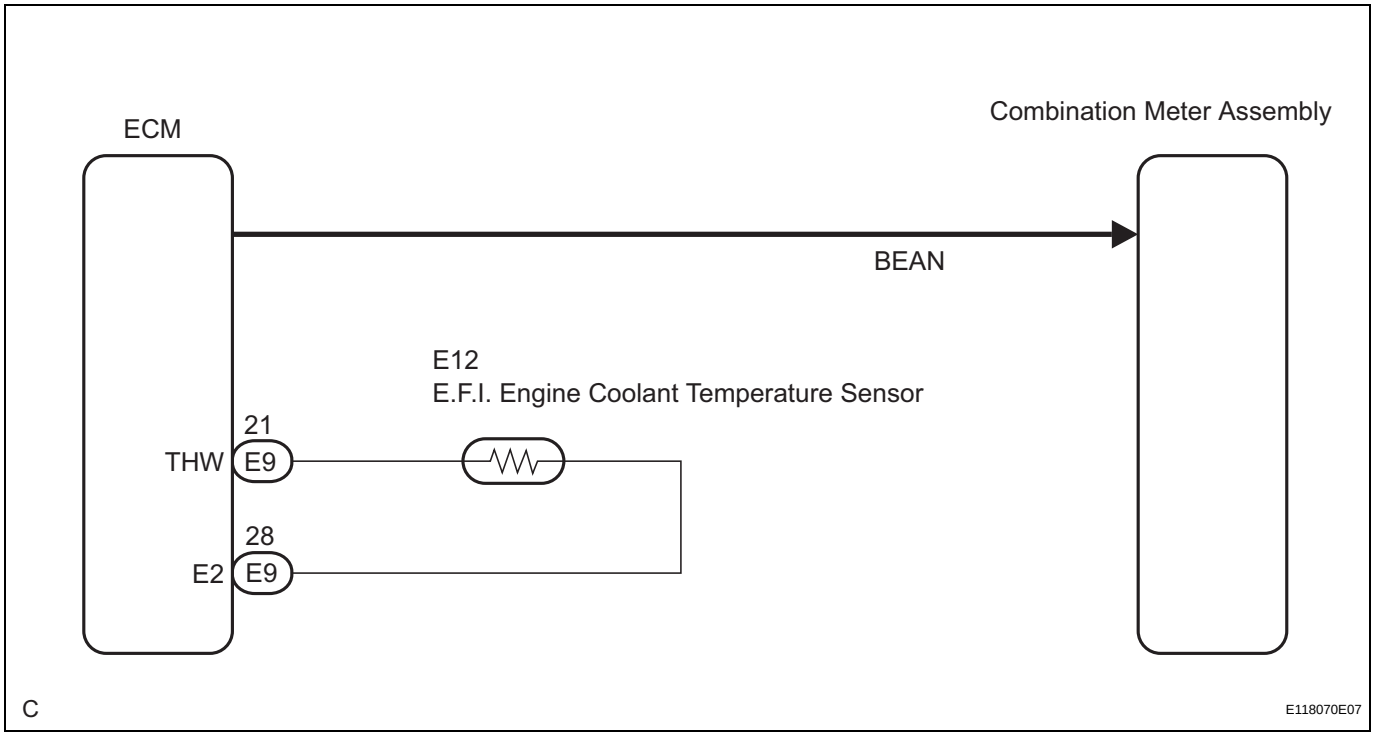
# Engine Coolant Temperature Receiver Gauge Malfunction

## DESCRIPTION

The meter CPU receives engine coolant temperature signals from the ECM via the multiplex communication lines. The meter CPU displays engine coolant temperature that is calculated based on the data received from the ECM.

## WIRING DIAGRAM




## INSPECTION PROCEDURE

HINT:
If there is an open or short in the engine coolant temperature sensor circuit, the ECM will store the DTCs. Perform troubleshooting of the "SFI System" (See page ES-56).

| 1 | CHECK MULTIPLEX COMMUNICATION SYSTEM |
|---|---|

(a) Check if the MULTIPLEX communication DTC is output (See page MP-14).

**Result**

| Result | Proceed to |
|---|---|
| DTC is not output | A |
| DTC is output | B |

NG → REPAIR CIRCUITS INDICATED BY OUTPUT DTCS

OK

| 2 | PERFORM ACTIVE TEST BY INTELLIGENT TESTER |
|---|---|

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Turn the tester ON.
(d) Enter the following menus: DIAGNOSIS / OBD/MOBD / METER / ACTIVE TEST.
(e) Check the operation by referring to the values in the table below.

**METER:**

| Tester Display | Test Part | Test Details | Diagnostic Note |
|---|---|---|---|
| COOLANT TEMP | Engine coolant temperature receiver gauge | LOW, NORMAL, HI | - |

**OK:**
**Needle indication is normal.**

**NG** → **REPLACE COMBINATION METER ASSEMBLY**

**OK**

| 3 | READ VALUE OF INTELLIGENT TESTER |
|---|---|

(a) Connect the intelligent tester to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Turn the tester ON.
(d) Enter the following menus: DIAGNOSIS / ENGINE / DATA LIST.
(e) Check the values by referring to the values in the table below.

**ENGINE:**

| Tester Display | Measurement Item/Range | Normal Condition | Diagnostic Note |
|---|---|---|---|
| WATER TEMP | Engine coolant temp: -40°C (-40°F) to 140°C (284°F) | After warming up: 80 to 95°C (176 to 203°F) | - |

**NG** → **GO TO SFI SYSTEM**

**OK**

| 4 | REPLACE COMBINATION METER ASSEMBLY |
|---|---|

**OK:**
**The operation of the combination meter assembly returns to normal.**

**NG** → **REPLACE ECM**

**OK**

**END**

ME