

GENERIC · POWERTRAIN

P0D10

OBD-II TROUBLE CODE

P0D10

Battery Charging System Negative Contactor A Stuck Open

P0D10 indicates that the battery charging system's negative contactor A is stuck in the open position, preventing current from flowing through that path. The control module detects an open circuit or unexpected voltage state when it commands the contactor to close, signaling a failure in the high-voltage charging circuit.

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

Symptoms you may notice

- Illumination of the battery/charging system warning light or a dedicated service vehicle soon message.
- The vehicle may fail to start or enter a ready-to-drive state because the high-voltage battery cannot charge.
- Reduced or complete loss of electric propulsion in hybrid and electric vehicles.
- A noticeable drop in charging performance when plugged in, or the charger may not initiate a session.
- Often no symptoms besides the warning light, especially if the contactor is only intermittently stuck open.
- Possible auxiliary battery drain if the contactor remains open and the DC-DC converter cannot maintain the low-voltage system.

Common causes, most likely first

- 1 A failed negative contactor solenoid coil or mechanical jam inside the contactor assembly.
- 2 Corroded, loose, or damaged wiring and connectors between the control module and the contactor.
- 3 A faulty control module driver circuit that cannot supply enough current to close the contactor.
- 4 Contactor driver software logic error or a needed software update for the control module.
- 5 Physical damage to the contactor from impact, vibration, or contamination ingress.
- 6 High resistance in the contactor's internal contacts due to arcing or wear over time.



How to diagnose and fix it

- 1 Perform a visual inspection of the contactor, its connectors, and associated wiring for corrosion, looseness, or damage.
- 2 Use a scan tool to command the contactor on and off while monitoring live data for commanded state versus actual state.
- 3 Measure resistance across the contactor coil and compare to the manufacturer's specification to check for an open coil.
- 4 Check for battery voltage and ground at the contactor control connector when the command is present to rule out wiring faults.
- 5 Verify the control module is sending the correct signal; if not, check for software updates or module faults.
- 6 If the contactor fails to actuate with good power and ground, replace the contactor assembly following high-voltage safety procedures.
- 7 After repair, clear codes and perform a full charging system test to confirm the contactor closes and current flows correctly.

Contactor faults that mimic other charging issues

- A stuck-open negative contactor can set the same warning light as a failed high-voltage battery, so technicians must not condemn the battery before testing the contactor circuit.
- Intermittent stuck-open conditions often leave no freeze-frame data, so a road test with live data monitoring is more reliable than a static scan.
- The contactor may click audibly when commanded, but an audible click does not guarantee the internal contacts have closed; voltage drop testing is required.
- Some vehicles use a pre-charge contactor in parallel with the main negative contactor, and a fault in the pre-charge circuit can set a negative contactor code indirectly.
- Low auxiliary battery voltage can cause the control module to misreport contactor status, so always confirm the 12-volt system is healthy before diagnosing high-voltage components.

Can I keep driving with P0D10?

Do not continue driving with this code if the vehicle will not start or enter ready mode, as the high-voltage battery cannot charge and you may be stranded. If the vehicle still drives, limit trips to reach a safe location or service center and avoid relying on charging functions.

Tools that help

- High-voltage rated digital multimeter
- OBD-II scan tool with bidirectional control and live data
- Insulation tester (megohmmeter) for high-voltage circuit checks
- Manufacturer service information for contactor location and testing procedures
- Personal protective equipment including high-voltage gloves and safety glasses



Reading P0D10

- P** Powertrain: engine, transmission and emissions.
- 0** Generic (SAE) code: it means the same thing on every OBD-II vehicle.
- D** Hybrid propulsion.
- 10** 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
 · **P0D0F** Battery Charging System Negative Contactor A Stuck Closed · **P0D11** Battery Charging System Negative Contactor A Control Circuit · **P0D12** Battery Charging System Negative Contactor A Control Circuit

See it working

Watch the animated explainer [Readiness Monitors and the OBD-II Drive Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0d10/>

