

GENERIC · POWERTRAIN

P0061

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0061

HO2S Heater Resistance (Bank 2 Sensor 3)

P0061 indicates that the powertrain control module has detected an abnormal electrical resistance in the heater circuit of the downstream oxygen sensor on bank 2, which is the side of the engine that does not contain cylinder number one. The sensor's internal heating element is not drawing the current the computer expects, so the sensor may not reach operating temperature quickly enough for accurate exhaust monitoring.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Slightly higher fuel consumption because the sensor stays cold longer and the computer runs a richer mixture
- A pending or stored code that returns after clearing, especially in cold weather
- Occasional rough idle or hesitation during the first few minutes after a cold start
- Failed emissions inspection due to the oxygen sensor monitor not completing
- In rare cases, a slight sulfur or rotten egg smell from the exhaust if the heater fault affects mixture control

Common causes, most likely first

- 1 Failed heater element inside the bank 2 sensor 3 oxygen sensor
- 2 Open or shorted wiring in the sensor heater circuit, often from chafing or corrosion
- 3 Corroded or loose connector pins at the sensor or at the computer
- 4 Blown fuse that supplies power to the oxygen sensor heater circuit
- 5 Poor ground connection for the heater circuit, causing high resistance
- 6 Faulty powertrain control module driver for the heater circuit, though this is uncommon



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code is current and not history
- 2 Inspect the sensor connector and wiring for corrosion, chafing, or loose pins, and repair as needed
- 3 Check the heater circuit fuse and verify power and ground at the sensor connector with a test light or multimeter
- 4 Measure the resistance of the heater element across the sensor terminals and compare to the manufacturer's specification
- 5 If resistance is out of specification or the circuit is open, replace the bank 2 sensor 3 oxygen sensor
- 6 Clear the code and run the oxygen sensor heater monitor to confirm the repair
- 7 If the code returns after a known-good sensor and wiring, test the computer driver circuit before condemning the module

Why the heater code is not always the sensor

- A P0061 can be set by a blown fuse that also powers other components, so always check the fuse before replacing the sensor.
- The heater element resistance changes with temperature, so a sensor that tests good cold may still fail when hot; test both cold and after warming.
- Corroded pins in the connector often mimic a failed sensor, and simply cleaning them can resolve the code without parts.
- Bank 2 Sensor 3 is a downstream sensor on the bank without cylinder one, and its heater circuit is separate from the upstream sensor, so a P0061 does not mean the upstream sensor is bad.
- A weak battery or charging system can cause false heater codes on some vehicles because the computer misreads current draw during low-voltage conditions.

Can I keep driving with P0061?

The vehicle is safe to drive with P0061 because the fault only affects the oxygen sensor heater and does not cause an immediate safety risk. Avoid long periods of idling and schedule diagnosis soon, since prolonged driving with a cold sensor can increase emissions and slightly reduce fuel economy.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter
- Test light
- Socket set and oxygen sensor socket
- Wiring diagram for the specific vehicle



Reading P0061

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- 61** The exact fault within that area.

Often seen with

P0053 HO2S Heater Resistance (Bank 1 Sensor 1) · **P0054** HO2S Heater Resistance (Bank 1 Sensor 2) · **P0059** HO2S Heater Resistance (Bank 2 Sensor 1) · **P0060** HO2S Heater Resistance (Bank 2 Sensor 2) · **P0135** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 1)

See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0061/>

