



P1152 · Ford

Lack of Upstream Heated Oxygen Sensor Switch Sensor Indicates Rich Bank 2

P1152 on Ford vehicles means the powertrain control module (PCM) has detected that the upstream heated oxygen sensor (HO2S) on bank 2 is not switching as expected and is reporting a rich exhaust condition. The PCM monitors the sensor's voltage and compares it to expected values; when the signal stays high or switches too slowly, it sets this code because the sensor indicates a persistent rich mixture on the bank that contains cylinder number 2.

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

Symptoms you may notice

- Illumination of the check engine light, often with no other noticeable symptoms.
- A slight decrease in fuel economy as the engine runs richer than necessary.
- Rough idle or hesitation during acceleration if the rich condition is severe.
- Black, sooty exhaust smoke or a strong fuel odor from the tailpipe.
- Possible surging or bucking at steady speeds due to incorrect fuel delivery.
- Failed emissions test due to high hydrocarbon (HC) or carbon monoxide (CO) levels.

Common causes, most likely first

- 1 A failing upstream heated oxygen sensor on bank 2 that is slow to respond or stuck rich.
- 2 A vacuum leak on bank 2 that causes a lean condition, which the sensor misreports as rich due to contamination or sluggish response.
- 3 Leaking or stuck-open fuel injector on bank 2, delivering excess fuel.
- 4 High fuel pressure from a faulty fuel pressure regulator or restricted return line.
- 5 A contaminated mass airflow (MAF) sensor or dirty air filter affecting overall mixture, though bank-specific codes often point to bank 2 issues.
- 6 Exhaust leaks before the upstream sensor on bank 2, allowing outside air to skew readings.
- 7 Wiring or connector problems at the bank 2 upstream oxygen sensor, such as corrosion or chafed wires.



How to diagnose and fix it

- 1 Inspect the bank 2 upstream oxygen sensor wiring and connector for damage, corrosion, or loose pins; repair as needed.
- 2 Check for vacuum leaks on bank 2 using a smoke machine or propane enrichment, and fix any leaking intake gaskets or hoses.
- 3 Test fuel pressure with a gauge and compare to Ford specifications; replace the fuel pressure regulator if pressure is too high.
- 4 Perform a cylinder balance test or injector flow test to identify a leaking injector on bank 2; replace faulty injectors.
- 5 Use a scan tool to view live data for the bank 2 upstream oxygen sensor; if the signal is flat or slow, replace the sensor with a Ford-recommended part.
- 6 Inspect the exhaust system for leaks before the bank 2 upstream sensor and repair any leaks.
- 7 Clear the code and perform a drive cycle to verify the repair; ensure the oxygen sensor monitor completes and the code does not return.

Bank 2 rich code misdiagnosis traps

- A vacuum leak on bank 2 can cause a lean condition that the oxygen sensor reports as rich if the sensor is contaminated or has a slow response, leading to unnecessary sensor replacement.
- Ford's oxygen sensor monitor can set P1152 due to a lazy sensor that still switches but not fast enough, so live data graphing is more reliable than a simple voltage check.
- Exhaust leaks upstream of the sensor on bank 2 pull in outside oxygen and can mimic a rich condition, so always inspect the exhaust before condemning the sensor.
- A dirty mass airflow sensor can skew fuel trims globally, but bank 2 may be the first to set a code if its sensor is older or slightly degraded.
- Replacing the oxygen sensor without checking fuel pressure and injector balance often leads to a repeat code because the root cause is excess fuel, not the sensor itself.

Can I keep driving with P1152?

You can usually drive the vehicle with P1152 set, but expect reduced fuel economy and possible rough running. Avoid heavy acceleration or towing until the fault is repaired, and have it diagnosed soon to prevent catalytic converter damage from prolonged rich operation.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Fuel pressure gauge
- Smoke machine for vacuum leak detection
- Cylinder balance tester or injector flow tester
- Basic hand tools and socket set

Reading P1152

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

Often seen with

P1151 Bank 1 Long Term Fuel Trim Range 1 Lower Lean Limit Exceeded · **P1151** Rear Oxygen Sensor Heater Circuit High Input · **P1151** HO2S Bank 2 Sensor 1 Signal Below 0.45v AF Ratio Too Lean · **P1151** Lack of Upstream Heated Oxygen Sensor Switch Sensor Indicate · **P1151** O2 Sensor Heater Circuit Signal Intermittent Bank 2 Sensor 1 · **P0132** O2 Sensor Circuit High Voltage (Bank 1 Sensor 1) · **P0152** O2 Sensor Circuit High Voltage (Bank 2 Sensor 1) · **P0172** System Too Rich (Bank 1) · **P0175** System Too Rich (Bank 2)

See it working

Watch the animated explainer [Excavator Simulator: Hydraulics You Can Operate](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1152/>

