

JAGUAR · POWERTRAIN

P1245

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1245 · Jaguar

Crank Signal Low Input

P1245 on a Jaguar means the engine control module (ECM) has detected an abnormally low voltage on the crankshaft position sensor signal circuit, so the ECM cannot reliably determine engine speed and position. The ECM stores this code when the crank signal amplitude or duty cycle falls below the expected threshold during cranking or running.

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

Symptoms you may notice

- Engine cranks but will not start, or starts only after long cranking
- Intermittent stalling, especially when the engine is hot or after hitting a bump
- Rough running or misfire because the ECM loses accurate crank position
- Tachometer drops to zero or fluctuates erratically while driving
- Often no symptoms besides the warning light if the fault is intermittent
- Reduced power or limp-home mode triggered by the ECM when the signal is lost

Common causes, most likely first

- Failed crankshaft position sensor (internal winding short or open circuit)
- Damaged or chafed sensor wiring harness near the exhaust manifold or accessory belt
- Corroded or loose connector pins at the crank sensor or ECM
- Excessive air gap between the sensor tip and the reluctor wheel due to worn sensor mount or debris
- Damaged or missing teeth on the crankshaft reluctor wheel
- Poor engine ground or voltage drop on the sensor's reference circuit
- Rarely, an internal ECM fault on the crank signal input circuit



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P1245 is active and not a ghost code from a low battery
- 2 Inspect the crank sensor connector and harness for corrosion, chafing, or oil contamination, and repair as needed
- 3 Measure sensor resistance and compare to Jaguar specification, then check the air gap to the reluctor wheel
- 4 Back-probe the signal wire at the ECM and observe the crank waveform on an oscilloscope while cranking
- 5 Check the reluctor wheel for missing teeth, cracks, or excessive runout through the sensor hole
- 6 Perform a voltage drop test on the sensor ground and reference circuits to rule out wiring resistance
- 7 Replace the crankshaft position sensor with a known-good unit and clear the code, then verify the signal returns

Crank signal faults that fool good technicians

- A weak battery or slow cranking can set P1245 because the ECM sees low signal amplitude during cranking, so always load-test the battery before condemning the sensor.
- The crank sensor on many Jaguar V6 and V8 engines sits close to the exhaust manifold, and heat-soak damage to the sensor or its wiring often only shows up when the engine is hot.
- An intermittent P1245 that clears after restart is frequently caused by a chafed signal wire grounding against the block rather than a failed sensor.
- Aftermarket crank sensors for Jaguars have a poor reputation for signal quality, so a new but cheap sensor can set the same code again.
- A failing camshaft sensor or a stretched timing chain can cause the ECM to misreport crank signal faults, so check cam-crank correlation before replacing parts.

Can I keep driving with P1245?

Do not drive the car if it is stalling or will not restart reliably, because a sudden loss of crank signal can cut the engine at speed. If the light is on but the engine runs normally, drive only to a workshop and avoid heavy load or high-speed driving.

Tools that help

- OBD-II scan tool with Jaguar-specific software
- Digital multimeter
- Oscilloscope for waveform capture
- Feeler gauges for air gap measurement
- Battery load tester
- Wiring diagram and back-probe kit



Reading P1245

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

Often seen with

P1246 Needle Lift Sensor Circuit Range Performance · **P1246** Accelerator Position Sensor 1 Circuit Malfunction · **P1246** Crank Signal High Input · **P1246** Accelerator Position Sensor 1 Circuit Malfunction · **P1246** Alternator Load Input Failed · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0336** Crankshaft Position Sensor A Circuit Range/Performance · **P0339** Crankshaft Position Sensor 'A' Circuit Intermittent · **P0340** Camshaft Position Sensor A Circuit Malfunction (Bank 1)

See it working

Watch the animated explainer [How a CVT Works: Belt and Pulley Transmission](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1245/>

