E25933 First Edition / March 2025

# IN SEARCH OF INCREDIBLE

Service Manual



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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 device 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 the correct screw models on your device to prevent damage.
- Confirm that the cable orientation is correct before connecting any cables.
- Fully remove all adhesive residue after removing and before installing any components.
- Photograph the appearance of cables, cable routing, connectors, and screws for later reference before proceeding with each step.

## **Pre-repair checklist**

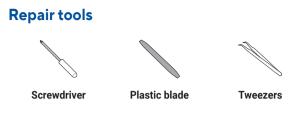
- Read the entire manual before starting any service procedures and follow all instructions.
- Back up the data on your device.
- Place your device on a clean and stable surface.
- Turn off your device.
- Disconnect all connected peripherals and cables.
- Disconnect all power cables and remove the battery pack (if applicable).

#### IMPORTANT!

- If you are uncertain about performing the described service procedures, stop and contact an authorized service center for assistance.
- Purchase replacement components from authorized retailers of this device to ensure maximum compatibility and reliability.

#### NOTE:

- · The illustrations are for reference only.
- The service procedures described in this manual depend 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 further 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.

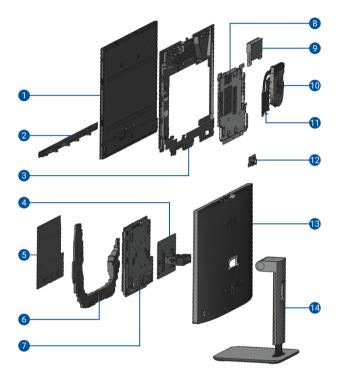


## **Diagnostic tools**

Use ASUS System Diagnostics after completing any service procedures to ensure that all components are working properly.

For more information, visit www.asus.com/support/FAQ/1048490/.

## Major components



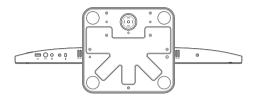
- 1. Display panel
- 2. Bottom bezel
- 3. Display bracket
- 4. Stand mount
- 5. Motherboard
- 6. Speakers
- 7. Motherboard bracket

- 8. Motherboard shield
- 9. Camera module
- 10. Fan module
- 11. Heat sink
- 12. I/O board
- 13. Rear cover
- 14. Stand



# Chapter 2: Service Procedures

## **Base plate**

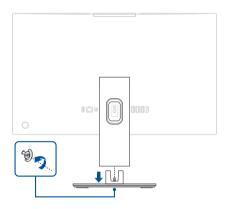


## Before you begin

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

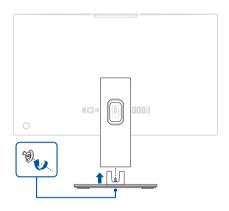
## Removal

Loosen the screw without removing the screw from the base plate, then remove the base plate.

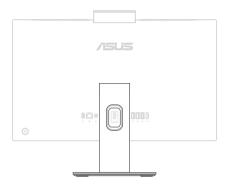


## Installation

Align and install the base plate, then secure the base plate using the screw.



## Stand



## Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate

## **Screw list**

#### **Fixed-height stand**

• • M4.0 X 6.0L (3pcs)

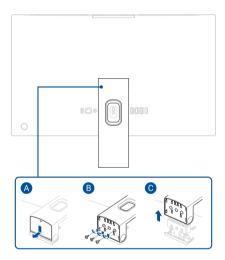
#### Height-adjustable stand

• • M4.0 X 10.0L (4pcs)

## Removal

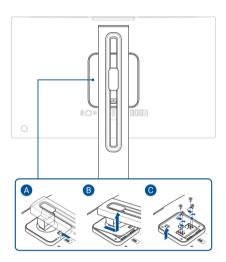
## **Fixed-height stand**

- 1. Remove the screw cover.
- 2. Remove the screw(s), then remove the stand.



## Height-adjustable stand

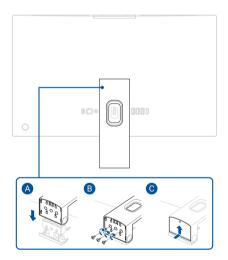
- 1. Push the latch into the unlocked position, then lift and remove the stand.
- 2. Remove the screw(s), then remove the stand bracket.



