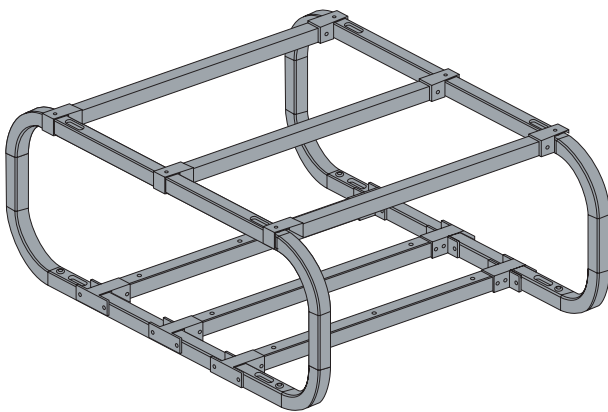


Installation Instructions

Projector Frame for DLP® Based Projectors

Model No. **ET-PFD100**



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For DLP™ Based Projector:
PT-D10000 / PT-DW10000

Note

PT-D10000U/PT-DW10000U PT-D10000E/PT-DW10000E	The models listed on the left side are the PT-D10000/PT-DW10000.
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Thank you for choosing the Projector Frame for Panasonic DLP® Based Projectors.

■ Only a qualified installer should install this product.

Read these instructions completely before installing this product.

These installation instructions must always be handed over to the customer.

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.

The serial number of your product may be found on its back. You should note it in the space provided below and retain this booklet in case service is required.

Model number: **ET-PFD100**

Serial number:

Precautions with regard to safety

WARNING

Installation work should only be carried out by a qualified technician.

- If this product is not installed correctly, serious accidents may result.

Do not place the projector on top of surfaces which are unstable.

- If the projector is placed on top of a surface which is sloped or unstable, it may fall down or tip over, and injury or damage could result.

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

- The frames may fall and cause injury.

Do not use the frame to suspend projectors from a ceiling.

- The projectors may fall and cause injury.

CAUTION

Do not install the frame in a place which may impede projector ventilation.

- If this is not observed, fire may result.

Do not set up the projector in humid or dusty places or in places where the projector may come into contact with oily smoke or steam.

- Using the projector under such conditions may result in fire, electric shocks or plastic deterioration.


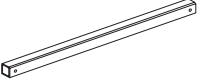

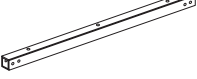
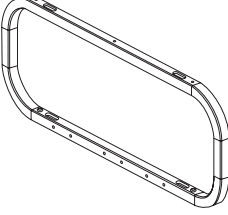







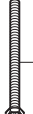
At least 2 people are required to install the frame.

- The weight of the frame and two projectors is at least 49 kg (108.0 lb). For maximum safety, at least 2 people are required to install the frame.

Product description

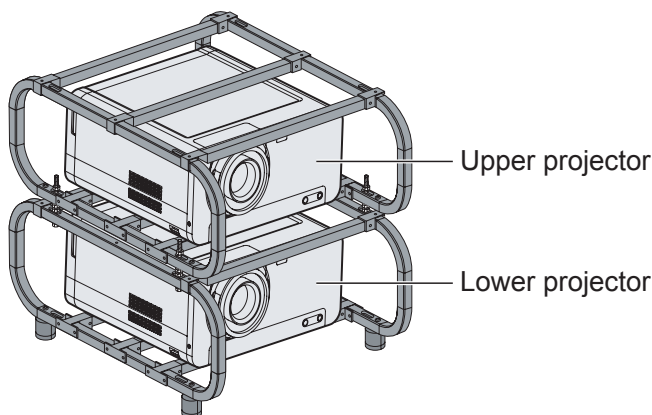
This frame is exclusively for the installation of dual DLP® projectors. The frame is made up of the following components. Before assembling the frame, confirm that all components have been provided.

■ Structural components

Parts name	Sub-components	Purpose
Frame	 Upper pipe fixing bracket X 6  Upper pipe X 3  Lower pipe fixing bracket X 6  Lower pipe X 3  Side frame X 3	Use for assembling the frame.
Screws and bolts	 Screws (M6x12) X 12  Screws (M6x40) X 24  Screws (M6x50) X 5  Hex nuts (M10) X 12  Flat washers (M10) X 16  Spring washers (M10) X 8  Adjustment nuts (M10) X 4  Hex head bolts (M10) X 4	These are used when assembling the frame and when securing the projector to the frame. The nuts, plain washers, spring washers, adjustment nuts and the hexagonal head bolts are used when assembling the frame in two layers

- Screw tightening torques M6: $4 \pm 0.5N \cdot m$
- If products are no longer being used, they should be dismantled and removed by a qualified technician as soon as possible.
- Use a torque wrench or similar tool when tightening the bolts and nuts. Do not use electric screwdrivers or impact screwdrivers.

