

GENERIC · POWERTRAIN

P2454

OBD-II TROUBLE CODE

P2454

Diesel Particulate Filter Pressure Sensor Circuit Low

P2454 means the engine computer has detected a low-voltage signal from the diesel particulate filter (DPF) pressure sensor circuit, which is used to measure the pressure difference across the filter. The computer expects a voltage within a specific range, and a sustained low reading indicates a short to ground, an open circuit, or a sensor that cannot report correctly.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Intermediate	Auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode triggered by the engine computer
- A message on the dashboard indicating a diesel particulate filter or emissions system fault
- Frequent or failed diesel particulate filter regeneration cycles
- Possible rough running or hesitation if the fault affects fuel delivery calculations
- Often no symptoms besides the warning light, especially in early stages

Common causes, most likely first

- 1 Faulty DPF pressure sensor sending an incorrect low signal
- 2 Damaged or disconnected wiring between the sensor and the engine computer
- 3 Corroded or loose electrical connector at the sensor or computer
- 4 Blocked or cracked pressure hoses connecting the sensor to the DPF
- 5 Exhaust system leaks upstream of the DPF affecting pressure readings
- 6 Water or debris intrusion into the sensor or connector
- 7 Engine computer software issue or internal fault (rare)



How to diagnose and fix it

- 1 Use a scan tool to read live data from the DPF pressure sensor and compare it with key-on, engine-off values and known-good specifications
- 2 Visually inspect the sensor, its connector, and the pressure hoses for damage, corrosion, or blockage
- 3 Check the sensor's reference voltage and ground circuits with a multimeter to rule out wiring faults
- 4 Perform a resistance and continuity test on the sensor signal wire from the sensor to the engine computer
- 5 Test the sensor with a hand vacuum pump or pressure source to verify it responds correctly to changing pressure
- 6 Replace the DPF pressure sensor if it fails electrical or functional tests
- 7 Clear the fault codes and perform a DPF regeneration or adaptation reset as required, then verify the repair with a road test

Before you replace the DPF pressure sensor

- A clogged DPF pressure hose or a cracked exhaust pipe can mimic a failed sensor by causing low pressure readings, so always inspect the entire pressure path first.
- The sensor often shares a reference voltage with other sensors on the same circuit, so a fault elsewhere can drag the signal low and set P2454 without the sensor itself being defective.
- After replacing the sensor, some vehicles require a relearn or adaptation procedure; skipping this step can leave the code stored or cause poor regeneration performance.
- Incorrect oil or fuel quality can accelerate DPF soot loading, which may indirectly affect pressure readings and lead to misdiagnosis of the sensor.
- A low voltage code can also be set by a poor ground connection at the engine computer, so checking ground integrity is a worthwhile step before condemning the sensor.

Can I keep driving with P2454?

You can usually drive the vehicle with P2454, but avoid heavy loads and long distances until it is diagnosed, because the engine computer may disable DPF regeneration and eventually restrict power. If the vehicle enters limp mode or you notice excessive exhaust smoke, seek service promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Hand vacuum pump with gauge
- Socket and wrench set
- Wire probe kit and electrical contact cleaner



Reading P2454

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

Often seen with

P0101 Mass/Volume Air Flow Circuit Range/Performance · **P2002** Particulate Trap Efficiency Below Threshold (Bank 1) · **P2453** Diesel Particulate Filter Pressure Sensor Circuit Range/Perf · **P2455** Diesel Particulate Filter Pressure Sensor Circuit High · **P2463** Diesel Particulate Filter Restriction - Soot Accumulation

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2454/>

