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# Repair and Disassembly

## NOTE

To avoid contaminating or infecting personnel, the environment or other equipment, make sure you disinfect and decontaminate the device appropriately before repairing or disposing of it in accordance with your country's laws for equipment containing electrical and electronic parts.

## Software License Transfer

The CL devices (CL SpO2 Pod, CL NBP Pod, CL Respiration Pod, CL Transmitter, CL Hotspot and CL Charging Station) use Software Licensing functionality to track customer information, software revisions, and enabled features. Software Licensing allows service personnel to easily determine which products, features, and revisions are installed at a particular customer site.

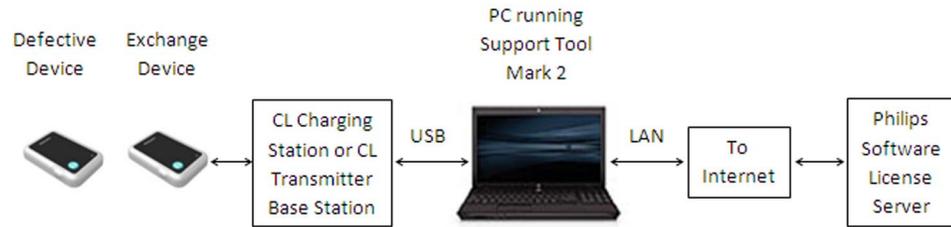
Exchange devices are shipped without a software license.

A CL SPO2 Pod, CL NBP Pod, CL Respiration Pod, CL Transmitter, CL Hotspot or CL Charging Station with the initial software and without a software license can be used, but a message "No Serial Number" is shown on the display of the device (except for CL Respiration Pod). Additionally a CL SPO2 Pod, CL NBP Pod or CL Respiration Pod without a software license shows an INOP message at the device (except for CL Respiration Pod), at the assigned host monitor or the IntelliVue GuardianSoftware.

After a software upgrade to the appropriate version being used at the site and after the software license transfer the message "No Serial Number" and the INOP disappears.

The software license from the defective device needs to be transferred to the exchange device using the IntelliVue Support Tool Mark2. Additionally, the label of the CL SpO2 Pod, CL NBP Pod, CL Respiration Pod; CL Transmitter or CL Hotspot should be changed (if no label is programmed, the serial number will be used instead). In addition, network setup for CL Transmitter and CL Hotspot may be necessary.

For more information, see the Support Tool Instructions for Use.



Required Information from defective device:

- Software Serial Number  
or
- Hardware Service Number and Hardware Serial Number

## Replacement of CL Respiration Pod and CL Hotspot

The IntelliVue CL Respiration Pod and CL Hotspot cannot be repaired. A defective device must be exchanged. Before using an exchanged CL Respiration Pod or CL Hotspot, the software must be upgraded to the appropriate version used at the site and the software license needs to be transferred from the defective device to the exchange device. See “Software License Transfer” on page 95 for details.

### Tools Required

- Charging Station or Transmitter Base Station (for CL Respiration Pod)
- USB Cable (to connect PC to Charging Station or Transmitter Base Station)
- Network cable and PoE power supply to connect the CL Hotspot to the PC (alternatively use USB cable – software load requires significantly more time)
- PC running the IntelliVue Support Tool Mark2
- Internet Connection to the Philips Software License Server (required for Biomed license key)

## Repair and Disassembly of CL NBP Pod, CL SpO2 Pod, CL Transmitter, and CL Charging Station

### NOTE

Only the battery can be replaced for the CL NBP Pod, CL SpO2 Pod and CL Transmitter. Any other defects cannot be repaired and the device needs to be exchanged. This requires the software to be upgraded to the appropriate version used at the site and the software license to be transferred to the exchange device.

In case the main board of the CL Charging Station needs to be exchanged, the software needs to be upgraded to the appropriate version used at the site and the software license needs to be transferred to the new main board. See “Software License Transfer” on page 95 for details.

