Panasonic®

Installation Instructions
Wall Mount Bracket

Model No. ET-WBC100
ET-PKC300B

ET-PKC300B

ET-WBC100
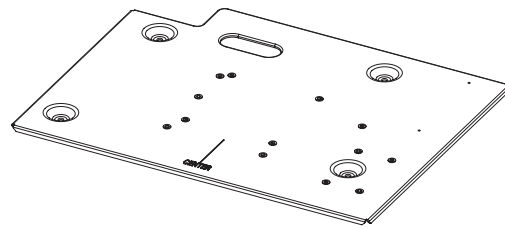
ENGLISH

FRANÇAIS

DEUTSCH

日本語

Thank you for purchasing this Panasonic Product.

■ The "Installation Instructions" is common to the following products.
Wall mount bracket: ET-WBC100
Projector mount bracket: ET-PKC300B

■ To customers

The "Installation Instructions" is intended for use by installation personnel. Be sure to employ certified personnel to perform the installation. After installation, have the installation personnel return the "Installation Instructions" to you, and save it for future use. When moving or removing the projector, give the "Installation Instructions" to the installation personnel and have them perform the procedure.

■ To installation personnel

Carefully read the "Installation Instructions" and install this product correctly and safely.
Be sure to read through the section entitled "Read this first!" (➡ page 3) before proceeding with the installation.
After installation, return the "Installation Instructions" to the customer.

■ Contents

Read this first!

WARNING:

Installation work should only be carried out by the certified personnel.
- If this product is not installed correctly, serious accidents may result.
- Follow the instructions specified in "Installation" and "Replacing projector mount bracket" of this manual, and perform secure installation.

Install the wall mount bracket in accordance with the structure and materials of the installation location.
- If a mistake is made in the installation procedure, the wall mount bracket may fall down and an injury may result.

Mounting and installation must be carried out by two or more persons.
- When installing the projector in an overhead location, for example, in a high ceiling, at least two persons will be required to handle the installation.

Make sure that your footing is safe and secure during installation.
- If your footing is not secure, you may fall down or drop the unit, and an injury may result.

Do not loosen or remove the wall mount bracket screws or bolts unnecessarily.
- The projector may fall down and an injury may result.

Do not install in a location that is not strong enough.
- If the installation location is not strong enough, the unit may fall down and damage to the projector or an injury may result.

Do not install the wall mount bracket in humid or dusty locations or in locations where the wall mount bracket may come into contact with oily smoke or steam.
- Using the projector under such conditions may result in fire or electric shock. Also, the oil will cause the plastic to deteriorate and the projector may fall down when installed on a wall.

Do not allow children to reach the supplied screws and flat washer.
- The supplied screws and metal fittings can cause personal injury if swallowed.
- If swallowed, seek medical advice immediately.

Do not disassemble or modify the wall mount bracket.
- The projector may be damaged or fall, causing injury.

CAUTION:

Only install a designated projector.
Only install using a designated method.
- The projector may fall down and be damaged, and an injury may result.

Do not install the unit in a location that may impede projector ventilation.
- A fire may result.

Do not hang from or hang objects on the projector or wall mount bracket.
- The projector may fall and cause injury.

When installing, always use the supplied components.
- The unit may be damaged, or the projector may fall down and an injury may result.

Install the mounting screws and power cable in such a way that they will not make contact with metal objects inside the wall and ceiling.
- Electric shocks may result from contact with any metal objects inside the wall and ceiling.

■ **Panasonic Connect Co., Ltd. takes no responsibility for any accident or damage caused by the installation of the wall mount bracket using methods that are not described or methods that do not use the parts specified in these Installation Instructions.**

■ **If products are no longer being used, they should be dismantled and removed by certified personnel as soon as possible.**

Product description (ET-WBC100)

This is a wall mount bracket (Model No.: ET-WBC100) for installing the projector to a wall.
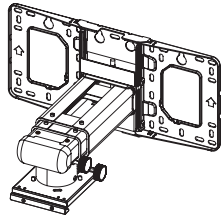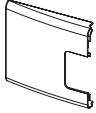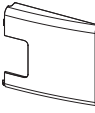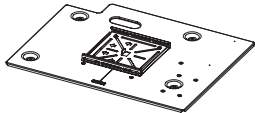
■ Applicable projectors

PT-CMZ50

Note

● In this manual, the suffixes at the end of the model numbers are omitted.
● Models other than those listed above may also be supported. Check the operating instructions of your projector or the following website.
  https://panasonic.net/cns/projector/

■ Structural components

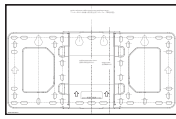| Parts name	Form (number of parts)	Applications
Wall mount bracket	× 1	This wall mount bracket is installed to the wall to support the entire product. In addition to forward/backward and vertical slide adjustment, it allows vertical and horizontal tilt adjustment and horizontal swing adjustment of the projector.
Mount cover	Mount cover (L) × 1 Mount cover (R) × 1	These are attached to the wall mount bracket.
Projector mount bracket kit	× 1	This is used to install the projector to the wall mount bracket. It consists of a projector mount bracket and a connecting plate. It allows horizontal slide adjustment of the projector.
Screws	Screw with captive washer (M6×16) × 4	Used to secure the projector mount bracket kit to the projector.
	Flanged screw (M4×10) × 4	Used to secure the projector mount bracket kit to the wall mount bracket.
Projector drop-prevention kit	Screw with captive washer (M6×16) × 1 Wire rope [3.0 mm (1/8") wire diameter, 750 mm (29-17/32") length] × 1 Wire rope [3.0 mm (1/8") wire diameter, 660 mm (25-31/32") length] × 1 Flat washer (M6) × 1	Prevents the projector from falling. Use one of the two wire ropes.

Product description (ET-WBC100) (continued)

Parts name	Form (number of parts)	Applications
Template sheet	× 1	Used to determine positions of the screw holes for securing the wall mount bracket to the wall.

- Store small parts in an appropriate manner, and keep them away from children.
- Tightening torque for the screw is M4: 1.25 ± 0.2 N·m (excluding the flanged screws), M6: 4 ± 0.5 N·m.
- When tightening up the screws, use a tool such as a torque screwdriver. Do not use electric screwdrivers or impact screwdrivers.

Attention

- Dispose of the packaging materials properly after taking the product out of it.

Product description (ET-PKC300B)

This is a projector mount bracket (Model No.: ET-PKC300B) used to replace the projector mount bracket of an existing wall mount bracket.

For details on how to replace the projector mount bracket, refer to "Replacing projector mount bracket (ET-PKC300B)" (➡ page 20).

■ Structural components

Parts name	Form (number of parts)	Applications
Projector mount bracket	× 1	This is used to install the projector to the wall mount bracket.
Screws	Screw with captive washer (M6×16) × 4	These are used to secure the projector mount bracket to the projector.
	Screw with captive washer (M4×14) × 5	These are used to secure the connecting plate, which is removed from the existing wall mount bracket, to the projector mount bracket.
Projector drop-prevention kit	Screw with captive washer (M6×16) × 1 Wire rope [3.0 mm (1/8") wire diameter, 750 mm (29-17/32") length] × 1 Wire rope [3.0 mm (1/8") wire diameter, 660 mm (25-31/32") length] × 1 Flat washer (M6) × 1	Prevents the projector from falling. Use one of the two wire ropes.

● Store small parts in an appropriate manner, and keep them away from children.

● Tightening torque for the screw is M4: 1.25 ± 0.2 N·m, M6: 4 ± 0.5 N·m.

● When tightening up the screws, use a tool such as a torque screwdriver. Do not use electric screwdrivers or impact screwdrivers.
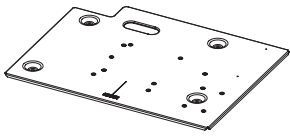
Attention

● Dispose of the packaging materials properly after taking the product out of it.

Installation dimensions (ET-WBC100)

The dimensional relationship between the screen and projector is shown below.

Determine the installation position on the wall based on the "Dimensional relationship diagram" (➡ page 7) and the "Dimensional relationship" (➡ page 8).

