

## SECTION 9

# TAIL GATE

### INDEX

Subject	Page	Subject	Page
Description . . . . .	9-1	Lower Glass Run Channels . . . . .	9-7
Inner Panel Cover . . . . .	9-1	Jamb Switch - Electric . . . . .	9-7
Inner Panel Water Deflector . . . . .	9-1	Remote Control - Inside Handle - "B" Styles . .	9-7
Inner Panel Access. Hole Covers . . . . .	9-2	Lock Remote Control Assembly . . . . .	9-8
Hinge Assembly . . . . .	9-2	Lock Assembly . . . . .	9-9
Support Assembly . . . . .	9-3	Lock Striker Assembly . . . . .	9-9
Tail Gate Assembly . . . . .	9-3	Lock Striker Adjustments . . . . .	9-10
Window Assembly - Manual or Electric . . . . .	9-4	Torque Rods . . . . .	9-10
Window Regulator - Manual or Electric . . . . .	9-4	Window Inner and Outer Strip Assemblies . . . .	9-11
Window Electric Regulator Motor . . . . .	9-5	Drain Hole Sealing Strips . . . . .	9-11
Window Regulator - Outside Handle - Manual or Electric . . . . .	9-6	Opening Weatherstrips . . . . .	9-11
		Upper Glass Run Channels . . . . .	9-12

### DESCRIPTION—All Station Wagon and Pick-Up Delivery Styles

All station wagon tail gates incorporate either a manually or electrically operated window that can be lowered into the gate or raised into the back body opening. The manual window is operated by a regulator control handle located in the tail gate outer panel. The power window can be operated by either of two control switches; one on the instrument panel and one at the lock cylinder (key operated) of the tail gate outer panel. All styles using a power tail gate window are equipped with an electrical switch that prevents movement of the window with gate in any position other than fully closed.

The tail gate is unlocked by means of a remote control inside handle which, on some styles, cannot be opened until the gate window is fully lowered. All tail gates are counter-balanced by a torque rod that assists in reducing the effort required to open or close the tail gate.

Unless otherwise stated, the tail gate service procedures outlined in this manual pertain to all station wagons styles.

The pick-up delivery style tail gate employs locks, strikers, hinges and support cables similar to "A" style station wagons. To perform any service operations to these components, refer to the "A" style procedures in this section.

### TAIL GATE INNER PANEL COVER

The "A" station wagon styles employ a "hang-on" type inner panel cover which attaches over the weld supports at the belt line of the tail gate and is se-

cured to the tail gate inner panel by a series of screws. On "A-80" and all "B" styles, the inner panel cover is attached at the recessed portion of the tail gate inner panel and is also secured by a series of screws. The tail gate inner panel cover screws can be readily removed when the tail gate is in the opened position. In those cases where the tail gate cannot be opened, as could occur if a power operated window motor fails with the tail gate glass in the "up" position, the tail gate inner panel cover can be removed as follows:

1. The attaching screws on all "A" and some "B" styles are accessible with the gate in the closed position. On "B" styles where the bottom screws are not accessible, remove the top and side screws and slide inner panel up to remove panel cover from tail gate inner panel retainer.

**NOTE:** The bottom retainer screws need not be removed as they secure retainer only. The tail gate inner panel cover is held in the bottom retainer by slots in side and center section metal strips (See Figure 9-1).

2. When the inner panel cover is removed, it is possible to remove the inner panel water deflector, access hole covers and the window sash channel cams as explained in the following pages. At this point, the tail gate window may be lowered and the gate opened.

### TAIL GATE INNER PANEL WATER DEFLECTOR

A waterproof paper deflector is sealed against the tail gate inner panel to deflect water toward the bottom of the gate and out the drain holes.

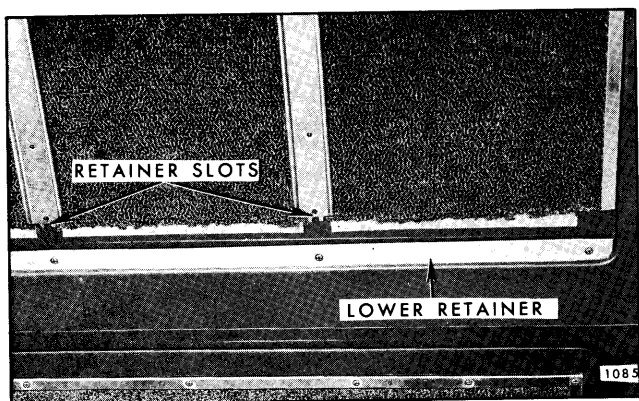


Fig. 9-1—"B" Style Inner Panel Cover

**IMPORTANT:** When work is performed on the tail gate that requires any detachment of the water deflector, it must be properly resealed to the inner panel.

### Removal

1. Remove tail gate inner panel cover.
2. Using a flat-bladed tool, carefully break cement bond securing water deflector to inner panel. Make sure string, located within sealer, is against water deflector and carefully slide tool between sealer and inner panel along both sides and top to disengage deflector from inner panel. If the entire deflector need not be removed, detach only that portion necessary.

### Installation

1. Inspect deflector and repair any damage noted with body waterproof tape applied to both sides.
2. If a new deflector is to be installed, use old deflector as a template.

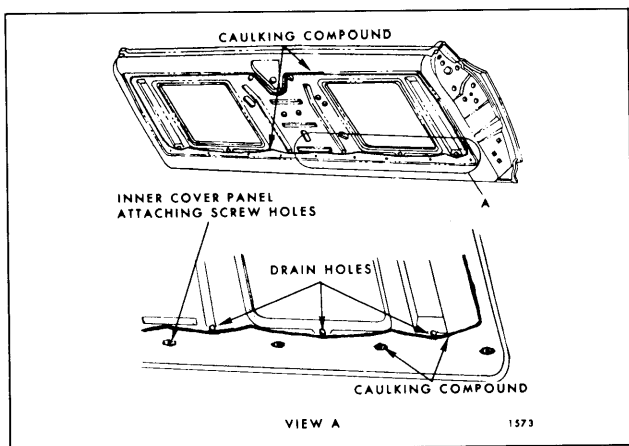


Fig. 9-2—Tail Gate Sealing

3. If needed, apply a bead of body caulking compound (approximately 3/16" diameter) to tail gate inner panel (See Fig. 9-2). The inner panel cover attaching screw holes should also be sealed with body caulking compound.
4. Position water deflector to tail gate with polyethylene coated side (black) against inner panel. Firmly press sealed areas to obtain a good bond between deflector and inner panel.

