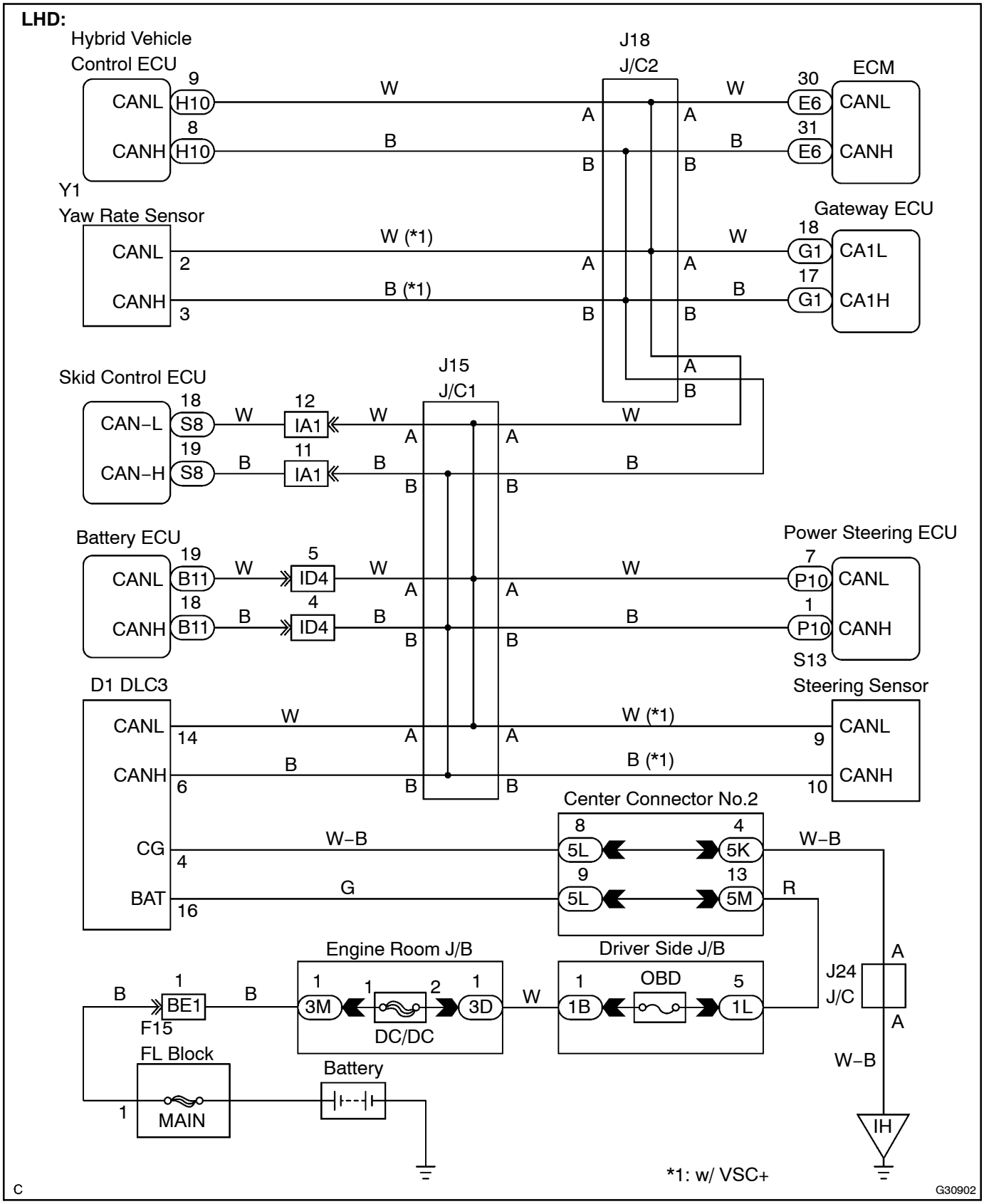
CHECK CAN BUS LINE

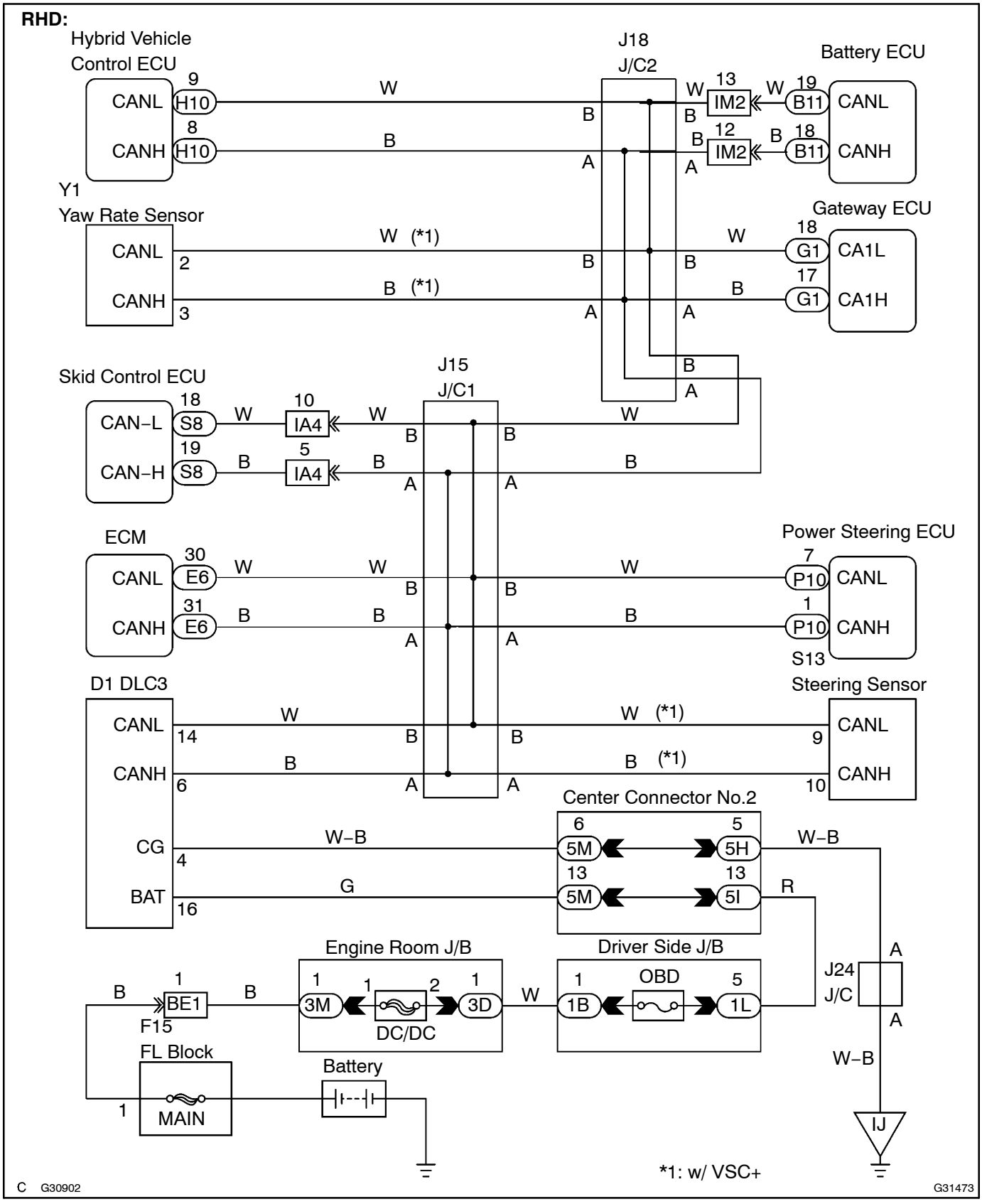
CIRCUIT DESCRIPTION

When any DTC for the CAN communication system is output, first measure the resistance between the terminals of the DLC3 to specify the trouble area, and check that there is no short in the CAN main bus line, between the CAN bus lines, to +B, or to GND.

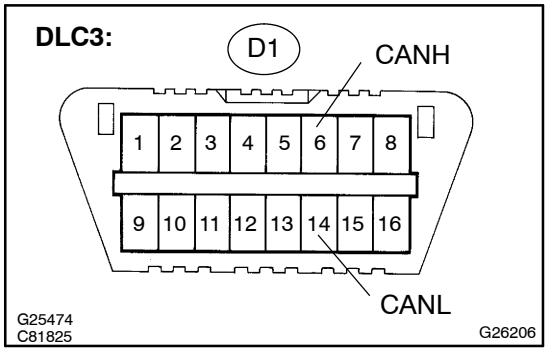
WIRING DIAGRAM



RHD:


