

GENERIC · POWERTRAIN

P3430

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P3430

Cylinder 4 Exhaust Valve Control Performance

P3430 indicates that the powertrain control module (PCM) has detected a performance fault in the exhaust valve control system for cylinder 4, typically on engines equipped with variable valve timing or cylinder deactivation. The PCM monitors the exhaust valve's ability to open and close at the commanded times and sets this code when the actual valve behavior deviates from the expected profile.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or misfire sensation, especially when the engine is cold
- Reduced engine power or sluggish acceleration
- Audible ticking or tapping from the valve cover area
- Poor fuel economy or increased emissions
- In rare cases, the engine may enter limp mode

Common causes, most likely first

- 1 Faulty oil control solenoid or valve that regulates oil flow to the exhaust valve actuator
- 2 Clogged or restricted oil passage or screen in the valve control system
- 3 Worn or damaged exhaust valve actuator or rocker arm
- 4 Electrical issues such as a damaged wiring harness, corroded connector, or faulty solenoid
- 5 Low engine oil level or degraded oil causing insufficient oil pressure to operate the system
- 6 Mechanical binding in the valve train or a sticking exhaust valve
- 7 PCM software calibration issue or internal fault (less common)



How to diagnose and fix it

- 1 Check engine oil level and condition; top off or change oil if needed
- 2 Inspect the oil control solenoid and its electrical connector for damage or corrosion
- 3 Test the solenoid with a multimeter for resistance and verify it receives power and ground
- 4 Remove and clean the oil control screen or passage to ensure proper oil flow
- 5 Perform a mechanical inspection of the exhaust valve actuator and rocker arm for wear or binding
- 6 Use a scan tool to command the valve control system and observe if the valve responds correctly
- 7 If all else fails, reprogram the PCM or replace the faulty solenoid or actuator as needed

Oil quality and solenoid screens are common culprits

- A clogged oil control screen is frequently overlooked because it does not always set a low oil pressure code, yet it starves the exhaust valve actuator of oil and triggers P3430.
- The code can be set by a lazy oxygen sensor or a misfire that mimics valve control failure, so always check for pending misfire codes before condemning the valve system.
- On engines with cylinder deactivation, the exhaust valve control system shares oil with the deactivation lifters, so a failing lifter can cause this code without any direct valve actuator fault.
- Incorrect oil viscosity or extended oil change intervals can cause the solenoid to stick, leading to P3430 even when the solenoid tests good electrically.
- Some vehicles require a relearn procedure after replacing the solenoid or actuator; skipping it will cause the code to return immediately.

Can I keep driving with P3430?

You can usually drive the vehicle with P3430 set, but avoid heavy acceleration or towing until the fault is repaired, as prolonged driving with a malfunctioning exhaust valve can lead to catalytic converter damage or engine misfire.

Tools that help

- OBD-II scan tool with live data and bidirectional controls
- Digital multimeter
- Oil pressure gauge
- Socket and wrench set
- Feeler gauges for valve clearance inspection



Reading P3430

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

Often seen with

P0011 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0021** 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0304** Cylinder 4 Misfire Detected · **P3431** Cylinder 4 Exhaust Valve Control Circuit Low · **P3432** Cylinder 4 Exhaust Valve Control Circuit High

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/p3430/>

