

UX Series Models Installation Manual

Large Format Display Models

MultiSync UX552

MultiSync UX552S

- * Please find your model name in the label on the rear side of monitor.
- * This manual contains the precautions that must be followed by the professionals in charge of the installation.
- * Please be sure to read Setup manual and User's Manual.

Introduction

This document describes the procedures to install the display (UX552/UX552S).

For safe and correct installation and use of this display, carefully read this document before installation.

Refer to User's manual of the applicable products for basic operation of the display.

This document expects qualified technicians who have knowledge about display installation.

After reading, please keep this document under care of the company which installed the display.



Warning

The display must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury.

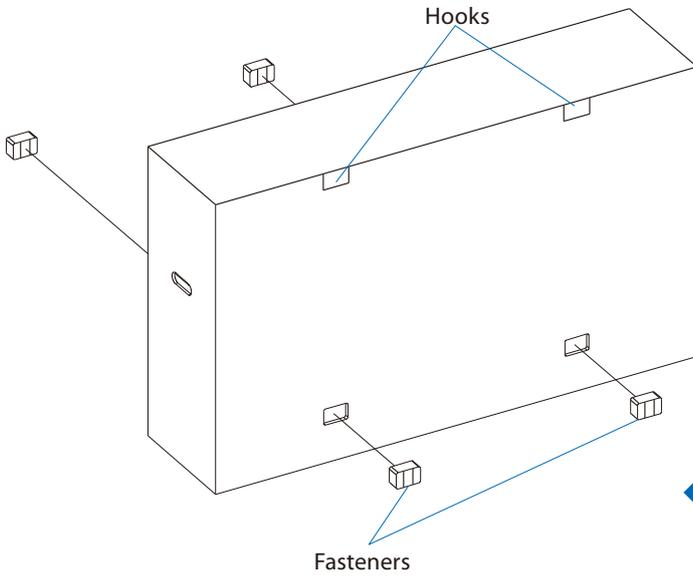
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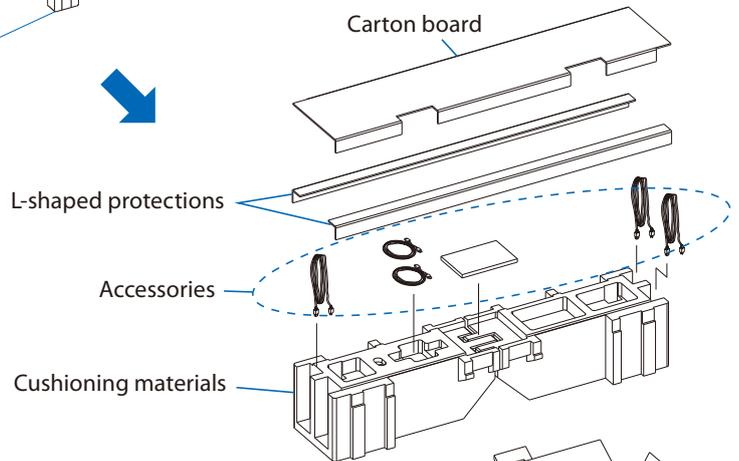
1. Unpacking procedure

Follow the procedure below to open the package.

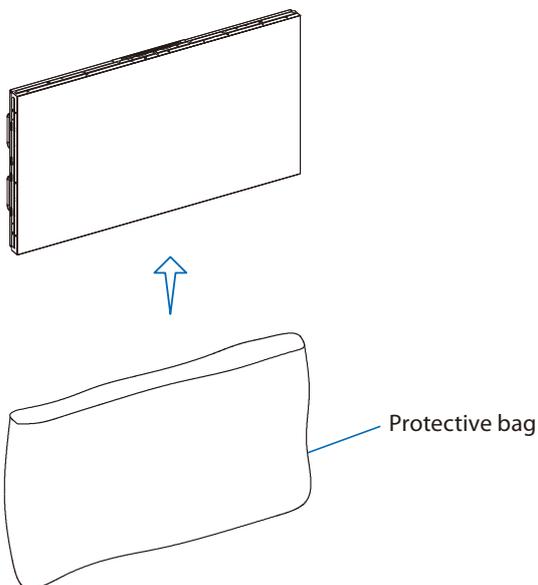
(1) Remove the fasteners and the hooks.



(2) Remove the accessories, the cushioning materials, L-shaped protections and carton board.

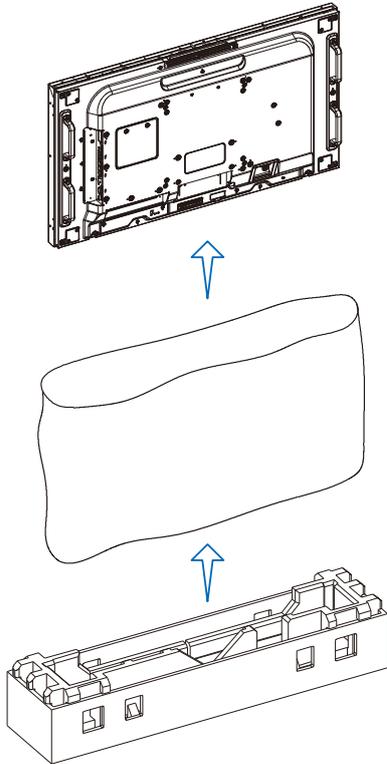


(3) Remove the display from the protective bag.

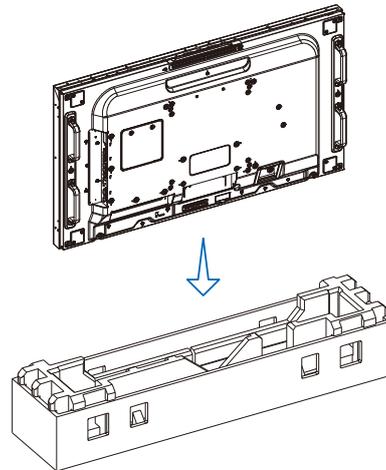


2. Simple electrical conductivity test before installation

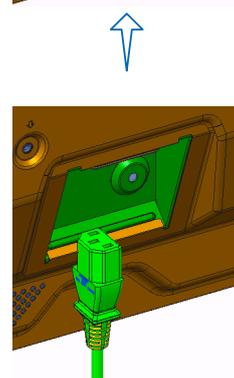
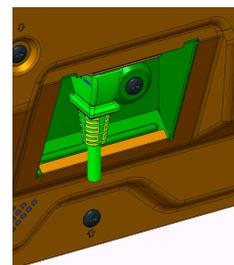
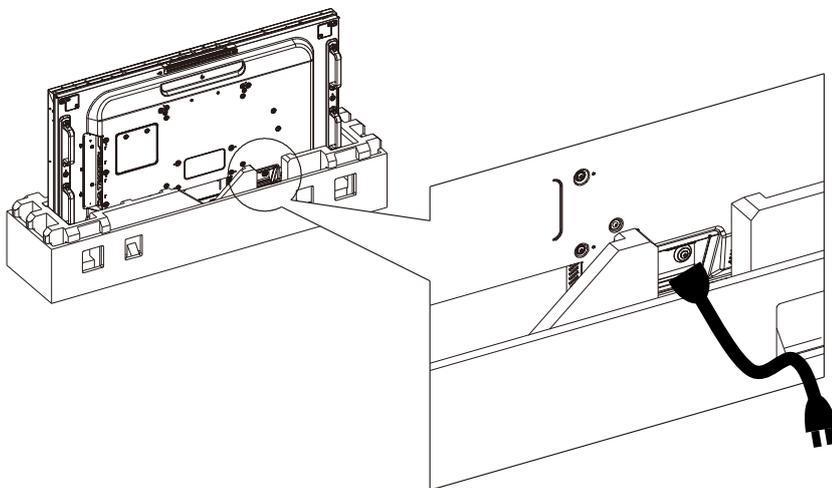
- (1) Remove the display from the cushioning materials and from the protective bag.



