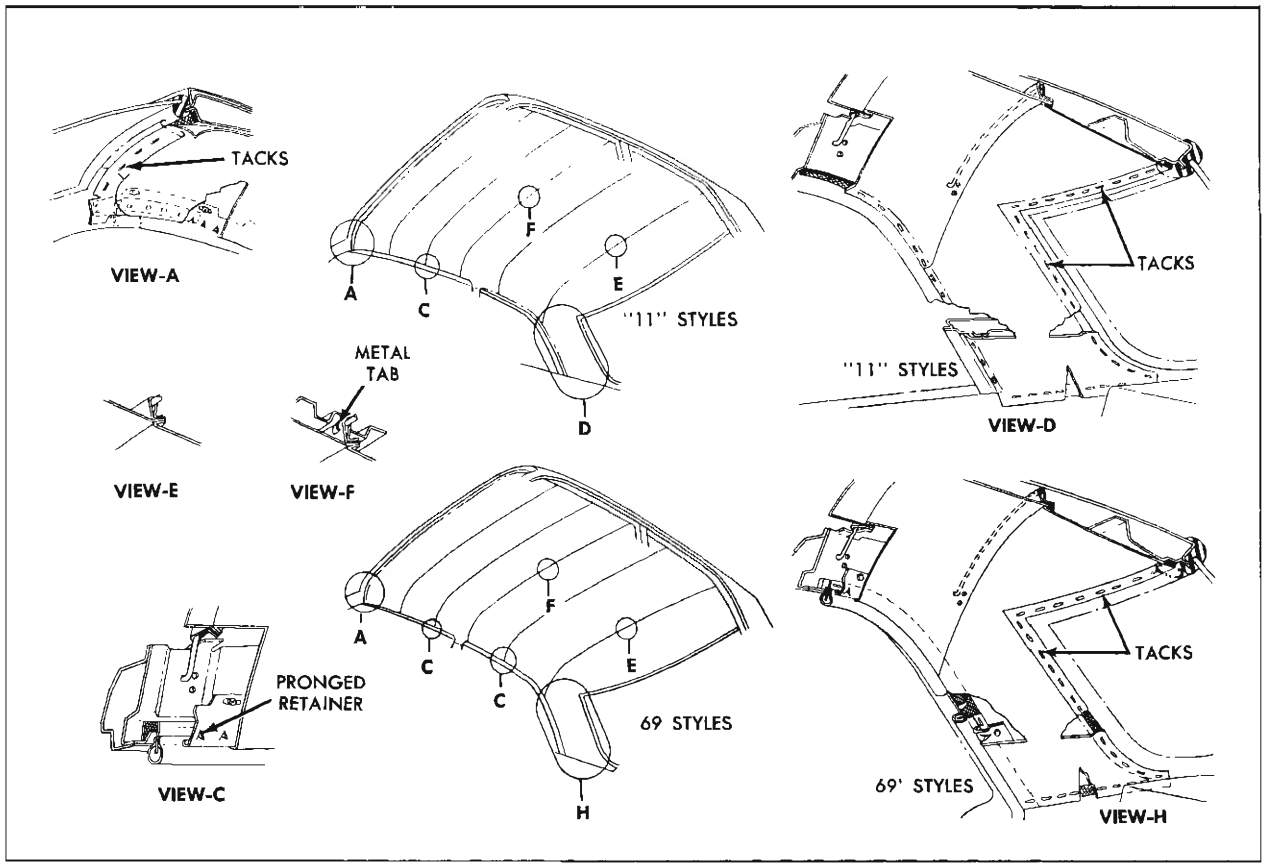


Fig. 7-3 Headlining Installation—11 & 69 Styles

6. At front roof bow, bend up metal tabs securing listing wire and listing wire pocket (View F, Fig. 7-1, Fig. 7-2, Fig. 7-3, and Fig. 7-4).

7. Stretch and stay tack headlining along entire windshield and back body or back window opening. Stay tack headlining in rear quarter area where required (View S and R, Fig. 7-1, View G, Fig. 7-2, View D and H, Fig. 7-3 and View L, Fig. 7-4).

8. Apply approved trim cement to side roof rail edge of headlining except where headlining is secured by pronged retainer. Remove all "fullness" or "draws" from headlining material and secure to side roof rails.

9. Recheck for any "fullness" or "draws" in headlining material and permanently tack headlining at windshield, back window, back body, and rear quarter areas.

10. On 11, 69, 35 and 45 styles, use headlining inserting tool, J-2772, or similar wide-bladed tool and carefully tuck edge of headlining under pronged retainer along both side roof rails. (View C, Fig. 7-2 and Fig. 7-3).

Permanently tack or staple headlining at side roof rails on "47" styles (View K, Fig. 7-4).

On "39" and "57" styles, using headlining inserting tool, permanently install edge of headlining around side roof rail pinchweld and replace plastic retainer (View P, Fig. 7-1).

11. Trim excess material from edge of headlining around entire perimeter.

12. Install all previously removed hardware and trim assemblies and remove protective coverings.

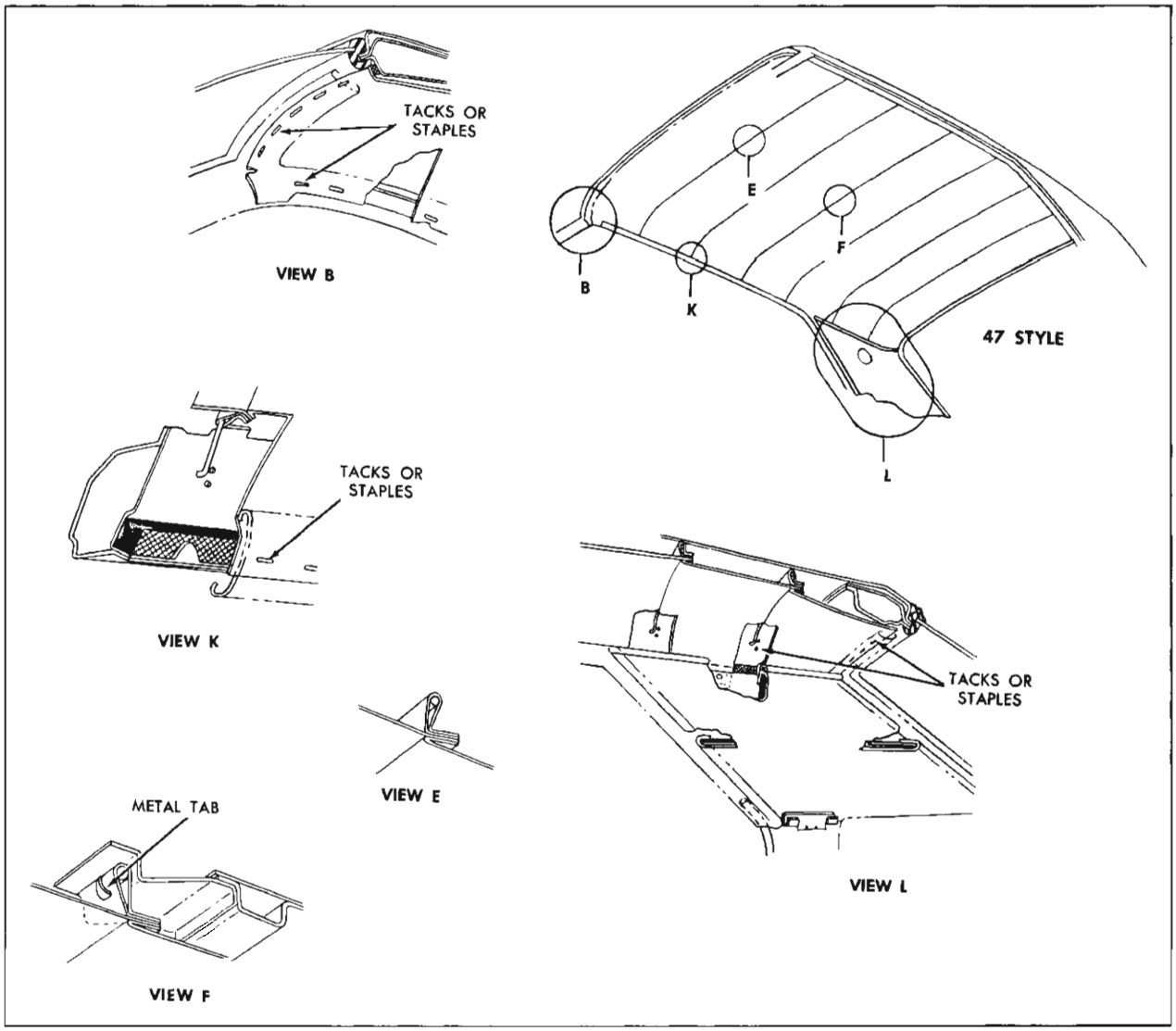


Fig. 7-4 Headlining Installation—47 Style

SEATS

CONTENTS OF THIS SECTION

FRONT SEAT—MANUALLY OPERATED

DESCRIPTION

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

FRONT SEAT ASSEMBLY (WITH ATTACHED SEAT ADJUSTERS)

REMOVAL AND INSTALLATION

1. Turn back floor covering. Remove four adjuster-to-floor pan attaching bolts each adjuster.

2. With the aid of a helper, remove seat assembly from body.

3. To install, reverse removal procedure.

FRONT SEAT ADJUSTER (MANUAL)

REMOVAL AND INSTALLATION

1. Remove seat assembly with attached seat adjusters from body and place upside down on a clean protected surface.

2. When removing left adjuster, it is necessary to remove the seat adjuster control knob.

3. Squeeze hooked end of seat adjuster locking wire together and slide retaining spring back over hump in locking wire, remove wire from retainer on seat bottom frame and disengage locking wire from seat adjuster.

4. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove seat adjuster from seat assembly (Fig. 8-1).

5. To install, reverse removal procedure.

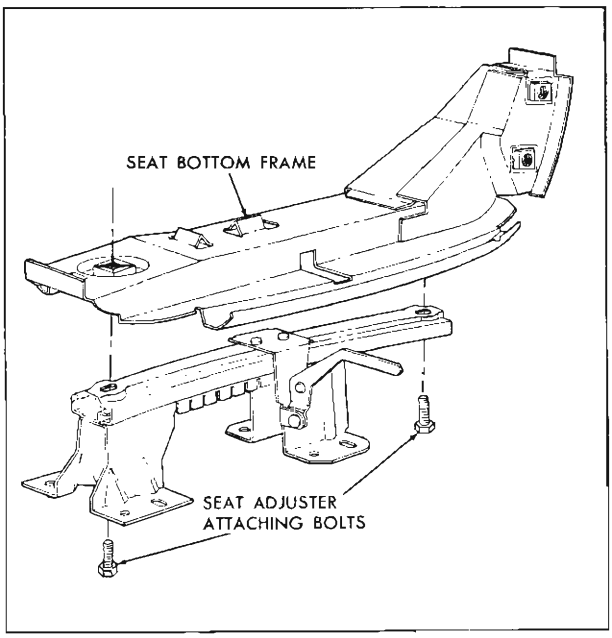


Fig. 8-1 Manual Seat Adjuster

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

REAR SEATS

REAR SEAT CUSHION ASSEMBLY

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 prostrusions 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 properaly engaged behind floor pan stops.

REAR SEAT BACK ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove rear seat cushion assembly.

2. On styles with rear seat center arm rest, lower arm rest, disengage upper end of arm rest trim panel from seat back assembly 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 (4) body tabs that secure the seat back to the floor panel and to the 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 assembly out at bottom until seat back clears body tabs; then raise seat back upward until seat back disengages from hangers on the seat back panel support.

5. Remove seat back assembly 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.

REAR SEAT BACK ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove rear seat cushion assembly.

2. Disconnect rear seat back speaker wire, if present.

3. Working over rear of rear seat beck, remove screw securing rear end of folding top compartment side trim panel to rear of rear seat back frame.

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 assembly from body.

6. To install, reverse removal procedure.

REAR SEAT BACK CENTER ARM REST ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove rear seat back assembly and place upside down on a clean protected surface.

2. Remove four bolts securing rear seat arm rest support plate to rear seat back spring assembly.

3. Lift up lower edge of seat back assembly and disengage arm rest with attached arm rest trim panel from seat back spring assembly and remove arm rest from assembly.

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.

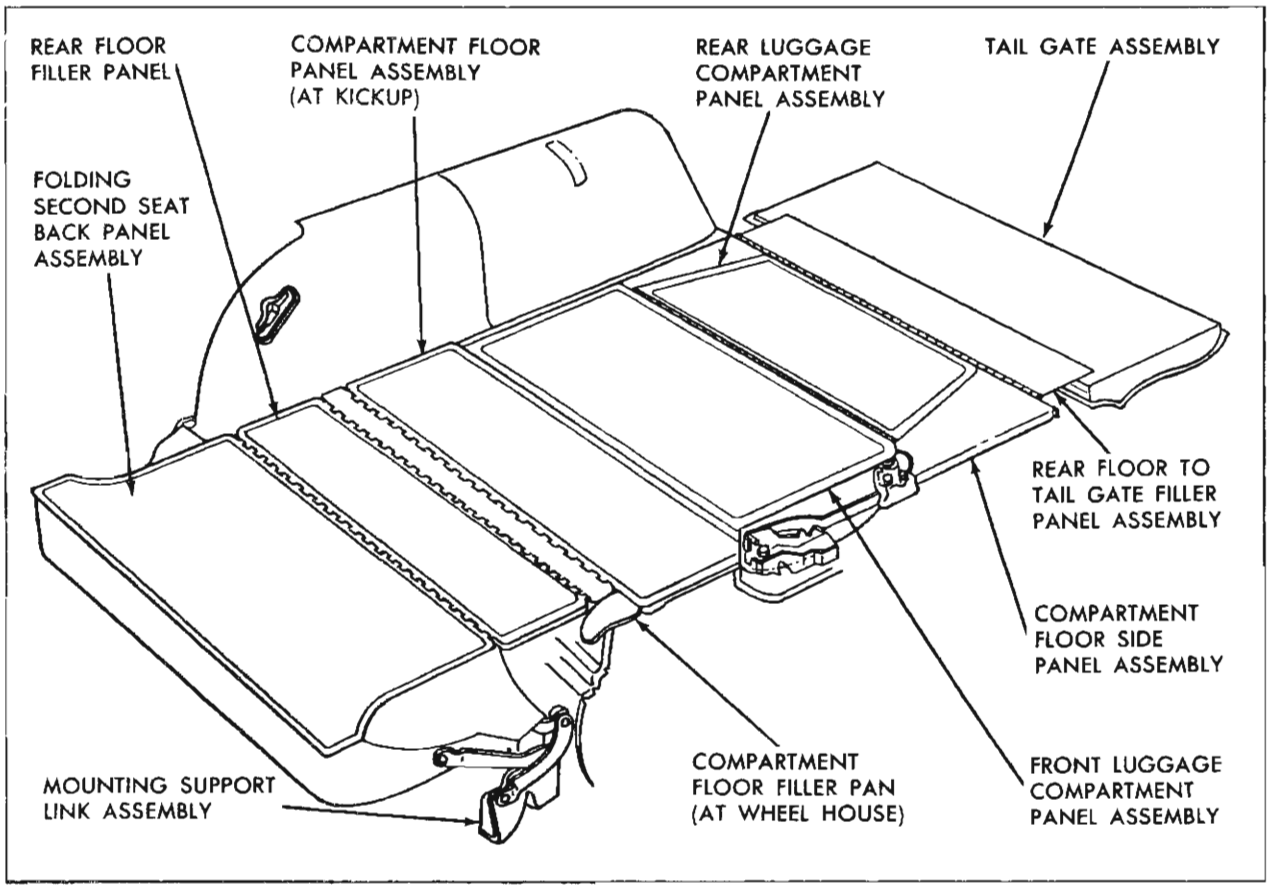


Fig. 8-2 Folding Seat and Rear Compartment Panels - 6 Passenger

FOLDING REAR SEAT AND REAR COMPARTMENT FLOOR PANELS

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.

Fig. 8-2 is typical of Pontiac six-passenger station wagons.

Fig. 8-3 is typical of Pontiac nine-passenger station wagons.

REAR FLOOR TO TAIL GATE FILLER PANEL ASSEMBLY

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Lower tail gate assembly.

2. Lift up rear edge of filler panel assembly sufficiently to expose attaching screws along forward edge of panel.

3. Remove filler panel attaching screws and remove panel assembly from body opening.

4. To install, reverse removal procedure.

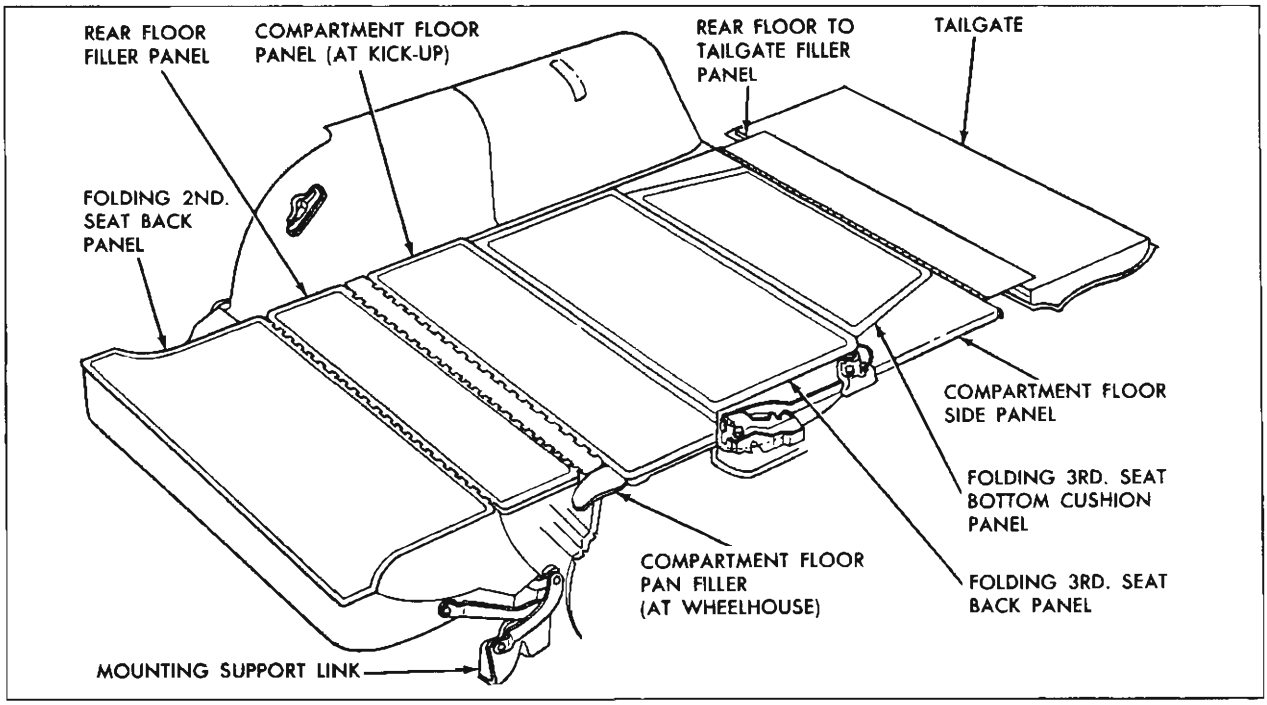


Fig. 8-3 Folding Seat and Rear Compartment - 9 Passenger

COMPARTMENT FLOOR SIDE PANEL ASSEMBLY (RIGHT OR LEFT SIDE)

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. On "35" style, use handle and fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel (Fig. 8-4).

2. On "45" style, raise folding 3rd seat back assembly to up position; then raise 3rd seat bottom cushion assembly to up or "sitting" position.

3. For right floor side panel, remove spare tire cover panel.

4. For left floor side panel, remove rear quarter inner trim rear panel assembly.

5. On left side, remove screw which secures floor side panel to panel support.

6. Along inboard and outboard side facing of right and/or left panel, remove screws which secure panel to panel supports and remove panel(s) from body.

7. To install, reverse removal procedure.

LUGGAGE COMPARTMENT FRONT AND REAR PANEL ASSEMBLIES

35 STYLE

REMOVAL AND INSTALLATION

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel (Fig. 8-4).

2. Fold combined front and rear luggage compartment panels to "up" or half open position. (Panels should be approximately vertical to the floor pan assembly).

3. Lift left side of panel assembly upward to disengage panel from left floor pan support.

4. Move entire panel assembly approximately ½" to left side of body (outboard) to disengage right side of panel from right floor pan support and remove both front and rear luggage compartment panels from body.

5. To install, reverse removal procedure.

NOTE: When replacing front luggage compartment panel with new part, transfer rear luggage compartment panel with attached hinge to new part.

LUGGAGE COMPARTMENT REAR PANEL ASSEMBLY

35 STYLE

REMOVAL AND INSTALLATION

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel. (Fig. 8-4).

2. Remove screws securing hinge assembly to rear luggage compartment panel and remove panel assembly from body.

3. To install, reverse removal procedure.

LUGGAGE COMPARTMENT FRONT AND REAR PANEL HINGE ASSEMBLY

35 STYLE

REMOVAL AND INSTALLATION

1. Using handle, fold rear luggage compartment panel forward until it is resting entirely on front luggage compartment panel.

2. Remove screws securing hinge assembly to both front and rear panels and remove hinge from body (see view "A-A", Fig. 8-4).

3. To install, reverse removal procedure.

FOLDING 3RD SEAT BOTTOM CUSHION PANEL ASSEMBLY

45 STYLE

REMOVAL AND INSTALLATION

1. Using handle, lift cushion panel assembly to a half raised position or until cushion is approximately vertical to floor pan assembly.

2. Lift left side of cushion panel assembly upward to disengage panel from left floor pan support.

3. Move cushion panel assembly approximately ½" to left side of body (outboard) to disengage right side of cushion from right floor pan support and remove cushion panel assembly from body.

4. To install, reverse removal procedure.

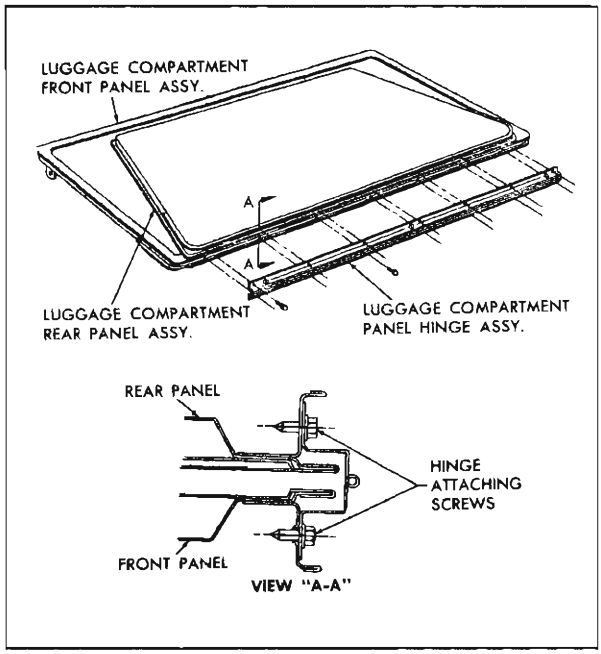


Fig. 8-4 Luggage Compartment Hinge Attachment

FOLDING 3RD SEAT BACK PANEL ASSEMBLY

45 STYLE

REMOVAL AND INSTALLATION

1. Using handle, raise folding seat back until it is approximately vertical to floor pan assembly.

2. Disengage right and left folding 3rd seat back link assemblies from floor pan support.

3. Lift left side of seat back panel assembly upward to disengage panel from left floor pan support.

4. Move back cushion panel assembly approximately ½" to left side of body (outboard) to disengage right side of cushion from right floor pan support and remove back cushion panel assembly from body.

5. To install, reverse removal procedure.

COMPARTMENT FLOOR PANEL ASSEMBLY (AT KICK-UP)

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. On "45" style, remove folding 3rd seat back assembly as previously described.

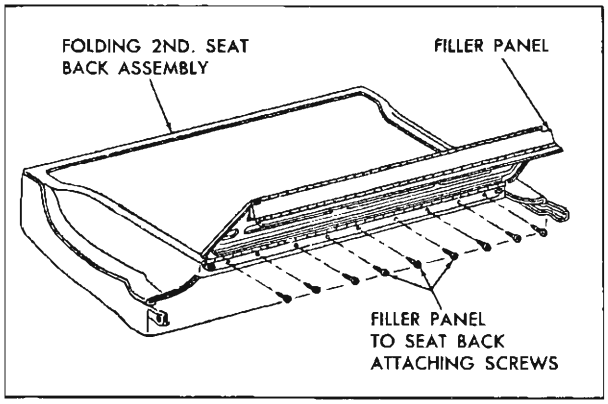


Fig. 8-5 Rear Door Filler Panel

2. On "35" style, remove luggage compartment front and rear panel assemblies (complete) as previously described.

3. Remove screws which secure rear edge of compartment floor panel to floor pan assembly.

4. Lift up 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 assembly from body.

5. To install, reverse removal procedure.

COMPARTMENT FLOOR PAN FILLER (AT WHEELHOUSE)

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Remove compartment floor panel assembly (at kick-up) as previously described.

2. Remove two screws securing floor pan filler (at wheelhouse) to floor pan assembly and remove filler from body.

3. To install, reverse removal procedure.

REAR FLOOR FILLER PANEL

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Remove compartment floor panel assembly (at kick-up) as previously described.

2. Along rear edge of filler panel, remove screws which secure panel to floor pan.

3. Fold filler panel forward sufficiently to remove screws whcih secure panel to folding 2nd seat back assembly and remove filler panel form body (Fig. 8-5).

4. To install, reverse removal procedure.

FOLDING REAR SEAT CUSHION

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Lift up front edge of folding rear seat cushion assembly to disengage protrusions in seat bottom frame from slots in rear seat support and remove cushion assembly.

2. To install, reverse removal procedure. Make certain that protrusions are fully engaged in rear seat support.

FOLDING 2ND SEAT BACK ASSEMBLY (WITH ATTACHED FILLER PANEL)

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Remove compartment floor panel assembly (at kick-up) as previously described.

2. Remove screws securing rear edge of rear floor filler panel assembly to floor pan.

3. With folding 2nd seat back assembly in down position, fold filler panel forward sufficiently to remove screws securing right and left lower corner moldings to 2nd seat and remove moldings.

4. Remove bolts securing right and left mounting support link assemblies to seat back assembly (Fig. 8-6), and remove folding 2nd seat back assembly with attached filler panel from body.

5. To install, reverse removal procedure.

NOTE: When necessary to remove filler panel from seat back assembly, as a bench operation, fold filler panel as shown in Fig. 8-6 and remove screws which secure filler panel to seat back panel assembly.

FOLDING 2ND SEAT BACK MOUNTING SUPPORT LINK ASSEMBLY

35 and 45 STYLES

REMOVAL AND INSTALLATION

1. Release rear seat cushion and slide cushion forward.

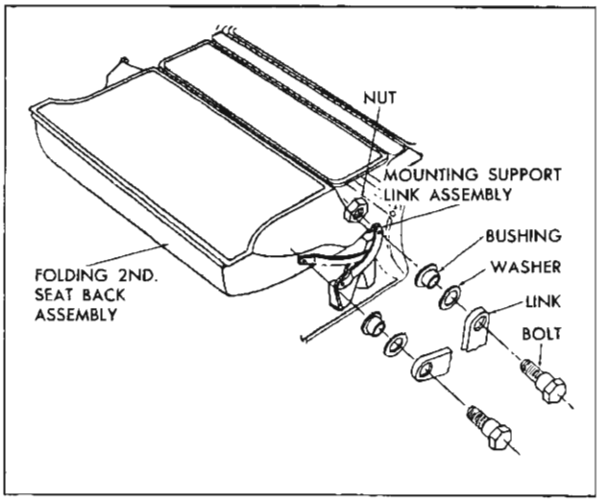


Fig. 8-6 Second Seat Mounting Support Link

2. Turn back floor carpet sufficiently to remove screws securing rear door opening carpet support filler to floor pan and remove support filler from body.

3. Remove bolts securing folding 2nd seat back mounting support link assembly to floor pan.

4. Fold 2nd seat back assembly to down position.

5. Remove screws securing lower corner molding to 2nd seat back and remove molding from back.

6. Remove bolts securing support link to folding 2nd seat back assembly and remove support link from body (Fig. 8-6).

7. To install, reverse removal procedure.

FRONT SEAT—ELECTRICALLY OPERATED (SIX WAY)

DESCRIPTION

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

Solenoid #1 (Fig. 8-7) controls the vertical movement of the rear edge of the seat. Solenoid #2 controls the horizontal movement of the rear edge of the seat. Solenoid #3 controls the vertical movement of the front edge of the seat. In addition to the six seat adjuster drive cables at the transmission assembly, a motor drive cable is installed from the motor to the transmission assembly (Fig. 8-7). When one of the control switch buttons is actuated, the motor and one of the solenoids are energized simultaneously. The solenoid plunger engages the large gears with a driving gear. The driving gear rotates the large gears which rotates the drive cables and operates both adjusters. When the switch contacts are opened, a spring returns the solenoid plunger to its original position, disengaging the large gears from the driving gear.

FRONT SEAT ASSEMBLY

REMOVAL AND INSTALLATION

1. Under front of seat, disconnect seat wire harness from feed wire harness and detach control switch harness from clip on floor pan.

2. Turn back floor carpeting, remove both seat adjuster track covers and remove four seat adjuster-to-floor pan attaching bolts from each adjuster. Remove carpet retainers at front of seat adjusters.

3. With aid of a helper, remove seat assembly with attached adjusters, motor and transmission assembly from body.

4. To install seat assembly, reverse removal procedure. Make sure ground wire is securely attached at right seat adjuster and under seat adjuster-to-floor pan attaching bolt.

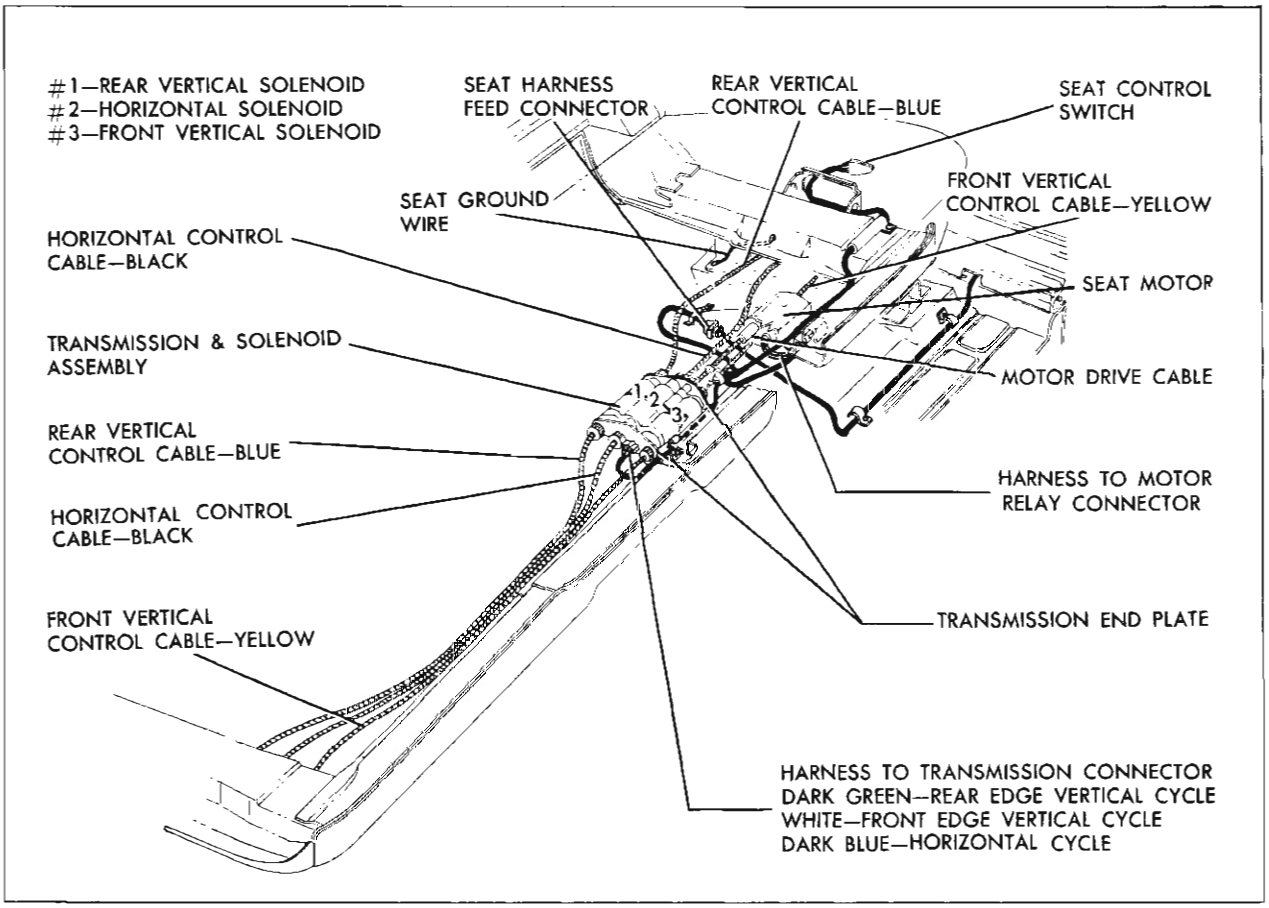


Fig. 8-7 Six-Way Installation

FRONT SEAT ADJUSTER ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove front seat assembly from body with attached adjusters, motor and transmission, and place upside down on a clean protected surface.

2. Detach the three power drive cables from adjuster to be removed.

3. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly.

4. To install seat adjuster assembly, reverse removal procedure. Black cable attaches to horizontal actuator; yellow cable to front vertical gear nut and blue cable to rear vertical gear nut.

CAUTION: When installing seat assembly in body, seat adjusters should be parallel and "in phase" with each other. In the event the adjusters are "out of phase" (that is, one adjuster reaches its maximum horizontal or vertical travel in a given direction before the other adjuster), proceed as follows:

a. Horizontal Travel—operate seat control switch until one adjuster reaches full forward position. Detach horizontal drive 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 and Rear Vertical Travel—operate seat control switch until one adjuster reaches fully raised position. Disconnect vertical drive cable from adjuster which has reached the full up position. Operate seat upward until other adjuster has reached the full up position; then, connect the vertical drive cable and check vertical travel of seat.

FRONT SEAT ADJUSTER VERTICAL JACKSCREW GEAR NUTS AND SPRINGS

REMOVAL AND INSTALLATION

1. Remove seat assembly from body.

2. Remove seat adjuster from side on which jackscrew is to be removed.

3. Using clutch-type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gear nuts (Fig. 8-8).

4. Insert a #1 crosshead screwdriver or other suitable tool into drive cable slot in rear vertical gear nut and actuate gear nut rearward. Actuate front vertical gear nut rearward to release tension from front assist spring.

5. Remove jackscrew front attaching nut.

6. Lift front end of jackscrew to disengage it from support and remove front assist spring and silencer.

7. Actuate front and rear gear nuts forward to release tension from rear assist spring.

8. Remove rear attaching nut from jackscrew.

9. Disengage rear end of jackscrew from support and remove jackscrew with gear nuts and spring from adjuster. Rear assist spring and silencer may now be removed from jackscrew (Fig. 8-9).

10. To remove vertical gear nuts, turn or actuate gear nuts off jackscrew.

11. To install, reverse removal procedure making sure jackscrew is installed with unthreaded shoulder at rear of adjuster and with gear nuts installed. Rear vertical gear nut with larger diameter cable attachment is installed to rear; front vertical gear nut with smaller diameter cable attachment is installed at front. Both vertical gear nuts should have cable attachment at bottom of inner side of adjuster.

FRONT SEAT ADJUSTER HORIZONTAL ACTUATOR OR UPPER AND LOWER CHANNELS

REMOVAL AND INSTALLATION

1. Remove front seat adjuster.

2. Remove screws securing horizontal actuator and remove actuator from seat adjuster.

3. Slide seat adjuster lower channel from upper channel and, if required, remove plastic shoes from lower channel track.

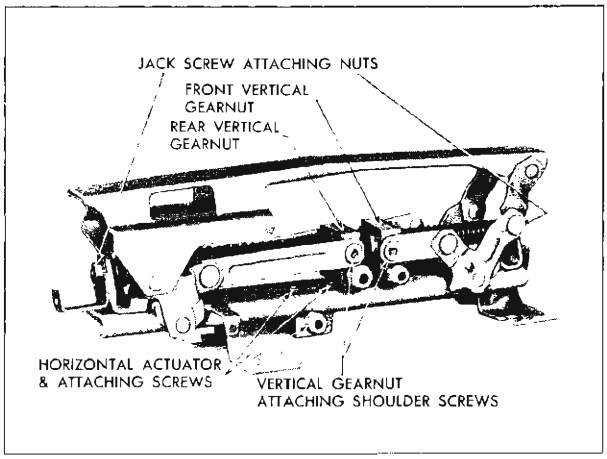


Fig. 8-8 Six-Way Seat Adjuster

4. To install, reverse removal procedure. If lower channel has been removed from upper channel, make sure all four plastic shoes are installed on lower track. Apply "Lubriplate" or equivalent to track portion of upper channel and to teeth on lower channel. When installing horizontal actuator, adjust actuator so that drive gear is fully engaged with teeth on lower channel. When horizontal actuator screws are tightened, there should be no free motion between upper and lower channels.

FRONT SEAT ADJUSTER ELECTRIC MOTOR OR DRIVE CABLE

REMOVAL AND INSTALLATION

1. Remove front seat assembly as previously described.

2. Remove motor support-to-seat frame attaching bolts.

3. Move motor assembly towards left side of seat sufficiently to disengage motor drive cable; then, remove motor from support assembly. Motor drive cable may be removed, if required, by removing cable end plate from transmission.

4. To install, reverse removal procedure making sure motor drive cable is properly engaged at both motor and transmission.

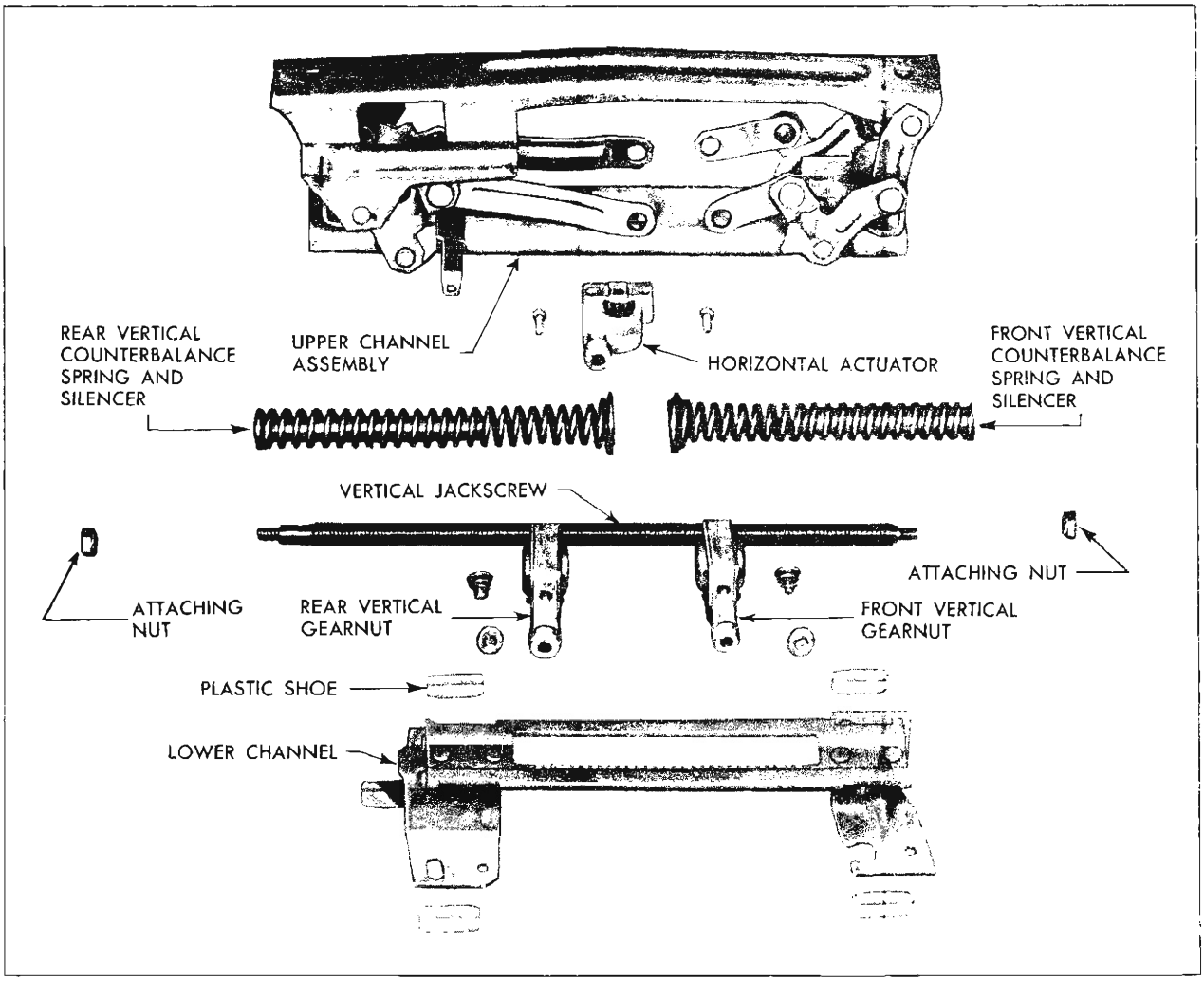


Fig. 8-9 Six-Way Seat Adjuster

FRONT SEAT ADJUSTER HORIZONTAL AND VERTICAL DRIVE CABLES

REMOVAL AND INSTALLATION

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Detach both horizontal and vertical cables from seat adjuster.

3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly; then disengage cables from end plate.

4. To install horizontal and vertical cables, reverse removal procedure. Make sure cables are installed to correct gear nuts (Fig. 8-7).

FRONT SEAT ADJUSTER TRANSMISSION

REMOVAL AND INSTALLATION

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Disconnect wire harness connector from transmission (Fig. 8-7).

3. Remove screws securing horizontal and vertical cable end plate on both sides of transmission and detach cables from transmission.

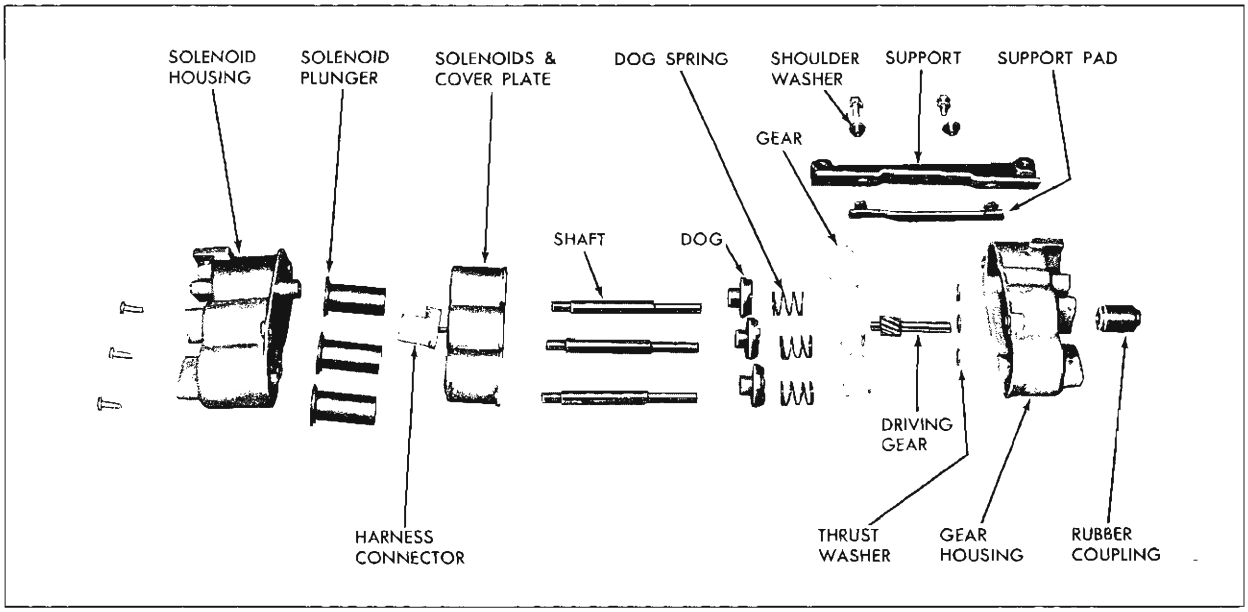


Fig. 8-10 Six-Way Seat Transmission

4. Remove transmission to support attaching bolts; then disengage transmission from motor drive cable and remove transmission from seat assembly.

5. To install, reverse removal procedure.

DISASSEMBLY AND ASSEMBLY

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screw securing ground strap to solenoid housing and screws securing transmission support to gear and solenoid housings.

3. Remove screws securing gear housing to the solenoid housing; then, carefully separate housings and remove component parts of transmission assembly (Fig. 8-10).

4. 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 shaft and solenoid plungers with "Lubriplate" or equivalent.

ELECTRICAL

CONTENTS OF THIS SECTION

POWER OPERATED WINDOWS

DESCRIPTION

The wiring harness for the electrically operated windows consists of three (3) 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. The front harness also includes the wiring for the front door windows. Fig. 9-1. The multiple connector located at the front harness is used only for manufacturing purposes and is not intended to be disengaged in service.

REAR DOOR OR REAR QUARTER WINDOW HARNESS

A separate harness controls the operation of the right and left rear door or quarter windows Fig 9-2. The right and left harnesses are connected to the front crossover harness beneath the outer ends of the instrument panel.

The power windows are operated by a rectangular shaped 12 volt series wound motor with an internal circuit breaker and a self-locking rubber coupled gear drive. The harness to window motor connector is designed with a locking embossment to insure a positive connection. When disengaging the harness connector from the motor, it is necessary to depress the thumb release. When installing the harness, the thumb release must be held depressed until the embossment on the female connector is locked in the hole of the motor connector.

The power window electrical circuit is protected by a 40 ampere circuit breaker. Circuit breaker located at left side of engine compartment.

POWER WINDOW CIRCUIT CHECKING PROCEDURES

Failures in a circuit are usually caused by short circuits or open circuits. Open circuits are usually caused by breaks in the wiring, faulty connection or mechanical failure in a component such as a switch or circuit breaker. Short circuits are usually caused by wires from different components of the current 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

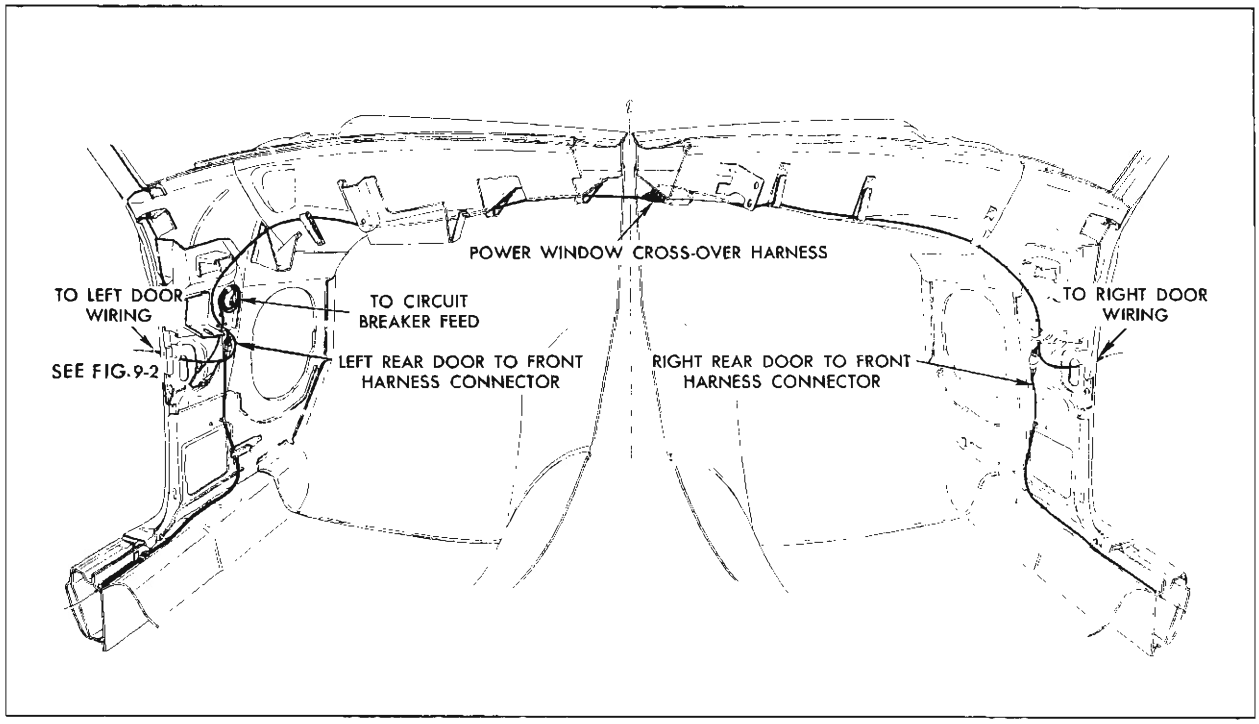


Fig. 9-1 Power Window Wiring Installation

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.

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.

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. 9-3.

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 the other end to one of the motor lead terminals in the switch block. Repeat this check on the remaining motor lead terminal Fig. 9-4.

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. Disengage harness connector from window motor connector. The thumb release on the harness connector must be depressed before it can be disengaged from the motor.

2. Insert one end of a #12 gauge jumper wire to the switch feed terminal and the other end to one of the motor lead terminals in the switch block Fig. 9-4.

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 (see Fig. 9-5).

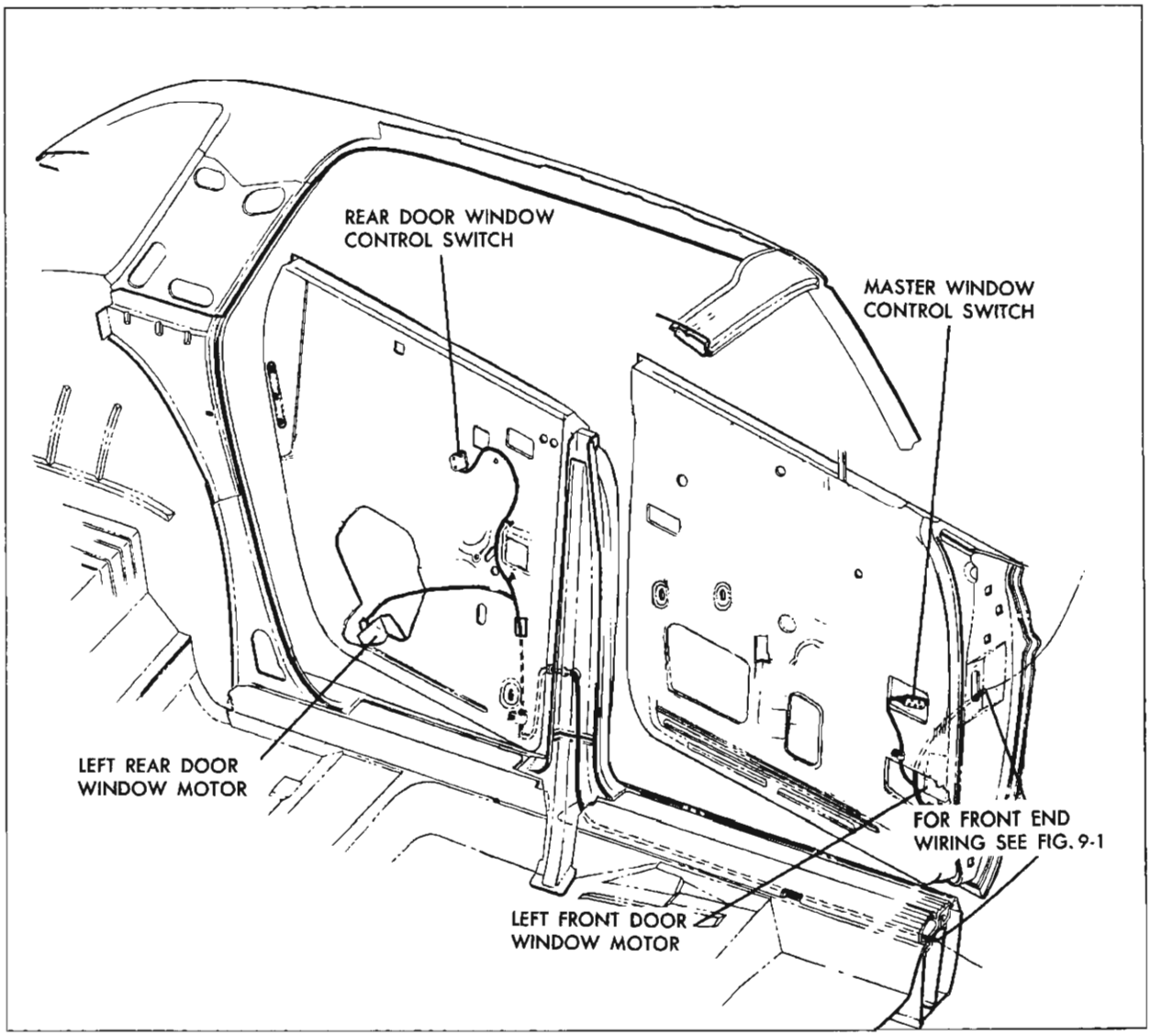


Fig. 9-2 Left Side Power Window Wiring Installation

CHECKING DOOR WINDOW MOTOR

1. Check window regulator and channels for possible mechanical bind of window.

2. Check attachment of window motor to inner panel to insure an effective ground.

3. Connect one end of a #12 gauge jumper wire to the power source and the other end to one of the terminals on the window motor.

4. If the motor fails to operate with a jumper wire, the motor is defective and should be repaired or replaced as required. Check the other motor lead in the same manner.

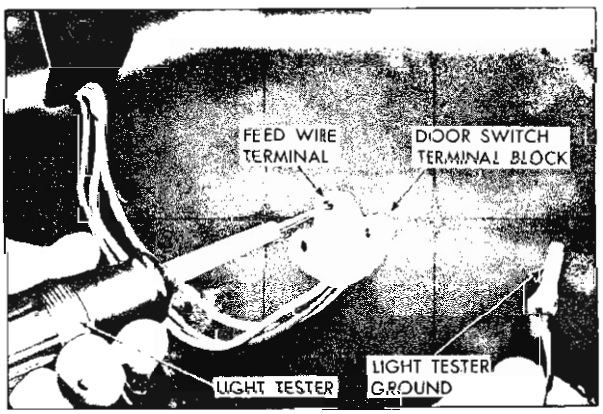


Fig. 9-3 Checking Feed Circuit

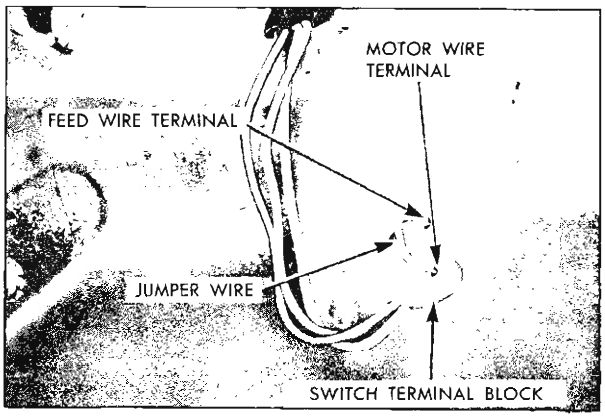


Fig. 9-4 Checking Window Control Switch

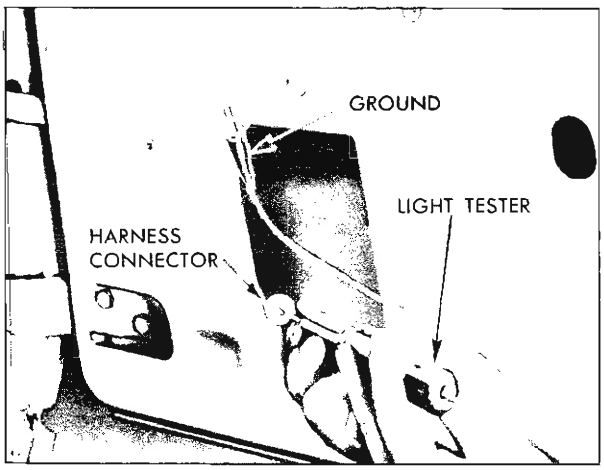
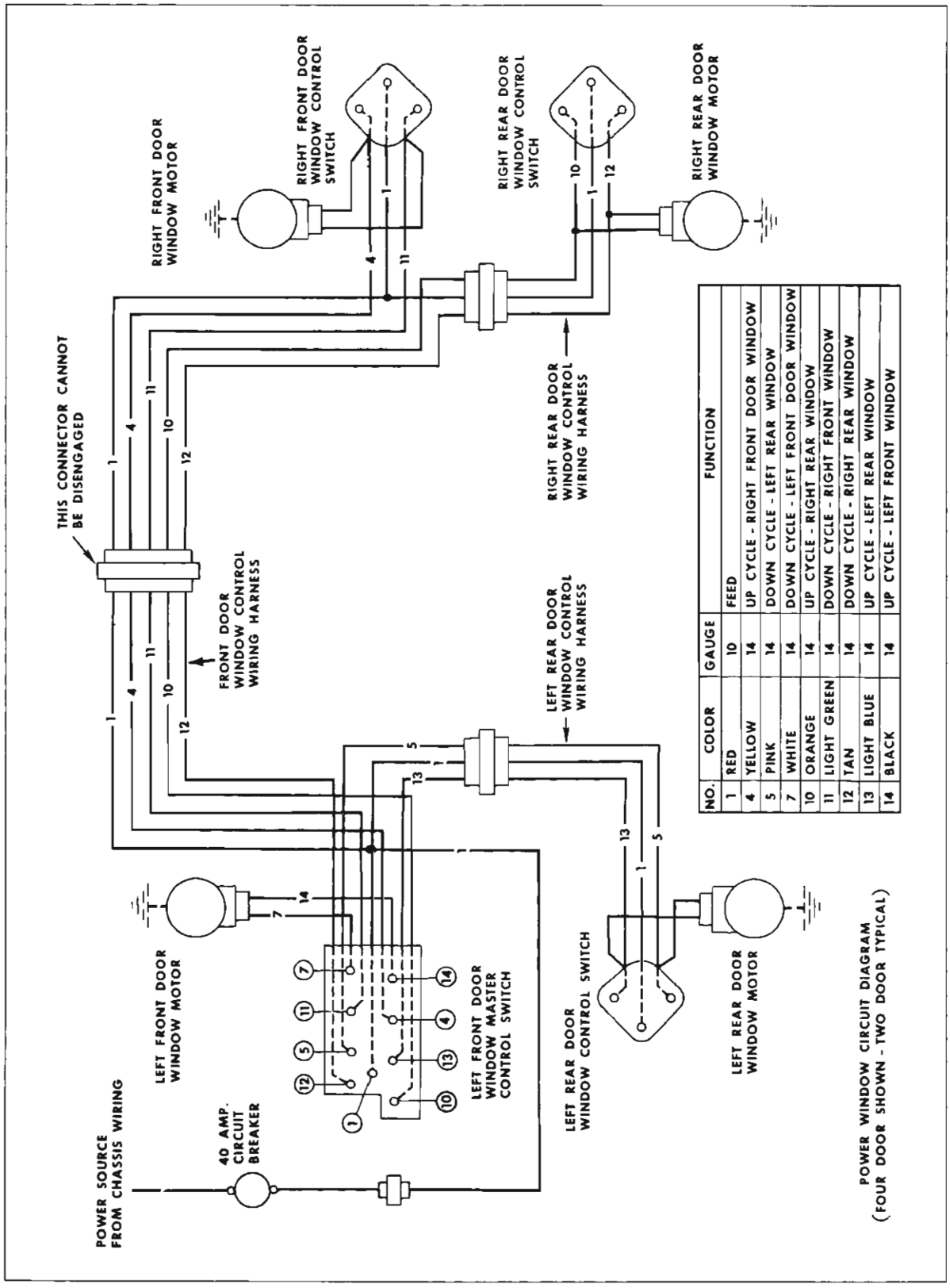


Fig. 9-5 Checking Circuit Between Switch and Motor

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 Fig. 9-6.

CONDITION	CAUSE	CORRECTION
1. None of the windows will operate.	Short or open circuit in power feed circuit.	1. Check circuit breaker operation. 2. Check feed connector to power harness beneath instrument panel. 3. 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.	1. Short or open circuit between right rear door harness and power window front harness. 2. Short or open circuit in affected window control switch or window motor circuit. 3. Possible mechanical failure or bind in window channels. 4. Defective window motor.	1. Check harness connectors beneath outer ends of instrument panel for proper installation. 2. Check wires in power window front harness for possible short or open circuit. 3. Check operation of rear door window control switch. 4. Check circuit from window control switch to window motor for short or open circuit. 5. Check window regulator and channels for possible mechanical failures or bind. 6. Check operation of motor.
3. Right door windows will operate from left door master control switch but will not operate from right door control switches. Left door windows operate.	Open or short circuit in front harness feed wire circuit.	Follow up feed wire in front harness for possible short or open circuit.



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. 9-6 Power Window Circuit Diagram

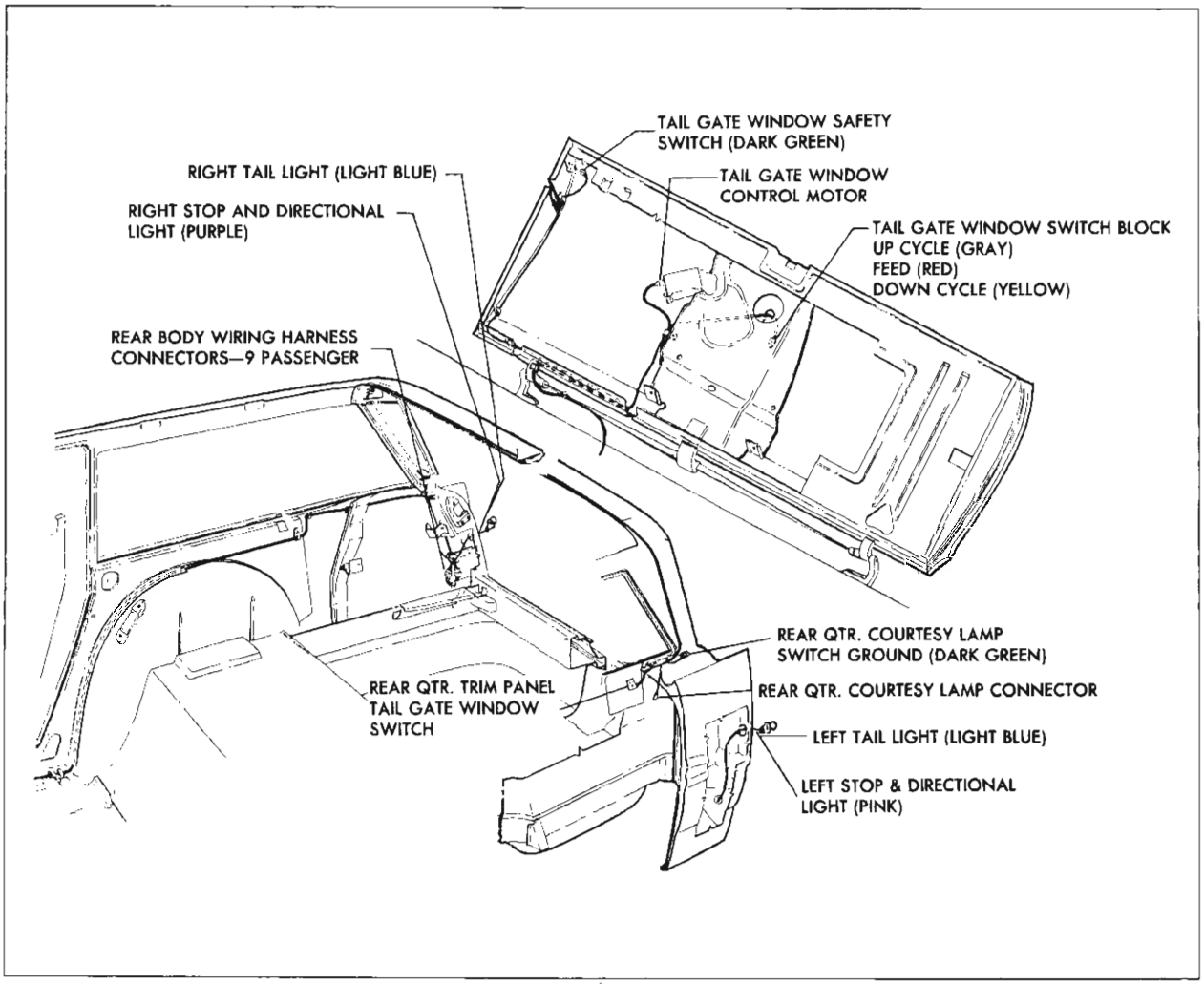


Fig. 9-7 Wiring For Tail Gate

ELECTRIC TAIL GATE WINDOW CIRCUIT

The 1963 station wagon style 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 at the engine compartment.

The design of the tail gate requires the window to be lowered before the tail gate can be opened. A mechanical safety feature in the tail 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 from the tail gate window lock cylinder switch. The lock cylinder switch is actuated when the key is inserted into the lock cylinder and rotated to open or lower the window. In addition, on the nine passenger station wagon styles, a tail gate window control switch is located at the rear of the left rear quarter inner panel trim.

The tail gate window harness is a component part of the body wiring harness which consists of a front and rear section connected together at the right rear quarter (Figs. 9-7, 9-8 and 9-9).

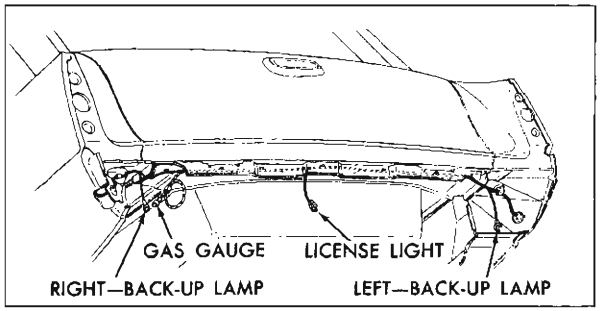


Fig. 9-8 Rear End Wiring (Station Wagon)

To prevent the window from being operated to the up position when the tail gate has been lowered, a safety switch is located adjacent to the right tail gate lock. 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, be sure to check the connectors at the front and rear body wiring harness for proper installation. The checking procedures below may be used to check the operation of a switch or motor after the cause of the electrical failure has been isolated to a particular part of the circuit. Refer to Fig. 9-10 for the circuit diagram of the power window circuit.

CHECKING CIRCUIT BREAKER

This procedure is the same as "Checking the Circuit Breaker" for the power window circuit previously covered.

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.

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.

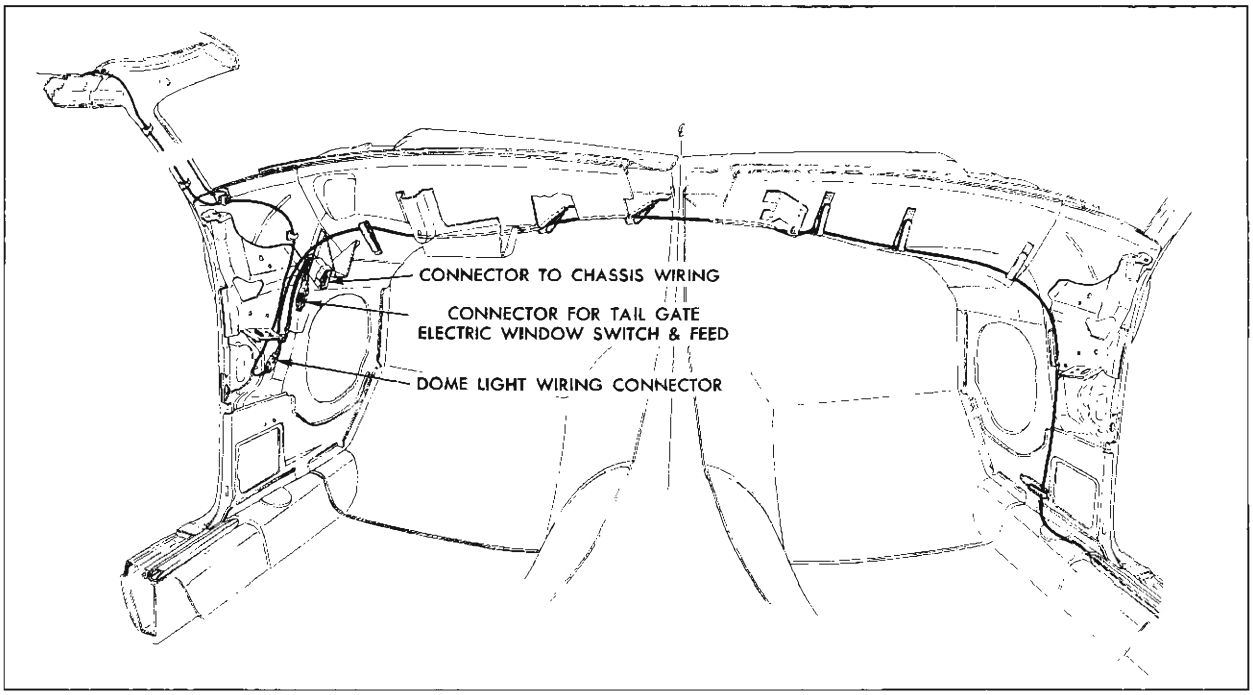


Fig. 9-9 Front Wiring for Tail Gate Window

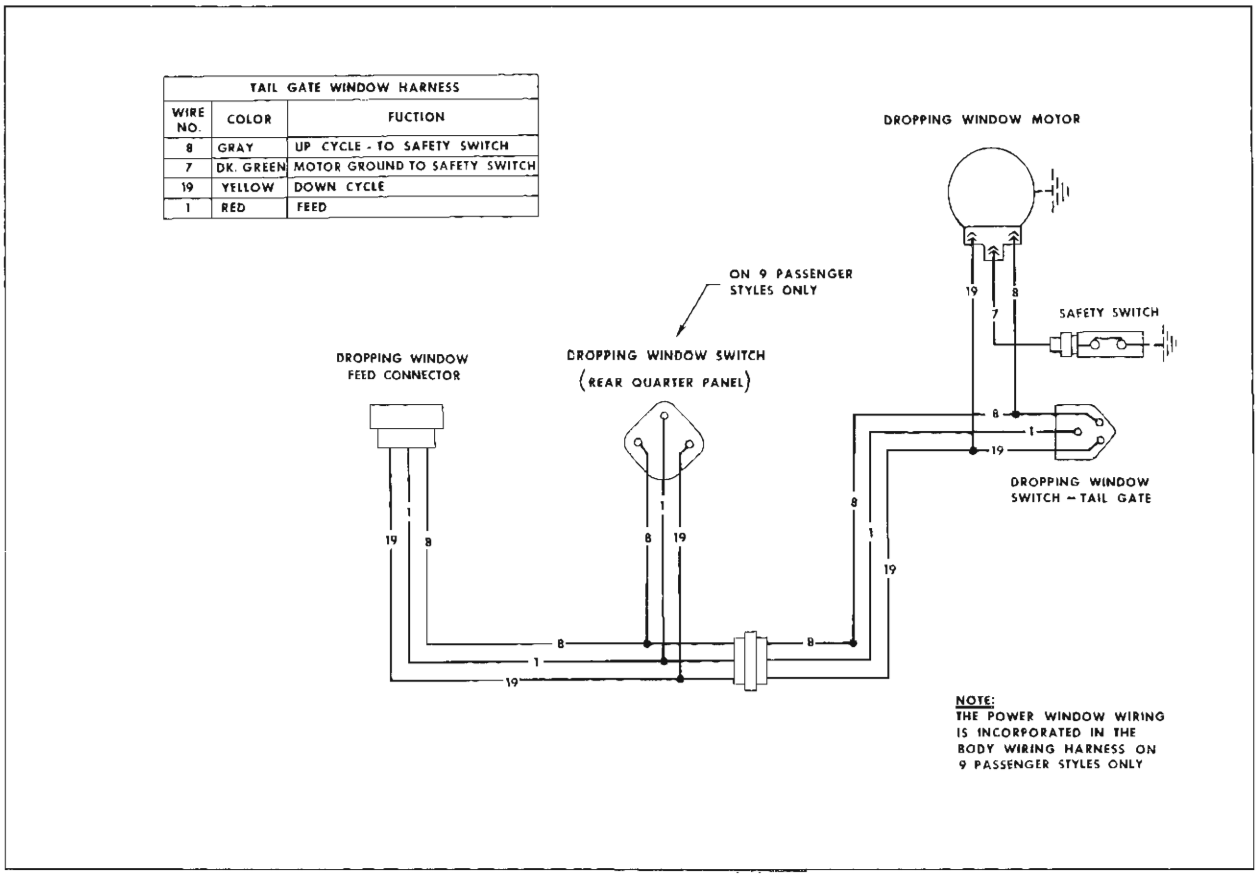


Fig. 9-10 Tail Gate Window Wiring—9 Passenger

CHECKING CONTROL SWITCH AT REAR QUARTER OR TAIL GATE

First determine that there is current to the switch terminal block; then use a #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:

a. Disengage connector and check with test light for power (red). If tester does not light, there is a short or 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 tail 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.

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.
	2. Defective or inoperative control switch.	2. Check operation of switch.
With the tail gate closed, the window operates downward but does not operate upward when the switch at the instrument panel, rear quarter or tail gate is actuated.	Open or short circuit in "up" cycle feed wire.	Check affected wiring for open or short circuit.
The window will not operate "up" or "down" from any of the control switches.	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 (BUCKET 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. See Fig. 9-11 for bucket seat installation.

The seat motor is energized by toggle-type control switch installed in the left seat side panel.

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and two drive cables, 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 Bucket Seat Section for exploded view of transmission.

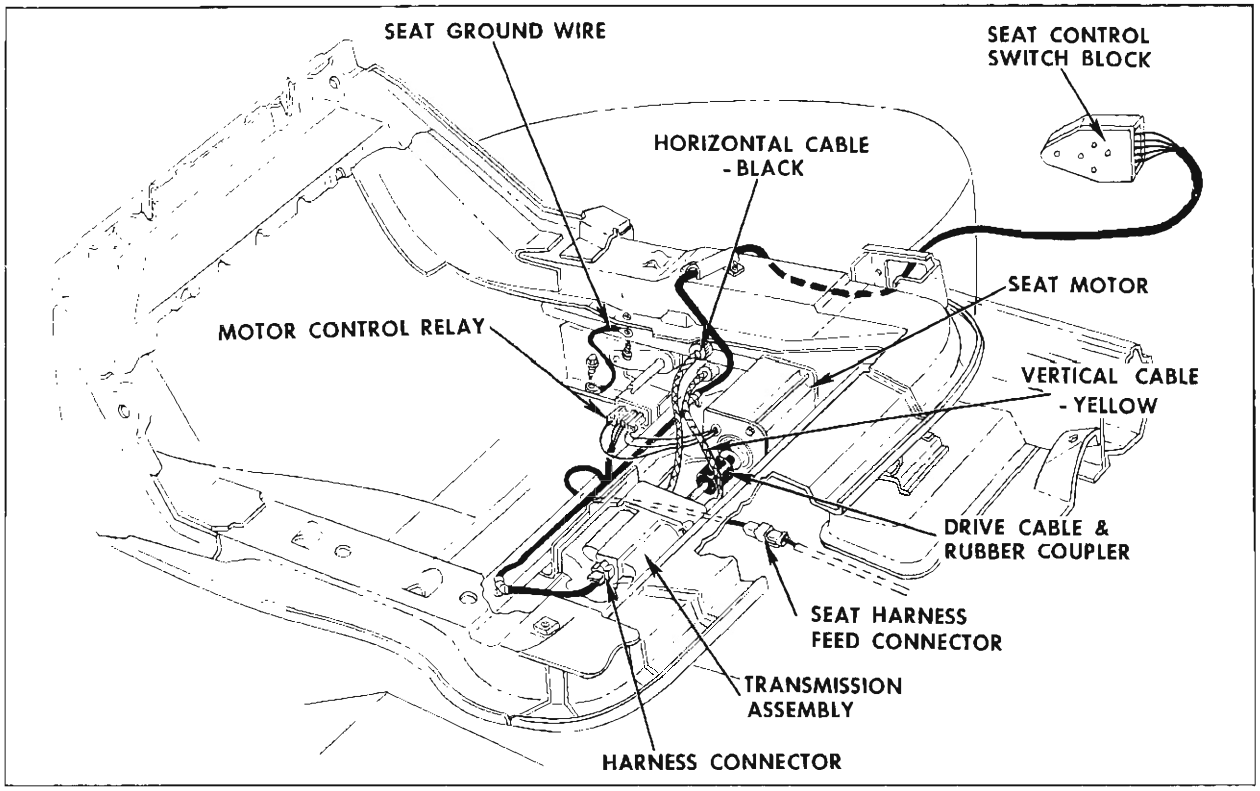


Fig. 9-11 4 Way Seat Installation (Bucket Type)

CHECKING PROCEDURES

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedures as outlined. Before performing any extensive check procedures, check the seat adjuster drive cables for proper attachment. In addition, study the seat circuit diagrams to become familiar with the seat circuit.

1. Checking for Current at Circuit Breaker.

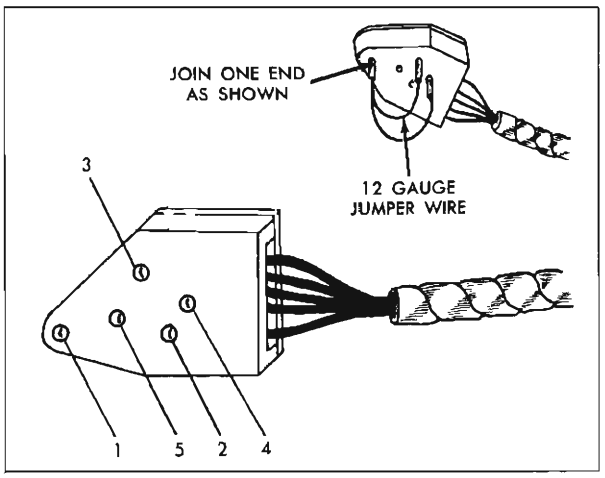
A. Connect one light tester lead to battery side of circuit breaker (located at engine compartment and ground other lead. It tester does not light, there is no current at battery side of circuit breaker.

B. To check circuit breaker, disconnect switch feed wire from breaker, and with a light tester check for current at switch side of circuit breaker. If tester does not light, there is no current flowing through circuit breaker.

