

E25727

Revised Edition V2 / December 2024

# IN SEARCH OF INCREDIBLE

NUC14MNB / NUC14MNK

Service Manual



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Visit our multi-language website at <https://www.asus.com/support/>.

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# ***Chapter 1:***

## ***Introduction***

## Disclaimer

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

## Safety precautions

- 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 NUC system to avoid short circuits.
- Remove rings, watches, and any other metal objects from your hands.
- Hold components by the edges to avoid touching the ICs.
- Properly install all 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.
- Detach all clips or flaps before removing cables to prevent damage.
- Disconnect cables, connectors, and power plugs by pulling the plug evenly to avoid damage.
- Use screws with the correct specifications on your NUC system to prevent damage.
- Confirm that the cable orientation is correct before connecting any cables.
- Photograph the appearance of cables, cable routing, connectors, and screws for later reference before proceeding with each step.

## Pre-repair checklist

1. Read the entire manual before starting any service procedures and follow all instructions.
2. Back up your NUC system.
3. Turn off your NUC system.
4. Place your NUC system on a stable surface.
5. Disconnect all connected peripherals and cables.

---

### **IMPORTANT!**

- Purchase replacement components from an authorized retailer of this NUC system to ensure maximum compatibility and reliability.
  - Refer to <https://www.asus.com> for a list of compatible components.
- 

### **NOTE:**

- The illustrations are for reference only.
  - Product and component images are for illustrative purposes only. The actual appearance and specifications may vary depending on the model.
  - The procedures described in this manual may vary depending on the model configuration and may not reflect the entire servicing process. To service components that are not covered in this manual, please visit an authorized service center for assistance.
  - Keep all adhesive tape, insulating materials, screws, and other removable items in a safe place until the service procedure is completed, as they may be needed during installation.
-

## Diagnostics tool

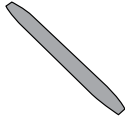
Run system diagnosis in MyASUS after replacing any components to ensure that all components are working properly.

For more information, visit <https://www.asus.com/support/myasus-deeplink/>.