Finished assembly diagram



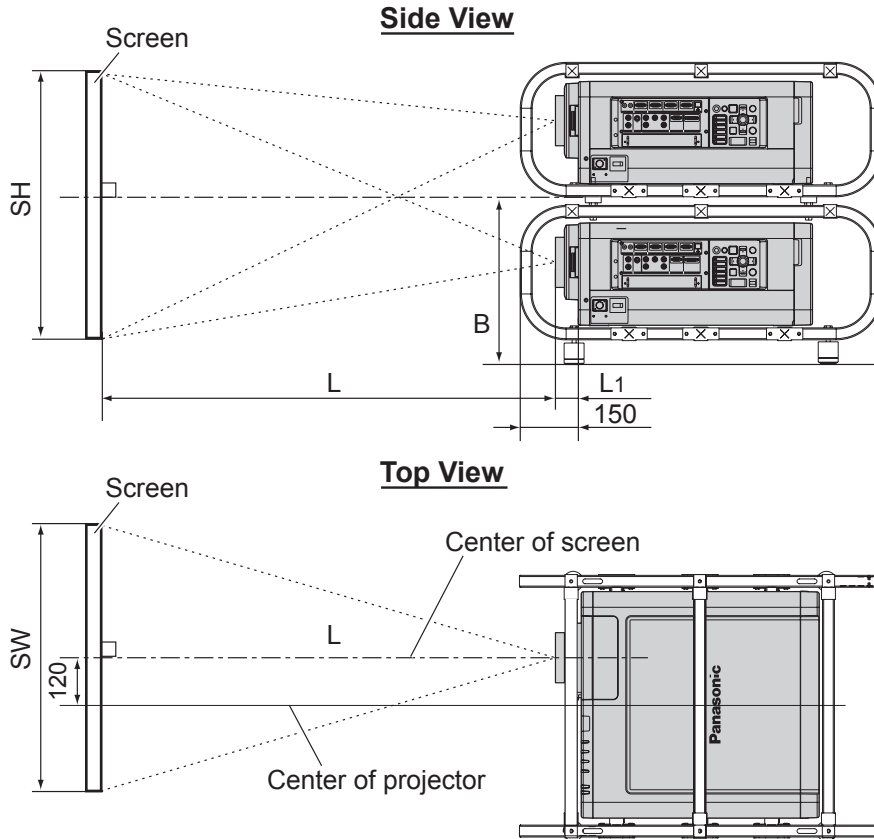
- Another separate frame is required when stacking two frame together.

Assembly procedure

1. Preparation	<ul style="list-style-type: none">● Prepare the tools. (1)Adjustable spanner or Allen key (2)Screwdriver (3)Soft cloth or other soft surface● Check the strength of the setting-up location.
2. Check the unit.	<ul style="list-style-type: none">● Check the structural components. (p. 3)
3. Determine the setting-up position.	<ul style="list-style-type: none">● Select the placement position for the projectors based on the size and location of the screen and the lens (sold separately) to be used. (pp. 5 - 7)
4. Install the projectors.	<ul style="list-style-type: none">● Install the lower projector first, followed by the upper projector. (pp. 8 - 10)
5. Carry out adjustments.	<ul style="list-style-type: none">● Adjust so that the images projected by the upper and lower projectors converge on the screen. (p. 11)

Projection distances

When planning the projector and screen geometry, refer to the following figures and table on the right for reference. After the projector is roughly positioned, picture size and vertical picture positioning can be finely adjusted with the powered zoom lens and lens shifting mechanism. [Unit :mm (inches)]

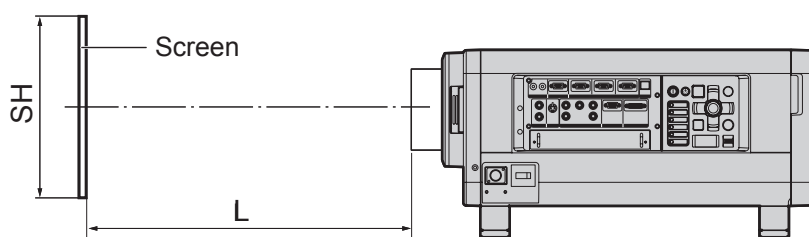


L: Projection distance
 B: Distance from center of upper and lower lens to floor is 440mm. [17.3"]
 SH: Height of the image
 SW: Width of the image

Lens	L1 size (Approx.)
ET-D75LE1	62.5 [2.5"]
ET-D75LE2	47 [1.8"]
ET-D75LE3	50.5 [2"]
ET-D75LE4	74.4 [2.9"]
ET-D75LE5	150.5 [5.9"]
ET-D75LE6	160 [6.3"]
ET-D75LE8	202.5 [8"]

■ Projection distances by the type of projection lens (optional)

Every type of optional projection lenses has a different projection distance to achieve the same screen size. Select and purchase a projection lens most suitable to the size of your location referring to the below figure and the following tables of the projection distances by the type of projection lenses from the next page.



