

GENERIC · POWERTRAIN

P2D71

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2D71

Battery Charging System Negative Contactor D Stuck Closed

The battery charging system uses a high-voltage contactor to connect and disconnect the negative side of the pack, and code P2D71 means the control module has detected that this specific contactor (labeled D) is stuck in the closed position when it should be open. The computer commands the contactor to open and then checks the voltage on both sides of the switch; if voltage remains present on the load side, it flags the circuit as stuck closed.

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

Symptoms you may notice

- Often no symptoms besides the warning light, especially if the contactor is stuck closed but the system is not actively trying to isolate the battery.
- The high-voltage battery may fail to disconnect when the vehicle is shut off, leading to a slow drain or an inability to power down the traction system completely.
- A no-start or no-crank condition can occur if the stuck contactor prevents the pre-charge sequence from completing or causes a conflict with other contactors.
- The charging system warning light or a dedicated service vehicle soon message may illuminate on the dashboard.
- In some cases, the vehicle may refuse to enter ready mode or may stall shortly after starting due to a safety interlock.
- A faint click or no click at all may be heard from the battery pack area when the ignition is turned on or off, depending on whether the contactor is welded closed.

Common causes, most likely first

- Welded or mechanically stuck contactor contacts inside the negative contactor D, often due to arcing or excessive current over time.
- A short to voltage in the control circuit wiring between the contactor coil and the battery control module, keeping the coil energized.
- A faulty battery control module driver that continuously supplies ground or power to the contactor coil.
- Contamination or debris inside the contactor assembly preventing the plunger from releasing.
- A failed contactor coil that has shorted internally, causing it to stay energized even when commanded off.
- Corrosion or water intrusion in the connector at the contactor or control module, creating a conductive path.
- A software or logic fault in the battery control module that misinterprets the contactor state, though this is less common.



How to diagnose and fix it

- 1 Connect a scan tool and read all battery control module codes and live data to confirm P2D71 is current and not history, and check for related contactor status parameters.
- 2 Perform a visual inspection of the contactor D connector and wiring for corrosion, water intrusion, or damaged pins, and check for any signs of overheating.
- 3 With the vehicle powered down and the high-voltage system disabled per manufacturer procedure, measure resistance across the contactor D coil and compare to specification to rule out an open or shorted coil.
- 4 Check the control circuit for a short to voltage or ground on the coil control wire while wiggling the harness to catch intermittent faults.
- 5 If the control circuit and module commands are correct, remove the contactor D and bench-test it for mechanical freedom and contact continuity; replace if it does not open freely.
- 6 After repair, clear codes and perform a full contactor operation test with the scan tool, then verify the code does not return after a complete drive cycle.
- 7 If the contactor and wiring test good, suspect the battery control module and follow the manufacturer's diagnostic flow for module replacement or reprogramming.

Contactor D stuck closed: what techs overlook

- A stuck-closed negative contactor often does not set a driver-facing warning until the next key-off cycle, so the vehicle may drive normally for days before the fault is noticed.
- Technicians sometimes replace the contactor only to find the real cause is a shorted control wire rubbing against a chassis ground, so always check the circuit before condemning the part.
- The battery control module may command the contactor open and then immediately check voltage, so a slow-releasing contactor can set this code intermittently without being fully welded.
- On some vehicles, a stuck negative contactor D will prevent the pre-charge contactor from closing, leading to a no-start that looks like a low battery or starter fault.
- This code can be set by a low 12-volt battery causing the control module to reset mid-command, so verify system voltage and grounds before deep high-voltage diagnosis.

Can I keep driving with P2D71?

Do not continue driving with this code active because a stuck-closed high-voltage contactor can prevent the battery from isolating in a crash or service situation, and it may cause a no-start or unexpected power loss. Have the vehicle towed to a qualified service facility and avoid any attempt to jump-start or service the high-voltage system yourself.



Tools that help

- Scan tool with battery control module and high-voltage system support
- Digital multimeter with high-voltage rated probes
- Insulation tester or megohmmeter for high-voltage circuit checks
- Manufacturer service information for high-voltage disable and contactor test procedures
- Hand tools for high-voltage connector removal
- Personal protective equipment including high-voltage gloves and safety glasses

Reading P2D71

P	Powertrain: engine, transmission and emissions.
2	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
D	Hybrid propulsion.
71	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
 · **P2D70** Battery Charging System Negative Contactor D Circuit · **P2D72** Battery Charging System Negative Contactor D Stuck Open · **P2D73** Battery Charging System Negative Contactor D Control Circuit

See it working

Watch the animated explainer [Master the Four-Stroke Engine Cycle](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2d71/>

