

DTC	P1780	Park/Neutral Position Switch Malfunction
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CIRCUIT DESCRIPTION

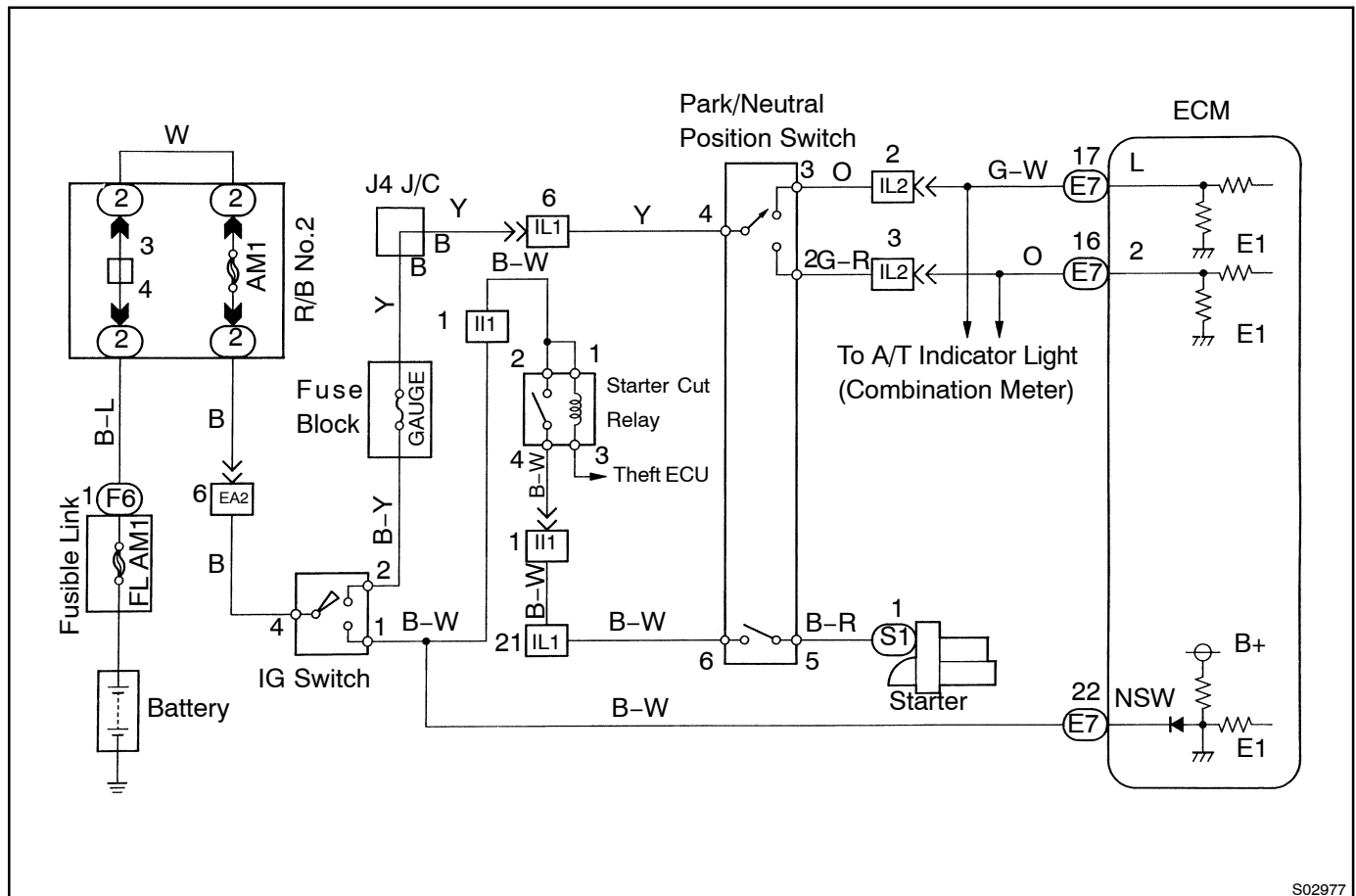
The park/neutral position switch goes on when the shift lever is in the N or P shift position. When it goes on terminal NSW of the ECM is grounded to body ground via the starter relay, thus the terminal NSW voltage becomes 0V. When the shift lever is in the D, 2, L, or R position, the park/neutral position 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 Detection Condition	Trouble Area
P1780	2 or more switches are ON simultaneously for N, 2, L position (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 sec. or more 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	

HINT:

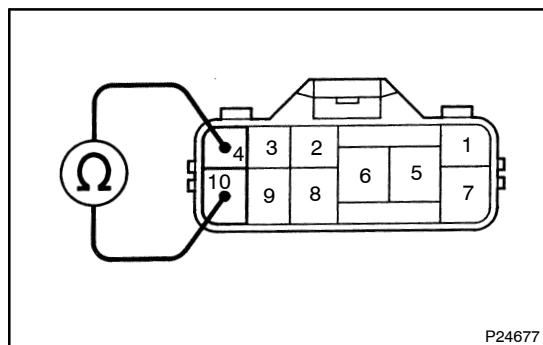
After confirming DTC P1780, use the LEXUS hand-held tester to confirm the PNP switch signal from "CURRENT DATA".

WIRING DIAGRAM



INSPECTION PROCEDURE

1 Check park/neutral position switch.

**PREPARATION:**

Disconnect park/neutral position switch connector.

CHECK:

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

OK:

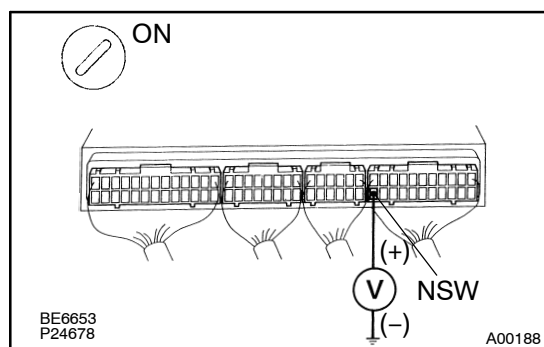
Shift Position	Terminal No. to continuity	
P	4 - 7	5 - 6
R	4 - 8	-
N	4 - 10	5 - 6
D	4 - 9	-
2	2 - 4	-
L	3 - 4	-

NG

Replace park/neutral position switch.

OK

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

**PREPARATION:**

Remove instrument panel speaker No.1 panel
(See page [SF-63](#)).

CHECK:

- Turn the ignition switch ON.
- Measure the 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

OK

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

NG

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