

**Aspire Vero AV15-53P**

## **Lifecycle Extension Guide**

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# Self-Repair

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This chapter highlights the limited self-repair capabilities of the product.

Prior performing self-repair, familiarize yourself with the Safety Guidelines and Recommended Equipment sections first as described in the chapter "[Disassembly Procedures](#)".

Depending on model, the following key components are eligible for self-repair (if applicable);

- Battery pack
- HDD / SSD module
- DIMM module(s)
- WLAN module
- LTE module

If a particular key component is listed and thus would be eligible for self-repair, but is not described in the "[Disassembly Procedures](#)" section, then this component is either not present on the respective model, or it is present but embedded on the motherboard and therefore not eligible for self-repair.

## ⇒ NOTE:

Do not attempt to replace other components than those listed above.

## ⇒ NOTE:

For replacement parts, always use only Acer certified components in order to safeguard quality, optimum system performance, stability and reliability of the product.

## ⇒ NOTE:

Any damage to the product that occur during self-repair, or which has occurred as a result of a careless or unsuccessful self-repair attempt, is not covered by the standard product warranty.

## Disassembly Procedures

Please refer to the chapter "[Disassembly Procedures](#)" for step by step disassembly instructions.

# System BIOS & Driver Updates

Visit <http://www.acer.com/support> to discover the available system BIOS and Drivers for this product. After selecting the desired country/language, either enter the model name or product serial number, or select the product from the list of suggested models in order to get access to product-specific software and documentation.

## To update the system BIOS:

- Download the desired system BIOS version from the website
- Unzip the downloaded file to your computer
- Double-click the extracted file in order to initiate the update process
- The update process itself is fully automated and its progress is visualized by means of a progress indicator
- A visual notification is shown when the update is complete

### ⇒ **NOTE:**





Upgrading the system BIOS incorrectly, or intermittence of the system BIOS update process could harm the product.

### ⇒ **NOTE:**

System BIOS upgrades or downgrades, if not performed by an Acer Service Center or authorized Service Partner, are at own risk.

## To update Drivers:

Run Windows Update in order to get the latest drivers from Acer:

- Select the Start  button
- Go to **Settings**  > **Update & Security**  > **Windows Update** 
- Available Drivers will automatically be listed on the screen. Press **Download** to start the download of the respective driver
- Installation of the driver will start automatically once the download is completed

# Software Recovery

This product has embedded software recovery tools which can be used to either perform a partial or full software recovery, but also to create a Factory Default recovery media.

For more information about the software recovery options, how to perform a software recovery or creating a Factory Default recovery media, please refer to the chapter "Recovery" which is available in the User Manual of the product.

### ⇒ **NOTE:**

In the event of not being able to create a Factory Default recovery media, it is possible to obtain a copy of the recovery media through Acer Customer Service (<http://www.acer.com/support>)

This is not a free of charge service.

# Disassembly Procedures

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## Safety Guidelines

This chapter contains step by step procedures on how to remove and de-install components from the computer. Use the following safety guidelines to ensure your personal safety. Each procedure included in this chapter assumes that you are preparing your computer for recycling and disposal.

**By performing any of these procedures you acknowledge that any remaining warranty applicable to your computer will be voided. Before you start any of the procedures in this chapter, make sure to read the following safety guidelines and the respective instructions within the chapter.**

### CAUTION!

- Turn off your computer and disconnect all power sources before opening the computer cover or panels.
- To avoid electrostatic discharge, ground yourself by using a wrist grounding strap or by periodically touching an unpainted metal surface at the same time as touching a connector on the back of the computer.
- Take off any metal objects on your arms or fingers such as bracelets, rings or watches and make sure your hands are completely dry. Even if your unit is unplugged, there may still be some remaining electric charge.
- If a component does not come out easily, do not forcefully remove it. Instead, check that you are removing it correctly and that no wires or other parts are in the way.
- When you disconnect a cable, pull on its connector or on its pull-tab, not on the cable itself. Some cables have connectors with locking tabs; if you are disconnecting this type of cable, press in on the locking tabs before you disconnect the cable.

## Recommended Equipment

The following tools are required to perform maintenance on the notebook:

- Wrist grounding strap and conductive mat
- Flat screwdriver
- Philips screwdriver
- Pointed plastic pry or similar object
- Tweezers

# WEEE Annex VII Component

These components are classified as requiring selective treatment:

- Battery pack
- WLAN module
- SSD modules
- USB board
- Touchpad module
- RTC battery
- Mainboard
- LCD panel

# Getting Started

Perform the following prior to performing any maintenance procedures:

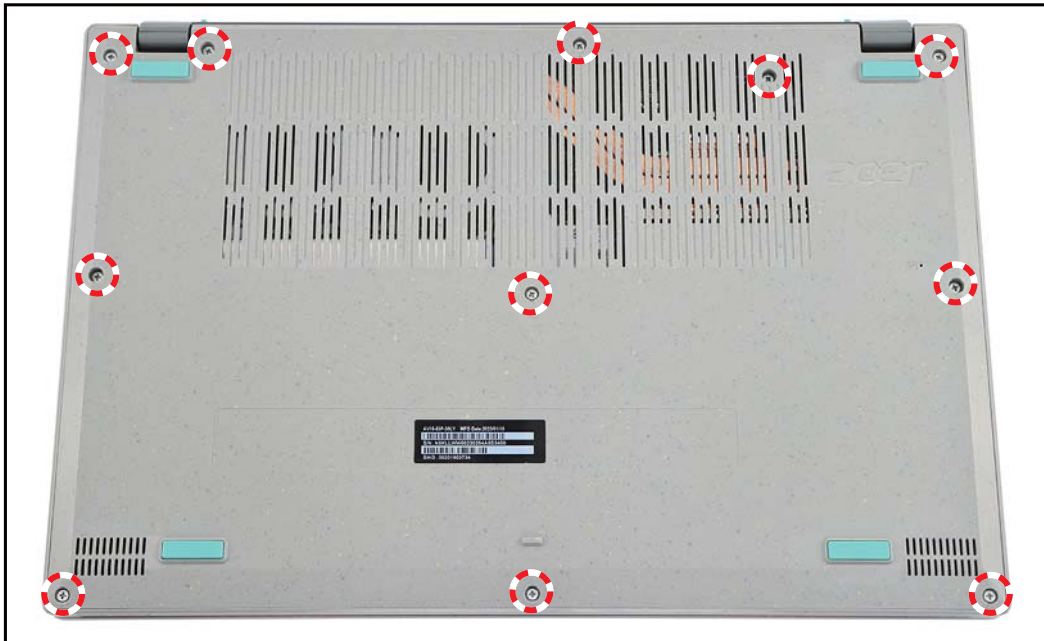
1. Place the system on a flat work surface.
2. Make sure the system is completely powered down.
  - a. If the device is in powered up mode, shut down the system normally.
  - b. If the device is in sleep mode, wait for the Home Screen to clear. Then, shut down normally.
3. Disconnect the AC Adapter and remove all cables from the system and its peripherals.



**Figure 1-1. Disconnecting the Power Adapter**

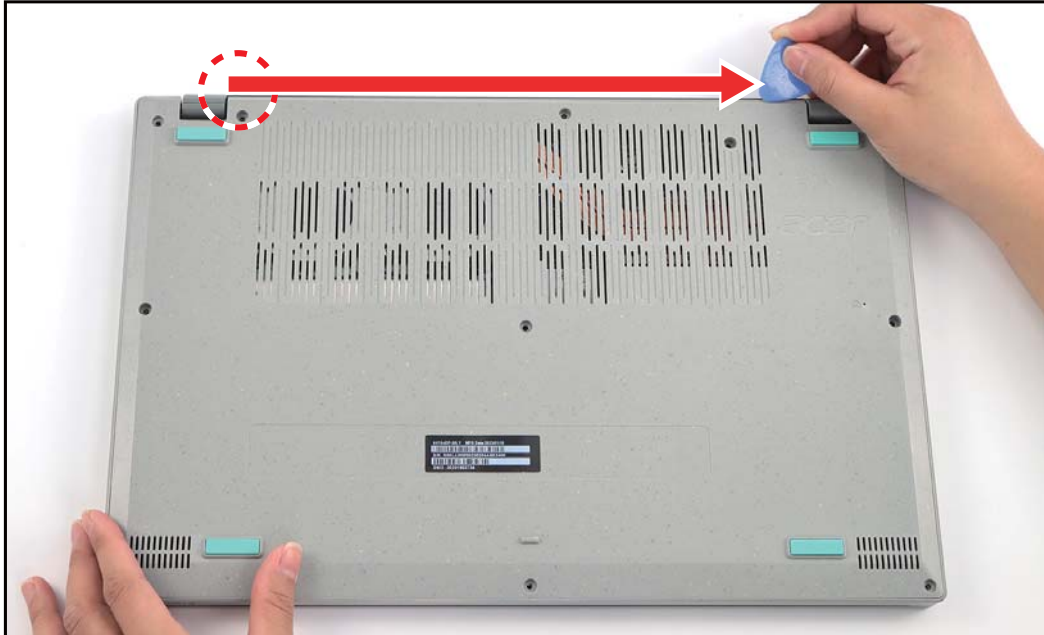
## Lower Case Removal

1. Remove the eleven (11) screws securing the lower case to the upper case.



**Figure 1-2. Removing the Screws**

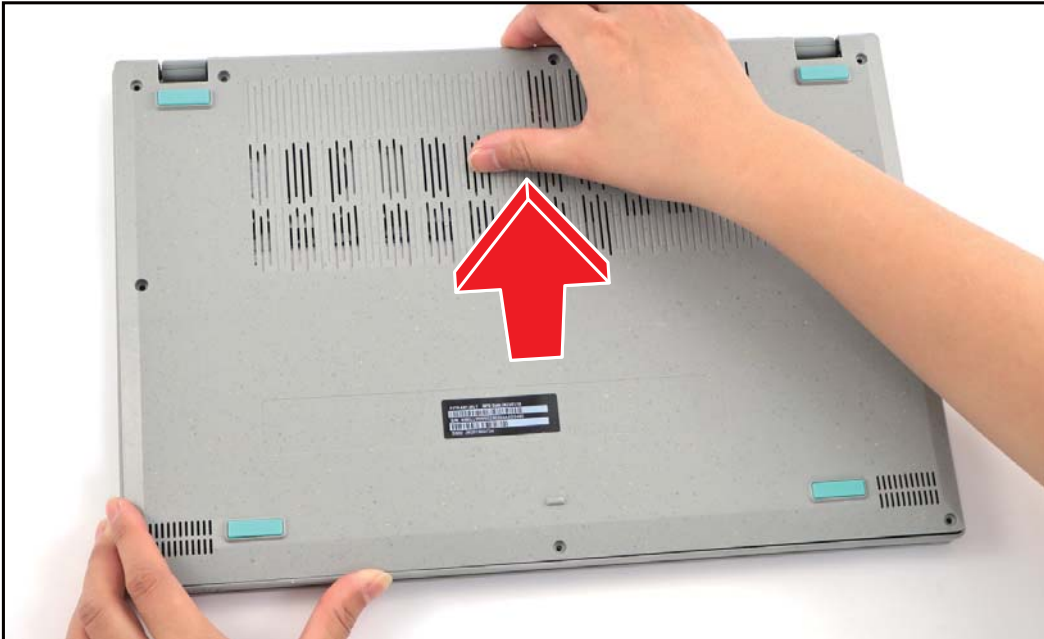
2. Starting from the upper side, pry to release the upper side latches, following the direction arrow.



