## Installation and Setup Manual

020-102490-02

# Optional Lenses D Series and LW551i



#### **NOTICES**

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#### WARRANTY

Products are warranted under Christie's standard limited warranty, the complete details of which are available by contacting your Christie dealer or Christie. In addition to the other limitations that may be specified in Christie's standard limited warranty and, to the extent relevant or applicable to your product, the warranty does not cover:

- a. Problems or damage occurring during shipment, in either direction.
- b. Projector lamps (See Christie's separate lamp program policy).
- c. Problems or damage caused by use of a projector lamp beyond the recommended lamp life, or use of a lamp other than a Christie lamp supplied by Christie or an authorized distributor of Christie lamps.
- d. Problems or damage caused by combination of a product with non-Christie equipment, such as distribution systems, cameras, DVD players, etc., or use of a product with any non-Christie interface device.
- e. Problems or damage caused by the use of any lamp, replacement part or component purchased or obtained from an unauthorized distributor of Christie lamps, replacement parts or components including, without limitation, any distributor offering Christie lamps, replacement parts or components through the internet (confirmation of authorized distributors may be obtained from Christie).
- f. Problems or damage caused by misuse, improper power source, accident, fire, flood, lightening, earthquake or other natural disaster.
- g. Problems or damage caused by improper installation/alignment, or by equipment modification, if by other than Christie service personnel or a Christie authorized repair service provider.
- h. Problems or damage caused by use of a product on a motion platform or other movable device where such product has not been designed, modified or approved by Christie for such use.
- i. Problems or damage caused by use of a projector in the presence of an oil-based fog machine or laser-based lighting that is unrelated to the projector.
- j. For LCD projectors, the warranty period specified in the warranty applies only where the LCD projector is in "normal use" which means the LCD projector is not used more than 8 hours a day, 5 days a week.
- k. Except where the product is designed for outdoor use, problems or damage caused by use of the product outdoors unless such product is protected from precipitation or other adverse weather or environmental conditions and the ambient temperature is within the recommended ambient temperature set forth in the specifications for such product.
- I. Defects caused by normal wear and tear or otherwise due to normal aging of a product.

The warranty does not apply to any product where the serial number has been removed or obliterated. The warranty also does not apply to any product sold by a reseller to an end user outside of the country where the reseller is located unless (i) Christie has an office in the country where the end user is located or (ii) the required international warranty fee has been paid.

The warranty does not obligate Christie to provide any on site warranty service at the product site location.

#### PREVENTATIVE MAINTENANCE

Preventative maintenance is an important part of the continued and proper operation of your product. Please see the Maintenance section for specific maintenance items as they relate to your product. Failure to perform maintenance as required, and in accordance with the maintenance schedule specified by Christie, will void the warranty.

#### REGULATORY

The product has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the product is operated in a commercial environment. The product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of the product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at the user's own expense.

CAN ICES-3 (A) / NMB-3 (A)

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#### **ENVIRONMENTAL**

The product is designed and manufactured with high-quality materials and components that can be recycled and reused. This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from regular waste. Please dispose of the product appropriately and according to local regulations. In the European Union, there are separate collection systems for used electrical and electronic products. Please help us to conserve the environment we live in!

#### **CHKISTIE**\*

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## Introduction

This guide provides information for installing and removing projection lenses for the listed projector models.



The methods for installing and removing lenses differ according to projector model. Ensure you follow the correct procedures for your specific projector model.

## **Affected products**

The following products are affected:

- LW551i
- D Series
  - LX801i
  - LW651i
  - LW751i
  - LWU601i
  - LWU701i

## Safety and warning guidelines

Read all safety and warning guidelines before installing or using the lens.



Warning! If not avoided, the following could result in death or serious injury.

- Do not operate the product after any impact with another object.
- Do not operate the product without a lens installed.
- Do not look directly into the lens or at the lamp. The extremely high brightness can cause permanent eye damage.
- SHOCK HAZARD! Disconnect the product from AC before moving, servicing, cleaning, removing components, or opening any enclosure.
- TIP HAZARD! Do not install a lens without securely mounting the projector first.





