

GENERIC · POWERTRAIN

P0076

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0076

Intake Valve Control Solenoid Circuit Low (Bank 1)

P0076 indicates that the powertrain control module has detected an abnormally low voltage on the intake valve control solenoid circuit for bank 1, which usually points to a short to ground or an open circuit in the wiring or solenoid. The computer expects to see a voltage within a specific range when the solenoid is commanded, and a low reading means the circuit is not delivering the current needed to operate the valve timing mechanism.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering and auxiliary emission controls

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Rough idle or engine misfire, especially when the engine is cold
- Reduced engine performance and poor fuel economy due to incorrect valve timing
- Difficulty starting or stalling shortly after startup
- In some cases, a noticeable ticking or knocking noise from the valve cover area

Common causes, most likely first

- 1 Faulty intake valve control solenoid (open or shorted internally)
- 2 Damaged or corroded wiring harness or connector at the solenoid
- 3 Short to ground in the solenoid control circuit
- 4 Open circuit in the power or ground circuit to the solenoid
- 5 Poor electrical connection at the powertrain control module (PCM) connector
- 6 Failed PCM driver for the solenoid circuit (rare)



How to diagnose and fix it

- 1 Connect a scan tool and verify P0076 is active, then check for related codes and freeze-frame data
- 2 Inspect the solenoid connector and wiring for corrosion, chafing, or loose pins
- 3 Measure the resistance of the intake valve control solenoid with a multimeter and compare to specification
- 4 Check for a short to ground or open circuit in the control wire between the solenoid and PCM
- 5 Test the solenoid by applying battery voltage and listening for an audible click
- 6 If the circuit tests good, substitute a known-good solenoid and clear codes to see if the fault returns
- 7 Repair or replace the faulty wiring, connector, or solenoid as needed, then clear codes and verify the repair

Before you replace the intake valve solenoid

- A low voltage code often results from a simple wiring problem such as a rubbed-through wire or a corroded connector pin, so always inspect the harness before condemning the solenoid.
- The intake valve control solenoid is part of the variable valve timing system, and a failure can cause the engine to run with retarded timing, leading to poor performance and increased emissions.
- Some vehicles use the same solenoid for both intake and exhaust valve timing, so a low voltage on bank 1 intake may also affect other circuits if the shared power or ground is faulty.
- A weak or failing battery or charging system can cause low voltage codes across multiple solenoids, so check system voltage first.
- After replacing the solenoid, always clear the adaptive learning values and perform a relearn procedure if required by the manufacturer.

Can I keep driving with P0076?

You can usually drive the vehicle with P0076 set, but avoid heavy acceleration and prolonged driving because incorrect valve timing can lead to poor performance and potentially damage the catalytic converter over time. Have the fault diagnosed promptly to prevent worsening symptoms.

Tools that help

- OBD-II scan tool
- Digital multimeter
- Wire probe set
- Service manual with wiring diagrams
- Basic hand tools



Reading P0076

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- 0** Fuel and air metering and auxiliary emission controls.
- 76** 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 · **P0020** 'A' Camshaft Position Actuator Circuit (Bank 2) · **P0075** Intake Valve Control Solenoid Circuit (Bank 1) · **P0077** Intake Valve Control Solenoid Circuit High (Bank 1)

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/p0076/>

