

SECTION 13-K

DOORS AND CENTER PILLAR (SERIES 50-70-700)

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**13-30 FRONT AND REAR DOORS
(SERIES 50-70-700)**

Several changes have been incorporated in the design of the rear doors hardware parts which require new service methods. All doors are equipped with a waterproof door inner panel water deflector which is cemented to the door inner panel. The bottom edge of the deflector is positioned into a slot along the bottom of the door panel, thereby, deflecting any water

into the bottom of the door and out the door bottom drain holes. Door lock levers are provided with spring clips which facilitate attachment of the connecting rods.

On front and rear doors, particular attention should be given to the door and door window adjustments to provide proper window operation and proper window frame contact with the new side roof rail weatherstrip.

The door section is divided into the following

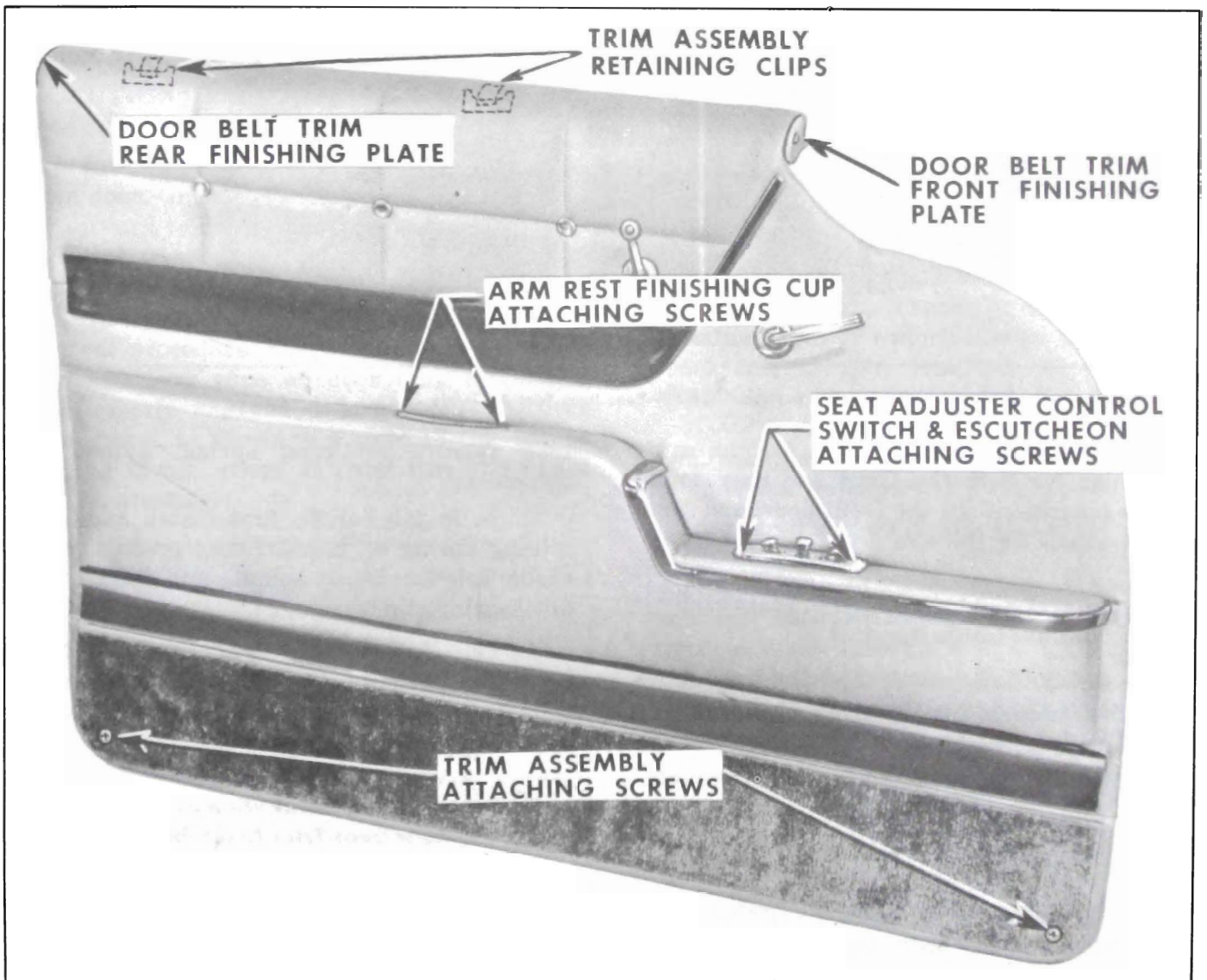


Figure 13-187—Front Door Trim Assembly

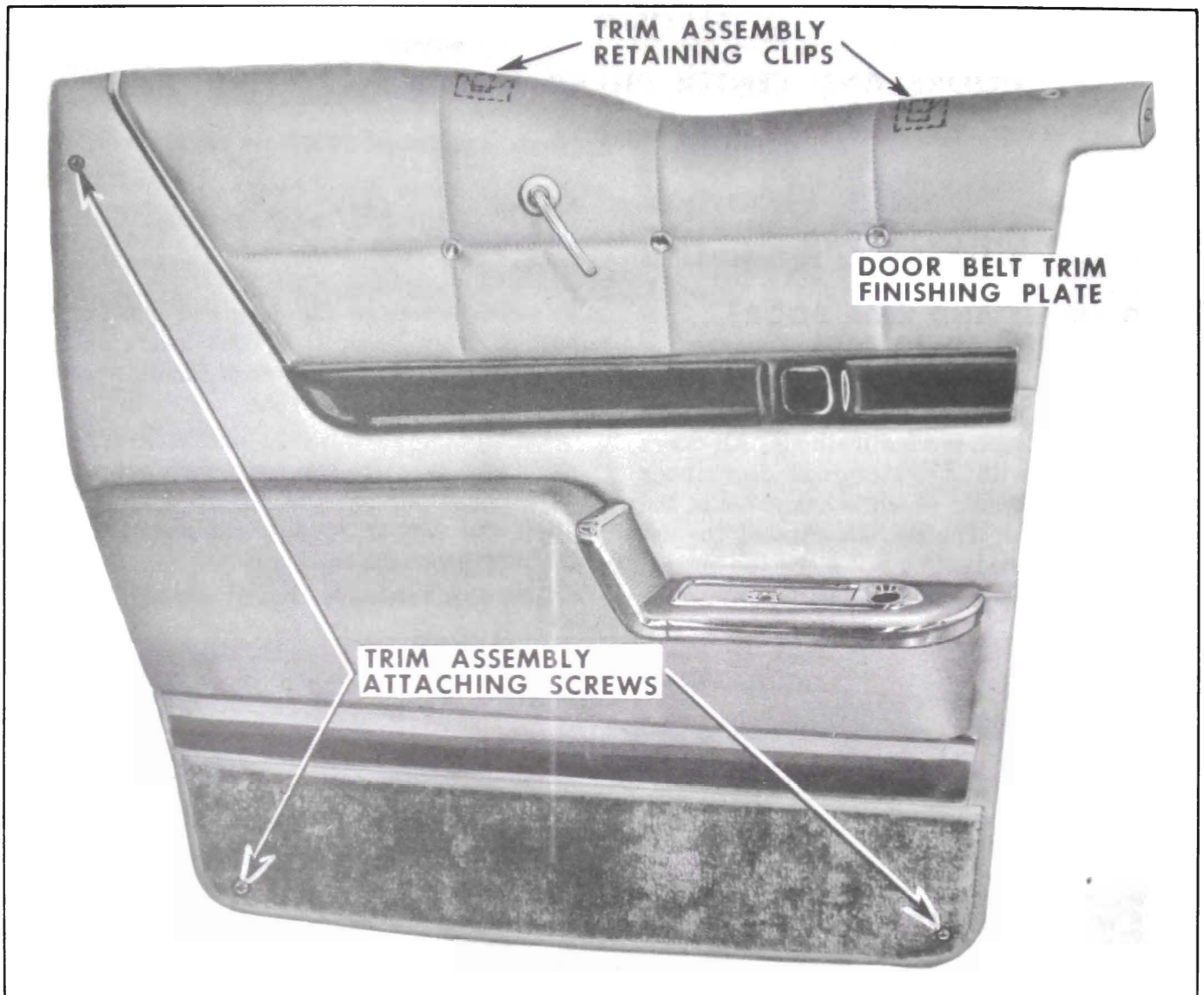


Figure 13-188—Rear Door Trim Assembly

parts: service operations which are the same or similar for both the front and rear doors, service operations for the front door, and service operations for the rear door.

a. Removal and Installation of Front and Rear Door Inside Handles

The newly designed door trim assemblies cover the complete door inner panel and require new service procedures. Door arm rests are secured to the trim assembly by bend-over tabs. The 70 and 700 styles incorporate the six-way seat adjuster control switch in the left front door arm rest and an ash tray and lighter in the rear door arm rests on 75 and 750 styles.

1. Depress escutcheon (telescope type) at handle sufficiently to insert retaining spring removing tool between handle and escutcheon;

then remove retaining spring, handle and escutcheon.

2. To install handle, first install handle retaining spring on handle; then position escutcheon and handle on spindle and push handle until spring clip is engaged.

NOTE: *Install handle at same angle as handle on opposite door. Window or ventilator should be in closed position when checking angle of handle.*

b. Removal and Installation of Front and Rear Door Trim Assemblies

1. Remove door inside handle and escutcheons. Remove arm rest finishing cup attaching screws. (See Figures 13-187 and 13-188.)

2. If removing front door trim assembly, remove seat adjuster control switch escutcheon

attaching screws, detach junction block from switch and remove switch and escutcheon from door trim assembly. (See Figure 13-187.)

If removing rear door trim assembly, remove ash tray and lighter assembly attaching screws, detach lighter feed and ground wires and remove assembly from door. With a suitable flat-bladed tool carefully snap rear door window control switch and escutcheon from finishing molding, detach junction block from switch and remove assembly from door.

3. Remove door belt trim front and rear finishing plates, shown in Figures 13-187 and 13-188.

4. Remove door trim assembly attaching screws, shown in Figures 13-187 and 13-188.

5. With a clean mallet, tap trim assembly along front and rear edges to free trim assembly nails in retainer slots.

6. Place a suitable flat-bladed tool between door trim assembly and inner panel water deflector and carefully pry front and rear edges of door trim assembly from door inner panel.

CAUTION: *Exercise extreme care so as not to damage water deflector.*

7. On two-door styles remove trim assembly from door. On four-door styles lift trim assembly upward to disengage trim assembly retaining clips from supports on door inner panel, indicated in Figures 13-187 and 13-188.

8. To install door trim assembly, reverse removal procedure. On four-door styles make sure retaining clips on door trim assemblies are properly engaged over supports on door inner panel, as shown in Figure 13-189, before tapping in nail strips at front and rear edges of trim assembly.

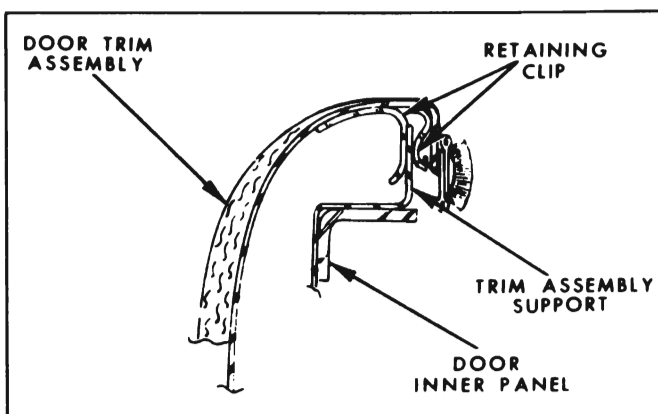


Figure 13-189—Door Trim Retaining Clip

NOTE: *If during removal of trim assembly, any retaining nails are broken off, they can be*

replaced with door trim assembly nailing strip replacement tabs which are available as service parts.

c. Front and Rear Door Arm Rest Assembly Removal and Installation

1. Remove door trim assembly from which arm rest is to be removed.

2. At back side of door trim assembly, carefully bend out retaining tabs securing door arm rest and remove arm rest from door trim assembly.

3. To install door arm rest, reverse removal procedure.

d. Removal of Front and Rear Door Water Deflectors

A door inner panel water deflector consisting of a wax impregnated waterproof paper is cemented to the door inner panel on all styles. The deflector which covers the complete door inner panel fits into a slot along the bottom of the door inner panel and deflects water into the bottom of the door where it can drain out the door bottom drain holes. Whenever any work is performed on a door the water deflector must be properly sealed and cemented to the door inner panel as specified in the following procedures.

1. Remove door trim assembly.

2. With a sharp scraper, break cement bond securing edges of water deflector to door inner panel and at spot locations, shown in fig. 13-190 and remove water deflector from door.

e. Installation of Front and Rear Door Water Deflectors

Numbered arrows in Fig. 13-190 refer to corresponding installation steps.

1. Using the old water deflector as a template, trim new deflector to proper size and cut holes for door inside hardware.

2. On rear doors prior to installation of water deflector, apply waterproof body tape over the regulator spindle hole, as shown in View "E" (Fig. 13-190) or over the electric switch hole on styles with manually operated window regulators, as shown in View "F" (Fig. 13-190).

3. Apply an approved rubber cement to door inner panel along a line contacted by front and rear edges of water deflector as indicated in Fig. 13-190. Application should be continuous with no skips. Apply cement at spot locations shown in Fig. 13-190.

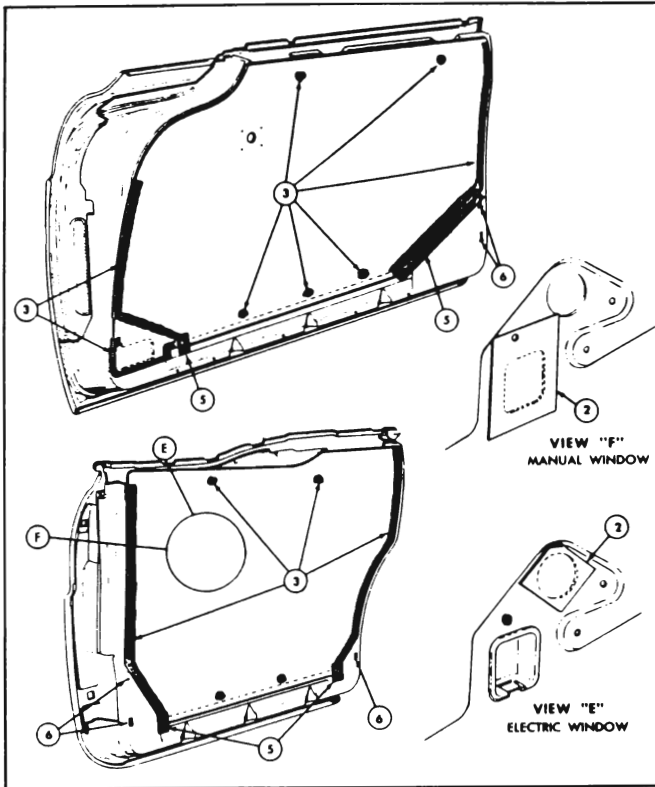


Figure 13-190—Front and Rear Door Water Deflector Installation

4. Position water deflector to door inner panel with lower edge in retaining slot; roll or press cemented areas to obtain a good cement bond.

5. On all doors apply waterproof body tape to deflector and inner panel at both ends of retaining slot as indicated in Fig. 13-190.

6. Apply rubber cement to seal the lower trim assembly nail slots, as indicated in Fig. 13-190.

7. Install door trim and hardware parts.

f. Detachment of Water Deflector for Access to Inner Panel

For service operations requiring access to the door inner panel the water deflector may be cut and turned back to provide access to the inner panel. Cut (DO NOT TEAR) water deflector straight and over portion of inner panel with the least depressions to facilitate resealing with waterproof body tape.

