

Ceiling Mount Unit PX-C3U

Installation Manual

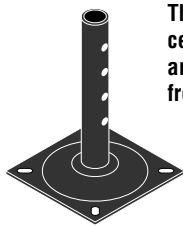
Thank you for your purchase of the NEC plasma display mounting unit.
Please read this installation manual carefully to ensure proper use.

* This ceiling mount unit is made especially for use with NEC 61 inch and 50 inch plasma displays. Please check that the plasma display can accommodate the unit before use.

**Special technology is required in the mounting of the plasma display.
Such work should never be undertaken by the customer.**

To the Dealer and the Installer

For the safety of the customer, we ask that the installation work only be started after the strength of the mounting location has been carefully studied to be sure it can withstand the combined weight of the plasma display and mounting hardware. Be sure that three or more persons engage in the installation work. Be careful not to lose any screws that have been removed, extra parts, etc.



Ceiling mount fitting

The fitting to be fastened on the ceiling and the extension pole are not included. Obtain them from the installer.



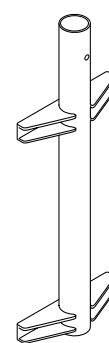
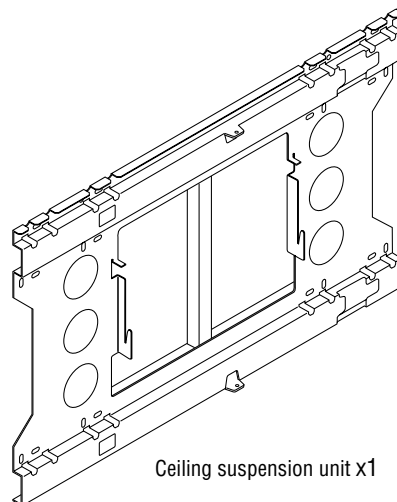
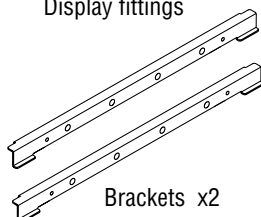
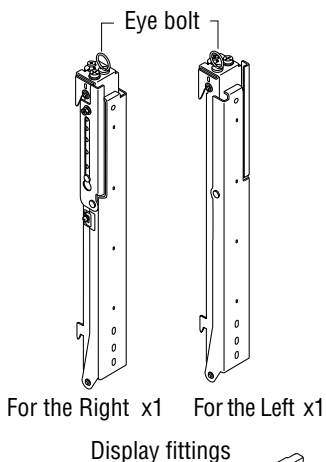
Pole

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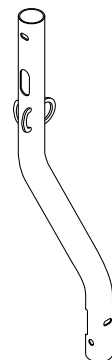
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■ Package Parts List

When opening the package, check that the parts listed below are present in the proper quantities.



Pipe (lower) ... 1



Pipe (upper) ... 1

M5x25 screws ... 2
M10x20 screws ... 4
M4x12 screws ... 8
M8x20 screws ... 6

M10x80 bolts ... 2
ø10 flat washers ... 4
ø10 spring washers ... 4
M10 nuts ... 2
M8x15 screw ... 1

Heed the Following

Before Use...

Symbols

Various symbols are used in this Installation Manual for the safe and proper use of the product as well as preventing any injury or damage to persons or property. These symbols and their meanings are described below. Please have a good understanding of these matters before reading the main text of the manual.

WARNING  Ignoring this indication and improper handling could be the cause of personal injury such as a serious injury or death.

CAUTION  Ignoring this indication and improper handling could cause injury to a person or damage to the surrounding household belongings.

Examples of Symbols

-   This symbol informs that there are contents that **demand caution (including warnings)**. Concrete details of the caution are written within the diagram.
-   This symbol indicates a **prohibited** matter. Concrete details of the prohibition are written within the diagram.
-   This symbol indicates something that **must be done**. Concrete details of the prohibition are written within the diagram.

WARNING



- * When installing the plasma display or making angle adjustments, be sure to make a request for service with the dealer and ensure the work is performed according to this manual. Incorrect installation and angle adjustments may result in the plasma display falling and causing injury.



- * To prevent the plasma display from falling, the strength of the installation place and the method of fastening must support the combined weight of the plasma display and the mounting unit for an extended period of time as well as withstand earthquakes. Improper installation may result in the plasma display falling and causing injury. Be sure to observe the following matters.
 - An electrical outlet should be used for the power supply of the plasma display. Direct connection to a power cable is dangerous and should not be used. Please use a power outlet that can be reached to allow the insertion and withdrawal of the power plug.
 - Installation for Wooden Walls
The load should by all means be carried by beams, and when the strength of the beams is insufficient, they should be strengthened. The installation should not be made to skirting or supporting members. The load should also be carried by beams when there is a steel beam suspended ceiling; installation should not be made to the ceiling suspension fittings.
 - Installation for Concrete Walls
Commercial anchors that are strong enough to easily support the load of the plasma display should be used.



- * To ensure safety, bolts and screws must be tightened securely. Be sure to use the supplied parts for the brackets and the other fittings.
Failure to do so may result in the plasma display falling and causing injury.



- * When aligning the grooves of the display fittings to the fixed unit, check to make sure that they are securely engaged.
Failure to do so may result in the plasma display falling and causing injury.



WARNING



- * Do not modify any parts.
Failure to do so may result in the plasma display falling and causing injury.



- * Do not use any damaged parts. Failure to do so may result in the plasma display falling and causing injury. In the event that any parts are damaged, please contact the dealer.



- * This unit is made especially for use with NEC 61 inch and 50 inch plasma displays. Do not use with any other equipment since the equipment could fall and cause injury.



CAUTION



- * Do not obstruct the ventilation holes of the plasma display. Doing so will prevent the dissipation of heat and may result in a fire. Do not use the plasma display in the following ways:
Do not install the plasma display in a tight place where ventilation is poor, place a cover on it, etc.



- * Do not install the plasma display in front of the vents of an air conditioner or heater, or in a place where there is strong vibration. Doing so may result in fire or electrical shock.



- * Do not install the plasma display in humid or dusty places, or where it will be exposed to greasy smoke or steam (such as near cooking equipment or humidifiers). Doing so may result in a fire. Do not use the plasma display outdoors. Doing so may result in a fire or electrical shock.



- * Leave a space of at least 50 cm from surrounding objects when installing the plasma display. When sufficient space is not given, the plasma display could bump into something and be damaged.



- * Hold the plasma display in place while attaching it to the unit. Failing to do so may lead to it falling and causing injury.



- * Do not apply pressure to the glass surface of the plasma display. The pressure could cause it to crack and it could cause injury.



- * Do not attach screws to the plasma display without the fittings mounted. Doing so could cause breakdown.



- * Never use screws other than those supplied. Use of such screws could cause breakdown.

Installation Location

Avoid rooms with a lot of dust, humidity, greasy smoke, or tobacco smoke.

Dirt will adhere to the surface of the display monitor screen and cause a deterioration in image quality.

Avoid places in which the screen is exposed to direct sunlight or illumination light.

When surrounding light hits the screen directly, the image appears washed out and is difficult to view.

Avoid places which reach high temperatures or low temperatures.

Such extreme temperatures will cause breakdown.

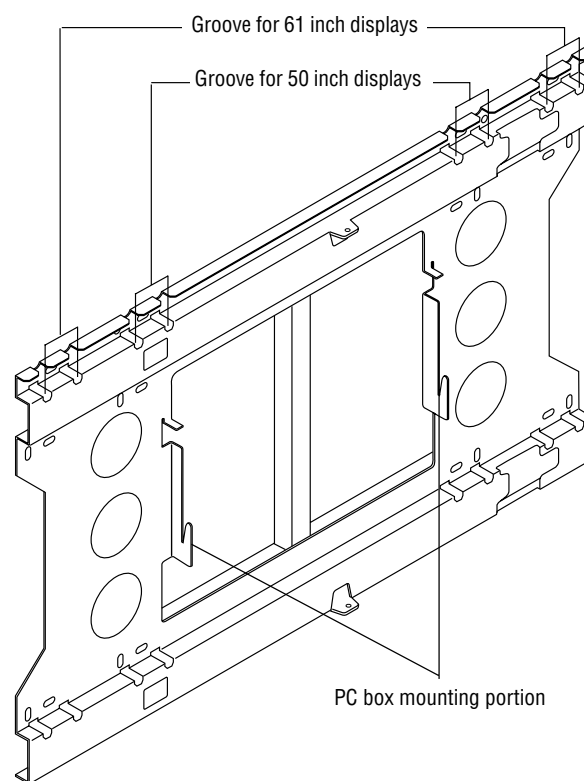
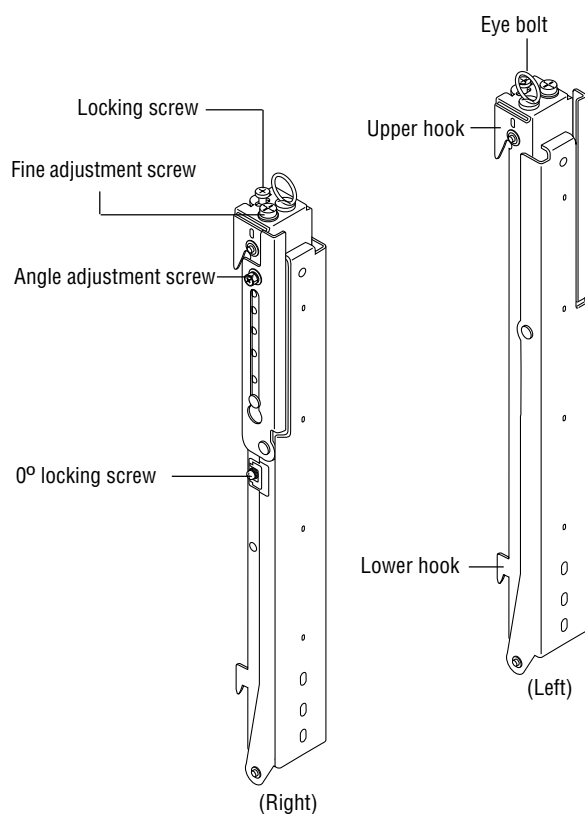
Horizontal Installation

