



P2C57

Cylinder 3 Fuel Injector B Offset Learning At Max Limit

P2C57 means the engine control module (ECM) has learned a fuel injector correction value for cylinder 3 that has hit its maximum allowed limit, so it can no longer compensate for the injector's flow error. The ECM stores this code when the injector offset learning value for cylinder 3 stays pegged at the top of its range during the learning routine.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or a slight misfire felt at idle and low engine speeds
- Reduced fuel economy as the ECM struggles to balance cylinder 3
- Hesitation or stumble during light acceleration
- In some cases, a pending misfire code for cylinder 3 stored alongside P2C57

Common causes, most likely first

- 1 Clogged or restricted cylinder 3 fuel injector, reducing flow below the ECM's correction range
- 2 Fuel injector electrical connector corrosion or poor terminal tension at cylinder 3
- 3 Internal injector wear or failure causing an abnormal flow characteristic
- 4 Low fuel pressure or a restricted fuel supply that affects one injector more than others
- 5 Contaminated fuel or fuel system deposits altering injector spray patterns
- 6 ECM software calibration issue or a fault in the injector driver circuit for cylinder 3
- 7 Mechanical issue such as low compression on cylinder 3 that the ECM misinterprets as an injector offset problem



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P2C57 and any companion misfire or fuel trim codes
- 2 Inspect the cylinder 3 injector connector and harness for corrosion, chafing, or loose terminals
- 3 Measure fuel pressure and compare it to specification to rule out a supply-side restriction
- 4 Perform an injector balance or cylinder contribution test to compare cylinder 3 flow against the others
- 5 Run the manufacturer's injector offset learning reset and relearn procedure after any repair
- 6 Replace the cylinder 3 fuel injector if flow testing confirms it is out of range, then clear codes and verify learning completes
- 7 If the code returns after injector replacement, check compression and valve operation on cylinder 3 before condemning the ECM

What the offset learning limit really means

- The offset learning value is a correction the ECM applies to the injector pulse width, so hitting the max limit means the ECM has run out of adjustment rather than that the injector has failed outright.
A dirty or partially clogged injector is the most common cause, and professional cleaning sometimes restores flow enough to bring the learned value back into range without replacement.
- Technicians who replace the injector without resetting and relearning the offset values often see the code return immediately because the ECM is still working from the old learned data.
- Low compression or a valve problem on cylinder 3 can mimic an injector offset fault, so a compression test belongs in the diagnostic path before parts are thrown at the car.
This code can set intermittently and clear itself after a few drive cycles, which tempts drivers to ignore it, but the underlying flow error usually worsens over time.

Can I keep driving with P2C57?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration and towing because a lean-running cylinder can overheat and damage components. If the check engine light starts flashing or you feel a strong misfire, stop driving and have the vehicle towed.

Tools that help

- OBD-II scan tool with bidirectional control and freeze-frame capability
- Fuel pressure gauge
- Digital multimeter for injector circuit testing
- Injector balance or cylinder contribution tester
- Basic hand tools for injector removal and connector access



Reading P2C57

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- C** Hybrid propulsion.
- 57** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0203** Injector Circuit Malfunction - Cylinder 3 · **P0303** Cylinder 3 Misfire Detected · **P2C56** Cylinder 3 Fuel Injector B Offset Learning At Min Limit · **P2C58** Cylinder 4 Fuel Injector B Offset Learning At Min Limit

See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2c57/>