The projected image size can be adjusted by changing the distance between the screen and the projector. For details on how to adjust the projected image size, refer to "When adjusting the projected image size (forward/backward slide)" (➡ page 16).

■ Dimensional relationship diagram

<For PT-CMZ50>
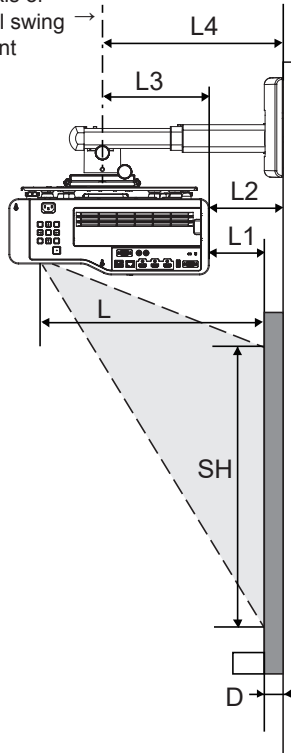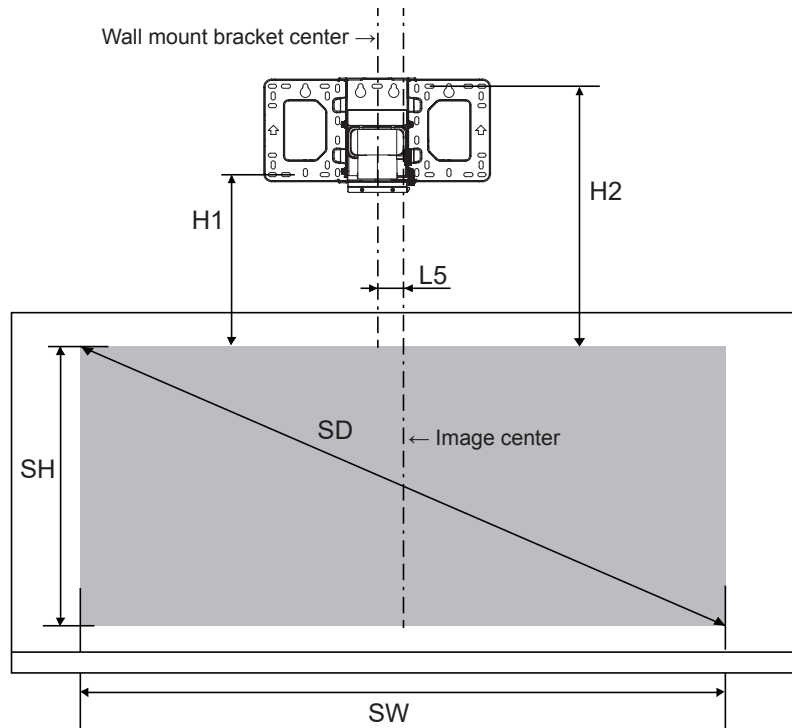
Note

● The illustrations of projectors in this manual are for informational purposes only. The appearance may differ from the actual product.
● This drawing is not in exact scale.

SH	Projected image height
SW	Projected image width
SD	Projected image size
L	Projection distance (distance from the screen surface to the mirror reflection surface[*1])
D	Distance from the wall surface to the screen surface
L1	Distance from the screen surface to the back surface of the projector
L2	Distance from the back surface of the projector to the wall surface
L3	Distance (225 mm (8-27/32")) from the center axis of horizontal swing adjustment to the back surface of the projector
L4	Distance from the wall surface to the center axis of horizontal swing adjustment
L5	Distance (47.5 mm (1-7/8")) from the image center to the wall mount bracket center
H1	Distance from the top edge of the projected image to the center of screw holes (on the lower side) used for securing the wall mount bracket
H2	Distance from the top edge of the projected image to the center of screw holes (on the upper side) used for securing the wall mount bracket

*1   The mirror reflection surface cannot be seen from the outside because it is located inside the projector.

Attention

● To prevent obstruction of the intake and exhaust vents, install the projector with a clearance from walls and objects. For details about the required distance from surrounding walls and objects, refer to the operating instructions for your projector. If you are installing the projector in a sealed space, be sure to provide additional air conditioning equipment and ventilation equipment. Insufficient ventilation will result in an accumulation of heat and may activate the projector's protection circuit.

● Avoid setting up in places which are subject to sudden temperature changes, such as near an air conditioner or lighting equipment (studio lamps, etc.).

■ Dimensional relationship

To use a projected image size not listed in the tables, check the projected image size SD (m) and calculate the value using the formulas provided in "Formulas for calculating dimensions" (➡ page 9).

<For PT-CMZ50>

Dimensions in the tables are values when Digital Zoom Extender function is disabled by setting the [POSITION] menu → [SCREEN ADJUSTMENT] → [DIGITAL ZOOM EXTENDER] to [OFF] on the projector.

(Unit: m)

Projected image size (Aspect ratio 16:10)			L	L1	H1[1]	H2[1]
SD	SH	SW				
2.03 (80")	1.077	1.723	0.41	0.010	0.346	0.519
2.16 (85")	1.144	1.831	0.43	0.033	0.358	0.531
2.29 (90")	1.212	1.939	0.46	0.055	0.370	0.543
2.41 (95")	1.279	2.046	0.48	0.078	0.381	0.554
2.54 (100")	1.346	2.154	0.50	0.10	0.393	0.566
2.79 (110")	1.481	2.369	0.55	0.15	0.417	0.590
3.05 (120")	1.615	2.585	0.59	0.19	0.441	0.614

Projected image size (Aspect ratio 16:9)			L	L1	H1[1]	H2[1]
SD	SH	SW				
2.03 (80")	0.996	1.771	0.42	0.020	0.407	0.580
2.16 (85")	1.058	1.882	0.44	0.043	0.422	0.595
2.29 (90")	1.121	1.992	0.47	0.067	0.438	0.611
2.41 (95")	1.183	2.103	0.49	0.090	0.453	0.626
2.54 (100")	1.245	2.214	0.51	0.11	0.469	0.642
2.79 (110")	1.370	2.435	0.56	0.16	0.500	0.673
3.05 (120")	1.494	2.657	0.61	0.21	0.532	0.705

Projected image size (Aspect ratio 4:3)			L	L1	H1[1]	H2[1]
SD	SH	SW				
1.78 (70")	1.067	1.422	0.41	0.007	0.344	0.517
1.91 (75")	1.143	1.524	0.43	0.032	0.358	0.531
2.03 (80")	1.219	1.626	0.46	0.058	0.371	0.544
2.16 (85")	1.295	1.727	0.48	0.083	0.384	0.557
2.29 (90")	1.372	1.829	0.51	0.11	0.398	0.571
2.41 (95")	1.448	1.930	0.54	0.13	0.411	0.584
2.54 (100")	1.524	2.032	0.56	0.16	0.425	0.598
2.79 (110")	1.676	2.235	0.61	0.21	0.451	0.624

[1] Values in the tables are based on the factory default height position of the arm.

■ Formulas for calculating dimensions

To use a projected image size not listed in "Dimensional relationship" (➡ page 8), check the projected image size SD (m) and use the respective formula to calculate the value.

Values obtained with the following formulas contain a slight error.

When calculating the value using image size designation (value in inches), multiply the value in inches by 0.0254 and substitute it into SD in the formula.

<For PT-CMZ50>

Aspect ratio	16:10	16:9	4:3
Screen height (SH)	= 0.530 × SD	= 0.490 × SD	= 0.6 × SD
Screen width (SW)	= 0.848 × SD	= 0.872 × SD	= 0.8 × SD
Projection distance (L)	= 0.1782 × SD + 0.0485	= 0.1831 × SD + 0.0485	= 0.2017 × SD + 0.0485
Distance from screen surface to back surface of the projector (L1)	= 0.0100 + (L - 0.4105)		
Distance from back surface of the projector to wall surface (L2)	= L1 + D		
Distance from wall surface to center axis of horizontal swing adjustment (L4)	= L1 + L3 + D or = 0.0100 + (L - 0.4105) + L3 + D		
Distance from top edge of projected image to center of screw holes (on lower side) used for securing the wall mount bracket (H1)	= 0.0933 × SD + 0.1564	= 0.1231 × SD + 0.1564	= 0.1056 × SD + 0.1564
Distance from top edge of projected image to center of screw holes (on the upper side) used for securing the wall mount bracket (H2)	= 0.0933 × SD + 0.3294	= 0.1231 × SD + 0.3294	= 0.1056 × SD + 0.3294

Installation (ET-WBC100)

After checking the height, width and structure of the installation location while referring to "Dimensional relationship diagram" (➡ page 7) and "Dimensional relationship" (➡ page 8), determine the appropriate positions for setting up the screen and installing the projector.