Projection distances

■ Projection distances by the type of projection lenses (for PT-DW10000)

- For the screen aspect ratio of 16:9. (Units : m)

Lens type			Zoom lens												Fixed-focus lens
Model number of projection lens			ET-D75LE1	ET-D75LE2	ET-D75LE3	ET-D75LE4	ET-D75LE8	ET-D75LE6	ET-D75LE5						
Through ratio*1			1.4-1.8 : 1	1.8-2.8 : 1	2.8-4.6 : 1	4.6-7.4 : 1	7.3-13.8 : 1	0.9-1.1 : 1	0.7 : 1						
Screen dimensions			Projection distance (L)												
Screen size (inch)	Effective height (SH)	Effective width (SW)	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Fixed
70	0.872	1.550	2.07	2.77	2.80	4.21	4.23	7.09	7.10	11.37	11.09	21.14	1.39	1.66	1.02
80	0.996	1.771	2.38	3.18	3.21	4.83	4.84	8.13	8.13	13.01	12.73	24.21	1.60	1.91	1.18
90	1.121	1.992	2.68	3.59	3.62	5.45	5.46	9.16	9.16	14.65	14.37	27.29	1.81	2.16	1.34
100	1.245	2.214	2.99	4.00	4.04	6.07	6.08	10.19	10.19	16.29	16.01	30.36	2.01	2.41	1.50
120	1.494	2.657	3.60	4.82	4.86	7.30	7.31	12.25	12.26	19.57	19.29	36.50	2.43	2.90	1.81
150	1.868	3.321	4.53	6.05	6.09	9.15	9.16	15.34	15.35	24.49	24.21	45.72	3.05	3.65	2.29
200	2.491	4.428	6.06	8.10	8.15	12.24	12.25	20.50	20.50	32.69	32.40	61.08	4.08	4.89	3.08
250	3.113	5.535	7.59	10.15	10.21	15.33	15.34	25.65	25.66	40.88	40.60	76.44	5.12	6.13	3.87
300	3.736	6.641	9.13	12.19	12.27	18.41	18.42	30.81	30.81	49.08	48.80	91.79	6.15	7.37	4.66
350	4.358	7.748	10.66	14.24	14.32	21.50	21.51	35.96	35.97	57.28	57.00	107.15	7.19	8.61	
400	4.981	8.855	12.19	16.29	16.38	24.58	24.60	41.12	41.12	65.47	65.19	122.51	8.22	9.85	
500	6.226	11.069	15.26	20.39	20.50	30.76	30.77	51.42	51.43	81.87	81.59	153.23	10.29	12.33	
600	7.472	13.283	18.33	24.49	24.61	36.93	36.94	61.73	61.74	98.26	97.98	183.95	12.36	14.81	

*1: "Through ratio" is the approximate measurement range of the screen width to the projection distance.

Note

- The projection distances listed here involve an error of $\pm 5\%$.
- Keystone distortions are corrected in the way the screen size becomes smaller than the original one.
- If using a screen size not listed in these instructions, check the diagonal dimension (in inches) of the screen to be used, and refer to the Manual included with the projector.

Projection distances

■ Projection distances by the type of projection lenses (for PT-D10000)

- For the screen aspect ratio of 4:3. (Units : m)

Lens type			Zoom lens												Fixed-focus lens
Model number of projection lens			ET-D75LE1	ET-D75LE2	ET-D75LE3	ET-D75LE4	ET-D75LE8	ET-D75LE6	ET-D75LE5						
Through ratio*1			1.5-2.0 : 1	2.0-3.0 : 1	3.0-5.0 : 1	5.0-8.0 : 1	7.9-15.0 : 1	1.0-1.2 : 1	0.8 : 1						
Screen dimensions			Projection distance (L)												
Screen size (inch)	Effective height (SH)	Effective width (SW)	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Fixed
70	1.067	1.422	2.07	2.77	2.80	4.21	4.23	7.09	7.10	11.37	11.09	21.14	1.39	1.66	1.02
80	1.219	1.626	2.38	3.18	3.21	4.83	4.84	8.13	8.13	13.01	12.73	24.21	1.60	1.91	1.18
90	1.372	1.829	2.68	3.59	3.62	5.45	5.46	9.16	9.16	14.65	14.37	27.29	1.81	2.16	1.34
100	1.524	2.032	2.99	4.00	4.04	6.07	6.08	10.19	10.19	16.29	16.01	30.36	2.01	2.41	1.50
120	1.829	2.438	3.60	4.82	4.86	7.30	7.31	12.25	12.26	19.57	19.29	36.50	2.43	2.90	1.81
150	2.286	3.048	4.53	6.05	6.09	9.15	9.16	15.34	15.35	24.49	24.21	45.72	3.05	3.65	2.29
200	3.048	4.064	6.06	8.10	8.15	12.24	12.25	20.50	20.50	32.69	32.40	61.08	4.08	4.89	3.08
250	3.810	5.080	7.59	10.15	10.21	15.33	15.34	25.65	25.66	40.88	40.60	76.44	5.12	6.13	3.87
300	4.572	6.096	9.13	12.19	12.27	18.41	18.42	30.81	30.81	49.08	48.80	91.79	6.15	7.37	4.66
350	5.334	7.112	10.66	14.24	14.32	21.50	21.51	35.96	35.97	57.28	57.00	107.15	7.19	8.61	
400	6.096	8.128	12.19	16.29	16.38	24.58	24.60	41.12	41.12	65.47	65.19	122.51	8.22	9.85	
500	7.620	10.160	15.26	20.39	20.50	30.76	30.77	51.42	51.43	81.87	81.59	153.23	10.29	12.33	
600	9.144	12.192	18.33	24.49	24.61	36.93	36.94	61.73	61.74	98.26	97.98	183.95	12.36	14.81	

