

12 Disassembly and reassembly

12.1 Disassembly guidelines

Field repair of the patient monitor is limited to replacing Field Replaceable Units (FRUs). See chapter 13. [Service parts](#) for a detailed list of available FRUs. Attempting a field repair on a printed circuit board, or a factory sealed component or assembly could jeopardize the safe and effective operation of the monitor.

NOTE: Only a qualified service technician should perform field replacement procedures.

NOTE: Perform the checkout procedure described in chapter 10. [Maintenance and checkout](#) always after doing any disassembly of the patient monitor.

12.1.1 ESD precautions

All external connectors of the patient monitor are protected against ESD damage. However during service of the patient monitor, exposed components and assemblies inside the patient monitor are susceptible to ESD damage. Human hands, non-ESD protected work stations or improperly grounded test equipment can cause ESD damage. The following guidelines do not fully guarantee static-free workstation, but can greatly reduce the potential for failure of any electronic assemblies being serviced:

- Discharge any static charge you may have built up before handling semiconductors or assemblies containing semiconductors.
- A grounded, antistatic wristband or heel strap should be worn at all times while handling or repairing assemblies containing semiconductors.
- Use properly grounded test equipment.
- Use a static-free work surface while handling or working on assemblies containing semiconductors.
- Semiconductors and electronic assemblies should be stored only in antistatic bags or boxes.
- Handle all PCB assemblies by their edges.
- Do not remove semiconductors or assemblies containing semiconductors from antistatic containers until absolutely necessary.
- Do not slide semiconductors or electrical/electronic assemblies across any surface.
- Do not touch semiconductor leads unless absolutely necessary.
- Do not flex or twist a circuit board.

WARNING Pins of connectors identified with the ESD warning symbol should not be touched. Connections should not be made to these connectors unless electrostatic discharge (ESD) precautions are used.

12.1.2 Reassembly precautions

Pay attention to the following precautions when reassembling the monitor:

- Note the positions of any wires, cables or connectors. Mark them, if necessary, to ensure their correct reassembly.
- Save and set aside all hardware for reassembly

- GE recommends using the new fasteners (screws, washers, etc.) in the FRU kits rather than reusing the old fasteners. Some fasteners are not intended to be re-used more than three times.
- Use only new screws when attaching parts into light metal parts. Before fastening a screw, turn it counterclockwise until it drops into an existing thread pattern.
- The maximum torque values for use with each screw and nut in reassembly are shown in brackets in the end of each disassembly step.
- When attaching self-tapping screws to light metal parts without existing threads (new light metal FRU parts), you should use a higher torque than is recommended for reassembled parts, but still not more than 1.6 Nm.

NOTE: It is not required to use a torque wrench or torque screwdriver when reassembling the monitor using the recommended standard hand tools. Ensure visually that the screws are properly attached. Avoid overtightening the screws as this may damage the existing thread patterns. However, when using battery-operated tool, ensure that it is equipped with torque limiter and the torque is properly adjusted.

12.1.3 Required tools



WARNING Due to possible high voltage present, use an insulated screwdriver at all times.

12.1.4 Before disassembly

WARNING PATIENT MONITORING INTERRUPTION — Make sure a patient is not being monitored while servicing the equipment.

WARNING DISCONNECTION FROM MAINS - When disconnecting the device from the power line, remove the plug from the wall outlet first. Then you may disconnect the power cord from the device. If you do not observe this sequence, there is a risk of coming into contact with line voltage by inserting metal objects, such as the pins of leadwires, into the sockets of the power cord by mistake.

WARNING SAFETY GROUND - Remove power cord from the mains source by grasping the plug. Do not pull on the cable.

WARNING **ELECTRIC SHOCK - Always unplug the grounded cables when not in use. Leaving them connected could result in an electric shock from the ground contact in the other end.**

1. Turn the monitor off from the **On/standby** button.
2. Disconnect the monitor power cord, first from the wall outlet and then from the monitor.
3. Remove the battery. Unlock the battery cover by turning the battery cover lock 90° clockwise and pull the battery out.
4. Disconnect all external cables connected to the monitor.
5. Detach all parameter modules from the Module Frame.
6. Detach the monitor from the mount if installed.

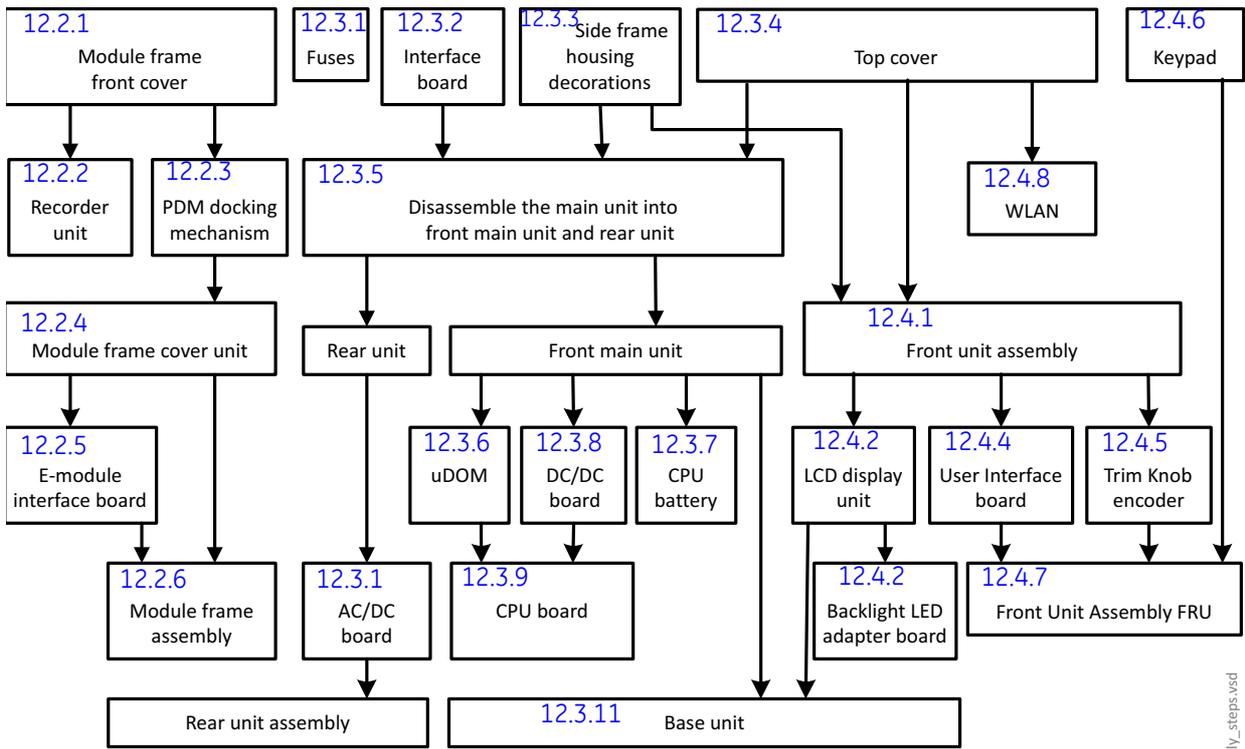
NOTE: If you disconnect the monitor from the AC power source and remove the battery prior to turning the monitor off, the monitor will start alarming about power loss situation. Silence this alarm by pressing the **Silence alarm** button.

