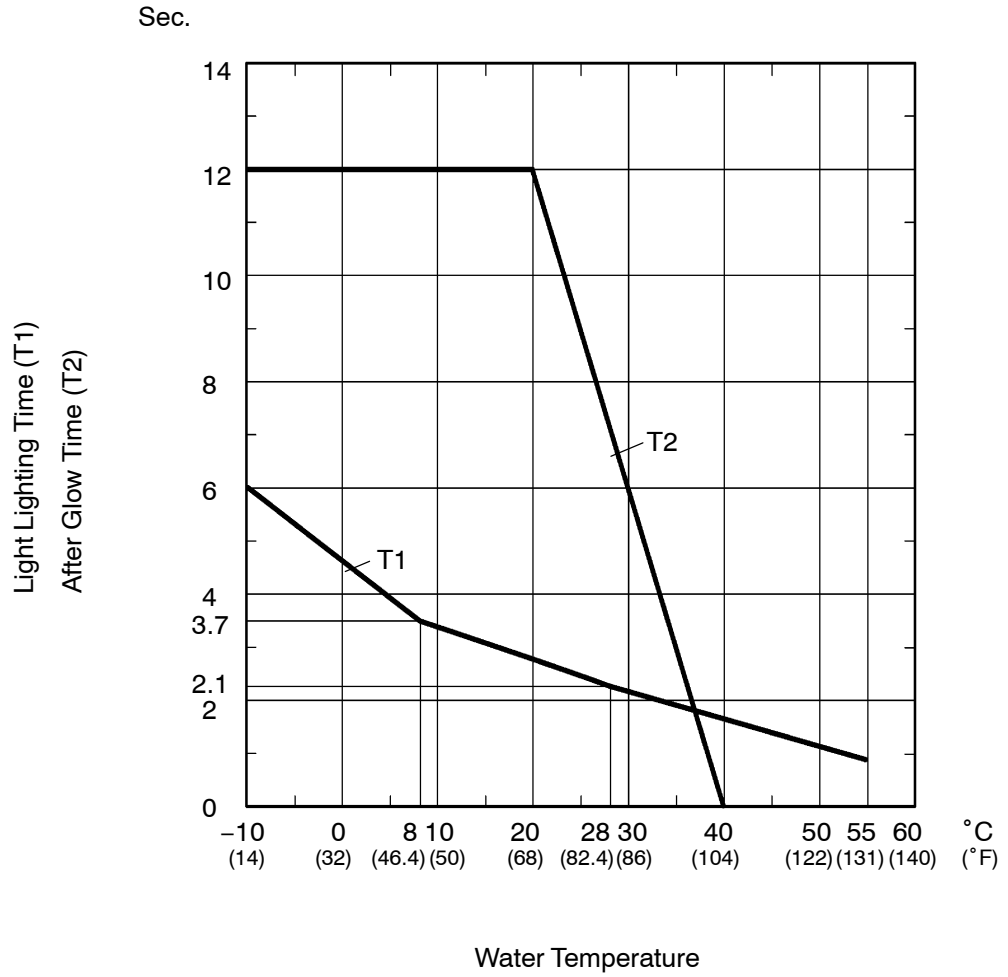
Pre–Heating Control Circuit

CIRCUIT DESCRIPTION

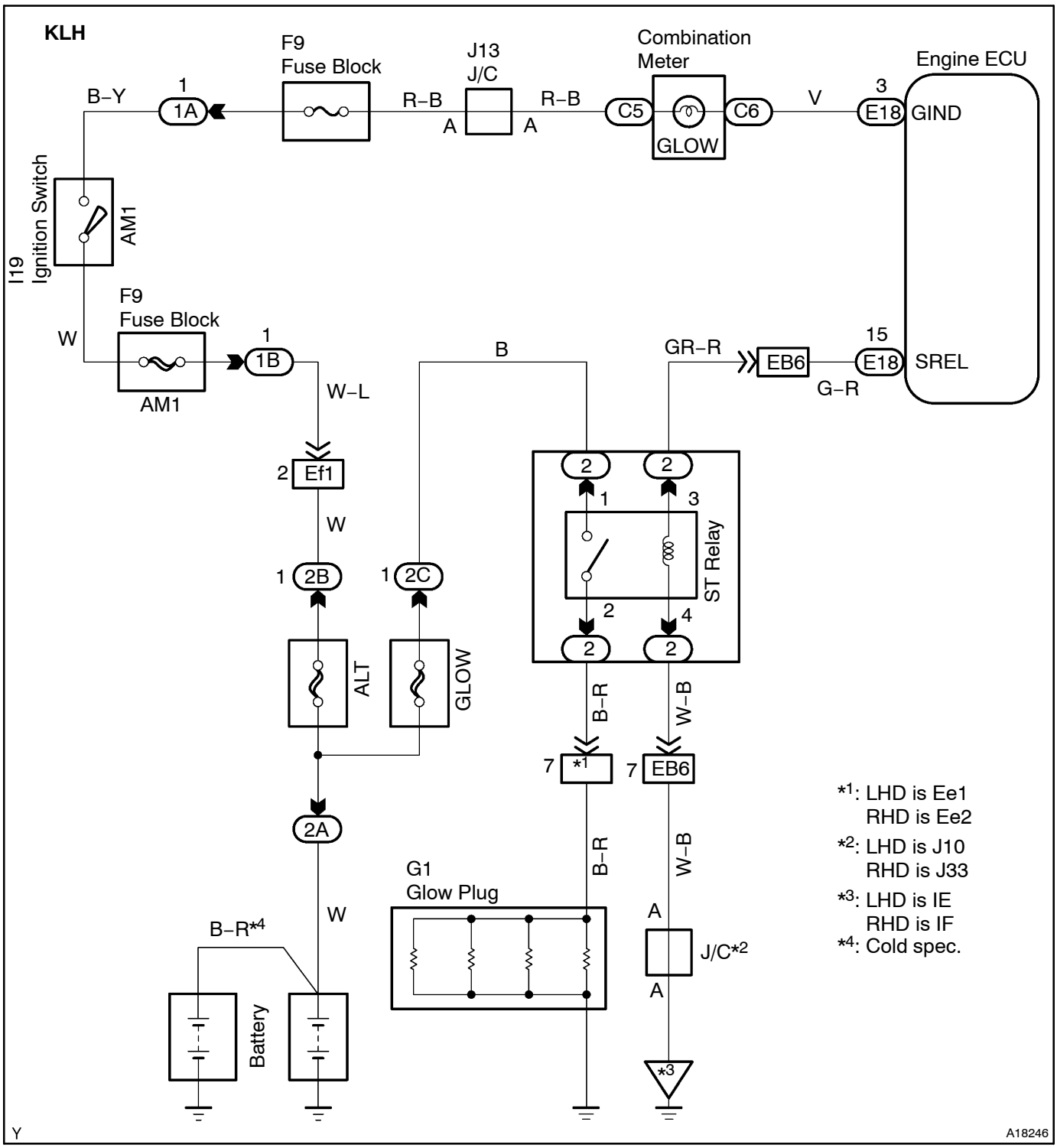
When the ignition switch turns ON, the engine ECU calculates the glow indicator lighting time/heating corresponding to the coolant temperature at that time and turns ON the glow indicator light/glow plug relay.
As the ceramics is used for a glow plug material, the current control is not performed.

