

March 11th, 2022

Dynabook Laptop Components Classified as Requiring Selective Treatment

Dynabook would like to communicate the method of identifying and removing components contained in Dynabook notebook products, including but not limited to the **Portege X50-G** model, that requires selective treatment based on the European WEEE Directive, Directive 2012/19/EU of the European Parliament and of the Council on waste electrical and electronic equipment (WEEE).

All of the instructions provided within this letter can be reviewed in greater detail within the **Portege X50-G** Series Maintenance Manual.

Tools Required

In order to remove internal components of the **Portege X50-G** some tools from the list below may be required located in **Chapter 4 Replacement Procedures** of the **Dynabook Maintenance Manual**

For your safety and the safety of the people around you, it is important that you use Electrostatic Discharge (ESD) equipment. Correctly utilizing of the equipment increases the percentage of successful repairs and saves on the cost of damaged or destroyed parts. The following equipment is required for disassembly and assembly.

- One Philips screwdriver with type 0 bit (for S-THIN HEAD screws)
- One Philips screwdriver with type 1 bit (for screws other than above)
- One flat-blade screwdriver (for removing the CPU)
- Tweezers (for lifting screws)
- ESD mats (lay on work table or floor)
- An ESD wrist strap and heel grounder
- Anti-static carpet or flooring
- Air-ionizers in highly static sensitive areas
- Antenna coaxial cable disconnecter
- Special syringe (for applying grease)

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1. Removing the Lithium Ion Battery (Main Battery, No coin cell battery)

Please refer to the information below for instructions regarding the identification and removal of the lithium ion battery. Further maintenance instructions can be found in section 4.11 of the

Portege X50-G Maintenance Manual. Some tools are required in order to remove this component. Once removed, these components should be recycled as per local requirements.

To remove the battery, the base assembly must be removed first:

4.11.1 Removing the Cover Assembly and Base Assembly

To remove the Base Assembly, follow the steps below and refer to [Figure 4- 4](#) to [Figure 4-5](#).

1. Close the display panel and turn the computer face down.
2. Remove the **BOTTOM CUSHION M** on the center of the Base Assembly.
3. Remove the following screws securing the Cover Assembly and the Base Assembly.
4. Separate the **Base Assembly** and **Cover Assembly** while releasing the **latch**

Figure 4-4 Removing the Base Assembly (1)

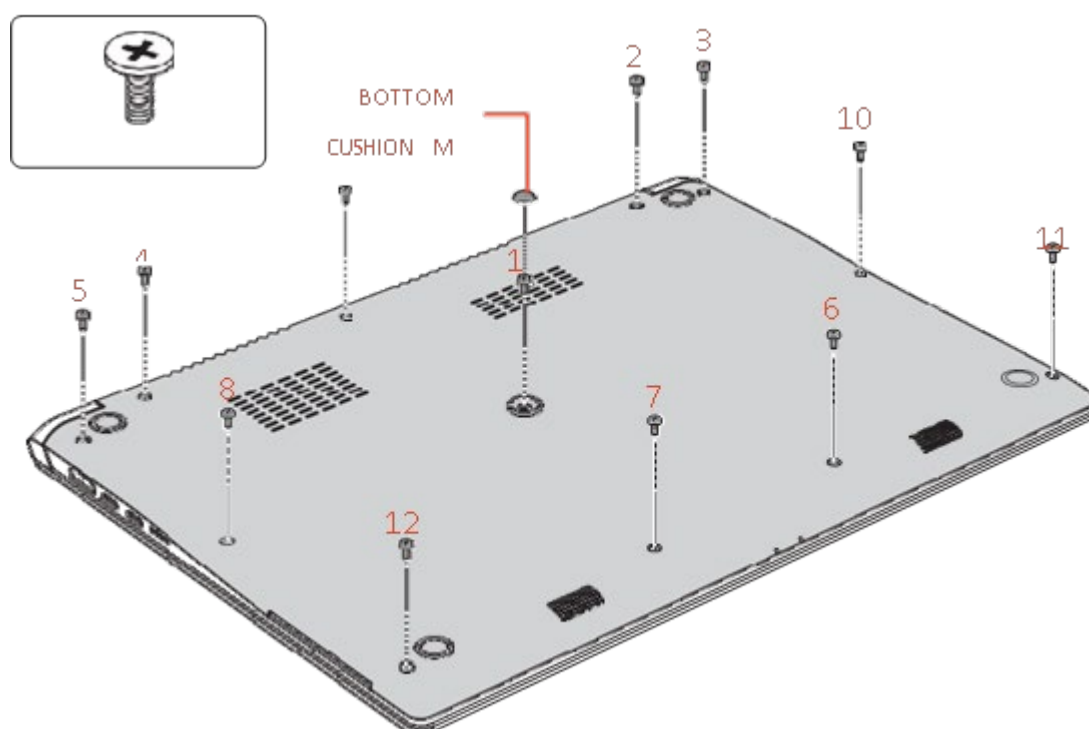
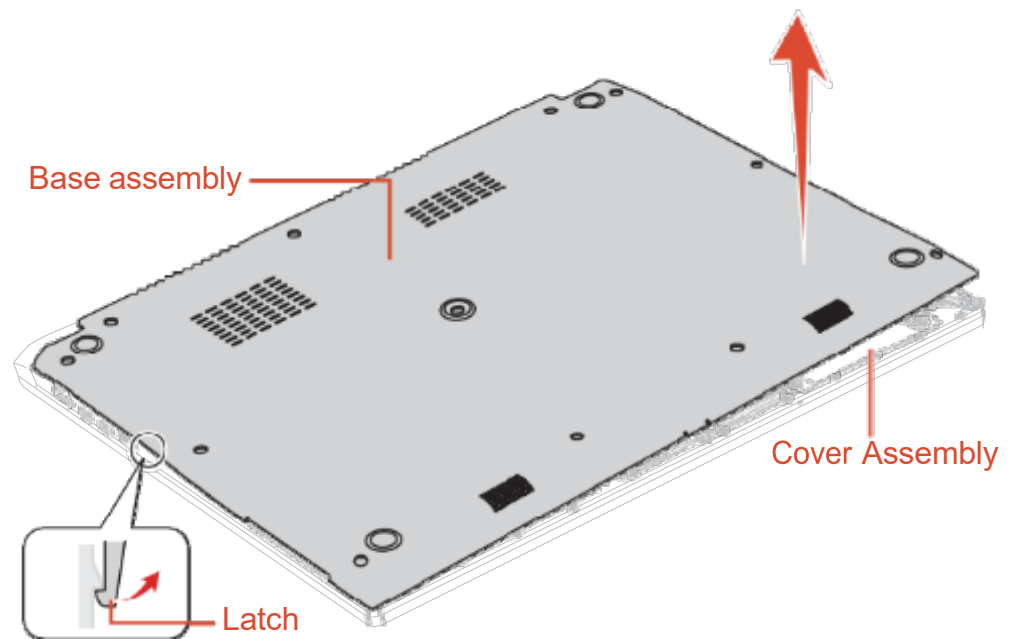


Figure 4-5 Removing the Base Assembly (2)



4.12.1 Removing the Battery pack

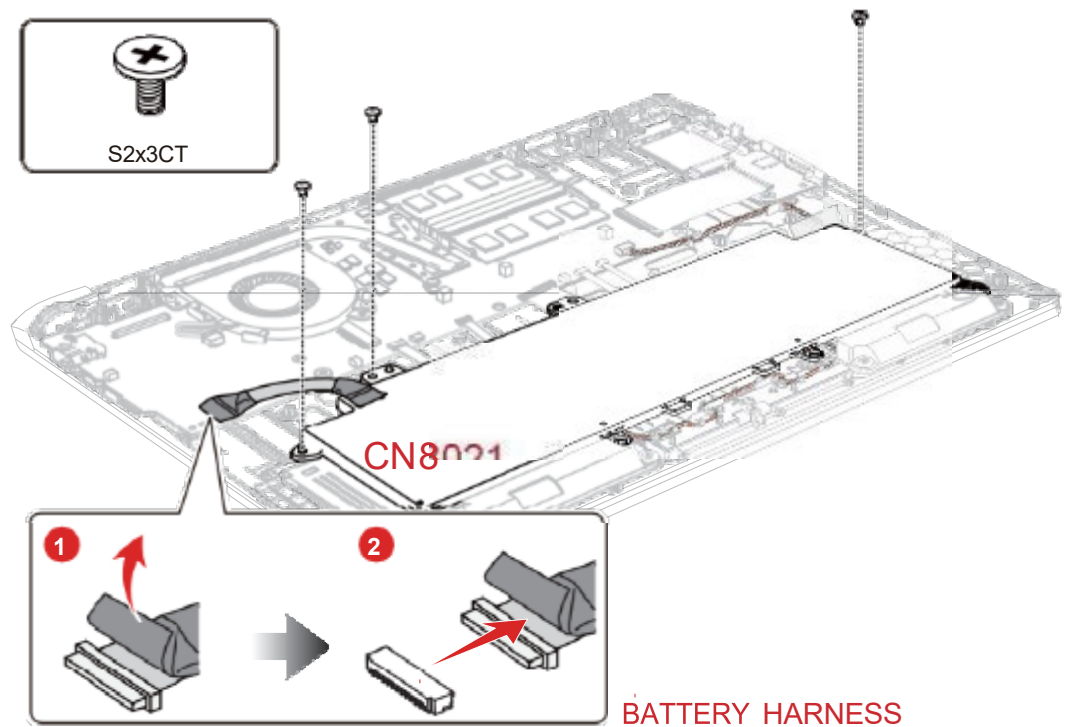
To remove the battery pack, follow the steps below and refer to [Figure 4-6](#) and [Figure 4-7](#).



Take care not to short circuit the terminals when removing the battery pack. Similarly, do not drop, knock, scratch, disassemble, twist, or bend the battery pack.

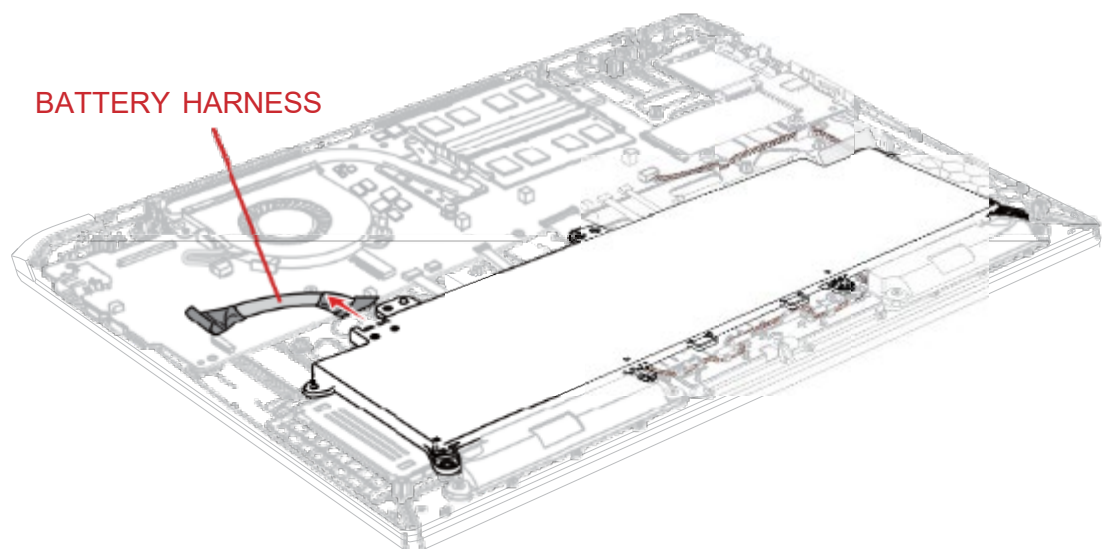
1. Disconnect the **BATTERY HARNESS** from the connector **CN8021** on the SYSTEM board.
2. Remove the following screws and the battery pack.

Figure 4-6 Releasing the battery pack (1)



3. Disconnect the **BATTERY HARNESS** from the connector on the battery pack.

Figure 4-7 Releasing the battery pack (2)



Dispose of the used/removed battery pack in accordance with the laws and ordinances of your local authority.

2. Removing the SSD

To remove the SSD the **mainboard** must be removed **first**.

Please refer to the information listed in section 4.22 of the **Portege X50-G Series Maintenance Manual** to check how the mainboard is removed.

Please refer to the information below for the removal of the SSD.

One Philips screwdriver with type 1 bit will be required to remove the screws indicated in the locations below. Once removed, these components should be recycled as per local requirements.

4.23.1 Removing the SSD

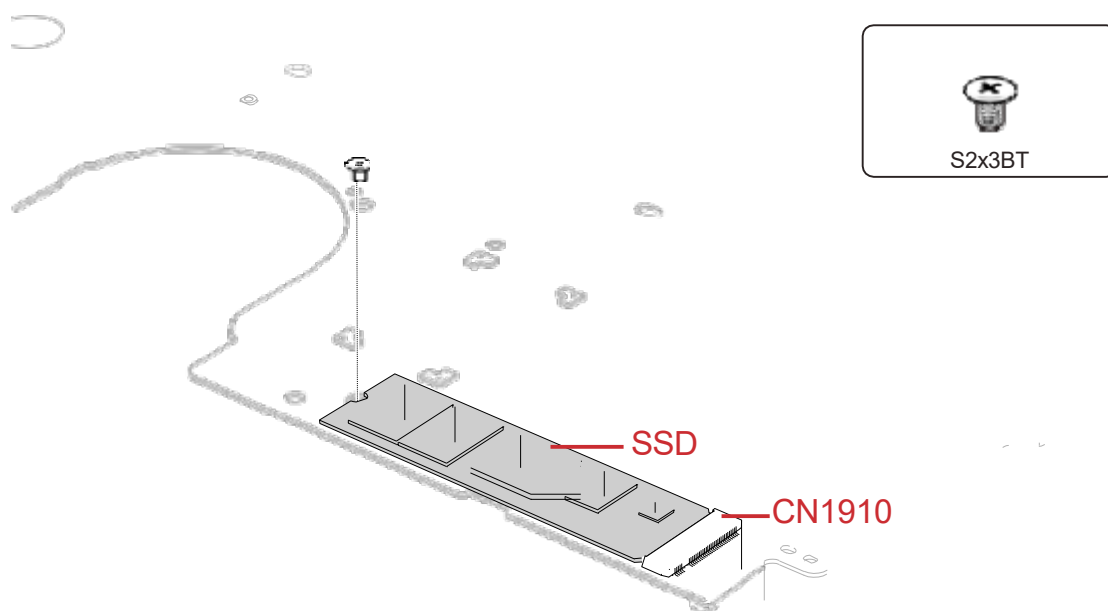
To remove the SSD, follow the steps below and refer to [Figure 4-36](#).



Take care not to press on the top or bottom of a SSD. Pressure may cause the data loss or damage to the device.

1. Remove the the following screw and disconnect the **SSD** from the connector **CN1910** on the SYSTEM board.

Figure 4-36 Removing the SSD



3. Removing the LCD and Printed Circuit / Wiring Boards

Beside the LCD and the main PCB, there are further **small PCBs and components** which are in the scope of the WEEE Directive. The removal of these components is described in detail in the **chapter 4** of the associated maintenance manual.

Replacement Procedures

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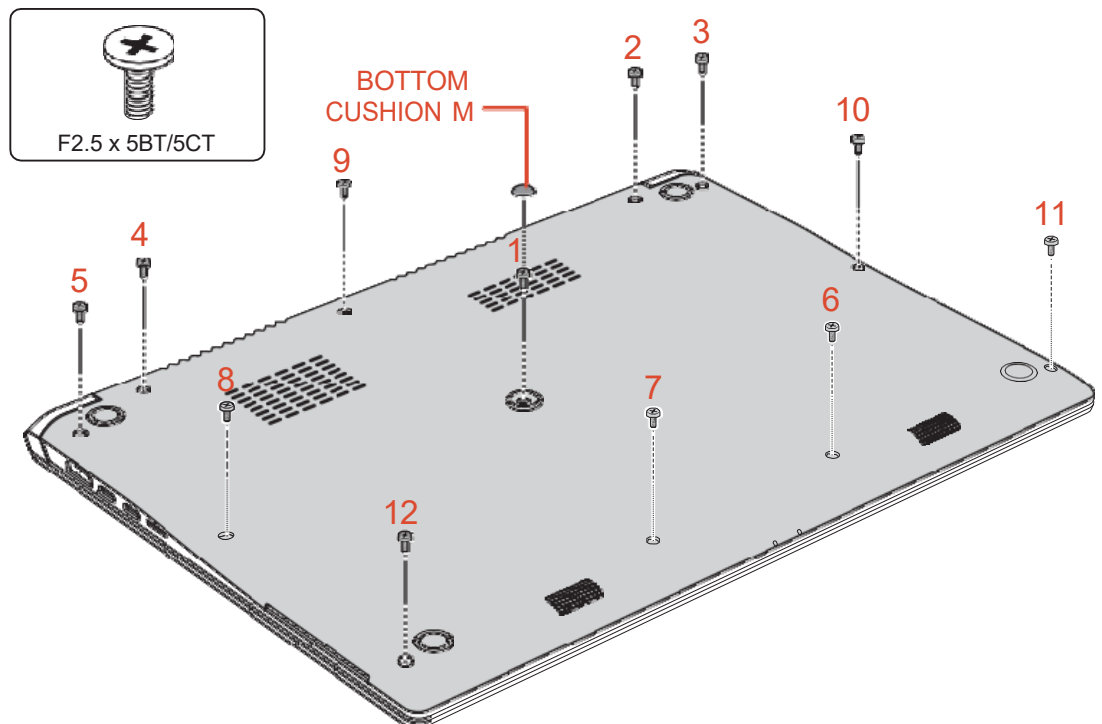
4.11 Cover Assembly and Base Assembly

4.11.2 Removing the Cover Assembly and Base Assembly

To remove the Base Assembly, follow the steps below and refer to [Figure 4- 4](#) to [Figure 4-5](#).

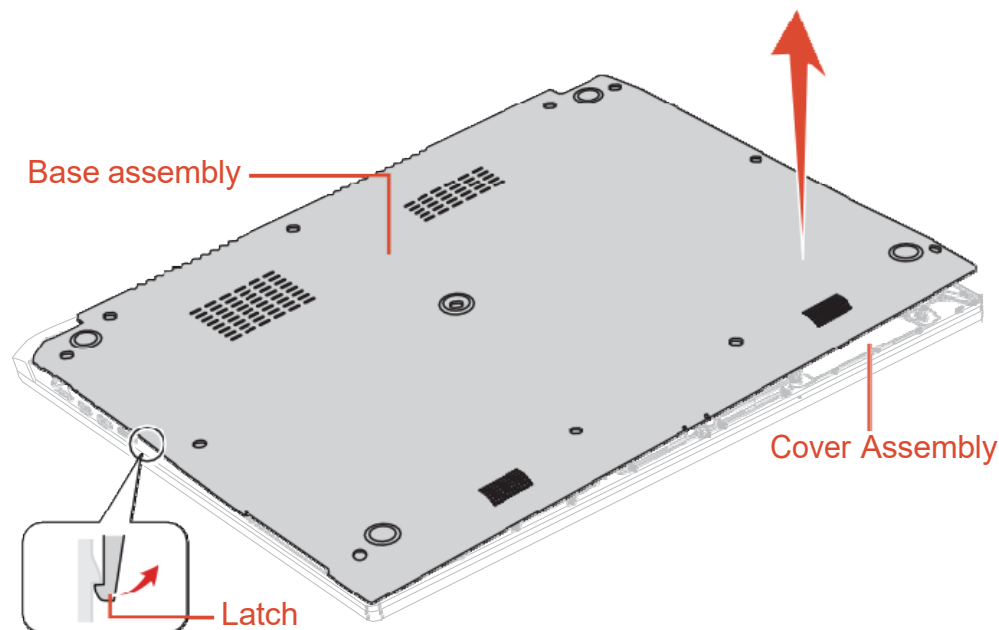
1. Close the display panel and turn the computer face down.
2. Remove the **BOTTOM CUSHION M** on the center of the Base Assembly.
3. Remove the following screws securing the Cover Assembly and the Base Assembly.

Figure 4-4 Removing the Base Assembly (1)



4. Separate the **Base Assembly** and **Cover Assembly** while releasing the **latch**.

Figure 4-5 Removing the Base Assembly (2)



4.11.3 Installing the Base Assembly

To install the Base Assembly, follow the steps below and refer to [Figure 4-4](#) to [Figure 4-5](#).

1. Set the Cover Assembly on the Base Assembly while securing the latch.
2. Secure the Cover Assembly and Base Assembly with the screws.



When securing the Base Assembly, be sure to drive the screws in the order of the number on [Figure 4-4](#).

