

GENERIC · POWERTRAIN

P0289

OBD-II TROUBLE CODE

P0289

Cylinder 10 Injector Circuit High

P0289 means the powertrain control module (PCM) has detected an abnormally high current or voltage on the electrical circuit that operates the fuel injector for cylinder 10. The PCM monitors the injector driver circuit and sets this code when the feedback signal indicates a short to voltage or excessive current draw, which can prevent the injector from firing correctly.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	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 may feel like a shake or stumble
- Reduced engine power or hesitation during acceleration
- Poor fuel economy due to improper fuel delivery
- Possible rich-running condition with black smoke from the exhaust
- In some cases, the engine may enter limp mode to protect the catalytic converter

Common causes, most likely first

- 1 Faulty fuel injector for cylinder 10 (internally shorted coil)
- 2 Damaged or chafed wiring harness between the PCM and the injector
- 3 Corroded or loose electrical connector at the injector or PCM
- 4 Short to voltage on the injector control circuit
- 5 Failed PCM driver for the injector circuit (rare but possible)
- 6 Aftermarket or incorrect injector installed that draws excessive current

How to diagnose and fix it

- 1 Use a scan tool to verify P0289 is current and check for related misfire or injector codes
- 2 Inspect the injector connector and wiring for corrosion, damage, or loose pins
- 3 Measure the resistance of the cylinder 10 injector and compare it to the manufacturer's specification
- 4 Check for a short to voltage on the injector control circuit with a multimeter or oscilloscope
- 5 Swap the cylinder 10 injector with a known-good injector from another cylinder to see if the code follows
- 6 If the injector is faulty, replace it and clear the code
- 7 If the wiring and injector test good, diagnose the PCM driver circuit or replace the PCM as a last resort



What a high injector circuit code really means

- A high current code often indicates a shorted injector coil rather than an open circuit, so resistance testing is more reliable than a simple continuity check.
- The PCM may set P0289 intermittently if the wiring harness rubs against a metal component, so wiggle-testing the harness while monitoring live data can reveal the fault.
- Cylinder 10 is typically found on V10 or large V8 engines, and its injector circuit may share a ground or power feed with other injectors, so a fault in a shared circuit can affect multiple cylinders.
- A stuck-open injector can cause a rich condition that damages the catalytic converter, so driving with this code for an extended period is risky even if the engine seems to run fine.
- Some aftermarket injectors have different resistance values that can trigger this code even though they are new, so always verify compatibility with the original equipment specification.

Can I keep driving with P0289?

It is not recommended to drive long distances with P0289 because a shorted injector can cause a rich fuel mixture that overheats and damages the catalytic converter. If the engine runs roughly or lacks power, avoid heavy acceleration and have the vehicle inspected promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Oscilloscope (optional but helpful for waveform analysis)
- Fuel injector noid light or test light
- Basic hand tools (socket set, screwdrivers, pliers)

Reading P0289

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).
89	The exact fault within that area.

Often seen with

P0200 Injector Circuit Malfunction · **P0288** Cylinder 10 Injector Circuit Low · **P0290** Cylinder 10 Contribution/Balance · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected



See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0289/>