1. Before attachment

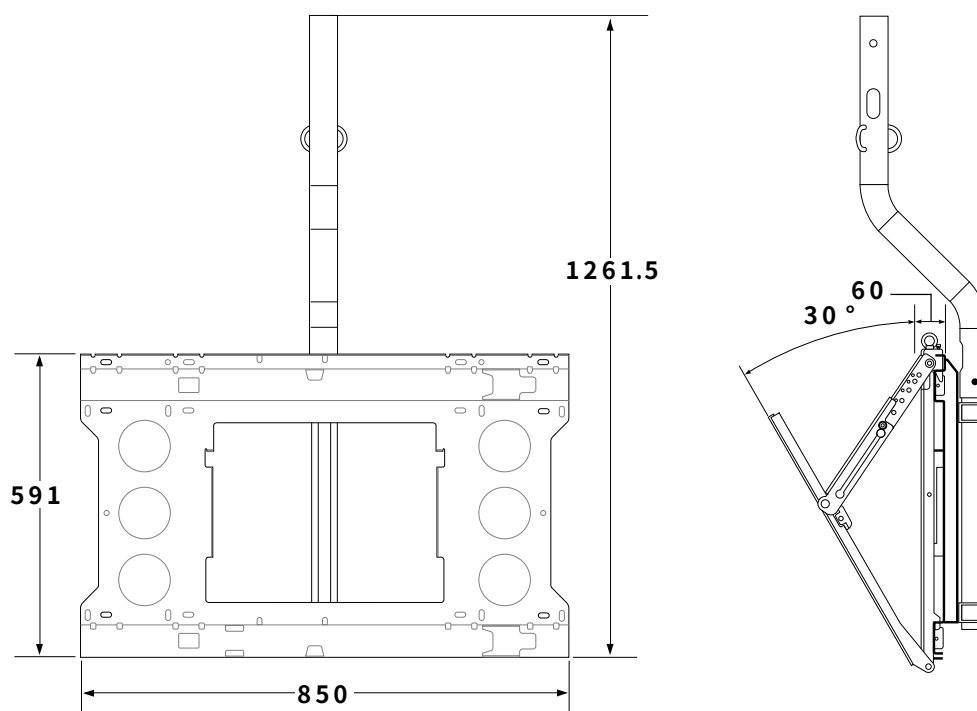
■ Names of the Parts

● Display fittings

● Ceiling suspension unit



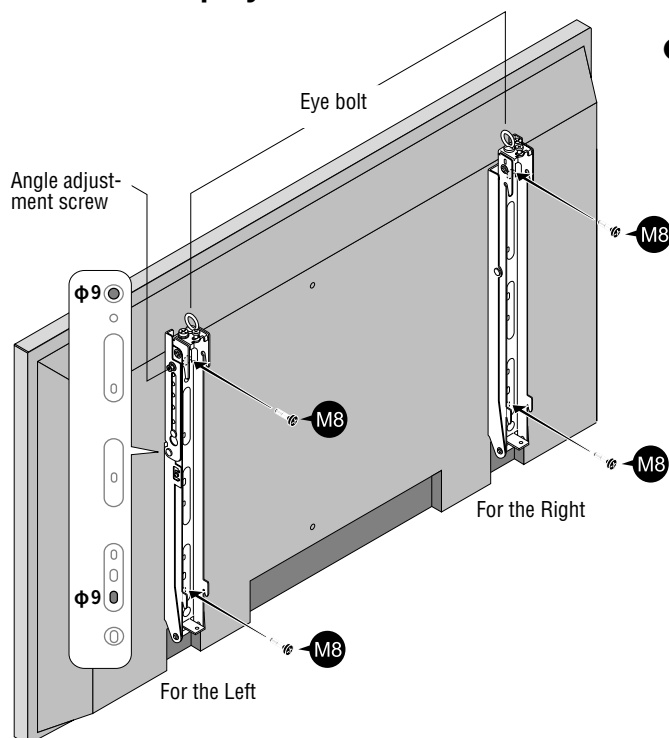
■ Dimensions of the Parts (Unit: mm)



2. Attaching the Display Fittings to the Plasma Display

There are two display fittings, one for the right side, the other for the left. Mount the fittings so that their angle adjustment screws are positioned at the outside.

■ 61-inch displays and PX-50XM3 and later 50-inch displays



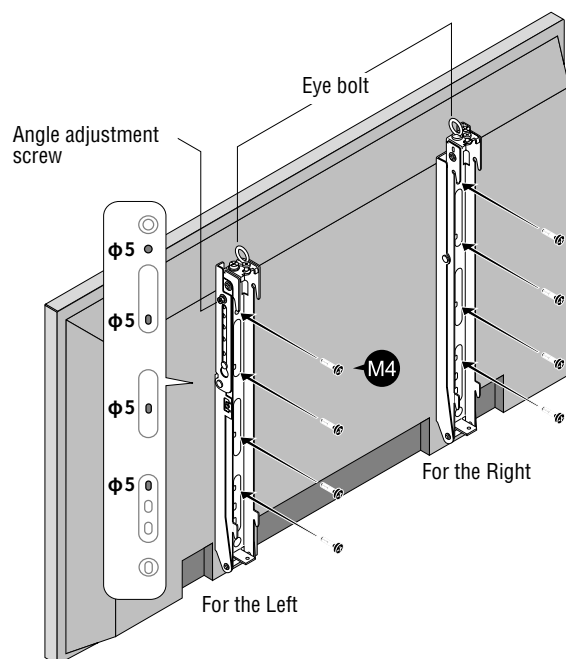
- 1 Line up the screw holes ($\varnothing 9$, indicated on the diagram) at the tops and bottoms of the display fittings (one each for left and right sides) with the screw holes (M8) in the rear panel of the plasma display, and fasten the display fittings using 2 of the included M8 screws for each fitting.

Reference:

When using the PX-61ST1U optional stand (for 61-inch displays) or the PX-ST1U optional stand (for 50-inch displays), the display fittings can be attached with the plasma display mounted on the stand.

Remove the four M6 screws fastening the display to the stand before attaching the display fittings. When lifting the plasma display, do not allow the stand to be lifted together with the display. If the stand were to come off, it could cause injury or damage.

■ PX-50XM1/50XM2 and PX-50VP1/50VP2



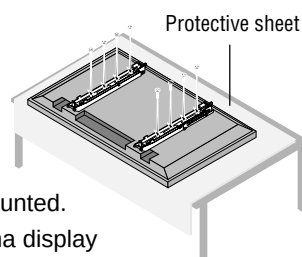
- 1 Line up the screw hole ($\varnothing 5$, indicated on the diagram) on the display fittings (one each for left and right sides) with the screw holes (M4) in the rear panel of the plasma display, and fasten the display fittings using 4 of the included M4 screws for each fitting.

Reference:

- For the PX-50XM1/50XM2, the display fittings cannot be attached when the optional stand is mounted.

Work with the plasma display placed upright in its package or on a flat surface larger than the display. In the latter case, use the protective sheet in which the plasma display was packed, etc., to prevent the front of the display from getting scratched.

- The PX-50VP1/50VP2 is equipped with retractable feet for use when working on it. Use these feet when attaching the display fittings. For handling instructions, refer to the instructions included with the plasma display.



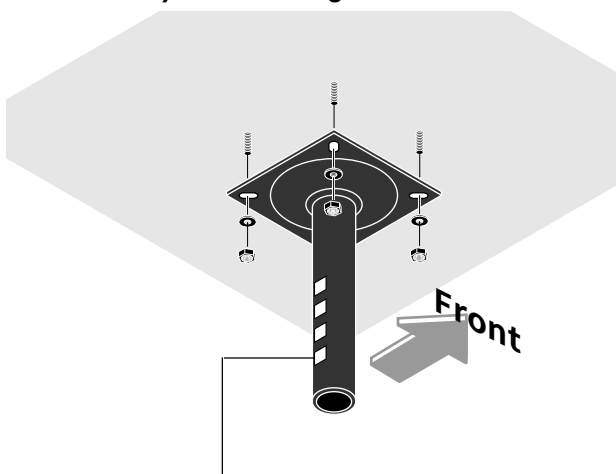
Horizontal Installation

NOTE: The ceiling mount fitting and pole are not included. Obtain them from the installer.

3. Attaching the Ceiling Mount Unit

Make sure the ceiling has been sufficiently reinforced and install using a method appropriate for the material and structure of the ceiling.

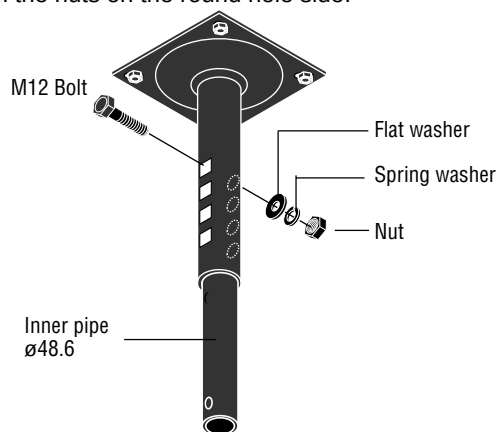
1. Fasten the ceiling mount fitting (commercially available) to the ceiling.



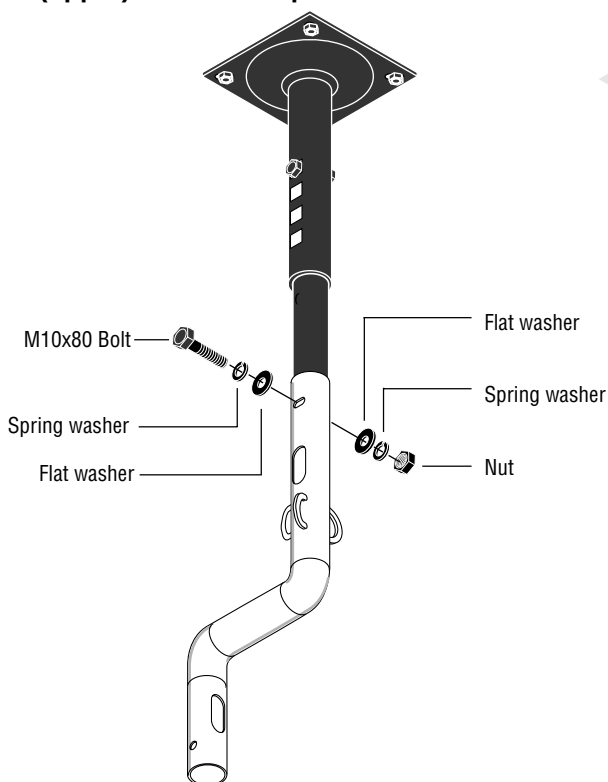
* Install with the square holes facing the side.

2. Fasten the commercially available inner pipe (ø48.6) using the M12 bolt, flat washer, spring washer and nut included with the ceiling mount fitting.

* Insert the screws through the square holes and fasten the nuts on the round hole side.