3. Stick a new **BOTTOM CUSHION M** to the Base Assembly.
4. Turn the computer, and open the display.

4.12 Battery pack

4.12.2 Removing the Battery pack

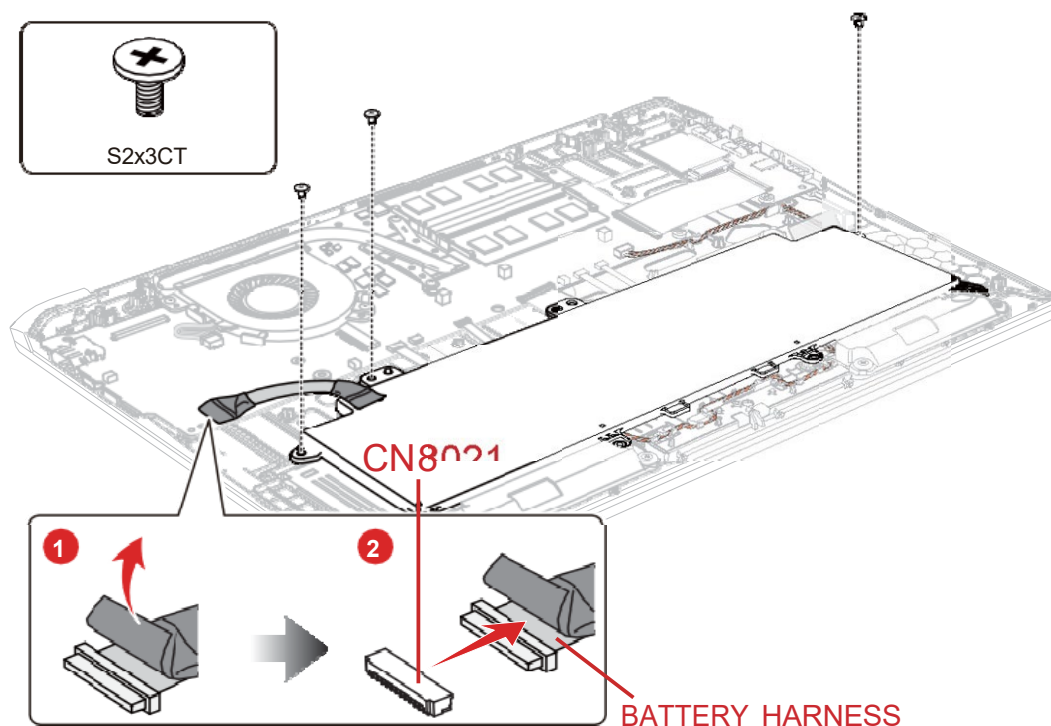
To remove the battery pack, follow the steps below and refer to [Figure 4-6](#) and [Figure 4-7](#).



Take care not to short circuit the terminals when removing the battery pack. Similarly, do not drop, knock, scratch, disassemble, twist, or bend the battery pack.

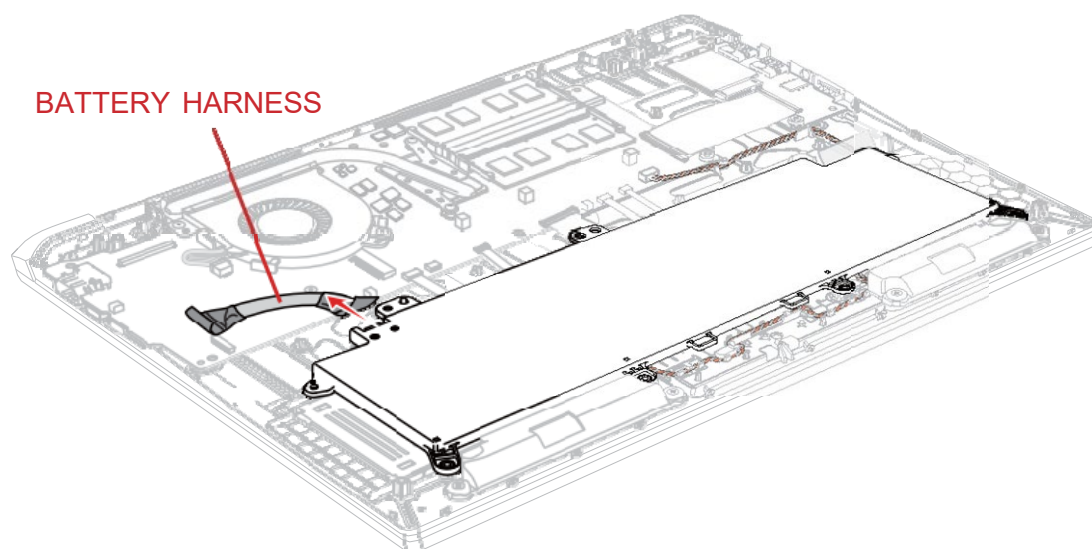
1. Disconnect the **BATTERY HARNESS** from the connector **CN8021** on the SYSTEM board.
2. Remove the following screws and the battery pack.

Figure 4-6 Releasing the battery pack (1)



3. Disconnect the **BATTERY HARNESS** from the connector on the battery pack.

Figure 4-7 Releasing the battery pack (2)



Dispose of the used/removed battery pack in accordance with the laws and ordinances of your local authority.

4.12.3 Installing the Battery pack

To install the battery pack, follow the steps below and refer to [Figure 4-6](#) and [Figure 4-7](#).



The lithium ion battery pack may explode if not fitted, operated, handled, or disposed correctly. Dispose always the used battery pack in accordance with the laws and ordinances of your local authority.

Use only the batteries approved by Dynabook.



Check the battery's terminals visually. If they are dirty, wipe them clean with a dry cloth.

1. Peel off the separator on one side of the battery harness and connect the **BATTERY HARNESS** to the connector on the battery pack.
2. Set the battery pack to the COVER ASSY and secure it with the screws.
3. Peel off the separator on the other side of the battery harness and connect the **BATTERY HARNESS** to the connector **CN8021** on the SYSTEM board.

4.13 Memory module

4.13.1 Removing the Memory module

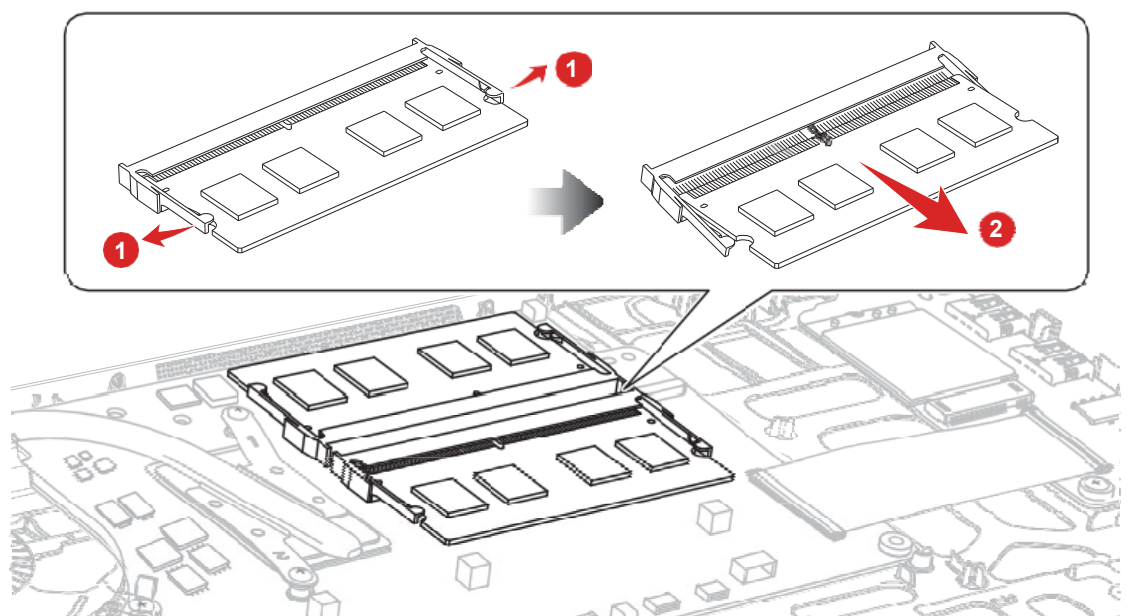
To remove the memory module, follow the steps as detailed below:



Do not touch the connectors on the memory module or on the computer. Dust or stains on the connectors may cause memory access problems. Never press hard or bend the memory module.

1. Open the left and right **latches** outside and remove the **memory module(s)**.

Figure 4-8 Removing the memory module(s)



1. Latches

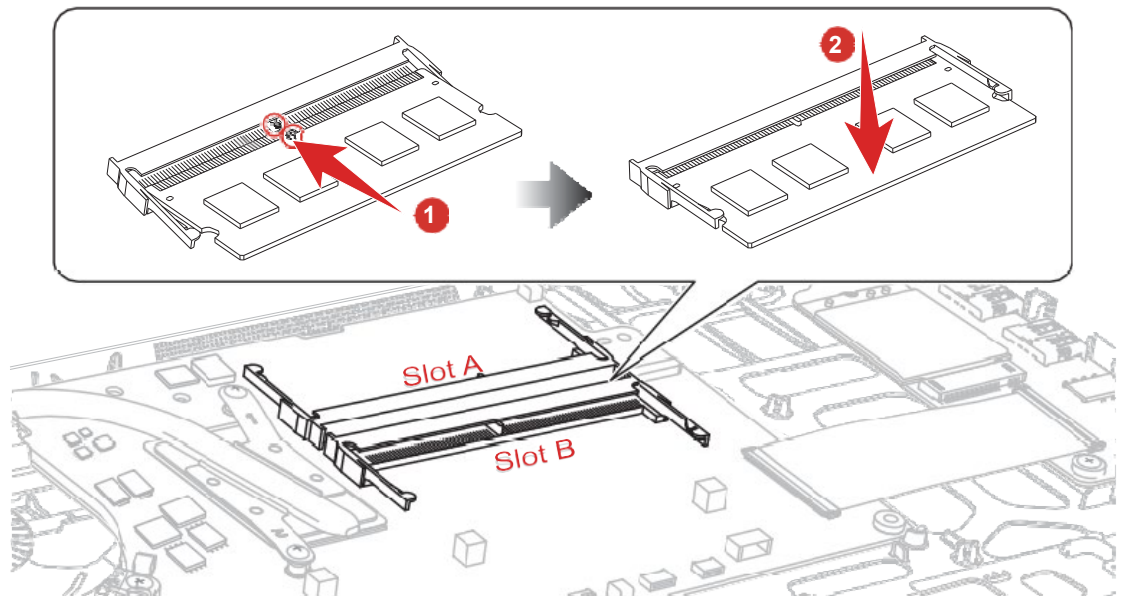
2. Memory module

4.13.2 Installing the Memory module

To install a memory module, follow the steps as detailed below:

1. Align the notch of the memory module with that of the memory slot and gently insert the module into the slot at about a 30 degree angle before holding it down until the latches on either side snap into place.

Figure 4-9 Seating the memory module



After installing the memory module, make sure that the memory module is secured with the left and right latches.

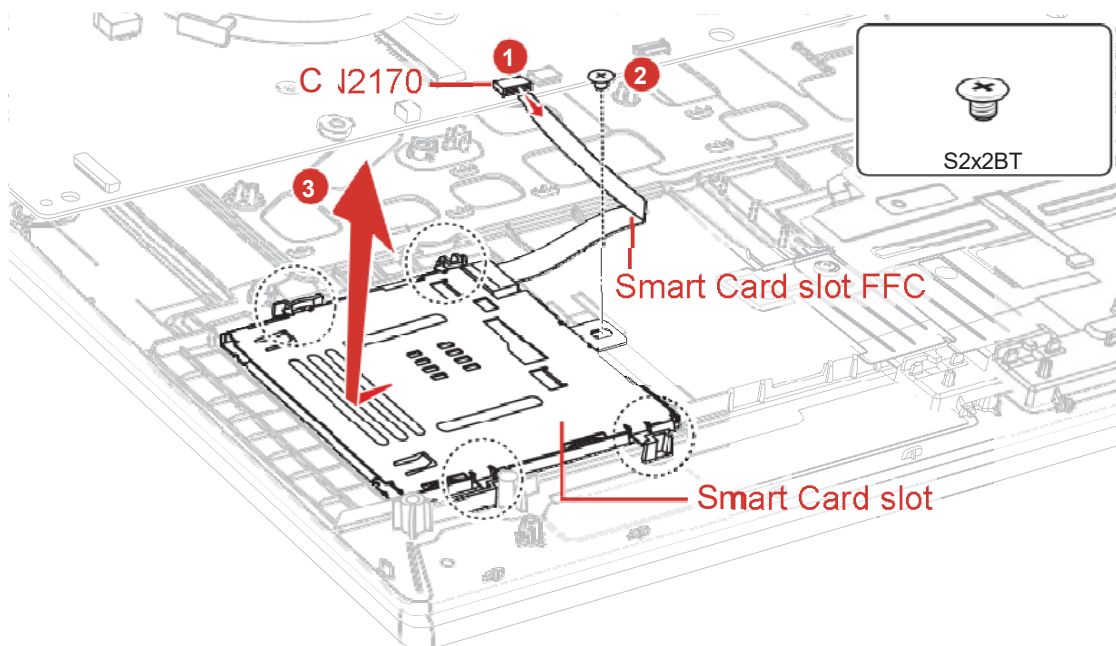
4.14 Smart Card slot

4.14.1 Removing the Smart Card slot

To remove the Smart Card slot unit, follow the steps below and refer to [Figure 4-10](#) to [Figure 4-11](#).

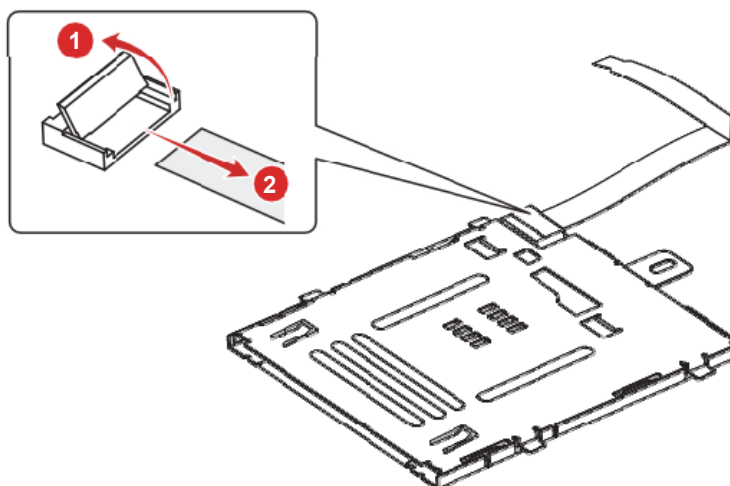
1. Disconnect the **Smart Card slot FFC** from the connector **CN2170** on the system board.
2. Remove the following screw, and then slide and lift the Smart Card slot unit shown in the following figure to remove the Smart Card slot.

Figure 4-10 Removing the Smart Card slot (1)



3. Disconnect the **Smart Card slot FFC** from the connector on the Smart Card slot.

Figure 4-11 Removing the Smart Card slot (2)



4.14.2 Installing the Smart Card slot

To install the Smart Card slot, follow the steps below and refer to [Figure 4- 10](#) to [Figure 4-11](#).

1. Connect the **Smart Card slot FFC** to the connector on the Smart Card slot.
2. Set the **Smart Card slot** in place and secure it the with the screw.
3. Connect the **Smart Card slot FFC** to the connector **CN2170** on the system board.

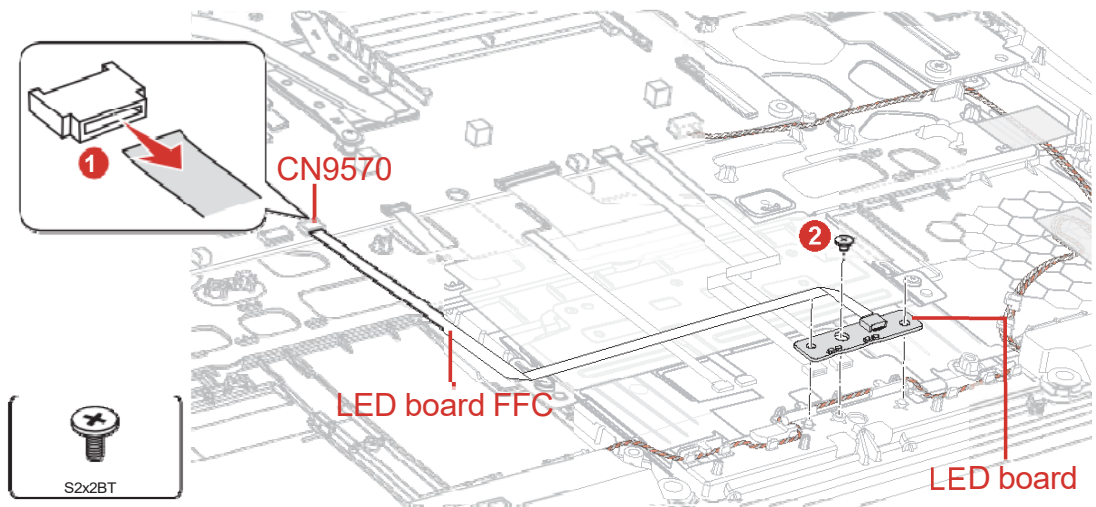
4.15 LED board (FUR3LE*)

4.15.1 Removing the LED board (FUR3LE*)

To remove the board, follow the steps below and refer to [Figure 4-12](#).

1. Disconnect the **LED board (FUR3LE*) FFC** from the connector **CN9570** on the **System Board (FUR3SY*)**.
2. Remove the following screws securing the **LED board (FUR3LE*)** and remove the board.

Figure 4-12 Removing the LED board



3. Disconnect the **LED board (FUR3LE*) FFC** from the connector **CN9571** on the **LED board (FUR3LE*)**.

4.15.2 Installing the LED board (FUR3LE*)

To install the LED board, follow the steps below and refer to [Figure 4-12](#).

1. Connect the **LED board (FUR3LE*) FFC** to the connector **CN9571** on the **LED board (FUR3LE*)**.
2. Set the **LED board (FUR3LE*)** in place and secure it with the screw.
3. Connect the **LED board (FUR3LE*) FFC** to the connector **CN9570** on the system board.

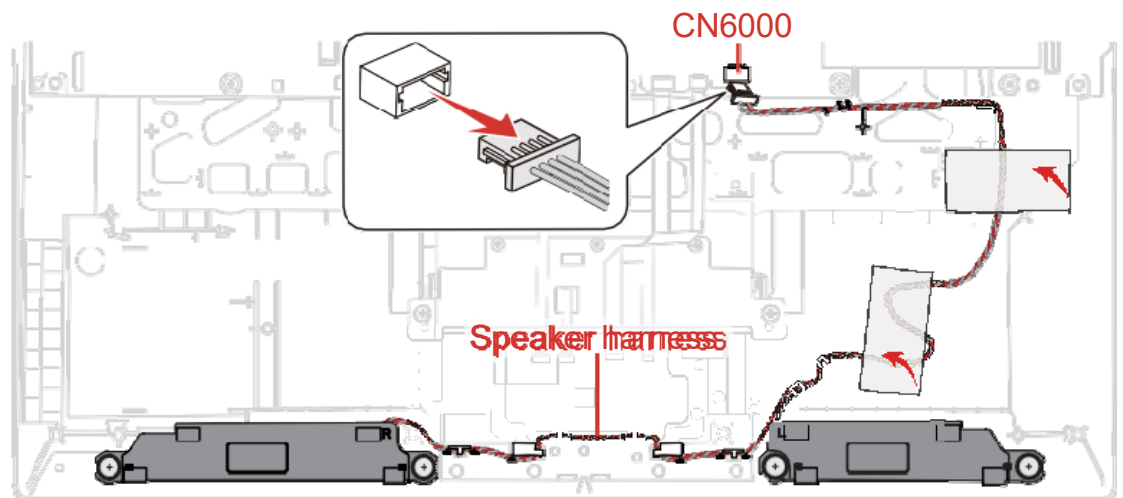
4.16 Speaker

4.16.1 Removing the Speaker

To remove the Speaker, follow the steps below and refer to [Figure 4-13](#) to [Figure 4-14](#).

