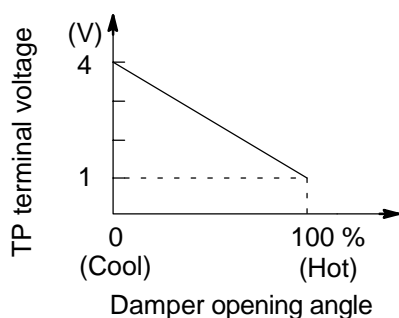


DTC	B1431/31	Air Mix Damper Position Sensor Circuit (Passenger side)
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DTC	B1441/41	Air Mix Damper Position Sensor Circuit (Passenger side)
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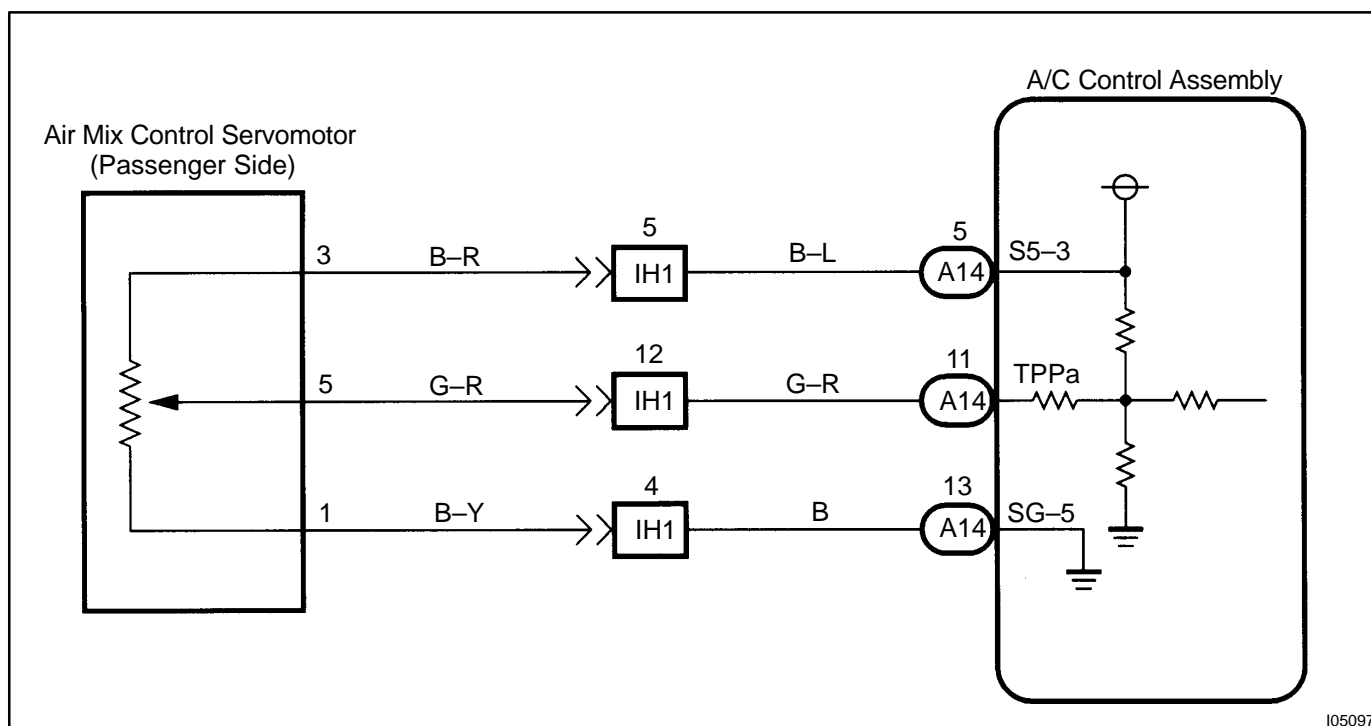
CIRCUIT DESCRIPTION



This sensor detects the position of the air mix damper and sends the appropriate signals to the A/C control assembly. The position sensor is built into the air mix damper control servomotor assembly.

