

CHRYSLER · POWERTRAIN

P1118

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1118 · Chrysler

Engine Coolant Temp Signal Out-Of Range High

P1118 on a Chrysler vehicle means the engine control module (ECM) has detected a coolant temperature sensor signal that is higher than the plausible range for the current operating conditions. The ECM compares the sensor voltage against a model of expected warm-up behavior and flags the circuit when the signal indicates an impossibly hot or open circuit condition.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Check engine light illuminated, often with no other noticeable symptoms
- Temperature gauge reading abnormally high or pegged at hot even when the engine is cold
- Poor fuel economy or rich-running condition because the ECM defaults to a hot-engine fuel strategy
- Rough idle or hard starting when the engine is actually cold
- Cooling fan running constantly or at high speed immediately after a cold start
- In rare cases, an overheating warning message on the dash cluster

Common causes, most likely first

- 1 Failed engine coolant temperature (ECT) sensor reading open or out of range
- 2 Corroded, spread, or pushed-back terminals in the ECT sensor connector
- 3 Damaged or chafed signal wire between the ECT sensor and the ECM
- 4 Poor ground connection at the sensor or engine block
- 5 Faulty thermostat stuck open causing the ECM to see a slow warm-up that eventually trips the high-range rationality check
- 6 Low coolant level or air pockets around the sensor causing erratic high readings
- 7 Internal ECM driver fault on the sensor signal circuit (least common)



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1118 to see the coolant temperature value at the moment of fault set
- 2 Verify coolant level and condition, then pressure-test the cooling system for leaks or air pockets
- 3 Back-probe the ECT sensor connector and compare its resistance and voltage against a temperature-resistance chart for the engine at room temperature
- 4 Inspect the sensor connector pins and wire harness for corrosion, chafing, or looseness, and perform a wiggle test while watching live data
- 5 Check the sensor ground circuit for excessive voltage drop back to the ECM
- 6 If the sensor and wiring test good, substitute a known-good ECT sensor and clear the code to see if it returns
- 7 Only after all circuit and sensor checks pass, test the ECM signal circuit for an internal short or driver failure

Why a cold engine can set a hot code

- A thermostat stuck wide open is a commonly missed cause because the engine never reaches normal temperature, and the ECM eventually flags the coolant signal as out of range high during a long warm-up rationality test.
- The ECT sensor on many Chrysler engines shares a ground with other sensors, so a bad ground can pull the coolant signal high without any fault in the sensor itself.
- Technicians often replace the sensor first, but a corroded connector terminal or chafed wire near the thermostat housing is just as likely and much cheaper to fix.
- P1118 can set intermittently from air pockets after a cooling system service, so always check for proper bleed procedures before condemning parts.
- A failed sensor that reads high makes the ECM think the engine is hot, which can command leaner fuel and altered fan operation, masking the real problem until driveability symptoms appear.

Can I keep driving with P1118?

You can usually drive short distances to a repair shop, but avoid long trips or heavy load because the ECM may be running a hot-engine fuel and fan strategy that hurts fuel economy and cooling control. If the temperature gauge shows actual overheating or the engine runs poorly, stop driving and diagnose immediately.

Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with back-probe pins
- Temperature-resistance chart for the Chrysler ECT sensor
- Cooling system pressure tester
- Wire terminal pick and contact cleaner
- Infrared thermometer to verify actual coolant temperature



Reading P1118

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

Often seen with

P1117 Oxygen Sensor Heater Circuit Short To Ground Bank 1 Sensor 2 · **P1117** ECT Sensor Signal Intermittent · **P1117** HO2S12 Heater Circuit Low Voltage · **P1117** Engine Coolant Temperature Below Minimum Voltage · **P1117** Engine Coolant Temperature Sensor Intermittent · **P1117** Engine Coolant Temp Signal Out-Of-Range Low · **P1117** Mass Or Volume Air Flow Circuit Low Input Bank 2 · **P0117** Engine Coolant Temperature Circuit Low Input · **P0118** Engine Coolant Temperature Circuit High Input · **P0128** Coolant Thermostat (Coolant Temperature Below Thermostat Reg · **P2182** Engine Coolant Temperature Sensor 2 Circuit

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-p1118/>

