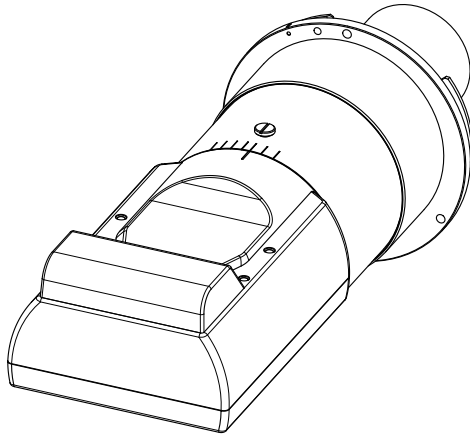


Panasonic®

Operating Instructions

Fixed-focus Lens **Commercial Use**

Model No. **ET-D75LE90**



ENGLISH

Thank you for purchasing this Panasonic product.

- To ensure correct use of this lens, please read the operating instructions supplied with the lens and the projector carefully.
- **Before using this product, be sure to read “Read this first!” (▶Page 3).**
- Please save this manual for future use.

■ Contents

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WARNING:

Before replacing the projection lens, be sure to turn the power off and disconnect the power plug from the wall outlet.

- Unexpected projection of light may cause injury to eyes.
- Replacing without removing the power plug may result in electrical shock.

Do not place objects near the light projecting surface.

- This surface produces intense light. Failure to heed this warning could result in fire or burn injuries.

CAUTION:

■ **Supplied accessories and consumables:**

Do not use the lens with the protective film and lens cap left on.

- If left on, the heat generated during projection could melt them resulting in projector deformation and damage, and personnel attempting to remove them could suffer burn injuries.

Do not open the desiccant bag. Do not eat the contents.

(Inadvertently ingesting desiccant could be harmful.)

- If the desiccant gets into your eyes or mouth, immediately rinse with plenty of water and seek medical attention.
- Keep desiccant out of the reach of children.

Information for users in the European Union

Importer's name and address within the European Union
Panasonic Marketing Europe GmbH
Panasonic Testing Centre
Winsbergring 15, 22525 Hamburg, Germany

Product Information (for Turkey only)

AEEE Yönetmeliğine Uygundur.

Eski Ekipman İşlenmesi.

Sadece geri dönüşüm sistemleri olan Avrupa Birliği ve ülkeleri için geçerlidir.



Ürünler, ambalaj ve/veya ekli belgeler üzerindeki bu semboller kullanılmış elektrik ve elektronik ürünlerin genel ev atığı ile karıştırılmaması gerektiğini ifade eder.

Eski ürünlerin toplanması ve geri kazanılması için bu atıkları lütfen yasayla belirlenmiş olan uygun toplama merkezlerine teslim ediniz.

Bu atıkların doğru işlenmesiyle, değerli kaynakların korunmasına ve insan sağlığı ve çevreye olası negatif etkilerinin engellenmesine yardımcı olabilirsiniz.

Atıkların toplanması ve geri dönüşümü için detaylı bilgi için lütfen bağlı olduğunuz yerel yönetimlerle iletişime geçiniz.

Atıkların atılmasıyla ilgili yanlış uygulamalar yasayla belirlenmiş olan cezalara sebebiyet verebilir.

Before Use

Supported projectors

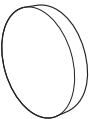

PT-DZ21K / PT-DS20K / PT-DW17K / PT-DZ16K / PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K

Note

- Models other than the above may also be supported. Refer to the operating instructions of the projector you are using.
- In this document, the alphabet letters at the end of the projector part numbers are omitted.

Supplied Accessories

Make sure that the following has been provided. Numbers enclosed in < > show the number of accessories.

<p>Lens cap <1></p>  <p>(The product is delivered with a lens cap attached.)</p>	<p>Lens shift gauge <1></p> 
---	---

Attaching the Lens / Detaching the Lens

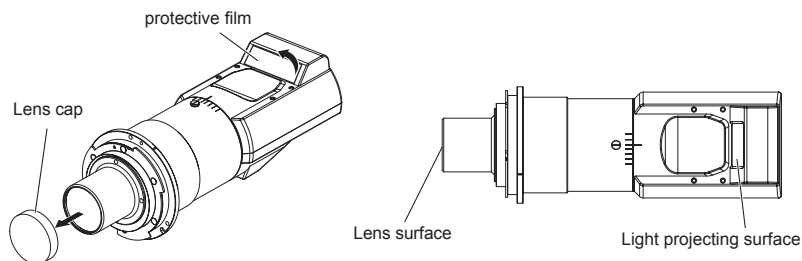
Before replacing the projection lens

Return the projection lens to the home position before replacing or removing it.

For details on how to return the lens to the home position, refer to the operating instructions of the projector.

Attention

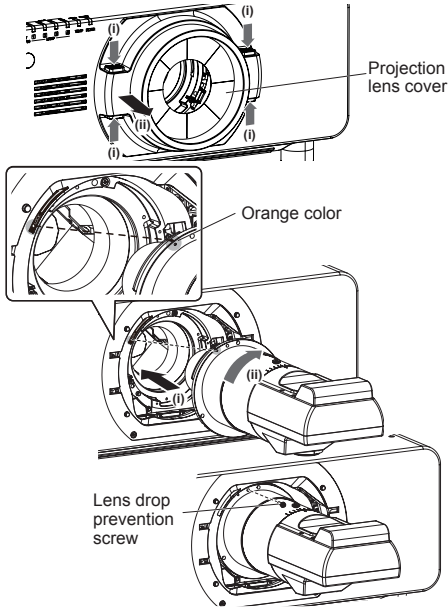
- Make sure that the projector power supply is switched off before attaching or detaching the projection lens.
- After removing the projection lens, store it safely away from vibration or impacts.
- Before attaching the fixed-focus lens, remove the protective film from the light projecting surface and the lens cap from the lens.