## Installation

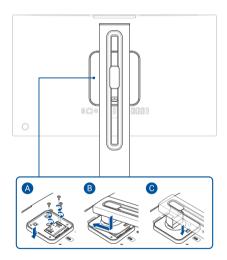
#### **Fixed-height stand**

- 1. Install the stand, then secure the stand using the screw(s) you removed earlier.
- 2. Install the screw cover.
- 3. Install the components you removed in the *Before you begin* section.



## Height-adjustable stand

- Install the stand bracket, then secure the stand bracket using the screw(s) you removed earlier.
- 2. Install the stand and gently press down until the latch clicks into place.
- 3. Install the components you removed in the *Before you begin* section.



## **Display panel module**



## Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand

## **Screw list**

#### White model

• • M3.0 X 4.0L (4pcs)

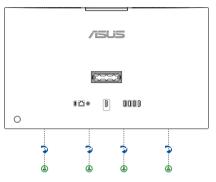
#### Black model

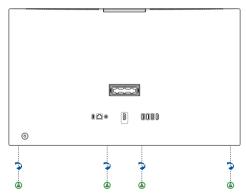
• • M3.0 X 5.0L (4pcs)

## Removal

1. Remove the screw(s).

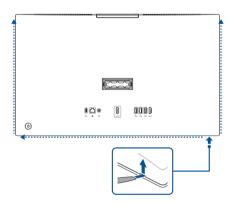
## 24" models



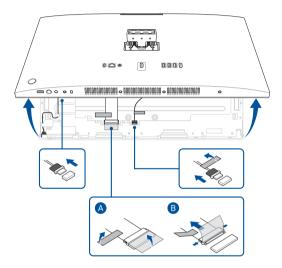


2. Pry open the indicated area of the rear cover as shown in the illustration below.

**IMPORTANT!** Avoid sliding the plastic blade along the side of your device or air vents to prevent damage.

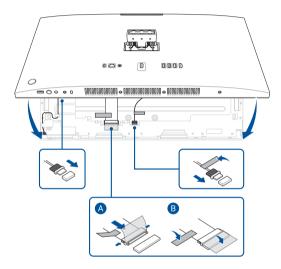


- 3. Lift the rear cover without removing it completely, then hold it in place above the display panel module.
- 4. Disconnect the cable(s), then remove the rear cover.

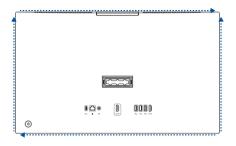


## Installation

- 1. Hold the rear cover in place above the display panel module.
- 2. Reconnect the cable(s), then lower the rear cover into place.

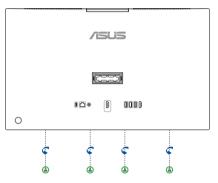


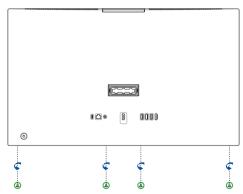
3. Gently press down on the rear cover until it clicks into place.



- 4. Secure the rear cover using the screw(s) you removed earlier.
- 5. Install the components you removed in the *Before you begin* section.

## 24" models





## **Display panel**



## Before you begin

#### **IMPORTANT!**

- This component is fragile. Damage may occur if the service procedure is performed incorrectly. If you are uncertain about proceeding, stop and contact an authorized service center for assistance.
- Do not bend the display panel in any way to avoid risk of display panel leakage.
- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - · Display panel module

## **Screw list**

#### 24" models

• • M3.0 X 3.5L (15pcs)

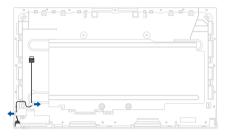
#### 27" models

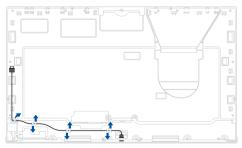
• • M3.0 X 5.0L (18pcs)

## Removal

1. Remove the cable from the cable guide(s).

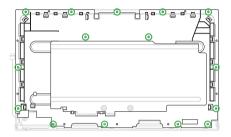
#### 24" models

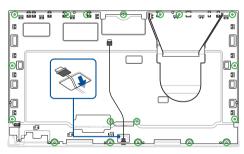




- 2. Remove the screw(s).
- 3. Thread the cable through the opening in the display bracket (on selected models).
- 4. Remove the display bracket.

