

STEERING COLUMN SWITCHES

1998 Pontiac Bonneville

1998 ACCESSORIES & EQUIPMENT
General Motors Corp. - Steering Column Switches

Buick; LeSabre
Oldsmobile; Eighty Eight, LSS & Regency
Pontiac; Bonneville

* PLEASE READ THIS FIRST *

WARNING: Deactivate air bag system before performing any service operation. See AIR BAG RESTRAINT SYSTEM article. DO NOT apply electrical power to any component on steering column without first deactivating air bag system. Air bag may deploy.

DESCRIPTION

Steering columns are designated as fixed column, tilt column and as column shift or floor shift. Column shift and floor shift columns are basically the same except for shift lever and related components. Multifunction switch (located on left side of column) incorporates wiper/washer and cruise control switches and acts as mechanical link to dimmer and turn signal switches.

COMPONENT LOCATIONS

COMPONENT LOCATIONS TABLE

| Component | Location |
|---------------------------------------|---|
| Body Control Module (BCM) | Left Rear Passenger Compartment, Behind Rear Seat On Electronics Bay |
| Engine Compartment Relay Center | Left Engine Compartment, Near Engine Compartment Fuse/Relay Center |
| Fuse Block | In Underhood Electrical Center |
| Left "F" Note Horn | Left Front Engine Compartment, Near Air Cleaner Housing |
| Right "A" Note Horn | Right Front Engine Compartment, Near Battery |
| Horn Relay | Center Rear Engine Compartment, Below Right MAXIFUSE(R) Block |
| Remote Function Actuator (RFA) Module | Behind Right Instrument Panel, Next To Instrument Power Distribution Center |
| C202 | Under Left Instrument Panel, Left Of Steering Column |

ADJUSTMENTS

BRAKE TRANSMISSION SHIFT INTERLOCK (BTSI)

Turn ignition switch to OFF position. Place transmission in Neutral. Unlock shift cable at transaxle shift arm to eliminate tension. Lock shift cable. Place shift lever at Park. Check shift indicator for proper adjustment. See COLUMN SHIFT INDICATOR. Ensure neutral start switch operates properly. Check BTSI for proper operation.

ELECTRICAL BTSI ACTUATOR ADJUSTMENT

1) Remove steering column. See STEERING COLUMN under REMOVAL & INSTALLATION. Remove adjustment retaining clip. Press on adjuster block to compress internal spring and disengage adjuster teeth. Slide adjuster block as far away from BTSI actuator as possible. With column in "N" position, install BTSI actuator to shift tube lever stud and mounting stud on lower support bracket.

2) Install column into vehicle. With shift lever installed on column, shift column to "P" position. Install adjustment retaining clip. Connect axial positive assurance wire connector to BTSI actuator.

3) Ensure gearshift lever bowl assembly is locked with key in RUN position without brake pedal depressed. Ensure gearshift lever bowl assembly releases with key in RUN position and brake pedal is depressed. Readjust if needed.

COLUMN SHIFT INDICATOR

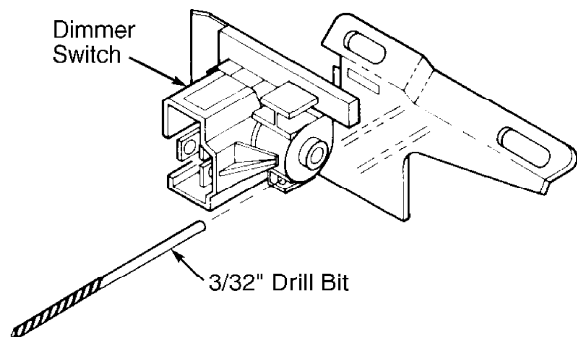
1) Position shift lever in Neutral. Position guide clip on edge of shift bowl to centrally position pointer on "N" position. Push clip onto bowl. Ensure cable rests on bowl and not on column jacket.

2) Move shift lever through all positions, then back to Neutral. Ensure pointer covers a portion of each graphic, or flag fills entire window for each graphic.

DIMMER SWITCH

1) With switch removed from column bracket, insert a 3/32" drill bit into adjusting pin hole to limit switch travel. See Fig. 1. Insert actuator rod into switch. Install switch to column bracket and finger-tighten screws.

2) Lightly push switch upward against actuator rod until no lash (free-play) exists between rod and switch. Tighten mounting screws to 35 INCH lbs. (4 N.m). Remove drill bit. Ensure proper switch operation using dimmer/headlight switch handle.



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Fig. 1: Adjusting Dimmer Switch
Courtesy of General Motors Corp.

HORN CURRENT

NOTE: If adjustment loosens screw excessively, it may be staked with a punch.

1) Normal current draw for a horn while operating should be 4.5-5.5 amps at 11.5-12.5 volts. If current draw exceeds 20 amps (indicating an overheated winding or a shorted horn), replace horn.

