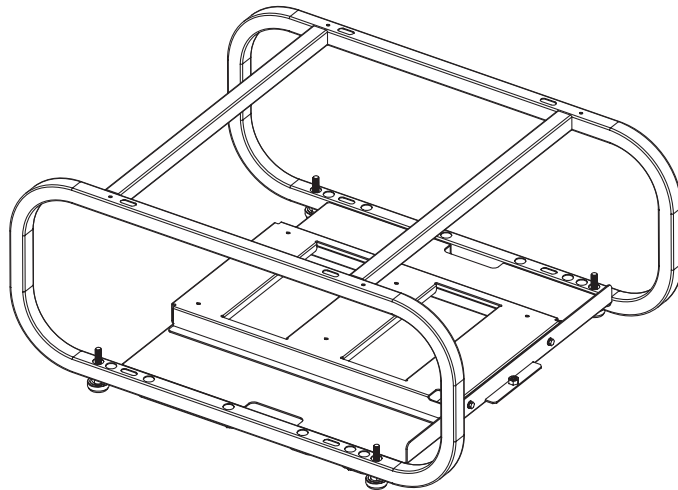


# Panasonic®

# Operating Instructions

## Frame

Model No. **ET-PFD510**



ENGLISH

FRANÇAIS

Thank you for purchasing this Panasonic product.

- Carefully read through these Operating Instructions and the operating instructions of the projector to ensure safe and proper operation.
- **Before using this product, be sure to read “Important Safety Notice” (page 3).**
- Please save this manual for future use.

ENGLISH

TQZJ436-3



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# Important Safety Notice

## Dear Panasonic Customer:

This instruction booklet provides all the necessary operating information that you might require. We hope it will help you to get the most performance out of new product, and that you will be pleased with your Panasonic Projector Frame.

Model number: **ET-PFD510**

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## Precautions with regard to safety

### ■WARNING

**Do not loosen or remove the unit screws 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 frame in humid or dusty locations or in locations where the frame 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.

**Do not allow children to reach the supplied screws and metal fittings.**

- The supplied screws and metal fittings can cause personal injury if swallowed.
- If swallowed, seek medical advice immediately.

**Do not stack any more than two frames on top of each other.**

- The frames may fall down and an injury may result.

**Make sure that your footing is safe and secure during installation.**

- If your footing is not secure, you may trip or fall down, and an injury may result.

**Mounting and installation must be carried out by two or more persons.**

- Considering the weight of the projector, make sure that mounting and installation are carried out by two or more persons.

### ■CAUTION

**Do not install the unit in a location that may impede projector ventilation.**

- A fire may result.

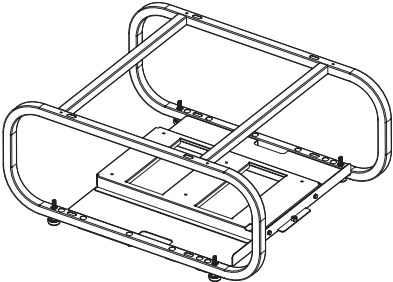
#### Note

- This frame cannot be used when the separately sold ET-D75LE90 fixed focus lens is attached to the projector.

# Product description

This frame is exclusively for the installation of dual projectors.

