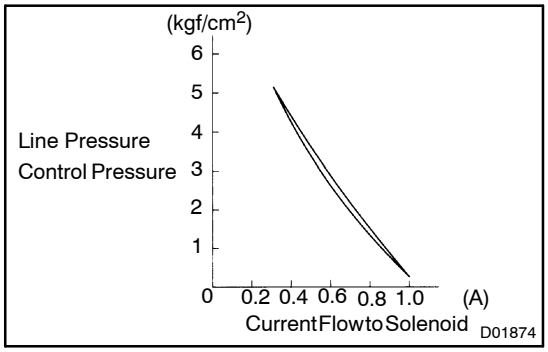
DI5SJ–01

DTC	P1760/77	Linear Solenoid for Line Pressure Control Circuit Malfunction (SLT Solenoid Valve)



CIRCUIT DESCRIPTION

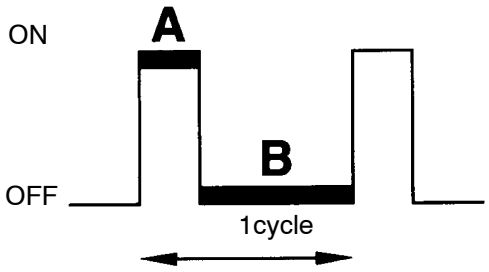
The throttle pressure that is applied to the primary regulator valve (which modulates line pressure) causes the solenoid valve SLT, under electronic control, to precisely and minutely modulate and generate line pressure according to the accelerator pedal effort, or engine power output detected.

This reduces the fluctuation of line pressure and provides smooth shifting characteristics.

Upon receiving the throttle valve opening angle signal, Engine and ECT ECU controls the line pressure by sending a predetermined (*) duty ratio to the SLT solenoid valve located in the valve body, activating in the valve body, modulating the line pressure, 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



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(*)

$$\text{Duty Ratio} = \frac{A}{A + B} \times 100\ (\%)$$

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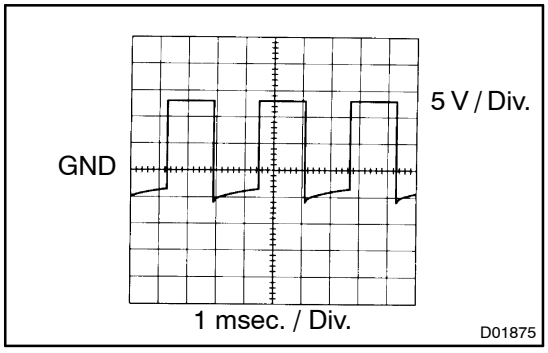
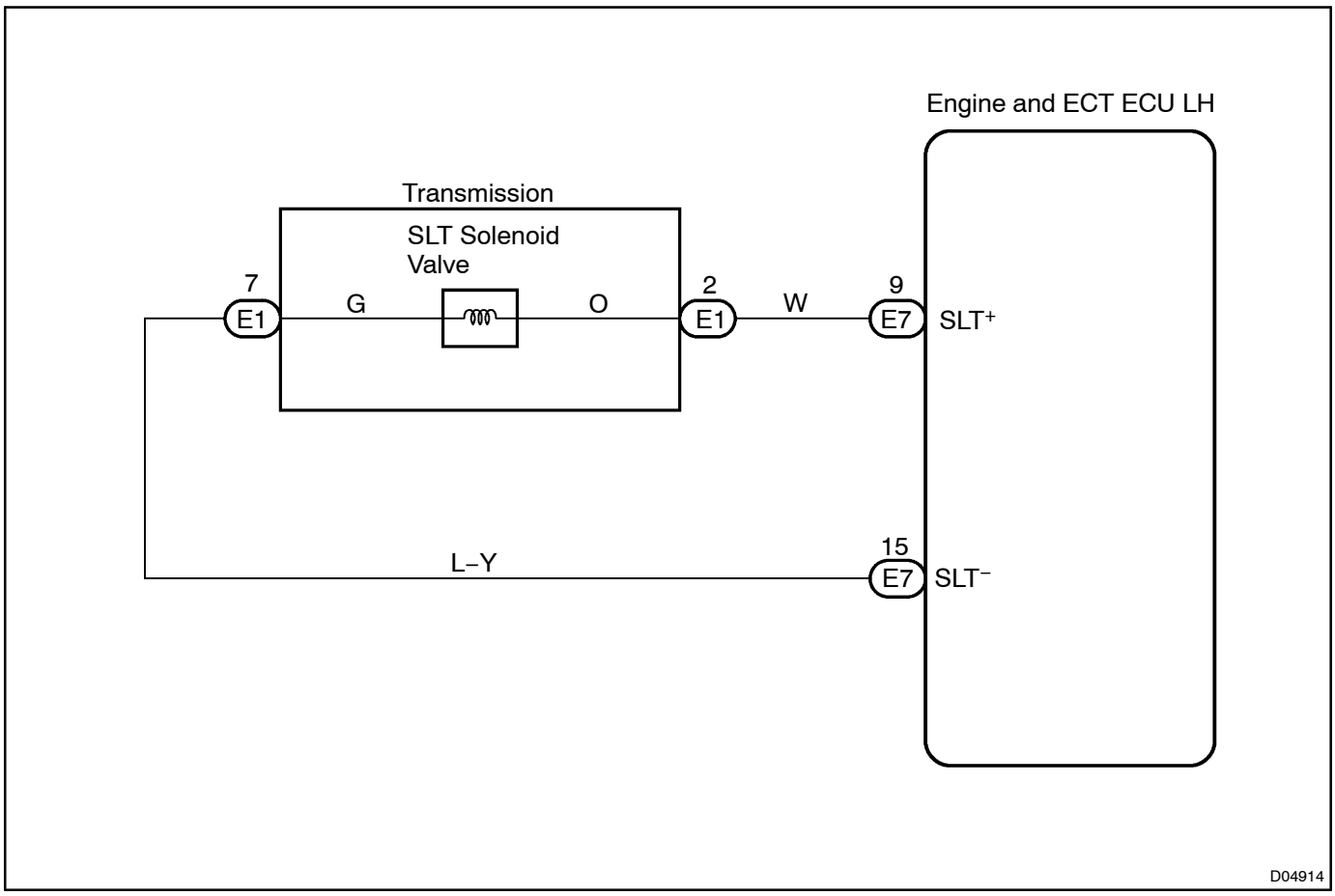
DTC No.	DTC Detecting Condition	Trouble Area
P1755/77	(a) (b) (c) or (a) (b) (d) conditions below are detected for 1 second or more. (a) Battery voltage: 11 V or more (b) Throttle sensor: not fail (c) SLT– terminal: 0 V (d) SLT– terminal: 12 V	• Open or short in SLT solenoid valve circuit • SLT solenoid valve • Engine and ECT ECU