- (2) Put the display back in the cushioning materials.

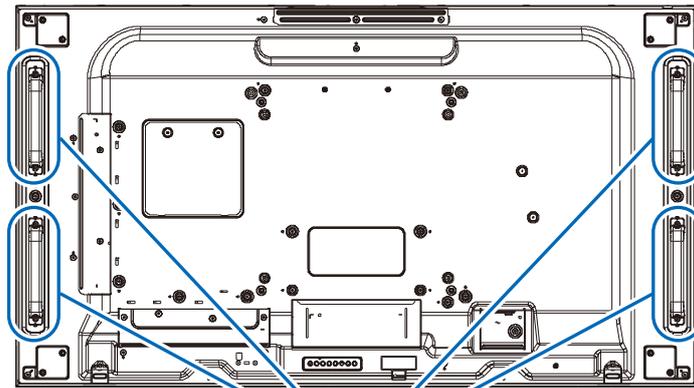


- (3) Connect the power cord to the display, while it stands vertically in the cushioning materials.
Do not keep the display turned on for a long time in that position.



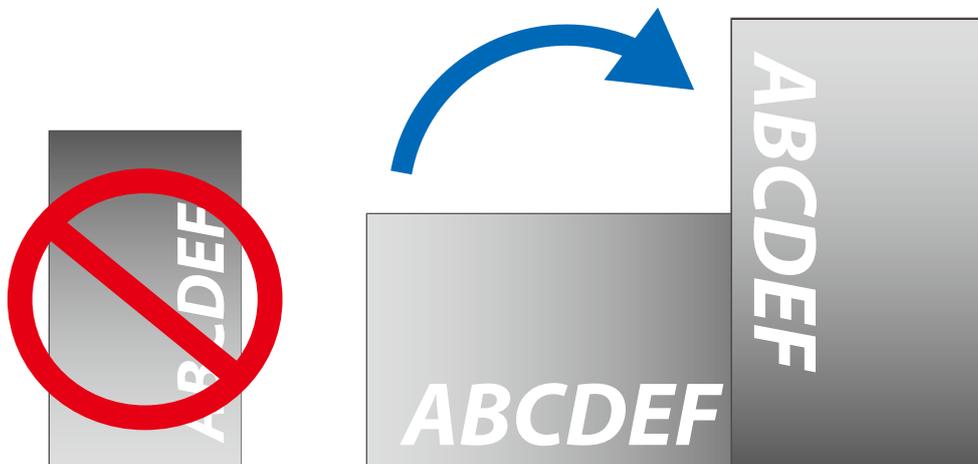
3. Precautions when installing or moving the product

- (1) When installing or moving the display, always keep it in the standing position, do not put it on its side or upside down. Always hold the display by the handles to move it.
- (2) Do not hold the display by a part other than the handles.
- (3) The display must be carried by at least 2 people.

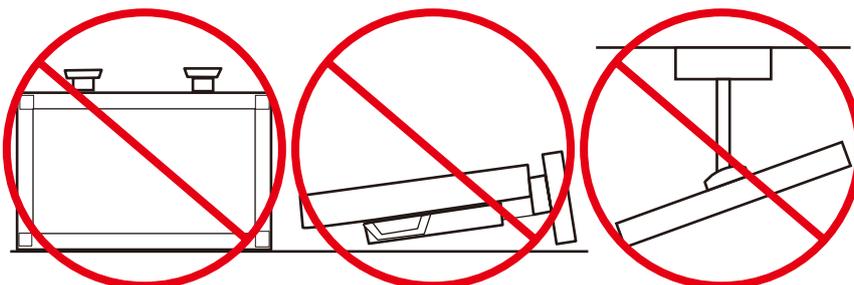


Handle

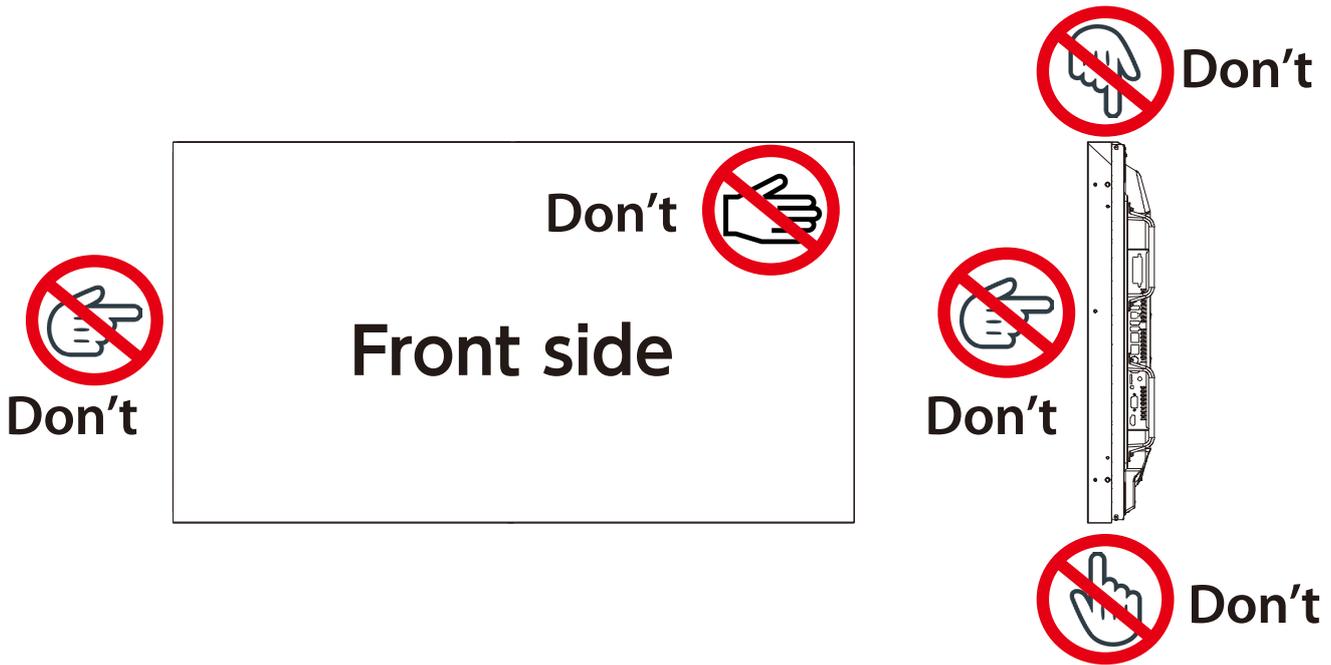
- (4) When installing the display in the portrait orientation, be sure to place the left side on the top when seen from the front. The display cannot be installed upside down.



