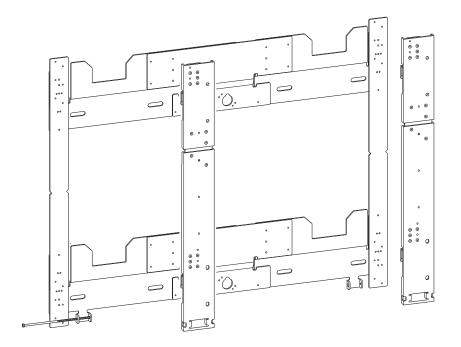
Panasonic

Installation Instructions

Wall-hanging bracket (Vertical mounting type) Commercial Use

Model No. TY-WK98PV1



ENGLISH

Thank you for purchasing this Panasonic product.

To customer

This Installation Instructions is intended for use by installation personnel. Be sure to employ qualified installation specialists to perform the installation work.

After the installation work is complete, have the installation personnel return this Installation Instructions to vou, and save it for future use.

When relocating or removing the display unit, give this manual to qualified installation specialists and have them perform the procedure.

To installation personnel

Read this Installation Instructions thoroughly and then perform the work correctly and safely. Be sure to read "Safety Precautions" (pages 3 to 5) in particular before performing the installation work. After the installation work is complete, return this Installation Instructions to the customer.

We shall have no liability for any accidents or damage incurred by installing the product in any manner other than as provided in the Installation Instructions, or without using parts specified.



Contents

Safety Precautions	3
Product Components	6
Assembling the Bracket to Match the Display Unit Installation Pitch	8
Assembly Diagrams	8
Assembling the Bracket to Be Attached to the Wall Surface	
Assembling the Set Mounts to Be Attached to the Display Unit	
Attaching	18
Attaching the Set Mounts to the Display Unit	
Attaching the Bracket to the Wall	
Preparing the Display Unit	
Installing the Display Unit	
Wall Mounting Hole Positions and Dimensions Diagram	25
Screw Tightening Torque	26

Safety Precautions

Be sure to observe these precautions

WARNING:

Installation work and connection equipment expansion should never be done by anyone other than a qualified installation specialist.

• Improper installation may cause the display unit to drop, and may cause injury.

Do not install in a location that cannot bear the load.

• If the installation location lacks sufficient strength, the display unit may drop, and may cause injury.

Do not disassemble or modify the wall-hanging bracket.

• The display unit may drop, and may cause damage and injury.

Include a safety factor when considering the strength of the proposed installation location.

• If strength is not sufficient, the display unit may drop, and may cause injury.

Ensure that the installation location is strong enough to support long-term use.

• If its strength becomes insufficient over the course of long-term use, the display may drop, and may cause injury.

When there are people in the nearby area, do not attach or remove the display unit.

There is a danger that they may be caught between the display unit and the wall and bracket.

Their fingers or hands may be caught between the display and the wall or the bracket and may cause injuries.

Safety Precautions (continued)

CAUTION:

Do not use any television and displays other than those given in the catalogue.

Do not install it in any other way.

• The display unit may drop, and may cause damage and injury.

Do not install facing upwards, downwards, sideways or upside-down.

- This may cause heat to build up inside the display unit, and may cause a fire.
- The display unit may drop, and may cause damage and injury.

Do not install in any location subject to humidity, dust, smoke, steam or heat.

• This may have an adverse effect on the display and cause fire or electric shock.

Do not block the ventilation holes.

When using the wall-hanging bracket, do not block the space between the rear surface of the display and the mount surface.

• Otherwise heat may build up inside and cause a fire.

Provide space of at least 10 cm (3.9 inches) above, below, and to the sides of the display unit's outermost surfaces, and at the rear provide space between the mounting surface and the bracket mount surface.

• Failing to do so may result in a fire.

Install the mounting screws and power cord in such a way that they will not make contact with the metal objects behind the wall.

• Electric shocks may result from contact with any metal objects inside the wall.

During installation, provide space to enable tightening of the lock screw and then tighten it.

• Otherwise, the display unit may drop, and may cause damage and injury.

For installation, use the special-purpose components.

• Otherwise, the display unit may drop, and may cause damage and injury.

When removing the display unit, also remove the wall-hanging bracket.

• Otherwise, somebody may, for example, bump into the wall-hanging bracket, and may cause injury.

Remove the product from the installation location when it is no longer going to be used.

Otherwise, the product may topple over, and may cause damage and injury.

The display unit should be attached and removed by two persons if 25 kg (55.12 lbs) or heavier and by four persons if 50 kg (110.23 lbs) or heavier. [Follow the instruction manual of the display unit.]

Otherwise, the display unit may drop, and may cause injury.

Be careful not to have your fingers pinched during installation work.

It can cause injuries.

Requests regarding handling

- 1) Exercise care when selecting the location for the display because it may discolor or deform due to light or heat if it is placed where it is exposed to direct sunlight, or near a heater.
- 2) Clean the wall-hanging bracket by wiping it with a soft, dry cloth (such as cotton or flannel). If the bracket is very dirty, remove the dirt using a neutral detergent diluted in water, and then wipe it clean with a dry cloth. Do not use benzene, thinner, or furniture wax as this may cause the coating to peel.