## Structural components

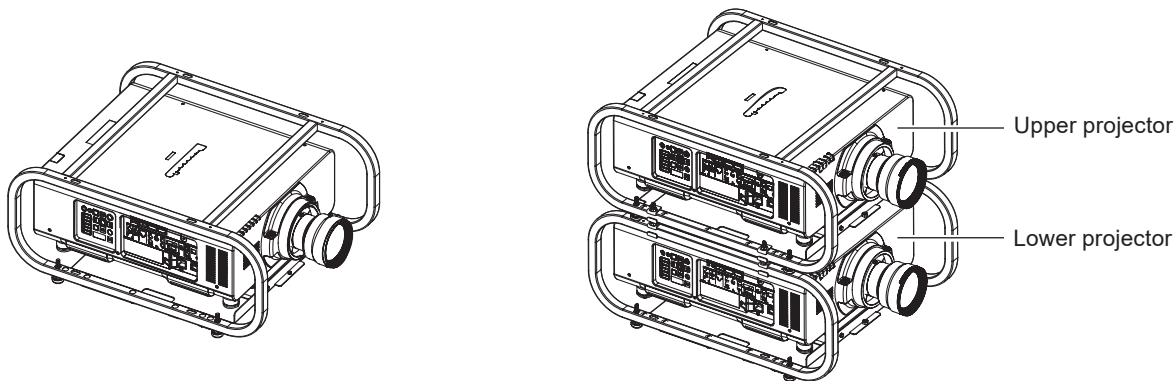
Parts name	Form (number of parts)														
Frame	 <p style="text-align: right;">× 1</p>														
Screws and metal fittings	<table border="0"> <tr> <td data-bbox="619 696 691 730"></td> <td data-bbox="751 696 1401 730">Hexagonal head bolt with washers (M6 × 30)..... × 6</td> </tr> <tr> <td data-bbox="639 757 670 790"></td> <td data-bbox="751 757 1401 790">Hex nuts (M10) ..... × 8</td> </tr> <tr> <td data-bbox="639 808 670 842"></td> <td data-bbox="751 808 1401 842">Flat washers (M10) ..... × 16</td> </tr> <tr> <td data-bbox="635 869 675 920"></td> <td data-bbox="751 869 1401 920">Bent washers (M10) ..... × 16</td> </tr> <tr> <td data-bbox="639 943 670 976"></td> <td data-bbox="751 943 1401 976">Spring washers (M10) ..... × 8</td> </tr> <tr> <td data-bbox="635 999 675 1050"></td> <td data-bbox="751 999 1401 1050">Adjustment nuts (M10) ..... × 4</td> </tr> <tr> <td data-bbox="564 1072 746 1106"></td> <td data-bbox="751 1072 1401 1106">Hex head bolts (M10 × 140, for vertical fixing) ..... × 4</td> </tr> </table>		Hexagonal head bolt with washers (M6 × 30)..... × 6		Hex nuts (M10) ..... × 8		Flat washers (M10) ..... × 16		Bent washers (M10) ..... × 16		Spring washers (M10) ..... × 8		Adjustment nuts (M10) ..... × 4		Hex head bolts (M10 × 140, for vertical fixing) ..... × 4
	Hexagonal head bolt with washers (M6 × 30)..... × 6														
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	Bent washers (M10) ..... × 16														
	Spring washers (M10) ..... × 8														
	Adjustment nuts (M10) ..... × 4														
	Hex head bolts (M10 × 140, for vertical fixing) ..... × 4														

- Store small parts in an appropriate manner, and keep them away from young children.
- The tightening torque for the screws should be  $4 \pm 0.5 \text{ N} \cdot \text{m}$  for the M6 screws and  $20 \pm 1 \text{ N} \cdot \text{m}$  for the M10 screws.
- Use a torque driver, torque wrench or similar tool when tightening the bolts and nuts. Do not use electric screwdrivers or impact screwdrivers.

### Note

- For dual stack installations, prepare a wrench and other tools in addition to the above.