## TAIL GATE INNER PANEL ACCESS HOLE COVERS

### Removal and Installation

1. Remove tail gate inner panel cover and water deflector.
2. Remove screws securing right and left access hole covers to tail gate inner panel and remove covers (See Fig. 9-3).
3. To install, reverse removal procedure.

## TAIL GATE HINGE ASSEMBLY

### Removal and Installation

1. Open tail gate to vertical position and remove torque rod retainer attaching screws at the lock pillar. Provide support on side from which hinge is to be removed.
2. Remove tail gate hinge attaching bolts from tail gate and body (See Fig. 9-4 and 9-5 for "B" styles; Figs. 9-6 and 9-7 for "A" station wagons and typical of pick-up delivery styles).
3. To install, reverse removal procedure. Prior to installation, apply a coat of heavy-bodied sealer to surface of hinge that contacts body.
4. Check alignment of tail gate in opening and adjust as required.

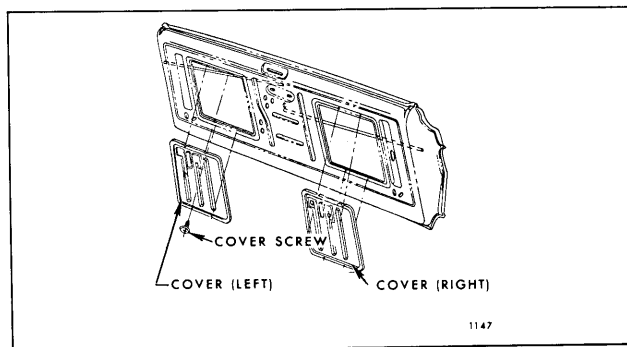


Fig. 9-3—Tail Gate Inner Panel Access Hole Covers

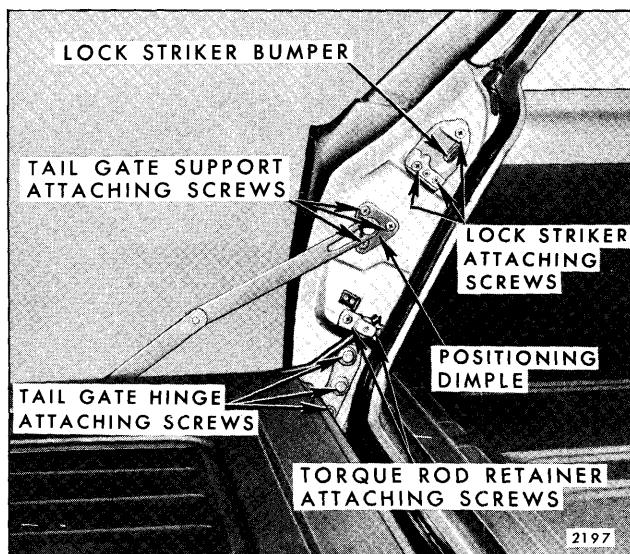


Fig. 9-4—Tail Gate Torque Rod, Hinge and Support Attachments "B" Body Styles

## TAIL GATE SUPPORT ASSEMBLIES

### Removal and Installation

1. Support tail gate in open position.
2. On "B" styles, remove screws securing support to tail gate and to body lock pillar (Fig. 9-4 and 9-5). On "A" styles, remove bolts securing support to tail gate and to body lock pillar. Disengage support return spring (at body lock pillar or tail gate end) and remove support (See Fig. 9-6 and 9-7).

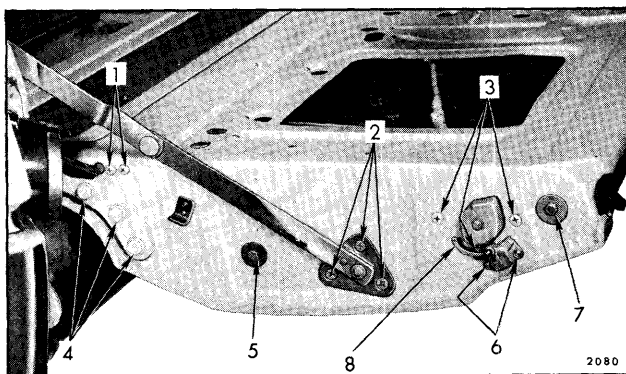


Fig. 9-5—Tail Gate Hardware - Left Side

- |                                    |                                 |
|------------------------------------|---------------------------------|
| 1. Torque Rod Bearing Plate Screws | 5. Glass Run Channel Lower Bolt |
| 2. Support to Tail Gate Bolts      | 6. Jamb Switch Screws           |
| 3. Tail Gate Lock Screws           | 7. Glass Run Channel Upper Bolt |
| 4. Hinge to Tail Gate Bolts        | 8. Jamb Switch Arm              |

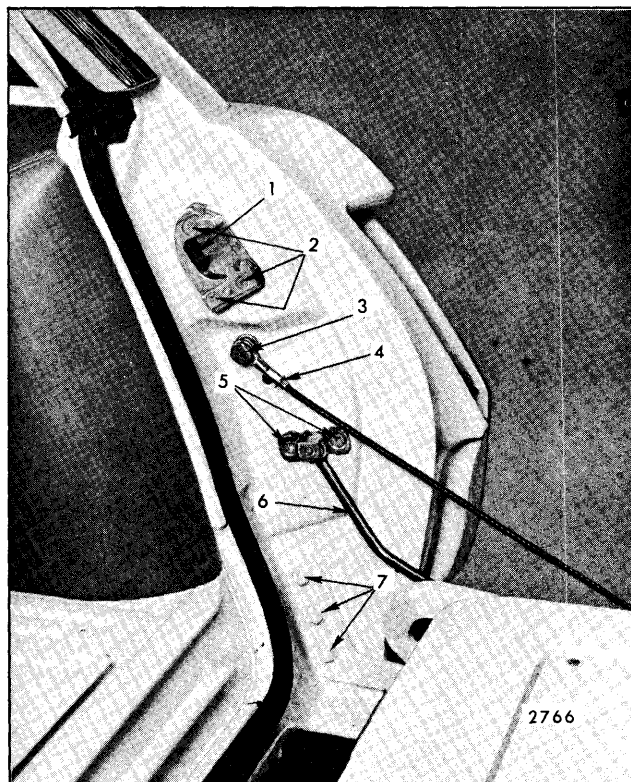


Fig. 9-6—Tail Gate Torque Rod, Hinge and Support Attachments "A" Body Styles

- |                                     |  |
|-------------------------------------|--|
| 1. Lock Striker Bumper              | 5. Torque Rod Retainer Attaching Screws    |
| 2. Lock Striker Attaching Screws    | 6. Tail Gate Torque Rod                    |
| 3. Tail Gate Support Attaching Bolt | 7. Tail Gate Hinge to Body Attaching Bolts |
| 4. Support Return Spring Clip       |  |

3. To install, reverse removal procedure.

**NOTE:** On "B" styles, objectionable slack in either support can be corrected by rotating support plate(s) at body lock pillar.

