



P0EFA

Battery Charger A Input Voltage Sensor B Circuit High

P0EFA indicates that the powertrain control module has detected an abnormally high voltage on the input voltage sensor circuit for battery charger A, sensor B. This sensor monitors the voltage feeding the charger, and a high reading tells the module that the circuit is seeing more voltage than expected, which can affect charging system operation and trigger the warning light.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message
- Often no symptoms besides the warning light
- Charging system warning lamp may also be on
- Battery may not charge properly, leading to a no-start or slow crank condition
- Electrical accessories may behave erratically or dim
- Possible reduced engine performance or limp mode in some vehicles

Common causes, most likely first

- 1 Faulty input voltage sensor B on battery charger A
- 2 Damaged or chafed wiring in the sensor circuit, causing a short to voltage
- 3 Corroded, loose, or disconnected electrical connector at the sensor or control module
- 4 Failed battery charger A assembly with an internal fault
- 5 Powertrain control module software error or internal circuit fault
- 6 High resistance in the ground circuit for the sensor, skewing the voltage reading
- 7 Aftermarket accessories improperly wired into the charger circuit



How to diagnose and fix it

- 1 Scan all modules and record freeze-frame data to confirm the code is current and not history
- 2 Visually inspect the sensor, connector, and wiring for damage, corrosion, or loose pins
- 3 Measure reference voltage and signal voltage at the sensor connector with a digital multimeter and compare to manufacturer specifications
- 4 Check the sensor ground circuit for excessive resistance with a voltage drop test
- 5 Back-probe the signal wire at the control module to rule out a wiring short to voltage
- 6 If wiring and connectors are good, test or replace the input voltage sensor B or battery charger A assembly as directed by service information
- 7 Clear codes and verify the repair by running the charger through its operating range and confirming no code returns

What a high charger input voltage really means

- A short to voltage on the signal wire is a common cause that many technicians miss because they replace the sensor first without checking the harness.
- The code can set intermittently from a poor connection that only acts up under vibration or temperature changes, so a wiggle test of the harness is essential.
- A weak or failing battery can cause erratic charger operation and set this code, so always load-test the battery before condemning the charger.
- Aftermarket accessories tapped into the charger circuit can back-feed voltage and trigger a high input signal, which is often overlooked during diagnosis.
- This code does not always mean the charger itself has failed; the fault may lie entirely in the wiring or connectors between the sensor and the control module.

Can I keep driving with P0EFA?

You can usually drive the vehicle short distances to a repair shop, but avoid long trips and heavy electrical loads because a charging system fault can leave you stranded with a dead battery. If the battery warning light is on or the vehicle is slow to crank, stop driving and arrange a tow.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter
- Back-probe kit or breakout box
- Wiring diagram for the charging system
- Battery load tester



Reading P0EFA

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

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0EFB** Battery Charger A Input Voltage Sensor B Circuit Intermittent · **P0EFC** Battery Charger A Input Voltage Sensor C Circuit · **P0EFD** Battery Charger A Input Voltage Sensor C Circuit Range/Perfo

See it working

Watch the animated explainer [How a Supercharger Works: Roots Blower in X-Ray](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0efa/>

