

# FLM dust filters

## Installation manual

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# 1. FLM DUST FILTERS

## 1.1 Available kits

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### Available kits

Order info	Description
R9854470	FLM front, bottom and top filters (6 pieces each)
R9854480	FLM front, bottom and top filters (24 pieces each)



## 2. INSTALLATION PROCESS

### Overview

- Switching off
- Lens removal
- Removal of the front cover
- Removal of the side cover
- Replacement of the dust filter on the front side
- Replacement of the dust filter on the bottom side
- Replacement of the dust filter on the top side
- Installation of the front cover
- Installation of the side cover
- Lens installation



**WARNING:** Always switch off the projector and unplug the power cord at the projector side before removing one of the covers.

### 2.1 Switching off

#### How to switch off the projector?

1. Press first **Standby**.
2. Let cool down the projector until the fans decrease, at least 5 min.
3. Switch off the projector with the power switch.

### 2.2 Lens removal

#### How to remove a lens from the projector lens holder ?

1. Support the lens with one hand while you unlock the lens holder by sliding the lock handle towards the "unlocked" position as illustrated.

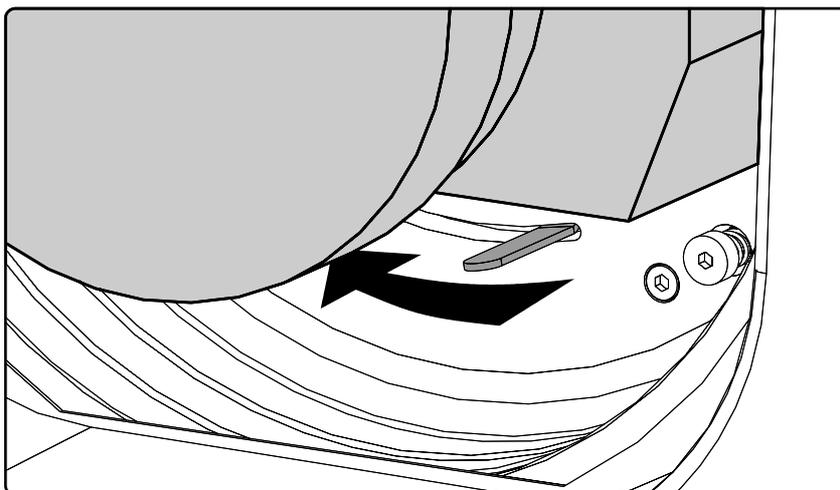


Image 2-1

2. Gently pull the lens out of the lens holder.

## 2. Installation process

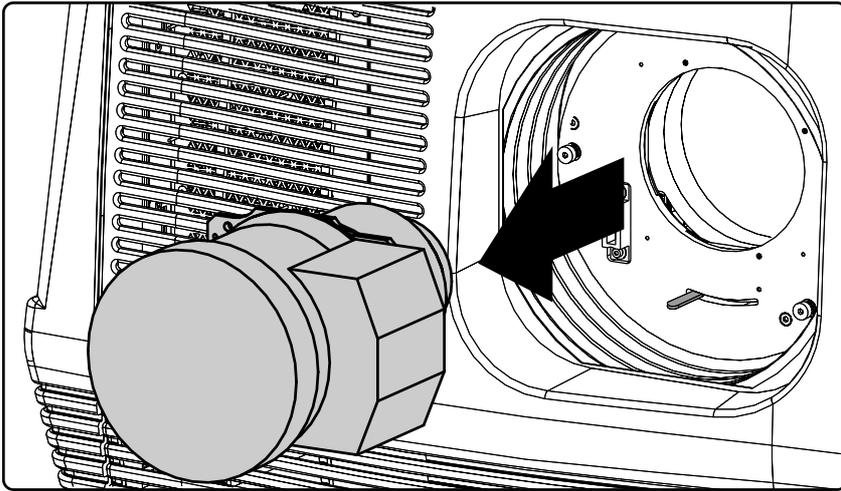


Image 2-2



It's recommended to place the lens caps of the original lens packaging, back on both sides of the removed lens to protect the lens.



