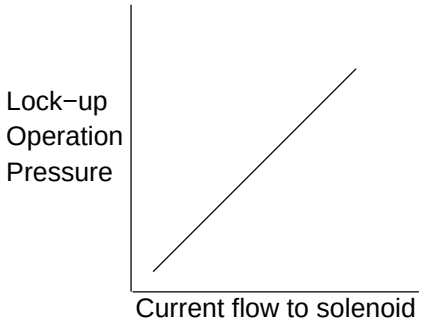
DIDX3−01

| DTC | P2759 | Torque Converter Clutch Pressure Control Solenoid Control Circuit Electrical(Shift Solenoid Valve SLU) |
|---|---|---|



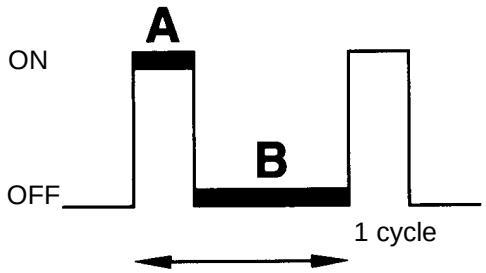

## CIRCUIT DESCRIPTION

The amount of current flow to the solenoid is controlled by the (*) duty ratio of the ECM 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 = A/(A + B) x 100 (%)

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| DTC No. | DTC detection condition | Trouble Area |
|---|---|---|
| P2759 | Open or short is detected in shift solenoid valve SLU circuit for 1 second or more while driving (1−trip detection logic). | • Open or short in shift solenoid valve SLU circuit<br>• Shift solenoid valve SLU<br>• ECM |

## MONITOR DESCRIPTION

When an open or short in a shift solenoid valve (SLU) circuit is detected, the ECM determines there is a malfunction. The ECM will turn on the MIL and store this DTC.

## MONITOR STRATEGY

| | | |
|---|---|---|
| Related DTCs | P2759 | Shift solenoid valve SLU/Range check |
| Required sensors/Components | Shift solenoid valve SLU | |
| Frequency of operation | Continuous | |
| Duration | 1 sec. | |
| MIL operation | Immediate | |
| Sequence of operation | None | |

## TYPICAL ENABLING CONDITIONS

| Item | Specification | |
|---|---|---|
| | Minimum | Maximum |
| The monitor will run whenever this DTC is not present. | See page DI−1128 | |
| Solenoid current cut status | Not cut | |
| CPU commanded duty | 19% or more | − |
| Battery voltage | 11 V or more | − |
| Ignition switch | ON | |
| Starter | OFF | |

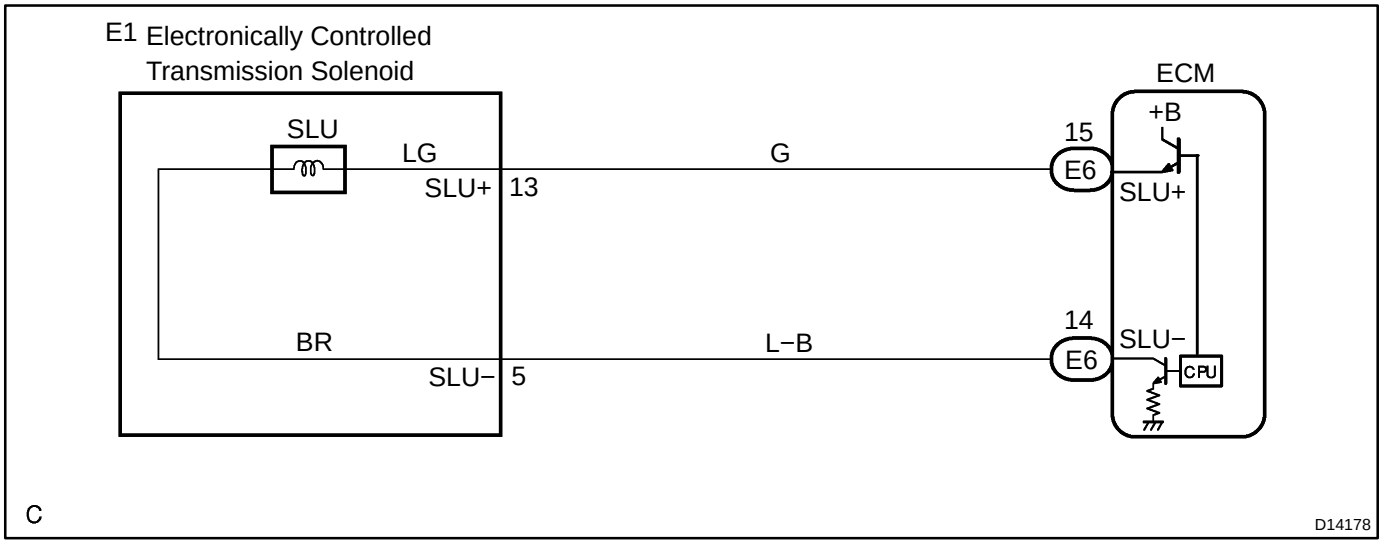
## TYPICAL MALFUNCTION THRESHOLDS

| Detection criteria | Threshold |
|---|---|
| Solenoid status from IC | Fail (Open or short) |