2. Checking Feed Circuit Continuity at Relay on Seat Motor.

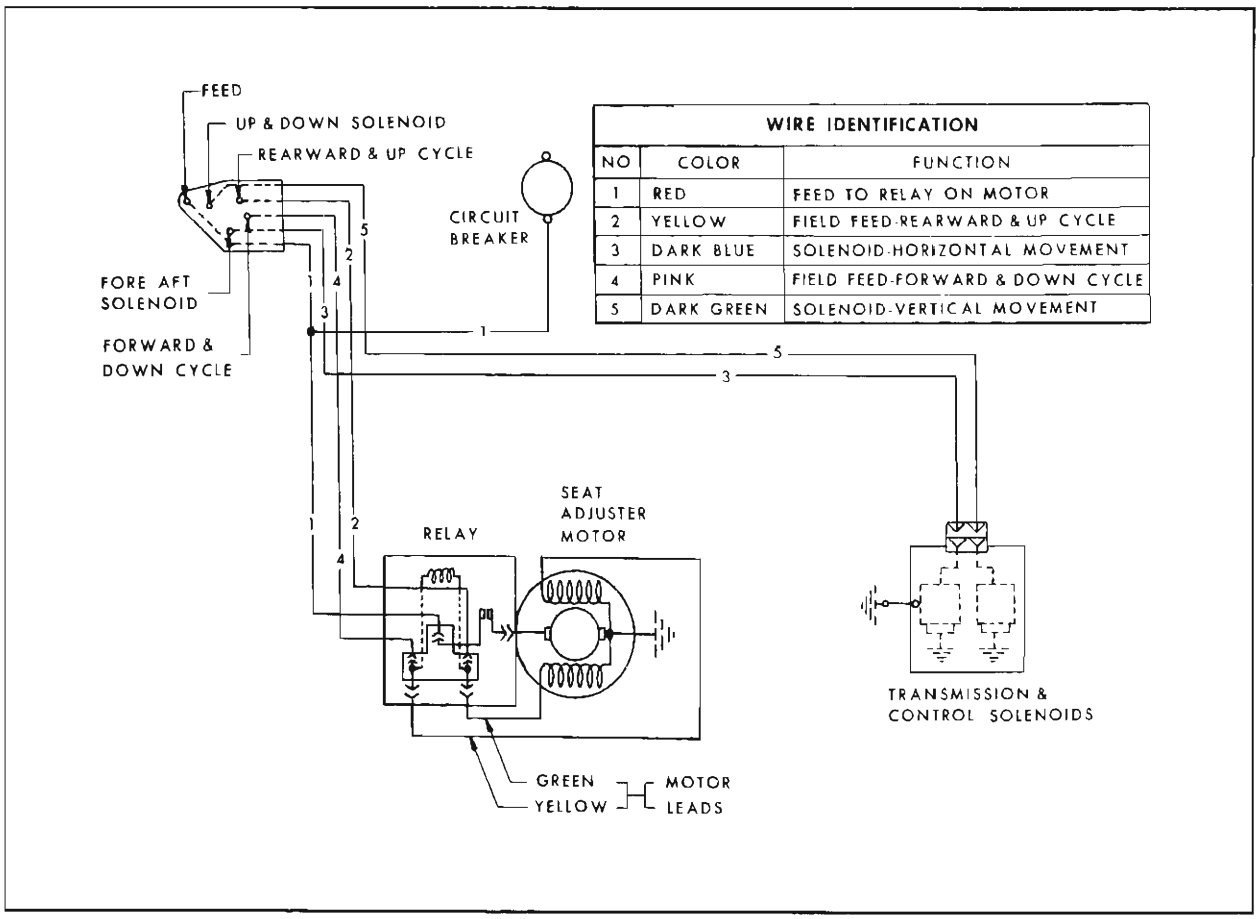
A. Disengage three-way connector body from the seat motor relay.

B. Insert one light tester lead into the relay power feed (red wire) connector slot on the harness, and ground other tester lead.



LOCATION	WIRE COLOR	FUNCTION
1	Red	Switch Feed
2	Yellow	Field Feed—Rearward and Up Cycle
3	Dark Blue	Solenoid—Horizontal Movement
4	Pink	Field Feed—Forward and Down Cycle
5	Dark Green	Solenoid—Vertical Movement

Fig. 9-12 4 Way Seat Switch Block



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. 9-13 4 Way Seat—Circuit Diagram

C. If tester does not light, there is no current at end of feed wire. Failure is caused by an open or short circuit in feed circuit.

3. Checking for Current at Seat Control Switch.

A. Connect one light tester lead to feed terminal of switch block and ground other light tester lead to body metal.

B. If tester does not light, there is no current at switch block. Failure is caused by an open or short circuit between switch block and power source.

4. Checking the Seat Control Switch.

In the following operations which specify the seat control switch to be actuated, a switch that has been checked for proper operation may be connected to the switch block. If a switch is not available, a three-way jumper 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. 9-12. If a jumper wire is used, number the locations on the switch block as indicated in the illustration.

NOTE: To make jumper wire, obtain two (2) 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.

A. Obtain switch or jumper wire and connect to switch block.

B. Operate switch if used. If adjusters operate with new switch or jumper wire, but did not operate with original switch, the original switch is defective or connector block was not sufficiently engaged.

IMPORTANT: *To obtain a seat movement using a three-way jumper wire at the switch block, the switch feed location, one of the motor field wire locations and one of the solenoid locations have to be connected simultaneously.*

The switch locations to be connected to obtain a specific seat movement are outlined as follows:

(1) To raise seat, place jumper wire in locations 1, 2 and 5.

(2) To lower seat, place jumper wire in locations 1, 4 and 5.

(3) To operate seat forward, place jumper wire in locations 1, 3 and 4.

(4) To operate seat rearward, place jumper wire in locations 1, 2 and 3.

5. Checking Wires Between Control Switch and Motor Relay

A. Disengage three-wire harness connector from relay at motor.

B. Insert one light tester lead into the motor field connector slot on harness and ground other lead.

C. Actuate seat switch to energize field wire being tested.

D. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch. Check other motor field wire in the same manner.

6. Checking the Relay Assembly

A. Disconnect three (3) leads from relay assembly. These are the wires leading from the motor to the relay.

B. Connect one end of a jumper wire to one of the motor field feed studs on the relay and ground the other end of the jumper wire.

C. Connect one light tester lead to motor armature feed stud on relay and ground other tester lead.

D. With jumper wire, energize the field stud which is not grounded.

CAUTION: Do not energize grounded side. If tester does not light, the relay is defective.

7. Checking the Motor Assembly

A. Disconnect motor field feed wires from motor.

B. Connect one end of a #12 gauge jumper wire to battery positive pole and other end to one of the motor field and the armature wires.

C. If motor does not operate, motor is defective. Check the remaining motor field wire in the same manner.

8. Checking Wires Between Switch and Solenoids

A. Disconnect harness connector from transmission assembly.

B. Connect one light tester lead to one terminal of power feed and ground other light tester lead to body metal.

C. Operate switch to wire being tested. If tester does not light, there is no current at the end of harness wire. Failure is caused by an open or short circuit between end of wire and switch or defective switch.

D. Check other wire in same manner.

NOTE: One wire in connector is a blank. Check wiring diagram for colors of wires actually used.

9. Checking the Solenoid

A. Check solenoid ground strap attachment for proper ground.

B. 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.

C. Operate switch actuate adjuster motor and solenoid being checked.

D. If adjusters do not operate and there is no mechanical failure of the adjusters, the solenoid is defective.

NOTE: If solenoid is functioning properly, a "click" may be heard when solenoid plunger operates.

TYPICAL ELECTRICAL FAILURES OF FOUR-WAY POWER SEATS

CONDITION	CAUSE	CORRECTION
1. Seat adjuster motor does not operate.	a. Short or open circuit between power source or switch and motor.	a. Check circuit from power source and switch to motor to locate failure.
	b. Defective motor relay.	b. Replace relay.
	c. Defective motor.	c. Check motor. If defective repair or replace as required.
	d. Defective switch.	d. Replace switch.
	e. Defective circuit breaker.	e. Replace circuit breaker.
2 Seat adjuster motor operates in both directions but seat adjusters are not actuated.	a. Short or open circuit between switch and affected solenoid.	a. Check circuit from switch to solenoid to locate failure.
	b. Defective solenoid.	b. Check solenoid. If defective, repair or replace as required.
	c. Defective switch.	c. Replace switch.
3. Seat Adjuster motor operates in one direction only, seat moves down and forward, but does not move up and rearward.	a. Short or open circuit between one of the motor relay wires and seat control switch.	a. Check circuit between affected motor relay wire and seat switch.
	b. Defective field coil in motor.	b. Check motor. If defective repair or replace as required.
	c. Defective switch.	c. Replace switch.

SIX WAY SEAT

DESCRIPTION

The seat adjusters are actuated by a 12 volt motor installed at the left side of the seat assembly (Fig. 9-14). The motor is energized by a three (3) button-type control switch located in the left seat side panel.

THE ELECTRICAL PORTION OF THE SEAT OPERATES AS FOLLOWS

See circuit diagram Fig. 9-15. When one of the control switch buttons is actuated, current flows to the transmission solenoid which controls the desired seat movement. The energizing of the solenoid coil results in the solenoid plunger dog engaging the gear mechanism to rotate the control cable. The same switch action which energized the solenoid produces a current flow through the motor control relay to one of the motor field coils. The current flows through the relay, closes the contacts between the relay power source and the armature motor lead wire, and results in the operation of the seat motor. When the control switch lever is released, the switch contacts open, a spring returns the shaft dog and solenoid plunger to their original position disengaging them from the gear dog.

CIRCUIT CHECKING PROCEDURES

It may be necessary to use only one or all of the procedures outlined to locate an electrical failure in the circuit. If the location of the failure is evident, follow only the steps required to check the affected wire or component. If the location of the failure is not evident, follow the procedure as outlined. Before performing any extensive check procedures, check the seat adjuster drive cables for proper attachment. In addition, study the seat circuit diagrams to become familiar with the seat circuit.

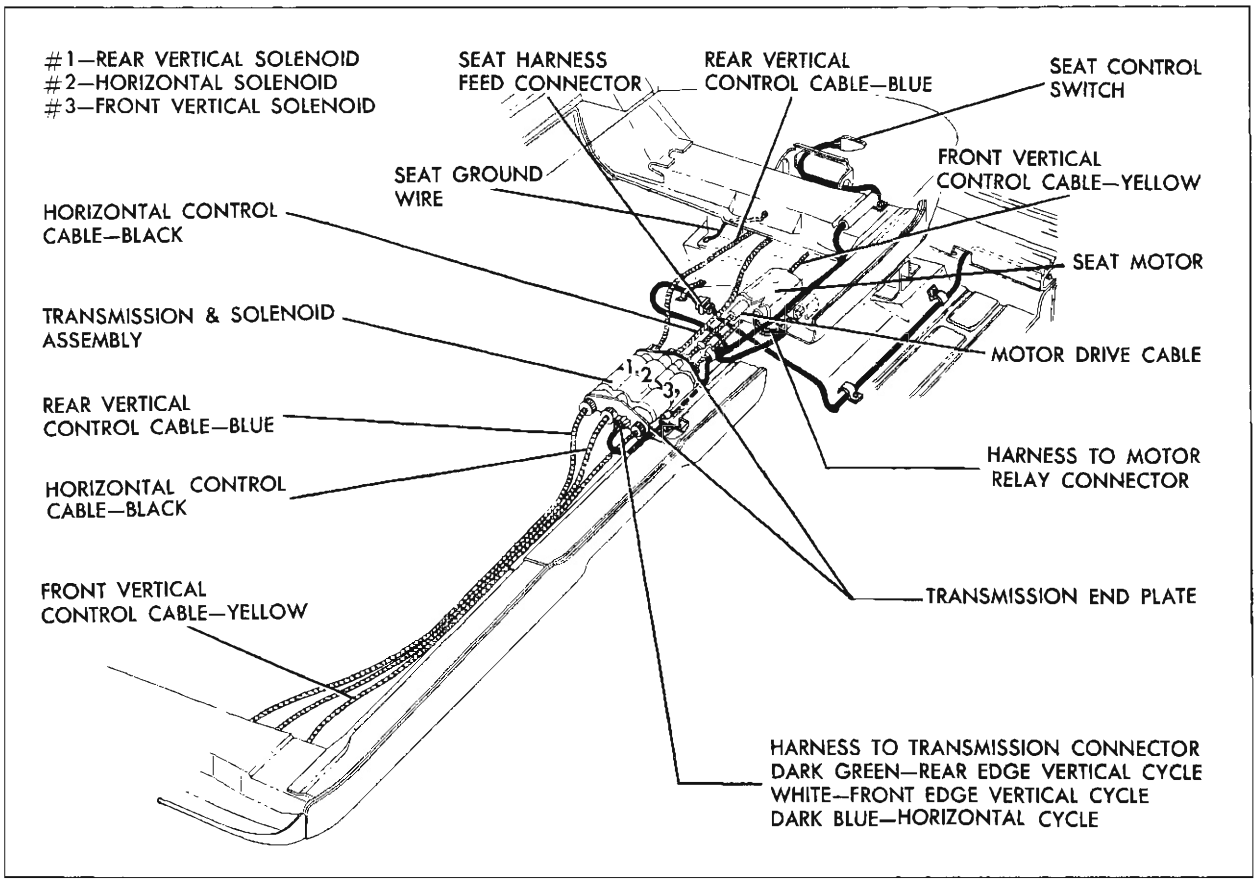


Fig. 9-14 Six-Way Seat Installation

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. 9-16.

2. If tester does not light, there is an open or short circuit between switch and power source.

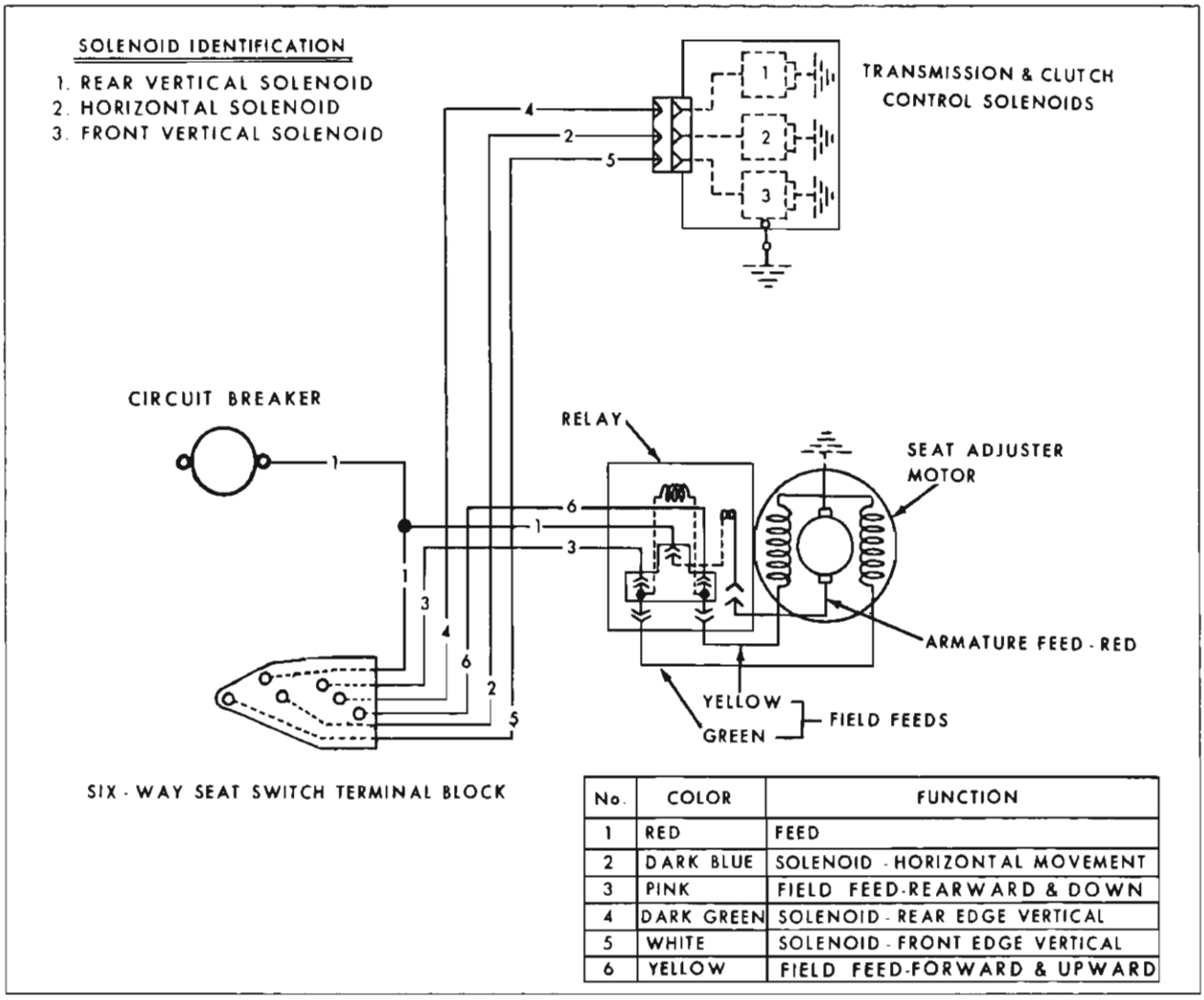
CHECK FEED CIRCUIT CONTINUITY AT RELAY ON SEAT MOTOR

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 obtain a specific movement of the seat are shown in Fig. 9-16. If a jumper wire is used, number of locations on the switch block as indicated in



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. 9-15 Circuit Diagram—Six-Way Seat

the illustration. Details outlining the making, and use of the jumper wire follow the checking procedures.

CHECKING THE SEAT CONTROL SWITCH

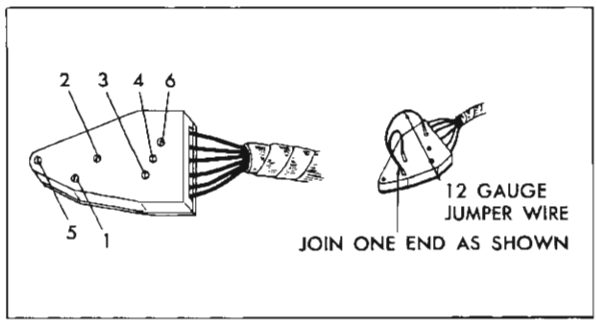
1. Obtain switch or jumper wire and connect to switch block.

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.



LOCATION	WIRE COLOR	FUNCTION
1	Red	Switch Feed
2	Dark Blue	Solenoid—Horizontal Movement
3	Pink	Field Feed—Rearward and Down
4	Dark Green	Solenoid—Rear Edge Vertical
5	White	Solenoid—Front Edge Vertical
6	Yellow	Field Feed—Forward and Up Cycle

Fig. 9-16 Six-Way Seat Control Block Switch

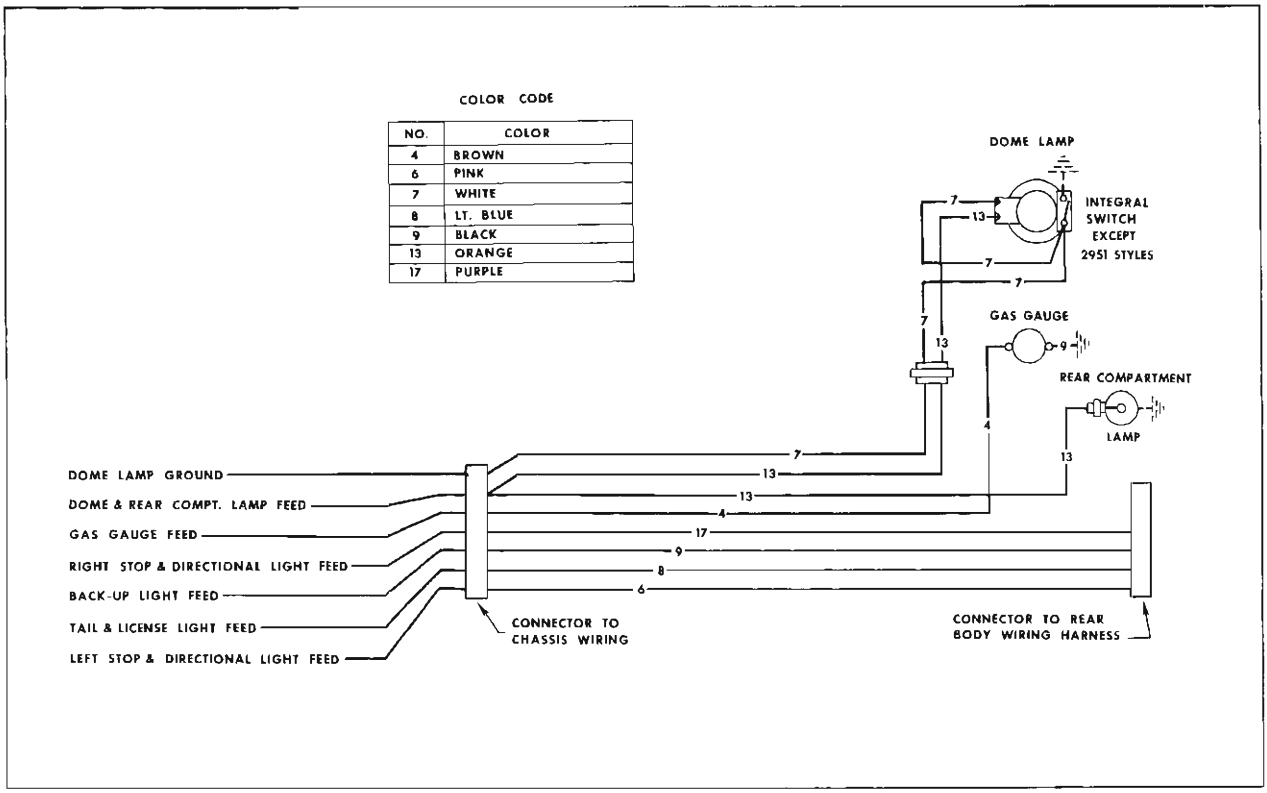


Fig. 9-17 Front Body Wiring Harness for 2311-47-39-69, 2669-2957 Styles

2. Insert one light tester lead into the motor field connector slot on harness and ground the other lead.

3. Actuate seat switch to energize field wire being tested.

4. If tester does not light, there is no current at end of wire. Failure is caused by an open or short circuit between end of wire and switch. Check other motor field wire in the same manner.

CHECK THE RELAY ASSEMBLY

1. Disconnect three (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 ASSEMBLY

1. Disconnect the motor armature feed lead and one of the motor field feeds from the relay assembly.

2. With a jumper wire, energize the armature feed and one of the field feeds.

3. If motor does not operate, it is defective. Check the other motor field feed in the same manner.

CHECKING 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.

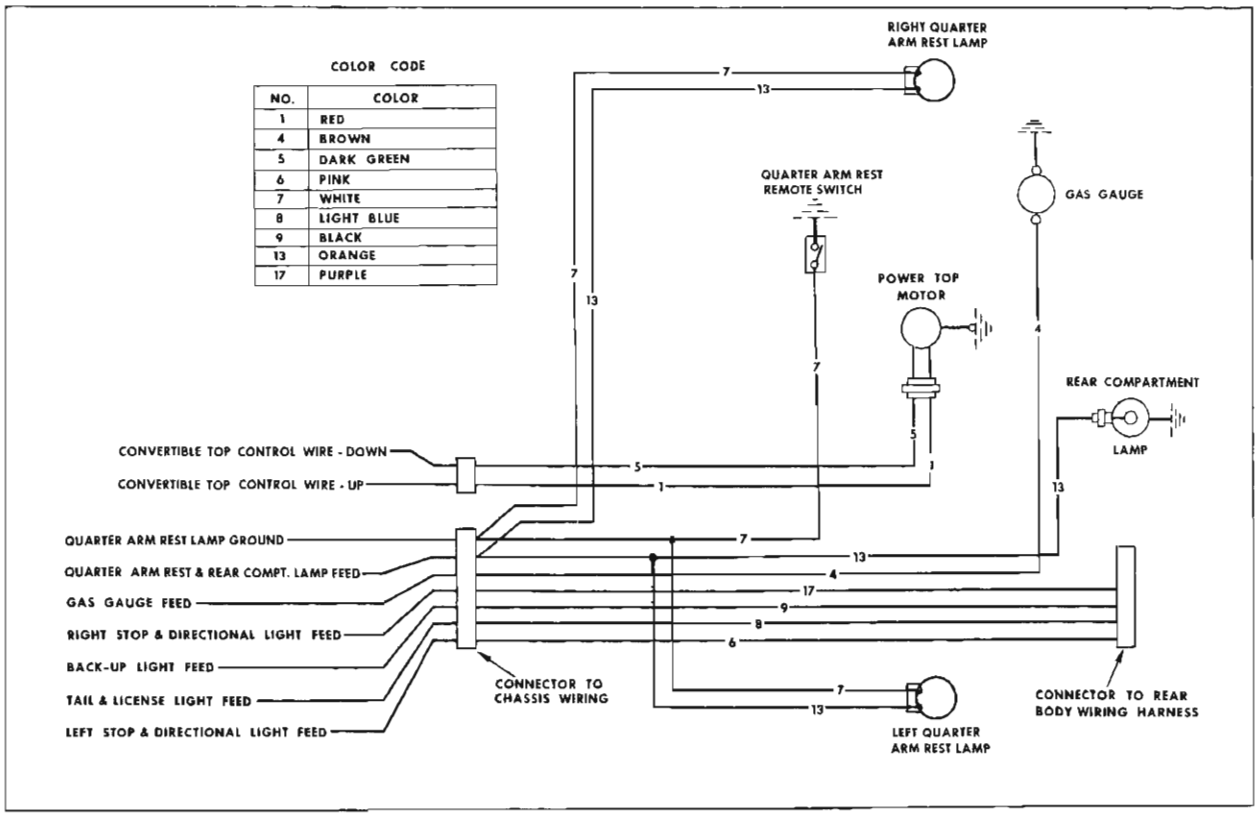


Fig. 9-18 Front Body Harness for 2867 & 2367 Styles

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 (2) pieces of #12 gauge wire, each 4-1/2" long, join one end of each wire as shown in Fig. 9-16. 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.

CAUTION: 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.

SEAT SIDE PANEL SWITCH

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.

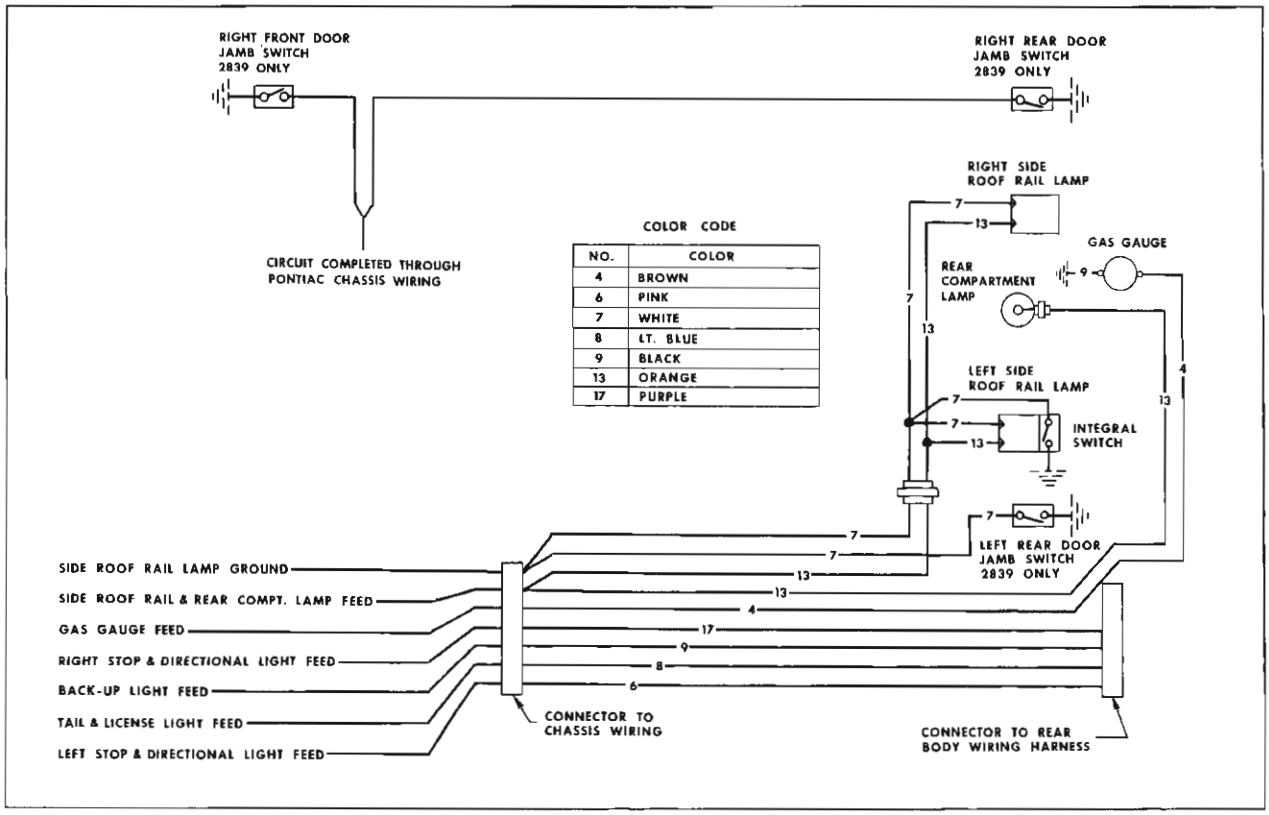


Fig. 9-19 Front Body Wiring Harness for 2839-2639-2847 Styles

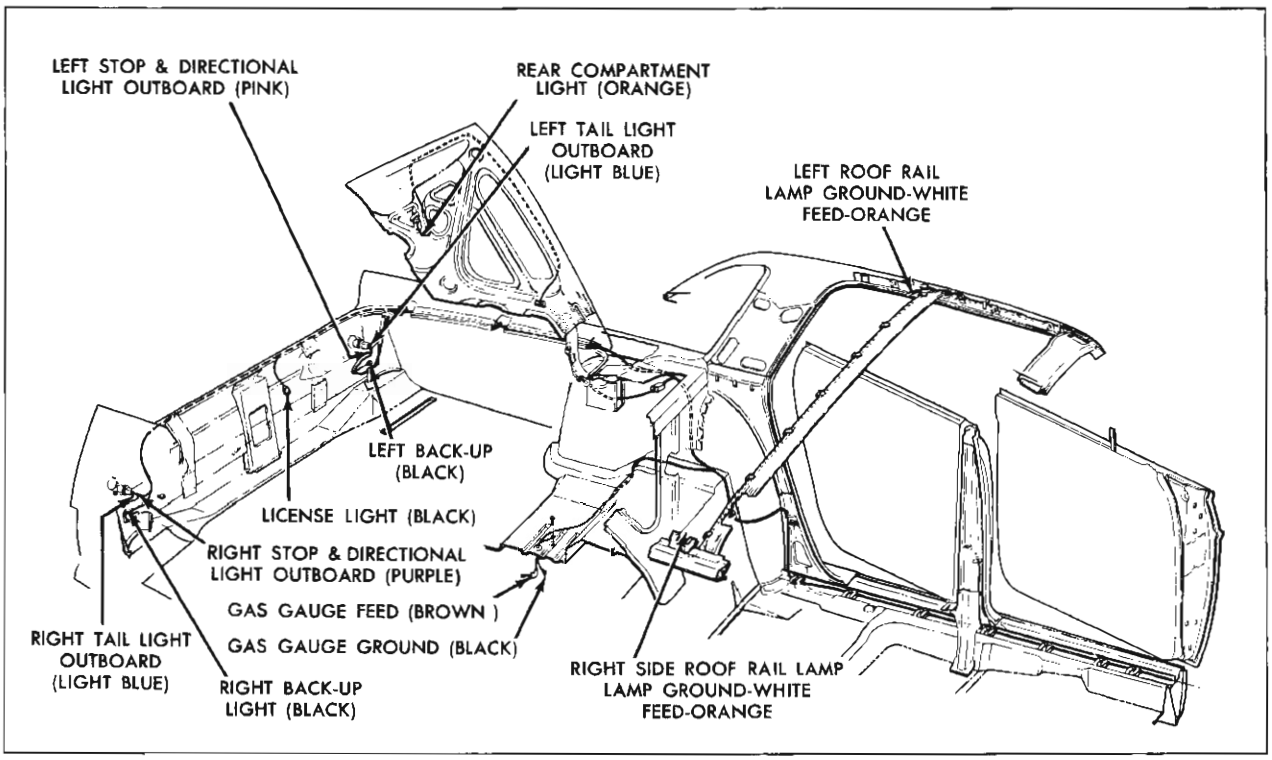


Fig. 9-20 Rear Body Wiring 2639 Style

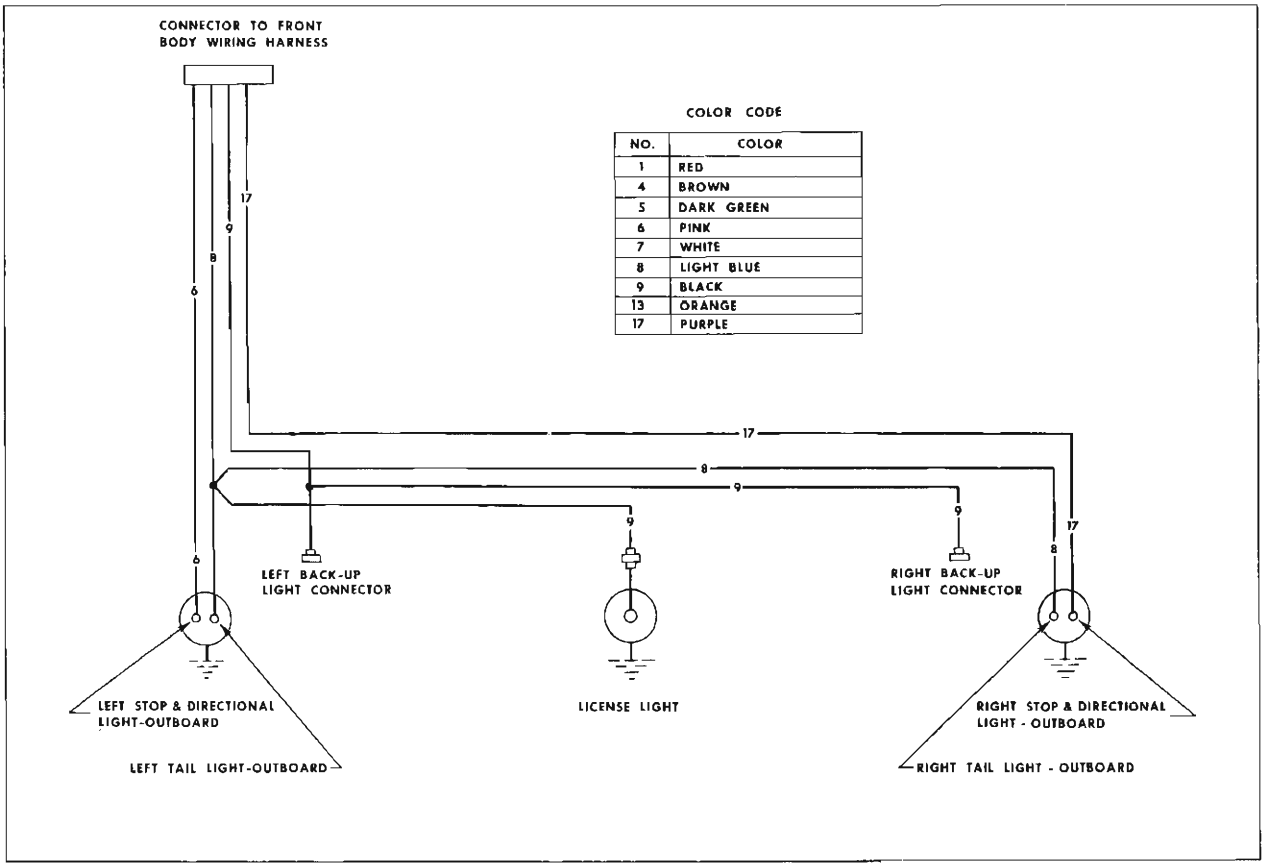


Fig. 9-21 Rear Body Wiring Circuit—All Series, Except Station Wagons

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.
	2. Defective motor.	2. Check motor. If defective, repair or replace as required.

CONDITION	CAUSE	CORRECTION
Seat adjuster motor operates, but seat adjusters are not actuated.	1. Short or open circuit between switch and affected solenoid.	1. Check circuit from switch to solenoid to locate failure.
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.	2. Defective solenoid.	2. Check solenoid. If defective, repair or replace as required.

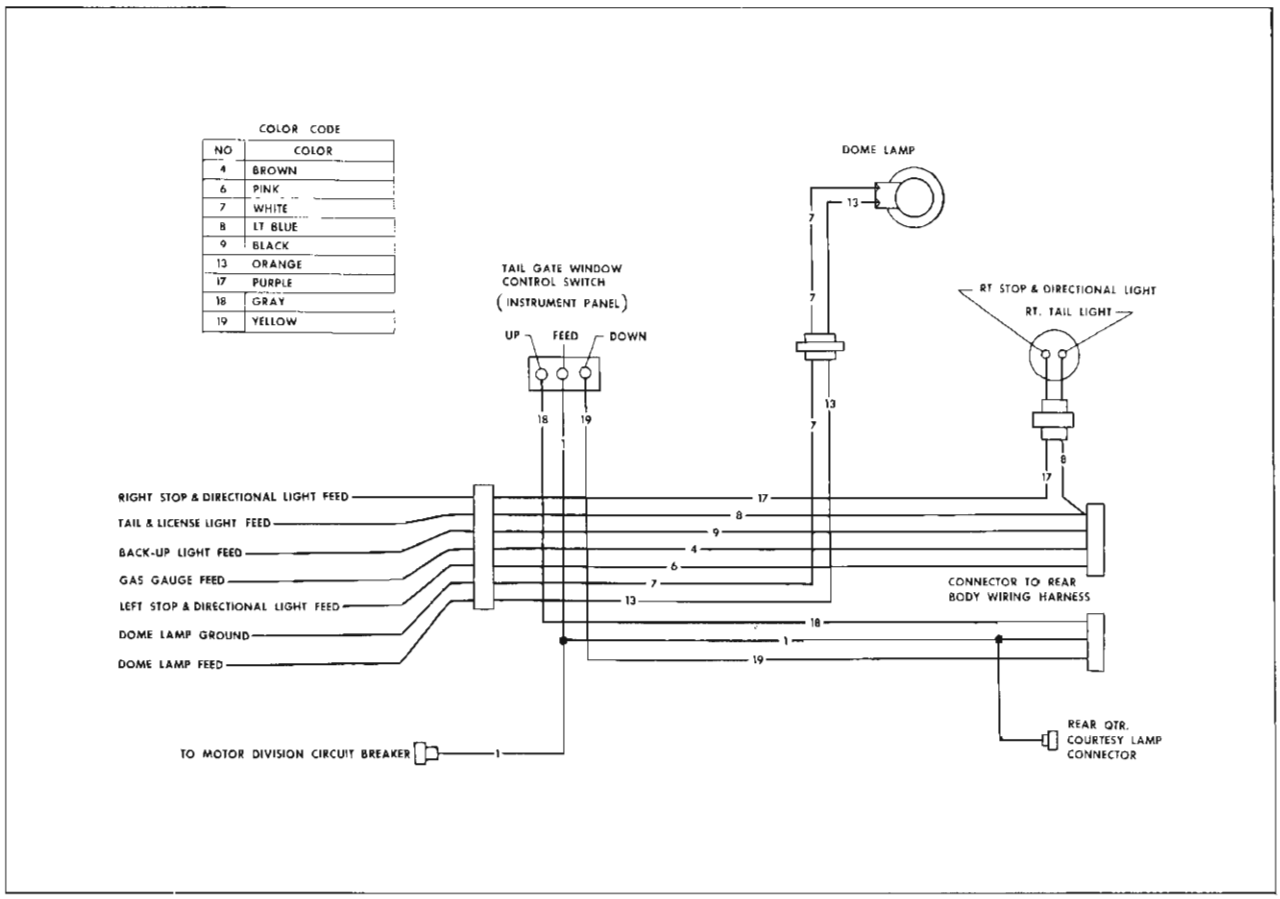


Fig. 9-22 Front Body Wiring Circuit—2345 Style

TYPICAL ELECTRICAL FAILURES OF SIX-WAY SEAT CIRCUITS (cont'd)

CONDITION	CAUSE	CORRECTION
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.	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.
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.	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, 10-2).

Fenders can be moved closer to or farther from the cowl by adding or removing shims between fender and body. Fenders can also be adjusted vertically by shifting the fender on the enlarged bolt holes (Fig. 10-1, 10-2).

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.

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. 10-3).

2. The parallel space between hood sides and fender is accomplished by the rubber wedges mounted to each fender.

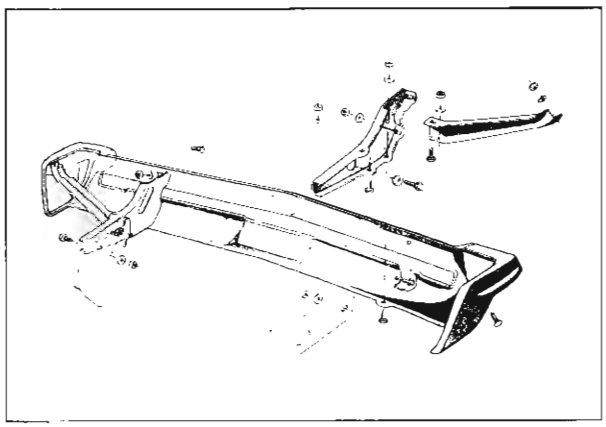


Fig. 10-1 Upper Fender Adjusting Bolt

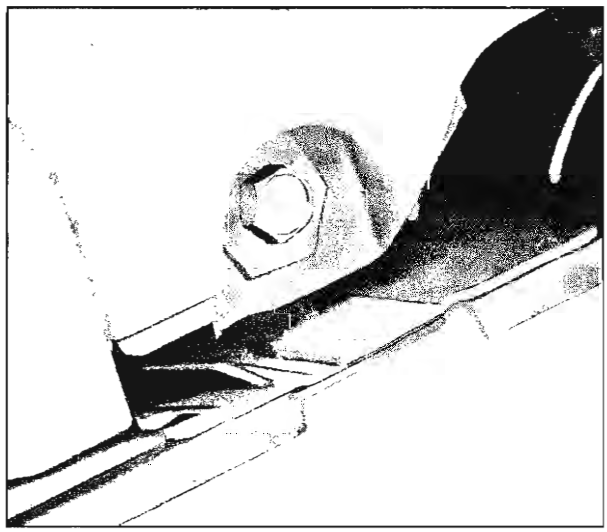


Fig. 10-2 Lower Fender Adjusting Bolt

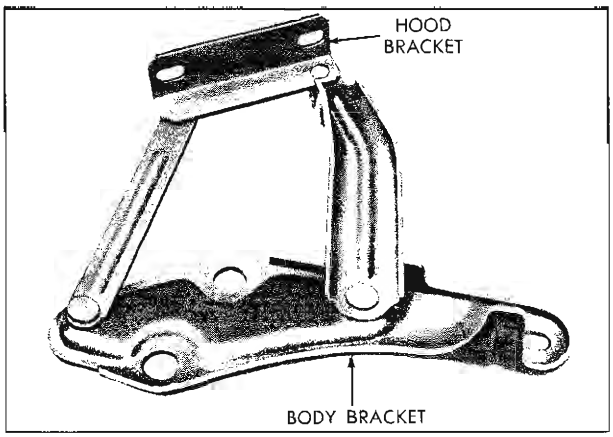


Fig. 10-3 Hood Hinge

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. 10-3) 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.

HOOD LATCH

A positive locking hood latch is used and incorporates a safety hood latch and a pilot assembly (Fig. 10-4). The hood latch is fastened to the hood and both

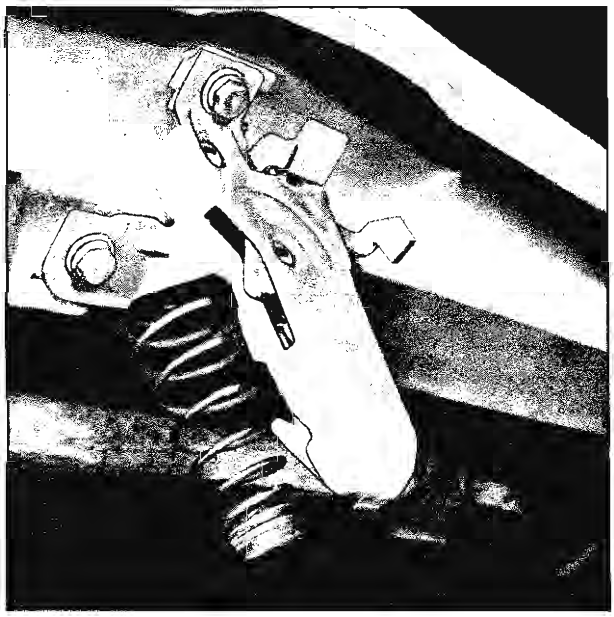


Fig. 10-4 Pilot Assembly and Hood Latch

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. 10-5). To release the safety latch, reach under partially opened hood and push release lever upward (Fig. 10-5).

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.

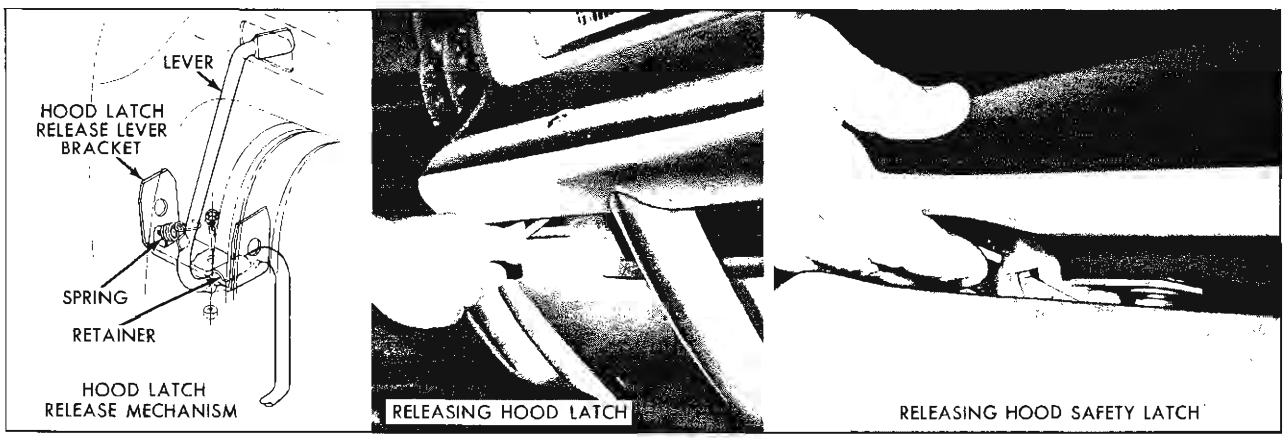


Fig. 10-5 Hood Release Mechanism and Procedure

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. 10-6).

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.

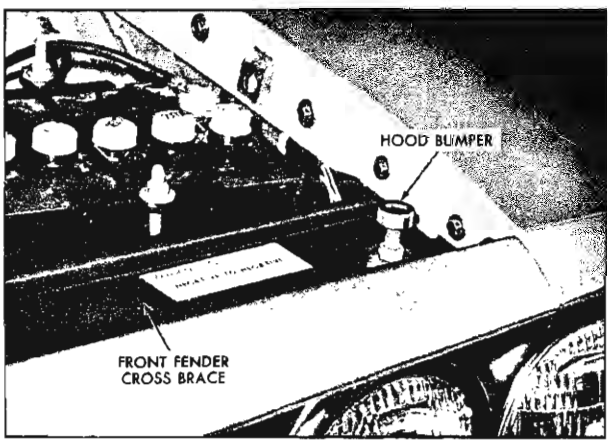


Fig. 10-6 Hood Bumper

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.

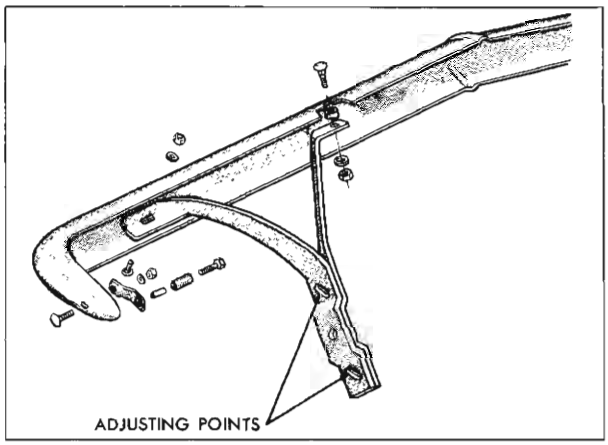


Fig. 10-7 Front Bumper

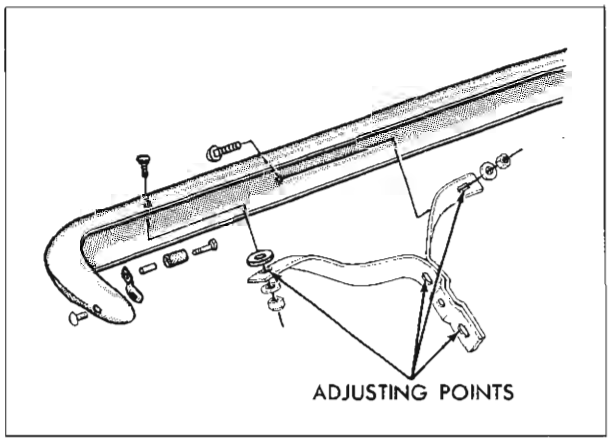


Fig. 10-8 Rear Bumper

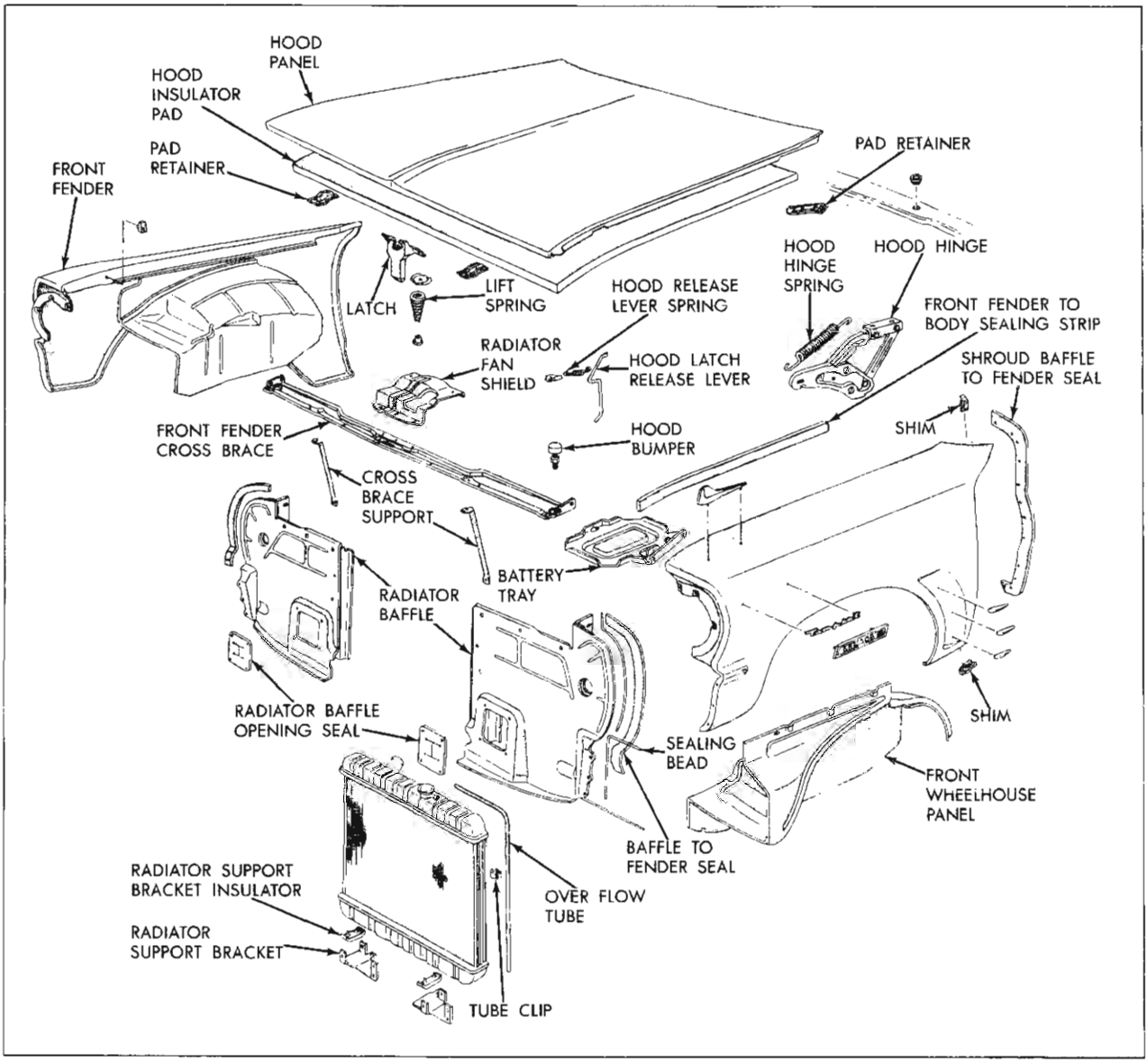


Fig. 10-9 Exploded View—Front End Sheet Metal

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 SPRING—REMOVE AND REPLACE

REMOVE

1. Close hood a little to expand spring.

2. Insert tool J-8923 on spring (Fig. 10-11).

3. Open hood all the way so spring can be removed.

REPLACE

1. If new spring is to be installed, insert J-8923 in spring once it is expanded.

2. Open hood until spring can be put in place on hinge.

3. Close hood a little and remove J-8923.

HOOD HINGE—REMOVE AND REPLACE

REMOVE

1. Open hood.

2. Remove hood spring. Page 10-6.

3. Remove screws holding hood to hinge.

4. Remove screws holding hinge to wheelhouse assembly.

REPLACE

1. Position hinge to wheelhouse assembly and tighten attaching screws.

2. Position hinge to hood and tighten attaching grille.

3. Replace hood hinge spring. Page 10-6.

4. Close hood and check hood alignment.

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

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

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

c. Tighten securely and recheck alignment.

NOTE: The hood may be aligned vertically and fore and aft. Vertical adjustment is made between hinge and wheelhouse assembly. Fore and aft adjustment between hood and hinge (Fig. 10-3).

HOOD REPLACEMENT

The hood can be removed by removing the attaching screws between hinges and hood. When replacing the hood, adjust the alignment of one hinge at a time, as outlined in steps 4 and 5 under Hood Hinge —Remove and Replace.

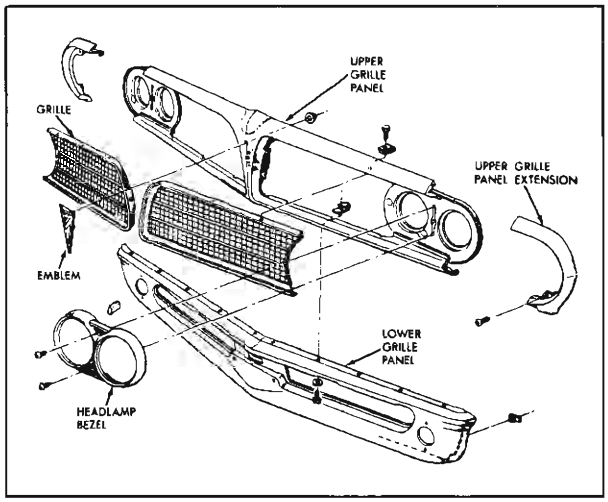


Fig. 10-10 Grille Assembly

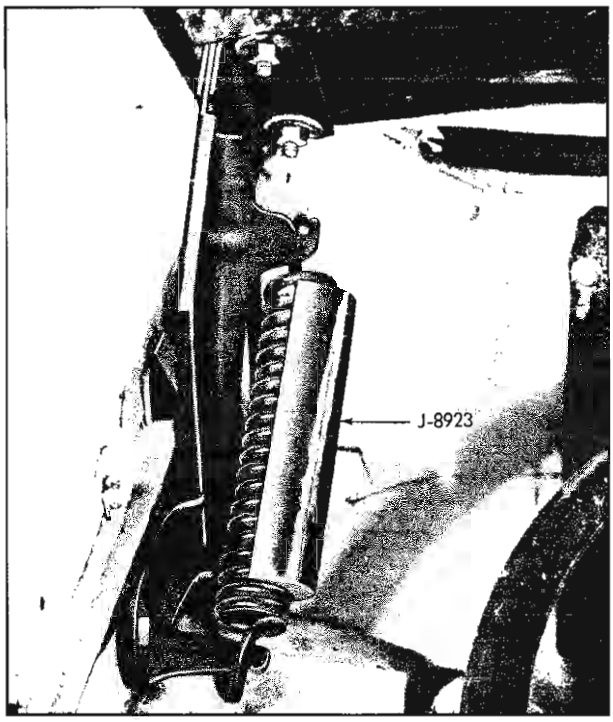


Fig. 10-11 Hood Spring Tool J-8923

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

BODY SHELL

DESCRIPTION

The over-all rigidity of the integral body construction is drawn from each of the individual metal components which, when welded together, comprise the body shell assembly. The floor pans and rail assemblies forming the underbody area incorporate attachment provisions for the power train and the suspension systems. The underbody, therefore, contributes the greatest amount of strength to the body assembly. This type of integral construction eliminates the conventional independent chassis frame and has become known as the "unitized" type of body construction.

UNDERBODY ASSEMBLY

DESCRIPTION

The underbody assembly is comprised of side rails, cross rails, floor pan cross bars, inner and outer rocker panels and other floor panel components. The underbody is of all-welded construction. Misalignment in the underbody can affect fit of doors and rear compartment lid. Most important, however, underbody misalignment can influence the suspension system, thereby causing many of the problems that arise from a suspension misalignment. Underbody alignment, therefore, should be exact to within plus or minus 1/16" of the specified dimensions.

In the event of extensive collision damage, major underbody repairs may be required to re-establish proper alignment. Extensive collision damage may include twist, side-sway, complicated sags or a combination of these conditions in the underbody area. In some cases it may be determined that the most practical method of repairing the damage is to employ a frame straightening machine and a qualified operator. A frame machine offers a variety of controlled pushing and pulling operations as well as accurate frame centering and leveling gages which are especially helpful in checking the conditions described above.

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

BODY TRAM GAGE

An accurate method of determining the alignment of the underbody utilizes a measuring tram gage. The tram gage required to perform all recommended measuring checks properly must be capable of extending from a length of approximately eighteen inches to a length of one hundred and six inches.

Dimensions shown in the upper portion of Fig. 11-1 are calculated on a horizontal plane parallel to the plane of the underbody. This can be controlled by setting the vertical pointers on the tram gage according to the dimensions shown in the lower portion of Fig 11-1.

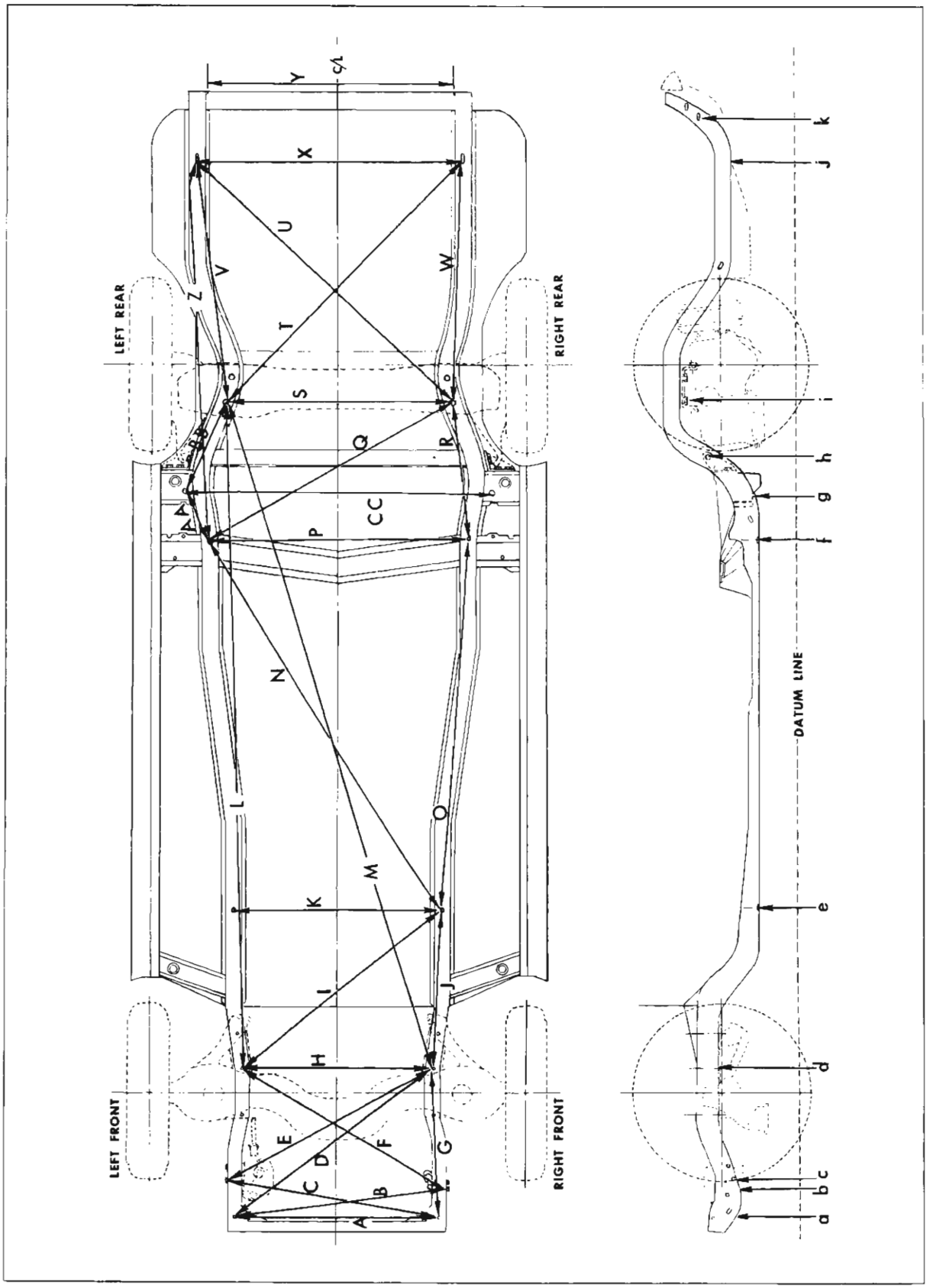


Fig. 11-1 (*Not Symetrical—See Note, Page 11-4)

UNDERBODY DIMENSION CHART

(Refer to Fig. 11-1)

HORIZONTAL

Fig. Ref.	Dimension	Vert. Ref. Point	to	Vert. Ref. Point
A	31-7/32	a		a
B	32-15/32	a (left side)		b
C	32-13/32	a (right side)		c
D	35-31/32	a		d (opp. side)
E	36-3/32	c		d (right side)
F	35-21/32	b		d (left side)
G	19-1/4	a		d (same side)
H	29-19/32	d		d
I	38-9/16	d		e (opp. side)
J	23-3/4	d		e (same side)
K	31-5/32	e		e
L	102-27/32	d		i (same side)
M	107-19/32	d		i (opp. side)
N	67-7/16	e		f (opp. side)
O	57-13/32	e		f (same side)
P	40-5/32	f		f
Q	43-1/16	f		i (opp. side)
R	22-1/16	f		i (same side)
S	34	i		i
U	53-3/16	i (right side)		j (left side)
T	52-1/4	i (left side)		j (right side)
V	36-13/16	i (left side)		j (left side)
W	36-5/8	i (right side)		j (right side)
X	42-1/32	j		j
Y	39-15/16	k		k
Z	58-3/8	f		j
AA	6-11/32	f		g
BB	17-13/32	g		i
CC	46-5/16	g		g

VERTICAL

Fig. Ref.	Dimension to Datum Line
a	9-1/32
b	9-5/8
c	9-1/4
d	12-3/32
*d	11-19/32
e	6-1/16
f	6-1/16
g	6-17/32
h	12-11/16
i	17-15/16
*i	14-7/16
j	10
k	13-11/16

*With suspension parts installed; dimensions are measured from the lower surface of the front and rear suspension attaching bolt heads to the datum line.

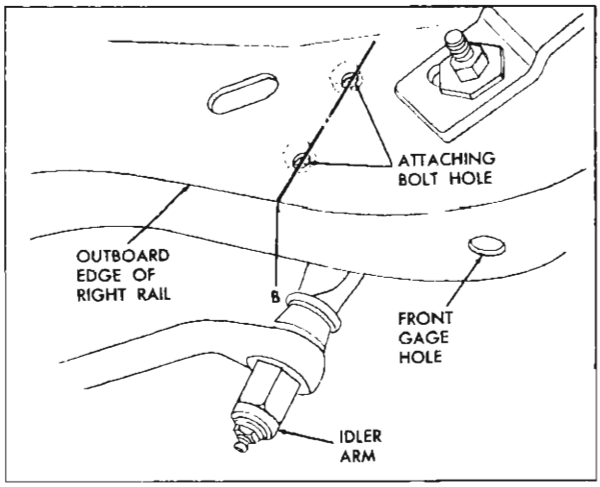


Fig. 11-2 Underbody Vertical Reference Point ("B")

At least one of the vertical pointers on the tram gage must have a minimum reach of seventeen inches.

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

UNDERBODY ALIGNMENT REFERENCE POINTS

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

Following is a list of the specific underbody reference points used in making tram gage measurements. The reference points are identified by the same letters used to identify the vertical dimensions in the lower portion of Fig 11-1.

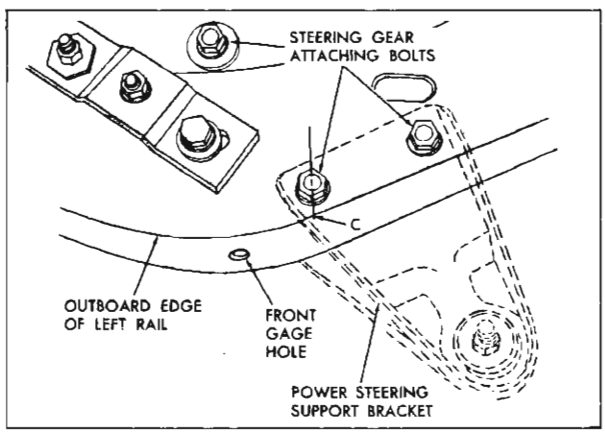


Fig. 11-3 Vertical Reference Point ("C")

a. Front gage hole in lower surface of motor compartment side lower rail Fig. 11-2 and 11-3.

b. Outboard lower edge of motor compartment right side rail on centerline drawn through idler arm attaching bolt holes Fig. 11-2.

c. Outboard lower edge of motor compartment left side rail directly below front lower attaching bolt hole for the steering gear assembly Fig. 11-3.

NOTE: On power steering equipped cars it may be necessary to detach power steering support bracket from side rail to accommodate certain types of tram gages.

d. Front crossmember center attaching bolt hole in lower surface of motor compartment side lower rail (front suspension removed).

*d. Lower surface of front crossmember center attaching bolt (front suspension installed).

e. Gage hole ($\frac{5}{16}$ inch diameter) in floor pan side rail, located inboard and slightly rearward of front body hinge pillar.

f. Gage hole ($\frac{5}{16}$ inch diameter) in rear compartment pan side rail, located inboard and slightly forward of rear body lock pillar.

g. Center front edge of $\frac{5}{8}$ inch diameter gage hole in rocker-to-side rail brace.

h. Center of rear suspension lower control arm support upper attaching bolt. This reference point used for vertical checks only.

i. Center of rear suspension crossmember front attaching bolt hole (rear suspension and drive system removed).

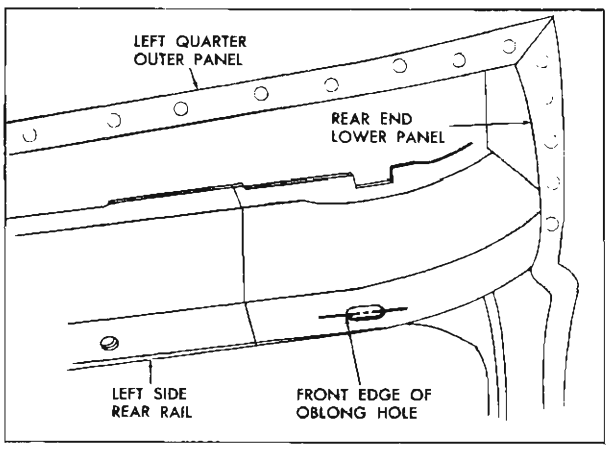


Fig. 11-4 Vertical Reference Point ("I")

j. Center front edge of oblong hole in bottom surface of compartment pan side rear rail (located slightly forward of rear end lower panel). See Fig. 11-4.

NOTE: Center of compartment pan left side rail assembly (gas tank filler neck side) is located $1\frac{5}{16}$ inches further from body centerline than center of compartment pan right side rail assembly.

k. Center front edge of rear bumper lower attaching slot (rear bumper and support brackets removed). This reference point used for vertical checks only.

PRINCIPLES OF TRAMMING

As indicated in the underbody dimension chart, diagonal dimensions "D", "I", "M", "N" and "Q" are of equal distance to the same matching reference points on the opposite side of the body. These are commonly referred to as crosscheck dimensions.

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

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

b. The vertical dimension from the datum line to the reference points to be trammed. As an example, diagonal measurement "M" (calculated on a horizontal plane) between vertical reference point "d" and vertical reference point "i" is 107-19/32 inches.

With front and rear suspension systems removed, the specification chart shows a vertical height difference of 5-13/16 inches between vertical dimension "d" and vertical dimension "h". The rear vertical pointer used at reference point "h" should be adjusted so as to extend farther from the tram bar than the forward pointer used at reference point "d".

The exception to this would be when one of the reference points is included in the misaligned area; then, the parallel plane between the body and the tram bar may not prevail. After completion of the repairs, the tram gauge should be set at the specified dimension to check the accuracy of the repair operation.

CAR PREPARATION

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

1. Raise car.
2. Remove underbody components as necessary to gain access to reference points.
3. A visual damage inspection should be made to eliminate needless measuring. Obviously damaged or misaligned areas can often be located by sight.

TRAMMING SEQUENCE

The tramming sequence will vary depending upon the nature and location of the misaligned area. Basically tramming should originate from an undamaged area working progressively into damaged area.

Prior to performance of any tramming operation, the accuracy of reference points to be used must be determined. A measurement that originates from a reference point which is included in a damaged area will produce untrue results and confuse the evaluation of the underbody condition.

Unlike the conventional type of frame design, the unitized type of body construction seldom develops the two condtions of "twist" and "diamond" in the floor area as a result of front or rear end collisions. Therefore, underbody alignment checking can usually originate from the 5/16" diameter gage holes (locations "e" and "f") in the body side rails.

If inspection indicates that these locations have been disturbed and are not suitable for measuring, one of the undamaged suspension locations "d" or "i" should be used as a beginning reference point. If a rare situation should exist where all of the key locations are not suitable as reference points, repair operations should begin with the body floor pan area. All other underbody components should be aligned progressively from this area.

BODY CENTERING GAGES

Another tool that is extremely useful in repairing underbody collision damage is a body centering gage set. The centering gages automatically indicate the body centerline and the body level. Collision damage may result in twist, side-sway or sags to the underbody which may not be readily apparent to the naked eye. Sighting along the center vertical pointers and along the horizontal bars of the centering gages will make these conditions very apparent and will help to isolate the particular areas which are affected. A minimum of three centering gages must be used simultaneously.

The centering gages may be suspended or attached to the right and left motor compartment side rails or floor pan side rails at any matching points from the front of the car to the "kick-up" portion of the rear compartment pan side rails at the rear wheel area. From this point rearward, only the parallel portions of the rear compartment pan side rails may be used for centering gage attachment—providing proper compensation is made for the dimensional differential between the side rails and the body centerline. The left side rail (gas tank filler neck side) is positioned 1-5/16 inches farther from the body centerline than the right side rail.

WINDSHIELD ASSEMBLY

WINDSHIELD GARNISH MOLDINGS

The windshield garnish moldings on all styles except convertible styles consist of upper right and left moldings, lower center molding and right and left lower outer moldings. On convertible styles the windshield header moldings consist of right and left end moldings and center molding. All moldings are secured by screws (Fig. 11-5, 11-6 and 11-7).

REMOVAL AND INSTALLATION

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

2. Remove rear view mirror support; then remove upper moldings. On convertible styles raise top, remove sunshade supports; then remove end and center moldings.

3. Remove lower end moldings.

4. Remove lower center molding.

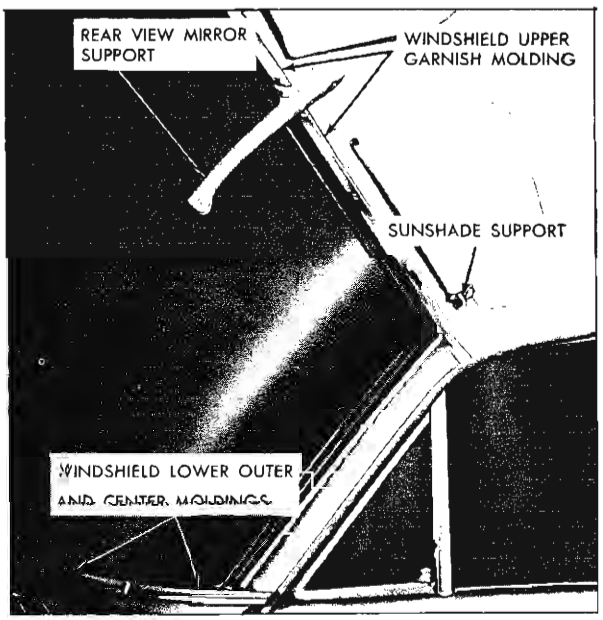


Fig. 11-5 Garnish Molding Attachment

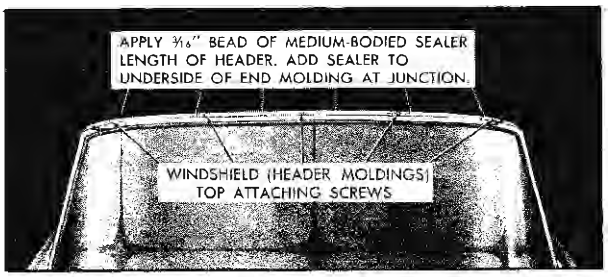


Fig. 11-6 Windshield Header Molding—"67" Style

5. To install, on convertible styles, apply a 3/16" bead of medium-bodied sealer the entire length of the windshield header before installing the header moldings. Apply additional sealer to the underside of end moldings to insure watertight seal to the junction of the center molding (Fig. 11-6). Clean off excess sealer and reverse removal procedure.

REAR VIEW MIRROR SUPPORT

REMOVAL AND INSTALLATION

1. Remove screws securing mirror support and remove support.

2. To install, reverse removal procedure.

SUNSHADE SUPPORT ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove screws securing assembly and remove assembly.

2. To install, reverse removal procedure.

WINDSHIELD GLASS

REMOVAL

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

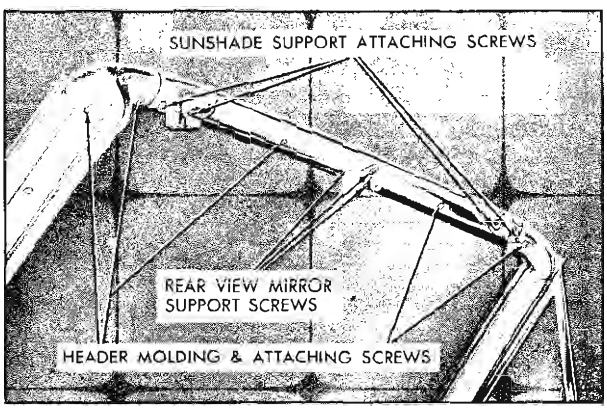


Fig. 11-7 Windshield Header—"67" Style

2. Remove rear view mirror support assembly.

3. Remove windshield garnish moldings.

NOTE: It is not necessary to remove upper header moldings on "67" style to remove windshield assembly.

4. Remove windshield wiper arms.

5. 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. 11-8). At the same time, use a blunt putty knife or other suitable tool and carefully assist rubber channel over pinchweld flange.

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

7. Remove windshield reveal moldings from rubber channel on styles incorporating reveal moldings.

8. Remove rubber channel from glass.

CHECKING BODY WINDSHIELD OPENING

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

1. Remove windshield from body.

2. Check windshield rubber channel for any irregularities.

Fig. 11-8 Windshield Glass Removal

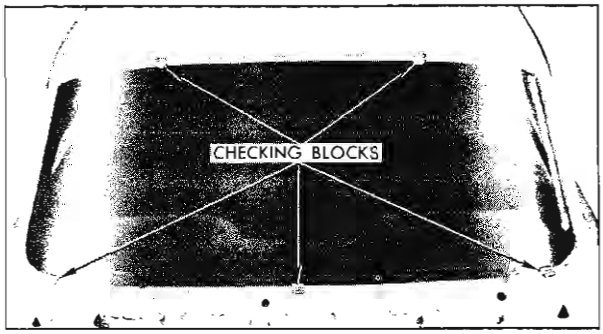


Fig. 11-9 Windshield and Opening Check

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

4. Install five (5) windshield checking blocks J-8942 to pinchweld flange (Fig. 11-9 and 11-10). Position one block over lower pinchweld flange on each side of body approximately twelve inches (12") inboard from the lower outer corner of the opening. Position final block on lower pinchweld flange in center of windshield opening. Position one block over upper pinchweld flange midway between center block and each outboard block on lower retaining flange.

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 glass supported and centered in the body opening by checking blocks, check relationship of glass to body opening around entire perimeter of glass. Check glass to body relationship as follows:

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

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

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

8. Recheck windshield opening as outlined above. Then mark the center line on the glass and body so that glass can be accurately centered in opening when installed.

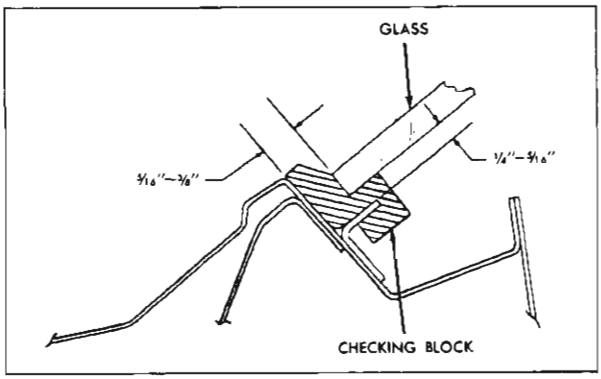


Fig. 11-10 Windshield Opening Check

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 reveal moldings in rubber channel on styles incorporating reveal moldings.

4. Insert a strong cord in pinchweld cavity of rubber channel completely around windshield. Tie ends of cord and tape to inside surface of glass at bottom center of glass (Fig. 11-11).

5. Apply a ribbon of medium-bodied sealer completely around base of rubber channel as indicated by 1 (Fig. 11-12).

6. Apply a bead of medium-bodied sealer, approximately 1/4" in diameter to corner of windshield opening rabbet around each side of windshield for distance indicated by 3 (Fig. 11-12).

7. With aid of helper carefully position and center windshield asembly in windshield opening.

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

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

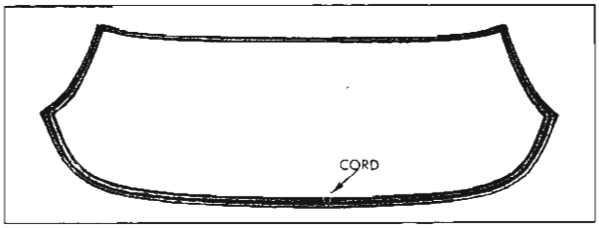


Fig. 11-11 Windshield Installation

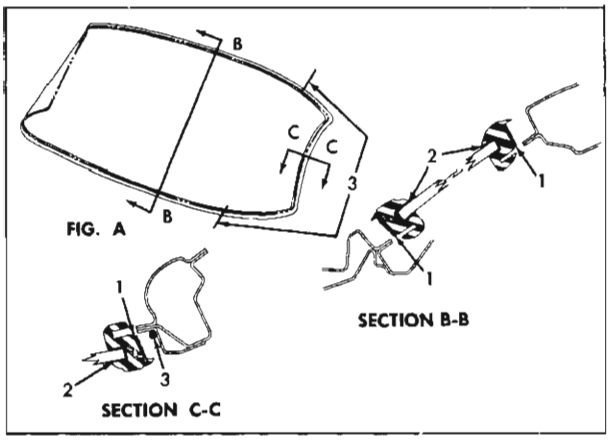


Fig. 11-12 Windshield Sealing

9. Using a pressure type applicator, seal inner and outer lips of rubber channel to glass as indicated by 2 in (Fig. 11-12) with an approved weatherstrip adhesive. Seals are to extend completely around rubber channel.