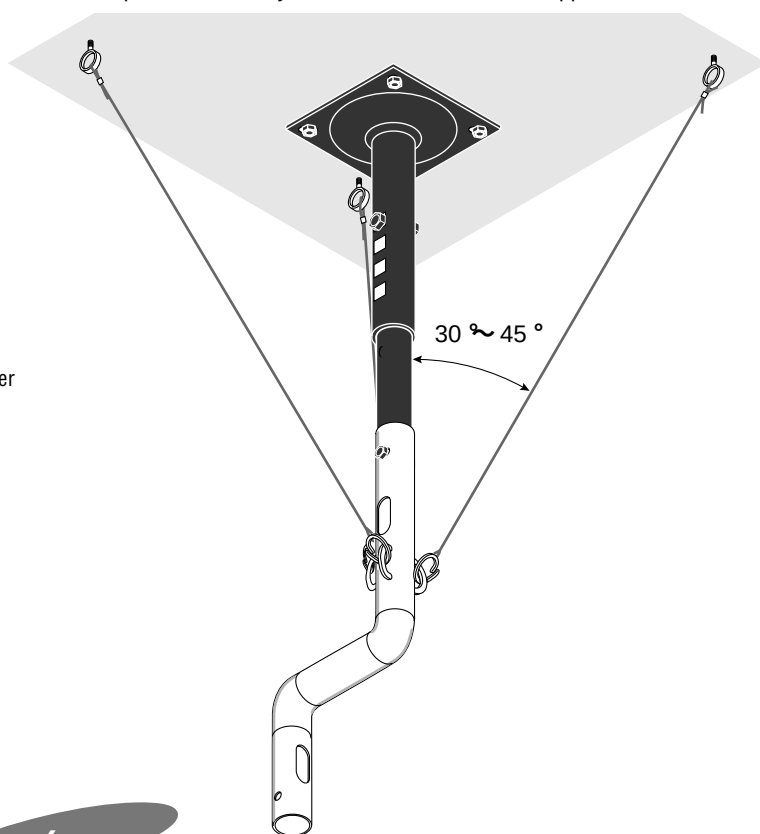


3. Use the included M10x80 bolt, flat washers, spring washers and nut to mount the pipe (upper) to the inner pole.

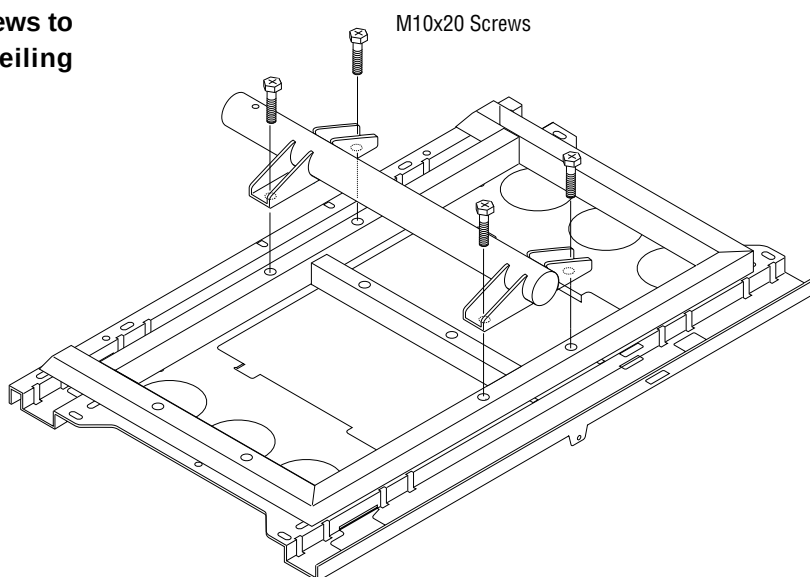


4. Fasten the pipe (upper) in place by attaching wires to the hooks and stretching them in three directions.

Note: The 3.0 mm diameter 7 x 7 SUS304 wire can be purchased from your dealer or construction supplies store.



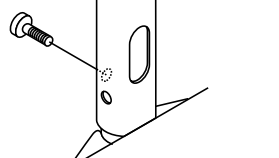
5. Use the four included M10x20 screws to mount the pipe (lower) to the ceiling suspension unit.



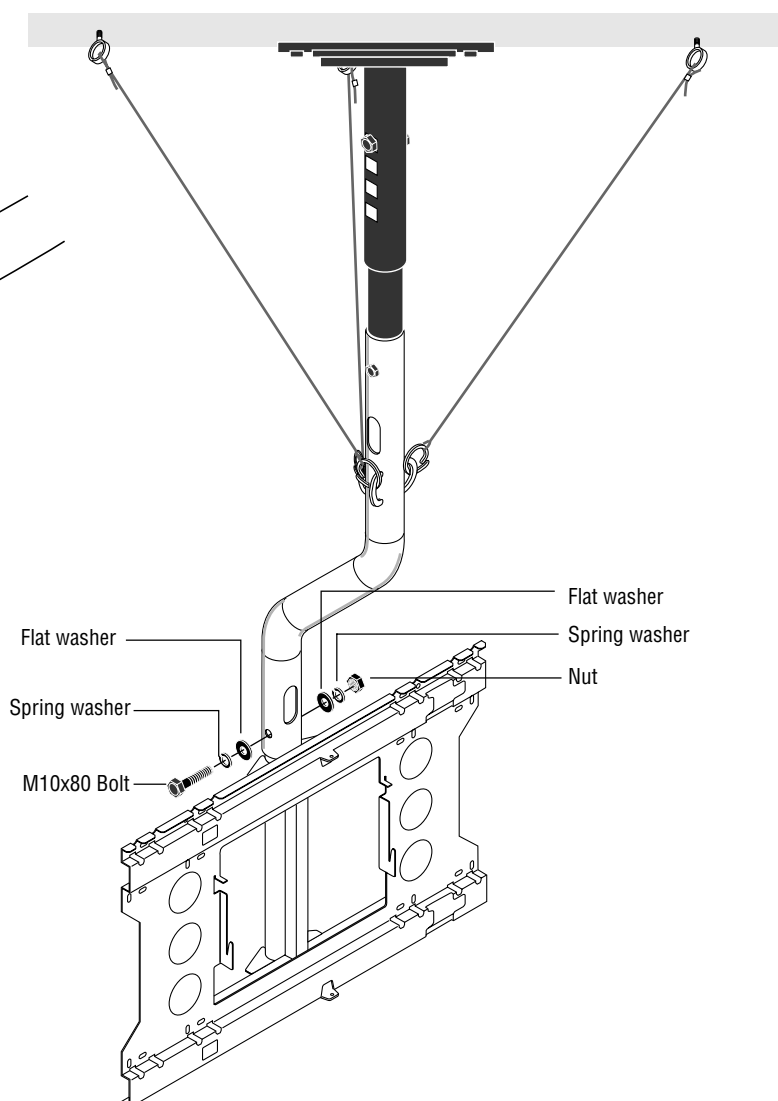
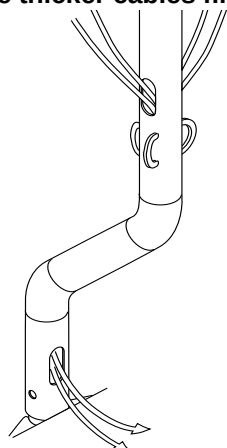
6. Use the included M10x80 bolts, flat washers, spring washers and nuts to mount the ceiling suspension unit assembled in step 5 to the pole (upper).

7. Tighten from the rear using the M8x15 screw.

M8x15 Screw



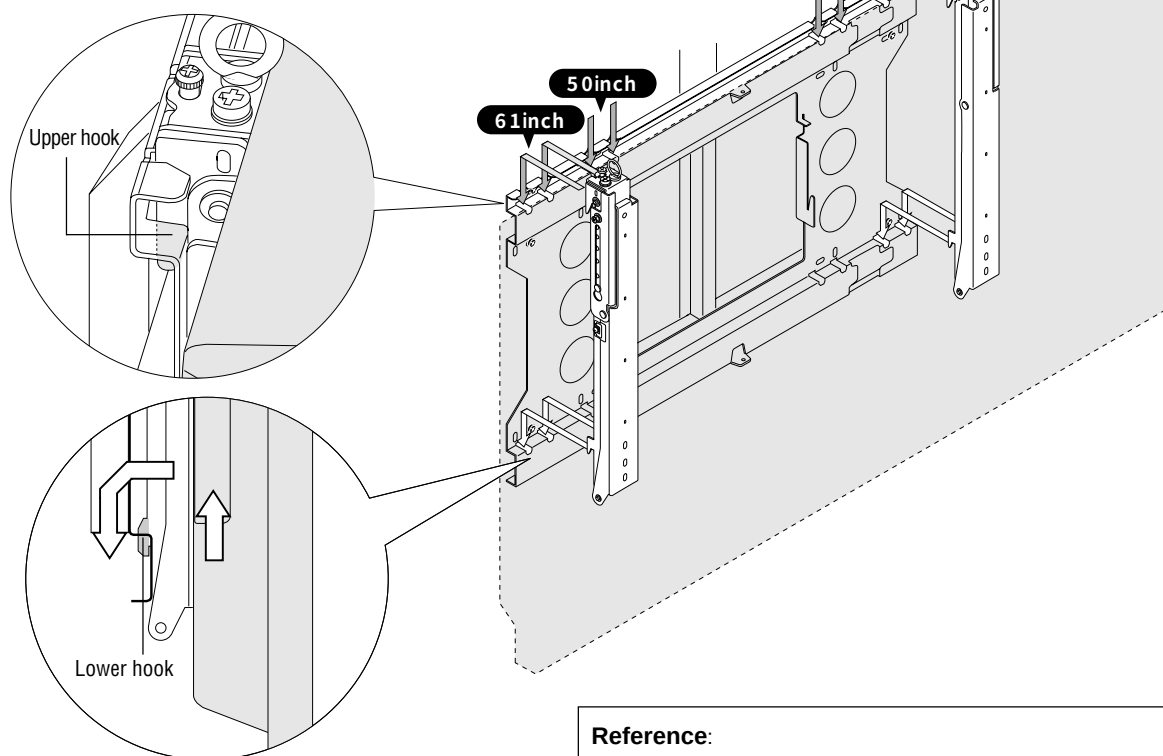
8. Place the cables through the pipes. Run the cables into the hole at the top and out of the hole at the bottom, starting with the thicker cables first.



4. Attaching the Plasma Display

After attaching the display fittings to the plasma display, attach the plasma display to the ceiling mount unit.

- 1 Catch the upper hooks on the left and right display fittings into the grooves in the wall mounting unit.