- Be sure not to touch the light projecting surface or the surface of the lens. Any fingerprints or smudges on these surfaces will be magnified and lower the quality of the image displayed on the screen.
- The light projecting surface and lens are made of glass. The lens could be damaged if brought into contact with or rubbed against hard objects. Handle the lens carefully.
- Use a clean, soft and dry cloth to wipe away any dirt or dust that has adhered to the light projecting surface or lens. Do not use fluffy cloths containing oil, water or dust for cleaning.
- When the fixed-focus lens is removed from the projector, place it with the light projecting surface facing upwards.

Attaching the Lens / Detaching the Lens (continued)

Attaching the Lens



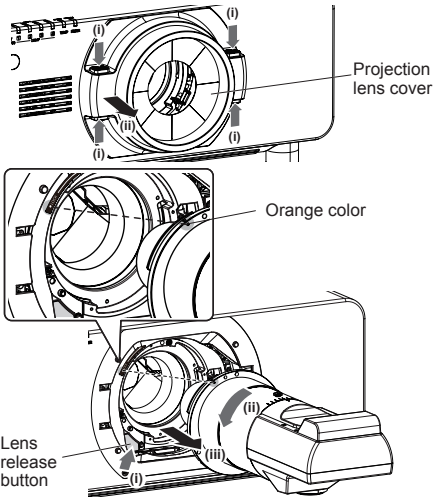
* The illustration for this procedure uses PT-DZ21K as an example.

- 1) **Remove the projection lens cover.*1**
- 2) **Align the mark on the projection lens (orange color) with the mark on the projector (O on the left side of the LOCK) and insert; then rotate in a clockwise direction until it makes a "click" sound.**
- 3) **Secure the projection lens with the lens drop prevention screw included with the projector.**
 - Secure it in the screw hole (location shown in the figure to the left) on the right side of the projection lens mark (orange color) using a Phillips screwdriver.
- 4) **Attach the projection lens cover.*1**

Attention

- Gently turn the projection lens counterclockwise to check that it will not fall out.

Detaching the Lens



* The illustration for this procedure uses PT-DZ21K as an example.

- 1) **Remove the projection lens cover.*1**
- 2) **Remove the lens drop prevention screw.**
 - Remove the first screw on the right side of the projection lens mark (orange color) using a Phillips screwdriver.
- 3) **Turn the projection lens counterclockwise while holding down the lens release button to take it off.**
 - Turn counterclockwise until the projection lens mark (orange color) is aligned with the mark on the projector (O on left side of the LOCK).
- 4) **Attach the projection lens cover.*1**

Attention

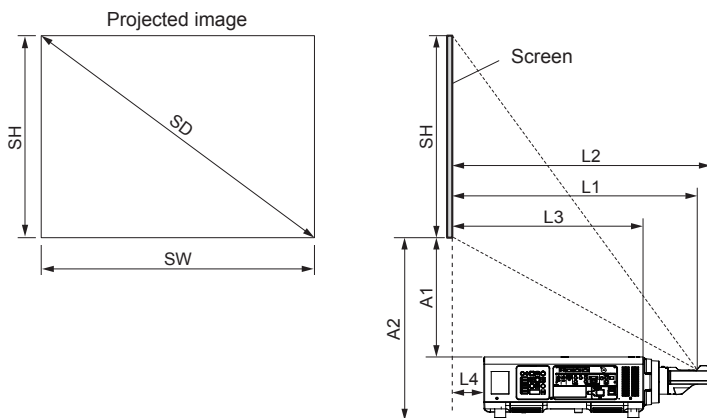
- Store the projection lens that was removed while avoiding vibration and impact.
- Store the lens drop prevention screw that was removed and do not lose it.
- Attach the supplied lens cap before storing the lens.

*1: Only when using a projector that has a projection lens cover. In addition, there are cases where the attachment method or removal method of the projection lens cover differs from the procedure (illustration) described above depending on the model being used. For details, see "Attaching/removing the projection lens (optional)" in the operating instructions for the projector you are using.

Projection relationships

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

■ Dimensional relationship diagram



Note

- The indications of this illustration are premised on aligning the projected image size and position to the full screen.
- This illustration is not drawn to scale.

SH	Projected image height	L3	Screen to projector front end
SW	Projected image width	L4	Screen to projector rear end
SD	Diagonal length of the projected image	A1	Bottom edge of the screen to the top of the projector
L1	Projection distance (from screen to mirror reflective surface*)	A2	Bottom edge of the screen to the bottom of the projector
L2	Screen to lens front end		

* The mirror reflective surface is inside the fixed-focus lens, and is not visible from the outside.

Note

- The illustrations of projectors in this manual are for informational purposes only and do not represent a specific projector model. Configurations may vary with the model.
- After setting the lens position using the function on the projector or using the lens shift gauge, the lens position can be adjusted within the adjustment range noted in "Adjustment range by the lens position shift (optical shift)" (► Page 11).
Then dimensions A1 and A2 will change according to lens shift amount.
- Dimension L4 is the distance from the projector rear panel to the screen.
- Dimension A2 is the distance from the bottom edge of the screen to the bottom of the adjustable projector legs (with the legs fully screwed in).

