

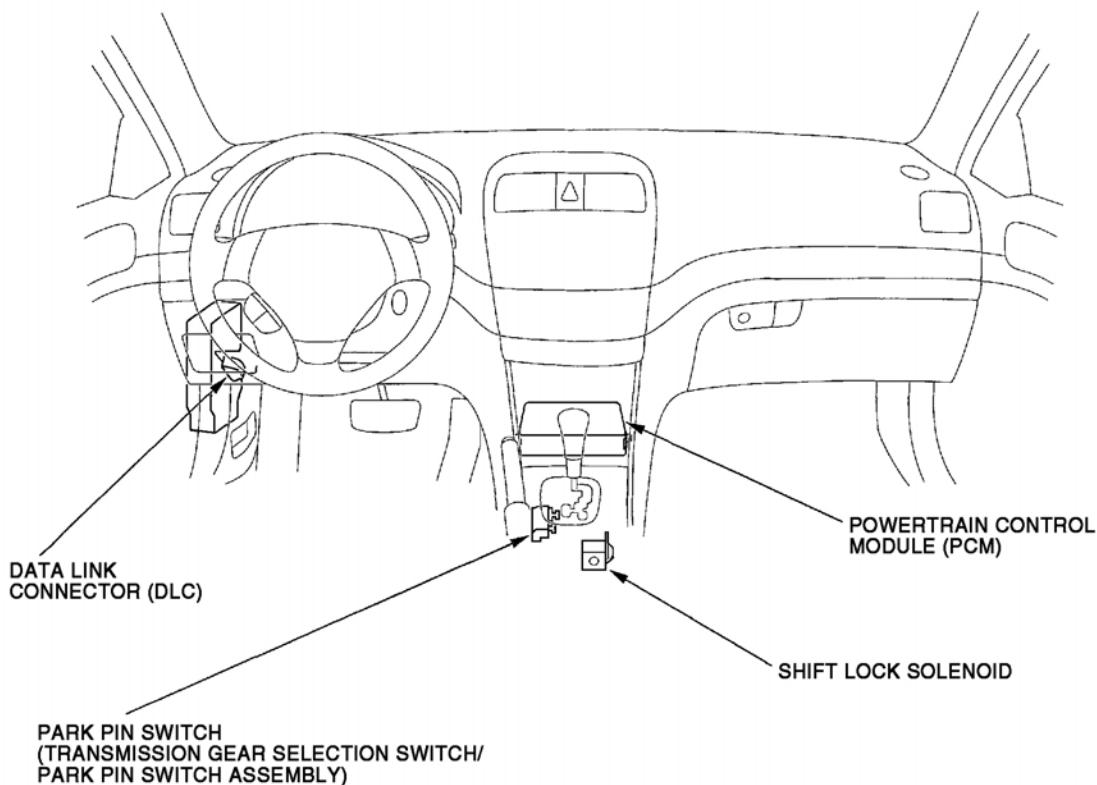
2004 AUTOMATIC TRANSMISSIONS

A/T Interlock System - TSX

A/T INTERLOCK SYSTEM

COMPONENT LOCATION INDEX

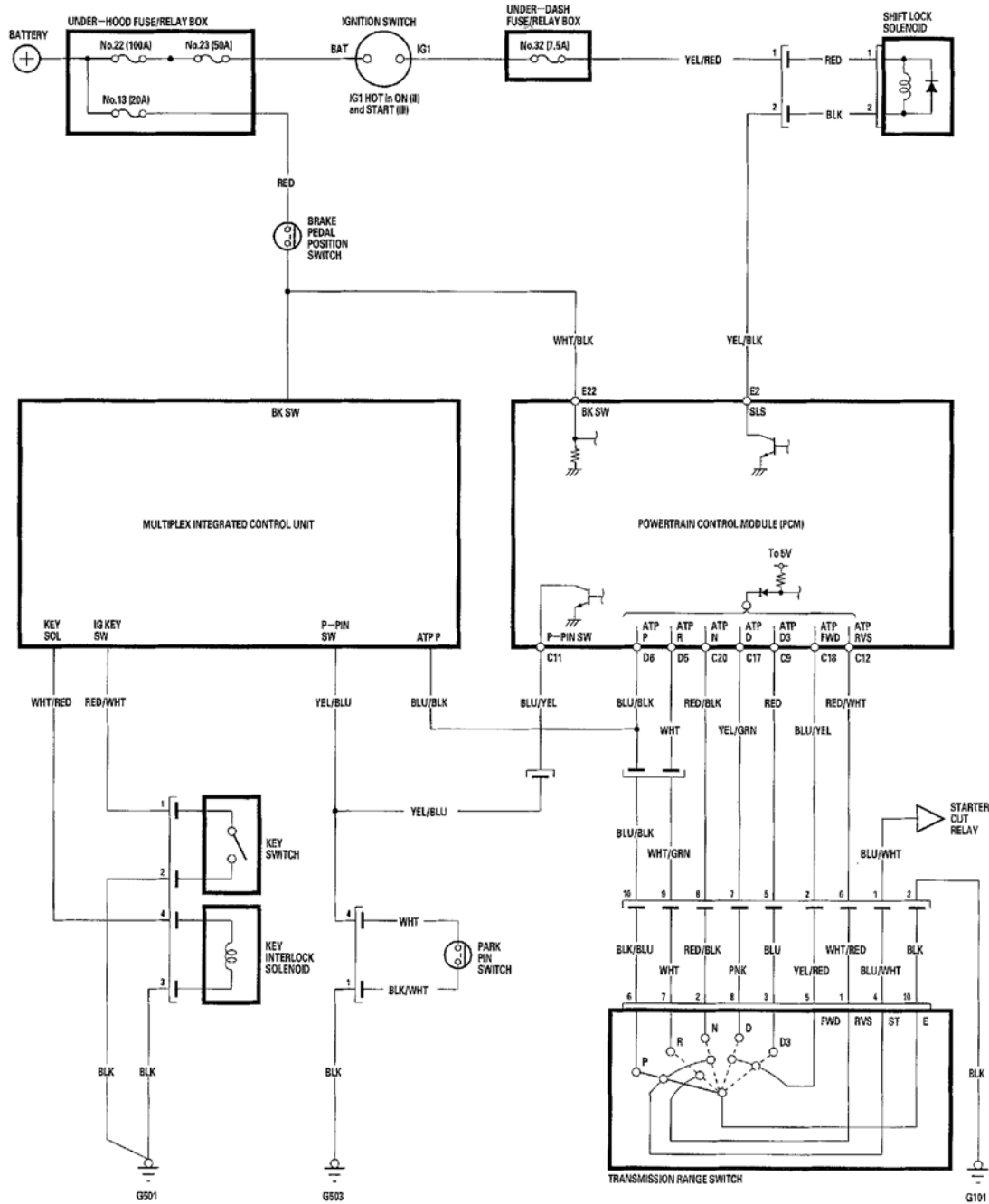
STEERING LOCK ASSEMBLY
KEY INTERLOCK SOLENOID



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Fig. 1: Locating A/T Interlock System Components

CIRCUIT DIAGRAM



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Fig. 2: A/T Interlock System Wiring Diagram

SHIFT LOCK SYSTEM/REVERSE LOCK SYSTEM CIRCUIT TROUBLESHOOTING

1. Press the brake pedal.
Are the brake lights ON?
YES: Go to step 2.

NO: Repair faulty brake light circuit.

2. Connect the HDS to the DLC. Check engine speed and throttle position in the A/T data list.

Is the engine speed at idle, and TPS about 0.5 V?

YES: Go to step 3.

NO: Repair engine speed or throttle position input.

3. Select SHIFT LOCK SOL TEST in MISC. TEST MENU, then carry out shift lock solenoid function test.

Does the shift lock solenoid work properly?

YES: System circuit is OK. Check the mechanism, if necessary.

NO: Go to step 4.

