

E18065

First Edition / May 2021

# IN SEARCH OF INCREDIBLE



Service Manual

**ASUS**

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# Disclaimer

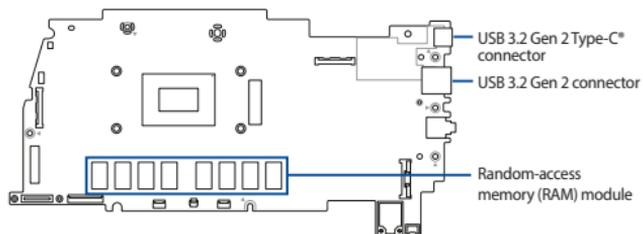
ASUS is not responsible for direct, indirect, intentional or unintentional damages resulting from improper installation and operation.

## Safety precautions

- Keep liquids or moisture away from your Notebook PC before installing or removing any components.
- Ensure to place your Notebook PC on a stable surface before installing or removing any components.
- Detach the clip or flap before removing the signal cables to prevent damage.
- Disconnect the power plug by pulling the plug evenly to avoid damage. Ensure to connect the signal cables in the correct orientation.
- Disconnect all power cables and remove the battery pack (if applicable) before cleaning your Notebook PC with liquid detergent to avoid risk of electric shock.
- Disconnect all power cables and remove the battery pack (if applicable) before installing or removing any components. Ensure to read and follow the instructions in the manual.

- Before handling components, use a grounded wrist strap or touch a safely grounded object to avoid damaging them due to static electricity.
- Keep liquids or moisture away from your Notebook PC to avoid short circuits.
- Hold components by the edges to avoid touching the ICs.
- Ensure to properly install all the components before connecting the AC power.
- Do not use power adapters or batteries from other devices to reduce the risk of injury to persons due to fire or explosion. Use only certified power adapters or batteries supplied by the manufacturer or authorized retailers.
- Ensure to install the correct screw models on your Notebook PC to prevent damage.

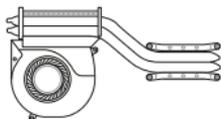
# Major components



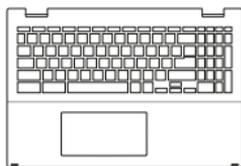
**Motherboard with ports and connectors**



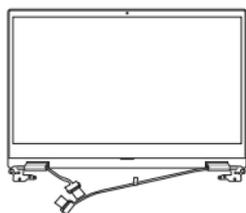
**M.2 SSD module**



**Fan module and cooling radiator**



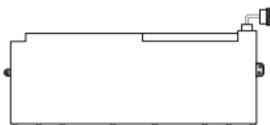
**Keyboard**



**LCD panel module**



**Power adapter**



**Battery and power connector**

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**NOTE:**

- The illustrations are for reference only.
  - The maintenance procedures described in this manual depend on the model configuration and may not reflect the entire servicing process. For servicing those components that are not covered in this manual, please visit an authorized service center for further assistance.
- 

