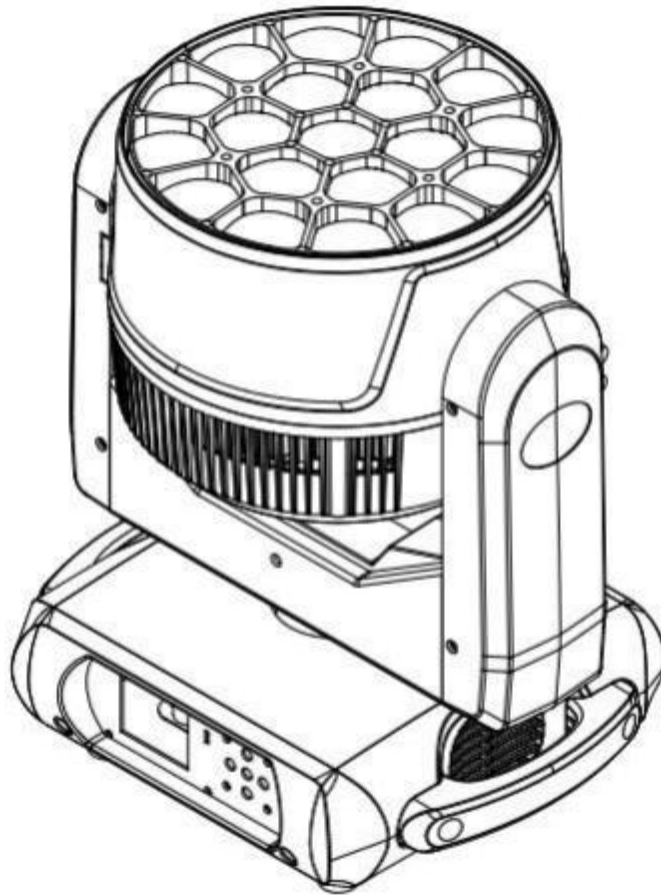


BOEYE K15 MINI



USER MANUAL

KEEP THIS USER MANUAL FOR FUTURE NEEDS

Thank you for your patronage!

We are confident that our excellent products and service can satisfy you.

For your own safety, please read this user manual carefully before installing the device.

In order to install, operate, and maintain the lighting safety correctly.

We suggest that the installation and operation should be done by the verified technician and follow the instruction strictly.



CAUTION!

Keep this device away from rain and moisture!



CAUTION!

Unplug mains lead before opening the housing!

Every person involved with the installation, operation and maintenance of this device has to:
-be qualified

-follow carefully the instructions of this manual

INTRODUCTION:

Thank you for having chosen this professional moving head.

You will see you have acquired a powerful and versatile device.

Unpack the device. Inside the carton box you should find:

1. One power in cable&power out connector optional
2. One 3Pin DMX cable
3. Two mounted brackets
4. One safety rope
5. One English user manual

(Flight case, Clamps are optional, please contact your dealer)

Please check carefully that there is no damage caused by transportation. Should there be any questions, please consult your dealer and don't install this device.

GENERAL GUIDELINES

This device is a lighting effect for a professional use on stages, TV, in discotheques, theaters, etc.,
The device was designed for indoor use only.

This fixture is only allowed to be operated with the max alternating current which stated in the technical specifications in 6th page of this manual.

Lighting effects are not designed for permanent operation. Consistent operation breaks may ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device.

While choosing the installation-spot, please make sure that the device is not exposed to extreme heat, moisture or dust. Please don't project the beam onto combustible substances. The minimum distance between light-output from the projector and the illuminated surface must be more than 0,5 meter.

If you use the quick lock cam in hanging up the fixture, please make sure the quick lock fasteners

turned in the quick lock holes correctly.

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation.

Please use the original packaging if the device is to be transported.

For safety reasons, please be aware that all modifications on the device are forbidden. If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to short-circuit, burns, electric shock, crash, etc.

SAFETY INSTRUCTIONS



CAUTION!

