

CHRYSLER · POWERTRAIN

P1500

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1500 · Chrysler

Starter Signal Circuit

P1500 on Chrysler vehicles means the powertrain control module (PCM) is not seeing the expected starter signal voltage on its dedicated starter signal circuit when the ignition key is turned to the crank position. The PCM uses this input to confirm the engine is actually being cranked, and it sets the code when the voltage on that circuit stays outside the expected range during a crank attempt.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Medium

FIX DIFFICULTY

Intermediate

AREA

Vehicle speed, idle control and auxiliary inputs

Symptoms you may notice

- The engine may crank normally and start fine, with no symptom other than the check engine light.
- The engine may crank but not start, or fail to crank at all, depending on how the circuit has failed.
- Intermittent no-crank conditions that come and go with heat, vibration, or moisture.
- The starter may continue to run or engage unexpectedly if the signal circuit is shorted.
- A remote start system or aftermarket alarm may stop working correctly.
- Other starting-related codes may be stored alongside P1500 in the PCM.

Common causes, most likely first

- 1 A faulty or misadjusted starter signal switch, often the ignition switch or the starter relay contact.
- 2 Damaged, corroded, or chafed wiring in the starter signal circuit between the ignition switch, starter relay, and PCM.
- 3 A poor ground connection at the PCM, engine block, or starter mounting surface.
- 4 A failed starter relay that does not pass the crank signal voltage to the PCM.
- 5 A defective PCM driver or input circuit, though this is less common than wiring and switch faults.
- 6 Aftermarket remote start or alarm wiring spliced into the starter signal circuit incorrectly.
- 7 A weak or failing battery or starter motor that drags cranking voltage below the PCM's expected threshold.



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1500, then clear the code and attempt to reproduce it with a crank test.
- 2 Inspect the battery, battery terminals, and engine ground straps for corrosion or looseness, and load-test the battery.
- 3 Check the starter signal circuit wiring from the ignition switch through the starter relay to the PCM for continuity, chafing, and corrosion.
- 4 Test the starter relay and ignition switch operation with a multimeter or scan tool bidirectional controls.
- 5 Verify the PCM sees the correct crank signal voltage using a scan tool live data or a voltmeter back-probed at the PCM connector.
- 6 Repair or replace the faulty switch, relay, or wiring section, then clear codes and confirm the starter signal reads correctly during a crank.
- 7 If all external circuits test good, follow the manufacturer's diagnostic flow for PCM internal starter signal circuit testing before replacing the PCM.

Starter signal faults that fool good technicians

- A common misdiagnosis is replacing the starter motor when the actual fault is a dirty or loose ground at the engine block, which corrupts the starter signal voltage the PCM monitors.
- Aftermarket remote start systems frequently back-probe or splice the starter signal wire, and a poor splice there can set P1500 even though the factory wiring is intact.
- The PCM may set P1500 intermittently from a starter relay that tests fine on a bench but drops out under heat or vibration in the underhood fuse box.
- A weak battery that still starts the engine can drag cranking voltage low enough that the PCM misreads the starter signal, so always load-test the battery before condemning the PCM.
- On some Chrysler models the starter signal is routed through the totally integrated power module (TIPM), and a failing TIPM internal relay can set P1500 without any visible wiring fault.

Can I keep driving with P1500?

You can usually drive the vehicle if it starts and runs normally, but avoid repeated crank attempts and do not rely on remote start until the fault is repaired. If the engine cranks but will not start or fails to crank at all, stop driving and have the starting circuit diagnosed.



Tools that help

- OBD-II scan tool with live data and bidirectional control capability
- Digital multimeter with back-probe pins
- Test light
- Battery load tester
- Wiring diagram for the specific Chrysler model
- Basic hand tools for relay and trim access

Reading P1500

P Powertrain: engine, transmission and emissions.

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

5 Vehicle speed, idle control and auxiliary inputs.

00 The exact fault within that area.

Often seen with

P1684 Control Unit Programming Communication Error · **P1684** Metering Oil Pump Position Sensor Circuit · **P1684** Driver 5 Line 4 · **P1684** Battery Disconnected Within Last 50 Starts · **P0335** Crankshaft Position Sensor A Circuit Malfunction · **P0512** Starter Request Circuit · **P0562** System Voltage Low · **P0615** Starter Relay Circuit

See it working

Watch the animated explainer [How a Starter Motor Works: Pre-Engaged Starter](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1500/>

