



High-Voltage Drive Motor Battery

Refer to and follow authorized original equipment service information for the specific vehicle for detailed instructions. If you do not have the experience, training, proper tools and safety equipment or access to authorized original equipment service information, please seek the services of a qualified technician.



BEFORE YOU INSTALL

Thank you for purchasing your remanufactured CARDONE Drive Motor Battery!

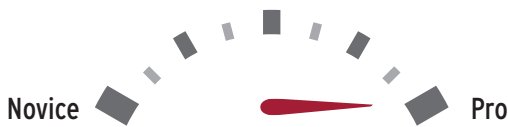
Before starting any work on a hybrid or electric vehicle battery or high-voltage system, please read this document which contains important information on safety, core return requirements and how you can contact us to get technical assistance, if needed.

Storage Requirements Prior to Installation:

- Prior to installation, review and take note of the “**Do Not Install After**” date on the CARDONE battery shelf-life sticker. If the last date for installation has passed, **DO NOT INSTALL** the battery. Contact the battery supplier for a replacement.

- Do not store this battery in temperatures over 95°F or the battery may not safely reach its full storage shelf life.
- Do not attempt to charge the battery while in storage. Battery charging must only take place through the high-voltage battery charging system in the vehicle. **NEVER** attempt to charge the high-voltage battery using external charging equipment; serious injury, battery damage and property loss can result.

SKILL Level:



Replacement TIME: @ 3 hours

COMMON SYMPTOMS

- Decreased miles per gallon
- System warning lights illuminated
- A/C cuts off intermittently
- Inconsistent charging rate for 12-volt auxiliary battery
- Repeated 12-volt auxiliary battery failure
- Internal combustion engine stalls
- Vehicle does not transition into electric drive mode
- Vehicle goes into a “limp home” mode
- High-voltage battery not charging properly

TIPS

WARNING! This is a high voltage system, which can be identified by orange cables, connectors or components. Use of Personal Protection Equipment (PPE) is necessary before handling the battery, cables or any other component in a high voltage system. Failure to follow these warnings along with the O.E. Manufacturer’s safety precautions may result in serious personal injury or death.

- Remove all jewelry.
- Wear electrically insulated safety gloves with a Class “O” 1000-volt rating. Gloves must be certified and expiration date must be current. Leather or canvas outer gloves are also required.
- Inspect gloves for cracks, tears and other damage before every use and wear them with a canvas or leather outer protector. Before using class “O” gloves, they must be checked by using the “roll method” or the “air pump” method.
NOTE: High-voltage Class “O” gloves should be tested every 6 months even if damage is not detectable. Gloves can also be sent to a certified lab for testing on or before expiration date.
- Other forms of PPE, such as an insulated safety hook, goggles, face shield, apron and shoes should be considered for use when working with hybrid electric vehicles. Follow the O.E. Manufacturer’s recommendations.

- Only use designated CAT III test leads, probe tips and digital multi-meter (DMM) rated @ 1000 volts or higher when testing any part of the high voltage system. Insulated hand tools are required as a necessary precaution to avoid electric shock.
- To clear diagnostic trouble codes, a scan tool capable of enhanced manufacturer specific, bi-directional communication will be necessary. For certain applications, only the factory scan tool with O.E. software will work.
- Proper battery temperature is vital to the life of the battery. Check the battery cooling and heating system for trouble codes and malfunctions in the system. Make sure the battery ventilation system filter, ducts and fan are clean, functional and free from any obstruction or blockage.
- Follow the O.E. Manufacturer’s approved procedures for disabling and enabling the high voltage system to avoid serious personal injury or death. For most hybrid electric vehicles, the interlock service disconnect plug must be removed. Some vehicles will have a switch that must be toggled off. If removing the service plug, place it in a safe location to prevent reconnection while servicing the vehicle.
- **WARNING!** After disconnecting plug or toggling switch, wait at least 5 to 10 minutes before touching any high-voltage cable, connector or terminal. This time is necessary for the high-voltage capacitors to discharge. While wearing Class “O” safety gloves, use a CAT III DMM to verify voltage at the orange cable connectors or terminals. Voltage must be below 30 volts Direct Current (VDC) before removing high-voltage cables or battery. Leaked battery liquid can be present in the battery area, so always wear safety gloves and eye protection when removing battery. Place battery on a safe, non-metallic surface.
- Do not attempt to charge the high voltage battery using external charging equipment. Attempting to charge a high voltage battery outside of the vehicle’s high voltage charging system can lead to a thermal incident, resulting in serious personal injury and / or property damage.

ATTENTION!

You must ship battery core back in original CARDONE container to receive full core credit. All returns are subject to approval.

GOT QUESTIONS ABOUT THIS PART?
CALL 888-280-8324

Monday-Friday • 8am - 5pm ET