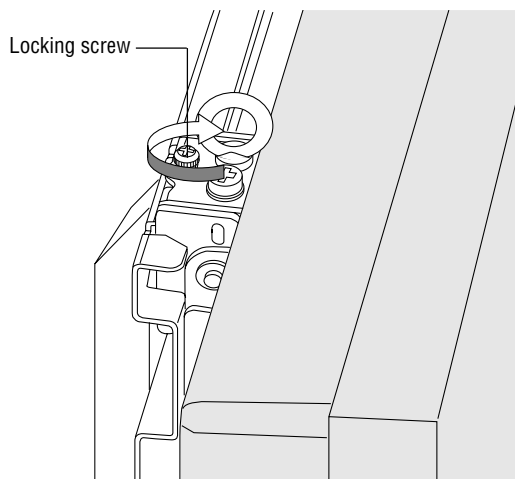
- 2 With the upper hooks engaged in the wall mounting unit grooves, lift the plasma display directly upward about 1 cm until it stops, then push the bottom of the plasma display toward the wall to engage it with the lower hooks.
- 3 Tighten the locking screws at the tops of the left and right display fittings using a screwdriver.

Reference:

The plasma display is properly mounted if it does not move when the lower side is pulled towards you.

Reference:

When installing the plasma display in a high position to which it cannot be lifted by hand, it can be suspended from the eye bolts at the tops of the display fittings and lifted with a crane or other heavy machine. Check that the eye bolts are tight before doing this.

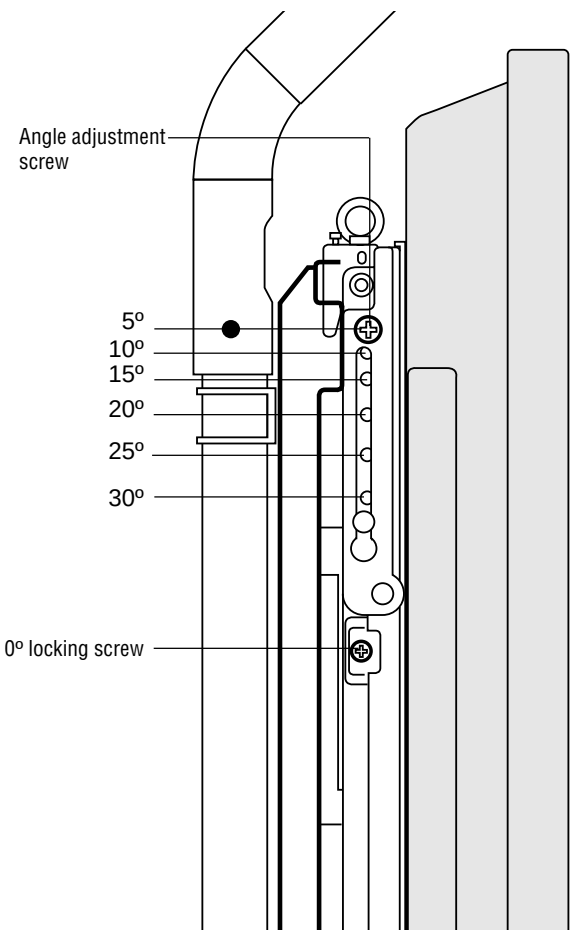
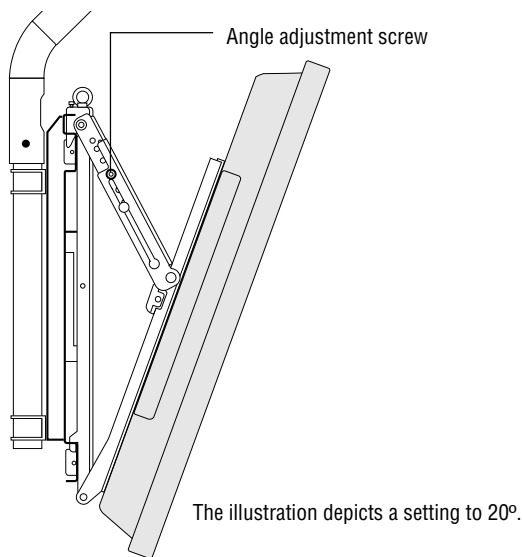


5. Plasma Display Angle Adjustment

While supporting the plasma display, remove the angle adjustment screw and 0° locking screw of the left and right display fittings, align with the screw hole of the desired angle, then tighten the angle adjustment screw.

The angle will become progressively larger (in the order of 5°, 10°, 15°, 20°, 25°, and 30°) as the hole gets further away from the top.

- * The tilt will not go beyond 30°, but be sure to tighten the angle adjustment screw even when setting to 30°.
- * When supporting the plasma display with your hands, do not suddenly take your hands away from it. Doing so may break the fittings and could cause injury. Also be careful not to get hands or other body parts pinched.



6. Fine Adjustment of the Angle

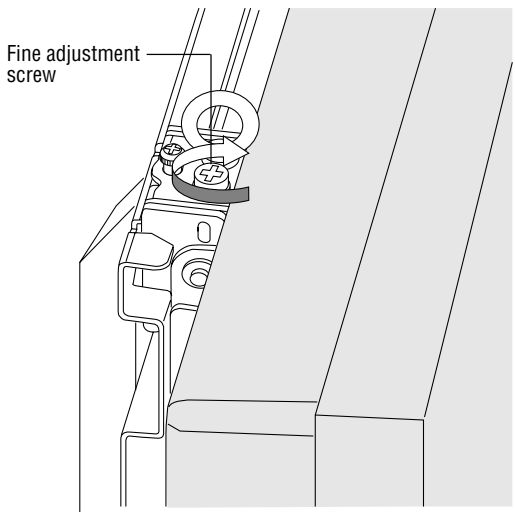
In the initial condition, the fine adjustment screw is loosened and in the condition of Step 5 (in which the angle is adjusted), the angle is set to one of 5°, 10°, 15°, 20°, 25°, or 30°.

Tightening the fine adjustment screw of the left and right upper display fittings while supporting the plasma display, allows adjustment to an angle that is smaller than the current angle. The adjustment range will differ depending on the set angle and a rough indication of the range is presented below.

- * Be sure to make the same adjustment to the left and right sides.

Setting Angle	Permitted Range of Angle Fine Adjustment
5°	0 to 5°
10°	7 to 10°
15°	12 to 15°
20°	18 to 20°
25°	23 to 25°
30°	29 to 30°

When the setting is returned to 0°, be certain to tighten the 0° locking screw.

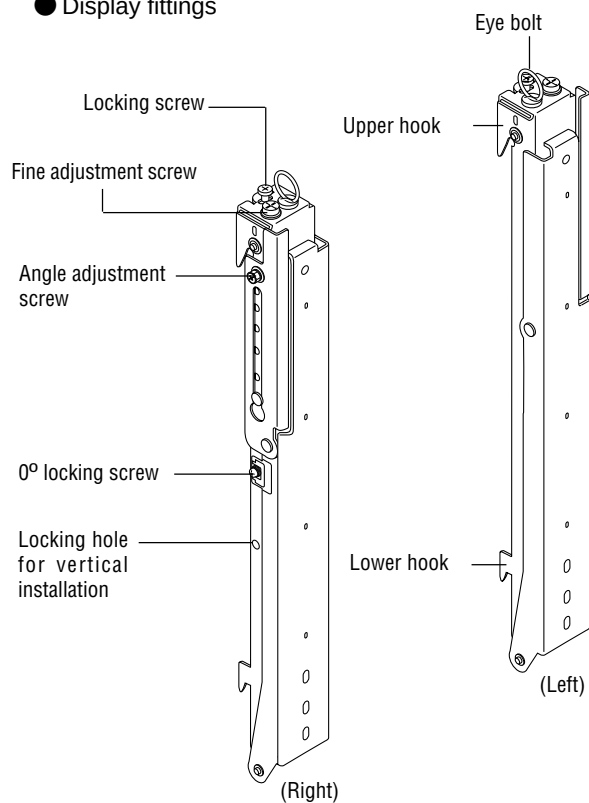


Vertical Installation

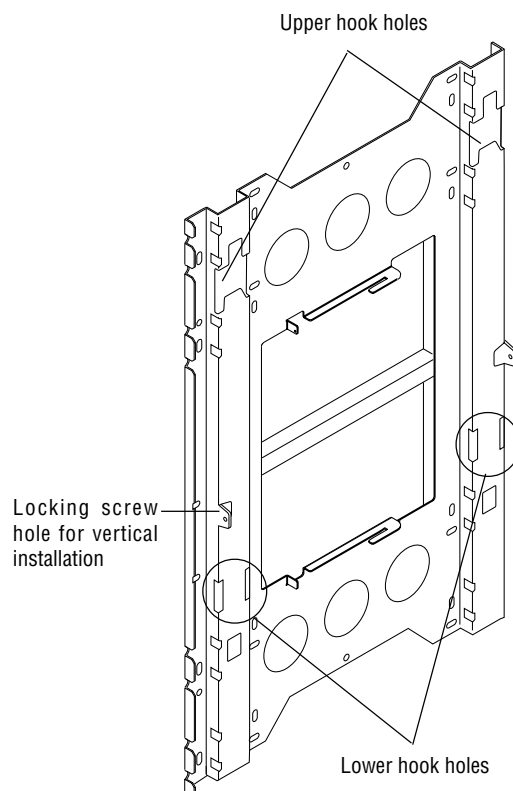
1. Before attachment

■ Names of the Parts

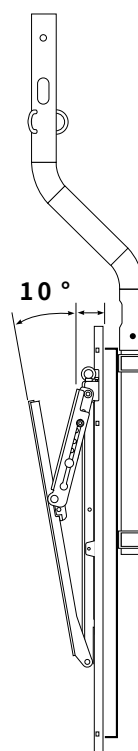
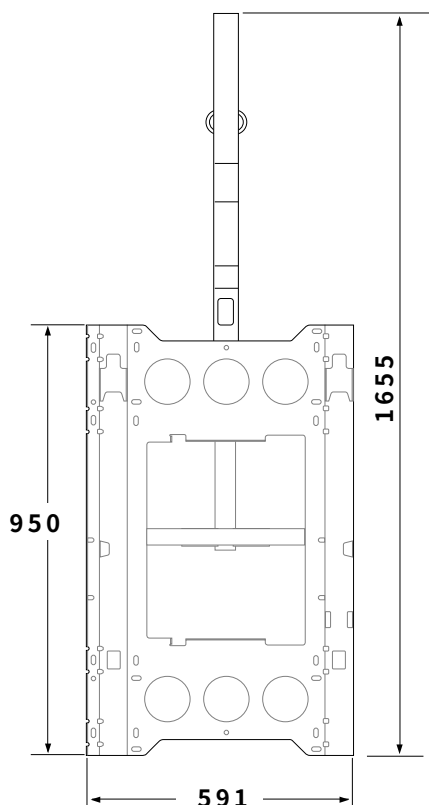
● Display fittings



