

GENERIC · POWERTRAIN

P015C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P015C

O2 Sensor Delayed Response - Rich to Lean Bank 2 Sensor 1

P015C means the powertrain control module (PCM) has detected that the upstream oxygen sensor on bank 2 is switching from a rich condition to a lean condition more slowly than the calibrated threshold. The sensor is still reporting, but its response time has degraded enough that the PCM sets this code after comparing the sensor's transition time against expected values.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- A slight decrease in fuel economy as the PCM struggles to correct the air-fuel ratio quickly.
- Occasional rough idle or hesitation during acceleration when the sensor lags behind actual mixture changes.
- Intermittent surging or poor throttle response under light load.
- Failed emissions inspection due to the monitor not completing or the code being stored.
- In rare cases, a rich exhaust smell if the delayed sensor causes over-fueling.

Common causes, most likely first

- 1 Aged or contaminated oxygen sensor that has lost its switching speed, which is the most common cause.
- 2 Exhaust leaks upstream of the sensor allowing outside air to affect readings and slow response.
- 3 Wiring damage or corrosion in the sensor circuit increasing resistance and delaying the signal.
- 4 An exhaust restriction or manifold leak altering the gas flow past the sensor.
- 5 Fuel contamination, such as silicone or coolant entering the exhaust, coating the sensor element.
- 6 A PCM calibration issue or faulty PCM driver, though this is far less likely than sensor degradation.



How to diagnose and fix it

- 1 Inspect the bank 2 sensor 1 wiring and connector for damage, corrosion, or loose pins, and repair as needed.
- 2 Check for exhaust leaks between the cylinder head and the sensor using a smoke test or by listening for ticking.
- 3 Verify fuel pressure and inspect for fuel contamination or coolant intrusion that could coat the sensor.
- 4 Use a scan tool to view live oxygen sensor data and compare bank 2 sensor 1 switching speed to bank 1 sensor 1.
- 5 Perform a propane enrichment test to confirm the sensor responds quickly to a rich command and recovers to lean.
- 6 Replace the bank 2 sensor 1 oxygen sensor with a quality direct-fit unit if testing confirms slow response.
- 7 Clear the codes and complete a drive cycle to verify the monitor runs and the code does not return.

Why a slow sensor is not always the sensor

- A lazy upstream sensor often sets this code without any driveability complaint, so the warning light may be the only clue.
- Exhaust leaks upstream of the sensor are a frequent misdiagnosis trap because they mimic a slow sensor by pulling in outside air.
- Contaminated fuel or coolant entering the exhaust can coat the sensor element and slow its response, so check for root causes before replacing parts.
- The PCM may set P015C alongside mixture codes if the delayed response causes fuel trim to drift, so review freeze-frame data carefully.
- Replacing the sensor without checking the circuit and exhaust integrity often leads to a repeat code within a few hundred miles.

Can I keep driving with P015C?

The vehicle is generally safe to drive with P015C because the sensor is still functioning, but avoid ignoring it for long periods since fuel economy and emissions will suffer. Have the fault diagnosed soon, and avoid heavy towing or aggressive driving until it is repaired.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter for circuit testing
- Propane enrichment tool or smoke machine for exhaust leak testing
- Oxygen sensor socket and breaker bar
- Factory service information for circuit and torque specifications



Reading P015C

- 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.
- 5C** The exact fault within that area.

Often seen with

P015A O2 Sensor Delayed Response - Rich to Lean Bank 1 Sensor 1 · **P015B** O2 Sensor Delayed Response - Lean to Rich Bank 1 Sensor 1 · **P015D** O2 Sensor Delayed Response - Lean to Rich Bank 2 Sensor 1 · **P0172** System Too Rich (Bank 1) · **P0175** System Too Rich (Bank 2)

See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p015c/>

