

GENERIC · POWERTRAIN

P2CEB

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2CEB

Particulate Filter Pressure Sensor D Range/Performance

P2CEB means the powertrain control module has determined that the particulate filter pressure sensor on circuit D is reporting a signal outside its expected range or behaving erratically during key-on and running self-tests. The computer compares the sensor's voltage against plausible limits and cross-checks it with other sensor readings, and it sets this code when the signal does not track the expected pressure relationship.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Hybrid propulsion

Symptoms you may notice

- Illumination of the check engine light, often with no other symptoms besides the warning light
- A stored particulate filter-related code that may be accompanied by a message in the driver information center
- Reduced engine power or limp-home mode on some vehicles when the fault is active
- Poor fuel economy or more frequent active regeneration cycles
- A noticeable hesitation or rough running during regeneration events
- In rare cases, a burning smell or visible exhaust smoke if regeneration is inhibited

Common causes, most likely first

- 1 Failed or contaminated particulate filter pressure sensor D
- 2 Damaged, cracked, or disconnected pressure sensor hose or tube
- 3 Corroded or loose electrical connector pins at the sensor or PCM
- 4 Blocked or restricted pressure port in the exhaust pipe or filter housing
- 5 Wiring harness damage such as chafing, open circuit, or short to ground or voltage
- 6 Exhaust leaks upstream of the pressure sensor that skew the pressure reading
- 7 Internal PCM fault in the sensor reference or signal circuit



How to diagnose and fix it

- 1 Read all stored and pending codes with a scan tool and record freeze-frame data for P2CEB and any related codes
- 2 Visually inspect the pressure sensor, its mounting, and the full length of the pressure hose for cracks, kinks, or disconnection
- 3 Check the sensor electrical connector for corrosion, pushed pins, or loose terminals and verify reference voltage and ground at the sensor
- 4 Use a scan tool to view live particulate filter pressure sensor D voltage and compare it with key-on engine-off and idle values against the manufacturer's expected range
- 5 Perform a smoke test or use a pressure gauge to confirm there is no exhaust leak or blocked pressure port affecting the sensor reading
- 6 If the sensor signal is implausible and wiring and hoses are good, replace the particulate filter pressure sensor and clear the codes
- 7 Road-test the vehicle through a complete drive cycle to confirm the code does not return and that regeneration completes normally

What a pressure sensor code really means

- A P2CEB is often set by a simple disconnected or cracked pressure hose that a visual inspection will reveal before any parts are replaced.
- Technicians frequently replace the pressure sensor when the real problem is a blocked pressure port in the exhaust, which mimics a failed sensor perfectly.
- This code can be triggered by exhaust leaks upstream of the sensor because the pressure relationship the PCM expects is disturbed by outside air entering the system.
- A weak battery or low charging voltage can cause erratic sensor signals and set this code on some vehicles, so always check battery condition first.
- The code does not automatically mean the particulate filter itself is failing, and replacing the filter without diagnosing the pressure circuit is an expensive misstep.

Can I keep driving with P2CEB?

You can usually continue driving to a repair shop, but avoid long trips at high speed or heavy load because an active fault can prevent regeneration and lead to a clogged filter. If the vehicle enters limp-home mode or you notice excessive smoke, stop driving and arrange a tow.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter for voltage and resistance checks
- Hand vacuum pump or pressure gauge for testing the sensor and hose
- Smoke machine for exhaust leak detection
- Basic hand tools for hose and connector inspection

Reading P2CEB

P	Powertrain: engine, transmission and emissions.
2	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
C	Hybrid propulsion.
EB	The exact fault within that area.

Often seen with

P2002 Particulate Trap Efficiency Below Threshold (Bank 1) · **P2453** Diesel Particulate Filter Pressure Sensor Circuit Range/Perf · **P2454** Diesel Particulate Filter Pressure Sensor Circuit Low · **P2CEA** Particulate Filter Pressure Sensor D Circuit · **P2CEC** Particulate Filter Pressure Sensor D Circuit Low

See it working

Watch the animated explainer [How Airbags Work: A 50 km/h Crash in Slow Motion](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2ceb/>

