

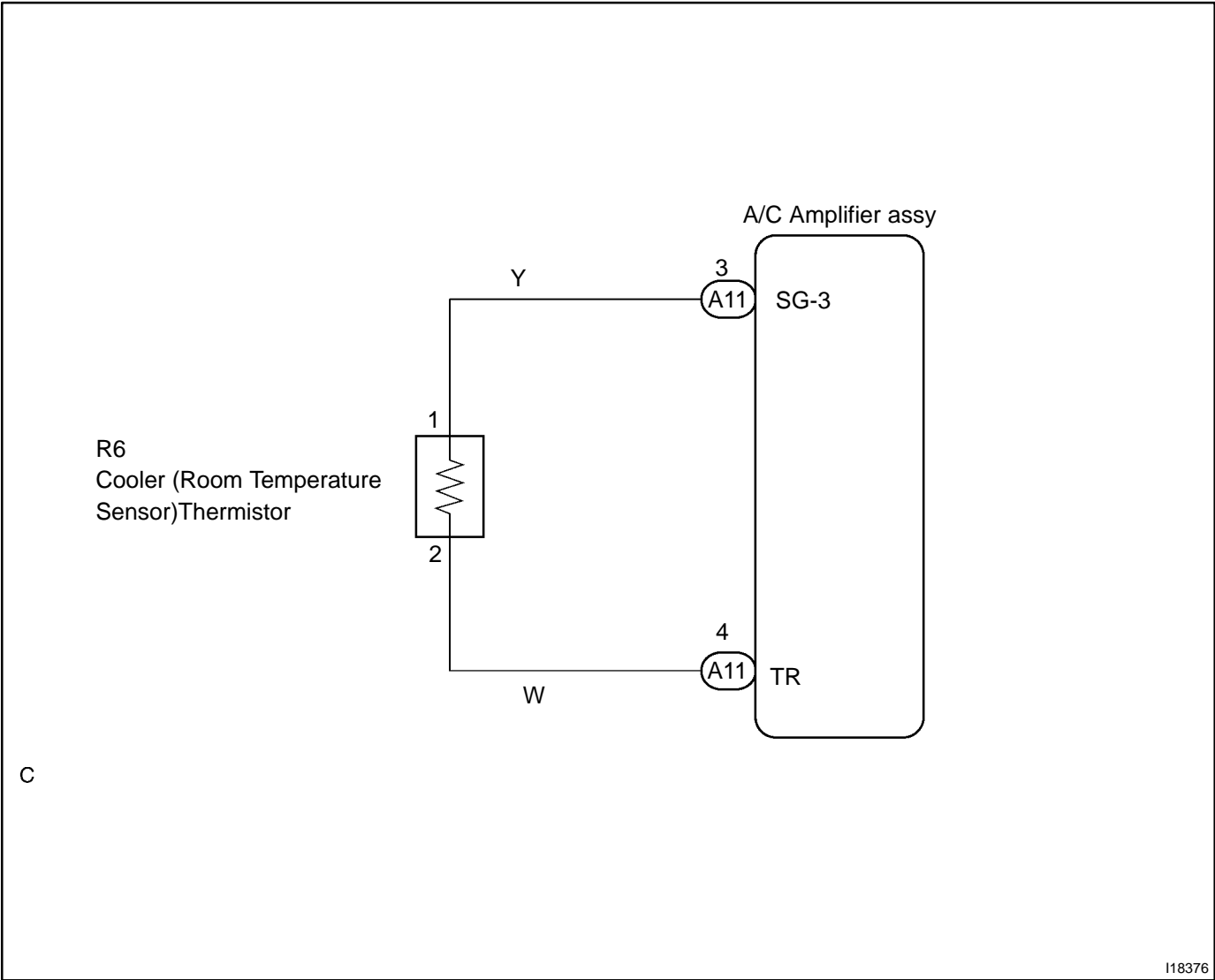
DTC	B1411/11	ROOM TEMPERATURE SENSOR CIRCUIT
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CIRCUIT DESCRIPTION

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

DTC No.	Detection item	Trouble Area
B1411/11	Open or short in room temperature sensor circuit	<ul style="list-style-type: none">• Cooler (room temperature sensor) thermistor• Harness or connector between cooler (room temperature sensor) thermistor and A/C amplifier assy• A/C amplifier assy

WIRING DIAGRAM



INSPECTION PROCEDURE

HINT:

In case of using the hand-held tester, start the inspection step 1 and in case of not using the hand-held tester, start from step 2.

