DTC P2772 TRANSFER L4 SW CIRCUIT

CIRCUIT DESCRIPTION

The ECM detects the signal from the transfer L4 position switch.
This DTC indicates that the transfer L4 position switch remains on.

DTC No.	DTC Detecting Condition	Trouble Area
P2772	Transfer L4 position switch remains ON while vehicle is running under following conditions for 1.8 seconds or more (1–trip detection logic) (a) Output shaft speed 3,000 rpm or less (b) Transfer shift position is H	• Short in transfer L4 position switch circuit • Transfer L4 position switch • ECM

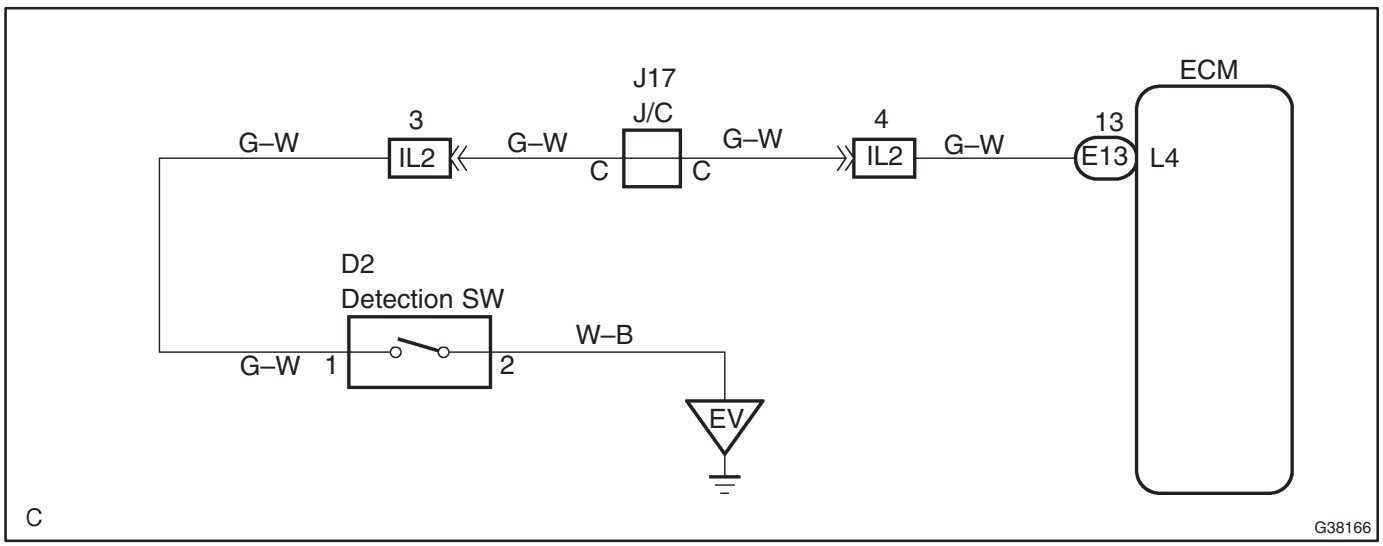
MONITOR DESCRIPTION

The ECM monitors the transfer–case L4 position switch to determine when the transfer–case L4 gear is engaged. If the transfer–case L4 gears remain engaged under the following conditions, the ECM will conclude that there is a malfunction of the L4 position switch:

- L4 switch indicated that the L4 transfer–case gears are engaged.
- Transfer–case shifter is in the ”H” position.
- Transfer–case output shaft rpm is between 750 and 3,000 rpm.
- The specified time period has elapsed.

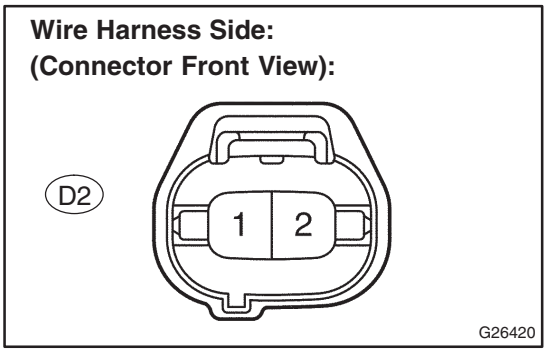
If all of the above conditions are detected, the ECM will conclude that there is a malfunction of the L4 switch, illuminate the MIL and store the DTC.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 CHECK HARNESS AND CONNECTOR(TRANSFER INDECATOR SWITCH–BODY GROUND)



(a) Disconnect the transfer indicator switch No.1 connector.
(b) Measure the resistance according to the value(s) in the table below.

