

GENERIC · POWERTRAIN

P2229

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2229

Barometric Pressure Circuit High

P2229 means the engine control module (ECM) has detected a voltage signal from the barometric pressure (BARO) sensor circuit that is higher than the maximum expected value for the current conditions. The BARO sensor measures atmospheric pressure so the ECM can calculate air density and adjust fuel delivery; a high signal typically indicates an open circuit, a short to voltage, or a faulty sensor.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp) with no other noticeable symptoms
- Rough idle or poor engine performance, especially at high altitudes
- Reduced fuel economy or black smoke from the exhaust due to rich fuel mixture
- Hesitation or stumble during acceleration
- Hard starting or stalling after the engine is started
- In some vehicles, a fail-safe mode that limits engine power

Common causes, most likely first

- 1 Open or high-resistance wire in the BARO sensor signal circuit
- 2 Short to voltage on the BARO sensor signal circuit
- 3 Faulty barometric pressure sensor
- 4 Corroded or loose electrical connector at the BARO sensor
- 5 Poor ground connection for the BARO sensor
- 6 Failed ECM (rare, but possible after other causes are ruled out)



How to diagnose and fix it

- 1 Use a scan tool to read the BARO sensor voltage and compare it with a known-good value or a barometer reading for your altitude.
- 2 Visually inspect the BARO sensor and its connector for damage, corrosion, or loose pins; repair or replace as needed.
- 3 Check the sensor's reference voltage and ground circuits with a digital multimeter; repair any open or shorted wires.
- 4 Backprobe the signal wire at the sensor and at the ECM to check for continuity and voltage drops; repair high-resistance wiring.
- 5 If the wiring and connections are good, replace the barometric pressure sensor.
- 6 Clear the diagnostic trouble codes and perform a road test to verify the repair; if the code returns, recheck the ECM and its programming.

What a high BARO reading really tells you

- A high BARO signal often sets when the sensor circuit is open, causing the ECM to see a voltage near 5 volts instead of the normal 1–4 volt range, which can be mistaken for a sensor failure when the real problem is a broken wire.
- Some vehicles use the mass air flow (MAF) sensor to infer barometric pressure, so a P2229 may appear alongside MAF-related codes even though the BARO sensor itself is not the root cause.
- The BARO sensor is sometimes integrated into the ECM or the MAF sensor, making replacement more involved and requiring reprogramming or calibration after installation.
- Altitude and weather changes can cause slight variations in BARO voltage, but a P2229 indicates a hard fault, not a normal fluctuation; do not dismiss it as a temporary glitch.
- A faulty ground for the BARO sensor can cause a high signal voltage, so always check ground integrity before condemning the sensor or ECM.

Can I keep driving with P2229?

You can usually drive with P2229 set, but the engine may run rich and exhibit poor performance, especially at high altitudes. Avoid sustained heavy acceleration or towing until the fault is repaired, as prolonged rich operation can damage the catalytic converter and spark plugs.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire piercing probes or backprobe pins
- Service manual or wiring diagram for your vehicle
- Basic hand tools for connector and sensor access



Reading P2229

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Fuel and air metering (injector circuits).
- 29** The exact fault within that area.

Often seen with

P0106 MAP/Barometric Pressure Circuit Range/Performance · **P0107** MAP/Barometric Pressure Circuit Low Input · **P0108** MAP/Barometric Pressure Circuit High Input · **P0172** System Too Rich (Bank 1) · **P2228** Barometric Pressure Circuit Low

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2229/>

