

CHRYSLER · POWERTRAIN

P1163

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1163 · Chrysler

HO2S Bank 2 Sensor 3 Lean System Or Low Voltage

P1163 on Chrysler vehicles means the powertrain control module (PCM) has detected that the downstream heated oxygen sensor (HO2S) on bank 2, sensor 3, is reporting a lean condition or a low voltage signal that stays below the expected threshold. The PCM monitors this sensor's output after the catalytic converter to verify catalyst efficiency and fuel control, and it sets the code when the signal remains lean or the voltage stays abnormally low for a calibrated time.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Illumination of the check engine light (malfunction indicator lamp) with no other obvious drivability complaint.
- A slight decrease in fuel economy as the PCM may add fuel based on the false lean signal.
- Occasional rough idle or hesitation during light acceleration if the lean condition affects overall fuel trim.
- A sulfur or rotten egg smell from the exhaust if the engine is running rich due to the sensor's false lean report.
- In some cases, the engine may run poorly or stall when the PCM overcompensates for the perceived lean condition.
- Often no symptoms besides the warning light, especially if the sensor's signal is only intermittently low.

Common causes, most likely first

- 1 A failed or degraded bank 2 sensor 3 heated oxygen sensor (HO2S) that is stuck lean or producing low voltage.
- 2 A wiring fault in the sensor circuit, such as a short to ground, an open circuit, or high resistance in the signal or heater wires.
- 3 An exhaust leak upstream of the sensor, allowing outside air to enter and cause a false lean reading.
- 4 A contaminated sensor from engine oil, coolant, or silicone poisoning that reduces its voltage output.
- 5 A failing catalytic converter on bank 2 that is not storing oxygen properly, though this usually sets a catalyst efficiency code first.
- 6 A PCM calibration issue or internal driver fault in the oxygen sensor heater circuit, though this is less common.
- 7 Low fuel pressure or a vacuum leak that creates an actual lean condition the sensor correctly reports, but the code specifically points to the sensor signal being low.



How to diagnose and fix it

- 1 Inspect the bank 2 sensor 3 wiring and connector for damage, corrosion, or loose pins, and repair any faults found.
- 2 Check for exhaust leaks between the engine and the sensor using a smoke machine or by listening for ticking noises when cold.
- 3 Measure the sensor's heater circuit resistance and compare to specification, and verify power and ground at the connector with the key on.
- 4 Use a scan tool to view live data for bank 2 sensor 3 voltage; a healthy sensor should switch between approximately 0.1 and 0.9 volts, so a steady low reading confirms a sensor or circuit problem.
- 5 Perform a propane enrichment test at the intake to see if the sensor responds; if it does not, replace the sensor.
- 6 Replace the bank 2 sensor 3 heated oxygen sensor with a quality OEM or equivalent part, clearing codes and verifying the repair with a test drive.
- 7 If the sensor and wiring are good, check fuel pressure and inspect for vacuum leaks that could cause a genuine lean condition, and repair as needed.

What a lean bank 2 sensor 3 really means

- A lean code for a downstream sensor often does not mean the engine is actually lean; it frequently indicates the sensor itself is lazy or the circuit has resistance, so replacing the sensor is not always the first step.
- Exhaust leaks after the catalytic converter but before the sensor can pull in outside air and create a false lean signal, so always inspect the exhaust system before condemning the sensor.
- Chrysler PCMs are sensitive to aftermarket oxygen sensors that may not meet the same response time or heater resistance as the original, so using a low-quality replacement can cause the code to return.
- The bank 2 sensor 3 location on V6 and V8 Chrysler engines is often difficult to access, and a pinched or melted harness from prior repairs is a common cause of low voltage on this circuit.
- A weak battery or charging system can cause low reference voltage to the sensor, so verify battery and ground integrity before replacing parts.

Can I keep driving with P1163?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration or towing because a persistent lean signal can cause the PCM to add excess fuel, leading to carbon buildup and potential catalytic converter damage. If the check engine light starts flashing or you notice rough running, stop driving and have the vehicle towed.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Smoke machine for exhaust leak detection
- Socket set and oxygen sensor wrench
- Wiring diagram for the specific Chrysler model

Reading P1163

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

Often seen with

P1162 Fuel Temperature Sensor Circuit Short To Ground · **P1162** HO2S11 Circuit Fault Bank 1 Sensor 1 · **P1162** HO2S11 Circuit Fault Bank 1 Sensor 1 · **P1162** Fuel Trim Adaptation Additive Per Ignition Bank 1 Low · **P0137** O2 Sensor Circuit Low Voltage (Bank 1 Sensor 2) · **P0157** O2 Sensor Circuit Low Voltage (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 Refrigerator Works: The Cooling Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1163/>

