DI267–02

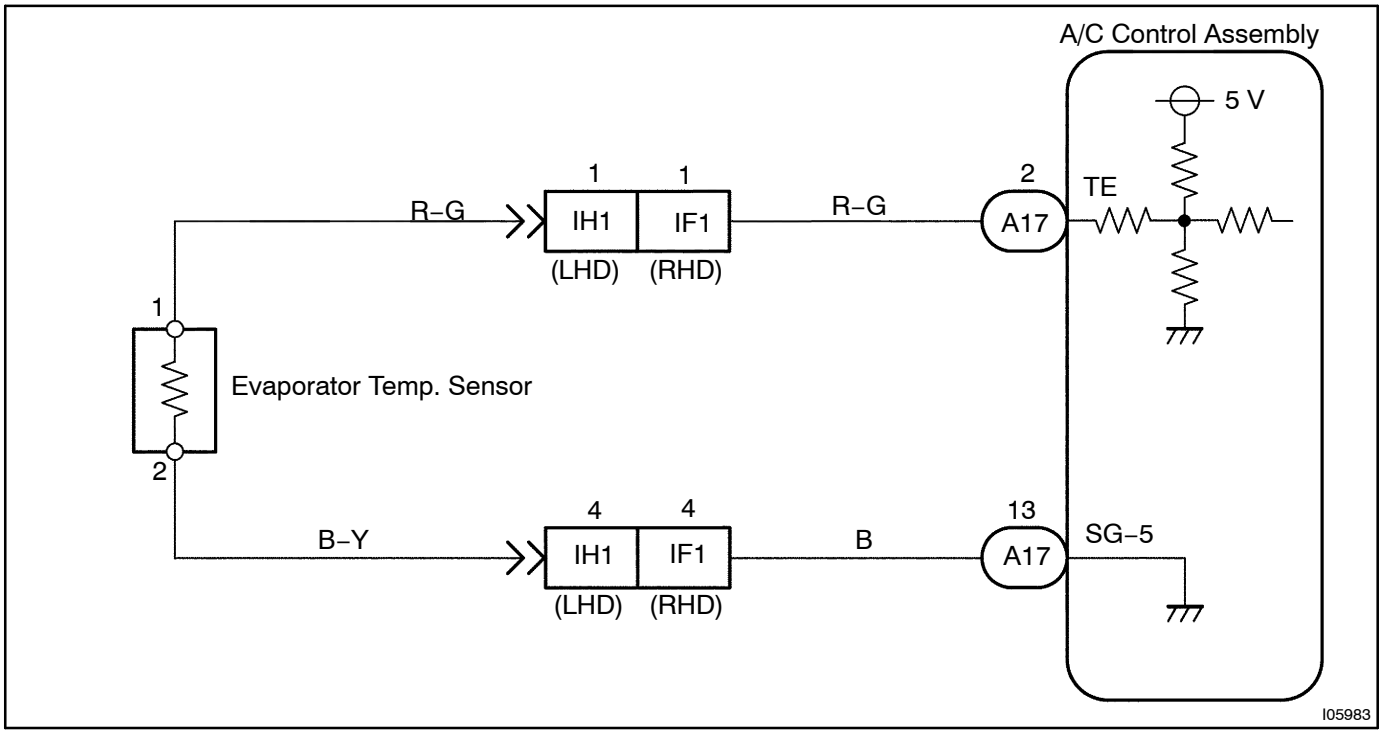
DTC	B1413/13	Evaporator Temperature Sensor circuit

CIRCUIT DESCRIPTION

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

DTC No.	Detection Item	Trouble Area
B1413/13	Open or short in evaporator temperature sensor circuit.	• Evaporator temperature sensor. • Harness or connector between evaporator temperature sensor and A/C control assembly. • A/C control assembly.

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.

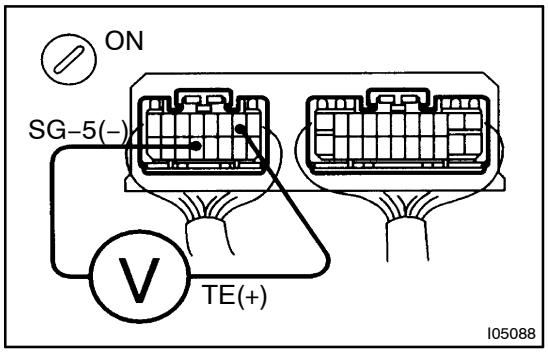
1	**Check evaporator temp. sensor using LEXUS hard–held tester.**

PREPARATION:
Connect the LEXUS hard–held tester to the DLC3.
CHECK:
Check the evaporator temp. sensor using DATA LIST.

OK → **Check and replace A/C control assembly.**

NG

2	**Check voltage between terminals TE and SG–5 of A/C control assembly connector.**



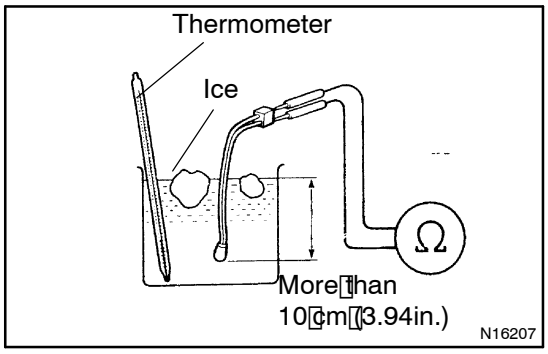
PREPARATION:
Remove air conditioning control assembly with connectors still connected.
CHECK:
(a) Turn ignition switch ON.
(b) Measure voltage between terminals TE and SG–5 of A/C control assembly connector at each temperature.
OK:
Voltage:
at 0°C (32°F): 2.0 – 2.4 V
at 15°C (59°F): 1.4 – 1.8 V
HINT:
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–912). However, if DTC B1413/13 is displayed, check and replace A/C control assembly.

3	**Check evaporator temperature sensor.**



PREPARATION:
Remove evaporator temperature sensor (See page AC–78).
CHECK:
Measure resistance between terminals 1 and 2 of evaporator temperature sensor connector at each temperature.
OK:

Resistance:
at 0°C (32°F): 4.5 – 5.2 kΩ
at 15°C (59°F): 2.0 – 2.7 kΩ

HINT:
As the temperature increases, the resistance decreases.

NG → **Replace evaporator temperature sensor.**

OK

4	**Check harness and connector between A/C control assembly and evaporator temperature sensor (See page IN–29).**

NG → **Repair or replace harness or connector.**

OK

Check and replace A/C control assembly.