

NISSAN · POWERTRAIN

P1203

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

## P1203 · Nissan

### Cylinder 3 Misfire

P1203 on Nissan vehicles indicates that the engine control module has detected a misfire specifically on cylinder 3, typically by monitoring crankshaft speed fluctuations. This means cylinder 3 is not contributing power evenly, which can be caused by ignition, fuel, or mechanical faults.

| SYSTEM     | CODE TYPE       | SEVERITY | FIX DIFFICULTY | AREA                                      |
|------------|-----------------|----------|----------------|-------------------------------------------|
| Powertrain | Nissan specific | Medium   | Intermediate   | Fuel and air metering (injector circuits) |

### Symptoms you may notice

- Engine runs rough or shakes, especially at idle or during acceleration
- Noticeable loss of power and poor throttle response
- Check engine light may be steady or flashing if the misfire is severe
- Often no symptoms besides the warning light, particularly during light-load cruising
- Poor fuel economy or a fuel smell from the exhaust
- Shaking or vibration felt through the steering wheel and seat

### Common causes, most likely first

- 1 Worn or fouled spark plug in cylinder 3
- 2 Failed ignition coil or coil-on-plug boot for cylinder 3
- 3 Faulty fuel injector for cylinder 3 (clogged, leaking, or electrically open)
- 4 Vacuum leak at the intake manifold runner for cylinder 3
- 5 Low compression due to worn piston rings, valves, or head gasket issue on cylinder 3
- 6 Wiring damage or loose connector at the cylinder 3 injector or coil
- 7 Carbon buildup on intake valves causing poor airflow to cylinder 3

### How to diagnose and fix it

- 1 Scan all stored codes and freeze-frame data to confirm misfire counts and operating conditions
- 2 Swap the ignition coil and spark plug from cylinder 3 with a known-good cylinder to see if the misfire moves
- 3 Inspect the spark plug condition and gap, and replace if worn or fouled
- 4 Perform a cylinder balance test or check misfire counters with a scan tool to isolate the fault
- 5 Test the fuel injector for cylinder 3 with a noid light or injector balance test
- 6 Check for vacuum leaks at the intake manifold and inspect injector seals
- 7 Run a compression test and leak-down test on cylinder 3 to rule out mechanical faults



## Don't assume it's just a bad coil

- A misfire code for a single cylinder often results from a swapped injector connector or a pinched wire during previous repairs, so always inspect harness routing near cylinder 3.
- Nissan engines with direct injection are prone to carbon buildup on intake valves, which can cause a persistent cylinder 3 misfire that ignition parts won't fix.
- A flashing check engine light means the misfire is severe enough to damage the catalytic converter, so stop driving and repair immediately.
- The code may set intermittently due to a failing coil that only breaks down under high load or heat, so test the coil when the engine is hot.
- Low compression from a worn valve seat or piston ring can mimic an ignition misfire, so a compression test is essential before replacing expensive parts.

## Can I keep driving with P1203?

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

## Tools that help

- OBD-II scan tool with misfire counter and freeze-frame capability
- Spark plug socket and torque wrench
- Ignition coil puller or boot pliers
- Compression gauge
- Noid light or injector balance tester
- Vacuum gauge

## Reading P1203

|           |                                                                       |
|-----------|-----------------------------------------------------------------------|
| <b>P</b>  | Powertrain: engine, transmission and emissions.                       |
| <b>1</b>  | Manufacturer-specific code (Nissan): its meaning depends on the make. |
| <b>2</b>  | Fuel and air metering (injector circuits).                            |
| <b>03</b> | The exact fault within that area.                                     |



## Often seen with

**P1204** Cylinder 4 Fuel Injector Circuit Electrical Malfunction · **P1201** Cylinder 1 Fuel Injector Circuit Electrical Malfunction · **P1202** Cylinder 2 Fuel Injector Circuit Electrical Malfunction · **P1204** Cylinder 4 Misfire · **P1201** Cylinder 1 Misfire · **P1202** Cylinder 2 Misfire · **P1204** Cylinder 4 Injector Circuit Open/Shorted · **P1201** Cylinder 1 Injector Circuit Open/Shorted · **P1202** Cylinder 2 Injector Circuit Open/Shorted · **P1201** Cylinder 1 Misfire · **P1204** Cylinder 4 Misfire · **P1202** Cylinder 2 Misfire · **P1202** Alternative Fuel Gas Mass Sensor Circuit Low Frequency · **P1201** Alternative Fuel Gas Mass Sensor Circuit Range Performance · **P1202** (Alternative Fuel) Gas Mass Sensor Circuit Low Frequency · **P1201** (Alternative Fuel) Gas Mass Sensor Circuit Range/Performance · **P0300** Random/Multiple Cylinder 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/nissan-p1203/>