DTC No.	Detection Item	Trouble Area
B1431/31	Short to ground or power source circuit in air mix damper position sensor circuit.	<ul style="list-style-type: none"> • Air mix damper position sensor. • Harness or connector between air mix damper control servomotor assembly and A/C control assembly. • A/C control assembly.
B1441/41	Air mix damper position sensor value does not change even if A/C control assembly operates air mix damper control servomotor.	

WIRING DIAGRAM



I05097

INSPECTION PROCEDURE

HINT:

In case of using the LEXUS hand-held tester, start the inspection from step1 and in case of not using the LEXUS hand-held tester, start from step2.

- 1 Check air mix damper position (Passenger Side) using LEXUS hand-held tester.**

PREPARATION:

Connect the LEXUS hand-held tester to the DLC3.

CHECK:

Check the current position of air mix damper (Passenger Side) and the target position of air mix damper (Passenger Side).

OK:

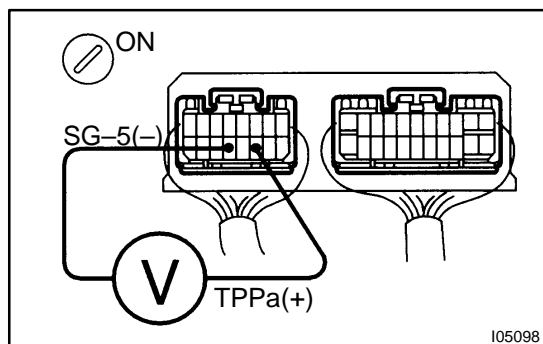
The current position and target position are almost similar.

OK

Check and replace A/C control assembly.

NG

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



PREPARATION:

Remove A/C control assembly with connectors still connected.

CHECK:

- Turn ignition switch ON.
- Change the set temperature to activate the air mix damper control servomotor, and measure the voltage between terminals TPPa and SG-5 of A/C control assembly connector each time when the set temperature is changed.

OK:

Set Temperature	Voltage
Max. cool	3.5 – 4.5 V
Max. hot	0.5 – 1.5 V

HINT:

As the set temperature increases, the voltage decreases.

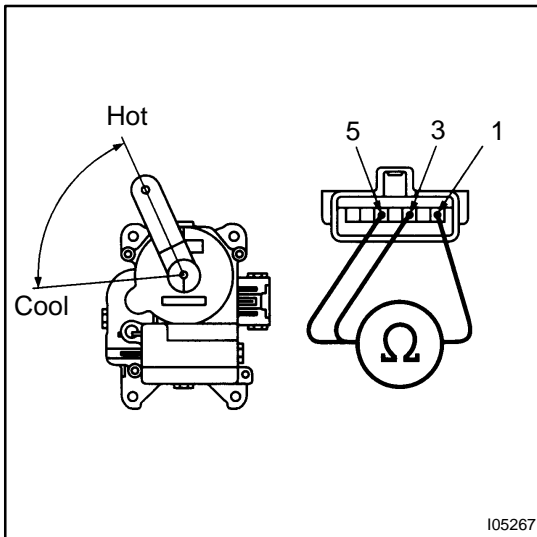
NG

Go to step 3.

Ok

Proceed to next circuit inspection shown on problem symptoms table (See page DI-1309). However, if DTC B1431/31 or B1441/41 displayed, check and replace A/C control assembly.

3 Check air mix damper position sensor.



PREPARATION:

- Remove heater unit (See page [AC-24](#))
- Disconnect air mix damper control servomotor assembly connector.

CHECK:

Measure resistance between terminals 1 and 3 of air mix damper control servomotor assembly connector.

OK:

Resistance : 4.2 – 7.8 kΩ

CHECK:

While operating air mix damper control servomotor, following the procedure on page [DI-1348](#), measure resistance between terminals 1 and 5 of air mix damper control servomotor assembly connector.

OK:

Position	Resistance
Max. cool	3.6 – 6.8 kΩ
Max. hot	0.5 – 1.1 kΩ

HINT:

As the air mix damper control servomotor moves from cool side to hot side, the resistance decreases.

NG

Replace air mix damper control servomotor assembly.

OK

4 Check harness and connector between A/C control assembly and air mix damper control servomotor assembly (See page [IN-32](#)).

NG

Repair or replace harness or connector.

OK

Check and replace A/C control assembly.