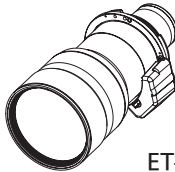# Panasonic®

Operating Instructions

Projection Lens | Commercial Use |
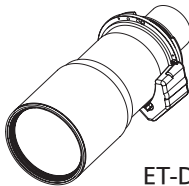
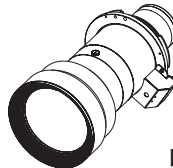**Model No.** ET-D3LEW60
ET-D3LES20
ET-D3LET80
ET-D3LEW50

ET-D3LEW60

ET-D3LES20

ET-D3LET80

ET-D3LEW50

Read before use

This document is intended for the various projection lenses that can be attached to and used in conjunction with Panasonic projectors.

For Model No. and model names, refer to the product list (➡Page 4).

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.

DPQX1279ZA

■ 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

■ Product list

The product names and model numbers of the projection lenses covered by this manual are as follows.

Product name	Model number	Description
Zoom lens	ET-D3LEW60 / ET-D3LES20 ET-D3LET80	Projection lens equipped with an EEPROM[*1] and stepping motor.
Fixed focus lens	ET-D3LEW50	Projection lens equipped with an EEPROM[*1].

*1 EEPROM: Electrically erasable programmable read-only memory

■ Projectors supported by each projection lens

● ET-D3LEW60 / ET-D3LES20 / ET-D3LET80
PT-RQ32K / PT-RZ31K / PT-RS30K / PT-RZ21K / PT-RS20K
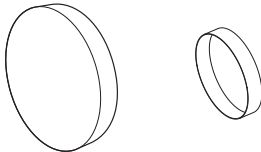
● ET-D3LEW50
PT-RQ32K / PT-RZ31K / PT-RS30K / PT-RZ21K / PT-RS20K / PT-RQ13K / PT-RZ12K / PT-RS11K / PT-DZ21K2 / PT-DS20K2 / PT-DW17K2 / PT-DZ16K2 / PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K

Note

- Some of the alphabet letters at the end of projector model numbers may be omitted in this manual.
- 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 projector you are using is PT-RQ32K / PT-RZ31K / PT-RS30K / PT-RZ21K / PT-RS20K, you may not be able to use the ET-D3LEW60 / ET-D3LES20 / ET-D3LET80 / ET-D3LEW50 projection lens depending on main version of the firmware. If main version of the firmware is the version number shown below, update to the latest firmware before use.
  - PT-RQ32K / PT-RZ31K / PT-RS30K: Earlier than 3.00
  - PT-RZ21K / PT-RS20K: Earlier than 2.00

  For details on the update procedure, refer to the latest firmware information on the Panasonic website (https://panasonic.net/cns/projector/pass/).
- The main version of the firmware can be checked in the [STATUS] screen.

■ Supplied Accessories

Make sure that the following has been provided.

Part name	Appearance (quantity)	
Lens cover		(The product is delivered with a lens cover attached.) 1 each

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 electrical contacts 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 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.
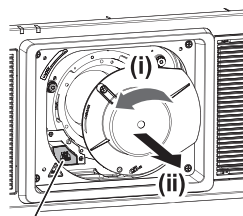
Attaching the Lens

Note

- If the lens hole cover is already removed, start from step 3.

The illustrations in this procedure depict attachment of the ET-D3LEW50 onto the PT-RZ21K.

Screw   Lens hole cover
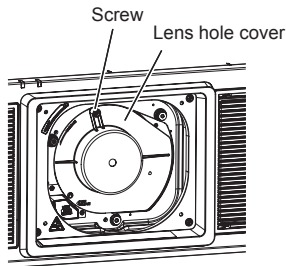
1) **Loosen the lens hole cover screw.**
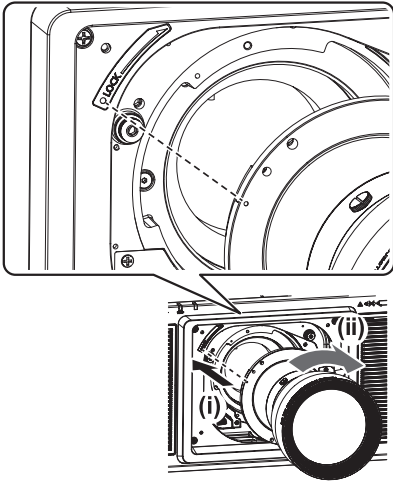   - Use a Phillips screwdriver to turn the lens hole cover screw counterclockwise until it is in its loosened state.

