# TLD HB (2.8-5.0:1) Lens Kit



**Installation Manual** 

R9842100



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# 1. TLD HB (2.8-5.0:1) LENS KIT

# 1.1 Kit Contents

#### **Kit Contents**

Contents

- TLD HB (2.8-5.0:1) Lens.
- Installation Manual.
- Toraysee<sup>™</sup> Cloth.

# 1.2 Removing the installed lens

### What has to be done?

Removing the installed lens on the SLM series projector.

# **Necessary Tools**

No tools necessary.



WARNING: Risk of personal injury. Instructions for lens installation must be followed thoroughly.

#### How to remove the installed lens?

To remove the lens, follow the next procedure:

- 1. Support the lens with one hand. (image 1-1)
- 2. Move the handle of the lens anchor system to the left. (image 1-2)  $\,$
- 3. Take the lens unit out of the lens block. (image 1-3)



Image 1-1 Support the lens with one hand



Image 1-2 Move the handle of the lens anchor system to the left



Image 1-3 Take the lens out of the lens block

# 1.3 Installing the new lens

#### What has to be done?

This new lens has to be installed on the SLM series projector.

# **Necessary Tools**

No tools necessary.



WARNING: Risk of personal injury. Instructions for lens installation must be followed thoroughly.

# How to install the new lens?

To install the lens, follow the next procedure:

- 1. Take the lens assembly out of its packing material and remove the lens caps on both sides.
- 2. Move the handle (A) of the lens anchor system to the right. (image 1-4)

3. Push the lens, motors at the top, in the lens block gap horizontally, lining up the motor connector on the lens with the connector on the lens block (B), until the lens clicks in the lens anchor system.

**Caution:** For a table mounted projector, hold the projector when pushing the lens into the lens block to avoid sliding off from the table.



Image 1-4 Lens installation

# 1.4 Quick Lens Adjustment

#### Quick zoom/focus adjustment

- Press the Selection key \*, Barco key.
  The zoom/focus menu will be displayed. (image 1-5)
- 2. Push the cursor key  $\uparrow$  or  $\downarrow$  to zoom and  $\leftarrow$  or  $\rightarrow$  to focus the image.
- 3. When finished, press EXIT key to return or ENTER to continue to the shift adjustment.

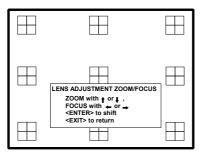


Image 1-5



Press the selection key \* to switch to another pattern. Different patterns are available.

#### Quick shift adjustment

- Press the Selection key \*, Barco key.
  The zoom/focus menu will be displayed (image 1-5).
- 2. Press ENTER.

The shift menu will be displayed. (image 1-6)

- 3. Push the cursor key  $\uparrow$  or  $\downarrow$  to shift the image up or down and  $\leftarrow$  or  $\rightarrow$  to shift the image left or right.
- 4. When finished, press EXIT key to return or ENTER to continue to zoom/focus.

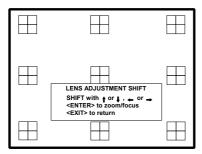


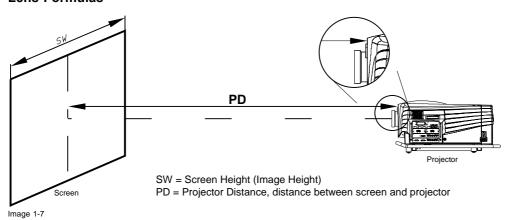
Image 1-6



Press the selection key \* to switch to another pattern. Different patterns are available.

