

DTC	P0136	Heated Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)
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DTC	P0156	Heated Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)
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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
P0136 P0156	Voltage output of the heated oxygen sensor (bank 1 sensor 2, bank 2 sensor 2) remains at 0.4 V or more or 0.5 V or less when the vehicle is driven at less than 100 km/h (62 mph) after the engine is warmed up. (2 trip detection logic)	Heated oxygen sensor

HINT:

- Bank 1 refers to bank that includes cylinder No.1.
- Bank 2 refers to bank that does not include cylinder No.1.
- 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 WIRING DIAGRAM.

INSPECTION PROCEDURE

HINT:

Read freeze frame data using TOYOTA 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.

1	Are there any other codes (besides DTC P0136 or P0156) being output?
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YES

Go to relevant DTC chart (See page [DI-14](#)).

NO

2	Check for open and short in harness and connector between ECM and heated oxygen sensor (See page IN-34).
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Repair or replace harness or connector.

OK

3	Check the output voltage of heated oxygen sensor (bank 1, 2 sensor 2).
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PREPARATION:

- (a) Connect the OBD II scan tool or TOYOTA hand-held tester to the DLC3.
- (b) After warming up the engine, race engine at 2,500 rpm for 3 min.

CHECK:

Read voltage output of heated oxygen sensor (bank 1 sensor 2, bank 2 sensor 2) when engine suddenly raced.

HINT:

Perform quick racing to 4,000 rpm 3 min. using accelerator pedal.

OK:

Heated oxygen sensor output voltage: Alternates from 0.4 V or less to 0.5 V or more.

OK

Check that each connector is properly connected.

NG

Replace heated oxygen sensor.