To reseal water deflector, tape full length of cut with waterproof body tape. Roll or press tape to assure a complete bond.

g. Removal and Installation of Front and Rear Door Lock Striker

1. With a pencil, scribe 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, place striker and adjusting plates within scribe marks on pillar and tighten screws. **IMPORTANT:** *Whenever a door has been removed and installed, or re-aligned, the door SHOULD NOT be closed completely until a visual check is made to determine if the lock extension will engage in the 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.*

h. Door Lock Striker 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.

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

(a) Door (s) should be properly aligned before checking door spacer requirements.

(b) To determine if door lock striker emergency spacers are required, apply modeling clay or body caulking compound in the door lock striker notch where the lock extension engages and then close the door to form a measurable impression in the clay or caulking compound, as shown in figure 13-191.

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

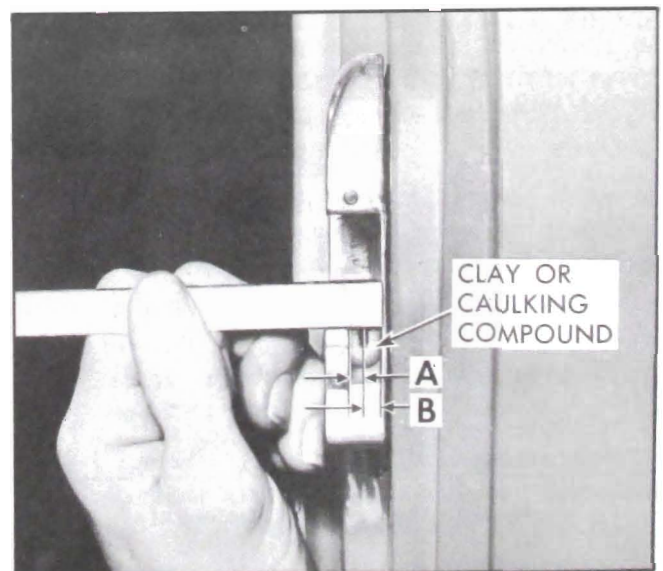


Figure 13-191—Striker Engagement Check

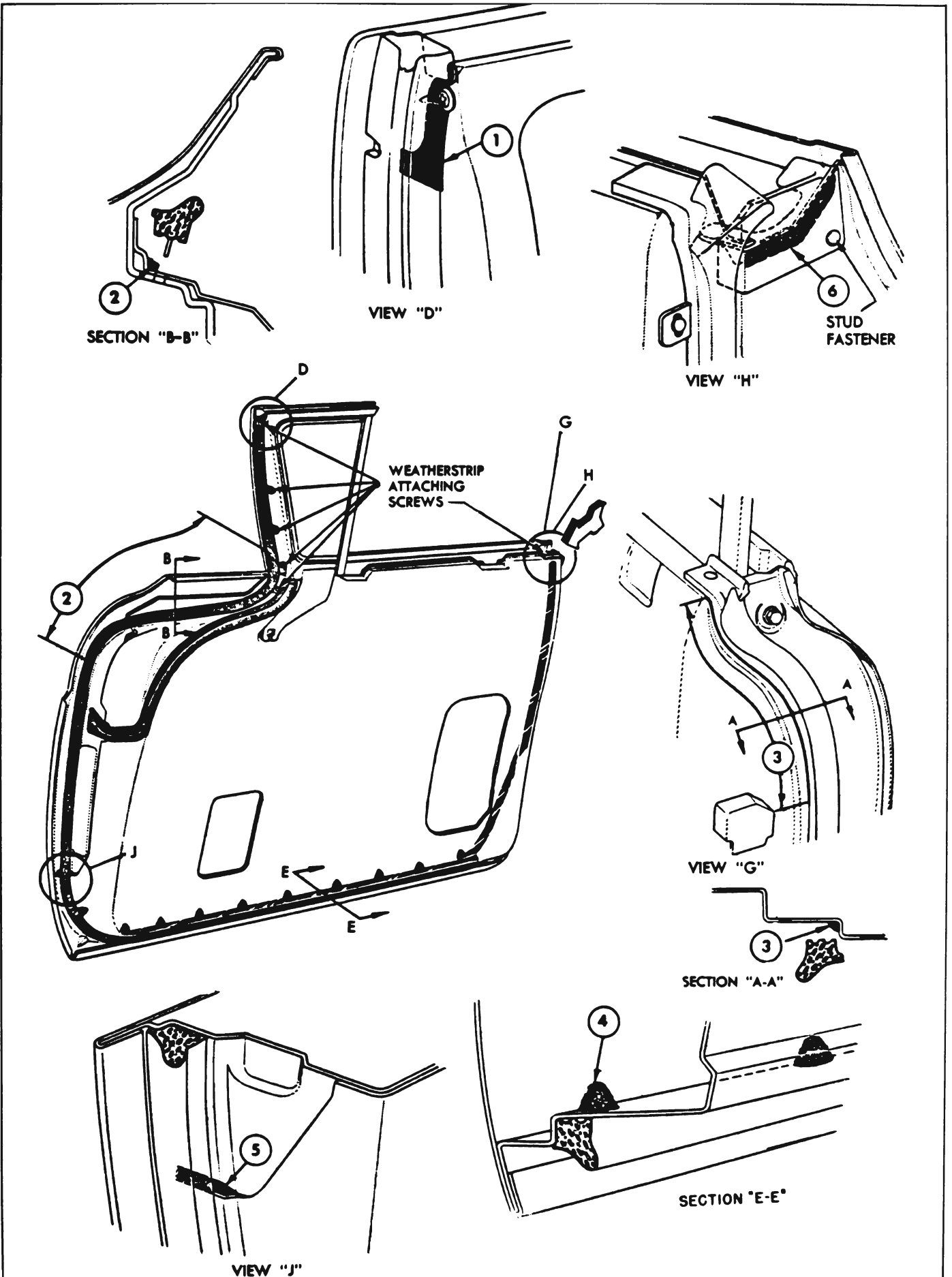


Figure 13-192—Front Door Weatherstrip

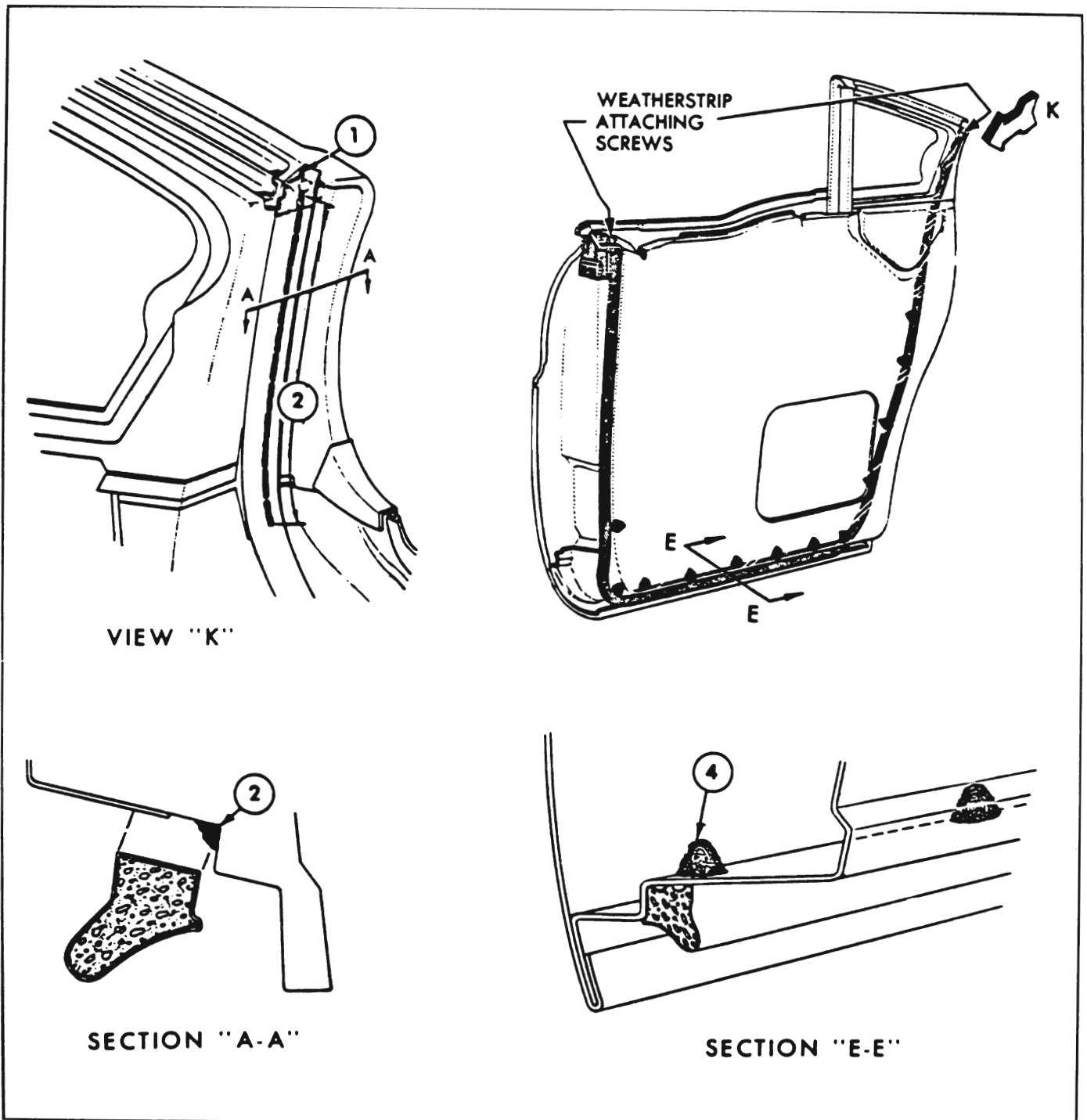


Figure 13-193—Rear Door Weatherstrip

length striker attaching screws as directed below.

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)	3/16" (Total)	Emergency Screw (1/4" longer)
0 to 1/16" Interference	2 (1/16" Spacers)	1/4" (Total)	Emergency Screw (1/4" longer)

NOTE: Dimension "B" from center of lock extension to inside face of striker should never be less than 1/16".
 *Zinc or cadmium plated flat head cross-recess screw with countersunk washer.

i. Removal of Front and Rear Door Weatherstrips

Both the front and rear door weatherstrips are a one-piece mechanically retained type with external clips formed from a wire insert extending through the length of the weatherstrip. The weatherstrips are secured to the door by snapping the weatherstrip clips into holes around the perimeter of the door. After a weatherstrip is installed, sealer is applied

through the inner panel access holes to the weatherstrip attaching clips along the bottom of the door and to the lower clip on each pillar. The ends of the weatherstrips are provided with integral tabs which are secured to the door pillars by screws. In addition, front door weatherstrips are cemented to the door hinge pillar along the cove area. A front door hinge pillar auxiliary weatherstrip is provided to direct any water in the cove area of the hinge pillar into a drainage hole in the hinge pillar. The auxiliary weatherstrip is cemented to the door hinge pillar and has two snap-on clips at the lower and one at the upper end of the weatherstrip.

1. Remove front door trim assembly. Remove weatherstrip attaching screws at locations, shown in Figures 13-192 and 13-193.

2. Using a weatherstrip clip inserting tool or other suitable tool carefully position tip of tool under weatherstrip at each clip location and snap clip out of hole. At cemented areas, shown in Figures 13-192 and 13-193 carefully break cement bond.

j. Installation of Front and Rear Door Weatherstrips

1. Remove door trim assembly and inner panel water deflector. **NOTE:** *Before installing weatherstrip, reform any deformed clips, using*

Clip Reformer Tool No. J-5984 as shown in figure 13-194.

2. Locate weatherstrip on door, then install weatherstrip clips into clip holes using Weatherstrip Clip Inserter Tool No. D-5757. To install clips into clip holes, place "V-shaped" tip of weatherstrip inserter tool on loop of clip, then push clip into hole until it snaps into position.

3. On rear doors apply on approved weatherstrip cement at the top of the ventilator, as indicated at "1" in VIEW "K" — cement should extend slightly below drain hole at upper corner of ventilator. Apply a bead of cement beginning at ventilator drain hole and extending downward to just below the first weatherstrip attaching clip hole, as indicated at "2" in VIEW "K" and SECTION "A-A". (See Figure 13-193).

4. Install weatherstrip attaching screws at locations, shown in Figures 13-192 and 13-193.

5. Working through large access apply medium-bodied sealer over and around weatherstrip attaching clips, as indicated at "4" in SECTION "E-E" in Figures 13-192 and 13-193. Seal all clips along door bottom and clips at door pillars, as indicated in illustrations.

6. On front doors, after installation of weatherstrip apply weatherstrip cement, as shown at "5" in VIEW "D", Figure 13-192, to fill the void at the joint of front door inner panel and door hinge pillar inner panel.

7. Install door inner panel water deflector, door trim assembly and inside hardware.

k. Removal and Installation of Front Door Lock Pillar Upper Sealing Strip (Four-Door Models)

1. With a flat bladed tool carefully remove stud fastener, shown in VIEW "H", Figure 13-192.

2. Carefully break cement bond, shown at "6" in VIEW "H" and remove sealing strip from door lock pillar.

3. To install front door lock pillar sealing strip first apply an approved weatherstrip cement in retaining groove of strip, then install and properly position strip to lock pillar. Press cemented area to assure a good cement bond and install stud fastener.

l. Removal of Front Door Hinge Pillar Auxiliary Weatherstrip

With a flat-bladed tool carefully remove three snap-on fasteners securing weatherstrip,

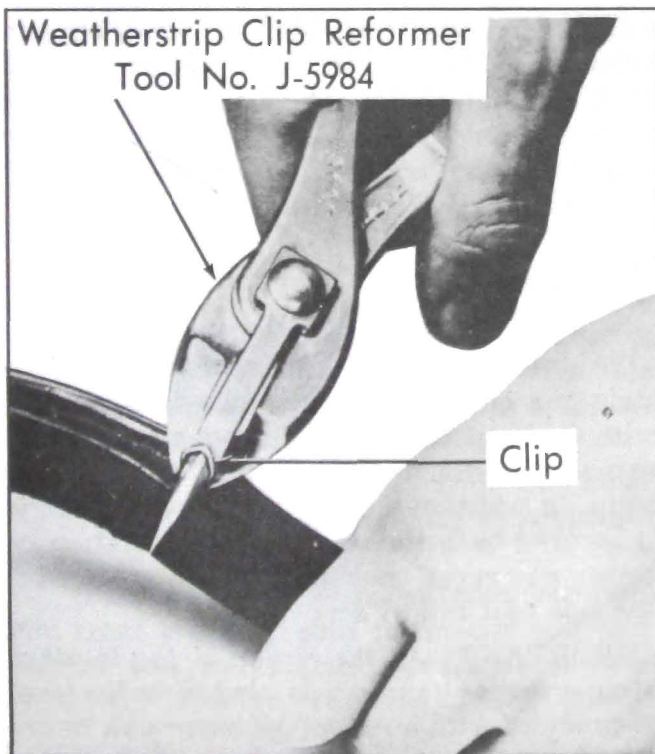


Figure 13-194—Reforming Weatherstrip Clip

then break cement bond and remove weatherstrip from door pillar. See figure 13-195.

