

MAC 2000 Wash XB™ Beam Kit Installation Guide

Introduction

This Installation Guide explains how to install the MAC 2000 Wash XB™ Beam Kit, P/N 91610103, to convert a Martin Professional™ MAC 2000 Wash XB™ to a MAC 2000 Wash Beam XB™ model. Installation only takes a few minutes. The Beam Kit can also be installed in a standard MAC 2000 Wash™ following this guide.

If you keep the standard components you remove, the MAC 2000 Wash Beam XB components can be uninstalled and the fixture returned to standard MAC 2000 Wash XB configuration at any time.

For the latest documentation and information about this and all Martin Professional products, please visit the Martin website at www.martin.com.



Warning! The MAC 2000 Wash Beam XB has a much more intense light beam than the standard MAC 2000 Wash XB. Do not use the Beam fixture to illuminate any surface closer than 5 meters (16 ft. 5 inches), or you may create a fire risk.



Warning! Apart from the new minimum distance to illuminated surfaces specified above, follow all the other safety precautions in the MAC 2000 Wash XB user manual when installing the MAC 2000 Wash Beam XB Kit and using the modified product. The user manual is supplied with MAC 2000 Wash XB fixtures, and the latest revision of the user manual is also available for download from the Product Support page for the MAC 2000 Wash XB at www.martin.com

Warning! Disconnect the fixture from power and allow to cool for at least 20 minutes before starting work.

Warning! The MAC 2000 Wash Beam XB Kit must be installed by qualified professional technicians only. Read all of this Installation Guide carefully before starting to install the Kit.

If you have any questions about how to install the MAC 2000 Wash Beam XB Kit or use the MAC 2000 Wash Beam XB safely, please contact your local Martin distributor (see www.martin.com/distributors for details) or call the Martin 24-hour service hotline on +45 8740 0000, or in the USA on 1-888-tech-180.

Important! Make sure that the front lens does not face the sun directly for longer than a few seconds at any time during daylight hours. The Beam lens can focus the sun's rays inside the fixture, causing internal damage and creating a possible fire risk

Important! Do not get oil or grease onto optical components. If necessary, clean components with 99.9% isopropyl alcohol.

Overview

The MAC 2000 Wash Beam XB Upgrade Kit contains the following items:

- MAC 2000 XB Beam front lens assembly, P/N 55204010
- 'Small Aperture Ø18' beam effect gobo, P/N 43006015
- 'Cone' beam effect gobo, P/N 43006012
- 'Medium Aperture Ø28' beam effect gobo, P/N 43006014
- 'Three Dots' beam effect gobo, P/N 43006013
- Warning label (min. distance to illuminated surfaces), P/N 33150093

Keep the protective packaging from the front lens assembly for possible re-use.

Installation procedure

To install the MAC 2000 Wash Beam XB components in a standard MAC 2000 Wash XB fixture:

1. Disconnect the fixture from power and allow it to cool for at least 45 minutes.
2. See Figure 1. Release the head cover retaining screws (arrowed), unclip the head cover safety cables and remove both head covers.
3. Apply the tilt lock with the head topside up (in this position the text on the back of the head is the right way up).

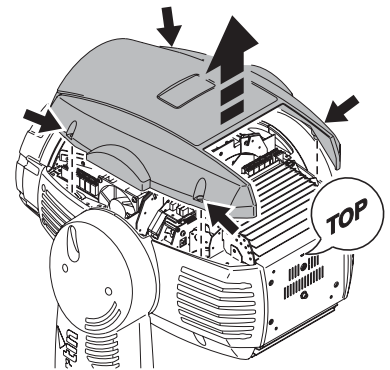


Figure 1

4. See Figure 2. Remove the four flathead quarter-turn screws from the front lens assembly, release the front lens safety attachment and remove the front lens assembly. Store it for possible re-use if the fixture is to be returned to standard MAC 2000 Wash XB configuration at a later time.