## Tools Required

- Torx screwdriver size 10
- ESD mat and wrist strap
- Disassembly tool (shipped with battery)
- thin-bladed screwdriver
- Charging Station or Transmitter Base Station (for CL NBP Pod, CL SpO2 Pod and CL Transmitter)
- USB Cable (to connect PC to Charging Station)
- Network cable and PoE power supply to connect the CL Transmitter via CL Transmitter Base Station to the PC (alternatively use USB cable – software load requires significantly more time)
- PC running the IntelliVue Support Tool Mark2
- Internet Connection to the Philips Software License Server (required for Biomed license key)

## NBP Pod, SpO2 Pod and Transmitter Disassembly

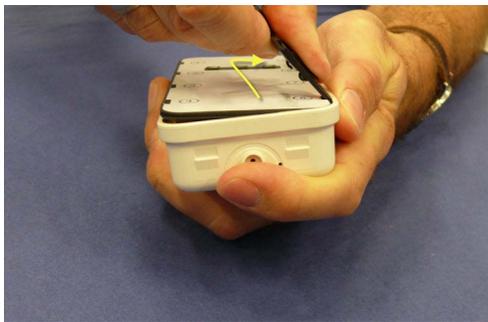
### Exchanging the NBP Pod Battery

- 1 Stick the disassembly label on to the front plate of the NBP Pod.



## 5 Repair and Disassembly

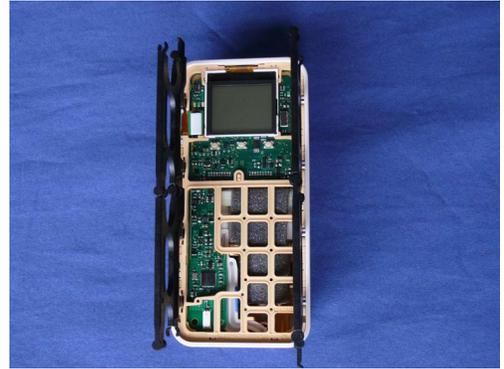
- 2 Release the snap locks of the front plate in the order indicated on the label using the disassembly tool.



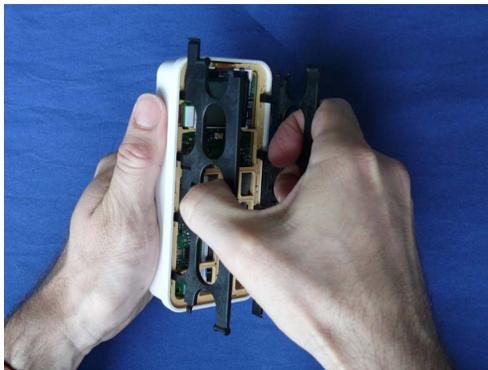
- 3 Combine the parts of the disassembly tool as shown below to form two disassembly tools.



- 4 Insert the disassembly tools into the slots in the NBP Pod cage, one disassembly tool on each side. Make sure to insert the tools at a 90° angle and push until they snap into place.



- 5 Pull straight out to remove the inside of the NBP Pod from the rear housing.



- 6 If the tool remains connected to the NBP Pod cage after the removal procedure, flip the disassembly tool to the side as shown below and remove it.

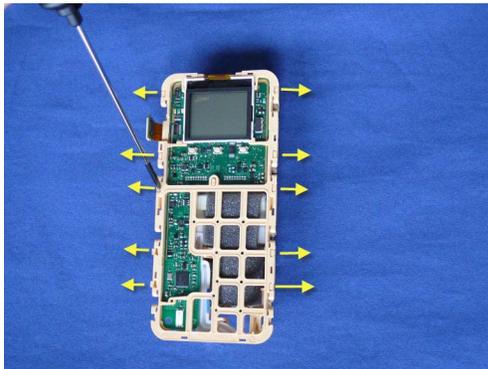


## 5 Repair and Disassembly

- 7 Disconnect the battery connector.



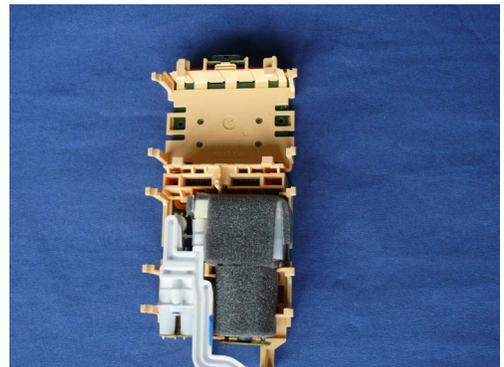
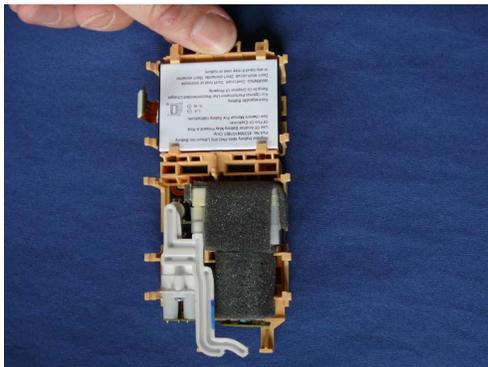
- 8 Release the ten snap locks of the plastic cage with a thin bladed screwdriver.



