

GENERIC · POWERTRAIN

P0E8D

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0E8D

Battery Charger B Current Sensor Circuit High

P0E8D indicates that the battery charger's current sensor circuit for charger B is reporting a voltage above the normal range, meaning the control module sees an abnormally high signal from that sensor. The computer detects this when the sensor output exceeds the expected threshold for a set time, often due to a short to voltage, a faulty sensor, or a wiring problem.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message
- Often no symptoms besides the warning light
- Possible charging system warning light or message on the dash
- Reduced or disabled battery charging function, especially on plug-in hybrid or electric vehicles
- Unexpected 12-volt battery drain or dead battery if charging is inhibited
- In rare cases, a no-start condition if the high-voltage battery is not maintained

Common causes, most likely first

- 1 Faulty battery charger current sensor (internal failure or contamination)
- 2 Short to voltage in the sensor signal circuit (wiring chafed against a power wire)
- 3 Damaged or corroded connector pins at the sensor or control module
- 4 Failed battery charger control module (internal driver or signal processing fault)
- 5 Water intrusion or corrosion in the charger assembly affecting the sensor
- 6 Aftermarket accessories or improper wiring repairs tapping into the sensor circuit



How to diagnose and fix it

- 1 Scan all modules for stored codes and freeze-frame data to confirm P0E8D is current and not history
- 2 Visually inspect the charger current sensor, its connector, and the wiring harness for damage, corrosion, or loose pins
- 3 Measure sensor reference voltage and signal voltage with a digital multimeter and compare to manufacturer specifications
- 4 Check for short to voltage on the signal circuit by disconnecting the sensor and measuring voltage at the harness side
- 5 Perform a wiggle test on the harness while monitoring sensor voltage to reveal intermittent faults
- 6 If wiring and connectors are good, substitute a known-good sensor and clear codes to see if the fault returns
- 7 If the code persists after sensor replacement, diagnose the charger control module and reprogram or replace as directed by service information

What the high sensor reading really means

- A high signal voltage often indicates a short to voltage on the signal circuit rather than a failed sensor, so always check the harness before replacing parts.
- The current sensor is sometimes integrated into the battery charger assembly and not available separately, making wiring diagnosis even more critical.
- This code can be set by a weak or failing 12-volt battery that causes unstable reference voltage to the sensor, so load-test the battery first.
- On some vehicles, the charger current sensor circuit is shared with other current sensors, and a fault in one can set multiple related codes.
- Intermittent high readings can be caused by loose aftermarket electrical connections or poor grounds that raise the sensor's reference voltage.

Can I keep driving with P0E8D?

You can usually drive the vehicle short distances, but avoid relying on the charging system and do not attempt long trips until the fault is repaired. If the vehicle shows a charging system warning or the high-voltage battery is depleted, stop driving and seek professional service.

Tools that help

- OBD-II scan tool with manufacturer-specific software
- Digital multimeter with voltage and resistance measurement
- Back probe pins and wiring diagram
- Insulated hand tools and trim removal tools
- Battery load tester



Reading P0E8D

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 8D** The exact fault within that area.

Often seen with

P0A0A High Voltage System Interlock Circuit A · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0E8C** Battery Charger B Current Sensor Circuit Low · **P0E8E** Battery Charger B Current Sensor Circuit Intermittent/Errati · **P0E8F** Drive Motor A Inverter Voltage Sensor B Circuit

See it working

Watch the animated explainer [Fuel Trims Explained: Short-Term and Long-Term](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e8d/>