## Finished assembly diagram

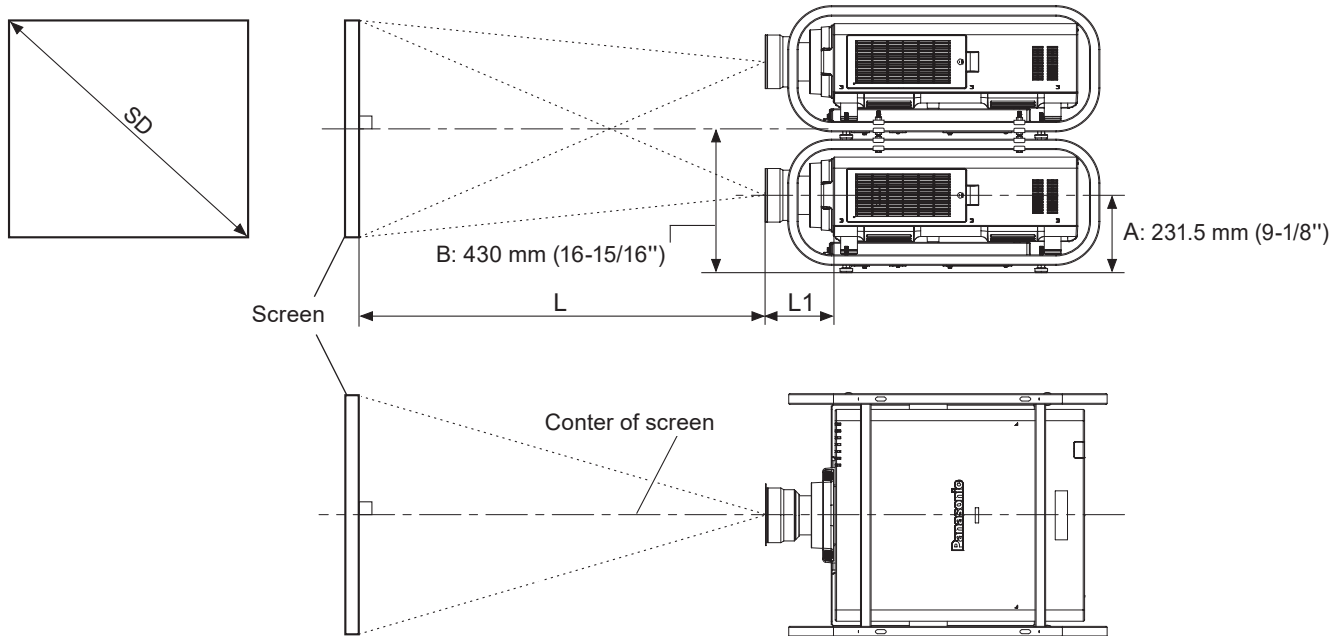


※ Example showing one projector stacked on top of another projector.  
Another separate frame is required when stacking two frame together.

# Projection distances

The dimensional relationship between the screen and the projector is shown below. When planning the installation position of the projector, refer to the following figures and table for reference. The zoom function of the lens allows you to adjust the projection distance. Fine adjust while checking the projected image.

## Dimensional relationship diagram



### Note

- This illustration assumes that the projector will be installed so that the projected image fills the screen and is properly aligned with it.
- This drawing is not in exact scale.

L	Projection distance
L1	Lens protrusion dimension (from front of set to tip of lens)
A	From center of lower lens to lower frame installation surface
B	From center of upper and lower lens to lower frame
SD	Projected image size

### Attention

- Install the projector with a space more than 500 mm (1' 8") behind it so as not to interfere with projector ventilation.
- Leave a space of 500 mm (1' 8") on each side of the projector.
- Before proceeding with installation, carefully read through the section "Precautions for use" in the projector's operating instructions.

### Note

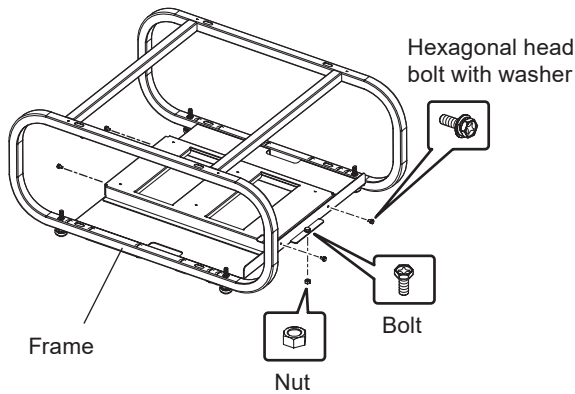
- The projectors depicted in this manual are sample images and may differ in dimensions from your projector model.

## Dimensional relationship

For details on lens protrusion dimension ( $L1$ ) values and calculation formulas for the projection distances ( $L$ ) of each projection lens, refer to the "Setting up" section of the operating instructions for your projector.

