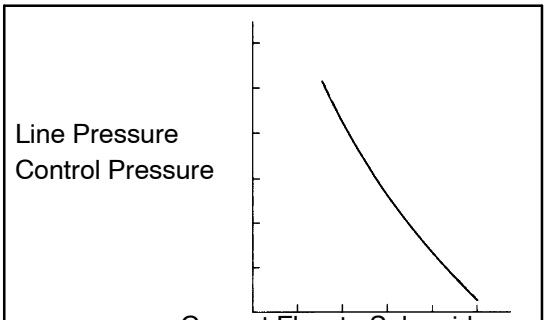
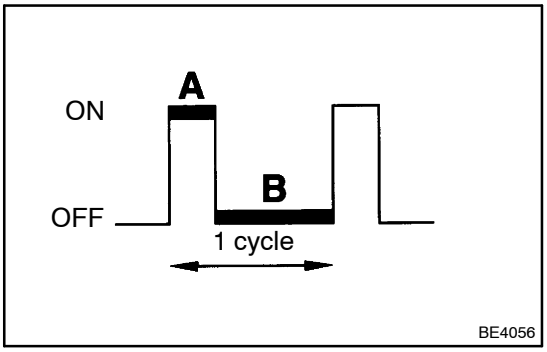
DTC P1760/77 LINEAR SOLENOID FOR ACCUMULATOR PRESSURE CONTROL MALFUNCTION (SLT)





CIRCUIT DESCRIPTION

The throttle pressure that is applied to the primary regulator valve (which modulates the line pressure) causes the solenoid valve SLT, under electronic control, to precisely and minutely modulate and generate the line pressure according the extent of the accelerator pedal depressed or the output of engine power.

This reduces the function of the line pressure and provides smooth shifting.

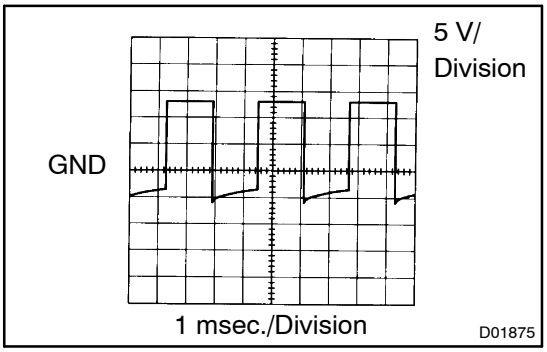
Upon receiving a signal of the throttle valve opening angle, the ECM controls the line pressure by sending a predetermined (*) duty ratio to the solenoid valve, modulating the line pressure and generating throttle pressure.

(*): Duty Ratio

The duty ratio is the ratio of the period of continuity in one cycle. For example, if A is the period of continuity in one cycle, and B is the period of non–continuity, then

Duty Ratio=A/(A+B) x 100 (%)

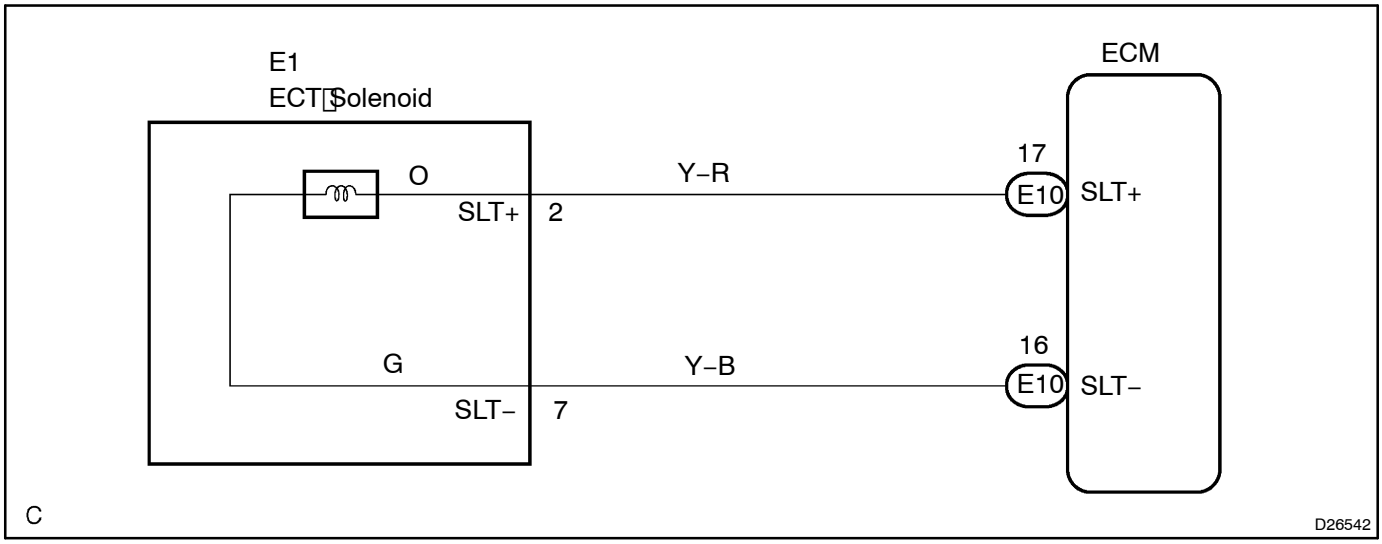
DTC No.	DTC Detection Condition	Trouble Area
P1760/77	Condition (a) or (b) below is detected 1 sec. or more: (a) SLT– terminal: 0V (b) SLT– terminal: 12V	• Open or short in line pressure control solenoid (SLT) circuit • Line pressure control solenoid (SLT) • ECM



Reference:

Check the waveform between terminals SLT+ and SLT– during the engine idling.