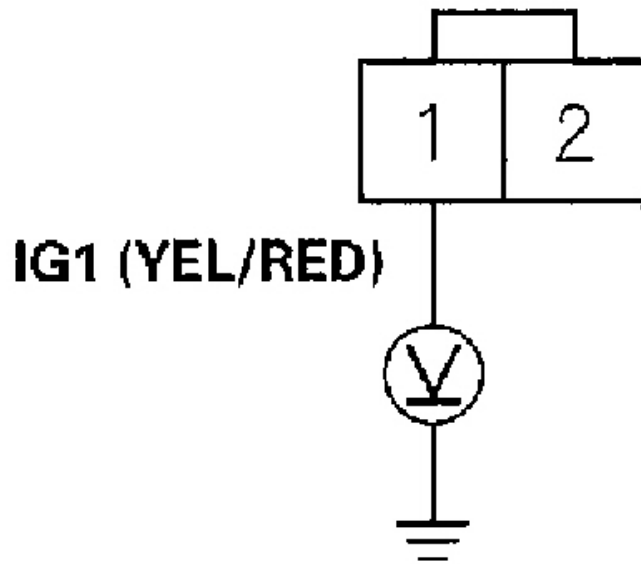
4. Remove the center console cover (see **CENTER CONSOLE REMOVAL/INSTALLATION**).
5. Disconnect the shift lock solenoid connector.
6. Turn the ignition switch ON (II).
7. Measure the voltage between shift lock solenoid connector terminal No. 1 and body ground.

Is there battery voltage?

YES: Go to step 8.

NO: Check for blown No. 32 (7.5A) fuse in the under-dash fuse/relay box. If the fuse is OK, repair open in the wire between the shift lock solenoid connector and the under-dash fuse/relay box.

SHIFT LOCK SOLENOID CONNECTOR



Wire side of female terminals

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Fig. 3: Measuring The Voltage Between Shift Lock Solenoid Connector Terminal No. 1 & Body Ground

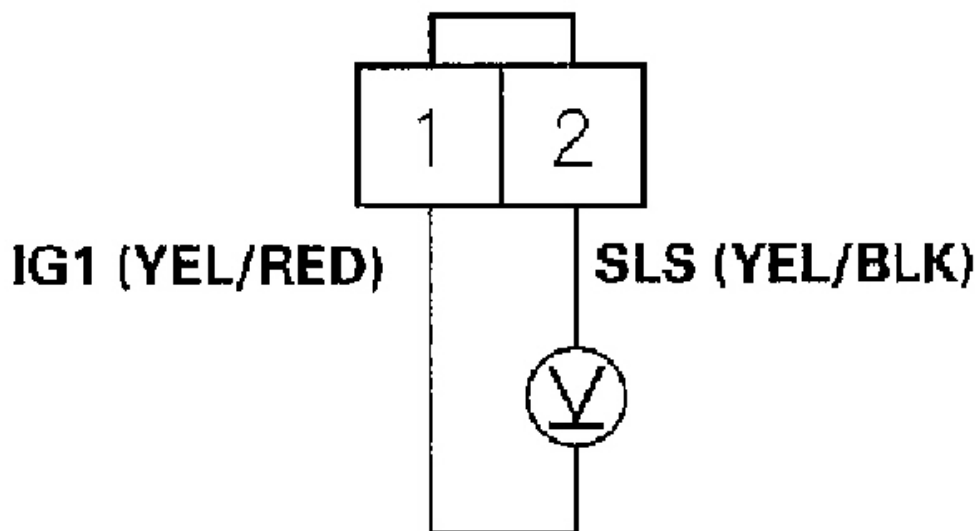
8. Shift to the **P** position, and press the brake pedal. Do not press the accelerator.
9. Measure the voltage between shift lock solenoid connector terminals No. 1 and No. 2 while pressing the brake pedal.

Is there battery voltage?

YES: Check the shift lock mechanism. If the mechanism is OK, replace the shift lock solenoid (see **Shift Lock Solenoid Replacement**).

NO: Check for poor connection or loose E2 terminal at the PCM, and check for an open in the wire between PCM connector terminal E2 and shift lock solenoid connector. If the connection and wire are OK, substitute a known-good PCM and recheck.