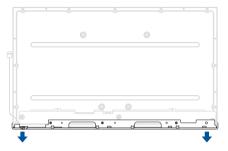
## 24" models

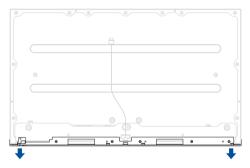




5. Remove the bottom bezel.

## 24" models

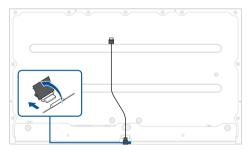




6. Disconnect and remove the cable.

## 24" models

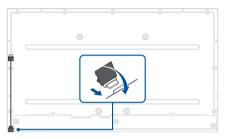


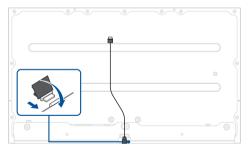


## Installation

1. Reconnect the cable.

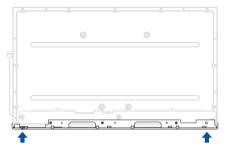
## 24" models

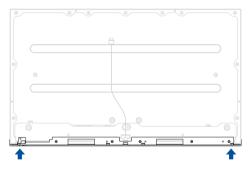




2. Install the bottom bezel.

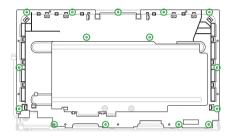
## 24" models

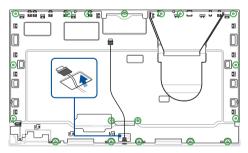




- 3. Install the display bracket.
- 4. Thread the cable through the opening in the display bracket (on selected models).
- 5. Secure the display bracket using the screw(s) you removed earlier.

#### 24" models

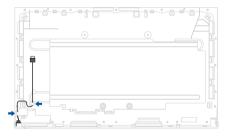




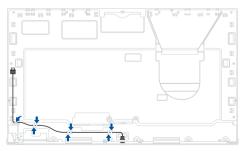
6. Route the cable through the cable guide(s).

**IMPORTANT!** Damage may occur if cables are not properly routed through the cable guides. Confirm that all cables are routed through each of the indicated cable guides before proceeding.

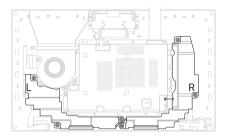
- 7. Install the components you removed in the *Before you begin* section.
- 24" models



#### 27" models



# **Speakers**



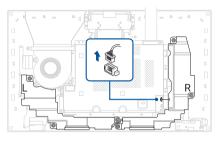
# Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module

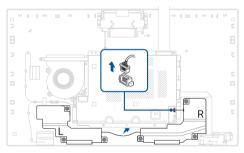
## Removal

Disconnect the cable, then remove the speakers.

#### 24" models



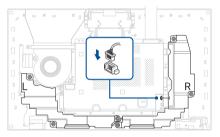
#### 27" models



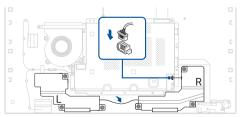
- 1. Install the speakers, then reconnect the cable.
- 2. Route the cable through the cable guide(s).

**IMPORTANT!** Damage may occur if cables are not properly routed through the cable guides. Confirm that all cables are routed through each of the indicated cable guides before proceeding.

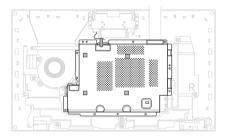
- 3. Install the components you removed in the *Before you begin* section.
- 24" models



#### 27" models



# **Motherboard shield**



## Before you begin

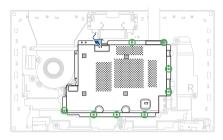
- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module

#### **Screw list**

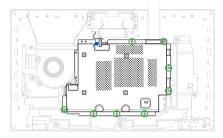
• • M3.0 X 5.0L (8pcs)

## Removal

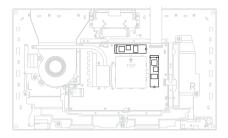
Remove the tape and remove the screw(s), then remove the motherboard shield.



- Install the motherboard shield, then secure the motherboard shield using the screw(s) you removed earlier and reattach the tape.
- 2. Install the components you removed in the *Before you begin* section.



# M.2 SSD module



#### Before you begin

**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. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Motherboard shield

## **Screw list**

#### 24" models

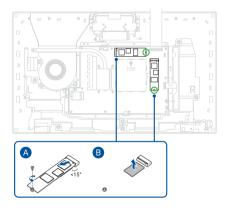
• • M2.0 X 4.0L (1-2pcs)

#### 27" models

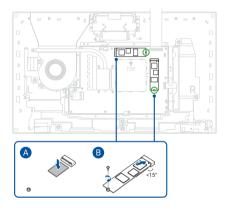
• • M2.0 X 3.5L (1-2pcs)

# Removal

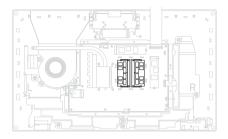
- 1. Remove the screw(s), then remove the M.2 SSD module(s) from the motherboard.
- 2. Remove the thermal pad(s) from the motherboard.



