

KIA · POWERTRAIN

P1450

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1450 · Kia

Excessive Vacuum Leak

P1450 on a Kia means the engine control module has detected a vacuum leak that is larger than expected during an evaporative emission system self-test or a related vacuum integrity check. The computer commands a vacuum condition and then watches how quickly the vacuum bleeds off; if the leak is excessive, it flags this code.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Kia specific	Medium	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- A faint hissing or whistling sound from the engine bay at idle
- Rough or fluctuating idle quality, especially when the engine is cold
- Slightly higher fuel consumption than normal
- A fuel odor around the vehicle after refueling or when parked
- Occasional hard starting after the vehicle sits for a while

Common causes, most likely first

- 1 Cracked or disconnected vacuum hose between the intake manifold and the EVAP canister purge valve
- 2 Failed or stuck-open EVAP canister purge valve that allows constant vacuum to the fuel tank
- 3 Leaking or damaged EVAP canister, especially from road debris or corrosion
- 4 Loose, missing, or damaged fuel filler cap or filler neck seal
- 5 Split or deteriorated vacuum line to the brake booster or other intake-fed accessory
- 6 Leaking intake manifold gasket or throttle body gasket causing an unmetered vacuum leak
- 7 Faulty fuel tank pressure sensor giving an inaccurate reading during the self-test



How to diagnose and fix it

- 1 Inspect the fuel filler cap for a tight seal and replace it if the gasket is cracked or missing
- 2 Visually check all vacuum hoses under the hood for cracks, splits, or loose connections, starting at the EVAP purge valve
- 3 Use a smoke machine to pressurize the EVAP system and locate the exact leak point
- 4 Command the EVAP purge valve open and closed with a scan tool and listen for a click to confirm it is not stuck
- 5 Check the EVAP canister and its mounting area for cracks or damage from road debris
- 6 Test the fuel tank pressure sensor with a scan tool and compare its reading to a known-good value
- 7 Clear the code and run the EVAP monitor to confirm the repair before returning the vehicle

What a smoke test reveals about P1450

- A smoke test is far more reliable than a visual inspection because many vacuum leaks hide under the intake manifold or behind the engine where you cannot see them.
A stuck-open purge valve can set P1450 even when every hose is perfect, because it pulls constant vacuum on the fuel tank and makes the self-test see an excessive leak.
- The fuel filler cap is the most commonly overlooked cause; a cap that looks fine can still leak enough to trigger this code.
- P1450 does not always mean a large hose is off; a pinhole in a hard plastic line or a cracked canister nipple can be enough to fail the vacuum decay test.
Do not replace the EVAP canister or purge valve without confirming the leak with a smoke machine, because the real fault is often a cheap hose or cap.

Can I keep driving with P1450?

You can usually drive the vehicle with P1450, but avoid topping off the fuel tank past the first click and do not ignore a raw fuel smell, because a leaking EVAP system can release fuel vapor. Have the leak diagnosed soon to prevent worsening fuel economy and a failed emissions test.

Tools that help

- OBD-II scan tool with EVAP system test capability
- Smoke machine
- Hand vacuum pump
- Basic socket and hose clamp set
- Flashlight or inspection mirror



Reading P1450

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

Often seen with

P0171 System Too Lean (Bank 1) · **P0442** EVAP System Leak Detected (Small) · **P0455** EVAP System Leak Detected (Large) · **P0456** Evaporative Emission System Leak Detected (very small leak) · **P0507** Idle Control System RPM Higher Than Expected

See it working

Watch the animated explainer [Readiness Monitors and the OBD-II Drive Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/kia-p1450/>

