

REAR END

BACK WINDOW ASSEMBLY ALL STYLES

BACK WINDOW RETENTION

The back window is retained in the back body opening by a synthetic, self-curing, rubber adhesive caulking compound that adheres to both the glass and back window opening pinchweld flange. Applied to the glass while in a soft state, the material begins to cure soon after exposure to air. Due to this fast curing characteristic, installation of the glass into the body opening must quickly follow application of material to glass.

Because the cured material adheres to both glass and body pinchweld flange, it is necessary to cut through the adhesive caulking compound to remove the back window.

Adhesive Caulking Kit #4226000, which is designed for a "short method" windshield installation, has some of the materials needed to remove and replace a back window. The other materials that are needed to complete the installation are available either as service parts or at local supply houses.

Adhesive Caulking Kit #4226000 consists of:

- a. One (1) tube of adhesive caulking material.
- b. One (1) dispensing nozzle.
- c. Steel music wire.
- d. Adhesive Caulking Primer (for priming original caulking material remaining on pinchweld flange).

The materials required to remove and install a back window are as follows:

- *a. Two (2) Adhesive Caulking Kits (Part No. 4226000 or equivalent).
- b. One (1) caulking gun (standard household type reworked as described in procedure).
- c. Two (2) pieces of wood for handles of cutting wire.
- d. Black Weatherstrip Adhesive, or equivalent.
- *e. Painted surface primer (needed only if pinchweld flange is repainted).

*f. Rubber glass spacers (see procedure for amount and usage).

1. Spacer (Part No. 4421823 or equivalent) .18 x .62 x 1.0 (flat).
2. Spacer (Part No. 4410043 or equivalent) .18 x .24 x .74 (insert).
3. Spacer (Part No. 4871330 or equivalent) .34 x .44 x 1.0 (rectangle).
4. Spacer (Part No. 4404196 or equivalent) .30 x .44 x 1.0 (rectangle -- Emergency use for spacer 4871330).

g. Glass handling suction cups.

*Available as service parts.

Prior to removal of the back window, the back window reveal moldings must be removed as follows:

BACK WINDOW REVEAL MOLDINGS

The clips that retain the back window reveal moldings are attached to the back body opening by screws that are inserted through the clips into the body metal. On all styles, a projection on the clip engages the reveal molding flange, retaining the molding between clip and body metal. An integral self-sealing washer on the reverse side (body side) of the clip protects against waterleaks at the screw locations (see Fig. 2F1).

To disengage a molding from retaining clips, use tool J-21549-2 as shown in Figure 2F2.

NOTE: Use care not to get point of tool behind edge of glass. Any prying force with tool in that position could shatter solid tempered safety plate glass.

As the back window reveal moldings telescope into each other, it is necessary to begin removal (disengaging clips) in the middle of a molding rather than at an end. In addition, when only one molding is to be removed, adjacent moldings must be disengaged sufficiently to allow disengagement of the telescoped ends.

NOTE: Adhesive caulked window glass tool set J-21549-02 is available as a service parts package and consists of:

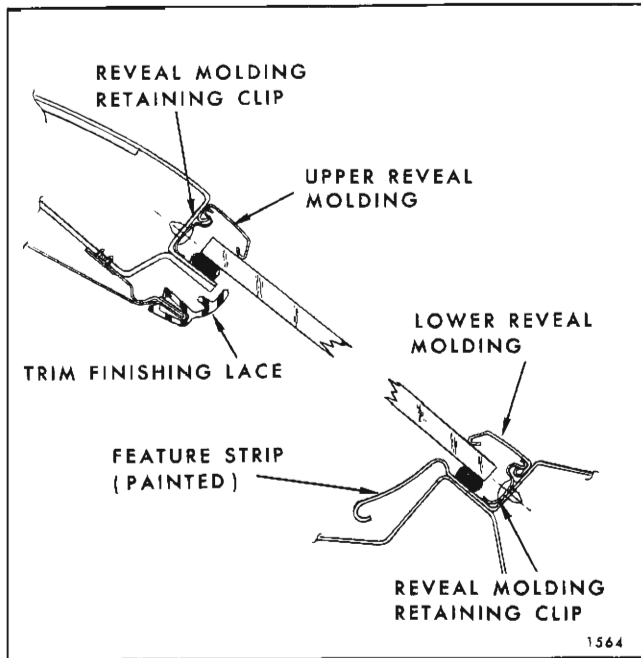


Fig. 2F1—Back Window Reveal Molding Retention

- J-21549-1 - Handle
- J-21549-2 - Reveal molding remover (flat-blade).
- J-21549-3 - Reveal molding remover (angle-blade).

BACK WINDOW ASSEMBLY (GLASS INTACT)

Removal

1. Remove back window reveal moldings as previously described. On "11 and 69" styles, remove nuts from back window lower corner escutcheons from inside rear compartment (one each side forward of lid hinge). Remove escutcheons from inside body. Disengage finishing lace from headlining retainer across top and down sides of back window. On "80" styles, also disengage finishing lace across bottom. Place protective covering over rear seat and parcel shelf trim.

2. Secure one end of steel music wire to a piece of wood that can serve as a handle. Insert other end of wire through caulk material at a lower corner of back window and secure that end to a second piece of wood (Fig. 2F3).

3. With aid of a helper, carefully cut (pull steel wire through) caulk material up one side, across top, down opposite side, and across bottom. If difficulty is encountered at rubber spacer locations, cut through spacers using a slow sawing motion. Do not use a fast sawing motion as wire

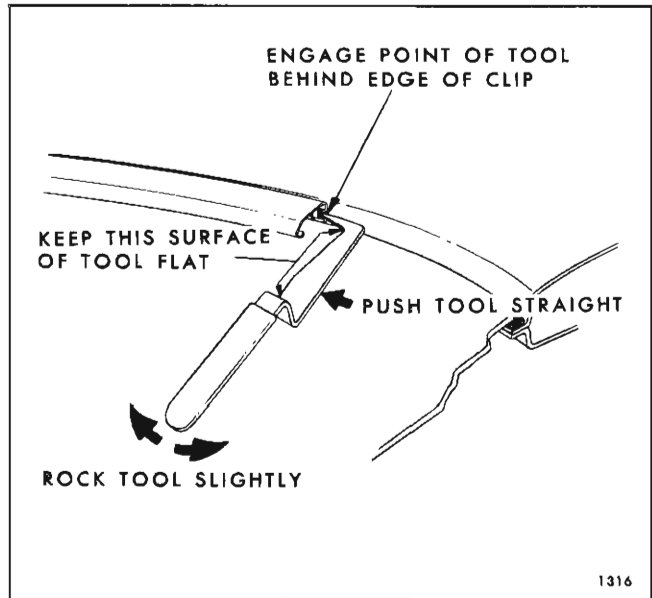


Fig. 2F2—Disengaging Molding From Clips

will heat-up and break. Keep tension on wire throughout cutting operation to prevent "kinks".

4. Remove window from body opening. If original glass is to be reinstalled, place it on a clean protected surface. Using a sharp scraper or razor blade, remove major traces of old caulking material from glass. Remove all remaining traces with a toluene or thinner dampened rag.

NOTE: Do not use an oil base solvent. Any trace of oil will prevent adhesion of new caulking material to glass.

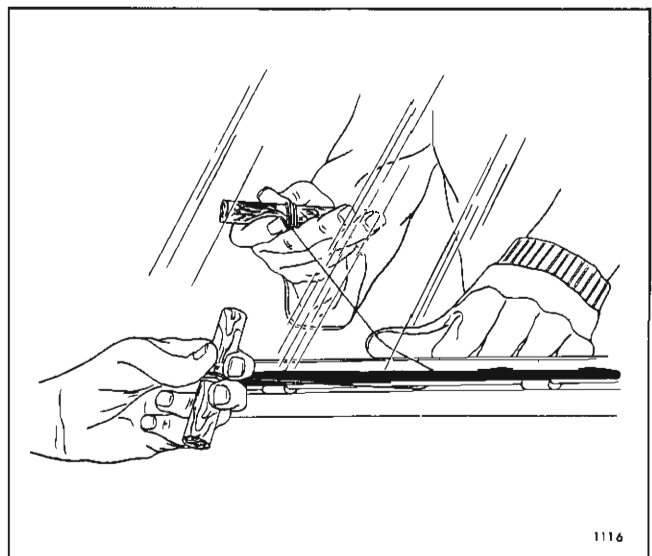


Fig. 2F3—Adhesive Caulked Glass Removal

5. Using a sharp scraper or chisel, remove major portion of old caulking material from pinch-weld flange around back window opening. It is not necessary that all of it be removed, but there should not be any mounds of material or loose pieces left.

Installation

If new back window is being installed because former window shattered, perform steps 1 and 5 of "Back Window Removal" procedure before proceeding with installation.

1. Check all reveal molding retaining clips. If upper end of a clip is bent away from body metal more than 1/32 of an inch, replace or reform clip to insure adequate molding retention. Tighten all loose clip screws.

2. On all styles except "80" styles, cement five (5) flat spacers (.18 x .62 x 1.0 - Part No. 4421823) to pinchweld flange with black weatherstrip adhesive, or equivalent. Cement spacers as described below and illustrated in Figure 2F4.

NOTE: On "80" styles, install six (6) spacers omitting upper center spacer but adding two (2) across bottom.

a. Cement 3 spacers to upper pinchweld flange; one at body centerline and one to each side 20" outboard of centerline. (On "80" styles omit center spacer and position side spacers 8" in-board from outer corners).

b. Cement one spacer to each side pinchweld flange slightly above center of flange.