# Installation

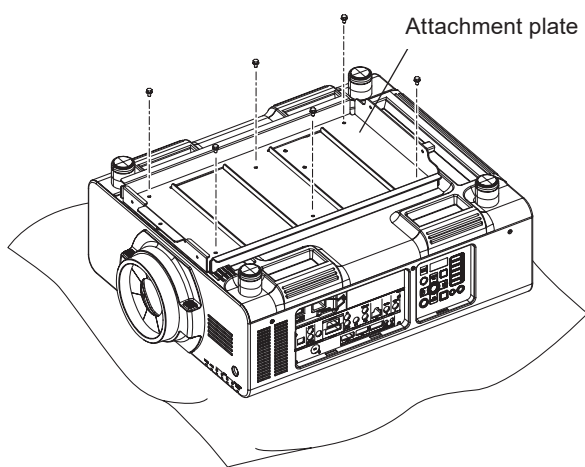
## Attaching the frame to the projector



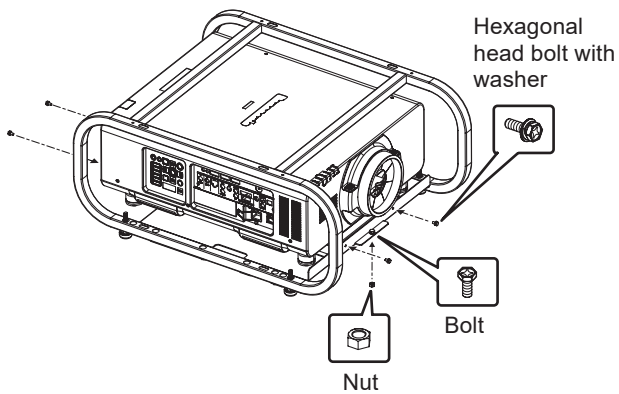
- 1) Remove attachment plate from frame.
  - ✗ Remove the four hexagonal head bolts with washers (M6 × 16) used to secure the attachment plate at the front and back. Remove the bolt (M6) and nut (M6) attached to the front, and remove the attachment plate from the frame.

### Attention

- The removed screws are needed for re-installation so do not lose them.



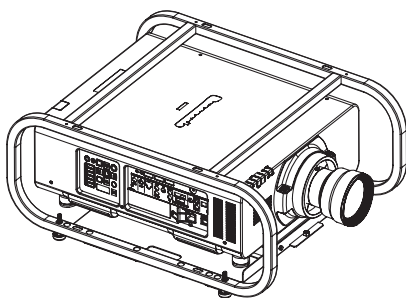
- 2) Place the projector with its base facing upwards on a soft cloth.
- 3) Secure the attachment plate to the projector using the six Hex-head bolt (M6 × 30) provided.



- 4) Place the projector with its bottom face down, and install the frame.  
Secure the projector to the frame using the four hexagonal head bolts with washers (M6 × 16), bolt (M6) and nut (M6) which were removed in step 1).

### Attention

- When installing the frame and securing it using the bolts, take care not to pinch your hand or fingers.



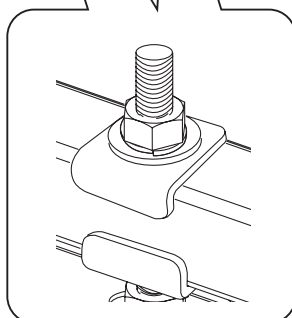
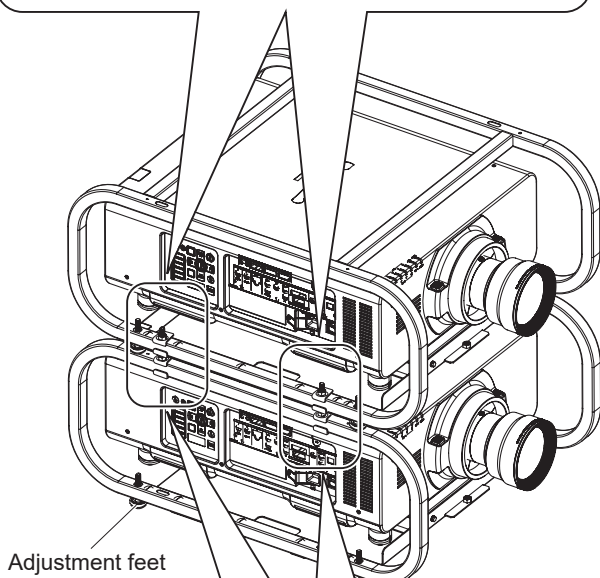
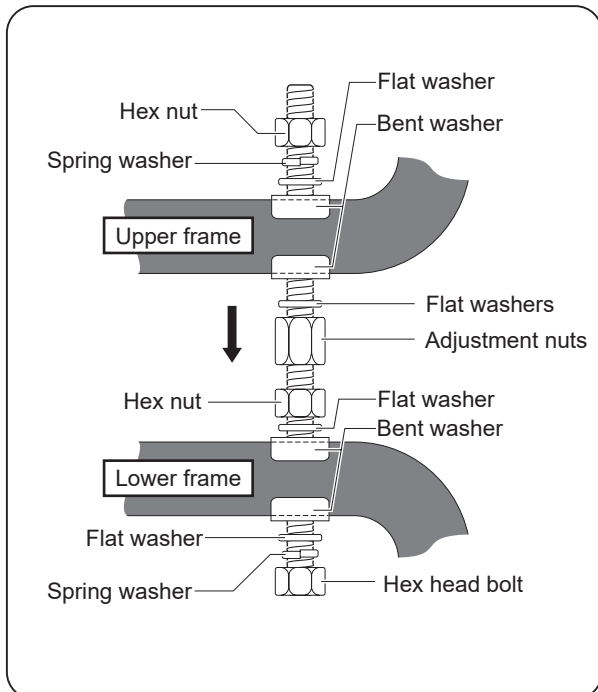
- 5) Attach the projection lens. (For more information on attaching, please refer to [Attaching/removing the projection lens (optional accessory)] in the Operating Instructions manual of the projector.)

