

P1153 · GM

O2 Sensor Low Switching (Bank 2 Sensor 1)

P1153 on GM vehicles means the upstream oxygen sensor on bank 2 (the side of the engine that does not contain cylinder 1) is switching too slowly or not at all, so the powertrain control module is not seeing the expected voltage changes. The computer monitors how many times the sensor crosses its midpoint voltage over a set drive cycle, and when that count falls below the calibrated threshold it stores this code.

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

Symptoms you may notice

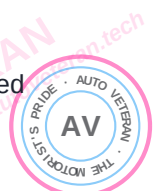
- Illumination of the check engine light, often with no other noticeable symptoms
- A slight drop in fuel economy as the system defaults to a richer or less precise fuel mixture
- Rough idle or a faint hesitation during light acceleration
- Elevated hydrocarbon emissions that may fail an emissions inspection
- In some cases, a sulfur or rotten-egg smell from the exhaust if the mixture stays rich

Common causes, most likely first

- 1 A lazy or aged bank 2 upstream oxygen sensor that no longer reacts quickly to changing exhaust oxygen
- 2 Contamination of the sensor tip from coolant, oil, or silicone, which slows its response
- 3 An exhaust leak ahead of the sensor that dilutes the sample and confuses the switching signal
- 4 Wiring damage, corrosion, or a poor ground on the sensor circuit that adds resistance
- 5 A vacuum leak or intake leak on bank 2 that skews the actual air-fuel ratio
- 6 A failing mass airflow sensor or fuel pressure problem that affects both banks but trips the weaker sensor first

How to diagnose and fix it

- 1 Scan all stored and pending codes and record freeze-frame data to confirm P1153 is the primary fault
- 2 Inspect the bank 2 upstream sensor wiring and connector for chafing, corrosion, and tight pin fit
- 3 Check for exhaust leaks between the cylinder head and the sensor using a smoke test or a stethoscope
- 4 Graph the bank 2 sensor 1 voltage on a scan tool and compare its switching rate to bank 1 sensor 1
- 5 Perform a propane or smoke test for vacuum leaks on the bank 2 side of the engine
- 6 Verify fuel pressure and inspect the mass airflow sensor reading against expected values
- 7 Replace the bank 2 upstream oxygen sensor only after the circuit and air-fuel corrections are verified



Why a slow O2 sensor fools good technicians

- A sensor that is merely slow often still produces a plausible voltage range, so a simple pass-fail test can miss it while a graphing scan tool shows the lazy switching clearly.
- Exhaust leaks upstream of the sensor are a common cause of a slow-switching code because outside air pulses into the pipe and dilutes the sample the sensor sees.
- Technicians sometimes replace the sensor only to have the code return because a vacuum leak or a tired mass airflow sensor was skewing the mixture on bank 2 all along.
- Bank 2 sensor 1 is the upstream sensor on the side of the engine that does not contain cylinder 1, so confirming which bank is which prevents replacing the wrong sensor.
- A contaminated sensor from a leaking intake gasket or a failing head gasket can set this code before any misfire or coolant-loss symptom appears.

Can I keep driving with P1153?

You can usually drive the vehicle with P1153 set, but avoid heavy acceleration and long trips because the engine is running on a less precise fuel mixture. Have it diagnosed soon, especially if the check engine light is flashing or you notice rough running.

Tools that help

- OBD-II scan tool with live data graphing capability
- Digital multimeter
- Smoke machine or propane enrichment tool for vacuum and exhaust leak testing
- Oxygen sensor socket and ratchet
- Fuel pressure gauge

Reading P1153

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

Often seen with

P1154 Manifold Switch Over Malfunction · **P1154** Bank 2 Fuel Control Shifted Rich FAOSC · **P1154** O2 Sensor Low Transition Time (Bank 2 Sensor 1) · **P1154** Bank 2 Fuel Control Shifted Rich · **P1154** HO2S Transition Time Ratio · **P0151** O2 Sensor Circuit Low Voltage (Bank 2 Sensor 1) · **P0153** O2 Sensor Circuit Slow Response (Bank 2 Sensor 1) · **P0174** System Too Lean (Bank 2) · **P0300** Random/Multiple Cylinder Misfire Detected



See it working

Watch the animated explainer [How a Rotary Engine Works: Wankel in X-Ray](#) on Auto Veteran to see the parts involved moving.

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

