

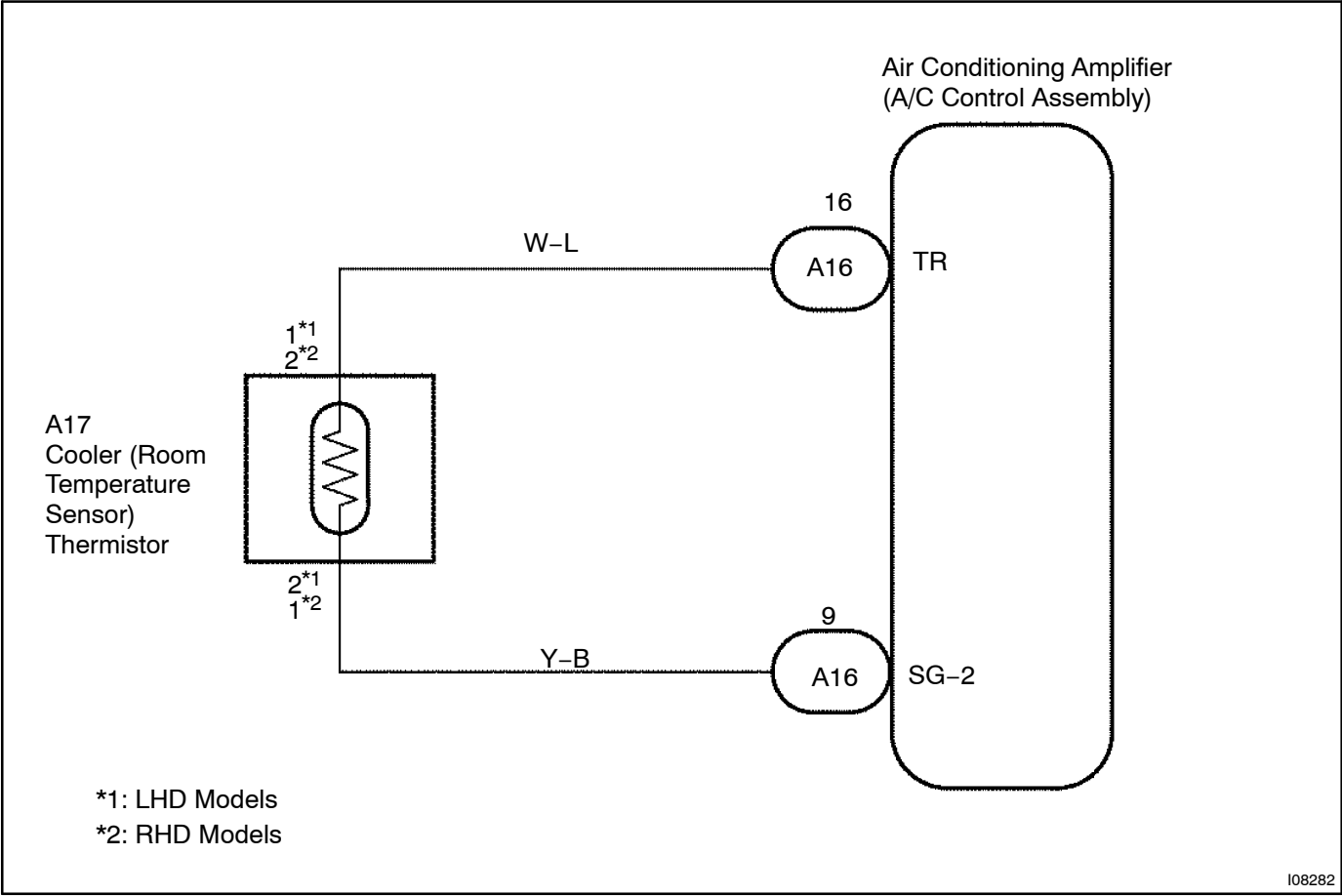
DTC	B1411	ROOM TEMPERATURE SENSOR CIRCUIT
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CIRCUIT DESCRIPTION

This sensor detects the interior temperature that is used as the basis for temperature control and sends appropriate signals to the A/C amplifier.