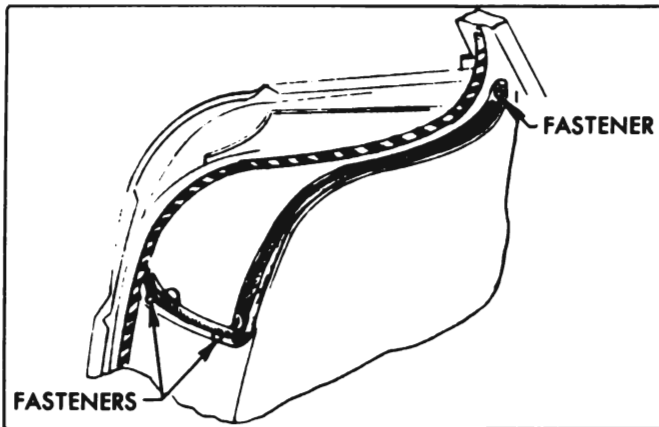


Figure 13-195—Front Door Hinge Pillar Auxiliary Weatherstrip

m. Installation of Front Door Hinge Pillar Auxiliary Weatherstrip

1. Clean off old cement from area of hinge pillar contacted by weatherstrip.
2. Apply an approved weatherstrip cement to the surface of the hinge pillar contacted by the weatherstrip and to the weatherstrip attaching surface.
3. Install weatherstrip to hinge pillar, aligning snap-on clips in weatherstrip with holes in hinge pillar.
4. Install snap-on clips. Firmly press entire length of weatherstrip to hinge pillar to assure a complete cement bond.
5. Clean off any excess cement.

n. Front and Rear Door Bottom Drain Hole Sealing Strip

A new door bottom drain hole sealing strip is attached to the door inner panel over the drain holes by a snap-on fastener at each end of the strip.

To prevent the strip from adhering to the door inner panel and blocking the drain holes, apply a sparing amount of silicone rubber lubricant on the center section of the weatherstrip as indicated in figure 13-196.

o. Removal and Installation of Front Body Hinge Pillar Auxiliary Weatherstrip

The front body hinge pillar auxiliary weatherstrip is a one-piece mechanically-retained weatherstrip with external clips formed from the wire insert extending through the length of the weatherstrip. The weatherstrip is posi-

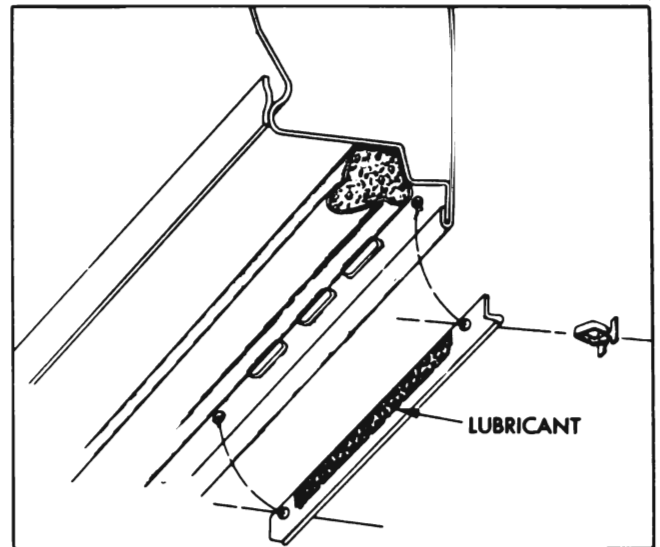


Figure 13-196—Front and Rear Door Bottom Drain Hole Sealing Strip

tioned on the upper portion of the front body hinge pillar.

1. Carefully position tip of mechanically retained weatherstrip inserting tool, or other suitable tool, under weatherstrip at each clip location and snap clip out of hole. Then remove weatherstrip.

2. To install, first check clips for proper contour and reform if necessary using Tool No. J-5984 as indicated in figure 13-194, then position weatherstrip to hinge pillar and install clips into holes with mechanically-retained weatherstrip inserting tool. To install clips in holes, place "V"-shaped tip of tool on loop and push clip into hole. **CAUTION:** Do not use excessive force or strike tool when pushing clips into holes as it may distort shape of clips and cause improper weatherstrip retention.

p. Removal of Side Roof Rail Weatherstrip (Four-Door Models)

The newly designed side roof rail weatherstrip is a one-piece mechanically-retained type with external clips formed from a wire insert extending through the length of the weatherstrip. In addition to the clips the weatherstrip is secured by a side roof rail weatherstrip retainer and reveal molding which is attached to the side roof rail by screws.

IMPORTANT: As the center of the weatherstrip a section (approximately ten inches long) is provided with a reinforced outer skin to prevent excessive wear from the rear door window upper frame during closing and opening of the

door. This reinforced section of the weatherstrip should be correctly located to properly perform its function.

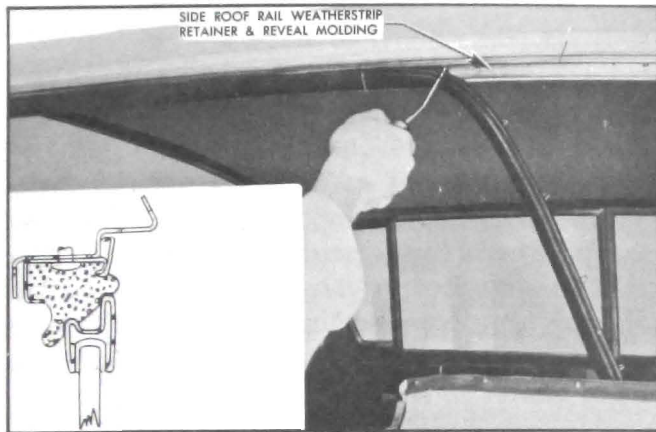


Figure 13-197—Side Roof Rail Weatherstrip

Disengage weatherstrip from outer flange of retainer; then with a mechanically-retained weatherstrip inserting tool, or other suitable tool, carefully position tip of tool under weatherstrip at each clip location and snap clip out of hole.

q. Installation of Side Roof Rail Weatherstrip

1. Check weatherstrip clips for proper contour and reform if necessary using Tool No. J-5984 (see figure 13-194) in Door Weatherstrip section.

2. Position weatherstrip to retainer at side roof rail so that reinforced section (approximately ten inches long) is over front edge of the rear door window upper frame. Install weatherstrip clips into clip holes with mechanically-retained weatherstrip inserting tool. To install clips into holes, place "V"-shaped tip of tool on loop of clip, then push clip into hole, as shown in figure 13-197, until it snaps into position. **CAUTION:** Do not use excessive force or strike tool when pushing clips into holes as it may distort shape of clips resulting in improper weatherstrip retention.

3. Engage weatherstrip in both the inner and outer flange of retainer along entire length of retainer.

4. If installing a new weatherstrip carefully trim front and rear ends to provide a proper weather seal and a neat appearance at body windshield pillar and rear body lock pillar.

NOTE: With doors and windows closed, ventilator and front and rear door window upper

frame should make an even continuous contact, as indicated in inset of figure 13-197, with the side roof rail weatherstrip. For side roof rail weatherstrip adjustments see "SIDE ROOF RAIL WEATHERSTRIP RETAINER AND REVEAL MOLDING-ADJUSTMENTS."

5. Lubricate side roof rail weatherstrip as directed under "LUBRICATION" section.

r. Removal of Side Roof Rail Weatherstrip Retainer and Reveal Molding (Four-Door Models)

The side roof rail weatherstrip retainer and reveal molding is a channel-type molding secured to the side roof rail by nine screws. The assembly may be adjusted "in" or "out"; however, the amount of adjustment is small and is not intended to correct for improper ventilator or door window alignment. It is important that the ventilator and the front and rear doors are checked and, if necessary, aligned for proper contact with the side roof rail weatherstrip.

1. Remove side roof rail weatherstrip from retainer.

2. Remove screws securing side roof rail weatherstrip retainer and reveal molding to side roof rail and remove molding. **NOTE:** Exercise care during removal so as not to bend molding as this may effect proper weatherseal after installation.

s. Installation of Side Roof Rail Weatherstrip Retainer and Reveal Molding (Four-Door Models)

1. Remove sealer from side roof rail and molding to insure a clean sealing surface.

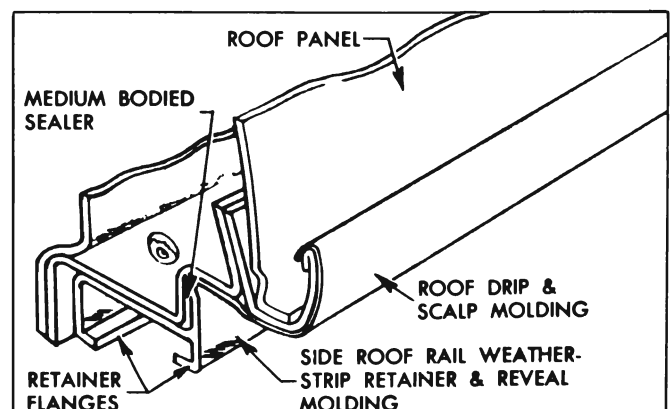


Figure 13-198—Side Roof Rail Weatherstrip Retainer and Molding Sealing

2. Apply medium-bodied sealer along upper rabbet of retainer and reveal molding, as shown in figure 13-198, along entire length of molding.

3. Position weatherstrip retainer and reveal molding to side roof rail and secure in place by installing screw at front, center, and rear of molding. Then install remaining screws.

4. Install side roof rail weatherstrip.

t. Side Roof Rail Weatherstrip Retainer and Reveal Molding Adjustments

The attaching holes in the side roof rail weatherstrip retainer and reveal molding 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 for improper ventilator or door window alignment. The retainer attaching screws are located under the weatherstrip necessitating removal of the weatherstrip to make an adjustment.

IMPORTANT: *Before attempting to adjust the side roof rail weatherstrip first check that the ventilator and front and rear door windows are properly aligned and, where necessary, adjust for proper alignment as directed under "ADJUSTMENTS" in the Ventilator, Front Door Window and Rear Door Window service procedures.*

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

2. Loosen weatherstrip retainer attaching screws slightly in area to be adjusted then with a wooden block or suitable tool against flange of the retainer, figure 13-198, tap tool lightly to position retainer in or out, as required.

3. Tighten retainer attaching screws and re-install weatherstrip.

u. Removal of Side Roof Rail Mechanical Sealing Strip (Models 56R-75R-755)

1. Remove one screw securing front end weatherstrip and one screw securing rear end weatherstrip. With a flat-bladed tool, carefully break cement bond securing each weatherstrip and remove weatherstrips.

2. Remove remaining sealing strip attaching

screws and remove strip with attached gasket from body.

3. If necessary, remove gasket from sealing strip.

v. Installation of Side Roof Rail Mechanical Sealing Strip (Models 56R-75R-755)

1. Clean original caulking compound from side roof rail and gasket, and clean front and rear weatherstrip cementing surfaces. If gasket was detached, remove the double coated adhesive tape from sealing strip. (The tape is used only to facilitate production installation of the gasket to sealing strip.)

2. Tape outer sealing strip to inner strip so that outer strip is closed position for installation of rubber gasket.

3. Assemble gasket to sealing strip with an approved weatherstrip cement. Carefully follow the manufacturer's directions for cement application, and observe the following precautions.

(a) Do not apply cement to lip (awning) of gasket.

(b) Do not apply cement so that it could enter the hinge portion or attaching holes of sealing strip.

(c) Assemble gasket to sealing strip so that lip (awning) is over outside radius of the hinge throughout its entire length.

(d) Cement gasket evenly to sealing strip. Eliminate any puckers.

4. Apply a continuous $\frac{3}{16}$ " ribbon of caulking compound along entire length of gasket just outboard of attaching holes and along front edge of gasket as indicated by "2" in figure 13-199. Compound should compress easily so that it does not interfere with installation and operation of sealing strip.

5. Position mechanical sealing strip to side roof rail and secure in place by installing all but end attaching screws.

6. Apply an approved weatherstrip cement to top and end contacting surfaces of front and rear weatherstrips as indicated by "3" in figure 13-199, and install weatherstrips.

7. Align sealing strip with top of door window and ventilator, and tighten screws uniformly. Wipe off excess sealer.

w. Adjustment of Side Roof Rail Mechanical Sealing Strip (Models 56R-75R-755)

The attaching holes in the side roof rail mechanical sealing strip assembly are elongated allowing "in" and "out" adjustment of the sealing strip; however, the amount of adjustment is small and is not intended to correct for improper ventilator or door alignment. The purpose of this adjustment is to obtain the proper closing effect of the sealing strip. **IMPORTANT:** Before attempting to adjust the side roof rail mechanical sealing strip assembly, first check that the ventilator and door window are properly aligned and, where necessary, adjust for proper alignment as directed under "ADJUSTMENTS" in the ventilator and Door Window service procedures.

1. Loosen sealing strip attaching screws.
2. Adjust strip in or out as required; then tighten screws.

x. Lubrication of Side Roof Rail Mechanical Sealing Strip (Models 56R-75R-755)

In cases where the action of the outer sealing strip is sluggish due to friction with lip (awning) of the rubber gasket, apply a sparing amount of a silicone rubber lubricant along the entire length of the exposed inner lip of the gasket, as indicated at "1," in figure 13-199.

13-31 FRONT DOORS (SERIES 50-70-700)

NOTE: For removal and installation of front door assembly, see paragraph 13-7 (a).

a. Front Door Assembly and Hinges

The front door hinges are the swing-out type with an integral door check and hold open, similar to past models. The hinges are attached to the front body hinge pillar and to the door assembly with bolts, cage nuts and anchor plates. **NOTE:** At both the upper and lower front door hinges one of the hinge to front body hinge pillar attaching bolts is installed from the front of the front body pillar necessitating detachment or removal of chassis parts to gain access to the bolts for complete removal of the hinges from the body. However, these bolts have a hexagon end and can be loosened from inside the hinge box thereby facilitating adjustment of the door hinge at the body pillar without removal of chassis parts.

b. Front Door Adjustments

Door adjustments are provided through the use of floating cage nuts and anchor plates in the door and body hinge pillar. The front doors may be adjusted fore or aft at the door hinge straps and in or out at the front body hinge pillar; up or down adjustments may be made at

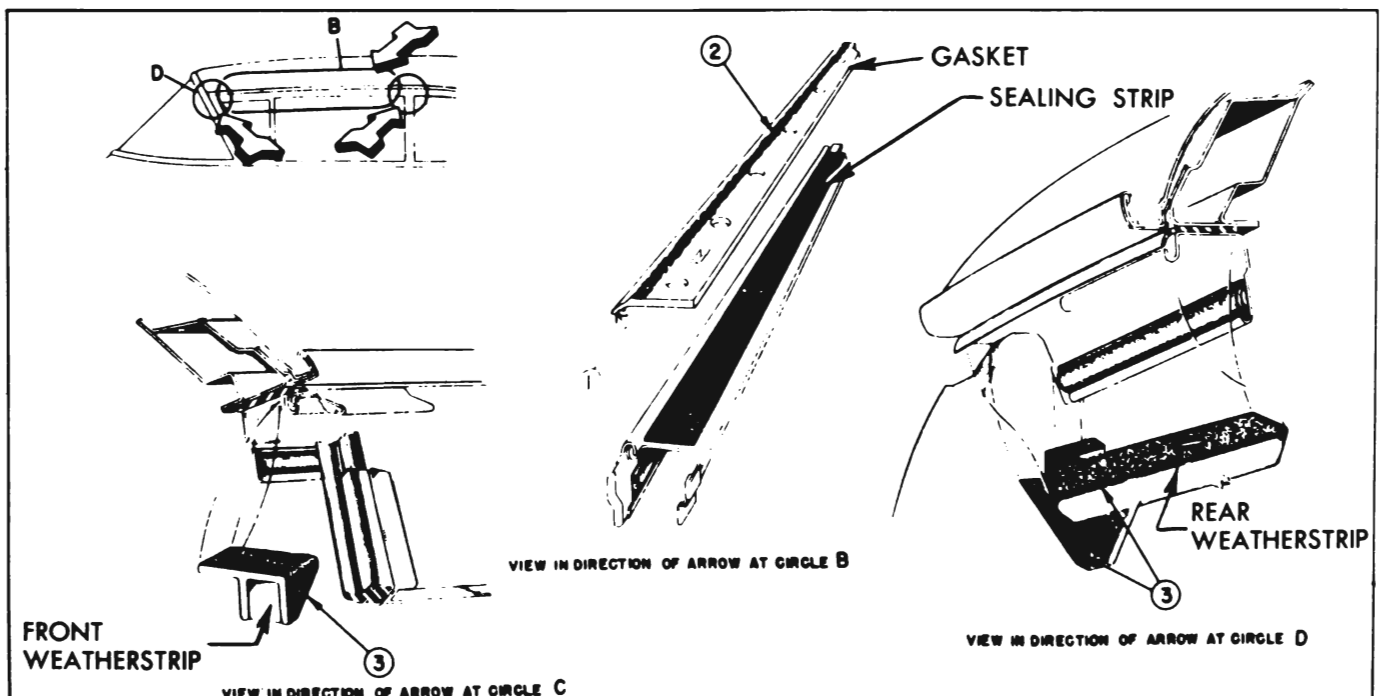


Figure 13-199—Side Roof Rail Mechanical Sealing Strip

both the door hinge straps and the front body hinge pillar.

