

JAGUAR · POWERTRAIN

P1224

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1224 · Jaguar

Electronic Throttle Control Position Error

P1224 on a Jaguar indicates that the engine control module (ECM) has detected a discrepancy between the commanded throttle plate position and the actual position reported by the throttle position sensors inside the electronic throttle body. The ECM sets this code when the measured position deviates from the target by more than a calibrated threshold for a given period, often during a self-test or while the throttle is being actuated.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Jaguar specific	High	Intermediate	Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Reduced engine power or limp-home mode, limiting vehicle speed
- Hesitation or stumble when accelerating from a stop
- Unstable or fluctuating idle speed
- Delayed or inconsistent throttle response when pressing the accelerator pedal
- In rare cases, the engine may stall or refuse to start

Common causes, most likely first

- 1 Carbon buildup or contamination on the throttle plate and bore, restricting movement
- 2 Worn or dirty throttle position sensor tracks inside the electronic throttle body
- 3 Faulty electronic throttle body actuator motor or internal binding
- 4 Damaged or corroded wiring and connectors between the throttle body and ECM
- 5 Poor electrical connections at the throttle body or ECM grounds
- 6 Failed throttle body adaptation or calibration that has not been performed after service
- 7 Less commonly, a fault within the ECM itself



How to diagnose and fix it

- 1 Inspect the throttle body for carbon deposits and clean the bore and plate with a suitable throttle body cleaner
- 2 Check all wiring and connectors at the throttle body and ECM for corrosion, chafing, or loose pins
- 3 Measure reference voltage and sensor signal returns at the throttle position sensors with a multimeter
- 4 Perform a throttle body adaptation or calibration using a Jaguar-compatible scan tool
- 5 If cleaning and adaptation do not resolve the code, replace the electronic throttle body with a known-good unit
- 6 After replacement, clear the code and re-run the adaptation procedure, then verify live data shows commanded and actual positions matching
- 7 If the fault persists, diagnose the ECM and its power/ground circuits as a last step

Why cleaning alone often fails to fix P1224

- A throttle body that looks clean can still have worn sensor tracks that cause intermittent position errors, so live data graphing during a slow throttle sweep is more revealing than a visual inspection.
- Many technicians replace the throttle body without first checking for a missing or failed adaptation, which can set P1224 immediately after installation even with a perfectly good part.
- Corroded ground points on the engine or chassis can cause voltage drops that mimic a faulty throttle body, so always verify ground integrity before condemning components.
- P1224 can be set by a momentary glitch during a battery disconnect or low-voltage event, so clearing the code and performing a relearn may be all that is needed if it does not return.
- On some Jaguar models, a failing accelerator pedal position sensor can trigger throttle position errors indirectly, so check both pedal and throttle body data when diagnosing.

Can I keep driving with P1224?

If the vehicle is in limp-home mode or the throttle response is erratic, avoid driving until the fault is repaired because reduced power can be a safety hazard in traffic. If the only symptom is a warning light and the car drives normally, you may drive cautiously to a repair shop, but do not ignore the code as it can worsen without warning.

Tools that help

- Jaguar-compatible OBD-II scan tool with live data and adaptation functions
- Digital multimeter
- Throttle body cleaner and lint-free shop rags
- Basic hand tools (screwdrivers, socket set)
- Wiring diagram for the throttle body and ECM circuits



Reading P1224

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Jaguar): its meaning depends on the make.
- 2** Fuel and air metering (injector circuits).
- 24** The exact fault within that area.

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P0122** Throttle Position Sensor A Circuit Low Input · **P0123** Throttle Position Sensor A Circuit High Input · **P2100** Throttle Actuator Control Motor Circuit/Open · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [How an Oxygen Sensor Works: Live 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1224/>

