

NISSAN · POWERTRAIN

P1304

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1304 · Nissan

Cylinder 4 Misfire

P1304 on Nissan vehicles means the engine control module (ECM) has detected a misfire specifically on cylinder 4, usually by monitoring crankshaft speed fluctuations that indicate that cylinder is not contributing power evenly. The ECM sets this code when the misfire exceeds a calibrated threshold, often counting misfire events over a specific number of engine cycles.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Nissan specific	High	Intermediate	Ignition system and misfire

Symptoms you may notice

- Check engine light illuminated, often flashing if the misfire is severe
- Noticeable engine shake or vibration at idle, especially when cold
- Rough running or hesitation during acceleration
- Reduced power and poor fuel economy
- Often no symptoms besides the warning light when the misfire is intermittent
- Possible rotten egg smell from the exhaust if unburned fuel reaches the catalytic converter

Common causes, most likely first

- 1 Worn or fouled spark plug on cylinder 4
- 2 Failed ignition coil or coil-on-plug boot for cylinder 4
- 3 Faulty fuel injector for cylinder 4 (clogged, leaking, or electrically open)
- 4 Vacuum leak at the intake manifold runner or gasket near cylinder 4
- 5 Low compression on cylinder 4 due to worn rings, valves, or head gasket
- 6 Damaged wiring or connector to the cylinder 4 coil or injector
- 7 Mechanical valvetrain issue such as a collapsed lifter or worn cam lobe on cylinder 4



How to diagnose and fix it

- 1 Scan all stored and pending codes, then swap the cylinder 4 ignition coil with a known-good coil from another cylinder and see if the misfire moves
- 2 Remove and inspect the cylinder 4 spark plug for wear, fouling, or incorrect gap, and replace if needed
- 3 Perform a cylinder balance test or use a scan tool to monitor misfire counters per cylinder while disabling injectors one at a time
- 4 Check for vacuum leaks around the intake manifold and cylinder 4 runner using a smoke machine or carb cleaner
- 5 Measure fuel injector resistance and listen for injector clicking; swap the cylinder 4 injector with another cylinder to see if the misfire follows
- 6 Run a compression test and, if low, a cylinder leak-down test on cylinder 4 to rule out mechanical faults
- 7 Inspect the wiring harness and connectors at the cylinder 4 coil and injector for chafing, corrosion, or loose pins

What Nissan technicians check before replacing parts

- A flashing check engine light with P1304 means the misfire is severe enough to damage the catalytic converter, so stop driving and diagnose immediately rather than clearing the code.
- Nissan engines are known for ignition coil failures that often start as an intermittent misfire when hot or under load, so swapping coils between cylinders is the fastest way to confirm the fault.
- A vacuum leak at the intake manifold gasket can cause a single-cylinder misfire that mimics a bad injector or coil, so always smoke-test the intake before condemning ignition parts.
- On some Nissan models, a dirty or failing mass airflow sensor can skew fuel trims and set a cylinder-specific misfire code even though the root cause is not on that cylinder.
- Low compression from a worn valve seat or piston ring on cylinder 4 will set P1304 repeatedly after parts are replaced, so a compression test should be part of the initial diagnosis.

Can I keep driving with P1304?

Do not continue driving if the check engine light is flashing, because raw fuel in the exhaust can quickly overheat and destroy the catalytic converter. If the light is steady and the engine runs smoothly, you can drive cautiously to a repair shop, but avoid hard acceleration and towing.

Tools that help

- OBD-II scan tool with live misfire data and cylinder balance capability
- Spark plug socket and torque wrench
- Compression gauge
- Vacuum smoke machine
- Digital multimeter for injector and coil testing
- Mechanic's stethoscope or noid light for injector pulse testing



Reading P1304

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Nissan): its meaning depends on the make.
- 3** Ignition system and misfire.
- 04** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0172** System Too Rich (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0304** Cylinder 4 Misfire Detected · **P0420** Catalyst System Efficiency Below Threshold (Bank 1)

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-p1304/>