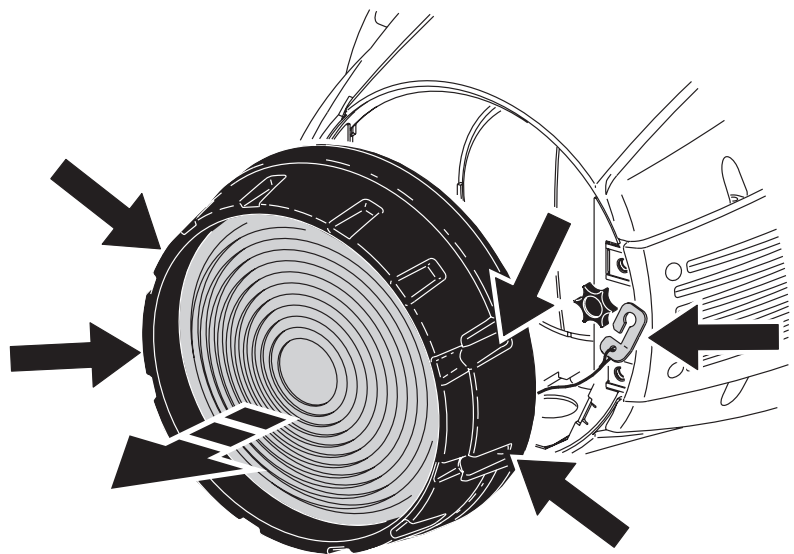


Figure 2

5. See Figure 3. MAC 2000 Wash XB and standard MAC 2000 Wash fixtures are supplied with 30, 40, 45 and 50 mm aperture rings. The 50 mm ring is installed at the factory and the three other sizes are secured in the front of the head with a thumbscrew (see solid arrow). The Beam Kit gives best results with the original 50 mm aperture ring, so re-install it if necessary. Aperture rings are installed in a spring-loaded bayonet mount in the beam path.

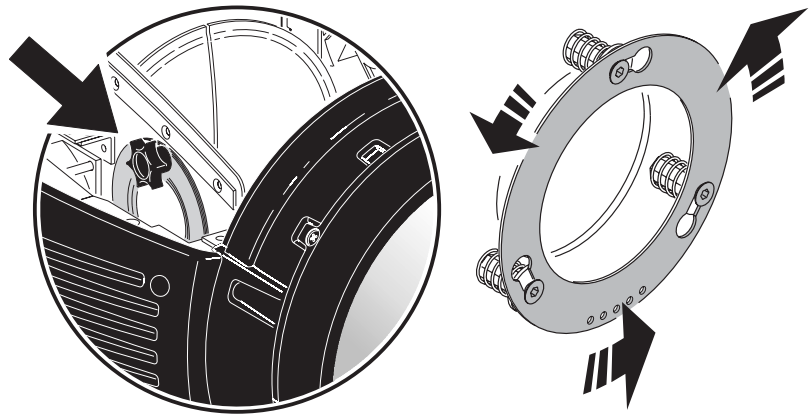


Figure 3

If you reinstall the original front lens at a later date to return the fixture to standard MAC 2000 Wash XB configuration, remember to re-install the aperture ring used in the standard fixture.

6. Four beam effect gobos are supplied in the Kit. These can be installed in place of the color flags on color wheel 2. We recommend that you install beam effect gobos in the positions listed in this guide in all the fixtures you modify, so that all MAC 2000 Wash Beam XB fixtures will have identical behavior under DMX control. A copy of this illustration is included on the last page of this guide as a reference for lighting designers and lighting desk operators.

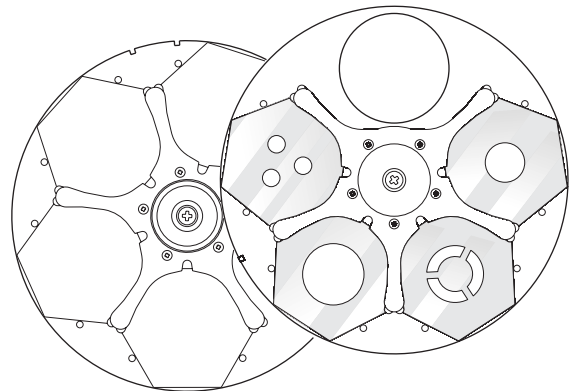


Figure 4

7. See Figure 5. To install a beam effect gobo, remove a color filter from color wheel 2 by pressing it gently away from its retaining tabs and lifting it carefully out of the color wheel. Install beam effect gobos as follows:

Original color filter	Slot	Replace with gobo
Red 308	1	Beam small aperture Ø18 mm (P/N 43006015)
Orange 306M	2	Beam cone (P/N 43006012)
Green 208	3	Beam medium aperture Ø28 mm (P/N 43006014)
Blue 102	4	Beam 3 dots (P/N 43006013)

8. Some color filters have small beads of silicone applied to them to act as cushions. If a bead of silicone from a color filter has become stuck to the color wheel, remove it and replace it on the color filter.

- See Figure 5. Install the gobos by gently levering up the retaining clips in the color wheel and sliding them into place until they locate securely. **Important!** Make sure that the *black side will face the front lens* and the *shiny side will face the lamp* when the module is reinstalled. Store the original color filters safely for possible future re-use.

