

GENERIC · POWERTRAIN

P2E35

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2E35

Battery Charger B Enable Circuit/Open

P2E35 indicates that the powertrain control module (PCM) has detected an open circuit or a general electrical fault on the enable circuit for the battery charger, which is the control line that switches the charger on and off. The PCM expects a specific voltage or current signature on this circuit when it commands the charger to activate, and it sets the code when that expectation is not met.

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, especially if the high-voltage battery still maintains a charge
- Reduced charging capability or a warning that the battery is not charging
- The vehicle may enter a reduced power mode or limit electric-only operation
- In some cases, the 12-volt battery may not be maintained properly, leading to a no-start condition

Common causes, most likely first

- 1 Open or damaged wire in the battery charger enable circuit, such as a broken conductor or corroded terminal
- 2 Faulty battery charger enable relay or solid-state switch that has failed open
- 3 Poor connection at the battery charger control module connector, including loose pins or water intrusion
- 4 Internal failure within the battery charger assembly that prevents the enable circuit from completing
- 5 PCM software or hardware issue that incorrectly monitors the enable circuit
- 6 Aftermarket accessories or improper previous repairs that tapped into the enable circuit



How to diagnose and fix it

- 1 Verify the code with a scan tool and check for any related codes in other modules before proceeding
- 2 Inspect the battery charger enable circuit wiring and connectors for obvious damage, corrosion, or loose pins
- 3 Measure resistance and continuity on the enable circuit from the PCM to the charger, comparing to factory specifications
- 4 Check the enable relay or switch by testing its operation and replacing it if it does not click or show continuity when commanded
- 5 Perform a voltage drop test on the enable circuit under load to identify high-resistance connections
- 6 If the circuit and relay are good, test the battery charger assembly according to the service information, looking for internal open circuits
- 7 Repair or replace the faulty component, clear the code, and verify the repair by test-driving and confirming the monitor runs

What the enable circuit really does

- The enable circuit is often a low-current control line, so a perfectly good-looking wire can still be open internally or have high resistance at a terminal that only shows up under load.
- A common misdiagnosis is replacing the battery charger when the actual fault is a chafed wire harness near a sharp edge or a corroded ground that affects the enable circuit's reference.
- Some vehicles use a smart charging system where the enable signal is a pulse-width modulated (PWM) signal, and a basic test light will not confirm proper operation; an oscilloscope or a scan tool with live data is needed.
- The code can be set by a weak or failing 12-volt battery that causes the PCM to reset or misread the enable circuit during cranking, so always load-test the 12-volt battery first.
- Aftermarket remote starters or charging accessories that splice into the enable circuit are a frequent cause of intermittent P2E35 that only appears when the accessory is active.

Can I keep driving with P2E35?

You can usually drive the vehicle short distances to a repair shop, but avoid relying on the vehicle for long trips or heavy electrical loads because the high-voltage battery may not be recharged properly. If the vehicle shows a reduced power warning or the 12-volt battery is draining, stop driving and seek service immediately.

Tools that help

- OBD-II scan tool with live data capability
- Digital multimeter with resistance and voltage drop functions
- Oscilloscope for PWM signal analysis
- Factory service information for circuit diagrams and specifications
- Basic hand tools for connector and relay access



Reading P2E35

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A94** DC/DC Converter A Performance · **P2E34** Battery Charger A Module Forced Shutdown Voltage High · **P2E36** Battery Charger B Enable Circuit Low · **U0111** Lost Communication With Battery Energy Control Module 'A'

See it working

Watch the animated explainer [How the EVAP System Works: Fuel Vapour and Leak Test](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2e35/>