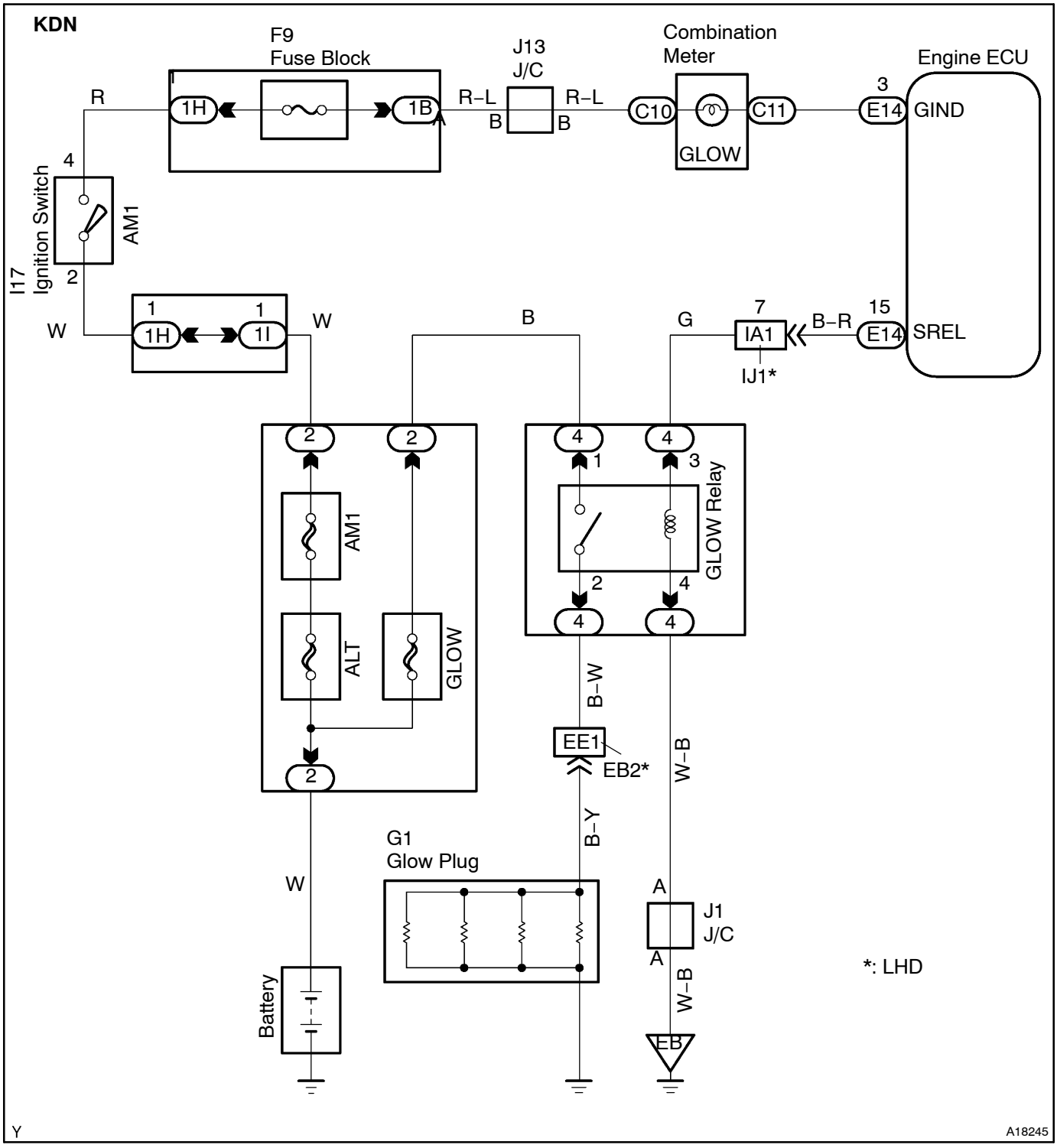


Y

A17566

WIRING DIAGRAM




KDN
F9
Fuse Block
J13
J/C
Combination
Meter
Engine ECU
R
1H
1B
R–L
B
R–L
B
C10
C11
GLOW
3
E14
GIND
4
Ignition Switch
AM1
I17
2
1
1
W
1H
1I
W
B
G
7
IA1
IJ1*
B–R
15
E14
SREL
2
2
AM1
ALT
GLOW
2
4
1
4
3
GLOW Relay
2
4
4
4
B–W
EE1
EB2*
W–B
B–Y
G1
Glow Plug
W
A
J1
J/C
A
W–B
Battery
EB
*: LHD
Y
A18245

