

GENERIC · POWERTRAIN

P02C8

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P02C8

Cylinder 12 - Injector Restricted

P02C8 indicates that the engine control module has detected a restricted fuel injector on cylinder 12, meaning the injector is not delivering the expected amount of fuel for the commanded pulse width. The computer typically compares crankshaft speed fluctuations or fuel trim corrections and flags this code when the imbalance exceeds a calibrated threshold.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or noticeable vibration, especially when the engine is cold
- Misfire-like shudder or hesitation during acceleration
- Reduced engine power or poor fuel economy
- A distinct ticking or tapping noise from the affected cylinder bank
- Hard starting or extended cranking before the engine fires

Common causes, most likely first

- 1 Clogged or restricted fuel injector nozzle due to deposits
- 2 Failed injector solenoid or internal mechanical wear
- 3 Wiring harness damage or poor electrical connection at the injector
- 4 Contaminated fuel or debris in the fuel rail
- 5 Low fuel pressure from a weak pump or restricted filter
- 6 Engine control module software calibration issue or faulty driver circuit

How to diagnose and fix it

- 1 Perform a visual inspection of the injector connector and wiring for damage or corrosion
- 2 Use a scan tool to check fuel trim and misfire counters for cylinder 12
- 3 Run a fuel injector balance test or cylinder contribution test to confirm restriction
- 4 Check fuel pressure and volume to rule out a supply issue
- 5 Clean or replace the suspect fuel injector after confirming the restriction
- 6 Clear the code and verify the repair with a road test and live data review



Why cylinder 12 injector codes mislead

- A restricted injector often sets no drivability symptoms because the engine management compensates with fuel trim, so the warning light may be the only clue.
- Cylinder 12 is typically found on V12 engines, but some manufacturers number cylinders differently, so always confirm the firing order before condemning an injector.
- A clogged injector can be caused by fuel system contamination that affects other cylinders, so replacing only one injector without cleaning the rail may lead to repeat failures.
- Electrical faults in the injector circuit can mimic a restricted injector, so resistance and waveform testing should precede parts replacement.
- The code can be triggered by a marginal fuel pump that only shows low pressure under load, so a static pressure test may pass while the fault remains.

Can I keep driving with P02C8?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a lean cylinder can overheat and cause catalytic converter damage. If the check engine light begins flashing, stop driving and seek immediate service.

Tools that help

- OBD-II scan tool with live data and injector balance capability
- Fuel pressure gauge
- Digital multimeter
- Noid light or injector pulse tester
- Mechanic's stethoscope

Reading P02C8

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).
C8	The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P02C7** Cylinder 12 - Fuel Trim at Min Limit · **P02C9** Cylinder 12 - Injector Leaking · **P0300** Random/Multiple Cylinder Misfire Detected · **P0302** Cylinder 2 Misfire Detected



See it working

Watch the animated explainer [How an Automatic Transmission Works, Gear by Gear](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p02c8/>