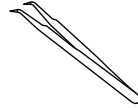
## Repair tools



**Screwdriver**



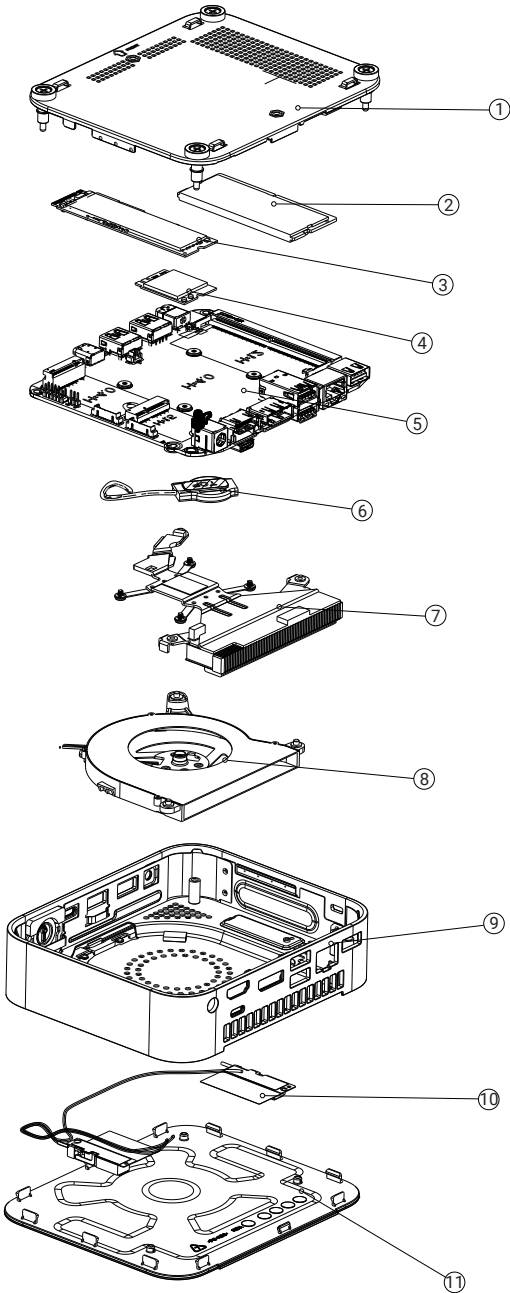
**Plastic blade**



**Tweezers**

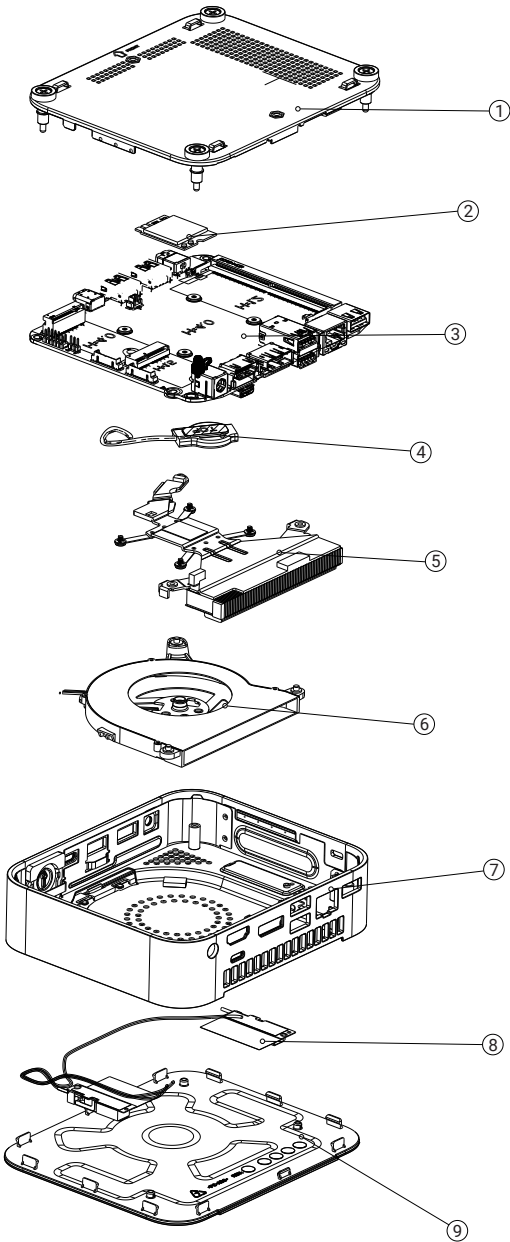


# Major components (NUC14MNK)



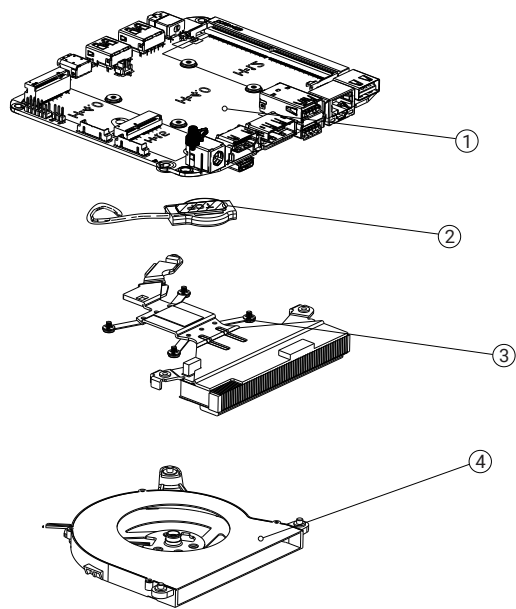
- 1. Bottom cover
- 2. Memory module
- 3. M.2 SSD
- 4. Wireless card
- 5. Motherboard
- 6. Battery
- 7. Heatsink
- 8. Fan module
- 9. Top cover assembly
- 10. Wi-Fi module
- 11. Top cover

# Major components (NUC14MNK-B)



- 1. Bottom cover
- 2. Wireless card
- 3. Motherboard
- 4. Battery
- 5. Heatsink
- 6. Fan module
- 7. Top cover assembly
- 8. Wi-Fi module
- 9. Top cover

# Major components (NUC14MNB)



1. Motherboard  
2. Battery

3. Heatsink  
4. Fan module



## ***Chapter 2:***

## ***Service Procedures***

# Bottom cover

## Before you begin

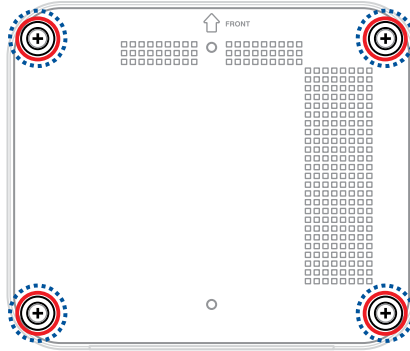
Read the **Safety Precautions** and complete the **Pre-repair Checklist**.

## Screw list

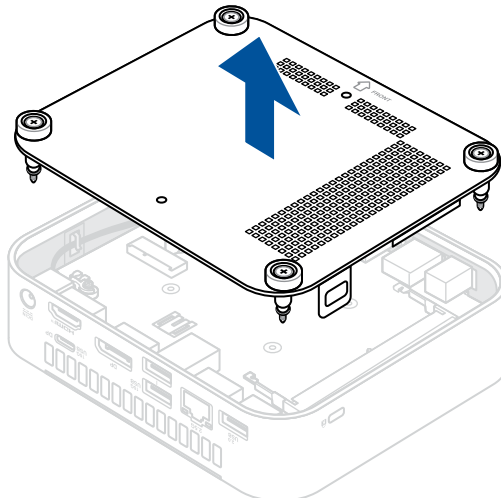
- ⊕ Bottom cover captive screws (4 pc)

## Removal

1. Place the NUC system on a flat stable surface with its top side facing down.
2. Completely loosen the four (4) screws securing the bottom cover.



3. Lift and remove the bottom cover.



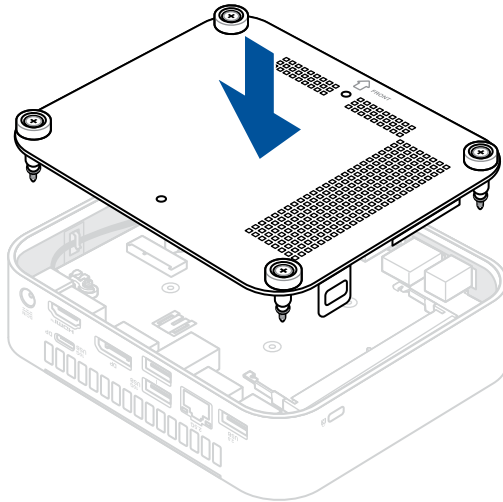
## Installation

1. Align and place the bottom cover onto the system

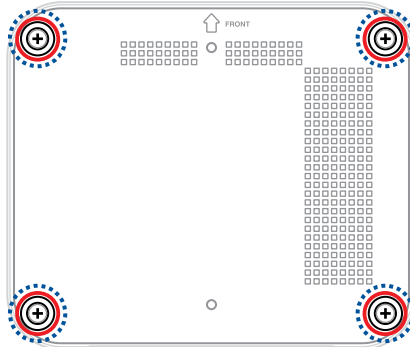
---

**NOTE:** Ensure the FRONT indication on the bottom cover is aligned to the front of the system.

---



2. Secure the bottom cover to the system by tightening the four (4) screws.



# Memory module

**IMPORTANT!** You can only install a DDR5 SO-DIMM to the NUC system's DIMM slot.

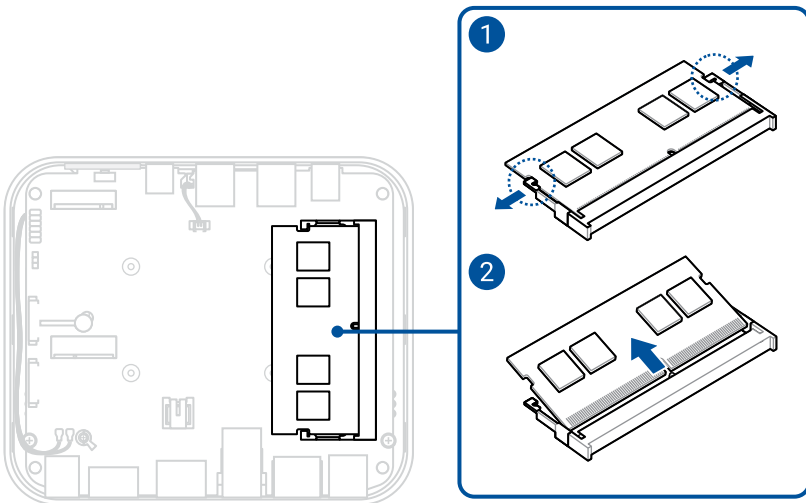
**NOTE:** We recommend that you install the memory module under professional supervision. You may also visit an authorized service center for further assistance.

