

CHRYSLER · POWERTRAIN

P1270

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1270 · Chrysler

Accelerator Pedal Position Sensor A/D Converter Error

P1270 on Chrysler vehicles means the powertrain control module (PCM) detected an internal analog-to-digital (A/D) conversion error while reading the accelerator pedal position sensor signal. The PCM compares the raw sensor voltage against expected values and flags this code when the conversion circuit cannot produce a reliable digital value, which prevents accurate throttle control.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- Illumination of the check engine light or electronic throttle control (ETC) warning lamp
- Reduced engine power or limp-home mode with limited throttle response
- Hesitation or stumble when pressing the accelerator pedal
- Unstable or surging idle speed
- Often no symptoms besides the warning light, especially if the fault is intermittent

Common causes, most likely first

- 1 Faulty accelerator pedal position sensor assembly (internal A/D converter failure)
- 2 Worn or corroded electrical connectors at the pedal sensor or PCM
- 3 Damaged wiring harness between the pedal sensor and PCM (open, short, or chafed wire)
- 4 Poor ground connection for the pedal sensor circuit
- 5 Internal PCM fault affecting the A/D conversion circuit
- 6 Water intrusion or contamination in the pedal sensor connector



How to diagnose and fix it

- 1 Scan all modules for stored and pending codes, and record freeze-frame data to confirm when P1270 sets
- 2 Visually inspect the accelerator pedal sensor connector and wiring for corrosion, water, or physical damage
- 3 Backprobe the sensor signal and ground wires at the PCM and pedal connector to check for opens or shorts
- 4 Measure sensor reference voltage and ground integrity with a digital multimeter (DMM) while wiggling the harness
- 5 Perform a live data check of accelerator pedal position percentages to see if the signal drops out or jumps erratically
- 6 Replace the accelerator pedal position sensor assembly if wiring and connectors test good
- 7 If the sensor and wiring are confirmed good, diagnose the PCM for internal A/D converter failure and replace or reprogram as needed

What Most Techs Miss on P1270

- A loose or corroded ground at the pedal sensor can mimic an internal A/D converter failure, so always load-test the ground circuit before condemning the sensor.
- Intermittent P1270 codes often appear only during cold starts or vibration; a wiggle test of the harness while watching live data is more revealing than a static meter check.
- The accelerator pedal position sensor on many Chrysler vehicles is a dual-track design, and a fault in one track can set P1270 without any driveability complaint.
- After replacing the pedal sensor, some Chrysler models require a relearn or calibration procedure with a scan tool to clear the code and restore normal throttle response.
- A weak battery or charging system voltage spike can corrupt the PCM's A/D conversion and set P1270 as a ghost code, so check battery and charging system health first.

Can I keep driving with P1270?

You can usually drive the vehicle to a repair shop, but expect reduced engine power and avoid heavy acceleration or highway merging until the fault is repaired. If the vehicle enters limp-home mode with severely limited speed, pull over and arrange a tow to prevent a dangerous loss of power.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter (DMM)
- Backprobe pins or piercing probes
- Wiring diagram for the accelerator pedal position sensor circuit
- Basic hand tools for connector and sensor removal



Reading P1270

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

Often seen with

P0121 Throttle Position Sensor A Circuit Range/Performance · **P2120** Throttle/Pedal Position Sensor/Switch 'D' Circuit · **P2125** Throttle/Pedal Position Sensor/Switch 'E' Circuit · **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 [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1270/>

