GENERAL MOTORS TAILGATE

DESCRIPTION

General Motors has one type of power tailgate window available only on "B" body station wagons. Window retracts into space between roof and headliner. Window is operated by an instrument panel switch and an external key operated control switch. A relay prevents window operation from instrument panel switch until ignition is turned to the "ON" position. Window is controlled by a gearbox type regulator, 12 volt reversible motor with an internal circuit breaker, guide cams and rollers, drive cable, and lift springs. Motor and regulator are mounted to the rear of spare tire well in right quarter area. During window movement, the motor drives a cable operating the regulator. In turn, the regulator gear pulls through it a spiral cable connected to the window guide cam. The spiral cable is stored in conduit below regulator. Upward travel of window is assisted by a lift spring mounted in roof above headliner.

TROUBLE SHOOTING

WINDOW CANNOT BE RAISED

Window motor cable disconnected or broken. Inoperable window regulator. Disconnected or broken window drive cable.

WINDOW CANNOT BE LOWERED

Window motor cable disconnected or broken. Inoperable window regulator or disconnected or broken window drive cable.

WINDOW CANNOT BE RAISED OR LOWERED

Lock release switch faulty, or window circuit malfunction. Motor poorly grounded. Mechanical bind in window mechanism. Defective motor.

WINDOW CANNOT BE LOWERED & REGULATOR NOISY

Window drive cable out of engagement with regulator drive gear.

WINDOW LOWERS FULLY WITH TAILGATE OPEN

Stop cable and clip assembly out of adjustment on right guide cam. Cable disconnected at either end or broken.

WINDOW OPERATES FROM EXTERNAL SWITCH WILL NOT OPERATE FROM INSTRUMENT PANEL SWITCH

Open or short circuit between power source and instrument panel switch. Defective instrument panel switch.

TESTING

CIRCUIT BREAKER

Using a suitable test lamp, connect one test lamp lead to battery side of circuit breaker and ground other lead. If lamp does not light, power feed circuit has an open or short circuit. Connect one test lamp lead to output side of circuit breaker and ground other lead. If lamp does not light, circuit breaker is defective.

IGNITION RELAY

Check relay Orange/Black feed wire with test lamp. If lamp does not light, circuit between relay and circuit breaker is open or shorted. With ignition switch "ON", check relay output Red/White wire. If lamp does not light, connect test lamp lead to relay feed, Tan or Pink wire. If lamp lights, replace relay. If lamp does not light, Tan or Pink wire has an open or short circuit. Check fuse in case of short circuit.

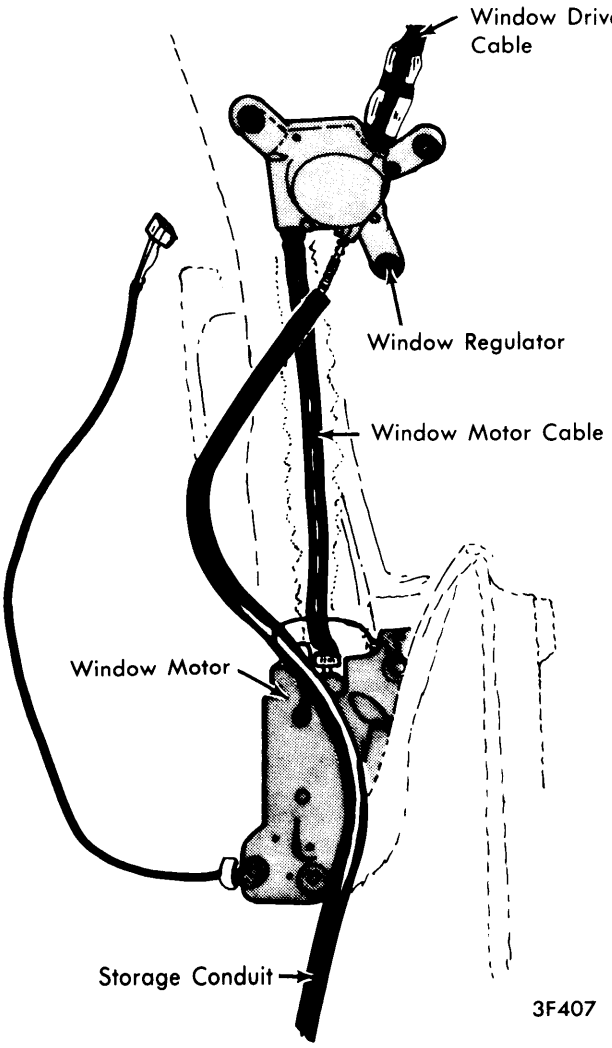
INSTRUMENT PANEL SWITCH

1) Disengage harness connector at switch and turn ignition switch to "ON" position. Connect one test lamp lead to feed wire in connector and ground other lead. If lamp does not light, there is an open or short circuit between switch and power source.

2) To check switch, connect a jumper wire between feed wire terminal and one of the other terminals. Window should operate. Repeat procedure for other terminal. If window operates with jumper, but not with switch, switch is defective.

KEY OPERATED SWITCH

1) With switch removed from quarter panel, disconnect harness connector from switch. Connect one test lamp lead to feed wire in connector and ground other lead. If lamp does not light, there is an open or short circuit between switch and power source.