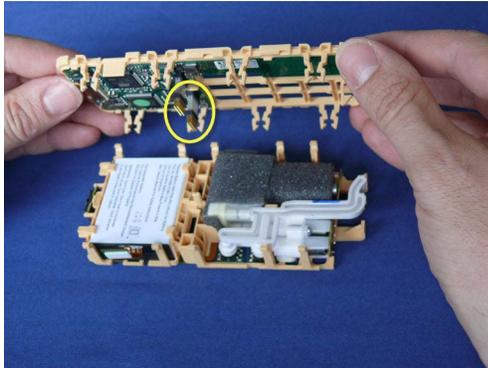
- 9 Lift off the board and the top of the plastic cage, squeezing it in the middle.



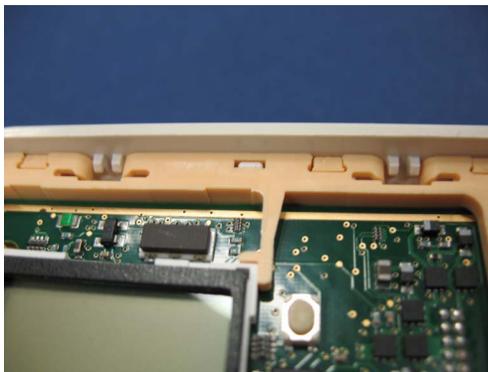
- 10 Remove the battery by bending the top latch of the cage outwards.



- 11 Insert the new battery and reassemble the NBP Pod by performing the above steps in reverse order, paying attention to the following special reassembly instructions:
  - Make sure to watch for the protruding connectors in the middle of the device. The boards need to be pressed together here.



- Make sure the inside of the NBP Pod is correctly inserted into the rear housing. Press it in at the top first (where the pins in the housing are located), then at the bottom. Push the cage all the way into the housing.



### NOTE

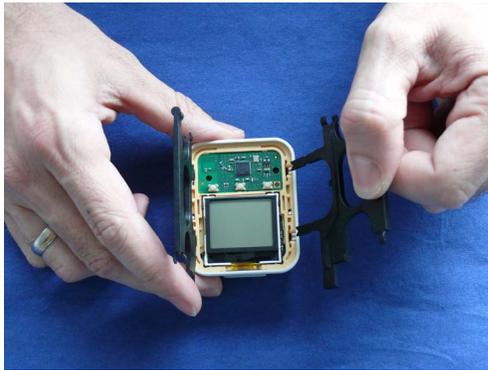
Always use the new front plate that is shipped with the battery when reassembling. Make sure to remove the red protection cover first.



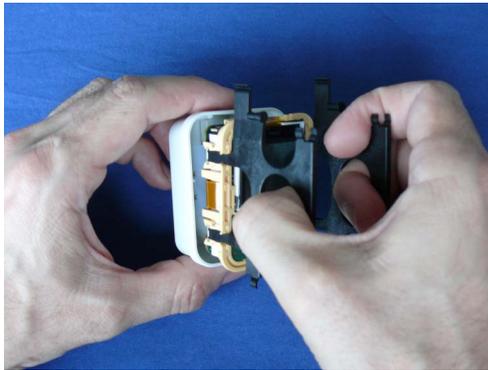
- When reinserting the front plate, snap it in at one side completely before snapping it in at the other.

### Exchanging the SpO<sub>2</sub> Pod Battery

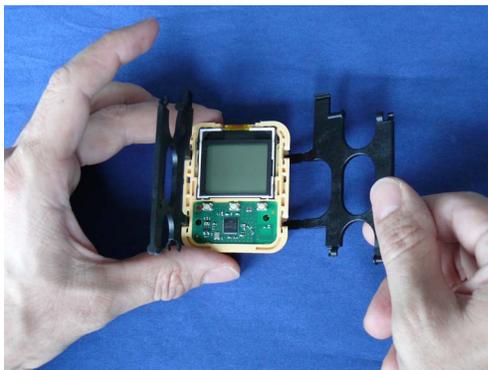
- 1 Stick the disassembly label on to the front plate of the SpO<sub>2</sub> Pod. Refer to the section “Exchanging the NBP Pod Battery” on page 97 for details.
- 2 Release the snap locks in the order indicated on the label. Refer to the section “Exchanging the NBP Pod Battery” on page 97 for details.
- 3 Insert the disassembly tool into the slots in the SpO<sub>2</sub> Pod cage. Make sure to insert it at a 90° angle.