## Installation (continued)

### Attaching the upper level projector

Another separate frame is required when stacking two frames together.

Refer to [Attaching the frame to the projector] for the installation procedure of a frame and a projector. (page 6 )



- 1) Check the strength and stability of the installation location. If there are no problems, first adjust the adjustment feet of the lower frame and install the lower projector horizontally.
- 2) Install the hex head bolts (M10 × 140, for vertical fixing) into the four mounting holes in the lower frame with the hex nut, spring washer, flat washer and bent washer. Use the hex nuts to secure the lower frame and the hex head bolts (for vertical fixing).
- 3) Place the adjustment nuts, flat washer and bent washer onto the hex head bolts (for vertical fixing).
- 4) Align the four mounting holes in the upper frame for the upper projector with the vertical fixing hex head bolts in the lower frame, and place the upper frame onto the lower frame.
- 5) Secure the projector using the four adjustment nuts so that it is horizontal.
- 6) Place the bent washer, flat washer, spring washer and hex nut (M10) onto the hex head bolts.
- 7) Use the hex nuts (M10) to secure firmly the upper frame and the hex head bolts.

#### Attention

- The mounting holes in the frames are used only to attach one frame to the other. Do not use them for any other purpose.

#### WARNING:

**Mounting and installation must be carried out by two or more persons.**

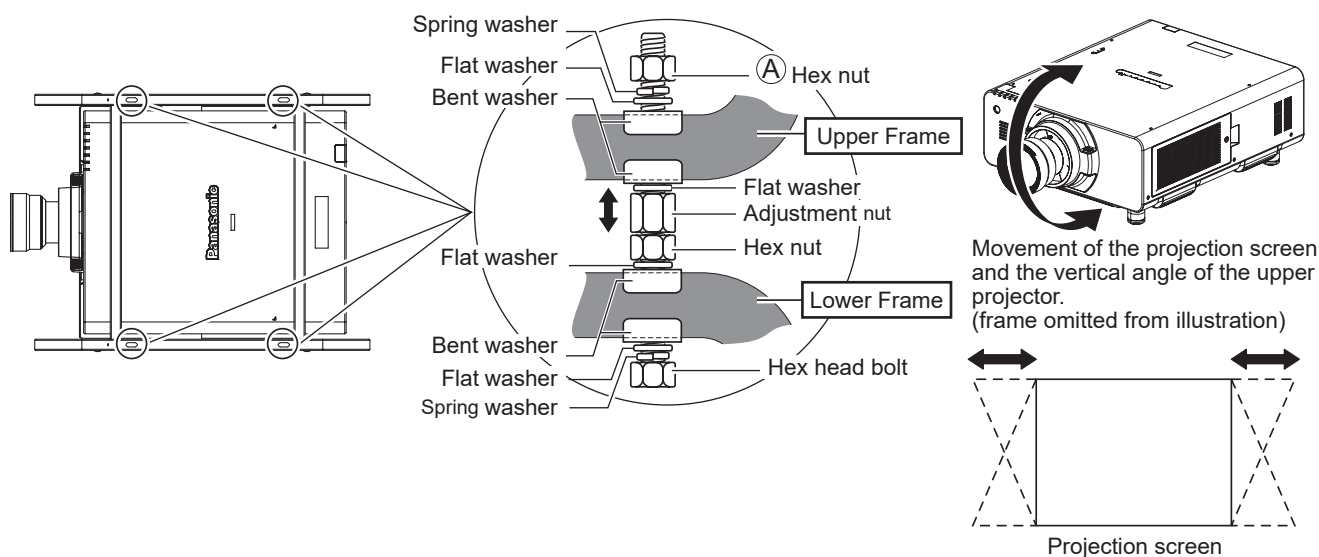
# Adjusting the upper projector

Follow the steps below to adjust the angle of the upper projector so that the image projected on the screen matches that of the lower projector whereby the screen size, position, and focus is already adjusted to the screen. Only the angle of the upper projector is adjustable.

- Referring to the Operating Instructions manual of the projector, project an image on the screen and then use the zoom and focus functions to adjust its size and focus roughly before adjusting the angle.
- Loosen the securing hex nuts (A) of the upper frame and then adjust the adjustment nuts.

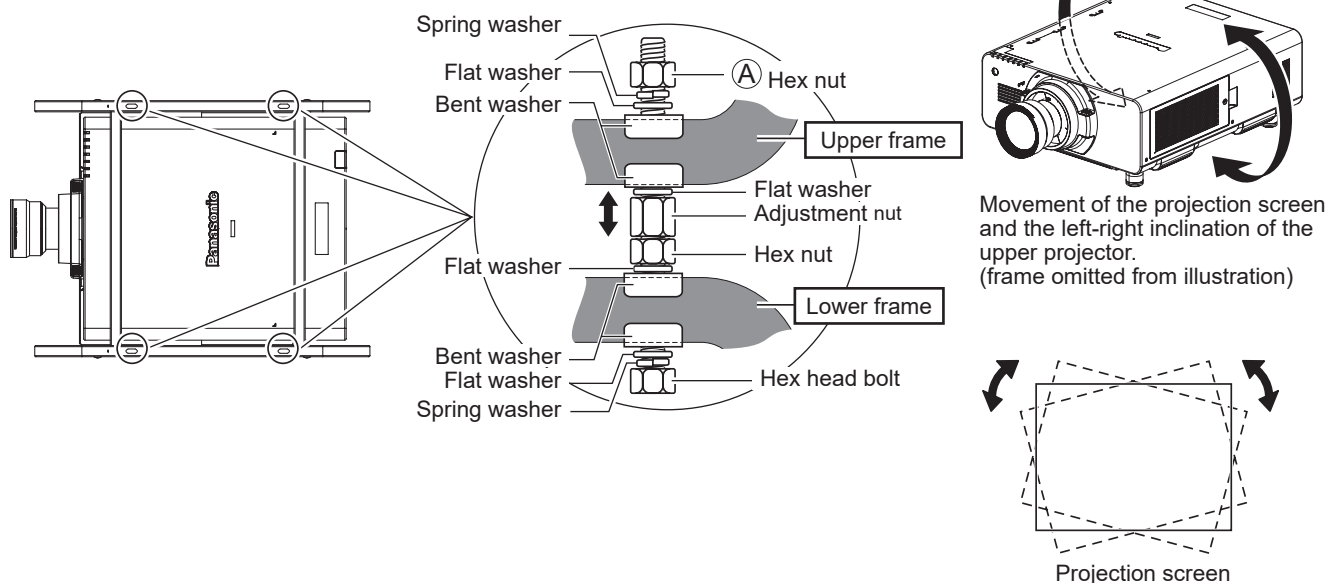
## 1) Adjusting the vertical angle

Turn the four adjustment bolts to adjust the vertical angle and correct the keystone distortion on the projection screen. Make sure to turn the right and left adjustment bolts at the front, and the right and left adjustment bolts at the rear, by the same amount.



## 2) Adjusting right-left inclination

Turn the four adjustment bolts to adjust the right-left inclination and correct the rotational distortion on the projection screen. Make sure to turn the front and rear adjustment bolts on the right, and the front and rear adjustment bolts on the left, by the same amount.



