



P0CBA

Hybrid/EV Battery Temperature Sensor P Circuit High

P0CBA indicates that the hybrid or electric vehicle battery temperature sensor circuit designated as 'P' is reporting a voltage higher than the manufacturer's expected range, which the computer interprets as an open circuit or excessive resistance. This sensor monitors the temperature of the high-voltage battery pack, and a high signal typically means the control module cannot reliably read the battery temperature, potentially affecting charging and power management strategies.

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 hybrid system warning light, often with no other noticeable symptoms.
- Reduced electric-only driving range or the vehicle refusing to enter EV mode.
- Charging may be limited or stop prematurely, especially in extreme temperatures.
- A message on the dashboard indicating a hybrid system fault or battery temperature issue.
- In rare cases, the vehicle may enter a reduced power limp mode to protect the battery.

Common causes, most likely first

- 1 Open or high-resistance wiring in the sensor circuit, such as a broken wire or corroded connector.
- 2 Faulty battery temperature sensor 'P' itself, reading out of range.
- 3 Poor electrical connection at the sensor or at the battery control module harness.
- 4 Failed battery control module or hybrid vehicle control module not interpreting the signal correctly.
- 5 Internal damage to the battery pack wiring harness from heat, vibration, or rodent damage.
- 6 Water intrusion or contamination in the sensor connector causing high resistance.



How to diagnose and fix it

- 1 Perform a visual inspection of the sensor 'P' wiring and connector for damage, corrosion, or loose pins.
- 2 Use a scan tool to read the live data for battery temperature sensor 'P' and compare it with other temperature sensors for consistency.
- 3 Check the sensor's resistance with a multimeter and compare to the manufacturer's specification for the current temperature.
- 4 Measure voltage on the signal circuit at the sensor connector to verify the reference voltage and ground integrity.
- 5 If wiring and sensor test good, check for continuity and resistance in the circuit between the sensor and the control module.
- 6 Replace the faulty battery temperature sensor if it fails resistance or voltage tests.
- 7 Repair or replace damaged wiring or connectors, then clear the code and verify the repair with a test drive.

Common misdiagnosis of battery temperature sensor codes

- A high signal code often results from a simple unplugged connector or a broken wire, not a failed sensor, so always check connections first.
- The sensor 'P' may be one of several temperature sensors in the pack, and a faulty sensor can cause the entire pack to be derated even if other sensors read normally.
- On some vehicles, the battery temperature sensor is integrated into a larger harness or module, making replacement more involved than a standalone sensor.
- Extreme ambient temperatures can cause temporary out-of-range readings that set the code without any actual fault, so check for stored freeze-frame data.
- A weak 12-volt auxiliary battery can cause erratic sensor readings and set false temperature sensor codes on hybrid vehicles.

Can I keep driving with P0CBA?

You can generally continue driving with this code, but avoid aggressive acceleration and high-speed charging until it is diagnosed, as the vehicle may limit power or charging to protect the battery. If the vehicle enters limp mode or shows multiple warning lights, seek service promptly.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Wiring diagram for the specific vehicle
- Socket set and trim removal tools
- Contact cleaner and dielectric grease



Reading P0CBA

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

Often seen with

P0CB0 DC/DC Converter Voltage Below Threshold · **P0CB1** Hybrid/EV Battery Temperature Sensor N Circuit Intermittent/ · **P0CB2** Hybrid/EV Battery Temperature Sensor O Circuit · **P0CB3** Hybrid/EV Battery Temperature Sensor O Range/Performance · **P0CB4** Hybrid/EV Battery Temperature Sensor O 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/p0cba/>

