

GENERIC · POWERTRAIN

P2E3A

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2E3A

Battery Charger B Output Voltage Performance

P2E3A indicates that the powertrain control module (PCM) has detected an abnormal output voltage from the auxiliary battery charger circuit designated as 'B'. The PCM monitors the charger's output and expects it to stay within a calibrated range; when the voltage falls outside that range for a set time, the code is stored and the charging system warning light may illuminate.

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

Symptoms you may notice

- Illumination of the battery/charging system warning light on the dashboard
- The auxiliary battery may not charge properly, leading to a no-start or weak-start condition
- Electrical accessories may dim or operate erratically, especially at low engine speeds
- A message on the driver information center indicating a charging system fault
- Often no symptoms besides the warning light, particularly if the fault is intermittent

Common causes, most likely first

- 1 Faulty auxiliary battery charger unit (internal failure or damaged output stage)
- 2 Corroded, loose, or damaged wiring or connectors between the charger and the battery
- 3 Blown high-current fuse or failed fusible link in the charger output circuit
- 4 Poor ground connection for the charger or battery, causing voltage drop under load
- 5 Failing auxiliary battery that cannot accept charge, dragging down the charger output
- 6 PCM software error or internal driver fault causing false voltage detection



How to diagnose and fix it

- 1 Inspect and clean all battery terminals and charger ground connections, then clear the code and retest
- 2 Check the charger output circuit for continuity and voltage drop using a digital multimeter, repairing any damaged wiring
- 3 Test the high-current fuse and fusible link in the charger output circuit and replace if blown
- 4 Measure the auxiliary battery's state of health with a conductance tester; replace if it fails
- 5 Command the charger on with a scan tool and measure actual output voltage at the battery; compare to PCM data
- 6 If output voltage is incorrect, replace the auxiliary battery charger unit and clear the code
- 7 If all hardware tests pass, check for PCM software updates or internal faults before replacing the PCM

Charger B faults that fool technicians

- A weak or aged auxiliary battery can cause the charger to exceed its voltage limit, setting P2E3A even though the charger itself is fine.
Voltage drop across a corroded ground strap often mimics a failed charger, so always load-test the ground circuit before condemning the unit.
- On some vehicles, the charger only activates under specific conditions (e.g., engine running, certain state of charge), so the code may not reset during a quick shop test.
- A blown fuse in the charger output circuit is frequently overlooked because the charger may still receive power on its control side.
P2E3A can be set by a communication fault between the PCM and the charger module, so check for related network codes before replacing parts.

Can I keep driving with P2E3A?

You can usually drive the vehicle short distances to a repair shop, but avoid relying on the auxiliary battery for critical functions and do not take long trips until the fault is repaired. If the battery warning light is accompanied by dimming lights or electrical failures, stop driving and seek assistance.

Tools that help

- OBD-II scan tool with bidirectional control and live data capability
- Digital multimeter with voltage drop and continuity functions
- Battery conductance tester
- Fuse puller and test light
- Service information for charger circuit wiring and activation conditions



Reading P2E3A

- P** Powertrain: engine, transmission and emissions.
- 2** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- E** Hybrid propulsion.
- 3A** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **P0563** System Voltage High · **P0A0D** High Voltage System Interlock Circuit A High · **P2E39** Battery Charger B Fuse · **P2E3B** Battery Charger B Output Voltage Too Low

See it working

Watch the animated explainer [How Coil-on-Plug Ignition Works: Coil and Spark Plug](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2e3a/>