# 1.5 Lens Formulas

# Lens Formulas



To calculate the distance between the projector front side and the screen (PD) for a given screen width (SW), use the following formula:

SLM Projector	Formula (in meter)	Formula (in inches)
SLM G5	PD <sub>min</sub> = 2.84 x SW - 0.16	PD <sub>min</sub> = 2.84 x SW - 6.30
	PD <sub>max</sub> = 5.18 x SW - 0.38	PD <sub>max</sub> = 5.18 x SW - 14.96
SLM G8	PD <sub>min</sub> = 2.84 x SW - 0.16	PD <sub>min</sub> = 2.84 x SW - 6.30
	PD <sub>max</sub> = 5.18 x SW - 0.38	PD <sub>max</sub> = 5.18 x SW - 14.96
SLM G10	PD <sub>min</sub> = 2.84 x SW - 0.16	PD <sub>min</sub> = 2.84 x SW - 6.30
	PD <sub>max</sub> = 5.18 x SW - 0.38	PD <sub>max</sub> = 5.18 x SW - 14.96
SLM R6	PD <sub>min</sub> = 2.80 x SW - 0.16	PD <sub>min</sub> = 2.80 x SW - 6.30
	PD <sub>max</sub> = 5.10 x SW - 0.38	PD <sub>max</sub> = 5.10 x SW - 14.96
SLM R8	PD <sub>min</sub> = 2.80 x SW - 0.16	PD <sub>min</sub> = 2.80 x SW - 6.30
	PD <sub>max</sub> = 5.10 x SW - 0.38	PD <sub>max</sub> = 5.10 x SW - 14.96
SLM R10	PD <sub>min</sub> = 2.80 x SW - 0.16	PD <sub>min</sub> = 2.80 x SW - 6.30
	PD <sub>max</sub> = 5.10 x SW - 0.38	PD <sub>max</sub> = 5.10 x SW - 14.96
SLM R12+	PD <sub>min</sub> = 2.58 x SW - 0.16	PD <sub>min</sub> = 2.58 x SW - 6.30
	PD <sub>max</sub> = 4.71 x SW - 0.38	PD <sub>max</sub> = 4.71 x SW - 14.96

RLM Projector	Formula (in meter)	Formula (in inches)
RLM G5 (*)	PD <sub>min</sub> = 3.53 x SW - 0.14 PD <sub>max</sub> = 6.43 x SW - 0.35	PD <sub>min</sub> = 3.53 x SW - 5.51 PD <sub>max</sub> = 6.43 x SW - 13.78
RLM G5+ (*)	PD <sub>min</sub> = 3.53 x SW - 0.14	PD <sub>min</sub> = 3.53 x SW - 5.51
	PD <sub>max</sub> = 6.43 x SW - 0.35	PD <sub>max</sub> = 6.43 x SW - 13.78
RLM H5 (*)	PD <sub>min</sub> = 2.83 x SW - 0.14 PD <sub>max</sub> = 5.15 x SW - 0.35	PD <sub>min</sub> = 2.83 x SW - 5.51 PD <sub>max</sub> = 5.15 x SW - 13.78
RLM R6+	$PD_{min} = 2.58 \times SW - 0.14$ $PD_{max} = 4.71 \times SW - 0.35$	PD <sub>min</sub> = 2.58 x SW - 5.51 PD <sub>max</sub> = 4.71 x SW - 13.78

<sup>(\*)</sup> Optical adapter R9832650 is required

# 1.6 Cleaning the lens



To minimize the possibility of damaging the optical coating or scratching exposed lens surface, we have developed recommendations for cleaning the lens. FIRST, we recommend you try to remove any material from the lens by blowing it off with clean, dry deionized air. DO NOT use any liquid to clean the lenses.

#### **Necessary tools**

Toraysee™ cloth (delivered together with the lens kit). Order number : R379058.

#### How to clean the lens?

Proceed as follow:

- 1. Always wipe lenses with a CLEAN Toraysee™ cloth.
- 2. Always wipe lenses in a single direction.
- Warning: Do not wipe back and forwards across the lens surface as this tends to grind dirt into the coating.3. Do not leave cleaning cloth in either an open room or lab coat pocket, as doing so can contaminate the cloth.
- 4. If smears occur when cleaning lenses, replace the cloth. Smears are the first indication of a dirty cloth.



**W**ARNING: Do not use fabric softener when washing the cleaning cloth or softener sheets when drying the cloth.

Do not use liquid cleaners on the cloth as doing so will contaminate the cloth.



CAUTION: Other lenses can also be cleaned safely with this Toraysee™ cloth.

# **Revision Sheet**

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