

### **SERVICE & PARTS OPERATIONS COMMUNICATIONS**

# HIGH VOLTAGE BATTERY (HVB) POLICY & RECOVERY PROGRAM RESUMPTION OF HVB CORE RECOVERIES FOR WARRANTY NON-WARRANTY BATTERIES

02 - 26 - 2013

Bulletin 2013-04

Page 1 of 12

### **TO: Lexus Parts and Service Managers**

## SUBJECT: NI-MH HIGH VOLTAGE BATTERY (HVB) POLICY & RECOVERY PROGRAM NOTE: THIS BULLETIN SUPERSEDES AND REPLACES SPOC 2011-02

## **Background**

All hybrid vehicle High-Voltage Batteries (HVB's) are recyclable and should be returned to a recovery/recycling center at end of life. Lexus has established specific procedures to ensure that HVB cores are recovered. These procedures are intended to support safe handling, appropriate preparation for shipment, use of prescribed packaging, and compliant shipping practices.

Revised procedures include a training requirement for any dealership personnel who remove HVB's from vehicles, prepare and/or package HVB's for shipment, and/or who offer HVB's for shipment on a common carrier.

To encourage returns by third parties, each HVB is labeled with instructions to contact a Lexus dealer, the local Lexus distributor, or the Toyota Customer Experience Center at (800) 331-4331 for recycling information.

### **Dealer HV Battery Recovery Responsibilities**

Lexus requires Dealers to return a core for each HVB purchased from Toyota. All HVB cores are to be returned including cores from customer pay HVB sales performed at the Dealership and sales to independent repair facilities and other wholesale customers.

#### **Dealer HV Battery Training Responsibilities**

Dealership personnel responsible for preparation, packaging and shipment of HVBs must receive and maintain appropriate training to qualify to perform these functions. Only trained personnel are authorized to perform these functions.

- For technicians performing HVB preparation functions, the minimum training requirements include completion
  of Certified Hybrid Technician training (UOT-071) and High-Voltage NiMH Battery Preparation and Packaging
  for Ground Transportation (EHM-011).
- For parts department personnel responsible for packaging the HVB for shipment and/or offering the package
  for shipment by common carrier, the minimum training requirements include completion of Hazmat U DOT
  49 CFR 172.704 training (EHM-001) and High-Voltage NiMH Battery Preparation and Packaging for Ground
  Transportation (EHM-011) function specific training.



For links to these training programs, go to the CLEAN Dealer website (<a href="http://cleandealer.com">http://cleandealer.com</a>); follow the link to *Training Resources*.

### **Dealer HV Battery Preparation & Documentation Responsibilities**

Safety in handling, preparation, packaging and shipment on HVBs is our number one priority. Therefore, special preparation and packaging enhancements have been established. All HVBs must be properly prepared for safe shipment by a trained associate as per Warranty Policy and Procedure 9.10 and per EHM - 011, prior to packaging. Preparation includes the following general steps.

(1) While the cover is off the battery for service, physically inspect the battery for signs of physical damage and/or leakage.

#### NOTE:

- Physical damage includes but is not limited to dents and/or deformation to internal battery modules, missing or loose bus bar covers, damaged high voltage wiring/cables including exposed wire, and any signs of arching or burning.
- If you are in doubt about whether a battery should be classified as damaged, please contact the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347) for assistance.



DAMAGED BATTERIES MUST NOT BE SHIPPED BY COMMON CARRIER. DAMAGED BATTERIES MUST ONLY BE RECOVERED BY A DESIGNATED HAZMAT CONTRACTOR



Contact The CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347).

- (2) Prior to reinstalling the cover on the battery,
  - a. Confirm that the bus bar plastic covers are properly installed and
  - b. Install high voltage insulating mats over the top and sides of the battery bus bar as per instructions;
- (3) Thoroughly tape all high voltage electrical connectors with electrical insulating tape as per instructions,
- (4) Reinstall the HVB cover using <u>all</u> original fasteners and tighten the cover fasteners securely.
- (5) The preparer and packager are required to complete a *High Voltage (HV) Battery Shipment Preparation Checklist* (page 12 of 12) and attest to (a) understanding of Lexus Warranty Policy & Procedure 9.10 terms, and (b) preparation/packaging the battery as per policy by signing the document.
- (6) The preparation checklist must be countersigned by a responsible manager in the Parts Department.

