

NISSAN · POWERTRAIN

P1493

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1493 · Nissan

EVAP Canister Purge Control Valve Solenoid Valve

P1493 on Nissan vehicles indicates that the engine control module has detected an electrical fault in the EVAP canister purge control valve solenoid circuit, which is responsible for metering fuel vapor from the charcoal canister into the intake manifold. The computer monitors the solenoid's current draw and response time, and it sets this code when the circuit is open, shorted, or the valve fails to respond as expected.

SYSTEM

Powertrain

CODE TYPE

Nissan specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- A faint fuel or gasoline odor around the vehicle, especially after refueling
- Slightly rough idle or occasional stumble when the purge valve is commanded open
- Difficulty refueling or a fuel nozzle that clicks off repeatedly due to tank pressure issues
- In rare cases, a slight hesitation during light acceleration if the valve sticks open
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Failed EVAP canister purge control valve solenoid (open or shorted coil)
- 2 Damaged, disconnected, or corroded electrical connector at the purge solenoid
- 3 Broken or chafed wiring in the purge solenoid circuit between the ECM and the valve
- 4 Stuck-open or stuck-closed purge valve due to carbon buildup or debris
- 5 Faulty engine control module driver for the purge solenoid circuit (rare)
- 6 Vacuum hose leak or blockage between the purge valve and the intake manifold
- 7 Evaporative emission system pressure sensor fault misreporting purge flow



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related EVAP or misfire codes before proceeding
- 2 Inspect the purge solenoid electrical connector and wiring for corrosion, looseness, or damage
- 3 Measure the resistance of the purge solenoid coil with a multimeter and compare to specification
- 4 Command the purge solenoid on and off with a scan tool and listen for a distinct click from the valve
- 5 Check for vacuum leaks or blockages in the hoses connecting the purge valve to the canister and intake
- 6 If electrical and mechanical checks pass, test the control circuit from the ECM to the solenoid for continuity and shorts
- 7 Replace the purge control valve solenoid if it fails resistance or functional testing, then clear the code and verify repair

Before you replace the purge solenoid

- A stuck-open purge valve can cause a rough idle or stalling at stops because it allows unmetered fuel vapor into the intake, which is often misdiagnosed as a vacuum leak or fuel injector issue.
The purge solenoid is frequently damaged by debris or carbon from the charcoal canister, so replacing the valve without checking for canister deterioration can lead to a repeat failure.
- A loose or corroded ground connection at the purge solenoid mounting point can mimic a failed solenoid, so always check grounds before condemning the part.
- Some Nissan models use a purge valve that is normally closed; if it fails open, the engine may run rich and set fuel trim codes alongside P1493, so check fuel trims during diagnosis.
The ECM driver for the purge solenoid can be damaged by a shorted solenoid coil, so always test the coil resistance before installing a new ECM to avoid repeating the failure.

Can I keep driving with P1493?

You can generally continue driving with P1493 because it rarely affects engine performance or safety, but avoid topping off the fuel tank excessively and have the fault repaired soon to prevent EVAP system pressure issues or a failed emissions test.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Hand vacuum pump
- Socket and ratchet set
- Wiring diagram for the specific Nissan model



Reading P1493

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

Often seen with

P0171 System Too Lean (Bank 1) · **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-p1493/>