Attention

- Dimension L4 is not the distance from the projector rear panel to a wall, but the distance from the projector rear panel to the screen. Provide at least 500 mm (19-11/16") of ventilation space between the projector rear panel and a wall or other object.
When placing the projector in a confined space, a ventilation and/or air conditioning system is required. Exhaust heat may accumulate when the ventilation is not sufficient triggering the protection circuit of the projector.

Projection relationships (continued)

■ Dimensional relationship

- When using one of PT-DZ21K / PT-DS20K / PT-DW17K / PT-DZ16K / PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K

For details on projection distance (L1), and A1, A2, L2, L3 and L4 values, refer to "Projected image size and Projection distance" or "Projection distance formulas" in the Appendix.

- When using a projector other than one listed above

Please see "Setting up" in the operating instructions for the projector you are using.

■ Keystone distortion correction

When attaching this lens for use, regardless of the projector model, set up the projector so that the projected image is rectangular and the back of the projector and the screen are parallel.

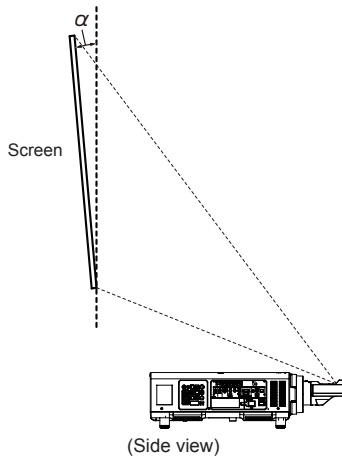
In addition, depending on the projector used, keystone distortion correction may be feasible after setup.

- When using one of PT-DZ21K / PT-DS20K / PT-DZ16K / PT-DZ13K / PT-DS12K / PT-DZ10K

For keystone distortion in the vertical direction generated within the angle range below, select [MAIN MENU] → [POSITION] → [GEOMETRY] → [KEystone] → [VERTICAL KEystone] to perform correction.

Keystone distortion in the vertical direction greater than this angle and keystone distortion in the horizontal direction can be corrected but the projected image overall will no longer be in focus.

Correction feasible angle (α): 0 - 5°



- When using PT-DW17K / PT-DW11K

If keystone distortion in vertical direction or horizontal direction is corrected, the projected image overall will no longer be in focus. Set up the projector so that the projected image is rectangular and the back of the projector and the screen are parallel.

- When using a projector other than one listed above

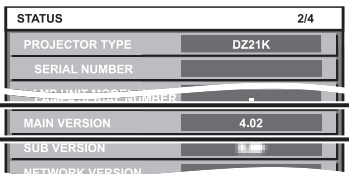
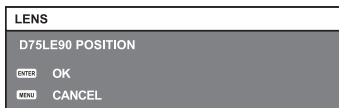
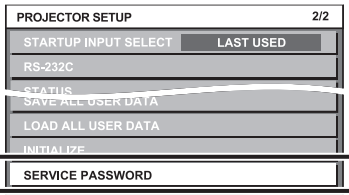
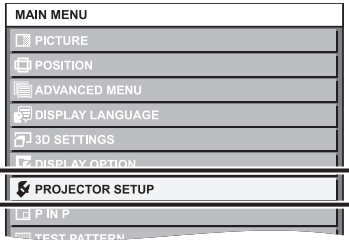
Please see "Setting up" in the operating instructions for the projector you are using.

Lens position setup and focus adjustment

Lens position setup (Using projector functions)

Automatically return the lens to base position using the projector.

* The menu screens shown in these operating instructions are only provided as examples. Actual menu screens may vary with the specific model.



- 1) Turn on the projector to start the projection.
- 2) Press the <MENU> button to open the [MAIN MENU] screen. Then select [PROJECTOR SETUP] and press the <ENTER> button.
- 3) Select [SERVICE PASSWORD] in the [PROJECTOR SETUP] menu and press the <ENTER> button.
 - The [D75LE90 POSITION] screen appears.
- 4) In the [SERVICE PASSWORD] entry screen, enter "7590" using the numeric buttons on the remote control and then press the <ENTER> button.
 - [PROGRESS] is displayed on the [D75LE90 POSITION] screen and lens position moves to the standard projection position for the ET-D75LE90.
- 5) Press the <ENTER> button in the [D75LE90 POSITION] screen.
 - [PROGRESS] is displayed on the [D75LE90 POSITION] screen and lens position moves to the standard projection position for the ET-D75LE90.

Note

- Lens position can also be set using the supplied lens shift gauge (➔ Page 9).
- The [MAIN VERSION] of the projector firmware must be the version noted below in order to set the lens position using the function on the projector. Check the [MAIN VERSION] of the firmware on the [STATUS] screen and upgrade the firmware version of the projector as needed. *1

Projector	Main version
PT-DZ21K / PT-DS20K / PT-DW17K	4.02 or higher
PT-DZ16K	1.04 or higher
PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K	4.04 or higher
Projector other than one listed above *Only projectors that this lens is compatible with.	1.00 or higher

[STATUS] screen is displayed by selecting [Main Menu] → [PROJECTOR SETUP] → [STATUS] or by pressing the <STATUS> button on the remote control.

*1: See software download page on Panasonic website (<http://panasonic.net/avc/projector/pass/>). You must be a registered PASS user to use the site described above.