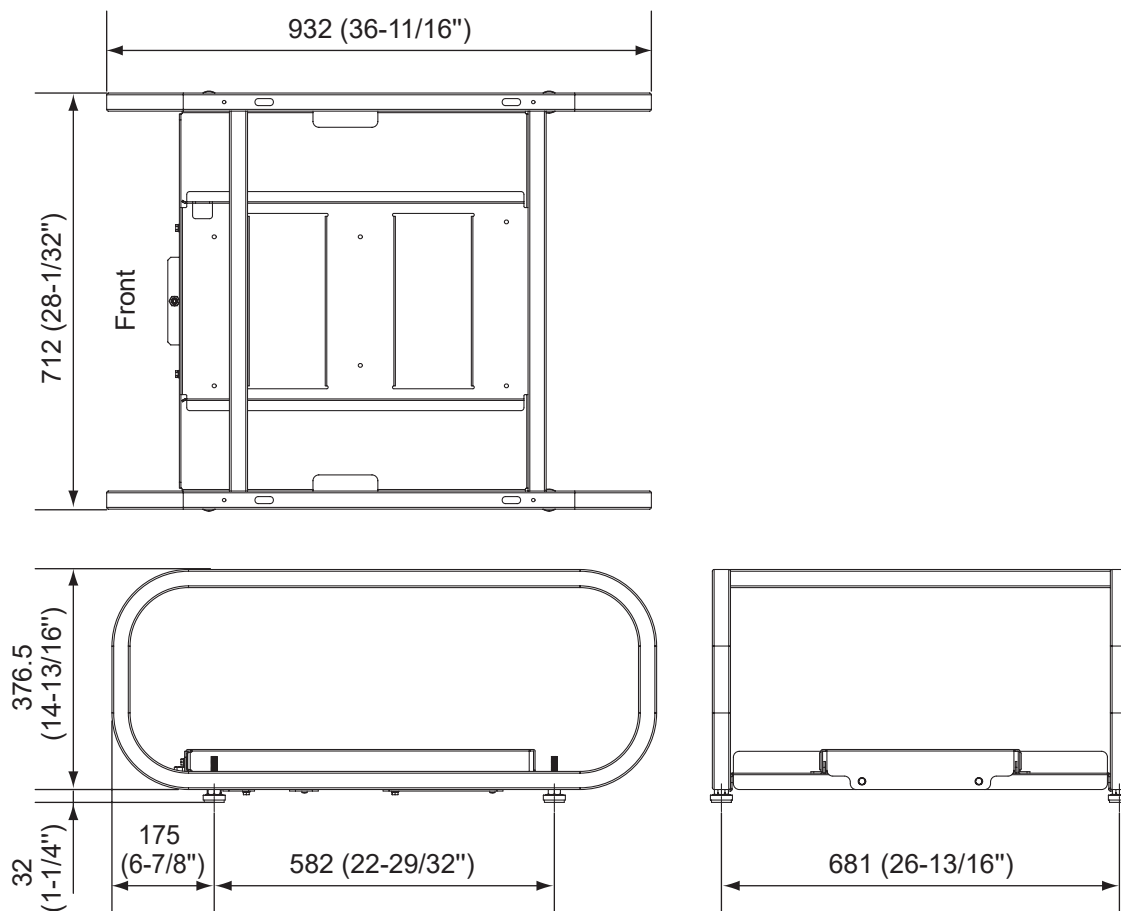
3) Repeat the steps 1), 2) to make fine adjustments.

4) When adjustment is complete, tighten the hex nuts to prevent the projector from (A) shifting.



# Dimensions

(Units : mm)



# Specifications

<b>Adjustable range</b>	Vertical angle correction : $\pm 1.5^\circ$ Left and right inclination adjustment : $\pm 1.5^\circ$
<b>Assembled external dimensions</b>	Width : 712 mm (28-1/32") Height : 408.5 mm (16-3/32") (with legs at shortest position) Depth : 932 mm (36-11/16")
<b>Weight (excluding the projector)</b>	Approx. 19.4 kg (42.8 lbs.)

**Attention**

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

**■ Disposal**

When discarding this product, please contact your local authorities or dealer and ask for the correct method of disposal.

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# Panasonic Corporation

Web Site : <https://panasonic.net/cns/projector/>

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