



P0D25

Battery Charger System Precharge Time Too Short

P0D25 indicates that the battery charger system's precharge phase completed faster than the control module expected, meaning the high-voltage bus reached its target voltage too quickly during the precharge sequence. The computer monitors the precharge circuit and flags this code when the measured precharge time falls below the calibrated minimum, which can point to a faulty precharge resistor, a shorted precharge contactor, or an unexpected low-resistance path in the high-voltage system.

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

Symptoms you may notice

- Illumination of the hybrid or electric vehicle system warning light, often with a message to service the high-voltage system
- The vehicle may refuse to enter 'Ready' mode or may shut down shortly after startup
- Intermittent loss of power or inability to start the vehicle after it has been sitting
- Audible clicking from the battery pack area as contactors cycle without completing a normal precharge
- Often no symptoms besides the warning light, especially if the fault is stored but not currently active

Common causes, most likely first

- 1 Failed or degraded precharge resistor inside the battery pack or junction box, causing resistance to be lower than specified
- 2 Precharge contactor stuck closed or welded, allowing full battery voltage to reach the bus instantly
- 3 Short circuit or low-resistance path in the high-voltage wiring or a connected component
- 4 Faulty voltage measurement circuit or sensor that reports bus voltage incorrectly during precharge
- 5 Contactor driver circuit fault in the battery control module or power electronics module
- 6 Corroded or loose high-voltage connector pins creating an intermittent low-resistance connection
- 7 Software calibration issue in the battery energy control module affecting precharge timing thresholds



How to diagnose and fix it

- 1 Connect a scan tool and record all stored codes and freeze-frame data, then clear codes and verify whether P0D25 returns immediately or after a drive cycle
- 2 Inspect high-voltage connectors and cables for corrosion, loose pins, or signs of arcing, following all manufacturer safety procedures for high-voltage systems
- 3 Measure the resistance of the precharge resistor with a calibrated ohmmeter and compare it to the manufacturer's specification
- 4 Test the precharge contactor for sticking or welded contacts by checking continuity and operation with a commanded activation test if supported
- 5 Check the high-voltage bus for unintended low-resistance paths by performing an insulation resistance test with an appropriate megohmmeter
- 6 Verify the accuracy of the bus voltage measurement by comparing scan tool live data to a calibrated multimeter reading at the battery pack terminals
- 7 If all hardware checks pass, reprogram the battery energy control module or power electronics module with the latest software calibration

Precharge faults that fool good technicians

- A precharge time that is too short is often caused by a contactor that welds closed rather than by a failed resistor, so always command the contactor open and closed while watching bus voltage to catch a stuck contactor.
- The code can set intermittently from a loose high-voltage connector that only loses tension when the vehicle is warm or vibrating, so a wiggle test of the high-voltage harness while monitoring precharge time is a valuable step.
- Some vehicles set P0D25 when the auxiliary battery is weak because the contactor coils do not pull in cleanly, causing the module to see an abnormally fast voltage rise on the bus.
- A low-resistance path in an inverter or motor winding can mimic a precharge fault, so insulation testing of the high-voltage components is necessary before condemning the battery pack.
- After any repair, the precharge time must be verified with a scan tool under the same temperature conditions that originally set the code, because a cold pack can mask a marginal resistor.

Can I keep driving with P0D25?

Do not continue driving with P0D25 active because a faulty precharge circuit can lead to contactor welding or uncontrolled high-voltage connection, which may damage the battery pack or create a safety hazard. Have the vehicle inspected by a qualified high-voltage technician before attempting further operation.



Tools that help

- Scan tool with hybrid/EV capability and live data for precharge time and bus voltage
- Digital multimeter with high-voltage rated probes
- Insulation resistance tester (megohmmeter) rated for the vehicle's high-voltage system
- Manufacturer service information for high-voltage safety procedures and specifications
- Contactor activation test harness or bidirectional scan tool function

Reading P0D25

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
D	Hybrid propulsion.
25	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
 · **P0C76** Hybrid/EV Battery System Discharge Time Too Long · **P0D24** Battery Charger A Temperature Too High · **P0D26** Battery Charger System Precharge Time Too Long

See it working

Watch the animated explainer [How a Gyroscope Works: Gimbals and Precession](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d25/>