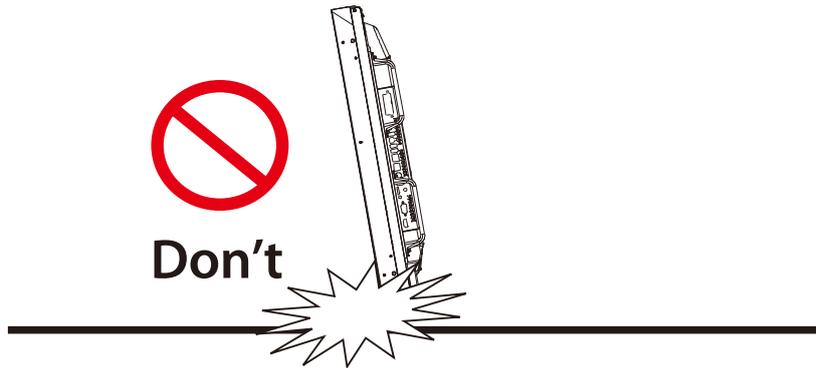
Do not install the display at a tilt.
Do not install it with the screen facing downward or upside down. Otherwise, it may damage the screen.



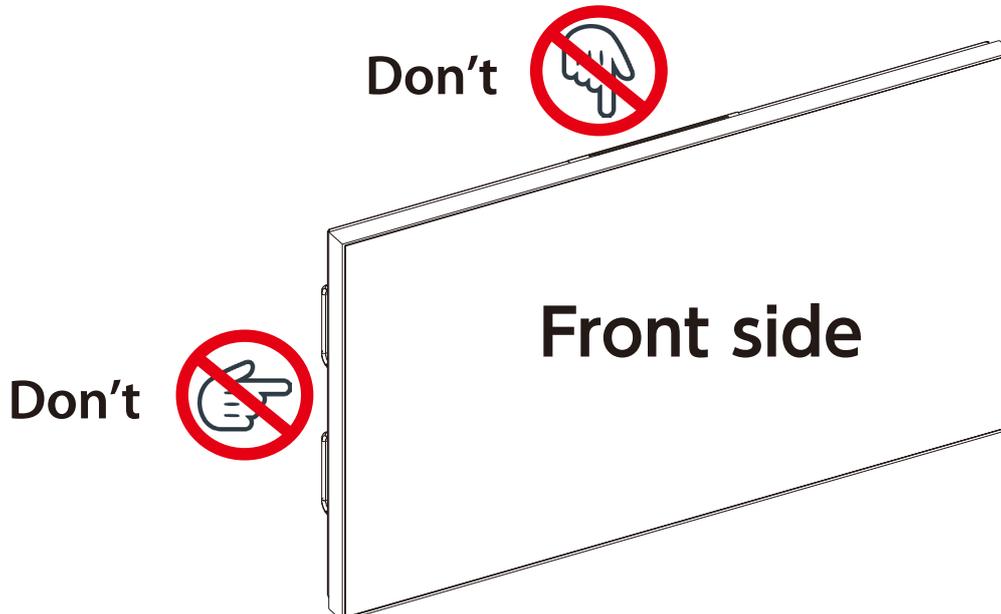
(5) Do not touch the top, bottom, left and right sides of the display. Also, do not touch the screen surface of the display. Applying pressure or shocks on the top or left sides of the display may adversely affect the image quality.



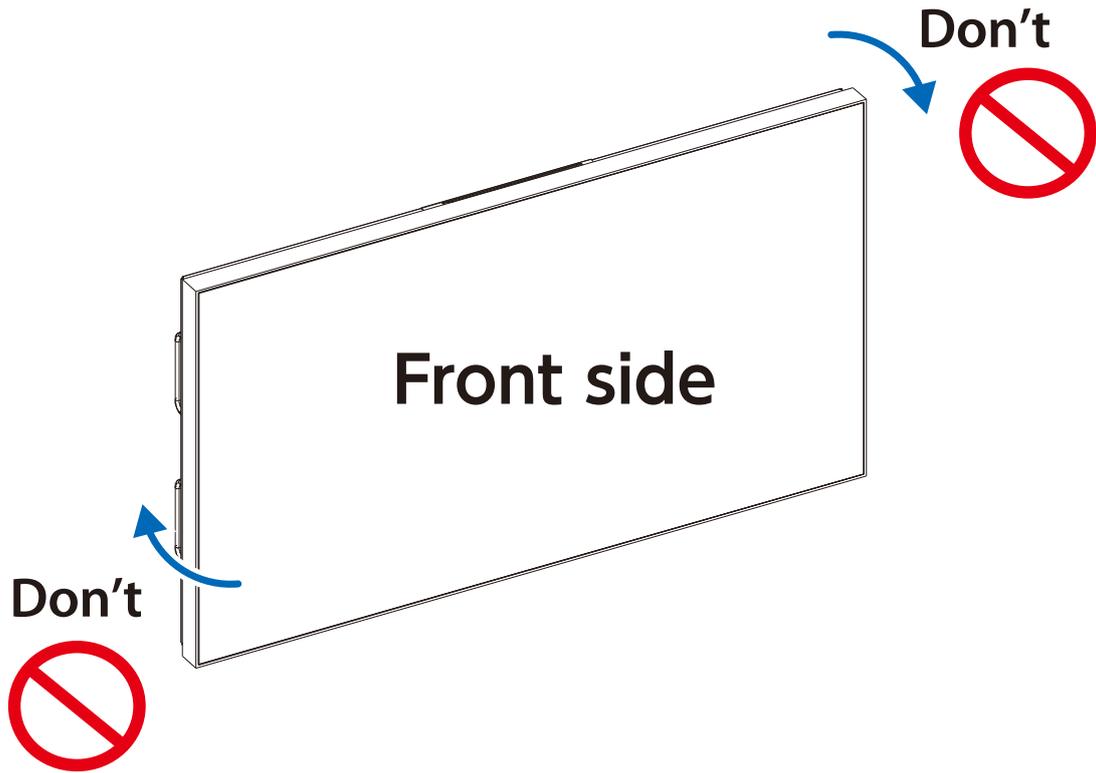
(6) Putting the bottom of the display or the screen surface directly on the floor may damage the display. Do not put the display directly on the floor but use the stand or the product package to keep it vertical.



(7) When installing the display in a multiple screens configuration, do not place it in a structure that continuously applies a load on its top or left side. Otherwise, it may adversely affect the image quality.



(8) Do not bend the display when installing it.

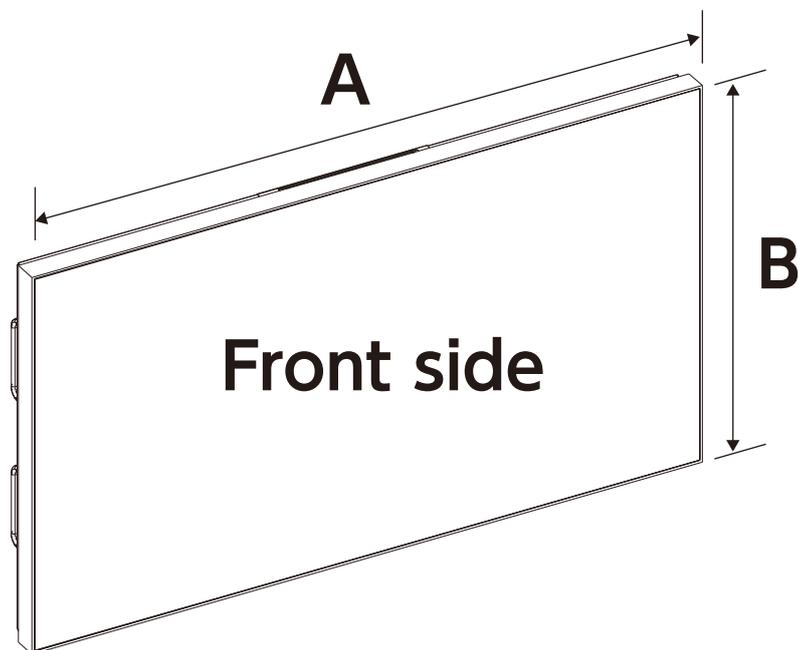


(9) Pay attention not to apply vibrations or shocks to the display when installing it. Otherwise, it may cause a malfunction.