INSPECTION PROCEDURE

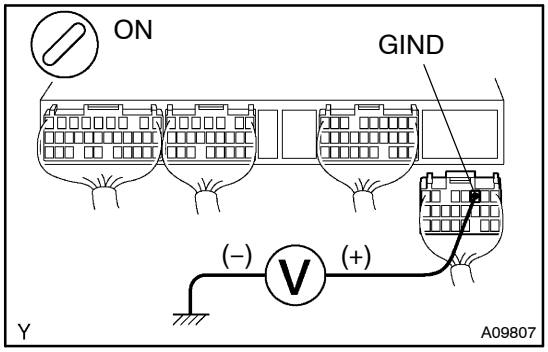
1	**Check glow indicator light.**

CHECK:
Check the glow indicator light when turning the ignition switch ON.
OK:
The glow indicator lights up for 0.5 sec. or more.

OK → **Go to step ****.**

NG

2	**Check voltage between terminal GIND of engine ECU connector and body ground.**



PREPARATION:
(a) Remove the glove compartment door.
(b) KLH:
Disconnect the E17 connector from the engine ECU.
(c) KDN:
Disconnect the E14 connector from the engine ECU.
(d) Turn ignition switch ON.
CHECK:
Measure the voltage between terminal GIND of the engine ECU connector and body ground.
OK:
Voltage: 9 – 14 V

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

NG

3	**Check GAUGE fuse.**

NG → **Check for short in all harness and components connected to GAUGE fuse.**

OK

4	Check glow indicator light bulb.

NG → Replace bulb.

OK →

Check for open in harness and connector between combination meter and engine ECU, and combination meter and GAUGE fuse (See page IN–20).

5	Check glow indicator lighting time (See page ST–2).

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

OK →

6	Are there any DTC being output?

YES → Go to relevant DTC chart.

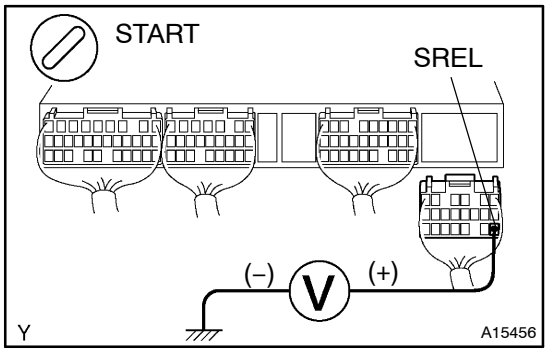
NO →

7	Check glow plug relay (See page ST–2).

NG → Replace glow plug relay.

OK →

8	**Check voltage between terminal SREL of engine ECU connector and body ground at cranking.**



PREPARATION:

(a) Remove the glove compartment door.
(b) KLH:
Disconnect the E17 connector from the engine ECU.
(c) KDN:
Disconnect the E14 connector from the engine ECU.
(d) Turn the ignition switch to START.

CHECK:

Measure the voltage between terminal SREL of the engine ECU connector and body ground at cranking.

OK:

Voltage: 9 – 14 V

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

OK

9	**Check for open and short in harness and connector between glow plug relay and engine ECU, and glow plug relay and body ground (See page IN–20).**

NG	**Repair harness or connector.**

OK

10	**Check resistance of glow plug (See page ST–2).**

NG	**Replace glow plug.**

OK

11	Inspect glow plug installation.

NG → Tighten glow plug.

OK

12	Check for open in harness and connector between glow plug relay and glow plug (See page IN–20).

NG → Repair harness or connector.

OK

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