

DTC	P1780	Park/Neutral Position Switch Malfunction
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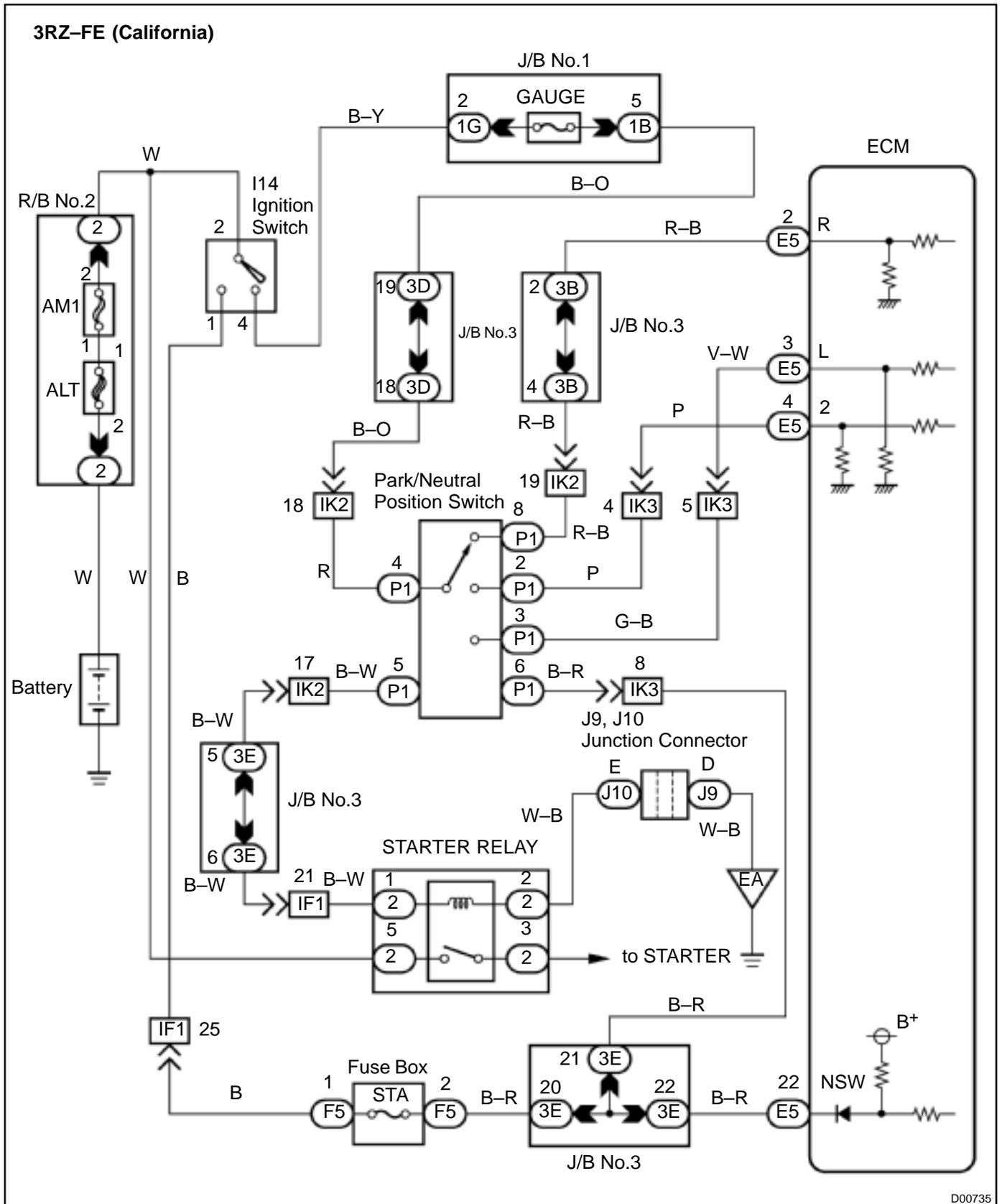
CIRCUIT DESCRIPTION