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

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

WINDSHIELD REVEAL MOLDINGS

The windshield reveal moldings are secured in a cavity of the windshield rubber channel. The moldings consist of an upper and lower reveal molding and a right and left side reveal molding. The ends of the side reveal moldings overlap the upper and lower reveal moldings (Fig. 11-13).

REMOVAL

1. Mark center line on glass and body, remove windshield assembly and place it on a protected bench.

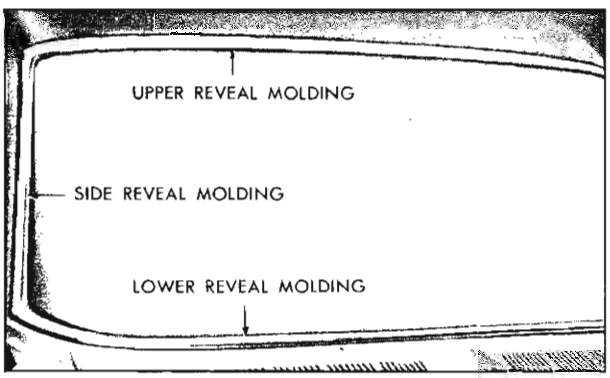


Fig. 11-13 Windshield Reveal Moldings

2. Locate and mark center of upper and lower reveal moldings.

3. Carefully remove side reveal moldings from cavity of ruber channel; then, remove upper and lower reveal moldings.

INSTALLATION

1. Install and center upper and lower reveal moldings in cavity of rubber channel; then install side reveal moldings.

NOTE: To facilitate installation of the moldings, apply a mild soap solution to the cavity of the rubber channel prior to installing the moldings.

2. Install windshield assembly in body.

WINDSHIELD PILLAR DRIP MOLDING
ALL EXCEPT 67 STYLE

REMOVAL AND INSTALLATION

1. On "17", "19", "27" and "35" styles remove screws securing drip molding (Fig. 11-14) and remove molding.

2. To install, apply medium-bodied sealer to screw attaching holes as indicated by #1 and to drip molding as indicated by #2 in (Fig. 11-15) and reverse removal procedure.

3. On station wagon styles it is necessary to remove the windshield pillar weatherstrip retainer, to gain access to the attaching screws. Remove attaching screws and molding.

4. To install, seal holes in pillar, install molding. Seal weatherstrip and retainer and install.

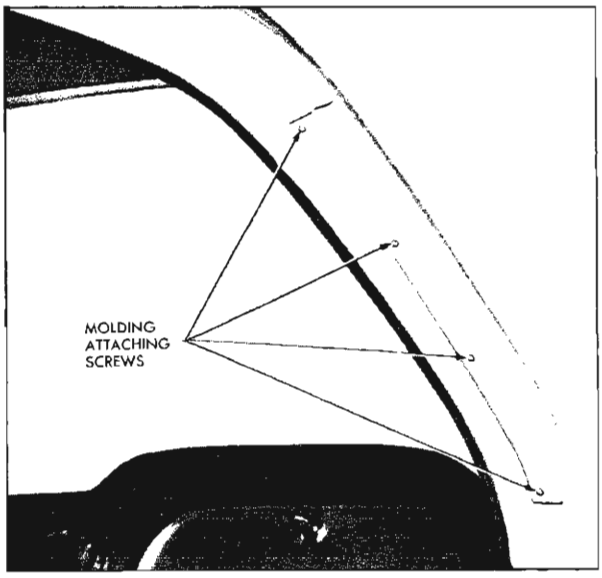


Fig. 11-14 Windshield Pillar Drip Moldings

WINDSHIELD GLASS REPLACEMENT WHEN ALIGNMENT 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 windshield wiper arms.
4. Remove rear view mirror support.
5. 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. 11-8). 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.

NOTE: Do not remove lower channel lip from pinchweld.

6. Tilt windshield forward at top.
7. Remove upper and side reveal moldings on bodies incorporating reveal moldings.
8. Carefully remove glass from rubber channel without breaking 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. Install side and upper reveal moldings in rubber channel on bodies incorporating reveal moldings.
5. Apply medium bodied sealer around windshield opening rabbet area that is exposed.
6. Working from inside the body, with a screw driver 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.

7. Using a pressure type applicator, seal inner and outer lips of rubber channel to glass with an approved weatherstrip adhesive #2 (Fig. 11-12).
8. Clean off excess sealer.
9. 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.

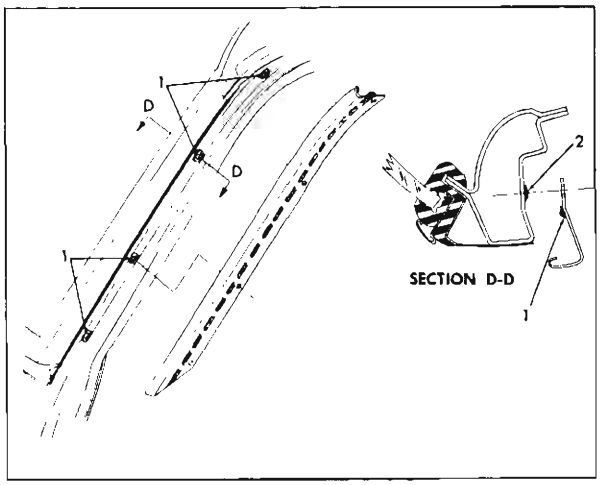


Fig. 11-15 Windshield Pillar Drip Moldings

1. Leaks between rubber channel and glass.

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

2. Leaks between rubber channel and body.

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

WINDSHIELD GLASS ADHESIVE CAULKED WINDSHIELD INSTALLATION

Description: The adhesive caulked windshield installation is a concept of windshield installation which incorporates a synthetic rubber compound (Windshield Adhesive Caulking Material) in place of the conventional rubber channel. The installation also requires a larger windshield glass, special rubber spacers, redesigned reveal and garnish moldings and molding clips. The design of the body windshield opening, however, remains the same as on units using a rubber channel windshield installation. The necessary service parts, tools and adhesive caulking materials may be obtained through the regular service parts channels. The service procedures must be performed as specified to assure a watertight and proper windshield installation.

Two methods of removal and installation are described in the following pages:

A. Short or normal method

B. Extended method.

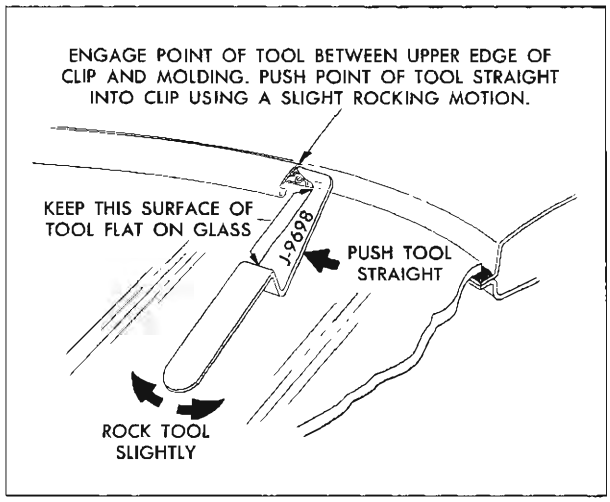


Fig. 11-16 Using Tool J-9698

WINDSHIELD REMOVAL—SHORT METHOD

1. Place protective coverings over front seat, hood, air intake grille and front fenders.

2. Remove windshield wiper arm and blade assemblies and radio antenna, where present on the front fender.

3. Remove windshield lower garnish moldings.

NOTE: In some cases garnish moldings may adhere to adhesive caulking material making removal difficult. In these case, proceed with steps 4, 5, 6 and 7; then, remove garnish moldings (lower only) after glass has been removed.

4. Remove windshield reveal moldings as follows: use reveal molding clip disengagement tool, J-9698 (Fig. 11-16). Remove upper reveal moldings first, next, disengage side reveal moldings and outer ends of lower reveal molding from clips; then, remove side reveal moldings. Remove lower reveal molding.

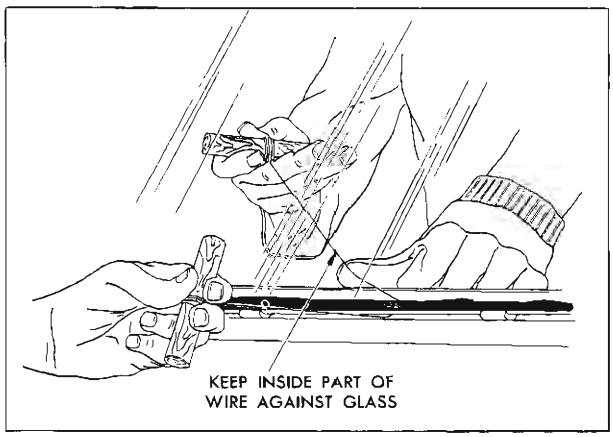


Fig. 11-17 Removal of Glass

5. Secure one end of steel music wire to piece of wood (for handle). Insert other end of wire through caulking material at lower corner of windshield; then, secure end of wire to another piece of 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. 11-17). Make sure inside wire is held close to plane of glass to prevent cutting an excessive amount of 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.

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.

WINDSHIELD INSTALLATION

IMPORTANT: *The windshield glass used in an adhesive caulked windshield installation is larger than the glass used with the rubber channel. Do not attempt to install a rubber channel type windshield glass with the adhesive caulking installation method.*

1. Check all reveal molding retaining clips for damage. If retaining end of clip is bent away from body panel more than 1/32", replace the clip with a new self-sealing screw-on clip.

2. Cut the beveled portion from two step-type spacers to make two rectangular spacers (Fig. 11-18). Using weatherstrip adhesive (neoprene-type), cement one rectangular spacer at each windshield pillar.

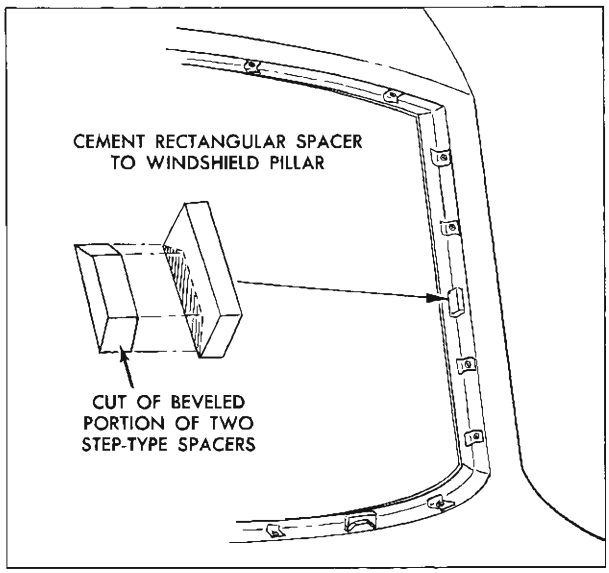


Fig. 11-18 Spacer Installation

3. IMPORTANT: Clean inside edge surface of glass so that glass is free of any foreign material (oil, grease, sealer, etc.). Using a small, clean, lint-free cloth, apply a film of silane primer (approximately ½" wide) to inside edge surface of glass completely around glass.

4. Cut off painted tip of cartridge nozzle along edge of paint line (Fig. 11-19).

5. Mix adhesive caulking material and accelerator thoroughly according to directions on container. IMPORTANT: *Once caulking material is mixed, there will be approximately 35 minutes of working time with the material. Subsequent steps should be performed immediately after caulking material is mixed.*

6. Carefully apply a smooth continuous bead of caulking material on inside surface of glass next to edge completely around glass (Fig. 11-19). Caulking material should be between 1/8 to 3/16 of an inch in diameter.

CAUTION: Do not apply more material than specified to avoid excessive clean-up.

7. With aid of helper, lift glass with one hand on outside of glass and one hand on inside of glass. Carefully set glass against lower center spacer or adhesive caulking bead, maintaining glass in a near-vertical 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. 11-20). Carefully position glass into opening, making certain that glass is properly centered and positioned on lower spacers.

8. Press glass firmly to set caulking material.

9. Inspect installation for proper seal between new caulking material and original material. If a gap is encountered, use caulking gun to apply sufficient material from outside the glass to fill the void.

10. 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.

11. Install windshield lower and side reveal moldings; then, upper reveal moldings. Install windshield garnish moldings and previously removed hardware. Remove protective coverings and clean up.

The length of time required for adhesive caulking material to cure depends upon prevailing temperatures. Heat will accelerate the curing of caulking material and cold temperatures will retard the curing of caulking material.

After completion of installation keep car in the warmest place available (inside or outside) until delivered to customer.

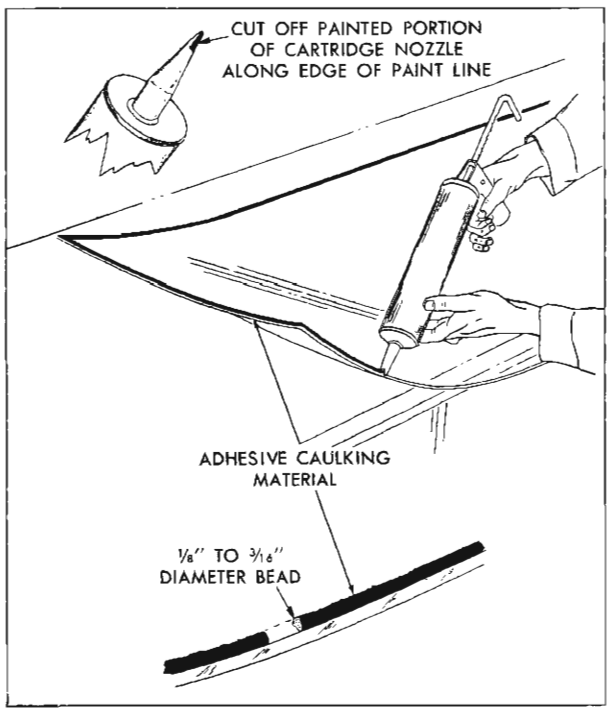


Fig. 11-19 Adhesive Application

EXTENDED ADHESIVE CAULKED WINDSHIELD INSTALLATION

REMOVAL AND INSTALLATION

The following procedure is applicable when the installation requires replacement of a complete bead of adhesive caulking material around the windshield opening and heavier application of material on the glass.

WINDSHIELD REMOVAL

1. Place protective coverings over:

a. Instrument panels and windshield pillars, apply tape to inside of windshield pillars.

b. Front seat assembly.

c. Hood, air intake grille and front fenders.

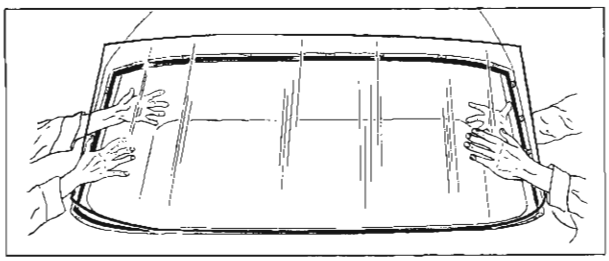


Fig. 11-20 Windshield Installation

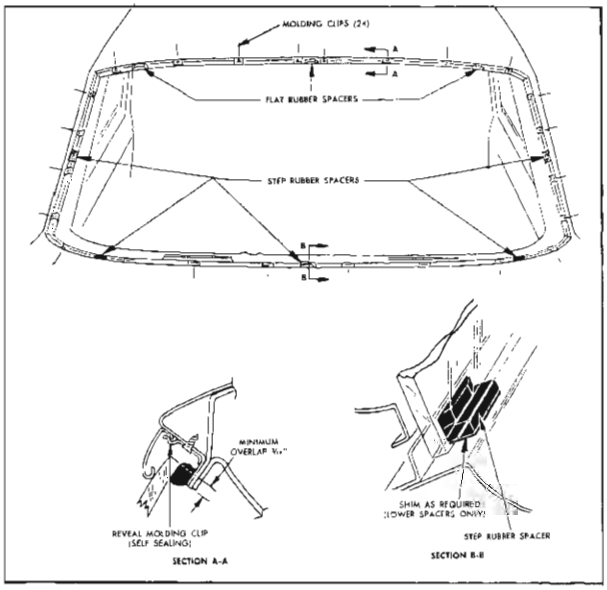


Fig. 11-21 Spacer and Reveal Molding Clip

2. Remove windshield wiper arm and blade assemblies; and radio antenna, where present.

3. Remove windshield garnish moldings.

NOTE: In some cases garnish moldings may adhere to adhesive caulking material making removal difficult. In these cases, proceed with steps 4, 5, 6 and 7; then, remove remaining garnish moldings after glass has been removed.

4. Remove windshield reveal moldings as follows: Use reveal molding clip disengagement tool, J-9698 (Fig. 11-16). Remove upper reveal moldings first. Next, disengage side reveal moldings and outer ends of lower reveal molding from clips; then, remove side reveal moldings. Remove lower reveal molding.

5. Secure one end of steel music wire to piece of wood (for handle). Insert other end of wire through caulking material at lower corner of windshield; then, secure end of wire to another piece of 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. 11-17). To facilitate cutting through rubber spacers, use a sawing motion with steel wire. Avoid contact to steel music wire with garnish moldings by keeping inside wire close to plane of glass.

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.

8. With a small stick or small screwdriver, remove major portion of sealer completely around opening.

9. 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.

WINDSHIELD INSTALLATION

IMPORTANT: *The windshield glass used in an adhesive caulked windshield installation is larger than the glass used with the rubber channel. Do not attempt to install a rubber channel type windshield glass with the adhesive caulking installation method.*

1. Check all reveal molding retaining clips for damage. If retaining end of clip is bent away from body panel more than 1/32 inch, remove clip. Replace with a new self-sealing screw-on clip.

2. If seal at joint of windshield lower retaining flange and body has been damaged, seal joint with weatherstrip adhesive.

3. Using weatherstrip adhesive (neoprene-type), cement eight (8) rubber spacers at bottom, sides and top of body opening at locations indicated in Fig. 11-21. The three flat-type spacers are used along the top of the opening. The five step-type spacers are used at the windshield pillars and along the bottom of the opening. Use a 1/16" thick waterproof shim under each of the three lower spacers.

4. Position replacement windshield glass in body opening. Carefully check relationship of glass to body pinchweld completely around opening. The overlap of glass to body pinchweld and retaining flanges should be equal with a minimum overlap of 3/16" (See Fig. 11-21, Section (A-A). Where necessary, position waterproof shims under the lower spacers or trim spacers to obtain the required overlap of glass to body upper and lower flanges. Remove glass from body opening and place on protected surface or glass-holding fixture.

5. IMPORTANT: *Clean inside edge surface of glass so that glass is free of any foreign material (oil, grease, sealer, etc.). Using a small, clean, lint-free cloth, apply a film of silane primer (approximately ½" wide) to inside edge surface of glass completely around glass. Also apply silane primer to sealing surface of pinchweld and retaining flanges.*

6. Cut off unpainted portion of cartridge nozzle along edge of paint line (Fig. 11-22).

7. Mix adhesive caulking material and accelerator thoroughly according to directions on container. IMPORTANT: *Once caulking material is mixed, there will be approximately 35 minutes of working time with the material. Subsequent steps should be performed immediately after caulking material is mixed.*

8. Carefully apply a smooth continuous bead of caulking material on inside surface of glass next to edge completely around glass (Fig. 11-22). Caulking material should be approximately ¼" wide at the base, and form a pyramid ⅜" high. If, during application, an air bubble is encountered in material, back up the applicator and apply sufficient material to fill the void and to disperse the bubble before continuing.

9. The reveal molding clips are self-sealing and should not require sealing before installing the windshield.

10. With aid of helper, lift glass with one hand on outside of glass and one hand on inside of glass. Carefully set glass on lower center spacer, maintaining glass in a near-vertical 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. 11-21). Carefully position glass into opening, making certain that glass is properly positioned on spacers.

11. Press glass lightly to set caulking material to windshield opening flanges.

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

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

13. Install windshield lower and side reveal moldings; then, upper reveal moldings. Install windshield garnish moldings and windshield wiper arm and blade assemblies. Remove protective coverings and clean up.

NOTE: It is recommended, where possible, that the adhesive caulking material be allowed to cure to the tack-free stage before delivery to the owner. Curing of the adhesive caulking material may be accelerated, after watertesting, by applying heat with one of the following methods.

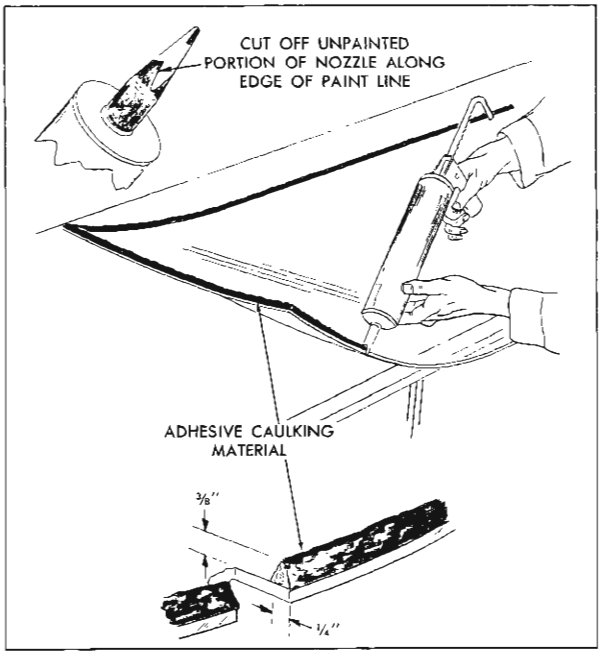


Fig. 11-22 Adhesive Application

a. Spray hot water (120°F. to 160°F.) on caulking material for 10 to 15 minutes. This is the preferred method as it cures the material to the tack-free point in the shortest amount of time.

b. Use paint drying heat lamps at moderate distance from glass (120°F. to 160°F.). Apply heat uniformly to entire glass.

When applying heat to accelerate curing, the initial glass temperature should not be lower than average room temperature (72°F).

If spray nozzle is not available, direct the flow of water on the glass and allow the water to flow on the material. Keep the direct force of the water off the soft caulking material.

The length of time required for caulking material to cure to the tack-free point and to completely cure under normal air-drying conditions depends upon prevailing temperatures. Heat will accelerate the curing of caulking material. Cold temperatures will retard the curing of caulking material. If heat is not applied, caulking material cures to the tack-free state in approximately five to six hours at normal air-drying temperatures of approximately 77°F.

INSTRUMENT PANEL ASSEMBLY

INSTRUMENT PANEL COMPARTMENT DOOR

REMOVAL AND INSTALLATION

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

2. Remove hinge stop attaching screws from door. Disengage side reveal moldings and outer ends inner panel (Fig. 11-23).

3. Remove door hinge attaching screws from door inner panel and remove door (Fig. 11-23).

4. To install, position door within locating lines and install attaching screws. Install hinge stop and adjust as necessary.

ADJUSTMENTS

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

NOTE: A slight up or down adjustment may also be obtained at hinge-to-instrument panel attachment.

2. To position the door right or left, loosen hinge-to-instrument panel attaching screws located on underside of instrument panel and shift door to desired position. Adjust stop assembly accordingly on door inner panel.

3. The door lock striker may be adjusted by loosening attaching screws and moving striker forward or rearward (Fig. 11-23).

INSTRUMENT PANEL COMPARTMENT DOOR HINGE STOP ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove hinge stop attaching screws (Fig. 11-23) and remove from body.

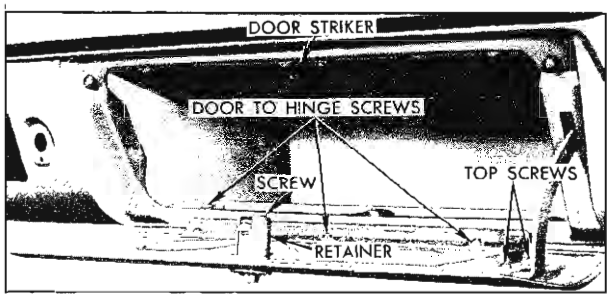


Fig. 11-23 Instrument Panel Compartment Door Assembly

2. To install, reverse removal procedure. Check for proper alignment of hinge stop to door inner panel.

INSTRUMENT PANEL COVER

The instrument panel cover is a one piece soft molded "Nose" design applied to the formed surface of the instrument panel and is attached by studs and nuts.

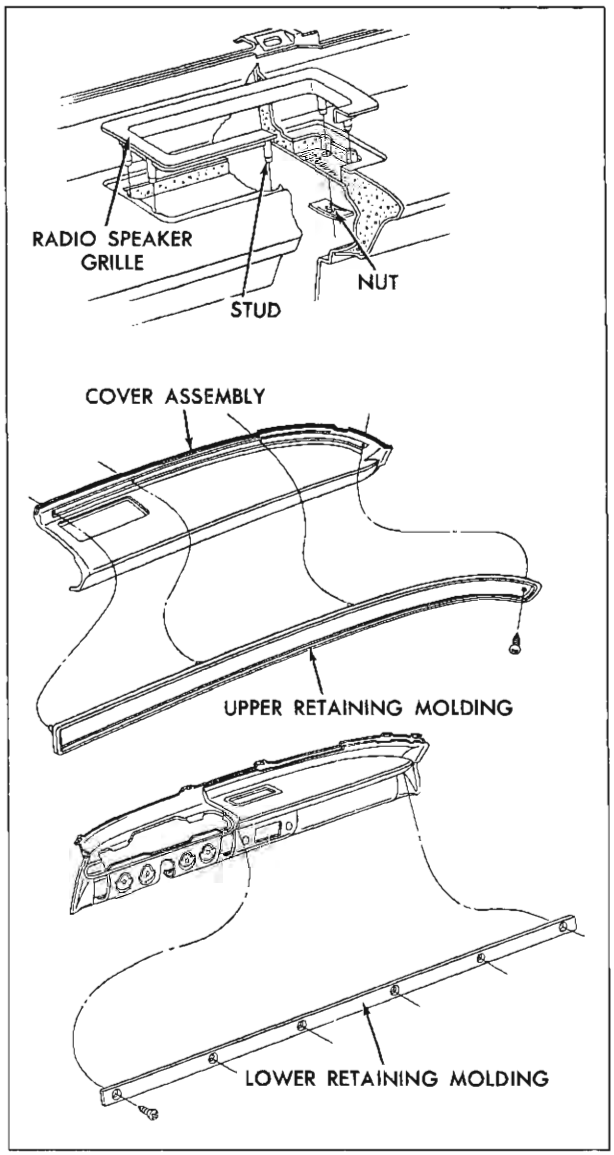


Fig. 11-24 Instrument Panel Cover Installation

REMOVAL AND INSTALLATION

1. From underside of instrument panel remove attaching nuts indicated in Fig. 11-24 and remove cover assembly.

2. To install, reverse removal procedure.

INSTRUMENT PANEL RADIO SPEAKER GRILLE

The radio speaker is secured to the instrument panel by studs and nuts (Fig. 11-24).

REMOVAL AND INSTALLATION:

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

2. To install, reverse removal procedure.

INSTRUMENT PANEL COVER ¾ SIZE

DESCRIPTION

The instrument panel cover assembly covers only approximately three-fourths (¾) of the instrument panel. The cover is secured to the instrument panel by an upper molding, radio speaker grille and lower retainer molding. The upper molding is secured to the upper instrument panel by one (1) exposed screw and studs and nuts. The lower molding is secured by screws (Fig. 11-24).

NOTE: The instrument panel cover is installed before the lower windshield garnish moldings.

REMOVAL AND INSTALLATION

1. Place protective covering over front seat.

2. Remove lower center and right end windshield garnish moldings.

3. From underside of instrument panel remove radio speaker grille attaching nuts and grille (Fig. 11-24).

4. From underside of instrument panel remove upper cover retainer molding attaching nuts, exposed screw and molding (Fig. 11-24).

5. Remove lower cover retainer molding (Fig. 11-24).

6. Carefully remove cover assembly.

7. To install, reverse removal procedure making certain cover is properly aligned before securing in place.

INSTRUMENT PANEL NAME PLATES

All instrument panel name plates are secured to the instrument panel by clips, studs and/or nuts.

To remove, remove attaching nuts from underside of the instrument panel and carefully pry the name plates from the instrument panel.

To install, reverse removal procedure.

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 shroud side panel.

SHROUD TOP VENTILATOR GRILLE

REMOVAL AND INSTALLATION

1. Place protective coverings over hood and fenders.

2. Remove windshield wiper arms.

3. Raise hood, remove screws securing grille to shroud (Fig. 11-25).

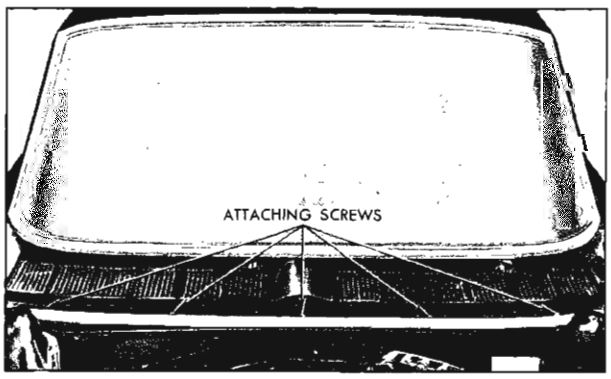


Fig. 11-25 Air Intake Grille

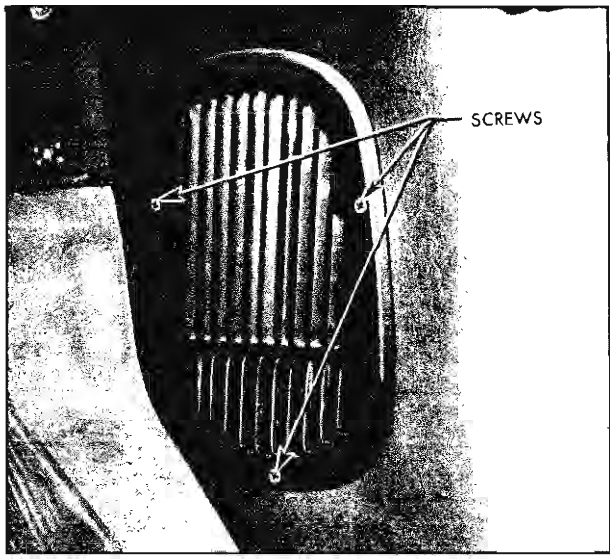


Fig. 11-26 Shroud Side Foundation

4. Carefully raise front edge of grille and slide grille forward to disengage tabs along rear edge of grille from slots in shroud; then, remove grille.

5. To install, apply medium-bodied sealer around screw attaching holes and grille retaining slots (Fig. 11-25).

6. Insert retaining tabs along rear edge of grille in slots in shroud panel and reverse removal procedure.

NOTE: Exercise care so that grille does not contact hood.

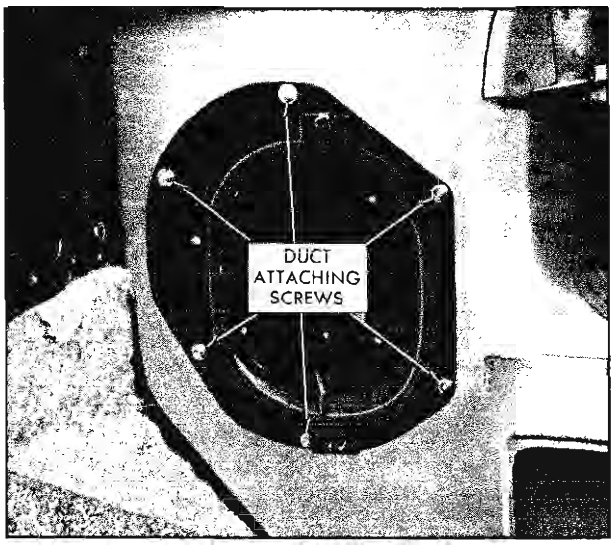


Fig. 11-27 Air Outlet Door

SHROUD SIDE FOUNDATION

REMOVAL AND INSTALLATION

1. Remove screws (Fig. 11-26) securing upper and lower end of air inlet grille.

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

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. 11-27).

3. To install, apply a bead of medium-bodied sealer to shroud panel at areas indicated in Fig. 11-28 and reverse removal procedure.

SHROUD SIDE DUCT PANEL AIR OUTLET DOOR

REMOVAL AND INSTALLATION

1. Remove shroud side foundation.

2. Remove end of control cable from door pin (Fig. 11-27).

3. Pry upper hinge pin downward and remove door.

4. To install, reverse removal procedure.

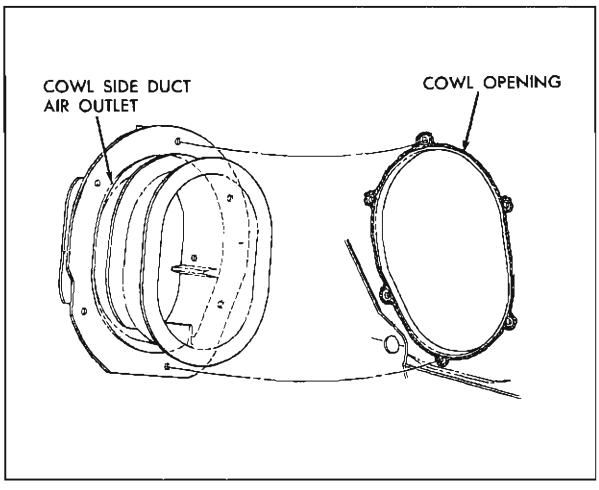


Fig. 11-28 Cowl Side Duct Air Outlet Sealing

DOORS

CONTENTS OF THIS SECTION

DOORS—FRONT AND REAR

The entire 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.

D. Service operations for side roof rail weatherstrips except convertible styles.

FRONT AND REAR DOOR INSIDE HANDLES

REMOVAL AND INSTALLATION:

1. On styles equipped with a paddle handle, remove door arm rest and remove handle-to-remote attaching bolt and remove handle from door.

2. On all other styles, depress door trim assembly at handle sufficiently to install tool J-7797 between handle and bearing plate.

3. Push handle retaining spring out of engagement and remove handle and bearing plate from door (See Fig. 12-1).

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 unattached end forward when glass is in full up position.

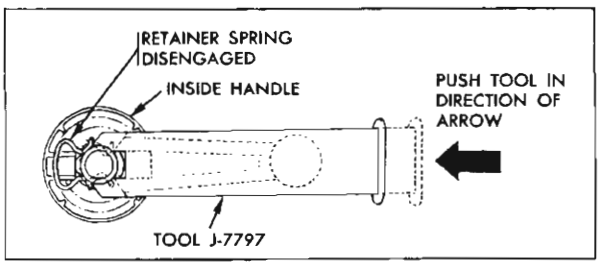


Fig. 12-1 Removing Retaining Spring

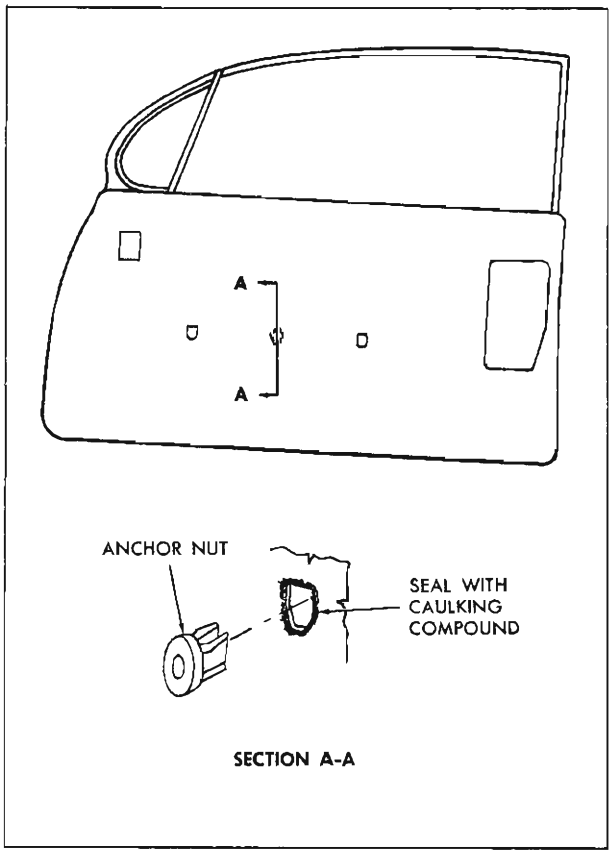


Fig. 12-2 Arm Rest Anchor Nut

FRONT AND REAR DOOR ARM RESTS

All arm rests are the applied type and are secured to the door inner panel by two (2) attaching screws which fit into self-threading plastic anchor nuts which snap into the door inner panel. The anchor nuts are sealed to the door panel with body caulking compound and are replaceable as a service part (Fig. 12-2).

REMOVAL AND INSTALLATION

1. Remove screws securing arm rest to door inner panel and remove arm rest.

2. To install, reverse removal procedure.

FRONT AND REAR DOOR TRIM PADS

Both the front and rear door trim assemblies are secured to the door panel (inner) by a trim pad retainer and screws at the bottom of the door, and

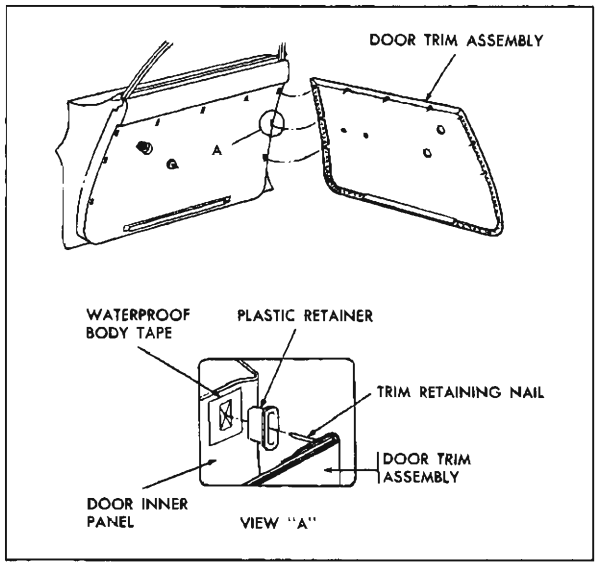


Fig. 12-3 Door Trim Installation

by retaining nails at the sides and top of the door. The nails are pressed or tapped into plastic retainers which fit into slots in the door inner panel.

REMOVAL AND INSTALLATION

1. Remove door inside handles and arm rest assembly.

2. At each lower corner of trim assembly remove screw securing assembly to door inner panel.

3. With a clean rubber mallet, tap along sides and top of trim assembly to free trim nails from door inner panel.

4. Starting at top of trim assembly, carefully insert tool J-6335, or a suitable flat-bladed tool, between door trim assembly and door inner panel at retaining nail locations and disengage nails from retainers (Fig. 12-3).

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

5. When installing, broken nails should be replaced with repair tabs which are available as a service part.

NOTE: Retaining nails must not pierce back of plastic retainers as waterleaks may develop. For this reason it is important that PROPER LENGTH repair tab nails (½") are used when replacing broken trim retaining nails.

6. If plastic retainers are loose and will not remain engaged in door inner panel, install a ½" x ¾" piece of cloth-backed waterproof body tape over retaining hole in door inner panel. Make two (2) slits in tape to form an "X" pattern. Check retainer for snug fit. If retainer is still loose, repeat above operation by installing a second piece of tape over existing repair. This procedure may also be used to repair waterleaks which develop around perimeter of retainer.

FRONT AND REAR DOOR WATER DEFLECTORS

A waterproof paper deflector is used to seal the door inner panel and prevent entry of water into the body. The polyethylene (shiny or black) side of the deflector is placed against the inner panel. The deflector fits into a retaining slot at the bottom of the door inner panel and deflects the water to the bottom of the door and out the 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 paper water deflector has been disturbed, the deflector must be properly sealed and taped to the inner panel to prevent serious waterleaks. It is important that all service personnel performing door hardware adjustments or sealing operations are aware of the importance of using the specified material and recommended removal and installation or replacement procedures. For service sealing, body caulking compound is recommended if additional sealing material is required.

When access to the inner panel is required to perform service operations, the deflector may be completely or partially detached from the inner panel. If the existing water deflector is damaged, so that it will not properly seal the door, replacement of the defiector is required.

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

REMOVAL

1. Remove door trim assembly.

2. Remove strips of waterproof body tape securing lower corners of water deflector (Fig. 12-4).

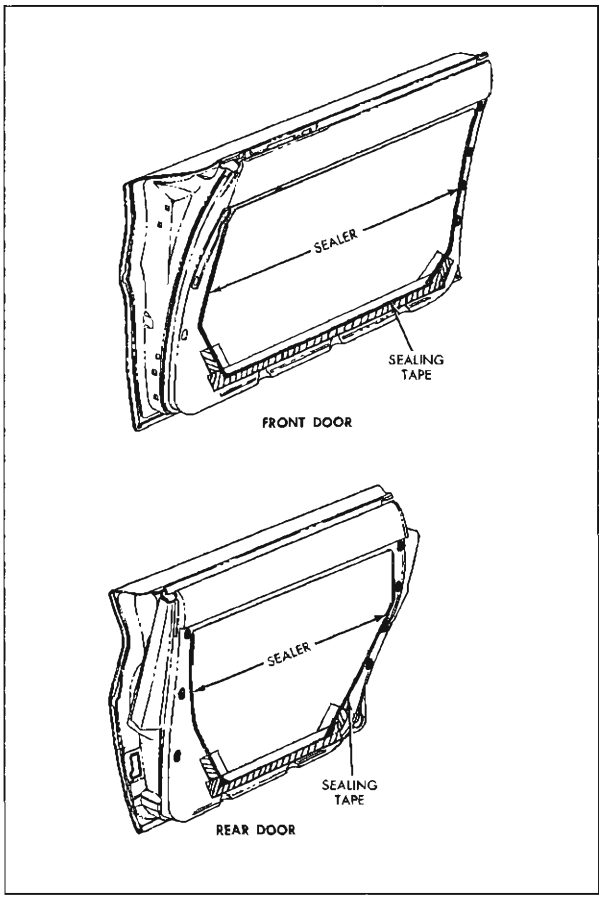


Fig. 12-4 Water Deflector Installation

3. Carefully break cement bond securing upper corners of water deflector to door inner panel. While holding string located within sealer against water deflector, carefully disengage edges of deflector from door. Exercise care so as not to tear water deflector.

NOTE: If necessary, a flat-bladed tool such as a putty knife can be used to help break cement bond.

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

INSTALLATION

1. Inspect water deflector and, where necessary, repair any tears or holes with waterproof body tape applied to both sides of deflector. In addition, if bond between polyethylene 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.

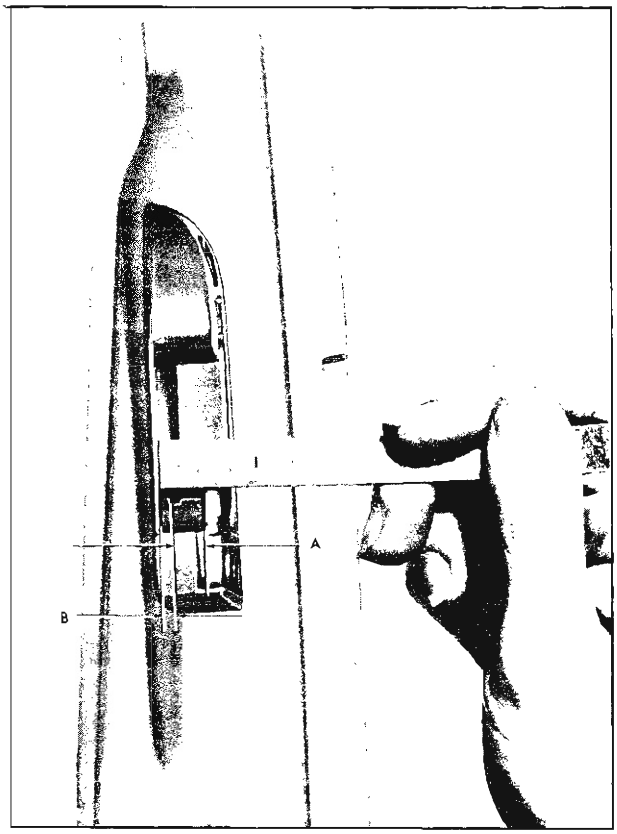


Fig. 12-5 Door Lock Striker Engagement Check

2. If a new water deflector is to be installed, use old water deflector as a template, trim new deflector to proper size and cut holes for door inside hardware.

If old sealer does not effect a satisfactory seal, apply a bead of body caulking compound (approximately $\frac{3}{16}$" diameter) to inner panel at unsealed areas (Fig. 12-4).

3. Position water deflector to door inner panel with polyethylene coated side of deflector against inner panel.

Insert lower edge of deflector in retaining slot. Then firmly roll or press sealed areas to obtain a good bond between deflector and door inner panel.

4. Seal lower corners of deflector with 2" or $2\frac{1}{2}$" waterproof body sealing tape (Fig. 12-4).

5. Clean off all excess cement or caulking compound and install previously removed door trim and inside hardware.

FRONT AND REAR DOOR LOCK STRIKERS

REMOVAL AND INSTALLATION

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

2. Remove three (3) door lock 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 $\frac{1}{8}$" 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 scribe marks on pillar and install striker plate attaching screws.

NOTE: Whenever a door has been removed and installed, or realigned, the door SHOULD NOT be closed completely until a visual check is made to determine if lock extension will engage in striker notch. Where required, door lock striker emergency spacers should be installed so that door can be closed and an accurate check made to determine emergency spacer requirements.

5. Clean off all excess caulking compound.

ADJUSTMENTS

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

DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER EMERGENCY SPACERS

1. Door(s) should be properly aligned before checking door spacer requirements.

2. To determine if door lock striker emergency spacers are required, apply modeling clay or body caulking compound in door lock striker notch where lock extension engages, and then close door to form a measureable impression in clay or caulking compound as shown in fig. 12-5.

When dimension "A" (Fig. 12-5) from rear face of striker teeth to rear edge of depression in clay is less than 11 1/32", install emergency spacers and proper length striker attaching screws as indicated.

Dimension "A"	No. of Required Spacers
11 1/32" to 9/32"	1
9/32" to 7/32"	1
7/32" to 5/32"	1 (1/16" Spacer) 1 (1/8" Spacer)
5/32" to 3/32"	2 (1/8" Spacer)

Spacer Thickness	Striker Attaching Screws*
1/16"	Original
1/8"	Emergency (1/8" Longer)
3/16"	Emergency (1/8" Longer)
1/4"	Emergency (1/4" Longer)

NOTE: Dimension "B" in the illustration should never be less than 1/8".

*Zinc or cadium plated flat-head cross-recess screw with countersunk washer.

FRONT AND REAR DOOR WEATHERSTRIPS
17, 19, 27 and 35 STYLES

The one-piece door weatherstrip is cemented into the door window frame assembly which forms a retainer type channel for retention of the weatherstrip assembly. The remainder of the door weatherstrip is retained by clips inserted into attaching hole sealing plugs. Service procedures for front and rear door weatherstrips are similar and both weathertrips are covered as follows:

REMOVAL

1. With a flat-bladed tool, carefully break cement bond along door window frame assembly and at belt line.

2. Insert tip of tool J-5757 at clip location and carefully snap clips from retaining plugs and remove weatherstrip from door.

INSTALLATION

1. Clean off old cement from window frame and door inner panel to insure a clean cementing surface.

2. Check weatherstrip clips for proper contour and reform if necessary using tool J-5984 (Fig. 12-6).

3. Check all attaching hole sealing plugs. If sealing plugs are loose and will not remain engaged in door inner panel, install a 1/2" x 1" piece of cloth-backed waterproof body tape over sealing plug retaining hole

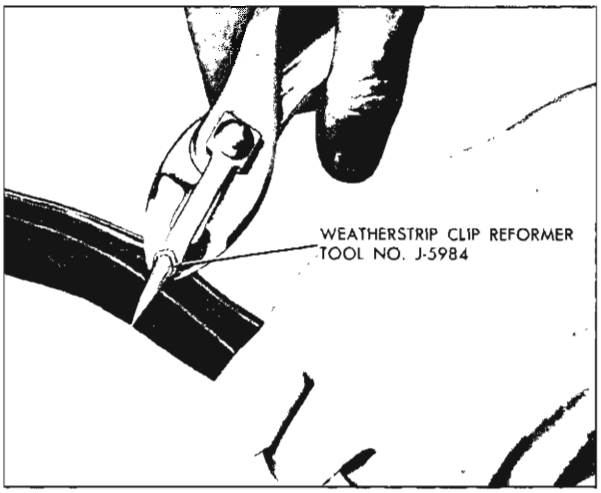


Fig. 12-6 Weatherstrip Clip Reforming Tool

as shown in Section "C-C" of Fig. 12-7. Make two 5/16" slits in tape to form an "X". Install plug and check for a snug fit. If plug is still loose, repeat above operation by installing a second piece of tape over existing repair. This procedure may also be used to repair waterleaks which develop at sealing plug locations (See Fig. 12-7 and Fig. 12-8).

4. Prior to installation of weatherstrip on either door, apply a continuous bead of an approved weatherstrip cement extending from approximately one (1) inch below window frame at hinge pillar section (see view "B" of view I) along entire outboard portion of door weatherstrip retaining channel (see Section "A-A" or view I) to approximately one (1) inch below lock pillar section of window frame assembly as shown in view "C" of view I (Fig. 12-7 and 12-8).

NOTE: When applying weatherstrip cement follow manufacturer's directions.

5. Starting at uppermost clip hole on either door pillar, install clips to door by placing notched end of tool J-5757 in loop of clip and pushing clip into attaching hole sealing plug. Repeat operation along both sides and bottom of door (Fig. 12-7 and 12-8, Section "B-B" in view II).

NOTE: Do not distort clips or unsatisfactory weatherstrip retention will result.

6. Using a putty knife, or other suitable flat-bladed tool, install door weatherstrip into door window frame assembly (Figs. 12-7 and 12-8, Section "A-A" in view II).

7. Clean off all excessive weatherstrip adhesive.

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

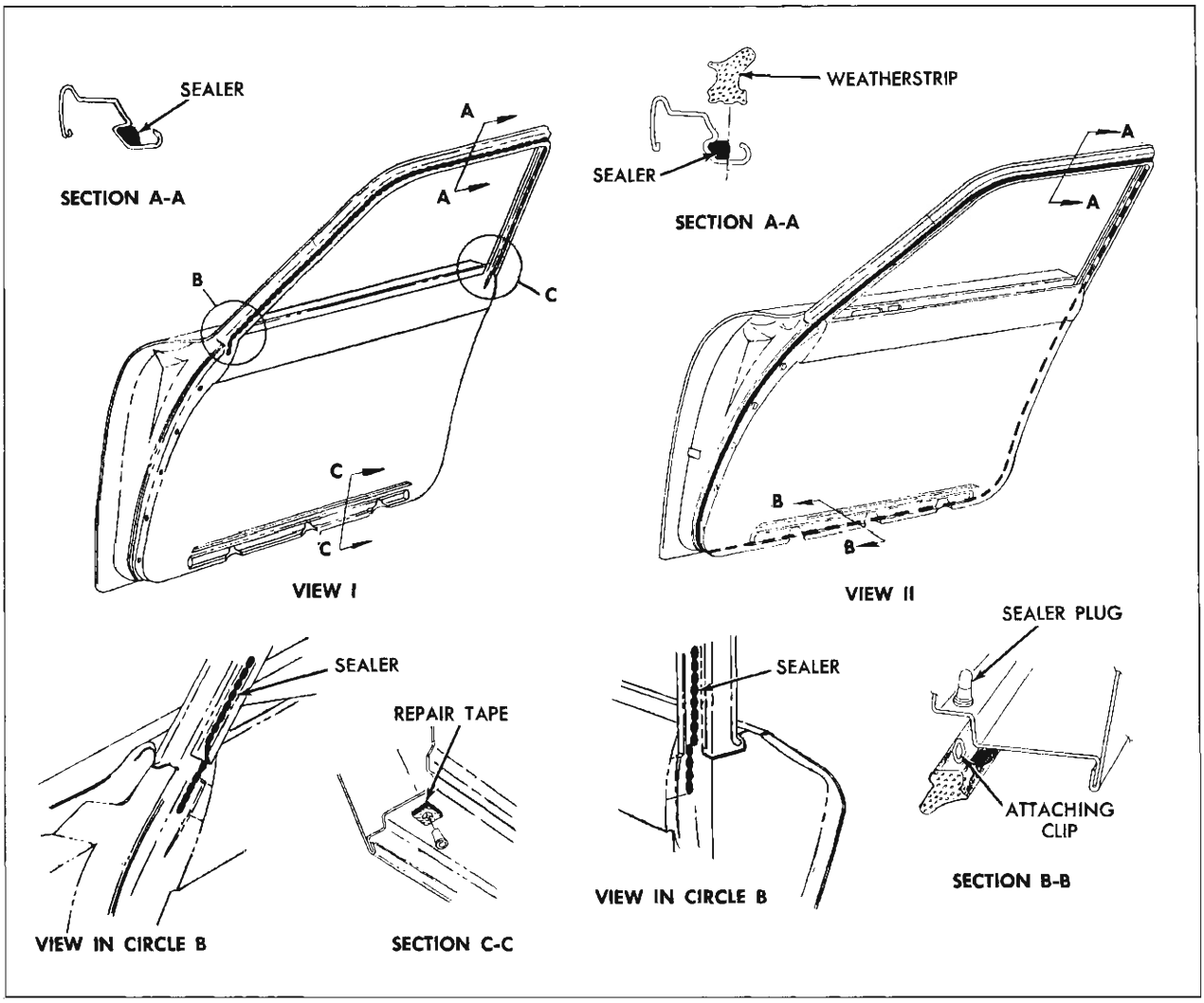


Fig. 12-7 Front Door Weatherstrips

FRONT DOOR WEATHERSTRIPS
67 STYLE

The door weatherstrip is a one-piece design, retained by clips inserted into attaching hole sealing plugs for the entire door and by cement along the top four inches of hinge and lock pillar panels. One weatherstrip fastener at belt line of hinge pillar and two fasteners at belt line of lock pillar also help retain weatherstrip.

REMOVAL

1. With a screw driver, or other suitable tool, carefully snap weatherstrip fasteners, at belt line of hinge and lock pillar panels, from door (see views "A" and "B" in Fig. 12-9).

2. With a flat-bladed tool, carefully break cement bond at hinge and lock pillar panels.

3. Insert tip of tool J-5757 at clip locations and carefully snap clips from retaining plugs and remove weatherstrip from door (See Fig. 12-7 and section "C-C" in Fig. 12-9).

INSTALLATION

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

2. Check weatherstrip attaching clips for proper contour and, if necessary, re-form using tool J-5984 (Fig. 12-6).

3. Check all attaching hole sealing plugs. If sealing plugs are loose and will not remain engaged in door

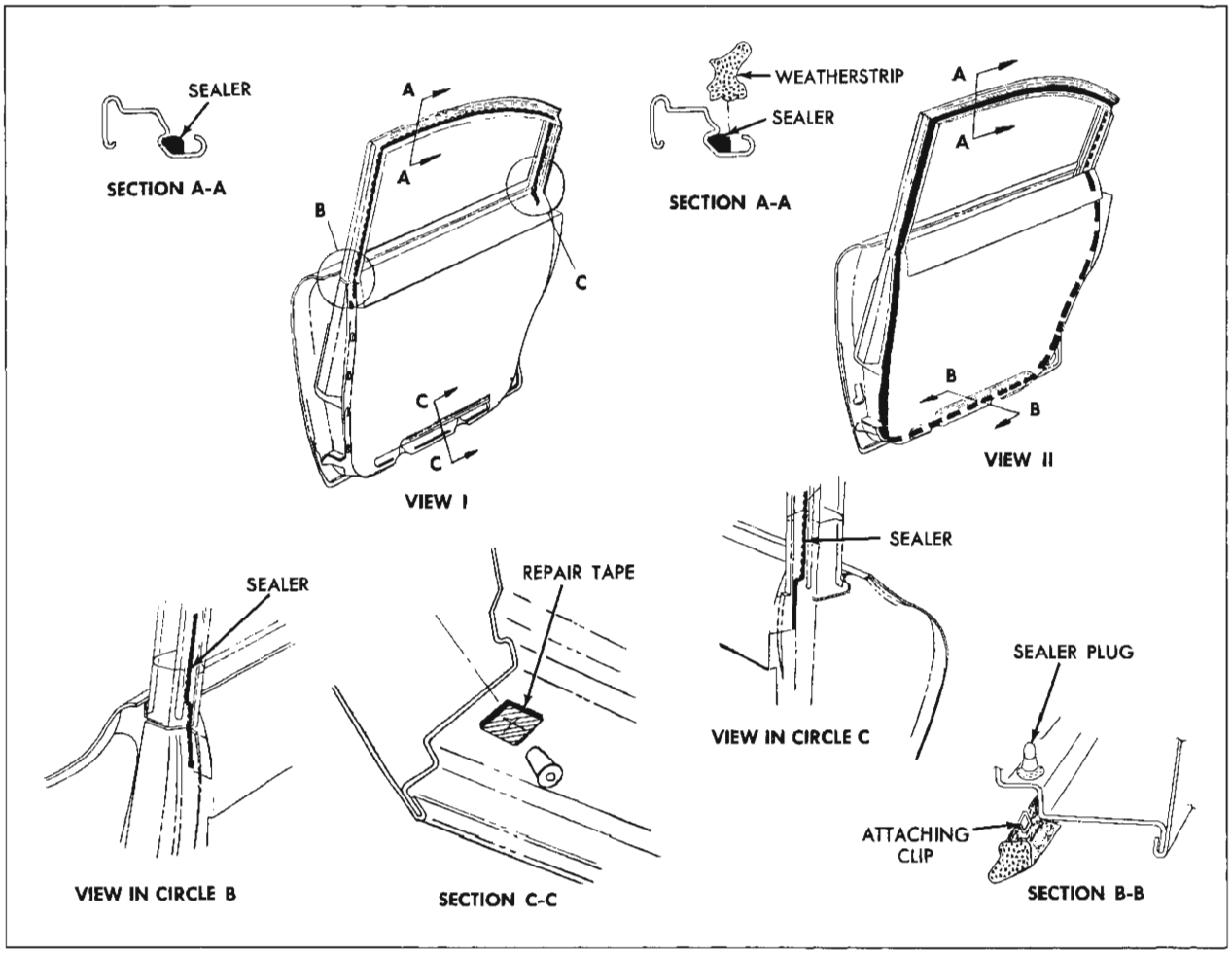


Fig. 12-8 Rear Door Weatherstrips

inner panel, install a ½" x 1" piece of cloth-backed waterproof body tape over sealing plug retaining hole as shown in section "C-C" of Fig. 12-7 and 12-8). Make two (2) 5/16" slits in tape to form an "X" pattern. Install plug and check for a snug fit. If plug is still loose, repeat above operation by installing a second piece of tape over existing repair. This procedure may also be used to repair waterleaks that may develop at sealing plug locations.

4. Prior to installation of weatherstrip, apply a bead of an approved weatherstrip cement at top four (4) inches of hinge and lock pillar panels.

NOTE: When applying weatherstrip cement, follow manufacturer's directions.

5. Starting at uppermost clip hole on either door pillar, install clips to door by placing notched end of tool J-5757 in loop of clip and pushing clip into attaching hole sealing plug. Repeat operation along both sides and bottom of door.

NOTE: DO NOT distort clips or unsatisfactory weatherstrip retention will result.

6. Clean off all excessive weatherstrip adhesive.

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

FRONT AND REAR DOOR WINDOW GLASS RUN CHANNEL INNER AND OUTER STRIP ASSEMBLIES

Glass run channel strip assemblies 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 assembly is constructed of a pile fabric material with a metal backing and is secured to top of door inner panel by a series of staples. The outer strip assembly is constructed of 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

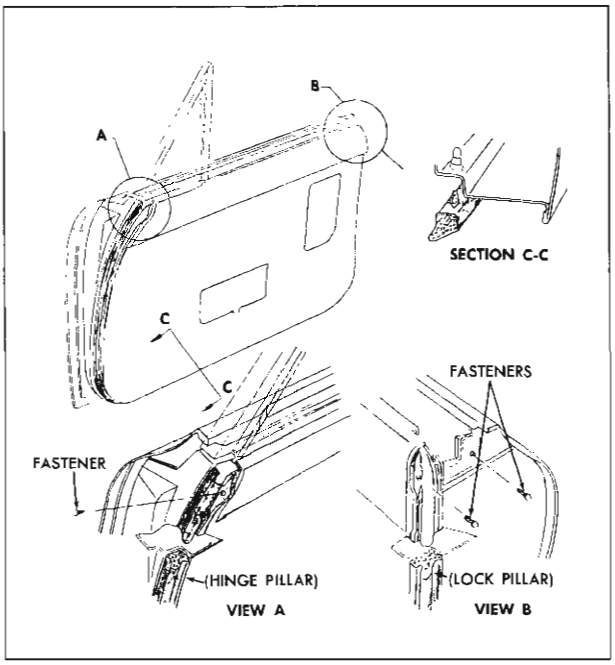


Fig. 12-9 Front Door Weatherstrip Fasteners

attaching clips and screws. On styles not equipped with a belt reveal molding, the outer strip assembly is attached to the door outer panel by a series of attaching clips only. On all styles, the inner strip assembly remains in a stationary position during operation of door glass. On the outer strip assembly, however, the inboard section of the sealing lip is lifted and held in position by the door window lower sash channel of filler when door glass is raised. The outer strip assembly has been increased in length and thickness for the 1963 model and is an effective weatherseal with glass in the fully closed position. (See Fig. 12-10).

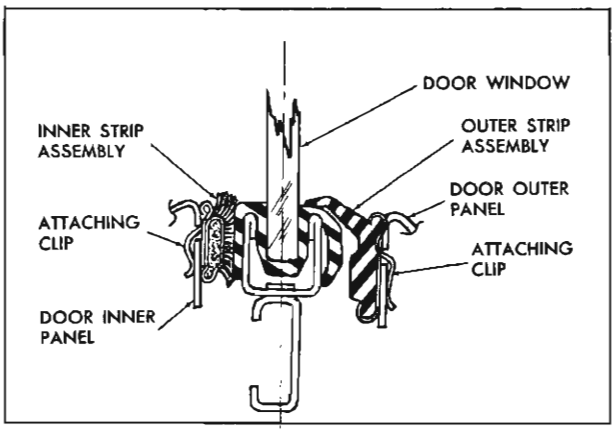


Fig. 12-10 Glass Run Channel

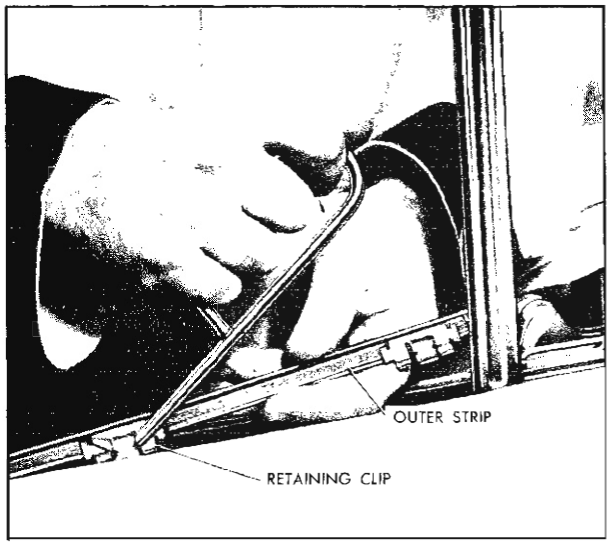


Fig. 12-11 Sealing Strip Removal

REMOVAL AND INSTALLATION:

1. Lower door window and apply masking tape over door outer panel adjacent to outer strip assembly to protect paint finish.
2. On front doors of styles equipped with a belt reveal molding, remove the front door ventilator assembly as described in the "Front Door" section of the body service manual. This is necessary to gain access to the forward attaching screw of the door belt reveal molding.
3. Remove the door window lower stop or stop bumper and lower door window as far down as possible to gain access to the outer strip assembly attaching screws.
4. Where applicable, remove the front and rear outer strip assembly attaching screws.
5. With a flat-bladed tool, gently pry inner or outer strip assembly up at the attaching clip locations (five clips each for front and rear doors on four door styles and seven clips for front doors on two door styles) (See Fig. 12-11).
6. To install, reverse removal procedure.

FRONT AND REAR DOOR OUTSIDE HANDLE ASSEMBLY

REMOVAL AND INSTALLATION

1. Raise door window. Remove trim assembly and detach upper rear corner of inner panel water deflector sufficiently to gain access to door outside handle attaching screws.
2. Remove screws through inner panel. Remove door handle and gaskets from outside of body.
3. To install, reverse removal procedure.

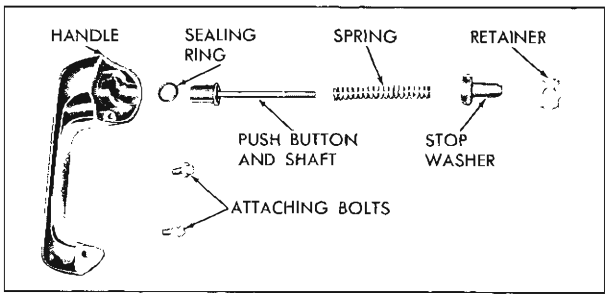


Fig. 12-12 Outside Handle

DISASSEMBLY AND ASSEMBLY OF DOOR OUTSIDE HANDLE

1. Remove door outside handle.
2. Firmly secure handle within protected vise jaws.
3. With a flat-bladed screwdriver and hammer, rotate sheet metal retainer 1/4 turn. Remove retainer, stop washer, spring, sealing ring and push button and shaft (Fig. 12-12).
4. To assemble, reverse disassembly procedure.

FRONT AND REAR DOOR WINDOW GLASS RUN CHANNELS

REMOVAL AND INSTALLATION

1. Remove door window.
2. Starting at either end of glass run channel, press sides of channel together and remove from window frame assembly.
3. To install, start at either upper corner of window frame assembly and reverse removal procedure.

FRONT AND REAR DOOR PINCHWELD FINISHING STRIPS

On all styles (except convertibles) a one-piece strip assembly of an extruded vinyl construction is used. All strip assemblies are reinforced by a full length metal insert and are retained by integral lips of the finishing strips.

REMOVAL AND INSTALLATION

1. Remove door sill plate
2. On 19-35-45 styles, remove center pillar to roof rail finishing plate.
3. On 17-27-19 styles, remove rear quarter window upper corner finishing molding.
4. On 35-45 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.

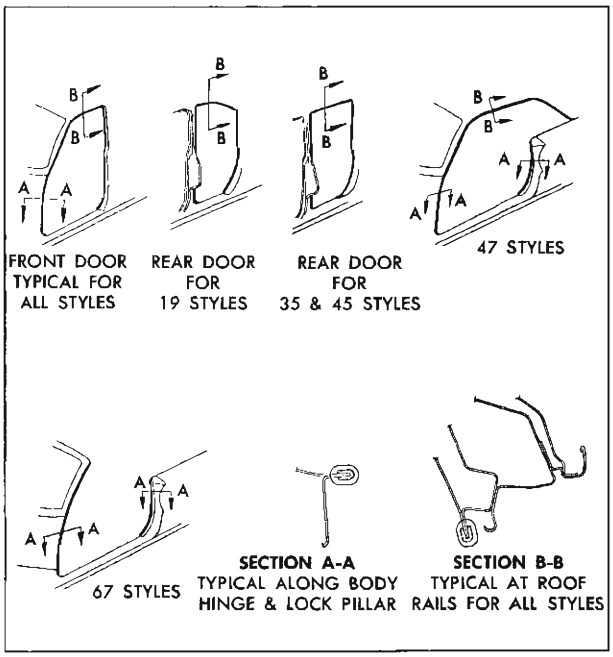


Fig. 12-13 Pinchweld Finishing Strips

6. To install, reverse removal procedure. Figure 12-13 shows pinchweld finishing strip locations for all styles.

FRONT AND REAR DOOR LOCK SPRING CLIPS

A spring clip is used on the door lock levers to secure the remote control connecting link and inside locking rod connecting link to the door levers. A slot in the spring clip provides for disengagement of the clip, thereby facilitating detachment of the connecting link from the lock lever.

To disengage the spring clip, use a screwdriver or other suitable tool to slide the clip of engagement. Fig. 12-14 shows the door lock spring clip engaged and disengaged.

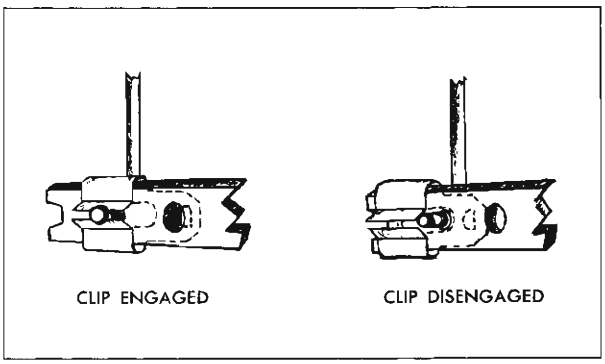


Fig. 12-14 Door Lock Spring Clip

FRONT DOORS

Fig. 12-15 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 DOOR ASSEMBLY AND HINGES

The front door assembly may be removed with or without the hinges attached.

To remove the front door assembly with hinges attached, proceed as follows:

REMOVAL

1. Place a suitable protective covering over front fender at door opening to protect finish.
2. Remove front fender opening filler panel.
3. Open door and mark hinge locations on front body hinge pillar.
4. If necessary, loosen lower rear fender attaching bolt at underside of body to gain additional access to lower hinge attaching bolts.

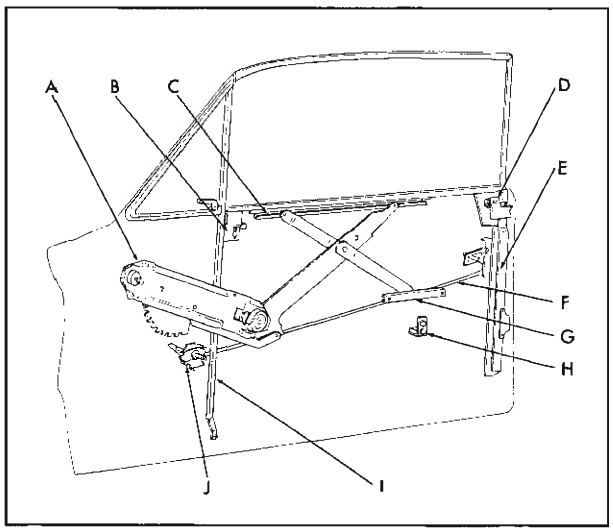


Fig. 12-15 Door Window Assembly

A. Door Window Regulator Assembly
B. Door Window Front Stop Assembly
C. Door Window Lower Sash Channel Cam
D. Door Window Rear Stop Assembly
E. Door Window Glass Run Channel Assembly
F. Door Lock Remote Control to Lock Rod Assembly
G. Door Inner Panel Cam Assembly
H. Door Window Lower Stop Assembly
I. Ventilator Division Channel
J. Door Lock Remote Control Assembly

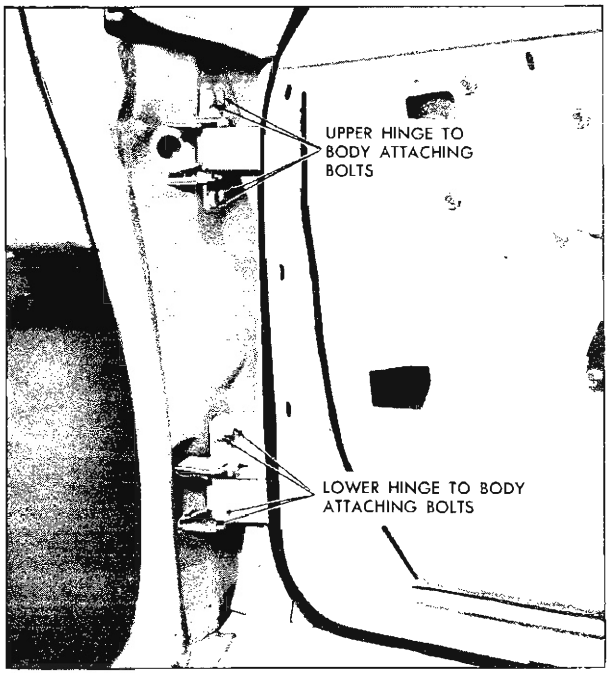


Fig. 12-16 Front Door Hinge Attachment

5. On styles equipped with power operated windows, remove water deflector, disconnect wiring harness and remove wiring harness conduit.

6. With aid of a helper, to properly support door, remove bolts securing upper and lower hinges to body and remove door assembly with attached hinges from body (See Fig. 12-16).

INSTALLATION

1. As an anti-squeak precaution and to prevent entry of water into body at hinge attaching bolt locations, coat attaching surfaces of hinges with heavy-bodied sealer prior to installing door (Fig. 12-17).

2. With aid of a helper, reinstall door to body opening. Align hinges within scribe mark and tighten bolts.

3. Check door for proper operation and alignment and, where required, adjust door as described under "Front Door Adjustments".

4. Install front fender opening filler panel and remove protective covering from front fender.

NOTE: For lubrication of hinges, see "Body Lubrication" section.

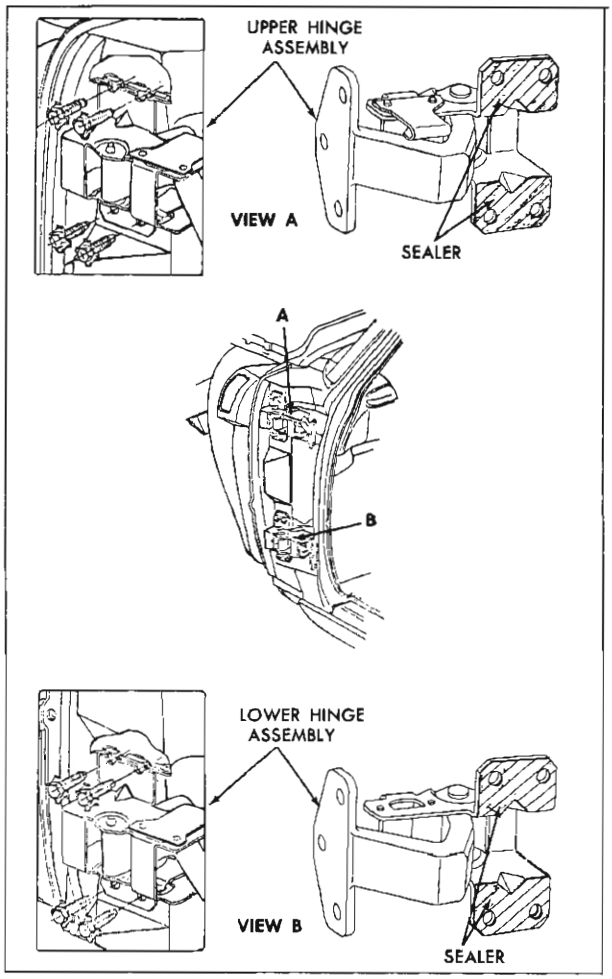


Fig. 12-17 Front Door Hinge Installation

To remove the front door assembly without hinges attached, proceed as follows:

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

2. Remove front fender filler panel.

3. Open door and mark hinge locations on front door hinge pillar.

4. On styles equipped with power operated windows, remove water deflector, disconnect wiring harness and remove wiring harness conduit.

5. With the aid of a helper, to properly support door, remove bolts securing upper and lower hinges to door and remove door assembly from body (See Fig. 12-18).

INSTALLATION

1. As an anti-squeak precaution and to prevent entry of water into body at hinge attaching bolt

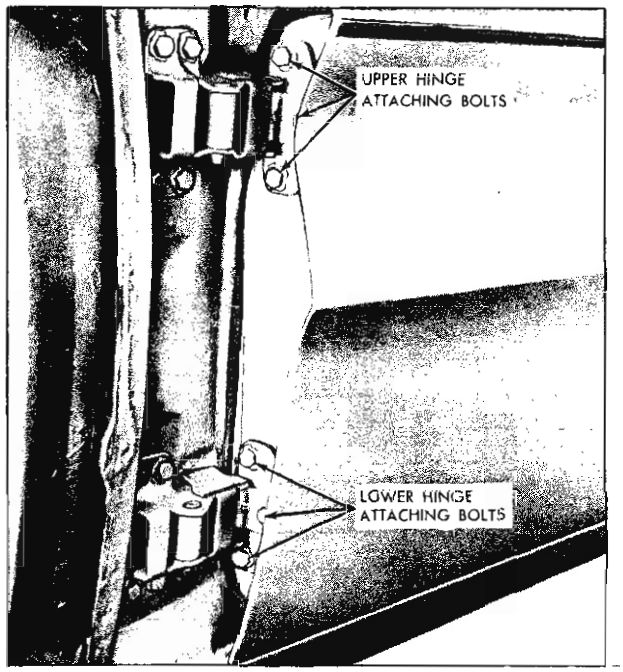


Fig. 12-18 Front Door to Hinge Attachment

locations, coat attaching surfaces of hinges with heavy-bodied sealer prior to installing door. Figure 12-19 shows sealer application and detailed views of hinge to door attaching bolts.

2. With the aid of a helper, reinstall door to body opening. Align hinges with scribe marks and tighten bolts.

3. Check door for proper operation and alignment and adjust door as required.

4. Install front fender filler panel and remove protective covering from front fender.

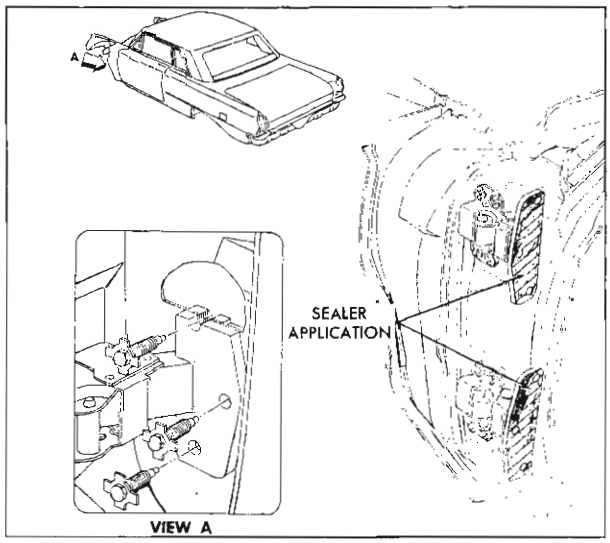


Fig. 12-19 Hinge Installation

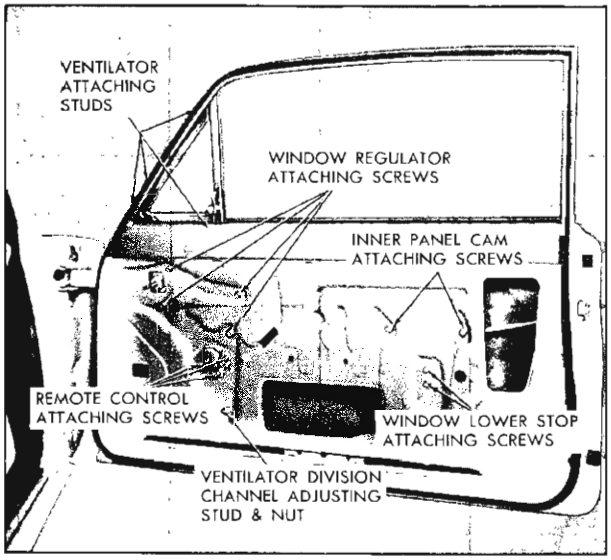


Fig. 12-20 Door Hardware Attachments

ADJUSTMENTS

Door adjustments are provided through the use of floating anchor plates at the door and body pillars.