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Start the inspection from step 1 in case of using the hand–held tester and start from step 2 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 "LINE PRESS UP" in the ACTIVE TEST and operate the shift solenoid SLT on the Hand–held tester.

NOTICE:

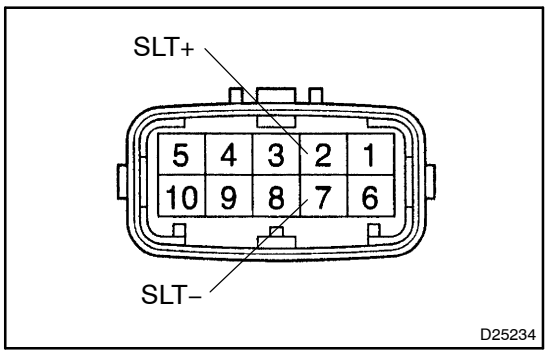
The values given below for "Normal Condition" are representative values, so a vehicle may still be normal even if its value differs from those listed here. Do not depend solely on the "Normal Condition" here when deciding whether or not the part is faulty.

Item	Test Details	Diagnostic Note
LINE PRESS UP	[Test Details] Operate the shift solenoid SLT and raise the line pressure. [Vehicle Condition] • Vehicle Stopped. • IDL: ON [Others] ON: Line pressure up. OFF: No action (normal operation)	–

OK → **CHECK AND REPLACE ECM (See page 01–31)**

NG

2	INSPECT TRANSMISSION WIRE(SLT)



(a) Disconnect the transmission wire connector from the transaxle.

(b) Measure the resistance between the terminals SLT+ and SLT–.

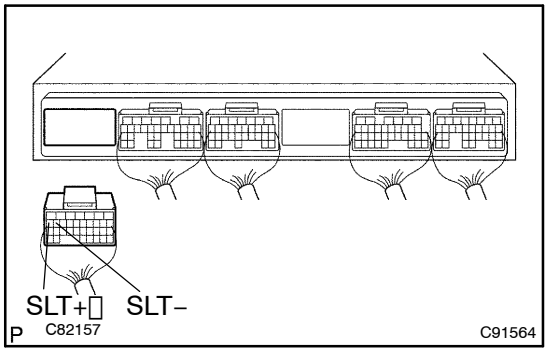
OK:

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

NG → **Go to step 4**

OK

3	CHECK HARNESS AND CONNECTOR(TRANSMISSION WIRE–ECM)



(a) Connect the transmission wire connector to the transaxle.

(b) Disconnect the ECM connector.

(c) Measure the resistance between terminals SLT+ and SLT– of ECM connector.

OK:

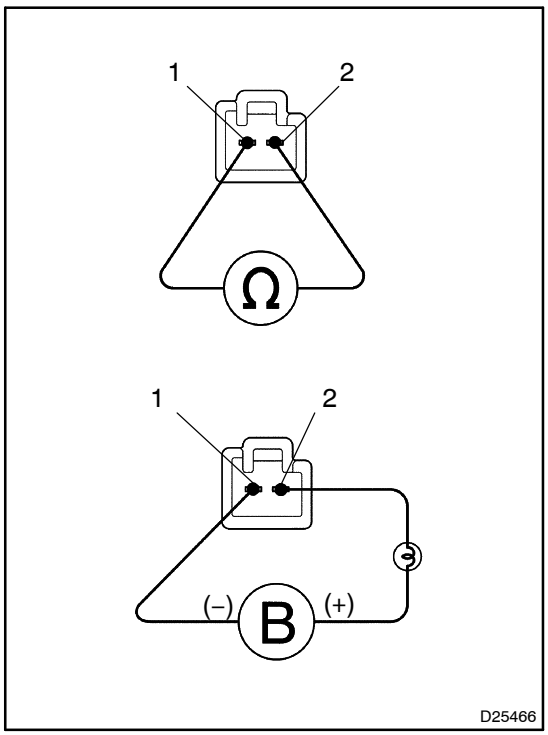
Resistance: 5.0 – 5.6 Ω at 20 °C (68 °F)

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR(See page 01–31)**

OK

CHECK AND REPLACE ECM(See page 01–31)

4	INSPECT LINE PRESSURE CONTROL SOLENOID ASSY(SLT)



(a) Remove the line pressure control solenoid (SLT).

(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	REPAIR OR REPLACE TRANSMISSION WIRE(See page 01–31)

NG

REPLACE LINE PRESSURE CONTROL SOLENOID ASSY