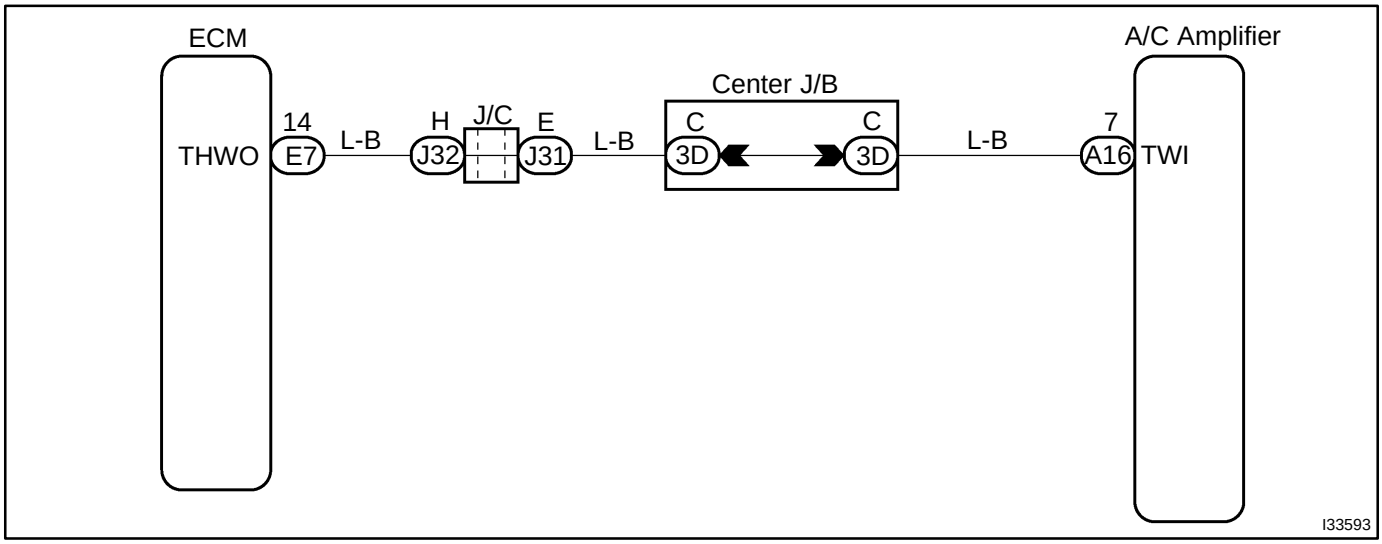
DTC	14	ENGINE COOLANT TEMPERATURE COMMUNICATION CIRCUIT

CIRCUIT DESCRIPTION

This circuit converts the resistance of the engine coolant temperature sensor into a pulse signal and transmits to the A/C amplifier.

DTC No.	Detection Item	Trouble Area
14	Open or short in A/C amplifier and ECM circuit.	• ECM • Harness or connector between ECM and A/C amplifier assy • A/C amplifier assy

WIRING DIAGRAM



INSPECTION PROCEDURE

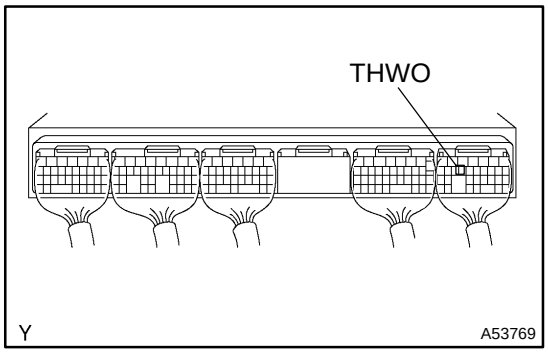
1	DIAGNOSTIC TROUBLE CODE CHECK

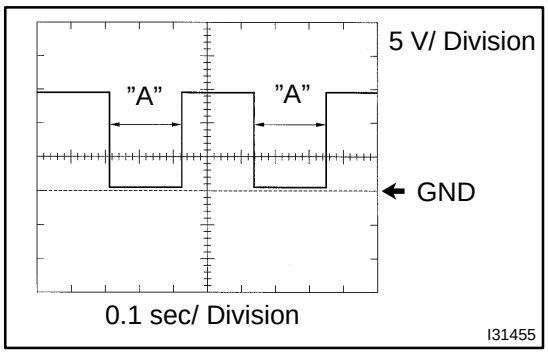
(a) Check that the DTC P0115 is not output.
Standard: DTC P0115 is not output.

NG → **GO TO ENGINE CONTROL SYSTEM (See page 05-45)**

OK

2 INSPECT ECM(THWO)





(a) Remove ECM with the connectors being connected.
(b) Turn the ignition switch to ON.
(c) Check the signal waveform between 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 → **CHECK AND REPLACE ECM**

OK

3 CHECK HARNESS AND CONNECTOR(BETWEEN ECM AND AIR CONDITIONING AMPLIFIER)

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

Result:

A	OK (when checking using DTC)
B	OK (when checking using PROBLEM SYMPTOMS TABLE)
C	NG

B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE**

C → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

A

CHECK AND REPLACE AIR CONDITIONING AMPLIFIER