## Installation tools



**Screwdriver**



**Plastic blade**



**Tweezers**

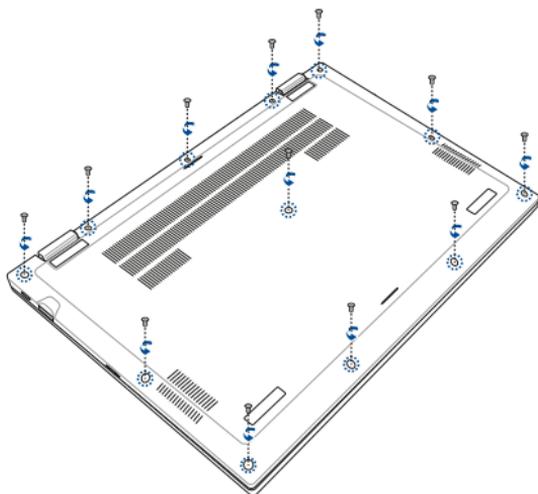
# Removing the compartment cover

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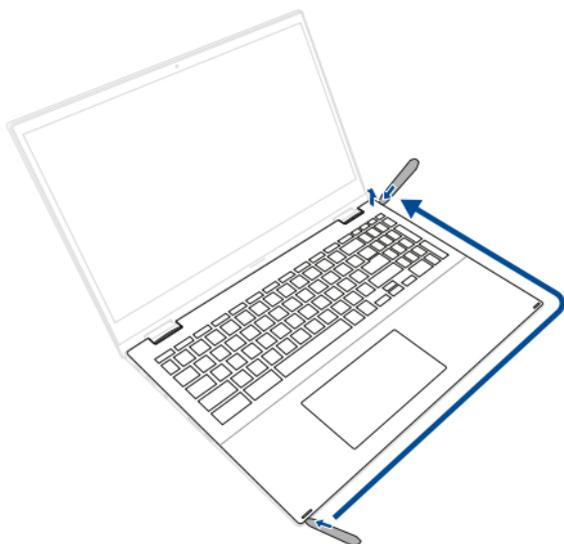
**NOTE:** The appearance of your Notebook PC's bottom view may vary per model.

---

- A. Remove the screw(s) from the Notebook PC's compartment cover.



- B. Place your Notebook PC in the orientation as shown in the illustration below.
- C. Use the plastic blade to pry open the indicated area of the keyboard assembly as shown in the illustration below.

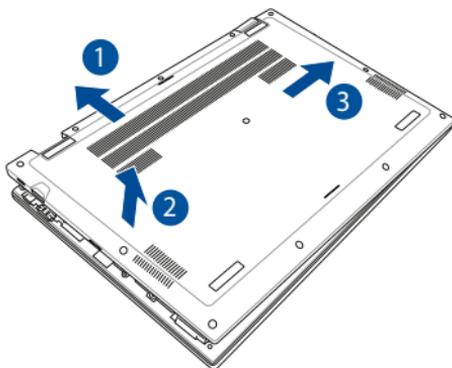


---

**IMPORTANT!** Avoid sliding the plastic blade along the side of your Notebook PC to prevent damage.

---

- D. Push and pull up the compartment cover to release the rear side. Then lift the left side of the cover to release it from the I/O ports. Remove the compartment cover and place it on the surface.

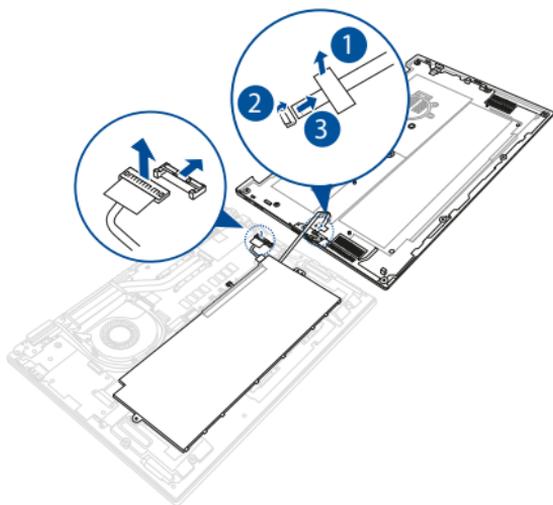


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**IMPORTANT!** Cables are connected. Avoid damaging the cable connectors when removing the compartment cover.

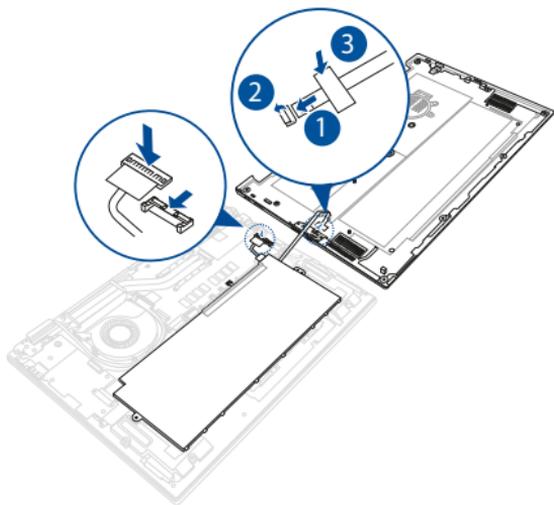
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- E. Locate and disconnect the cable(s) as shown in the illustration below.