■ Installation procedures

Follow the procedures below to carry out installation of the wall mount bracket.

Before installation, route the cables to be connected to terminals of the projector.

1) **Set up the screen. (➡ page 10)**

2) **Attach the drop-prevention kit to the projector. (➡ page 11)**

3) **Install the projector mount bracket kit to the projector. (➡ page 11)**

4) **Install the wall mount bracket to the wall. (➡ page 12)**

5) **Install the projector to the wall mount bracket. (➡ page 13)**

6) **Secure the wire rope to the wall. (➡ page 14)**

7) **Attach the covers. (➡ page 15)**

Note

● Purchase the commercially available M8 bolts, nuts, washers, anchoring nuts or curled plugs necessary for installing the wall mount bracket to the wall.
● Purchase the commercially available M10 bolts, nuts, washers, anchoring nuts or curled plugs necessary for securing the drop-prevention wire rope to the wall.

Setting up the screen

Set up the screen according to the specified method in a position which takes into account the projection distance and angle and the type of screen being used.

Screws tightening torques

M4………1.25 ± 0.2 N·m (excluding the flanged screws)

M6………4 ± 0.5 N·m (excluding the M6×15 hex head bolts)

● When tightening the screws, use a torque screwdriver or a hexagonal torque wrench to tighten the screws to the specified tightening torques. Do not use electric screwdrivers or impact screwdrivers.
● When tightening the hex head bolts into the anchoring nuts, tighten to the tightening torque recommended by the manufacturer.
● When tightening the screws into the M8 and M10 anchoring nuts or curl plugs, tighten to the tightening torque recommended by the manufacturer.

Attaching the projector drop-prevention kit

Install the drop-prevention wire rope to the projector (sold separately).

<For PT-CMZ50>

1) **Place the projector upside down on a soft cloth. (Fig.1)**

2) **Retract the adjustable feet. (Fig.1)**
   - Rotate the adjustable feet in clockwise to retract them.

3) **Secure one end of the supplied wire rope to the A part on the projector by using a supplied captive washer screw (M6 x 16) and a supplied flat washer (M6). (Fig.2)**
   - Choose from the two wire ropes according to the distance (L2) from the back surface of the projector to the wall surface.
     If L2 is between 0 mm and 150 mm: Use the wire rope of 660 mm.
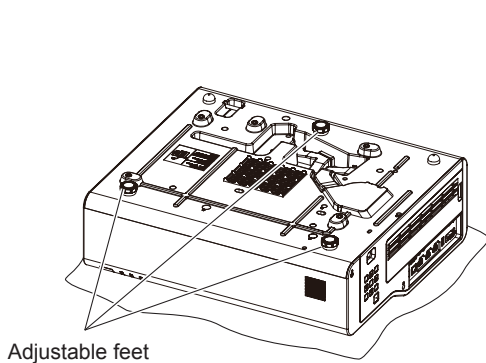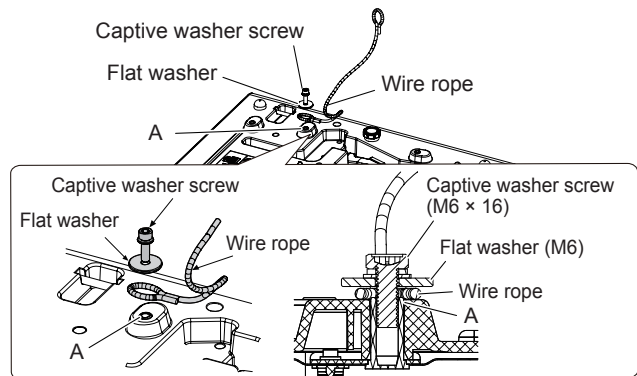   If L2 is between 150 mm (exclusive) ~ 270 mm: Use the wire rope of 750 mm.

Adjustable feet

Fig.1

Captive washer screw
Flat washer
Wire rope
A

Captive washer screw
Flat washer
Wire rope
A

Captive washer screw (M6 × 16)
Flat washer (M6)
Wire rope
A

Fig.2

Attention

- Be sure to use the supplied wire rope.

Installing the projector mount bracket kit to the projector

Install the projector mount bracket kit to the projector (sold separately) by following the procedure below.

<For PT-CMZ50>

1) **Pass the wire rope through the hole of the projector mount bracket kit. (Fig.1)**

2) **Secure the projector mount bracket kit to the bottom of the projector using the 4 supplied captive washer screws (M6 × 16). (Fig.2)**

Captive washer screw
Wire rope
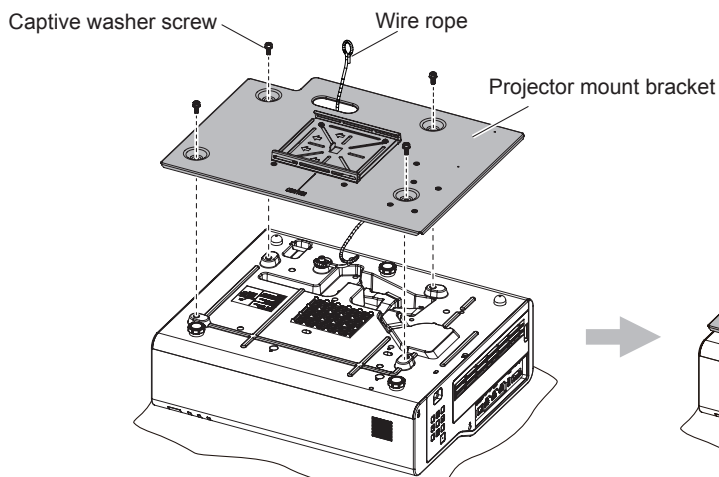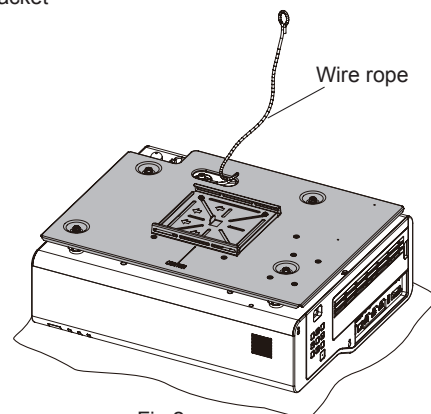Projector mount bracket

Wire rope

Fig.1

Fig.2

Installation (ET-WBC100) (continued)

Installing the wall mount bracket to the wall

1) **Temporarily paste the template sheet to the installation position determined according to "Installation dimensions" (➡ page 7). (Fig.1)**
   - Align the vertical line of "Image Center" on the template sheet to the center position of the screen.

2) **Select two from the four screw hole positions (Fig.2) used for temporary fixing of the wall mount bracket for optimum balance. Drive commercially available M8 screws into the selected positions.**
   - Leave at least 2 mm (3/32") - 4 mm (5/32") of space between the wall and the screw head so that the wall mount bracket can be placed between them. The plate thickness of the wall mount bracket is 2 mm (3/32").