It's recommended to place the foam rubber of the original projector packaging, back in the lens opening to prevent intrusion of dust. Note that this foam rubber is packed in a plastic bag to prevent that dust, emitted by the foam, enters the projector.

## 2.3 Removal of the front cover

### Necessary tools

7 mm flat screw driver.

### How to remove the front cover of the projector ?

1. Remove the lens. See chapter "Lens removal", page 5 .
2. Remove the rubber dust ring from the lens holder. See image 2-3.
3. Release the captive screw at the middle bottom of the front cover, using a flat screw driver.

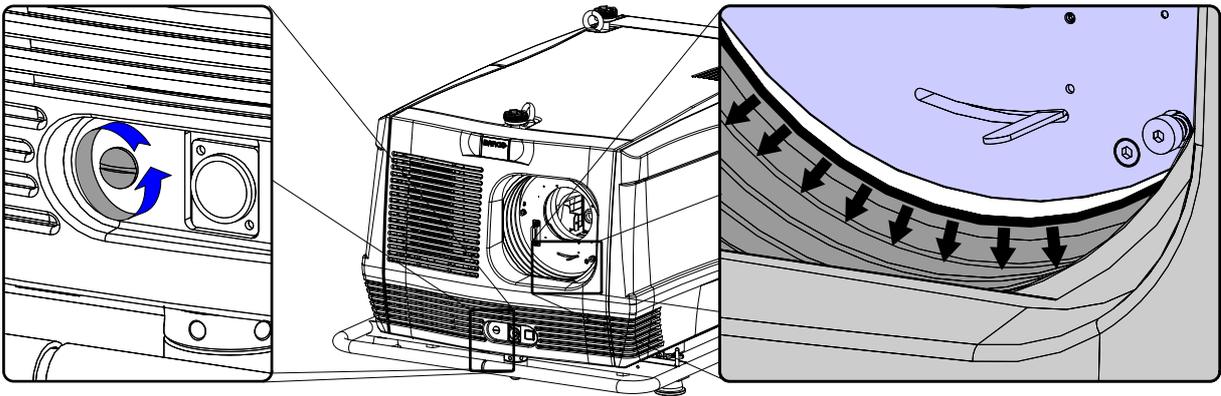


Image 2-3

4. Remove the front cover from the projector doing the following:
  - a) standing in front of the projector, pull the right side of the front cover toward you until the latches release (left side is hinged)
  - b) then slide the front cover to the right to release it from the hinging points.

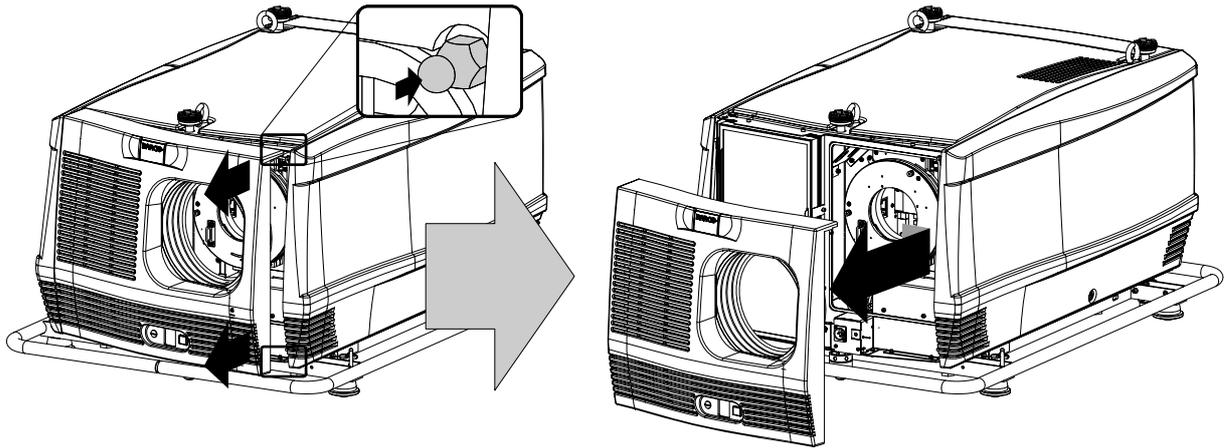


Image 2-4

## 2.4 Removal of the side cover



**CAUTION:** Remove the side cover of the FLM R20+ Performer projector only in a clean and dust free area. Never remove the side cover in an area which is subject to airborne contaminants such as that produced by smoke machines or similar.