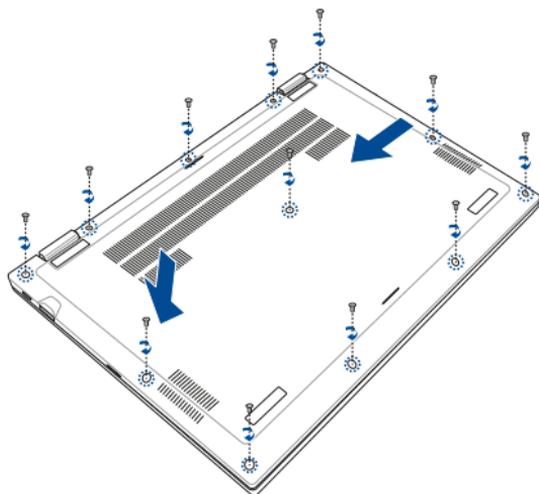


To reattach the compartment cover:

- A. Reconnect all the cable(s) as shown in the illustration below.



- B. Align and reattach the compartment cover.
- C. Secure the compartment cover using the screw(s) you removed earlier.



# Disconnecting the battery

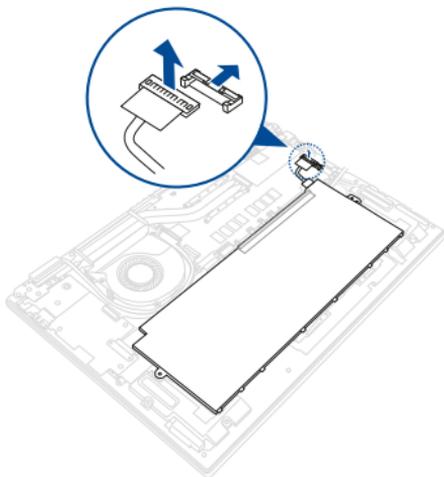
- A. Remove the compartment cover.

---

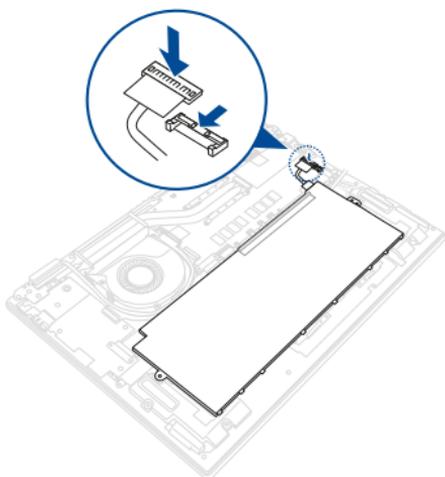
**NOTE:** For more details, refer to the *Removing the compartment cover* section in this manual.

---

- B. Locate and disconnect the battery power cable(s) as shown in the illustration below.



To connect the battery, align and connect the cable to the battery connector before you reattach the compartment cover.



# Replacing the battery

Refer to the following steps when installing a compatible battery in your Notebook PC:

---

**IMPORTANT!** Purchase your battery from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

---

**WARNING!** Disconnect all the connected peripherals, any telephone or telecommunication lines and power connector (such as external power supply, battery pack, etc.) before removing the compartment cover.

---

**NOTE:**

- The appearance of your Notebook PC's bottom view and battery may vary per model but the module installation remains the same.
  - It is recommended that you install the battery under professional supervision. You may also visit an authorized service center for further assistance.
-

- A. Remove the compartment cover and disconnect the battery.

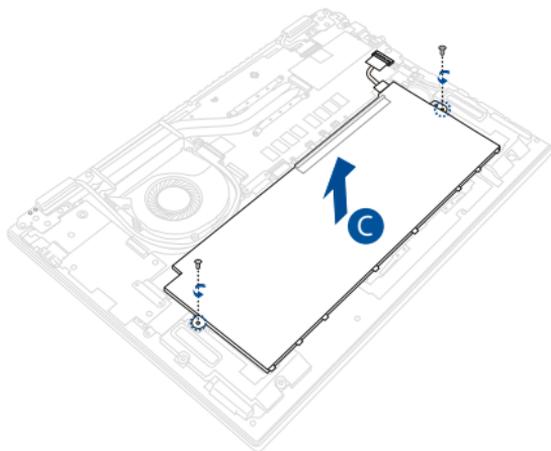
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**NOTE:** For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

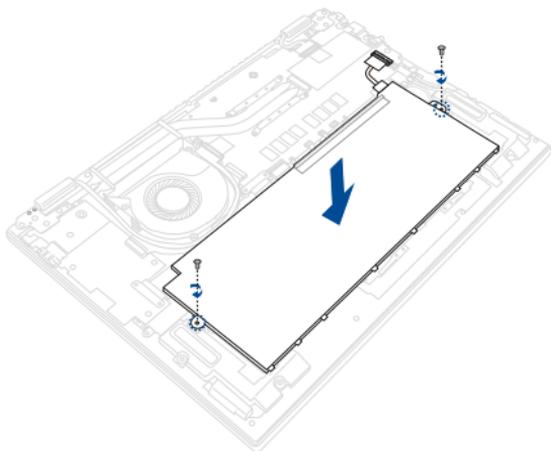
---

- B. Remove the screw(s) from the battery.

