

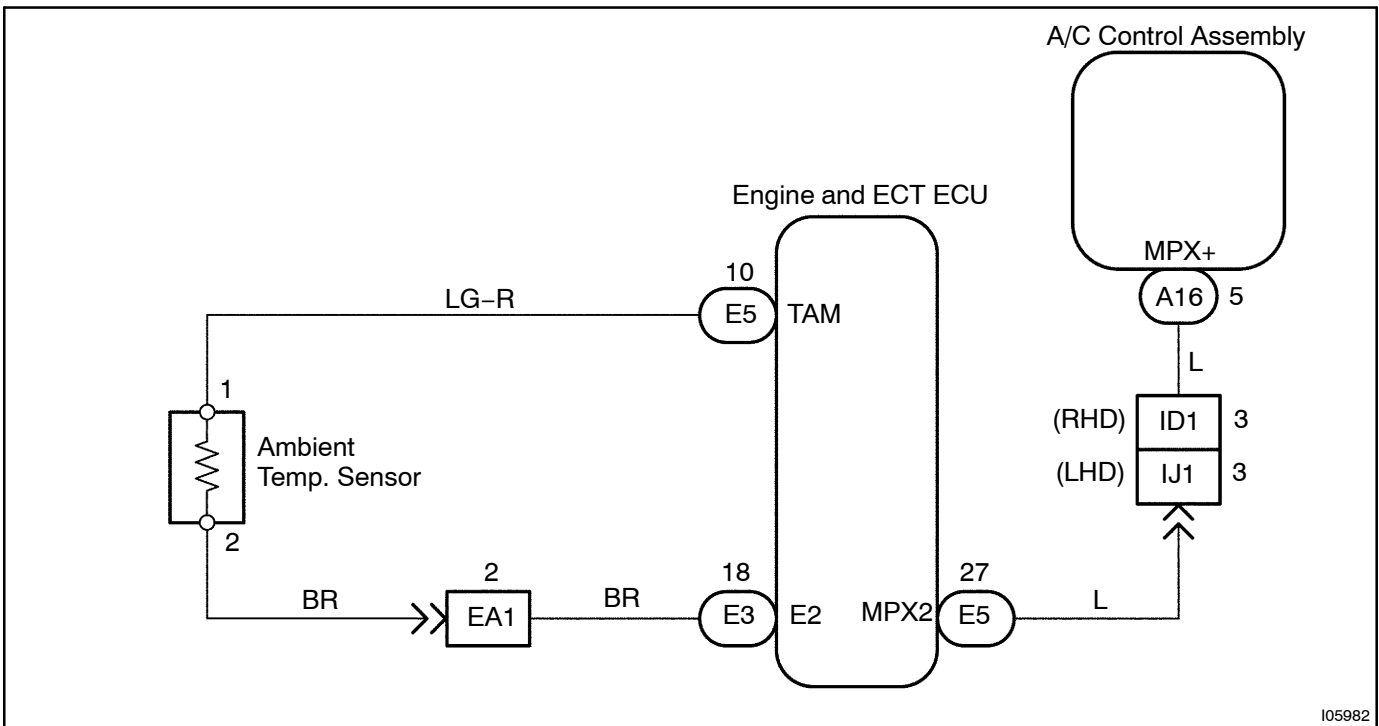
DTC	B1412/12	Ambient Temperature Sensor Circuit
------------	-----------------	---

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"> • Ambient temperature sensor. • Harness or connector between ambient temperature sensor and engine and ECT ECU • Harness or connector between engine and ECT ECU and A/C control assembly • Engine and ECT ECU • A/C control assembly

WIRING DIAGRAM



105982

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:

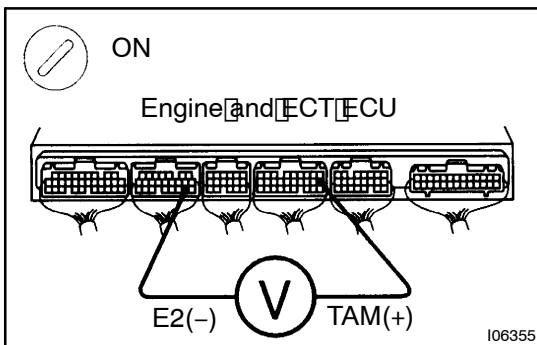
Check the ambient temp. sensor using DATA LIST.

OK

Check and replace A/C control assembly.

NG

2 Check voltage between terminals TAM and E2 of engine and ECT ECU.



PREPARATION:

Remove engine and ECT ECU with connectors still connected.

CHECK:

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

OK:

Voltage

at 25°C (77°F) 1.35 – 1.75V

at 40°C (104°F) 0.85 – 1.25V

HINT:

As the temperature increases, the voltage decreases.

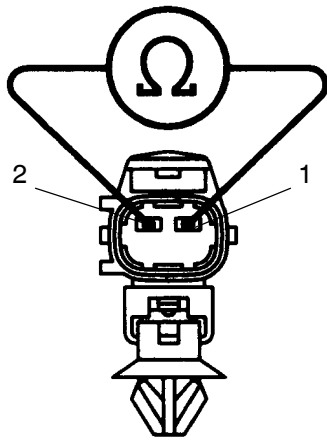
NG

Go to step 3.

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI-912). However, if DTC B1412/12 is displayed, check and replace engine and ECT ECU and A/C control assembly.

3 Check ambient temperature sensor.



105262

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 engine and ECT ECU and ambient temperature sensor (See page IN-29).

NG

Repair or replace harness or connector.

OK

5 Check harness and connector between engine and ECT ECU and A/C control assembly (See page IN-29).

NG

Repair or replace harness or connector.

OK

Check and replace engine and ECT ECU and A/C control assembly.