* PASS: Panasonic Professional Display and Projector Technical Support Website

Lens position setup and focus adjustment (continued)

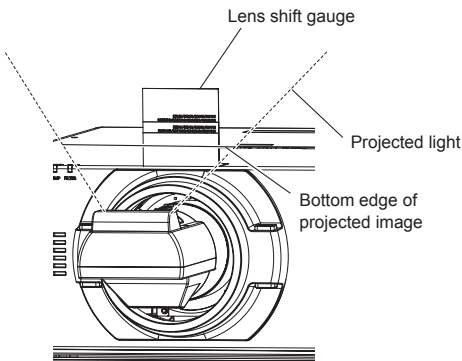
Note

- The lens position set using this procedure is the minimum value of A1 of "Projected image size and Projection distance" in the Appendix. Perform adjustment manually to move to the maximum value.
- The lens position set using this procedure may deviate slightly from the adjustment made using the lens shift gauge.
- After moving to the base position, the lens position can be adjusted within the adjustment range noted in "Adjustment range by the lens position shift (optical shift)" (▶Page 11).
- Depending on the (OSD) display position on the menu screen, there are cases where the projected light is obstructed and a part of the menu is not displayed on the screen. In this case, open [MAIN MENU] → [DISPLAY OPTIONS] → [ON-SCREEN DISPLAY] → [OSD POSITION] and change settings so that the whole OSD menu can be seen.

Lens position setup (Using the supplied lens shift gauge)

Use the supplied lens shift gauge to adjust vertical lens position.

* The illustrations in these operating instructions show the lens used with the PT-DZ21K projector.



1) As shown in the figure, fold the lens shift gauge at right angles along the dotted line.

- Adjust so that the gauge plane of the lens shift gauge and the front panel of the projector are roughly in the same plane.

2) Move the lens to the home position.

- For details on how to return the lens to the home position, refer to the operating instructions of the projector.

3) Adjust lens shift on the projector so that the bottom edge of the projected image aligns with the line for the specific projector model on the lens shift gauge.

- Use the projector after making the adjustments and lens position settings described here.

Note

- The lens position set using this procedure is the minimum value of A1 of "Projected image size and Projection distance" in the Appendix. Perform adjustment manually to move to the maximum value.
- After setting the lens position using the lens shift gauge, the lens position can be adjusted within the adjustment range noted in "Adjustment range by the lens position shift (optical shift)" (▶Page 11).

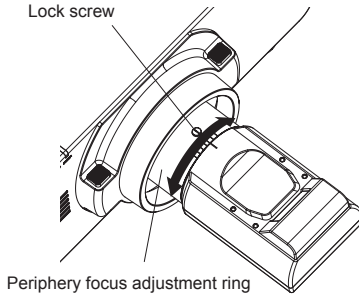
Lens position setup and focus adjustment (continued)

Focus Adjustment Function

After setting the lens position, adjust the focus.

The focal balance between the center and periphery of the projected image changes depending on the size of the projected image. The lens is equipped with a focus balance adjustment function for the screen periphery.

■ Adjusting the Focus



- 1) **Focus the center of the screen by operating the projector unit.**
- 2) **Loosen the lock screw and turn the periphery focus adjustment ring by hand as shown in the figure to the left to adjust the peripheral focus on the screen.**
- 3) **Again check focus at the center of the screen and use the projector controls to make fine adjustments.**
- 4) **Tighten the lock screw.**
 - The periphery focus adjustment ring is locked.

Note

- The projected image sizes and scale shown on the periphery focus adjustment ring are an approximate guide.

Adjustment range by the lens position shift (optical shift)

Even after setting the lens position using "Lens position setup" noted on pages 8 and 9, the projection position can be adjusted within respective ranges using the optical axis shift function on the projector based on the projected image position for this lens position.

Perform the lens position shift within the adjustment range.

The focus may change when the lens position is shifted out of the adjustment range.

- When using one of PT-DZ21K / PT-DW17K / PT-DZ16K / PT-DZ13K / PT-DW11K / PT-DZ10K

<p>PT-DZ21K / PT-DZ13K / PT-DZ10K</p>	
<p>PT-DZ16K</p>	
<p>PT-DW17K / PT-DW11K</p>	

- When using PT-DS20K / PT-DS12K

When attaching this lens, use it in the standard projection position.

The focus may change when the lens position is moved.

- When using a projector other than one listed above

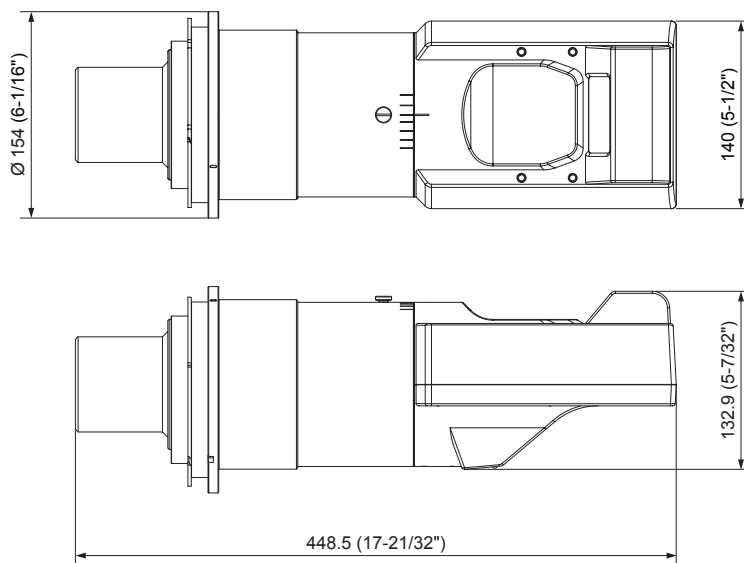
Please see "Projecting" in the operating instructions for the projector you are using.

