

GENERIC · POWERTRAIN

P048E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P048E

Exhaust Pressure Control Valve A Position Sensor/Switch Circuit High

P048E indicates that the powertrain control module has detected an abnormally high voltage signal from the exhaust pressure control valve position sensor, which is typically a potentiometer that reports the valve's actual position. The circuit is considered high when the signal voltage exceeds the expected range for the current commanded valve position, often indicating an open circuit, a short to voltage, or a sensor failure.

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 performance or power, especially under load
- Poor fuel economy due to incorrect valve operation
- Increased exhaust emissions or a burning smell from the exhaust
- In rare cases, a rough idle or hesitation during acceleration
- Possible limp mode or reduced power if the fault is severe

Common causes, most likely first

- 1 Faulty exhaust pressure control valve position sensor (internal failure or wear)
- 2 Open circuit in the sensor signal wire (broken wire, poor connection, or corroded terminal)
- 3 Short to voltage on the sensor signal circuit (chafed wire contacting a power source)
- 4 Damaged or disconnected electrical connector at the sensor or PCM
- 5 Failed exhaust pressure control valve actuator causing the sensor to read out of range
- 6 PCM internal fault (rare, but possible)



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check live data for the exhaust pressure control valve position sensor voltage; compare commanded vs. actual position.
- 2 Visually inspect the sensor and its wiring harness for obvious damage, corrosion, or loose connections; repair as needed.
- 3 Disconnect the sensor connector and measure resistance across the sensor terminals; compare to manufacturer specifications to rule out sensor failure.
- 4 With the connector disconnected and ignition on, measure voltage on the signal circuit at the sensor harness; it should be near 5V reference. If not, check for an open or short to voltage.
- 5 Check the ground circuit for continuity to chassis ground; repair any open or high resistance.
- 6 If wiring and sensor test good, suspect the exhaust pressure control valve actuator or PCM; perform further diagnostics as per service information.
- 7 Clear the code and test-drive the vehicle to confirm the repair; monitor live data to ensure the sensor signal returns to normal range.

Don't overlook the valve actuator itself

- A stuck or failing exhaust pressure control valve actuator can cause the position sensor to report an out-of-range signal, leading to a false sensor replacement.
- Corrosion inside the sensor connector is a common cause of high signal voltage that is often missed during a quick visual inspection.
- The code can be set intermittently by a wire that rubs against a metal surface only during certain engine movements, so a wiggle test of the harness is essential.
- Replacing the sensor without checking the 5V reference and ground circuits can lead to a repeat failure if the underlying wiring issue is not addressed.
- On some vehicles, the exhaust pressure control valve is part of the turbocharger assembly, and a fault here may be misdiagnosed as a turbo issue.

Can I keep driving with P048E?

The vehicle is generally safe to drive with this code, but avoid aggressive acceleration or heavy loads until repaired, as the valve may not function correctly and could affect emissions or performance. Prolonged driving with the fault may lead to more extensive damage to the exhaust system or reduced fuel economy.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Basic hand tools (sockets, wrenches, screwdrivers)
- Wire repair kit (splices, heat shrink, electrical tape)



Reading P048E

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- 8E** The exact fault within that area.

Often seen with

P0471 Exhaust Pressure Sensor Range/Performance · **P0472** Exhaust Pressure Sensor Low · **P0473** Exhaust Pressure Sensor High · **P048D** Exhaust Pressure Control Valve A Position Sensor/Switch Circ · **P048F** Exhaust Pressure Control Valve A Position Sensor/Switch Circ

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/p048e/>

