

GENERIC · POWERTRAIN

P0279

OBD-II TROUBLE CODE

P0279

Cylinder 7 Injector Circuit Low

P0279 means the engine computer has detected an abnormally low voltage on the electrical circuit that operates the fuel injector for cylinder 7. The computer monitors the injector driver circuit and flags this code when the return signal indicates a short to ground or excessive current draw, preventing proper injector operation.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the injector still fires intermittently
- Rough idle or misfire that may feel like a shake or stumble, particularly noticeable at stoplights
- Loss of power or hesitation during acceleration as cylinder 7 drops out
- Poor fuel economy because the engine runs rich or compensates for the dead cylinder
- A flashing check engine light in severe cases indicating a misfire that can damage the catalytic converter
- Possible rotten egg smell from the exhaust if unburned fuel reaches the converter

Common causes, most likely first

- 1 Faulty fuel injector with an internally shorted coil winding
- 2 Damaged or chafed injector wiring harness shorting to ground
- 3 Corroded or loose electrical connector at the cylinder 7 injector
- 4 Failed engine computer driver circuit for that injector (rare but possible)
- 5 Aftermarket or incorrectly installed injector with wrong resistance
- 6 Moisture intrusion into the injector connector causing a low-resistance path



How to diagnose and fix it

- 1 Inspect the cylinder 7 injector connector and wiring for visible damage, corrosion, or chafing, and repair as needed
- 2 Disconnect the injector and measure resistance across its terminals with a multimeter, comparing to the manufacturer's specification
- 3 With the injector disconnected and key on, check for battery voltage on the power feed wire and no voltage on the ground control wire
- 4 Use a noid light or oscilloscope to verify the computer is pulsing the injector ground circuit properly
- 5 Check the injector circuit for a short to ground by measuring resistance from the control wire to chassis ground with the computer disconnected
- 6 Replace the faulty injector if resistance is out of spec or the coil is shorted, then clear the code and verify the repair
- 7 If the circuit tests good and the injector is fine, diagnose the engine computer driver circuit or replace the computer as a last resort

Why cylinder 7 injector codes mislead

- A shorted injector can still click audibly when tested with a stethoscope, so listening for a click does not rule out an electrically failed injector.
- The code sets based on current flow, not fuel delivery, so a clogged but electrically good injector will not trigger P0279.
- Wiring harness damage near the intake manifold or valve cover is a common cause that gets missed when technicians replace the injector without inspecting the loom.
- A low-voltage injector circuit can be caused by a weak battery or charging system, so always verify system voltage before condemning the injector.
- On some engines, a failed injector driver in the computer can mimic a shorted injector, and swapping the injector to another cylinder helps confirm the fault location.

Can I keep driving with P0279?

You can usually drive a short distance 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 converter damage.



Tools that help

- OBD-II scan tool
- Digital multimeter
- Noid light or oscilloscope
- Stethoscope or mechanic's stethoscope
- Socket set and trim removal tools
- Electrical contact cleaner and dielectric grease

Reading P0279

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).
79	The exact fault within that area.

Often seen with

P0207 Injector Circuit/Open - Cylinder 7 · **P0278** Cylinder 6 Contribution/Balance · **P0280** Cylinder 7 Injector Circuit High · **P0307** Cylinder 7 Misfire Detected · **P2149** Fuel Injector Group 'B' Supply Voltage Circuit/Open

See it working

Watch the animated explainer [Helicopter Flight Simulator: Learn the Three Controls](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0279/>

