



P0E2F

High Voltage Fuse B

P0E2F indicates that the powertrain control module has detected excessive voltage on the circuit that monitors the high-voltage fuse B, which is part of the hybrid or electric vehicle's high-voltage power distribution system. The computer compares the expected voltage drop across the fuse or its sense circuit against the actual reading and sets the code when the voltage exceeds a calibrated threshold, signaling a potential open fuse, poor connection, or wiring fault.

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

Symptoms you may notice

- Illumination of the check engine light or service vehicle soon message, often with no other noticeable symptoms.
- Reduced power output or a limp-home mode as the vehicle limits high-voltage system operation to protect components.
- The hybrid or electric system may fail to start or engage, leaving the vehicle unable to move under electric power.
- Intermittent warning lights or system resets, especially over bumps or during temperature changes.
- A message on the dash indicating a high-voltage system fault or that the vehicle requires service immediately.

Common causes, most likely first

- 1 A blown or open high-voltage fuse B, which is the most direct cause of the excessive voltage reading.
- 2 Corroded, loose, or damaged electrical connectors at the fuse, fuse box, or inline harness, creating resistance that skews the voltage signal.
- 3 A short to voltage or chafed wiring in the fuse sense circuit, often from vibration or rodent damage.
- 4 A faulty voltage sensor or current sensor integrated into the fuse assembly or battery pack, sending an incorrect signal to the control module.
- 5 Internal failure within the high-voltage battery pack or power distribution unit that affects the fuse circuit reference voltage.
- 6 Software or calibration issues in the control module that misinterprets normal voltage fluctuations as a fault.



How to diagnose and fix it

- 1 Use a scan tool to retrieve all stored codes and freeze-frame data, then visually inspect the high-voltage fuse B and its connectors for obvious damage or corrosion.
- 2 Perform a voltage drop test across the fuse and its circuit with a digital multimeter, comparing the reading to the manufacturer's specification to confirm excessive voltage.
- 3 Check the integrity of the wiring harness and connectors between the fuse and the control module, looking for chafing, loose pins, or water intrusion.
- 4 If the fuse tests open or out of specification, replace it with the correct high-voltage rated fuse after disconnecting the high-voltage battery service plug for safety.
- 5 Test the voltage sensor or current sensor associated with the fuse circuit and replace it if it does not produce a linear, accurate signal.
- 6 Clear the codes and perform a road test or high-voltage system self-test to verify the repair, ensuring the code does not return.
- 7 If the code persists after all circuit and component checks, reprogram or replace the control module only after confirming all other possibilities have been eliminated.

High-voltage fuse B faults you might overlook

- A blown high-voltage fuse B is often a symptom rather than the root cause, so technicians who simply replace the fuse without checking for a short or overload downstream will see the code return quickly.
- The voltage sense circuit can be affected by a weak 12-volt auxiliary battery, which may cause the control module to log false high-voltage fuse codes during engine cranking or low-voltage events.
- Many high-voltage fuse assemblies include a service disconnect feature, and improper reinstallation after service can leave the fuse partially seated, creating intermittent excessive voltage readings.
- This code can be set by a loose ground connection at the high-voltage battery pack or chassis, which shifts the reference voltage and mimics a fuse fault even when the fuse is intact.
- Some vehicles use a pyrotechnic fuse for high-voltage protection, and these can fail internally without visible damage, requiring a dedicated continuity test rather than a visual inspection.

Can I keep driving with P0E2F?

Do not continue driving with this code active, because a high-voltage fuse fault can lead to a sudden loss of electric propulsion or, in rare cases, a high-voltage short circuit. Have the vehicle towed to a qualified service facility and avoid touching any orange high-voltage cables or components.



Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter with high-voltage rated probes
- Insulated safety gloves and high-voltage protective equipment
- Manufacturer service information for high-voltage system disable procedures
- Wire terminal pick and connector test kit

Reading P0E2F

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
E	Hybrid propulsion.
2F	The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0AA6** Hybrid/EV Battery Voltage System Isolation Fault
 · **P0AFA** Hybrid/EV Battery System Voltage Low · **P0E2E** Battery Charger A Fuse · **P0E30** High Voltage Fuse C

See it working

Watch the animated explainer [Car Relay Test Bench: Test 4-Pin and 5-Pin Relays](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0e2f/>