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching wires!

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.

1. In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degrees.

2. Always mount this unit in safe and stable matter.

The qualified professionals are allowed to carry out the lamp installation, operation and maintenance, but they must guarantee to operate in strict accordance with the instructions referred to.

▲ Important:

Damages caused by the disregard of this user manual are not subject to warranty.

The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperatures.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.

Please don't project the beam onto combustible substances.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

**CAUTION!**

Never touch the device during operation!
The housing may heat up!

**CAUTION!**

Never look directly into the light source,
As sensitive persons may suffer an epileptic shock.

Please be aware that damages caused by manual modifications to be the device are not subject to warranty. Keep away from children and non-professionals.

CLEANING AND MAINTENANCE

1. To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
2. Do not spill water or other liquids into or on to your unit.
3. During long periods of non-use, disconnect the unit's main power.
4. It should be installed in a well-ventilated place, at a distance of 50 centimeters or more with the walls. At the same time, please check if the fan and ventilation holes are unobstructed.

The following points have to be considered during the inspection

- 1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- 2) There must not be any deformations on the housing. Fixations and installations spots(ceiling, suspension, trussing).
- 3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- 4) The electric power supply cables must not show any damage, material fatigue or sediments. Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.

**CAUTION!**

Disconnect from mains before starting maintenance operation!

In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

- 1) Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.
- 2) Clean the fan each week.
- 3) A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents.

TECHNICAL PARAMETERS

Power supply

AC110-240V 50/60 Hz

Power consumption: 500W

Light source

19*40W RGBW 4 in1 LEDs

Individual LED control

Average life: 50,000 hrs

Color temperature: 2500K-8000K

Effect

Zoom angle: 4-60 °

Wash/Beam/Graphic/Effects function

Front lens can rotated infinity

With “vortex ” and “kaleidoscope ” effects

Variable built-in dynamic effects

4 Liner dimming curves

2 color mode (RGBW / CMY)

Strobe: 1-25 hz, random and pulse flash

Control

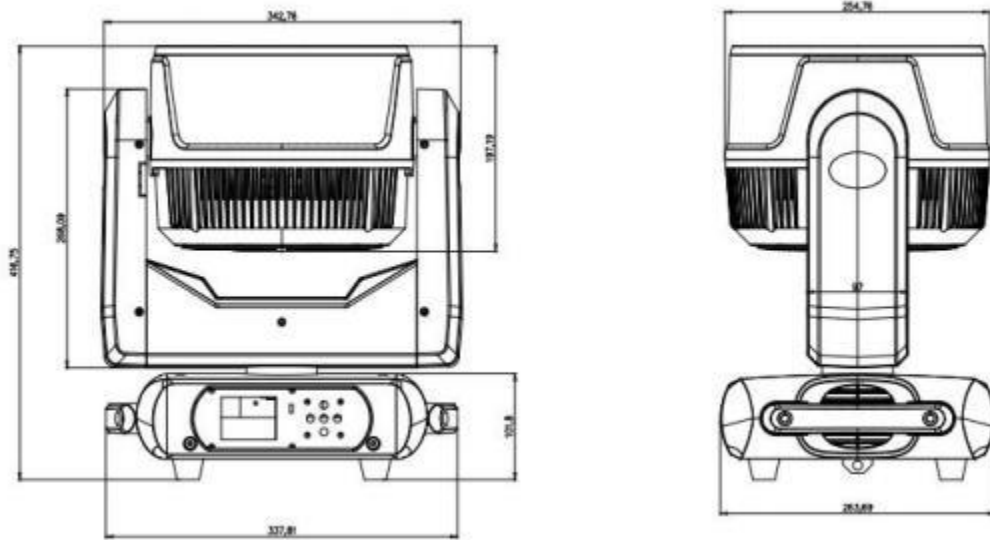
Pan/Tilt: 540/270 °

Control mode: DMX512

DMX channels: 21/35/78/92/97

XLR in & out: 3-pin Or 5-pin

Fixture Size



MOUNTING AND INSTALLATION

Cautions:

For added protection mount the fixtures in areas outside walking paths, seating areas, or in areas where the fixture might be reached by unauthorized personnel.

