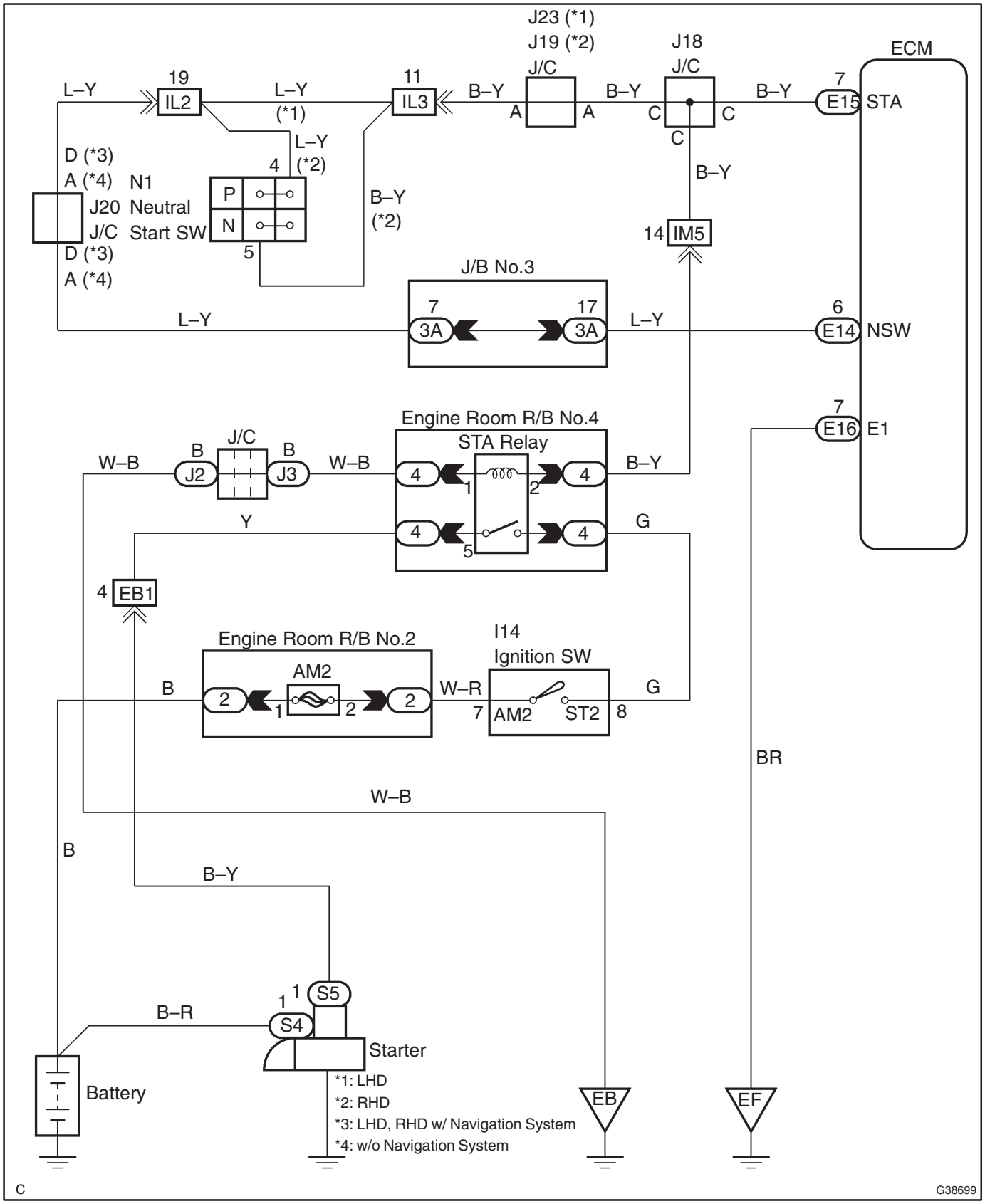
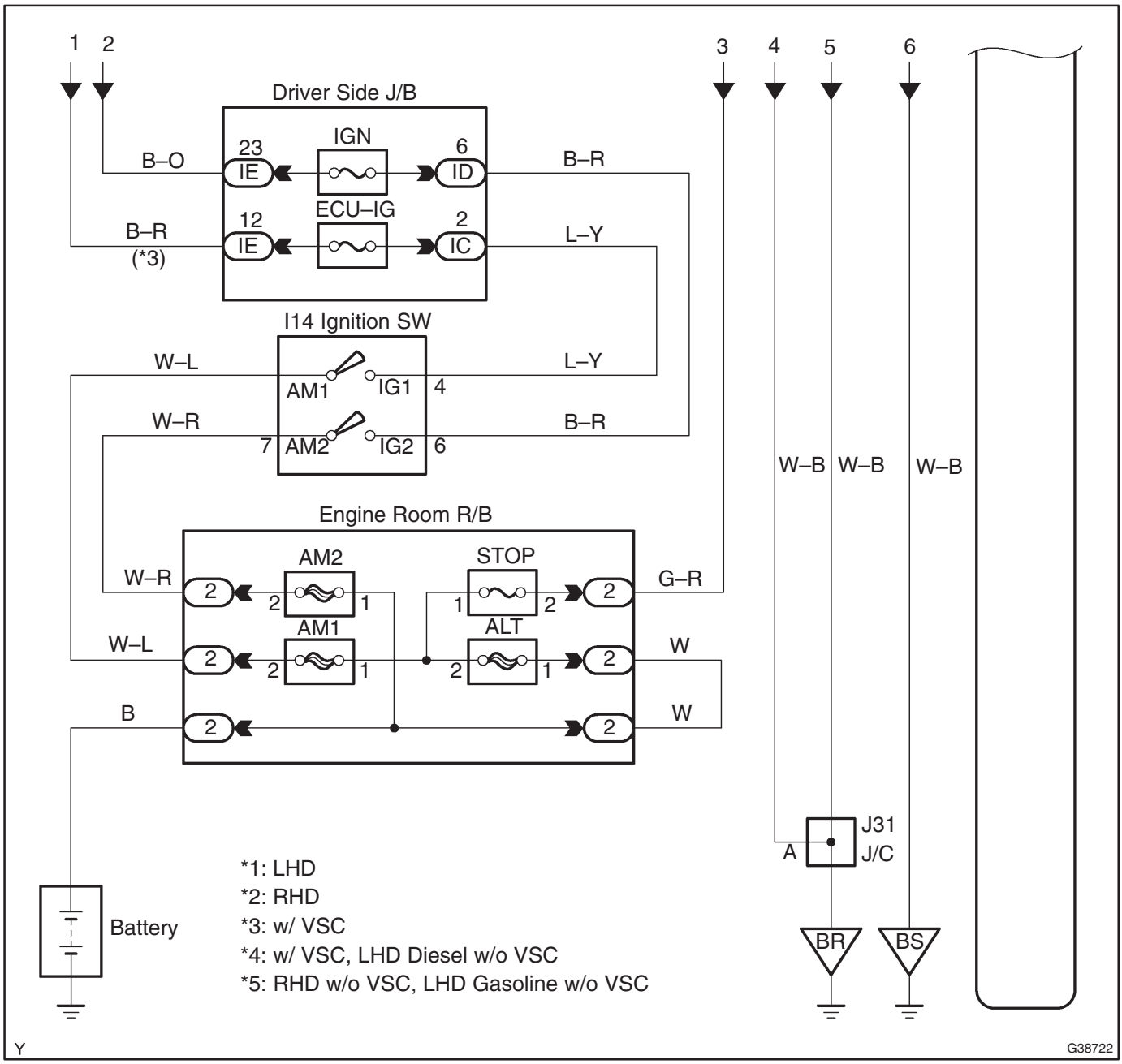
STARTER SIGNAL CIRCUIT