- 4 Remove the inside of the SpO<sub>2</sub> Pod from the rear housing.



- 5 Flip the disassembly tool to the side as shown below and remove it.

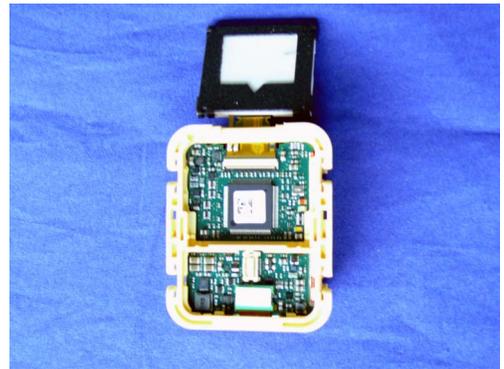
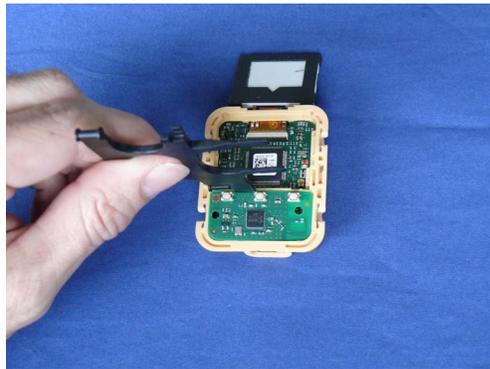
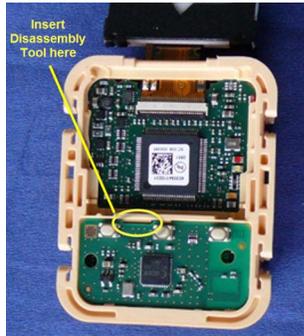


- 6 Flip the display to the back, leaving its connector connected.

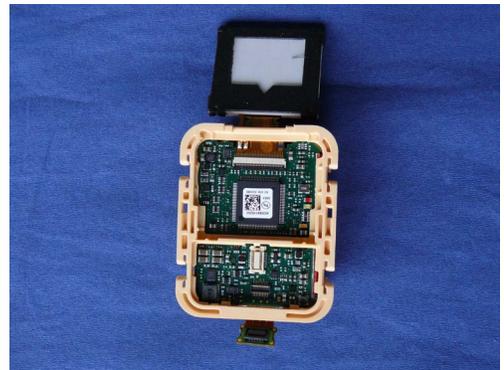
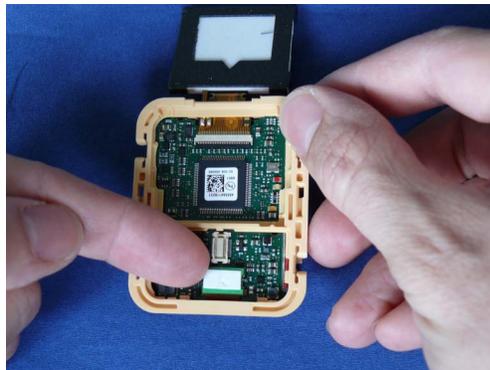


## 5 Repair and Disassembly

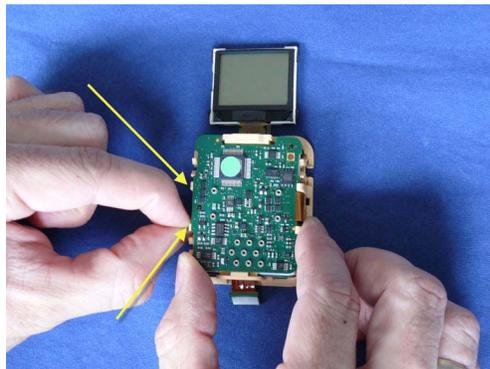
- 7 Remove the Short Range Radio/HIF board with the disassembly tool. (Display must be flipped to the back)



- 8 Disconnect the battery connector and push it out underneath the edge of the plastic cage.



- 9 Turn the SpO2 Pod around and then flip the board to the side. To do this, push the board upwards first, then pull the two latches on the left side.

