

GENERIC · POWERTRAIN

P3408

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P3408

Cylinder 1 Exhaust Valve Control Circuit High

P3408 indicates that the powertrain control module has detected an abnormally high voltage on the control circuit for the cylinder 1 exhaust valve, which is part of a variable valve timing or cylinder deactivation system. The computer expects the circuit to pull to a specific voltage when commanded, but it sees a voltage above the expected threshold, indicating an open circuit, short to power, or a failed actuator.

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, particularly when the engine is cold or under light load
- Reduced engine power or a limp-home mode
- Poor fuel economy or increased emissions
- Audible ticking or tapping from the valve cover area
- In rare cases, the engine may stall or hesitate during acceleration

Common causes, most likely first

- 1 Faulty exhaust valve control solenoid or actuator
- 2 Damaged or disconnected wiring harness to the solenoid
- 3 Corroded or loose electrical connector at the solenoid
- 4 Short to voltage in the control circuit
- 5 Failed powertrain control module driver circuit
- 6 Oil sludge or debris blocking the solenoid, causing electrical feedback
- 7 Internal engine mechanical issue affecting valve operation



How to diagnose and fix it

- 1 Use a scan tool to verify the code and check for related freeze-frame data
- 2 Visually inspect the solenoid connector and wiring for damage or corrosion
- 3 Measure resistance of the solenoid and compare to manufacturer specifications
- 4 Check for short to voltage on the control circuit with a multimeter
- 5 Test the control circuit for continuity and proper signal from the PCM
- 6 Clean or replace the solenoid if tests indicate a fault
- 7 Clear codes and perform a road test to confirm the repair

What the high voltage really means

- A high voltage code often results from an open circuit rather than a short, because the PCM pulls the circuit up and sees no ground path.
- Oil contamination can cause the solenoid to stick and produce an intermittent high voltage signal that may not set a code every drive cycle.
- The same circuit may be shared with other cylinders on some engines, so a single cylinder code points to that specific solenoid or its wiring.
- Replacing the solenoid without checking the connector pins for spread or corrosion frequently leads to a repeat failure.
- A failed PCM driver is rare but possible; always rule out wiring and solenoid faults before condemning the computer.

Can I keep driving with P3408?

Driving with P3408 is generally safe for short distances, but avoid heavy acceleration or towing until the fault is repaired. Prolonged driving may cause increased emissions, reduced fuel economy, or eventual engine damage if the valve control system fails completely.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Test light
- Wire probe set
- Socket and ratchet set
- Manufacturer service information



Reading P3408

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

Often seen with

P0011 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0301** Cylinder 1 Misfire Detected · **P3407** Cylinder 1 Exhaust Valve Control Circuit Low · **P3409** Cylinder 2 Deactivation/Intake Valve Control Circuit/Open · **P3410** Cylinder 2 Deactivation/Intake Valve Control Performance

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/p3408/>

