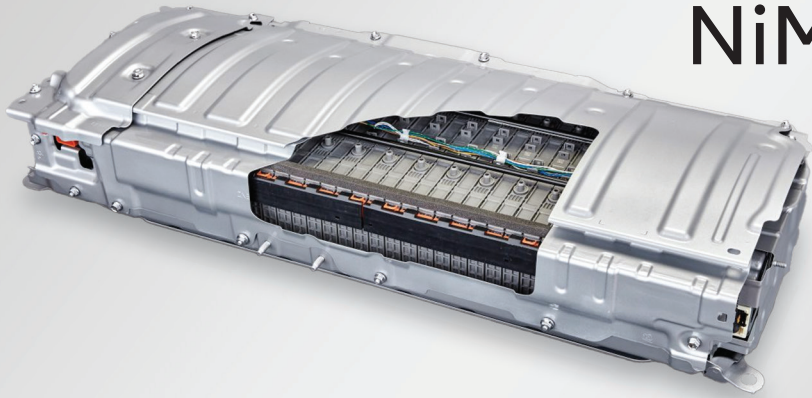




# Collection scheme for Li-ion and NiMH batteries for Toyota/Lexus Authorised repairers



NiMH



Li-ion

# Introduction

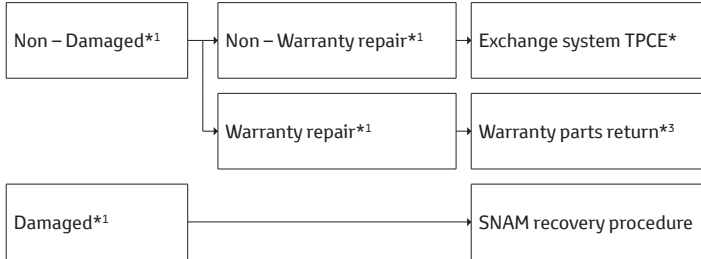
Toyota Motor Europe, as part of its on-going commitment to environmental projects, has established a recovery procedure for the sustainable collection and recycling of HV industrial batteries from Toyota and Lexus full hybrid and electric vehicles in Europe.

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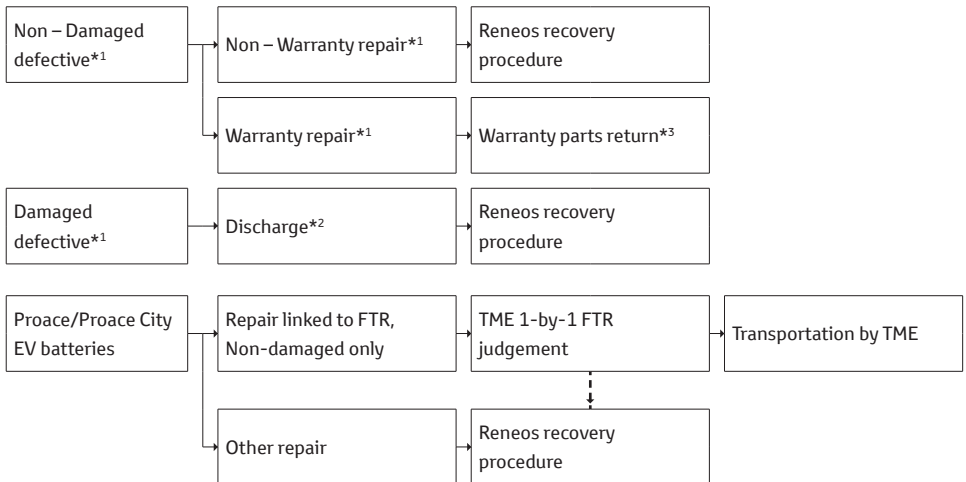
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# 1. Schematic flow of HV batteries recovery for Toyota/Lexus Authorised Retailers and Repairers

## NiMH



## Li-ion



\* Depending on local regulation, non-damaged NiMH batteries may not be authorised to be sent to TPCE, but would have to be recycled locally. Please liaise with NMSC or SNAM for further details.

