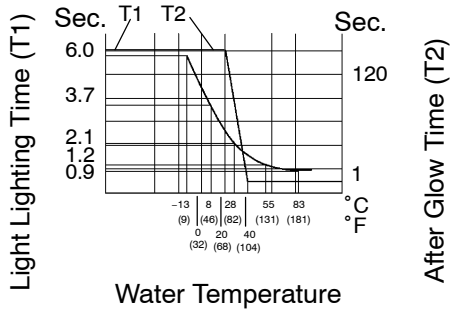
DI3WY–02

Pre–Heating Control Circuit

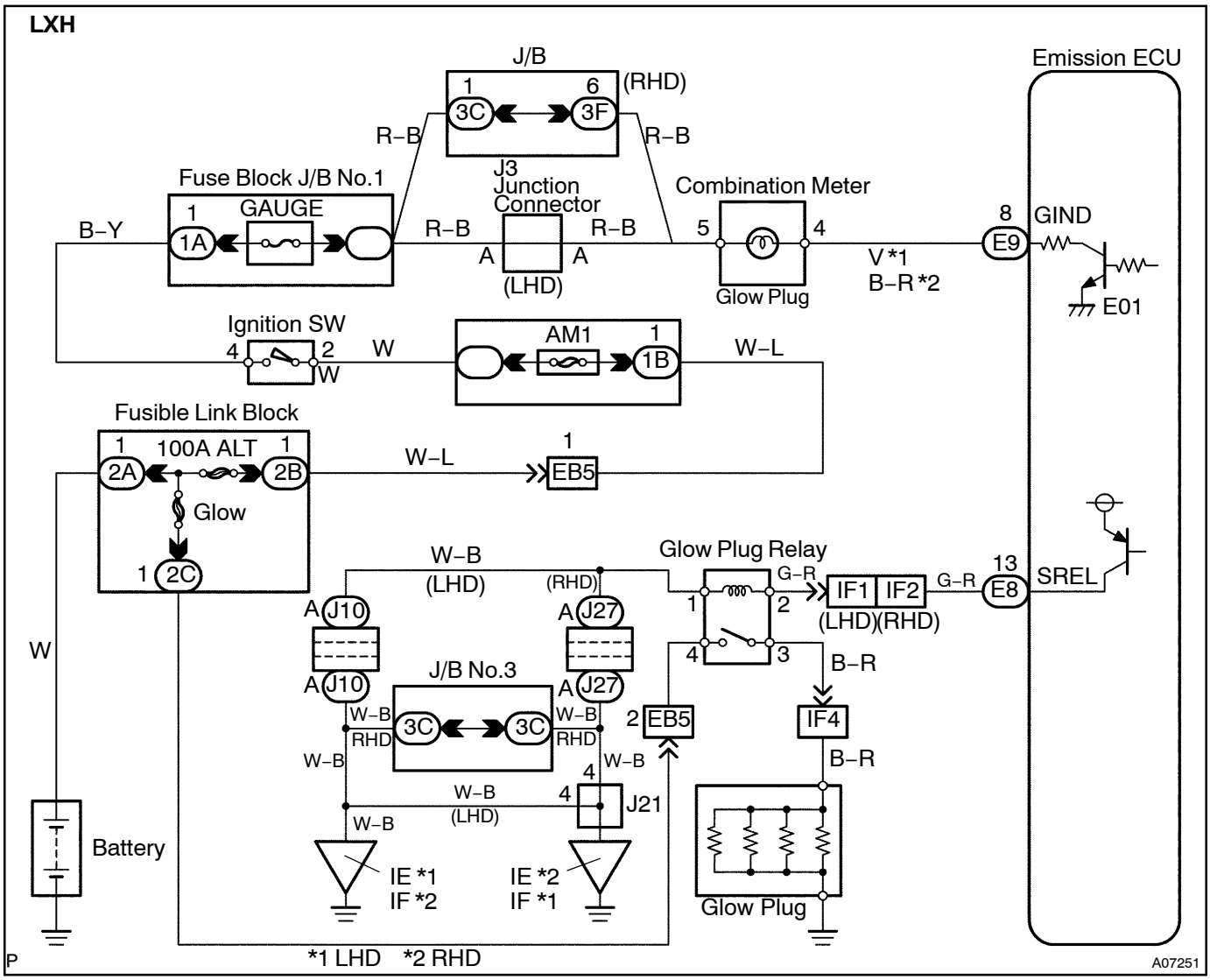
CIRCUIT DESCRIPTION

When the ignition switch turns ON, the emission 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.



