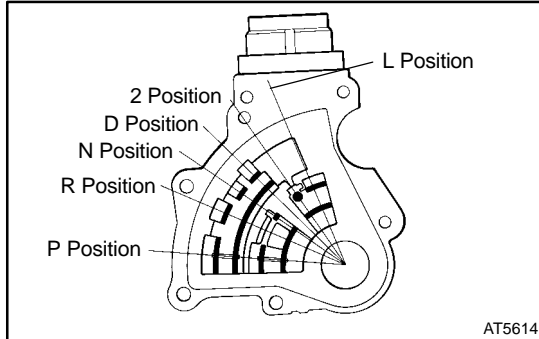
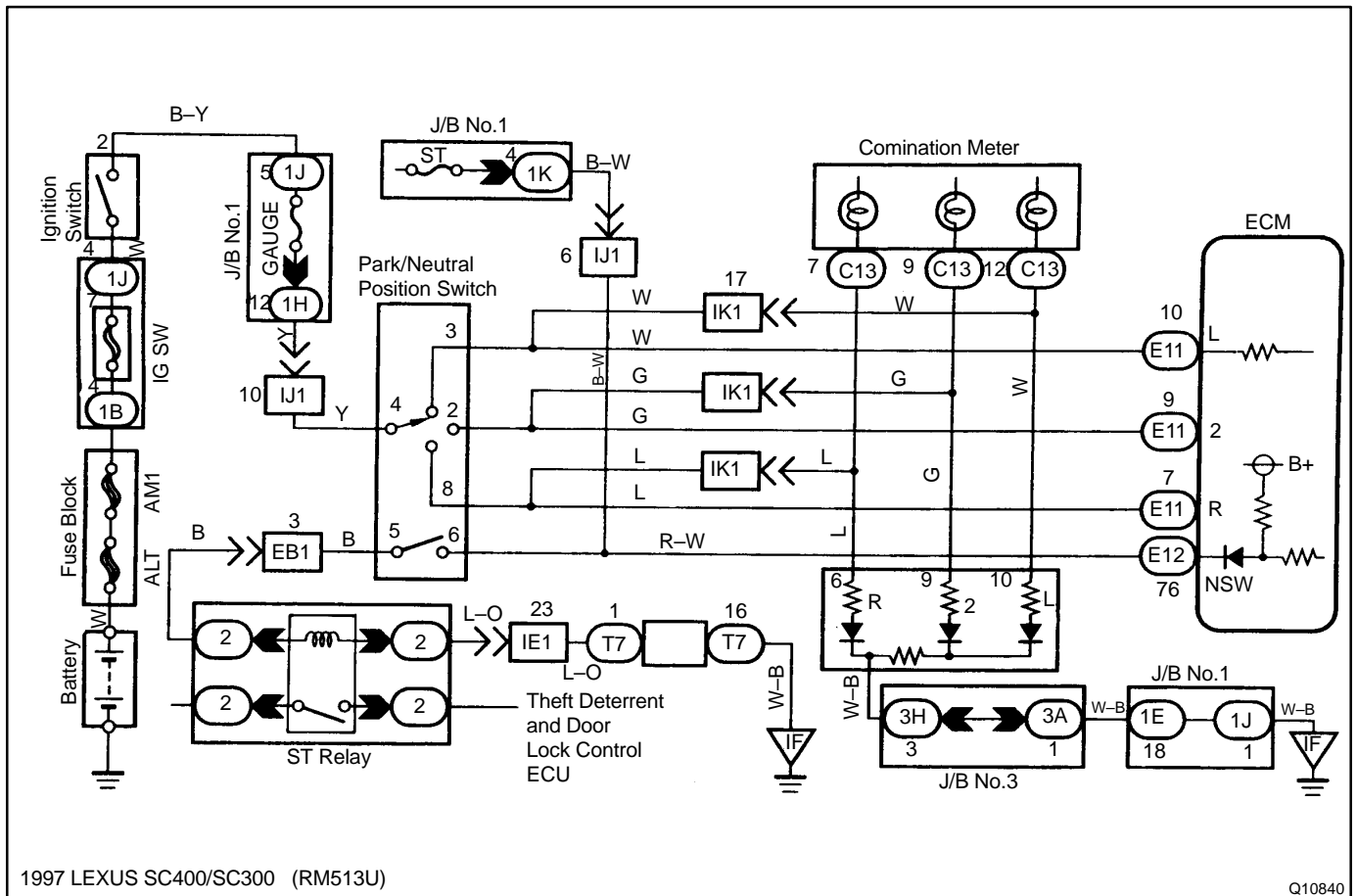


**DTC****P1780****Park/Neutral Position Switch Malfunction****CIRCUIT DESCRIPTION**

The Park/Neutral position switch detects the shift lever position and sends signals to the ECM.