**Notice.** If not avoided, the following could result in property damage.

- Always place the lens cap onto the lens when moving the projector to avoid scratching the lens.
- Remove the lens cap before turning the product on to avoid damaging the lens.
- Only use cleaning solutions recommended by Christie. All other cleaning solutions may cause product damage and will void the warranty.
- · Do not reuse lens tissues.
- Always use a lens plug when installing or moving the product. This prevents contaminants from entering the product.
- Do not place objects over the lens while the projector is on.

### Mounting safety and warning guidelines

Read all safety and warning guidelines before installing the mounting brackets.



Warning! If not avoided, the following could result in death or serious injury.

- All procedures must be performed by Christie qualified technicians.
- TIP HAZARD! Do not place, hang, or apply weight to the device or any of its components.



**Caution!** If not avoided, the following could result in minor or moderate injury.

- SHOCK HAZARD! Disconnect the product from AC before moving, servicing, cleaning, removing components, or opening any enclosure.
- Do not install on a structure susceptible to vibration, movement, or change due to impact.



Notice. If not avoided, the following could result in property damage.

- SHOCK HAZARD! All harnessing must be properly routed and secured as originally installed, especially in high voltage areas.
- FIRE HAZARD! Do not use a power cord, harness, or cable that appears damaged.

## Installing lenses for D Series projectors

Learn how to install and remove lenses for the D Series projectors.

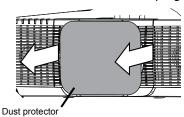


These procedures apply to the LX801i, LW651i, LW751i, LWU601i, and LWU701i projectors.

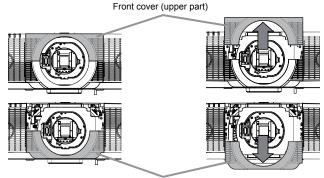
## Installing the lens

Only use lenses designed for the projector model.

Pull out the dust protector to remove it.
 Christie recommends keeping the dust protector for future use.



- 2. Remove the front cover:
  - a) Slide the upper part of the front cover upward while pressing the front cover from the underside and remove from the projector.
  - b) Slide the lower part of the front cover downward while pressing the front cover from the upperside and remove from the projector.

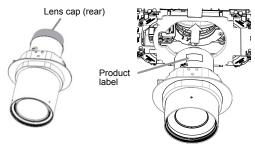


Front cover (lower part)

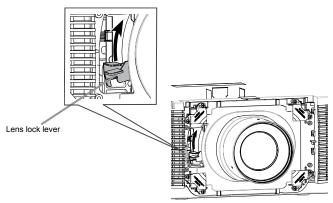


- 3. Install the lens:
  - a) Remove the lens cap from the lens.
  - b) Turn the lens so the product label is facing up.
  - c) Slide the lens into the projector.

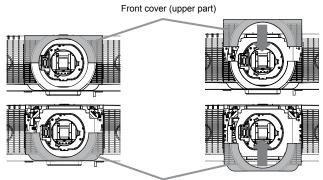
To avoid any malfunctions, ensure the surface of the lens does not come in contact with the projector.



d) Support the lens and move the lens lock lever upward until the lever clicks into the locked position.



- e) To prevent the lens from falling off, after attaching the lens, check that it is securely mounted and that the lens does not move.
- 4. Re-install the upper and lower front covers.



Front cover (lower part)

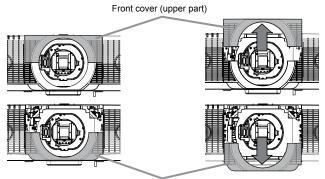
## Removing the lens

Use the correct method of removing the lens.

- 1. Move the lens to the center position:
  - a) Press LENS SHIFT.
  - b) To access the CENTERING feature, from the LENS SHIFT dialog, press INPUT.
  - c) To center the lens, press the **Right** arrow.

To center the lens in standby mode, on the control panel, press **FUNCTION** and **LENS SHIFT** at the same time for three seconds.

