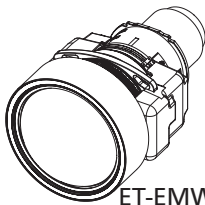


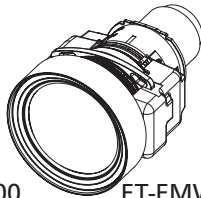
Operating Instructions

Zoom Lens **Commercial Use**

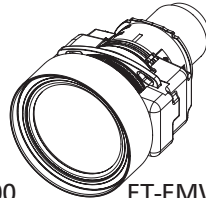
Model No. ET-EMW200 / ET-EMW300 / ET-EMW400 /
ET-EMW500 / ET-EMS600 / ET-EMT700 /
ET-EMT800 / ET-EMU100



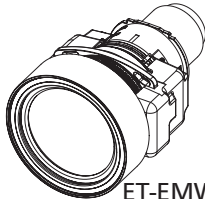
ET-EMW200



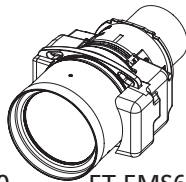
ET-EMW300



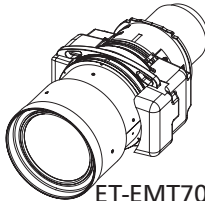
ET-EMW400



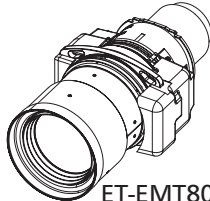
ET-EMW500



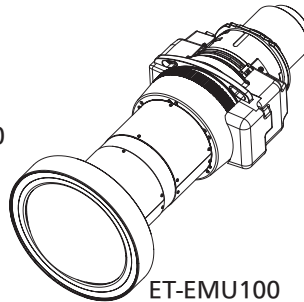
ET-EMS600



ET-EMT700



ET-EMT800



ET-EMU100

ENGLISH

FRANÇAIS

日本語

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.

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Dimensions	10
Projected image size and Projection distance	Appendix / Annexe / 付録 1
The "Appendix" can be found after the Japanese language section (日本語).	

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.

Do not allow children to reach the lens fixing screw.

Accidentally swallowing them can cause physical harm.

- If swallowed, seek medical advice immediately.

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

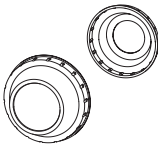

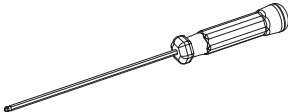
PT-MZ16K / PT-MZ13K / PT-MZ10K

Note

- This manual omits the alphabets at the end of projector model numbers.
- Models other than the above may also be supported. Refer to the operating instructions for your projector or the Panasonic website (<https://panasonic.net/cns/projector/>).
- If the main version of the firmware of the PT-MZ16K / PT-MZ13K / PT-MZ10K is less than 1.23 or less than 2.10, the ET-EMU100 cannot be used.
Update the firmware to the latest version before use.
Check the update procedure by accessing the page containing the latest information on the firmware at the Panasonic website (<https://panasonic.net/cns/projector/pass/>).

Supplied Accessories

Make sure that the following has been provided.

Part name	Appearance (quantity)
Lens cover	 <ul style="list-style-type: none">● The product is delivered with lens covers attached.● The shape and size of the lens covers are different for each product. 1 each for front and rear
Lens fixing screw (DPHD1008ZA/X1)	 <ul style="list-style-type: none">● Supplied only with the ET-EMU100. The product may be delivered with the lens fixing screws attached.● Used when attaching the projection lens to the projector. x4
Hex driver	 <ul style="list-style-type: none">● Supplied only with the ET-EMU100.● Used when attaching the projection lens to the projector. x1

