

Optional Lens User's Manual

Important Safety Instructions

(Always follow these instructions)

Please read this section on important safety instructions before replacing the projector lens. To prevent accidents during lens replacement and ensure product safety after replacing the lens, be sure to follow the safety instructions described herein.

- These symbols indicate actions that can result in injury or damage if these operations are not followed correctly.

 Warning	This symbol indicates that there is a possibility of serious injury or even death if the operation is not followed correctly
 Caution	This symbol indicates that there is a possibility of physical injury or damage to equipment if the operation is not followed correctly.

- These symbols indicate the types of precautions that must followed.

	This symbol indicates that caution must be taken.		This symbol warns of possible high heat.
	This symbol warns of possible electrical shock.		
	This symbol indicates an action that must not be performed.		Do not look into the lens.
			Do not block the projection light.

 Warning
 ■ Make sure to follow the procedure on lens installation and removal for your safety.
 ■ Please read this manual and manuals for the projector to ensure correct usage through understanding. Incorrect usage could result in fire, an injury or damage.
 ■ Do not subject the device any shock or impact. Any shock or impact could result in an injury or damage. The lens projects out of the device. Take care not to strike it.

Notice

■ Take care of the lens.

- When transporting the lens, protect the lens by attaching the lens cap.
- Do not touch the lens to prevent fog or dirt on the lens that could cause deterioration of display quality.
- Do not touch the lens directly. Dirty lens may cause deterioration in image quality.
- The lens is a precision optical device. Carefully handle the lens without subjecting it to shocks or vibrations.
- When resting the lens on a surface, place the lens face down on a soft cloth.

■ Cleaning

- Use commercially available lens tissue to clean the lens (used to clean cameras, eyeglasses, etc.).
- Excepting for lens, use a soft cloth to clean. When excessively soiled dilute a neutral detergent in water, wet and wring out the soft cloth.
- Do not use detergents or chemicals other than those noted above (e.g. benzene or thinners).

Information for users applicable in European Union countries

Following information is only for EU-member states:

The mark shown to the right is in compliance with the Waste Electrical and Electronic Equipment Directive 2012/19/EU (WEEE).

The mark indicates the requirement NOT to dispose the equipment as unsorted municipal waste, but use the return and collection systems according to local law.



Operations

- Project an image as described in the Projector user's manual, and adjust the size and focus of the projected image.
- See the **Projection distance table** in this user's manual for information on optional lens projection distances.

Note

- The distance of projection may not allow focusing on the peripheral area of the screen. Adjust the focus to keep the center and the peripheral area of the screen balanced.
- These specifications are subject to change without notice.
- The zoom lens may cause some distortion of the image on the screen depending on the zoom position.
- Distortion may appear on screen if the keystone correction (trapezoidal distortion correction) is overly adjusted.
- Keystone correction (trapezoidal distortion correction) may be limited with some lenses.

Important Operation Instructions

Warning



- **Do not place the lens in a location subject to direct sunlight or other strong lighting or near heat-radiating equipment.**

This can cause a fire due to the properties of the lens. It can also cause injury or damage to the lens.



- **Be sure to unplug the projector before replacing the lens.**

The inside of the projector has areas of high voltage which can cause electrical shock.



- **Before replacing the lens, be sure to turn off and unplug the projector, and allow the projector to fully cool down.**



- **When attaching, take care so that dust does not enter inside or stick to the connector.**

Continued use with dust inside may result in fire or electric shock.



- **If the projector is mounted on a ceiling, ask the dealer to replace the lens.**

This can cause injury.

Caution



- **When replacing the lens, do not touch the polarizing plates of the projector or subject them to shocks.**

This can cause damage to the equipment. It can also cause a misalignment of the optical adjustment and, therefore, require readjustments.



- **When replacing the lens, be careful not to damage the connectors or wires inside the projector.**

This can cause damage to the equipment. Be careful not to pull on the connectors or wires or get them caught in the circuit board or case.

Contents of package

The following accessories are included with each lens.

