

DTC P1780 Park Neutral Position Switch Malfunction

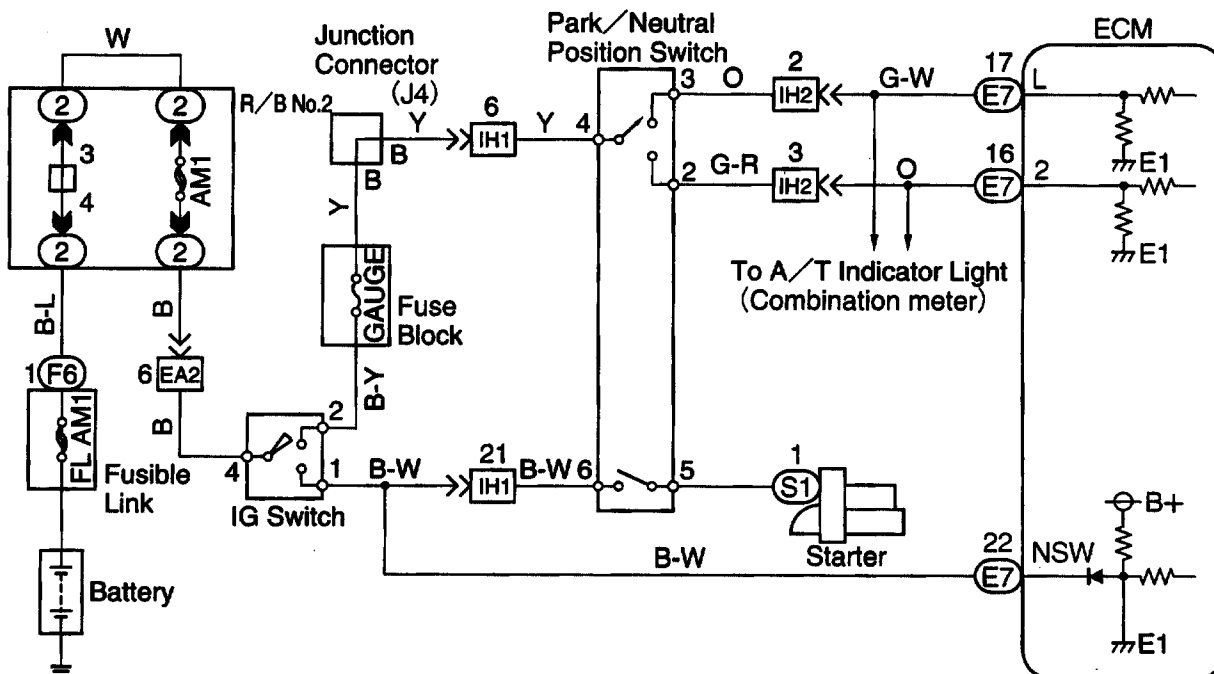
CIRCUIT DESCRIPTION

The park/neutral position switch goes on when the shift lever is in the N or P shift position. When it goes on terminal NSW of the ECM is grounded to body ground via the starter relay, thus the terminal NSW voltage becomes 0 V. When the shift lever is in the D, 2, L or R position, the park/neutral position switch goes off, so the voltage of ECM, terminal NSW becomes battery voltage, the voltage of the ECM internal power source. If the shift lever is moved from the N position to the D position, this signal is used for air–fuel ratio correction and for idle speed control (estimated control), etc.

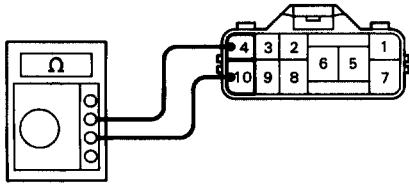
DTC No.	Diagnostic Trouble Code Detecting Condition	Trouble Area
P1780	Two or more switches are ON simultaneously for “N”, “2” and “L” position (2 trip detection logic)	
	When driving under conditions a) and b) for 30 sec. or more the park/neutral position switch is ON (N position): (2 trip detection logic) a) Vehicle speed: 70 km/h (44 mph) or more b) Engine speed: 1,500 ~ 2,500 rpm	• Short in park/neutral position switch circuit • Park/neutral position switch • ECM

HINT: After confirming DTC P1780 use the TOYOTA hand-held tester to confirm the PNP switch signal from "CURRENT DATA".

WIRING DIAGRAM



INSPECTION PROCEDURE

1 Check park/neutral position switch.

P Disconnect park/neutral position switch connector.

C Check continuity between each terminal shown below when the shift lever is positioned to each range.

OK

○—○ Continuity

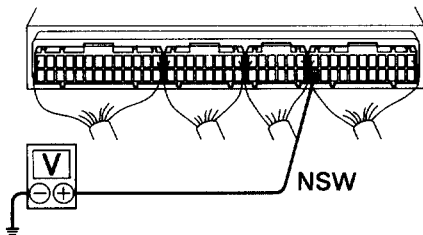
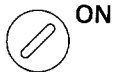
Terminal Shift Position	6	5	4	7	8	10	9	2	3
P	○—○		○—○						
R			○—○		○—○				
N	○—○	○—○	○—○			○—○			
D			○—○				○—○		
2			○—○					○—○	
L			○—○						○—○

Q03164

OK

NG

Replace park/neutral position switch.

2 Check voltage between terminal NSW of ECM connector and body ground.

P Remove instrument panel speaker No. 1 panel (See page EG-173).

C (1) Turn ignition switch ON.
(2) Measure voltage between terminal NSW of ECM connector and body ground when the shift lever is positioned to the following positions.

OK

Shift lever position	P or N	L, 2, D or R
Voltage	0 V	9 ~ 14 V

BE8053
P22176

NG

OK

Check and replace ECM (See page IN-31).

Check for open and short in harness and connector between ECM and park/neutral position switch (See page IN-26).