**Figure 1-3. Releasing the Lower Case**

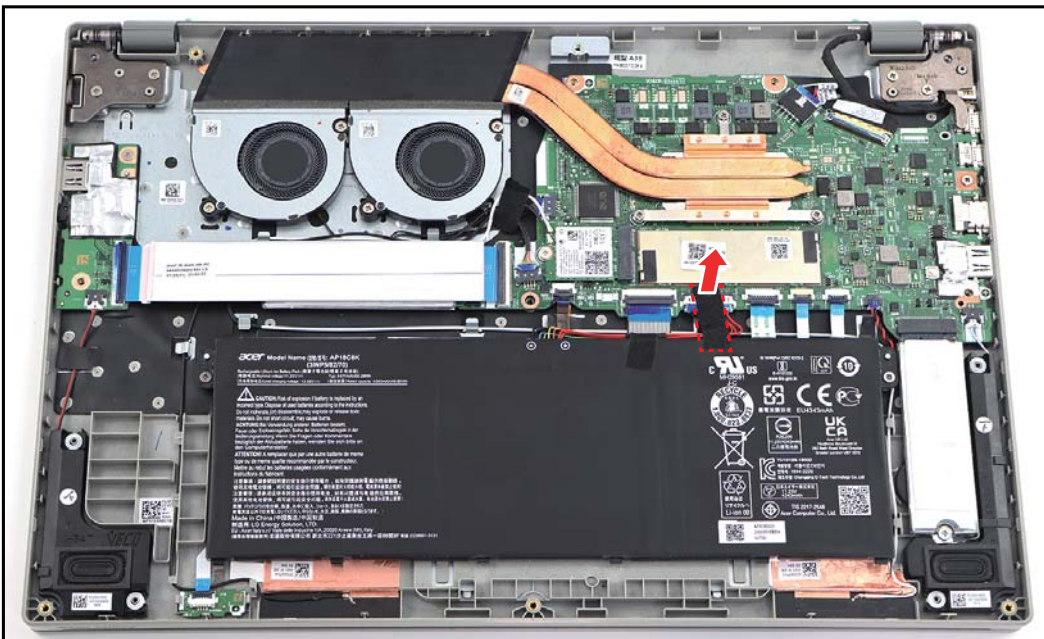


3. Continue releasing the remaining latches. Then remove the lower case.



**Figure 1-4. Removing the Lower Case**

4. Detach the tape securing the battery cable.



**Figure 1-5. Detaching the Tape**

5. Disconnect the battery cable from the mainboard connector.

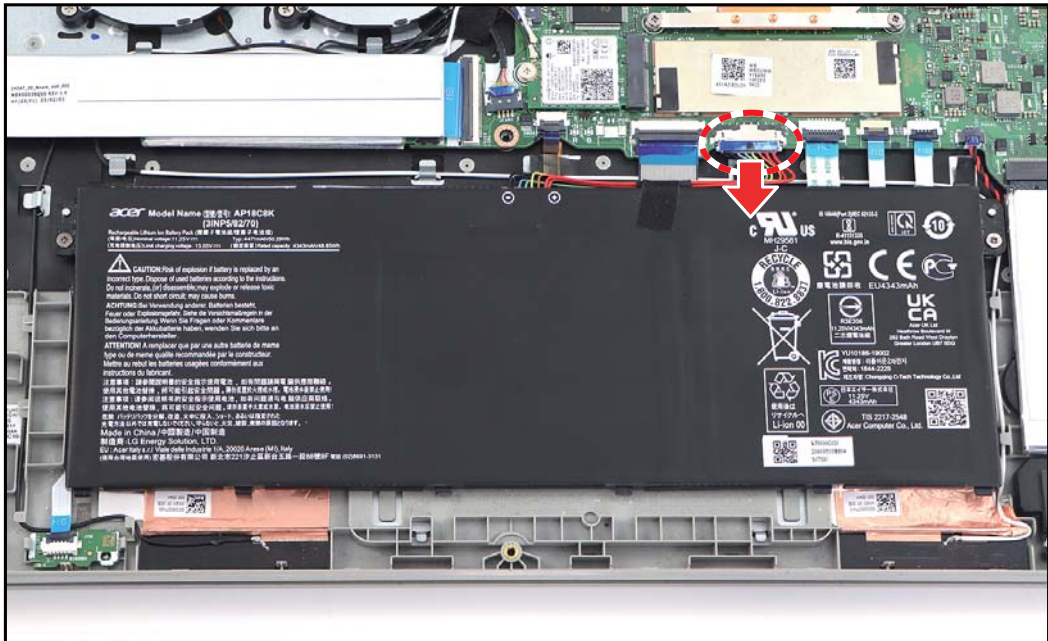



Figure 1-6. Disconnecting the Battery Cable

Table 1-1. Lower Case Screws

Screw Name	Screw Type	Torque	Quantity
M 2.5 x 6.0		2.65~3.0kgf.cm	11

# Battery Removal

## Prerequisite:

※ **Lower Case Removal** on page 1-6

1. Remove the two (2) screws securing the battery to the upper case..

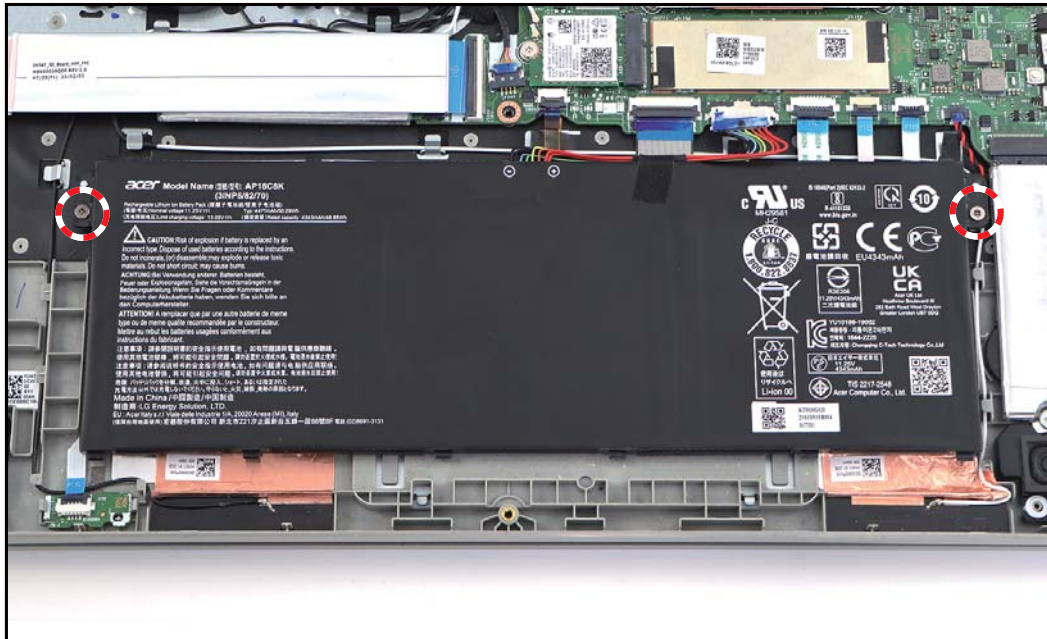


Figure 1-7. Removing the Screws

2. Slightly lift the battery to release it from the guide pins. Then remove the battery from its slot on the upper case.

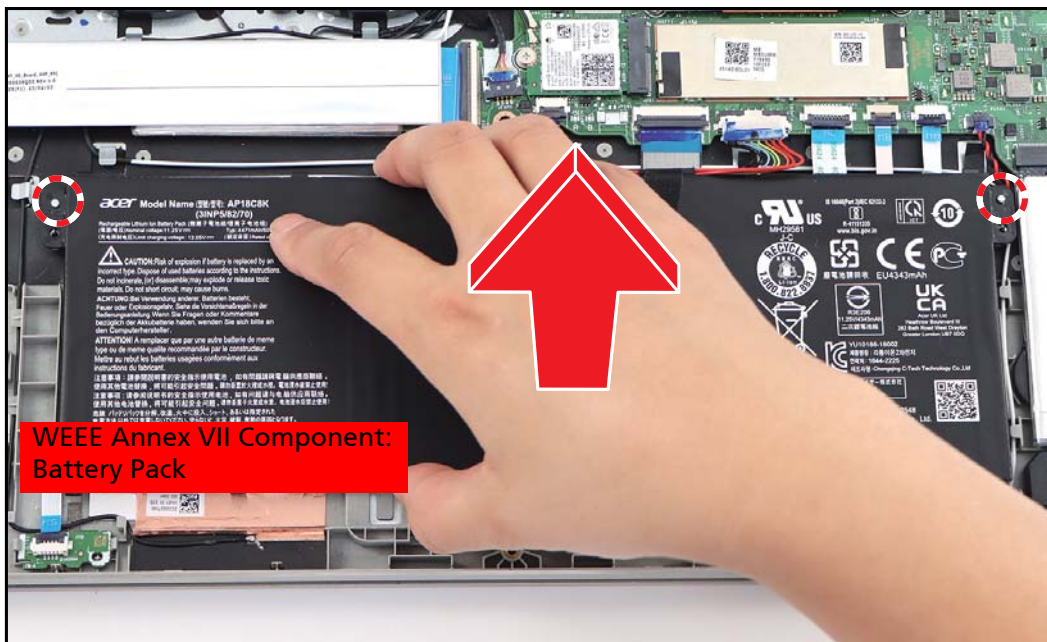



Figure 1-8. Removing the Battery

**Table 1-2. Battery Screws**

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 4.0		1.8~2.2kgf.cm	2



# WLAN Module Removal

Prerequisite:

※ [Lower Case Removal](#) on page 1-6

1. Detach the tape securing the fan 2 and WLAN antenna cables.

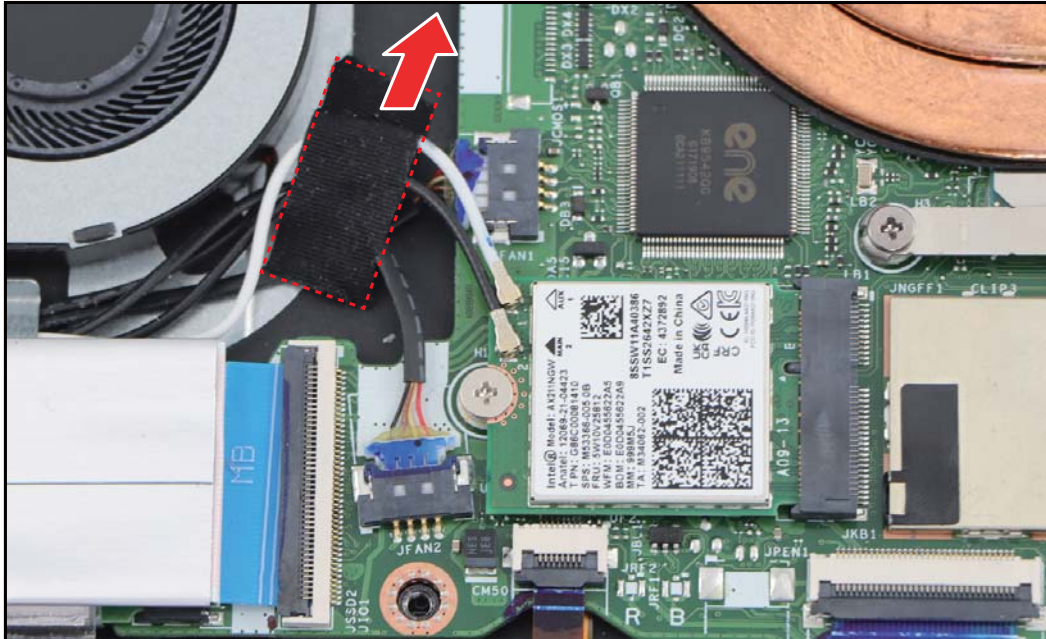


Figure 1-9. Detaching the Tape

2. Disconnect the WLAN antenna cables.

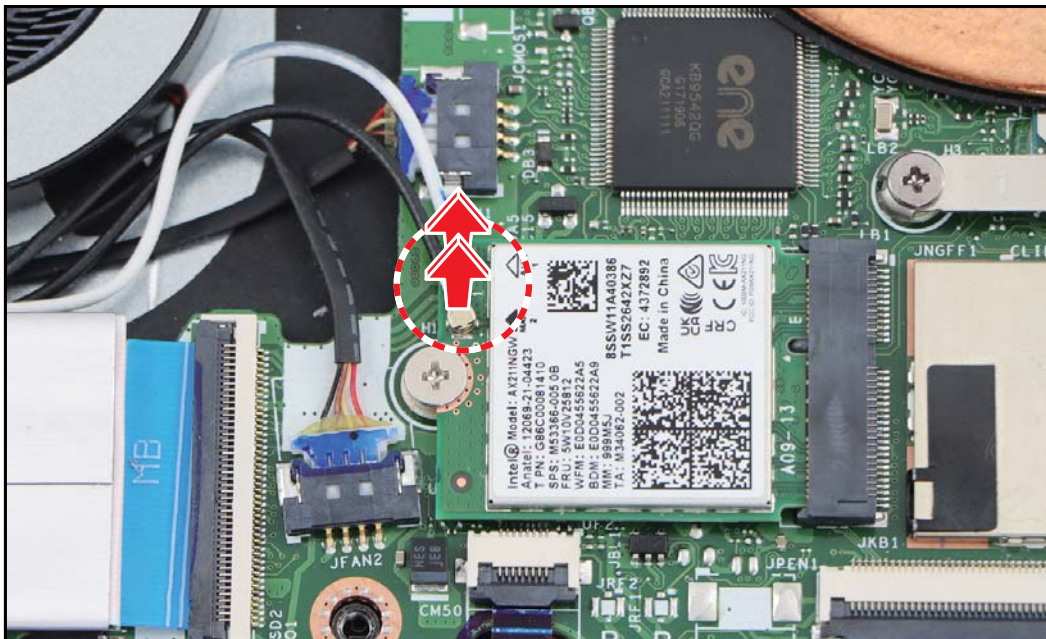


Figure 1-10. Disconnecting the WLAN Antenna Cables

3. Remove the screw securing the WLAN module to the mainboard.

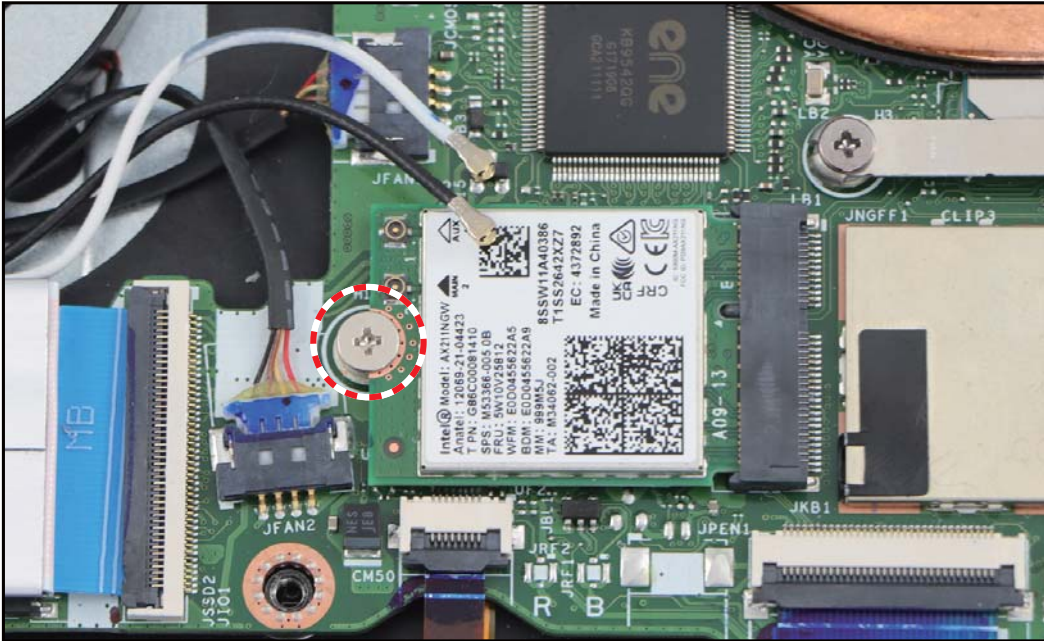



Figure 1-11. Removing the Screw

4. Pull to disconnect the WLAN module from the mainboard connector. Then remove the WLAN module.



Figure 1-12. Removing the WLAN Module

Table 1-3. WLAN Module Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 2.5		1.8~2.2kgf.cm	1



# SSD 1 Module Removal

Prerequisite:

※ [Lower Case Removal](#) on page 1-6

1. Remove the screw securing the SSD 1 module to the upper case.



Figure 1-13. Removing the Screw

2. Pull to disconnect the SSD 1 module from the mainboard connector. Then remove the SSD 1 module.



Figure 1-14. Removing the SSD 1 Module

3. Remove the foil mylar from the SSD 1 module.

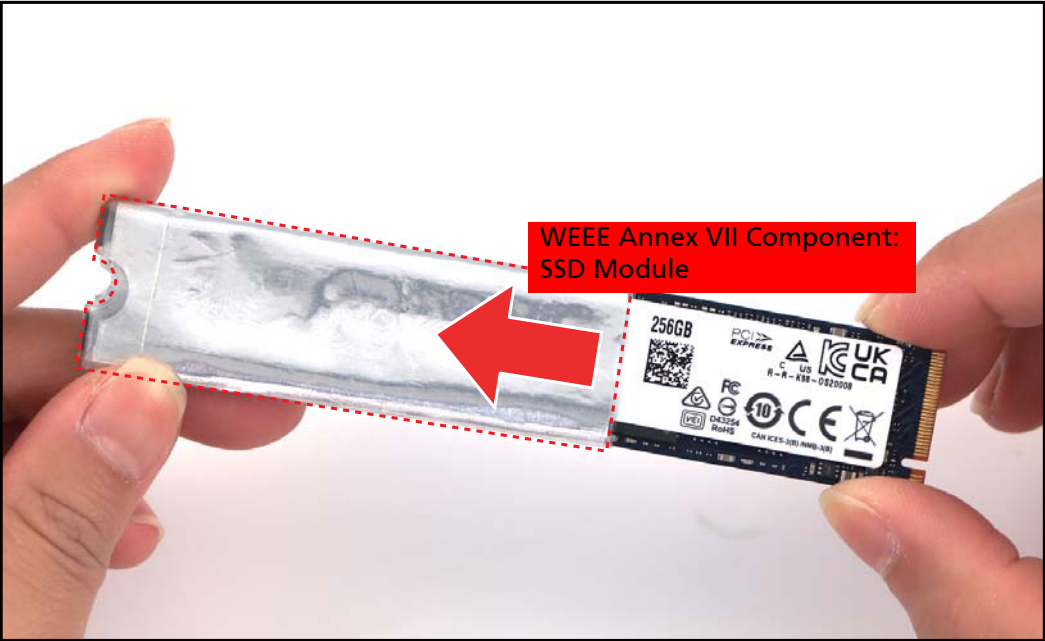



Figure 1-15. Removing the Foil Mylar

Table 1-4. SSD 1 Module Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 1.15		1.8~2.2kgf.cm	1



## SSD 2 Module Removal

Prerequisite:

※ [Lower Case Removal](#) on page 1-6

1. Release the latches and disconnect the USB board FFC from the mainboard and USB board connectors. Then remove the USB board FFC.