- For the screen aspect ratio of 16:9. (Units : m)

Lens type			Zoom lens												Fixed-focus lens
Model number of projection lens			ET-D75LE1	ET-D75LE2	ET-D75LE3	ET-D75LE4	ET-D75LE8	ET-D75LE6	ET-D75LE5						
Through ratio*1			1.5-2.0 : 1	2.0-3.0 : 1	3.0-5.0 : 1	5.0-8.0 : 1	8.0-15.0 : 1	1.0-1.2 : 1	0.8 : 1						
Screen dimensions			Projection distance (L)												
Screen size (inch)	Effective height (SH)	Effective width (SW)	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Fixed
70	0.872	1.550	2.26	3.02	3.06	4.60	4.61	7.74	7.75	12.40	12.12	23.06	1.52	1.82	1.12
80	0.996	1.771	2.60	3.47	3.51	5.27	5.28	8.86	8.87	14.18	13.90	26.41	1.75	2.09	1.29
90	1.121	1.992	2.93	3.92	3.95	5.95	5.96	9.99	9.99	15.97	15.69	29.76	1.97	2.36	1.47
100	1.245	2.214	3.27	4.36	4.40	6.62	6.63	11.11	11.11	17.76	17.47	33.10	2.20	2.63	1.64
120	1.494	2.657	3.93	5.26	5.30	7.96	7.97	13.35	13.36	21.33	21.04	39.79	2.65	3.17	1.98
150	1.868	3.321	4.94	6.60	6.64	9.98	9.99	16.72	16.73	26.68	26.40	49.83	3.33	3.98	2.50
200	2.491	4.428	6.61	8.83	8.89	13.34	13.35	22.34	22.34	35.61	35.33	66.56	4.45	5.33	3.36
250	3.113	5.535	8.28	11.06	11.13	16.70	16.71	27.95	27.96	44.54	44.26	83.29	5.58	6.68	4.22
300	3.736	6.641	9.95	13.29	13.37	20.07	20.08	33.57	33.57	53.47	53.19	100.02	6.71	8.03	5.08
350	4.358	7.748	11.62	15.52	15.61	23.43	23.44	39.18	39.19	62.40	62.12	116.75	7.84	9.38	
400	4.981	8.855	13.29	17.76	17.85	26.79	26.80	44.80	44.80	71.33	71.05	133.48	8.96	10.73	
500	6.226	11.069	16.63	22.22	22.33	33.51	33.52	56.03	56.03	89.19	88.91	166.95	11.22	13.43	
600	7.472	13.283	19.97	26.69	26.82	40.24	40.25	67.26	67.26	107.04	106.77	200.41	13.47	16.14	

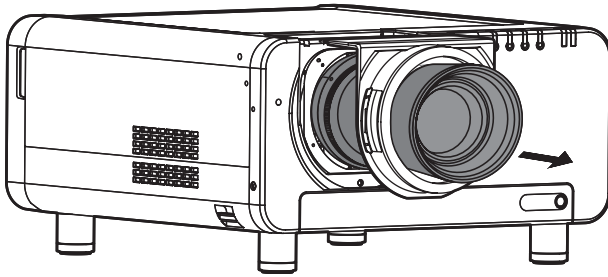
*1: "Through ratio" is the approximate measurement range of the screen width to the projection distance.

