

GM · POWERTRAIN

P1134

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1134 · GM

O2 Sensor Transition Time (Bank 1 Sensor 1)

P1134 on a GM vehicle means the powertrain control module has measured the upstream oxygen sensor on bank 1 responding too slowly as the exhaust mixture swings rich and lean. The computer watches how long the sensor signal takes to transition between voltage thresholds and flags the code when that transition time exceeds the calibrated limit. This is a performance fault in the sensor circuit or the sensor itself, not a hard failure of the sensor heater.

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 hesitation or stumble during light-throttle acceleration
- Poor fuel economy as the computer richens the mixture in response to lazy feedback
- Rough or unstable idle quality on some vehicles
- A faint sulfur or rotten-egg smell from the exhaust in severe cases
- Failed emissions inspection due to the oxygen sensor monitor not completing

Common causes, most likely first

- 1 Aged or contaminated bank 1 sensor 1 oxygen sensor that responds sluggishly
- 2 Exhaust leaks ahead of the upstream sensor admitting outside air and skewing the reading
- 3 Vacuum leaks or unmetered air entering the intake and disturbing mixture control
- 4 A dirty or failing mass airflow sensor biasing the mixture and slowing sensor response
- 5 Fuel pressure problems such as a weak pump or leaking pressure regulator
- 6 Wiring damage, corrosion, or poor terminal tension in the sensor signal circuit
- 7 A restricted exhaust or failing catalytic converter affecting exhaust gas flow



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code and operating conditions
- 2 Inspect the bank 1 upstream sensor wiring and connector for chafing, corrosion, and tight terminals
- 3 Smoke-test the intake and exhaust for vacuum and pre-sensor exhaust leaks
- 4 Graph the upstream and downstream oxygen sensor voltages on a scan tool to compare response speed
- 5 Check fuel trims and mass airflow readings to rule out mixture errors before condemning the sensor
- 6 Replace the bank 1 sensor 1 oxygen sensor with the correct GM-specified part if response is confirmed slow
- 7 Clear the codes and complete the oxygen sensor monitor to verify the repair

Why a lazy O2 sensor fools many diyers

- A sensor can switch voltage on a scan tool and still fail the transition-time test, so graphing alone does not prove the sensor is good.
- Exhaust leaks just ahead of the upstream sensor are a common cause of slow transition readings and are frequently missed during visual inspection.
- Fuel trim and mass airflow faults can make a healthy oxygen sensor look lazy, so always verify mixture control before replacing parts.
- Some aftermarket oxygen sensors have different response characteristics than the GM original and can set this code again shortly after installation.
- The code can set intermittently during cold start or extended idle and may not return until the same conditions are repeated.

Can I keep driving with P1134?

The vehicle is generally safe to drive to a repair shop, but avoid heavy acceleration and long trips until the fault is diagnosed. Continued driving with a slow upstream sensor can hurt fuel economy and may eventually damage the catalytic converter.

Tools that help

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



Reading P1134

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

Often seen with

P0133 O2 Sensor Circuit Slow Response (Bank 1 Sensor 1) · **P0171** System Too Lean (Bank 1) · **P0172** System Too Rich (Bank 1) · **P0300** Random/Multiple Cylinder Misfire Detected · **P0420** Catalyst System Efficiency Below Threshold (Bank 1)

See it working

Watch the animated explainer [How a Manual Transmission Works: Four-Speed Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1134/>