HINT:

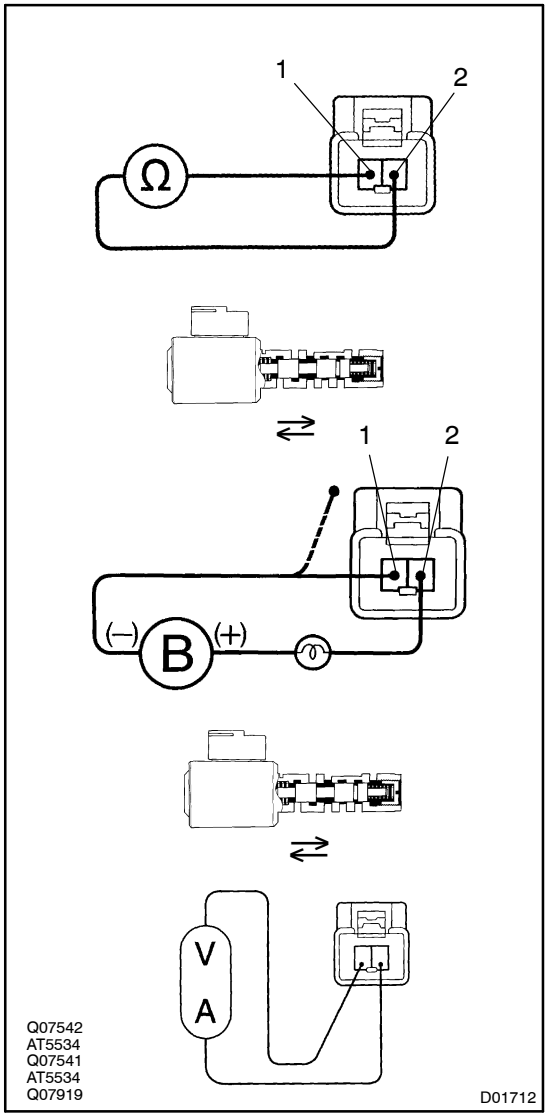
Refer to the chart for the wave form between terminals SLT+ and SLT– during engine idling.

WIRING DIAGRAM



INSPECTION PROCEDURE

1	**Check SLT solenoid valve.**



Check solenoid resistance and operation:

PREPARATION:

(a) Jack up the vehicle.
(b) Remove the oil pan.
(c) Disconnect the solenoid connector.

CHECK:

(a) Measure resistance between terminals 1 and 2 of solenoid connector.
(b) Connect positive (+) lead with an 8 – 10 W bulb to terminal 1 of solenoid connector and negative (–) lead to terminal 2, then check the movement of the valve.

OK:

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

When battery positive voltage is applied.	Valve moves in → direction in the illustration.
When battery positive voltage is cut off.	Valve moves in ← direction in the illustration.

Check solenoid operation:

PREPARATION:

(a) Prepare a variable power supply.
(b) Connect positive (+) lead of the variable power supply to terminal 1 of solenoid connector and negative (–) lead to terminal 2.

CHECK:

(a) Check the movement of the valve when the voltage is gradually increased. (A current greater than 1 A should not be supplied.)
(b) Check the movement of the valve when the voltage is cut off.

OK:

(a) As the voltage is increased, the valve should move slowly in the → direction.
(b) The valve should return in the ← direction.

NG → **Replace SLT solenoid valve.**

OK

2	Check harness and connector between SLT solenoid valve and Engine and ECT ECU (See page IN–30).

NG → Repair or replace harness or connector.

OK →

Check and replace Engine and ECT ECU (See page IN–30).