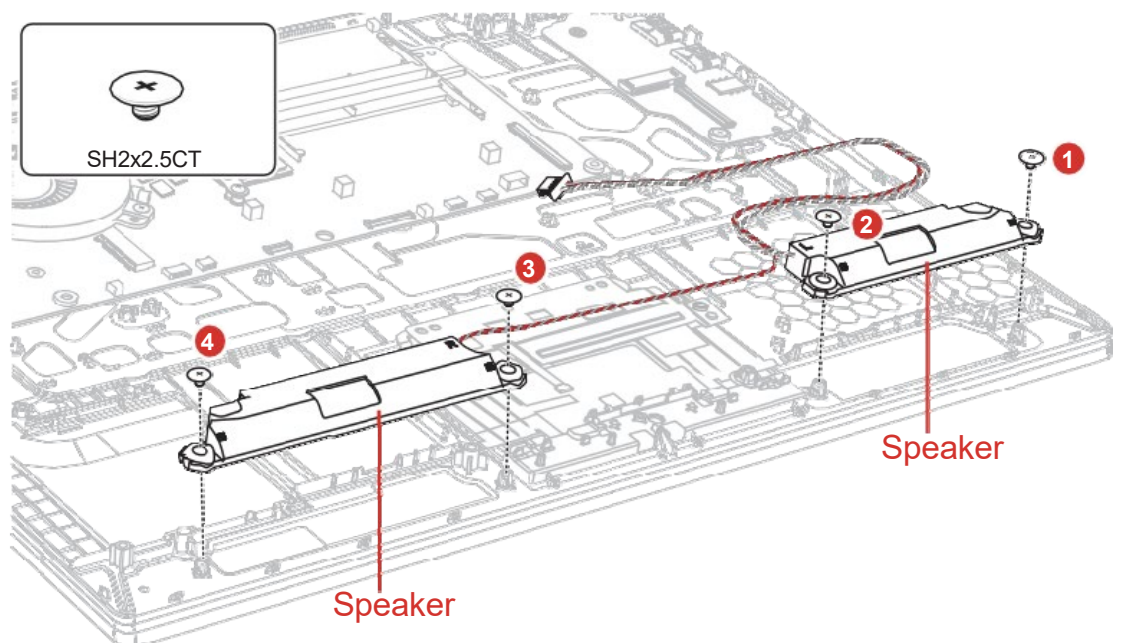
1. Disconnect the **Speaker harness** from the connector **CN6000** on the system board.
2. Open the stick tapes. Release the **Speaker harness** from the guides.

Figure 4-13 Removing the Speaker (1)



3. Remove the following screws and the Speaker from the slot on the Cover Assembly.

Figure 4-14 Removing the Speaker (2)

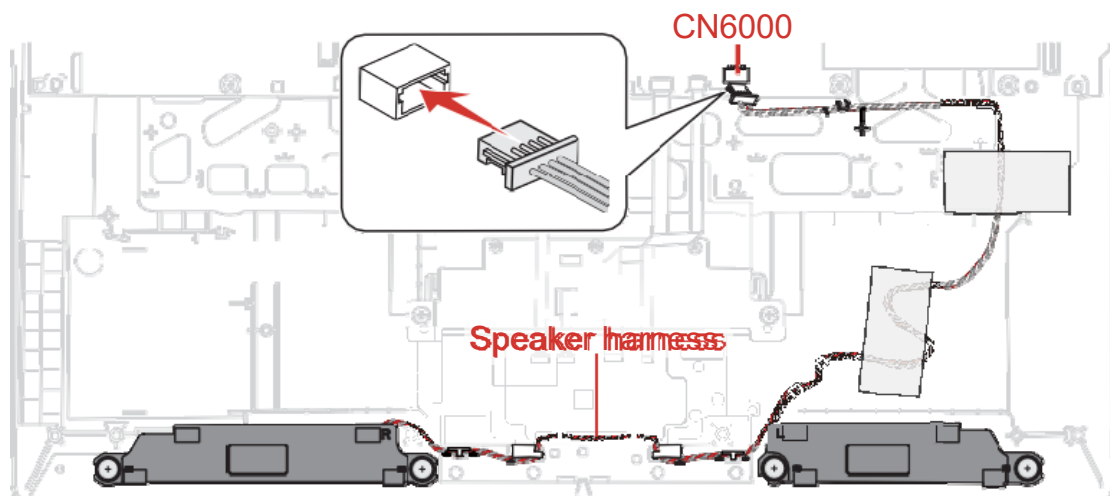


4.16.2 Installing the Speaker

To install the Speaker, follow the steps below.

1. Set the speakers to the slots of the Cover Assembly and secure it with the screws.
2. Arrange the **Speaker harness** under the guides as shown below.
3. Connect the **Speaker harness** to the connector **CN6000** on the system board.
4. Arrange the rest of **Speaker harness** as shown below, and fix it with new stick stapes.

Figure 4-15 Arranging the Speaker harness



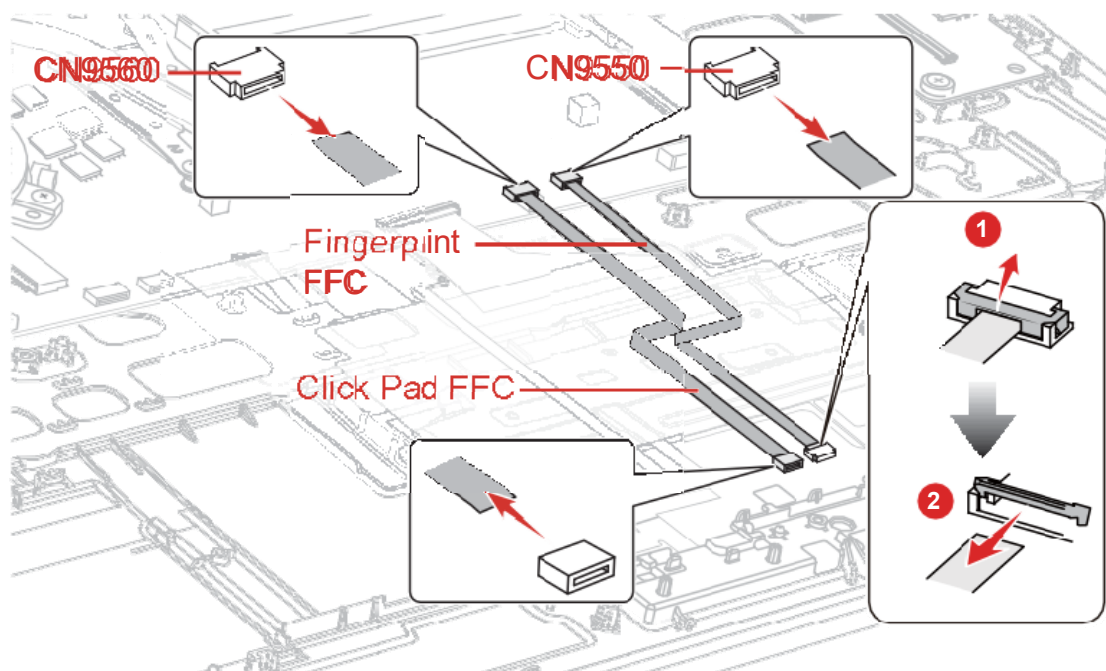
4.17 Dual button unit/Click pad

4.17.1 Removing the dual button unit/Click pad

To remove the dual button unit and click pad, follow the steps below and refer to Figure 4-16 to Figure 4-21.

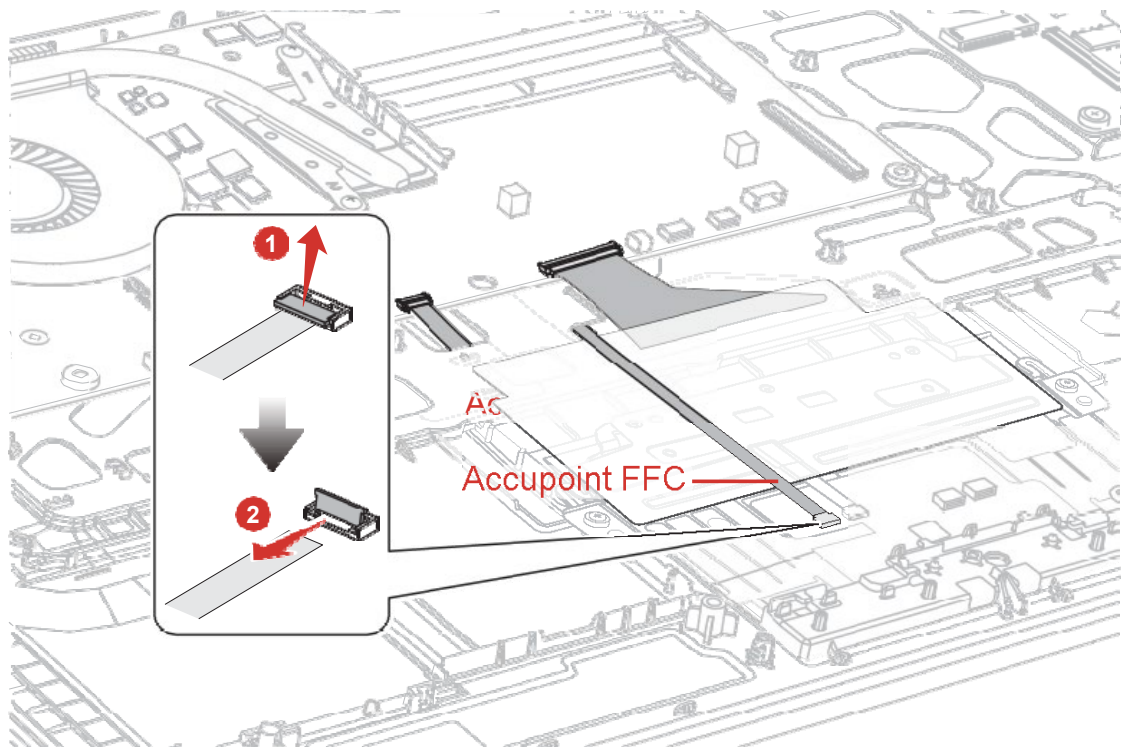
1. Disconnect the **Click Pad FFC** and **Fingerprint FFC** from the connectors on the Click Pad and the connectors **CN9560** and **CN9550** on the **System Board**.

Figure 4-16 Removing the dual button unit/Click pad (1)



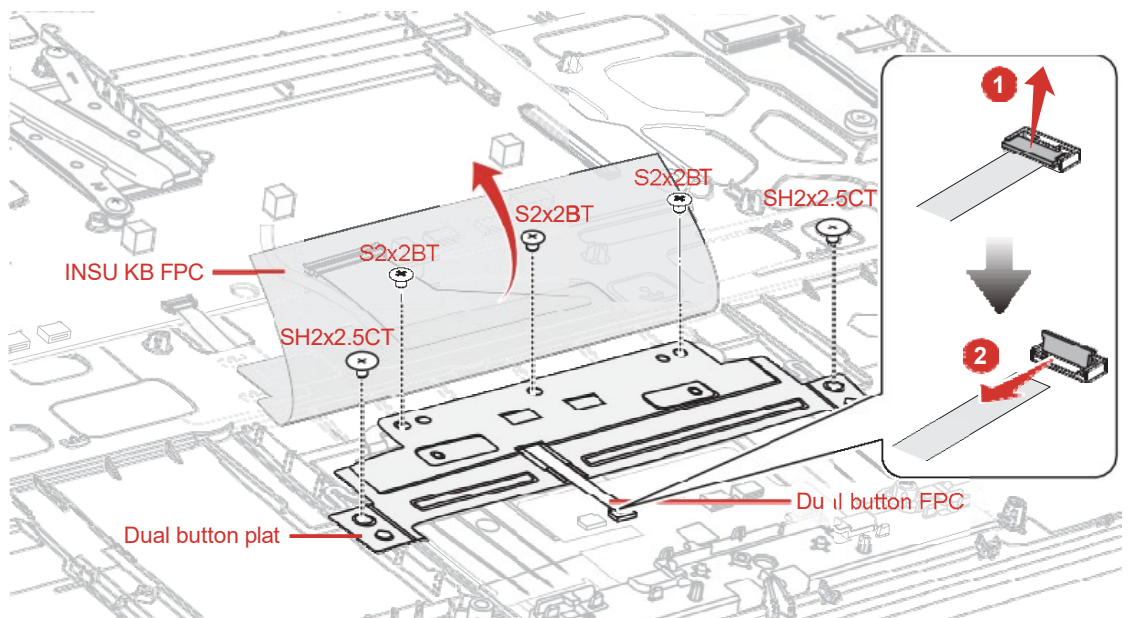
2. Disconnect the **Accupoint FFC** from the connector on the Click Pad.

Figure 4-17 Removing the dual button unit/Click pad (2)



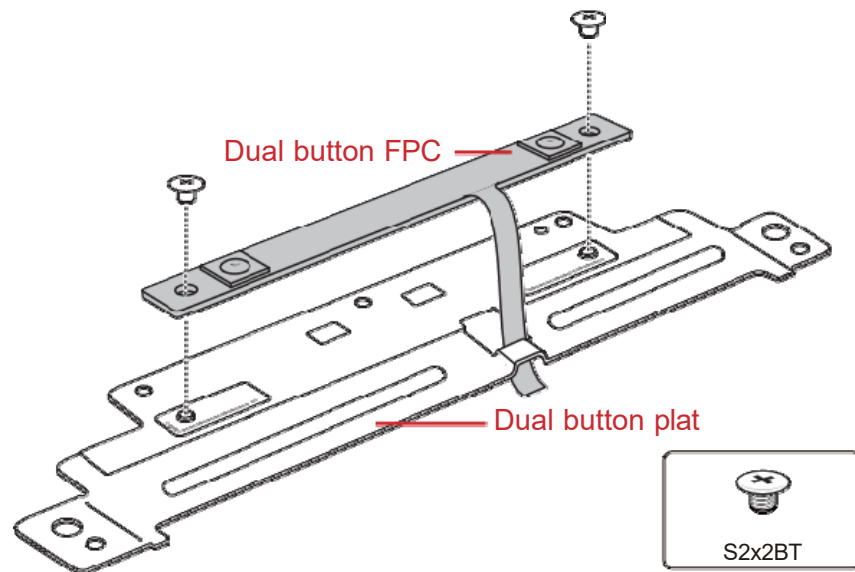
3. Peel off the **INSU KB FPC**, and disconnect the **Dual button FPC** from the connector on the Click Pad.
4. Remove the following screws and then remove the dual button plat.

Figure 4-18 Removing the dual button unit/Click pad (3)



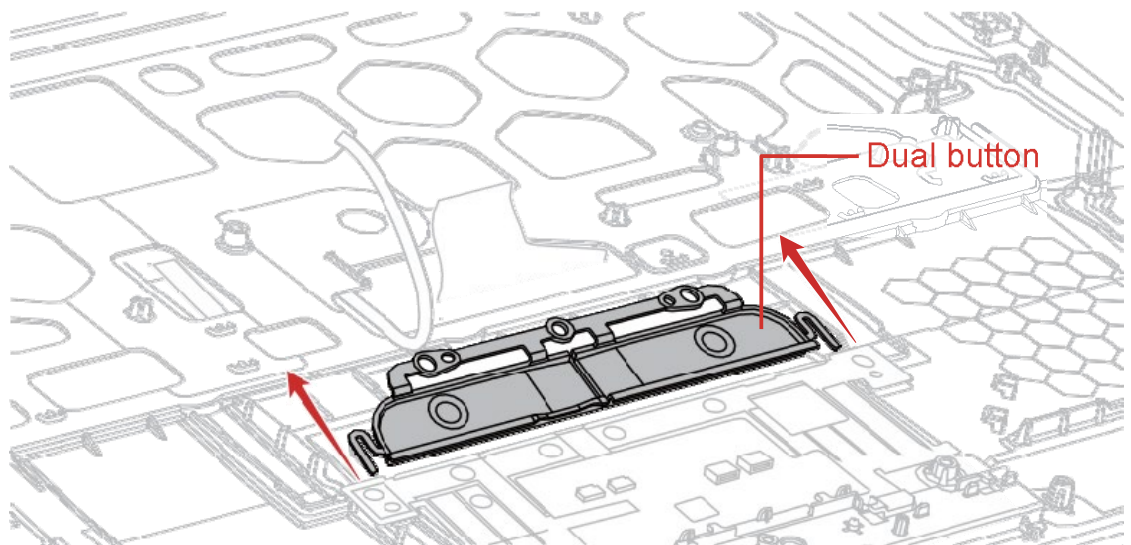
5. Remove the following screws and then release the **Dual button FPC** from the hole on the dual button plat.

Figure 4-19 Removing the dual button unit/Click pad (4)



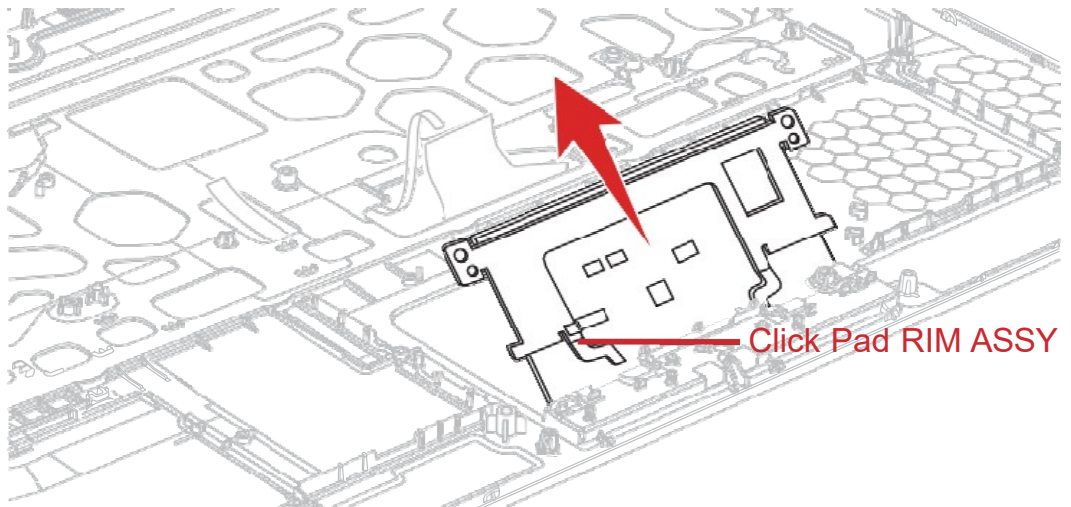
6. Remove the **Dual button** from the Cover Assembly.

Figure 4-20 Removing the dual button unit/Click pad (5)



7. Remove the **Click Pad RIM ASSY** from the Cover Assembly.

Figure 4-21 Removing the dual button unit/Click pad (6)

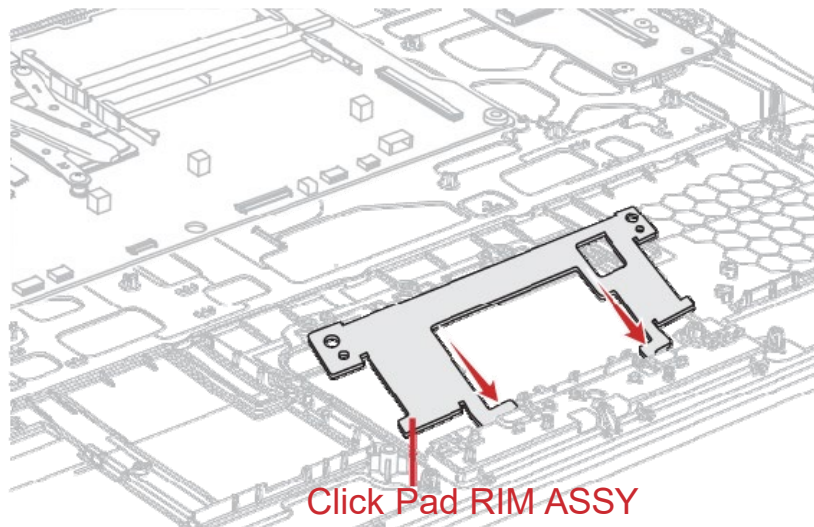


4.17.2 Installing the dual button unit/Click pad

To install the dual button unit and Click pad, follow the steps below and refer to [Figure 4-16](#) to [Figure 4-24](#).