1 READ VALUE OF HAND-HELD TESTER

- Connect the hand-held tester to the DLC3.
- Turn the ignition switch ON and push the hand-held tester main switch ON.
- Select the items below in the DATA LIST, and read the displays on the hand-held tester.

A C:

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
ROOM TEMP	Room temperature sensor /min.: -6.5°C (20.3°F) max.: 57.25°C (135.05°F)	Actual room temperature	-

Result:

NG	A
OK (Checking from the DTC)	B
OK (Checking from the PROBLEM SYMPTOM TABLE)	C

B

REPLACE AIRCONDITIONER AMPLIFIER ASSY

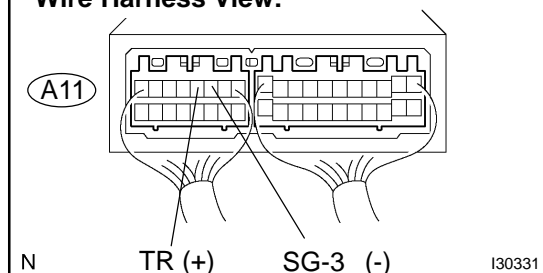
C

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05-1 129)

A

2 INSPECT AIRCONDITIONER AMPLIFIER ASSY(TR, SG-3)

A/C Amplifier Connector Wire Harness View:



- Remove A/C amplifier assy with connectors still connected.
- Turn the ignition switch to the ON position.
- Measure the voltage according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A11-3 (SG-3) - A11-4 (TR)	at 25°C (77°F)	1.8 to 2.2 V
A11-3 (SG-3) - A11-4 (TR)	at 40°C (104°F)	1.2 to 1.6 V

HINT:

As the temperature increases, the voltage decreases.

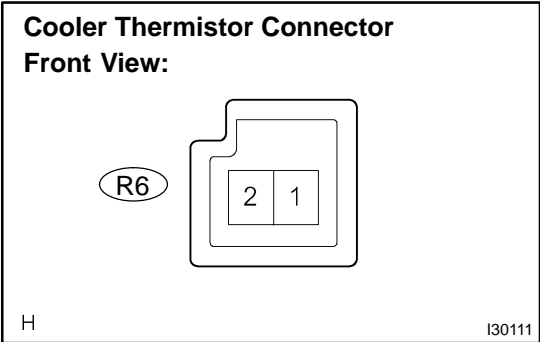
OK

REPLACE AIRCONDITIONER AMPLIFIER ASSY

NG

3

INSPECT COOLER (ROOM TEMP. SENSOR) THERMISTOR



- (a) Remove cooler (room temperature sensor) thermistor.
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