Note

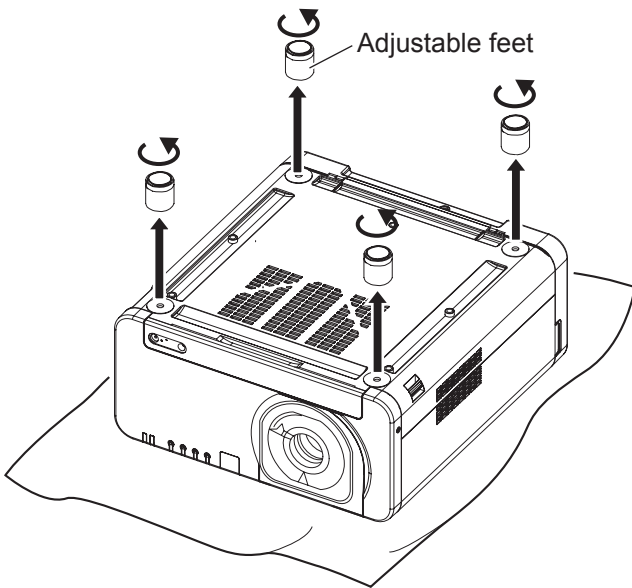
- The projection distances listed here involve an error of $\pm 5\%$.
- Keystone distortions are corrected in the way the screen size becomes smaller than the original one.
- If using a screen size not listed in these instructions, check the diagonal dimension (in inches) of the screen to be used, and refer to the Manual included with the projector.

Installing the projector

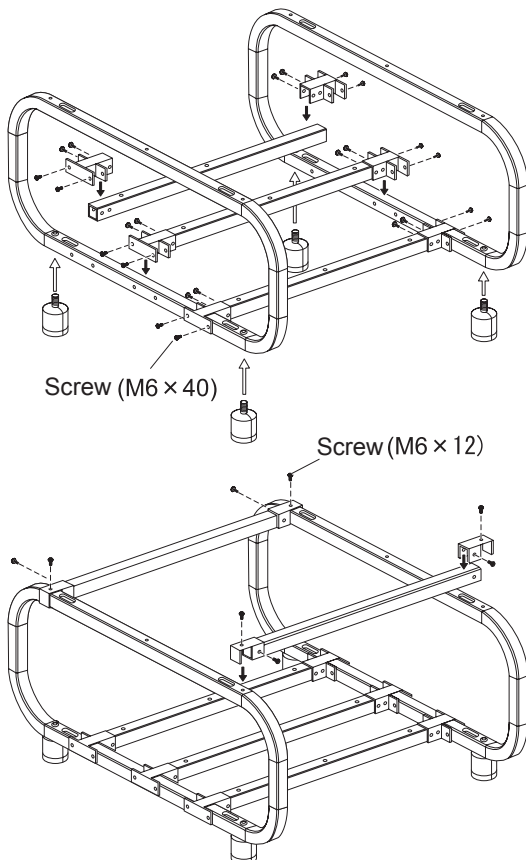
Installation procedure



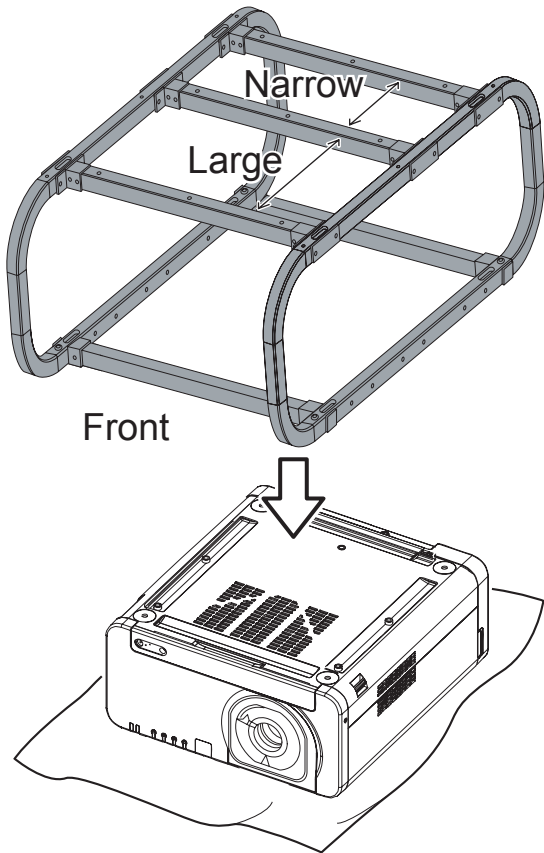
- ① Remove the projection lens cover and projection lens.
(Refer to the operating instructions "How to install and remove the projection lens (optional)" provided with the PT-D10000/PT-DW10000.)



