

GENERIC · POWERTRAIN

P0159

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0159

O2 Sensor Circuit Slow Response (Bank 2 Sensor 2)

P0159 means the powertrain control module (PCM) has detected that the downstream oxygen sensor on bank 2 is responding too slowly to changes in exhaust oxygen content. The PCM monitors the sensor's voltage switching rate and compares it to an expected response time; when the signal lags beyond a calibrated threshold, it stores this code and illuminates the check engine light.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the sensor is only marginally slow.
- A slight decrease in fuel economy as the PCM may default to a less efficient fuel strategy.
- Occasional rough idle or hesitation during light acceleration if the slow signal affects fuel trim.
- A pending or stored P0159 code with no other drivability complaints.
- In some cases, a faint sulfur or rotten egg smell from the exhaust if the slow sensor causes a rich condition.
- The check engine light may clear itself after several drive cycles if the sensor response improves temporarily.

Common causes, most likely first

- 1 A contaminated or aged downstream oxygen sensor that has lost its switching speed.
- 2 Exhaust leaks upstream of the sensor, allowing outside air to dilute the sample and slow the response.
- 3 Wiring damage or corrosion in the sensor circuit, such as a chafed wire or poor connector pin tension.
- 4 A failing sensor heater circuit that prevents the sensor from reaching operating temperature quickly.
- 5 Excessive oil or coolant consumption contaminating the sensor element over time.
- 6 A restricted catalytic converter that alters exhaust flow and affects sensor response.
- 7 PCM software calibration issues or a faulty PCM driver for the sensor circuit, though this is rare.



How to diagnose and fix it

- 1 Inspect the downstream oxygen sensor wiring and connector for damage, corrosion, or loose pins, and repair as needed.
- 2 Check for exhaust leaks between the engine and the sensor using a smoke machine or by listening for ticking sounds when cold.
- 3 Use a scan tool to view live data for the bank 2 sensor 2 voltage and compare its switching rate to the bank 1 sensor 2; a significantly slower sensor confirms the fault.
- 4 Test the sensor heater circuit with a multimeter to verify resistance and power supply, following the manufacturer's specifications.
- 5 Replace the downstream oxygen sensor if it is slow, contaminated, or fails heater tests, using an OEM or equivalent quality part.
- 6 Clear the codes and perform a drive cycle to verify the repair; monitor readiness monitors to ensure the code does not return.
- 7 If the code persists after sensor replacement, diagnose the catalytic converter efficiency and PCM circuit integrity before condemning the new sensor.

Why a slow O2 sensor fools many diyers

- A slow downstream oxygen sensor often does not set a heater code or a circuit code, so the sensor may appear to function normally in a simple voltage test while still failing the response time test.
- Exhaust leaks upstream of the sensor are a common cause of slow response that is misdiagnosed as a bad sensor; always check for leaks before replacing parts.
- The downstream sensor's slow response can be caused by a failing catalytic converter that is not yet efficient enough to set a P0420 or P0430 code, so the converter should be evaluated if the sensor replacement does not fix it.
- Some vehicles use a wideband oxygen sensor for the downstream position, and a slow response may be due to a reference voltage issue rather than a worn sensor element.
- A contaminated sensor from oil or coolant burning may respond slowly without setting a heater code, and cleaning is rarely effective; replacement is the reliable fix.

Can I keep driving with P0159?

The vehicle is generally safe to drive with P0159 because the fault affects emissions and fuel efficiency more than immediate safety. Avoid heavy acceleration and towing until the issue is repaired, and address it promptly to prevent catalytic converter damage from prolonged rich operation.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Smoke machine for exhaust leak detection
- Oxygen sensor socket
- Jack and jack stands or ramps for access

Reading P0159

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

Often seen with

P0139 O2 Sensor Circuit Slow Response (Bank 1 Sensor 2) · **P0158** O2 Sensor Circuit High Voltage (Bank 2 Sensor 2) · **P0160** O2 Sensor Circuit No Activity (Bank 2 Sensor 2) · **P0420** Catalyst System Efficiency Below Threshold (Bank 1) · **P0430** Catalyst System Efficiency Below Threshold (Bank 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/p0159/>