When re-installing the battery, make sure that the charge level indicator LEDs are facing upwards and push the battery in all the way. Close the battery cover lock by turning it 90° counter-clockwise.

Disassembly workflow

Use this workflow diagram to find the simplest way to disassemble the required parts of the monitor. Numbers in the diagram refer to the sections in this chapter.

Follow the arrows from the top down to the required part and disassemble the monitor by following the steps in between.



650_disassembly_steps.vsd

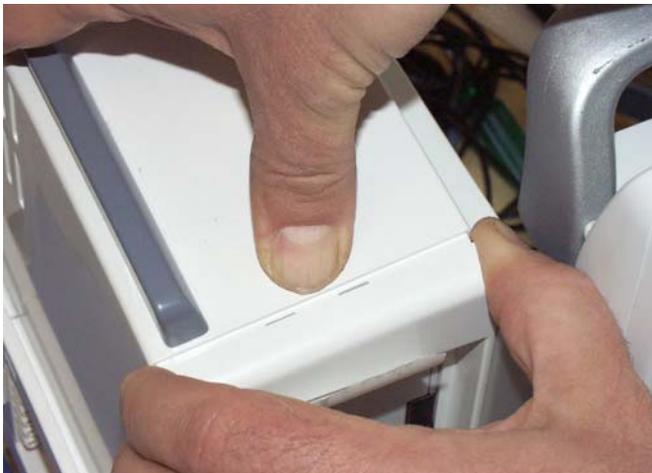
12.2 Module frame disassembly

12.2.1 Detaching the module frame front cover



A) Monitors with the E-module option

1. Press down the Module Frame release knob and turn the Module Frame to a 90° angle, so that the Module Frame faces to the front.



2. Release the two snaps on the top of the cover unit:
 - press (strongly) with your thumb on the middle of the Module Frame cover unit's front edge.
 - pull out the front cover a little with the other hand.



3. Release the four snaps in the inner side of the E-module slot by pressing them (inwards) with your finger. Release first the topmost two snaps and then the lowest two snaps.
4. Detach the cover unit.



B) Monitors without the E-module option

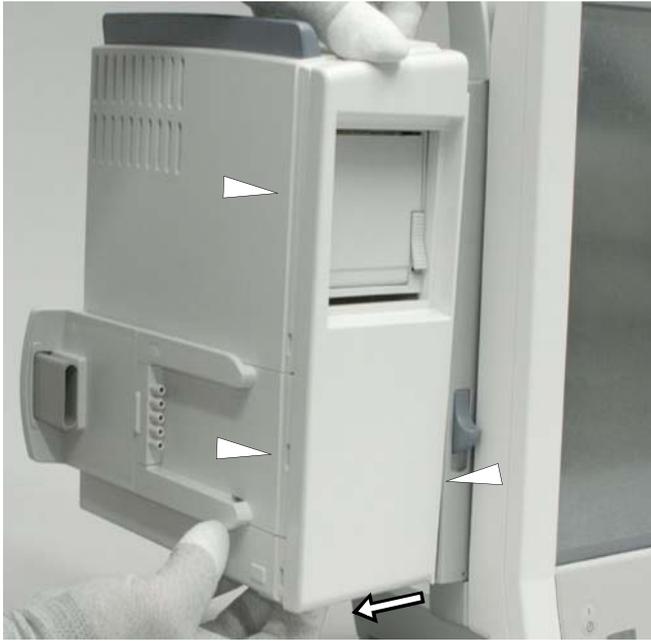
1. Press down the Module Frame release knob and turn the Module Frame to a 90° angle, so that the Module Frame faces to the front.



2. Release the two snaps on the top of the cover unit:
 - press (strongly) with your thumb on the middle of the Module Frame cover unit's front edge.
 - pull out the front cover a little with the other hand.



3. Press with finger from the top of the PDM docking rail.



4. Shift the front cover slightly down and to the left by pulling the hole in the bottom plate to release the two snaps on left side and one on the right side of the front cover.
5. Detach the cover unit.

12.2.2 Detaching the Recorder Unit



1. Detach the Module Frame front cover, see section [12.2.1](#).
2. Open the recorder door and remove the paper roll if installed.
3. Unscrew the two crosshead screws inside the recorder. Note that the screws cannot be removed. Torque [1.2 Nm]

NOTE: Be careful not to damage the Hinge Flex Board on the right of the recorder.

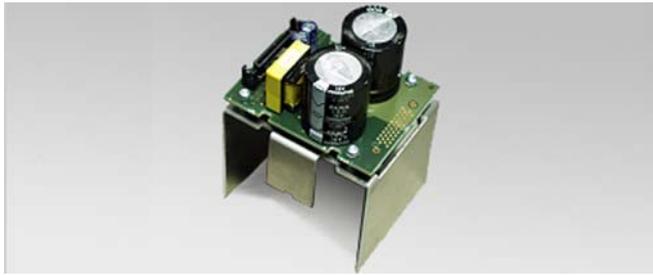


4. Pull the recorder carefully out of the Module Frame.

NOTE: If you find it difficult to detach you also can detach the recorder by removing the Modules Frame cover unit, see section [12.2.4](#).