When checking the door for misalignment, remove the door lock striker from the body pillar to allow door to hang free on its hinges.

To adjust the door up or down and/or fore or aft at the front body hinge pillar, proceed as follows:

1. Remove front fender filler panel.

2. Mark location of hinges on front body hinge pillar.

3. Loosen hinge attaching bolts and shift door to desired position; then tighten hinge attaching bolts (Fig. 12-16).

NOTE: Loosen front fender lower rear attaching bolt, if necessary, to gain additional access to lower hinge attaching bolts.

4. Reinstall door lock striker and check lock extension-to-striker engagement as described under "Door Lock Striker--Adjustments."

To adjust door in or out and/or up or down at the door hinge pillar, proceed as follows:

1. Mark hinge location on door.

2. Loosen hinge attaching bolts. Shift door to desired position, then tighten hinge attaching bolts (Fig. 12-18).

3. Check door for proper alignment and, where necessary, repeat steps 1 and 2 above until desired adjustment is obtained.

FRONT DOOR LOCK REMOTE CONTROL ASSEMBLY AND CONNECTING LINK

REMOVAL AND INSTALLATION

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

2. With the aid of a screwdriver, or other suitable tool, disengage end of connecting link from lock assembly. See "Door Lock Spring Clip".

3. Remove screws securing remote control assembly to door inner panel. Pull remote control away from door inner panel; then rotate remote control assembly one quarter turn to disengage connecting link from remote control assembly. Remove control assembly and connecting link from door (Fig. 12-20).

4. To install, reverse removal procedure. Check operation of door lock before installing inner panel water deflector.

FRONT DOOR VENTILATOR ASSEMBLY

17, 19, 27 and 35 STYLES

REMOVAL AND INSTALLATION

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

2. Remove door lock remote control assembly and connecting link.

3. Remove door window lower stop and ventilator division channel lower adjusting stud and nut.

4. Carefully lower door window to extreme down position. Remove three door window frame to ventilator attaching screws and one inner panel to ventilator attaching screw (Fig. 12-20).

5. Disengage upper front corner of glass run channel from window frame assembly.

6. Carefully tilt ventilator assembly rearward until clear of window frame assembly; then lift venilator inboard and upward and remove from door.

CAUTION: After ventilator has been removed, door glass should be held or otherwise suitably supported to prevent damage to door glass.

7. To install, reverse removal procedure. Check operation of ventilator and door window assembly and, where required, adjust ventilator assembly as described under "Front Door Ventilator Adjustments."

ADJUSTMENTS

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

in or out as required or position channel fore or aft as required; then tighten stud nut. Seal water deflector and install door trim and inside hardware (Fig. 12-20).

2. The effort required to open or close the ventilator may be increased or decreased by straightening washer tab and tightening or loosening the adjusting nut. (Fig. 12-21).

Tightening the adjusting nut will increase effort required to open and close ventilator, loosening adjusting nut will decrease opening and closing effort. When desired adjustment has been obtained, bend down washer tab to lock nut in position.

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

FRONT DOOR VENTILATOR CASTING

67 STYLE

REMOVAL AND INSTALLATION

The front door ventilator casting is used on all "67" styles and is secured to the front door assembly by one (1) attaching bolt and one (1) adjusting stud and nut. The front facing of the ventilator frame is secured to the ventilator casting by four (4) attaching screws.

1. Remove ventilator casting to door hinge pillar panel attaching bolt and lower adjusting stud nut.

2. Remove ventilator casting to ventilator frame attaching screws and remove casting from door (Fig. 12-22).

3. A slight fore and aft adjustment of the ventilator casting can be obtained at the lower adjusting stud and nut.

4. To install reverse removal procedures.

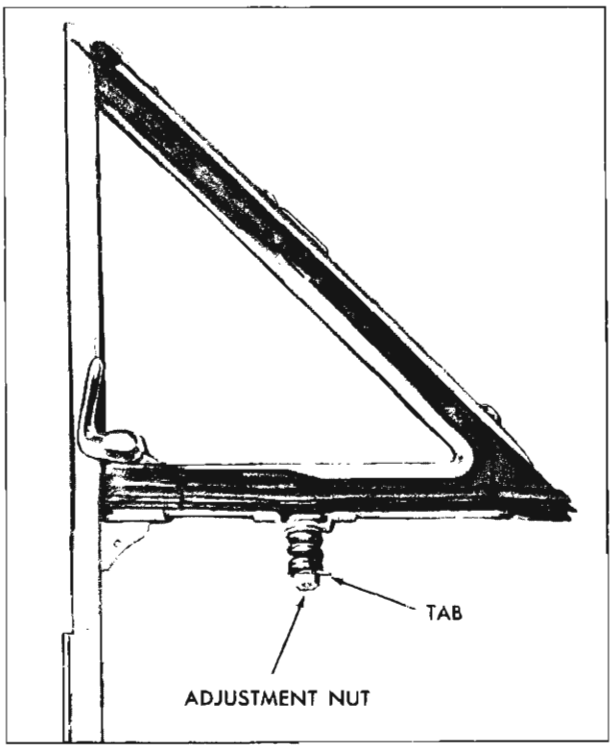


Fig. 12-21 Ventilator Friction Adjustment

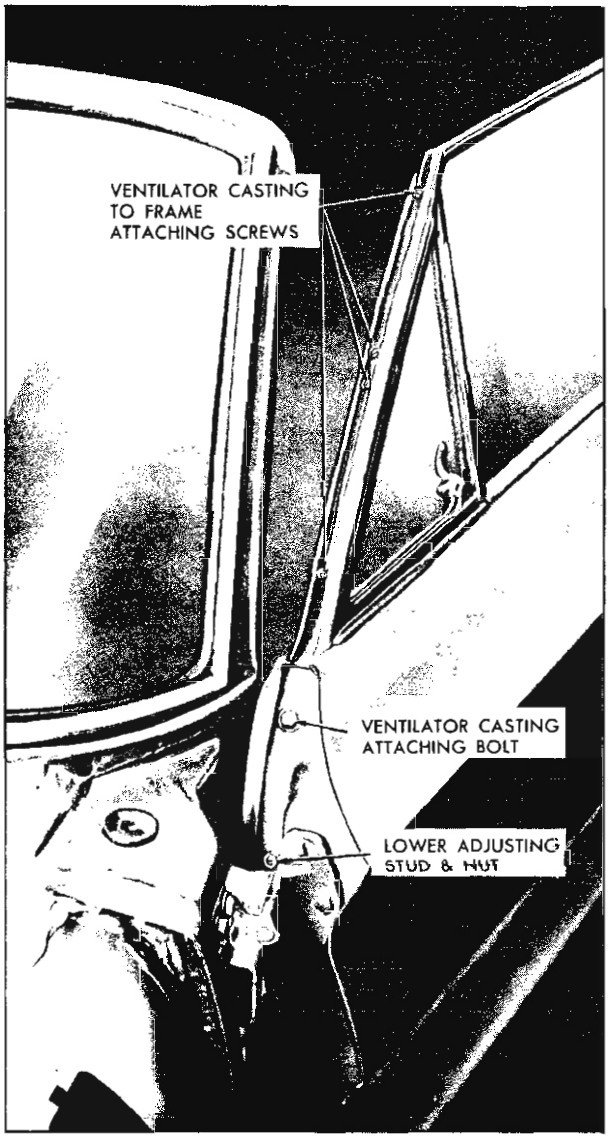


Fig. 12-22 Door Ventilator Casting

FRONT DOOR VENTILATOR ASSEMBLY

67 STYLE

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

REMOVAL AND INSTALLATION

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

2. Remove ventilator division channel lower adjusting stud and nut (Fig. 12-23).

3. Remove front door ventilator casting.

4. Remove ventilator frame to door inner panel attaching screw (Fig. 12-23).

5. Tilt ventilator assembly until ventilator division channel is free from front edge of door window glass and remove ventilator assembly from door.

CAUTION: After ventilator has been removed, door glass should be held or otherwise suitably supported to prevent damage.

6. To install, reverse removal procedure. Check operation of ventilator and door window assembly and, where required, adjust ventilator assembly as described under "Front Door Ventilator — Adjustments."

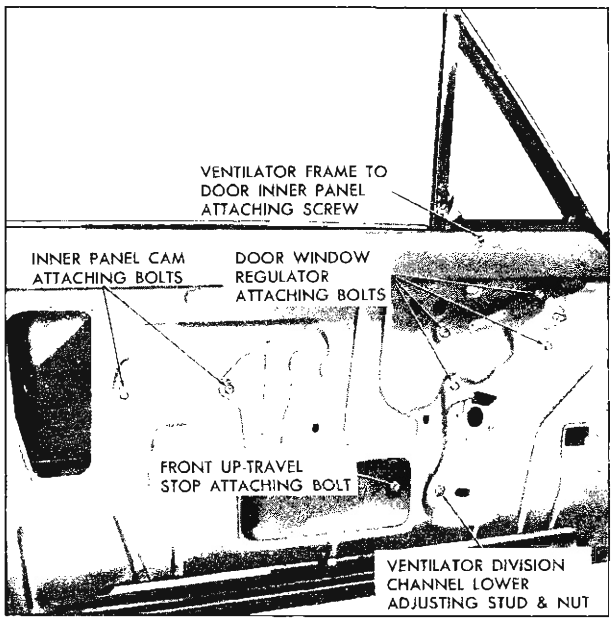


Fig. 12-23 Front Door Inner Panel

FRONT DOOR INNER PANEL CAM

17, 27 and 67 STYLES

REMOVAL AND INSTALLATION

1. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to inner panel cam attaching bolts.

2. Remove two (2) inner panel cam attaching bolts (Fig. 12-20).

3. Slide cam rearward to disengage nylon roller of window regulator balance arm and remove cam through large access hole in door inner panel.

4. To install, reverse removal procedure. Prior to installation, lubricate entire length of inner panel cam with 630AAW Lubriplate or equivalent.

FRONT DOOR WINDOW ASSEMBLY

17, 19, 27 and 35 STYLES

The front door glass is a solid tempered safety plate glass. The glass fits into a lower sash channel assembly which incorporates a welded-on lower sash channel cam.

With this type of design, the door glass, lower sash channel and sash channel cam are removed from the door as a unit.

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

REMOVAL AND INSTALLATION

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

2. Remove front door ventilator assembly as previously described under "Front Door Ventilator — Removal and Installation."

CAUTION: After ventilator has been removed, door glass should be held or otherwise suitably supported to prevent damage to door glass.

3. On "17" and "27" styles, remove inner panel cam.

4. Carefully lift window assembly upward and forward to disengage regulator arm(s) from lower sash channel cam and remove window from door on out-

board side of door upper frame. Figure 12-24 shows window removal on "17" and "27" styles and is typical of "19", "35" and "45" styles.

5. To install, reverse removal procedure. After installation of window assembly, lubricate lower sash channel cam along entire length of cam with 630AAW Lubriplate or its equivalent.

ADJUSTMENTS

1. To adjust the lower portion of the ventilator division channel in or out or fore or aft, lower door window and loosen ventilator division channel adjusting stud nut. Turn adjusting stud in or out or position lower end of channel fore or aft as required, and tighten stud nut.

2. A slight up or down adjustment of the door window, in the lowered position, can be obtained by adjusting the door window lower stop assembly.

3. A slightly rotated or cocked front door window on "17" or "27" styles can be corrected by adjustment of the inner panel cam.

FRONT DOOR WINDOW ASSEMBLY

67 STYLE

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

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

REMOVAL AND INSTALLATION

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

2. Lower door window and remove front up-travel stop (Fig. 12-23).

3. Remove front door ventilator casting and front door ventilator assembly.

4. With window in a fully lowered position, through large access hole, slide glass forward to disengage regulator lift arm from window lower sash channel cam.

5. Carefully raise window to full up position.

6. Tilt front edge of glass upward to disengage balance arm from window lower sash channel cam.

7. Lower regulator to avoid interference when removing window and remove window.

8. To install, reverse removal procedure.

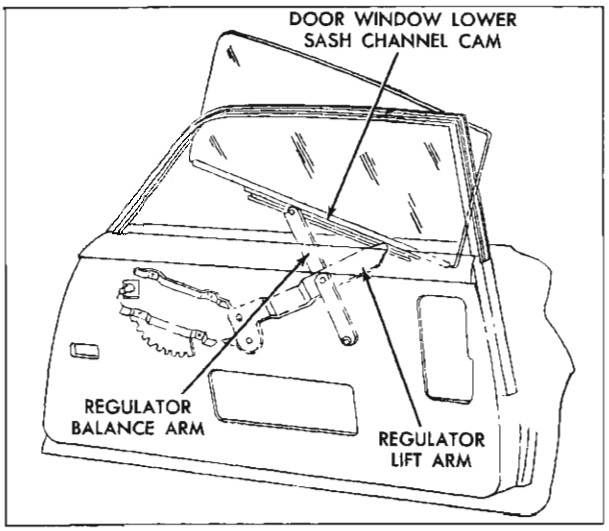


Fig. 12-24 Door Window Removal

FRONT DOOR WINDOW ADJUSTMENTS

67 STYLE

1. To adjust the window in or out or fore or aft at front section, lower door window and loosen ventilator division channel lower adjusting stud and nut. Turn adjusting stud in or out or position lower end of channel fore or aft as required and tighten stud nut.

2. To adjust the window in or out at rear section, loosen rear run channel lower attaching nut, adjust as required, and tighten nut (Fig. 12-25).

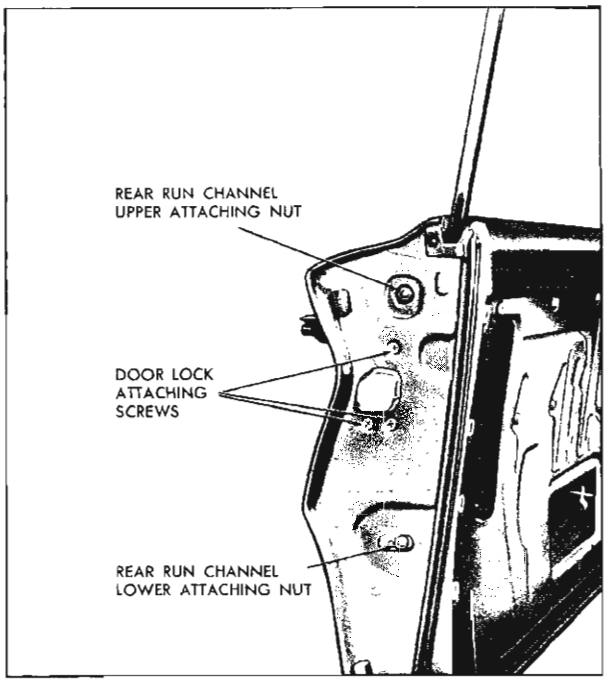


Fig. 12-25 Run Channel and Lock Attachments

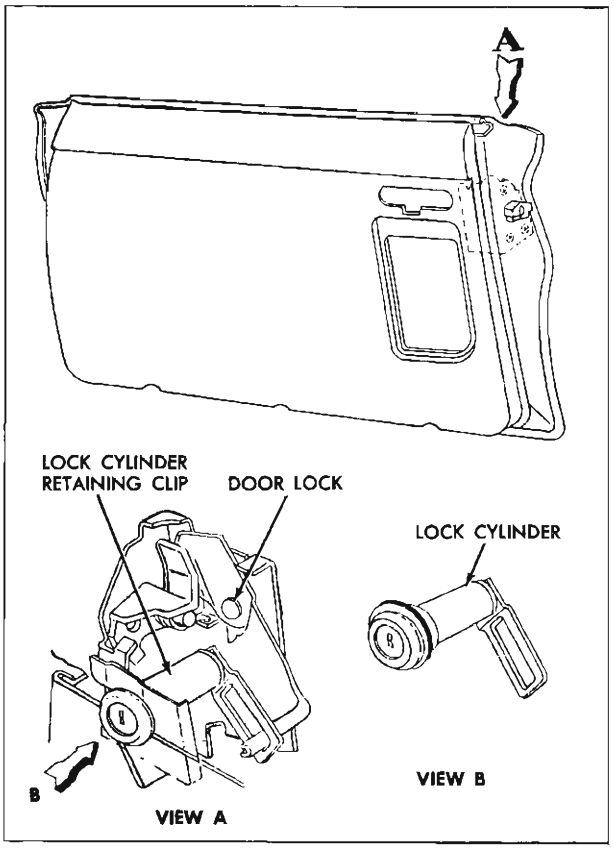


Fig. 12-26 Front Door Lock Cylinder Removal

3. Up or down adjustment is available at the front up-travel stops.

4. A condition of a rotated (cocked) door window can be corrected by adjusting the inner panel cam and up stops.

FRONT DOOR WINDOW REGULATOR ASSEMBLY

17, 19, 27 and 35 STYLES

REMOVAL AND INSTALLATION

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

2. On "17" and "27" styles, remove inner panel cam.

3. Raise door window. Place a protective piece of paper over the window frame assembly and door weatherstrip to protect paint and weatherstrip from damage; then secure window in full up position by installing a twelve to fifteen inch piece of body tape (2" or 2½" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to postively hold glass in the up position during removal of the window regulator.

4. Remove remote control assembly and ventilator division channel lower adjusting stud and nut.

5. Remove window regulator attaching screws and work window regulator rearward to disengage arm from window lower sash channel cam and remove regulator from door (Fig. 12-20).

6. To install, reverse removal procedure. Cycle window several times to insure proper operation before installing water deflector.

FRONT DOOR WINDOW REGULATOR ASSEMBLY

67 STYLE

REMOVAL AND INSTALLATION

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

2. Remove inner panel cam.

3. Remove remote control assembly.

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

5. Prop window in full up position and remove all regulator attaching bolts.

6. Slide window forward to disengage regulator lift arm from window lower sash channel cam and then rearward to disengage regulator balance arm from window lower sash channel cam and remove assembly through large access hole.

7. To install, reverse removal procedure.

FRONT DOOR LOCK ASSEMBLY

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

REMOVAL AND INSTALLATION

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

2. With a screwdriver, or other suitable tool, disengage remote control connecting rod from door lock assembly.

3. Remove door lock attaching screws and remove lock assembly through inner panel access hole (see Fig. 12-25).

4. To install, reverse removal procedure. Check all operations of lock assembly before installing inner panel water deflector.

FRONT DOOR LOCK CYLINDER ASSEMBLY

REMOVAL AND INSTALLATION

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

2. With a suitable tool, through inner panel access hole slide lock cylinder retaining clip forward sufficiently to allow removal of cylinder, then remove cylinder and gasket (Fig. 12-26).

3. To install, reverse removal procedure. Using key, check operation of lock cylinder assembly.

DISASSEMBLY AND ASSEMBLY

1. Remove cylinder assembly from door as previously described.

2. With a suitable tool, remove retainer and pawl (Fig. 12-27).

3. To assemble, reverse disassembly procedure.

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

FRONT DOOR WINDOW GLASS RUN CHANNEL
67 STYLE

REMOVAL AND INSTALLATION

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

2. Remove door ventilator casting and door ventilator assembly.

3. Remove inner panel cam and door window assembly.

4. Remove bolts securing run channel to lock pillar panel and remove run channel from door (Fig. 12-28).

5. To install, reverse removal procedure.

FRONT DOOR WINDOW GLASS RUN CHANNELS
17, 19, 27 and 35 STYLES

REMOVAL AND INSTALLATION

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

2. Remove front door window.

3. Press (finger pressure) sides of run channel together and remove assembly from door upper frame (see Fig. 12-29).

4. To install, reverse removal procedure.

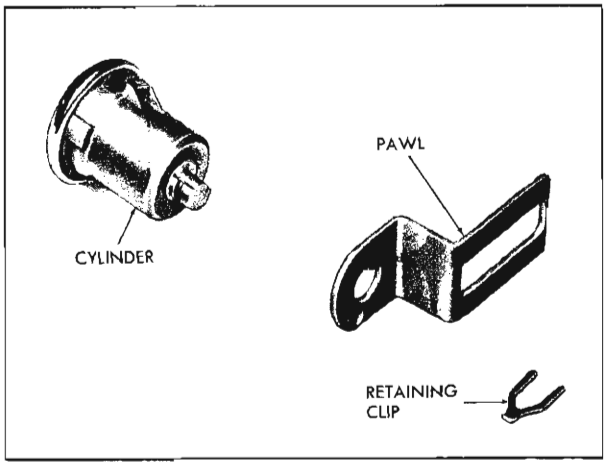


Fig. 12-27 Door Lock Cylinder Assembly

REAR DOORS

REAR DOOR ASSEMBLY AND HINGES

The rear door assembly is attached to the body center pillar with butt-type hinges. The upper hinge on all styles is secured with screws to an anchor plate at the door hinge pillar and bolts to an upper hinge support at the center pillar. The lower hinge on all styles incorporates an integral type door check and hold open and is secured with screws to an anchor plate at both the door hinge pillar and center pillar. The rear door assembly may be removed with or without the hinges attached.

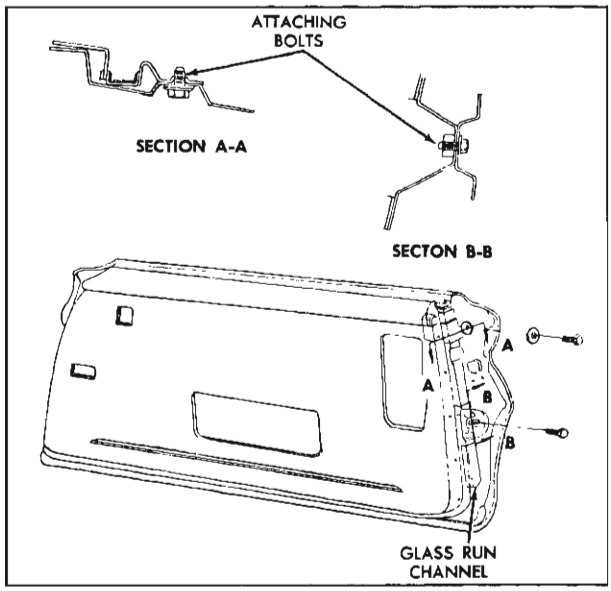


Fig. 12-28 Glass Run Channel—67 Style

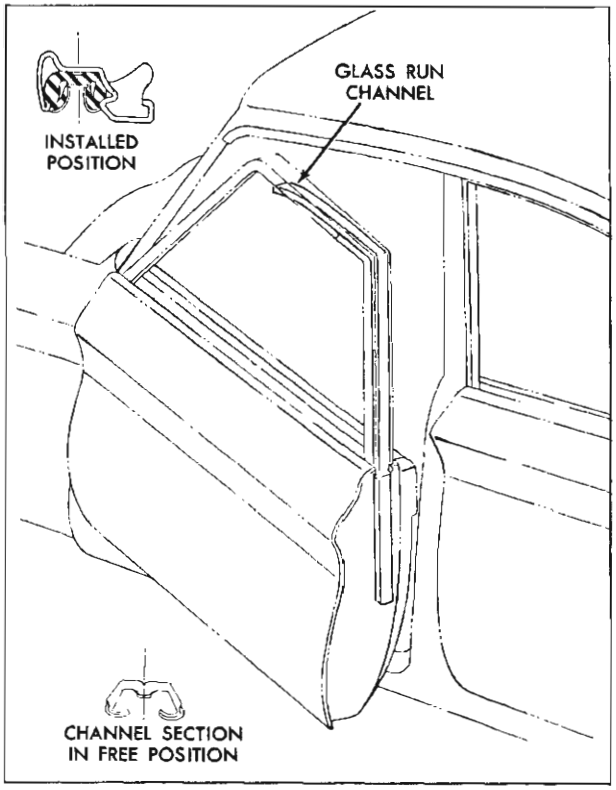


Fig. 12-29 Glass Run Channel—Sedans

REMOVAL

1. Clean off excess sealer from around each hinge strap and mark hinge location on door hinge pillar or center pillar, depending on method of removal being used.

2. With door properly supported, remove upper and lower hinge attaching screws at door hinge pillar or screws and bolts at center pillar, depending on method of removal being used (Fig. 12-30).

3. With aid of a helper, remove door from body opening.

INSTALLATION

1. With scraper and mineral spirts, carefully clean off old sealing compound at hinge areas.

2. Apply a coat of heavy-bodied sealer to attaching surfaces of hinge straps or corresponding surfaces of door or body. Figure 12-30 shows location of rear door hinges and necessary sealer application.

3. With helper, lift door into position, attach hinge loosely, then align straps within marks on pillar and tighthen screws or screws and bolts. Check door for alignment.

ADJUSTMENTS

The in and out adjustments on the rear door are provided at the door hinge pillar while the up and down or fore and aft adjustments are provided at center pillar. When checking the door for alignment, remove the door lock striker from body pillar to allow door to hang free on its hinges.

1. For in and out adjustment, loosen hinge to door pillar attaching screws. Adjust door as required and tighten screws.

2. To adjust door up or down or fore or aft, loosen hinge to center pillar attaching bolts and screws. Adjust door up or down or fore or aft as required and tighten attaching bolts and screws.

NOTE: When performing fore or aft adjustments, adjust one (1) hinge at a time so that the up and down adjustment of door is maintained. After completing any fore or aft adjustments. the rear door upper hinge may have to be adjusted in or out due to the design of the center pillar hinge support.

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

3. Reinstall door lock striker and check lock extension to striker engagement as described under "Door Lock Striker—Adjustments."

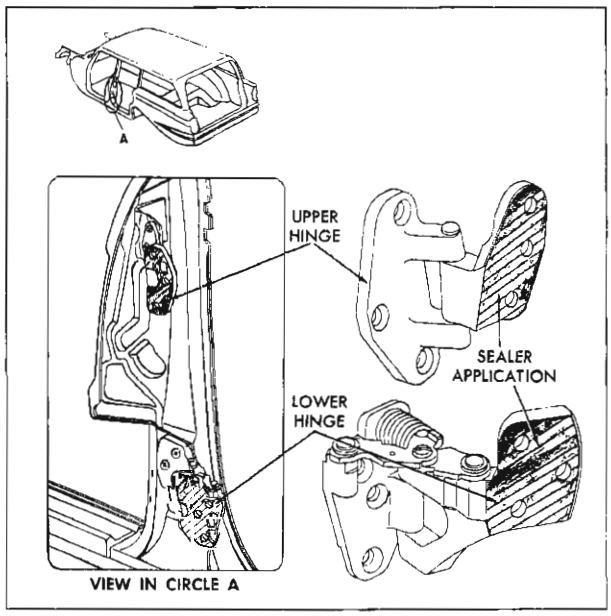


Fig. 12-30 Rear Door Hinge Assemblies

REAR DOOR GLASS RUN CHANNEL REAR RETAINER ASSEMBLY

19 and 35 STYLES

REMOVAL AND INSTALLATION

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

2. Remove rear door window glass run channel rear retainer assembly lower attaching bolt from lock pillar facing of door (Fig. 12-31).

3. Inside of door, disengage end of window glass run channel from retainer. Then lower retainer to disengage upper end from rear door window frame and remove retainer from door.

4. To install, reverse removal procedure. Check operation of window assembly and, if required, adjust rear retainer as outlined under "Rear Door Window—Adjustments."

REAR DOOR LOCK ASSEMBLY

19 and 35 STYLES

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

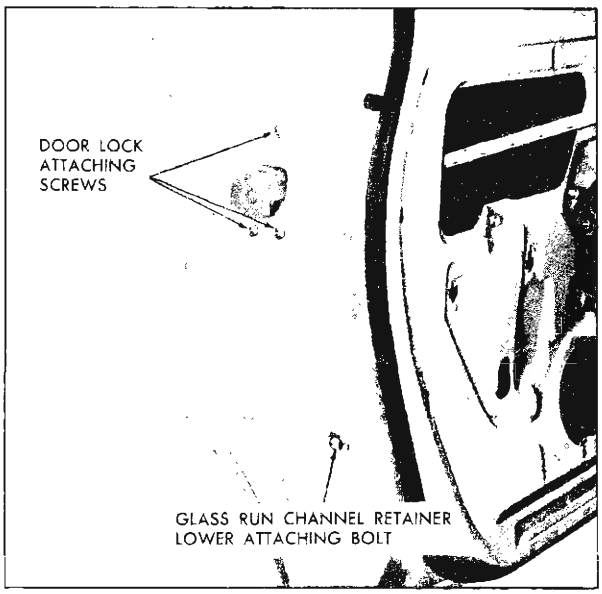


Fig. 12-31 Door Lock Attachment

REMOVAL AND INSTALLATION

1. Raise rear door window. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to door lock.

2. Remove rear door window glass run channel retainer assembly.

3. With a screwdriver, or other suitable tool, disengage spring clips and detach inside lock connecting rod and remove control connecting rod from door lock; see "Door Lock Spring Clips."

4. At lock pillar facing, remove door lock attaching screws and remove lock assembly through access hole (Fig. 12-31).

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

REAR DOOR REMOTE CONTROL ASSEMBLY AND CONNECTING ROD

19 and 35 STYLES

REMOVAL AND INSTALLATION

1. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to remote control attaching screws (Fig. 12-32).

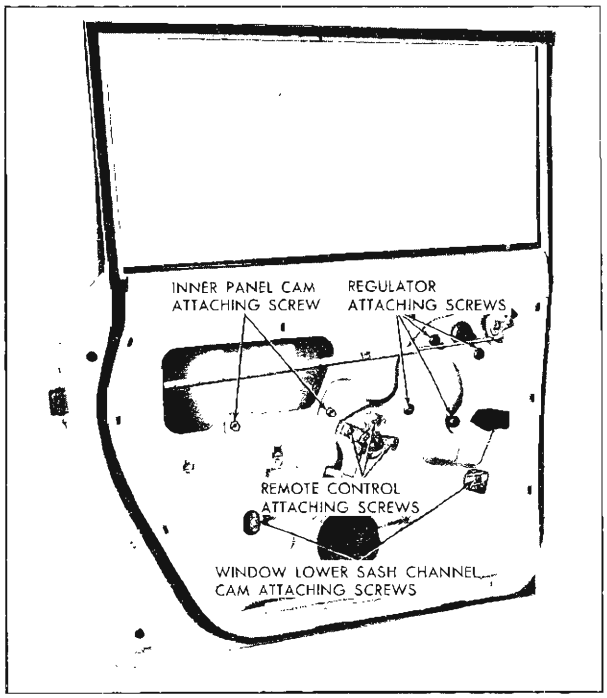


Fig. 12-32 Rear Door Assembly

2. Remove screws securing remote control assembly to door inner panel and detach remote control from remote control-to-lock connecting rod.

3. Through access hole, disengage rod from lock, see "Door Lock Spring Clips."

4. 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 lock for proper operation before installing inner panel water deflector.

REAR DOOR INSIDE LOCKING TO LOCK ROD ASSEMBLY

19 and 35 STYLES

REMOVAL AND INSTALLATION

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

2. Remove locking rod knob from rod.

3. Remove inside locking rod assembly attaching screw and washer and detach connecting rod from clip on inner panel (Fig. 12-32).

4. Through access hole, disengage spring clip securing inside lock connecting rod from door lock and disengage rod from lock, then remove inside locking rod assembly from door.

5. To install, reverse removal procedure. Check operation of inside locking rod assembly before installing door inner panel water deflector.

REAR DOOR INNER PANEL CAM

19 and 35 STYLES

REMOVAL AND INSTALLATION

1. Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to expose inner panel cam attaching screws (Fig. 12-32).

2. Remove cam attaching screws; then disengage cam from window regulator arm roller and remove from door.

3. To install, reverse removal procedure. Prior to installation of inner panel cam, lubricate entire length of cam with 630AAW Lubriplate or equivalent.

REAR DOOR WINDOW LOWER SASH CHANNEL CAM

19 and 35 STYLES

REMOVAL AND INSTALLATION

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

2. Lower door window sufficiently to gain access to sash channel cam attaching screws through access holes in door inner panel and remove screws (Fig. 12-32).

3. While supporting window by hand, carefully disengage cam from window lower sash channel and rollers on window regulator arms and remove from door. Then carefully lower window.

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

REAR DOOR WINDOW REGULATOR ASSEMBLY

19-35 STYLES

REMOVAL AND INSTALLATION

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

2. Remove door window lower sash channel cam.

3. Carefully raise door window. Place a protective piece of paper over window frame assembly and door weatherstrip to protect paint and weatherstrip from damage and secure window in the full-up position by installing a twelve (12) to fifteen (15) inch piece of body tape (2" or 2½" in width) over window frame and firmly pressing tape to both sides of glass. This is necessary to positively hold glass in the up position during removal of the window regulator.

4. Remove window regulator attaching screws. Carefully move regulator assembly rearward to disengage regulator arm roller from inner panel cam; then remove regulator from door (Fig. 12-32).

5. To install, reverse removal procedure. Lubricate cams with 630AAW Lubriplate or equivalent and check window operation prior to installing water deflector.

REAR DOOR WINDOW ASSEMBLY

19 and 35 STYLES

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

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

REMOVAL AND INSTALLATION

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

2. Remove rear door window glass run channel rear retainer assembly.

3. Carefully lower door window and through access holes in door inner panel remove screws securing window lower sash channel cam to window lower sash channel (Fig. 12-32).

NOTE: Exercise care when lowering window since rear guide is not present.

4. While supporting window by hand, carefully disengage lower sash channel and window regulator arm rollers and remove cam from door. Disengage spring clips and detach inside lock connecting rod and remote control connecting rod from door lock.

5. Completely lower door window. tilt front edge of glass upward and carefully lift window upward and outboard to clear window frame and remove from door.

NOTE: On station wagon styles, tilt rear edge of glass upward and lift window upward and outboard to remove from door.

6. To install, reverse removal procedure. Prior to installation of water deflector, lubricate lower sash channel cam and inner panel cam with 630AAW Lubriplate or equivalent. Check operation of window and, where required, adjust window assembly as described under "Adjustments" below.

ADJUSTMENTS

1. To adjust rear door window in or out, lower door window. Loosen rear glass run channel retainer assembly attaching screw and adjust guide assembly as required and tighten screw (Fig. 12-32).

2. To correct a condition where the glass is cocked in the glass run channels, loosen door window inner panel cam front and/or rear attaching screws(s), adjust cam as required and tighten screws (Fig. 12-32).

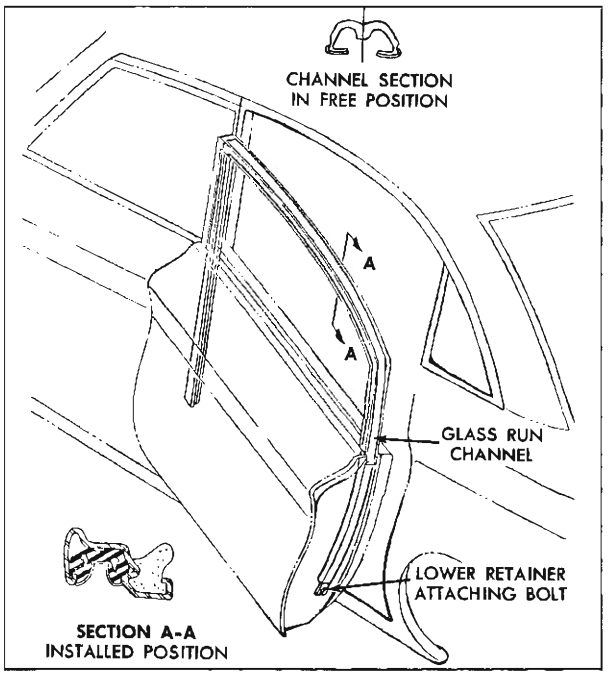


Fig. 12-33 Glass Run Channel Assembly

REAR DOOR WINDOW GLASS RUN CHANNEL

REMOVAL AND INSTALLATION

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

2. Remove rear door window.

3. With finger pressure, squeeze run channel together at rear end and gently pull run channel out of rear door upper frame (see Fig. 12-33).

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 operations.*

SIDE ROOF RAIL WEATHERSTRIP ADJUSTMENTS

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

NOTE: Before attempting to adjust the side roof rail weatherstrip, first check that the ventilator and front and rear quarter windows are properly aligned and, where necessary, adjust for proper alignment as directed under ADJUSTMENT OF THE VENTILATOR AND FRONT DOOR WINDOW OR QUARTER WINDOW.

1. To adjust side roof rail weatherstrip "in or out" first determine and mark retainer at area or areas to be adjusted.

2. Remove side roof rail weatherstrip.

3. Loosen retainer attaching screws slightly in area to be adjusted and adjust retainer in or out as required.

4. Tighten retainer attaching screws and install side roof rail weatherstrip.

REAR QUARTER

CONTENTS OF THIS SECTION

TRIM AND HARDWARE

The rear quarter section is divided according to body styles as follows:

"17"-"27"—Style Bodies

"67" —Style Bodies

"19" —Style Bodies

"35" —Station Wagon Style Bodies

The service procedures for each style are arranged in the sequence that they normally would be performed; such as, removal, installation, adjustment and sealing. Figs. 13-1 and 13-2 identify and show the relationship of major components of the rear quarter hardware of "17" - "27" and "67" style bodies, which are the only styles incorporating a "dropping" rear quarter window.

TRIM ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and back assemblies. Remove window regulator handle.

2. Remove (2) most rearward screws from rear section of door sill plate. Disengage pinchweld finishing strip from beneath door sill plate and pinchweld flange to a point above belt line (Fig. 13-3).

3. Using trim pad removing tool J-6335 disengage trim pad retaining nails from inner panel along upper edge of trim assembly.

NOTE: Protect paint on adjacent surfaces.

4. Pivot trim assembly forward using forward edge, which overlaps pinchweld flange and is cemented to pinchweld outboard face, as a hinge.

5. By carefully pressing outboard, break cement bond between trim assembly forward edge and pinchweld flange. Remove trim assembly and body.

6. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, recement overlapping forward edge of trim assembly to pinchweld flange outboard surface.

REAR QUARTER—17 and 27 STYLES

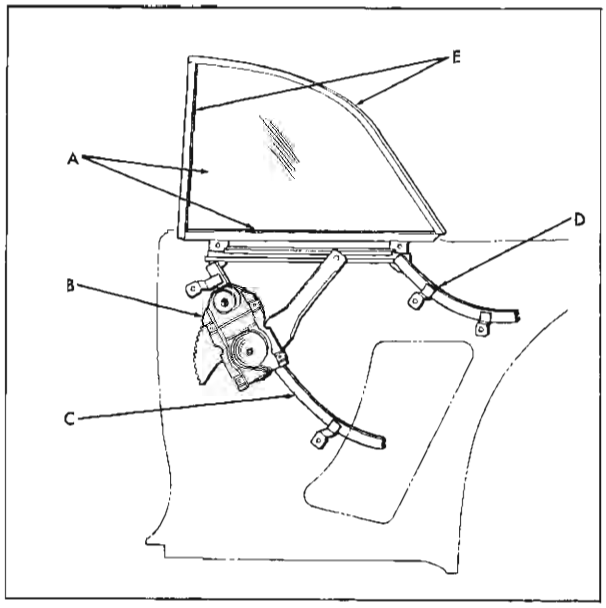
REAR QUARTER WINDOW

17 and 27 STYLES

REMOVAL AND INSTALLATION

1. Remove rear quarter trim assembly and inner panel access hole cover. Remove rear quarter window inner sealing strip.

2. With window in "up" position remove rear quarter window rear guide attaching screws (Fig.13-3) and remove rear guide.



A. Rear Quarter Window Assembly (Includes Lower Sash Channel Cam)
B. Rear Quarter Window Regulator
C. Rear Quarter Window Front Guide
D. Rear Quarter Window Rear Guide
E. Rear Quarter Window Glass Run Channel

Fig. 13-1 Rear Quarter Sealing "17" and "27" Styles

3. Lower rear quarter window sufficiently to tilt window rearward to disengage roller on window regulator lift arm from lower sash channel cam.

4. Lift rear quarter window upward and inboard to disengage roller on window lower sash channel from front guide. Remove rear quarter window from body.

5. To install, reverse removal procedure. Prior to installation, lubricate channel of lower sash channel cam with "Lubriplate" or its equivalent.

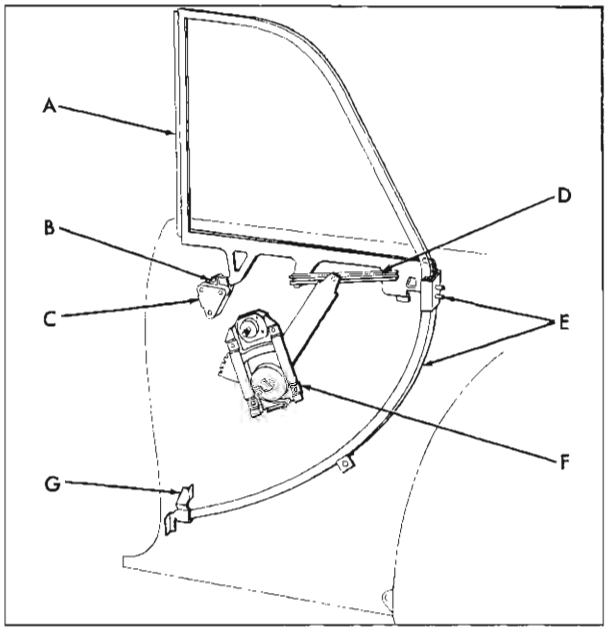
Adjust rear quarter window for proper alignment as described under "Rear Quarter Window Adjustments" for "17" and "27" styles.

Seal large access hole and hardware attaching locations as specified under "Rear Quarter Inner Panel Sealing" for "17" and "27" styles.

REAR QUARTER WINDOW ADJUSTMENTS

17 and 27 STYLES

Both the rear quarter window front and rear guides are adjustable to provide proper seating of the window in the glass run channel and to provide proper operation of the window. When performing adjustments, make certain window and guides are as far forward and upward as possible to prevent front edge of window from coming out of run channel during "down" cycle.



A. Rear Quarter Window Assembly
B. Rear Quarter Window Hinge Bolt
C. Rear Quarter Window Hinge Adjusting Plate
D. Rear Quarter Window Lower Sash Channel Cam
E. Rear Quarter Window Guide (Includes Window Upper Stop)
F. Rear Quarter Window Regulator
G. Rear Quarter Window Lower Stop

Fig. 13-2 Rear Quarter Hardware "67" Style

To adjust rear quarter window, remove rear quarter trim assembly. Loosen both front and rear guide attaching screws (Fig. 13-3). Operate window to full "up" position, making sure window is all the way forward and up into the run channels. Install wrench on front guide upper attaching screw and tighten screw while forcing screw and guide as far forward as possible. Repeat procedure on lower attaching screw. Install wrench to forward attaching screw of rear guide and tighten screw while forcing screw and guide as far upward as possible. Lower window to full "down" position and tighten rear attaching screw.

NOTE: After performing window adjustments, seal all hardware attaching screw locations which have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "17" and "27" styles.

REAR QUARTER WINDOW REGULATOR

REMOVAL AND INSTALLATION

1. Remove rear quarter window assembly.

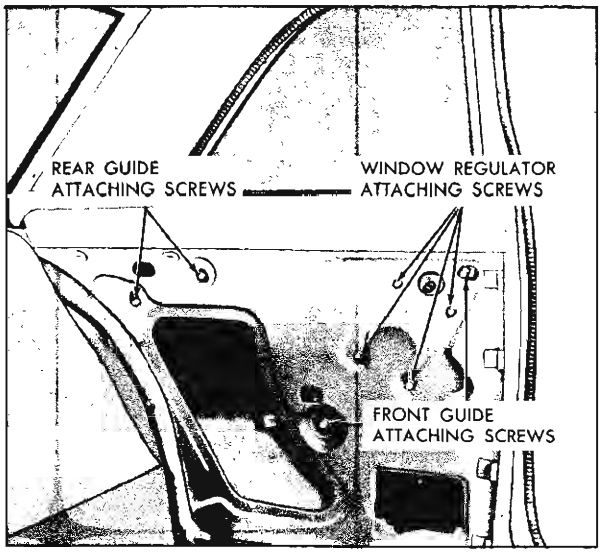


Fig. 13-3 Rear Quarter Hardware Attachment "17" and "27" Styles

2. Loosen rear quarter window front guide upper attaching bolt. Remove window regulator attaching bolts (Fig. 13-3) and remove regulator through access hole.

3. To install, reverse removal procedure.

Seal all hardware attaching locations, which have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "17" and "27" styles.

REAR QUARTER WINDOW FRONT GUIDE

17 and 27 STYLES

REMOVAL AND INSTALLATION

1. Raise window to full "up" position. Remove rear quarter trim assembly and inner panel access hole cover.

2. Remove rear quarter window front guide attaching bolts (Fig. 13-3). Disengage guide from roller on window lower sash channel and remove guide through access hole.

3. To install, reverse removal procedure. Prior to installation, lubricate channel portion of guide with "Lubriplate" or its equivalent.

Seal all hardware attaching locations, which have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "17" and "27" styles.

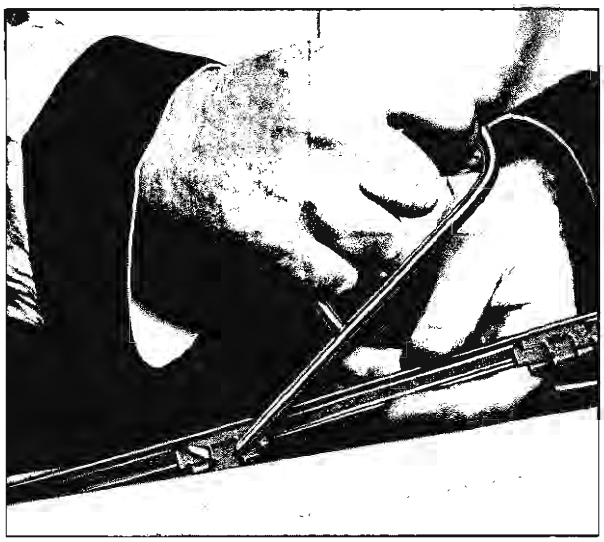


Fig. 13-4 Sealing Strip Removal

REAR QUARTER WINDOW REAR GUIDE

17 and 27 STYLES

REMOVAL AND INSTALLATION

1. Raise window to full "up" position. Remove rear quarter trim assembly and inner panel access hole cover.

2. Remove rear quarter window rear guide attaching bolts (Fig. 13-3). Disengage guide from roller on window lower sash channel and remove guide through access hole.

3. To install, reverse removal procedure. Prior to installation, lubricate channel portion of guide with "Lubriplate" or its equivalent.

Seal all hardware attaching locations, which have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "17" and "27" styles.

REAR QUARTER WINDOW GLASS RUN CHANNEL

17 and 27 STYLES

REMOVAL AND INSTALLATION

1. Lower rear quarter window. Remove rear quarter window front and upper garnish moldings.

2. Carefully pry glass run channel to disengage plastic snap-in-type fasteners from upper body lock pillar and inner side roof rail. Remove channel from window opening.

3. To install, reverse removal procedure. Prior to installation, apply a continuous bead of body caulking compound to rabbet of body lock pillar upper and side roof rail flanges to effect a weathertight seal.

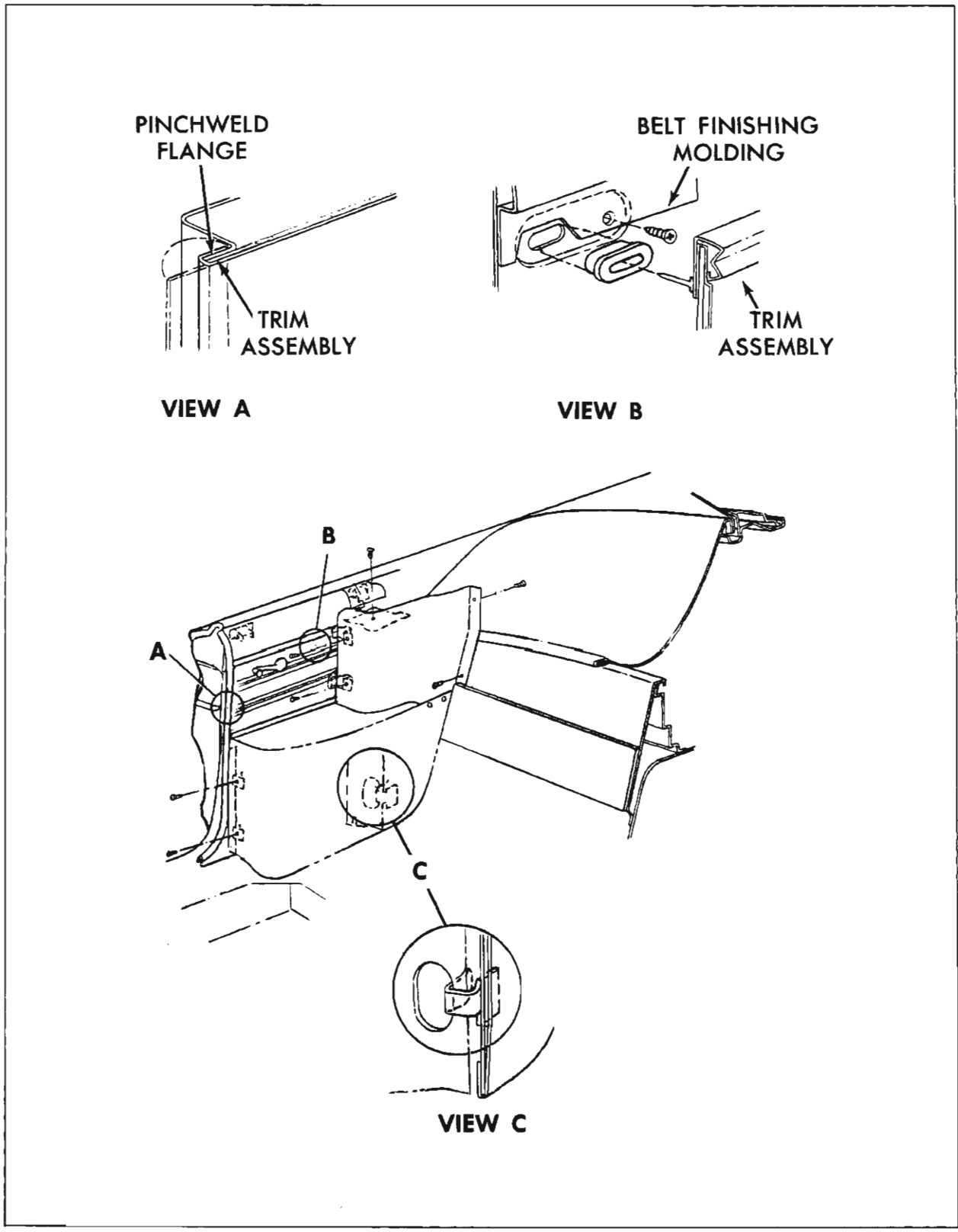


Fig. 13-5 Rear Quarter Trim Assembly

REAR QUARTER WINDOW INNER AND OUTER SEALING STRIPS

The rear quarter window sealing strips are secured by integral clips inserted in slots in the rear quarter inner and outer panel return flanges.

To remove either the inner or outer strip, insert a thin hooked tool (Reveal Molding Tool J-7898-01) between the rear quarter panel return flange and the sealing strip (Fig. 13-4). Engage point of tool with clip and lift upward to disengage clip from slot. Repeat procedure at each clip location and remove strip assembly.

To install, reverse removal procedure.

NOTE: Use care not to damage painted surfaces or rear quarter window glass. Prior to removal place protective covering over adjacent painted surfaces.

TRIM AND HARDWARE—67 STYLE

REAR QUARTER TRIM ASSEMBLY

67 STYLE

REMOVAL AND INSTALLATION

1. Remove rear seat cushion and back assemblies. Remove window regulator handle.

2. Remove screws securing folding top compartment side trim panel assembly (Fig. 13-5). Disengage side trim panel assembly retainer from folding top compartment brace ("C", Fig. 13-5). Disconnect electrical leads, where present, and remove side trim panel assembly.

3. Disengage pinchweld finishing strip from pinchweld flange immediately adjacent to trim assembly upper section. Using trim pad removing tool J-6335, disengage trim assembly retaining nails from inner panel along upper edge of trim assembly (View "B", Fig. 13-5).

4. Disengage forward edge of trim foundation from retainers on inner panel (View "A", Fig. 13-5). Pivot rear edge of trim assembly forward, using forward edge, which overlaps pinchweld and is cemented to pinchweld flange outboard surface, as a hinge (View "A", Fig. 13-5).

5. Carefully break cement bond between trim assembly forward edge and pinchweld flange by gently pressing trim assembly forward edge, outward. Remove trim assembly upper section from body.

6. To install, reverse removal procedure. Prior to installation of pinchweld finishing strip, recement overlapping forward edge of trim assembly to pinchweld flange outboard surface.

REAR QUARTER WINDOW ASSEMBLY

67 STYLE

REMOVAL AND INSTALLATION

1. Lower folding top and operate rear quarter window to half-down position. Remove rear seat cushion and back assemblies. Remove folding top compartment side trim panel and rear quarter trim assemblies.

2. Remove window pivot bolt (Fig. 13-6).

Disengage window male hinge from female hinge plate, then raise window to disengage lower sash channel cam from roller on window regulator lift arm and remove window.

3. To install, reverse removal procedure. Prior to installation, lubricate pivot hinge and lower sash channel cam, with "Lubriplate" or its equivalent.

REAR QUARTER WINDOW ADJUSTMENTS

67 STYLE

To adjust the forward travel and up travel of the rear quarter window, loosen the window guide upper attaching stud nuts (Fig. 13-6). Adjust upper stop to

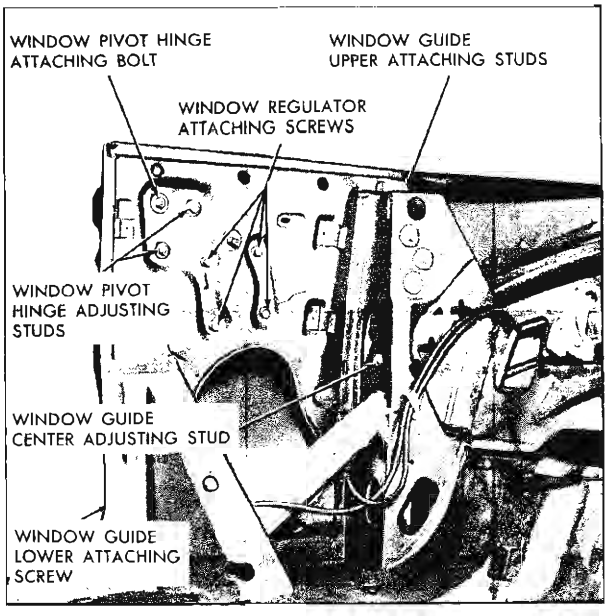


Fig. 13-6 Rear Quarter Hardware "67" Style

desired position and tighten guide attaching screws.

To adjust the rear quarter window "up or down", "fore or aft", or the top or the rear of the window "in or out", the rear quarter trim assemblies must be removed to gain access to the pivot bolt and adjusting studs.

a. "Up or down" or "fore or aft" adjustment: Loosen pivot bolt and both adjusting stud nuts (Fig. 13-6). Position window, as required, and tighten pivot bolt and stud nuts.

b. Top of window "in or out" adjustment: Loosen lower adjusting stud nut and slightly loosen rear stud nut (Fig. 13-6). Adjust lower stud "in or out", as required, then tighten both stud nuts.

c. Rear of window "in or out" adjustment: Loosen pivot hinge rear adjusting stud nut and slightly loosen lower adjusting stud nut (Fig. 13-6). Loosen window guide upper and center attaching screws as required, then tighten both stud nuts. Adjust window guide for proper alignment with window and tighten guide upper and center attaching screws.

NOTE: After performing window adjustments, seal all hardware attaching locations that have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "67" style.

REAR QUARTER WINDOW REGULATOR

67 STYLE

REMOVAL AND INSTALLATION

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

2. Remove rear quarter inner panel access hole cover. Operate window to "full up" and prop in that position.

3. Remove window regulator attaching screws (Fig. 13-6). Disengage roller on regulator lift arm from window lower sash channel cam and remove regulator through access hole.

4. To install, reverse removal procedure.

Lubricate regulator sector, window cam, and pivot hinge as specified in "Lubrication" section.
se–af–adeutwindow,

Seal all hardware attaching locations that have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "67" style.

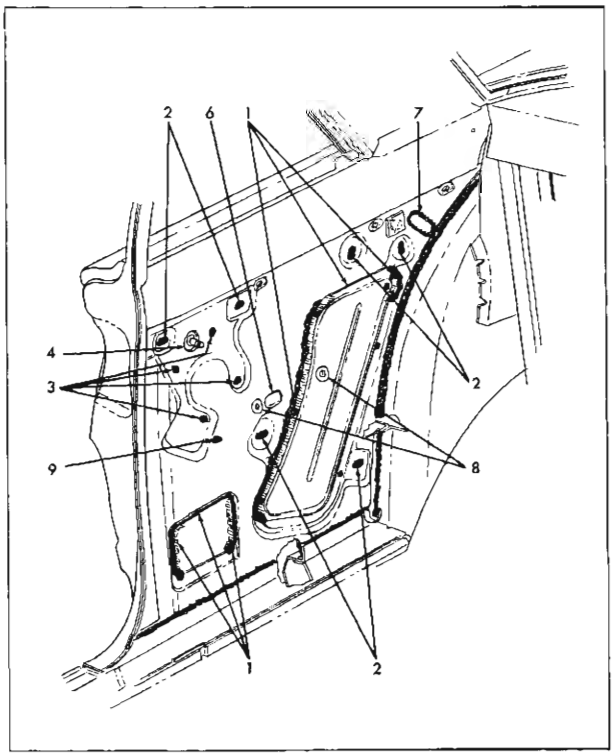


Fig. 13-7 Rear Quarter Hardware "17" and "27" Styles

REAR QUARTER WINDOW GUIDE

REMOVAL AND INSTALLATION

1. Remove rear quarter window assembly. Remove window outer sealing strip and access hole cover.

2. Remove window guide upper, center, and lower attaching stud nuts and screws (Fig. 13-6).

3. Remove window guide from body by working it out from between the panels at the belt line. To clear guide center support at belt, rotate guide so that lower end protrudes through access hole.

4. To install, reverse removal procedure. Adjust window guide for proper window alignment as specified in "Rear Quarter Window Adjustments" for "67" styles.

Seal all hardware attaching locations that have been disturbed, as specified under "Rear Quarter Inner Panel Sealing" for "67" styles.

REAR QUARTER WINDOW OUTER SEALING STRIP

REMOVAL AND INSTALLATION

1. Remove rear quarter window assembly.

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

3. To install, reverse removal procedure.

REAR QUARTER INNER PANEL SEALING

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 leakage and possible trim damage.

NOTE: When body caulking compound is used, work compound firmly to metal surfaces and featheredge out to obtain good adhesion. (For "17" and "27" styles—Fig. 13-7; for "67" style—Fig. 14-8).

The number references in Figs. 13-7 and 13-8 forrespond to the following item numbers:

1. Large and Small Access Hole Covers:
Prior to installation of access hole cover apply a bead of body caulking compound (approximately ⅛" diameter) across top and down sides of quarter inner panel along flange contacted by cover. After installation of cover, apply another bead of body caulking compound down the sides sealing cover to inner panel. Make certain to seal cover attaching screw locations and where cover flange transition to inside of quarter panel occurs.

2. Window Guide Attaching Screws:
Apply body caulking compound over window guide attaching screws and holes. Firmly press compound to assure a good bond and watertight seal.

3. Window Regulator Attaching Screws:
Apply neoprene type weatherstrip adhesive (yellow) over attaching screws.

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

5. Window Hinge Attaching Screws ("67" Style Only): Apply body caulking compound over hinge attaching screws. Press compound firmly to assure a good bond and watertight seal.

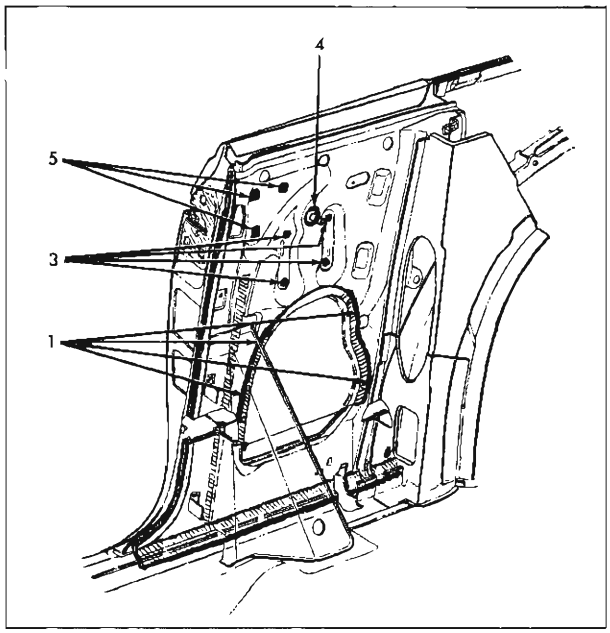


Fig. 13-8 Rear Quarter Sealing "67" Style

6. Sash Channel Cam Attaching Screw Access Hole:
Apply 3" piece of waterproof body tape over hole. Pull or roll out tape to remove wrinkles and assure a good bond.

7. Welding Inspection Hole Sealing Plug:
Apply neoprene weatherstrip adhesive (yellow) around edges of sealing plug to effect a watertight seal.

8. Arm Rest Anchor Nut:
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.

9. Window Regulator Lift Arm Up Travel Stop Attaching Screw:
Apply waterproof body tape over lower half of up travel stop to channel any moisture into drain slot directly below stop.

TRIM AND HARDWARE—19 and 35 STYLES

REAR QUARTER WINDOW

19 and 35 STYLES

REMOVAL AND INSTALLATION

1. On sedan styles remove rear seat cushion and back. On station wagon styles remove back body opening upper finishing panel. On all styles remove rear quarter window garnish moldings and belt finishing moldings.

2. Remove retainers securing glass and rubber channel, then from outside of body carefully push glass and rubber channel from body opening. Remove rubber channel from glass.

3. To install rear quarter window, first clean off all

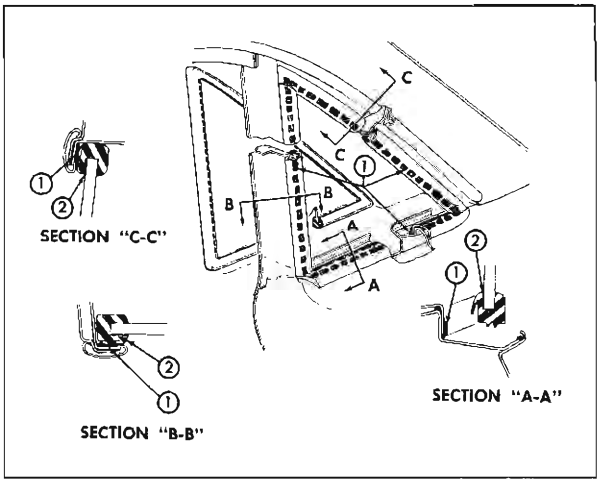


Fig. 13-9 Rear Quarter Window Sealing

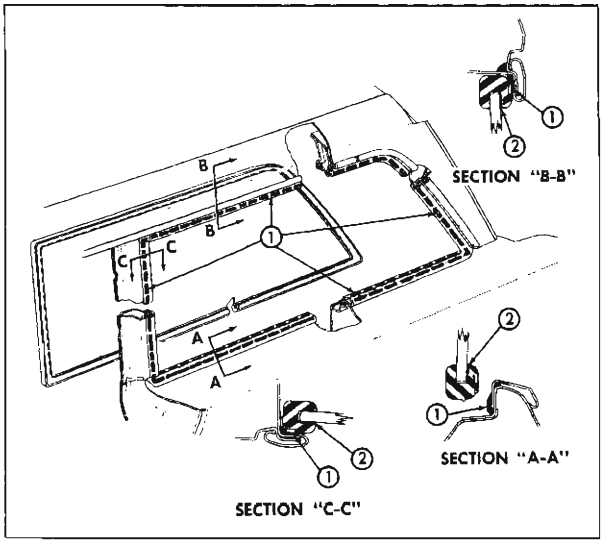


Fig. 13-10 Rear Quarter Window Sealing—Station Wagon

old sealer from rubber channel and window opening rabbet. Install rubber channel to window. Apply a bead of medium-bodied sealer to wall of window opening rabbet, completely around window opening to effect a seal between body and rubber channel ("1" in Fig. 13-9 for "19" style, and Fig. 13-10 for "35" style).

4. Position window assembly into opening and loosely install window retainers. Using a pressure type applicator, apply weatherstrip adhesive (black) between rubber channel and outside surface of glass ("2" in Fig. 13-9 for "19" style and Fig. 13-10 for "35" style).

5. Tighten retainers and clean off excess sealer. Install previously removed parts.

QUARTER TRIM PANELS— FRONT AND REAR

REMOVAL AND INSTALLATION—FRONT

1. Remove rear quarter window front garnish molding and rear trim panel front attaching screw.

2. Remove front trim panel attaching screws and remove panel.

3. To install front trim panel, reverse removal procedure.

REMOVAL AND INSTALLATION—REAR

1. Loosen rear quarter window front garnish molding rear attaching screw and remove rear garnish molding.

2. Remove rear trim panel attaching screws and remove panel.

3. To install rear trim panel, reverse removal procedure.

REAR WHEELHOUSE TRIM

REMOVAL AND INSTALLATION

1. Remove rear quarter front and rear trim assemblies.

2. Remove screw securing rear floor filler panel to rear compartment floor panel and fold filler panel forward.

3. Remove rear compartment floor panel, spare tire cover panel, and floor compartment side panel (See "Folding Seat Back and Rear Compartment Floor Panels" in Seat Section).

4. Carefully detach wheelhouse trim from cemented areas of quarter panel, wheelhouse, and floor pan; then remove trim.

5. To install rear wheelhouse trim, apply trim cement to contacting surfaces of trim and body panels; then install trim to wheelhouse, making sure trim is properly positioned and free of wrinkles. Install previously removed parts.

REAR END

CONTENTS OF THIS SECTION

BACK WINDOW

DESCRIPTION

The back windows are retained in the body opening by conventional rubber channels. The rubber channel is designed with a cavity to hold the glass when the back window is installed and another cavity that overlaps the pinchweld flange of the body opening to retain the back window and rubber channel assembly in the opening. Some rubber channels incorporate a third cavity to retain the back window reveal moldings. On these styles, it is necessary to remove the back window and rubber channel assembly to remove the back window reveal moldings. Other styles use clip retained reveal moldings where it is necssary to remove the reveal moldings before the back window assembly can be removed.

Although the reveal moldings may vary, all back windows are solid tempered safety plate glass and are installed and sealed in basically the same manner.

Following are the procedures for servicing the reveal moldings and back window assembly.

BACK WINDOW REVEAL MOLDINGS

2119 and 2127 STYLES

The back window reveal moldings are equipped with an "L" shaped retaining flange that is secured in a similar shaped cavity in the back window rubber channel. To remove the reveal moldings it is necessary to first remove the back window and rubber channel assembly, then the moldings can be removed as a bench operation.

REVEAL MOLDING RETAINING CLIP

2117 and 2217 STYLES

The reveal molding retaining clip is the most common type of back window reveal molding retention. Whenever it is necessary to remove or install a molding using this type of retention, refer to the following procedure covering the engagement and disengagement of reveal moldings from retaining clips.

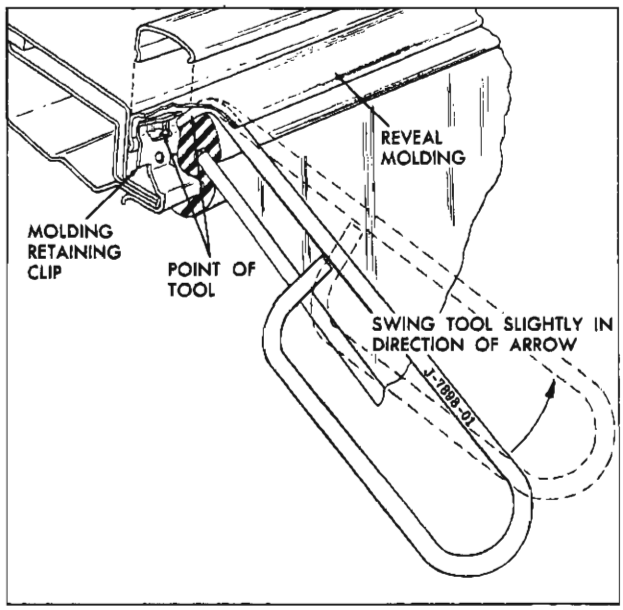


Fig. 14-1 Back Window Reveal Molding Removal Tool

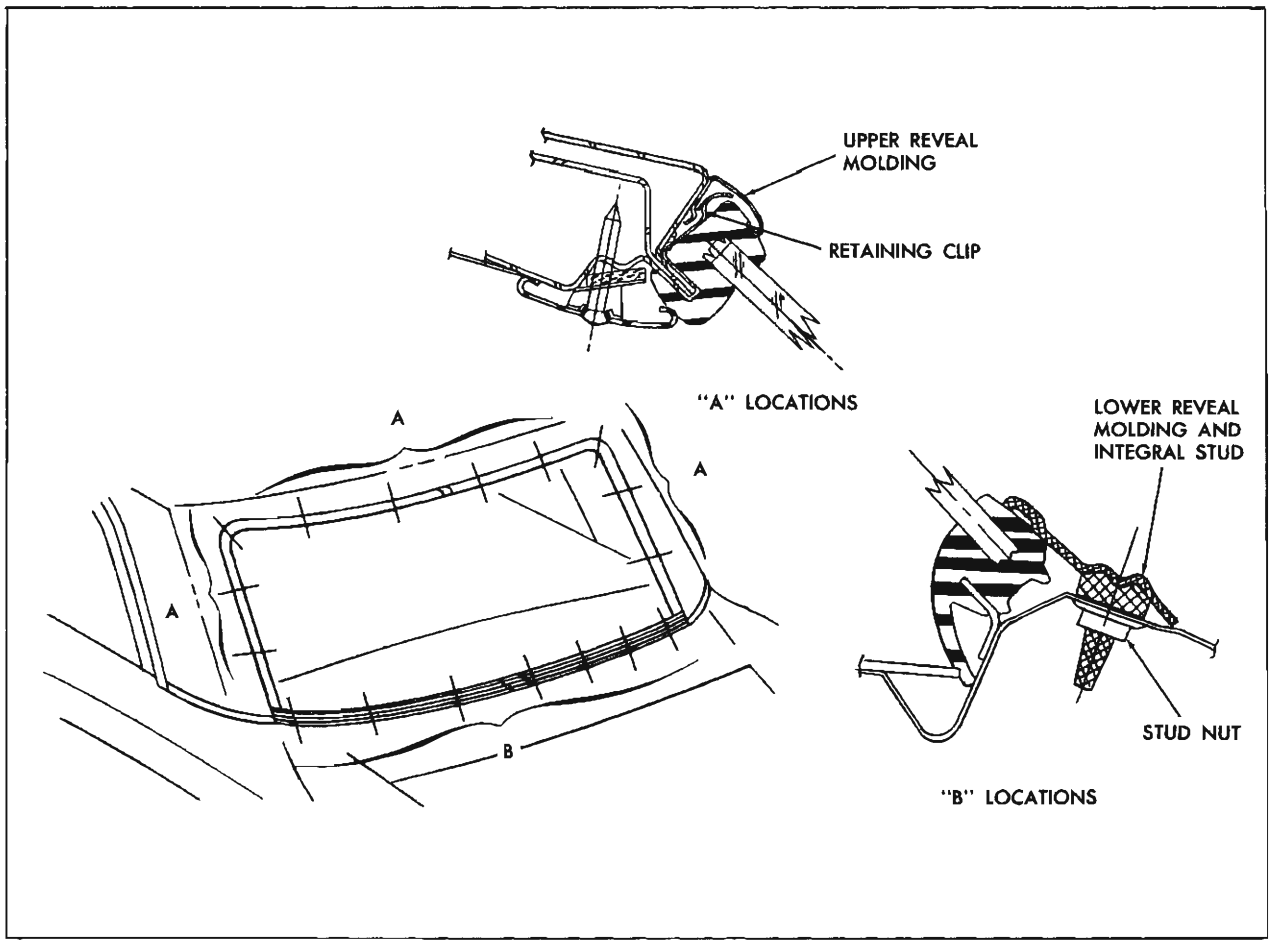


Fig. 14-2 Back Window Reveal Moldings (17 Style)

DISENGAGEMENT AND ENGAGEMENT OF REVEAL MOLDING FROM RETAINING CLIP

Reveal molding retaining clips are snapped over the back window pinchweld or retaining flange and secure the reveal molding by means of barbed prongs.

To disengage the reveal molding from the clip requires the use of reveal molding removal tool J-7898-01. Insert end of tool between back window rubber channel and reveal molding.

Engage point of tool between retaining clip and molding, then swing tool slightly (Fig. 14-1) to disengage prongs of clip from molding and lift molding free of clip.

NOTE: Do not lift excessively on molding. If clip is disengaged, molding will easily lift free of clip. If clip is not disengaged, any excessive pull on molding will cause prongs of clip to "bite" harder on molding; thereby making it more difficult to disengage clip from molding. If difficulty is being encountered in disengaging clip, push molding at clip location to relieve pressure of clip prongs on molding while using tool to disengage clip.

An occasional application of a silicone lubricant on end of tool will facilitate inserting tool between reveal molding and rubber channel and sliding tool to engage with clip.

To install moldings, position molding so that flange of molding is between body metal and clip, then carefully push molding at retaining clip locations until molding is properly secured by retaining clips.

BACK WINDOW LOWER REVEAL MOLDING

2117 and 2217 STYLES

The back window lower reveal molding (Fig. 14-2) is retained by integral studs and sealing nuts.

To remove the molding, remove the sealing nuts from the molding studs under the rear compartment front and shelf panel. These are accessible through the rear compartment, then remove the molding.

To install, first replace any sealing nuts and washers which will not effect a good seal, then reverse removal procedure.

BACK WINDOW UPPER REVEAL MOLDING

2117 and 2217 STYLES

When removing the right upper reveal molding (Fig. 14-2) disengage the molding from the retaining clips along the top. Remove the molding by sliding it upwards from under the lower reveal molding and off the remaining clips along the side of the molding.

Perform the same operation when removing the left molding except, disengage enough of the right upper reveal molding to allow removal of the left side molding.

To install, insert lower end of molding behind lower reveal molding. Then engage molding with retaining clips.

BACK WINDOW ASSEMBLY

REMOVAL

1. Place protective coverings over rear seat cushion and back assemblies, over parcel shelf trim, and over painted surfaces. On styles equipped with fabric roof cover place protective covering over roof cover adjacent to back window.

2. Remove back window garnish moldings and, where present, clip and stud retained back window reveal moldings.

3. From inside of body use a hooked or other suitable tool to carefully break seal between lip of rubber channel and pinchweld flange completely around perimeter of glass.

4. Carefully push back window and rubber channel assembly outward until lip of rubber channel is disengaged from pinchweld and retaining flange.

5. With the aid of a helper, lift complete assembly from body opening and place on a protected surface. On styles with reveal moldings secured in the rubber channel, remove moldings.

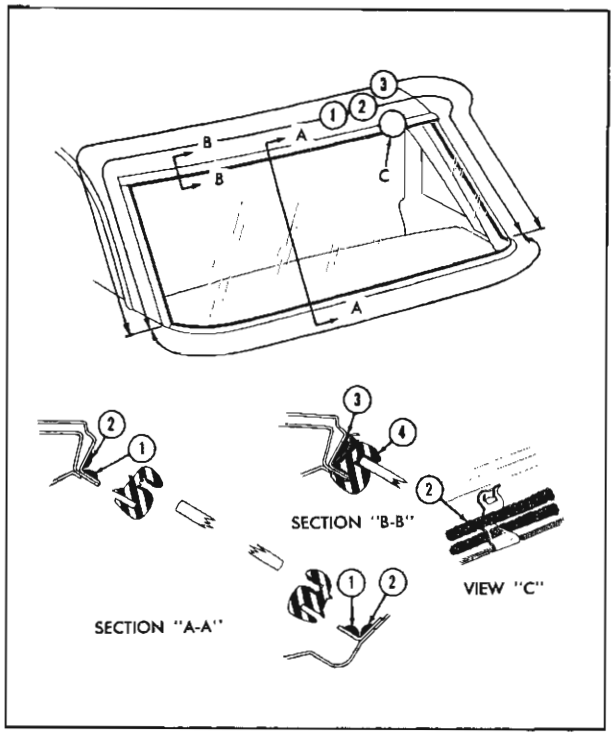


Fig. 14-3 Back Window Sealing

INSTALLATION

NOTE: Use care to make certain glass does not strike body metal during installation as edge chips can cause solid tempered safety plate glass to shatter. Do not attempt to grind glass.

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

2. Check back window body opening and pinchweld flange for any irregularities and correct where necessary. Mark center of back window and body opening.

3. On styles using clip retained reveal moldings, check retaining clips and replace damaged or defective clips. Prior to installing clips, apply a continuous ribbon of medium-bodied sealer (approximately 1/4 inch thick) along the pinchweld and retaining flange (1 in Fig. 14-3) completely around the opening.

4. Apply a second continuous ribbon of medium-bodied sealer (approximately 1/4 inch thick) along outer wall of back window opening (2 in Fig. 14-3) completely around opening.

5. Install rubber channel to glass and insert a strong cord into pinchweld cavity of rubber channel. Tie ends of cord together at bottom center and tape ends

to inside surface of glass. On styles where the reveal moldings are retained in the rubber channel, install moldings and, where necessary, tie moldings to glass and rubber channel assembly. Make certain moldings are positioned properly as it is difficult to reposition them after installation of back window.

6. With the aid of a helper, position back window and rubber channel assembly into body opening. While helper is applying hand pressure to outside surface of glass, carefully pull ends of cord across bottom, up sides and across top of window opening to seat lip of rubber channel over pinchweld and retaining flange, completely around back window.

7. On styles with clip retained reveal moldings, apply sufficient medium-bodied sealer to fill void between rubber channel and body opening up sides and across top of window (3 in Fig. 14-3).

8. Using a pressure type applicator, apply an approved weatherstrip adhesive (black) between outer lip of rubber channel and glass (4 in Fig. 14-3) completely around rubber channel.

9. Install previously removed parts and clean off excess sealer and cement. Remove protective coverings.

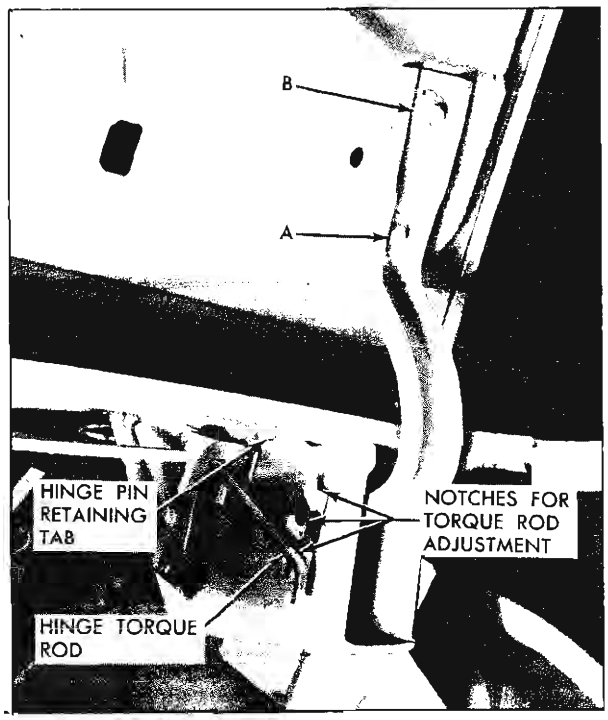


Fig. 14-4 Back Door Hinge and Torque Rod

REAR COMPARTMENT

REAR COMPARTMENT LID

REMOVAL AND INSTALLATION

1. Open lid and place protective covering along edges of rear compartment opening to prevent damage to painted surfaces.

2. Scribe location of hinge straps on lid inner panel.

3. With aid of a helper to hold lid, remove lid attaching bolts "A" and "B" (Fig. 14-4) at both hinge straps and remove rear compartment lid.

