

GENERIC · POWERTRAIN

P0B70

OBD-II TROUBLE CODE

P0B70

Hybrid/EV Battery Voltage Sense K Circuit High

P0B70 indicates that the hybrid or electric vehicle battery pack's voltage sensing circuit, specifically the channel designated 'K', is reporting a voltage higher than the battery monitoring system expects. The computer has detected an abnormally high signal on this sense line, which can be caused by a wiring fault, a failed sensor, or a problem within the battery pack itself.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid/EV system warning light or service vehicle soon message
- Reduced power output or limp mode as the vehicle limits battery use to protect components
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Possible failure to start or enter 'ready' mode if the high voltage system is disabled
- Inaccurate state-of-charge or range display on the dashboard
- In rare cases, a burning smell or heat from the battery pack area if a short circuit is present

Common causes, most likely first

- 1 Faulty voltage sense wire or connector at the battery pack, such as a chafed wire or corroded terminal
- 2 Failed battery pack voltage sensor or sensing module for channel K
- 3 Internal fault in the battery pack, such as a shorted cell or bus bar that skews the voltage reading
- 4 Damaged or loose high-voltage cable connector causing a high resistance connection
- 5 Water intrusion or contamination in the battery pack connector or sensor housing
- 6 Software glitch in the battery energy control module (BECM) causing a false high reading
- 7 Aftermarket accessories or improper previous repairs that disturbed the sensing circuit



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in the battery management system
- 2 Inspect the voltage sense wiring and connectors at the battery pack for damage, corrosion, or loose pins
- 3 Measure the actual voltage at the sense point and compare it to the value reported by the scan tool to confirm the fault
- 4 Check the battery pack voltage sensor's resistance and output signal according to the manufacturer's procedure
- 5 If the sensor is faulty, replace it and clear the codes to see if the fault returns
- 6 If wiring and sensor are good, perform a battery pack insulation and internal resistance test to rule out a pack fault
- 7 Reprogram or update the BECM software if a known calibration issue exists, then retest the system

When the sense wire lies about voltage

- A high voltage sense reading often comes from a poor ground reference rather than an actual overvoltage, so check the sensor's ground circuit before condemning the battery pack.
- The 'K' channel is one of many sense lines; a single high channel can be caused by a shared connector problem that affects only that pin, so inspect the entire connector housing for subtle damage.
- This code can be set by a completely discharged 12-volt auxiliary battery causing the BECM to boot incorrectly and misread sensor data, so always verify the low-voltage system first.
- Intermittent high readings are frequently caused by vibration wearing through wire insulation near a bracket, so a wiggle test while monitoring live data is more effective than a static meter check.
- Replacing the battery pack is rarely the correct fix for P0B70; the sense circuit and its connectors are the most common failure points and should be ruled out first.

Can I keep driving with P0B70?

It is generally safe to drive with P0B70 if the vehicle remains in normal operation and no other warnings appear, but avoid aggressive acceleration or heavy electrical loads until the fault is repaired. If the vehicle enters limp mode or shows a high-voltage system warning, stop driving and have it towed to a qualified technician.

Tools that help

- OBD-II scan tool with hybrid/EV battery data capability
- Digital multimeter with high-voltage safety rating
- Wiring diagram and service information for the specific vehicle
- Insulation tester (megohmmeter) for high-voltage circuit checks
- Terminal pick and connector release tools



Reading P0B70

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

Often seen with

P0A1F Battery Energy Control Module A Performance · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0B6F** Hybrid/EV Battery Voltage Sense K Circuit Low · **P0B71** Hybrid/EV Battery Voltage Sense K Circuit Intermittent/Errat · **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/p0b70/>