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

1. To adjust the front doors fore or aft and/or up or down, proceed as follows:

(a) Remove door trim assembly. Remove tape covering lower hinge access hole. Detach upper front edge of door inner panel water deflector sufficiently to gain access to upper hinge bolts, as shown in figure 13-200.

(b) Remove door lock striker from body pillar to allow the door to hang freely on the hinges.

(c) Scribe location of hinge straps on door.

(d) Loosen hinge strap bolts, as shown in figure 13-200, and shift door to desired position, then retighten bolts. **NOTE:** Additional up or down adjustment may be obtained at the front body hinge pillar.

(e) Apply waterproof body tape over lower hinge access hole. Reseal upper front edge of inner panel water deflector, then install previously removed door trim and inside hardware.

2. To adjust the front doors in or out and/or

up or down at the front body hinge pillar, proceed as follows:

(a) Remove hinge strap cover plate attaching screws. Remove cover plate. See figure 13-200.

(b) Scribe location of hinge on front body hinge pillar.

(c) Inside both upper and lower hinge boxes loosen (turn clockwise) hinge attaching bolt installed from front of hinge pillar.

IMPORTANT: Use a six point (single hexagon) type socket.

(d) Loosen hinge attaching screws at face of hinge pillar. See figure 13-200. Shift door to desired position; tighten attaching screws at face of hinge pillar 17 to 27 ft. lb., then tighten (turn counterclockwise) bolt inside hinge boxes to 30 to 35 ft. lbs.

(e) Install hinge strap cover plate. Reseal water deflector to inner panel and install door trim and hardware parts.

c. Front Door Locking Mechanism

All locks are the rotary bolt type lock with the inter lock feature. With the inter lock 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.

On the four-door sedans an adjusting nut is provided at the lower end of the door outside handle connecting rod which can be adjusted to provide proper action of the outside handle push button.

d. Door Lock Spring Clip

A redesigned spring clip is used on the door lock levers to secure the connecting rods to the lock levers. A slot in the spring clip provides easy disengagement of the clip, thereby facilitating detachment of the lock connecting rods from the lock.

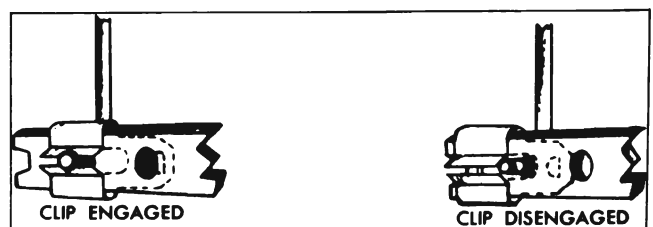


Figure 13-201—Door Lock Spring Clip

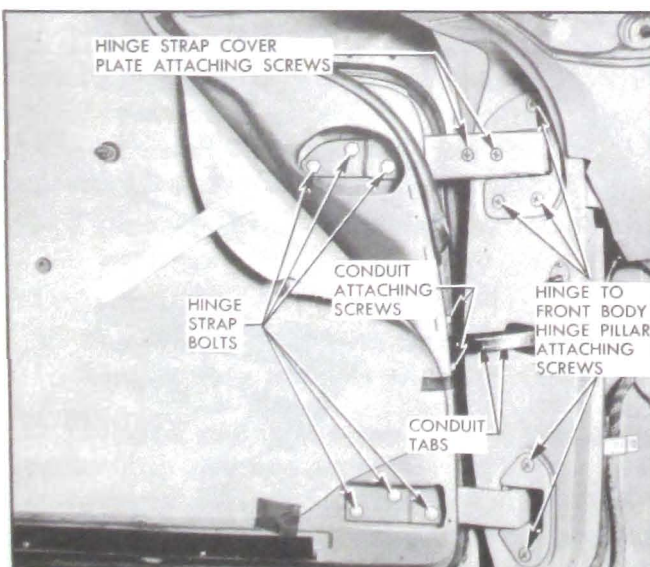


Figure 13-200—Front Door Hinges

To disengage spring clips, use a screw driver or other suitable tool to slide the clip out of engagement. Figure 13-201 shows a door lock spring clip engaged and disengaged.

e. Removal and Installation of Door Lock (Two-Door Models)

1. Remove the door window assembly as described under "FRONT DOOR WINDOW ASSEMBLY." Remove two screws securing glass run channel to lock pillar and remove channel.

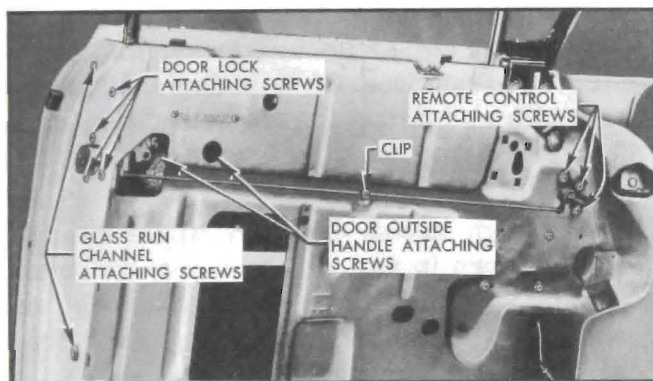


Figure 13-202—Front Door Lock Mechanisms

2. Through large access hole detach spring clip securing lock cylinder connecting rod to lock and detach lock cylinder connecting rod from lock lever.

3. Remove remote control attaching screws. Detach remote control from connecting rod, detach rod from clip on door inner panel; then disengage rod from door lock.

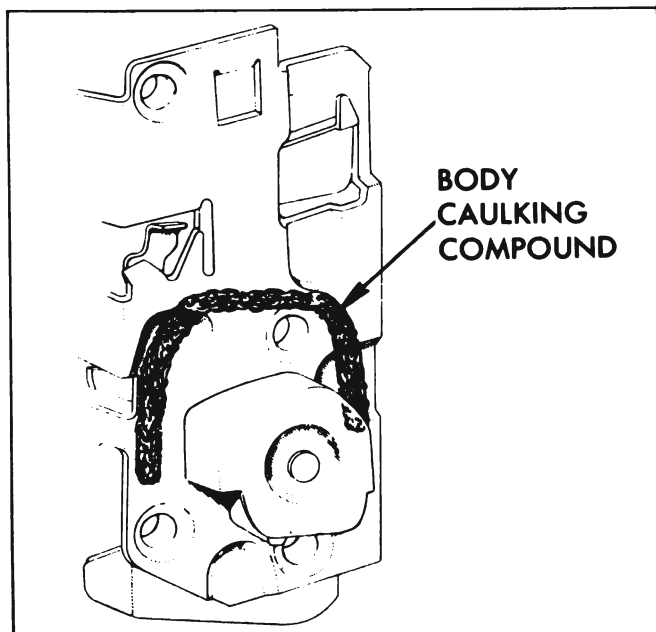


Figure 13-203—Door Lock Sealing

4. Remove four door lock attaching screws from face of door lock pillar and remove lock from door through large access hole: NOTE: *The inside locking rod can be detached from lock after lock is removed from door.*

5. Prior to installation of front door lock, apply a ribbon of body caulking compound (approximately $\frac{1}{4}$ inch in diameter) across face of lock frame approximately $\frac{3}{4}$ inch from above the rotary bolt housing, as indicated in figure 13-203.

6. To install front door lock reverse removal procedure.

f. Removal and Installation of Front Door Lock (Four-Door Models)

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

2. Remove glass run channel attaching screws on face of lock pillar. See figure 13-204. Lower glass run channel from behind window frame extension and remove from door.

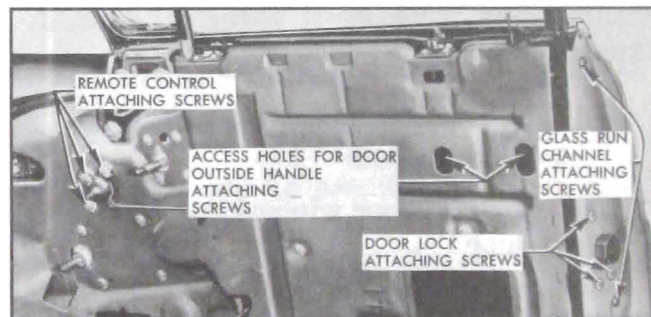


Figure 13-204—Front Door Lock Mechanism

3. Through large access hole disengage spring clips securing lock cylinder connecting rod, inside locking rod, remote control connecting rod and push button connecting rod to lock and detach rods from lock. See figure 13-205.

4. Remove lock attaching screws from face of door lock pillar, as shown in figure 13-204, and remove lock from door through large access hole.

5. Prior to installation of front door lock, apply ribbon of medium-bodied sealer (approximately $\frac{1}{4}$ inch in diameter) across face of lock frame approximately $\frac{3}{4}$ inch above rotary bolt housing, as indicated in figure 13-203.

To install front door lock, reverse removal procedure. Adjust push button connecting rod adjusting nut to provide between $\frac{1}{32}$ " to $\frac{1}{8}$ " free travel of push button.

Check all operations of door lock before in-

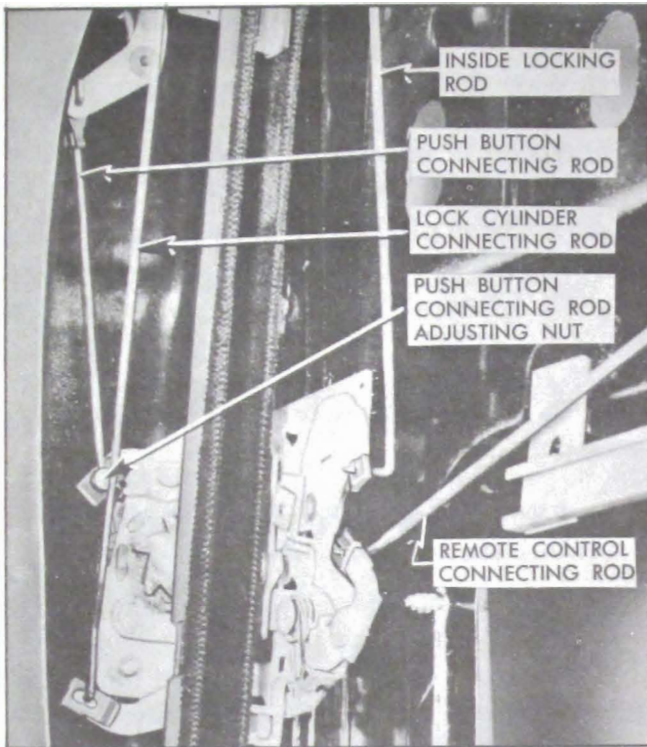


Figure 13-205—Front Door Locking Mechanism

stalling door inner panel water deflector, door trim assembly and inside hardware.

g. Front Door Lock Remote Control and Connecting Rod

1. Raise front door window and remove door trim assembly.
2. Detach water deflector sufficiently to gain access to remote control attaching screws; and on four door styles to inner panel rear access hole.
3. Remove remote control attaching screws, as shown in figure 13-204, and detach remote control from connecting rod.
4. On two-doors detach remote control connecting rod from clip on inner panel and remove rod and anti-rattle clip from lock. See figure 13-202.
5. On four-doors disengage spring clip at lock lever, detach rod from lock, and remove rod from door through forward access hole.
6. To install front door lock remote control, reverse removal procedure.

h. Adjustment of Front Door Lock Remote Control and Connecting Rod

1. Raise front door window and remove door trim assembly.
2. Detach upper portion of inner panel water

deflector sufficiently to gain access to remote control attaching screws.

3. Loosen three remote control attaching screws. Move remote control to forward position, then adjust remote control rearward sufficiently to take up slack in linkage. Check operation of remote control before installing water deflector and readjust if necessary.

i. Removal of Front Door Outside Handle

1. Raise door window. Remove door trim assembly and door inner panel water deflector.
2. Through rear access hole on all styles disengage spring clip and detach lock cylinder connecting rod from lock. On four-doors, disengage spring clip and detach push button connecting rod and adjusting nut from lock lever. See figure 13-205.
3. Through access holes at upper rear of door, as shown in figure 13-204, remove handle attaching screws; then remove handle and gaskets with attached connecting rods from door.
4. As a bench operation remove connecting rods and anti-rattle clips from handle.

j. Installation of Front Door Outside Handle

To install door outside handle, reverse removal procedure making sure handle gaskets are installed between handle and door outer panel. On four-doors adjust the push button connecting rod adjusting nut to provide between $\frac{1}{32}$ " to $\frac{1}{8}$ " free travel of the push button. Check all operations of door lock before installing door inner panel water deflector, door trim assembly and inside hardware.

k. Disassembly of Front Door Outside Handle Assembly

1. Remove door outside handle as previously described.
2. While maintaining pressure to hold component parts within handle, use a suitable tool and remove spring retainer, then remove parts as shown in figure 13-206 for two-doors, or figure 13-207 for four-doors.

(a) To disengage pawl from stop washer retainer on two doors rotate pawl to proper cut-outs in stop washer retainer and remove.

(b) On four-doors, to disengage bell crank lever from pawl rotate bell crank lever to proper cut-outs in pawl and remove.

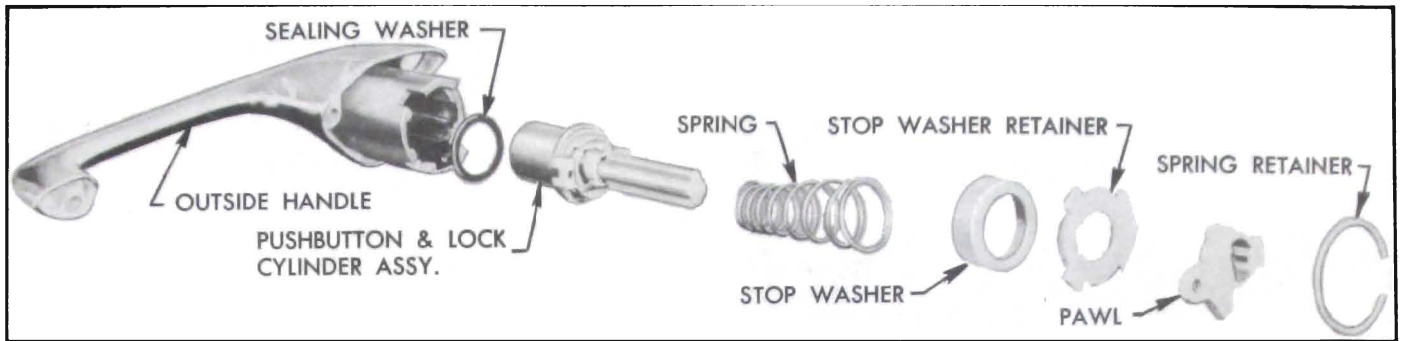


Figure 13-206—Disassembly of Front Door Outside Handle—Two-Door Models

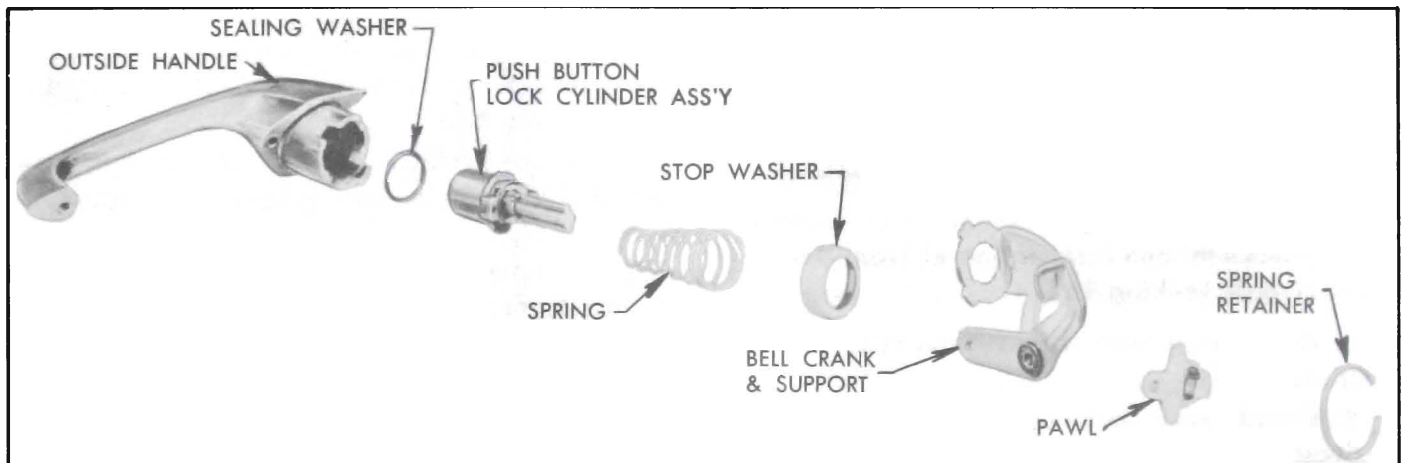


Figure 13-207—Disassembly of Front Door Outside Handle—Four-Door Models

3. (a) To assemble door outside handle assembly on two-doors first engage pawl to stop washer retainer; then reverse above procedure making certain open end of spring retainer is located at nipple on stop washer retainer. Figure 13-208 shows handle assembled.

