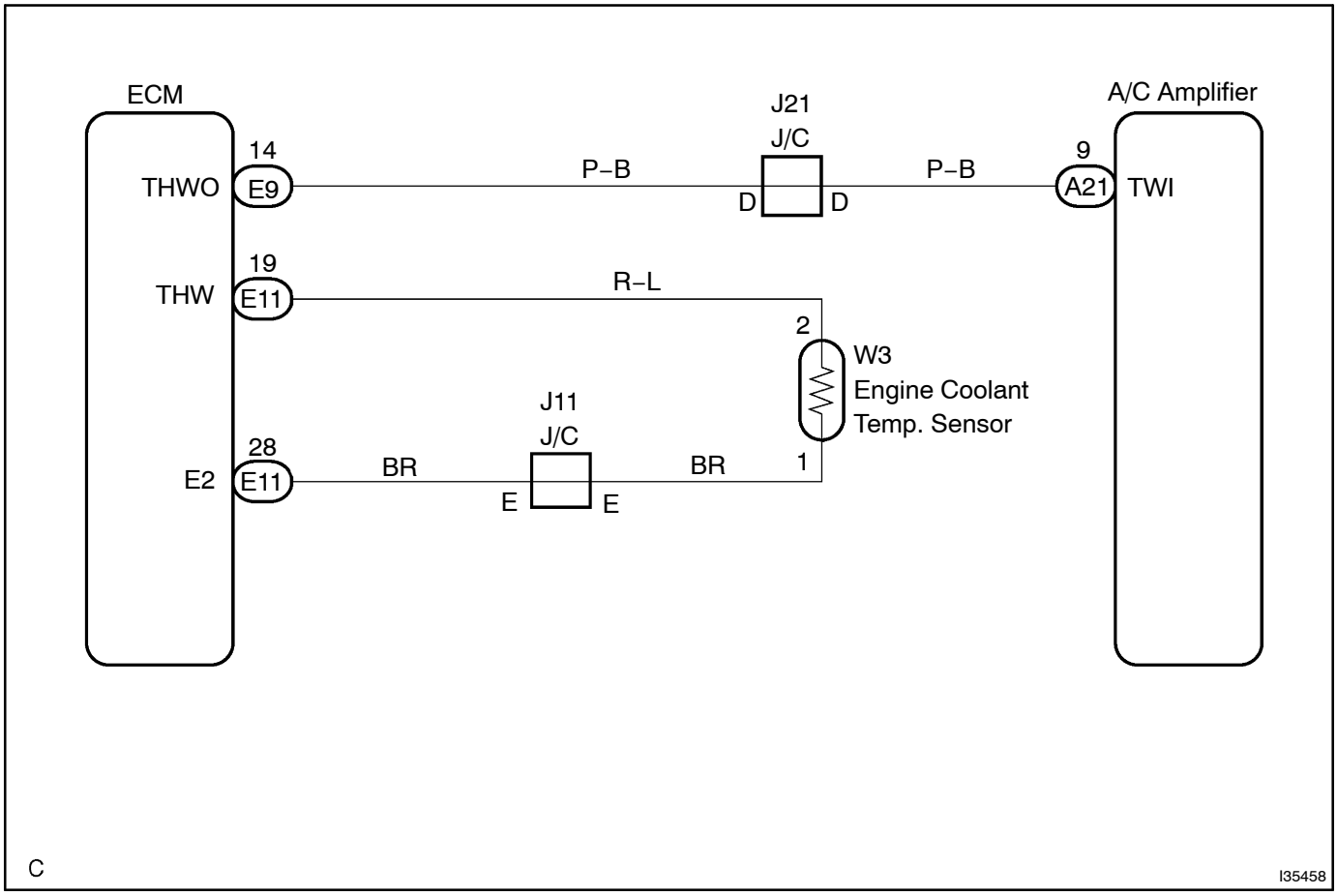
DTC	14	ENGINE COOLANT TEMPERATURE COMMUNICATION CIRCUIT

CIRCUIT DESCRIPTION

This sensor detects the temperature and sends the appropriate signals to the A/C amplifier. These signals are used for the warm up control when the engine is cold.

DTC No.	Detection Item	Trouble Area
14	Open or short in water temperature circuit.	• Thermistor (engine coolant temp. sensor) • Harness or connector between thermistor (engine coolant temp. sensor) and ECM • ECM • Harness or connector between ECM and A/C amplifier • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

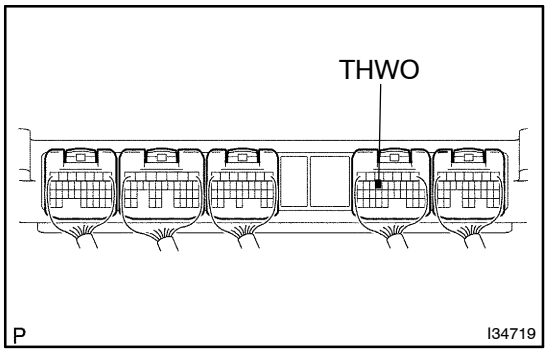
1	DIAGNOSTIC TROUBLE CODE CHECK

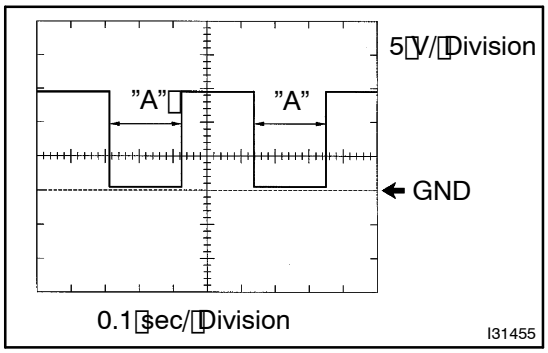
(a) Check that the DTC P0115, P0117 and P0118 are not output.
Standard: DTC are not output.

NG → **GO TO ENGINE CONTROL SYSTEM**

OK

2	INSPECT ECM (THWO)





(a) Remove the ECM.
(b) Turn the ignition switch to ON.
(c) Check the signal waveform between the terminal THWO of the ECM connector and body ground.
Standard:
The correct signal waveform appears, as shown in the illustration.

HINT:
The waveform "A" becomes longer as the engine coolant temperature becomes higher.

Engine Coolant temp.	Below 30°C (86°F)	Approx. 75°C (167°F)	90°C – 100°C (194 – 212°F)
A	16 ms	102 ms	262 ms

NG → **REPLACE ECM**

OK

3	CHECK HARNESS AND CONNECTOR (A/C AMPLIFIER – ECM)

(a) Check for open or short in harness and the connector between the A/C amplifier and ECM (See page 01–35).

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

OK

4	DIAGNOSTIC TROUBLE CODE CHECK

(a) Clear the sensor check codes.
(b) Leave the IG switch to ON position for at least 8.5 minutes, and then read DTC.
Standard: Normal codes are output.

NG → **REPLACE AIR CONDITIONING AMPLIFIER**

OK

SYSTEM OK