

JAGUAR · POWERTRAIN

P1240

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1240 · Jaguar

Sensor Power Supply

P1240 on a Jaguar indicates that the engine control module (ECM) has detected a fault in the power supply circuit that feeds one or more of the vehicle's sensors, typically the reference voltage line. The ECM monitors the voltage on this supply and sets the code when it falls outside the expected range, which can starve sensors of the voltage they need to operate correctly.

SYSTEM

Powertrain

CODE TYPE

Jaguar specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air
metering (injector
circuits)

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough running or misfire if the affected sensor is critical to fuel or ignition control
- Poor fuel economy or reduced engine performance due to incorrect sensor readings
- Intermittent stalling or hesitation, especially when the engine is cold or under load
- Erratic gauge readings or warning lights for other systems sharing the same supply
- Difficulty starting or a no-start condition in severe cases

Common causes, most likely first

- 1 Corroded, loose, or damaged wiring or connectors in the sensor power supply circuit
- 2 A short to ground or open circuit in the reference voltage wire, often due to chafing or heat damage
- 3 A failed sensor that is internally shorted and dragging down the shared supply voltage
- 4 Water ingress into a connector or sensor, causing corrosion and voltage drop
- 5 A faulty engine control module (ECM) or a poor ground connection at the ECM
- 6 Blown fuse or relay supplying power to the sensor circuit (less common on Jaguar)
- 7 Aftermarket accessories or poor previous repairs tapping into the sensor supply wire



How to diagnose and fix it

- 1 Retrieve all stored codes and freeze-frame data using a Jaguar-compatible scan tool to identify which sensors are affected
- 2 Inspect the engine wiring harness and connectors for signs of corrosion, chafing, or loose pins, especially near the sensors and ECM
- 3 Measure the reference voltage at each sensor connector with the key on and engine off, comparing to the manufacturer's specification
- 4 Disconnect sensors one by one to see if the supply voltage recovers, isolating a shorted sensor
- 5 Check the resistance to ground on the supply wire to detect a short, and check continuity end-to-end for an open circuit
- 6 Verify the ECM ground connections are clean and tight, and check for power and ground at the ECM connector
- 7 Repair or replace damaged wiring, connectors, or the faulty sensor, then clear codes and verify the repair with a test drive

What a Jaguar P1240 Really Means

- P1240 is often triggered by a single sensor on the shared reference voltage line that has failed internally and is pulling the entire supply down, so disconnecting sensors one at a time is a quick way to isolate the culprit.
- A weak battery or failing alternator can cause momentary voltage drops that set P1240, so always check charging system health before condemning the wiring or ECM.
- On some Jaguar models, the sensor power supply is also shared with the throttle position sensor or accelerator pedal sensor, so a fault there can cause drivability issues that seem unrelated to the code.
- Corrosion inside a connector that looks fine from the outside is a common cause, especially in the engine bay where heat and moisture take their toll; a gentle wiggle test with the engine running can reveal intermittent faults.
- The code does not always mean the ECM is faulty; misdiagnosed ECM replacements are common when the real issue is a chafed wire behind the engine or a poor ground.

Can I keep driving with P1240?

You can usually drive the car to a workshop, but avoid heavy acceleration or long trips because a failing sensor supply can cause stalling or poor running that may worsen without warning. If the engine is misfiring or stalling frequently, stop driving and arrange a tow to prevent damage to the catalytic converter.



Tools that help

- Jaguar-compatible OBD-II scan tool with live data capability
- Digital multimeter with back-probing pins
- Wiring diagram for the specific Jaguar model and engine
- Contact cleaner and dielectric grease for connector repairs
- Test light or load probe for checking circuit integrity

Reading P1240

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

Often seen with

P0107 MAP/Barometric Pressure Circuit Low Input · **P0112** Intake Air Temperature Circuit Low Input · **P0122** Throttle Position Sensor A Circuit Low Input · **P0222** Throttle Position Sensor B Circuit Low Input · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [Car Won't Start? Step-by-Step No-Start Diagnosis](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1240/>

