

NISSAN · POWERTRAIN

P1443

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1443 · Nissan

EVAP Canister Control Vacuum Switch Circuit Fault

P1443 on Nissan vehicles indicates that the engine control module has detected an electrical fault in the vacuum switch circuit that monitors the evaporative emission control canister purge system. The switch is supposed to confirm that vacuum is reaching the canister purge control valve when the system is commanded on, and the code sets when the signal from that switch does not match the expected state.

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, often with no other noticeable symptoms.
- A slight fuel odor around the rear of the vehicle if the EVAP system is not sealing properly.
- Occasional rough idle or hesitation if the purge valve is stuck open and allowing unmetered fuel vapor into the intake.
- Failed emissions inspection due to the check engine light being on.
- In rare cases, a faint hissing or whistling noise from the engine bay or near the fuel tank.
- No driveability changes at all in many cases, making the warning light the only clue.

Common causes, most likely first

- 1 Failed vacuum switch itself, often due to a cracked diaphragm or corroded internal contacts.
- 2 Damaged, disconnected, or corroded wiring and connector pins between the vacuum switch and the ECM.
- 3 A leaking or disconnected vacuum hose leading to the switch or the canister purge valve.
- 4 A stuck or failed canister purge control valve that prevents vacuum from reaching the switch.
- 5 A clogged or carbon-fouled EVAP canister that restricts flow and prevents the switch from seeing vacuum.
- 6 A faulty ECM, which is rare but possible after all other causes have been ruled out.



How to diagnose and fix it

- 1 Inspect all vacuum hoses and electrical connectors at the vacuum switch and purge valve for cracks, looseness, or corrosion.
- 2 Use a hand vacuum pump to apply vacuum directly to the switch and confirm it changes state and that the signal reaches the ECM.
- 3 Check the purge control valve for proper operation by commanding it on with a scan tool and listening for a click and verifying vacuum flow.
- 4 Measure resistance and voltage on the switch circuit wires to rule out open or shorted conductors before condemning any component.
- 5 Test the EVAP canister for restrictions by checking flow through the canister ports and replacing it if blocked.
- 6 Replace the faulty vacuum switch or purge valve as needed, then clear the code and verify the repair with a complete drive cycle.
- 7 If all components and circuits test good, perform a pinpoint test for the ECM and replace it only as a last resort.

What the vacuum switch is really telling you

- A common mistake is replacing the vacuum switch when the real problem is a stuck purge valve that never allows vacuum to reach the switch.
- The switch circuit is often misdiagnosed as a purge valve fault because both can set similar codes, so always verify vacuum at the switch before condemning parts.
- Corroded connector pins at the switch are a frequent cause on older Nissans, especially in areas with road salt exposure.
- A leaking fuel cap or filler neck can prevent the EVAP system from building pressure, indirectly causing the switch to report an incorrect state.
- The ECM may set P1443 intermittently if the vacuum hose to the switch is partially collapsed and only blocks flow under certain temperature conditions.

Can I keep driving with P1443?

You can generally continue driving with P1443 because it does not affect engine safety or performance in most cases, but avoid topping off the fuel tank and have the system inspected soon to prevent a small evaporative leak from worsening. If you notice a strong fuel smell or rough running, address it promptly.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Hand vacuum pump with gauge
- Digital multimeter
- Nissan-specific service information for pinpoint tests
- Basic hand tools and socket set



Reading P1443

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

Often seen with

P1444 EGR Valve Position Sensor Range Performance · **P1444** Canister Purge Volume Control Solenoid Valve
 · **P1444** EVAP Purge Flow Sensor Circuit Low Voltage · **P1444** Purge Flow Sensor Circuit Input Low · **P1444**
 Diagnostic Module Tank Leakage DM-TL Pump Control Open Circu · **P0440** Evaporative Emission Control
 System Malfunction · **P0442** EVAP System Leak Detected (Small) · **P0443** EVAP Purge Control Valve Circuit
 Malfunction · **P0455** EVAP System Leak Detected (Large)

See it working

Watch the animated explainer [How Drive-by-Wire Works: Electronic Throttle Body](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1443/>

