



2018 C-MAX HYBRID (FHEV)



BATTERY REMOVAL GUIDE

SECTION 3: Battery Removal Guide

Table of Contents

Contents	PAGE
Battery Removal Guide	3-2
High Voltage Battery Removal — Hybrid Vehicle	3-2

Battery Removal Guide

Battery Removal Guide

High Voltage Battery Removal — Hybrid Vehicle

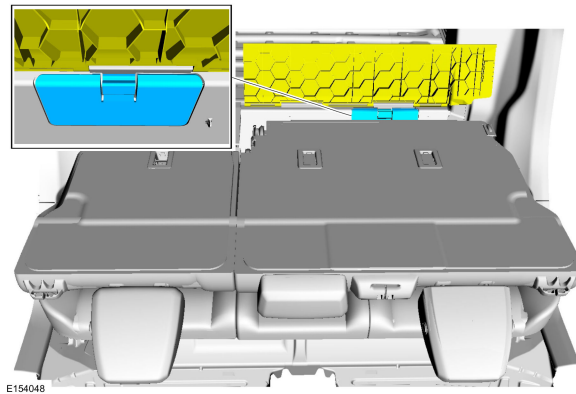
⚠ WARNING:

TO PREVENT THE RISK OF HIGH-VOLTAGE SHOCK, ALWAYS FOLLOW PRECISELY ALL WARNINGS AND SERVICE INSTRUCTIONS, INCLUDING INSTRUCTIONS TO DEPOWER THE SYSTEM. THE HIGH-VOLTAGE SYSTEM UTILIZES APPROXIMATELY 300 VOLTS DC, PROVIDED THROUGH HIGH-VOLTAGE CABLES TO ITS COMPONENTS AND MODULES. THE HIGH-VOLTAGE CABLES AND WIRING ARE IDENTIFIED BY ORANGE HARNESS TAPE OR ORANGE WIRE COVERING. ALL HIGH-VOLTAGE COMPONENTS ARE MARKED WITH HIGH-VOLTAGE WARNING LABELS WITH A HIGH-VOLTAGE SYMBOL. FAILURE TO FOLLOW THESE INSTRUCTIONS MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

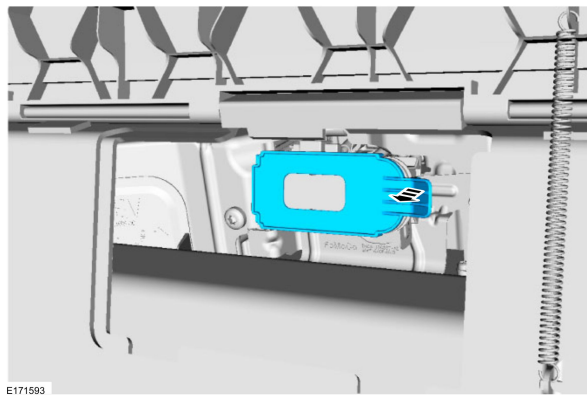
⚠ WARNING:

PRIOR TO SERVICING VEHICLE, REFER TO THE C-MAX EMERGENCY RESPONSE GUIDE LOCATED AT WWW.MOTORCRAFTSERVICE.COM FREE RESOURCES> QUICK GUIDES> C-MAX HYBRID/ENERGI EMERGENCY RESPONSE GUIDE

1. Fold the rear backrest down, position the load floor up and remove the high-voltage battery disconnect cover.

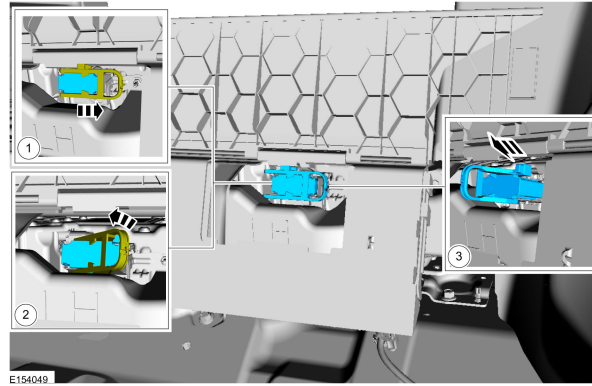


2. Pull to remove the battery high-voltage service disconnect interlock cover.



3. Remove the high-voltage battery service disconnect.
 - a. (1) Slide the release lever to the right.
 - b. (2) Rotate the release lever 90 degrees.
 - c. (3) Pull to remove the high-voltage battery service disconnect.

