



P0ADD

Hybrid/EV Battery Negative Contactor Control Circuit/Open

P0ADD indicates that the hybrid or electric vehicle battery pack's negative contactor control circuit is open, meaning the battery energy control module cannot command the negative contactor to close or detects an open circuit in the control path. The computer monitors the control circuit for expected voltage or current feedback and sets this code when the circuit does not respond as commanded, preventing the high-voltage battery from connecting to the vehicle's power system.

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

Symptoms you may notice

- The hybrid or EV system warning light illuminates, and the vehicle may fail to enter 'Ready' mode.
- The vehicle may not start or drive because the high-voltage battery contactors remain open.
- A message such as 'Service Hybrid System' or 'High Voltage System Fault' appears on the dash.
- The vehicle may run in a reduced-power limp mode or shut down shortly after starting.
- Often no symptoms besides the warning light if the fault is intermittent or only affects the control circuit feedback.
- The 12-volt battery may drain if the contactor control circuit remains energized without closing the contactor.

Common causes, most likely first

- 1 Open or damaged wire in the negative contactor control circuit, such as a broken conductor or corroded terminal.
- 2 Faulty negative battery contactor assembly, including an open coil or stuck-open contacts.
- 3 Poor connection at the battery energy control module or contactor harness connector.
- 4 Failed battery energy control module (BECM) or hybrid control module not supplying the control signal.
- 5 Blown fuse or open relay in the contactor control power supply circuit.
- 6 Water intrusion or corrosion in the high-voltage battery pack connector causing an open circuit.
- 7 Aftermarket alarm or remote start installation that tapped into the contactor control wiring.



How to diagnose and fix it

- 1 Scan all modules for stored codes and record freeze-frame data to confirm P0ADD is active and not history.
- 2 Inspect the negative contactor control circuit wiring and connectors for damage, corrosion, or loose pins.
- 3 Check the contactor control circuit fuse and relay, and verify power and ground at the contactor connector.
- 4 Measure resistance across the negative contactor coil and compare to specification to rule out an open coil.
- 5 Command the negative contactor on with a scan tool and observe control circuit voltage or current feedback to isolate a module versus circuit fault.
- 6 Repair or replace the open wiring, connector, or contactor as diagnosed, then clear codes and verify the contactor closes and the vehicle enters Ready mode.
- 7 If the control circuit and contactor test good, follow the manufacturer's diagnostic flow for the battery energy control module and replace only after confirming the module is not commanding the circuit.

Before you replace the battery contactor

- A common oversight is assuming the contactor itself has failed when the actual open circuit is a corroded pin in the high-voltage battery pack connector, which costs far less to repair.
- The code can set intermittently from a wire that is only open when the harness is flexed or when the vehicle is cold, so a wiggle test of the control circuit while monitoring live data is essential.
- Some vehicles set P0ADD when the 12-volt battery is weak because the module cannot reliably pull the contactor coil in, so always load-test the auxiliary battery first.
- The negative contactor control circuit is often shared with the pre-charge contactor or the main positive contactor on some platforms, so a fault in one can set multiple contactor codes that point away from the true open circuit.
- Never probe the high-voltage battery pack connectors with a standard multimeter unless you are trained and using proper high-voltage safety gear; the control circuit can be tested at the low-voltage connector without opening the pack.

Can I keep driving with P0ADD?

Do not continue driving if the vehicle will not enter Ready mode or shows a high-voltage fault, because the battery contactors may be open and the vehicle can lose power unexpectedly. If the vehicle still drives with only a warning light, limit driving to a short distance directly to a qualified repair facility and avoid high-load conditions.

Tools that help

- OBD-II scan tool with hybrid/EV module access and bidirectional controls
- Digital multimeter with low-voltage and resistance measurement
- Wiring diagram and connector pinout for the specific vehicle platform
- Insulated hand tools and high-voltage safety gloves for any pack-adjacent work
- Battery load tester for the 12-volt auxiliary battery



Reading P0ADD

P	Powertrain: engine, transmission and emissions.
0	Generic (SAE) code: it means the same thing on every OBD-II vehicle.
A	Hybrid propulsion.
DD	The exact fault within that area.

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0ADB** Hybrid/EV Battery Positive Contactor Control Circuit Low · **P0ADC** Hybrid/EV Battery Positive Contactor Control Circuit High · **P0ADE** Hybrid/EV Battery Negative Contactor Control Circuit Range/P · **P0AFA** Hybrid/EV Battery System Voltage Low

See it working

Watch the animated explainer [How Regenerative Braking Works in Electric Cars](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/p0add/>

