

## 4.19 CPU

### Removing the CPU

To remove the CPU, follow the steps below and refer to figures 4-28 and 4-29.

**CAUTION:** 1) *The CPU can become very hot during operation. Be sure to let it cool before starting repair work.*

2) *When you remove the CPU, wipe the grease off of the bottom of the fin and top of the CPU. Apply new grease when installing.*

1. Remove the following **screws** securing the CPU holder, in the reverse order of the number marked on the holder.
  - M2×4B BIND screw ×3
2. Remove the **CPU holder**.
3. Remove the **fin**.

**CAUTION:** Silicon grease is applied between the fin and the CPU. When removing the fin, be careful not to damage the CPU under the fin.

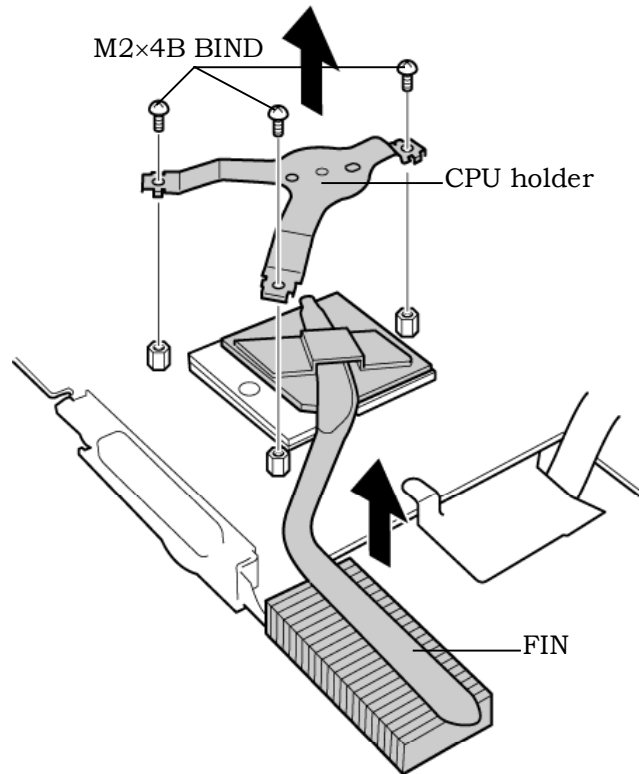


Figure4-28 Removing the CPU holder and fin

4. Unlock the **CPU** by rotating the **cam** on the CPU socket 180 degrees counterclockwise with a flat-blade screwdriver (in the order shown in the figure below).
5. Remove the **CPU**.

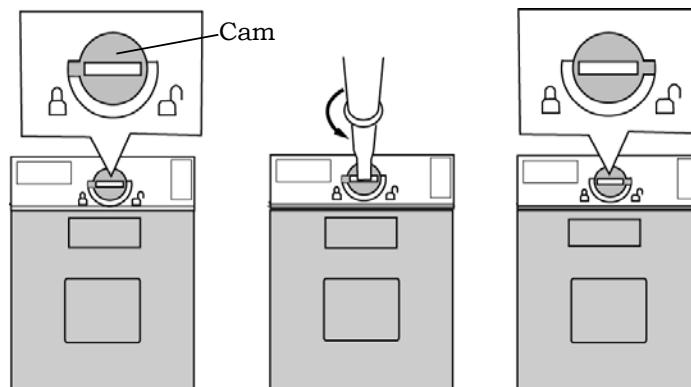


Figure 4-29 Unlocking the CPU

## Installing the CPU

To install the CPU, follow the steps below and refer to figures 4-28 to 4-30.

1. Make sure the cam is in the open position.
2. Seat the **CPU** in the CPU socket. Make sure the position is exact to avoid damaging pins on the CPU.
3. Fix the **CPU** by rotating the **cam** 180 degrees clockwise with a flat-blade screwdriver.
4. Apply new **grease** on the CPU using a special syringe as shown in the following figure. Apply quarter of scale (0.25ml) of grease evenly on the CPU chip. When silicon grease is already applied to the CPU, wipe them off with a close in advance.

**CAUTION:** *When installing the CPU, apply new grease on the top of the CPU chip.  
When installing the fin, make sure the bottom of the fin covers the top of the CPU.*

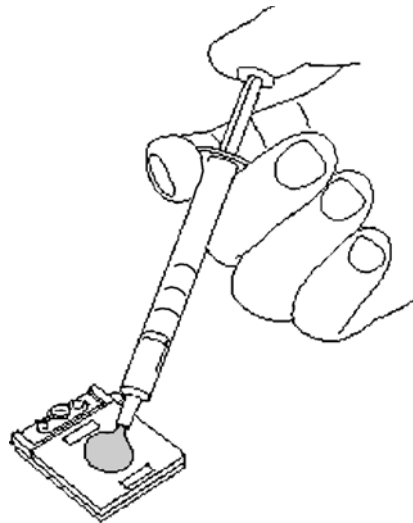


Figure 4-30 Applying new grease

5. Install the **fin**.
6. Place the **CPU holder** and secure it with the following **screws** in the order of the number marked on the holder.
  - M2×4B BIND screw ×3

## 4.20 Speaker

### Removing the Speaker

To remove the speaker, follow the steps below and refer to figures 4-31 and 4-32.

1. Remove the following **screws** and peel the **insulator**.

- M2.5×6B FLAT HEAD screw ×4
- M2.5×4B FLAT HEAD screw ×1 (upper left side)