- 1. Attach the thermal pad(s) to the motherboard.
- 2. Install the M.2 SSD module(s), then secure the M.2 SSD module(s) using the screw(s) you removed earlier.
- 3. Install the components you removed in the *Before you begin* section.



# **RAM** module

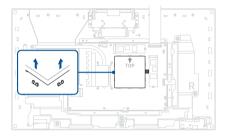


# Before you begin

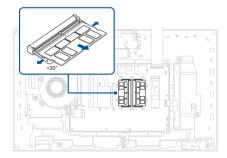
- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Motherboard shield

### Removal

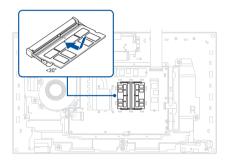
1. Remove the RAM shield.



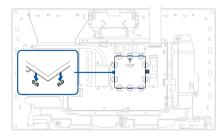
2. Push the clips outwards to remove the RAM module(s).



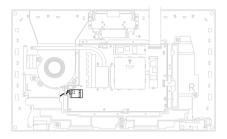
 Align and insert the RAM module(s) into the RAM module slot(s).



- 2. Install the RAM shield.
- 3. Install the components you removed in the *Before you begin* section.



# WLAN module



## Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Motherboard shield

## **Screw list**

#### 24" models

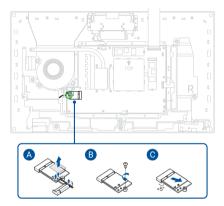
• • M2.0 X 4.0L (1pc)

#### 27" models

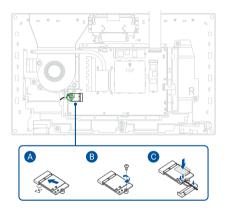
• • M2.0 X 3.5L (1pc)

## Removal

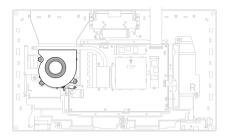
- 1. Remove the polyester film, then disconnect the cable(s).
- 2. Remove the screw.
- 3. Remove the WLAN module.



- 1. Install the WLAN module.
- 2. Secure the WLAN module using the screw you removed earlier.
- 3. Reconnect the cable(s), then attach the polyester film.
- 4. Install the components you removed in the *Before you begin* section.



## Fan module



## Before you begin

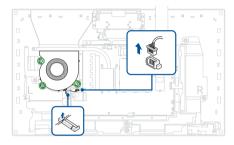
- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Motherboard shield

#### **Screw list**

• • M2.0 X 3.0L+6 (3pcs)

## Removal

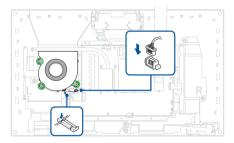
- 1. Disconnect the cable.
- 2. Remove the screw(s), then remove the fan.



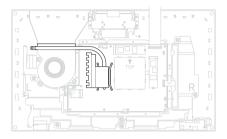
- 1. Install the fan, then secure the fan using the screw(s) you removed earlier.
- 2. Route the cable through the cable guide(s).

**IMPORTANT!** Damage may occur if cables are not properly routed through the cable guides. Confirm that all cables are routed through each of the indicated cable guides before proceeding.

- 3. Reconnect the cable.
- 4. Install the components you removed in the *Before you begin* section.



## **Heat sink**



#### Before you begin

**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. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - · Motherboard shield

## **Screw list**

#### 24" models

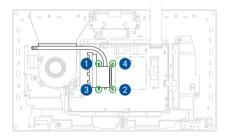
- Example 2 Captive screw (4pcs)

#### 27" models

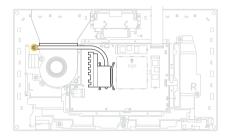
- ④ M2.0 X 3.5L (1pc)

# Removal

 Loosen the captive heat sink screw(s) one by one in the sequence shown in the illustration below without removing the screw(s).

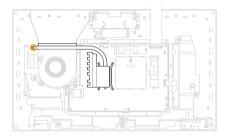


2. Remove the screw, then remove the heat sink.

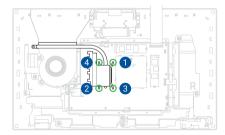


IMPORTANT! Vertically lift the heat sink to prevent damage.

