

GENERIC · POWERTRAIN

P0094

OBD-II TROUBLE CODE

P0094

Fuel System Leak Detected - Small Leak

P0094 is a generic powertrain code that the engine computer sets when its fuel system leak detection logic identifies a small leak in the evaporative emissions (EVAP) system. The computer typically uses a fuel tank pressure sensor or a natural vacuum decay method to monitor the sealed fuel system, and it flags this code when the pressure bleeds off faster than a calibrated small-leak threshold.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Low	Intermediate	Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other symptoms besides the warning light
- A faint raw fuel odor around the rear of the vehicle or near the fuel filler neck
- Slight hesitation or rough idle in rare cases where the leak affects fuel tank pressure management
- Fuel cap that feels loose, clicks weakly, or has a damaged or missing seal
- Intermittent code setting that clears after refueling and returns days later
- No noticeable change in fuel economy or driveability in most cases

Common causes, most likely first

- 1 Fuel filler cap not tightened properly, missing, or fitted with a cracked or hardened seal
- 2 Cracked or deteriorated EVAP hose or rubber connector between the fuel tank and the purge or vent valve
- 3 Leaking or stuck-open fuel tank vent valve or purge solenoid that fails to seal when commanded closed
- 4 Small crack in the fuel tank itself or a corroded tank seam, often from road debris or age
- 5 Failed fuel tank pressure sensor giving an inaccurate reading that mimics a leak
- 6 Leaking or improperly seated EVAP canister purge line at the intake manifold
- 7 Loose or damaged fuel filler neck or rollover valve seal



How to diagnose and fix it

- 1 Inspect the fuel filler cap first: check for cracks, a hardened seal, or a missing O-ring, and tighten it until it clicks several times
- 2 Clear the code and drive the vehicle through a complete EVAP monitor cycle to see whether the code returns before replacing any parts
- 3 Visually inspect all accessible EVAP hoses, clamps, and connectors from the fuel tank to the purge valve for cracks, chafing, or loose fittings
- 4 Perform a smoke test on the EVAP system with a low-pressure smoke machine to pinpoint the exact leak location
- 5 Test the purge solenoid and vent valve for proper sealing and operation using a scan tool bidirectional control or a hand vacuum pump
- 6 Check the fuel tank pressure sensor reading against actual pressure with a gauge to rule out a false leak signal
- 7 Repair or replace the confirmed leaking component, then clear codes and verify the EVAP monitor completes without resetting P0094

What a small EVAP leak really means

- A loose or aftermarket fuel cap is the single most common cause of P0094, and many vehicles will set this code after just one refueling without a proper cap click.
- The EVAP monitor often will not run unless the fuel level is between roughly one-quarter and three-quarters full, so a code that appears only at certain fuel levels points to a tank or filler neck issue.
- A smoke test is far more reliable than a visual inspection because many small leaks hide on top of the fuel tank or behind the canister where they cannot be seen.
- A failing fuel tank pressure sensor can report a pressure decay that does not exist, leading to unnecessary replacement of hoses and valves.
- P0094 does not mean the engine is running lean or that fuel is leaking onto the ground; it refers to vapor leakage in the sealed emissions system, not liquid fuel delivery.

Can I keep driving with P0094?

It is generally safe to continue driving with P0094 because the fault affects evaporative emissions rather than engine operation, but avoid topping off the tank past the first click and have the leak inspected soon to prevent a larger leak or a failed emissions test.



Tools that help

- OBD-II scan tool with EVAP monitor and bidirectional control capability
- Hand vacuum pump with gauge
- Low-pressure smoke machine
- Fuel tank pressure gauge
- Basic socket and screwdriver set
- Flashlight or inspection mirror

Reading P0094

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
0	Fuel and air metering and auxiliary emission controls.
94	The exact fault within that area.

Often seen with

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) · **P0457** Evaporative Emission System Leak Detected (fuel cap loose/of

See it working

Watch the animated explainer [EV Powertrain Trainer: How an Electric Car Drives](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0094/>