(For information on cleaning the display unit, see the instruction manual of the display unit.

- If using a chemically treated cloth, follow the instructions supplied with the cloth.)
- 3) Do not affix adhesive tape or stickers to the product. Doing so may dirty the surface of the wall-hanging bracket.
 - Do not allow long-term contact with rubber, vinyl products or the like. (Doing so will cause deterioration.)
- 4) Take care during installation as shocks can cause 'panel cracks' to the display unit.

Safety Precautions (continued)

■ We shall have no liability for any accidents or damage incurred by installing the product in any manner other than as provided in the Installation Instructions, or without using parts specified.

Precautions for Installation Work

- Do not let people other than installation specialists carry out the installation work. Improper installation may cause the display unit to drop, and may cause injury.
- This unit is a wall-hanging bracket for installing a display unit vertically. Do not use it in places that are not vertical.
- To ensure correct display performance and prevent trouble, do not install in any of the following locations.
 - Near sprinklers or fire/smoke detectors
- Where there is a risk of exposure to vibration or impact
- Near high-voltage wires or dynamic power supplies
 Near sources of magnetism, heat, water vapor or soot
- Locations exposed to air blown from heating

 Where droplets of condensation from an air conditioner
- Locations exposed to air blown from heating equipment
- Where droplets of condensation from an air conditioner or other unit may form
- Install using techniques suited to the structure and materials of the installation location.
- Use commercially available bolts that are suited to the material (wood, steel frame, concrete, etc.) of the wall surface to which the wall-hanging bracket is to be attached.
- Ensure good air flow so that the equipment ambient temperature does not exceed 40°C (104°F).
 - Failure to do this may cause heat to build up inside the display, and may cause malfunction.
- Spread a soft blanket or cloth over the floor so that the display and floor will not be marked or scratched during the assembly and installation work.
- When screwing down the parts, ensure that the screws are neither insufficiently tightened nor over tightened.
- For the display power supply plug, use a power supply outlet that can be reached easily.
- Take sufficient care to ensure safety around you when performing the assembly and installation work or while moving about during the course of the work.
- Do not install the display underneath ceiling lamps (spotlights, halogen lamps, etc.). Otherwise, the cabinet may be bent or damaged by high heat.

To the Installation Contractor

- If the wall-hanging bracket installation and display unit installation work are performed by different contractors, please ensure that this manual is passed from the wall-hanging bracket installation contractor to the display unit installation contractor after the wall-hanging bracket installation work is completed.
- Please give this manual to the customer after the installation work is completed.

Product Components

This product is a bracket used to mount a display unit to a wall. It can be used when installing a display unit vertically.

■ Components

Make sure the package contains the following parts. _____ is the part number. () is the quantity.

Part name	Appearance (quantity)		
Base plate upside (L) A-1		(1)	
Base plate upside (R) A-2		(1)	
Base plate downside (L) A-3		(1)	
Base plate downside (R) A-4		(1)	
Center base plate 800 *1 (Use this when the horizontal pitch is 800 mm (31.5").)		(2)	
Center base plate 600 *1 (Use this when the horizontal pitch is 600 mm (23.7").)		(2)	
Center base plate 500 *1 (Use this when the horizontal pitch is 500 mm (19.7").)		(2)	
Center base plate 400 (Use this when the horizontal pitch is 400 mm (15.8").)		(2)	
Spacer plate A-9		(2)	

^{*1} Be sure to install the spacer plates.

If the spacer plates are not installed, there is a risk of the bracket becoming deformed.

For how to install the spacer plates, see "Assembling the Bracket to Be Attached to the Wall Surface" (page 13).

Product Components (continued)

Part name		Appearance (quantity)	
Side base plate	A-10		(2)
Set mount (Upper)	B-1		
Set mount (Lower)	B-2		(2)
Countersunk screw (M4x6)	C-1	① (3	32)
Lock screw (M5x200)	C-2		(1)
Lock screw (M5x70)	C-3		(1)
Set mount screw (M8x20)	C-4		(4)
Set mount screw (M6x12)	C-5		(4)

This wall-hanging-bracket is a VESA standard compliant bracket.

The plates to use and lock screw positions differ depending on the installation pitch and orientation (landscape or portrait) of the display unit.

Confirm the installation pitch of the display unit to be installed and then select the center base plate and set the screw positions of the side base plates and set mounts.

