

GENERIC · POWERTRAIN

# P219B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P219B

### Bank 2 Air-Fuel Ratio Imbalance

P219B indicates that the powertrain control module has detected a significant air-fuel ratio imbalance on bank 2, meaning the exhaust from that bank is either too rich or too lean compared to what the computer commands. The computer monitors the bank 2 oxygen sensor signals and fuel trim corrections, and it sets this code when the imbalance exceeds a calibrated threshold for a sustained period.

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

### Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or engine misfire, especially when the engine is cold
- Reduced fuel economy and a rich exhaust smell
- Hesitation or stumble during acceleration
- Black smoke from the tailpipe in severe rich conditions
- In rare cases, engine knock or overheating if the imbalance causes extreme lean operation

### Common causes, most likely first

- 1 Leaking or stuck-open fuel injector on bank 2
- 2 Vacuum leak affecting bank 2 only, such as a cracked intake manifold gasket or broken vacuum hose
- 3 Faulty bank 2 oxygen sensor or its wiring, causing inaccurate feedback
- 4 Exhaust leak before the bank 2 oxygen sensor, allowing outside air to skew readings
- 5 Low fuel pressure or a weak fuel pump that affects bank 2 more than bank 1
- 6 Mechanical engine issues such as low compression or a worn camshaft lobe on bank 2
- 7 Contaminated mass air flow sensor or dirty throttle body causing uneven air distribution



## How to diagnose and fix it

- 1 Scan all stored codes and freeze-frame data to confirm P219B is the primary fault and not a secondary effect.
- 2 Inspect the bank 2 intake tract and vacuum lines for leaks using a smoke machine or carburetor cleaner.
- 3 Check fuel pressure and inspect bank 2 fuel injectors for leaks or clogging with a balance test.
- 4 Examine the bank 2 oxygen sensor signal and wiring for corrosion, chafing, or slow response.
- 5 Perform a compression test and cylinder leak-down test on bank 2 to rule out mechanical problems.
- 6 Verify that the mass air flow sensor is clean and reading accurately, and clean the throttle body if needed.
- 7 After repairs, clear codes and drive the vehicle through a complete drive cycle to confirm the imbalance is resolved.

## Bank 2 imbalance traps you should not fall into

- A P219B can be set by a simple exhaust leak before the oxygen sensor, which is often overlooked because the leak may be small and quiet.
- Technicians sometimes replace the bank 2 oxygen sensor first, but a skewed sensor reading is more often a symptom of an underlying fuel or air issue.
- Fuel injector balance problems on bank 2 can be intermittent and may not show up in static resistance tests, requiring a running injector balance test.
- The code does not always mean a major mechanical failure; a dirty mass air flow sensor or a loose intake clamp can cause enough imbalance to trigger it.
- Bank 2-specific issues are sometimes caused by a failing intake manifold gasket that only leaks when the engine is cold, so a cold-start smoke test is valuable.

## Can I keep driving with P219B?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a persistent imbalance can damage the catalytic converter over time. If the check engine light is flashing or you notice severe misfiring, stop driving and seek immediate service.

## Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Smoke machine for intake and exhaust leak detection
- Fuel pressure gauge and injector balance tester
- Digital multimeter for sensor and wiring checks
- Compression tester and cylinder leak-down tester



### Reading P219B

- 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.
- 9B** The exact fault within that area.

### Often seen with

**P0171** System Too Lean (Bank 1) · **P0172** System Too Rich (Bank 1) · **P219A** Bank 1 Air-Fuel Ratio Imbalance · **P219C** Cylinder 1 Air-Fuel Ratio Imbalance · **P219D** Cylinder 2 Air-Fuel Ratio Imbalance

### See it working

Watch the animated explainer [How a Turbocharger Works, Step by Step](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p219b/>