2) If current draw is about 18 amps (indicating contact points are not opening), adjust horn current. Adjust current by turning adjusting screw 1/4 turn at a time. To increase current, turn adjusting screw clockwise. To decrease current, turn adjusting screw counterclockwise.

3) If there is no current draw, check if contact points are open. If contact points are okay, replace horn.

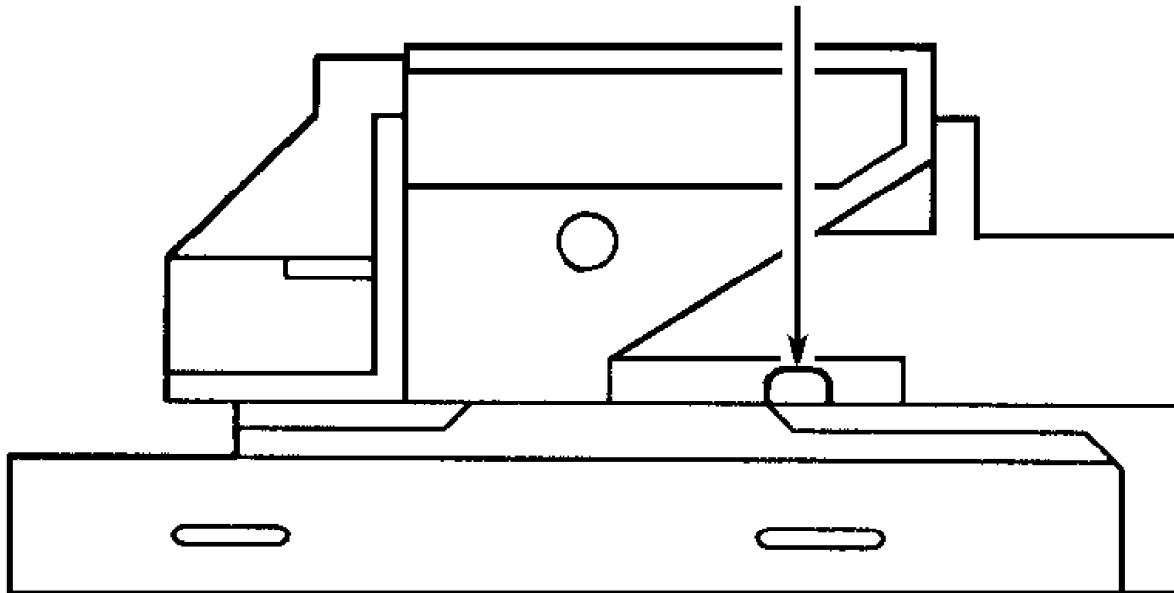
IGNITION SWITCH ADJUSTMENT

CAUTION: New ignition switch is pinned in the OFF-LOCK position. Plastic pin must be removed before operating switch.

1) Set key lock cylinder in OFF-LOCK position. Set ignition switch slider (where actuator rod connects to switch) to OFF-LOCK position by moving slider to right as far as possible and then one detent to left. See Fig. 2.

2) Install a 3/32" drill bit into adjusting pin hole to limit switch travel. Install ignition switch. Tighten switch screws to 35 INCH lbs. (4 N.m). Remove drill bit. Ensure ignition switch functions properly with lock cylinder in all positions.

Move Switch Slider To Extreme Right Position & Then Move Slider One Detent To The Left "Off-Lock"



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Fig. 2: Adjusting Ignition Switch
Courtesy of General Motors Corp.

COMPONENT TESTS

NOTE: Before testing switches, ensure fuses, relays and grounds are not faulty. See WIRING DIAGRAMS.

DIMMER SWITCH

Turn ignition off. Disconnect connector C202 located at base of steering column. Using DVOM, check for continuity between specified terminals with turn signal/hazard switch in specified position. See DIMMER SWITCH CONTINUITY TEST table. See Fig. 3. If continuity does not exist as indicated, repair as necessary.