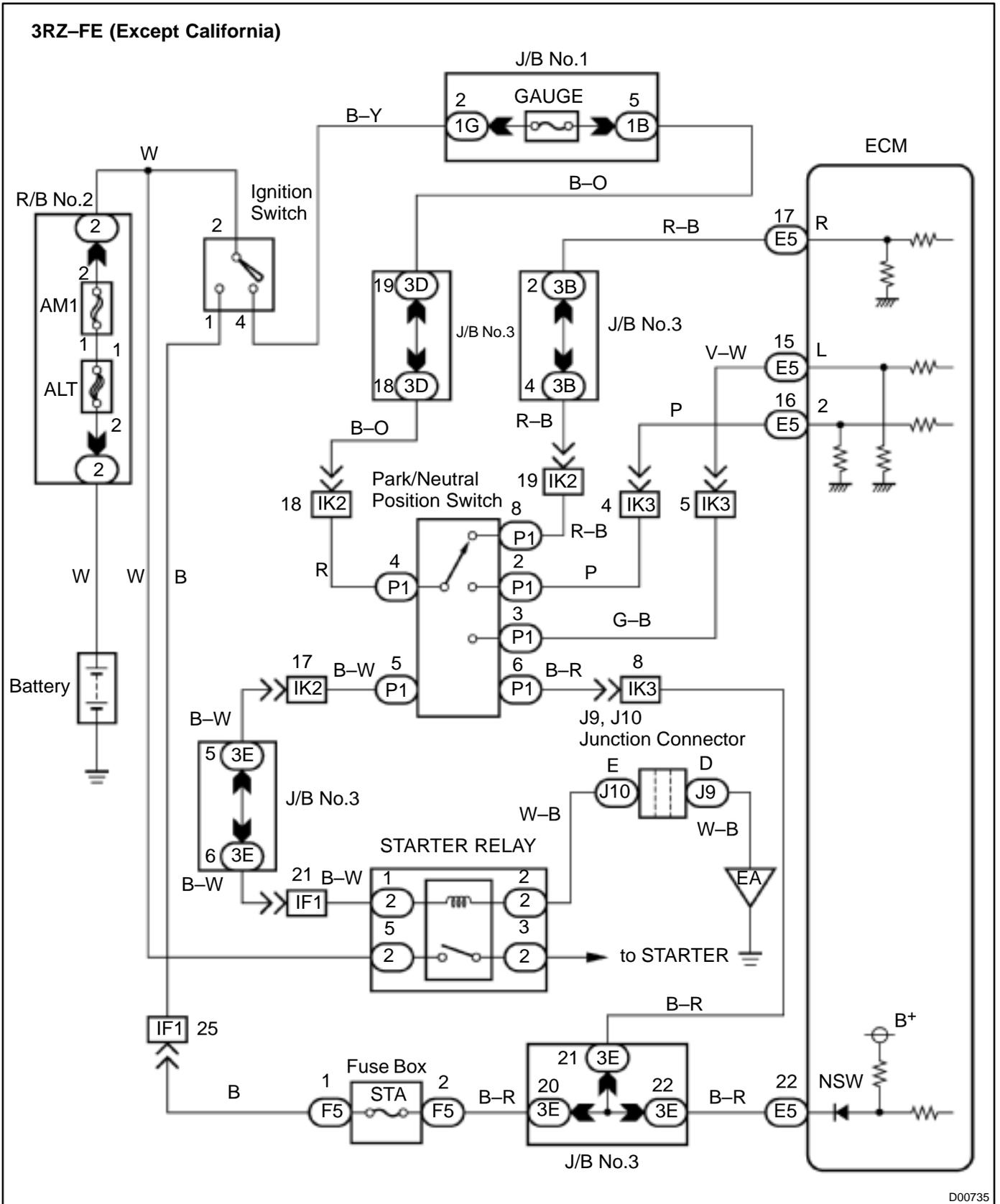
The park/neutral position switch detects the shift lever position and sends signals to the ECM.

The ECM receives signals (NSW, R, 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 D position.