Assembly Diagrams

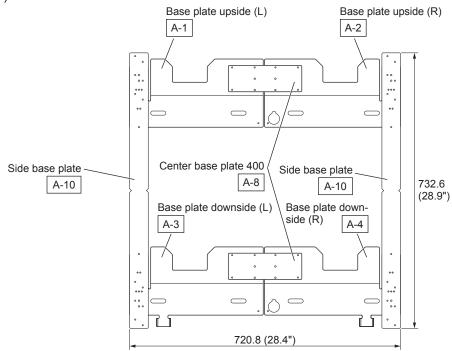
For the installation pitch of the display unit, check the specifications or instruction manual of the corresponding display unit at the following website.

https://panasonic.net/cns/prodisplays/download/spec_manual/

■ Setting installation pitch (400 x 400): Landscape or portrait orientation

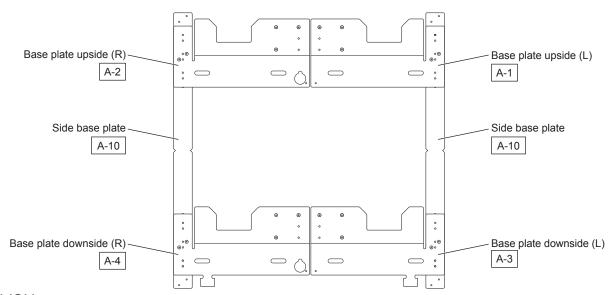
When viewed from front

(Unit : mm)



	(PCS
A-1	1
A-2	1
A-3	1
A-4	1
A-8	2
A-10	2
C-1	20

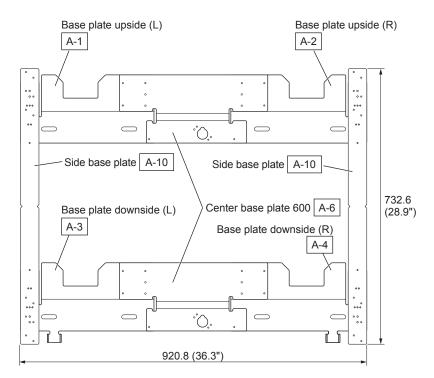
When viewed from back



■ Setting installation pitch (600 x 400): Landscape orientation

When viewed from front

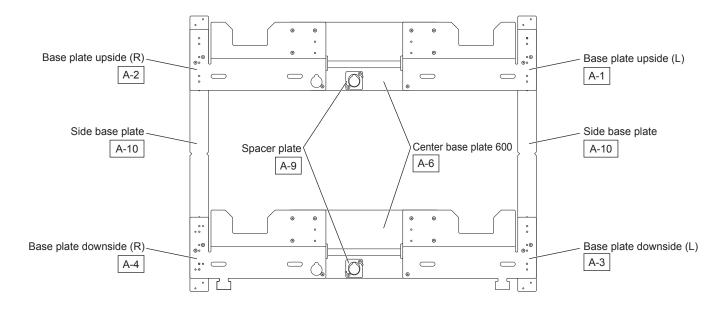
(Unit: mm)



	(PCS)
A-1	1
A-2	1
A-3	1
A-4	1
A-6	2
A-9	2
A-10	2
C-1	28

(DOC)

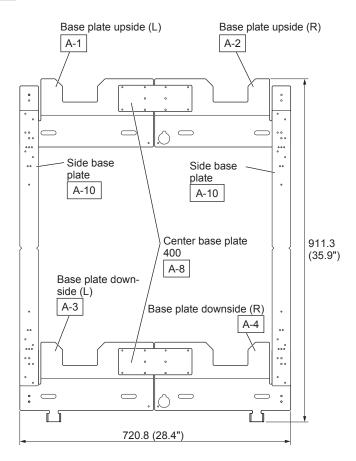
When viewed from back



■ Setting installation pitch (600 x 400): Portrait orientation

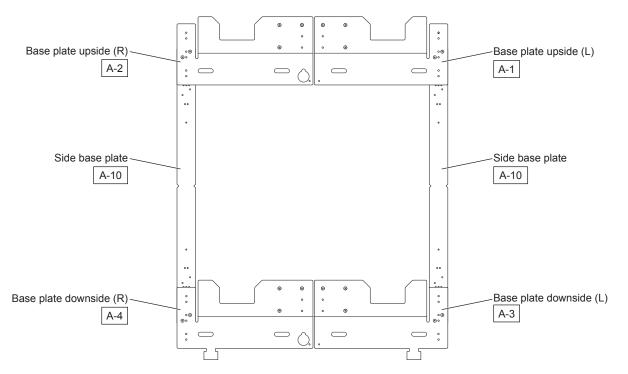
When viewed from front

(Unit: mm)

