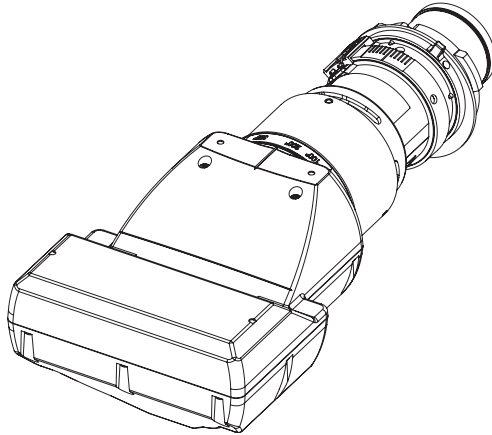# Panasonic®

Operating Instructions

Fixed-Focus Lens   Commercial Use

Model No. ET-DLE035

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.

Product information (for Turkey only)

EEE Yönetmeliğine Uygundur.

EEE Complies with Directive of Turkey.

DPQX1334ZA/X1

■ Contents

The "Appendix" can be found after the Japanese language section (日本語).

Read this first! Always follow these precautions

WARNING:

Do not look at or place your skin into the light emitted from the lens while the projector is being used.

Doing so can cause burns or loss of sight.
● Strong light is emitted from the projector's lens. Do not look at or place your hands directly into this light.
● Turn off the power when moving away from the projection lens or projector.

Do not project an image with the lens cover attached.

● Doing so can cause fire.

CAUTION:

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

● Unexpected projection of light may cause injury to eyes.
● Replacing the projection lens without removing the power plug may result in electric shock.

Do not stand in front of the lens while the projector is being used.

Doing so can cause damage and burns to clothing.
● Strong light is emitted from the projector's lens.

Do not place objects in front of the lens while the projector is being used.

Doing so can cause fire, damage to the object, or malfunction of the lens and projector.
● Strong light is emitted from the projector's lens.

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.

Before Use

■ Supported projectors

PT-RZ120 / PT-RZ970 / PT-RW930 / PT-RX110 / PT-RZ870 / PT-RZ770 / PT-RW730 / PT-RZ660 / PT-RW620 / PT-DZ870 / PT-DW830 / PT-DX100 / PT-DZ780 / PT-DW750 / PT-DX820

> **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.

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

# 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.
> ● Do not touch the electric contact points of the projection lens with your fingers. Dust and dirt on the contacts may cause contact malfunctions.
> ● Before attaching the Fixed-focus lens, remove the protective film from the light projecting surface and the lens cap from the lens.

Protective film

Lens cap

Lens surface

Light projecting surface
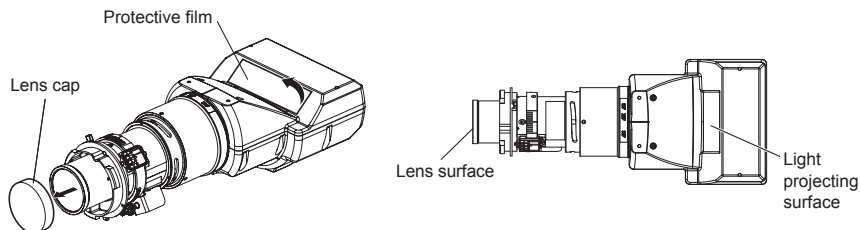
> ● Be sure not to touch the light projecting surface or the surface of the lens. Any fingerprints or smudges on these surfaces will be magnified and lower the quality of the image displayed on the screen.
> ● The light projecting surface and lens are made of glass. The lens could be damaged if brought into contact with or rubbed against hard objects. Handle the lens carefully.
> ● Use a clean, soft, and dry cloth to wipe away dust and dirt from the light projecting surface and projection 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 downwards.

Attaching the Lens

* Unless specified otherwise, the illustrations in these operating instructions show the lens used with the PT-DZ870 projector.

