

JAGUAR · POWERTRAIN

P1174

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1174 · Jaguar

System Too Lean Banks 1 And 2 (Suspect HO2S)

P1174 on a Jaguar indicates that the engine control module has detected a lean fuel mixture on both banks of the engine, meaning too much air and not enough fuel are reaching the cylinders. The code specifically flags the heated oxygen sensors (HO2S) as suspect, because their voltage signals are staying lower than expected for an extended period, suggesting either a genuine lean condition or a sensor that is not reporting accurately.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Jaguar specific	Medium	Intermediate	Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms
- Rough idle or intermittent misfire, especially when the engine is cold
- Hesitation or stumble during acceleration
- Reduced fuel economy as the engine control module attempts to compensate
- Occasional surging or uneven power delivery under light throttle
- In severe cases, a lean misfire that triggers a flashing check engine light

Common causes, most likely first

- 1 Vacuum leaks from cracked or disconnected intake hoses, intake manifold gaskets, or the PCV system
- 2 Faulty heated oxygen sensors (HO2S) that are slow to respond or biased lean
- 3 Contaminated mass airflow sensor (MAF) element causing under-reporting of incoming air
- 4 Fuel delivery issues such as a weak fuel pump, clogged fuel filter, or restricted fuel injectors
- 5 Exhaust leaks upstream of the oxygen sensors allowing outside air to be drawn into the exhaust stream
- 6 Leaking intake manifold gaskets or worn throttle body seals on older Jaguar V8 engines
- 7 Engine misfire or mechanical faults such as low compression that alter the oxygen content in the exhaust



How to diagnose and fix it

- 1 Perform a visual inspection of all intake and vacuum hoses for cracks, loose clamps, or disconnected lines, and repair any leaks found
- 2 Use a scan tool to view live oxygen sensor voltage and fuel trim data on both banks to confirm whether the lean condition is real or sensor-induced
- 3 Check for exhaust leaks upstream of the oxygen sensors by listening for ticking sounds and inspecting for soot trails at joints and gaskets
- 4 Clean the mass airflow sensor with a dedicated MAF cleaner and verify its readings against expected values
- 5 Measure fuel pressure at the rail and compare with Jaguar specifications to rule out a weak pump or clogged filter
- 6 Test the heated oxygen sensors for proper switching frequency and heater circuit resistance, replacing any sensor that responds sluggishly or stays lean
- 7 If all external causes are ruled out, perform a smoke test of the intake system to pinpoint hidden leaks, then re-evaluate fuel trim values after repairs

Why both banks lean points to shared air

- A lean condition on both banks simultaneously almost always indicates a problem that affects the entire engine, such as a shared vacuum leak or a single mass airflow sensor under-reporting, rather than two separate oxygen sensor failures.
- Jaguar's engine control module can set P1174 even when the oxygen sensors are functioning correctly, because the code is triggered by the lean signal the sensors report, not by a sensor fault itself.
- A dirty mass airflow sensor is a frequent culprit on Jaguar AJ-V8 engines, and cleaning it often resolves the code without replacing any oxygen sensors.
- Exhaust leaks upstream of the oxygen sensors can draw in fresh air during low-pressure pulses, fooling the sensors into reporting a lean condition that does not exist in the combustion chamber.
- After repairing a vacuum leak, the fuel trim values may take several drive cycles to relearn, so do not replace oxygen sensors until the module has had time to recalibrate.

Can I keep driving with P1174?

You can drive the car short distances to a repair shop, but avoid hard acceleration and sustained high-speed driving because a lean mixture increases combustion temperatures and can damage valves or catalytic converters. If the check engine light flashes, stop driving and have the vehicle towed.



Tools that help

- OBD-II scan tool with live data capability
- Smoke machine for intake leak detection
- Fuel pressure gauge
- Digital multimeter for sensor testing
- MAF sensor cleaner
- Basic hand tools and socket set

Reading P1174

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (Jaguar): its meaning depends on the make.

1 Fuel and air metering.

74 The exact fault within that area.

Often seen with

P1171 Throttle Actuation Potentiometer Signal 2 Range Performance · **P1171** System Too Lean Banks 1 And 2 (Lean Fuel Fault) · **P1175** System Too Rich Banks 1 And 2 (Suspect HO2S) · **P1171** Fuel System Lean During Acceleration · **P1171** Rotor Sensor Fault · **P1175** Cam Control Fault · **P1171** Fuel System Lean During Acceleration · **P1175** Fuel Trim Adaptation Additive Bank 2 Malfunction · **P0102** Mass/Volume Air Flow Circuit Low Input · **P0171** System Too Lean (Bank 1) · **P0174** System Too Lean (Bank 2)

See it working

Watch the animated explainer [V6 Engine Explained: 60° Bank and Firing Order](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1174/>