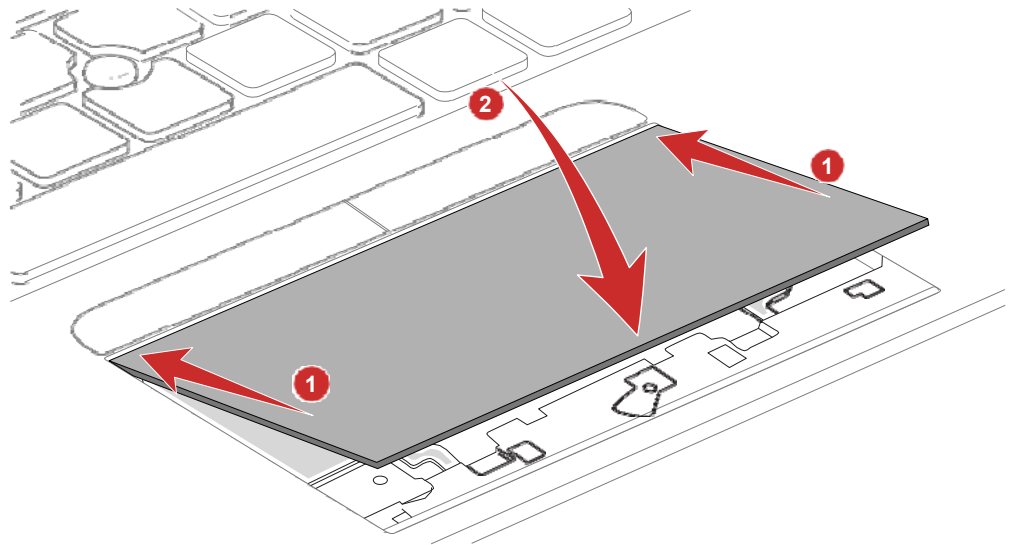
1. Set the **Dual button** to the Cover Assembly in place.
2. Set the **Click Pad RIM ASSY** to the Cover Assembly.

Figure 4-22 Installing the dual button unit/Click pad (1)



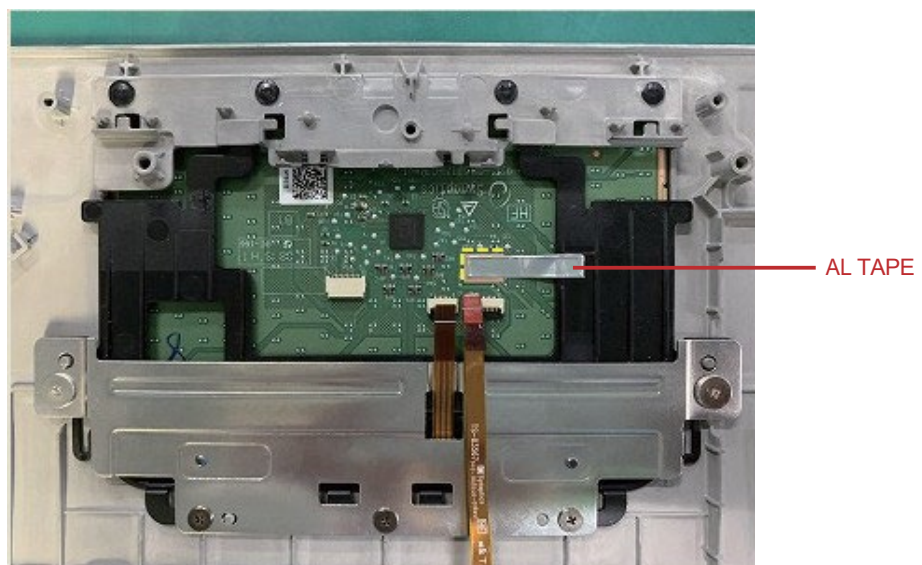
3. Set the **Dual button FPC** to the hole on the dual button plat and secure it with the screws.
4. Set the **Dual button plat** to the Cover Assembly and secure it with the screws.
5. Peel off the separator on the new Click Pad RIM ASSY and stick a new **Click pad** to the Cover Assembly.

Figure 4-23 Installing the dual button unit/Click pad (2)



6. Stick a new **AL TAPE** to the Click pad and Click Pad RIM ASSY.

Figure 4-24 Installing the dual button unit/Click pad (3)



7. Connect the **Dual button FPC** to the connector on the Click Pad. Stick a new **INSU KB FPC** to the dual button plat in place.
8. Connect the **Accupoint FFC** to the connector on the Click Pad.
9. Connect the **Click Pad FFC** and **Fingerprint FFC** to the connector on the Click Pad and the connector **CN9560** and **CN9550** on the **System Board**.

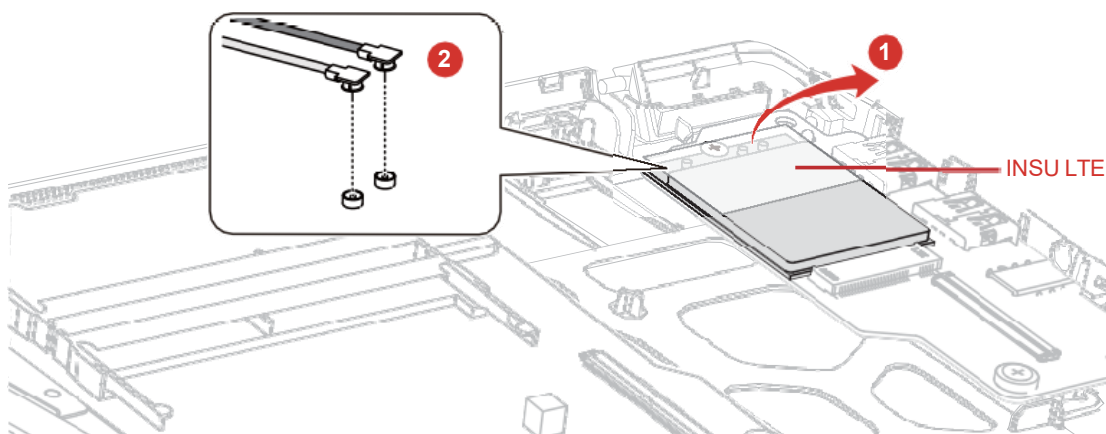
4.18 3G module/USB board

4.18.1 Removing the 3G module/USB board

To remove the 3G module/USB board, follow the steps below and refer to [Figure 4-25](#) to [Figure 4-28](#).

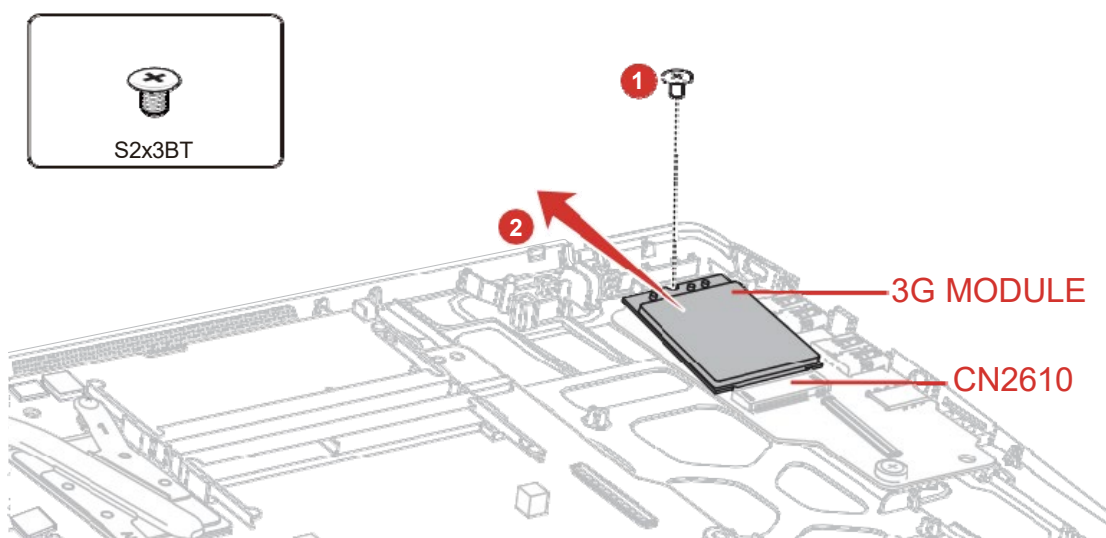
1. Peel off the **INSU LTE**.
2. Disconnect the **3G ANTENNA cables** from the connectors on the 3G MODULE. (red tube from “**MAIN**”)

Figure 4-25 Removing the 3G module (1)



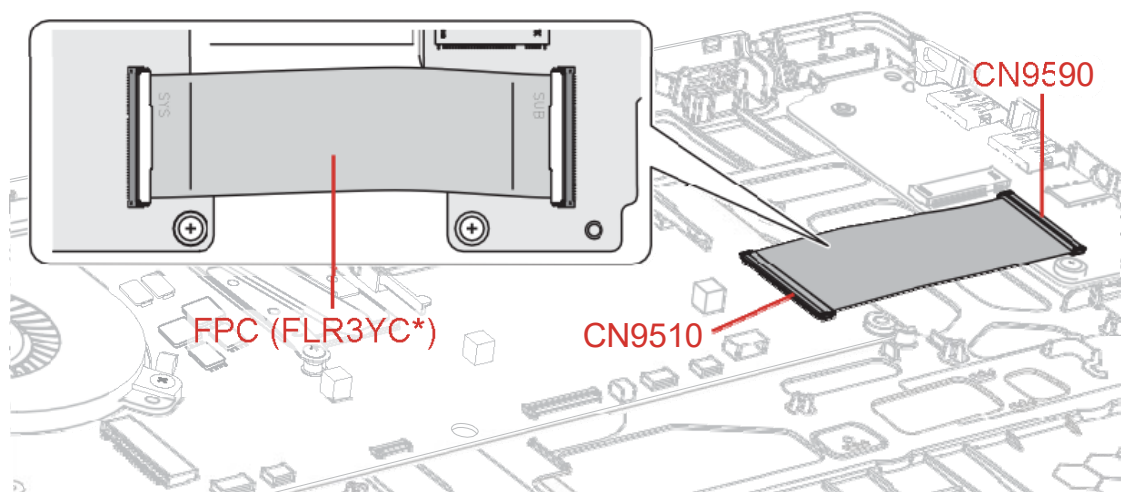
3. Remove the following screw and disconnect the **3G MODULE** from the connector **CN2610** on the **USB board (FLR3CN*)**.

Figure 4-26 Removing the 3G module (2)



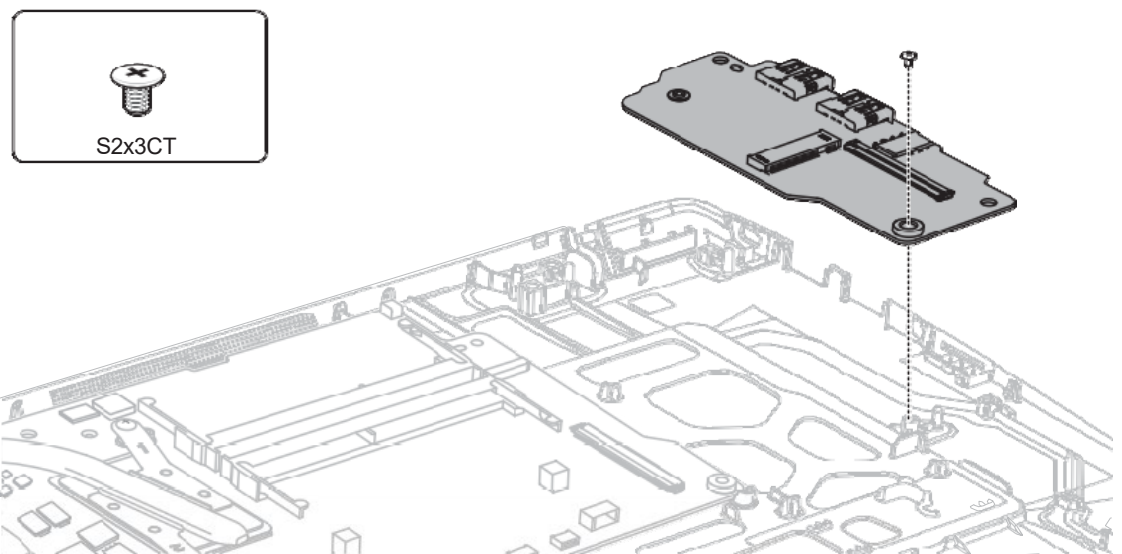
4. Disconnect the **FPC (FLR3YC*)** from the connector **CN9510** on the **SYSTEM board** and **CN9590** on the **USB board**.

Figure 4-27 Removing the USB board (1)



5. Remove the following screw and the USB board from the Cover Assembly.

Figure 4-28 Removing the USB board (2)



4.18.2 Installing the 3G module/USB board

To install the 3G module/USB board (FLR3CN*), follow the steps below and refer to [Figure 4-25](#) to [Figure 4-28](#).

1. Set the **USB board (FLR3CN*)** to the Cover Assembly and secure it with the screw.
2. Connect the **FPC (FLR3YC*)** to the connector **CN9510** on the SYSTEM board and **CN9590** on the USB board.
3. Insert the **3G MODULE** to the connector **CN2610** on the USB board. Secure the 3G MODULE with the screw.
4. Connect the **3G ANTENNA cables** to the connectors on the 3G MODULE. (red tube to "MAIN")
5. Stick a new **INSU LTE** in place.

6. Stick an insulator to secure 3G ANTENNA cables and camera harness in place.

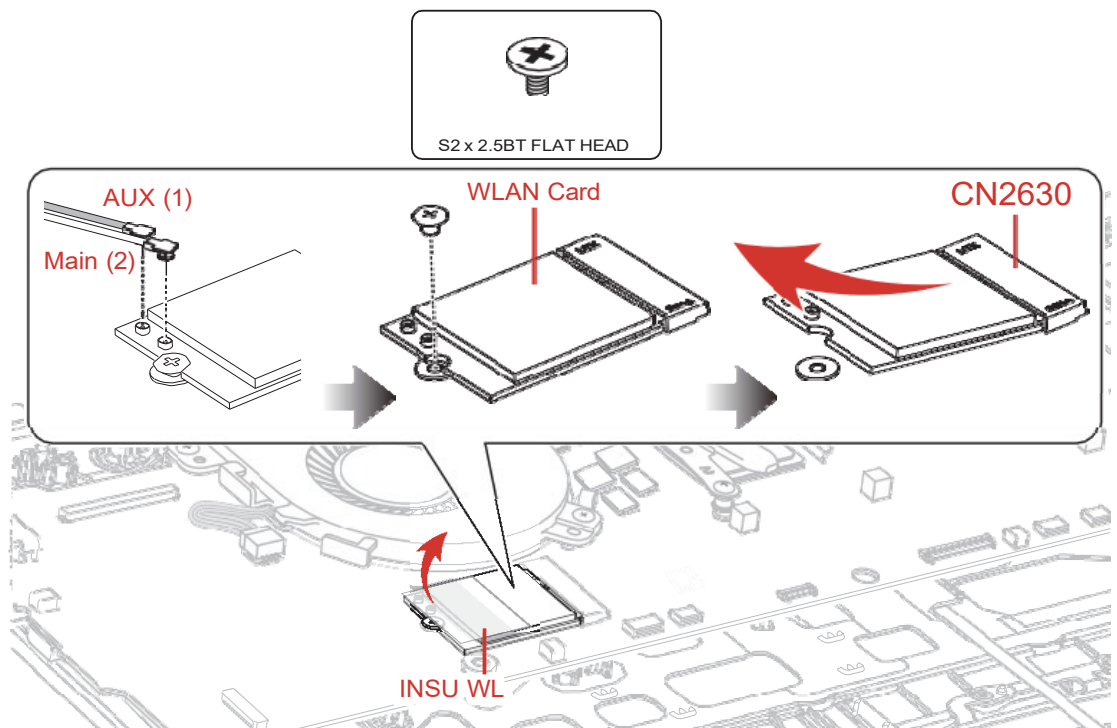
4.19 Wireless LAN card

4.19.1 Removing the Wireless LAN card

To remove the Wireless LAN card, follow the steps below and refer to [Figure 4-29](#).

1. Peel off the **INSU WL**.
2. Disconnect the **Wireless LAN antenna cable** from the connector on the Wireless LAN card (black cable from “**AUX** or “**1**” and white cable from “**Main**” or “**2**”).
3. Release the **Wireless LAN antenna cable** from the guides on the Fan.
4. Remove the screw securing the **Wireless LAN card**.
5. Disconnect the **Wireless LAN card** from the connector **CN2630** on the **System Board (FUR3SY*)**.

Figure 4-29 Removing the Wireless LAN card



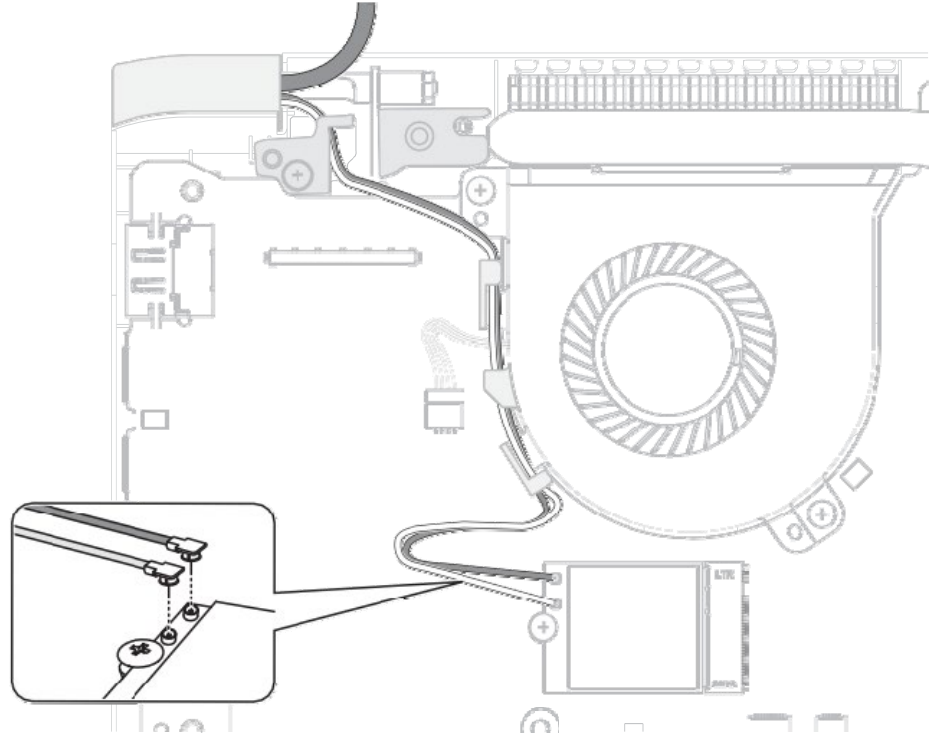
4.19.2 Installing the Wireless LAN card

To install the Wireless LAN card, follow the steps below.

1. Insert the **Wireless LAN card** to the connector **CN2630** on the **System Board (FUR3SY*)** slantwise and press it to connect firmly.
2. Push down the **Wireless LAN card** and secure it with the screw.
3. Arrange the **Wireless LAN antenna cables** to the guides as below.

4. Connect the **Wireless LAN antenna cables** to the connectors (black cable to “**AUX**” or “**1**” and white cable to “**Main**” or “**2**”) on the **Wireless LAN card**.

Figure 4-30 Arranging Wireless LAN antenna cable



5. Stick a new **INSU WL** in place.

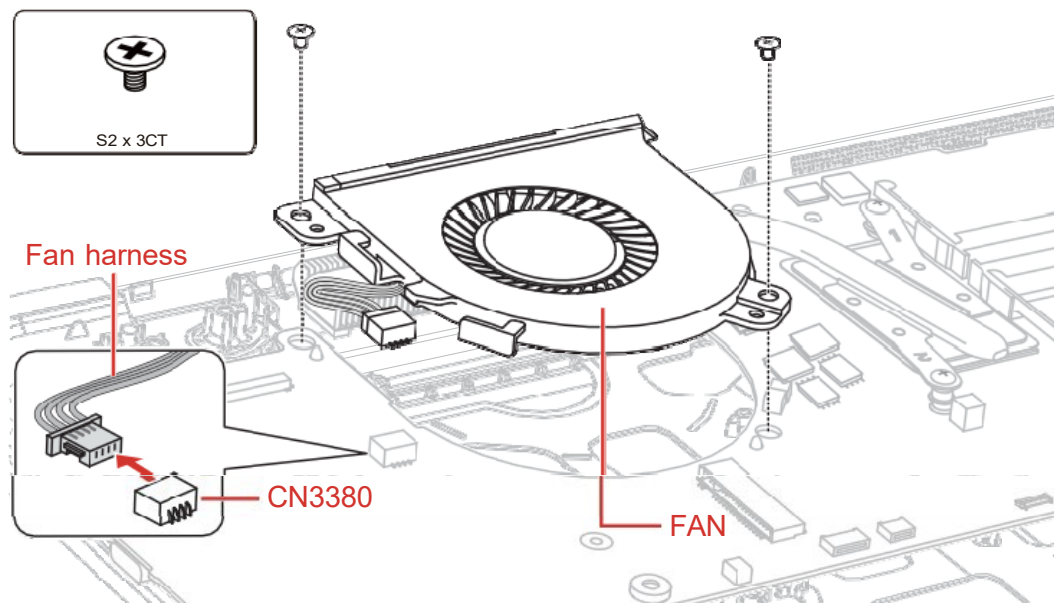
4.20 Fan

4.20.1 Removing the Fan

To remove the Fan, follow the steps below and refer to [Figure 4-31](#).

