Acer Nitro V 16 AI
ANV16-61/ANV16-42

Lifecycle Extension Guide

Table of Contents

Self-Repair **1**

Disassembly Procedures **2**

System Block Diagram **41**

BIOS Setup Utility **42**

Troubleshooting **63**

Exploded Diagrams **79**

FRU (Field Replaceable Unit) List **83**

Software Update **92**

Personal Data Removal **93**

Self-Repair

This product offers limited customer self-repair capabilities.

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

Due to the complexity of circuit boards, electronic components which are embedded to the motherboard or daughterboard(s) are strongly not advised to self-repair.

NOTE:

Before handling components, wear anti-static gloves to avoid damaging them due to static electricity.

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.

Disassembly Procedures

Safety Guidelines

This chapter contains step by step procedures on how to remove and de-install components from the computer. Use these 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 if any damage is done to the unit or components during the repair. 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
- WLAN module
- DIMM modules
- SSD modules
- RTC battery
- Touchpad
- USB board
- 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 power adapter and remove all cables from the system and its peripherals.



Figure 1-1. Disconnecting the Power Adapter

AC Adapter Removal

1. Disconnect the AC adapter from the system.



Figure 1-2. Disconnecting the AC Adapter

2. Disconnect the power cord from the AC adapter.



Figure 1-3. Disconnecting the Power Cord

Lower Case Removal

1. Remove the ten (10) screws securing the lower case to the upper case.

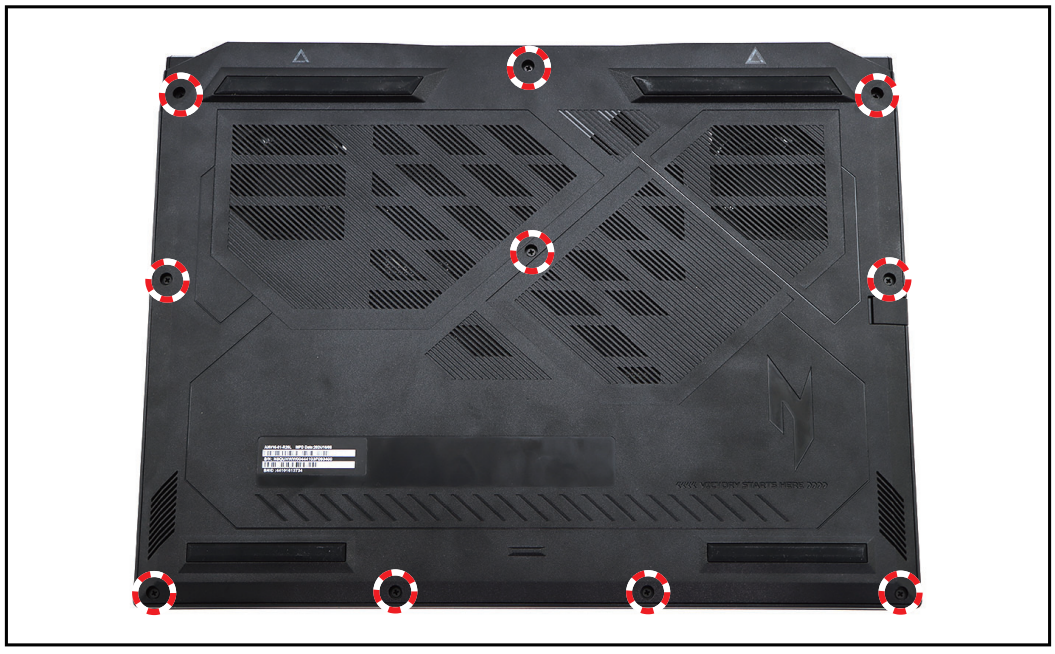


Figure 1-4. Removing the Screws

2. By holding the device upright and the lower case is facing you, pry the lower case from the bottom side to release both edges latches, following the direction arrow as shown in the illustration below.

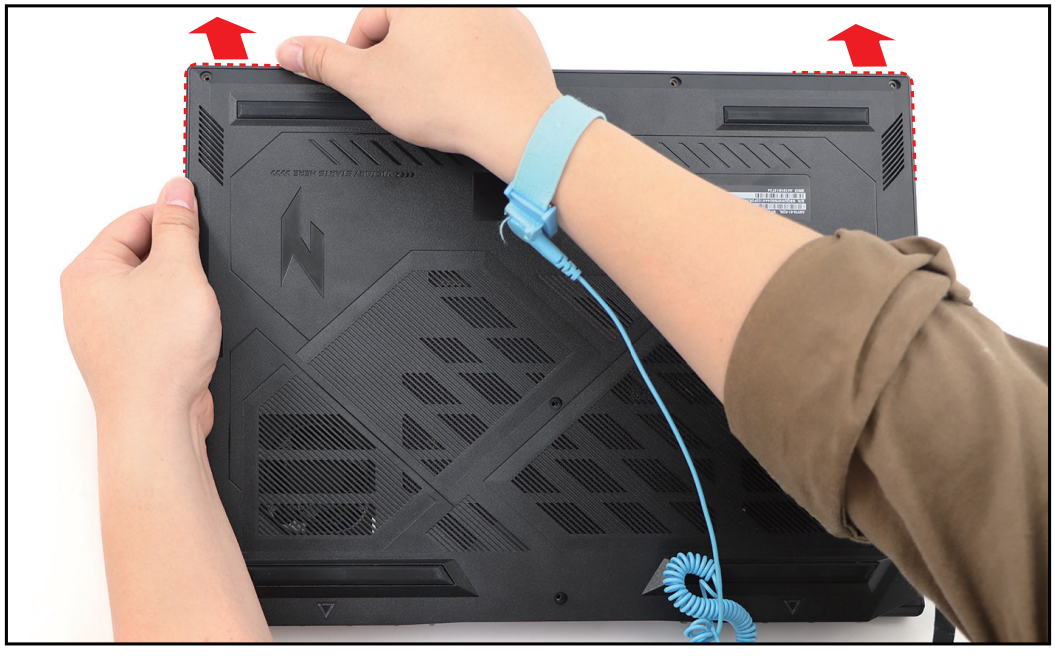


Figure 1-5. Releasing the Lower Case

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

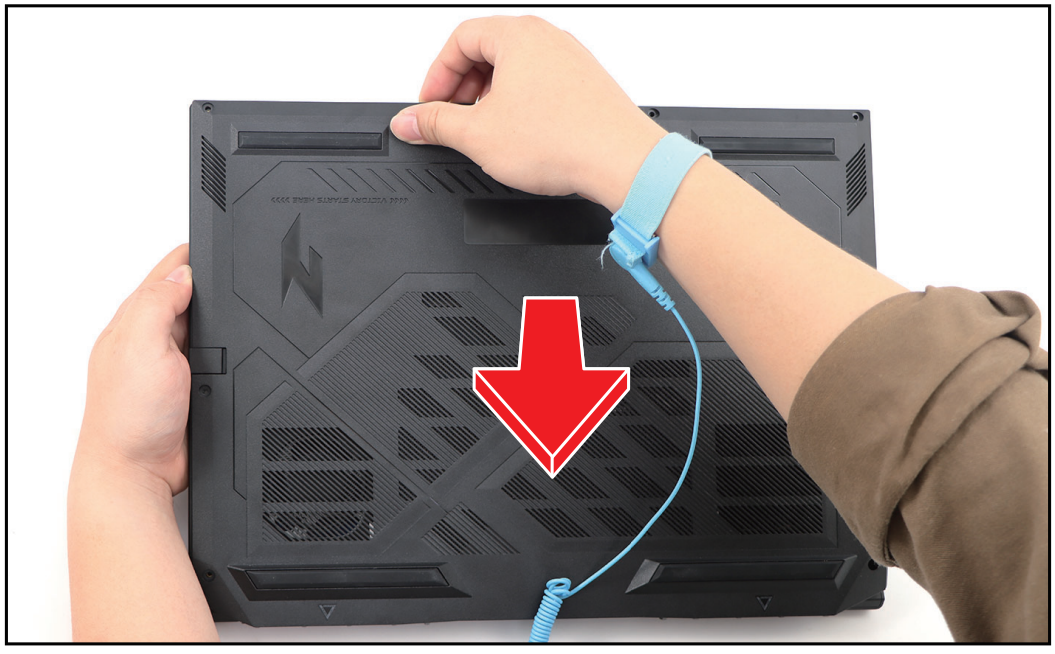


Figure 1-6. Removing the Lower Case

4. Detach the tape securing the battery cable.

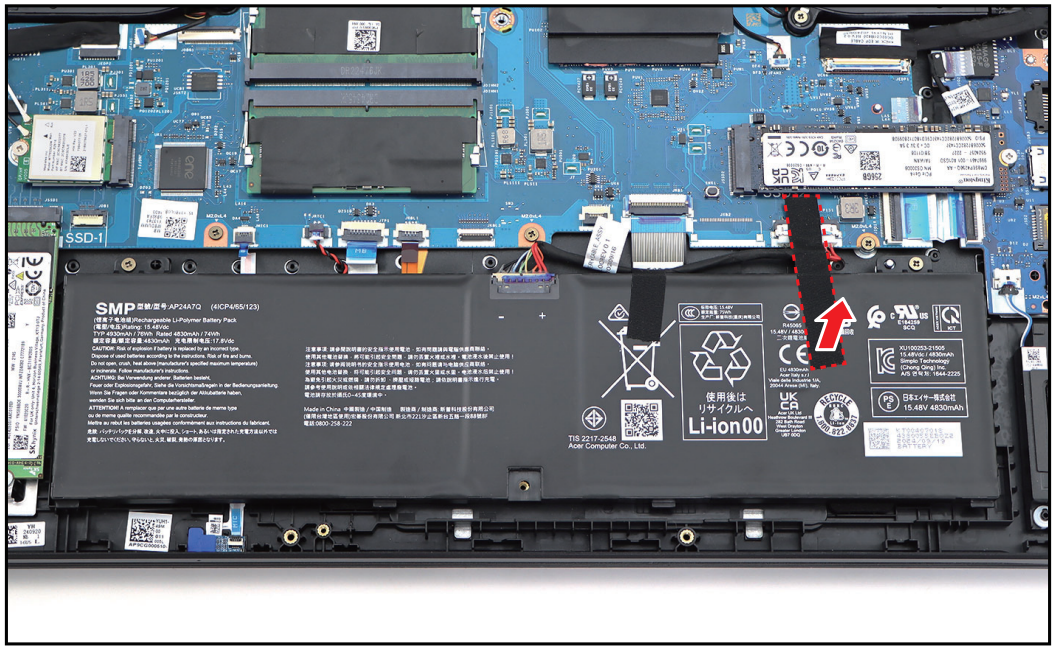


Figure 1-7. Detaching the Tape

5. Disconnect the battery cable from the mainboard connector.

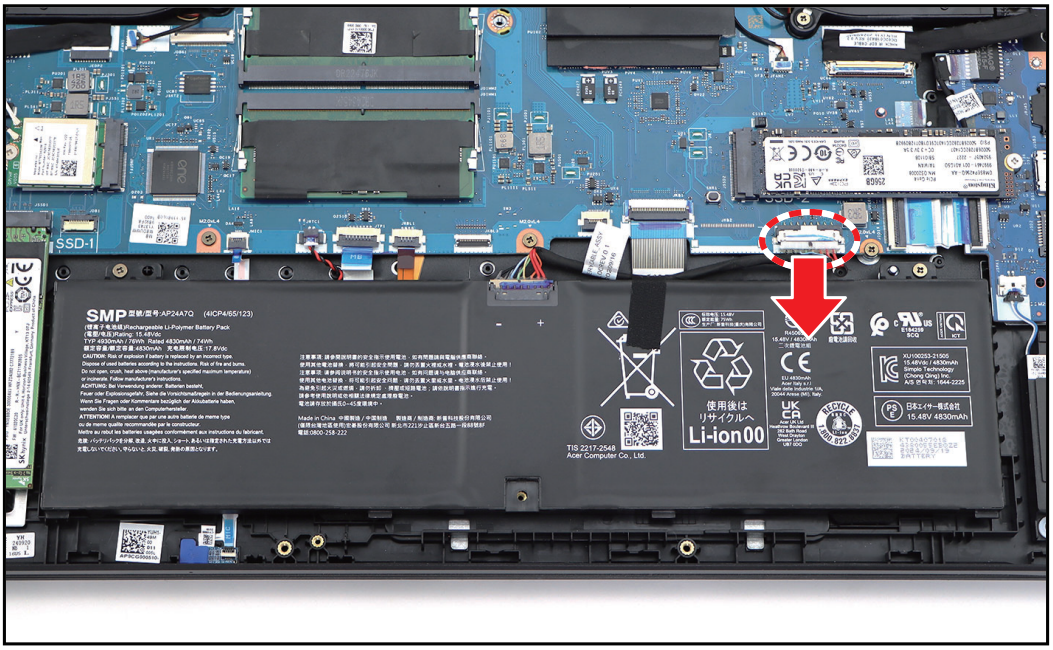


Figure 1-8. Disconnecting the Battery Cable

Table 1-1. Lower Case Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 6.0		2.65~3.45kgf.cm	10

Battery Removal

Prerequisite:

- **Lower Case Removal** on page **1-6**

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

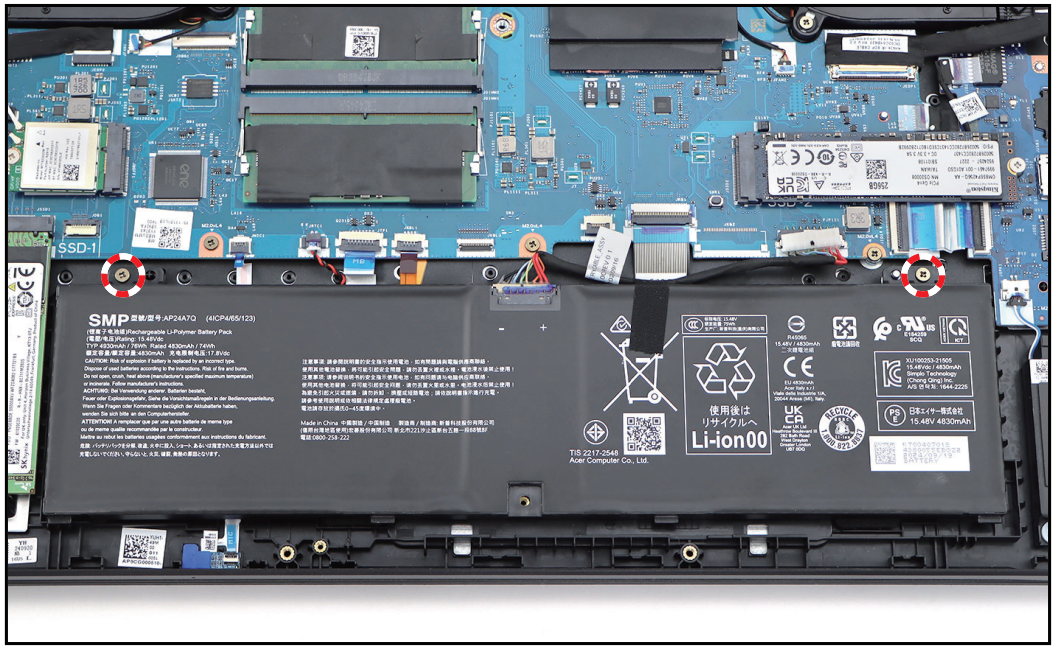


Figure 1-9. Removing the Screws

2. Lift the battery to release it from the guide pins. Then remove the battery from the upper case.

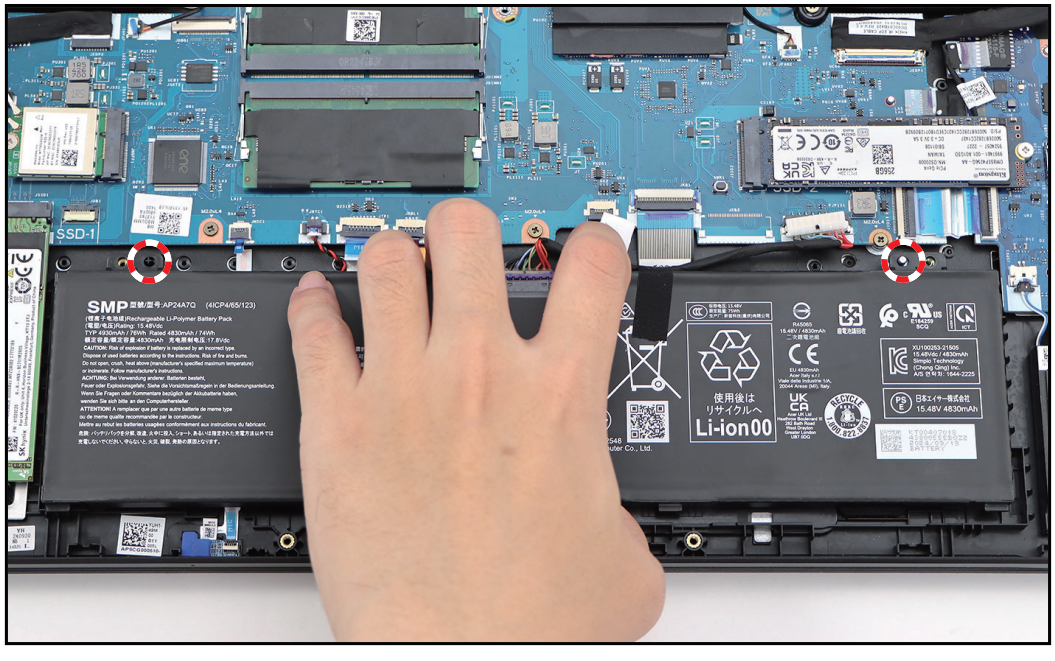


Figure 1-10. Removing the Battery

3. Detach the tape securing the battery cable to the battery.

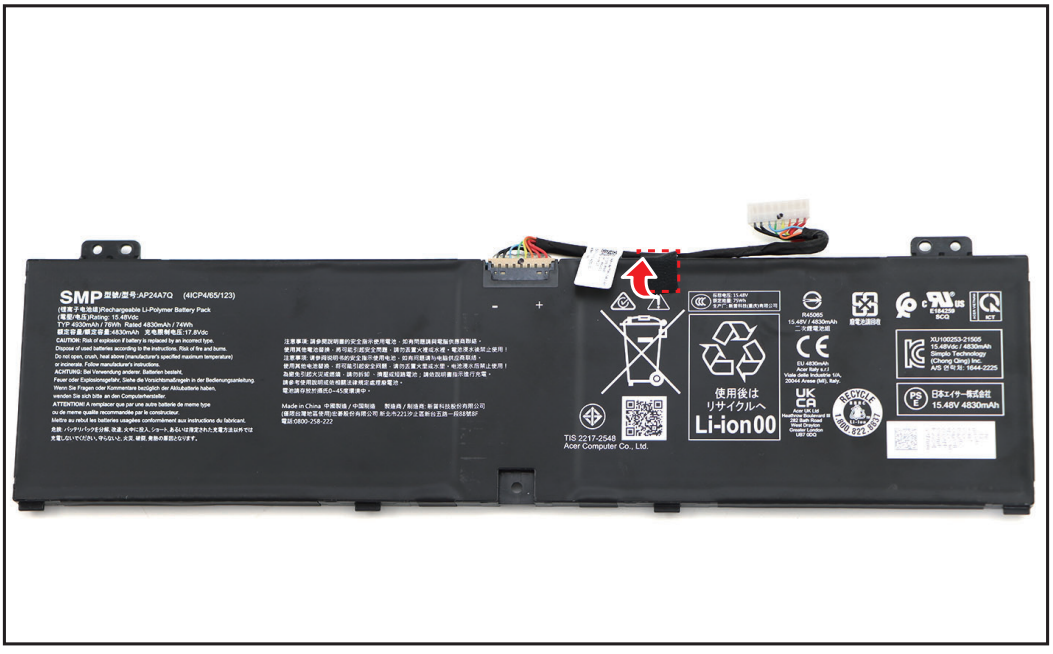


Figure 1-11. Removing the Battery Cable

4. Disconnect the battery cable from the battery connector. Then remove the battery cable.

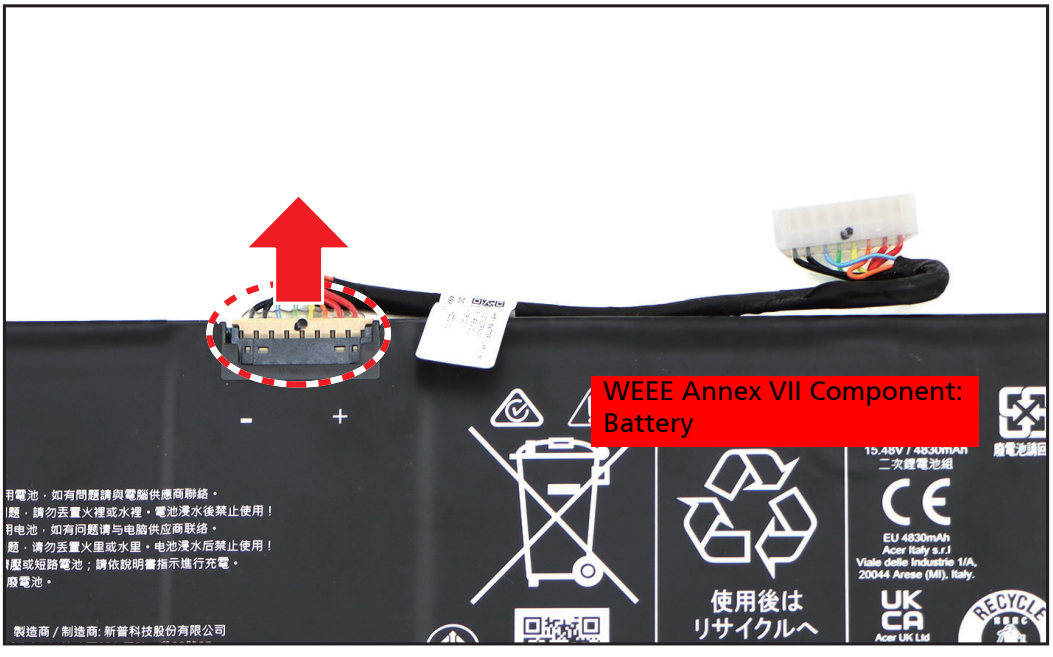


Figure 1-12. Removing the Battery Cable

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. Disconnect the WLAN antenna cables.

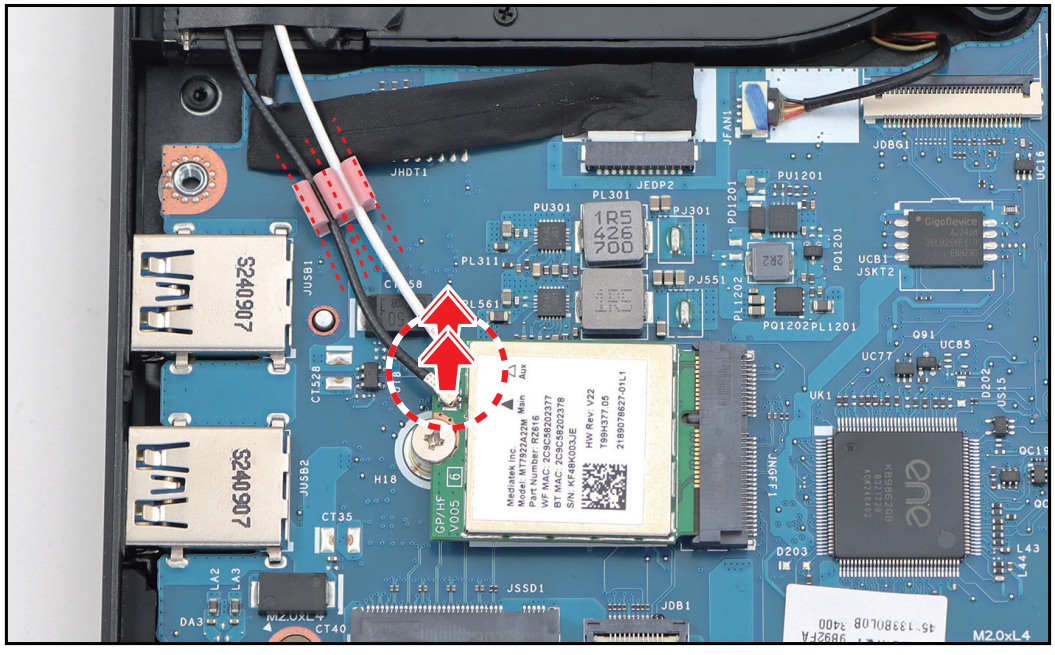


Figure 1-13. Disconnecting the WLAN Antenna Cables

2. Remove the screw securing the WLAN module.

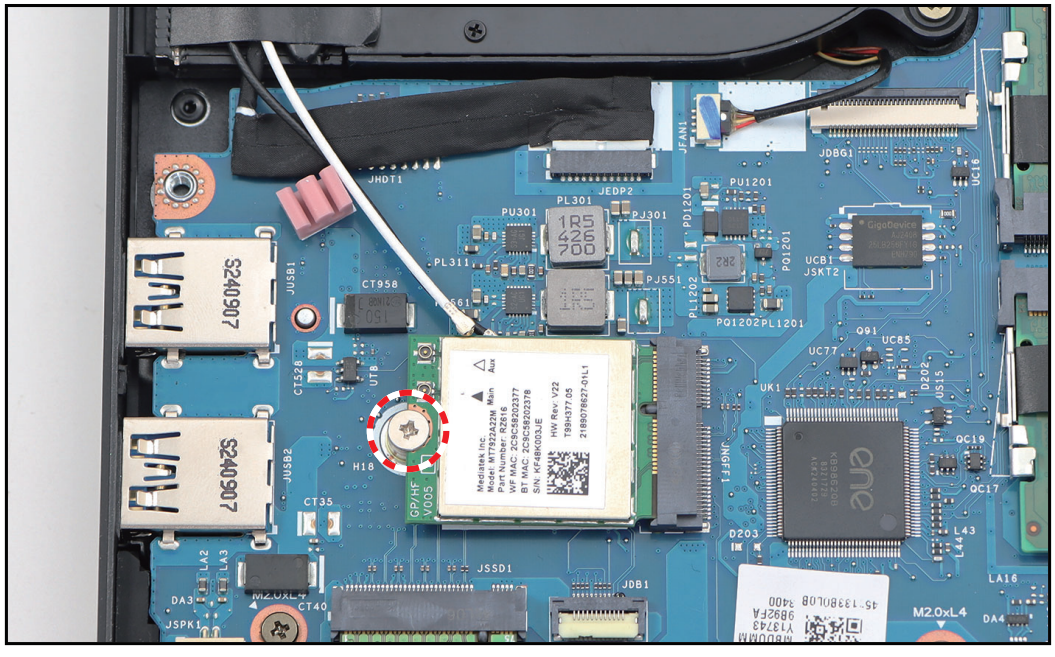


Figure 1-14. Removing the Screw

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

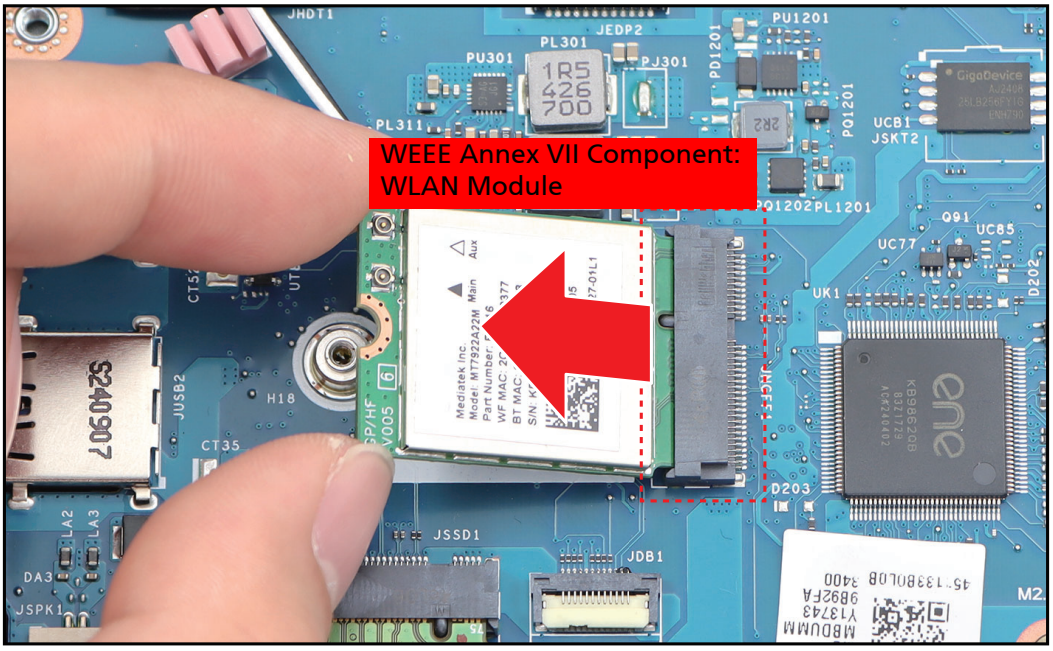


Figure 1-15. Removing the WLAN Module

Table 1-3. WLAN Module Screw

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

DIMM Modules Removal

Prerequisite:

- **Lower Case Removal** on page **1-6**

1. Push the module clips outwards.

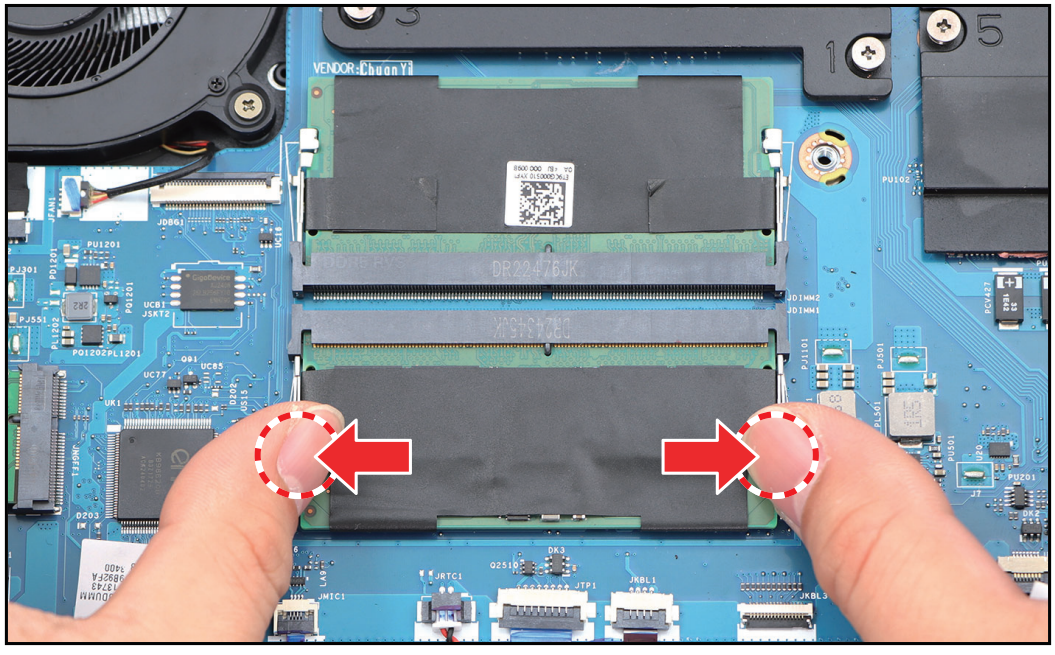


Figure 1-16. Unclipping the Module Clips

2. Pull to remove the memory module from the mainboard connector. Then remove the memory module.

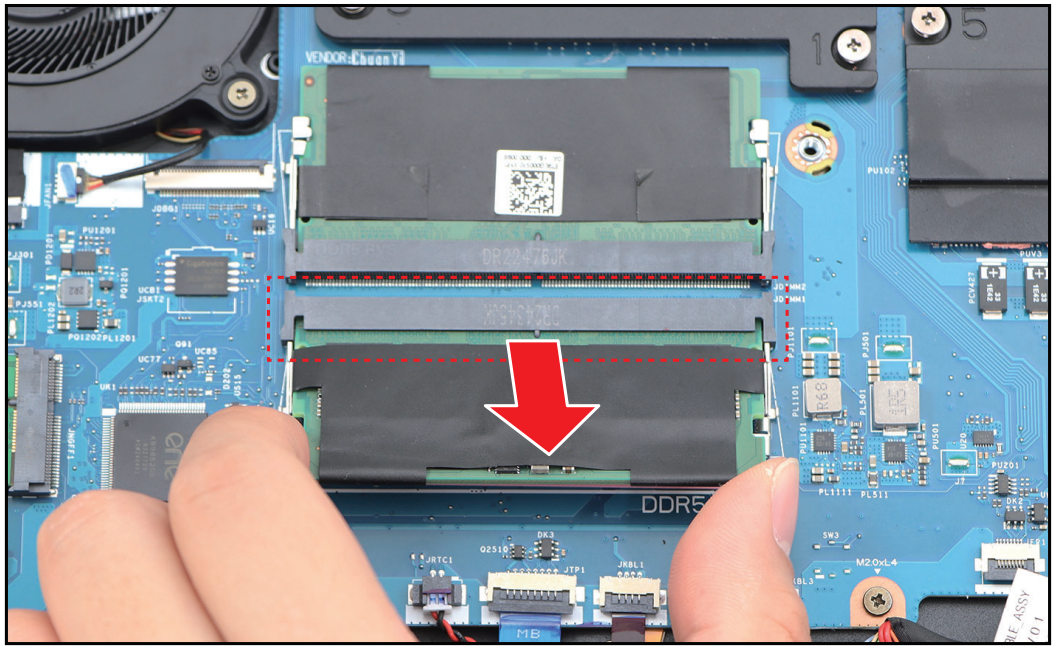


Figure 1-17. Removing the DIMM Module

3. Repeat steps 1~2 to remove another DIMM module.

4. Detach the tabs of the composite foil with thermal pad from the DIMM module as shown in the illustration below.

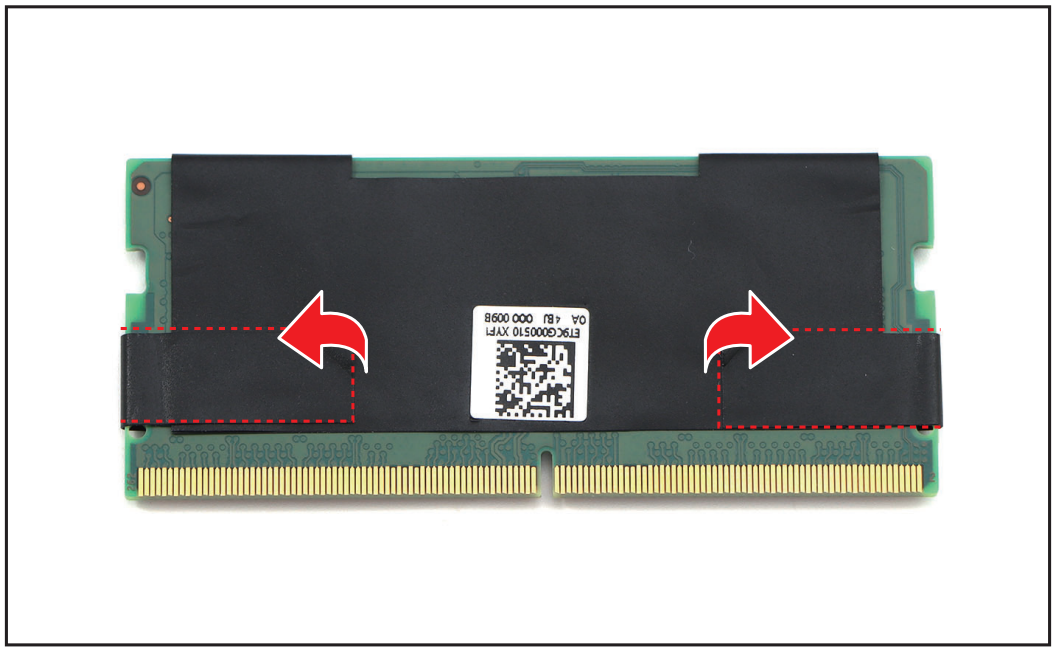


Figure 1-18. Detaching the Composite Foil (1 of 3)

5. Peel off the composite foil with thermal pad from the DIMM module, but DO NOT remove yet!

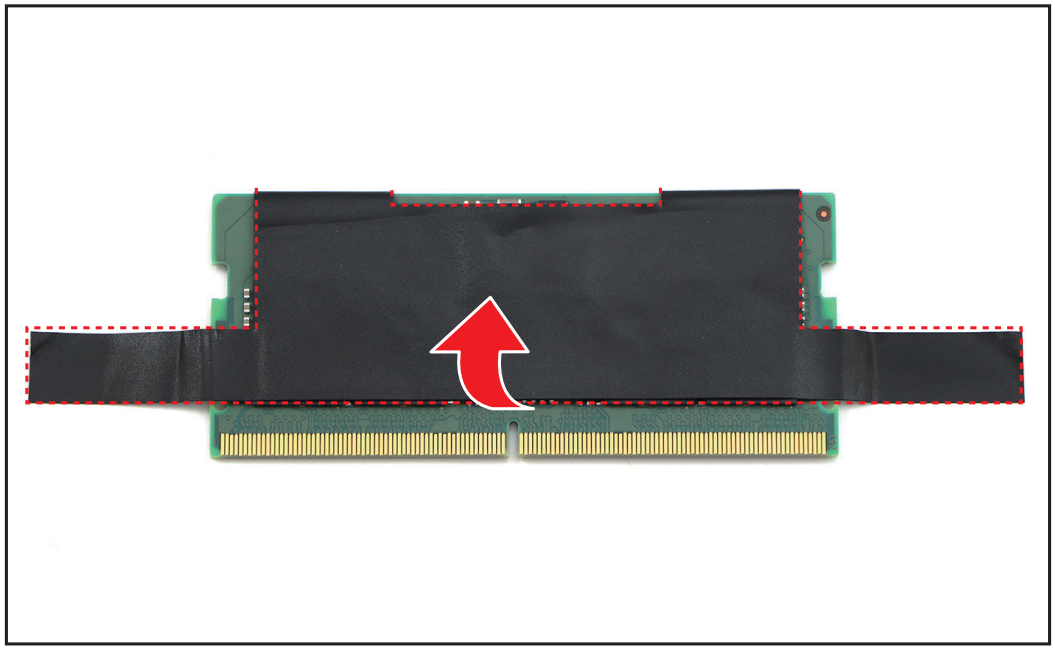


Figure 1-19. Detaching the Composite Foil (2 of 3)

6. Detach the DIMM module from the adhesive graphite strip (marked with red dashed lines) as shown in the illustration below.



Figure 1-20. Detaching the Composite Foil (3 of 3)

7. Repeat steps 4~6 to remove the composite foil with thermal pad from another DIMM module.

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.

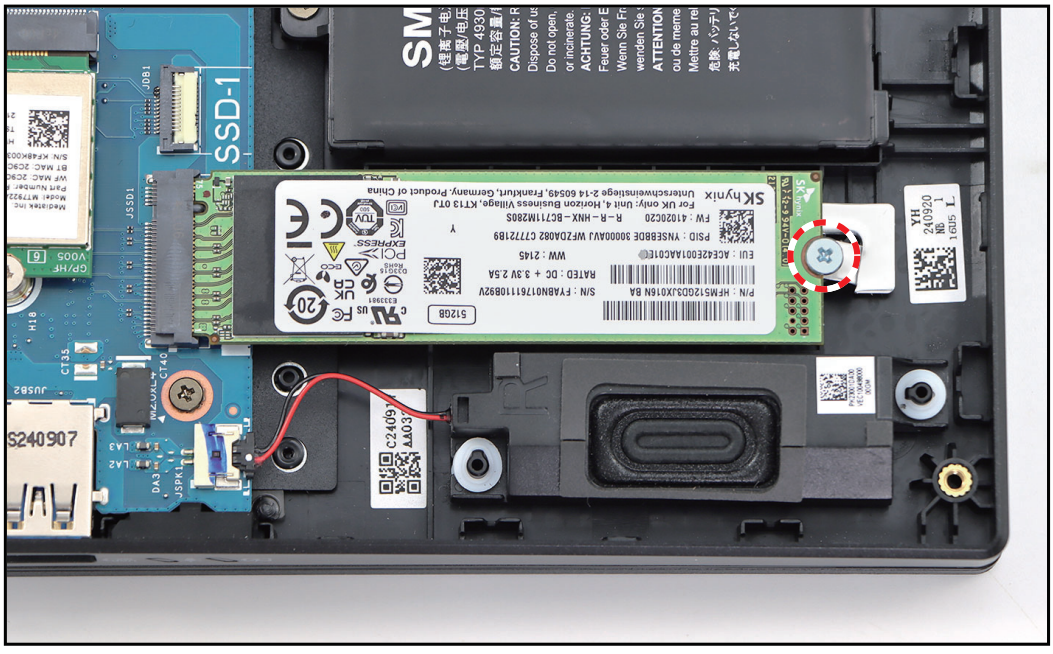


Figure 1-21. Removing the Screw

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



Figure 1-22. Removing the SSD 1 Module

Table 1-4. SSD 1 Module Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 3.0		1.8~2.2kgf.cm	1

SSD 2 Module Removal

Prerequisite:

- **Lower Case Removal** on page **1-6**

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



Figure 1-23. Removing the Screw

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

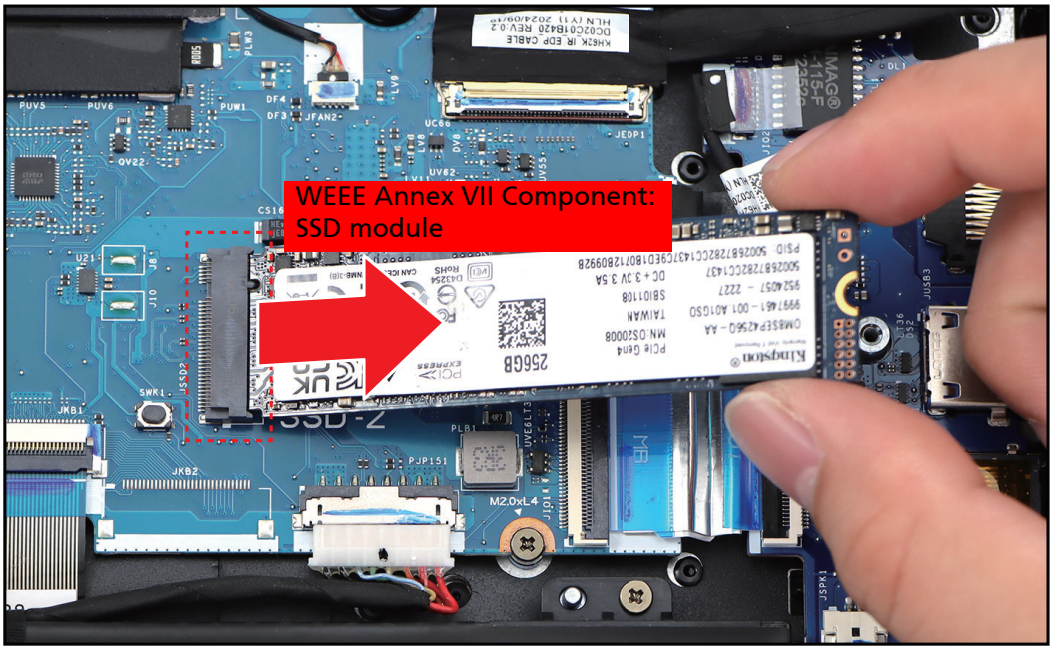


Figure 1-24. Removing the SSD 2 Module

Table 1-5. SSD 2 Module Screw

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 3.0		1.8~2.2kgf.cm	1

RTC Battery Removal

Prerequisite:

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

1. Partially detach the sponge as shown in the below illustration.

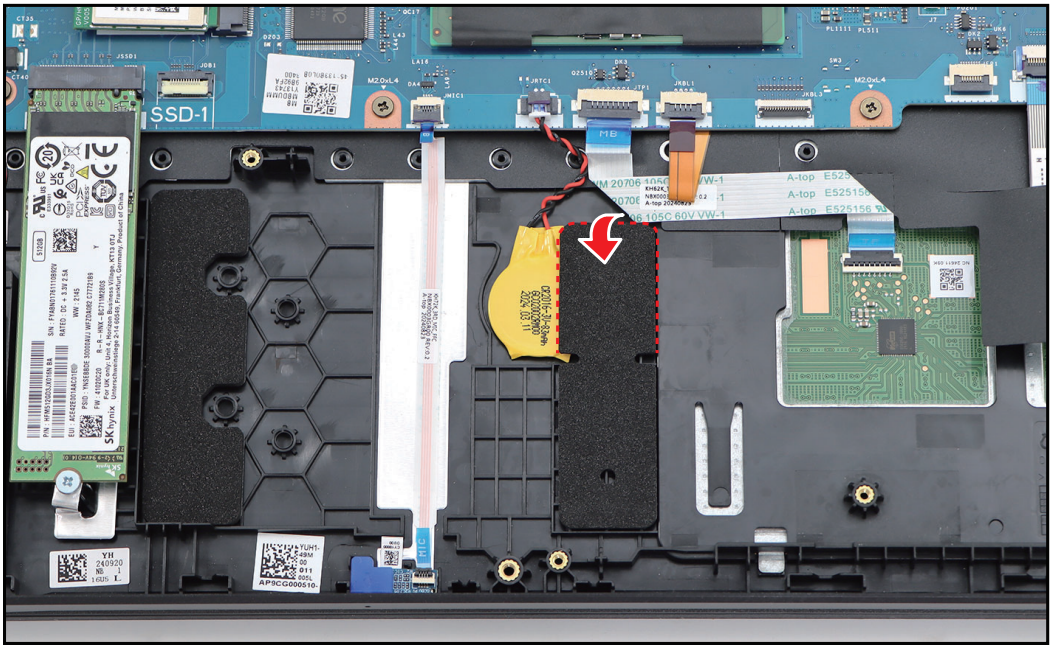


Figure 1-25. Detaching the Sponge

2. Disconnect the RTC battery cable from the mainboard connector.
3. Pry to detach the adhesive tape underneath the RTC battery. Then remove the RTC battery.

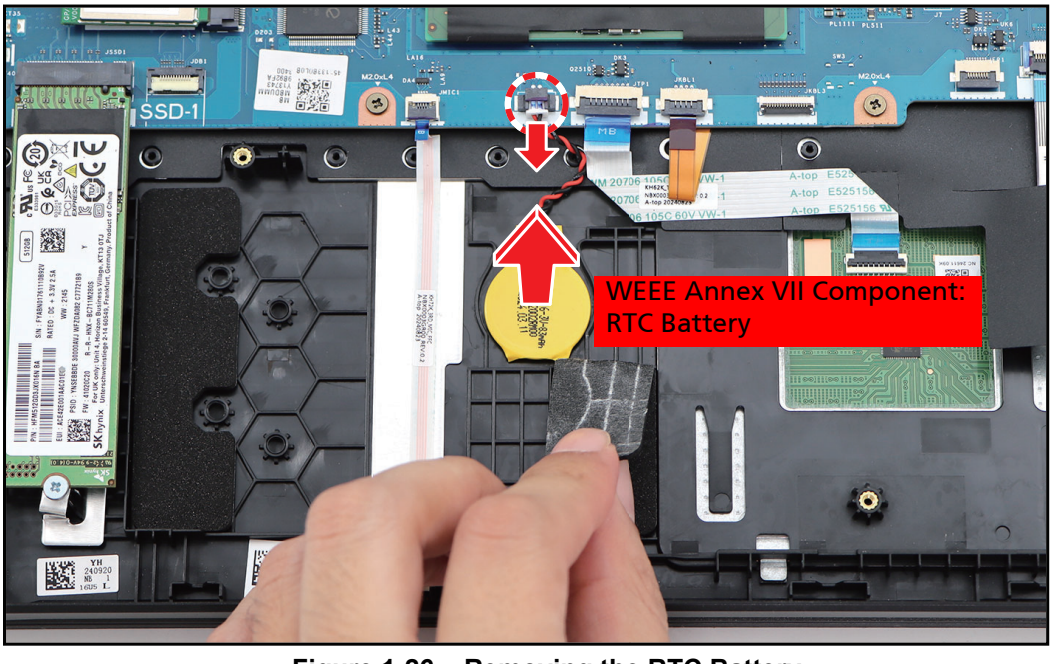


Figure 1-26. Removing the RTC Battery

Touchpad Removal

Prerequisite:

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

NOTE:

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

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

   NOTE: When removing the FFC, carefully lift the portion of the touchpad FFC (marked with red dashed lines as shown in the below illustration) to detach it from the adhesive tape underneath.

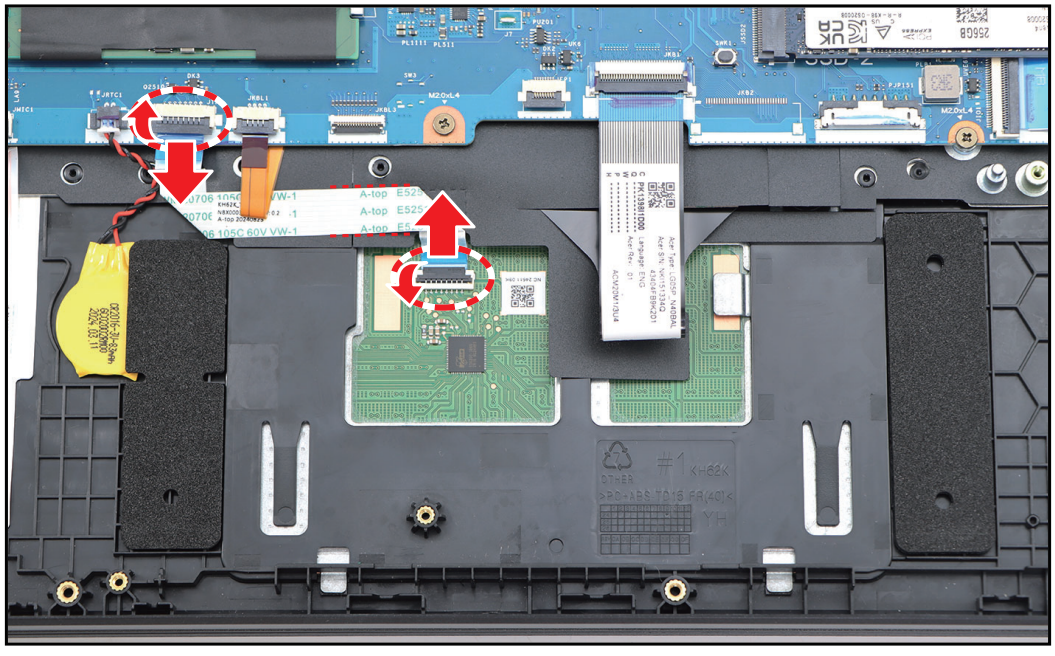


Figure 1-27. Removing the Touchpad FFC

2. Slightly lift the keyboard mylar. Then remove the two (2) screws securing the touchpad to the upper case.

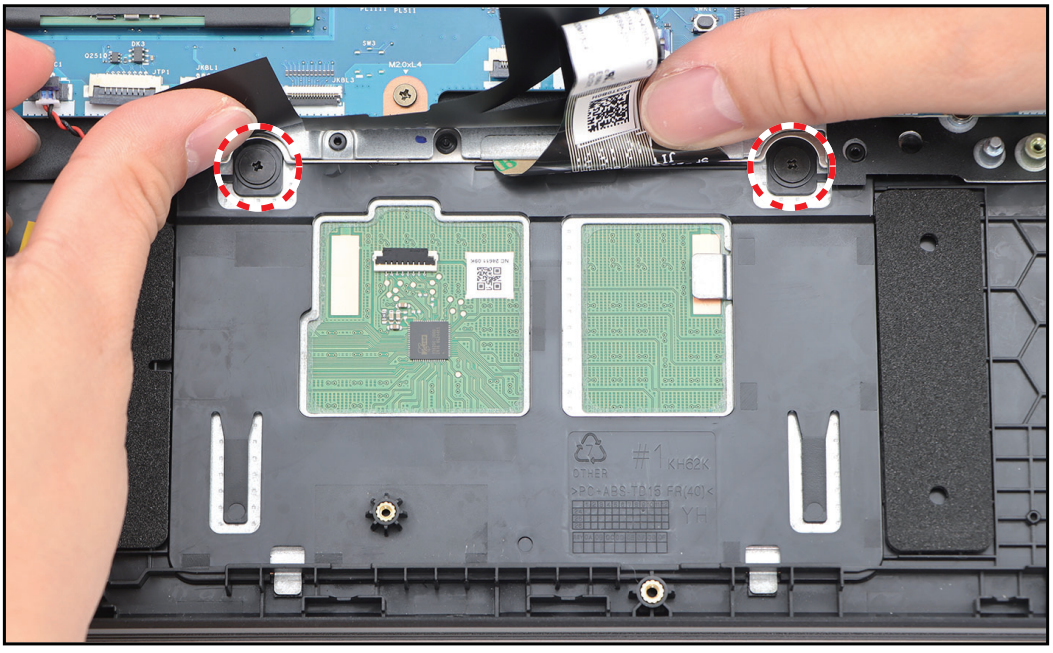


Figure 1-28. Removing the Screws

3. Push the upper part of the touchpad to release it from the screw hole studs. Then slide the bottom part of the touchpad forward to disengage it from the bottom tabs. Remove the touchpad from the upper case.

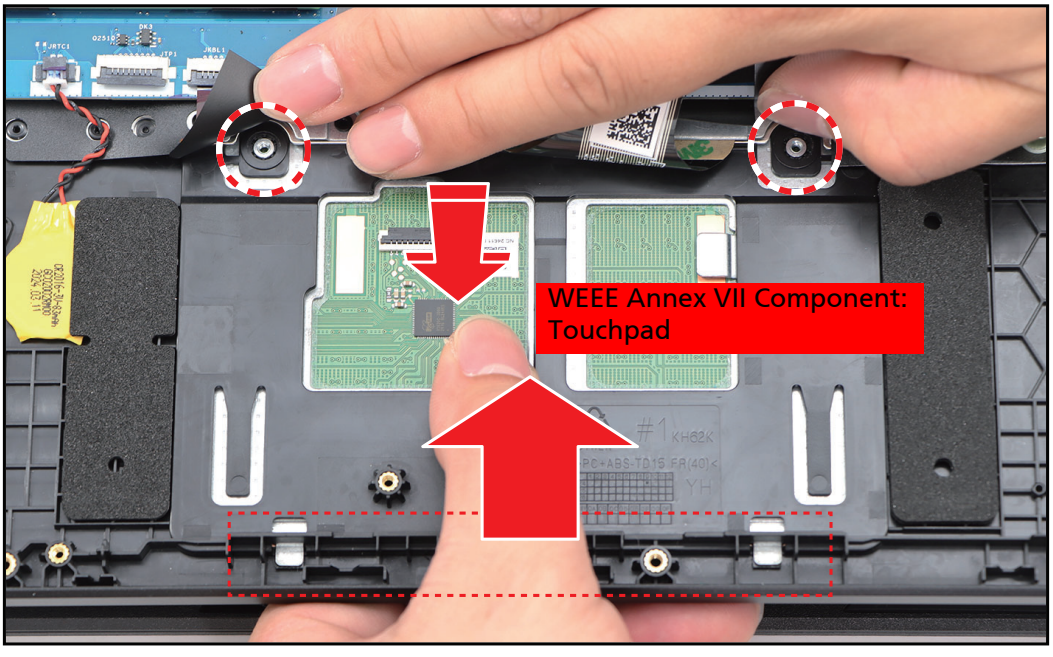


Figure 1-29. Removing the Touchpad

Table 1-6. Touchpad Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 2.3		1.8~2.2kgf.cm	2

USB Board Removal

Prerequisite:

- **SSD 2 Module Removal** on page **1-18**

1. Lift to open the latch securing another eDP cable. Then disconnect another eDP cable from the mainboard connector.

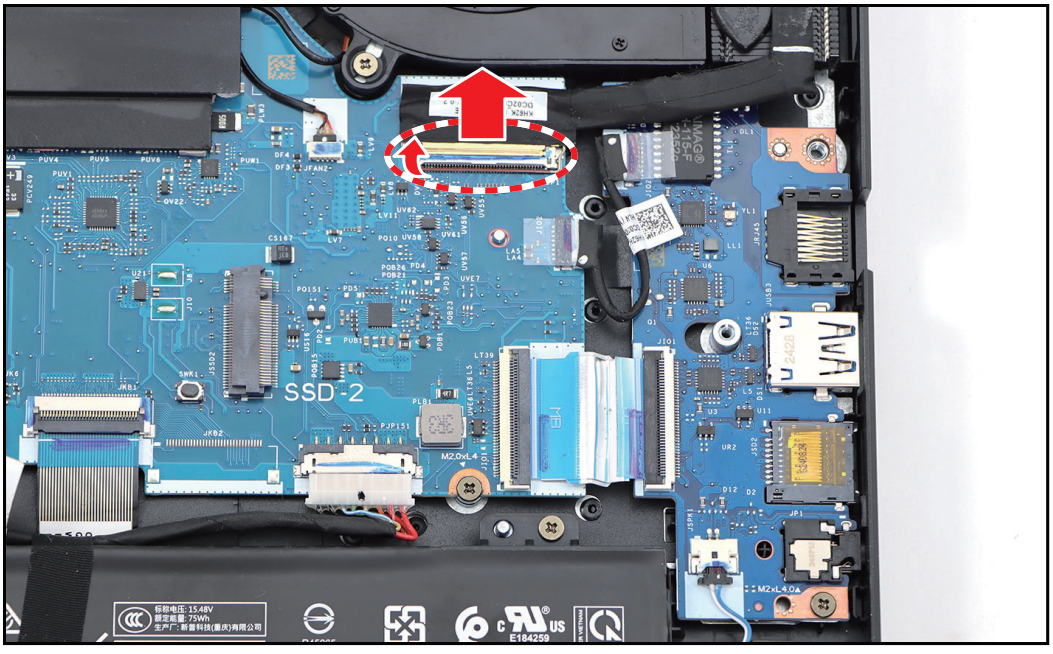


Figure 1-30. Disconnecting the eDP Cable

2. Disconnect the left speaker cable from the USB board connector (A).
3. Release the latches and disconnect the USB board FFC (B) from the USB board and mainboard connectors. Then remove the USB board FFC.
4. Detach the mylars and disconnect the wire cable (C) from the mainboard and USB board connectors. Then remove the wire cable.