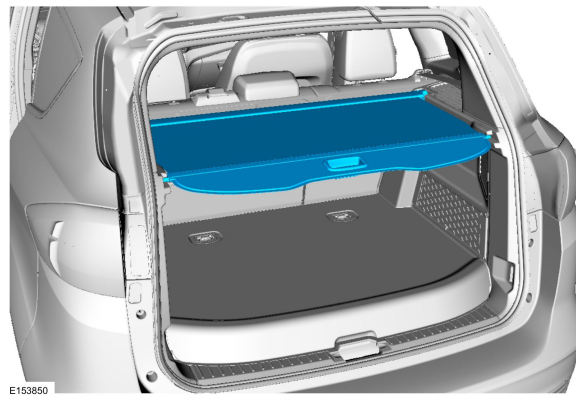
Battery Removal Guide



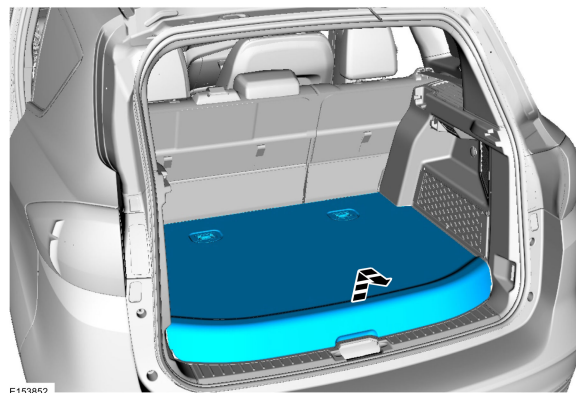
⚠ WARNING:
 THE HIGH VOLTAGE SYSTEM MAY RETAIN A DANGEROUS LEVEL OF VOLTAGE FOR A SHORT TIME AFTER THE SERVICE DISCONNECT HAS BEEN REMOVED. WAIT 5 MINUTES FOR THE VOLTAGE TO DISSIPATE BEFORE BEGINNING SERVICE. FAILURE TO FOLLOW THIS INSTRUCTION MAY RESULT IN SERIOUS PERSONAL INJURY OR DEATH.

⚠ WARNING:
 DEPOWERING THE HIGH-VOLTAGE SYSTEM DOES NOT DISSIPATE THE HIGH-VOLTAGE INSIDE THE BATTERY. THE BATTERY PACK WILL REMAIN LIVE AND DANGEROUS.

