

CHRYSLER · POWERTRAIN

P1112

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1112 · Chrysler

Intake Air Temperature (IAT) Sensor Circuit Intermittent Low Voltage

P1112 on a Chrysler vehicle means the powertrain control module (PCM) has seen the intake air temperature (IAT) sensor signal drop to an abnormally low voltage in an intermittent, not steady, pattern. Because the IAT sensor is a thermistor whose resistance falls as air temperature rises, low voltage corresponds to a high-temperature reading, so the PCM is flagging a signal that briefly and repeatedly indicates hotter intake air than the engine is actually seeing.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Often no symptoms besides the warning light, especially when the intermittent glitch is brief.
- A momentary stumble or rough idle that comes and goes with no stored companion code.
- Poor fuel economy or slightly rich running if the false hot-air reading biases the PCM's air-density calculation.
- A check engine light that illuminates intermittently and may clear itself after several good drive cycles.
- On some Chryslers, the radiator cooling fan may run more often because the PCM believes intake air is very hot.
- Cold-start driveability complaints in damp or wet weather when the connector is the culprit.

Common causes, most likely first

- 1 A loose, corroded, or water-intruded IAT sensor connector that momentarily loses contact and pulls the signal low.
- 2 Chafed or pinched wiring between the IAT sensor and the PCM, often near the intake manifold or a harness bend.
- 3 A failing IAT sensor whose internal thermistor intermittently shorts, producing a low-voltage spike.
- 4 A poor ground or reference-voltage fault at the PCM connector that affects the sensor return circuit.
- 5 Heat-related internal damage to the sensor from proximity to the intake or exhaust, showing up only when hot.
- 6 Aftermarket intake or air-box modifications that leave the sensor poorly seated or the harness strained.
- 7 A PCM driver or input-circuit fault, which is the least likely but must be ruled out after wiring checks.



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code is intermittent and note the IAT voltage at the time of the fault.
- 2 Inspect the IAT sensor connector and pins for corrosion, water intrusion, or a loose fit, then clean and reseal it.
- 3 Wiggle-test the sensor harness and connector while watching live IAT voltage on the scan tool to reproduce the glitch.
- 4 Measure resistance across the IAT sensor at known temperatures and compare with Chrysler's specification to catch an intermittent thermistor.
- 5 Check continuity and resistance of the signal and return wires from the sensor to the PCM, flexing the harness to expose chafes.
- 6 Verify the PCM reference and ground at the sensor connector with a loaded test, then replace the sensor only if the circuit tests good.
- 7 Clear the code and perform a road test with live data logging to confirm the intermittent low-voltage event is gone.

Intermittent IAT faults that fool parts changers

- A P1112 is intermittent by definition, so a sensor that ohms out perfectly on a cold bench can still be the culprit once intake heat and vibration are applied.
- Water intrusion into the IAT connector after engine washing or heavy rain is a common Chrysler trigger that a simple visual inspection misses.
- The code does not always mean the sensor is bad; a chafed signal wire that briefly shorts to ground produces the same low-voltage event.
- Because low IAT voltage reads as hot air, the PCM may command a richer mixture or alter fan strategy, so fuel-trim and fan data can confirm the false reading.
- Replacing the sensor without wiggle-testing the harness often leads to a repeat code, so circuit testing must come before parts replacement.

Can I keep driving with P1112?

This is a low-severity fault and the vehicle is generally safe to drive, but avoid long trips or heavy loads until the intermittent circuit is repaired because a false hot-air reading can slightly enrich the mixture. If the check engine light begins flashing or drivability worsens, stop and diagnose further.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with resistance and continuity functions
- Back-probe pins or a breakout harness for the IAT connector
- Contact cleaner and dielectric grease for connector service
- Factory service information for Chrysler IAT resistance specifications



Reading P1112

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

Often seen with

P0111 Intake Air Temperature Circuit Range/Performance · **P0112** Intake Air Temperature Circuit Low Input · **P0113** Intake Air Temperature Circuit High Input · **P0116** Engine Coolant Temperature Circuit Range/Performance · **P0128** Coolant Thermostat (Coolant Temperature Below Thermostat Reg

See it working

Watch the animated explainer [Disc Brake Trainer: How Car Brakes Stop a Wheel](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1112/>

