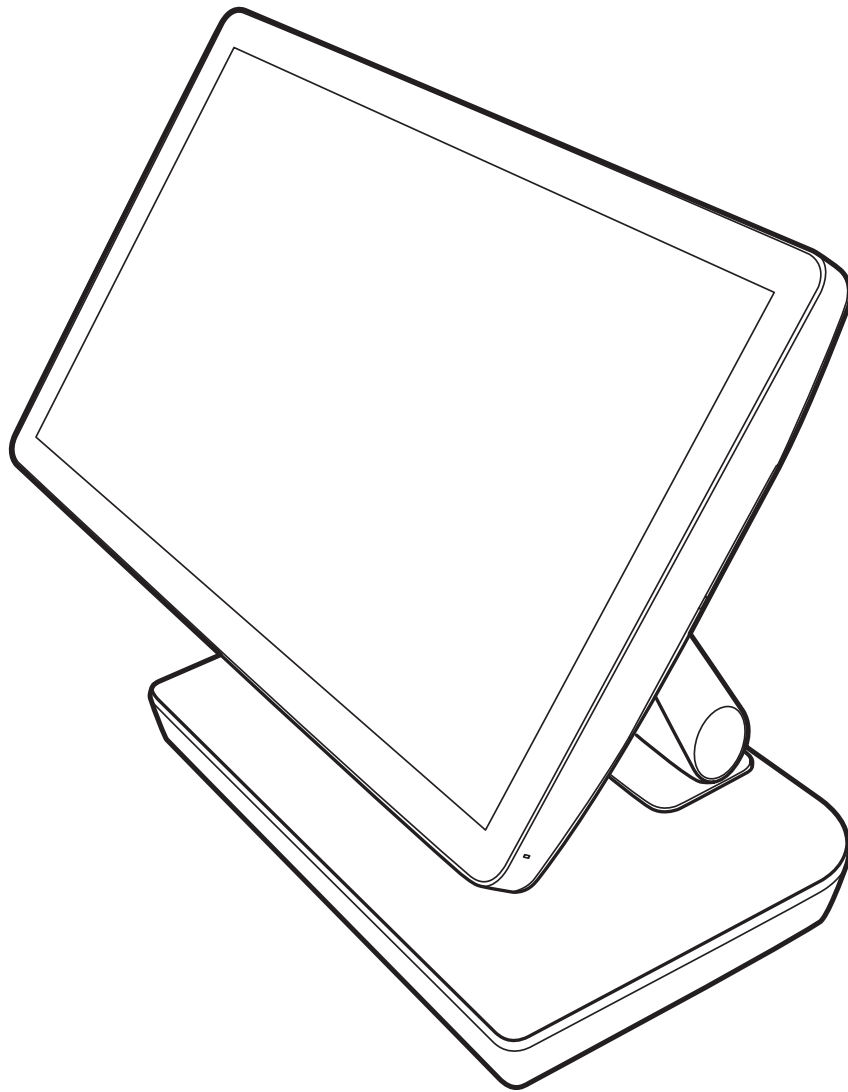


USER MANUAL

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# MicroTouch All-In-One PC

M1 Series Windows Touch Computer



# Introduction

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## About this document

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## Conventions

The following subsections describe graphic conventions are used in this manual to denote certain actions or information for clarification purposes. Keep these points in mind to avoid problems with the device or injuries:

**TIP:**

*A TIP highlights helpful shortcuts and guidelines for installation, use, maintenance.*

**NOTE:**

*A NOTE indicates supplementary information or important text for installation, use, maintenance.*

**CAUTION:**

*A CAUTION alerts that may cause injuries or malfunctions of the device.*

**WARNING:**

*A WARNING appears when there are potential risks of serious physical harm or death.*

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# Safety and regulatory information

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## Safety

**WARNING:**

*To avoid risk of electric shock, this equipment must only be connected to a supply mains with protective earth.*

**WARNING:**

*To prevent the risk of fire or shock hazards, and do not expose the product to moisture.*

### General recommendations

- Read the safety and operating instructions before operating the device.
- Retain safety and operating instructions for future reference.
- Adhere to all warnings on the device and in the operating instructions manual.
- Follow all instructions for operation and use.

### Electrical shock or fire hazard

- Do not expose this device to moisture.

### Modifications to the unit

- Do not modify this equipment without authorization of the manufacturer.
- If there is any other problem, please consult or return the device to your distributor. Do not try to repair a defective device.

### Preventive maintenance

With the device disconnected from mains perform the following periodical check:

- Check the integrity of the adapter and power cord. Inspect the routing, so that it is not under the risk of being punched or cut.
- Check the integrity of the Protective Earth connection.
- Clean the area around the power plug, dust and liquids may result in fire.

Additional recommendations:

- Keep the device clean to prolong its operational lifetime.
- Periodically check that it is correctly operating Periodically check the tightness of the VESA mount screws. If not sufficiently tight, the device may detach from the arm, which may result in injury or equipment damage.

## Mission critical applications

We strongly recommend there is a replacement device immediately available in mission critical applications.

## Transient over-voltage

To fully disengage the power to the device, please disconnect the adapter from the AC inlet.

## Liquids and moisture

- Never expose the device to liquids or moisture.
- Front panels of all models are IP65 compliant.
- The glass surface is fully cleanable.

## Moisture condensation

- Do not use the device under rapid temperature and humidity change condition or avoid cold air from air- conditioning outlet directly.
- Moisture may condense on the surface or inside of the unit, or create a mist residue inside the protection plate, this is not a malfunction of the product itself, although it may cause damage to the device.
- If condensation happens, let the device stand unplugged until there is no condensation.

## Ventilation

Do not cover or block any ventilation openings in the cover of the set. When installing the device in a cupboard or another enclosed location, keep the necessary space between the set and the sides of the cupboard.

## Installation

- Place the device on a flat, solid and stable surface that can support the weight of at least 3 devices. If you use an unstable cart or stand, the device may fall, causing serious injury to a child or adult, and serious damage to the device.
- All device and complete setup must be tested and validated before taking into operation.
- At end user application level it is necessary to foresee a backup unit in case the video falls away.
- Do not install in a high-temperature or high-humidity environment and should not exceed:
  - Operating temperature: 0°C to 40°C (0°F to 104°F) ; Humidity: 20% ~ 80% RH.
  - Transport / Storage temperature: -20°C to 60°C (-4°F to 140°F); Humidity: 10% ~ 90% RH.

## Use

### General warnings:

- The enclosure has to be checked upon collision damage, refer to qualified service personnel.
- The protective screen (if present) is made of tested high-resistance glass. Nonetheless there is the possibility that it may crack if subject to strong impacts. Evaluate and prevent the risk of possible breakages of the protective screen by correctly handling and positioning the device.
- The device is intended for indoor use.

### Malfunctions:

- Disconnect the equipment's power cord from the AC inlet and refer servicing to qualified service technicians under the following conditions:
  - If the power cord, plug, or adapter is damaged or frayed.
  - If liquid has been spilled into the equipment.
  - If the equipment has been exposed to rain or water.
  - If the equipment does not operate normally when the operating instructions are followed. Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
  - If the equipment has been dropped or the cabinet has been damaged.
  - If the product exhibits a distinct change in performance, indicating a need for service.

## Regulatory compliance

### **For FCC (USA)**

Notice to Users in the United States: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

### **For IC (Canada)**

CAN ICES-003(B)/NMB-003(B)

### **For CE (EU)**

The device complies with the EMC Directive 2014/30/EU and Low Voltage Directive 2014/35/EU

### **For UL/cUL (USA/Canada)**

**UL 62368-1 / CSA-C22.2 NO. 62368-1**



# General information

In this section, you will find information on the package content and device's features.

## Package content

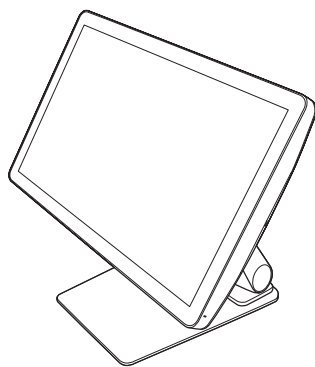
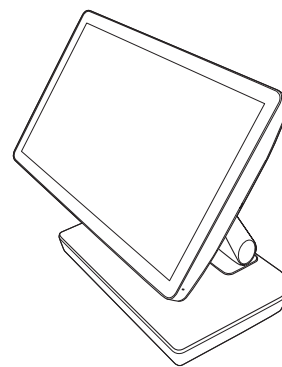
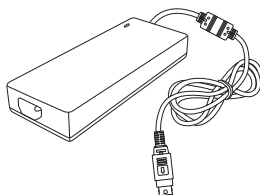
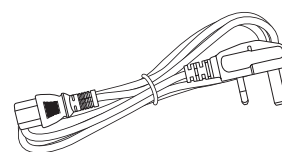
### Unpacking

- Before unpacking your device, find a location near a wall outlet and be easily accessible.
- Set the device box in an upright position and open from the top of the box before removing the top cushions.
  - Step 1: Remove the package
  - Step 2: Take out the accessory box then remove the bottom cushions.
- We recommend to keep the box and packaging in storage for use in the future if need to transport the device.
- Carefully unpack and check you have all the items shown in the "Accessories" section.

**TIP:**

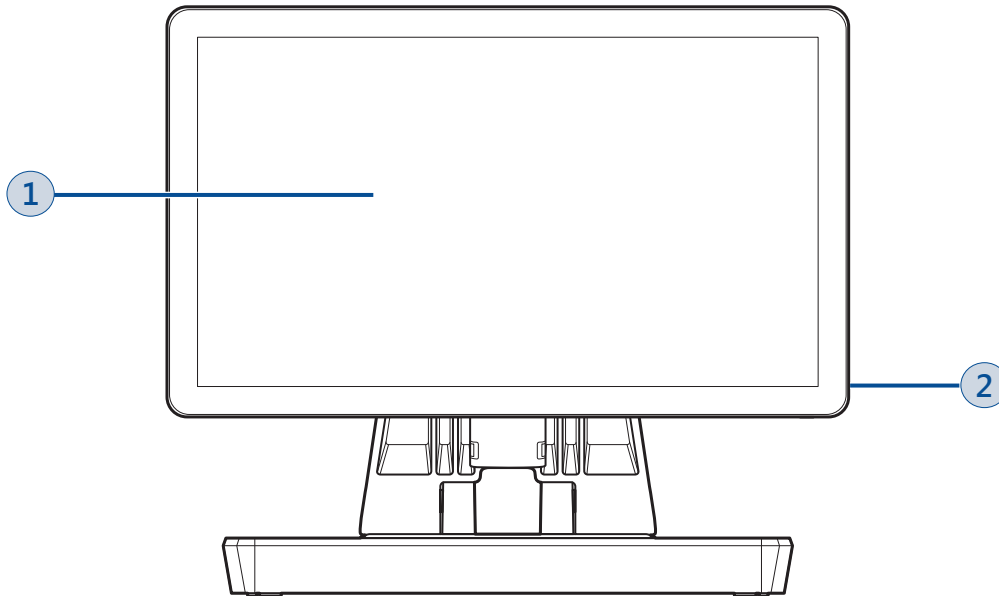
*If any of the accessories is missing or damaged, please contact your distributor for more information.*

