

GENERIC · POWERTRAIN

P0443

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0443

EVAP Purge Control Valve Circuit Malfunction

P0443 means the engine computer has detected an electrical fault in the circuit that controls the EVAP purge valve, which is the solenoid that meters fuel vapor from the charcoal canister into the intake. The computer monitors the voltage or current on the control wire and sets this code when the signal falls outside the expected range for the commanded state.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

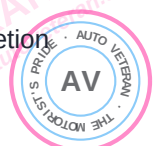
- Illuminated check engine light, often with no other symptoms
- A slight fuel smell around the vehicle, especially after refueling
- Rough idle or stumble if the purge valve sticks open and allows unmetered vapor into the intake
- Failed emissions inspection due to the check engine light
- Occasional hard starting after fueling if the canister is loaded with vapor

Common causes, most likely first

- 1 Failed purge solenoid valve (open or shorted coil)
- 2 Damaged, corroded, or disconnected wiring or connector at the purge valve
- 3 Blown fuse or faulty relay supplying power to the purge valve circuit
- 4 Open or shorted control wire between the purge valve and the engine computer
- 5 Faulty engine computer driver for the purge circuit (rare)
- 6 Contamination or mechanical sticking inside the purge valve

How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P0443 is the only purge-related code
- 2 Inspect the purge valve connector and harness for corrosion, chafing, or loose pins
- 3 Measure resistance across the purge solenoid coil and compare to the manufacturer's specification
- 4 Check for battery voltage at the purge valve supply wire with the key on and verify the ground or control signal
- 5 Command the purge valve on and off with a scan tool and listen for an audible click
- 6 Test the control wire for continuity and shorts to ground or power between the valve and computer
- 7 Replace the purge valve if electrically faulty, then clear codes and verify the monitor runs to completion



What the purge valve circuit test really checks

- A P0443 is an electrical circuit code, so a valve that is mechanically stuck open or closed but still has a good coil will not set this code by itself.
- Many technicians replace the purge valve only to find a corroded connector pin or a rubbed-through wire a few inches up the harness, so always inspect the wiring first.
- Some vehicles share the purge valve power feed with other solenoids or relays, so a blown fuse can disable several circuits and set companion codes.
- A purge valve that sticks open can cause a rough idle and fuel smell without ever setting P0443, because the computer sees normal electrical current but cannot detect the mechanical fault.
- After any repair, the EVAP monitor may take several drive cycles to run, so a cleared light does not guarantee the fix until the monitor completes.

Can I keep driving with P0443?

The vehicle is generally safe to drive with P0443 because the fault affects emissions rather than engine operation, but avoid topping off the fuel tank and address the code promptly to prevent vapor leaks and a failed emissions test.

Tools that help

- OBD-II scan tool with bidirectional control
- Digital multimeter
- Test light
- Wire repair kit with crimpers and heat shrink
- Vehicle service information for wiring diagrams and resistance specifications

Reading P0443

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

Often seen with

P0440 Evaporative Emission Control System Malfunction · **P0441** EVAP System Incorrect Purge Flow · **P0442** EVAP System Leak Detected (Small) · **P0446** EVAP Vent Control Circuit Malfunction · **P0455** EVAP System Leak Detected (Large)



See it working

Watch the animated explainer **Four-Stroke Engine Cutaway: Intake to Exhaust** on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0443/>