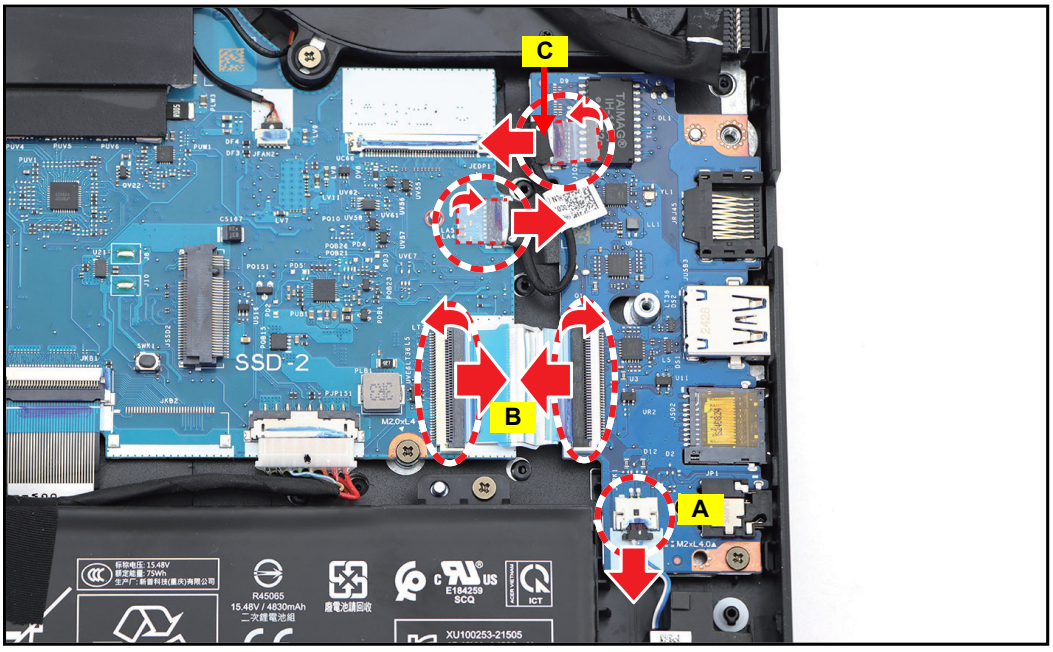


Figure 1-31. Disconnecting the Cables

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

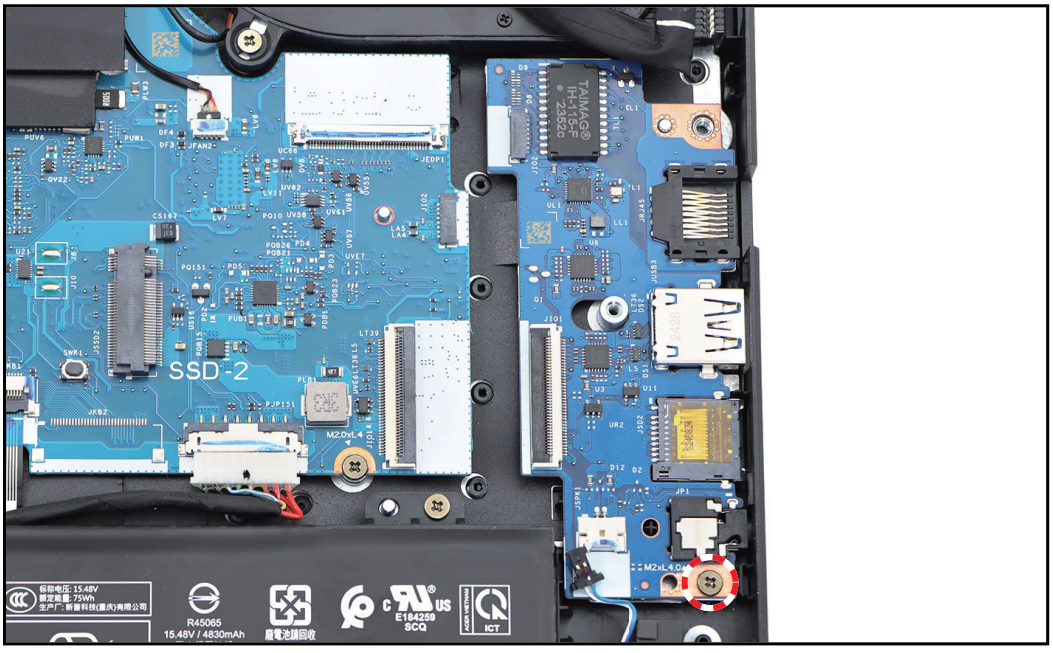


Figure 1-32. Removing the Screw

6. Release the USB board from the I/O port slots and the guide pins on the upper case. Then remove the USB board.

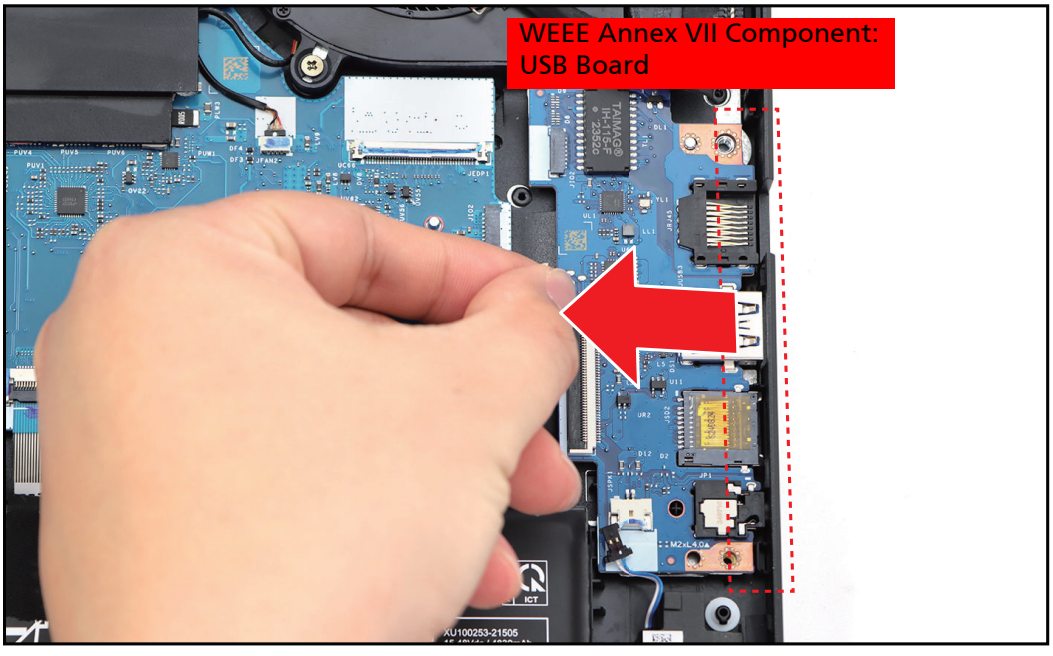


Figure 1-33. Removing the USB Board

Table 1-7. USB Board Screw

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

LCD Module Removal

Prerequisite:

- Thermal Module Removal

1. Open the LCD module more than 90°. Then remove the four (4) screws securing the hinges and LCD module to the upper case.



Figure 1-34. Removing the Screws

2. Slightly lift the LCD module to disengage the LCD hinges from the guide pins. Then remove the LCD module away from the upper case.

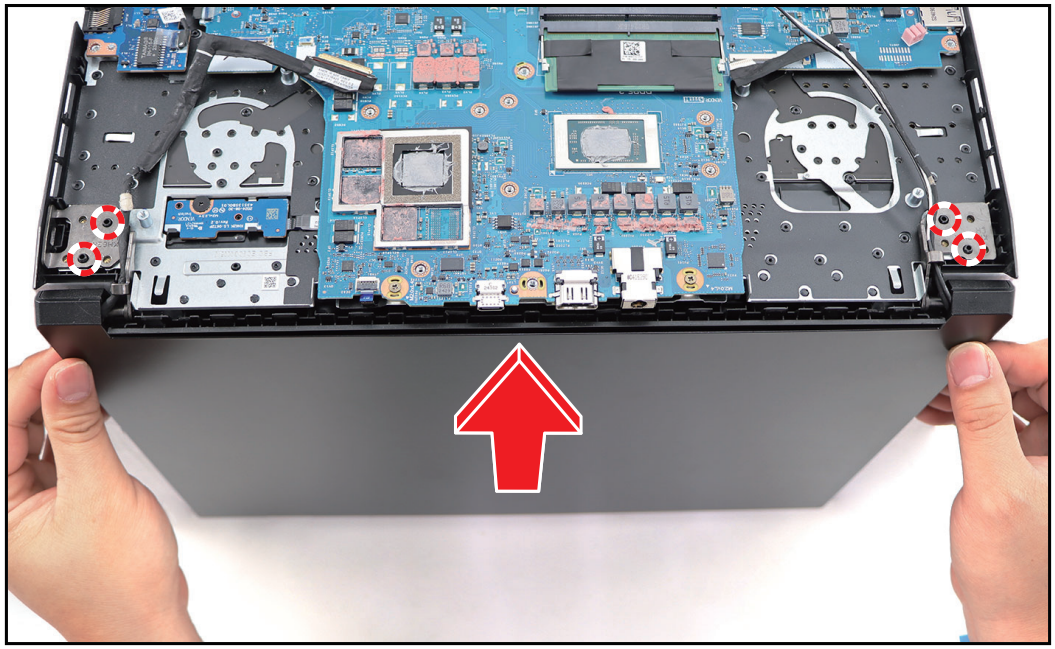


Figure 1-35. Removing the LCD Module

Table 1-8. Hinges Screws

Screw Name	Screw Type	Torque	Quantity
M 2.5 x 5.0		2.65~3.45kgf.cm	4

Mainboard Removal

Prerequisite:

- **WLAN Module Removal** on page **1-11**
- **DIMM Modules Removal** on page **1-13**
- **SSD 1 Module Removal** on page **1-16**
- **SSD 2 Module Removal** on page **1-18**
- Thermal Module Removal

1. Release the latch (if necessary) and disconnect the following cables from the mainboard connectors:
   - Right speaker cable (A)
   - Microphone FFC (B)
   - Touchpad FFC (C)
   - Keyboard backlight FPC (D)
   - Keyboard FPC (E)
   - Mode Key board FFC (F)
2. Partially detach the sponge securing the RTC battery. Then carefully pry to detach the adhesive tape underneath the RTC battery (G). Remove the RTC battery from its compartment.
3. Release the latches and disconnect the USB board FFC (H) from the USB board and mainboard connectors. Then remove the USB board FFC.
4. Detach the mylars and disconnect the wire cable (I) from the mainboard and USB board connectors. Then remove the wire cable.

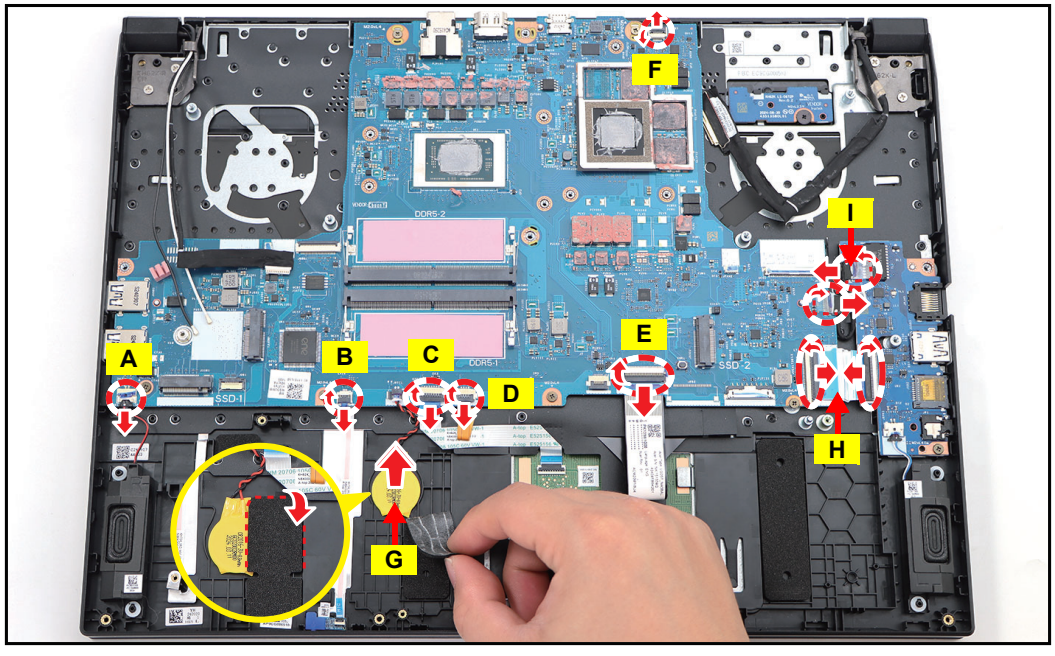


Figure 1-36. Disconnecting the Cables and Removing the RTC Battery

5. Remove the six (6) screws securing the mainboard to the upper case.

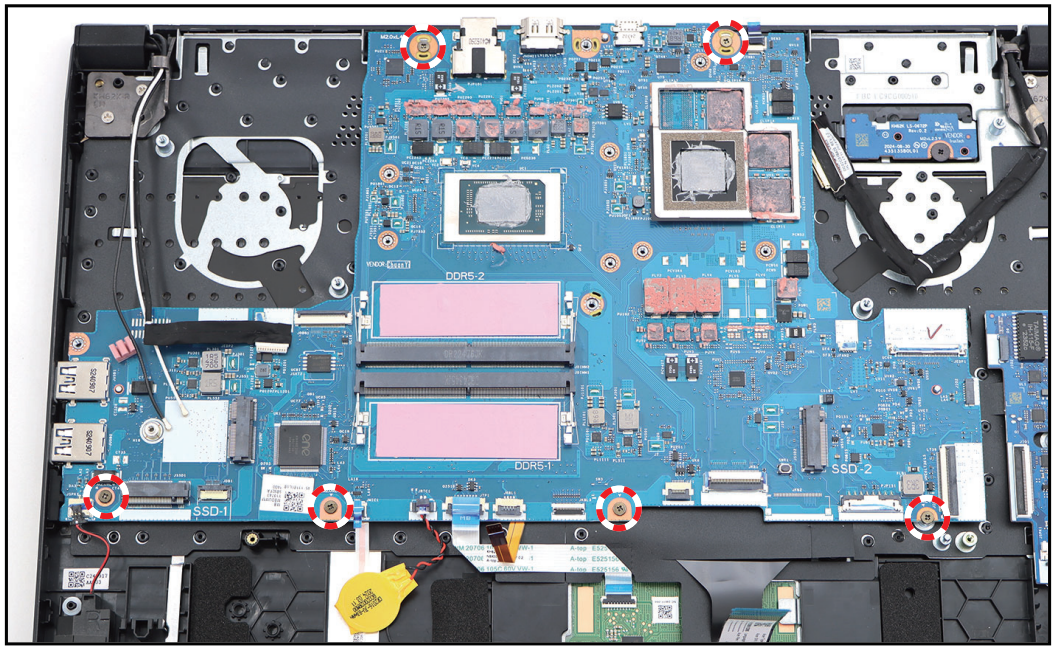


Figure 1-37. Removing the Screw

6. Release the mainboard from the I/O port slots and the guide pins on the upper case. Then remove the mainboard.

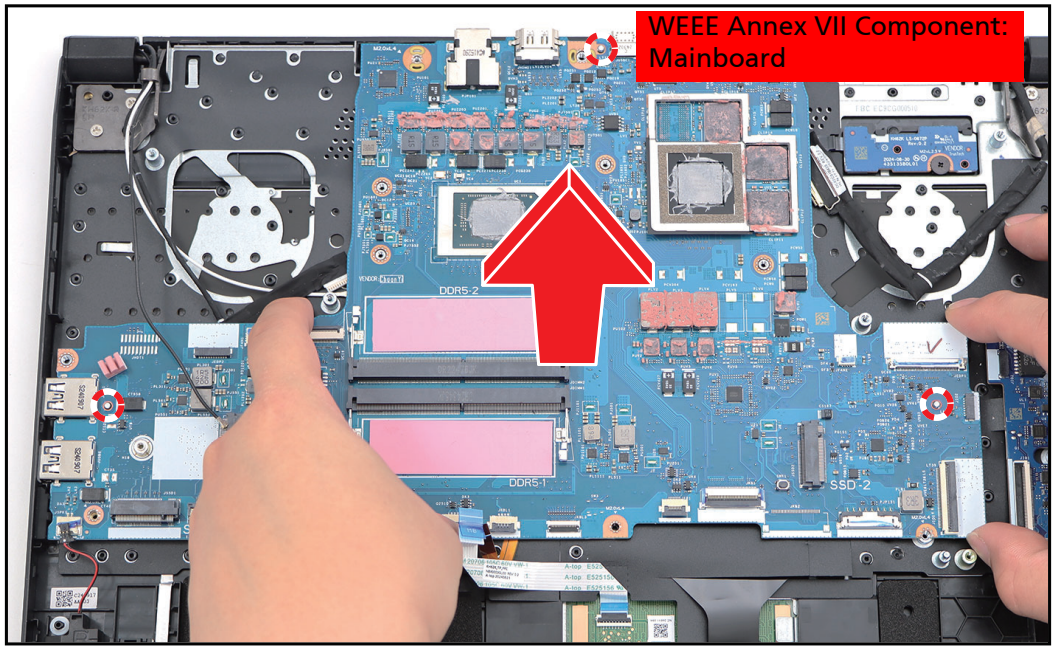


Figure 1-38. Removing the Mainboard

Table 1-9. Mainboard Screws

Screw Name	Screw Type	Torque	Quantity
M 2.0 x 4.0		1.8~2.2kgf.cm	6

LCD Bezel Removal

Prerequisite:

- **LCD Module Removal** on page **1-27**

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

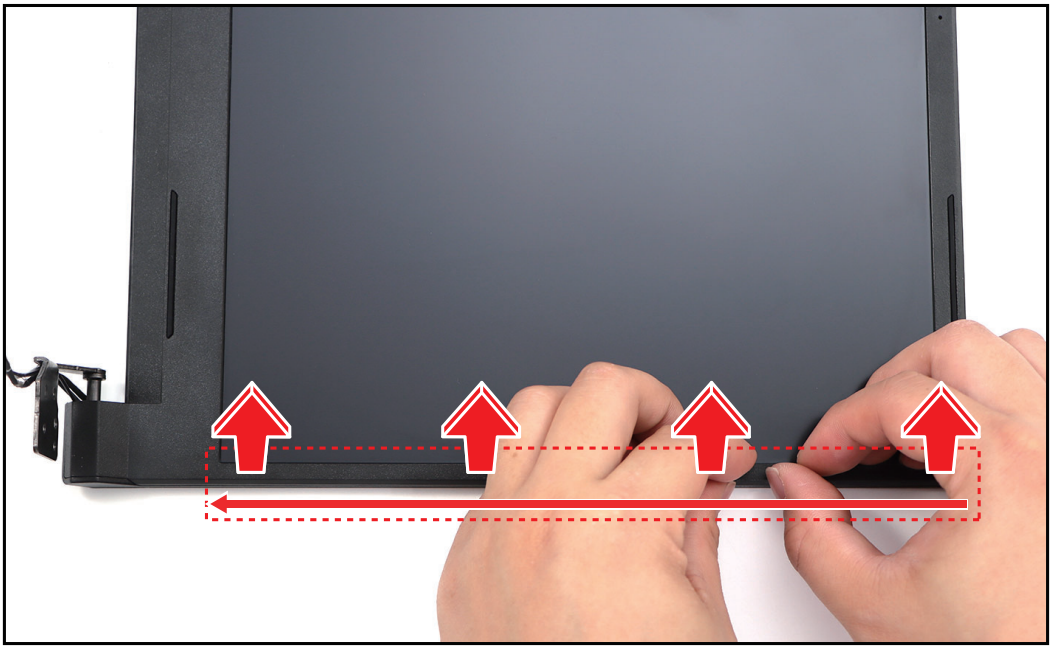


Figure 1-39. Removing the LCD Bezel (1 of 4)

2. Continue to release the upper side latches.

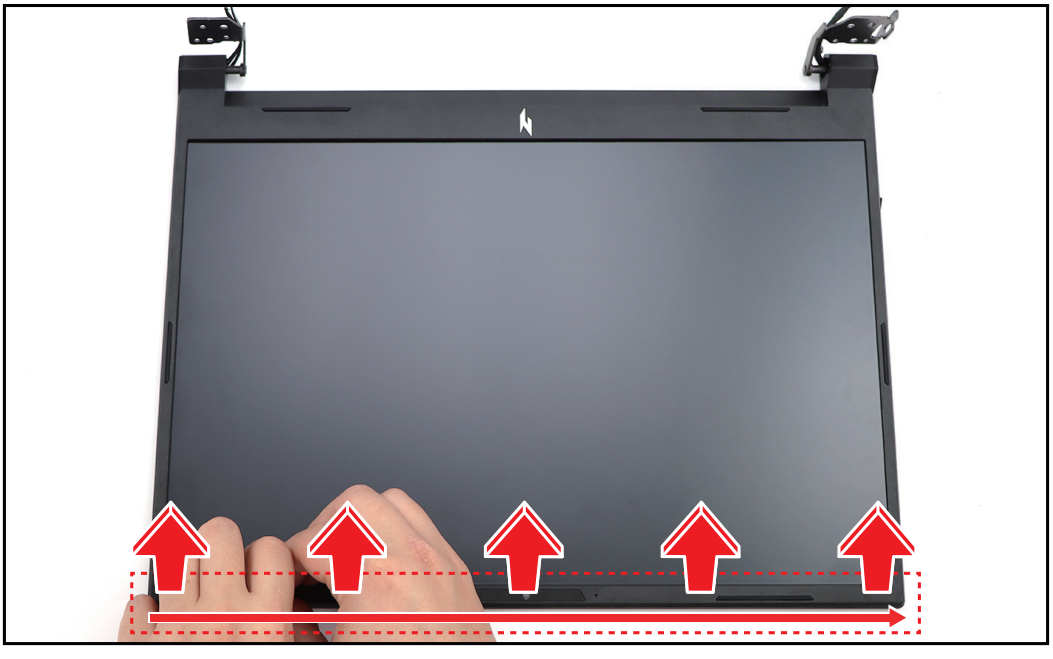


Figure 1-40. Removing the LCD Bezel (2 of 4)

3. Continue to pry the left side latches.

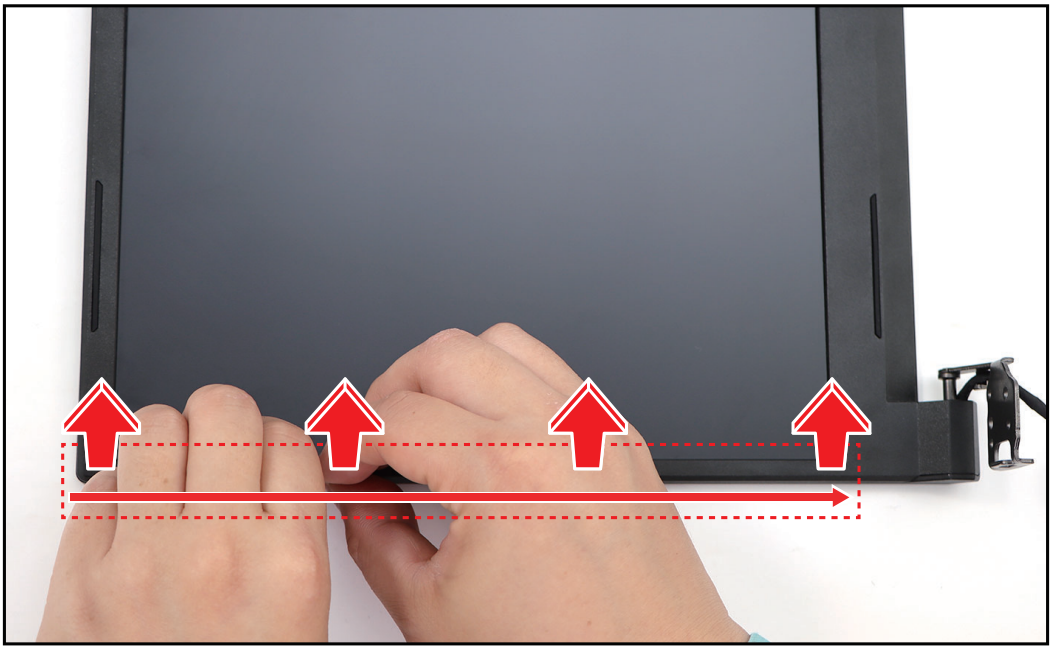


Figure 1-41. Removing the LCD Bezel (3 of 4)

4. Continue to release the bottom side latches. Then remove the LCD bezel.

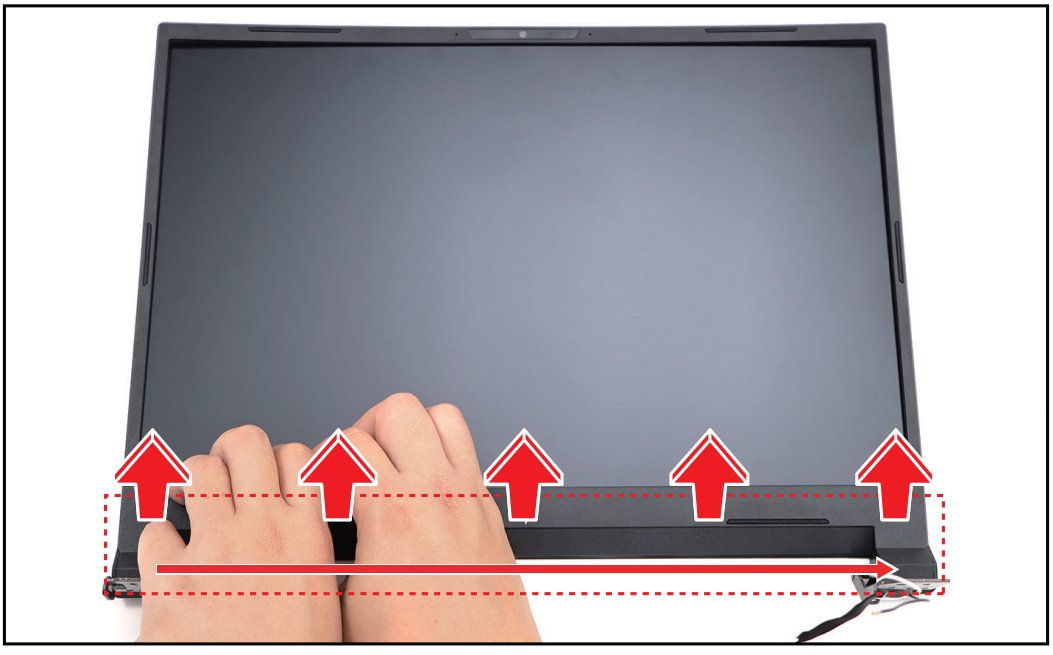


Figure 1-42. Removing the LCD Bezel (4 of 4)

LCD Panel and LCD Hinges Removal

Prerequisite:

- **LCD Bezel Removal** on page **1-31**

1. Release the WLAN antenna cables and the eDP cable from the LCD hinges. Then unroute the eDP cable from the cable guides on the bottom side of the LCD cover as shown in the below illustration.

