

CHRYSLER · POWERTRAIN

P1296

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1296 · Chrysler

Loss Of 5 Volts To MAP Sensor

P1296 on Chrysler vehicles means the powertrain control module has detected a loss of the 5-volt reference signal feeding the manifold absolute pressure sensor circuit. The computer expects a steady 5-volt supply at the sensor connector, and when that voltage drops or disappears the PCM flags this code because it can no longer trust the MAP sensor reading for fuel and ignition calculations.

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, often with no other noticeable symptoms
- Rough idle or unstable engine speed as the PCM substitutes a default MAP value
- Poor fuel economy or rich-running exhaust smell from incorrect fuel delivery
- Hesitation or stumble during acceleration when the engine is under load
- Hard starting or stalling, particularly on 2.0L and 2.4L four-cylinder engines
- In some cases the engine may run surprisingly well because the PCM defaults to a throttle-based strategy

Common causes, most likely first

- 1 A shorted or open 5-volt reference wire between the PCM and the MAP sensor connector
- 2 A failed MAP sensor that internally shorts the 5-volt reference to ground
- 3 Corroded, pushed-back, or water-intruded terminals at the MAP sensor connector
- 4 A shorted 5-volt reference circuit shared with the TPS or other sensors on the same feed
- 5 Chafed wiring harness rubbing against the engine block or intake manifold
- 6 A faulty powertrain control module not supplying the 5-volt reference
- 7 Aftermarket accessories or alarm wiring tapped into the sensor reference circuit



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm P1296 is the primary fault and not a companion code
- 2 Inspect the MAP sensor connector and harness for corrosion, pushed pins, or chafing, then repair terminals as needed
- 3 Backprobe the MAP sensor connector with the key on and measure the 5-volt reference at the signal wire; a reading near zero confirms a circuit fault
- 4 Disconnect the MAP sensor and recheck the 5-volt reference at the harness side; if voltage returns, the sensor is shorting the reference internally
- 5 If the reference is still missing with the sensor unplugged, isolate the 5-volt wire from the PCM and check for a short to ground or an open circuit
- 6 Check other sensors sharing the same 5-volt feed, such as the throttle position sensor, to see if they also lost reference
- 7 Replace the MAP sensor only after the circuit is proven good, then clear codes and verify the 5-volt reference and MAP reading with a scan tool

Why the MAP sensor is often not the culprit

- A shorted throttle position sensor on the same 5-volt reference circuit can pull the voltage down and set P1296 even though the MAP sensor itself is fine.
- Chrysler's 5-volt reference is shared across several sensors, so a single chafed wire anywhere on that feed can disable the MAP sensor and trigger this code.
- Technicians who replace the MAP sensor without backprobing the connector often find the code returns because the real fault is a corroded terminal or a rubbed-through harness.
- The engine may run acceptably because the PCM substitutes a calculated MAP value from throttle position and engine speed, masking the fault until driveability worsens.
- Water intrusion into the MAP sensor connector on 2.4L engines is a common cause that a visual inspection of the pins will reveal before any parts are ordered.

Can I keep driving with P1296?

You can usually drive the vehicle short distances to a repair shop because the PCM defaults to a calculated load value, but avoid heavy acceleration, towing, or long highway trips until the fault is repaired. If the engine stalls, idles roughly, or runs rich enough to smell fuel, stop driving and have it towed.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with backprobing pins
- Wiring diagram for the specific Chrysler model and engine
- Terminal pick and electrical contact cleaner
- Hand tools for removing the MAP sensor and inspecting the harness

Reading P1296

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

Often seen with

P1297 ELD Circuit Low Input · **P1297** No Charge In MAP From Start To Run · **P1297** ELD Circuit Low Input · **P1297** No Charge In MAP From Start To Run · **P1297** Injector High Sides Shorted Together · **P1297** No Change In MAP From Start To Run · **P0107** MAP/Barometric Pressure Circuit Low Input · **P0108** MAP/Barometric Pressure Circuit High Input · **P0122** Throttle Position Sensor A Circuit Low Input · **P0123** Throttle Position Sensor A Circuit High Input

See it working

Watch the animated explainer [How a Boxer Engine Works: Flat Engine Cutaway](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1296/>