4. Remove the cargo shade from the vehicle.

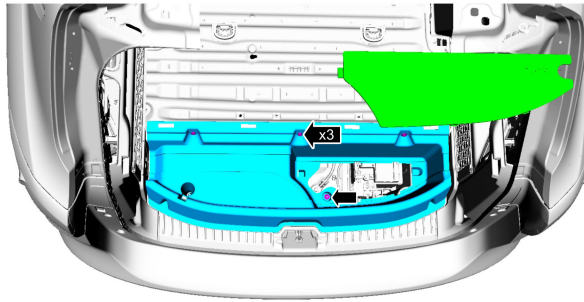


5. Remove the cargo cover.



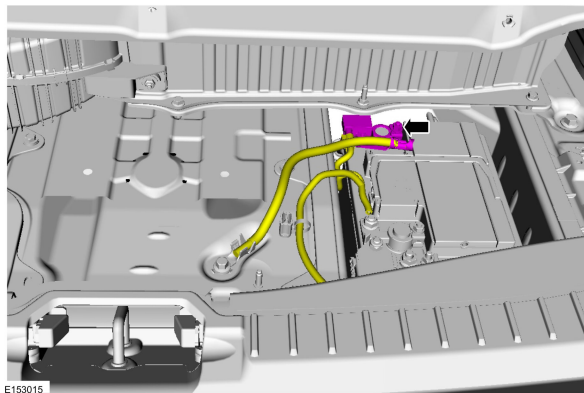
Battery Removal Guide

6. Remove the three screws and the battery trim cover.



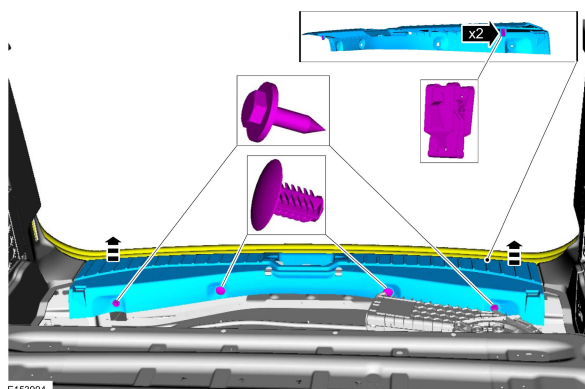
E153014

7. Disconnect and isolate the 12V negative battery cable.



E153015

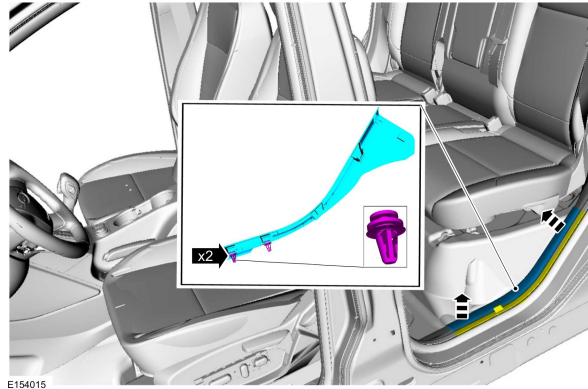
8. Remove the rear hatch opening trim panel.
- (1) Position aside the weatherstrip.
 - (2) Remove the two screws.
 - (3) Remove the two push pins.