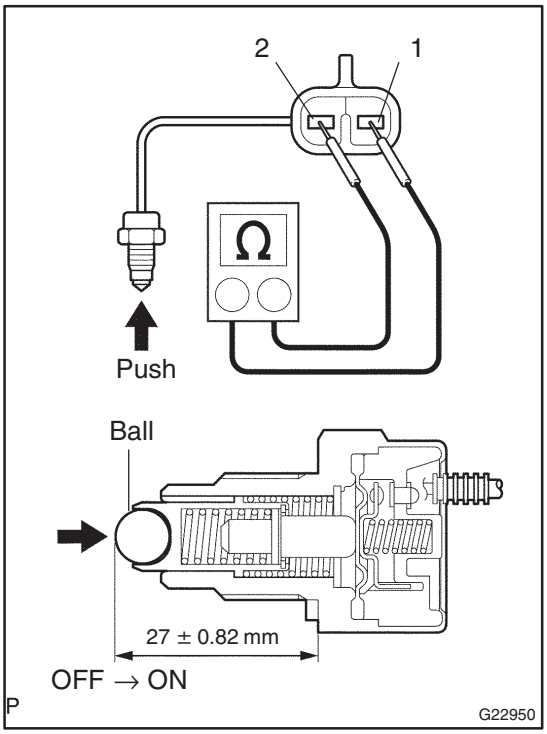
Standard:

Tester Connection	Specified Condition
2 – Body ground	Below 1 Ω

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (SEE PAGE 01–36)**

OK

2 INSPECT TRANSFER INDICATOR SWITCH NO.1



(a) Remove the transfer indicator switch No.1.
(b) Measure the resistance according to the value(s) in the table below.

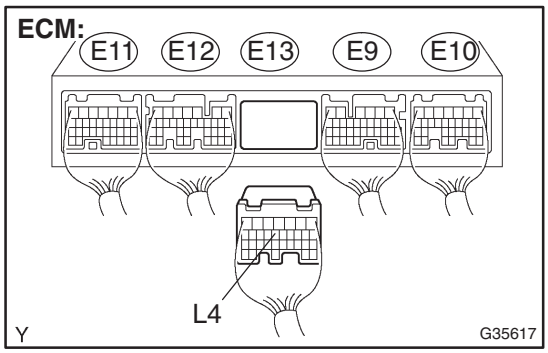
Standard:

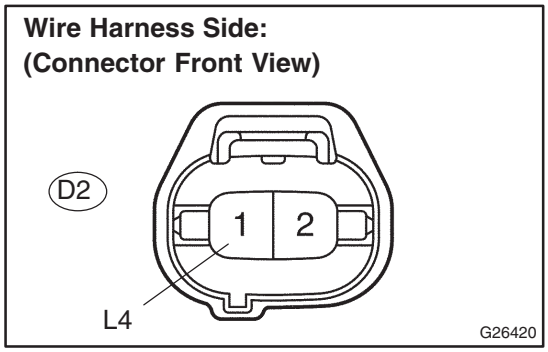
Switch position	Tester Connection	Specified Condition
Free	1 – 2	10 kΩ or higher
Pushed in	↑	Below 1 Ω

NG → **REPLACE TRANSFER INDICATOR SWITCH NO.1(L4 POSITION SWITCH)**

OK

3 CHECK HARNESS AND CONNECTOR(TRANSFER INDICATOR SWITCH–ECM)





(a) Disconnect the connector from the ECM.

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

Standard (Check for open):

Tester Connection	Specified Condition
E13 – 13 (L4) – D2 – 1 (L4)	Below 1 Ω

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

Standard (Check for short):

Tester Connection	Specified Condition
E13 – 13 (L4) – Body ground	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (SEE PAGE 01–36)**

OK

REPLACE ECM