

GM · POWERTRAIN

P1285

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1285 · GM

Accelerator Pedal Positioning Sensor 2 Circuit

P1285 on a GM vehicle means the engine control module (ECM) has detected an electrical fault in the signal circuit for accelerator pedal position sensor 2, the second of two redundant pedal sensors. The ECM compares this signal against sensor 1 and expects them to track together within a calibrated tolerance, so an out-of-range voltage, an open circuit, or a short on sensor 2's circuit sets this code.

SYSTEM

Powertrain

CODE TYPE

GM specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Reduced engine power message on the driver information center with the throttle responding sluggishly or not at all
- The engine may idle only or be limited to a low maximum speed, often around 1,500 to 2,000 RPM
- A harsh or delayed shift from the transmission because the powertrain control module (PCM) limits torque when pedal data is untrusted
- Cruise control may be disabled or refuse to engage while the fault is active
- Often no symptoms besides the warning light if the fault is intermittent and sensor 2 still produces a plausible signal
- A stored P1285 with a pending or history status that reappears after clearing, especially in damp or cold weather

Common causes, most likely first

- Worn or contaminated accelerator pedal position sensor 2 inside the pedal assembly, which is the most common cause on high-mileage GM vehicles
- Corroded, backed-out, or damaged terminals at the six-pin accelerator pedal connector
- Chafed or broken wires in the pedal harness where it routes near the brake pedal bracket or steering column
- Water intrusion into the pedal connector or sensor housing from a leaking windshield or body seal
- A faulty or mislearned throttle actuator control module on vehicles that use a separate module rather than the ECM for pedal processing
- Poor ground or reference voltage shared with sensor 1, which drags sensor 2's signal out of the expected range
- A binding or misadjusted pedal assembly that prevents sensor 2 from sweeping its full travel



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data for P1285 to see the pedal voltage and engine speed at the moment of failure
- 2 Inspect the accelerator pedal connector and harness for corrosion, pushed pins, or chafing, and wiggle-test the harness while watching live sensor 2 voltage on the scan tool
- 3 Back-probe sensor 2's signal, reference, and ground wires at the pedal and compare voltages against sensor 1 through a slow full pedal sweep
- 4 Check the shared five-volt reference and ground circuits for voltage drop, since a weak ground can skew sensor 2 without setting a separate reference code
- 5 If wiring and voltages check out, replace the accelerator pedal assembly with the integrated sensors rather than attempting to service the sensor alone
- 6 Clear the code and perform the throttle and pedal relearn procedure with the scan tool, then verify both sensor voltages track smoothly through the full range
- 7 Road-test under light and heavy throttle to confirm the code does not return and that reduced power mode is gone

Why sensor 2 fails before sensor 1

- On many GM pedal assemblies sensor 2 uses a separate wiper track and return spring, so it wears out first even though the pedal feels normal to the driver
- A P1285 can be set by a momentary glitch during cranking when battery voltage sags, so check battery health and grounds before condemning the pedal
- Technicians often replace the pedal only to find the real fault is a corroded connector pin that was disturbed during the swap, which is why wiggle-testing comes first
- The ECM cross-checks sensor 1 and sensor 2 against each other, so a fault in sensor 1's circuit can sometimes trigger a P1285 as a companion code rather than the primary one
- Aftermarket floor mats or pedal covers that restrict pedal travel can cause sensor 2 to read out of range at full throttle and set this code intermittently

Can I keep driving with P1285?

You can usually limp the vehicle to a shop, but expect reduced engine power and avoid highways or heavy traffic because the throttle may not respond normally. If the pedal feels dead or the engine will not rev, stop driving and have the vehicle towed.



Tools that help

- Scan tool with live data and bidirectional control capability
- Digital multimeter with back-probe pins
- Wiring diagram for the accelerator pedal circuit
- Torque wrench and socket set for pedal assembly removal
- Contact cleaner and dielectric grease for connector service

Reading P1285

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

Often seen with

P1284 Fuel Injection Air Control Valve Circuit Open · **P1286** Fuel Injection Air Control Valve Circuit Short To B+ · **P1284** Fuel Injection Pump Battery Voltage Out Of Range · **P1286** Accelerator Pedal Position (APP) Sensor 3 Performance · **P1284** Aborted KOER ICP Failure · **P1286** Fuel Pulse In Range But Lower Than Expected · **P1284** Fuel Injection Pump Battery Voltage Out Of Range · **P1286** Accelerator Pedal Position Sensor Supply Voltage Too High · **P1284** Switching Solenoid for Air Assisted Injection Valves Bank 1 · **P0121** Throttle Position Sensor A Circuit Range/Performance · **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 [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1285/>