4. Display external dimensions tolerances

External dimensions tolerances of the display are as follows.

Consider these tolerances when installing the display and pay attention that it does not interfere with other parts of the structure.

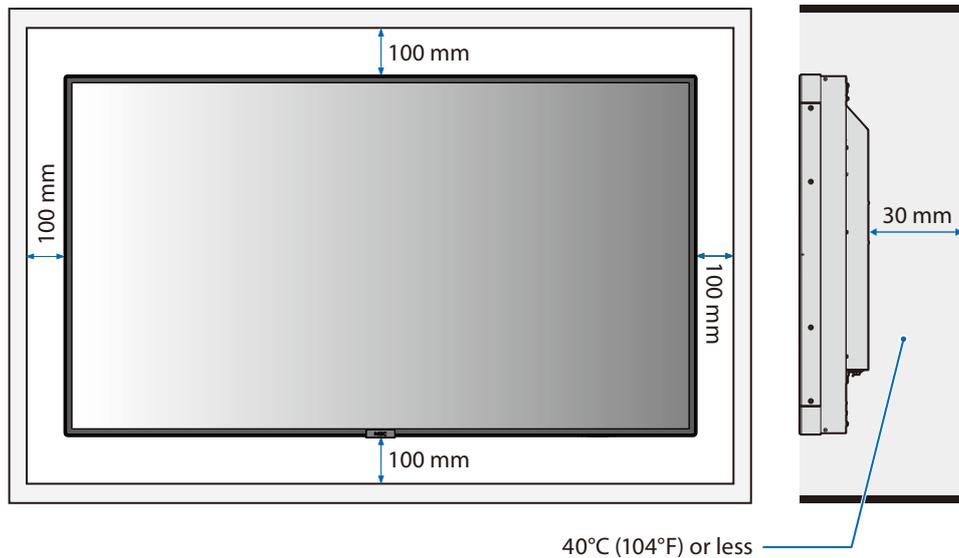


Tolerance	
A	B
±1.3 mm	±1.3 mm

5. Allowable temperature and installation environment

When installing the display in a narrow place (in a case embedded in a wall, etc.), leave gaps as shown in the figure below between the display and the wall to prevent an increase in the temperature.

You may also implement suitable cooling measures.



The guaranteed ambient temperature for the display is 40°C (104°F).

When using it inside a case, take measures such as installing cooling fans in the case or air vents to keep the temperature inside the case at a temperature of 40°C (104°F) or lower.

The display is equipped with temperature sensors and cooling fans. These fans turn on automatically when the inner temperature is too high.

A warning is displayed in any environment that exceeds the guaranteed temperature, even when the cooling fans are being used.

Using the display in an environment where a warning is displayed may cause a malfunction. In such a case, turn off the main power supply.

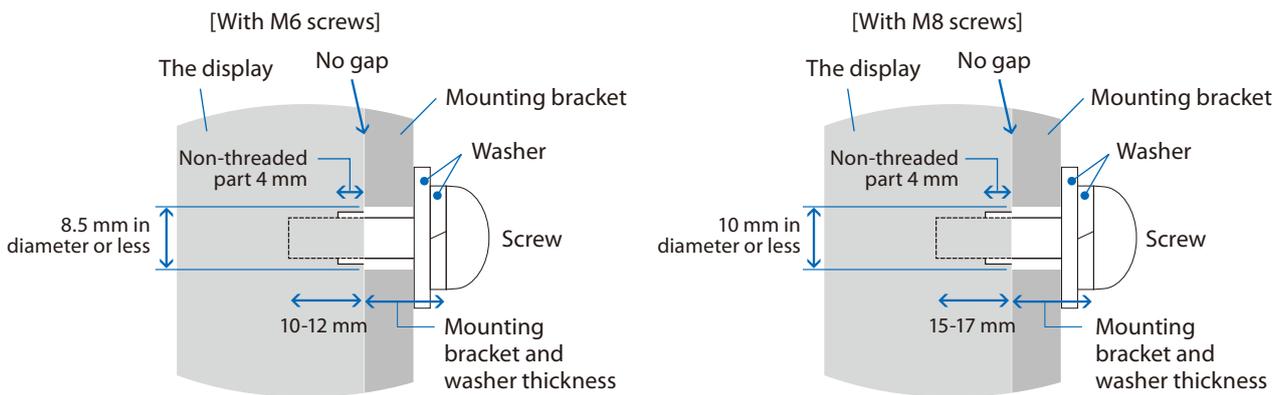
In addition to automatic operation of the built-in cooling fans when the temperature exceeds the guaranteed temperature, you can set the cooling fans to operate continuously under DISPLAY PROTECTION FAN CONTROL in the OSD menu.

When using the display with an option board, some of the cooling fans may turn on automatically to cool the option board even when the display operates within the guaranteed temperature range.

When the display is installed inside a case or when it is used with the LCD surface covered with an acrylic sheet or other protective sheets, check the inner temperature under DISPLAY PROTECTION HEAT STATUS in the OSD menu and then configure the fan operation as required.

6. Wall mount brackets installation

- (1) Use only mounting brackets that comply with the VESA standards.
- (2) Install the display only after thoroughly checking the strength of the mounting surface.
- (3) Use mounting brackets strong enough to support the display.
- (4) Check the strength and other safety factors before installing the display.
- (5) Refer to the mounting brackets manual for details on the mounting method and on how to guarantee the installation safety.
- (6) When using M6 screws, make screw holes of 8.5 mm or less in diameter.
When using M8 screws, make screw holes of 10 mm or less in diameter.
- (7) Pay attention not to leave any gap between the installation surface of the display and the mounting brackets.

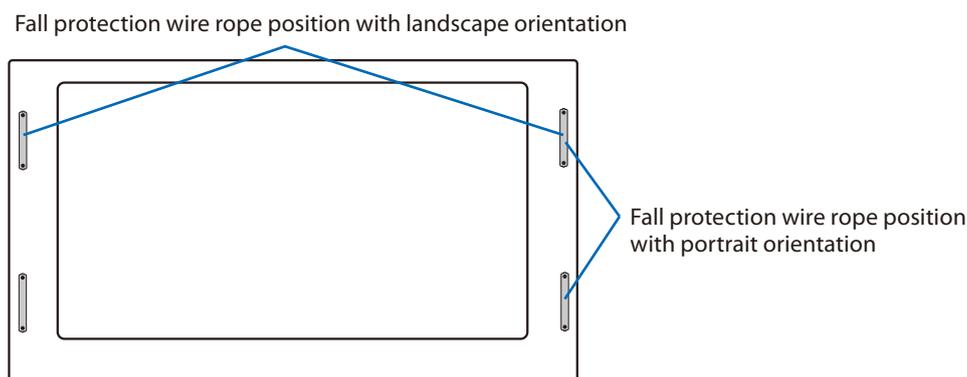


- (8) When installing the display on a wall or the ceiling, install a fall protection wire rope for safety.
- (9) Never attach the display to a wall or the ceiling using only the fall protection wire rope.
- (10) Install the fall protection wire rope not fully stretched.

