DI9SG–01

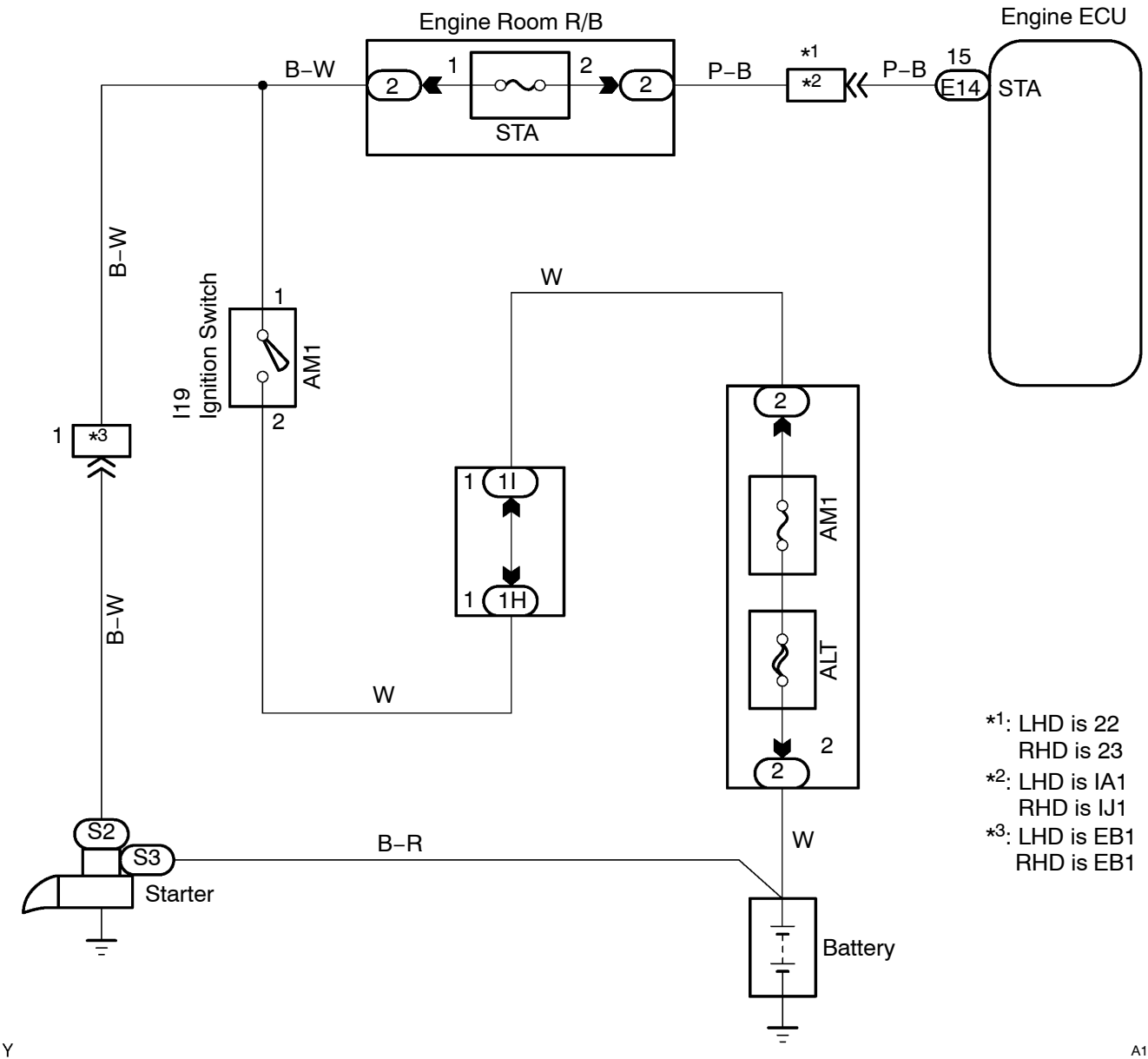
Starter Signal Circuit

CIRCUIT DESCRIPTION

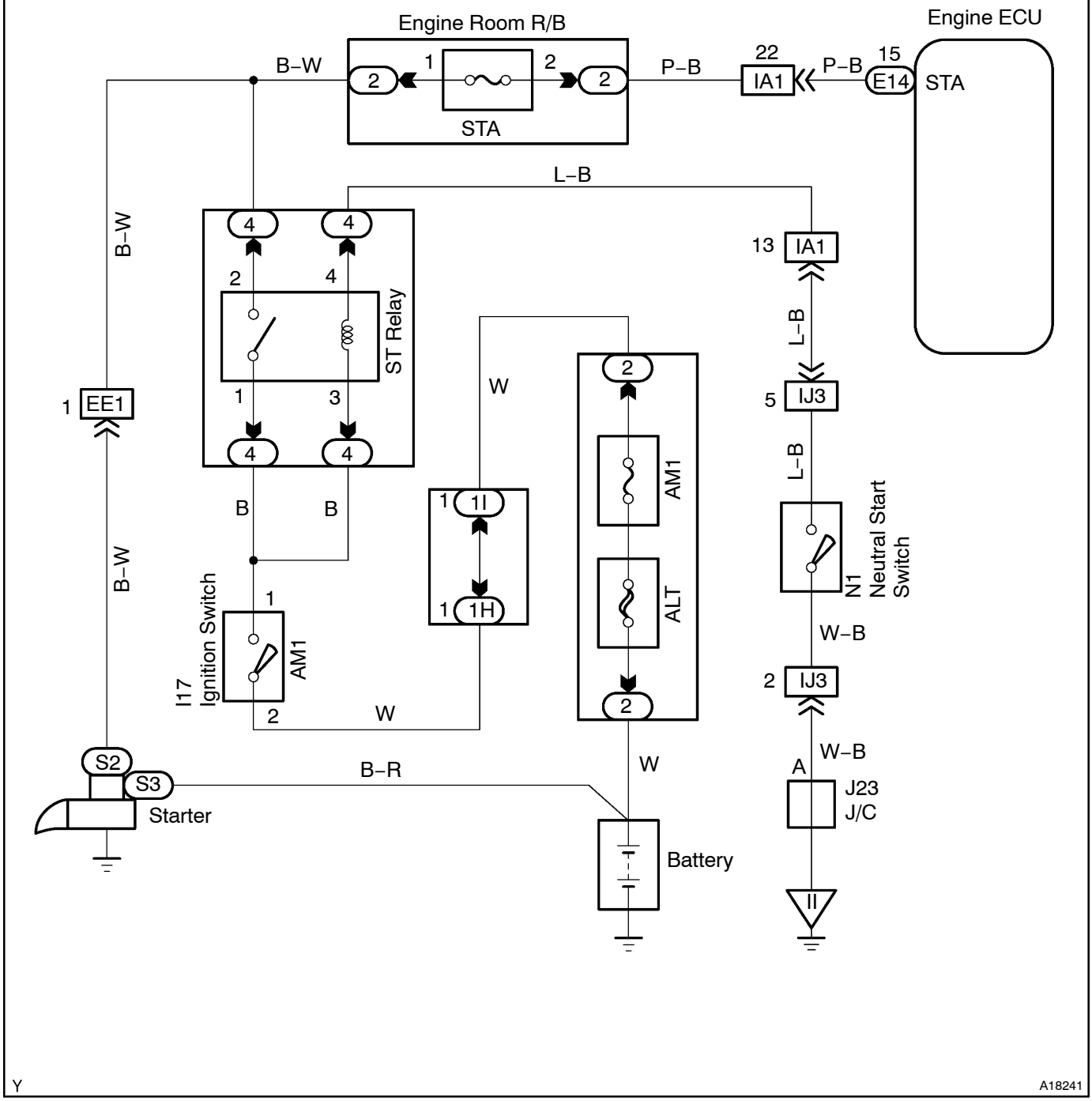
When the engine is being cranked, the intake air flow is slow, so fuel vaporization is poor. A rich mixture is therefore necessary in order to achieve good start ability. While the engine is being cranked, the battery positive voltage is applied to terminal STA of the engine ECU. The starter signal is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