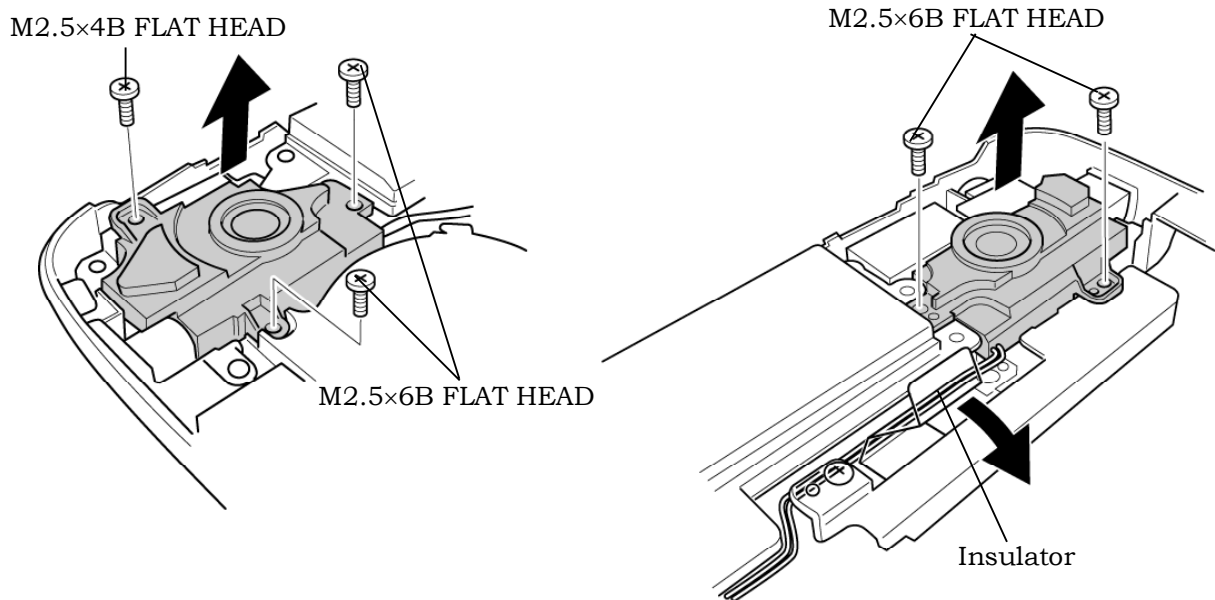


Figure 4-31 Removing the speakers

2. Remove the following **screw** and **cable holder**.

- M2.5×4B FLAT HEAD screw ×1

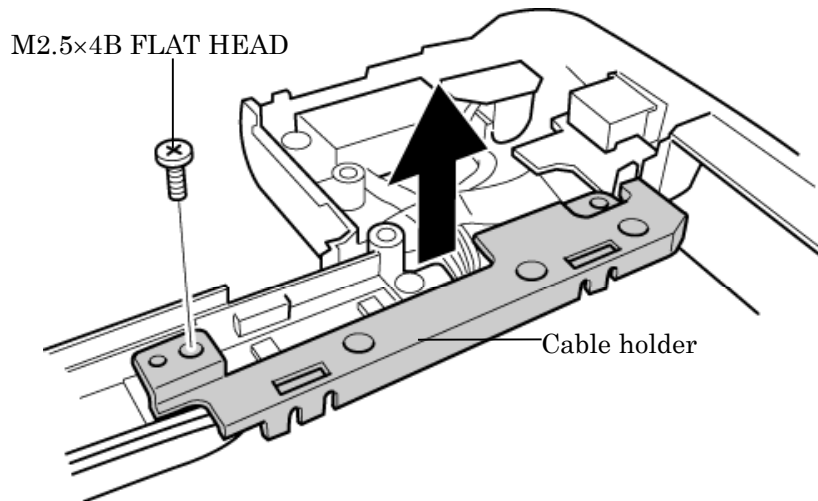


Figure 4-32 Removing the cable holder

3. Remove both the **speakers**.

### Installing the Speaker

To install the speaker, follow the steps below and refer to figures 4-31 to 4-32.

1. Set both the **speakers**.

2. Install the cable holder and secure it with the following **screw**.

- M2.5×4B FLAT HEAD screw ×1

3. Secure the following **screws** and stick the **insulator** to fix the speakers.

- M2.5×6B FLAT HEAD screw ×4
- M2.5×4B FLAT HEAD screw ×1 (upper left side)

## 4.21 Fan

### Removing the Fan

To remove the fan, follow the steps below and refer to figure 4-33.

1. Remove the following **screws** securing the fan.
  - M2.5×6B FLAT HEAD screw                   ×1 (lower right side)
2. Remove the **fan**.

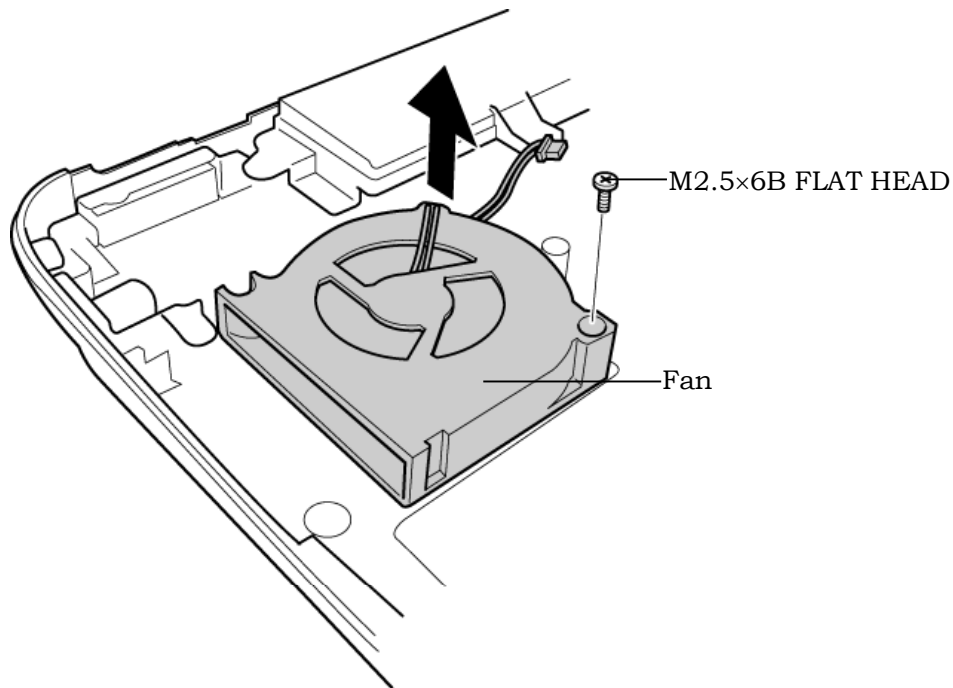


Figure4-33 Removing the fan

### Installing the Fan

To install the fan, follow the steps below and refer to figure 4-33.

1. Place the **fan**.
2. Secure the fan with the following **screw**.
  - M2.5×6B FLAT HEAD screw                   ×1

## 4.22 USB Board/DC-IN jack/Network jack

### Removing the USB Board/DC-IN jack/Network jack

To remove the USB board/DC-IN jack/network jack, follow the steps below and refer to figure 4-34.

1. Remove the following **screw** securing the USB board.
  - M2.5×4B FLAT HEAD screw ×1
2. Disconnect the **USB cable** from the connector **CN1** on the USB board.
3. Peel off the **acetate tape** and remove the **network jack** from the slot.
4. Disconnect the **DC-IN jack cable** from the connector **CN1** on the power board and remove the **DC-IN jack**.

