DTC	P1

# 755/68 Linear Solenoid for Lock-up Control Circuit Malfunction (SLU Solenoid Valve)



### **CIRCUIT DESCRIPTION**

The amount of current flow to the solenoid is controlled by the (\*) duty ratio of the Engine and ECT ECU output signal. The higher the duty ratio becomes, the higher the lock–up hydraulic pressure becomes during the lock–up operation.

(\*) 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	А	v 100 (%)
Duly hallo =	$\Delta \pm B$	x 100 ( /ø

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DTC No.	DTC detection condition	Trouble Area
P1755/68	<ul> <li>(a) or (b) condition below is detected for 1 second or more.</li> <li>(a) SLU output signal ON time is 3.3 m sec. or more.</li> <li>(b) SLU output signal ON time is 100 m sec. or less.</li> <li>(frequency: 300 Hz)</li> </ul>	<ul> <li>Open or short in shift solenoid valve SLU circuit</li> <li>SLU solenoid valve</li> <li>Engine and ECT ECU</li> </ul>





#### HINT:

Refer to the chart for the wave form between terminals SLU<sup>+</sup> and SLU<sup>-</sup> when lock–up function is not operating.

Refer to the chart for the wave form between terminals SLU<sup>+</sup> and SLU<sup>-</sup> when lock-up function is operating.

## WIRING DIAGRAM



### **INSPECTION PROCEDURE**

1 Check SLU solenoid valve. Check solenoid resistance: **PREPARATION:** 1 2 Jack up the vehicle. (a) Remove the oil pan. (b) (c) Disconnect the solenoid connector. IJJ חחר CHECK: 9876543 21 76543 21 654321 7654321 7654321 Measure the resistance between terminals 1 and 2. 21 20 19 18 17 16 15 14 13 12 11 10 16 15 14 13 12 11 10 9 8 12 11 10 9 8 7 19 18 17 16 15 14 13 12 11 10 15 14 13 12 11 10 9 8 OK: Resistance: 5.1 – 5.5  $\Omega$  at 20 °C (68 °F) 31 30 23 28 27 26 25 24 23 22 24 23 22 21 20 19 18 17 17 16 15 14 13 28 27 26 25 24 23 22 21 20 22 21 20 19 18 17 16 Check solenoid operation: **PREPARATION:** (a) Jack up the vehicle. Remove the oil pan. (b) Remove the SLU solenoid valve. (c) CHECK: าวมา JU ר ר Π Connect the positive (+) lead from the battery to terminal 2 and 9876543 21 76543 21 987 654321 76 54321 negative (-) lead to terminal 1. 21 20 19 18 17 16 15 14 13 12 11 10 16 15 14 13 12 11 10 9 8 1918 17 16 15 14 13 12 11 10 15 14 13 12 11 10 9,8 OK: 31 30 29 26 25 24 23 22 24 23 22 21 20 19 18 17 28 27 26 25 24 23 22 21 20 22 21 20 18 28 27 Valve moves in direction When B<sup>+</sup> is applied. in the illustration on the left. 2 Valve moves in (-) (+) When B<sup>+</sup> is cut off. in the illustration on the left. D04916 Replace SLU solenoid valve. NG OK

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

NG

Repair or replace the harness or connector.

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