1. Disconnect the **Fan harness** from the connector **CN3380** on the **System Board (FUR3SY*)**.
2. Remove the following screws and the **Fan** from the Cover Assembly.

Figure 4-31 Removing the Fan



4.20.2 Installing the Fan

To install the Fan, follow the steps below and refer to [Figure 4-31](#).

1. Set the **Fan** in place on the Cover Assembly and secure it with the screws.
2. Connect the **Fan harness** to the connector **CN3380** on the **System Board (FUR3SY*)**.

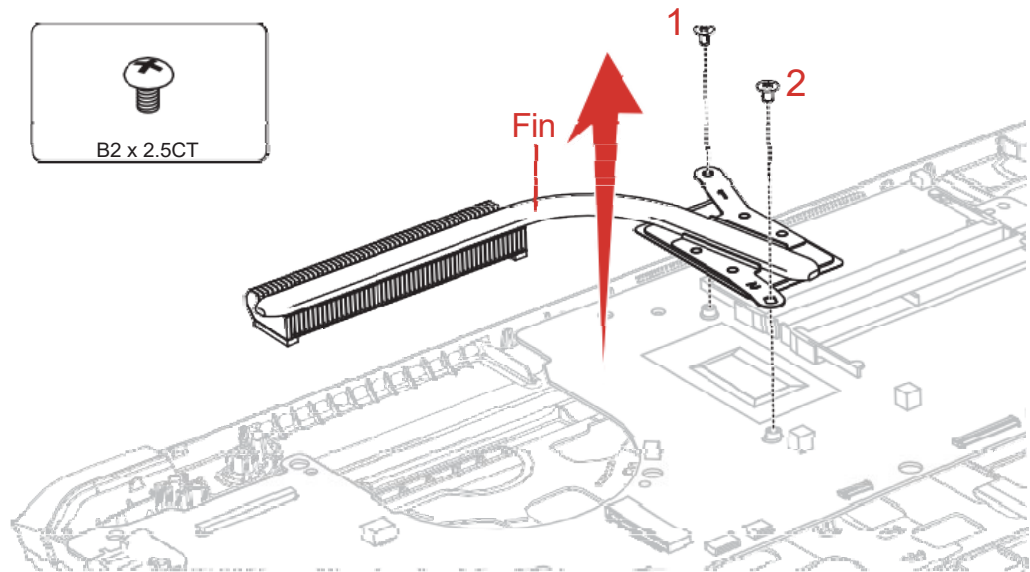
4.21 Fin

4.21.1 Removing the Fin

To remove the Fin, follow the steps below and refer to [Figure 4-32](#).

1. Remove the following screws and then the **Fin**.

Figure 4-32 Removing the Fin



When removing the Fin, be sure to remove the screws in the reverse order of the number marked on the Fin.

4.21.2 Installing the Fin

To install the Fin, follow the steps below and refer to [Figure 4-32](#).

1. Set the **Fin** in place and secure it with the screws.

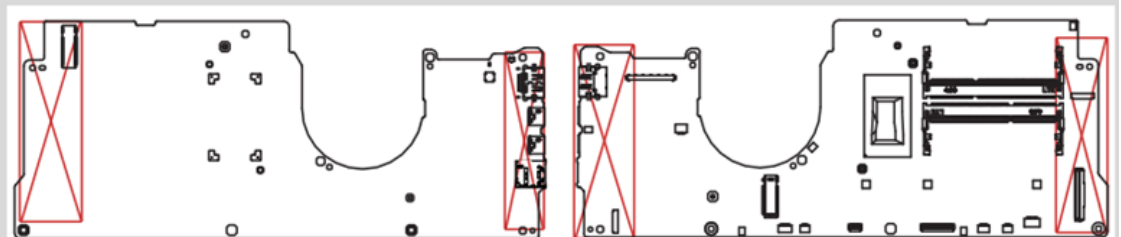


When installing the Fin, be sure to install the screws in the order of the number marked on the Fin.

4.22 System board

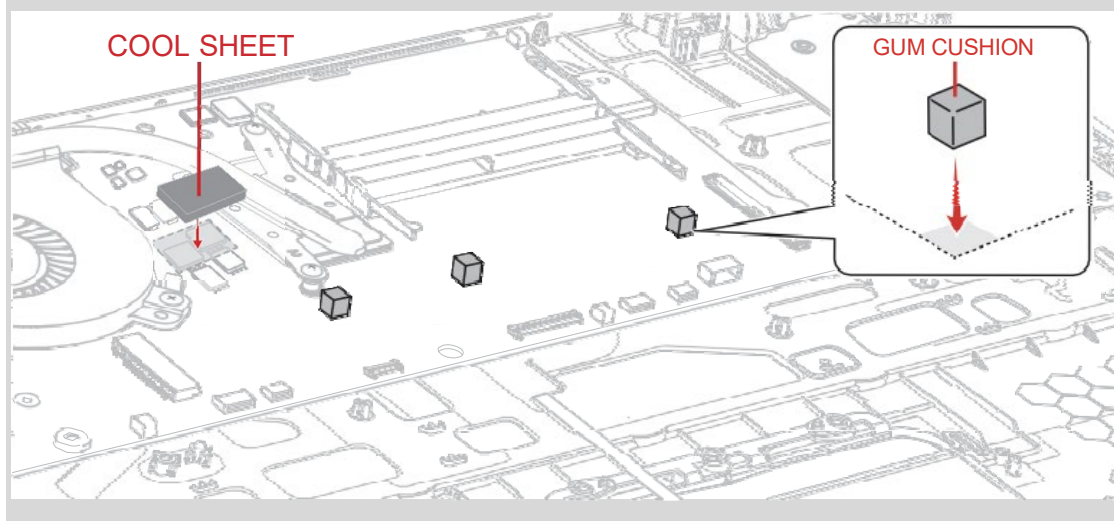


1. If replacing with a new system board, update the DMI information as described in Chapter 3, [Tests and Diagnostics](#). Also update with the latest BIOS and EC/KBC as described in Appendix G, [BIOS Rewrite Procedures](#), and Appendix H, [EC/KBC Rewrite Procedures](#).
2. When replacing the system board with a new one, the ProductKey (MBR-DPK) must be written on the system board.
3. When removing/installing the system board, do not handle with the handling prohibition area.





When replacing the system board with a new one, stick three pieces of new **GUM CUSHION** and one piece of new **COOLING SHEET** on the system board in place.

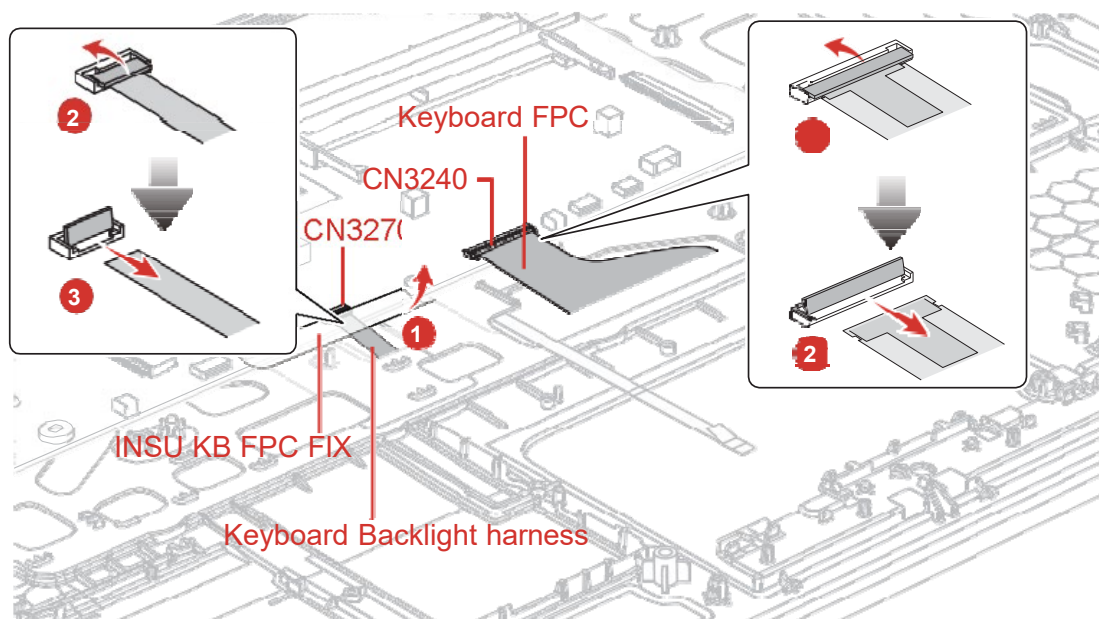


4.22.1 Removing the System board

To remove the system board, follow the steps below and refer to [Figure 4- 33](#) to [Figure 4-35](#).

1. Disconnect the **Keyboard FPC** from the connector **CN3240** on the **System Board (FUR3SY*)**.
2. Peel off **INSU KB FPC FIX** and disconnect the **Keyboard Backlight harness** from the connector **CN3270** on the **System Board (FUR3SY*)**.

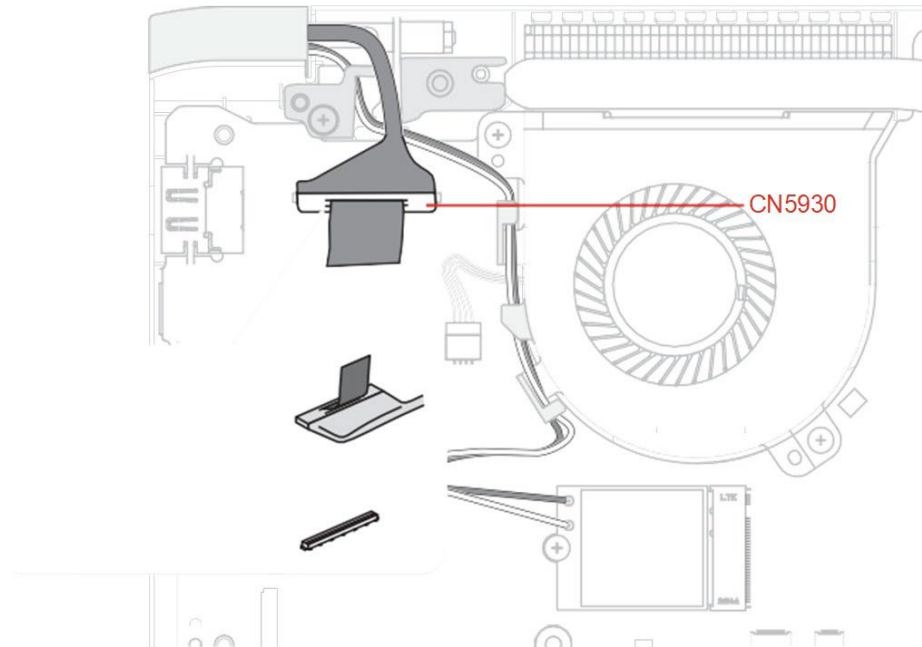
Figure 4-33 Removing the system board (1)



3. Disconnect the camera harness from the connector **CN9540** on system board.

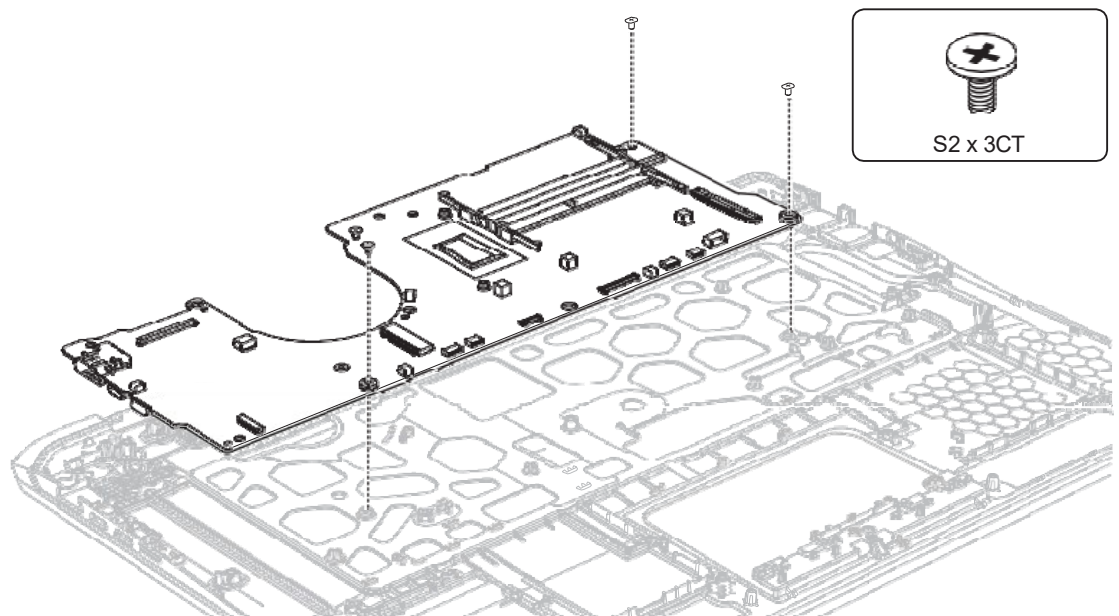
4. Disconnect the **LCD harness** from the connector **CN5930** on the **System Board (FUR3SY*)**.

Figure 4-34 Removing the system board (2)



5. Remove the following the screws. Carefully lift up the system board.

Figure 4-35 Removing the system board (3)



4.22.2 Installing the System board

To install the system board, follow the steps below and refer to [Figure 4-33](#) to [Figure 4-35](#).

1. Set the system board in place.
2. Secure the system board with the screws.

3. Connect the LCD harness to the connector **CN5930** on the **System Board (FUR3SY*)**.
4. Connect the camera harness to the connector **CN9540** on system board.
5. Connect the **Keyboard Backlight harness** to the connector **CN3270** on the **System Board (FUR3SY*)** and stick one piece of new **INSU KB FPC FIX** in place.
6. Connect the **Keyboard FPC** to the connector **CN3240** on the **System Board (FUR3SY*)**.

4.23 SSD

4.23.2 Removing the SSD

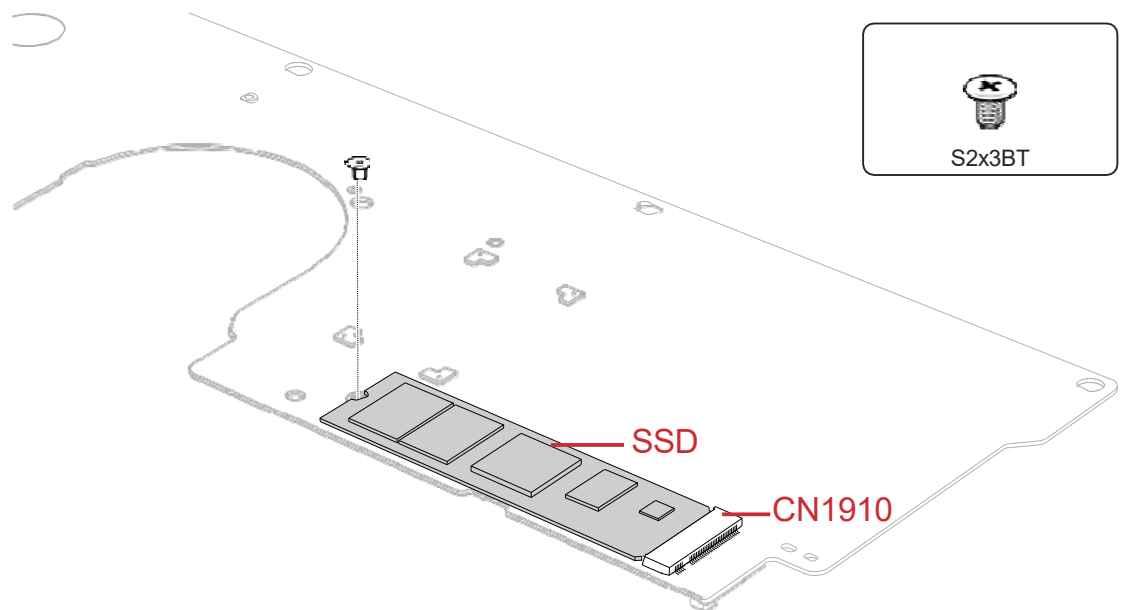
To remove the SSD, follow the steps below and refer to [Figure 4-36](#).



Take care not to press on the top or bottom of a SSD. Pressure may cause the data loss or damage to the device.

1. Remove the the following screw and disconnect the **SSD** from the connector **CN1910** on the SYSTEM board.

Figure 4-36 Removing the SSD



4.23.3 Installing the SSD

To install the SSD, follow the steps below and refer to [Figure 4-37](#).

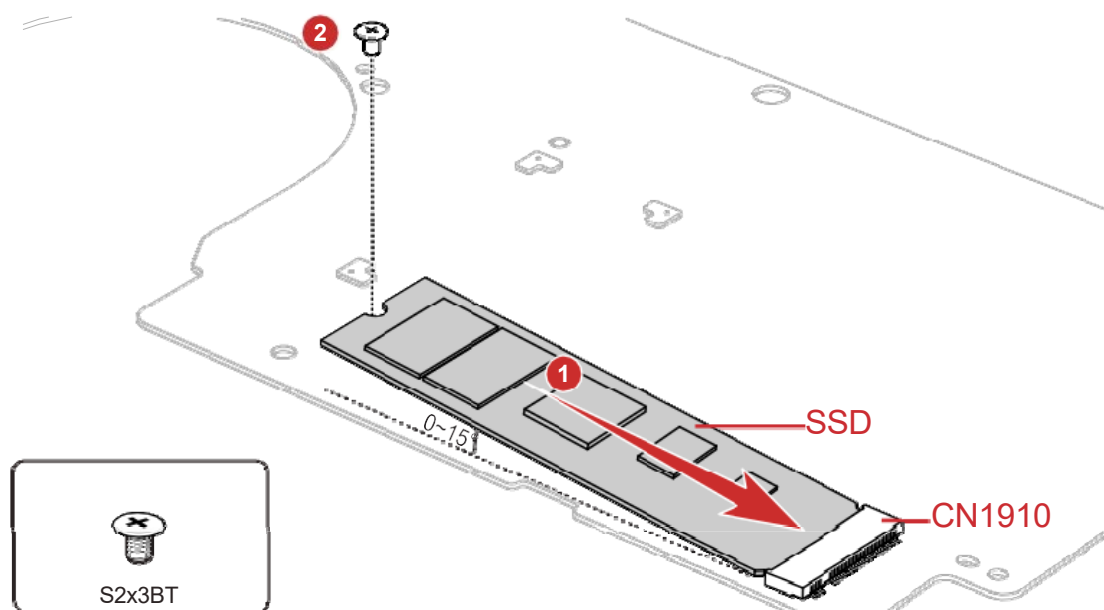


To avoid damage, always hold the SSD only by its sides.

To prevent the SSD from being distorted when installing the SSD pack into the computer, do not press the center of the SSD pack. Always hold the SSD pack by its sides.

1. Insert the **SSD** to the connector **CN1910** on the **System Board (FUR3SY*)** slantwise.
2. Push down the **SSD** and secure it with the screw.

Figure 4-37 Installing the SSD



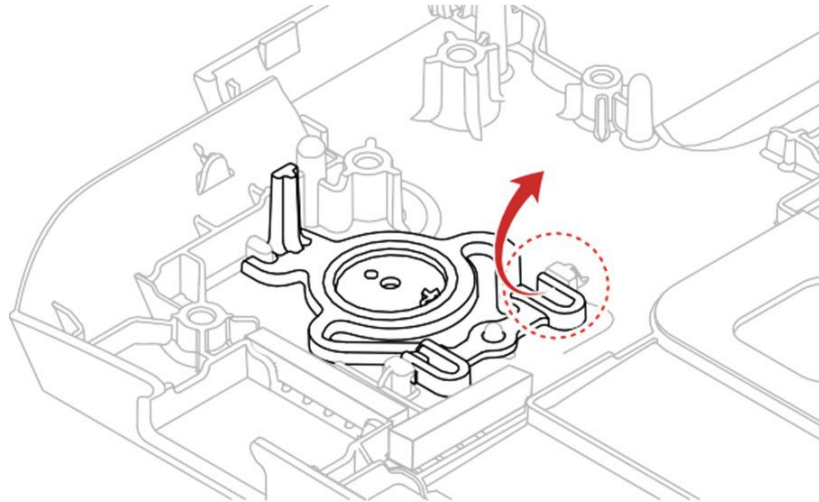
4.24 Power button

4.24.1 Removing the Power button

To remove the Power button, follow the steps below and refer to [Figure 4- 38](#).

