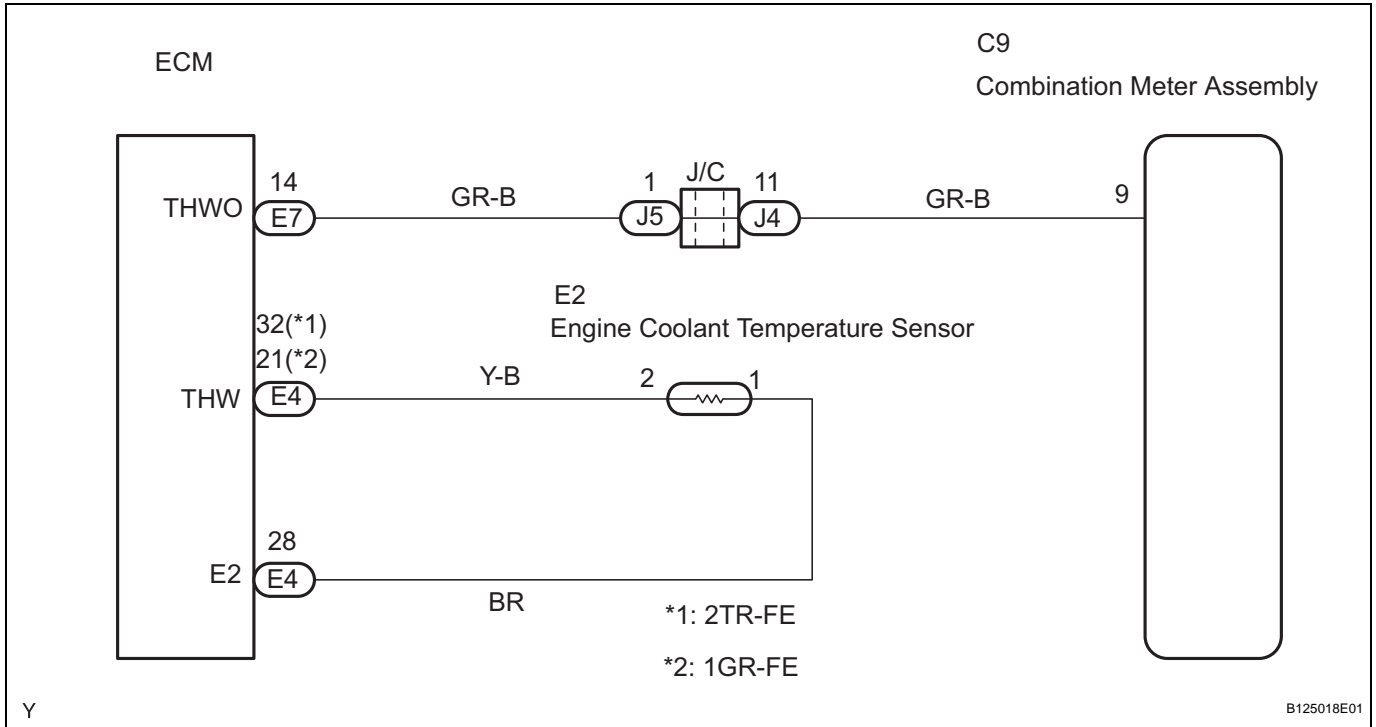


Malfunction in Water Temperature Warning Light

WIRING DIAGRAM



HINT:

- Start the inspection from step 1 when using an intelligent tester and start from step 2 when not using an intelligent tester.
- If there is an open or short in the engine coolant temperature sensor circuit, the ECM outputs DTCs. Troubleshoot those DTCs by following the SFI System.
2TR-FE: (See page [ES-10](#))
1GR-FE: (See page [ES-10](#))

1

READ VALUE OF INTELLIGENT TESTER (ENGINE COOLANT TEMPERATURE)