SHIFT LOCK SOLENOID CONNECTOR



Wire side of female terminals

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Fig. 4: Measuring The Voltage Between Shift Lock Solenoid Connector Terminals No. 1 & No. 2

KEY INTERLOCK SYSTEM CIRCUIT TROUBLESHOOTING

SRS components are located in this area. Review the SRS components precautions and procedure (see **AIR BAG RESTRAINT SYSTEMS**) before you troubleshoot.

1. Turn the ignition switch to ACC (I). The shift lever must be in the **P** position.
2. Disconnect the steering lock assembly connector.
3. Check if the ignition key can be moved to LOCK (0) position, and remove the key from the cylinder.

Is the ignition key able to move to the LOCK (0) position, and then removed?

YES: Go to step 4.

NO: Replace the ignition key cylinder/steering lock assembly (see **STEERING LOCK REPLACEMENT**).

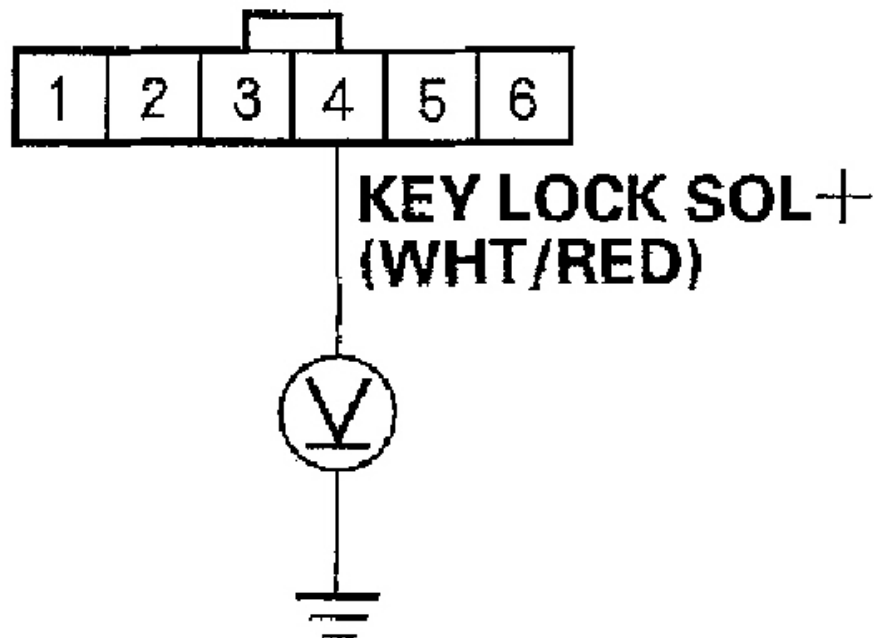
4. Turn the ignition switch to ACC (I) or ON (II), and shift to the **N** position.
5. Check the voltage between the No. 4 terminal of the steering lock assembly connector and body ground.

Is there battery voltage?

YES: Go to step 6.

NO: Check for an open in WHT/RED wire between the multiplex integrated control unit and the steering lock assembly connector. If the wire is OK, substitute a known-good multiplex integrated control unit and recheck.

STEERING LOCK ASSEMBLY CONNECTOR



Wire side of female terminals

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Fig. 5: Checking Voltage Between The No. 4 Terminal Of The Steering Lock Assembly Connector & Body Ground

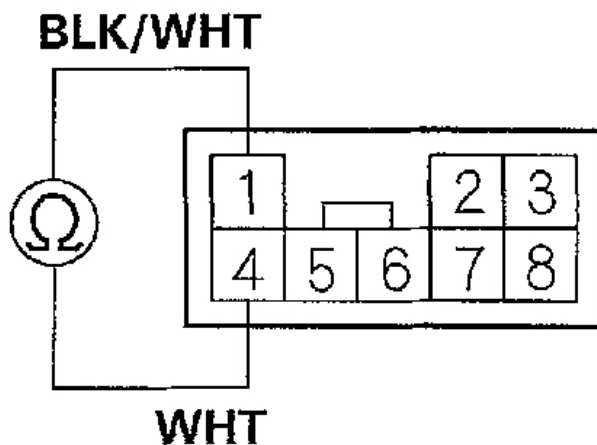
6. Turn the ignition switch to ACC (I), and shift to the **P** position.
7. Remove the center console cover (see **CENTER CONSOLE REMOVAL/INSTALLATION**).
8. Disconnect transmission gear selection switch/park pin switch connector.
9. Check for continuity between transmission gear selection switch/park pin switch connector terminals No. 1 and No. 4 when shift lever in the **P** position, and when shift lever shift out of the **P** position.

