

GENERIC · POWERTRAIN

P0426

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0426

Catalyst Temperature Sensor Range/Performance (Bank 1)

P0426 means the powertrain control module (PCM) has detected that the bank 1 catalyst temperature sensor is not reporting a plausible temperature range or is not responding as expected during monitored conditions. The PCM compares the sensor signal against modeled exhaust temperatures and other sensor inputs, and when the signal falls outside the expected range or fails a performance check, it stores this code and illuminates the check engine light.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

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 may enrich the mixture to protect the catalyst
- Intermittent or erratic temperature gauge readings if the sensor signal is unstable
- Possible rough running or hesitation during cold starts if the PCM misjudges catalyst temperature
- Failed emissions test due to the stored code and potential catalyst monitor incomplection
- In rare cases, a burning or sulfur smell from the exhaust if the catalyst overheats

Common causes, most likely first

- 1 Faulty catalyst temperature sensor (bank 1) sending an out-of-range or erratic signal
- 2 Damaged or corroded wiring or connector at the sensor or PCM
- 3 Exhaust leaks before the sensor allowing outside air to skew temperature readings
- 4 Aging or contaminated catalytic converter causing actual temperature deviations
- 5 PCM software calibration issue or internal fault in the temperature sensing circuit
- 6 Engine misfire or rich condition raising exhaust temperatures beyond normal range



How to diagnose and fix it

- 1 Connect a scan tool and record freeze-frame data and any pending codes to understand when the fault occurs
- 2 Visually inspect the bank 1 catalyst temperature sensor, its wiring, and connector for damage, corrosion, or loose pins
- 3 Check for exhaust leaks upstream of the sensor using a smoke machine or by listening for ticking noises
- 4 Measure the sensor resistance and compare it to the manufacturer's specification across temperature changes
- 5 Backprobe the sensor signal circuit at the PCM and compare live data to a known-good value or substitute a known-good sensor
- 6 Verify that the catalytic converter is not restricted or contaminated by checking backpressure and inspecting for physical damage
- 7 After repairs, clear codes and complete a drive cycle to confirm the monitor runs and the code does not return

What the catalyst temperature sensor really monitors

- The catalyst temperature sensor is often confused with the oxygen sensor, but it specifically measures the temperature inside the catalytic converter to protect it from overheating damage.
- A P0426 can be set by a lazy sensor that responds slowly rather than failing completely, so live data graphing during a test drive is more revealing than a simple resistance check.
- Exhaust leaks upstream of the sensor are a commonly missed cause because they can dilute the exhaust sample and make the sensor report a lower-than-actual temperature.
- Replacing the catalytic converter without first verifying the sensor and wiring is an expensive misdiagnosis, as the code often stems from the sensor circuit rather than the converter itself.
- On some vehicles, a weak battery or charging system issue can cause voltage drops that affect the sensor reference signal and trigger this code intermittently.

Can I keep driving with P0426?

You can usually continue driving with P0426, but avoid heavy acceleration or sustained high-speed driving that could raise exhaust temperatures further. Have the fault diagnosed soon, because ignoring it may lead to catalyst damage and a more expensive repair.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter for resistance and voltage checks
- Infrared thermometer to verify actual exhaust temperatures
- Smoke machine for exhaust leak detection
- Backprobe kit for testing sensor circuits at the PCM



Reading P0426

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- 26** The exact fault within that area.

Often seen with

P0420 Catalyst System Efficiency Below Threshold (Bank 1) · **P0425** Catalyst Temperature Sensor (Bank 1) · **P0427** Catalyst Temperature Sensor Low (Bank 1) · **P0428** Catalyst Temperature Sensor High (Bank 1) · **P0430** Catalyst System Efficiency Below Threshold (Bank 2)

See it working

Watch the animated explainer [Inline-Four Engine X-Ray: Firing Order 1-3-4-2](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0426/>