Lens	Model	Supplied accessories
Ultra short throw zoom lens	USL-701	Lens caps (front and rear) Optional Lens User's Manual
Fixed short throw lens	FL-701	Lens caps (front and rear) Optional Lens User's Manual
Short throw zoom lens	SL-712	Lens caps (front and rear) Optional Lens User's Manual
Middle throw zoom lens	ML-703	Lens caps (front and rear) Optional Lens User's Manual
	ML-713	
Long throw zoom lens	LL-704	Lens caps (front and rear) Optional Lens User's Manual
Ultra long throw zoom lens	UL-705	Lens caps (front and rear) Optional Lens User's Manual

Specifications

Model		USL-701	
Supported model		MC-X8801B, MC-X8801W, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W, MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W	
Zoom / Focus		Motorized	
Lens shift position	Vertical	MC-X8801B, MC-X8801W	+40% - -14.2%
		MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W, MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W	+52.5% - -16.7%
	Horizontal	MC-X8801B, MC-X8801W, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W, MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W	+10% - -10%
F-number		1.7 - 2.0	
Focal length		12 - 16 mm	
Zoom ratio		1.3:1	
Projection ratio (Throw ratio)	MC-X8801B, MC-X8801W	0.76 - 1.00	
	MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W, MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W	0.74 - 0.98	
Projection size		60 - 600 inch	
Weight (Approximately)		1.8 kg	

Specifications (continued)

Model		FL-701	SL-712 ⁽¹⁾	
Supported model		MC-X8170, MC-X8801B, MC-X8801W, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W, MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W		
Zoom / Focus		- / Motorized	Motorized	
Lens shift position	Vertical	MC-X8170, MC-X8801B, MC-X8801W	0%	+40% - 0%
		MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W	0%	+50% - 0%
		MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W	+6.9% - -6.9%	+52.5% - -16.7%
	Horizontal	MC-X8170, MC-X8801B, MC-X8801W, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W	0%	+10% - -10%
MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W		+4.3% - -4.3%	+10% - -10%	
F-number		1.8	1.6 - 2.0	
Focal length		13 mm	19 - 29 mm	
Zoom ratio		1.0:1	1.5:1	
Projection ratio (Throw 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	

Specifications (continued)

Model		ML-703	
Supported model	MC-X8170, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461		
Zoom / Focus		Motorized	
Lens shift position	Vertical	MC-X8170	+50% - 0%
		MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461	+55% - 0%
	Horizontal	MC-X8170, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461	+10% - -10%
F-number		1.6 - 2.9	
Focal length		24 - 48 mm	
Zoom ratio		2.0:1	
Projection ratio (Throw ratio)	MC-X8170, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461	1.5 - 3.0:1	
Projection size		30 - 600 inch	
Weight (Approximately)		0.9 kg	

Specifications (continued)

Model		ML-713 ^{*1)}	LL-704	UL-705	
Supported model		MC-X8170, MC-X8801B, MC-X8801W, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W, MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W			
Zoom / Focus		Motorized	Motorized	Motorized	
Lens shift position	Vertical	MC-X8170, MC-X8801B, MC-X8801W	+50% - 0%	+40% - 0%	+40% - 0%
		MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W	+55% - 0%	+50% - 0%	+50% - 0%
		MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W	+56.5% - -16.7%	+52.5% - -16.7%	+52.5% - -16.7%
	Horizontal	MC-X8170, MC-X8801B, MC-X8801W, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W	+10% - -10%	+10% - -10%	+10% - -10%
MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W		+10% - -10%	+10% - -10%	+10% - -10%	
F-number		1.6 - 2.0	1.7 - 2.0	1.7 - 2.0	
Focal length		28 - 47 mm	46 - 79 mm	77 - 133 mm	
Zoom ratio		1.7:1	1.7:1	1.7:1	
Projection ratio (Throw ratio)	MC-X8170, MC-X8801B, MC-X8801W, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W, MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W	1.7 - 3.0:1	2.8 - 4.9:1	4.9 - 6.3:1	
Projection size		30 - 600 inch	30 - 600 inch	30 - 600 inch	
Weight (Approximately)		0.9 kg	1.5 kg	1.6 kg	

*1) When SL-712 or ML-713 is used with MC-X8170, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461 it will be recognized as SL-702 or ML-703, but this is not a malfunction. Please consult your dealer for more information.

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• The content of this manual is for representative models, so the specifications of your model may differ from this manual.

For further details, refer to your projector's User's Manual or to our website.

Lens Installation and Removal

Please be careful as the methods for lens installation/removal will differ according to model.

■ Compatible Models

For MC-X8170, MC-WX8265, MC-WU8460, MC-WU8451, MC-WU8461

Lens Replacement Procedure

1. Return the lens shift to the center position
 - (1) Press the **LENS SHIFT** button. The LENS SHIFT dialog will appear.
 - (2) Press the **ENTER** or **INPUT** button while the dialog is displayed to execute the CENTERING feature, which adjusts the lens to the center. A message dialog is displayed for confirmation.
 - (3) Pressing the **▶** button performs CENTERING.