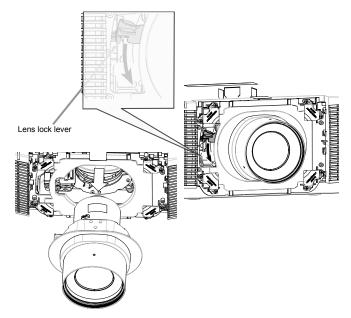
- 2. Turn off and unplug the projector.
- 3. Allow the projector to sufficiently cool down.
- 4. Remove the front cover:
  - a) Slide the upper part of the front cover upward while pressing the front cover from the underside and remove from the projector.
  - b) Slide the lower part of the front cover downward while pressing the front cover from the upperside and remove from the projector.



Front cover (lower part)

- 5. To remove the lens:
  - a) Support the lens.
  - b) Lower the lens lock lever to the lowest position.
  - c) Remove the lens from the projector.
    - To avoid any malfunctions, ensure the surface of the lens does not come in contact with the projector.





You can move the lever while the upper plate touches the lower plate.

6. Insert a dust protector to prevent any substances getting into the lens installation area.

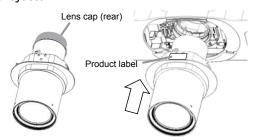
# Installing lenses for the LW551i projector

Learn how to install and remove lenses for the LW551i projectors.

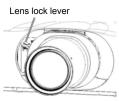
## Installing the lens

Only use lenses designed for the projector model.

- 1. Remove the lens cap from the lens.
- 2. Turn the lens so the product label is facing up.
- Slide the lens into the projector.
   To avoid any malfunctions, ensure the surface of the lens does not come in contact with the projector.

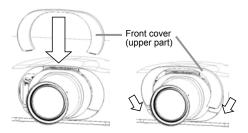


4. Support the lens and move the lens lock lever upward until the lever clicks into the locked position.



- 5. To prevent the lens from falling off, after attaching the lens, check that it is securely mounted and that the lens does not move.
- 6. Re-install the front cover.





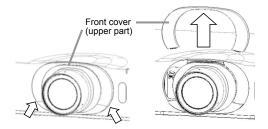
## Removing the lens

Use the correct method of removing the lens.

- 1. Move the lens to the center position:
  - a) Press LENS SHIFT.
  - b) To access the CENTERING feature, from the LENS SHIFT dialog, press INPUT.
  - c) To center the lens, press the **Right** arrow.

To center the lens in standby mode, on the control panel, press **FUNCTION** and **LENS SHIFT** at the same time for three seconds.

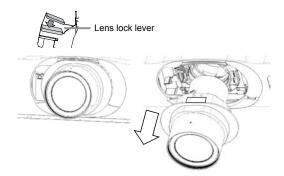
- 2. Turn off and unplug the projector.
- 3. Allow the projector to sufficiently cool down.
- 4. To remove the front cover, move and slide the cover up while pressing the front cover from the underside and remove the front cover from the projector.



- 5. To remove the lens:
  - a) Support the lens.
  - b) Lower the lens lock lever to the lowest position.
  - c) Remove the lens from the projector.

To avoid any malfunctions, ensure the surface of the lens does not come in contact with the projector.





You can move the lever while the upper plate touches the lower plate.

# Installing the ultra short throw fixed lens

Learn how to install and remove the ultra short throw fixed lens and how to install the support brackets for the lens.



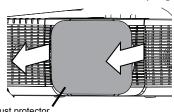
This lens can only be used on the D Series projectors.

## Installing the lens

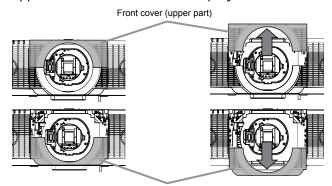
Install the ultra short throw fixed lens in the projector.

1. Pull out the dust protector to remove it.

Christie recommends keeping the dust protector for future use.



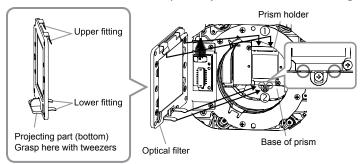
- 2. Remove the front cover:
  - a) Slide the upper part of the front cover upward while pressing the front cover from the underside and remove from the projector.
  - b) Slide the lower part of the front cover downward while pressing the front cover from the upperside and remove from the projector.