DIMMER SWITCH CONTINUITY TEST TABLE

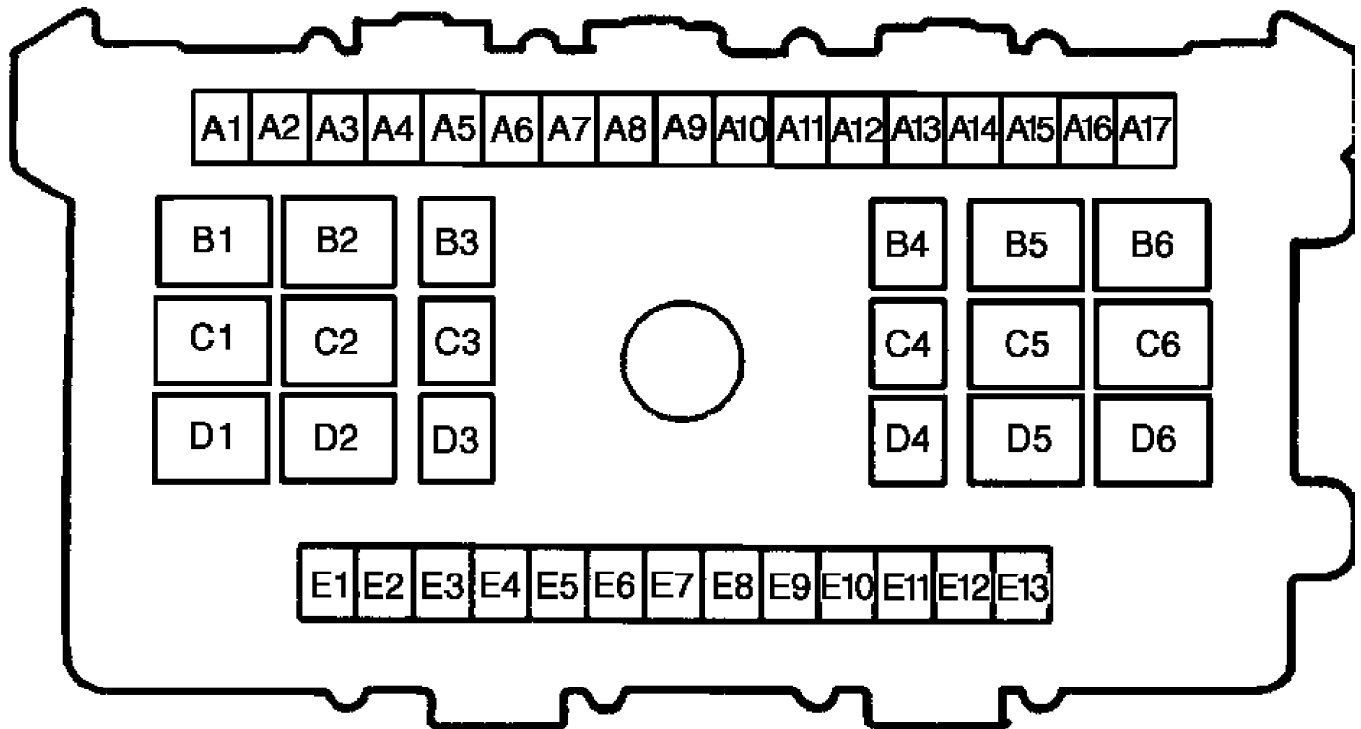
| Switch Position | Continuity Between Terminals (Wire Color) |
|--|--|
| High Beam On | |
| Bonneville, Eighty Eight, LSS & Regency | C5 (LT BLU) & B5 (LT GRN) |
| LeSabre | B5 (PPL) & C5 (BLK/WHT) |
| Low Beam On | |
| Bonneville, Eighty Eight, LSS & Regency | C5 (LT BLU) & B4 (TAN) |
| Flash-To-Pass | |
| Bonneville, Eighty Eight, LSS & Regency | C4 (RED) & B5 (LT GRN) |

IGNITION SWITCH

Turn ignition off. Disconnect Black 48-pin connector C202, located at base of steering column. Using DVOM, check for continuity between specified terminals with ignition switch in specified position. See appropriate IGNITION SWITCH CONTINUITY TEST table. See Fig. 3. If continuity does not exist as indicated, repair as necessary.

IGNITION SWITCH CONTINUITY TEST TABLE

| Switch Position | Continuity Between Terminals (Wire Color) |
|-----------------|--|
| ACC | D5 (RED) & C6 (BRN) |
| OFF | D5 (RED) & B2 (LT BLU) |
| RUN | D5 (RED) & B2 (LT BLU); D5 (RED) & C6 (BRN); D5 (RED) & D6 (PNK) |
| START | D5 (RED) & B6 (YEL); D5 (RED) & D6 (PNK) |



95E35133

Fig. 3: Identifying 48-Pin Connector C202 Terminals
 Courtesy of General Motors Corp.

TURN SIGNAL/HAZARD SWITCH

Turn ignition off. Disconnect connector C202 located at base of steering column. Using DVOM, check for continuity between specified terminals with turn signal/hazard switch in specified position. See appropriate TURN SIGNAL/HAZARD SWITCH CONTINUITY TEST table. See Fig. 3. If continuity does not exist as indicated, repair as necessary.

TURN SIGNAL/HAZARD SWITCH CONTINUITY TEST TABLE

| Switch Position | Continuity Between Terminals (Wire Color) |
|---------------------------------|--|
| Left Turn On | A8 (PPL) & A11 (LT BLU); A8 (PPL) & A7 (YEL) |
| Right Turn On | A8 (PPL) & A6 (DK GRN); A8 (PPL) & A10 (DK BLU) |
| Left Turn Cornering Light On | A17 (PNK) & A16 (ORG) |
| Right Turn Cornering Light On | A17 (PNK) & A15 (BLK) |
| Hazards On | A9 (BRN) & A11 (LT BLU); A9 (BRN) & A7 (YEL); A9 (BRN) & A6 (DK GRN); A9 (BRN) & A10 (DK BLU) |
| Hazard Off, Turn Signal Off (1) | A5 (WHT) & A7 (YEL); A5 (WHT) & A6 (DK GRN) |

(1) - LeSabre, LSS and Regency only.