**IMPORTANT:** The original signed checklist is to be returned with the battery, maintain a copy at the Dealership.

### **Dealer HV Battery Packaging Responsibilities**

After an HVB is properly prepared by qualified Dealership personnel, it must be packaged in the appropriate Toyota-approved, hard sided Durable Reusable Container (DRC). DRCs are HVB specific and are not interchangeable between series/models.

 For HVB service parts that arrive in a corrugated cardboard box, DO NOT RETURN THE CORE IN THE ORIGINAL CARDBOARD BOX OR ANY OTHER CONTAINER; order a Toyota-approved DRC. Please use the following link to access and complete a High Voltage Battery DRC Request Survey. Go to <a href="http://cleandealer.com">http://cleandealer.com</a> and follow the link to HV Battery Recycling.

If you need assistance with the DRC ordering process, please contact the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347).

 For HVB service parts that Arrive in DRCs; process them using the Parts Recovery System (PRS). Batteries are to be managed per process established in revised Warranty Policy & Procedure 9.10.



Month XX, 2011 Page 2 of 12

As per Warranty Policy & Procedure 9.10;

- 1. The preparer and packager are required to complete a *High Voltage (HV) Battery Shipment Preparation Checklist* (available at the end of this document) and attest to (a) understanding of Lexus Warranty Policy & Procedure 9.10 terms, and (b) preparation/packaging the battery as per policy by signing the document.
- 2. <u>Batteries are to be returned within 15 business days</u> to the Lexus High Voltage Battery Recovery Center (HVBRC) in the same DRC as received.

**IMPORTANT** - In the event that insulation mats or other DRC components are missing or damaged DO NOT USE the DRC – contact the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347) to arrange for a replacement DRC or components.

## Warranty and Non-Warranty HV Battery Administration, Preparation and Shipping Procedures

#### **Warranty HV Battery Returns:**

Following payment of a warranty claim for a warrantable repair, a request for shipment of the HVB will appear in PRS. HVBs are to be shipped to the Lexus High Voltage Battery Recovery Center (HVBRC)

For instructions on how to properly ship an HVB using PRS, please refer to Lexus Warranty Policy & Procedure 9.10. HVBs replaced under warranty must have a completed yellow Warranty Parts Return Tag (M/N 00404-PRETN-TAGS) attached.

When preparing an HVB for shipment, DO NOT, under any circumstances DISASSEMBLE the HVB or EXPOSE any internal electrical connections beyond that required by the Repair Manual for service part replacement. HVBs received improperly documented, packaged, or prepared will be assessed a \$750 fee to cover the costs of special handling and/or disposal fees. All HVBs are inspected upon arrival at the HVBRC.

#### NOTE:

• It is the Dealer's responsibility to properly store and manage HVB's and prepare shipments for transport. Dealers must be knowledgeable of and in compliance with all local, state and federal regulations.

#### **Non-Warranty HV Battery Returns:**

Following any non-warranty HVB sale, it is the Dealer's responsibility to return the used HVB core to the Lexus High Voltage Battery Recovery Center (HVBRC) in a Toyota-approved DRC. This includes sales for customer pay repairs performed by the Dealer and all retail/wholesale sales to third parties like independent repair facilities.

