

GM · POWERTRAIN

P1276

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1276 · GM

Accelerator Pedal Positioning Sensor 1 Circuit

P1276 on GM vehicles indicates that the engine control module has detected an out-of-range or inconsistent signal from the accelerator pedal position sensor 1 circuit, which is the primary input for driver torque request. The computer compares this signal against sensor 2 and the expected voltage range, and it sets the code when the correlation or voltage falls outside the calibrated limits.

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

Symptoms you may notice

- Reduced engine power or limp mode with the check engine light and often the reduced power light illuminated
- A dead or unresponsive accelerator pedal, or a pedal that feels normal but produces no engine response
- Hesitation or stumble when pressing the accelerator from a stop
- Intermittent loss of power while driving, sometimes accompanied by a message on the driver information center
- Often no symptoms besides the warning light if the fault is stored but not currently active

Common causes, most likely first

- Worn or contaminated accelerator pedal position sensor assembly, especially on high-mileage vehicles
- Corroded, loose, or damaged terminals at the accelerator pedal connector or the engine control module connector
- Chafed or broken wires in the accelerator pedal harness, often near the pedal bracket or under the dash
- Failed or misadjusted accelerator pedal assembly causing sensor 1 to fall outside its expected voltage range
- Engine control module internal fault on the sensor 1 signal circuit, though this is less common
- Poor ground connection for the accelerator pedal sensor circuit, leading to a biased signal



How to diagnose and fix it

- 1 Connect a scan tool and record the accelerator pedal position sensor 1 and sensor 2 voltages at rest and through the full pedal sweep to confirm the fault
- 2 Visually inspect the accelerator pedal connector and harness for corrosion, loose pins, or chafed wires, and repair as needed
- 3 Check the sensor reference voltage and ground at the pedal connector with a multimeter to rule out wiring or ground faults
- 4 Perform a wiggle test on the harness while watching live data to catch intermittent connection problems
- 5 If the sensor signal is erratic or out of range with good wiring, replace the accelerator pedal assembly and clear the code
- 6 After repair, relearn the accelerator pedal position and verify the code does not return during a road test

Diagnosing P1276 Without Throwing Parts

- A common mistake is replacing the accelerator pedal assembly before checking the connector terminals, because a slightly backed-out pin can mimic a failed sensor perfectly.
- The code can set from a low battery or charging system issue that causes the module to see implausible sensor voltages during cranking, so always check battery health first.
- On some GM platforms, a poorly performing throttle body can cause the module to set P1276 as a correlation fault even though the pedal sensor itself is fine.
- The accelerator pedal sensor 1 signal is often shared with the cruise control system, so cruise control complaints may accompany this code.
- After any pedal or module replacement, a relearn procedure is required; skipping it can cause the code to reset immediately even with good parts.

Can I keep driving with P1276?

If the vehicle is in reduced power mode or the accelerator pedal is unresponsive, do not drive it on public roads because you may not be able to accelerate or maintain speed safely. If the light is on but the vehicle drives normally, you can drive cautiously to a repair shop, but avoid heavy acceleration and long trips until it is diagnosed.

Tools that help

- Scan tool with live data and bidirectional control capability
- Digital multimeter
- Wire terminal pick and crimping tools
- Electrical contact cleaner
- Factory service information for accelerator pedal relearn procedure



Reading P1276

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

Often seen with

P1275 Accelerator Pedal Position Sensor Circuit · **P1277** Accelerator Pedal Position Sensor 1 Circuit Low Voltage · **P1275** Cylinder 5 High To Low Side Open · **P1277** Cylinder 7 High To Low Side Open · **P1275** Accelerator Pedal Position (APP) Sensor 1 Circuit · **P1277** Accelerator Pedal Position Sensor 1 Circuit Low Voltage · **P2122** Accelerator Pedal Position Sensor D Circuit Low · **P2135** Throttle/Pedal Position Sensor A/B Voltage Correlation · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation

See it working

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

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1276/>