SYSTEM TESTS

NOTE: For cruise control switch testing, see CRUISE CONTROL SYSTEM article. For wiper/washer switch testing, see WIPER/WASHER SYSTEM article.

HORN SYSTEM

NOTE: Connector Test Adaptor Kit (J-35616-A) must be used whenever a diagnostic procedure requires checking or probing a terminal to prevent damage to terminal. To locate and identify terminals, see WIRING DIAGRAMS.

Horns Inoperative

1) Disconnect horn relay. Connect test light between ground and horn relay terminal No. 86 (Orange wire). Connect test light between ground and horn relay terminal No. 87 (Orange wire). If test light illuminates at both terminals, go to next step. If test light does not illuminate at both terminals, repair open in Orange wire between horn relay and relay center.

2) Connect a fused jumper wire between horn relay terminals No. 87 (Orange wire) and No. 30 (Dark Green wire). If horns sound, go to next step. If horns do not sound, go to step 6).

3) Connect test light between horn relay terminals No. 86 (Orange wire) and No. 85 (Black wire). Press horn switch. If test light does not illuminate, go to next step. If test light illuminates, check for poor connections at horn relay. If connections are okay, replace horn relay.

4) Disconnect 48-pin connector C202 located at base of steering column. Reconnect horn relay. Connect test light between ground and harness connector C202, terminal A12 (Black wire). If test light illuminates, go to next step. If test light does not illuminate, repair open in Black wire between horn relay and connector C202.

5) Check for open in Black wire between connector C202 and horn switch. Check for proper connections at connector C202, horn brush ring and horn switch. If connections and circuits are okay, replace horn switch.

6) Disconnect horns. Connect a fused jumper wire between horn relay terminals No. 87 (Orange wire) and No. 30 (Dark Green wire). Connect test light between ground and horn harness connector terminal "B" (Dark Green wire). If test light illuminates, go to next step. If test light does not illuminate, repair open in Dark Green wire between horn and horn relay.

7) Connect test light between each horn harness connector terminals "B" (Dark Green wire) and "A" (Black wire). If test light illuminates at each horn, check for poor connections at horn relay. If connections are okay, replace horns. If test light does not illuminate at each horn, repair open in Black wire between appropriate horn and ground.

Horns On At All Times

1) Disconnect horn relay. If horns turn off, go to next step. If horns continue to sound, repair short to voltage in Dark Green wire between horn and horn relay.

2) Connect test light between horn relay terminals No. 86 (Orange wire) and No. 85 (Black wire). If test light illuminates, go to next step. If test light does not illuminate, check for poor connections at horn relay. If connections are okay, replace horn relay.

3) Disconnect 48-pin connector C202 located at base of steering column. Reconnect horn relay. If horns continue to sound, go to next step. If horns turn off, check for short to ground in Black

wire between connector C202 and horn switch. If circuit is okay, replace horn switch.

4) Check for short to ground in Black wire between connector C202 and horn relay. If vehicle is equipped with Universal Theft Deterrent (UTD) system, check UTD system for proper operation. See ANTI-THEFT SYSTEM article. Repair as necessary.

One Horn Inoperative

1) Disconnect inoperative horn. Connect test light between ground and horn harness connector terminal "B" (Dark Green wire). Press horn switch. If test light illuminates, go to next step. If test light does not illuminate, repair open in Dark Green wire between horn and horn relay.

2) Connect test light between horn harness connector terminals "B" (Dark Green wire) and "A" (Black wire). Press horn switch. If test light illuminates, ensure horn connections are clean and tight. If connections are okay, replace horn. If test light does not illuminate, repair open in Black wire between horn and ground.

Poor Horn Tone

If horn tone is harsh, check for loose bolts in sheet metal mounting area. If horn tone is poor, check for poor connections or ground. If connections are okay, tighten mounting bolts. If tone is weak or low-pitched moan is heard, adjust horn current. See procedures in HORN CURRENT under ADJUSTMENTS. If tone is strained, remove foreign object in horn. If harsh vibration is heard, bend bracket until horn no longer touches sheet metal.

REMOVAL & INSTALLATION

* PLEASE READ THIS FIRST *

WARNING: Deactivate air bag system before performing any service operation. See AIR BAG RESTRAINT SYSTEM article. DO NOT apply electrical power to any component on steering column without first deactivating air bag system. Air bag may deploy.

CAUTION: 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.

NOTE: Use illustration for exploded view of upper section of steering column assembly. See Figs. 4 or 5. Before servicing steering column, place shift lever in Park, turn lock cylinder to OFF-LOCK position and remove key.

