DTC	P0750/62	S1 SOLENOID VALVE MALFUNCTION

DTC	P0755/63	S2 SOLENOID VALVE MALFUNCTION

DTC	P0765/65	S4 SOLENOID VALVE MALFUNCTION

SYSTEM DESCRIPTION

The ECM uses signals from the vehicle speed sensor to detect the actual gear range (1st, 2nd, 3rd or O/D gear).

Then the ECM compares the actual gear with the shift schedule in the ECM memory to detect mechanical troubles of the shift solenoid valves and valve body.

DTC No.	DTC Detection Condition	Trouble Area
P0750/62 P0755/63 P0765/65	During normal driving, gear required by ECM does not match the actual gear (2 trip detection logic)	• Shift solenoid valve SL1, SL2 or S4 is stuck open or closed • Valve body is blocked or stuck

HINT:

- Start the inspection from step 2 when DTC P0750/62 is output.
- Start the inspection from step 3 when DTC P0755/63 is output.
- Start the inspection from step 4 when DTC P0765/65 is output.

INSPECTION PROCEDURE

HINT:
Start the inspection from step 1 in case of using the hand–held tester and start from step 2, 3, 4 in case of not using hand–held tester.

1	PERFORM ACTIVE TEST BY HAND–HELD TESTER

(a) Warm up the engine.
(b) Turn the ignition switch OFF.
(c) Connect the Hand–held tester to the DLC3.
(d) Turn the ignition switch ON and push the Hand–held tester main SW ON.
(e) Select the item ”SHIFT” in the ACTIVE TEST and operate the shift solenoid valves on the Hand–held tester.

NOTICE:
The values given below for ”Normal Condition” are representative values, so a vehicle may still be normal even if its value differs from those listed here. Do not depend solely on the ”Normal Condition” here when deciding whether or not the part is faulty.

Item	Test Details	Diagnostic Note
SHIFT	[Test Details] Operate the shift solenoid valve and set the each shift range by yourself. [Vehicle Condition] Less than 50 km/h (31 mph) [Others] • Press → button: Shift up • Press ← button: Shift down	Possible to check the operation of the shift solenoid values.

A	NG (SL1)
B	NG (SL2)
C	NG (S4)

NG(A) → **Go to step 2**

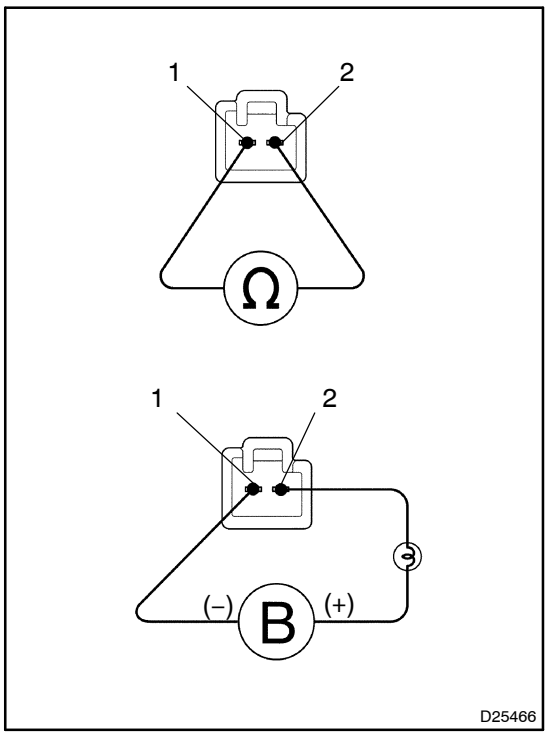
NG(B) → **Go to step 3**

NG(C) → **Go to step 4**

OK

CHECK AND REPLACE ECM(See page 01–31)

2	INSPECT SHIFT SOLENOID VALVE SL1



(a) Remove the shift solenoid valve SL1.

(b) Measure the resistance between terminals.