3) **Select a total of at least eight screw hole positions (at least one from each of the eight fixing locations circled as shown in Fig.3).**
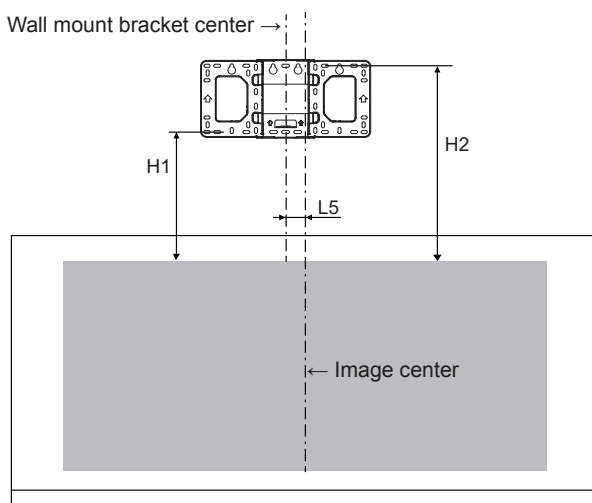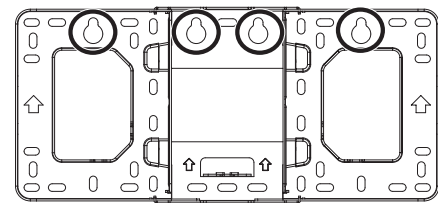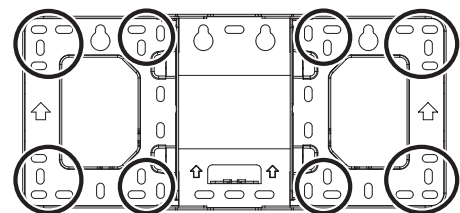

Fig.1

For M8

Fig.2

For M6

Fig.3

4) **Install the wall mount bracket to the wall.**

   - When installing to a wooden wall (Fig.4)

     i) Drill holes for M6 at all screw hole positions (at least 8 positions) selected in Step **3)** on the wall.
        - If the wall where the bolts are attached is not of sufficient strength, make the necessary reinforcements to ensure a safe installation.

     ii) Remove the template sheet.

     iii) Place the wall mount bracket onto the two M8 screws installed on the wall in Step **2)**.

     iv) Secure the wall mount bracket to the wall by tightening M6 bolts to all holes drilled in Step **i)**.

   - When installing to a concrete wall (Fig.5)

     i) Attach the anchoring nuts or curled plugs for M6 to all screw hole positions (at least 8 positions) selected in Step **3)**.
        - When installing anchoring nuts or curled plugs, strictly adhere to the installation instructions specified by the manufacturer so that they will not loosen in the concrete structure or be dislodged from the intended positions.
        - If the concrete wall is not of sufficient strength, reinforce it using steel or wood.

     ii) Remove the template sheet.

     iii) Place the wall mount bracket onto the two M8 screws installed on the wall in Step **2)**.

     iv) Secure the wall mount bracket to the wall by tightening M6 bolts to all anchoring nuts or curled plugs installed in Sep **i)**.

Installation (ET-WBC100) (continued)

Fig.4

- Hex head bolt with captive washer
- Wooden wall
- Flat washer
- Spring washer
- Hex nut

Fig.5

- Hex head bolt with captive washer
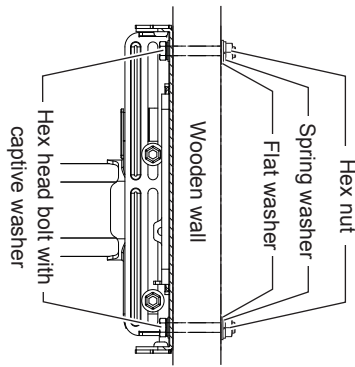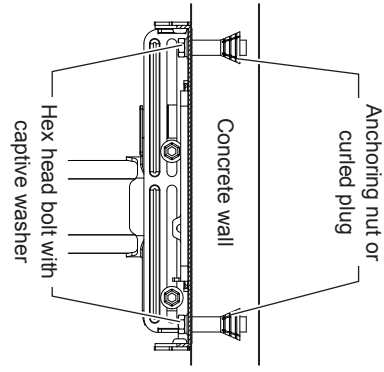- Concrete wall
- Anchoring nut or curled plug

Attention

- Be sure to use the bolts, hex nuts, spring washers, anchoring nuts or curled plugs for M6.
- Tighten the bolts and nuts securely. If necessary, use double nuts or take screw locking measures to prevent loosening.

Installing the projector to the wall mount bracket

1) **Remove the arm cover from the wall mount bracket. (Fig.1)**
  - Remove the cover from the top side.

2) **With the projector attached, slide the connecting plate on the projector mount bracket kit into the adjustable unit of the wall mount bracket. (Fig.2)**
  - The sliding direction of projector mount bracket kit is indicated by the arrow marks on the connecting plate.
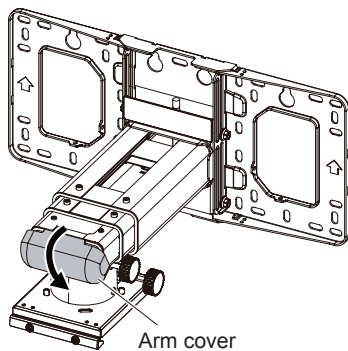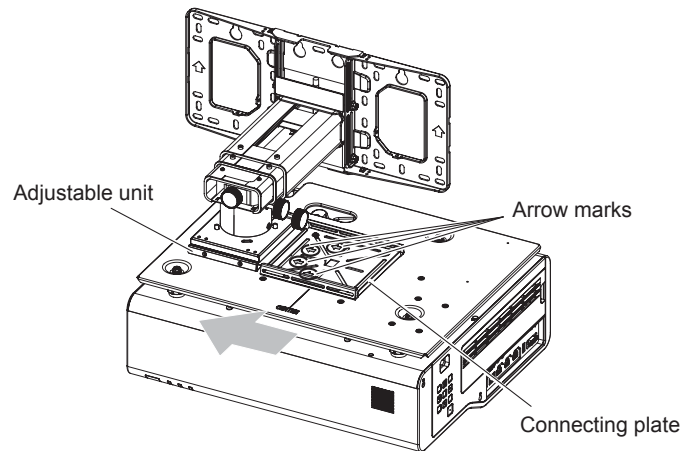
Arm cover

Fig.1

Adjustable unit

Arrow marks

Connecting plate

Fig.2

3) **Align the center position of projector mount bracket kit with the center of wall mount bracket.**
  - Adjust the position of projector mount bracket kit so that the two screw holes on the adjustable unit are located at the left end of the long holes on the connecting plate. (Fig.3)
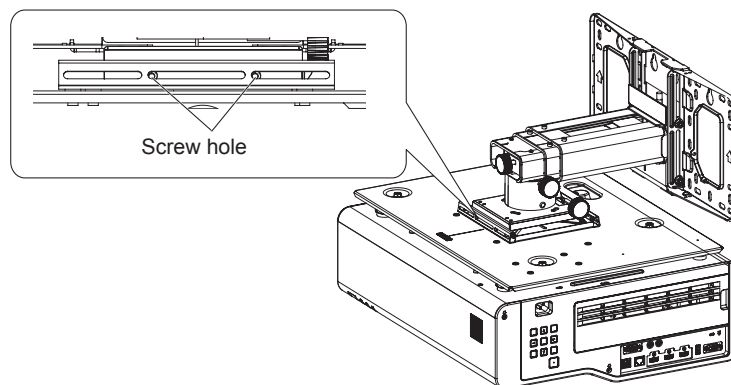
Screw hole

Fig.3

4) **Secure the projector mount bracket to the wall mount bracket using the four supplied flanged screws (M4 × 10). (Fig.4)**
- Tightening torque of flanged screws: 0.8 ± 0.2 N·m
- If the brackets interfere with the Phillips screwdriver, making it impossible to tighten the flanged screws on the wall side, pull out the arm and tighten the screws. For details on how to pull out the arm, refer to "When adjusting the projected image size (forward/backward slide)" (➡ page 16).