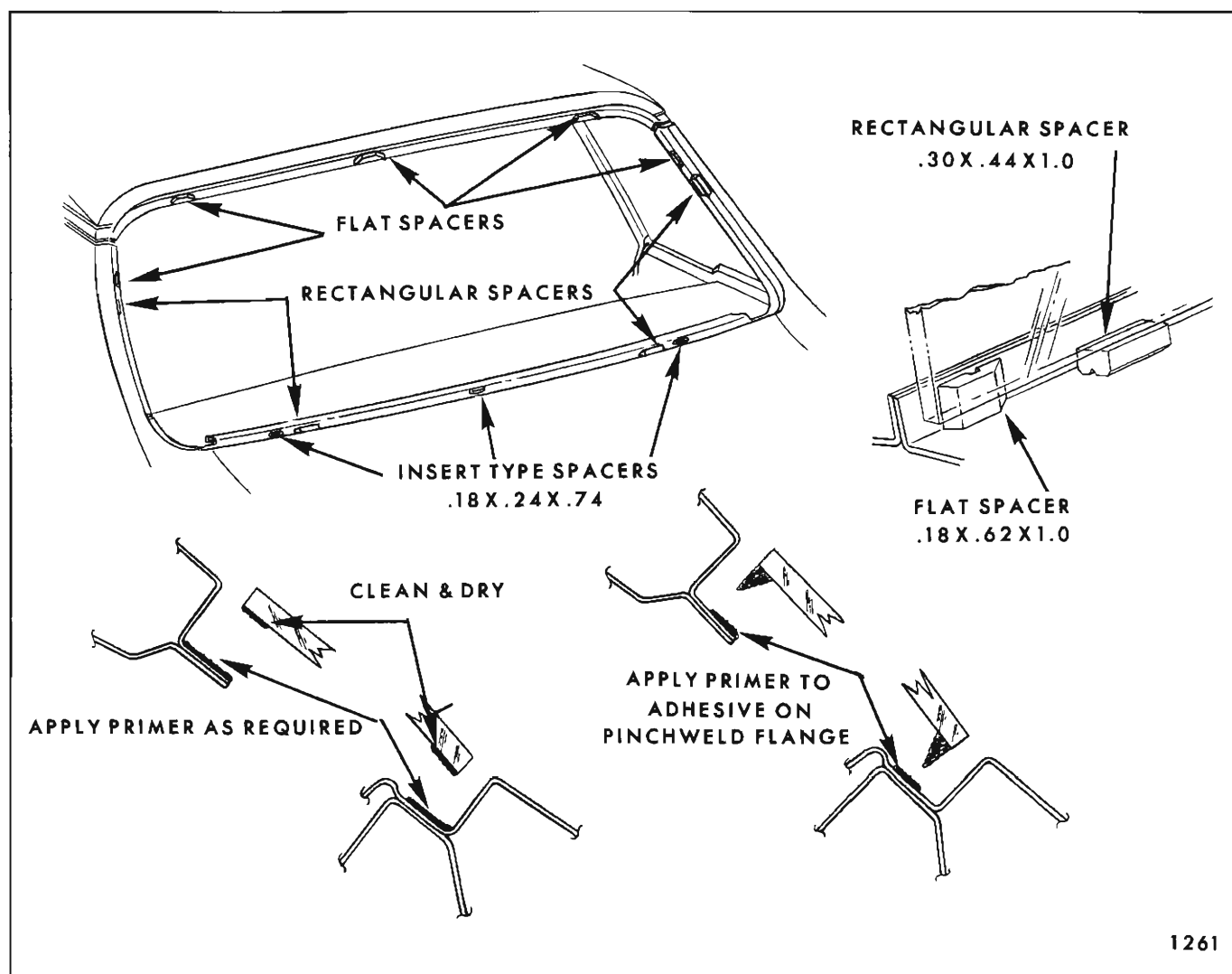


Fig. 2F4—Back Window Preparation and Spacer Installation

c. On "80" styles only, cement two spacers to lower pinchweld flange, one spacer to each side approximately 8" inboard of back window lower corner.

3. On all styles except "80" styles, install three (3) insert spacers (.18 x .24 x .74 - Part No. 4410043) into slots in compartment front and shelf panel across lower edge of back window opening (see Fig. 2F4).

4. With black weatherstrip adhesive, cement four (4) rectangular spacers (.30 x .44 x 1.0 - Part No. 4871330) to lower and side back window opening rabbet (see Fig. 2F4).

a. Cement two spacers to back window opening lower rabbet, one spacer to each side, approximately 9" inboard of back window lower corner.

b. Cement one spacer to each side of back window opening rabbet approximately 9" up from lower corner.

NOTE: The rectangular spacers across the bottom support the weight of the glass, therefore, make certain that they are well positioned so they will not rock or slide out.

5. Attach glass handling suction cups to outside surface of glass to enable lifting glass into opening.

6. Position glass in opening and check relationship of glass to pinchweld flange around entire perimeter. Overlap of pinchweld flange by glass should be equal with a minimum overlap of 3/8". Inadequate overlap across top may be corrected by replacing two rectangular glass support spacers across bottom with thicker spacers. Standard spacers are .30" thick but .34" thick spacers are available. (See beginning of procedure).

7. Check relationship of glass contour to back window opening. Gap space between glass and pinchweld flange should be no less than 1/8" nor more than 1/4". If difficulty is encountered staying between these limits, corrections can be made by any one of the following methods.

a. Substitute another glass to determine if it will fit opening better.

b. Rework pinchweld flange.

c. Apply more caulking material than is specified at excessive gap areas. Material can be applied to pinchweld flange by allowing bead on glass to exceed specified 3/8" height at gap areas.

8. After final adjustments have been made and glass is in proper position in opening, apply a

piece of masking tape horizontally over each side edge of glass and rear quarter extension ("A", Fig. 2F6). Slit tape vertically at edge of glass so that when glass is being installed, tape on glass can be aligned with tape on body and serve as a guide.

9. Remove glass from body opening and place it on a protected surface or glass holding fixture (lay glass down with inside surface up).

10. Apply one inch masking tape to inner surface of glass 1/4" inboard from outer edge up both sides and across top. Do not apply tape to bottom edge of glass. Instead, apply masking tape over painted feature strip below back window opening. (See Fig. 2F5).

11. Using a clean, lint-free cloth liberally dampened with Adhesive Caulking Primer, briskly rub primer over original adhesive caulking compound remaining on pinchweld flange. Perform following steps while allowing primer to dry 5 to 10 minutes. If the pinchweld flange has been repainted, prime flange with Painted Surface Primer, or equivalent.

12. Enlarge dispensing end of one nozzle by cutting out notch along score line indicated at "A" in Figure 2F5. This nozzle will be used to apply the bead of adhesive material to glass. Cut nozzle from the second kit at a 45 degree angle as indicated at "B" in Figure 2F5. This latter nozzle will be used to apply a smear bead to pinchweld flange of back window opening.

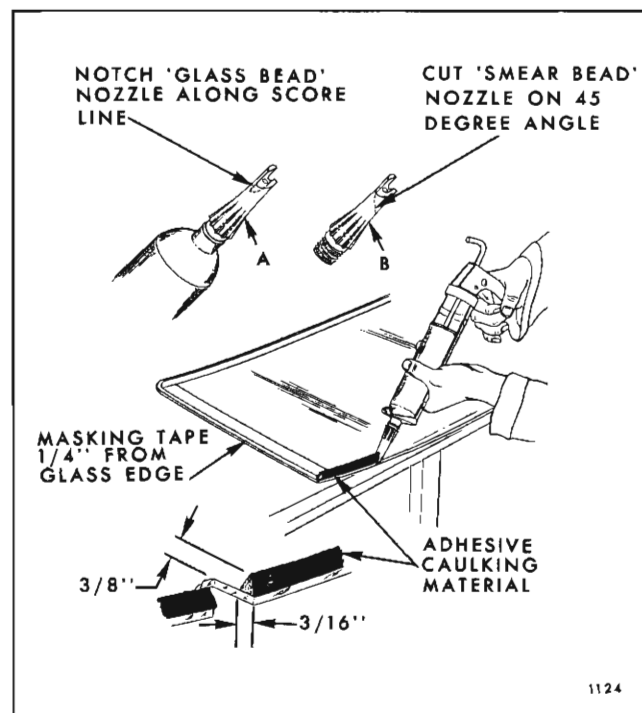


Fig. 2F5—Adhesive Caulking Material Application

13. Wipe surface of glass to which bead of adhesive caulking material will be applied (between masking tape and edge of glass) with a clean, water-dampened rag. Dry glass thoroughly with a clean, dry rag.

14. Remove cap and protective end cover from one tube of adhesive caulking material and insert "glass bead" nozzle (nozzle cut on score line).

15. Insert tube in a standard household type caulking gun reworked as follows:

- a. Widen end-slot of caulking gun with a file to accept dispensing end of tube.
- b. Grind down plunger disc on rod so that disc will fit into large end of tube.

16. With caulking gun and nozzle positioned as illustrated in Figure 2F5, carefully apply a smooth continuous bead of caulking material 3/8" high by 3/16" wide at base completely around inside edge of glass.

NOTE: When material in first tube is dispensed, quickly insert second tube and continue application of bead. This material begins to cure after fifteen (15) minutes exposure to air, therefore, perform the following steps immediately and install glass in the opening as quickly as possible.

17. Remove "glass-bead" nozzle and insert "smear-bead" nozzle (nozzle cut on 45° angle). Holding caulking gun at an angle so that angle-cut of nozzle rests flat on pinchweld flange, apply a thin (1/4" wide x 1/16" high) "smear-bead" of adhesive caulking material completely around pinchweld flange.

18. With the aid of a helper, carefully install glass in body opening. Make certain that glass sets properly on spacers and does not have to be shifted after material contacts pinchweld flange. Align tape on glass with tape on body to guide window into opening. (See Fig. 2F6).

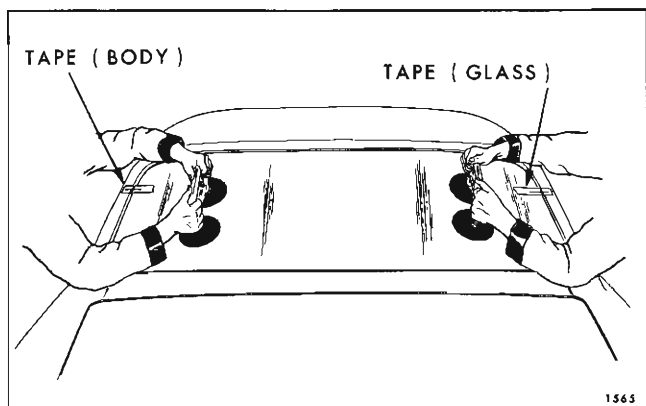


Fig. 2F6—Back Window Installation

NOTE: When setting glass into opening, it should be in the same plane as opening so that all edges of glass contact pinchweld flange at approximately the same time.

19. Press glass lightly to adhere caulking material to pinchweld flange. Do not use too much pressure as excessive squeeze-out will be visible after reveal molding installation. Install reveal moldings.

20. Working inside the body, run a flat-bladed tool or stick across top and up sides of opening to press squeeze-out material back into opening between glass and pinchweld flange.

