

GENERIC · POWERTRAIN

P0B71

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B71

Hybrid/EV Battery Voltage Sense K Circuit Intermittent/Erratic

P0B71 means the hybrid or electric vehicle battery pack controller has detected an intermittent or erratic signal on the voltage sense circuit for cell group K. The computer expects a steady voltage reading from that specific sense line, but the signal is dropping out, jumping, or otherwise behaving unpredictably rather than reading a stable value.

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 range or the vehicle refusing to enter EV mode
- Momentary loss of power or a hesitation under acceleration when the signal glitches
- The battery state-of-charge gauge behaving erratically or showing sudden jumps
- A no-start condition if the fault escalates and the controller disables the high-voltage system

Common causes, most likely first

- 1 A loose, corroded, or backed-out terminal in the voltage sense connector at the battery pack
- 2 A chafed or broken voltage sense wire between the cell group and the battery controller
- 3 An intermittent open or high-resistance connection inside the sense harness or pass-through connector
- 4 A failing cell group K that causes the voltage to fluctuate under load, confusing the sense circuit
- 5 A faulty battery pack controller or voltage sensing module with an internal intermittent connection
- 6 Moisture intrusion or contamination in the sense circuit connector causing erratic readings
- 7 A poor ground connection for the battery monitoring system that makes the sense signal unstable



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0B71, then clear the code and test-drive to see if it returns immediately or only under specific conditions
- 2 Inspect the voltage sense connector at the battery pack for corrosion, loose pins, or pushed-out terminals, and clean or repair as needed
- 3 Perform a wiggle test on the sense harness while watching live voltage data for cell group K to catch an intermittent wire or connector
- 4 Measure the resistance of the sense wire from the cell group to the controller and compare it to the service information specification
- 5 Check the cell group K voltage directly with a meter and compare it to the controller's reported value to determine whether the fault is in the cell or the sensing circuit
- 6 If the sense circuit checks out, test the battery pack controller and its grounds for intermittent faults, following the manufacturer's diagnostic flow chart
- 7 Repair or replace the faulty sense wire, connector, or controller, then clear codes and verify the repair with a road test and live data review

Intermittent sense faults that fool technicians

- A voltage sense code often sets because of a poor pin fit in a connector that looks perfectly clean, so a visual inspection alone will miss the root cause.
- The fault may only appear when the vehicle is cold, hot, or going over bumps, which means a stationary scan tool session can show everything normal and send you down the wrong path.
- Technicians sometimes replace the entire battery pack when the real problem is a chafed sense wire rubbing against the pack housing, so always verify the circuit before condemning the pack.
- A weak or failing cell group can cause the voltage to swing under load, and the controller may interpret that swing as an erratic sense signal even though the sensing circuit itself is fine.
- The code can be stored by a low auxiliary battery or poor ground that momentarily drops the controller's reference voltage, so check the 12-volt system before digging into the high-voltage pack.

Can I keep driving with P0B71?

You can usually drive the vehicle short distances to a repair shop, but avoid heavy acceleration, long trips, and any situation where a sudden loss of hybrid power would be dangerous. If the warning light is accompanied by reduced power or a no-start condition, stop driving and have the vehicle towed.



Tools that help

- Hybrid/EV-capable scan tool with live data and freeze-frame recording
- Digital multimeter with min/max recording and a low-ohms scale
- Back-probe kit or breakout box for testing connectors without damage
- Manufacturer service information with the specific diagnostic flow chart for this code
- Insulation resistance tester for high-voltage circuit checks
- Terminal pick and crimping tools for connector repair

Reading P0B71

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B6F** Hybrid/EV Battery Voltage Sense K Circuit Low · **P0B70** Hybrid/EV Battery Voltage Sense K Circuit High · **P0B72** Hybrid/EV Battery Voltage Sense L 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/p0b71/>

