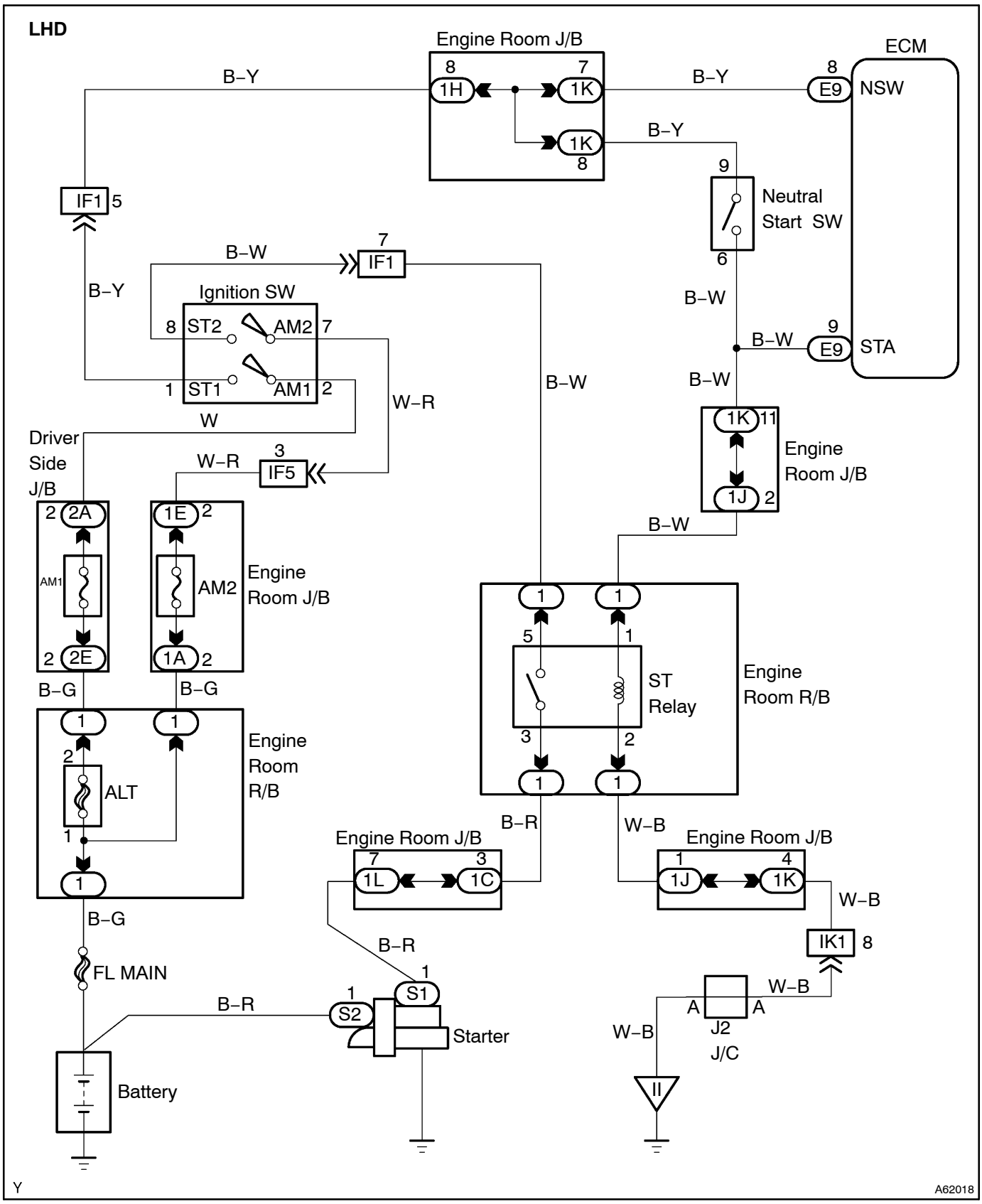
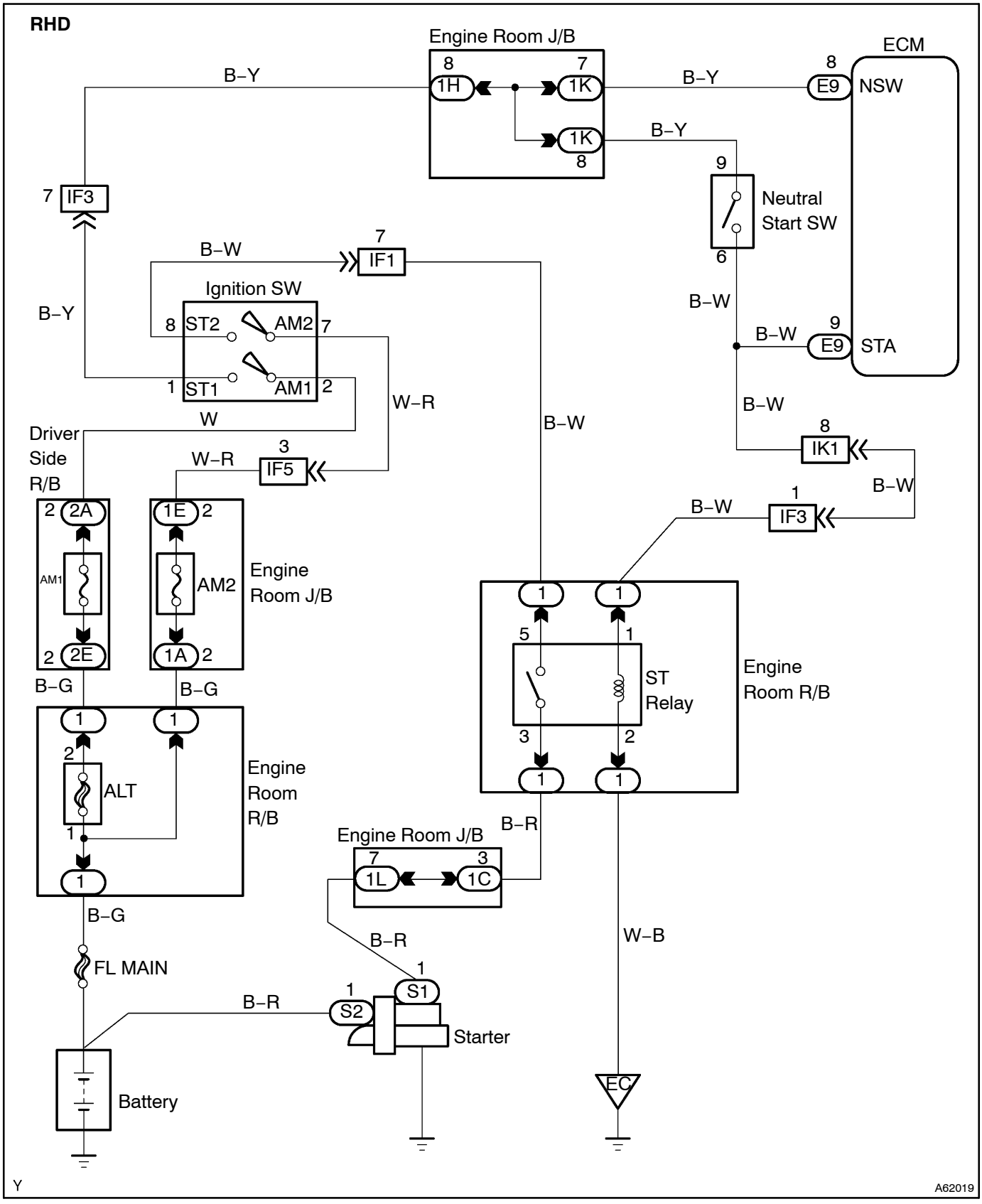
STARTER SIGNAL CIRCUIT