21. Watertest back window immediately using a cold water spray. If any waterleaks are encountered, use a flat-bladed tool or stick to work

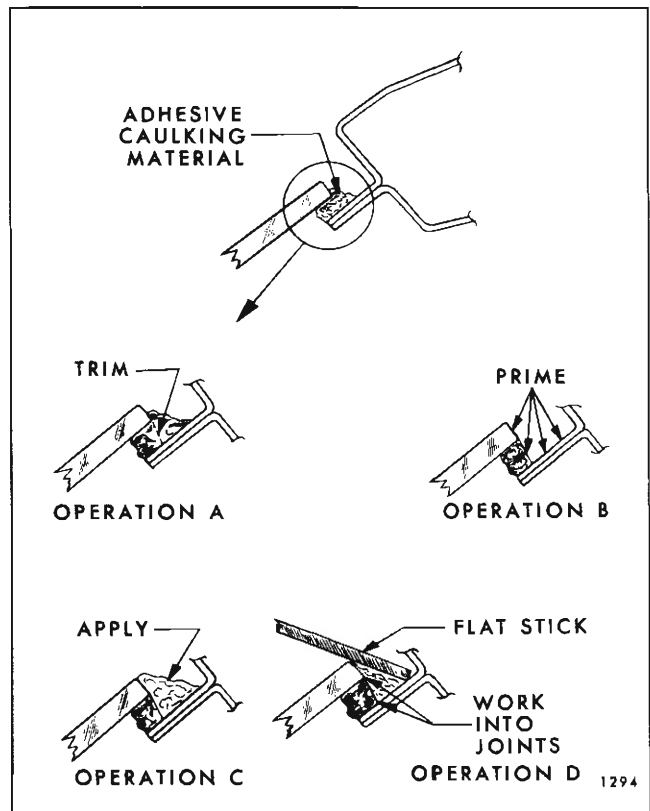


Fig. 2F7—Correction of Adhesive Caulked Glass Installation Waterleaks

- A. Trim off adhesive caulking material along edge of glass
- B. Prime areas indicated using a small brush
- C. Apply adhesive caulking material (use Kit #4226000 or equivalent).
- D. Using a flat stick, work adhesive caulking material well into joints of original material, painted body flange and glass

caulking material into leak point. This can best be done from inside the body. After watertest, remove tape from inside surface of glass.

22. Install all previously removed parts and remove protective coverings.

NOTE: Unused adhesive caulking material remaining in tube can be stored for later use. To store, remove nozzle and insert end cap previously removed. Do not remove material from nozzle until it has cured. Once material has cured, it can be removed from nozzle in one piece with a pair of pliers.

MINOR WATERLEAK CORRECTIONS ALL STYLES

(With adhesive caulking material in a cured state)

Adhesive caulked glass installation waterleaks can be corrected in the following manner without removing and reinstalling the glass.

NOTE: The following procedure is applicable only with the use of adhesive caulking material and primer furnished in GM Kit Part No. 4226000 or equivalent.

1. Remove reveal molding in area of leak.
2. Mark location of leak(s).

NOTE: If leak is between adhesive caulking material and body or between material and glass, carefully push outward on glass in area of leak

to determine extent of leak. This operation should be performed while water is being applied to leak area. Mark extent of leak area.

3. From outside body, clean any dirt or foreign material from leak area with water and then dry clean area with an air hose.

4. Using a sharp knife, trim off uneven edge of adhesive caulking material (see operation "A" in Fig. 2F7) at the leak point and three to four inches on both sides, beyond limits of leak area.

5. Using a small brush, apply adhesive caulking material primer over trimmed edge of adhesive caulking material and over adjacent painted surface (see operation "B" in Fig. 2F7).

6. Apply adhesive caulking material (as shown in operation "C" in Fig. 2F7) at leak point and three to four inches on both sides beyond limits of leak area.

7. Immediately after performing step No. 6, use a flat stick, or other suitable flat-bladed tool, to work adhesive caulking material well into leak point and into joint of original material and body to effect a water tight seal along entire length of material application (see operation "D" in Fig. 2F7).

8. Watertest (spray) to assure that leak has been corrected. DO NOT run a heavy stream of water directly on freshly applied adhesive caulking material.

REAR COMPARTMENT

The rear compartment lid employs two torque rods that are mounted between the hinge assemblies to act as a counterbalance and hold-open for the lid. Notches in the stationary part of the hinges allow for adjustment of the rods to increase or decrease the effort required to open and close the lid.

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

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

REAR COMPARTMENT LID ALL STYLES

Removal and Installation

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

2. Mark location of hinge straps on lid inner panel. On styles with rear compartment lid lock vacuum release option, remove vacuum hose from lid (Oldsmobile only).

3. With aid of a helper, remove lid attaching bolts "A" and "B" (Fig. 2F8) and remove rear compartment lid.

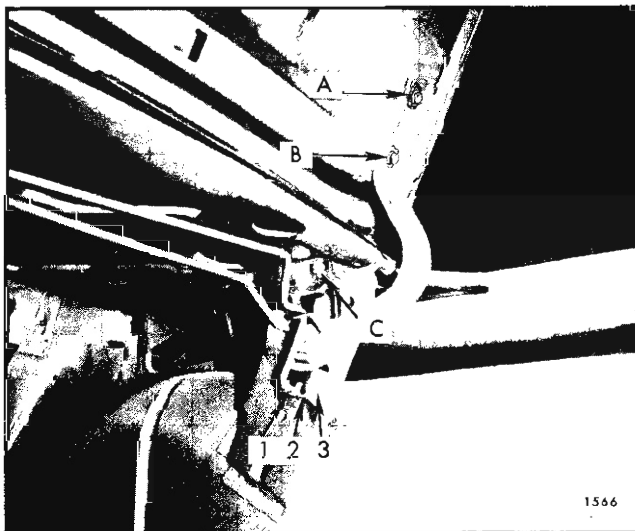


Fig. 2F8—Rear Compartment Lid Hinge and Torque Rod Attachment

4. To install, reverse removal procedure. Align marks on lid with hinge straps before tightening hinge attaching bolts.

Adjustments

1. To adjust compartment lid forward or rearward, or from side to side in body opening, loosen both hinge strap attaching bolts, "A" and "B" (Fig. 2F8) 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 or one or both hinge straps at attaching bolt "B" (Fig. 2F8).

b. To lower front edge of lid at hinge area, place shim between lid inner panel and rearward portion of one or both hinge straps at attaching bolt "A" (Fig. 2F8).

3. To check lid lock bolt engagement with striker, see "Rear Compartment Lid Lock Striker Engagement Check".

REAR COMPARTMENT LID TORQUE ROD ADJUSTMENT ALL STYLES

The amount of effort required to open or close the rear compartment lid is determined by the notch position of the torque rods in the hinge plates.



Fig. 2F9—Rear Compartment Torque Rod Adjustments

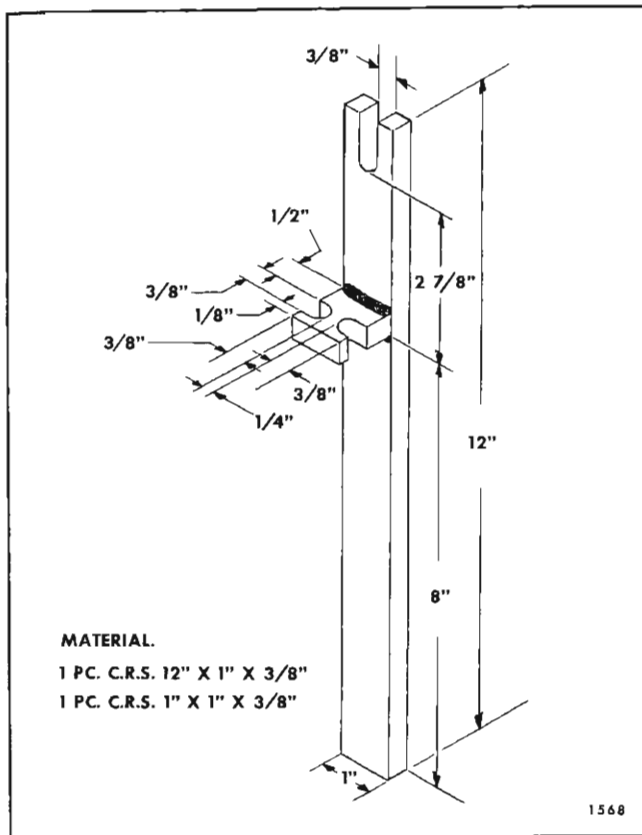


Fig. 2F10—Rear Compartment Torque Rod Adjusting Tool

If the torque rod is located in the most forward notch ("1", Fig. 2F8), the amount of effort required to open the lid is the greatest and to close the lid is the least.

If the torque rod is located in the most rearward notch ("3", Fig. 2F8), the amount of effort required to open the lid is the least and to close the lid is the greatest. Figure 2F9 illustrates how to use tool J-21412 to perform these adjustments.

Figure 2F10 is a dimensional drawing of the rear compartment lid torque rod adjusting tool.

NOTE: It is not necessary to adjust both rods, or to adjust both rods to the identical notch.

REAR COMPARTMENT LID TORQUE ROD REMOVAL ALL STYLES

1. Open rear compartment lid and provide support to hold it in a full open position.
2. Engage torque rod adjusting tool J-21412 with torque rod to be removed as shown in Figure 2F9.
3. Combining a rearward and upward pulling force, disengage lower end of torque rod from notch in hinge plate.

4. Holding tool firmly, relieve torque (tension) of rod by carefully allowing tool to ease forward. When tension on tool has been relieved, remove tool.

5. Disengage opposite end of torque rod from hinge plate and roller in hinge strap and remove rod from body.

NOTE: Roller is held in channel of hinge strap by "return crank" end of torque rod only and can be removed once stationary end of torque rod is disengaged.

6. To install, reverse removal procedure. Lubricate as specified in the "Lubrication" section of this manual.

REAR COMPARTMENT LID HINGE ALL STYLES

Removal and Installation

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

2. Mark location of hinge strap on lid inner panel.

3. Disengage opposite, stationary end of torque rod that is engaged in hinge to be removed. (Refer to "Torque Rod Adjustment or Removal" in this manual).