### TAIL GATE ASSEMBLY

The basic hardware on all station wagon tail gates is similar regardless of style involved; however, for purpose of identification, refer to Fig. 9-8 for "B" styles and Fig. 9-9 for "A" styles.

### Removal and Installation

1. Open tail gate to an approximate vertical position to relieve torque rod tension.

**NOTE:** Possible injury could occur if tension is not relieved from torque rod.

Remove torque rod retainer attaching screws and remove retainer. On "B" styles, the retainer is

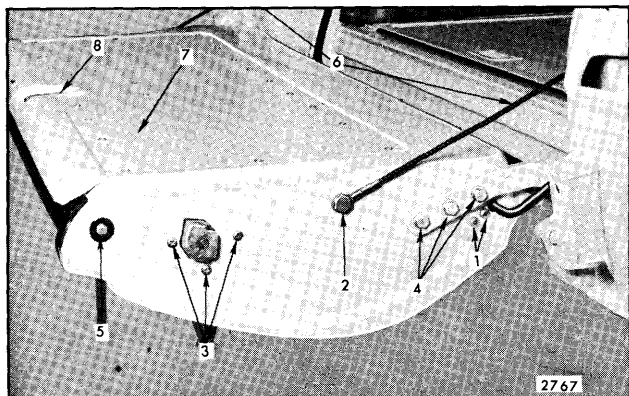


Fig. 9-7—Tail Gate Hardware - Right Side

- |  |                                    |
|--|------------------------------------|
| 1. Torque Rod Bearing Plate Screws     | 5. Glass Run Channel Upper Bolt    |
| 2. Support to Tail Gate Attaching Bolt | 6. Tail Gate Support Cables        |
| 3. Tail Gate Lock Screws               | 7. Tail Gate "Hang-on" Inner Panel |
| 4. Hinge to Tail Gate Attaching Bolts  | 8. Tail Gate Inside Handle         |

on the left body pillar as shown in Fig. 9-4. On "A" body styles, the retainer is located on the right body pillar (Fig. 9-6).

2. On styles equipped with power operated tail gate window, proceed as follows:
  - a. Remove inner panel cover, water deflector and access hole cover.
  - b. Remove tail gate window as described under "Tail Gate Window Assembly, Removal and Installation".
  - c. Disconnect wire harness at key switch, jamb switch and at motor. Remove harness from tail gate.
3. While properly supporting tail gate, remove right and left support to gate attaching screws and fold supports against body (See Fig. 9-5 and 9-7).
4. With the aid of a helper, remove right and left tail gate hinge to gate attaching bolts and remove tail gate from body (See Figs. 9-5 and 9-7).
5. To install, reverse removal procedure. Prior to installation, apply a coat of heavy bodied sealer to surface of hinges that contact tail gate.

### Adjustments

Up or down and fore or aft adjustment is provided at hinge to gate attaching bolts. Side to side adjust-

ment is available at hinge to body opening attaching bolts by using shims.

**NOTE:** Following any adjustments of the tail gate, check engagement of locks to strikers as described in "Tail Gate Lock Striker Adjustment".

## TAIL GATE WINDOW ASSEMBLY— MANUAL OR ELECTRIC— Station Wagon Styles

### Removal and Installation

1. Remove tail gate inner panel cover, water deflector and both access hole covers.
2. Operate tail gate window to a point that sash channel cam attaching bolts are accessible as depicted in Fig. 9-10.

**NOTE:** On styles equipped with power operating tail gate windows, engage jamb switch and operate window to any position desired. Engaging the tail gate jamb switch makes it possible to operate the window (by key switch) with the gate in the open position. The jamb switch is located on the left side on "B" styles and on the right side on "A" styles. The switch is similar in design and may be engaged by finger pressure. (See Fig. 9-5).

3. Remove right and left cam attaching bolts (Fig. 9-10). Slide cams to disengage from regulator lift arm rollers and remove cams from tail gate.
4. Pull window straight out to remove from tail gate.
5. To install, reverse removal procedure.

### Adjustments

The tail gate glass run channels can be adjusted to relieve a binding glass. To correct a rotated glass condition, loosen window regulator attaching screws and rotate regulator clockwise or counter clockwise as required.

## TAIL GATE WINDOW REGULATOR— Manual and Electric

### Removal and Installation

1. Remove tail gate window assembly.
2. On styles equipped with a power operated tail gate window assembly, disconnect electric harness at regulator motor connector.

