



P1457 · Nissan

Evaporative Emission Control System Leak Detected Control Canister System

P1457 on Nissan vehicles means the engine computer has detected a leak in the evaporative emission control system, specifically the control canister circuit that captures and stores fuel vapor. The computer runs a pressure or vacuum test on the sealed system and flags this code when the system cannot hold the expected pressure, indicating a vapor leak.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Nissan specific	Low	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- A faint raw fuel odor around the rear or engine bay after parking
- Difficulty refueling or a fuel nozzle that clicks off repeatedly
- Slightly rough idle or hesitation in rare cases when the purge system is stuck open
- No driveability change in most instances, as the fault is emissions-related

Common causes, most likely first

- 1 A loose, missing, or damaged fuel filler cap
- 2 Cracked or disconnected evaporative emission hose at the canister or purge valve
- 3 Failed canister purge volume control valve stuck open or closed
- 4 Leaking or cracked charcoal canister
- 5 Faulty fuel tank pressure sensor giving false readings
- 6 Corroded or damaged wiring to the canister purge valve or pressure sensor
- 7 Small leak from a rusted fuel tank seam or filler neck



How to diagnose and fix it

- 1 Inspect and tighten or replace the fuel filler cap, then clear the code and retest
- 2 Visually check all evaporative emission hoses and connections at the canister and purge valve for cracks or looseness
- 3 Use a scan tool to command the purge valve and canister vent valve while monitoring fuel tank pressure to isolate the leak
- 4 Perform a smoke test on the evaporative system to pinpoint the exact leak location
- 5 Test the canister purge volume control valve for correct resistance and operation, replacing if faulty
- 6 Check the fuel tank pressure sensor signal for accuracy against a known good sensor or vacuum reading
- 7 Repair any damaged wiring or connectors at the purge valve and pressure sensor, then clear codes and verify the monitor completes

Leak detection traps on Nissan evaporative systems

- A fuel filler cap that looks fine can still leak under test, so always pressure-test the cap or substitute a known good one before chasing hoses.
- The canister purge volume control valve on many Nissan models is prone to sticking due to carbon buildup, which sets P1457 without any visible hose damage.
- A smoke test is far more reliable than a visual inspection because many evaporative leaks are pinholes in the top of the tank or along the filler neck where you cannot see them.
- This code does not always mean a large leak; a tiny pinhole or a failing pressure sensor can trigger it, so do not replace the canister before testing the sensor and wiring.
- After any repair, the evaporative monitor must run through a complete drive cycle before the code will clear, so a quick erase and short drive may falsely suggest the fault is fixed.

Can I keep driving with P1457?

It is generally safe to keep driving with P1457 because the fault affects emissions rather than engine operation, but avoid topping off the fuel tank past the first click and have the leak repaired soon to prevent fuel vapor odors and potential emissions test failure.

Tools that help

- OBD-II scan tool with bidirectional control
- Smoke machine for evaporative system testing
- Hand vacuum pump with gauge
- Digital multimeter
- Fuel filler cap tester
- Basic socket and hose clamp tools



Reading P1457

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

Often seen with

P1447 Catalyst Temperature Circuit Open Short To B+ · **P1447** EVAP Control System Purge Flow Monitoring · **P1490** Vacuum Cut Valve Bypass Valve Circuit · **P1490** Low Speed Fan Control Relay Fault · **P1447** ELC System Closure Valve Flow · **P1490** Low Speed Fan CTRL Relay Circuit Open Or Shorted · **P1490** Low Speed Fan CTRL Relay Circuit Open Or Shorted · **P1447** Diagnostic Module Tank Leakage DM-TL Pump Too High During Sw · **P0442** EVAP System Leak Detected (Small) · **P0455** EVAP System Leak Detected (Large) · **P0456** Evaporative Emission System Leak Detected (very small leak)

See it working

Watch the animated explainer [How a Car Clutch Works: Diaphragm Clutch Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1457/>