### Accessories

**AIO PC & stand****AIO PC & stand with hub****Adapter (24V/180W)****Power cable (US)**

# Product overview

## Front view

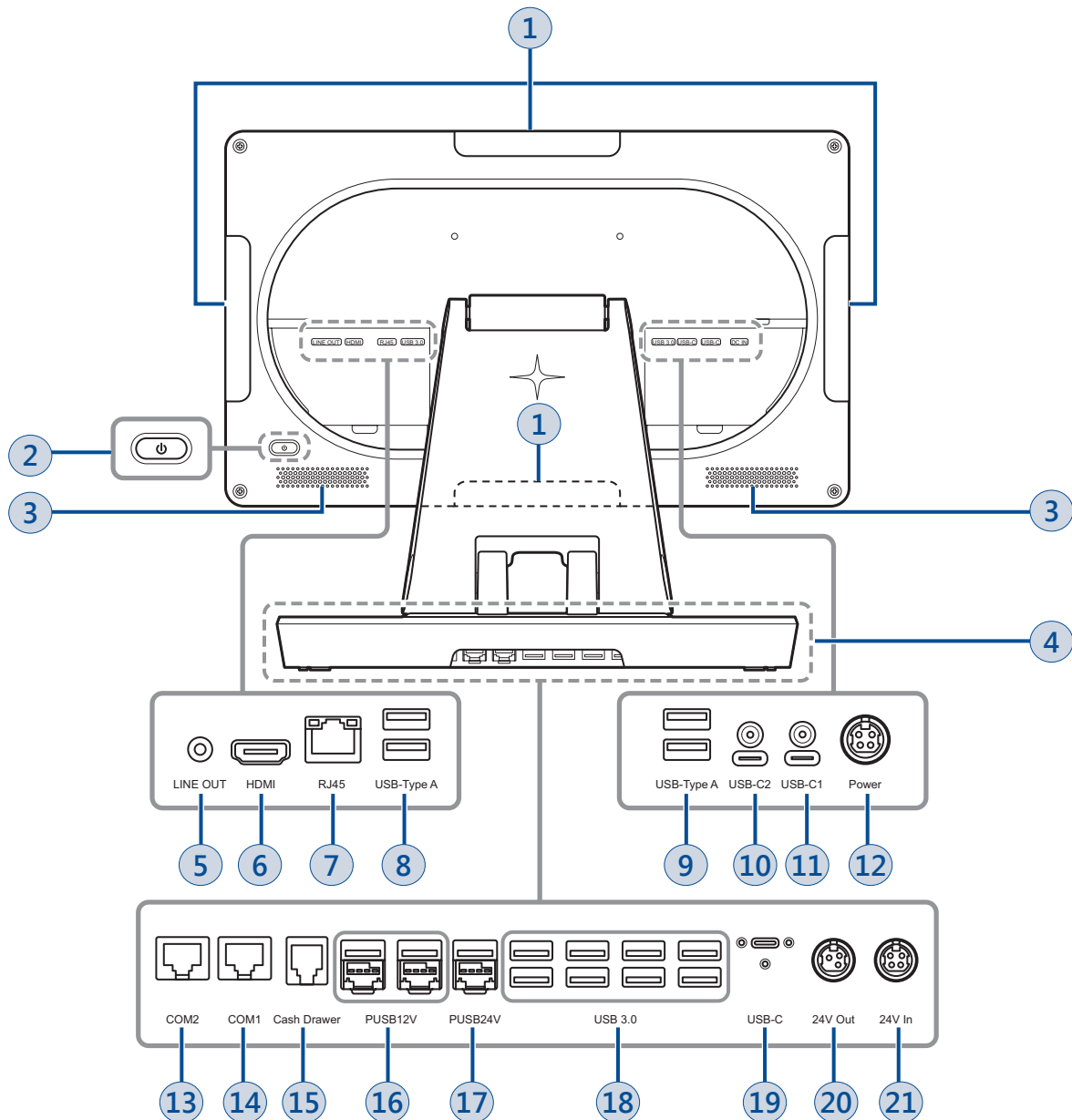


**NOTE:**

The device can be purchased with the stand including the hub (image above) or without the hub.

#	Function	Description
1	Display screen	Display screen with multi-touch functionality. <b>NOTE:</b> This device supports finger/glove touch method.
2	Power LED	Device status indicator. <ul style="list-style-type: none"> <li>• Solid green: Device is powered on.</li> <li>• Red: Device is idle. Press the <b>Power</b> button to power on/off the device.</li> <li>• Off: Device is powered off.</li> </ul>

## Rear view



**NOTE:**

The device can be purchased with the stand including the hub (image above) or without the hub.

#	Function	Description
1	Compartments x4	Remove the peripheral compartment cover and install the optional accessory. For more information, refer to the "Setup and installation" chapter.
2	Power button	Press to power on/off the device.
3	Speakers x2	Audio output (2W / dual-channel at 4Ω).

#	Function	Description
④	Hub	Connect peripherals to the device.
⑤	LINE OUT connector	Connect with audio line-out devices.
⑥	HDMI connector	Connect with HDMI compatible devices.
⑦	RJ45 connector	Connect the device to the Internet via RJ45 cable.
⑧ / ⑨	USB 3.0 connectors (x4)	Connect with USB 3.0 compatible devices.
⑩ / ⑪	USB-C connectors (x2)	Connect with USB-C compatible devices. These ports support also power delivery 12V/3A and DisplayPort alternate mode.
⑫	Power connector	Connect with the supplied power adapter.
⑬ / ⑭	COM2 / COM1 connectors	Connect with COM compatible devices.
⑮	Cash Drawer connector	Connect with cash drawer.
⑯	PUSB12V connectors (x2)	Connect with PUSB (12V) compatible devices.
⑰	PUSB24V connector	Connect with PUSB (24V) compatible devices.
⑱	USB 3.0 connector (x8)	Connect with USB 3.0 compatible devices.
⑲	USB-C connector	Connect with USB-C compatible devices. This port supports also power delivery 12V/3A.
⑳	24V Out connector	Connector for 24V power output.
㉑	24V In connector	Connector for 24V power input.

# Setup and installation

In this section, you will find information on how to remove and install the stand, adjust the viewing angle, wall mount the device, and more.

## Replacing the stand

**NOTE:**

*The stand is pre-installed to the device.*

### Removing the stand (without hub)

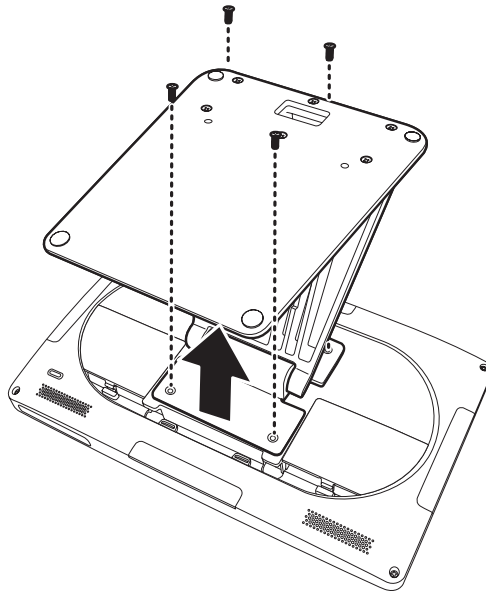
To remove the stand without the hub, do the following:

1. Place the device on a flat surface, with the screen facing down.

**NOTE:**

*We recommend to cover the surface with soft cloth to prevent damage to the screen of the device.*

2. Remove the four (4) screws securing the stand to the device.
3. Remove the stand.



## Installing the stand (without hub)

To install the stand without the hub, do the following:

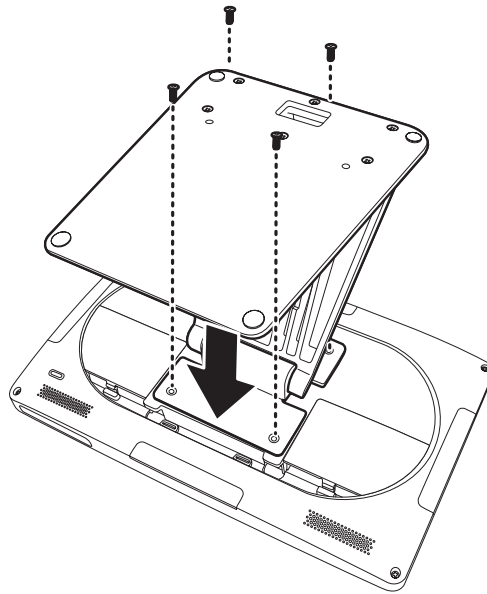
1. Place the device on a flat surface, with the screen facing down.



**NOTE:**

*We recommend to cover the surface with soft cloth to prevent damage to the screen of the device.*

2. Align and install the stand to the device. Then secure the stand to the device with the four (4) screws.



## Removing the stand (with hub)

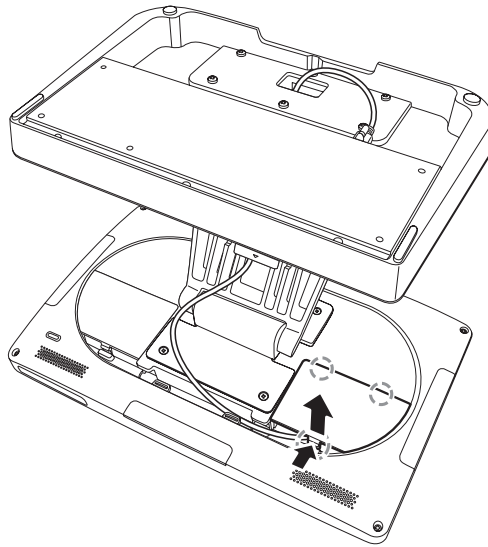
To remove the stand with the hub, do the following:

1. Place the device on a flat surface, with the screen facing down.

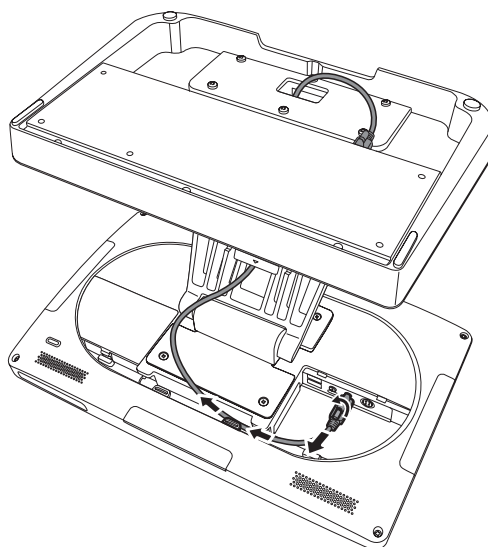
**NOTE:**

*We recommend to cover the surface with soft cloth to prevent damage to the screen of the device.*

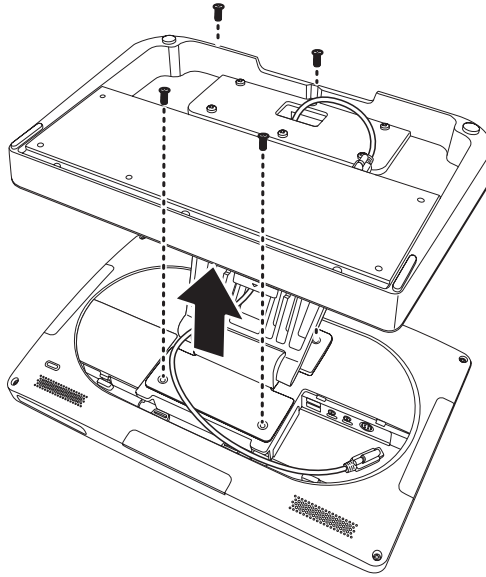
2. Pry to release the upper cable cover latches (marked with gray circles) and then remove the cover from the device.