4. To install rear compartment lid, first, as an anti-squeak precaution, apply a coat of heavy-bodied sealer on the surface of the compartment lid hinge which contacts the rear compartment lid; then, reverse removal procedure.

REAR COMPARTMENT LID ADJUSTMENTS

17, 19 and 27 STYLES

1. To adjust compartment lid forward or rearward or from side to side in body opening, loosen hinge strap attaching bolts "A" and "B" (Fig. 14-4) on both sides of lid, adjust lid as required, then tighten bolts.

2. To adjust front of compartment lid up or down, install shims between lid inner panel and hinge strap as follows:

a. To raise front edge of lid, place shim(s) between lid inner panel and forward portion of one or both hinge straps at "A" (Fig. 14-4).

b. To lower front edge of lid, place shim(s) between lid inner panel and rear portion of one or both hinge straps at "B" (Fig. 14-4).

3. To check lid lock bolt engagement with lock stricker, see "Rear Compartment Lid Lock Striker Engagement Check".

TORQUE ROD ADJUSTMENTS

17, 19 and 27 STYLES

The amount of effort required to open and close the rear compartment lid is determined by the position of the torque rods in the notches on the inboard face of the hinge boxes (Fig. 14-4). If the torque rod is located in the lowest notch the effort required to open the lid is the greatest and the amount of effort required to close the lid is the least. If the torque rod is

located in the top notch, the amount of effort required to open the lid is the least and the amount of effort to close the lid is the greatest.

The torque rods can be disengaged and engaged in the notches by using a suitable length of pipe over the end of the torque rod.

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

REAR COMPARTMENT LID HINGE

17, 19 and 27 STYLES

REMOVAL

1. Open lid and place protective covering along edges of rear compartment opening to prevent damage to painted surfaces. Provide support for lid on side where hinge is to be removed.

2. Remove rear compartment side trim foundation at hinge area.

3. Scribe location of hinge strap on lid inner panel and remove bolts "A" and "B" (Fig. 14-4) securing hinge strap to lid.

4. With a suitable length of pipe, disengage torque rod from notched retainer on inboard face of opposite hinge boss.

5. Bend up hinge pin retaining tab on inboard face of hinge box and remove hinge pin, then remove hinge from box.

INSTALLATION

1. Position hinge in box and install hinge pin. Bend over retaining tab to secure hinge pin.

2. 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.

3. Engage torque rod in notch of hinge strap lever; then, engage other end of rod to correct retaining notch on inboard face of opposite hinge box.

4. As an anti-squeak precaution, apply a coat of heavy-bodied sealer to surface of hinge strap which contacts the rear compartment lid.

5. Position hinge strap within scribe marks on lid inner panel and install attaching bolts.

6. Check alignment of rear compartment lid and make any necessary adjustments.

7. Replace all previously removed trim.

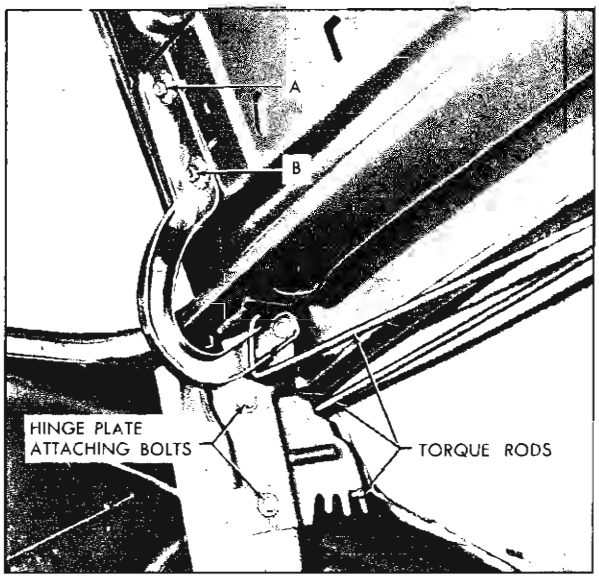


Fig. 14-5 Trunk Lid on 67 Style

REAR COMPARTMENT LID ADJUSTMENTS

67 STYLE

1. To adjust compartment lid forward or rearward, or from side to side in body opening, loosen hinge strap attaching bolts "A" and "B" (Fig. 14-5) on both sides of lid; adjust lid as desired, then tighten bolts.

2. To adjust front of compartment lid up or down loosen hinge plate attaching bolts (Fig. 14-5), adjust lid up or down as desired and tighten bolts.

3. To check lid lock bolt engagement with lock striker, see "Rear Compartment Lid Lock Striker Engagement Check".

TORQUE ROD ADJUSTMENTS

67 STYLE

The amount of effort required to open and close the rear compartment lid is determined by the position of the torque rods in the notches on the hinge mounting plate (Fig. 14-5). If the torque rod is located in the most forward notch, the effort required to open the lid is the greatest and the effort required to close the lid is the least. If the torque rod is located in the most rearward position, the effort required to open the lid is the least and the amount of effort required to close the lid is the greatest. Fig. 14-6 illustrates how to use tool J-9554 to perform these adjustments.

1. Open rear compartment lid and PROVIDE SUPPORT TO HOLD IT IN FULL OPEN POSITION.

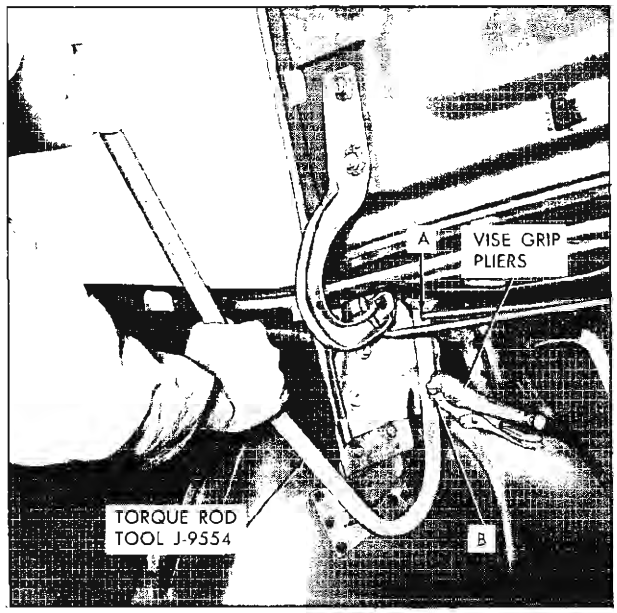


Fig. 14-6 Trunk Torque Rod Adjustment

2. Firmly clamp vise grip pliers to end of torque rod to be adjusted ("A", Fig. 14-6). Engage hole in tool with "return crank end" of same torque rod ("B", Fig. 14-6).

3. Firmly clamp vise grip pliers to end of torque rod at point "B" to prevent tool from sliding off torque rod.

4. Disengage torque rod from hinge plate by raising tool with one hand and holding it firmly against hinge plate with other hand (Fig. 14-6). Adjust torque rod to desired position, or remove rod completely.

NOTE: Use extreme caution when disengaging torque rod from hinge plate. Torque rod is under great tension when it is engaged and careless handling of rod during disengagement can cause injury to operator.

A tool to make these torque rod adjustments can be made as shown in Fig. 14-7.

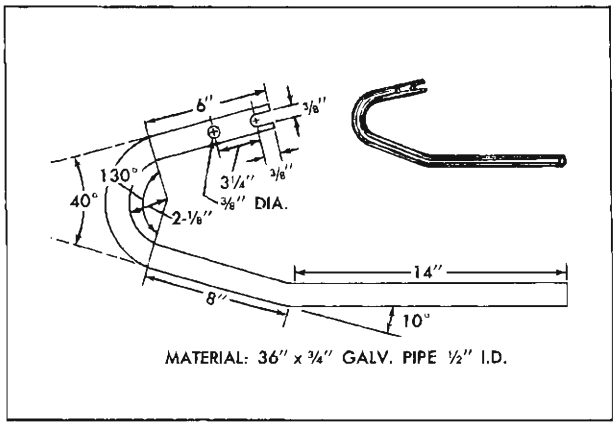


Fig. 14-7 Torque Rod Tool

REAR COMPARTMENT LID HINGE

67 STYLE

REMOVAL AND INSTALLATION

1. Open rear compartment lid and place protective coverings along edges of lid opening to protect painted surfaces. Provide support for lid on side where hinge is to be removed.

2. Scribe location of hinge strap on lid inner panel and remove bolts "A" and "B" (Fig. 14-5) securing hinge strap to lid.

3. Disengage torque rods from hinge mounting plates using torque rod removing tool No. J-9554. Scribe location of hinge plate on hinge brace. Remove hinge plate attaching bolts (Fig. 14-5) and remove hinge from body.

4. To install, reverse removal procedure. Check for proper lid alignment and make any necessary adjustments.

NOTE: When installing torque rods, engage hinge strap end first, then engage other end in proper notch in hinge plate.

REAR COMPARTMENT LID LOCK CYLINDER

REMOVAL AND INSTALLATION

1. Open rear compartment lid.

2. Remove lid lock cylinder retainer attaching screws which are located between lid hemming flange and lid lock (Fig. 14-8).

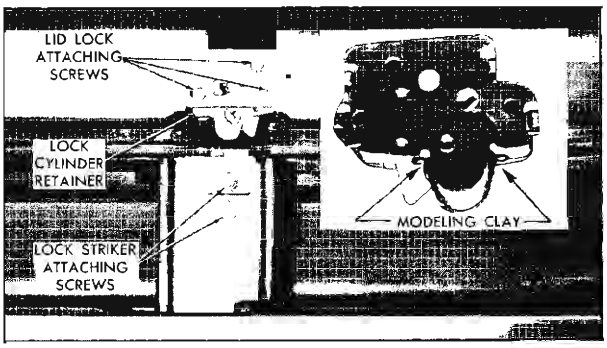


Fig. 14-8 Rear Compartment Lid Lock and Striker

3. Disengage retainer from lock cylinder and remove cylinder and gasket from rear compartment lid.

4. To install, reverse removal procedure. Prior to installation, inspect condition of gasket and replace, if necessary.

REAR COMPARTMENT LID LOCK

REMOVAL AND INSTALLATION

1. Remove rear compartment lid lock cylinder.

2. Remove rear compartment lock attaching screws (Fig. 14-8) and remove lock.

3. To install rear compartment lid lock, reverse removal procedure.

LID LOCK STRIKER

REMOVAL AND INSTALLATION

1. Mark location of striker on compartment lid panel; then, remove striker attaching bolts and remove striker and retaining plate (Fig. 14-8).

2. To install striker, position striker and retaining plate within scribe marks and install attaching bolts and washers.

LID STRIKER ENGAGEMENT CHECK

NOTE: Make sure rear compartment lid is properly positioned to body opening before performing striker engagement check.

To check for proper engagement of rear compartment lid striker with lock bolt, use the following procedure:

1. Place a small amount of modeling clay or body caulking compound on frame of lock at both sides of the lock bolt (Fig. 14-8). Close lid with moderate force.

2. Open lid and check amount of engagement of striker with lock frame, as indicated by the compression of the clay. The striker impression in the clay should be even on both sides of the lock frame (Fig. 14-8). Where required, loosen striker attaching screws: adjust striker sideways or up or down to obtain proper engagement, then tighten screws.

WEATHERSTRIP

REMOVAL

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

2. Using a flat-bladed tool, carefully disengage weatherstrip from its cemented foundation in gutter around entire perimeter of rear compartment 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 weatherstrip cement (neoprene type) along the lower and outer surfaces of the rear compartment gutter (1 in Fig. 14-9) around full length of gutter.

3. Using a flat-bladed tool such as a putty knife, or headlining inserting 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 end of weatherstrip to form a "butt" joint at rear center of opening. Brush weatherstrip adhesive (black) on both ends of weatherstrip and secure ends together to form a "butt" joint.

5. Using a pressure type applicator, apply weatherstrip cement (neoprene type) between weatherstrip and outer surface of gutter (2 in Fig. 14-9) completely around gutter to assure a watertight seal.

6. Roll or press weatherstrip to aid in obtaining a good cement bond and proper retention of the weatherstrip. Allow sufficient time for cement to set before closing rear compartment lid.

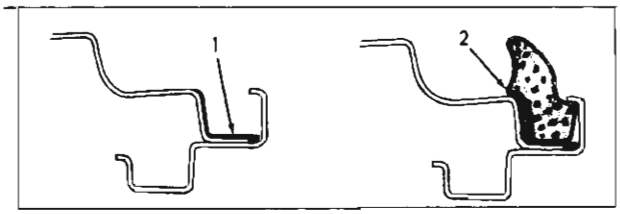


Fig. 14-9 Cross Section of Rear Compartment Gutter and Weatherstrip

BACK DOOR

(35 STYLE)

BACK DOOR ASSEMBLY

REMOVAL AND INSTALLATION

1. Open back door and mark location of hinge strap on back door inner panel to facilitate installation in same location.

2. With aid of a helper, to hold back door, remove hinge-to-back door attaching bolts. (Fig. 14-10).

3. To install back door assembly, first, as an anti-squeak precaution, apply a coat of heavy-bodied sealer to attaching surfaces of both hinges. (Fig. 14-11) then, reverse removal procedure. Align back door with previously made hinge marks.

4. Where required, adjust back door as described under "Back Door Adjustments".

BACK DOOR ADJUSTMENTS

1. To adjust the back door assembly up or down or sideways in the back body opening, remove back door lock striker and loosen both right and left hinge-to-back door attaching bolts. Shift door to desired position on hinges; then, tighten hinge attaching bolts and install back door lock striker.

2. To adjust the upper portion of the back door in or out proceed as follows:

a. Remove back door opening upper finishing panels.

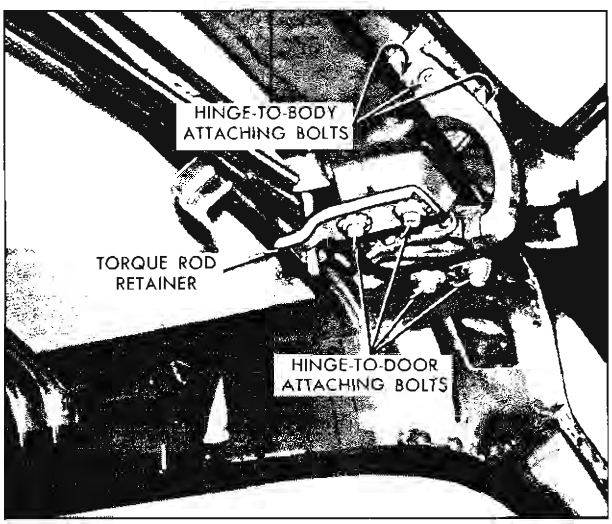


Fig. 14-10 Back Door Hinge and Torque Rod Retainer

b. Mark position of torque rod retainers, (Fig. 14-10), at both right and left hinges to facilitate repositioning of retainers in same fore and aft position.

c. Using a suitable length of pipe over end of torque rod, release tension of torque rod from retainer. While tension of torque rod is released from retainer, loosen retainer attaching bolts, (Fig. 14-10); then, release retainer. Loosen the two remaining hinge attaching bolts. Perform this operation at both right and left hinges.

d. Shift the hinges and back door assembly to desired position; then, tighten hinge attaching bolts making sure torque retainers are aligned with previously made marks. Install back door opening upper finishing panels.

3. To adjust the lower portion of the door in or out, see "Back Door Lock Striker Adjustments".

BACK DOOR HINGE AND TORQUE ROD ASSEMBLY

REMOVAL

1. Raise back door and remove both right and left back body opening upper finishing panels.

2. Prop the back door in the open position on the side from which hinge is being removed.

NOTE: If removing both hinges, remove the back door assembly from the hinges.

3. Mark position of torque rod retainer to facilitate installation in same fore and aft position.

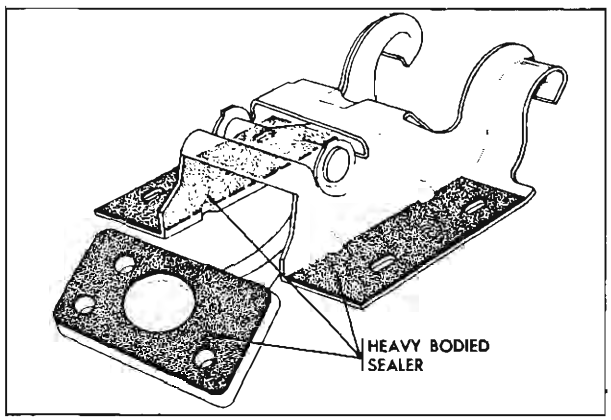


Fig. 14-11 Back Door Hinge—Anti-Squeak

4. Using a suitable length of pipe over end of torque rod, release tension of torque rod from retainer. While tension of torque rod is released from retainer remove retainer front attaching bolt and loosen (no more than 2 turns) retainer rear attaching bolt; then, swing front end of retainer towards outside of body and release torque rod (Fig. 14-12).

5. If removing left torque rod, remove clip securing torque rod to body upper panel. Loosen anti-rattle clip attached to both torque rods; then, disengage torque rod from hinge and remove torque rod.

6. Remove hinge to back door attaching bolts; then, remove hinge to body attaching bolts and remove torque rod retainer and hinge from body.

INSTALLATION

1. Lubricate both right and left hinge pivot pins with an approved dripless oil (Fig. 14-13).

2. As an anti-squeak precaution, apply a coat of heavy-bodied sealer to surfaces of hinge which contact body and back door (Fig. 14-11).

3. To install back door hinge assembly, reverse steps 1 through 7 of the "Removal" procedure.

NOTE: When installing hinge torque rod make certain torque rod is properly engaged with hinge (Fig. 14-13) and align torque rod retainer with previously made marks.

4. After installation of torque rods, lubricate torque rod frictional surfaces on both right and left hinges and frictional surfaces of both torque rod clips with "Lubriplate" No. 630AAW or equivalent (Fig. 14-13).

5. Where required, adjust back door as described under "Back Door Adjustments".

BACK DOOR TORQUE ROD TENSION ADJUSTMENT

The amount of effort required to open and close the back door is determined by the forward and rearward position of the right and left torque rod retainers. If both torque rod retainers are adjusted to the full forward position the amount of effort to raise the lid is the greatest and the amount of effort to close the lid is the least. If both torque rod retainers are adjusted to the full rearward position, the amount of effort to raise the lid is the least and the amount of effort to close the lid is the greatest.

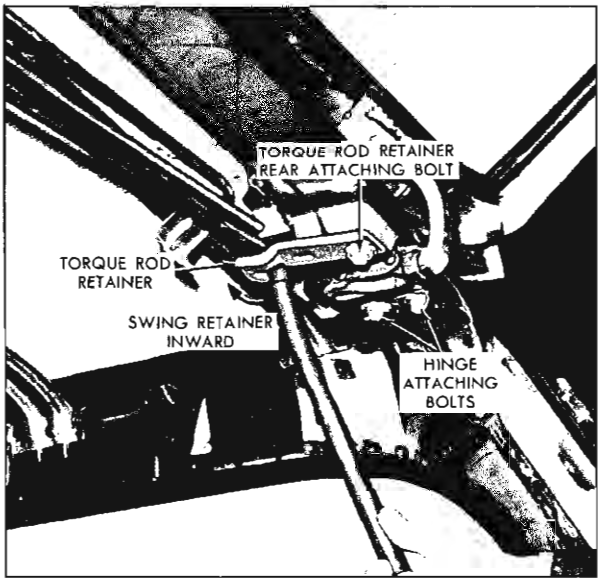


Fig. 14-12 Back Door Hinge and Torque Rod Removal

NOTE: It is not necessary to adjust both right and left torque retainers at the same time or to the same final position.

Adjust torque rod retainers as follows:

1. Raise back door and remove both right and left back body opening upper finishing panels.

2. Securely prop back door in the open position.

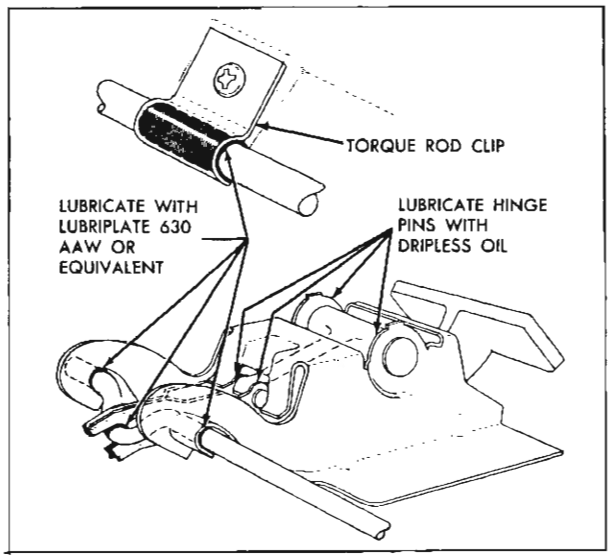


Fig. 14-13 Back Door Hinge and Torque Rod Lubrication

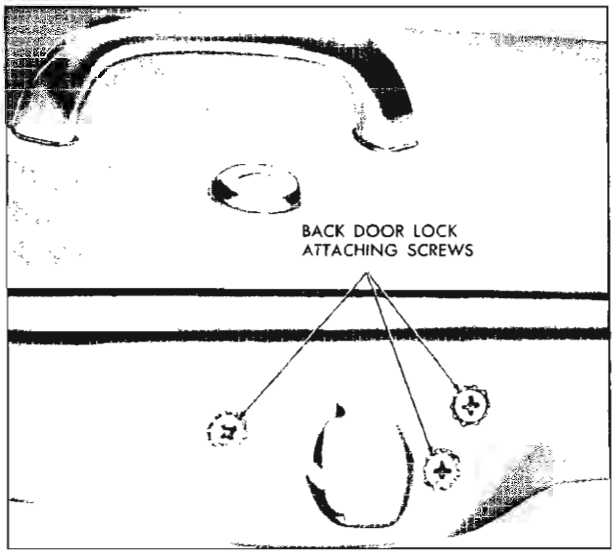


Fig. 14-14 Back Door Locks

3. Mark location of retainer to facilitate adjustment from original position.

4. Using a suitable length of pipe over end of torque rod, remove tension of torque rod from retainer. While tension of torque rod is removed from retainer, loosen retainer attaching bolts (Fig. 14-13), adjust retainer forward or rearward, as required; then, tighten retainer attaching bolts.

5. Lubricate both right and left hinge pivot pins with an approved dripless oil (Fig. 14-13). Lubricate torque rod frictional surfaces on both hinges and frictional surfaces of both torque rod clips with "Lubriplate" No. 630AAW or equivalent (Fig. 14-13).

6. Install back body opening upper finishing panels.

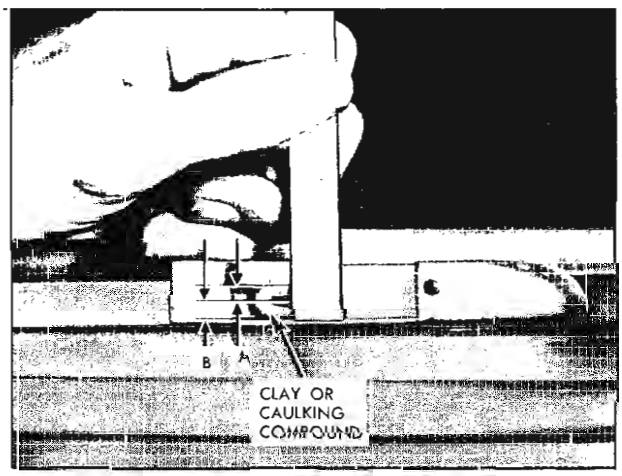


Fig. 14-15 Back Door Lock Striker Engagement Check

BACK DOOR TRIM ASSEMBLY

REMOVAL AND INSTALLATION

1. Apply masking tape to back door inner panel adjacent to trim at retaining nail locations.

2. Using a clean rubber mallet, tap around edge of trim assembly to free trim nails in nail slots.

3. Insert a flat-bladed tool between inner panel and trim assembly at each retaining nail location; carefully disengage retaining nails from retaining slots in inner panel and remove trim from door.

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

BACK DOOR INNER COVER PANEL

REMOVAL AND INSTALLATION

1. On "35" style with electric window regulator, remove inner cover panel attaching screws and remove panel from door.

2. To install back door inner cover panel, reverse removal procedure.

BACK DOOR LOCK ASSEMBLY

35 STYLE

REMOVAL AND INSTALLATION

1. Operate back door window to full "up" position. Remove back door inner cover panel.

2. Remove remote control attaching screws (Fig. 14-18). Disengage locking rods from remote control and remove remote control from back door.

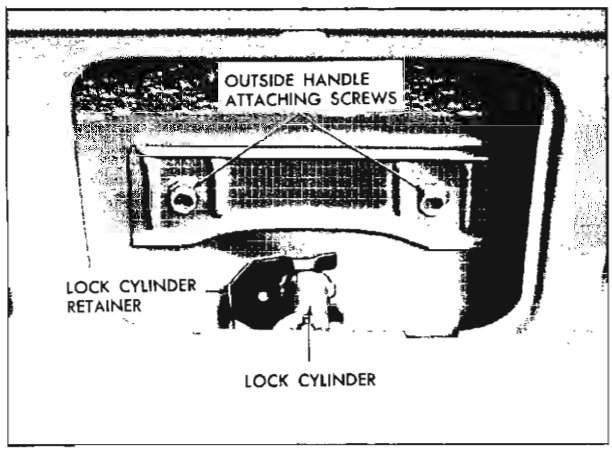


Fig. 14-16 Back Door Outside Handle and Lock Cylinder Attachments

3. Remove remote control support plate attaching screws (Fig. 14-14). Move support plate towards right side of door to disengage inner panel cam from regulator arm roller and remove support plate.

4. Remove three back door lock attaching screws from face of lock pillar (Fig. 14-14) and remove lock through hole in door inner panel.

5. To install, reverse removal procedure.

BACK DOOR LOCK STRIKER ADJUSTMENTS

35 STYLE

1. To adjust the back door lock striker forward or rearward to obtain in or out adjustment of the lower portion of the door, or to adjust the striker sideways to obtain proper alignment with the back door lock rotary bolt, loosen striker attaching screws, shift striker to desired position and tighten screws.

2. Lock striker emergency spacer requirements.

a. The back door assembly should be properly aligned in the body opening before checking spacer requirements.

b. To determine if lock striker emergency spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages; then, close the back door to form a measurable impression in the clay or caulking compound (Fig. 14-15).

When dimension "A" from inside face of striker teeth is less than $\frac{3}{16}$", install one or more $\frac{1}{16}$" emergency spacers (See Parts Book) to bring dimension "A" to the specified $\frac{3}{16}$". If two or three spacers are required, install $\frac{1}{8}$" longer striker attaching screws. If three or four spacers are required, install $\frac{1}{4}$" longer striker attaching screws.

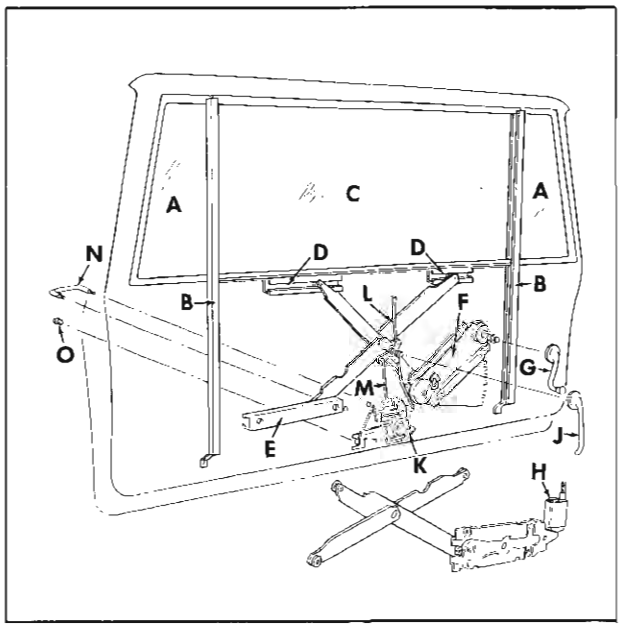
NOTE: Dimension "B" from center of lock extension to inside face of striker should never be less than $\frac{1}{8}$".

BACK DOOR OUTSIDE HANDLE (STATIONARY WINDOW)

35 STYLE

REMOVAL AND INSTALLATION

1. Remove back door trim assembly as described under "Back Door Trim Assembly".



A. Stationary Window—Right and Left
B. Stationary Window Division Post
C. Dropping Window
D. Window Lower Sash Channel Cam
E. Inner Panel Cam
F. Window Regulator (Manual)
G. Window Regulator Handle
H. Window Regulator (Electric)
I. Door Lock Inside Remote Control
J. Door Lock Inside Remote Control Handle
K. Door Lock
L. Door Lock Inside Locking Rod
M. Door Lock-to-Remote Control Connecting Rod
N. Door Outside Handle
O. Door Lock Cylinder
P. Door Lock Cylinder Retainer

Fig. 14-17 Back Door Hardware

2. Remove two screws securing outside handle (Fig. 14-16), and remove handle and gaskets.

3. To install back door outside handle, first cement handle gaskets to handle with weatherstrip adhesive (black) and apply a coat of adhesive to surface of gaskets which contacts door outer panel (Fig. 14-16) then, reverse removal procedure.

BACK DOOR OUTSIDE HANDLE

REMOVAL AND INSTALLATION

1. Operate back door window to full "up" position. Remove back door inner cover panel.

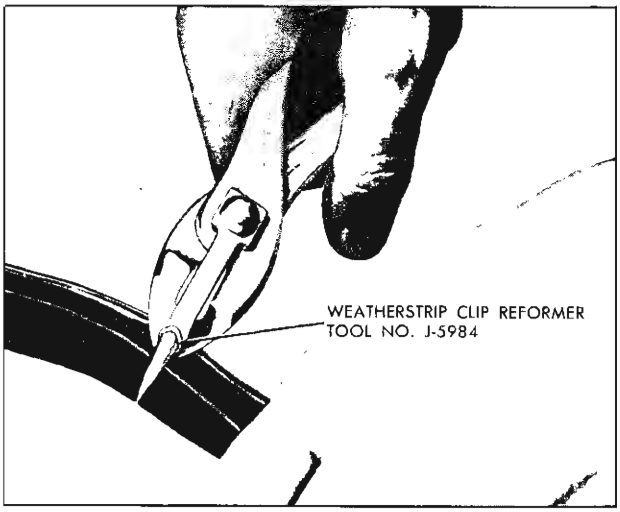


Fig. 14-18 Weatherstrip Clip Reformer Tool

2. Remove remote control attaching screws (Fig. 14-17). Disconnect remote control from connecting rod and remove remote control.

3. Remove remote control support plate attaching screws (Fig. 14-17). Move support plate towards right side of door to disengage inner panel cam from regulator arm roller and remove support plate.

4. Remove screws securing outside handle (Fig. 14-16) and remove handle and gaskets.

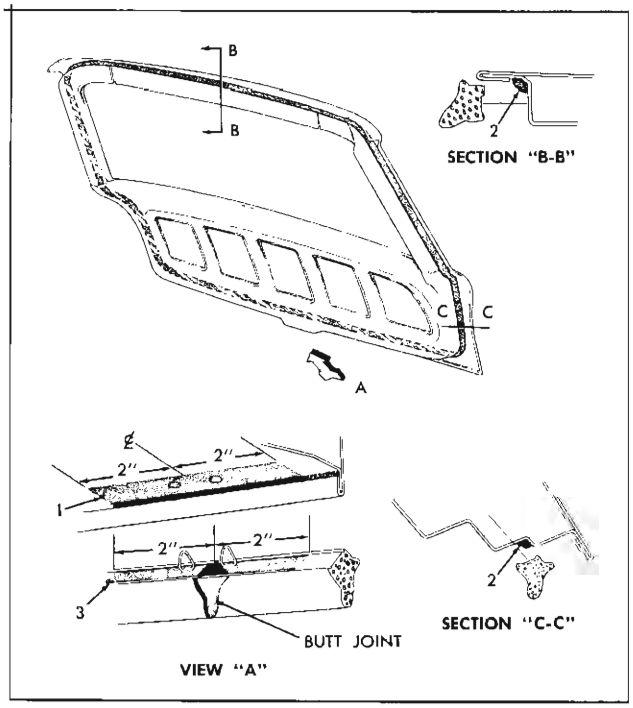


Fig. 14-19 Back Door Weatherstrip Installation

5. To install back door outside handle, first cement handle gaskets to handle with weatherstrip adhesive (black) and apply a coat of adhesive to surface of gaskets which contact door outer panel, then reverse removal procedure.

BACK DOOR LOCK CYLINDER ASSEMBLY
35 STYLE

REMOVAL AND INSTALLATION

1. Operate back door window to full "up" position. Remove back door inner cover panel.

2. Using a hooked tool or other suitable tool through access holes in door inner panel pry out lock cylinder retaining clip (Fig. 14-16) sufficiently to allow removal of lock cylinder and gasket from outer panel.

3. To install lock cylinder assembly, reverse removal procedure. Apply weatherstrip adhesive (black) on both contacting surfaces of lock cylinder gasket. Check operation of lock cylinder and lock before installing inside trim.

BACK DOOR WEATHERSTRIP
35 STYLE

REMOVAL

1. With a flat-bladed tool, carefully break cement bond securing butt ends of weatherstrip at bottom center of door and cement bond securing weatherstrip to door for a distance of approxmiately 2 inches on both sides of butt joint.

2. Starting at bottom center of door, insert tip of weatherstrip clip inserting tool J-5757 or other suitable tool at the first clip and carefully snap clip from retaining hole. Then, using a flat-bladed tool, carefully break cement bond securing weatherstrip in corner of rabbet to the next clip. Perform the alternate operations of snapping clip out of retaining hole, and breaking cement bond to the next clip completely around door; then, remove weatherstrip.

INSTALLATION

1. Clean off old cement from back door to provide a clean cementing surface.

2. Check weatherstrip clips for proper contour and reform clips, where required, using clip reforming tool J-5984 (Fig. 14-18).

3. For distance of 2 inches on both sides of the butt joint location (bottom center of door), apply weatherstrip adhesive (neoprene type) to the door panel surface contacted by weatherstrip (See 1 in view "A", Fig. 14-19).

4. Apply a bead of weatherstrip adhesive (black) in the corner of the rabbet (2 in Sections "B-B" and "C-C" in Fig. 15-19) completely around door.

5. For a distance of 2 inches on both ends of weatherstrip, apply a coat of weatherstrip adhesive (neoprene type) to the weatherstrip surface which contacts the door panel (3 in view "A" Fig. 14-19).

6. Starting with end of weatherstrip at bottom center of door, install weatherstrip clips into retaining holes completely around door using weatherstrip clip inserting tool J-5757. Press or roll weatherstrip completely around door to assure a good cement bond.

7. Apply weatherstrip adhesive (neoprene type) to butt ends of weatherstrip and cement ends together to form an even butt joint. (See view "A", Fig. 14-19).

BACK DOOR WINDOW ASSEMBLY—STATIONARY

2135 STYLE

REMOVAL

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

2. With aid of a helper to support glass on outside of body, carefully push lower edge of glass and rubber channel assembly outward until lip of rubber channel is disengaged from pinchweld flange; then, disengage remainder of rubber channel from pinchweld flange and remove rubber channel and glass from back door window opening.

3. Remove rubber channel and, where present, reveal moldings from glass.

INSTALLATION

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

1. Clean off original sealer from rubber channel and back door window opening.

2. Check back door window opening pinchweld flange for any irregularities and correct, where required.

3. Install rubber channel to glass. Install reveal moldings in rubber channel. The side reveal moldings overlap the lower reveal moldings.

4. Apply a continuous ribbon of medium-bodied sealer (Approxmiately ¼" thick) to base of rubber channel, (1 in Section "A-A", Fig. 14-20), completely around rubber channel.

5. Insert a strong cord into pinchweld cavity of rubber channel so that ends of cord are at bottom center of glass. Tape ends of cord to inside surface of glass.

6. With aid of a helper, position glass and rubber channel assembly into door window opening. While a helper is applying hand pressure to outside surface of glass, use a hooked-tool to seat lip of rubber channel over pinchweld flange at sides of window opening; then, pull cords in rubber channel to seat lip over flange across bottom and across top of window opening.

7. Using a pressure type applicator, apply weatherstrip adheisve (black) between rubber channel and glass on inside and outside of glass, (2 in Fig. 14-20) completely around glass and rubber channel. Application of adheisve should be continuous with no skips.

8. Clean off all excess sealer and adhesive.

BACK DOOR STATIONARY SIDE WINDOWS

35 STYLE

REMOVAL

1. Lower back door dropping window and remove upper, lower and side garnish moldings.

2. Disengage rubber channel filler strip from stationary window rubber channel by pulling filler strip inboard (See Fig. 14-21).

3. Remove dropping window upper glass run channel attaching screws and remove glass run channel from door.

4. Remove division post assembly upper and lower (at belt) attaching screws (Fig. 14-21). Using normal hand pressure, move division post towards center of door to provide glass clearance.

5. Remove glass from rubber channel by placing hand on outside of glass and forcing outboard edge of glass inward. Support glass on inboard side with other hand as glass tends to "pop out" once it is free of channel.

6. If rubber channel is to be removed, disengage it from pinchweld flange and division post by pulling each edge towards center of glass opening.

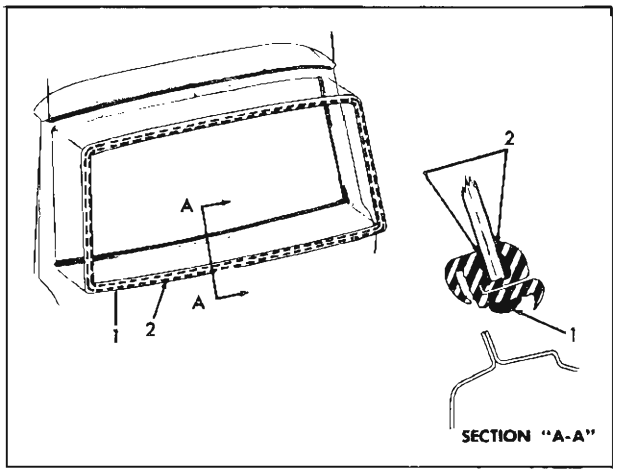


Fig. 14-20 Back Door Window Sealing

INSTALLATION

1. If rubber channel was removed, retinstall it in opening.

2. Lubricate inner circumference of rubber channel with liquid soap and water solution to facilitate glass installation.

3. Begin installation of glass by inserting division post edge of glass into rubber channel making certain to engage the corners of the glass into the rubber channel.

4. Work remainder of glass into channel inserting top, side and bottom of glass in that order.

NOTE: If hand pressure does not prove sufficient, pry glass into channel using a prying tool made of wood or plastic.

5. Position division post against edge of dropping glass and install upper and lower division post attaching screws (Fig. 14-21).

6. Apply a bead of body caulking compound to retaining flange of dropping window upper glass run channel (Fig. 14-22, View 1) and install channel.

7. Apply a bead of body caulking compound under inner lip of rubber channel across top, down outer edge, and across bottom to effect a weathertight seal between rubber channel and pinchweld flange (Fig. 14-22, View 2).

8. Lubricate filler strip cavity in rubber channel with liquid soap solution and install filler strip with finger pressure.

9. Apply body caulking compound over division post lower attaching screw and opening at belt line to effect a seal (Fig. 14-22, View 3).

10. Reinstall garnish moldings and clean up.

BACK DOOR DROPPING WINDOW (MANUAL OR ELECTRIC)

REMOVAL AND INSTALLATION

1. Remove right side stationary window, rubber channel, and back door inner cover panel. Operate window to full up position.

2. Remove right side division post lower adjusting stud nut and disengage adjusting stud from slot. Lower division post to clear door header; then, remove division post from door at belt line.

3. Lower dropping window slightly (one inch). From inside of door move dropping window towards right side to disengage rollers on regulator from window lower sash channel cams.

4. When rollers are free of cams, lift window assembly from between the panels and remove it from body.

5. To install, reverse removal procedure. Prior to installation, lubricate entire length of sash channel cams with Lubriplate or its equivalent.

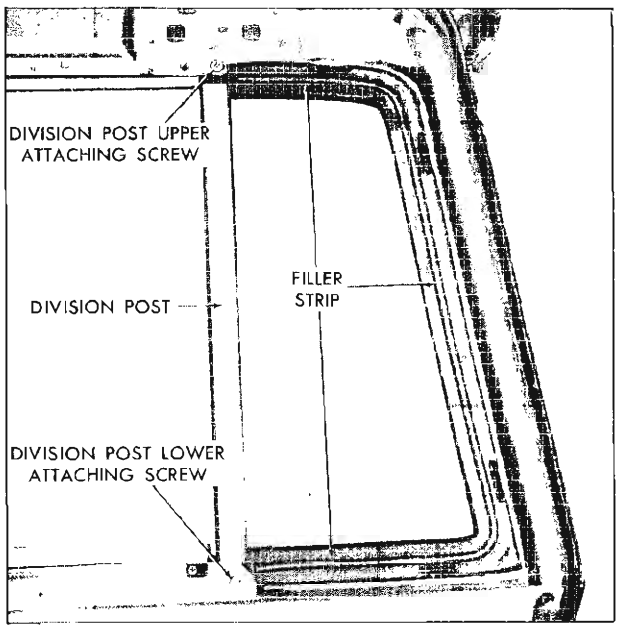


Fig. 14-21 Back Door Stationary Window

BACK DOOR DROPPING WINDOW REGULATOR—(ELECTRIC)

35 STYLE

REMOVAL AND INSTALLATION

1. Remove left side stationary window assembly and dropping window as previously described. Disconnect wire harness connector from regulator.

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

2. Remove back door lock inside handle remote control attaching screws (Fig. 14-17). Disconnect remote control from connecting rod and remove remote control.

3. Remove screws securing inside handle remote control support plate (Fig. 14-17); then move support plate towards right side of door to disengage inner panel cam from regulator arm roller and remove support plate.

4. Remove regulator attaching screws (Fig. 14-17) and remove regulator.

NOTE: To remove motor from regulator assembly, see "Back Door Window Regulator Electric Motor Assembly".

5. To install, first lubricate window lower sash channel cams and inner panel cams with "Lubriplate" or its equivalent; then, reverse removal procedure.

BACK DOOR WINDOW REGULATOR ELECTRIC MOTOR

REMOVAL AND INSTALLATION

1. Remove window regulator as described under "Back Door Dropping Window Regulator (Electric)" —Removal and Installation.

NOTE: Be sure to perform steps 2 and 3 before attempting to remove motor from regulator. The regulator lift arm is under tension from the counter balance spring and can cause serious injury if the motor is removed without locking the sector in place with a nut and bolt.

2. Place regulator and motor assembly in a vise (Fig. 14-23). Drill a ¼" hole through back plate and sector at location indicated at either "A", "B", or "C" (Fig. 14-23) depending on position of lift arm.

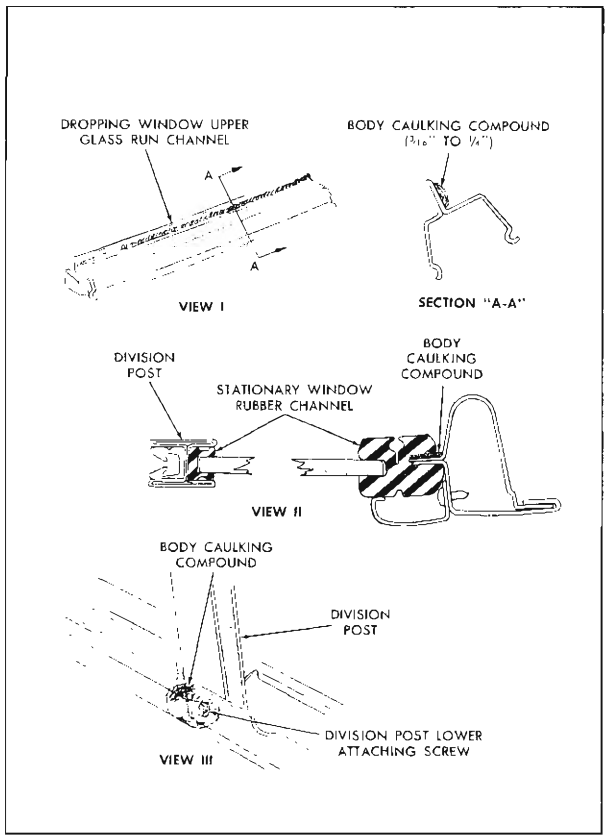


Fig. 14-22 Stationary Window Sealing

NOTE: Do not drill into motor housing, part of which is indicated by dotted line. Also, do not locate hole less than ½" from edge of back plate or sector.

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 (Fig. 14-23) and remove motor from regulator.

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

5. To install regulator motor, 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 and regulator attaching holes will line up.

Lubricate regulator sector teeth and all frictional points with "Lubriplate" or equivalent.

NOTE: Be sure to remove temporary nut and bolt from regulator before installing regulator in door.

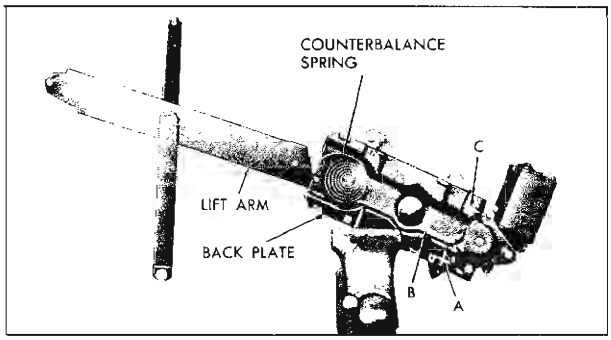


Fig. 14-23 Back Door Electric Window Regulator

BACK DOOR WINDOW REVEAL MOLDINGS

35 STYLE

The back door window moldings, consisting of an upper, right, left and a lower molding, are secured to the back door by screws inserted through the window opening flanges.

UPPER REVEAL MOLDING

REMOVAL AND INSTALLATION

Remove both right and left stationary side windows as described under "Back Door Stationary Side Windows". Disengage upper portion of both right and left side window rubber channels sufficiently to gain access to upper reveal molding attaching screws. Remove upper reveal molding attaching screws and remove molding. To install, reverse removal procedure.

LOWER REVEAL MOLDING

REMOVAL AND INSTALLATION

Remove dropping window, as described under "Back Door Dropping Window—Removal and Installation". Remove back door stationary side windows, as described under "Back Door Stationary Side Windows —Removal and Installation". Disengage lower portion of both right and left side window rubber channels sufficiently to gain access to lower reveal molding attaching screws. Remove lower reveal molding and outer sealing strip attaching screws and remove molding and sealing strip. To install, reverse removal procedure.

SIDE REVEAL MOLDING (LEFT OR RIGHT)

REMOVAL AND INSTALLATION

Remove back door stationary side window and rubber channel from side on which reveal molding is being removed. Remove side reveal molding attach ing screws. Remove lower reveal molding end attaching screw; then remove side reveal molding. To install, reverse removal procedure.

EXTERIOR MOLDINGS

CONTENTS OF THIS SECTION

EXTERIOR MOLDINGS

The exterior moldings are identified in Figures 15-2 and 15-4. 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

Figure 15-5 illustrates typical attachments for body side moldings and cross sectional views for some scalp and reveal moldings.

Figure 15-6 shows the names of moldings, use, method of retention, and information for removal.

Before using the molding charts the following information will be helpful when installing or removing exterior moldings.

1. Screw locations — the exact location for each screw is not shown or mentioned, but when hidden, the general location is indicated by naming the molding or other part which conceals the screw and therefore must be removed to gain access to the screw.

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

GENERAL PRECAUTIONS

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

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

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

TOOLS AND CARE

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

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

Room Drip Scalps—pointed hook tool
Door Window Scalps—thin flat-bladed tool (putty knife)
Snap-on Clips—thin flat bladed tool (putty knife)

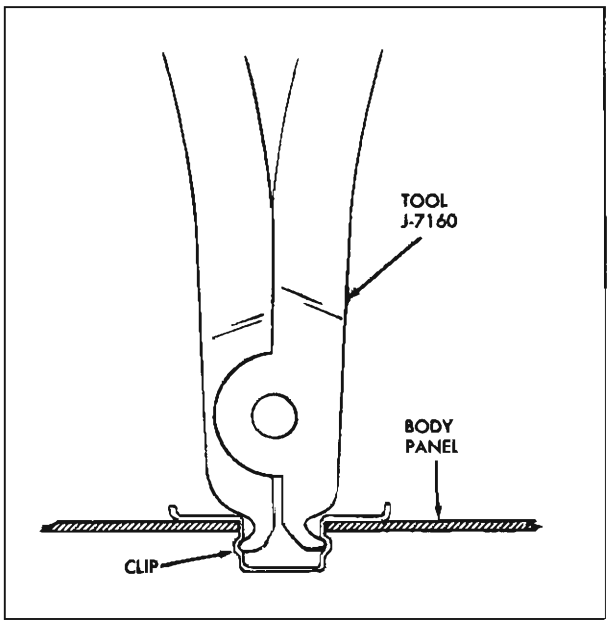
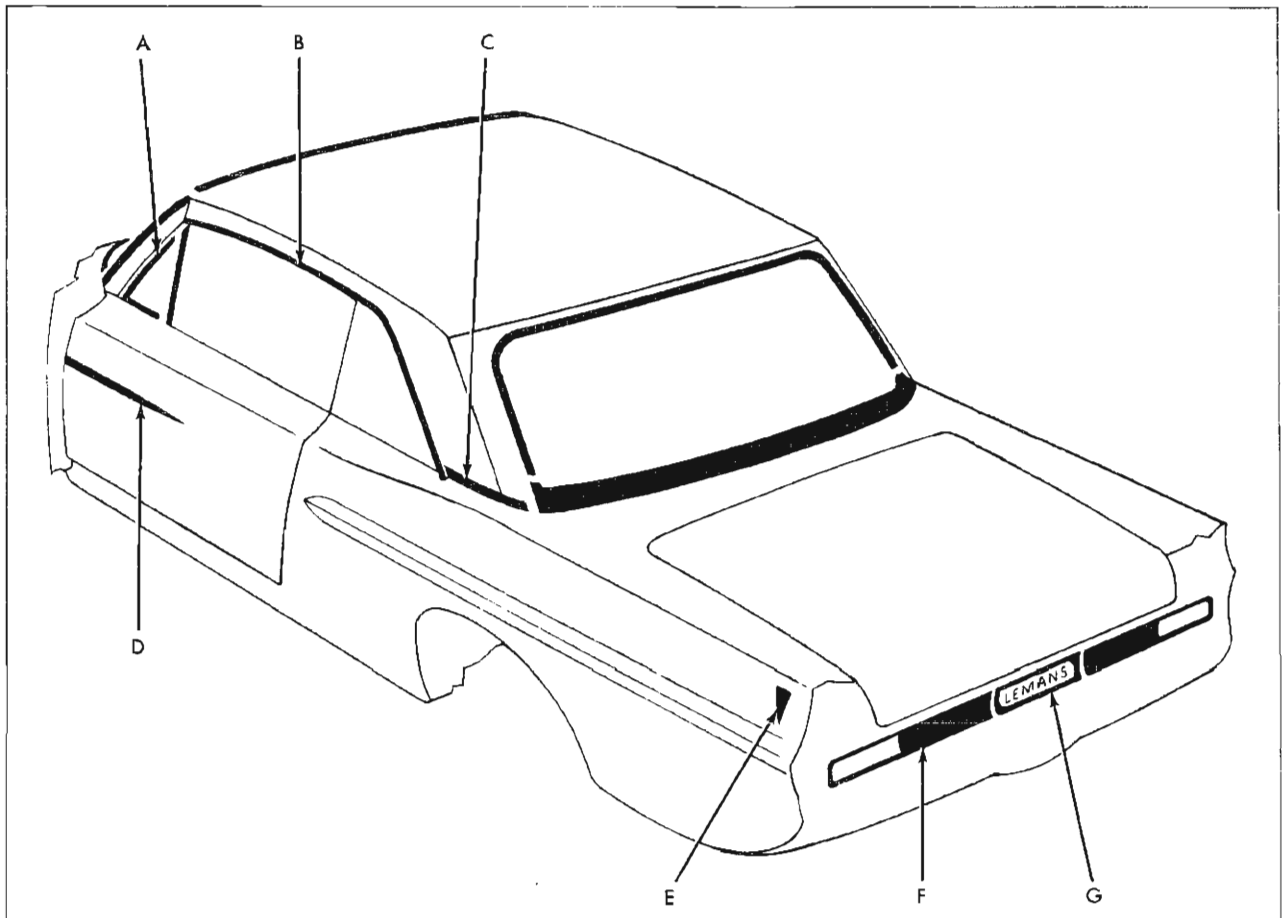


Fig. 15-1 Installing Clip



A. Windshield Pillar Drip Molding
B. Roof Drip Molding Scalp
C. Quarter Belt Reveal Molding
D. Door Outer Panel Lower Molding
E. Rear Fender Emblem
F. Rear End Panel Molding
G. Gas Tank Filler Door Molding

Fig. 15-2 Exterior Molding 2217 Style

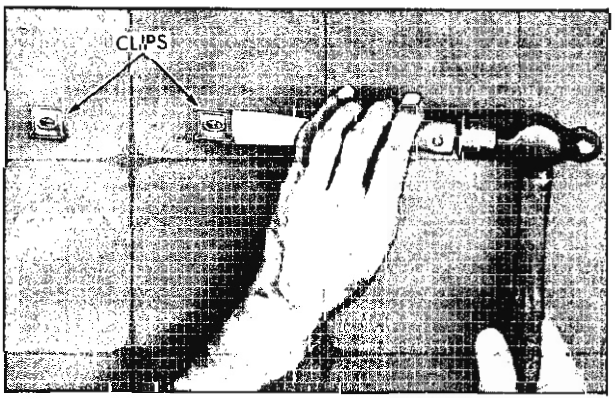


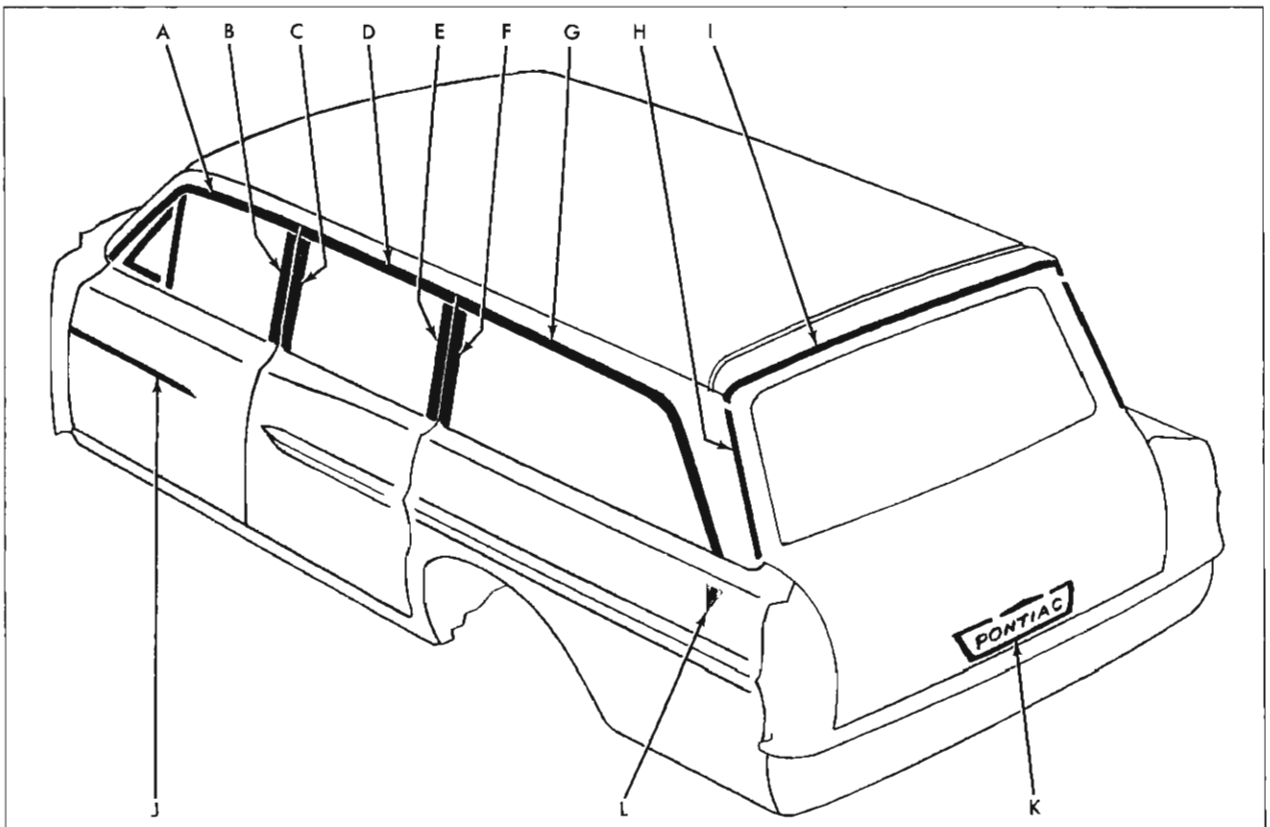
Fig. 15-3 Removing Clip

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. 15-3) then disengage clip from hole.

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

2. To install new clip, insert clip in hole in outer panel and secure using Molding Retainer Clip Installer J-7160 (Fig. 15-1).



A. Front Door Window Frame Upper Scalp Molding
B. Front Door Window Frame Vertical Scalp Molding
C. Rear Door Window Frame Front Vertical Scalp Molding
D. Rear Door Window Frame Upper Scalp Molding
E. Rear Door Window Frame Rear Vertical Scalp Molding
F. Quarter Window Front Reveal Molding
G. Quarter Window Upper Reveal Molding
H. Back Body Opening Side Upper Pinchweld Finishing Molding
I. Back Door Outer Panel Pinchweld Finishing Molding
J. Front Door Outer Panel Lower Molding
K. Back Door Outer Panel Name Plate

Fig. 15-4 Exterior Moldings 2135 Style

SEALING OPERATION

Although detailed sealing operations for each individual molding are not described on the "Molding Removal Chart" the following information is given to permit a satisfactory sealing operation.

Medium-bodied sealer or body caulking compound are the sealers most frequently used to provide a watertight seal or for anti-rattle measures.

Holes in body panels for screws, bolts, or clips that would permit water to enter the interior of the body should be sealed with body caulking compound or presealed screws, nuts or clips.

Drip moldings require a 1/4" bead of medium-bodied sealer along the full length of the inner attaching surface. Door window scalps and center pillar scalps require a 1/8" x 1/4" x 1/4" bead of caulking compound at 5" intervals for anti-rattle purposes. Pinchwelds require medium-bodied sealer on both sides when pinchweld clips are used. The exception is the rear quarter pinchweld on convertible styles which requires water proof tape over the entire pinchweld, prior to clip installation.

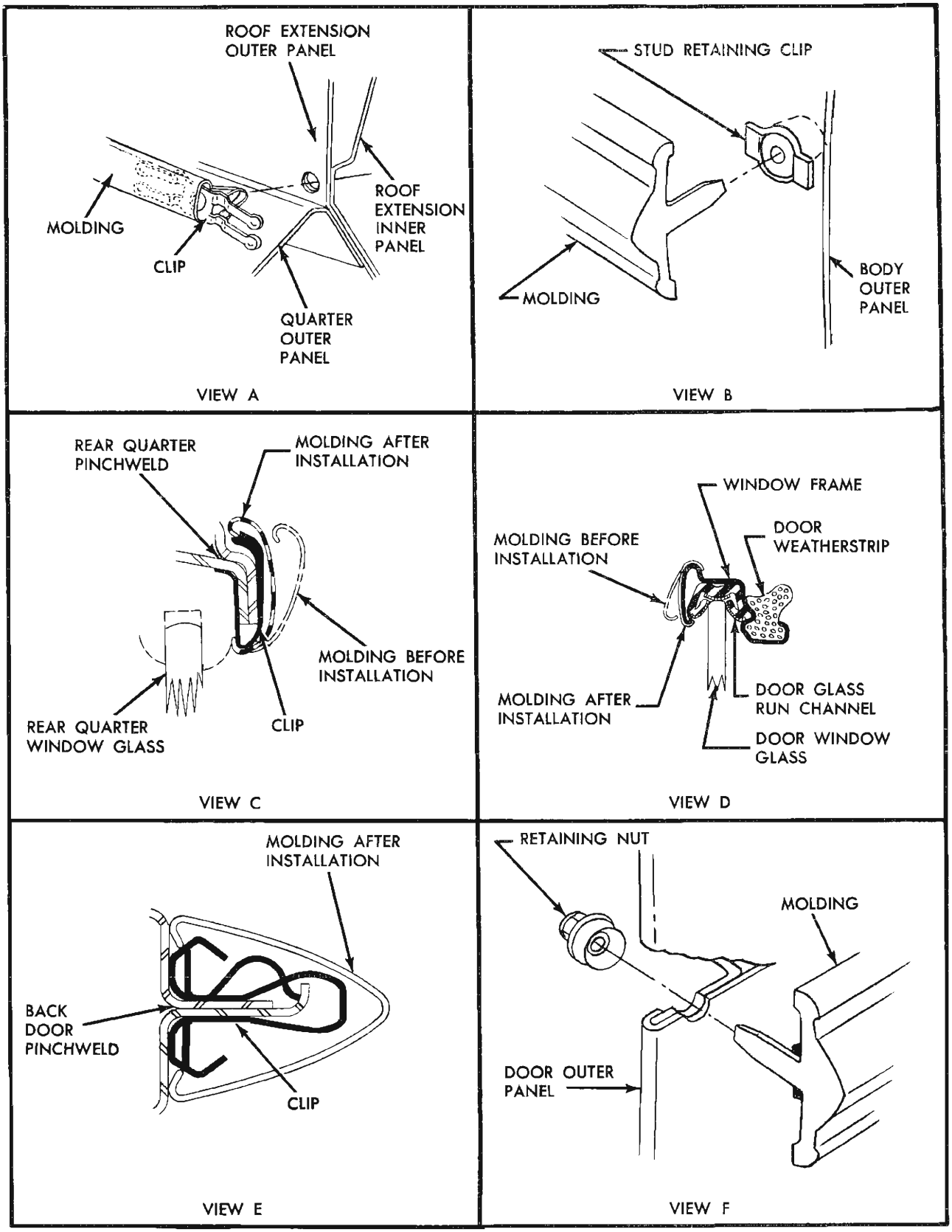


Fig. 15-5 Typical Method For Molding Attachment

Molding Name	Styles	METHOD OF RETENTION					Engages With Other Moldings	Remove Hardware or Trim	Starting Location
		Screws	Spring (Self-Retained)	Snap-on Clips or Retainers on Panel	Snap-on Clips on Molding	Studs With Attaching Nuts			
Windshield Pillar 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
Quarter Window Front Reveal	Opt. 2117-19-27-35 2217	—	—	x View C	—	—	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	—	—	—	—	—

Fig. 15-6 Tempest Exterior Moldings

HEADLINING

CONTENTS OF THIS SECTION

HEADLINING ASSEMBLY

DESCRIPTION

The headlining assembly is formed to contour by concealed listing wires. Both ends of each listing wire are installed into holes in listing wire clips which are secured to the side roof inner rail assembly. The headlining assembly is secured at the windshield and back window by cement and tacks or staples. Along the side roof rail the headlining is cemented around the flange of the side roof inner rail assembly.

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

REMOVAL

1. Place protective coverings over seat cushions and backs.

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

a. Sunshade support assembly(s).

b. Rear view mirror support.

c. Windshield upper garnish moldings.

d. Center pillar-to-roof rail finishing plates.

e. Coat hooks (where present).

f. Back window garnish moldings.

g. Dome lamp assembly or rear quarter courtesy lamps.

h. Front and rear door opening pinchweld finishing strip along top of each door opening sufficiently to expose edge of headlining (19, 35 and 45 styles).

i. Front door and rear quarter window pinchweld finishing strip sufficiently to expose edge of headlining (17, 27, and 47 styles).

j. Body lock pillar to roof rail finishing plates (35 and 45 styles).

k. Back body opening upper finishing panels (35 and 45 styles).

l. Rear quarter upper pinchweld finishing strips (35 and 45 styles).

m. Quarter belt finishing moldings (17, 27, and 47 styles).

n. Center pillar to roof rail finishing plates (19, 35, and 45 styles).

3. Carefully detach cemented edge of headlining along each side roof inner rail including rear quarter windows on station wagon styles.

4. Carefully remove tacks or staples securing headlining at windshield opening (View A, Fig. 16-1 and Fig. 16-2).

5. Carefully remove tacks or staples securing headlining at back window or back body opening (Views J and H, Fig. 16-2 and Views B and C, Fig. 16-1. Then carefully detach cemented edges of headlining.

6. On 17, 27, and 47 styles, remove tacks or staples at quarter belt trim stick (Views J and H, Fig. 16-2).

7. Working from front to rear of body, disengage headlining listing wires from holes in side roof inner rails. Gather or roll headlining with listing wires on outside to keep headlining clean.

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

8. At front roof bow, bend down metal tabs (View E, Fig. 16-1 and Fig. 16-2). On 27 styles, bend down metal tab supporting center of rear listing wire (View G, Fig. 16-2). On 17 and 47 styles, three metal tabs are used to support rear listing wire. (Views G and J, Fig. 16-2).

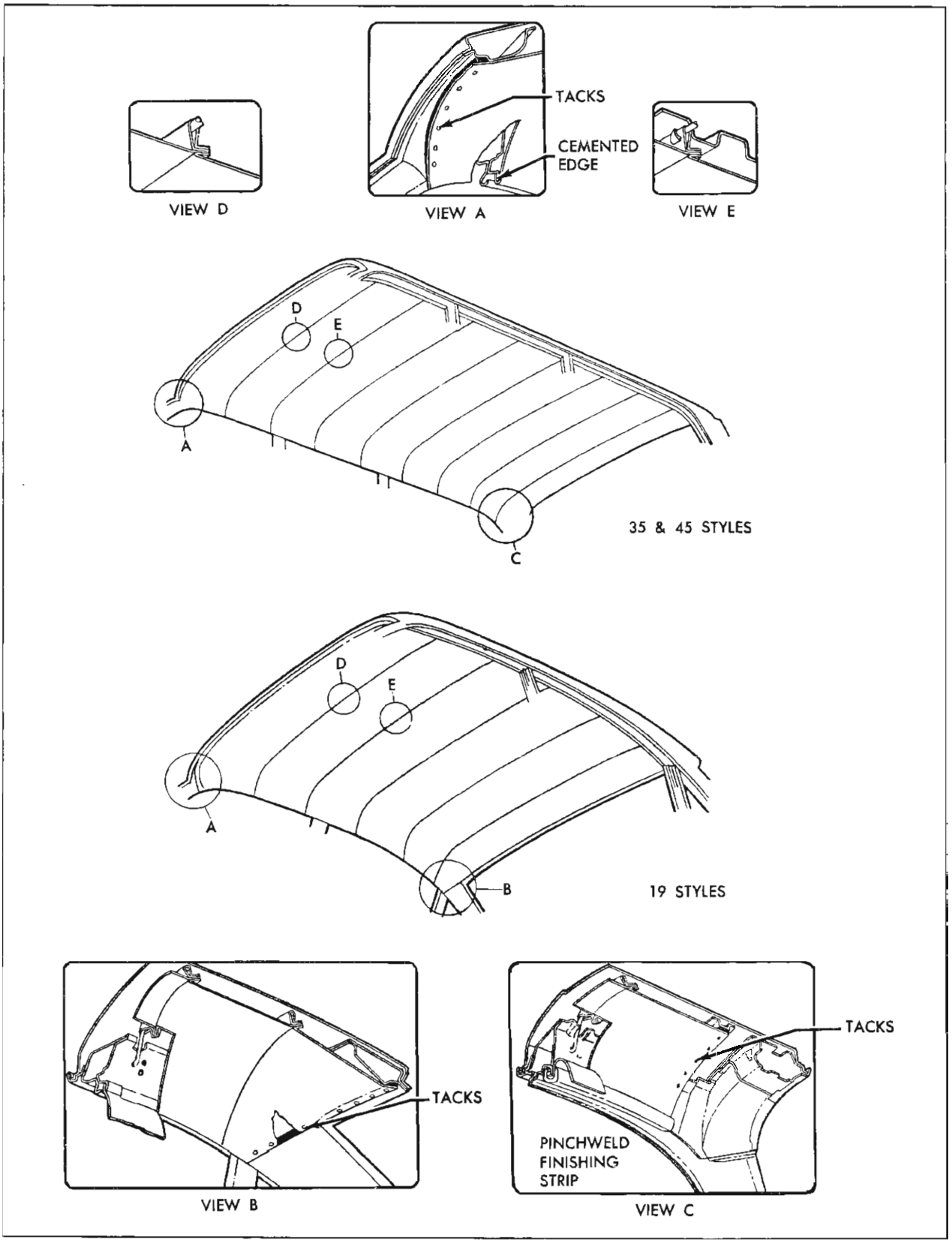


Fig. 16-1 Headlining Installation

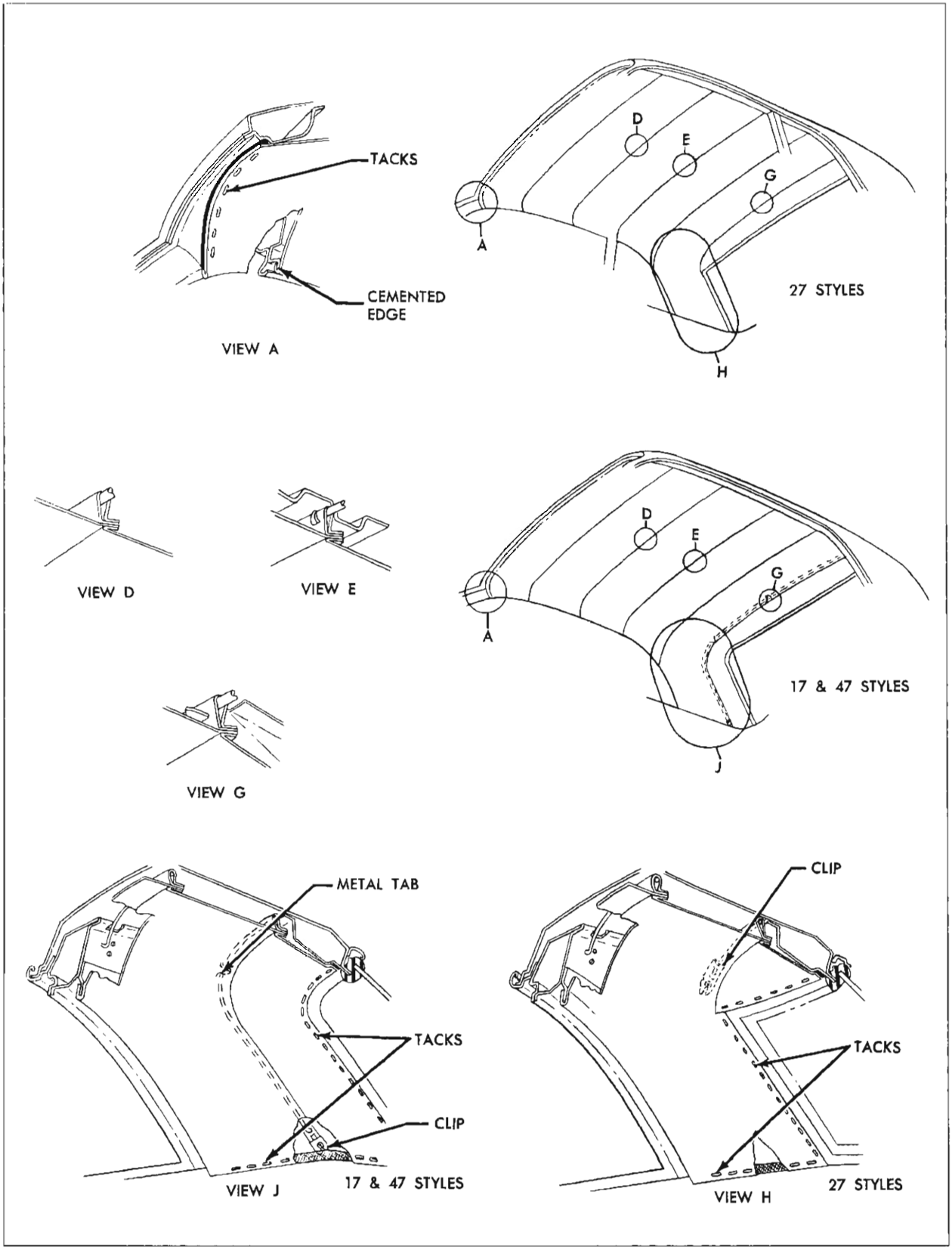


Fig. 16-2 Headlining Installation

9. Disengage rear listing wire from clips in roof extension area on 17, 27, and 47 styles (Views J and H, Fig. 16-2).

10. Remove headlining from body.

11. If replacing headlining, remove listing wires from pockets of headlining.

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

INSTALLATION

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

2. Apply approved trim cement to headlining attaching surfaces at windshield, side roof inner rails, and back window or back door opening.

3. Lift entire headlining assembly into body, then install rear listing wire. Make certain rear listing wire is properly inserted into clips at roof extension area on 17, 27, and 47 styles (View J and H, Fig. 16-2).

4. Bend up metal tabs supporting rear listings wire where present. Center and align headlining in relation to back window or back body opening and side roof rails. Working forward, install ends of listing wires into listing wire holes in side roof rails.

NOTE: Each listing wire SHOULD rest against roof deadener after it is installed. Listing wires may be adjusted up or down by placing in appropriate holes in side roof inner rails. Clips on rear listing wires may be also adjusted by loosening screw.

5. Install headlining listing wire over metal tabs on front roof bow. Bend up metal tabs so that listing wire is securely fastened to roof bow (View E, Fig. 16-1 and Fig. 16-2).

6. Install remaining listing wire.

7. Stretch and stay tack headlining along entire windshield and back window or back door opening. Also tack at quarter belt trim stick on 17, 27, and 47 styles.

8. Apply trim cement to side edges of headlining assembly.

9. Carefully secure headlining at cemented areas making certain to remove all "fullness" and "draws" from material.

10. Remove any "fullness" and "draws" in headlining material at windshield and back window or back door openings and permanently tack headlining to tacking strips.

11. Using headlining inserting tool, permanently install edge of headlining around side roof rail pinchweld (View A, Fig. 16-1 and Fig. 16-2).

12. Trim excess material from edge of headlining around entire perimeter.

13. Install door opening and/or rear quarter upper pinchweld finishing strips and all other previously removed hardware.

SEATS

CONTENTS OF THIS SECTION

FRONT AND REAR SEAT ASSEMBLIES

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.

The front seat adjusters may be reworked to reposition the front seat assembly one (1) inch rearward.

FRONT SEAT ASSEMBLY WITH SEAT ADJUSTERS ATTACHED

REMOVAL AND INSTALLATION

1. Turn back floor carpeting, where necessary, to expose seat adjuster-to-seat support attaching bolts.

2. Scribe location of rear end of adjuster on front seat rear support and remove adjuster rear attaching bolts.

3. On all "67" styles, loosen adjuster-to-seat support front attaching bolts; then with aid of helper, slide seat assembly rearward until front legs of adjuster are disengaged from under front attaching bolts. Remove seat assembly from body.

On all except "67" styles with aid of helper, tilt seat assembly forward; then, slide seat assembly rearward to disengage front legs of adjusters from retainers. Remove seat assembly from body.

4. To install, reverse removal procedure.

NOTE: Make certain front legs of adjusters are completely engaged under retainers and adjusters are aligned within scribe marks before installing attaching bolts.

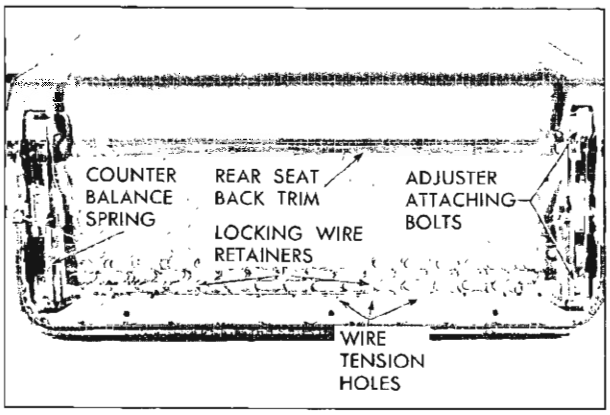


Fig. 17-1 Front Seat Adjuster Removal

FRONT SEAT ADJUSTERS

REMOVAL AND INSTALLATION

1. Remove front seat assembly with adjusters attached from body and place it upside down on a clean, protected bench.

2. Remove seat adjuster counter balance spring attached to seat adjuster front support and seat bottom frame as shown in Fig. 17-1.

3. Operate adjusters so that both front and rear attaching bolts are accessible.

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 shown in Fig. 17-1 and remove seat adjuster from seat assembly.

6. To install, reverse removal procedure. Check seat assembly for proper operation prior to installing seat assembly.

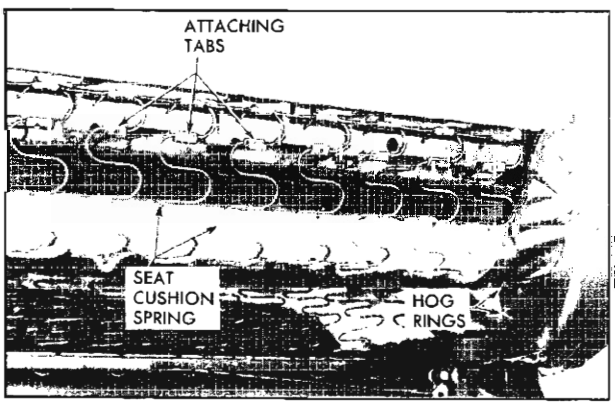


Fig. 17-2 Front Seat Cushion Spring Attachment

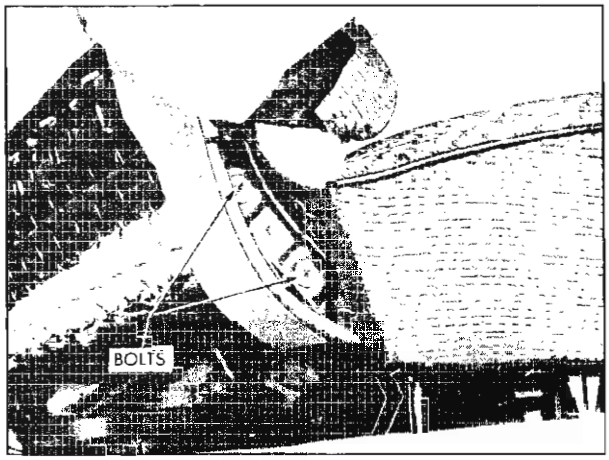


Fig. 17-3 Front Seat Back Attachment

NOTE: The right and left seat adjuster sliding mechanisms should be in same relative position when attaching adjuster to seat bottom frame.

7. If right adjuster does not lock or unlock satisfactorily when control handle on left adjuster is operated, disengage locking wire retainer on right side of seat from hole in seat bottom frame and engage retainer in one of adjacent holes to obtain proper tension in wire. (Fig. 17-1)

FRONT SEAT BACK ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove front seat assembly from body and place it upside down on a clean, protected bench.

2. Remove hog rings securing central portion of lower rear edge of seat back trim from front seat cushion spring assembly (Fig. 17-1).

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. At each end of seat remove hog rings securing lower edge of seat back trim from seat bottom frame. Then raise seat back trim to expose bolts securing seat back reinforcement to seat bottom frame. (Fig. 17-3).

5. Bend open tabs securing seat cushion spring assembly to seat back frame and carefully disengage springs from tabs. (Fig. 17-2)

6. Place seat assembly in upright position. Then with a helper, holding seat back assembly, remove seat back reinforcement-to-seat bottom frame attaching bolts on each side of seat and remove seat back assembly.

