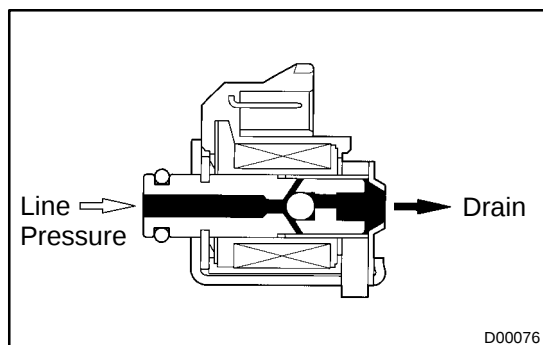


DTC	P0770	Shift Solenoid "E" Malfunction
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SYSTEM DESCRIPTION

The ECM uses the signals from the throttle position sensor, air-flow meter and crankshaft position sensor to monitor the engagement condition of the lock-up clutch.

Then the ECM compares the engagement condition of the lock-up clutch with the lock-up schedule in the ECM memory to detect mechanical trouble of the shift solenoid valve SL, valve body and torque converter clutch.

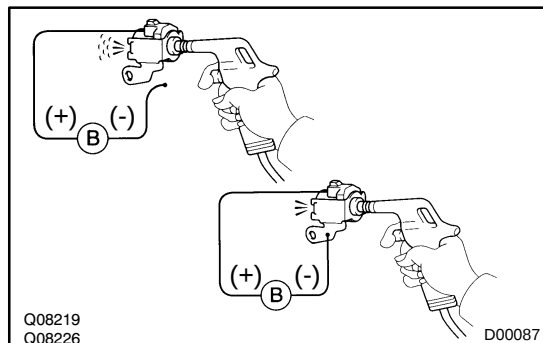
DTC No.	DTC Detecting Condition	Trouble Area
P0770	Lock-up does not occur when driving in the lock-up range (normal driving at 80 km/h [50 mph]), or lock-up remains ON in the lock-up OFF range (2 trip detection logic).	- Shift solenoid valve SL is stuck open or closed - Valve body blocked up or stuck - Lock-up clutch

HINT:

Check the shift solenoid valve SL when DTC P0770 (Shift Solenoid "E" Malfunction) is output.

INSPECTION PROCEDURE

1	Check solenoid valve SL operation.
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PREPARATION:

- Remove the oil pan.
- Remove the shift solenoid valve SL.

CHECK:

- Applying 490 kPa (5 kgf/cm², 71 psi) of compressed air, check that the solenoid valve does not leak air.
- When battery voltage is supplied to the shift solenoid valve, check that the solenoid valve opens.

OK:

- Solenoid valve does not leak air.
- Solenoid valve opens.

NG

Replace the solenoid valve SL.

OK

Check valve body (See page [DI-175](#)).

Repair or replace the valve body.

**Replace the torque converter clutch
(See page [AT-18](#) and [AT-22](#)).**

DTC	P0773	Shift Solenoid "E" Electrical
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CIRCUIT DESCRIPTION

The shift solenoid valve SL is turned ON and OFF by signals from the ECM to control the hydraulic pressure acting on the lock-up relay valve, which then controls operation of the lock-up clutch.

DTC No.	DTC Detecting Condition	Trouble Area
P0773	Either 1. or 2. is detected for 1 time (2 - trip detection logic). 1. Solenoid resistance is 8 Ω or less (short circuit) when the solenoid is energized. 2. Solenoid resistance is 100 kΩ or more (open circuit) when the solenoid is not energized.	• Open or short in shift solenoid valve SL circuit • Shift solenoid valve SL • ECM