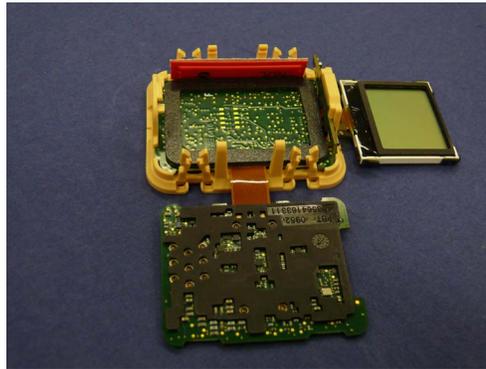
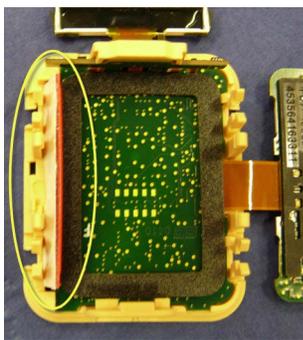
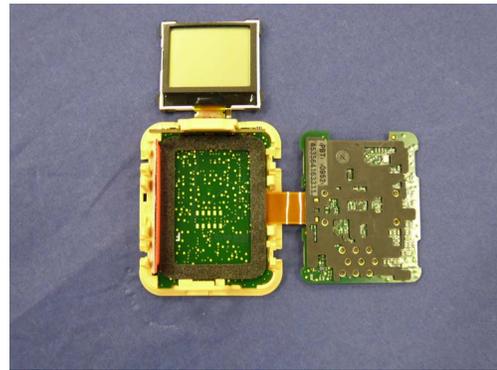
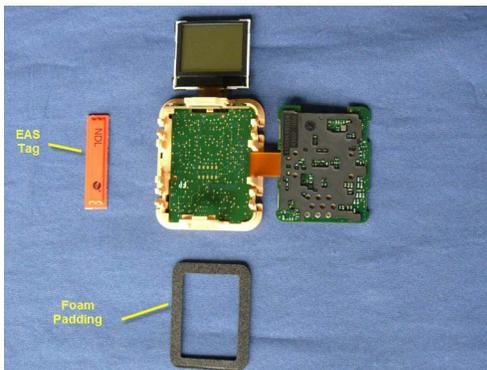


- 10 Lift the battery up at the top and remove the battery.



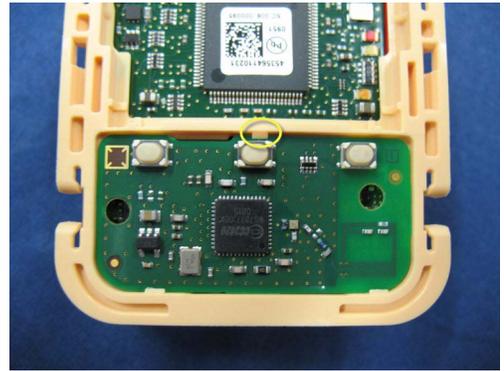
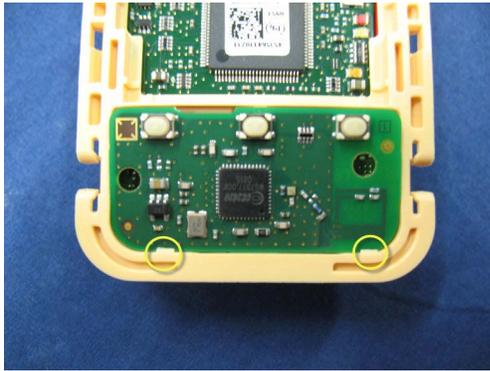
- 11 Insert the new battery and reassemble the SpO2 Pod by performing the above steps in reverse order, paying attention to the following special reassembly instructions:

- Make sure that the foam padding and EAS Tag are in their correct position. The orange side of the EAS Tag must face towards the battery.

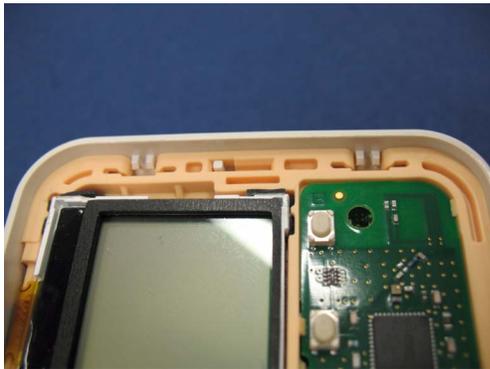
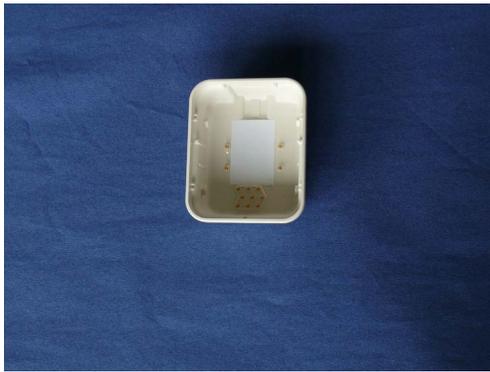


## 5 Repair and Disassembly

- When reinserting the Short Range Radio/HIF board, insert it under the bottom latches first and then the top.