2) **Remove the lens hole cover.**
   - (i) While pressing the lens release button, turn the lens hole cover counterclockwise until its marker (○) aligns with the marker on the projector (○ to the left of "LOCK"). (ii) Then remove the lens hole cover.

Lens release button

3) **(i) Insert the projection lens while aligning its marker (orange) with the marker on the projector (○ to the left of "LOCK"), and (ii) turn it clockwise until it clicks into place.**

Marker (orange)

Screw hole A

Lens drop prevention screw
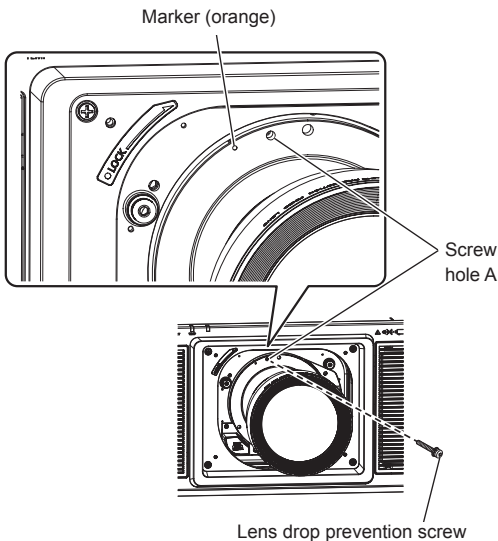
4) **Use the lens drop prevention screw supplied with the projector to secure the projection lens.**
● Use a Phillips screwdriver to secure the screw in hole A to the right of the marker (orange) on the projection lens.

Attention

● Turn the projection lens counterclockwise, and verify that it is secure.
● Store the removed lens hole cover safely for future use.
● After attaching the projection lens, turn on the projector and perform lens calibration.
  (➡ page 8)

6-ENGLISH

Attaching the Lens / Detaching the Lens (continued)

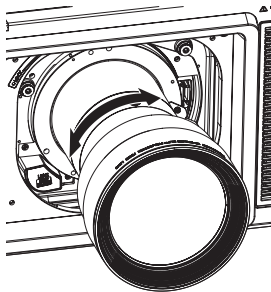## Peripheral focus adjustment function

When using the ET-D3LEW60 or ET-D3LEW50, the focus balance between the center of the projected image and the peripheral areas differs depending on the size of the image.

The ET-D3LEW60 and ET-D3LEW50 are equipped with a function for adjusting the peripheral focus.

Lock knob

Peripheral focus adjustment ring
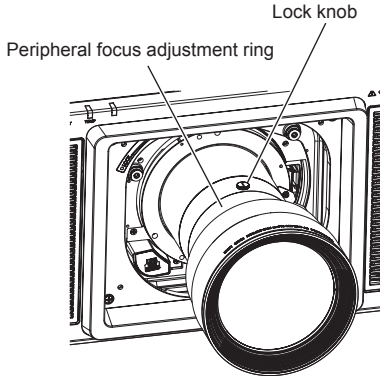
The illustrations in this procedure depict attachment of the ET-D3LEW50 onto the PT-RZ21K.

■ **Adjusting the focus**

1) **Operate the projector to align the focus of the center of the projected image.**

2) **Loosen the lock knob by turning it counterclockwise.**

3) **Turn the peripheral focus adjustment ring in the directions of the arrows to align the focus of the peripheral areas of the image.**