OK:

Resistance: 5.0 – 5.6 Ω at 20°C (68°F)

(c) Connect the positive (+) lead with a 21 W bulb to terminal 2 and the negative (–) lead to terminal 1 of the solenoid valve connector, then check the movement of the valve.

OK:

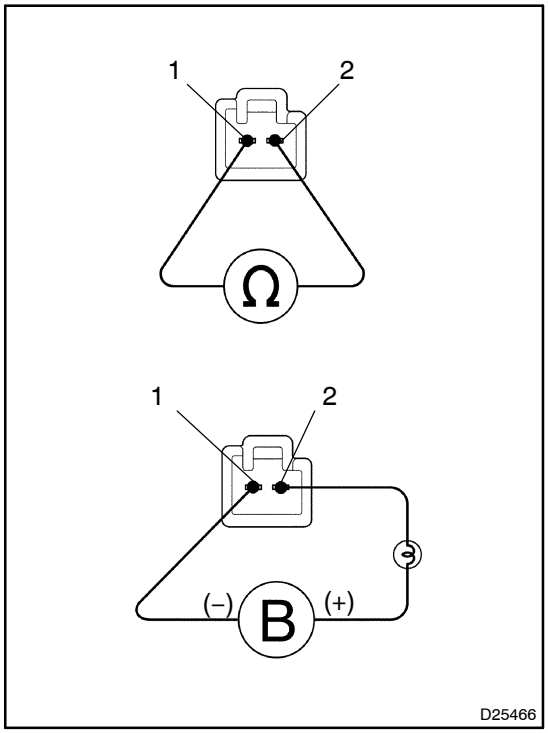
The solenoid makes an operating noise.

OK	Go to step 5

NG

REPLACE SHIFT SOLENOID VALVE SL1

3 INSPECT SHIFT SOLENOID VALVE SL2



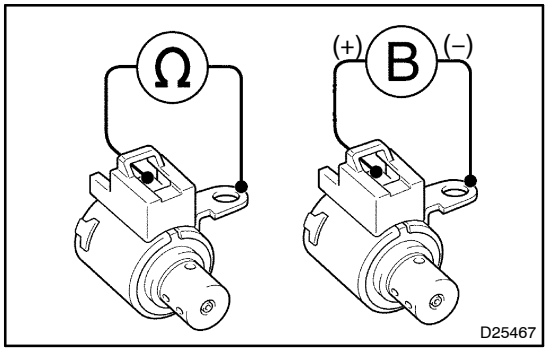
(a) Remove the shift solenoid valve SL2.
(b) Measure the resistance between terminals.
OK:
Resistance: 5.1 – 5.5 Ω at 20°C (68°F)
(c) Connect the positive (+) lead with a 21 W bulb to terminal 2 and the negative (–) lead to terminal 1 of the solenoid valve connector, then check the movement of the valve.
OK:
The solenoid makes an operating noise.

OK	Go to step 5

NG

REPLACE SHIFT SOLENOID VALVE SL2

4 INSPECT SHIFT SOLENOID VALVE S4



(a) Remove the shift solenoid valve S4.
(b) Measure the resistance between the solenoid connector and the solenoid body.
OK:
Resistance: 11 – 15 Ω at 20°C (68°F)
(c) Connector positive (+) lead to the terminal of solenoid connector, negative (–) lead to the solenoid body.
OK:
The solenoid makes an operating noise.

OK	Go to step 5

NG

REPLACE SHIFT SOLENOID VALVE S4

5	INSPECT TRANSMISSION VALVE BODY ASSY

NG → REPAIR OR REPLACE TRANSMISSION VALVE BODY ASSY(See page 40–35)

OK

6	INSPECT TORQUE CONVERTER CLUTCH ASSY(See page 40–26)

NG → REPLACE TORQUE CONVERTER CLUTCH ASSY

OK

REPAIR AUTOMATIC TRANSAXLE ASSY(See page 40–8, 40–14 or 40–20)