

GENERIC · POWERTRAIN

P0288

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0288

Cylinder 10 Injector Circuit Low

P0288 means the engine computer has detected an abnormally low current flow in the electrical circuit for cylinder 10's fuel injector, which usually indicates a short to ground or a failed injector coil. The computer monitors injector current and flags this code when the measured current falls below the expected threshold for 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

- 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 incomplete combustion in cylinder 10
- Possible fuel smell from unburned fuel entering 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 on cylinder 10 with an open or shorted internal coil
- 2 Damaged or chafed injector wiring harness causing a short to ground
- 3 Corroded or loose electrical connector at the cylinder 10 injector
- 4 Failed driver circuit inside the engine control module (ECM) or powertrain control module (PCM)
- 5 High resistance in the injector circuit due to a poor ground connection
- 6 Aftermarket or incorrect injector installed that does not match the engine's requirements

How to diagnose and fix it

- 1 Inspect the cylinder 10 injector connector and wiring for damage, corrosion, or loose pins
- 2 Measure the injector coil resistance with a multimeter and compare it to the manufacturer's specification
- 3 Check for a short to ground in the injector control wire using a multimeter or test light
- 4 Perform a current ramp test on the injector circuit with an oscilloscope to verify the driver signal
- 5 Swap the cylinder 10 injector with a known-good injector from another cylinder to see if the code moves
- 6 If the injector and wiring test good, test the ECM driver circuit for proper operation
- 7 Replace the faulty injector or repair the wiring as needed, then clear the code and verify the repair



Cylinder 10 injector circuit low current pitfalls

- A low current code often results from a poor connection rather than a failed injector, so always check connector pin tension and corrosion before condemning the injector.
- The ECM may set this code intermittently if the wiring harness rubs against a metal bracket, so inspect the entire harness route for chafing points.
- Cylinder 10 is typically found on V10 or heavy-duty engines, and its injector circuit may share a ground with other injectors, so a single bad ground can affect multiple cylinders.
- Replacing an injector without checking the driver circuit can lead to repeat failures if the ECM driver is weak or damaged.
- This code can be set by a low battery or charging system issue that causes voltage drops, so verify battery and charging system health first.

Can I keep driving with P0288?

You can drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because unburned fuel 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
- Digital multimeter
- Test light
- Oscilloscope (for current ramp testing)
- Socket set and wire terminal tools

Reading P0288

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).
88	The exact fault within that area.

Often seen with

P0200 Injector Circuit Malfunction · **P0287** Cylinder 9 Contribution/Balance · **P0289** Cylinder 10 Injector Circuit High · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected



See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0288/>

