

GENERIC · POWERTRAIN

P0C93

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0C93

Hybrid/EV Battery Temperature Sensor K Range/Performance

P0C93 indicates that the hybrid or electric vehicle battery pack's temperature sensor K is reporting a signal outside its expected range or behaving erratically, so the battery control module cannot trust the reading. The computer compares the sensor's voltage against plausible limits and cross-checks it with other temperature sensors, and it sets this code when the signal is out of bounds or inconsistent for a calibrated period.

SYSTEM	CODE TYPE	SEVERITY	FIX DIFFICULTY	AREA
Powertrain	Generic (all makes)	Medium	Professional	Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Reduced electric-only driving range or forced engine operation in a hybrid
- A sudden drop in state of charge or charging performance in an electric vehicle
- Battery cooling fan running excessively or not at all
- In rare cases, a reduced power limp mode to protect the battery pack

Common causes, most likely first

- 1 Faulty battery temperature sensor K itself, due to an open, shorted, or drifting thermistor element
- 2 Damaged or corroded wiring or connector at sensor K or along its harness to the battery control module
- 3 High-voltage battery pack overheating from a failed cooling system, which pushes the sensor signal out of range
- 4 A problem inside the battery control module or its sensor interface circuit
- 5 Loose or improper sensor mounting that prevents good thermal contact with the battery cells
- 6 Water intrusion or contamination in the battery pack affecting the sensor circuit
- 7 Software or calibration issue in the battery control module after a repair or replacement



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0C93, then clear the code and verify whether it returns immediately or only after a drive cycle
- 2 Visually inspect sensor K, its connector, and the harness for corrosion, chafing, or loose pins, and compare live temperature readings from all battery sensors
- 3 Measure the resistance of sensor K with a multimeter and compare it to the expected value for the ambient temperature, checking for opens or shorts
- 4 Check the battery cooling system operation, including coolant level, fan operation, and ducting, to rule out pack overheating as the root cause
- 5 Back-probe the sensor signal circuit at the battery control module and verify the voltage changes smoothly as the sensor is warmed or cooled
- 6 If wiring and sensor resistance test good, substitute a known-good sensor or simulate the signal with a resistor box to confirm the module responds correctly
- 7 Replace the faulty sensor or repair the harness as needed, clear codes, and perform a battery pack temperature sensor relearn or calibration if required

Why sensor K faults are often misdiagnosed

- A pack cooling fault can push sensor K out of range and set P0C93 even when the sensor itself is perfectly healthy, so always verify cooling system operation before condemning the sensor.
- Intermittent codes often come from a loose connector pin or chafed wire that only acts up with temperature changes or vibration, so a wiggle test while watching live data is more revealing than a static resistance check.
- Some battery control modules set this code when a sensor's reading disagrees with the average of the other sensors by only a few degrees, so a sensor that looks fine on a multimeter can still be the culprit.
- Replacing a battery temperature sensor without clearing and rechecking adaptive learning can leave the module still using old fault data, so a relearn or calibration may be required after repair.
- P0C93 does not always mean the battery pack is overheating; it can be set by a signal circuit fault that never produces a real high-temperature condition, so do not replace the pack based on this code alone.

Can I keep driving with P0C93?

You can usually drive the vehicle with this code, but avoid aggressive acceleration, sustained high speeds, and fast charging until it is diagnosed, because an inaccurate temperature reading can prevent the battery management system from protecting the pack. If the hybrid system warning light is accompanied by a reduced power message, schedule service promptly rather than continuing long trips.



Tools that help

- OBD-II scan tool with hybrid/EV battery data capability
- Digital multimeter with temperature probe
- Resistor substitution box or sensor simulator
- Battery pack service information and wiring diagrams
- Insulated hand tools and safety gloves for high-voltage areas

Reading P0C93

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
C	Hybrid propulsion.
93	The exact fault within that area.

Often seen with

P0AFA Hybrid/EV Battery System Voltage Low · **P0C90** Hybrid/EV Battery Temperature Sensor J Circuit High · **P0C91** Hybrid/EV Battery Temperature Sensor J Circuit Intermittent/ · **P0C92** Hybrid/EV Battery Temperature Sensor K Circuit · **P0C94** Hybrid/EV Battery Temperature Sensor K Circuit Low

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0c93/>