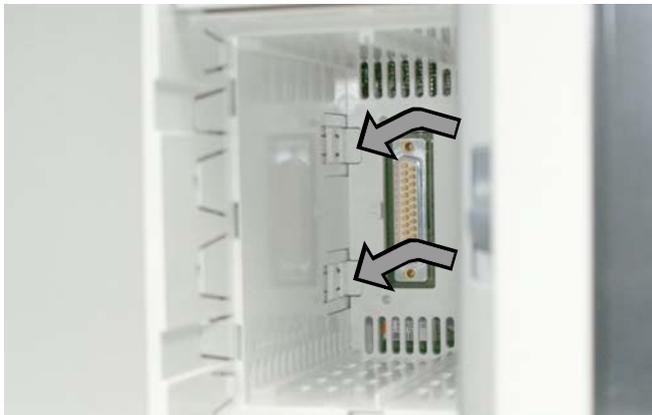
5. Release the snaps in the recorder EMC cover with a flat blade screwdriver while simultaneously pulling the bottom plate of the EMC cover.
6. Pull the EMC cover with the recorder board out of the Module Frame.



When reassembling, the recorder unit can be installed into the Module Frame as a whole.

NOTE: Ensure that the recorder unit is firmly installed to the recorder connector and both snaps in the EMC cover lock properly.

12.2.3 Detaching the PDM docking mechanism



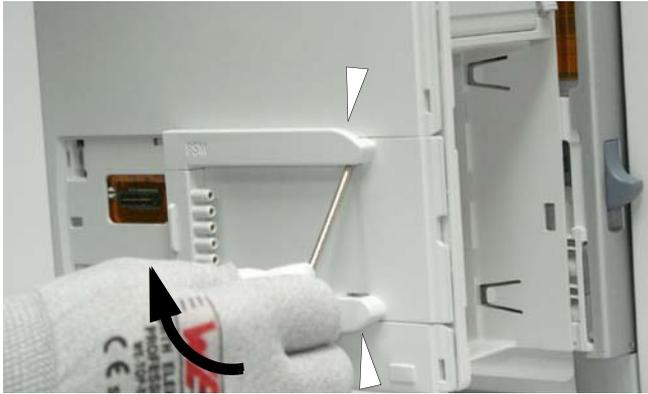
1. Detach the Module Frame front cover as instructed in section [12.2.1](#).
2. Release the two latches on the inner left side of the Module Frame by first pressing the snaps and then sliding the latches towards you.



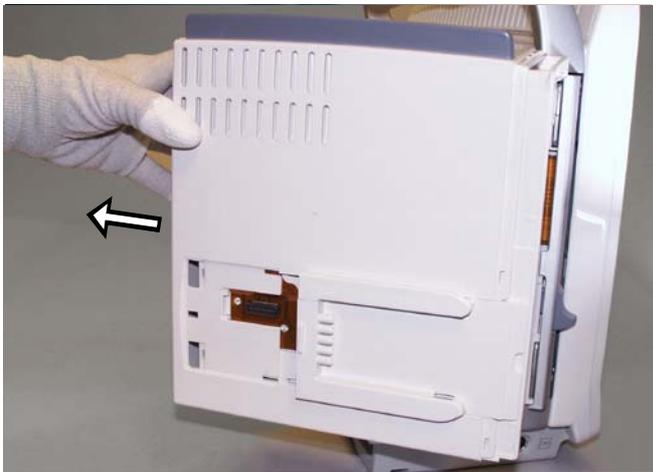
3. Turn the PDM Docking Mechanism to a 30° angle to detach it from the Module frame flex board connector.

- Reassemble in reverse order.

12.2.4 Detaching the Module Frame cover unit



1. Detach the Module Frame front cover, see section [12.2.1](#).
2. Detach the PDM Docking Mechanism if installed, see section [12.2.3](#).
3. Release the two snaps inside the holes of the frame cover using a flat blade screwdriver.



4. Pull the cover backwards to detach it.

- Reassemble in reverse order.

12.2.5 Detaching the E-module Interface Board

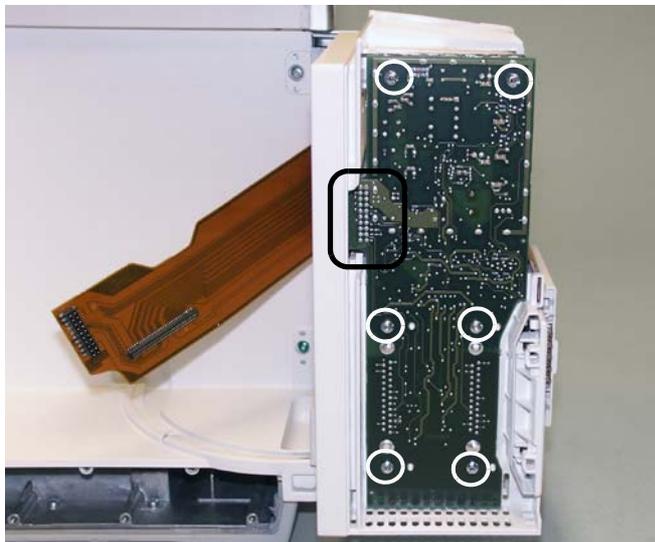


1. Disassemble first:
 - [12.2.1](#) the Module Frame front cover,
 - [12.2.3](#) the PDM Docking Mechanism if installed.
 - [12.2.4](#) the Module frame Cover Unit
2. Detach the Module Frame back plate. Release the snaps with a flat blade screwdriver and detach the plate.



3. Disconnect the Hinge Flex Board from the Module Frame connectors.

NOTE: Handle the flex board with care when disconnected. Do not twist it or bend it down.



4. Remove the six T10 screws mounting the E-module Interface Board. Torque [0.6 Nm]
NOTE: When reassembling, do not use excessive force to avoid damaging the plastic threads.
5. Detach the board from the Module Frame unit. Pay attention to the connector on the left side of the board.

- Reassemble in reverse order.

12.2.6 Detaching the Module Frame assembly



1. Detach the Module Frame back plate and the Hinge Flex Board from the Module Frame connectors

See the steps 2 and 3 in section [12.2.5](#).

NOTE: Handle the flex board with care when disconnected. Do not twist it or bend it down.

2. Remove the T10 screw. Torque [0.6 Nm]



3. Release the snap behind the flex cable. Lift the flap with a flat blade screwdriver.
4. Pull the Module frame Assembly to detach it from the Module Frame wall.

NOTE: When reassembling, check that the connector is intact.

- Reassemble in reverse order.

12.3 Main unit disassembly

12.3.1 Replacing the mains fuses



The mains fuses are situated on the back of the monitor, below the mains connector.

1. Lever the screwdriver against the cable holder to release the fuse holder and pull it out of the frame.



2. Pull the fuses out of the fuse holder and insert new ones.
3. Push the fuse holder all the way in until it snaps to its place.