WIRING DIAGRAM

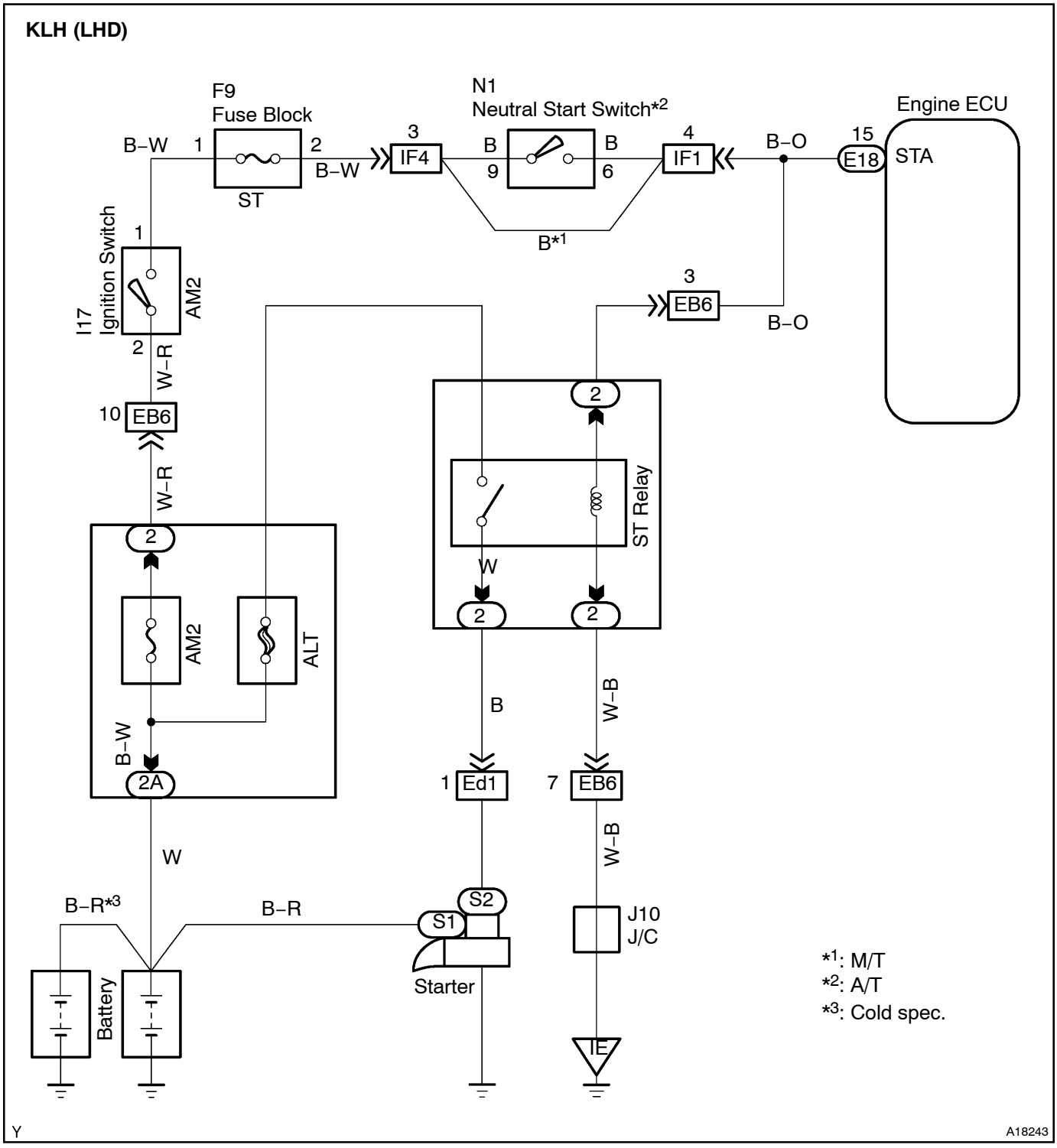
KDN for M/T

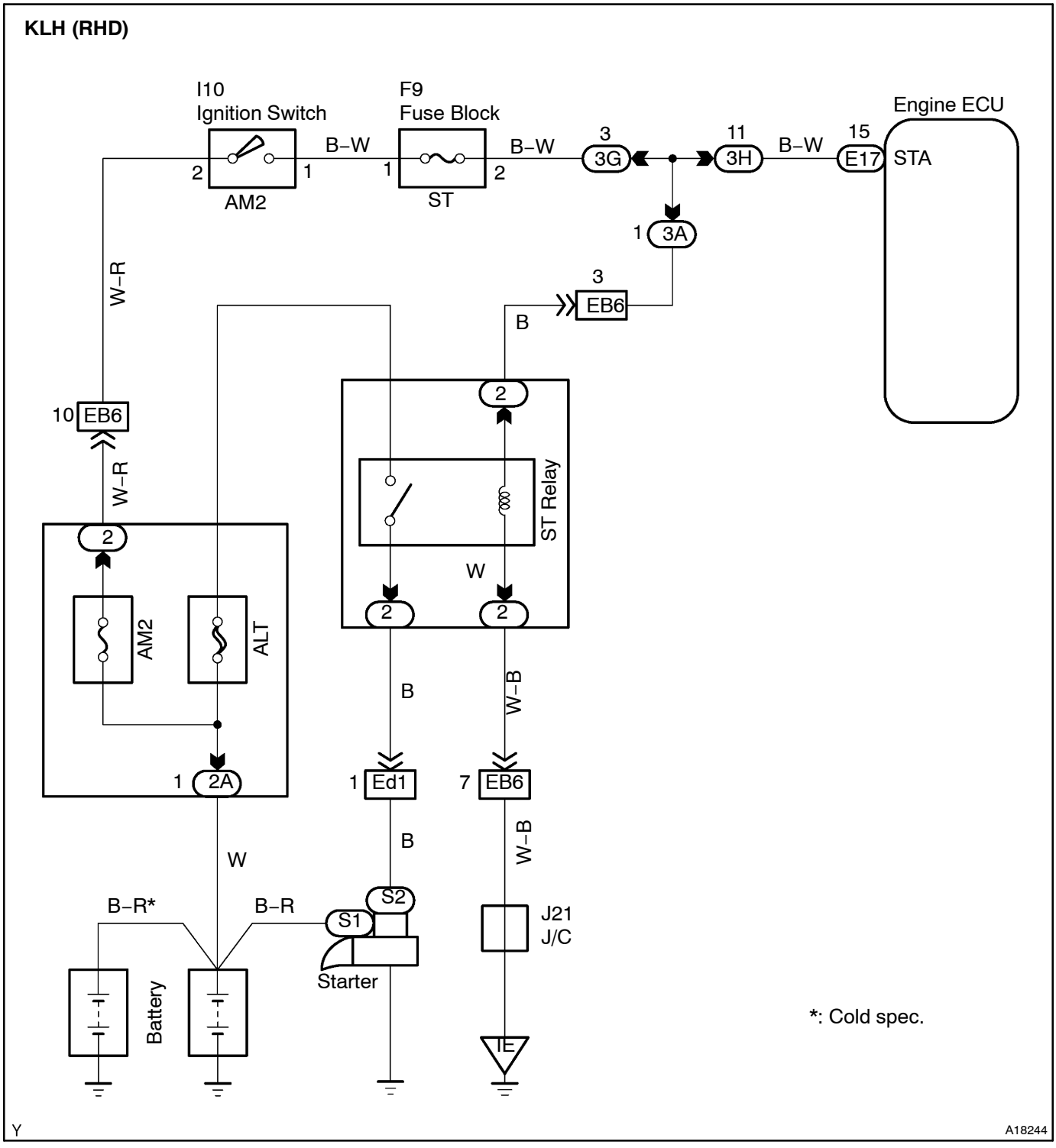


KDN for AT


Engine Room R/B
Engine ECU
B–W
P–B
22
IA1
15
E14
STA
L–B
13
IA1
ST Relay
1
EE1
B–W
L–B
5
IJ3
W
AM1
ALT
L–B
N1
Neutral Start
Switch
W–B
2
IJ3
I17
Ignition Switch
AM1
B
B
1I
1H
W
S2
S3
B–R
Starter
W
A
J23
J/C
Battery
Y
A18241

KLH (LHD)


F9
Fuse Block
N1
Neutral Start Switch*2
Engine ECU
B–W
1
2
ST
3
IF4
B
9
B
6
4
IF1
B–O
15
E18
STA
B*1
I17
Ignition Switch
AM2
1
2
W–R
10
EB6
3
EB6
B–O
2
ST Relay
W
2
2
2
AM2
ALT
B–W
2A
B
W–B
1
Ed1
7
EB6
W–B
W
B–R*3
B–R
S2
S1
Starter
J10
J/C
IE
Battery
*1: M/T
*2: A/T
*3: Cold spec.
Y
A18243



INSPECTION PROCEDURE

HINT:

This diagnostic chart is based on the premise that the engine is being cranked under normal conditions. If the engine does not crank, proceed to the problem symptoms table on page DI–22.

When using hand–held tester:

1	**Check STA signal on hand–held tester.**

CHECK:

Read the STA signal on the hand–held tester while the starter operates.