## Before you begin

1. Read the **Safety Precautions** and complete the **Pre-repair Checklist**.
2. Remove the following component(s):
  - Bottom cover

## Removal

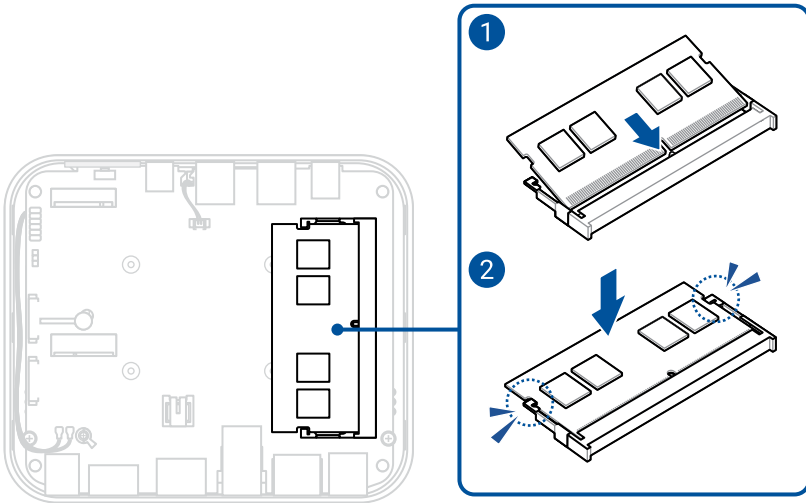
1. Simultaneously push the two retaining clips on the memory module slot outward.
2. Remove the module from the slot.





## Installation

1. Align and insert the memory module into the slot.
2. Press down until it clicks and is securely seated in place.



3. Install the component(s) you removed in **Before you begin**.

## M.2 SSD

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**IMPORTANT!** Thermal paste, thermal pads, liquid metal, or other thermal interface materials must be thoroughly removed and replaced if this component is removed. Ensure that replacement materials are available before proceeding, or contact an authorized service center for assistance.

---

### Before you begin

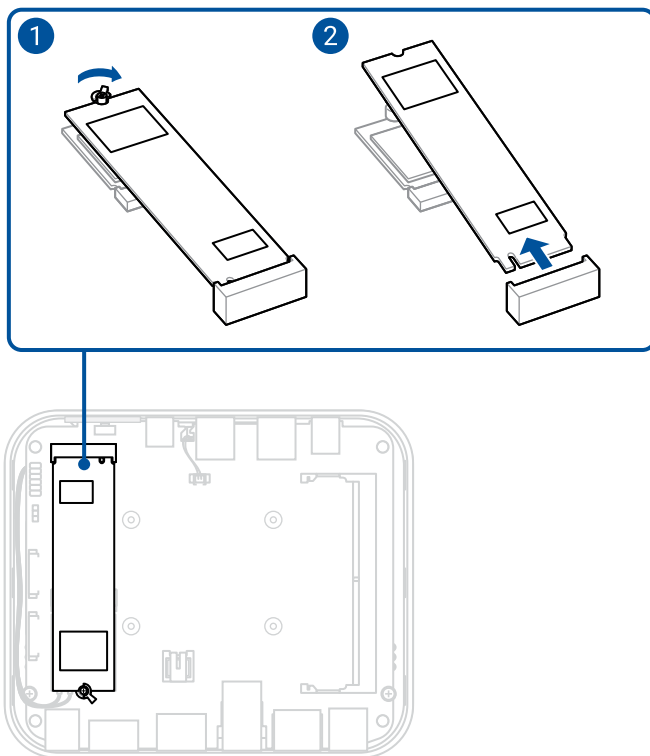
1. Read the **Safety Precautions** and complete the **Pre-repair Checklist**.
2. Remove the following component(s):
  - Bottom cover

### Screw list

- ⊕ Q-latch standoff screw (1 pc)
- ⊕ M2 X 2.5L screw (1 pc)

## Removal (2280)

1. Rotate the Q-Latch clockwise to release the M.2 module.
2. Remove the M.2 module from the M.2 slot



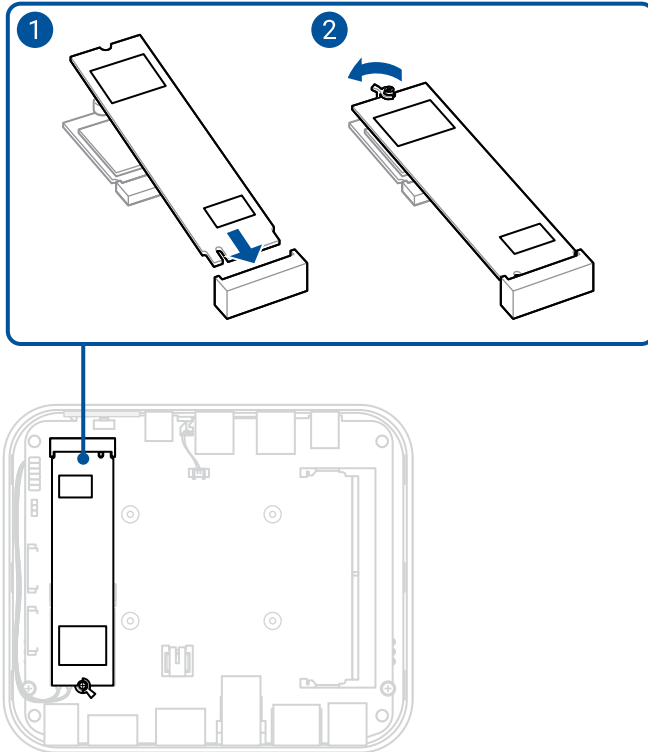
## Installation (2280)

1. Insert the M.2 module into the M.2 slot on the system board.
2. Rotate the Q-Latch counterclockwise to secure the M.2 module in place.