Guide groove

Positioning guide

Lens mount cover

Fixed-focus lens
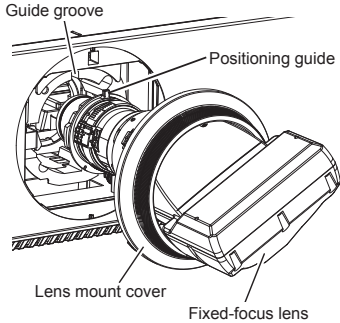
1) **With this lens already passed through the lens mount cover that came with your projector, align the positioning guide with the guide groove on the projector, and insert the lens fully.**

   ● There is a red dot at the bottom right end of the positioning guide.
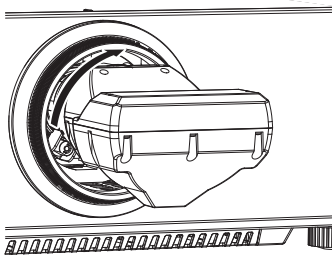
2) **Turn the fixed-focus lens clockwise until you hear a click.**

3) **Attach the lens mount cover to the projector.**

   ● Turn the lens mount cover clockwise to fix it in place.

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

Attaching the Lens / Detaching the Lens (continued)

Detaching the Lens
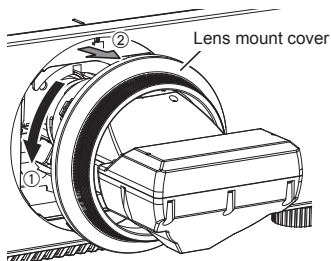
Lens mount cover

1) **Turn the lens mount cover counterclockwise to detach it from the lens and slide it towards the front end of the lens.**

① Lens release button
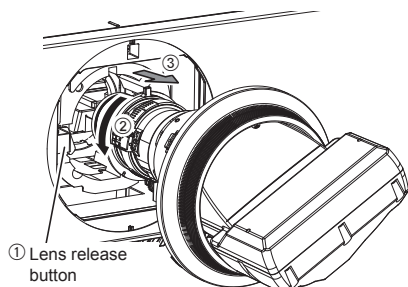
2) **Hold down the lens release button while turning the lens counterclockwise to release it.**

3) **Turn the lens mount cover clockwise to reattach it.**

Attention

● Attach the supplied lens cap before storing the lens.

Projection relationships

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

■ Dimensional relationship diagram

Projected image

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.

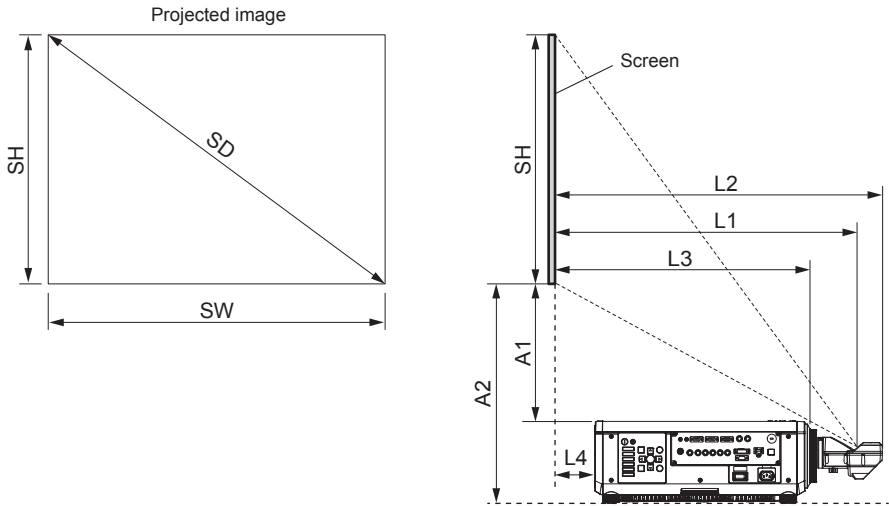|			
SH	Projected image height	L3	Screen to projector front end
SW	Projected image width	L4	Screen to projector rear end
SD	Diagonal length of the projected image	A1	Bottom edge of the screen to the top of the projector
L1	Projection distance (from screen to mirror reflective surface*)	A2	Bottom edge 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.
● 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. To prevent obstruction of the intake and exhaust vents, install the projector with a clearance at least 500 mm (19-11/16") from walls and objects.
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.
● Avoid setting up in places which are subject to sudden temperature changes, such as near an air conditioner or lighting equipment (studio lamps, etc.).

