

NISSAN · POWERTRAIN

P1456

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1456 · Nissan

Evaporative Emission Control System Leak Detected Fuel Tank System

P1456 on Nissan vehicles indicates that the engine control module has detected a leak in the evaporative emission control system, specifically within the fuel tank portion of the system. The computer typically runs a pressure test by sealing the system and monitoring how quickly pressure decays, and this code sets when the decay exceeds a calibrated threshold.

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 gasoline odor around the rear of the vehicle or near the fuel filler
- Slight hiss or whoosh when removing the fuel cap, indicating pressure release
- In some cases, a rough idle or slight hesitation if the leak is large
- Fuel smell in the cabin or garage after parking
- No drivability issues in most instances, as the leak is small

Common causes, most likely first

- 1 Fuel filler cap not tightened properly or a worn/damaged cap seal
- 2 Cracked or deteriorated fuel filler neck or rubber hose
- 3 Leaking fuel tank seam or rusted tank (especially in older vehicles)
- 4 Faulty evaporative emission control system purge or vent valve stuck open
- 5 Damaged or disconnected evaporative emission hose or line
- 6 Failed fuel tank pressure sensor giving false readings
- 7 Leaking seal at the fuel pump module or sending unit



How to diagnose and fix it

- 1 Verify the fuel filler cap is present, tight, and its seal is intact; replace if suspect
- 2 Perform a visual inspection of the fuel filler neck, hoses, and tank for cracks or leaks
- 3 Use a smoke machine to pressurize the evaporative system and locate the leak
- 4 Check the operation of the purge and vent valves with a scan tool or vacuum pump
- 5 Test the fuel tank pressure sensor for proper voltage and resistance
- 6 Inspect the fuel pump module seal and tank seams for seepage
- 7 After repairs, clear the code and perform a drive cycle to confirm the leak is fixed

Common oversights when chasing P1456

- A fuel cap that looks fine can still leak under pressure; always test with a cap tester or replace with a known-good cap before deeper diagnostics.
- The fuel tank pressure sensor on Nissan models is prone to contamination from fuel vapors, causing false leak codes without any actual leak.
- A leak in the evaporative system can be intermittent and only set the code during specific temperature or fuel level conditions, so a smoke test may need to be repeated.
- Rodent damage to evaporative hoses is a frequent cause that is often overlooked during visual inspections.
- This code does not always indicate a large leak; a pinhole in a hose or a slightly loose connection can trigger it.

Can I keep driving with P1456?

It is generally safe to continue driving with P1456, as it does not affect engine performance or safety in most cases. However, avoid topping off the fuel tank and have the leak addressed promptly to prevent fuel vapor release and potential worsening of the leak.

Tools that help

- OBD-II scan tool with live data capability
- Smoke machine for evaporative leak testing
- Fuel cap tester
- Hand tools (screwdrivers, pliers, socket set)
- Vacuum pump and gauge
- Digital multimeter



Reading P1456

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

Often seen with

P1446 Catalyst Temperature Circuit Short To Ground · **P1446** EVAP Canister Vent Control Valve Closed · **P1446** Evaporative Vacuum Solenoid Circuit · **P1446** Diagnostic Module Tank Leakage DM-TL Pump Control Circuit Si · **P0440** Evaporative Emission Control System Malfunction · **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 Turbocharger Works, Step by Step](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/nissan-p1456/>

