

DTC	P0135	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)
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DTC	P0141	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)
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DTC	P0155	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 1)
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DTC	P0161	Heated Oxygen Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)
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CIRCUIT DESCRIPTION

Refer to Insufficient Coolant Temp. for Closed Loop Fuel Control on page [DI-192](#).

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">• Open or short in heater circuit of heated oxygen sensor• Heated oxygen sensor heater• ECM
P0141	Heater current of 0.20 A or less when the heater operates (2 trip detection logic)	
P0155		

HINT:

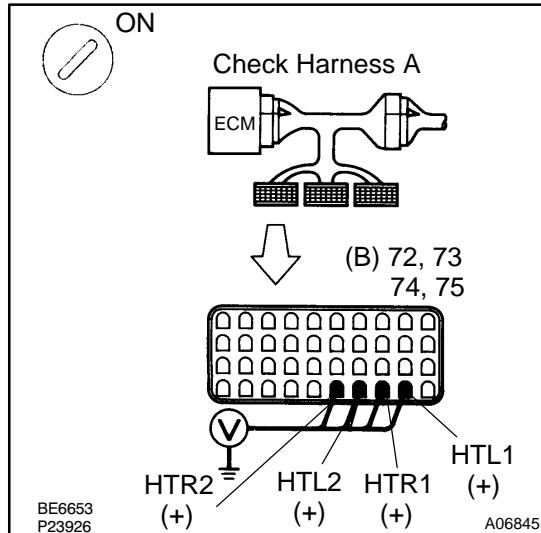
- Bank 1 refers to the bank that includes cylinder No.1.
- Bank 2 refers to the bank that does not include cylinder No.1.
- Sensor 1 refers to the sensor closer to the engine body.
- Sensor 2 refers to the sensor farther away from the engine body.

WIRING DIAGRAM

Refer to Insufficient Coolant Temp. for Closed Loop Fuel Control page [DI-192](#).

INSPECTION PROCEDURE

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|----------|---|
| 1 | Check voltage between terminals HTR1, HTR2, HTL1, HTL2 of ECM connector and body ground. |
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**PREPARATION:**

- (a) Connect the Check Harness A.
- (b) Turn ignition switch ON.

CHECK:

Measure voltage between terminals HTR1, HTR2, HTL1, HTL2 of ECM and body ground.

HINT:

- Connect terminal HTR1 to bank 2 sensor 1.
- Connect terminal HTR2 to bank 2 sensor 2.
- Connect terminal HTL1 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-29).

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|----------|--|
| 2 | Check resistance of heated oxygen sensor heater (See page SF-66). |
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Replace heated oxygen sensor.

OK

Check and repair harness or connector between main relay and heated oxygen sensor and ECM.