

GENERIC · POWERTRAIN

P0BC5

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0BC5

Hybrid/EV Battery Temperature Sensor E Circuit High

P0BC5 means the hybrid or electric vehicle battery pack's temperature sensor E is reporting a voltage above the normal range, so the battery control module sees an open circuit or a signal that is too high. The computer detects this when the sensor signal wire shows a sustained high voltage that does not match the expected temperature reading.

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 in mild weather
- Reduced electric-only driving range or the vehicle refusing to enter EV mode
- A message on the dash stating that battery temperature is unavailable or that hybrid operation is limited
- Possible forced engine running or reduced power output as the system protects the battery
- In rare cases, a no-start condition if the battery management system disables the high-voltage system

Common causes, most likely first

- 1 A damaged or disconnected temperature sensor E, including a broken internal element
- 2 An open or high-resistance fault in the sensor signal wire between the sensor and the battery control module
- 3 Corroded, loose, or pushed-back terminal pins at the sensor connector or the control module connector
- 4 A short to voltage on the sensor signal circuit, often from chafed wiring near the battery pack
- 5 A failed battery control module that misreads the sensor input
- 6 Moisture intrusion into the sensor connector or the battery pack housing causing signal corruption



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0BC5, then check for related codes in the battery control module
- 2 Inspect the sensor E connector and the control module connector for corrosion, loose pins, or water intrusion
- 3 Measure the resistance of the temperature sensor E at the sensor itself and compare it to the manufacturer's temperature-resistance chart
- 4 Back-probe the signal circuit at the control module and compare the voltage with the sensor's actual resistance to isolate a wiring fault
- 5 Check the sensor signal wire for continuity and for shorts to voltage or ground, repairing any chafed or broken wire
- 6 If the wiring and sensor test good, substitute a known-good sensor or simulate the signal with a resistor box to confirm the control module reading
- 7 Replace the faulty sensor or battery control module as indicated, clear the codes, and verify the temperature reading matches ambient after a test drive

Sensor E is not always the sensor itself

- A high-voltage signal on a temperature sensor circuit often comes from an open signal wire rather than a failed sensor, so resistance testing at the sensor alone can miss the real fault.
- On many hybrid packs, sensor E is part of a daisy-chained harness inside the battery assembly, and a single damaged wire can affect multiple temperature readings and set companion codes.
- The battery control module may set P0BC5 intermittently when the vehicle sits in direct sun or after a fast charge, because the sensor sees a temperature spike that exceeds its expected range.
- A weak 12-volt auxiliary battery can cause the control module to log false high-voltage sensor codes during cranking, so always check system voltage before condemning the sensor.
- After replacing a sensor or module, some vehicles require a battery temperature sensor learn or calibration procedure, and skipping it can leave the code pending or set a new one.

Can I keep driving with P0BC5?

You can usually drive the vehicle, but avoid aggressive acceleration, fast charging, and long trips until the fault is repaired because the battery management system may limit power or disable electric-only operation. If the dash displays a high-voltage system warning or the vehicle enters limp mode, stop driving and have it towed to a qualified hybrid technician.



Tools that help

- Hybrid-capable OBD-II scan tool with live data and freeze-frame access
- Digital multimeter with resistance and voltage measurement
- Back-probe kit or breakout leads for connector testing
- Manufacturer service information with temperature-resistance charts and wiring diagrams
- Resistor substitution box for signal simulation
- Insulated hand tools and personal protective equipment for high-voltage safety

Reading P0BC5

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
B	Hybrid propulsion.
C5	The exact fault within that area.

Often seen with

P0A9C Hybrid/EV Battery Temperature Sensor A Circuit Range/Perform · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0BC3** Hybrid/EV Battery Temperature Sensor E Circuit Range/Perform · **P0BC4** Hybrid/EV Battery Temperature Sensor E Circuit Low · **P0BC6** Hybrid/EV Battery Temperature Sensor E Circuit Intermittent/

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/p0bc5/>