● Ceiling suspension unit



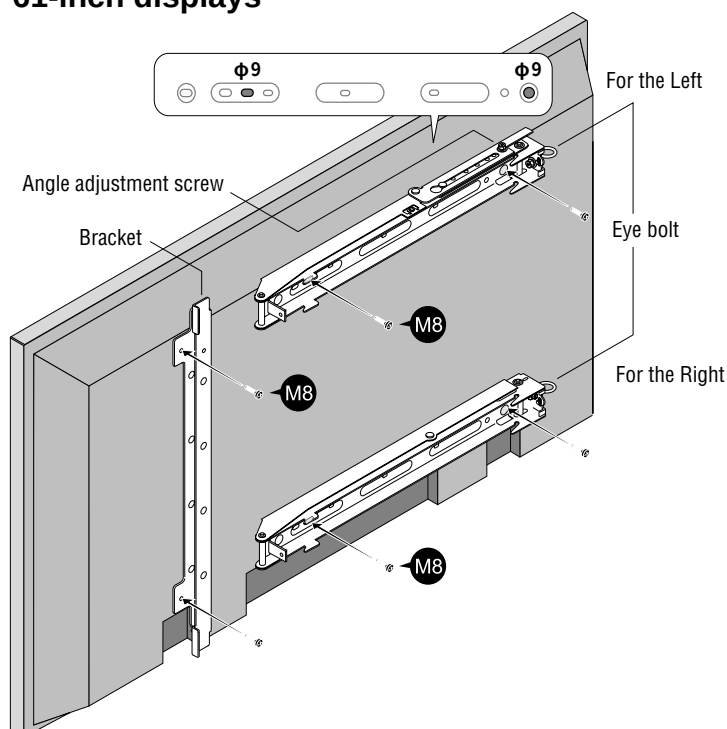
■ Dimensions of the Parts (Unit: mm)



2. Attaching the Bracket(s) and Display Fittings to the Plasma Display

There are two display fittings, one for the right side, the other for the left. Mount the fittings so that their angle adjustment screws are positioned at the outside. Attach the fittings so that when viewed from the rear of the plasma display, the eye bolts are positioned at the right side. Attaching the fittings in the opposite orientation will cause damage to the plasma display.

■ 61-inch displays



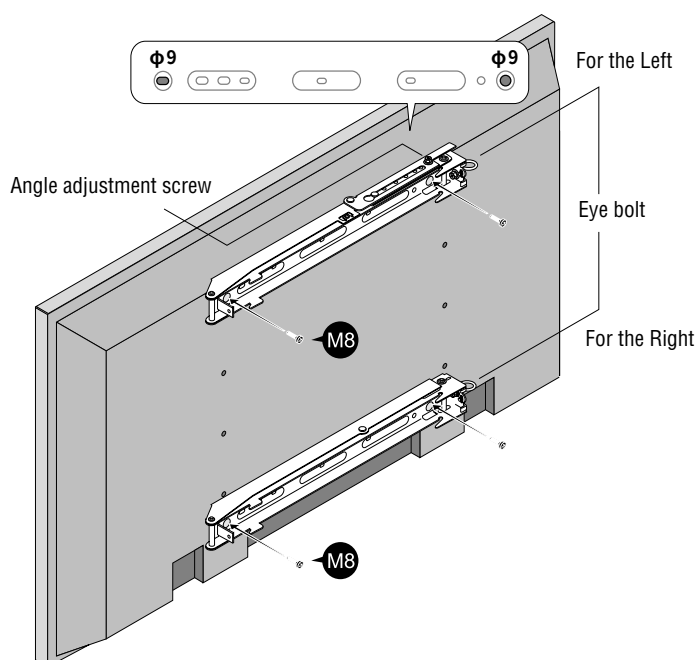
- 1 Use 2 of the included M8 screws to fasten one of the two brackets to the plasma display in the direction shown on the diagram.
- 2 Line up the screw holes (Ø9, indicated on the diagram) in the display fittings (one each for left and right sides) with the screw holes (M8) in the rear panel of the plasma display, and fasten the display fittings using 2 of the included M8 screws for each fitting.

Reference:

When using the PX-61ST1U optional stand, the display fittings can be attached with the plasma display mounted on the stand. When lifting the display, do not allow the stand to be lifted together with the display. If the stand were to come off, it could cause injury or damage.

■ PX-50XM3 and later 50-inch displays

NOTE: The PX-50XM1/50XM2 cannot be mounted vertically.



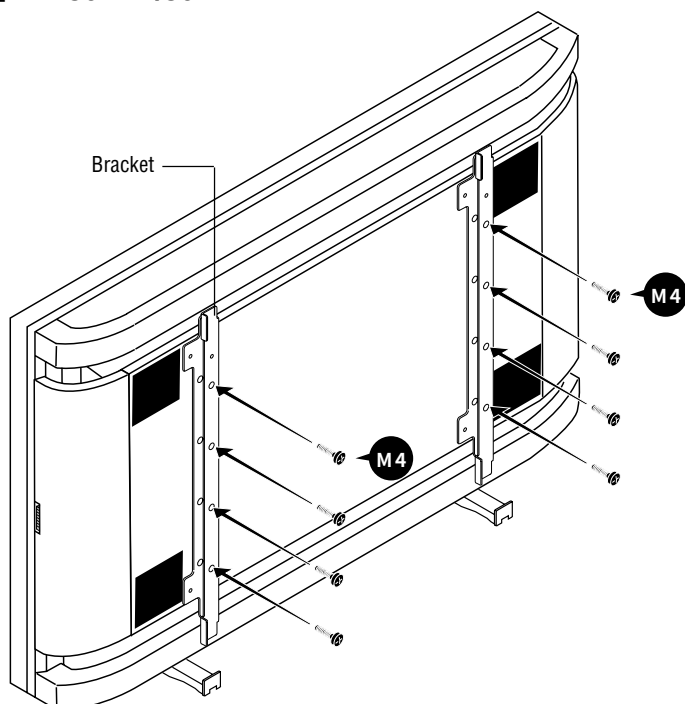
- 1 Line up the screw hole (Ø9, indicated on the diagram) at the tops and bottoms of the display fittings (one each for left and right sides) with the screw holes (M8) in the rear panel of the plasma display, and fasten the display fittings using 2 of the included M8 screws for each fitting.

Reference:

When using the PX-ST1U optional stand, the display fittings can be attached with the plasma display mounted on the stand. Remove the four M6 screws fastening the display to the stand before attaching the display fittings. When lifting the plasma display, do not allow the stand to be lifted together with the display. If the stand were to come off, it could cause injury or damage.

Vertical Installation

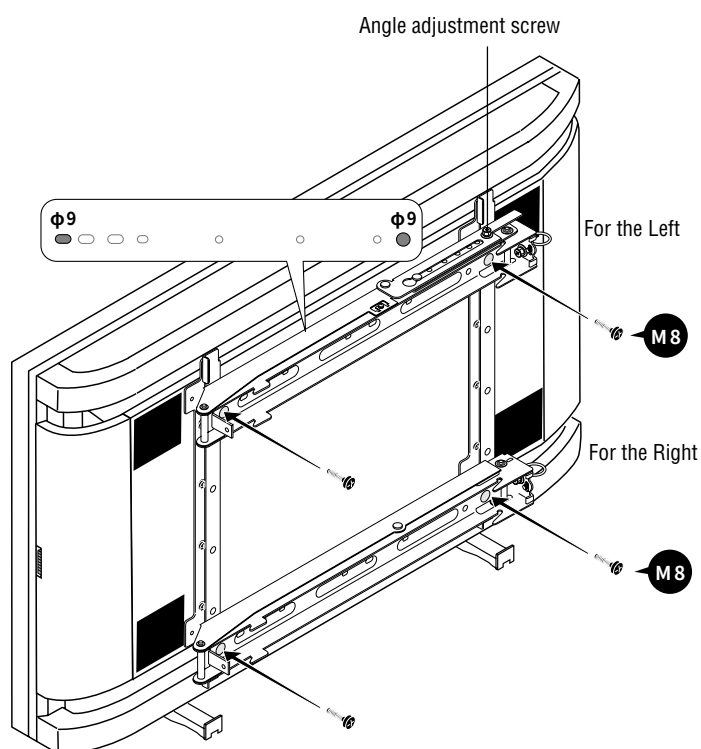
■ PX-50VP1/50VP2



Reference:

A simple stand is built in for temporary use when working on the unit. Please use the simple stand when attaching brackets or display fittings. For handling instructions, refer to the instructions included with the plasma display.

- 1 Fasten the two brackets in the orientation illustrated in the diagram using 4 of the supplied M4 screws for each bracket.



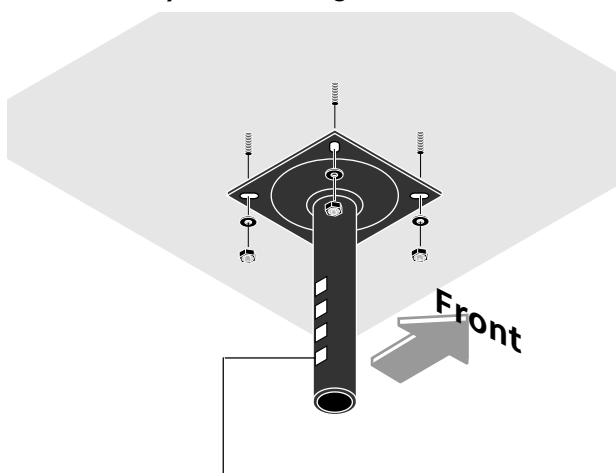
- 2 Fasten the left and right display fittings over the brackets using 2 of the included M8 screws for each fitting. Attach the display fittings so that the angle adjustment screws are positioned at the outside.

NOTE: The ceiling mount fitting and pole are not included. Obtain them from the installer.

3. Attaching the Ceiling Mount Unit

Make sure the ceiling has been sufficiently reinforced and install using a method appropriate for the material and structure of the ceiling.

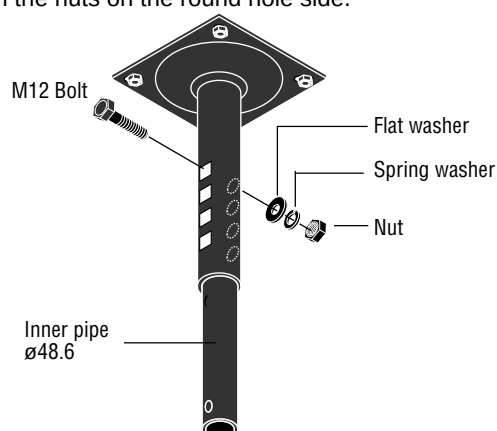
1. Fasten the ceiling mount fitting (commercially available) to the ceiling.



