

GENERIC · POWERTRAIN

P03B3

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P03B3

Cylinder 4 Pressure Sensor Circuit

P03B3 indicates that the powertrain control module (PCM) has detected an electrical fault in the circuit of the cylinder 4 pressure sensor, which is used on engines with cylinder pressure sensing for precise combustion control. The PCM monitors the sensor signal and its return circuit for out-of-range voltage, open circuits, or shorts, and sets this code when the signal does not correlate with expected values under current operating conditions.

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
- Rough idle or misfire-like behavior, especially when the engine is cold
- Reduced engine performance or power, as the PCM may default to a backup strategy
- Poor fuel economy due to inaccurate combustion control
- In rare cases, the engine may enter limp mode or hesitate under acceleration

Common causes, most likely first

- Faulty cylinder 4 pressure sensor (internal failure or contamination)
- Damaged or corroded wiring harness or connector at the sensor
- Open or short circuit in the sensor signal or return wire
- Poor electrical connection at the PCM connector
- Failed PCM driver for the pressure sensor circuit (less common)
- Engine mechanical issues (e.g., excessive carbon buildup) affecting sensor reading (rare)

How to diagnose and fix it

- Perform a visual inspection of the sensor, connector, and wiring for damage or corrosion
- Check for technical service bulletins (TSBs) or diagnostic trouble code (DTC) setting criteria specific to the vehicle
- Use a digital multimeter to check sensor reference voltage and ground at the connector
- Test the sensor signal circuit for continuity and shorts to ground or power
- Swap the cylinder 4 pressure sensor with a known-good one (if accessible) to see if the code follows
- If wiring and sensor are good, test the PCM connector and consider PCM replacement as a last resort
- After repair, clear codes and verify the repair with a road test and live data monitoring



Cylinder Pressure Sensor Circuit Pitfalls

- A P03B3 code can be set by a simple loose or corroded connector, so always inspect the harness before condemning the sensor.
- On some engines, the cylinder pressure sensor is integrated into the glow plug or injector, making replacement more involved than a standalone sensor.
- The PCM may not illuminate the check engine light immediately; the code can be pending and only set after multiple drive cycles.
- A faulty sensor can cause the PCM to substitute a calculated value, masking driveability symptoms and leading to misdiagnosis.
- Related codes for other cylinders (e.g., P03B0, P03B1, P03B2) may also be present, indicating a shared circuit issue rather than a single sensor failure.

Can I keep driving with P03B3?

You can generally continue driving with this code, but avoid aggressive acceleration or heavy loads until it is diagnosed, as the engine may be running on a backup strategy that could affect performance and emissions. If the check engine light starts flashing or the engine runs poorly, stop driving and seek professional diagnosis.

Tools that help

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

Reading P03B3

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.
B3	The exact fault within that area.

Often seen with

P0304 Cylinder 4 Misfire Detected · **P03B0** Cylinder 3 Pressure Variation Low · **P03B1** Cylinder 3 Pressure Variation High · **P03B2** Cylinder 3 Combustion Performance · **P03B4** Cylinder 4 Pressure Sensor Circuit Range/Performance



See it working

Watch the animated explainer [How a Boxer Engine Works: Flat Engine Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p03b3/>