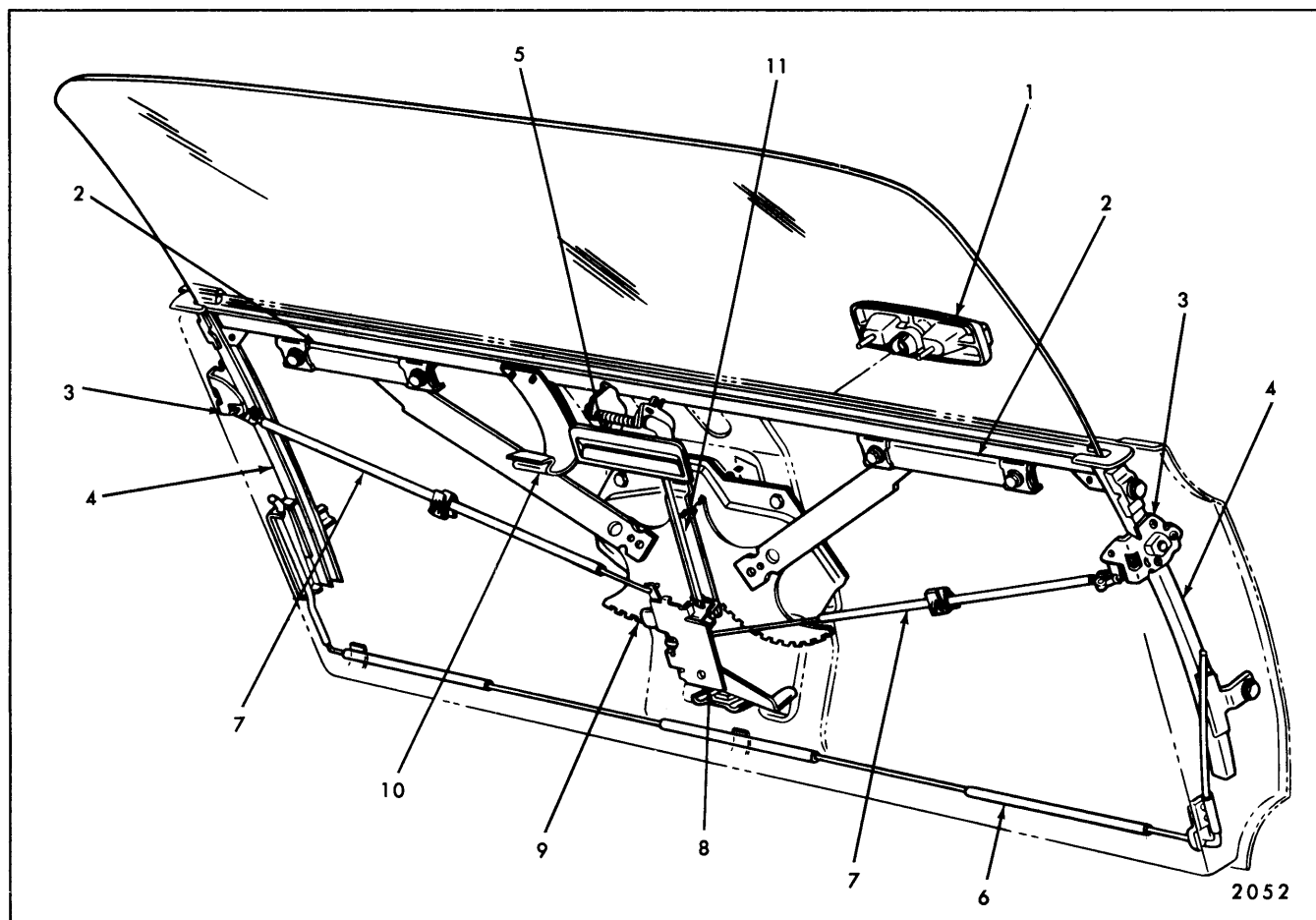


Fig. 9-8—Tail Gate Hardware - "B" Body Styles

- |                                    |                                |                                      |                               |
|------------------------------------|--------------------------------|--------------------------------------|-------------------------------|
| 1. Outside Handle<br>or Key Switch | 4. Lower Glass Run<br>Channels | 7. Remote Control<br>Connectint Rods | 10. Anti-Rattle Clip          |
| 2. Sash Channel Cams               | 5. Inside Handle               | 8. Remote Control                    | 11. Inside Handle<br>Push Rod |
| 3. Locks                           | 6. Torque Rod                  | 9. Regulator                         |                               |

**CAUTION:** DO NOT operate regulator motor after window assembly has been disengaged from regulator or after regulator has been removed from tail gate. Operation of motor with load removed, may damage unit.

3. Remove bolts securing regulator to support and remove regulator, with motor attached, from tail gate.
4. To install, reverse removal procedure.

## TAIL GATE WINDOW ELECTRIC REGULATOR MOTOR ASSEMBLY

### Removal

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

2. Detach inner panel water deflector and remove inner panel right access hole cover.

3. Disconnect wire harness connector from motor.

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

4. Drill a 1/8" hole through regulator sector and back plate (See Fig. 9-11). DO NOT drill hole closer than 1/2" to edge of sector gear of back plate. Install a pan head sheet metal tapping screw (#10-12 x 5/8) in drilled hole to lock sector gears in position.