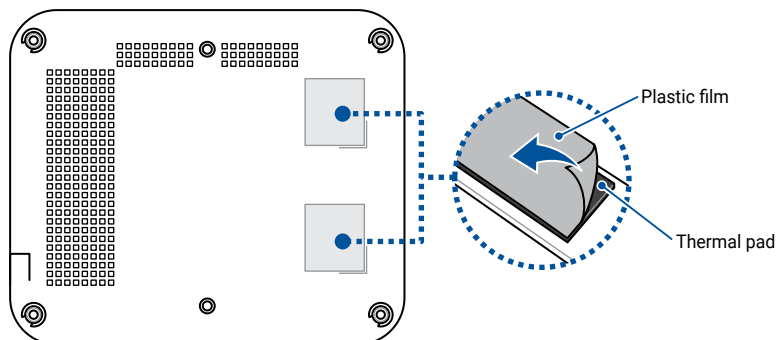
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**NOTE:** The Q-latch and latch screw is installed to the 2280 length position screw stand by default.

---



3. Before replacing the bottom cover, ensure to remove the plastic film on the thermal pad(s), if they exist.



---

**NOTE:**

- The specifications for the thermal pad(s) used here are as follows:  
Thickness: 3.4mm  
Size: 22mm x 19mm  
Thermal conductivity: 2.0 W/mK  
Hardness: 30±5 shore 00
  - To replace the thermal pad yourself, check with an ASUS Service Partner near you ([www.asus.com/support](http://www.asus.com/support)) for the availability of replacement thermal pads.
  - The availability of replacement parts may vary depending on the country.
- 

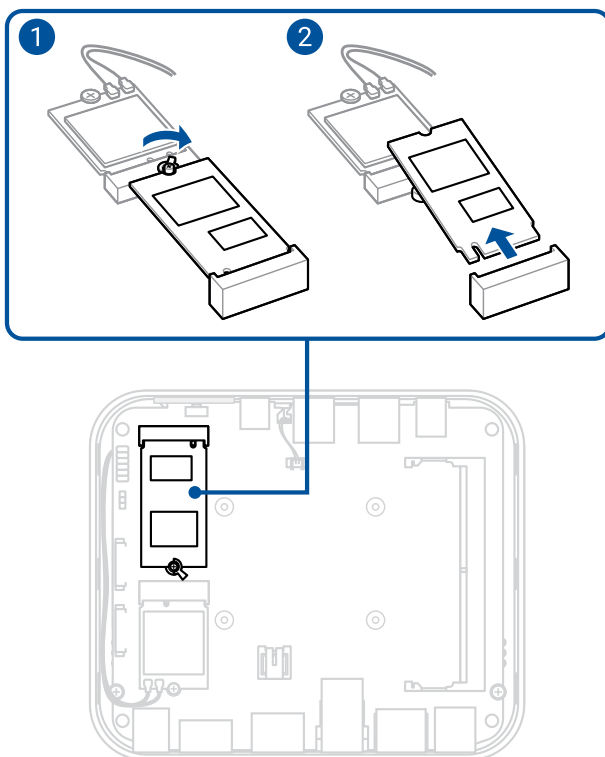
**WARNING!** Heat dissipation performance may still vary even when you have replaced the thermal pad with one that meets the specifications provided. To prevent potential damage to the M.2 SSD, you should have the thermal pad replaced by a service center near you.

---

4. Install the component(s) you removed in **Before you begin**.

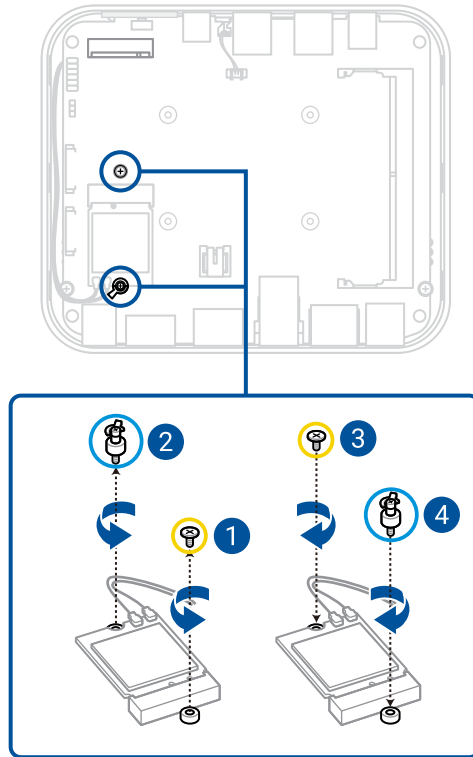
## Removal (2242)

1. Rotate the Q-Latch clockwise to release the M.2 module.
2. Remove the M.2 module from the M.2 slot.

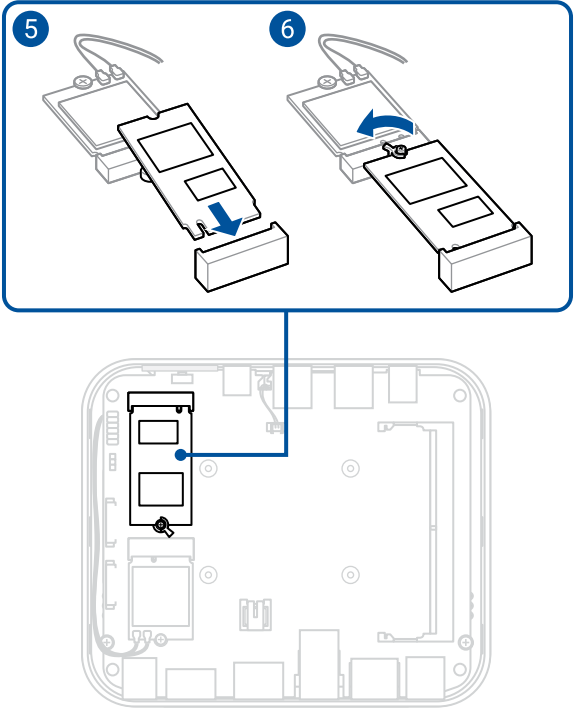


## Installation (2242)

1. Remove the screw from the 2242 length position screw stand.
2. Remove the Q-latch standoff screw from the 2280 length position screw stand.
3. Install the screw removed in step 1 to the 2280 length position screw stand.
4. Install the Q-latch standoff screw removed in step 2 to the 2242 length position screw stand.