Specifications

F value	2.5
Focal Length (f)	7.5 mm (9/32")
Dimensions	Width 154 mm (6-1/16") Height 154 mm (6-1/16") Depth 448.5 mm (17-21/32")
Net Weight	Approx. 6.5 kg (14.33 lb)

Dimensions

(Unit: mm)



Panasonic Corporation

Web Site : <http://panasonic.net/avc/projector/>

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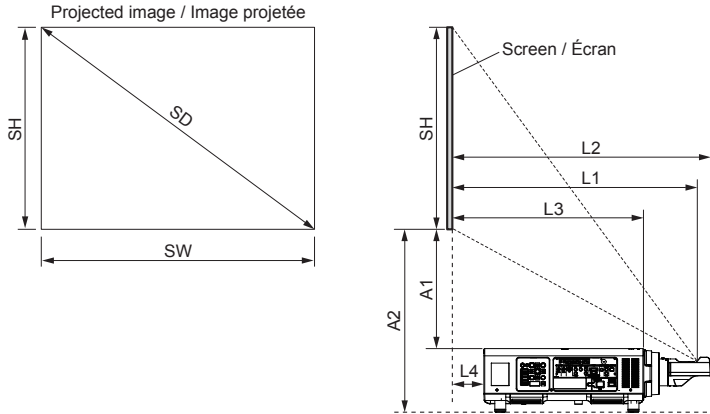
HS1014KM2035 -KI

Printed in Japan

Appendix / Annexe

■ Dimensional relationship ■ Relations dimensionnelles

The dimensional relationship between the screen and the projector is shown below.
Les relations dimensionnelles entre l'écran et le projecteur sont indiquées ci-dessous.



SH	Projected image height / Hauteur de l'image projetée
SW	Projected image width / Largeur de l'image projetée
SD	Diagonal length of the projected image / Diagonale de la zone de projection
L1	Projection distance (from screen to mirror reflective surface*) Distance de projection (de l'écran à la surface réfléchissante du miroir*)
L2	Screen to lens front end / De l'écran à l'extrémité avant de l'objectif
L3	Screen to projector front end / De l'écran à l'extrémité avant du projecteur
L4	Screen to projector rear end / De l'écran à l'extrémité arrière du projecteur
A1	Bottom edge of the screen to the top of the projector / Du bord inférieur de l'écran au sommet du projecteur
A2	Bottom edge of the screen to the bottom of the projector / Du bord inférieur de l'écran à la base du projecteur

* The mirror reflective surface is inside the fixed-focus lens, and is not visible from the outside.

* La surface réfléchissante du miroir se trouve à l'intérieur de l'objectif à focale fixe, et n'est pas visible de l'extérieur.

● Projected image size and Projection distance ● Taille de l'image projetée et Distance de projection

Note

- When using projector models other than the following, refer to "Setting up" in the operating instructions of the projector.

Remarque

- Lorsque vous utilisez des modèles de projecteur différents des modèles suivants, consultez "Installation" dans le mode d'emploi du projecteur.

Projectors / Projecteurs

PT-DZ21K / PT-DS20K / PT-DW17K / PT-DZ16K /
PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K

The dimensions of the following table contain a slight error.

Periods are used to represent decimal points in the calculation formulas in the following table.

Les dimensions du tableau suivant peuvent présenter un léger écart.

Les points sont utilisés pour indiquer les décimales dans les formules de calcul dans le tableau suivant.

● **PT-DZ21K**

(Unit / Unités : m)

When the screen aspect ratio is 16:10 (Throw ratio : [0.36:1]) Lorsque le rapport d'aspect de l'écran est 16:10 (Rapport de projection : [0.36:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.615	2.585	0.94	-0.06	0.26–0.34
3.81 (150")	2.019	3.231	1.18	0.17	0.35–0.46
5.08 (200")	2.692	4.308	1.56	0.55	0.50–0.65
6.35 (250")	3.365	5.385	1.95	0.94	0.66–0.84
7.62 (300")	4.039	6.462	2.33	1.32	0.81–1.03
8.89 (350")	4.712	7.539	2.72	1.71	0.96–1.22
10.16 (400")	5.385	8.616	3.10	2.09	1.12–1.41
12.70 (500")	6.731	10.770	3.87	2.86	1.43–1.79
15.24 (600")	8.077	12.923	4.64	3.63	1.74–2.17

When the screen aspect ratio is 16:9 (Throw ratio : [0.36:1]) Lorsque le rapport d'aspect de l'écran est 16:9 (Rapport de projection : [0.36:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.494	2.657	0.97	-0.04	0.27–0.44
3.81 (150")	1.868	3.321	1.21	0.20	0.36–0.58
5.08 (200")	2.491	4.428	1.60	0.60	0.52–0.81
6.35 (250")	3.113	5.535	2.00	0.99	0.68–1.04
7.62 (300")	3.736	6.641	2.39	1.39	0.83–1.27
8.89 (350")	4.358	7.748	2.79	1.78	0.99–1.50
10.16 (400")	4.981	8.855	3.19	2.18	1.15–1.73
12.70 (500")	6.226	11.069	3.98	2.97	1.47–2.19
15.24 (600")	7.472	13.283	4.77	3.76	1.78–2.65

When the screen aspect ratio is 4:3 (Throw ratio : [0.44:1]) Lorsque le rapport d'aspect de l'écran est 4:3 (Rapport de projection : [0.44:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.829	2.438	1.07	0.06	0.30–0.40
3.81 (150")	2.286	3.048	1.33	0.32	0.41–0.53
5.08 (200")	3.048	4.064	1.76	0.76	0.58–0.75
6.35 (250")	3.810	5.080	2.20	1.19	0.76–0.96
7.62 (300")	4.572	6.096	2.64	1.63	0.93–1.18
8.89 (350")	5.334	7.112	3.07	2.06	1.11–1.40
10.16 (400")	6.096	8.128	3.51	2.50	1.28–1.61
12.70 (500")	7.620	10.160	4.38	3.37	1.63–2.04
15.24 (600")	9.144	12.192	5.25	4.24	1.98–2.47

