

GM · POWERTRAIN

P1283

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1283 · GM

Accelerator Pedal Position Sensor 2 Circuit High Voltage

P1283 on a GM vehicle means the engine control module (ECM) has detected an abnormally high voltage signal from the second accelerator pedal position (APP) sensor, which is part of a redundant two-sensor pedal assembly. The ECM compares this signal with the first APP sensor and expects them to track together; a high voltage on sensor 2 indicates an open circuit, short to voltage, or a faulty sensor, so the ECM sets this code and typically limits engine power.

SYSTEM

Powertrain

CODE TYPE

GM specific

SEVERITY

High

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Reduced engine power or limp mode with the throttle responding sluggishly or not at all
- The check engine light and often the reduced power light illuminated on the dashboard
- A dead or unresponsive accelerator pedal, especially after the code sets
- Intermittent hesitation or surging while driving as the pedal signal fluctuates
- Often no symptoms besides the warning light if the fault is intermittent and the ECM has not yet defaulted to limp mode

Common causes, most likely first

- 1 Open circuit or high resistance in the APP sensor 2 signal circuit, such as a broken wire or corroded connector terminal
- 2 Short to voltage on the APP sensor 2 signal circuit, often from chafed wiring near the pedal or under the dash
- 3 Faulty accelerator pedal position sensor 2 inside the pedal assembly, typically due to wear or contamination
- 4 Poor electrical connection at the APP sensor or ECM connector, including loose pins or water intrusion
- 5 Failed ECM driver or internal fault on the APP sensor 2 input circuit, though this is less common
- 6 Aftermarket floor mats or debris obstructing the pedal and causing abnormal sensor readings



How to diagnose and fix it

- 1 Inspect the accelerator pedal assembly and wiring for physical damage, debris, or aftermarket floor mat interference, and clear the code to see if it returns
- 2 Check the APP sensor 2 signal voltage with a scan tool while slowly pressing the pedal, comparing it to sensor 1 to confirm the high-voltage fault
- 3 Disconnect the APP sensor connector and inspect terminals for corrosion, tightness, and proper pin fit; repair or replace terminals as needed
- 4 Measure resistance and voltage drop on the APP sensor 2 signal and ground circuits to locate an open or short, repairing the harness as required
- 5 If wiring and connectors are good, replace the accelerator pedal assembly with a quality OEM unit and perform the relearn procedure if required
- 6 After repairs, clear codes and verify that both APP sensor signals track smoothly through the full pedal range with no high-voltage spikes

Why APP Sensor 2 Codes Mislead

- Many technicians replace the accelerator pedal assembly first, but a chafed signal wire under the dash or at the pedal connector is just as common and far cheaper to fix.
- A high-voltage code on sensor 2 can be set by a poor ground connection at the pedal or ECM, which skews the reference voltage and makes the signal appear high.
- The ECM may set P1283 only after comparing sensor 1 and sensor 2 signals; a sensor 1 fault can sometimes trigger a sensor 2 code, so always review freeze-frame data for both sensors.
- Aftermarket floor mats or a pedal that is physically obstructed can cause the sensor to read out of range, setting this code without any electrical fault.
- Intermittent P1283 codes often appear after driving over bumps or in wet weather, pointing to a wiring harness issue rather than a failed pedal assembly.

Can I keep driving with P1283?

If the vehicle is in reduced power mode, avoid driving because the throttle response is severely limited and can create a safety hazard in traffic. If the code is intermittent and the vehicle drives normally, you can drive cautiously to a repair shop, but avoid heavy acceleration or towing until the fault is repaired.

Tools that help

- OBD-II scan tool with live data and graphing capability
- Digital multimeter with back-probing pins
- Wire terminal removal and crimping tools
- Service information for APP sensor circuit diagrams and voltage specifications
- Flashlight and inspection mirror for under-dash wiring



Reading P1283

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

Often seen with

P1281 Accelerator Pedal Position (APP) Sensor 2 Performance · **P1282** Accelerator Pedal Position Sensor 2 Circuit Low Voltage · **P1281** Injection Control Pressure Out Of Range High · **P1282** Excessive Injection Control Pressure · **P1281** Engine Operating Temp Below Acceptable Range · **P1282** Fuel Pump Relay Control Circuit Open Or Shorted · **P2122** Accelerator Pedal Position Sensor D Circuit Low · **P2123** Accelerator Pedal Position Sensor D Circuit High · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation

See it working

Watch the animated explainer [How a Coolant Temperature Sensor Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1283/>

