

SECTION 11-05 Steering Column Switches

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VEHICLE APPLICATION

Capri.

DESCRIPTION AND OPERATION

Ignition Switch

The ignition switch is mounted on the lock cylinder housing and is controlled by the lock cylinder through a pin which is part of the actuator assembly.

The lock cylinder also controls the mechanism which provides a positive lock for the steering system. The locking mechanism is located in the lock cylinder housing at the upper end of the steering column.

On vehicles with an automatic transaxle, a brake-shift interlock cable connected to the steering system lock mechanism prevents the transaxle from being shifted out of PARK until the brake pedal is depressed. Refer to Section 07-05.

The lock cylinder positions are ACC, LOCK, OFF, RUN and START. The ACC position operates while the steering and transaxle systems remain locked. Turning the key to the OFF position shuts off the engine without locking the steering.

The switch has blade-type terminals that engage with one multiple connector. The multiple connector is secured to the switch by integral locking fingers.

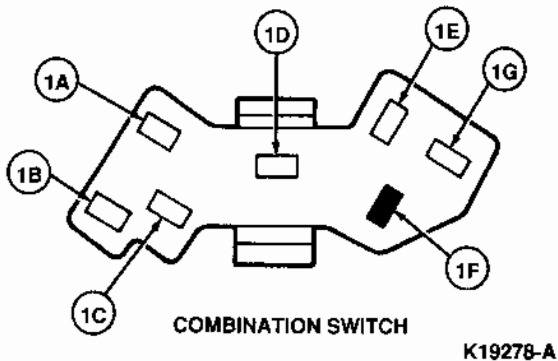
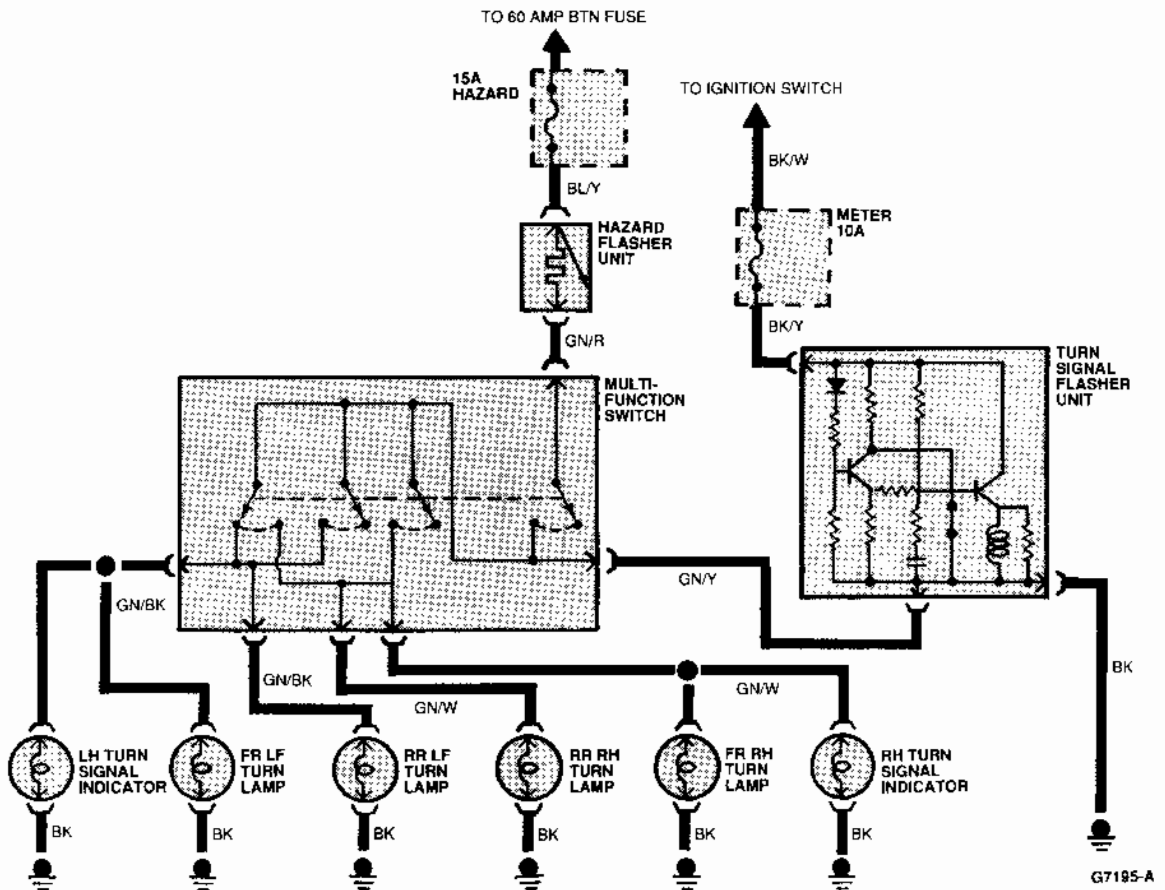
On vehicles with a manual transaxle, a push-button steering wheel lock mechanism is used. This button, on the LH side of the steering column, must be pushed in before the ignition key can be removed.