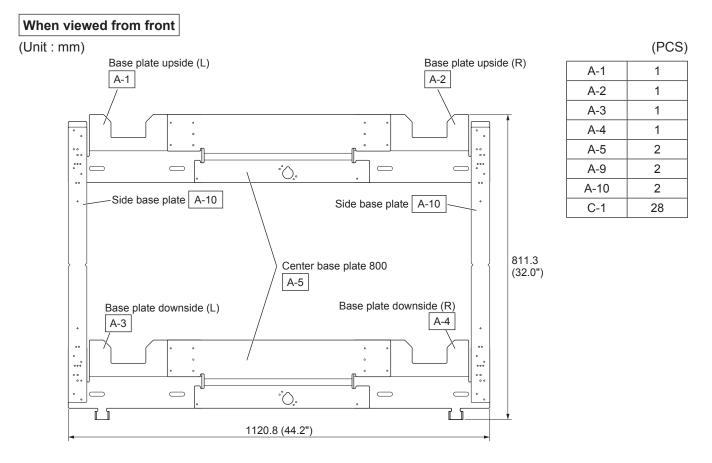


	(PCS)
A-1	1
A-2	1
A-3	1
A-4	1
A-8	2
A-10	2
C-1	20

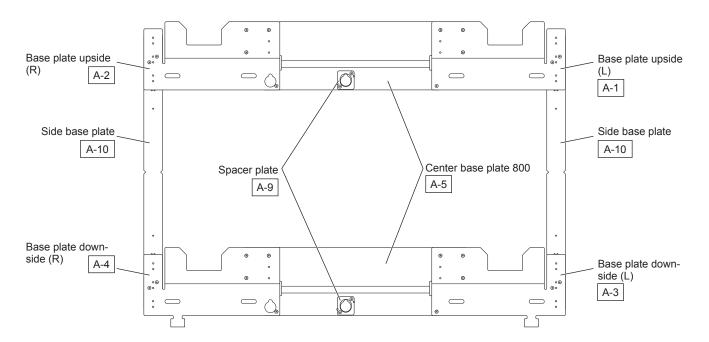
When viewed from back



■ Setting installation pitch (800 x 500): Landscape orientation



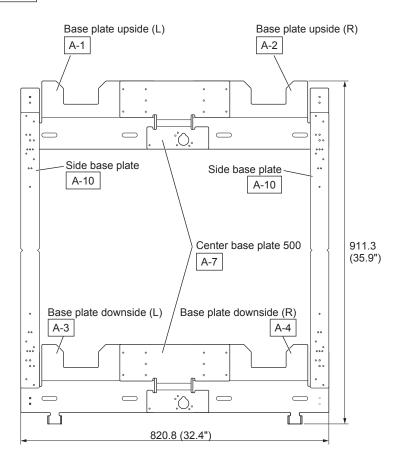
When viewed from back



■ Setting installation pitch (800 x 500): Portrait orientation

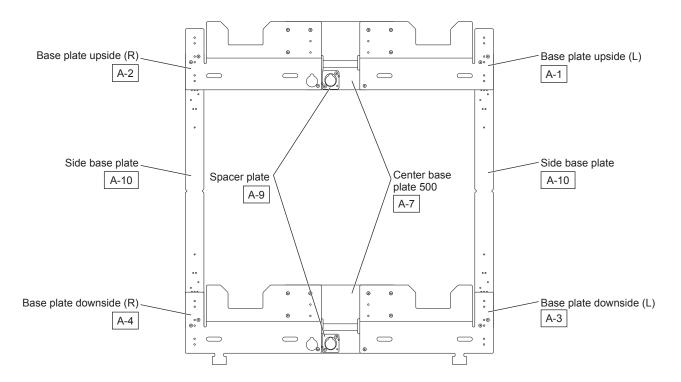
When viewed from front

(Unit: mm)



	(PCS)
A-1	1
A-2	1
A-3	1
A-4	1
A-7	2
A-9	2
A-10	2
C-1	28

When viewed from back



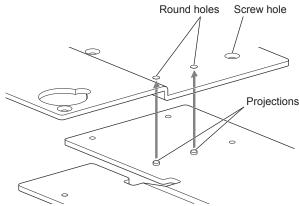
Assembling the Bracket to Be Attached to the Wall Surface

Attention

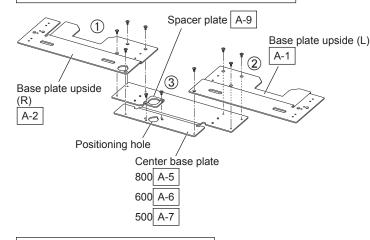
• The left and right base plates need to be reversed to screw in the screws from the back (surface contacting the wall). Accordingly, perform the work with the right base plates placed on the left side and left base plates placed on the right side.

When bracket to be attached to the wall surface Countersink Back (surface contacting the wall)

- The surfaces for installing the screws have <u>countersinks</u> so that the countersunk screws sit flush with the surface. Install the countersunk screws from the surfaces with the <u>countersinks</u>.
- The surfaces with the countersunk screw heads will contact the display unit or wall. Installation will not be possible if the countersunk screws are protruding so tighten the countersunk screws until their heads are not higher than the bracket.
- When assembling the bracket, place the plates so that the projections near the screw holes fit into the round holes.
 The screws cannot be screwed in if the projections are not fitted into the round holes because the screw holes will be misaligned.



When center base plate is 800, 600, or 500

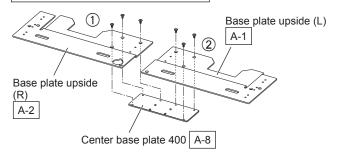


1) Assemble the base plate (upper).

- Place base plate upside (R) over the left side of the center base plate and fix it in place with four countersunk screws.
- ② Place base plate upside (L) over the right side of the center base plate and fix it in place with four countersunk screws.
- ③ Place the spacer plate over the positioning hole of the center base plate and fix it in place with two countersunk screws.

