

DTC	P0037	Oxygen Sensor Heater Control Circuit Low (Bank 1 Sensor 2)
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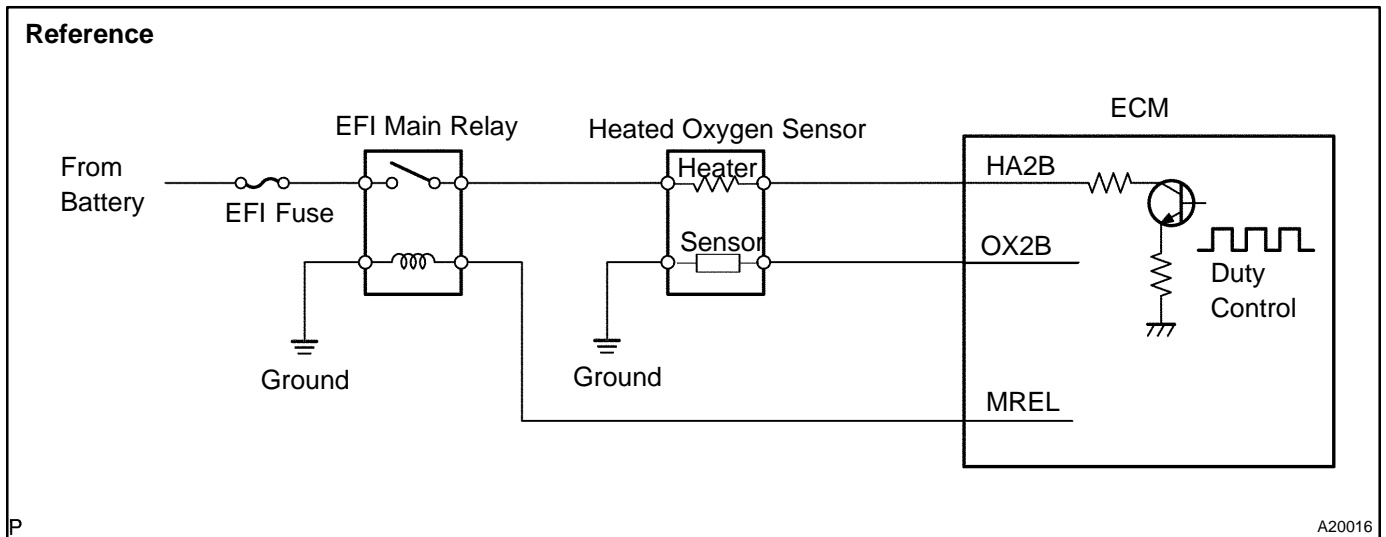
DTC	P0038	Oxygen Sensor Heater Control Circuit High (Bank 1 Sensor 2)
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CIRCUIT DESCRIPTION

Refer to DTC P0136 on page [DI-288](#).

HINT:

The ECM provides a pulse width to control current through the heater. The oxygen sensor heater circuit uses a relay on the B+ side of the circuit.



DTC No.	DTC Detection Condition	Trouble Area
P0037	Heater current 0.2 A or less when the heater operates (2 trip detection logic)	<ul style="list-style-type: none"> • Open or short in heater circuit of heated oxygen sensor • Heated oxygen sensor heater
P0038	When the heater operates, heater current exceeds 2.35 A (2 trip detection logic)	<ul style="list-style-type: none"> • EFI main relay • ECM

HINT:

- Sensor 1 refers to the sensor closest to the engine body.
- Sensor 2 refers to the sensor farthest from the engine body.

WIRING DIAGRAM

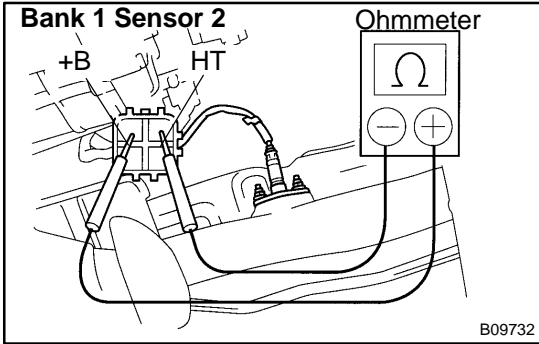
Refer to DTC P0134 on page [DI-278](#).

INSPECTION PROCEDURE

HINT:

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

1 Check resistance of heated oxygen sensor heater.



PREPARATION:

Disconnect the sensor connector.

CHECK:

Using an ohmmeter, measure the resistance between terminals +B and HT.

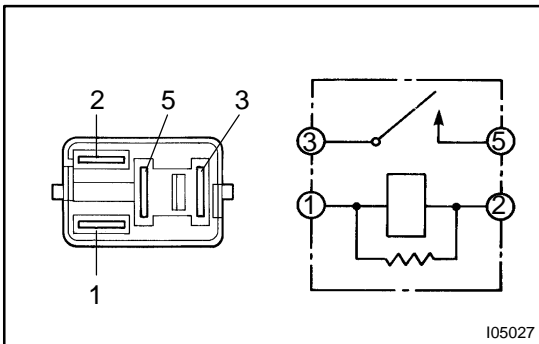
OK:

at 20°C (68°F)	11 – 16 Ω
at 800°C (1,472°F)	23 – 32 Ω

NG Replace heated oxygen sensor.

OK

2 Check EFI main relay (Marking : EFI)



PREPARATION:

Remove the EFI main relay from RB No. 2.

CHECK:

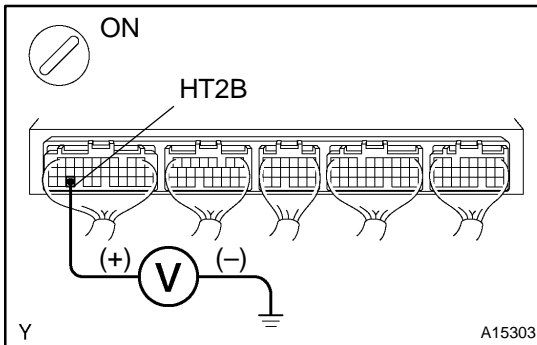
Inspect the EFI main relay.

OK:

Condition	Tester connection	Specified condition
Constant	1 – 2	Continuity
	3 – 5	No continuity
Apply B+ between terminals 1 and 2.	3 – 5	Continuity

NG Replace EFI main relay

OK

3 Check voltage between terminals HT2B of ECM connectors and body ground.
**PREPARATION:**

- Remove the glove compartment (See page [SF-64](#)).
- Turn the ignition switch ON.

CHECK:

Measure the voltage between terminal HT2B of the ECM connector and the body ground.

HINT:

Connect terminal HT2B to bank 1 sensor 2.

OK:

Voltage: 9 – 14 V

OK

Check and replace ECM (See page [IN-28](#))

NG

Check and repair harness or connector between EFI main relay (Marking: EFI) and heated oxygen sensor, and heated oxygen sensor and ECM (See page [IN-28](#)).