

CHRYSLER · POWERTRAIN

P1153

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1153 · Chrysler

HO2S Insufficient Switching

P1153 on a Chrysler vehicle means the powertrain control module (PCM) has detected that the upstream oxygen sensor (HO2S, heated oxygen sensor) is not switching rich-to-lean fast enough or often enough during closed-loop operation. The PCM watches the sensor voltage cross a calibrated threshold and counts the transitions; when the count falls below the expected value for the current engine operating conditions, it stores this insufficient switching code.

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, often with no other noticeable symptoms
- A slight decrease in fuel economy as the PCM struggles to maintain the correct air-fuel ratio
- Occasional rough idle or a subtle stumble during light acceleration
- Elevated hydrocarbon (HC) and carbon monoxide (CO) emissions that may fail an emissions test
- In some cases, a faint sulfur or rotten-egg smell from the exhaust if the mixture stays rich
- No drivability complaint at all, especially on newer Chrysler models with adaptive fuel control

Common causes, most likely first

- 1 A contaminated or aged upstream oxygen sensor that responds sluggishly to mixture changes
- 2 A vacuum leak downstream of the mass airflow (MAF) sensor, such as a cracked intake tube or leaking intake manifold gasket, that skews the mixture and slows sensor switching
- 3 Exhaust leaks ahead of the upstream oxygen sensor, allowing outside air to pulse past the sensor tip
- 4 A lazy or failing upstream oxygen sensor heater circuit that prevents the sensor from reaching operating temperature quickly
- 5 Fuel system problems such as low fuel pressure, leaking injectors, or a stuck-open purge solenoid that keep the mixture from oscillating normally
- 6 A restricted or contaminated mass airflow sensor that reports inaccurate airflow and forces the PCM to command a mixture the oxygen sensor cannot follow
- 7 Rarely, a PCM calibration issue or a wiring fault in the oxygen sensor signal circuit that adds resistance and slows the voltage response



How to diagnose and fix it

- 1 Connect a scan tool and verify the code is current, then check freeze-frame data for engine speed, coolant temperature, and short-term fuel trim to understand the conditions when the fault set.
- 2 Inspect the upstream oxygen sensor signal with a graphing scan tool or oscilloscope; a healthy sensor should switch between roughly 0.1 V and 0.9 V several times per second at operating temperature.
- 3 Perform a thorough visual inspection of the intake system and vacuum lines for leaks, and check the exhaust system for leaks ahead of the upstream sensor.
- 4 Measure fuel pressure and check fuel trim values at idle and at 2500 rpm to rule out a fuel delivery problem before condemning the sensor.
- 5 Test the oxygen sensor heater circuit for resistance and supply voltage, and inspect the sensor connector and wiring for corrosion or chafing.
- 6 If the sensor is slow or contaminated, replace the upstream oxygen sensor with the correct Chrysler-specified part, then clear the code and verify the sensor switches normally on a test drive.
- 7 After any repair, complete a drive cycle that includes closed-loop operation at various speeds and confirm the code does not return.

Why a slow O2 sensor is not always the culprit

- A vacuum leak or exhaust leak can make a perfectly good oxygen sensor look lazy, so always check for leaks before replacing the sensor.
- Chrysler PCMs on some models use a wide-range air-fuel sensor upstream; P1153 may still appear if the sensor's switching characteristic degrades, but the diagnostic approach differs from a traditional narrow-band sensor.
- Fuel trim readings that are heavily positive or negative at idle often point to a mechanical issue rather than the sensor itself, so review long-term and short-term fuel trim before condemning the sensor.
- A failing oxygen sensor heater can set P1153 without a dedicated heater code, so always test the heater circuit even when the heater code is not present.
- After replacing the sensor, the PCM may need several drive cycles to relearn the sensor's switching behavior; do not assume the repair failed if the light stays on briefly.

Can I keep driving with P1153?

You can usually continue driving with P1153, but avoid heavy acceleration or towing until the fault is repaired because the engine may run rich and damage the catalytic converter over time. Have the vehicle diagnosed soon to prevent increased emissions and potential long-term catalyst damage.



Tools that help

- OBD-II scan tool with graphing capability
- Digital multimeter
- Vacuum gauge
- Fuel pressure gauge
- Oscilloscope (optional but helpful for sensor signal analysis)
- Basic hand tools for sensor and connector access

Reading P1153

P Powertrain: engine, transmission and emissions.

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

1 Fuel and air metering.

53 The exact fault within that area.

Often seen with

P1152 Bank 1 Long Term Fuel Trim Range 2 Lower Lean Limit Exceeded · **P1152** HO2S Bank 2 Sensor 1 Signal Above 0.45v AF Ratio Too Rich · **P1152** Lack of Upstream Heated Oxygen Sensor Switch Sensor Indicate · **P1152** O2 Sensor Heater Circuit Low Voltage Bank 2 Sensor 1 · **P0133** O2 Sensor Circuit Slow Response (Bank 1 Sensor 1) · **P0134** O2 Sensor Circuit No Activity (Bank 1 Sensor 1) · **P0171** System Too Lean (Bank 1) · **P0172** System Too Rich (Bank 1)

See it working

Watch the animated explainer [How a Catalytic Converter Works: 3D Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1153/>

