



P0B66

Hybrid/EV Battery Voltage Sense I Circuit High

P0B66 indicates that the hybrid or electric vehicle's battery monitoring system has detected an abnormally high voltage on the sensing circuit for battery module 'I', meaning the signal wire is reading a higher voltage than the control module expects. This typically points to a wiring fault, a poor connection, or a problem within the battery pack itself rather than a simple sensor failure.

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
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Possible reduced power output or limp-home mode in some vehicles
- In rare cases, the high-voltage battery may stop accepting a charge

Common causes, most likely first

- 1 Corroded, loose, or damaged voltage sense wire between the battery module and the battery energy control module
- 2 Open or high-resistance connection at the battery module sense terminal
- 3 Faulty battery energy control module (BECM) or voltage sensing circuit inside the module
- 4 Internal fault in the battery module causing an abnormal voltage reading
- 5 Water intrusion or contamination in the battery pack connector
- 6 Chafed or shorted sense wire harness against the battery pack casing



How to diagnose and fix it

- 1 Retrieve all stored codes and freeze-frame data, then clear codes and test-drive to see if P0B66 returns
- 2 Visually inspect the battery pack connectors and sense wiring for corrosion, damage, or loose pins
- 3 Measure resistance and voltage drop on the sense circuit from the module to the BECM and compare with specifications
- 4 Perform a wiggle test on the harness while monitoring the voltage sense parameter to catch intermittent faults
- 5 If wiring is good, follow the manufacturer's diagnostic flow for testing the BECM and battery module
- 6 Replace or repair the faulty sense wire or connector as needed
- 7 If the BECM or battery module is defective, replace or reprogram according to service information

Sense circuit faults often mimic module failure

- A high voltage reading on a sense circuit is frequently caused by a poor ground reference or a short to voltage rather than a failed battery module, so always check the ground circuit first.
- Intermittent P0B66 codes often appear after a battery pack service or collision repair where a connector was not fully seated, so inspect recent work areas before condemning parts.
- Some vehicles set this code when the 12-volt auxiliary battery is weak, causing the BECM to log implausible voltage readings; always verify 12-volt system health before deep hybrid diagnostics.
- The code does not always mean the high-voltage battery is failing; a simple chafed wire against the pack casing can produce the same high-voltage sense signal.
- Clearing the code without repairing the underlying connection often leads to a comeback, because the high resistance will return as the connector heats and cools.

Can I keep driving with P0B66?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, long trips, and charging if the warning light is accompanied by reduced power. If the vehicle enters limp mode or shows a high-voltage safety warning, stop driving and have it towed.

Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter with high-voltage safety rating
- Manufacturer service information and wiring diagrams
- Insulation tester (megohmmeter) for high-voltage circuit checks
- Terminal pick and connector repair kit



Reading P0B66

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

Often seen with

P0A1F Battery Energy Control Module A Performance · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B65** Hybrid/EV Battery Voltage Sense I Circuit Low · **P0B67** Hybrid/EV Battery Voltage Sense I Circuit Intermittent/Errat · **P0B68** Hybrid/EV Battery Voltage Sense J 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/p0b66/>