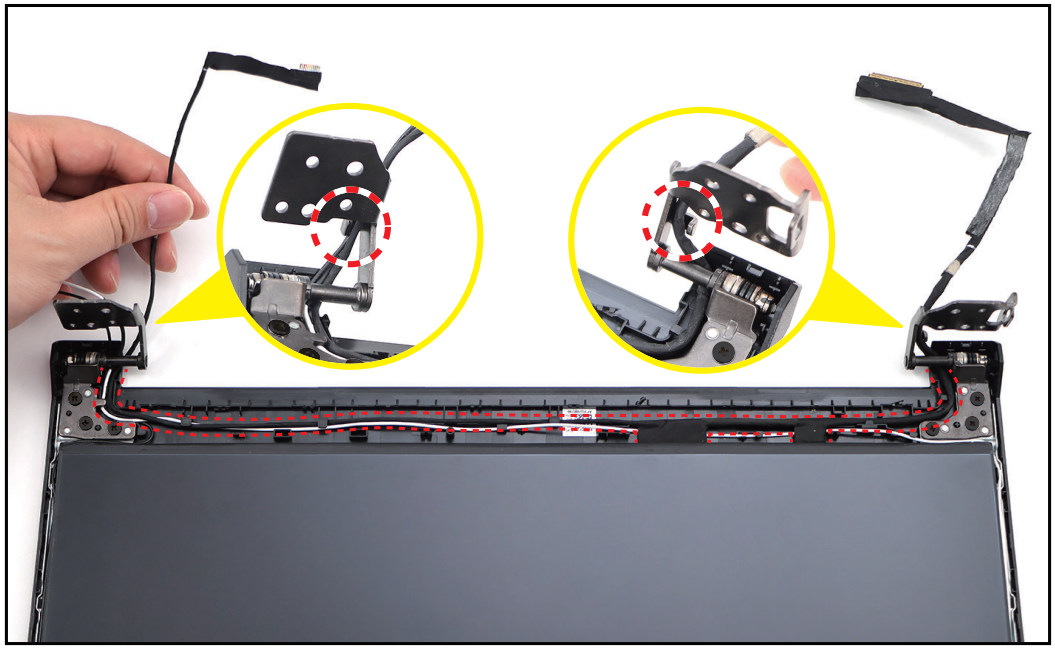


Figure 1-43. Releasing and Unrouting the Cables

2. Unroute the WLAN antenna cables from the cable guides on the bottom side of the LCD cover as shown in the below illustration.

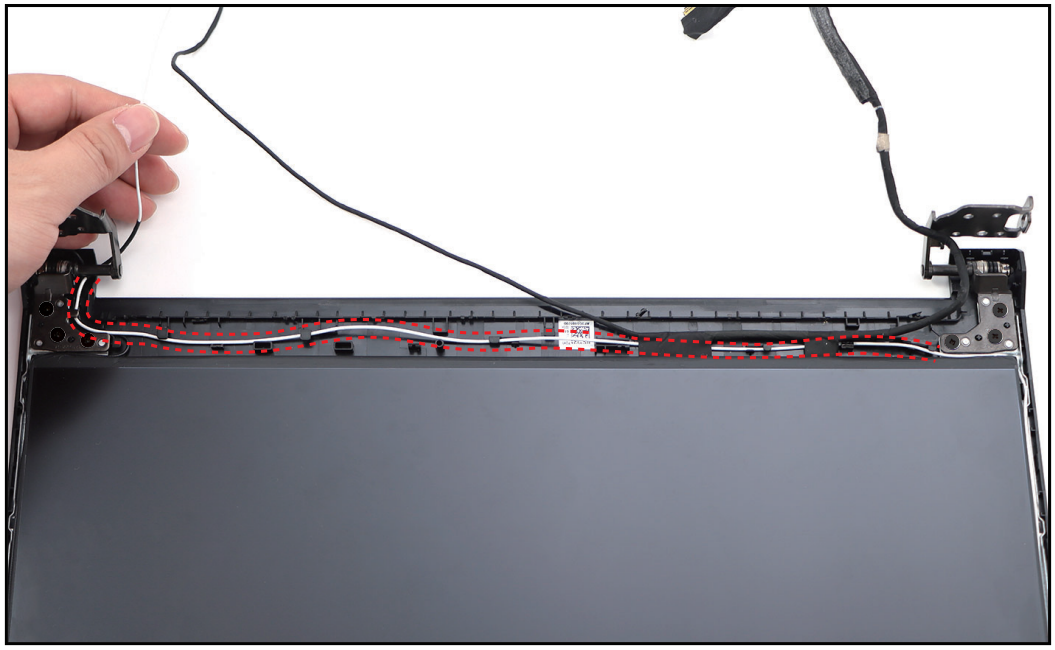


Figure 1-44. Unrouting the WLAN Antenna Cables

3. Unroute the auxiliary antenna cable from the cable guides on the bottom-edge side first, and then following with the right and upper sides of the LCD cover as shown in the below illustration.

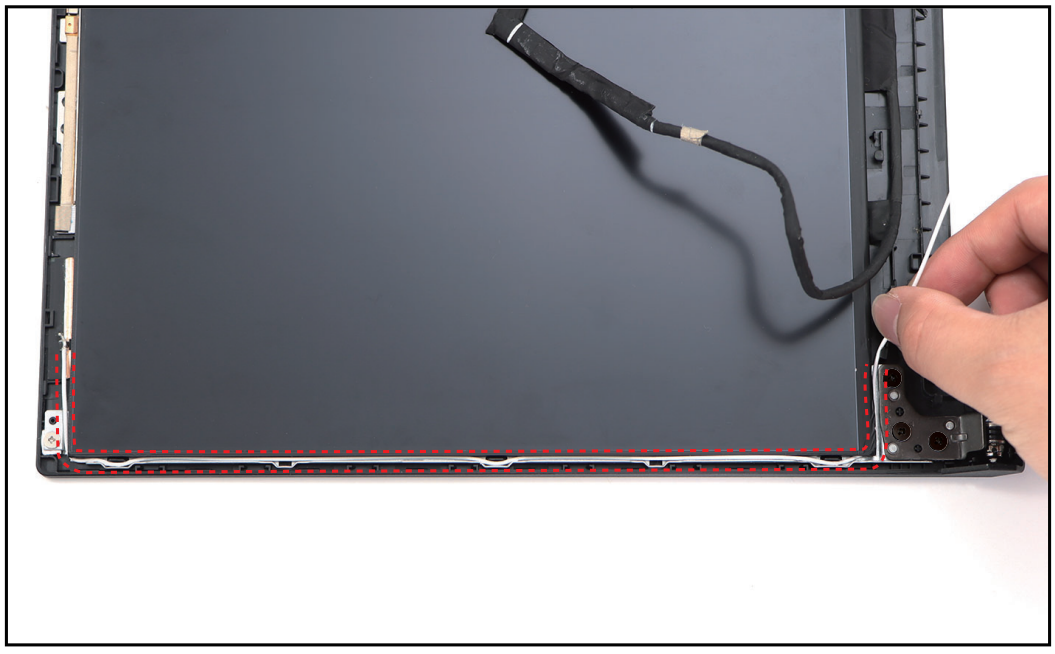


Figure 1-45. Unrouting the Auxiliary Antenna Cable

4. Unroute the main antenna cable from the cable guides on the bottom-edge side first, and then following with the left and upper sides of the LCD cover as shown in the below illustration.

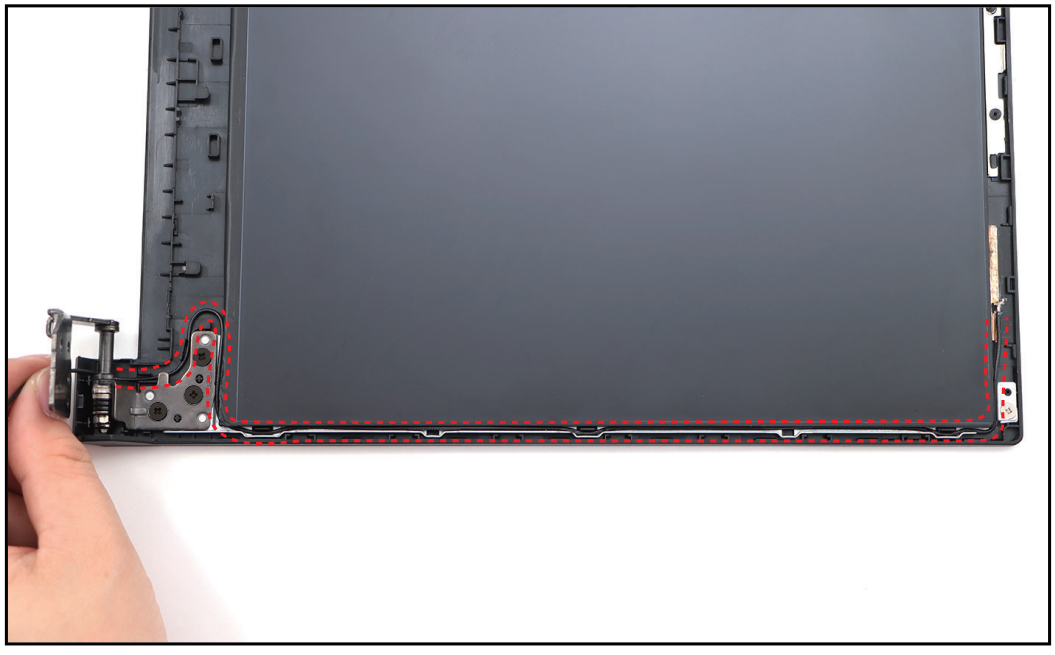


Figure 1-46. Unrouting the Main Antenna Cable

5. Carefully remove the CMOS and dual microphone module from the LCD cover.

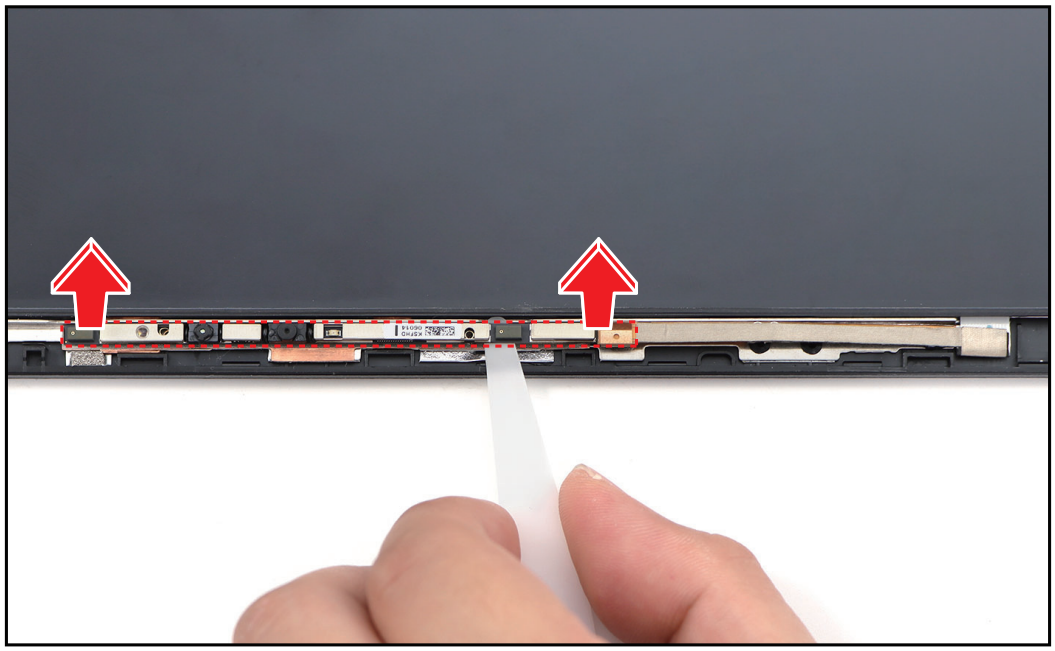


Figure 1-47. Removing the CMOS and Dual Microphone Module

6. Detach the eDP cable from the routing path on the LCD cover as shown in the illustration below.

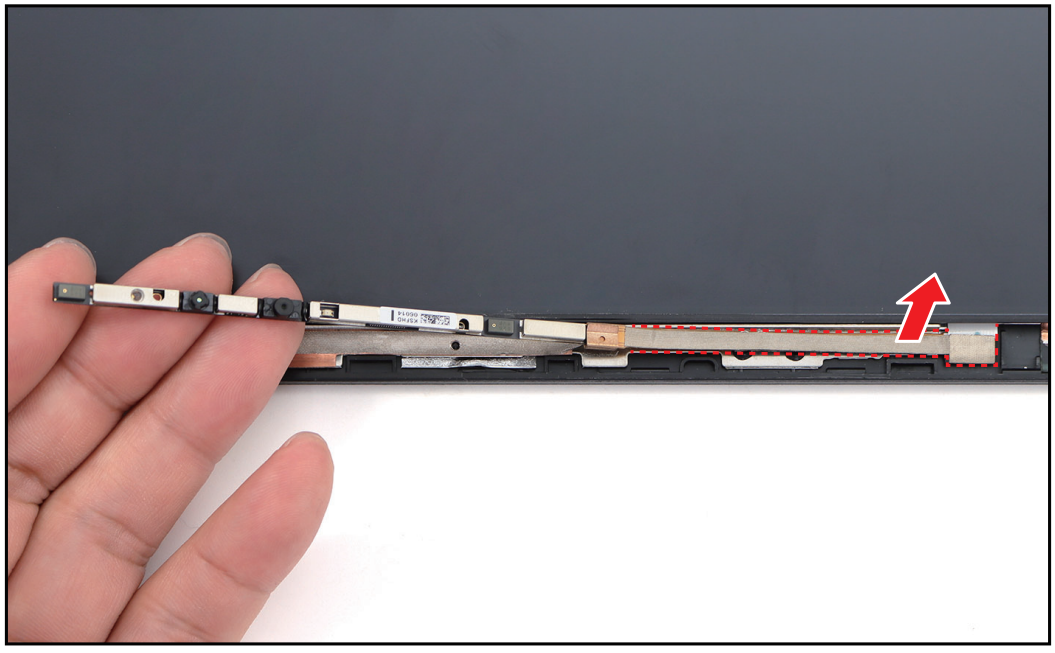


Figure 1-48. Detaching the eDP Cable

7. Remove the two (2) screws securing the LCD hinge brackets. Then remove another six (6) screw securing the LCD hinges from the LCD cover.



Figure 1-49. Removing the Screws

8. Remove the LCD panel (with the attached the LCD hinge brackets) from the LCD cover.

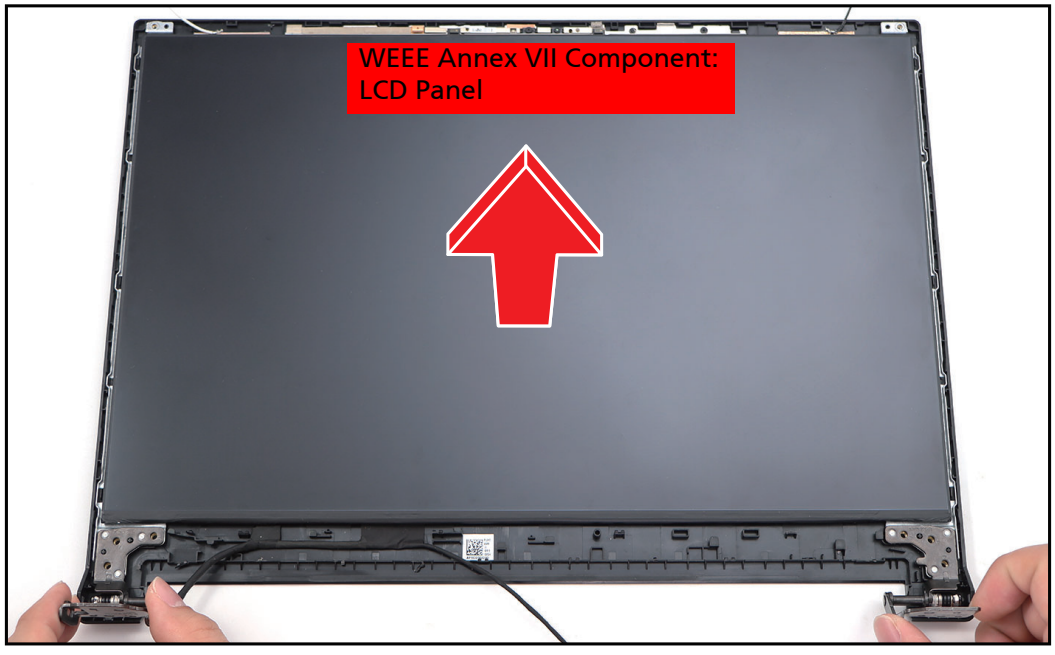


Figure 1-50. Removing the LCD Panel

9. Carefully flip the LCD panel (with the attached the LCD hinge brackets).

10. Pry slightly to access the double-sided mounting tape underneath the LCD hinge bracket. Then carefully 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.

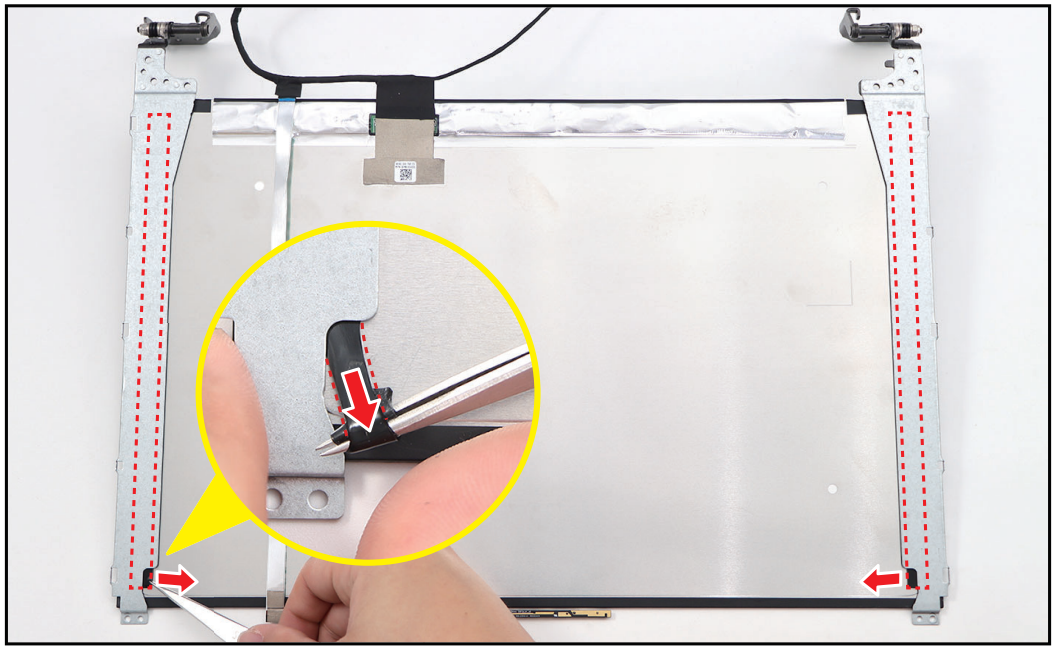


Figure 1-51. Detaching the Double-sided Mounting Tapes

11. Remove the LCD hinge brackets from the LCD panel.
12. Remove the camera bracket from the CMOS and dual microphone module.

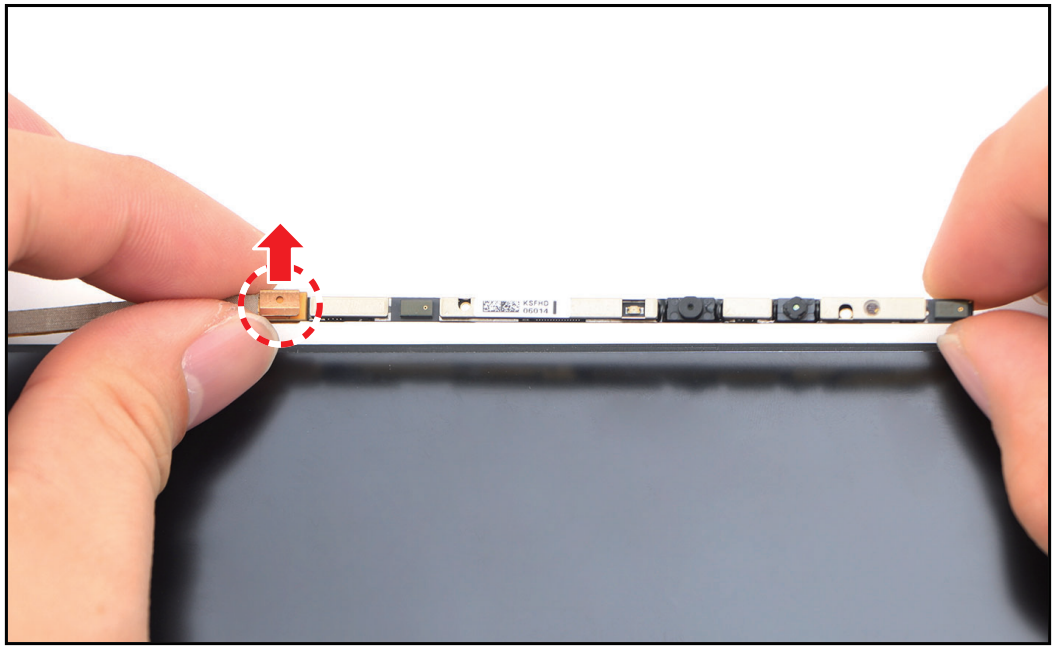


Figure 1-52. Removing the Camera Bracket

13. Disconnect the eDP cable from the CMOS and dual microphone module connector.

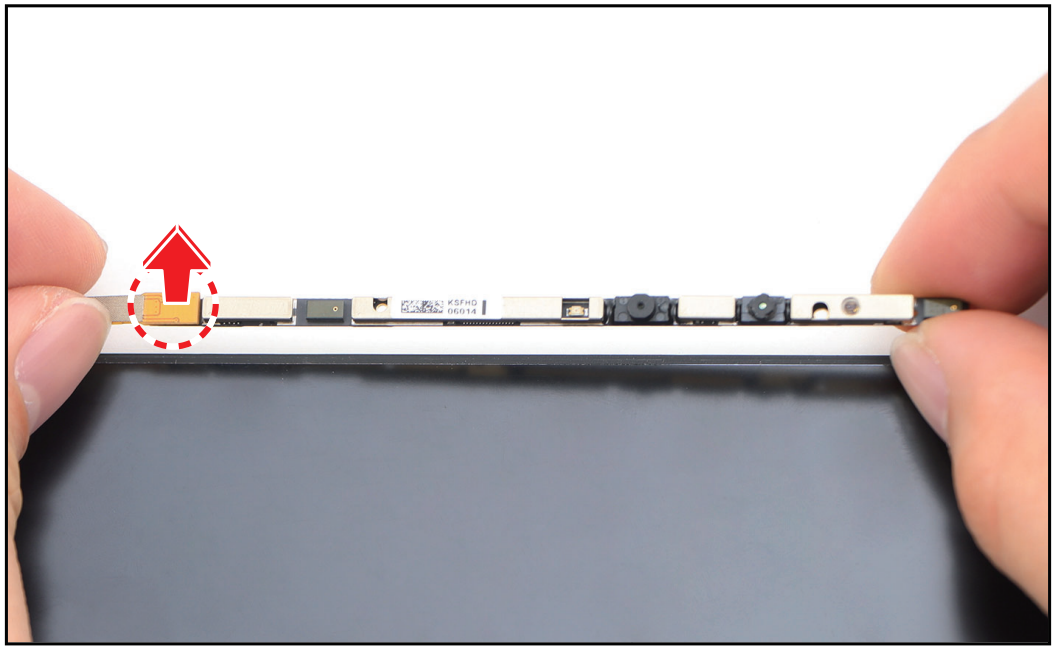


Figure 1-53. Disconnecting the eDP Cable

14. Unroute and detach the eDP cable from the guides on the cable routing channel on the LCD panel as shown in the below illustration.