3. Release and disconnect the power cable from the power connector.
4. Unroute the power cable from the cable clip.



5. Remove the four (4) screws securing the stand to the device.
6. Remove the stand.



## Installing the stand (with hub)

To install the stand with the hub, do the following:

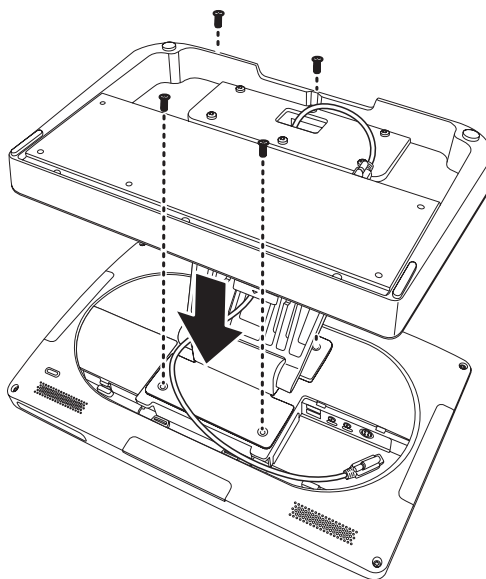
1. Place the device on a flat surface, with the screen facing down.



### **NOTE:**

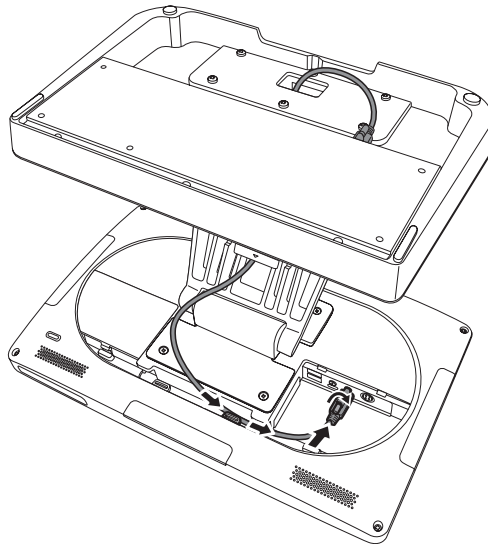
*We recommend to cover the surface with soft cloth to prevent damage to the screen of the device.*

2. Align and install the stand to the device. Then secure the stand to the device with the four (4) screws.

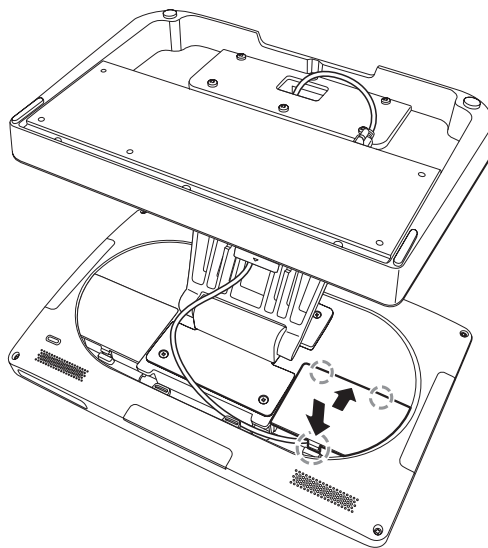




3. Route the power cable through the opening on the stand and then through the cable clip.
4. Connect and secure the power cable to the power connector of the device.



5. Install the upper cable cover to the device and press on it firmly to secure the latches (marked with gray circles).



# Routing the cables

## Routing the cables (stand without hub)

To route the power and HDMI cables, do the following:

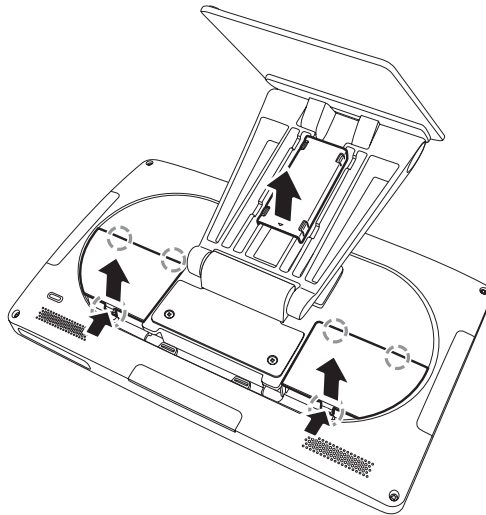
1. Place the device on a flat surface, with the screen facing down.



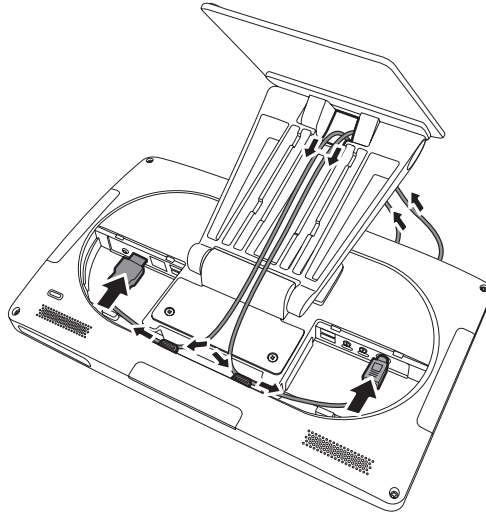
**NOTE:**

*We recommend to cover the surface with soft cloth to prevent damage to the screen of the device.*

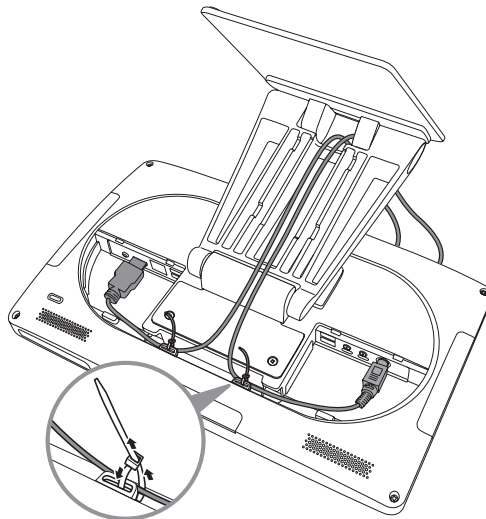
2. Pry to release the upper cable cover latches (marked with gray circles). Then remove the upper cable covers from the device.
3. Remove the cable cover from the stand.



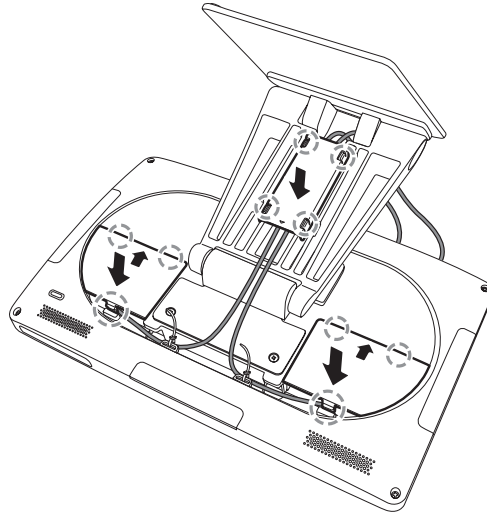
4. Route the power and HDMI cables through the opening on the bottom of the stand. Continue routing them through the cable clips on top of the stand.
5. Connect the power cable to the power connector of the device.
6. Connect the HDMI cable to the HDMI connector of the device.



7. Secure the power and HDMI cables to the cable clips with the cable ties.



8. Install the cable cover to the stand and press on it firmly to secure the latches (marked with gray circles).
9. Install the upper cable covers to the device and press on them firmly to secure the latches (marked with gray circles).



## Routing the cables (stand with hub)

To route the power and HDMI cables, do the following:

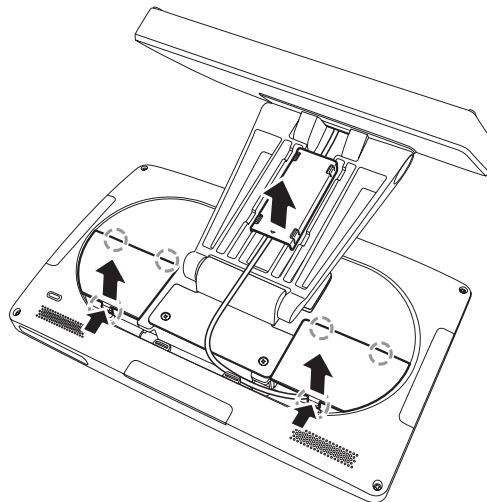
1. Place the device on a flat surface, with the screen facing down.



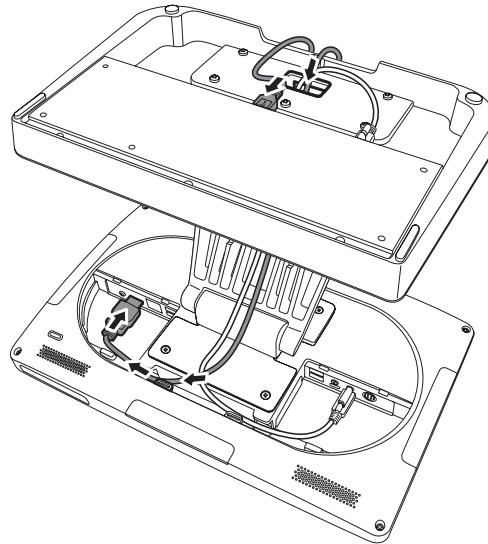
### **NOTE:**

*We recommend to cover the surface with soft cloth to prevent damage to the screen of the device.*

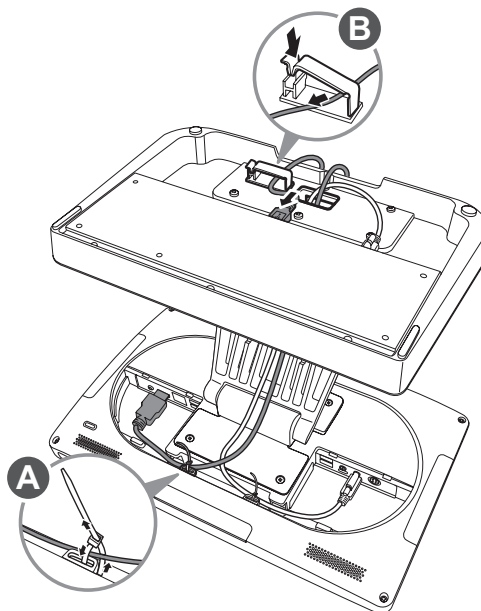
2. Pry to release the upper cable cover latches (marked with gray circles). Then remove the upper cable covers from the device.
3. Remove the cable cover from the stand.



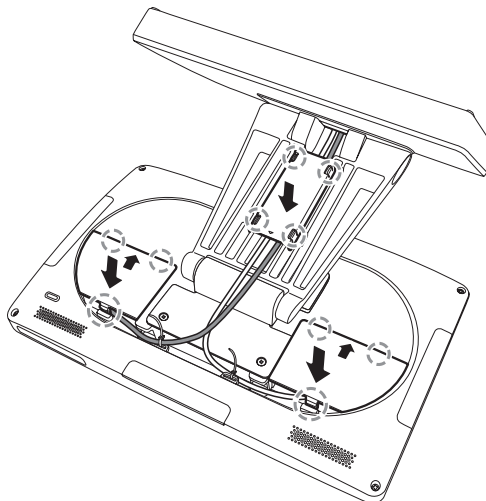
4. Connect the USB cable to the USB connector of the hub.
5. Route the HDMI cable through the opening on the bottom of the stand. Continue routing it through the cable clip on top of the stand.
6. Connect the HDMI cable to the HDMI connector of the device.



