

GENERIC · POWERTRAIN

P0ACD

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0ACD

Hybrid/EV Battery Temperature Sensor C Circuit High

P0ACD indicates that the hybrid or electric vehicle battery pack's temperature sensor C circuit is reporting a voltage higher than the manufacturer's expected range, which the battery control module interprets as an open circuit or a short to voltage. The computer has detected an abnormally high signal from this specific sensor, which is used to monitor the temperature of the high-voltage battery for safe charging and discharging.

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

Symptoms you may notice

- Illumination of the check engine light or a dedicated hybrid system warning light.
- Often no symptoms besides the warning light, especially if the fault is intermittent.
- Reduced electric-only range or the vehicle refusing to enter EV mode.
- A message on the dash indicating the hybrid battery is too hot or too cold, even when ambient conditions are normal.
- Possible reduced engine power or forced engine operation to protect the battery.
- In rare cases, the vehicle may fail to start or go into a fail-safe mode that limits speed.

Common causes, most likely first

- 1 A faulty temperature sensor C itself, such as an internal open circuit or a short to voltage.
- 2 Damaged wiring or a loose connector between sensor C and the battery control module, often due to corrosion or chafing.
- 3 A poor ground connection for the sensor circuit, causing a reference voltage to float high.
- 4 A malfunctioning battery control module that misreads the sensor signal or supplies an incorrect reference voltage.
- 5 Extreme ambient temperatures or a battery pack that is genuinely overheating, though this usually sets a different code.
- 6 Aftermarket accessories or improper repairs that have disturbed the sensor wiring harness.



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then clear the code and test-drive to see if it returns immediately.
- 2 Visually inspect the sensor C wiring and connector at the battery pack for signs of damage, corrosion, or loose pins.
- 3 Measure the resistance of sensor C with a multimeter and compare it to the manufacturer's specification for the current temperature.
- 4 Backprobe the sensor signal circuit at the control module connector to check for a high voltage that would indicate an open circuit or short to voltage.
- 5 Check the sensor ground circuit for excessive resistance or a poor connection to the battery pack chassis.
- 6 If the wiring and sensor test good, substitute a known-good sensor or simulate the signal with a resistor box to see if the code changes.
- 7 Replace the faulty sensor or repair the wiring as needed, then clear codes and verify the repair with a test drive.

What a high sensor C reading really means

- A high voltage on a temperature sensor circuit almost always indicates an open circuit or a short to voltage, not necessarily a failed sensor, so wiring checks come first.
- The sensor is often part of a harness that runs along the battery pack, and vibration or rodent damage can cause intermittent opens that only set the code under certain conditions.
- Some vehicles use a single sensor shared between multiple battery modules, so a high reading on sensor C can be caused by a fault in a different module's wiring.
- Clearing the code without repairing the root cause may lead to a repeat failure and, in some cases, a battery pack that is no longer covered under warranty.
- A genuine overheating battery can also set a high voltage code if the sensor's resistance curve goes out of range, so always check for cooling system faults before replacing parts.

Can I keep driving with P0ACD?

You can usually drive the vehicle short distances to a repair shop, but avoid aggressive acceleration, heavy loads, and long trips because the battery control module may not be able to accurately monitor battery temperature. If the vehicle enters a reduced-power mode or shows a high-temperature warning, stop driving and have it towed.



Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter
- Backprobe pins or breakout box
- Resistor box for signal simulation
- Service information for wiring diagrams and sensor specifications

Reading P0ACD

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

Often seen with

P0A9C Hybrid/EV Battery Temperature Sensor A Circuit Range/Perform · **P0ACC** Hybrid/EV Battery Temperature Sensor C Circuit Low · **P0ACE** Hybrid/EV Battery Temperature Sensor C Circuit Intermittent/ · **P0ACF** Hybrid/EV Battery Pack Cooling Fan 3 Control Circuit/Open · **P0AD0** Hybrid/EV Battery Pack Cooling Fan 3 Performance/Stuck Off

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/p0acd/>