- Make sure the inside of the SpO<sub>2</sub> Pod is correctly inserted into the housing: Lift up the display and press in the middle of the edges of the plastic cage. Do not apply pressure to the SRR board. Make sure to always lift the display, as applying pressure to it could break the display. Push the cage all the way into the housing.



When inserting the front plate, snap in at one side first. Then at the other.

**NOTE**

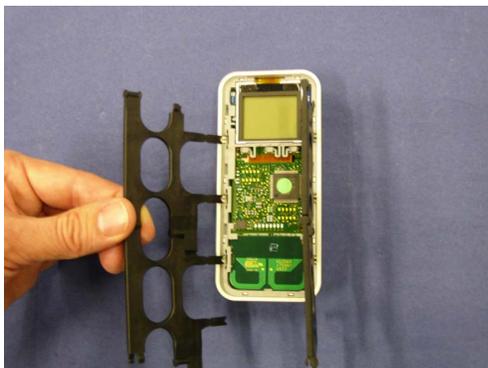
Always use the new front plate that is shipped with the battery. Make sure to remove the red protection cover first.

**Exchanging the Transmitter Battery**

- 1 Stick the disassembly label on to the front plate of the transmitter. Refer to the section “Exchanging the NBP Pod Battery” on page 97 for details.
- 2 Release the snap locks in the order indicated on the label. Refer to the section “Exchanging the NBP Pod Battery” on page 97 for details.
- 3 Combine the parts of the disassembly tool as shown below to form two disassembly tools.



- 4 Insert the disassembly tools into the slots in the transmitter cage as shown below, one disassembly tool on each side. Make sure to insert the tools at a 90° angle and push until they snap into place.



## 5 Repair and Disassembly

- 5 Pull straight out to remove the inside of the transmitter from the rear housing.



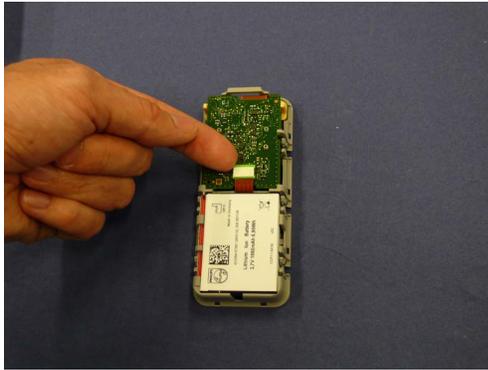
- 6 If the tool remains connected to the transmitter cage after the removal procedure, flip the disassembly tool to the side as shown below and remove it.



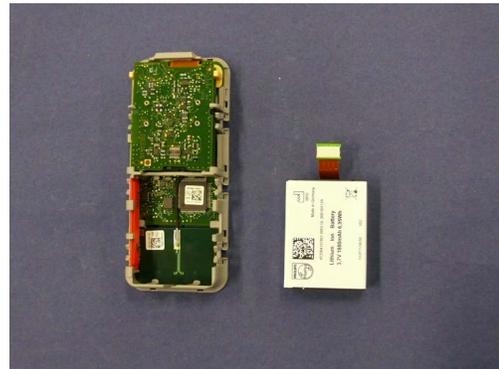
- 7 Flip over the transmitter so the battery is facing upwards.



- 8 Disconnect the battery connector.



- 9 Remove the battery as shown below.



- 10 Insert the new battery and reassemble the transmitter by performing the above steps in reverse order, paying attention to the following special reassembly instructions:

## 5 Repair and Disassembly

- Make sure the inside of the transmitter is correctly inserted into the rear housing. Press it in at the top first (where the pins in the housing are located), then at the bottom. Push the cage all the way into the housing.



### NOTE

Always use the new front plate that is shipped with the battery when reassembling. Make sure to remove the red protection cover first.



- When reinserting the front plate, snap it in at one side completely before snapping it in at the other.