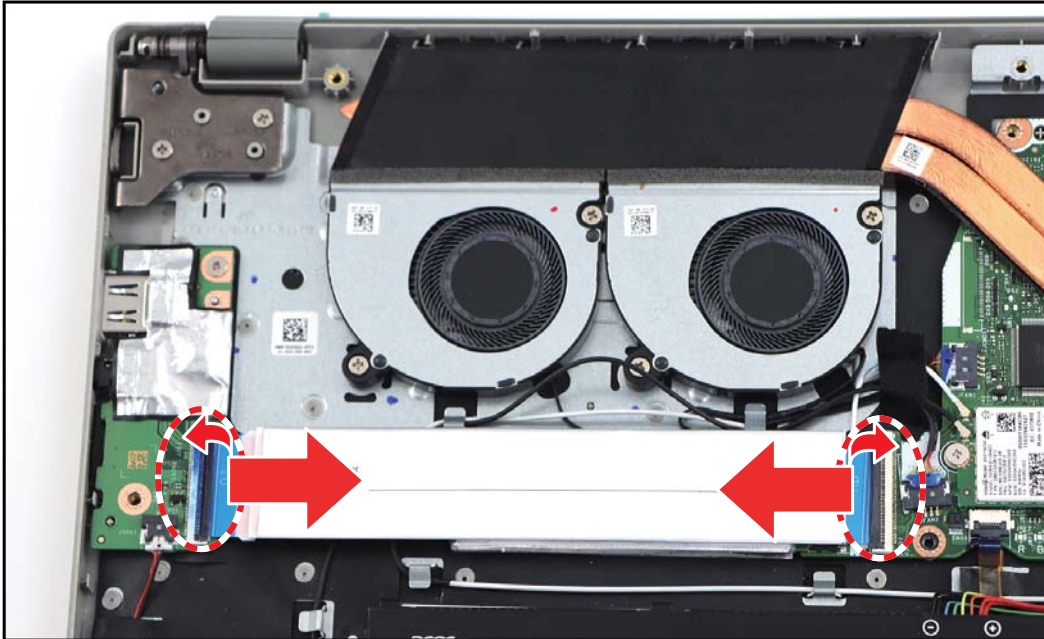


Figure 1-16. Removing the USB Board FFC

2. Remove the screw securing the SSD 2 module to the upper case.

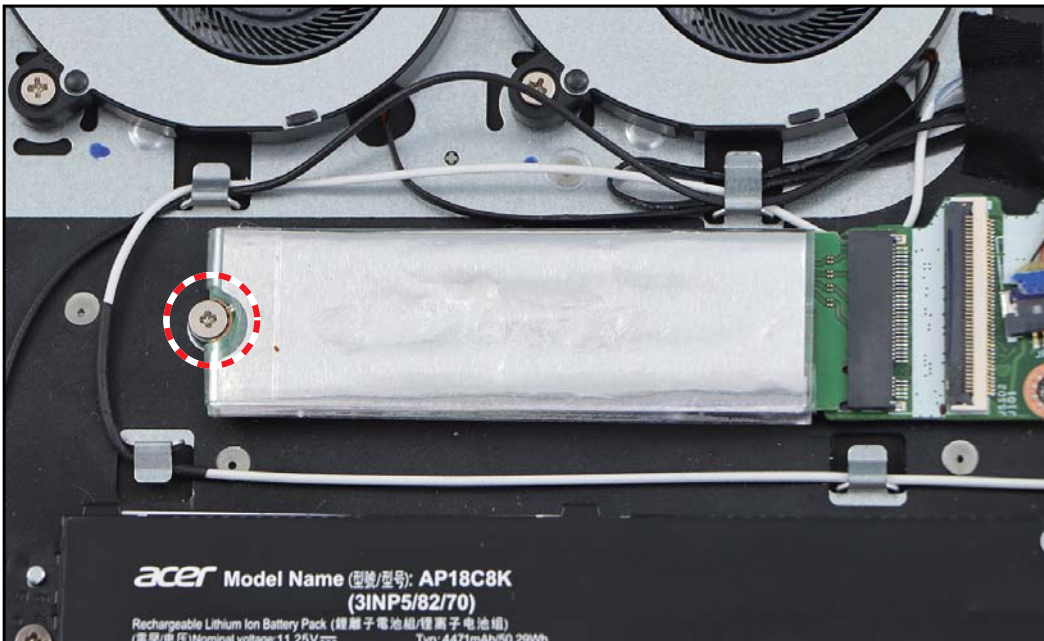


Figure 1-17. Removing the Screw

3. Pull to disconnect the SSD 2 module from the mainboard connector. Then remove the SSD 2 module.

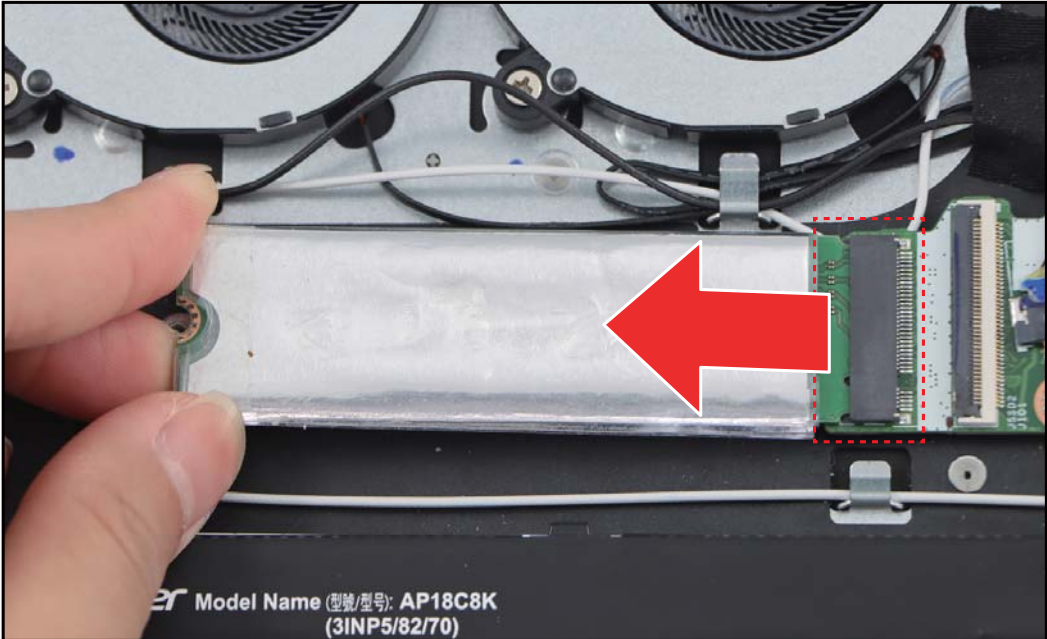


Figure 1-18. Removing the SSD 2 Module

4. Remove the foil mylar from the SSD 2 module.

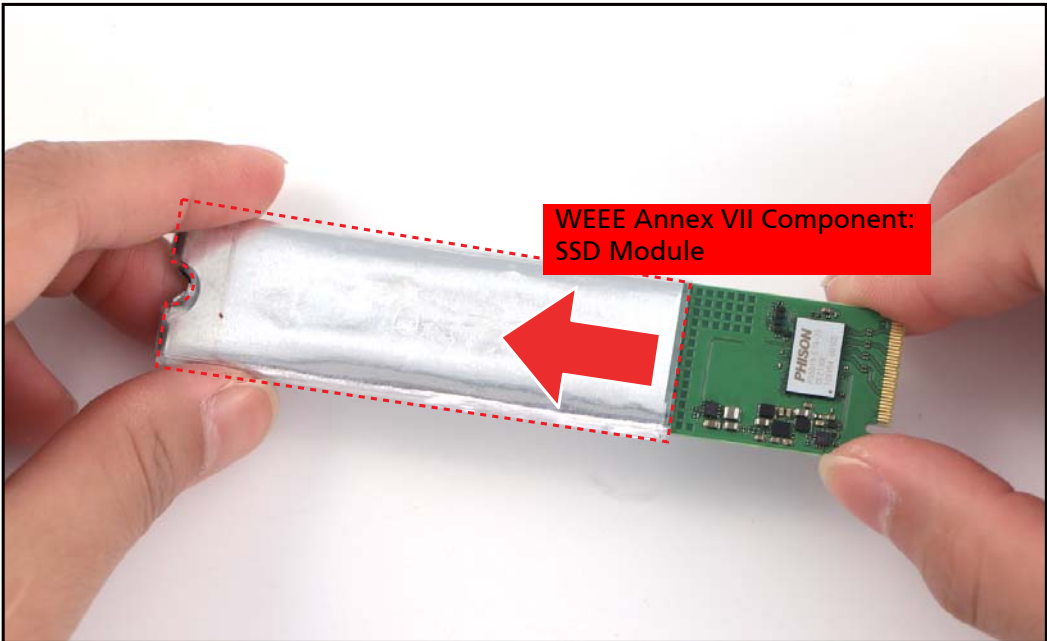



Figure 1-19. Removing the Foil Mylar

Table 1-5. SSD 2 Module Screw

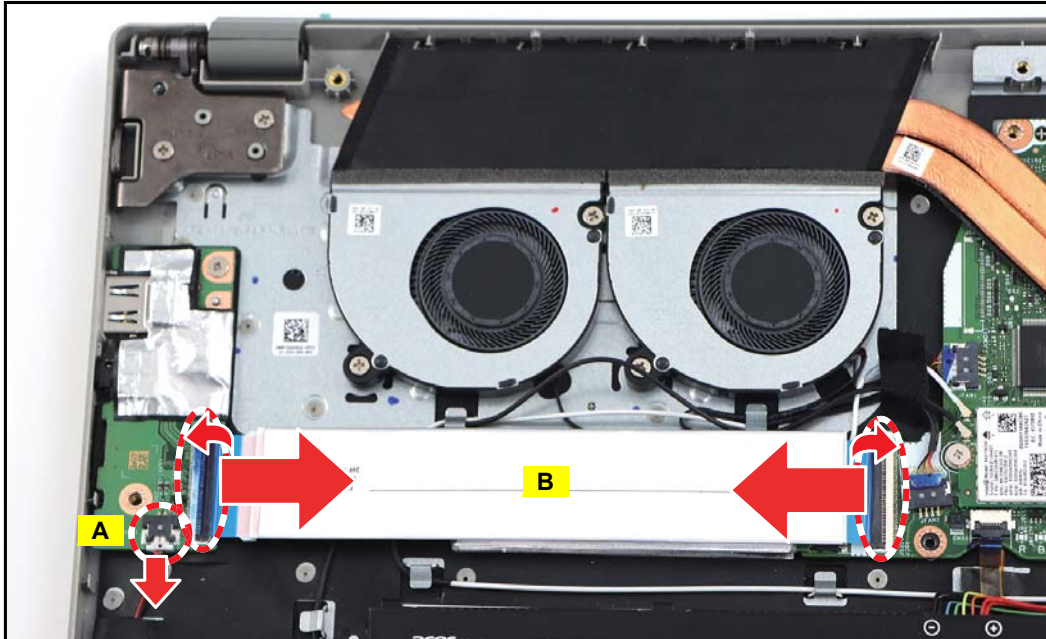
Screw Name	Screw Type	Torque	Quantity
M 2.0 x 2.5		1.8~2.2kgf.cm	1

# USB Board Removal

## Prerequisite:

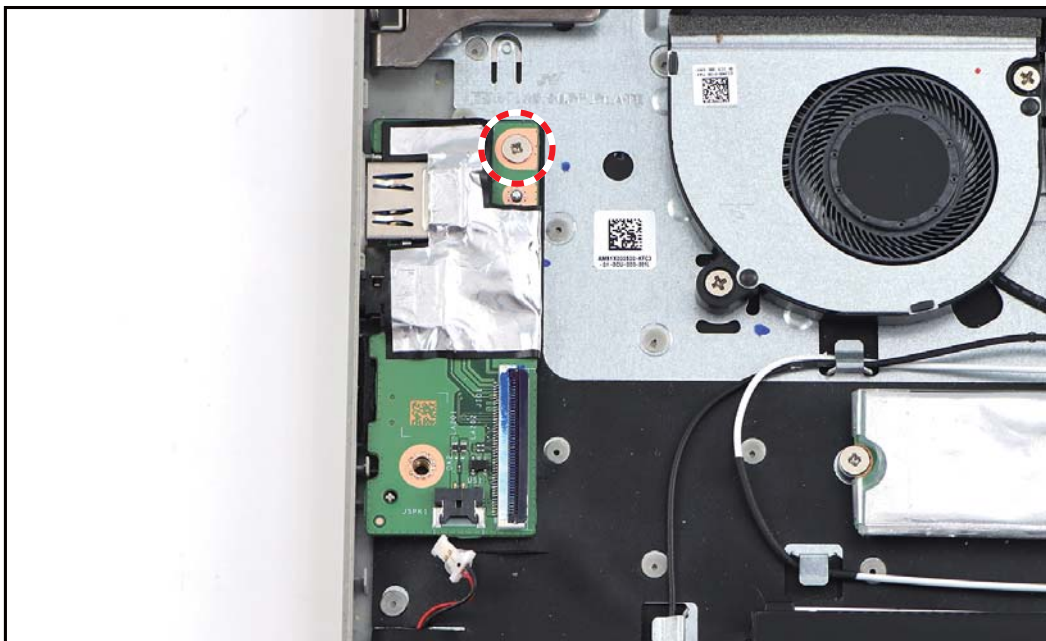
※ [Lower Case Removal](#) on page 1-6

1. Disconnect the right speaker cable from the USB board connector (A).
2. Release the latches and disconnect the USB board FFC (B) from the mainboard and USB board connectors. Then remove the USB board FFC.