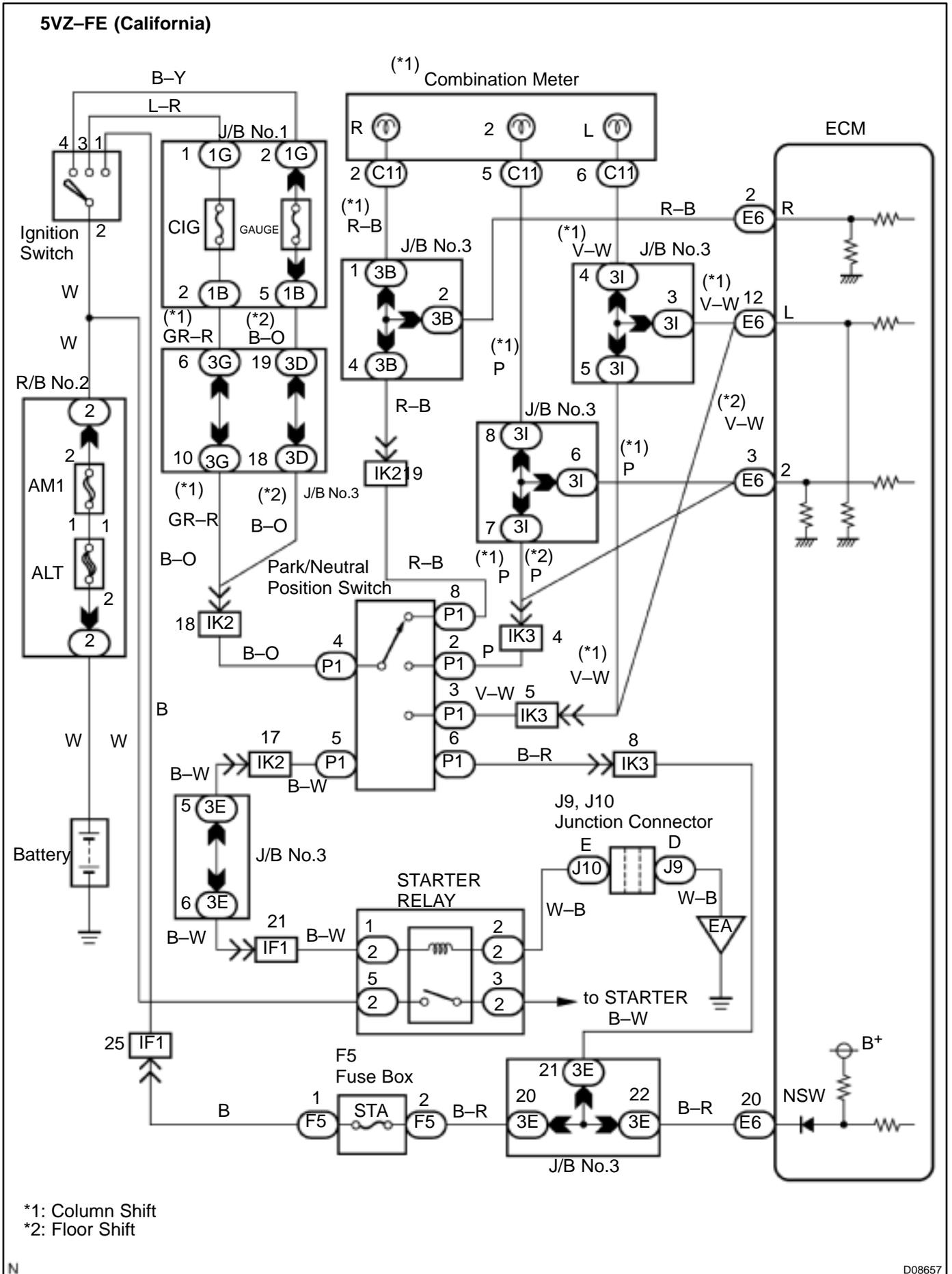
DTC No.	DTC Detection Condition	Trouble Area
P1780	2 or more switches are ON simultaneously for R, N, 2 and L positions. (2-trip detection logic)	<ul style="list-style-type: none"> • Short in park/neutral position switch circuit • Park/neutral position switch • ECM
	When driving under conditions (a) and (b) 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: 1,500 – 2,500 rpm	

