



P03CC

Cylinder 6 Pressure Too Low

P03CC is a generic powertrain code indicating that the engine control module has detected a cylinder 6 pressure that is too low during the combustion cycle, typically using a cylinder pressure sensor. The computer compares the measured pressure against an expected value and sets the code when the pressure falls below a calibrated threshold, which points to a mechanical or sensor-related issue affecting that cylinder's ability to build compression.

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

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire sensation, especially when the engine is cold
- Reduced engine power or sluggish acceleration
- Increased fuel consumption due to incomplete combustion
- Engine vibration or shaking that may be more pronounced under load
- In some cases, a noticeable ticking or knocking noise from the engine

Common causes, most likely first

- 1 Faulty cylinder pressure sensor or its wiring/connector
- 2 Worn or damaged piston rings causing low compression
- 3 Leaking or burnt valve, or valve seat damage
- 4 Head gasket failure allowing pressure to escape
- 5 Cracked or damaged cylinder head or piston
- 6 Carbon buildup on valves or piston rings preventing proper sealing
- 7 Incorrect valve lash or timing issues affecting cylinder sealing



How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder pressure sensor and its wiring for damage or loose connections
- 2 Use a scan tool to check live cylinder pressure data and compare with other cylinders to confirm the fault
- 3 Conduct a compression test on cylinder 6 and compare with adjacent cylinders to identify mechanical issues
- 4 Perform a leak-down test to pinpoint whether pressure loss is through rings, valves, or head gasket
- 5 Inspect the sensor signal with an oscilloscope to verify proper waveform and rule out sensor failure
- 6 If sensor is faulty, replace it and clear the code; if mechanical issue is found, proceed with necessary engine repairs
- 7 After repairs, clear codes and road-test the vehicle to ensure the code does not return

Cylinder pressure sensor faults mimic mechanical issues

- A failing cylinder pressure sensor often produces the same code as a genuine low-compression problem, so always verify sensor operation before tearing into the engine.
- Carbon buildup on intake valves, common in direct-injection engines, can cause low cylinder pressure without any mechanical wear, and a professional intake cleaning may resolve the code.
- The code may set intermittently due to a poor electrical connection at the sensor, especially in areas prone to vibration or corrosion, so inspect connectors carefully.
- Low cylinder pressure on only one cylinder can sometimes be caused by a sticking hydraulic lifter or incorrect valve adjustment, which is often overlooked during diagnosis.
- Do not assume the engine needs a rebuild based solely on this code; a leak-down test and sensor waveform analysis are essential to avoid unnecessary repairs.

Can I keep driving with P03CC?

Driving with P03CC is not recommended because low cylinder pressure can lead to misfires, catalytic converter damage, and potential engine failure. If you must drive, avoid heavy acceleration and high speeds, and have the vehicle diagnosed by a professional as soon as possible.

Tools that help

- OBD-II scan tool with live data capability
- Compression tester
- Leak-down tester
- Oscilloscope for sensor signal analysis
- Digital multimeter for wiring checks
- Basic hand tools for sensor removal



Reading P03CC

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.
CC	The exact fault within that area.

Often seen with

P0300 Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected · **P0303** Cylinder 3 Misfire Detected · **P0306** Cylinder 6 Misfire Detected

See it working

Watch the animated explainer [How ABS Works: Anti-Lock Brakes in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p03cc/>