● **PT-DS20K**

(Unit / Unités : m)

When the screen aspect ratio is 4:3 (Throw ratio : [0.39:1]) Lorsque le rapport d'aspect de l'écran est 4:3 (Rapport de projection : [0.39:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.829	2.438	0.96	-0.04	0.26
3.81 (150")	2.286	3.048	1.20	0.19	0.36
5.08 (200")	3.048	4.064	1.59	0.59	0.51
6.35 (250")	3.810	5.080	1.99	0.98	0.67
7.62 (300")	4.572	6.096	2.38	1.37	0.83
8.89 (350")	5.334	7.112	2.77	1.77	0.98
10.16 (400")	6.096	8.128	3.17	2.16	1.14
12.70 (500")	7.620	10.160	3.95	2.95	1.46
15.24 (600")	9.144	12.192	4.74	3.73	1.77

When the screen aspect ratio is 16:9 (Throw ratio : [0.39:1]) Lorsque le rapport d'aspect de l'écran est 16:9 (Rapport de projection : [0.39:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.494	2.657	1.05	0.04	0.30–0.54
3.81 (150")	1.868	3.321	1.31	0.30	0.40–0.71
5.08 (200")	2.491	4.428	1.73	0.73	0.57–0.98
6.35 (250")	3.113	5.535	2.16	1.15	0.74–1.26
7.62 (300")	3.736	6.641	2.59	1.58	0.91–1.53
8.89 (350")	4.358	7.748	3.02	2.01	1.08–1.81
10.16 (400")	4.981	8.855	3.45	2.44	1.26–2.08
12.70 (500")	6.226	11.069	4.30	3.30	1.60–2.63
15.24 (600")	7.472	13.283	5.16	4.15	1.94–3.18

● **PT-DW17K**

(Unit / Unités : m)

When the screen aspect ratio is 16:9 (Throw ratio : [0.40:1]) Lorsque le rapport d'aspect de l'écran est 16:9 (Rapport de projection : [0.40:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.494	2.657	1.07	0.07	0.31–0.58
3.81 (150")	1.868	3.321	1.34	0.33	0.41–0.76
5.08 (200")	2.491	4.428	1.78	0.77	0.59–1.05
6.35 (250")	3.113	5.535	2.22	1.21	0.76–1.34
7.62 (300")	3.736	6.641	2.65	1.65	0.94–1.63
8.89 (350")	4.358	7.748	3.09	2.09	1.12–1.92
10.16 (400")	4.981	8.855	3.53	2.53	1.29–2.21
12.70 (500")	6.226	11.069	4.41	3.40	1.64–2.79
15.24 (600")	7.472	13.283	5.29	4.28	1.99–3.37

(PT-DW17K)

When the screen aspect ratio is 4:3 (Throw ratio : [0.54:1]) Lorsque le rapport d'aspect de l'écran est 4:3 (Rapport de projection : [0.54:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.829	2.438	1.31	0.30	0.40–0.74
3.81 (150")	2.286	3.048	1.63	0.63	0.53–0.95
5.08 (200")	3.048	4.064	2.17	1.16	0.75–1.31
6.35 (250")	3.810	5.080	2.71	1.70	0.96–1.66
7.62 (300")	4.572	6.096	3.25	2.24	1.18–2.02
8.89 (350")	5.334	7.112	3.78	2.78	1.39–2.37
10.16 (400")	6.096	8.128	4.32	3.31	1.61–2.73
12.70 (500")	7.620	10.160	5.40	4.39	2.03–3.44
15.24 (600")	9.144	12.192	6.47	5.46	2.46–4.15

● **PT-DZ16K**

(Unit / Unités : m)

When the screen aspect ratio is 16:9 (Throw ratio : [0.36:1]) Lorsque le rapport d'aspect de l'écran est 16:9 (Rapport de projection : [0.36:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.494	2.657	0.97	-0.04	0.27–0.44
3.81 (150")	1.868	3.321	1.21	0.20	0.36–0.58
5.08 (200")	2.491	4.428	1.60	0.60	0.52–0.81
6.35 (250")	3.113	5.535	2.00	0.99	0.68–1.04
7.62 (300")	3.736	6.641	2.39	1.39	0.83–1.27
8.89 (350")	4.358	7.748	2.79	1.78	0.99–1.50
10.16 (400")	4.981	8.855	3.19	2.18	1.15–1.73
12.70 (500")	6.226	11.069	3.98	2.97	1.47–2.19
15.24 (600")	7.472	13.283	4.77	3.76	1.78–2.65

When the screen aspect ratio is 4:3 (Throw ratio : [0.48:1]) Lorsque le rapport d'aspect de l'écran est 4:3 (Rapport de projection : [0.48:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.829	2.438	1.18	0.17	0.35–0.56
3.81 (150")	2.286	3.048	1.47	0.47	0.47–0.73
5.08 (200")	3.048	4.064	1.96	0.95	0.66–1.01
6.35 (250")	3.810	5.080	2.44	1.43	0.85–1.30
7.62 (300")	4.572	6.096	2.93	1.92	1.05–1.58
8.89 (350")	5.334	7.112	3.41	2.40	1.24–1.86
10.16 (400")	6.096	8.128	3.89	2.89	1.43–2.14
12.70 (500")	7.620	10.160	4.86	3.86	1.82–2.71
15.24 (600")	9.144	12.192	5.83	4.82	2.21–3.27