4) **Tighten the lock knob by turning it clockwise.**

Note

● The screen sizes displayed on the lens are approximate guides.
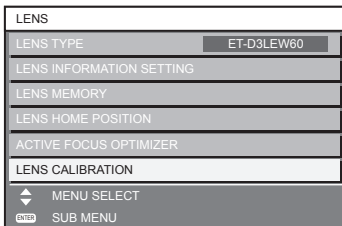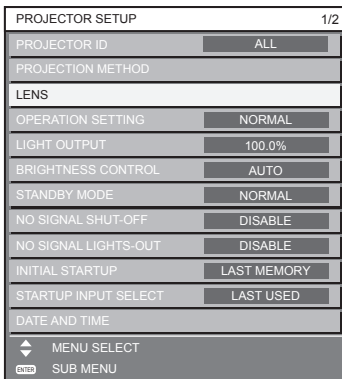
ENGLISH-7

Lens calibration

Perform lens calibration after attaching the lens.
The lens calibration procedure differs depending on the projector you are using and the main version of the firmware.

- **PT-RQ32K / PT-RZ31K / PT-RS30K: Main version is 3.00 or later**
  Refer to "Case 1" (➡ page 8).
- **PT-RZ21K / PT-RS20K: Main version is 2.00 or later**
  Refer to "Case 1" (➡ page 8).
- **PT-RQ13K / PT-RZ12K / PT-RS11K / PT-DZ21K2 / PT-DS20K2 / PT-DW17K2 / PT-DZ16K2 / PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K**
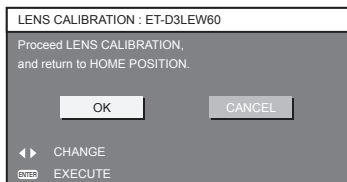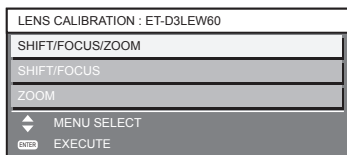 Refer to "Case 2" (➡ page 10). (Only ET-D3LEW50 is supported)

■ Case 1

- PT-RQ32K / PT-RZ31K / PT-RS30K (main version of the firmware is 3.00 or later)
- PT-RZ21K / PT-RS20K (main version of the firmware is 2.00 or later)

PROJECTOR SETUP	1/2
PROJECTOR ID	ALL
PROJECTION METHOD	
LENS	
OPERATION SETTING	NORMAL
LIGHT OUTPUT	100.0%
BRIGHTNESS CONTROL	AUTO
STANDBY MODE	NORMAL
NO SIGNAL SHUT-OFF	DISABLE
NO SIGNAL LIGHTS-OUT	DISABLE
INITIAL STARTUP	LAST MEMORY
STARTUP INPUT SELECT	LAST USED
DATE AND TIME	
⬍ MENU SELECT	
ENTER SUB MENU	

LENS	
LENS TYPE	ET-D3LEW60
LENS INFORMATION SETTING	
LENS MEMORY	
LENS HOME POSITION	
ACTIVE FOCUS OPTIMIZER	
LENS CALIBRATION	
⬍ MENU SELECT	
ENTER SUB MENU	

1) **Press the <MENU> button.**

2) **Use the ▲ and ▼ buttons to select [PROJECTOR SETUP], and press the <ENTER> button.**
   - The [PROJECTOR SETUP] screen appears.

3) **Use the ▲ and ▼ buttons to select [LENS], and press the <ENTER> button.**
   - The [LENS] screen appears.

4) **Use the ▲ and ▼ buttons to select [LENS CALIBRATION], and press the <ENTER> button.**
   - The [LENS CALIBRATION] screen appears.
   - When the ET-D3LEW50 is attached, a confirmation screen appears when the <ENTER> button is pressed. In such cases, proceed to step 6.

```
LENS CALIBRATION : ET-D3LEW60
SHIFT/FOCUS/ZOOM
SHIFT/FOCUS
ZOOM
  ↕   MENU SELECT
 ENTER  EXECUTE
```

```
LENS CALIBRATION : ET-D3LEW60
Proceed LENS CALIBRATION,
and return to HOME POSITION.

      OK              CANCEL

 ◀▶  CHANGE
 ENTER  EXECUTE
```

5) **Use the ▲ and ▼ buttons to select [SHIFT/FOCUS/ZOOM], and press the <ENTER> button.**
   ● The confirmation screen appears.