7. Secure the HDMI cable to the cable clip with the cable tie. (A)
8. Attach the cable clip to the hub. Then secure the USB cable in place with the cable clip. (B)



9. Install the cable cover to the stand and press on it firmly to secure the latches (marked with gray circles).
10. Install the upper cable covers to the device and press on them firmly to secure the latches (marked with gray circles).

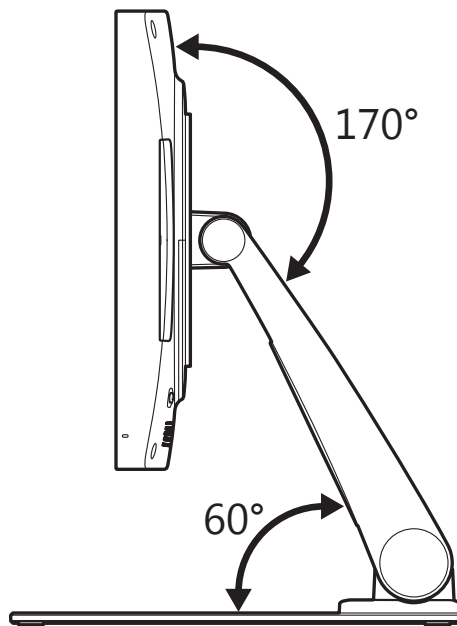


# Adjusting the viewing angle

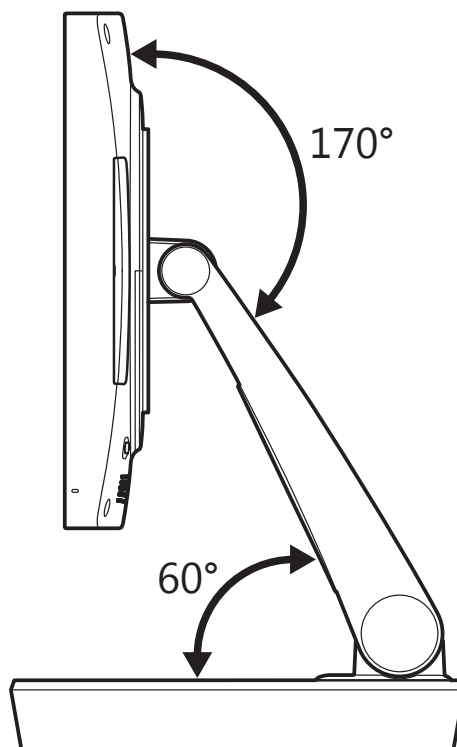
To adjust the viewing angle, do the following:

1. Place the device in an upright position on a flat, stable surface.
2. Adjust the angle of the screen. The angle of the screen can be adjusted forwards and backwards up to  $170^\circ$  and the stand can be tilted up to  $60^\circ$  for a comfortable viewing experience.

- Stand without the hub:



- Stand with the hub:



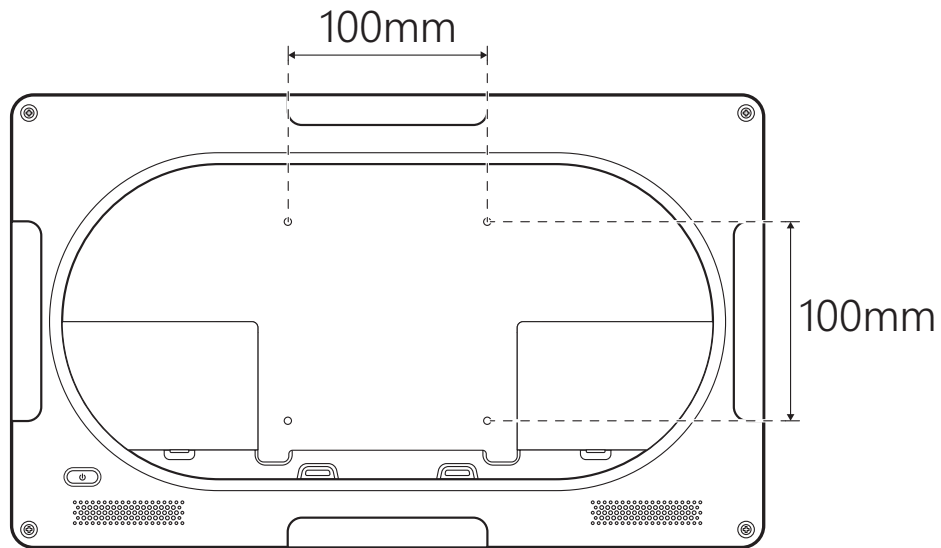
# Wall mounting

This device supports VESA standard mount with 100mm x 100mm pattern located at the rear of the device.



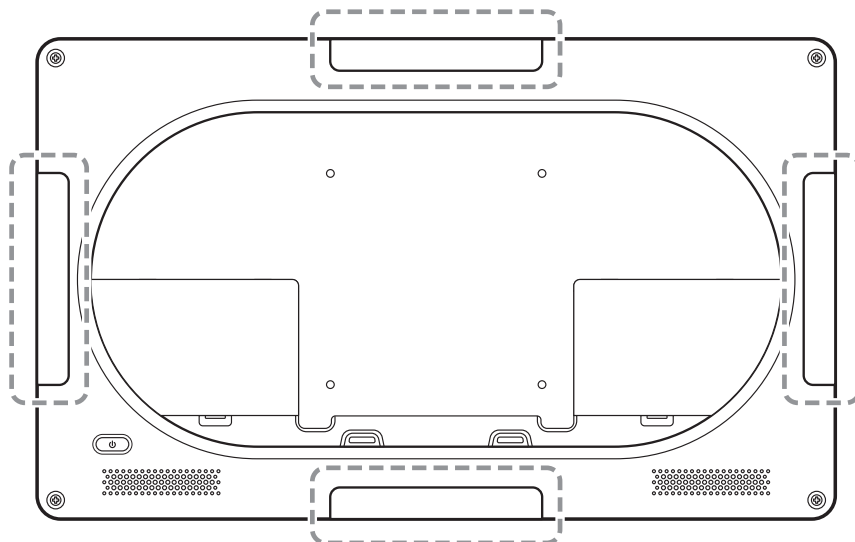
**NOTE:**

- Before mounting the device on the wall, remove the stand (refer to "Removing the stand (without hub)" on page 13 or "Removing the stand (with hub)" on page 15).
- Use M4 screws with the maximum depth of 8mm.



# Preparing for the installation and removal of the optional accessories

Optional accessories can be installed to any of the four locations on the rear of the device as shown in the illustration below:

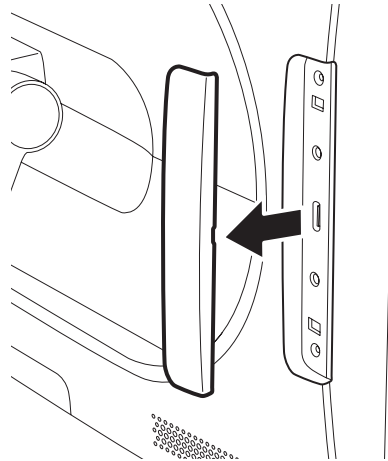




Before installing the optional accessory, remove the selected compartment's cover.  
After removing the optional accessory, replace the compartment cover.

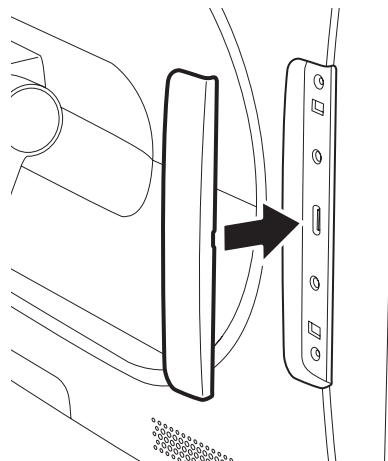
## Removing the peripheral compartment cover

Before installing the optional accessory, remove the selected peripheral compartment cover.  
For example, the compartment cover on the right side:



## Installing the peripheral compartment cover

After removing the optional accessory, replace the peripheral compartment cover.  
For example, the compartment cover on the right side:

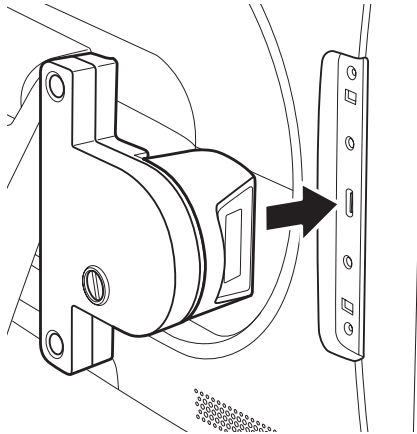


## Barcode scanner (optional)

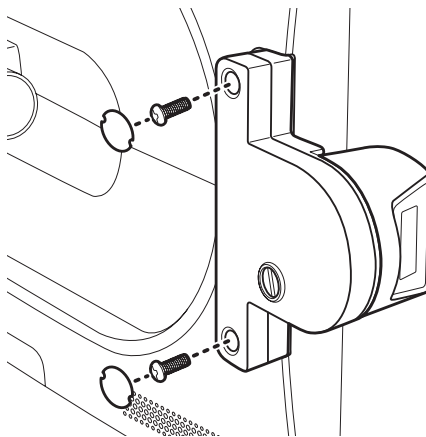
### Installing the barcode scanner

To install the barcode scanner, do the following:

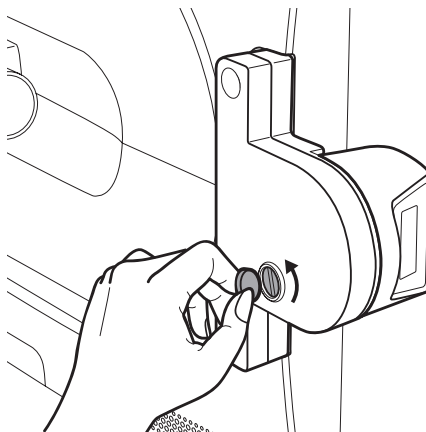
1. Remove the peripheral compartment cover. Refer to page 25.
2. Align and connect the barcode scanner to the device.



