

CHRYSLER · POWERTRAIN

P1493

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1493 · Chrysler

Battery Temperature Sensor Voltage Too Low

P1493 on Chrysler vehicles means the battery temperature sensor circuit is reporting a voltage lower than the powertrain control module expects, which the computer interprets as an excessively hot or shorted sensor signal. The PCM uses this sensor to adjust charging strategy and protect the battery, so a low voltage reading can affect charging behavior even when the battery itself is fine.

SYSTEM

Powertrain

CODE TYPE

Chrysler specific

SEVERITY

Low

FIX DIFFICULTY

Intermediate

AREA

Auxiliary emission controls

Symptoms you may notice

- Illumination of the check engine light, often with no other symptoms besides the warning light
- Battery warning light or charging system message on the dashboard in some models
- Battery overcharging or undercharging if the PCM defaults to a fixed charging strategy
- Hard starting or electrical accessories behaving erratically when battery condition is misjudged
- Poor fuel economy or idle quality in rare cases where charging voltage affects engine load
- No noticeable drivability change in most cases because the fault is confined to the charging system

Common causes, most likely first

- 1 Battery temperature sensor internally shorted or failed, pulling the signal voltage to ground
- 2 Corroded, chafed, or pinched sensor wiring shorting the signal circuit to ground
- 3 Loose or corroded sensor connector terminals causing intermittent low voltage
- 4 Faulty powertrain control module providing an incorrect reference or ground to the sensor
- 5 Battery replacement or service where the sensor was left disconnected or damaged during installation
- 6 Moisture intrusion into the sensor or connector causing a partial short



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P1493 to confirm the fault is active and not a stored history code
- 2 Locate the battery temperature sensor, usually attached to the battery tray or negative cable, and inspect the connector and wiring for corrosion or damage
- 3 Measure sensor resistance and compare it to the Chrysler specification for the current ambient temperature to verify the sensor is shorted
- 4 Backprobe the sensor signal circuit at the PCM and check for a short to ground with the sensor disconnected
- 5 Repair any chafed or shorted wiring and clean connector terminals before replacing parts
- 6 Replace the battery temperature sensor if resistance testing confirms it is out of specification
- 7 Clear the code and verify the sensor voltage reads correctly with a scan tool during a test drive

Why this sensor fools good technicians

- A low voltage reading does not always mean the sensor is bad, because a chafed signal wire shorting to ground produces the same code and is often missed during a quick sensor swap.
- The battery temperature sensor is frequently damaged or left unplugged during battery replacement, so check recent service history before condemning the sensor.
- On some Chrysler models the sensor is integrated into the negative battery cable assembly, so technicians replace the whole cable thinking the sensor is separate.
- A weak or failing battery can cause erratic sensor readings because the PCM reference voltage becomes unstable, so load-test the battery before chasing the circuit.
- This code rarely affects drivability, which leads owners to ignore it until the charging system overcharges and damages the battery or alternator.

Can I keep driving with P1493?

You can generally keep driving with P1493 because the fault affects charging strategy rather than engine operation, but avoid long trips until it is repaired. Have the charging system checked soon to prevent battery overcharging or premature battery failure.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Backprobe pins or piercing probes
- Chrysler service information for sensor resistance specifications
- Battery load tester



Reading P1493

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

Often seen with

P1491 Vacuum Cut Valve Bypass Valve · **P1492** EVAP Canister Purge Control Solenoid Valve Circuit · **P1492** Battery Temperature Sensor High Voltage · **P1491** EGR Valve Lift Insufficient Detected · **P1491** Radiator Fan Control Relay Circuit Open Or Shorted · **P1492** Battery Temperature Sensor Voltage Too High · **P1491** Radiator Fan Control Relay Circuit Open Or Shorted · **P1492** Battery Temperature Sensor Voltage Too High · **P0517** Battery Temperature Sensor Circuit High · **P0562** System Voltage Low · **P0563** System Voltage High

See it working

Watch the animated explainer [How a Knock Sensor Works: Spark Timing and Octane](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/chrysler-p1493/>