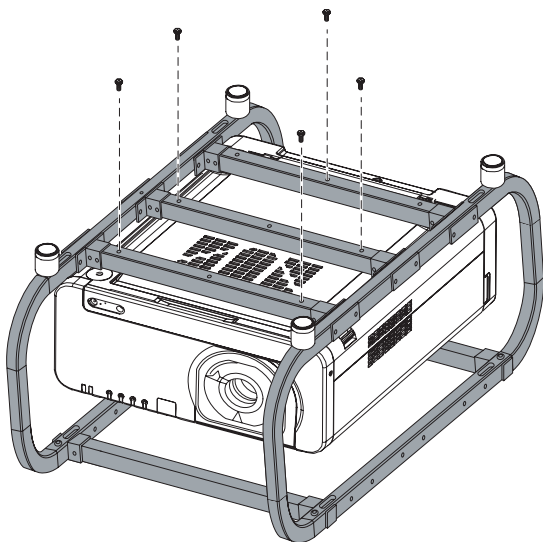
- ② Spread out a soft cloth onto a stand or similar which has a smaller area than the top of the projector, and place the projector onto this with the base facing upward.
- ③ Turn the four adjustable feet counterclockwise and remove them.



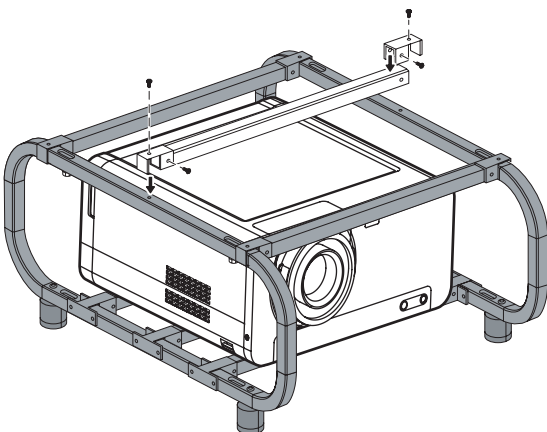
- ④ Assemble a frame. < Refer to left figure.>
 - In the case of an upper frame, please do not attach an adjustable feet. The removed adjustable feet will be needed when returning the projector to its original state. Keep carefully for future use.



- ⑤ Place the frame onto the projector so that it is aligned with the screw hole positions. (Make sure that the forward/back direction is correct when installing. If the direction is reversed, the hole positions will not match up.)



- ⑥ Secure the projector to the frame using the five screws (M6X50).

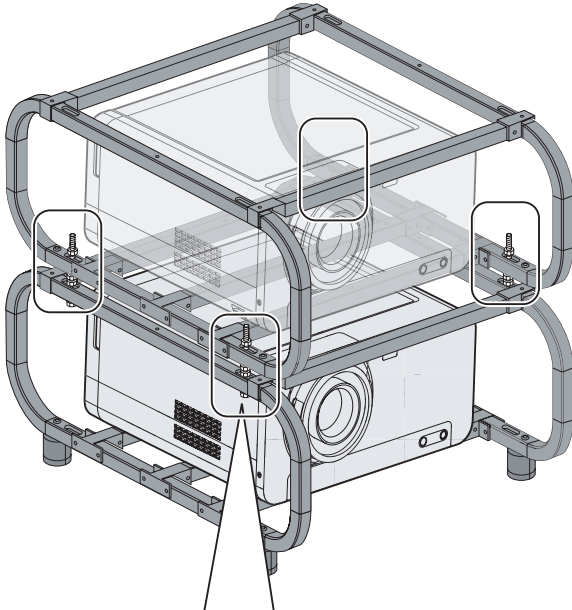


- ⑦ Turn the projector upside down so that the bottom panel is face down again.
- ⑧ Assemble the remaining sections of upper pipe, install them to the side frames and secure them with the screws (M6X12).
- ⑨ Attach the projection lens and projection lens cover. (Refer to the operating instructions "How to install and remove the projection lens (optional)" provided with the PT-D10000/PT-DW10000.)

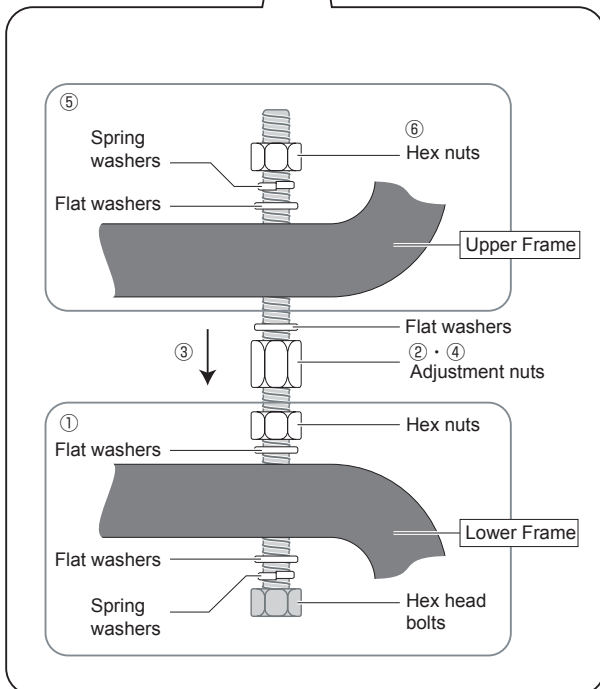
Installing the upper projector

Installation procedure

- Another separate frame is required when stacking two frames together.
Refer to "Installing the projector" for the installation procedure of a frame and a projector. (pp. 8 - 9)



