

NISSAN · POWERTRAIN

P1220

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1220 · Nissan

Fuel Pump Control Signal Fault

P1220 on Nissan vehicles means the engine control module (ECM) has detected an abnormal signal on the fuel pump control circuit, so it cannot properly command the fuel pump module. The ECM monitors the control wire for expected voltage or current feedback and sets the code when the signal is out of range, which can interrupt fuel delivery.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Fuel and air
metering (injector
circuits)

Symptoms you may notice

- Engine cranks but does not start or starts only after long cranking
- Engine stalls shortly after starting or during deceleration
- Reduced engine power or limp mode with the check engine light on
- Fuel pump does not prime when the ignition is turned on
- Intermittent no-start that may temporarily resolve after waiting
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- 1 Failed fuel pump control module (often mounted near the fuel tank or in the trunk)
- 2 Damaged or corroded wiring between the ECM and fuel pump control module
- 3 Poor ground connection for the fuel pump control module or fuel pump
- 4 Failed fuel pump assembly with an open or shorted internal circuit
- 5 Blown fuse or faulty fuel pump relay in the control circuit
- 6 Corrosion or water intrusion at the fuel pump control module connector
- 7 Rarely, an internal ECM driver fault on the fuel pump control circuit



How to diagnose and fix it

- 1 Scan all modules for stored codes and record freeze-frame data before clearing anything
- 2 Inspect the fuel pump fuse and relay, then verify battery voltage and ground at the fuel pump control module connector
- 3 Check the control signal wire from the ECM to the fuel pump control module for continuity, shorts to ground, and shorts to power
- 4 Command the fuel pump on with a scan tool and listen for pump operation while measuring voltage at the pump connector
- 5 Substitute a known-good fuel pump control module if the signal is present at the module but the pump does not run
- 6 Measure fuel pump current draw and compare to specification to rule out a failing pump motor
- 7 If all external circuits and components test good, check for an ECM software update or internal driver fault before replacing the ECM

What Nissan fuel pump control faults hide

- A failed fuel pump control module often sets P1220 without any fuel pump noise change, so technicians who only listen for the pump prime miss the real fault.
- Corroded pins at the fuel pump control module connector are a common cause on older Nissan models, especially where road salt or water intrusion is present.
- P1220 can be stored intermittently by a wiring harness that rubs through near the fuel tank or rear seat, so a wiggle test of the harness while watching live data is essential.
- Replacing the fuel pump without testing the control signal first is a frequent misdiagnosis; the pump may be fine while the module or wiring is at fault.
- A weak battery or poor ground can cause the ECM to misread the fuel pump control signal, so always verify charging system and ground integrity before condemning parts.

Can I keep driving with P1220?

Do not drive the vehicle with P1220 because the fuel pump may stop without warning, causing a stall at speed or a no-start condition. Have the vehicle towed to a repair facility if it will not start or stalls repeatedly.

Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter with min/max recording
- Wiring diagram for the specific Nissan model
- Test light or fused jumper wire
- Fuel pressure gauge
- Hand tools for trim and connector access



Reading P1220

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

Often seen with

P1221 CAN Communication ETC Or ETS Interrupted · **P1221** Traction Control System · **P1221** Pedal Demand Sensor B Circuit Range Performance · **P1221** Throttle Position (TP) Sensor 1 2 Correlation · **P1221** Traction Control System Malfunction · **P1221** Throttle Position (TP) Sensor 1-2 Correlation · **P1221** Pedal Position Sensor 2 Range Performance Problem · **P0087** Fuel Rail/System Pressure - Too Low · **P0230** Fuel Pump Primary Circuit Malfunction · **P0231** Fuel Pump Secondary Circuit Low · **P0232** Fuel Pump Secondary Circuit High

See it working

Watch the animated explainer [How a Fuel Injector Works: Pulse Width and Spray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1220/>

