



P0B30

Hybrid/EV Battery D Voltage Unstable

P0B30 indicates that the hybrid or electric vehicle battery control module has detected unstable voltage on the high-voltage battery pack segment designated as 'D'. The computer monitors voltage readings from this section and flags the code when the voltage fluctuates outside the expected stable range under normal operating conditions.

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

Symptoms you may notice

- Illumination of the hybrid system warning light or check engine light
- Reduced electric-only range or sluggish acceleration
- Intermittent loss of power or hesitation during driving
- Battery gauge fluctuating or showing erratic state of charge
- Often no symptoms besides the warning light

Common causes, most likely first

- 1 Failing or degraded battery cell within the 'D' segment
- 2 Corroded or loose high-voltage cable connection at the battery module
- 3 Faulty voltage sensing harness or connector for the 'D' segment
- 4 Malfunctioning battery control module or voltage monitoring circuit
- 5 Internal short or imbalance in the battery pack affecting segment D
- 6 Extreme temperature exposure causing temporary voltage instability

How to diagnose and fix it

- 1 Perform a thorough visual inspection of high-voltage battery connections and wiring for corrosion or damage
- 2 Use a scan tool to read live voltage data for the 'D' segment and compare with other segments
- 3 Check and clean the voltage sensing harness connectors at the battery module
- 4 Perform a battery pack voltage balance test according to manufacturer procedures
- 5 Test the battery control module and its voltage sensing circuits with a multimeter
- 6 Replace the faulty battery cell or module if voltage instability is confirmed
- 7 Clear the code and verify the repair with a test drive and live data monitoring



Don't overlook the voltage sense harness

- A loose or corroded voltage sensing connector often mimics a failing battery cell, so inspect the harness before condemning the pack.
- The code can set intermittently due to temperature swings, and a single occurrence may not indicate a permanent fault.
- Voltage instability in one segment can be caused by a weak cell that only shows up under load, so live data during acceleration is more revealing than static readings.
- Replacing the battery control module without checking the sensing wiring is a common misdiagnosis that leads to repeat failures.
- Some vehicles require a battery pack balancing procedure after any module replacement to prevent the code from returning.

Can I keep driving with P0B30?

It is not safe to continue driving with this code because unstable high-voltage battery voltage can lead to sudden power loss or further battery damage. Avoid driving until the fault is diagnosed and repaired by a qualified hybrid technician.

Tools that help

- Hybrid/EV scan tool with live voltage data capability
- Digital multimeter with high-voltage rated probes
- Insulated hand tools for high-voltage work
- Battery pack balancing equipment
- Manufacturer service information for voltage testing procedures

Reading P0B30

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

Often seen with

P0A7F Hybrid/EV Battery Pack Deterioration · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B31** Hybrid/EV Battery D Voltage Low · **P0B32** Hybrid/EV Battery D Voltage High · **P0B33** High Voltage Service Disconnect Circuit



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/p0b30/>