**Figure 1-20. Disconnecting the Cables**

3. Remove the screw securing the USB board to the upper case.



**Figure 1-21. Removing the Screw**



4. Remove the USB board from the upper case.

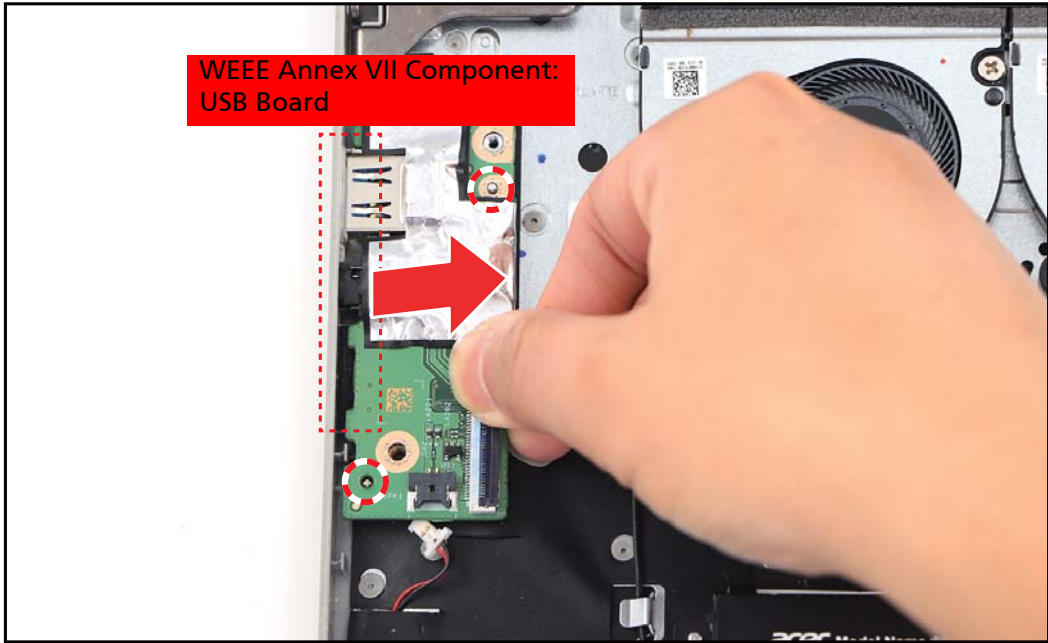



Figure 1-22. Removing the USB Board

Table 1-6. USB Board Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 2.5		1.8~2.2kgf.cm	1

# LCD Module Removal

## Prerequisite:

※ [Lower Case Removal](#) on page 1-6

1. Release the latch. Then disconnect the eDP cable from the mainboard connector.

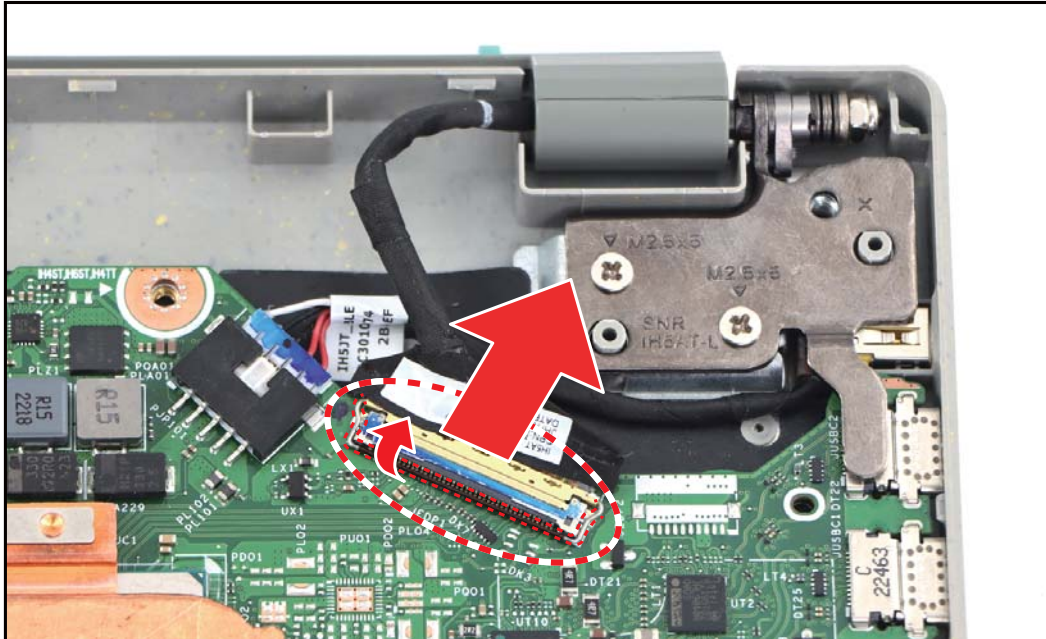


Figure 1-23. Disconnecting the eDP Cable

2. Remove the four (4) screws securing the LCD hinges and LCD module to the upper case.

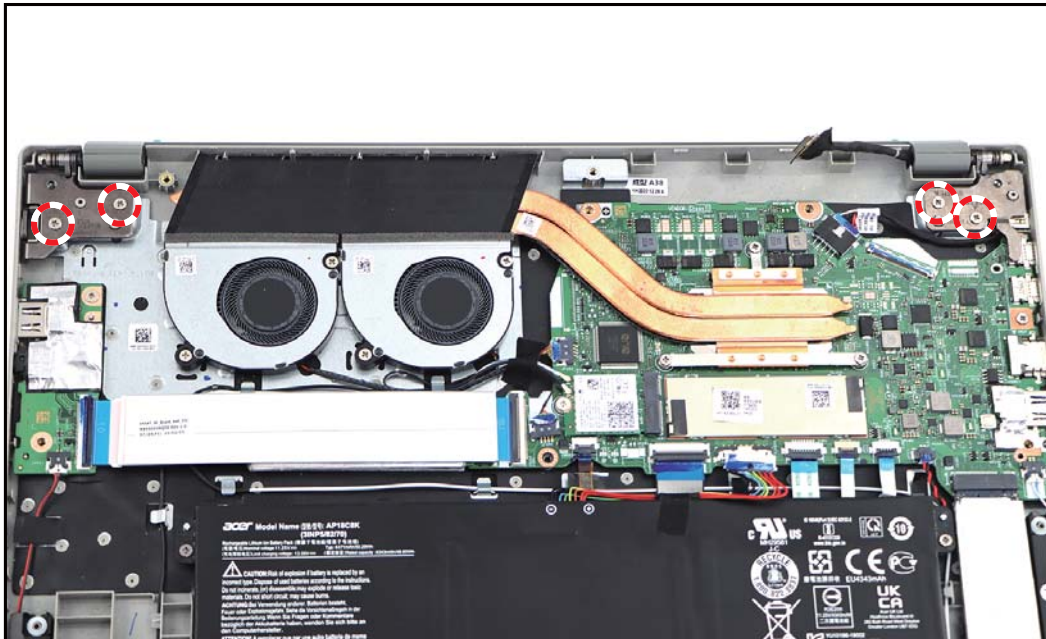
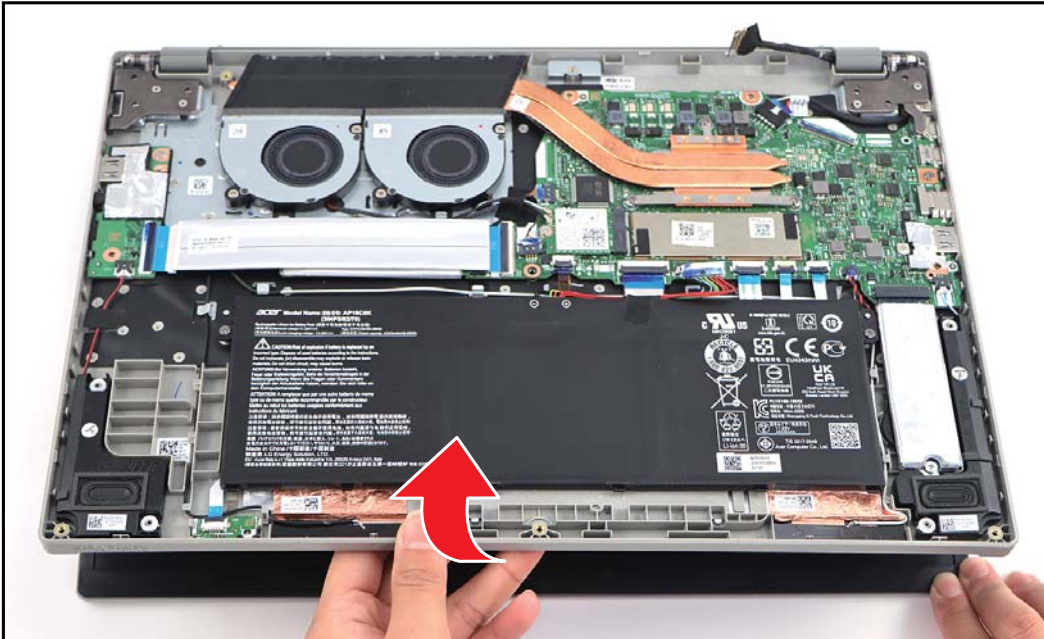


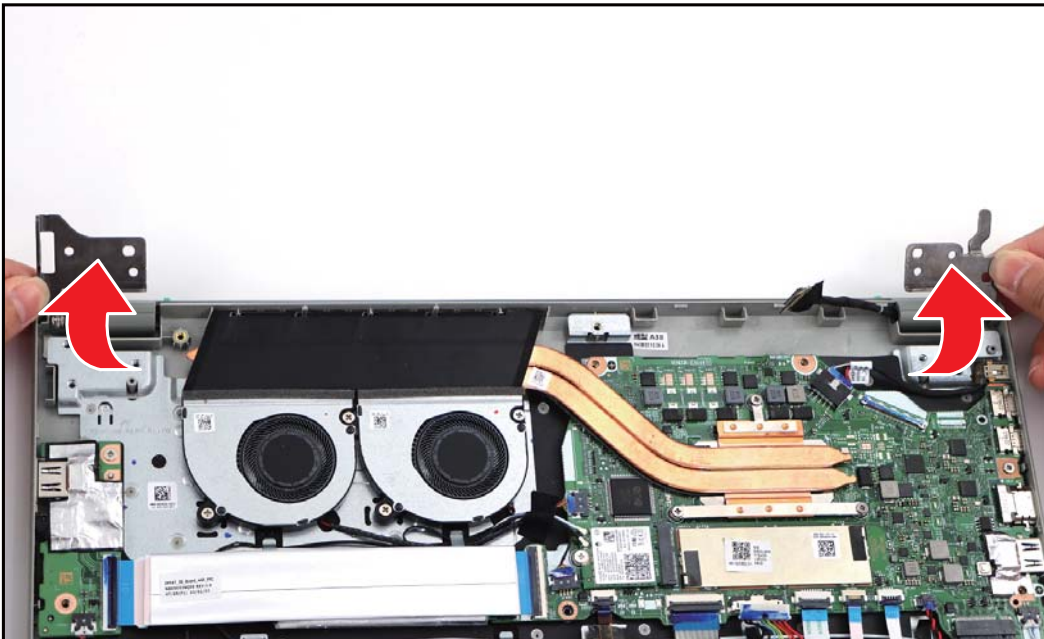
Figure 1-24. Removing the Screws

3. Open the upper case.



**Figure 1-25. Opening the Upper Case**

4. Close the upper case. Then lift both LCD hinges until they are fully extended.



**Figure 1-26. Lifting the LCD Hinges**

5. Open the upper case again. Then remove the LCD module away from the upper case.

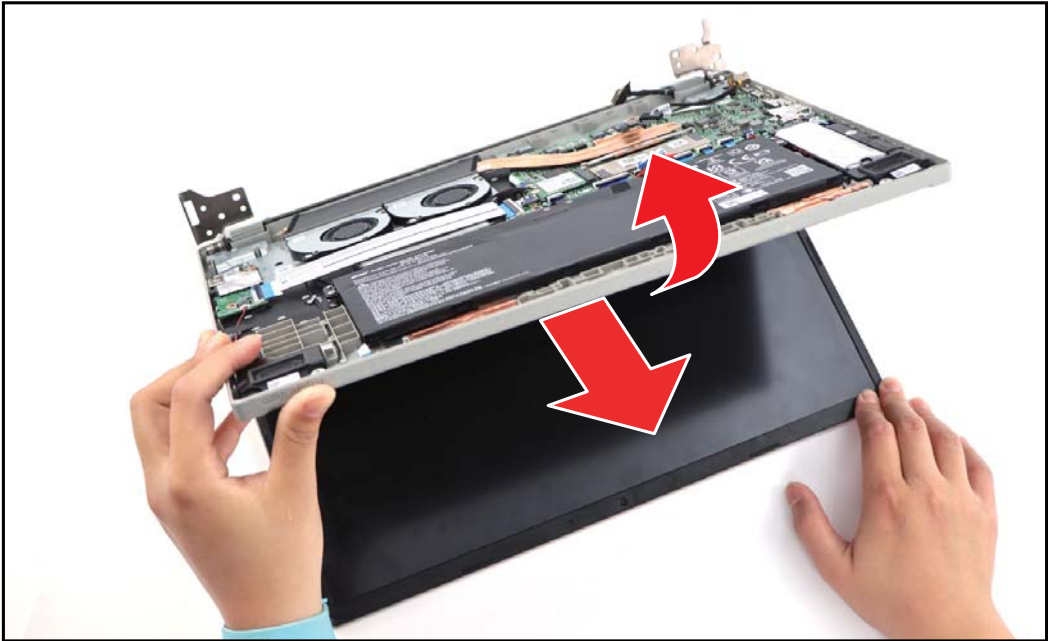



Figure 1-27. Removing the LCD Module

Table 1-7. Hinges Screws

Screw Name	Screw Type	Torque	Quantity
M 2.5 x 5.0		2.65~3.0kgf.cm	4



## Touchpad Removal

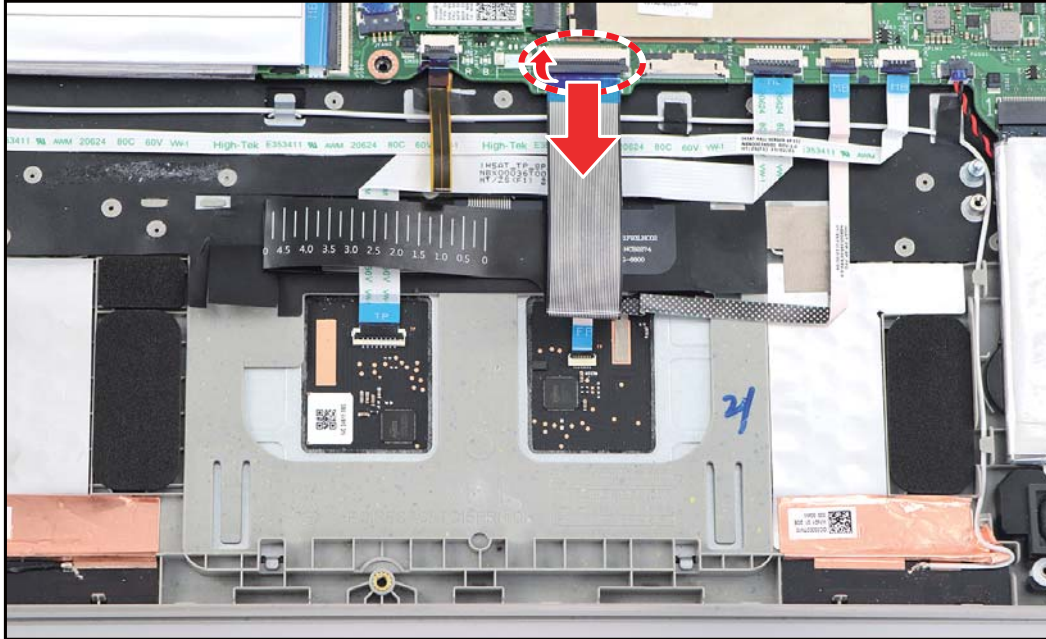
**Prerequisite:**

\* **Battery Removal** on page 1-9

**NOTE:**

Slightly lift the keyboard mylar for easy access to FFCs, cable routing, conductive tape, screws, or screw holes.

