

GENERIC · POWERTRAIN

P0038

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0038

HO2S Heater Control Circuit High (Bank 1 Sensor 2)

P0038 means the engine computer has detected an abnormally high voltage on the heater control circuit for the downstream oxygen sensor on bank 1, which is the sensor after the catalytic converter. The computer expects the heater circuit to draw current and pull the voltage low when energized, so a high voltage reading tells it the circuit is open, shorted to power, or the heater element inside the sensor has failed.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Slightly longer time for the oxygen sensor to reach operating temperature, which can delay closed-loop fuel control
- A pending or stored code that returns quickly after clearing
- Possible poor fuel economy or slightly rough running if the sensor stays cold too long
- In rare cases, a blown fuse that also disables other components on the same circuit

Common causes, most likely first

- 1 Failed heater element inside the bank 1 sensor 2 oxygen sensor
- 2 Open or broken wire in the heater control circuit between the sensor and the computer
- 3 Corroded, loose, or damaged connector at the oxygen sensor or along the harness
- 4 Short to voltage on the heater control wire, often from chafed insulation
- 5 Blown fuse that supplies power to the oxygen sensor heater circuit
- 6 Faulty engine computer driver for the heater circuit, though this is uncommon



How to diagnose and fix it

- 1 Inspect the oxygen sensor connector and harness for corrosion, loose pins, or chafed wires, and repair as needed
- 2 Check the fuse that feeds the oxygen sensor heater circuit and replace it if blown, then recheck for the code
- 3 Measure resistance across the heater element at the sensor connector and compare to the manufacturer's specification to confirm the sensor is good
- 4 With the key on and the circuit energized, back-probe the heater control wire to verify the computer is pulling the voltage low; if it stays high, inspect for an open circuit or a faulty computer driver
- 5 Perform a voltage drop test on both the power and ground sides of the heater circuit to rule out high resistance connections
- 6 Replace the bank 1 sensor 2 oxygen sensor if the heater element is open or out of specification
- 7 Clear the code and complete a drive cycle to confirm the repair and ensure the monitor runs to completion

What a high heater voltage really tells you

- A high voltage on the heater control circuit often means the circuit is open, so the computer sees full battery voltage because no current is flowing through the heater element.
- Technicians sometimes replace the oxygen sensor only to find a corroded connector or a broken wire a few inches up the harness, so always inspect the wiring before condemning the sensor.
- A blown fuse for the oxygen heater circuit can be caused by a shorted sensor heater, so replacing the fuse without checking the sensor may lead to a repeat failure.
- The downstream sensor heater is mainly for emissions monitoring, so the vehicle may run perfectly fine with this code set, which is why many drivers notice only the warning light.
- A short to voltage on the heater control wire can mimic a failed computer, but chafed harness routing near hot exhaust parts is a far more common cause.

Can I keep driving with P0038?

You can usually continue driving with P0038 because the downstream oxygen sensor heater mainly affects emissions monitoring, not immediate engine safety. Avoid ignoring repeated check engine lights for long periods, and get the circuit inspected soon to prevent a missed emissions test or secondary damage from a shorted wire.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Back-probe kit
- Wiring diagram for the oxygen sensor circuit
- Fuse puller or test light



Reading P0038

- 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.
- 38** The exact fault within that area.

Often seen with

P0036 HO2S Heater Control Circuit (Bank 1 Sensor 2) · **P0037** HO2S Heater Control Circuit Low (Bank 1 Sensor 2) · **P0054** HO2S Heater Resistance (Bank 1 Sensor 2) · **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 Coolant Temperature Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0038/>

