

NISSAN · POWERTRAIN

P1492

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1492 · Nissan

EVAP Canister Purge Control Solenoid Valve Circuit

P1492 on Nissan vehicles indicates that the engine control module (ECM) has detected an electrical fault in the circuit controlling the EVAP canister purge control solenoid valve. The ECM monitors the voltage or current on the solenoid control wire and flags the code when the signal falls outside the expected range, typically indicating an open, short, or excessive resistance in the circuit.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp) on the dashboard.
- Often no other noticeable symptoms besides the warning light.
- A faint fuel or gasoline odor may be present around the vehicle, especially after refueling.
- Slightly rough idle or hesitation in some cases if the purge valve is stuck open.
- Failed emissions inspection due to the stored trouble code.

Common causes, most likely first

- 1 Faulty EVAP canister purge control solenoid valve (internal electrical failure).
- 2 Damaged or disconnected wiring harness to the purge solenoid (open or short circuit).
- 3 Corroded or loose electrical connector at the purge solenoid.
- 4 Failed engine control module (ECM) driver circuit (rare but possible).
- 5 Vacuum leaks or blockages in the EVAP purge line that indirectly affect solenoid operation (less likely to set P1492 alone).

How to diagnose and fix it

- 1 Use an OBD-II scanner to confirm P1492 and check for any related EVAP codes.
- 2 Visually inspect the purge solenoid, its connector, and wiring for obvious damage, corrosion, or disconnection.
- 3 Measure the resistance of the purge solenoid with a multimeter and compare to the manufacturer's specification (typically 20–30 ohms).
- 4 Check for battery voltage at the solenoid connector with the key on, and verify the control wire from the ECM for continuity and shorts.
- 5 Test the solenoid by applying 12 volts directly to confirm it clicks and opens; replace if it does not.
- 6 If the solenoid and wiring test good, check the ECM driver circuit and replace the ECM only if confirmed faulty.
- 7 Clear the code and perform a drive cycle to verify the repair.

Don't overlook the purge solenoid connector

- A loose or corroded connector at the purge solenoid is a common cause of P1492 that is often missed during visual inspections.
- The purge solenoid may test fine electrically but still set the code due to a poor ground connection at the solenoid mounting point.
- P1492 can be triggered by a faulty ECM driver even when the solenoid and wiring are good, so do not replace the ECM without thorough testing.
- Some Nissan models use a purge solenoid that is part of the canister assembly, making replacement more involved than just the solenoid.
- A stuck-open purge solenoid can cause a rough idle and lean fuel trims, but P1492 specifically indicates an electrical circuit fault, not a mechanical stuck valve.

Can I keep driving with P1492?

The vehicle is generally safe to drive with P1492 because it is an emissions-related fault and does not affect engine performance significantly. However, avoid ignoring the code for extended periods, as it may lead to increased emissions and a failed emissions test.

Tools that help

- OBD-II scanner
- Digital multimeter
- Wire probe set
- Socket set
- Vehicle service manual

Reading P1492

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Nissan): its meaning depends on the make.
4	Auxiliary emission controls.
92	The exact fault within that area.

Often seen with

P0440 Evaporative Emission Control System Malfunction · **P0443** EVAP Purge Control Valve Circuit Malfunction · **P0444** EVAP Purge Control Valve Circuit Open · **P0445** EVAP Purge Control Valve Circuit Shorted · **P0455** EVAP System Leak Detected (Large)



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-p1492/>

