

GM · POWERTRAIN

P1275

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1275 · GM

Accelerator Pedal Position Sensor Circuit

This code means the engine control module (ECM) has detected an abnormal signal from the accelerator pedal position (APP) sensor circuit, which tells the computer how far you are pressing the gas pedal. The ECM compares the APP sensor signals with the throttle position sensor (TPS) signals and sets P1275 when the voltages do not match expected values or fall outside the normal range.

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

Symptoms you may notice

- The check engine light or reduced power light illuminates on the dashboard.
- The engine may enter limp mode, limiting speed to a low threshold such as 25 mph.
- The accelerator pedal may feel unresponsive or require excessive travel to accelerate.
- The engine may idle erratically or stall when coming to a stop.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- Faulty accelerator pedal position sensor assembly, which contains two or three potentiometers that wear out over time.
- Wiring damage between the APP sensor and the ECM, such as chafed wires, corrosion at connectors, or a broken ground circuit.
- Poor electrical connection at the APP sensor harness connector or the ECM connector, often due to water intrusion or loose pins.
- Failed ECM, though this is rare and should only be suspected after all other possibilities are ruled out.
- A misadjusted or sticking accelerator pedal linkage that prevents the sensor from returning to its rest position.
- Voltage reference or signal return circuit issues shared with other sensors, causing a biased APP signal.



How to diagnose and fix it

- 1 Use a scan tool to read the APP sensor voltage parameters and compare them with the throttle position sensor readings while slowly pressing and releasing the pedal.
- 2 Visually inspect the APP sensor connector and wiring for corrosion, loose pins, or chafed insulation, and repair any damage found.
- 3 Check the APP sensor ground circuit for excessive resistance using a multimeter, and verify the 5-volt reference voltage at the sensor connector.
- 4 Perform a wiggle test on the harness while watching the APP sensor voltage on the scan tool to catch intermittent wiring faults.
- 5 If the sensor signal is erratic or does not match the expected voltage curve, replace the accelerator pedal position sensor assembly.
- 6 After replacement, clear the codes and perform a throttle body relearn or idle relearn procedure as required for the specific GM vehicle.
- 7 If the fault persists after all wiring and sensor checks, diagnose the ECM by verifying powers, grounds, and signal integrity before considering replacement.

What most technicians miss on P1275

- The APP sensor often has two or three separate signal circuits that must agree within a tight tolerance; a single worn track can set P1275 without any driveability complaint.
- Corrosion inside the underhood connector is a common cause on older GM trucks and SUVs, and it can mimic a failed pedal assembly.
- A weak battery or charging system fault can cause erratic APP sensor voltages and set this code, so always check battery voltage and grounds first.
- After replacing the APP sensor, some GM models require a relearn procedure with a scan tool, or the code will return immediately.
- The code can be set by a sticking throttle plate or carbon buildup in the throttle body, which causes the ECM to see a mismatch between pedal and throttle positions.

Can I keep driving with P1275?

If the vehicle is in limp mode or the pedal response is unpredictable, avoid driving on busy roads and have it diagnosed promptly. If the only symptom is the warning light and the car drives normally, you can drive to a repair shop but avoid hard acceleration and towing until the fault is repaired.



Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wire piercing probes or back probe pins
- Socket set and trim removal tools
- Service information for the specific GM vehicle

Reading P1275

P Powertrain: engine, transmission and emissions.

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

2 Fuel and air metering (injector circuits).

75 The exact fault within that area.

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P0122** Throttle Position Sensor A Circuit Low Input · **P0123** Throttle Position Sensor A Circuit High Input · **P0221** Throttle Position Sensor B Circuit Range/Performance · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation

See it working

Watch the animated explainer [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1275/>