7. To install, reverse removal procedure.

NOTE: Make certain rear edge of seat cushion spring assembly is properly engaged to seat back frame and cardboard breakover foundation is properly positioned prior to hog ringing central portion of trim in place.

FRONT SEAT PROTECTOR COVER

REMOVAL AND INSTALLATION

1. Turn back floor covering along outboard side at front seat adjuster sufficiently to expose protector cover.

2. Remove screws shown in Fig. 17-4 securing cover to floor pan and remove cover.

3. To install, reverse removal procedure.

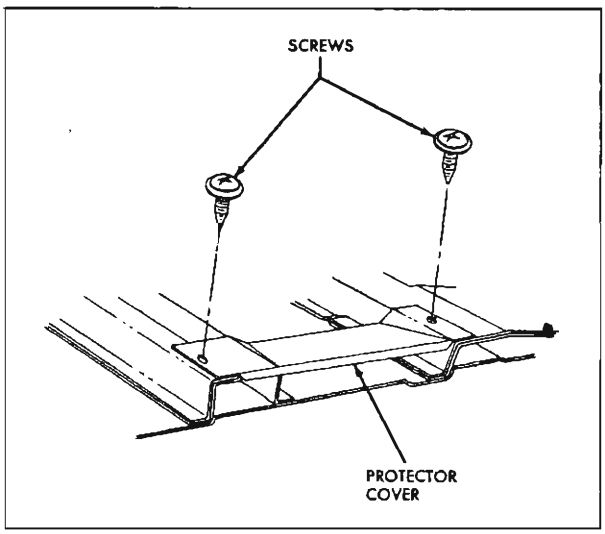


Fig. 17-4 Front Seat Side Protector Cover

4. Push forward edge of cushion rearward and downward until protrusions are properly engaged behind floorpan stops.

REAR SEAT CUSHION ASSEMBLY

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.

NOTE: 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.

REAR SEAT BACK ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove rear seat cushion assembly.

2. At bottom of the seat back on all styles except convertibles, bend out the two (2) tabs that secure the seat back to the floor panel. On convertibles, remove the two (2) screws securing the seat back to the floor panel and at back of seat remove screws securing folding top compartment side trim panels to seat back assembly.

3. Pull seat back assembly 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 assembly from body.

5. To install, reverse removal procedure, making certain that all attaching body tabs and hangers have industrial body tape applied to them to act as an anti-squeak.

FOLDING REAR SEAT AND REAR COMPARTMENT FLOOR PANELS

The following view (Fig. 17-5) is typical of the Station Wagon folding rear seat back and rear compartment floor panels. This illustration identifies the component parts of the rear compartment area, their relationship and various attaching points.

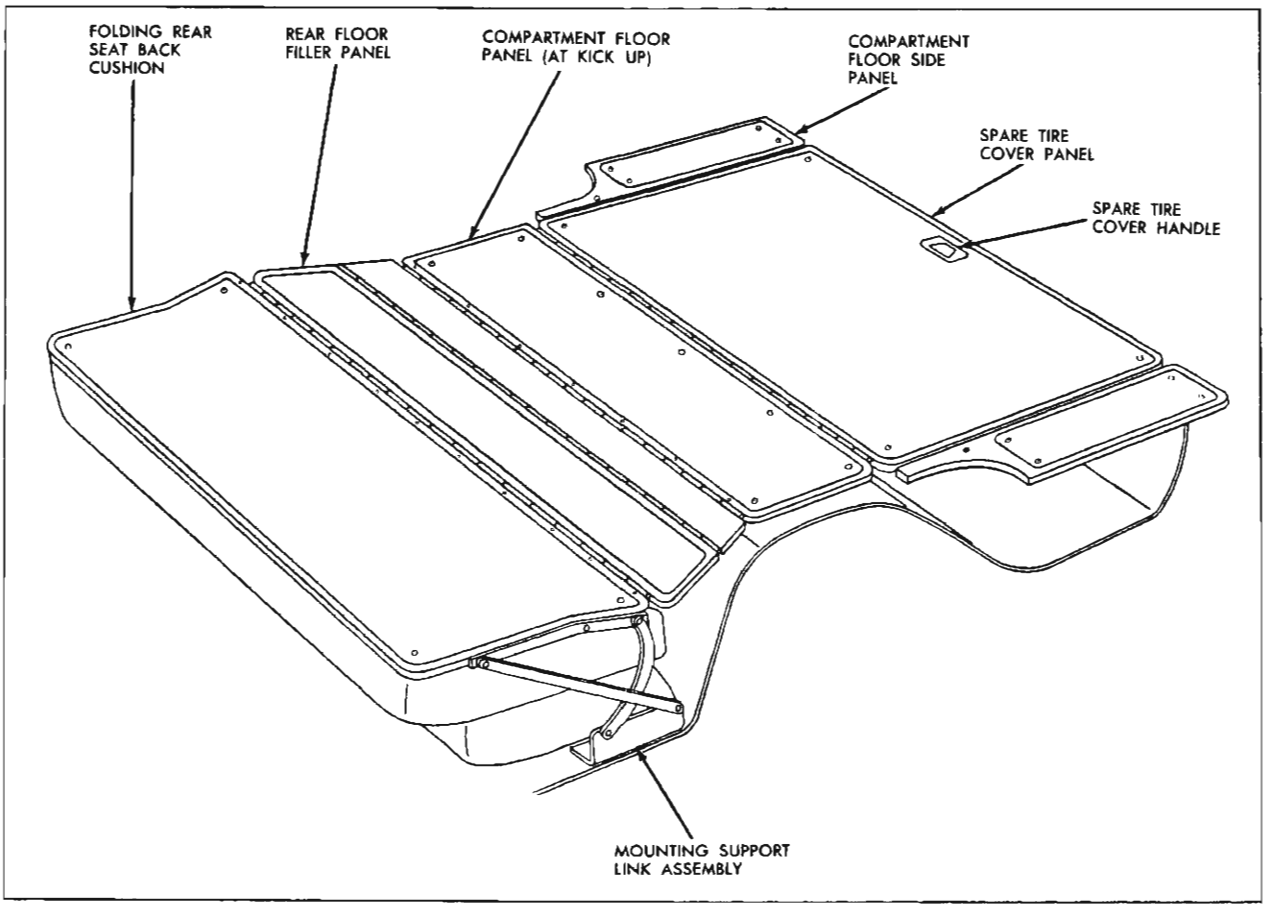


Fig. 17-5 Folding Rear Seat and Rear Compartment Floor Panels

FOLDING REAR SEAT CUSHION

REMOVAL AND INSTALLATION

1. Lift up front edge of folding rear seat cushion assembly to disengage protrusions in seat bottom frame from slots in rear seat support and remove cushion assembly.

2. To install, reverse removal procedure. Make certain that protrusions are fully engaged in rear seat support.

FOLDING REAR SEAT BACK ASSEMBLY

REMOVAL AND INSTALLATION

1. Fold rear seat back assembly to "down" position.

2. Remove rear floor filler panel to folding seat back panel attaching screws as shown in Fig. 17-6.

3. At each side of seat, remove screws securing mounting support link assembly to folding seat back assembly (Fig. 17-7).

4. With aid of helper, carefully remove folding seat back assembly from body and place it on a clean, protected bench.

5. To install, reverse removal procedure.

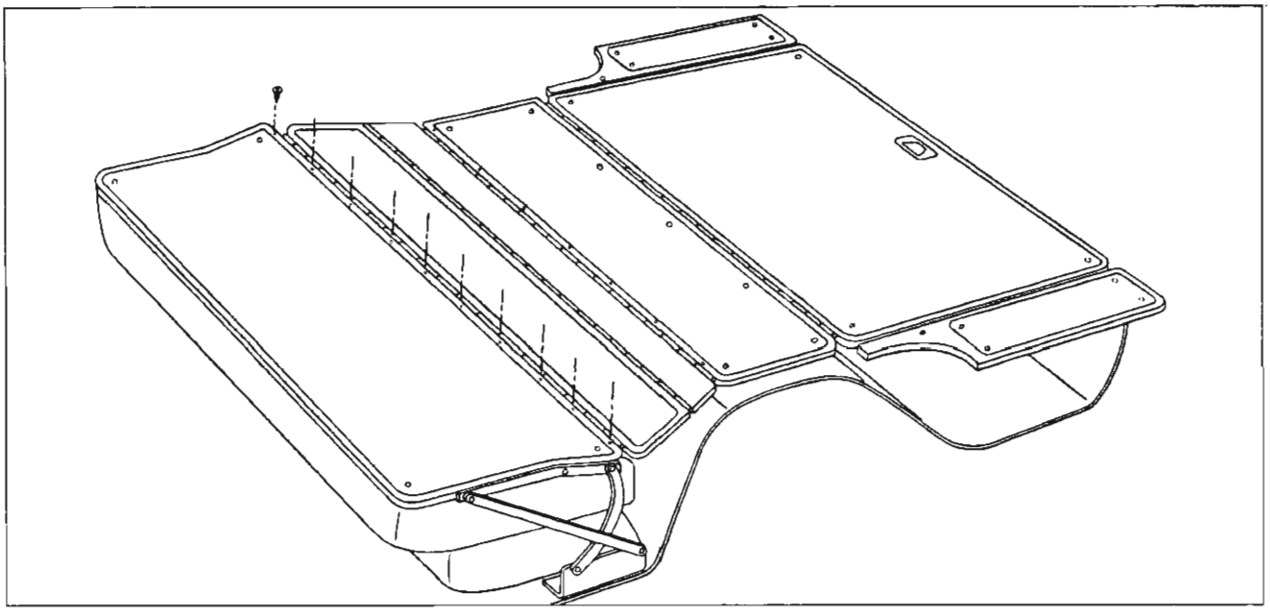


Fig. 17-6 Folding Rear Seat Back Assembly

FOLDING REAR SEAT BACK MOUNTING SUPPORT LINK ASSEMBLY

REMOVAL AND INSTALLATION

1. Release rear seat cushion and slide cushion forward.

2. Turn back rear floor carpet sufficiently to expose mounting support link to floor pan anchor plate attaching screws and remove screws.

3. Fold rear seat back assembly to "down" position.

4. Remove mounting support to folding seat back attaching screws as shown in Fig. 17-7 and remove mounting support link assembly from body.

5. To install, reverse removal procedure. Check operation of folding rear seat back and filler panel assembly. Where required, loosen mounting support to anchor plate attaching screws. Adjust mounting support fore or aft as required for proper folding seat back operation.

FOLDING REAR FLOOR FILLER PANEL ASSEMBLY

REMOVAL AND INSTALLATION

1. Fold rear seat back assembly to "down" position.

2. Remove filler panel to folding seat back attaching screws and filler panel to rear seat pan attaching screws as shown in Fig. 17-8 and remove filler panel from body.

3. To install, reverse removal procedure.

ADJUSTMENT

To adjust folding rear floor filler panel assembly, proceed as follows:

1. At each side of seat, loosen mounting support to floor pan anchor plate attaching screws.

2. Adjust mounting supports fore or aft as required and tighten screws.

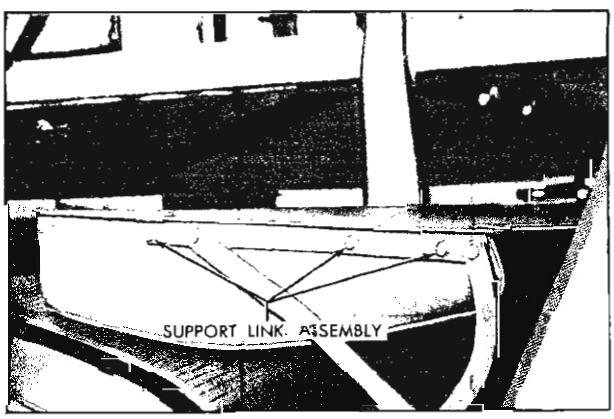


Fig. 17-7 Folding Seat Back Mounting Support Link Assembly

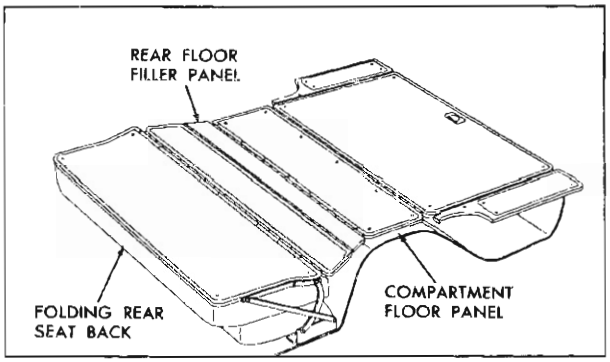


Fig. 17-8 Folding Rear Floor Filler Panel Assembly

3. Check operation of folding seat back and filler panel assembly. When the seat back is in the "down" or "folded" position, the back and rear floor filler panel should form a level floor surface. Where necessary, readjust mounting supports as required for proper seat back and filler panel operation.

COMPARTMENT FLOOR PANEL ASSEMBLY (AT KICK-UP)

REMOVAL AND INSTALLATION

1. Lower folding rear back assembly.

2. Remove rear floor filler panel to rear seat pan attaching screws as shown at "A" in Fig. 17-9.

3. Fold rear floor filler panel forward sufficiently to gain access to compartment floor panel to rear seat pan attaching screws and remove screws from panel.

NOTE: Attaching screws are located at each end of panel (See Hidden Attaching Screw, Fig. 17-9).

4. Remove floor panel to spare tire cover hinge support panel attaching screws, shown at "B", Fig. 17-9 and remove compartment floor panel assembly from body.

5. To install, reverse removal procedure.

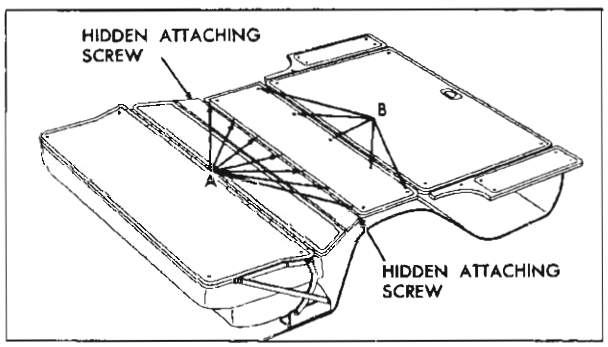


Fig. 17-9 Compartment Floor Panel Assembly

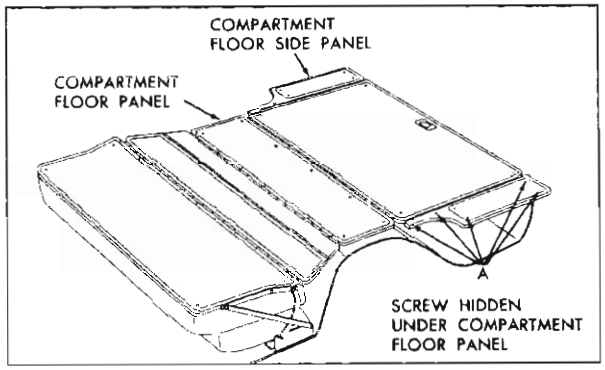


Fig. 17-10 Compartment Floor Side Panel Assembly (Right or Left)

SPARE TIRE COVER PANEL ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove compartment floor panel assembly as previously described.

2. Remove screws securing spare tire cover panel hinge to hinge support.

3. Using spare tire cover handle, lift panel upward and remove spare tire cover panel assembly from body.

4. To install, reverse removal procedure.

COMPARTMENT FLOOR SIDE PANEL ASSEMBLY (RIGHT OR LEFT SIDE)

REMOVAL AND INSTALLATION

1. Remove compartment floor panel assembly as previously described.

2. Remove screws securing compartment floor side panel to side panel support as shown at "A", Fig. 17-10 and remove panel assembly from body.

3. To install, reverse removal procedure.

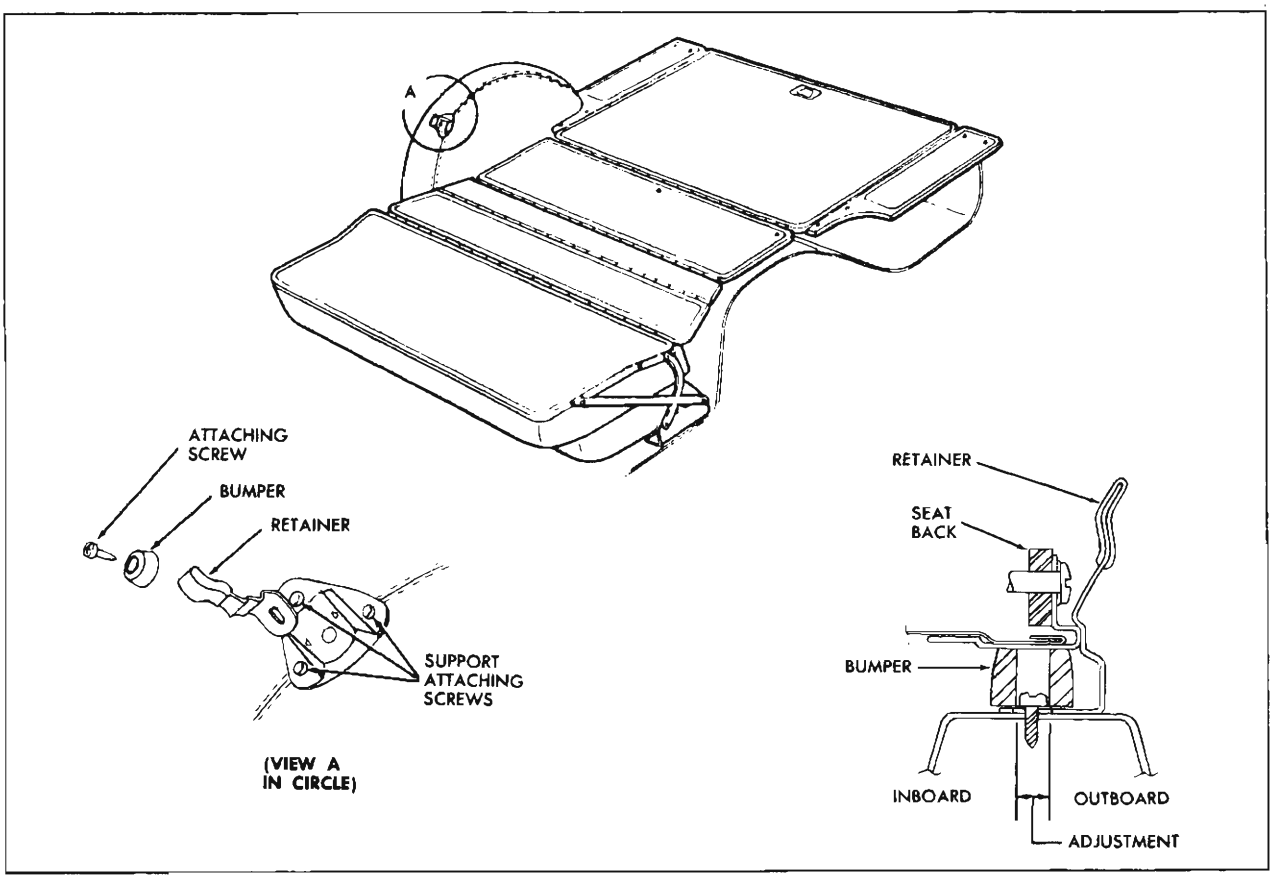


Fig. 17-11 Folding Rear Seat Back Bumper, Retainer and Support

FOLDING REAR SEAT BACK BUMPER, RETAINER AND SUPPORT (RIGHT AND LEFT SIDE)

REMOVAL AND INSTALLATION

1. With folding rear seat back in "down" position, remove screw shown in View "A", Fig. 17-11, and remove bumper and retainer from wheelhouse support.

2. Remove three (3) screws shown in View "A", Fig. 17-11 and remove support from wheelhouse assembly.

3. To install, reverse removal procedure.

NOTE: The folding rear seat back retainer is adjustable inboard or outboard (See Fig. 17-11). To adjust retainer, raise folding rear seat back to "up" position and check retainer tension. Lower folding seat back and loosen retainer attaching screw. Adjust retainer inboard or outboard as required then tighten attaching screw. Recheck folding seat back assembly. Where required, re-adjust retainer until desired seat back retention has been obtained.

SPARE TIRE COVER HANDLE ASSEMBLY

REMOVAL AND INSTALLATION

1. Remove four (4) screws securing handle to spare tire cover panel and remove handle assembly from panel.

2. To install, reverse removal procedure.

REAR SEAT CUSHION ASSEMBLY

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.

NOTE: 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.

ELECTRICAL

CONTENTS OF THIS SECTION

BODY WIRING

The current for all of the electrical circuits is provided by a twelve volt battery. The installation of the body wiring includes the dome lamp, stop and back-up lights, and tail lights (Fig. 18-1, 18-2, 18-3, 18-4 and 18-5).

The body wiring consists of a front and rear harness which is joined by a multiple connector located at the left side of the rear compartment. The front end of the front harness is designed with a multiple connector which joins the chassis wiring at the left shroud.

The circuit diagram for typical body wiring circuits is illustrated in Fig. 18-6 and Fig. 18-7.

Failures in a circuit are usually caused by short circuits or open circuits. Open circuits are usually caused by breaks in the wiring, faulty connections or mechanical failure in a component such as a switch. 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 driven through the wire, insulation cut through by sharp metal edge, etc.

If a failure is encountered in one of the body circuits, the circuit diagram should be thoroughly reviewed to become familiar with the circuit before performing an intensive checking procedure to determine the cause and location of the failure.

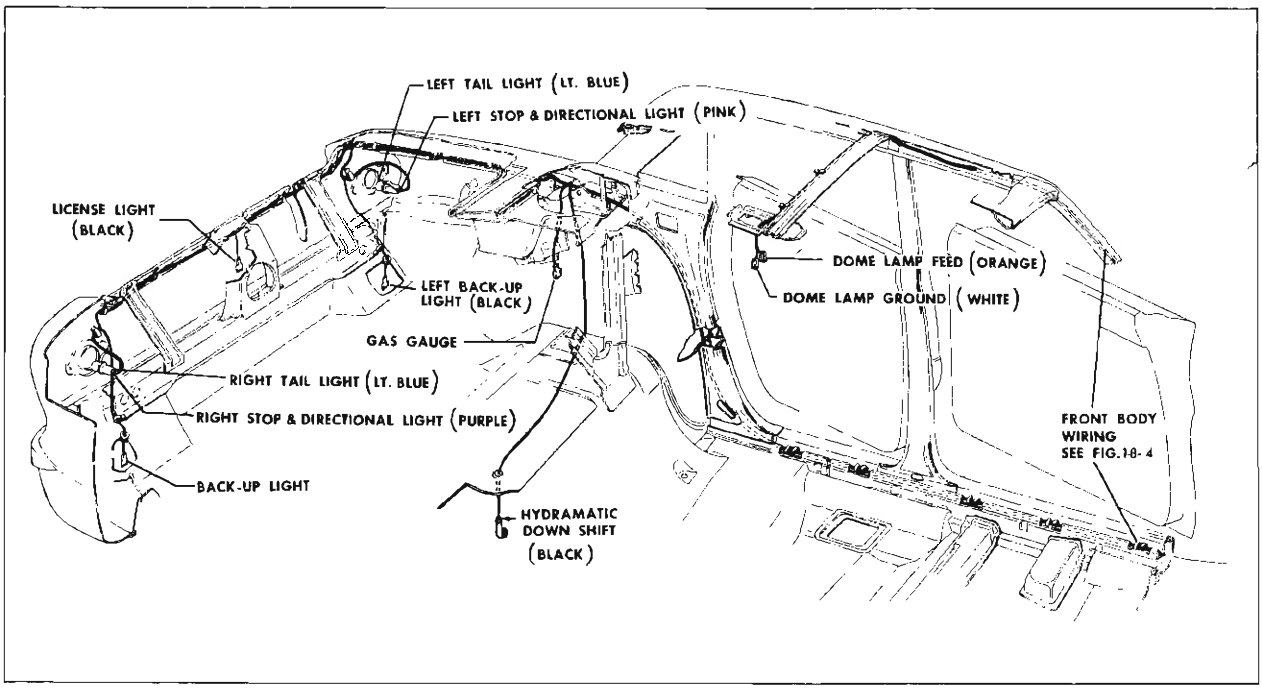


Fig. 18-1 Sedan Body Wire Installation

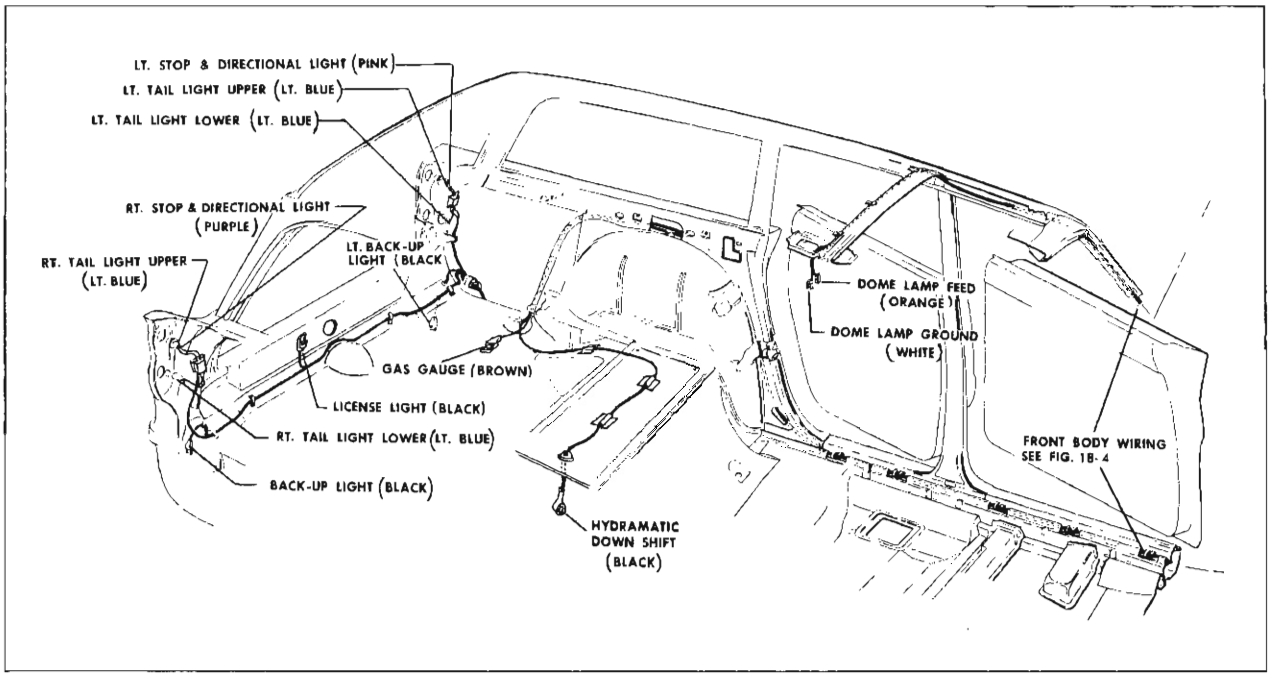


Fig. 18-2 Station Wagon Body Wire Installation

1. If a major portion of the electrical circuit becomes inoperative simultaneously, the failure may be due to improper connections between the front and rear harness, or between the front harness and the chassis wiring connector.

2. If only one of the circuits is inoperative, the failure is due to an open circuit or short in the affected circuit. Short circuits usually result in blown fuses.

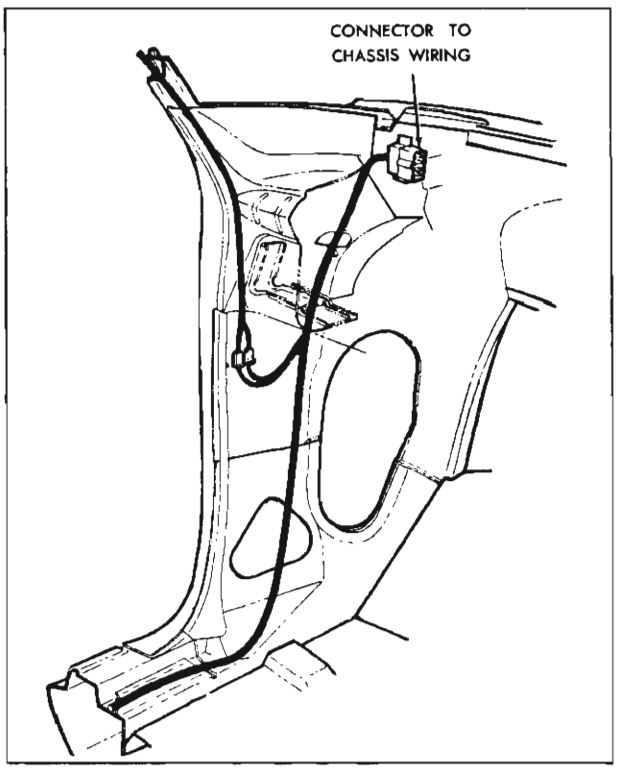


Fig. 18-3 Connector to Chassis Wiring

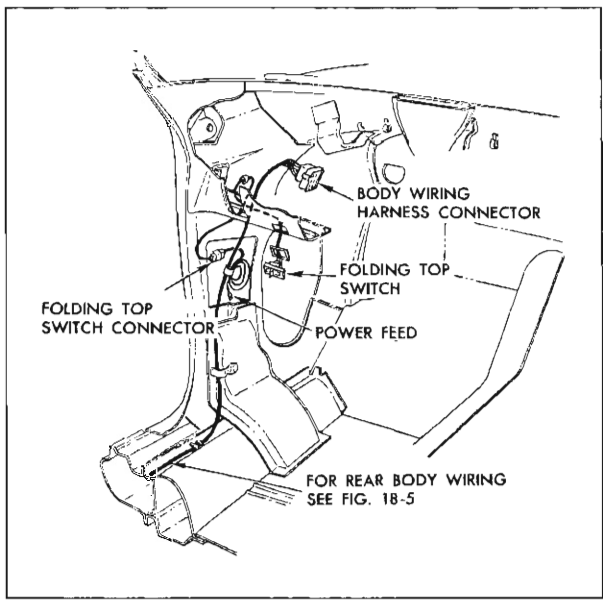


Fig. 18-4 Front End Wiring

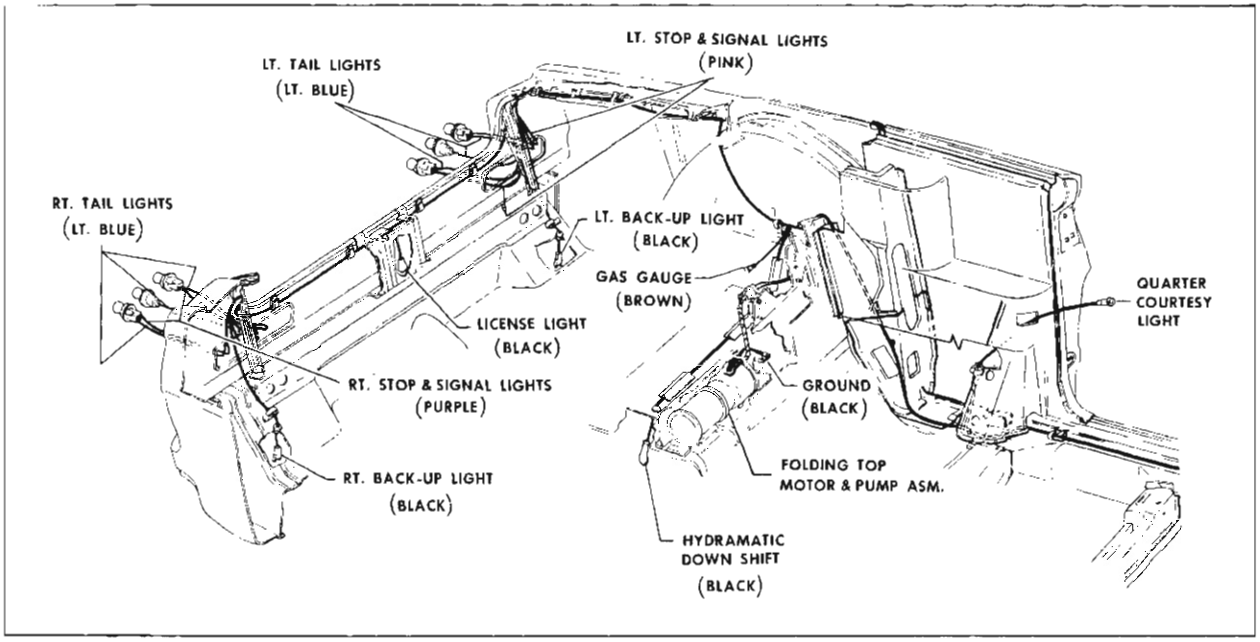


Fig. 18-5 Rear Body Wiring

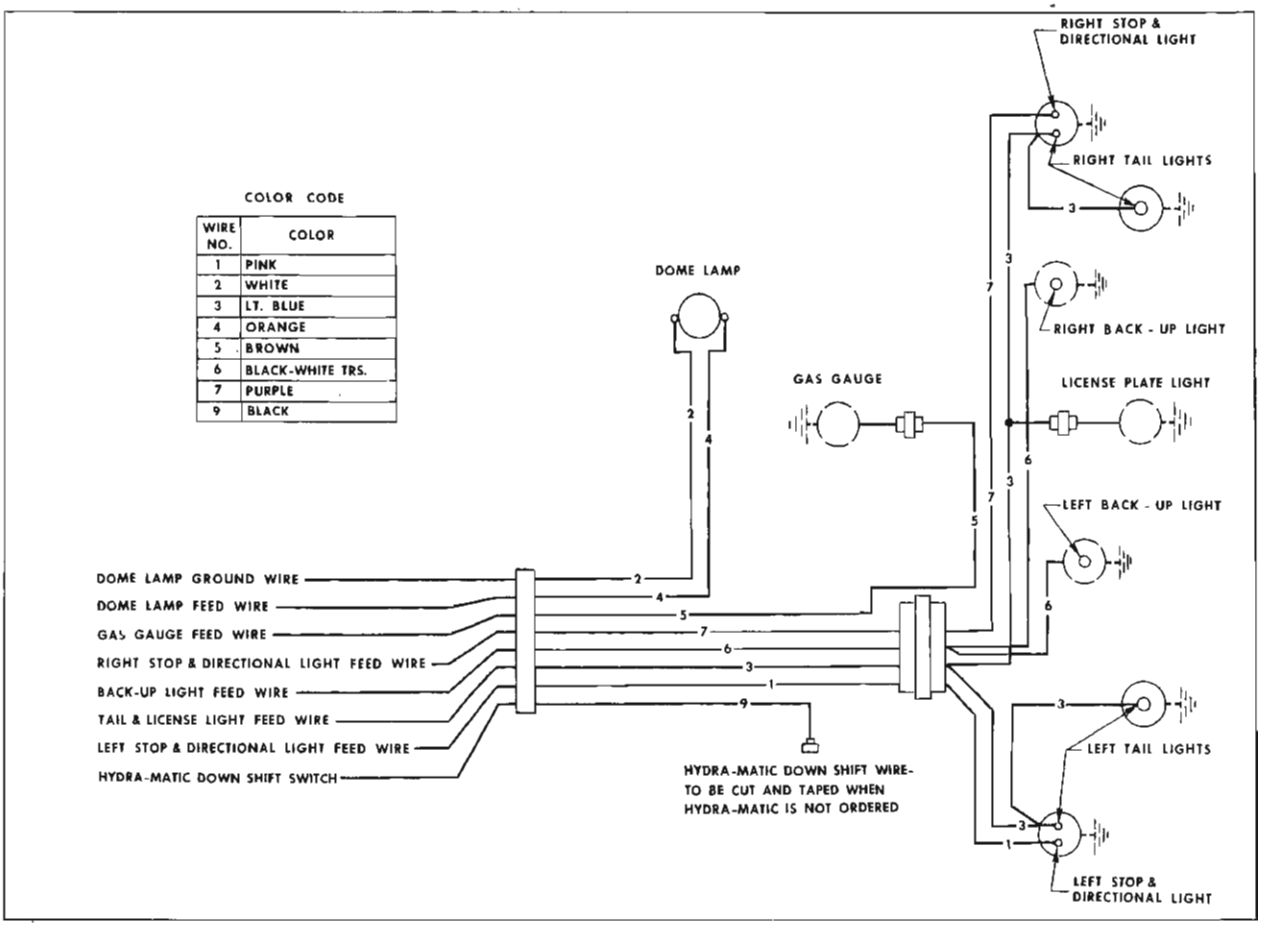


Fig. 18-6 Schematic Body Wiring Circuit Diagram

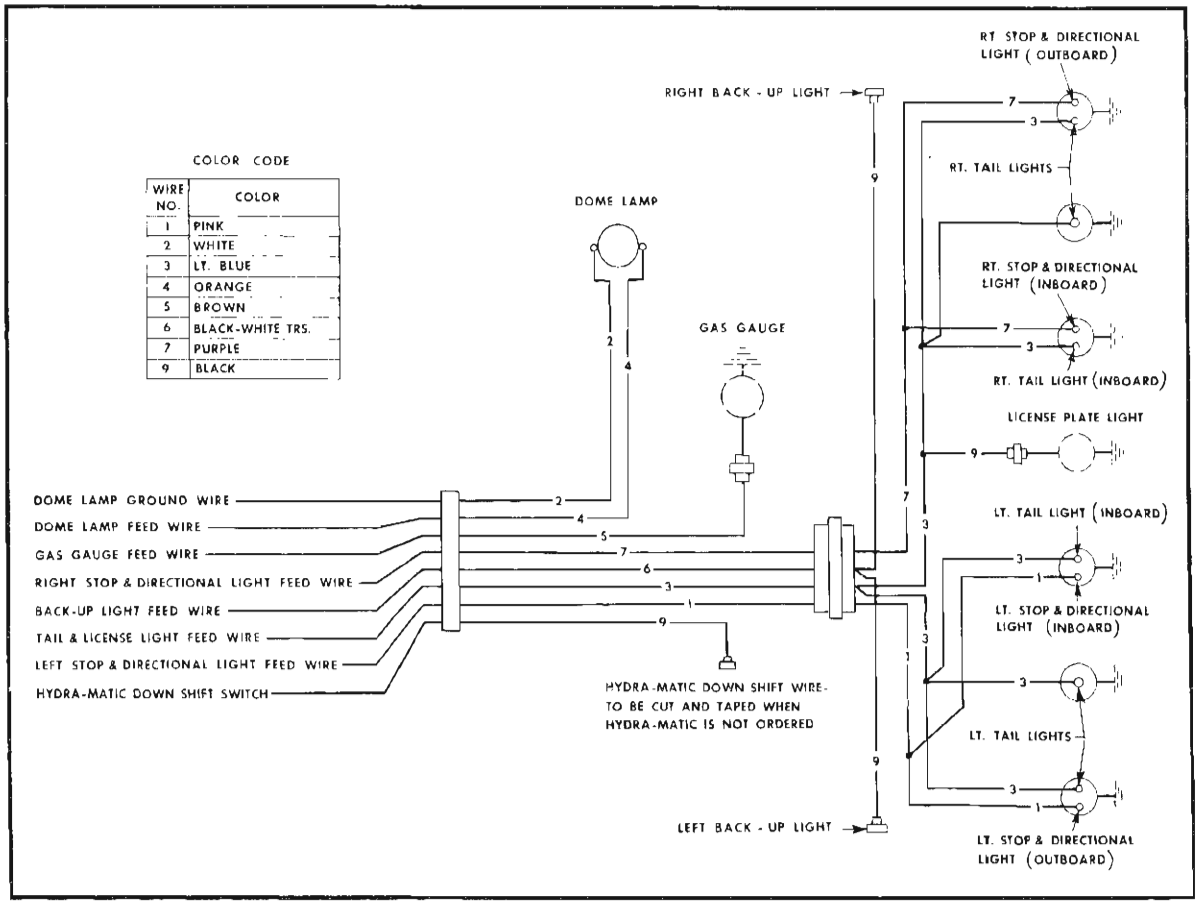


Fig. 18-7 Schematic Body Wiring Circuit Diagram

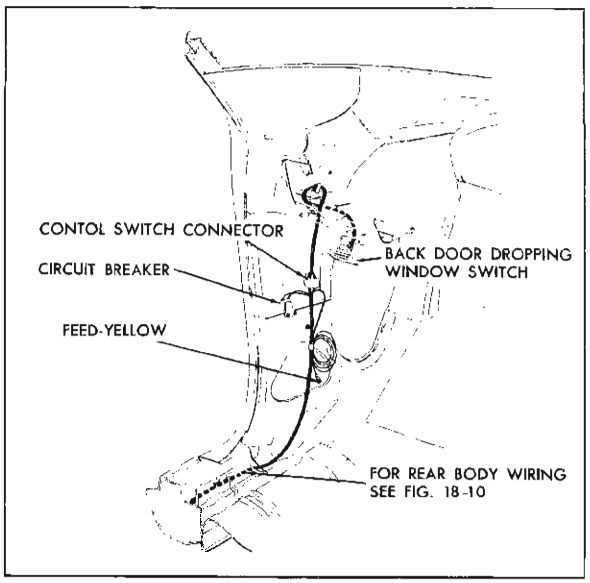


Fig. 18-8 Body Wiring—Electric Back Window

If the fuse is not blown and the circuit affected is a lamp circuit, check the bulb before proceeding with any checking procedures.

3. The dome lamp is designed so that the switches are in the "ground" side of the circuit. If a condition is encountered where the lamps remain "on" even though the jamb switches are not actuated, the failure is probably due to defective switches, or to the wire leading to the switches being grounded.

ELECTRIC BACK DOOR DROPPING WINDOW

The 1963 Tempest station wagon power operated back door dropping window is controlled by a 12 volt D.C. series wound reversible motor. This motor contains an internal circuit breaker and a self-locking gear drive. The current for the motor is obtained through a 40 amp circuit breaker located at left shroud (Fig. 18-8).

The back door window is lowered from a control switch located at the left side of the instrument panel.

The back door window harness is separate from the body wiring harness and runs along the left side of the body. Electrical contact between body wire harness and back door is made through open double contact plates located at the left back body opening side panel and mating surface on back door side facing (Fig. 18-9).

CHECKING PROCEDURE

Before performing an intensive checking procedure to determine the failure in the circuit, check all connections to insure proper installation and contact.

A. Check Feed Circuit Current at Circuit Breaker.

1. Connect one light tester lead to battery side of circuit breaker and ground other lead. Circuit breaker is located at left shroud. If tester does not light there is an open or short circuit in feed circuit from battery to circuit breaker.

2. To check the circuit breaker, disconnect output side of circuit breaker. Connect one light tester lead to the output side of circuit breaker and ground other lead. If tester does not light, the circuit breaker is inoperative.

B. Check Current of Feed Wire at Control Switch Connector.

1. Disengage connector and place one light tester lead at feed terminal (red wire) of the feed side of connector and ground other lead. If the tester does not light, there is an open circuit between the circuit breaker and switch connector.

C. Checking Instrument Panel Control Switch.

1. Disengage harness connector from switch.

2. Using a #12 gauge jumper wire, insert one end into the feed terminal and the other end into one of the other terminals Back door window should operate.

3. Repeat procedure for other terminal.

If the back door operates with the jumper wire but does not operate with control switch, the switch is defective.

D. Check Current at Rear Body Opening Side Facing Contact Plate.

1. At battery side of window control switch connector place #12 gauge jumper wire from the feed terminal to the up cycle terminal.

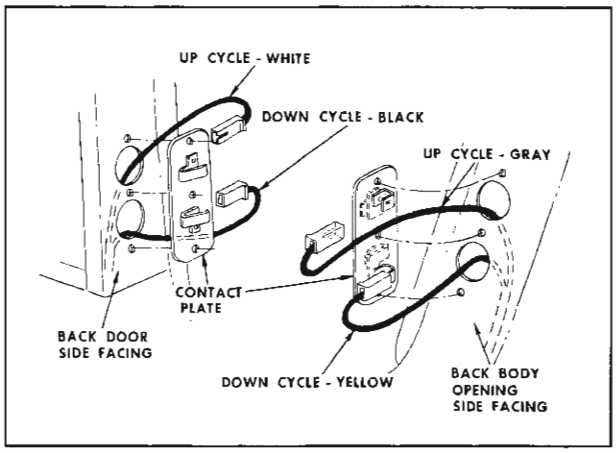


Fig. 18-9 Electric Window Connectors

2. With back door open, place one lead of the light tester on up terminal of the rear body opening contact and ground other lead. If tester does not light there is an open or short circuit between switch connector and rear body opening contact plate.

3. Repeat steps 1 and 2 using down cycle terminal.

E. Check Current at Window Motor Harness Connector.

NOTE: To perform the following check it will be necessary to remove sufficient parts to lower the regulator motor to gain access to motor connector. The proper sequence is described in the back door dropping window write-up.

1. Disengage window motor harness connector from motor.

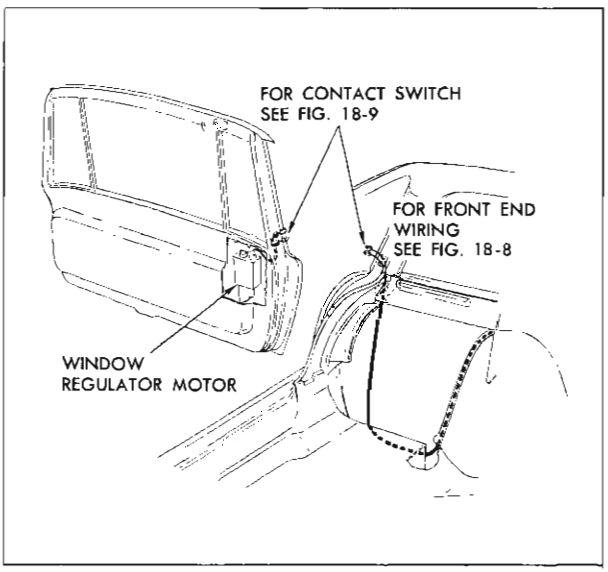


Fig. 18-10 Electric Window—Regulator Wiring

2. Place #12 gauge jumper wire in the battery side of the window control switch connector from the feed terminal to the up cycle terminal.

3. From inside and with the back door closed, place one light tester lead on the up cycle terminal (white wire) and ground the other lead. If tester does not light there is an open or short circuit between the back door contact and the motor connector.

4. Repeat steps 3 and 4 changing connections to the down cycle wires. If motor does not operate at this point, it is defective and should be removed.

4-WAY SEAT

(BUCKET SEAT)

DESCRIPTION

The description, operation, and checking procedures are the same for the Pontiac & Tempest 4 way power bucket seat, therefore, refer to Pontiac ELECTRICAL SECTION. Page 9-9.

LUBRICATION

CONTENTS OF THIS SECTION

The movable mechanical hardware parts of the body are lubricated at the factory to insure proper and quiet operation. Because of frequent use of some parts such as door locks and door lock strikers, it is important that the readily accessible parts be lubricated at least twice a year. Other body parts should be lubricated whenever access to the parts is available.

Wipe off all lubrication points before applying new lubricant. Remove all excess lubricant where necessary to prevent staining of trim parts or clothing.

LUBRICATION INTERVALS

The following parts should be lubricated twice each year.

FRONT DOOR HINGE HOLD OPEN CLIPS

Wipe off dirt and apply a light coat of No. 630 AAW Lubriplate or its equivalent to frictional points (Fig. 19-1). The hinge pins should be lubricated with engine oil.

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.

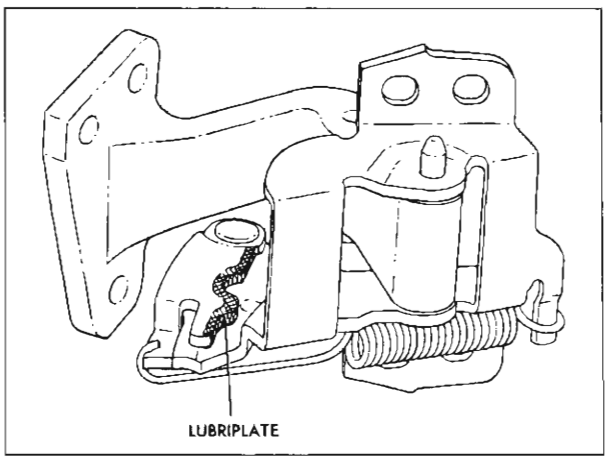


Fig. 19-1 Front Door Hinge and Hold Open—Pontiac

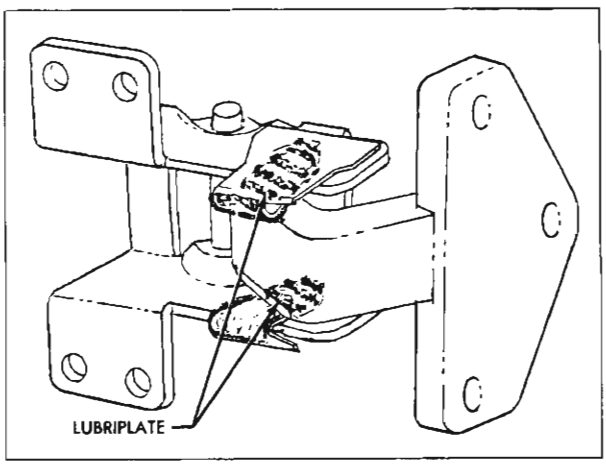


Fig. 19-2 Front Door Hinge and Hold Open—Tempest

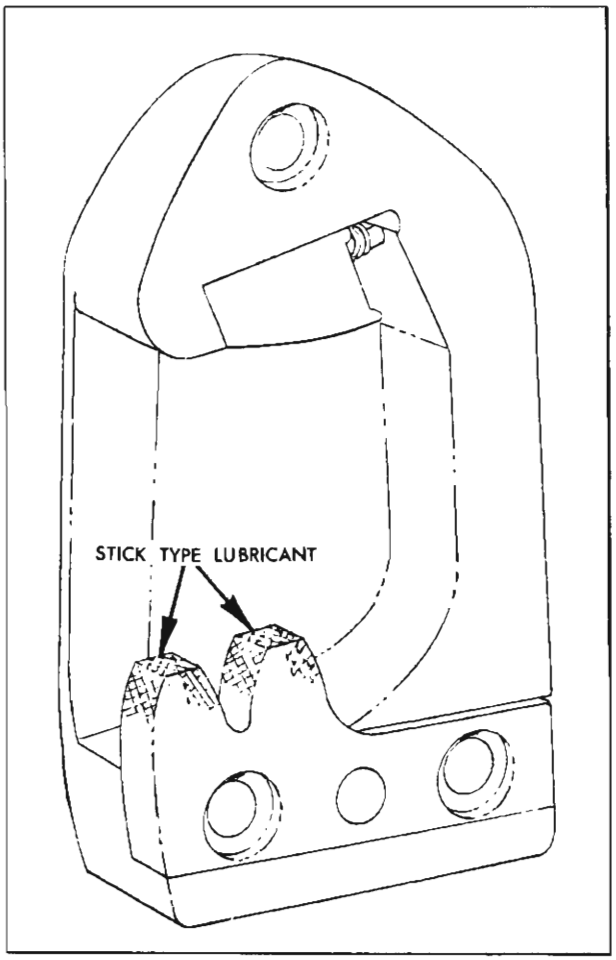


Fig. 19-3 Door Lock Striker

DOOR LOCK STRIKER

Wipe off dirt and apply a thin coat of stick-type lubricant to top surface of lock bolt striker teeth. (Fig. 19-2). 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. 19-3).

REAR DOOR HINGE AND HOLD OPEN ASSEMBLY

Wipe off dirt and apply a light coat of No. 630 AAW Lubriplate or equivalent to frictional points (Fig. 19-4). Wipe off excess lubricant.

REAR COMPARTMENT LID, TAIL GATE AND BACK DOOR LOCKS

On rear compartment lid locks, apply a thin film of No. 630AAW Lubriplate or its equivalent (Fig. 19-5). On back door locks and tail gate locks, apply a thin film of No. 630AAW Lubriplate or its equivalent to the bolt at the striker contact areas.

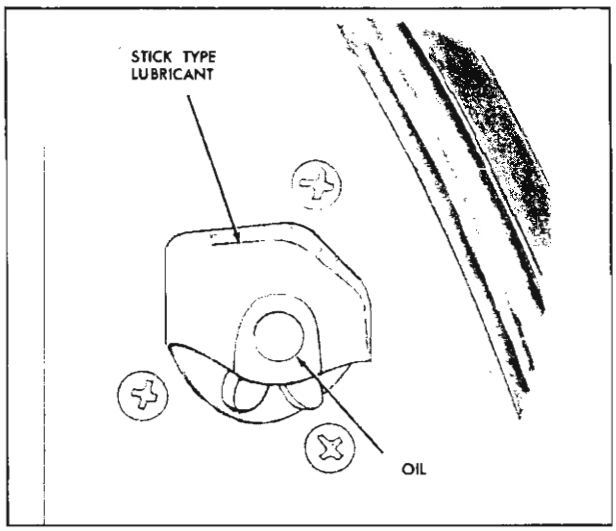


Fig. 19-4 Door Lock Rotary Bolt and Housing

DOOR JAMB SWITCH

Wipe off dirt and apply a thin coat of No. 630AAW Lubriplate or equivalent to end surface of switch plunger. Wipe off excess lubricant.

GAS TANK FILLER DOOR HINGE

Apply a few drops of dripless oil to frictional points of door hinge. Work door several times and wipe off excess lubricant.

SPARE TIRE COVER HINGE ASSEMBLY STATION WAGON

Wipe off dirt and apply a few drops of dripless oil to frictional areas. Work cover several times and wipe off excess lubricant.

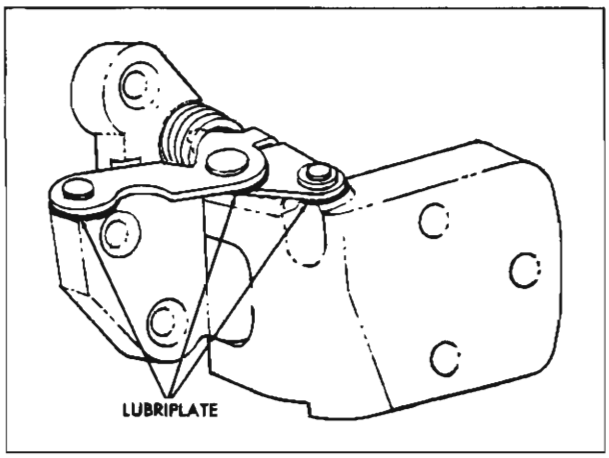


Fig. 19-5 Rear Door Hinge

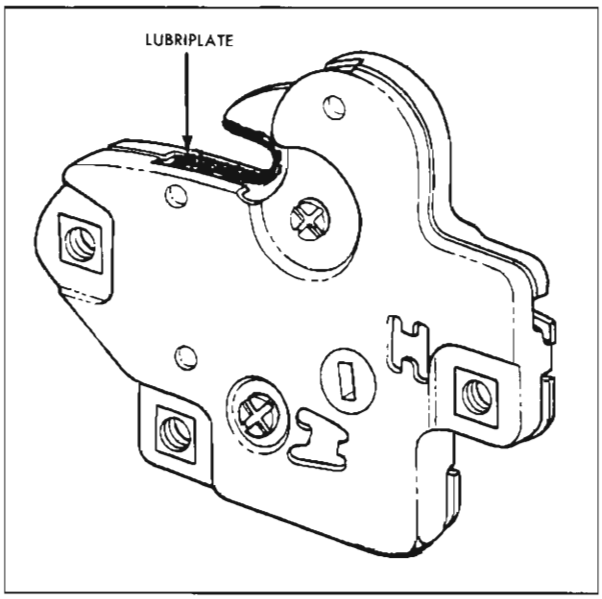


Fig. 19-6 Rear Compartment Lid Lock Bolt

REAR COMPARTMENT LID HINGES AND TORQUE RODS

Apply Lubriplate No. 630AAW or equivalent, to hinge and torque rods at friction points.

SUNSHADE ROD

Remove sunshade from support and apply a thin film of stick-type lubricant to end of sunshade rod (Fig. 19-6). Wipe off all excess.

THE FOLLOWING PARTS SHOULD BE LUBRICATED WHEN ACCESS TO PARTS IS AVAILABLE

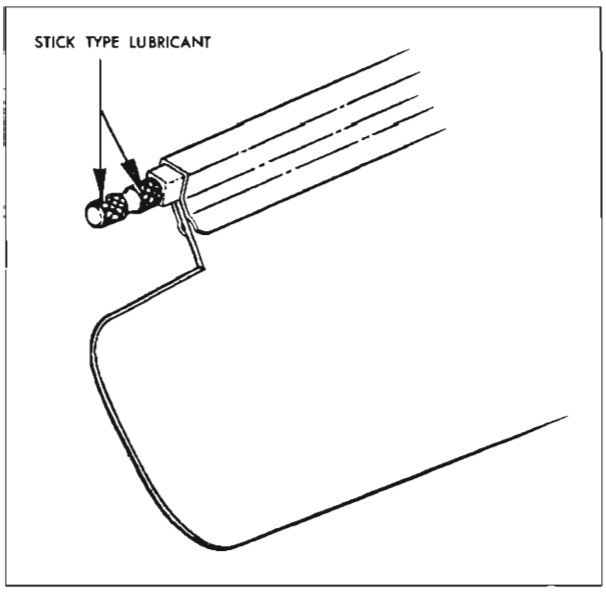


Fig. 19-7 Sunshade Rod

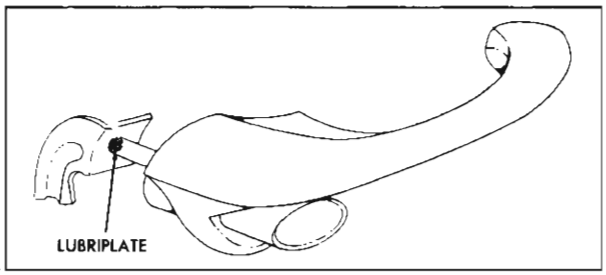


Fig. 19-8 Door Handle—Outside

DOOR LOCK OUTSIDE HANDLE

Apply a light coat of No. 630AAW Lubriplate or equivalent to surface of lock cylinder shaft contacting bell crank (Fig. 19-7).

DOOR WINDOW REGULATOR

Apply a coat of No. 630AAW Lubriplate or equivalent to areas indicated (Fig. 19-8). Lubrication of front door window regulator is typical of lubrication of rear door regulators.

DOOR WINDOW CAMS

Apply a coat of No. 630AAW Lubriplate or equivalent to channel portions of cams (Fig. 19-9 and 19-10).

REAR QUARTER WINDOW REGULATOR, CAMS AND GUIDES

17, 27, 47 and 67 STYLES

Apply a coat of No. 630AAW Lubriplate or equivalent to areas indicated by "1" and "2" (Fig. 19-11).

REAR QUARTER WINDOW

67 STYLE

Apply a coat of No. 630AAW Lubriplate or equivalent to area "1" (Fig. 19-12).

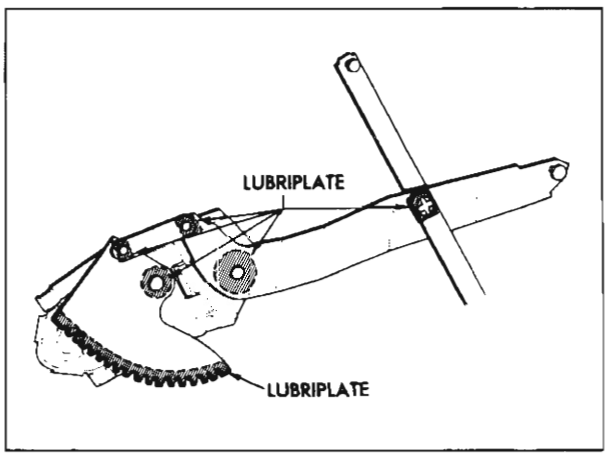


Fig. 19-9 Door Window Regulator

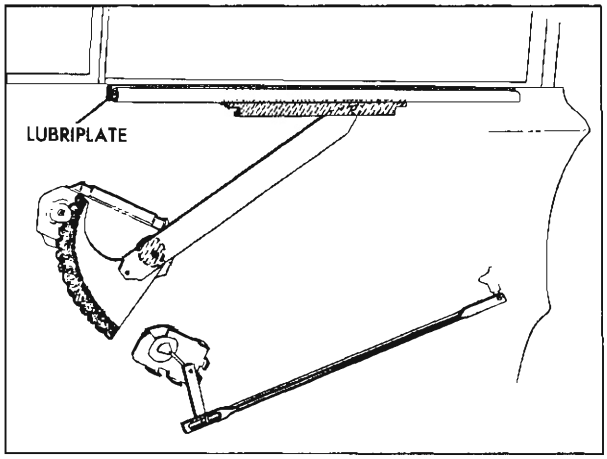


Fig. 19-10 Front Door Window Regulator Cams

DOOR LOCK PARTS

Lubricate moving parts of door lock with No. 630 AAW Lubriplate or equivalent.

DOOR LOCKING MECHANISM

Apply No. 630AAW Lubriplate or equivalent to pivot points at ends of all connecting rods.

BACK DOOR HINGES AND TORQUE RODS

35 and 45 STYLES

Wipe off dirt and apply dripless oil to frictional points; work door several times and wipe off excess lubricant.

FRONT SEAT ADJUSTER MECHANISM—MANUAL

A thin film of No. 630AAW Lubriplate or its equivalent should be applied to the seat tracks as needed or during repairs.

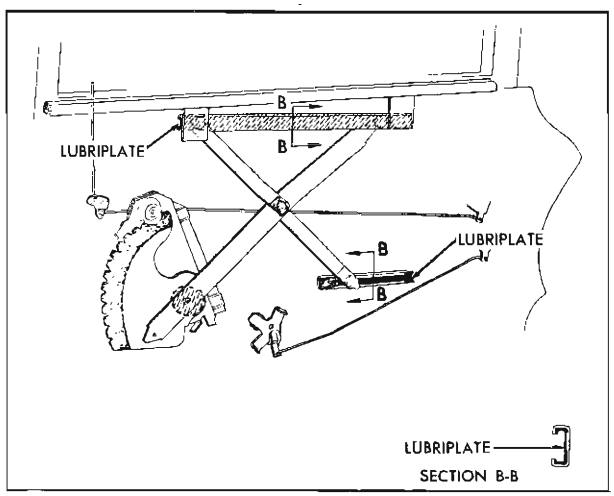


Fig. 19-11 Rear Door Window Regulator Cams

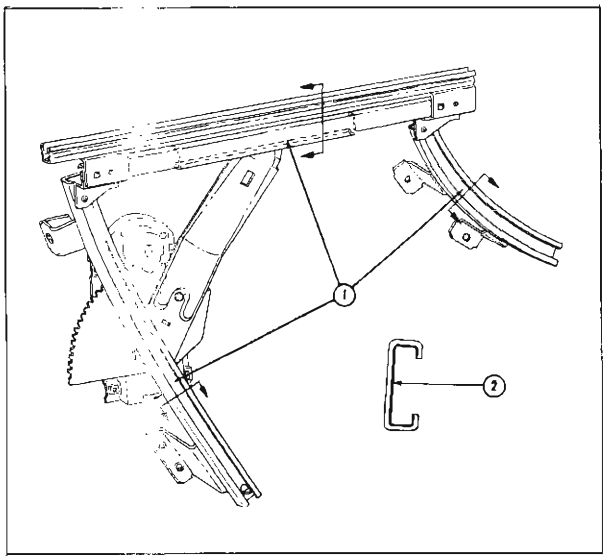


Fig. 19-12 Rear Quarter Window Regulator Cams

FRONT SEAT ADJUSTER MECHANISM—ELECTRICALLY OPERATED

Thoroughly wipe off old lubricant from jackscrew. Apply a thin film of Lubriplate No. 630AAW 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.

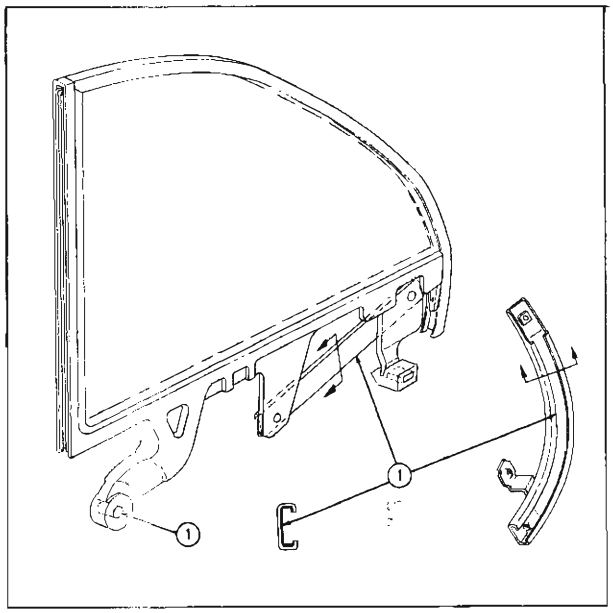


Fig. 19-13 Rear Quarter Window

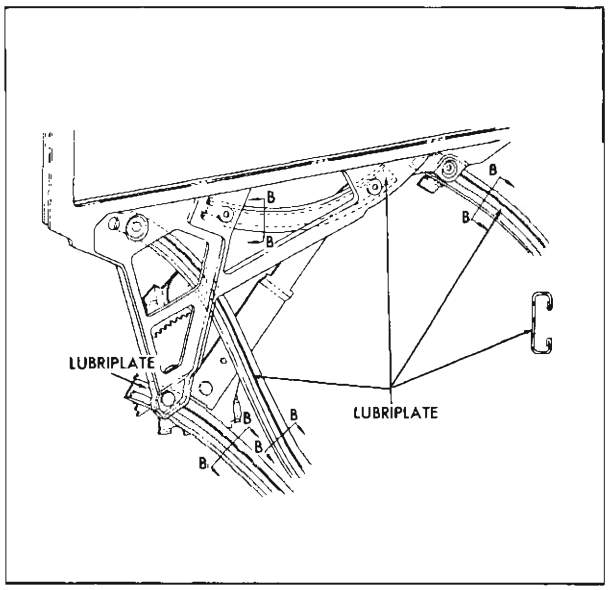


Fig. 19-14 Rear Quarter Window Cams

BACK DOOR WINDOW REGULATOR CAMS AND GUIDES

35 and 45 STYLES

Apply a coat of No. 630AAW Lubriplate or equivalent to areas "1" and "2" (Fig. 19-13).

The following to be lubricated as required:

CONVERTIBLE TOP LINKAGE

67 STYLE

Apply a sparing amount of dripless oil to areas "1" (Fig. 19-17) and to all bearing points Fig. 19-16. Wipe off excess lubricant.

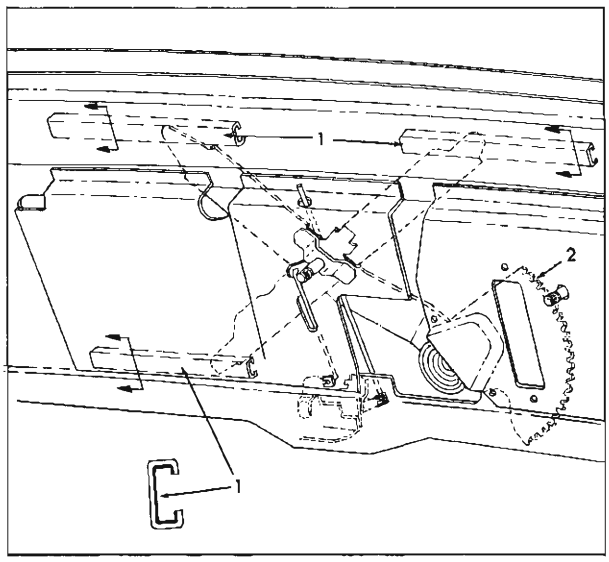


Fig. 19-15 Back Door Window Regulator Cams

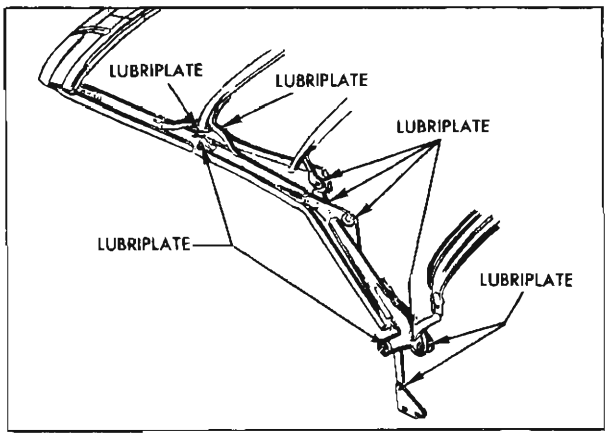


Fig. 19-16 Folding Top Linkage

FOLDING TOP LIFT CYLINDER PISTON RODS

Twice each year, 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.

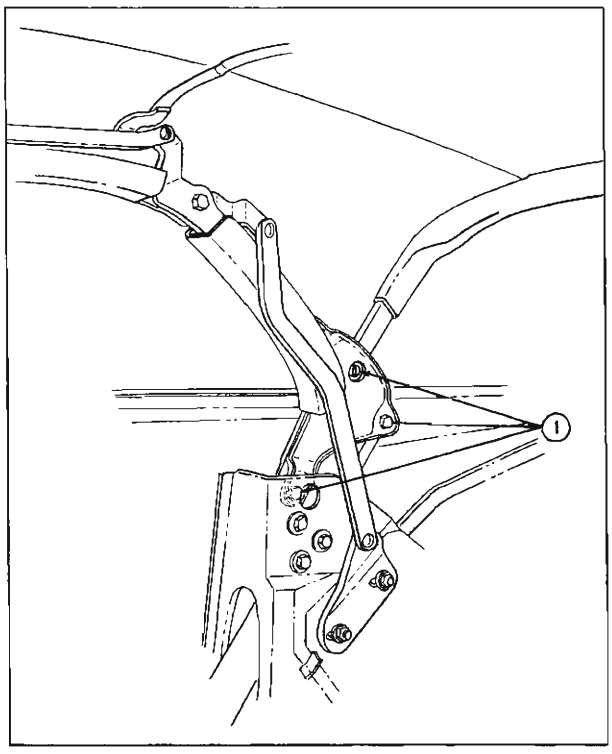


Fig. 19-17 Convertible Top Linkage

FOLDING SEAT LINKAGE AND LOCK

35 and 45 STYLES

Apply a sparing amount of dripless oil to all frictional points, work folding seat as required, wipe off excess lubricant.

TAIL GATE HINGE

Wipe off dirt and apply a small amount of dripless oil to frictional areas.

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 affect 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 luekwarm 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 uphlostery 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 miostened 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

OPERATION OF FOLDING TOP

DESCRIPTION

The convertible coupes use either a manual or Hydro-lectric system to operate the folding top. On the power operated top, after the top has been unlatched and raised above the windshield by hand, it can be lowered or raised, respectively, by actuating the power control switch. Hydraulic fluid from an electrically driven pump is forced through tubing to double-acting, piston-type cylinders located at each rear quarter section of the car. Pressurized fluid entering the top of the hydraulic lift cylinder forces the pistons down—thus lowering the top. Pressurized fluid entering the bottom of the hydraulic lift cylinders forces the piston upward—thus raising the top.

The convertible coupe with a manually operated folding top has two spring loaded manual lift assemblies which help compensate for the weight of the folding top mechanism when the top is near the full "up" or full "down" positions. The top assembly is retained in the folded or "stacked" position by two catch clip assemblies which are attached to the folding top compartment side braces. The clips snap over the center side roof rails when the top is fully depressed. Clips must be disengaged prior to raising top assembly.

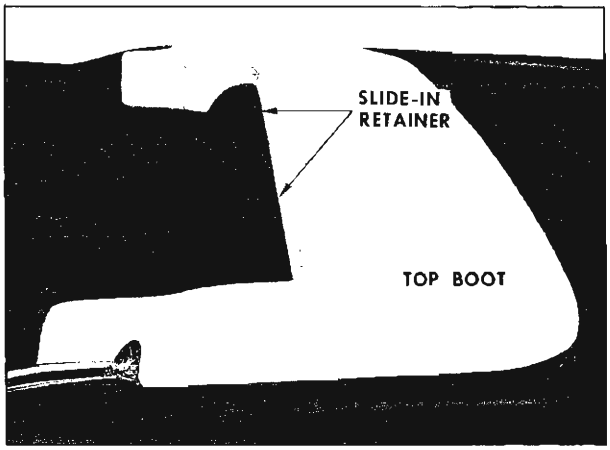


Fig. 21-1 Top Boot

CAUTION: When operating top, hands must be kept away from the folding portions of the top mechanism. Grasp top only in the areas illustrated and described in the following operational procedures. Do not touch or attempt to service spring loaded lift assemblies except as outlined in procedure for "Manually Operated Folding Top Hardware."

TOP BOOT

The top boot is attached to the body with concealed "floating-type" snap fasteners along the side and rear edges and a "slide-in" retainer along the front edge as indicated in Fig. 21-1. When the folding top is raised, either of the following two methods may be used for storing the boot.

1. The boot may be stored in its protective case in rear compartment of car.

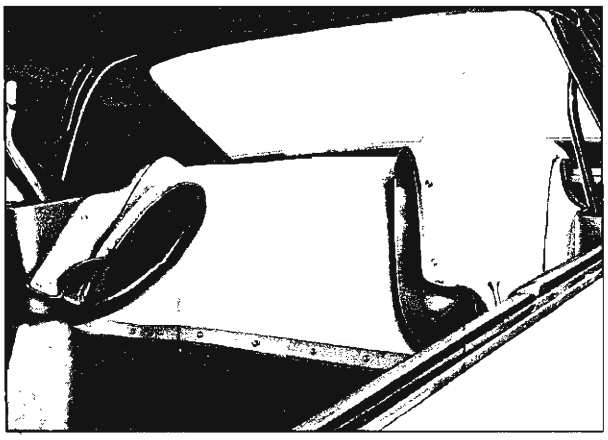


Fig. 21-2 Top Boot Turned Over Seat Back

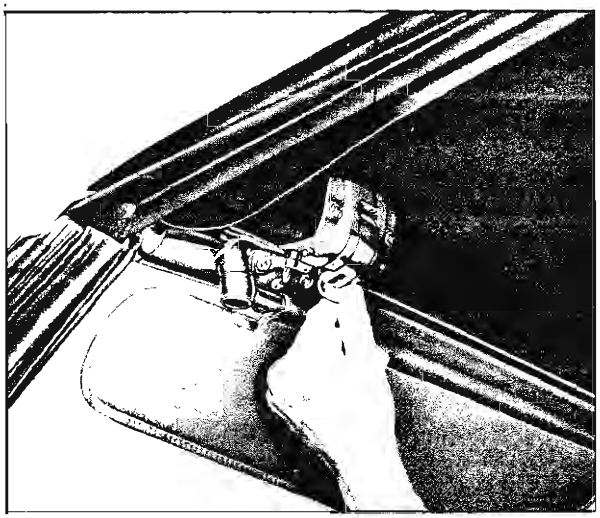


Fig. 21-3 Unlocking Top From Header

2. The boot may be left attached to the slide retainer and folded behind rear seat back.

The top compartment behind the rear seat back must be used only for storage of the top boot when it is attached to the slide retainer on the seat back. The storage of such items as golf clubs, luggage and miscellaneous objects in the compartment not only interferes with the proper operation of the top, but may damage the top or the plastic rear window.

TO LOWER THE TOP

1. Stop the car. If top boot has been stored in its retainer behind rear seat, turn boot over seat back (Fig. 21-2). It is not necessary to lower rear window or rear quarter windows before lowering top.

2. Turn down both sun visors: then rotate each locking handle rearward then upward until it is

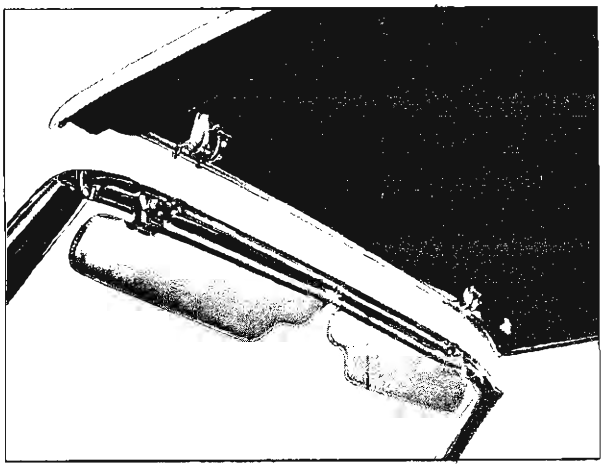


Fig. 21-4 Disengaging Top From Header

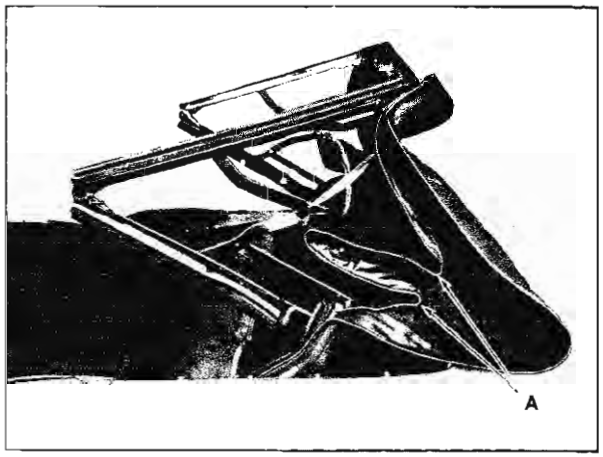


Fig. 21-5 Pull Padding Fron Between Arms

disengaged from striker on windshield header (Fig. 21-3).

3. Raise front of top (Fig. 21-4) to disengage front roof rail from windshield header.

With power operated top proceed as follows:

A. Actuate power top control switch until front top rail is approximately two feet from full down position (Fig. 21-5).

B. On right and left side of body, pull top material and padding "A" from between operating arms of top (Fig. 21-5).

C. Operate top control switch until top is approximately six (6) inches from full down position. Be sure padding "A" has been pulled rearward from between operating arms of top to insure proper fit of top boot (Fig. 21-6).

D. Operate top control switch until top is in fully lowered position. Smooth out top material on body panel (Fig. 21-7).

With manually operated top proceed as follows:

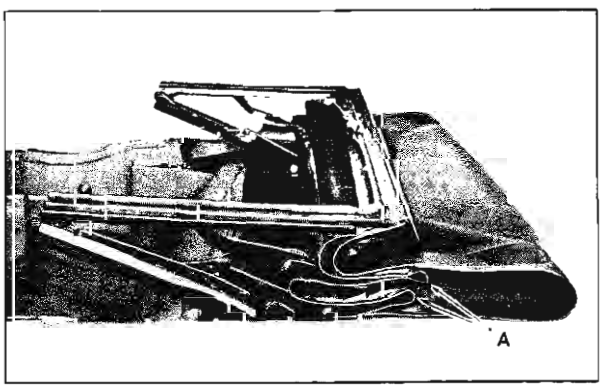


Fig. 21-6 Tuck Padding into Compartment

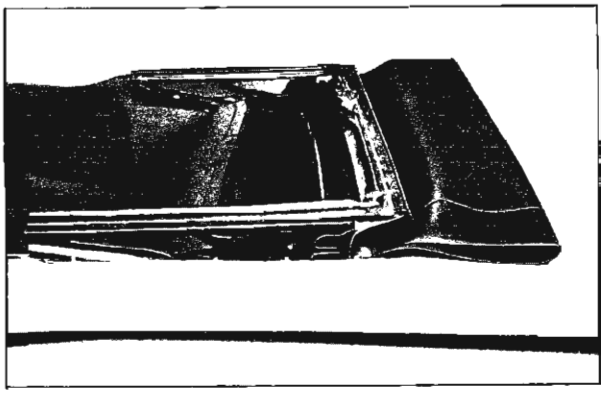


Fig. 21-7 Smooth Out Top Material

A. Standing along side of car, place palm of hand against middle of side roof rail front section. Lift up forward portion of top assembly and rotate top rearward (Fig. 21-8).