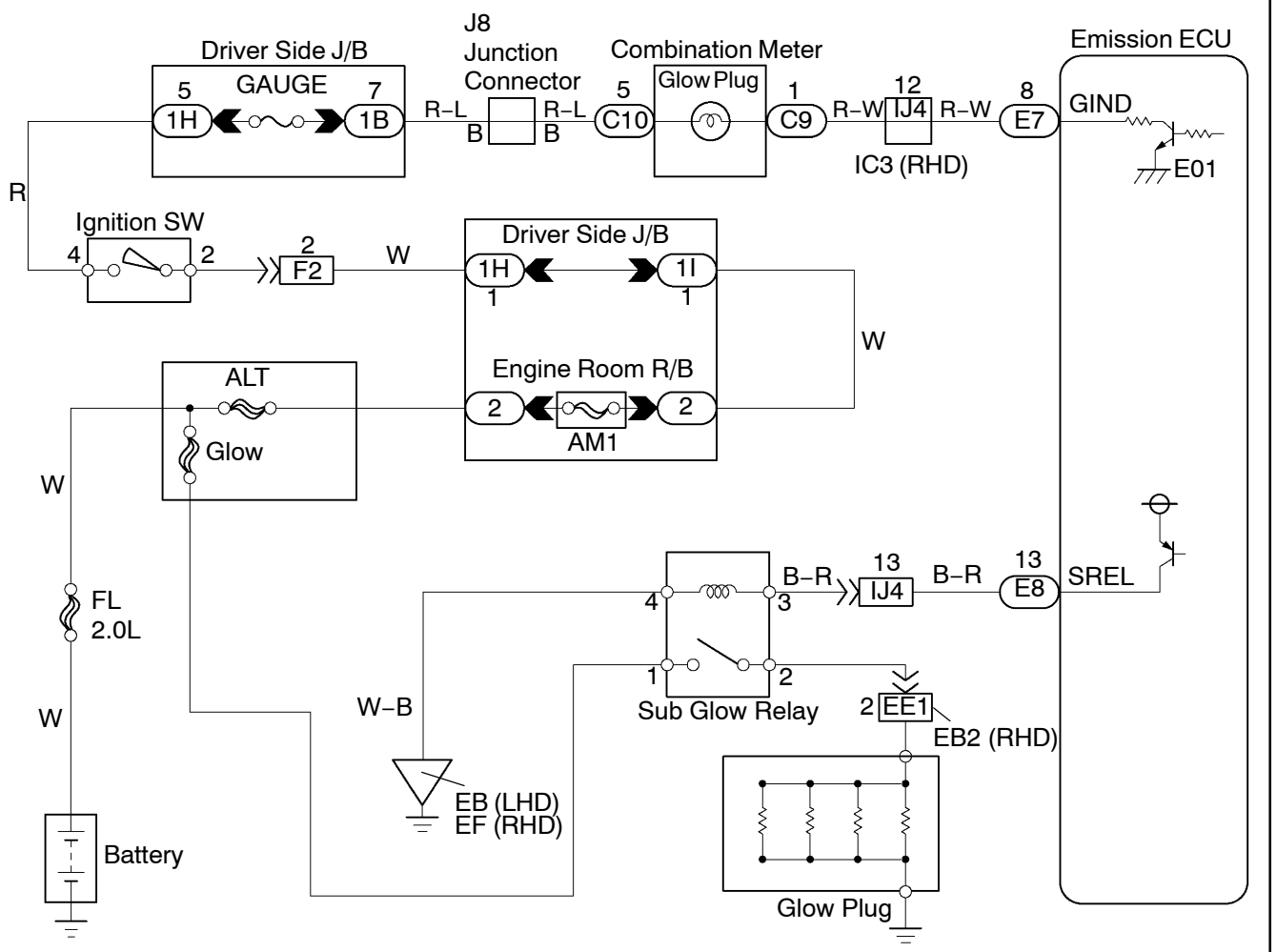
A05568

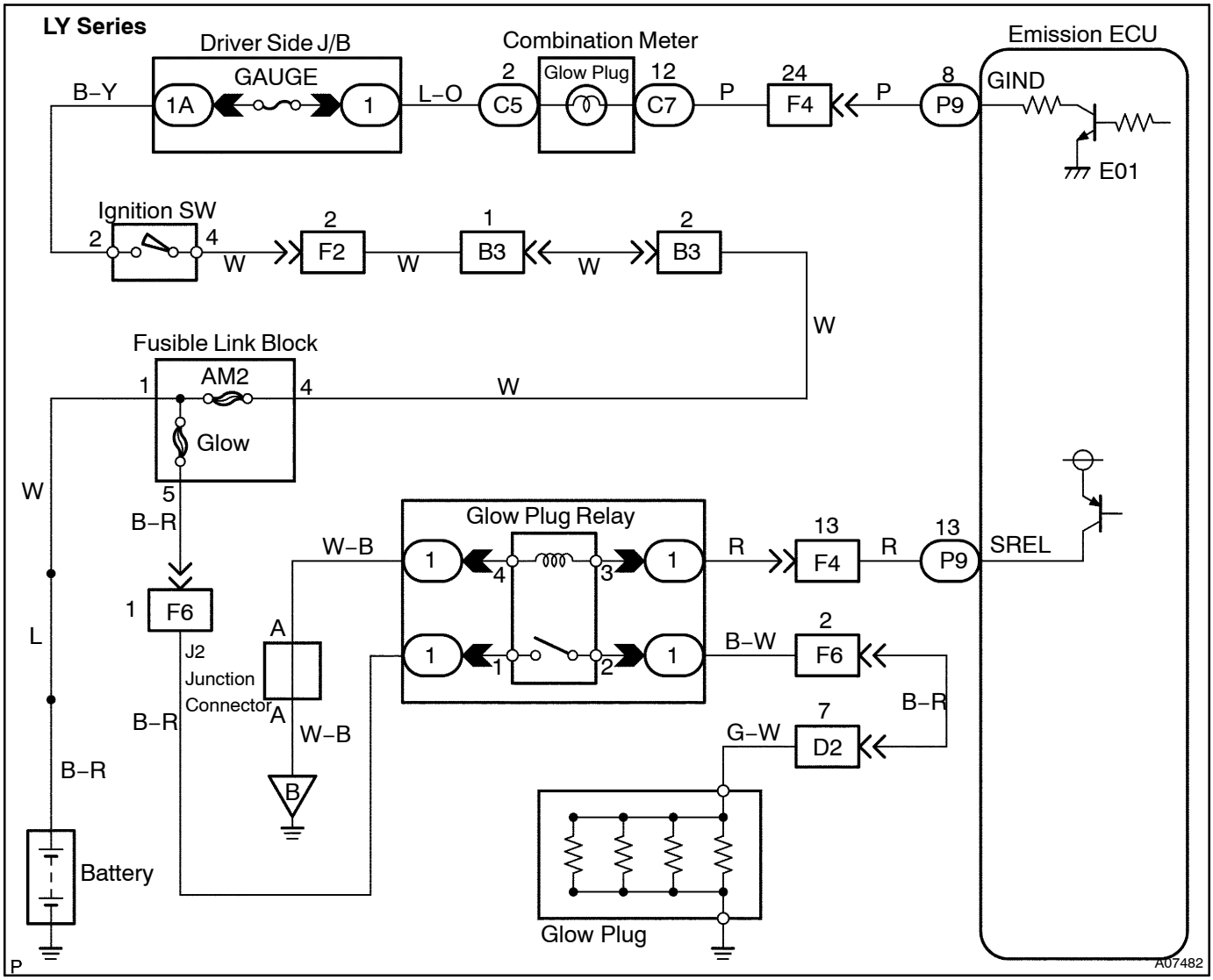
WIRING DIAGRAM



A07251

LN Series


Driver Side J/B
5
GAUGE
7
1H
1B
R–L
J8
Junction
Connector
B
R–L
B
Combination Meter
5
Glow Plug
C10
1
C9
R–W
12
IJ4
IC3 (RHD)
R–W
8
E7
Emission ECU
GIND
E01
R
Ignition SW
4
2
2
F2
W
Driver Side J/B
1H
1
1I
1
W
ALT
Glow
Engine Room R/B
2
AM1
2
W
FL
2.0L
W
Battery
4
3
B–R
13
IJ4
B–R
13
E8
SREL
1
2
Sub Glow Relay
W–B
EB (LHD)
EF (RHD)
2
EE1
EB2 (RHD)
Glow Plug
A06941



INSPECTION PROCEDURE

1	**Does glow indicator light up?**

PREPARATION:

Turn the ignition switch ON.

CHECK:

Does the glow indicator light up?

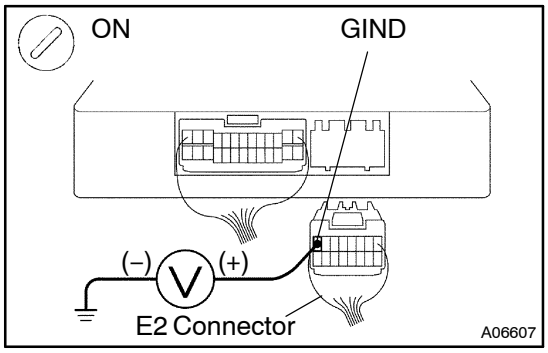
OK:

The glow indicator lights up for 0.5 sec. or more.

OK	**Go to step 5.**

NG

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



PREPARATION:

(a) Disconnect the emission ECU from the body panel (See page EC–6).

(b) Disconnect the E2 connector of the emission ECU.

(c) Turn ignition switch ON.

CHECK:

Measure the voltage between terminal GIND of the emission ECU connector and body ground.

OK:

Voltage: 9 – 14 V

OK	Check and replace emission ECU (See page EC–6).

NG

3	Check GAUGE fuse.

PREPARATION:

Remove the GAUGE fuse.

CHECK:

Measure continuity of the GAUGE fuse.

OK:

Continuity

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 emission ECU, combination meter and GAUGE fuse (See page IN–19).

5	Check glow indicator lighting time and after glow time (See page ST–1).

NG → Check and replace emission ECU (See page EC–6).

OK →

6	Are there any DTC being output?

YES → Go to relevant DTC chart.

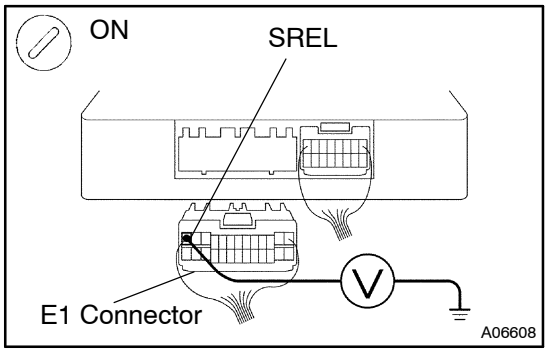
NO →

7	Check glow plug relay (See page ST–1).

NG → Replace glow plug relay.

OK →

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



PREPARATION:

(a) Disconnect the emission ECU from the body panel (See page EC–6).
(b) Disconnect the E1 connector of the emission ECU.
(c) Turn the ignition switch STA.

CHECK:

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

OK:

Voltage: 9 – 14 V

NG	Check and replace emission ECU (See page IN–19).

OK

9	Check for open and short in harness and connector between glow plug relay and emission ECU, glow plug relay and body ground (See page IN–19).

NG	Repair harness or connector.

OK

10	Check resistance of glow plug (See page ST–1).

NG	Replace glow plug.

OK

11	Check 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–19).

NG → Repair harness or connector.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI–16).