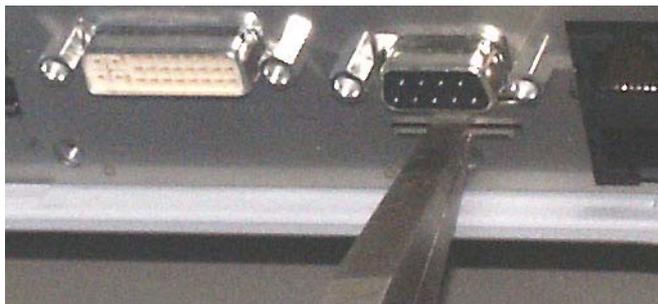
12.3.2 Detaching the Interface Board



1. Detach the Interface Board cover plate from the frame by releasing the snaps with a flat blade screwdriver.



2. Remove the six T10 screws that hold the Interface Board to the main unit.
[Torque 0.8 Nm]
NOTE: At first reassemble the screws in the middle.



3. Pull the Interface Board out of the main unit with pliers.
NOTE! Pull with the pliers from the plate on the interface board panel.

- Reassemble in reverse order.

12.3.3 Detaching the Frame Side Housing Decorations



NOTE: Be careful not to damage the decoration while disassembling.

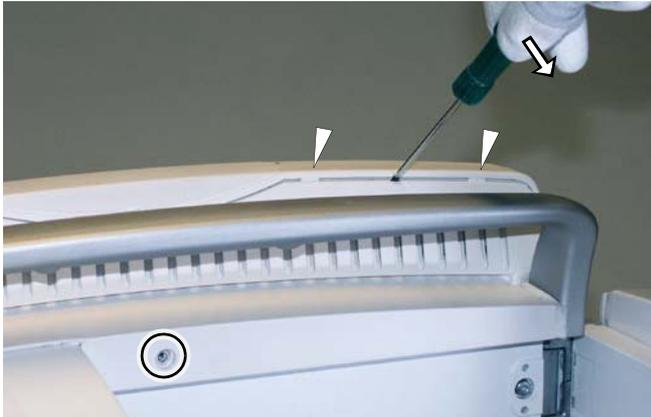
1. To detach the Right Frame Housing Decoration:
 - Release the snaps at the bottom part of the decoration with a flat blade screwdriver.
 - Lift the decoration a little more to release the rest of the snaps and detach the decoration.



2. To detach the Left Frame Housing Decoration:
 - Release the snap at the bottom part of the decoration by pressing it down with a flat blade screwdriver.
 - Lift the decoration a little more to unlock the rest of the snaps and detach the decoration.

- Reassemble in reverse order.

12.3.4 Detaching the Top Cover



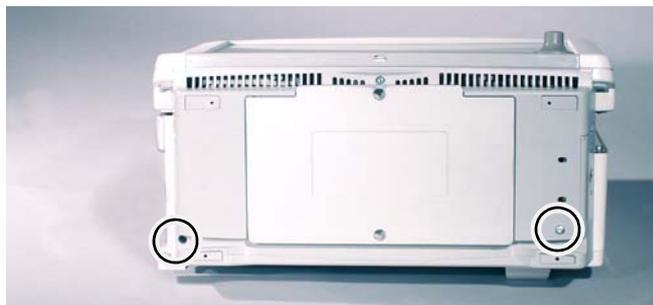
1. Press down the Module Frame release knob and turn the Module Frame to a 90° angle, so that the Module Frame slot faces to the front.
2. Remove the T10 screw located behind the Module Frame. [Torque 0.8 Nm]
3. Detach the Top Cover by releasing the four snaps with a flat blade screwdriver.



Reassemble in reverse order.

Grease the rubber gasket of Top Cover to reassemble it smoothly.

12.3.5 Disassembling the main unit into Rear and Front units



1. Disassemble first:
 - [12.3.2](#) the Interface Board
 - [12.3.3](#) the Housing Decorations
 - [12.3.4](#) the Top Cover
2. Set the monitor lying on its back and remove the two screws from the bottom. [Torque 0.8 m]
 - NOTE: Be careful not to break the PDM docking mechanism. Consider detaching it according to section [12.2.3](#).



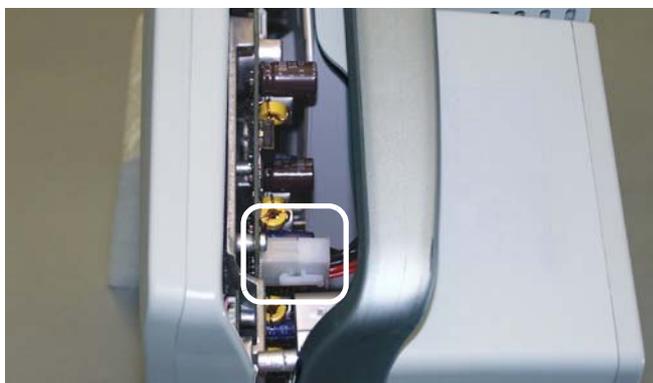
3. Set the rear side of the Main Unit facing you.
4. Remove the three T10 screws from the left side. [Torque 0.8 Nm]
5. Remove the two T10 screws from the right side next to the Module Frame hinges. [Torque 0.8 Nm].



6. Detach the Module Frame back plate and disconnect the Hinge Flex Board from the Module Frame connectors, see section [12.2.5](#).

NOTE: Handle the Hinge Flex Board with care when disconnected. Do not twist it or bend it down.

7. Carefully lead the Hinge Flex Board through the opening, and turn the Module Frame against the main unit.



8. Pull the Front Unit away from the rear unit just enough so that you can detach the AC/DC cable from the DC/DC Board.

NOTE: When reassembling, check that the cable is connected properly.

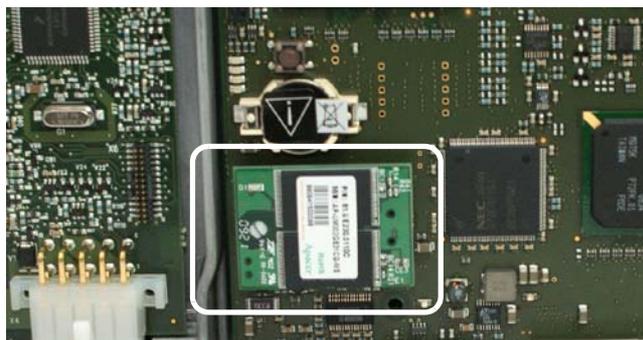


9. Detach the rear unit from the Front Unit.
Reassemble in reverse order.
NOTE: The Front Unit is unstable when detached
from the Rear Unit and may easily tilt forward.



