

GENERIC · POWERTRAIN

P0B6C

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B6C

Hybrid/EV Battery Voltage Sense J Circuit Intermittent/Erratic

P0B6C means the hybrid or electric vehicle battery pack controller has detected an intermittent or erratic voltage signal on the sense circuit labeled J, which monitors a specific group of battery cells. The computer is not reporting a constant out-of-range voltage but rather a signal that cuts in and out or jumps unpredictably, so the fault may come and go with vibration, temperature, or moisture.

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

Symptoms you may notice

- Warning light or hybrid system message on the dash, often no symptoms besides the warning light
- Intermittent loss of hybrid assist or reduced electric-only operation
- Battery state-of-charge gauge behaving erratically or dropping suddenly
- Vehicle entering a reduced-power limp mode that clears after a restart
- Charging or regenerative braking that cuts out intermittently
- No noticeable drivability change if the fault is brief and the controller substitutes a default value

Common causes, most likely first

- 1 Loose, corroded, or backed-out terminal in the J circuit sense connector at the battery pack
- 2 Chafed or pinched sense wire harness rubbing against a battery module frame or body seam
- 3 Failing cell voltage sense harness connector or poor crimp at the module tap
- 4 Internal fault in the battery pack controller or voltage monitoring board causing erratic sampling
- 5 Moisture or coolant intrusion into the sense circuit connector or harness
- 6 Heat-related resistance change in a damaged sense wire that opens only when warm
- 7 A weak or failing battery module causing the sense circuit reading to swing under load



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data for P0B6C, then clear and road-test to see if the fault returns under vibration or temperature change
- 2 Inspect the J circuit sense connector at the battery pack for corrosion, loose pins, and proper seating, then reseal and retest
- 3 Perform a wiggle test on the sense harness while watching live voltage data for the affected cell group to expose an intermittent connection
- 4 Check sense wire continuity and resistance from the module tap to the controller, flexing the harness by hand to reveal a broken strand
- 5 Verify battery module voltages with a calibrated meter and compare them to the controller's reported values to isolate a harness fault from a module fault
- 6 Inspect for moisture or coolant trails around the pack and dry or repair any contaminated connector before reassembly
- 7 If the harness and connectors test good, follow the manufacturer's diagnostic flow for the battery pack controller or voltage sense board before replacing any module

Intermittent battery sense faults mislead many techs

- A P0B6C that sets only on rough roads or after temperature swings is usually a harness or connector problem, not a failing battery module, so replacing modules first wastes money.
- The J circuit label refers to one specific sense input in the pack's monitoring scheme, and the same physical connector often carries several sense circuits, so a single loose pin can set multiple related codes.
- High-voltage battery sense circuits are safety-critical, and probing them with a standard multimeter or test light can damage the controller or create a shock hazard if proper high-voltage precautions are not followed.
- Some vehicles set this code from a brief glitch during a low-voltage event or a weak 12-volt auxiliary battery, so check system voltage and grounds before condemning the hybrid pack.
- A sense circuit that reads erratically only under regenerative braking or hard acceleration points to a module-level connection issue rather than a controller fault, because load changes the current through the sense tap.

Can I keep driving with P0B6C?

The vehicle is generally safe to drive short distances to a service location, but avoid hard acceleration, heavy regenerative braking, and long trips because an erratic sense signal can cause the controller to reduce power or shut down hybrid operation without warning. If the warning light is accompanied by a sudden loss of power or a high-voltage service message, stop driving and have the vehicle towed.



Tools that help

- OBD-II scan tool with hybrid/EV battery data capability
- Digital multimeter with high-voltage safety rating
- Manufacturer service information for battery pack sense circuit pinouts
- Insulated hand tools and high-voltage personal protective equipment
- Back-probe kit and terminal release tools for sealed connectors

Reading P0B6C

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
B	Hybrid propulsion.
6C	The exact fault within that area.

Often seen with

P0A04 Motor Electronics Coolant Temperature Sensor Circuit Intermi · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B6A** Hybrid/EV Battery Voltage Sense J Circuit Low · **P0B6B** Hybrid/EV Battery Voltage Sense J Circuit High · **P0B6D** Hybrid/EV Battery Voltage Sense K 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/p0b6c/>