5) **Route the wire rope through the arm and pull it out to the top of the wall mount bracket. (Fig.5)**
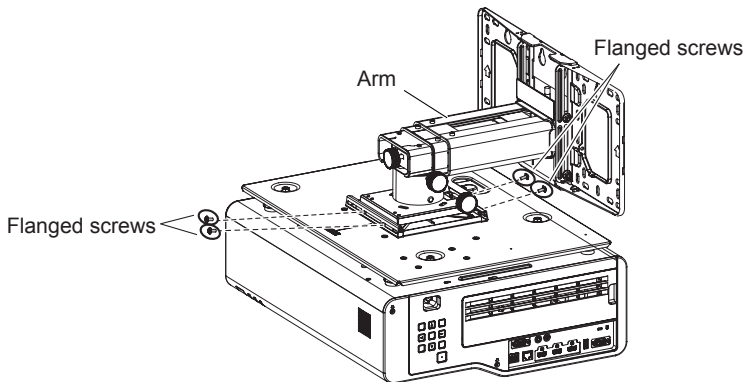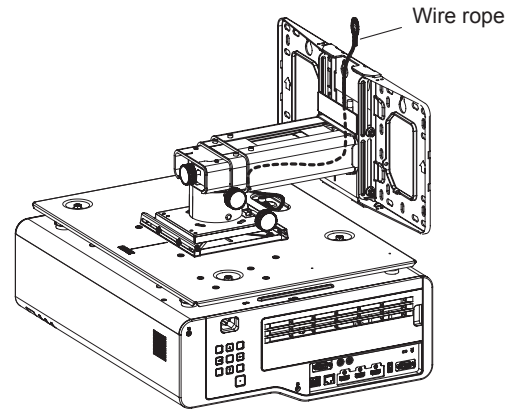
Fig.4

Fig.5

Attaching the wire rope to the wall

Secure the other end of the wire rope attached to the projector to the wall.
* These instructions assume installation in a concrete wall and use of commercially available M10 suspending bolts, anchor nuts or curled plugs. You will also need one commercially available flat washer with an outer diameter of at least 30 mm.

1) **Mount the anchor nut or curled plug (M10) firmly in the concrete wall. (Fig.1)**
- When installing to a wooden structure, drill a hole in the wall and install the commercially available suspending bolt (M10) with a commercially available flat washer (M10) and hex nut (M10). (Fig.2)
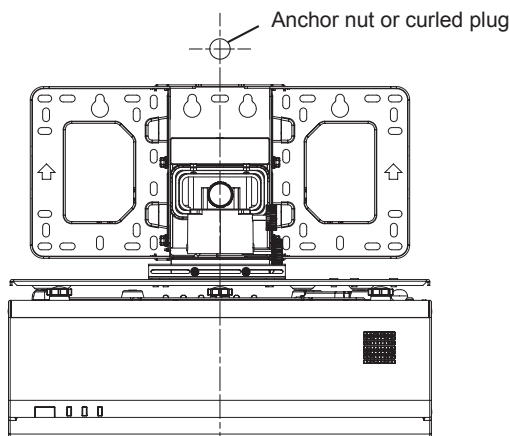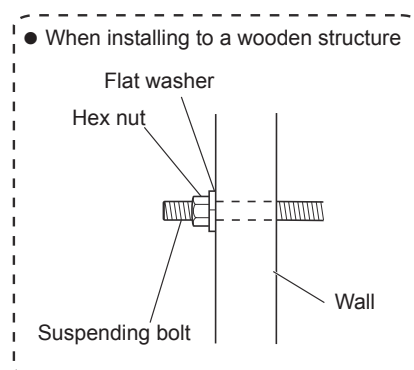
Fig.1

Fig.2

Installation (ET-WBC100) (continued)

2) **Pass the commercially available hex head bolt (M10) through the commercially available spring washer (M10) and flat washer (M10), and the loop at the end of the wire rope, and then tighten it to the anchor. (Fig.3)**

- When installing to a wooden structure, pass the loop at the end of the wire rope through the suspending bolt and firmly fix the suspending bolt to the wall. (Fig.4)
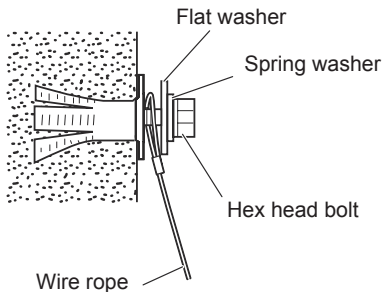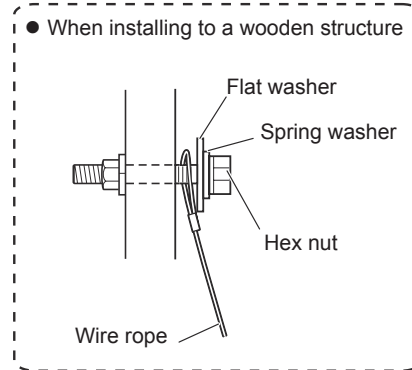

Fig.3

Fig.4

Attention

- Purchase the commercially available anchoring nut or curled plug, hex head bolt, suspending bolt, flat washer and spring washer.

Attaching the covers

1) **Attach the arm cover to the arm. (Fig.1)**

- Align the two protrusions on the inside of the arm cover with the two holes on the bottom of the arm. Push the arm cover upwards so that it covers the end of the arm.

2) **Attach the left and right mount covers to the wall mount bracket. (Fig.2)**

- When attaching the mount covers, make sure the arrow marks on the mount covers are on the upper side.
- If the arm has been located at a height position more than +10 mm away from the factory default position, interchange the left and right mount covers and make sure the arrow marks are on the lower side.
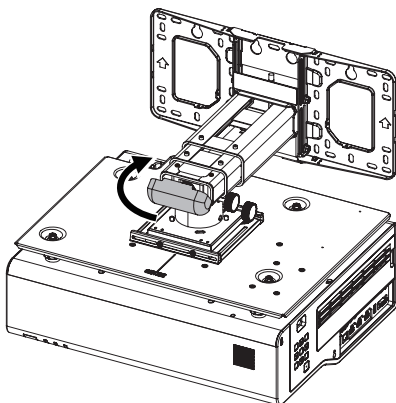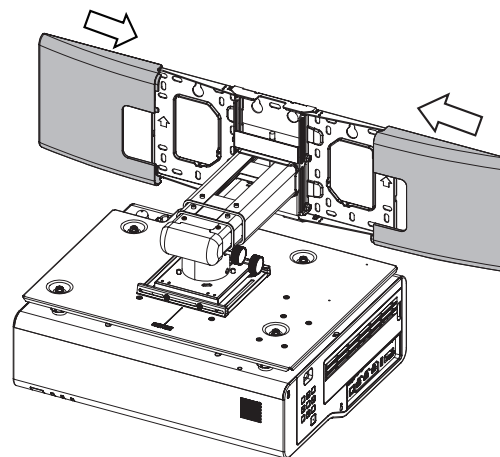

Fig.1

Fig.2

Note

- It is recommended to install the arm cover after completing adjustments.
- The wire rope is not shown in the illustrations.

Making adjustments (ET-WBC100)

After installing the wall mount bracket to the wall, adjust the projected image using the adjustment functions of the wall mount bracket.

To perform forward/backward and vertical slide adjustment, you need to use a hex wrench or a ball point hex screwdriver (diagonal 5 mm).

This wall mount bracket allows horizontal swing adjustment, vertical and horizontal tilt adjustment, as well as forward/backward, vertical and horizontal slide adjustment of the projector.

● While referring to the operating instructions for the projector, project an image onto the screen and make a rough adjustment of image size and focus. Then adjust projector installation angle and position, and make fine adjustment of the image size.

● The projected image size can be adjusted by changing the distance between the screen and the projector. Refer to "When adjusting the projected image size (forward/backward slide)" (➡ page 16).

● Without applying any keystone correction in the [POSITION] menu of the projector, adjust the installation angle so that all sides of the image are parallel with the sides of the screen. If the screen surface is not parallel to the front side of the projector, keystone distortion will occur. Make adjustments while making sure that the projector and screen face each other directly.

Attention

● Turning the knob beyond its adjustable range may damage the adjustable unit or cause the projector to fall.