4. Disengage torque rod from roller and hinge mounting plate on side from which hinge is being removed.

5. Remove hinge to lid inner panel attaching bolts "A" and "B" (Fig. 2F8).

6. Bend back hinge pin retaining tab ("C", Fig. 2F8); then remove hinge pin and hinge.

7. To install, reverse removal procedure.

REAR COMPARTMENT LID LOCK CYLINDER ALL STYLES

Removal and Installation

1. Open rear compartment lid and remove lock cylinder retainer attaching screws (Fig. 2F11).

2. Pull retainer downward to disengage from lock cylinder and remove lock cylinder from compartment lid outer panel.

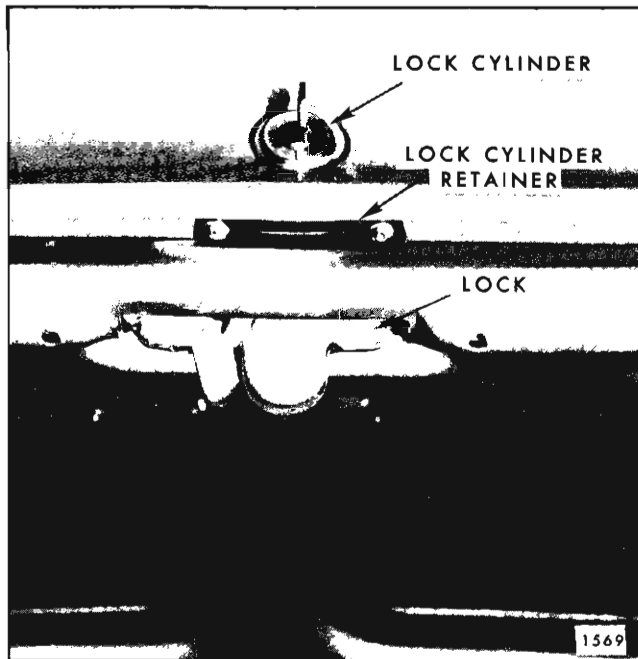


Fig. 2F11—Rear Compartment Lid Lock
Cylinder Retainer

3. To install, reverse removal procedure. Make certain gasket seats properly to effect a watertight seal.

REAR COMPARTMENT LID LOCK VACUUM RELEASE UNIT ALL 33000 SERIES

The rear compartment lid lock vacuum release unit is attached to the inboard side of the compartment lid inner panel in front of the compartment lid lock and is readily accessible with the lid in the open position.

Removal and Installation

1. Open rear compartment lid and disconnect vacuum hose. (See Fig. 2F12).

2. Remove attaching bolts securing release unit to rear compartment lid and remove unit from body. (See Fig. 2F12).

3. To install, reverse removal procedure.

REAR COMPARTMENT LID LOCK MANUAL RELEASE UNIT ALL 23000 SERIES

Removal and Installation

1. Remove rear compartment lid lock, lock cylinder and cylinder retainer.

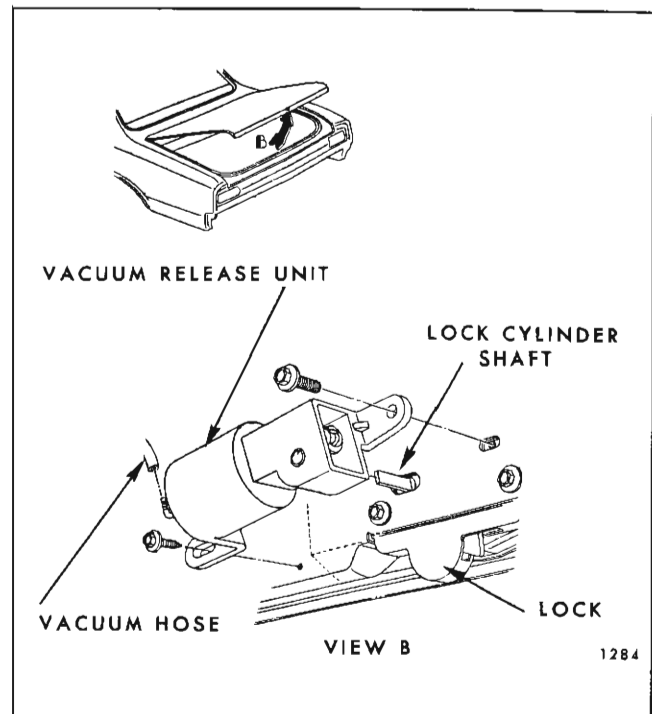


Fig. 2F12—Rear Compartment Lid Vacuum
Release Unit

2. Remove cable support clip attaching screw (clip "A" in Fig. 2F13) and move cable toward left side of body to enable disengaging spring retaining clip "B".

3. Disconnect cable from return spring and clip at "C".

4. Working through lock cylinder access hole, spread tab on coupling (of coupling and lever assembly) and disengage cable from coupling (see "D" in Fig. 2F13).

5. Remove cable from between lid inner and outer panels at access hole in right side of lid.

6. Remove all cable retaining clips from rear compartment lid and lid hinge.

7. Remove rear seat cushion and rear seat back. On convertible styles, remove folding top compartment side trim panel assembly.

8. Remove door sill plate from right side of body. Fold-back floor carpets and remove cable retaining clips.

9. Inside of instrument panel compartment (glove box), loosen pull handle retaining nut and disengage pull handle from slotted support.

10. Remove pull handle from glove box through slot provided, and remove cable and pull handle assembly from body.

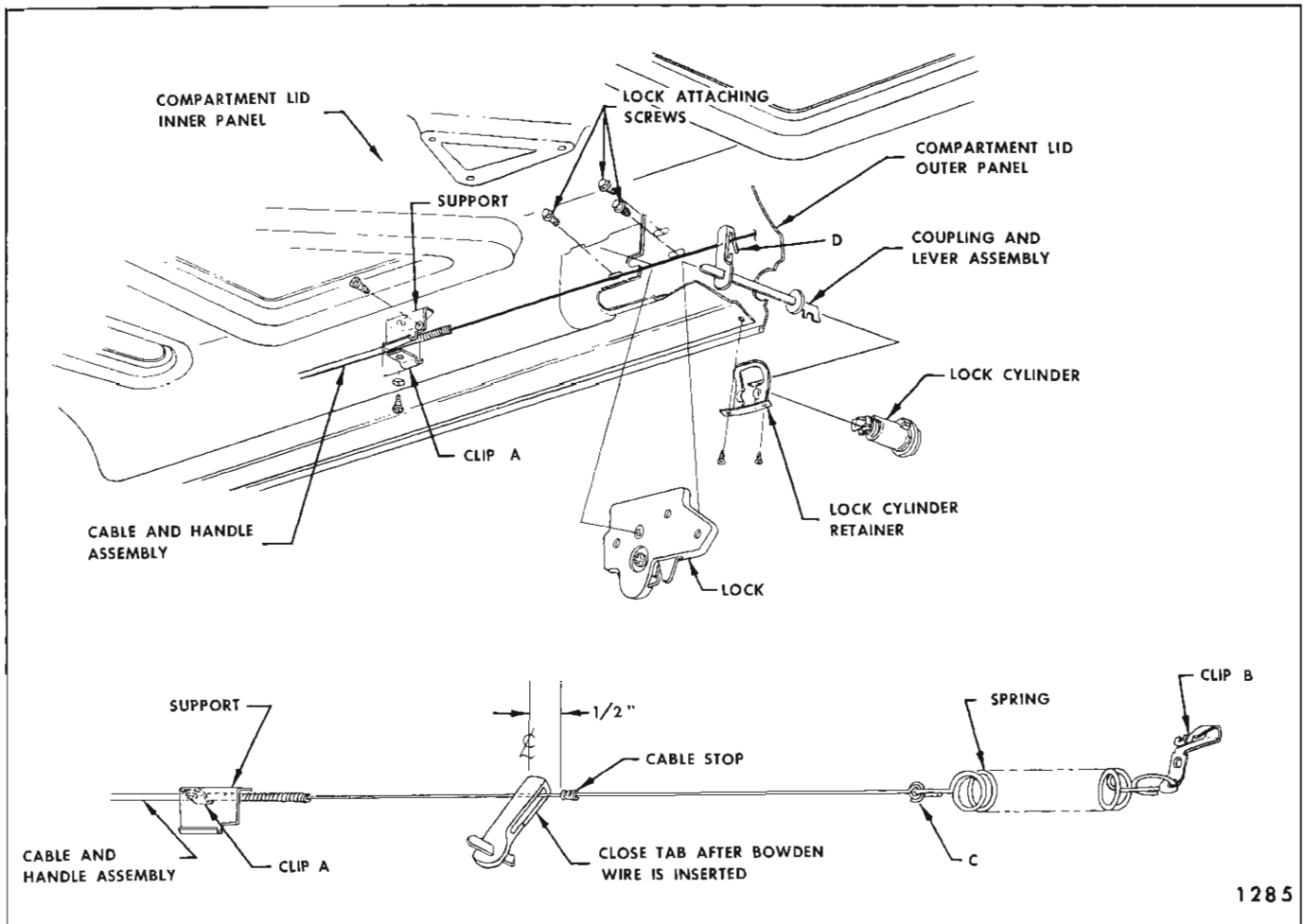


Fig. 2F13—Rear Compartment Lid Lock Manual Release Unit

1285

11. To install, reverse removal procedure. To adjust cable, position stop on cable 1/2 inch left of body centerline (coupling and lever assembly) as shown in Figure 2F13.

REAR COMPARTMENT LID LOCK ASSEMBLY ALL STYLES

Removal and Installation

1. Remove rear compartment lid lock cylinder.
2. With a pencil, mark position of lock.
3. Remove rear compartment lid lock vacuum release unit on styles so equipped (Oldsmobile).
4. Disengage rear compartment lid lock manual release unit cable on styles so equipped (Pontiac).
5. Remove rear compartment lid lock attaching bolts and remove lock assembly. (See Fig. 2F14).
6. To install, reverse removal procedure.

REAR COMPARTMENT LID LOCK STRIKER ALL STYLES

Removal and Installation

1. Open rear compartment lid. Mark vertical position of striker by scribing line on striker across top of striker support.
2. Remove striker attaching screws (Fig. 2F14) and remove striker.
3. To install, align scribe mark on striker with top of striker support and install attaching screws.

REAR COMPARTMENT LID LOCK STRIKER ENGAGEMENT ALL STYLES

Since the rear compartment lock frame acts as a guide when entering the striker, make certain that rear compartment lid is properly positioned in body opening before performing lock-to-striker engagement check.

