



P1300 · Nissan

Random Misfire

P1300 on Nissan vehicles indicates that the engine control module (ECM) has detected a random misfire across multiple cylinders, meaning combustion is not occurring consistently in any predictable pattern. The ECM monitors crankshaft speed fluctuations and flags this code when the variation exceeds a calibrated threshold without isolating a specific cylinder.

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

Symptoms you may notice

- Check engine light illuminated, often flashing if the misfire is severe
- Rough idle or shaking felt through the steering wheel and seat
- Hesitation or stumbling during acceleration
- Reduced engine 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 plugs and ignition coils
- 2 Vacuum leaks from cracked intake hoses or a failed intake manifold gasket
- 3 Dirty or failing fuel injectors causing uneven fuel delivery
- 4 Low fuel pressure from a weak fuel pump or clogged fuel filter
- 5 Faulty mass air flow (MAF) sensor sending incorrect air readings
- 6 Mechanical issues such as low compression or a slipped timing chain
- 7 EGR valve stuck open causing lean misfire at idle

How to diagnose and fix it

- 1 Scan all stored and pending codes with a capable OBD-II scanner and record freeze-frame data
- 2 Inspect spark plugs and ignition coils for wear, cracks, or oil fouling and replace as needed
- 3 Perform a propane or smoke test to check for vacuum leaks around the intake manifold and hoses
- 4 Measure fuel pressure and compare to Nissan specifications; replace the fuel filter if restricted
- 5 Clean or replace the MAF sensor and verify its readings with live data
- 6 Run a compression test and cylinder leak-down test to rule out mechanical faults
- 7 Check the EGR valve for carbon buildup or a stuck-open condition and clean or replace it



Random misfire traps Nissan technicians see

- A P1300 often appears alongside P0300, and technicians who replace all coils without checking fuel pressure or vacuum leaks frequently miss the real cause.
- Nissan engines with variable valve timing can set P1300 when the camshaft position sensor signal is erratic, even though the misfire feels ignition-related.
- Intermittent misfires that only occur when cold are commonly caused by carbon buildup on intake valves in direct-injection Nissan engines, not by spark plugs.
- A failing crankshaft position sensor can produce a random misfire code because the ECM cannot accurately detect cylinder timing, so always inspect its wiring and reluctor ring.
- Do not assume a flashing check engine light always means a dead cylinder; a severe vacuum leak can cause a random misfire that flashes the light without any ignition fault.

Can I keep driving with P1300?

If the check engine light is flashing, stop driving immediately and have the vehicle towed, as raw fuel can destroy the catalytic converter. If the light is steady and the engine runs smoothly, you may drive cautiously to a repair shop, but avoid hard acceleration and prolonged idling.

Tools that help

- OBD-II scanner with live data and freeze-frame capability
- Spark plug socket and torque wrench
- Vacuum gauge or smoke machine
- Fuel pressure test kit
- Compression tester
- Digital multimeter

Reading P1300

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Nissan): its meaning depends on the make.
3	Ignition system and misfire.
00	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 · **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-p1300/>