Note

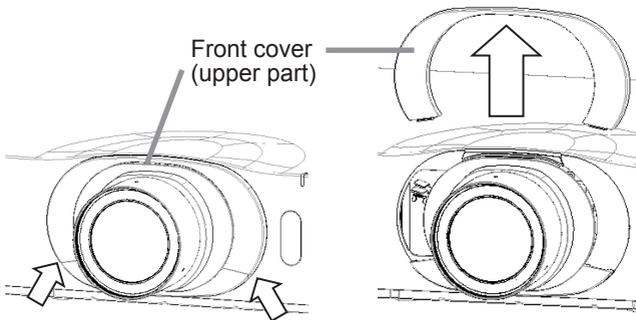
• You can also perform CENTERING in the standby mode by pressing the **FUNCTION** and **LENS SHIFT** buttons on the control panel for 3 seconds at the same time.

2. Turn off the projector

Turn off and unplug the projector, and allow the projector to sufficiently cool down.

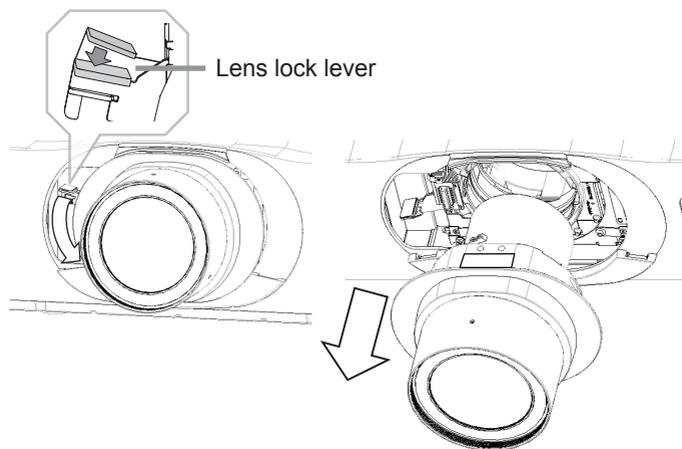
3. Remove the front cover

Move and slide the front cover up while pressing the front cover from the underside and remove the front cover from the projector.



4. Remove the lens

Support the lens, and lower the lens lock lever to the lowest position and remove the lens from the projector. You can move the lever while the upper plate touches lower one.



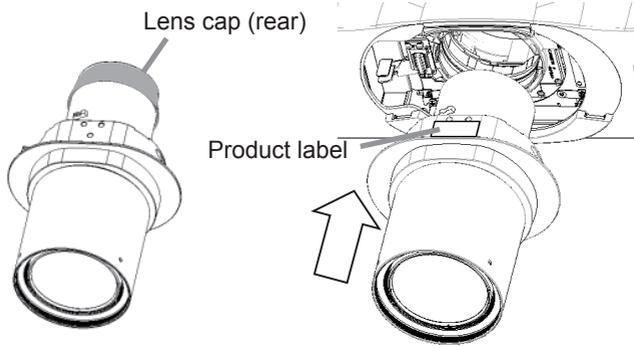
⚠ Caution

- Take care to avoid hitting the surface of the lens on the projector when removing the lens as this may lead to malfunction.
- Do not touch the socket of the lens or subject it to impact as this may lead to malfunction.

Lens Installation Procedure

1. Attach the lens

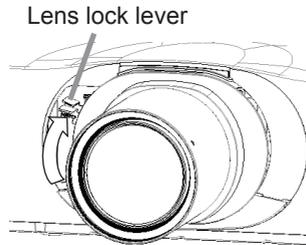
- (1) Remove the lens cap. Then turn the product label of the lens upward and install the lens in the projector.



⚠ Caution

- Installing the lens in the projector with the lens cap on may lead to malfunction.
- Take care to avoid hitting the surface of the lens on the projector when attaching the lens as this may lead to malfunction.
- Do not touch the connector of the lens or subject it to impact as this may lead to malfunction.

- (2) Support the lens, and move the lens lock lever to the upside (until the lens lock lever clicks into the locked position).