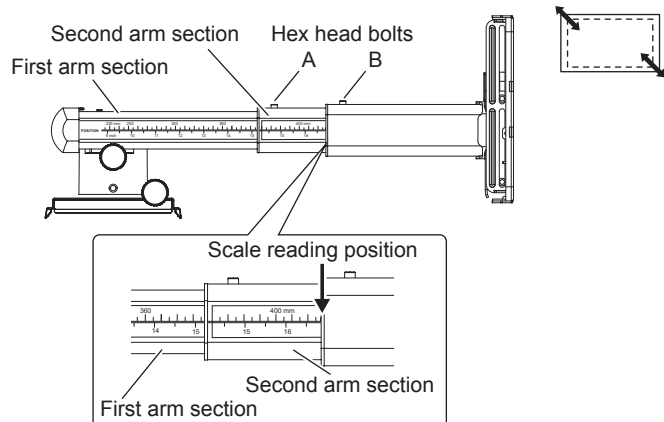## ■ When adjusting the projected image size (forward/backward slide)

1) **Loosen two hex head bolts A or B (M4 × 6 mm) and pull out the arm to adjust the projected image size.**

   ● When roughly adjusting the projected image size for the first time after attaching the wall mount bracket to the wall, calculate the value of L4 (distance from the wall surface to the center axis of horizontal swing adjustment) in advance based on the value of L (projection distance) or L1 (distance from the screen surface to the back surface of the projector) that corresponds to the image size to be used. For the calculation formula of L4, refer to "Formulas for calculating dimensions" (➡ page 9).

   ● Pull out the arm until the reading on the "POSITION" scale matches the calculated value of L4.
     – If the calculated value of L4 is between 225 mm and 375 mm, loosen two hex head bolts A and pull out only the first arm section.
     – If the calculated value of L4 is between 375 mm (exclusive) and 495 mm, loosen two hex head bolts A and two hex head bolts B. Pull out the first arm section to the end, and then the second arm section.

When L4 is between 225 mm and 375 mm
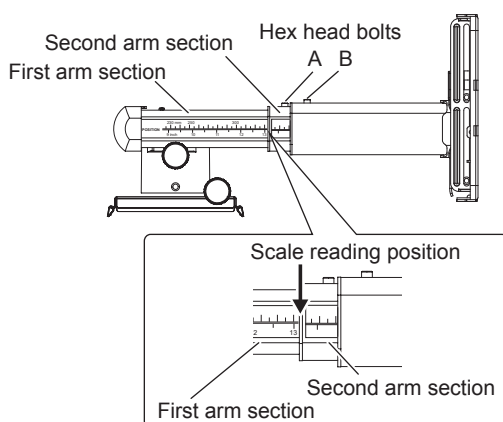
When L4 is between 375 mm (exclusive) and 495 mm

2) **Tighten the hex head bolts loosened in Step 1).**

   ● After adjusting the projected image size, tighten the bolts loosened in Step **1)** to secure the arm.

Making adjustments (ET-WBC100) (continued)

■ If the top and bottom edges of the image are not parallel (horizontal swing adjustment)

1) **Turn the adjustable knob A to correct horizontal keystone distortion.**
- Turn the adjustable knob A to make the projector swing left or right until the top and bottom edges of the projected image are parallel.

Adjustable knob A

Adjustment range ± 5°
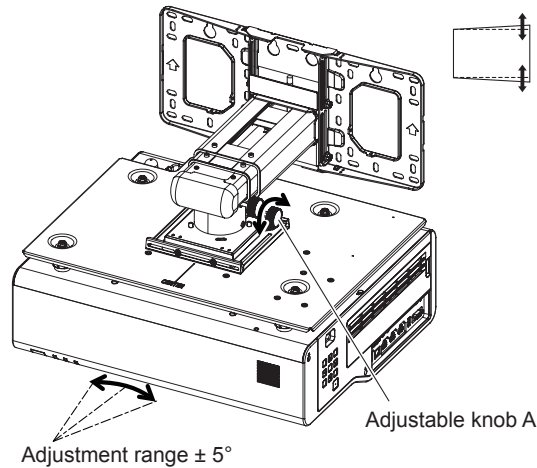
■ If the right and left edges of the image are not parallel (vertical tilt adjustment)

1) **Remove the arm cover from the wall mount bracket. (Fig.1)**
- Remove the cover from the top side.

2) **Turn the adjustable knob B to correct vertical keystone distortion. (Fig.2)**
- Turn the adjustable knob B to adjust vertical tilt of the projector until the left and right edges of the projected image are parallel.

3) **Attach the arm cover to the arm.**
- For details, refer to "Attaching the covers" (➡ page 15).
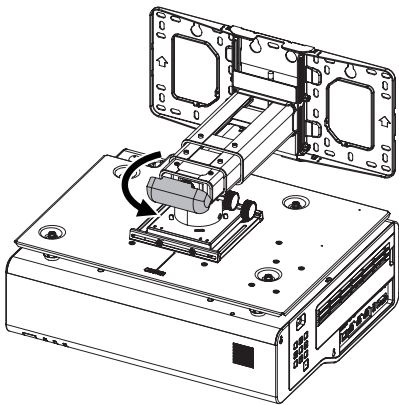
Adjustment range ± 5°
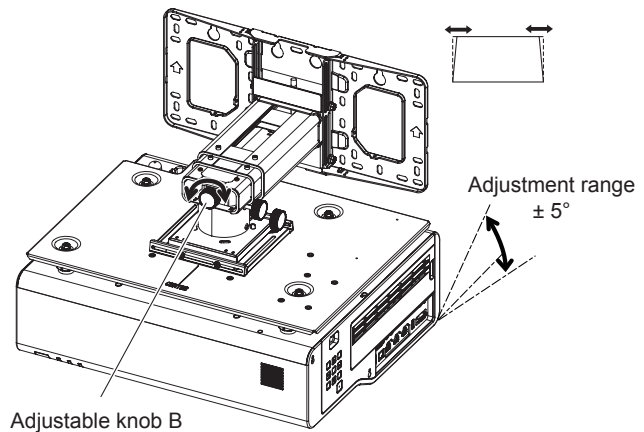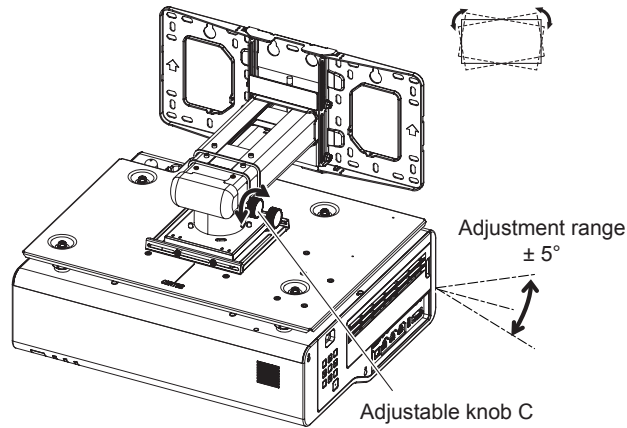
Adjustable knob B

Fig.1

Fig.2

■ If the image is tilted to the right or left (horizontal tilt adjustment)

1) **Turn the adjustable knob C to correct image rotation.**
- Turn the adjustable knob C to adjust left or right tilt of the projector so that the projected image is not tilted.
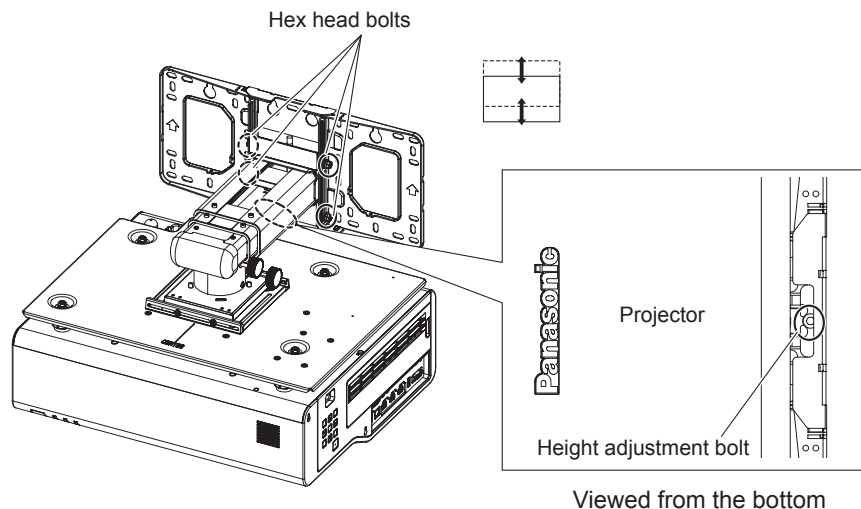
Adjustment range
± 5°

Adjustable knob C

■ If the image is shifted up or down (vertical slide)

1) **Evenly loosen four hex head bolts (M6 × 15) at the root of the arm using a hex wrench or a ball point hex screwdriver.**

- Do not over-loosen the hex head bolts. Loosening the bolts more than necessary could cause the bolts to fall out, which could cause the projector to fall.