CIRCUIT DESCRIPTION

When the engine is cranked, the intake air flow is slow, so fuel vaporization is poor. A rich mixture is therefore necessary in order to achieve good startability. While the engine is being cranked, the battery positive voltage is applied to terminal STA of the ECM. The starter signal is mainly used to increase the fuel injection volume for the starting injection control and after–start injection control.

WIRING DIAGRAM




RHD
Engine Room J/B
8
1H
7
1K
B–Y
B–Y
ECM
8
E9
NSW
1K
8
B–Y
9
Neutral
Start SW
6
7
IF3
B–W
7
IF1
Ignition SW
B–Y
8
ST2
AM2
7
1
ST1
AM1
2
W–R
W
B–W
B–W
9
E9
STA
B–W
Driver
Side
R/B
W–R
3
IF5
8
IK1
B–W
1
IF3
B–W
2
2A
1E
2
AM1
AM2
Engine
Room J/B
2
2E
1A
2
B–G
B–G
1
1
2
ALT
1
1
Engine
Room
R/B
1
1
5
1
ST
Relay
3
2
1
1
Engine
Room R/B
B–R
Engine Room J/B
7
1L
3
1C
B–G
B–R
W–B
FL MAIN
1
S1
1
S2
B–R
Starter
Battery
EC
Y
A62019

INSPECTION PROCEDURE

HINT:
This diagnostic chart is based on the premise that the engine is cranked normally. If the engine is not cranked, proceed to the problem symptoms table on page .

When using Hand–held Tester:

1	READ VALUE OF HAND–HELD TESTER(STARTER SIGNAL)

(a) Turn the ignition switch ON and push the hand–held tester main switch ON.
(b) Read the STA signal on the hand–held tester while the starter operates.
Result:

Ignition Switch Position	ON	START
STA Signal	OFF	ON

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE**

NG

2	CHECK HARNESS AND CONNECTOR(ECM – STARTER RELAY)

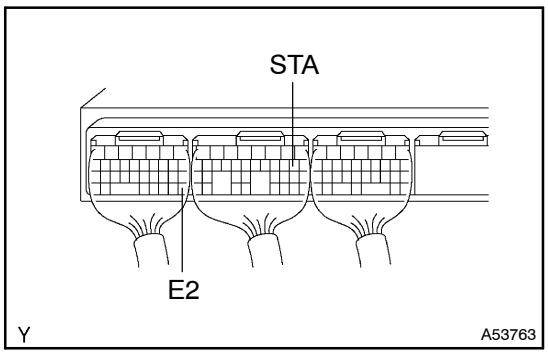
NG → **REPAIR OR REPLACE HARNESS AND CONNECTOR**

OK

CHECK AND REPLACE ECM

When not using Hand–held Tester:

1	INSPECT ECM



(a) Measure the voltage between terminal STA and E2 of the ECM connector during the engine cranking.
Voltage: 6 V or more

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE**

NG

2	CHECK HARNESS AND CONNECTOR(ECM – STARTER RELAY)

NG → REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

CHECK AND REPLACE ECM