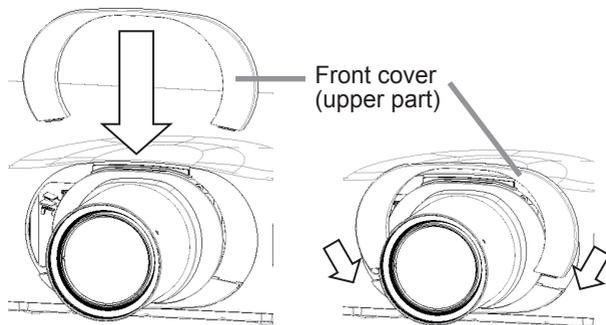


⚠ Warning

- To prevent the lens from falling off, after attaching the lens, check that it is securely mounted and that the lens does not move. If the projector falls or topples over, it could result in injury or damage to the projector and the surrounding things.

2. Attaching the front cover

Insert the front cover into the projector body.



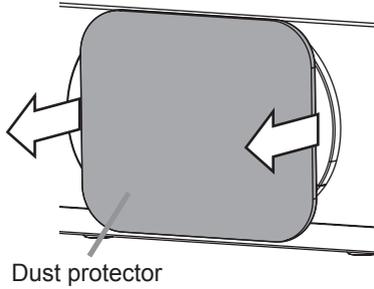
Lens Installation and Removal

Compatible Models

For MC-X8801B, MC-X8801W, MC-WX8651W, MC-WX8751B, MC-WX8751W, MC-WU8601W, MC-WU8701B, MC-WU8701W

Lens Installation Procedure

1. Pull out the dust protector knobs to remove it.

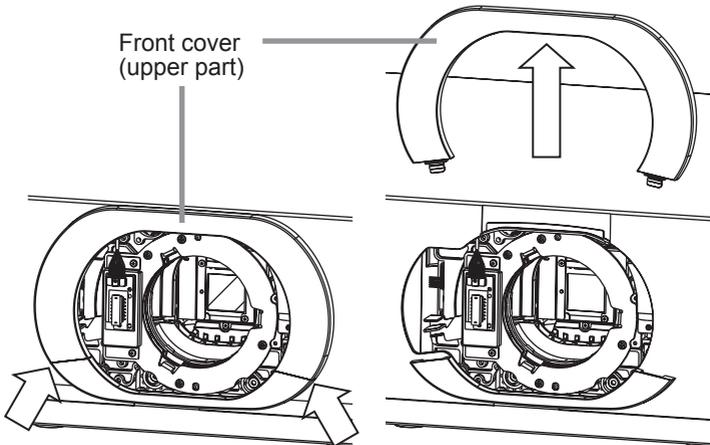


Note

- Keep the dust protector for future use.

2. Remove the front cover

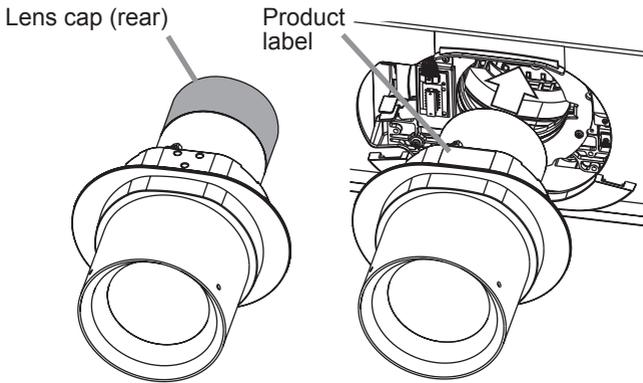
Move and slide the front cover up while pressing the front cover from the underside and remove the front cover from the projector.



Lens Installation Procedure (continued)

3. Install the lens

- (1) Remove the lens cap. Then turn the product label of the lens upward and install the lens in the projector.



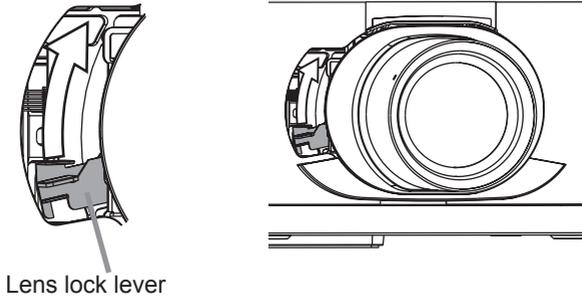
⚠ Caution

- Installing the lens in the projector with the lens cap on may lead to malfunction.
- Avoid hitting the surface of the lens on the projector when attaching the lens as this may lead to malfunction.
- Do not touch the connector of the lens or subject it to impact as this may lead to malfunction.

Lens Installation Procedure (continued)

3. Install the lens (continued)

- (2) Support the lens, and move the lens lock lever to the upside (until the lens lock lever clicks into the locked position).

