

GENERIC · POWERTRAIN

P0B57

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0B57

Hybrid/EV Battery Voltage Sense F Circuit High

P0B57 indicates that the hybrid or electric vehicle battery pack's voltage sensing circuit, specifically the 'F' circuit, is reporting a voltage higher than the manufacturer's expected range to the battery energy control module. The computer detects this when the signal wire voltage exceeds a calibrated threshold, often due to a wiring fault, a failed sensor, or a problem within the battery pack itself.

SYSTEM

Powertrain

CODE TYPE

Generic (all makes)

SEVERITY

High

FIX DIFFICULTY

Professional

AREA

Hybrid propulsion

Symptoms you may notice

- Illumination of the hybrid system warning light or check engine light
- Often no symptoms besides the warning light, especially in early stages
- Reduced hybrid system power or forced limp mode
- Inability to start the vehicle or engage the hybrid system
- Erratic battery state-of-charge readings or sudden shutdowns
- Possible charging system faults or reduced electric range

Common causes, most likely first

- 1 Faulty voltage sensing circuit wiring, such as a short to voltage or open ground
- 2 Defective battery voltage sensor or sensing module
- 3 Corroded or damaged connector pins at the battery pack or control module
- 4 Internal battery pack fault, such as a cell or module issue affecting voltage sensing
- 5 Failed battery energy control module (BECM) or hybrid control module
- 6 Water intrusion or physical damage to the sensing circuit harness



How to diagnose and fix it

- 1 Retrieve all stored codes and freeze-frame data using a scan tool capable of hybrid system diagnostics
- 2 Visually inspect the voltage sensing circuit wiring and connectors for damage, corrosion, or loose pins
- 3 Measure resistance and voltage on the 'F' circuit at the sensor and at the control module to check for shorts or opens
- 4 Compare the 'F' circuit reading with other voltage sense circuits to identify if the fault is isolated
- 5 Perform a battery pack voltage measurement and compare with scan tool data to verify sensor accuracy
- 6 If wiring and sensor are good, test the battery energy control module and replace if faulty
- 7 Clear codes and perform a road test to confirm the repair and ensure no pending codes return

Before you replace the hybrid battery pack

- A high voltage reading on a sense circuit often results from a poor ground connection rather than a failed battery, so check ground points thoroughly before condemning the pack.
- The 'F' circuit may be shared with other sensing circuits in some designs, so a fault in one can affect multiple readings and mislead diagnosis.
- Intermittent high voltage codes can be caused by a loose connector that only acts up under vibration or temperature changes, so wiggle tests are essential.
- Some manufacturers require a battery pack service plug to be removed before testing sense circuits, and failing to do so can cause false readings or damage.
- After repairing the circuit, the battery energy control module may need a relearn or calibration procedure to clear the code permanently.

Can I keep driving with P0B57?

Do not continue driving with this code set, as it can lead to a sudden loss of hybrid power or a shutdown while in motion. Have the vehicle inspected by a qualified hybrid technician before further use.

Tools that help

- Hybrid-capable scan tool with live data and graphing
- Digital multimeter with high-voltage safety rating
- Insulation tester (megohmmeter) for high-voltage circuit checks
- Battery pack service plug removal tool
- Wiring diagram and service information for the specific vehicle



Reading P0B57

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

Often seen with

P0A1F Battery Energy Control Module A Performance · **P0AFA** Hybrid/EV Battery System Voltage Low ·
P0B4C Hybrid/EV Battery Voltage Sense D Circuit Low · **P0B56** Hybrid/EV Battery Voltage Sense F Circuit Low
 · **P0B58** Hybrid/EV Battery Voltage Sense F Circuit Intermittent/Errat

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/p0b57/>

