

DTC	P1780	Park/Neutral Position Switch Malfunction
------------	--------------	---

CIRCUIT DESCRIPTION

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

The ECM receives signals (NSW, R, D, 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 N, 2 and L positions. (2-trip detection logic)	• Short in park/neutral position switch circuit • Park/neutral position switch • ECM
	When driving under conditions (a) and (b) for 30 seconds or more, the park/neutral position switch is ON (N position). (2-trip detection logic) (a) Vehicle speed: 70 km/h (44 mph) or more (b) Engine speed: 1,500 – 2,500 rpm	

The diagram illustrates the electrical system for a vehicle, featuring the following components and connections:

- P1 Park/Neutral Position Switch:** Controls the starter relay and provides power to the combination meter.
- Combination Meter:** Includes gauges for Fuel (F), Oil Pressure (O), Temperature (T), and Voltage (V).
- Engine Room J/B:** Distributes power to the starter relay, ignition switch, and other components.
- Cowl Side J/B LH:** Distributes power to the gauge and other components.
- Ignition Switch:** Controls the ignition system and provides power to the combination meter.
- Battery:** Provides the main power source for the system.
- Wiring:** Wires are color-coded and labeled with alphanumeric codes (e.g., G-B, R-B, B-W, L-B, R-L, W-R, D, E, F, O, T, V, I, N, O, A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100).

INSPECTION PROCEDURE

1 Read PNP, REVERSE, 2ND and LOW signals.

When using TOYOTA hand-held tester:

PREPARATION:

- Connect a TOYOTA hand-held tester to the DLC3.
- Turn the ignition switch ON and TOYOTA hand-held tester main switch ON.

CHECK:

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

OK:

Shift position	Signal
2	2ND OFF → ON
L	LOW OFF → ON
R	REVERSE OFF → ON
P,N	PNP SW OFF → ON

When not using TOYOTA hand-held tester:

PREPARATION:

Turn the ignition switch ON.

CHECK:

Measure voltage between terminals NSW, R, D, 2 and L 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

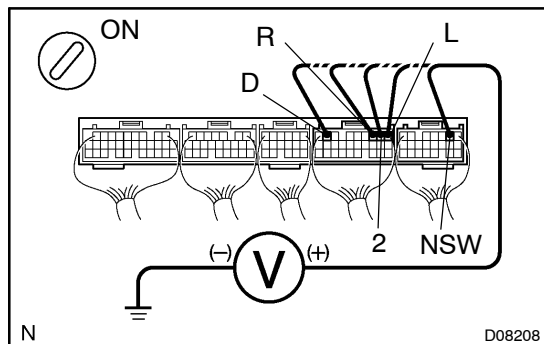
HINT:

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

OK

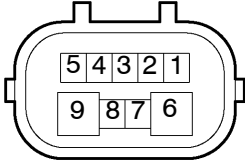
Check and replace the ECM (See page IN-34).

NG



2

Check park/neutral position switch.



N

D06561

PREPARATION:

Remove 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	
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-34](#)).