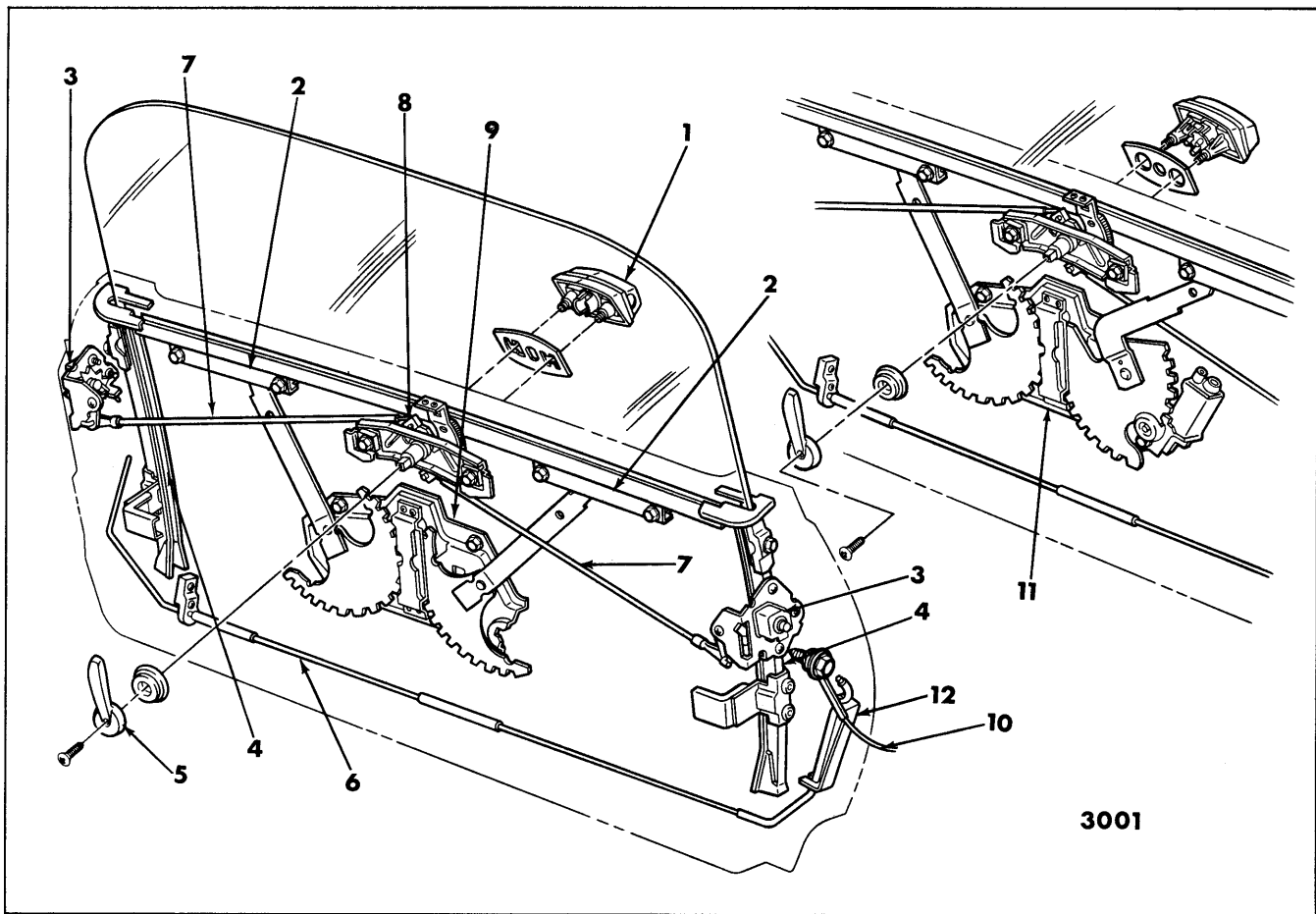


Fig. 9-9—Tail Gate Hardware "A" Body Styles

- |                                 |                                   |                                  |
|---------------------------------|-----------------------------------|----------------------------------|
| 1. Outside Handle or Key Switch | 5. Inside Handle                  | 9. Regulator                     |
| 2. Sash Channel Cam             | 6. Torque Rod                     | 10. Tail Gate Support Cable      |
| 3. Locks                        | 7. Remote Control Connecting Rods | 11. Electric Regulator Assembly  |
| 4. Lower Glass Run Channels     | 8. Remote Control                 | 12. Torque Rod Retaining Bracket |

5. Loosen regulator right upper attaching screw. Remove the three regulator motor attaching screws and remove motor assembly from regulator and tail gate.

gate window prior to installation of inner panel access hole cover, water deflector and cover panel.

### Installation

1. Lubricate the motor drive gear and regulator sector teeth with Lubriplate or its equivalent.
2. With tail gate in an open position, install regulator motor to regulator. Make sure the motor pinion gear teeth mesh properly with the sector gear teeth before installing the three motor attaching screws.
3. Tighten regulator attaching screws and remove screw, which locks sector gears into a fixed position.
4. Connect wire harness to motor and cycle tail

### TAIL GATE WINDOW REGULATOR OUTSIDE HANDLE—Manual or Electric

#### Removal and Installation

1. Lower tail gate and remove inner panel cover and water deflector.
2. Position tail gate window so that outside handle (or key switch) attaching nuts are accessible through gate inner panel and window regulator access holes (See Fig. 9-12).
3. Remove nuts securing handle (or key switch)

to tail gate and remove handle and sealing gasket (See Fig. 9-13).

**NOTE:** On electrical styles, disconnect wire harness from connector on escutcheon (key switch).

4. To install, reverse removal procedure.

## TAIL GATE WINDOW LOWER GLASS RUN CHANNELS

### Removal and Installation

1. Remove inner panel cover, water deflector and access hole cover on side from which run channel is to be removed.
2. Remove lower attaching bolt which is accessible through access hole on "A" styles, and is located on tail gate side outer panel on "B" styles (Fig. 9-5 for "B" styles).
3. Remove run channel upper attaching bolt (Fig. 9-5).
4. Pull run channel(s) down into tail gate and remove through inner panel access hole.
5. To install, reverse removal procedure.

**NOTE:** It may be necessary to apply silicone to the corner sealing strip portion of the run channel(s) to permit easier removal and installation.

## TAIL GATE JAMB SWITCH— Electric Option

The purpose of the electric jamb switch is to pre-

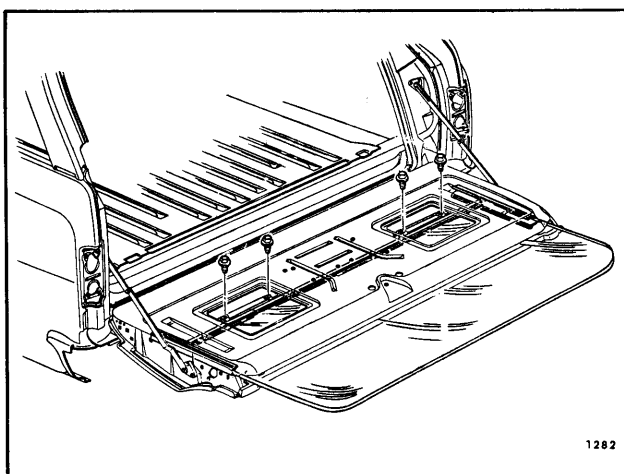


Fig. 9-10—Tail Gate Inner Panel Cam Attachments

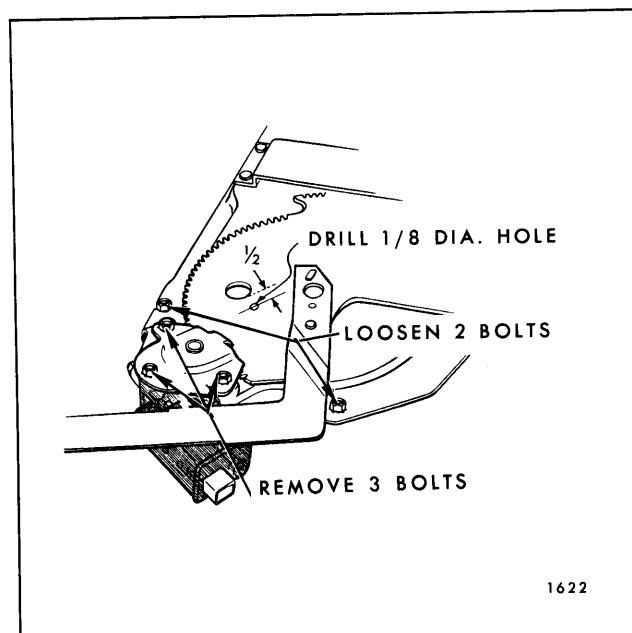


Fig. 9-11—Tail Gate Regulator Motor Assembly

vent operation of the tail gate glass while the gate is in the open position.

### Removal and Installation

1. Remove jamb switch to tail gate attaching screws, disconnect attached feed wire and remove switch (See Fig. 9-14).

**NOTE:** Figure 9-14 illustrates the jamb switch on "B" styles. "A" styles are similar but attached on the right side of the gate.

2. To install, reverse removal procedure.

## TAIL GATE REMOTE CONTROL INSIDE HANDLE

### Removal and Installation—"B" Styles

1. Raise inside handle and disengage remote push rod from spring clip (See Fig. 9-15).
2. Remove screws securing handle to inner panel and remove handle.
3. To install, reverse removal procedure.

**NOTE:** The inside handle on "A" body station wagon and pick-up delivery styles is retained by a single attaching screw.