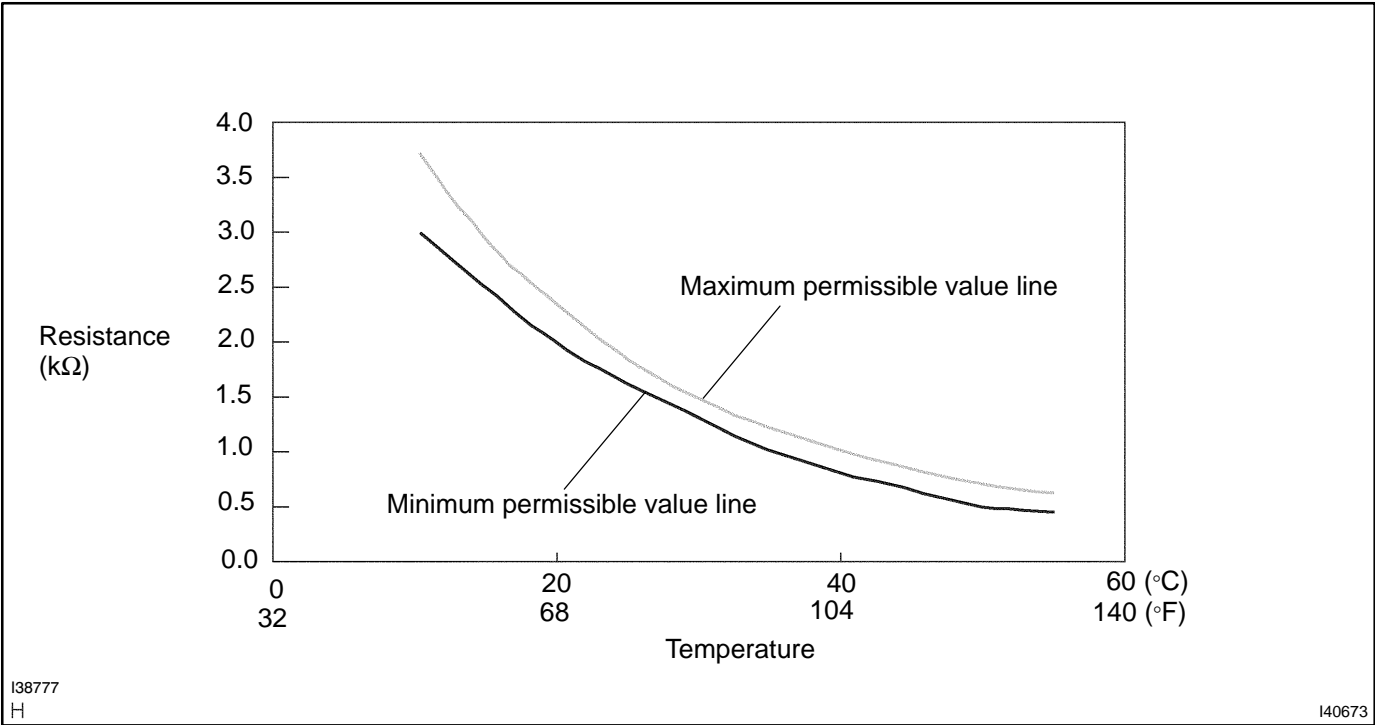
Tester connection	Condition	Specified condition
R6-1 - R6-2	10°C (50°F)	3.00 to 3.73 kΩ
R6-1 - R6-2	15°C (59°F)	2.45 to 2.88 kΩ
R6-1 - R6-2	20°F (68°F)	1.95 to 2.30 kΩ
R6-1 - R6-2	25°C (77°F)	1.60 to 1.80 kΩ
R6-1 - R6-2	30°C (86°F)	1.28 to 1.47 kΩ
R6-1 - R6-2	35°C (95°F)	1.00 to 1.22 kΩ
R6-1 - R6-2	40°C (104°F)	0.80 to 1.00 kΩ
R6-1 - R6-2	45°C (113°F)	0.65 to 0.85 kΩ
R6-1 - R6-2	50°C (122°F)	0.50 to 0.70 kΩ
R6-1 - R6-2	55°C (131°F)	0.44 to 0.60 kΩ
R6-1 - R6-2	60°C (140°F)	0.36 to 0.50 kΩ

NOTICE:

- Even slightly touching the sensor may change the resistance value. Be sure to hold the connector of the sensor.
- When measuring the sensor temperature must be the same as the ambient temperature.

HINT:

As the temperature increases, the resistance decreases (see the chart below).



NG

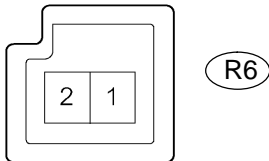
REPLACE COOLER (ROOM TEMP. SENSOR) THERMISTOR

OK

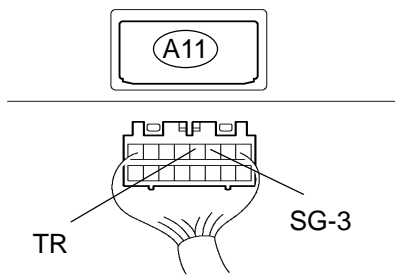
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CHECK HARNESS AND CONNECTOR(COOLER (ROOM TEMPERATURE SENSOR) THERMISTOR - A/C AMPLIFIER ASSY)

Cooler (Room Temperature Sensor) Thermistor Connector Front View:



A/C Amplifier Connector Wire Harness View:



I41011

- (a) Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
A11-4 (TR) - R6-2	Always	Below 1 Ω
A11-3 (SG-3) - R6-1	Always	Below 1 Ω
A11-4 (TR) - Body ground	Always	10 k Ω or higher
A11-3 (SG-3) - Body ground	Always	10 k Ω or higher

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE AIRCONDITIONER AMPLIFIER ASSY