(b) To assemble door outside handle on four-door styles first engage pawl to bell crank support; then reverse above procedure making certain open end of spring retainer is located at nipple on pawl. Figure 13-209 shows the handle assembled.

1. Removal and Installation of Front Door Lock Cylinder

The front door lock cylinder is located in the door lock outside handle push button assembly. To remove lock cylinder, it is necessary to remove the push button from the handle.

1. Remove and disassemble door outside handle as previously described.
2. With a suitable tool remove detent washer from lock cylinder.
3. Carefully bend out tabs securing lock

cylinder cap and remove lock cylinder sleeve and lock cylinder.

4. To assemble, reverse removal procedure.

CAUTION: *When installing detent spring make certain raised portions of spring rest in depressions in sleeve.*

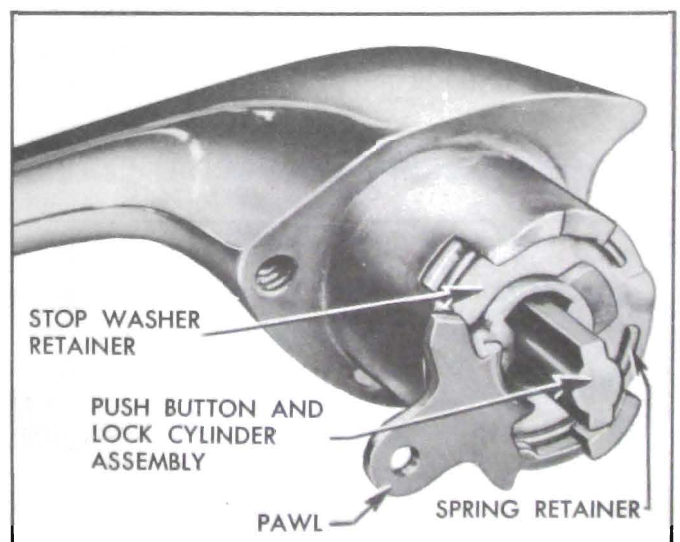


Figure 13-208—Front Door Outside Handle Assembly—Two-Door Models

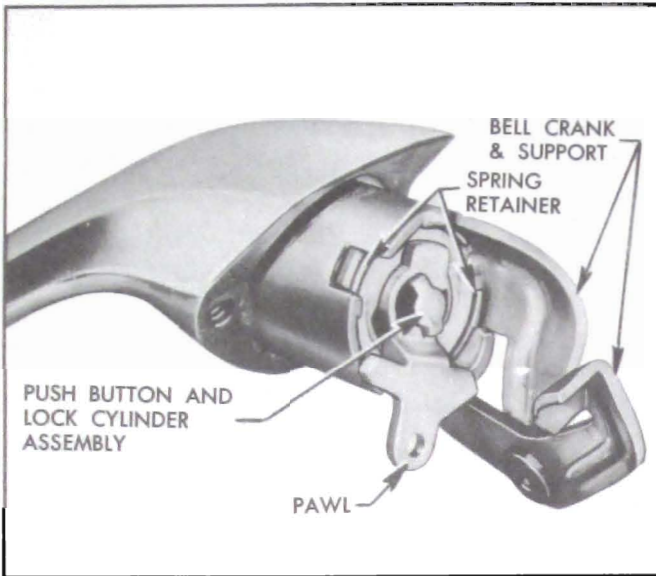


Figure 13-209—Front Door Outside Handle Assembly—
Four-Door Models

m. Removal and Installation of Front Door Inside Locking Rod

1. Raise front door window and remove door trim assembly.
2. Detach rear portion of inner panel water deflector sufficiently to gain access to inner panel rear access hole.
3. On two-doors proceed as follows:
 - (a) Remove glass run channel inner strip assembly secured by three screws at top of inner panel.
 - (b) Swing inside locking rod down between door panels sufficiently to detach rod and anti-rattle clip from lock lever.

NOTE: It may be necessary to lower window and/or remove the window rear cushion and adjusting plate at top of inner panel to swing rod down between door panels.

4. On four-doors proceed as follows:
Working through rear access hole disengage

spring clip and detach inside locking rod from lock as shown in Figure 13-205; then remove rod from door.

5. To install front door inside locking rod, reverse removal procedure.

n. Removal and Installation of Front Door Ventilator Assembly

1. Lower door window. Remove door trim assembly and inner panel deflector.
2. Remove screws, indicated in Figure 13-211, securing weatherstrip tabs to ventilator.
3. Loosen ventilator tee shaft to regulator shaft screw through access hole, shown in Figure 13-211, and loosen ventilator regulator attaching bolts.
4. Remove ventilator division channel lower adjusting stud and nut as shown in Figure 13-211.
5. Remove screw, indicated at "A", securing ventilator frame to return flange of door outer panel. Remove ventilator attaching bolts and adjusting stud and nut as shown in Figure 13-211.
6. Disengage ventilator tee shaft from regulator shaft; then carefully work front of ventilator inboard sufficiently to clear door inner panel (at cove area). Lift ventilator upward and remove from door.

NOTE: It may be necessary to raise window slightly to work front of ventilator clear of door inner panel.

7. To install ventilator assembly, reverse removal procedure.

o. Adjustment of Front Door Ventilator Assembly

The ventilator assembly can be adjusted in all directions to provide proper contact with

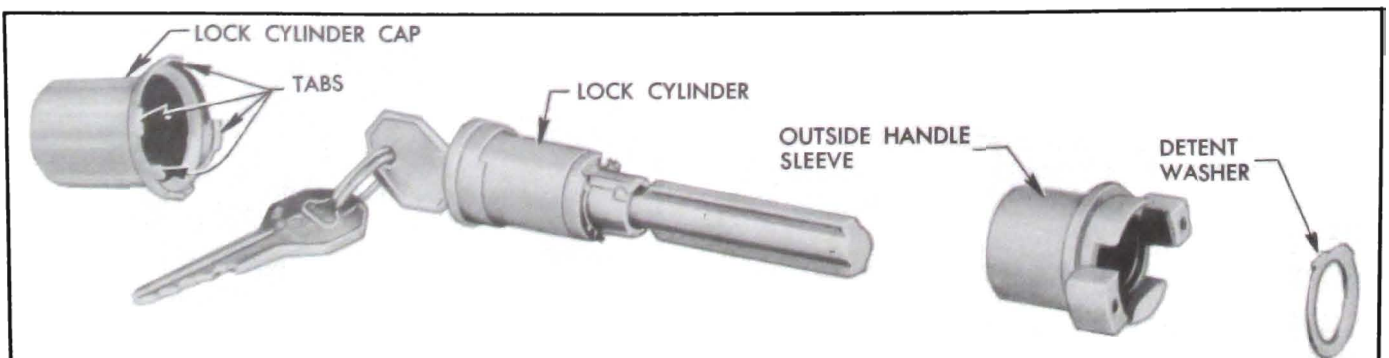


Figure 13-210—Disassembly of Front Door Outside Handle Lock Cylinder

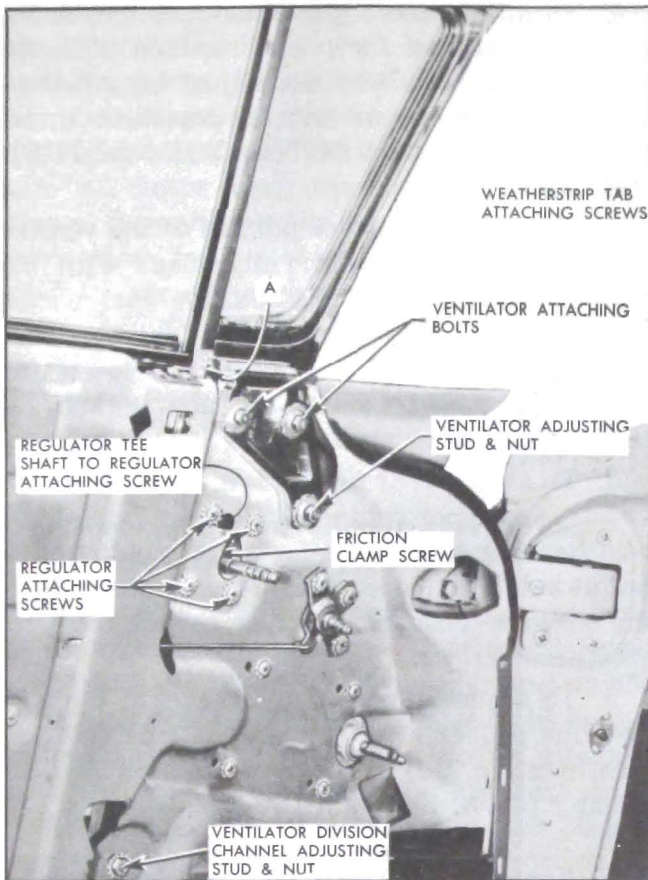


Figure 13-211—Front Door Ventilator and Ventilator Regulator

the side roof rail weatherstrip, the front body windshield pillar, and the door window glass.

To adjust the ventilator assembly proceed as follows:

1. Remove door trim assembly and detach inner panel water reflector sufficiently to gain access to ventilator and ventilator regulator attaching bolts and screws, and ventilator division channel lower adjusting stud and nut.

2. Remove screw indicated at "A" in Figure 13-211 securing ventilator frame to return flange of door outer panel.

3. Loosen ventilator tee shaft to regulator shaft attaching screw as shown in Figure 13-211.

4. Loosen ventilator frame attaching bolts and adjusting stud nut. Loosen ventilator division channel adjusting stud nut.

5. (a) To adjust upper portion of ventilator in or out for proper contact with the side roof rail weatherstrip, turn ventilator frame adjusting stud and ventilator division channel adjusting stud in or out as required, then tighten stud nuts and all attaching bolts.

- (b) To adjust ventilator assembly up or down and/or fore or aft for proper alignment

with the side roof rail weatherstrip, front body windshield pillar and door window, position entire ventilator assembly, as required, then tighten all attaching bolts and stud nuts as shown in Figure 13-211.

6. Install screw at "A" securing ventilator frame to return flange of door outer panel. Tighten ventilator tee shaft-to-regulator shaft screw. Seal water deflector to door inner panel and install door trim and inside hardware.

p. Removal and Installation of Front Door Ventilator Regulator Assembly

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

2. Remove ventilator tee shaft to regulator shaft attaching screw.

3. Remove ventilator regulator attaching screws. See Figure 13-211.

4. Disengage regulator shaft from ventilator tee shaft. Remove ventilator regulator through front access hole.

NOTE: *In some cases, it may be necessary to loosen the complete ventilator assembly and lift the assembly upward sufficiently to allow disengagement of regulator shaft from ventilator tee shaft.*

5. To install ventilator regulators, reverse removal procedure.

q. Adjustment of Front Door Ventilator Regulator Assembly

1. Excessive "play" (flutter) of the ventilator at the pivot shaft when the ventilator is in the open position can be corrected by tightening the ventilator tee shaft-to-regulator shaft screw. See figure 13-211.

CAUTION: *Screw should be tightened carefully to avoid stripping threads in regulator spiral gear shaft.*

2. The operating effort required to open or close the ventilator can be slightly increased or decreased by adjusting the friction clamp screw.

r. Removal and Installation of Front Door Window (Manual and Electric)

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

2. On two-doors, remove glass run channel inner sealing strip secured to top of door inner

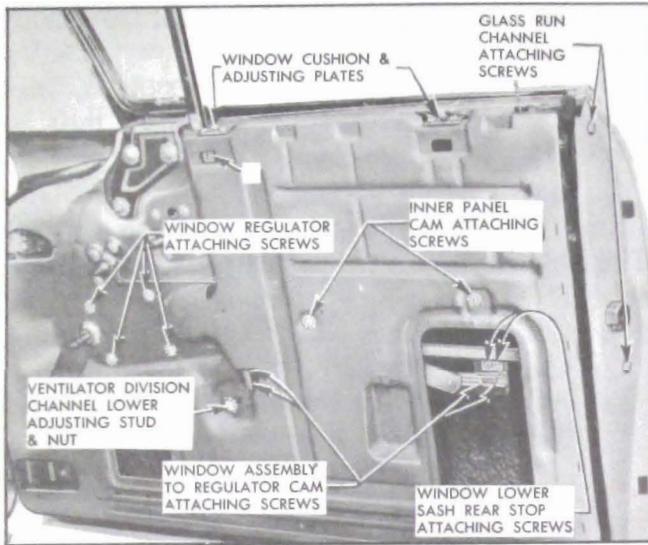


Figure 13-212—Front Door Window and Window Regulator

panel with three screws. On all Series 50-70-700, loosen window cushion adjusting plates and position plates inboard. See figure 13-212.

3. Remove window lower sash channel front stop attaching screws through access hole "A". See Figure 13-212.

4. Lower window; remove lower sash channel rear stop and four screws securing window assembly to regulator cam. See Figure 13-212.

5. Disengage window assembly from regulator cam and lift door glass upward and remove from door.

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 and make it inoperative.

6. To install window assembly, reverse removal procedure.

s. Adjustment of Front Door Window (Manual and Electric)

To adjust the door window glass for proper contact with the side roof rail weatherstrip and with the rear door window frame weatherstrip as shown in Figure 13-212; or to relieve a binding door glass caused by misalignment of the glass with the glass run channels, proceed as follows:

1. To correct a condition where the glass is "cocked" in the glass run channels, loosen the inner panel cam rear attaching screw. See figure 13-212. Adjust rear of cam up or down as required to retighten screw.

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

3. To adjust the lower portion of the ventilator division channel for alignment with the window, loosen ventilator division channel adjusting stud nut. See figure 13-212. Turn adjusting stud in or out or position lower end of channel fore or aft, as required; then, retighten adjusting stud nut.

4. To adjust rear of window upper frame in or out for proper contact with the side roof rail weatherstrip or to adjust rear of window in or out at belt line, loosen glass run channel attaching screws. Position channel as required and retighten screws.