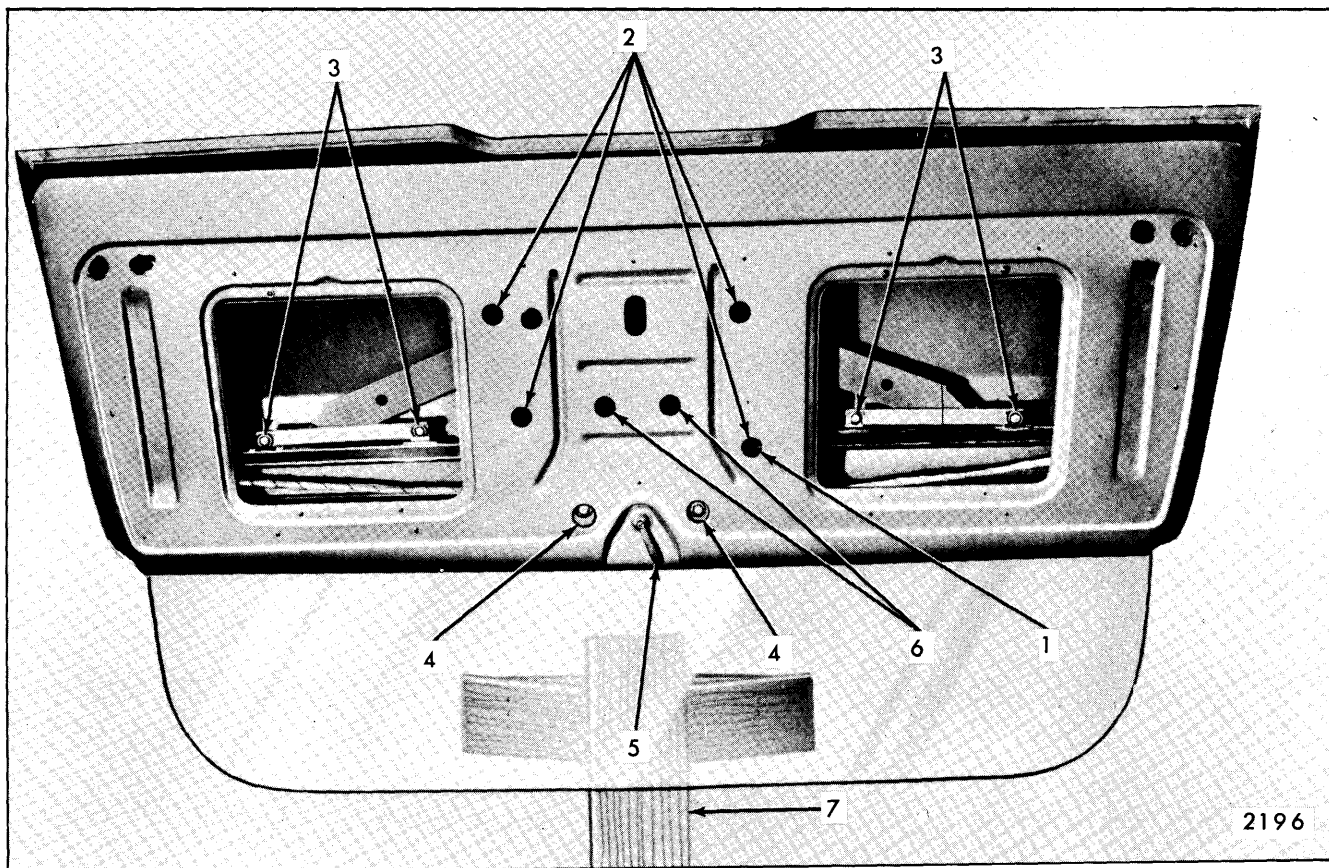


Fig. 9-12—Tail Gate Window Hardware

1. Access Hole for Regulator Adjusting Screw
2. Access Holes for Window Regulator Attaching Screws

3. Window Lower Sash Channel Cams Attaching Screws
4. Lock Remote Control Attaching Screws

5. Lock Remote Control Handle Attaching Screw
6. Access Holes for Outside Handle or Key Switch
7. Support Glass

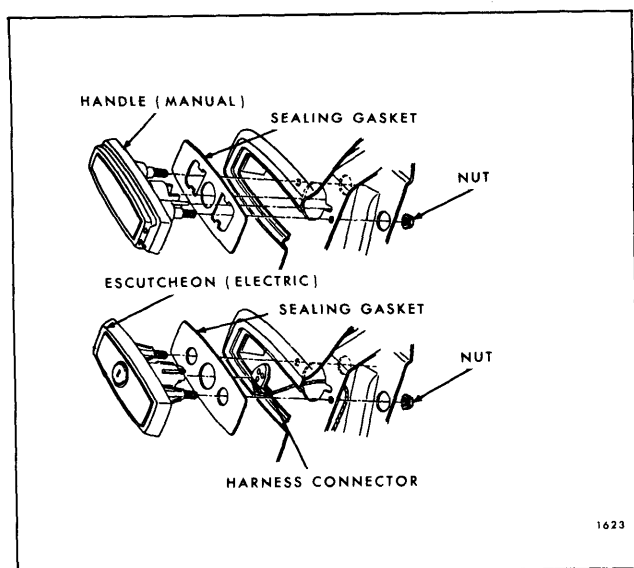


Fig. 9-13—Tail Gate Outside Handle Assemblies

## TAIL GATE LOCK REMOTE CONTROL ASSEMBLY

### Removal and Installation

1. Remove inner panel cover, water deflector and access hole covers.
2. Disconnect remote control to lock connecting rods at remote assembly by sliding clip out of engagement.
3. Remove remote control attaching bolts and remove assembly from tail gate. On "B" styles, it is necessary to disengage remote from inside handle push rod (See Fig. 9-16).
4. To install, reverse removal procedure.