1. Release the latch from the slot on the Cover Assembly.
2. Remove the Power button from the Cover Assembly.

Figure 4-38 Removing the Power button

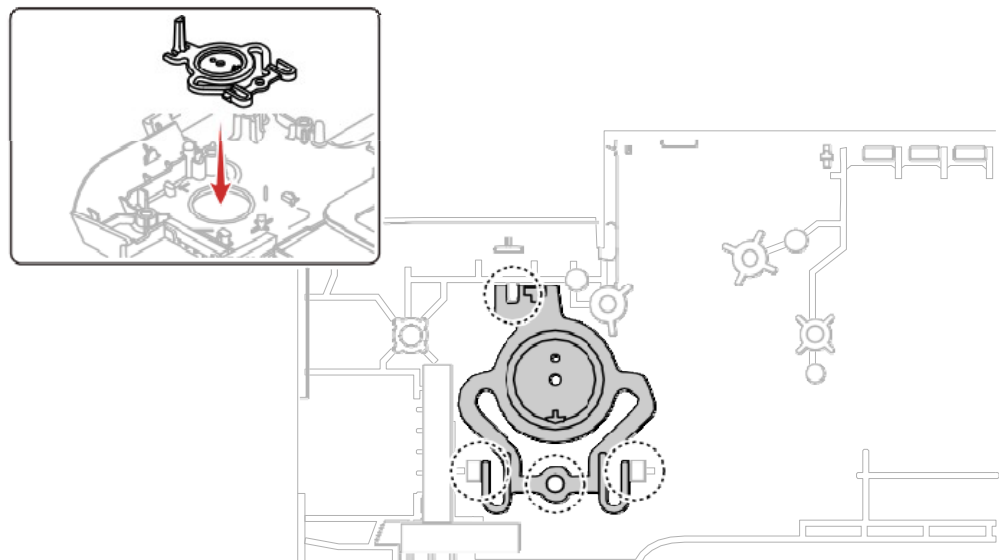


4.24.2 Installing the Power button

To install the Power button, follow the steps below and refer to [Figure 4-39](#).

1. Peel off the separator on the Power button.
2. Align the Power button with the guide pins on the Cover Assembly and set the Power button in place.

Figure 4-39 Installing the Power button



4.25 Keyboard

4.25.1 Removing the Keyboard

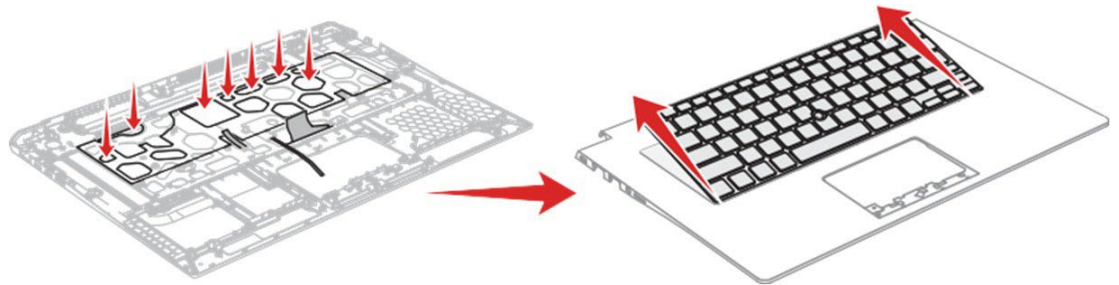
To remove the keyboard, follow the steps below and refer to [Figure 4-40](#).



As the keytop may fall out, when handling the keyboard, always hold it by the frame and do not touch the key top.

1. Peel off the keyboard from the Cover Assembly.

Figure 4-40 Removing the keyboard

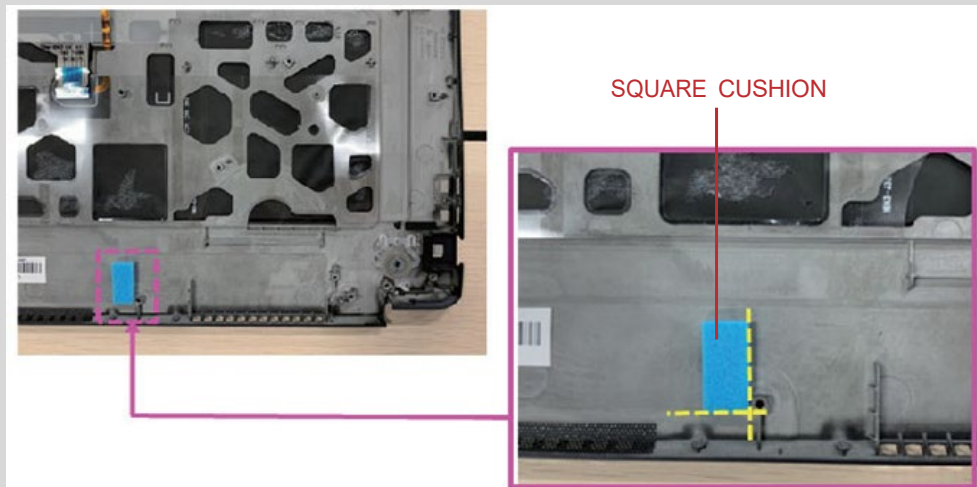


4.25.2 Installing the Keyboard

To install the keyboard, follow the steps below and refer to [Figure 4-41](#) to [Figure 4-47](#).

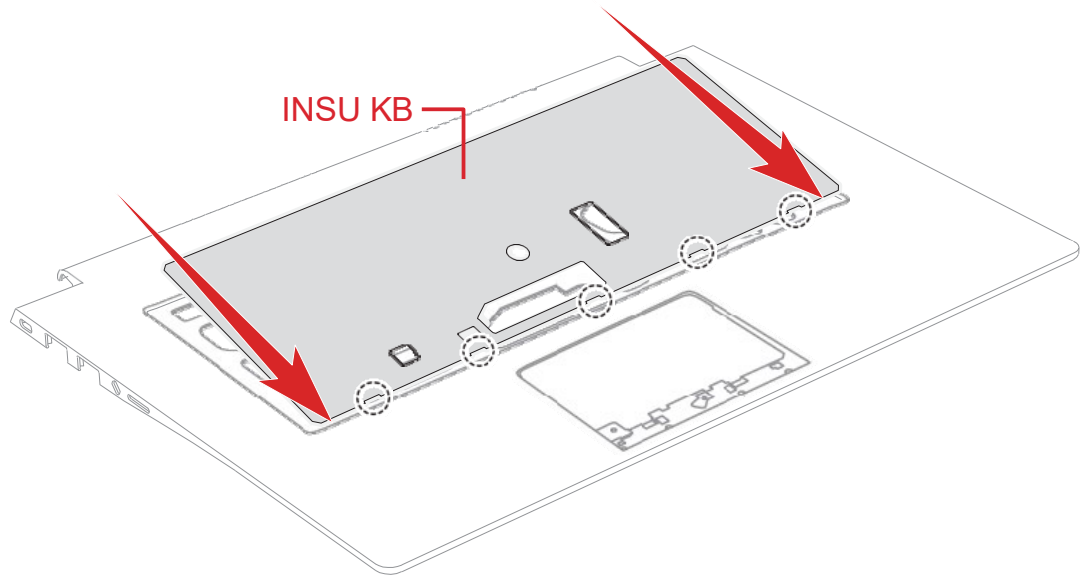


When replacing the Cover Assembly with a new one, stick one piece of new **SQUARE CUSHION** on the cover assembly in place.



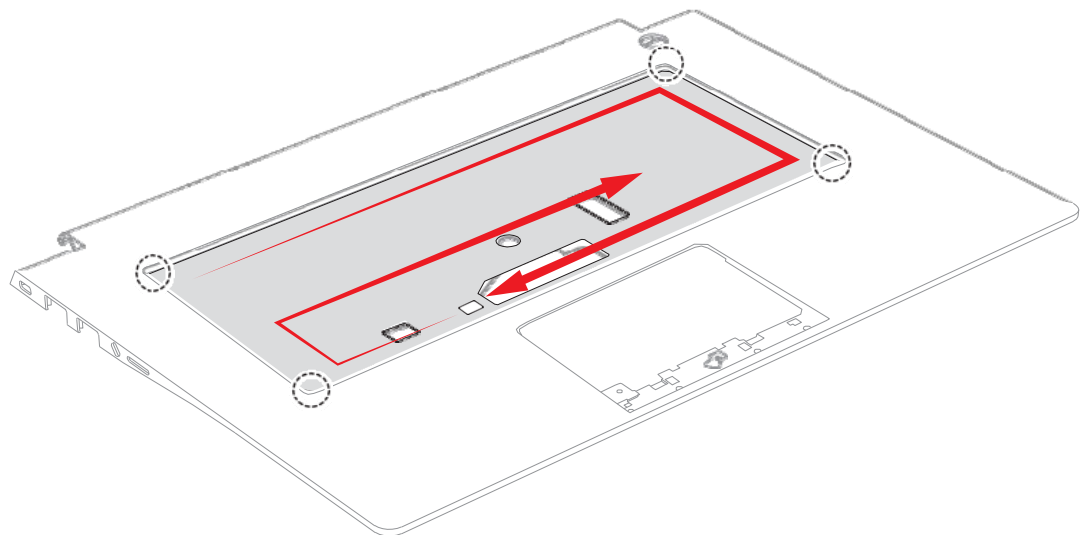
1. Remove the used INSU KB on the Cover Assembly and stick a new **INSU KB** in place.

Figure 4-41 Installing the keyboard (1)



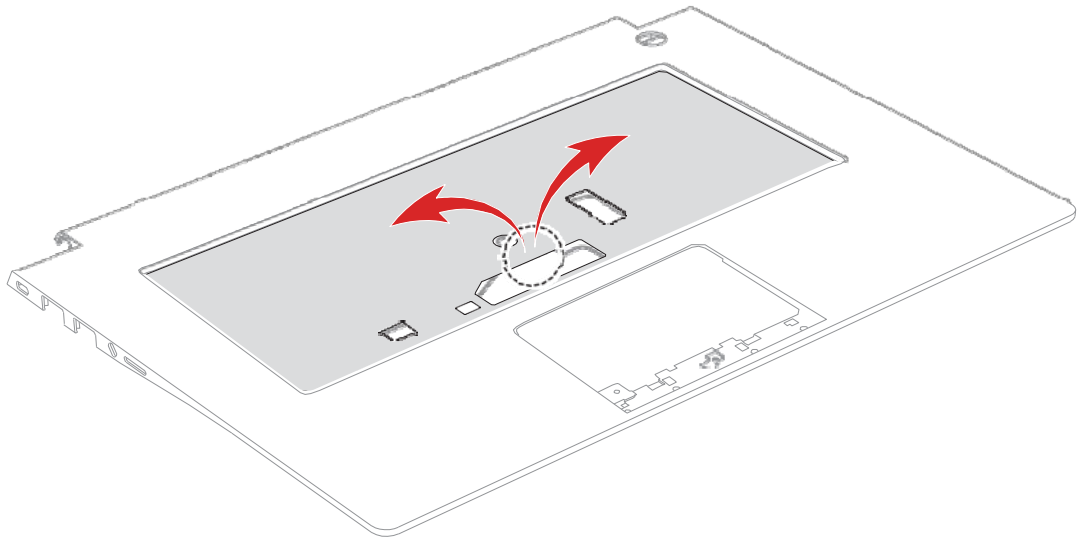
2. Make sure the whole INSU KB is flatly stuck including the four corners. Smoothen the INSU KB according to the direction in the following figure. Avoid the gasket on the Cover Assembly.

Figure 4-42 Installing the keyboard (2)



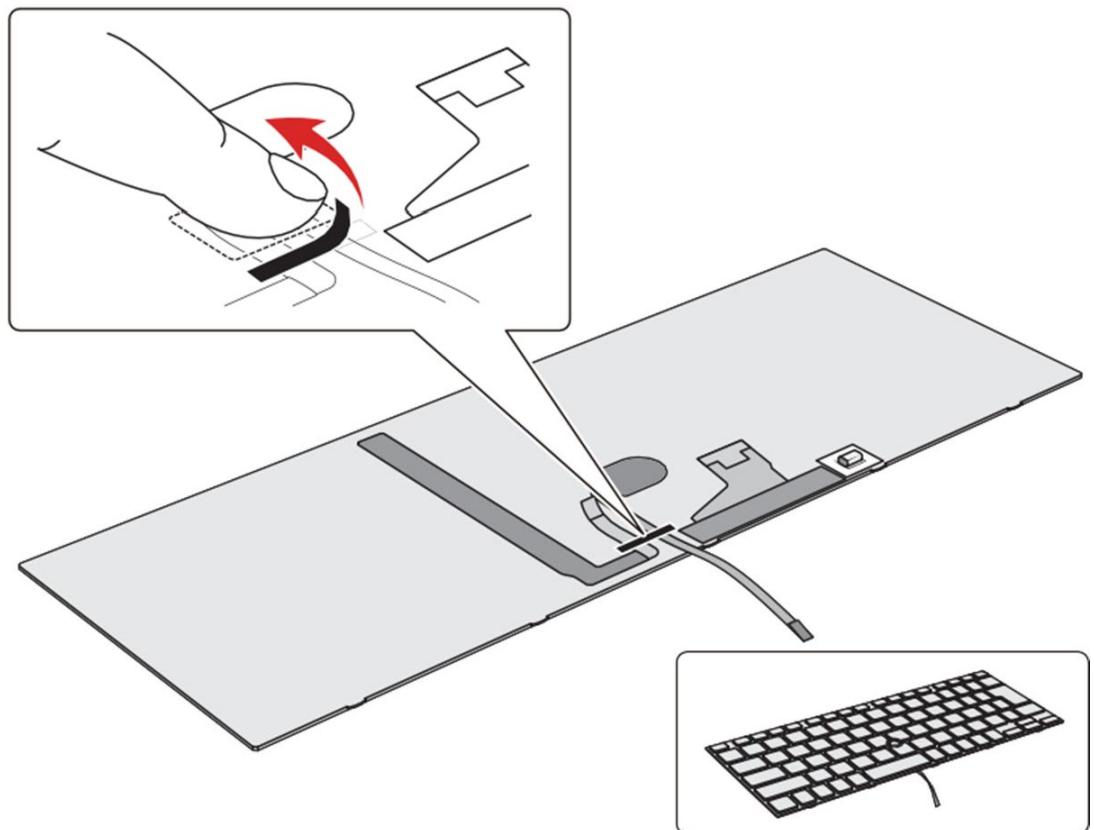
3. Peel off the separator from the lower center.

Figure 4-43 Installing the keyboard (3)



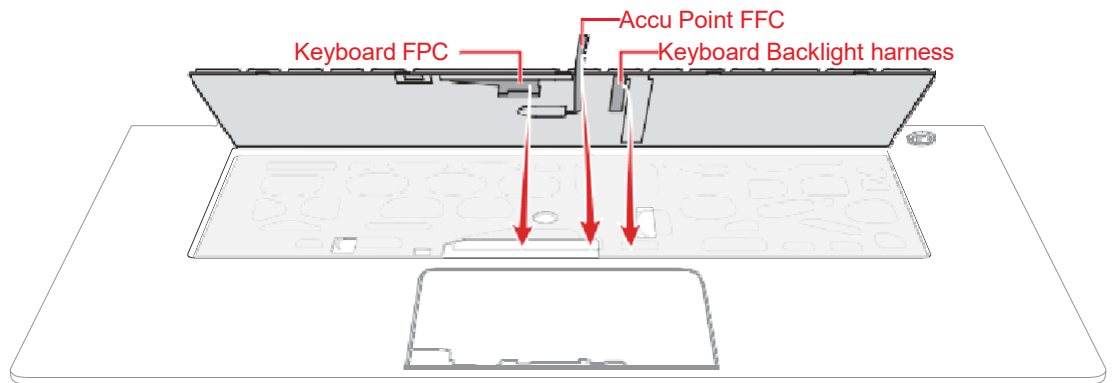
4. Peel off the stick tape on the back of a new keyboard.

Figure 4-44 Installing the keyboard (4)



5. Set the **Keyboard FPC**, the **Keyboard Backlight harness** and the **Accu Point FFC** to the slot. Extra portion of the **Keyboard FPC**, the **Keyboard Backlight harness** and the **Accu Point FFC** must be put under the Cover Assembly.

Figure 4-45 Installing the keyboard (5)



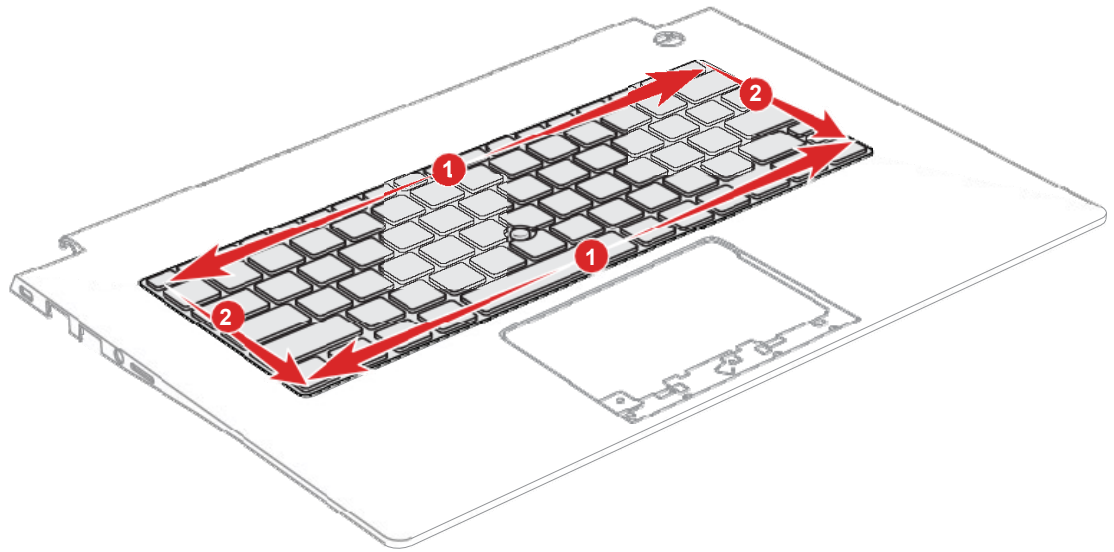
6. Stick the new keyboard to the Cover Assembly, the bottom side of the keyboard first. Make sure the right & left side gaps are equal and the corners are stuck in place.

Figure 4-46 Installing the keyboard (6)



7. Press the four sides of the KB according to the directions in the following figure to ensure the installation.

Figure 4-47 Installing the keyboard (7)



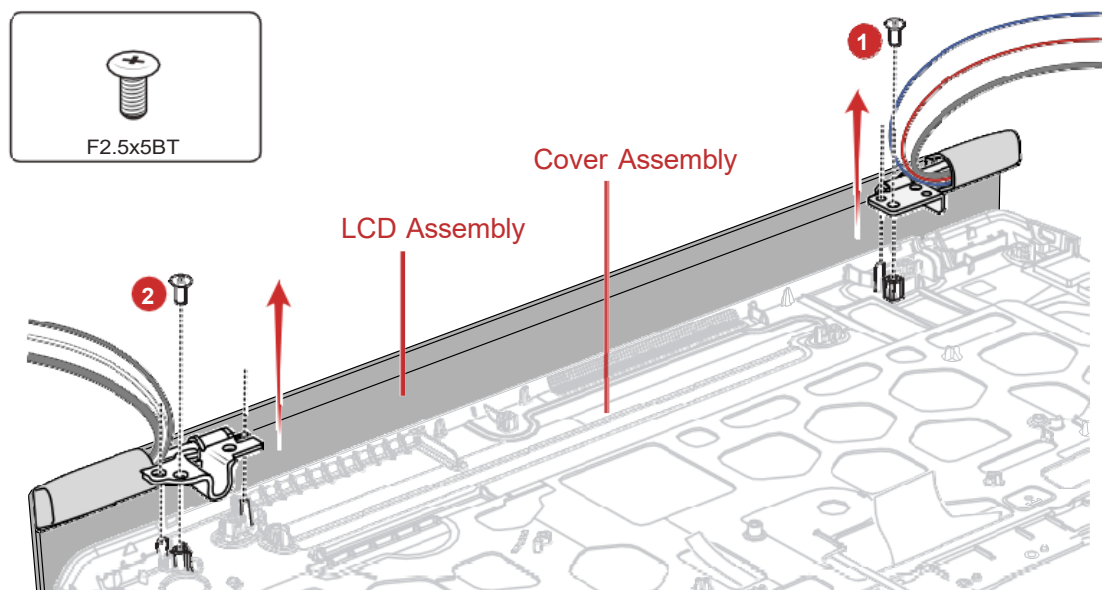
4.26 LCD Assembly

4.26.1 Removing the LCD unit

To remove the LCD unit, follow the steps below and refer to [Figure 4-48](#) to [Figure 4-56](#).