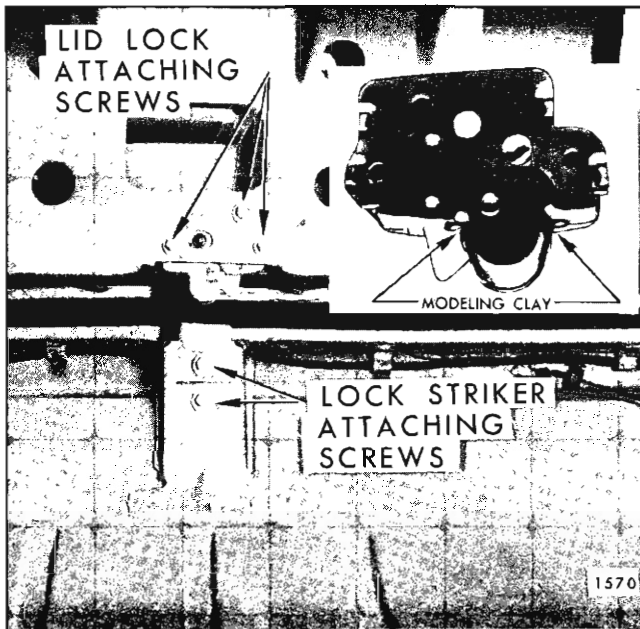


Fig. 2F14—Rear Compartment Lid Lock and Striker Attachments

To determine the alignment and engagement of lock to striker, proceed as follows:

- a. Insert a small quantity of modeling clay on frame of lock on both sides of lock bolt (Fig. 2F14). 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 or lock attaching screws; adjust lock sideways, or striker up or down, to obtain proper engagement; then, tighten attaching screws.

**REAR COMPARTMENT WEATHERSTRIP
ALL STYLES**

Removal

1. Separate "butt" ends of weatherstrip at rear center of rear compartment opening.

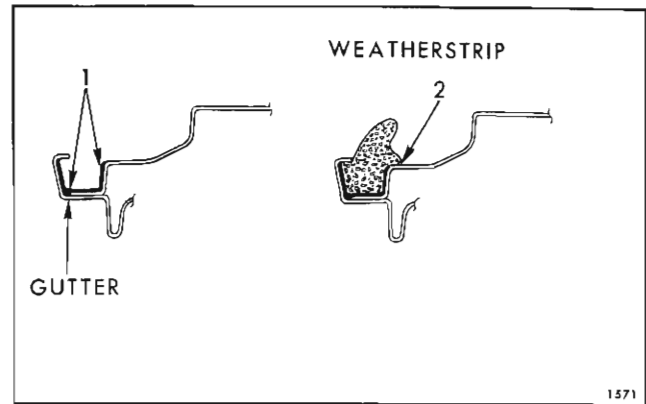


Fig. 2F15—Rear Compartment Weatherstrip

2. Using a flat-bladed tool, break cement bond between weatherstrip and gutter around entire perimeter of rear compartment opening and remove weatherstrip.

Installation

1. Clean out gutter around entire rear compartment opening to provide a clean cementing surface.
2. Apply (brush) a continuous coat of neoprene weatherstrip adhesive along bottom, inner and outer walls of gutter as indicated at "1" in Figure 2F15 around complete length of gutter.
3. Using a flat-bladed tool, insert weatherstrip into gutter, starting with one end of weatherstrip at rear center of gutter and working completely around gutter.
4. If installing a new weatherstrip, trim ends of weatherstrip to form a butt joint at rear center of gutter. Brush black weatherstrip adhesive on both ends of weatherstrip and mate ends to form a butt joint.
5. Using a pressure type applicator, apply neoprene weatherstrip adhesive between gutter and weatherstrip as indicated at "2" in Figure 2F15 completely around gutter to insure a watertight seal.
6. Roll or press weatherstrip to assure a good bond. Close lid and allow sufficient time for adhesive to dry before reopening (30 minutes or more) to assure proper positioning of weatherstrip and formation of a watertight seal.;

TAIL GATE

ALL STATION WAGON STYLES

TAIL GATE ASSEMBLY

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. 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.

The tail gate hinges are secured to the tail gate side facing by three screws and to the body opening

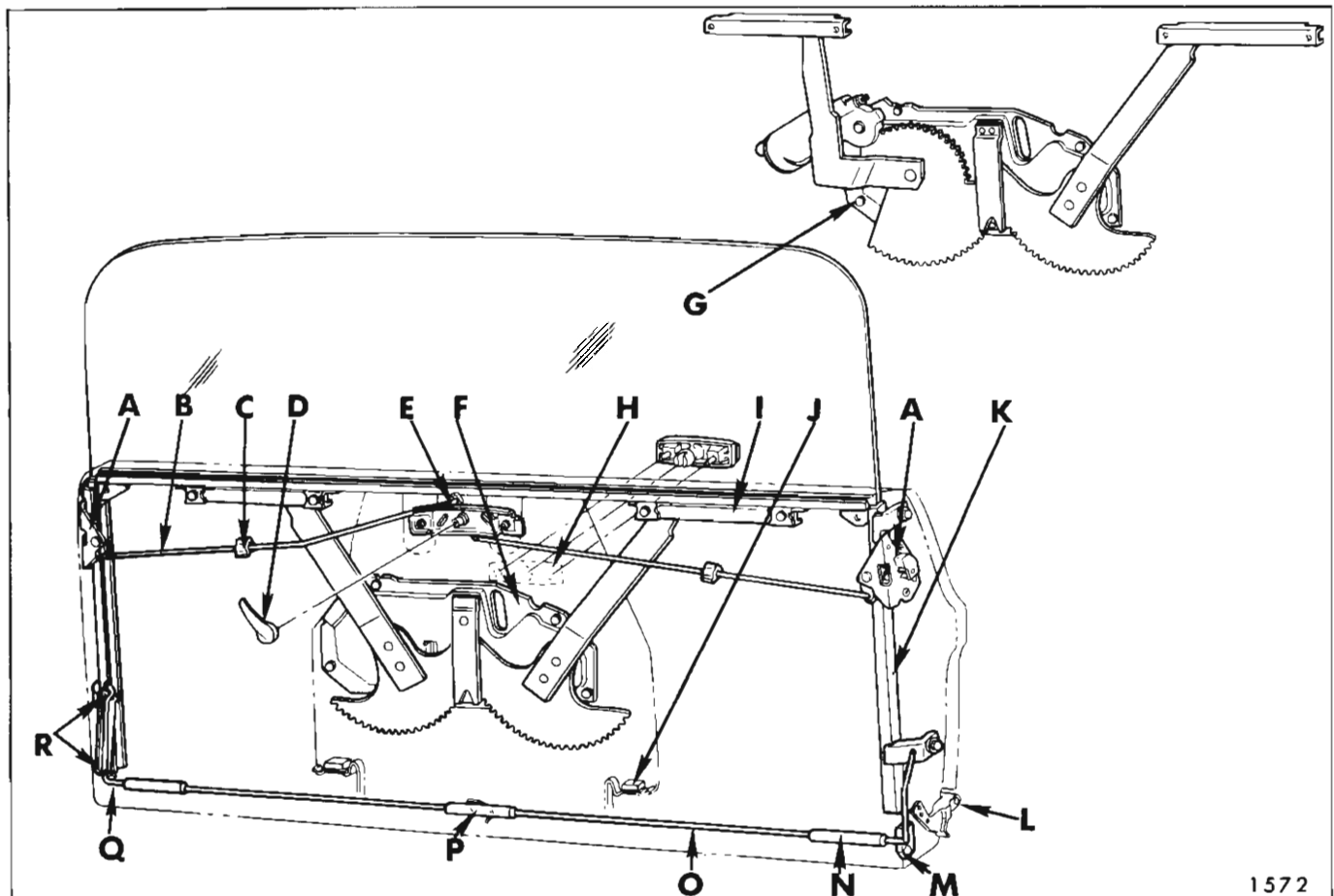


Fig. 2F16—Tail Gate Hardware

- | | |
|---|---|
| <ul style="list-style-type: none"> A. Tail Gate Lock B. Tail Gate Lock Connecting Rod C. Tail Gate Lock Connecting Rod Silencer D. Tail Gate Lock Inside Remote Control Handle E. Tail Gate Lock Inside Remote Control F. Tail Gate Window Regulator (Manual) G. Tail Gate Window Regulator (Electric) H. Tail Gate Window Regulator Outside Handle or Electric Switch and Escutcheon I. Tail Gate Window Lower Sash Channel | <ul style="list-style-type: none"> J. Tail Gate Window Rubber Bumper K. Tail Gate Window Lower Run Channel L. Tail Gate Hinge M. Tail Gate Torque Rod Bearing Plate N. Tail Gate Torque Rod Silencer O. Tail Gate Torque Rod P. Tail Gate Torque Rod Clip Q. Tail Gate Torque Rod Retainer R. Tail Gate Torque Rod Silencers (on Retainer) |
|---|---|

pillar by three screws. The tail gate is counter-balanced by a single torque rod that is secured at the left rear body opening pillar by a mounting plate and between the tail gate panels by a retainer welded to the tail gate right side facing. When the tail gate is opened, the end of the torque rod secured to the body, remains stationary while the remainder of the rod moves with the gate, thereby creating an assisting torque for both lowering and raising the gate.

Figure 2F16 is a phantom view that identifies and shows the relationship of major components of the tail gate.

TAIL GATE INNER PANEL WATER DEFLECTOR

On all tail gate inner panels, a paper waterproof deflector is used to seal inner panel. The deflector is installed and sealed so that any water entering the tail gate will run out bottom drain holes.

IMPORTANT: Whenever work is performed on the tail gate inner panel where the 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.
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

1. Inspect water deflector for damage and repair any tears or holes noted with body waterproof tape applied to both sides of deflector.
2. If a new deflector is to be installed, use old deflector as a template.
3. Apply a bead of body caulking compound (approximately 3/16" diameter) to tail gate inner panel (Fig. 2F17).

IMPORTANT: The body caulking compound should be applied along the lower portion of the tail gate inner panel exactly as shown in illustration to assure proper drainage of water through designated holes in inner panel into bottom of tail gate. The bead of body caulking compound should cover the inner cover panel attaching screw holes at the top and sides of the tail gate.