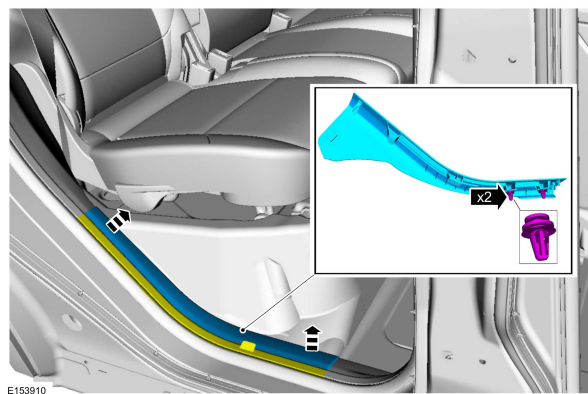
E153904

Battery Removal Guide

9. Position aside the weatherstrip and remove the LH rear door opening trim panel.

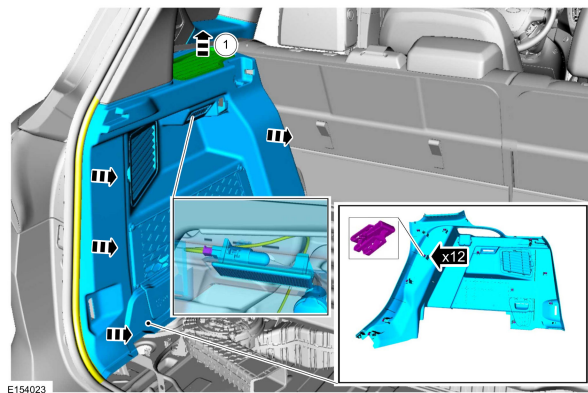


10. Position aside the weatherstrip and remove the RH rear door opening trim panel.



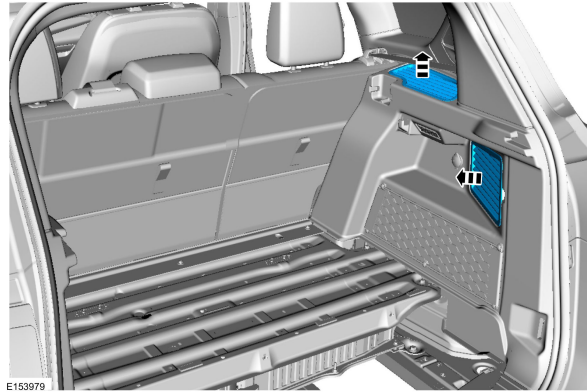
11. Remove the LH loadfloor trim panel.

- a. (1) Remove the upper access panel from the loadfloor trim panel.
- b. (2) Position aside the weatherstrip.
- c. (3) If equipped, disconnect the interior lamp.

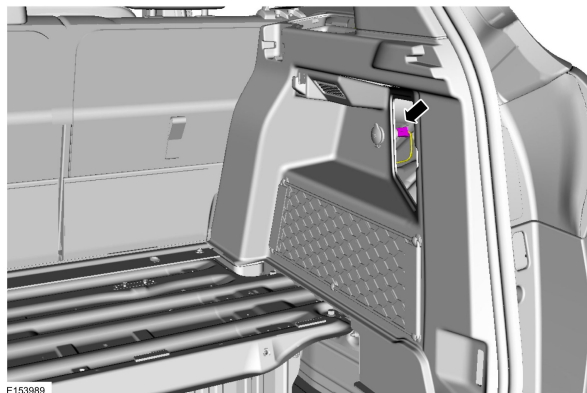


Battery Removal Guide

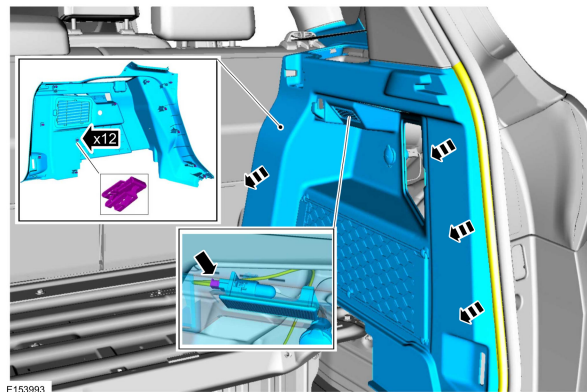
12. Remove the two access panels from the loadfloor trim panel.



13. Disconnect the 12V outlet electrical connector.

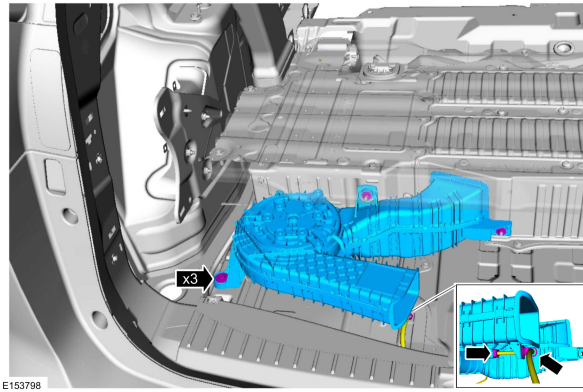


14. Remove the RH loadfloor trim panel.
- (1) Position aside the weatherstrip.
 - (2) If equipped, disconnect the interior lamp.