Before mounting the fixture to any surface, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

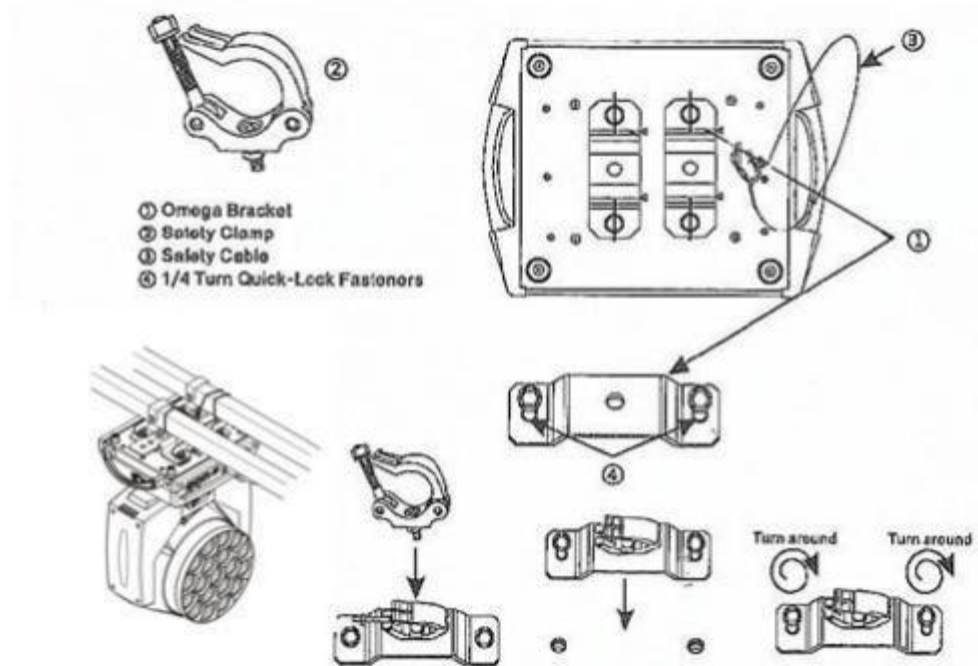
Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.

Never stand directly below the device when mounting, removing, or servicing the fixture from a periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

Be sure to complete all rigging and installation procedures before connecting the main

power cord to the appropriate wall outlet.

Clamp Mounting: The B-Eye provides a unique mounting bracket assembly that integrates the bottom of the base, the included “Omega Bracket,” and the safety cable rigging point in one unit (see the illustration below). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included omega bracket using a M10 screw fitted through the center hole of the “omega bracket”. As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using on of the safety cable rigging point integrated in the base assembly.