#### **Non-Warranty HV Battery Shipping Instructions:**

- 1. From the Part Return Request Homepage select the New button in the Actions column
- 2. Use the following entries to create a non-warranty HV Battery Manual Part Return (MPR):

T3 User ID:	HVBAT	
Recipient Name:	Toyota HVBRC	
R/O Number:	List R/O if available <sup>1</sup>	
VIN:	List VIN if available <sup>2</sup>	
Request Description:	HVBAT	
Line Code:	9998	
Ship To:	6505 Paramount Blvd, Long Beach, CA 90805	
Ship To – Street:	6505 Paramount Blvd.	
City	City Long Beach	
State	CA	
Zip	Zip 90805	
Part Number	Part number of replacement part	
Quantity	1	

- 3. Highlight the new MPR claim in the Parts Return Request homepage and select the Detail button in the Actions Column
- 4. Check the battery part number box and then select box

Month XX, 2011 Page 3 of 12

\_

If the battery was acquired from a salvage yard, please enter a dummy RO# (i.e. 99999) in this field

<sup>&</sup>lt;sup>2</sup> If the battery was acquired from a salvage yard and the VIN is unknown please enter a dummy VIN (i.e. 99999999999999) in this field.

- 5. Select UPS-LTL as the shipping method
- 6. Print the UPS Freight BOL and packing slip and place inside a plastic shipping sleeve on the battery

Detailed instructions to prepare, package and ship HVBs is available on-line at the CLEAN Dealer website (<a href="http://cleandealer.com/">http://cleandealer.com/</a>); follow the links to HV Battery Recycling or Training Resources.

### **Core Charge Policy**

Beginning in May 2011, a refundable core charge was added as a line item on Dealer parts account statements for HVBs and DRCs. A core charge refund will be issued when the battery and DRC are returned, in good condition, properly prepared and documented. As per policy, <u>batteries are to be returned within 15 business days</u> to the Lexus High Voltage Battery Recovery Center (HVBRC) in the same DRC as received.

To view the number of core charges that your dealership currently has outstanding, navigate in PRS to the newly enhanced "Scrap Report / HV Battery Activity Report". Follow the steps below:

- Select a "Start Date" and "End Date" for the report your wish to run
- 2. Select the "HV Battery Activity Report" radio button
- 3. Press "Submit" (see sample on right)

#### NOTE:

Parts account core refunds cannot exceed core charges – core refunds do not apply to any HVB that was not originally assessed a core charge.

## 

#### Dismantler Recovered HV Batteries

Dealers are encouraged to serve their communities by accepting HVB cores turned in by local dismantlers. Effective XXXX XX, 2013, Lexus will no longer authorize or pay a recycling fee to dealers for recovery of these batteries. When contacted by a dismantler/salvage yard, dealers may:

1. Accept the battery, order a DRC and return it to the Lexus High-Voltage Battery Recovery Center (HVBRC) for recycling using the existing MPR process.

OR

2. Advise the dismantler/salvage yard to contact ELVS (End of Life Vehicle Solutions) at 855-358-7228 (855-ELVSBAT) for disposition and recycling. The dismantler will be placed in contact with a designated scrap buyer who can arrange recovery.

#### Procedure for Return of HV Battery from Dismantler/Salvage Yard

If the dismantler/salvage yard provides a battery for recycling, the following information is required for a Manual Part Return (MPR):

T3 User ID:	HVBAT	
Recipient Name:	Production Control	
R/O Number:	List R/O if available <sup>3</sup>	
VIN:	List VIN if available <sup>4</sup>	
Request	HVBAT	
Description:		
Line Code:	9998	
Ship To:	Ship To: 6505 Paramount Blvd., Long Beach, CA 90805	
Ship To –Street:	-Street: 6505 Paramount Blvd.	
City:	Long Beach	
Zip:	90805	
Part Number:	Part number of replacement part	
Quantity:	1	

<sup>&</sup>lt;sup>3</sup> If the battery was acquired from a salvage yard, please enter a dummy RO# (i.e. 99999) in this field.

Month XX, 2011 Page 4 of 12

\_

<sup>&</sup>lt;sup>4</sup> If the battery was acquired from a salvage yard and the VIN is unknown, please enter a dummy VIN (i.e. 999999999999999) in this field.

To return the battery to the Lexus High-Voltage Battery Recovery Center (HVBRC), please request a DRC from the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347). Use the shipping documentation provided from MPR in PRS.

