SHIFT INTERLOCK SYSTEM 1997-98 AUTOMATIC TRANSMISSIONS Shift Interlock Systems

SHIFT INTERLOCK SYSTEM

1997-98 AUTOMATIC TRANSMISSIONS Shift Interlock Systems

DESCRIPTION

Transmission shift interlock system prevents driver from moving gearshift lever from Park unless ignition switch is in RUN position. On models equipped with shift interlock solenoid, gearshift lever cannot be moved from Park without simultaneously depressing brake pedal with ignition switch in RUN position. Shift interlock solenoid is located near steering column or center console.

OPERATION

Models equipped with park lock cable, gearshift lever is locked in Park when ignition switch is in LOCK position. When ignition switch is turned to RUN position, gearshift lever is allowed movement to desired position. Ignition key cannot be removed until gearshift lever is returned to Park.

Models equipped with shift interlock solenoid, gearshift lever cannot be moved from Park without simultaneously depressing brake pedal with ignition switch in RUN position. When pressure is applied to brake pedal, solenoid is actuated to release gearshift lever. Brake light switch completes or interrupts circuit to mechanically lock or unlock gearshift lever in Park by energizing or de-energizing solenoid, depending upon application. See <u>WIRING DIAGRAMS</u>.

TROUBLE SHOOTING

NOTE:

Individual component testing procedures are not available from manufacturer. To identify model specific components within shift interlock system, component location, wire color and wire terminal identification, see <u>WIRING DIAGRAMS</u>.

VISUAL INSPECTION

Diagnosis of shift interlock system should begin with a general visual inspection. Each model is similar in function, but may be equipped with a variety of components depending upon application. Before beginning any diagnosis, refer to appropriate wiring diagram to become familiar with the type of system being diagnosed and for use as a guide to pinpoint areas of concern. See **WIRING DIAGRAMS**.

Once familiar with system being diagnosed, check operation of the following:

- With ignition switch in LOCK position, gearshift lever should be locked in Park.
- With gearshift lever in Park, ignition switch should be allowed movement from LOCK position to any desired position and back to LOCK position. Ignition key should be removable while in LOCK position.
- With ignition switch in RUN position, gearshift lever should be allowed movement from Park. Models equipped with shift interlock solenoid require that brake pedal be depressed for this operation.
- With ignition switch in RUN position and gearshift lever in any position other than Park, ignition key is

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non-removable. Ignition key is removable only when gearshift lever is returned to Park.

If shift interlock system operates as specified, system is functioning properly at this time. If system does not operate as specified, inspect mechanical functions of the following:

- Ignition switch.
- I Gearshift lever assembly.
- External shift cable/linkage.
- Internal transmission shift linkage.

Adjust or repair as necessary. See <u>ADJUSTMENTS</u>. If no mechanical problems are found, inspect all electrical components while referring to appropriate wiring diagram as a guide. See <u>WIRING DIAGRAMS</u>. Ensure all electrical harness connections are tight and free of corrosion. Check for misrouted wires and damaged components. Ensure fuses are good and appropriate circuits are properly grounded.

ADJUSTMENTS

WARNING: When battery is disconnected, vehicle computer and memory systems may lose memory data. Driveability problems may exist until computer systems have completed a relearn cycle. See COMPUTER RELEARN PROCEDURES article in GENERAL INFORMATION section before disconnecting battery.

- COMPUTER RELEARN PROCEDURES (1997)
- COMPUTER RELEARN PROCEDURES (1998)

ACTUATOR

Actuator is located on steering column. See <u>Fig. 1</u>. Move actuator rod to adjuster block side for leverage. See <u>Fig. 2</u>. Press on adjuster block to compress internal adjuster spring and engage adjuster teeth. Slide adjuster block as far away from solenoid as possible. Reposition actuator rod to solenoid side. Rod will be visible in hole in actuator block.

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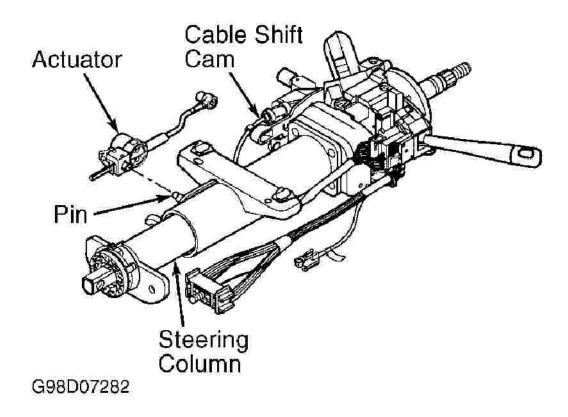


Fig. 1: Locating Shift Interlock Assembly (Typical) Courtesy of GENERAL MOTORS CORP.

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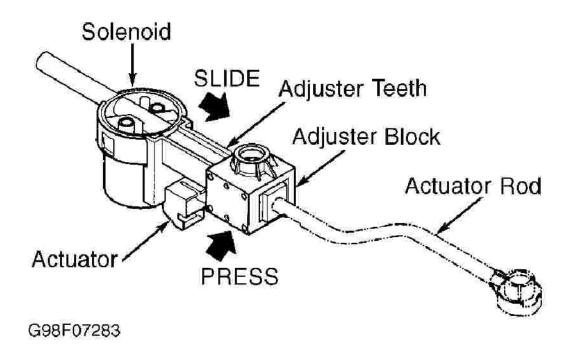


