

JAGUAR · POWERTRAIN

P1246

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1246 · Jaguar

Crank Signal High Input

P1246 on a Jaguar means the engine control module (ECM) has detected an abnormally high voltage on the crankshaft position sensor signal circuit, which it interprets as a crank signal that is too strong or out of range. The ECM expects the crank sensor to produce a clean, alternating low-voltage waveform as the reluctor wheel teeth pass the sensor, and a signal that stays high or spikes beyond the expected threshold triggers this code.

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
- Intermittent or complete engine stall, especially when the engine is hot or at low RPM
- Extended cranking before the engine starts, or a no-start condition
- Rough running, misfiring, or loss of power under acceleration
- Tachometer needle fluctuating or dropping to zero while driving
- Poor fuel economy or increased emissions due to incorrect timing signals

Common causes, most likely first

- 1 Damaged or chafed wiring in the crank sensor signal circuit, shorting to a voltage source or to the sensor's power feed
- 2 Failed crankshaft position sensor internally shorted, producing an abnormally high output
- 3 Corroded, loose, or contaminated connector pins at the sensor or ECM
- 4 Metallic debris or a damaged reluctor wheel tooth causing an irregular signal that the ECM reads as high
- 5 Electrical interference from a failing ignition component or aftermarket accessory wired too close to the crank sensor harness
- 6 Faulty ECM driver circuit for the crank sensor input (rare but documented on older Jaguar models)



How to diagnose and fix it

- 1 Connect a scan tool and record live crank sensor signal voltage and RPM data during cranking and while the fault is active
- 2 Visually inspect the crank sensor, its reluctor wheel, and the full harness routing for chafing, debris, or heat damage
- 3 Disconnect the sensor and measure resistance and output voltage with a multimeter or oscilloscope, comparing to Jaguar specifications
- 4 Check the sensor connector and ECM connector pins for corrosion, tightness, and correct pin fit; clean or repair as needed
- 5 Back-probe the signal wire with a scope to confirm whether the high input originates at the sensor or from a wiring short
- 6 Repair or replace the faulty section of harness, the sensor, or the connector, then clear the code and verify with a road test
- 7 If the signal remains high with a known-good sensor and verified wiring, test the ECM input circuit and replace the ECM only as a last resort

Crank Signal High Input on Jaguar

- A high input code is frequently caused by a short to voltage in the signal wire rather than a failed sensor, so replacing the crank sensor first often does not fix the fault.
- Metallic debris clinging to the sensor tip or a chipped reluctor wheel tooth can produce a signal the ECM reads as high, and this is easily missed during a quick visual check.
- On some Jaguar models, a failing ignition coil or aftermarket alarm wiring routed near the crank harness induces electrical noise that mimics a high crank signal.
- The ECM may set P1246 intermittently and store no other codes, leading technicians to dismiss it as a ghost code when a pending fault is actually present.
- Always check for a loose or corroded ground at the engine block, because a poor ground reference can shift the sensor signal voltage high and trigger this code.

Can I keep driving with P1246?

You can drive cautiously if the engine runs normally and the light is steady, but avoid hard acceleration and long trips until the fault is diagnosed. If the engine stalls, cranks without starting, or the tachometer drops out, stop driving and arrange a tow to prevent a breakdown in traffic.



Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter
- Oscilloscope for waveform analysis
- Jaguar-specific wiring diagram and connector pinout
- Basic hand tools and electrical contact cleaner

Reading P1246

- 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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- 46** The exact fault within that area.

Often seen with

P0335 Crankshaft Position Sensor A Circuit Malfunction · **P0336** Crankshaft Position Sensor A Circuit Range/Performance · **P0337** Crankshaft Position Sensor A Circuit Low Input · **P0338** Crankshaft Position Sensor A Circuit High Input · **P0339** Crankshaft Position Sensor 'A' Circuit Intermittent

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/jaguar-p1246/>

