DI2JG–02

DTC	P1765	Linear Solenoid for Accumulator Pressure Control Circuit Malfunction (SLN)

CIRCUIT DESCRIPTION

The shift solenoid valve SLN controls the hydraulic pressure acting on the accumulator control valve when gears are shifted and performs smooth gear shifting. The ECM determines optimum operating pressure according to the signals from the throttle position sensor, vehicle speed sensor and direct clutch speed sensor and controls the volume of current flow to the solenoid valve. The amount of current to the solenoid is controlled by the (*) duty ratio of ECM output signals, causing a momentary charge to the hydraulic pressure acting on the clutches during gear shifting .
When the duty ratio is high, the hydraulic pressure acting on the clutches is low.

Accumulator Control
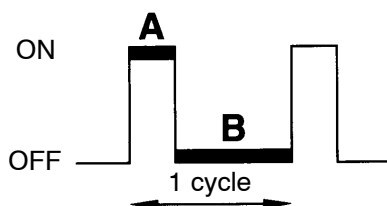Pressure

Current Flow to Solenoid
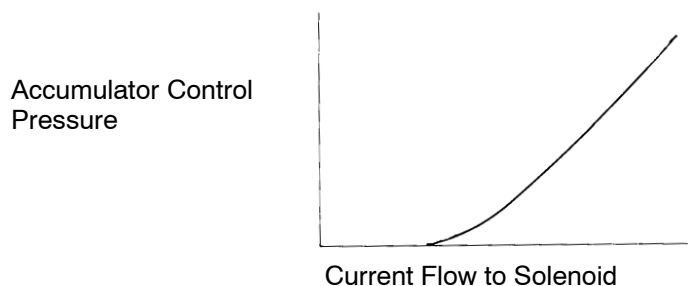
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(*) Duty Ratio
The duty ratio is the ratio of the period of continuity in one cycle.
For example, if A is the period of continuity in one cycle, and B is the period of non–continuity, then

ON

A

B

OFF

1 cycle

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

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| DTC No	DTC Detecting Condition	Trouble Area
P1765	The following condition is detected. Signal output from SLN is ON for 3.3 msecs. or more and duty ratio is at least 95% for 1 second.	• Open or short in shift solenoid valve SLN circuit • Shift solenoid valve SLN • ECM
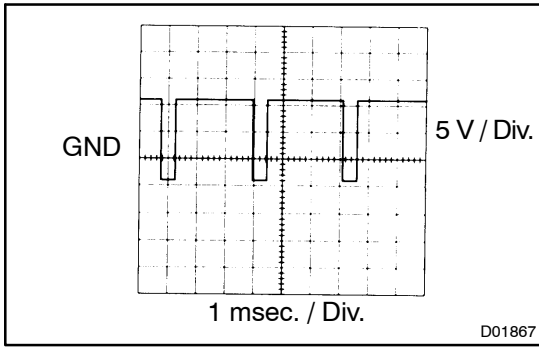
Reference
Refer to the chart for the wave form between terminals SLN⁻ and E1 when engine is idling.
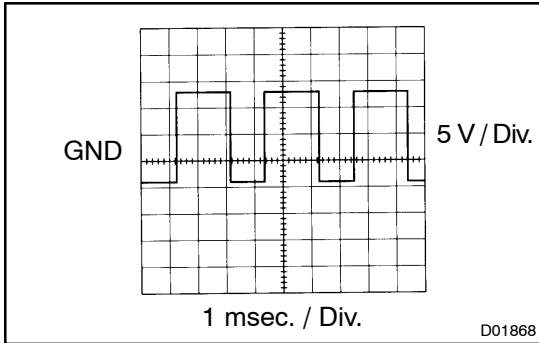
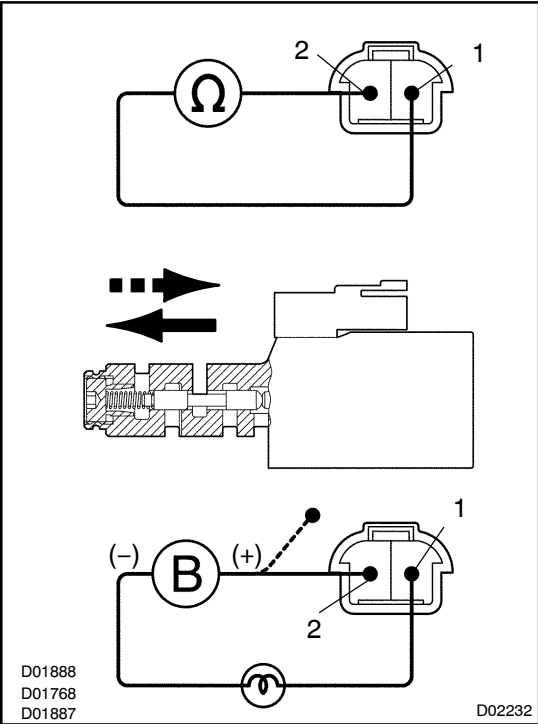Refer to the chart for the wave form between terminals SLN⁻ and E1 during shift change.