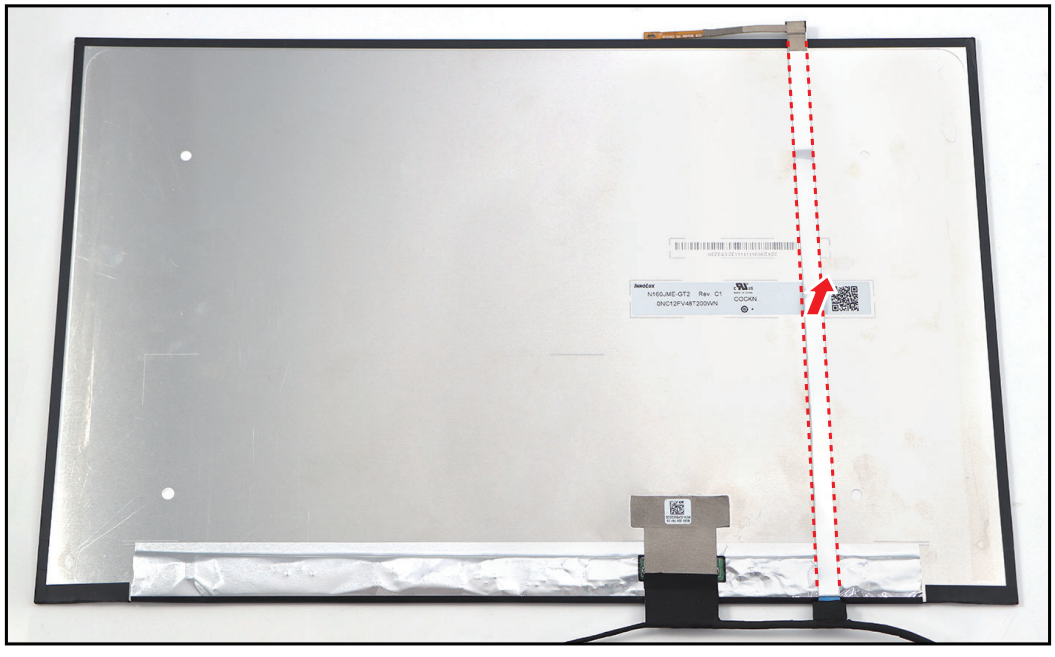


Figure 1-54. Unrouting and Detaching the eDP Cable

15. Detach the conductive tape securing the eDP cable to the LCD panel connector.

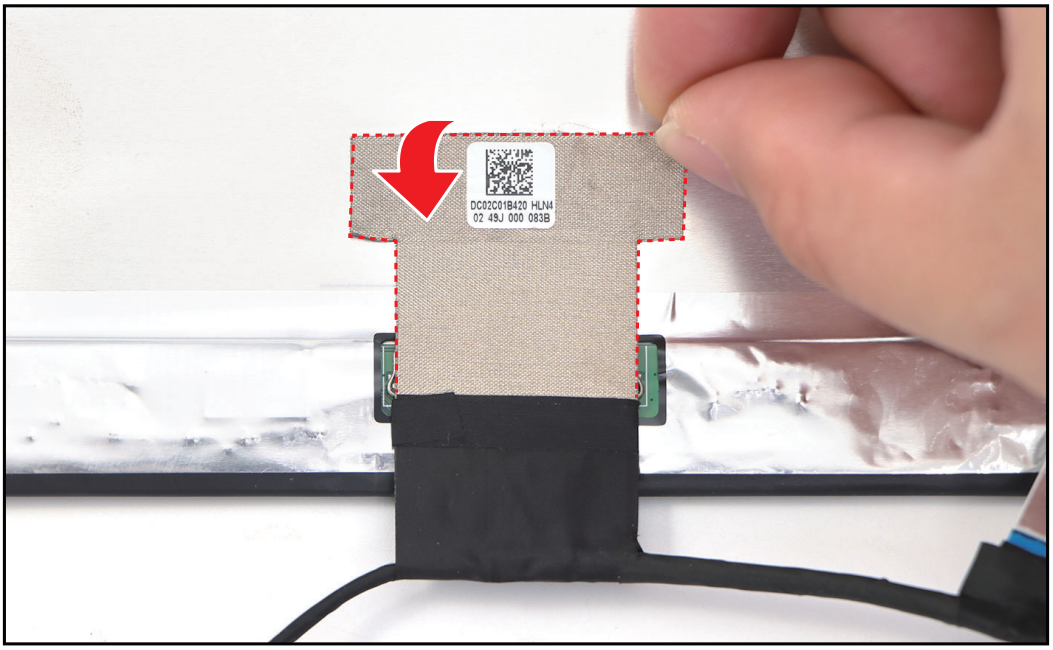


Figure 1-55. Detaching the Conductive Tape

16. Lift the latch securing the eDP cable.

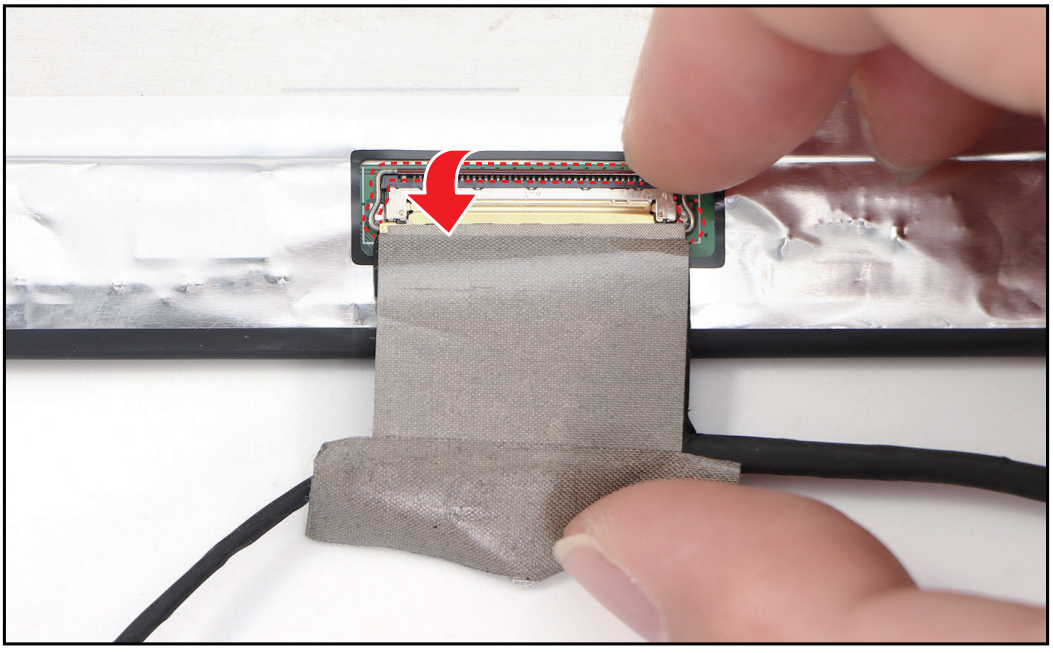


Figure 1-56. Lifting the Latch

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

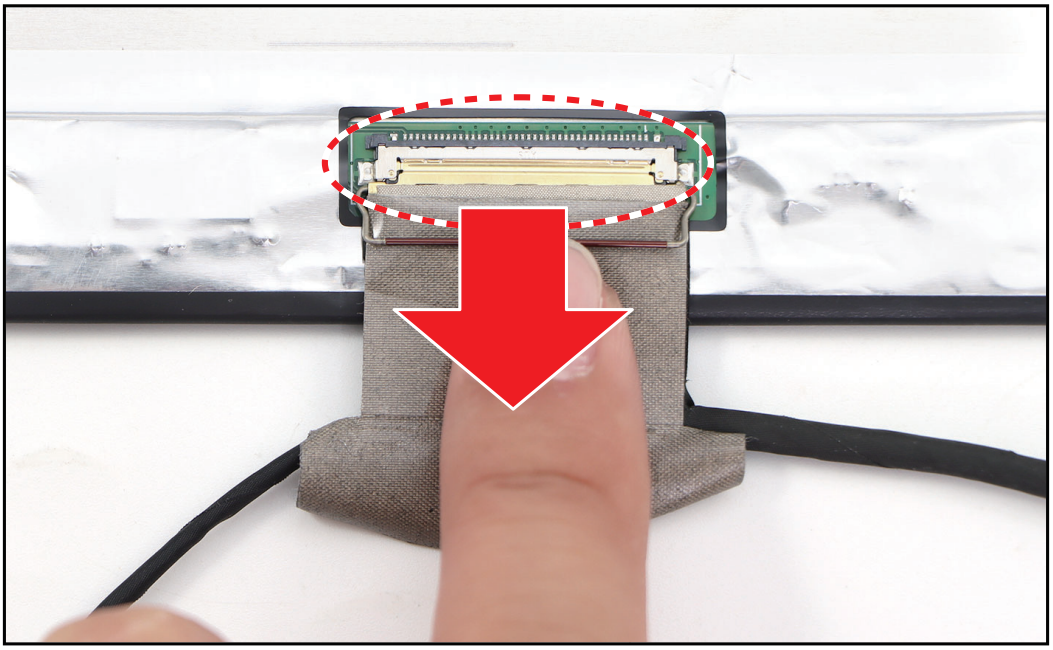
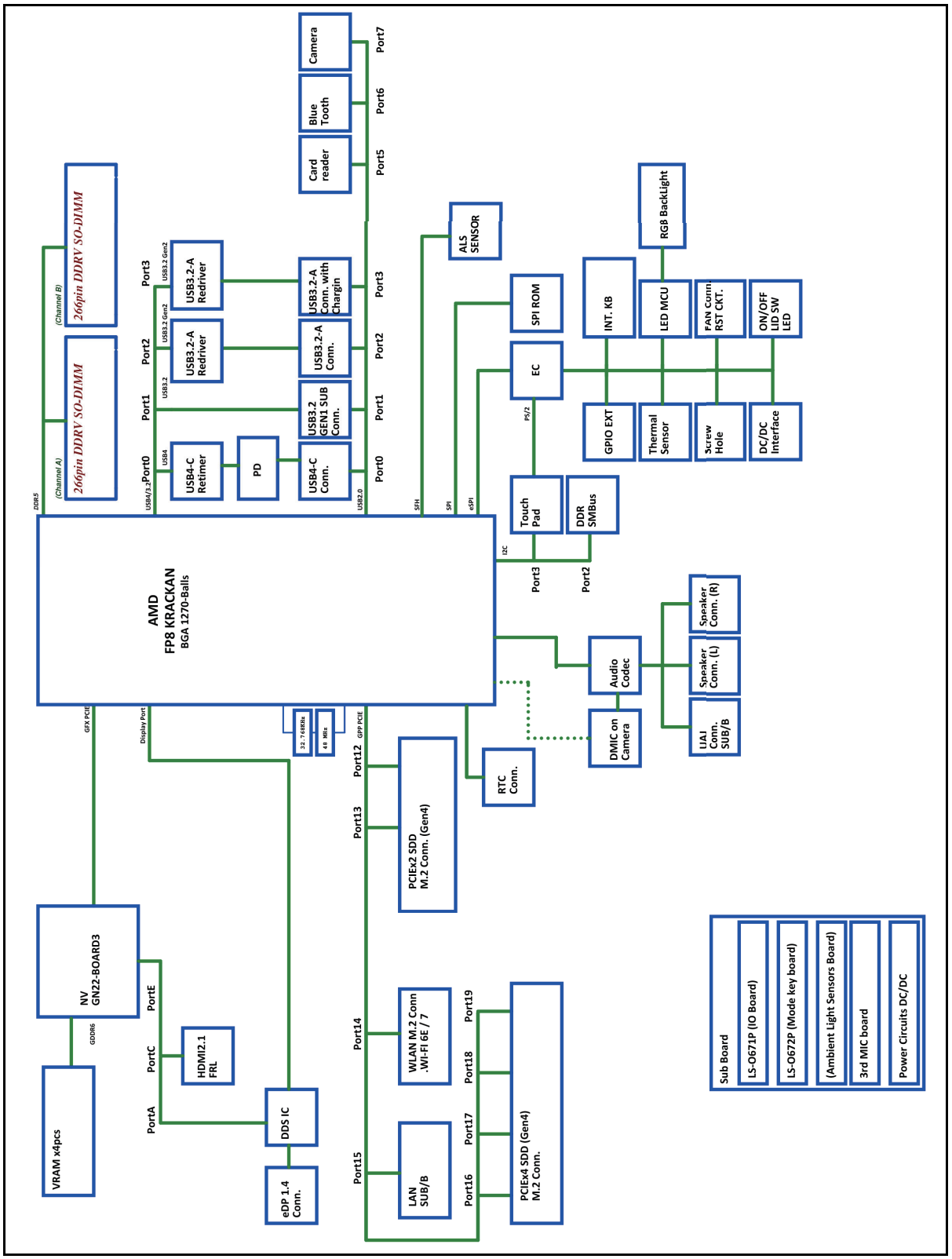


Figure 1-57. Disconnecting the eDP Cable

System Block Diagram



BIOS Setup Utility

The *BIOS Setup Utility* is a hardware configuration program built into a computer's BIOS (Basic Input/Output System).

The BIOS utility is pre-configured and optimized so most users do not need to run this utility. However, if configuration problems occur, you may need to run the BIOS utility.

To activate the BIOS Utility, press ***F2*** during POST (power-on-self-test) when **Vero Sense** logo appears in the middle of the screen.

To change the boot device without entering the BIOS utility, press ***F12*** during POST to enter the multi-boot menu. In this menu, users can change the boot device without entering *BIOS Setup Utility*.

Navigating the Bios Setup Utility

The BIOS utility has six menu options: **Information**, **Main**, **Advanced**, **Security**, **Boot**, and **Exit**.

To navigate through the menus options, perform the following:

- To choose a menu or item, use the up and down arrow keys.
- Press ***Enter*** or right arrow key to expand selected item.
- To switch the item status or change the value of a parameter, press ***Enter*** or right arrow key.
- Press ***Esc*** while you are in any of the menu options to go to the Exit menu.
- In any menu, you can load default settings by pressing ***F9***. You can also press ***F10*** to save any changes made and exit the *BIOS Setup Utility*.

NOTE:

- Parameter values can be changed if enclosed in square brackets [ ]. Navigation keys for a particular menu are shown on the bottom of the screen. Help for parameters are found in the Item Specific Help part of the screen. Read this carefully when making changes to parameter values.
- System information is subject to specific models.

The succeeding sections are descriptions of the menu tabs found on the *InsydeH20 BIOS Setup Utility* screen.

NOTE:

The screens provided are for reference only. Actual values may differ by model.

Information Tab

The Information tab displays a summary of the computer hardware information.

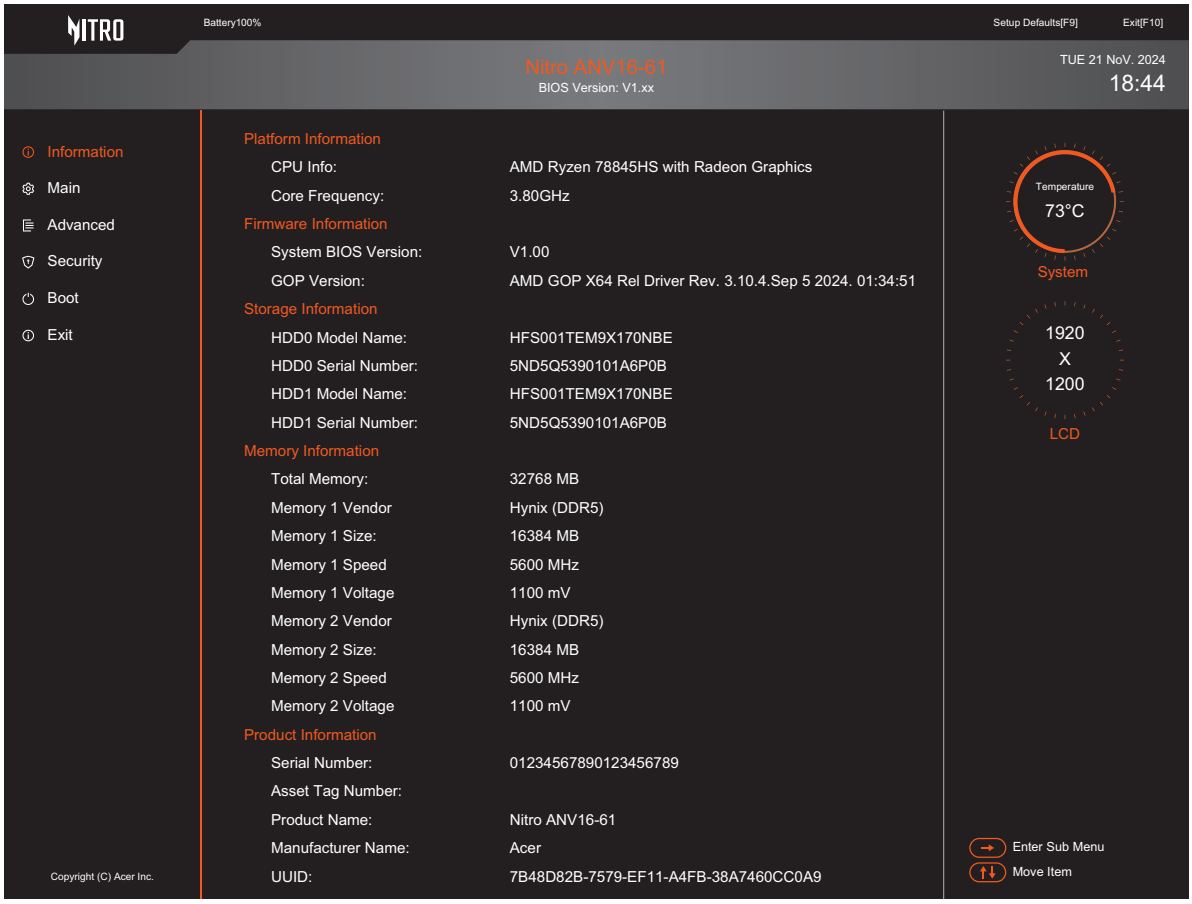


Figure 1-58. BIOS Information

Table 1-10. BIOS Information Tab Parameters

Product Information	Example	Remark
CPU Info	AMD Ryzen 7	Should be same with processor brand string, BIOS can get processor brand string by calling CPUID instruction.
Core Frequency	3.80GHz	Display the processor base core frequency.
System BIOS Version	V1.00	Should be same with SMBIOS Type 0 Offset 05h.
GOP Version	AMD GOP Driver Rev.3.10.4	GOP Version will only be shown when Boot Mode is [UEFI].

Product Information	Example	Remark
HDD Model Name	HFS001TEM9X170N BE	• This item show the model name of HDD installed. • The hard disk model name is automatically detected by the system. If there is no hard disk present or unknown type, "None" should be shown on this field. • For multiple storage, add a number after HDD starting from 0.
HDD Serial Number	5ND5Q5390101A6P0 B	• This item will show the serial number of HDD installed. • If no hard disk or other devices are installed, "None" should be shown on this field. • If system has more than 1 device, the item should be listed as below: • HDD0 Model Name • HDD0 Serial Number • HDD1 Model Name • HDD1 Serial Number
Total Memory	32768 MB	The field reports the system total installed memory.
Memory Vendor	Hynix	• Show the vendor of memory manufacturer • Also show the information of the memory type.
Memory size	16384 MB	• Should same as the summary of all Type 17 which the form factor (offset 0x0E) is 0x0B in SMBIOS. • If there is no on board memory design, hide this item.
Memory speed	5600 MHz	• Identifies the configured speed of the memory device. • If there is no on board memory design, hide this item.
Memory Voltage	1100 mV	• Identifies the configured voltage of the memory device. • # means memory's number. If there is only one memory on board, hide this item.
Serial Number	22 characters	Should be the same with SMBIOS Type 1 Offset 07h.
Asset Tag Number	22 characters minimum	Should be same with SMBIOS Type 3 Offset 08h.

Product Information	Example	Remark
Product Name	Acer Brand Example -(Aspire) Aspire XXXX -(TravelMate) TravelMate XXXX -(Aspire One) Aspire One XXX -(Iconia) ICONIA XXXX -(N/A) XXXX	• Should be same with SMBIOS Type 1 Offset 05h. • Product Name is defined by project POR. • The string is case sensitive and the maximum length is 25 bytes.
	Gateway Brand Example -(N/A) XXXX	
	Packard Bell Brand Example -(EasyNote) EasyNote XXXX -(N/A) XXXX	
Manufacturer Name	Acer/Gateway/ Packard Bell / Founder	• Should be same with SMBOS Type 1 Offset 04h. • The string is case sensitive.
UUID	xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx	• It is required for all systems. • Display format: xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx (follow UUID Standard)

Main Tab

The Main tab allows the user to set the system time and date, enable or disable boot option, and enable or disable recovery.

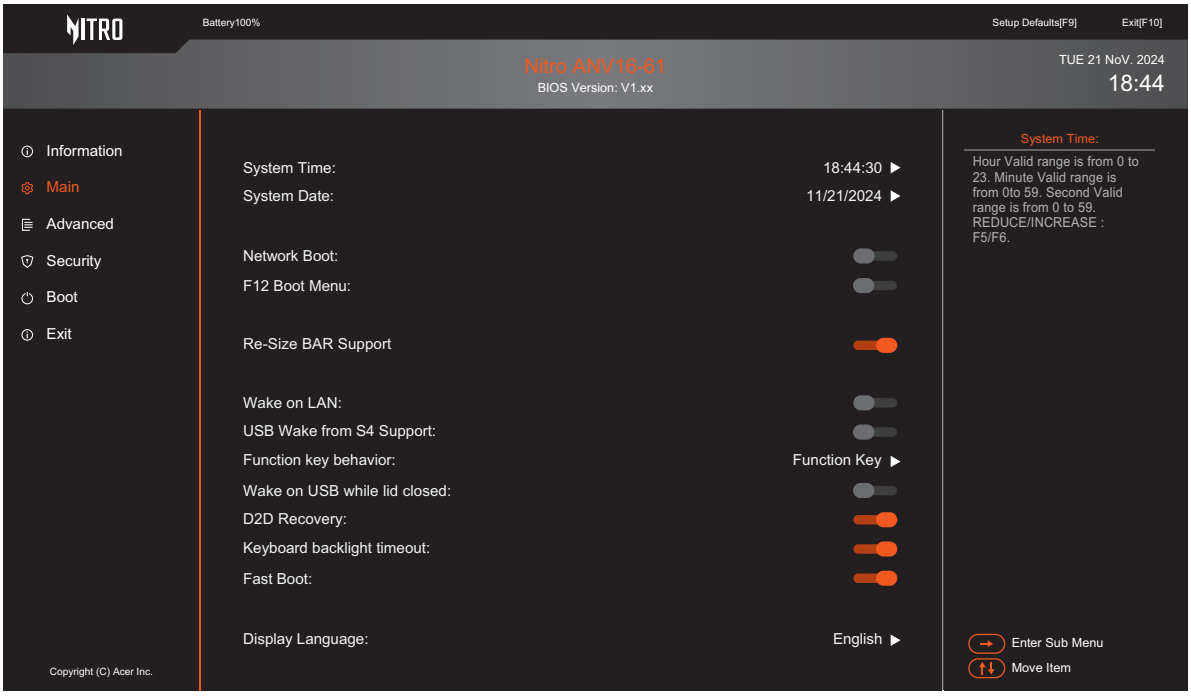


Figure 1-59. BIOS Main

Table 1-11. BIOS Main Tab Parameters

Item Name	Example	Remark
System Time	HH:MM:SS	• The format is the number of string. • The hours are displayed in 24-hour format. • The values set in the two fields take effect immediately.
System Date	MM/DD/YY	

Network Boot	[Enabled] / [Disabled]	• Default Network Boot value in different Boot Mode:
		  • [UEFI] Boot Mode: [Disabled]
		  • [Legacy] Boot Mode: [Enabled]

F12 Boot Menu	[Enabled] / [Disabled]	• This function enables or disables the ability that user can press ***F12*** while POST to quickly select the boot device. • Modification to the boot device order apply only for the current session. The next time your computer is rebooted it will use again the boot device sequence as set in the **BIOS Setup Utility** > **Boot menu**. • The default value is [Disabled].

Item Name	Example	Remark
Re-Size BAR Support	[Enabled] / [Disabled]	• This item default should be hidden. • Only visible if the platform supports the function after user presses **Ctrl**+***S*** in this page (Main Tab). • The default is set as [Enabled] if the project requires to support NVIDIA resizable BAR or AMD smart access memory. Otherwise, the default is set as [Disabled]. • Hide this item and set option to [Disabled] if "Above 4G decoding" is disabled.
Wake On LAN	[Enabled] / [Disabled]	• Wake on LAN feature allows someone to turn on a network computer remotely by sending Magic Packet even if the system is in off state. • The panel is off when wake on LAN is activated. • The default value is [Disabled].
USB Wake from S4 Support	[Enabled] / [Disabled]	• Support USB wake from S4. • The default value is [Disabled].
Function key behavior	[Function Key] / [Media Key]	• [Media Key]: Perform the media function by default. Hold ***Fn*** to activate ***F1*** to ***F12***. • [Function Key]: Activate ***F1*** to ***F12*** by default. Hold ***Fn*** to perform the media function. • Media functions are only active under Windows. ***F1*** to ***F12*** act as normal function keys during device boot or while in BIOS. • Default setting depends on the product line definition. • The built-in USB keyboard / 5 ROW keyboard layout follow keyboard's design and no need to add BIOS switch.
Wake on USB while lid closed	[Enabled] / [Disabled]	• If enabled, USB devices can wake the system, even if the lid is closed. • The option grey out on modern standby supported system when "USB wake from S4 Support" disabled. • The default value is [Disabled].
D2D Recovery	[Enabled] / [Disabled]	• This function enables/disables Acer disc-to-disc Recovery. • To do Acer disc-to-disc system recovery, press **Alt**+***F10*** key during POST.

Item Name	Example	Remark
Keyboard backlight timeout	[Enabled] / [Disabled]	• The option only exists for the product that supports the keyboard backlight and controlled by EC (USB keyboard not support). • If the option set to [Disabled], the keyboard backlight is on despite the AC/DC power option. • The default value is [Enabled].
Fast Boot	[Enabled] / [Disabled]	• Enable/Disable Fast Boot. • Skip timeout variable when the Fast Boot enabled. • The default value is [Enabled].
Display Language	[English]	• BIOS display language. • BIOS supports 12 languages, which are English / Spanish / 中文 / German / Dutch / Brazilian Portuguese / Danish / Italian / Norwegian / Swedish / Russian / France. • The default display language is [English].

Advanced Tab

The Advanced tab allows the user to set the storage device port configuration and other advanced settings.

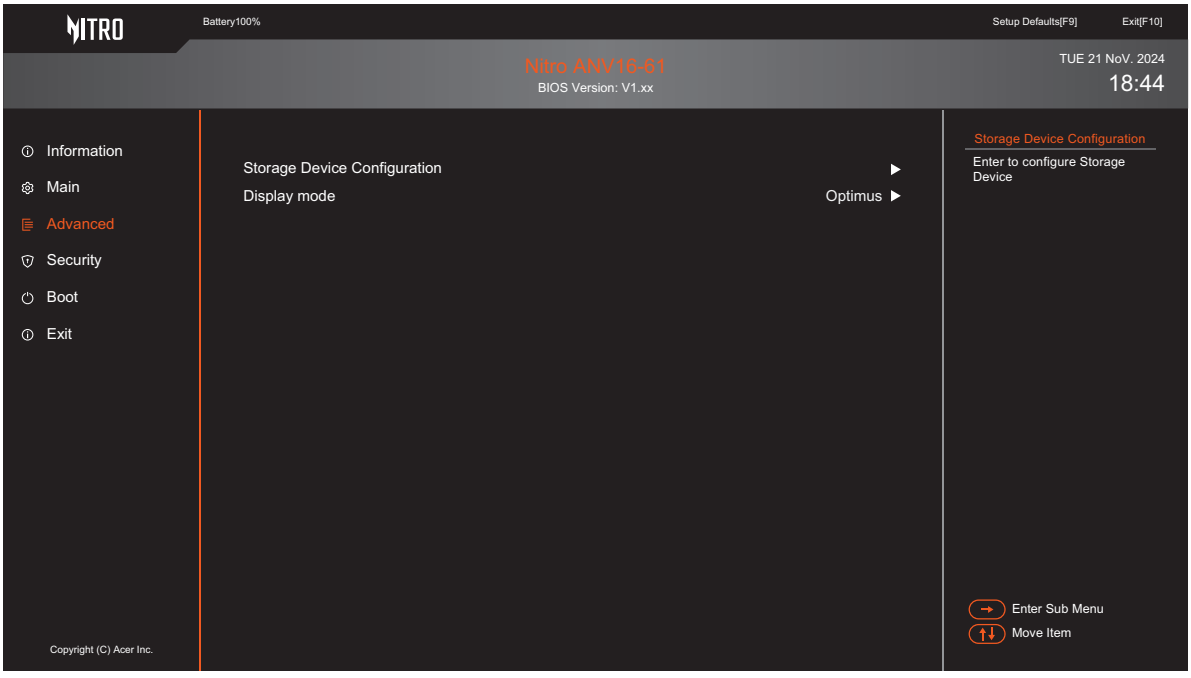


Figure 1-60. BIOS Advanced

Table 1-12. BIOS Advanced Tab Parameters

Item Name	Example	Remark
Storage Device Configuration		• Enter to configure the storage device port enable/disable (such as SATA/PCIE storage device port). • Only visible if the system is set to AHCI.
Display mode	[Auto Select] / [Optimus] / [Nvidia GPU only]	• This item default should be hidden. • Only visible if the platform supports NVIDIA DDS (Dynamic Display Switch) function after user presses **Ctrl**+***S*** in this page. • Help string has to describe "DP-IN not function if switch to Nvidia GPU only". • The default value is [Auto Select] if the project SKU supports NVIDIA DDS function. Otherwise the default value is [Optimus] for non-DDS SKUs.

Security Tab

The Security tab allows the user to configure and protect the computer from unauthorized usage.

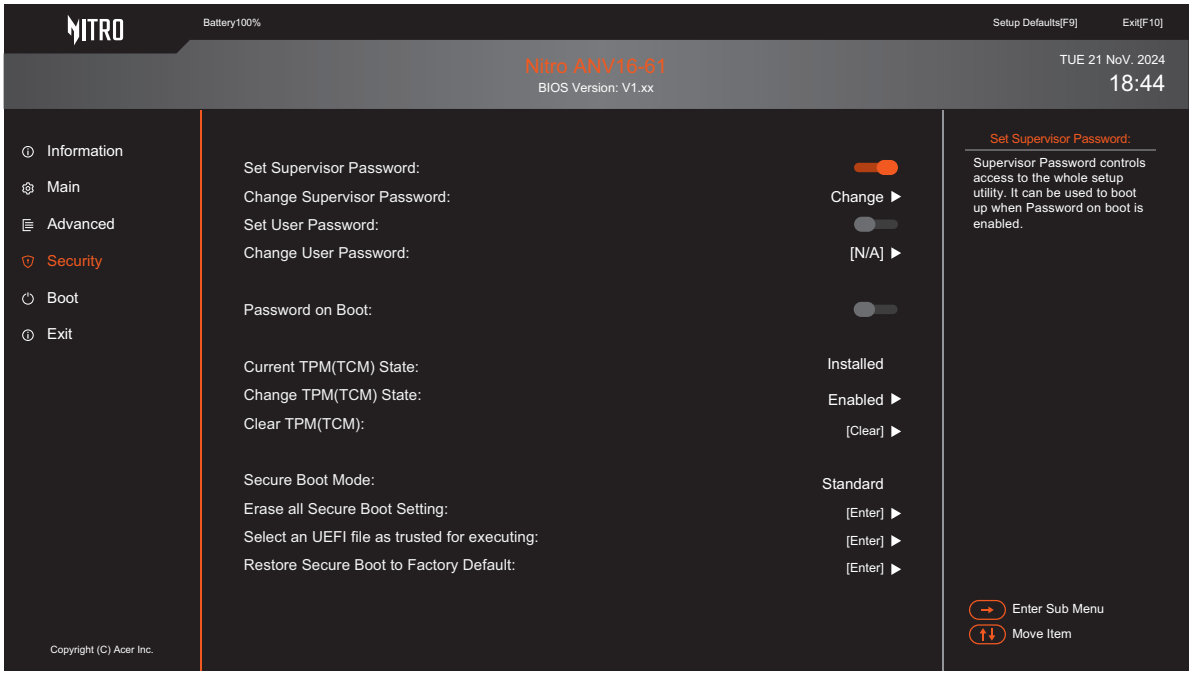
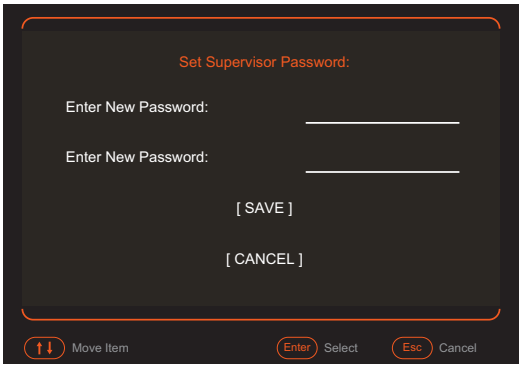
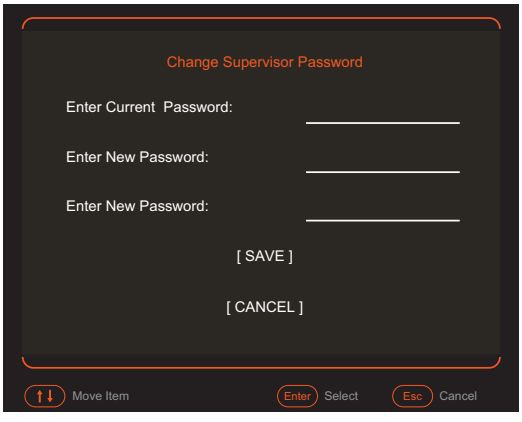


Figure 1-61. BIOS Security

Table 1-13. BIOS Security Tab Parameters

Item Name	Example	Remark
Set Supervisor Password	[Enabled] / [Disabled]	• [Disabled] means password is not set. After the password has been set, the setting will be change to [Enabled]. • If Supervisor Password is not set, Set User Password should be a grayed out item. • After pressing [Disabled], a pop up a window to ask user to enter new password. • Refer to following picture: 
Set User Password		

Item Name	Example	Remark
Set Supervisor Password *(continued)*	[Enabled] / [Disabled] *(continued)*	• If there is an old password, pop up a window to ask user to enter the old password first. If the password entered does not match old password, a pop-up warning message "Invalid password". If the password entered match the old password, the password will be cleared and the setting will be change to [Disabled]. • For the password format, refer to page **1-56**.
Set User Password *(continued)*		

Change Supervisor Password	[N/A] / [Change]	• [N/A] means the password is not set. After the password has been set, the setting will be change to [Change].
		• After pressing [Change], a pop up a window to ask user to enter the current password. Refer to following picture:
		
		
		• User should enter the current password first and then type the new password in the field "Enter New Password", and re-enter the password in the field "Confirm New Password" for verification.
		  • If the verification is OK, the password setting is complete after user presses ***Enter***.
		  • If the current password entered does not match the actual current password, a pop-up warning message "Invalid password".
		  • If the new password and confirm new password do not match, a pop-up warning message "Password do not match".
		  • For the password format, refer to page **1-56**.

