

GENERIC · POWERTRAIN

P0158

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0158

O2 Sensor Circuit High Voltage (Bank 2 Sensor 2)

P0158 means the engine computer detected a sustained high-voltage signal from the downstream oxygen sensor on bank 2, which monitors the exhaust after the catalytic converter on the side of the engine that does not contain cylinder number one. The sensor is reporting a voltage above the normal switching range for longer than the calibration allows, which usually points to a sensor that is stuck rich, a wiring fault, or a rich-running condition on that bank.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- A slight decrease in fuel economy if the engine is running rich on bank 2
- Rough idle or hesitation on engines with two separate exhaust banks
- A sulfur or rotten-egg smell from the exhaust in severe rich conditions
- Black sooty exhaust residue on the tailpipe or rear bumper
- Failed emissions inspection due to the stored trouble code

Common causes, most likely first

- 1 Failed downstream oxygen sensor on bank 2 that is stuck at a high voltage
- 2 Short to voltage or chafed signal wire between the sensor and the engine computer
- 3 Contaminated sensor from oil, coolant, or silicone poisoning
- 4 Rich fuel mixture on bank 2 from a leaking fuel injector or high fuel pressure
- 5 Exhaust leak before the sensor drawing in air and confusing the sensor reading
- 6 Faulty engine computer driver circuit for the sensor heater or signal return
- 7 Restricted exhaust or failing catalytic converter on bank 2 affecting sensor behavior



How to diagnose and fix it

- 1 Scan all stored and pending codes and record freeze-frame data to confirm the fault is current
- 2 Inspect the bank 2 downstream sensor wiring and connector for chafing, corrosion, or a short to voltage
- 3 Measure sensor signal voltage with a scan tool or digital voltmeter and compare it to the expected switching range
- 4 Check fuel trims and injector performance on bank 2 to rule out a rich-running condition before replacing the sensor
- 5 Perform a smoke test on the exhaust system ahead of the sensor to find leaks that skew the reading
- 6 Replace the bank 2 downstream oxygen sensor if wiring and fuel mixture checks pass but the signal remains stuck high
- 7 Clear the codes and complete a drive cycle to verify the repair and confirm the monitor runs to completion

What a high O2 reading really means

- A downstream oxygen sensor that reads high voltage is reporting a rich exhaust stream, but a shorted signal wire can produce the same high reading even when the engine mixture is correct.
- Technicians often replace the sensor first and later find a leaking injector or high fuel pressure on bank 2 was the true cause of the rich condition.
- An exhaust leak upstream of the downstream sensor can pull in outside air and create misleading readings that mimic a sensor fault.
- Silicone-based sealants and coolant contamination can poison an oxygen sensor and drive its output high without any wiring problem at all.
- The bank 2 downstream sensor is often harder to reach than bank 1, so confirming the fault with live data before replacement saves significant labor.

Can I keep driving with P0158?

You can usually drive the vehicle short distances with P0158, but avoid heavy acceleration and long trips because a rich-running condition can overheat and damage the catalytic converter. Have the fault diagnosed promptly, especially if the check engine light is flashing or fuel economy has dropped noticeably.

Tools that help

- OBD-II scan tool with live data capability
- Digital voltmeter
- Oxygen sensor socket
- Smoke machine for exhaust leak testing
- Fuel pressure gauge
- Wiring diagram for the bank 2 downstream sensor circuit



Reading P0158

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

Often seen with

P0156 O2 Sensor Circuit Malfunction (Bank 2 Sensor 2) · **P0157** O2 Sensor Circuit Low Voltage (Bank 2 Sensor 2) · **P0172** System Too Rich (Bank 1) · **P0175** System Too Rich (Bank 2) · **P0420** Catalyst System Efficiency Below Threshold (Bank 1)

See it working

Watch the animated explainer [How an Oxygen Sensor Works: Live 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0158/>