**NOTE:** The remote adjusting nut can be adjusted to trip both locks simultaneously.



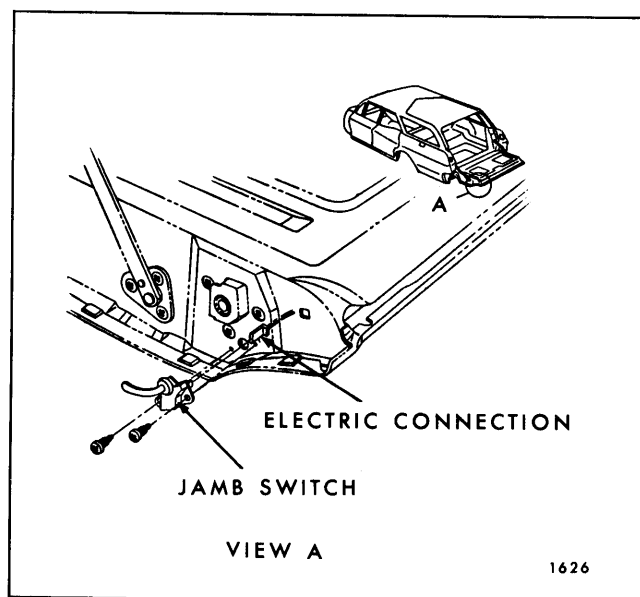


Fig. 9-14—Tail Gate Jamb Switch

## TAIL GATE LOCK ASSEMBLY— Right or Left Side

### Removal and Installation

1. Remove inner panel cover, water deflector and access hole cover from side which lock is to be removed.
2. On station wagon styles, raise glass assembly

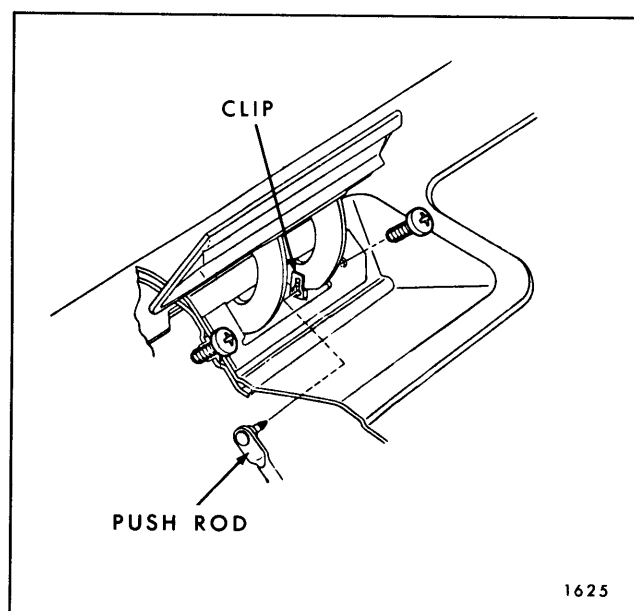


Fig. 9-15—Tail Gate Inside Handle Attachment

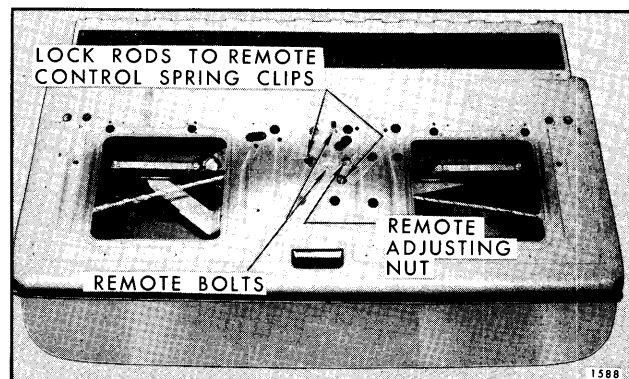


Fig. 9-16—Tail Gate Hardware - "B" Body Styles

- to full "up" position and remove tail gate window lower glass run channel on side from which lock is to be removed.
3. Remove screws securing lock to tail gate (Fig. 9-17 and Fig. 9-7).
4. Disengage clip which secures remote rod to lock and remove lock through access hole.
5. To install, reverse removal procedure.

## TAIL GATE LOCK STRIKER— Right or Left Side

### Removal and Installation

1. Open tail gate and mark (pencil) position of striker on body pillar (See Fig. 9-4).
2. Remove lock striker attaching screws and remove striker and adjusting plates from body pillar.
3. To install, align striker and components within pencil marks and install attaching screws (See Fig. 9-18).

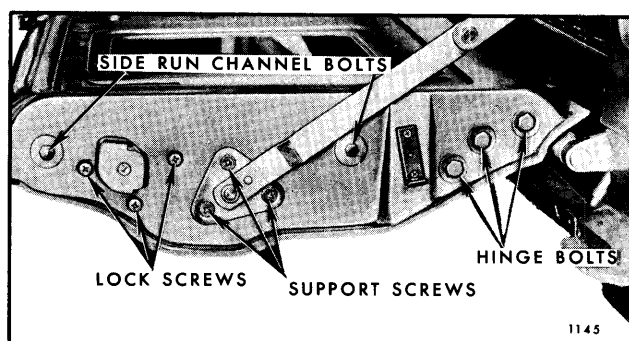


Fig. 9-17—Tail Gate Lock and Support - "B" Body Styles

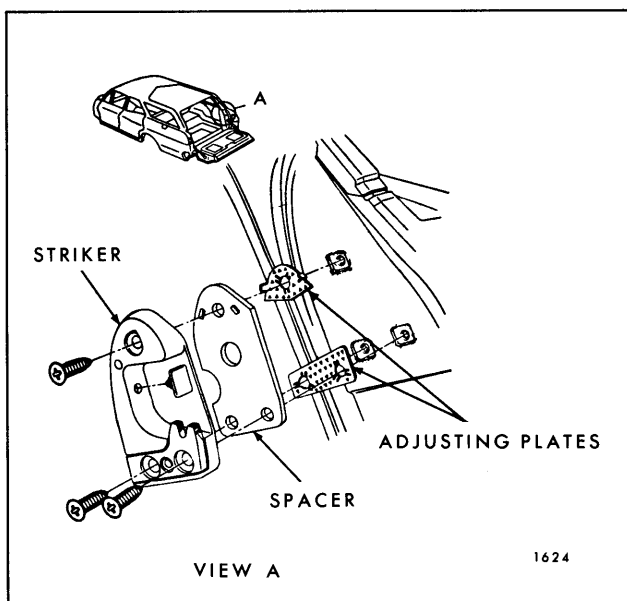


Fig. 9-18—Tail Gate Lock Striker Assembly - "A" and "B" Body Styles

## 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 and tighten attaching screws.
2. DIMENSIONAL SPECIFICATIONS FOR USE OF DOOR LOCK STRIKER SERVICE SPACERS.



Fig. 9-19—Tail Gate Lock Striker Caulking Check

- a. Tail gate should be properly aligned before checking spacer requirements.
- b. To determine if tail gate lock striker service spacers are required, apply modeling clay or body caulking compound in the lock striker notch where the lock extension engages and close tail gate to form a measurable impression in the clay or caulking compound, as shown in Figure 9-19.

