

GENERIC · POWERTRAIN

P0B15

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B15

Hybrid/EV Battery Pack Voltage Sense B Circuit Range/Performance

P0B15 indicates that the hybrid or electric vehicle battery pack voltage sensing circuit B is reporting a voltage reading outside the range the control module expects, or that the signal is not changing in a plausible way as the pack is loaded and unloaded. The computer compares this sense circuit against other voltage sense channels and flags the code when the B circuit's performance is erratic, stuck, or out of correlation.

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 if the fault is intermittent
- Reduced electric-only driving range or the vehicle refusing to enter EV mode
- Gauges or dashboard energy displays showing erratic or implausible battery voltage
- Powertrain power limitation or limp-home mode in some vehicles
- Possible failure to start or charge if the battery management system cannot trust the voltage data

Common causes, most likely first

- 1 Damaged or chafed wiring in the voltage sense B circuit, often near the battery pack connector or harness routing
- 2 Corroded or loose terminals at the battery pack voltage sense connector or at the battery management system module
- 3 Faulty voltage sense B harness or connector internal to the battery pack assembly
- 4 Failed battery management system (BMS) or hybrid control module voltage sensing input
- 5 Internal battery pack cell or module imbalance causing the B sense point to read out of expected range
- 6 Water intrusion or contamination in the voltage sense circuit connector
- 7 Aftermarket accessories or improper prior repairs disturbing the sense circuit wiring



How to diagnose and fix it

- 1 Retrieve all stored codes and freeze-frame data, then clear codes and test-drive to see if P0B15 returns immediately or only under specific load conditions
- 2 Inspect the voltage sense B circuit wiring and connectors for chafing, corrosion, loose pins, or water intrusion, repairing as needed
- 3 Measure resistance and voltage drop on the sense B circuit from the battery pack connector to the control module and compare with the manufacturer's specification
- 4 Use a scan tool to compare the B circuit voltage reading against other voltage sense channels and against a known-good meter reading at the pack terminals
- 5 Check for technical service bulletins or software updates for the battery management system that address voltage sense correlation issues
- 6 If wiring and connectors are good, perform the manufacturer's specified test for the battery management system or control module input and replace only if confirmed faulty
- 7 After repair, clear codes and verify the sense B circuit reads within range and correlates with other channels during a road test

Sense circuit faults that mimic battery failure

- A loose or corroded sense connector can set P0B15 without any real battery pack problem, so always inspect connectors before condemning the pack.
- The code often appears only during aggressive acceleration or regenerative braking when the pack voltage swings, making a simple idle scan misleading.
- Some vehicles set this code when the 12-volt auxiliary battery is weak because the hybrid control module misbehaves under low supply voltage.
- A failed voltage sense B circuit can cause the BMS to disable charging or EV mode as a protective measure, even though the pack itself is healthy.
- Technicians sometimes replace the entire battery pack when the actual fault is a chafed wire in the sense harness near a sharp body seam.

Can I keep driving with P0B15?

You can usually drive the vehicle short distances to a repair shop, but avoid aggressive acceleration, heavy regenerative braking, and long trips because the battery management system may limit power or disable hybrid functions without warning. If the vehicle enters limp mode or shows a high-voltage warning, stop driving and have it towed.



Tools that help

- Hybrid/EV-capable scan tool with live data and graphing
- Digital multimeter with min/max recording
- Manufacturer service information for voltage sense circuit testing
- Insulation resistance tester for high-voltage circuit checks
- Terminal pick and contact cleaner for connector inspection

Reading P0B15

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

Often seen with

P0A09 DC/DC Converter Status Circuit Low Input · **P0A0D** High Voltage System Interlock Circuit A High ·
P0AFA Hybrid/EV Battery System Voltage Low · **P0B14** Hybrid/EV Battery Pack Voltage Sense B Circuit ·
P0B16 Hybrid/EV Battery Pack Voltage Sense B 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/p0b15/>