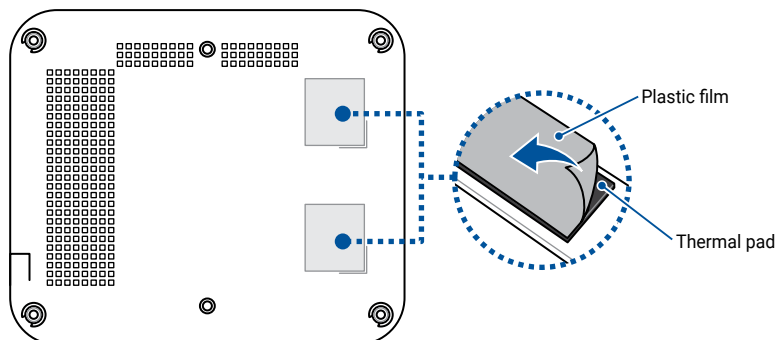


- 5. Insert the M.2 module into the M.2 slot on the system board.
- 6. Rotate the Q-Latch counterclockwise to secure the M.2 module in place.





7. Before replacing the bottom cover, ensure to remove the plastic film on the thermal pad(s), if they exist.



---

**NOTE:**

- The specifications for the thermal pad(s) used here are as follows:  
Thickness: 3.4mm  
Size: 22mm x 19mm  
Thermal conductivity: 2.0 W/mK  
Hardness: 30±5 shore 00
  - To replace the thermal pad yourself, check with an ASUS Service Partner near you ([www.asus.com/support](http://www.asus.com/support)) for the availability of replacement thermal pads.
  - The availability of replacement parts may vary depending on the country.
- 

**WARNING!** Heat dissipation performance may still vary even when you have replaced the thermal pad with one that meets the specifications provided. To prevent potential damage to the M.2 SSD, you should have the thermal pad replaced by a service center near you.

---

8. Install the component(s) you removed in **Before you begin**.

# Wireless card

## Before you begin

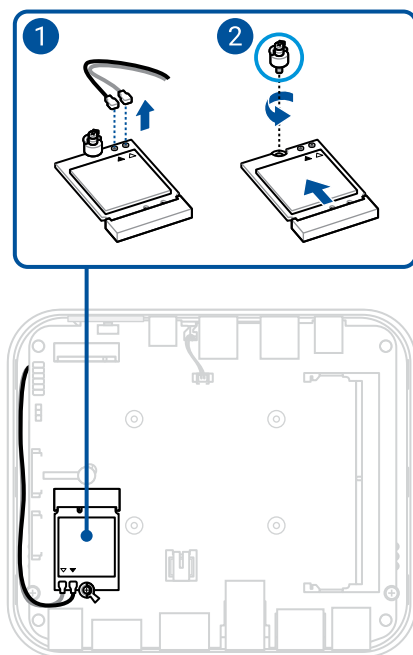
1. Read the **Safety Precautions** and complete the **Pre-repair Checklist**.
2. Remove the following component(s):
  - Bottom cover
  - M.2 SSD

## Screw list

- ⊕ Q-latch standoff screw (1 pc)

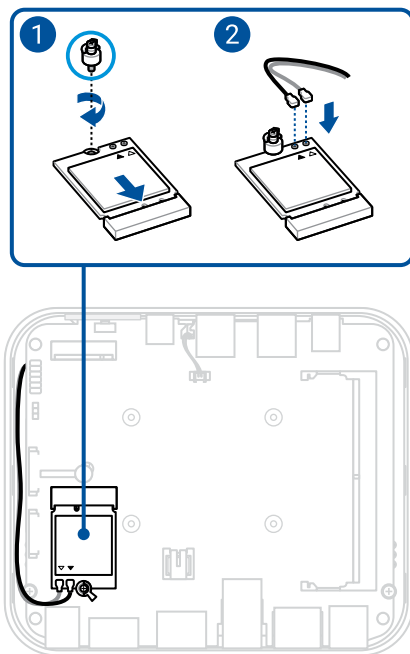
## Removal

1. Disconnect the antenna cables from the wireless card.
2. Remove the Q-latch standoff screw, then remove the wireless card.



## Installation

1. Install the wireless card, then secure it using the Q-latch standoff screw.
2. Connect the antenna cables to the wireless card.



3. Install the component(s) you removed in **Before you begin**.

# Motherboard

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**IMPORTANT!** Thermal paste, thermal pads, liquid metal, or other thermal interface materials must be thoroughly removed and replaced if this component is removed. Ensure that replacement materials are available before proceeding, or contact an authorized service center for assistance.

---

## Before you begin

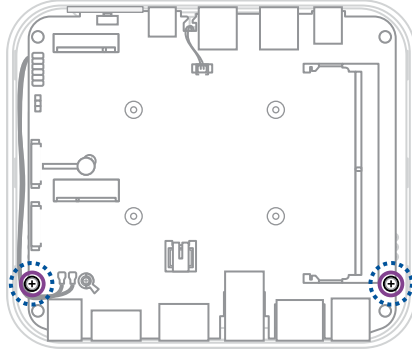
1. Read the **Safety Precautions** and complete the **Pre-repair Checklist**.
2. Remove the following component(s):
  - Bottom cover
  - Memory module
  - M.2 SSD
  - Wireless card

## Screw list

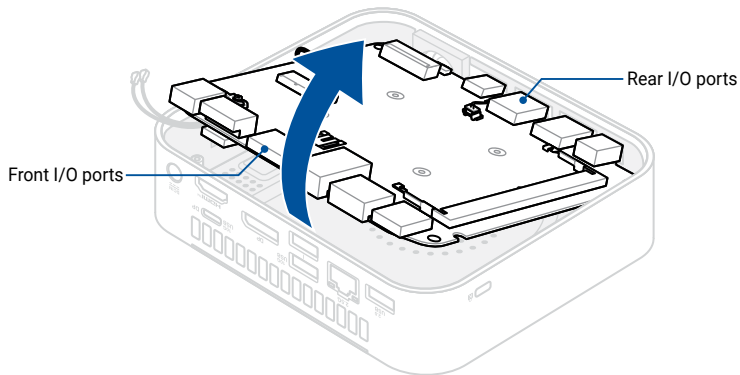
- ⊕ M2.5 X 4L (2 pcs)
- ⊕ Fan captive screws (3 pcs)
- ⊕ Heatsink captive screws (4 pcs)

## Removal

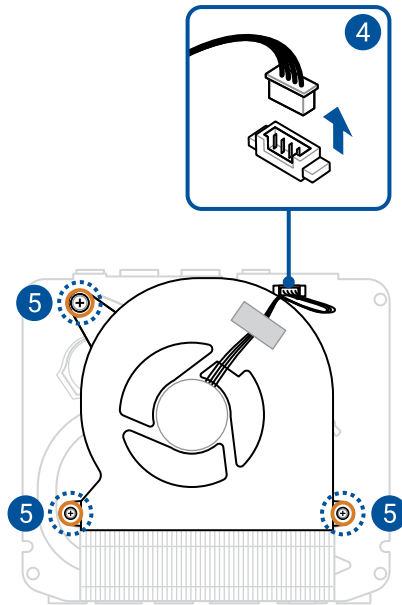
1. Remove two (2) screws from the motherboard.