## COMPONENT OPERATING RANGE

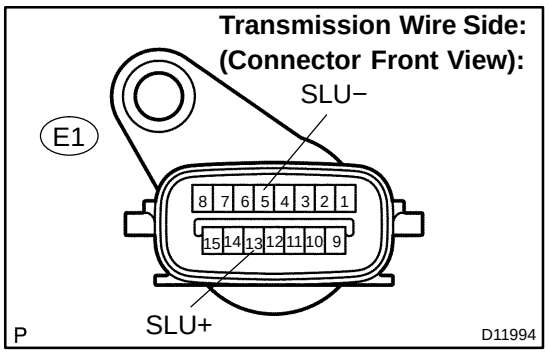
| Parameter | Standard value |
|---|---|
| Output signal duty | Less than 100% |

## WIRING DIAGRAM



## INSPECTION PROCEDURE

| | |
|---|---|
| 1 | **Inspect transmission wire.** |




**PREPARATION:**

Disconnect the transmission wire connector.

**CHECK:**

Measure the resistance according to the value(s) in the table below.

**OK:**

| Tester Connection | Specified Condition 20°C (68°F) |
|---|---|
| 13 (SLU+) − 5 (SLU−) | 5.0 to 5.6 Ω |

**CHECK:**

Measure the resistance according to the value(s) in the table below.

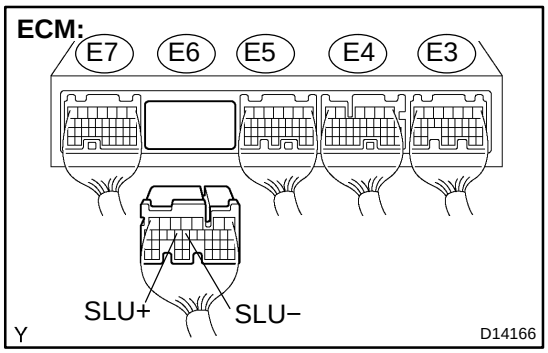
**OK:**

| Tester Connection | Specified Condition |
|---|---|
| 13 (SLU+) − Body ground | 10 kΩ or higher |
| 5 (SLU−) − Body ground | ↑ |

**NG** → **Go to step 3.**

**OK**

| 2 | Check harness and connector (Transmission wire − ECM) |
|---|---|




**PREPARATION:**

(a) Connect the transmission wire connector.

(b) Disconnect the ECM connector.

**CHECK:**

Measure the resistance according to the value(s) in the table below.

**OK:**

| Tester Connection | Specified Condition 20°C (68°F) |
|---|---|
| E6 − 15 (SLU+) − E6 − 14 (SLU−) | 5.0 to 5.6 Ω |

**CHECK:**

Measure the resistance according to the value(s) in the table below.

**OK:**

| Tester Connection | Specified Condition |
|---|---|
| E6 − 15 (SLU+) − Body ground | 10 kΩ or higher |
| E6 − 14 (SLU−) − Body ground | ↑ |

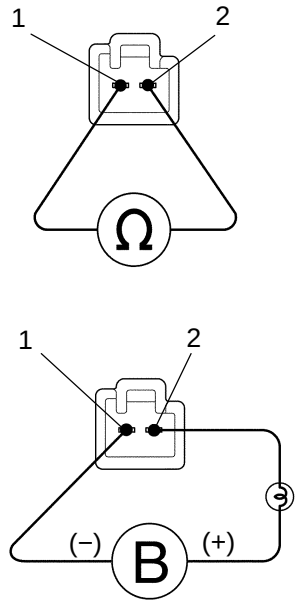
NG → **Repair or replace the harness or connector (See page IN−30).**

OK →

**Replace the ECM (See page SF−82).**

| 3 | Inspect shift solenoid valve SLU. |
|---|---|

**Shift Solenoid Valve SLU:**

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**PREPARATION:**

Remove the shift solenoid valve SLU (See page AT−12).

**CHECK:**

Measure the resistance according to the value(s) in the table below.

**OK:**

| Tester Connection | Specified Condition 20°C (68°F) |
|---|---|
| 1 − 2 | 5.0 to 5.6 Ω |

**CHECK:**

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 sound.**

**NG** → **Replace the shift solenoid valve SLU (See page AT−12).**

**OK**

**Repair or replace the transmission wire (See page AT−9).**