STEERING WHEEL

Removal & Installation

1) Set front wheels in straight-ahead position. Turn ignition switch to OFF-LOCK position. Remove air bag module. See AIR BAG RESTRAINT SYSTEM article. Mark steering wheel hub in relation to slash mark on steering shaft for installation reference.

2) Remove steering wheel nut. Using Steering Wheel Puller (J-1859-03, J1859-A for Seville) and Side Screws (J-38720, J 42578 for Seville), remove steering wheel. DO NOT install puller bolts too deeply into hub, as SIR coil assembly will be damaged.

3) To install, reverse removal procedure. Tighten steering wheel nut to specification. See TORQUE SPECIFICATIONS.

STEERING COLUMN

CAUTION: Ensure wheels of vehicle are in straight-ahead position and steering column is in LOCK position before disconnecting steering column or intermediate shaft from steering gear, or SIR coil will become uncentered. If weight of column is supported by only lower or upper support bracket, lower bearing adapter may be damaged.

CAUTION: When steering column is removed from vehicle, it is extremely susceptible to damage. DO NOT drop or lean on column. DO NOT hammer on ends of shaft, or plastic injections which maintain column rigidity could be loosened.

Removal

1) Set front wheels in straight-ahead position. Turn ignition switch to LOCK position. Disable air bag system. See AIR BAG RESTRAINT SYSTEM article. Disconnect negative battery cable.

2) If disassembling column, remove air bag module and steering wheel. See AIR BAG RESTRAINT SYSTEM article. See procedures in STEERING WHEEL. Remove left instrument panel insulator, trim plate and knee bolster. On models with column shift, disconnect shift indicator cable. On all models, loosen bolts to steering column brace. Disconnect steering column wiring harness connector.

3) Support steering column and remove 2 front steering column brace bolts. On models with column shift, disconnect shift control cable from actuator and from slot in lower column bracket. On all models, disconnect park lock cable (if equipped). Position seal as necessary and remove intermediate shaft pinch bolt. Remove steering column.

Installation

1) Loosely install bolt into lower right position of steering column support bracket. Position steering column in vehicle and insert intermediate steering shaft through seal from front. Install intermediate shaft pinch bolt and tighten bolt to specification. See TORQUE SPECIFICATIONS.

2) On models with column shift, snap shift control cable onto range selector pin of actuator. Secure cable fitting into slot in lower column bracket so that both fitting ears fully expand to retain cable in bracket. On all models, connect park lock cable (if equipped).

3) While supporting column, guide lower support slotted hole onto bolt. Loosely install 2 upper support bracket bolts. Install remaining bolts and brace. Move seal into position. Tighten lower right steering column support bracket bolt to specification. See TORQUE SPECIFICATIONS.

4) Tighten steering column wiring harness bolt to specification. Connect SIR connector. Tighten remaining steering column support bolts to specification. See TORQUE SPECIFICATIONS. To complete installation, reverse removal procedure.

ELECTRICAL BTSI ACTUATOR

Removal & Installation

1) Disable SIR system. See AIR BAG RESTRAINT SYSTEM article. Disconnect negative battery cable. Remove steering column from vehicle. See STEERING COLUMN. Turn lock cylinder to LOCK position. Shift lever to neutral position.

2) With large blade screwdriver pry actuator end fitting from stud on lower support bracket. Pry actuator block from mounting stud on lower support bracket. DO NOT apply force to electrical BTSI solenoid or actuator shaft. Disconnect axial positive assurance

connector from BTSI actuator. Disconnect wire connector from BTSI actuator. Remove adjustment retaining clip. See Fig. 5.

NOTE: If shift lever has been removed from column do not rotate shift bowl past PARK position. Incorrect interlock solenoid adjustment may occur.

3) To install, reverse removal procedure. Check adjustment. See ELECTRICAL BTSI ACTUATOR ADJUSTMENT.

IGNITION & DIMMER SWITCHES

Removal

1) Disconnect negative battery cable. Remove steering column. See STEERING COLUMN. Remove hexagon washer head screws. Remove hexagon nut. Remove ground wire with ring terminal from stud, if necessary. Remove PRNDL adjuster bracket, if necessary. Remove torx washer head screws.

2) Disconnect dimmer switch assembly from rod. Remove dimmer switch mounting stud. Remove ignition switch assembly from ignition switch actuator assembly. Disconnect electrical connectors as necessary.

CAUTION: If replacing ignition switch, new switch will be pinned in OFF-LOCK position. Remove plastic pin after switch is installed, or ignition switch will be damaged.

Installation

Install and adjust ignition switch using adjustment procedure. See IGNITION SWITCH ADJUSTMENT. Install and adjust dimmer switch using adjustment procedure. See DIMMER SWITCH under ADJUSTMENTS. To complete installation, reverse removal procedure. Tighten screws and nuts to specification. See TORQUE SPECIFICATIONS.