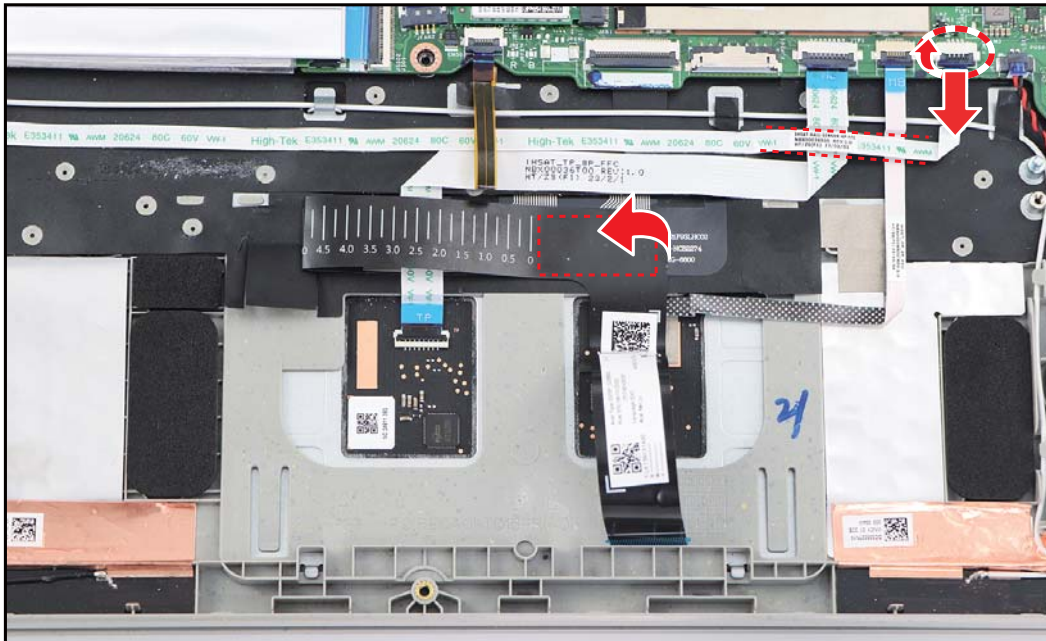
1. Release the latch and disconnect the keyboard FPC from the mainboard connector.



**Figure 1-28. Disconnecting the Keyboard FPC**

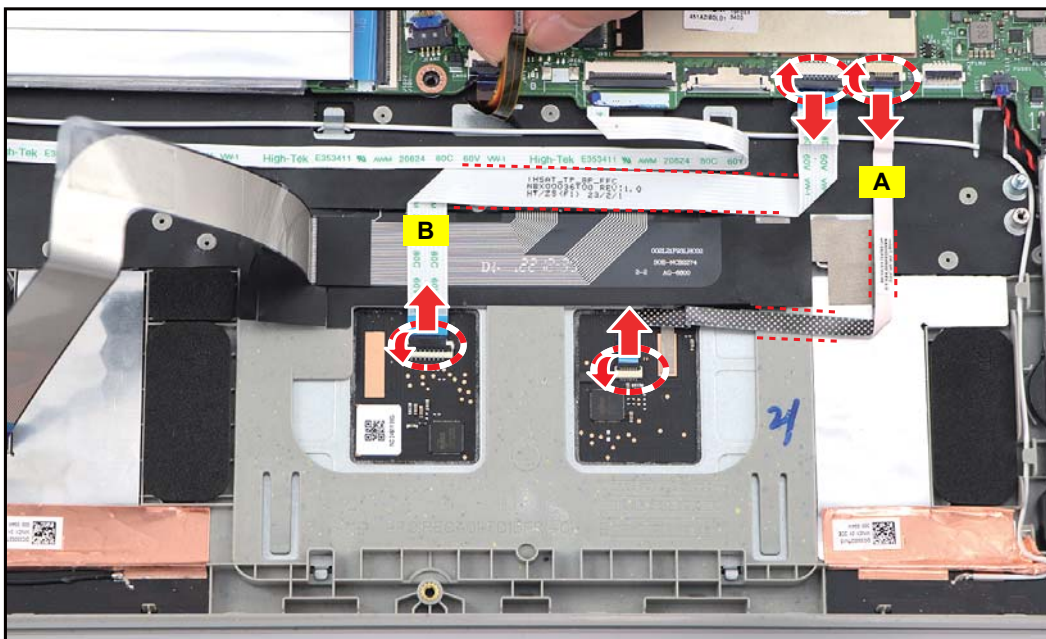


2. Release the latch and disconnect the hall sensor board FFC from the mainboard connector. Then detach the hall sensor board FFC from the adhesive.
3. Carefully lift the keyboard FPC to detach its underneath mylar.



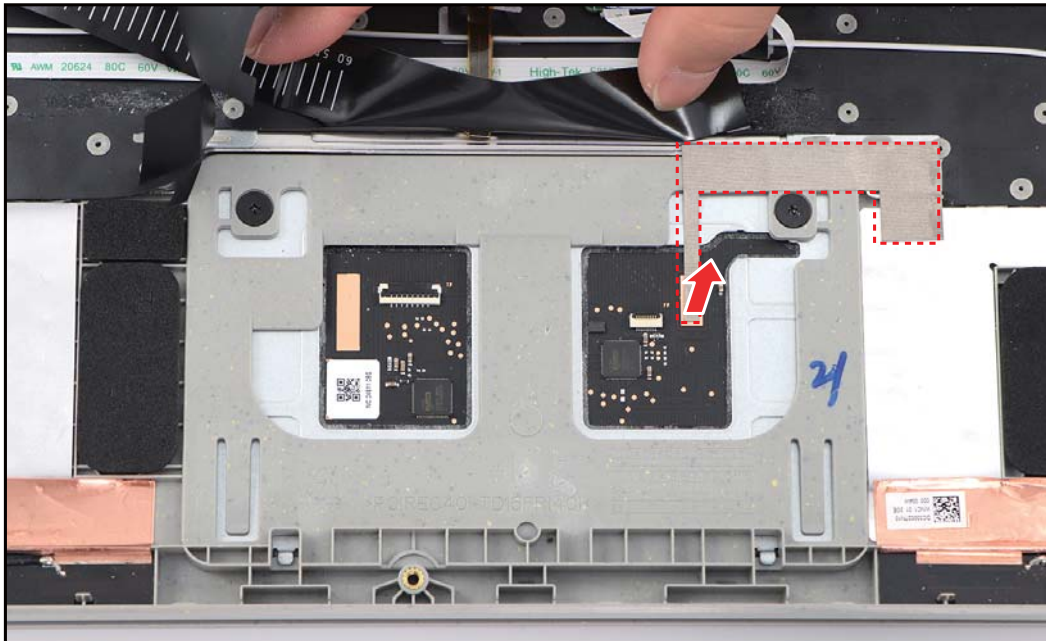
**Figure 1-29. Disconnecting the Hall Board Sensor FFC**

4. Release the latches and disconnect the fingerprint FFC (A) from the mainboard and touchpad connectors. Then detach the fingerprint FFC from the adhesive and remove it from the upper case.
5. Release the latches and disconnect the touchpad FFC (B) from the mainboard and touchpad connectors. Then detach the touchpad FFC from the adhesive and remove it from the upper case.



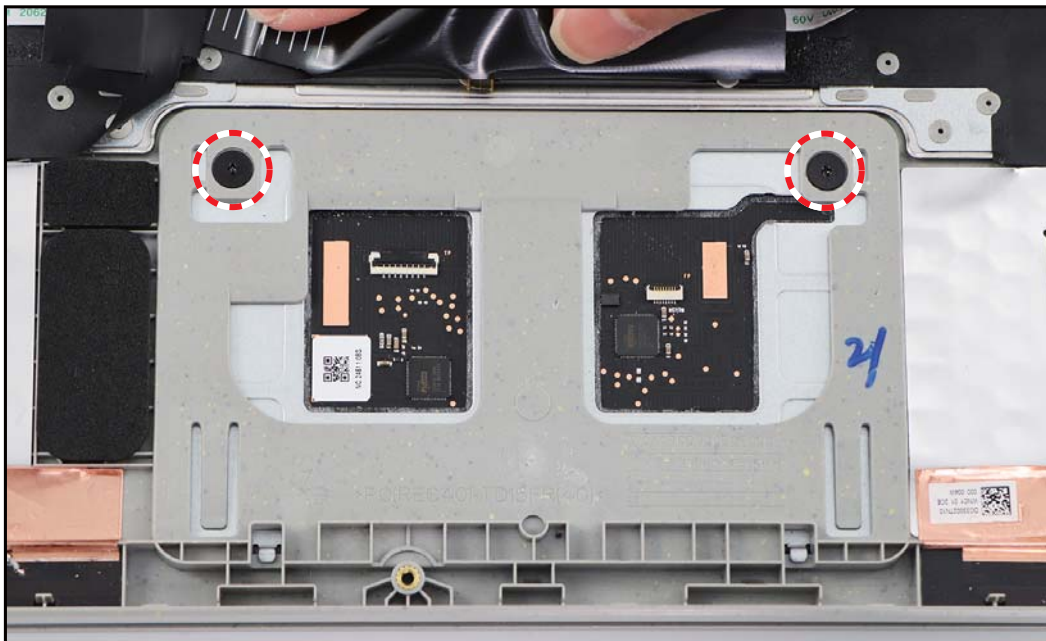
**Figure 1-30. Removing the FFCs**

6. Detach the conductive tape from the touchpad and upper case.



**Figure 1-31. Detaching the Conductive Tape**

7. Remove the two (2) screws securing the touchpad to the upper case.



**Figure 1-32. Removing the Screws**

- 8. Place one of your hands underneath the touchpad. Use a pointed device to push on the screw holes and then slide the bottom part of the touchpad forward to disengage it from the latches.
- 9. Remove the touchpad from the case.

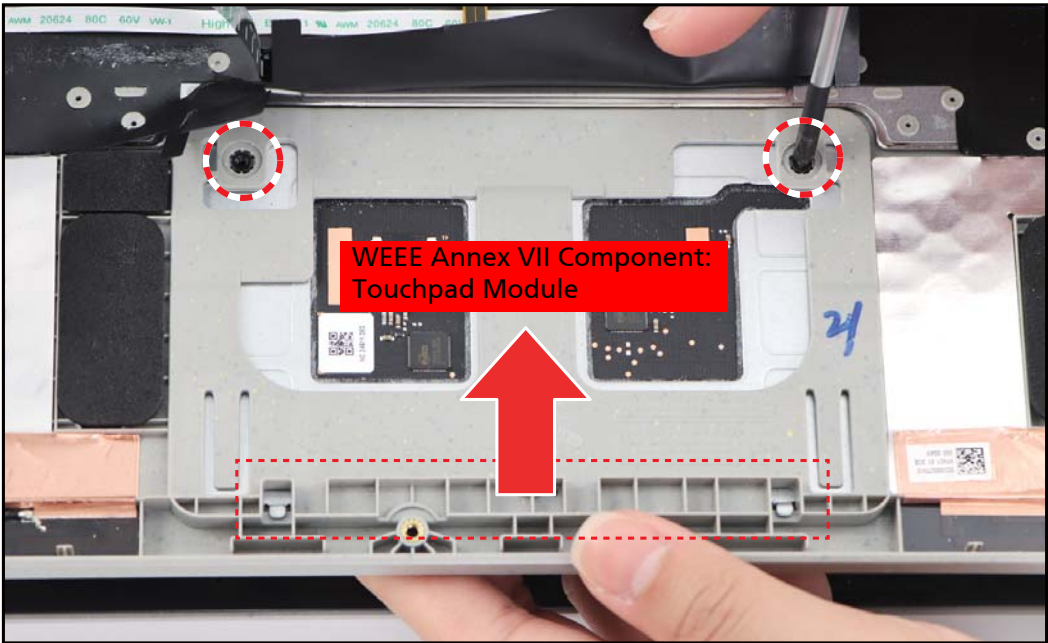



Figure 1-33. Removing the Touchpad

Table 1-8. Touchpad Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 2.0		1.8~2.2kgf.cm	2



# RTC Battery Removal

## Prerequisite:

※ [SSD 1 Module Removal](#) on page 1-13

1. Partially detach the mylar. Then disconnect the RTC battery cable from the mainboard connector.

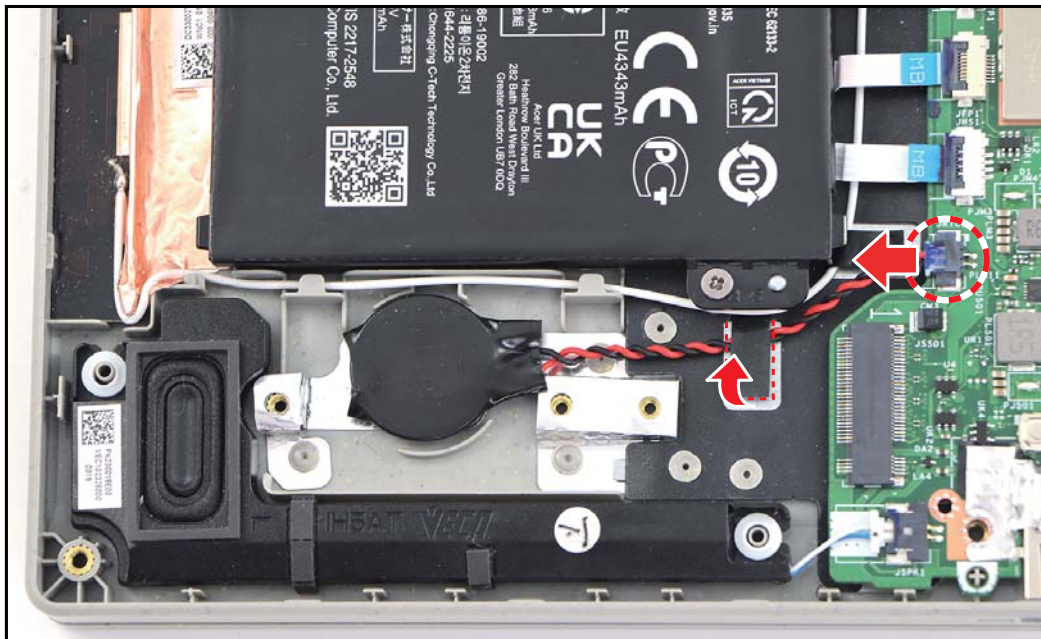


Figure 1-34. Disconnecting the RTC Battery Cable

2. Pry to detach the adhesive tape underneath the RTC battery. Then remove the RTC battery.

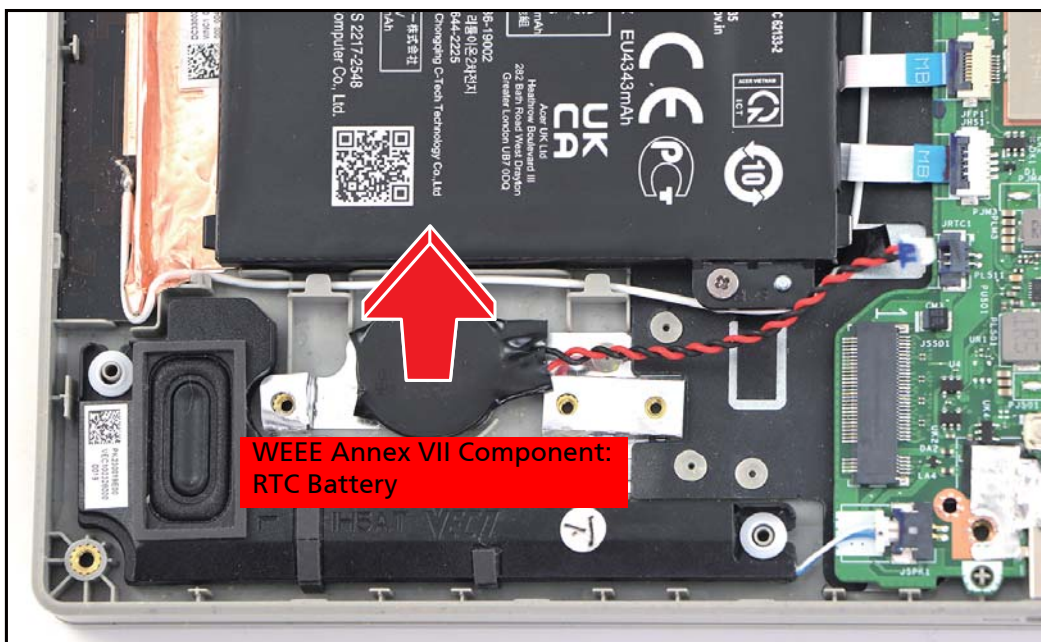


Figure 1-35. Removing the RTC Battery

# Mainboard Removal

## Prerequisite:

- ※ [Battery Removal](#) on page 1-9
- ※ [WLAN Module Removal](#) on page 1-11
- ※ [SSD 1 Module Removal](#) on page 1-13
- ※ [SSD 2 Module Removal](#) on page 1-15
- ※ Thermal Module Removal
- ※ [LCD Module Removal](#) on page 1-19
- ※ Fan 2 Removal

1. Release the latch (if necessary) and disconnect the following cables from the mainboard connectors:
  - Keyboard backlight FPC (A)
  - Keyboard FPC (B)
  - Touchpad FFC (C)
  - Fingerprint FFC (D)
  - Hall sensor board FFC (E)
  - Speaker cable (F)
  - DC-IN cable (G)
2. Partially detach the mylar and pry to detach the adhesive tape underneath the RTC battery. Then remove the RTC battery (H).

