

GENERIC · POWERTRAIN

P01F5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P01F5

# O2 Sensor Circuit No Activity Detected Bank 1 Sensor 4

P01F5 means the engine computer has commanded the heater inside the downstream oxygen sensor on bank 1, sensor 4, and the sensor circuit has shown no activity in response. The computer expects the sensor's internal heater to draw current and change resistance as it warms, but it sees a flat, inactive signal, so it flags the circuit as dead.

| SYSTEM     | CODE TYPE           | SEVERITY | FIX DIFFICULTY | AREA                  |
|------------|---------------------|----------|----------------|-----------------------|
| Powertrain | Generic (all makes) | Medium   | Intermediate   | Fuel and air metering |

## Symptoms you may notice

- Illuminated check engine light, often with no other symptoms besides the warning light
- Slightly higher fuel consumption because the computer can no longer fine-tune the air-fuel mixture from that sensor
- A pending or stored code that returns quickly after being cleared
- Rough idle or mild hesitation in some vehicles when the sensor is part of a multi-sensor exhaust layout
- Failed emissions inspection because the oxygen sensor monitor will not complete
- In rare cases, a default or limp-home fuel strategy that feels down on power

## Common causes, most likely first

- 1 Failed oxygen sensor heater element inside bank 1 sensor 4, the most common cause
- 2 Open or shorted wiring in the sensor heater circuit, often from heat damage or chafing
- 3 Corroded or loose connector pins at the sensor or at the harness junction
- 4 Blown fuse or faulty relay that supplies power to the oxygen sensor heater circuit
- 5 Poor ground connection for the sensor heater circuit
- 6 Engine computer driver circuit failure, less common but possible after other causes are ruled out
- 7 Exhaust leak or sensor installed too far downstream that prevents proper heater response



## How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data, then clear the code and verify whether it returns immediately
- 2 Inspect the bank 1 sensor 4 connector and harness for corrosion, chafing, heat damage, and loose pins
- 3 Check the oxygen sensor heater fuse and relay, and confirm battery voltage at the heater supply wire
- 4 Measure the heater element resistance at the sensor connector and compare it with the manufacturer's specification
- 5 Check the heater ground circuit for excessive voltage drop while the circuit is loaded
- 6 If wiring and supply are good but the heater resistance is out of spec, replace the bank 1 sensor 4 oxygen sensor
- 7 After repair, clear codes and run the oxygen sensor monitor to confirm the circuit is active and the code stays away

## Why this sensor heater code fools people

- A sensor that is physically present and looks fine can still have an open heater element, so resistance testing matters more than visual inspection.
- The heater circuit often shares a fuse with other oxygen sensors, so a blown fuse can set this code alongside heater codes for other sensors.
- Technicians sometimes replace the sensor only to find a corroded connector pin or a chafed wire was the real fault, so always load-test the circuit.
- This code does not always mean the sensor is dead; a poor ground or low supply voltage can make a healthy heater appear inactive to the computer.
- Bank 1 sensor 4 is usually a downstream sensor on V-engine layouts, so exhaust leaks or prior exhaust work near that location can trigger the code.

## Can I keep driving with P01F5?

The vehicle is generally safe to drive with this code because the fault affects emissions control and fuel trim refinement rather than immediate safety. Avoid long-term driving with the light on, and do not ignore it if fuel economy worsens or the engine runs rough, because those signs point to a failing sensor that should be repaired promptly.

## Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter for resistance and voltage drop testing
- Wiring diagram for the oxygen sensor heater circuit
- Socket or wrench set for oxygen sensor removal
- Contact cleaner and dielectric grease for connector repair



## Reading P01F5

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Fuel and air metering.
- F5** 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) · **P0135** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 1) · **P0141** O2 Sensor Heater Circuit Malfunction (Bank 1 Sensor 2) · **P0161** O2 Sensor Heater Circuit Malfunction (Bank 2 Sensor 2)

## See it working

Watch the animated explainer [How a MAP Sensor Works: Engine Vacuum and Load](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p01f5/>