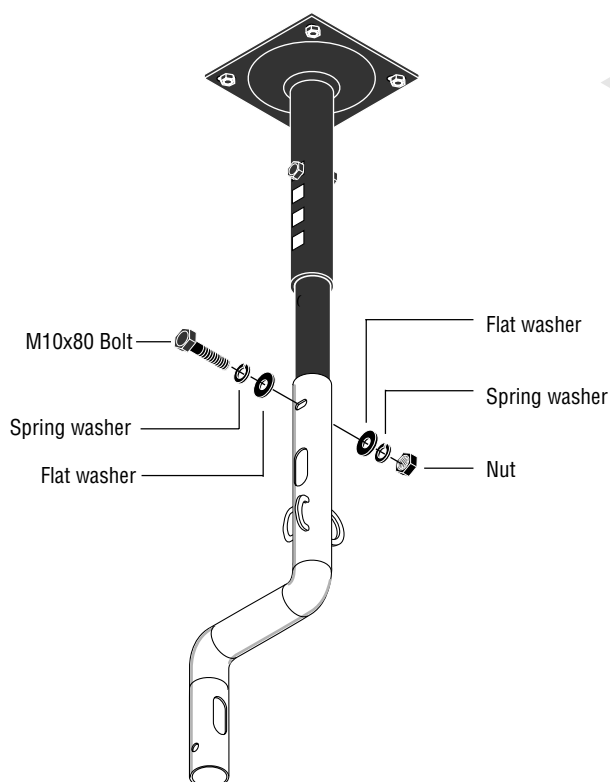
* Install with the square holes facing the side.

2. Fasten the commercially available inner pipe (ø48.6) using the M12 bolt, flat washer, spring washer and nut included with the ceiling mount fitting.

* Insert the screws through the square holes and fasten the nuts on the round hole side.

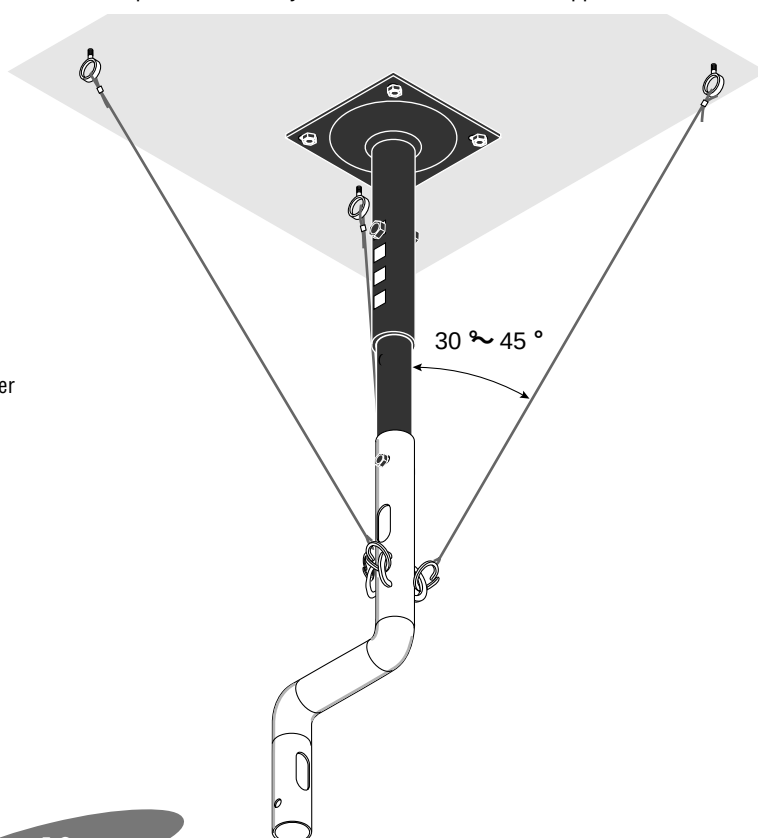


3. Use the included M10x80 bolt, flat washers, spring washers and nut to mount the pipe (upper) to the inner pole.



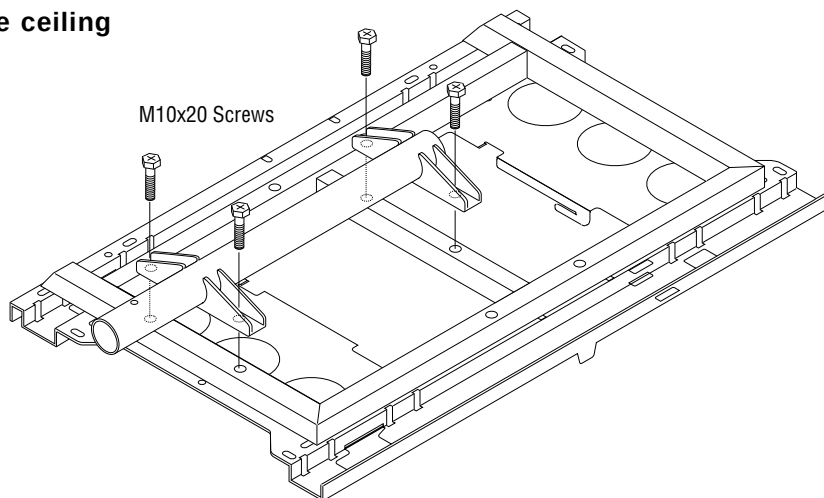
4. Fasten the pipe (upper) in place by attaching wires to the hooks and stretching them in three directions.

Note: The 3.0 mm diameter 7 x 7 SUS304 wire can be purchased from your dealer or construction supplies store.



Vertical Installation

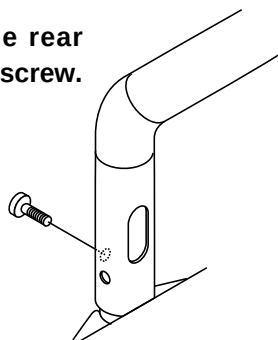
5. Use the four included M10x20 screws to mount the pipe (lower) to the ceiling suspension unit.



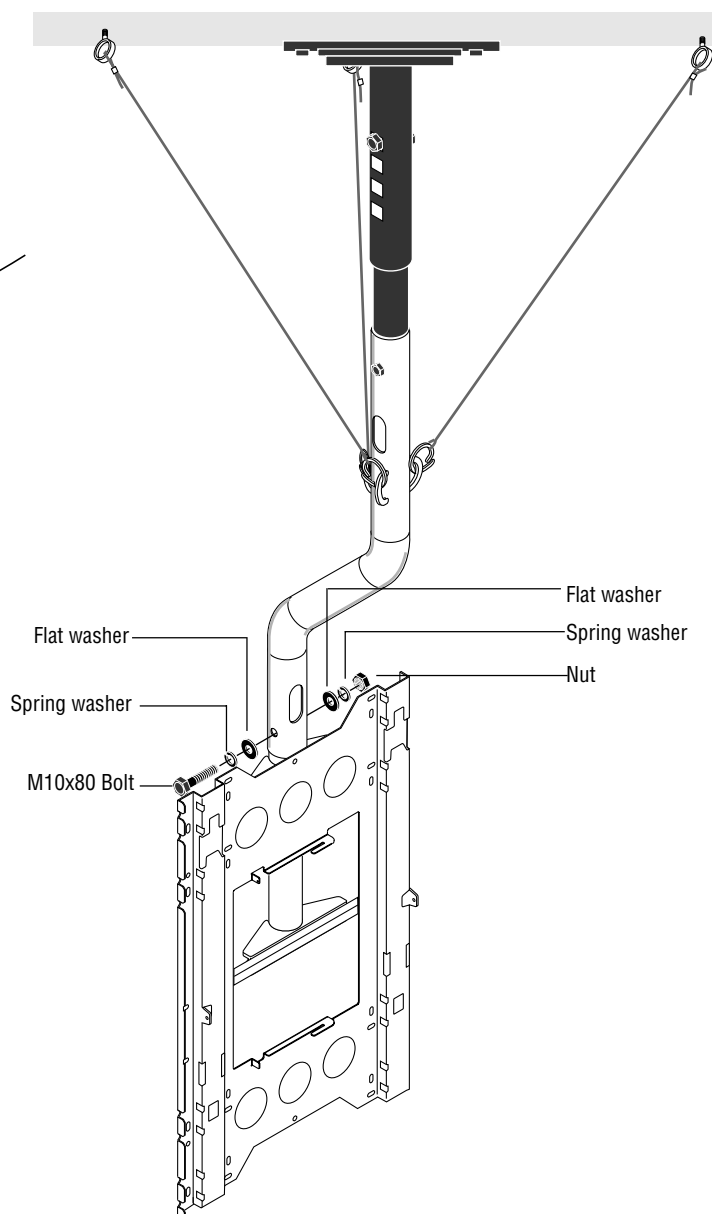
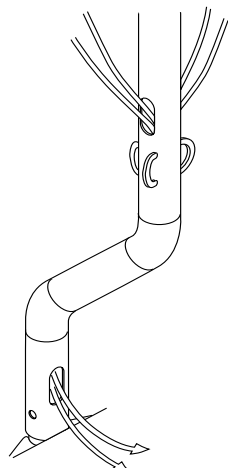
6. Use the included M10x80 bolts, flat washers, spring washers and nuts to mount the ceiling suspension unit assembled in step 5 to the pole (upper).

7. Tighten from the rear using the M8x15 screw.

M8x15 Screw



8. Place the cables through the pipes. Run the cables into the hole at the top and out of the hole at the bottom, starting with the thicker cables first.