Is there continuity when shift lever in any position other than P and no continuity when shift lever in P?

YES: Check for an open in the wire between the multiplex integrated control unit and the park pin switch connector. If the wire is OK, replace the multiplex integrated control unit.

NO: Replace the park pin switch.

TRANSMISSION GEAR SELECTION SWITCH/ PARK PIN SWITCH CONNECTOR



Terminal side of male terminals

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Fig. 6: Checking For Continuity Between Transmission Gear Selection Switch/Park Pin Switch Connector Terminals No. 1 & No. 4

KEY INTERLOCK SOLENOID TEST

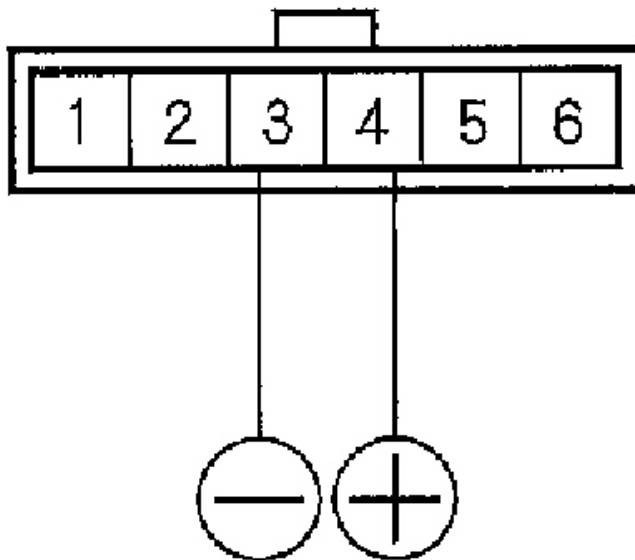
SRS components are located in this area. Review the SRS components precautions and procedures (see **AIR BAG RESTRAINT SYSTEMS**) before testing the solenoid.

1. Remove the driver's dashboard lower cover and lower steering column cover.
2. Disconnect steering lock assembly connector.
3. Insert the ignition key in the key cylinder, then turn the ignition key to ACC (I).
4. Connect the battery positive terminal to steering lock assembly connector terminal No. 4, and connect the battery negative terminal to No. 3 terminal. Make sure that the ignition key cannot be turned to LOCK (0)

position. Release the battery terminals, and make sure that the key can be turned to LOCK (0) position and removed from the cylinder.

5. If the key interlock solenoid works improperly, replace the ignition key cylinder/steering lock assembly (see **STEERING LOCK REPLACEMENT**).