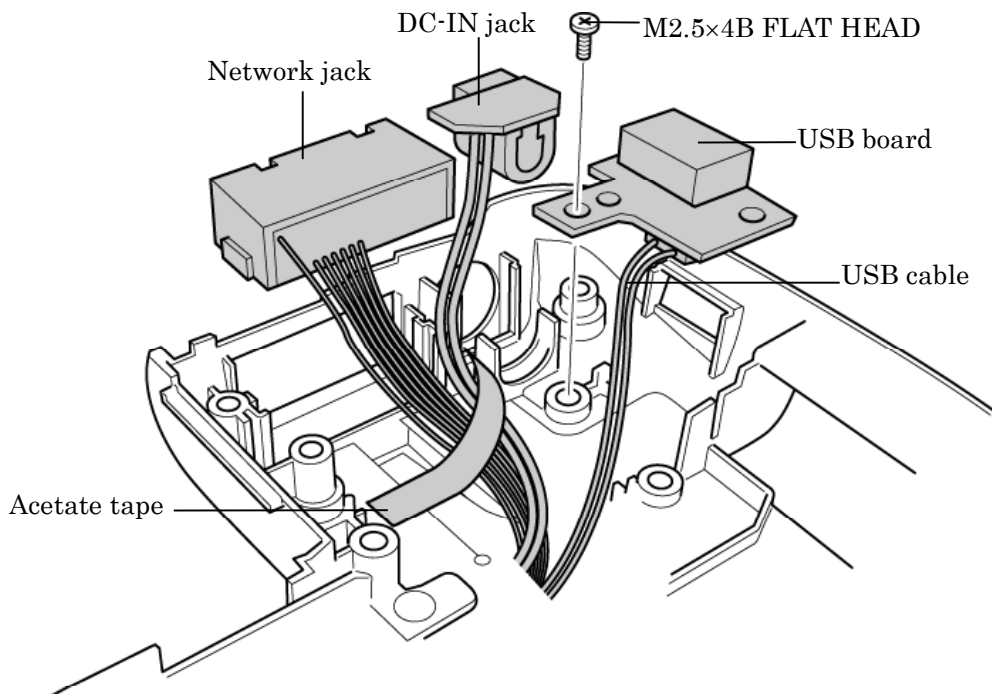


Figure 4-34 Removing the USB board/DC-IN jack/network jack

**Installing the USB Board/DC-IN jack/Network jack**

To install the USB board/DC-IN jack/network jack, follow the steps below and refer to the figure 4-34.

1. Connect the **DC-IN jack cable** to the connector **CN1** on the power board and Install the **DC-IN jack**.
2. Install the **network jack** to the slot and stick the **acetate tape**.
3. Connect the **USB cable** to the connector **CN1** on the USB board.
4. Place the **USB board** into the slot and secure it with the following **screw**.
  - M2.5×4B FLAT HEAD screw                    ×1



## 4.23 RGB board/Power board

### Removing the RGB board/Power board

To remove the RGB board/Power board, follow the steps below and refer to figures 4-35 to 4-37.

1. Remove the following **screws** and **battery plate**.

- M2.5×6 Tapping screw ×3

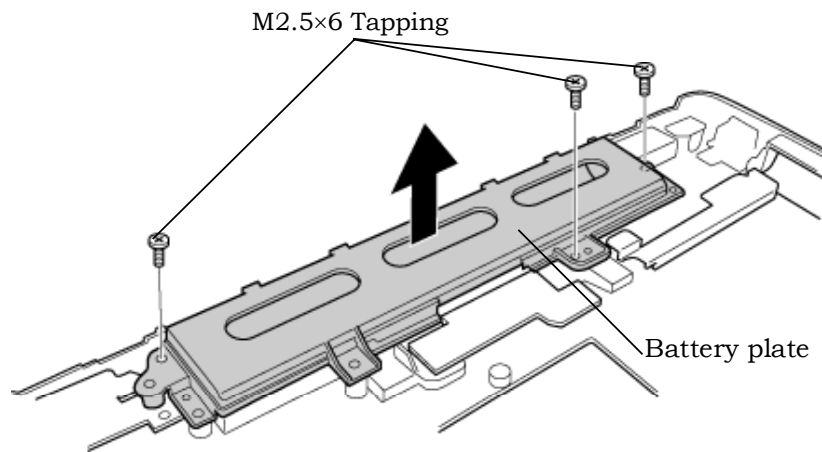


Figure 4-35 Removing the battery plate

2. Remove the following **screw** and **RGB board**.

- M2.5×6 Tapping screw ×1

3. Disconnect the **RGB cable** from the connector **CN3** on the RGB board.

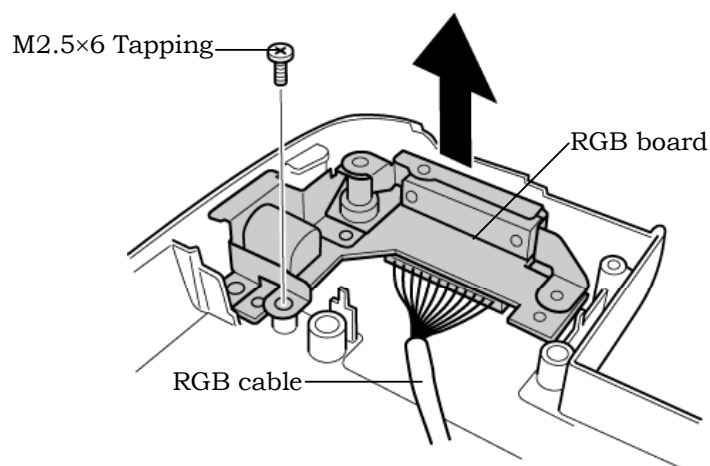
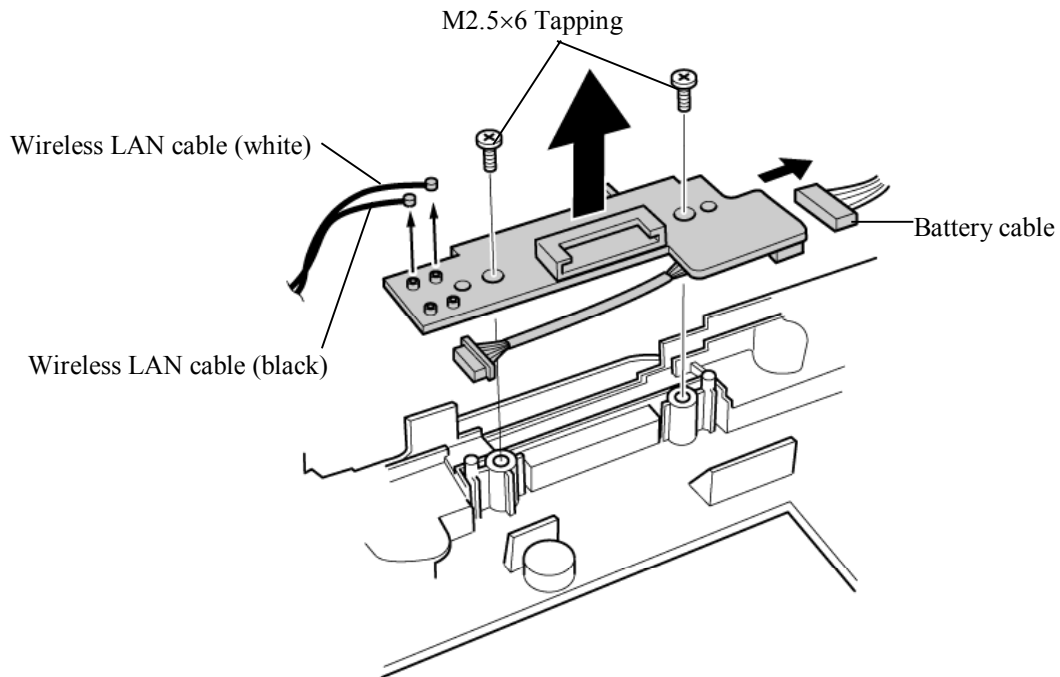