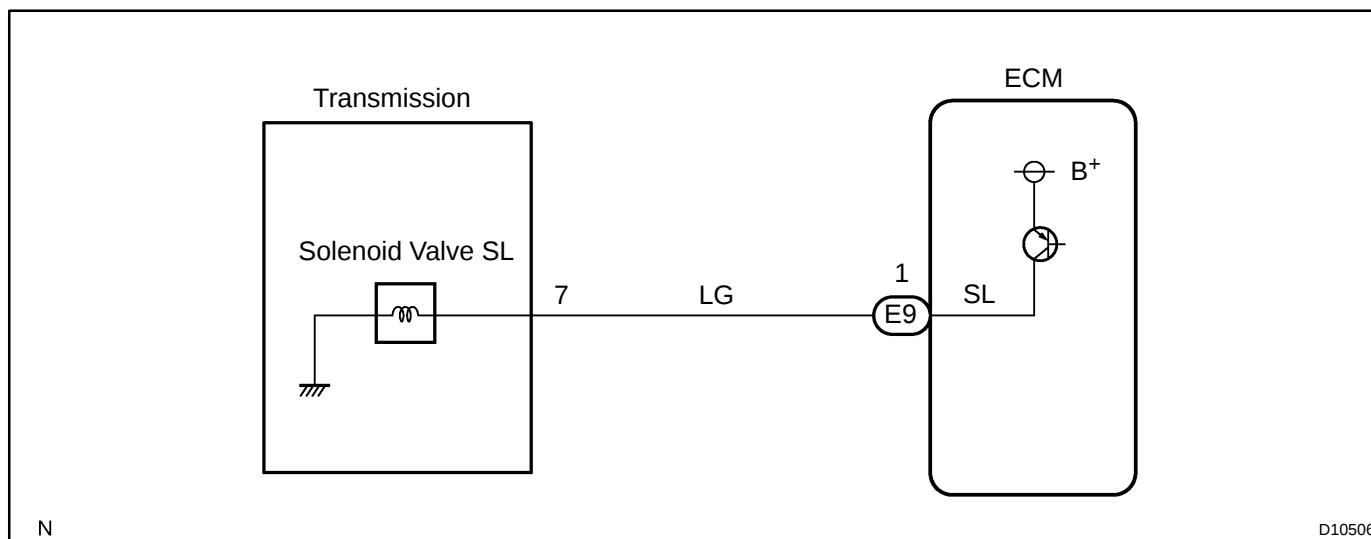
Fail safe function

If the ECM detects a malfunction, it turns the shift solenoid valve SL OFF.

HINT:

Check the shift solenoid valve SL when DTC P0773 (Shift Solenoid "E" Electrical) is output.

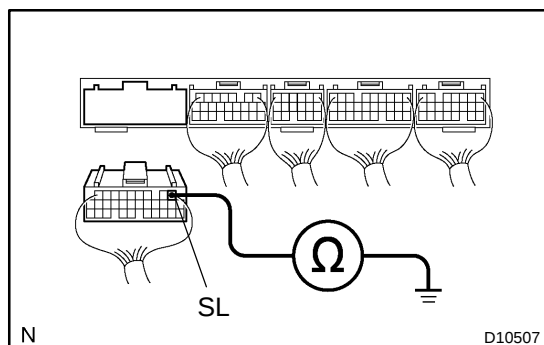
WIRING DIAGRAM



D10506

INSPECTION PROCEDURE

- 1 Measure resistance between terminal SL of ECM and body ground.**

**PREPARATION:**

Disconnect the connector from the ECM.

CHECK:

Measure resistance between terminal SL of ECM and body ground.

OK:

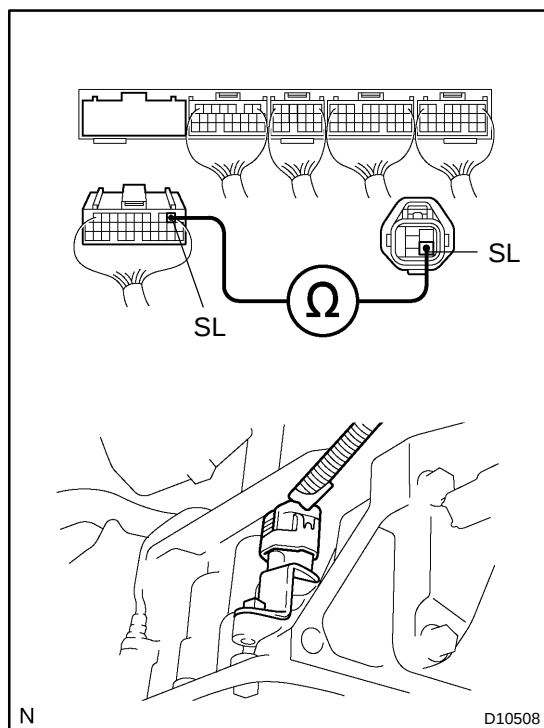
Resistance: 11 - 15 Ω at 20°C (68°F)

OK

Check and replace the ECM (See page [IN-28](#)).

NG

- 2 Check harness and connector between ECM and automatic transmission solenoid connector.**

**PREPARATION:**

Disconnect the solenoid connector from the transmission.

CHECK:

Check the harness between terminal SL of ECM and terminal SL of transmission solenoid connector.

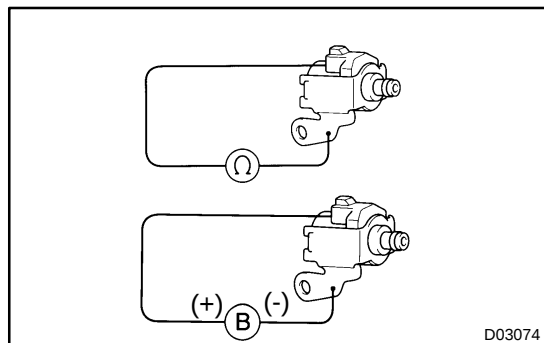
OK:

There is no open or short circuit.

NG

Repair or replace the harness or connector.

OK

3 Check shift solenoid valve SL.**PREPARATION:**

- (a) Remove the oil pan.
- (b) Remove the shift solenoid valve SL.

CHECK:

- (a) Measure resistance between terminal SL of shift solenoid valve and solenoid body.
- (b) Connect positive (+) lead to terminal of solenoid connector, negative (-) lead to solenoid body.

OK:

- (a) **Resistance: 11 - 15 Ω at 20°C (68°F)**
- (b) **The shift solenoid valve SL makes operation noise.**

NG**Replace the shift solenoid valve SL.****OK****Repair or replace the solenoid wire.**