Shock hazard. Dangerous voltage.

12.3.6 Detaching the uDOM



1. Disassemble the frame into Front Unit and Rear Unit, see section [12.3.5](#).
2. Detach the uDOM from the CPU connector.

NOTE: uDOM, disk on module is the permanent memory of the patient monitor. The software, licenses and clinical and service configurations are stored to the uDOM.

uDOM replacement:

The uDOM FRU includes software, but no licenses. Additionally, monitor serial number and all clinical and platform settings are set into factory defaults.

Contact GE Service if there is need to replace uDOM. Some of the configuration steps described below can be performed only by GE Service.

After replacing uDOM, perform the following tasks:

1. Restart the monitor. The new software in the uDOM will install automatically during the first restart. This takes several minutes.
2. Perform the following configurations:
 - a) Restore the backup copy of the saved platform and clinical settings back to the monitor (section [7.16](#))
 - b) Enter the original Host Serial Number printed to the device plate (section [7.12](#)).
 - c) Reload licenses from a license file, or enter them manually (section [7.17](#))
3. Perform a complete checkout (section [10](#)).

12.3.7 Replacing the CPU timekeeper battery



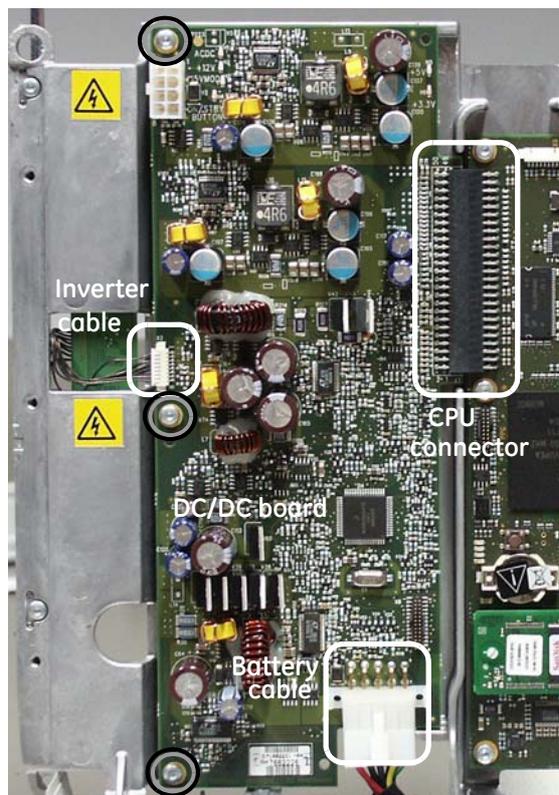
1. Detach the Rear Unit from the Front Unit, see section [12.3.5](#).
2. Detach the CPU timekeeper battery from the CPU board with a flat blade screwdriver.

- Reassemble in reverse order.

NOTE: Dispose of the battery according to local, state or country laws.



12.3.8 Detaching the DC/DC board



1. Detach first:
 - the Rear Unit from the Front Unit, see section [12.3.5](#).
2. Disconnect the Battery cable and the Inverter cable from the DC/DC Board.
3. Remove the three T10 screws that hold the DC/DC Board to the mid-frame.
4. Disconnect the DC/DC Board from the CPU board connector.
5. Detach the DC/DC Board.

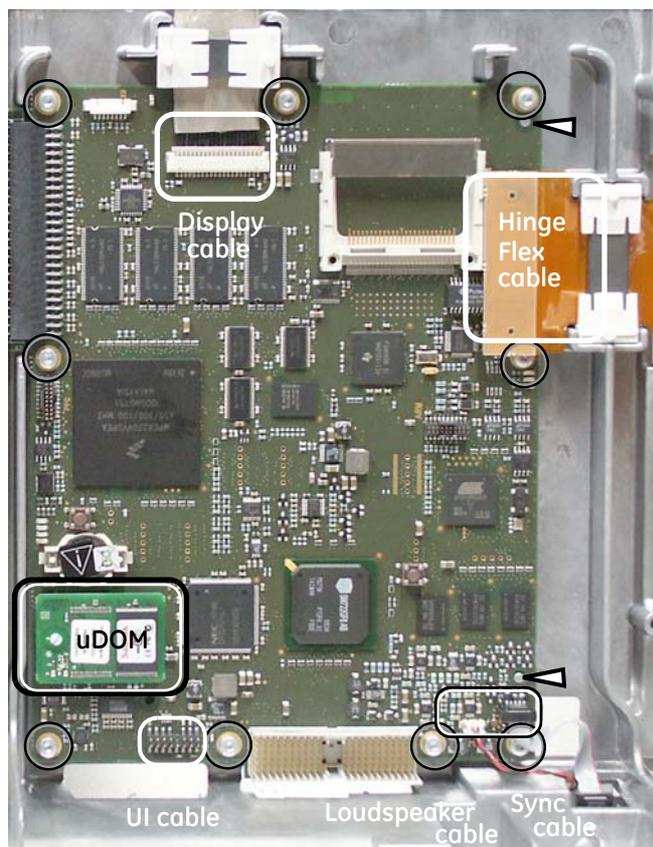
When reassembling:

- Assemble the CPU Board first if detached.
- Connect the Battery cable.
- Slide the DC/DC board to connect the CPU connector.
- NOTE: Do not bend the DC/DC board when reassembling.
- Connect the Inverter cable and the three T10 screws. [Torque 0.8 Nm].

Reassemble the Rear Unit and the Front Unit in reverse order.

NOTE: After replacing the DC/DC Board, during the first start-up, the patient monitor will automatically check the UIC software version in the replaced DC/DC board and update the software if necessary. Wait for 5 minutes to see if the software update is initiated and do not interrupt the process.

12.3.9 Detaching the CPU Board



1. Disassemble the Frame into Front Unit and Rear Unit, see section 12.3.5.
2. Detach the DC/DC Board, see section 12.3.8.
3. Detach the WLAN card from the CPU if installed.

NOTE: Be careful not to damage the antenna cables.

4. Detach the uDOM.

IMPORTANT: Detach the original uDOM and attach it to the new CPU Board.

The software, licenses and clinical and service configurations are stored in the uDOM.

5. Detach the Hinge Flex Board and the Display Cable from the CPU Board.

NOTE: Be careful not to damage the Hinge Flex Board.

