

GENERIC · POWERTRAIN

P0ADE

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P0ADE

Hybrid/EV Battery Negative Contactor Control Circuit Range/Performance

P0ADE indicates that the hybrid or electric vehicle battery pack's negative contactor control circuit is not performing within its expected range, as detected by the battery energy control module. The module monitors the command and feedback signals for the negative contactor and sets this code when the circuit's electrical behavior falls outside normal limits, which can prevent the high-voltage battery from connecting or disconnecting properly.

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

Symptoms you may notice

- Illumination of the hybrid system warning light or service vehicle soon message on the dashboard
- The vehicle may fail to enter 'Ready' mode or start, leaving you unable to drive
- A sudden loss of high-voltage power while driving, causing the vehicle to stall or lose propulsion
- Audible clicking or no click from the battery pack area when attempting to start or shut down
- Often no symptoms besides the warning light, with the vehicle operating normally until the next key cycle

Common causes, most likely first

- 1 Faulty negative contactor assembly inside the high-voltage battery pack, such as worn contacts or a stuck armature
- 2 Damaged or corroded wiring or connectors in the negative contactor control circuit, including chafed harnesses
- 3 Poor electrical connection at the battery energy control module or contactor terminals due to loose pins or corrosion
- 4 Failed battery energy control module driver circuit for the negative contactor
- 5 Low 12-volt auxiliary battery voltage causing erratic module operation and false contactor codes
- 6 Internal short or open in the contactor coil winding, leading to out-of-range current draw



How to diagnose and fix it

- 1 Verify the 12-volt battery condition and charge it if low, as weak auxiliary voltage can trigger false contactor codes
- 2 Use a scan tool to clear the code and perform a road test or key cycle to see if it returns immediately
- 3 Inspect the negative contactor control circuit wiring and connectors for damage, corrosion, or loose pins
- 4 Measure resistance and voltage on the contactor coil circuit according to the manufacturer's service information
- 5 Check for technical service bulletins or software updates for the battery energy control module that address contactor performance
- 6 If the circuit tests good, remove the battery pack cover and test the negative contactor directly for coil resistance and contact operation
- 7 Replace the negative contactor or battery energy control module as diagnosed, then clear codes and verify proper high-voltage system operation

Contactor circuit checks before pack removal

- A weak 12-volt battery is a common culprit behind this code because the battery energy control module may misread contactor feedback when supply voltage is unstable.
- The code can set intermittently due to a loose ground connection at the battery pack or chassis, which is often overlooked during diagnosis.
- Technicians sometimes replace the entire battery pack when only the contactor or its control wiring is faulty, so always test the circuit before condemning the pack.
- After any high-voltage component repair, the contactor may need a learn or calibration procedure with a scan tool to avoid repeat codes.
- The negative contactor often works in tandem with the positive contactor, and a failing positive side can cause the negative circuit to log range/performance faults.

Can I keep driving with P0ADE?

Do not continue driving with this code because the high-voltage battery may disconnect unexpectedly, leading to a loss of propulsion and potential safety risk. Have the vehicle inspected by a qualified hybrid technician before further use.

Tools that help

- OBD-II scan tool with hybrid/EV capability
- Digital multimeter with low-ohm and voltage measurement functions
- Manufacturer service information for circuit diagrams and test procedures
- Insulated hand tools and personal protective equipment for high-voltage work
- Battery terminal and connector cleaning supplies



Reading P0ADE

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

Often seen with

P0A0D High Voltage System Interlock Circuit A High · **P0A0F** Engine Failed to Start · **P0ADF** Hybrid/EV Battery Negative Contactor Control Circuit Low · **P0AE0** Hybrid/EV Battery Negative Contactor Control Circuit High · **P0AE1** Hybrid/EV Battery Precharge Contactor Circuit

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/p0ade/>