Front cover (lower part)



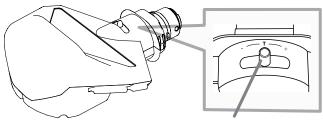
- 3. Mount the optical filter:
  - a) Using a pair of tweezers, grasp the part sticking out at the bottom of the optical filter and hook the fitting at the top of the filter onto the projector's prism holder (shown as 1 in the image below).
  - b) Press the fitting at the bottom of the optical filter securely into the gap between the prism holder and the base of the prism (shown as 2 in the image below).



4. Adjust the balance of the focus using the Tilt Correction function equipped in the lens:

The balance of focus at the peripheral part of the projected image changes when installing the lens in the projector and projecting on a screen. How to perform the tilt correction differs depending on whether the installation on the table or ceiling mount.

Perform the tilt correction before installing the lens in the projector as a malfunction can occur if performed with the lens installed.

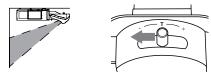


Tilt correction lever

• For installation on the table, move the tilt correction lever in the direction of (+).

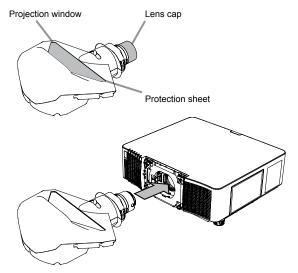


• For installation on the ceiling, move the tilt correction lever in the direction of (-).

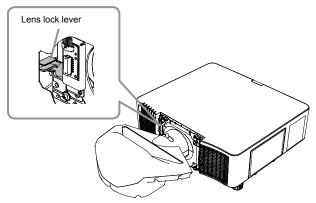


- 5. Install the lens:
  - a) Remove the protection sheet pasted to the projection window and the lens cap.



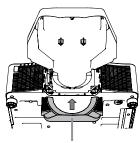


- b) Slide the lens into the projector.
  - To avoid any malfunctions, ensure the surface of the lens does not come in contact with the projector.
- c) Support the lens and move the lens lock lever upward until the lever clicks into the locked position.

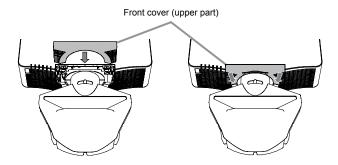


- d) To prevent the lens from falling off, after attaching the lens, check that it is securely mounted and that the lens does not move.
- 6. Re-install the upper and lower front covers.





Front cover (lower part)



#### Adjusting the focus

Adjust the focus at the center and peripheral parts of the screen.

Automatic recognition may not work depending on the projector. Although the Zoom dialog may be displayed when adjusting the focus at the peripheral part, it is not a failure.



The lens memory function is not supported by this lens.

- 1. To adjust the focus on the center of the screen:
  - a) To display the FOCUS dialog, press FOCUS +/-.
  - b) To adjust the focus at the center of the screen, press **FOCUS** +/-.
- 2. To adjust the focus at the peripheral part of the screen:
  - a) To display the FOCUS dialog, press **ZOOM +/-**.
  - b) To adjust the focus at the peripheral part of the screen, press **ZOOM** +/-.

## Removing the lens

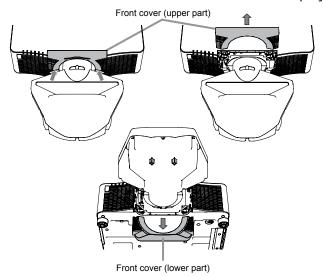
Use the correct method of removing the lens.

- 1. Move the lens to the center position:
  - a) Press LENS SHIFT.
  - b) To access the CENTERING feature, from the LENS SHIFT dialog, press INPUT.
  - c) To center the lens, press the **Right** arrow.



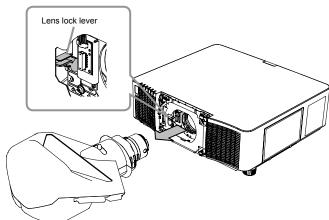
To center the lens in standby mode, on the control panel, press **FUNCTION** and **LENS SHIFT** at the same time for three seconds.

