

GENERIC · POWERTRAIN

P0293

OBD-II TROUBLE CODE

P0293

Cylinder 11 Contribution/Balance

P0293 indicates that the engine control module (ECM) has detected an abnormal contribution from cylinder 11 to overall engine power, typically by monitoring crankshaft speed fluctuations. The ECM compares the acceleration of the crankshaft during each cylinder's power stroke and flags this code when cylinder 11 consistently underperforms or overperforms relative to the others.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or shaking, especially when the engine is cold
- Noticeable misfire or hesitation during acceleration
- Reduced engine power and poor fuel economy
- Shaking or vibration felt through the steering wheel or seat
- In some cases, the engine may enter limp mode to protect the catalytic converter

Common causes, most likely first

- 1 Faulty ignition coil or spark plug specific to cylinder 11
- 2 Clogged or failing fuel injector for cylinder 11
- 3 Low compression in cylinder 11 due to worn piston rings, valves, or head gasket
- 4 Vacuum leak affecting the intake runner for cylinder 11
- 5 Wiring or connector issue at the cylinder 11 injector or coil
- 6 Mechanical valvetrain issue such as a collapsed lifter or worn cam lobe
- 7 Exhaust leak near the cylinder 11 exhaust port affecting oxygen sensor readings



How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder 11 ignition coil, spark plug, and injector connectors for damage or corrosion
- 2 Swap the ignition coil and spark plug from cylinder 11 with a known-good cylinder to see if the misfire moves
- 3 Use a scan tool to check for pending or stored misfire codes and review freeze-frame data
- 4 Run a compression test and a cylinder leak-down test on cylinder 11 to rule out mechanical faults
- 5 Test the fuel injector for cylinder 11 with a noid light or injector balance test
- 6 Check for vacuum leaks at the intake manifold and cylinder 11 intake runner using a smoke machine
- 7 If all else fails, perform a crankshaft position variation relearn or inspect the ECM for software updates

Cylinder 11 Contribution Codes Often Misdiagnosed

- A dirty or failing mass airflow sensor can cause uneven fuel delivery that mimics a single-cylinder contribution fault, so check fuel trims before condemning cylinder 11.
- On engines with active fuel management or cylinder deactivation, a stuck lifter or solenoid can disable cylinder 11 and set this code without any ignition or fuel fault.
- Exhaust leaks upstream of the oxygen sensor can skew the ECM's misfire detection logic and falsely flag cylinder 11, especially on V-configuration engines.
- A weak battery or charging system issue can cause voltage drops that disrupt injector or coil operation on one cylinder, leading to a false contribution code.
- Always verify that the code is current and not history; a single misfire event during a cold start or low-fuel condition may store P0293 without a recurring problem.

Can I keep driving with P0293?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because unburned fuel from a misfiring cylinder can overheat and damage the catalytic converter. If the check engine light is flashing, stop driving immediately and have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and misfire counters
- Compression tester
- Cylinder leak-down tester
- Noid light or injector balance tester
- Vacuum gauge or smoke machine
- Basic hand tools and a spark plug socket



Reading P0293

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 2** Fuel and air metering (injector circuits).
- 93** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0201** Injector Circuit Malfunction - Cylinder 1 · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected

See it working

Watch the animated explainer [Helicopter Simulator: Take Off, Hover and Land](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0293/>