6) **Use the ◀ and ▶ buttons to select [OK], and press the <ENTER> button.**
   ● Lens calibration starts.
   ● The projection lens moves to the home position after adjustment range calibration is complete.

Note

● If lens calibration is not performed, the available zoom range will be narrowed.

■ Case 2

- PT-RQ13K / PT-RZ12K / PT-RS11K
- PT-DZ21K2 / PT-DS20K2 / PT-DW17K2 / PT-DZ16K2
- PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K

```
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
```

1) **Press the <MENU> button.**

2) **Use the ▲ and ▼ buttons to select [PROJECTOR SETUP], and press the <ENTER> button.**
   - The [PROJECTOR SETUP] screen appears.

```
PROJECTOR SETUP                    2/3
INITIAL STARTUP            LAST MEMORY
STARTUP INPUT SELECT        LAST USED
DATE AND TIME
TIME ZONE                        OFF
RS-232C
REMOTE2 MODE                 DEFAULT
FUNCTION BUTTON
LENS CALIBRATION       ◄    NORMAL    ►
LENS MEMORY
STATUS
AC VOLTAGE MONITOR               OFF
SAVE ALL USER DATA
  ▲▼  MENU SELECT    ◄►  CHANGE
  ENTER  EXECUTE
```

3) **Use the ▲ and ▼ buttons to select [LENS CALIBRATION].**

4) **Use the ◄ and ► buttons to select [NORMAL], and press the <ENTER> button.**
   - The confirmation screen appears.

```
LENS CALIBRATION
Proceed LENS CALIBRATION,
and return to HOME POSITION.

     OK          CANCEL

  ◄►  CHANGE
  ENTER  EXECUTE
```

5) **Use the ◄ and ► buttons to select [OK], and press the <ENTER> button.**
   - Lens calibration starts.
   - The projection lens moves to the home position after adjustment range calibration is complete.

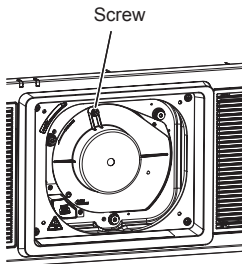# Attaching the Lens / Detaching the Lens (continued)

Removing the Lens

Lens drop prevention screw

Marker (orange)

(ii)

(i)

(iii)

Lens release button

(ii)

(i)
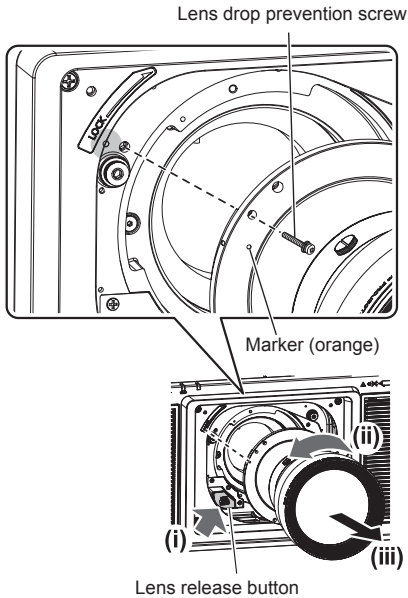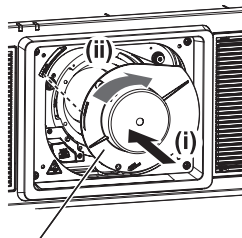
Lens hole cover

Screw

The illustrations in this procedure depict attachment of the ET-D3LEW50 onto the PT-RZ21K.

1) **Remove the lens drop prevention screw.**
   - Use a Phillips screwdriver to remove the screw in first hole to the right of the marker (orange) on the projection lens.

2) **(i) While pressing the lens release button, (ii) turn the projection lens counterclockwise, and (iii) remove it.**
   - Turn the projection lens counterclock-wise until its marker (orange) aligns with the marker on the projector (○ to the left of "LOCK").
   - If you intend to transport or store the projector, proceed to step 3.

3) **Attach the lens hole cover supplied with the projector.**
   - (i) Insert the lens hole cover while aligning its marker (○) with the marker on the projector (○ to the left of "LOCK"), and (ii) turn it clockwise until it clicks into place.