6. Detach the Sync cable, the Loudspeaker cable, and the U/I cable from the CPU Board.
7. Remove the nine T10 screws that hold the CPU Board to the mid-frame.
8. Detach the CPU Board. [Torque 0.8 Nm]

Reassemble in reverse order.

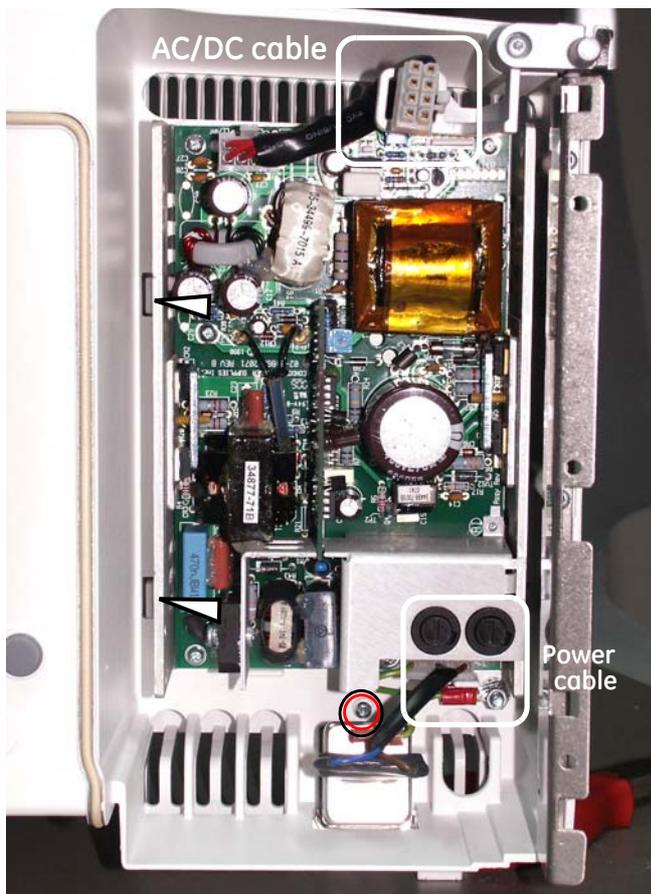
- Insert the WLAN card into the card slot.
- Place the antenna cables carefully inside the cover.

NOTE: Center align the user interface cable carefully to the connector in the CPU Board and/or User Interface Board.

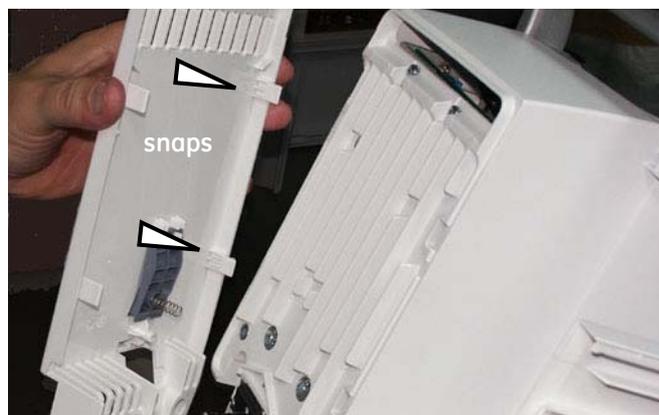
◀ Note the alignment pins to set the CPU Board in the right place.

NOTE: After replacing the CPU Board, during the first start-up, the patient monitor will automatically check the EMBC software version in the replaced CPU Board and update the software if necessary. Wait for 5 minutes to see if the software update is initiated and do not interrupt the process.

12.3.10 Detaching the AC/DC board and rear unit assembly



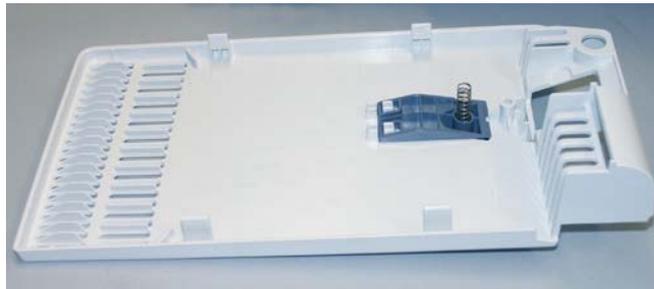
1. Detach the Rear Unit from the Front Unit, see section [12.3.5](#).
2. Detach the AC/DC cable from the cable holder.
3. Detach the power cable from the AC/DC Board.
4. Remove the T10 screw that attaches the housing back cover to the Rear Unit Assembly. [Torque 0.8 Nm]
5.  Release the two snaps that are located on the left side next to AC/DC board.



6. Detach the housing back cover by turning it and simultaneously releasing the two other snaps.
- NOTE: The loose cable clamp and spring may fall when detaching the back cover.



7. Remove the four T10 screws mounting the AC/DC board to the back plate.
[Torque 1.6 Nm]
Hold the AC/DC board to prevent it from falling.



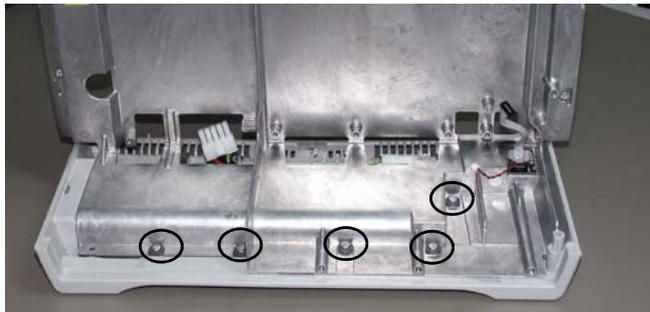
Reassemble in reverse order.

- Connect the cables.
- Attach the screws, [Torque 1.6 Nm] (4+1 pcs)
- Ensure the cable clamp and the spring are in place.
- Insert the left side of the back cover first when connecting.
- Place the AC/DC cable in the cable holder.

