

CHRYSLER · POWERTRAIN

P1499

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1499 · Chrysler

Open Or Shorted Condition Detected In The Hydraulic Cooling Fan Solenoid Control

P1499 on Chrysler vehicles means the powertrain control module (PCM) has detected an open circuit or a short to ground or power in the hydraulic cooling fan solenoid control circuit. The PCM commands the solenoid to vary hydraulic pressure to the cooling fan, and when the electrical feedback falls outside the expected range, it stores this code and typically disables the variable fan control.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- The cooling fan may run at full speed continuously or not at all, depending on whether the circuit is open or shorted.
- Engine coolant temperature may climb higher than normal in traffic or during extended idle.
- The air conditioning may become less effective or stop cooling when the fan fails to engage.
- A check engine light (malfunction indicator lamp) is illuminated on the instrument cluster.
- Often no symptoms besides the warning light, especially if the fan defaults to a safe full-speed strategy.
- Possible overheating warning message or temperature gauge fluctuation on models with a cluster display.

Common causes, most likely first

- 1 Broken, chafed, or corroded wiring in the hydraulic cooling fan solenoid control circuit, particularly at the fan shroud or near the hydraulic lines.
- 2 Failed hydraulic cooling fan solenoid itself, either an open coil or an internal short.
- 3 Poor electrical connection at the solenoid connector or at the PCM harness connector, often from water intrusion or terminal fretting.
- 4 Shorted or open control wire where it rubs against the engine block, frame rail, or accessory bracket.
- 5 Faulty powertrain control module (PCM) driver circuit, though this is less common than wiring or solenoid failure.
- 6 Hydraulic fluid contamination or low fluid level that causes the solenoid to draw abnormal current, though the code specifically flags the electrical circuit.



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1499 to confirm the fault occurred under specific temperature or fan command conditions.
- 2 Visually inspect the solenoid connector and the full run of the control circuit for chafing, corrosion, or loose terminals, repairing as needed.
- 3 Measure resistance of the hydraulic cooling fan solenoid with a multimeter and compare to the manufacturer's specification to check for an open or shorted coil.
- 4 Backprobe the solenoid control wire at the PCM and check for a short to ground or short to voltage with the key on and the PCM disconnected.
- 5 Command the cooling fan solenoid on and off with a scan tool while monitoring circuit voltage or current to verify the PCM driver and wiring integrity.
- 6 If the circuit and solenoid test good, substitute a known-good solenoid or perform a resistance check on the PCM driver circuit before condemning the PCM.
- 7 Clear the code and road-test the vehicle with the scan tool recording fan command and coolant temperature to confirm the repair.

Hydraulic fan solenoid faults that fool technicians

- A common misdiagnosis is replacing the hydraulic fan solenoid when the real fault is a chafed control wire hidden behind the fan shroud or near the hydraulic pump bracket.
- The PCM may set P1499 intermittently from water intrusion into the solenoid connector after a car wash or heavy rain, so always check for green corrosion inside the terminals.
- Some Chrysler hydraulic fan systems default to full fan speed when the solenoid circuit fails, which can mask overheating symptoms and lead owners to ignore the warning light.
- A low or contaminated hydraulic fluid level can cause the solenoid to draw excessive current and set a circuit code even though the electrical parts are healthy.
- P1499 can be stored alongside transmission or A/C codes because the PCM shares the same 5-volt reference or ground circuit with other sensors, so check for shared circuit faults before replacing the solenoid.

Can I keep driving with P1499?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy traffic, long idles, or towing because the cooling fan may not engage correctly and the engine can overheat. If the temperature gauge climbs above normal or the A/C stops cooling, pull over and shut the engine off.



Tools that help

- OBD-II scan tool with bidirectional control and live data
- Digital multimeter with backprobe pins
- Wire repair kit with crimp connectors and heat shrink
- Factory service information for circuit diagrams and solenoid resistance specifications
- Basic hand tools for removing the fan shroud and accessing the solenoid

Reading P1499

- 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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- 4** Auxiliary emission controls.
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- 99** The exact fault within that area.

Often seen with

P1490 Vacuum Cut Valve Bypass Valve Circuit · **P1491** Vacuum Cut Valve Bypass Valve · **P1498** EGR Valve Lift Sensor High Voltage · **P1490** Low Speed Fan Control Relay Fault · **P1498** EGR Stepper Motor Malfunction Circuit 3 1.8L · **P1491** EGR Valve Lift Insufficient Detected · **P1498** EGR Valve Lift Sensor High Voltage · **P1490** Low Speed Fan CTRL Relay Circuit Open Or Shorted · **P1491** Radiator Fan Control Relay Circuit Open Or Shorted · **P1498** High speed Rad Fan Ground CTRL Rly Circuit · **P1490** Low Speed Fan CTRL Relay Circuit Open Or Shorted · **P1491** Radiator Fan Control Relay Circuit Open Or Shorted · **P1498** High Speed Rad Fan Ground CTRL Rly Circuit · **P0480** Cooling Fan 1 Control Circuit Malfunction · **P0481** Cooling Fan 2 Control Circuit Malfunction

See it working

Watch the animated explainer [How a Radiator Fan Relay Circuit Works](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1499/>