2) **Turn the height adjustment bolt to adjust the vertical position of the projected image.**

- Turn the height adjustment bolt located at the lower center of the wall mount bracket to adjust the image position.
- A tool such as a ball point hex screwdriver may interfere with the bracket, making it impossible to turn the height adjustment bolt. In this case, check the "POSITION" scale on the right side of the arm, pull out the arm, and then turn the height adjustment bolt. After height adjustment is finished, return the arm to its original position. For details on how to pull out the arm, refer to "When adjusting the projected image size (forward/backward slide)" (➡ page 16).
- In the factory default state, the height adjustment bolt is in a state allowing a projected image size between 2.03 m (80") and 2.29 m (90").
  - To use a projected image size between 2.03 m (80")[*1] and 2.29 m (90"), adjust the vertical position of the arm within ±10 mm from the factory default state.
  - To use a projected image size between 2.29 m (90") (exclusive) and 3.05 m (120") , adjust the vertical position of the arm within the range of -10 to +40 mm from the factory default state.
  - The factory default position of the arm is +10 mm above the lowest adjustable position.

*1 For the aspect ratio of 4:3, it is 1.78 m (70").

3) **With a hex wrench or a ball point hex screwdriver, evenly tighten the four hex head bolts (M6 × 15) at the root of the arm loosened in Step 1).**

- Tightening torque: 2.5 ± 0.2 N·m

Hex head bolts

Panasonic

Projector

Height adjustment bolt

Viewed from the bottom
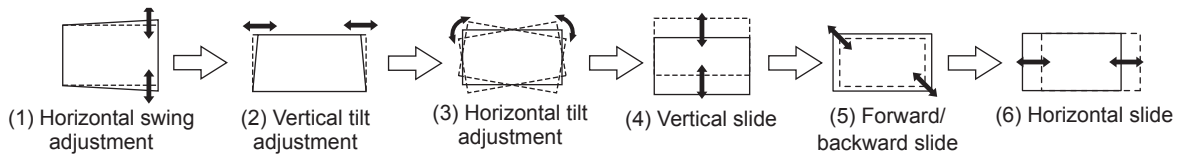
Making adjustments (ET-WBC100) (continued)

■ If the image is shifted left or right (horizontal slide)

1) Loosen the four flanged screws (M4 × 10) on the projector mount bracket kit.

2) Slide the projector mount bracket kit together with the projector to adjust the image to the left or right side.

3) After adjustment is finished, firmly tighten the four flanged screws loosened in Step 1).

Flanged screws
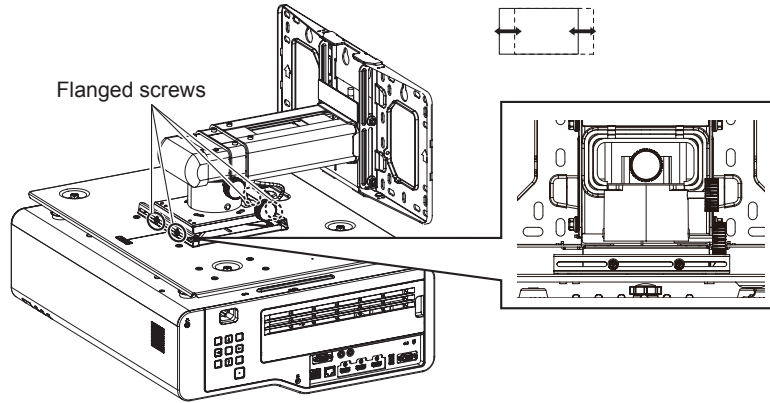
Note

● If the projected image is shifted or tilted, perform steps (1) to (6) in order. After minimizing image distortions by performing adjustments in steps (1) to (3), you are recommended to perform adjustments in steps (4) to (6).

(1) Horizontal swing adjustment   (2) Vertical tilt adjustment   (3) Horizontal tilt adjustment   (4) Vertical slide   (5) Forward/ backward slide   (6) Horizontal slide

● If keystone distortion occurs in the image after adjusting the installation angle (while keystone correction is not applied in the [POSITION] menu of the projector), the projector and screen are not positioned correctly in relation to each other. Verify that the projector and screen face each other directly.
● The wire rope is not shown in the illustrations.

Replacing projector mount bracket (ET-PKC300B)

Removing the connecting plate

1) **Remove the left and right mount covers attached to the wall mount bracket. (Fig.1)**

2) **Disconnect cables connected to the projector.**

3) **Remove the drop-prevention wire rope fixed to the wall. (Fig.1)**

4) **Remove the four flanged screws (M4 × 10) that secure the projector mount bracket kit to the wall mount bracket. (Fig.1)**
   - If the brackets interfere with the Phillips screwdriver, making it impossible to tighten the flanged screws on the wall side, pull out the arm and tighten the screws. For details on how to pull out the arm, refer to "When adjusting the projected image size (forward/backward slide)" (➡ page 16).

5) **Slide the projector mount bracket kit together with the projector to the right to remove them from the wall mount bracket. (Fig.1)**

6) **Place the projector upside down on a soft cloth. (Fig.2)**

7) **Remove the four captive washer screws (M6 × 16) that secure the projector mount bracket kit to the projector. (Fig.2)**

8) **Remove the four supplied captive washer screws (M4 × 14) on the projector mount bracket kit so as to separate the connecting plate from the projector mount bracket. (Fig.2)**
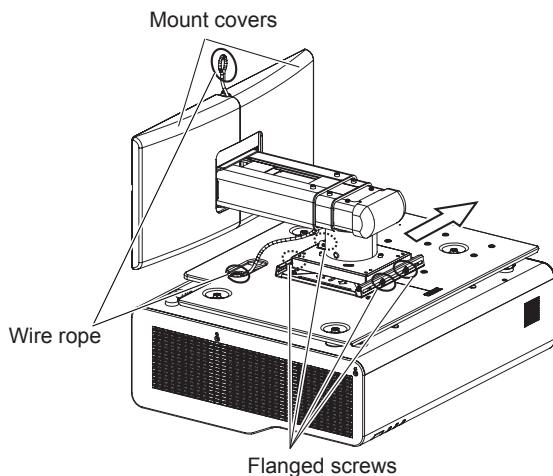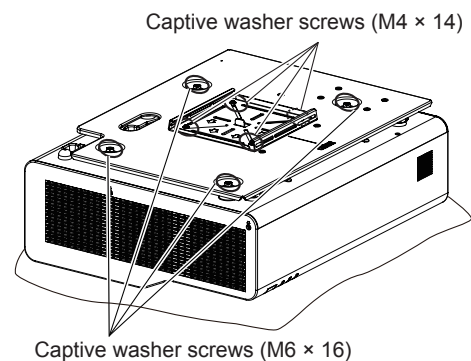

Mount covers

Wire rope

Flanged screws

Fig.1

Captive washer screws (M4 × 14)

Captive washer screws (M6 × 16)

Fig.2

Installing the connecting plate

1) **Align the ends of the four long holes on the connecting plate to the four screw holes on the projector mount bracket.**
   - Make sure the arrow marks on the connecting plate point to the left and the "CENTER" mark on the projector mount bracket is in the front side. (Fig.1)

