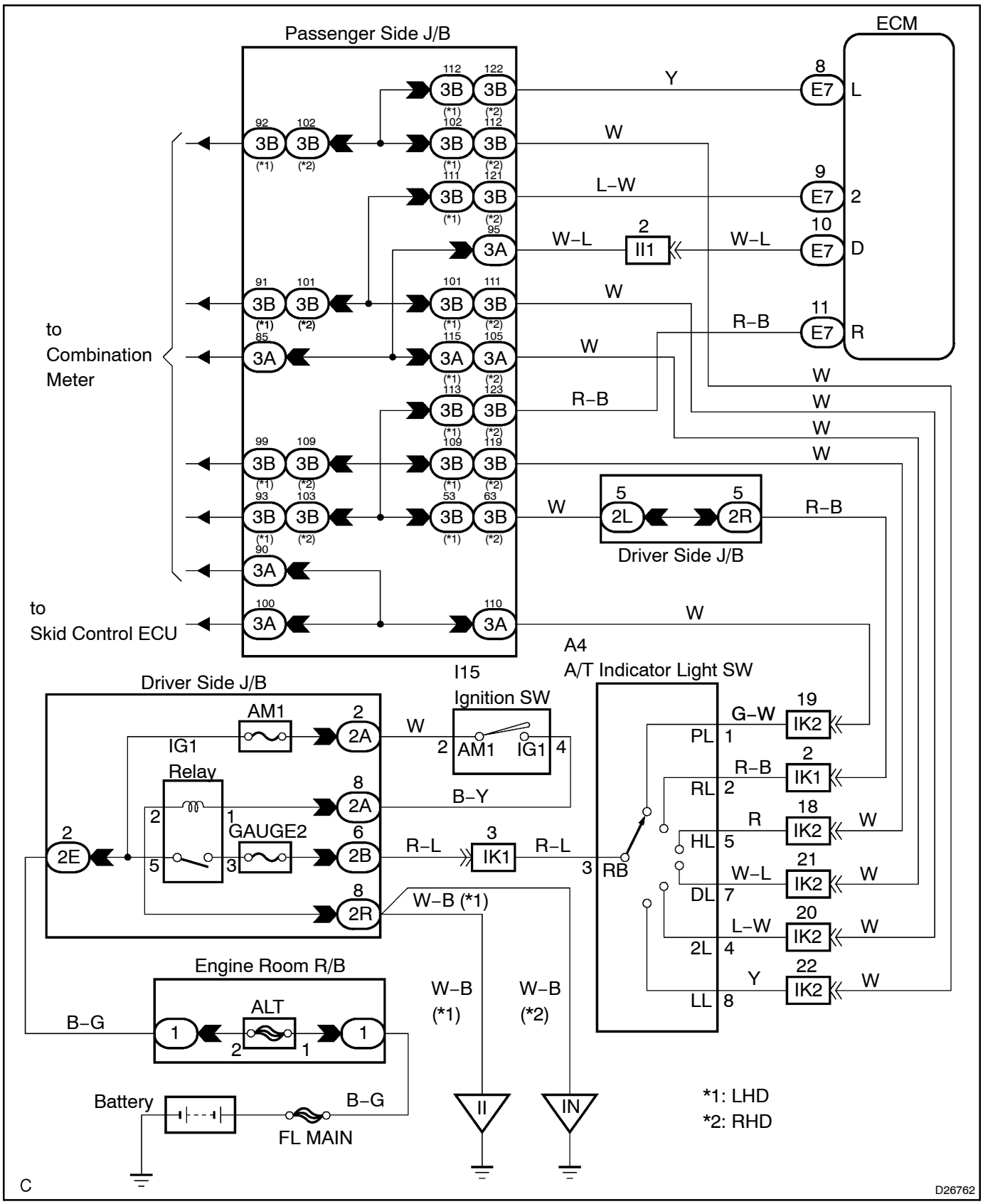
PARK/NEUTRAL POSITION SWITCH CIRCUIT

CIRCUIT DESCRIPTION

The park/neutral position switch detects the shift lever position and sends signals to the ECM.
The ECM receives signals (REVERSE, DRIVE, 2ND and LOW) from the park/neutral position switch.