- C. Remove the battery.



- D. Prepare the new battery.
- E. Reinstall the battery.
- F. Secure the battery using the screw(s) you removed earlier.



## Replacing the M.2 SSD module

Refer to the following steps when installing a compatible M.2 SSD module in your Notebook PC:

---

**IMPORTANT!** Purchase your M.2 SSD module from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

---

---

**WARNING!** Disconnect all the connected peripherals, any telephone or telecommunication lines and power connector (such as external power supply, battery pack, etc.) before removing the compartment cover.

---

**NOTE:**

- The appearance of your Notebook PC's bottom view and M.2 SSD module may vary per model but the module installation remains the same.
  - It is recommended that you install the M.2 SSD module under professional supervision. You may also visit an authorized service center for further assistance.
-

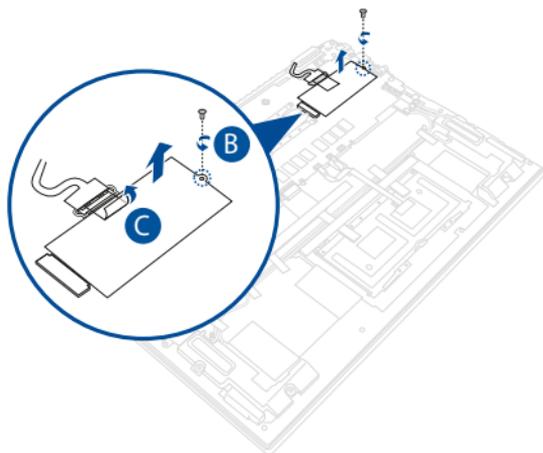
- A. Remove the compartment cover and disconnect the battery.

---

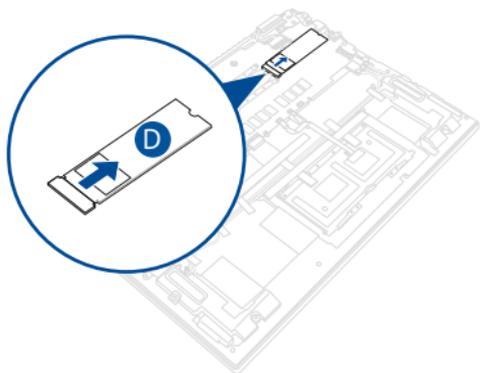
**NOTE:** For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

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- B. Remove the screw(s) from the M.2 SSD module.
- C. Detach the eDP mylar and remove the AL FOIL Mylar.

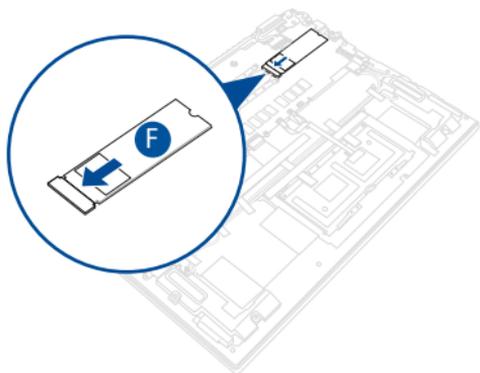


- D. Remove the M.2 SSD module from the motherboard.

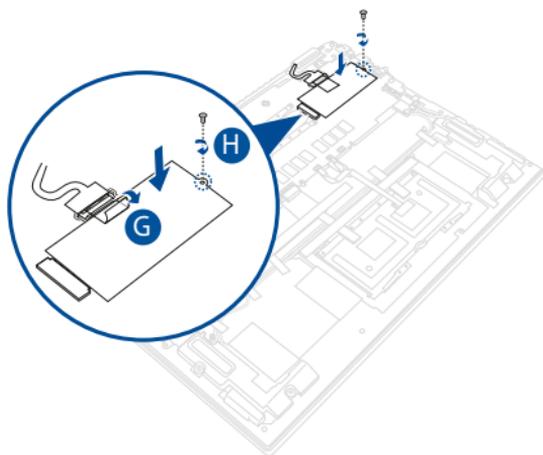


- E. Prepare the new M.2 SSD module.

