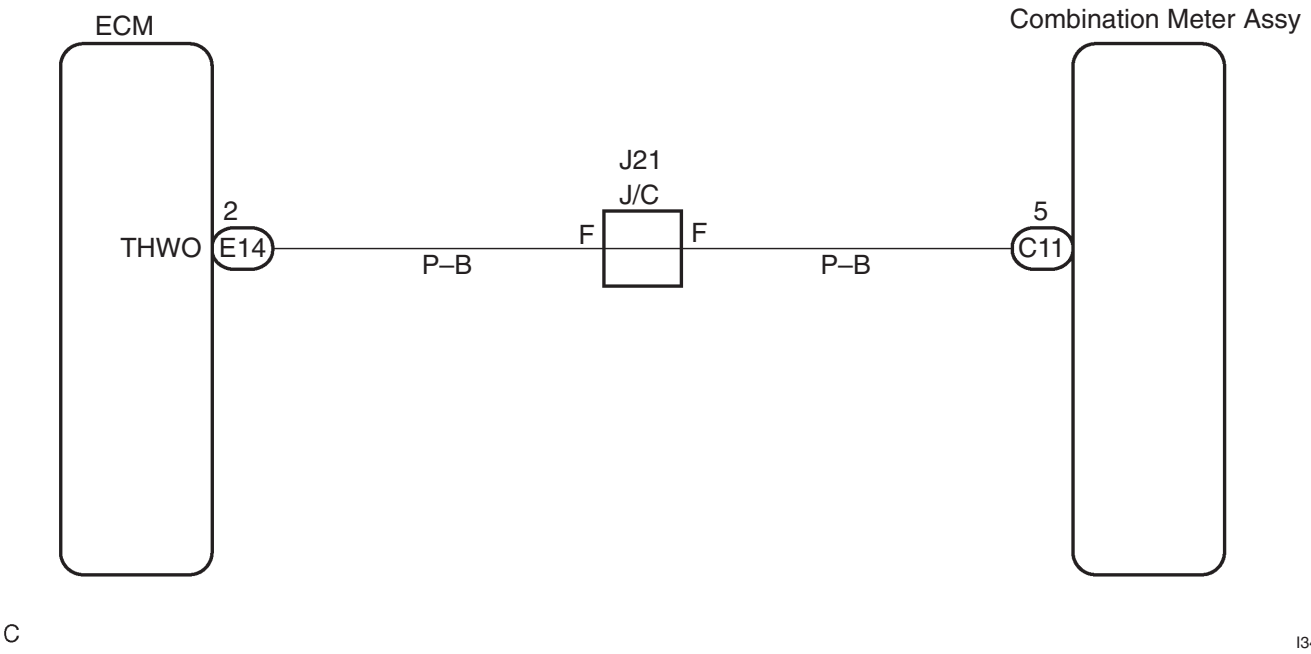
MALFUNCTION IN WATER TEMPERATURE RECEIVER GAUGE

WIRING DIAGRAM

1KD–FTV:



INSPECTION PROCEDURE

1	CHECK DIAGNOSTIC TROUBLE CODE(ECM)

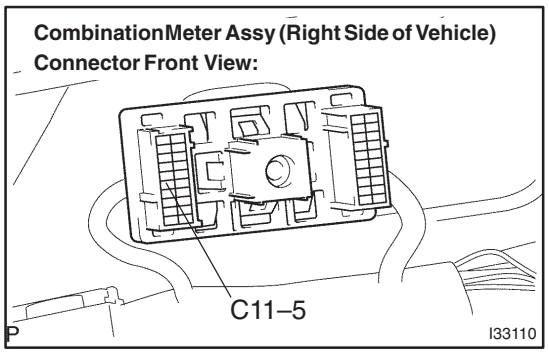
(a) Start up the DTC check mode (see page 05–466).
(b) Check that DTC P0115/22 is output.
Standard:
DTC P0115/22 is output.
Result:

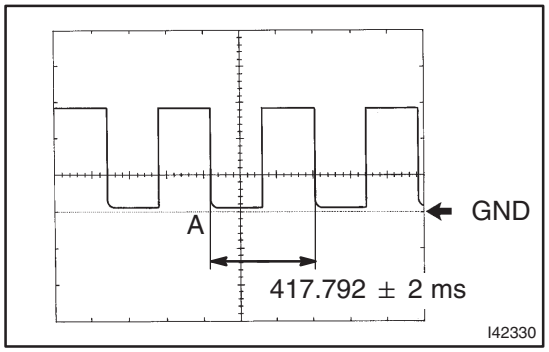
DTC P0115/22 is not output	A
DTC P0115/22 is output	B

B → **Go to ECD SYSTEM (1KD–FTV) (SEE PAGE 05–431)**

A

2 INSPECT COMBINATION METER ASSY





INSPECTION USING AN OSCILLOSCOPE

(a) Check the input signal wave form.
  (1) Remove the combination meter assy.
  (2) Connect the oscilloscope to terminals C11–5 and body ground.
  (3) Start the engine.
  (4) Check the signal wave form according to the condition(s) in the table below.

Reference:

Item	Condition
Tool setting	5 V/DIV, 10 ms/DIV
Vehicle condition	Ignition switch ON, engine coolant temp. 50°C (122.0°F) to 120°C (248°F)

HINT:

As water temperature rises, period "A" shown in the illustration becomes longer.

Except Middle East

Water temperature	A
less than 50°C (122.0°F)	98.304 ± 2 ms
83°C (181.4°F)	233.472 ± 2 ms
120°C (248.0°F)	385.024 ± 2 ms

Middle East

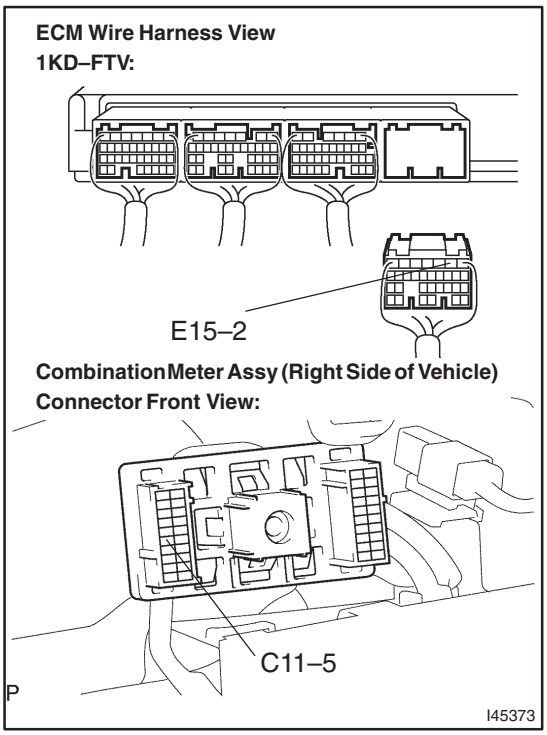
Water temperature	A
less than 70°C (158.0°F)	180.224 ± 2 ms
95°C (203.0°F)	282.624 ± 2 ms
120°C (248.0°F)	385.024 ± 2 ms

NG → **Go to step 3**

OK

REPLACE COMBINATION METER ASSY (SEE PUB. NO. RM990E, ON PAGE 71–25)

3	CHECK HARNESS AND CONNECTOR(BETWEEN ECM AND COMBINATION METER ASSY)



(a) Remove the combination meter.
(b) Measure the resistance between terminals E15–2 (THWO) of the ECM and C11–5 of the combination meter connector.
Standard: Below 1 Ω
(c) Measure the resistance between terminal C11–5 of the combination meter assy and body ground.
Standard: 10 kΩ or higher

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

OK

REPLACE ECM