### Necessary tools

7 mm flat screw driver.

### How to remove the side cover of the projector ?

1. Release the captive screw at the middle bottom of the side cover, using a flat screw driver.

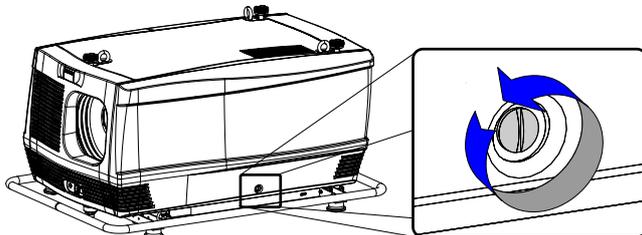


Image 2-5

2. Remove the side cover from the projector doing the following:
  - a) gently pull out the bottom corners (A) of the side cover,
  - b) then gently pull out the top corners (B) of the side cover,
  - c) then move the side cover away from the projector (C).

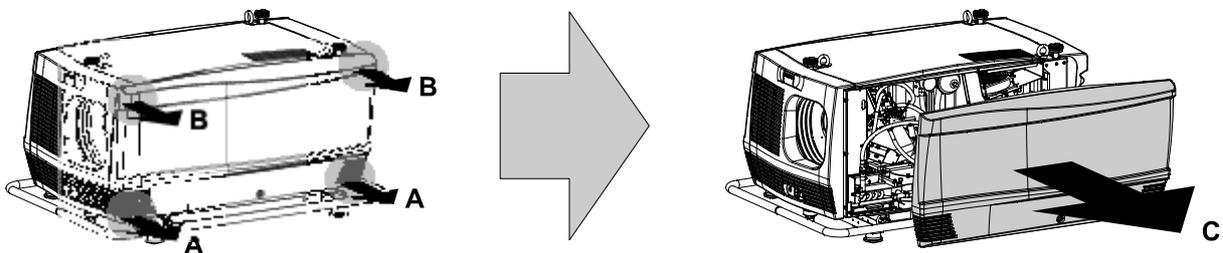


Image 2-6

## 2.5 Replacement of the dust filter on the front side

### Necessary parts

New HEPA dust filter for the front side (R9854470).

### How to replace the HEPA dust filter on the front side of the projector ?

1. Remove the front cover of the projector, see "Removal of the front cover", page 6 .
2. Remove the HEPA dust filter on the front side by pulling the two spring clamps away from the filter and then moving the filter forwards.

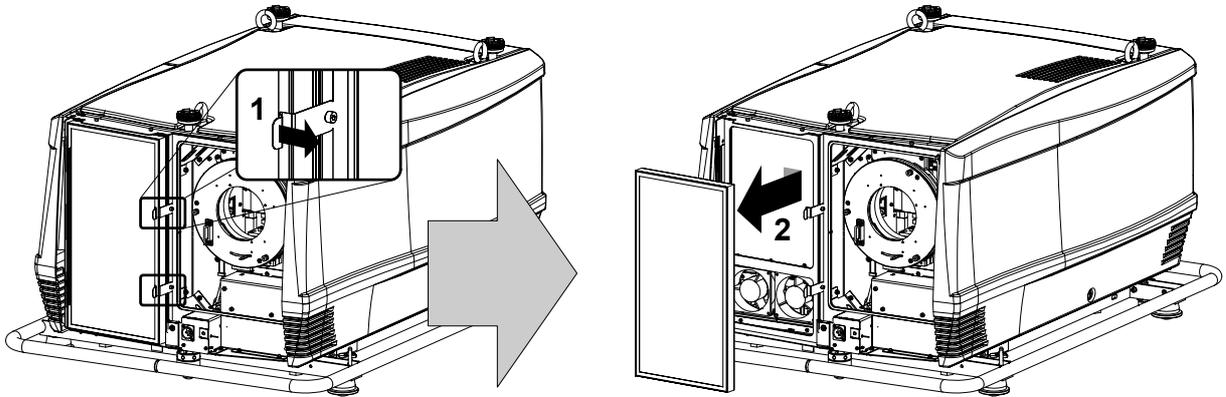


Image 2-7

3. Insert a new HEPA<sup>1</sup> filter by pulling the two spring clamps away and move the filter into position.
4. Reinstall the front cover of the projector, see "Installation of the front cover", page 10.