Figure 4-36 Removing the RGB board

4. Remove the following **screws** and **power board**.

- M2.5×6 Tapping screw ×2



*Figure 4-37 Removing the power board*

5. Disconnect the **wireless LAN cables** from the connectors **CN6** (white) and **CN8** (black) on the power board.
6. Disconnect the **battery cable** from the connector **CN4** on the power board.

### Installing the RGB board/Power board

To install the RGB board/Power board, follow the steps below and refer to figures 4-35 to 4-37.

1. Connect the **battery cable** to the connector **CN4** on the power board.
2. Connect the **wireless LAN cables** to the connectors **CN6** (white) and **CN8** (black) on the power board.
3. Place the **power board** and secure it with the following **screws**.
  - M2.5×6 Tapping screw ×2
4. Connect the **RGB cable** to the connector **CN3** on the RGB board.
5. Place the **RGB board** and secure it with the following **screws**.
  - M2.5×6 Tapping screw ×1
6. Place the **battery plate** and secure it with the following **screws**.
  - M2.5×6 Tapping screw ×3

## 4.24 Display Mask

### Removing the Display Mask

To remove the display mask, follow the steps below and refer to figures 4-38.

1. Remove the two **mask seals** at the lower part of the display mask.
2. Remove the four **rubber masks** at the top of the display mask.
3. Remove the following **screws** securing the display mask.
  - M2.5×6B FLAT HEAD screw ×2
  - M2×4B S-FLAT HEAD screw ×3
4. Release the latches on the display mask and remove the **display mask**.

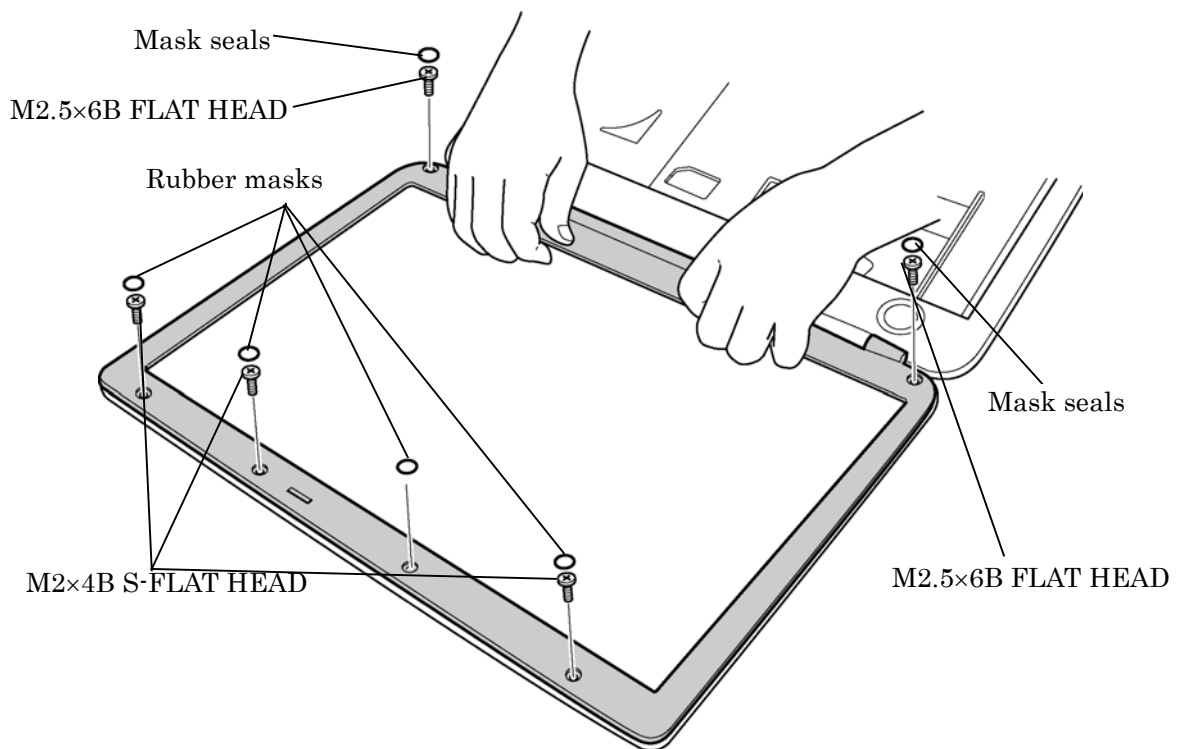


Figure 4-38 Removing the display mask

### Installing the Display Mask

To install the display mask, follow the steps below and refer to figures 4-38.

1. Place the **display mask** on the LCD module.
2. Engage the latches of the display mask.
3. Secure the display mask with the following **screws**.
  - M2.5×6B      FLAT HEAD screw      ×2
  - M2×4B        S-FLAT HEAD screw      ×3
4. Stick the four **rubber masks** at the top of the display mask.
5. Stick the two **mask seals** at the lower part of the display mask.