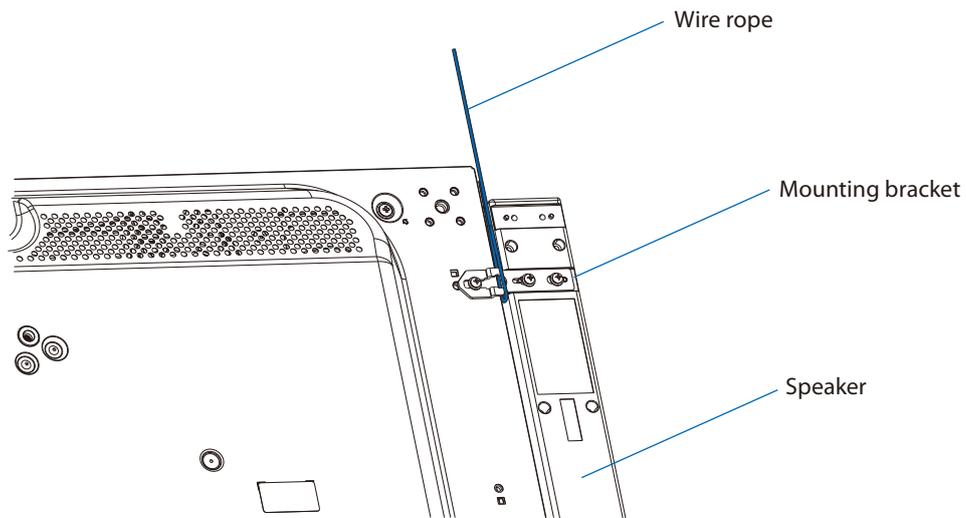
When attaching the fall protection wire rope to the handles, use the handles shown in the picture below depending on the orientation.

When attaching the fall protection wire rope to the speaker brackets, follow the method shown in the figure below.

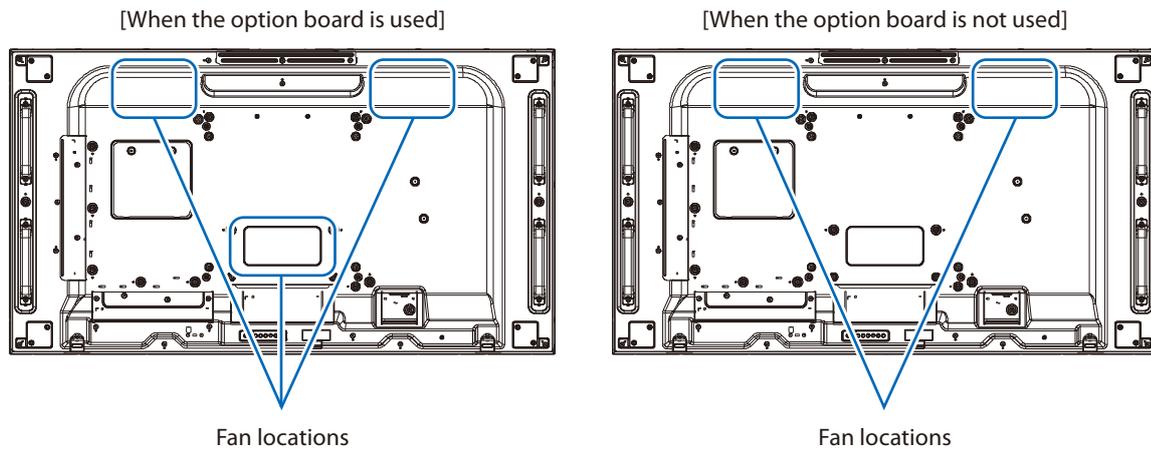
(Tightening torque 139 to 189 N•cm)



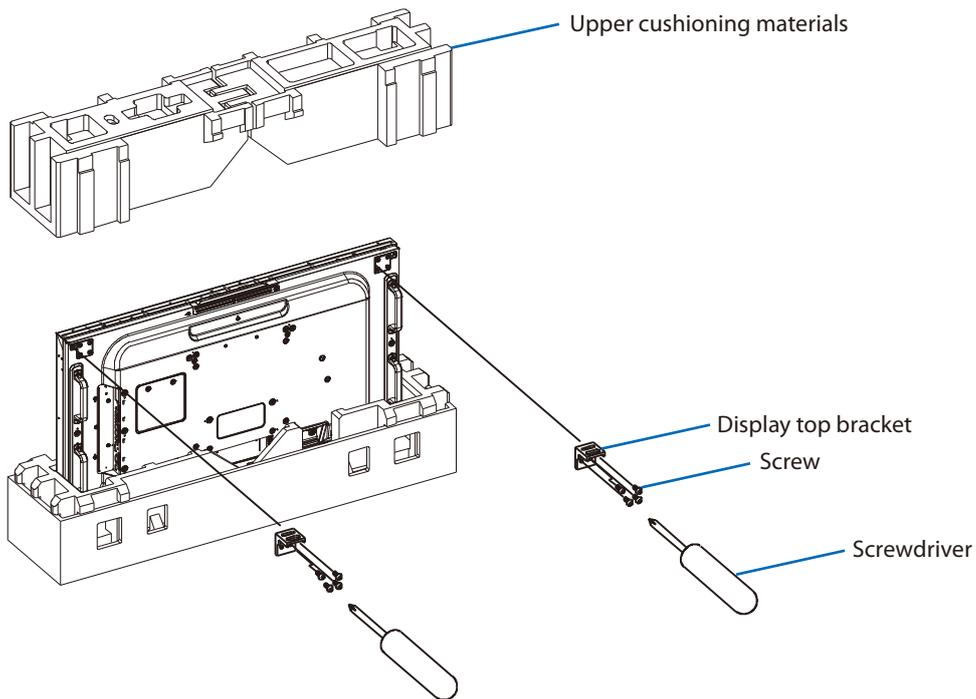
- (11) When attaching the wire rope to a display equipped with speakers (landscape orientation only)
Attach the wire rope using the speaker brackets.



- (12) The display fans are located at the three locations shown in the figure below.
Do not obstruct the fan vents with the mounting brackets or other parts.
There are 3 fan vents when the option board is used, and 2 fan vents when the option board is not used.
Using the display with the fan vents obstructed may cause a malfunction.

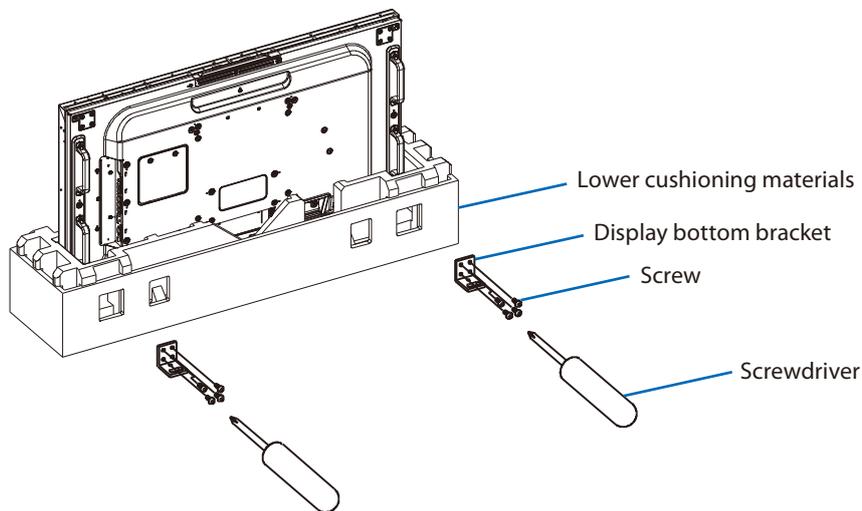


- (13) When using the NEC wall mount kit, remove the upper cushioning materials and fix the display top brackets to the display using screws.