DTC No.	Detection item	Trouble Area
B1411	Room temperature sensor circuit (Open or short)	•Cooler (room temperature sensor) thermistor •Harness or connector between cooler (room temperature sensor) thermistor and A/C amplifier •A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE**1 READ VALUE ON INTELLIGENT TESTER II**

- (a) Connect the intelligent tester II to the DLC3.
(b) Turn the ignition switch to the ON position and push the intelligent tester II main switch on.
(c) Select the item below in the DATA LIST, and read the display on the intelligent tester II.

DATA LIST / AIR CONDITIONER:

Item	Measure Item/Display (Range)	Normal Condition	Diagnostic Note
Room temperature sensor (Room Temp)	Room temperature sensor / min.: -6.5°C (20.3°F) max.: 57.25°C (126.95°F)	Actual room temperature is displayed	-

OK:

The display is as specified in the normal condition.

Result:

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

B

**PROCEED TO NEXT CIRCUIT INSPECTION
SHOWN IN PROBLEM SYMPTOMS TABLE
(SEE PAGE 05-778)**

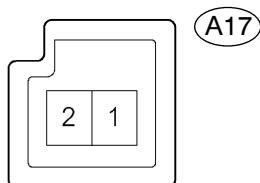
C

**REPLACE AIR CONDITIONING AMPLIFIER
(SEE PAGE 55-16)**

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2 INSPECT COOLER (ROOM TEMPERATURE SENSOR) THERMISTOR

Cooler (Room Temperature Sensor Thermistor) Connector Front View:



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

Standard:

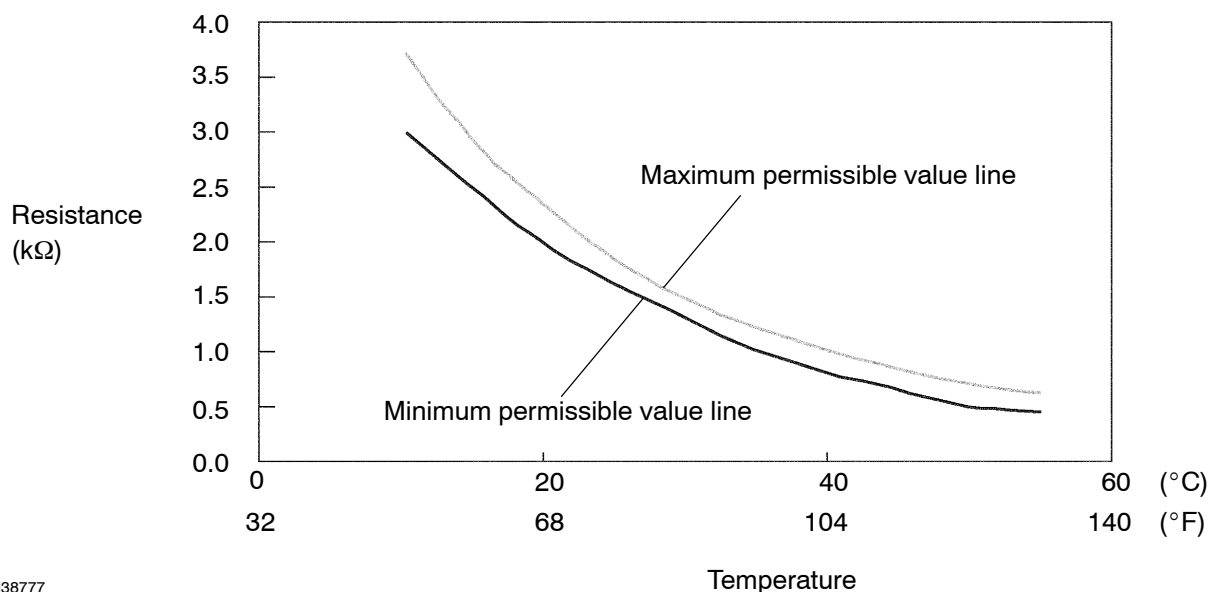
Tester connection	Condition	Specified condition
A17-1 - A17-2	10°C (50°F)	3.00 to 3.73 kΩ
A17-1 - A17-2	15°C (59°F)	2.45 to 2.88 kΩ
A17-1 - A17-2	20°C (68°F)	1.95 to 2.30 kΩ
A17-1 - A17-2	25°C (77°F)	1.60 to 1.80 kΩ
A17-1 - A17-2	30°C (86°F)	1.28 to 1.47 kΩ
A17-1 - A17-2	35°C (95°F)	1.00 to 1.22 kΩ
A17-1 - A17-2	40°C (104°F)	0.80 to 1.00 kΩ
A17-1 - A17-2	45°C (113°F)	0.65 to 0.85 kΩ
A17-1 - A17-2	50°C (122°F)	0.50 to 0.70 kΩ
A17-1 - A17-2	55°C (131°F)	0.44 to 0.60 kΩ
A17-1 - A17-2	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 graph below).