- ① Install the hex head bolts into the four mounting holes in the lower frame with the hex nut, spring washer and flat washer. Use the hex nuts to secure the lower frame and the hex head bolts.
- ② Place the adjustment nuts and flat washer onto the hex head bolts.
- ③ Align the four mounting holes in the upper frame for the upper projector with the vertical fixing bolts in the lower frame, and place the upper frame onto the lower frame.
- ④ Secure the projector using the four adjustment nuts so that it is horizontal.
- ⑤ Place the flat washer and spring washer and hex nut onto the hex head bolts.
- ⑥ Use the hex nuts to secure the upper frame and the hex head bolts.



Adjusting the angle of the upper projector

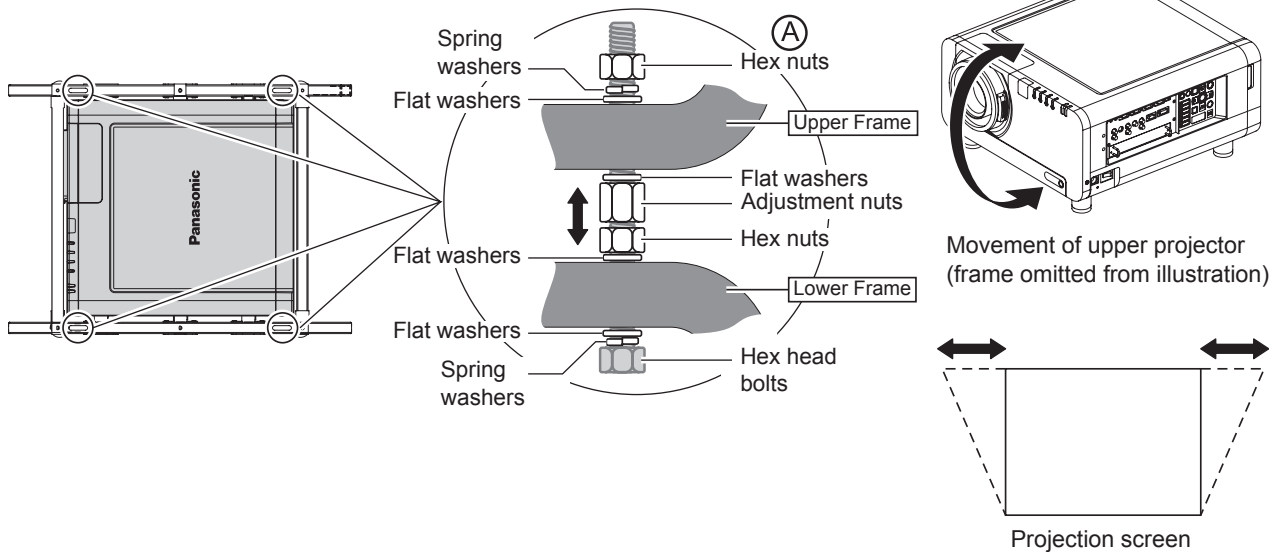
Follow the steps below to adjust the angle of the upper projector so that the image projected on the screen matches that of the lower projector. Only the angle of the upper projector is adjustable.

- After referring to the instruction manual of the DLP® projector, project an image on the screen and then use the zoom and focus functions to adjust its size. At this point you are ready to adjust the angle of the upper projector.
- Loosen the hex nuts (A) for the upper frame and then adjust the adjustment nuts.

① Adjusting the vertical angle

Turn the four adjustment bolts screwed of the upper projector to adjust the vertical angle and correct the keystone distortion on the projection screen.

