

DTC	P1780	Park/Neutral Position Switch Malfunction
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CIRCUIT DESCRIPTION

The park/neutral position switch detects the shift lever position and sends signals to the ECM.

The ECM receives signals (NSW, R, 2 and L) from the park/neutral position switch. When the signal is not sent to the ECM from the park/neutral position switch, the ECM judges that the shift lever is in D position.

DTC No.	DTC Detection Condition	Trouble Area
P1780	2 or more switches are ON simultaneously for R, N, 2 and L positions (2 - trip detection logic).	<ul style="list-style-type: none"> • Short in park/neutral position switch circuit • Park/neutral position switch • ECM
	When driving under conditions 1. and 2. for 30 seconds or more, the park/neutral position switch is ON (N position) (2 trip detection logic). 1. Vehicle speed: 70 km/h (44 mph) or more 2. Engine speed: 1,500 - 2,500 rpm	

[illegible]

INSPECTION PROCEDURE

1	Read PNP, REVERSE, 2ND and LOW signals.
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When using hand-held tester:

PREPARATION:

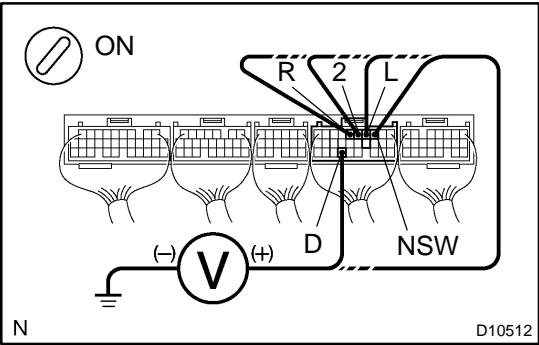
- (a) Remove the DLC3 cover.
- (b) Connect a hand-held tester to the DLC3.
- (c) Turn the ignition switch ON and hand-held tester main switch ON.

CHECK:

Shift lever into the P, R, D, N, 2 and L positions, and read the PNP, REVERSE, 4TH/DRIVE 2ND and LOW signals on the TOYOTA hand-held tester.

OK:

Shift position	Signal
2	2ND OFF → ON
L	LOW OFF → ON
D	4TH / DRIVE OFF → ON
R	REVERSE OFF → ON
P, N	PNP OFF → ON



When not using hand-held tester:

PREPARATION:

Turn the ignition switch ON.

CHECK:

Measure voltage between terminals NSW, 2, L and R of ECM and body ground when the shift lever is shifted to the following positions.

OK:

Position	NSW-Body ground	R-Body ground	D-Body ground	2-Body ground	L-Body ground
P, N	0 V	0 V	0 V	0 V	0 V
R	9 - 14 V*	7.5 - 14 V*	0 V	0 V	0 V
D	9 - 14 V	0 V	7.5 - 14 V	0 V	0 V
2	9 - 14 V	0 V	0 V	7.5 - 14 V	0 V
L	9 - 14 V	0 V	0 V	0 V	7.5 - 14 V

HINT:

*: The voltage will drop slightly due to lighting up of the back up light.

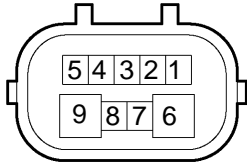
OK

Check and replace the ECM (See page [IN-28](#)).

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Check park/neutral position switch.



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PREPARATION:

- (a) Jack up the vehicle.
- (b) Disconnect the park/neutral position switch connector.

CHECK:

Check continuity between each terminal shown below when the shift lever is moved to each position.

OK:

Shift Position	Terminal No. to continuity	Terminal No. to continuity
P	6 - 9	1 - 3
R	2 - 3	-
N	6 - 9	3 - 5
D	3 - 7	-
2	3 - 4	-
L	3 - 8	-

NG

Replace the park/neutral position switch.

OK

Repair or replace harness and connector between battery and park/neutral position switch, park/neutral position switch and ECM (See page [IN-28](#)).