## 4.25 FL Inverter

### Removing the FL Inverter

To remove the FL inverter, follow the steps below and refer to figure 4-39.

1. Remove the following **screw** securing the FL inverter.
  - M2×4B S-FLAT HEAD screw ×1
2. Peel the **insulator** on the FL inverter.
3. Disconnect the **FL cable** under the insulator from the FL inverter.
4. Disconnect the **HV cable** from the FL inverter.
5. Remove the **FL inverter**.

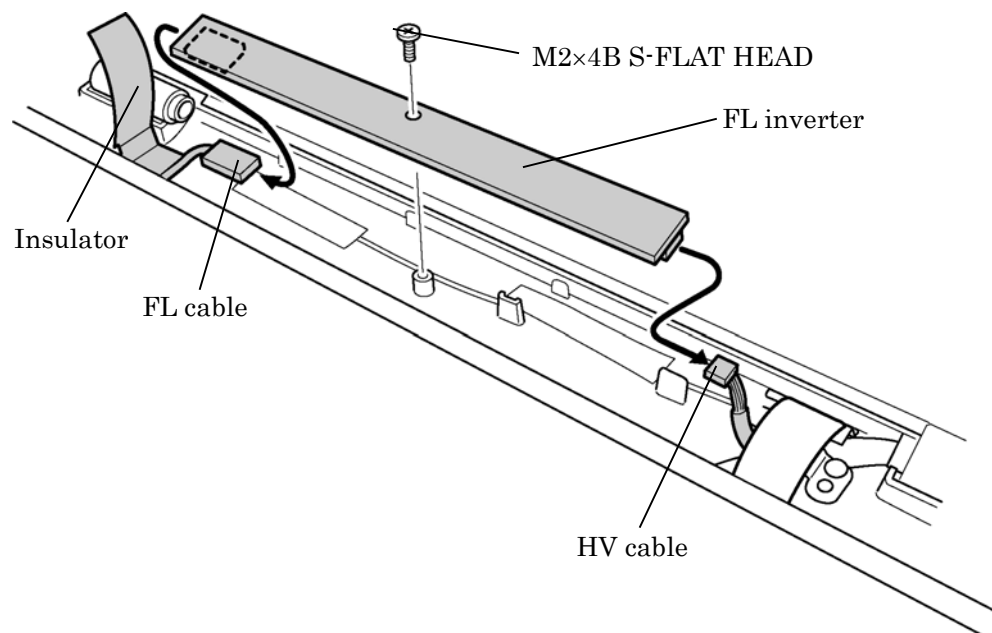


Figure 4-39 Removing the FL inverter

### Installing the FL Inverter

To install the FL inverter, follow the steps below and refer to figure 4-39.

1. Connect the **FL cable** and the **HV cable** to the FL inverter.
2. Seat the **FL inverter** and stick the **insulator** on the FL inverter of the FL cable side.
3. Secure the FL inverter with the following **screw**.
  - M2×4B S-FLAT HEAD screw ×1

## 4.26 LCD Module

**NOTE:** 1) Be careful not to apply pressure to the ICs along the edge of LCD module. The ICs are easily damaged.

2) For environmental reasons, do not throw away a malfunctioning LCD module (or FL). Please follow local ordinances or regulations for its disposal.

### Removing the LCD Module

To remove the LCD Module, follow the steps below and refer to figures 4-40 and 4-41.

1. Remove the four **mask seals** on the sides of the LCD module.
2. Remove the following **screws** securing the LCD module.
  - M2×4B S-FLAT HEAD screw ×4
3. With the bottom edge of the LCD unit on the display cover, lift the top edge of the LCD unit.
4. Remove the **copper tape** securing the LCD cable.



5. Disconnect the **LCD cable** from the connector on the back of the LCD and remove the **LCD module**.

**CAUTION:** When removing the LCD cable, be careful not to damage the connector.

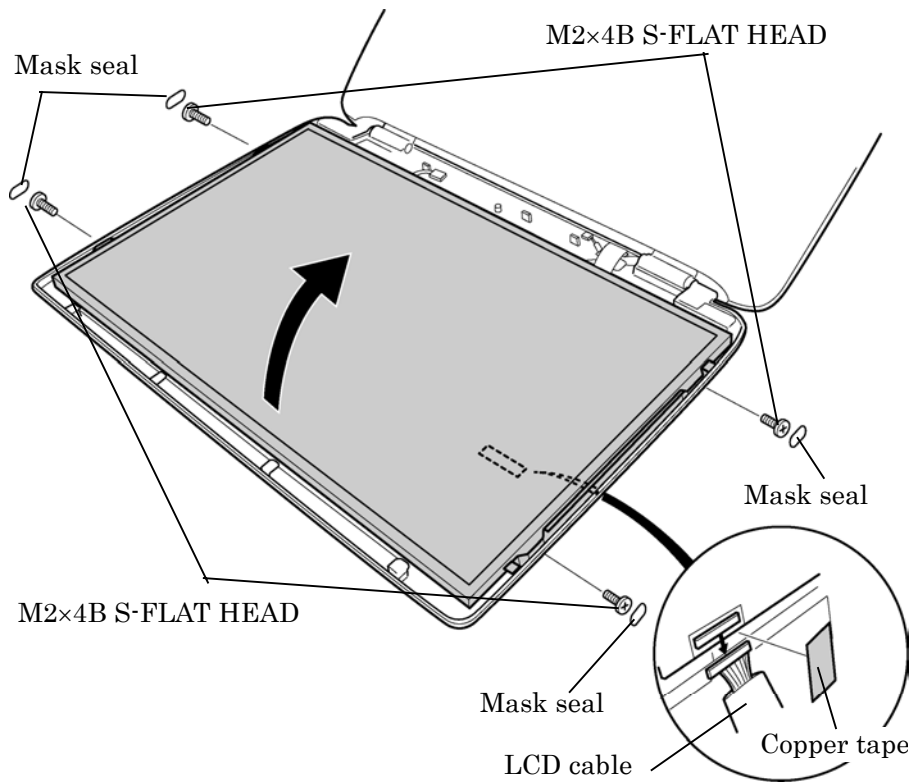


Figure 4-40 Removing the LCD module (1)