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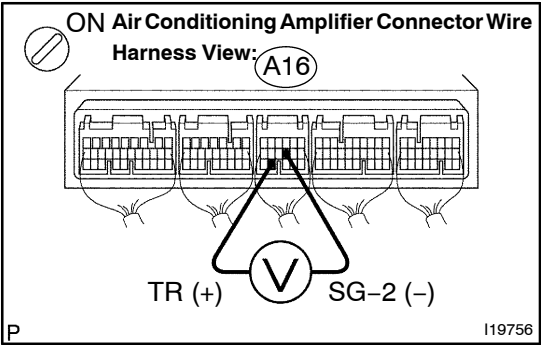
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NG

REPLACE COOLER (ROOM TEMPERATURE SENSOR) THERMISTOR

OK

3 INSPECT AIR CONDITIONING AMPLIFIER(TR – SG-2)



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

Standard:

Tester connection	Condition	Specified condition
A16-16 (TR) – A16-9 (SG-2)	Ignition switch ON at 25°C (77°F)	1.8 to 2.2 V
A16-16 (TR) – A16-9 (SG-2)	Ignition switch ON at 40°C (104°F)	1.2 to 1.6 V

HINT:

As the temperature increases, the voltage decreases.

Result:

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

B

PROCEED TO NEXT CIRCUIT INSPECTION
SHOWN IN PROBLEM SYMPTOMS TABLE
(SEE PAGE 05-778)

C

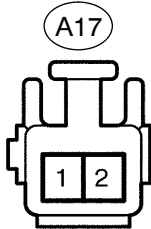
REPLACE AIR CONDITIONING AMPLIFIER
(SEE PAGE 55-16)

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4 CHECK HARNESS AND CONNECTOR(AIR CONDITIONING AMPLIFIER - COOLER (ROOM TEMPERATURE SENSOR)THERMISTOR) (SEE PAGE 01-44)

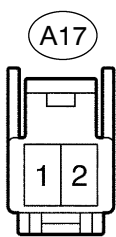
Cooler (Room Temperature Sensor) Thermistor Connector

Front View (LHD):

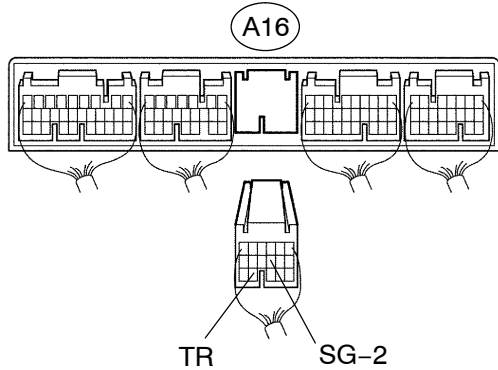


Cooler (Room Temperature Sensor) Thermistor Connector

Front View (RHD):



Air Conditioning Amplifier Connector Wire Harness View:



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

Standard:

Tester connection	Condition	Specified condition
A16-16 (TR) - A17-1*1	Always	Below 1 Ω
A16-9 (SG-2) - A17-2*1	Always	Below 1 Ω
A16-16 (TR) - A17-2*2	Always	Below 1 Ω
A16-9 (SG-2) - A17-1*2	Always	Below 1 Ω
A16-16 (TR) - Body ground	Always	10 kΩ or higher
A16-9 (SG-2) - Body ground	Always	Below 1 Ω

*1: LHD Models

*2: RHD Models

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

REPLACE AIR CONDITIONING AMPLIFIER (SEE PAGE 55-16)