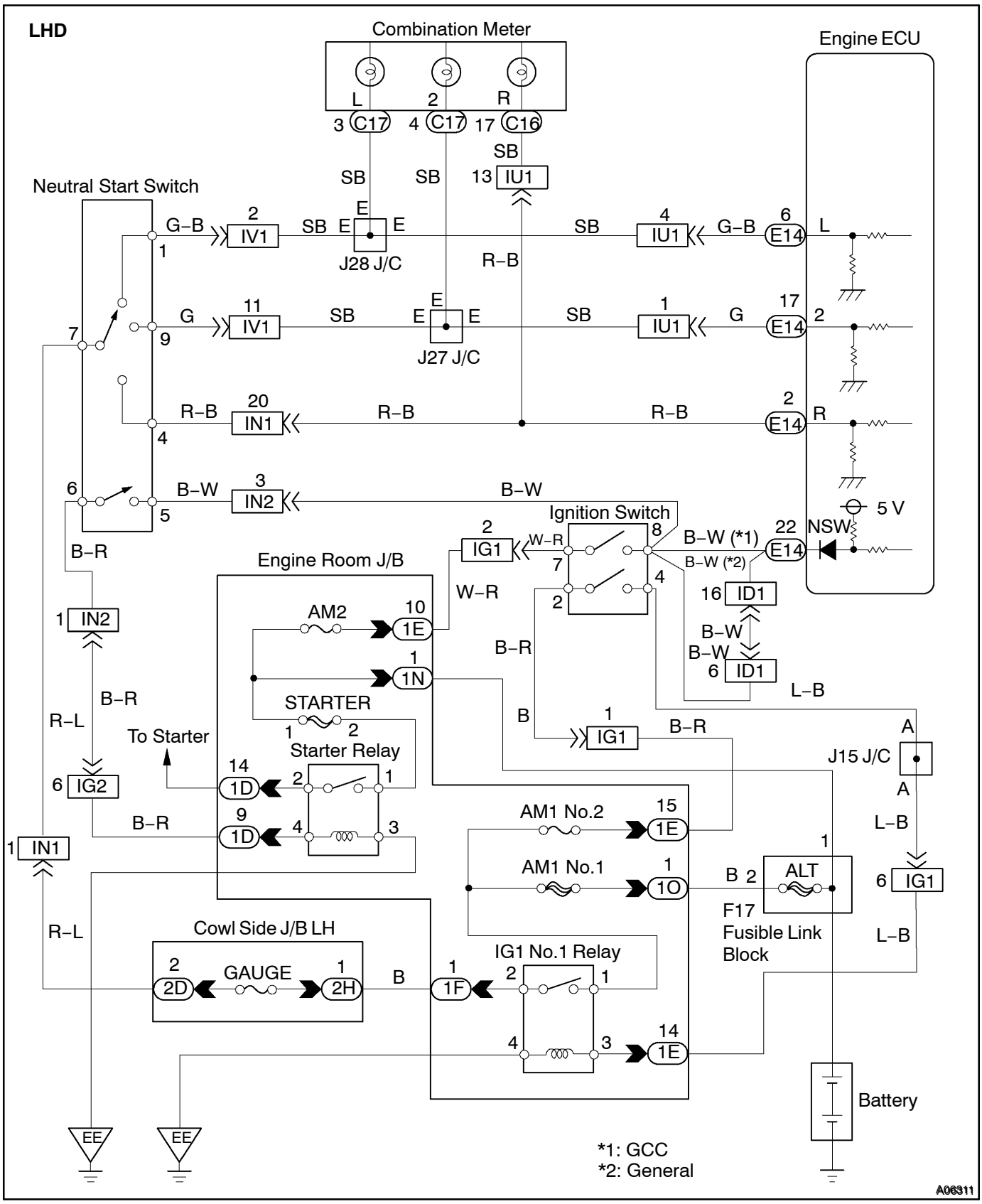
DI3QE–01

Neutral Start Switch Circuit

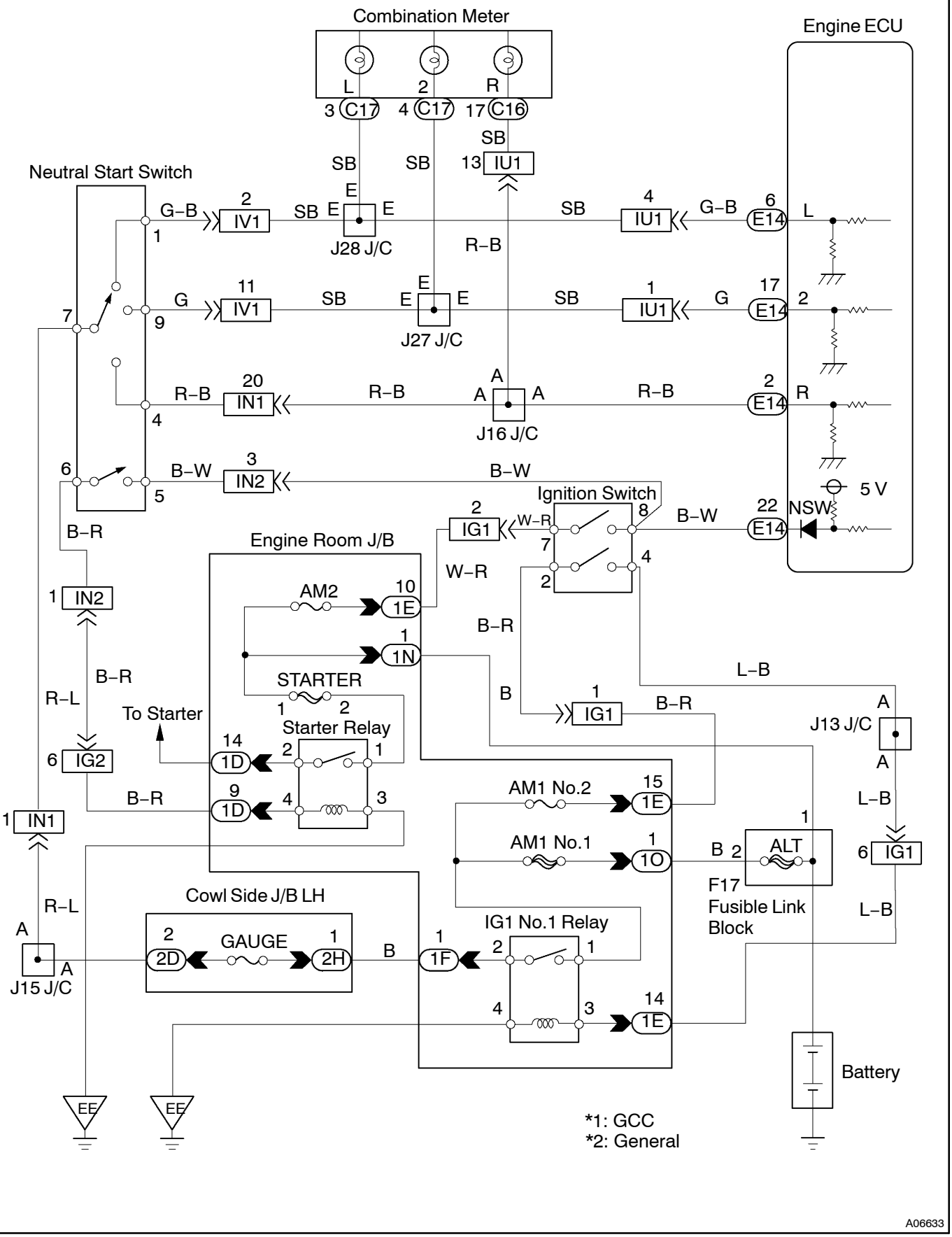
CIRCUIT DESCRIPTION

The neutral start switch goes on when the shift lever is in the N or P shift position. When it goes on terminal NSW of the engine ECU is grounded to body ground via the starter relay thus the terminal NSW voltage becomes 0V. When the shift lever is in the D, 2, L or R position, the neutral start switch goes off, so the voltage of engine ECU terminal NSW becomes battery voltage, the voltage of the engine ECU internal power source. If the shift lever is moved from the N position to the D position, this signal is used for air–fuel ratio correction and for idle speed control (estimated control), etc.