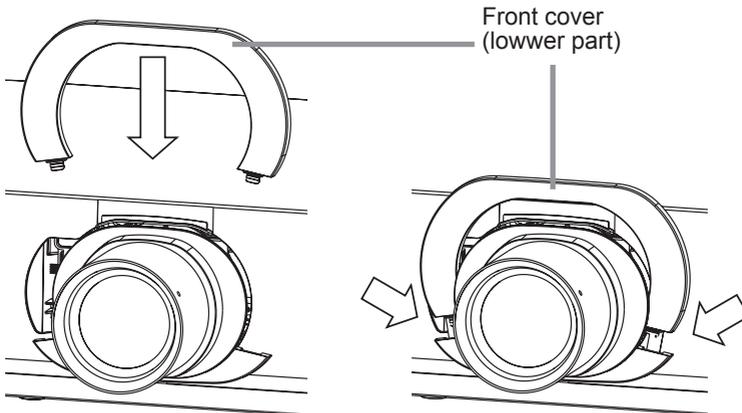


⚠ Warning

- To prevent the lens from falling off, after attaching the lens, check that it is securely mounted and that the lens does not move. If the projector falls or topples over, it could result in injury or damage to the projector and the surrounding things.

4. Attaching the front cover

Insert the front cover into the projector body



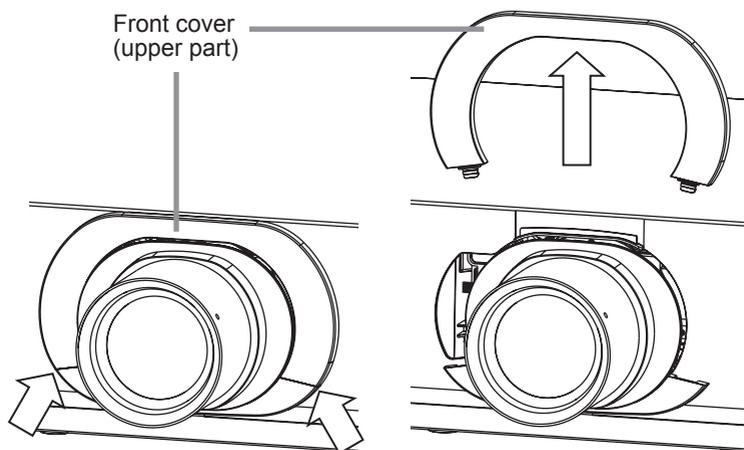
Lens Removal Procedure

1. Return the lens shift to the center position
 - (1) Press the **LENS SHIFT** button. The LENS SHIFT dialog will appear.
 - (2) Press the **ENTER** or **INPUT** button while the dialog is displayed to execute the CENTERING feature, which adjusts the lens to the center. A message dialog is displayed for confirmation.
 - (3) Pressing the **▶** button performs CENTERING.

Note

• You can also perform CENTERING in the standby mode by pressing the **FUNCTION** and **LENS SHIFT** buttons on the control panel for 3 seconds at the same time.

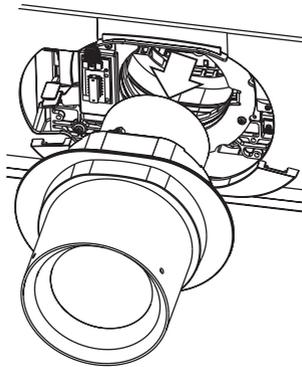
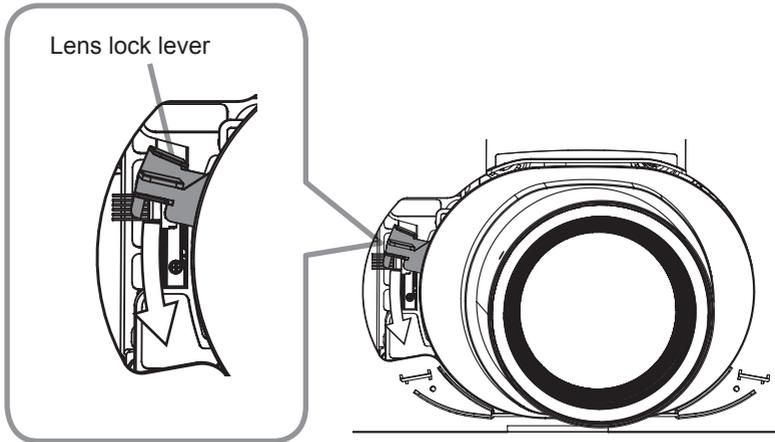
2. Turn off the projector
Turn off and unplug the projector, and allow the projector to sufficiently cool down.
3. Remove the front cover
Move and slide the front cover up while pressing the front cover from the underside and remove the front cover from the projector.