Preparation

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

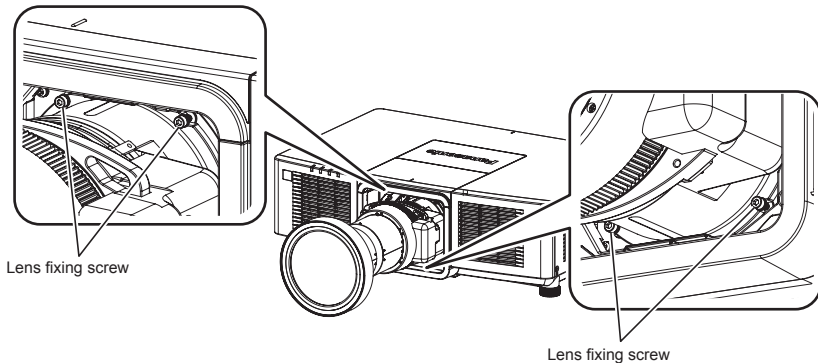
- Make sure that the projector power supply is switched off before attaching or detaching the projection lens.
- After removing the projection lens, store it safely away from vibration or impacts.
- Do not touch the electric contact points of the projection lens with your fingers. Dust and dirt on the contacts may cause contact malfunctions, while static electricity may damage the unit.
- Do not turn the gear (ring) part of the projection lens barrel by hand. Doing so may damage the motor.
- Do not touch the surface of the lens with bare hands. Finger prints and dirt on the surface of the lens will be magnified by the lens and lower the quality of the projected image. Place the supplied lens cover on the zoom lens when the projector is not in use.
- The lens is 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 projection lens. Do not use fluffy cloths containing oil, water or dust for cleaning. The lens is easily damaged, so do not apply excessive pressure when wiping it.

Attaching the Lens / Detaching the Lens

For details on attaching or removing the projection lens, refer to the operating instructions for the projector.

Attention

- When attaching the ET-EMU100 to the projector, fix it in place by tightening the lens fixing screws (4 locations) as shown in the figure below to stabilize focus performance.
- Use the hex driver supplied with the ET-EMU100 to tighten the lens fixing screws.



Preparation (continued)

Peripheral focus adjustment function

When you change the size of the projected image, the focal balance between the center and peripheral areas of the screen may shift.

The ET-EMW200 / ET-EMW300 / ET-EMW400 / ET-EMW500 / ET-EMU100 is equipped with a peripheral focus adjustment function to correct the shift in focal balance between the center and peripheral areas of the screen.

For instructions on adjusting the peripheral focus, refer to “Projecting” in the operating instructions for the projector.

Lens calibration

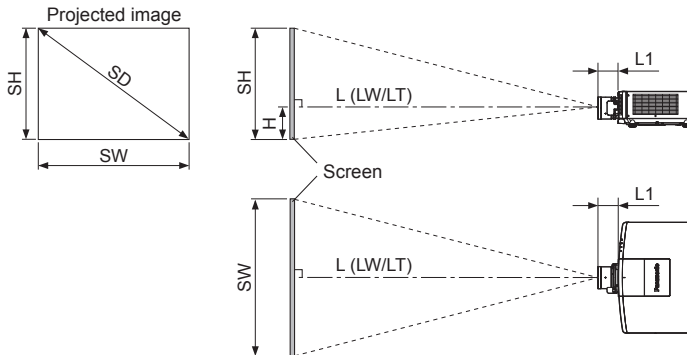
Perform lens calibration after attaching the lens.

For instructions on lens calibration, refer to “Projecting” in the operating instructions for the projector.

Projection relationships

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

■ Dimensional relationship diagram



Note

- This diagram assumes that the size and position of the projected image will be adjusted so that the image fills the entire screen.
- This illustration is not drawn to scale.

L		Projection distance
	LW	Minimum distance
	LT	Maximum distance
L1		Lens protrusion dimension
SH		Projected image height
H		Distance from the lens center to the lower edge of the projected image
SW		Projected image width
SD		Projected image size

● Dimension for L1 (approximate values)

(Unit: m)

Projector model	ET-EMW200	ET-EMW300	ET-EMW400	ET-EMW500	ET-EMS600	ET-EMT700	ET-EMT800	ET-EMU100
PT-MZ16K / PT-MZ13K / PT-MZ10K	0.152	0.121	0.121	0.122	0.117	0.167	0.172	0.346

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.

Attention

- To prevent blocking of the intake and exhaust vents, maintain clearances from walls and objects of at least 1 000 mm (3'3") for the exhaust vent and at least 500 mm (1'8") for the intake vent.
- 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

For details on the projection distance (L), refer to “Projected image size and Projection distance” and “Projection distance formulas” in the Appendix.