WIRING DIAGRAM

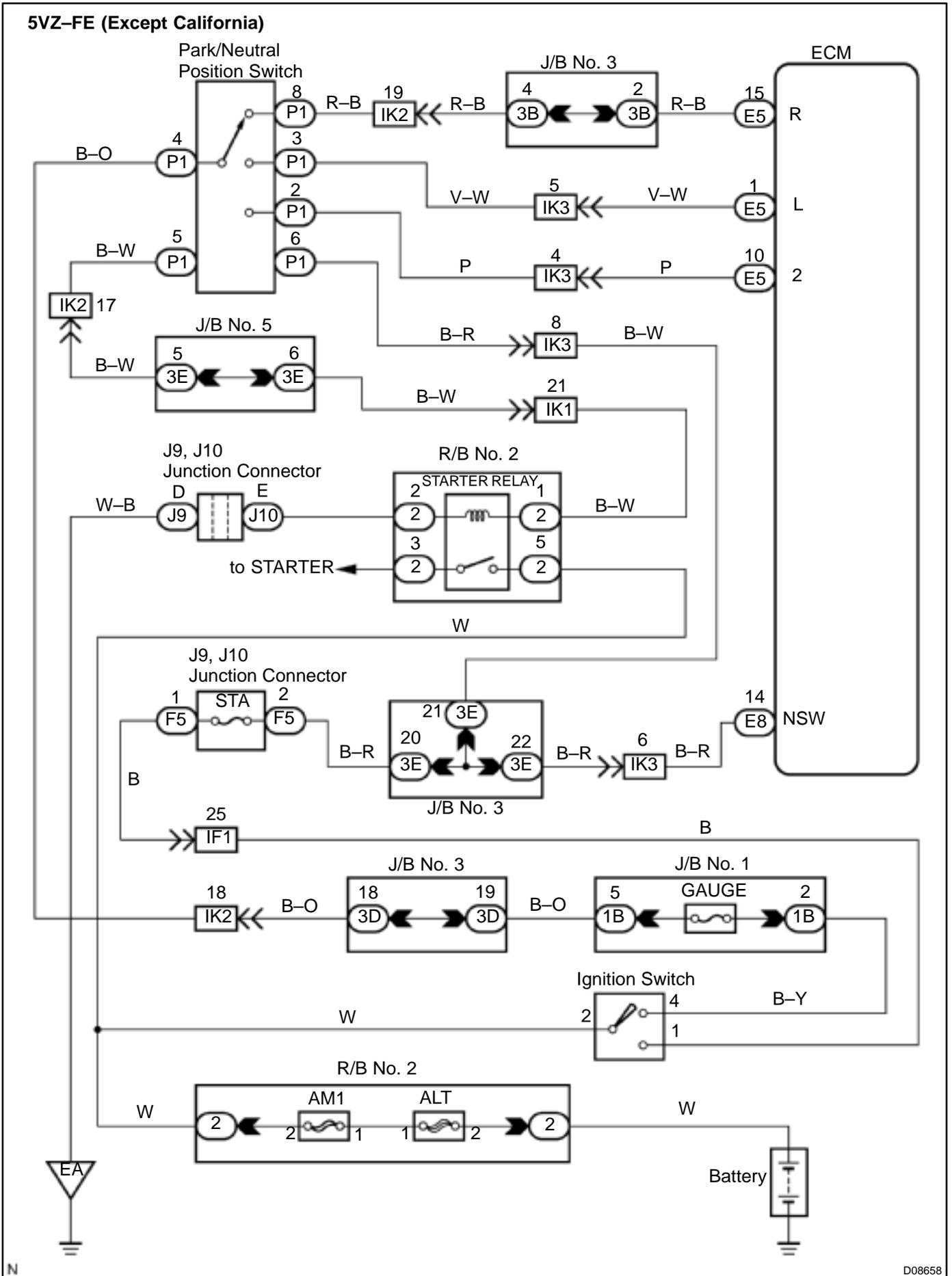




D00735



5VZ-FE (Except California)



INSPECTION PROCEDURE

1	Read PNP, REVERSE, 2ND and LOW signals.
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When using TOYOTA hand-held tester**PREPARATION:**