Lens Removal Procedure (continued)

4. Remove the lens

Support the lens, and lower the lens lock lever to the lowest position and remove the lens from the projector. You can move the lever while the upper plate touches lower one. Insert the dust protector to prevent any substance getting into the lens installation area.



⚠ Caution

- Avoid hitting the surface of the lens on the projector when removing the lens as this may lead to malfunction.
- Do not touch the socket of the lens or subject it to impact as this may lead to malfunction.

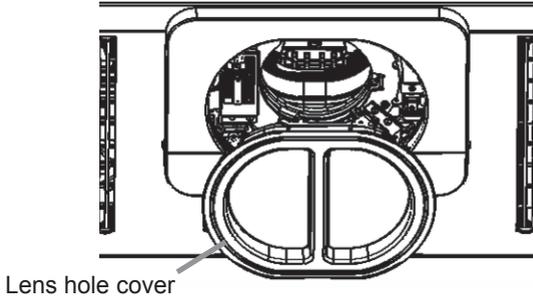
Lens Installation and Removal

Compatible Models

For MP-WU8701B, MP-WU8701W, MP-WU8801B, MP-WU8801W

Lens Installation Procedure

1. Pull out the Lens hole cover knobs to remove it.

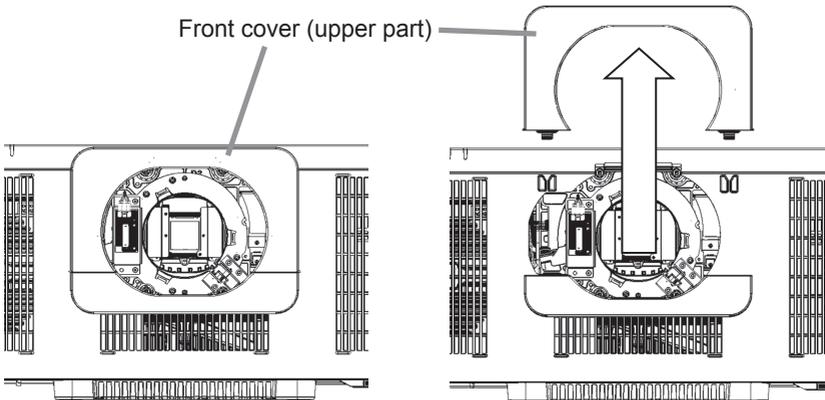


Note

- Keep the Lens hole cover for future use.

2. Remove the front cover

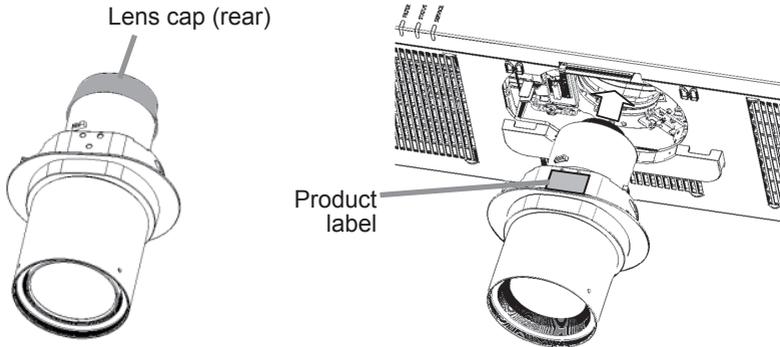
Slide the front cover (the upper part) upward while pressing the front cover from the underside and remove the front cover from the projector.



Lens Installation Procedure (continued)

3. Install the lens

- (1) Remove the lens cap. Then turn the product label of the lens upward and install the lens in the projector.