12.3.11 Detaching the Base unit



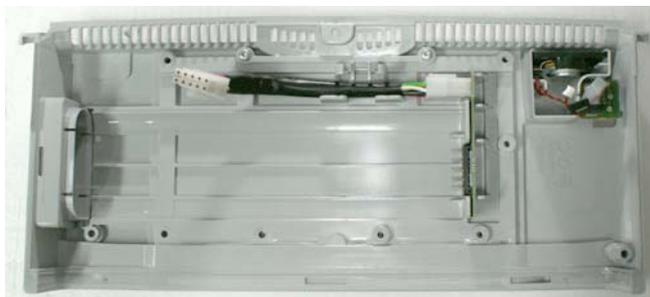
1. Disassemble first:
 - [12.3.2](#) Interface Board
 - [12.3.4](#) Top Cover
 - [12.3.3](#) Side Housing Decorations
 - [12.3.5](#) Rear Unit from the Front Unit
 - [12.4.1](#) Front Unit Assembly
 - [12.4.2](#) LCD Display Unit
2. Disconnect from the CPU board:
 - the Sync cable
 - the Loudspeaker cable
3. Disconnect from the DC/DC Board:
 - the Battery cable



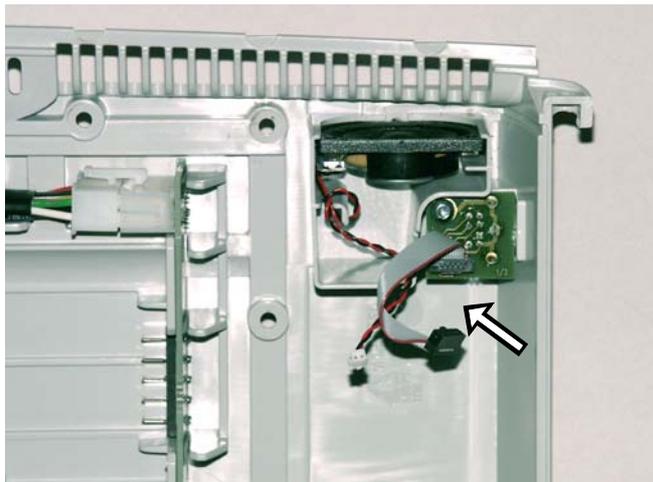
4. Remove the five T10 screws with washer insulators mounting the Base Unit to the mid-frame. [Torque 0.8 Nm]



5. Remove the two T10 screws with washer insulators mounting the Base Unit to the mid-frame. [Torque 0.8 Nm]

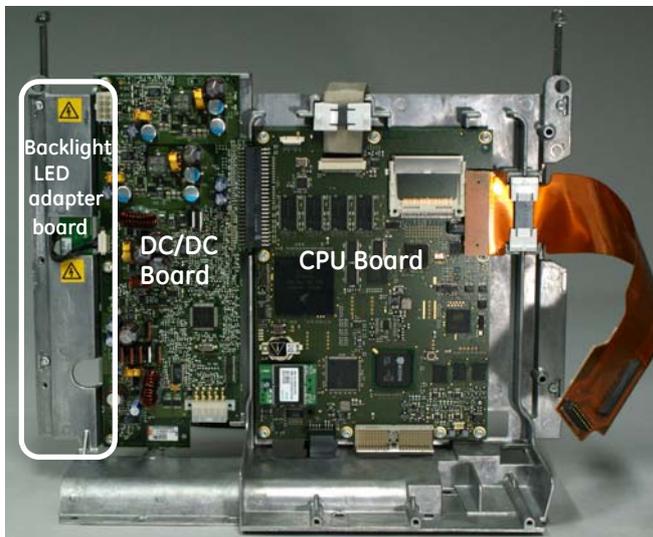


6. Detach the mid-frame from the Base Unit by lifting it up carefully.



Reassemble in reverse order.

NOTE: Pay attention to the cables when reassembling. Check that they go through the right holes in the mid-frame when attaching the Base Unit. Be especially careful to check the loudspeaker cable (see the figure).



7. To replace the mid-frame, detach:

- [12.3.8 DC/DC](#)
- [12.3.9 CPU](#)
- [12.4.3 Backlight LED Adapter Board](#)

- Reassemble in reverse order.

12.4 Front Unit Assembly

12.4.1 Detaching the Front Unit Assembly



1. Detach first:
 - the Side Housing Decorations, [12.3.3](#).
 - the Top Cover, [12.3.4](#).
2. Remove the T10 screw at the bottom of the frame. [Torque 0.6 Nm]



3. Remove the four T10 screws in the top and bottom corners behind the Display Unit. [Torque 0.6 Nm]
4. Release the two snaps, one on each side of the monitor. The snaps are located in the middle behind the Right and Left Housing Decorations.
5. Detach the WLAN card from the CPU if installed.

NOTE: Be careful not to damage the antenna cables.

6. Detach the Front Unit Assembly.



7. Disconnect the U/I cable from the User Interface Board.

- Reassemble in reverse order.

NOTE: Do not leave any dust or dirt between the LCD Display and the plastic display cover, or the picture quality might deteriorate.

NOTE: Center align the user interface cable carefully to the connector in the CPU board and/or User Interface Board.

NOTE: The keypad may be damaged when it is detached from the Front Unit Assembly. It is advised not to reuse the old keypad, but to order a new one and replace it simultaneously with the Front Unit Assembly.

12.4.2 Detaching the LCD Display Unit



1. Detach first the Front Unit Assembly, see section [12.4.1](#).
2. Remove the four T10 screws, two on both sides of the LCD Display and detach the display from the frame. [Torque 0.6 Nm]



3. Detach the LVDS cable from the LCD display.
4. Detach the Backlight Cable from the Backlight LED Adapter Board.



NOTE: To get access to detach the cables, you may have to lift the LCD display as showed in the pictures.

- Reassemble in reverse order.

NOTE: Do not leave any dust or dirt between the LCD Display and the plastic display cover, or the picture quality might deteriorate.

NOTE: Dispose of the display according to local, state or country laws.

12.4.3 Detaching the Backlight LED Adapter Board



1. Detach first:
 - the Side Housing Decorations, "12.3.3".
 - the Top Cover, "12.3.4"
 - the WLAN Card, "12.4.8"
 - Front Unit Assembly, "12.4.1"
 - the LCD Display Unit, "12.4.2"
2. Remove the two screws (T10) and PCB mounting parts holding the Backlight LED Adapter Board to the mid-frame and detach the board.
3. Detach the Inverter Cable from the Backlight LED Adapter Board.