6. Remove the following **screws** securing the two **metal braces** to the LCD module.

- M2×3C S-FLAT HEAD screw ×4

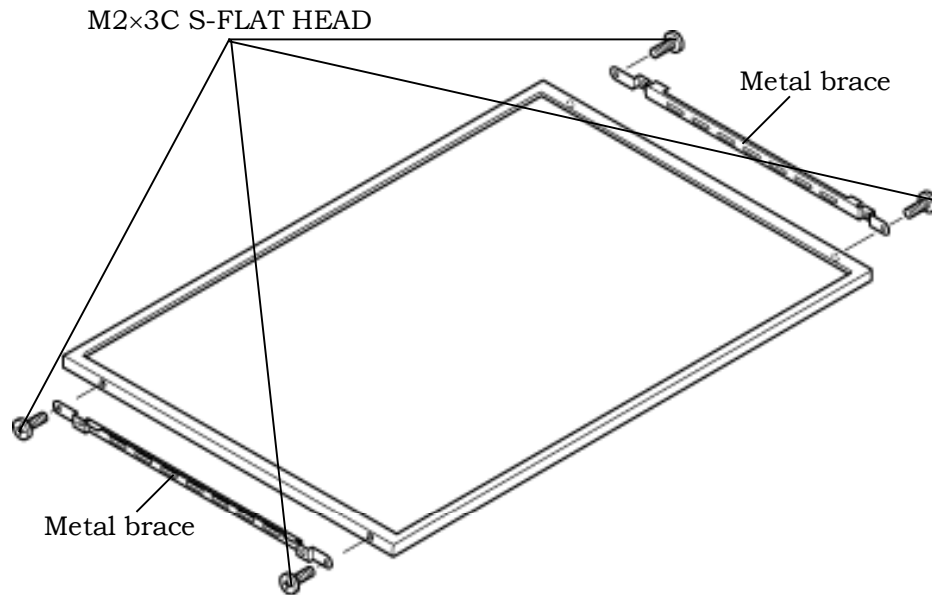


Figure 4-41 Removing the LCD module (2)

### Installing the LCD Module

To install the LCD module, follow the steps below and refer to figures 4-40 and 4-41.

1. Secure the two **metal braces** to the LCD module with the following **screws**.
  - M2×3C S-FLAT HEAD screw ×4
2. Set the **LCD module** on the display cover.
3. Connect the **LCD cable** to the connector on the back of the **LCD module**. Stick the **copper tape** on the LCD cable.
4. Seat the **LCD module** and secure it with the following **screws**.
  - M2×4B S-FLAT HEAD screw ×4
5. Stick the four **mask seals** on the sides of the LCD module.

## 4.27 Sensor/Switch Board

### Removing the Sensor/Switch Board

To remove the sensor/switch board, make sure the computer is in boot mode and powered off, follow the steps below and refer to figure 4-42.

1. Remove the following **screws** securing the sensor/switch board.
  - M2×4B S-FLAT HEAD screw ×1
2. Remove the **sensor/switch board**.

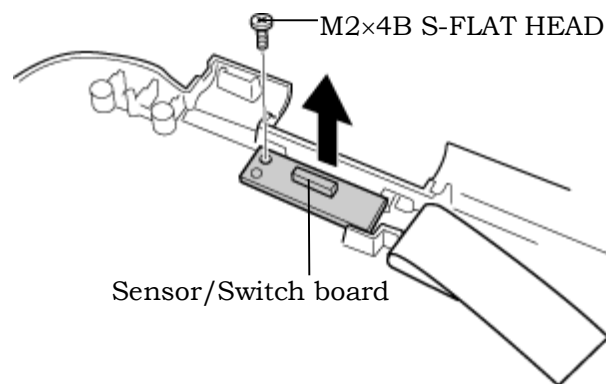


Figure 4-42 Removing the sensor/switch board

3. Pull out the **sensor/switch board cable**.

### Installing the Sensor/Switch Board

To install the sensor/switch board, make sure that the computer is in boot mode and powered off, follow the steps below and refer to figure 4-42.

1. Place the **sensor/switch board** in the slot and secure it with the following **screw**.
  - M2×4B S-FLAT HEAD screw ×1
2. Pass the sensor/switch board cable through the hole under the hinge cover.
3. Arrange the **sensor/switch board cable** along with the guides.

## 4.28 LCD cable/Wireless LAN Antenna/Hinge

### Removing the LCD cable/Wireless LAN Antenna

To remove the LCD cable/wireless LAN antenna, follow the steps below and refer to figures 4-43 to 4-49.

1. Remove the following **screw** and **LCD cable holder** on the back.

- M2.5×5B FLAT HEAD screw ×1

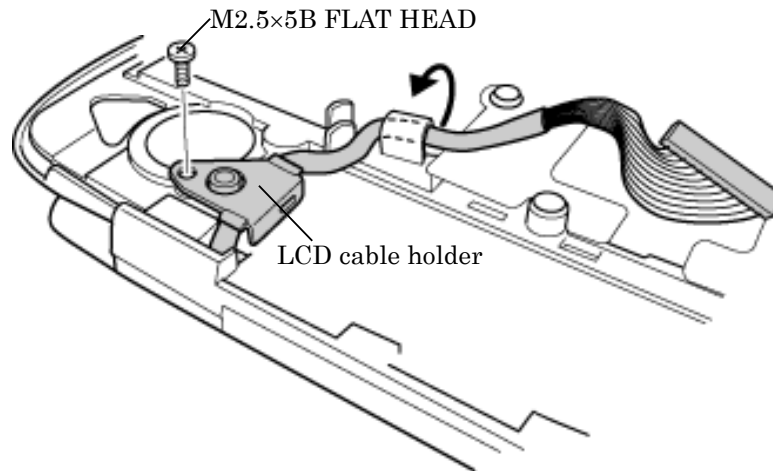


Figure 4-43 Removing the LCD cable holder

2. Peel the **insulator** and remove the following **screw** and **cable holder** on the front.

- M2.5×4B FLAT HEAD screw ×1

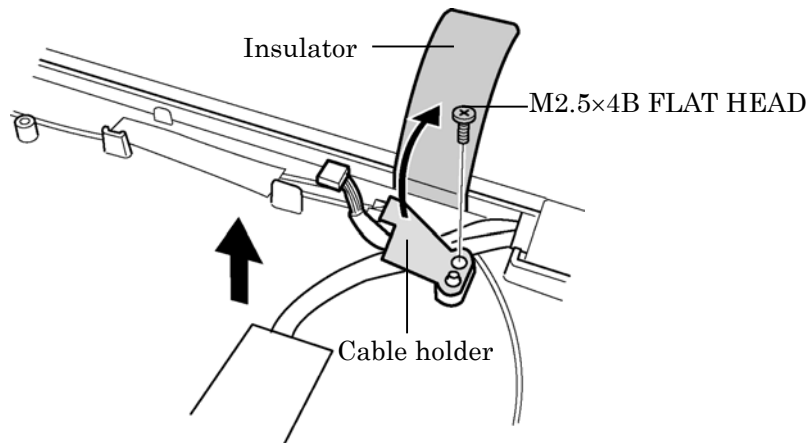


Figure 4-44 Removing the cable holder

3. Peel off the four **acetate tapes** fixing the wireless LAN antenna cable.
4. Peel off the three **copper sheets** and the **gasket** fixing the wireless LAN antenna.
5. Peel off both the **wireless LAN antennas** and pull out the cables through the hole under the hinge cap.