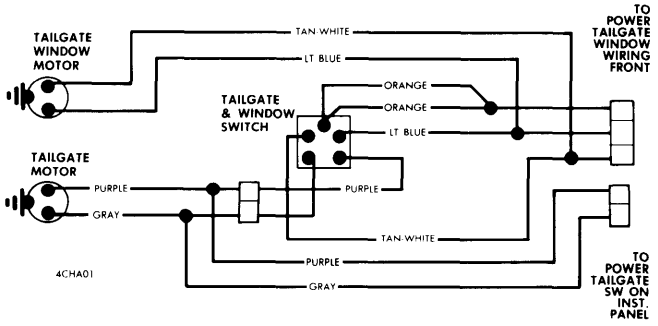
REAR WINDOW MOTOR & REGULATOR

GENERAL MOTORS TAILGATE (Cont.)

2) To check switch, connect a jumper wire between feed wire terminal and one of other terminals. Window should operate. Repeat procedure for other terminal. If window operates with jumper but not with switch, switch is defective.

WINDOW MOTOR

Disconnect harness connector at motor. Using a 12 volt power source, connect positive power source lead to one of motor terminals and ground other lead. Motor should operate. To check reverse rotation of motor, switch positive lead to other terminal. If motor does not operate in either direction, motor is defective.



G.M. POWER TAILGATE WIRING DIAGRAM

REMOVAL & INSTALLATION

WINDOW MOTOR

Remove spare tire cover and tire. Disconnect motor electrical lead and disengage cable at upper end of motor. Remove motor mounting plate attaching screws and remove motor. Disassemble motor from mounting plate as a bench operation. To install, reverse removal procedure.

WINDOW REGULATOR

Remove spare tire cover and tire. Disengage window motor cable at regulator assembly. Disengage window drive cable clip at upper end of regulator and remove cable storage conduit at lower edge of regulator. Remove regulator attaching screws and rotate regulator clockwise off lower end of drive cable. To install, reverse removal procedure.

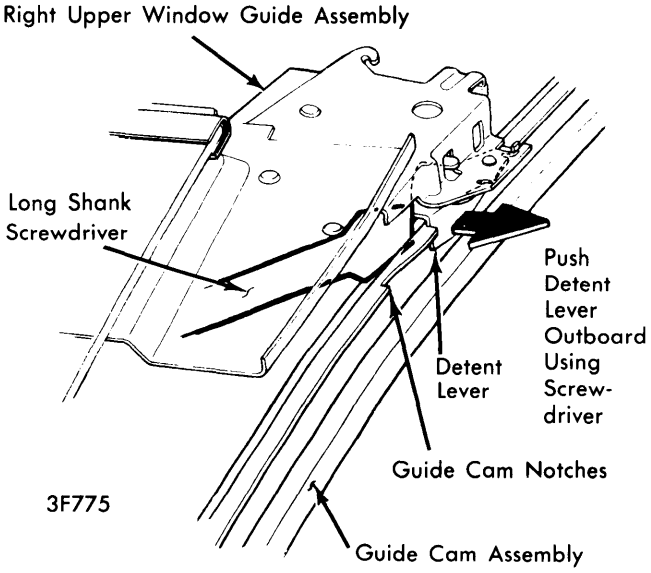
WINDOW DRIVE CABLE

1) Remove spare tire and cover. Remove right pillar finishing molding and inner filler strip. Remove regulator-to-pillar bolts. Remove four 5/16" hex head screws from regulator and separate regulator halves. *CAUTION — Do not lose washers inside regulator.*

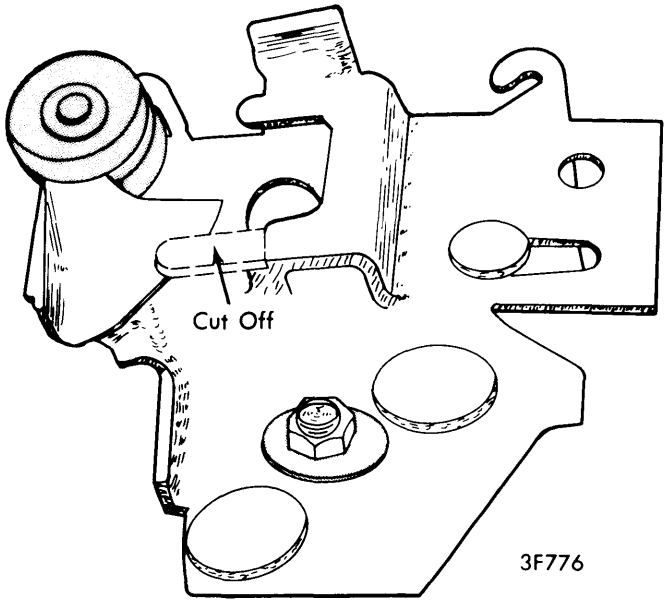
2) Manually move window to full up position, and open tailgate. Disengage drive cable conduit from top of regulator, and pull cable from regulator. Remove bolts securing cable conduit to guide cam and work conduit down pillar as far as possible, remove cable from conduit.

3) Prior to lowering the window on manual tailgate styles, it is necessary to trip the lock with a long screwdriver to simulate tailgate being closed, this will allow glass to bypass guide cam notches (see illustration).

4) Remove drive cable flag retainer bolt and remove retainer. Using side cutters, cut long finger (see illustration) from lower tab of drive cable flag retainer. Pull drive cable from guide cam cable channel. To install, insert lower end of drive cable into top of regulator and momentarily actuate key switch in "close" direction. This will draw cable into regulator.



TRIPPING WINDOW LOCK MECHANISM



REMOVING FINGER FROM FLAG RETAINER