- F. Align and insert the M.2 SSD module into the M.2 connector on the motherboard.



- G. Place the AL FOIL Mylar on top of the M.2 SSD module. Then attach the eDP mylar.
- H. Secure the M.2 SSD module in place using the screw(s) you removed earlier.



## Replacing the LCD module

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**IMPORTANT!** Do not bend the LCD panel in any ways to avoid risk of LCD panel leakage.

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**NOTE:** The illustrations are for reference only.

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- A. Remove the compartment cover and disconnect the battery.
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**NOTE:** For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

---

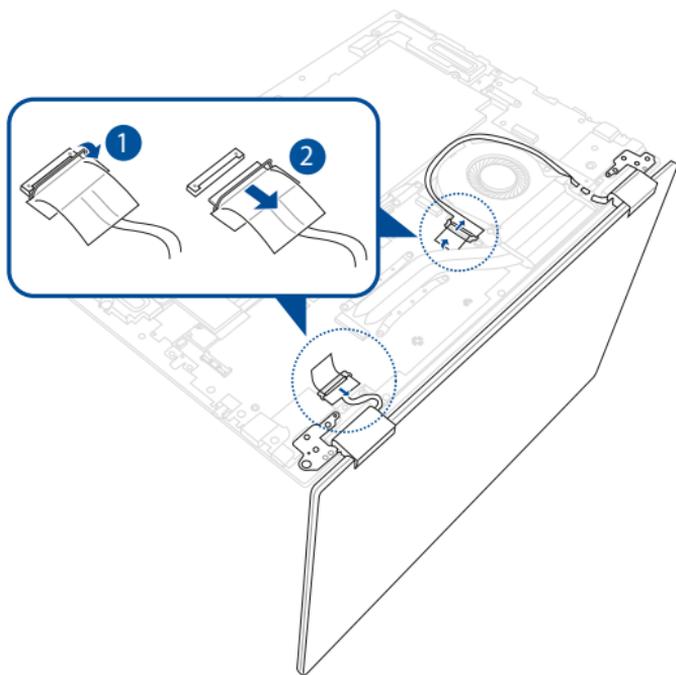
- B. Place your Notebook PC in the orientation as shown in the illustration below.
- C. Remove the M.2 SSD module.

---

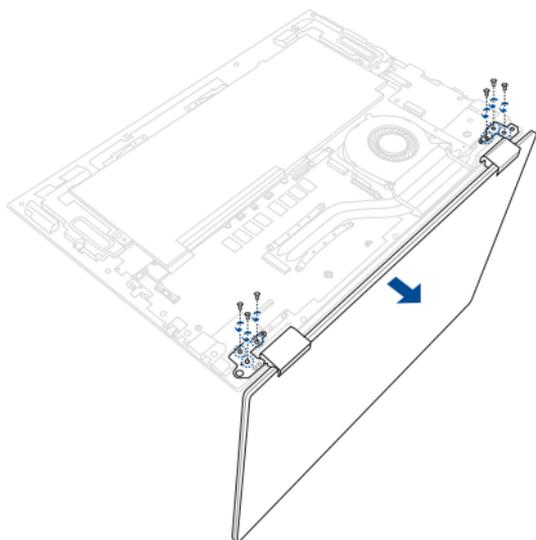
**NOTE:** For more details, refer to steps A to D in the *Replacing the M.2 SSD module* section in this manual.

---

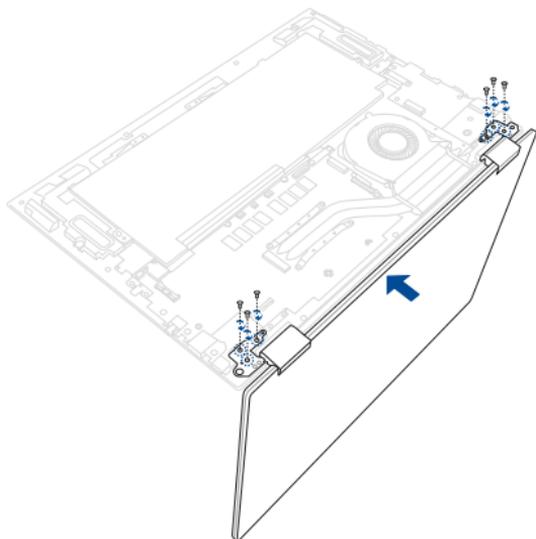
- D. Locate and disconnect all the cable(s) as shown in the illustration below.



