

GENERIC · POWERTRAIN

P2B04

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2B04

Cylinder 5 Injection Pulse Performance

P2B04 indicates that the powertrain control module (PCM) has detected an abnormal injection pulse performance for cylinder 5, meaning the electrical signal or the resulting fuel delivery does not match expected values. The PCM monitors the injector circuit and combustion efficiency, and when the pulse width or current feedback falls outside the calibrated range, it sets this code.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Hybrid propulsion

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire sensation, especially when the engine is cold
- Noticeable loss of power or hesitation during acceleration
- Increased fuel consumption due to improper fuel delivery
- Possible engine vibration or shaking at steady speeds

Common causes, most likely first

- 1 Faulty or clogged fuel injector on cylinder 5
- 2 Damaged or corroded wiring or connector at the cylinder 5 injector
- 3 Open or shorted injector coil winding
- 4 PCM internal driver circuit fault for the injector
- 5 Low fuel pressure or restricted fuel supply affecting all cylinders but most noticeable on one
- 6 Mechanical engine issue such as low compression on cylinder 5

How to diagnose and fix it

- 1 Perform a visual inspection of the cylinder 5 injector connector and wiring for damage or corrosion
- 2 Use a scan tool to check for related misfire codes and freeze-frame data to confirm the fault conditions
- 3 Measure the resistance of the cylinder 5 injector and compare it to the manufacturer's specification
- 4 Check fuel pressure and volume to rule out a supply issue
- 5 Swap the cylinder 5 injector with a known-good injector from another cylinder to see if the code follows
- 6 Perform a compression test or cylinder leak-down test to rule out mechanical problems
- 7 If the injector and wiring test good, diagnose the PCM driver circuit with an oscilloscope or replace the PCM as a last resort



Don't overlook injector wiring and connectors

- A common oversight is assuming the injector itself is faulty when the real problem is a chafed wire or a corroded terminal that only acts up when the engine is hot or vibrating.
- This code can be set by a fuel pressure problem that affects all cylinders, but cylinder 5 may be the first to show because of its position in the fuel rail or slightly lower compression.
- A stuck-open injector can cause a rich condition and set P2B04, but it may also produce black smoke and fouled spark plugs that are often misdiagnosed as ignition problems.
- Some vehicles use injector pulse width modulation for other functions, so a failing component like a fuel pump control module can indirectly cause this code without any injector fault.
- Always check for technical service bulletins (TSBs) for the specific vehicle, as some manufacturers have known issues with injector connectors or PCM software that can trigger this code.

Can I keep driving with P2B04?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing, as prolonged driving with a misfiring cylinder can damage the catalytic converter. If the check engine light is flashing, stop driving immediately and seek professional help.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Fuel pressure gauge
- Noid light or injector pulse tester
- Oscilloscope (for advanced diagnostics)
- Compression tester

Reading P2B04

P Powertrain: engine, transmission and emissions.

2 Generic (SAE) code: it means the same thing on every OBD-II vehicle.

B Hybrid propulsion.

04 The exact fault within that area.

Often seen with

P0205 Injector Circuit/Open - Cylinder 5 · **P0261** Cylinder 1 Injector Circuit Low · **P0264** Cylinder 2 Injector Circuit Low · **P0305** Cylinder 5 Misfire Detected · **P2B03** Cylinder 4 Injection Pulse Performance



See it working

Watch the animated explainer [How a Helicopter Flies: Rotor and Tail in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2b04/>