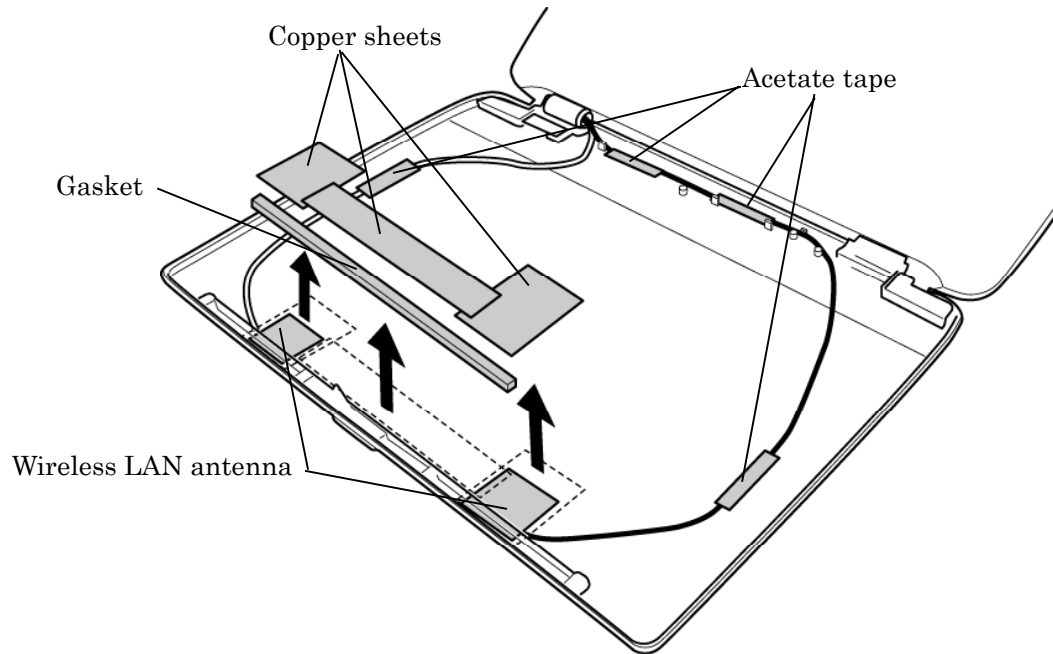


Figure 4-45 Removing the wireless LAN antenna

6. Remove the **hinge caps**.
7. Remove the following **screws** fixing the hinges on the display cover.
  - M2.5×4B FLAT HEAD screw ×2

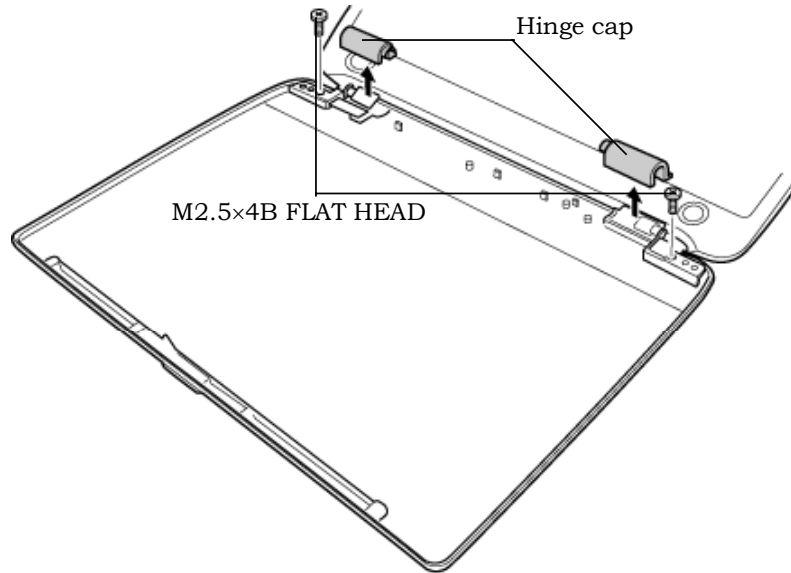


Figure 4-46 Removing the hinge cap

8. Remove the following **screws** and **hinge** (on the LCD cable side).
  - M2×4B S-FLAT HEAD screw ×1
  - M2.5×5B FLAT HEAD screw ×1

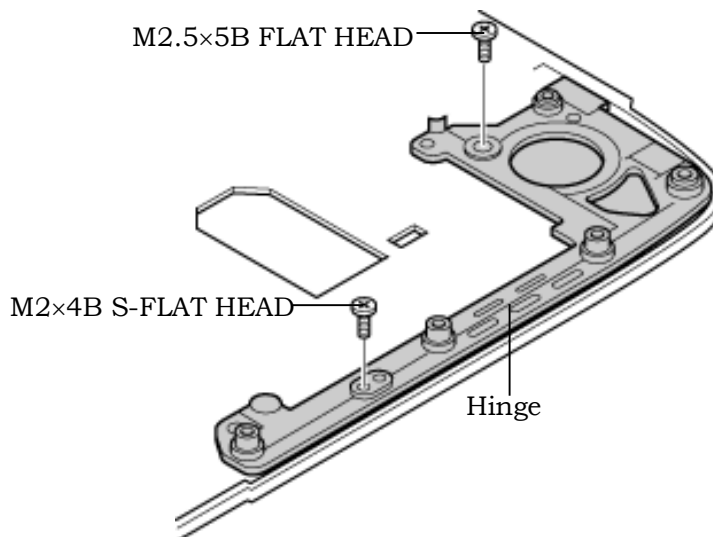


Figure 4-47 Removing the hinge (LCD cable side)