(Tightening torque: 1.4 to 1.6 N·m)

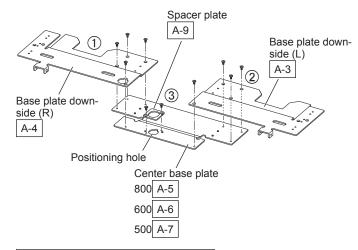
When center base plate is 400



- ① Place base plate upside (R) over the left side of the center base plate and fix it in place with three countersunk screws.
- ② Place base plate upside (L) over the right side of the center base plate and fix it in place with three countersunk screws.

(Tightening torque: 1.4 to 1.6 N·m)

When center base plate is 800, 600, or 500

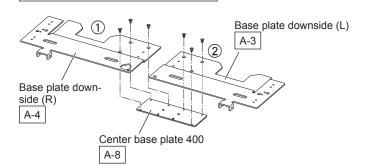


2) Assemble the base plate (lower).

- ① Place base plate downside (R) over the left side of the center base plate and fix it in place with four countersunk screws.
- ② Place base plate downside (L) over the right side of the center base plate and fix it in place with four countersunk screws.
- ③ Place the spacer plate over the positioning hole of the center base plate and fix it in place with two countersunk screws.

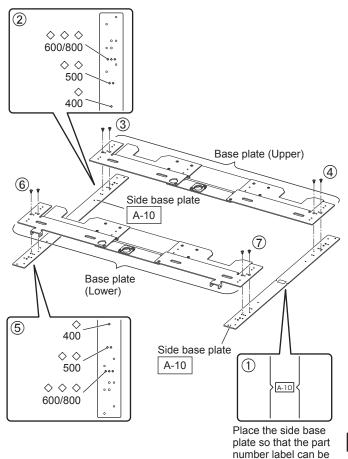
(Tightening torque: 1.4 to 1.6 N•m)

When center base plate is 400



- ① Place base plate downside (R) over the left side of the center base plate and fix it in place with three countersunk screws.
- ② Place base plate downside (L) over the right side of the center base plate and fix it in place with three countersunk screws.

(Tightening torque: 1.4 to 1.6 N·m)



seen

3) Attach the side base plate to the base plates (upper and lower)

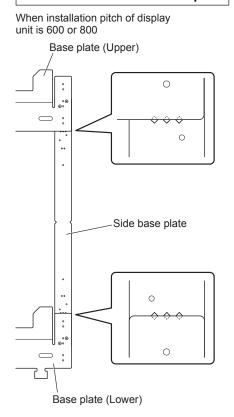
- ① Place the side base plates so that the surfaces with the part number labels affixed are facing up.
- ② Confirm the positions of the \diamondsuit holes at the upper part of the side base plates as shown in the figure.
 - The installation positions differ depending on the display unit installation pitch.
- ③ Place the left side of the base plate (upper) over the upper part of one of the side base plates and fix it in place with two countersunk screws.
- ④ Place the right side of the base plate (upper) over the upper part of the other side base plate and fix it in place with two countersunk screws.
- ⑤ Confirm the positions of the ♦ holes at the lower part of the side base plate as shown in the figure.
- ⑥ Place the left side of the base plate (lower) over the lower part of the side base plate on the left side and fix it in place with two countersunk screws.
- Place the right side of the base plate (lower) over the lower part of the side base plate on the right side and fix it in place with two countersunk screws.

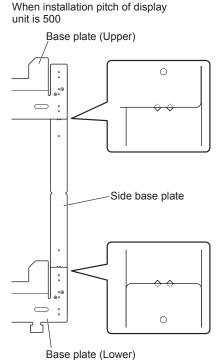
(Tightening torque: 1.4 to 1.6 N·m)

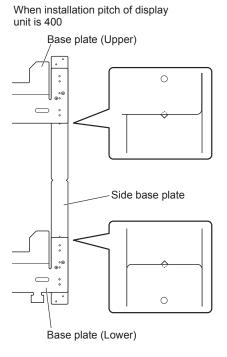
Attention

• When attaching the base plate (upper) and base plate (lower), place them so that the ♦ holes in the side plate are half hidden.

Position to attach the base plate







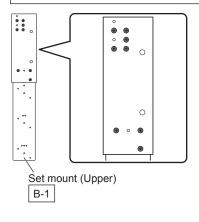
Assembling the Set Mounts to Be Attached to the Display Unit

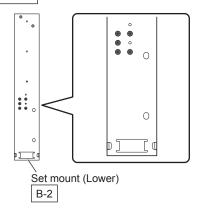
Attention

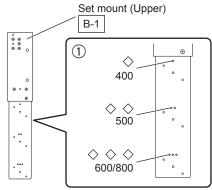
 Never remove the black countersunk screws at the positions in the "Positions of black countersunk screws" figure.

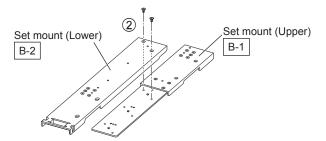
The display unit may drop, and may cause damage and injury.

Positions of black countersunk screws









1) Assemble the set mounts for the display unit.

- ① Confirm the positions of the \diamondsuit holes in the set mount (upper).
 - The installation positions differ depending on the display unit installation pitch.
- ② Place the set mount (lower) over the set mount (upper) and fix it in place with two countersunk screws.

