

GENERIC · POWERTRAIN

P0263

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0263

Cylinder 1 Contribution/Balance

P0263 indicates that the powertrain control module has detected a cylinder 1 contribution or balance fault, meaning cylinder 1 is not producing the same amount of power as the other cylinders during the engine's power stroke. The computer typically monitors crankshaft speed fluctuations and flags this code when cylinder 1's acceleration contribution falls outside an acceptable range compared to its peers.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- A noticeable engine misfire or rough idle, especially when cold
- Reduced engine power or sluggish acceleration
- Shaking or vibration felt through the steering wheel or seat
- A decrease in fuel economy
- Possible flashing check engine light under load if the misfire is severe

Common causes, most likely first

- 1 Faulty fuel injector for cylinder 1 (clogged, leaking, or electrically failed)
- 2 Worn or fouled spark plug in cylinder 1
- 3 Defective ignition coil or spark plug wire for cylinder 1
- 4 Low compression in cylinder 1 due to worn rings, valves, or head gasket
- 5 Vacuum leak affecting cylinder 1 intake port
- 6 Mechanical valvetrain issue such as a collapsed lifter or worn cam lobe
- 7 Wiring or connector problem at the cylinder 1 injector or ignition coil



How to diagnose and fix it

- 1 Perform a visual inspection of cylinder 1 ignition components and injector wiring for damage or loose connections
- 2 Swap the ignition coil and spark plug from cylinder 1 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 on cylinder 1 and compare with other cylinders to rule out mechanical faults
- 5 Test the fuel injector for cylinder 1 with a noid light or injector balance test
- 6 Check for vacuum leaks at the intake manifold and cylinder 1 intake port using a smoke machine
- 7 If all electrical and fuel tests pass, perform a cylinder leak-down test to assess internal engine condition

Cylinder 1 balance faults often misdiagnosed

- A clogged or failing fuel injector is a frequent culprit that may not set a lean code, so injector testing should not be skipped.
- Mechanical issues like low compression can mimic ignition or fuel faults, so a compression test is essential before replacing parts.
- The code can be set by a faulty crankshaft position sensor or reluctor wheel, as the PCM relies on accurate crank speed data to calculate contribution.
- Swapping components between cylinders is a quick and reliable way to isolate the fault without expensive tools.
- A flashing check engine light indicates a severe misfire that can damage the catalytic converter, so driving should be minimized until repaired.

Can I keep driving with P0263?

It is generally safe to drive with P0263 if the check engine light is steady and the engine runs smoothly, but avoid heavy acceleration or towing. If the light flashes or the engine runs rough, stop driving and seek repair immediately to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool
- Compression tester
- Spark tester
- Noid light
- Vacuum gauge
- Basic hand tools



Reading P0263

- 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).
- 63** 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 · **P0351** Ignition Coil A Primary/Secondary Circuit Malfunction

See it working

Watch the animated explainer [EV Powertrain Trainer: How an Electric Car Drives](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0263/>