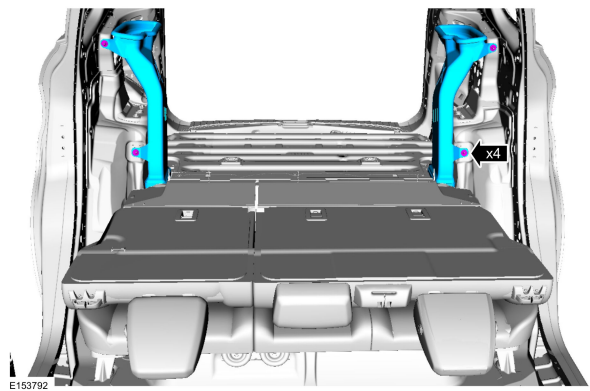


Battery Removal Guide

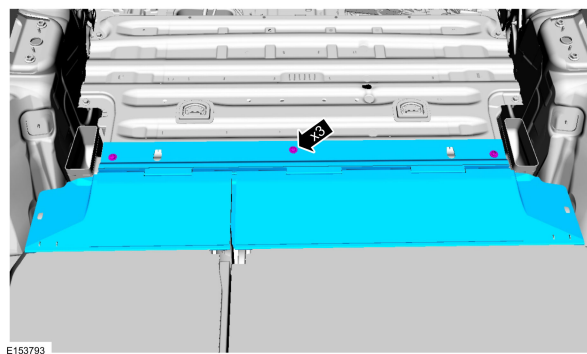
15. Remove the high-voltage battery cooling fan and air outlet duct.



16. Remove the upper high-voltage battery inlet ducts.

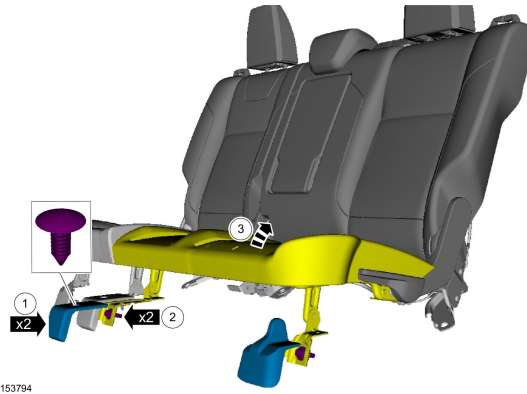


17. Remove the gap hider from the rear seat back.

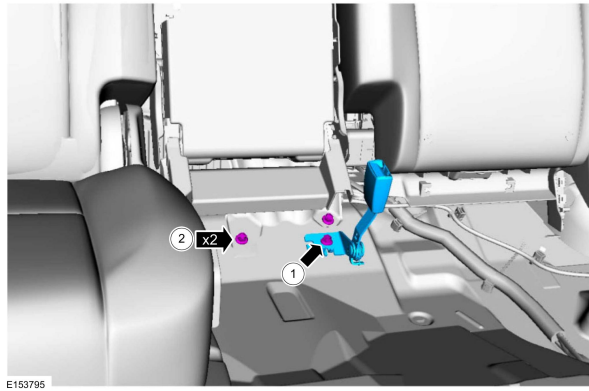


Battery Removal Guide

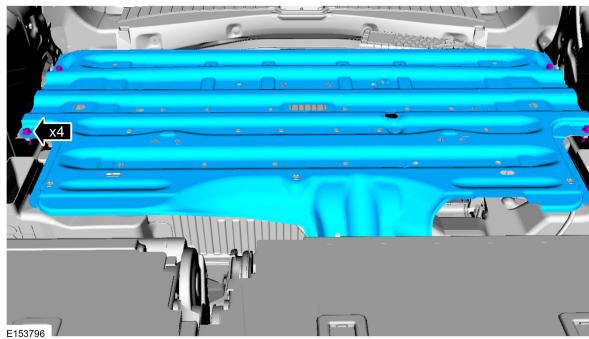
18. Remove the rear seat cushions.