3. Attach the mylar pad on each screw.
4. Secure the barcode scanner to the device with the two (2) screws.

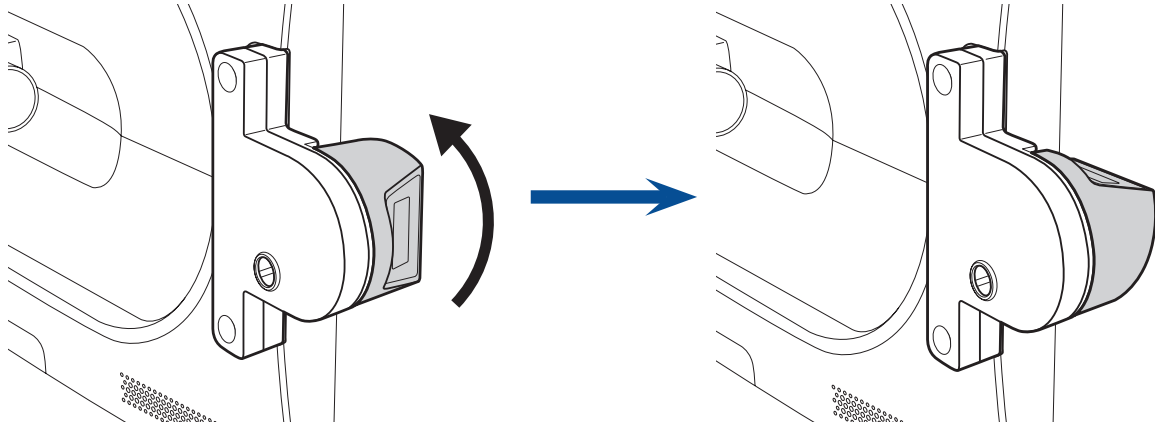


5. Turn the lock counterclockwise to adjust the barcode scanner.

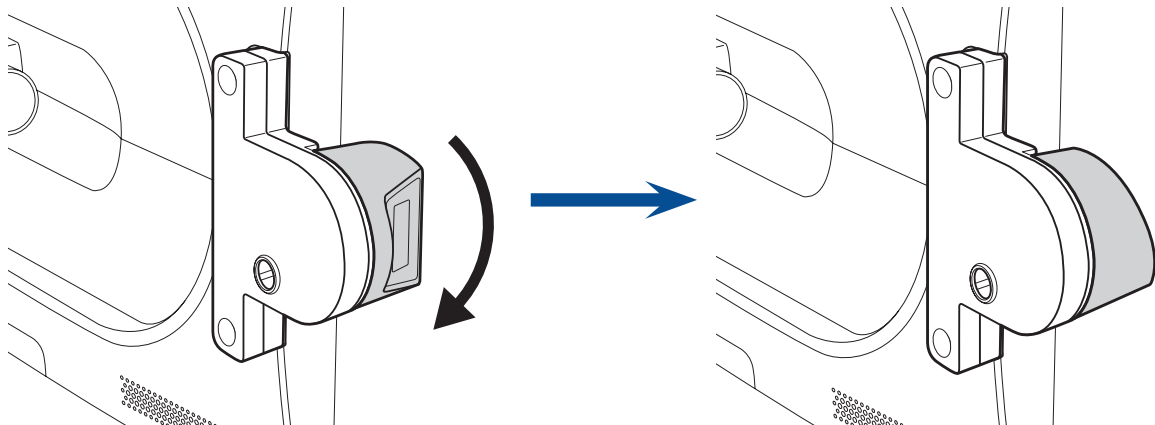


6. Adjust the laser beam position, either upwards or downwards.

- Laser beam is pointing upwards:



- Laser beam is pointing downwards:

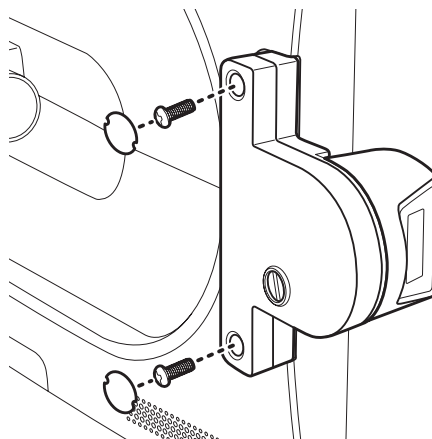


7. Turn the lock on the barcode reader clockwise to secure the laser beam position.

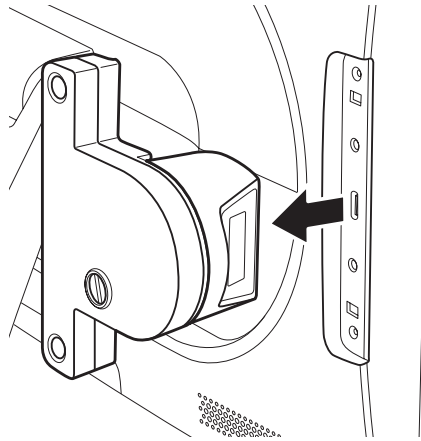
## Removing the barcode scanner

To remove the barcode scanner, do the following:

1. Detach the mylar pads from the two (2) screws.
2. Remove the two (2) screws securing the barcode scanner to the device.



3. Disconnect the barcode scanner from the device.



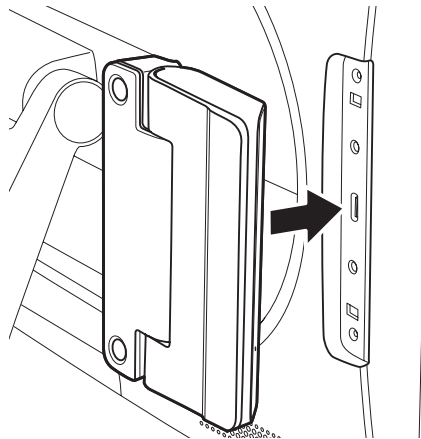
4. Replace the peripheral compartment cover. Refer to page 25.

## Camera module (optional)

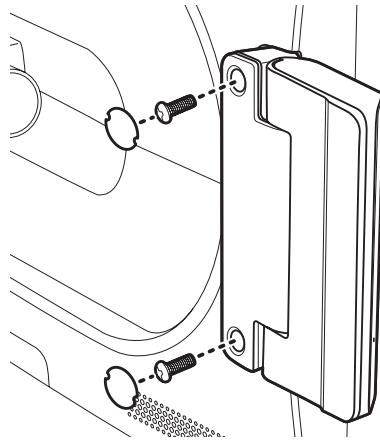
### Installing the camera module

To install the camera module, do the following:

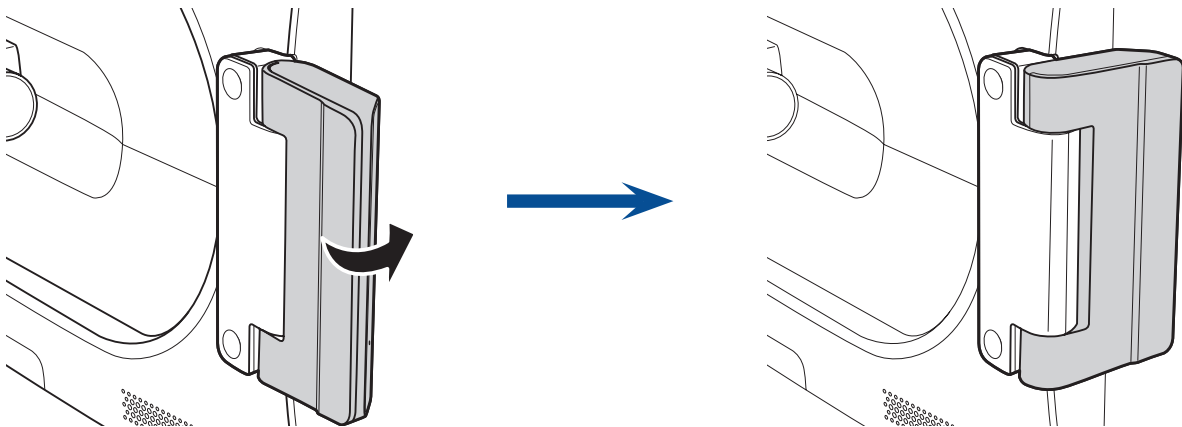
1. Remove the peripheral compartment cover. Refer to page 25.
2. Align and connect the camera module to the device.



3. Secure the camera module to the device with the two (2) screws.
4. Attach the mylar pad on each screw.



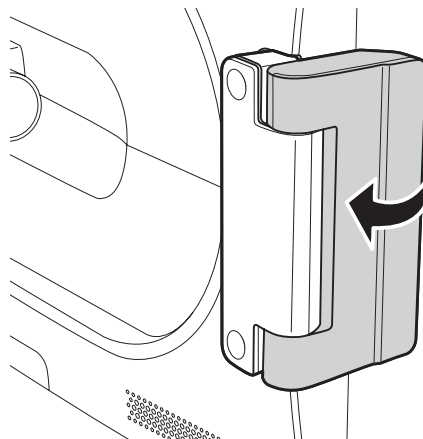
5. Push the camera module forward to face the front of the device.



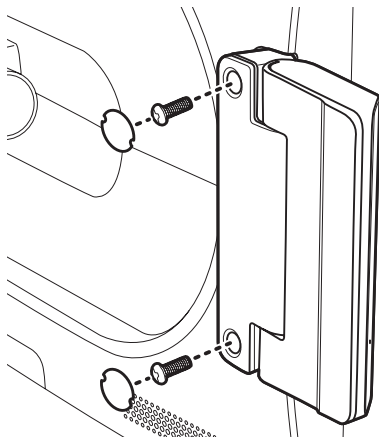
## Removing the camera module

To remove the camera module, do the following:

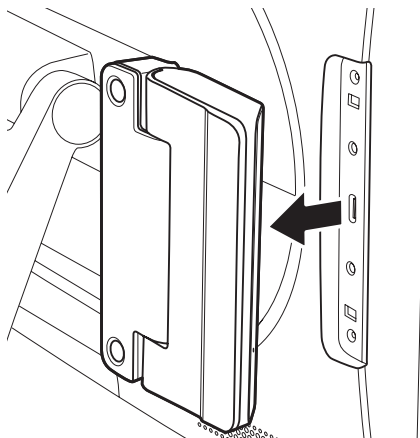
1. Push the camera module backwards until it is flush with its holder.



2. Detach the mylar pads from the two (2) screws.
3. Remove the two (2) screw securing the camera module to the device.



4. Disconnect the camera module from the device.



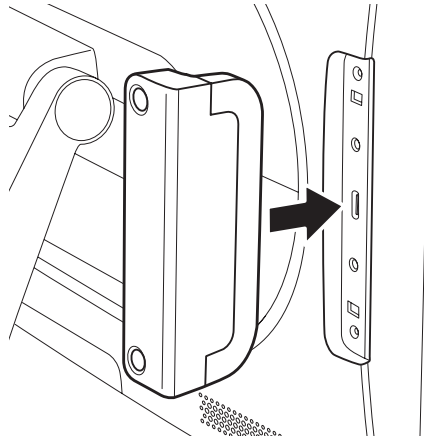
5. Replace the peripheral compartment cover. Refer to page 25.

## Light bar (optional)

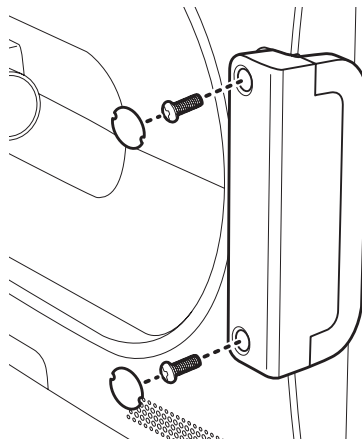
### Installing the light bar

To install the light bar, do the following:

1. Remove the peripheral compartment cover. Refer to page 25.
2. Align and connect the light bar to the device.



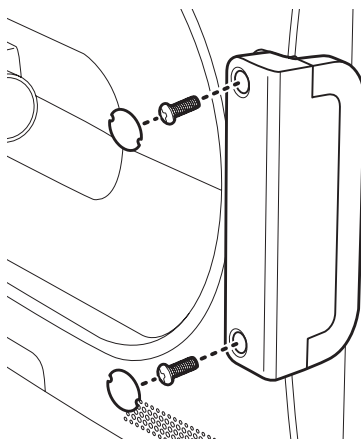
3. Secure the light bar to the device with the two (2) screws.
4. Attach the mylar pad on each screw.