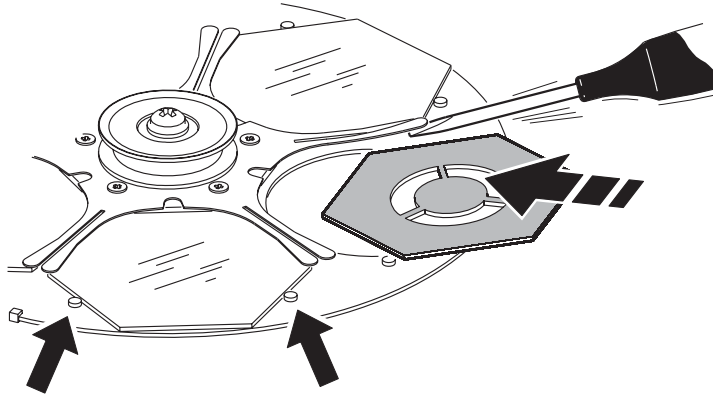


Figure 5

- See Figure 6. Like the old front lens, the new front lens assembly (P/N 55204010) has a safety cable with a carabiner clip. Attach the clip to the head, then push the clip flat to give space for the front lens assembly.

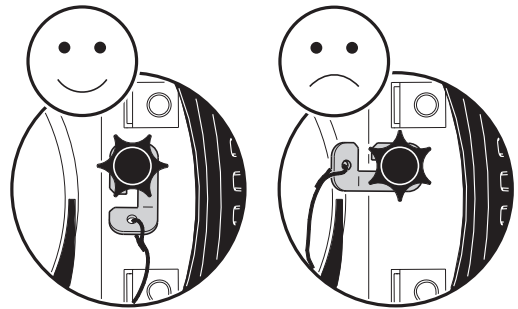


Figure 6

- See Figure 7. Fasten the new front lens assembly securely onto the front of the head with its four quarter-turn flathead screws.

- A warning label giving the minimum distance from illuminated surfaces is supplied in the Kit. Stick it onto the base in a position where it easily visible position. With the Beam Kit installed, this label replaces the warning printed on the standard MAC 2000 Wash Beam XB.

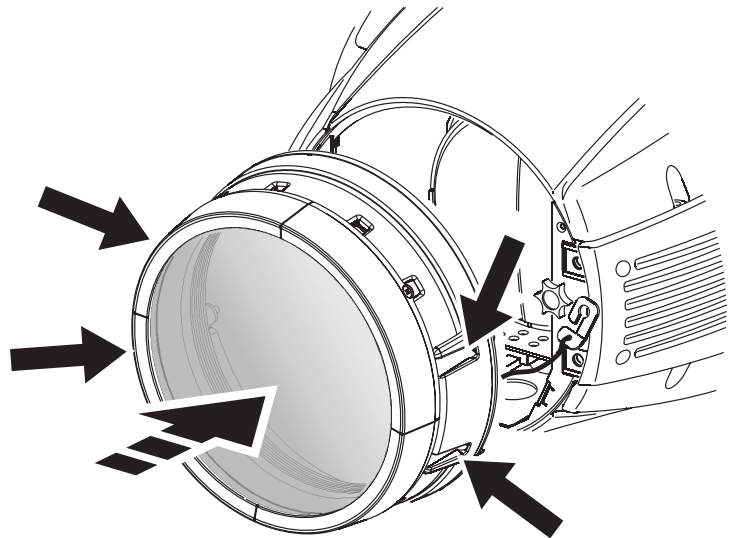
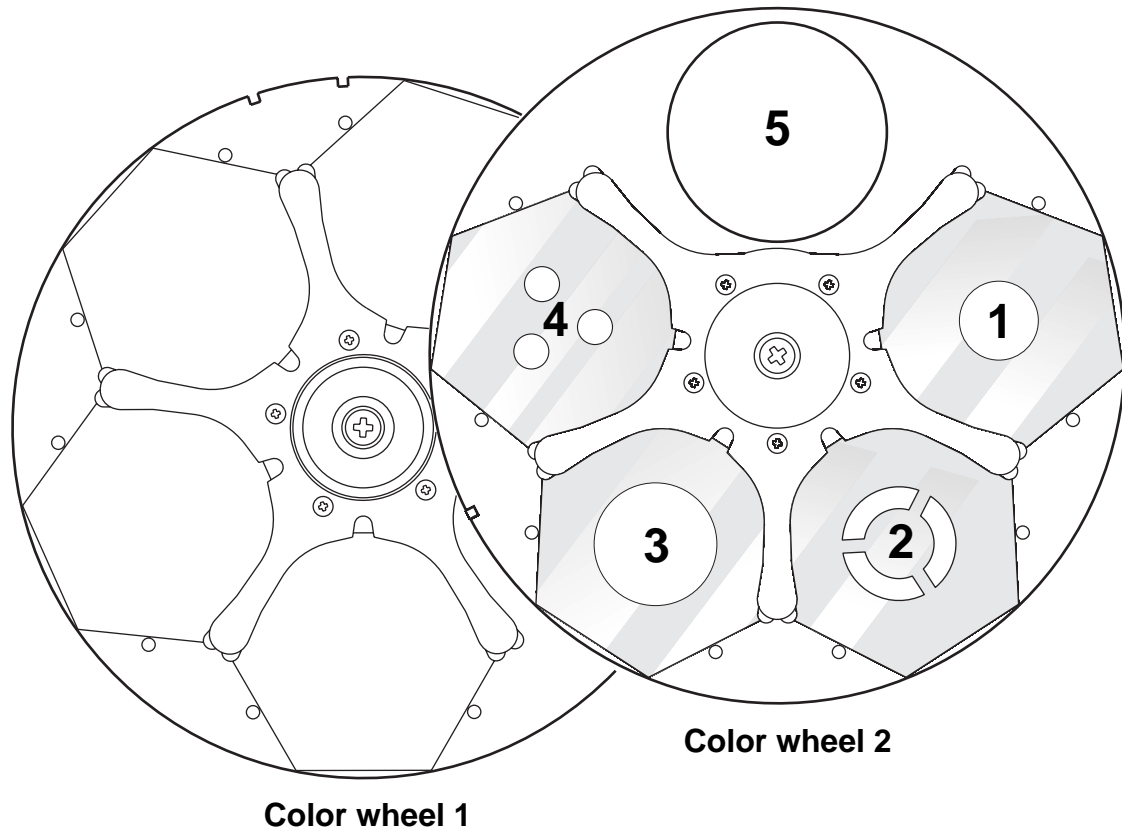