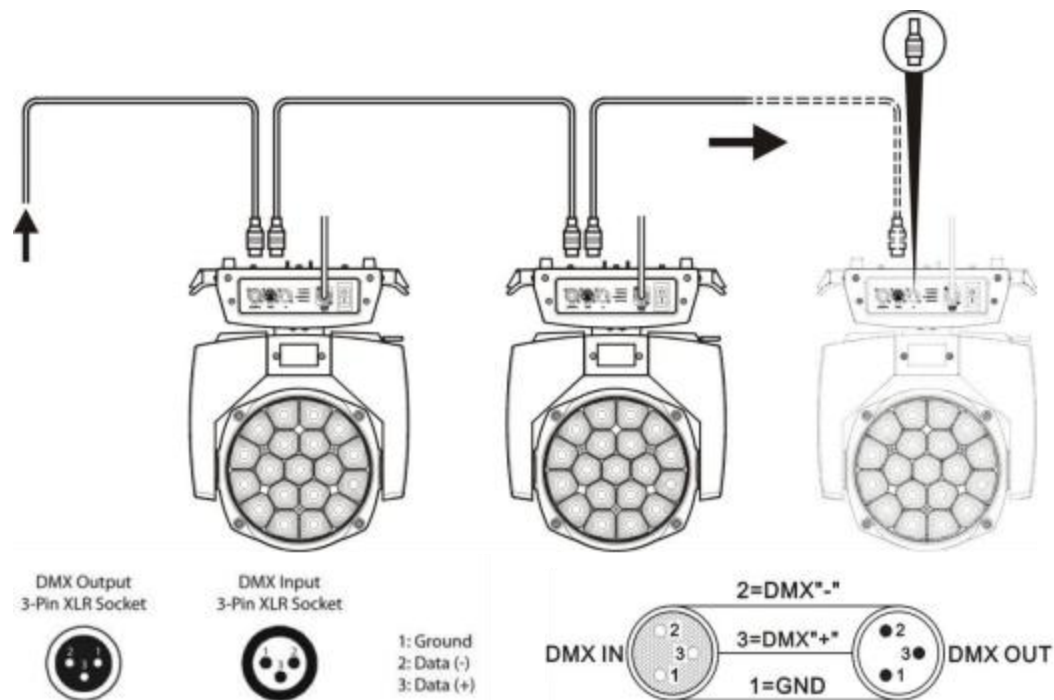


Regardless of the rigging option you choose for your B-Eye, always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to a carrying handle.

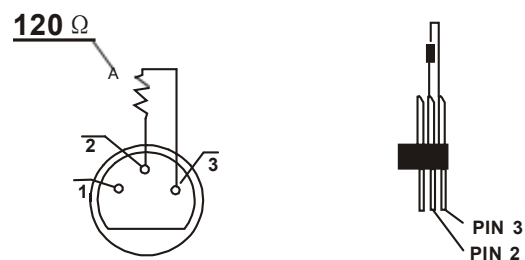
DMX-512 CONTROL CONNECTIONS

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple Moving heads be connected together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

DMX-512 connection with DMX terminator:



For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.



FUNCTIONS OF BUTTONS



The function of Reversal of the display is activated automatically when the fixture reversed

	Confirms the displayed value, or activates the displayed function, or enters the successive menu.
	Decreases the value displayed (with auto-repetitions) or passes to the next item in the menu.
	Increases the value displayed (with auto-repetitions) or passes to the previous item in a menu.
	Return to the top level.
	Commute from units, tens, hundreds, in the "Address", "Fixture ID" and "Calibration" menu.

USING THE MENU:

- 1) Press "OK" once - "Main Menu " appears on the display.
- 2) Use the UP and DOWN keys to select the menu to be used:
 - Setup (Setup Menu): To set the setting options.
 - Option (Option Menu): To set the operating options
 - Informations (Informations Menu): To read the counters, software version and other information.
 - Manual Control (Manual control Menu): To trigger the test and manual control functions.
 - Test (Test Menu): To check the proper functioning of effects
 - Advanced (Advanced Menu): Access to the "Advanced menu" is recommended for a trained technical personnel.

"Advanced" password:988

- 3) Press "OK" to display the first item in the selected menu.
- 4) Use the UP and DOWN keys to select the MENU items.

Main Mmenu	Secondary Menu	The third Menu/Parameter
Address	001 - 512	(add channel number each time, subtract normal)
System Settings	Operating Mode	Artnet/DMX/Sound/Auto
	Channel Mode	21 21+RGB 21+RGBW 35 35+RGB
	Pan default Location	0-255
	Tilt Default Location	0-255
	Pan	ON/OFF
	Tilt	ON/OFF
	Pan/Tilt Exchange	ON/OFF
	Pan/Tilt Fast	ON/OFF
	Signal Hold	ON/OFF
	Optocoupler Error Correction	ON/OFF
	Hall Error Correction	ON/OFF
	Synchronization Update	ON/OFF
	Backlight Time	15Second/30Second/60Second/Turn on
	Reset	confirm/Cancel
Test Mode	Current Channel Mode Channel	0-255
System Calibration	Enter Password	Fixture Calibration
Advanced Mode	Network	
	Data Pack	
	Lamp Head Reset	
	Pan/Tilt Reset	
	Reset All	
System Message	Reset Error Message	Show reset error message
	DMX Data Monitoring	Receive the channel value of the console
	Sensor Information	Hall Information
		X optocoupler information
		Y optocoupler information
	Hardware Version 10	show hardware version
	Software Version	Show software version
	Cumulative Usage Time	machine use time