STEERING LOCK ASSEMBLY CONNECTOR



Terminal side of male terminals

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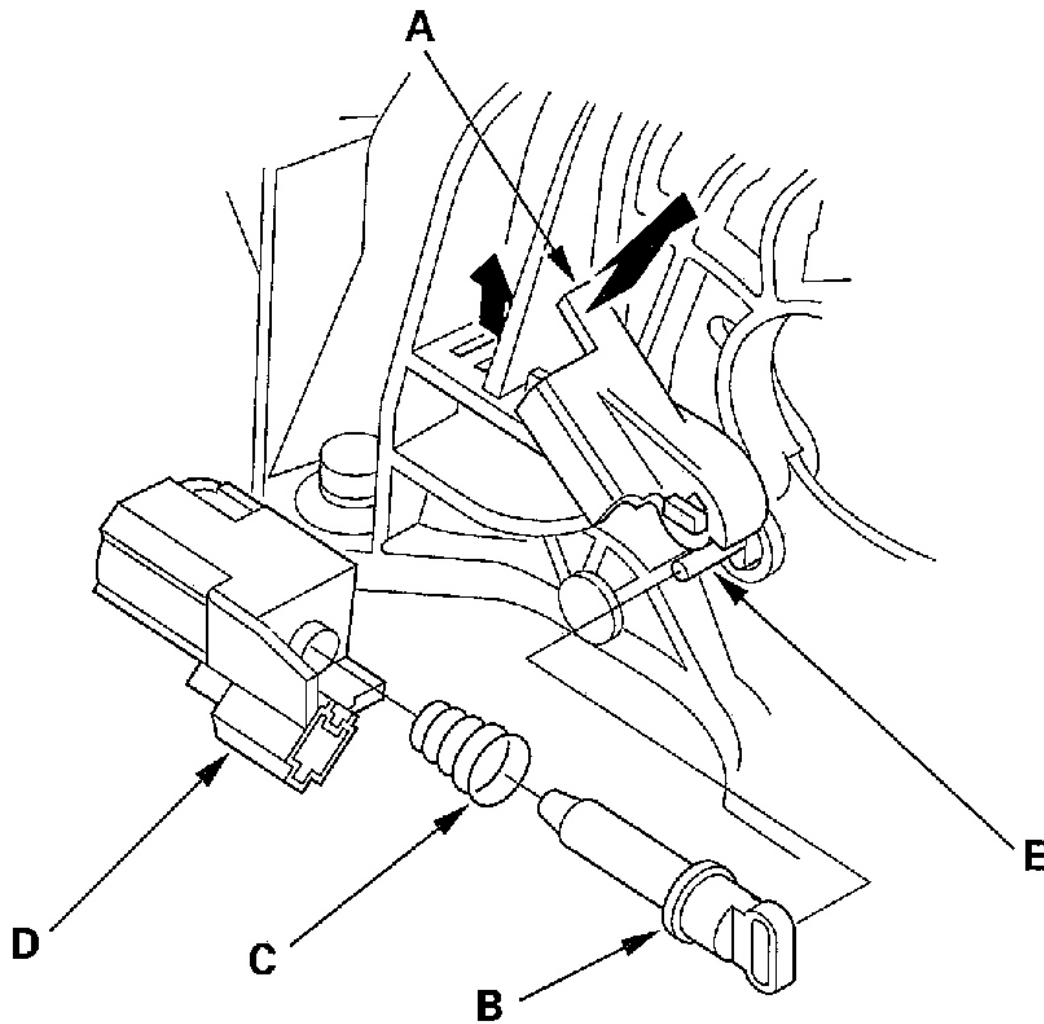
Fig. 7: Connecting Battery Positive Terminal To Steering Lock Assembly Connector Terminal No. 4 & Battery Negative Terminal To No. 3 Terminal

SHIFT LOCK SOLENOID TEST

1. Connect the HDS to the DLC.
2. Select SHIFT LOCK SOL TEST in MISC. TEST MENU with the HDS.
3. Carry out shift lock solenoid function test: Check that the shift lever can be moved from the **P** position when SOLENOID ON. Move the shift lever back to the **P** position, and make sure it locks with SOLENOID OFF.
4. Check that the shift lock releases when the shift lock release is pushed, and check that it locks when the shift lock release is released.
5. If the shift lock solenoid does not work properly, perform shift lock system troubleshooting (see **SHIFT LOCK SYSTEM/REVERSE LOCK SYSTEM CIRCUIT TROUBLESHOOTING**).

SHIFT LOCK SOLENOID REPLACEMENT

1. Remove the shift lever assembly (see **SHIFT LEVER**).
2. Release the shift lock solenoid bushing (A) securing the shift lock solenoid, and remove the shift lock solenoid.