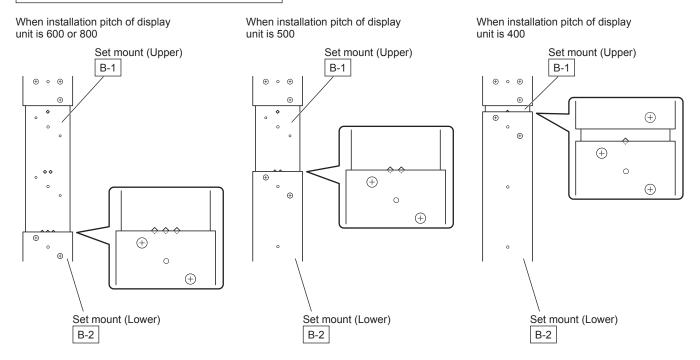
(Tightening torque: 1.4 to 1.6 N•m)

Attention

- Place the set mount (lower) so that the bottom half of the ♦ holes in the set mount (upper) are hidden as shown in the "Position to attach the set mounts (lower)" (page 17) figure.
- Tighten all countersunk screws so that they are not higher than the set mount.
 If any screw is protruding, the display unit will be

damaged.

Position to attach the set mounts (lower)



Attaching

Attention

- Applying force to the LCD panel of the display unit will damage the LCD.
 Be sure to hold the bezel of the display unit when performing the work.
- When fixing the display unit to the bracket attached to the wall, insert the hooks at four places into the cutouts at the same time.
- When the display unit is installed in portrait orientation, the installation positions of the set mounts may not be at the center of the display unit.
- Confirm the installation positions of the set mounts in advance and then determine the wall-hanging bracket installation position.
- Use commercially available bolts that are suited to the material (wood, steel frame, concrete, etc.) of the wall surface to which the wall-hanging bracket is to be attached.

Attaching the Set Mounts to the Display Unit

Attention

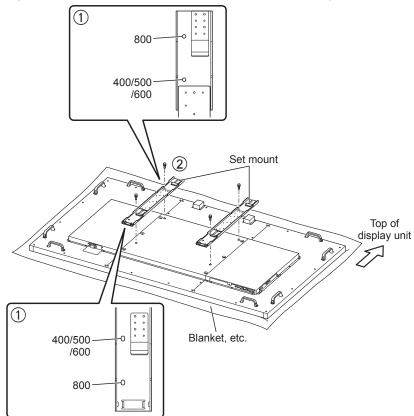
- When performing the work to attach the set mounts to the display unit, perform the work with the display unit placed on a clean blanket or the like with no dirt or foreign matter on it to prevent damage to the display unit.
- The display unit should be attached and removed by two persons if 25 kg (55.12 lbs) or heavier and by four persons if 50 kg (110.23 lbs) or heavier.
 - The display unit may drop, and may cause injury, so follow the instructions in the instruction manual of the display unit.

The display unit illustration may differ from the actual display unit, depending on the model.

The following illustration is one example of a compatible model.

1) Attach the set mounts to the display unit.

- ① Confirm the screw installation positions of the display unit and then place the set mounts so that the screw holes are aligned.
 - The installation positions differs depending on the display unit installation pitch.
- ② Fix the set mounts with the set mount screws.
 - For size of the set mount screws, use the size specified in the instruction manual of the display unit. (Tightening torque: 1.8 to 2.2 N•m for M6, and 2.0 to 3.0 N•m for M8)



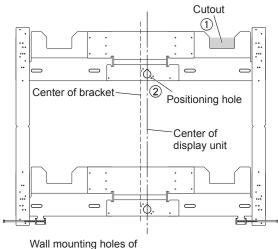
Attaching the Bracket to the Wall

Attention

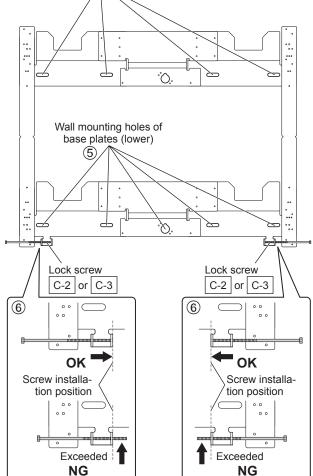
• When attaching the bracket to the wall, use bolts for which the height of the head portion will be 11 mm (0.43") or less including the thickness of the washer.

If the height of the head portion of the bolts exceeds 11 mm (0.43"), the bolts will interfere with the display unit and damage it.





base plates (upper)

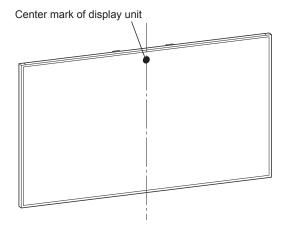


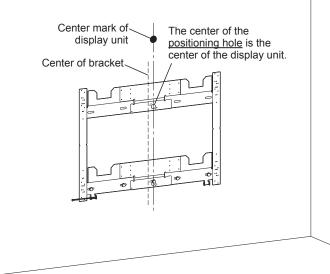
Install the lock screw on either the left or the right.

1) Attach the bracket to be attached to the wall surface to the wall.