WIRING DIAGRAM
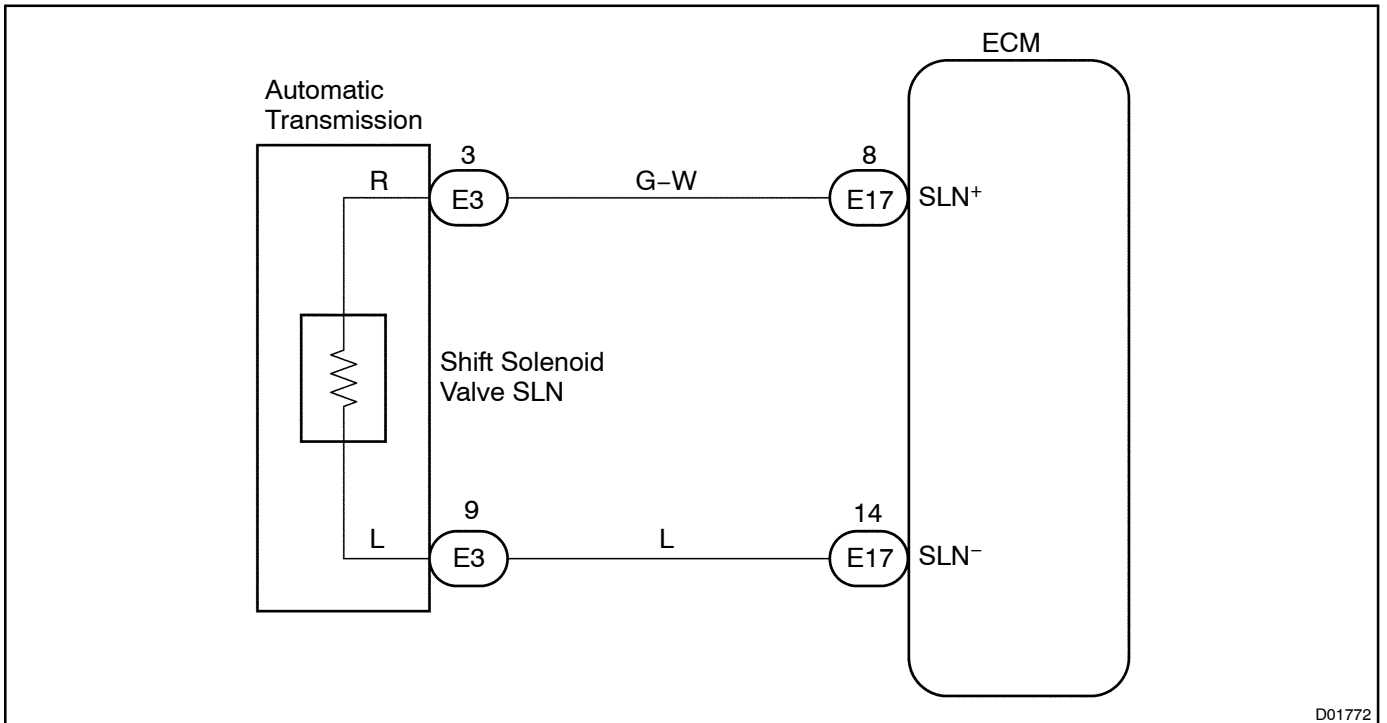
INSPECTION PROCEDURE

1	Check shift solenoid valve SLN.

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

Check solenoid resistance:

CHECK:
Measure resistance between terminals 1 and 2 of solenoid connector.

OK:

Resistance: 5.0 ~ 5.6 Ω at 20 ˚C (68 ˚F)

Check solenoid operation:

CHECK:
Connect positive (+) lead with an 8 ~ 10W bulb to terminal 1 of solenoid connector and negative (−) lead to terminal 2, then check the movement of the valve.

OK:

When battery positive voltage is applied.	Valve moves in ← direction in the illustration on the left.
When battery positive voltage is cut off.	Valve moves in ▪▪▶ direction in the illustration on the left.

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D01768
D01887
D02232

NG	Replace shift solenoid valve SLN.

OK

2	Check harness and connector between shift solenoid valve SLN and ECM (See page IN–30).

NG	Repair or replace harness or connector.

OK

Check and replace ECM
(See page IN–30).