**CAUTION:** Never install a used HEPA filter. Always install a new HEPA filter.

## 2.6 Replacement of the dust filter on the bottom side

### Necessary parts

- New HEPA dust filter for the bottom side (R9854480).
- 2.5 mm Allen key.

### How to replace the HEPA dust filter on the bottom side of the projector ?

1. Remove the side cover of the projector, see "Removal of the side cover", page 7 .
2. Release (not remove) the two wedge lock screws (A) using a 2.5 mm Allen key as illustrated.

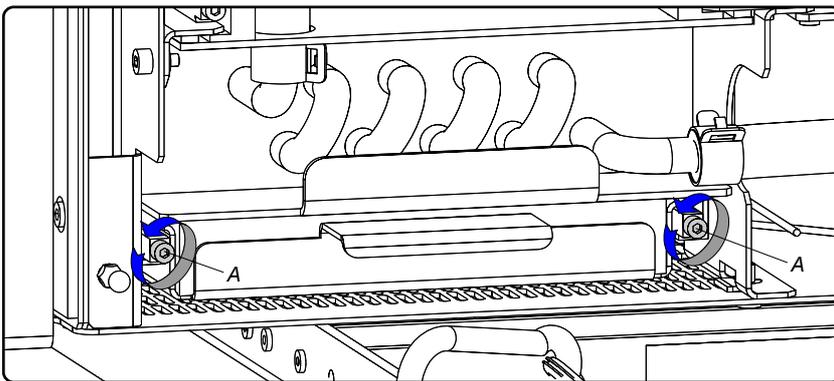


Image 2-8

3. Remove the filter (F) on the bottom side by pulling out the filter holder (H) as illustrated.

1. High Efficiency Particulate Arrestant

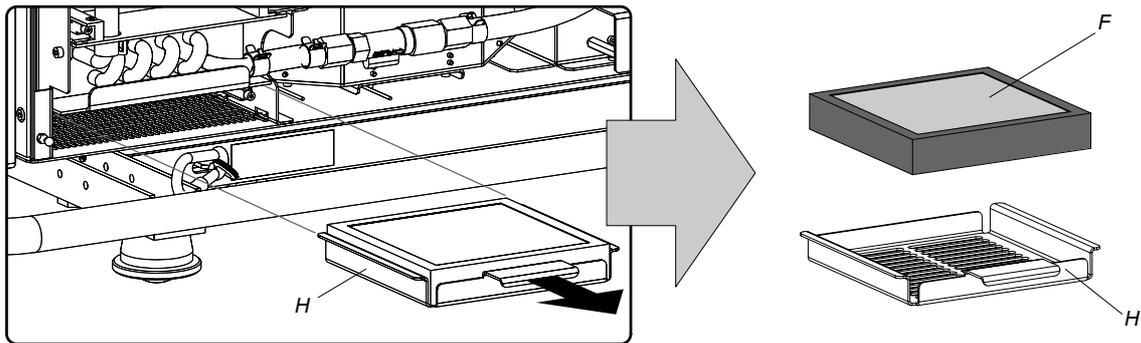


Image 2-9

4. Place a new HEPA dust filter in the filter holder.
5. Reinstall the filter holder containing the new HEPA filter.
6. Fasten the two wedge lock screws (A) using a 2.5 mm Allen key as illustrated.

