

DTC	RrDEF, FACE	Front Room Temperature Sensor Circuit
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DTC	11	Front Room Temperature Sensor Circuit
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This sensor detects the temperature inside the cabin and sends the appropriate signals to the A/C amplifier.

Blinking light	Detection Item	Trouble Area
RrDEF FACE	Open or short in room temperature sensor circuit.	• Front room temperature sensor • Harness or connector between room temperature sensor and A/C amplifier • A/C amplifier
DTC No.	Detection Item	Trouble Area
11	Open or short in room temperature sensor circuit.	• Front room temperature sensor • Harness or connector between room temperature sensor and A/C amplifier • A/C amplifier

The diagram illustrates the wiring for the A/C Amplifier. It includes the following components and connections:

- Front Room Temp. Sensor (R8):** A sensor with terminals 1 and 2. Terminal 2 is connected to the B terminal of the FrTR relay. Terminal 1 is connected to a Y-G wire that branches to the Y-G (*1) terminal of the FrSG relay and the Y-G (*2) terminal of the IG1 relay.
- Engine Room J/B:** Contains relays 1E and 1L, and the IG1 relay.
 - The IG1 relay has terminals 3 and 4. Terminal 3 is connected to the Y-G (*2) terminal of the FrSG relay.
 - Relay 1E has terminals 12 and 1. Terminal 12 is connected to the Y-G (*1) terminal of the FrSG relay. Terminal 1 is connected to the Y-G (*2) terminal of the FrSG relay.
 - Relay 1L has terminals 3 and 1. Terminal 3 is connected to the Y-G (*2) terminal of the FrSG relay. Terminal 1 is connected to the Y-G (*2) terminal of the FrSG relay.
- A/C Amplifier:** Contains relays FrTR, FrSG, and SG.
 - FrTR:** Has terminals 10 (C21, *2) and 2 (C8, *1).
 - FrSG:** Has terminals 12 (C8, *1) and 1 (C21, *2).
 - SG:** Has terminal 1 (C21, *2).

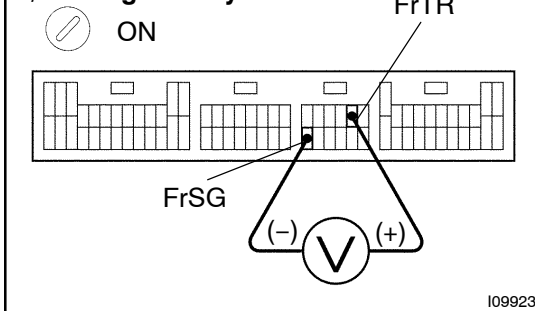
Legend:

- (*1): w/o Navigation System
- (*2): w/ Navigation System

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INSPECTION PROCEDURE

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| 1 | Check voltage between terminals FrTR and FrSG (or SG) of A/C amplifier connector. |
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w/o Navigation system:**PREPARATION:**

Remove A/C amplifier with connectors still connected.

CHECK:

- Turn ignition switch to ON.
- Measure voltage between terminals FrTR and FrSG (or SG) of A/C amplifier connector at each temperature.

OK:**Voltage :**

at 25°C (77°F) : 1.8 – 2.2 V

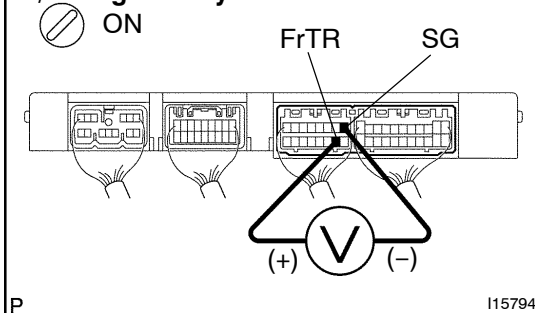
at 40°C (104°F) : 1.2 – 1.6 V

HINT:

As the temperature increases, the voltage decreases.

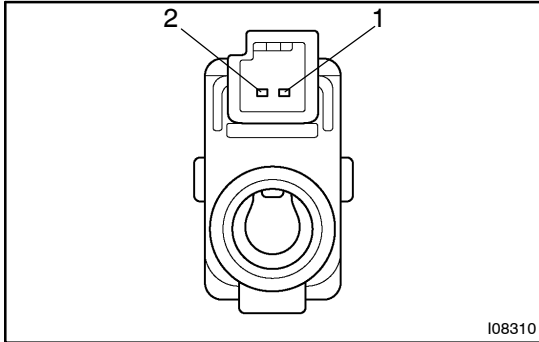
NG

Go to step 2.

w/ Navigation system:

OK

Proceed to next circuit inspection shown on problem symptoms table (See page [DI-908](#)). However, if RrDEF and FACE indicators light up (or DTC 11 is displayed), check and replace amplifier.

2 Check front room temperature sensor.**PREPARATION:**

Disconnect room temperature sensor connector.

CHECK:

Measure resistance between terminals 1 and 2 of room temperature sensor connector at each temperature.

OK:**Resistance :**

at 25°C (77°F) : 1.65 – 1.75 kΩ

at 50°C (122°F) : 0.55 – 0.65 kΩ

HINT:

As the temperature increases, the resistance decreases.

NG**Replace front room temperature sensor.****OK****3 Check harness and connector between A/C amplifier and front room temperature sensor (See page [IN-34](#)).****NG****Repair or replace harness or connector.****OK****Check and replace A/C amplifier.**