

GENERIC · POWERTRAIN

P03CB

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P03CB

Cylinder 6 Pressure Sensor Circuit Intermittent/Erratic

P03CB indicates that the powertrain control module (PCM) has detected an intermittent or erratic signal from the cylinder 6 pressure sensor circuit, which is used on engines with cylinder pressure sensing for precise combustion control. The PCM sets this code when the sensor voltage or signal pattern falls outside expected limits or changes too abruptly for a calibrated period, indicating a unreliable connection or sensor fault rather than a steady failure.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Ignition system and misfire

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- Intermittent rough idle or misfire that may come and go, especially under light load.
- Reduced engine performance or hesitation during acceleration when the signal drops out.
- Poor fuel economy or increased emissions due to incorrect combustion feedback.
- In rare cases, the engine may enter limp mode or stall if the erratic signal severely disrupts timing.
- A stored pending or history code that reappears after clearing, even when the engine runs normally.

Common causes, most likely first

- 1 Faulty cylinder 6 pressure sensor, such as internal damage or contamination from carbon deposits.
- 2 Damaged or corroded wiring harness connector at the sensor or PCM, causing intermittent contact.
- 3 Chafed or broken wires in the sensor circuit, often due to heat, vibration, or rodent damage.
- 4 Loose or poor ground connection for the sensor or PCM, leading to voltage fluctuations.
- 5 PCM software glitch or internal fault in the pressure sensor input circuit, though less common.
- 6 Engine mechanical issues like excessive carbon buildup or valve problems that affect cylinder pressure readings.
- 7 Aftermarket sensor or improper installation causing signal instability.



How to diagnose and fix it

- 1 Inspect the sensor and its connector for physical damage, corrosion, or loose pins, and clean or repair as needed.
- 2 Check the wiring harness for chafing, breaks, or heat damage along the route from the sensor to the PCM.
- 3 Perform a wiggle test on the harness and connector while monitoring live sensor data to identify intermittent faults.
- 4 Measure the sensor reference voltage and ground circuit integrity with a multimeter to rule out power or ground issues.
- 5 Compare cylinder 6 pressure sensor readings with other cylinders using a scan tool to isolate the faulty component.
- 6 Replace the cylinder 6 pressure sensor if wiring and connections are verified good and the signal remains erratic.
- 7 Reprogram or replace the PCM only after all other causes are eliminated and technical service bulletins confirm a known issue.

Intermittent Sensor Signals Often Misdiagnosed

- A common oversight is replacing the pressure sensor without first checking the connector terminals for fretting corrosion, which can cause erratic signals that mimic a failed sensor.
- The code can be set by a momentary voltage spike from a failing alternator or ignition system, so testing the charging system is a wise step before condemning the sensor.
- Cylinder pressure sensors are sensitive to oil sludge and carbon buildup, so a recent engine repair or poor oil maintenance history can contribute to false erratic readings.
- In some vehicles, the cylinder pressure sensor shares a reference voltage with other sensors, and a fault in one can pull down the shared circuit and set multiple codes including P03CB.
- Clearing the code and performing a drive cycle that includes varying engine loads is essential to verify the repair, as the fault may not reappear during a simple idle test.

Can I keep driving with P03CB?

You can generally continue driving with this code if the engine runs smoothly, but avoid aggressive acceleration or heavy towing until the fault is repaired. If the engine begins to misfire, hesitate, or enter limp mode, seek service promptly to prevent potential catalytic converter damage.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with back-probing pins
- Wiring diagram or service information for the specific vehicle
- Basic hand tools for connector and sensor access
- Oscilloscope for advanced signal analysis (optional)



Reading P03CB

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 3** Ignition system and misfire.
- CB** The exact fault within that area.

Often seen with

P0306 Cylinder 6 Misfire Detected · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P03C9** Cylinder 6 Pressure Sensor Circuit Low · **P03CA** Cylinder 6 Pressure Sensor Circuit High · **P03CC** Cylinder 6 Pressure Too Low

See it working

Watch the animated explainer [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p03cb/>