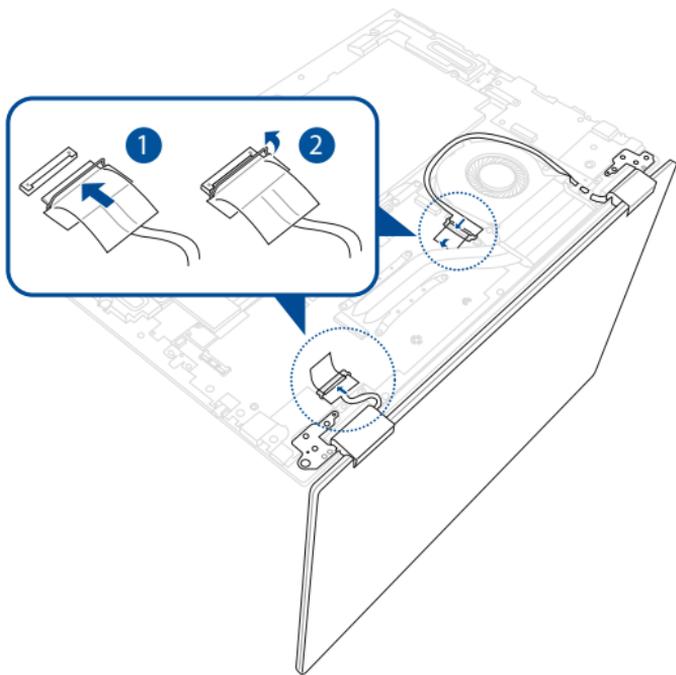
- E. Remove the screw(s) from the hinges, and then remove the LCD panel module.



- F. Prepare the new LCD panel module.
- G. In the orientation shown, align and place the hinges of the display module on the screw holes on the chassis.
- H. Secure the LCD panel module using the screw(s) you removed earlier.



- I. Reconnect all the cable(s) as shown in the illustration below.



- J. Install the M.2 SSD module.

---

**NOTE:** For more details, refer to steps E to H in the *Replacing the M.2 SSD module* section in this manual.

---

# Replacing the motherboard

Refer to the following steps when installing the motherboard to your Notebook PC:

---

**IMPORTANT!** Purchase your motherboard from authorized retailers of this Notebook PC to ensure maximum compatibility and reliability.

---

**WARNING!** Disconnect all the connected peripherals, any telephone or telecommunication lines and power connector (such as external power supply, battery pack, etc.) before removing the compartment cover.

---

**NOTE:**

- The appearance of your Notebook PC's bottom view and motherboard may vary per model but the module installation remains the same.
  - It is recommended that you install the motherboard under professional supervision. You may also visit an authorized service center for further assistance.
-

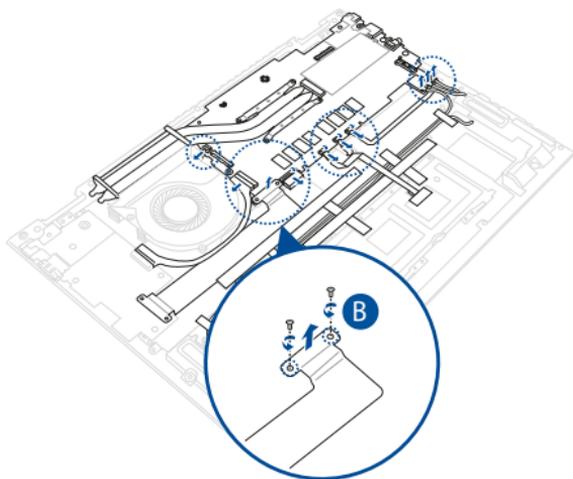
- A. Remove the compartment cover and disconnect the battery.