Projection relationships (continued)

■ Dimensional relationship

● When using one of PT-RZ120 / PT-RZ970 / PT-RW930 / PT-RX110 / PT-RZ870 / PT-RZ770 / PT-RW730 / PT-RZ660 / PT-RW620 / PT-DZ870 / PT-DW830 / PT-DX100 / PT-DZ780 / PT-DW750 / PT-DX820

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-RZ120 / PT-RZ970 / PT-RW930 / PT-RX110 / PT-RZ870 / PT-RZ770 / PT-RW730 / PT-RZ660 / PT-RW620 /PT-DZ870

For keystone distortion in the vertical direction generated within the angle range below, select [MAIN MENU] → [POSITION] → [GEOMETRY] / [GEOMETRY(2D)] → [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°

(Side view)
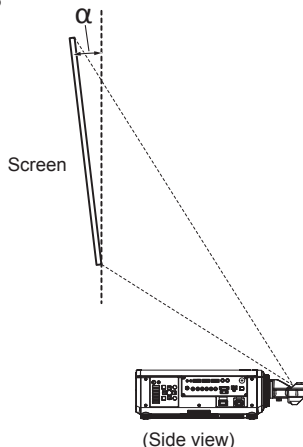
● When using one of PT-DW830 / PT-DX100 / PT-DZ780 / PT-DW750 / PT-DX820

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.
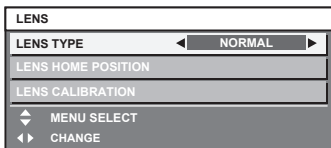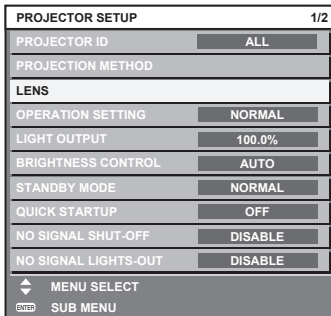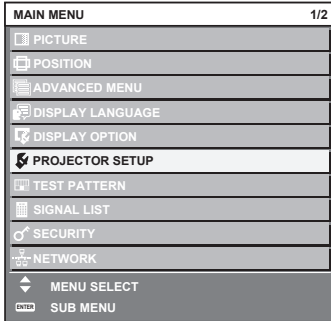
Lens position setup and focus adjustment

Lens position setup

● When using PT-RZ120
When moving the lens position to the home position, perform the operation with the following procedure.

MAIN MENU	1/2
▣ PICTURE	
▣ POSITION	
▣ ADVANCED MENU	
▣ DISPLAY LANGUAGE	
▣ DISPLAY OPTION	
▣ PROJECTOR SETUP	
▣ TEST PATTERN	
▣ SIGNAL LIST	
▣ SECURITY	
▣ NETWORK	

‡ MENU SELECT
ENTER SUB MENU

PROJECTOR SETUP	1/2
PROJECTOR ID	ALL
PROJECTION METHOD	
LENS	
OPERATION SETTING	NORMAL
LIGHT OUTPUT	100.0%
BRIGHTNESS CONTROL	AUTO
STANDBY MODE	NORMAL
QUICK STARTUP	OFF
NO SIGNAL SHUT-OFF	DISABLE
NO SIGNAL LIGHTS-OUT	DISABLE

‡ MENU SELECT
ENTER SUB MENU

LENS	
LENS TYPE	◄ NORMAL ►
LENS HOME POSITION	
LENS CALIBRATION	

‡ MENU SELECT
◄► CHANGE

1) **Turn on the projector to start the projection.**

2) **Press the <MENU> button to display the [MAIN MENU] screen.**

3) **Select [PROJECTOR SETUP] in the main menu and then press the <ENTER> button.**

4) **Select [LENS] in the [PROJECTOR SETUP] menu and then press the <ENTER> button.**

   ● The [LENS] screen appears.