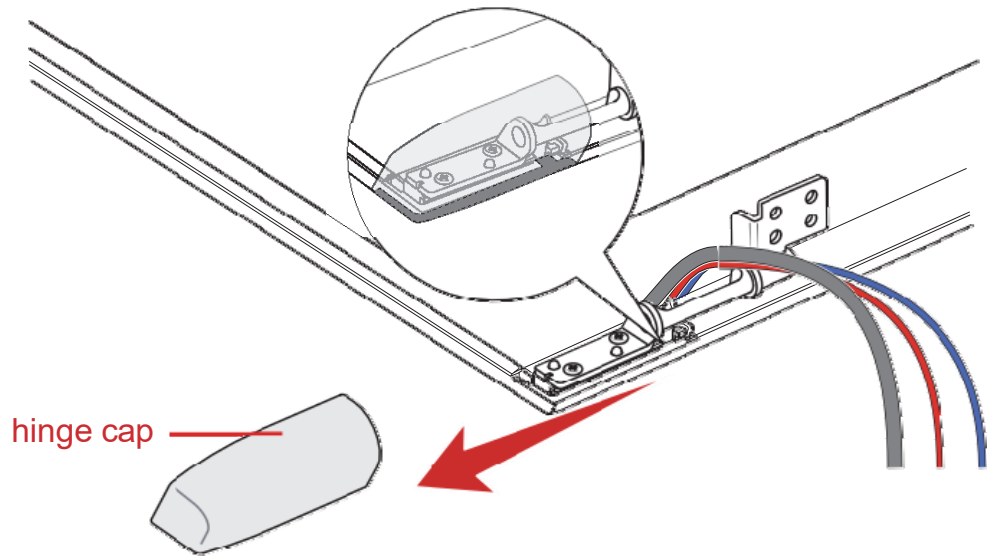
1. Release the following screws and separate the **LCD Assembly** and **Cover Assembly**.

Figure 4-48 Removing the LCD unit (1)



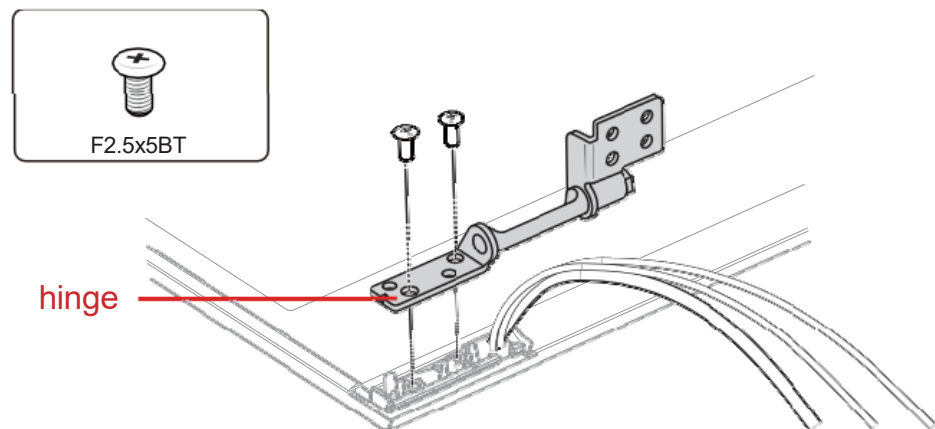
2. Remove both **hinge caps**.

Figure 4-49 Removing the LCD unit (2)



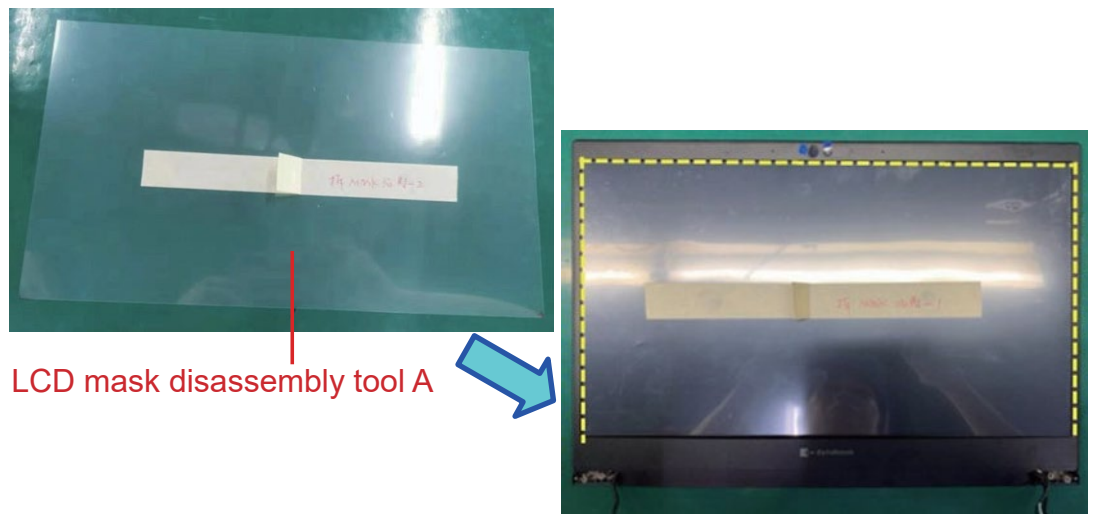
3. Release the following screws and remove the left & right hinges.

Figure 4-50 Removing the LCD unit (3)



4. Align the LCD mask disassembly tool A with the inner side of the LCD mask and lay it on the LCD cover.

Figure 4-51 Removing the LCD unit (4)



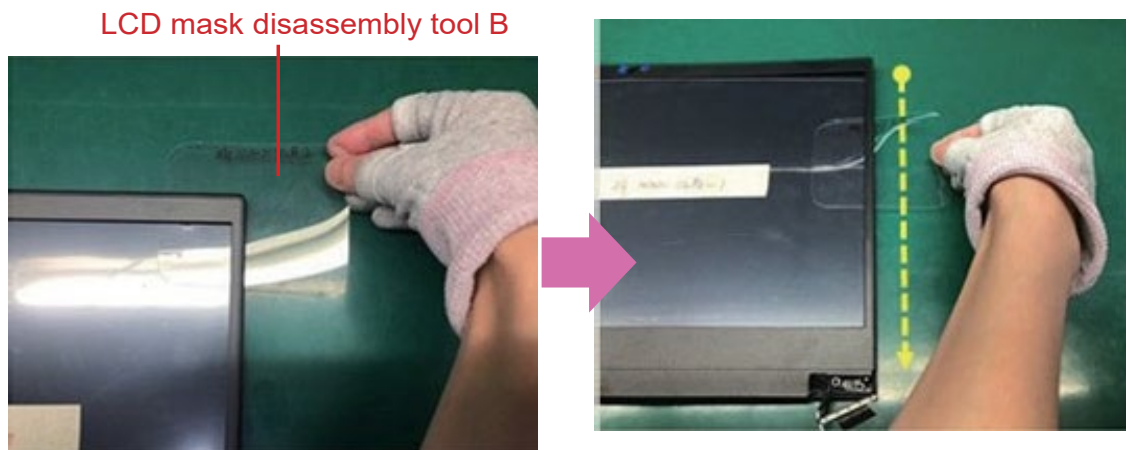
5. Detach the LCD mask from the top side of the LCD cover first. Release the latches from the second one (on the left as marked in the following figure) to the right.

Figure 4-52 Removing the LCD unit (5)



6. Insert the LCD mask disassembly tool B into the gap between LCD mask and LCD unit on the right side of the LCD cover. Slide tool B towards the bottom side to separate the LCD mask from the LCD cover.

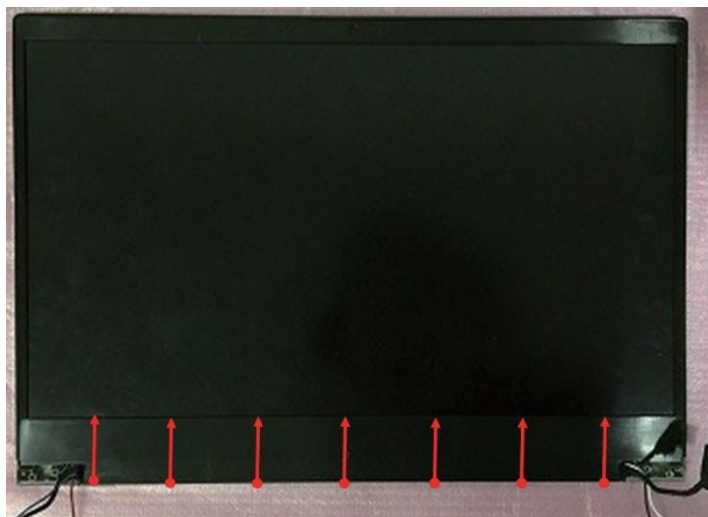
Figure 4-53 Removing the LCD unit (6)



Do not lift the LCD mask too much from the LCD cover when inserting the disassembly tool B.

7. Separate the LCD mask from the LCD cover on the left side by the same way.
8. Detach the LCD mask from the bottom side by releasing the latches from lower-right corner to the left.

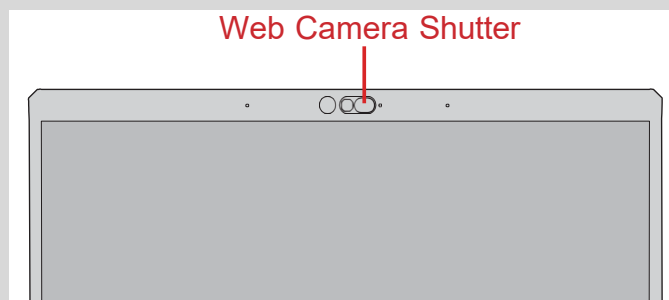
Figure 4-54 Removing the LCD unit (7)



9. Remove the LCD mask.

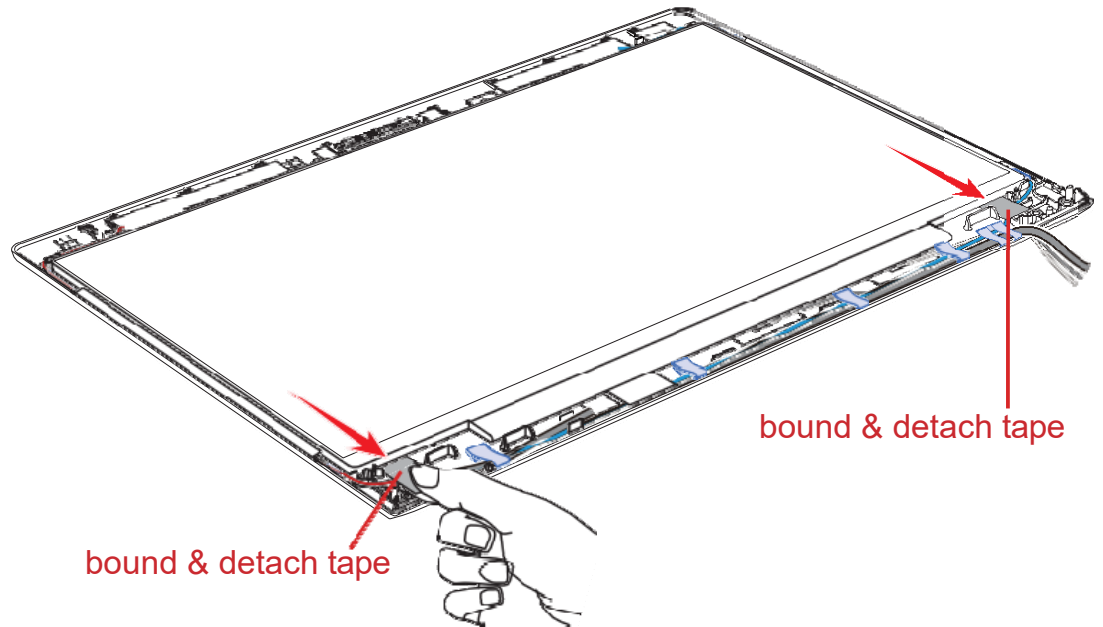


The Web Camera Shutter is attached to the LCD mask by magnet. Please be care not to lose it during removing the LCD mask.



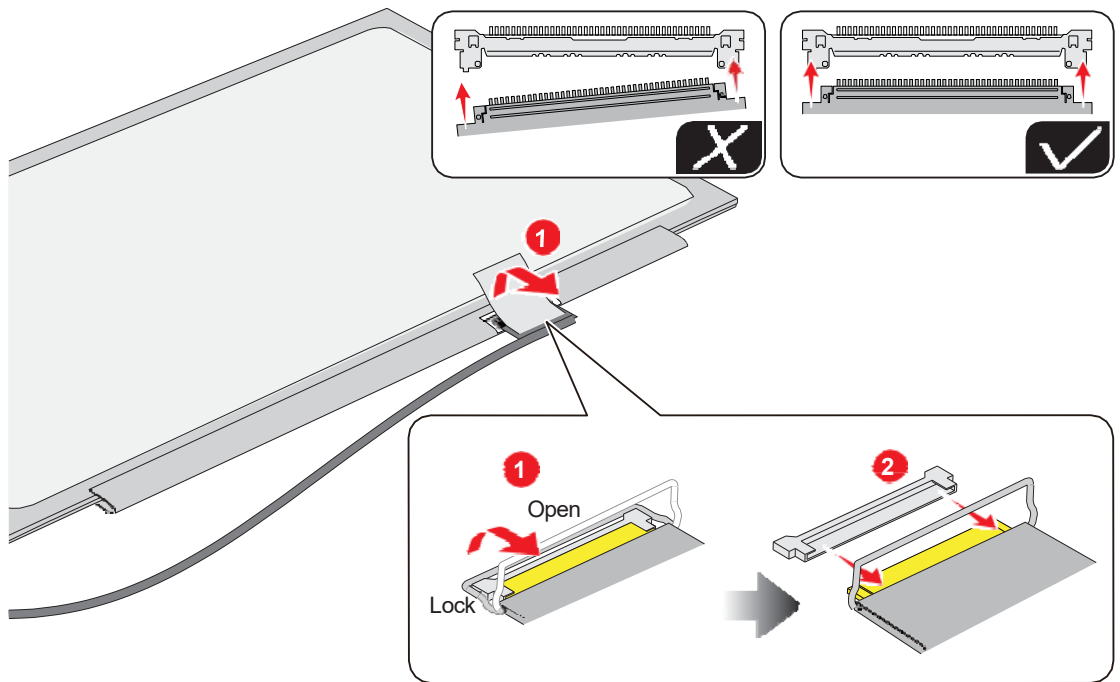
10. Peel off the insulators securing the LCD harness and release the LCD harness.
11. Grasp the bound & detach tapes under the left and right side of the LCD unit and pull out the tapes slowly and parallelly from the LCD cover.

Figure 4-55 Removing the LCD unit (6)



12. Take out the LCD unit.
Be careful that the LCD harness is connected to the connector on the back of the LCD unit.
13. Peel the pull tape and disconnect the LCD harness from the connector on the LCD unit.

Figure 4-56 Removing the LCD unit (7)



4.26.2 Installing the LCD unit

To install the LCD unit, follow the steps below.



For FHD LCD model:

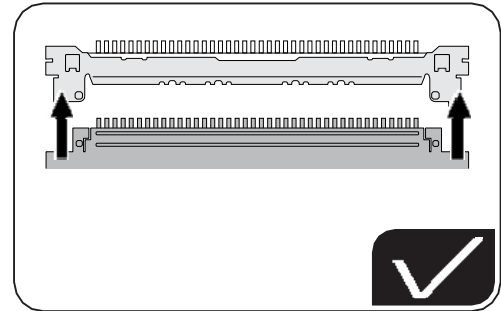
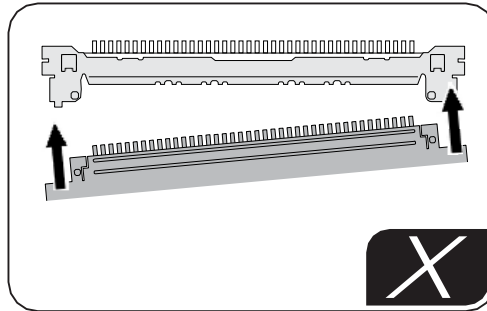
When replacing the LCD unit with a new one, stick two pieces of **AL TAPE** on the back of LCD unit in place.



1. Connect the LCD harness to the connector on the LCD unit and secure it with the pull tape and glass tape.

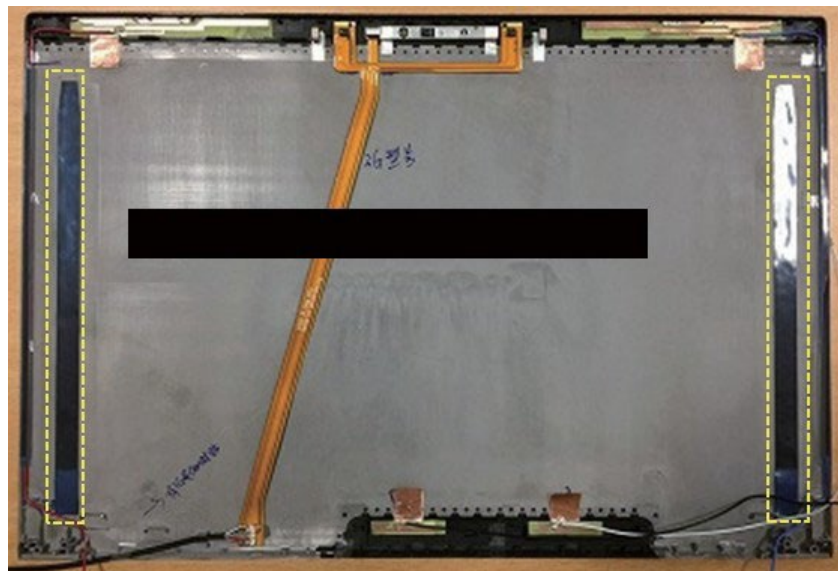


When connect the LCD harness, make sure to connect the right and left side at the same time as shown in the figure below.



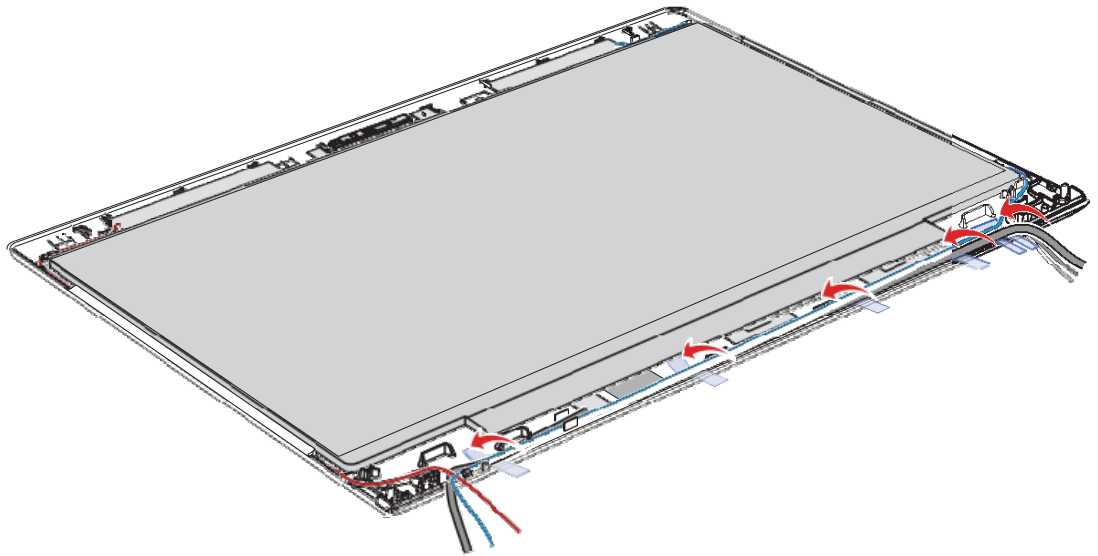
2. Peel off the separators on the bound & detach tapes on both side of the LCD cover.

