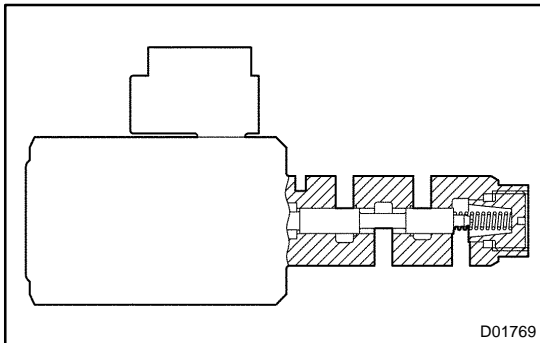


| | | |
|------------|--------------|--|
| DTC | P0770 | Shift Solenoid "E" Malfunction (Shift Solenoid Valve SLU) |
|------------|--------------|--|



SYSTEM DESCRIPTION

The ECM uses the signals from the Throttle Position Sensor and Air-flow Meter to monitor the engagement condition of the lock-up clutch.

Then the ECM compares the engagement condition of the lock-up clutch with the lock-up schedule in the ECM memory to detect mechanical trouble of the shift solenoid valve SLU, valve body, torque converter clutch and automatic transmission assembly (clutch, brake or gear etc.).

| DTC No. | DTC Detecting Condition | Trouble Area |
|---------|--|---|
| P0770 | Lock-up does not occur when driving in the lock-up range (normal driving at 80 km/h [50 mph]), or lock-up remains ON in the lock-up OFF range. (2-trip detection logic) | <ul style="list-style-type: none"> • Shift solenoid valve SLU is stuck open or closed • Valve body blocked up or stuck • Lock-up clutch • Automatic transmission assembly |

INSPECTION PROCEDURE

HINT:

In case of using LEXUS hand-held tester, start the inspection from step 1 and in case of not using the LEXUS hand-held tester, start from step 2.

| | |
|----------|---------------------|
| 1 | Active test. |
|----------|---------------------|

PREPARATION:

- (a) Remove the DLC3 cover.
- (b) Connect a LEXUS hand-held tester.
- (c) Turn the ignition switch ON and LEXUS hand-held tester main switch ON.

CHECK:

Using active test, check the lock-shift operation.

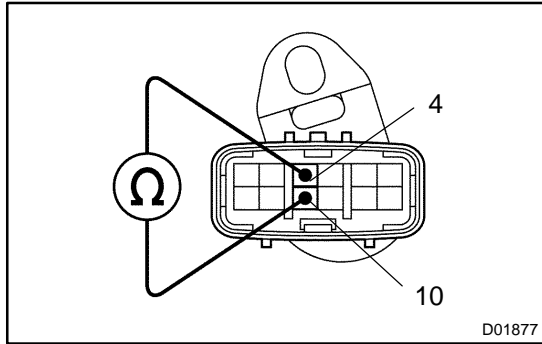
OK:

Lock-up ON

| | |
|-----------|---|
| NG | Replace the torque converter clutch. |
|-----------|---|

| |
|-----------|
| OK |
|-----------|

2 Check solenoid valve SLU resistance.



PREPARATION:

Disconnect the solenoid wire connector.

CHECK:

Measure the resistance between terminals 4 and 10 of solenoid connector.

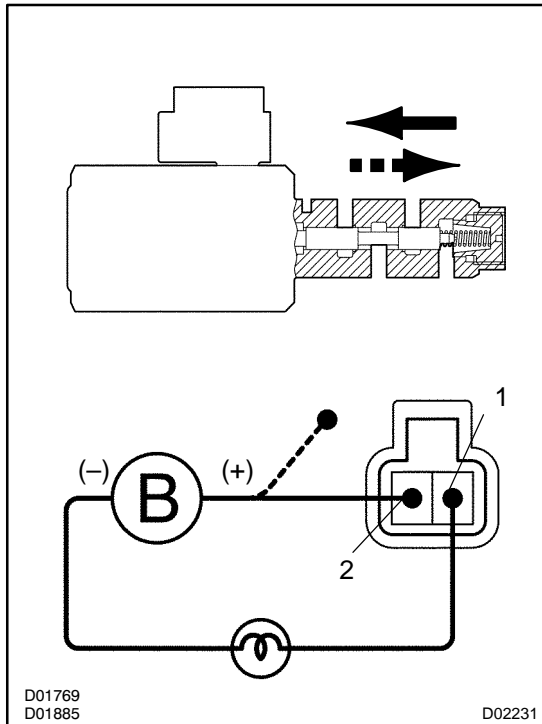
OK:

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

NG Replace the solenoid valve SLU.

OK

3 Check solenoid valve SLU operation.



PREPARATION:

- (a) Remove the oil pan.
- (b) Remove the solenoid valve SLU.

CHECK:

Connect the positive (+) lead from the battery to terminal 2 and the negative (-) lead to terminal 1.

OK:

| | |
|---------------------------------|--|
| When B ⁺ is applied. | Valve moves in direction in illustration on the left. |
| When B ⁺ is cut off. | Valve moves in direction in illustration on the left. |

NG Replace the solenoid valve SLU.

OK

| | |
|----------|--------------------------|
| 4 | Check valve body. |
|----------|--------------------------|

| | |
|-----------|--|
| NG | Repair or replace the valve body. |
|-----------|--|

| |
|-----------|
| OK |
|-----------|

| |
|--|
| Replace the torque converter clutch (See page AT-39). |
|--|