Screen auto-rotate function

The system can automatically rotate the screen according to the direction of gravity without manual rotation. You can also turn off the auto-rotate feature.

Manual Testing

This interface is used to control the current fixture.

Press the "OK" key to enter the editing state. Press the "Up" and "Down" keys to change the channel value. Press "OK" again to save the modified value and exit editing, press "Exit" to directly exit editing without saving the modified value.

System Calibration

Enter the password "0000" and press the "OK" button to enter.

Options	Explanation
Motor calibration	After entering the sub-interface, you can adjust the strokes of the X-axis, Y-axis, focusing, and rotating motors. The adjustment range is 0~255, and 127 means no adjustment.
Power calibration	After entering the sub-interface, the power of 19 lamp beads can be adjusted, the adjustment range is 0~255, and 255 means the maximum power.
white balance calibration	After entering the sub-interface, you can adjust the white balance of the total LED of the lamp and the red, green, blue and white of LED1- 19, and 255 means the maximum white balance.
Other calibration	Voice-activated sensitivity calibration, and password modification.

Advanced mode

Options	Explanation
Internet	IP/MS can be changed
Data Pack	Net(0- 127)/Sub_Uni can be changed
Lamp head reset	Motor reset for effects other than XY
Pan/Tilt Reset	Pan/Tilt reset
All reset	Fixture reset

System Information

Options	Explanation
Reset Information	If the red ERR indicator is on, it means that the lamp is running incorrectly, and you can enter the sub-interface to view the details
DMX Data Monitoring	Enter the sub-interface to display the channel value in numerical value for viewing
Sensor Information	Real-time monitoring of the status of sensors such as optocouplers and Halls on the lamp
Hardware Version Number	Lighting Hardware Information
Software Version Number	Fixture software version

CHANNEL LIST

CH	STANDARD-21	CH	SHAPE-35	CH	EXTENDED-78	CH	EXTENDED RGBW-92	CH	EXTENDED RGBW-97
1	Red	1	Red	1	Red	1	Red	1	Red
2	Red fine	2	Red fine	2	Red fine	2	Red fine	2	Red fine
3	Green	3	Green	3	Green	3	Green	3	Green
4	Green fine	4	Green fine	4	Green fine	4	Green fine	4	Green fine
5	Blue	5	Blue	5	Blue	5	Blue	5	Blue
6	Blue fine	6	Blue fine	6	Blue fine	6	Blue fine	6	Blue fine
7	White	7	White	7	White	7	White	7	White
8	White fine	8	White fine	8	White fine	8	White fine	8	White fine
9	Linear CTO	9	Linear CTO	9	Linear CTO	9	Linear CTO	9	Linear CTO
10	Marco color	10	Marco color	10	Marco color	10	Marco color	10	Marco color
11	Strobe	11	Strobe	11	Strobe	11	Strobe	11	Strobe
12	Dimmer	12	Dimmer	12	Dimmer	12	Dimmer	12	Dimmer
13	Dimmer fine	13	Dimmer fine	13	Dimmer fine	13	Dimmer fine	13	Dimmer fine
14	Pan	14	Pan	14	Pan	14	Pan	14	Pan
15	Pan fine	15	Pan fine	15	Pan fine	15	Pan fine	15	Pan fine
16	Tilt	16	Tilt	16	Tilt	16	Tilt	16	Tilt
17	Tilt fine	17	Tilt fine	17	Tilt fine	17	Tilt fine	17	Tilt fine
18	Function	18	Function	18	Function	18	Function	18	Function
19	Reset	19	Reset	19	Reset	19	Reset	19	Reset
20	Zoom	20	Zoom	20	Zoom	20	Zoom	20	Zoom
21	Zoom Rotation	21	Zoom Rotation	21	Zoom Rotation	21	Zoom Rotation	21	Zoom Rotation
		22	Shape selection	22	Red Led 1	22	Shape selection	22	Red Led 1
		23	Shape speed	23	Green Led 1	23	Shape speed	23	Green Led 1
		24	Shape fade	...	Blue Led 1	24	Shape fade	24	Blue Led 1
		25	Shape R	...	Red Led...	25	Shape R	25	White Led 1
		26	Shape G	...	Green Led...	26	Shape G	26	Red Led 2
		27	Shape B	75	Blue Led...	27	Shape B	27	Green Led2
		28	Shape W	76	Red Led19	28	Shape W	28	Blue Led2
		29	Shape dimmer	77	Green Led19	...	...	...	White Led2
		30	Background dimmer	78	Blue Led19	...	...	...	Red Led...
		31	Shape transition			90	Red dimmer 19	...	Green Led...
		32	Shape offset			91	Green dimmer 19	...	Blue Led...
		33	Foreground strobe			92	Blue dimmer 19	93	White Led...
		34	Background strobe					94	Red Led19
		35	Background select					95	Green Led19
								96	Blue Led19
								97	White Led19