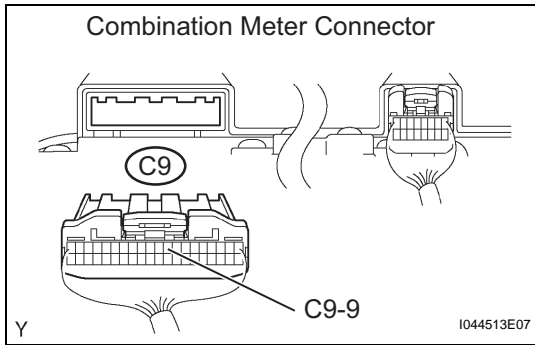
- Connect an intelligent tester to the DLC3.
- Turn the ignition switch to ON.
- Turn the tester ON.
- On the tester, select the following menu items:
DIAGNOSIS / ENHANCED OBD II / DATA LIST / ALL / COOLANT TEMP.
- Read the value displayed on the tester.
Standard:
Between 80°C and 97°C (176°F and 207°F) with the engine warmed up.

NG

GO TO ENGINE CONTROL SYSTEM

OK

2 INSPECT COMBINATION METER ASSEMBLY



- (a) Disconnect the C9 combination meter connector.
- (b) Measure the voltage.

Standard Voltage

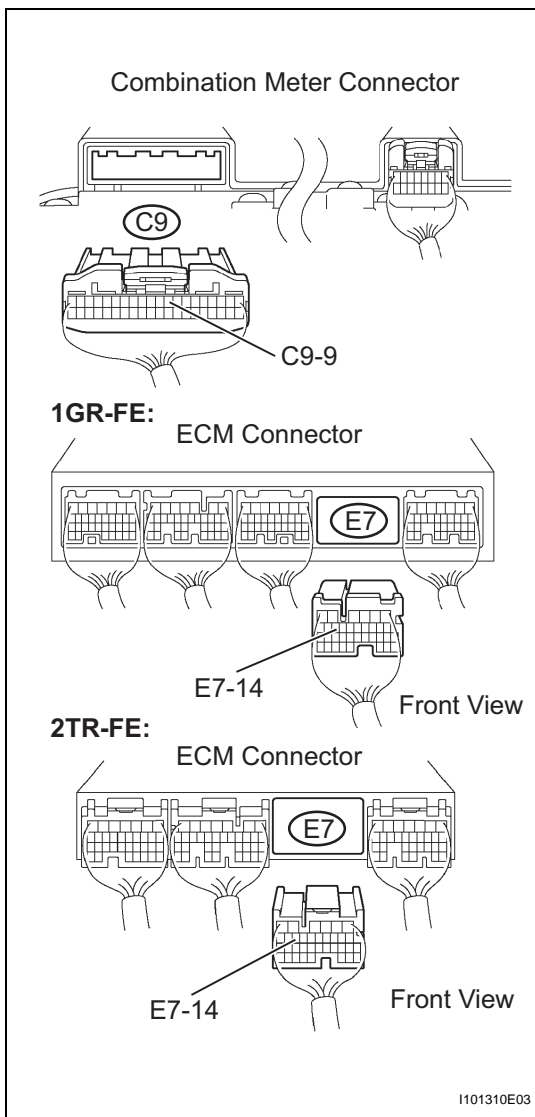
Tester Condition	Condition	Specified Condition
C9-9 - Body ground	Ignition switch ON, Coolant temperature is 90°C (194°F)	10 to 14 V

- (c) Reconnect the combination meter connector.

OK → **REPLACE COMBINATION METER ASSEMBLY**

NG

3 CHECK HARNESS AND CONNECTOR (COMBINATION METER ASSEMBLY - ECM)



- (a) Disconnect the C9 combination meter connector.
- (b) Disconnect the E7 ECM connector.
- (c) Measure the resistance.

Standard Resistance

Tester Connection	Specified Condition
C9-9 - E7-14	Below 1 Ω
C9-9 or E7-14 - Body ground	10 kΩ or higher

- (d) Reconnect the ECM connector.
- (e) Reconnect the combination meter connector.

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

OK

REPLACE ECM