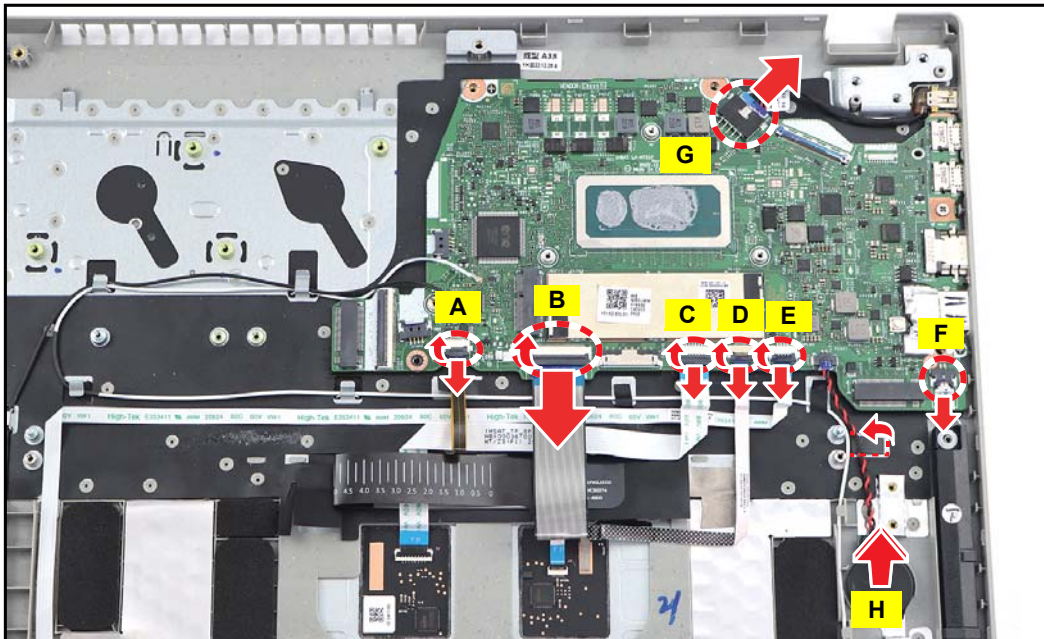


Figure 1-36. Disconnecting the Cables



3. Remove the screw securing the mainboard to the upper case.



Figure 1-37. Removing the Screw

4. Slide the mainboard to release the I/O connectors from their slots, and then remove the mainboard from the upper case.

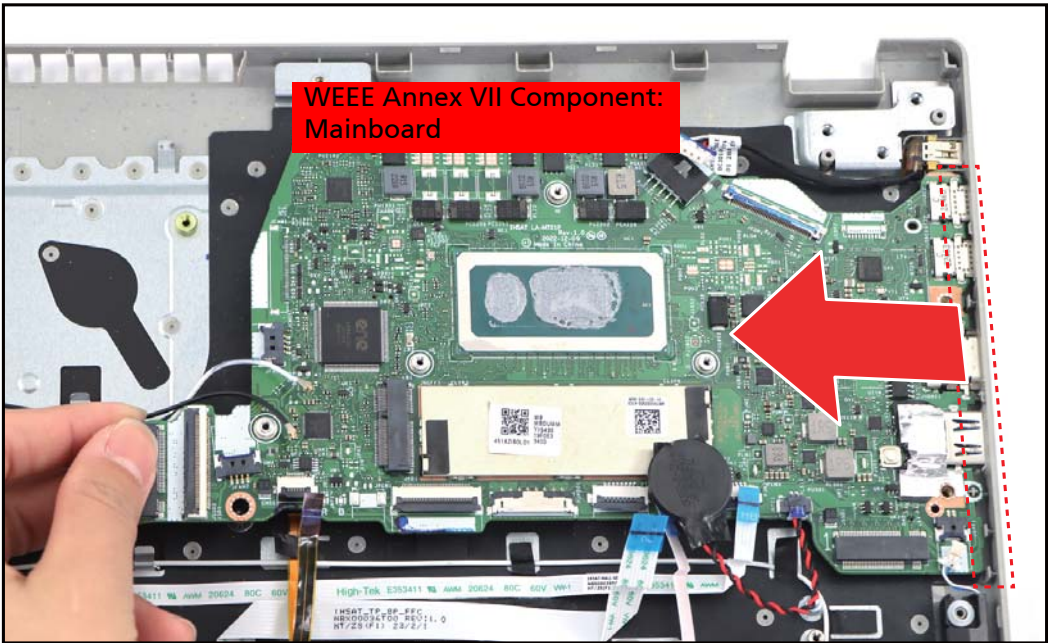



Figure 1-38. Removing the Mainboard

Table 1-9. Mainboard Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 4.0		1.8~2.2kgf.cm	1

# LCD Bezel Removal

## Prerequisite:

※ [LCD Module Removal](#) on page 1-19

1. Pry both LCD hinge caps.



Figure 1-39. Removing the LCD Bezel (1 of 5)

2. Pry the LCD bezel from the right side to release the latches.

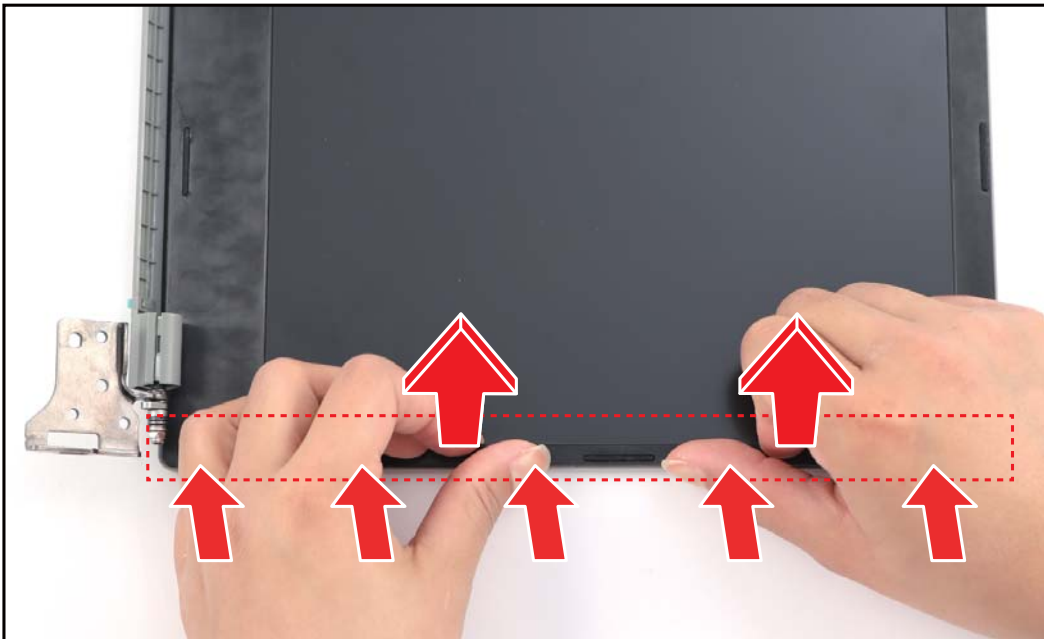
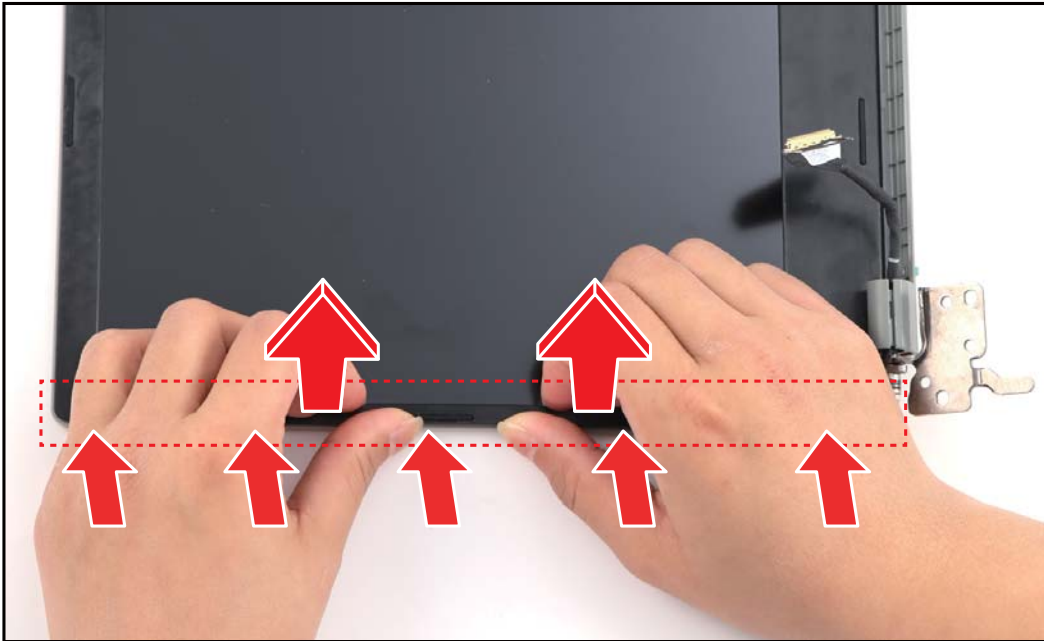


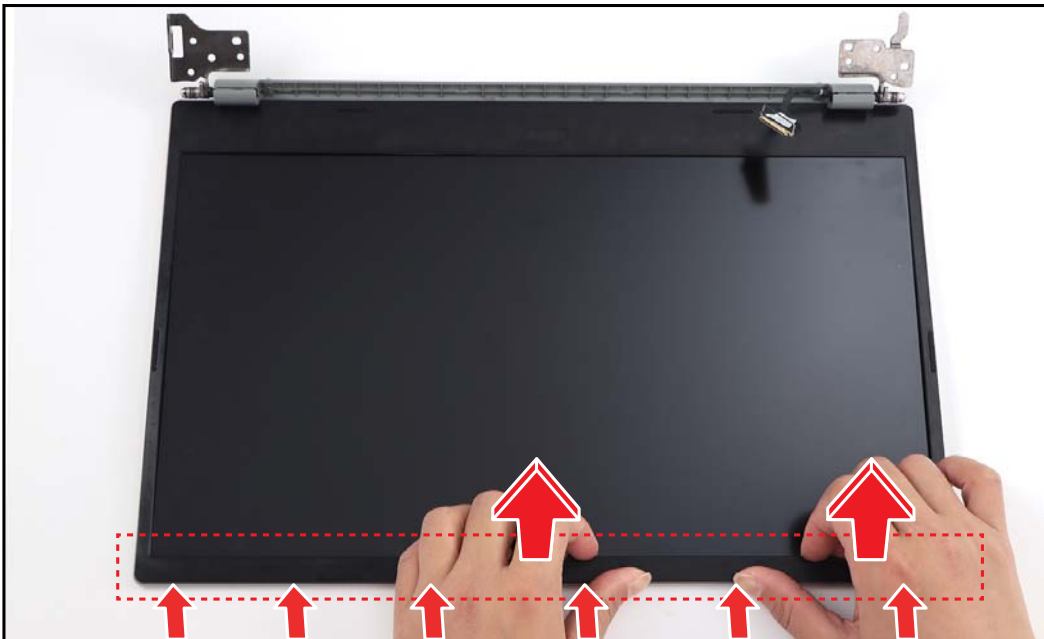
Figure 1-40. Removing the LCD Bezel (2 of 5)

3. Pry the LCD bezel from the left side to release the latches.



**Figure 1-41. Removing the LCD Bezel (3 of 5)**

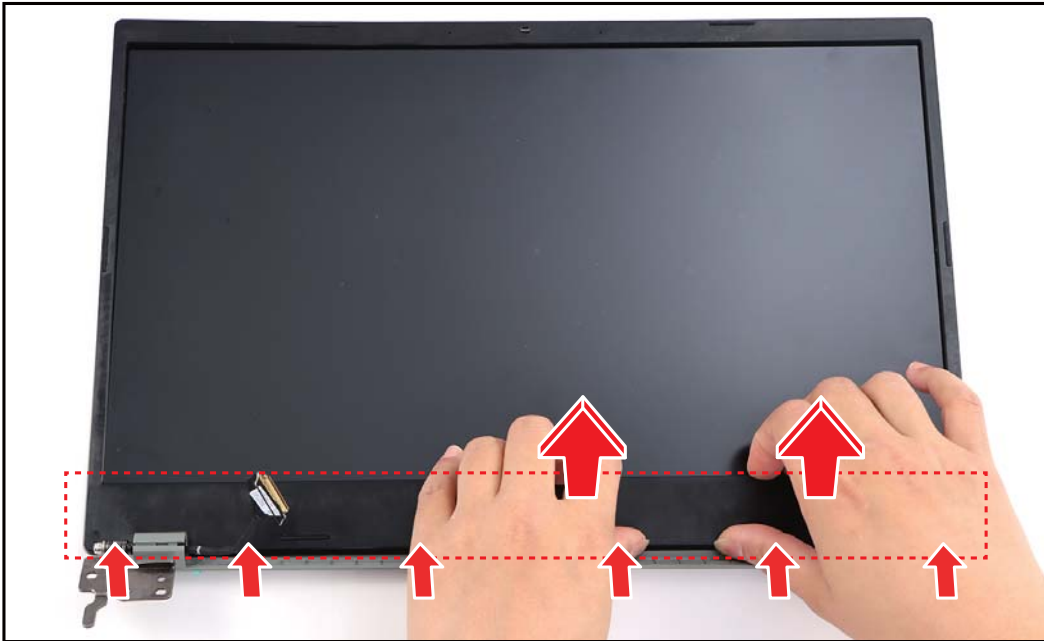
4. Pry the LCD bezel from the upper side to release the latches.



