

FORD · POWERTRAIN

P1484

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1484 · Ford

Variable Load Control Module Pin 1 Open

P1484 on Ford vehicles means the powertrain control module has detected an open circuit on pin 1 of the variable load control module, which is the low side driver circuit for the cooling fan. The computer commands the fan on and monitors the return signal, and it sees no continuity or voltage feedback on that pin, so it flags the circuit as open.

SYSTEM

Powertrain

CODE TYPE

Ford specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- The cooling fan may not run at all, causing the engine to run hot or overheat in traffic
- The air conditioning may blow warm or stop cooling because the condenser fan is not engaging
- The check engine light illuminates, often with no other noticeable symptoms
- The fan may run constantly at full speed if the module defaults to a failsafe mode
- In some cases the driver notices nothing besides the warning light until the engine temperature climbs

Common causes, most likely first

- 1 Broken or corroded wire at pin 1 of the variable load control module connector
- 2 Failed variable load control module, often due to water intrusion or internal circuit board damage
- 3 Open circuit in the fan control harness between the module and the cooling fan motor
- 4 Corroded or loose ground connection for the variable load control module
- 5 Failed cooling fan motor that has drawn excessive current and damaged the module driver
- 6 Damaged pin or terminal in the module connector from repeated vibration or heat cycling

How to diagnose and fix it

- 1 Inspect the variable load control module connector for corrosion, water intrusion, or a backed-out pin at position 1
- 2 Check the fan control harness for continuity and chafing between the module and the fan motor, flexing the loom while watching the meter
- 3 Verify the module ground circuit has less than one ohm resistance to the battery negative terminal
- 4 Command the cooling fan on with a scan tool and watch for voltage or current feedback on pin 1 to confirm the open circuit
- 5 Substitute a known-good variable load control module and clear the code to see if it returns
- 6 If the fan motor is drawing excessive current, replace the fan assembly before installing a new module to prevent repeat failure
- 7 Clear the code and road test with the air conditioning on to confirm the fan cycles and the code does not reset

What the fan module open circuit hides

- A failed cooling fan motor is the most common root cause that technicians miss, because the motor shorts internally and burns out the module driver on pin 1 rather than setting a fan motor code first.
- Water intrusion into the variable load control module connector is a frequent Ford-specific failure, especially on models where the module sits low behind the radiator support.
- P1484 does not always mean the module itself is bad; a chafed wire in the fan harness can open only when the engine moves under load, so a static continuity test may pass.
- Some Ford vehicles will default the fan to full speed when pin 1 opens, which masks the fault and makes the driver think the cooling system is fine until the module fails completely.
- A scan tool that can command the fan on and read the module's feedback voltage is far more reliable than a simple resistance check for this circuit.

Can I keep driving with P1484?

You can drive a short distance to a repair shop if the engine temperature gauge stays normal, but avoid heavy traffic, long idle periods, and towing because the cooling fan may not engage. If the temperature gauge climbs or the air conditioning stops cooling, pull over and stop the engine to prevent overheating damage.

Tools that help

- Scan tool with bidirectional fan control capability
- Digital multimeter with continuity and voltage measurement
- Wiring diagram for the specific Ford model and engine
- Back probe pins or breakout leads for the module connector
- Socket set and trim removal tools for accessing the module and fan

Reading P1484

P	Powertrain: engine, transmission and emissions.
1	Manufacturer-specific code (Ford): its meaning depends on the make.
4	Auxiliary emission controls.
84	The exact fault within that area.

Often seen with

P1483 Engine Cooling System Performance · **P1483** Power to Cooling Fan Exceeded Normal Draw · **P1483** Catalyst Temperature Sensor Circuit Shorted High · **P0480** Cooling Fan 1 Control Circuit Malfunction · **P0481** Cooling Fan 2 Control Circuit Malfunction · **P0482** Cooling Fan 3 Control Circuit Malfunction · **P0483** Fan Rationality Check



See it working

Watch the animated explainer [How an Elevator Works: Traction Lift in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1484/>

