

CHRYSLER · POWERTRAIN

P1258

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1258 · Chrysler

Engine Coolant Overtemperature Protection Mode Active

P1258 on Chrysler vehicles means the powertrain control module (PCM) has detected that engine coolant temperature has risen to a level where it must enter a protective strategy, often by reducing power or disabling certain functions to prevent overheating damage. The computer is not reporting a sensor fault; it is reporting that the coolant temperature signal has crossed the threshold for overtemperature protection mode.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

High

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering (injector circuits)

Symptoms you may notice

- The check engine light or a dedicated coolant temperature warning lamp illuminates on the dashboard.
- The engine may enter reduced power mode, feel sluggish, or refuse to rev past a certain limit.
- The temperature gauge may read higher than normal or climb toward the hot zone.
- The air conditioning compressor may be commanded off to reduce engine load.
- You may notice coolant loss, steam, or a sweet smell if the overheating is severe.
- Often no symptoms besides the warning light if the protection mode was triggered briefly and the engine has since cooled.

Common causes, most likely first

- 1 Low coolant level from a leak in a hose, radiator, water pump, or intake manifold gasket.
- 2 A stuck-closed or failing thermostat that prevents coolant flow to the radiator.
- 3 An inoperative electric cooling fan or fan relay, especially common on Chrysler models with fan control modules.
- 4 A faulty engine coolant temperature (ECT) sensor sending an artificially high reading to the PCM.
- 5 A restricted radiator, clogged cooling fins, or a failing water pump impeller.
- 6 A trapped air pocket in the cooling system after recent service, causing false high-temperature readings.
- 7 A PCM calibration issue or wiring problem in the ECT sensor circuit that mimics an overtemperature condition.



How to diagnose and fix it

- 1 Check the coolant level at the radiator and overflow bottle when the engine is cold, and pressure-test the system to find leaks.
- 2 Scan live data for the engine coolant temperature (ECT) sensor and compare it to an infrared thermometer at the thermostat housing to verify the reading is real.
- 3 Test the thermostat by feeling the upper radiator hose as the engine warms; it should become hot suddenly when the thermostat opens.
- 4 Command the cooling fan on with a scan tool and verify it runs at both low and high speeds, checking the fan relay and module if it does not.
- 5 Inspect the radiator for cold spots or debris blocking airflow, and check the water pump belt and impeller condition.
- 6 Bleed the cooling system properly using the manufacturer's procedure to remove trapped air, then clear the code and road-test.
- 7 If all mechanical checks pass, inspect the ECT sensor wiring for chafing or corrosion and replace the sensor only after confirming a skewed signal.

Why P1258 is not always a real overheat

- A skewed ECT sensor can report a temperature 30 degrees higher than actual, triggering protection mode without the engine ever being hot, so always verify with an infrared thermometer before replacing cooling parts.
- Chrysler's protection mode may stay latched until the code is cleared and the engine cycles through a full warm-up, so a repaired cooling system can still show the code on the next key cycle if the PCM memory is not reset.
- Air pockets after a coolant flush are a leading cause of false P1258 on Chrysler 3.6L and 5.7L engines, and the code often returns within minutes of driving until the system is properly bled.
- A failing cooling fan module on Chrysler 200 and Town & Country models can command the fan off at exactly the moment the PCM expects it on, setting P1258 without any fan-related trouble code.
- The PCM may disable the air conditioning and limit engine RPM as part of protection mode, so a driver complaint of 'no A/C and no power' can be the first clue rather than a separate fault.

Can I keep driving with P1258?

If the temperature gauge is in the normal range and the light just came on, you can drive cautiously to a service location, but avoid heavy loads, towing, or long idle periods. If the gauge is climbing or steam is visible, stop driving immediately and let the engine cool to prevent warped heads or a blown head gasket.



Tools that help

- OBD-II scan tool with live data and bidirectional fan control
- Infrared thermometer
- Cooling system pressure tester
- Radiator hose clamp pliers
- Funnel for bleeding the cooling system
- Basic hand tools and a drain pan

Reading P1258

P Powertrain: engine, transmission and emissions.

1 Manufacturer-specific code (Chrysler): its meaning depends on the make.

2 Fuel and air metering (injector circuits).

58 The exact fault within that area.

Often seen with

P0117 Engine Coolant Temperature Circuit Low Input · **P0118** Engine Coolant Temperature Circuit High Input · **P0128** Coolant Thermostat (Coolant Temperature Below Thermostat Reg · **P0217** Engine Over-Temperature Condition · **P0480** Cooling Fan 1 Control Circuit Malfunction

See it working

Watch the animated explainer [Engine Cooling System Trainer: How Engines Stay Cool](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1258/>