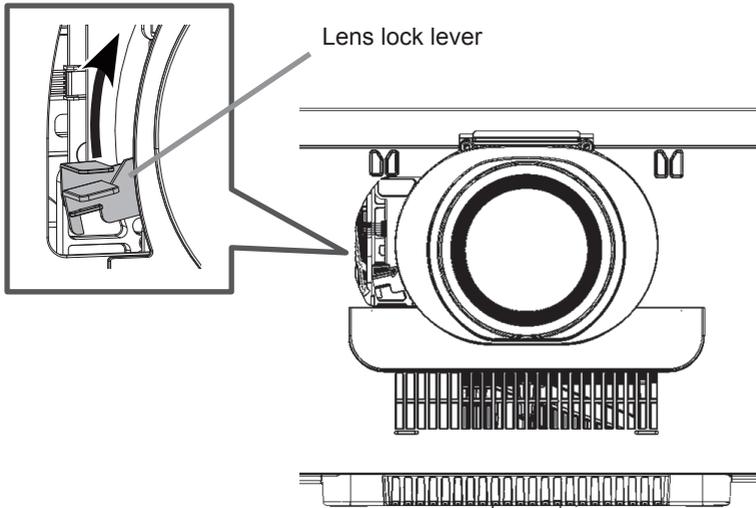
⚠ Caution

- Installing the lens in the projector with the lens cap on may lead to malfunction.
- Avoid hitting the surface of the lens on the projector when attaching the lens as this may lead to malfunction.
- Do not touch the connector of the lens or subject it to impact as this may lead to malfunction.

Lens Installation Procedure (continued)

3. Install the lens (continued)

- (2) Support the lens, and move the lens lock lever to the upside (until the lens lock lever clicks into the locked position).

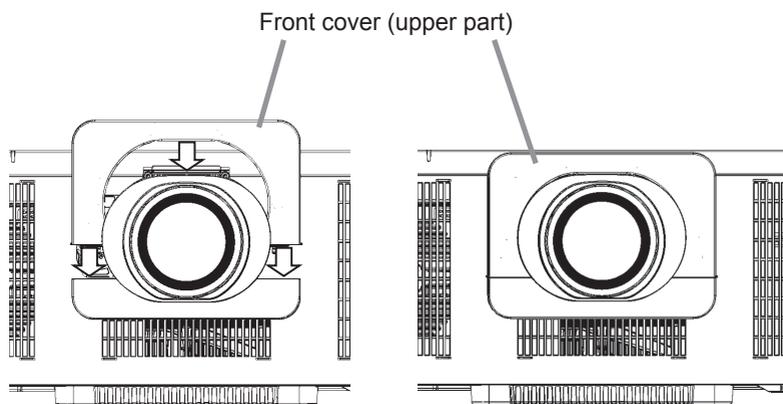


⚠ Warning

- To prevent the lens from falling off, after attaching the lens, check that it is securely mounted and that the lens does not move. If the projector falls or topples over, it could result in injury or damage to the projector and the surrounding things.

2. Attaching the front cover

Insert the front cover into the projector body.



Lens Replacement Procedure

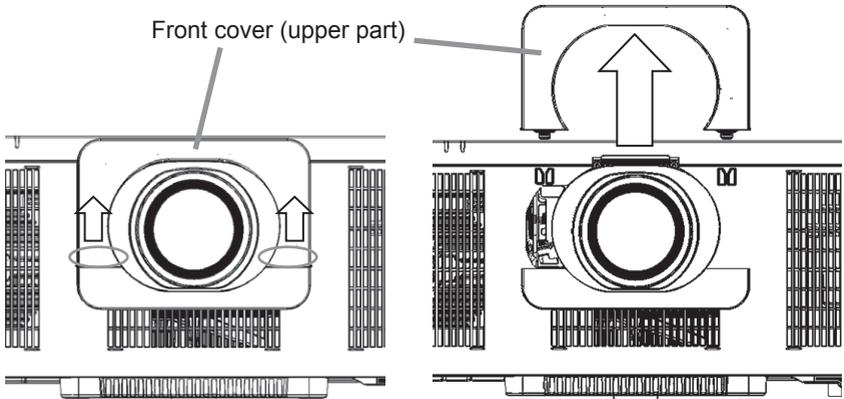
1. Return the lens shift to the center position
 - (1) Press the **LENS SHIFT** button. The LENS SHIFT dialog will appear.
 - (2) Select **CENTERING** on OSD and press the **ENTER** or **▶** to execute the CENTERING feature, which adjusts the lens to the center.
 - (3) Pressing the **▶** button performs CENTERING.

Note

- You can also perform CENTERING in the standby mode by pressing the **INPUT** and **LENS SHIFT** buttons on the control panel for 3 seconds at the same time.
- The CENTERING feature while the projector is in the standby mode is disabled if the **STANDBY MODE** item of **SETUP** menu is set to **POWER SAVE**. Perform CENTERING before the projector's power is turned off, or set the **STANDBY MODE** to **NORMAL**.

