

GENERIC · POWERTRAIN

P0519

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0519

Idle Air Control System Performance

P0519 means the powertrain control module (PCM) has detected that the idle air control (IAC) system is not delivering the expected engine speed control during idle. The PCM commands the IAC valve to a specific position and compares the resulting engine RPM to the target idle speed, and when the response falls outside the calibrated range, it stores this performance code.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- The malfunction indicator lamp (MIL) illuminates, often with no other noticeable symptoms.
- Engine idle speed fluctuates up and down or hunts after coming to a stop.
- The engine may stall when you release the throttle or when the transmission is shifted into gear.
- Idle speed may stay too high, causing the vehicle to creep forward more than usual at a stop.
- Rough or surging idle when the engine is cold, with the condition improving after warm-up.
- A drop in idle quality when electrical loads such as the air conditioner or headlights are switched on.

Common causes, most likely first

- 1 Carbon buildup or sludge on the IAC valve pintle and its seat, restricting airflow and preventing smooth movement.
- 2 A sticking or failed IAC valve motor or solenoid that no longer responds correctly to PCM commands.
- 3 A vacuum leak downstream of the throttle body that adds unmetered air and throws off idle control.
- 4 Wiring damage, corrosion, or loose connectors in the IAC valve circuit, including the power, ground, and control wires.
- 5 A dirty or failing throttle body that prevents the PCM from achieving the commanded idle speed.
- 6 A faulty engine coolant temperature (ECT) sensor that reports incorrect temperature and skews idle strategy.
- 7 A PCM software calibration issue or, rarely, an internal PCM driver fault for the IAC circuit.



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to see the conditions when P0519 set.
- 2 Inspect the IAC valve connector and harness for corrosion, chafing, and loose pins, and verify battery voltage and ground at the valve.
- 3 Remove the IAC valve and clean the pintle and seat with throttle body cleaner, then reinstall and clear the code to see if it returns.
- 4 Check for vacuum leaks using a smoke machine or propane enrichment while watching fuel trims and idle speed.
- 5 Command the IAC valve with a scan tool through its full range and observe whether engine RPM responds smoothly and predictably.
- 6 Measure the resistance of the IAC valve windings and compare to the manufacturer's specification to identify an open or shorted coil.
- 7 If the valve and circuits test good, perform a throttle body cleaning and idle relearn procedure, then re-evaluate before condemning the PCM.

What idle air control codes really mean

- A P0519 can set from a simple vacuum leak that lets unmetered air past the throttle plate, so always smoke-test the intake before replacing the IAC valve.
- Many technicians replace the IAC valve only to find the connector pins are pushed back or corroded, so a thorough circuit check saves unnecessary parts.
- A dirty throttle body on a drive-by-wire vehicle can mimic an IAC fault because the PCM uses the electronic throttle to control idle, and the two systems interact.
- The code does not always mean the IAC valve is defective; a skewed coolant temperature sensor or a failing alternator that drags idle speed can also trigger it.
- After any IAC or throttle body service, a relearn or idle reset procedure is often required, and skipping it can cause the code to reset immediately.

Can I keep driving with P0519?

You can usually drive the vehicle to a repair shop, but expect an unstable idle and possible stalling when you come to a stop. Avoid heavy electrical loads and prolonged idling until the fault is repaired, and do not tow a trailer if the engine stalls repeatedly.



Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter for circuit and resistance testing
- Smoke machine for vacuum leak detection
- Throttle body cleaner and soft brushes
- Basic hand tools and a torque wrench

Reading P0519

- P** Powertrain: engine, transmission and emissions.
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- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
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- 5** Vehicle speed, idle control and auxiliary inputs.
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- 19** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0505** Idle Control System Malfunction · **P0506** Idle Control System RPM Lower Than Expected · **P0507** Idle Control System RPM Higher Than Expected

See it working

Watch the animated explainer [How a Padlock Works: Pin Tumbler Lock in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0519/>

