

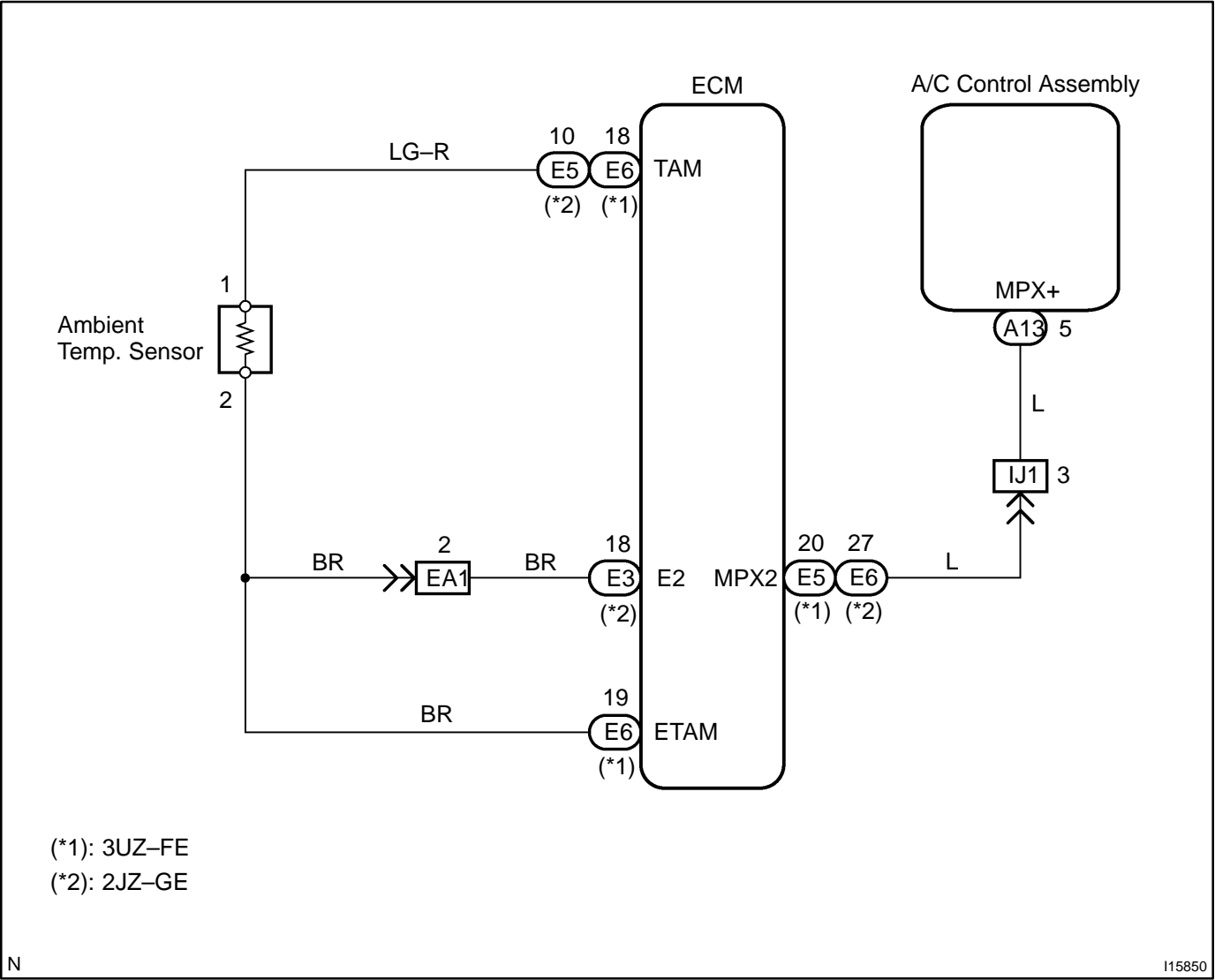
DTC	B1412/12	Ambient Temperature Sensor Circuit
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CIRCUIT DESCRIPTION

This sensor detects the ambient temperature and sends the appropriate signals to the A/C control assembly.