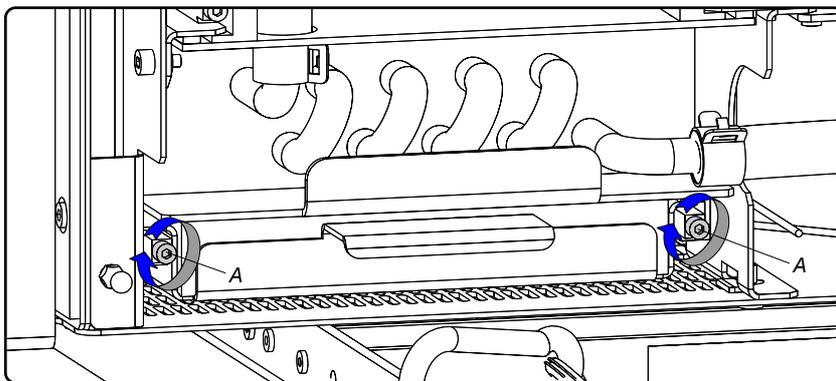


Image 2-10

7. Reinstall the side cover of the projector, see "Installation of the side cover", page 11.



**CAUTION: Never install a used HEPA filter. Always install a new HEPA filter.**

## 2.7 Replacement of the dust filter on the top side

### Necessary parts

New HEPA dust filter for the top side (R9854480).

### How to replace the HEPA dust filter on the top side of the projector ?

1. Remove the side cover of the projector, see "Removal of the side cover", page 7 .
2. Remove the filter (F) on the bottom side by pulling out the filter holder (H) as illustrated.

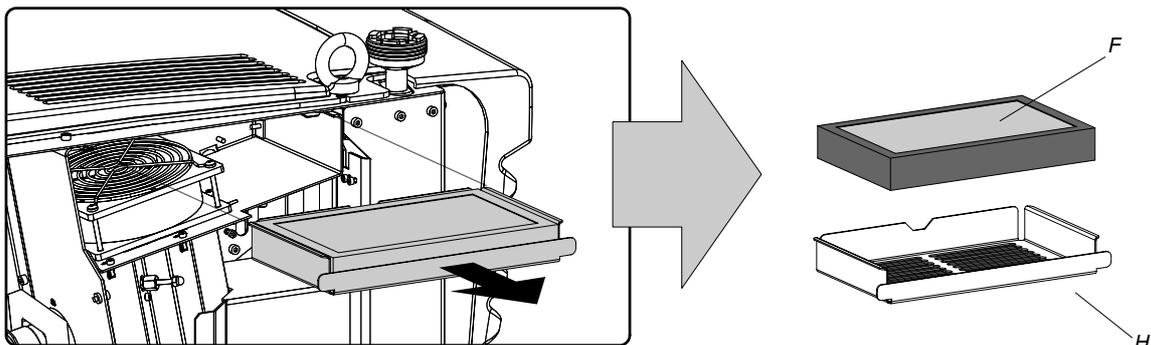


Image 2-11

## 2. Installation process

3. Place a new HEPA dust filter in the filter holder.
4. Reinstall the filter holder containing the new HEPA filter.
5. Reinstall the side cover of the projector, see "Installation of the side cover", page 11.



**CAUTION:** Never install a used HEPA filter. Always install a new HEPA filter.

## 2.8 Installation of the front cover

### Necessary tools

7 mm flat screw driver.

### How to install the front cover of the projector ?

1. Check if the front filter is present.
2. Ensure that no lens is mounted.
3. Install the front cover of the projector doing the following:
  - a) first hook in the side of the front cover at the front filter,
  - b) then gently push the other side of the front cover into position,
  - c) ensure that the locking studs in the corners click into their receivers.