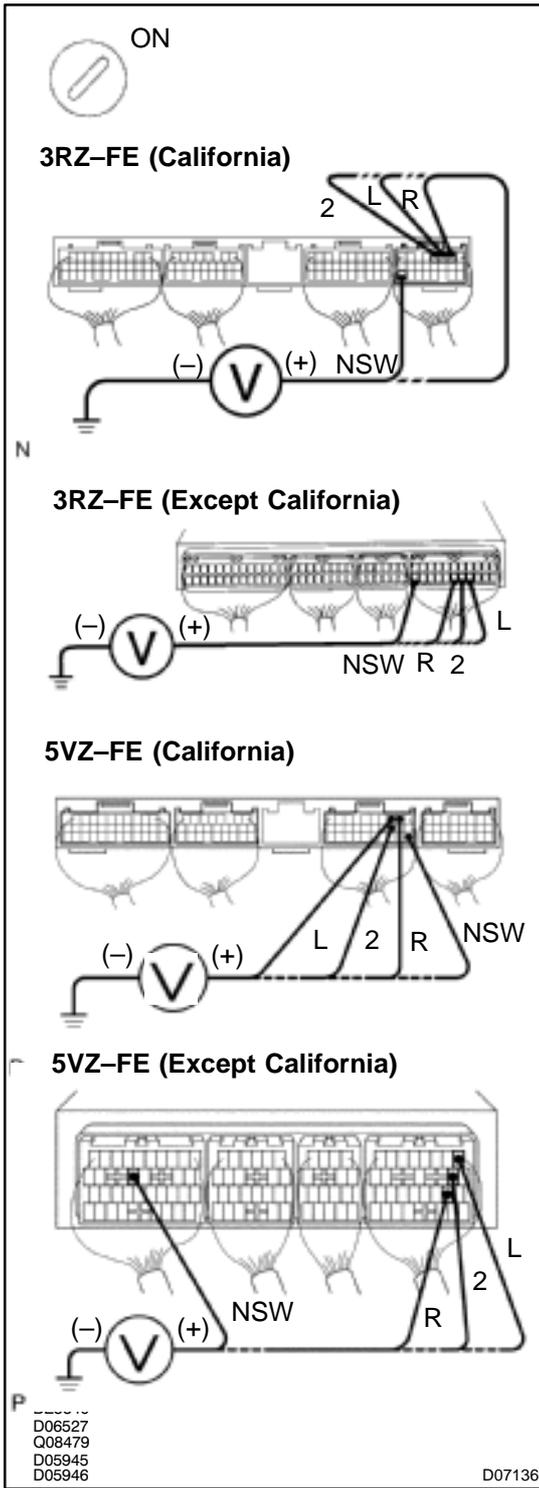
- (a) Remove the DLC3 cover.
- (b) Connect a TOYOTA hand-held tester to the DLC3.
- (c) Turn the ignition switch ON and TOYOTA hand-held tester main switch ON.

CHECK:

Shift lever into the P, R, N, 2 and L positions, and read the PNP, REVERSE, 2ND and LOW signals on the TOYOTA hand-held tester.

OK:

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



When not using TOYOTA hand-held tester

PREPARATION:

Turn the ignition switch ON.

CHECK:

Measure voltage between terminals NSW, 2, L and R of ECM and body ground when the shift lever is shifted to the following positions.

OK:

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

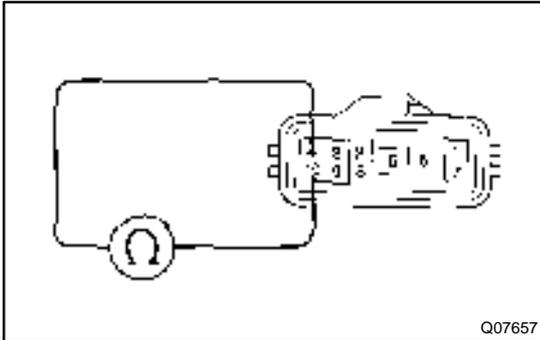
HINT:

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

OK	Check and replace the ECM (See page IN-28).
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NG

2 Check park/neutral position switch.



PREPARATION:

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

CHECK:

Check continuity between each terminal shown below when the shift lever is moved to each position.

OK:

Shift Position	Terminal No. to continuity	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 the park/neutral position switch
(See page [IN-28](#)).

OK

Repair or replace harness and connector between battery and park/neutral position switch, park/neutral position switch and ECM (See page [IN-28](#)).