On vehicles with an automatic transaxle, no push-button lock mechanism is used. However, the transaxle must be in the PARK position before the key can be removed.

DESCRIPTION AND OPERATION (Continued)

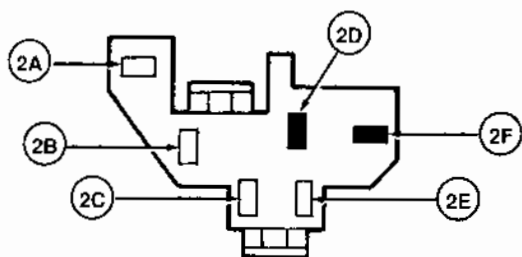
Multi-Function Switch

The turn signal / hazard flasher / high beam switch is a multi-function switch which incorporates the windshield wiper switch, the turn signal switch, high beam switch, flash-to-pass switch and the hazard flasher switch. The wiper switch and turn signal / hazard flasher / high beam switch are replaced as an assembly. This assembly is located on the steering column. The steering column must be lowered to access the switch.



Pin Number	Wire Color	Circuit Function
1A	R / GN	Headlamp Switch
1B	R / BK	Low Beam
1C	R / W	High Beam
1D	R	Power Supply
1E	GN / BK	Left Turn Signal
1F	—	Not Used
1G	GN / BK	Left Turn Signal

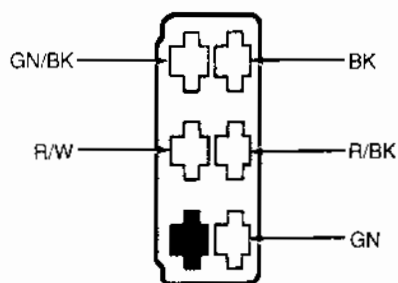
DESCRIPTION AND OPERATION (Continued)



COMBINATION SWITCH

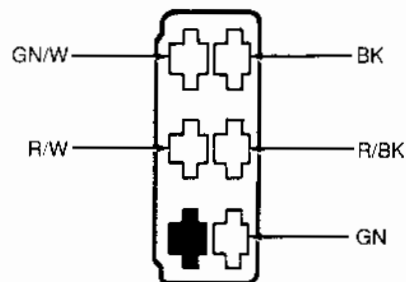
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Pin Number	Wire Color	Circuit Function
2A	GN/W	Right Turn Signal
2B	GN/W	Right Turn Signal
2C	GN/Y	Turn Signal Flasher Unit
2D	—	Not Used
2E	GN/R	Hazard Flasher Unit
2F	—	Not Used