Hybrid Vehicle Control ECU
CANL
CANH
9
H10
8
H10
Y1
Yaw Rate Sensor
CANL
CANH
2
3
J18
J/C2
Battery ECU
13
IM2
12
IM2
19
B11
18
B11
CANL
CANH
Gateway ECU
18
G1
17
G1
CA1L
CA1H
W (*1)
B (*1)
Skid Control ECU
CAN–L
CAN–H
18
S8
19
S8
10
IA4
5
IA4
J15
J/C1
ECM
CANL
CANH
30
E6
31
E6
Power Steering ECU
7
P10
1
P10
S13
D1 DLC3
CANL
CANH
CG
BAT
14
6
4
16
Steering Sensor
9
10
W–B
G
R
Center Connector No.2
6
5M
5
5H
13
5M
13
5I
Engine Room J/B
3M
3D
DC/DC
Driver Side J/B
1B
OBD
1L
J24
J/C
F15
BE1
FL Block
MAIN
Battery
IJ
*1: w/ VSC+
C G30902
G31473

1	CHECK CAN BUS LINE(MAIN BUS LINE FOR DISCONNECTION, BUS LINES FOR SHORT CIRCUIT)



(a) Turn the power switch off.

(b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value	Result
D1–6 (CANH) – D1–14 (CANL)	Power Switch OFF	54 to 69 Ω	OK
D1–6 (CANH) – D1–14 (CANL)	Power Switch OFF	69 Ω or more (LHD)	NG–A
D1–6 (CANH) – D1–14 (CANL)	Power Switch OFF	69 Ω or more (RHD)	NG–B
D1–6 (CANH) – D1–14 (CANL)	Power Switch OFF	54 Ω or less (LHD)	NG–C
D1–6 (CANH) – D1–14 (CANL)	Power Switch OFF	54 Ω or less (RHD)	NG–D

NG–A → **CHECK CAN MAIN BUS LINE FOR DISCONNECTION (LHD) (SEE PAGE 05–2362)**

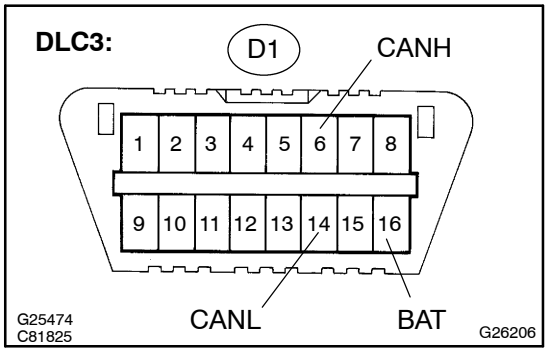
NG–B → **CHECK CAN MAIN BUS LINE FOR DISCONNECTION (RHD) (SEE PAGE 05–2401)**

NG–C → **CHECK CAN BUS LINES FOR SHORT CIRCUIT (LHD) (SEE PAGE 05–2367)**

NG–D → **CHECK CAN BUS LINES FOR SHORT CIRCUIT (RHD) (SEE PAGE 05–2406)**

OK

2 CHECK CAN BUS LINE FOR SHORT TO +B



(a) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D1–6 (CANH) – D1–16 (BAT)	Power switch OFF	1 MΩ or more
D1–14 (CANL) – D1–16 (BAT)	Power switch OFF	1 MΩ or more

HINT:

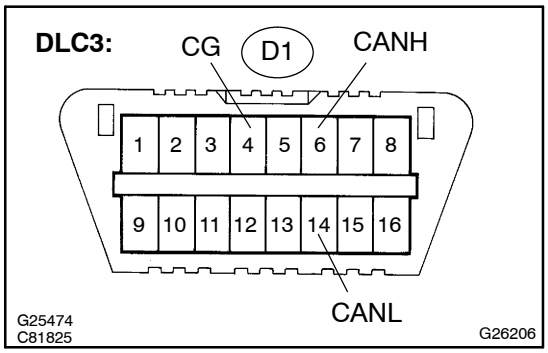
- NG–A: LHD
- NG–B: LHD

NG–A → **CHECK CAN BUS LINE FOR SHORT TO +B (LHD) (SEE PAGE 05–2378)**

NG–B → **CHECK CAN BUS LINE FOR SHORT TO +B (RHD) (SEE PAGE 05–2417)**

OK

3 CHECK CAN BUS LINE FOR SHORT TO GND



(a) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D1–4 (CG) – D1–6 (CANH)	Power switch OFF	1 kΩ or more
D1–4 (CG) – D1–14 (CANL)	Power switch OFF	1 kΩ or more

HINT:

- NG–A: LHD
- NG–B: LHD

NG–A → **CHECK CAN BUS LINE FOR SHORT TO GND (LHD) (SEE PAGE 05–2390)**

NG–B → **CHECK CAN BUS LINE FOR SHORT TO GND (RHD) (SEE PAGE 05–2429)**

OK

HOW TO PROCEED WITH TROUBLESHOOTING (SEE PAGE 05–2312)