

<b>DTC</b>	<b>P0135/21</b>	<b>Oxygen Sensor Heater Circuit Malfunction (Bank 1 (2) Sensor 1)</b>
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<b>DTC</b>	<b>P0141/21</b>	<b>Oxygen Sensor Heater Circuit Malfunction (Bank 1 (2) Sensor 2)</b>
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## CIRCUIT DESCRIPTION

Refer to Oxygen Sensor Circuit Malfunction on [page DI-55](#).

DTC No.	DTC Detecting Condition	Trouble Area
P0135/21	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>• Engine ECU</li> </ul>
P0141/21	Heater current of 0.2 A or less when the heater operates (2 trip detection logic)	

## WIRING DIAGRAM

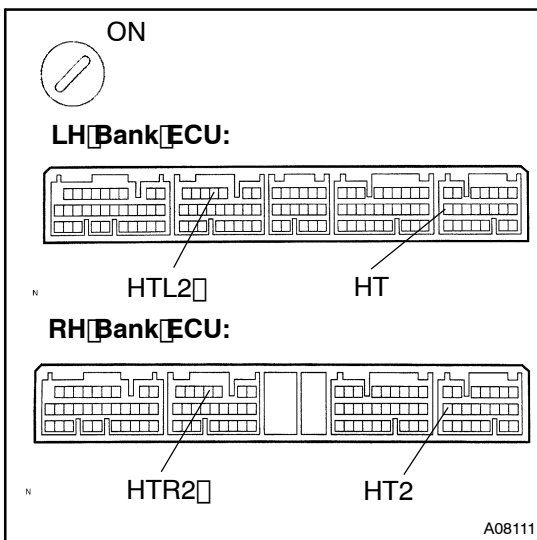
Refer to Oxygen Sensor Circuit Malfunction on [page DI-55](#) for the WIRING DIAGRAM.

## INSPECTION PROCEDURE

### HINT:

- LH and RH bank engine ECU detect this DTC code respectively. The inspection procedures are same for both LH and RH bank engine ECU and described in this manual. Even though terminal name and part name on the side of RH bank are described in parenthesis, perform the inspection for only ECU that has detected DTC.
- Read freeze frame data using hand-held tester. 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 hot, the air-fuel ratio lean or rich, etc. at the time of the malfunction.

- 1 Check voltage between terminals HT (HT2), HTL2 (HTR2) of engine ECU connector and body ground.**



### PREPARATION:

- Remove the engine ECU with connectors still connected.
- Turn the ignition switch to ON.

### CHECK:

Measure voltage between terminals HT (HT2), HTL2 (HTR2) of the engine ECU connector and body ground.

### HINT:

### OK:

**Voltage: 9 – 14 V**

OK

Check and replace engine ECU  
(See page N-20).

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- 2 Check resistance of oxygen sensor heater (See Pub. No. RM677E, page FI-61).**

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Replace heated oxygen sensor.

OK

Check and repair harness or connector between main relay and oxygen sensor and engine ECU (See page N-20).