5) **Select [LENS TYPE] on the [LENS] screen and then use the ◄► buttons to select [ET-DLE035].**

   ● Each press of the ◄► buttons switches the item to [NORMAL] or [ET-DLE035].

6) **Select [LENS HOME POSITION] on the [LENS] screen and then press the <ENTER> button.**

   ● A confirmation screen appears.

7) **Use the ◄► buttons to select [OK] and then press the <ENTER> button.**

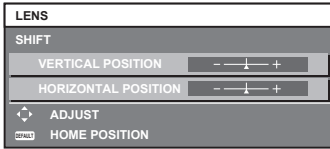   ● [PROGRESS] is displayed on the [HOME POSITION] screen and the projection lens moves to the home position.

Note

● If [LENS TYPE] is mistakenly set to [NORMAL], the projection lens will not move to the correct home position.

Lens position setup and focus adjustment (continued)

● When using one of PT-RZ970 / PT-RW930 / PT-RX110 / PT-RZ870 / PT-RZ770 / PT-RW730 / PT-RZ660 / PT-RW620 / PT-DZ780 / PT-DW750 / PT-DX820

When moving the lens position to the lens standard position, perform the operation with the following procedure.

LENS	
SHIFT	
VERTICAL POSITION	– —┼— +
HORIZONTAL POSITION	– —┼— +
✛ ADJUST	
DEFAULT HOME POSITION	

LENS	
HOME POSITION ◄ **NORMAL** ►	
◄► CHANGE	
ENTER EXECUTE	MENU CANCEL

1) **Turn on the projector to start the projection.**

2) **Press the <SHIFT> button on the remote control.**

   ● The shift adjustment screen appears.

3) **Press the <DEFAULT> button on the remote control while the shift adjustment screen is displayed.**

   ● The [HOME POSITION] screen appears.

4) **Use the ◄► buttons to select [ET-DLE030].**

   ● Each press of the ◄► buttons switches the item to [NORMAL] or [ET-DLE030].

5) **Press the <ENTER> button.**

   ● [PROGRESS] is displayed on the [HOME POSITION] screen and the lens position moves to the lens standard position for ET-DLE035.

Lens position setup and focus adjustment (continued)

● When using one of PT-DZ870 / PT-DW830 / PT-DX100
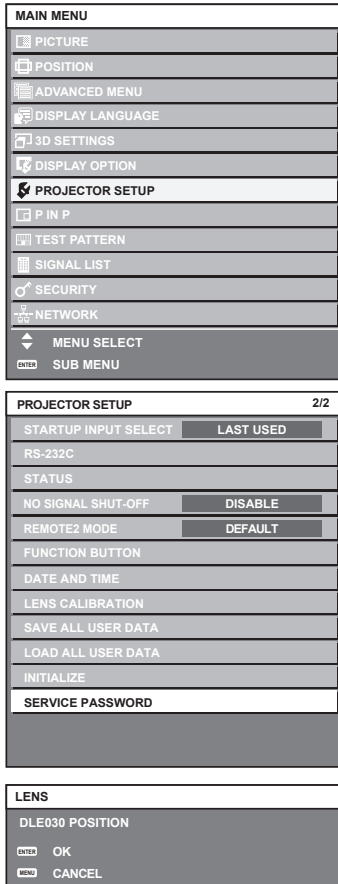When moving the lens position to the lens standard position, perform the operation with the following procedure.