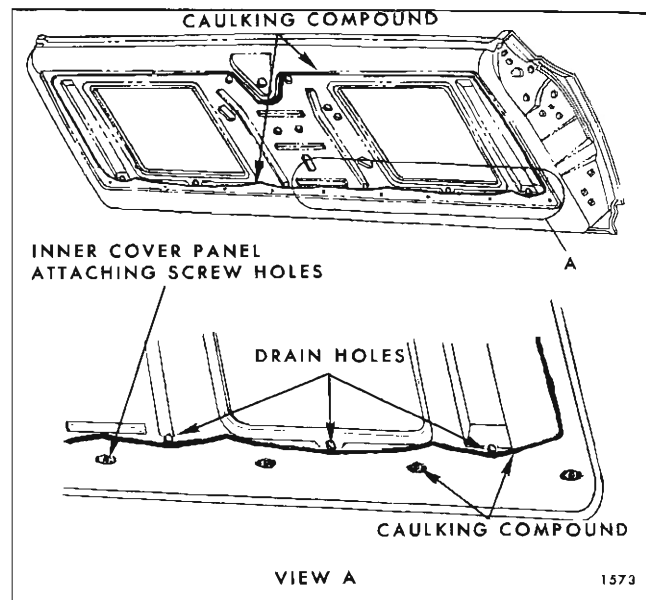


Fig. 2F17—Tail Gate Water Deflector

Also apply body caulking compound over each of the inner cover panel attaching screw holes across the bottom of the tail gate. (See Fig. 2F17).

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 ASSEMBLY (MANUALLY OPERATED WINDOW)

Removal and Installation

1. Open tail gate. With gate in approximately a vertical position, to relieve tension from torque rod, remove torque rod retainer attaching screws on rear body lock pillar (Fig. 2F19).
2. With aid of a helper, remove tail gate support attaching screws (Fig. 2F18) and fold supports against rear body pillar.
3. Remove tail gate hinge attaching bolts at body pillar (Fig. 2F19) and remove tail gate assembly from body.
4. To install, reverse removal procedure. Prior to installation apply a coat of heavy-bodied sealer to surfaces of hinge straps that contact body pillar.

Check operation of tail gate and, if necessary, adjust tail gate in body opening as specified under "Tail Gate Adjustments".

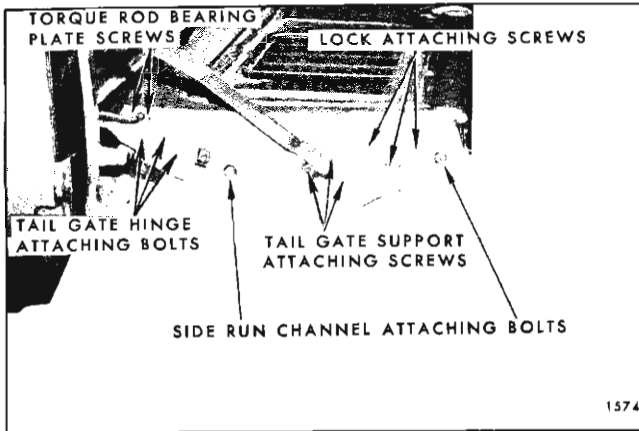


Fig. 2F18—Tail Gate Lock, Run Channel, Hinge, Torque Rod and Support Attachments

TAIL GATE ASSEMBLY (ELECTRICALLY OPERATED WINDOW)

Removal and Installation

1. Open tail gate. Remove tail gate window as described under "Tail Gate Window - Removal and Installation".

2. Remove lock cylinder, switch, and escutcheon assembly as described under "Lock Cylinder, Switch, and Escutcheon Assembly - Removal and Installation"; then, disconnect switch junction block.

3. Disconnect harness connector from regulator motor and from jamb switch at right tail gate lock pillar. Detach harness from clips inside tail gate,

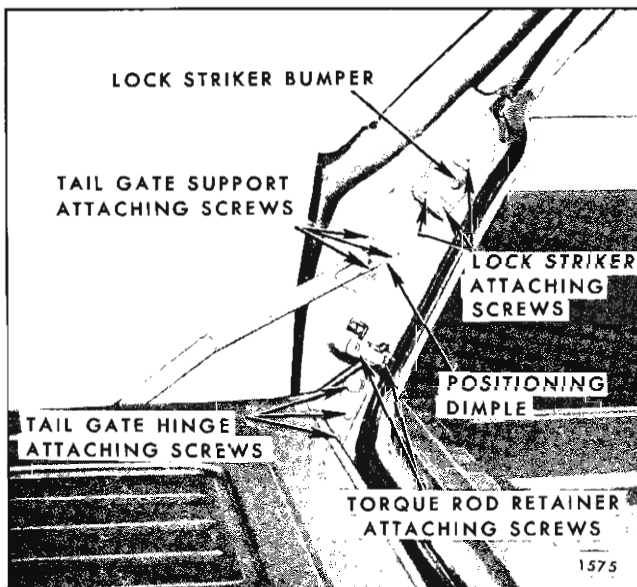


Fig. 2F19—Tail Gate Torque Rod, Hinge and Support Attachments

and harness grommet from tail gate bottom facing, and remove harness.

4. Complete tail gate removal by performing steps 1 through 3 as described in "Tail Gate Assembly (Manually Operated Window) - Removal and Installation".

5. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surfaces of hinge straps that contact tail gate.

Check operation of tail gate window and tail gate. If necessary, adjust tail gate in body opening as specified under "Tail Gate Adjustments".

TAIL GATE ADJUSTMENTS

To adjust the tail gate assembly "up or down" or "in or out" in the body opening, loosen hinge attaching bolts at tail gate (Fig. 2F18); adjust tail gate as required and tighten hinge attaching bolts.

TAIL GATE HINGE ASSEMBLY

Removal and Installation

1. Open tail gate and provide support for gate on side from which hinge is to be removed.

2. Remove escutcheon covering hinge entrance hole in tail gate outer panel by sliding retaining lips through "T" slot.

3. Remove tail gate hinge attaching bolts from tail gate (Fig. 2F18) and from body pillar (Fig. 2F19) and remove hinge from tail gate.

4. To install, reverse removal procedure. Prior to installation apply a coat of heavy-bodied sealer to surface of hinge strap that contacts tail gate.

Check alignment of tail gate in body opening and adjust gate, if necessary, as specified in "Tail Gate Adjustments".

TAIL GATE WINDOW ASSEMBLY (MANUAL OR ELECTRIC)

Removal and Installation

1. Open tail gate; remove inner cover panel, water deflector and access hole covers.

2. Operate tail gate window to a point that the glass lower sash channel cam attaching bolts are accessible. (See Fig. 2F20).

3. Remove cam attaching bolts, disengage cams from lower sash channel and remove cams from tail gate.

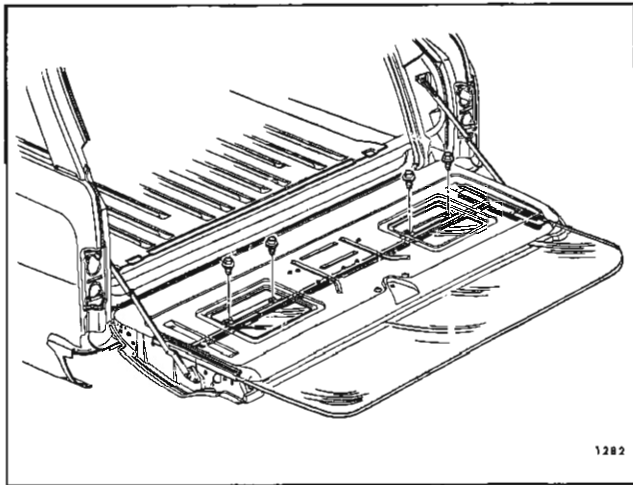


Fig. 2F20—Tail Gate Inner Panel Cams Attachment

4. Carefully raise tail gate window to the full up position and remove window from tail gate.

5. To install, reverse removal procedure.

Adjustments

To adjust the tail gate window forward or rearward for proper alignment with the window upper glass run channels on the body, or to eliminate a binding condition of the window in the tail gate glass run side channels, loosen the glass run channel attaching bolts (Fig. 2F18). By moving the attaching bolts adjust the run channel forward or rearward as desired and tighten the attaching bolt.

TAIL GATE WINDOW LOWER GLASS RUN CHANNELS

Removal and Installation

1. Remove tail gate window.
2. Remove weatherstrip snap fasteners at top of tail gate.
3. Mark location of run channel attaching bolts (on side to be removed) and remove bolts. (See Fig. 2F18).
4. Remove run channel(s) through top of tail gate.
5. To install, align run channel attaching bolts within scribe marks and reverse removal procedure.

TAIL GATE TORQUE ROD ASSEMBLY

Removal and Installation

1. Remove tail gate window and lower right glass run channel. If necessary, loosen lower left glass run channel.

2. With tail gate in approximately a vertical position to relieve tension from torque rod, remove torque rod retainer attaching screws on rear body left lock pillar (Fig. 2F19).

3. Loosen torque rod bearing plate attaching screws (Fig. 2F18). Disengage torque rod from retainer at right side of tail gate and retainer in bottom of tail gate (Fig. 2F16).

4. Carefully work right end of torque rod up between inner and outer panels and work left end of torque rod through hole in tail gate side facing. Then remove torque rod from tail gate. Remove torque rod rubber silencers from torque rod.

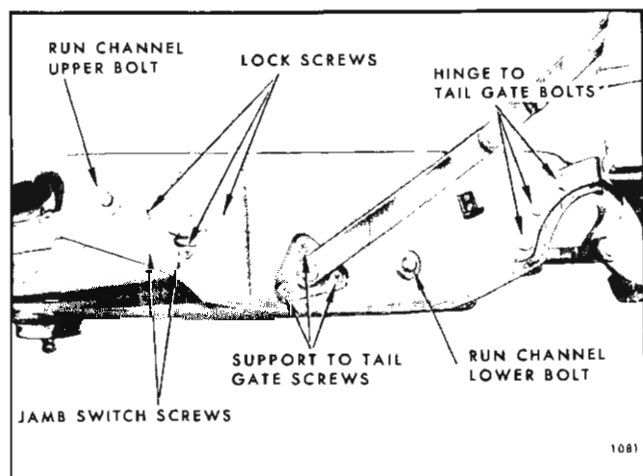
5. To install tail gate torque rod, reverse removal procedure. Prior to installing torque rod, lubricate frictional surfaces of torque rod and bearing plate. Check to insure that torque rod nylon silencers are properly positioned on retainer. (See Fig 2F16).

TAIL GATE SUPPORTS

Removal and Installation

1. Open tail gate and provide support for side from which tail gate support is to be removed.
2. Remove screws securing support to body (Fig. 2F22) and support to tail gate (Fig. 2F21) and remove support assembly.
3. To install, reverse removal procedure.