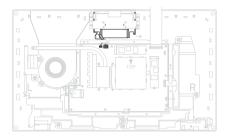
1. Install the heat sink, then secure the heat sink using the screw you removed earlier.



- 2. Secure the captive heat sink screw(s) one by one in the sequence shown in the illustration below.
- 3. Install the components you removed in the *Before you begin* section.



# **Camera module**



## Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Motherboard shield

#### **Screw list**

#### 24" models

• • M2.0 X 4.0L (4pcs)

#### 27" models

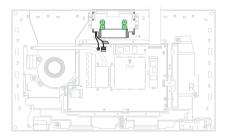
• • M2.0 X 3.5L (4pcs)

## Removal

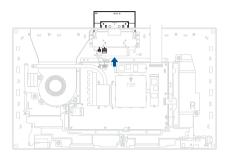
1. Disconnect the cable(s).



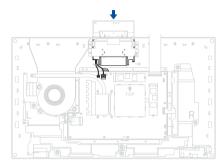
2. Remove the screw(s).



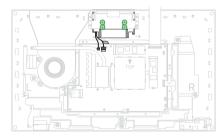
3. Slide the camera module upwards to remove it from the chassis.



1. Slide the camera module into the chassis.



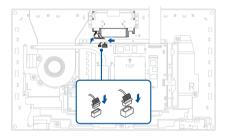
2. Secure the camera module using the screw(s) you removed earlier.



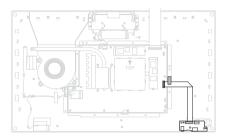
3. Route the cable through the cable guide(s).

**IMPORTANT!** Damage may occur if cables are not properly routed through the cable guides. Confirm that all cables are routed through each of the indicated cable guides before proceeding.

- 4. Reconnect the cable(s).
- 5. Install the components you removed in the *Before you begin* section.



# I/O board



# Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Speakers
  - Motherboard shield

#### **Screw list**

#### 24" models

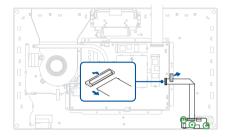
• • M2.0 X 4.0L (3pcs)

#### 27" models

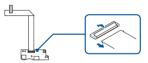
• • M2.0 X 3.5L (3pcs)

## Removal

- 1. Remove the tape, then disconnect the cable.
- 2. Remove the screw(s), then remove the I/O board.



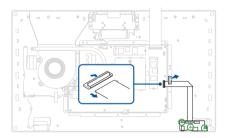
3. Disconnect the cable.



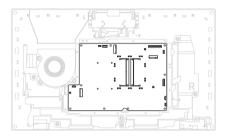
1. Reconnect the cable.



- 2. Install the I/O board, then secure the I/O board using the screw(s) you removed earlier.
- 3. Reconnect the cable, then reattach the tape.
- 4. Install the components you removed in the *Before you begin* section.



# Motherboard



# Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Motherboard shield
  - M.2 SSD module
  - RAM module
  - WLAN module
  - Heat sink

## **Screw list**

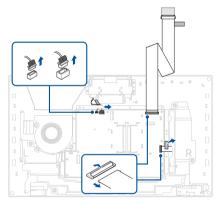
24" models ● ⊕ M2.0 X 4.0L (11pcs)

#### 27" models

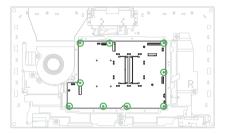
- • M2.0 X 3.5L (9pcs)
- • M2.0 X 4.0L (2pcs)

#### Removal

1. Remove the tape, then disconnect the cable(s).

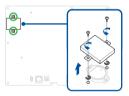


2. Remove the screw(s), then remove the motherboard.

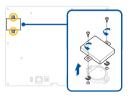


- 3. Flip the motherboard over.
- 4. Remove the screw(s), then remove the coin battery cover.

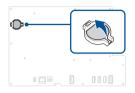
#### 24" models



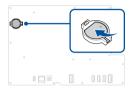
27" models



5. Remove the coin battery.

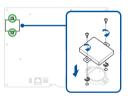


1. Install the coin battery onto the rear side of the motherboard.

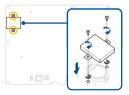


2. Install the coin battery cover, then secure the coin battery cover using the screw(s) you removed earlier.

#### 24" models



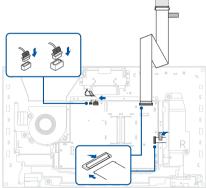
27" models



- 3. Flip the motherboard over.
- 4. Install the motherboard, then secure the motherboard using the screw(s) you removed earlier.