#### Procedure for Return of HV Battery from Consumers

For batteries returned by consumers that are not generated as the result of a repair transaction or part sale to that consumer, Lexus will provide a DRC for battery recovery and cover shipping costs from the dealership to the Lexus High-Voltage Battery Recovery Center (HVBRC). To request a DRC please contact the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347).

## For All Recoveries of HV Batteries Where the HV Battery Case or Bus Bar Cover is Missing, Physically Damaged or Wetness is Evident

In cases where the HVB is damaged, the Dealer should contact the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347) for assistance arranging a hazardous material contractor to recover and transport the HVB.



Consistent with Lexus's Earth Charter, Lexus has a strong desire to see that all HVB's will ultimately find their way back into the battery manufacturing cycle. As a Lexus dealer, you play a very important role in this process. Thank you for your efforts to minimize Lexus's footprint on the environment.

For questions regarding this HV Battery recovery program, contact TMS PQSS Administration (310.468.2613).

Month XX, 2011 Page 5 of 12

# **Physically Damaged Batteries**

For all HV Battery recoveries where the case is physically damaged, the metal cover is missing, the bus-bar covers are missing, or wetness is evident, the dealer should contact the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347).

The CLEAN Dealer EH&S Hotline will contact a hazardous material contractor on behalf of the dealer who will then recover and transport the HV battery. The CLEAN Dealer EH&S Hotline will provide the hazardous material contractor with the dealer phone number and contact. The hazardous material contractor will then contact the dealer for a time and location of pickup.



EHM - 011: High Voltage NiMH Battery Preparation & Packaging for Ground Transportation

## **TECHNICIAN RESPONSIBILITY**

Preparing an HV Battery for Shipment

It is very important that HV batteries prepared for shipment are properly assembled and insulated. To prepare the HV battery for shipment, **a certified hybrid technician** must follow all precautions as found in the Service Manual (Hybrid Vehicle Control section). Be sure to refer to the applicable vehicle's Emergency Response Guide, Repair Manual or Dismantling Manual for additional safety and caution information.

<u>Training Requirements:</u> Technicians who prepare and/or package HV batteries for shipment must maintain Certified Hybrid Technician status (completed UOT course 071) and have completed *High Voltage NiMH Battery Preparation & Packaging for Ground Transportation (EHM-011)* function specific training from the CLEAN Dealer website at <a href="http://cleandealer.com">http://cleandealer.com</a>; follow the link to <a href="http://cleandealer.com">Training Resources</a>.

Physically Damaged Batteries: For all HV Battery recoveries where the case is physically damaged, the metal cover is missing, the bus-bar covers are missing, or wetness is evident, the dealer should contact the CLEAN Dealer EH&S Hotline at 877-KPA4EHS (877-572-4347).. The CLEAN Dealer EH&S Hotline will contact a hazardous material contractor on behalf of the dealer who will then recover and transport the HV battery. The CLEAN Dealer EH&S Hotline will provide the hazardous material contractor with the dealer phone number and contact. The hazardous material contractor will then contact the dealer for a time and location of pickup.

These instructions assume HV battery has been removed from the vehicle. Instructions to remove HV battery from the vehicle can be found in the appropriate repair manual.

#### **CAUTION:**

- When working on high voltage systems, always wear insulating gloves.
- Disconnect negative cable from 12 V auxiliary battery and wait 90 seconds before working on the hybrid battery.
- After removing the service plug, do not touch any high voltage connectors and/or terminals for at least 10 minutes.

STEP 1: Insulate the Service Plug Terminal



 Cover the hybrid battery service plug terminal with UL-listed non-conductive black electrical tape.

#### NOTE:

 This step does not apply to applications that require removal of service plug for reuse.

# EHM - 011: High Voltage NiMH Battery Preparation & Packaging for Ground Transportation

STEP 2: Insulate High Voltage Cable Connectors

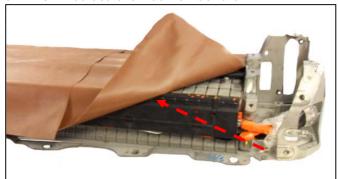


2. Cover all exposed high voltage cables, wire harnesses and or terminals with UL-listed non-conductive black electrical tape.