- The center of the positioning hole is the center of the display unit.
- ① Attach the bracket so that the cutouts of the base plates are at the top.
- ② Fix the place with the positioning hole in the base plate (upper) to the wall with a bolt.
- ③ Use a level gauge to correct any tilting of the bracket.
- Fix the four remaining places with mounting holes in the base plate (upper) to the wall with bolts.
- ⑤ Fix the five places with mounting holes in the base plate (lower) to the wall with bolts.
- (6) Use a screwdriver to install the lock screw (M5x200) in the base pate (lower). (Tightening torque: 1.4 to 1.6 N•m)
 - There are lock screw installation parts on the left and right of the bracket.
 The lock screw tightening work will be performed after the bracket is attached to the display unit, so install the lock screw in the one for which work space can be provided.
 - If the lock screw is longer than the display unit when installed, replace it with the lock screw (M5x70).
 - Tighten the lock screw so that it does not exceed past the screw installation position of the base plate (lower) as shown in the figure.
 Tightening the screw so that it exceeds past the screw installation position is dangerous because the display unit will not be able to be installed in a normal position.

Also, the wall-hanging bracket or display unit may be damaged.





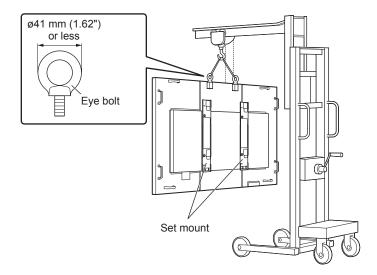
- 2) Put marks for the center of the display unit on the display unit and the wall surface.
 - ① Measure the width of the display unit and put a center mark on the top of the display unit.
 - ② Put a mark to align the center of the display unit on the wall surface along a line extending from the positioning hole.
 - Put the mark on the wall surface at a position where it can also be checked when the display unit is lifted up.
 - The <u>positioning hole</u> of the bracket attached to the wall becomes the center of the display unit

The center of the bracket does not serve as a guide during installation.

Preparing the Display Unit

Attention

• Perform the work to attach a large display unit carefully using a lifting device (machine) because it is heavy. The display unit illustration may differ from the actual display unit, depending on the model. The following illustration is one example of a compatible model.



- When performing the suspension work, attach eye bolts to the display unit in order to suspend the display unit.
- Use eye bolts with a diameter of ø41 mm (1.62") or less.
 If the diameter of the eye bolts exceeds ø41 mm (1.62"), you will not be unable to attach the eye bolts because the eye bolts and display unit will interfere with each other.
- There are operation parts on the rear of the display unit. Take care not to bump them against anything nearby during installation.
- If disconnecting and connecting the power cord and connection cables at the back of the display unit will be difficult, connect them to the display unit before installation.
- Take care that the cord and cables do not become entangled. Insert the plug in the outlet after the installation is completed.

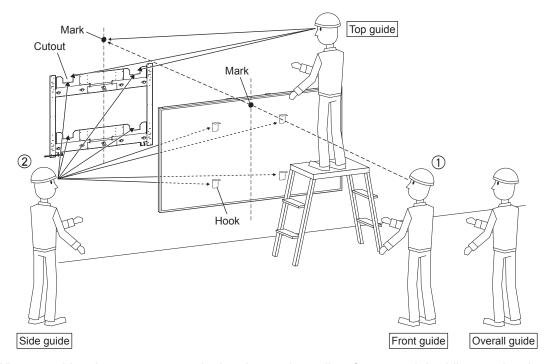
Installing the Display Unit

- 1) Attach the display unit to the wall-hanging bracket.
 - ① Align the mark put on the display unit with the mark put on the wall while checking that the display unit is horizontal.
 - ② Check that the hooks on the set mounts are higher than the cutouts of the bracket attached to the wall surface.
 - ③ Insert the hooks at four places of the set mounts into the cutouts of the bracket attached to the wall surface at the same time.
 - If the display unit is offset from the center or tilted, you may not be able to insert the hooks into the cutouts.

Attention

• In addition to the workers who perform the work to attach the display unit, people who serve as guides are required to direct the workers during the installation.

A top guide and side guide are required to check that the hooks are hooked into the cutouts, a front guide is required to check the centering, and an overall guide is required to check the overall installation.

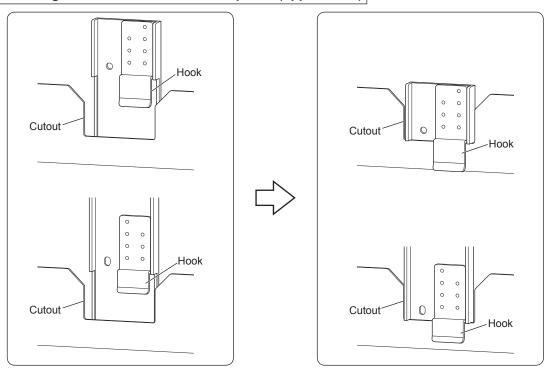


• When attaching the set mounts to the bracket on the wall surface, attach it while pressing the entire display unit onto the wall.