**Figure 1-42. Removing the LCD Bezel (4 of 5)**



5. Continue to pry the bottom side latches and remove the LCD bezel.



**Figure 1-43. Removing the LCD Bezel (5 of 5)**

# LCD Hinges Removal

Prerequisite:

※ [LCD Bezel Removal](#) on page 1-29

1. Remove the six (6) screws securing the LCD hinges to the LCD cover.




Figure 1-44. Removing the Screws

2. Lift to release the LCD hinges from the guide pins. Then remove the hinges from the LCD cover.



Figure 1-45. Removing the LCD Hinges

**Table 1-10. LCD Hinges Screws**

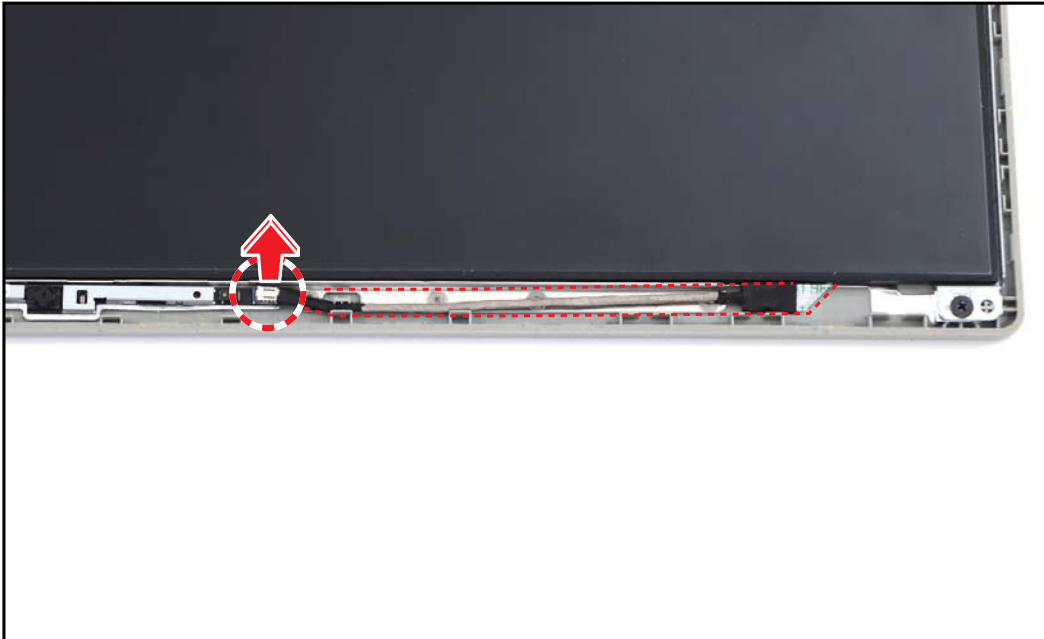
Screw Name	Screw Type	Torque	Quantity
M 2.5 x 2.5		2.65~3.0kgf.cm	6

# LCD Panel and Hinge Brackets Removal

## Prerequisite:

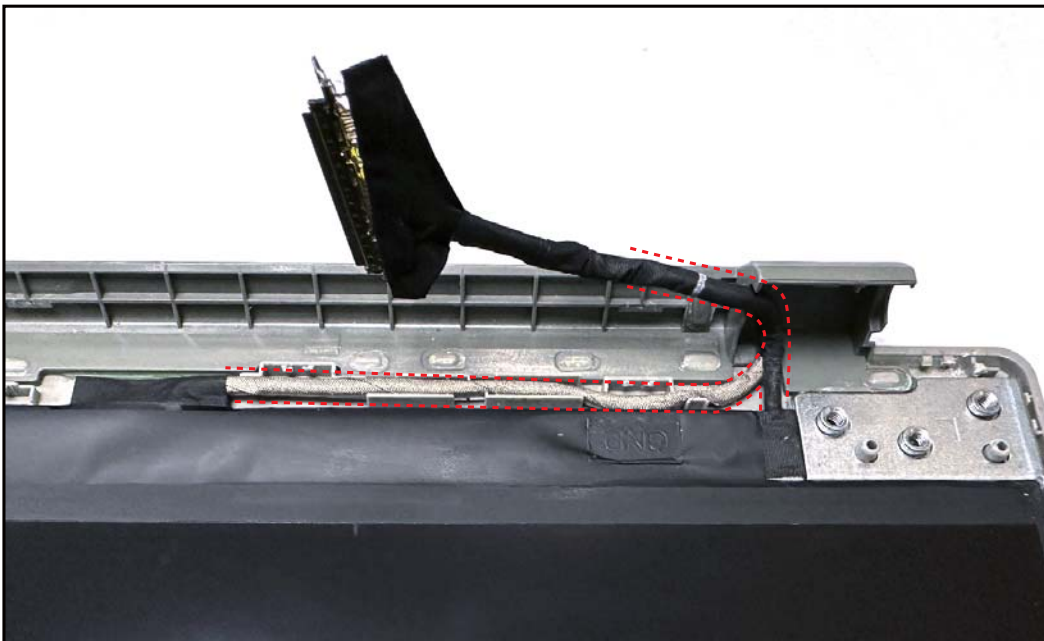
※ [LCD Hinges Removal](#) on page [1-32](#)

1. Disconnect the eDP cable from the CMOS and dual microphone module connector. Then unroute the eDP cable from the cable guides on the upper side of the LCD cover.



**Figure 1-46. Disconnecting and Unrouting the eDP Cable**

2. Unroute the eDP cable from the cable guides on the bottom side of the LCD cover and hinge cap as shown in the below illustration.



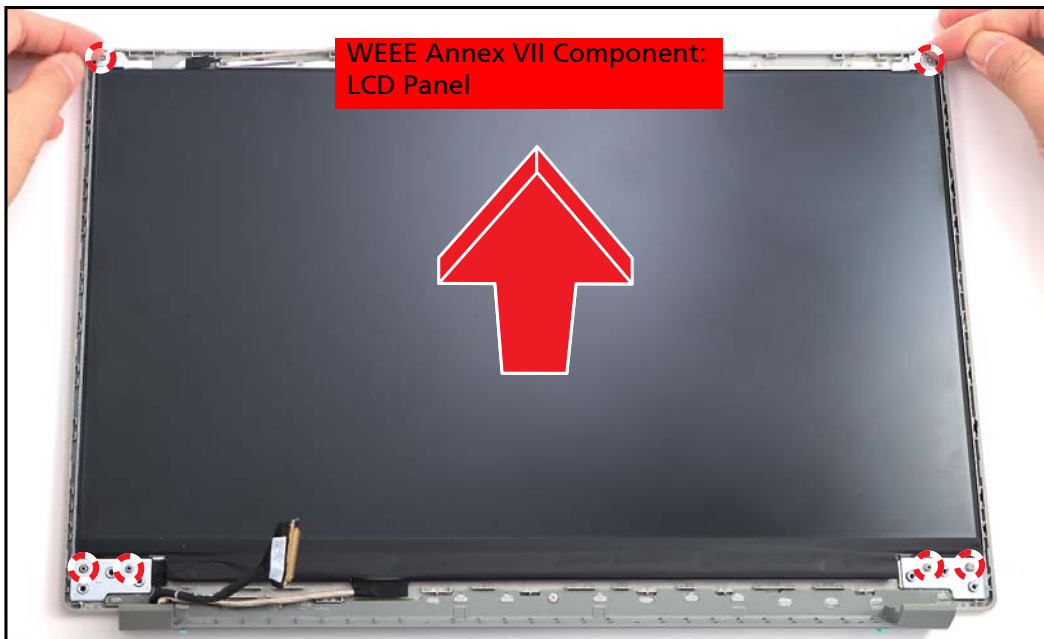
**Figure 1-47. Unrouting the eDP Cable**

3. Remove the two (2) screws securing the LCD hinge brackets to the LCD cover.



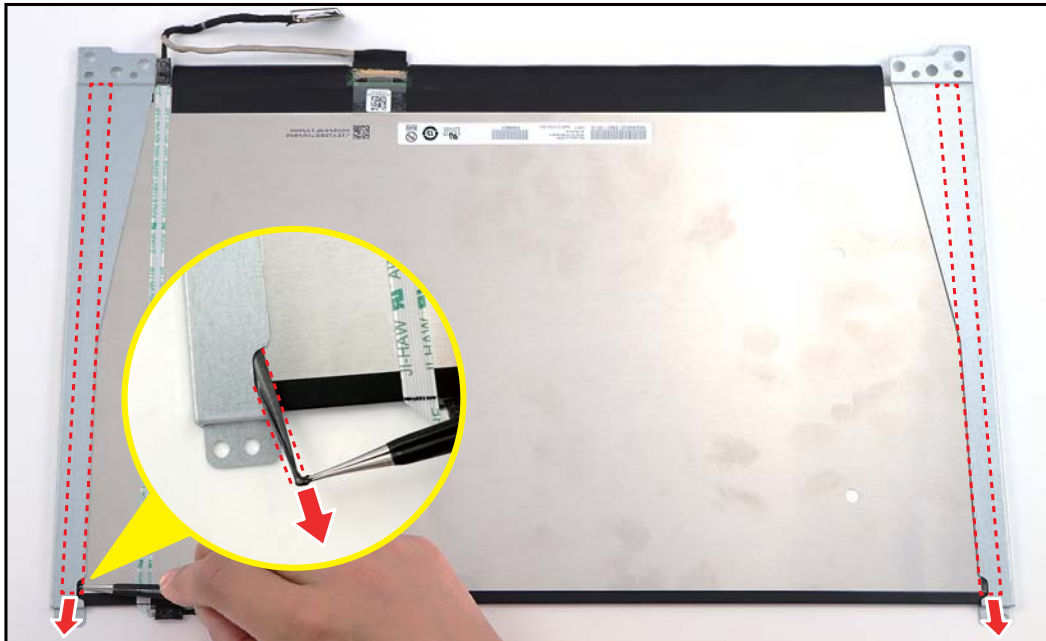
**Figure 1-48. Removing the Screws**

4. Lift to release the LCD hinge brackets from the guide pins. Then remove the LCD hinge brackets (with the LCD panel) from the LCD cover.



**Figure 1-49. Removing the LCD Hinge Brackets (with the LCD Panel)**

5. Carefully flip the LCD panel and pry slightly to access the double-sided mounting tape underneath the LCD hinge bracket. Then pull to detach the double-sided mounting tape. Repeat the same procedure to remove the double-sided mounting tape on another side of the LCD hinge bracket.



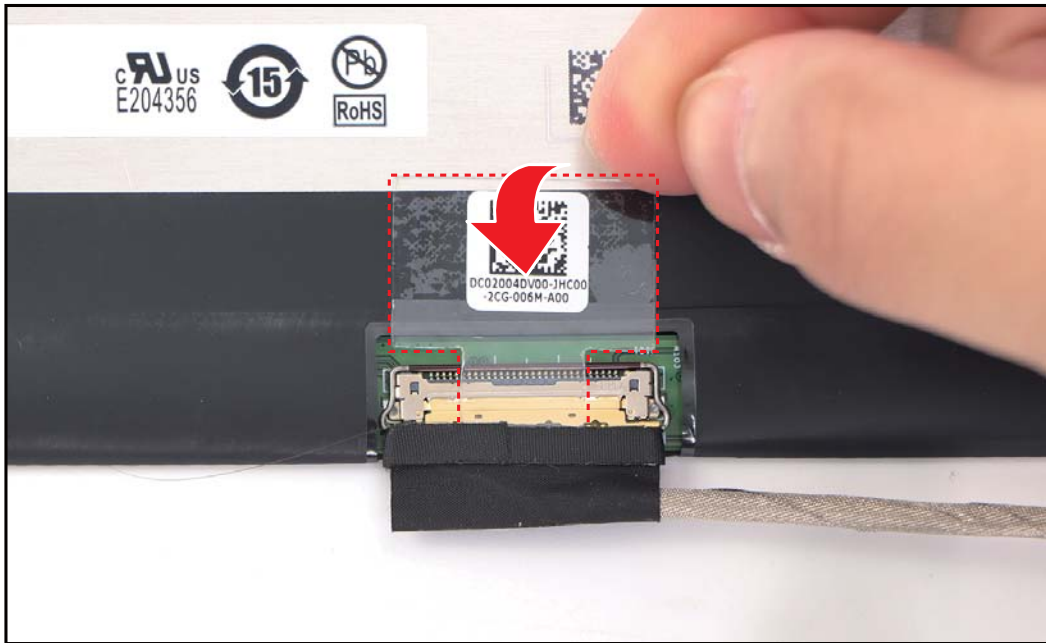
**Figure 1-50. Detaching the Double-sided Mounting Tapes**

6. Detach and unroute the eDP cable from the LCD panel as shown in the illustration below.



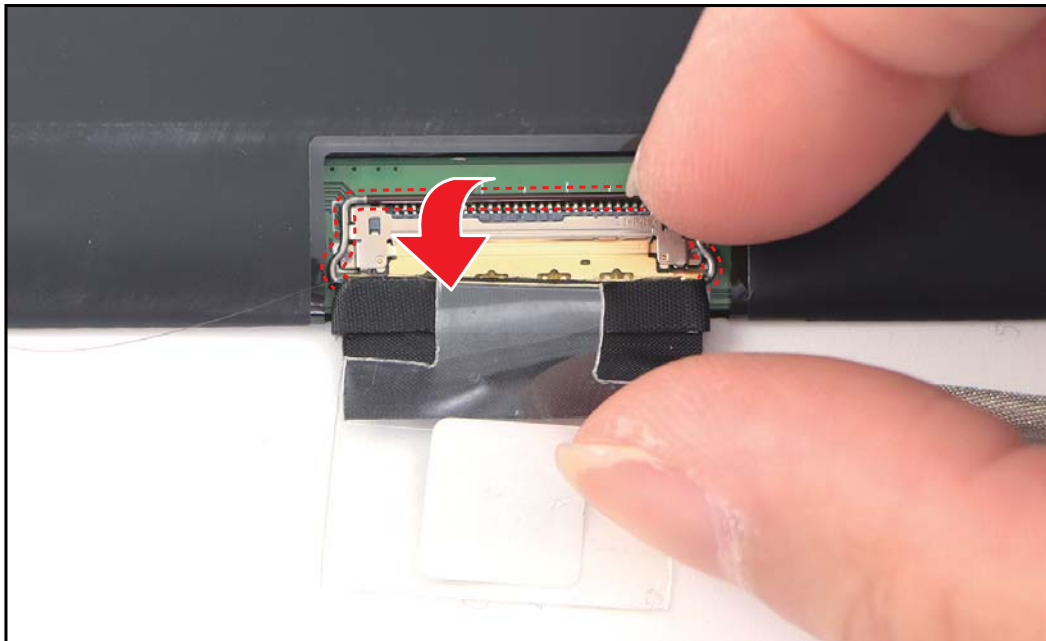
**Figure 1-51. Unrouting the eDP Cable**

7. Detach the mylar securing the eDP cable to the LCD panel connector.



**Figure 1-52. Detaching the Mylar**

8. Lift the latch securing the eDP cable.



**Figure 1-53. Lifting the Latch**

9. Disconnect the eDP cable from the LCD panel connector. Then remove the eDP cable.

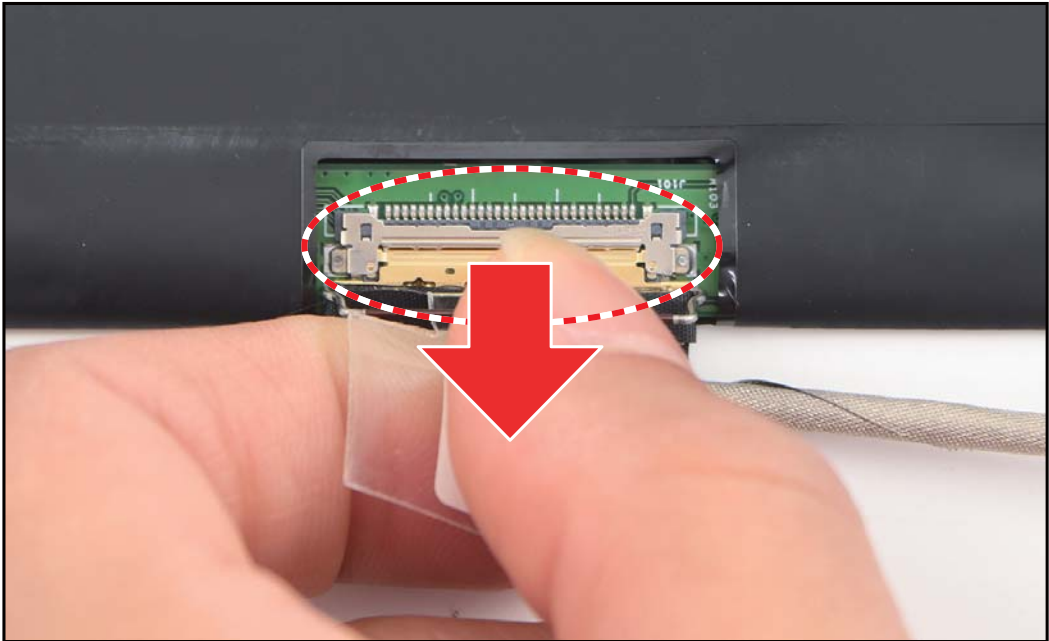



Figure 1-54. Disconnecting the eDP Cable

Table 1-11. LCD Hinge Brackets Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 3.0		1.8~2.2kgf.cm	2



# Troubleshooting

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This chapter shows you how to deal with common system problems. Read it before calling a technician if a problem occurs. Solutions to more serious problems require opening up the computer. Do not attempt to open the computer yourself; contact your dealer or authorized service center for assistance.