LOCK CYLINDER

Removal

1) Disconnect negative battery cable. Remove SIR coil assembly and allow it to hang freely. See AIR BAG RESTRAINT SYSTEM. Remove wave washer. See Fig. 4.

2) Using Lock Plate Compressor (J-23653-SIR), push down shaft lock and remove shaft lock retaining ring. Discard shaft lock retaining ring. Remove shaft lock. Remove turn signal cancel cam assembly.

3) Remove upper bearing spring, upper bearing inner race seat and inner race. Remove multifunction lever. See MULTIFUNCTION LEVER. Using small screwdriver, pry off hazard warning switch knob. Move turn signal up to right turn position. Remove turn signal switch and allow it to hang freely. Disconnect SIR coil wiring as necessary. Attach a length of mechanics wire to terminal to aid in installation.

4) Ensure key is not inserted in lock cylinder set. Remove buzzer switch assembly. Insert key in lock cylinder and turn key to LOCK position. Remove lock cylinder retaining screw. Disconnect pivot and pulse switch connector from vehicle wiring harness and remove 13-pin secondary lock.

5) Disconnect PASS-KEY(R) wires from terminals No. 12 and 13 of pivot and pulse switch connector, if necessary. Remove wiring protector. Attach a length of mechanics wire to terminal to aid in installation. Remove lock cylinder and retaining clip from lock housing cover.

Installation

To install, reverse removal procedure. Tighten screws to

specification. See TORQUE SPECIFICATIONS. When installing turn signal cancel cam, lubricate with synthetic grease. Using Lock Plate Compressor (J-23653-SIR), push down shaft lock and install NEW shaft lock retaining ring. Ensure retaining ring is firmly seated in groove on shaft. To complete installation, reverse removal procedure.

MULTIFUNCTION LEVER

NOTE: Multifunction lever may incorporate wiper/washer switch and acts as mechanical link to the turn signal switch and headlight dimmer switch. Also, cruise control switch (if equipped) is on end of multifunction lever.

Removal & Installation

Ensure multifunction lever is in center or OFF position.

Remove cap from steering column housing. Disconnect electrical connector. Remove multifunction lever by pulling straight out from turn signal switch. To install, reverse removal procedure.

TURN SIGNAL SWITCH

Removal

1) Disconnect negative battery cable. Remove SIR coil assembly and allow it to hang freely. See AIR BAG RESTRAINT SYSTEM article. Remove wave washer. See Fig. 4.

2) Using Lock Plate Compressor (J-23653-SIR), push down shaft lock and remove shaft lock retaining ring. Discard shaft lock retaining ring. Remove shaft lock. Remove turn signal cancel cam assembly.

3) Remove upper bearing spring, upper bearing inner race seat and inner race. Remove multifunction lever. See MULTIFUNCTION LEVER. Using small screwdriver, pry off hazard warning switch knob.

4) Move turn signal up to right turn position. Remove turn signal switch. Disconnect electrical connector. Remove wiring harness protector. Remove nut and disconnect ground wire from stud. On all models, gently pull wiring harness through steering column.

Installation

To install, reverse removal procedure. Tighten screws to specification. See TORQUE SPECIFICATIONS. When installing turn signal cancel cam, lubricate with synthetic grease. Using Lock Plate Compressor (J-23653-SIR), push down shaft lock and install NEW shaft lock retaining ring. Ensure retaining ring is firmly seated in groove on shaft. To complete installation, reverse removal procedure.

TURN SIGNAL/MULTIFUNCTION SWITCH (SEVILLE)