If there is a gap between the display unit and wall, you will have trouble installing the display unit because the hooks will not hook into the holes.

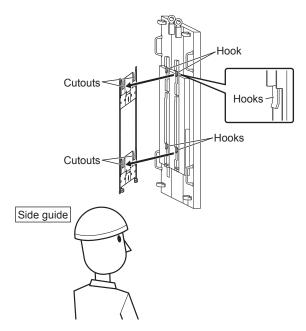
• Check that the hooks are higher than the cutouts.

Attaching the set mounts to the base plates (upper/lower)



• As shown in the following figure, visibility is limited when viewing from the side so checking the positions of the cutouts and hooks will be difficult.

Carefully attach the display unit while listening to the directions of each guide.



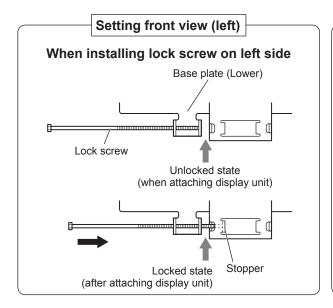
- 4 Immediately after installation, pull the top of the display unit toward you to confirm that the gap between the display unit and wall does not increase and that the upper hook parts are definitely fixed in place.
- ⑤ Pull the bottom of the display unit toward you to confirm that the gap between the display unit and wall does not increase and that the lower hook parts are definitely fixed in place.

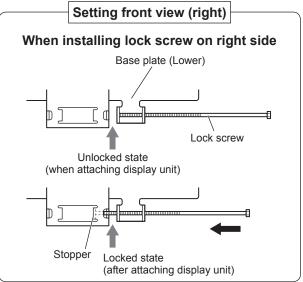
Attention

• Be sure to perform the above check work to confirm that the hook parts are all definitely fixed in place.

2) Lock the display unit.

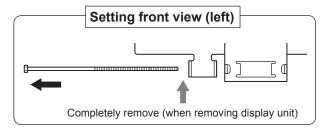
- ① Use a long screwdriver to tighten the lock screw until it reaches the stopper of the set mount. (The lock screw is tightened by turning it clockwise.)
 - Install the lock screw on either the left or the right.

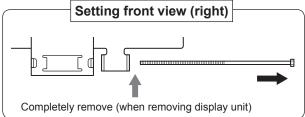




3) When removing the display unit

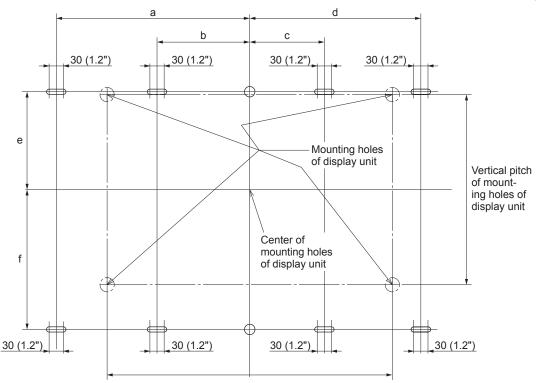
- ① Use a long screwdriver to completely remove the lock screw that is locking the display unit. (The lock screw is removed by turning it counterclockwise.)
 - The display unit is still in the locked state if the lock screw remains in the wall-hanging bracket.
- ② To remove remove the display unit, perform the installation procedure in the reverse order.





Wall Mounting Hole Positions and Dimensions Diagram

(Unit: mm)



Horizontal pitch of mounting holes of display unit

Installation pitch	Display unit installation orientation	а	b	С	d	е	f	Dimensions (W×H)
800×500	Landscape	507 (19.96")	295 (11.61")	257 (10.12")	460 (18.11")	256 (10.08")	344 (13.54")	1120.8 (44.2") × 811.3 (32.0")
800*300	Portrait	357 (14.06")	145 (5.71")	107 (4.21")	310 (12.20")	306 (12.05")	394 (15.51")	820.8 (32.4") × 911.3 (35.9")
600×400	Landscape	407 (16.02")	195 (7.68")	157 (6.18")	360 (14.17")	206 (8.11")	294 (11.57")	920.8 (36.3") × 732.6 (28.9")
000*400	Portrait	307 (12.09")	95 (3.74")	57 (2.24")	260 (10.24")	306 (12.05")	394 (15.51")	720.8 (28.4") × 911.3 (35.9")
400×400	Landscape/ portrait	307 (12.09")	95 (3.74")	57 (2.24")	260 (10.24")	206 (8.11")	294 (11.57")	720.8 (28.4") × 732.6 (28.9")

For the installation pitch of the display unit, check the specifications or instruction manual of the corresponding display unit at the following website.

https://panasonic.net/cns/prodisplays/download/spec_manual/

Screw Tightening Torque

Screw name	Screw nominal outer diameter	Tightening torque [N•m]
Countersunk screw (M4x6)	M4	1.4 to 1.6
Set mount screw (M6x12)	M6	1.8 to 2.2
Set mount screw (M8x20)	M8	2.0 to 3.0
Lock screw (M5x70)	M5	1.4 to 1.6
Lock screw (M5x200)	M5	1.4 to 1.6

MEMO