## Troubleshooting tips

This computer incorporates an advanced design that delivers on-screen error message reports to help you solve problems.

If the system reports an error message or an error symptom occurs, see “Error message” below. If the problem cannot be resolved, contact your dealer.

## Error messages

If you receive an error message, note the message and take the corrective action. The following table lists the error messages in the alphabetical order together with the recommended course of action.

**Table 1-12. Error Messages**

Error Messages	Corrective Action
CMOS battery bad	Contact your dealer or an authorized service center.
CMOS checksum error	Contact your dealer or an authorized service center.
Disk boot failure	Insert a system (bootable) disk, then press <b>Enter</b> to reboot.
Equipment configuration error	Press <b>F2</b> (during POST) to enter BIOS utility, then press <b>Exit</b> in the BIOS utility to reboot.
Hard disk 0 error	Contact your dealer or an authorized service center.
Hard disk 0 extended type error	Contact your dealer or an authorized service center.
I/O parity error	Contact your dealer or an authorized service center.
Keyboard error or no keyboard connected	Contact your dealer or an authorized service center.
Keyboard interface error	Contact your dealer or an authorized service center.
Memory size mismatch	Press <b>F2</b> (during POST) to enter BIOS utility, then press <b>Exit</b> in the BIOS utility to reboot.

If you still encounter problems after going through the corrective measures, please contact your dealer or an authorized service center for assistance.

# FRU (Field Replaceable Unit) List

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Please contact your local service center to find out how to obtain the part or replace your device.

# Exploded Diagrams

## Main Assembly

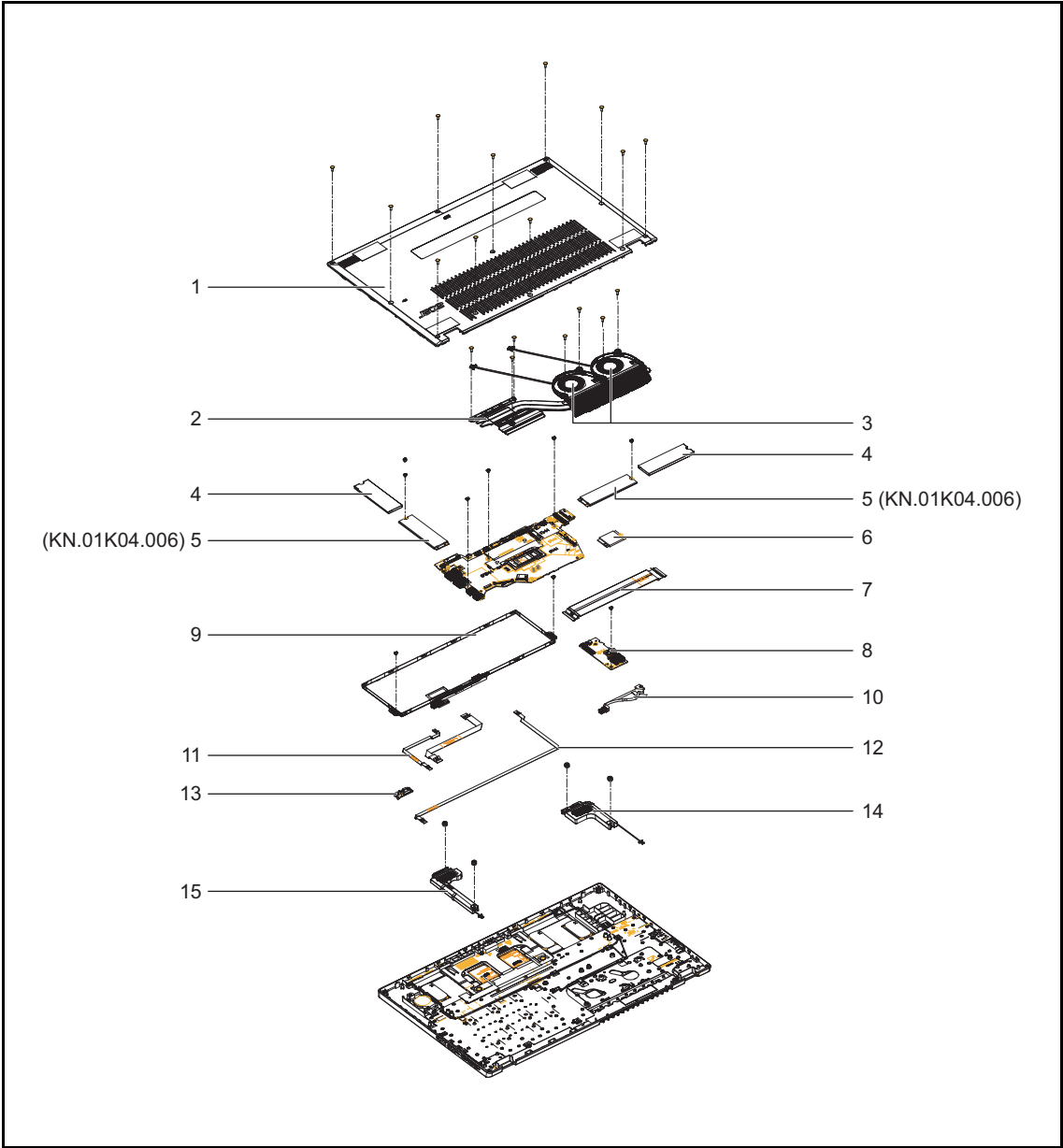


Figure 1-55. Main Assembly Exploded Diagram

Table 1-13. Main Assembly Exploded Diagram

No.	Description	P/N
1	LOWER CASE	64.KLLN2.001
2	THERMAL MODULE	24.KLLN2.001

**Table 1-13. Main Assembly Exploded Diagram (Continued)**

No.	Description	P/N
3	FAN	23.KLLN2.001
4	FOIL MYLAR	47.KLLN2.002
5	SSD MODULES	KN.01K04.006
6	WLAN MODULE	KE.WF60N.011
7	USB BOARD FFC	50.KLLN2.001
8	USB BOARD	55.KLLN2.001
9	BATTERY	KT.0030G.020
10	DC-IN CABLE	50.KLLN2.005
11	FINGERPRINT FFC	50.KLLN2.004
12	HALL SENSOR BOARD FFC	50.KLLN2.002
13	HALL SENSOR BOARD	55.KLLN2.002
14	RIGHT SPEAKER	23.KLLN2.003
15	LEFT SPEAKER	23.KLLN2.002

# Upper Case Assembly

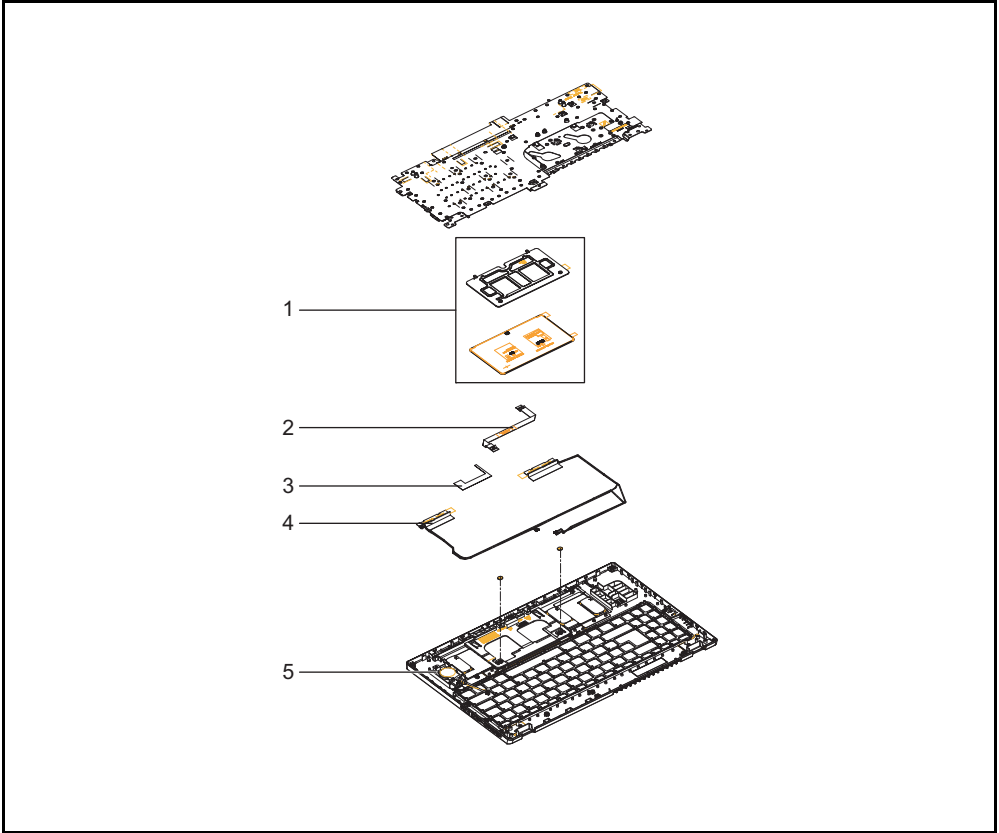


Figure 1-56. Upper Case Assembly Exploded Diagram

Table 1-14. Upper Case Assembly Exploded Diagram

No.	Description	P/N
1	TOUCHPAD	56.KLLN2.001
2	TOUCHPAD FFC	50.KLLN2.003
3	CONDUCTIVE TAPE	47.KLLN2.001
4	MAIN ANTENNA	50.KLLN2.006
	AUX ANTENNA	50.KLLN2.007
5	UPPER CASE	6B.KLLN2.001



# LCD Assembly

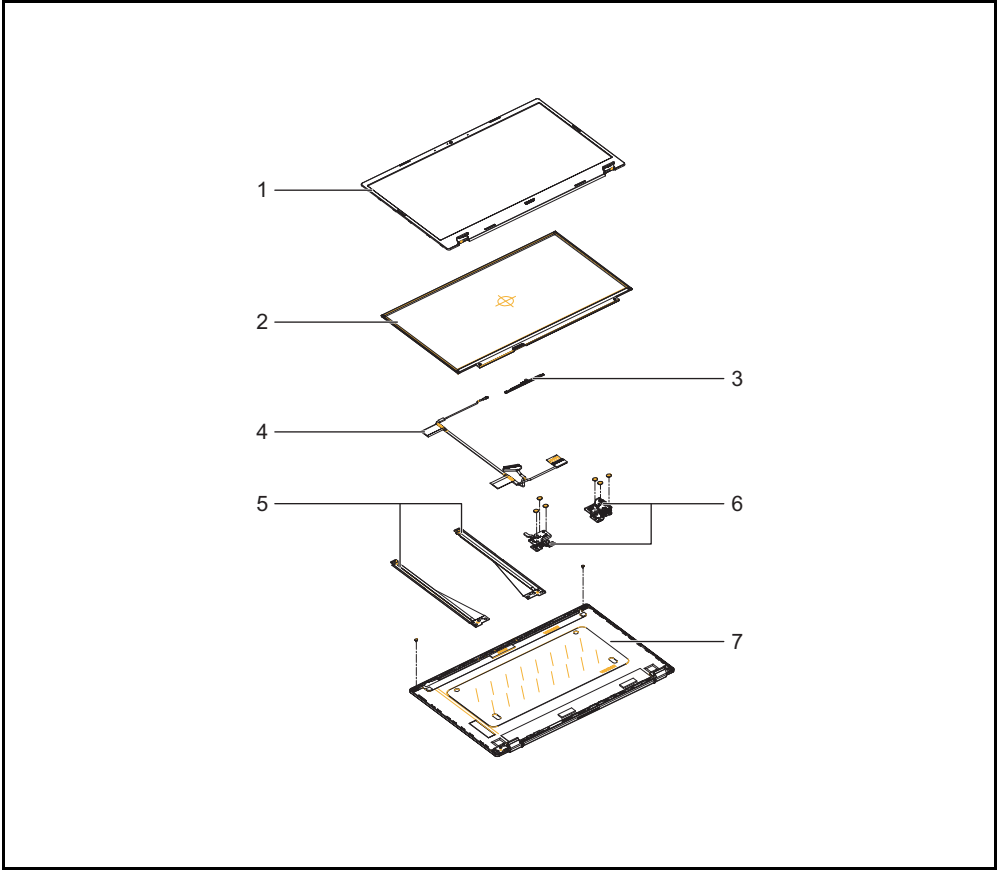


Figure 1-57. LCD Assembly Exploded Diagram

Table 1-15. LCD Assembly Exploded Diagram

No.	Description	P/N
1	LCD BEZEL	62.KLLN2.001
2	LCD PANEL	KL.15605.074
3	CAMERA	KS.FHD06.007
4	EDP CABLE	50.KLLN2.008
5	LEFT LCD HINGE BRACKET	33.KLLN2.003
	RIGHT LCD HINGE BRACKET	33.KLLN2.004
6	LEFT LCD HINGE	33.KLLN2.001
	RIGHT LCD HINGE	33.KLLN2.002
7	LCD COVER	61.KLLN2.001

# Software Update







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Please visit <http://go.acer.com/?id=17883>.

# Personal Data Removal

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There are three options to choose from:

- Option 1: Select **Start**  > **Settings**  > **Update & Security**  > **Recovery**. Under **Reset this PC**, select **Get started**. Open **Recovery settings**.
- Option 2: Restart your PC to get to the sign-in screen, then press and hold down the **Shift key** while you select the **Power**  icon > **Restart** in the lower-right corner of the screen. After your computer restarts, select **Troubleshoot** > **Reset this PC**.
- Option 3: Select **Start** , then press and hold down the **Shift key** while you select the **Power**  icon > **Restart** to restart your computer into Recovery Mode. After your computer restarts, select **Troubleshoot** > **Reset this PC**.