● PT-DZ13K / PT-DZ10K

(Unit / Unités : m)

When the screen aspect ratio is 16:10 (Throw ratio : [0.36:1]) Lorsque le rapport d'aspect de l'écran est 16:10 (Rapport de projection : [0.36:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.615	2.585	0.94	0.13	0.27–0.36
3.81 (150")	2.019	3.231	1.18	0.36	0.36–0.47
5.08 (200")	2.692	4.308	1.56	0.74	0.52–0.66
6.35 (250")	3.365	5.385	1.95	1.13	0.67–0.85
7.62 (300")	4.039	6.462	2.33	1.51	0.82–1.04
8.89 (350")	4.712	7.539	2.72	1.90	0.98–1.23
10.16 (400")	5.385	8.616	3.10	2.28	1.13–1.42
12.70 (500")	6.731	10.770	3.87	3.05	1.44–1.80
15.24 (600")	8.077	12.923	4.64	3.82	1.75–2.19

When the screen aspect ratio is 16:9 (Throw ratio : [0.36:1]) Lorsque le rapport d'aspect de l'écran est 16:9 (Rapport de projection : [0.36:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.494	2.657	0.97	0.15	0.28–0.45
3.81 (150")	1.868	3.321	1.21	0.39	0.37–0.59
5.08 (200")	2.491	4.428	1.60	0.79	0.53–0.82
6.35 (250")	3.113	5.535	2.00	1.18	0.69–1.05
7.62 (300")	3.736	6.641	2.39	1.58	0.85–1.28
8.89 (350")	4.358	7.748	2.79	1.97	1.01–1.51
10.16 (400")	4.981	8.855	3.19	2.37	1.17–1.74
12.70 (500")	6.226	11.069	3.98	3.16	1.48–2.20
15.24 (600")	7.472	13.283	4.77	3.95	1.80–2.66

When the screen aspect ratio is 4:3 (Throw ratio : [0.44:1]) Lorsque le rapport d'aspect de l'écran est 4:3 (Rapport de projection : [0.44:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.829	2.438	1.07	0.25	0.32–0.42
3.81 (150")	2.286	3.048	1.33	0.51	0.42–0.55
5.08 (200")	3.048	4.064	1.76	0.95	0.60–0.76
6.35 (250")	3.810	5.080	2.20	1.38	0.77–0.98
7.62 (300")	4.572	6.096	2.64	1.82	0.95–1.19
8.89 (350")	5.334	7.112	3.07	2.25	1.12–1.41
10.16 (400")	6.096	8.128	3.51	2.69	1.30–1.63
12.70 (500")	7.620	10.160	4.38	3.56	1.64–2.06
15.24 (600")	9.144	12.192	5.25	4.43	1.99–2.49

● **PT-DS12K**

(Unit / Unités : m)

When the screen aspect ratio is 4:3 (Throw ratio : [0.39:1]) Lorsque le rapport d'aspect de l'écran est 4:3 (Rapport de projection : [0.39:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.829	2.438	0.96	0.15	0.28
3.81 (150")	2.286	3.048	1.20	0.38	0.37
5.08 (200")	3.048	4.064	1.59	0.78	0.53
6.35 (250")	3.810	5.080	1.99	1.17	0.68
7.62 (300")	4.572	6.096	2.38	1.56	0.84
8.89 (350")	5.334	7.112	2.77	1.96	0.10
10.16 (400")	6.096	8.128	3.17	2.35	1.16
12.70 (500")	7.620	10.160	3.95	3.14	1.47
15.24 (600")	9.144	12.192	4.74	3.92	1.78

When the screen aspect ratio is 16:9 (Throw ratio : [0.39:1]) Lorsque le rapport d'aspect de l'écran est 16:9 (Rapport de projection : [0.39:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.494	2.657	1.05	0.23	0.31–0.56
3.81 (150")	1.868	3.321	1.31	0.49	0.41–0.72
5.08 (200")	2.491	4.428	1.73	0.92	0.58–1.00
6.35 (250")	3.113	5.535	2.16	1.34	0.76–1.27
7.62 (300")	3.736	6.641	2.59	1.77	0.93–1.55
8.89 (350")	4.358	7.748	3.02	2.20	1.10–1.82
10.16 (400")	4.981	8.855	3.45	2.63	1.27–2.10
12.70 (500")	6.226	11.069	4.30	3.49	1.61–2.65
15.24 (600")	7.472	13.283	5.16	4.34	1.95–3.19

● **PT-DW11K**

(Unit / Unités : m)

When the screen aspect ratio is 16:9 (Throw ratio : [0.40:1]) Lorsque le rapport d'aspect de l'écran est 16:9 (Rapport de projection : [0.40:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.494	2.657	1.07	0.26	0.32–0.60
3.81 (150")	1.868	3.321	1.34	0.52	0.43–0.77
5.08 (200")	2.491	4.428	1.78	0.96	0.60–1.06
6.35 (250")	3.113	5.535	2.22	1.40	0.78–1.35
7.62 (300")	3.736	6.641	2.65	1.84	0.95–1.64
8.89 (350")	4.358	7.748	3.09	2.28	1.13–1.93
10.16 (400")	4.981	8.855	3.53	2.72	1.30–2.22
12.70 (500")	6.226	11.069	4.41	3.59	1.66–2.80
15.24 (600")	7.472	13.283	5.29	4.47	2.01–3.38

(PT-DW11K)

