

DTC	P0136	Oxygen Sensor Circuit Malfunction (Bank 1 Sensor 2)
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DTC	P0156	Oxygen Sensor Circuit Malfunction (Bank 2 Sensor 2)
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CIRCUIT DESCRIPTION

Refer to DTC P0031 on page [DI-34](#).

DTC No.	DTC Detecting Condition	Trouble Area
P0136 P0156	Voltage output of heated oxygen sensor remains at 0.4 V or more or 0.5 V or less (2 trip detection logic)	• Open or short in heated oxygen sensor circuit • 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 P0031 on page [DI-34](#).

INSPECTION PROCEDURE

HINT:

Read freeze frame data using hand-held tester or the OBD II scan tool, as freeze frame data records the engine conditions when a malfunction is detected. When troubleshooting, this 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	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-22](#)).

NO

2	Check for open and short in harness and connector between ECM and heated oxygen sensor (See page IN-36).
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Repair or replace harness or connector.

OK

3	Check output voltage of heated oxygen sensor.
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PREPARATION:

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

CHECK:

Read the voltage output of the heated oxygen sensor when the engine is suddenly raced.

HINT:

Perform quick racing to 4,000 rpm 3 minutes using the 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.

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Replace heated oxygen sensor.