

NISSAN · POWERTRAIN

P1201

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1201 · Nissan

Cylinder 1 Misfire

P1201 on Nissan vehicles indicates that the engine control module (ECM) has detected a misfire specifically on cylinder number one, based on abnormal crankshaft speed fluctuations. The ECM monitors the crankshaft position sensor signal and flags this code when the firing stroke of cylinder one does not contribute expected power, often leading to illuminated check engine light and possible drivability issues.

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

Symptoms you may notice

- Check engine light illuminated, often flashing if the misfire is severe
- Noticeable engine vibration or shaking, especially at idle or during acceleration
- Rough running or hesitation when accelerating
- Loss of power or reduced fuel economy
- Often no symptoms besides the warning light, especially with mild misfires
- Possible smell of unburned fuel from the exhaust

Common causes, most likely first

- 1 Faulty ignition coil or spark plug on cylinder one
- 2 Worn or fouled spark plug
- 3 Vacuum leak at the intake manifold near cylinder one
- 4 Faulty fuel injector for cylinder one (clogged or electrically failed)
- 5 Low compression due to worn piston rings, valves, or head gasket
- 6 Damaged wiring or connector to the cylinder one ignition coil or injector
- 7 Mechanical valve train issue such as a sticking valve or worn cam lobe



How to diagnose and fix it

- 1 Perform a visual inspection of cylinder one ignition coil, spark plug, and injector connectors for damage or corrosion
- 2 Swap the ignition coil and spark plug from cylinder one to another cylinder and see if the misfire code follows
- 3 Check for vacuum leaks using a smoke machine or carburetor cleaner around the intake manifold
- 4 Test the fuel injector for cylinder one with a noid light or listen for clicking; compare resistance with other injectors
- 5 Perform a compression test on cylinder one and compare with other cylinders; if low, perform a leak-down test
- 6 Inspect the wiring harness to the cylinder one coil and injector for chafing or loose pins
- 7 If all above pass, perform a cylinder balance test or use a scan tool to monitor misfire counters to confirm the fault

Don't overlook these P1201 misfire causes

- A misfire code for cylinder one can be set by a faulty crankshaft position sensor or reluctor wheel, as the ECM relies on those signals to detect misfire; check for debris or damage on the sensor.
- Nissan engines are known for intake manifold gasket leaks that disproportionately affect cylinder one due to its location near the PCV or EGR passages, so a smoke test is more reliable than visual inspection.
- Swapping components between cylinders is the fastest way to isolate an ignition or injector fault, but always clear the codes and recheck after each swap to avoid chasing multiple issues.
- A flashing check engine light indicates a severe misfire that can damage the catalytic converter; do not continue driving if the light is flashing, even if the engine seems to run fine.
- Low compression on cylinder one can be caused by a loose spark plug that has been improperly torqued, leading to a misfire that mimics a bad coil; always check plug torque before condemning internal engine parts.

Can I keep driving with P1201?

You can drive cautiously if the check engine light is steady and the engine runs smoothly, but avoid hard acceleration and heavy loads. If the light flashes or the engine shakes violently, stop driving immediately to prevent catalytic converter damage and further engine harm.

Tools that help

- OBD-II scan tool with misfire counter capability
- Spark plug socket and wrench
- Compression tester
- Vacuum gauge or smoke machine
- Noid light or fuel injector tester
- Digital multimeter



Reading P1201

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

Often seen with

P0171 System Too Lean (Bank 1) · **P0201** Injector Circuit Malfunction - Cylinder 1 · **P0300** Random/Multiple Cylinder Misfire Detected · **P0301** Cylinder 1 Misfire Detected · **P0351** Ignition Coil A Primary/Secondary Circuit Malfunction

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-p1201/>

