



P0EDA

Hybrid/EV Battery Pack F Voltage Sensor Circuit High

P0EDA indicates that the hybrid or electric vehicle battery pack control module has detected an abnormally high voltage signal from the sensor circuit monitoring the voltage of battery pack section F. The computer expects the sensor's output to stay within a calibrated range, and a sustained high reading tells it that the circuit is reporting more voltage than the pack section can physically produce or that the signal wire is being pulled toward a reference voltage.

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

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message
- Reduced electric-only driving range or a switch to gasoline-only operation in a plug-in hybrid
- A sudden drop in available power or a limp-home mode
- The high-voltage battery gauge showing an incorrect state of charge or fluctuating wildly
- Often no symptoms besides the warning light, especially if the fault is intermittent
- Refusal to enter or complete a high-voltage charging session

Common causes, most likely first

- 1 A faulty voltage sensor internal to battery pack section F
- 2 An open or high-resistance connection in the sensor signal circuit, including a backed-out terminal or corroded pin
- 3 A short to voltage on the signal wire between the sensor and the battery pack control module
- 4 A poor ground or reference return for the sensor circuit, causing the signal to float high
- 5 A failed battery pack control module or hybrid control module interpreting the signal incorrectly
- 6 Physical damage to the sensor harness inside the pack, often from vibration or rodent intrusion
- 7 A defective cell group in pack section F that causes the sensor to read outside its expected window



How to diagnose and fix it

- 1 Retrieve all stored and pending codes with a scan tool capable of reading hybrid battery data, and record freeze-frame information before clearing anything
- 2 Inspect the low-voltage sensor harness and connectors at the battery pack for corrosion, pushed pins, or chafed wiring
- 3 Measure the sensor signal voltage and compare it with the battery pack control module's live data to confirm the high reading is real
- 4 Check the sensor reference voltage and ground return at the sensor connector with a multimeter to rule out a circuit fault
- 5 Perform a voltage drop test on the ground and signal circuits while wiggling the harness to expose intermittent faults
- 6 If the circuit checks out, substitute a known-good sensor or perform the manufacturer's sensor calibration procedure
- 7 After repair, clear codes and verify the sensor reading falls within the specified range during a road test and a charging cycle

What a high pack voltage sensor really means

- A high signal often comes from a lost ground rather than a failed sensor, because the signal wire floats up toward reference voltage when the return path is broken.
- Technicians sometimes replace the battery pack section only to find a chafed harness inside the pack cover, so always inspect wiring before condemning hardware.
- This code can set intermittently from vibration or temperature changes and may not reappear during a short test drive, so a wiggle test of the harness is essential.
- The battery pack control module may store this code alongside cell balancing or isolation faults, and those companion codes often point to the true root cause.
- A weak 12-volt auxiliary battery can cause erratic module behavior and false sensor readings, so verify system voltage before chasing the high-voltage circuit.

Can I keep driving with P0EDA?

Because this fault affects the high-voltage battery monitoring system, continued driving risks an incorrect state-of-charge calculation, sudden power loss, or a no-start condition. Limit driving to a short distance to a safe repair location and avoid high-load acceleration or fast charging until the circuit is diagnosed.



Tools that help

- Hybrid-capable scan tool with live battery pack data
- Digital multimeter with high-voltage safety rating
- Insulation tester or megohmmeter for high-voltage circuit checks
- Terminal pick and connector repair kit
- Manufacturer service information for sensor circuit specifications

Reading P0EDA

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

Often seen with

P0A1F Battery Energy Control Module A Performance · **P0A7F** Hybrid/EV Battery Pack Deterioration · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0ED9** Hybrid/EV Battery Pack F Voltage Sensor Circuit Low · **P0EDB** Hybrid/EV Battery Pack F Voltage Sensor Circuit Intermittent

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/p0eda/>