- (14) It is possible to fix the display bottom brackets by passing the screw through the holes in the lower cushioning materials.

Since it is possible to fix the brackets with the display maintained by the cushioning materials in the vertical position, there is no risk to damage the screen.



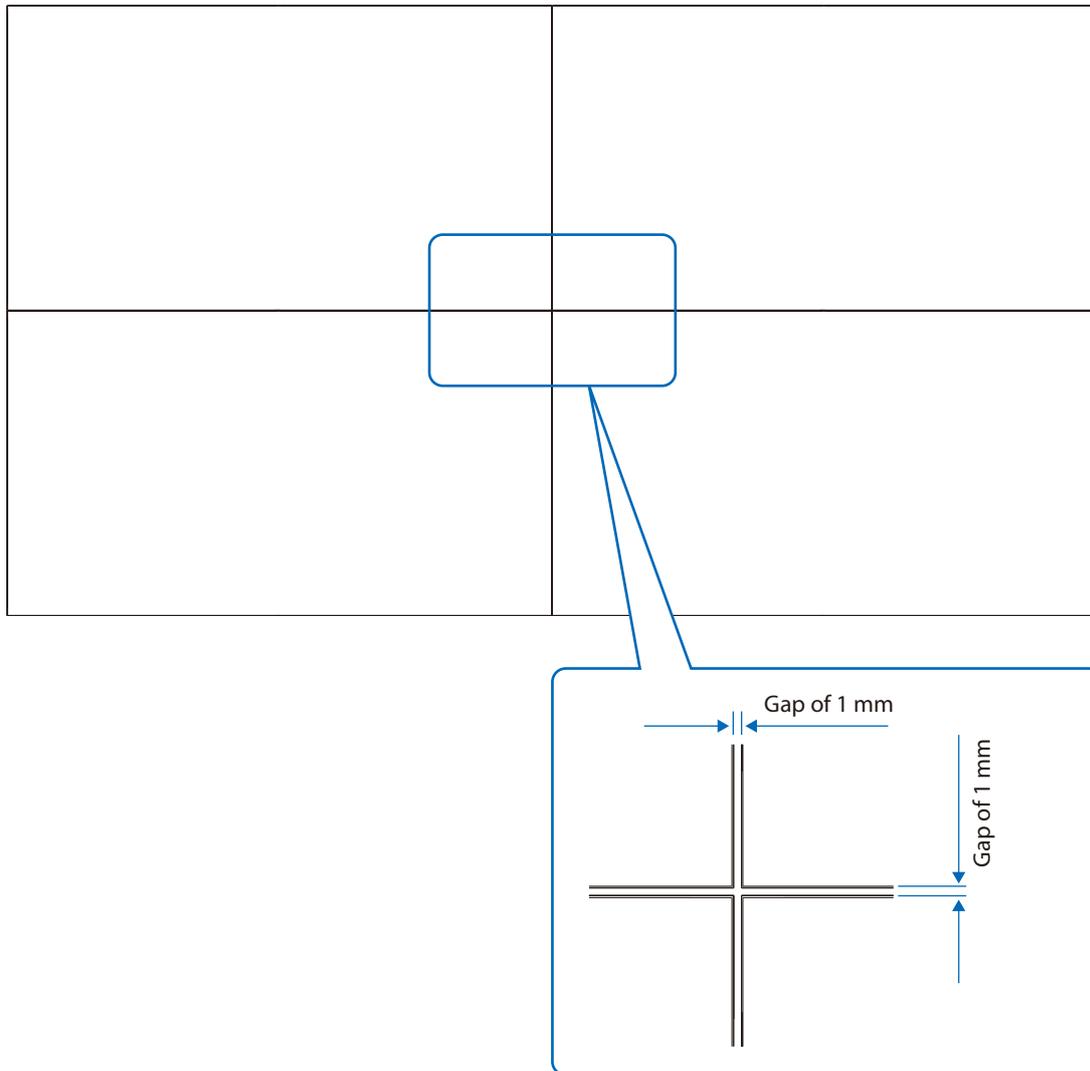
7. Multiple screens installation

- (1) When installing the displays in a multiple screens configuration, turn the displays off and leave a gap of 1.0 mm between each display.

Note that light from the back may pass through the gaps between the displays.

To prevent the light from passing through the gaps, install a plate that stops the light at the back of the displays.

This plate is not supplied by NEC.



- (2) Consider the following when installing the display in a multiple screens configuration.
- Check that the wall to which the mounting brackets will be installed is perfectly flat.
 - Make sure that the mounting brackets used are strong enough to meet the installation requirements.
 - Choose a structure in which load is not applied on the display top and left sides.
 - Pay attention that the cable route does not interfere with other parts of the structure.
 - Choose a configuration with which there is no risk that the displays bend after they have been installed.

8. Pins, spacers and plastic spacers

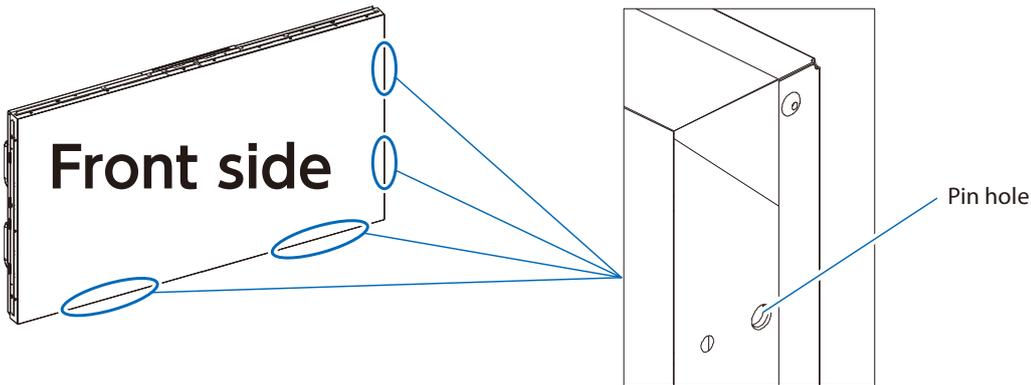
Some display models are supplied with pins, spacers and plastic spacers.

With multiple screens configuration, installing the pins and the spacers makes it possible to secure a constant gap between the displays.

However, the pins can be installed only on the models that have pin holes of 6 mm in diameter in their bottom and right sides.

The pins cannot be used with the other models.

Also, the pins, spacers and plastic spacers cannot be used for installation brackets that allow the display to move (Example: Pantograph mechanisms, slide mechanisms).