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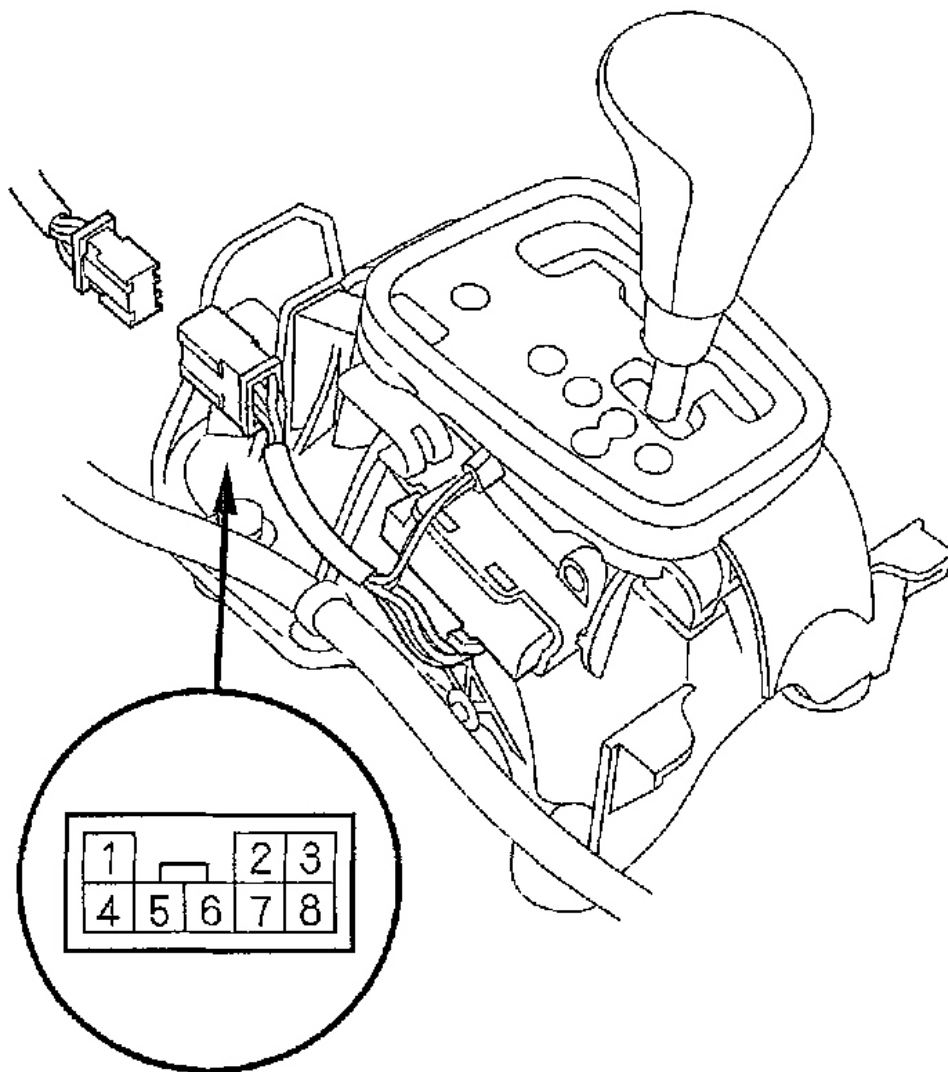
Fig. 8: Removing The Shift Lock Solenoid

3. Install the shift lock solenoid plunger (B) and plunger spring (C) in the new shift lock solenoid (D).
4. Apply silicon grease to joint of the shift lock solenoid plunger, if necessary.
5. Install the new shift lock solenoid by aligning the joint of the shift lock solenoid plunger with the tip of the shift lock stop (E).
6. Install the shift lever assembly (see **SHIFT LEVER**).