Change User Password		

Item Name	Example	Remark
Password on Boot	[Enabled] / [Disabled]	• Defines whether a password is required or not when the events defined in this group take place. • Password on Boot option requires the Supervisor Password. During login, this should be grayed out if the User Password was used to enter BIOS Setup Utility. • Allows user to specify whether or not a password is required for boot. • The default value is [Disabled].
Current TPM (TCM) State (For TPM 2.0)		• This field indicates current TPM State. • The current TPM or TCM State description is according the current TPM or TCM is connected. • The current TPM State is displayed on BIOS Setup Utility no matter Supervisor /User Password is set or not and is grayed out item that can't be modified manually.
Change TPM (TCM) State (For TPM 2.0)	[Enabled] / [Disabled]	• Change TPM State is displayed on BIOS Setup Utility no matter Supervisor / User Password is set or not. If Supervisor Password is not set, it should be a grayed out item. • Default TPM state for UEFI Mode is set to [Enabled] and requires Supervisor Password to change the state. • [Disabled]: BIOS don't initial TPM 2.0 device and hide the TPM 2.0 device in ACPI table, it makes no TPM device in Windows device manager. • Change TPM state will support the items list in left.
Clear TPM (TCM)	[Clear]	Change TPM State is displayed on BIOS Setup Utility no matter the Supervisor / User Password is set or not. If the Supervisor Password is not set, it should be a grayed out item.
Secure Boot Mode	[Standard] / [Custom]	Displays the current Secure Boot Mode status. • [Standard]: No manual change has been done to Secure Boot setting or user has previous restore Secure Boot to Factory Default. • [Custom]: Contents of the Secure Boot signature database has been previously modified with “Erase all Secure Boot Setting” or “Select an UEFI file as trusted executing”. • The default value is [Standard].

Item Name	Example	Remark
Erase all Secure Boot Setting	[Enter]	• Erase all contents in secure four variables PK, KEK, DB, and DBX. • A confirmation dialog will pop up to confirm user's action.

Select an UEFI file as trusted for executing	[Enter]	• This action allows user to select all available UEFI files in FAT32 partition and add the UEFI hash into secure DB.
		• This action will follow below method:
		  • Display available device for users to select the UEFI file location.
		  • Display all files in the device and allow user to select the intended file (Only efi file can be added to the signature database) and the interface will allow user to go up or enter directory.
		• If “Yes” is selected, the file hash will be added to the signature database and return to Security Menu. If “No” is selected, it will return back to the previous file selection menu.
		• Added efi file's Boot description will be added into boot device order list's last place, a maximum of 5 entries are allowed.

Restore Secure Boot to Factory Default	[Enter]	• Restore the setting back to the factory settings. When save and exit the BIOS Setup Utility, the default Secure Boot factory settings will be restored. • By executing this action, the Secure Boot Mode will be reset to [Standard] upon next entry to the BIOS Setup Utility.

NOTE:

When prompted to enter the password, three attempts are allowed before system halts. Resetting the BIOS password may require the computer to be returned to the dealer.

Selecting a UEFI File as Trusted

Perform the following to select a UEFI file as trusted for execution:

1. Use the ↑ and ↓ keys to highlight the `Select an UEFI File as trusted for executing` parameter and press ***Enter***. The `Select the UEFI file location` dialog box appears.

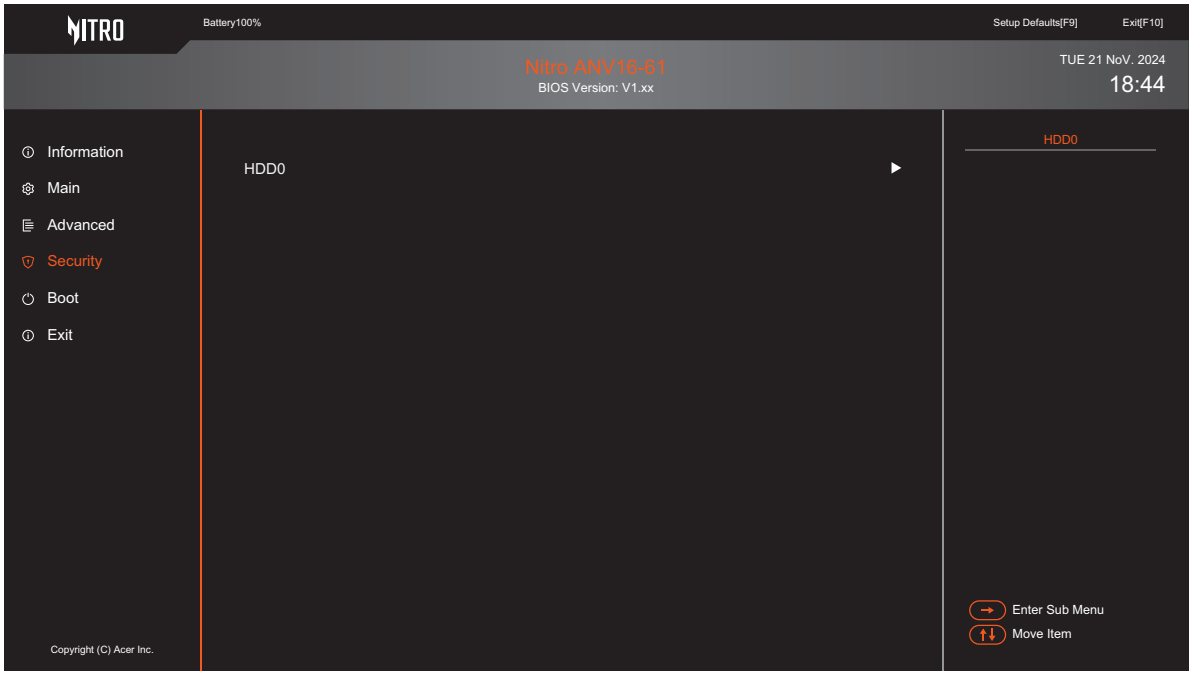


Figure 1-62. Select UEFI File Location

2. Use the ↑ and ↓ keys to select a location, then press ***Enter***. The `Select an UEFI File as trusted for executing` dialog box appears.

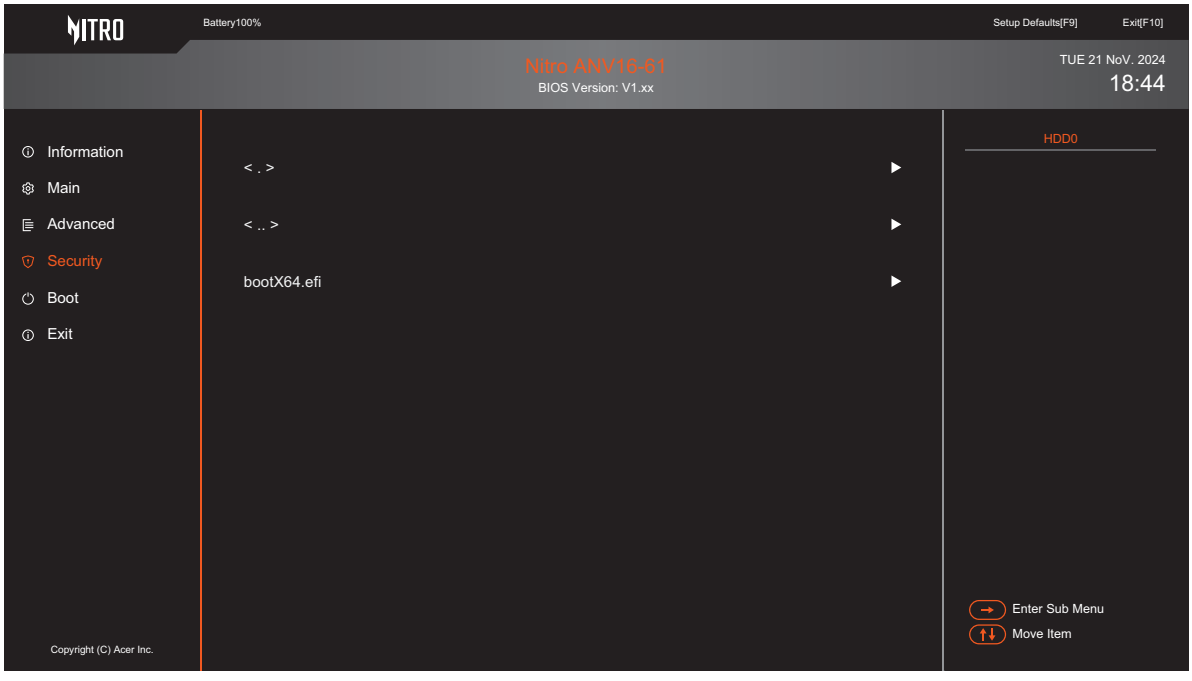


Figure 1-63. Select UEFI File

3. Select the *.efi file to execute (only *.efi files can be added to the signature database).

4. Select "Yes" to add the signature database and return to the security section. The boot description will be added in the end of the Boot device order list (maximum of 5 entries are allowed).

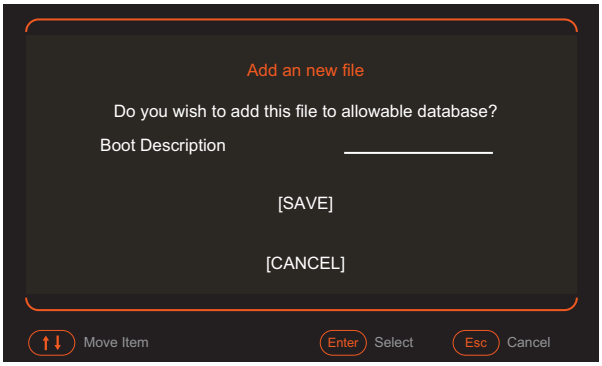


Figure 1-64. Add New File

Setting a Password

Perform the following to set the supervisor password:

1. Use the ↑ and ↓ keys to highlight the `Set Supervisor Password` parameter and press ***Enter***. The dialog box appears.

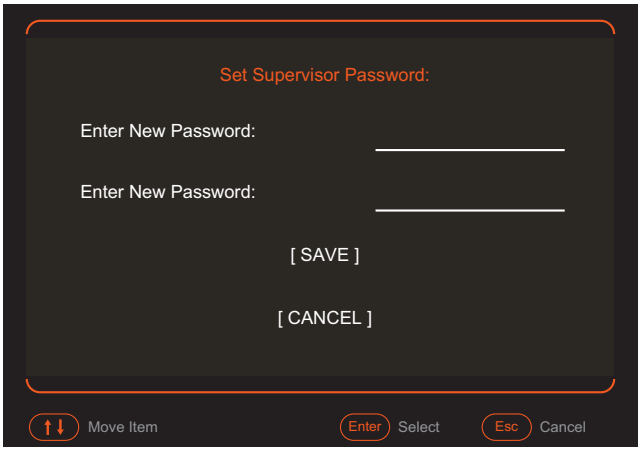


Figure 1-65. Set Supervisor Password

2. Type the password in the `Enter New Password` field.

NOTE:

Passwords are not case sensitive and the length must not exceed 12 characters. The following characters may be used in a password.

Symbol Character	Symbol Name
A - Z	Alphabets A through Z (Case Sensitive)
a - z	Alphabets a through z (Case Sensitive)
0 - 9	Numerical Characters
-	Dash
=	Equal Sign
[	Left Bracket
]	Right Bracket
.	Period
,	Comma
;	Semi-colon
/	Slash
\	Back-slash
`	Grave Accent
~	TILDE
!	EXCLAMATION MARK
@	COMMERCIAL AT
#	NUMBER SIGN
$	Dollar Sign
%	Percent Sign

Symbol Character	Symbol Name
^	CIRCUMFLEX ACCENT
&	AMPERSAND
*	ASTERISK
(	LEFT PARENTHESIS
)	RIGHT PARENTHESIS
_	LOW LINE
+	PLUS SIGN
{	LEFT CURLY BRACKET
}	RIGHT CURLY BRACKET
|	VERTICAL LINE
:	COLON
"	QUOTATION MARK
<	LESS-THAN SIGN
>	GREATER-THAN SIGN
?	QUESTION MARK
'	APOSTROPHE

IMPORTANT:

Use care when typing a password. Characters do not appear on the screen.

3. Retype the password in the `Confirm New Password` field.
4. Select `SAVE` and press ***Enter***. The `Setup Notice` dialog box appears.

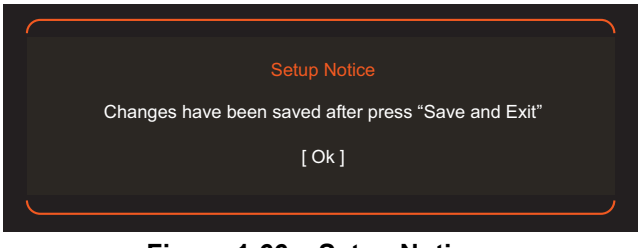


Figure 1-66. Setup Notice

5. Press ***Enter*** to complete the password setting. After the password has been set, the computer enables to change the password.
6. Press ***F10*** to save changes and exit *BIOS Setup Utility*.

NOTE:

The same procedures apply in setting the user password and HDD password.

When the supervisor password is set, the `Set User Password` and `Password on Boot` parameters are enabled for users to configure.

Changing a Password

Perform the following to change a password:

NOTE:

Below are the procedures for changing the supervisor password. The same procedures apply in changing the user and HDD passwords.

1. Use the ↑ and ↓ keys to highlight the `Change User Password` or `Change Supervisor Password` parameter and press ***Enter***. The dialog box appears.

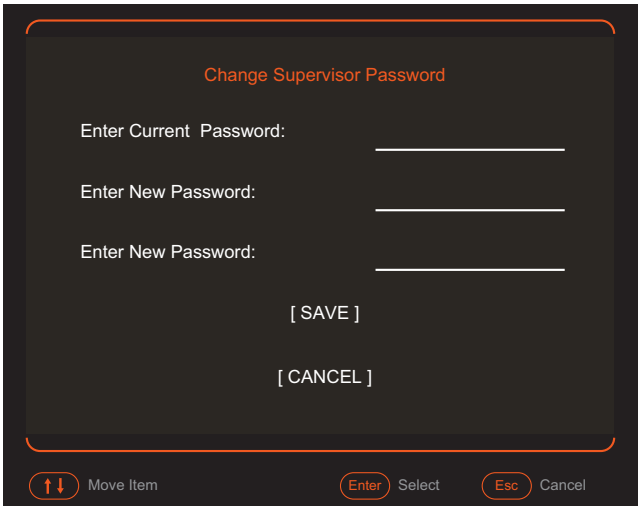


Figure 1-67. Change Supervisor Password

2. Type the current password in the `Enter Old Password` field and press ***Enter***.
3. Type the new password in the `Enter New Password` field and press ***Enter***.
4. Retype the new password in the `Confirm New Password` field.
5. Select `SAVE` and press ***Enter***. If the passwords match, the `Setup Notice` dialog box appears.

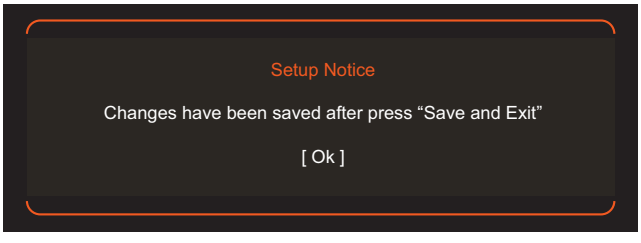


Figure 1-68. Setup Notice

6. Press ***Enter*** to complete the password setting.
7. Press ***F10*** to save changes and exit *BIOS Setup Utility*.

Removing a Password

Perform the following to remove a password:

NOTE:

Below are the procedures for removing the supervisor password. The same procedures apply in removing the user and HDD passwords.

When the supervisor password is removed, the user password is automatically removed.

1. Enter the old password in the `Enter Old password` field and press ***Enter***.

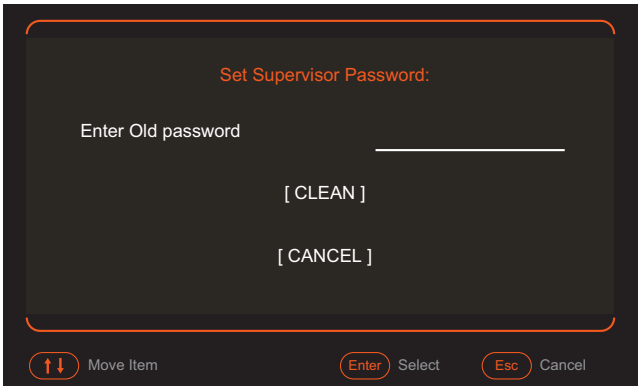


Figure 1-69. Set Supervisor Password

2. Press ***Enter*** to complete the password removal. The `Setup Notice` dialog box appears.

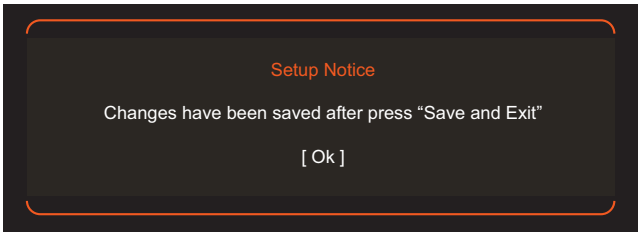


Figure 1-70. Setup Notice

Boot Tab

The Boot tab allows the user to configure the order of boot devices used to load the operating system.

Use ↑ and ↓ keys to select a device and press ***F5*** or ***F6*** to change the value.

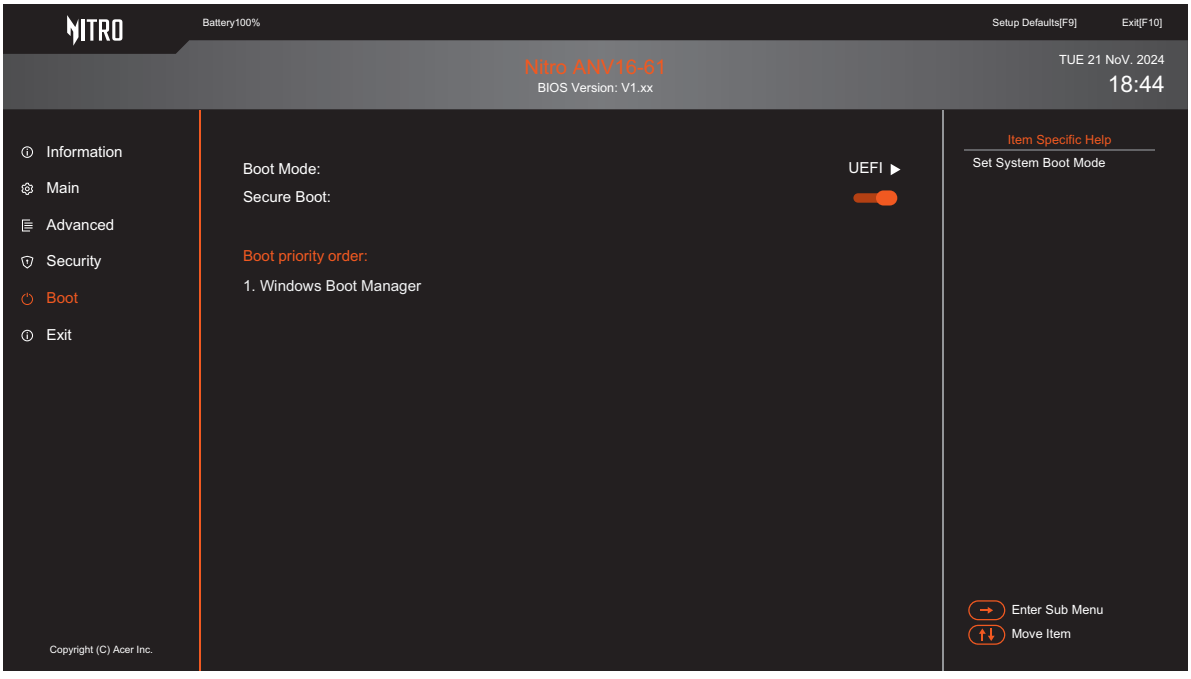


Figure 1-71. BIOS Boot

Table 1-14. BIOS Boot Tab Parameters

Item Name	Example	Remark
Boot Mode	[UEFI]	• Default Boot Mode: BIOS need to check OS type for this default setting. • The default value is [UEFI].
Secure Boot	[Enabled] / [Disabled]	• If the default Boot Mode is [UEFI], then the default Secure Boot status is [Enabled] and CSM module can't be loaded during boot. • If the user sets the Secure Boot to [Disabled], the firmware will bypass secure boot verification. • The Secure Boot status is only available on [UEFI] Boot Mode. • In [UEFI] Boot Mode, the Secure Boot status is default gray out and could only be modified by following actions: • Supervisor password had been set. • When BIOS "Load Setup Defaults" is executed, if the default Boot Mode is [UEFI], the Secure Boot status will reset to [Enabled].

Item Name	Example	Remark
Boot Priority Order		• If the Boot Mode has changed, the Boot Priority Order will not be refreshed until the next BIOS Setup Utility entry. • When Boot Mode is [UEFI] and users enable Windows To GO Startup Options under OS, an USB class boot entry name "USB Entry for Windows To GO" will be inserted into the top of the Boot Priority Order and Boot Option Menu. • If the “USB Entry for Windows To Go” is present, and BIOS “Load Setup Defaults” is executed, “USB Entry for Windows To Go” will be set to 1st Boot Device in Boot Priority Order. • Only display bootable devices.

NOTE:

- Wired connection will display `Network Boot-IPV4` and `Network Boot-IPV6` as two separate network boot devices.
- After Windows 8 OS is installed, a `Windows Boot Manager` will be generated and displayed on top of the boot device priority.
- Non-physical boot devices can be deleted in the Boot Priority Order List, this includes `A trusted boot entry` and `Windows Boot Manager`.
- If two (2) HDD is configured as RAID, only HDD0 is presented.

Exit Tab

The Exit tab allows the user to save or discard changes and quit the *BIOS Setup Utility*.

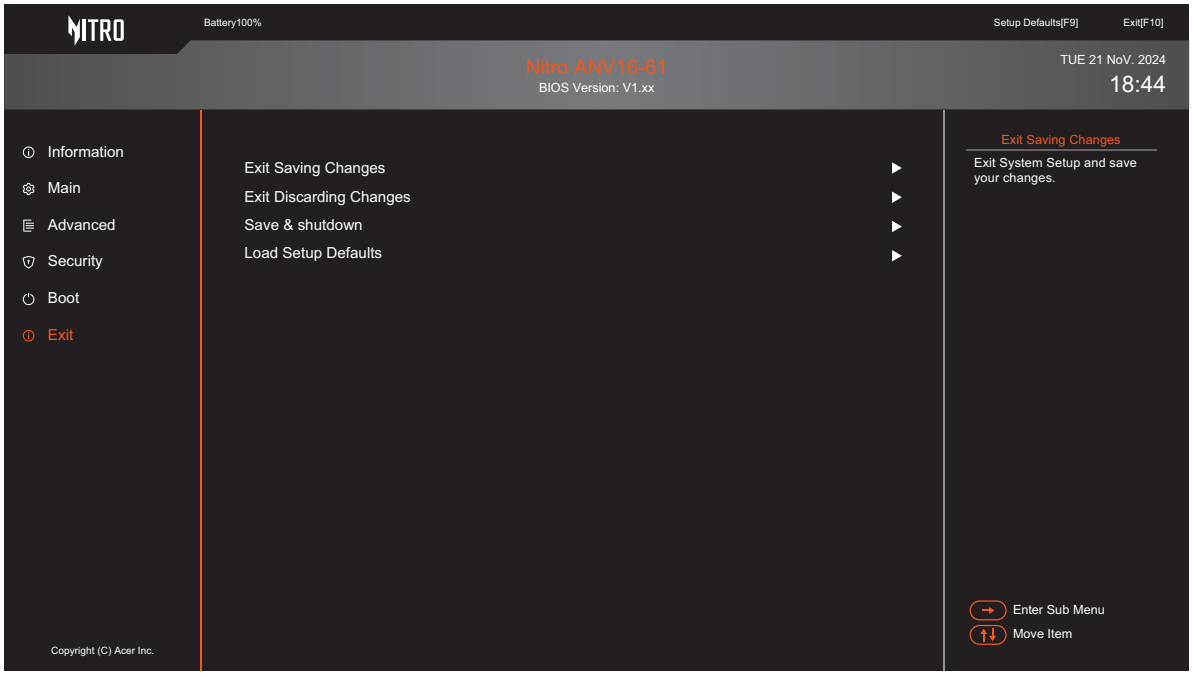


Figure 1-72. BIOS Exit

Table 1-15. BIOS Exit Tab Parameters

Item Name	Description
Exit Saving Changes	Allow users to save changes and reboot the system.
Exit Discarding Changes	Allow users to discard changes before exiting Setup Utility.
Save & shutdown	Allow users to save changes and shutdown the system.
Load Setup Defaults	Allow user to load factory default configurations in Setup Utility.

Troubleshooting

This chapter contains information about troubleshooting common problems associated with the device.

General Information

The following procedures are a guide for troubleshooting computer problems. The step by step procedures are designed to be performed as described.

NOTE:

- The diagnostic tests are intended to test only Acer products. Non-Acer products, prototype cards, or modified options can give false errors and invalid system responses.
- Do not replace a non-defective FRU.

1. Obtain as much detail as possible about the problem.
2. If possible, verify the symptoms by re-creating the failure through diagnostic tests or by repeating the operation that led to the problem.
3. Use **Table 1-16** with the verified symptom(s) to determine the solution.

