

DTC	P1780	Park/Neutral Position Switch Malfunction
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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 positive voltage, the voltage of the ECM internal power source.

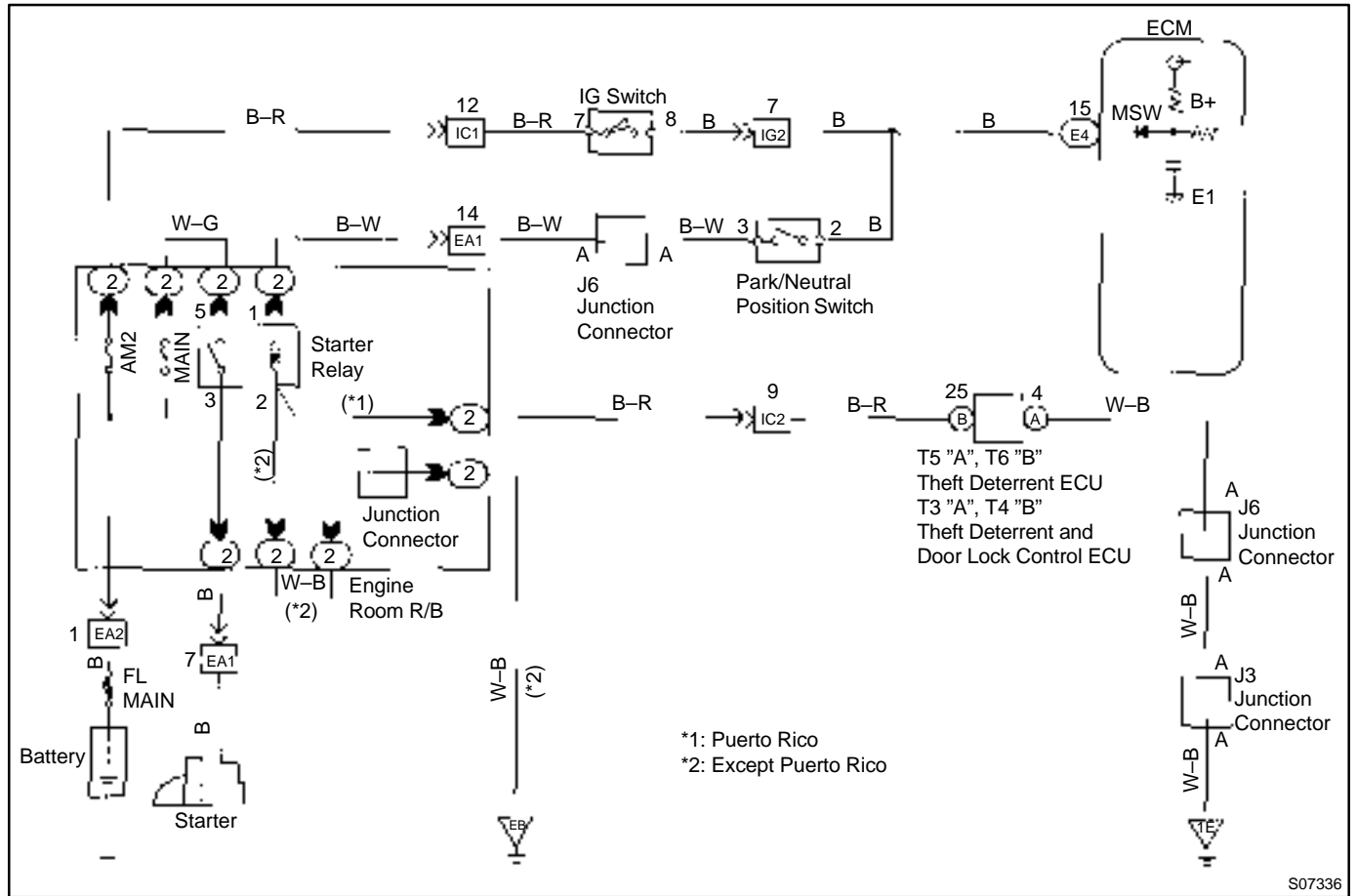
If the shift lever is moved from the N position to the D position, this signal is used for air–fuel ratio correction and for idle speed control (estimated control), etc.

DTC No.	DTC Detecting Condition	Trouble Area
P1780	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: 80 km/h (50 mph) or more (b) Engine speed: 2,000 – 3,000 rpm	<ul style="list-style-type: none"> • Short in park/neutral position switch circuit • Park/neutral position switch • ECM

HINT:

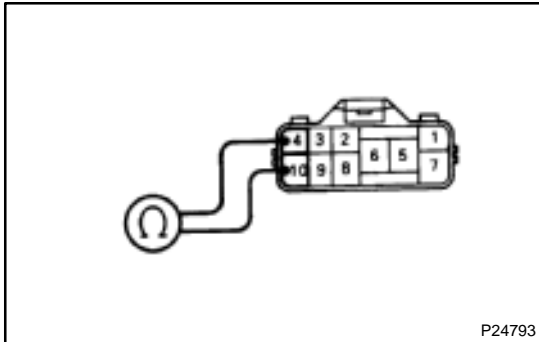
- After confirming DTC P1780 use the TOYOTA hand–held tester to confirm the PNP switch signal from "CURRENT DATA".
- After confirming DTC P1780, in the case that the diagnostic trouble codes are erased by disconnecting the battery terminals or EFI fuse, after operating the shift lever few times from P or N position to D position, confirm the PNP switch signal using the "CURRENT DATA" of TOYOTA hand–held tester. If the PNP switch signal is not displayed on TOYOTA hand–held tester, the circuit of PNP switch may be short.

WIRING DIAGRAM



INSPECTION PROCEDURE

1 Check park/neutral position switch.

**PREPARATION:**

Disconnect the park/neutral position switch connector.

CHECK:

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

OK:

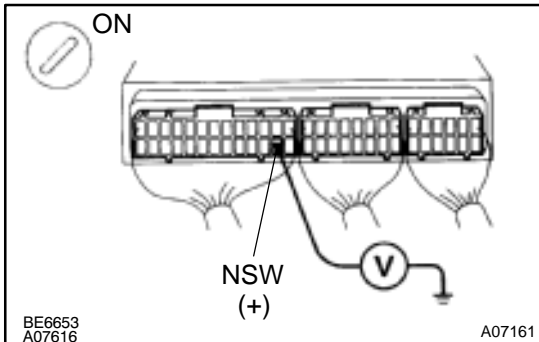
Shift position	Terminal	Terminal
P	5 – 6	4 – 7
R	–	4 – 8
N	5 – 6	4 – 10
D	–	4 – 9
2	–	2 – 4
L	–	3 – 4

NG

Replace park/neutral position switch.

OK

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

**PREPARATION:**

- (a) Remove the lower finish panel.
- (b) Turn ignition switch ON.

CHECK:

Measure voltage between terminal NSW of ECM connector and body ground after the shift lever is moved to the following positions.

OK:

Shift lever position	P or N	L, 2, D or R
Voltage	0 – 3 V	9 – 14 V

OK

Check and replace ECM (See page [IN-27](#)).

OK

Check for open and short in harness and connector between ECM and park/neutral position switch (See page [IN-27](#)).