

DTC**P2772****Transfer "L4" Switch Circuit****DESCRIPTION**

The ECM detects the signal from the No. 1 transfer indicator switch (Transfer L4 position switch). This DTC indicates that the No. 1 transfer indicator switch remains ON.

DTC No.	DTC Detection Conditions	Trouble Areas
P2772	No. 1 transfer indicator switch remains ON while vehicle running under following conditions for 1.8 seconds or more. (1-trip detection logic) (a) Output shaft speed: between 1,000 rpm and 3,000 rpm (b) Transfer high and low shift lever position: H	<ul style="list-style-type: none"> Short in No. 1 transfer indicator switch (Transfer L4 position switch) circuit No. 1 transfer indicator switch ECM

MONITOR DESCRIPTION

The ECM monitors the No. 1 transfer indicator switch to determine whether the transfer-case L4 gear is engaged. If the transfer-case L4 gears remain engaged under the following conditions, the ECM determines that there is a malfunction of the No. 1 transfer indicator switch:

- No. 1 transfer indicator switch indicates that the L4 transfer-case gears are engaged.
- Transfer high and low shift lever is in the "H" position.
- Transfer-case output shaft rpm is between 1,000 and 3,000 rpm.
- The specified time period has elapsed.

If all of the above conditions are met, the ECM determines that there is a malfunction of the No. 1 transfer indicator switch, illuminates the MIL and stores the DTC.

MONITOR STRATEGY

Related DTCs	P2772 : Transfer L4 position switch/ON malfunction
Required sensors/Components	No. 1 transfer indicator switch (Transfer L4 position switch)
Frequency of operation	Continuous
Duration	ON malfunction (A) 1.8 seconds ON malfunction (B) 0.5 seconds
MIL operation	Immediate
Sequence of operation	None

TYPICAL ENABLING CONDITIONS

The following conditions are common to ON malfunctions (A) and (B).

The monitor will run whenever the following DTCs are not present.	None
Output speed sensor (SP2) circuit	No circuit malfunction
Vehicle speed sensor "A" circuit	No circuit malfunction
Transmission neutral position switch	OFF

ON malfunction (A)

Output speed (Transfer output speed)	1,000 to 3,000 rpm
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ON malfunction (B)

Output speed (Transfer output speed)	143 rpm or more
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TYPICAL MALFUNCTION THRESHOLDS

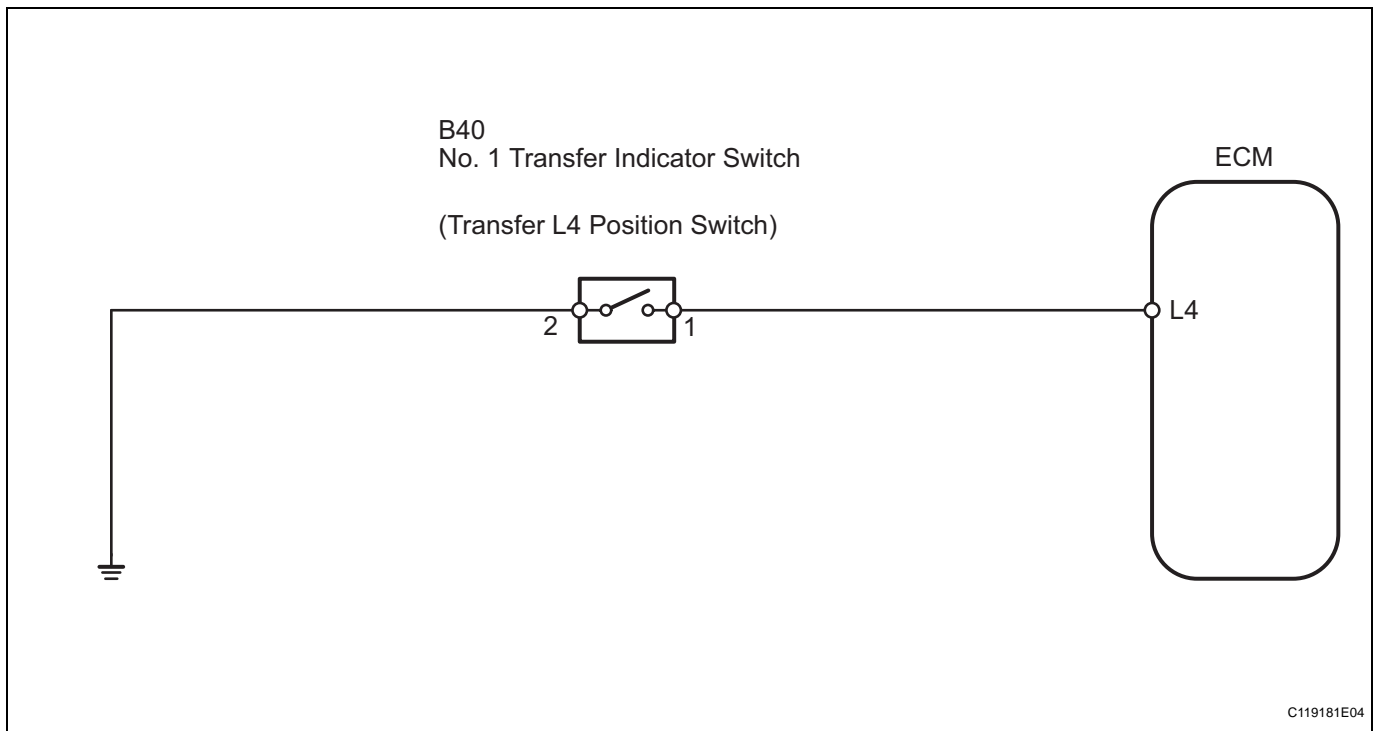
Both of the following conditions are met: ON malfunctions (A) and (B)