- 2. Turn off and unplug the projector.
- 3. Allow the projector to sufficiently cool down.
- 4. To remove the front cover, move and slide the cover up while pressing the front cover from the underside and remove the front cover from the projector.



- 5. To remove the lens:
  - a) Support the lens.
  - b) Lower the lens lock lever to the lowest position.
  - c) Remove the lens from the projector.

To avoid any malfunctions, ensure the surface of the lens does not come in contact with the projector.

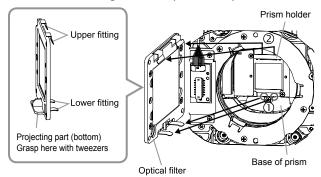


You can move the lever while the upper plate touches the lower plate.

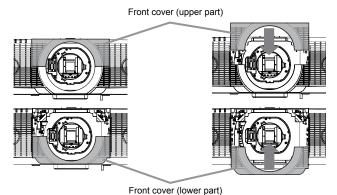
- 6. Attach the lens cap to the lens.
- 7. Remove the optical filter:
  - a) Using a pair of tweezers, grasp the part sticking out at the bottom of the optical filter.



- b) Remove the filter from the gap between the prism holder and its base.
- c) Unhook the fitting at the top of the optical filter from the prism holder.



8. Re-install the front cover.



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9. To prevent dust from entering the lens mount, insert a dust cover.

## **Installing the supporting brackets**

The supporting brackets are required when using the ultra short throw fixed lens.

#### **Required components**

The following components are required to install the supporting brackets.

- 1 support bracket (mount bracket A)
- 1 lens mount bracket (mount bracket B)
- 4 M6x16 hex-head screws
- 2 M4x10 screws
- 2 collars
- 1 hex key

### Prerequisites for mounting a projector on the ceiling

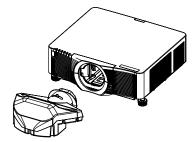
Note the following when mounting the projector on the ceiling.

- Before performing the mounting design and construction work, verify that the weight of the projector and ceiling mount can be fully supported.
- To protect itself, the projector has a temperature sensor that turns off the power if its internal temperature rises abnormally. Christie recommends the following to prevent the temperature rising abnormally:
  - Do not install the projector in locations where the temperature is outside the operating temperature range indicated in the User manual for the projector.
  - Periodically clean the air filter on the inside of the air intake. For information on cleaning frequency and procedures, see the User manual for the projector.
  - If installed in a location with lots of dust, the cleaning mentioned above must be done
    more frequently; therefore, mount the projector in a location where it can easily be
    accessed.
  - To facilitate ventilation from the exhaust outlet, allow for at least 50 cm of space around the projector.
  - Do not install in locations subject to sudden changes in temperature, such as near an air conditioner.
- The remote control may not function properly if the signal receiver on the projector is subject to strong light, such as direct sunlight or fluorescent lighting at point blank range. Install so the receiver is not subject to direct light.

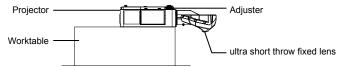
#### Mounting the lens support brackets

Follow these instructions to mount the ultra short throw fixed lens on the support brackets.

- 1. Turn off and unplug the projector.
- 2. Allow the projector to sufficiently cool down.
- 3. Install the ultra short throw fixed lens (on page 13).



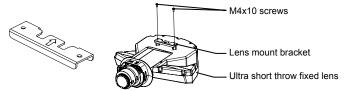
- 4. On a work table, place cushioning materials so no force is applied to the ultra short throw fixed lens.
- 5. Place the projector upside-down on the cushioning making sure the lens is facing away from the table.



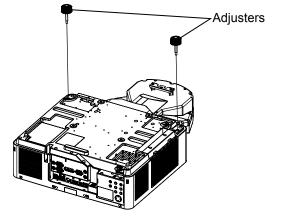


6. Using the two M4x10 screws, attach the mount bracket to the ultra short throw fixed lens and torque to 0.98 Nm (10 kgf·cm).

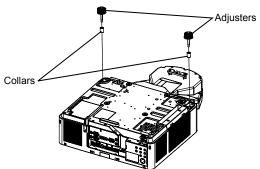
Note the direction of the arrow on the lens mount bracket.



