

GENERIC · POWERTRAIN

P222D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P222D

# Barometric Pressure Sensor B Circuit High

P222D indicates that the powertrain control module (PCM) has detected an abnormally high voltage signal from the Barometric Pressure Sensor B circuit, which is used to measure atmospheric pressure for fuel and boost calculations. The PCM sets this code when the sensor signal voltage exceeds the expected range for current operating conditions, often due to an open circuit, short to voltage, or sensor failure.

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

## Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp) on the dashboard.
- Often no noticeable drivability symptoms besides the warning light.
- Reduced engine performance or power, especially during acceleration or altitude changes.
- Poor fuel economy or rich/lean fuel mixture issues.
- Rough idle or hesitation when the engine is cold or under load.
- In some cases, the engine may enter limp mode or exhibit limited boost on turbocharged vehicles.

## Common causes, most likely first

- 1 Faulty barometric pressure sensor B (internal failure or contamination).
- 2 Open or high-resistance wiring in the sensor signal circuit.
- 3 Short to voltage on the sensor signal circuit.
- 4 Corroded, loose, or damaged electrical connector at the sensor or PCM.
- 5 Failed PCM (rare, but possible if other causes are ruled out).
- 6 Water intrusion or physical damage to the sensor or wiring harness.
- 7 Incorrect sensor installed or aftermarket part with incompatible resistance.

## How to diagnose and fix it

- 1 Use a scan tool to verify the code and check live barometric pressure data for plausibility compared to actual altitude.
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins.
- 3 Measure reference voltage and ground at the sensor connector with a digital multimeter; compare to manufacturer specifications.
- 4 Check the signal circuit for an open or short to voltage using a wiring diagram and continuity/resistance tests.
- 5 If wiring and connectors are good, test the sensor with a known-good unit or perform a bench test if specifications are available.
- 6 Replace the barometric pressure sensor if faulty, then clear codes and verify the repair with a test drive.
- 7 If the code persists after sensor replacement, diagnose the PCM and its connections, and reprogram or replace only as a last resort.

## Barometric Sensor B High Voltage Traps

- A common mistake is replacing the sensor without checking the signal circuit for a short to voltage, which can damage the new sensor or leave the code unresolved.
- On some vehicles, the barometric pressure sensor is integrated into the mass airflow sensor or the engine control module, so the actual serviceable part may be different than expected.
- The code can be set by a poor ground connection at the sensor or PCM, causing a high voltage reading that mimics a sensor failure.
- Altitude and weather changes can affect barometric pressure readings, but a high voltage code typically indicates a circuit fault rather than a normal pressure variation.
- Aftermarket sensors with incorrect calibration are a frequent cause of repeat P222D codes, so using an OEM-quality part is recommended.

## Can I keep driving with P222D?

The vehicle is generally safe to drive with this code, but performance and fuel economy may be affected, and the engine may enter limp mode. Avoid heavy acceleration or towing until the fault is repaired, and have the vehicle diagnosed promptly to prevent potential damage to other components.

## Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools (screwdrivers, socket set)
- Electrical contact cleaner and dielectric grease



## Reading P222D

- 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).
- 2D** 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 · **P222C** Barometric Pressure Sensor B Circuit Low · **P222E** Barometric Pressure Sensor B Circuit Intermittent/Erratic

## See it working

Watch the animated explainer [How a Refrigerator Works: The Cooling Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p222d/>