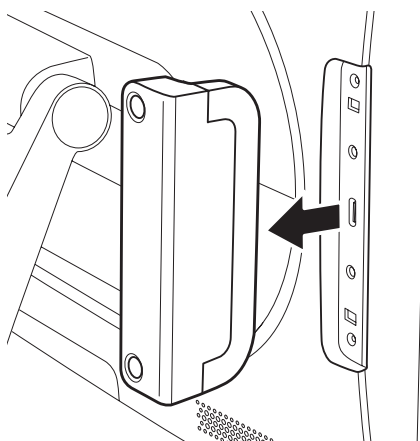
## Removing the light bar

To remove the light bar, do the following:

1. Detach the mylar pads from the two (2) screws.
2. Remove the two (2) screw securing the light bar to the device.



3. Disconnect the light bar from the device.



4. Replace the peripheral compartment cover. Refer to page 25.

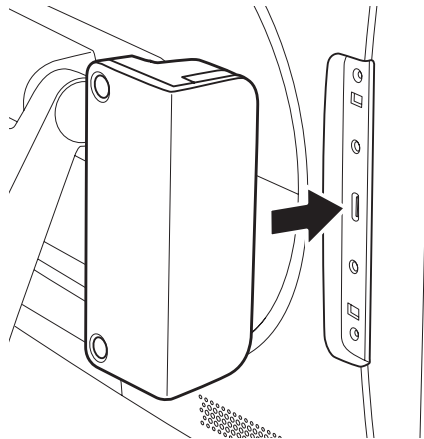


# Magnetic stripe reader (MSR) module (optional)

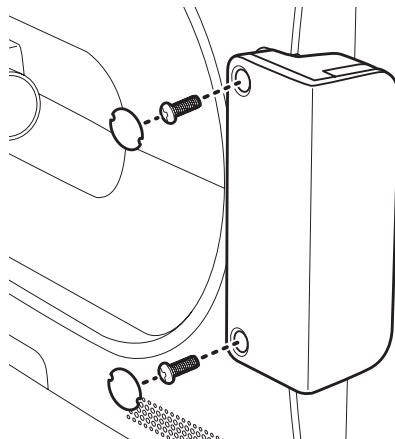
## Installing the MSR module

To install the MSR module, do the following:

1. Remove the peripheral compartment cover. Refer to page 25.
2. Align and connect the MSR module to the device.



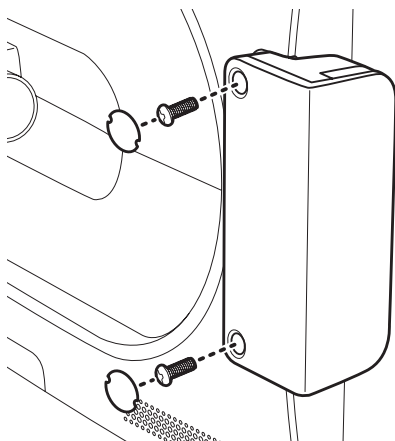
3. Secure the MSR module to the device with the two (2) screws.
4. Attach the mylar pad on each screw.



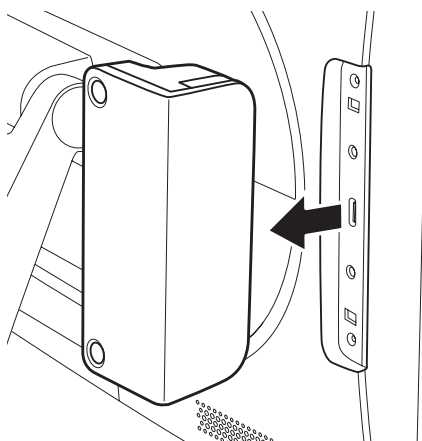
## Removing the MSR module

To remove the MSR module, do the following:

1. Detach the mylar pads from the two (2) screws.
2. Remove the two (2) screw securing the MSR module to the device.



3. Disconnect the MSR module from the device.



4. Replace the peripheral compartment cover. Refer to page 25.

## Appendix

In this section, you will find device and peripherals specifications, dimensions, and more.

### Device specification

Item	Description	
	IDC-151	IDC-221
MT model number	M1-156P-W3-A1 / M1-156P-W3-A2 (with stand)	M1-215P-W3-A1/ M1-215P-W3-A2 (with stand)
Version	1.00	1.00
Microtouch model number	IDC-151J5003G1F001 / IDC-151J7003G1F002	IDC-221J5002G1F001 / IDC-221J7002G1F002
SAP part number	N/A	N/A
Size	15.6" TFT LCD	21.5" TFT LCD
Maximum resolution	1920 x 1080	1920 x 1080
Contrast Ratio	1000:1	1000:1
Brightness (backlight type)	450nits (w/o touch)	350nits (w/o touch)
View angle	H:178°, V:178°	H:178°, V:178°
<b>Touch LCD display:</b>		
Touch screen	Projected capacitive	Projected capacitive
Touch points	10	10
Touch screen interface	USB-HID	USB-HID
Display surface	7H Hardness durable glass	7H Hardness durable glass
Surface treatment	AG	AG
<b>System:</b>		
CPU	i3-1215UE 3.3GHz 6 core Gen 12 or i5-1245UE 3.3GHz 10 core Gen 12	i3-1215UE 3.3GHz 6 core Gen 12 or i5-1245UE 3.3GHz 10 core Gen 12
Memory	1 x DDR4 DIMM slot, 16GB	1 x DDR4 DIMM slot, 16GB
Storage	1 x M.2 PCI Express 2280, 256GB	1 x M.2 PCI Express 2280, 256GB
OS	Windows 10 / Windows 11	Windows 10 / Windows 11
<b>IO ports:</b>		
USB port	1 x USB-C (PD in+USB output) 4 x USB-C (peripheral connection) 4 x USB 3.0 Type A	1 x USB-C (PD in+USB output) 4 x USB-C (peripheral connection) 4 x USB 3.0 Type A
Video port	1 x HDMI (up to 1920 x 1080 @60Hz) 1 x USB-C (Alt mode+PD out 12V@3A+USB 2.0)	1 x HDMI (up to 1920 x 1080 @60Hz) 1 x USB-C (Alt mode+PD out 12V@3A+USB 2.0)
LAN port	1 x RJ45 GLAN	1 x RJ45 GLAN
Audio port	1 x audio-output (3.5 mm Mini-Jack)	1 x audio-output (3.5 mm Mini-Jack)

Item	Description	
	IDC-151	IDC-221
<b>IO ports on stand with the hub:</b>		
USB port	1 x 24V PSUB 2 x 12V PSUB 8 x USB 3.0 USB-A 1 x USB-C PD output	1 x 24V PSUB 2 x 12V PSUB 8 x USB 3.0 USB-A 1 x USB-C PD output
Serial port	2 x RS232 RJ50	2 x RS232 RJ50
Cashdrawer	1 x 24V RJ11	1 x 24V RJ11
Power	1 x 24V DC- IN 1 x 12V/24V DC output @ 1A	1 x 24V DC- IN 1 x 12V/24V DC output @ 1A
<b>Physical properties:</b>		
Power supply	180W 24V DC - IN	180W 24V DC - IN
Speaker	2 x 2W stereo	2 x 2W stereo
Housing color	Black	Black
Construction	Plastic, glass, SECC metal	Plastic, glass, SECC metal
Compliance	Front panel IP65 compliant	Front panel IP65 compliant
Dimensions (W x H x D) mm	378.03 x 227.34 x 34.5 378.03 x 326.67 x 200 (with stand)	515.44 x 306.91 x 43.49 515.44 x 366.46 x 200 (with stand)
Net weight (kg)	2.38 kg without stand, 5.53 kg with stand	4.42 kg without stand, 7.57 kg with stand
Gross weight (kg)	N/A	N/A
Carton (W x H x D) mm	443 x 293 x 156 475 x 420 x 300 (with stand)	582 x 372 x 145 615 x 465 x 300 (with stand)
VESA	100 x 100 mm	100 x 100 mm
Ball drop	IK07	IK07
<b>Safety:</b>		
Certifications	CE, FCC, UL/CUL, NOM, RoHS	CE, FCC, UL/CUL, NOM, RoHS
<b>Environment:</b>		
Operating temperature	0°C ~ 40°C, 20% ~ 80% RH. non-condensing	0°C ~ 40°C, 20% ~ 80% RH. non-condensing
Storage temperature	-20°C ~ 60°C, 20% ~ 90% RH. non-condensing	-20°C ~ 60°C, 20% ~ 90% RH. non-condensing
<b>Function key and indicator:</b>		
Power button	1	1
Power LED	1	1
<b>Accessory box:</b>		
Accessories	180W 24V adapter x1 Power cord US x1	180W 24V adapter x1 Power cord US x1

## Peripherals specification

### MSR module

Item	Description
MT model number	MA-MSR-A1
Swipe speed	ISO standard card: 5-60 ips
Swipe direction	Bi-directional
Number of tracks	Reads up to 3 tracks (supports TDES encryption with DUKPT key management)
Power supply	+5VDC, +/-5%
Power consumption (typical)	7mA (maximum)
Interface	USB-C
Supported formats	ISO 7811, AAMVA, up to three tracks of magnetic encoding
Supported emulation modes	<ul style="list-style-type: none"> <li>• Keyboard emulation mode</li> <li>• Uniform defined HID device mode (HID MSR)</li> </ul>
Card width	3,375 x 2.125 in.
Supported operating systems	Windows 10/ Android
Mounting	Directly to: <ul style="list-style-type: none"> <li>• M1-156DT-A1</li> <li>• M1-215DT-A1</li> <li>• M1-238DT-A1</li> </ul>
Dimensions	111 x 39.5 x 36.7 mm
Gross weight	N/A
Net weight	N/A
Housing color	Black
Accessories	<ul style="list-style-type: none"> <li>• Mylar pads x 2</li> <li>• Screws x 2</li> </ul>

## Camera module

Item	Description
MT model number	MA-CAM-A1
Resolution	3264 x 2448 (8M) @15fps FHD 1920 x 1080 @30fps
OS support	Windows 10/ Android
Compliance	RoHS, REACH
<b>Module specification</b>	
Dimension	111.3 x 68.1 x 18 (mm)
Net weight	N/A
<b>Lens specification</b>	
Lens composition	4 Plastic + IR Filter (5E)
Mechanical(M)	N/A
Diagonal (D)	75°
Horizontal (H)	63°
Vertical (V)	49°
IR wavelength (T50%)	N/A
Effective focal length (EFL)	N/A
TV distortion	N/A
F No.	2.2 ±5%
Focus Mode	Auto focus (AF)
Focus Distance	N/A
Focus Range	10 cm ~ ∞
<b>Image Sensor Specification</b>	
CMOS Image Sensor	1/4" 8M CMOS sensor
Active Array Size	3264 (H) x 2448 (V)
Pixel Size	1.12 um x 1. 1.2 um
Image Format Output	YUV, MJPEG
<b>Electrical Specification</b>	
Input Voltage	USB 5.0V ±250mV
Temperature Range	0°C ~ 55°C
Housing Color	Black
Accessories	<ul style="list-style-type: none"> <li>• Mylar pads x 2</li> <li>• Screws x 2</li> </ul>

## Barcode scanner

Item	Description
MT model number	MA-SCAN-A1
Barcode engine	Honeywell N4680
Resolution	640 x 480
FPS	120 (maximum)
Motion tolerance	6 m/s
Field of view	40° horizontal × 30° vertical
Symbol contrast	20%