---

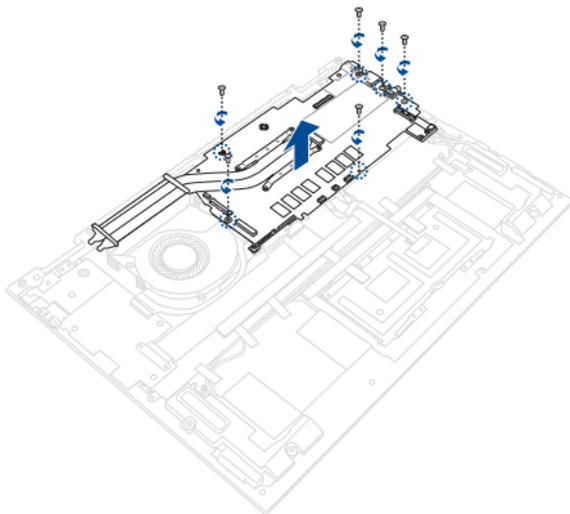
**NOTE:** For more details, refer to the *Removing the compartment cover* and *Disconnecting the battery* sections in this manual.

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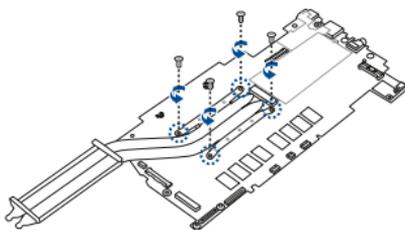
- B. Remove the screw(s) securing the I/O FPC.
- C. Locate and disconnect all the cable(s) as shown in the illustration below.



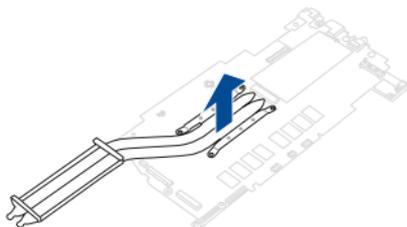
- D. Remove the screw(s) from the motherboard and then remove the motherboard from the chassis.



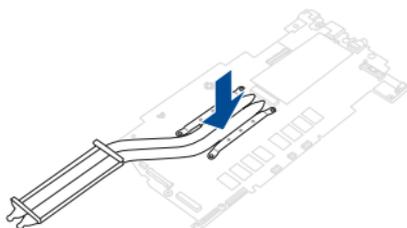
- E. Remove the screw(s) from the cooling radiator.



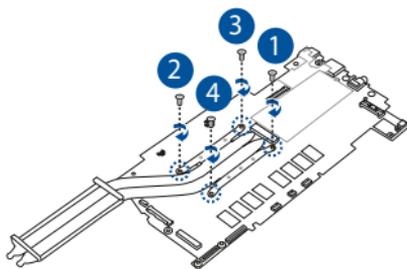
- F. Remove the cooling radiator from the motherboard.



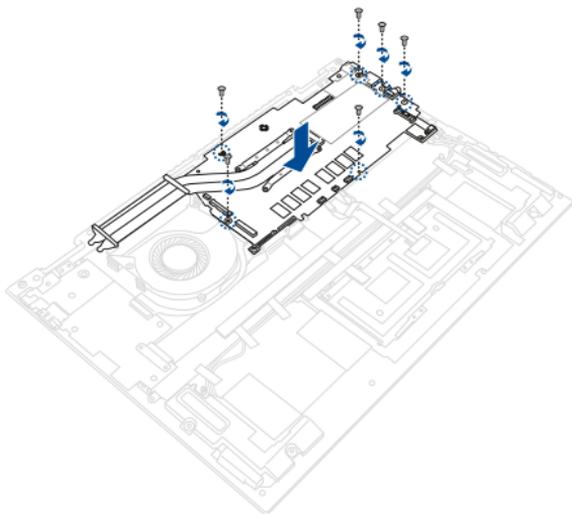
- G. Prepare the new motherboard.  
H. Align and replace the cooling radiator on the screw holes of the motherboard.



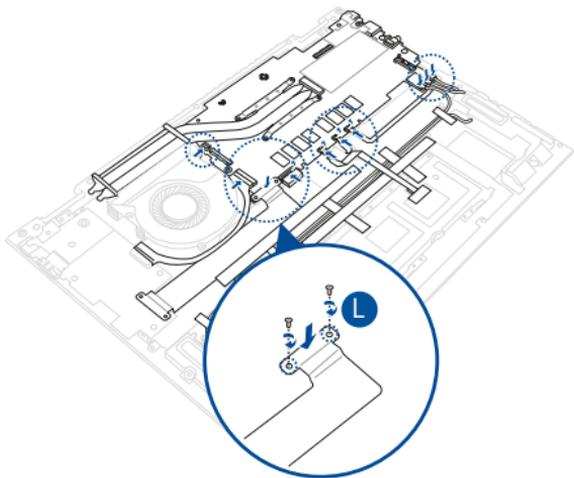
- I. Secure the screw(s) one by one in the sequence shown in the illustration below.



