

CHRYSLER · POWERTRAIN

P1115

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1115 · Chrysler

Engine Coolant Temperature (ECT) Sensor Circuit Intermittent High Voltage

P1115 on a Chrysler vehicle means the powertrain control module (PCM) has detected an intermittent high-voltage signal from the engine coolant temperature (ECT) sensor circuit. The PCM expects a steady voltage that drops smoothly as coolant warms, but it saw the signal spike toward the 5-volt reference or drop out and return, flagging the circuit as unreliable rather than reporting a hard sensor failure.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Fuel and air metering

Symptoms you may notice

- Check engine light (malfunction indicator lamp) illuminated, often with no other noticeable symptoms
- Coolant temperature gauge or dashboard temperature display that jumps, flickers, or reads cold after the engine is warm
- Rough idle or poor driveability during warm-up because the PCM substitutes a default coolant temperature
- Increased fuel consumption or a rich-running condition while the fault is active
- Cooling fan running constantly or not engaging when expected due to the PCM's default strategy
- Hard starting or a brief stumble when restarting a warm engine

Common causes, most likely first

- 1 Chafed, cracked, or internally broken wire in the ECT sensor signal circuit that intermittently shorts to voltage or opens
- 2 Corroded, loose, or water-intruded ECT sensor connector terminals causing an intermittent high-voltage reading
- 3 Failing ECT sensor with an intermittent internal element that goes open or high-resistance when hot or vibrating
- 4 Damaged or pushed-back terminal in the PCM connector for the ECT signal circuit
- 5 Poor ground at the sensor return circuit, which skews the signal voltage the PCM sees
- 6 Aftermarket or incorrectly installed sensor with the wrong resistance curve for the Chrysler application
- 7 Harness damage from heat, rodent chewing, or routing too close to exhaust components



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1115, noting the coolant temperature and voltage at the moment the fault set
- 2 Inspect the ECT sensor connector and the full length of the sensor harness for chafing, corrosion, or heat damage, wiggling the harness while watching live coolant temperature data
- 3 Measure ECT sensor resistance cold and hot and compare against Chrysler's specification for the engine, replacing the sensor if it is out of range or erratic
- 4 Backprobe the ECT signal circuit at the PCM and check for intermittent voltage spikes or opens while flexing the harness
- 5 Check the sensor return ground circuit for excessive resistance and repair any corroded or loose ground point
- 6 Repair or replace the affected section of harness with proper crimped and sealed connections, then clear the code and verify with a road test that includes a full warm-up cycle
- 7 If the circuit tests good and the sensor is correct, reflash or replace the PCM only after confirming the fault follows the module

Intermittent ECT faults that fool good technicians

- P1115 is an intermittent code, so a sensor that tests perfectly on a cold engine can still be the culprit once heat and vibration open the internal element.
- A coolant temperature gauge that reads normally does not rule out this code, because the gauge often uses a separate sender while the PCM relies on the ECT sensor signal.
- Technicians commonly replace the ECT sensor first and still see P1115 return, because the real fault is a chafed signal wire that only shorts when the engine moves under load.
- The PCM may set P1115 alongside P0115 or P0118 when the intermittent high voltage is severe enough to look like a hard circuit fault, so check for those stored codes before condemning the sensor.
- A poor ground on the sensor return circuit can pull the signal voltage high intermittently, and this is often missed because the ground is shared with other sensors that appear to work fine.

Can I keep driving with P1115?

You can usually drive the vehicle with P1115 because the PCM substitutes a default coolant temperature, but avoid long trips, heavy towing, or aggressive driving until the fault is repaired. If the temperature gauge behaves erratically or the engine runs poorly, have it diagnosed promptly to prevent overheating or rich-running damage.



Tools that help

- OBD-II scan tool with live data and freeze-frame capability
- Digital multimeter with backprobe pins
- Chrysler-specific wiring diagram for the ECT circuit
- Heat gun and resistance specifications for the ECT sensor
- Terminal pick and crimping tools for connector repair

Reading P1115

- 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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- 1** Fuel and air metering.
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- 15** The exact fault within that area.

Often seen with

P0115 Engine Coolant Temperature Circuit Malfunction · **P0116** Engine Coolant Temperature Circuit Range/Performance · **P0117** Engine Coolant Temperature Circuit Low Input · **P0118** Engine Coolant Temperature Circuit High Input · **P0128** Coolant Thermostat (Coolant Temperature Below Thermostat Reg

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-p1115/>