When the screen aspect ratio is 4:3 (Throw ratio : [0.54:1]) Lorsque le rapport d'aspect de l'écran est 4:3 (Rapport de projection : [0.54:1])					
SD	SH	SW	L1	L4	A1
3.05 (120")	1.829	2.438	1.31	0.49	0.42–0.75
3.81 (150")	2.286	3.048	1.63	0.82	0.54–0.97
5.08 (200")	3.048	4.064	2.17	1.35	0.76–1.32
6.35 (250")	3.810	5.080	2.71	1.89	0.97–1.68
7.62 (300")	4.572	6.096	3.25	2.43	1.19–2.03
8.89 (350")	5.334	7.112	3.78	2.97	1.40–2.39
10.16 (400")	6.096	8.128	4.32	3.50	1.62–2.74
12.70 (500")	7.620	10.160	5.40	4.58	2.05–3.45
15.24 (600")	9.144	12.192	6.47	5.65	2.48–4.16

Note

- The listed projection distances involve an error of $\pm 5\%$.
- "GEOMETRY" and "VERTICAL KEYSTONE" tend to correct the projected image to a size that is smaller than regular size.
- Throw ratio is based on the value during projection onto a 3.81 m (150") screen.

Remarque

- Les distances de projection dans la liste implique une erreur de $\pm 5\%$.
- Le "GÉOMÉTRIE" et la "TRAPÈZE VERTICALE" ont tendance à corriger l'image projetée à une taille inférieure à la taille normale.
- Le rapport de projection (throw) se base sur la valeur pendant la projection sur un écran de 3,81 m (150").

- Projection distance formulas
- Formules de distance de projection

If you are using a projection screen size not listed in these Operating Instructions, measure the diagonal screen size SD (m). Then use the calculation methods provided to determine projection distance (L1) and the distance from the top of the projector to the bottom edge of the screen (A1).

Establishing dimensions L1 and A1 allows you to calculate all other dimensions.

Note that the values obtained in the following calculations are approximations.

Si vous utilisez une taille d'écran de projection n'apparaissant pas dans la liste de ce mode d'emploi, mesurez la taille de l'écran en diagonale SD (m). Utilisez ensuite les méthodes de calcul fournies pour déterminer la distance de projection (L1) et la distance du sommet du projecteur au bord inférieur de l'écran (A1).

Établir les dimensions L1 et A1 vous permet de calculer toutes les autres dimensions.

Notez que les valeurs obtenues dans les calculs suivants sont des approximations.

● PT-DZ21K

(Unit / Unités : m)

Aspect ratio Rapport d'aspect	L1	A1	
		Min. / Mini	Max. / Maxi
16 : 10	= 0.3031 × SD + 0.020	= 0.229 × SH - 0.114	= 0.283 × SH - 0.114
16 : 9	= 0.3116 × SD + 0.020	= 0.254 × SH - 0.114	= 0.370 × SH - 0.114
4 : 3	= 0.3432 × SD + 0.020	= 0.229 × SH - 0.114	= 0.283 × SH - 0.114

● **PT-DS20K**

(Unit / Unités : m)

Aspect ratio Rapport d'aspect	L1	A1	
		Min. / Mini	Max. / Maxi
4 : 3	= 0.3096 × SD + 0.020	= 0.206 × SH - 0.114	
16 : 9	= 0.3373 × SD + 0.020	= 0.275 × SH - 0.114	= 0.441 × SH - 0.114

● **PT-DW17K**

Aspect ratio Rapport d'aspect	L1	A1	
		Min. / Mini	Max. / Maxi
16 : 9	= 0.3458 × SD + 0.020	= 0.282 × SH - 0.114	= 0.466 × SH - 0.114
4 : 3	= 0.4233 × SD + 0.020		

● **PT-DZ16K**

Aspect ratio Rapport d'aspect	L1	A1	
		Min. / Mini	Max. / Maxi
16 : 9	= 0.3116 × SD + 0.020	= 0.254 × SH - 0.114	= 0.370 × SH - 0.114
4 : 3	= 0.3813 × SD + 0.020		

● **PT-DZ13K / PT-DZ10K**

Aspect ratio Rapport d'aspect	L1	A1	
		Min. / Mini	Max. / Maxi
16 : 10	= 0.3031 × SD + 0.020	= 0.229 × SH - 0.100	= 0.283 × SH - 0.100
16 : 9	= 0.3116 × SD + 0.020	= 0.254 × SH - 0.100	= 0.370 × SH - 0.100
4 : 3	= 0.3432 × SD + 0.020	= 0.229 × SH - 0.100	= 0.283 × SH - 0.100

● **PT-DS12K**

Aspect ratio Rapport d'aspect	L1	A1	
		Min. / Mini	Max. / Maxi
4 : 3	= 0.3096 × SD + 0.020	= 0.206 × SH - 0.100	
16 : 9	= 0.3373 × SD + 0.020	= 0.275 × SH - 0.100	= 0.441 × SH - 0.100

● **PT-DW11K**

Aspect ratio Rapport d'aspect	L1	A1	
		Min. / Mini	Max. / Maxi
16 : 9	= 0.3458 × SD + 0.020	= 0.282 × SH - 0.100	= 0.466 × SH - 0.100
4 : 3	= 0.4233 × SD + 0.020		

● **Calculation method for L2, L3, L4 and A2**
Méthode de calcul pour L2, L3, L4 et A2

(Unit / Unités : m)

	L2	L3	L4	A2
PT-DZ21K / PT-DS20K / PT-DW17K / PT-DZ16K	= L1 + 0.029	= L1 - 0.277	= L1 - 1.007	= A1 + 0.291
PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K			= L1 - 0.817	= A1 + 0.200

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