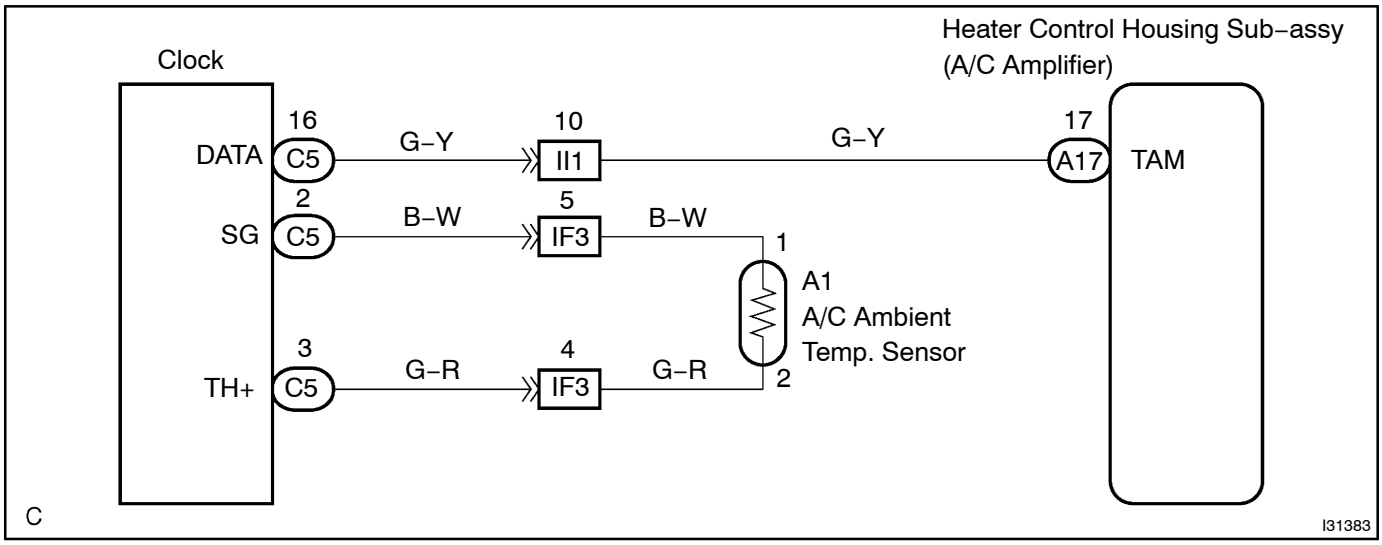
DTC 12 AMBIENT TEMPERATURE SENSOR CIRCUIT

CIRCUIT DESCRIPTION

This sensor detects the temperature outside the cabin and sends the appropriate signals to the A/C amplifier.

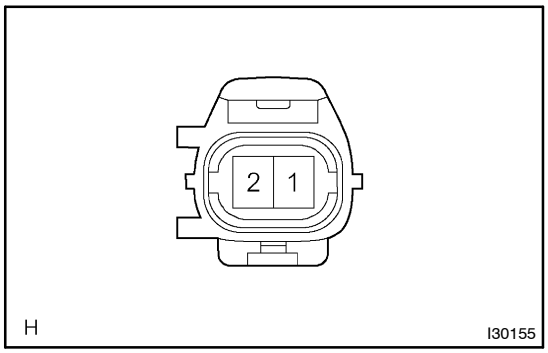
DTC No.	Detection item	Trouble Area
12	Open or short in ambient temperature sensor circuit	• Ambient temperature sensor • Harness or connector between ambient temperature sensor and A/C amplifier, clock • A/C amplifier • Clock

WIRING DIAGRAM



INSPECTION PROCEDURE

1	INSPECT COOLER (AMBIENT TEMP. SENSOR) THERMISTOR



(a) Remove cooler (ambient temp. sensor) thermistor.
(b) Measure resistance between terminals 1 and 2 of cooler (ambient temp. sensor) connector at each temperature.
Resistance:
at 25 °C (77 °F) : 1.65 – 1.75 kΩ
at 40 °C (104 °F) : 0.85 – 1 kΩ

HINT:
As the temperature increases, the resistance decreases.

NG → **REPLACE COOLER (AMBIENT TEMP. SENSOR) THERMISTOR**

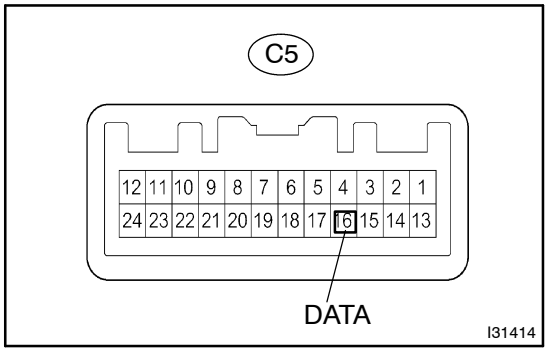
OK

2	CHECK HARNESS AND CONNECTOR(BETWEEN COOLER(AMBIENT TEMP.SENSOR)THERMISTOR AND CLOCK ASSY)

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

OK

3	INSPECT CLOCK ASSY



(a) Remove clock assy with connectors still connected.
(b) Turn ignition switch ON.
(c) Measure waveform between terminals DATA and body ground of clock assy connector at each temperature.
OK: Pulse generation

HINT:
As the temperature increases, the voltage decreases.

NG → **CHECK AND REPLACE CLOCK ASSY**

OK

4	CHECK HARNESS AND CONNECTOR(BETWEEN CLOCK ASSY AND HEATER CONTROL HOUSING SUB–ASSY)

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

OK

CHECK AND REPLACE HEATER CONTROL HOUSING SUB–ASSY