#### NOTES:

- Secure loose harnesses/cables/connectors in a manner that prevents trapping wires during battery cover installation.
- The cable and terminal locations will vary from model to model.
- NEVER bundle wires together when taping.

STEP 3: Insulate the Bus Bar Covers



3. Using the HV Mats supplied with the DRC, completely cover the bus bar covers.

#### NOTES:

- It is normal for the HV mats to overlap.
- The Toyota Highlander HV and Lexus RX 400/450h use 3 mats. All other batteries use two 18" square mats.

STEP 4: Secure Cables and Harnesses



4. Using packaging tape, secure all hybrid cables and wiring harnesses to the battery base plate.

#### NOTE:

 Secure loose harnesses/cables/connectors in a manner that prevents trapping wires during battery cover installation.

EHM - 011: High Voltage NiMH Battery Preparation & Packaging for Ground Transportation

STEP 5: Secure the HV Battery Cover to Battery



### The following step is very important:

Failure to properly fasten the battery cover to the base of the battery may result in electrical shorts.



5. Securely fasten the HV Battery metal cover to the base of the battery with **all original** fasteners.

#### NOTES:

- Tighten cover fasteners securely to prevent the cover from moving potentially causing electrical shorts during shipment.
- Not all fasteners are shown in this illustration.





6. Sign the preparation checklist affirming that you performed the preparation function as prescribed.

#### NOTE:

• The checklist must be countersigned by a responsible manager.

EHM - 011: High Voltage NiMH Battery Preparation & Packaging for Ground Transportation

## **Packer Responsibility**

Packaging & Labeling HV Batteries for Ground Transport

<u>Training Requirements:</u> Parts associates who package and/or handle HV Batteries for shipment must maintain a current *Hazmat U - DOT 49 CFR 172.704* training (EHM-001) credential and have completed *High Voltage NiMH Battery Preparation & Packaging for Ground Transportation (EHM-011)* function specific training from the CLEAN Dealer website at <a href="http://cleandealer.com">http://cleandealer.com</a>; follow the link to <a href="http://cleandealer.com">Training Resources</a>.

STEP 1: Place the battery on the DRC

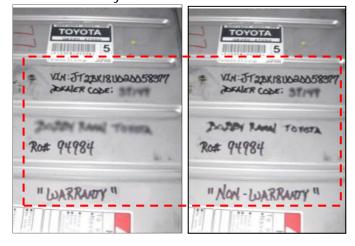


1. Place the battery in the center of the DRC.

#### NOTE:

- It will require at least 2 people to lift an HV battery.
- Wear leather gloves when lifting the battery as it may contain sharp edges.

STEP 2: Write Dealer Code, VIN and Warranty Status on Battery



- 2. Write the following information on the top of the HV battery using a permanent marker:
  - "Warranty" or "Non-Warranty"
  - Full VIN #
  - Claim Number and/or Repair Order Number
  - Dealer Code

STEP 3: Install the Foam End Caps



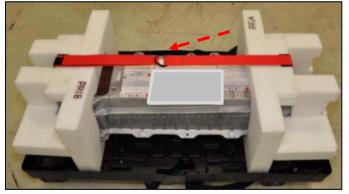
3. Install the foam end caps onto the battery.

#### NOTE:

- End caps are unique to each battery as well as each end of a battery.
- It will require at least 2 people to lift an HV battery and install the foam end caps.

EHM - 011: High Voltage NiMH Battery Preparation & Packaging for Ground Transportation

STEP 4: Secure the Red Strap

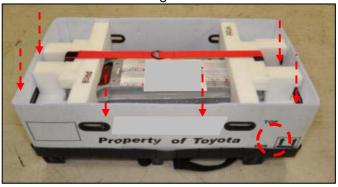


4. Tighten the red strap securing the foam in the DRC.

#### NOTE:

Take care not to over tighten the red strap.

