

GENERIC · POWERTRAIN

P2D72

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P2D72

Battery Charging System Negative Contactor D Stuck Open

P2D72 indicates that the battery charging system's negative contactor D is stuck in the open position, preventing the high-voltage battery from connecting to the charging circuit. The battery energy control module detects no continuity through the contactor when it commands it closed, so it sets this code and may disable charging or high-voltage operations.

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

Symptoms you may notice

- Hybrid or electric vehicle may fail to start or enter Ready mode
- Charging system warning light or high-voltage battery fault message displayed
- Vehicle may not accept a charge when plugged in
- Reduced power or limp mode with limited electric propulsion
- Often no symptoms besides the warning light if the fault is intermittent

Common causes, most likely first

- Negative contactor D coil open circuit or failed coil
- Broken or corroded wiring between the battery energy control module and the contactor
- Loose or damaged connector pins at the contactor or control module
- Contactor stuck mechanically open due to internal wear or debris
- Battery energy control module internal driver failure
- Blown fuse or relay supplying power to the contactor coil

How to diagnose and fix it

- Scan all modules for stored codes and record freeze-frame data to confirm the fault path
- Inspect the contactor connector and control module connector for corrosion, loose pins, or damage
- Measure resistance of the negative contactor D coil and compare to specification
- Check for battery voltage at the contactor coil connector when the system commands it closed
- Perform a continuity and voltage drop test on the wiring between the control module and contactor
- If wiring and coil test good, substitute a known-good contactor or control module to isolate the failed component
- Clear codes and perform a charging system test to verify the repair



Contactors D faults that fool good technicians

- A stuck-open negative contactor D often sets no drivability symptoms because the positive contactor may still close, allowing limited operation until the system self-checks again.
- Technicians sometimes replace the high-voltage battery pack when the real fault is a chafed wire in the contactor control circuit, so always ohm-test the harness before condemning the pack.
- The battery energy control module may command the contactor closed only during specific conditions such as charging or key-on, so a static resistance test alone can miss an intermittent open.
- Corrosion inside the contactor housing from moisture intrusion is a common hidden cause that does not show up in a simple coil resistance check.
- A weak 12-volt auxiliary battery can cause the control module to drop the contactor command, setting this code even though the high-voltage contactor itself is healthy.

Can I keep driving with P2D72?

Do not continue driving if the vehicle will not enter Ready mode or shows a high-voltage fault, because the battery may not charge and you could be stranded. If the warning light is on but the vehicle drives normally, limit driving to a short distance to a qualified repair facility and avoid high-voltage charging until diagnosed.

Tools that help

- OBD-II scan tool with hybrid/EV module access
- Digital multimeter with resistance and voltage drop capability
- Factory service information for contactor control circuit testing
- Insulated hand tools and high-voltage safety gloves
- Battery load tester for the 12-volt auxiliary battery

Reading P2D72

P	Powertrain: engine, transmission and emissions.
2	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
D	Hybrid propulsion.
72	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 · **P2D71** Battery Charging System Negative Contactor D Stuck Closed · **P2D73** Battery Charging System Negative Contactor D Control Circuit



See it working

Watch the animated explainer [How a MAP Sensor Works: Engine Vacuum and Load](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p2d72/>