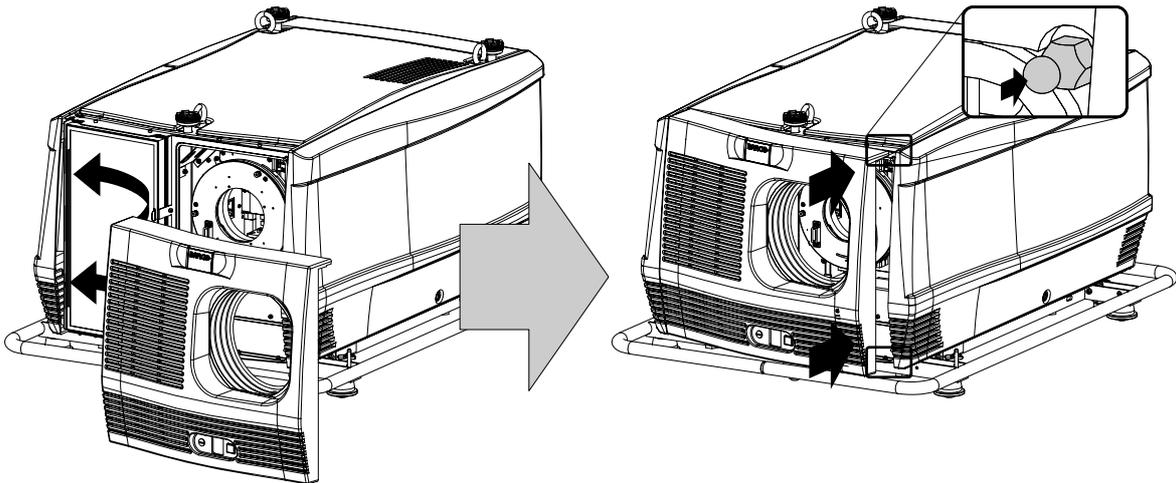


Image 2-12

4. Secure the front cover by locking the captive screw in the middle at the bottom of the front cover.

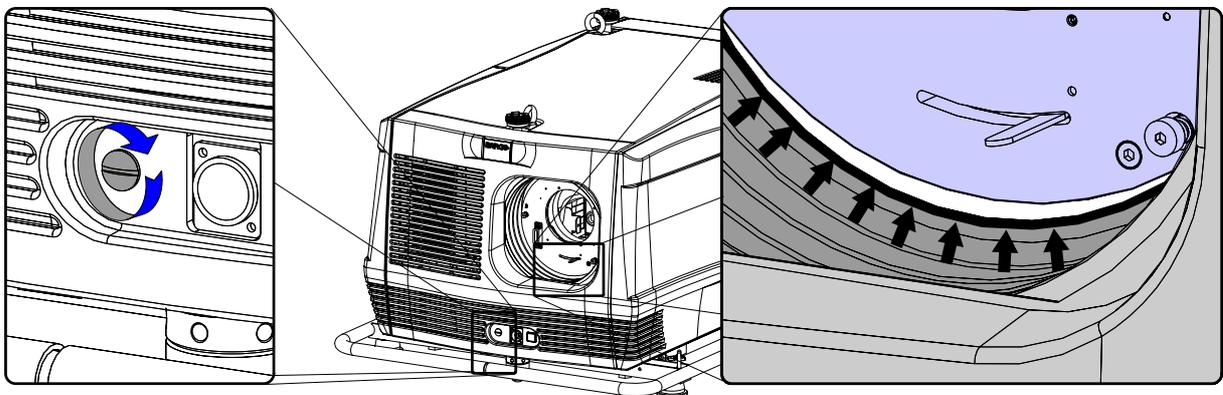


Image 2-13

5. Reinstall the rubber dust ring around the lens holder. See image 2-13.

## 2.9 Installation of the side cover

### Necessary tools

7 mm flat screw driver.

### How to install the side cover of the projector ?

1. Check if the bottom and top filters are present.
2. Check the pressure indicated on the internal manometer of the liquid cooling circuit. This pressure should be between 0,5 and 1 bar. If the pressure is out of range, inform the responsible and qualified technician, so he may take necessary corrective action.

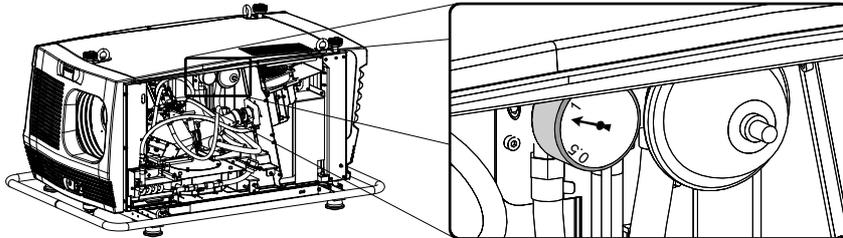


Image 2-14

3. Install the side cover of the projector doing the following:
  - a) Bring the side cover towards its final position (A),
  - b) then gently push the locking studs of the top corners (B) into their receivers,
  - c) then gently push the locking studs of the bottom corners (C) into their receivers.

