

GENERIC · POWERTRAIN

P0269

OBD-II TROUBLE CODE

P0269

Cylinder 3 Contribution/Balance

P0269 means the powertrain control module has detected that cylinder 3 is contributing less power than the other cylinders, based on crankshaft speed fluctuations measured by the crank position sensor. The computer sets this code when the misfire or imbalance for cylinder 3 exceeds a calibrated threshold, indicating a mechanical, fuel, or ignition problem specific to that cylinder.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Rough idle or shaking that is often more noticeable when the engine is cold
- A flashing or steady check engine light, sometimes accompanied by a traction control light
- Noticeable loss of power or hesitation during acceleration
- Poor fuel economy compared to normal driving
- Often no symptoms besides the warning light, especially at higher speeds or light load
- Occasional smell of unburned fuel from the exhaust if the misfire is severe

Common causes, most likely first

- 1 Worn or fouled spark plug in cylinder 3
- 2 Faulty ignition coil or spark plug wire for cylinder 3
- 3 Clogged or leaking fuel injector for cylinder 3
- 4 Vacuum leak at the intake manifold runner or gasket near cylinder 3
- 5 Low compression from worn piston rings, valves, or head gasket in cylinder 3
- 6 Mechanical valvetrain issue such as a collapsed lifter or worn cam lobe affecting cylinder 3
- 7 Wiring or connector problem to the cylinder 3 injector or coil



How to diagnose and fix it

- 1 Scan all stored codes and freeze-frame data to confirm P0269 is current and not history
- 2 Inspect the spark plug and ignition coil for cylinder 3, swapping the coil with a known-good cylinder to see if the misfire moves
- 3 Perform a cylinder contribution test or misfire counter check with a scan tool to verify cylinder 3 is the problem
- 4 Check fuel injector operation with a noid light or injector balance test, and inspect wiring for corrosion or damage
- 5 Run a compression test and, if low, a leak-down test on cylinder 3 to rule out mechanical faults
- 6 Smoke-test the intake system for vacuum leaks that disproportionately affect cylinder 3
- 7 Replace the confirmed faulty component and clear codes, then road-test to verify the misfire is gone

Cylinder 3 misfires that fool good technicians

- A vacuum leak at the intake manifold gasket can lean out one cylinder more than others and set a single-cylinder contribution code without any ignition or fuel fault.
A failing fuel injector may still click and pass a resistance test but deliver uneven fuel volume, so an injector balance test is more reliable than a simple ohm check.
- Low compression from a worn cam lobe or collapsed lifter can mimic an ignition misfire and will not improve with new coils or plugs, so always verify mechanical health before parts swapping.
- The code can be set by a dirty mass airflow sensor that skews fuel trim and causes one cylinder to run lean enough to misfire, even though the sensor is not cylinder-specific.
A sticking EGR valve or carbon buildup on intake valves can cause a single-cylinder misfire that only appears at certain engine speeds and loads, making it easy to miss during a quick idle check.

Can I keep driving with P0269?

You can drive cautiously to a repair shop 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 shakes badly, stop driving because unburned fuel can quickly damage the catalytic converter.

Tools that help

- OBD-II scan tool with live misfire and freeze-frame data
- Spark plug socket and torque wrench
- Compression gauge and leak-down tester
- Noid light or injector balance tester
- Smoke machine for intake leak detection
- Digital multimeter for wiring and coil checks



Reading P0269

- 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).
- 69** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0263** Cylinder 1 Contribution/Balance · **P0266** Cylinder 2 Contribution/Balance · **P0300** Random/Multiple Cylinder Misfire Detected · **P0303** Cylinder 3 Misfire Detected

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0269/>

