

NISSAN · POWERTRAIN

P1246

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1246 · Nissan

Accelerator Position Sensor 1 Circuit Malfunction

P1246 on Nissan vehicles means the engine control module (ECM) has detected an abnormal signal from accelerator position sensor 1, which is the primary pedal-position input used for throttle control. The ECM compares this signal against sensor 2 and the expected voltage range, and it sets the code when the two disagree or the signal falls outside valid limits.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- The check engine light or electronic throttle control warning light illuminates steadily.
- The engine may enter limp mode, limiting RPM to roughly 1,000–1,500 and restricting acceleration.
- The accelerator pedal may feel unresponsive or require unusually heavy pressure to accelerate.
- Engine idle may be erratic or higher than normal because the ECM cannot trust the pedal signal.
- Cruise control may stop working or refuse to engage.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Dirty or worn accelerator pedal position sensor tracks inside the pedal assembly.
- 2 Loose, corroded, or chafed wiring in the accelerator pedal sensor circuit.
- 3 Poor electrical connection at the pedal sensor connector or the ECM connector.
- 4 Failed accelerator pedal assembly, where sensor 1 and sensor 2 no longer track each other correctly.
- 5 ECM software calibration issue or internal ECM fault, though this is less common.
- 6 Water intrusion or debris in the pedal sensor connector causing signal interference.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data for P1246 before clearing anything.
- 2 Inspect the accelerator pedal connector and wiring for corrosion, loose pins, or chafing, and repair as needed.
- 3 Back-probe sensor 1 and sensor 2 signal wires at the pedal and compare their voltages through the full pedal travel; they should move in opposite directions and stay within specification.
- 4 Check reference voltage and ground at the pedal sensor connector to rule out a supply or ground fault.
- 5 If the pedal signals are inconsistent or out of range, replace the accelerator pedal assembly and perform the idle and pedal relearn procedure with a scan tool.
- 6 If the pedal and wiring test good, check for ECM software updates or, as a last resort, test the ECM.
- 7 Clear codes, road-test the vehicle through several ignition cycles, and confirm P1246 does not return.

What Nissan pedal codes really mean

- A P1246 is often caused by a dirty or worn track inside the pedal assembly rather than a failed ECM, so replacing the computer first is a costly misdiagnosis.
- The two accelerator position sensors are designed to read opposite voltages; a technician who checks only sensor 1 will miss a correlation fault that sets this code.
- Intermittent P1246 codes frequently trace to a loose pedal connector or chafed harness near the pedal bracket, not to the sensor itself.
- After replacing the pedal assembly, a Nissan consult-style scan tool is usually needed to perform the accelerator pedal released position learning, or the code may reset immediately.
- A weak battery or poor ground can cause voltage glitches that mimic a pedal sensor fault, so always verify charging system health before condemning parts.

Can I keep driving with P1246?

You can usually drive the vehicle to a shop, but expect reduced power and possible limp mode; avoid highway merging, heavy traffic, and any situation that requires sudden acceleration until the fault is repaired.

Tools that help

- OBD-II scan tool with live data and Nissan-specific capabilities
- Digital multimeter with back-probe pins
- Wiring diagram for the accelerator pedal circuit
- Basic hand tools for trim and pedal assembly removal
- Nissan consult-style scan tool or equivalent for relearn procedures



Reading P1246

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

Often seen with

P1247 Needle Lift Sensor Circuit Open/Short To B+ · **P1247** Accelerator Position Sensor 2 Circuit Malfunction · **P1247** Accelerator Position Sensor 2 Circuit Malfunction · **P1247** Turbo Boost Pressure Low · **P0222** Throttle Position Sensor B Circuit Low Input · **P2122** Accelerator Pedal Position Sensor D Circuit Low · **P2127** Accelerator Pedal Position Sensor E Circuit Low · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation

See it working

Watch the animated explainer [How the PCV System Works: Crankcase Ventilation](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1246/>