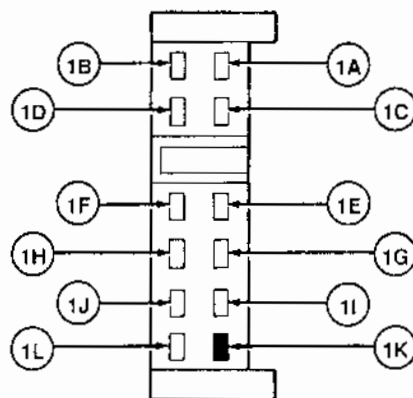
LEFT TAIL LAMP

K18700-A



RIGHT TAIL LAMP

K19276-A



INSTRUMENT CLUSTER

K18632-A

Pin Number	Wire Color	Circuit Function
1A	BK	Ground
1B	GN/W	RH Turn Indicator
1C	BR/Y	Transaxle Control Module
1D	R/W	High Beam Indicator
1E	BK/Y	Warning Indicator Lamp Power Supply
1F	GN/BK	LH Turn Indicator
1G	Y/R	Oil Pressure Switch
1H	R/GN	Dimmer Control Switch
1I	BK	Ground
1J	BK	Ground
1K	—	Not Used
1L	Y/W	Temperature Gauge Sending Unit

DIAGNOSIS AND TESTING

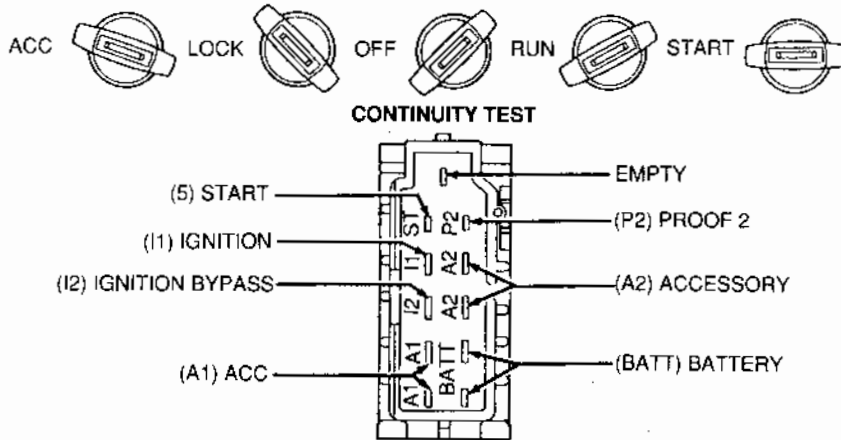
Ignition Switch

Continuity Test

Disconnect the multiple connector by spreading apart the locking fingers on each end of the connector shell while pulling to disengage it from the ignition switch. Test the switch continuity as described in the following illustration. Connect a self-powered test lamp or ohmmeter between the blade terminals indicated on the chart. No continuity between any blade and chassis ground should exist in any switch position except the proof circuit P2 in the START position only.

DIAGNOSIS AND TESTING (Continued)

For an "engine won't crank" condition, determine if the condition exists with the selector lever in both PARK and NEUTRAL positions before performing the ignition switch continuity tests. If the "no-crank" condition occurs in one shift lever position but not the other, a more probable cause is the manual lever position switch (4EAT only) located on the transaxle.



SWITCH POSITION	CONTINUITY SHOULD EXIST ONLY BETWEEN
ACC	(BATT) AND A1
LOCK	NO CONTINUITY
OFF	NO CONTINUITY
RUN	BATT I1-A2-A1
START	P2 CHASSIS GROUND BATT-ST-I2

NOTE: CIRCUIT PAIRS 37, 687 AND 297 ARE CONNECTED TOGETHER INTERNALLY

J3447-B

Mechanical Test

Test the steering column ignition system mechanical operation by rotating the lock cylinder/key through all switch positions. The movement should feel smooth with no sticking or binding. The ignition switch should return from the START position back to the RUN position without assistance (spring return). If sticking or binding is encountered, check for the following.

- Burrs on the lock cylinder key.
- Shroud rubbing against lock cylinder.
- Burrs or foreign material around rack-and-pinion actuator in lock cylinder housing.
- Insufficient lubricant on actuator.
- Binding ignition switch.

NOTE: Do not apply lubricant to inside of the ignition switch.