MAIN MENU
PICTURE
POSITION
ADVANCED MENU
DISPLAY LANGUAGE
3D SETTINGS
DISPLAY OPTION
PROJECTOR SETUP
P IN P
TEST PATTERN
SIGNAL LIST
SECURITY
NETWORK
↕ MENU SELECT
ENTER SUB MENU

PROJECTOR SETUP	2/2
STARTUP INPUT SELECT	LAST USED
RS-232C	
STATUS	
NO SIGNAL SHUT-OFF	DISABLE
REMOTE2 MODE	DEFAULT
FUNCTION BUTTON	
DATE AND TIME	
LENS CALIBRATION	
SAVE ALL USER DATA	
LOAD ALL USER DATA	
INITIALIZE	
SERVICE PASSWORD	

LENS
DLE030 POSITION
ENTER OK
MENU CANCEL

1) **Turn on the projector to start the projection.**

2) **Press the <MENU> button to display the [MAIN MENU] screen.**

3) **Select [PROJECTOR SETUP] in the main menu and then press the <ENTER> button.**

4) **Select [SERVICE PASSWORD] in the [PROJECTOR SETUP] menu and then press the <ENTER> button.**

   ● The [SERVICE PASSWORD] input screen appears.

5) **Use the <0> and <3> numeric buttons on the remote control to enter "030" in the [SERVICE PASSWORD] input screen and then press the <ENTER> button.**

   ● The [DLE030 POSITION] screen appears.

6) **Press the <ENTER> button on the [DLE030 POSITION] screen.**

   ● [PROGRESS] is displayed on the [DLE030 POSITION] screen and the lens position moves to the standard position for ET-DLE035.

Note

● After returning the lens to the standard projection position, lens shift adjustments are possible within the range where the projector will not interfere with the edges of the projected image.
● If the rear of the projector blocks the bottom edge of the projected image, it may also obscure the view of an On-screen display (OSD) that is positioned at the lower edge of the screen. If this happens, open the [DISPLAY OPTIONS] menu and select [ON-SCREEN DISPLAY] → [OSD POSITION] to change display location so that the whole OSD menu can be seen.
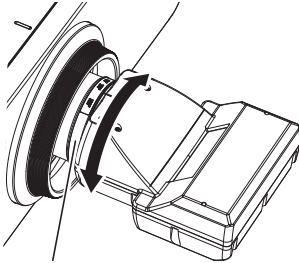
Focus Adjustment Function

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

Periphery focus adjustment ring

1) **Focus the center of the screen by operating the projector unit.**

2) **Turn the periphery focus ring by hand as shown in the figure to adjust the focus in the periphery of the screen.**

3) **Again check focus at the center of the screen and use the projector controls to make fine adjustments.**

Note

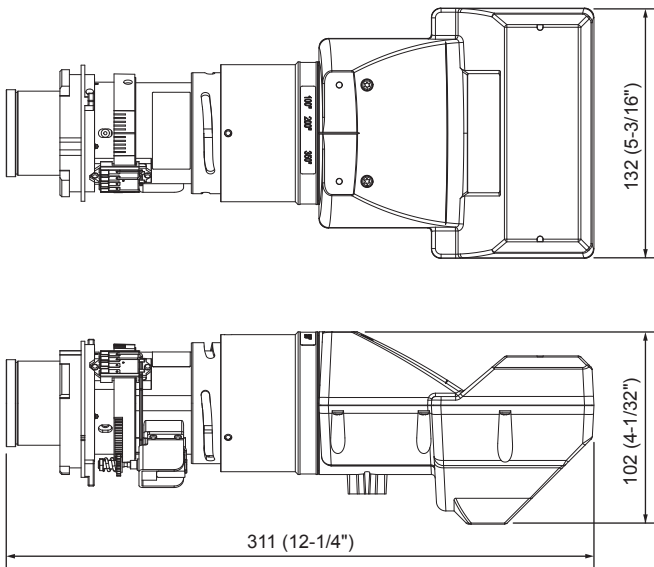● The projected image sizes and scale shown on the periphery focus adjustment ring are an approximate guide.

Specifications

F value	2.0
Focal Length (f)	5.3 mm (7/32")
Dimensions[*1]	Width 132 mm (5-3/16") Height 102 mm (4-1/32") Depth 311 mm (12-1/4")
Net Weight	Approx. 1.3 kg (2.9 lb)

*1: Excluding protrusions.

Dimensions

(Unit: mm)

MEMO

MEMO

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

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Product Information (for Turkey only)

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Panasonic Corporation

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