DI61X−02
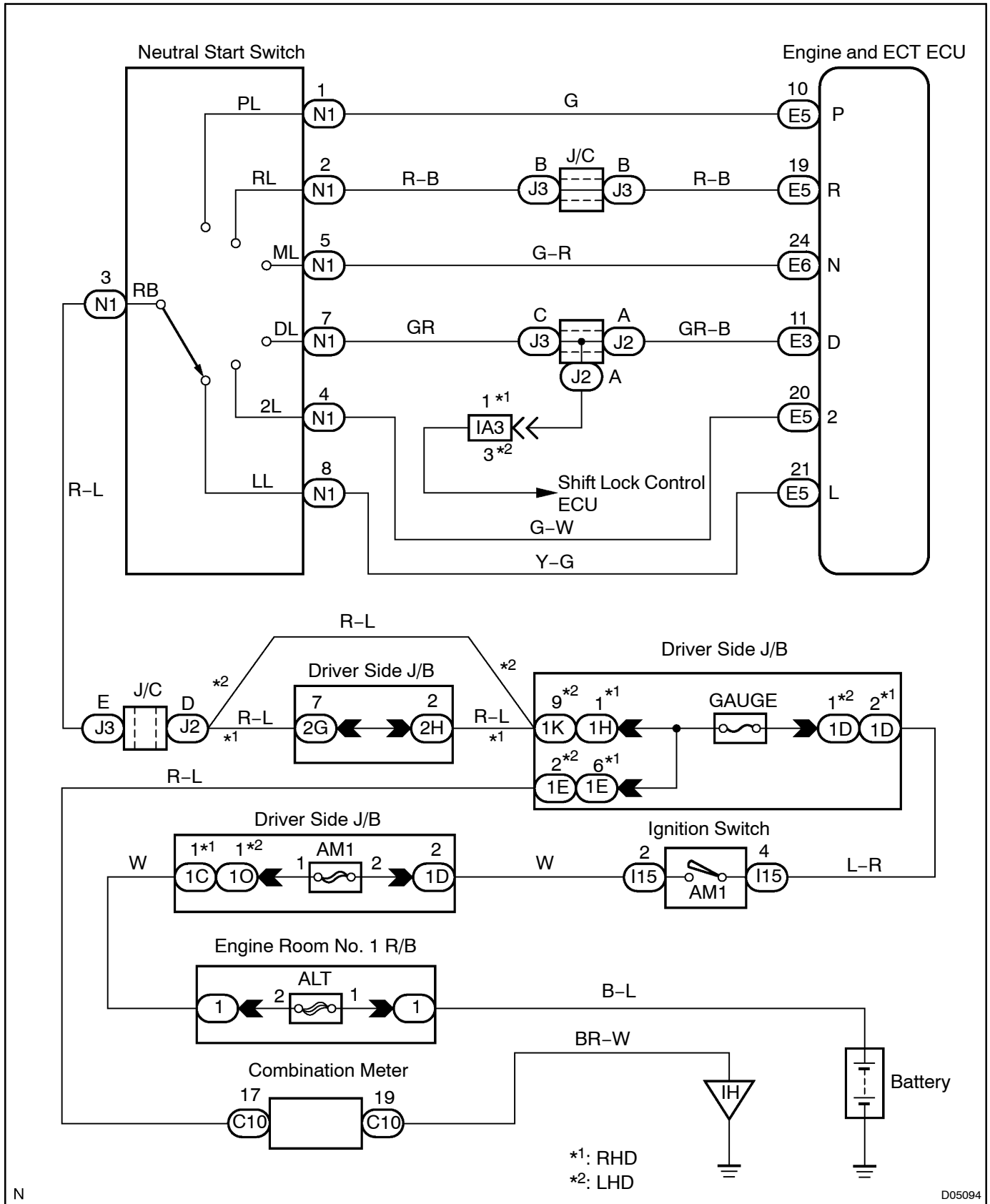
Neutral Start Switch Circuit Malfunction

CIRCUIT DESCRIPTION

The neutral start switch detects the shift lever range and sends signals to the Engine and ECT ECU.

WIRING DIAGRAM

INSPECTION PROCEDURE

HINT:

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

1	**Read PNP, REVERSE, DRIVE, 2ND and LOW signals.**

PREPARATION:

(a)   Remove the DLC3 cover.

(b)   Connect a hand–held tester to the DLC3.

(c)   Turn the ignition switch ON and hand–held tester main switch ON.

CHECK:

Shift lever into the P, R, N, D, 2 and L ranges, and read the PNP, REVERSE, DRIVE, 2ND and LOW signals on the hand–held tester.

OK:

Shift range	Signal
P, N	PNP : OFF → ON
R	REVERSE : OFF → ON
D	DRIVE : OFF → ON
2	2ND : OFF → ON
L	LOW : OFF → ON

OK	**Check and replace the Engine and ECT ECU (See page IN–32).**

NG

Go to step 3.

2	Measure voltage between each terminals of P, R, N, D, 2 and L of Engine and ECT ECU and body ground.

ON

2   D

N   L R   3

D05060
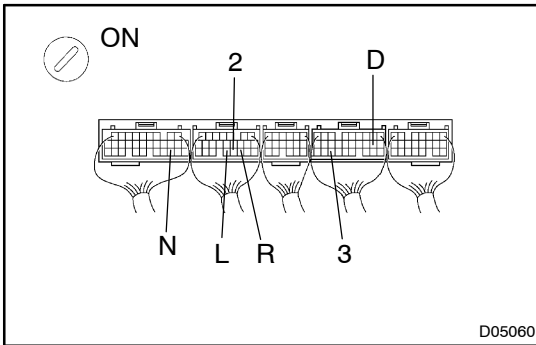
PREPARATION:
Turn the ignition switch ON.
CHECK:
Measure voltage between each terminals P, R, N, D, 2 and L of Engine and ECT ECU and body ground when the shift lever is shifted to the following positions.
OK:

| Tester connection	Condition	Specified condition
P – Body ground	Shift lever range : P	Battery positive voltage
R – Body ground	Shift lever range : R	Battery positive voltage*
D – Body ground	Shift lever range : D	Battery positive voltage
N – Body ground	Shift lever range : N	Battery positive voltage
2 – Body ground	Shift lever range : 2	Battery positive voltage
L – Body ground	Shift lever range : L	Battery positive voltage

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

OK	Check and replace the Engine and ECT ECU (See page IN–32).

NG

3	Check neutral start switch.
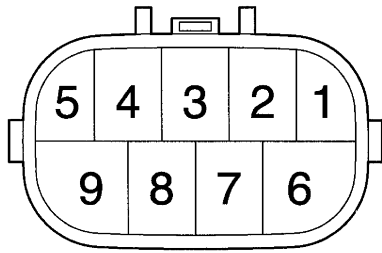
D05057

PREPARATION:
(a) Jack up the vehicle.
(b) Remove the neutral start switch connector.

CHECK:
Check continuity between each terminal shown below when the shift lever is moved to each range.

OK:

Shift Range	Terminal No. to continuity	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	–

NG ⟩ **Replace the neutral start switch.**

OK

Repair or replace harness and connector between battery and neutral start switch, neutral start switch and Engine and ECT ECU (See page IN−32).