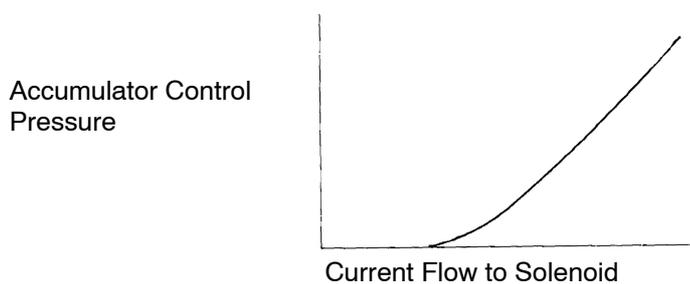


DTC	P1765/46	Linear Solenoid for Accumulator Pressure Control Circuit Malfunction (SLN Solenoid)
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CIRCUIT DESCRIPTION

The SLN solenoid valve controls the hydraulic pressure acting on the accumulator control valve when gears are shifted and performs smooth gear shifting. The Engine and ECT ECU determines optimum operating pressure according to the signals from the throttle position sensor, vehicle speed sensor and O/D 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 Engine and ECT ECU 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.

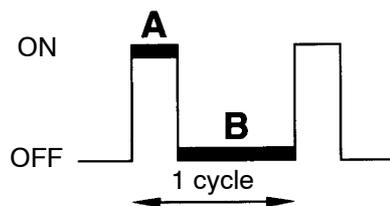


D02636

(*) 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

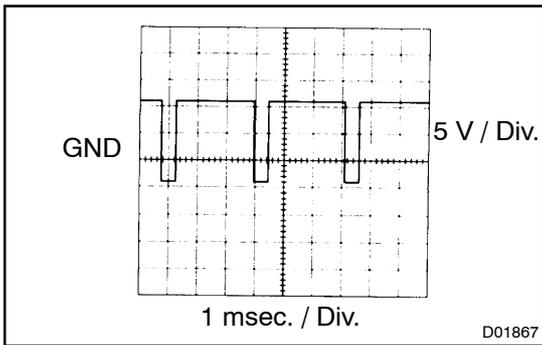


$$\text{Duty Ratio} = \frac{A}{A + B} \times 100 (\%)$$

BE4056

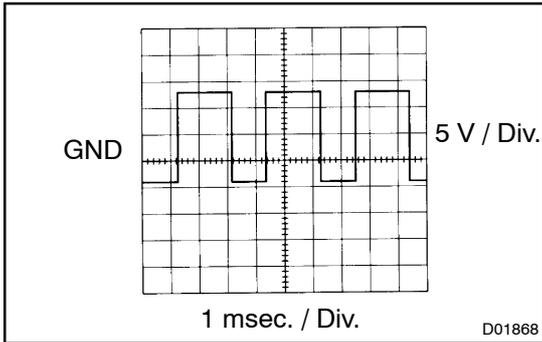
D02292

DTC No	DTC Detecting Condition	Trouble Area
P1765/46	All conditions below are detected for 1 second or more. (2-trip detection logic) (a) Engine and ECT ECU outputs duty signal to SLN solenoid valve at 90 % or higher duty ratio (b) Current to shift solenoid valve SLN: 230 ~ 430 mA or less	<ul style="list-style-type: none"> • Open or short in SLN solenoid valve circuit • SLN solenoid valve • Engine and ECT ECU