2) **Secure the connecting plate to the new projector mount bracket using the supplied four captive washer screws (M4 × 14). (Fig.2)**

3) **Install the supplied drop-prevention wire rope and the new projector mount bracket to the projector.**
   - For details, refer to "Attaching the projector drop-prevention kit" (➡ page 11) and "Installing the projector mount bracket kit to the projector" (➡ page 11).
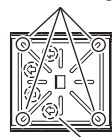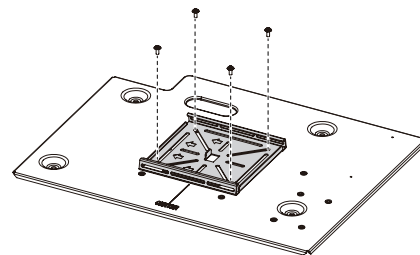
Screws
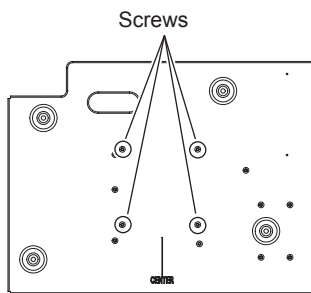
Ends of long holes

Arrow mark

Fig.1

Fig.2

Specifications (ET-WBC100)

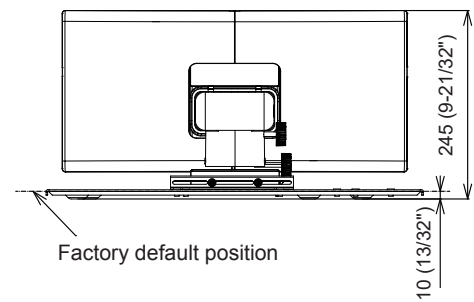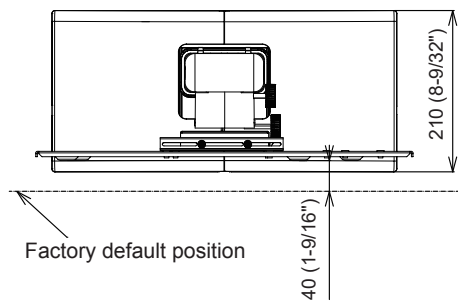|		
Range of adjustment	**Horizontal swing angle**	± 5 °
	Vertical tilt angle	± 5 °
	Horizontal tilt angle	± 5 °
	Vertical slide amount	Image size between 2.03 m (80")[1] and 2.29 m (90"): -10 mm ~ +10 mm (-13/32" ~ +13/32") Image size between 2.29 m (90")(exclusive) and 3.05 m (120"): -10 mm ~ +40 mm (-13/32" ~ +1-9/16")
	Forward/backward slide amount	0 mm ~ 270 mm (0 ~ 10-5/8")
	Horizontal slide amount	-41 mm ~ 49 mm (-1-5/8" ~ 1-15/16") [2]
External dimensions		Width: 491 mm ~ 519 mm (19-11/32" ~ 20-7/16") Height: 210 mm ~ 245 mm (8-9/32" ~ 9-21/32") Depth: 395 mm ~ 665 mm (15-9/16" ~ 26-3/16")
Weight		Approx. 8 kg (17.64 lbs)

[1] For the aspect ratio of 4:3, it is 1.78 m (70").
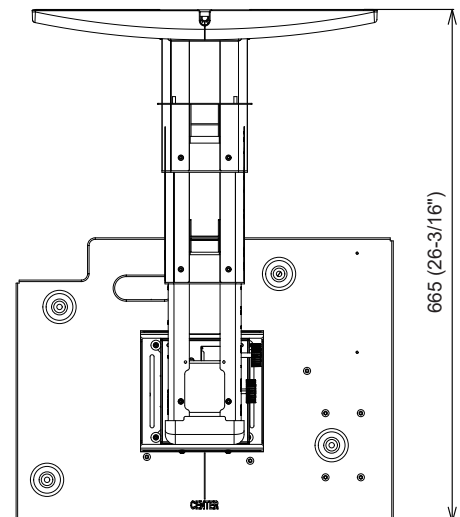[2] The horizontal slide range includes a middle portion that cannot slide.

■ Dimensions

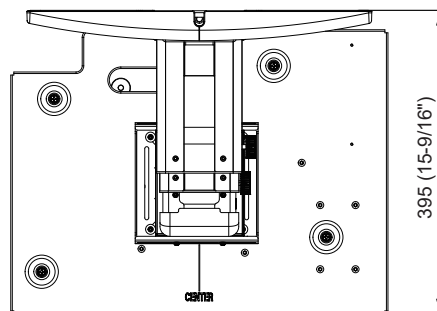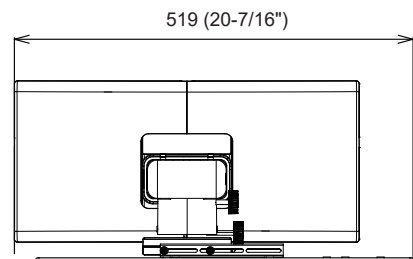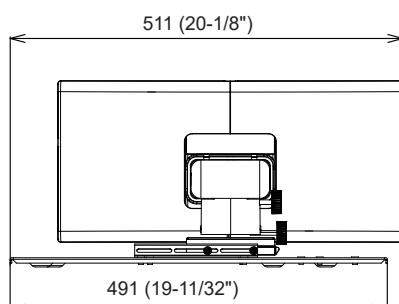Unit : mm (inch)

Vertical slide

Factory default position   40 (1-9/16")   Factory default position   210 (8-9/32")   245 (9-21/32")   10 (13/32")

Forward/backward slide

395 (15-9/16")   665 (26-3/16")

Horizontal slide

511 (20-1/8")   519 (20-7/16")
491 (19-11/32")

Appendix

To use the separately sold Wireless Presentation System Receiver (Model No.: TY-WPR1)[*1] and the separately sold 4K Integrated Camera (Model No.: AW-UE4KG, AW-UE4WG), follow the procedures below to install it.

*1 The availability of this product varies depending on the country. For details, contact your dealer.

Installing the Wireless Presentation System Receiver

1) **Install the base bracket supplied with the receiver to the receiver.**
   ● For details, refer to the Operating Instructions of the receiver.

2) **Secure the receiver to the position C using the two screws (C-3: M3 × 8) supplied with the receiver.**
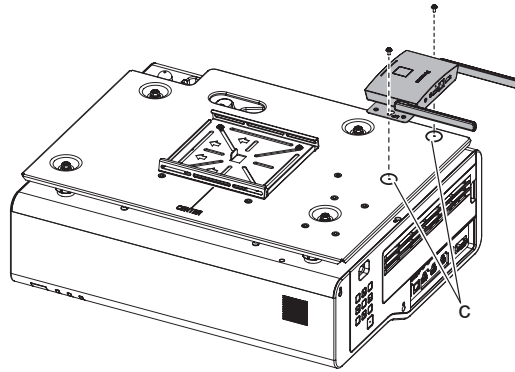
Installing the 4K Integrated Camera

1) **Install the mounting kit supplied with the camera to the camera.**
   ● For details, refer to the Operating Instructions of the camera.

2) **By using the M4 screws (10 mm in length) supplied with the camera, secure the L-mount kit supplied with the camera to the position D on the projector mount bracket kit.**
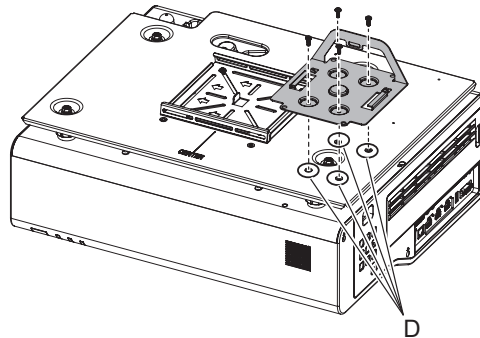
3) **By using the M4 screws (5 mm in length) supplied with the camera, secure the mounting kit together with the camera to the L-mount kit.**
   ● For details, refer to the Operating Instructions of the camera.

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