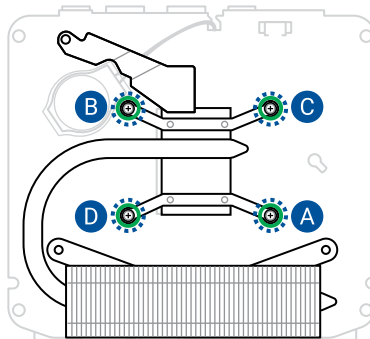
2. Remove the motherboard by first lifting the side with the front I/O ports upwards, then sliding the side with the rear I/O ports out of the chassis.



3. Flip the motherboard over so that the fan module is visible.
4. Disconnect the fan cable from the motherboard.
5. Completely loosen the three (3) fan screws, then lift and remove the fan module.



6. Completely loosen the four (4) heatsink screws in the sequence shown in the illustration, then lift and remove the heatsink.

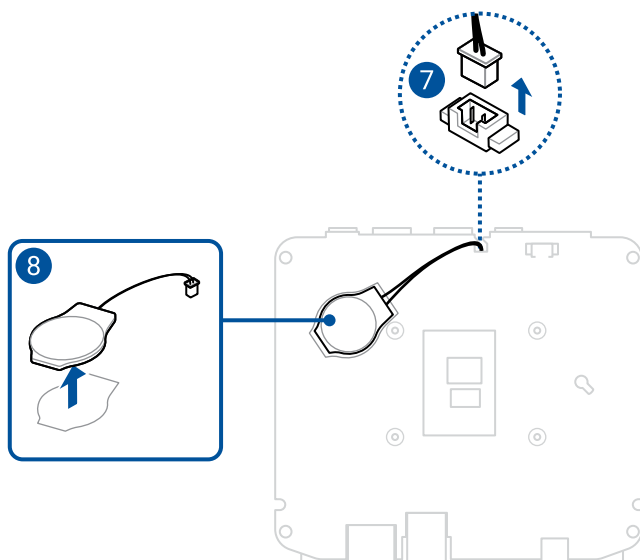


7. Disconnect the battery cable from battery connector on the flip side of the motherboard.
8. Carefully remove the CMOS battery.

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**IMPORTANT!** When removing the battery, be careful not to damage the motherboard or the CMOS battery, which is taped to the motherboard.

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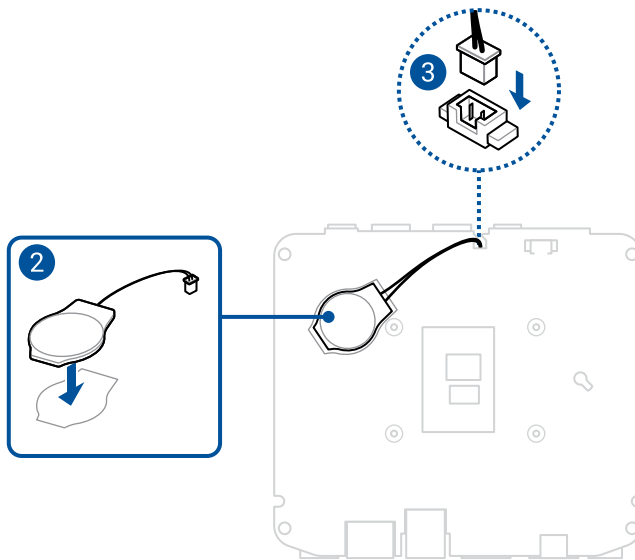


## Installation

**WARNING!** To prevent potential damage to the CPU, you should have the CPU fan module and heatsink replaced by a service center near you.

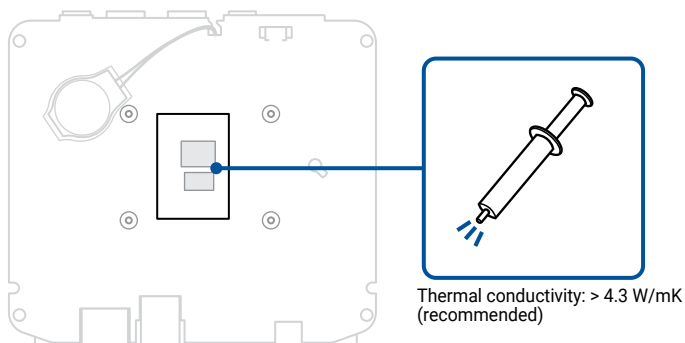
**IMPORTANT!** Thermal paste, thermal pads, liquid metal, or other thermal interface materials must be thoroughly removed and replaced if this component is removed. Ensure that replacement materials are available before proceeding, or contact an authorized service center for assistance.

1. Remove the release liner on the battery, if one exists.
2. Align the battery as shown, and then affix it within the designated area outlined on the motherboard.
3. Connect the cable from the battery to the battery connector on the flip side of the motherboard.





4. Prepare the motherboard by wiping the CPU surface clean with a clean cloth. Apply several drops of TIM to the exposed area of the CPU that will be in contact with the heatsink. Ensure that it is spread in an even thin layer.



---

**WARNING!** The TIM is toxic and inedible. DO NOT eat it. If it gets into your eyes or touches your skin, wash it off immediately, and seek professional medical help.