\*1 See battery condition description and judgment criteria in point 2.

\*2 Check the technician's knowledge to discharge, if the technician does not have the required knowledge to discharge, contact the NMSC for support. Always refer to model specific discharge procedure (See repair manual or TSB). Each NMSC is supposed to have discharge tool at disposal (Midtronics GRX5100). If not, please contact TME CoO Dept. for emergency tool loan.

\*3 See section "2.3. Warranty/non Warranty repair judgement".

## 2. Definition of defective / damaged and non-damaged batteries

### 2.1. NiMH batteries



A damaged NiMH battery is a battery showing external damages: electrolyte leakage, deformation, discolouration.

SNAM will provide relevant container in case of damaged NiMH battery transportation to recycling company. For TPCE return logistics (non damaged batteries), OE package of the replacement battery can be used. If empty package is needed, please contact TPCE Customer Service.

### 2.2. Li-ion batteries



A damaged and defective Li-ion battery is battery meeting at least 1 of the following criteria:

- Emitting defined critical DTC (Detection Trouble Code) as described in model specific Repair Manual/Battery recovery procedure section
- Physical damages (deformation, heavy dent,...)
- Indication of high temperature (discolouration)
- Partially or completely burned down (thermal runaway)
- Leakage

When a Li-ion battery is considered damaged and defective, it must be discharged with Midtronics GRX5100 tool. Please note that Repair Manual may describe a salt water discharge process. This process is not allowed in Europe for operator safety and contaminated water recycling reasons. Some older manuals may refer to a procedure with a different discharge tool. In this case refer to the Midtronics user guide bulletin.

In case a battery cannot be discharged with Midtronics GRX5100 tool (because of connectors damages, for example), please store it on a wooden pallet outside any building and not near other objects and/or cars, during the waiting time for transportation to recycling facility.

Different transport packages, according to the condition of the battery, will be used, as described hereunder:

- Non damaged and defective, re-use OE package from the replacement battery. If no replacement battery has been used, please contact TPCE Customer Service for empty package.
- Damaged and defective battery, depending on the condition, will require “P908” (for non critical) or “P911” (for critical) packages, which will be provided by collection partner of

Reneos, based on battery condition description at time of transport ordering. It is important to provide accurate battery condition description at the time of collection request.

## 2.3. Warranty/non-Warranty repair judgement

All information submitted in view of a Warranty return must be treated in compliance with GDPR guidelines. Do not submit customer's personal information when not needed.

For non-damaged batteries to be returned under Warranty (NiMH or Li-ion, excluding Proace), please refer to the following Warranty parts return procedure:

**Warranty parts returns via TPCE are only authorised if:**

- **the customer vehicle is within applicable Warranty period, according to the latest status of Warranty Policy**
- **a Warranty claim is submitted in CWS, soon after the repair, with Warranty Type = VE or P1 only**
- **the part is duly and individually identified with a complete VIN, under any format (Warranty part tag, handwritten, print-out,...)**
- **the return claim type is set on "Warranty" by the dealer, only if all the conditions above are fulfilled**

Other conditions must be considered as "Non-warranty return" and submitted accordingly by their respective dealer.

# 3. Battery recovery procedure for Authorised Repairers

## 3.1. NiMH batteries



### **Non-damaged batteries (Warranty or non-warranty)**

Batteries will be returned to TPCE from an Authorised Repairer, using the same principle as any other component Exchange system (order new part/return core unit).

Please note that Authorised Repairers have 20 days to submit their claims, and 20 days to return Core Units to TPCE.

For PL21 countries, please refer to following SOP's:

- (HVB PACKAGING INFO & SOP.xls)
- (SOP for Hazmat documents for HVB.xls)

For non PL21 countries, Authorised Repairer must liaise with their usual Parts Logistics contact persons at NMSC's.

Depending on local regulation, non-damaged NiMH batteries may not be authorised to be sent to TPCE, but would have to be recycled locally. Please liaise with NMSC or SNAM for further details.



### **Damaged batteries**

Please refer to the link hereunder for further details and procedures.