5. To adjust limit of "up" travel of the window for proper contact with the side roof rail weatherstrip, adjust window cushion and adjusting plates. See figure 13-212.

t. Removal and Installation of Front Door Window Glass Run Channel

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

2. Remove glass run channel attaching screws. See figure 13-212.

3. Working through rear access hole lower glass run channel from behind window frame extension and remove from door.

4. To install door glass run channel, reverse removal procedure.

u. Removal and Installation of Front Door Window Regulator (Manual and Electric)

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

2. On doors with electrically-operated windows, disconnect wiring harness connector from regulator motor through front access hole.

3. Remove window assembly to regulator cam attaching screws. See figure 13-212. Raise window and prop in up position.

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

5. Remove inner panel cam attaching screws. Detach cam from regulator arm and remove from door.

6. Remove regulator attaching screws. See figur 13-212. Carefully work regulator assembly through rear access hole and remove from door. *Do not operate regulator motor after window regulator is removed from the door. Operation of motor with the load removed may damage the unit or make it inoperative.* NOTE: *Instructions for removing the motor from the regulator assembly are outlined under "FRONT DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY."*

7. To install front door window regulator, reverse removal procedure.

v. Removal and Installation of Front Door Window Regulator Electric Motor

The electric motor assembly which powers the door window regulator is a reversible type motor with a built-in circuit breaker and a self-locking gear drive. The motor is secured to the regulator assembly with three screws. Operating principles of the regulator are such that when the motor is actuated, the motor pinion gear, which is meshed with the rack portion of the regulator sector, rotates, providing the up and down movement of the regulator lift arm. The illustration shows the door window regulator removed from the body. (Figure 13-213.)

1. Remove electric window regulator assembly from door and clamp securely in vise.

NOTE: *The position of the regulator clamped in the vise will vary with the type of regulator and position of the lift arm.* CAUTION: *Be sure to perform Steps 2 and 3 before attempting to remove the motor assembly from the regulator.* The regulator lift arm, which is under tension from the counter-balance spring, can cause serious injury if the motor assembly is removed without locking the sector in position.

2. Drill $\frac{1}{4}$ " hole through backplate and sector within area at "A", as indicated in figure 13-213.

NOTE: *Do not drill into motor housing, part of which is indicated by the dotted lines.* In addition, locate hole not less than $\frac{3}{4}$ " away from edge of backplate or sector.

3. Insert $\frac{3}{16}$ " bolt through holes in backplate and sector and install nut to bolt. (Do not tighten nut.)

4. Remove the three attaching bolts as shown in figure 13-213 and remove motor assembly from regulator. NOTE: *Clean steel*

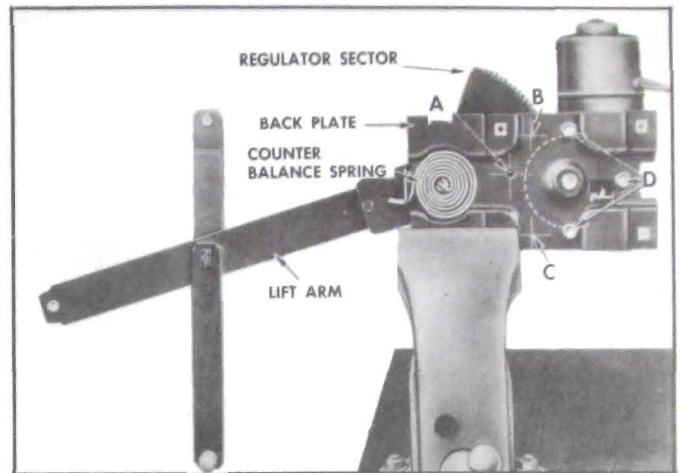


Figure 13-213—Electric Window Regulator

chips off the regulator sector and motor pinion gear.

5. To install, reverse removal procedure.

NOTE: *Be sure to remove nut and bolt before reinstalling regulator.*

13-32 REAR DOORS (SERIES 50-70-700)

a. Removal of Rear Door Assembly and Hinges

The rear door assembly is attached to the body center pillar with two butt type hinges. The lower hinge has an integral door check and hold open and is secured to an anchor plate at the door and at the hinge pillar by three screws at each location. The upper hinge is secured to an anchor plate on the door hinge pillar by three screws and to the upper hinge support on the center pillar by three bolts.

Either of the following two methods can be used to remove the door from the body: The door can be removed from the hinge straps, or the door and hinge straps can be removed from the center pillar.

1. Operate window to down position.

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

3. On doors with electrically operated windows proceed as follows:

(a) Remove door trim assembly.

(b) Detach water deflector sufficiently to gain entrance to large access hole.

(c) Remove two screws securing electrical

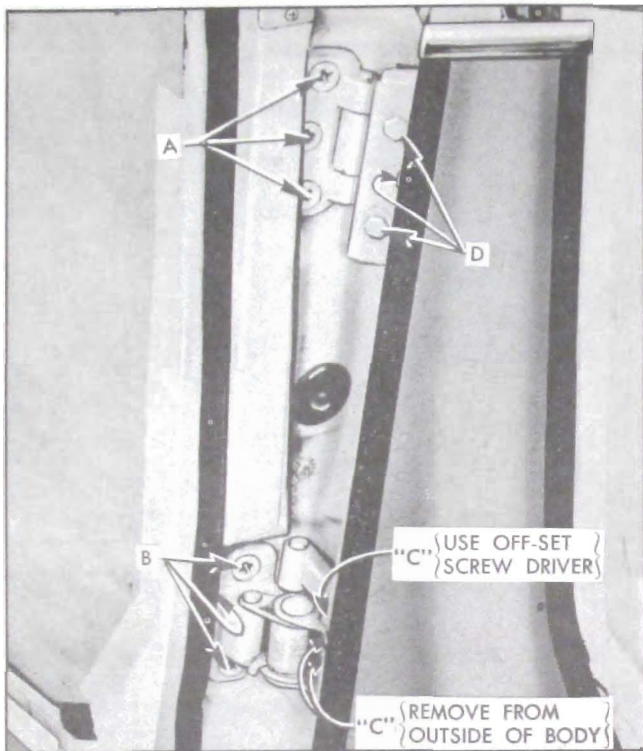


Figure 13-214—Rear Door Hinges

conduit to door hinge pillar, bend down tabs securing harness to conduit and remove conduit. Through access hole disconnect wire harness connector from window regulator motor and remove wire harness from door.

4. Depending on method of removal, properly support door and remove three upper and three lower hinge attaching screws "A" and "B" at door hinge pillar or three screws "C" and three bolts "D" which secure hinges to center pillar as indicated in figure 13-214. NOTE: *If lower hinge strap is being removed from center pillar, the upper attaching screw can be reached between inside of door and center pillar with an off-set screw driver. The two lower attaching screws can be reached between outside of the door and center pillar.*

5. With aid of a helper remove door from body opening.

b. Installation of Rear Door Assembly and Hinges

1. With scraper and mineral spirits, clean off old sealing compound at hinge areas. CAUTION: *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 to corre-

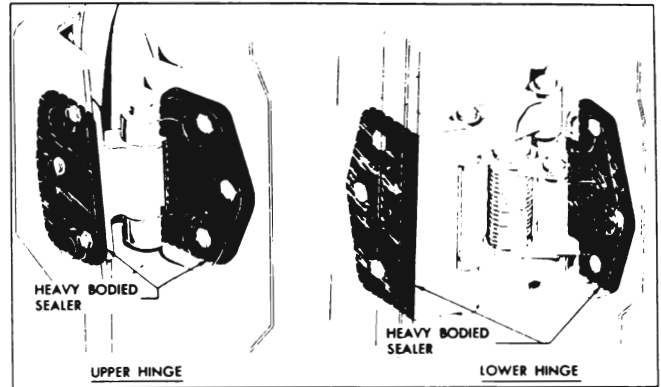


Figure 13-215—Sealing Rear Door Hinges

sponding surfaces of door or body, as indicated in figure 13-215. It is important to obtain complete coverage to insure both maximum sealing and anti-squeak effects.

3. With helper, lift door into position. Install screws and bolts loosely, then align straps within scribe mark on pillar and tighten screws and bolts. Check door for alignment.

4. On doors with electrically operated windows proceed as follows:

(a) Install wire harness to attaching clips inside of door and attach connector to motor. Check operation of window.

(b) Install conduit to hinge pillar and secure wire harness and lighter wire, if present, in conduit with retaining tabs.

(c) Reseal water deflector to inner panel as specified under "Door Inner Panel Water Deflector."

(d) Install door trim assembly and previously removed door hardware.

c. Rear Door Adjustments

The rear door hinge adjustments differ from those performed on previous models. "In" and "out" and "up" and "down" adjustments are provided at the door hinge pillar. "Fore" and "aft" adjustments are provided for at the body center pillar.

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

NOTE: *After performing any adjustments the rear door 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 adjusted, where necessary, as described under "DOOR LOCK STRIKER ADJUSTMENTS."*

1. For "in" and "out" or "up" and "down" adjustments loosen screws "A" and "B" (figure 13-214) securing hinges to door hinge pillar, adjust door as required, and tighten screws.

NOTE: When performing "in" and "out" adjustments, adjust one hinge at a time so that the same "up" and "down" adjustment is maintained.

2. To adjust the "fore" and "aft," loosen screws "C" and bolts "D" (figure 13-214) securing hinges to center pillar, adjust door as required, and tighten screws and bolts.

NOTE: An off-set screwdriver is required to reach the upper attaching screw on the lower hinge.

d. Rear Door Locking Mechanisms

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

An adjusting nut is provided at the lower end of the door outside handle connecting rod, which can be adjusted to provide proper action of the outside handle push button.

e. Door Lock Spring Clip

A redesigned spring clip is used on the door lock levers to secure the connecting rods to the lock levers. A slot in the spring clip provides easier disengagement of the clip thereby facilitating easier detachment of the lock connecting rods from the lock.

To disengage spring clips, use a screw driver or other suitable tool to slide clip out of engagement. Figure 13-216 shows a door lock spring clip engaged and disengaged.

f. Removal and Installation of Rear Door Lock

1. Raise door window. Remove door trim assembly and detach upper portion of inner panel

2. Through large access hole disengage spring clips at "A", "B" and "C" and detach connecting rods from door lock. See figure 13-217.

3. Remove door lock attaching screws

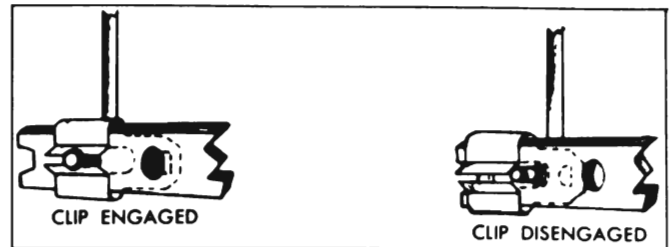


Figure 13-216—Door Lock Spring Clip

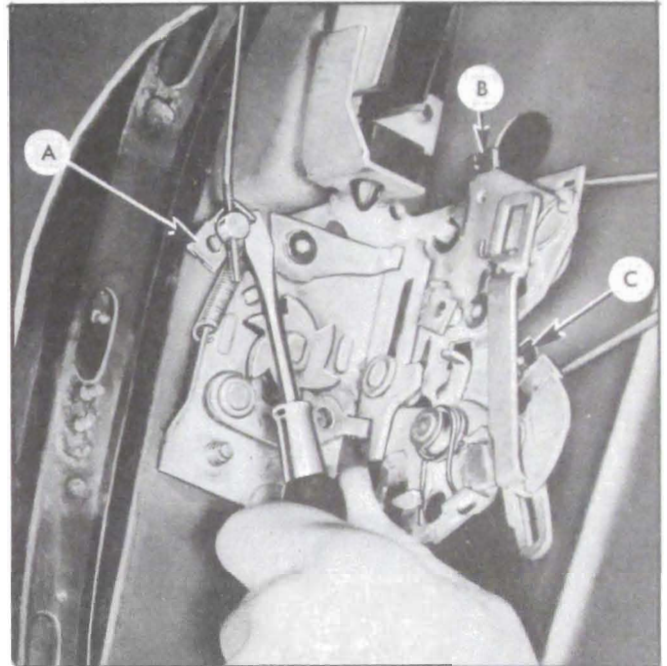


Figure 13-217—Rear Door Lock Connecting Rod Attachments

(figure 13-218) and remove lock from door through access hole.

4. To install door lock, reverse removal procedure. Prior to installation of lock, apply a ribbon of body caulking compound (approximately $\frac{1}{4}$ inch in diameter) across face of lock frame approximately $\frac{3}{4}$ inch above rotary bolt housing, as indicated in figure 13-218.

Adjust the push button connecting rod adjusting nut to provide between $\frac{1}{32}$ " to $\frac{1}{8}$ " free travel of the push button.

Check all operations of door lock before installing door inner panel water deflector, door trim assembly and inside hardware.

g. Removal and Installation of Rear Door Lock Remote Control and Connecting Rod

1. Raise door window. Remove door trim assembly and detach upper portion of inner panel water deflector sufficiently to gain access to remote control attaching screws. See figure 13-218.

2. Remove remote control attaching screws and detach remote control from connecting rod.

3. To remove remote control connecting rod, remove door inner panel water deflector. Through inner panel access hole disengage spring clip at "C" (figure 13-218) and detach connecting rod from lock.

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 the linkage in a rearward position. Check all operations of door lock before installing door trim and inside hardware.

5. To adjust remote control and connecting rod, raise door window. Remove door trim as-

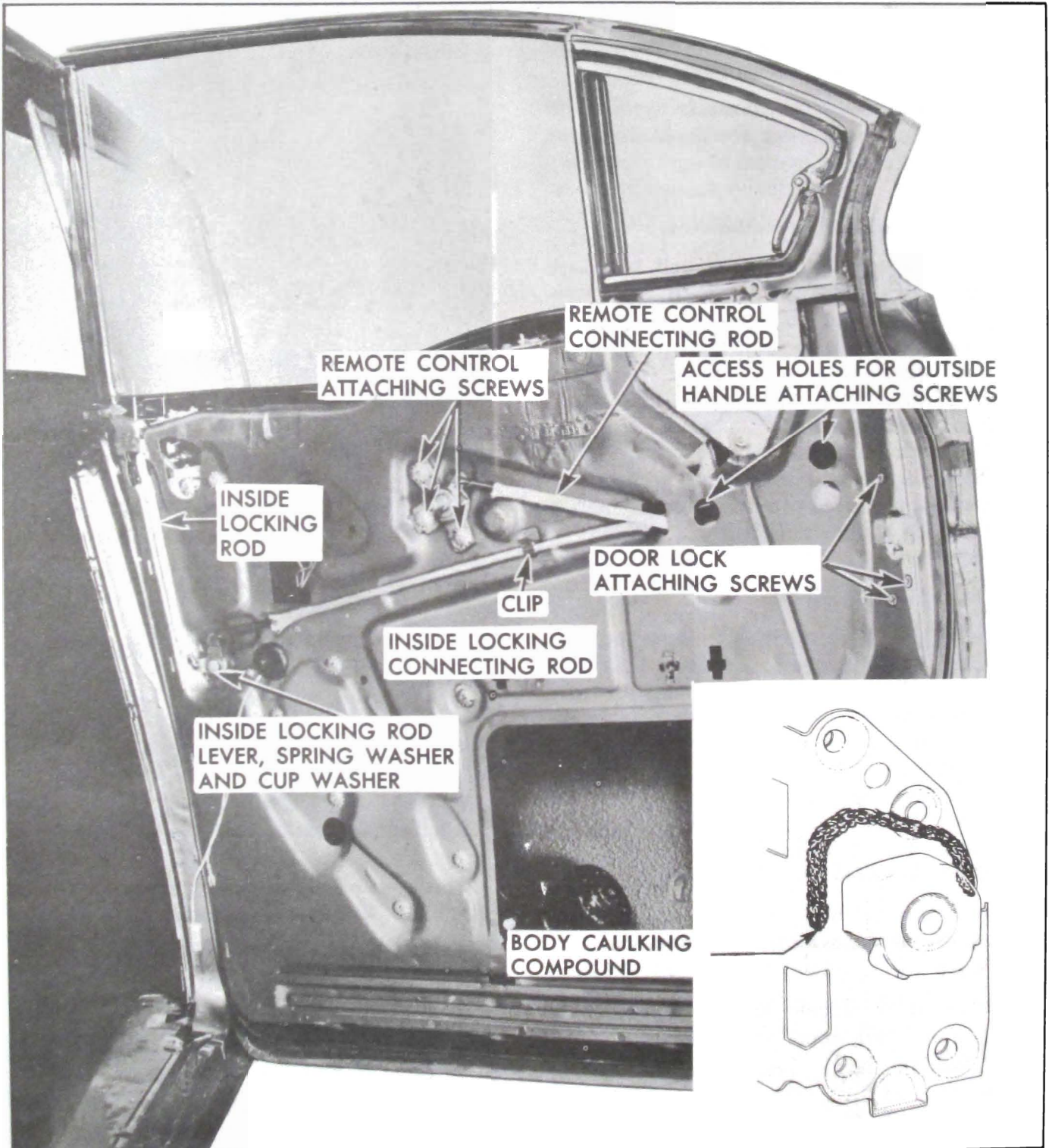


Figure 13-218—Rear Door Lock Mechanisms

sembly and detach upper portion of inner panel water deflector sufficiently to gain access to remote control attaching screws.