NOTE: Objectionable slack in either tail gate support can be eliminated by rotating one or both support plates on body pillar.



2F21—Tail Gate Hardware - Right Side

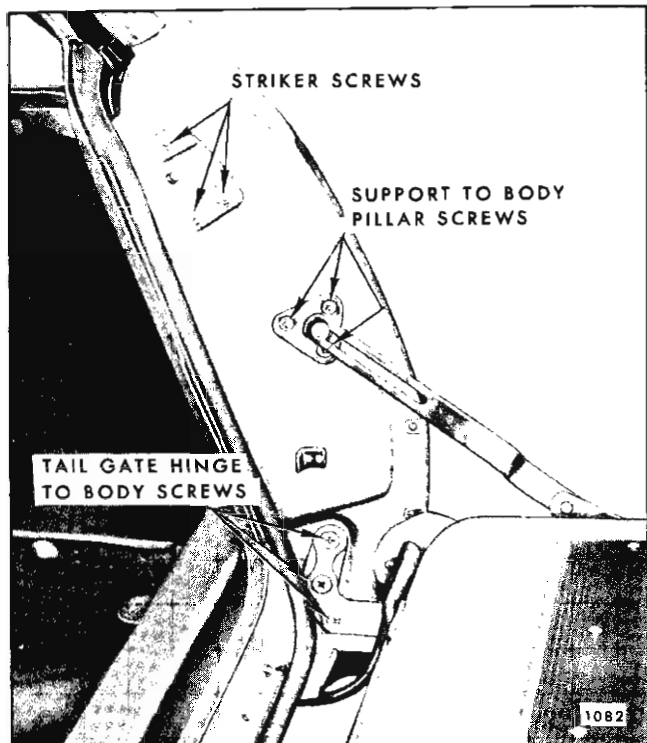


Fig. 2F22—Rear Body Pillar Hardware - Right Side

TAIL GATE WINDOW REGULATOR ASSEMBLY (MANUAL OR ELECTRIC)

Removal and Installation

1. Remove tail gate window.

2. On styles with electric window regulators, disconnect tail gate harness connector from regulator motor.

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

3. Through tail gate inner panel access holes, remove window regulator attaching screws and remove regulator (see Fig. 2F23).

NOTE: To remove electric motor from regulator assembly refer to "Tail Gate Window Regulator Electric Motor Assembly - Removal and Installation".

4. To install window regulator, reverse removal procedure. Prior to installation lubricate regulator sector teeth with Lubriplate or its equivalent.

TAIL GATE WINDOW ELECTRIC REGULATOR MOTOR ASSEMBLY

The following method of removing and installing the tail gate window electric regulator motor assembly can be used whether the motor is operative or inoperative; however, if the motor is inoperative with the window in the full down position or within approximately 3 inches of the full down position it will be necessary to detach the window from the regulator lift arms and lift the glass to gain access to the regulator motor attaching screws.

Removal

1. Open tail gate and remove tail gate inner cover panel.

NOTE: If tail gate cannot be opened due to an inoperative regulator motor, perform removal operations from inside body.

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

3. Disconnect wire harness connector from motor.

NOTE: If window is inoperative in a down position, remove inner panel left access hole cover; then remove both right and left window lower sash channel cam attaching screws (Fig. 2F23) and lift window up sufficiently to gain access to regulator motor attaching screws. Prop window in up position.

IMPORTANT: The following operation **MUST** be performed if the window is removed or disengaged from the regulator lift arms. The regulator lift arms, which are under tension from the counterbalance spring, can cause serious injury if the motor is removed without locking the sector gears in position.

4. Drill a 1/8" hole through regulator sector and backplate - **DO NOT** drill hole closer than 1/2" to edge of sector or backplate or holes in sector or backplate. Install a pan head sheet metal screw (self-tapping #10-12 x 5/8) in previously drilled 1/8" hole to lock regulator sector gears and retain counterbalance spring tension.

5. Loosen regulator right attaching screws (Fig. 2F24). Remove three regulator motor attaching screws (Fig. 2F24) and remove motor assembly from regulator and tail gate.

Installation

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

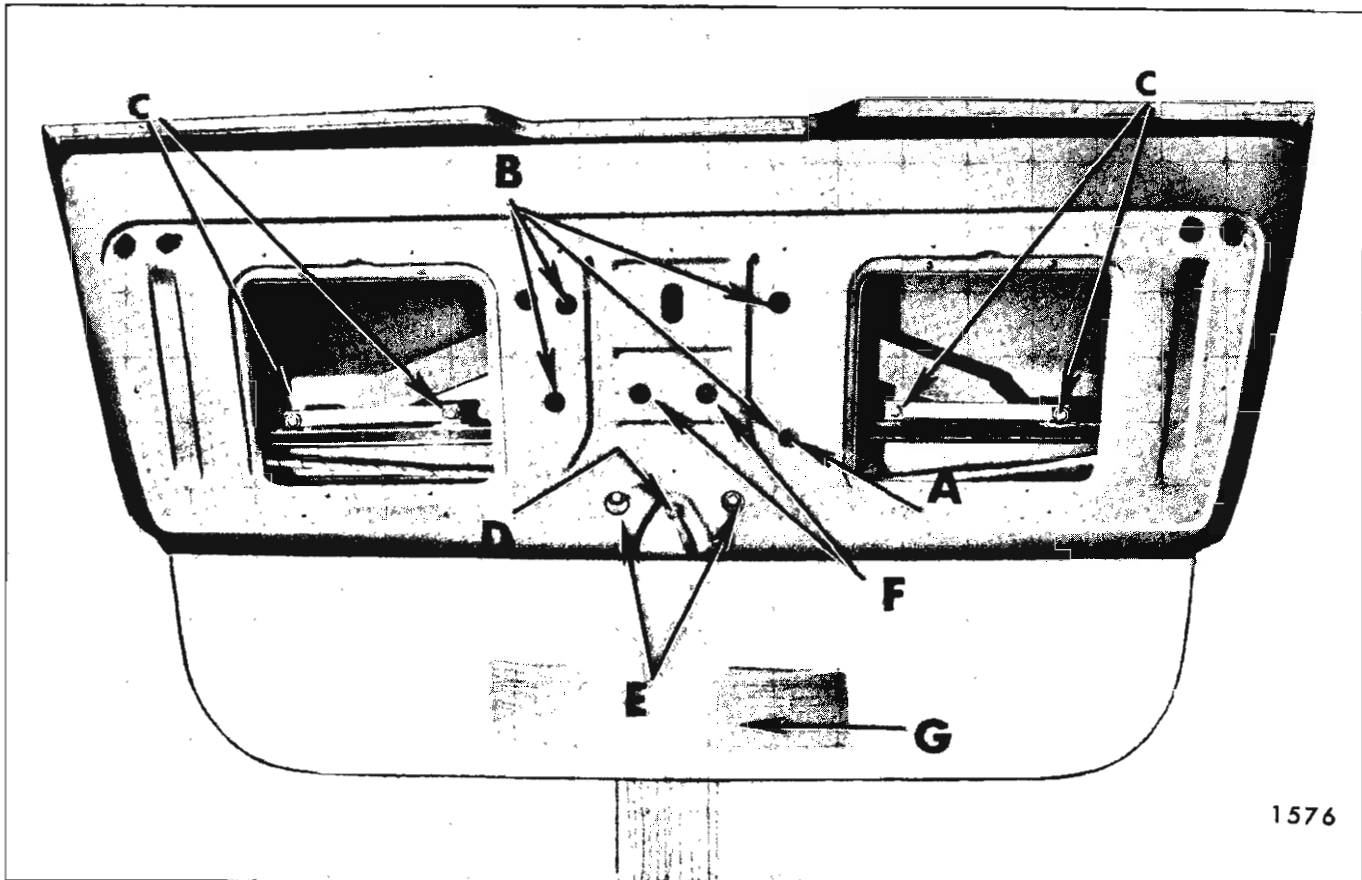


Fig. 2F23—Tail Gate Window Hardware

- A. Access Hole for Regulator Adjusting Screw
- B. Access Holes for Window Regulator Attaching Screws
- C. Window Lower Sash Channel Cams Attaching Screws
- D. Lock Remote Control Attaching Screws

- E. Lock Remote Control Handle Attaching Screw
- F. Access Holes for Outside Handle or Switch and Escutcheon Assembly Attaching Screws
- G. Support Glass

2. With tail gate in an open position, position regulator motor to regulator making sure motor pinion gear teeth mesh properly with sector gear

teeth; then, install three regulator motor attaching screws.

3. Tighten regulator right attaching screws.

IMPORTANT: After motor assembly is attached to regulator, remove screw locking sector gears, if sector gears were locked.

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

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

TAIL GATE WINDOW REGULATOR OUTSIDE HANDLE OR ESCUTCHEON ASSEMBLY (MANUAL OR ELECTRIC)

Removal and Installation

1. Open tail gate and remove inner cover panel. Detach upper portion of inner panel water deflector.

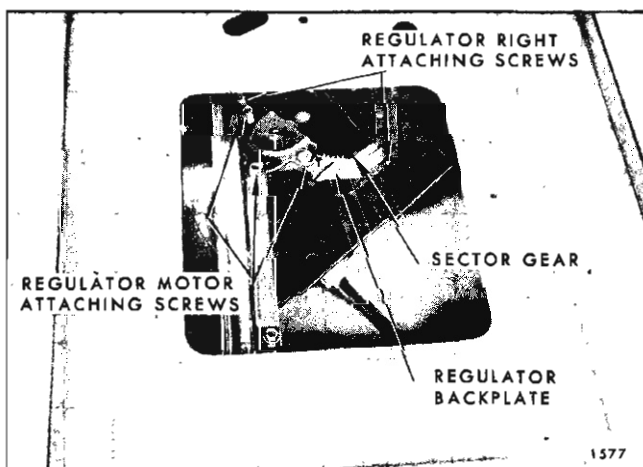


Fig. 2F24—Tail Gate Window Regulator Motor Removal

2. Operate tail gate window to the full up position.

CAUTION: Fully support tail gate window during operation in step No. 2.

3. Through tail gate inner panel access hole, remove outside handle or escutcheon attaching nuts. (See Fig. 2F23).

4. On power operated windows (escutcheon assembly) disconnect junction block from switch.

5. Remove outside handle or escutcheon assembly. (See Fig. 2F25).

6. To install, reverse removal procedure. Make sure sealing gasket is properly installed and check operation of tail gate window prior to installation of water deflector and covers.