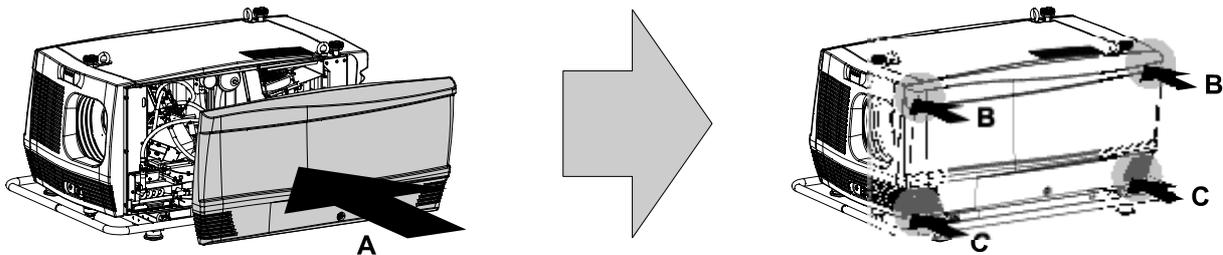


Image 2-15

4. Secure the side cover by locking the captive screw in the middle at the bottom of the side cover.

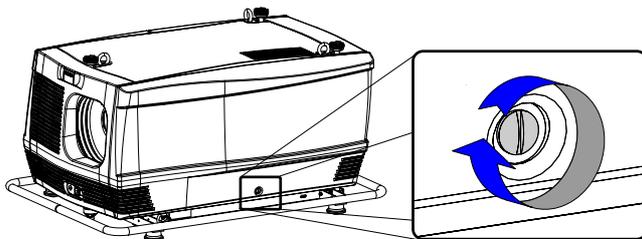


Image 2-16

## 2.10 Lens installation

### How to install a lens into the projector lens holder ?

1. Remove the foam rubber in the opening of the lens holder if not removed yet.
2. Take the lens assembly out of its packing material and remove the lens caps on both sides.
3. Place the lens holder in the "unlocked" position by moving the lens lock handle (A) towards the lens power supply socket (B) as illustrated.

