

GENERIC · POWERTRAIN

P219E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P219E

Cylinder 3 Air-Fuel Ratio Imbalance

P219E indicates that the powertrain control module (PCM) has detected a significant air-fuel ratio imbalance on cylinder 3, meaning that cylinder is not contributing its share of power or is running either too rich or too lean compared to the others. The computer monitors crankshaft speed fluctuations and oxygen sensor feedback to identify which cylinder is misfiring or imbalanced, and it sets this code when the deviation exceeds a calibrated threshold.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or shaking that may be more pronounced when the engine is cold
- Noticeable misfire or hesitation during acceleration
- Decreased fuel economy and reduced engine power
- Shaking or vibration felt through the steering wheel or seat
- 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 Faulty fuel injector on cylinder 3 (clogged, leaking, or stuck open/closed)
- 2 Ignition coil or spark plug failure specific to cylinder 3
- 3 Vacuum leak at the intake manifold runner or gasket near cylinder 3
- 4 Mechanical issue such as low compression, worn rings, or valve problems on cylinder 3
- 5 Wiring or connector fault in the fuel injector or ignition coil circuit for cylinder 3
- 6 Exhaust leak before the oxygen sensor affecting cylinder-specific fuel trim
- 7 Contaminated fuel or fuel pressure problem affecting one cylinder more than others



How to diagnose and fix it

- 1 Perform a visual inspection of the engine bay for disconnected hoses, damaged wiring, or obvious intake leaks near cylinder 3
- 2 Use a scan tool to check for stored misfire codes and freeze-frame data, and verify fuel trims and oxygen sensor readings
- 3 Swap the ignition coil and spark plug from cylinder 3 to another cylinder to see if the misfire moves, confirming a faulty component
- 4 Test the fuel injector for cylinder 3 with a noid light or by listening with a stethoscope, and compare its resistance to the others
- 5 Run a compression test and a cylinder leak-down test on cylinder 3 to rule out mechanical problems
- 6 Check fuel pressure and inspect for vacuum leaks using a smoke machine or carburetor cleaner around intake gaskets
- 7 If the injector is suspected, have it professionally cleaned or replaced, and recheck the code after clearing

Cylinder 3 imbalance is not always a bad injector

- A vacuum leak at the intake manifold gasket can cause a lean condition on a single cylinder, mimicking a faulty injector and setting P219E without any injector problem.
- A worn spark plug or failing ignition coil on cylinder 3 often produces a misfire that the computer interprets as an air-fuel imbalance, so always inspect ignition components first.
- Low compression from a sticking valve or worn piston rings can cause a persistent imbalance that no amount of fuel system repair will fix, so a compression test is essential.
- The code can be set by a dirty mass airflow sensor (MAF) that misreports airflow, leading the PCM to deliver incorrect fuel to one cylinder, so check MAF readings before replacing parts.
- After repairs, the PCM may need several drive cycles to relearn fuel trims and turn off the light, so do not assume the fix failed if the code returns immediately after clearing.

Can I keep driving with P219E?

You can drive the vehicle with P219E, but avoid heavy acceleration and prolonged driving, especially if the check engine light is flashing, as a persistent misfire can overheat and damage the catalytic converter. Have the fault diagnosed promptly to prevent worsening performance and costly repairs.

Tools that help

- OBD-II scan tool with live data and misfire monitoring
- Compression tester
- Noid light or stethoscope for injector testing
- Vacuum gauge or smoke machine
- Basic hand tools (socket set, screwdrivers, pliers)



Reading P219E

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 1** Fuel and air metering.
- 9E** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0174** System Too Lean (Bank 2) · **P0303** Cylinder 3 Misfire Detected · **P219C** Cylinder 1 Air-Fuel Ratio Imbalance · **P219D** Cylinder 2 Air-Fuel Ratio Imbalance

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p219e/>

