

CHRYSLER · POWERTRAIN

P1276

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1276 · Chrysler

Accelerator Pedal Position (APP) Sensor 1 Performance

P1276 on Chrysler vehicles means the powertrain control module (PCM) has detected that the signal from accelerator pedal position (APP) sensor 1 does not match the expected voltage pattern for the pedal's actual travel. The PCM compares sensor 1 against sensor 2 and the calculated pedal angle, and when sensor 1's performance falls outside the calibrated window, it stores this code and typically limits engine power.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

High

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- The electronic throttle control (ETC) warning light or check engine light illuminates on the dash.
- The engine may enter limp-home mode with severely reduced power and a maximum speed limit.
- The accelerator pedal may feel unresponsive, hesitate, or have a dead spot during initial travel.
- Cruise control may become inoperative or disengage unexpectedly.
- The transmission may shift harshly or refuse to downshift because it relies on APP data.
- Often no symptoms besides the warning light, especially if the fault is intermittent.

Common causes, most likely first

- 1 Worn or contaminated accelerator pedal position sensor 1 track inside the pedal assembly.
- 2 Corroded or backed-out terminals in the APP sensor connector or PCM connector.
- 3 Chafed or broken wires in the APP sensor harness, often near the pedal bracket or firewall.
- 4 Poor ground connection for the APP sensor circuit, causing a voltage offset.
- 5 Failed APP sensor 1 internal electronics from age or heat cycling.
- 6 PCM software calibration issue or internal driver fault on the APP sensor 1 input circuit (less common).



How to diagnose and fix it

- 1 Connect a scan tool and read live APP sensor 1 and sensor 2 voltages while slowly sweeping the pedal from idle to wide-open throttle, looking for dropouts, spikes, or a sensor 1 voltage that does not track sensor 2.
- 2 Inspect the APP sensor connector and PCM connector for corrosion, loose pins, or pushed-out terminals, and clean or repair as needed.
- 3 Perform a voltage drop test on the APP sensor 1 signal circuit and ground circuit while wiggling the harness to expose intermittent faults.
- 4 Check for technical service bulletins (TSBs) or PCM calibration updates for the specific Chrysler model and year before condemning parts.
- 5 If wiring and connections are good, replace the accelerator pedal assembly with the integrated APP sensors, then clear codes and perform an ETC relearn if required.
- 6 After repair, verify live data shows sensor 1 and sensor 2 tracking correctly through the full pedal range and confirm the code does not return after a road test.

Why APP sensor 1 fails without warning

- A common misdiagnosis is replacing the throttle body when the real problem is the pedal sensor, because both can cause limp-home mode and similar symptoms on Chrysler ETC systems.
- The APP sensor 1 and sensor 2 signals are redundant and inverse; a technician who only watches sensor 1 can miss a sensor 2 drift that sets a companion code and confuses the diagnosis.
- Intermittent P1276 is often caused by a worn spot on the sensor 1 resistive track that only acts up at a specific pedal angle, so a static voltage check at idle will look perfect.
- Water intrusion into the pedal assembly or connector from a leaking heater core or cowl drain can corrode the sensor 1 circuit and set this code without any visible harness damage.
- A weak battery or poor chassis ground can cause reference voltage fluctuations that the PCM interprets as APP sensor 1 performance failure, so always verify charging system health first.

Can I keep driving with P1276?

Do not continue driving normally because the PCM may command limp-home mode without warning, leaving you with severely reduced power in traffic. If the light is on but the pedal feels normal, drive directly to a repair shop at low speed and avoid highways; if the engine is already in limp mode, have the vehicle towed.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with back-probe pins
- Wiring diagram for the specific Chrysler model
- Torx or hex bit set for pedal assembly removal
- Contact cleaner and dielectric grease



Reading P1276

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Chrysler): 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 Helicopter Flies: Rotor and Tail in X-Ray](#) on Auto Veteran to see the parts involved moving.

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

