

JAGUAR · POWERTRAIN

P1508

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1508 · Jaguar

Idle Air Control Circuit Open

P1508 on a Jaguar means the engine control module (ECM) has detected an open circuit in the idle air control (IAC) valve circuit, so it cannot command the valve to adjust idle speed. The ECM monitors the electrical path to the IAC valve and flags this code when the circuit is broken, disconnected, or has excessive resistance.

SYSTEM

Powertrain

CODE TYPE

Jaguar specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed,
idle control and
auxiliary inputs

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Unstable or fluctuating idle speed, sometimes surging or dipping below normal
- Engine stalling when coming to a stop or when the throttle is released
- Rough or erratic idle quality, especially when the engine is cold
- Difficulty maintaining a steady idle when electrical loads (A/C, lights) are switched on

Common causes, most likely first

- 1 Broken, chafed, or disconnected wiring in the IAC valve circuit
- 2 Corroded or loose electrical connector at the IAC valve
- 3 Failed idle air control valve (open winding or seized pintle)
- 4 Faulty engine control module (ECM) driver circuit for the IAC valve
- 5 Intake air leaks downstream of the throttle body causing the ECM to command extreme IAC positions
- 6 Carbon buildup or mechanical binding in the IAC valve passage or throttle body



How to diagnose and fix it

- 1 Inspect the IAC valve connector and wiring for obvious damage, corrosion, or looseness, and repair as needed
- 2 Measure the resistance of the IAC valve windings with a multimeter and compare to the Jaguar specification for your model
- 3 Check for continuity and short-to-ground on each wire between the IAC valve connector and the ECM connector
- 4 Clean the IAC valve passage and throttle body to remove carbon deposits that can cause binding
- 5 Substitute a known-good IAC valve to see if the code clears and idle behavior returns to normal
- 6 If wiring and valve are good, test the ECM driver circuit with an oscilloscope or by checking for commanded pulses at the valve connector
- 7 Clear the code and perform an idle relearn or drive cycle as required for your Jaguar model, then verify the repair

What most technicians miss on P1508

- A sticking IAC valve can set P1508 intermittently without any wiring fault, because the ECM sees an unexpected current draw when the pintle binds.
- Intake air leaks after the throttle body often cause the ECM to drive the IAC valve to its extreme limit, which can trigger an open-circuit code even though the valve itself is fine.
- On some Jaguar models, the IAC valve shares a ground or power feed with other engine sensors, so a fault elsewhere in that circuit can set P1508 as a secondary code.
- The code can be stored by a momentary loss of connection while cranking, so always check for loose pins or a partially unseated connector before condemning the valve.
- Replacing the IAC valve without checking the wiring harness for chafing near the throttle body is a common misdiagnosis that leads to repeat failures.

Can I keep driving with P1508?

You can usually drive the car to a workshop, but expect an erratic or high idle and possible stalling when you lift off the throttle. Avoid heavy traffic and stop-and-go driving until the fault is repaired, and do not ignore a stalling engine in traffic.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Socket set and screwdrivers
- Carburetor and throttle body cleaner
- Oscilloscope (optional for ECM driver testing)



Reading P1508

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Jaguar): its meaning depends on the make.
- 5** Vehicle speed, idle control and auxiliary inputs.
- 08** The exact fault within that area.

Often seen with

P0171 System Too Lean (Bank 1) · **P0174** System Too Lean (Bank 2) · **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 [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1508/>