DTC No.	Detection Item	Trouble Area
B1412/12	Open or short in ambient temperature sensor circuit.	<ul style="list-style-type: none"><li>• Ambient temperature sensor.</li><li>• Harness or connector between ambient temperature sensor and ECM</li><li>• Harness or connector between ECM and A/C control assembly</li><li>• ECM</li><li>• A/C control assembly</li></ul>

WIRING DIAGRAM



## INSPECTION PROCEDURE

### HINT:

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

**1 Check ambient temp. sensor using LEXUS hard-held tester.**

### PREPARATION:

Connect the LEXUS hard-held tester to the DLC3.

### CHECK:

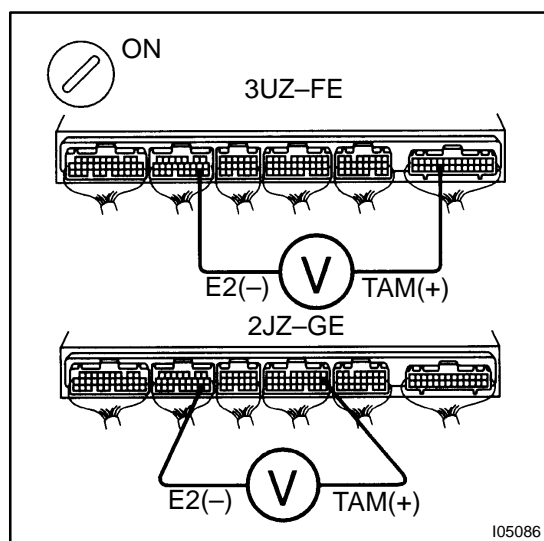
Check the ambient temp. sensor using DATA LIST.

OK

Check and replace A/C control assembly.

NG

**2 Check voltage between terminals TAM and E2 of ECM.**



### PREPARATION:

Remove ECM with connectors still connected.

### CHECK:

- Turn ignition switch ON.
- Measure voltage between terminals TAM and E2 of ECM connector at each temperature.

### OK:

**Voltage :**

at 25°C (77°F) : 1.35 – 1.75 V

at 40°C (104°F) : 0.85 – 1.25 V

### HINT:

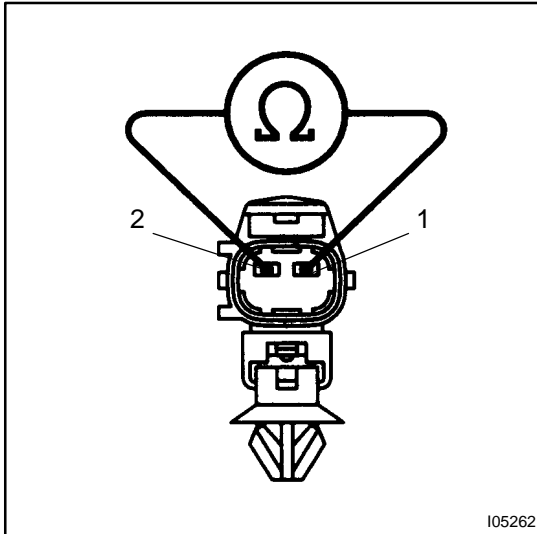
As the temperature increases, the voltage decreases.

NG

Go to step 3.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page [DI-1309](#)). However, if DTC B1412/12 is displayed, check and replace ECM and A/C control assembly.

**3 Check ambient temperature sensor.****PREPARATION:**

Disconnect ambient temperature sensor connector.

**CHECK:**

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

**OK:****Resistance :**

at 25°C (77°F) : 1.6 – 1.8 kΩ

at 50°C (122°F) : 0.5 – 0.7 kΩ

**HINT:**

As the temperature increases, the resistance decreases.

**NOTICE:**

**When installing the ambient temperature sensor, be sure to connect the sensor connector before connecting the battery.**

**NG****Replace ambient temperature sensor.****OK****4 Check harness and connector between ECM and ambient temperature sensor (See page IN-32).****NG****Repair or replace harness or connector.****OK**

5	Check harness and connector between ECM and A/C control assembly (See page <a href="#">IN-32</a> ).
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**NG****Repair or replace harness or connector.****OK****Check and replace ECM and A/C control assembly.**