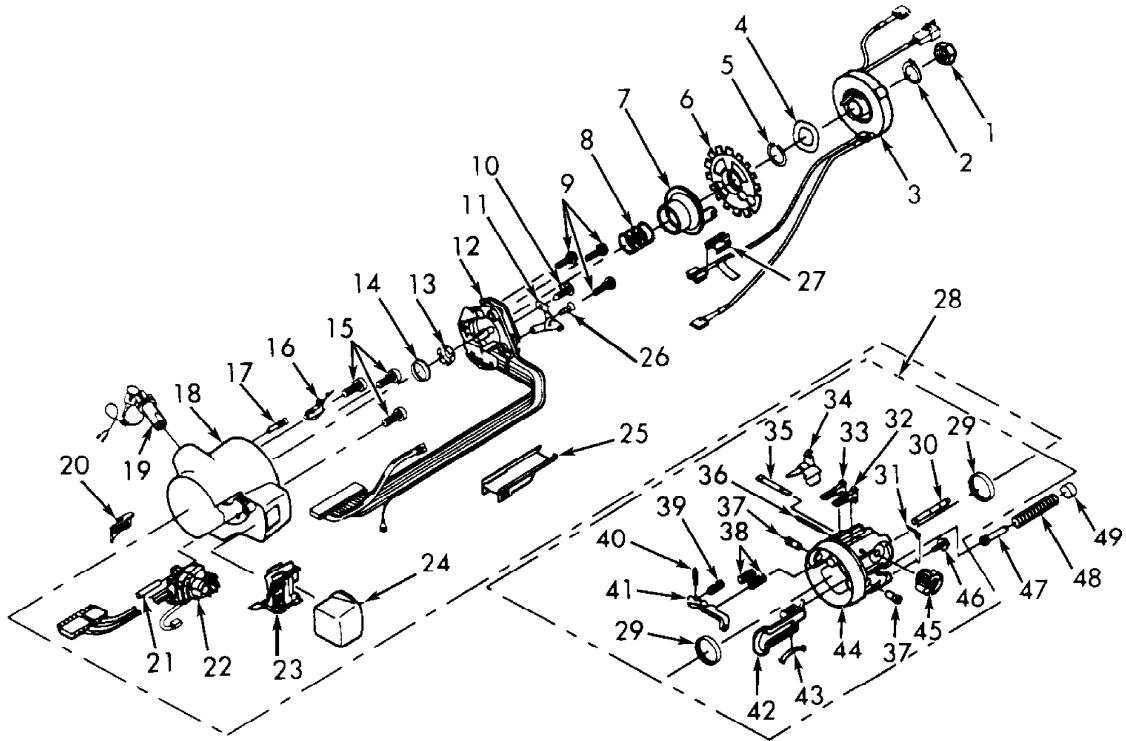
Removal & Installation

1) Remove steering column. See STEERING COLUMN. Mount column into Modular Column Holding Fixture (J 41352) and mount holding fixture into vise. Remove upper and lower shroud. Remove 3 wire harness straps. On power tilt/telescope columns, remove 4 straps. Remove wire harness assembly from harness strap.

2) On models with power tilt/telescope column, remove Green, Brown, Natural and Black connectors from E & C interface module assembly. Remove E & C module. Open lower wire shield and remove wiring harness, noting placement and direction of wires.

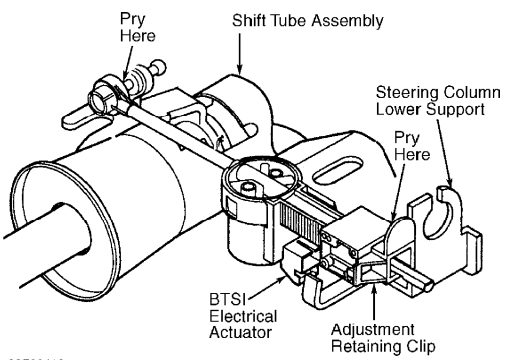
3) Disconnect turn signal/multifunction switch Blue, Black and Gray connectors. Remove 2 tapping screws. Remove turn signal/multifunction switch.

4) To install, reverse removal procedure. ensure electrical contact is resting on turn signal cancel cam assembly. Tighten fasteners to specification. See TORQUE SPECIFICATIONS.



- | | | | |
|----------------------------|-----------------------------------|----------------------|-----------------------|
| 1. Nut | 13. Seat | 25. Wiring Protector | 37. Pivot Pin |
| 2. Retaining Ring | 14. Upper Bearing Inner Race Seat | 26. Screw | 38. Shoe Spring |
| 3. SIR Coil Assembly | 15. Screw | 27. Connector Shroud | 39. Lever Spring |
| 4. Wave Washer | 16. Buzzer Switch | 28. Housing | 40. Lever Pin |
| 5. Retaining Ring | 17. Screw | 29. Bearing Assembly | 41. Release Lever |
| 6. Shaft Lock | 18. Lock Housing Cover | 30. Lock Bolt | 42. Actuator Rack |
| 7. Turn Signal Cancel Cam | 19. Lock Cylinder | 31. Spring | 43. Preload Spring |
| 8. Upper Bearing Spring | 20. Dimmer Switch Rod Actuator | 32. Lock Shoe | 44. Housing |
| 9. Screw | 21. Pivot Pin | 33. Lock Shoe | 45. Actuator Sector |
| 10. Screw | 22. Pivot & Pulse Switch | 34. Protector Shield | 46. Screw |
| 11. Turn Signal Switch Arm | 23. Base Plate | 35. Drive Shaft | 47. Spring Guide |
| 12. Turn Signal Switch | 24. Cover End Cap | 36. Dowel Pin | 48. Tilt Wheel Spring |
| | | | 49. Spring Retainer |

94H34170
 Fig. 4: Exploded View Of Upper Steering Column (Typical)
 Courtesy of General Motors Corp.