## 2. Installation process

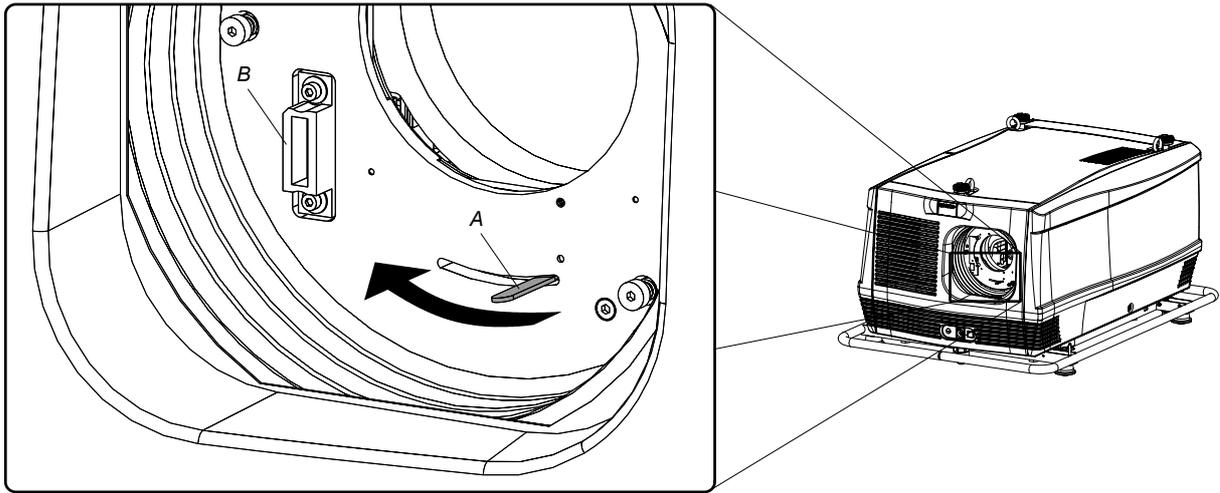


Image 2-17

4. Ensure that the lens holder stands in the On-Axis position (horizontal and vertical mid position).  
**Note:** The lens holder is placed default in the On-Axis position at factory.
5. Gently insert the lens in such a way that the lens connector matches the socket (B).

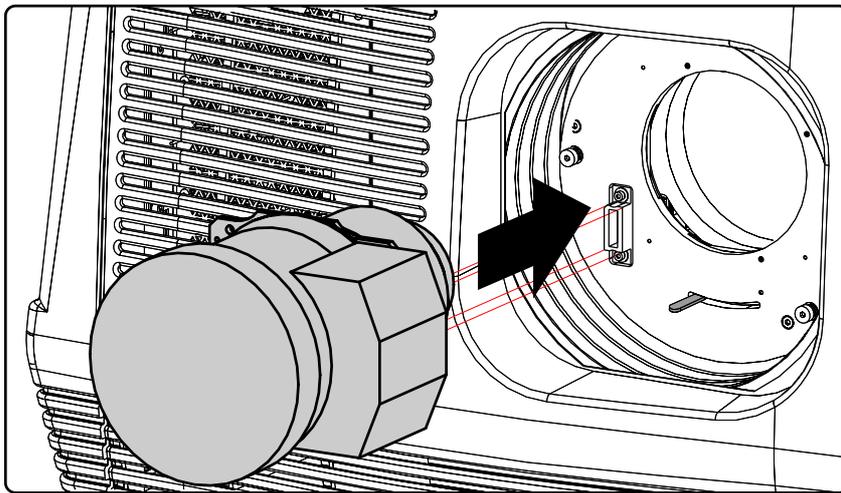


Image 2-18

6. Insert the lens until the connector seats into the socket.  
**Warning:** Do not release the lens yet, as the lens may fall out of the lens holder.
7. Secure the lens in the lens holder by sliding the lens lock handle into the "locked" position, which is away from the lens power supply socket. Ensure the lens touches the front plate of the lens holder.

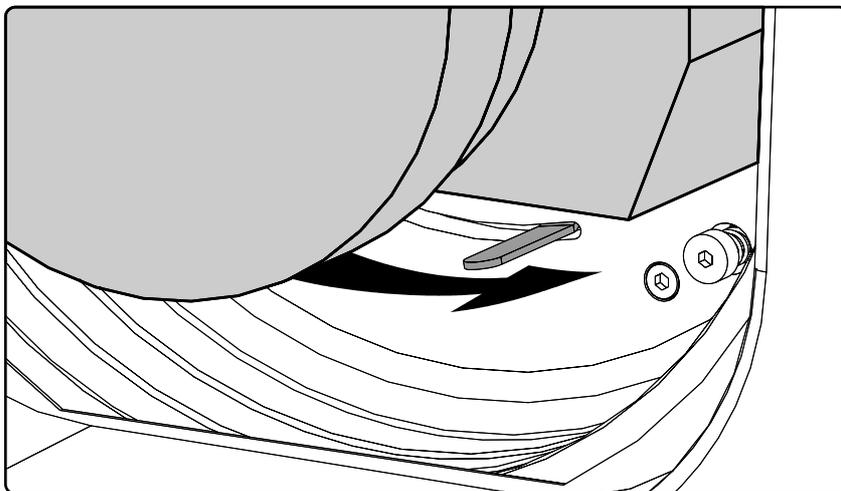


Image 2-19

8. Check if the lens is really secured by trying to pull the lens out of the lens holder.



**CAUTION:** Never transport the FLM R20+ Performer with a lens mounted in the lens holder. Always remove the lens before transporting the projector. Neglecting this can damage the lens holder and prism.

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