



P1445 · Ford

Purge Flow Sensor Circuit Input High

P1445 on Ford vehicles means the powertrain control module (PCM) has detected a voltage signal from the purge flow sensor circuit that is higher than the expected range for the current operating conditions. The sensor monitors the flow of fuel vapor from the charcoal canister to the intake manifold, and an abnormally high input tells the PCM that the circuit is shorted to voltage or the sensor is reporting an impossible flow condition.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- A slight fuel odor may be present if the purge system is stuck open or the sensor is faulty.
- Rough idle or stumbling when the engine is warm, especially at stoplights.
- Intermittent hesitation during light acceleration if the purge flow is incorrectly reported.
- Failed emissions test due to the evaporative emissions monitor not completing.
- In rare cases, a drop in fuel economy if the system is purging when it should not.

Common causes, most likely first

- 1 A short to voltage in the purge flow sensor signal wire, often from chafed insulation or a pinched harness.
- 2 A faulty purge flow sensor that internally shorts and sends a high voltage signal to the PCM.
- 3 A poor ground connection at the sensor or PCM, causing a reference voltage shift.
- 4 Corrosion or water intrusion in the sensor connector, leading to high resistance or a short.
- 5 A stuck-open purge valve that allows constant flow, making the sensor report an abnormally high reading.
- 6 A PCM internal fault, though this is rare and should be diagnosed last.



How to diagnose and fix it

- 1 Use a scan tool to read live data from the purge flow sensor and compare it to the expected values for the current engine load and temperature.
- 2 Visually inspect the purge flow sensor connector and wiring for corrosion, chafing, or loose pins, and repair as needed.
- 3 Disconnect the sensor and measure the reference voltage and ground at the connector with a digital multimeter; verify the signal wire does not have battery voltage with the key on.
- 4 Check the purge valve for proper operation by commanding it open and closed with the scan tool and listening for a click; replace if stuck.
- 5 Perform a smoke test on the evaporative emissions system to check for leaks that could affect sensor readings.
- 6 If wiring and valve are good, substitute a known-good purge flow sensor and clear the code to see if it returns.
- 7 As a last step, check for PCM software updates or internal faults before replacing the PCM.

Don't overlook the purge valve or wiring

- A stuck-open purge valve can cause the purge flow sensor to report a high flow rate, setting P1445 even when the sensor itself is fine.
- Chafed wiring near the intake manifold or exhaust heat shields is a common cause of a short to voltage on the signal circuit.
- The purge flow sensor on many Ford engines is integrated into the purge valve assembly, so a sensor fault may require replacing the whole unit.
- P1445 can be set by a low battery or charging system issue that causes the PCM to see erratic reference voltages, so always check battery health first.
- After repairs, the evaporative emissions monitor must complete a drive cycle before the code will clear from history, which can take several days of normal driving.

Can I keep driving with P1445?

You can usually continue driving with P1445, but avoid extended idling and refueling with the engine running, as a faulty purge system can affect emissions and fuel smell. Have the vehicle diagnosed soon to prevent potential damage to the charcoal canister or catalytic converter.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Smoke machine for EVAP system testing
- Basic hand tools for connector and component access
- Wiring diagram for the specific Ford model



Reading P1445

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

Often seen with

P1443 EGR Valve Position Sensor Signal Too Low · **P1444** EGR Valve Position Sensor Range Performance · **P1443** EVAP Control System Vent Control Function Problem · **P1443** EVAP Canister Control Vacuum Switch Circuit Fault · **P1444** Canister Purge Volume Control Solenoid Valve · **P1443** EVAP Purge Control Solenoid 2 Circuit Fault · **P1443** EVAP System Purge Flow Fault · **P1444** EVAP Purge Flow Sensor Circuit Low Voltage · **P1443** Evaporative Emission Control System Vacuum System Purge Cont · **P1444** Purge Flow Sensor Circuit Input Low · **P1443** Leakage Diagnostic Pump Control Circuit Signal High · **P1444** Diagnostic Module Tank Leakage DM-TL Pump Control Open Circu · **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 the EVAP System Works: Fuel Vapour and Leak Test](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1445/>