Contact your NMSC as well so they can provide you with additional information regarding legal requirements for transportation of damaged batteries in your country.

<http://www.snam.com/auto/toyota/>

## **3.2. Li-ion Batteries**

A collection request has to be issued via Reneos application (available in 6 languages).

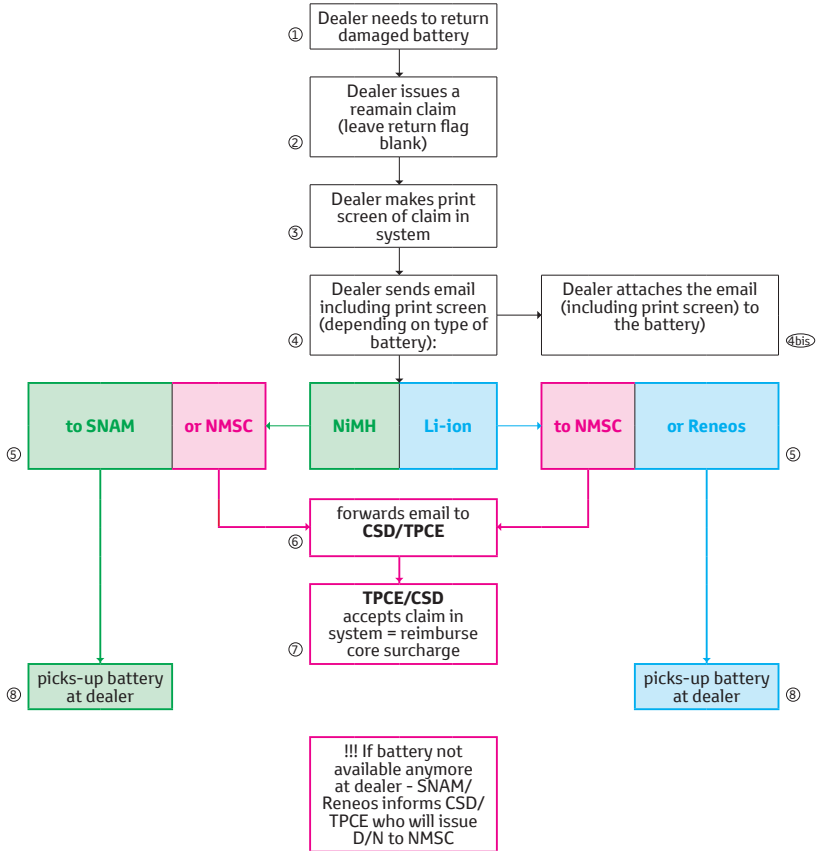
Userguide demo video:

<https://www.youtube.com/watch?v=02I4JUExmbI>

Every Repairer will receive an e-mail from Reneos with log-in account details.

# 4. Re-imbusement for core units

## RE-IMBURSEMENT OF CORE SURCHARGE FOR DAMAGED BATTERIES



DAMAGED BATTERY RETURN FLOW

## 5. Abbreviation list

HV: Hybrid Vehicle

HVB: Hybrid Vehicle Battery

NiMH: Nickel Metal Hydride

Li-ion: Lithium Ion

DTC: Detection Trouble Code

SOP: Standard Operating Procedure

## 6. Contact details

- **Discharge tool:** Cost of Ownership Dept. (Frédéric Lebrun, frederic.lebrun@toyota-europe.com) / Kevin Schauvaerts, kevin.schauvaerts@toyota-europe.com)
- **Collection and recycling matters:** Environmental Management Dept. (Gulin Kutluay Isik, Mgr, Gulin.Kutluay.Isik@toyota-europe.com)
- **Warranty:** Business Development 2 Dept. (Xavier Brandolini, Xavier.Brandolini@toyota-europe.com)
- **Financial information on returned cores:** Parts Planning & Development (Bibita-Irina Zama, Bibita-Irina.Zama@toyota-europe.com) / Filip Van Roy, Filip.Van.Roy@toyota-europe.com)
- **TPCE :** Log Health, Safety and Environment Dept. (Peter Vercammen, Peter.Vercammen@toyota-europe.com)