Table 1-16. Verified Symptoms

Symptoms	See
Power on Issues	**Figure 1-73. Power On Issues**
No Display Issues	**Figure 1-74. No Display Issues**
LCD Picture Failure	**Figure 1-75. LCD Picture Failure**
Internal Keyboard Failure	**Figure 1-76. Internal Keyboard Failure**
Touchpad Failure	**Figure 1-77. Touchpad Failure**
Internal Speaker Failure	**Figure 1-78. Internal Speaker Failure**
Internal Microphone Failure	**Figure 1-79. Internal Microphone Record Failure**
USB3.0 Failure	**Figure 1-80. USB3.0 Failure**
Wireless Function Failure	**Figure 1-81. Wireless Function Test Failure**
Bluetooth Function Failure	**Figure 1-82. Bluetooth Function Test Failure**
Units Thermal Failure	**Figure 1-83. Units Thermal Failure**
Cosmetic Failure	**Figure 1-84. Cosmetic Failure**
Other Functions Failure	page **1-77**

Power On Issues

If the system does not power on, perform the following:

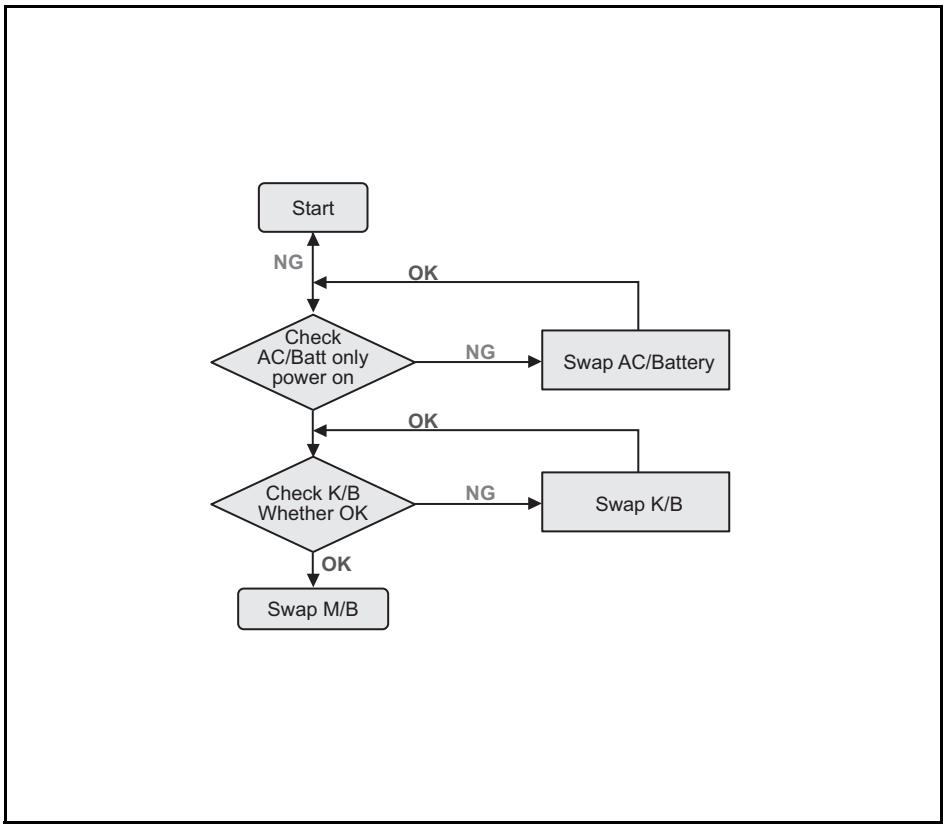


Figure 1-73. Power On Issues

Computer Shuts Down Intermittently

If the system powers off at intervals, perform the following.

1. Makes sure the power cable is properly connected to the computer and the electrical outlet.
2. Remove all extension cables between the computer and the outlet.
3. Remove all surge protectors between the computer and the electrical outlet. Plug the computer directly into a known serviceable electrical outlet.
4. Remove all external and non-essential hardware connected to the computer that are not necessary to boot the computer to the failure point.
5. Remove any recently installed software.

No Display Issues

If the system does not display, perform the following:

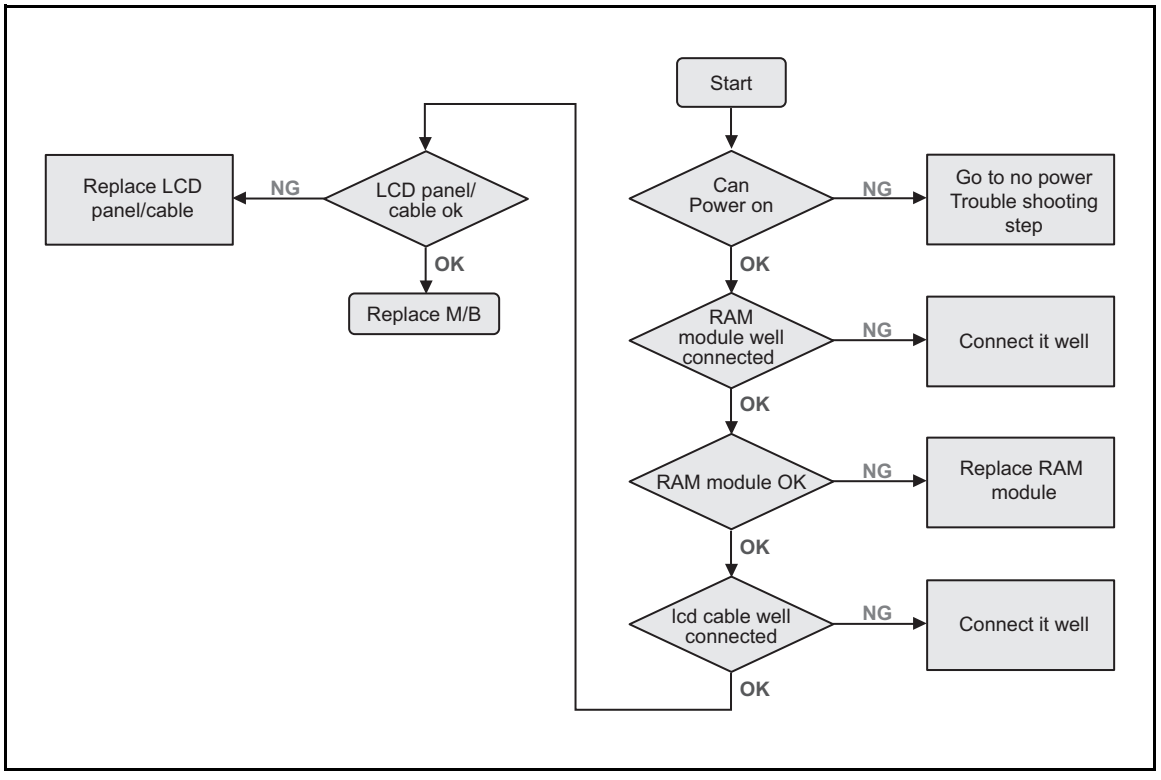


Figure 1-74. No Display Issues

No POST or Video

If the POST or video does not appear, perform the following:

1. Make sure that internal display is selected. Then switch between the internal display and the external display. Reference Product pages for specific model procedures.
2. Make sure the computer has power by checking for one of the following:
   - Fans start up
   - Status LEDs illuminate
3. If there is no power, refer to **Power On Issues** on page **1-64**. Otherwise, continue to the next step.
4. If there is power, drain the stored power by removing the power cable. Hold the power button for 10 seconds.
5. Connect the power and reboot the computer.
6. Connect an external monitor to the computer and switch between the internal display and the external display.
7. If the POST or video appears on the external display only, refer to **LCD Picture Failure** on page **1-67**. Otherwise, continue to the next step.
8. Disconnect the power and all external devices including port replicators or docking stations.

9. Remove any memory cards.
10. Start the computer. If the computer boots correctly, add the devices one by one until the failure point is discovered.

Abnormal Video

If the video appears abnormal, perform the following:

1. Boot the computer.
    - If permanent vertical/horizontal lines or dark spots appear in the same location, the LCD is faulty and should be replaced.
    - If extensive pixel damage is present (different colored spots in the same locations on the screen), the LCD is faulty and should be replaced.

NOTE:
Make sure that the computer is not running on battery alone as this may reduce display brightness.

2. Adjust the brightness to its highest level. Refer to the User Manual for instructions on adjusting the settings. If the display is too dim at the highest brightness setting, the LCD is faulty and should be replaced.
3. Check the display resolution is correctly configured:
    - Minimize or close all Windows.
    - If display size is only abnormal in an application, check the view settings and control/ mouse wheel zoom feature in the application.
    - If desktop display resolution is not normal, right-click on the desktop and select `Personalize Display Settings`.
    - Click and drag the Resolution slider to the desired resolution.
    - Click ***Apply*** and check the display. Readjust if necessary.
4. Roll back the video driver to the previous version if updated.
5. Remove and reinstall the video driver.
6. Check the Device Manager to determine that:
    - The device is properly installed. There are no red Xs or yellow exclamation marks
    - There are no device conflicts
    - No hardware is listed under Other Devices
7. Run the *Windows Memory Diagnostic* from the operating system DVD and follow the on-screen prompts.

LCD Picture Failure

If the LCD picture fails, perform the following:

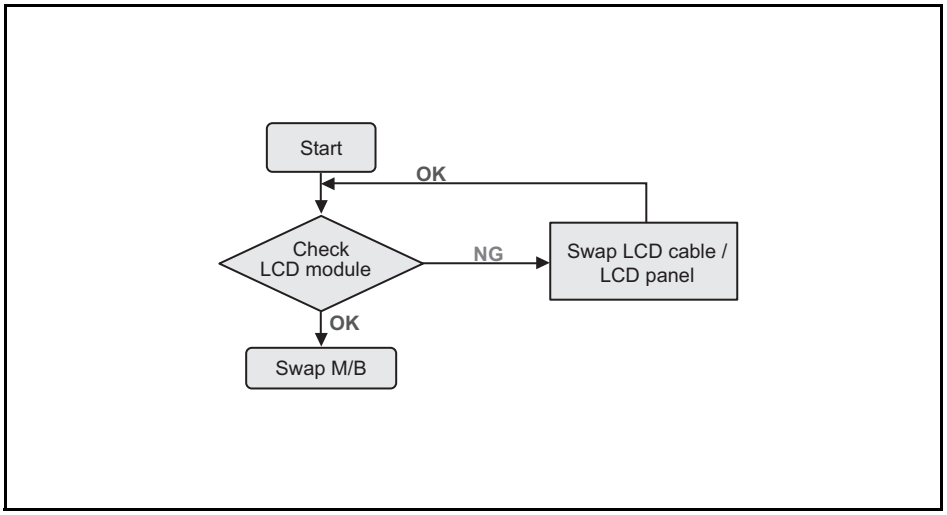


Figure 1-75. LCD Picture Failure

Internal Keyboard Failure

If the internal keyboard function fails, perform the following:

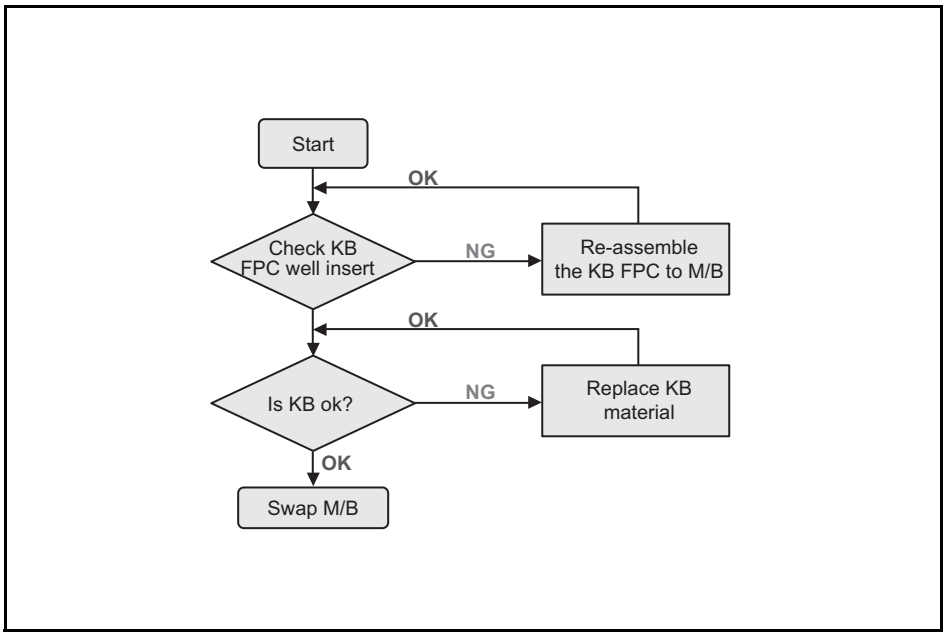


Figure 1-76. Internal Keyboard Failure

Touchpad Failure

If the touchpad fails, perform the following:

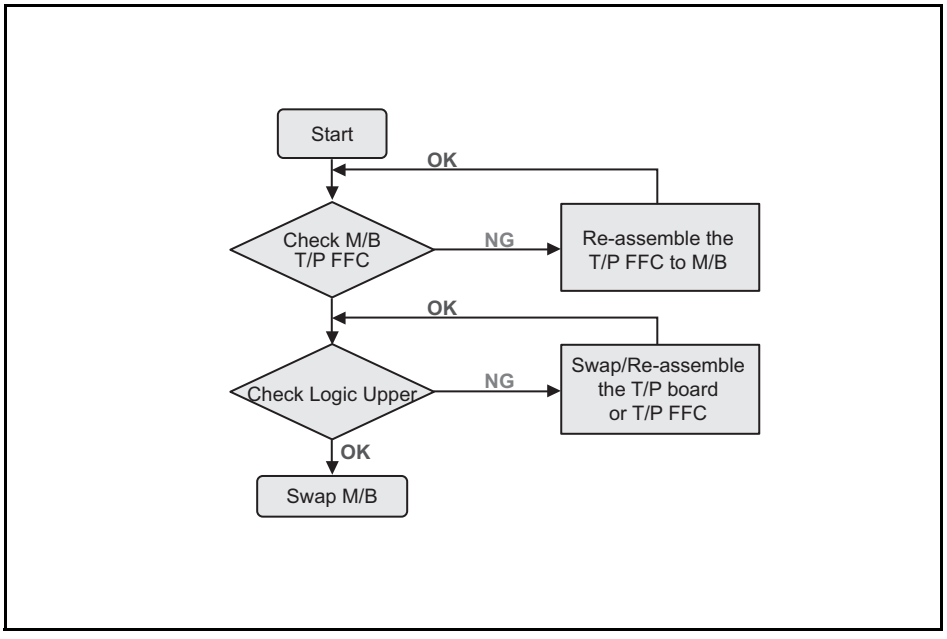


Figure 1-77. Touchpad Failure

Internal Speaker Failure

If the internal speaker fails, perform the following:

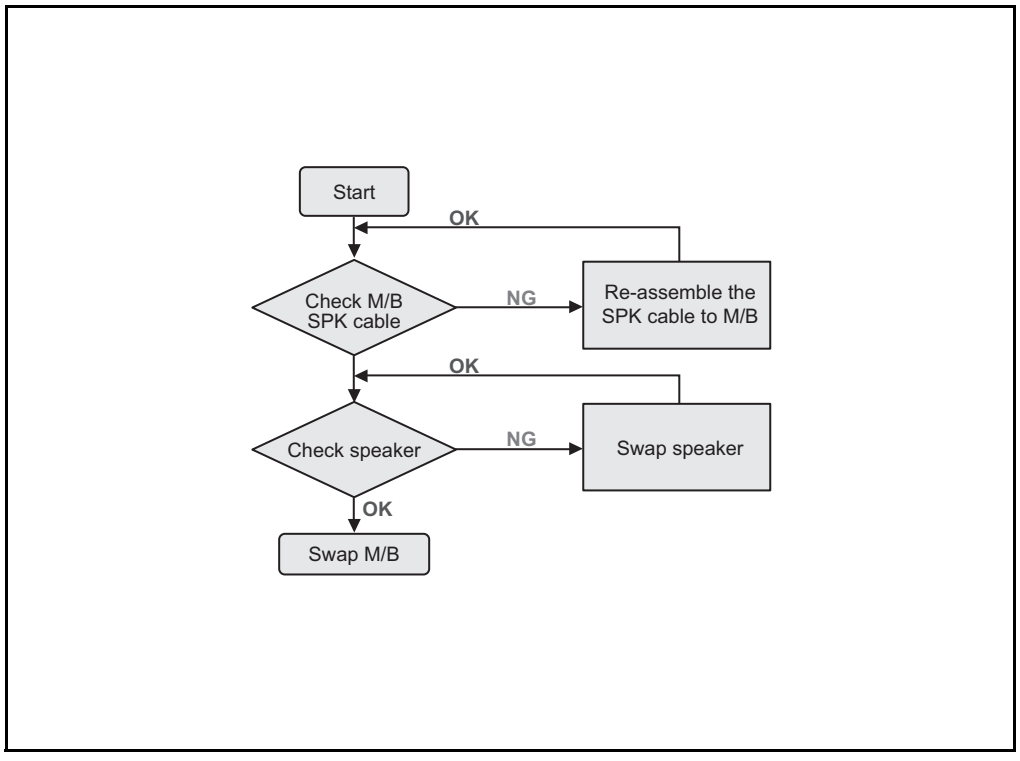


Figure 1-78. Internal Speaker Failure

Sound Problems

Perform the following:

1. Boot the computer.
2. Check the **Device Manager** to determine that:
   - The device is properly installed
   - There are no red Xs or yellow exclamation marks
   - There are no device conflicts
   - No hardware is listed under Other Devices
3. If updated recently, roll back the audio driver to the previous version.
4. Remove and reinstall the audio driver.
5. Make sure that all volume controls are set mid range:
   - Click the volume icon on the taskbar
   - Drag the slider to 50. Confirm that the volume is not muted.
   - Click Mixer to verify that other audio applications are set to 50 and not muted.
6. Confirm that Speakers is selected as the default audio device (green check mark) in the Control Panel.

NOTE:

If **Speakers** is not shown, right-click on the Playback tab and select **Show Disabled Devices** (clear by default).

7. Select **Speakers** and click **Configure** to start Speaker Setup. Follow the on-screen prompts to configure the speakers.
8. Remove any recently installed hardware or software.
9. Restore system and file settings from a known good date using System Restore.
10. If the issue is remains, repeat step 9, selecting an earlier time and date.
11. Reinstall the Operating System.

Internal Microphone Record Failure

If the internal microphone fails to record, perform the following:

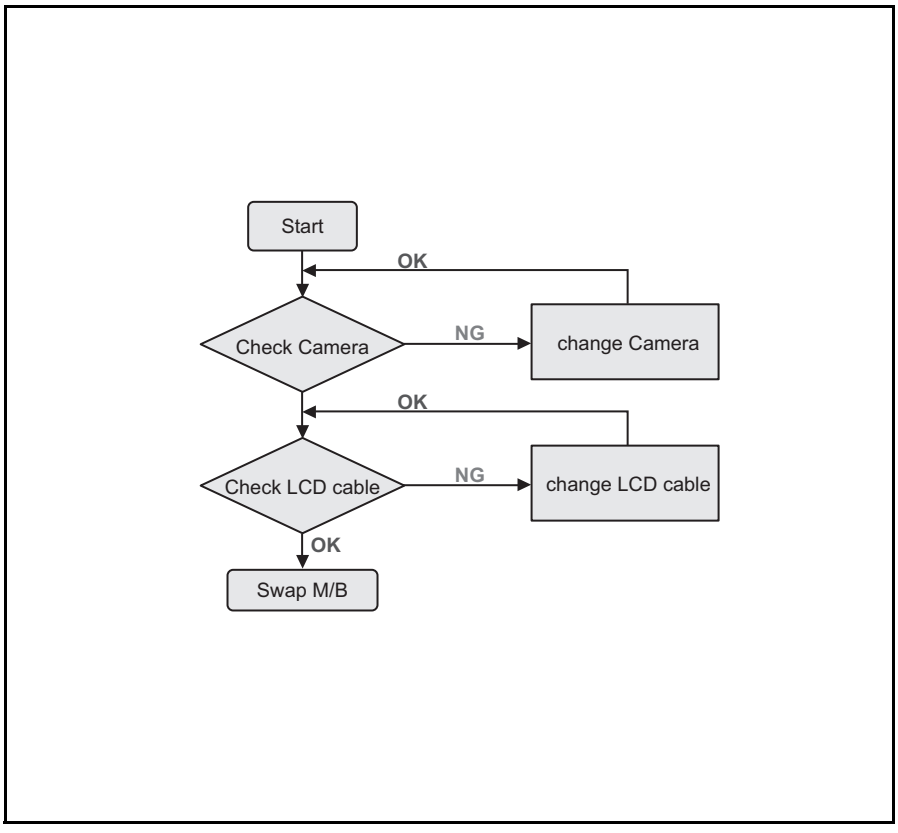


Figure 1-79. Internal Microphone Record Failure

USB3.0 Failure

If the USB function fails, perform the following:

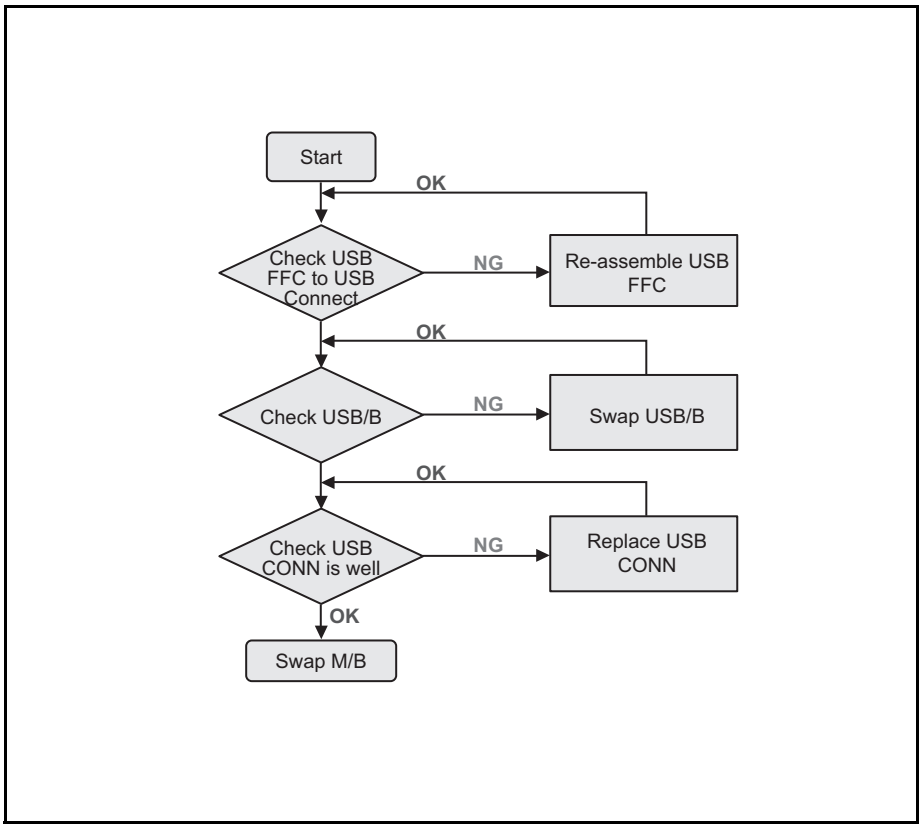


Figure 1-80. USB3.0 Failure

Wireless Function Test Failure

If the wireless function test fails, perform the following:

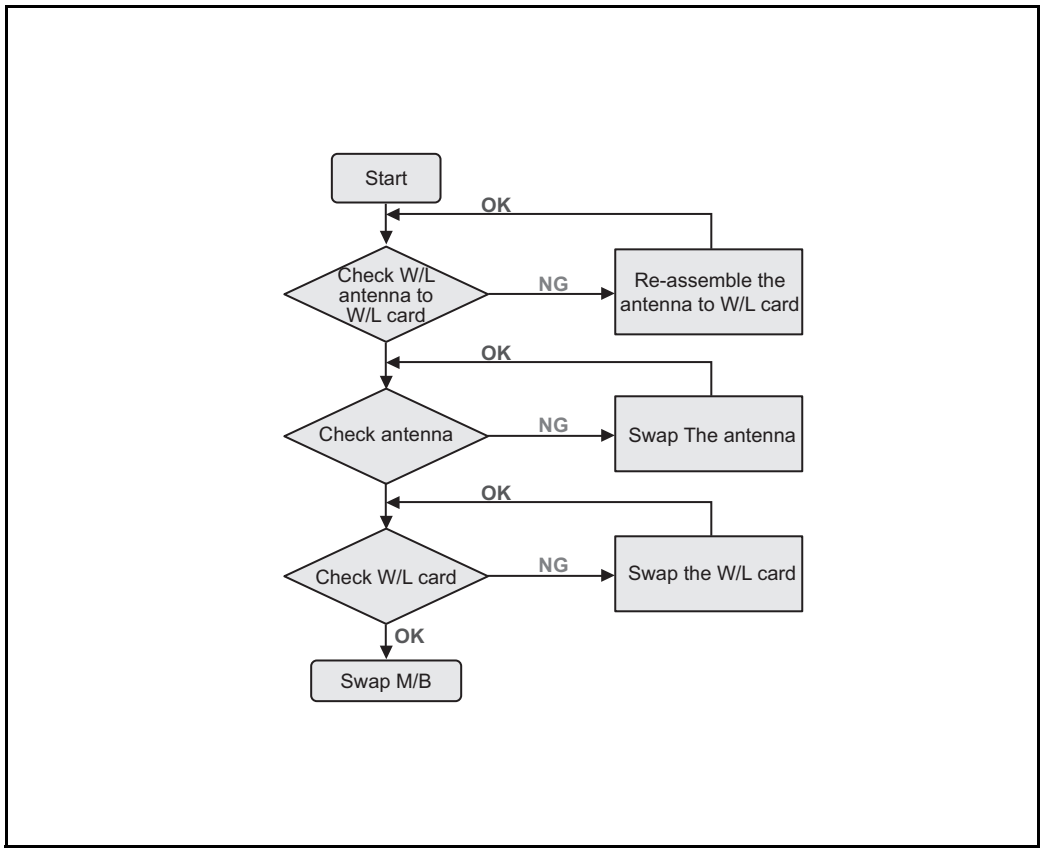


Figure 1-81. Wireless Function Test Failure

Bluetooth Function Test Failure

If the Bluetooth function test fails, perform the following:

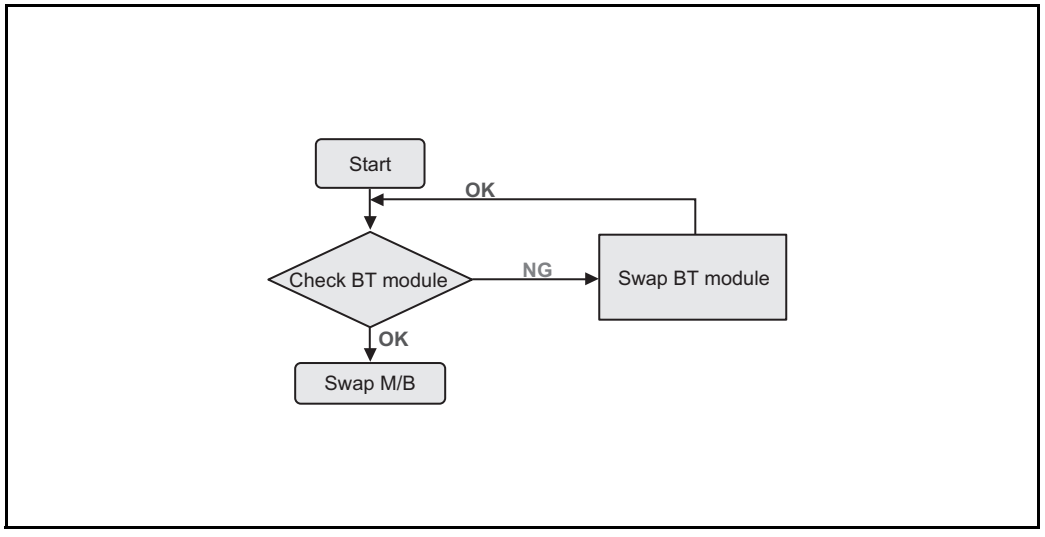


Figure 1-82. Bluetooth Function Test Failure

Units Thermal Failure

If the units thermal fails, perform the following:

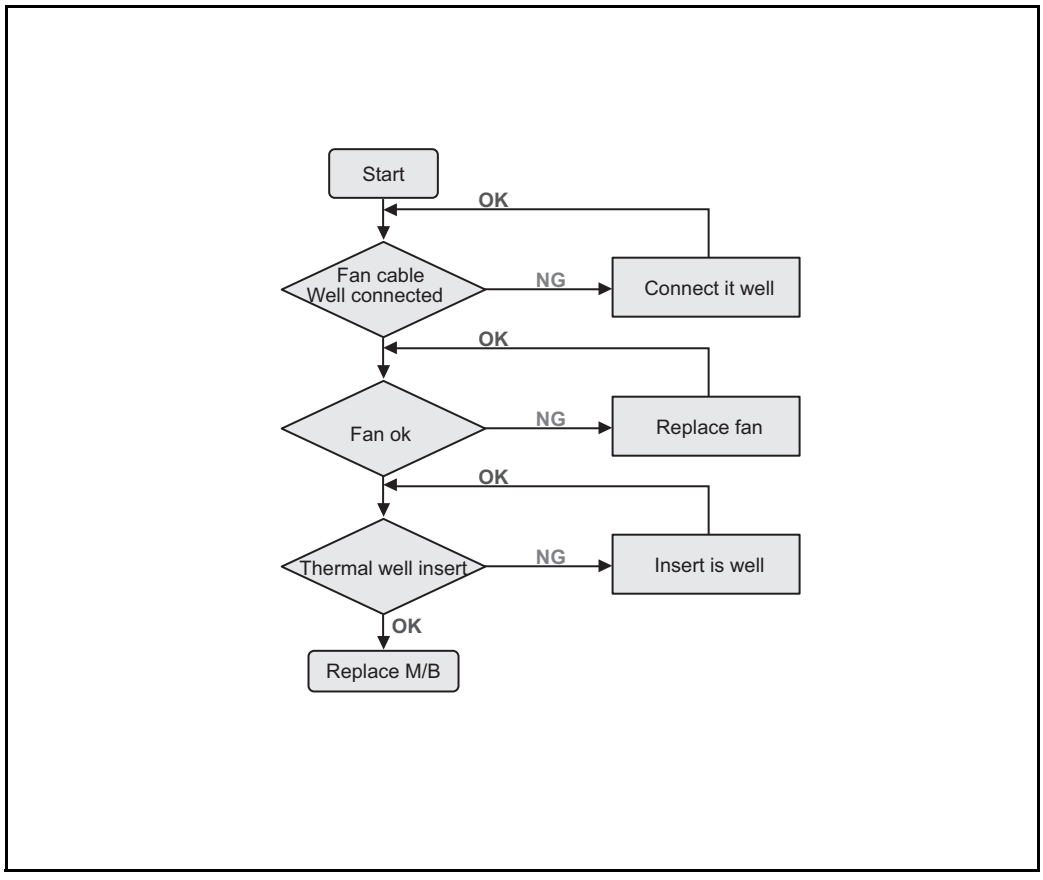


Figure 1-83. Units Thermal Failure

Cosmetic Failure

If the cosmetic fails, perform the following:

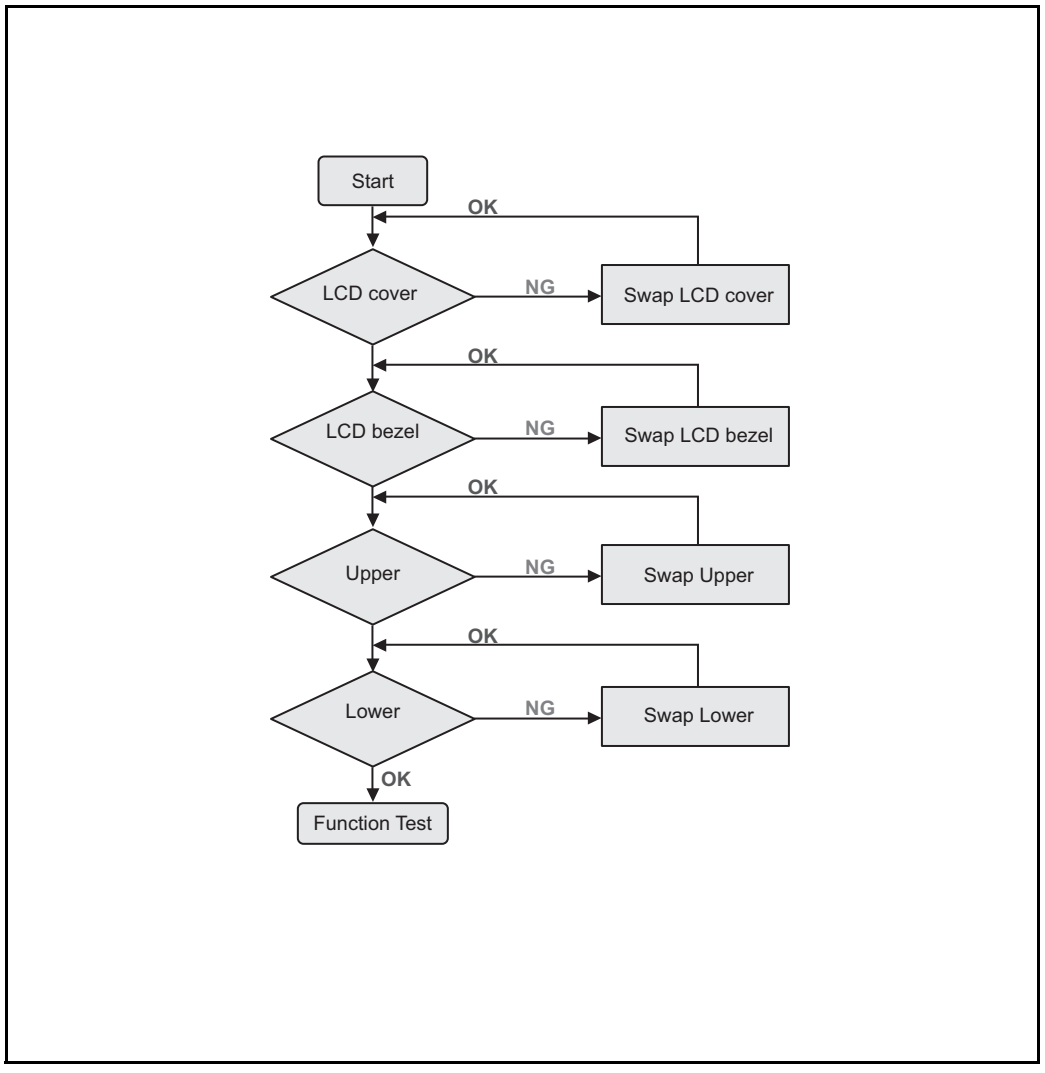


Figure 1-84. Cosmetic Failure

Other Functions Failure

If other functions such as the HDMI switch, extend MIC, extend speaker fail, perform the following:

1. Check if the Drive is working properly.
2. Check if the test fixture is ok.
3. Swap the mainboard.

Mainboard CMOS Discharge

If there is a wrong CMOS setting, such as password, CMOS data will be cleaned to default setting by discharging (short pads): **CLRP1**.

The discharge location is near RAM connector as shown on the following illustration.

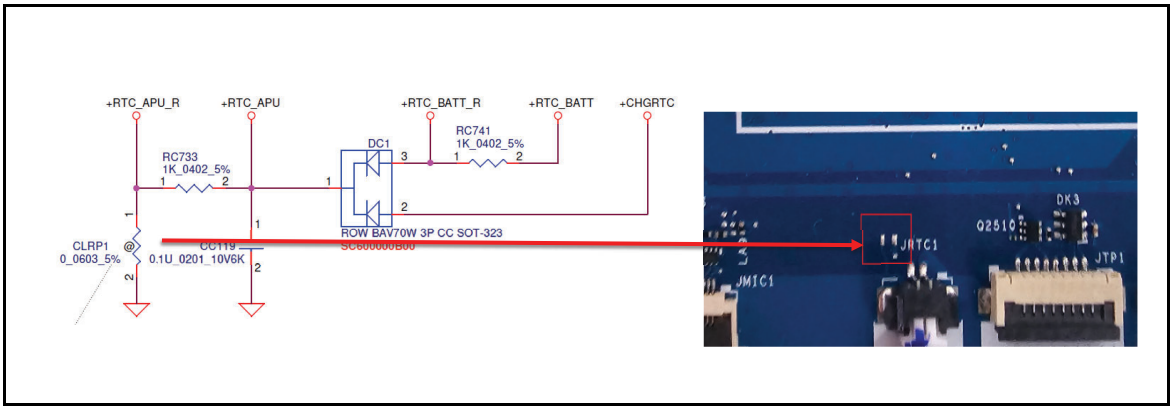


Figure 1-85. Location of CLRP1

Random Loss of BIOS Settings

If the computer is experiencing intermittent loss of BIOS information, perform the following:

1. If the computer is more than one year old, replace the CMOS battery.
2. Run a complete virus scan using up to date software to confirm the computer is virus free.
3. If the computer is experiencing HDD information loss, disconnect and reconnect the power.
4. If the BIOS settings are still lost, replace the cables.
5. If HDD information is missing from the BIOS, the drive may be defective and should be replaced.
6. Replace the mainboard.

Undetermined Problems

The diagnostic problems do not identify which adapter or device failed, which installed devices are incorrect, whether a short circuit is suspected, or whether the system is inoperative.

NOTE:

- Verify that all attached devices are supported by the computer.
- Verify that the power supply being used at the time of the failure is operating correctly. (refer to **Power On Issues** on page **1-64**).

Perform the following procedures to isolate the failing FRU:

1. Remove power from the computer.
2. Visually check FRUs for damage. If any problems are found, replace the FRU.
3. Remove or disconnect all of the following devices:
   - Non-Acer devices
   - Printer, mouse, and other external devices
   - Hard disk drive
   - DIMM
   - CD-ROM/Diskette drive Module
   - PC Cards
4. Apply power to the computer.
5. Determine if the problem has changed.
6. If the problem does not recur, connect the removed devices until failing FRU is found.
7. If the problem remains, replace the following:
   - System board
   - LCD assembly

Main Assembly

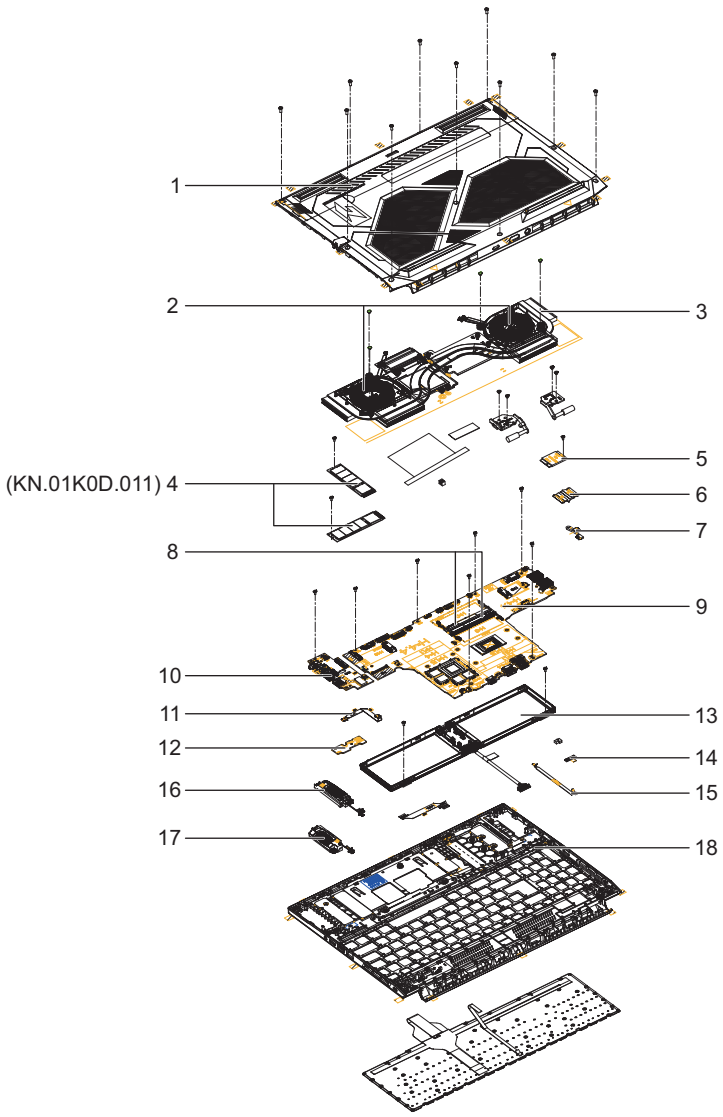


Figure 1-86. Main Assembly Exploded Diagram

Table 1-17. Main Assembly Exploded Diagram

No.	Acer Description
1	LOWER CASE BLACK

Table 1-17. Main Assembly Exploded Diagram (Continued)

No.	Acer Description
2	FAN CPU
	FAN VGA
3	HEATSINK
4	Flash Disk WD SSD NAND 1024GB SN5000S SDEQNSJ-1T00-1014 LF+HF
5	Wireless LAN AMD Wi-Fi 6E BT5.3 MT7922_RZ616: E AMD 2x2 M.2 2230 PCIe BLE / Azurewave
6	FFC I/O BOARD
7	CABLE WIRE
8	Memory MICRON SO-DIMM DDRV 5600 16GB MTC8C1084S1SC56BD1 LF+HF 1Rx8, Y52K D-die
9	Mainboard ANV16-61 AMD R5340 GN20-P0-R 6GB
10	BOARD I/O
11	FFC MODE KEY BOARD
12	BOARD MODE KEY
13	Battery SIMPLO Typ.76Wh 4930mAh 4S1P AP24A7Q 274x68x7.80(mm) AP24A 15.48V 90W Li-Ion SMT connector . without cable
14	BOARD 3RD MIC
15	FFC 3RD MIC BOARD
16	SPEAKER L+R
17	
18	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS US International NK.I1513.2YJ

Upper Case Assembly

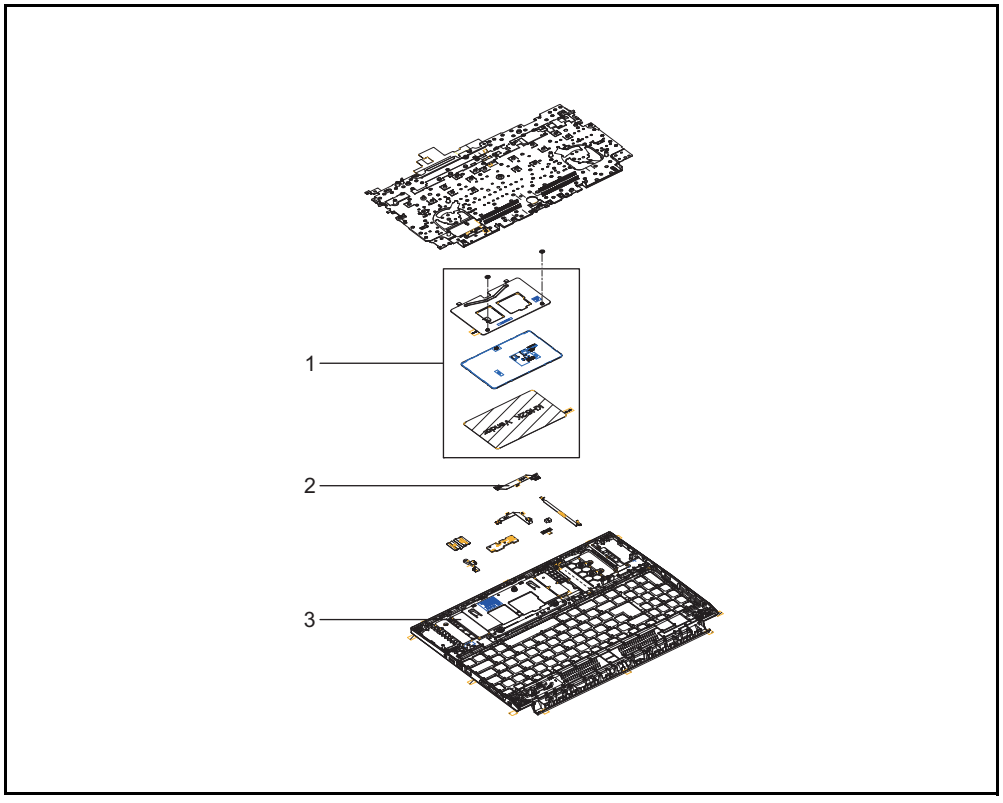


Figure 1-87. Upper Case Assembly Exploded Diagram

Table 1-18. Upper Case Assembly Exploded Diagram

No.	Acer Description
1	TOUCHPAD MODULE BLACK ELANTEC NC.24611.09K
2	FFC TOUCHPAD
3	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS US International NK.I1513.2YJ

LCD Assembly

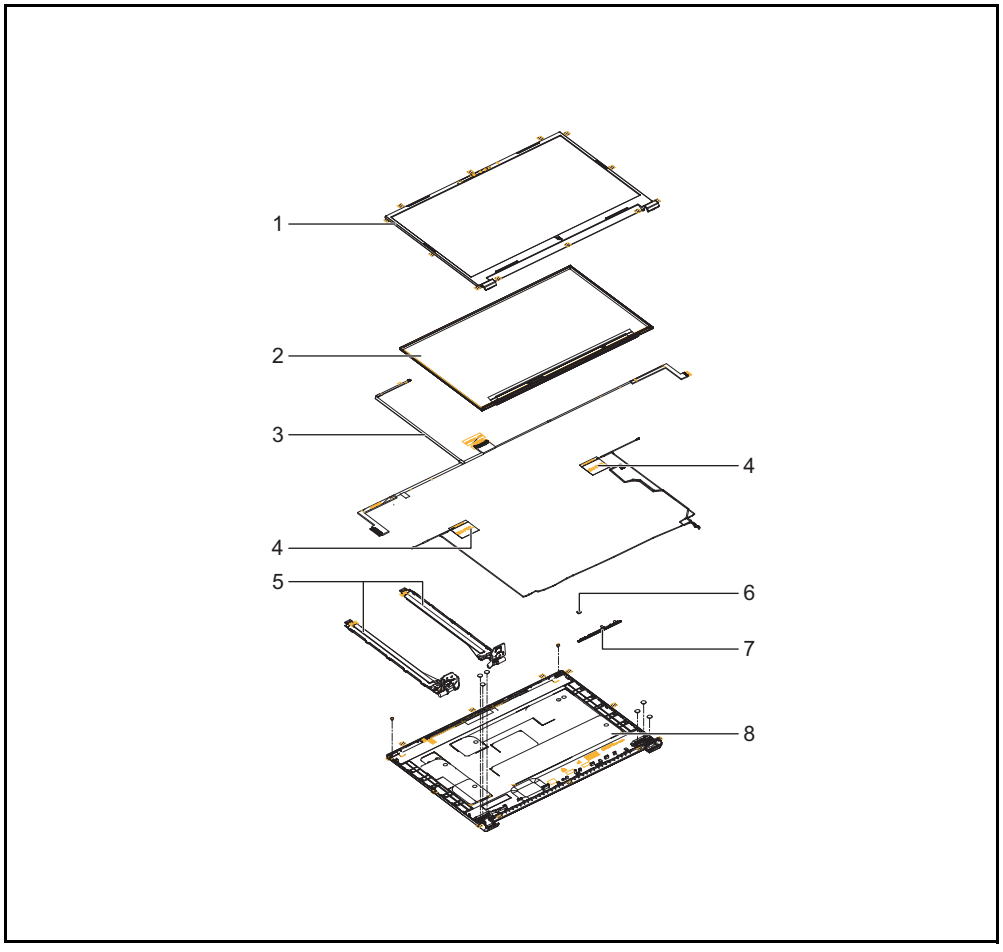


Figure 1-88. LCD Assembly Exploded Diagram

Table 1-19. LCD Assembly Exploded Diagram

No.	Acer Description
1	LCD BEZEL
2	LED LCD Panel AUO 16" WQXGA IPS None Glare B160QAN03.T H/W 0A 400nit sRGB 100% 180Hz 9ms 1000:1 (Narrow border, 2.6t/4.6t, 3ms by OD, DDS)
3	CABLE LCD
4	ANTENNA MAIN
	ANTENNA AUX
5	HINGE L+R 26T
6	BRACKET CAMERA
7	Camera CHICONY FHD FF CKFOE24 GC2607 SPCV6202A DS-41161A (BG) ZTS6534SAC TNR USB IR-HM1092(940nm) (3.2mm) ,sHDR
8	LCD COVER IMR BLACK 26T

FRU (Field Replaceable Unit) List

This list is for reference only, please contact Acer local service to order the correct replacement part and availability.

FRU List

Table 1-20. FRU List

Category	Acer Description
ADAPTER	
	Adapter DELTA ADP-135NB BN 135W High power 5.5PHY (1.7x5.5x11) Brick 19.5V/6.92A Black ,PCR50%,with LOGO
	Adapter LITE-ON PA-1131-26A2 135W High power 5.5PHY (1.7x5.5x11) Brick 19.5V/6.92A Black PCR50%, with LOGO
	Adapter Chicony Power A135A053P 135W High power 5.5PHY (1.7x5.5x11) Brick 19.5V/6.92A Black ,PCR50%,with LOGO
BATTERY	
	Battery SIMPLO Typ.76Wh 4930mAh 4S1P AP24A7Q 274x68x7.80(mm) AP24A 15.48V 90W Li-Ion SMT connector . without cable
BOARD	
	BOARD I/O
	BOARD MODE KEY
	BOARD 3RD MIC
CABLE	
	FFC I/O BOARD
	FFC MODE KEY BOARD

Table 1-20. FRU List (Continued)

Category	Acer Description
	FFC TOUCHPAD
	FFC 3RD MIC BOARD
	CABLE WIRE
	CABLE BATTERY
	ANTENNA MAIN
	ANTENNA AUX
	CABLE LCD
FAN	
	FAN CPU
	FAN VGA

Table 1-20. FRU List (Continued)

Category	Acer Description
KB ASSEMBLY	
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS US International NK.I1513.2YJ
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Greek NK.I1513.2YC
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Arabic NK.I1513.2YA
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Traditional Chinese NK.I1513.2YB
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Russian NK.I1513.2YE
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS US International w/ Hebrew NK.I1513.2YK
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Thailand NK.I1513.2YH
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Korean NK.I1513.2YD
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Ukrainian NK.I1513.2YF
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS Persian NK.I1513.2YG
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS US International w/ Canadian French NK.I1513.2YL
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 103KS US International w/ Bulgaria NK.I1513.2YM
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS UK NK.I1513.2Z6
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS German NK.I1513.2YV
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Swiss/G NK.I1513.2Z4
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Belgium NK.I1513.2YP
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Danish NK.I1513.2YS
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Italian NK.I1513.2YX
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS French NK.I1513.2YU

Table 1-20. FRU List (Continued)

Category	Acer Description
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Hungarian NK.I1513.2YW
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Norwegian NK.I1513.2YZ
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Portuguese NK.I1513.2Z0
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Spanish NK.I1513.2Z2
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Turkish NK.I1513.2Z5
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Sweden NK.I1513.2Z3
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS FR/Arabic NK.I1513.2YT
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Nordic NK.I1513.2YY
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS SLO/CRO NK.I1513.2Z1
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS CZ/SK NK.I1513.2YR
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS Brazilian Portuguese NK.I1513.2YQ
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 104KS ALA-Spanish NK.I1513.2YN
	KEYBOARD ASSY BLACK BL W/ UPPER CASE LG05P_N30BAL 107KS Japanese NK.I1513.2Z7
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS US International NK.I1513.34Q/ NK.I1517.1CE/NK.I151S.17K
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Greek NK.I1513.34J/NK.I1517.1C8/ NK.I151S.17D
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Arabic NK.I1513.34G/NK.I1517.1C6/ NK.I151S.17B
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Traditional Chinese NK.I1513.34H/ NK.I1517.1C7/NK.I151S.17C

Table 1-20. FRU List (Continued)

Category	Acer Description
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Russian NK.I1513.34L/NK.I1517.1CA/ NK.I151S.17F
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS US International w/ Hebrew NK.I1513.34R/ NK.I1517.1CF/NK.I151S.17L
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Thailand NK.I1513.34P/NK.I1517.1CD/ NK.I151S.17J
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Korean NK.I1513.34K/NK.I1517.1C9/ NK.I151S.17E
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Ukrainian NK.I1513.34M/NK.I1517.1CB/ NK.I151S.17G
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS Persian NK.I1513.34N/NK.I1517.1CC/ NK.I151S.17H
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS US International w/ Canadian French NK.I1513.34S/NK.I1517.1CG/NK.I151S.17M
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 103KS US International w/ Bulgaria NK.I1513.34T/ NK.I1517.1CH/NK.I151S.17N
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS UK NK.I1513.35C/NK.I1517.1D2/ NK.I151S.187
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS German NK.I1513.351/NK.I1517.1CR/ NK.I151S.17W
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Swiss/G NK.I1513.35A/NK.I1517.1D0/ NK.I151S.185
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Belgium NK.I1513.34V/NK.I1517.1CK/ NK.I151S.17Q
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Danish NK.I1513.34Y/NK.I1517.1CN/ NK.I151S.17T
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Italian NK.I1513.353/NK.I1517.1CT/ NK.I151S.17Y

Table 1-20. FRU List (Continued)

Category	Acer Description
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS French NK.I1513.350/NK.I1517.1CQ/ NK.I151S.17V
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Hungarian NK.I1513.352/NK.I1517.1CS/ NK.I151S.17X
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Norwegian NK.I1513.355/NK.I1517.1CV/ NK.I151S.180
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Portuguese NK.I1513.356/NK.I1517.1CW/ NK.I151S.181
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Spanish NK.I1513.358/NK.I1517.1CY/ NK.I151S.183
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Turkish NK.I1513.35B/NK.I1517.1D1/ NK.I151S.186
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Sweden NK.I1513.359/NK.I1517.1CZ/ NK.I151S.184
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS FR/Arabic NK.I1513.34Z/NK.I1517.1CP/ NK.I151S.17U
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Nordic NK.I1513.354/NK.I1517.1CU/ NK.I151S.17Z
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS SLO/CRO NK.I1513.357/NK.I1517.1CX/ NK.I151S.182
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS CZ/SK NK.I1513.34X/NK.I1517.1CM/ NK.I151S.17S
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS Brazilian Portuguese NK.I1513.34W/ NK.I1517.1CL/NK.I151S.17R
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 104KS ALA-Spanish NK.I1513.34U/NK.I1517.1CJ/ NK.I151S.17P
	KEYBOARD ASSY BLACK BL COPILOT W/ UPPER CASE LG05P_N40BAL 107KS Japanese NK.I1513.35D

Table 1-20. FRU List (Continued)

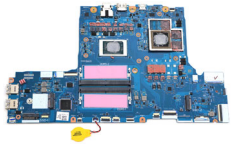
Category	Acer Description
LCD BEZEL	
	LCD BEZEL
LCD COVER	
	LCD COVER IMR BLACK 26T
	LCD COVER IMR BLACK 30T
LOWER CASE	
	LOWER CASE BLACK
MAINBOARD	
	Mainboard ANV16-61 AMD R5340 GN20-P0-R 6GB
	Mainboard ANV16-61 AMD R7350 GN20-P0-R 6GB
	Mainboard ANV16-61 AMD R5340 GN21-X2 6GB
	Mainboard ANV16-61 AMD R7350 GN21-X2 6GB
METAL	
	HINGE L+R 26T
	HINGE L+R 30T
	BRACKET CAMERA

Table 1-20. FRU List (Continued)

Category	Acer Description
POWER CORD	
	POWER CORD 1M BLACK SOUTH AFRICA -NEW
	POWER CORD 1M BLACK BLACK AUSTRALIA
	POWER CORD 1M BLACK EUROPE
	POWER CORD 1M BLACK DENMARK
	POWER CORD 1M BLACK ISRAEL
	POWER CORD 1M BLACK ITALIAN
	POWER CORD 1M BLACK JAPAN
	POWER CORD 1M BLACK CHINA
	POWER CORD 1M BLACK INDIA
	POWER CORD 1M BLACK SWISS
	POWER CORD 1M BLACK UK
	POWER CORD 1M BLACK TWN
	POWER CORD 1M BLACK ARGENTINA - NEW
	POWER CORD 1M BLACK KOREA
	POWER CORD 1M BLACK US
	POWER CORD 1M BLACK BRAZIL
SPEAKER/MICROPHONE	
	SPEAKER L+R
THERMAL	
	HEATSINK
TOUCHPAD	
	TOUCHPAD MODULE BLACK ELANTEC NC.24611.09K
	TOUCHPAD MODULE BLACK SYNAPTICS NC.24611.0BK

Table 1-20. FRU List (Continued)

Category	Acer Description
MISCELLANEOUS	
	MYLAR FAN
	GRAPHITE MEM
	ALIGNMENT MYLAR FOR EDP CABLE
	ADHESIVE HINGE 26T
	ADHESIVE HINGE 30T
	LCD ALIGNMENT MYLAR 10X5X1.3 MM
	LCD ALIGNMENT MYLAR 5X5X0.5 MM
SCREW	
	SCREW 2.5D 4.3L K 4.6D 0.8T ZK NL
	SCREW M M 2.0D 4.0L K 4.6D BNI NL
	SCREW 2D 2.3L K 7D 0.5T ZK NL
	SCREW 2.0D 2.5L K 5D 0.5T NI NL
	SCREW 2.5D 5.0L K 4.6D NI NL
	SCREW 2.5D 6L K 4.6D .8T BNI-ZN NL

Software Update

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

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.

Personal Data Removal

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**.