Figure 4-57 Installing the LCD unit (1)



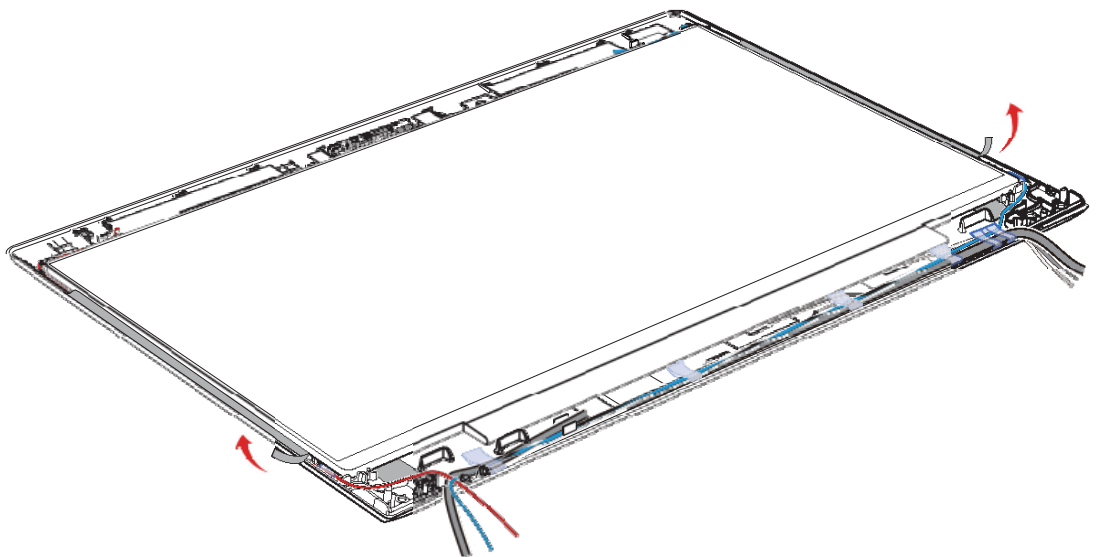
3. Set the LCD unit in place.
4. Arrange the LCD harness under the guides of the LCD cover.
5. Arrange the LCD harness and secure them with the insulators.

Figure 4-58 Installing the LCD unit (2)



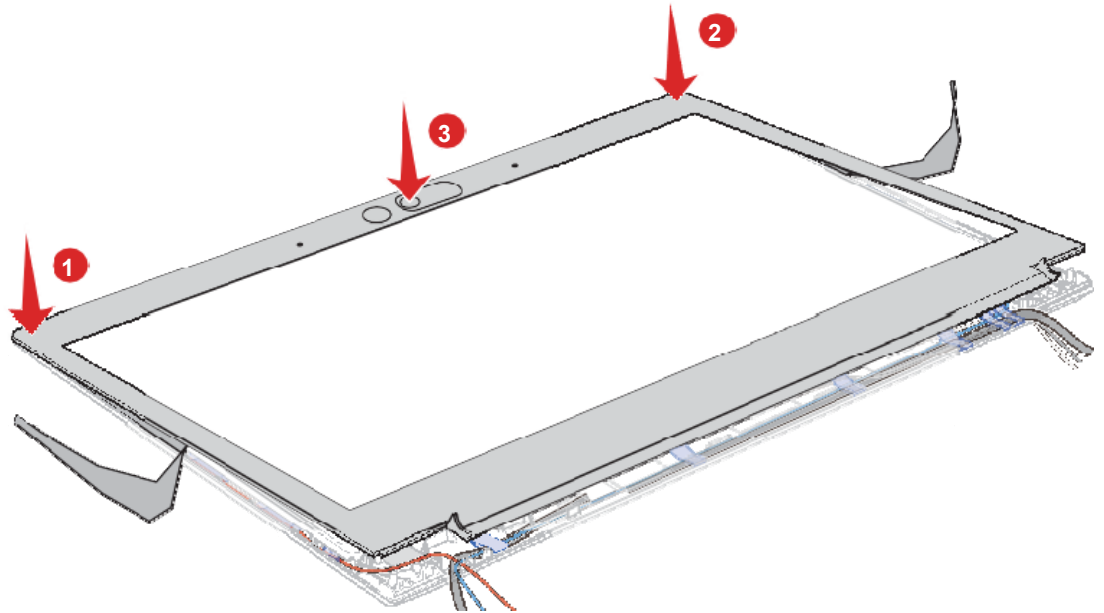
6. Lift the separators a little away from the stick tapes on both left and right edge side of the LCD cover.

Figure 4-59 Installing the LCD unit (3)



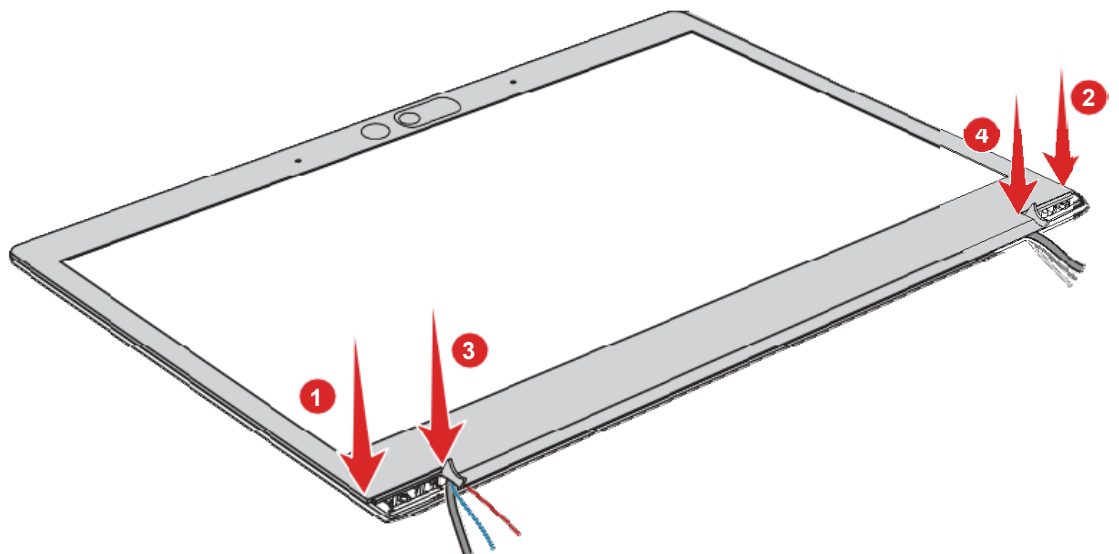
7. Install the LCD mask to the top side of the LCD cover and engage the latches following the order in the below figure.
8. Peel off the separators on the stick tapes on both left and right edge side of the LCD cover.

Figure 4-60 Installing the LCD unit (4)



9. Set the LCD mask on the LCD cover while engaging the latches on the bottom of the LCD cover.

Figure 4-61 Installing the LCD unit (5)



10. Set the left & right hinges and secure them with the screws.

Figure 4-62 Installing the LCD unit (6)



11. Arrange the harness and antennas following the below figure. Set both hinge caps while engaging the latches.

Figure 4-63 Installing the LCD unit (7)



12. Set the **LCD Assembly** on the Cover Assembly and secure them with the screws.

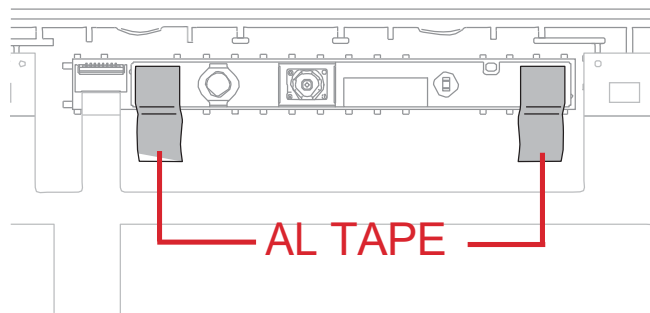
4.27 Camera module/Wireless antennas

4.27.1 Removing the Camera module

To remove the camera module, follow the steps below and refer to [Figure 4-64](#) to [Figure 4-66](#).

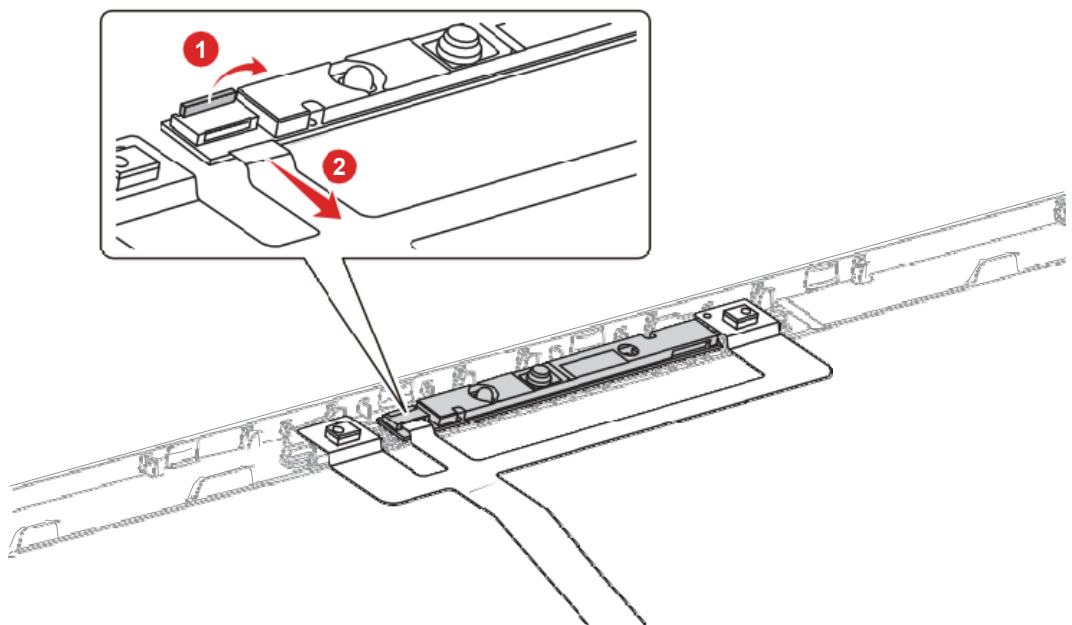
1. Remove two pieces of **AL TAPE** on the camera module.

Figure 4-64 Removing the camera module (1)



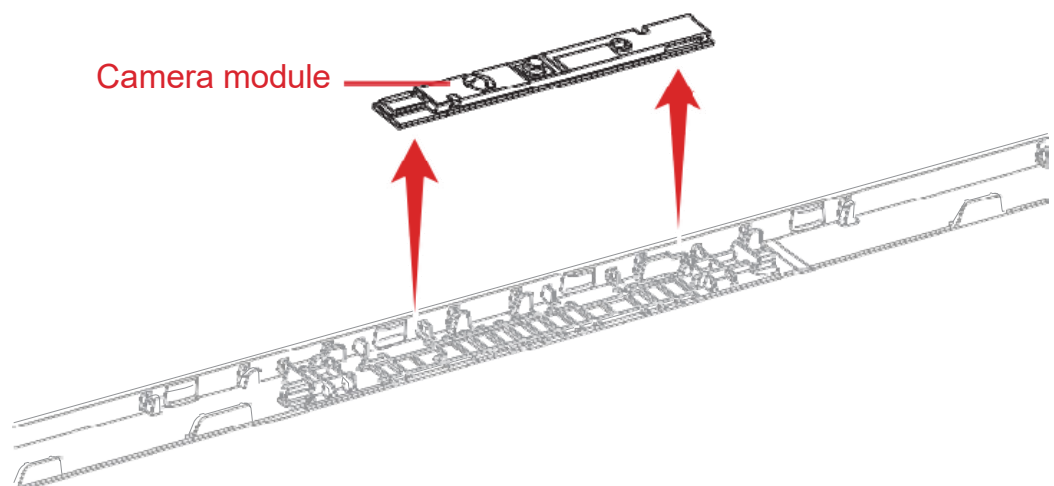
2. Peel off the **SQUARE CUSHION** on the HD web CAM FPC/IR CAM FPC first and then peel off the **HD web CAM FPC/IR CAM FPC** from the LCD cover.
3. Disconnect the FPC from the connector on the camera module.

Figure 4-65 Removing the camera module (2)



4. Peel off the **camera module** from the slot of the LCD cover.

Figure 4-66 Removing the camera module (3)





Do not reuse the removed camera module. Be sure to use new camera module.

4.27.2 Removing the Wireless antennas

To remove the wireless antennas (Wireless LAN/Wireless LAN+3G), follow the steps below.

1. Peel off the insulators securing the wireless antennas cables and release the antennas cables.
2. Peel off the wireless antennas from the LCD cover.



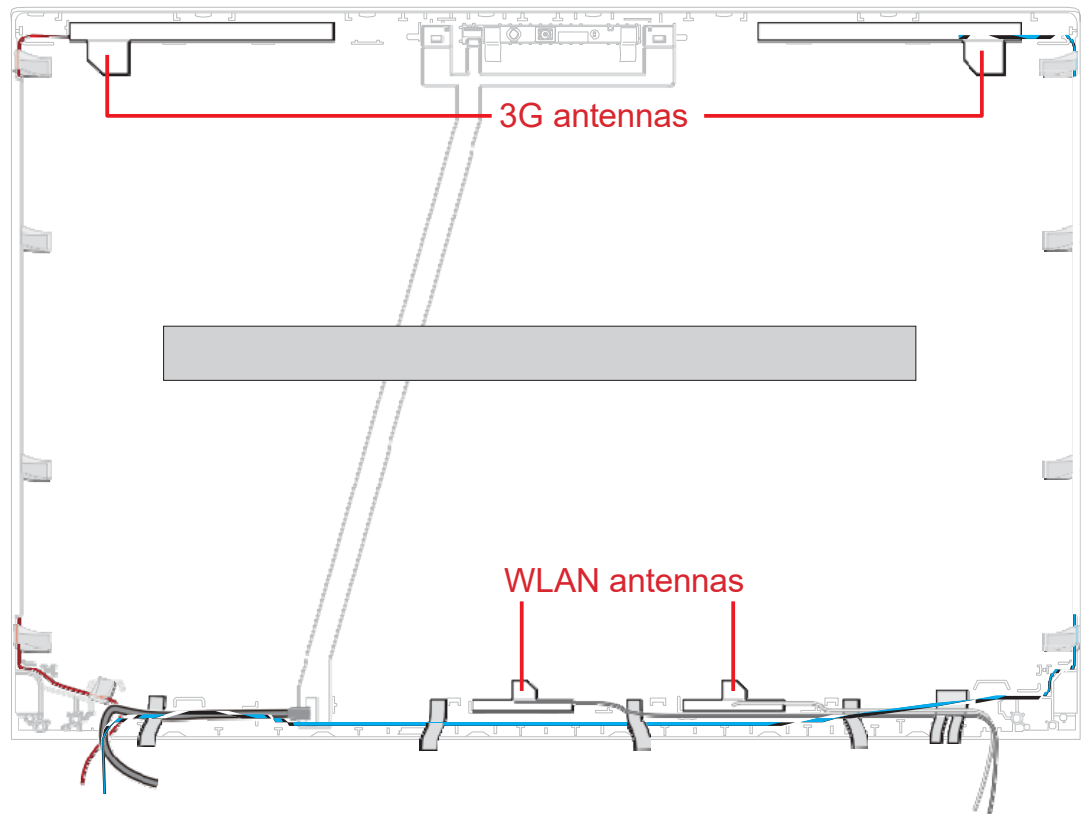
Do not reuse the removed wireless antennas. Be sure to use new wireless antenna.

4.27.3 Installing the Wireless antennas

To install the wireless antenna, follow the steps below.

1. Stick new **Wireless antennas** in place.
2. Arrange the **Wireless antenna cables** in place as shown in below figure, and secure them with the INSU SQUARE and insulators on the LCD cover.

Figure 4-67 Arrange wireless antenna cables



4.27.4 Installing the Camera module

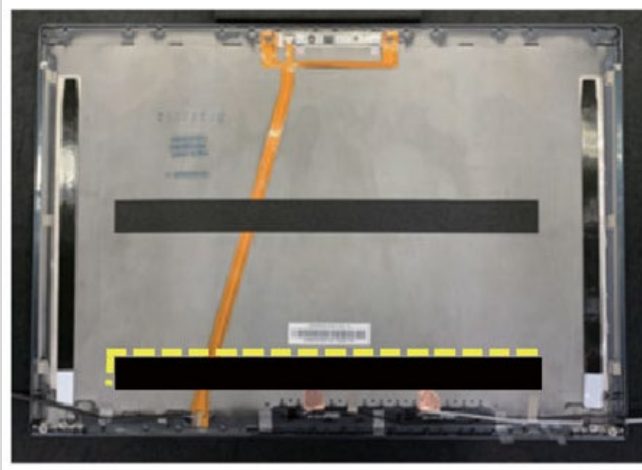
To install the camera module, follow the steps below and refer to [Figure 4- 64](#) to [Figure 4-66](#).

1. Peel off a protection sheet from a new camera module.
2. Stick the **new camera module** to the LCD cover.
3. Connect the **HD web CAM FPC/IR CAM FPC** to the connector on the camera module and stick the HD web CAM FPC/IR CAM FPC to the LCD cover in place.
4. Stick two pieces of **AL TAPE** on the **new camera module**.
5. Stick one piece of **SQUARE CUSHION** on the FPC.



For FHD LCD model:

When replacing the the HD web CAM FPC/IR CAM FPC with a new one, stick another piece of **SQUARE CUSHION** on the FPC in place.



AC Adapter, External cables provided with the AC adapter and USB cables

The AC adapter as well as all external cables provided with the notebook including the AC adapter cables and USB cables should be segregated and sent for shredding.

The following components contained within the AC adapter potentially contain hazardous substances and require special handling:

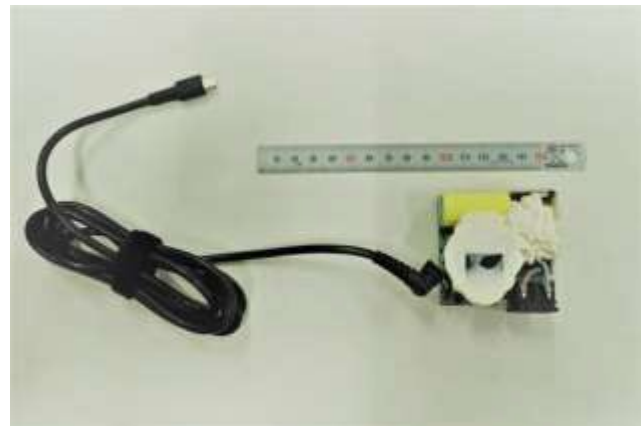
- Printed Circuit Board >10 cm²
- Capacitor >25 mm in height

Photos of the AC adapter and the components noted above are included below.
The notebook has one of two types of AC adapter.

USB connection type



AC adapter



AC Adapter with casing removed



AC Adapter printed circuit board

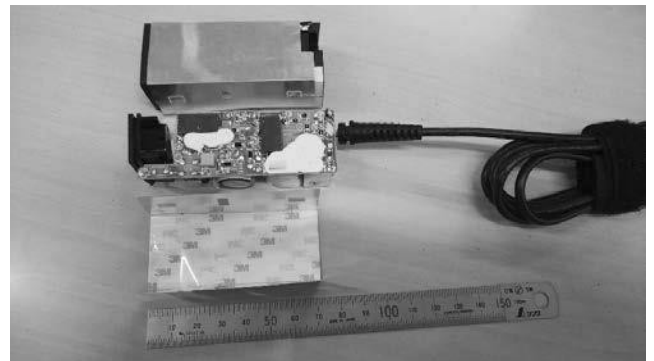


AC adapter capacitor

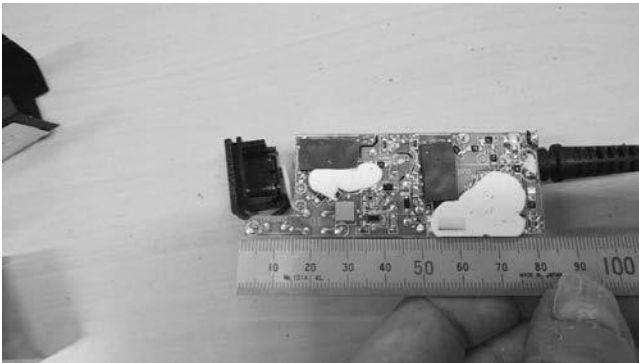
Conventional type



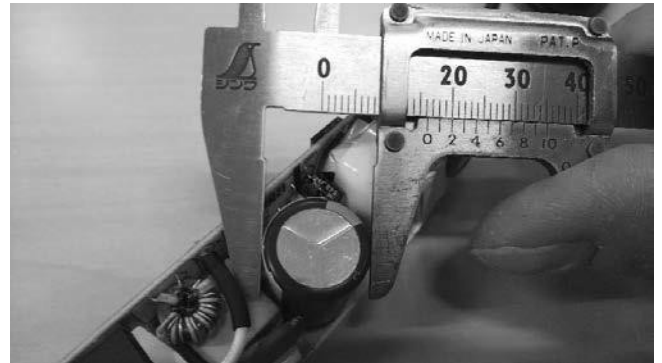
AC adapter



AC Adapter with casing removed



AC adapter printed circuit board



AC adapter capacitor