

GENERIC · POWERTRAIN

P047E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P047E

Exhaust Pressure Sensor B Circuit Intermittent/Erratic

P047E indicates that the powertrain control module has detected an intermittent or erratic signal from the exhaust pressure sensor B circuit, which is typically the sensor monitoring backpressure in the exhaust system. The computer sets this code when the sensor voltage or signal drops out, spikes, or fluctuates in a way that does not match expected exhaust pressure under current operating conditions.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or limp mode, especially under load or during regeneration
- Poor fuel economy or increased exhaust smoke due to incorrect pressure readings
- Frequent or failed diesel particulate filter regeneration attempts
- Rough running or hesitation if the erratic signal affects fuel delivery calculations

Common causes, most likely first

- 1 Damaged or chafed wiring in the exhaust pressure sensor B circuit, often near hot or moving components
- 2 Corroded or loose electrical connector at the sensor or PCM
- 3 Failed exhaust pressure sensor B due to heat, soot, or contamination
- 4 Clogged or restricted pressure port or hose leading to the sensor
- 5 Exhaust leaks upstream of the sensor causing fluctuating pressure readings
- 6 Intermittent open or short inside the sensor itself
- 7 PCM internal fault or software issue affecting signal interpretation

How to diagnose and fix it

- 1 Inspect the sensor wiring and connector for damage, corrosion, or loose pins, and repair as needed
- 2 Check the pressure port and hose for blockage or cracks, and clean or replace if restricted
- 3 Perform a wiggle test on the harness while monitoring live sensor data to identify intermittent faults
- 4 Compare exhaust pressure sensor B readings with actual backpressure using a gauge or scan tool
- 5 Replace the exhaust pressure sensor B if readings are erratic and wiring is confirmed good
- 6 Verify repair by clearing codes and test-driving under conditions that previously set the code
- 7 If the code persists, check for exhaust leaks or PCM software updates before replacing the PCM



What intermittent means for this sensor

- An intermittent code often means the sensor still works most of the time, so a simple resistance check may pass while the fault only appears during vibration or heat cycles.
- Soot buildup in the pressure port can cause erratic readings that mimic a failed sensor, so cleaning the port is a cheap first step before replacement.
- Exhaust leaks upstream of the sensor can create pressure pulses that the PCM interprets as an erratic signal, leading to misdiagnosis of the sensor itself.
- On many diesel vehicles, this code can be set by a failing diesel particulate filter pressure sensor even when the filter is not clogged, so do not assume the filter needs replacement.
- A weak battery or charging system can cause voltage fluctuations that affect sensor signals, so check system voltage before condemning the sensor.

Can I keep driving with P047E?

You can usually drive with this code if the vehicle runs normally, but avoid heavy loads and long trips until diagnosed because erratic pressure readings can disrupt regeneration and lead to more serious exhaust system damage. If the engine enters limp mode or performance drops noticeably, have it checked promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Hand vacuum/pressure pump with gauge
- Wiring diagram for the specific vehicle
- Basic hand tools for connector and sensor access

Reading P047E

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
4	Auxiliary emission controls.
7E	The exact fault within that area.

Often seen with

P0470 Exhaust Pressure Sensor · **P0471** Exhaust Pressure Sensor Range/Performance · **P0472** Exhaust Pressure Sensor Low · **P0473** Exhaust Pressure Sensor High · **P2453** Diesel Particulate Filter Pressure Sensor Circuit Range/Perf



See it working

Watch the animated explainer [How a Manual Transmission Works: Four-Speed Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p047e/>