Figure 7

Warning! *Do not illuminate any surface closer than 5 meters (16 ft. 5 inches) with the MAC 2000 Wash XB after installing a Beam Kit. Do not allow the front lens to point at the sun.*

- Finally, check and if necessary adjust the lamp alignment as described in the MAC 2000 Wash XB user manual supplied with fixtures and available for download from www.martin.com

Appendix A: MAC 2000 Wash XB Beam recommended gobo positions



1. Beam small aperture Ø18 (P/N 43006015)
2. Beam cone (P/N 43006012)
3. Beam medium aperture Ø28 (P/N 43006014)
4. Beam 3 dots (P/N 43006013)
5. Open

The color wheels are shown as seen from the lamp side.

Notes

Appendix B: Changes in control

Control menu

When the MAC 2000 Wash Beam XB gobos are installed, the control menu commands *MAN* → *COL 2* → *COL 1* - *COL 4* now manually select the beam effect gobos shown on the previous page rather than color filters.

DMX

DMX Channel 8 (in both 16-bit and 8-bit modes) now controls beam effect gobos as shown below:

8	0	0	Beam gobo wheel scrolling and rotation, random CMY
	1 - 31	1 - 12	Continuous scrolling (split gobos)
	32	13	Open
	33 - 63	14 - 24	Open → Beam small aperture Ø18
	64	25	Beam small aperture Ø18
	65 - 95	26 - 37	Beam small aperture Ø18 → Beam cone
	96	38	Beam cone
	97 - 127	39 - 50	Beam cone → Beam medium aperture Ø28
	128	51	Beam medium aperture Ø28
	129 - 159	52 - 62	Beam medium aperture Ø28 → Beam three dots
160	63	Beam three dots	
			Beam three dots → Open
			Open
			Stepped scrolling (full gobos)
161 - 165	64 - 65	Beam three dots	
166 - 170	66 - 66	Beam medium aperture Ø28	
171 - 175	67 - 68	Beam cone	
178 - 180	69 - 70	Beam small aperture Ø18	
181 - 185	71 - 72	Open	
			Continuous rotation
186 - 214	73 - 84	Clockwise, fast → slow	
215 - 243	85 - 95	Counterclockwise, slow → fast	
244 - 255	96 - 100	No function	



Martin Professional A/S • Olof Palmes Allé 18 • 8200 Aarhus N • Denmark
Tel: +45 8740 0000 • Fax +45 8740 0010 • www.martin.com