

GENERIC · POWERTRAIN

P04A6

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P04A6

Exhaust Pressure Control Valve B Position Sensor/Switch Circuit

P04A6 indicates that the powertrain control module (PCM) has detected an out-of-range or implausible signal from the position sensor or switch circuit for exhaust pressure control valve B. This valve is used in the exhaust system to regulate backpressure, often for enhanced engine braking or thermal management, and the PCM sets this code when the sensor voltage or switch state does not match expected values for the 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 (malfunction indicator lamp) with no other noticeable symptoms
- Reduced engine braking performance, especially when descending grades or towing
- Rough or erratic engine operation during exhaust brake activation
- A noticeable decrease in fuel economy due to improper exhaust flow regulation
- In rare cases, the vehicle may enter limp mode or limit engine power to protect the exhaust system

Common causes, most likely first

- 1 Faulty exhaust pressure control valve position sensor or switch
- 2 Damaged, corroded, or disconnected wiring in the sensor circuit
- 3 Sticking or mechanically binding exhaust pressure control valve
- 4 Failed exhaust pressure control valve actuator (electrical or vacuum-operated)
- 5 Corrosion or damage to the sensor connector pins
- 6 PCM software issue or internal fault in the sensor input circuit



How to diagnose and fix it

- 1 Use an OBD-II scanner to verify P04A6 is active and check for related codes in the exhaust pressure control system
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose connections
- 3 Measure sensor reference voltage and ground at the connector to confirm proper power and ground supply
- 4 Test the sensor signal voltage while manually moving the valve through its range to check for smooth, consistent output
- 5 Command the valve actuator with a scan tool and observe sensor feedback to verify the valve moves and the sensor responds correctly
- 6 If the sensor signal is erratic or absent, replace the position sensor or switch and clear the code
- 7 If the valve does not move or binds, inspect and repair or replace the exhaust pressure control valve assembly

Exhaust Pressure Valve Sensor Diagnostics

- A sticking valve is often the root cause of a sensor code, so always verify valve movement before replacing the sensor itself.
- Corrosion inside the sensor connector can mimic a failed sensor, so a thorough pin and terminal inspection is essential.
- On some vehicles, the exhaust pressure control valve is vacuum-operated, and a leaking vacuum line can cause the sensor to report an implausible position.
- The PCM may set P04A6 only after detecting the fault on two consecutive drive cycles, so a single occurrence might not trigger the light immediately.
- After repairs, a relearn or calibration procedure may be required for the new sensor or valve to ensure proper operation.

Can I keep driving with P04A6?

You can generally continue driving with P04A6, but avoid heavy loads or sustained engine braking until the fault is repaired, as the valve may not function correctly and could affect exhaust braking performance. If the engine enters limp mode or you notice severe power loss, seek service immediately.

Tools that help

- OBD-II scan tool with bidirectional control capability
- Digital multimeter
- Vacuum pump (if valve is vacuum-operated)
- Basic hand tools (sockets, wrenches, screwdrivers)
- Wire terminal cleaning tools or contact cleaner



Reading P04A6

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- A6** The exact fault within that area.

Often seen with

P0471 Exhaust Pressure Sensor Range/Performance · **P0472** Exhaust Pressure Sensor Low · **P04A5** Exhaust Pressure Control Valve B Stuck Closed · **P04A7** Exhaust Pressure Control Valve B Position Sensor/Switch Circ · **P04A8** Exhaust Pressure Control Valve B 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/p04a6/>