- 5. Reconnect the cable(s), then reattach the tape.
- 6. Install the components you removed in the *Before you begin* section.



## **Rear cover**

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## Before you begin

- 1. Read the Safety Precautions and Pre-repair Checklist.
- 2. Remove the following components:
  - Base plate
  - Stand
  - Display panel module
  - Speakers
  - Motherboard shield
  - M.2 SSD module
  - RAM module
  - WLAN module

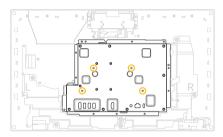
- Fan module
- Heat sink
- Camera module
- I/O board
- Motherboard

## **Screw list**

- • M4.0 X 10.0L (4pcs)

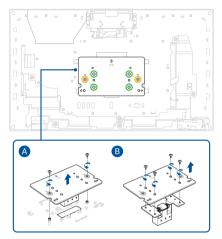
# Removal

1. Remove the screw(s), then remove the motherboard bracket.

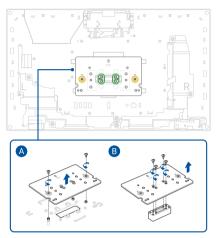


2. Remove the screw(s), then remove the stand mount.

#### Fixed-height stand

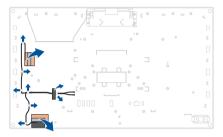


### Height-adjustable stand

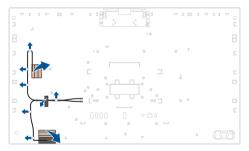


3. Remove the tape, then remove the WLAN antenna.

#### 24" models



### 27" models

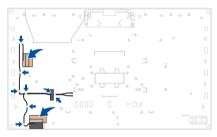


### Installation

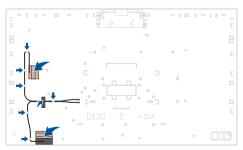
- 1. Install the WLAN antenna, then reattach the tape.
- 2. Route the cable through the cable guide(s).

**IMPORTANT!** Damage may occur if cables are not properly routed through the cable guides. Confirm that all cables are routed through each of the indicated cable guides before proceeding.

#### 24" models

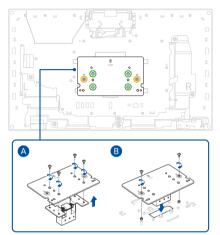


#### 27" models

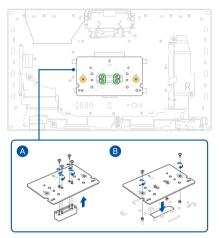


3. Install the stand mount, then secure the stand mount using the screw(s) you removed earlier.

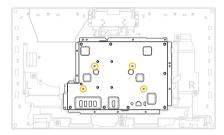
#### Fixed-height stand



### Height-adjustable stand



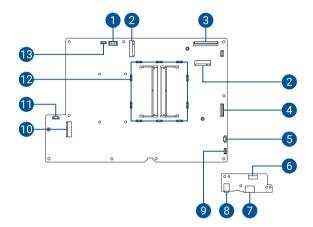
- 4. Install the motherboard bracket, then secure the motherboard bracket using the screw(s) you removed earlier.
- 5. Install the components you removed in the *Before you begin* section.





# Wiring and connection diagrams

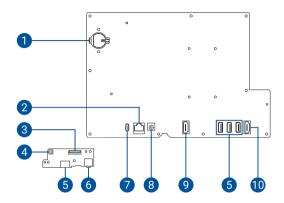
## **Top view**



- 1. Camera connector
- 2. M.2 SSD connector
- 3. eDP connector
- 4. I/O board connector
- 5. Speaker connector
- 6. Display backlight connector
- 7. USB Type-A connector

- 8. Audio connector
- 9. Touch screen connector
- 10. WLAN module connector
- 11. Fan connector
- 12. RAM module slot
- 13. Proximity sensor connector

### **Bottom view**



- 1. Coin battery slot
- 2. LAN connector
- 3. I/O board connector
- 4. Power button
- 5. USB Type-A connector

- 6. Audio connector
- 7. USB Type-C<sup>®</sup> connector
- 8. Power supply connector
- 9. HDMI connector (input)
- 10. HDMI connector (output)