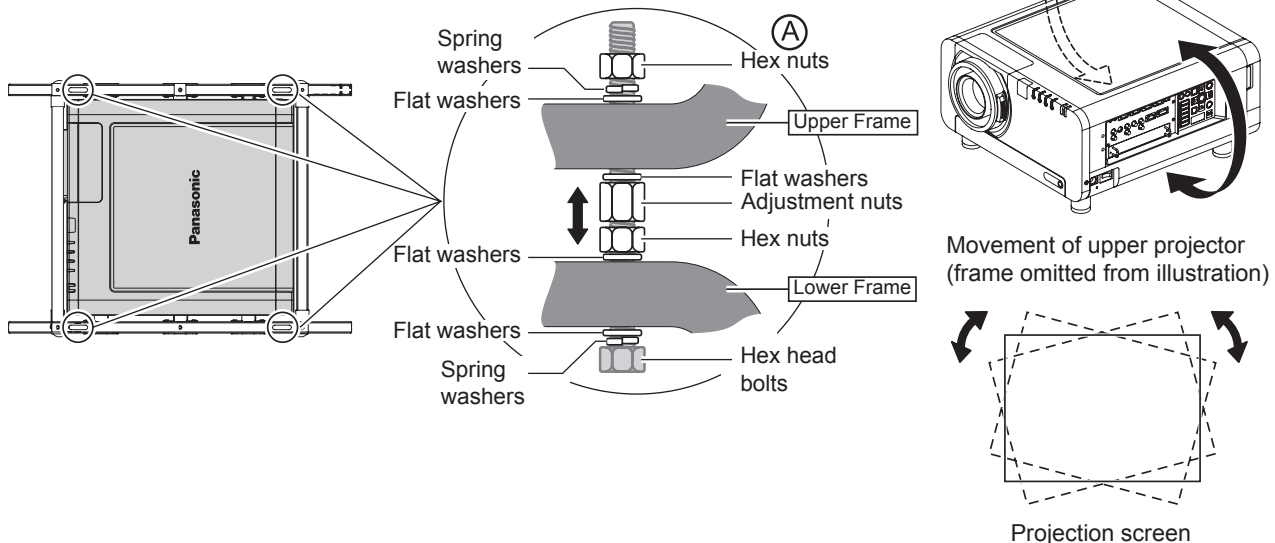
Make sure to turn the right and left adjustment bolts at the front, and the right and left adjustment bolts at the rear, by the same amount.



② Adjusting right-left inclination

Turn the four adjustment bolts screwed of the upper projector to adjust the right-left inclination and correct rotational distortion on the projection screen.

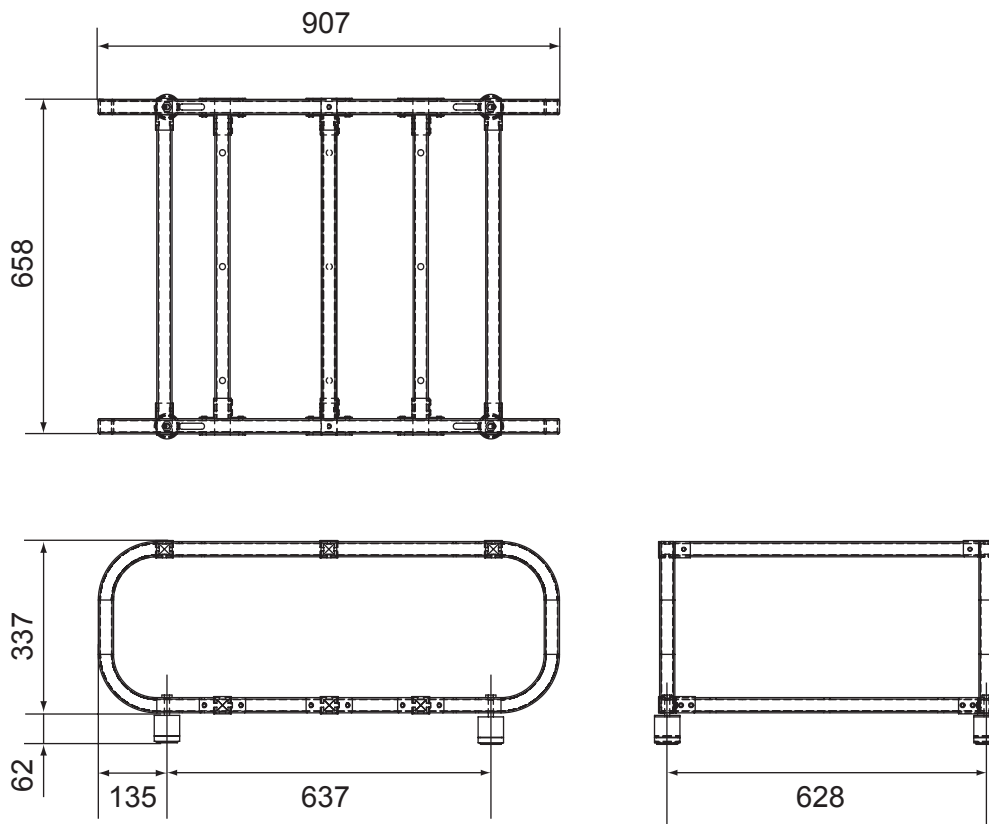
Make sure to turn the front and rear adjustment bolts on the right, and the front and rear adjustment bolts on the left, by the same amount.



③ Repeat steps ① to ② to make fine adjustments

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

Dimensions



Specifications

Adjustable range (upper projector only)	Vertical angle correction : 1.5 ° Left and right inclination adjustment : 1.5 °
Assembled dimensions	Width : 655 mm (25.8") Height : 399 mm (15.7") Depth : 907 mm (35.7")
Weight (excluding the projector)	17.2 kg (37.9 lb)

Matsushita Electric Industrial Co., Ltd

Web Site : <http://www.panasonic.co.jp/global/>

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