

GENERIC · POWERTRAIN

P3465

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P3465

Cylinder 9 Deactivation/Intake Valve Control Circuit/Open

P3465 indicates that the powertrain control module has detected an open circuit or abnormal electrical condition in the control circuit for cylinder 9's deactivation or intake valve. This circuit typically controls an oil control solenoid or valve actuator that enables cylinder deactivation or variable intake valve operation, and an open means the computer cannot command that cylinder's valve strategy as intended.

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 vibration when the engine enters cylinder deactivation mode
- Reduced fuel economy because the engine may stay in full-cylinder operation
- Slight loss of power or hesitation during light-throttle cruising
- In rare cases, a misfire code or flashing check engine light if the valve remains in the wrong position

Common causes, most likely first

- 1 Broken, chafed, or disconnected wire in the cylinder 9 deactivation solenoid control circuit
- 2 Failed oil control solenoid or valve actuator for cylinder 9
- 3 Corroded or loose electrical connector at the solenoid or valve assembly
- 4 Open winding inside the solenoid coil
- 5 Faulty powertrain control module driver for that circuit, though uncommon
- 6 Engine oil sludge or low oil pressure preventing the solenoid from functioning, which can mimic an electrical open



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P3465 is the primary fault and not a secondary code
- 2 Inspect the cylinder 9 deactivation solenoid connector and wiring for damage, corrosion, or looseness
- 3 Measure resistance of the solenoid coil with a multimeter and compare to the manufacturer's specification
- 4 Check for battery voltage and ground at the solenoid connector with the key on and during an active deactivation command
- 5 Perform a wiggle test on the harness while monitoring the circuit with a scan tool or multimeter to catch intermittent opens
- 6 If the circuit tests good, verify engine oil condition and pressure because mechanical oiling faults can set this code
- 7 Replace the faulty solenoid, repair the wiring, or reprogram the powertrain control module only after electrical and oiling checks pass

Why cylinder 9 deactivation circuits fail

- A loose or corroded connector at the solenoid is far more common than a failed solenoid itself, so always inspect the plug before condemning the part.
- Low engine oil level or sludged oil can prevent the deactivation solenoid from actuating, which the computer may interpret as an open circuit even when the wiring is intact.
- This code does not always mean the cylinder is dead; the engine may run normally in full-cylinder mode while the computer simply cannot command deactivation.
- Intermittent opens often appear only when the engine is hot or vibrating, so a simple key-on resistance check can miss the fault.
- A failed deactivation solenoid on one cylinder can cause the computer to disable the entire cylinder deactivation system, affecting fuel economy across all cylinders.

Can I keep driving with P3465?

You can usually continue driving with P3465 because the engine defaults to full-cylinder operation, but avoid heavy towing or aggressive acceleration until the circuit is repaired. If the check engine light flashes or the engine runs rough, stop driving and have it diagnosed promptly.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter
- Wire piercing probes or back-probe kit
- Manufacturer service information for circuit specifications
- Basic hand tools for connector and solenoid access



Reading P3465

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

Often seen with

P0309 Cylinder 9 Misfire Detected · **P3400** Cylinder Deactivation System (Bank 1) · **P3464** Cylinder 8 Exhaust Valve Control Circuit High · **P3466** Cylinder 9 Deactivation/Intake Valve Control Performance · **P3497** Cylinder Deactivation System (Bank 2)

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/p3465/>