ON malfunction (A)

No. 1 transfer indicator switch	ON
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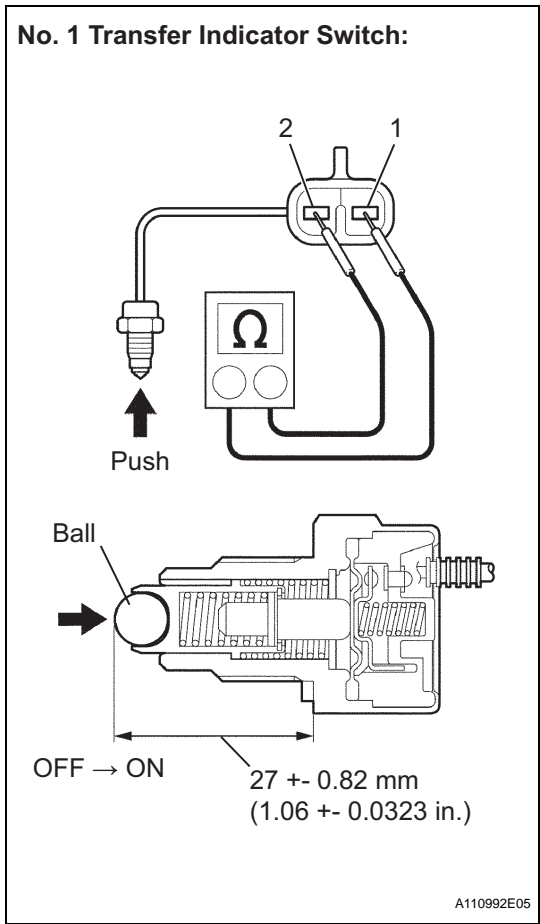
ON malfunction (B)

Actual transfer gear ratio Transfer input speed/Transfer output speed	0.9 to 1.1
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WIRING DIAGRAM

INSPECTION PROCEDURE

1 INSPECT NO. 1 TRANSFER INDICATOR SWITCH (TRANSFER L4 POSITION SWITCH)



- (a) Remove the No. 1 transfer indicator switch.
- (b) Measure the resistance when pushing the ball at the tip of the switch.

Standard resistance

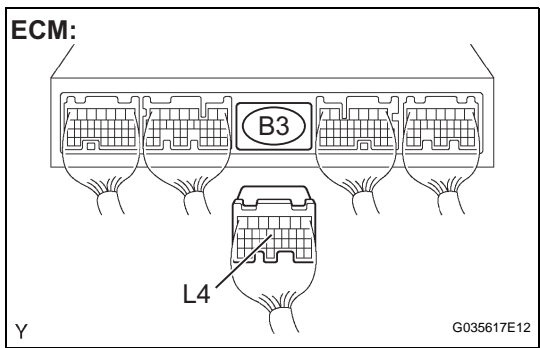
Switch Ball	Tester Connection	Specified Condition
Push	1 - 2	Below 1 Ω
Free	1 - 2	10 kΩ or higher

NG → **REPLACE NO. 1 TRANSFER INDICATOR SWITCH**

OK

AT

2 CHECK HARNESS AND CONNECTOR (ECM - NO. 1 TRANSFER INDICATOR SWITCH - BODY GROUND)



- (a) Install the No. 1 transfer indicator switch.
- (b) Disconnect the ECM connector.
- (c) Measure the resistance when the transfer high and low shift lever is in any position other than the L position.

Standard resistance

Shift Position	Tester Connection	Specified Condition
Except L position	B3-13 (L4) - Body ground	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE ECM