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

Dimension "A"	Spacers Required	Thickness	Striker Attaching Screws*
$3/16$ " to $1/8$ "	1	$1/16$ "	Original Screw
$1/8$ " to $1/16$ "	1	$1/8$ "	Service Screw ( $1/8$ " Longer)
$1/16$ " to 0	1 ( $1/8$ " Spacer) 1 ( $1/16$ " Spacer)	$3/16$ " (Total)	Service Screw ( $1/4$ " Longer)
0 to $1/16$ " Interference	2 ( $1/8$ " Spacer)	$1/4$ " (Total)	Service Screw ( $1/4$ " Longer)

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

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

## TAIL GATE TORQUE ROD—Station Wagon Styles

### Removal and Installation

1. Remove tail gate window assembly and torque rod retainer (See Figure 9-4 for "B" body styles and Figure 9-7 for "A" body styles).
2. Remove screws securing torque rod bearing plate to tail gate (See Figure 9-5 for "B" styles and Figure 9-7 for "A" Styles).
3. Disengage torque rod from welded retainers. The retainer is located on the right side on "B" styles and on the left side on "A" styles. (See Fig. 9-20).
4. Remove torque rod silencer (rubber) from torque rod, and work torque rod out through glass loading hole (See Fig. 9-20).
5. To install, reverse removal procedure.

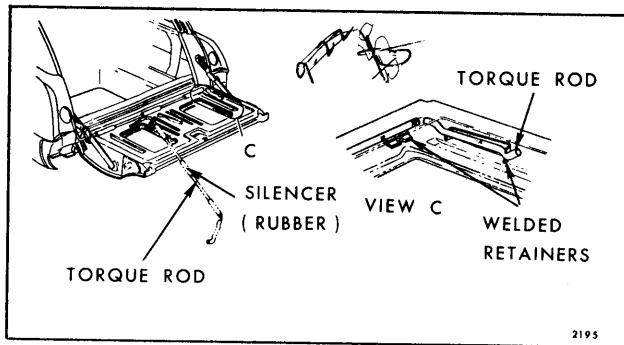


Fig. 9-20—Tail Gate Torque Rod Assembly

## TAIL GATE WINDOW INNER AND OUTER STRIP ASSEMBLIES

### Removal and Installation

Both strip assemblies are retained by clips in either the inner or outer panel of tail gate. The outer strip is additionally retained by two screws, one at each extreme end. To remove either strip, first remove screws and, using a flat tool, remove strip assemblies. To install, reverse removal procedure (See Fig. 9-21).

## TAIL GATE BOTTOM DRAIN HOLE SEALING STRIPS

### Removal and Installation

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

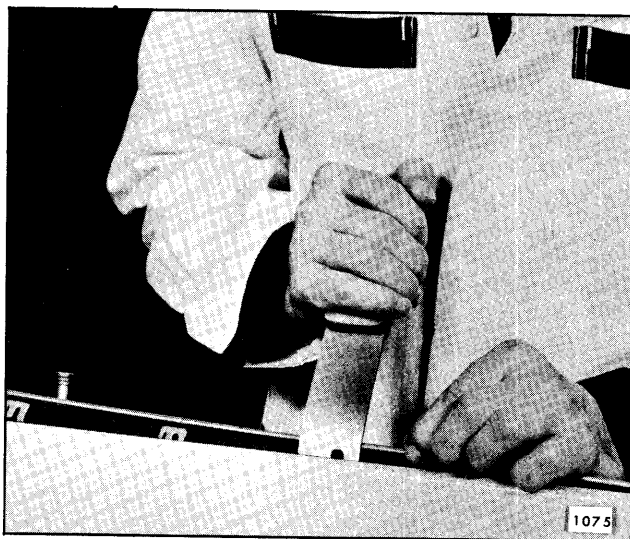


Fig. 9-21—Tail Gate Strip Assembly Removal

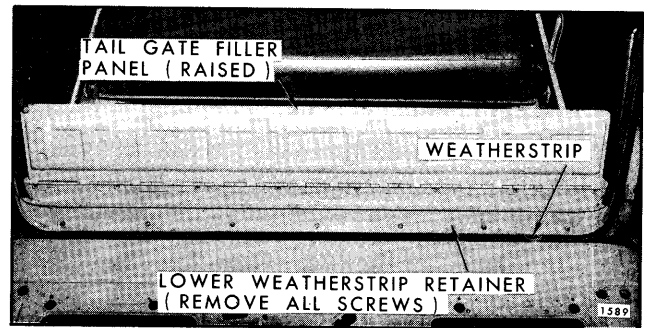


Fig. 9-22—Tail Gate Weatherstrip Retention - "B" Body Styles

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

## TAIL GATE OPENING WEATHERSTRIP

### Removal and Installation

1. Open tail gate and remove fasteners and/or screws securing weatherstrip to right and left body pillars (at belt). On "B" styles, remove screws securing lower weatherstrip retainer to rear body cross bar (See Fig. 9-22).
2. With a flat bladed tool, carefully remove weatherstrip along entire tail gate opening.

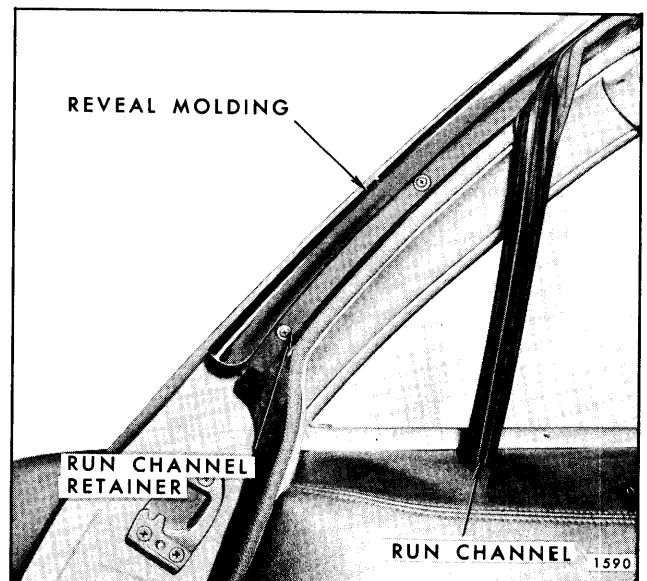


Fig. 9-23—Tail Gate Upper Glass Run Channel Retention

3. To install, apply a bead of black weatherstrip cement into retainer along entire opening and reverse removal procedure.

## **TAIL GATE WINDOW UPPER GLASS RUN CHANNEL—"A & B" Body Styles**

### **Removal and Installation**

1. Open tail gate. With finger pressure only, squeeze run channel at one end and pull channel out of retainer.
2. Once run channel has been removed, the retainer attaching screws are exposed. (See Fig. 9-23) The retainer can be adjusted by loosening attaching screws, shifting retainer to desired position and tightening screws. If retainer is removed, seal retainer with medium bodied sealer prior to installation.
3. To install, reverse removal procedure.