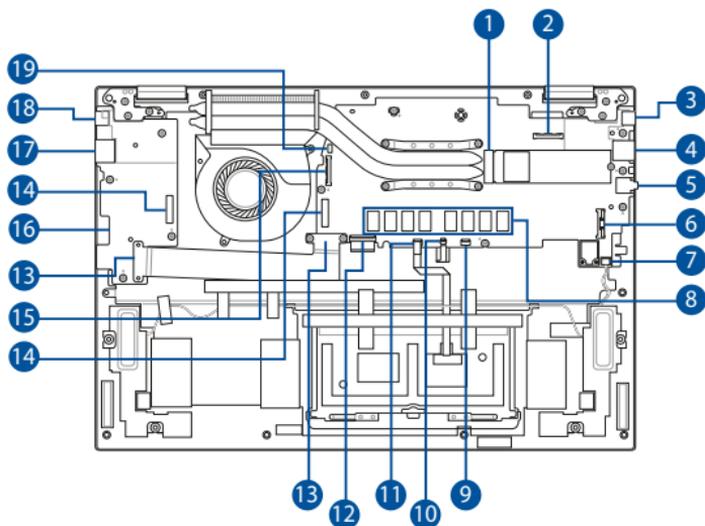
- J. Align and place the motherboard back in the chassis and secure with the screw(s) you removed earlier.



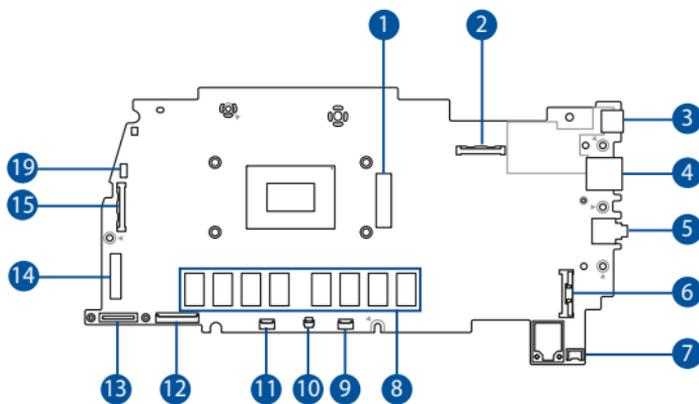
- K. Locate and reconnect all the connector(s).
- L. Secure the I/O FPC in place using the screw(s) you removed earlier.



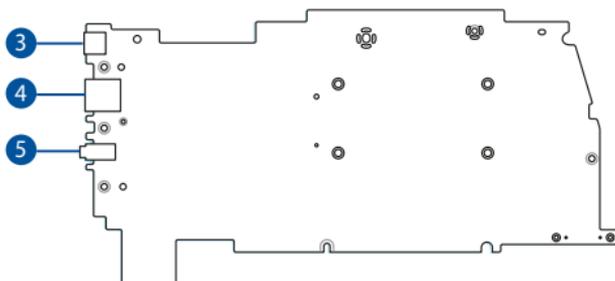
# Wiring and connection diagrams



## Top View



## Bottom View



- |                                      |                                     |
|--------------------------------------|-------------------------------------|
| 1. M.2 SSD connector                 | 10. Keyboard backlight connector    |
| 2. eDP connector                     | 11. Touchpad connector              |
| 3. USB 3.2 Gen 2 Type-C® connector   | 12. Keyboard connector              |
| 4. USB 3.2 Gen 2 connector           | 13. I/O FPC connector               |
| 5. Headphone/Headset/Microphone jack | 14. I/O cable connector             |
| 6. Battery power connector           | 15. Webcam / Touchscreen connector  |
| 7. Speaker connector                 | 16. MicroSD card connector          |
| 8. Random-access memory (RAM) module | 17. HDMI connector                  |
| 9. Volume / Power Button connector   | 18. USB 3.2 Gen 2 Type-C® connector |
|                                      | 19. Fan connector                   |