6. Loosen remote control attaching screws. See figure 13-218. Move remote control to forward position; then adjust remote control rearward sufficiently to take up slack in linkage.

h. Removal and Installation of Rear Door Outside Handle

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

2. Through large access hole disengage spring clip "A" (figure 13-217) and detach adjusting nut and attached connecting rod from lock.

3. Through access holes for handle attaching screws (figure 13-218), remove attaching screws and remove handle with attached push button connecting rod from door.

4. To install door outside handle, reverse removal procedure making sure front and rear gaskets are installed between handle and door outer panel.

5. Adjust the push button connecting rod adjusting nut to provide between $\frac{1}{32}$ " to $\frac{1}{8}$ " free travel of push button.

6. Check all operations of door lock before installing door inner panel water deflector, door trim assembly, and inside hardware.

i. Disassembly and Assembly of Rear Door Outside Handle

1. Remove rear door outside handle and remove push button connecting rod from handle.

2. Remove spring retainer, bell crank and support, stop washer, spring, push button and shaft, and sealing washer. See figure 13-219.

3. To assemble rear door outside handle, re-

verse removal procedure making sure front and rear gaskets are installed between handle and door outer panel.

4. Adjust the push button connecting rod adjusting nut to provide between $\frac{1}{32}$ " to $\frac{1}{8}$ " free travel of the push button.

5. Check all operations of door lock before installing door inner panel water deflector, door trim assembly and inside hardware.

j. Removal and Installation of Rear Door Inside Locking Rod, Lever and Connecting Rod

1. Remove door trim assembly. Detach upper portion of inner panel water deflector sufficiently to gain access to inside locking rod, lever and connecting rod.

2. Remove inside locking rod lever attaching screw, spring washer and cup washer. See figure 13-218. Pull locking rod lever from inner panel sufficiently to detach inside locking rod from lever.

3. To remove inside locking connecting rod, proceed as follows:

(a) Remove inner panel water deflector.

(b) Through large access hole disengage spring clip at "B" (figure 13-217) and detach connecting rod from lock. Detach rod from clip at inner panel and remove from door.

4. To install inside locking rod, lever and connecting rod, reverse removal procedure. Check all operations of door lock before installing inner panel water deflector, door trim and inside hardware.

k. Rear Door Lock Free-Wheeling Adjustment

When the inside locking rod is in the down position and the lock is set in free-wheeling, it

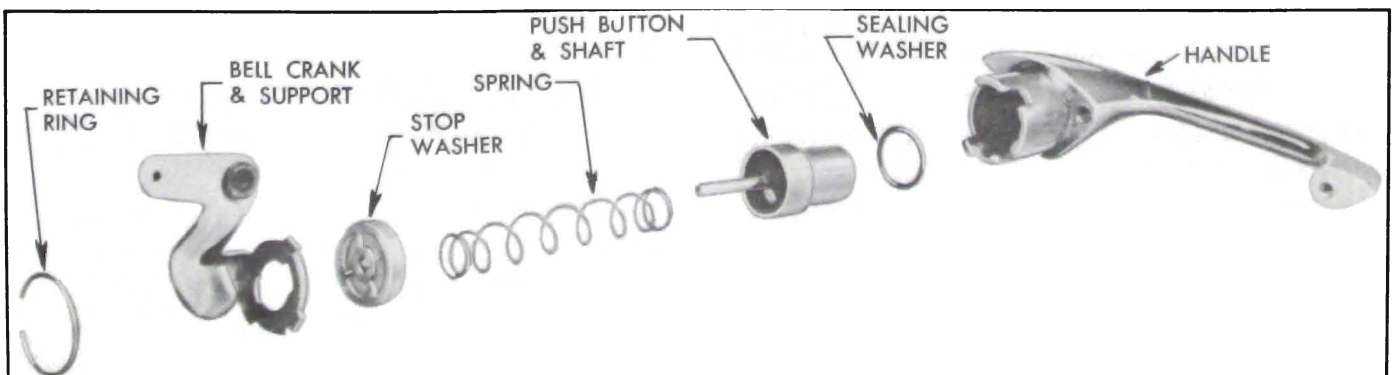


Figure 13-219—Rear Door Outside Handle—Disassembly and Assembly

prevents the door from being opened by the operation of the inside remote control handle.

The tool required to perform the free-wheeling adjustment can be made from a piece of rod approximately $\frac{1}{8}$ " in diameter. To make tool, cut rod approximately 7" length, then bend $\frac{3}{8}$ " of rod at one end to form a right angle. The rear door lock may be adjusted "in" or "out" of free-wheeling as follows:

1. Lower door window, pull inside locking rod knob to "up" position and remove rear door lock upper attaching screw.

2. Insert adjusting tool through screw hole. See figure 13-220.

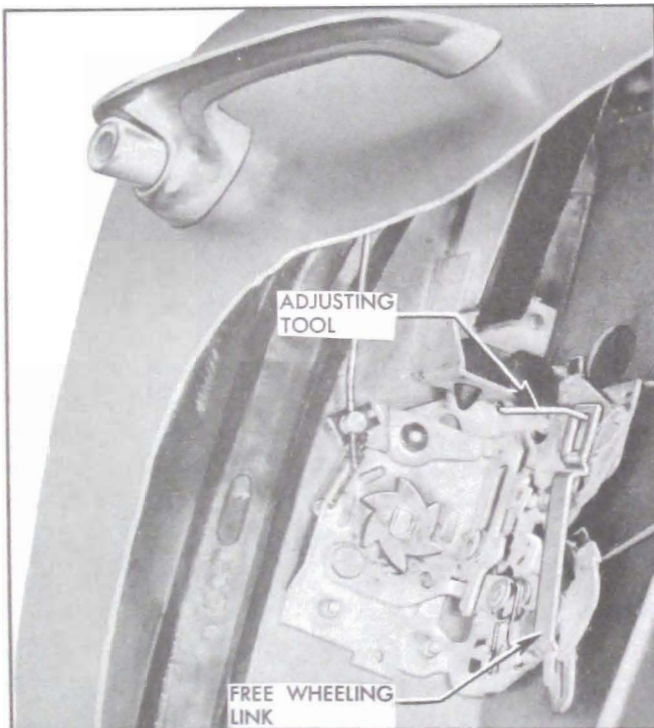


Figure 13-220—Rear Door Lock Free-Wheeling Adjustment

3. While observing through the window opening, with the aid of a light, engage hooked end of adjusting tool in cut-out of free-wheeling link, as shown in figure 13-220. Pull link REARWARD to set lock "OUT" of free-wheeling and push link FORWARD to set lock "IN" free-wheeling.

NOTE: Check all operations of door lock after making a free-wheeling adjustment.

I. Rear Door Window and Window Regulator

The rear door window and window regulator on all four-doors are of a new design providing easy service operations and adjustments.

m. Removal and Installation of Rear Door Window Assembly (Manual and Electric)

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

2. Through access holes, shown in Fig. 13-221, remove window lower sash channel front and rear stop attaching screws. Loosen screws securing front and rear cushion and adjusting plates and position assemblies inboard.

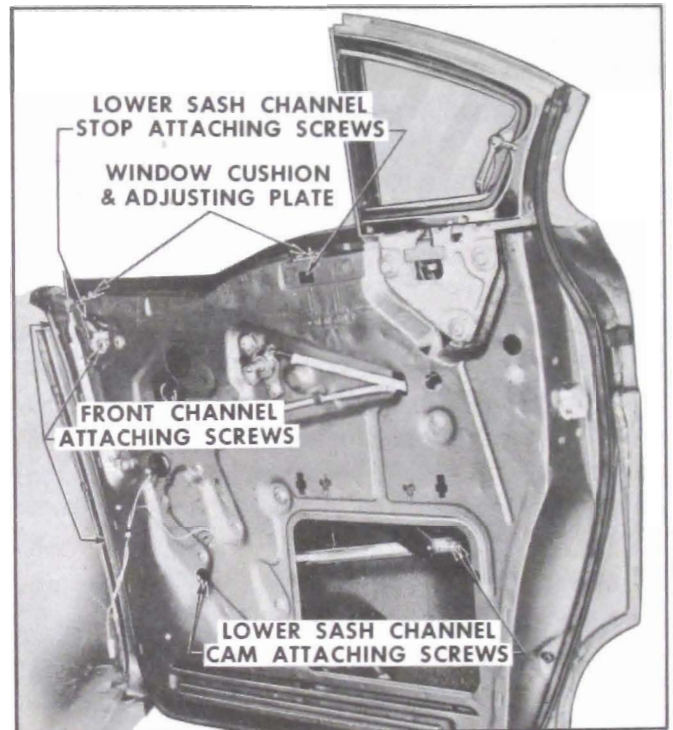


Figure 13-221—Removal of Rear Door Window

3. Loosen window front channel assembly upper attaching screws, shown in Fig. 13-221.

4. Remove window lower sash channel cam attaching screws. (See Fig. 13-221), then disengage cam from window regulator arms and remove cam from door.

5. Lift door window upward, disengage roller on front of window frame from cam of window front channel assembly; then disengage front of window from between door panels and remove window assembly from door.

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

IMPORTANT: When engaging roller on window lower sash channel in channel of cam, make sure anti-rattle spring clip is installed in channel of guide with roller.

Lubricate channels of window cams with 630AAW Lubriplate.

Adjust windows as described under "REAR DOOR WINDOW ADJUSTMENTS".

Seal door inner panel water deflector as described under "FRONT AND REAR DOOR INNER PANEL WATER DEFLECTOR."

n. Rear Door Window Adjustments

Adjustments have been provided to insure proper contact of the rear door window frame with the side roof rail weatherstrip and proper contact of the rear door window front frame weatherstrip with the front door window frame. Adjustments of the rear of the window are controlled by adjustment of the ventilator, or the window rear guide which is an integral part of the ventilator.

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

The following rear door adjustment may be performed without removing the door trim assembly and inner panel water deflector.

1. "IN OR OUT" adjustment of front of window (top and/or bottom) — at door hinge pillar loosen window front channel assembly upper and lower attaching screws. Position channel assembly "in or out" as required; then tighten channel attaching screws. (See Fig. 13-222).

The following rear door adjustments can be performed after removal of the door trim assembly.

2. "FORE OR AFT" adjustment of window — loosen window front channel cam attaching screw. Position window and cam "fore or aft,"

as required, then tighten attaching screw. (See Fig. 13-222).

3. To limit the "up" travel of the front and/or rear of the window — loosen cushion screw lock nut. Adjust front and/or rear cushion screw "up or down" for proper limit of "up" travel of the window.

NOTE: *Check that cushions are making proper contact with the window lower sash channel stops. If necessary, loosen cushion adjusting plate attaching screws and position adjusting plate and cushion "in or out" for proper contact with stop. (See Fig. 13-222.)*

4. "UP OR DOWN" adjustment of front of window — remove door trim assembly, detach inner panel water deflector sufficiently to loosen door inner panel cam front attaching screw. Adjust front end of inner panel cam "up or down" as required; then tighten cam attaching screw.

5. "IN OR OUT" adjustment of window rear guide to provide proper alignment of the rear of the window with the ventilator inner and outer division channels — remove door trim assembly on inner panel water deflector. At location indicated in Fig. 13-222, loosen window rear guide lower attaching stud nut; adjust stud "in or out" as required for proper window operation.

NOTE: *Alignment of the rear of the window is controlled by adjustment of the ventilator, or the window rear guide which is an integral part of the ventilator. For these adjustments see "REAR DOOR VENTILATOR ADJUSTMENTS."*

o. Removal and Installation of Rear Door Window Ventilator

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

2. Remove window front reveal molding rear attaching screw, at location indicated in Fig. 13-223. Remove rear reveal molding attaching screw, shown in Fig. 13-223; then lift rear of molding sufficiently to disengage from ventilator casting and remove molding from door. Lift rear end of front reveal molding sufficiently to remove screw securing door outer panel to ventilator assembly.

3. Remove door weatherstrip tab attaching screw at top rear of ventilator. Disengage weatherstrip tab from under scalp molding and detach weatherstrip from ventilator assembly. (See Fig. 13-223.)

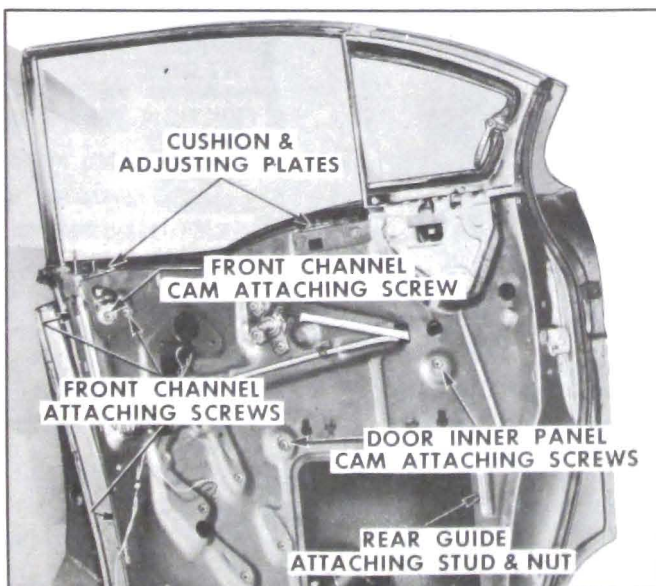


Figure 13-222—Rear Door Window Adjustment

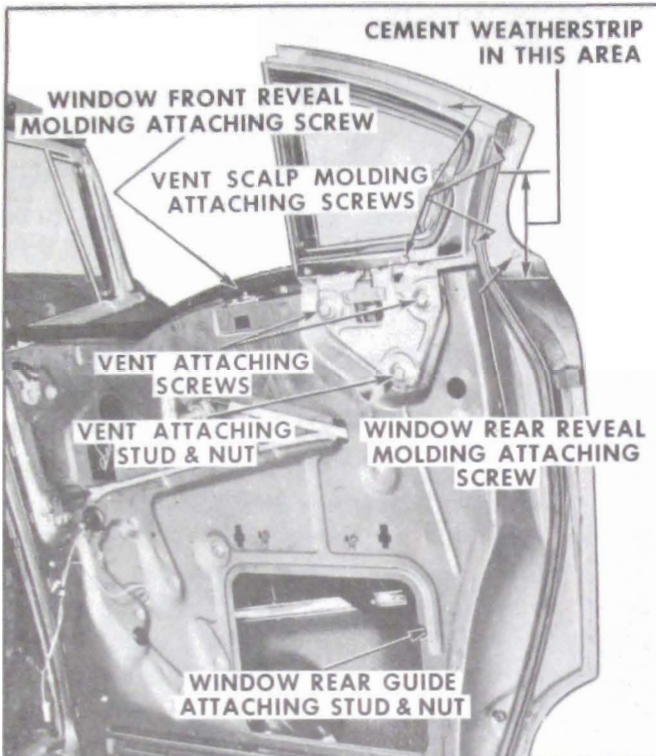


Figure 13-223—Removal of Rear Door Window Ventilator

4. Operate window to “up” position.

5. Remove window rear guide lower attaching stud and nut, at location indicated in Fig. 13-223. Remove ventilator attaching screws and stud and nut, shown in Fig. 13-223.

