

GENERIC · POWERTRAIN

P0060

OBD-II TROUBLE CODE

P0060

HO2S Heater Resistance (Bank 2 Sensor 2)

P0060 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 sensor after the catalytic converter on the side of the engine that does not contain cylinder number one. The computer monitors the heater element's current draw during a cold start and flags this code when the resistance falls outside the expected range for the sensor's temperature.

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
- A slight decrease in fuel economy because the sensor takes longer to reach operating temperature
- Occasional rough idle or hesitation during cold starts while the system runs in open loop
- A pending code or history code stored without an active warning light on some vehicles
- Failed emissions inspection due to the heater monitor not completing

Common causes, most likely first

- 1 Failed heater element inside the bank 2 sensor 2 oxygen sensor
- 2 Corroded, loose, or damaged electrical connector at the sensor
- 3 Open or shorted wiring in the heater circuit between the sensor and the control module
- 4 Blown fuse or faulty relay that supplies power to the oxygen sensor heater
- 5 Poor ground connection for the heater circuit at the engine or chassis
- 6 Internal fault in the powertrain control module driver circuit, though this is rare



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code is active and not a ghost from a previous repair
- 2 Inspect the sensor connector and wiring for corrosion, chafing, or loose pins, and repair as needed
- 3 Check the heater circuit fuse and relay, and replace any failed component
- 4 Measure the resistance of the heater element at the sensor connector with a multimeter and compare to the manufacturer's specification
- 5 Test for voltage and ground at the heater circuit with the key on to verify power and ground integrity
- 6 If resistance is out of specification or the circuit tests good but the code persists, replace the bank 2 sensor 2 oxygen sensor
- 7 Clear codes and perform a road test to verify the heater monitor completes and the code does not return

What the heater resistance code really means

- A P0060 can be set by a heater circuit that is drawing too much current, not just too little, so a shorted heater element may not show infinite resistance on a meter.
- Many technicians replace the oxygen sensor only to find the real fault is a corroded connector pin that adds resistance to the circuit, so always inspect the plug before condemning the sensor.
- On some vehicles, the oxygen sensor heater shares a fuse with other components, and a blown fuse may cause multiple codes to set simultaneously, so check all related codes before diagnosing.
- The downstream sensor heater is often used to help the catalytic converter reach light-off temperature faster, so a failed heater can delay closed-loop operation and affect emissions without causing a noticeable driveability complaint.
- A P0060 may appear after a repair that involved removing the exhaust or sensor, due to pinched wiring or a connector not fully seated, so review recent work before starting a fresh diagnosis.

Can I keep driving with P0060?

You can generally continue driving with a P0060 because the fault mainly affects emissions and cold-start efficiency, but avoid long periods of idling or heavy load until it is repaired, and address it promptly to prevent catalytic converter damage from unburned fuel.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire terminal pick and electrical contact cleaner
- Fuse puller and test light
- Vehicle-specific service information for resistance specifications



Reading P0060

- 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.
- 60** 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) · **P0136** O2 Sensor Circuit Malfunction (Bank 1 Sensor 2) · **P0141** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 2)

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/p0060/>