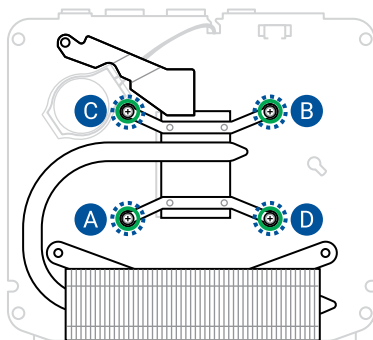
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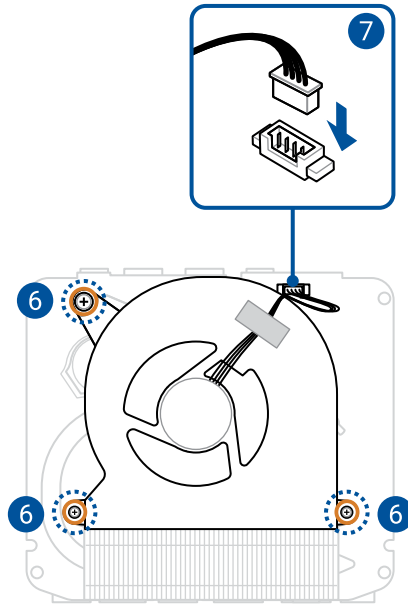
**IMPORTANT!** To prevent contaminating the TIM, DO NOT spread it with your finger.

---

5. Align and place the heatsink as shown, and secure it to the motherboard by tightening the screw(s) one by one in the sequence shown in the illustration.



6. Align and place the fan module as shown then secure the fan by tightening the three (3) screws.
7. Connect the cable from the fan module to the fan connector on the motherboard.

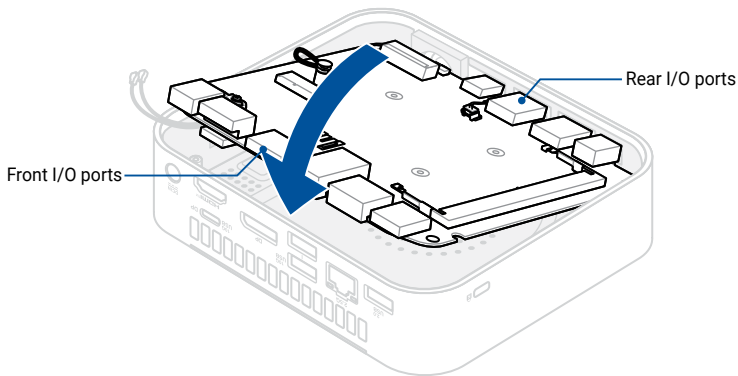


8. Place the motherboard into the inner bracket by sliding the rear I/O ports of the motherboard into the chassis first, then pushing the front I/O ports side downwards.

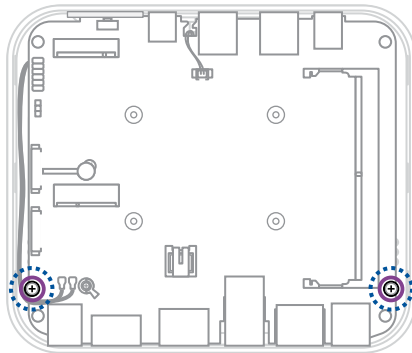
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**NOTE:**

- Make sure the motherboard is installed into the inner chassis with the fan module facing down.
  - Make sure the antenna cables are threaded along the side of the inner bracket and easily accessible even after the motherboard has been placed into the inner bracket.
- 



9. Secure the motherboard using two (2) screws.



10. Install the component(s) you removed in **Before you begin**.

# Fan module

---

**IMPORTANT!** Thermal paste, thermal pads, liquid metal, or other thermal interface materials must be thoroughly removed and replaced if this component is removed. Ensure that replacement materials are available before proceeding, or contact an authorized service center for assistance.

---

## Before you begin

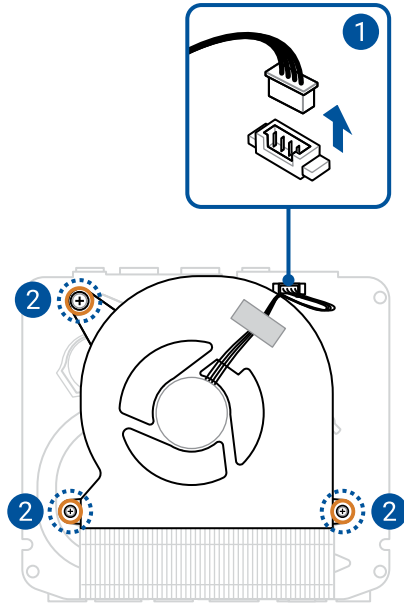
1. Read the **Safety Precautions** and complete the **Pre-repair Checklist**.
2. Remove the following component(s):
  - Bottom cover
  - Memory module
  - M.2 SSD
  - Wireless card
  - Motherboard

## Screw list

- ⊕ Fan captive screws (3 pcs)

## Removal

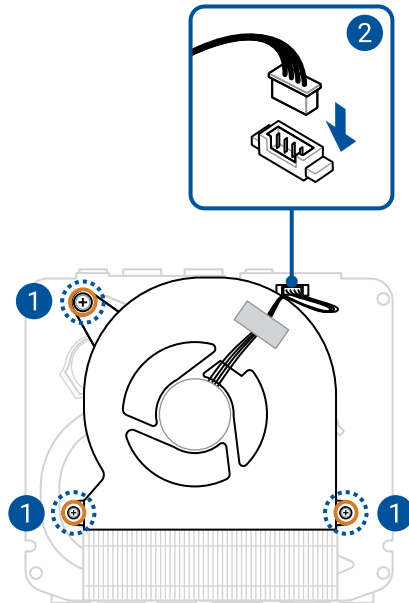
1. Disconnect the fan cable from the motherboard.
2. Completely loosen the three (3) fan screws, then lift and remove the fan module.



## Installation

**WARNING!** To prevent potential damage to the CPU, you should have the CPU fan module and heatsink replaced by a service center near you.

1. Align and place the fan module as shown then secure the fan by tightening the three (3) screws.
2. Connect the cable from the fan module to the fan connector on the motherboard.



3. Install the component(s) you removed in **Before you begin**.

# Heatsink

**IMPORTANT!** Thermal paste, thermal pads, liquid metal, or other thermal interface materials must be thoroughly removed and replaced if this component is removed. Ensure that replacement materials are available before proceeding, or contact an authorized service center for assistance.

## Before you begin

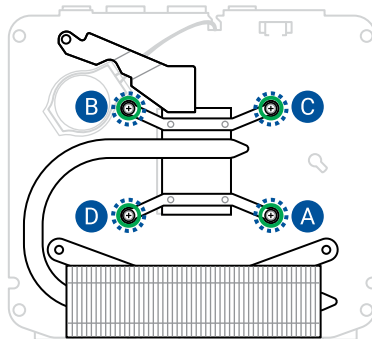
1. Read the **Safety Precautions** and complete the **Pre-repair Checklist**.
2. Remove the following component(s):
  - Bottom cover
  - Memory module
  - M.2 SSD
  - Wireless card
  - Motherboard
  - Fan module

## Screw list

- ⊕ Heatsink captive screws (4 pcs)

## Removal

1. Completely loosen the four (4) heatsink screws in the sequence shown in the illustration, then lift and remove the heatsink.