CAUTION: Keep hands away from hinged portion of side rails. Do not grasp upper portion of side rails or any of the top linkage.

B. As the top approaches mid-point of travel, tension is relieved from the assist springs. Exert downward pressure on the exposed surface of the side rail front section until top is approximately 12 inches from full down position (Fig. 21-9).

C. Pull top material and padding "A" from between operating arms of top as shown in the illustration (Fig. 21-5).

D. Press down on side rail front section until catch clip snaps onto side rail center section. Repeat operation on opposite side of car (Fig. 21-10).

4. Fold over corners of top material (Fig. 21-11).

5. Fold top material forward over front roof rail (Fig. 21-12).

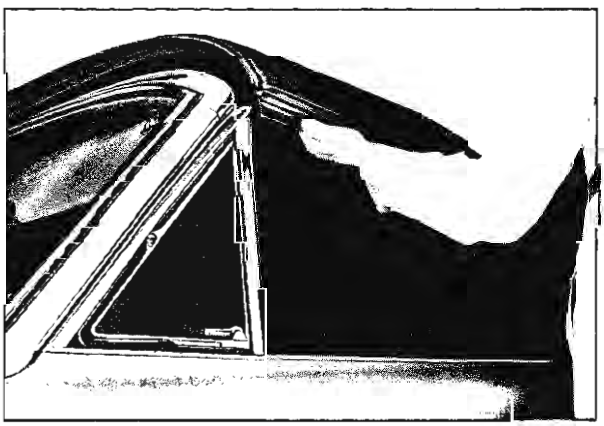


Fig. 21-8 Rotating Top Rearward

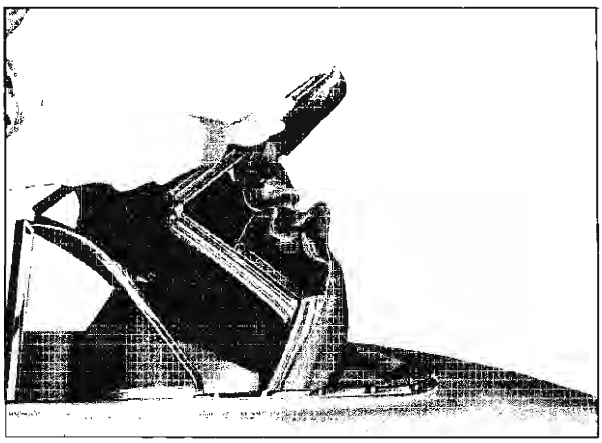


Fig. 21-9 Exerting Downward Pressure

TOP BOOT INSTALLATION

1. Slide front edge of boot into retainer "A" along seat back (Fig. 21-13). Center boot for proper engagement of snap fasteners.

2. Place top boot in position over folded top and engage several boot fasteners to studs along rear molding. Then adjust boot to remove wrinkles by sliding forward edge of boot to right or left in retainer (Fig. 21-14).

3. Engage remaining boot fasteners to studs on molding and rear quarter trim (Fig. 21-1).

TO RAISE THE TOP

1. Stop the car. Disengage all top boot snap fasteners from studs, turn boot over seat back and fold ends of boot toward center. If thoroughly dry, top boot may be removed from retainer, folded and placed in protective case (Fig. 21-2).

2. Smooth out top material on body panel (Fig. 21-7).

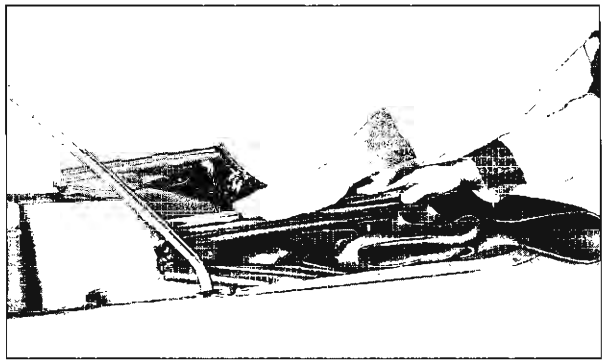


Fig. 21-10 Pressing Down on Side Rail

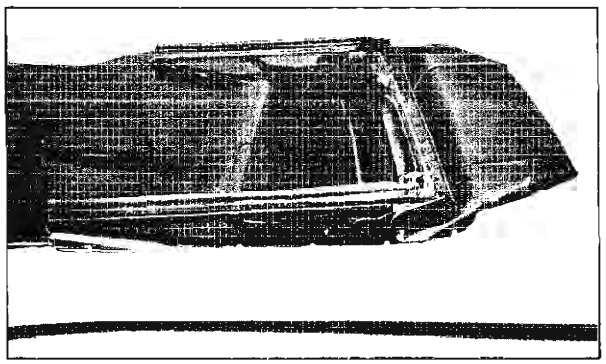


Fig. 21-11 Fold Corners of Top Material

With power operated top proceed as follows:

A. Turn down sun visors and operate power top control switch until top is fully raised.

B. After top is raised, guide studs on lock assembly into striker holes; then engage each folding top locking handle with striker on windshield header (Fig. 21-15).

With manually operated top proceed as follows:

A. At each side of car, move upper end of catch clip inboard to disengage top assembly (Fig. 21-16).

B. Standing along side of car, grasp front corner of folding top as shown in Fig. 21-17, lift and rotate top forward.

C. When top is approximately 12 inches away from windshield header, place hands on top assembly as shown in Fig. 21-18 and press down on top until guide studs on lock assembly engage striker holes.

D. Holding top down with one hand, reach into car and engage each folding top locking handle with striker on windshield header (Fig. 21-15).

3. Rotate each handle downward **THEN** forward

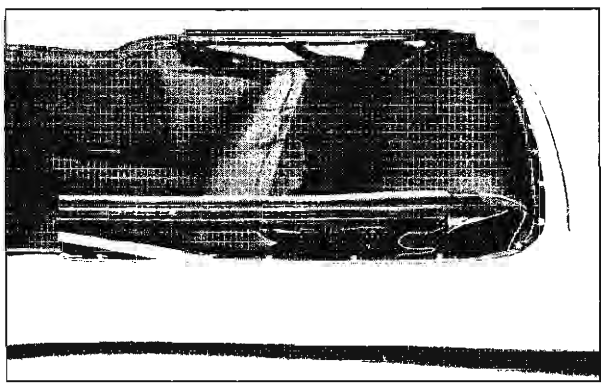


Fig. 21-12 Turn Top Material Forward

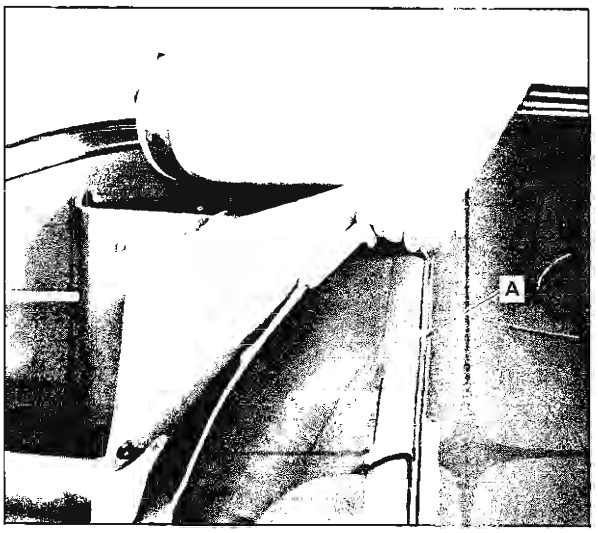


Fig. 21-13 Slide Boot Into Retainer

until fully engaged with striker on windshield header; then turn up sun visors.

NOTE: Be sure top is securely locked to windshield header before starting car.

TO LOWER REAR WINDOW

Slide zipper fastener indicated at "A" in Fig. 21-19 upward, across top to opposite side. Then carefully lower window into top compartment. To avoid damage, do not place miscellaneous objects on window.

TO RAISE REAR WINDOW

1. Hold window in its approximate closed position: then slide zipper along top of window and down side to its closed position as shown in Fig. 21-20.

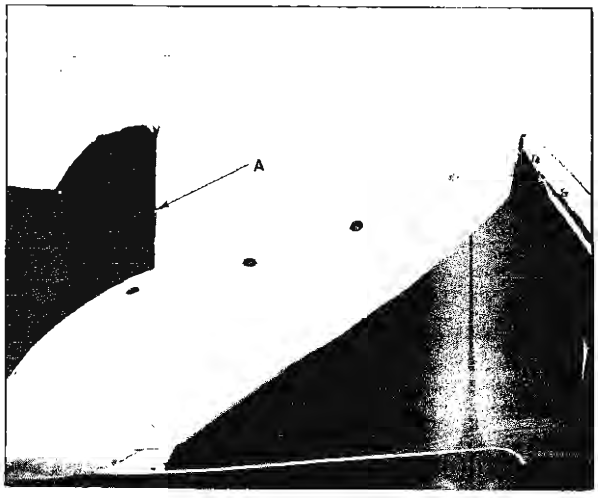


Fig. 21-14 Top Boot Partially Installed

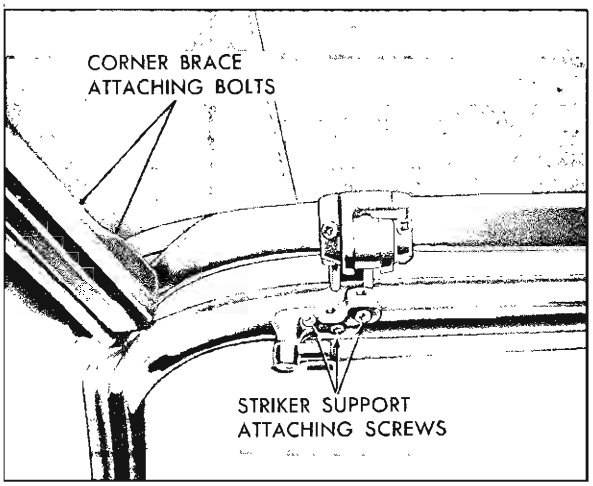


Fig. 21-15 Front Roof Rail Adjustment

NOTE: If the top has been released at the windshield header to relieve the tension on the zipper, be sure top is locked securely to header before moving car.

GENERAL INFORMATION

1. Grasp top only at the specified areas when raising or lowering top. Do not place fingers into the open "U"-shaped upper portion of the side rails between the operating linkage arms of the folding top or on any portion of the side roof rail hinges.

2. Do not touch spring loaded manual lift assemblies located in rear quarter areas. Consult (a) the body shop service manual (b) the removal and installation procedure for the folding top assist arms before attempting any service operations.

3. As a safety precaution, do not operate top up or down while car is in motion. After raising top, make sure it is securely locked to the windshield header

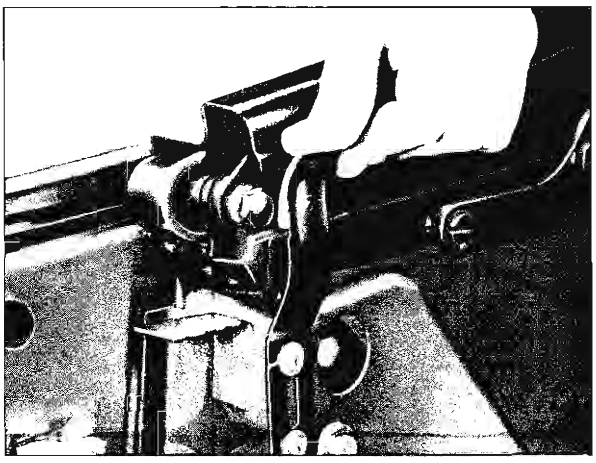


Fig. 21-16 Disengaging Top Assembly

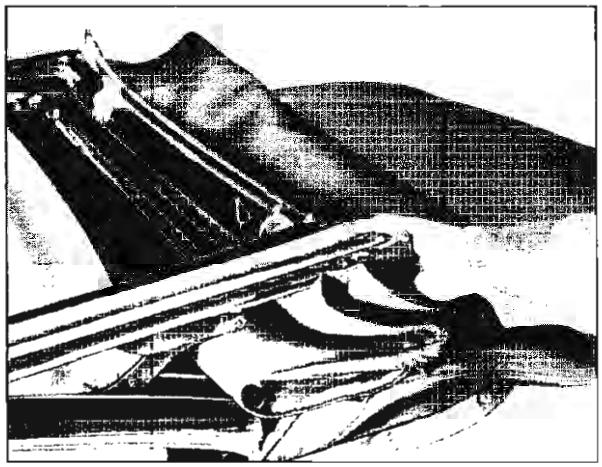


Fig. 21-17 Rotating Top Forward

before starting car.

4. Do not obstruct the mechanical operation of top.

5. Do not place miscellaneous objects such as golf clubs, luggage, etc., in the folding top compartment.

6. To prevent water stains, mildew or possible shrinkage of top material, do not keep top folded for a long period of time if it is damp or water-soaked.

7. Do not paste advertising stickers, gummed labels or masking tape on the plastic rear window. The adhesive used on such items is difficult to remove and may be injurious to the plastic composition of the window.

8. Allow plastic rear window and top material to become warm and pliable before attempting to operate top in temperatures below 50° Fahrenheit.

9. In some cases, the rear window can be lowered and raised much easier if the top is raised slightly above the windshield header to relieve the tension of the back curtain zipper.

Fig. 21-18 Pressing Down on Top

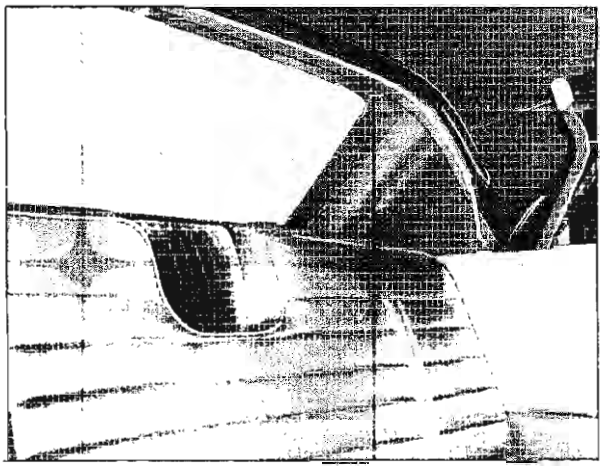


Fig. 21-19 Zipper Fastener on Rear Window

10. Twice a year, lubricate the zipper with silicone, beeswax or a non-staining type grease stick. The zipper should be cycled several times; then the excess lubricant wiped from the zipper assembly.

11. Twice a year with the top raised, clean exposed surface of hydraulic lift cylinder piston rods using a cloth dampened with brake fluid. Then apply a thin film of brake fluid to act as a lubricant.

CARE OF REAR WINDOW

The back curtain in the convertible coupe is provided with a large pliable plastic window. Due to the texture of the plastic window, it is susceptible to scratches and abrasions; therefore, when cleaning the window, follow the steps outlined below:

1. To remove superficial dust, do not use a dry cloth. Use a soft cotton cloth moistened with water and wipe crosswise of the window.

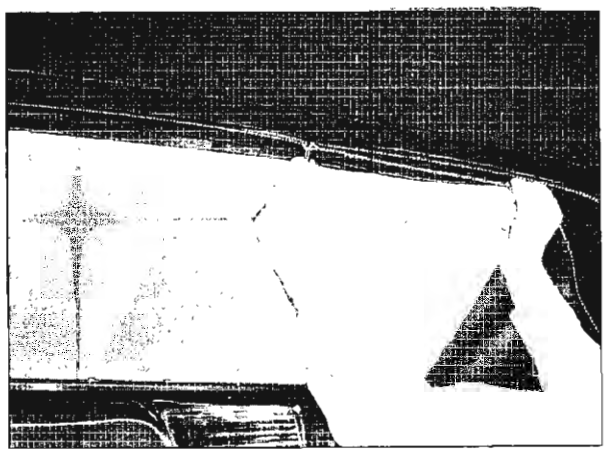


Fig. 21-20 Raising Rear Window

2. To wash the rear window, use cold or tepid (not hot) water and a mild neutral soap suds. After the washing, rinse with clear water and wipe with a slightly moistened clean soft cloth.

CAUTION: Never use solvents such as alcohol or volatile cleaning agents on the plastic window. These liquids may have a deteriorating effect on the plastic and, if spilled, may spot the painted finish on the body panels.

3. When removing frost, snow or ice from the plastic window, do not use a scraper. In an emergency, warm water may be used. Use care that the warm water does not contact the glass windows or windshield.

CLEANING THE TOP

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 clean 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.

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.

ADJUSTMENT OF TOP AT FRONT ROOF RAIL CORNER BRACE

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: (Fig. 21-21).

1. Unlatch top and raise it above windshield header. Remove side roof rail weatherstrip front attaching screws.

2. Loosen corner brace attaching bolts and adjust front roof rail fore or aft as required. Repeat on opposite side if necessary (Fig. 21-22).

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.

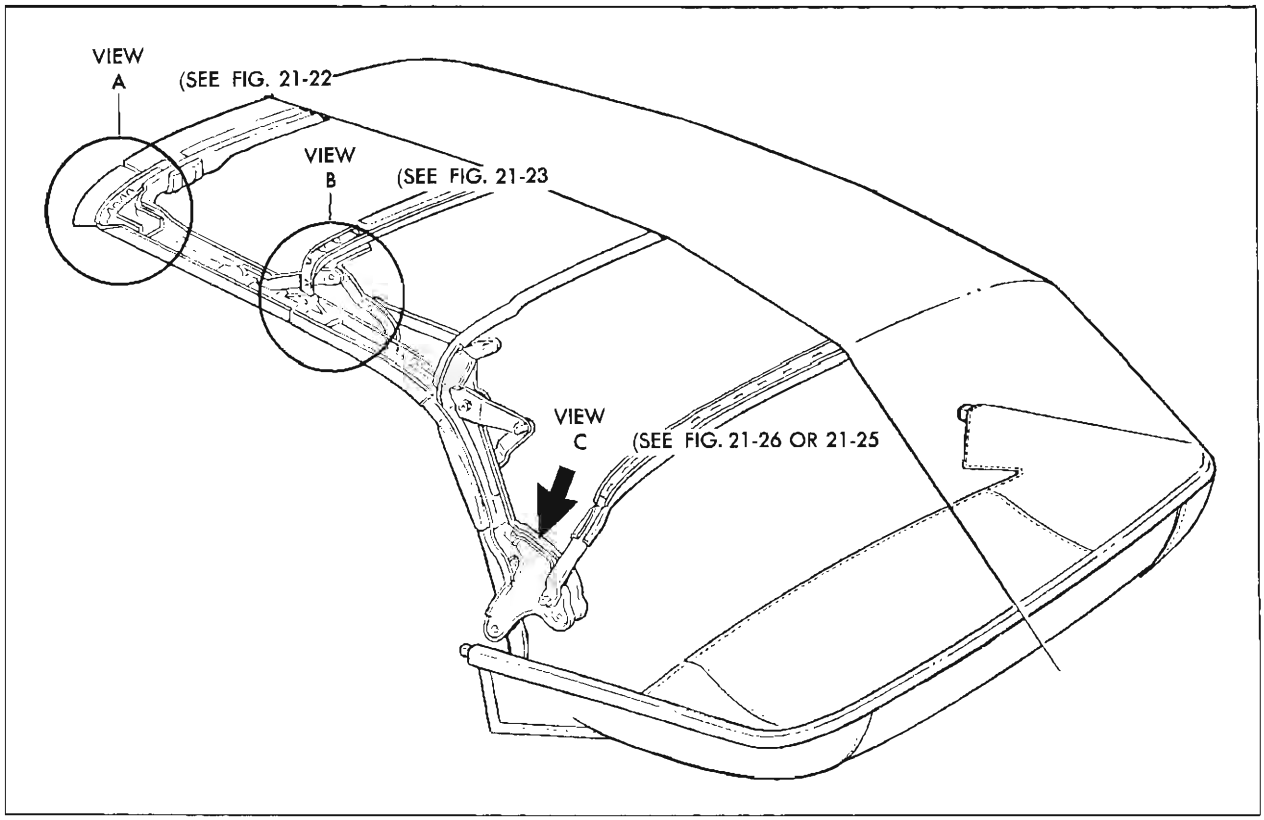


Fig. 21-21 Folding Top Adjustments

ADJUSTMENT OF TOP AT SUNSHADE AND STRIKER SUPPORT ASSEMBLY

If a difficult locking action, caused by misalignment of the sunshade and striker support assembly is encountered at the front roof rail or if a closer fit of the front roof rail to windshield header is desired, proceed as follows: (Fig. 21-23).

1. Unlatch top and raise it above windshield header.

2. Loosen striker support attaching screws and adjust striker as required; then tighten attaching screws (Fig. 21-24).

If, after adjusting the striker support, the locking action of top is still unsatisfactory, the hook lever on the front roof rail lock assembly may be adjusted as follows:

1. To tighten locking action of top, turn hook lever clockwise.

2. To reduce locking action of top, turn hook lever counterclockwise.

NOTE: Hook lever may be adjusted with finger pressure, no tools are required.

ADJUSTMENT OF TOP CONTROL LINK ADJUSTING PLATE

1. With top in up position, if joint between front and center side roof rail is too high or too low, proceed as follows:

a. Remove folding top compartment side trim panel.

b. Scribe location of control link adjusting plate on folding top compartment brace.

c. Loosen two bolts securing control link adjusting plate sufficiently to permit adjustment of plate. On Pontiac styles Fig. 21-25; on Tempest styles see Fig. 21-26.

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.

e. On Tempest styles equipped with manually operated folding tops, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

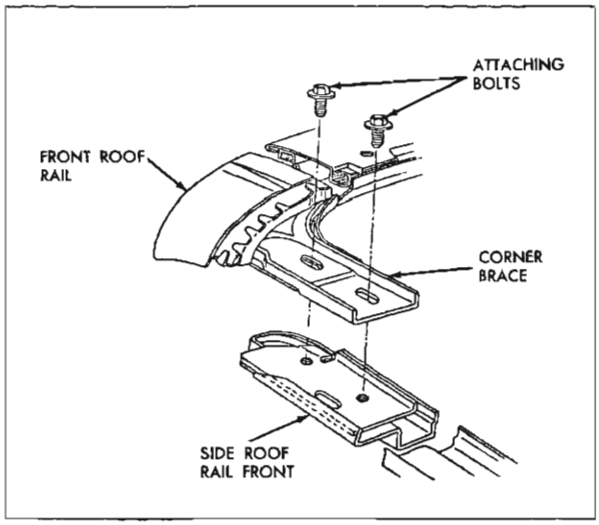


Fig. 21-22 Front Roof Rail Corner Brace Adjustment

2. If top assembly does not stack properly when top is in down position, proceed as follows:

a. Scribe location of control link adjusting plate on folding top compartment brace.

b. Loosen bolts securing control link adjusting plate sufficiently to permit adjustment of plate.

c. Without changing the up or down location of adjusting plate, move adjusting plate forward or rearward (horizontally) over serrations as required to obtain desired height; then tighten bolts.

d. On Tempest styles equipped with manually operated folding tops, adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

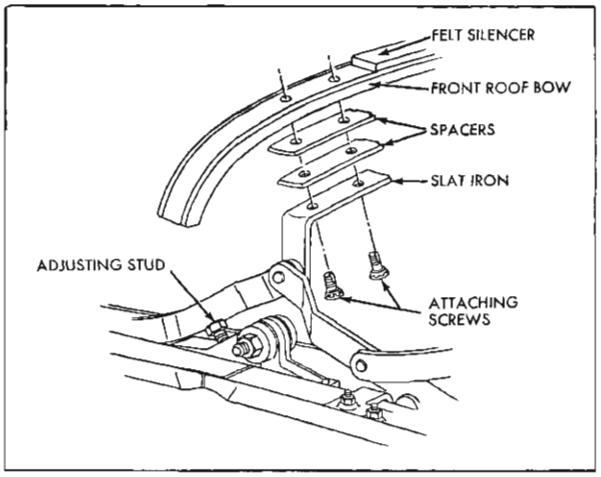


Fig. 21-23 View "B" Fig. 21-21 (Pontiac)

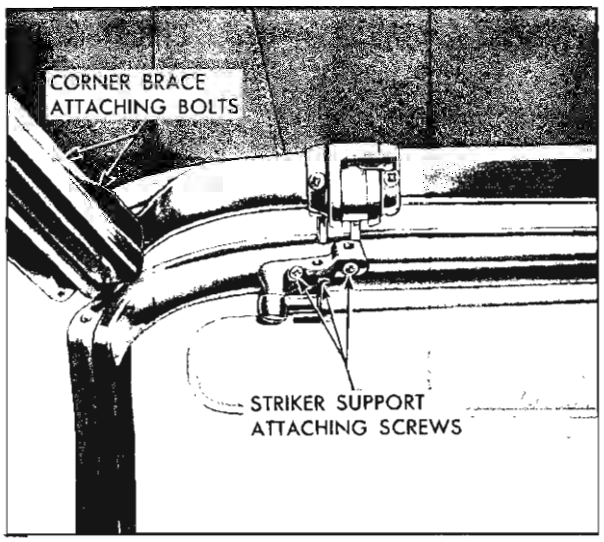


Fig. 21-24 Front Roof Rail Adjustment

ADJUSTMENT OF TOP AT MALE HINGE SUPPORT

Prior to making any adjustment of top linkage at male hinge, loosen two bolts securing folding top rear quarter trim stick to rear quarter panel. This will prevent any possible damage to top when it is raised after adjustment. After making an adjustment at male hinge, check folding top at rear quarter area for proper fit and, if necessary, adjust trim stick assembly.

1. If there is an excessive opening between side roof rail rear weatherstrip and rear of rear quarter window, or if front roof rail is too far forward or rearward, proceed as follows:

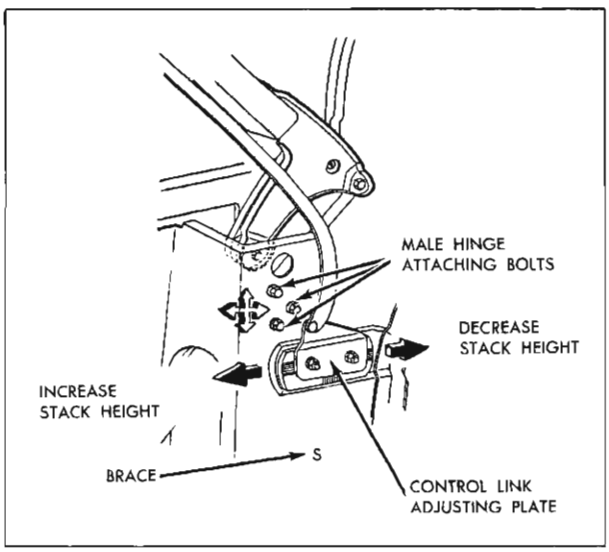


Fig. 21-25 View "C" Fig. 21-21 (Pontiac)

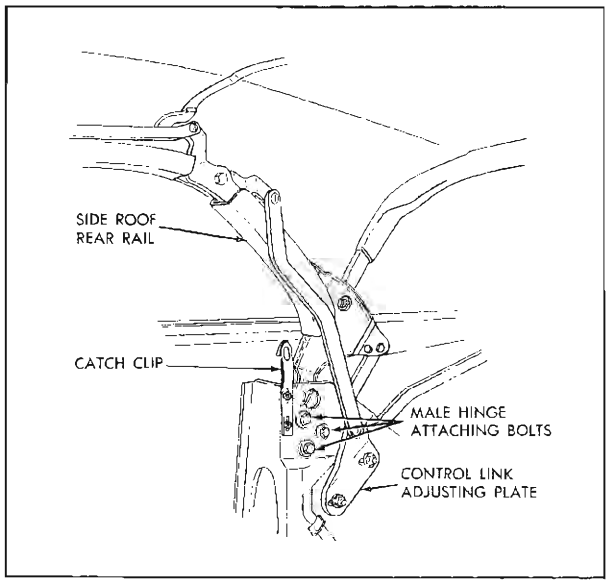


Fig. 21-26 View "C" in Fig. 21-21 (Tempest)

a. Scribe location of male hinge attaching bolt washers on folding top compartment brace.

b. Loosen three male hinge assembly attaching bolts. On Pontiac styles Fig. 21-25, on Tempest styles Fig. 21-26.

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.

c. Move hinge fore or aft as required to obtain proper alignment between side roof rail rear weatherstrip and rear quarter window; then tighten bolts.

d. Lock front roof rail to windshield, (where required, adjust front roof rail as previously described), and check fit of top material at rear quarter trim stick area. If necessary, adjust trim stick; then tighten trim stick attaching bolts.

e. Check top assembly for proper stack height and proper alignment of side roof rails over door and quarter windows. Where required, adjust control link adjusting plate as previously described. (See steps #1 and 2 under "Adjustment of Top Control Link Adjusting Plate").

CAUTION: 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.

f. On styles equipped with manually operated folding tops adjust both folding top catch clips as required. (See "Manually Operated Folding Top Hardware".)

2. If side roof rail is too high or too low at rear quarter window area, proceed as follows:

a. Mark location of male hinge attaching bolt washers and control link on folding top compartment brace.

b. Loosen male hinge assembly attaching bolts. On Pontiac styles see Figure 21-25; on Tempest styles see Figure 21-26.

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 assembly 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 "Adjustment of Top Control Link Adjusting Plate").

NOTE: If top cannot be fully raised or lowered, even after control link plate has been adjusted, readjust male hinge assembly as required. Check top for proper operation.

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
A. Difficult locking action at front roof rail.	1. Sunshade support misaligned.	Adjust sunshade support laterally.
	2. Lock hook lever improperly adjusted.	Adjust lock hook lever counterclockwise.
	3. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	4. Front roof rail misaligned.	Adjust front roof rail.
B. Top does not lock tight enough to windshield header.	1. Sunshade support misaligned.	Adjust sunshade support laterally.
	2. Lock hook lever improperly adjusted.	Adjust lock hook lever clockwise.
	3. Misaligned front roof rail front weatherstrip.	Loosen, realign and retack front roof rail front weatherstrip.
	4. Front roof rail misaligned.	Adjust front roof rail.
C. Top travels too far forward.	1. Front roof rail misaligned.	Adjust front roof rail rearward (Fig. 21-22).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Pontiac Fig. 21-25; Tempest Fig. 21-26).
D. Top does not travel forward far enough.	1. Front roof rail misaligned.	Adjust front roof rail forward (Fig. 21-22).
	2. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Pontiac Fig. 21-25; Tempest Fig. 21-26).
	3. Improper spacing between rear trim stick and body metal.	Install an additional spacer between rear trim stick and body metal at each attaching bolt location.

CONDITION	APPARENT CAUSE	CORRECTION
E. Side roof rail rear weatherstrip too tight against rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly rearward (Pontiac Fig. 21-25; Tempest Fig. 21-26).
F. Gap between side roof rail rear weatherstrip and rear of rear quarter window.	1. Male hinge assembly misaligned.	Adjust male hinge assembly forward (Fig. 21-25) and/or shim side roof rail rear weatherstrip forward as required.

MISALIGNMENT TROUBLE DIAGNOSIS (Cont'd)

CONDITION	APPARENT CAUSE	CORRECTION
G. Side roof rail rear weatherstrip too tight against top of rear quarter window.	1. Male hinge misaligned.	On Tempest styles, adjust male hinge upward; on Pontiac styles, adjust male hinge support upward (Pontiac Fig. 21-25; Tempest Fig. 21-26).
H. Gap between side roof rail rear weatherstrip and top of rear quarter window.	1. Male hinge misaligned.	On Tempest styles, adjust male hinge downward; on Pontiac styles, adjust male hinge support downward and/or shim side roof rail rear weatherstrip downward as required.
I. Sag at front to center side roof rail joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate downward (Pontiac Fig. 21-25; Tempest Fig. 21-26).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw counterclockwise (Fig. 21-23).
J. Front and center side roof rails bow upward at hinge joint.	1. Control link adjusting plate misaligned.	Adjust control link adjusting plate upward (Pontiac Fig. 21-25; Tempest Fig. 21-26).
	2. Center side roof rail hinge adjusting screw improperly adjusted.	Adjust screw clockwise (Fig. 21-23).
K. Folding top dust boot is difficult to install.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate rearward or forward as required (Pontiac Fig. 21-25; Tempest Fig. 21-26).
	2. Misaligned folding top dust boot female fastener.	Where possible, align female with male fastener.
	3. Rear seat back assembly is too far forward.	Relocate rear seat back panel rearward until dimension "Z" between upper rear edge of rear seat back to forward edge of pinchweld finishing molding on Pontiac styles is 19-1/2 inches $\pm$ 1/16" and on Tempest styles is 17-1/8 inches $\pm$ 1/16". The dimension is measured at approximate center line of body (Fig. 21-21).
	4. Excessive build-up of padding in side roof rail stay pads.	Repair side stay pads as required.
	5. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips downward as required (Fig. 21-26).

MISALIGNMENT TROUBLE DIAGNOSIS (Cont'd)

CONDITION	APPARENT CAUSE	CORRECTION
L. Folding top dust boot fits too loosely.	1. Improper stack height due to misaligned control link adjusting plate.	Adjust control link plate forward (Pontiac Fig. 21-25; Tempest Fig. 21-26).
	2. Rear seat back assembly is too far rearward.	Relocate rear seat back panel forward until dimension "Z" between upper rear edge of rear seat back to forward edge of pinchweld finishing molding on Pontiac styles is 19-1/2 inches ± 1/6", and on Tempest styles is 17-1/8 inches ± 1/16". The dimension is measured at approximate center line of body (Fig. 21-21).
	3. On manual tops, due to improperly adjusted catch clips.	Adjust catch clips upward as required (Fig. 21-26).
M. Top material is too low over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Install one or two 1/8" shims between front roof bow and slat iron (Fig. 21-23).
	2. Excessive width in top material.	If top is too large, detach binding along affected area, trim off excessive material along side binding as required; then hand sew binding to top material. Install additional padding.
N. Top material is too high over windows or side roof rails.	1. Front roof bow improperly shimmed.	*Remove one or two 1/8" shims from between front roof bow and slat iron (Fig. 21-23).
	2. Front roof bow felt silencer too high.	Trim silencer to within 1/8" of top of front roof bow (Fig. 21-23). Remove excessive padding.
O. Top material has wrinkles or draws.	1. Rear quarter trim stick improperly adjusted.	Adjust rear quarter trim stick on side affected.
	2. Top material improperly installed to center or rear quarter trim stick.	Retack top material as required.
P. Wind whistle or waterleak along front roof rail.	1. Top does not lock tight enough to windshield header.	Adjust sunshade support laterally and/or adjust lock hook lever clockwise.
	2. Misaligned front roof rail front weatherstrip.	Retack front weatherstrip to front roof rail.
	3. Front roof rail contour does not conform to windshield header.	Contour of front roof rail may be changed slightly by reforming rail.

MISALIGNMENT TROUBLE DIAGNOSIS (Cont'd)

CONDITION	APPARENT CAUSE	CORRECTION
Q. Wind whistle or air leak between top material and side roof rail stay pads.	1. Top material hold-down cables improperly adjusted.	Adjust top material hold-down cables as required.

*When no shims are required, use attaching screw (1/4-28x5/8" #12 oval head with external tooth lock washer, type "T" thread cutting, chrome finish).

When one shim is required, use attaching screw (1/4-28x3/4" #12 oval head with external tooth lock washer, type "T" thread cutting, chrome finish).

When two shims are required, use attaching screw (1/4-28x7/8" #12 oval head with external tooth lock washer, type "T" thread cutting, chrome finish).

MANUALLY OPERATED FOLDING TOP HARDWARE

FOLDING TOP MANUAL LIFT ASSEMBLY

67 STYLE

DESCRIPTION

The manual lift assembly incorporates a dual-action heavy duty spring which helps compensate for the weight of the folding top mechanism when the top is at or near the full up or full folded positions. When the top is in the up position the spring is under compression; when it is in the folded or stacked position the spring is under tension.

CAUTION: Do not attempt to detach lift assembly when spring is under tension or compression.

REMOVAL AND INSTALLATION

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

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 upper and lower attaching bolts. Raise upper end of lift assembly, then move lower end of lift assembly up and forward until lift assembly is clear of oblong hole in top compartment brace (Fig. 21-27).

4. To install manual lift assembly, reverse removal procedure making sure that upper end of lift is attached to the rearmost hole in the side roof rear rail assembly (Fig. 21-27).

FOLDING TOP FOR 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. In order to raise the top, both catch clips must be disengaged from the side roof center rails. Each catch clip is attached to the 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.

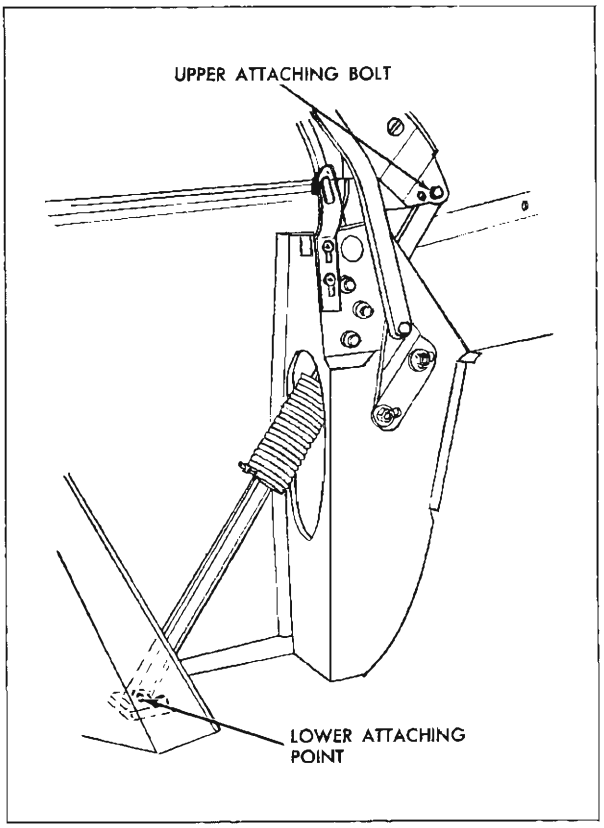


Fig. 21-27 Manual Lift Assembly

FOLDING TOP TRIM ASSEMBLY

DESCRIPTION

All 1963 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.

REMOVAL OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

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

2. Remove 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 weatherstrips; then loosen folding top quarter flaps from rails.

3. At the front of body, raise front roof rail, remove retainers and front weatherstrips, detach top material from front roof rail (Fig. 21-28).

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. 21-29).

5. At right and left side roof front and rear rails, remove hold-down cable front and rear attaching screws. (See views "A" and "B" in Fig. 21-30).

6. At each side roof rear rail pull hold-down cable rearward until cable is completely removed from top material retaining pocket.

7. Detach folding top compartment bag from rear seat back panel, thus exposing rear quarter and rear trim stick attaching bolts. Forward end of top compartment bag may be tied or wired to center roof bow to provide ready access to attaching bolts (Fig. 21-31).

8. At each rear quarter area remove attaching bolts securing rear quarter trim stick assembly to rear quarter inner pannel (Fig. 21-32).

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

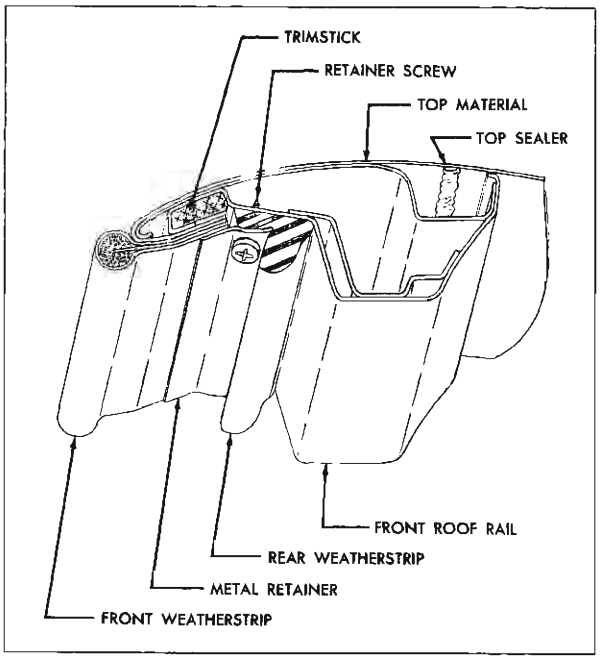


Fig. 21-28 Front Roof Rail

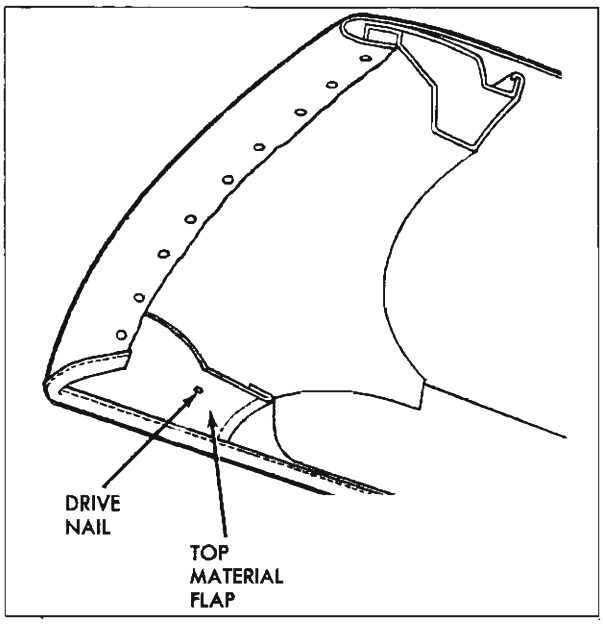


Fig. 21-29 Top Material at Front Rail

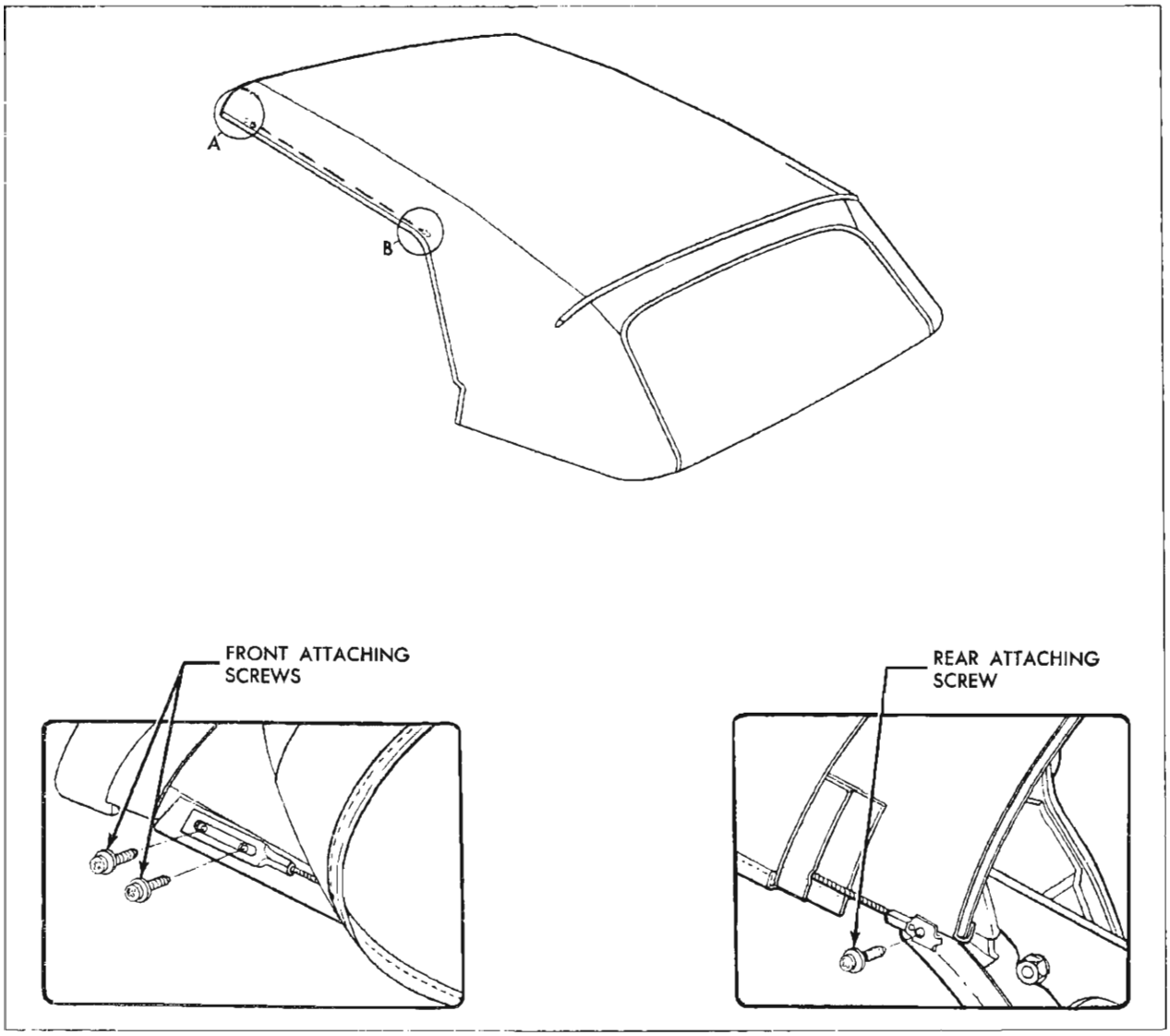


Fig. 21-30 Hold Down Cable Attaching Screws

10. To establish relationship of right and left inner vertical edge of old top material to back curtain assembly at rear trim stick location, mark back curtain vinyl at both locations with a grease pencil (Fig. 21-33). Reference marks should be transferred to new back curtain when step 7 of installation procedure is performed.

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

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

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

12. Using a pencil, mark both ends of rear and rear quarter trim sticks on vinyl surface of top material (Fig. 21-34). Reference marks for trim sticks should be transferred to new top material when step 30 of installation procedure is performed.

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

14. Lock top to windshield header. Install radius end of each adjustable spacer stick to fit against center roof bow. Install opposite end of spacer stick so that metal plate fits under rear roof bow (Fig. 21-35). Spacer stick should be installed along inboard

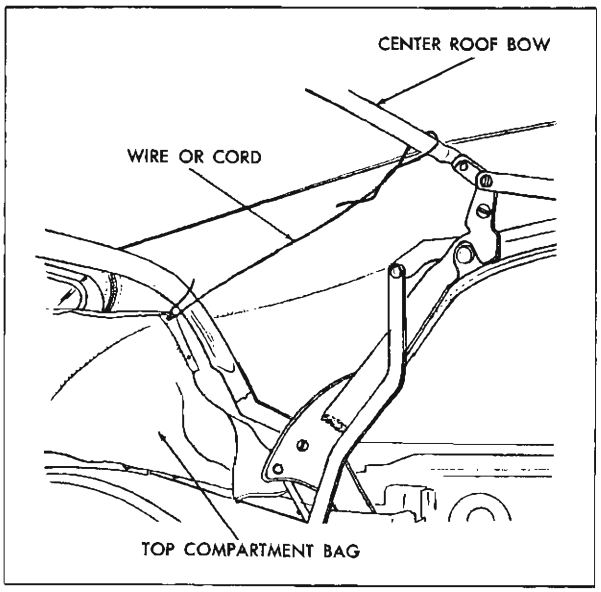


Fig. 21-31 Top Compartment Bag Tied

edge of side stay pad or approximately 18¾" outboard from centerline dimple on Tempest body styles, and 21" on Pontiac body styles. While exerting rearward pressure on rear bow to draw side stay pads taut, extend spacer sticks until they fit snug between center bow and rear roof bow, then tighten wing nuts.

NOTE: Spacer stick may be made as shown in Fig. 21-36.

15. Temporary tie or tape rear bow to rear side roof rails. Fig. 21-35. Detach nylon webbing, side stay pads and back curtain assembly from rear bow.

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

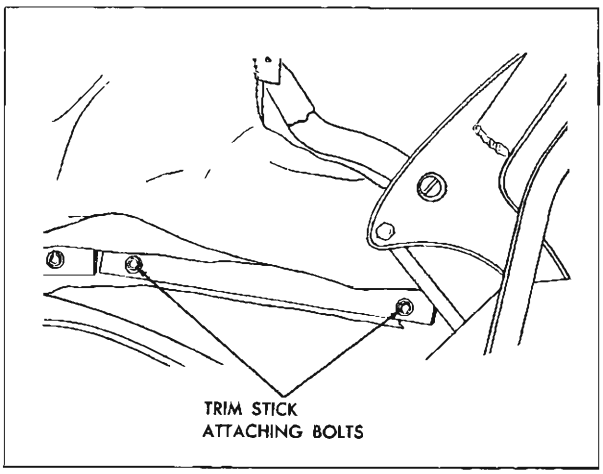


Fig. 21-32 Rear Quarter Trim Stick

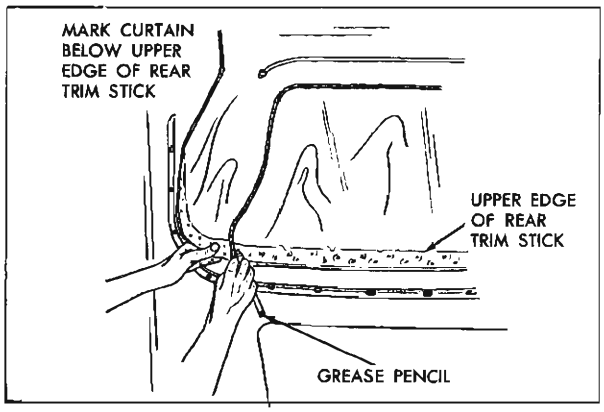


Fig. 21-33 Locating Top Edge

17. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (Fig. 21-35). Reference marks for trim sticks should be transferred to new back curtain material when step 8 of installation procedure is performed.

18. Remove right and left nylon webbing from rear trim stick (Fig. 21-37).

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

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

INSTALLATION OF FOLDING TOP AND BACK CURTAIN TRIM ASSEMBLY

1. If new top is being installed but it was impossible to perform step 14 of removal procedure, preset spacer sticks to shortest length and install between center and rear roof bow (Fig. 21-35). Adjust sticks so that

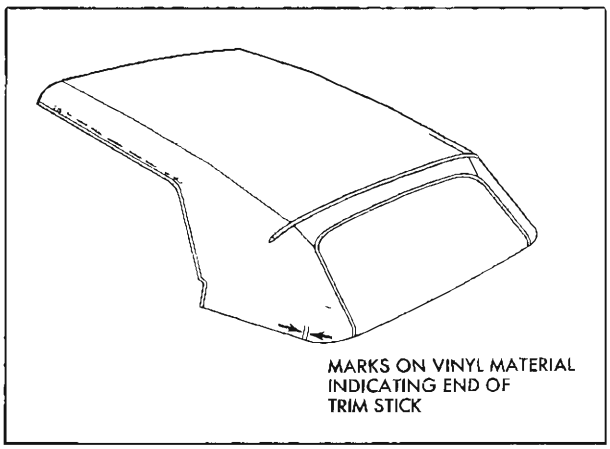


Fig. 21-34 Marking Folding Top Material (New)

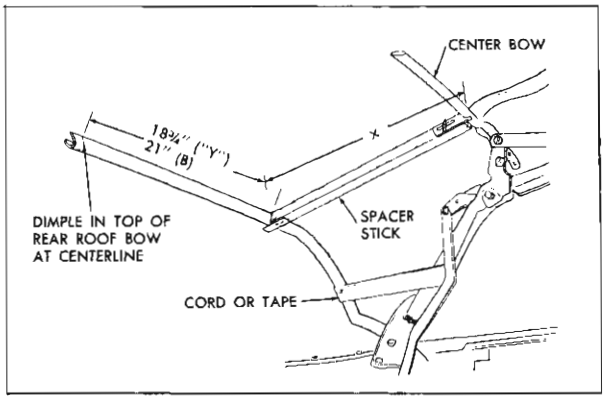


Fig. 21-35 Spacer Stick Installed

dimension "X" in Fig. 21-35 (measured along spacer stick from front upper rolled edge of rear roof bow to center of center bow) is as follows:

Body Style	*Dimension*
Pontiac	$16\frac{3}{8}'' \pm \frac{1}{4}''$
Tempest	$17\frac{3}{4}'' \pm \frac{1}{4}''$

Tie or tape rear bow to rear side roof rails.

2. In all cases, above dimension may be changed slightly within tolerances to correspond with new top after tryout. Dimension should be equal on both right and left sides.

3. Tack side stay pads in conventional manner to rear roof bow and front roof rail. Make sure inboard edge of pad is properly aligned within depressions in bow and rail. Tack stay pad to front bow. Inboard edge of pad should be located within ¼ inch of outboard edge of front bow felt silencer. Install pad to center bow with screws. Make sure inboard edge of pad is properly aligned within depression in bow. Install stay pad wadding in conventional manner using an approved trim cement. (Fig. 21-38 for Pontiac styles—Fig. 21-39 for Tempest styles).

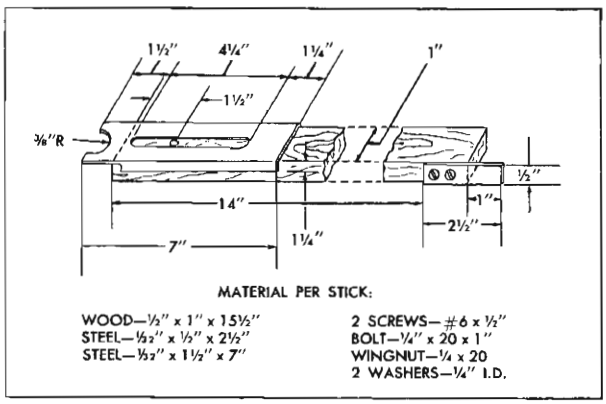


Fig. 21-36 Spacer Stick Dimensions

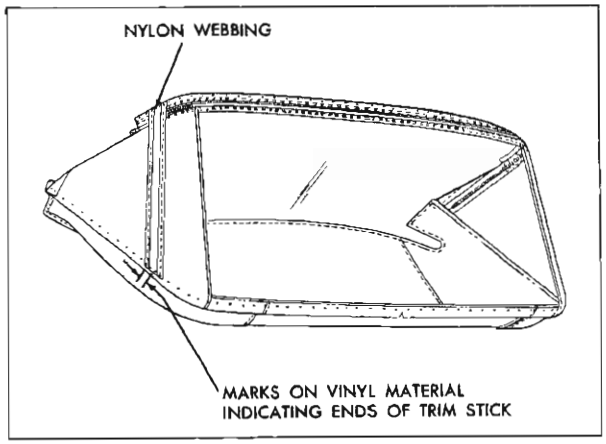


Fig. 21-37 Marking Back Curtain

4. Trim selvage end of side stay pads just forward of rear rolled edge of rear roof bow (Fig. 21-40).

5. Distance from center of center bow to rolled forward upper edge of rear roof bow is $17\frac{3}{4}''$ ($\pm\frac{1}{4}''$) on Tempest styles, and $16\frac{3}{8}'' \pm \frac{1}{4}''$ on Pontiac body. Readjust spacer sticks and side roof rail pads as required if rear bow does not come within this position range.

6. Place back curtain window assembly on clean covered work bench with exterior (vinyl) surface of back window valance facing down. (Large pliable back window must be handled carefully to avoid possible damage due to scratches, abrasions, etc.) Apply bead of convertible top sealer (nitrile) along lower edge of back curtain material in area which will be tacked to rear and rear quarter trim stick. (View "A-A" in Fig. 21-41).

7. Apply bead of convertible top sealer (nitrile) along lower selvage edge of back curtain material (Fig. 21-41).

8. After sealer has dried, carefully lay removed back curtain assembly over new back curtain assembly. Using a grease pencil, mark vinyl surface of new back curtain using marked edge of old curtain as guide. (See steps 8 and 18 of removal procedure.) In addition, mark trim stick bolt hole locations on new back curtain assembly.

NOTE: 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.

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

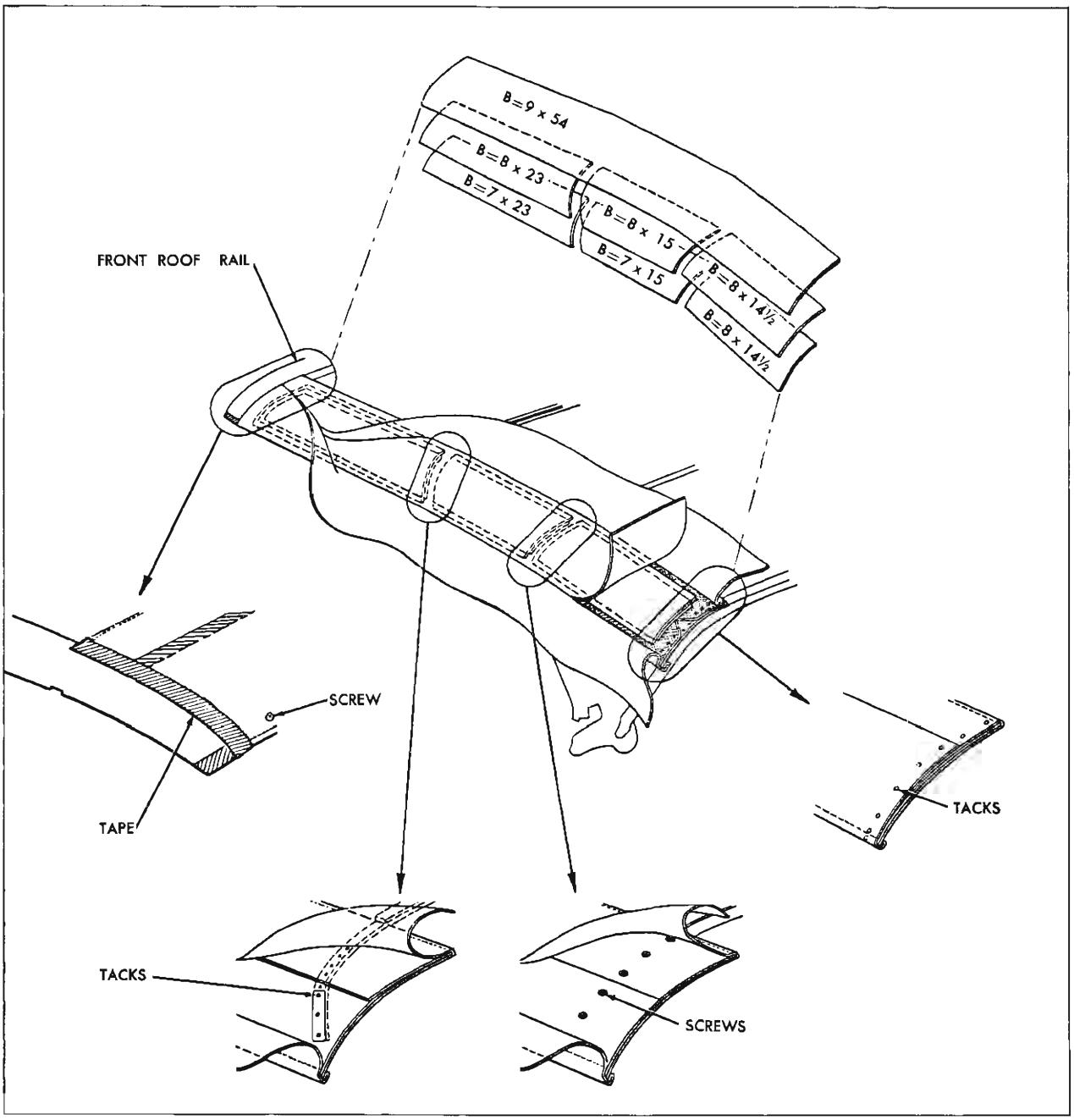


Fig. 21-38 Installation of Side Stay Pads (Pontiac Styles)

NOTE: Notch in back curtain vinyl at lower edge indicates centerline of back curtain assembly. (Fig. 21-42). In addition on all Pontiac and Tempest styles, back curtain lower edge should extend ½" below lower edge of trim sticks as shown in view "A-A", Fig. 21-41.

10. Tack curtain to rear and rear quarter trim sticks. On right side, tack zipper tape to forward edge of rear quarter trim stick. ("A" in direction of arrow in Fig. 21-42).

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.

11. Tack remainder of back curtain material to

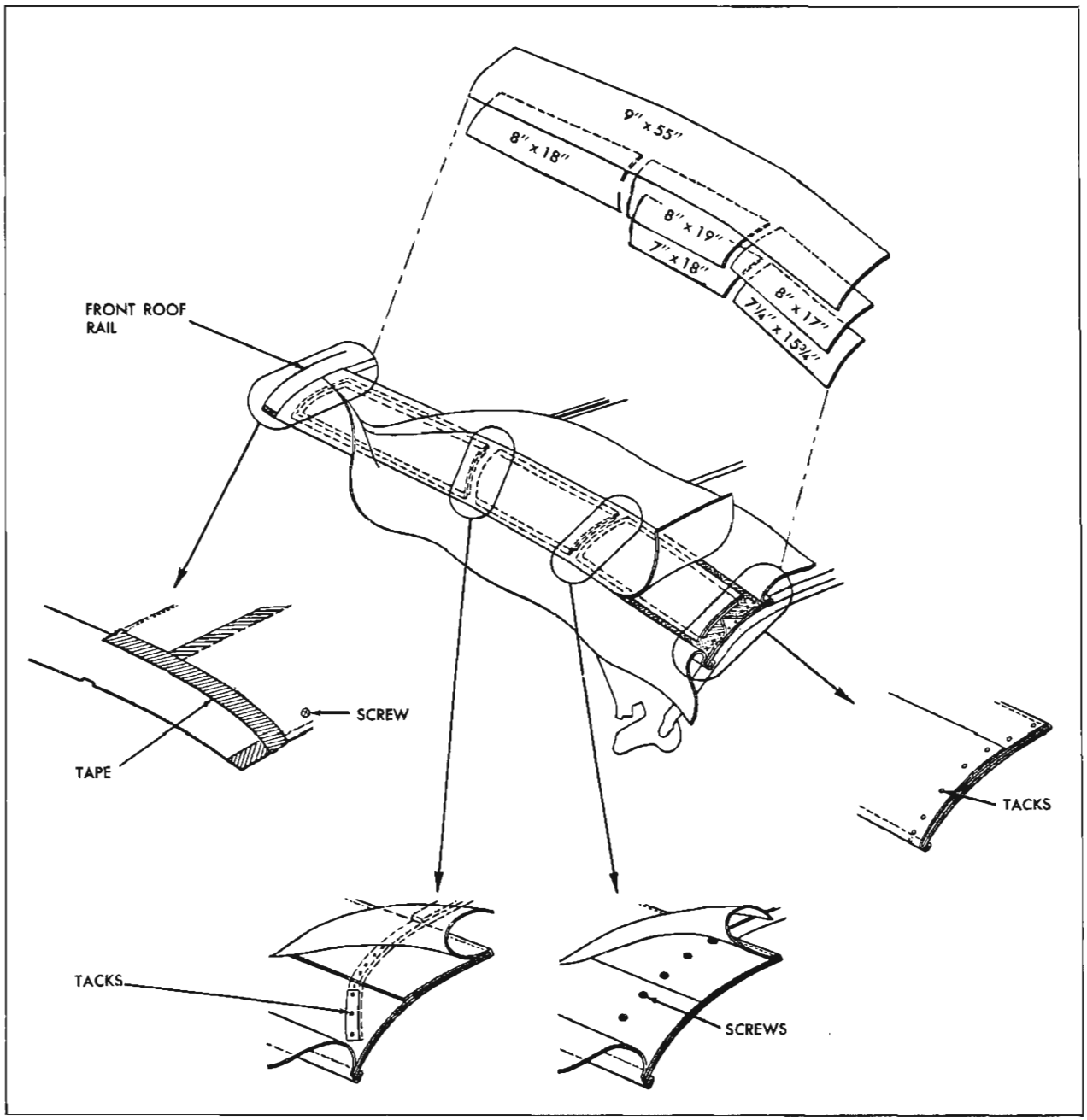


Fig. 21-39 Installation of Side Stay Pads (Tempest Styles)

rear quarter trim stick, turning forward edge of material rearward to form a water barrier (Fig. 21-42).

12. 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.

13. 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 (see Fig. 21-42).

NOTE: Webbing used in build-up of side roof rail stay pads is recommended for the above operation.

14. Inspect rubber trim stick fillers cemented to body below pinchweld. Recement if necessary (Fig. 21-43).

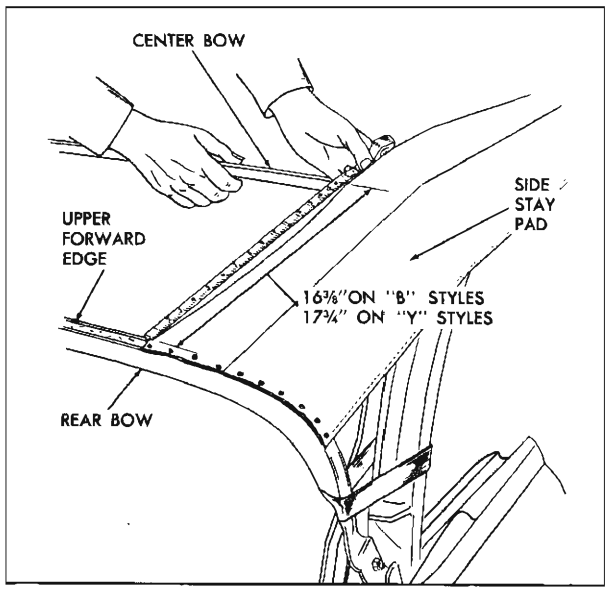


Fig. 21-40 Position of Rear Bow

15. 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 finish condition.

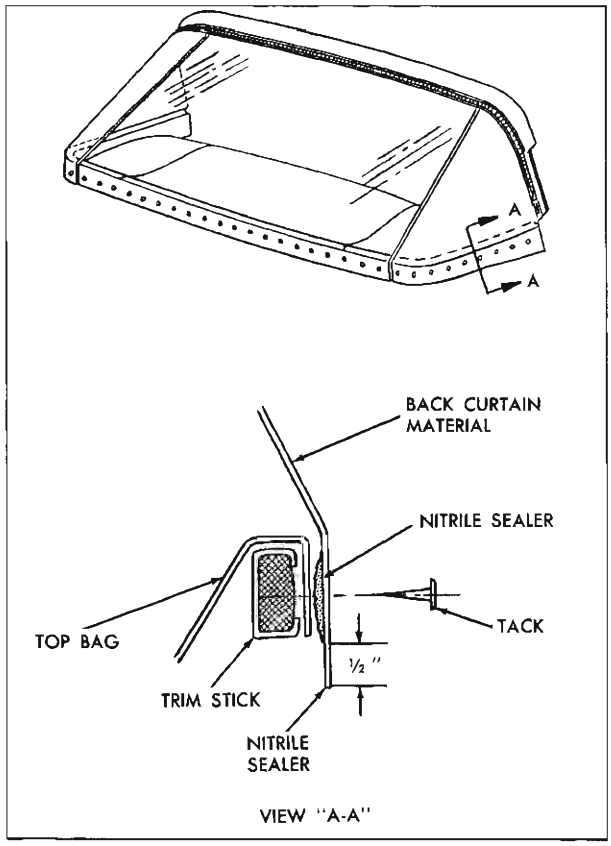


Fig. 21-41 Back Curtain Sealing

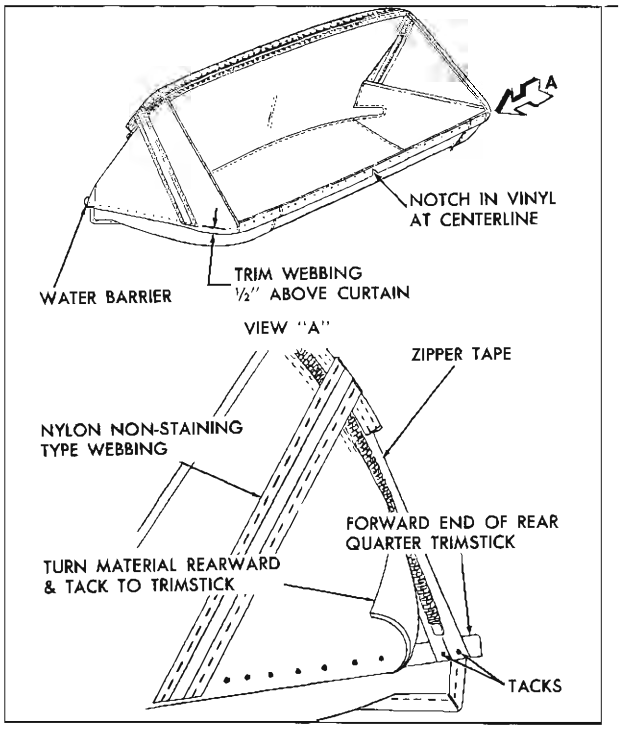


Fig. 21-42 Back Curtain Installation

16. Secure back curtain assembly with one tack to rear bow to prevent damage to plastic sheet (Fig. 21-44).

17. 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 back curtain assembly. Fold excess back curtain upper valance material rearward and tack to rear bow (Fig. 21-45).

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

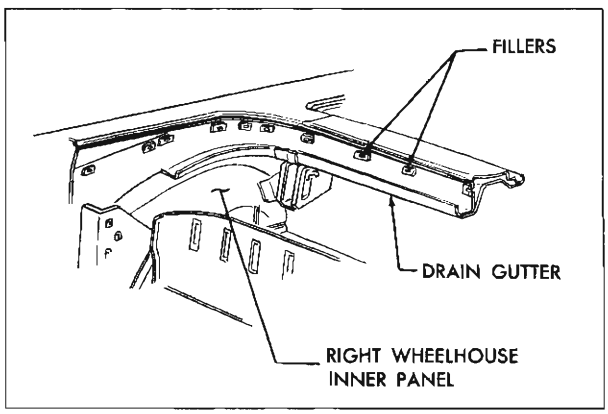


Fig. 21-43 Checking Trim Stick Fillers

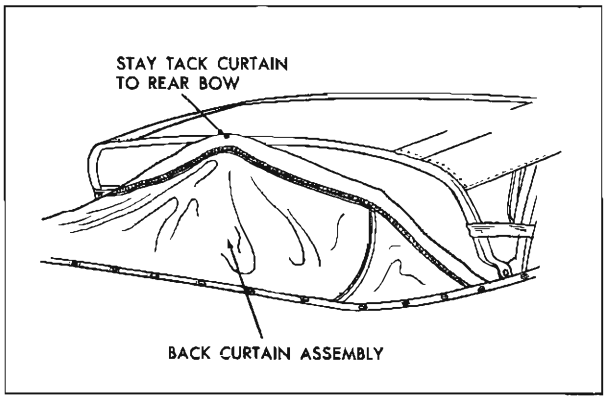


Fig. 21-44 Stay Tacking Back Curtain

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

19. Where required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly as required. (Fig. 21-46).

20. 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 and side roof front rail with screws. Trim selvage end of side stay pads at front roof rail. Install stay pad covering material in conventional manner using an approved trim cement.

21. Tack nylon webbing to rear roof-bow. Outboard edge of webbing should be installed even with outboard edge of side roof rail pad. Remove excess by trimming webbing just rearward of front rolled edge of rear roof bow.

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

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

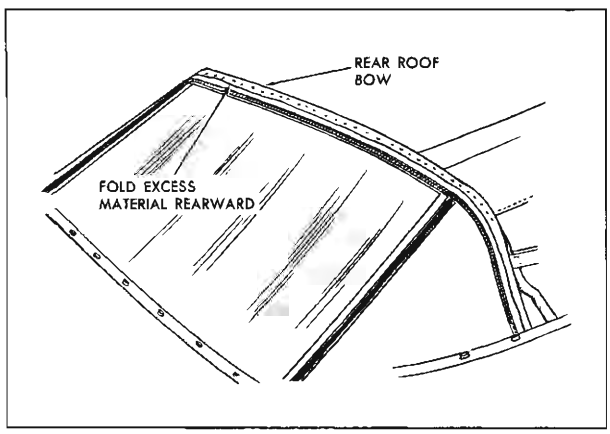


Fig. 21-45 Back Curtain Installation at Rear Roof Bow

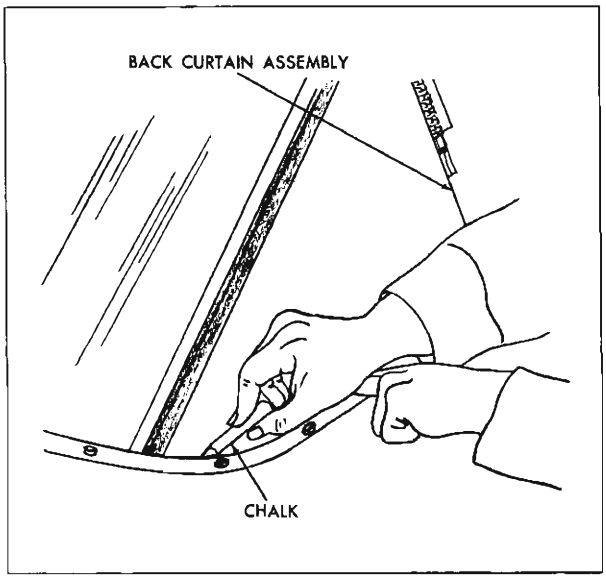


Fig. 21-46 Marking Back Curtain

23. Apply convertible top sealer (nitrile) around each tack head used to secure back curtain material and webbing to rear and/or rear quarter trim sticks (Fig. 21-47).

NOTE: It is not necessary to seal tacks which secure back curtain vinyl to rear trim stick.

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

25. Using a pencil, mark top material (mark should be approximately ½" in length) at deck seam 4¼" from edge of top material upper valance binding (Fig. 21-48).

26. Fold new top material in half so that inner lining of top material is exposed (Fig. 21-49). Install a 6" piece of tape on inner surface at centerline fold of new top material (Fig. 21-49). Using a pencil, mark

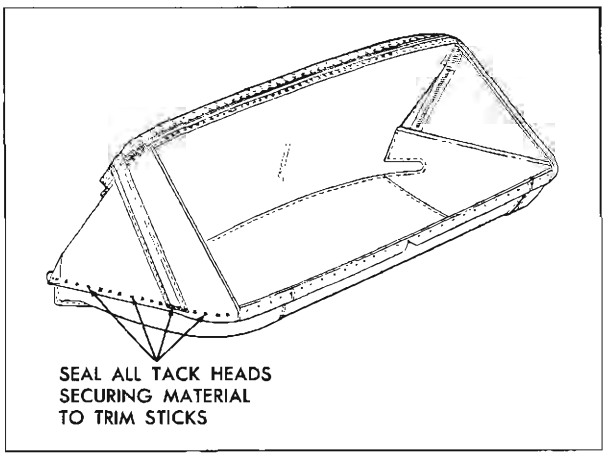


Fig. 21-47 Back Curtain Sealing

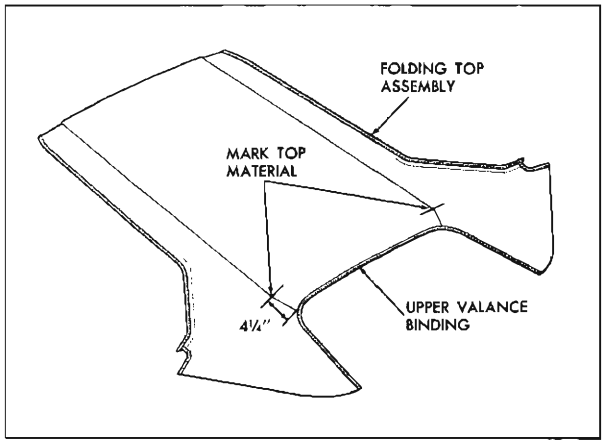


Fig. 21-48 Marking Top Material

the approximate centerline of new top material along entire length of tape.

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

27. 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. 21-50).

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

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

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

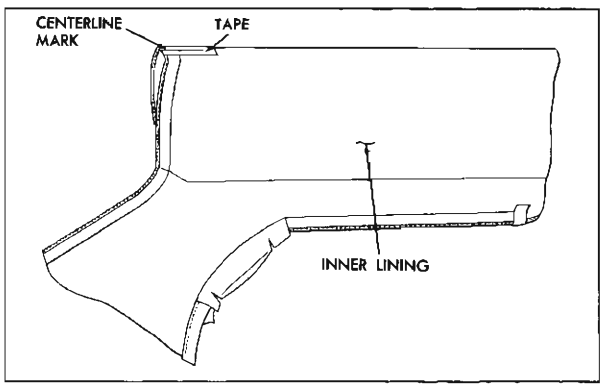


Fig. 21-49 Marking Top Assembly

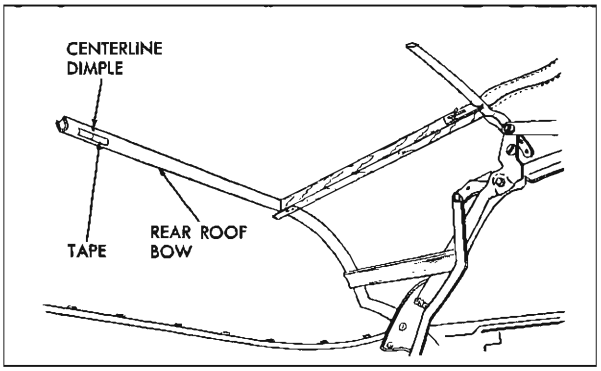


Fig. 21-50 Marking Rear Roof Bow

30. Remove top trim material.

31. Carefully lay removed top, which was marked at lower edge of trim stick prior to removal, over new top. Align old top with new top. Using a pencil, mark vinyl surface of new top using marked edge of old top as guide. Also mark edges of trim sticks on vinyl surface of new top material. (See steps 11 and 12 of removal procedure.)

32. Apply bead of convertible top sealer (nitrile) to inner lining of top material along front roof rail. Sealer bead should be roughly parallel with forward edge of top material and located so that sealer will be completely concealed by front roof rail when top is installed (Fig. 21-28).

33. After sealer has dried, position top trim on framework and center assembly both fore and aft and side to side.

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

NOTE: Welding rod or similar material may be bent at one end to form a hook. Then at front of

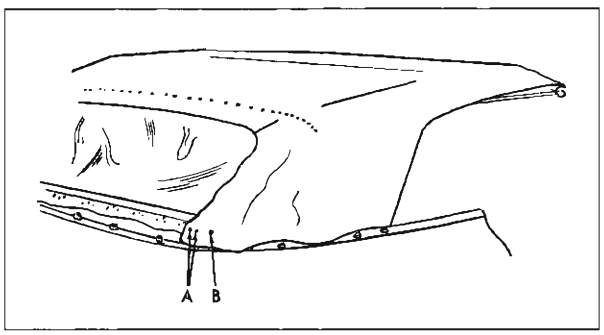


Fig. 21-51 Tacking Top Material

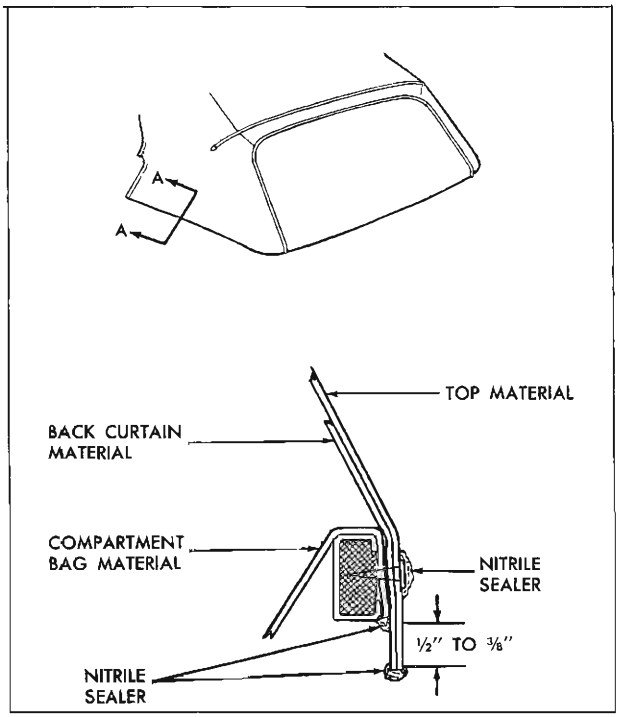


Fig. 21-52 Sealing at Trim Sticks

hold-down pocket slip hooked end of rod into pocket. Push rod through pocket until hooked end of rod is exposed at rear of pocket. Install forward end of cable attaching bracket over hooked portion of rod; then pull cable through pocket. When cable attaching bracket is exposed at front end of hold-down pocket, disengage hooked portion of rod from cable attaching bracket. Repeat above operation on opposite side of top assembly.

