

GENERIC · POWERTRAIN

P0D0B

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0D0B

Battery Charging System Positive Contactor A Control Circuit Range/Performance

P0D0B indicates that the battery charging system's positive contactor control circuit is not performing within its expected range, as detected by the powertrain control module (PCM) or battery energy control module. The module monitors the command and feedback signals for the contactor that connects the high-voltage battery's positive terminal to the charging system, and it sets this code when the circuit's voltage or current does not match the commanded state within a calibrated time or range.

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

Symptoms you may notice

- Illumination of the battery warning light or a dedicated service vehicle soon message on the dashboard
- The vehicle may fail to start or enter a ready-to-drive state because the high-voltage battery cannot connect to the charging system
- Reduced or absent charging capability, leading to a gradual loss of electrical power in hybrid and electric vehicles
- Intermittent operation where the contactor engages and disengages unpredictably, causing flickering warning lights
- Often no symptoms besides the warning light, especially if the fault is stored but the contactor still functions under most conditions

Common causes, most likely first

- 1 A faulty positive contactor coil or internal contactor mechanism that fails to respond correctly to control commands
- 2 Damaged or corroded wiring and connectors in the contactor control circuit, including the power supply and ground paths
- 3 A failed control module driver that cannot provide the correct current or voltage to the contactor coil
- 4 High resistance in the circuit due to loose terminals, pin fit issues, or water intrusion in the connector
- 5 A short to ground or short to voltage in the control circuit wiring, altering the feedback signal
- 6 Software calibration issues in the battery energy control module that misinterpret normal contactor feedback



How to diagnose and fix it

- 1 Inspect the contactor control circuit wiring and connectors for obvious damage, corrosion, or loose pins, and repair as needed
- 2 Measure the resistance of the contactor coil and compare it to the manufacturer's specification to rule out an open or shorted coil
- 3 Check for power and ground at the contactor control module connector with the key on and during a commanded activation
- 4 Use a bidirectional scan tool to command the contactor on and off while monitoring the feedback signal to verify circuit performance
- 5 Perform a voltage drop test on the control circuit under load to identify excessive resistance in the wiring or connectors
- 6 If the circuit tests good, substitute a known-good contactor or control module to isolate the faulty component
- 7 After repairs, clear the diagnostic trouble codes and verify that the contactor operates correctly and the code does not return

Contactor control circuit checks that save time

- A common oversight is assuming the contactor itself is defective when the actual problem is a chafed wire in the control circuit that only shorts when the harness is moved, so a wiggle test during activation is essential.
- This code does not always mean the contactor has failed completely; it can set from a momentary glitch in the feedback signal, and a software reflash may resolve it without parts replacement.
- Technicians often miss a weak or corroded ground connection at the battery energy control module, which can mimic a contactor control circuit fault by skewing the feedback voltage.
- The positive contactor control circuit is often shared with pre-charge functions, so a fault in the pre-charge resistor or its control path can set P0D0B as a secondary code.
- After any repair, the contactor may need to be re-learned or the module may require a calibration reset, otherwise the code can reappear immediately even with good hardware.

Can I keep driving with P0D0B?

Do not continue driving with this code active, because the high-voltage battery may not connect to the charging system, leading to a sudden loss of power or a no-start condition. Have the vehicle inspected by a qualified technician before attempting further trips.

Tools that help

- Bidirectional scan tool with manufacturer-specific capabilities
- Digital multimeter with min/max recording
- Wiring diagram and connector pinout for the contactor control circuit
- Test light or load probe for circuit loading tests
- Insulation resistance tester for high-voltage circuit integrity



Reading P0D0B

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- D** Hybrid propulsion.
- 0B** 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
· **P0D0A** Battery Charging System Positive Contactor A Control Circuit · **P0D0C** Battery Charging System Positive Contactor A Control Circuit · **P0D0D** Battery Charging System Positive Contactor A Control Circuit

See it working

Watch the animated explainer [Car Won't Start? Step-by-Step No-Start Diagnosis](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d0b/>