4) **Secure the lens hole cover.**
   - Use a Phillips screwdriver to tighten the lens hole cover screw.

Attention

- Store the removed projection lens safely without subjecting it to vibration or impact.
- Store the removed lens drop prevention screw safely for future use.

Projection relationships

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

■ Dimensional relationship diagram
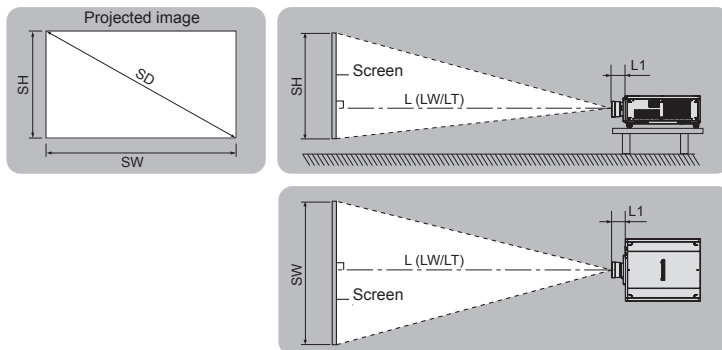
Note

- 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 (LW / LT)[*1]	Projection distance
L1	Lens protrusion dimension
SH	Projected image height
SW	Projected image width
SD	Projected image size

*1 LW: Minimum projection distance when using a zoom lens.
    LT: Maximum projection distance when using a zoom lens.

● L1 dimensions (approximate values)   (Unit: m)

Projector model Lens model	PT-RQ32K / PT-RZ31K / PT-RS30K	PT-RZ21K / PT-RS20K	PT-RQ13K / PT-RZ12K / PT-RS11K / PT-DZ21K2 / PT-DS20K2 / PT-DW17K2 / PT-DZ16K2 / PT-DZ13K / PT-DS12K / PT-DW11K / PT-DZ10K
ET-D3LEW60	0.182	0.212	-
ET-D3LES20	0.091	0.121	-
ET-D3LET80	0.224	0.254	-
ET-D3LEW50	0.173	0.203	0.203

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 obstruction of the intake and exhaust vents, install the projector with a clearance at least 500 mm (1 ft. 7 in.) from walls and objects.
  If you are installing the projector in a sealed space, be sure to provide additional air conditioning equipment and ventilation equipment. Insufficient ventilation will result in an accumulation of heat and may activate the projector's protection circuit.
- 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.

Lens shift ranges

After moving the lens to the home position according to "Lens calibration" on page 8, you can use the position of the projected image at that position (i.e., the standard projection position) as a basis, and use the lens shift adjustment function on the projector to adjust the position of the projected image within the respective lens shift ranges.
Perform lens shift adjustment within the ranges shown in the following illustrations.
Moving the lens outside of the adjustment ranges may alter the focus.

● **ET-D3LEW60**

PT-RQ32K	Projected image **width H** 0.19H / 0.19H 0.24V / 0.56V 0.24V / 0.56V Projected image height V Standard projection position
PT-RZ31K / PT-RZ21K	Projected image **width H** 0.15H / 0.15H 0.12V / 0.44V 0.12V / 0.44V Projected image height V Standard projection position
PT-RS30K / PT-RS20K	Projected image **width H** 0.2H / 0.2H 0.12V / 0.4V 0.12V / 0.4V Projected image height V Standard projection position

Lens shift ranges (continued)

● **ET-D3LES20 / ET-D3LET80**

PT-RQ32K	 0.29H Projected image **width H** 0.29H 0.59V 0.15V Projected image height V 0.15V 0.59V Standard projection position
PT-RZ31K / PT-RZ21K	 0.2H Projected image **width H** 0.2H 0.55V 0.12V Projected image height V 0.12V 0.55V Standard projection position
PT-RS30K / PT-RS20K	 0.3H Projected image **width H** 0.3H 0.5V 0.1V Projected image height V 0.1V 0.5V Standard projection position

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.

● For the ET-D3LEW50, use the standard projection position, and do not perform lens shift adjustment.

