



P03C3

Cylinder 5 Pressure Too High

P03C3 is a generic powertrain code indicating that the engine control module has detected cylinder 5 pressure exceeding the expected maximum threshold during combustion. The computer uses a cylinder pressure sensor to monitor peak pressure, and when the signal indicates pressure is too high for the current operating conditions, it stores this code and may illuminate the check engine light.

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

Symptoms you may notice

- Check engine light illuminated, often with no other noticeable symptoms
- Engine may run rough or misfire under load, especially during acceleration
- Knocking or pinging noise from the engine, particularly under heavy throttle
- Reduced engine performance or power output
- Poor fuel economy due to abnormal combustion
- In severe cases, the engine may enter limp mode to protect itself

Common causes, most likely first

- 1 Faulty cylinder pressure sensor or its wiring/connector
- 2 Carbon buildup on the piston top or in the combustion chamber, raising compression
- 3 Improper fuel octane or contaminated fuel causing abnormal combustion
- 4 Engine overheating leading to pre-ignition
- 5 Over-advanced ignition timing due to a faulty camshaft or crankshaft position sensor
- 6 Restricted exhaust or intake causing abnormal cylinder pressure
- 7 Mechanical issues such as a damaged piston or incorrect valve clearance

How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for related codes and freeze-frame data
- 2 Inspect the cylinder 5 pressure sensor and its wiring for damage or loose connections
- 3 Perform a compression test on cylinder 5 to check for mechanical issues
- 4 Check fuel quality and octane rating; drain and refill with correct fuel if suspect
- 5 Inspect for carbon buildup using a borescope and perform an induction cleaning if necessary
- 6 Verify ignition timing and check camshaft/crankshaft position sensors for proper operation
- 7 If the sensor is faulty, replace it and clear the code, then test-drive to confirm the repair



Cylinder 5 Pressure Sensor Diagnostics

- A faulty pressure sensor often mimics mechanical problems, so always test the sensor signal before tearing into the engine.
- Carbon buildup on the piston can raise compression and trigger this code without any sensor fault, especially on direct-injection engines.
- Low-octane fuel or fuel contaminated with ethanol can cause abnormal combustion and high pressure readings that set this code.
- The code may be set by a problem in the variable valve timing system that alters effective compression, so check VVT operation as well.
- Always check for technical service bulletins (TSBs) for the specific vehicle, as some manufacturers have known issues with pressure sensor calibration.

Can I keep driving with P03C3?

It is generally safe to drive with this code if the engine is running smoothly, but avoid heavy acceleration or towing until diagnosed. If the engine is knocking, overheating, or misfiring severely, stop driving and seek professional help to prevent engine damage.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter for testing sensor wiring
- Compression tester
- Borescope for inspecting combustion chamber
- Fuel pressure gauge
- Timing light or scan tool for ignition timing check

Reading P03C3

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.

C3 The exact fault within that area.

Often seen with

P0172 System Too Rich (Bank 1) · **P0305** Cylinder 5 Misfire Detected · **P0325** Knock Sensor 1 Circuit Malfunction (Bank 1) · **P03C2** Cylinder 5 Pressure Too Low · **P03C4** Cylinder 5 Pressure Variation Low



See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p03c3/>