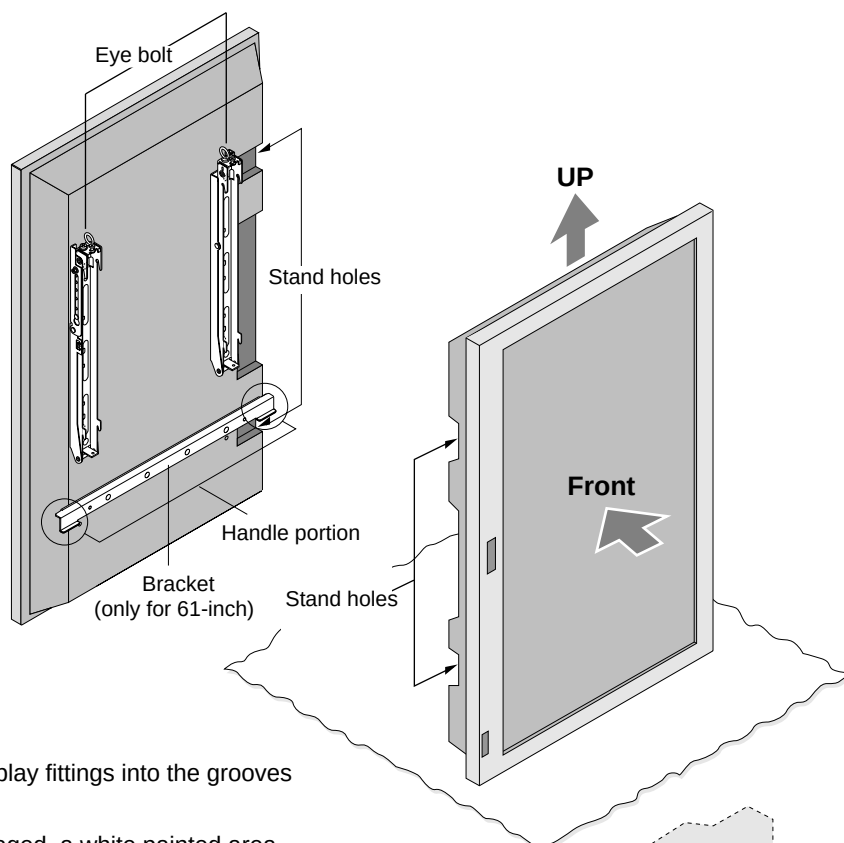
4. Attaching the Plasma Display

After attaching the display fittings to the plasma display, attach the plasma display to the wall mounting unit.

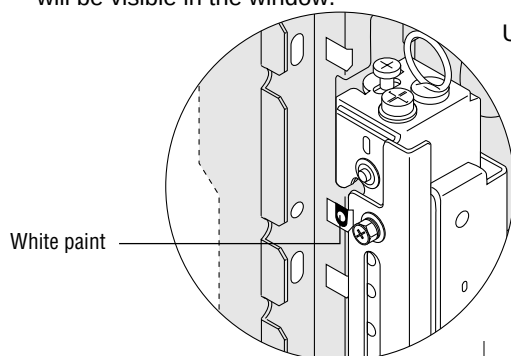
- ❶ Place the plasma display on a cushion or other cushioning material that has been placed on a level floor, then change the orientation as illustrated in the diagram.

※ Use the bracket that is attached to the 61-inch plasma display as a handle. Be sure to use gloves while doing this work as a precaution against possible injury.

※ When installing the plasma display in a high position to which it cannot be lifted by hand, it can be suspended from the eye bolts at the tops of the display fittings and lifted with a crane or other heavy machine. Check that the eye bolts are tight before doing this.

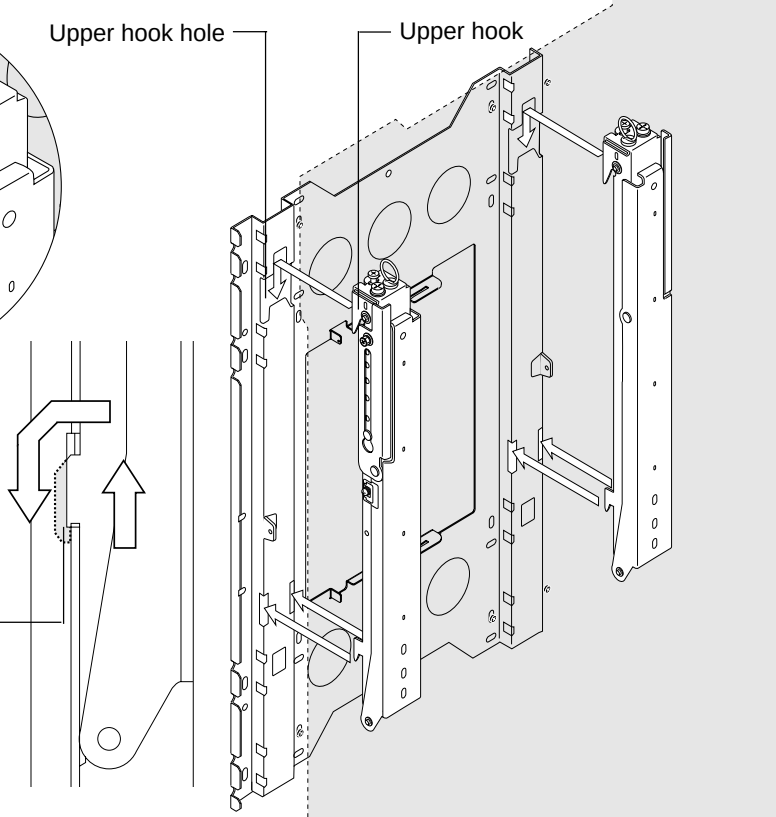


- ❷ Catch the hooks on the left and right display fittings into the grooves in the wall mounting unit. When the upper hook is completely engaged, a white painted area will be visible in the window.



With the upper hooks engaged in the wall mounting unit grooves, lift the plasma display directly upward about 1 cm until it stops, then push the bottom of the plasma display toward the wall to engage it with the lower hooks.

Bottom hook

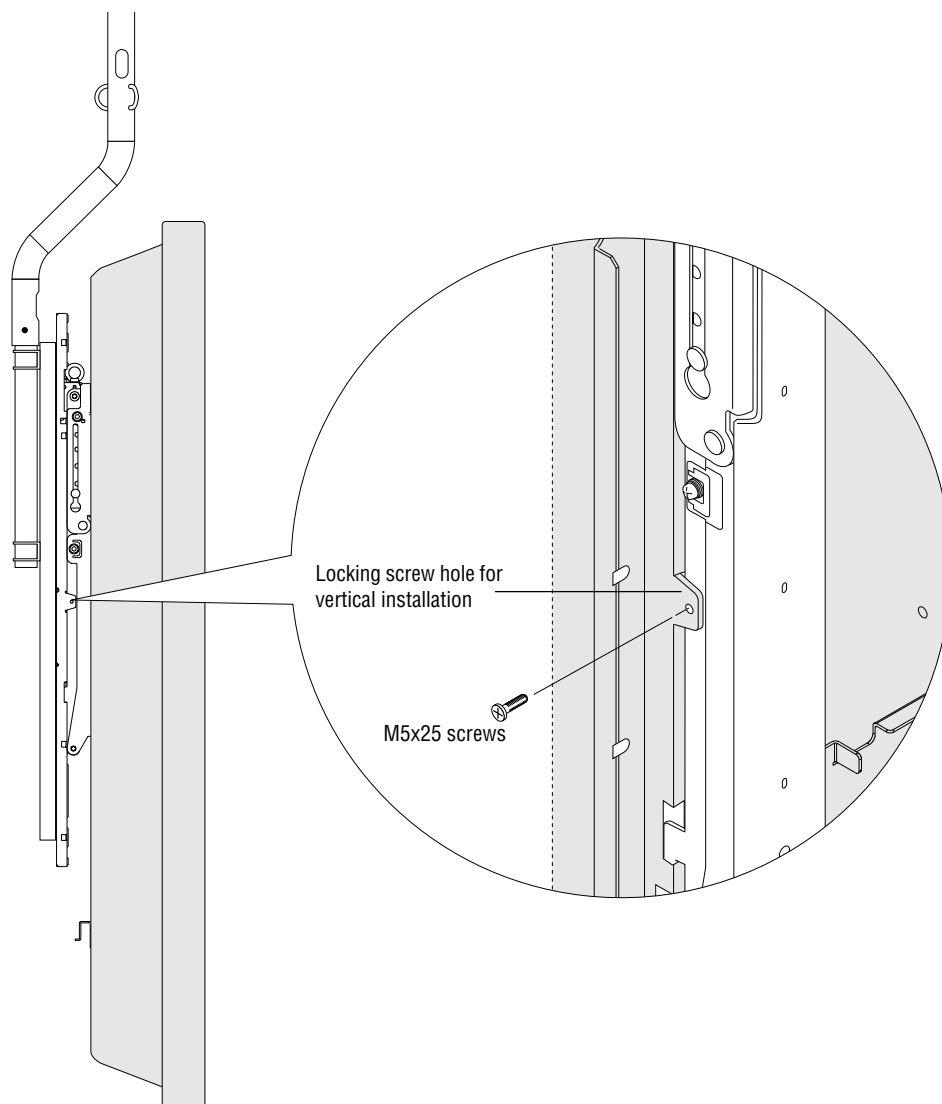


Reference:

The plasma display is properly mounted if it does not move when pulled towards you.

Vertical Installation

- ③ Fasten the left and right display fittings using the included M5 screws.