## Installation

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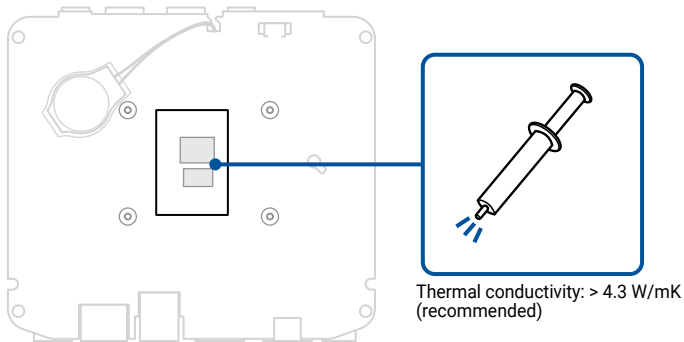
**WARNING!** To prevent potential damage to the CPU, you should have the CPU fan module and heatsink replaced by a service center near you.

---

**IMPORTANT!** Thermal paste, thermal pads, liquid metal, or other thermal interface materials must be thoroughly removed and replaced if this component is removed. Ensure that replacement materials are available before proceeding, or contact an authorized service center for assistance.

---

1. Prepare the motherboard by wiping the CPU surface clean with a clean cloth. Apply several drops of TIM to the exposed area of the CPU that will be in contact with the heatsink. Ensure that it is spread in an even thin layer.



---

**WARNING!** The TIM is toxic and inedible. DO NOT eat it. If it gets into your eyes or touches your skin, wash it off immediately, and seek professional medical help.

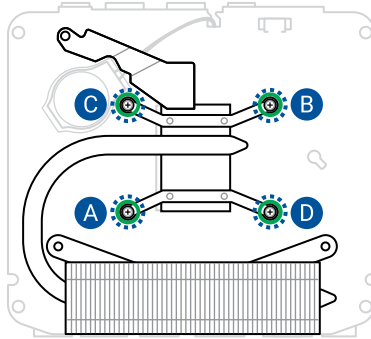
---

**IMPORTANT!** To prevent contaminating the TIM, DO NOT spread it with your finger.

---



2. Align and place the heatsink as shown, and secure it to the motherboard by tightening the screw(s) one by one in the sequence shown in the illustration.



3. Install the component(s) you removed in **Before you begin**.

# CMOS battery

## Before you begin

1. Read the **Safety Precautions** and complete the **Pre-repair Checklist**.
2. Remove the following component(s):
  - Bottom cover
  - Memory module
  - M.2 SSD
  - Wireless card
  - Motherboard
  - Fan module
  - Heatsink

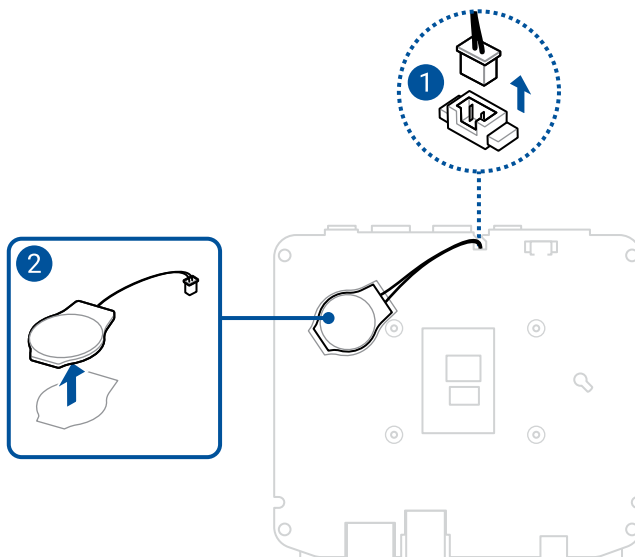
## Removal

1. Disconnect the battery cable from battery connector on the flip side of the motherboard.
2. Carefully remove the CMOS battery.

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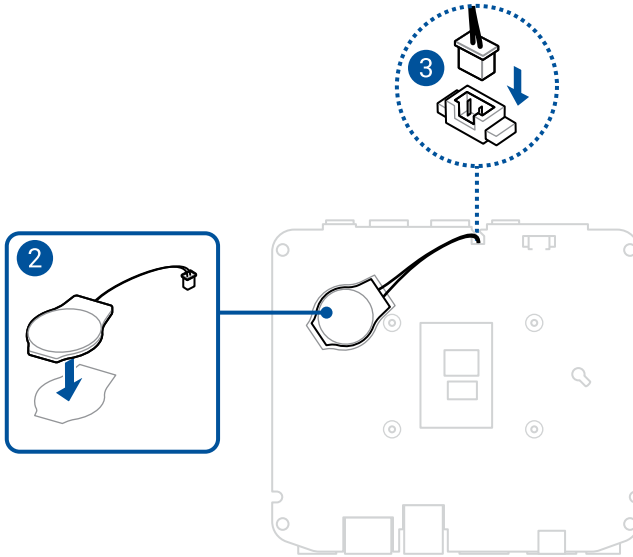
**IMPORTANT!** When removing the battery, be careful not to damage the motherboard or the CMOS battery, which is taped to the motherboard.

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## Installation

1. Remove the release liner on the battery, if one exists.
2. Align the battery as shown, and then affix it within the designated area outlined on the motherboard.
3. Connect the cable from the battery to the battery connector on the flip side of the motherboard.



4. Install the component(s) you removed in **Before you begin**.

# System recovery and removing personal files

You can restore your device to its original settings and optionally remove all personal files.

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**NOTE:** Ensure all your files are backed up before recovering your device.

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1. In Windows, go to **Settings > System > Recovery**.
2. Click **Reset PC** under **Recovery Options**, then select either **Keep my files** or **Remove everything**.
  - **Keep my files** - This option restores the device's original settings, removes installed applications, while keeping personal files such as documents, photos, music, and videos.
  - **Remove everything** - This option restores the device's original settings, removes installed applications, and deletes personal files.