STEP 5: Install the Corrugated Sleeve



5. Install the corrugated sleeve onto the base pallet. Press down firmly to ensure proper fit.

#### NOTF:

• Ensure that the arrows on the side of the sleeve are facing up.

STEP 6: Sign the Packaging Checklist

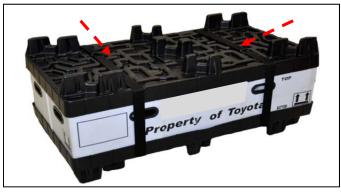


6. Sign the packaging checklist affirming that you performed the packaging function as prescribed and place it in DRC.

#### NOTE:

 The checklist must be countersigned by a responsible manager.

STEP 7: Install the DRC Cover



7. Install the DRC cover pallet and secure the nylon straps.

#### NOTE:

• Ensure that the buckles of the nylon straps are centered on the top pallet.

# Toyota Motor Sales, USA, Inc. High Voltage Battery (HVB) Shipment Preparation Checklist

## **Durable Reusable Container (DRC) Shipments (February 2013)**

Dealership personnel responsible for preparation, packaging and shipment of HV batteries are required to complete appropriate Hazmat awareness and function-specific training to perform these functions. Only trained personnel are authorized to perform these functions. Training requirements are defined based on job function and are outlined in the Lexus *Warranty Policy & Procedure 9.10.* 

me Lex	xus warranty Policy & Procedure 9.10.				
HV Bat	llowing <b>checklist is required to be compl</b> ettery Recovery Center (HVBRC). <u>The sign</u> er retain a photocopy of the original checklist	ned original must be submitted with th			
<u> </u>	The undersigned individuals have reviewed and understand the requirements of Toyota Motor Sales, USA High Voltage (HV) Battery Recovery Policy as outlined in the attached Warranty Policy & Procedure 9.10 document (attachment A) and attest that preparation and packaging of this HVB is compliant with same.				
2)	<ul> <li>The undersigned individuals have completed the required training to perform their respective functions and training credentials are current.</li> <li>a) Personnel performing HVB preparation functions (with the cover off the battery), are Certified Hybrid Technicians (UOT 071) and have completed High Voltage NiMH Battery Preparation &amp; Packaging for Ground Transportation (EHM-011) function specific training.</li> <li>b) Personnel responsible for packaging and/or offering the package for shipment have completed Hazman (EHM-001), auto industry approved DOT 49 CFR 172.704 training.</li> </ul>				
	: All training can be accessed from the C urces for links to all EH&S training. Use I		lealer.com; go to <i>Training</i>		
3)		mage and/or leakage.	s bar and taped high		
☐ 4)	The Certified Hybrid Technician preparing the HVB for packaging confirms that the battery cover has been reinstalled with <u>all</u> original fasteners and tightened securely.				
□ 5)	<ul> <li>The Trained Parts Personnel packaging the HVB for shipment confirms:</li> <li>a) The correct container is being used, it is not damaged and the battery is properly secured within the container using the packing materials provided with the container.</li> <li>b) All appropriate information has been placed in appropriate locations on the battery.</li> </ul>				
□ 6)	The undersigned acknowledge their understanding that, <b>if HV high voltage batteries are not prepared</b> , <b>packaged and shipped in conformity</b> with Policy 9.10 of the <i>Lexus Warranty Policy &amp; Procedure Manual</i> , then Lexus may suspend or terminate further HVB return shipments by this dealership and the dealership may be responsible for costs of a third party HVB recovery contractor.				
377.57	RTANT: If your HVB did not arrive in a DI 2.4347 to request a DRC and shipping d ship personnel have completed prescril	documents. Shipping documents will d			
Deal	ler Name:	Dealer Code:	Region/Area:		
Prep	pared for Packing by (Certified Hybrid Technician)	):	Date		
Print Na	· · · · · · · · · · · · · · · · · · ·	nature			
Print Na	kaged for Shipment by (Trained Parts Personnel):	: nature	Date		
	ponsible Parts/Service Manager:	iliatori C	Date		

Print Name