CIRCUIT DESCRIPTION

While the engine is being cranked, current flows from terminal ST2 of the ignition switch to the ST fuse and also flows to terminal STA of the ECM (STA signal).

WIRING DIAGRAM




1
2
3
4
5
6
Driver Side J/B
IGN
23
IE
6
ID
B–O
B–R
ECU–IG
12
IE
2
IC
B–R
(*3)
L–Y
I14 Ignition SW
W–L
AM1
IG1
4
L–Y
W–R
7
AM2
IG2
6
B–R
W–B
W–B
W–B
Engine Room R/B
AM2
STOP
W–R
2
2
1
1
2
2
G–R
AM1
ALT
W–L
2
2
1
2
1
2
W
B
2
2
W
J31
A
J/C
Battery
*1: LHD
*2: RHD
*3: w/ VSC
*4: w/ VSC, LHD Diesel w/o VSC
*5: RHD w/o VSC, LHD Gasoline w/o VSC
BR
BS
Y
G38722

INSPECTION PROCEDURE

HINT:

This chart assumes that the engine can be cranked normally. If the engine cannot crank normally, proceed to the problem symptoms table (see page 05–455).

1	READ DATA LIST (STA SIGNAL)

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the ignition switch ON and turn the intelligent tester II ON.
(c) Enter the following menus: Powertrain / Engine / Data List / Starter SIG.
(d) Read the values.

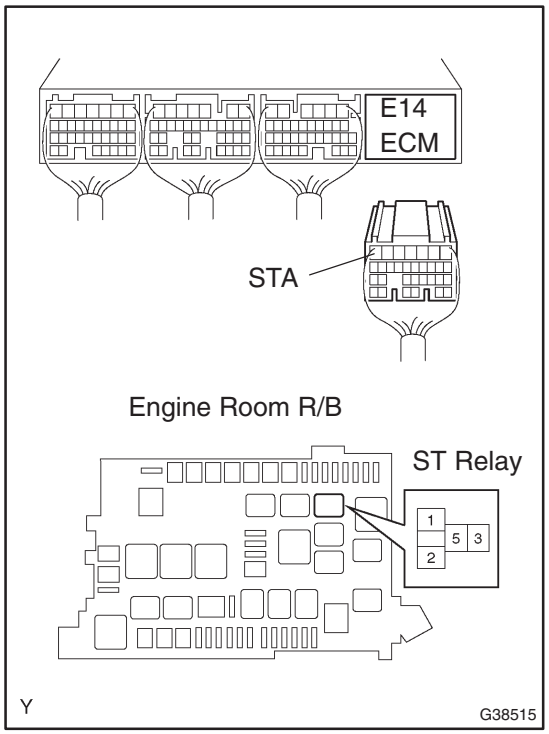
Standard:

Ignition Switch Position	ON	START
Starter SIG	OFF	ON

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (See page 05–455)**

NG

2	CHECK WIRE HARNESS (ECM – ST RELAY)



(a) Disconnect the E14 ECM connector.
(b) Remove the ST relay from the engine room R/B.
(c) Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
R/B ST relay terminal 2 – E14–7 (STA)	Below 1 Ω
R/B ST relay terminal 2 or E14–7 (STA) – Body ground	10 kΩ or higher

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE ECM (See Pub. No. RM990E, page 10–34)

NOTICE:

After replacing the ECM, allow for ECM learning start the engine and idle it until it is fully warmed up.