

JAGUAR · POWERTRAIN

P1157

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1157 · Jaguar

Lack Of HO2S22 Switches Sensor Indicates Lean

P1157 on a Jaguar means the rear heated oxygen sensor on bank 2 (HO2S22) is not switching between rich and lean as the engine computer expects, and the signal is stuck indicating a lean condition. The engine control module monitors the sensor's voltage and flags this code when the sensor fails to cross the lean-to-rich threshold within a calibrated time, which usually points to a lazy sensor, a wiring fault, or an exhaust leak ahead of the sensor.

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

Symptoms you may notice

- Illuminated check engine light, often with no other noticeable symptoms
- Slightly rough idle or hesitation when the engine is cold
- Poor fuel economy as the computer adds fuel based on the false lean signal
- A faint rotten-egg or fuel smell from the exhaust in some cases
- Intermittent misfire or stumble under light acceleration

Common causes, most likely first

- 1 Aged or contaminated rear oxygen sensor (HO2S22) that no longer switches quickly
- 2 Exhaust leak between the catalytic converter and the sensor, or a cracked converter housing
- 3 Damaged or corroded sensor wiring or connector pins at the HO2S22 harness
- 4 A failing catalytic converter that no longer stores oxygen, causing the rear sensor to read lean
- 5 An intake air leak or unmetered air entering after the mass airflow sensor, skewing fuel trims
- 6 Low fuel pressure or a weak fuel pump delivering less fuel than the computer commands
- 7 A stuck-open purge valve or evaporative emissions fault allowing extra air into the intake



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1157, then check for related codes in engine, transmission, and evap systems
- 2 Inspect the HO2S22 sensor, its connector, and the exhaust pipe for leaks, corrosion, or physical damage
- 3 Use a scan tool to watch HO2S22 voltage in real time; a healthy rear sensor should switch between roughly 0.1 V and 0.9 V
- 4 Check fuel trims and compare bank 1 and bank 2 rear sensor activity to isolate whether the fault is sensor-specific or system-wide
- 5 Perform a smoke test on the intake and exhaust to find unmetered air or leaks ahead of the sensor
- 6 Verify fuel pressure and injector operation if trims suggest a lean condition across both banks
- 7 Replace the HO2S22 sensor only after wiring and exhaust checks pass, then clear codes and confirm the monitor completes

Why a lazy rear sensor fools the computer

- A rear oxygen sensor that switches slowly can set P1157 without any driveability complaint, so many owners replace good sensors when the real fault is a small exhaust leak at the converter flange.
- Jaguar's rear sensor monitors are sensitive to exhaust leaks after the catalytic converter, and a pinhole leak in the pipe or a failed gasket can mimic a lean sensor signal.
- The code does not always mean the sensor is dead; a contaminated sensor from coolant or oil burning in the engine can switch lazily and trigger P1157 while still producing a plausible voltage.
- Bank 2 on V6 and V8 Jaguars is often the harder side to access, and technicians sometimes replace the sensor without checking the connector for green corrosion that causes the same symptom.
- A failing catalytic converter can cause the rear sensor to read lean because the converter no longer stores oxygen, so always compare front and rear sensor switching before condemning the sensor.

Can I keep driving with P1157?

You can usually drive the car short distances to a workshop, but avoid heavy acceleration and long trips because the false lean signal makes the computer add fuel, which can overheat the catalytic converter and worsen fuel economy. If the check engine light starts flashing or the engine misfires, stop driving and have it towed.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter for checking sensor voltage and wiring continuity
- Smoke machine for intake and exhaust leak testing
- Fuel pressure gauge
- Oxygen sensor socket and breaker bar
- Wiring diagram for the HO2S22 circuit



Reading P1157

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

Often seen with

P1156 Manifold Absolute Pressure Sensor Circuit Open/Short To Ground · **P1156** HO2S Rich Average Bank 2 Sensor 1 · **P1156** HO2S Rich Average Bank 2 Sensor 1 · **P1156** O2 Sensor Heater Circuit Low Voltage Bank 2 Sensor 2 · **P0136** O2 Sensor Circuit Malfunction (Bank 1 Sensor 2) · **P0156** O2 Sensor Circuit Malfunction (Bank 2 Sensor 2) · **P0171** System Too Lean (Bank 1) · **P0420** Catalyst System Efficiency Below Threshold (Bank 1)

See it working

Watch the animated explainer [How a Wideband Air-Fuel Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/jaguar-p1157/>