WIRING DIAGRAM

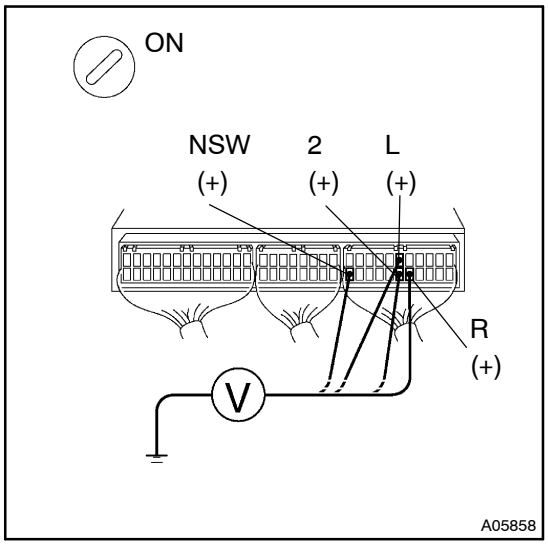


RHD


Combination Meter
Engine ECU
Neutral Start Switch
Ignition Switch
Engine Room J/B
Starter Relay
IG1 No.1 Relay
Cowl Side J/B LH
F17
Fusible Link
Block
Battery
To Starter
STARTER
AM2
AM1 No.2
AM1 No.1
ALT
GAUGE
J28 J/C
J27 J/C
J16 J/C
J13 J/C
J15 J/C
NSW
5 V
*1: GCC
*2: General
A06633

INSPECTION PROCEDURE

1	**Check R , 2, L and NSW signals.**



When using hand–held tester:

PREPARATION:

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

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

CHECK:

Shift the shift lever to the P, R, N, 2, or L positions, and read the NSW, R, 2 and L signals on the hand–held tester.

OK:

Shift position	Signal
P, N	NSW OFF → ON
R	R OFF → ON
2	2 OFF → ON
L	L OFF → ON

When not using hand–held tester:

PREPARATION:

Turn the ignition switch ON.

CHECK:

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

OK:

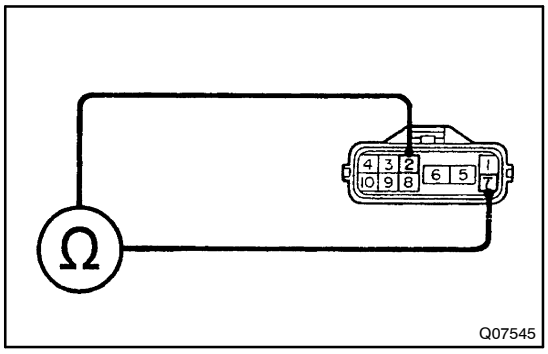
Position	R–Body ground	NSW–Body ground	2–Body ground	L–Body ground
P, N	0 V	Below 1 V	Below 1 V	Below 1 V
R	7.5 – 14 V*	7.5 – 14 V*	Below 1 V	Below 1 V
D	Below 1 V	7.5 – 14 V	Below 1 V	Below 1 V
2	Below 1 V	7.5 – 14 V	7.5 – 14 V	Below 1 V
L	Below 1 V	7.5 – 14 V	Below 1 V	7.5 – 14 V

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

OK → **Proceed to next circuit inspection shown on problem symptoms table (See page DI–21).**

NG

2	Check neutral start switch.



PREPARATION:

Remove the neutral start switch connector.

CHECK:

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

OK:

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

NG → Replace neutral start switch.

OK

3	Check harness and connector between battery and neutral start switch, neutral start switch and engine ECU (See page IN–19).

NG → Repair or replace harness and connector.

OK

Check and replace engine ECU (See page IN–19).