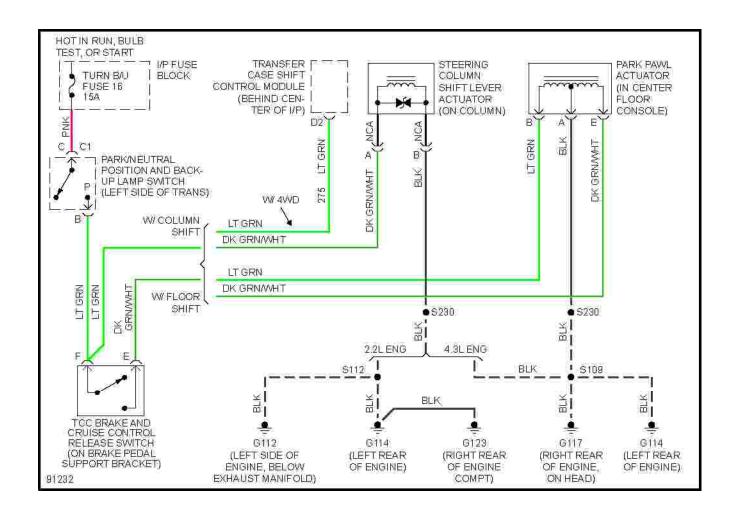
Fig. 2: Adjusting Shift Interlock Actuator (Typical) Courtesy of GENERAL MOTORS CORP.

PARK LOCK CABLE

- 1. Lift cable lock button. Move gearshift lever to Park. Snap cable connector into shifter base. Ensure ignition key is in RUN position.
- 2. Snap cable housing into ignition switch inhibitor. Turn ignition key to LOCK position. Snap cable end onto park lock lever pin. Remove slack from cable connector. Snap cable connector lock button down.

WIRING DIAGRAMS

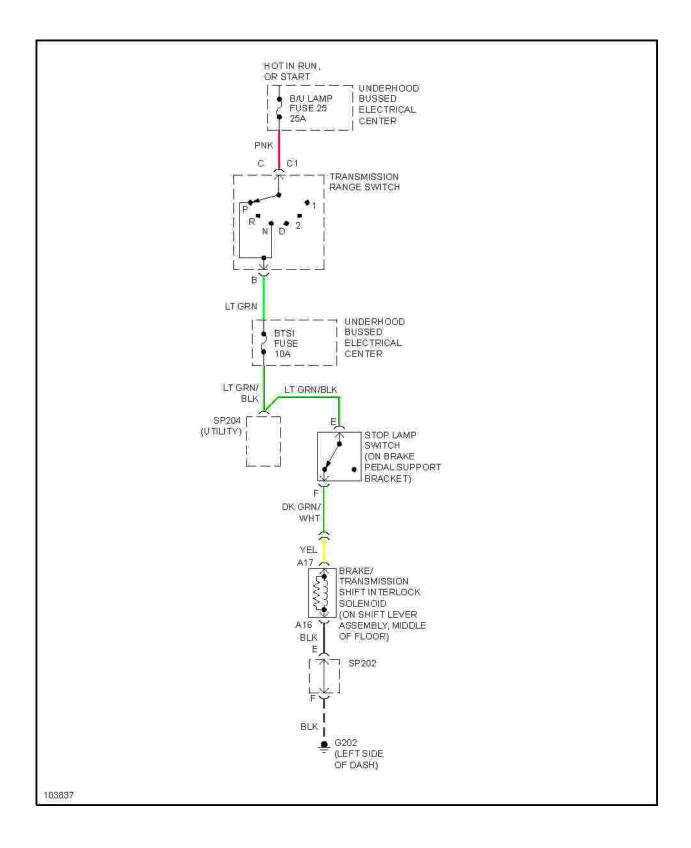
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Fig. 3: Wiring Diagram (1997)

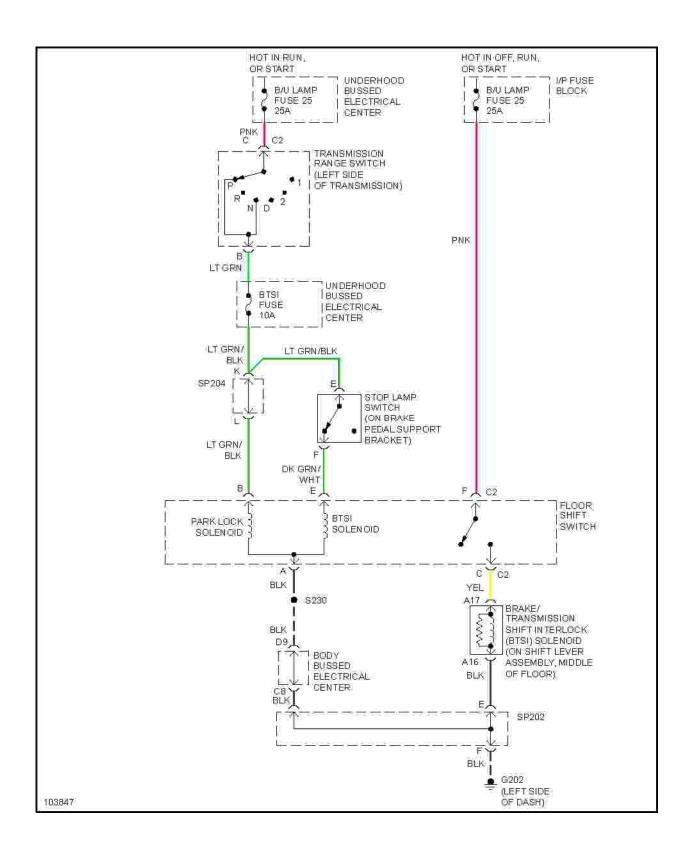
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Fig. 4: Wiring Diagram (With Column Shift) (1998)

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Fig. 5: Wiring Diagram (With Console Shift) (1998)

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