19. Remove the LH rear safety belt latch.

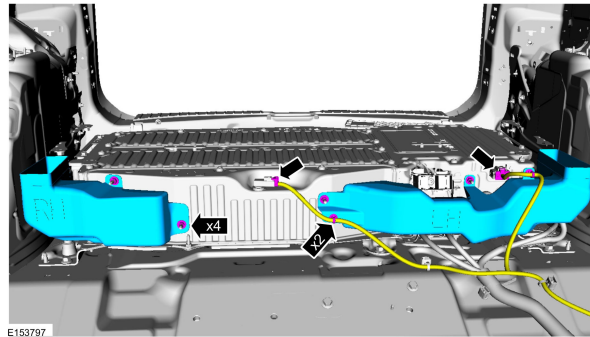


20. Remove the top cover from the high-voltage battery.

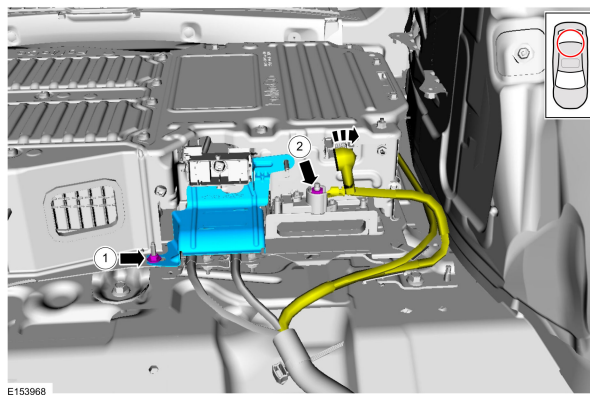


Battery Removal Guide

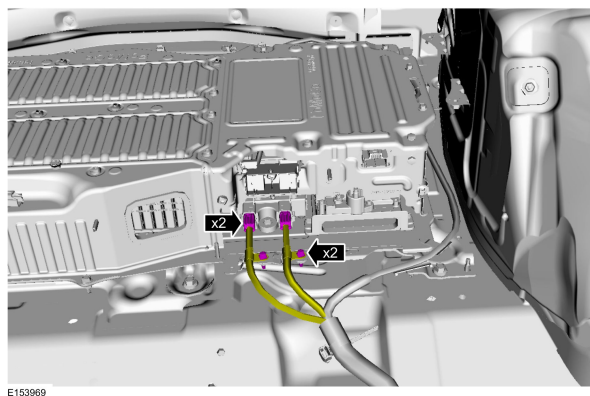
21. Disconnect the sensors, release the wire harness retainers, and position aside the wire harness. Remove the lower high-voltage battery air inlet ducts.



22. Remove the high-voltage battery wiring cover and disconnect the high-voltage battery ground harness.

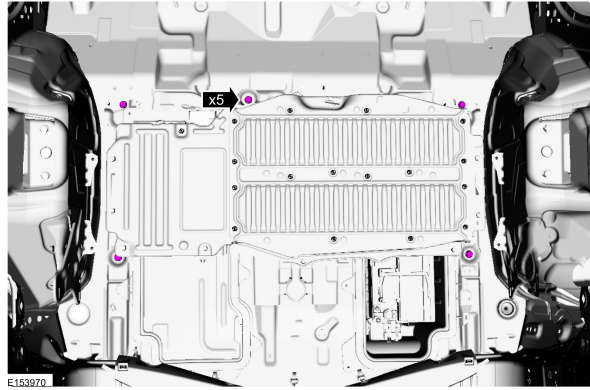


23. Remove the two harness retainers and disconnect the high-voltage battery wiring.

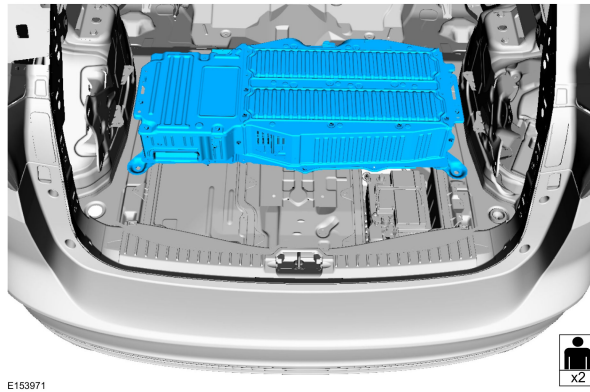


Battery Removal Guide

24. Remove the high-voltage battery bolts.



25. With the help of an assistant, remove the high-voltage battery through the rear of the vehicle.



Battery Removal Guide

SPECIAL NOTE TO DISMANTLERS AND SALVAGE YARDS

If a vehicle with a high voltage battery is to be scrapped, the high voltage battery must be disposed of following all local, state/provincial and federal guidelines.

