PRE–HEATING SYSTEM (Super Glow Type)

ST0FR–02

INSPECTION

1. INSPECT LIGHTING TIME OF GLOW INDICATOR LIGHT

Turn the ignition switch ON, and measure the lighting time.

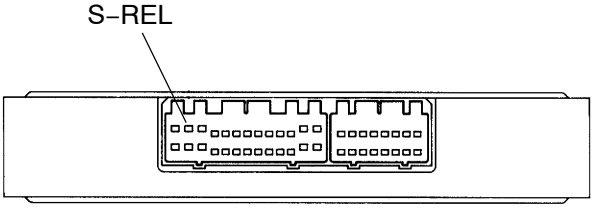
Light lighting time (T1): Refer to the chart graph.

2. INSPECT AFTER GLOW TIME

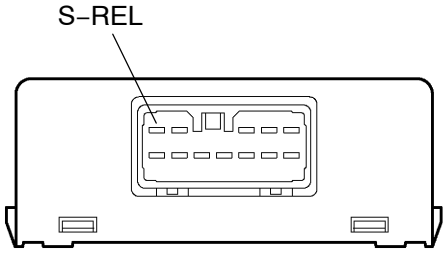
Turn the ignition switch ON, and measure the time when battery voltage is applied to terminal S–REL of the emission ECU (Europe) or preheating timer (Except Europe).

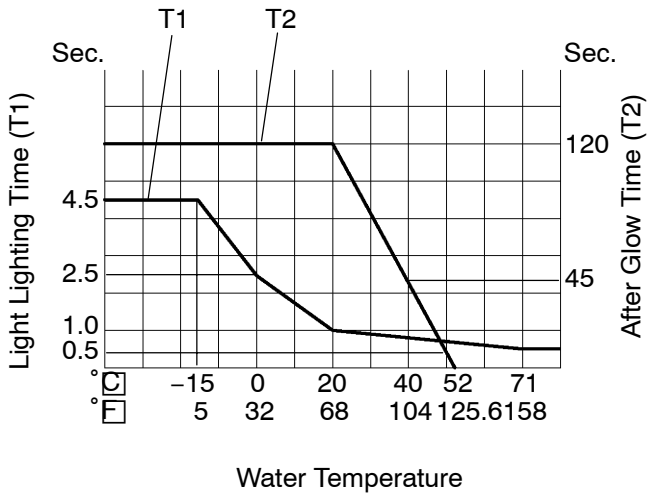
After glow time (T2):
Refer to the chart graph (After starting the engine)

Europe:
Emission ECU



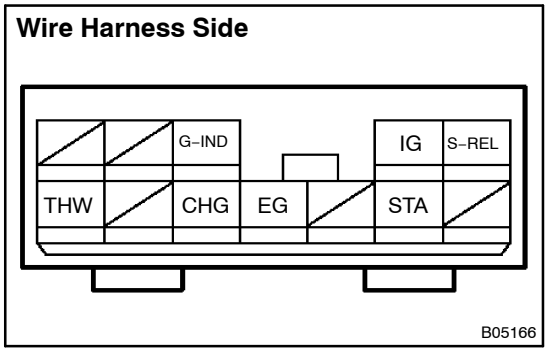
Except Europe:
Pre–Heating Timer





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3. Europe:
INSPECT EMISSION ECU (See page DI–11)



4. Except Europe:
INSPECT PRE–HEATING TIMER

(a) Disconnect the pre–heating timer connector.
LOCATION: See relay locations in Electrical Wiring Diagram.

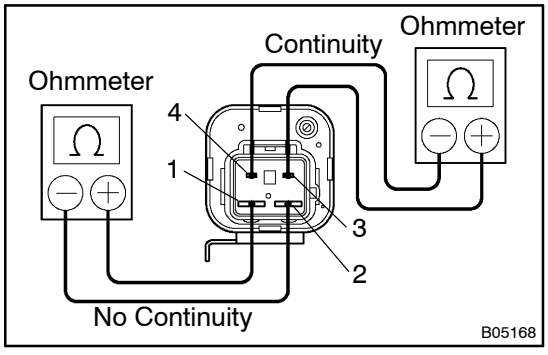
(b) Inspect the pre–heating timer circuit.
Check the connector on the wire harness side as shown in these chart:

Tester condition	Condition	Specified value
G–IND – Ground	Ignition switch OFF	No voltage
	Ignition switch ON	Battery voltage
IG – Ground	Ignition switch OFF	No voltage
	Ignition switch ON	Battery voltage
STA – Ground	Ignition switch OFF	No voltage
	Ignition switch START	Battery voltage
S–REL – Ground	–	Continuity
THW – Ground	–	Continuity
EG – Ground	–	Continuity

(c) Reconnect the pre–heating timer connector.

5. INSPECT GLOW PLUG RELAY

(a) Remove the glow plug relay.
LOCATION: See relay locations in Electrical Wiring Diagram.

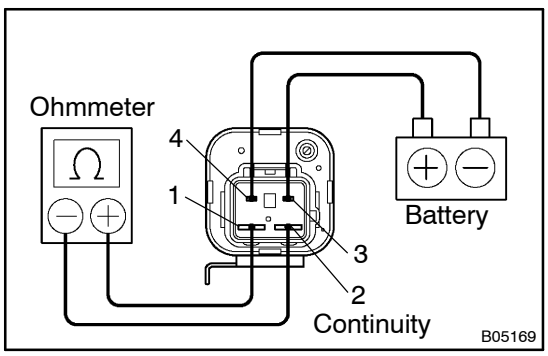


(b) Inspect the glow plug relay continuity.
(1) Using an ohmmeter, check that there is no continuity between terminals 1 and 2.

If there is continuity, replace the relay.

(2) Check that there is continuity between terminals 3 and 4.

If there is no continuity, replace the relay.

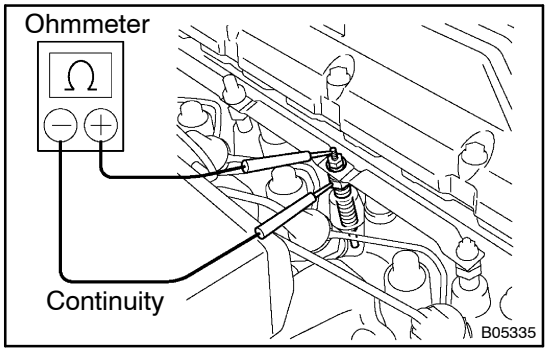


(c) Inspect the glow plug relay operation.
(1) Apply battery voltage across terminals 3 and 4.
(2) Using an ohmmeter, check that there is continuity between terminals 1 and 2.

If there is no continuity, replace the relay.

(d) Reinstall the glow plug relay.

6. INSPECT WATER TEMPERATURE SENSOR (See Pub No. RM172E)



7. INSPECT GLOW PLUGS

Using an ohmmeter, check that there is continuity between the glow plug terminal and ground.

If there is no continuity, replace the glow plug.

Torque: 13 N·m (130 kgf·cm, 10 ft·lbf)

NOTICE:

- **Be careful not to damage the glow plug pipes as it could cause an open circuit or shorten life of the glow plugs.**
- **Avoid getting oil and gasoline on the glow plug when cleaning.**
- **During inspection, be sure to wipe any oil of the terminal and bakelite washer with a dry cloth.**
- **Be careful no to apply more than 11 V (12 V type) or 23 V (24 V type) to the glow plug as it could cause an open circuit.**