9. Pull out the **LCD cable**.

10. Remove the following **screws and circle plate**.

- M2×4B S-FLAT HEAD screw ×2

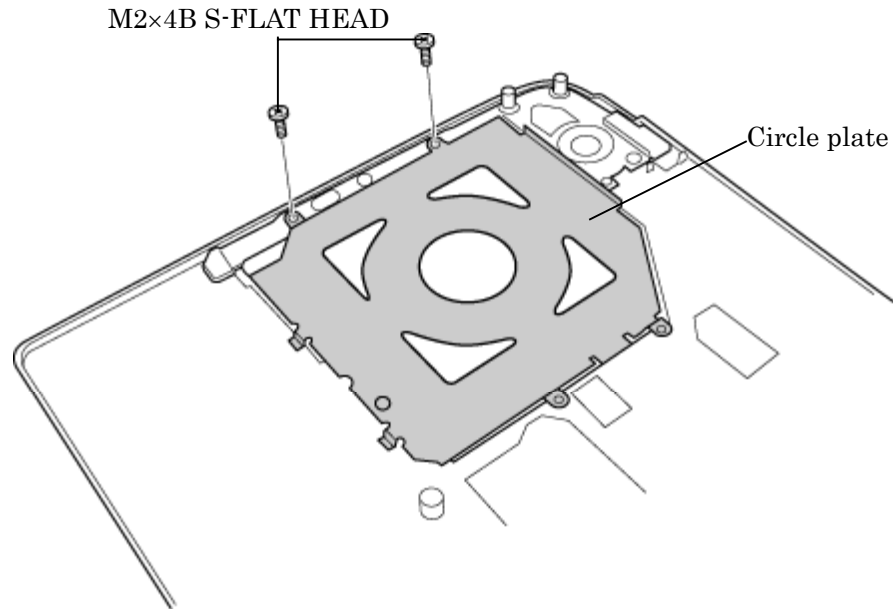


Figure 4-48 Removing the circle plate

11. Remove the following **screws and hinge** (on the other side).

- M2×4B S-FLAT HEAD screw ×1
- M2.5×5B FLAT HEAD screw ×1

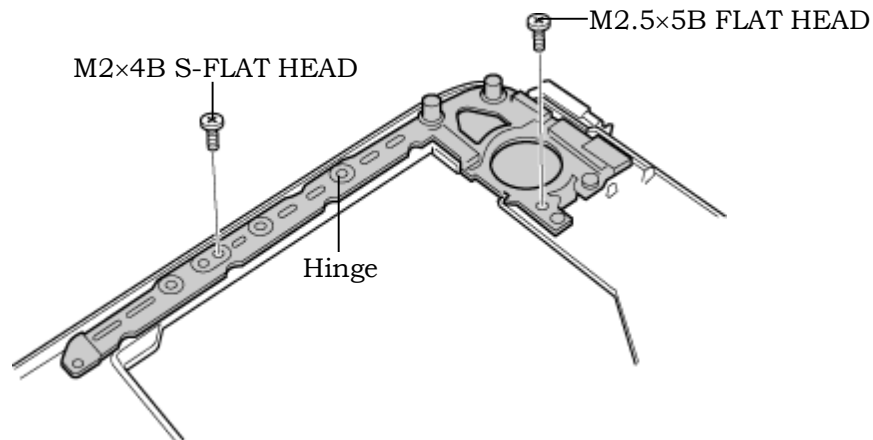


Figure 4-49 Removing the hinge



## Installing the LCD cable/Wireless LAN Antenna

To install the wireless LAN antenna/Bluetooth antenna/display cover/speaker, follow the steps below and refer to figures 4-43 to 4-50.

1. Pass the **LCD cable** through the slot and guide.
2. Set the **hinge** (on the opposite side of the LCD cable) and secure it with the following **screws**.
  - M2×4B S-FLAT HEAD screw ×1
  - M2.5×5B FLAT HEAD screw ×1
3. Place the **circle plate** and secure it with the following **screws**.
  - M2×4B S-FLAT HEAD screw ×2
4. Set the **hinge** (LCD cable side) and secure it with the following **screws**.
  - M2×4B S-FLAT HEAD screw ×1
  - M2.5×5B FLAT HEAD screw ×1
5. Secure the **hinges** on the display cover with the following **screws**.
  - M2.5×4B FLAT HEAD screw ×2
6. Install the **hinge cap** (on the LCD cable side).
7. Pass the **wireless LAN antenna cables** through the hole to the back.
8. Arrange the **wireless LAN antenna cables** along the guides on the back and fix them with two acetate tapes.
9. Secure the **wireless LAN antenna cables** with the four **acetate tapes**.

10. Secure the **wireless LAN antenna** with the three **copper sheets** and the **gasket**.

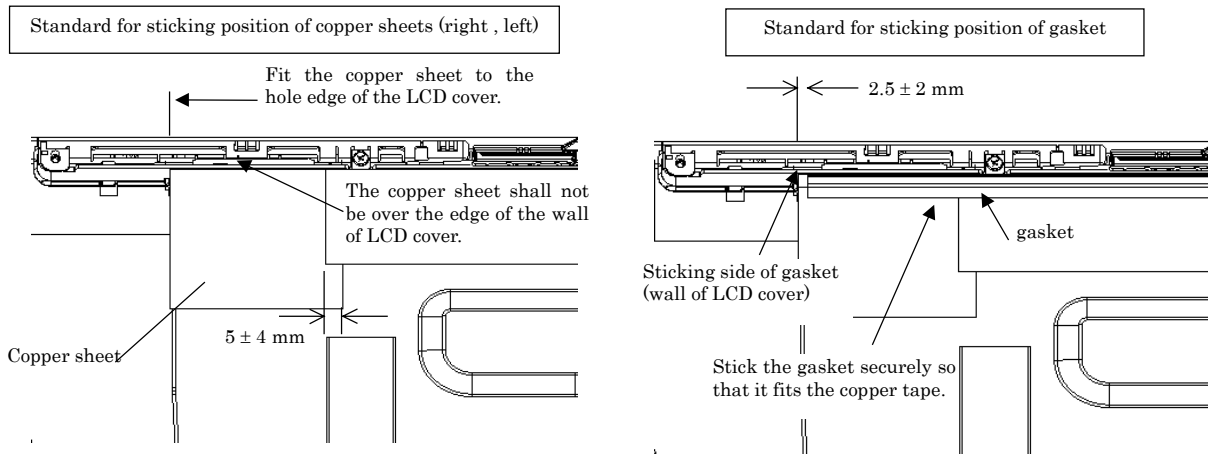


Figure 4-50 Sticking the copper sheets and gasket

11. Set the **LCD cable holder** on the back and secure it with the following **screw**.

- M2.5×5B FLAT HEAD screw ×1

12. Set the **Cable holder** on the front and secure it with the following **screw** and the **insulator**.

- M2.5×4B FLAT HEAD screw ×1

12. Place the **hinge caps**.