35. After cables have been filtered or pulled through hold-down pockets in top material, fasten cable attaching brackets to side roof front and rear rails. (See Fig. 21-30).

CAUTION: Cables should be reasonably loose after installation is made at side roof rails. DO NOT adjust cables to desired tension until top material has been completely installed. (See step 51 of installation procedure.)

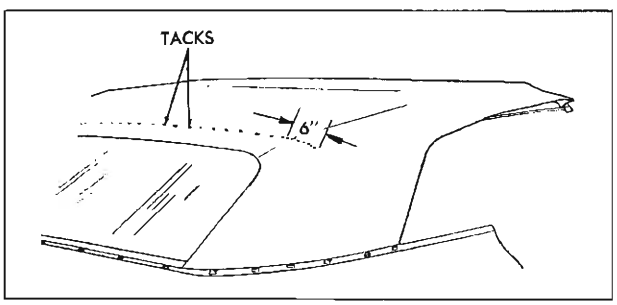


Fig. 21-53 Tacks Outboard of Seams

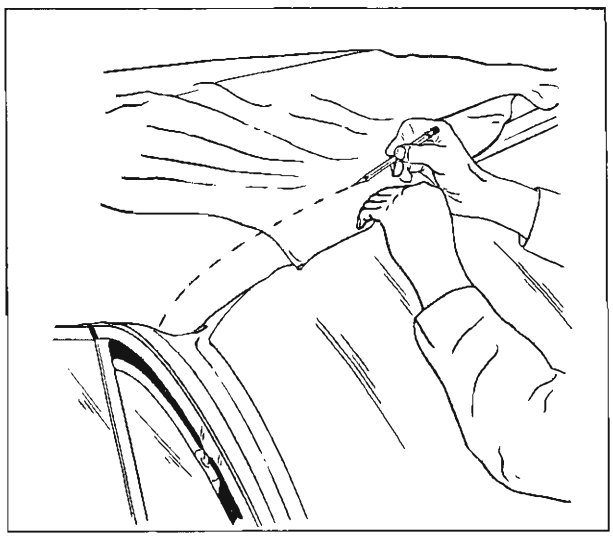


Fig. 21-54 Marking Top Material

36. 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 (±¼") 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. 21-50).

37. Using 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.

38. 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.

39. Using previously marked lines (ends of trim stick) as locating reference, tack top material to rear and rear quarter trim sticks. "A" in Fig. 21-51 shows top material installed to rear trim stick at inboard edge.

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

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

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

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

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

44. Remove trim sticks with attached top material from top compartment well. Back curtain should extend ½" below trim sticks on Pontiac & Tempest styles. (See step 9 of installation procedure.) In addition, top material must extend ½" to ⅝" below trim sticks on Pontiac & Tempest styles, to minimize water wicking on inner lining of back curtain material. (See view "A-A" in Fig. 21-52). Trim top material as required.

45. Apply convertible top sealer (nitrile) onto all trimmed edges, around each tack head and around each trim stick attaching bolt hole. See view "A-A" in Fig. 21-52.

CAUTION: All painted surfaces adjacent to belt finishing molding should be adequately covered to prevent possible sealer damage.

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

47. 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.

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

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

NOTE: Tacks must be installed along a straight line in center of rear bow. (Fig. 21-53). Tacks outboard of deck seams should be restricted to distance not to exceed six inches, which is length wire-on binding extends past seam (Fi. 21-53).

50. 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. 22-52)

51. Unlock top from windshield header, apply neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to side roof front rails (Fig. 21-51). Lock top to windshield header.

52. Unlock top from windshield header and apply neoprene-type weatherstrip adhesive to tacking area of front roof rail. Pull top trim material slightly forward so that pencil marks are forward on front edge of front roof rail. Fasten top trim to cemented area and stay tack trim to rail (Fig. 22-52).

53. Prop-up top assembly approximately 12 inches above windshield header. Loosen top material hold-down cable front attaching screws. (See view "A" in Fig. 21-30). Adjust cable by pulling cable taut and tighten attaching screws. Lock top to windshield header.

NOTE: Cables should be adjusted sufficiently to hold top material tightly against side roof rail stay pads. However, cables should NOT be adjusted so tight as to restrict proper locking action of the front roof rail assembly to the windshield header. Where necessary re-adjust cables as required to obtain desired tension.

54. Apply neoprene-type weatherstrip adhesive to front flaps and to corresponding areas on side roof front rails. Fasten flaps to the side roof front rails (See Fig. 21-29).

55. Lock top to windshield header. Check appearance af 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 so that pencil marks are further forward. Stay tack and recheck top appearance).

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

57. 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.

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

FOLDING TOP TRIM

REMOVAL

1. Remove folding top trim as described in steps 1 through 13 of "Removal of Folding Top Trim Assembly (Complete)."

INSTALLATION

1. Prior to installation of new top trim material, check contour of back curtain and side stay pad assemblies. Where required, adjust back curtain and/or side stay pads as required.

2. Install new folding top trim as described in steps 23 through 26 and 28 through 56 of "Installation of Folding Top Trim Assembly (Complete)."

BACK CURTAIN TRIM

REMOVAL

1. Perform steps 1, 2, 7, 8, 9, 10, 12 as described in "Removal of Folding Top Trim Assembly (Complete)."

2. Remove wire-on binding and escutcheons from rear roof bow.

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

4. 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 18, 19 and 20 as described in "Removal of Folding Top Trim Assembly (Complete)."

INSTALLATION

1. Install spacer sticks as described in steps 1 and 2 of "Installation of Folding Top Trim Assembly (Complete)."

2. Seal and install back curtain assembly as described in steps 7 through 23 of "Installation of Folding Top Trim Assembly (Complete)."

NOTE: Extra care in positioning new curtain at same location on trim stick as old curtain and aligning of trim stick attaching bolt holes in top material with holes in trim stick will allow reinstallation of top material to its original position with a minimum of refitting.

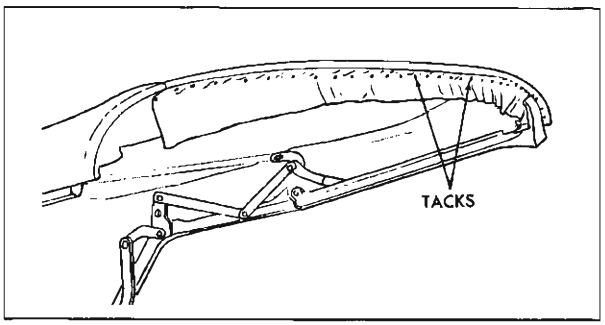


Fig. 21-55 Installation of Top Material

BACK CURTAIN VINYL REPLACEMENT

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. 21-33). Reference marks should be transferred

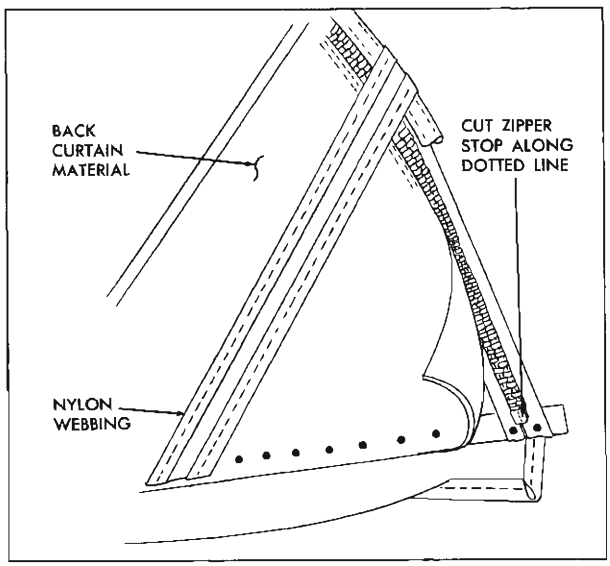


Fig. 21-56 Back Curtain Vinyl Replacement

to new back curtain when step 5 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. 22-54).

10. Operate slide fastener off of zipper assembly.

11. Detach nylon webbing from rear trim stick.

12. Remove rear and rear quarter trim sticks with attached back curtain and compartment bag material from body and place on a clean protected surface.

13. Using chalk, or other suitable material, mark ends of rear and rear quarter trim sticks on vinyl surface of back curtain material (Fig. 21-37). Reference marks for trim sticks should be transferred to new back curtain material when step 5 of installation procedure is performed.

14. Using chalk or similar material, mark zipper tape at upper edge of vinyl (Fig. 21-57).

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

16. As a bench operation, cut stiches securing half of zipper assembly to back curtain vinyl.

NOTE: Back curtain vinyl and extensions (less zipper) are available as a service part.

INSTALLATION

1. Using chalk mark as guide, locate rear half of zipper to new back curtain vinyl. Zipper tape may be stapled to new back curtain to aid in holding zipper in proper position during sewing operation.

2. Sew zipper to new back curtain assembly.

3. Place back curtain window assembly on clean covered work bench with exterior (vinyl) surface of back window valance facing down. (Large pliable back window must be handled carefully to avoid possible damage due to scratches, abrasions, etc.). Apply bead of convertible top sealer (nitrile) along

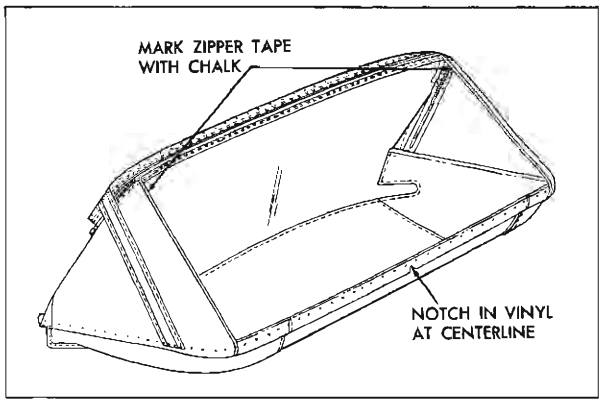


Fig. 21-57 Marking Zipper Tape

lower edge of back curtain material in area which will be tacked to rear and rear quarter trim stick. (See view "A-A" in Fig 21-58).

4. Apply bead of convertible top sealer (nitrile) along lower selvage edge of back curtain material (Fig. 21-58).

5. After sealer has dried, transfer marks on old back curtain to new back curtain assembly. See steps 5 through 13 of removel procedure.

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

NOTE: Notch in back curtain vinyl at lower edge indicates centerline of back curtain assembly. (Fig. 22-56). In addition, back curtain lower edge should extend ½" below lower edge of trim sticks on Pontiac and Tempest styles.

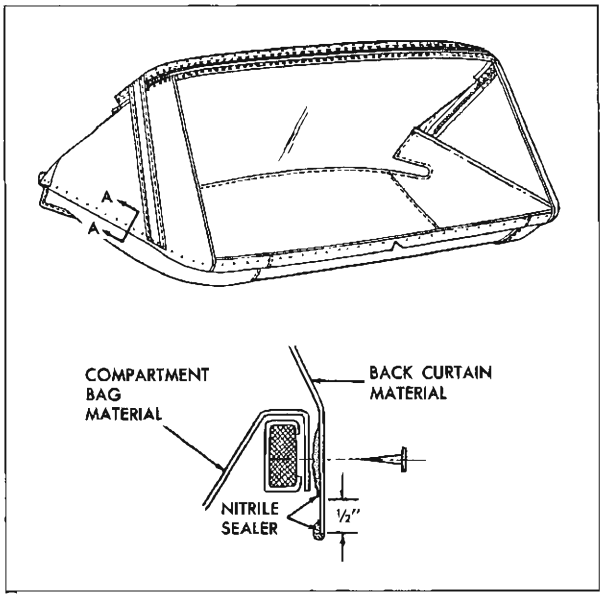


Fig. 21-58 Back Curtain Sealing

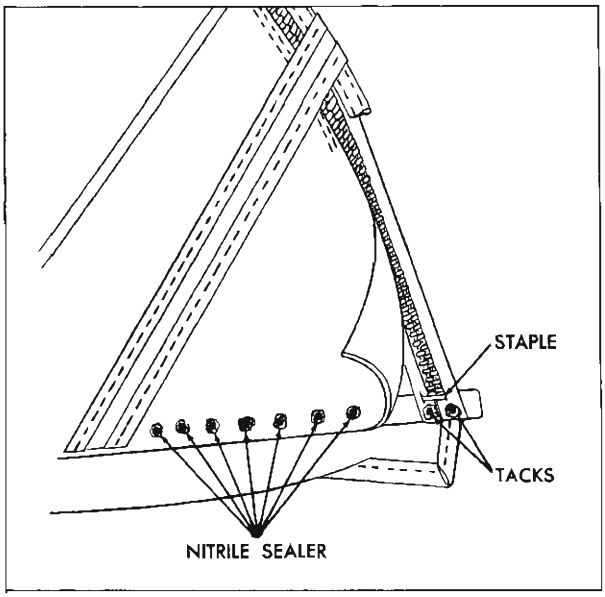


Fig. 21-59 Sealing At Trim Stick

7. Tack curtain to rear and rear quarter trim sticks. Turn forward edge of material rearward to form a water barrier (Fig. 21-58).

8. 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.

9. Tack nylon webbing to rear trim stick as previously described.

10. Inspect rubber trim stick fillers cemented to body below pinchweld. Replacement if necessary.

11. Install slide fastener onto zipper assembly.

12. 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. 21-59).

13. Operate slide fastener to closed position.

14. Tack zipper tape to rear quarter trim stick (Fig. 21-59). Zipper tape should not be pulled taut as zipper teeth may show through top material after top has been properly installed.

15. 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.

16. Check contour of back curtain assembly at pinchweld molding. When required, place reference chalk mark on outer surface of back curtain along pinchweld finishing molding. Re-adjust back curtain assembly by retacking curtain to rear or rear quarter trim sticks as required.

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

18. Apply convertible top sealer (nitrile) around each tack head used to secure back curtain material and webbing to rear and rear quarter trim sticks (Fig. 21-59).

NOTE: It is not necessary to seal tacks which secure back curtain vinyl to rear trim stock.

19. After sealer has dried, carefully replace top in position in rear quarter area.

20. Using neoprene-type weatherstrip adhesive, fasten rear quarter flaps to side roof rear rails. Make sure that rear quarter flap seam is even with forward edge of side roof rail. Install side roof rail rear weatherstrip to help maintain position of quarter flaps while adhesive is drying.

21. 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.

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

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

24. Where required, remark 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.

25. After desired fit of top material has been obtained, remove trim sticks with attached top material from top compartment well. Back curtain should extend ½" below trim sticks on Pontiac and Tempest.

26. Apply convertible top sealer (nitrile) onto all trimmed edges, around each tack head and around each trim stick attaching bolt hole (see view "A-A" in Fig. 21-52).

CAUTION: All painted surfaces adjacent to belt finishing molding should be adequately covered to prevent possible sealer damage.

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

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

29. 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 soil from top material and back curtain assembly.

HYDRO-ELECTRIC SYSTEM

DESCRIPTION

The new 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. 21-60.

Fig. 21-61 illustrates and identifies the individual parts of the motor and pump assembly.

NOTE: When servicing the motor assembly or pump end plate assembly, it is extremely important that the small motor shaft O ring seal is properly installed over the motor armature shaft and into the pump end plate assembly prior to installing the pump rotors or the motor shaft drive ball.

MOTOR AND PUMP ASSEMBLY

REMOVAL

1. Operate folding top to full "up" position.

2. Disconnect 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 attaching screws and remove shield.

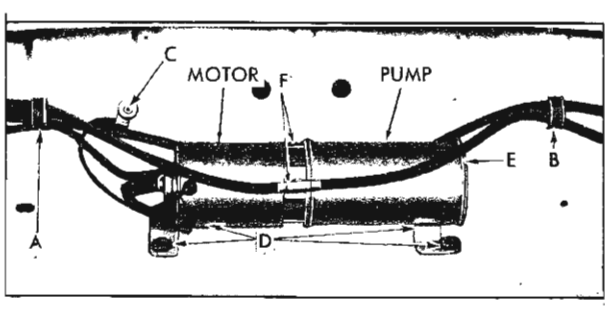


Fig. 21-60 Hydro-Lectric Motor and Pump Assy.

6. Remove clips securing wire harness and hydraulic hose to rear seat back panel. See "A" and "B" in Fig. 21-60.

7. Disconnect motor leads from wire harness and ground attaching screw. See "C" in Fig. 21-60.

8. To faciliate removal apply a rubber lubricant to pump attaching grommets; then carefully disengage grommets from floor pan. See "D" in Fig. 21-60.

9. Place absorbent rags below hose connections and end of reservoir.

10. With a straight-bladed screw driver, vent reservoir by removing filler plug; then reinstall plug. See "E" in Fig. 21-60.

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 possibilty of hydraulic fluid being forced under pressure from disconnected lines and causing damage to trim or body finish.

11. Disconnect hydraulic lines and cap open fittings to prevent leakage of fluid. See "F" in Fig. 21-60. 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 (G.M. Hydraulic Brake Fluid Super No. 11 or its equivalent). See "Filling of Hydro-Lectric Reservoir".

2. Connect hydraulic hoses, engage attaching grommets in panel and connect wiring.

3. Connect battery and operate top through its up and down cycles until all air has been "bled" from hydraulic circuit. See "Filling of Hydro-Lectric Reservoir".

4. Check connections for leaks and recheck fluid level in reservoir.

5. Install previously removed parts.

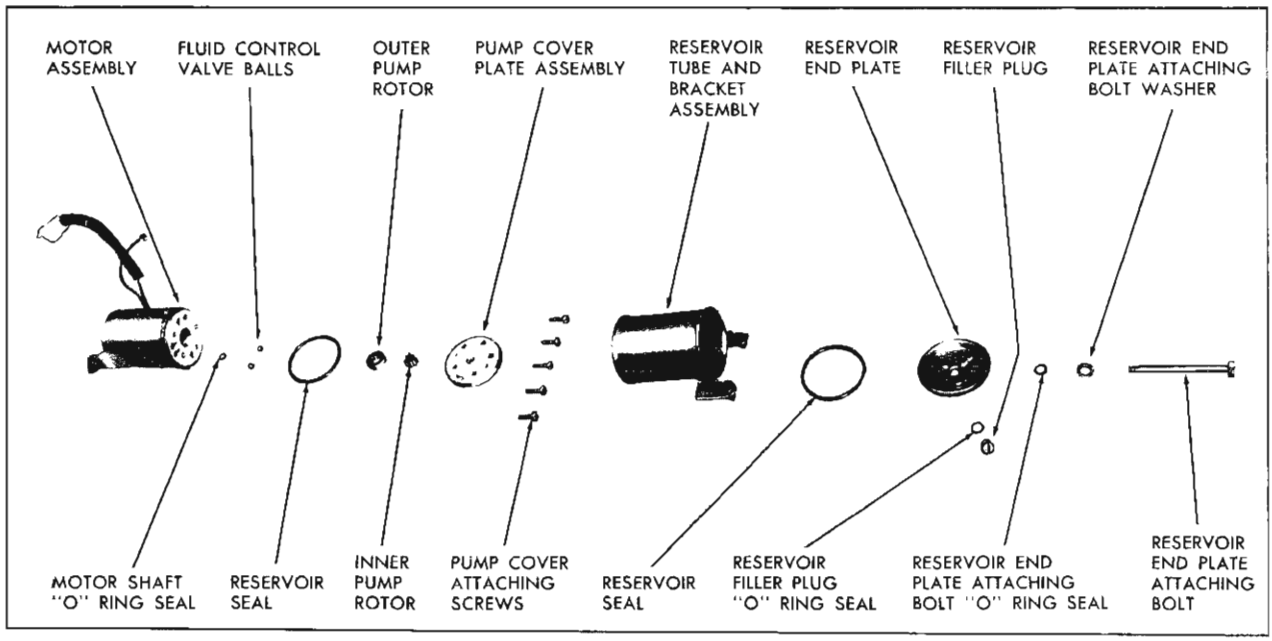


Fig. 21-61 Hydro-Lectric Motor and Pump Assembly—Exploded

RESERVOIR TUBE

DISASSEMBLY FROM MOTOR AND PUMP ASSEMBLY

1. Remove motor and pump assembly from body.

2. Scribe a line across pump end plate, reservoir tube and reservoir tube end plate to insure correct assembly of parts (Fig. 21-62).

3. With a straight-bladed screw driver, 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 end plate and tube. Note sealing rings around bolt, reservoir end plate, and between end of reservoir tube and pump cover plate assembly.

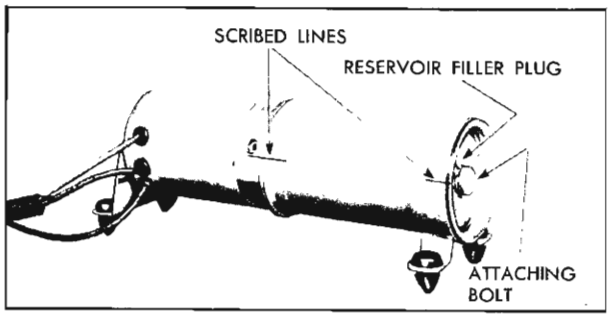


Fig. 21-62 Hydro-Lectric Assembly

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. Position sealing ring on tube end plate and position end plate on reservoir tube, according to scribe marks. Install and tighten attaching bolt.

3. Place unit in horizontal position and fill with fluid until fluid level is within ¼ inch of lower edge of filler plug hole.

4. Make sure that sealing ring is on filler plug before installing filler plug.

OPERATION OF FOLDING TOP

When the control switch is actuated to the "up" position, the battery feed wire is connected to the red motor lead and the motor and pump assembly operate to force the hydraulic fluid through the hoses to the lower ends of the double-acting cylinders. The fluid forces the piston rods in the cylinders upward, thus raising the top. The fluid in the top of the cylinders returns to the pump for recirculation to the bottom of the cylinders. When the control switch knob is actuated to the "down" position, the feed wire is connected to the dark green motor lead and

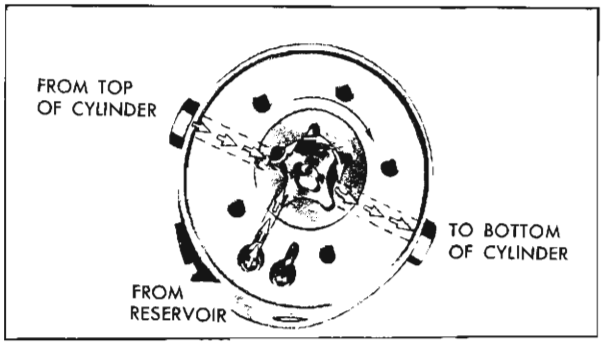


Fig. 21-63 Pump Operation—Raise Top

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:

1. Raising the Top. When the red motor lead is energized the motor drive shaft turns the rotors clockwise as indicated by the large arrow in Fig. 21-63. 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.

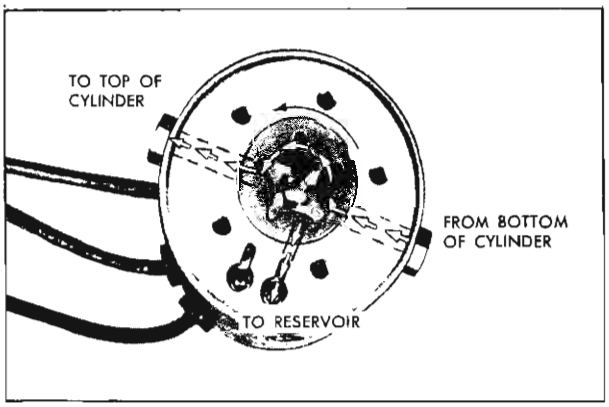


Fig. 21-64 Pump Operation—Lower Top

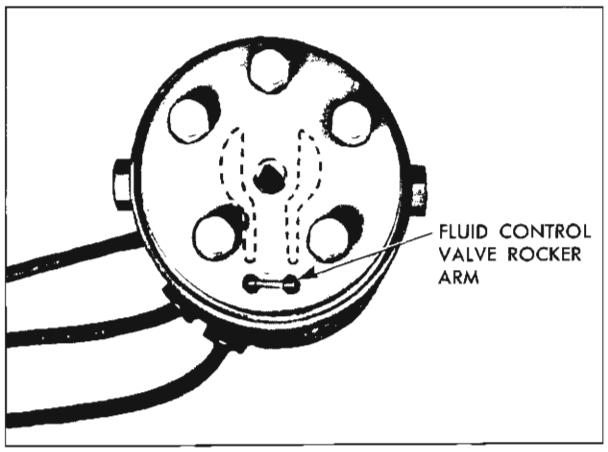


Fig. 21-65 Pump Cover Plate

2. Lowering the Top. When the green motor lead is energized the motor drive shaft turns the rotors counter-clockwise as indicated by the large arrow in Fig. 21-64. 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. 21-65 shows the top surface of the pump coverplate. The dotted lines indicate the cavities on the bottom side of the coverplate. The cavities are designed to permit fluid flow between pump rotors and the resevoir.

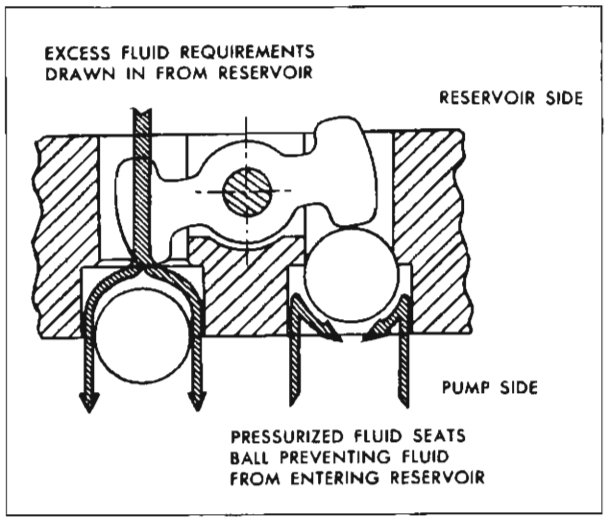


Fig. 21-66 Fluid Control Valve

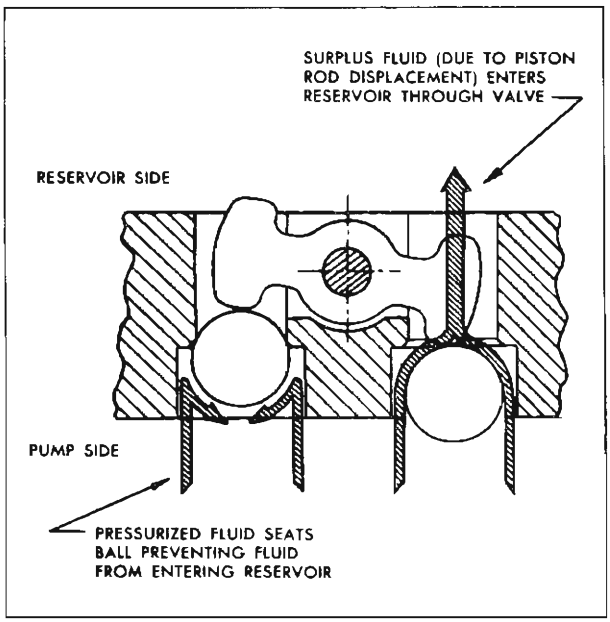


Fig. 21-67 Fluid Control Valve

Fig. 21-66 and Fig. 21-67 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 top lift cylinder piston rods from the top linkage and then manually raise and lower the top. The top should travel through its up and down cycle without any evidence of a binding action. If a binding action is noted when the top is being locked at the header, check the alignment of the door windows, ventilators and rear quarter windows with relation to the side roof rail weatherstrips. Make all necessary adjustments for correct top alignment. See "Folding Top Adjustments". If 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 anther or to body metal. Before beginning checking procedures, check battery according to recommended procedure.

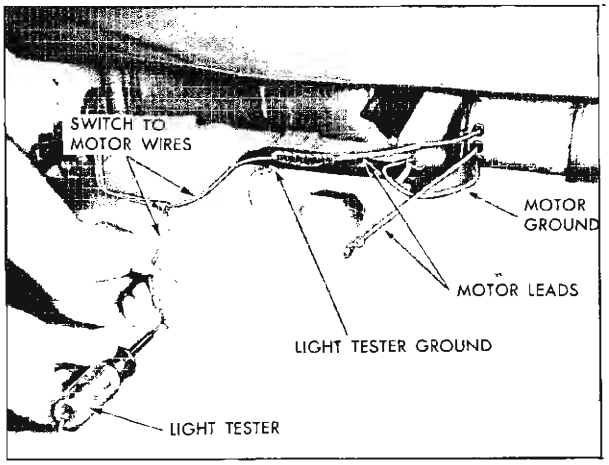


Fig. 21-68 Checking Motor Wiring

1. Checking for Current at Folding Top Control Switch.

a. Disengage terminal block from rear of switch.

b. Connect light tester to central feed terminal of switch terminal block.

c. Ground light tester ground lead to body metal.

d. If light tester does not light there is an open or short circuit between power source and switch.

2. Checking the Folding Top Control Switch.

If there is current at the feed wire terminal of the terminal block, operation of switch can be checked as follows:

a. Place a #12 jumper wire on switch terminal block between center terminal (feed) and one motor wire terminal. If motor operates with jumper wire but did not operate with switch, switch is defective.

b. Connect jumper wire between center terminal and other motor wire terminal on switch terminal block. If motor operates with jumper wire, but did not operate with switch, switch is defective.

3. Checking Switch to Motor Lead Wires.

If switch is found to be operating properly, the switch to motor lead wires can be checked as follows: (Fig. 21-68).

a. Disconnect green switch-to-motor wire from motor lead in rear compartment.

b. Connect a light tester to green switch-to-motor wire terminal.

c. Ground light tester ground lead to body metal.

d. Actuate switch to "down" position. If tester does not light, there is an open or short circuit in wire.

e. Disconnect red switch-to-motor wire from motor lead.

f. Connect light tester to red switch-to-motor wire terminal.

g. Actuate switch control knob to "up" position. If tester does not light, there is an open or short circuit in wire.

4. Checking the Motor Unit.

If a light tester indicates current at the motor-lead terminals of the switch-to-motor wires, but motor unit does not operate from switch, a final check of the motor unit can be made as follows:

a. Check connection of motor ground wire to body metal. See "C" in Fig. 21-60.

b. Connect a #12 jumper wire from battery positive pole to motor lead terminal that connects to green switch-to-motor wire. The motor should operate to lower top.

c. Connect jumper wire to motor lead terminal that connects to red switch-to-motor wire. The motor should operate to raise top.

d. If motor fails to operate on either or both of these checks, it should be repaired or replaced.

e. If motor operates with jumper wire but will not operate from switch-to-motor wires the trouble may be caused by reduced current resulting from damaged wiring or poor connections.

HYDRAULIC CHECKING PROCEDURE

Failures in the hydraulic system can be caused by lack of hydraulic fluid, leaks in hydraulic system, obstructions or kinks in hydraulic hoses or faulty operation of a cylinder or pump.

1. Checking Hydraulic Fluid Level in Reservoir.

a. Operate top to raised position.

b. At rear compartment, remove pump and motor shield.

c. Place absorbent rags below reservoir at filler plug.

d. With a straight-bladed screw driver, remove filler plug. Fluid level should be within ¼ inch of lower edge of filler plug hole.

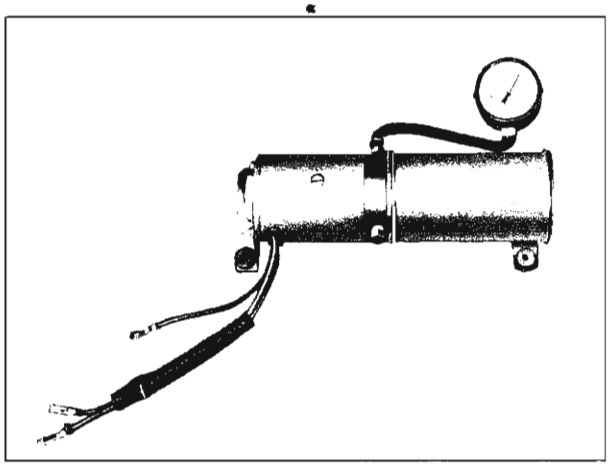


Fig. 21-69 Checking Pump Pressure

e. If fluid is low, add Delco #11 Hydraulic Fluid (G.M. Hydraulic Brake Fluid Super #11 or its equivalent) to bring to specified level. See "Filling of Hydro-Lectric Reservoir".

f. Reinstall filler plug and pump and motor shield.

2. Checking Operation of Lift Cylinders.

a. Remove rear seat cushion and folding top compartment side panel assemblies.

b. Operate folding top control switch and observe lift cylinders during "up" and "down" cycles for these conditions:

(1) If movement of cylinder is not coordinated or sluggish when the motor is actuated, check hydraulic hoses from motor and pump to cylinder for kinks.

(2) If one cylinder rod moves slower than the other, cylinder having slower moving rod is defective and should be replaced.

(3) If both cylinder rods move slowly or do not move at all, check the pressure of the pump. See "Checking the Pressure of the Pump".

NOTE: To insure proper operation of the lift cylinders, the top lift cylinder rods should be cleaned and lubricated at least twice a year. To perform these operations, raise top to "up" position and wipe exposed portion of each top lift cylinder piston rod with a cloth dampened with brake fluid to remove any oxidation and/or accumulated grime. With another clean cloth apply a light film of brake fluid to the piston rods to act as a lubricant.

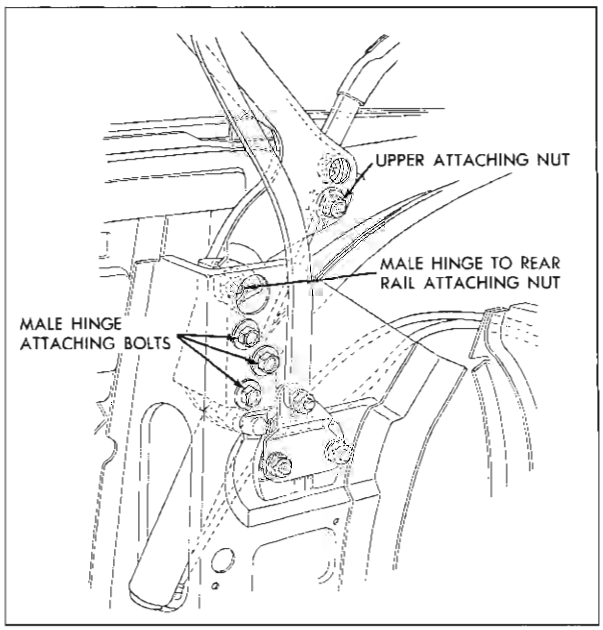


Fig. 21-70 Left Cylinder Removal

CAUTION: Exercise care so that brake fluid does not come in contact with any painted or trimmed parts of the body.

3. Checking Pressure at the Pump.

a. Remove motor and pump assembly from rear compartment.

b. Install plug in one port, and pressure gauge in port to be checked (Fig. 21-69).

c. Actuate motor with applied terminal voltage within range of 9.5 volts to 11.0 volts. Pressure gauge should show a pressure between 340 psi and 380 psi.

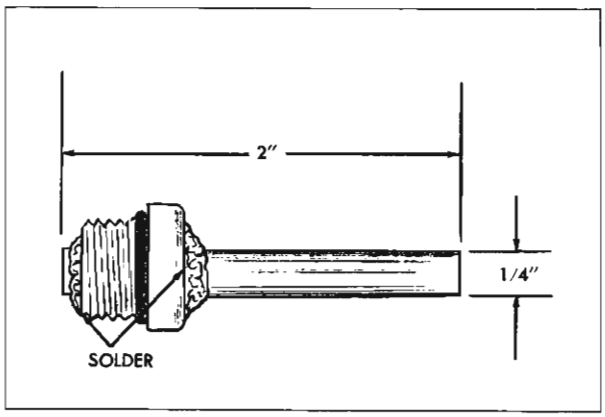


Fig. 21-71 Filler Plug Adapter

d. Check pressure in other port.

NOTE: A difference in pressure readings may exist between the pressure port for top of cylinders and pressure port for bottom of cylinders. This condition is acceptable if both readings are within the limit of 340 psi and 380 psi.

e. If the pressure is not within specified limits, unit is defective and should be repaired or replaced, as required.

REMOVAL OF FOLDING TOP LIFT CYLINDER

TEMPEST

1. Remove rear seat cushion and seat back.

2. Remove folding top compartment side trim panel assemblies.

3. With top in raised position, remove attaching nut, bolt, bushing and washer from upper end of cylinder.

4. Remove cotter pin, spacers and clevis pin securing lower end of cylinder to lift cylinder lower support.

5. Move cylinder to gain access to lower hydraulic hose connection.

6. Disconnect and cap hydraulic connections on cylinder and on each hose: remove cylinder.

CAUTION: Before disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid. Also, disconnect battery cable to prevent accidental operation of motor and pump while hydraulic hoses are disconnected.

7. To install cylinder, reverse removal procedure with following exceptions: To aid in connection of cylinder piston rod to folding top linkage, use power to raise piston rod to extended position. Operate top down and up several times, then check and correct level of hydraulic fluid in reservoir. See "Filling of Hydro-Lectric Reservoir".

FILLING OF HYDRO-LECTRIC RESERVOIR

This procedure virtually eliminates discharge or spillage of hydraulic fluid and possible trim damage while filling and bleeding system.

1. Filler Plug Adapter

a. Drill 1/4 inch diameter hole through center of spare reservoir filler plug.

b. Install 2 inch length of metal tubing (1/4" O.D. x 3/16" I.D.) into center of filler plug and solder tubing on both sides of filler plug to form air tight connection (Fig. 21-71).

2. Filling and Bleeding of Reservoir.

a. With top in raised position, remove folding top compartment bag material from rear seat back panel. Remove pump and motor shield.

b. Place absorbent rags below reservoir at filler plug. Using a straight-bladed screw-driver, slowly remove filler plug from reservoir.

NOTE: When installing new or overhauled motor and pump assembly, as bench operation, fill reservoir to specified level with hydraulic fluid. This operation is necessary as pump must be primed prior to operation to avoid drawing excessive amount of air into hydraulic system.

c. Install filler plug adapter to reservoir and attach 4 or 5 foot length of 3/16 inch I.D. rubber tubing or hose to filler plug tubing.

d. Install opposite end of hose into a container of G.M. Hydraulic Brake Fluid Super #11 or equivalent (Fig. 21-72).

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.

e. 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.

f. Operate top several times or until operation of top is consistently smooth in both up and down cycles.

g. Remove hose from filler plug tubing and remove filler plug adapter from reservoir.

h. Check level of fluid in reservoir and reinstall original filler hole plug.

NOTE: Fluid level should be within 1/4 inch of lower edge of filler plug hole.

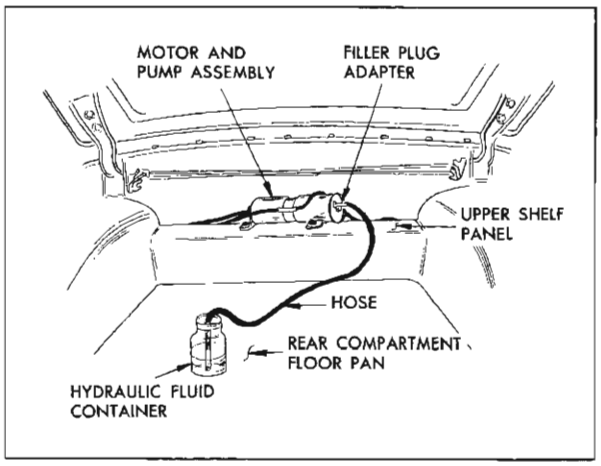


Fig. 21-72 Filling Hydro-Lectric Reservoir

REMOVAL OF FOLDING TOP LIFT CYLINDER PONTIAC

1. Remove rear seat cushion and back.

2. Remove folding top compartment side trim panel assembly.

3. Lock top to windshield header.

4. Fully raise door and rear quarter window on side affected.

5. Disconnect positive battery cable to prevent accidental operation of motor and pump assembly.

6. Remove attaching nut, bolt, bushing and washer from upper end of lift cylinder (Fig. 21-70).

7. Remove side roof rear rail to male hinge attaching nut and bolt (Fig. 21-70).

8. Remove folding top male hinge to top compartment brace attaching bolts (Fig. 21-70).

9. Carefully pull male hinge with attached cylinder rearward until male hinge is disengaged from side roof rail; then move hinge and cylinder assembly to inboard side of top compartment brace.

10. Remove screws securing lift cylinder to male hinge; then remove hinge from cylinder.

11. Disconnect and cap hydraulic connections on cylinder on each hose; then remove cylinder.

CAUTION: Prior to disconnecting hydraulic connections, place suitable wiping rags under connections to absorb any drippage of hydraulic fluid.

12. To install, reverse removal procedure with following exceptions:

a. To aid in installation of lift cylinder piston rod to folding top side roof rear rail, connect battery and use power to raise cylinder piston rod to extended position.

b. Operate folding top assembly down and up to insure proper linkage alignment of side rails. Where required, adjust male hinge assembly as described under "Folding Top Adjustments".

c. Operate folding top assembly down and up several times, then check and correct level of hydraulic fluid in reservoir. See "Filling of Hydro-Lectric Reservoir".

ROOF PANEL FABRIC COVER

DESCRIPTION

The roof panel fabric cover is a vinyl coated fabric covering applied to the metal 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. Screws (or 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. In addition, the roof panel fabric cover is cemented to the entire surface of the roof panel with a nitrile type non-staining cement.

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 reveal moldings (at belt)

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 opening. At roof panel extension (at belt) remove screws or 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. Removal of flexible retainers securing fabric

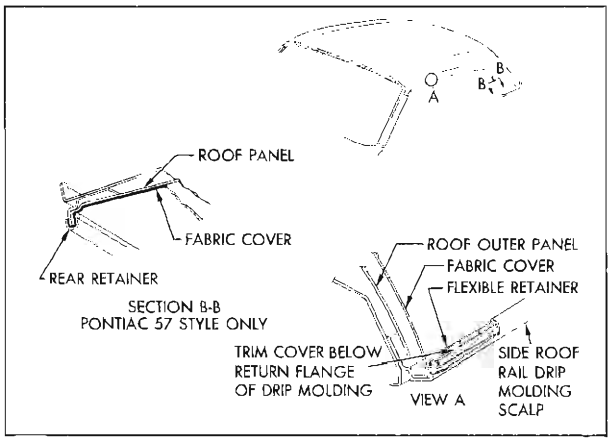


Fig. 21-73 Pontiac Fabric Roof Cover

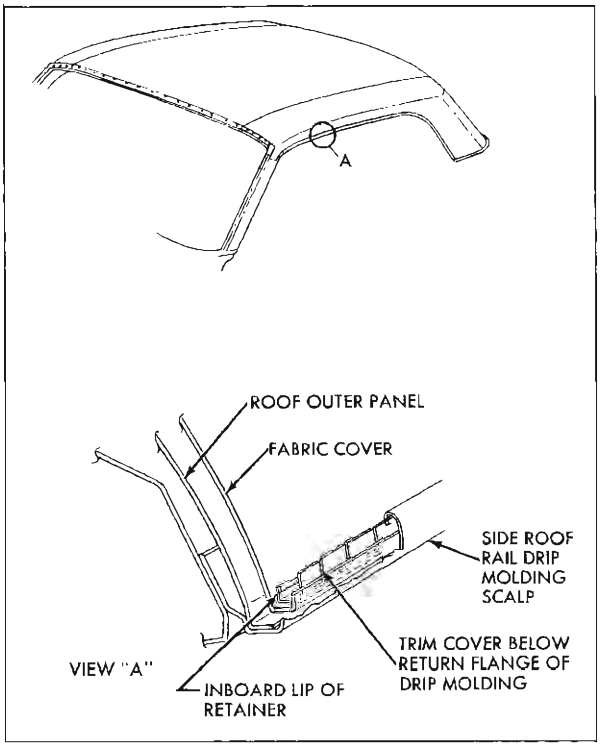


Fig. 21-74 Tempest Fabric Roof Cover at Side Rail

cover inside right and left drip moldings can best be completed by inserting tip of screwdriver or similar tool under forward end of retainers. (See View "A" in Fig. 21-73 for Pontiac. See View "A" in Fig 21-74 for Tempest). Working from front to rear of body, disengage fingers of retainers from side roof rail drip molding flanges. Continue above operation until retainers can be removed from body. On Pontiac "57" style, remove fabric cover rear retainer at rear quarter window area. (See Section "B-B", Fig 21-73).

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

5. Prior to removing fabric cover, application of heat in rear quarter 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.

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 cleaner 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°).

NOTE: Where new cover is installed at temperatures below 72°, pliers fabricated as shown in Figure 21-75 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.

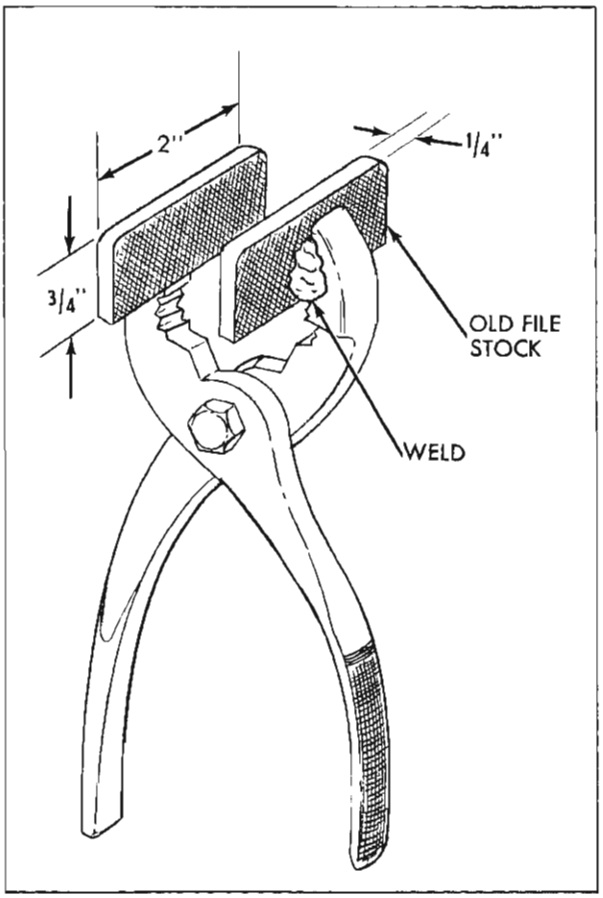


Fig. 21-75 Fabric Cover Pliers

6. Fold fabric cover on center line and lay on right side of roof panel, allowing proper material overhang at windshield and back window opening.

7. Apply approximately an 8" wide strip of nitrile non-staining vinyl trim adhesive such as 3M Vinyl Trim Adhesive or Permalastic Vinyl Trim Adhesive or equivalent along exposed inner layer of fabric cover adjacent to center line. (See Fig. 21-76).

If nitrile non-staining cement is not available, use neoprene type non-staining weatherstrip cement such as 3M Super Weatherstrip Cement or equivalent.

NOTE: When using nitrile non-staining cement, it may be necessary to apply two coats to fabric cover.

IMPORTANT: *Exercise care when applying cement on inner layer of cover so cement does not come in contact with outer layer.*

8. Apply cement to corresponding area of roof panel, which is to left of center line of roof panel.

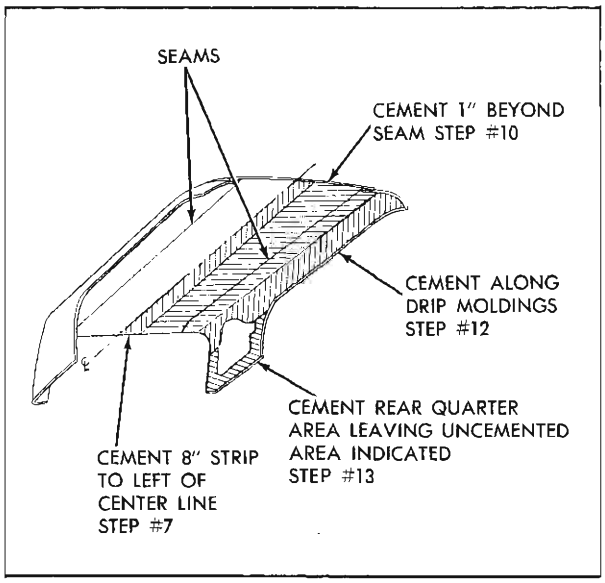


Fig. 21-76 Cementing Fabric Cover

9. At front and rear of fabric cover, grasp edge of material at seam and center line locations. Slide folded cover to center line of roof panel. Securely hold cover at center line location at windshield opening. Pull cover at rear, making certain center line of folded fabric cover corresponds to center line of roof panel. Securely hold fabric cover at back window opening. Turn folded left half of fabric cover over and fasten cover 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.

10. Once 8" strip of fabric cover is cemented to roof panel, fold over uncemented left side portion of fabric cover. Apply cement on inner layer of fabric cover to extend approximately 1" beyond dielectric seam. Apply cement to corresponding area of body (See Fig. 21-76).

IMPORTANT: *Application of cement should not overlap with previously cemented area, as "highlighting" of excess cement through fabric cover will result.*

11. Cement prepared portion of fabric cover to roof panel *making certain dielectric seam is straight.*

12. Fold over fabric cover and apply cement to remaining portion of fabric cover and roof panel and drip molding. Cement cover to roof panel and drip molding. (See Fig 21-76).

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

13. Cement perimeter of fabric cover in rear quarter area. Be certain fabric cover is cemented at emblem or plate assembly attaching locations. This type of cement application will permit easier fitting of cover in rear quarter area. (See Fig. 21-76).

14. Repeat steps 10, 11, 12 and 13 on right side.

15. At windshield and back window openings cement cover opening as shown in View "A", Fig. 21-77. 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", Figure 21-77).

16. Install drive nails at windshield and back window openings. (View "A", Fig. 21-77 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

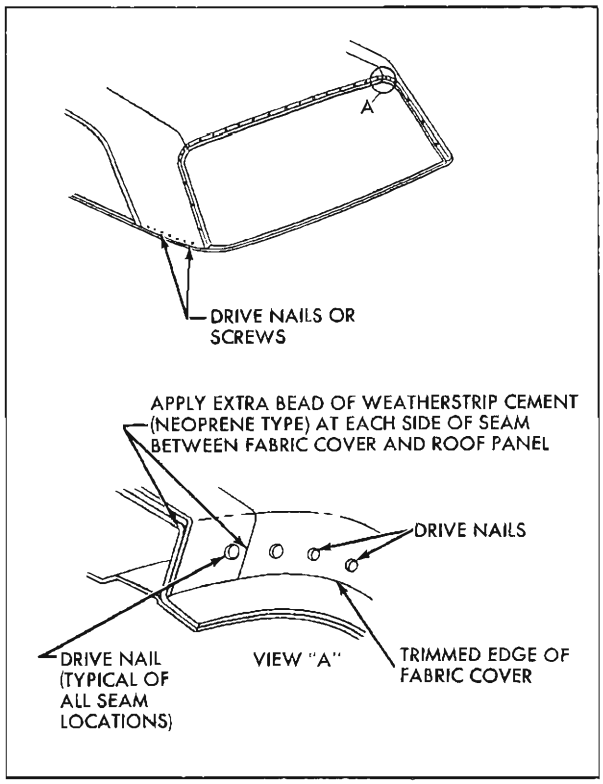


Fig. 21-77 Drive Nail Installation

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.

17. Install screws (or drive nails) at belt line of rear quarter area. (Fig. 21-77).

18. Trim off material at windshield, back window, and rear quarters. View "A" in Fig. 21-77 shows where trimmed edge should occur in openings.

NOTE: Install fabric cover at windshield pillar area in same manner as original installation.

19. Using fabric cover trimming tool (J-21092), or suitable small knife, trim fabric cover just under lip of roof drip molding. (View "A", Fig. 21-73). A tool may be fabricated to trim material along side roof rail molding as illustrated in Fig. 21-78.

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

21. Install flexible retainer starting at radius area above rear quarter window. Working toward ear of body, if necessary, carefully drive retainer downward with a blunt-edged tool. Working toward front of body, install remaining portion of retainer. Retainer fingers should be seated in flange of drip molding. (View "A", Fig. 21-73). On Pontiac "57" style, compress retainer to insure a tight fit and install on rear drip molding (Section "B-B", Fig. 21-73).

22. Install all previously removed moldings and assemblies.

NOTE: If, after cover installation is completed, creases or fold marks are still visible, they may be removed by applying heat to area affected. Care must be exercised so that material is not over heated as loss of design pattern embossed in cover will result. Normally creases or fold marks will gradually disappear after cover assembly has been exposed to the elements.

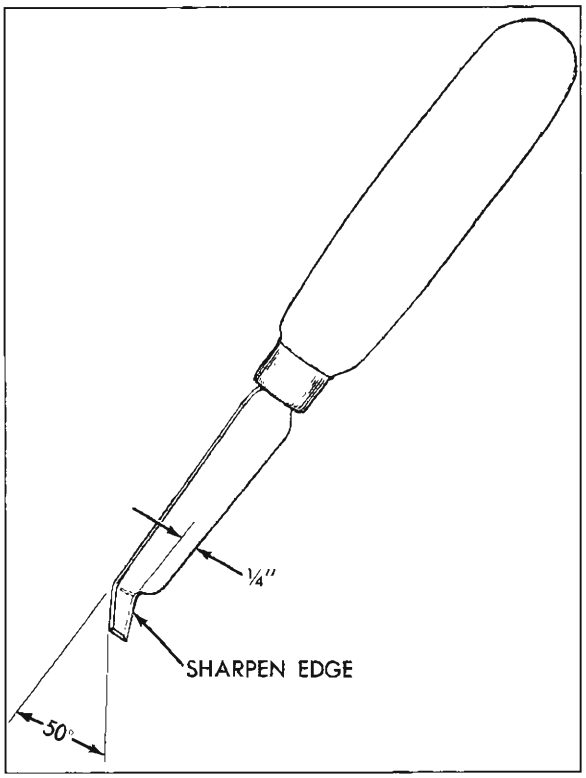


Fig. 21-78 Fabric Cover Trimming Knife

BUCKET SEATS

CONTENTS OF THIS SECTION

BUCKET TYPE FRONT SEATS

DESCRIPTION

The driver's seat assembly in Fig. 22-1 is typical of all "67" styles. The passenger's seat assembly in Fig. 22-1 is typical of all styles equipped with stationary seat supports.

Fig. 22-2 is typical of all driver and passenger seat assemblies equipped with manually operated seat adjusters.

All seat adjusters and stationary supports are bolted to the seat bottom frame; however, a combination of bolts and/or nuts are used to retain the adjusters or stationary supports to the floor pan assembly (Figs. 22-1 and 22-2).

The four-way (tilt) seat adjusters are actuated by a 12 volt, reversible shunt wound motor with a built-in circuit breaker. This four-way power seat adjuster is a special option on driver seat only.

The seat adjuster operating mechanism incorporates a transmission assembly which includes two solenoids and two drive cables leading to the seat adjusters. One solenoid controls the vertical movement of the seat while the other solenoid controls the horizontal movement of the seat. When the control switch is actuated, the motor and one of the solenoids are energized simultaneously. Then the solenoid plunger engages with the driving gear dog. The driving gear rotates the drive cables and operates both adjusters. When the adjusters reach their limit of travel, the drive cables stop their rotating action and torque is absorbed by the rubber 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.

BUCKET TYPE FRONT SEAT ASSEMBLY (DRIVER OR PASSENGER— MANUAL OR POWER OPERATED)

REMOVAL AND INSTALLATION

1. Turn back floor carpeting sufficiently to expose seat adjuster-to-floor pan attaching nuts or bolts.

2. Operate seat assembly to rearward position.

3. On all styles, loosen adjuster to floor pan attaching nuts or bolts.

4. Operate seat assembly to full forward position.

5. At rear of seat, remove adjuster to floor pan attaching nuts or bolts.

6. On styles equipped with power operated seats, disconnect wiring harness from seat control switch and from actuator motor.

7. On Tempest styles, carefully slide seat assembly rearward until front adjusters are removed from under front attaching nuts or bolts.

8. With aid of helper, remove seat assembly with attached adjusters from body.

9. To install, reverse removal procedure. On Tempest styles, be sure adjusters are properly engaged under front attaching nuts or bolts prior to installing rear attaching bolts.

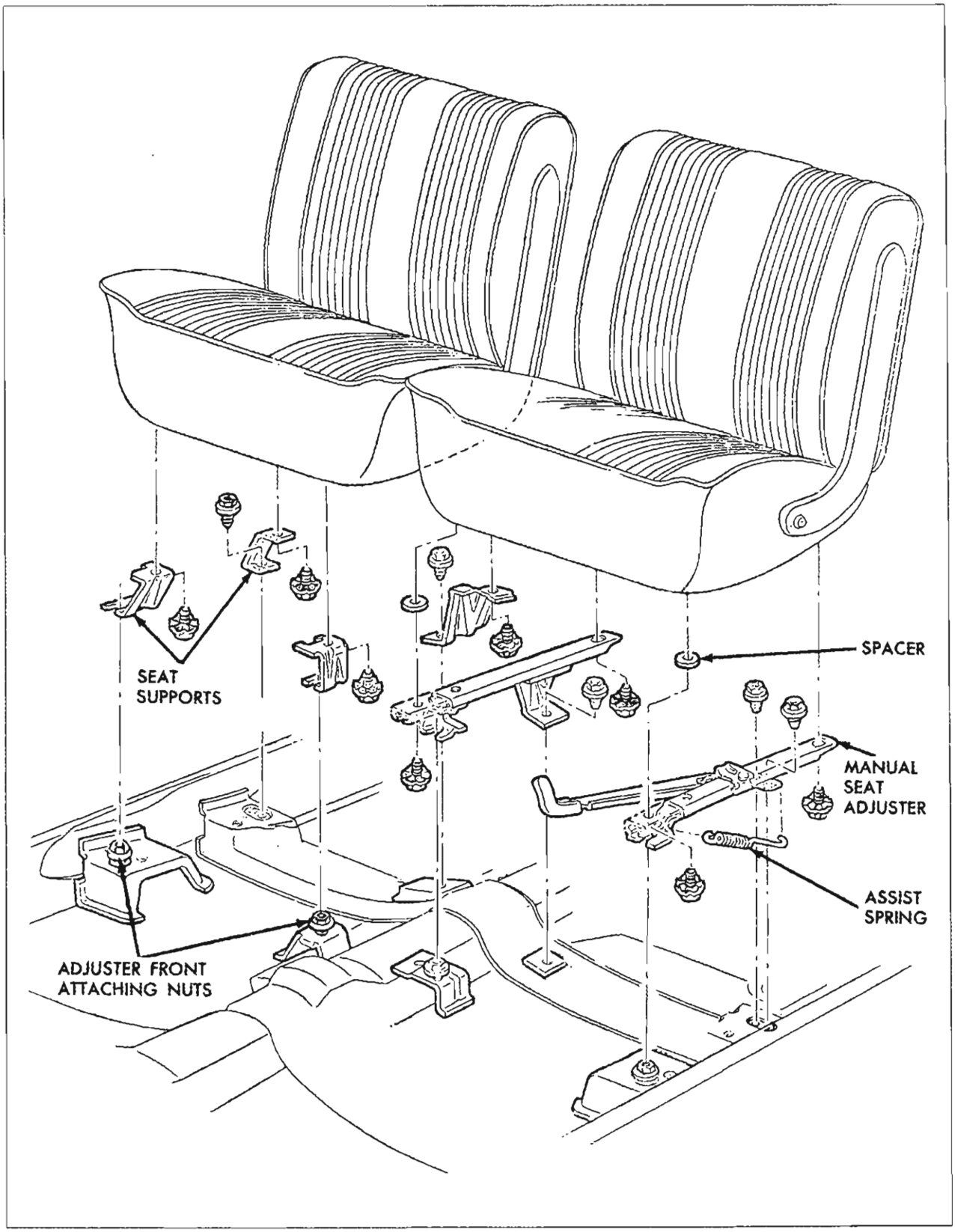


Fig. 22-1 Bucket Seat Assemblies—Typical 2117 and 2267 Style

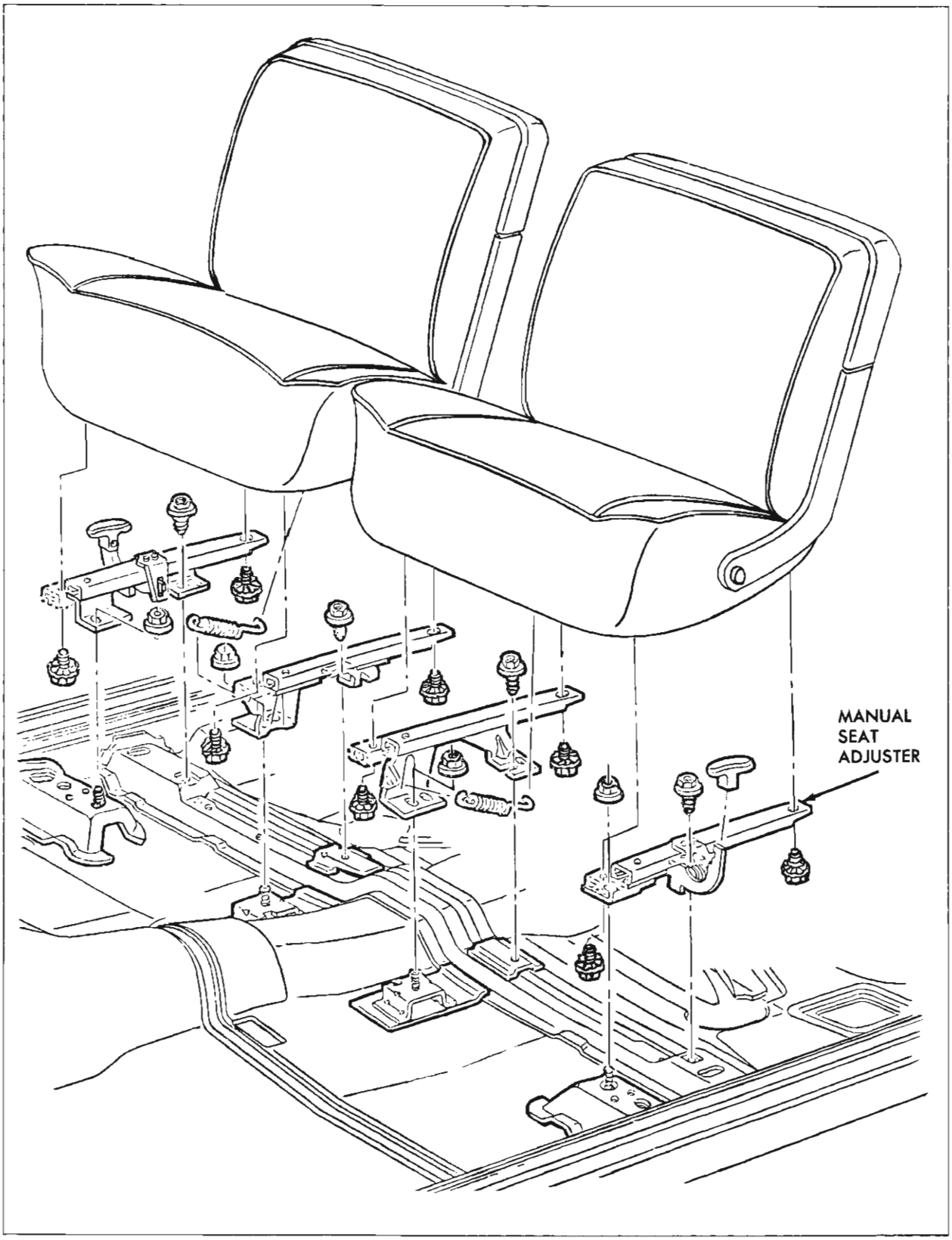


Fig. 22-2 Bucket Seat Assemblies—Typical all Adjustable Right Side

BUCKET TYPE FRONT SEAT (PASSENGER—STATIONARY)

REMOVAL AND INSTALLATION

1. Turn back floor carpeting sufficiently to expose stationary support-to-floor pan attaching nuts or bolts.

2. Scribe location of seat supports on floor pan assembly.

3. At front of seat, loosen seat support-to-floor pan attaching nuts or bolts.

4. At rear of seat, remove seat support-to-floor pan attaching nuts or bolts.

5. Carefully slide seat assembly rearward until front supports are removed from under front attaching nuts or bolts.

6. With aid of helper, remove seat assembly with attached supports from body.

7. To install, reverse removal procedure. Be sure supports are properly engaged under front attaching nuts or bolts and aligned within scribe marks prior to installing rear attaching bolts.

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

REMOVAL AND INSTALLATION

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

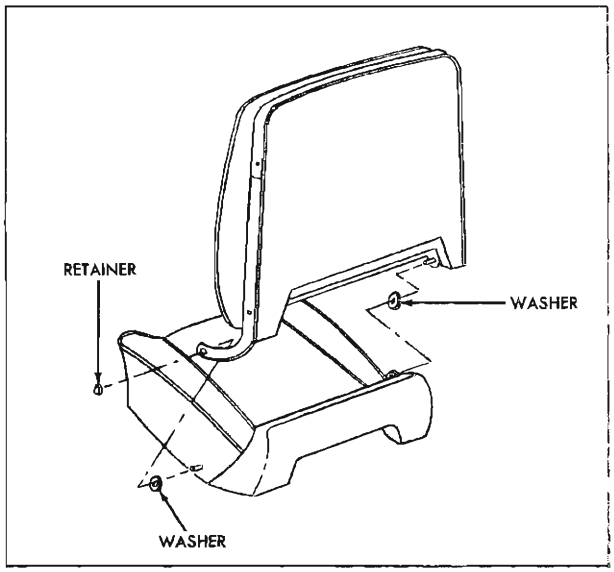


Fig. 22-3 Seat Back Removed

2. If adjuster to be replaced is equipped with an assist spring, remove spring from adjuster.

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 gear nut.

5. Remove adjuster-to-seat bottom frame front and rear attaching bolts and remove adjuster from seat assembly.

6. To install, reverse removal procedure.

FRONT SEAT STATIONARY SUPPORTS (PASSENGER SEAT ONLY)

17, 47 and 67 STYLES

TEMPEST ONLY

REMOVAL AND INSTALLATION

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

2. Scribe location of support to be removed on seat bottom frame.

3. Remove bolt securing affected support to seat bottom frame (Fig. 22-1) and remove support from seat assembly.

4. To install, reverse removal procedure.

FRONT SEAT BACK ASSEMBLY

REMOVAL AND INSTALLATION

1. On all styles, using a flat-bladed tool, carefully remove retainer from outer hinge pin (Fig. 22-3).

2. On all styles, tilt seat back forward and remove retainer from inner hinge pin (Fig. 22-3).

3. On all styles carefully disengage front seat back outer hinge arm from pin.

4. Move entire seat back assembly inboard until inner hinge pin is disengaged from extension on seat assembly; then, remove seat back from body.

5. To install, reverse removal procedure. Prior to installation of back assembly, be sure inner and outer washers are installed over the hinge pins (Fig. 22-3).

FRONT SEAT ADJUSTER ASSEMBLY FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

1. Operate seat assembly to fully raised and midway horizontal position.

2. Remove bucket seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

3. If power-operated outboard adjuster is being removed, disconnect power drive cable from verticle gear nut and horizontal actuator.

4. Remove adjuster-to-seat bottom frame front and rear attaching bolts.

5. Remove nuts securing motor and transmission support to adjuster assembly (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.

7. To install, reverse removal procedure. Check seat adjusters for proper operation.

FRONT SEAT ADJUSTER GEAR NUT FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

1. Operate seat assembly to fully raised and midway horizontal position.

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

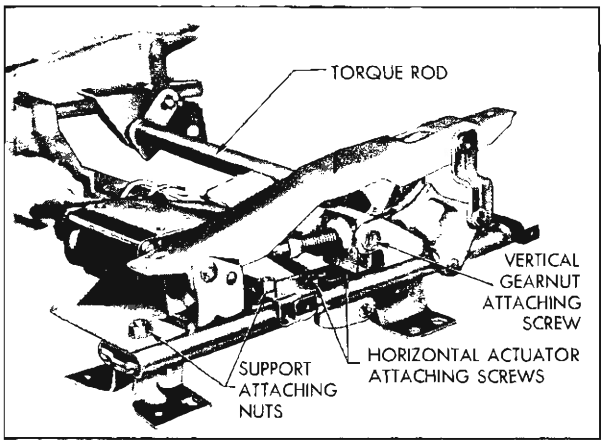


Fig. 22-4 Adjuster Mechanism

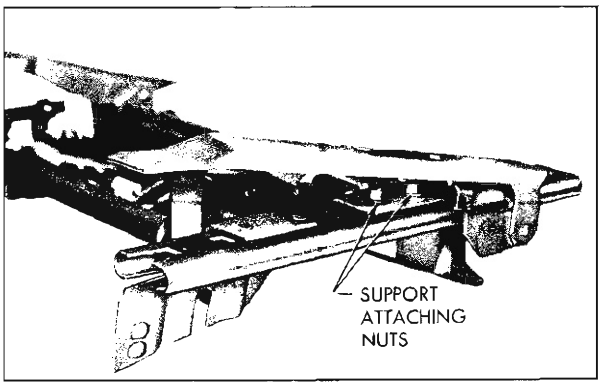


Fig. 22-5 Inboard Bucket Seat Adjuster

3. Using a clutch type screwdriver or other suitable tool, remove shoulder screws securing linkage to vertical gear nut. (Fig. 22-6).

4. Remove jackscrew "down" stop from jackscrew (Fig. 22-6).

5. Using a portable power source, actuate vertical gear nut until gear nut 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 gear nut.

6. Disconnect drive cable from gear nut.

7. To install, reverse removal procedure. Check seat adjusters for proper operation.

FRONT SEAT ADJUSTER JACKSCREW FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

1. Remove adjuster gear nut as previously described.

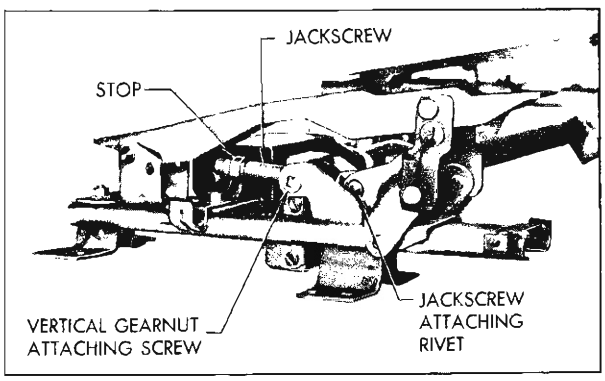


Fig. 22-6 Outboard Bucket Seat Adjuster

2. Remove seat adjuster-to-seat bottom frame front and rear attaching bolts.

3. As a bench operation, remove jackscrew-to-adjuster linkage attaching rivet and remove jackscrew from adjuster assembly (Fig. 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 (Part #5715154) to attach jackscrew-to-adjuster linkage. Check seat adjusters for proper operation.

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

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 gear nut. (Fig. 22-4).

3. Using a portable power source, actuate vertical gear nut until nut is against "down" stop on jackscrew assembly.

4. Disconnect drive cable from actuator assembly.

5. Remove screws securing horizontal actuator assembly to adjuster lower track; then remove actuator from adjuster assembly. (Fig. 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. Check seat adjusters for proper operation.

FRONT SEAT ADJUSTER ELECTRIC MOTOR FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

1. Remove front seat assembly as previously described.

2. Disconnect wire harness from motor relay assembly.

3. Remove motor-to-motor support attaching screws and remove motor assembly from support.

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

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

REMOVAL AND INSTALLATION

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

2. Detach both horizontal and vertical cables from seat adjusters.

3. Remove screws securing horizontal and vertical cable end plate on side of transmission from which cables are being removed and remove cables from seat assembly (Fig. 22-7).

4. To remove one cable from end plate for service replacement, place end plate in a vise and with a suitable tool, remove knock-out plug located adjacent to cable hole. This will allow cable to be removed from end plate and a new service replacement cable installed.

5. To install horizontal and vertical cable, reverse removal procedure.

FRONT SEAT ADJUSTER TRANSMISSION FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

1. Remove front seat assembly from body with attached adjusters, motor and transmission and place upside down on a clean protected surface.

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 assembly.

5. To install, reverse removal procedure.

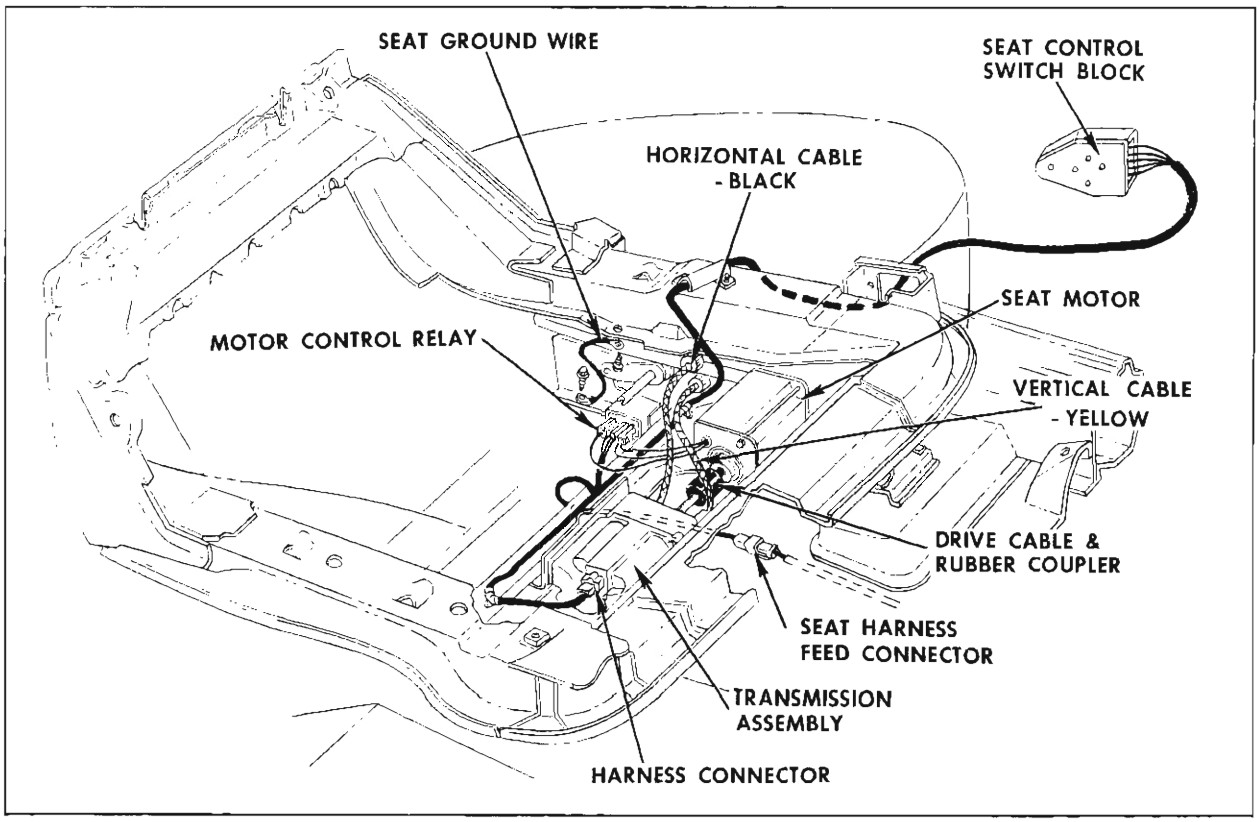


Fig. 22-7 4-Way Seat Installation

DISASSEMBLY AND ASSEMBLY OF TRANSMISSION

1. Remove front seat adjuster transmission from seat assembly.

2. Remove screws securing gear and solenoid housings together; then, carefully separate housings and remove component parts of transmission assembly (Fig. 22-8).

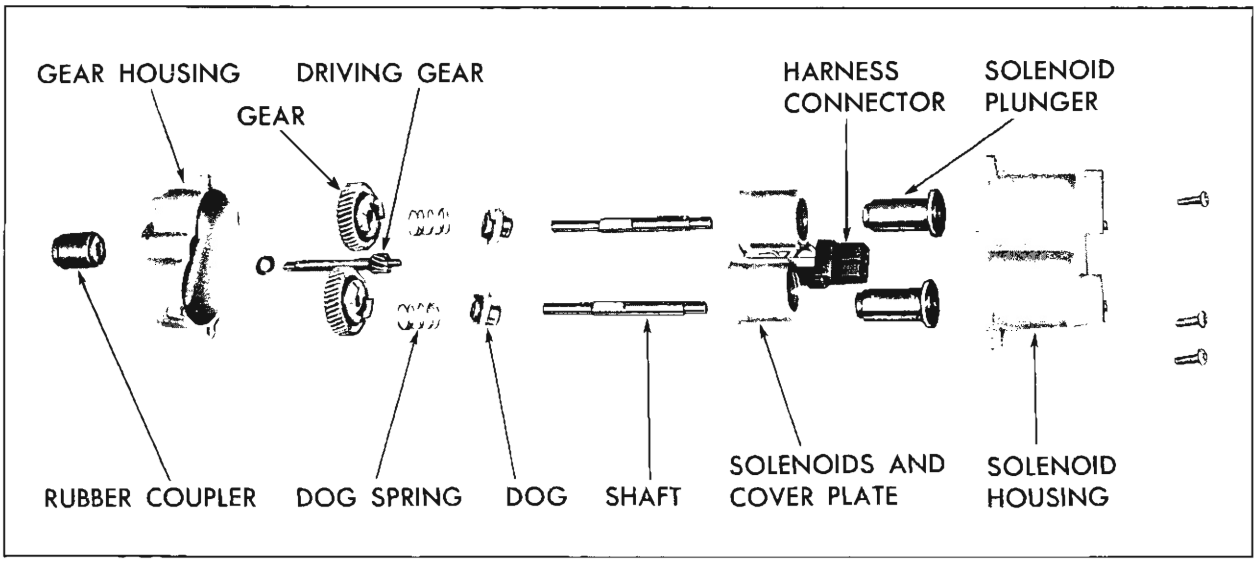


Fig. 22-8 4-Way Seat Transmission

3. To assemble transmission, reverse removal procedure.

IMPORTANT: *Prior to or during installation, lubricate frictional surfaces of drivng gear thrust washer, gears, dog washers, shaft and solenoid plungers with "Lubriplate".*

TORQUE TUBE ASSEMBLY FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

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

2. Remove adjuster to seat bottom frame front and rear attaching bolts.

3. Remove nuts securing motor and transmission support to inboard adjuster (Fig. 22-5).

4. Carefully disengage adjuster from support and torque tube assembly; then, remove adjuster from seat.

5. Disengage torque tube from opposite adjuster and remove tube from seat assembly.

6. To install, reverse removal procedure. Check seat adjuster for proper operation.

MOTOR AND TRANSMISSION SUPPORT FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

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

2. Remove nuts securing support to both adjusters. (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 assembly.

4. If replacing support, transfer motor, transmission and relay assembly to new part.

5. To install, reverse removal procedure. Check seat adjusters for proper operation.

MOTOR RELAY FOUR-WAY (TILT)

REMOVAL AND INSTALLATION

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

2. Disconnect motor-to-motor relay wire harness.

3. Remove nut securing relay to support and remove relay from seat assembly.

4. To install, reverse removal procedure.

PONTIAC SECTION

TEMPEST SECTION

PONTIAC AND TEMPEST SECTION