

GENERIC · POWERTRAIN

P0B2E

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B2E

Hybrid/EV Battery C Voltage High

P0B2E indicates that the hybrid or electric vehicle battery control module has detected an abnormally high voltage on the circuit monitoring battery cell group C. The computer compares voltage readings from individual cell groups and flags this code when group C exceeds the expected range, often due to a failing cell, a wiring fault, or a sensor error.

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
- Reduced electric-only range or the vehicle refusing to enter EV mode
- Loss of power or limp-home mode under acceleration
- The battery state-of-charge gauge behaving erratically or showing incorrect levels
- Often no symptoms besides the warning light, especially if the voltage deviation is small
- Possible audible cooling fan running constantly to manage battery temperature

Common causes, most likely first

- 1 A weak or failing battery cell within group C causing voltage imbalance
- 2 Corroded, loose, or damaged wiring or connector at the cell group C voltage sensing circuit
- 3 Faulty voltage sensing harness or connector pins within the battery pack
- 4 A malfunctioning battery monitoring sensor or cell voltage sensor for group C
- 5 Software error in the battery control module requiring recalibration or update
- 6 Internal fault in the battery control module itself
- 7 Extreme temperature conditions affecting cell voltage temporarily



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then clear codes and test-drive to see if P0B2E returns
- 2 Visually inspect the battery pack wiring harness and connectors for group C for corrosion, looseness, or damage
- 3 Measure the voltage of each cell group with a multimeter and compare to factory specifications to identify imbalance
- 4 Perform a battery pack voltage sensor calibration or relearn procedure if supported by the manufacturer
- 5 Check for technical service bulletins (TSBs) or software updates for the battery control module
- 6 Replace the faulty cell voltage sensor or harness if voltage readings are inconsistent
- 7 If a cell is confirmed failing, replace the affected battery module or pack according to manufacturer procedures

What Most Techs Miss on P0B2E

- A loose or corroded connector at the cell group C voltage sense wire can mimic a failing cell, so always perform a wiggle test and terminal tension check before condemning the battery pack.
- The code can be set by a temporary voltage spike during aggressive driving or charging, and may not indicate a permanent fault if it does not return after clearing.
- Some vehicles require a battery pack voltage sensor calibration after any service that disconnects the 12-volt system, and skipping this step can cause false P0B2E setting.
- A failing 12-volt auxiliary battery can cause erratic behavior in the hybrid control module and lead to misdiagnosis; always verify the 12-volt system first.
- P0B2E does not always mean the battery pack needs replacement; in many cases, a simple wiring repair or sensor replacement resolves the issue.

Can I keep driving with P0B2E?

It is generally safe to drive with P0B2E if the vehicle is not in limp mode, but avoid aggressive acceleration or high-speed driving until diagnosed. If the hybrid warning light flashes or power is reduced, pull over safely and seek professional diagnosis.

Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter with high DC voltage range
- Insulation tester (megohmmeter) for high-voltage circuit checks
- Battery pack service plug removal tool (if applicable)
- Manufacturer-specific diagnostic software for battery module data



Reading P0B2E

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- B** Hybrid propulsion.
- 2E** The exact fault within that area.

Often seen with

P0A04 Motor Electronics Coolant Temperature Sensor Circuit Intermi · **P0A1F** Battery Energy Control Module A Performance · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B2D** Hybrid/EV Battery C Voltage Low · **P0B2F** Hybrid/EV Battery D Voltage

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/p0b2e/>

