

GENERIC · POWERTRAIN

P03C2

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P03C2

Cylinder 5 Pressure Too Low

P03C2 indicates that the engine control module has detected a low-pressure condition in cylinder 5, typically by comparing crankshaft speed fluctuations or using a cylinder pressure sensor. The computer sets this code when the measured pressure for cylinder 5 falls below the expected threshold during combustion.

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

Symptoms you may notice

- Illuminated check engine light, often with no other symptoms
- Rough idle or misfire sensation, especially noticeable at low speeds
- Reduced engine power or sluggish acceleration
- Increased fuel consumption due to incomplete combustion
- Shaking or vibration during acceleration or under load
- In some cases, a noticeable ticking or knocking sound from the engine

Common causes, most likely first

- 1 Faulty fuel injector for cylinder 5, causing a lean condition and low combustion pressure
- 2 Worn or damaged spark plug or ignition coil for cylinder 5, leading to incomplete combustion
- 3 Mechanical issues such as a leaking intake or exhaust valve, worn piston rings, or a damaged head gasket
- 4 Carbon buildup on intake valves or in the combustion chamber, reducing volumetric efficiency
- 5 Faulty cylinder pressure sensor or crankshaft position sensor providing inaccurate data
- 6 Restricted exhaust system or catalytic converter causing backpressure and reduced cylinder pressure
- 7 Engine control module software calibration issue or wiring fault in the sensor circuit

How to diagnose and fix it

- 1 Perform a visual inspection of the engine bay for obvious issues like disconnected hoses or damaged wiring
- 2 Use a scan tool to check for related misfire codes and freeze-frame data to confirm the fault
- 3 Swap the ignition coil and spark plug from cylinder 5 with a known-good cylinder to see if the misfire moves
- 4 Conduct a compression test on cylinder 5 and compare with other cylinders to assess mechanical health
- 5 Test the fuel injector for cylinder 5 for proper resistance and spray pattern, and inspect the fuel rail pressure
- 6 Perform a cylinder leak-down test to pinpoint valve or ring leakage if compression is low
- 7 Repair or replace the faulty component, clear the code, and verify the repair with a test drive



Cylinder 5 pressure code misdiagnosis traps

- A low-pressure code for a single cylinder often results from a faulty ignition coil or spark plug rather than a mechanical failure, so always swap components before tearing into the engine.
- Carbon buildup on direct-injection engines can cause low cylinder pressure without any mechanical wear, and a professional intake valve cleaning may resolve the issue.
- The code may be set by a faulty crankshaft position sensor or reluctor wheel, which can mimic a cylinder-specific pressure problem, so check sensor signals with an oscilloscope.
- Exhaust restrictions, such as a clogged catalytic converter, can cause low pressure in one or more cylinders and should be ruled out by measuring backpressure.
- Always verify that the engine control module has the latest software calibration, as some manufacturers have released updates to correct false pressure codes.

Can I keep driving with P03C2?

Driving with P03C2 is generally not recommended because continued operation with low cylinder pressure can lead to further engine damage or catalytic converter failure. Avoid heavy acceleration and have the vehicle diagnosed promptly.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Compression tester
- Cylinder leak-down tester
- Fuel injector tester or multimeter
- Oscilloscope for sensor signal analysis
- Basic hand tools for component swapping

Reading P03C2

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.
C2	The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0172** System Too Rich (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0305** Cylinder 5 Misfire Detected



See it working

Watch the animated explainer [How Crank and Cam Position Sensors Work](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p03c2/>