Note

- For details on “Projected image size and Projection distance” for projector models other than PT-MZ16K / PT-MZ13K / PT-MZ10K, refer to “Setting up” in the operating instructions of the projector.

Lens shift ranges

Perform the lens position shift within the adjustment range.

Perform lens shift adjustment within the ranges shown in the following illustrations.

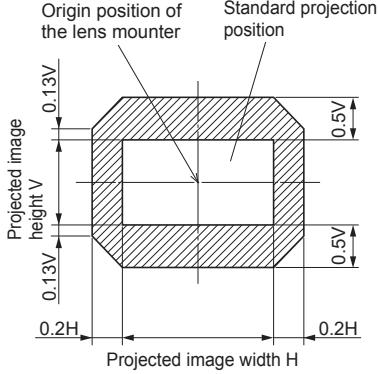
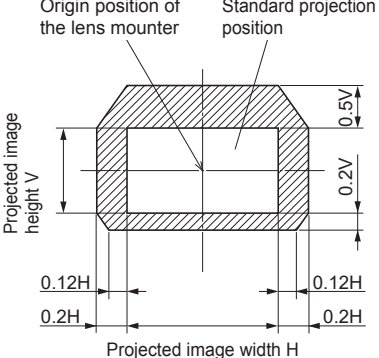
The focus may change when the lens position is shifted out of the adjustment range.

This is because the movement of the lens is restricted to protect the optical parts.

Projection position can be adjusted with the optical axis shift based on the home position in the respective range.

<p>ET-EMW400 / ET-EMW500 / ET-EMS600 / ET-EMT700 / ET-EMT800</p>	<p>Origin position of the lens mounter Standard projection position</p> <p>Projected image height V</p> <p>Projected image width H</p> <p>0.28V</p> <p>0.6V</p> <p>0.6V</p> <p>0.2H</p> <p>0.2H</p>
<p>ET-EMW200</p>	<p>Origin position of the lens mounter Standard projection position</p> <p>Projected image height V</p> <p>Projected image width H</p> <p>0.4V</p> <p>0.4V</p> <p>0.19H</p> <p>0.19H</p>

Lens shift ranges (continued)

<p>ET-EMW300</p>	 <p>Origin position of the lens mounter</p> <p>Standard projection position</p> <p>Projected image height V</p> <p>Projected image width H</p> <p>$0.13V$</p> <p>$0.5V$</p> <p>$0.2H$</p>
<p>ET-EMU100</p>	 <p>Origin position of the lens mounter</p> <p>Standard projection position</p> <p>Projected image height V</p> <p>Projected image width H</p> <p>$0.12H$</p> <p>$0.2H$</p> <p>$0.5V$</p> <p>$0.2V$</p>

Note

- The home position of the projector a point of origin position for the lens shift (i.e., vertical and horizontal positions of the lens) based on the results of lens calibration. It is not the optical center position of the screen.

Specifications

Check the specifications of each projection lens, and use the appropriate lens for your intended use.

Model No.	ET-EMW200	ET-EMW300	ET-EMW400	ET-EMW500
F value	1.84 - 2.14	1.84 - 2.24	1.84 - 2.24	1.80 - 2.35
Focal Length (f)	10.80 mm (7/16") - 12.52 mm (1/2")	12.31 mm (1/2") - 15.43 mm (19/32")	15.30 mm (19/32") - 21.10 mm (27/32")	21.08 mm (27/32") - 30.00 mm (1-3/16")
Dimensions	Width	179 mm (7-1/16")	179 mm (7-1/16")	179 mm (7-1/16")
	Height	175 mm (6-7/8")	175 mm (6-7/8")	175 mm (6-7/8")
	Depth	314 mm (12-3/8")	284 mm (11-3/16")	284 mm (11-3/16")
Net Weight	5.20 kg (11.46 lb)	5.20 kg (11.46 lb)	5.05 kg (11.13 lb)	5.15 kg (11.35 lb)