TAIL GATE ELECTRIC WINDOW JAMB SWITCH

Removal and Installation

1. Lower tail gate and remove inner panel cover.
2. Detach right half of tail gate inner panel water deflector and remove access hole cover.
3. Operate tail gate window up (out of tail gate) sufficiently to gain access to switch inside tail gate and disconnect switch.

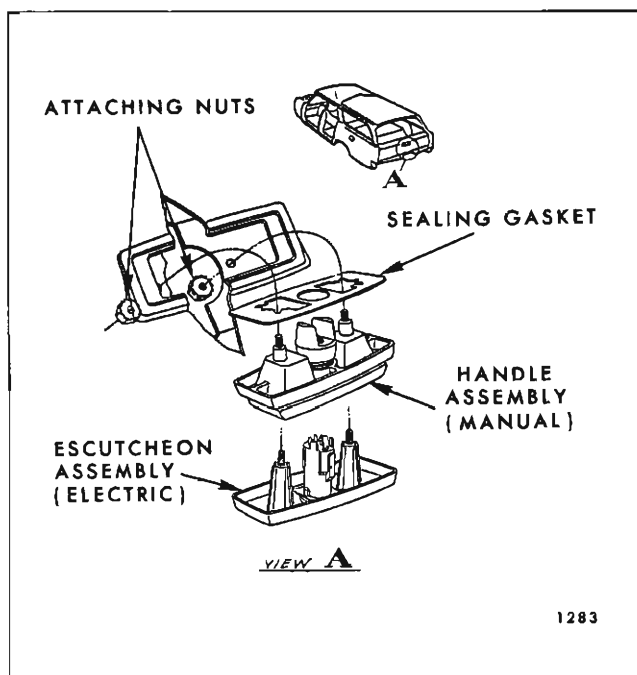


Fig. 2F25—Tail Gate Window Handle (Manual) and Escutcheon (Electric) Assembly

NOTE: Support glass when same is out of tail gate.

4. Remove two jamb switch attaching screws from tail gate right side facing at tail gate lock and remove jamb switch. (See Fig. 2F21).

5. To install, reverse removal procedure.

TAIL GATE REMOTE CONTROL ASSEMBLY

Removal and Installation

1. Open tail gate. Remove tail gate inner cover panel, inner panel water deflector and access hole covers. Operate window to a full "up" position and support it in that position.

2. Disconnect remote control to lock connecting rods at remote control assembly. Remove remote control inside handle attaching screw and remove handle (Fig. 2F23).

3. Remove remote control assembly attaching screws (Fig. 2F23) and remove remote control.

4. To install, reverse removal procedure.

TAIL GATE LOCK ASSEMBLIES

Removal and Installation

1. Remove tail gate window and lower run channel on side from which lock is to be removed.

2. Disconnect lock to remote control connecting rod at remote control assembly. If removing right lock on styles equipped with electrically operated tail gate window, remove jamb switch.

3. Remove lock attaching screws and remove lock assembly. (See Fig. 2F21).

4. To install, reverse removal procedure. Prior to installation, apply body caulking compound across top and down sides of lock bolt housing and lock frame joint. (See Fig. 2F26).

TAIL GATE LOCK STRIKER ASSEMBLIES

Removal and Installation

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

2. Remove lock striker attaching screws and remove striker and adjusting plates from body pillar. (See Fig. 2F22).

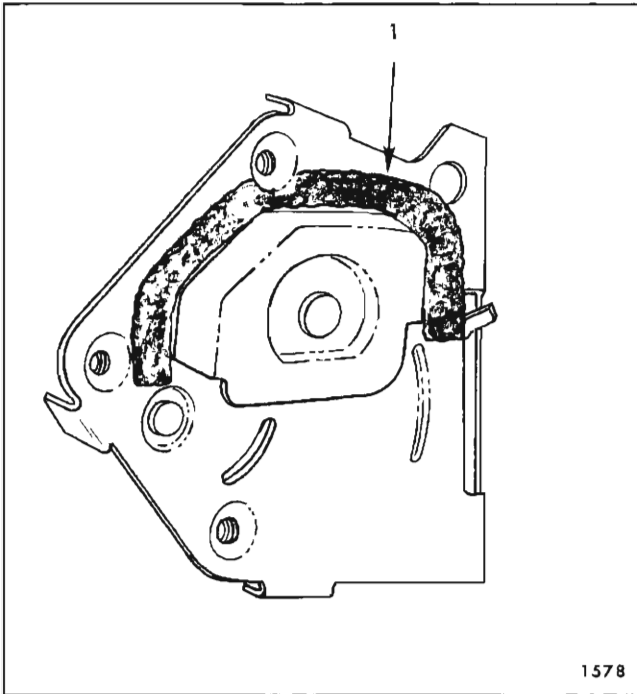


Fig. 2F26—Tail Gate Lock Caulking

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

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.

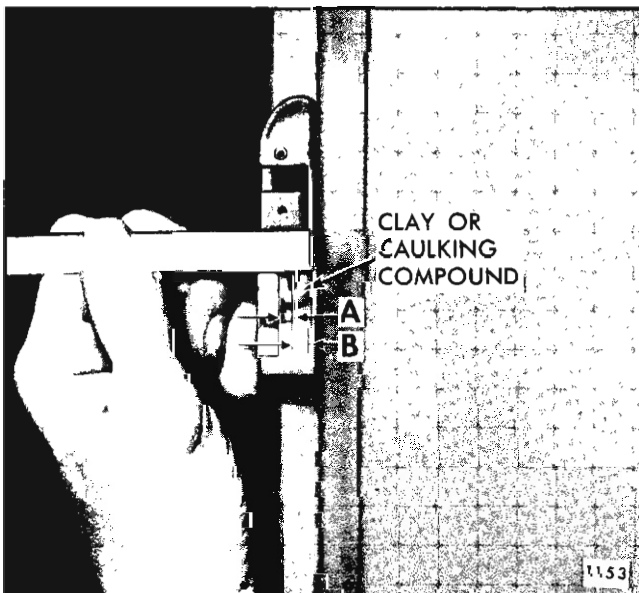


Fig. 2F27—Tail Gate Lock Striker Caulking Check

2. DIMENSIONAL SPECIFICATIONS FOR USE OF TAIL GATE 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 (Fig. 2F27).

When dimension "A" from inside face of striker teeth to center of lock extension is less than 3/16" install emergency spacers and proper length striker attaching screws as directed.

<u>Dimension "A"</u>	<u>No. of Spacers Required</u>	<u>Spacer Thickness</u>	<u>Striker Attaching Screws*</u>
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"	Emergency Screw (1/4" Longer)
	1 (1/16" Spacer)	(Total)	(1/4" Longer)
0 to 1/16"	2 (1/8" Spacer)	1/4"	Emergency Screw (1/4" Longer)
Interference		(Total)	(1/4" Longer)

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

NOTE: Dimension "B" from center of lock extension to inside face of striker should never be less than 1/16".

TAIL GATE WINDOW UPPER GLASS RUN CHANNEL AND RETAINER

Removal

- 1. Lower tail gate window. Remove rear body opening finishing strip assembly.
- 2. Using a suitable hooked tool carefully work one end of run channel out of retainer; then, carefully pull run channel out of retainer and remove channel from body.
- 3. Remove screws securing glass run channel retainers to body and remove right and/or left retainer.

Installation

- 1. If upper glass run channel retainers have been removed, clean off old sealer from body and glass run channel retainers.

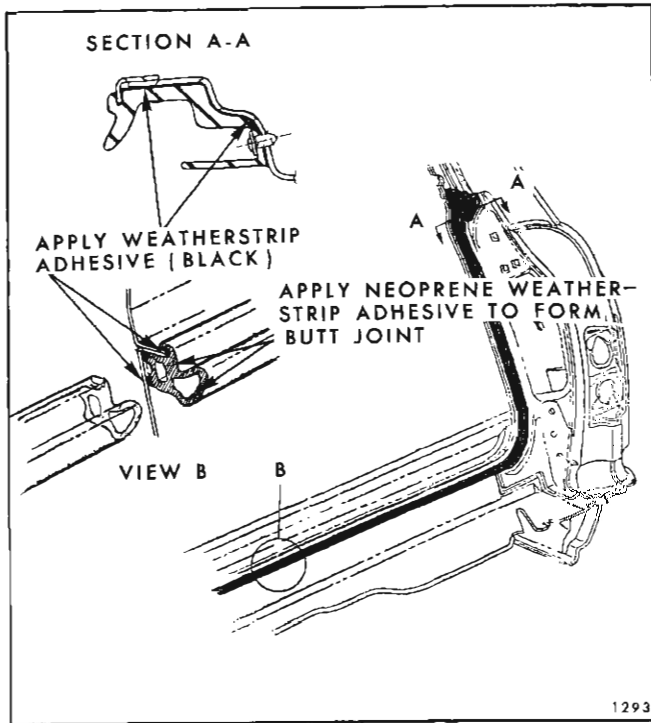


Fig. 2F28—Tail Gate Weatherstrip Installation

2. Apply a bead of medium-bodied sealer up sides and across top of back body opening surfaces contacted by glass run channel retainers. Install glass run channel retainers.

3. Align end of glass run channel to end of glass run channel retainer; then, install channel into retainer securely.

TAIL GATE OPENING WEATHERSTRIP ALL STATION WAGON STYLES

Removal

1. Open tail gate. Remove screw securing upper end of weatherstrip to body (Section "A-A", Fig. 2F28).
2. Starting at upper end of weatherstrip, carefully break cement bond between weatherstrip and body (using a flat-bladed tool) and remove weatherstrip from body.

Installation

1. Clean old cement from body to provide a clean cementing surface.
2. Apply (brush) a continuous coat of weatherstrip adhesive (black) to attaching surfaces of weatherstrip and corresponding cementing surfaces on back body opening. (See Sections "A-A", "B-B", "C-C" Fig. 2F28).
3. Locate the upper end of weatherstrip to body opening making sure formed section of weatherstrip and attaching screw hole are properly aligned. (See Section "A-A", Fig. 2F28). Insert remainder of weatherstrip into gutter along body pillar and on pinchweld flange along bottom of opening.
4. At bottom center of opening trim excess weatherstrip with approximately 1/2" overlap between the two ends of weatherstrip to make a butt joint.
5. Apply neoprene weatherstrip adhesive to contacting surface of each end of weatherstrip; then, cement ends of weatherstrip together to form an even butt joint.