Multi-Function Switch

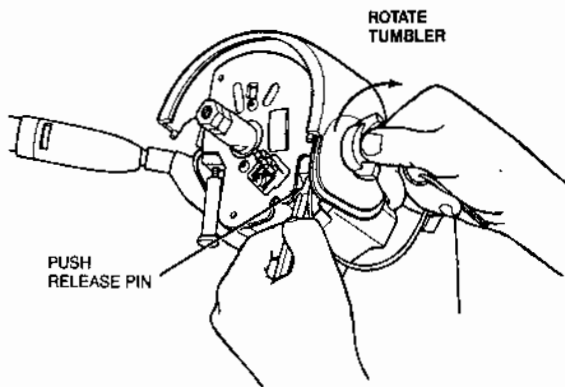
Refer to Section 17-01.

REMOVAL AND INSTALLATION**Ignition Lock Tumbler****Removal**

1. Disconnect negative battery terminal.
2. Remove lower steering column shroud.
3. With ignition key installed, rotate tumbler while pushing release pin with a 3.17mm (0.125 inch) drift.

REMOVAL AND INSTALLATION (Continued)

- Remove tumbler assembly by pulling it out of housing.



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Installation

- Install tumbler assembly with ignition key installed. Push release pin and rotate tumbler to install. Make sure tumbler is fully seated.
- Install lower column shroud.
- Connect negative battery terminal.
- Check for proper operation.

Non-Functioning Locks**Removal**

NOTE: The following procedure applies to vehicles in which the ignition lock is inoperative and the lock cylinder cannot be rotated due to a lost or broken lock cylinder key, the key number is not known, or the lock cylinder cap is damaged and / or broken to the extent that the lock cylinder cannot be rotated.

- Remove lower steering column shroud.
- Using a 1/8-inch diameter drill, drill out retaining pin, being cautious not to drill deeper than 12.7mm (1/2-inch).
- Place a chisel at base of ignition lock cylinder cap, and using a hammer, strike chisel with sharp blows to break cap away from lock cylinder.
- Using a 3/8-inch diameter drill, drill out middle of ignition lock key slot approximately 44mm (1-3/4 inches) until lock cylinder breaks loose from breakaway base of lock cylinder. Remove lock cylinder and remove drill shavings from lock cylinder housing.

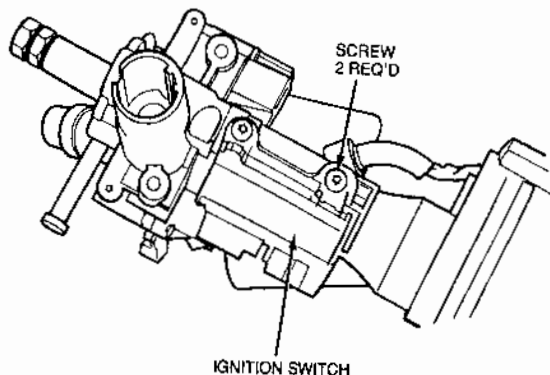
- Remove snap ring washer and steering column lock gear. Thoroughly clean all drill shavings and other foreign materials from casting.
- Carefully inspect lock cylinder housing for damage. If any damage is apparent, housing must be replaced. Refer to Section 11-04.

Installation

Install new ignition lock tumbler as outlined.

Ignition Switch**Removal**

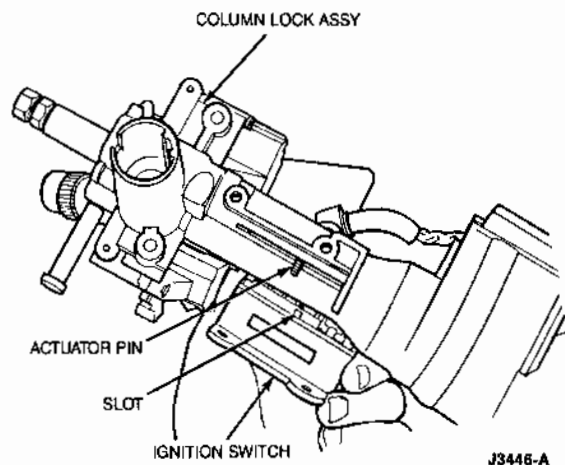
- Disconnect negative battery terminal.
 - Remove lower steering column shroud.
 - Remove center access panel and trim cover beneath steering column.
 - Remove LH side defroster connector tube.
 - Remove steering column upper retaining bolts. Column will pivot downward and rest on instrument panel brace.
- CAUTION: Ensure that no wiring is pinched beneath the steering column when lowered.**
- Remove ignition lock tumbler as outlined.
 - Remove upper column cover.
 - Remove column lock shield.
 - Disconnect ignition switch connector.
 - Remove switch retaining screws and switch.



