

GENERIC · POWERTRAIN

P0B8F

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B8F

Hybrid/EV Battery Voltage Sense Q Circuit Intermittent/Erratic

P0B8F means the hybrid or electric vehicle battery pack's voltage sensing circuit for the 'Q' cell group is reporting intermittent or erratic readings to the battery energy control module. The computer has detected that the voltage signal from that specific sense line jumps, drops out, or otherwise fails to behave as a stable, plausible value during a defined monitoring window.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid/EV battery fault warning light or master warning lamp
- The vehicle may enter a reduced-power or limp-home mode with limited electric propulsion
- Intermittent loss of state-of-charge or range estimation accuracy on the dash
- Possible refusal to enter EV mode or engage the high-voltage battery contactors
- Often no symptoms besides the warning light, especially if the glitch is brief
- Occasional stalling or failure to restart after a stop if the fault escalates

Common causes, most likely first

- 1 Loose, corroded, or backed-out terminal in the voltage sense connector at the battery module
- 2 Chafed or intermittently shorted voltage sense wire harness along the pack or module routing
- 3 Failing cell voltage sense harness connector or pin tension loss inside the battery assembly
- 4 Internal fault in the battery energy control module's voltage sensing input circuit
- 5 A failing battery module or cell group causing the sense reading to swing erratically
- 6 Water intrusion or contamination in the battery pack connector or sense circuit
- 7 Poor chassis or pack ground connection causing reference voltage instability



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0B8F plus any companion battery codes before clearing anything
- 2 Inspect the battery pack sense connector and harness for corrosion, loose pins, and chafing, then perform a wiggle test while watching live voltage-sense PIDs
- 3 Check the voltage sense circuit's resistance and continuity end-to-end against the service information specification
- 4 Compare the 'Q' group voltage reading to neighbouring cell-group voltages and to a calibrated multimeter measurement at the module terminals
- 5 Verify the battery energy control module ground and power feeds are clean and stable under load
- 6 If the harness and connectors pass, substitute or reflash the battery energy control module only after confirming the sense line is electrically sound
- 7 Clear codes, perform the required battery pack relearn or initialization procedure, and road test through several key cycles to confirm the intermittent fault is gone

Why an intermittent sense code is rarely the battery

- A voltage sense circuit that is intermittent or erratic usually points to a connection or wiring problem rather than a genuinely failing cell, so replacing the battery pack first is an expensive misdiagnosis.
- The fault may only appear under vibration, temperature swing, or high-current events, which is why a static meter check can pass while the code still sets on the road.
- Technicians commonly overlook the pack ground and module reference voltage, yet a drifting reference makes every sense channel look erratic and can mimic a bad sense wire.
- P0B8F can be stored alongside cell balancing or isolation codes, and clearing it without addressing the underlying connector issue almost guarantees a comeback.
- Some battery energy control modules latch this code after a single glitch and require a specific relearn or initialization drive cycle before the monitor will re-run and pass.

Can I keep driving with P0B8F?

You can usually drive the vehicle short distances to a repair facility, but avoid aggressive acceleration, deep discharges, and long trips until the fault is diagnosed. If the vehicle drops into reduced power or refuses to start, stop driving and arrange a tow to prevent a stranded high-voltage shutdown.

Tools that help

- Hybrid/EV-capable scan tool with live battery cell voltage PIDs
- Digital multimeter with min/max recording
- Back-probe kit and terminal tension test tools
- Insulated hand tools rated for high-voltage work
- Service information with battery pack sense circuit wiring diagrams



Reading P0B8F

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
B	Hybrid propulsion.
8F	The exact fault within that area.

Often seen with

P0A1F Battery Energy Control Module A Performance · **P0AA6** Hybrid/EV Battery Voltage System Isolation Fault · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B8E** Hybrid/EV Battery Voltage Sense Q Circuit High · **P0B90** Hybrid/EV Battery Voltage Sense R 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/p0b8f/>

