

GENERIC · POWERTRAIN

P0270

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0270

Cylinder 4 Injector Circuit Low

P0270 means the engine computer has detected an abnormally low voltage or current draw on the electrical circuit that operates the fuel injector for cylinder 4. The computer monitors the injector driver circuit and flags this code when the signal falls outside the expected range, indicating a short to ground, an open circuit, or a failed injector.

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

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire that is most pronounced at idle and low engine speeds
- Noticeable loss of power and sluggish acceleration under load
- Shaking or vibration from the engine, especially when cold
- Poor fuel economy and a raw fuel smell from the exhaust if the injector is stuck open
- In some cases, the engine may enter limp mode or stall when coming to a stop

Common causes, most likely first

- 1 Faulty fuel injector on cylinder 4 with an internally shorted or open coil
- 2 Damaged or corroded electrical connector at the cylinder 4 injector
- 3 Chafed, broken, or shorted wire in the injector harness near the cylinder 4 injector
- 4 Poor connection or corrosion at the engine computer connector for the injector driver
- 5 Failed injector driver inside the engine control module (ECM) or powertrain control module (PCM)
- 6 Aftermarket or damaged injector with incorrect resistance
- 7 Moisture intrusion into the injector connector or harness causing a short to ground



How to diagnose and fix it

- 1 Inspect the cylinder 4 injector connector and harness for corrosion, chafing, or loose pins, and repair as needed
- 2 Measure the resistance of the cylinder 4 injector with a multimeter and compare it to the manufacturer's specification
- 3 Check for a short to ground or an open circuit in the injector control wire using a multimeter and wiring diagram
- 4 Swap the cylinder 4 injector with a known-good injector from another cylinder to see if the misfire moves
- 5 Test the injector driver circuit at the ECM connector for proper voltage and ground signals
- 6 If the injector is faulty, replace it and clear the code, then verify the repair with a test drive
- 7 If the driver circuit inside the ECM is confirmed faulty, replace or reprogram the ECM as required

What a low injector circuit really means

- A low circuit code can be set by a short to ground in the wiring, not just a failed injector, so always inspect the harness before replacing parts.
The injector coil can test good with a multimeter but still fail under heat or vibration, so a resistance check alone is not conclusive.
- A stuck-open injector can cause a low circuit code and also flood the cylinder with fuel, leading to bore wash and premature engine wear if driven long.
- Corrosion inside the injector connector often mimics a failed injector and is frequently overlooked during diagnosis.
The same code can appear if the ECM driver fails, which is rare but should be ruled out after all wiring and injector tests pass.

Can I keep driving with P0270?

You can drive the vehicle short distances to a repair shop, but avoid heavy acceleration and prolonged driving because a misfiring cylinder can damage the catalytic converter and waste fuel. If the engine is shaking badly or stalling, stop driving and arrange a tow.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Test light
- Wiring diagram for the injector circuit
- Basic socket and ratchet set
- Injector noid light or oscilloscope



Reading P0270

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

Often seen with

P0261 Cylinder 1 Injector Circuit Low · **P0264** Cylinder 2 Injector Circuit Low · **P0267** Cylinder 3 Injector Circuit Low · **P0273** Cylinder 5 Injector Circuit Low · **P0304** Cylinder 4 Misfire Detected

See it working

Watch the animated explainer [How Coil-on-Plug Ignition Works: Coil and Spark Plug](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0270/>

