

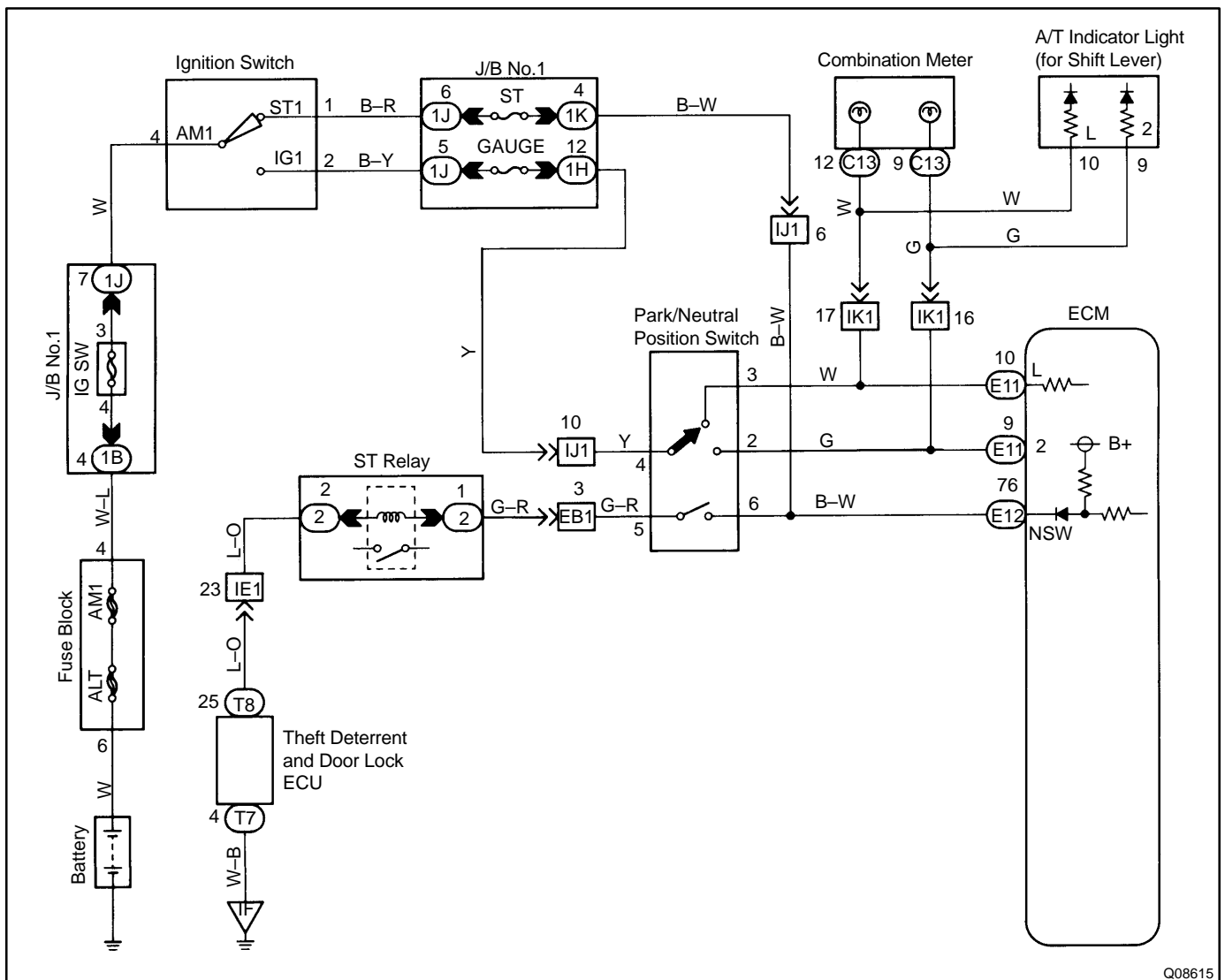
DTC	P1780	Park/Neutral Position Switch Malfunction
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CIRCUIT DESCRIPTION

The park/neutral position switch detects the shift lever position and sends signals to the ECM. The ECM receives signals (NSW, 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 the D position.

DTC No.	DTC Detecting Condition	Trouble Area
P1780	2 or more switches are ON simultaneously for "N", "2" or "L" position. (2 trip detection logic)	<ul style="list-style-type: none"> • Short in park/neutral position switch circuit • Park/neutral position switch • ECM
	When driving under conditions (a), (b) and (c) 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: 2,000 ~ 2,500 rpm (c) Engine load: 0.7 g/rev	

WIRING DIAGRAM



Q08615

INSPECTION PROCEDURE

1 Check PNP SW, 2ND or LOW signal.

When using LEXUS hand-held tester:

PREPARATION:

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

CHECK:

Shift the shift lever to the P, N, 2, and L position, and read the PNP SW, 2ND and LOW signal on the LEXUS hand-held tester.

OK:

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

When not using LEXUS hand-held tester:

PREPARATION:

- Connect the check harness A to ECM (See page [DI-18](#)).
- Turn the ignition switch ON.

CHECK:

Measure voltage between terminals NSW, 2, L of check harness A connector and body ground when the shift lever is moved to the following positions.

OK:

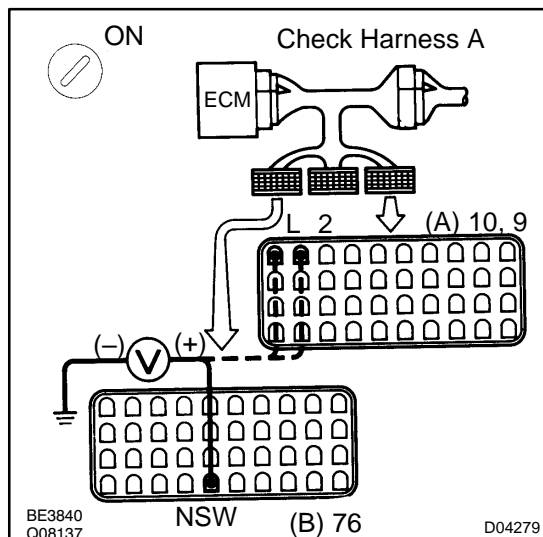
Position	NSW–Body ground	2–Body ground	L–Body ground
P, N	0 V	0 V	0 V
R	7.5 – 14 V*	0 V	0 V
D	7.5 – 14 V	0 V	0 V
2	7.5 – 14 V	7.5 – 14 V	0 V
L	7.5 – 14 V	0 V	7.5 – 14 V

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

OK

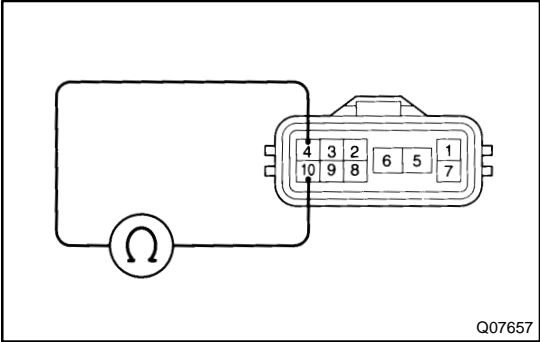
Check and replace the ECM.

NG



2

Check park/neutral position switch.



PREPARATION:

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

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	4 – 7	5 – 6
R	4 – 8	
N	4 – 10	5 – 6
D	4 – 9	
2	4 – 2	
L	4 – 3	

NG

Replace park/ neutral position switch.

OK

Repair or replace harness and connector between battery and park/neutral position switch, ECM and park/neutral position switch (See page IN-29).