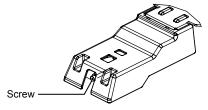
7. Remove the two adjusters from the projector.



8. Insert the two collars into the removable adjusters and mount the projector.

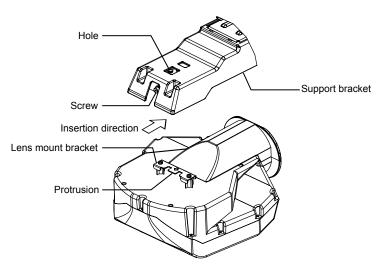


9. Using the hex key, loosen the screw until it stops.



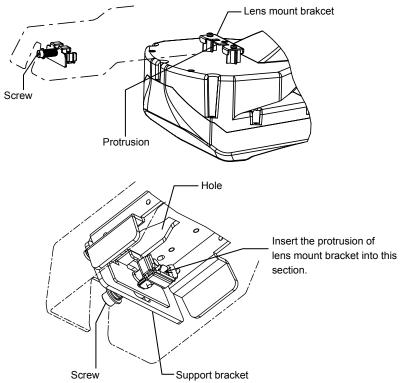
10. Attach the support bracket to the lens mount bracket.



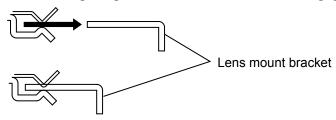


11. Move the screw of the support bracket up and down as well as left and right to insert it into the protrusion of the lens mount bracket.

To help with insertion, view from the top hole of the support bracket.



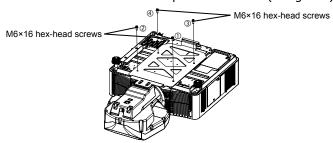
The following images shows the side view of the engaged section:



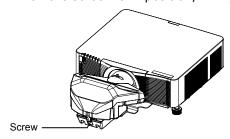
## Installing the projector on a table top

Learn how to install the projector with an ultra short throw fixed lens on a table top.

1. To attach the support bracket to the projector, tighten the four M6×16 hex-head screws in the order shown below and torque to 1.96 Nm (20kgf·cm).



- 2. Flip the projector over.
- 3. To adjust to the correct screen position, use the vertical and horizontal shift adjustments. When adjusting the vertical and horizontal shift, always loosen the screw. Adjusting the vertical and horizontal shift without loosening the screw can damage the product.
- 4. When the screen is in position, firmly tighten the screw until it is locked in place.

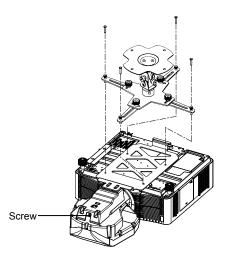


## Mounting the projector on the ceiling

Learn how to mount the projector with an ultra short throw fixed lens on a ceiling.

1. To mount the bracket of the ceiling mount to the projector and the mount bracket A, use the four  $M6 \times 35$  hex-head screws.





- 2. For the additional mounting procedures, refer to the Ceiling Mount Bracket User's manual.
- 3. To adjust to the correct screen position, use the vertical and horizontal shift adjustments. When adjusting the vertical and horizontal shift, always loosen the screw. Adjusting the vertical and horizontal shift without loosening the screw can damage the product.
- 4. When the screen is in position, firmly tighten the screw until it is locked in place.

## **Specifications**

Learn about the product specifications. Due to continuing research, specifications are subject to change without notice.

### **Accessories**

The following accessories are included with each lens.

Lens	Part number	Supplied accessories
Fixed 1.0:1/0.8:1 lens	121-111104-XX	• Lens cap (front and rear)
Short throw zoom 1.5-2.2:1/1.2-1.8:1 lens	121-129103-XX	• Optional Lens User's manual
Medium throw zoom 1.17-1.76:1 lens	121-112105-XX	
Medium throw zoom 1.7-3.0/1.7-2.9 lens	121-130105-XX	
Medium throw zoom 1.9-3.8/1.5-3.0 lens	121-113106-XX	
Long throw zoom 3.6-6.1/2.8-4.9 lens	121-114107-XX	
Ultra long throw zoom 6.0-10.3/4.9-8.3 lens	121-115108-XX	
Ultra short throw 0.38:1 fixed lens	121-128102-XX	Optical filter
		• Lens cap
		• Optional Lens User's manual

## **Lens specifications**

Learn about the specifications for each lens.