OK:

Ignition Switch Position	ON	STA
STA Signal	OFF	ON

OK → **Proceed to next circuit inspection shown on problem symptoms table (See page DI–22).**

NG

2	**Check for open in harness and connector between engine ECU and starter relay (See page IN–20).**

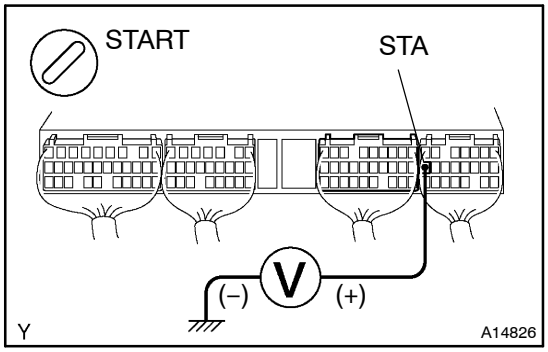
NG → **Repair or replace harness or connector.**

OK

Check and replace engine ECU (See page IN–20).

When not using hand–held tester:

1	**Check starter signal.**



PREPARATION:

(a) Remove the glove compartment box.

(b) Turn the ignition switch to START.

CHECK:

Measure the voltage between terminal STA of the engine ECU connector and body ground during cranking.

OK:

Voltage: 6.0 V or more

OK → **Proceed to next circuit inspection shown on problem symptoms table (See page DI–22).**

NG

2	Check for open in harness and connector between engine ECU and starter relay (See page IN–20).

NG → Repair or replace harness or connector.

OK

Check and replace engine ECU (See page IN–20).