

GENERIC · POWERTRAIN

P0282

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0282

Cylinder 8 Injector Circuit Low

P0282 means the engine computer has detected that the electrical circuit for cylinder 8's fuel injector is drawing less current than expected when the injector is commanded on, indicating a low-current condition such as an open circuit or high resistance. The computer monitors the injector driver circuit and sets this code when the current falls below a calibrated threshold, which can prevent that cylinder from receiving fuel.

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 sensation, especially noticeable at idle or low speeds
- Engine stumble or hesitation during acceleration
- Reduced power and poor fuel economy due to a dead cylinder
- Possible shaking or vibration from the engine bay
- In some cases, a flashing check engine light if the misfire is severe enough to damage the catalytic converter

Common causes, most likely first

- 1 Open or high-resistance wiring in the injector circuit, such as a broken wire or corroded connector
- 2 Faulty fuel injector with an open internal coil or high resistance
- 3 Poor electrical connection at the injector harness connector, including loose pins or water intrusion
- 4 Damaged or chafed wire harness shorting to ground or another circuit
- 5 Failed engine control module (ECM) injector driver, though less common
- 6 Aftermarket or damaged injector with incorrect resistance
- 7 Corrosion or damage at the ECM connector affecting the injector control circuit



How to diagnose and fix it

- 1 Inspect the injector harness connector for corrosion, loose pins, or damage and clean or repair as needed
- 2 Measure the resistance of the cylinder 8 injector with a multimeter and compare to specification; replace if out of range
- 3 Check the injector circuit wiring for continuity and resistance from the ECM connector to the injector, repairing any open or high-resistance faults
- 4 Test the injector driver signal with a noid light or oscilloscope to confirm the ECM is commanding the injector
- 5 Swap the cylinder 8 injector with a known-good injector from another cylinder to see if the code moves, confirming an injector fault
- 6 Inspect the ECM connector and pins for corrosion or damage, and repair or replace as necessary
- 7 If all else checks out, diagnose the ECM driver circuit or replace the ECM as a last resort

Low current does not always mean a bad injector

- A loose or corroded injector connector often causes P0282 without any driveability symptoms, so always inspect connectors before condemning the injector.
- The code can be set by a wiring problem anywhere between the ECM and the injector, including a chafed wire under the intake manifold or near sharp edges.
- A failed injector coil can test fine when cold but open up when hot, so resistance checks should be done both cold and after warming the engine.
- Some vehicles use a resistor box or injector driver module that can fail and set this code, so consult the specific vehicle's wiring diagram before replacing parts.
- P0282 is often accompanied by a misfire code for cylinder 8, but the absence of a misfire code does not rule out an injector circuit problem.

Can I keep driving with P0282?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a dead cylinder can overheat the catalytic converter. If the check engine light is flashing, stop driving and have the vehicle towed to prevent catalytic converter damage.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Noid light or injector test light
- Oscilloscope (optional but helpful)
- Wire terminal removal tools
- Factory service information or wiring diagrams



Reading P0282

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

Often seen with

P0208 Injector Circuit/Open - Cylinder 8 · **P0281** Cylinder 7 Contribution/Balance · **P0283** Cylinder 8 Injector Circuit High · **P0308** Cylinder 8 Misfire Detected · **P2149** Fuel Injector Group 'B' Supply Voltage Circuit/Open

See it working

Watch the animated explainer [Four-Stroke Engine Notebook: The Otto Cycle Explained](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0282/>