#### Fixed and short throw zoom lenses

Description		Fixed lens	Short throw zoom lens	
Supported model		LW551i, LX801i, LW651i, LW751i, LWU601i, and LWU701i		
Zoom/focus		—/Motorized	Motorized	
Lens shift position	Vertical	LX801i	1:1	9:1 - 1:1



Description			Fixed lens	Short throw zoom lens
		LW551i, LW651i, LW751i, LWU601i, and LWU701i	1:1	10:-1 - 1:1
	Horizontal		1:1	6:4 - 4:6
F-number			1.8	1.6 - 2.0
Focal length		13 mm	19-29 mm	
Zoom ratio			1.0:1	1.5 - 2.2:1
Projection ratio			0.8:1	1.2 - 1.8:1
Projection size			30 - 600 inch	30 - 600 inch
Weight (approximately)			1.1 kg	0.7 kg

#### Medium throw zoom (1.17-1.76:1) and medium throw zoom (1.9-3.8/1.5-3.0) lenses

Description		Medium throw zoom (1.17-1.76:1) lens	Medium throw zoom (1.9-3.8/1.5-3.0) lens	
Supported model		LW551i		
Zoom/focus		Motorized	Motorized	
Lens shift position	Vertical	10:0 - 1:1	10:-1 - 1:1	
	Horizontal	6:4 - 4:6	6:4 - 4:6	
F-number		1.6 - 2.0	1.6 - 2.9	
Focal length		19 - 29 mm	24 - 48 mm	
Zoom ratio		1.5:1	2.0:1	
Projection ratio		1.2 - 1.8:1	1.5 - 3.0:1	
Projection size		30 - 600 inch	30 - 600 inch	
Weight (approximately)		0.7 kg	0.9 kg	

#### Medium throw zoom (1.7-3.0/1.7-2.9), long throw zoom, and ultra long throw zoom lenses

Description		Medium throw zoom (1.7-3.0/1.7 -2.9) lens	Long throw zoom lens	Ultra long throw zoom lens	
Supported model		LW551i, LX801i, LW651i, LW751i, LWU601i, and LWU701i			
Zoom/focus		Motorized	Motorized	Motorized	
Lens shift position	Vertical	LX801i	10:0 - 1:1	9:1 - 1:1	9:1 - 1:1



Description			Medium throw zoom (1.7-3.0/1.7 -2.9) lens	Long throw zoom lens	Ultra long throw zoom lens
		LW551i, LW651i, LW751i, LWU601i, and LWU701i	10:-1 - 1:1	10:0 - 1:1	10:0 - 1:1
	Horizontal		6:4 - 4:6	6:4 - 4:6	6:4 - 4:6
F-number			1.6 - 2.0	1.7 - 2.0	1.7 - 2.0
Focal length		24 - 47 mm	46 - 79 mm	77 - 133 mm	
Zoom ratio		1.7:1	1.7:1	1.7:1	
Projection ratio		1.7 - 3.0:1	2.8 - 4.9:1	4.9 - 8.3:1	
Projection size		30 - 600 inch	30 - 600 inch	30 - 600 inch	
Weight (approximately)		0.9 kg	1.5 kg	1.6 kg	

#### Ultra short throw fixed lens

Description		Ultra short throw fixed lens
Supported model		LX801i, LW651i, LW751i, LWU601i, and LWU701i
Focus		Motorized
Lens shift position	LX801i	5.3 : -1 (+73%)
	LW651i and LW751i	3.9 : -1 (+85%)
	LWU601i and LWU701i	3.9 : -1 (+85%)
F-number		2.0
Focal length		6.27 mm
Projection ratio	LX801i	0.39:1
	LW651i and LW751i	0.38:1
	LWU601i and LWU701i	0.38:1
Projection size		100 - 350 inch
Size		320(W) x 167(H) x 411.5(D) mm
Weight (approximately)		3.1 kg

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