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

Start the inspection from step 1 in case of using the hand–held tester and start from step 2 in case of not using hand–held tester.

1	READ VALUE OF HAND–HELD TESTER

(a) Warm up the engine.
(b) Turn the ignition switch OFF.
(c) Connect the Hand–held tester to the DLC3.
(d) Turn the ignition switch ON and push the Hand–held tester main SW ON.
(e) Shift the shift lever to the R, D, 2 and L ranges, select the item "REVERSE", "4TH/DRIVE", "2ND" and "LOW" in the DATALIST and read its value displayed on the Hand–held tester.

NOTICE:

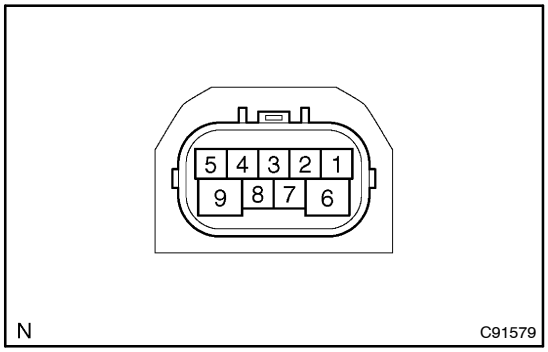
The values given below for "Normal Condition" are representative values, so a vehicle may still be normal even if its value differs from those listed here. Do not depend solely on the "Normal Condition" here when deciding whether or not the part is faulty.

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
LOW	PNP SW Status/ ON or OFF	Shift lever range is; L: ON Except L: OFF	The shift lever range and these values are different, there are failures of the PNP switch or shift cable adjustment.
2ND	PNP SW Status/ ON or OFF	Shift lever range is; 2: ON Except 2: OFF	
REVERSE	PNP SW Status/ ON or OFF	Shift lever range is; R: ON Except R: OFF	
4TH/DRIVE	PNP SW Status/ ON or OFF	Shift lever range is; D: ON Except D: OFF	

OK → CHECK AND REPLACE ECM (See page 01–31)

NG

2 INSPECT PARK/NEUTRAL POSITION SWITCH ASSY



(a) Remove the park/neutral range switch.

(b) Check continuity between each terminal shown below when the shift lever is moved to each range.

Shift Range	Terminal No. to continuity	
P	1 – 3	6 – 9
R	2 – 3	–
N	3 – 5	6 – 9
D	3 – 7	–
2	3 – 4	–
L	3 – 8	–

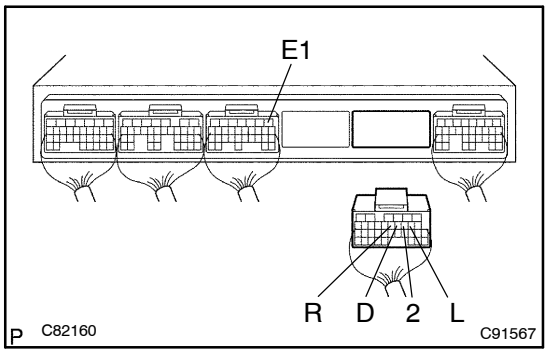
OK:

There is continuity.

NG → **REPLACE PARK/NEUTRAL POSITION SWITCH ASSY (See page 40–3)**

OK

3 CHECK HARNESS AND CONNECTOR (PARK/NEUTRAL POSITION SWITCH – ECM)



(a) Connect the park/neutral range switch connector.

(b) Disconnect the ECM connector.

(c) Turn the IG switch ON and measure the voltage between terminals R, D, 2, and L of ECM and the E1 when the shift lever is shifted to the following range.

OK:

Shift range	Terminal	Voltage (V)
R	R – E1	10 – 14
D	D – E1	10 – 14
2	2 – E1	10 – 14
L	L – E1	10 – 14

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR (See page 01–31)**

OK

CHECK AND REPLACE ECM (See page 01–31)