Model No.	ET-EMS600	ET-EMT700	ET-EMT800	ET-EMU100
F value	1.75 - 2.17	1.82 - 2.53	1.85 - 2.39	1.9
Focal Length (f)	29.90 mm (1-3/16") - 46.32 mm (1-13/16")	46.00 mm (1-13/16") - 90.50 mm (3-9/16")	90.30 mm (3-9/16") - 162.60 mm (6-13/32")	7.23 mm (9/32") - 7.73 mm (5/16")
Dimensions	Width	173 mm (6-13/16")	173 mm (6-13/16")	173 mm (6-13/16")
	Height	130 mm (5-1/8")	130 mm (5-1/8")	130 mm (5-1/8")
	Depth	267 mm (10-1/2")	327 mm (12-7/8")	334 mm (13-5/32")
Net Weight	3.60 kg (7.94 lb)	4.55 kg (10.03 lb)	4.75 kg (10.47 lb)	7.20 kg (15.87 lb)

Dimensions

(Unit: mm)

Model number	Dimensions
ET-EMW200	

Dimensions (continued)

(Unit: mm)

Model number	Dimensions
ET-EMW300	<p>179 (7-1/16") $\phi 175$ (6-7/8") 284 (11-3/16") 91 (3-19/32") 82 (3-7/32")</p>
ET-EMW400	<p>179 (7-1/16") $\phi 175$ (6-7/8") 284 (11-3/16") 91 (3-19/32") 82 (3-7/32")</p>
ET-EMW500	<p>179 (7-1/16") $\phi 175$ (6-7/8") 285 (11-7/32") 91 (3-19/32") 82 (3-7/32")</p>

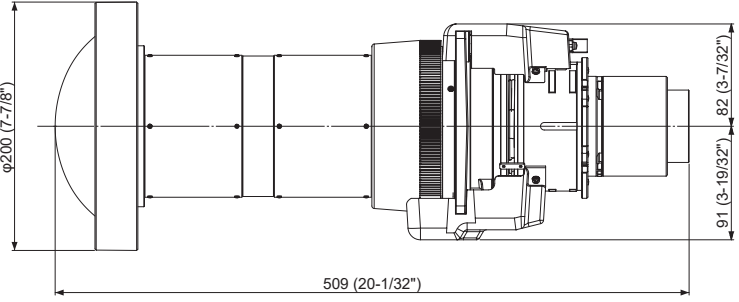
Dimensions (continued)

(Unit: mm)

Model number	Dimensions
ET-EMS600	<p>173 (6-13/16") $\phi 130$ (5-1/8") 267 (10-1/2") 91 (3-19/32") 82 (3-7/32")</p>
ET-EMT700	<p>173 (6-13/16") $\phi 130$ (5-1/8") 327 (12-7/8") 91 (3-19/32") 82 (3-7/32")</p>
ET-EMT800	<p>173 (6-13/16") $\phi 130$ (5-1/8") 334 (13-5/32") 91 (3-19/32") 82 (3-7/32")</p>

Dimensions (continued)

(Unit: mm)

Model number	Dimensions
ET-EMU100	 <p>The technical drawing shows a side view of the ET-EMU100 camera lens. The lens is cylindrical with a complex internal structure. The front element is a convex lens with a diameter of 200 mm (7-7/8 inches). The total length of the lens is 509 mm (20-1/32 inches). The mounting flange at the rear has a diameter of 91 mm (3-19/32 inches) and a smaller diameter section of 82 mm (3-7/32 inches).</p>

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

Disposal of Old Equipment

Only for European Union and countries with recycling systems



This symbol on the products, packaging, and/or accompanying documents means that used electrical and electronic products must not be mixed with general household waste. For proper treatment, recovery and recycling of old products, please take them to applicable collection points in accordance with your national legislation.

By disposing of them correctly, you will help to save valuable resources and prevent any potential negative effects on human health and the environment.

For more information about collection and recycling, please contact your local municipality. Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

Information on Disposal in other Countries outside the European Union

This symbol is only valid in the European Union.

If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

Product Information (for Turkey only)



AEEE Yönetmeliğine Uygundur.

Eski Ekipman ve Bataryaların 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.

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Environment care information for users in China



This symbol is only valid in China.

Panasonic Corporation

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

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