

DTC	P1780	Park/Neutral Position Switch Malfunction
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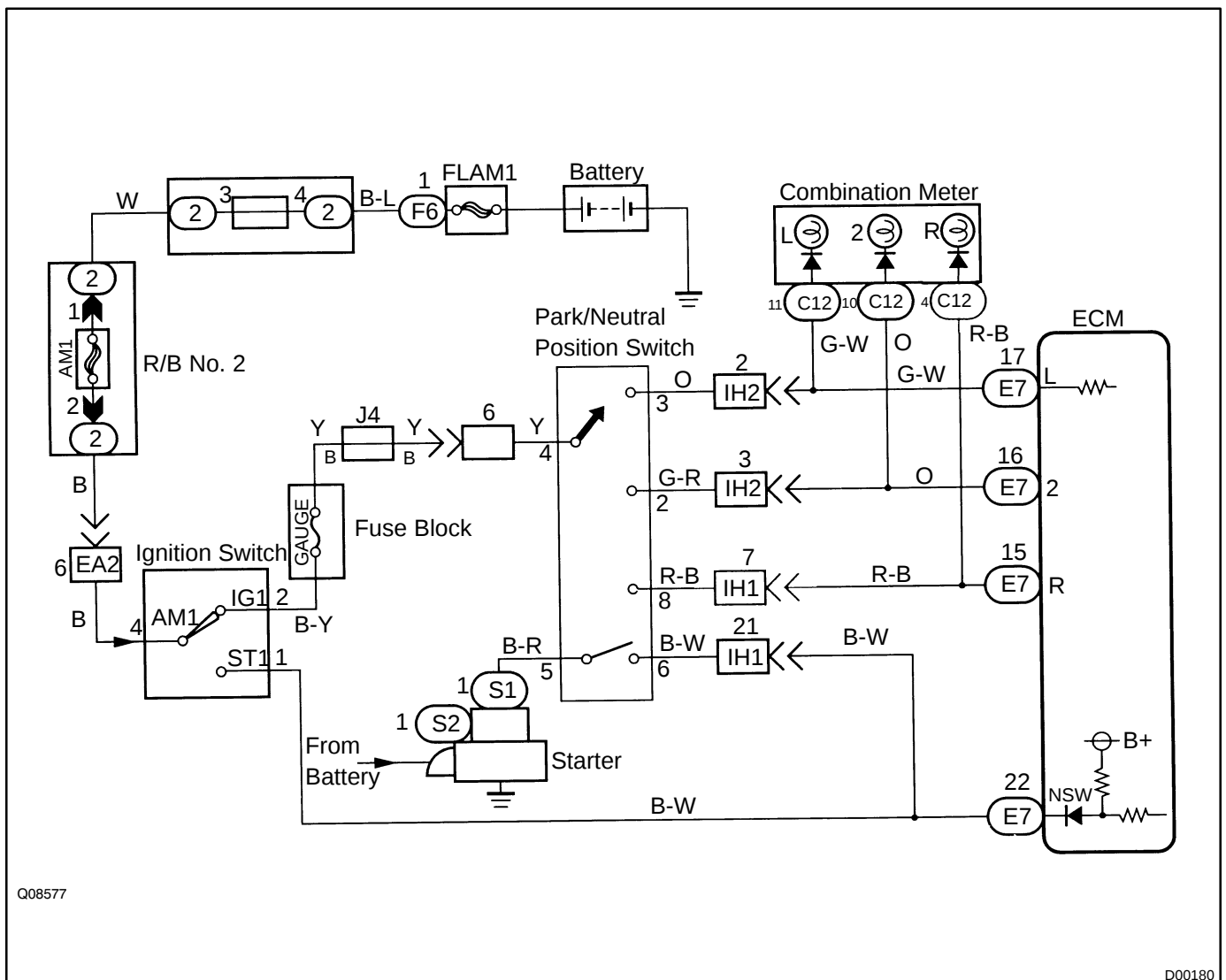
CIRCUIT DESCRIPTION

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 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), (b) and (c) for 30 sec. 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 (c) Engine load: 0.6 g/rev. or more	

WIRING DIAGRAM



INSPECTION PROCEDURE

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

When using TOYOTA hand-held tester:

PREPARATION:

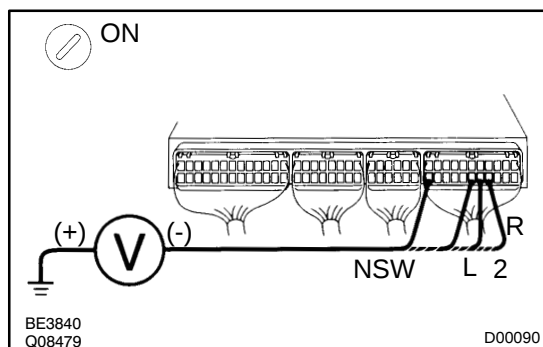
- (a) Remove the fuse box cover.
- (b) Connect a TOYOTA hand-held tester to the DLC3.
- (c) Turn the ignition switch ON and TOYOTA hand-held tester main switch ON.

CHECK:

Shift lever into the P, R, N, 2 and L positions, and read the PNP, REVERSE, 2 and L 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 the voltage between terminals NSW, 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	2 - Body ground	L - Body ground
P, N	Below 1.5 V	Below 1.5 V	Below 1.5 V	Below 1.5 V
R	9 - 14 V	7.5 - 14 V*	Below 1.5 V	Below 1.5 V
D	9 - 14 V	Below 1.5 V	Below 1.5 V	Below 1.5 V
2	9 - 14 V	Below 1.5 V	7.5 - 14 V	Below 1.5 V
L	9 - 14 V	Below 1.5 V	Below 1.5 V	7.5 - 14 V

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

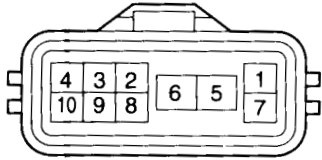
OK

Check and replace ECM.

NG

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Check park/neutral position switch.



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PREPARATION:

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

CHECK:

Check the 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	4 - 7	5 - 6
R	4 - 8	-
N	4 - 10	5 - 6
D	4 - 9	-
2	2 - 4	-
L	3 - 4	-

NG

Replace park/neutral position switch.

OK

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