The ECM receives signals (R, 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	Two or more switches are ON simultaneously for "R", "N", "2" and "L" position (2 trip detection logic)	<ul style="list-style-type: none"> <li>• Short in park/neutral position switch circuit</li> <li>• Park/neutral position switch</li> <li>• ECM</li> </ul>
	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: 40 km/h (25 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 Check PNP, REVERSE, 2ND, LOW signal.

**When using LEXUS hand-held tester:**

**PREPARATION:**

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

**CHECK:**

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

**OK:**

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

**When not using LEXUS hand-held tester:**

**PREPARATION:**

Connect the check harness A to ECM.

**CHECK:**

- Turn ignition switch ON.
- Measure voltage between terminals R, 2, L, NSW of check harness A and body ground when the shift lever is moved to the following positions.

**OK:**

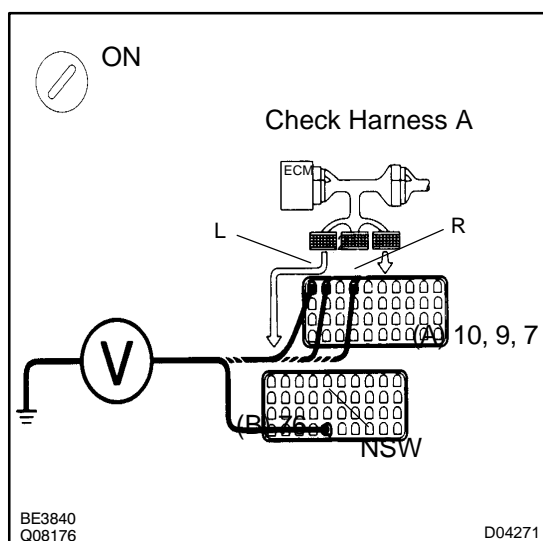
Position	R–Body ground	NSW–Body ground	2–Body ground	L–Body ground
P, N	Below 1 V	Below 1 V	Below 1 V	Below 1 V
R	10 – 14 V*	10 – 14 V*	Below 1 V	Below 1 V
D	Below 1 V	10 – 14 V	Below 1 V	Below 1 V
2	Below 1 V	10 – 14 V	10 – 14 V	Below 1 V
L	Below 1 V	10 – 14 V	Below 1 V	10 – 14 V

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

OK

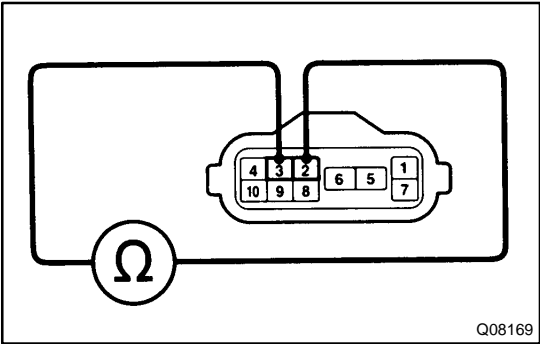
Check and replace the ECM.

NG



2

# Check park/neutral position switch.



## **PREPARATION:**

- (a) Jack up the vehicle.
- (b) Remove the park/neutral position switch (See page AT-9).

## **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 (C) – 7 (PL)	5 (N) – 6 (B)
R	4 (C) – 8 (RL)	
N	4 (C) – 10 (NL)	5 (N) – 6 (B)
D	4 (C) – 9 (DL)	
2	4 (C) – 2 (2L)	
L	4 (C) – 3 (LL)	

NG

Replace park/ neutral position switch.

OK

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