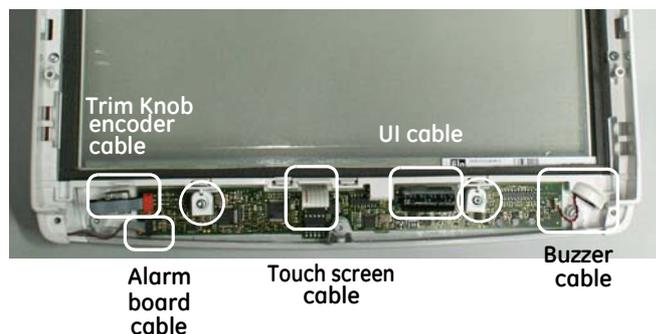
Reassemble in reverse order.

NOTE:  Note the alignment pin to set the Backlight LED adapter board in the right place.

NOTE: The Backlight LED Adapter Board FRU includes the inverter cable. Preferably use the original cable if it seems to be visually undamaged. In case you need to replace the inverter cable, you need to additionally detach the rear unit assembly to get access to the DC/DC board and be able to connect the inverter cable to the DC/DC board.

NOTE. When reassembling ensure that the EMI cushion is in place in the middle of the display unit back.

12.4.4 Replacing the User Interface Board



1. Detach first:
 - the Side Housing Decorations, [12.3.3](#)
 - the Top Cover, [12.3.4](#)
 - the WLAN card, [12.4.8](#)
 - Front Unit Assembly, [12.4.1](#)
2. Detach 2 screws and the PCB mounting parts.
3. Detach cables from User Interface Board:
 - the Alarm Board cable
 - the Trim Knob Encoder cable
 - the Buzzer cable
 - the touchscreen sensor (only in touchscreen models)
4. Detach the User Interface Board.

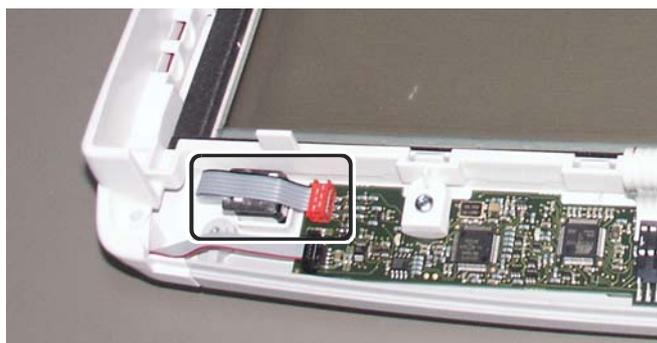
- Reassemble in reverse order.

NOTE: When reassembling align the UI board connector to the keypad connector.

NOTE: The User Interface Board FRU includes the UI cable. Preferably use the original UI cable if it seems to be visually undamaged. In case you need to replace the UI cable, you need to additionally detach the rear unit assembly to get access to the CPU board and be able to connect the inverter cable to the CPU board.

NOTE: After replacing the User Interface Board, during the first start-up, the patient monitor will automatically check the UIC software version in the replaced user interface board and update the software if necessary. Wait for 5 minutes to see if the software update is initiated and do not interrupt the process.

12.4.5 Replacing the Trim Knob and Trim Knob Encoder



To replace the Trim Knob:

1. Pull the Trim Knob off from the front side.
2. Detach the nut and washer from the front side using the 11 mm wrench. [1.6 Nm]
3. Detach the Trim Knob Encoder Cable from the User Interface Board.
4. Detach the Encoder from the back of the Front Unit.

- Reassemble in reverse order.

NOTE: When reassembling, position the encoder as shown in the picture.

12.4.6 Replacing the Keypad



1. Pull the Trim Knob off.
2. Tear the Keypad panel from the Front Unit, starting from the upper left corner.

NOTE: Try to leave as little glue as possible to the front frame cover. If any glue remains clean the surface with water-diluted alcohol.

Assembling the keypad:

- Remove the release liner of the keypad.
- Place the hole at right end of the keypad to the Trim Knob shaft. Then carefully guide the lower edge against the cover edging.



3. Tear the membrane keypad from the Front Unit and detach the keypad connector that connects it to the User Interface Board.

Assembling:

- Clean the glue from the surface.
- Remove the release liner from the membrane keypad.
- Connect the membrane keypad connector first and direct the membrane into place.
- Pat the membrane keypad carefully to stick it to the front cover.
- Assemble the Keypad.

12.4.7 Replacing the Front Unit Assembly FRU



1. Disassemble first:
 - The Side Housing Decorations [12.3.3](#)
 - Top Cover [12.3.4](#)
 - Front Unit Assembly [12.4.1](#)
 - UI board [12.4.4](#)
 - Trim Knob encoder [12.4.5](#)
 - Keypad [12.4.6](#)

2. If WLAN is installed. Detach carefully the WLAN antennas from the Front Unit.

NOTE: Be careful not to bend the antenna boards or damage the antenna cables.



Reassemble in reverse order.

NOTE: When replacing the Front Unit Assembly, always replace the Keypad panel and keypad with new ones, as they may damage when detached.

NOTE: The antennas are attached to the Front Unit with double-sided tape. New tape is included in the Front Unit Assembly FRU. Use this tape when reattaching the antenna boards to the Front Unit.

NOTE: Place the antenna cables carefully as shown in the pictures on [12.4.8](#).

12.4.8 Replacing the WLAN Assembly FRU



1. Disassemble first:
 - Top Cover [12.3.4](#).
2. Attach the WLAN card to the CPU board card slot as shown in the picture.

NOTE: Be careful not to bend the antenna boards or damage the antenna cables.



3. Peel off the paper release liner from the antenna board mounting tape one at a time (see steps 3 and 4 below).

NOTE: Be careful not to peel off the thin adhesive layer, too.



4. Make sure the contact area for the antenna board adhesive in the Front Unit Assembly is clean and free of grease.

Attach the antenna board with the longer black antenna cable to left side of the Front Unit Assembly as shown in the picture. Make sure the antenna board is firmly attached to the Front Unit Assembly. Align the loop in the antenna cable carefully between the display and the aluminum Mid-Frame as shown in the picture. The orientation of the antenna cable is important to ensure reliable wireless communication.



5. Make sure the contact area for the antenna board adhesive in the Front Unit Assembly is clean and free of grease.

Attach the antenna board with the shorter white antenna cable to right side of the Front Unit Assembly as shown in the picture. Make sure the antenna board is firmly attached to the Front Unit Assembly. Align the loop in the antenna cable carefully between the display and the aluminum Mid-Frame as shown in the picture. The orientation of the antenna cable is important to ensure reliable wireless communication.



NOTE: Place the antenna cables carefully as shown in the pictures.

Reassemble the Top Cover.

Grease the rubber gasket of Top Cover to reassemble it smoothly.