2. Turn off the projector
Turn off and unplug the projector, and allow the projector to sufficiently cool down.

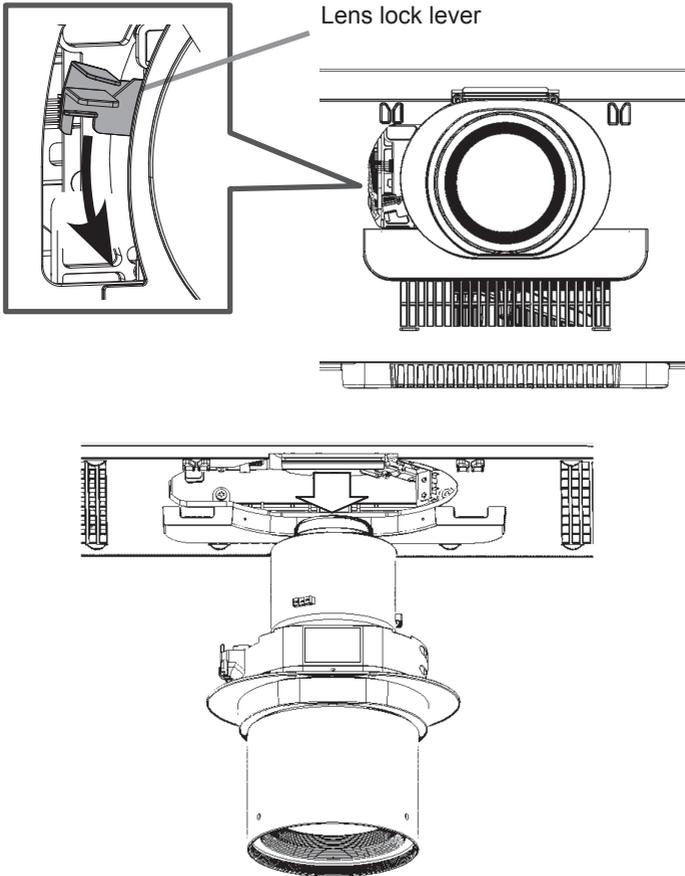
3. Remove the front cover
Move and slide the front cover up while pressing the front cover from the underside and remove the front cover from the projector.



Lens Removal Procedure (continued)

4. Remove the lens

Support the lens, and lower the lens lock lever to the lowest position and remove the lens from the projector. You can move the lever while the upper plate touches lower one.



Note

Insert the Lens hole cover to prevent any substance getting into the lens installation area.

⚠ Caution

- Avoid hitting the surface of the lens on the projector when removing the lens as this may lead to malfunction.
- Do not touch the socket of the lens or subject it to impact as this may lead to malfunction.

Adjustment of Ultra short throw zoom lens (USL-701)

The focus balance from the center to surrounding area varies on the screen size.

The Ultra short throw zoom lens has a focus adjustment function to adjust this balance.

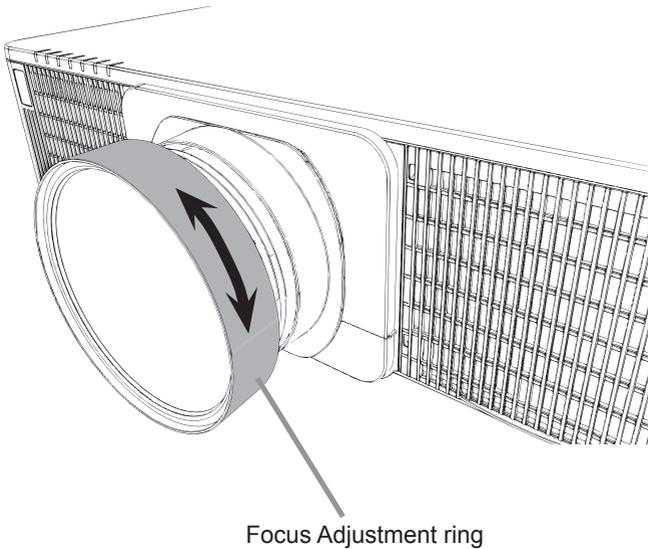
How to use Focus Adjustment

1. Focus adjustment of the image at the center

Use the remote control or the control panel of the projector to adjust the focus of the center.

2. Focus adjustment of the image at the surrounding area.

As the drawing below, rotate the Focus Adjustment ring to adjust the focus at the surrounding area.



Note

The projection size and the scales indicated on the lens unit are for guidelines only.