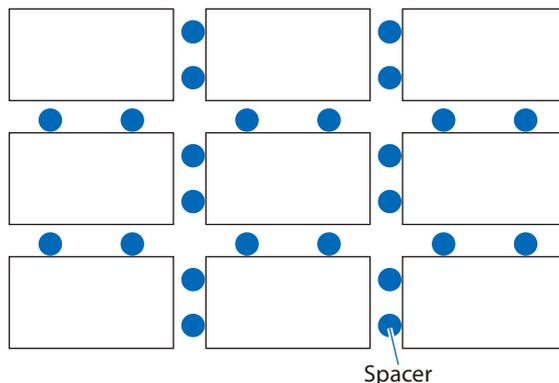
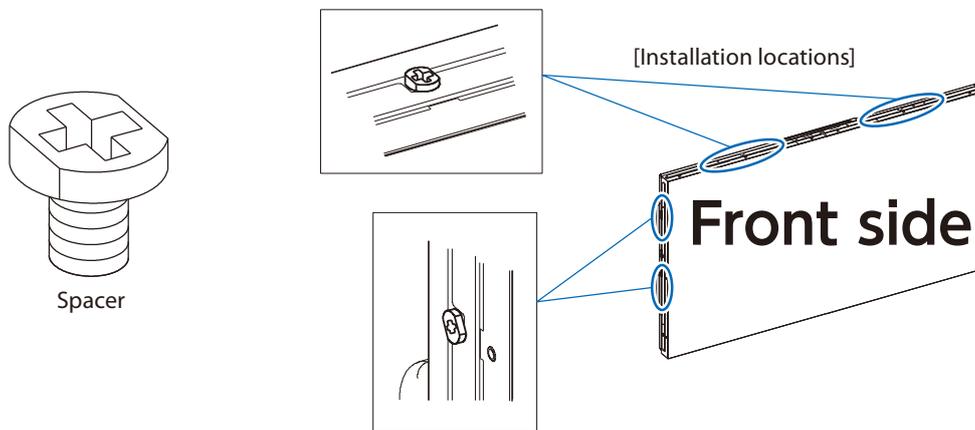


(1) Spacers

The spacers supplied with the display can be installed in the screw holes on the top and left sides of the display.

They are useful to prevent the display from coming into contact on their weaker sides with other displays in multiple screens configuration. Therefore, we recommend installing these spacers in this configuration.

However, it cannot be used for installation brackets that allow the display to move back and forth or left and right (Example: Pantograph mechanisms, slide mechanisms).

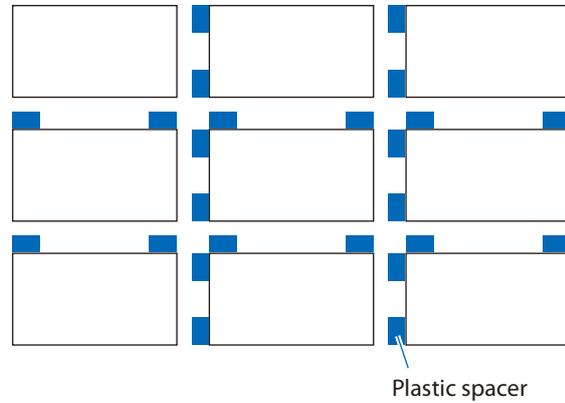
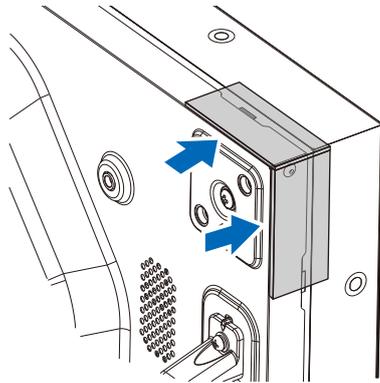


Example: Spacer installation with multiple screens configuration

(2) Plastic spacers

Plastic spacers are useful to prevent the display from coming into contact on their weaker sides with other displays. Remove the release paper from the back of the spacer double-sided tape, and stick the spacer to the edge at the back of the display.

However, it cannot be used for installation brackets that allow the display to move (Example: Pantograph mechanisms, slide mechanisms).



Example: Plastic spacer installation with multiple screens configuration

* Caution: When using movable installation brackets

- If pins are installed to the display, the display cannot be moved.
- If spacers or plastic spacers are installed to the display, the display may be rubbed or touched with spacers or plastic spacers to cause abnormal images.
- When using movable brackets for installation, do not install pins, spaces and plastic spacers.
- Example of movable installation brackets are such as pantograph mechanisms, slide mechanisms.

9. Compatibility of optional mounting brackets

For information on optional mounting brackets compatibility, refer to the manual supplied with the optional mounting brackets.

10. Installation procedure of options

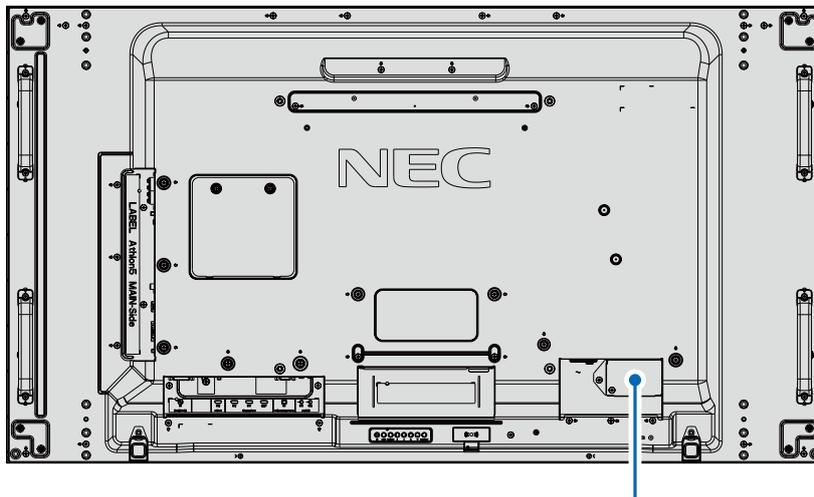
For information on the installation procedure of options, refer to the manual supplied with the options.

11. Using External Power Supply

When opening the service door

There is a high voltage electric parts inside the monitor.

There is charged high voltage in electric parts, so never open this door unless absolutely necessary. Also, when opening the service door, use the prescribed procedures to ensure that you do it safely.



Connector for external power supply.
Remove the DC cover plate to see the input terminal.
Please refer to sheet "[DC power input terminal connection](#)".

DC power supply input rating

INPUT:48V \approx 8.0A

*Do not input voltage that deviates from the rated range.

Rating label



*Please do not remove the input rating label.

Connecting the DC power line for redundancy function (for UX series)

Always connect the DC power line supplied from the DC power supply (including protector function) unit via power line when using the redundancy function.

Use a DC power supply unit of the following specification depending on the DC power line connection method.

Be sure that the power line cable used to connect to the input terminal for redundancy function has a core thickness of **14AWG or 2mm²** according to the requirements (based IEC60950-1) of the country where the DC48V power supply unit is installed, and that the cable core is made of copper.

DC input power supply specification

DC input power supply specification	
DC Voltage Range	48V +/- 2V
Max. Current [A]	8.0

DC power supply equipment

DC power supply requirement is as shown in the table below.

Do not connect DC power supply voltages to the monitor other than those indicated below.

Use round type UL-Listed solderless terminal for DC power line cable at US for NEC.

In addition, when clamping this terminal with the cable, use an UL listed tool.

NEC : NFPA70 National Electric Code

It is connected to the DC input terminal of monitor for redundancy function, and that it is connected according to the procedures described in this manual.

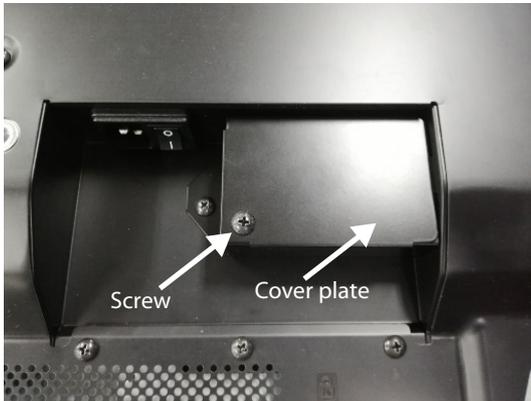
External Power Supply Requirement	
Protection	OVP, OCP
Safety certifications	EN60950-1, CE marking ^{*1}

^{*1} Please use a power supply compliant with the compliance of the area where the monitor is installed.

