

GM · POWERTRAIN

P1280

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1280 · GM

Accelerator Pedal Positioning Sensor 2 Circuit

P1280 on a GM vehicle indicates that the powertrain control module has detected an out-of-range or implausible signal from the accelerator pedal position sensor 2 circuit. The computer compares this signal against sensor 1 and expects a specific voltage relationship, so a deviation triggers the code and typically forces the engine into reduced power mode.

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 limited throttle response
- Engine idle that hangs high or fluctuates without pedal input
- Hesitation or stumble when pressing the accelerator from a stop
- Cruise control that disengages or fails to set
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- 1 Worn or contaminated accelerator pedal position sensor 2 inside the pedal assembly
- 2 Corroded or backed-out terminals at the pedal sensor connector
- 3 Chafed or broken wire in the sensor 2 signal or ground circuit
- 4 Poor ground connection shared by the pedal sensors
- 5 Failing throttle actuator control module or PCM driver for the sensor 2 circuit
- 6 Aftermarket floor mats or debris obstructing full pedal travel and skewing sensor correlation



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, then record freeze-frame data for P1280 and any throttle-related codes
- 2 Inspect the accelerator pedal connector and harness for corrosion, loose pins, or chafing, and repair as needed
- 3 Back-probe sensor 2 signal and ground wires and compare voltages through the full pedal sweep against sensor 1
- 4 Check the pedal sensor ground circuit for excessive voltage drop under load
- 5 Verify sensor 2 voltage with a scan tool while slowly pressing and releasing the pedal to catch intermittent dropouts
- 6 Replace the accelerator pedal assembly if sensor 2 output is erratic or outside the specified correlation window
- 7 Clear codes and perform a throttle body and pedal relearn procedure, then road test to confirm the repair

Why P1280 is often a pedal assembly fault

- The two pedal sensors are designed to produce opposite voltage sweeps, so a single lazy sensor 2 is far more common than a wiring failure and usually condemns the whole pedal assembly.
- A dirty throttle body can set P1280 indirectly by causing the PCM to question pedal correlation, so clean and relearn the throttle before replacing the pedal.
- Intermittent P1280 codes often leave no freeze-frame data, making a slow pedal sweep with a scan tool connected the only reliable way to catch the dropout.
- Aftermarket floor mats or a bent pedal arm can prevent full travel and set this code even though the sensor itself is healthy.
- A weak battery or poor chassis ground can cause phantom pedal codes on GM trucks, so verify charging voltage before condemning the sensor.

Can I keep driving with P1280?

You can usually limp the vehicle to a shop, but expect reduced power and avoid highways or heavy traffic because throttle response may be unpredictable. If the pedal feels dead or the engine idles high on its own, stop driving and have it towed.

Tools that help

- OBD-II scan tool with live data and bidirectional control
- Digital multimeter with back-probe pins
- Wiring diagram for the accelerator pedal circuits
- Torque wrench and basic hand tools
- Contact cleaner and dielectric grease



Reading P1280

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (GM): its meaning depends on the make.
- 2** Fuel and air metering (injector circuits).
- 80** 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 · **P2127** Accelerator Pedal Position Sensor E Circuit Low · **P2138** Throttle/Pedal Position Sensor D/E Voltage Correlation

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/gm-p1280/>