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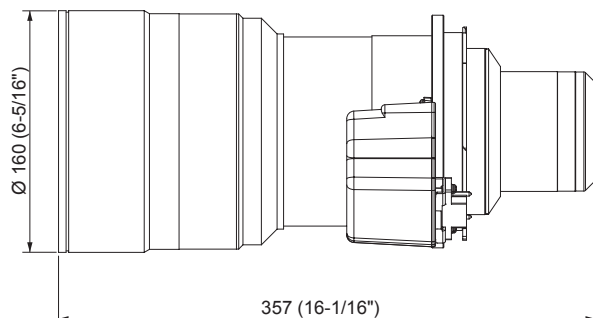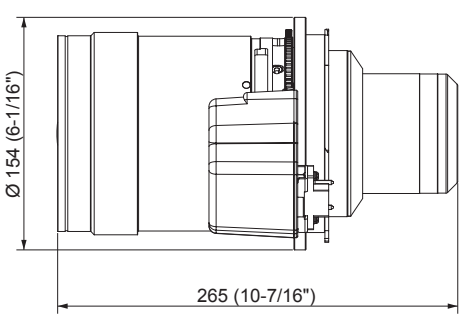
Check the specifications of each projection lens, and use the appropriate lens for your intended use.

Lens model		ET-D3LEW60	ET-D3LES20	ET-D3LET80	ET-D3LEW50
Lens type		Zoom lens	Zoom lens	Zoom lens	Fixed focus lens
F value		2.5	2.5	2.5 to 2.7	2.5
Focal length (f)		19.6 to 23.5 mm	35.0 to 50.9 mm	154 to 289 mm	14.8 mm
Dimensions*1	Width	160 mm (6-5/16")	154 mm (6-1/16")	154 mm (6-1/16")	160 mm (6-5/16")
	Height	160 mm (6-5/16")	154 mm (6-1/16")	154 mm (6-1/16")	160 mm (6-5/16")
	Depth	357 mm (16-1/16")	265 mm (10-7/16")	404 mm (15-29/32")	347 mm (13-21/32")
Mass		Approx. 8.7 kg (19.2 lb.)	Approx. 5.2 kg (11.5 lb.)	Approx. 8.5kg (18.7 lb.)	Approx. 7.1kg (15.7 lb.)

*1: Excluding protrusions.
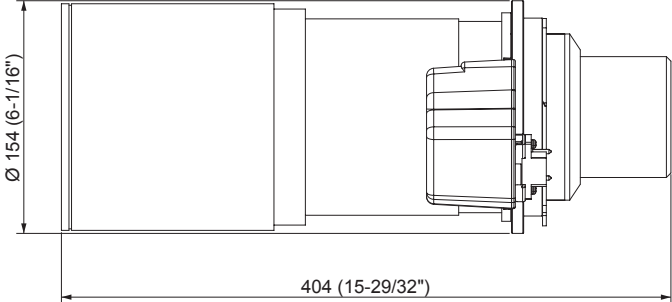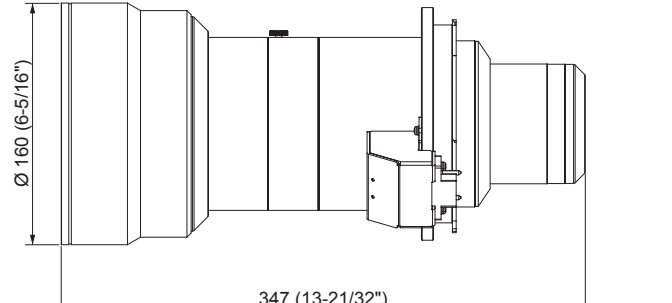
Dimensions

(Unit: mm)

Model number	Dimensions
ET-D3LEW60	Ø 160 (6-5/16") 357 (16-1/16")
ET-D3LES20	Ø 154 (6-1/16") 265 (10-7/16")

Dimensions(continued)

(Unit: mm)

Model number	Dimensions
ET-D3LET80	Ø 154 (6-1/16") 404 (15-29/32")
ET-D3LEW50	Ø 160 (6-5/16") 347 (13-21/32")

Panasonic Corporation

Web Site : https://panasonic.net/cns/projector/
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SS0118AM0 -PS

Printed in Japan