The Focus electric vehicle's Lithium-Ion High Voltage Battery packs (Li-Ion HVB) are fully recyclable and should be shipped to a permitted recycling facility. The guidelines below are for Li-Ion HVBs which have been removed from the vehicle and discharged.

General Packaging, Transport, and Recycling Guidelines

Once the battery has been removed from the vehicle and discharged:

- Store the battery components in a building or under shelter so that batteries are kept dry and not exposed to high temperatures.
- Protect battery components from damage (e.g. crushed or punctured).
- It is recommended to ask about the specific packaging requirements for battery shipments to the recycler who will be receiving the battery components in order to avoid inappropriate repacking/stacking of the batteries.
- Batteries should be sorted by type. Keep lead acid batteries, NiMH batteries, and Li-Ion batteries separated from each other (e.g. separate pallets or storage locations).
- Make sure the battery recycler is aware of the battery type. Li-Ion batteries cannot be recycled in the same manner as lead acid or NiMH batteries.

Though Ford Motor Company makes no representations or endorsements, there are companies that have the capability to accept, consolidate and recycle undamaged Li-Ion HVBs, and a few are listed below. Contact the appropriate battery manufacturer for additional information.

North America Battery Recyclers

Once the battery has been removed from the vehicle and discharged:

Kinsbursky Brothers, Inc. 125 E. Commercial Street #A Anaheim, CA 92801 Phone: 714-738-8516 Fax: 714-773-4830

Retriev Technologies, Inc. 125 E. Commercial Street #A Anaheim, CA 92801 Phone: 855-4RETRIE (855-473-8743) Fax: 714-278-9745

Applicable Laws/Regulations

The following is a general explanation of certain applicable laws; however, these laws change from time to time, additional regulations are under development and Ford Motor Company makes no representation that this is a complete summary.

Packaging and Transport

The U.S. Department of Transportation (DOT) outlines packaging and shipping requirements for Li-Ion batteries. Certain exceptions on packaging and transportation regulations for large format Li-Ion batteries may be found in 49CFR 173.185 (d) and (g). Make sure that the shipping paperwork is filled out correctly and that the shipment is properly labeled per federal, state, and local laws and regulations. Ensure that you are complying with any record keeping requirements. Generally, under U.S. DOT regulations, Li-Ion batteries are considered a dangerous good and regulated as hazardous materials when transported. Li-Ion batteries are classified as Class 9 hazardous material. Only certified hazardous material shippers should offer transport of a hazardous material. Batteries for recycling should be shipped by ground or vessel only. Do not ship batteries for recycling by air.

NOTE:

A damaged battery (one that is leaking electrolyte from the battery pack) might need to be shipped as a hazardous waste. If you are transporting a damaged battery, utilize a company that specializes in hazardous waste transport and management. Ensure that you comply with all applicable hazardous waste management laws and regulations.

Recycling

40 CFR 261 states that manufactured articles that yield extracts which exceed one or more of the concentration limits of regulated listed constituents, or meets the definition of ignitability, corrosivity or reactivity are defined as hazardous wastes and must be disposed of in accordance with federal and state regulations. Since there are many variations in the specific chemistry of Li-Ion batteries, additional classifications may be necessary to determine if the battery is a hazardous waste. It is the responsibility of the generator to make this determination. Generally, under federal and state law, sealed, Li-Ion batteries may be considered dry cell batteries and therefore may be managed as a universal waste; damaged or leaking Li-Ion batteries may be regulated as hazardous waste under federal and state regulations.