PARK PIN SWITCH TEST

1. Remove the center console cover (see **CENTER CONSOLE REMOVAL/INSTALLATION**).

2. Disconnect transmission gear selection switch/park pin switch connector.



Terminal side of male terminals

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Fig. 9: Disconnecting Transmission Gear Selection Switch/Park Pin Switch Connector & Identifying Terminals

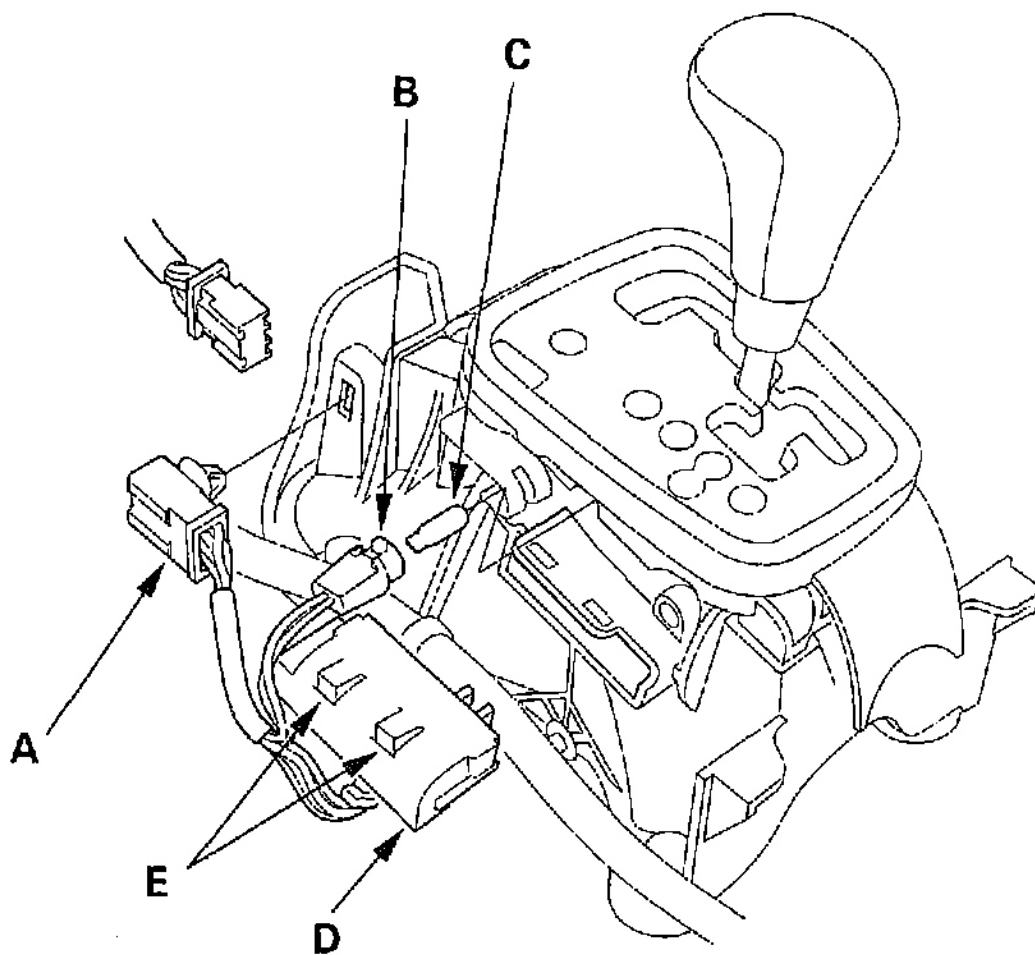
3. Shift to the **P** position, then check for continuity between connector terminals No. 1 and No. 4. There should be no continuity.
4. Shift out of the **P** position, and check for continuity between terminals No. 1 and No. 4. There should be

continuity.

5. If the park pin switch is faulty, replace it.

PARK PIN SWITCH REPLACEMENT

1. Remove the shift lever assembly (see **SHIFT LEVER**).
2. Disconnect transmission gear selection switch/park pin switch connector (A), then remove the connector from the shift lever bracket base.



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Fig. 10: Removing The Connector From The Shift Lever Bracket Base

3. Remove the A/T gear position indicator panel light bulb socket (B), then remove the bulb (C) from the socket.

4. Remove the transmission gear selection switch/park pin switch (D) by releasing the lock tabs (E).
5. Install the new switch assembly in the shift lever bracket base.
6. Install the bulb in the socket, then install the socket in the bracket base.
7. Install the switch connector on the bracket base, then connect the connector.
8. Install the shift lever assembly (see **SHIFT LEVER**).