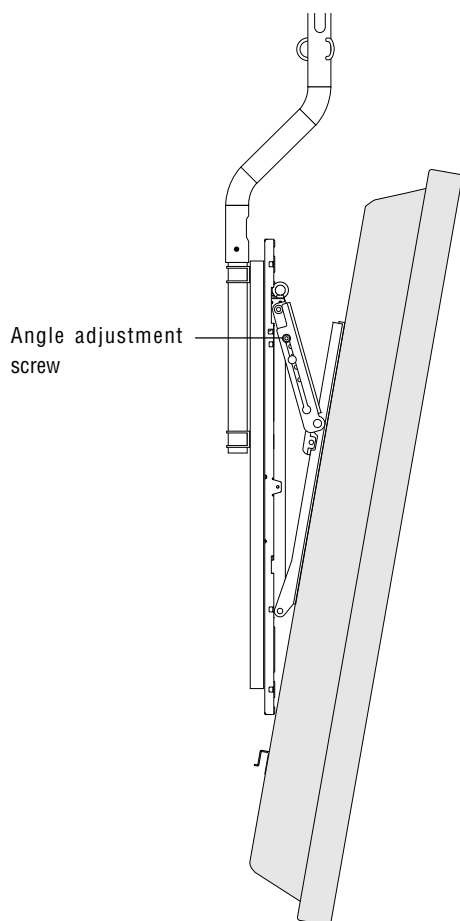


5. Plasma Display Angle Adjustment

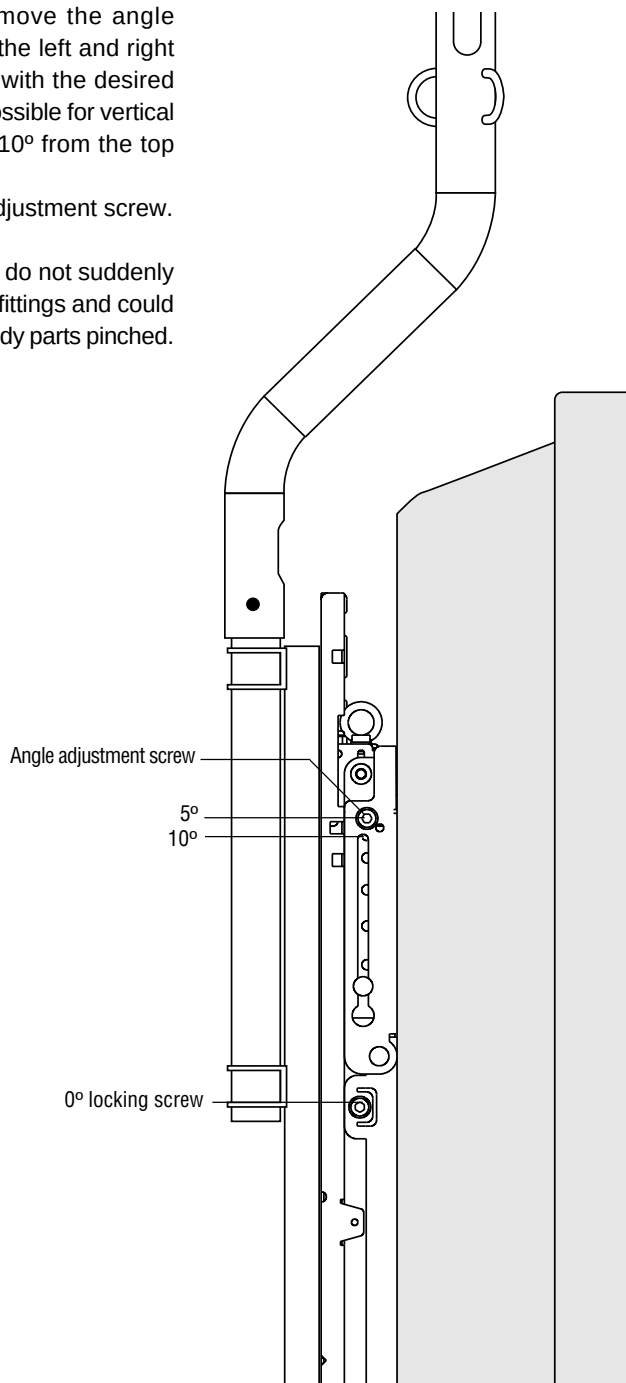
Support the plasma display and while doing so, remove the angle adjustment screw and the 0° locking screw of each of the left and right display fittings, then align the angle adjustment screw with the desired angle screw hole and tighten again. A tilt of up to 10° is possible for vertical installations. The angle widens in the order of 5° and 10° from the top hole.

After adjusting the angle, be sure to tighten the angle adjustment screw.

* When supporting the plasma display with your hands, do not suddenly take your hands away from it. Doing so may break the fittings and could cause injury. Also be careful not to get hands or other body parts pinched.



The illustration depicts a setting to 10°.



6. Fine Adjustment of the Angle

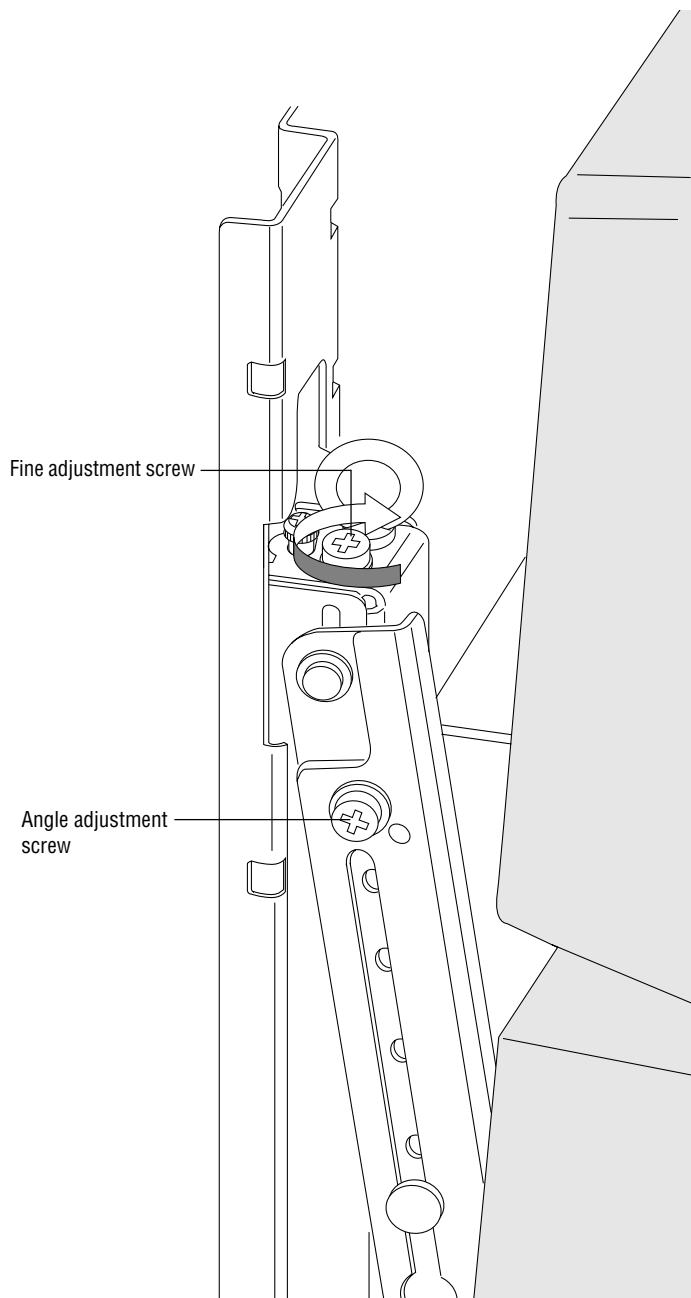
In the initial condition, the fine adjustment screw is loosened and in Step 5, the angle will have been adjusted to either 5° or 10°.

Tightening the fine adjustment screw at the top of the left and right display fittings while supporting the plasma display allows adjustment to an angle that is smaller than the current angle. The adjustment range will differ depending on the set angle and a rough indication of the range is presented below.

Setting Angle	Permitted Range of Angle Fine Adjustment
5°	0 to 5°
10°	7 to 10°

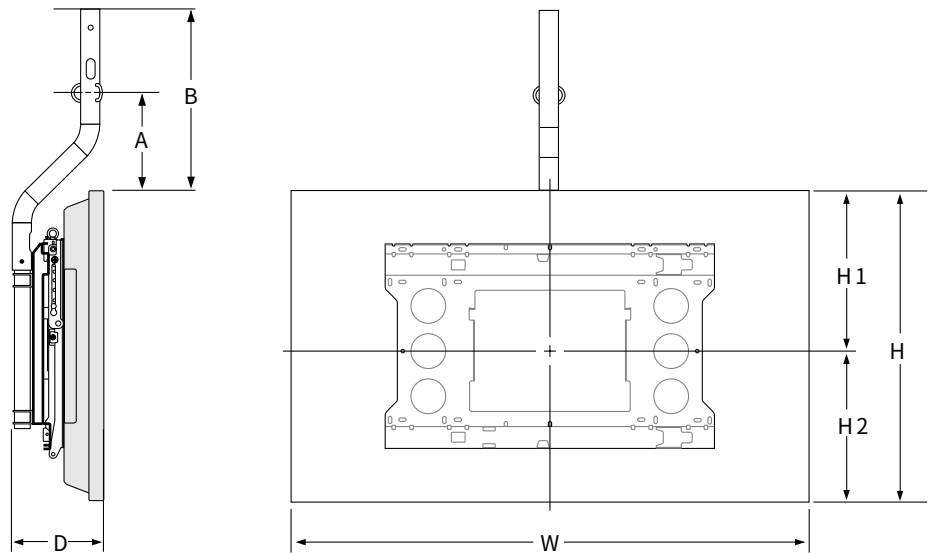
* Be sure to adjust the left and right sides to the same angle.

When the setting is returned to 0°, be certain to tighten the 0° locking screw.



Positional Relationship Between the CeilingMounting Unit and the Display

* Horizontal installation

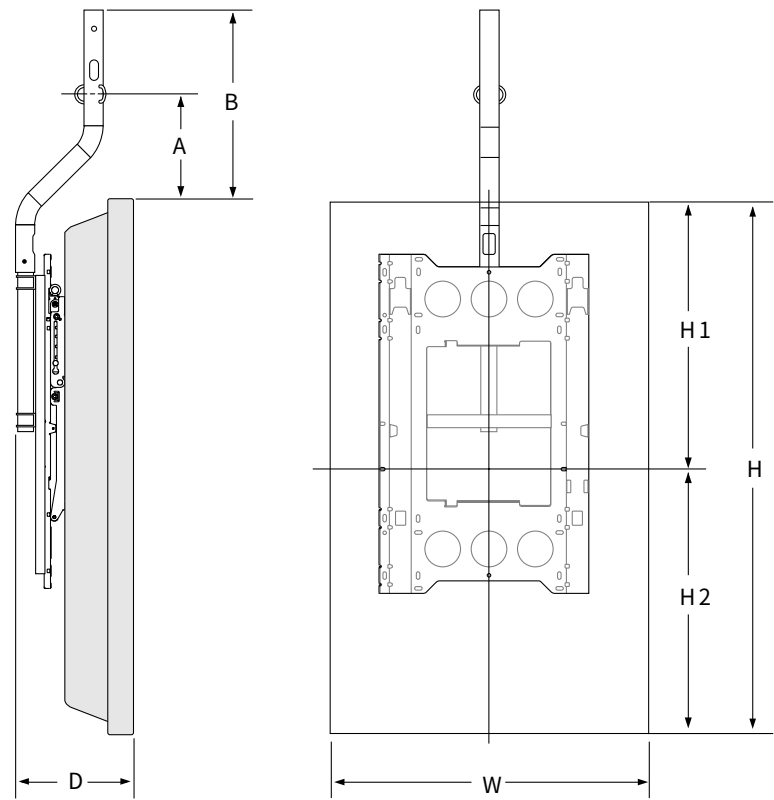


		A	B	W	H		D
					H1	H2	
61inch	PX-61XM2	286.6	526.6	1,470	880		262
					453.5	426.5	
	PX-61XM1	281.6	521.6	1,480	890		262
					458.5	431.5	
50inch	PX-50XM3	358.6	598.6	1,222	736		239
					381.4	354.6	
	PX-50XM2/50XM1	357.6	597.6	1,240	766		250
					382.4	382.6	
	PX-50VP2/50VP1	343.1	583.1	1,214	727		270
					397	330	

(単位：mm)

Positional Relationship Between the CeilingMounting Unit and the Display

* Vertical installation



		A	B	W	H		D
					H1	H2	
61inch	PX-61XM2	327	527	880	1,470		262
					735	735	
	PX-61XM1	327	567	890	1,480		262
					740	740	
50inch	PX-50XM3	296	536	736	1,222		239
					771	451	
	PX-50VP2/50VP1	300	540	727	1214		295
					767	447	

(Unit : mm)