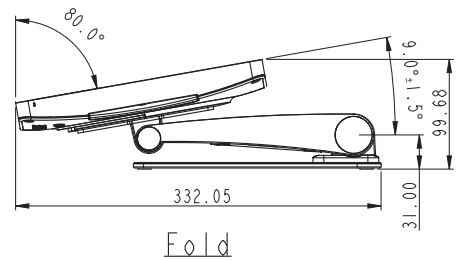
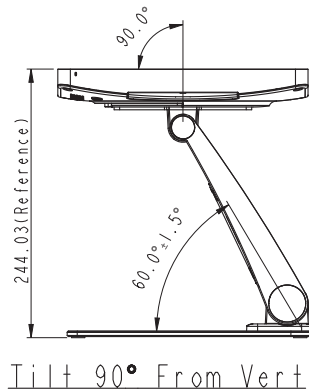
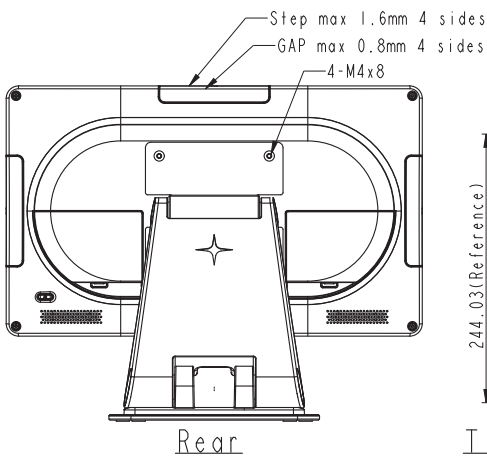
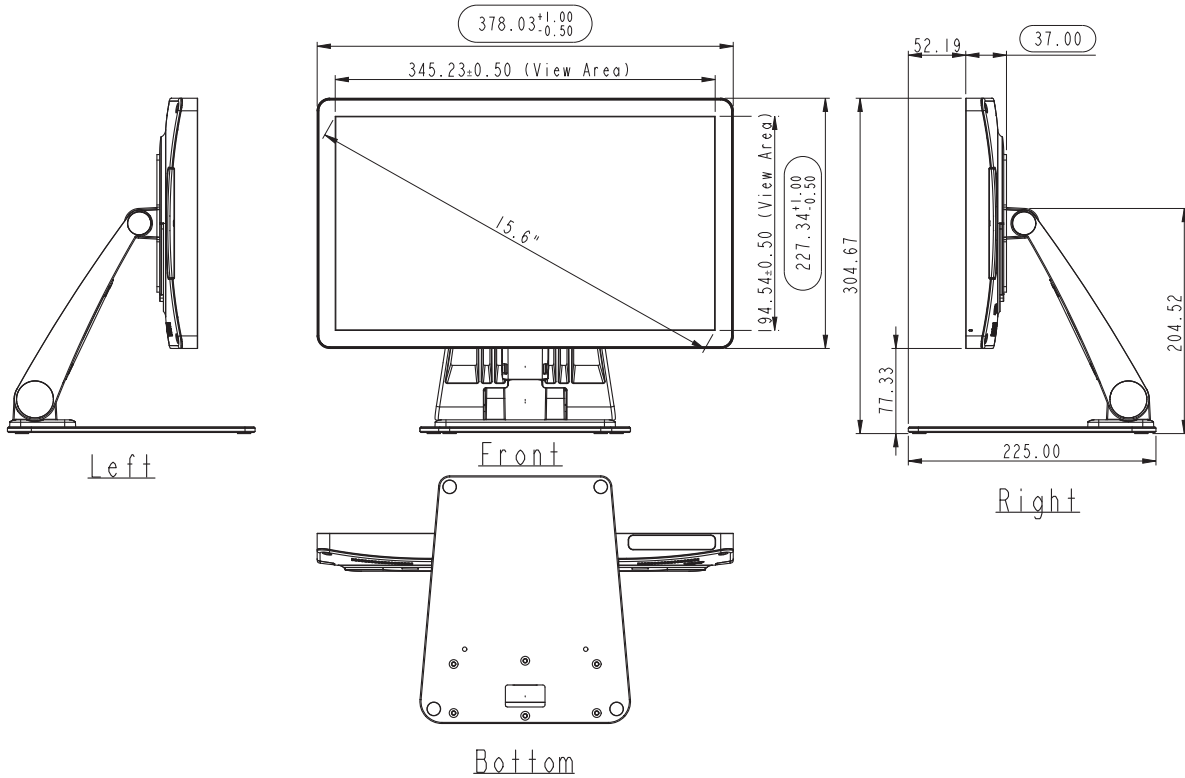
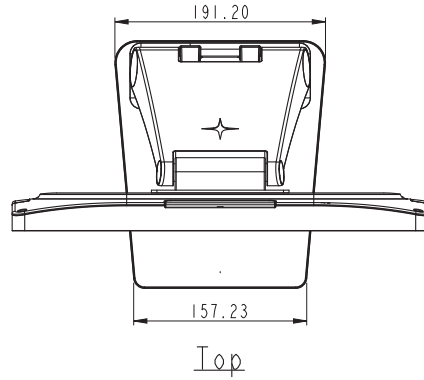
Item	Description
Resolution 1D	3 mil
Standard+V11:W27d configuration	Presentation mode
Supported terminal modes	<ul style="list-style-type: none"> <li>• USB HID Keyboard Mode</li> <li>• USB Serial Mode</li> <li>• HID POS Mode</li> </ul>
Compatibility	Directly to: <ul style="list-style-type: none"> <li>• M1-156DT-A1</li> <li>• M1-215DT-A1</li> <li>• M1-238DT-A1</li> </ul>
Illumination & aiming	3000K LED & 630 nm LED
Ideal scan distance	36 mm to 747 mm *Performance may be impacted by barcode quality and environmental conditions.
Supported formats	<ul style="list-style-type: none"> <li>• 1D: Codabar, Code 11, Code 128, Code 2 of 5, Code 39, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, GS1 Databar, UPC-A, UPC E, UPC-A/EAN-13 with Extended Coupon Code, Coupon GS1 Code 32(PARAF), EAN-UCC Emulation, GS1 Data Bar</li> <li>• 2D: Codablock A, Codablock F, PDF417, MicroPDF417, Aztec Code, Data Matrix, Maxi Code, QR Code, Chinese Sensible(Han Xin) Code, DotCode, Grid Matrix</li> <li>• Postal Codes : Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet</li> </ul>
Viewing angle	40° horizontal × 30° vertical
Dimensions	101 x 41.7 x 68.4 mm
Operating temperature	-30°C to 60°C
Storage Temperature	-40°C to 70°C
Humidity	0% to 95% relative humidity, non-condensing, at 60°C
Housing color	Black
Accessories	<ul style="list-style-type: none"> <li>• Mylar pads x 2</li> <li>• Screws x 2</li> </ul>

## Light bar

Item	Description
MT model number	MA-LBAR-A1
Input connector type	USB-C
LED	Red (default), and RGB LED lights offer various color illumination. Please download SDK from Micro touch Support website for custom programming.
Input Voltage	5.0 VDC
Dimensions	101 x 36.7 x 23.7 mm
Compatibility	Directly to: <ul style="list-style-type: none"> <li>• M1-156DT-A1</li> <li>• M1-215DT-A1</li> <li>• M1-238DT-A1</li> </ul>
Housing color	Black
Accessories	<ul style="list-style-type: none"> <li>• Mylar pads x 2</li> <li>• Screws x 2</li> </ul>