Adjust ventilator as described under “REAR DOOR VENTILATOR ADJUSTMENTS.”

Reseal door inner panel water deflector as specified under “FRONT AND REAR DOOR INNER PANEL WATER DEFLECTOR.”

p. Rear Door Ventilator Adjustments

1. “IN OR OUT” adjustment of ventilator assembly — Remove door trim assembly. Loosen ventilator attaching screws and stud nut. Adjust stud “in or out”, as required; then tighten stud nut and attaching screws. (See Fig. 13-223.)

NOTE: After any “in or out” adjustment of the ventilator has been performed, check “in or out” alignment of the window rear guide with the ventilator inner and outer division channels and, where necessary, adjust the rear guide adjusting stud “in or out” for proper alignment.

2. “UP OR DOWN” and/or “FORE OR AFT” adjustment of ventilator assembly — remove door trim assembly and inner panel water deflector. Remove window front reveal molding rear attaching screw, at location indicated in Fig. 13-223. Remove rear reveal molding attach-

ing screw and remove molding from door. Lift rear end of front reveal molding sufficiently to remove screw securing door outer panel to ventilator assembly. Loosen ventilator attaching screws and stud nut, and window rear guide attaching stud nut. Position ventilator assembly “up or down” and/or “fore or aft”, as required; then tighten ventilator stud nut and attaching screws; tighten window rear guide attaching stud nut. Install screw securing door outer panel to ventilator assembly and install door window rear reveal molding and front reveal molding attaching screw. (See Fig. 13-223).

3. **OPENING AND CLOSING EFFORT** — the effort required to open or close the ventilator can be increased or decreased by binding up tabs on tab washer and tightening or loosening nut “A”, shown in Fig. 13-223.

q. Removal and Installation of Rear Door Ventilator Glass and Sash Channel

The following procedure covers removal and installation of the rear door ventilator glass and sash channel from the ventilator assembly without removing the ventilator assembly from the door.

1. Remove door trim assembly.

2. With a suitable tool carefully pull ventilator glass from sash channel.

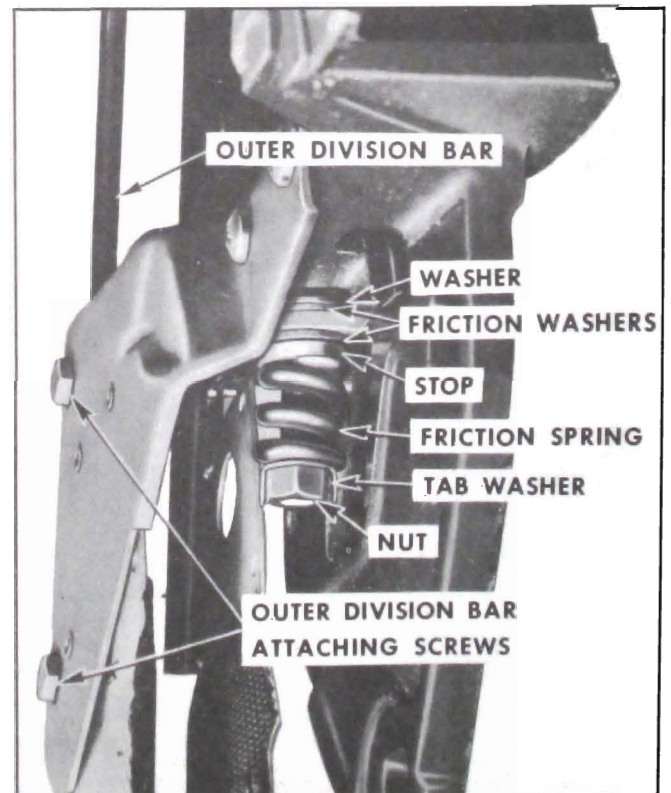


Figure 13-224—Rear Door Ventilator Friction Drag

3. Bend up tabs on tab washer, remove nut, tab washer, spring, friction stop and friction washer, shown in Fig. 13-224.

4. With ventilator sash channel in open position carefully spring upper portion of channel downward sufficiently to disengage upper pin from ventilator. Pull channel slightly outward and remove from ventilator assembly.

5. To install ventilator sash channel and glass, reverse removal procedure. Make sure friction washers are installed as shown in Fig. 13-224 and that tabs of tab washer are bent down over nut.

When installing glass in sash channel install new glass filler; apply soap solution around outside of filler to facilitate installation of glass and filler.

r. Removal and Installation of Rear Door Ventilator Outer Division Bar and Strip Assembly

1. Remove ventilator assembly as described under "REAR DOOR VENTILATOR ASSEMBLY — Removal and Installation."

2. Remove outer division bar attaching screws shown in Fig. 13-224, then pull division bar downward to disengage from ventilator frame and remove bar and strip assembly.

When required strip assembly can be slid out of division bar outer scalp.

3. To install ventilator outer division bar and strip assembly, reverse removal procedure.

s. Removal and Installation of Rear Door Ventilator Inner Division Bar Strip

To remove ventilator inner division bar strip, disengage front edge of strip from retainer and remove strip.

To install strip, engage rear edge of strip in retainer; then with a flat-bladed tool engage front edge of strip in retainer.

t. Removal and Installation of Rear Door Window Regulator (Manual or Electric)

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

2. On doors with electrically operated window regulators, disconnect wire harness connector from window regulator motor.

3. Remove window lower sash channel cam attaching screws, shown in Figure 13-225. Dis-

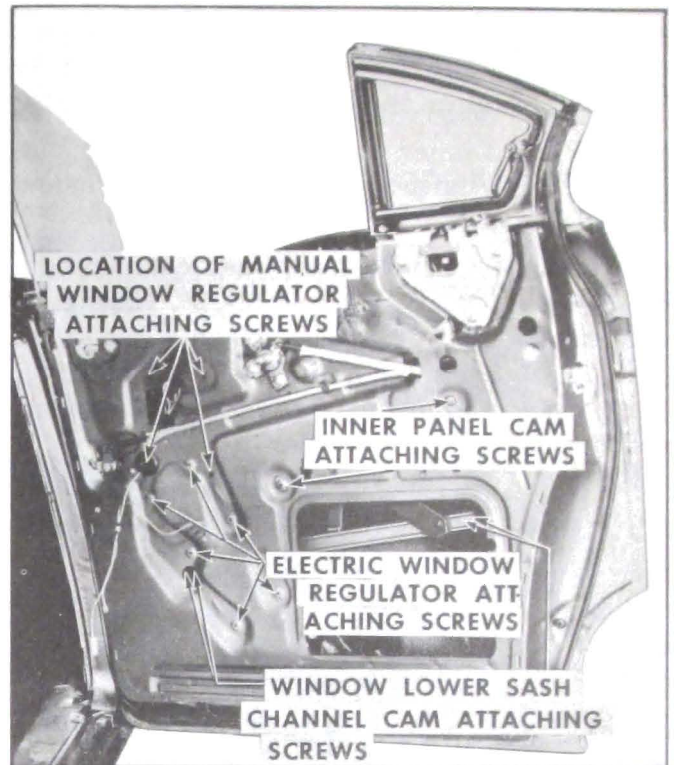


Figure 13-225—Rear Door Window Adjustments

engage cam from window regulator arms and remove from door.

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

4. Lift window assembly upward and prop in up position.

5. Remove inner panel cam attaching screws, shown in Figure 13-225; disengage cam from regulator arm and remove from door.

6. Remove window regulator attaching screws (See Figure 13-225) and remove regulator assembly from door through large access hole.

To remove electric motor from regulator assembly see "REAR DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY — Removal and Installation".

7. To install window regulator assembly, reverse removal procedure. Lubricate window cams with lubriplate.

Before installation of inner panel water deflector, check window operation and alignment, and where required, adjust window as described under "REAR DOOR WINDOW ADJUSTMENTS".

u. Removal and Installation of Electric Rear Door Window Regulator

1. Lower door window. Remove door, trim assembly and inner panel water deflector. Disconnect wire harness connector from window regulator motor.

2. Remove window lower sash channel cam attaching screws. See figure 13-226. Disengage window assembly from sash channel cam; then lift window assembly and prop in up position. Detach sash channel cam from regulator arms and remove cam from door.

3. Remove inner panel cam attaching screws. See figure 13-226. Detach cam from regulator arm and remove from floor.

4. Remove window regulator attaching screws and remove regulator assembly from door through large access hole.

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

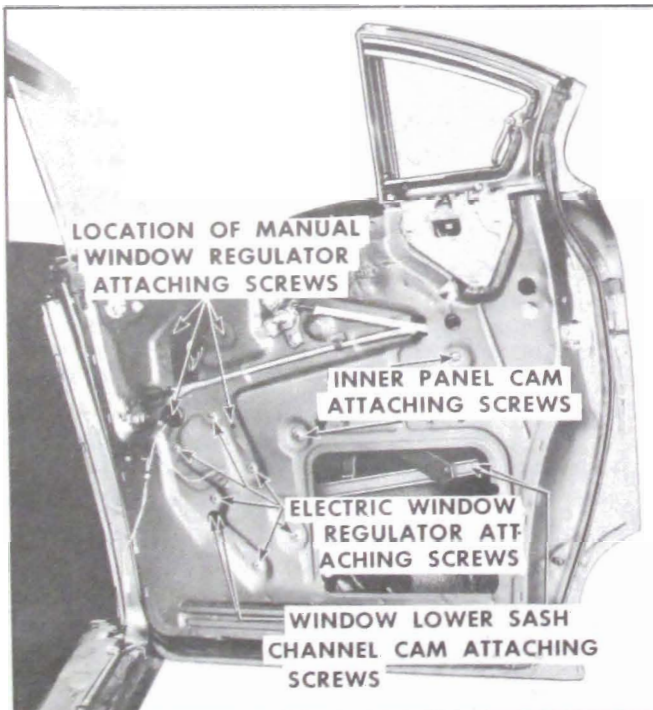


Figure 13-226—Rear Door Regulator Removal

To remove electric motor from regulator assembly see "REAR DOOR WINDOW REGULATOR ELECTRIC MOTOR ASSEMBLY—Removal and Installation".

5. To install window regulator, reverse removal procedure.

Before installing inner panel water deflector, check window operation and alignment, and where required, adjust window as described under "REAR DOOR WINDOW ADJUSTMENTS".

v. Removal and Installation of Rear Door Window Regulator Electric Motor

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

1. Remove electric window regulator assembly from door and clamp securely in a vise, as shown in figure 13-227.

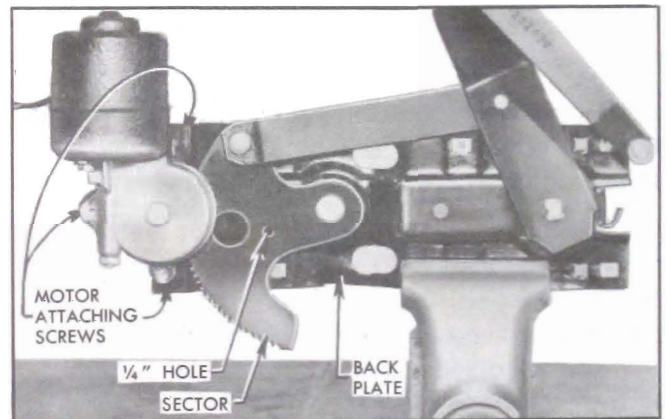


Figure 13-227—Rear Door Window Electric Motor

CAUTION: Be sure to perform steps 2 and 3 before attempting to remove the motor from the regulator.

The regulator lift arm, which is under tension from the counter-balance spring can cause serious injury, if the motor is removed without locking the sector in position.

2. Drill a $\frac{1}{4}$ " hole through sector and backplate at location indicated in figure 13-227.

NOTE: Location of hole in backplate will vary depending on position of sector. Do not locate hole less than $\frac{1}{2}$ " away from edge of backplate or sector.

3. Insert a $\frac{3}{16}$ " bolt through hole in backplate and sector and install nut to bolt. (Do not tighten nut.)

4. Remove the three motor attaching bolts and remove motor assembly from regulator.

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

5. To install, reverse removal procedure.

NOTE: Be sure to remove temporary nut and bolt from regulator after motor is installed

13-33 CENTER PILLAR (SERIES 50-70-700)

a. Removal of Center Pillar Trim

The edges of the center pillar trim are cemented over the center pillar front and rear pinchweld flanges while the bottom of the trim assembly is cemented to the floor pan. Additional retention is obtained through the use of a front and rear pinchweld finishing molding and a finishing molding cap.

1. Remove screws securing finishing molding cap and front and rear pinchweld finishing moldings; then remove cap, finishing moldings and finishing molding spacer clips.

2. Remove front door sill plate and pull back carpet sufficiently to expose lower portion of center pillar trim.

3. Carefully detach trim cemented to each pinchweld flange and lower portion of trim cemented to floor pan. Remove trim assembly from body.

b. Installation of Center Pillar Trim

1. Clean off old cement from center pillar pinchweld flanges and from floor pan to insure a smooth cementing surface.

2. Apply trim cement to inside edges of trim which contact pinchweld flanges and to bottom of trim assembly which contacts floor pan.

3. Carefully position trim assembly on center pillar making certain sew lines on center pillar trim match sew lines on door trim.

NOTE: If wadding is used under trim assembly sew line will butt against lower edge of wadding.

4. Cement edges of trim to pinchweld flanges and to floor pan. Install pinchweld finishing moldings and spacer clips, and finishing cap. Replace carpeting and install sill plate.

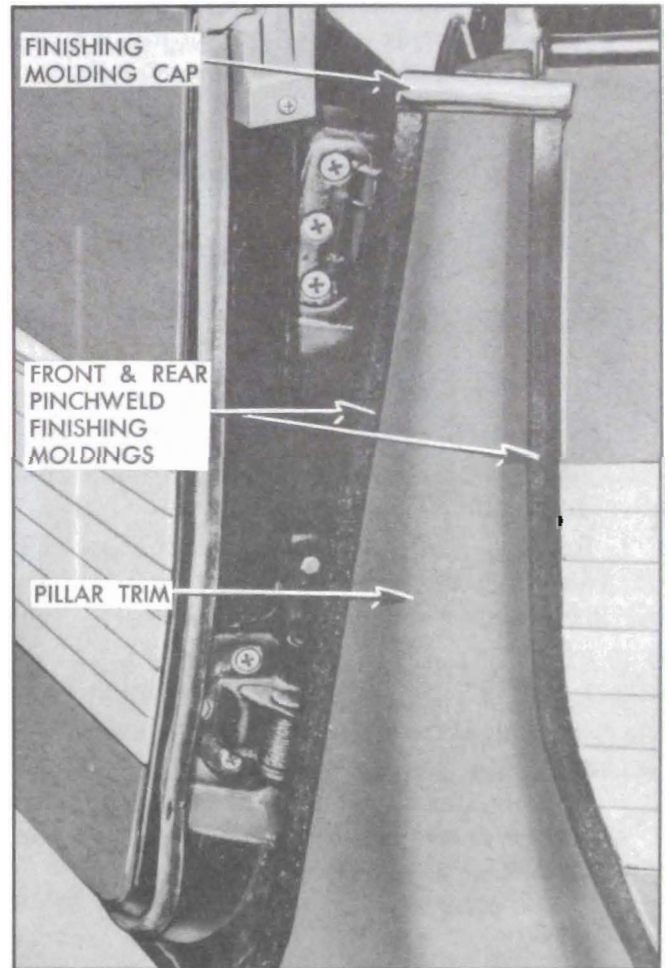


Figure 13-228—Center Pillar