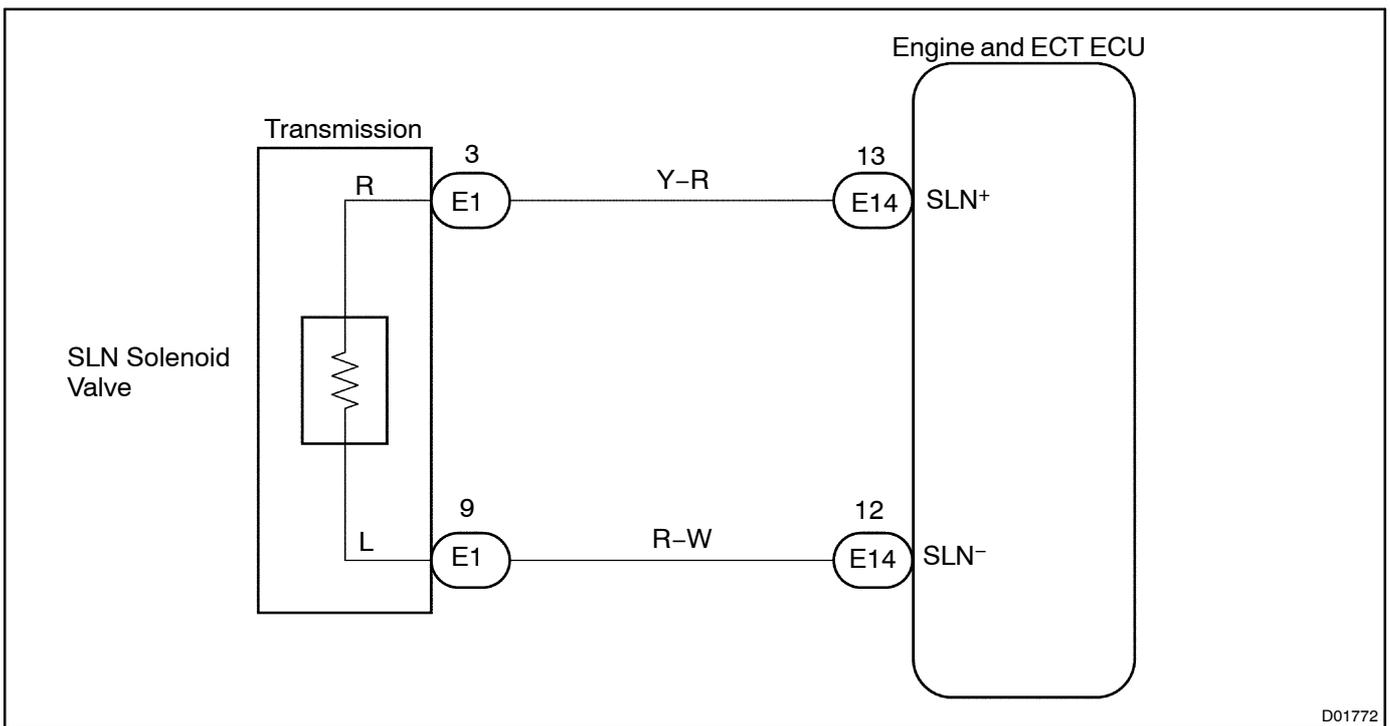
Reference:

- Refer to the chart for the wave form between terminals SLN⁻ and E1 when engine is idling.



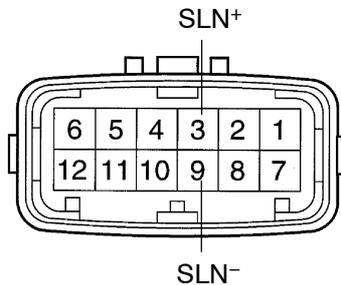
- Refer to the chart for the wave form between terminals SLN⁻ and E1 during shift change.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 Check transmission wire.



D11586

PREPARATION:

Disconnect the transmission wire connector.

CHECK:

Measure resistance between SLN+ and SLN- of transmission wire.

OK:

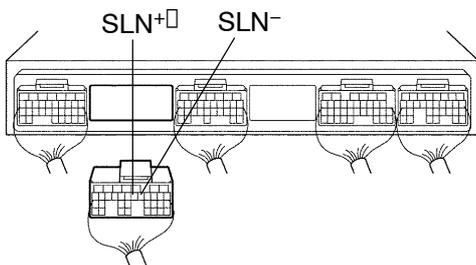
Resistance: 5.0 - 5.6 Ω at 20°C (68°F)

NG

Go to step 3.

OK

2 Measure resistance between terminals SLN+ and SLN- of Engine and ECT ECU connector.



P

D11583

PREPARATION:

(a) Remove the Engine and ECT ECU hood.

(b) Disconnect the connector of the Engine and ECT ECU.

CHECK:

Measure resistance between terminals SLN+ and SLN- of Engine and ECT ECU connector.

OK:

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

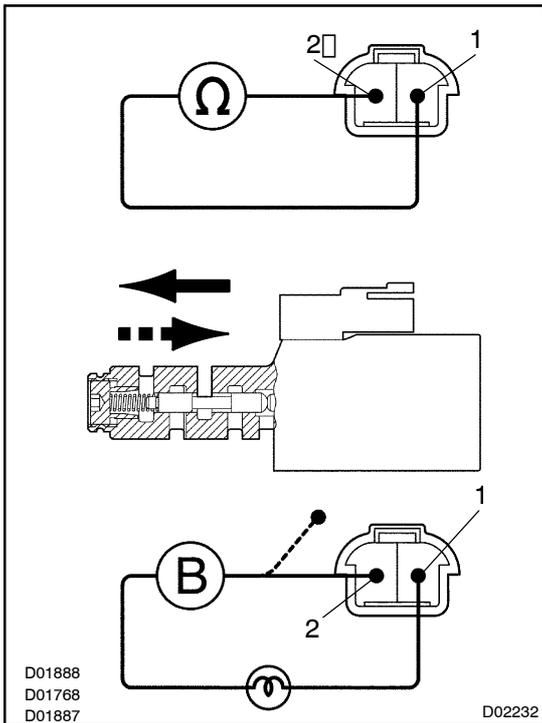
NG

Repair or replace the harness or connector (See page IN-34).

OK

Check and replace the Engine and ECT ECU (See page IN-34).

3 Check SLN solenoid valve.



PREPARATION:

- Jack up the vehicle.
- Remove the oil pan.
- 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 8-10 W 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.

NG

Replace the SLN solenoid valve (See page AT-14)

OK

Repair or replace the transmission wire (See page AT-9)