DC power input terminal connection

*Make sure that the DC power supply and AC cord are disconnected before carrying out the work of connecting the power supply cable.

(1) Initial cover plate state



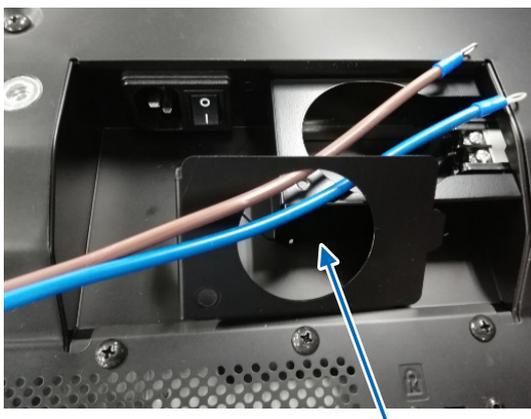
(2) Loosen the screws and remove the initial cover plate



Polarity!
+ : positive
- : negative

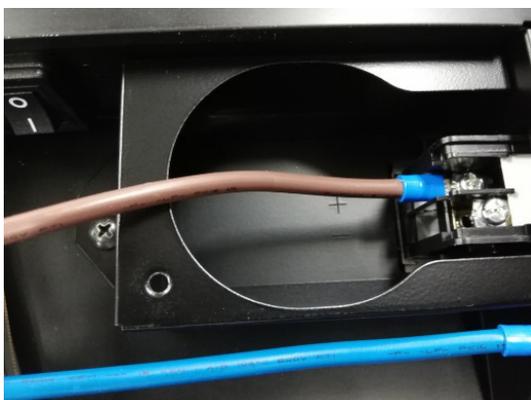
English

(3) Pass the DC power cable through the hole of the supplied "DC plate"



Two kind of DC plates are in accessory box. (DC plate 32, $\phi 32$ DC plate 45: $\phi 45$)
Use one of the two attached DC Plate with holes along each country regulation

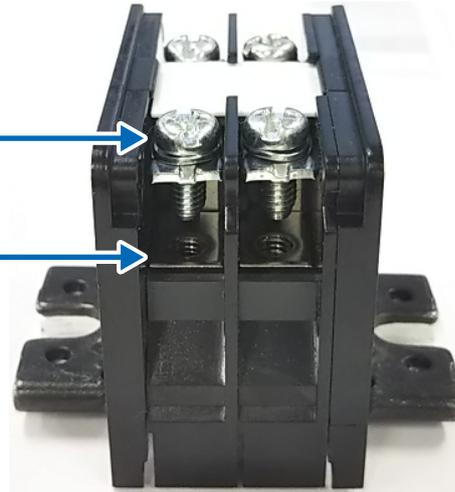
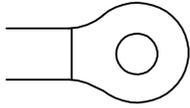
(4) Connection of solderless terminal



Polarity!
+ : positive
- : negative

Screws are at the top.
Screws are un-removable.

Insert solderless terminal here.



Tighten screw.



Tighten the terminal screw in the torque range of 0.8Nm~1.2Nm.

Even if the screws are too loose or too tight, there is a possibility of serious accident. Be sure to observe the torque range.

(5) Install "DC plate" by screw

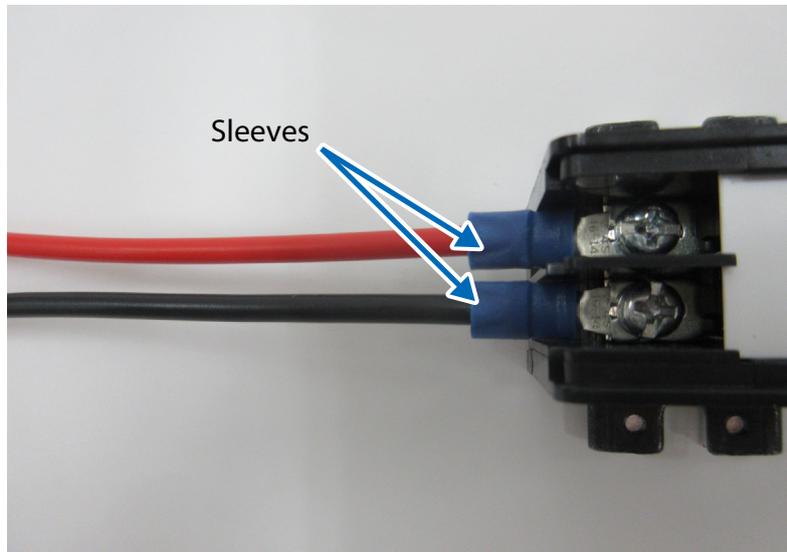


Standards	JIS	IEC/EN	UL/cUL
Wire size	2mm ²	2~2.5mm ²	AWG14~22(FW2)
Terminal screw	M3.5 x 8		
Tightening torque	0.8~1.2Nm		
Solderless terminal	R2-3.5, R1.25-3.5, R0.5-3.5		
Solderless terminal Size			

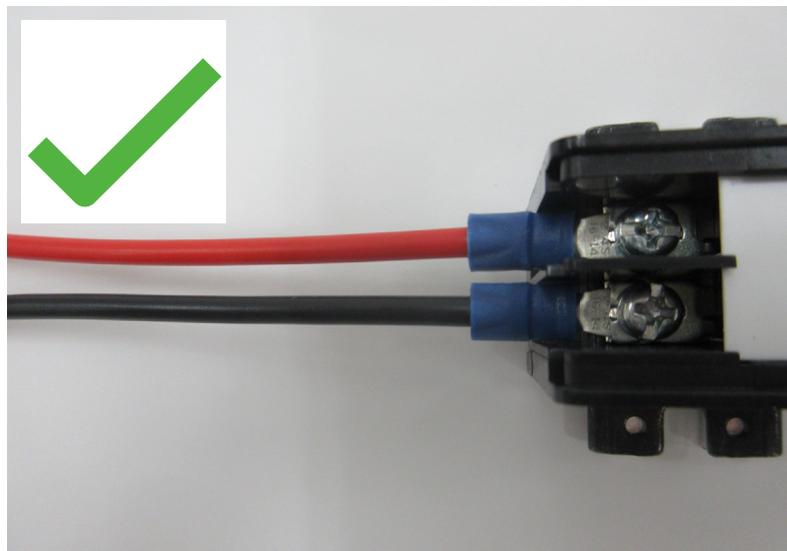
Connecting the cable

In order to attach the DC power line cable to the connector block, connect the wires using the following procedure such that the individual wires cannot directly touch each other.

- (1) Remove the power cable sleeves from the terminals to ensure that the sleeves are not pinched by the terminal attachment screw.
Pull back the sleeves from the terminal area before fastening the screw to prevent the sleeves from being pinched



- (2) Attach the sleeves after tightening the screw.
Tighten the fixing screw to the designated torque.



Use sleeves and secure the insulation to ensure that terminals do not touch each other.

If the cables are attached to the power supply terminal without using sleeves, there is a risk of the terminals touching each other as shown in the photograph on the right.



Warning

Carefully read the contents described in this section before connection and connect the cables according to the proper procedure. Inappropriate handling may cause fatal, serious or other bodily injuries due to fire or electric shock.



Caution

Make sure that the DC power supply is disconnected before carrying out the work of connecting the power supply cable. Be sure to follow the contents described in this section. To avoid electric shock, request a professional to carry out the grounding and related works.

