

GENERIC · POWERTRAIN

P341A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P341A

Deactivation/Intake Valve Control Circuit Performance Bank 1

P341A indicates that the powertrain control module (PCM) has detected a performance fault in the intake valve control circuit for bank 1, meaning the electrical signal or mechanical response from the valve actuator does not match commanded values. The PCM monitors the circuit for expected voltage, current, or position feedback and sets this code when the actual behavior falls outside the calibrated range.

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
- Rough idle or misfire at idle due to incorrect valve timing
- Reduced engine power or sluggish acceleration, especially at low RPM
- Poor fuel economy or increased emissions
- Audible ticking or clicking from the valve actuator area
- In rare cases, the engine may enter limp mode or stall

Common causes, most likely first

- 1 Faulty intake valve control solenoid or actuator
- 2 Wiring harness damage (open, short, or chafed wires) between the PCM and the valve control circuit
- 3 Corroded or loose electrical connectors at the valve actuator or PCM
- 4 Sticking or clogged oil control valve or variable valve timing (VVT) solenoid
- 5 Low engine oil level or degraded oil affecting VVT phaser operation
- 6 PCM software calibration issue or internal driver fault
- 7 Mechanical binding in the intake valve train or phaser assembly



How to diagnose and fix it

- 1 Verify battery voltage and inspect all fuses related to the valve control circuit
- 2 Perform a visual inspection of the wiring harness and connectors for damage or corrosion
- 3 Use a scan tool to command the intake valve actuator and observe live data for response
- 4 Measure resistance and voltage at the valve control solenoid and compare to specifications
- 5 Check engine oil level and condition; change oil if degraded or incorrect viscosity
- 6 Test the oil control valve for sticking or blockage and clean or replace as needed
- 7 If electrical and oil systems check out, diagnose mechanical phaser or valve train issues

Oil quality and wiring often misdiagnosed

- A low oil level or severely degraded oil can cause this code without any electrical fault, because the variable valve timing system relies on clean, pressurized oil to actuate the phaser.
- The intake valve control solenoid is often replaced unnecessarily when the real problem is a chafed wire hidden inside the loom near the exhaust manifold or a corroded ground connection.
- Some vehicles set P341A intermittently only during cold starts or after an oil change, leading owners to ignore it until the phaser suffers permanent mechanical damage.
- A faulty PCM driver for the valve control circuit is rare but possible; always rule out wiring and solenoid faults before condemning the computer.
- This code can be triggered by a sticking oil control valve that passes electrical tests but fails to modulate oil flow, so a functional oil pressure test is more reliable than a resistance check alone.

Can I keep driving with P341A?

You can usually drive the vehicle short distances to a repair shop, but avoid aggressive acceleration or heavy loads because incorrect valve timing can cause misfires and potential engine damage. If the engine runs rough, stalls, or loses significant power, stop driving and have it towed.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter
- Test light
- Oil pressure gauge
- Basic hand tools (socket set, screwdrivers, pliers)



Reading P341A

- P** Powertrain: engine, transmission and emissions.
- 3** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 4** Auxiliary emission controls.
- 1A** The exact fault within that area.

Often seen with

P0010 'A' Camshaft Position Actuator Circuit (Bank 1) · **P0011** 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P0021** 'A' Camshaft Position - Timing Over-Advanced or System Perfo · **P340A** Deactivation/Intake Valve Control Circuit Bank 1 · **P341B** Deactivation/Intake Valve Control Circuit Performance 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/p341a/>