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REMOVAL AND INSTALLATION (Continued)**Installation**

1. Position ignition switch to column lock assembly. Make sure actuator pin of lock assembly fits into slot in ignition switch.



2. Install switch retaining screws. Tighten to 7-9 N·m (62-76 lb-in).
3. Connect ignition switch electrical connector.
4. Install column lock shield. Tighten screws and nut to 19-25 N·m (14-18 lb-ft).
5. Install upper column shroud and lock tumbler assembly as outlined. Make sure tumbler snaps in place.
6. Raise column and install upper retaining bolts. Tighten to 23-31 N·m (17-22 lb-ft).
7. Install defroster connector tube.
8. Install column lower shroud.
9. Install access panel and trim cover.
10. Connect negative battery terminal.
11. Check for proper operation.

Multi-Function Switch Assembly**Removal**

1. Disconnect negative battery terminal.
 2. Remove center trim panel and access cover beneath steering column.
 3. Remove lower steering column shroud.
 4. Remove column upper retaining bolts.
- NOTE: Steering column will rest on instrument panel brace.

CAUTION: Ensure no wires are pinched when lowering steering column.

5. Remove two switch retaining screws and remove switch.
6. Grasp switch and lever firmly and pull lever out of switch.
7. Disconnect electrical connectors from switch.

Installation

1. Align key with slot and install lever in switch assembly.
2. Connect connectors to switch assembly.
3. Position switch on steering column and install retaining screws.
4. Make sure column support bracket is in position. Raise column into position and install retaining bolts. Tighten to 23-31 N·m (17-22 lb-ft).
5. Install lower column shroud.
6. Install access cover and trim panel.
7. Connect negative battery terminal.
8. Check for proper operation.

Wiper Switch and Turn Signal / High Beam Lever**Removal**

1. Remove center trim panel and access cover below steering column.
2. Remove lower steering column shroud.
3. Disconnect harness connector for wiper switch and remove from retaining clip.
4. Firmly grasp switch and lever and pull out to remove.

Installation

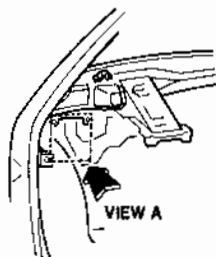
1. Install lever to switch. Make sure it is fully seated.
2. Route switch harness through retainer and connect connector.
3. Install lower steering column shroud.
4. Install access panel and center trim cover.

Turn Signal Flasher Unit**Removal and Installation**

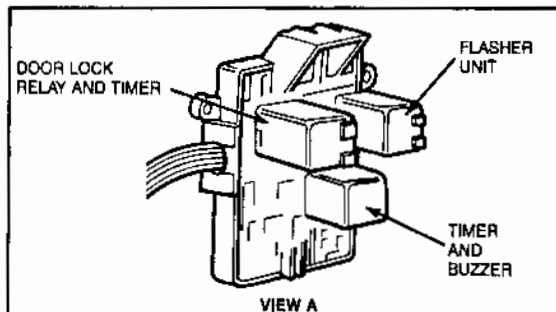
1. Pull turn signal flasher out of relay panel located above interior fuse panel.

REMOVAL AND INSTALLATION (Continued)

2. Install the new turn signal flasher by pushing it into the relay panel.



VIEW A



VIEW A

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Hazard Flasher Unit**Removal and Installation**

1. Pull hazard flasher out of connector located inside LH bottom edge of instrument panel.
2. Install new hazard flasher into connector.

SPECIFICATIONS**TORQUE SPECIFICATIONS**

Description	N-m	Lb-Ft
Steering Column Upper Retaining Bolts	23-31	17-22
Ignition Switch Retaining Screws	7-9	62-76 (Lb-In)
Steering Column Lock Shield Screws and Nut	19-25	14-18