

GENERIC · POWERTRAIN

**P0304**

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

**P0304**

## Cylinder 4 Misfire Detected

P0304 means the engine computer has detected a misfire on cylinder 4, typically by monitoring crankshaft speed fluctuations that indicate that cylinder is not contributing power evenly. The computer sets this code when the misfire exceeds a threshold that could damage the catalytic converter or affect emissions.

SYSTEM

**Powertrain**

CODE TYPE

**Generic (all makes)**

SEVERITY

**Medium**

FIX DIFFICULTY

**Intermediate**

AREA

**Ignition system and misfire**

### Symptoms you may notice

- Engine runs rough or shakes, especially at idle or under light acceleration
- Noticeable loss of power or hesitation when accelerating
- Check engine light is on, sometimes flashing if the misfire is severe
- Often no symptoms besides the warning light, especially if the misfire is intermittent
- Poor fuel economy or a strong fuel smell from the exhaust
- Shaking or vibration felt through the steering wheel or seat

### Common causes, most likely first

- 1 Worn or fouled spark plug in cylinder 4
- 2 Faulty ignition coil or spark plug wire for cylinder 4
- 3 Clogged or leaking fuel injector for cylinder 4
- 4 Vacuum leak near cylinder 4 intake port
- 5 Low compression due to worn rings, valves, or head gasket
- 6 Faulty crankshaft position sensor or reluctor wheel (less common)
- 7 Wiring or connector issue to the cylinder 4 ignition coil or injector

### How to diagnose and fix it

- 1 Scan all codes and check for related misfire codes on other cylinders to narrow down the fault
- 2 Inspect the spark plug in cylinder 4 for wear, fouling, or incorrect gap; replace if needed
- 3 Swap the ignition coil from cylinder 4 with a known-good cylinder to see if the misfire moves
- 4 Check the fuel injector for cylinder 4 by listening for clicking or performing a resistance test
- 5 Perform a compression test on cylinder 4 and compare with other cylinders
- 6 Inspect wiring and connectors to the cylinder 4 coil and injector for damage or corrosion
- 7 If the misfire persists, perform a cylinder leak-down test or check for vacuum leaks



## What a P0304 often hides

- A misfire on cylinder 4 can be caused by a faulty ignition coil that tests fine when cold but breaks down when hot, so always test after the engine is fully warmed up.
- Swapping components from cylinder 4 to another cylinder is the fastest way to confirm whether the fault is with the plug, coil, or injector before buying parts.
- A vacuum leak at the intake manifold gasket near cylinder 4 can cause a lean misfire that mimics a bad injector, so a smoke test is often worth doing early.
- Low compression from a worn camshaft lobe or a sticking valve can set a P0304 without any ignition or fuel fault, so compression testing is essential if ignition and fuel checks pass.
- A flashing check engine light with P0304 means the misfire is severe enough to damage the catalytic converter, so driving should be limited until repaired.

## Can I keep driving with P0304?

You can drive cautiously to a repair shop if the check engine light is steady and the engine runs smoothly enough, but avoid hard acceleration and heavy loads. If the light is flashing or the engine shakes violently, stop driving and have the vehicle towed to prevent catalytic converter damage.

## Tools that help

- OBD-II scanner
- Spark plug socket and ratchet
- Compression tester
- Fuel injector tester or noid light
- Vacuum gauge
- Digital multimeter

## Reading P0304

|           |                                                                      |
|-----------|----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                      |
| <b>0</b>  | Generic (SAE) code: it means the same thing on every OBD-II vehicle. |
| <b>3</b>  | Ignition system and misfire.                                         |
| <b>04</b> | The exact fault within that area.                                    |

## Often seen with

**P0171** System Too Lean (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0302** Cylinder 2 Misfire Detected · **P0303** Cylinder 3 Misfire Detected



### See it working

Watch the animated explainer **Four-Stroke Engine Cutaway: Intake to Exhaust** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0304/>