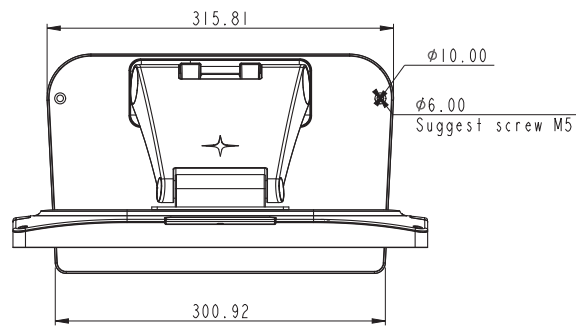
# Dimensions

## IDC-151 (without hub)

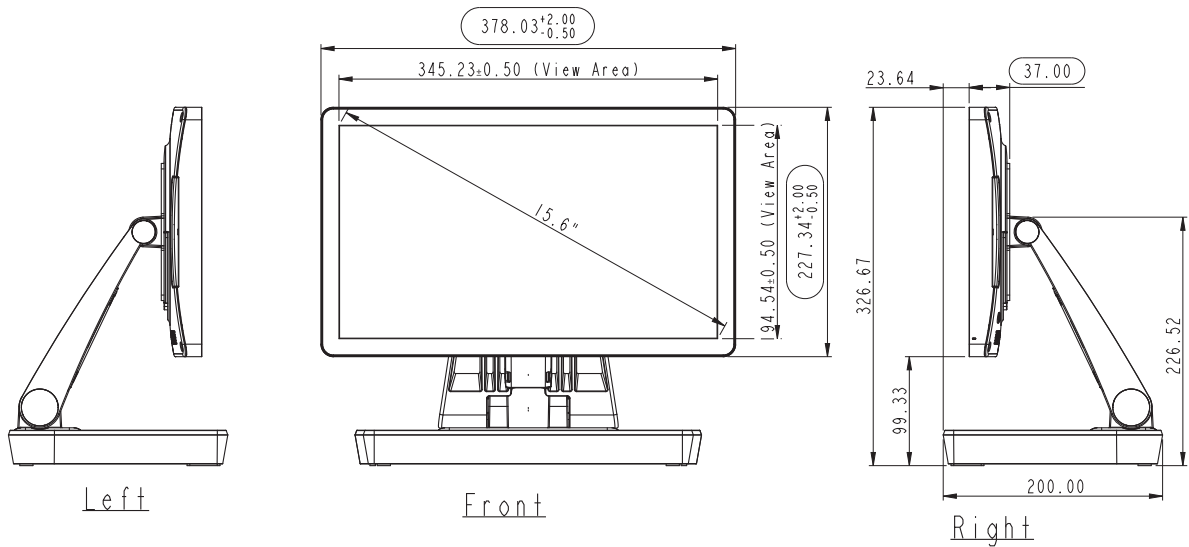




## IDC-151 (with hub)



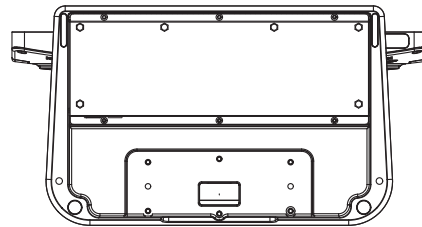
Top



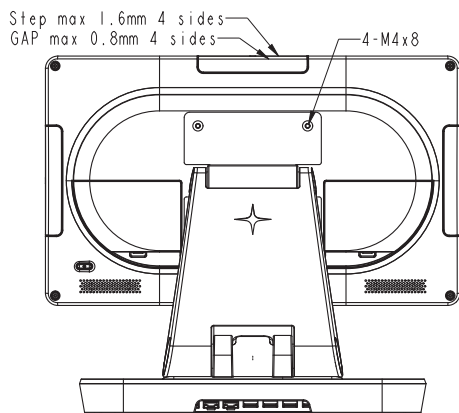
Left

Front

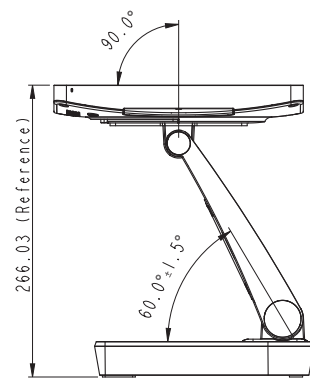
Right



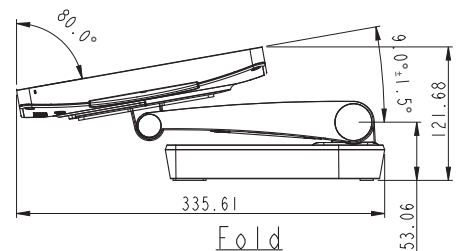
Bottom



Rear

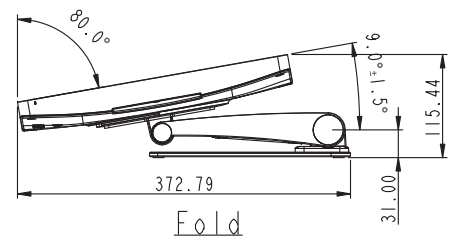
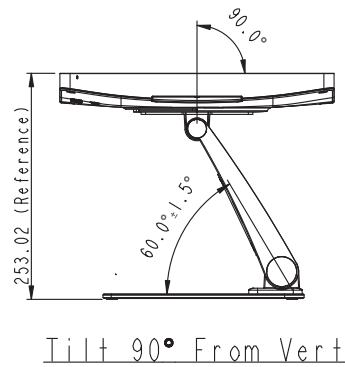
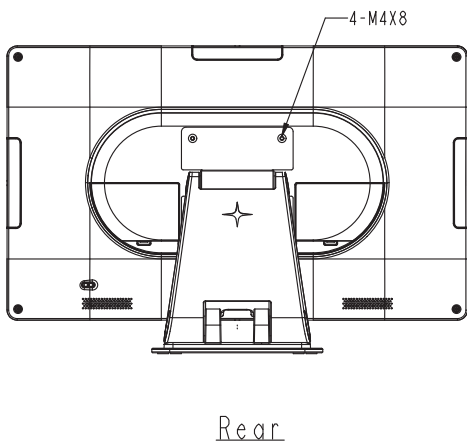
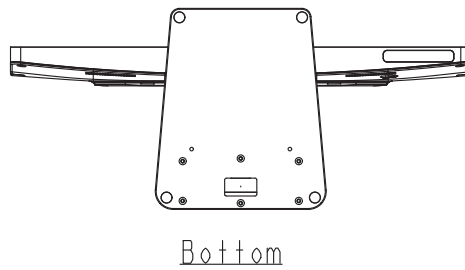
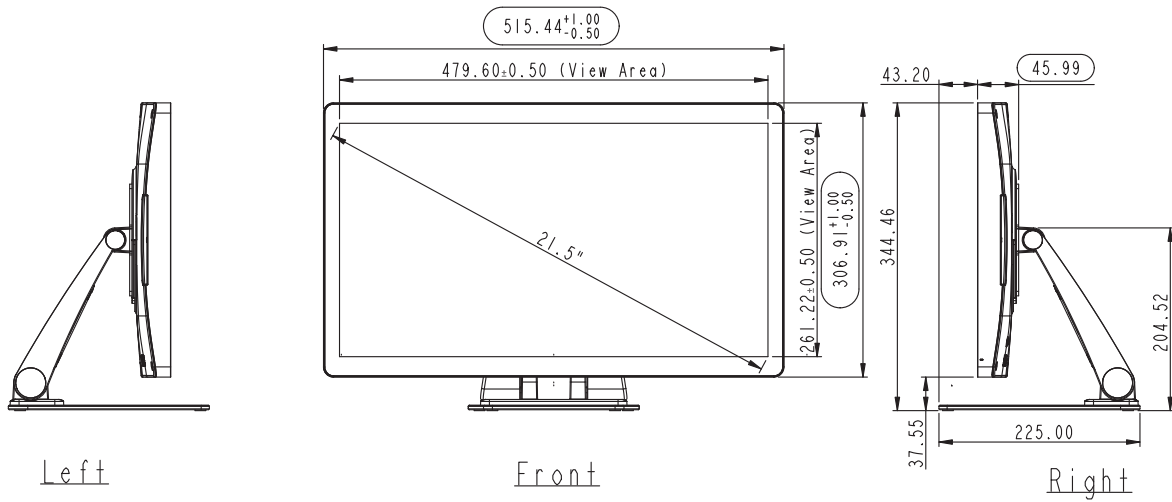
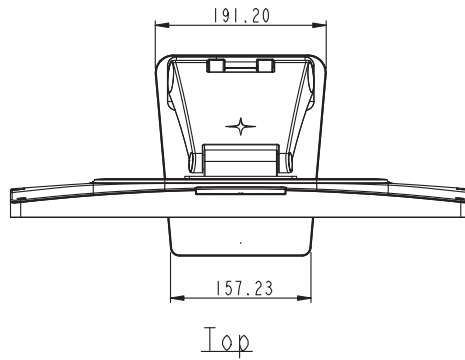


Tilt 90° From Vert

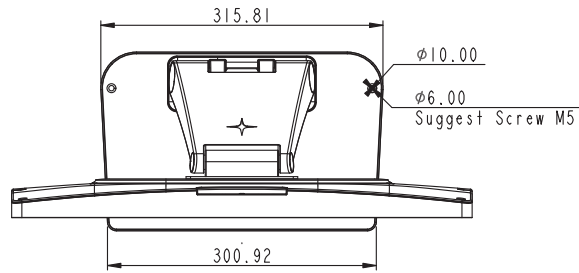


Fold

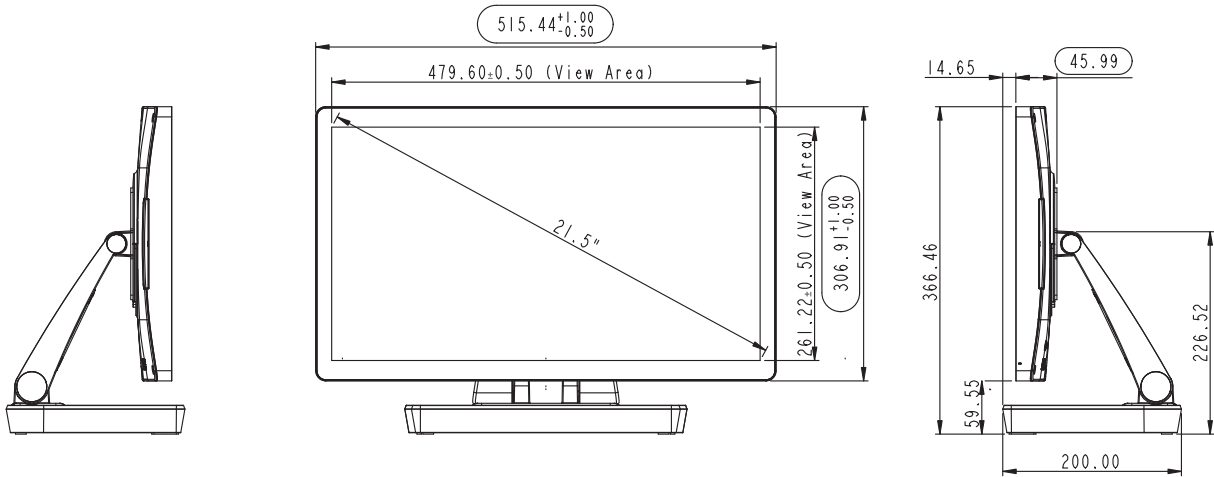
**IDC-221 (without hub)**



## IDC-221 (with hub)



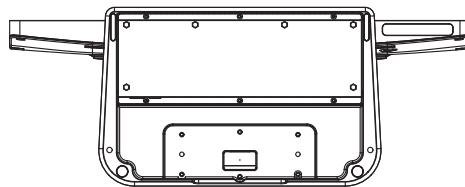
Top



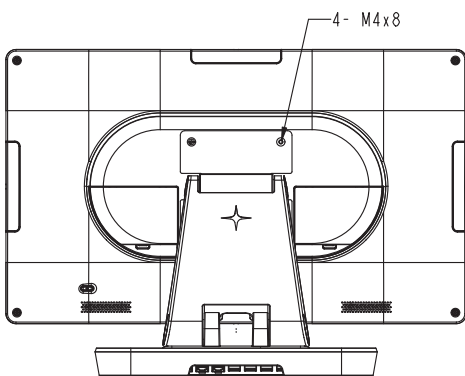
Left

Front

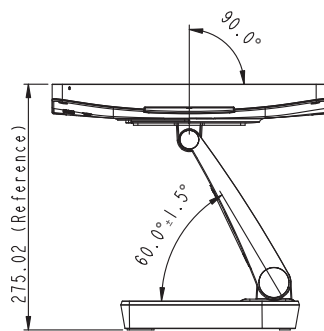
Right



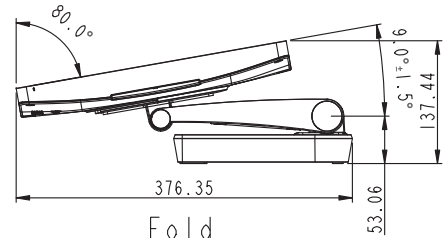
Bottom



Rear



Tilt  $90^\circ$  From Vert







Fold

# Troubleshooting

This section describes some common problems that you may experience when using the device and provides some general guidelines and solutions for troubleshooting.

If the suggested solutions fail to resolve the problem, please contact your dealer or our service center.

Problem	Possible Solutions
Power LED does not turn on	<ul style="list-style-type: none"> <li>• Ensure the power adapter is properly connected to the device and to the electrical outlet.</li> <li>• Ensure the pins of the power cord are not crooked or broken.</li> </ul>
No image appears on the screen	<ul style="list-style-type: none"> <li>• Ensure all the I/O connectors between the device and the computer are correctly and well connected.</li> <li>• Ensure the pins of the signal cables are not crooked or broken.</li> </ul>
Partial image or incorrectly displayed image	Check the resolution in the Start menu > Settings  > System > Display > Display resolution.
No audio	Adjust the sound level in the Start menu > Settings  > System > Sound menu.
The operating system is not responsive	<ul style="list-style-type: none"> <li>• Restart the device.</li> <li>• Ensure the device has the latest updates. Select <b>Check for updates</b> in the Start menu &gt; Settings  &gt; Update &amp; Security &gt; Windows Update menu. Install all the latest updates.</li> <li>• Run Windows troubleshooter. Select <b>Troubleshoot</b> in the Start menu &gt; Settings  &gt; Update &amp; Security &gt; Fix problems without resetting your PC menu.</li> </ul>

# Maintenance

The device does not require any routine maintenance other than occasional cleaning the areas of the device. We recommend cleaning every two weeks.

All the maintenance and repair should operate by a qualified, factory-trained technician. In any case of doubts, please contact Microtouch service center.

## Cleaning

Enclosure:

- Gently wipe all exterior surfaces with a soft, lint-free cloth dampened with distilled water or 70% isopropyl alcohol.
- If a 70% isopropyl alcohol is used, remove any residual cleaning material by wiping all exterior surfaces with a soft, lint-free cloth dampened with distilled water afterwards.
- Please read and follow all instructions on the cleaning product label.
- Wipe the printed font on the device with distilled water.



### **NOTE:**

*Do not use the following products for cleaning the screen of the device:*

- *MEK (Methyl Ethyl Ketone)*
- *Toluene*
- *Acetone*
- *Benzene or thinner*
- *Acid*
- *Alkaline or abrasive detergents*
- *Chemical cleaning cloths*