98F00419
 Fig. 5: Identifying BTSI components
 Courtesy of General Motors Corp.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS

| Application | Ft. Lbs. (N.m) |
|--|-----------------|
| Intermediate Shaft Pinch Bolt | 35 (47) |
| Steering Column Upper & Lower | 20 (27) |
| Support Bolts/Nuts/Screws | |
| Steering Wheel Nut | (1) 30 (41) |
| | INCH Lbs. (N.m) |
| Air Bag Inflator Module Nuts/Screws | 27 (3) |
| Dimmer Switch Mounting Stud | 35 (4) |
| Dimmer Switch Screws | 35 (4) |
| Ignition Switch Screws | 35 (4) |
| Lock Bolt Spring Screw | 35 (4) |
| Lock Cylinder Retaining Screws | 22 (2.5) |
| Lock Housing Cover Screw | 80 (9) |
| PRNDL Bracket Mounting Nuts/Screws | 35 (4) |
| Turn Signal Switch Arm Screws | |
| Cross Recess Screws | |
| Column Shift | 27 (3) |
| Floor Shift | 20 (2.3) |
| Flathead Screws | 20 (2.3) |
| Steering Column Lower Support Brace Bolt | 84 (9.5) |
| Steering Column Wiring Harness Bolt | 42 (4.8) |
| Turn Signal Switch Nut | 35 (4) |
| Turn Signal Switch Screws | 30 (3.4) |

(1) - Use a NEW nut.

WIRING DIAGRAMS

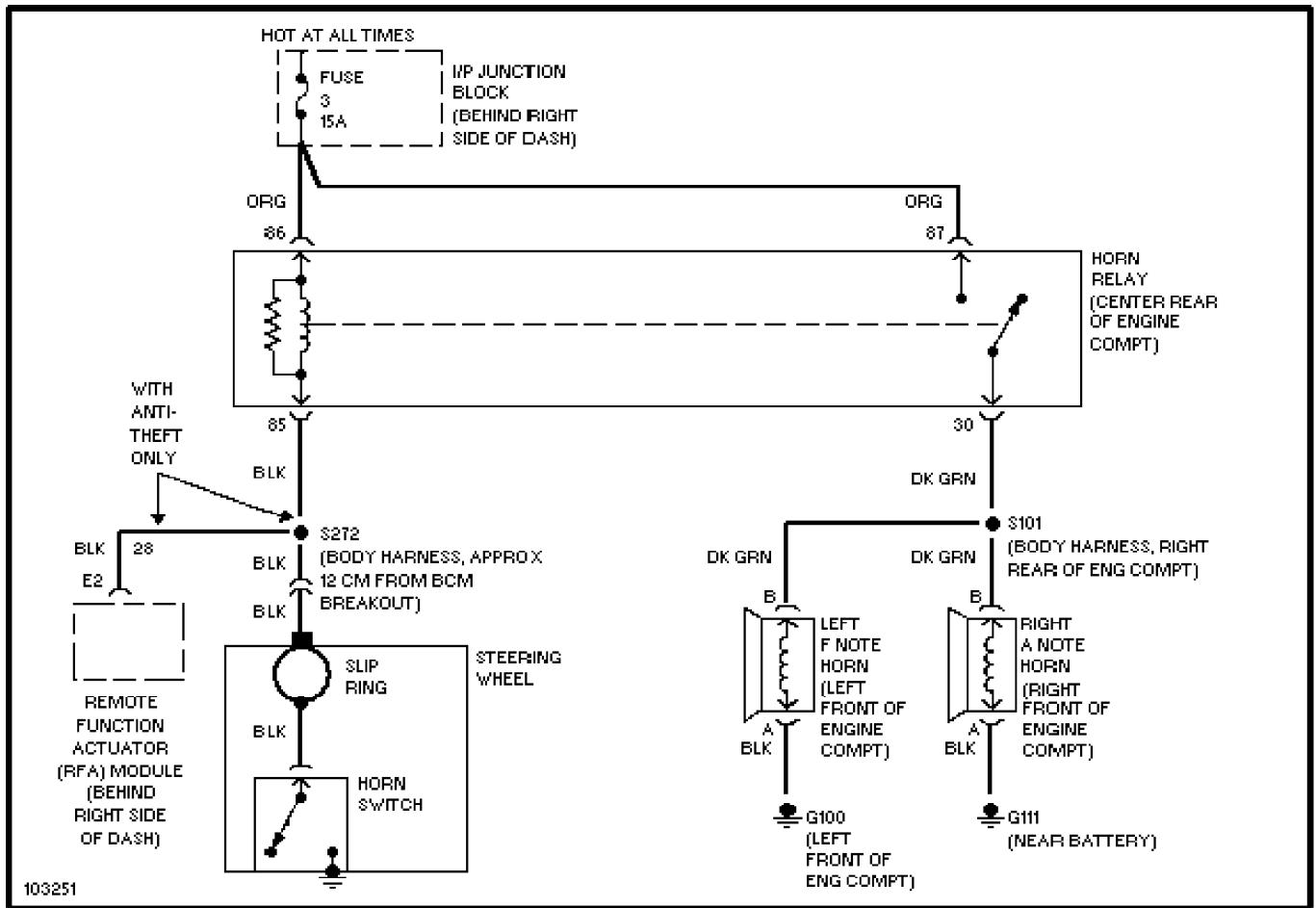


Fig. 6: Horn System Wiring Diagram