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| <b>DTC</b> | <b>P0135</b> | <b>Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)</b> |
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| <b>DTC</b> | <b>P0141</b> | <b>Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)</b> |
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| <b>DTC</b> | <b>P0155</b> | <b>Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 1)</b> |
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| <b>DTC</b> | <b>P0161</b> | <b>Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)</b> |
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## CIRCUIT DESCRIPTION

Refer to DTC P0125 (Insufficient Coolant Temp. for Closed Loop Fuel Control) on page [DI-45](#).

| DTC No. | DTC Detecting Condition                                                                                         | Trouble Area                                                                                                                                                      |
|---------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| P0135   | When the heater operates, heater current exceeds 2 A (2 trip detection logic)                                   | <ul style="list-style-type: none"> <li>• Open or short in heater circuit of heated oxygen sensor</li> <li>• Heated oxygen sensor heater</li> <li>• ECM</li> </ul> |
| P0141   | Heater current of 0.2 A or less when the heater operates with +B > 10.5 V and < 11.5 V (2 trip detection logic) |                                                                                                                                                                   |
| P0155   | Heater current of 0.25 A or less when the heater operates with +B $\geq$ 11.5 V (2 trip detection logic)        |                                                                                                                                                                   |

### HINT:

- Bank 1 refers to bank that includes cylinder No.1.
- Bank 2 refers to bank that does not include cylinder No.1.
- Sensor 1 refers to the sensor closer to the engine body.
- Sensor 2 refers to the sensor farther away from the engine body.

## WIRING DIAGRAM

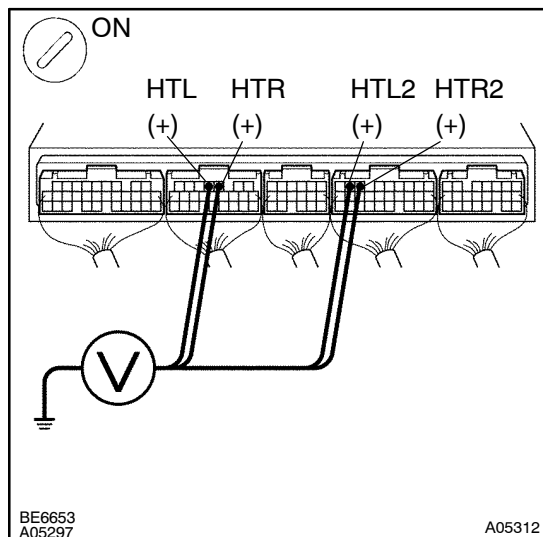
Refer to DTC P0125 (Insufficient Coolant Temp. for Closed Loop Fuel Control) on page [DI-45](#) for the WIDINRG DIAGRAM.

## INSPECTION PROCEDURE

### HINT:

Read freeze frame data using LEXUS hand-held tester or OBD II scan tool. Because freeze frame records the engine conditions when the malfunction is detected, when troubleshooting it is useful for determining whether the vehicle was running or stopped, the engine warmed up or not, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

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|---|-----------------------------------------------------------------------------------------------|
| 1 | <b>Check voltage between terminals HTR, HTR2, HTL, HTL2 of ECM connector and body ground.</b> |
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### PREPARATION:

- Remove the glove compartment door.
- Turn the ignition switch ON.

### CHECK:

Measure voltage between terminals HTR, HTR2, HTL, HTL2 of the ECM connector and body ground.

### HINT:

- Connect terminal HTR to bank 2 sensor 1.
- Connect terminal HTR2 to bank 2 sensor 2.
- Connect terminal HTL to bank 1 sensor 1.
- Connect terminal HTL2 to bank 1 sensor 2.

### OK:

**Voltage: 9 ~ 14 V**

OK

**Check and replace ECM (See page [IN-34](#)).**

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- |   |                                                                                          |
|---|------------------------------------------------------------------------------------------|
| 2 | <b>Check resistance of heated oxygen sensor heater (See page <a href="#">SF-58</a>).</b> |
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**Replace heated oxygen sensor.**

OK

**Check and repair harness or connector between main relay and heated oxygen sensor and ECM (See page [IN-34](#)).**