SHAPE MODE DESCRIPTION

CONCEPTS: FOREGROUND AND BACKGROUND

The powerful shapes engine embedded in the LiteLEES Big-EYE L10 ROTATION and L10 EASY allows the user to set all the possible parameters relating to the pixels of the light in an organic way, with a distinction between the pixels affected by a selected "image" and the ones that are not affected by that specific image (more properly called SHAPE from now on).

The macro called "ring 2" will, as an example, involve all the pixels that compose the ring of the unit, while the middle pixel and the 1 smaller ring will not be affected by the shape. The involved pixels will belong to the "Foreground" layer, while all the remaining pixels will belong to the "Background" layer.

Pixels on the foreground take the colour the user will select specifically for them using the dedicated channels, while the remaining pixels will all maintain the colours related to the washlight.

SHAPE PARAMETERS DESCRIPTION

SHAPE SELECTION	Allows to choose the kind of shape to be visualized amongst the 63 available ones. Each shape can be composed of a multitude of frames or be a single, static image.
SHAPE SPEED	Allows to set the speed at which the different frames of the selected shape are played by the unit.
SHAPE FADE	In case of shapes with multiple frames, it allows to select a snap or faded variation from frame to frame of the same shape.
SHAPE RGBW	Allows to select the colour of the pixels composing the selected shape, if all are left at 000 no shape will be visualized (unless the background dimmer and normal RGBW attributes of the unit are given a value, in which case a "negative" of the macro will be shown)
SHAPE DIMMER	Allows to select the overall brightness of the pixels involved in the selected shape.
BACKGROUND DIMMER	Allows to select the overall brightness of the pixels NOT involved by the selected shape. The relevant colour is set using the normal RGBW channels of the washlight.
SHAPE TRANSITION	Internal fade time between a shape and another one set via DMX. Using this "channel" when you change from a shape to a different one as if it was the console fade time will avoid the scrolling effect normally visible when having fades between eg. gobo changes is traditional lights. Fade time on the console should be set to 0.
SHAPE OFFSET	Depending on the selected shape the channel sets the "density" of the involved pixels (few random pixel, many random pixels) or enables an internal algorithm that will distribute the macro between a multitude of lights on a specific DMX line basing on their DMX starting address.
FOREGROUND STROBE	Allows to set a strobe rate for the pixels involved in a macro.
BACKGROUND STROBE	Allows to set a strobe rate for the pixels NOT involved in a macro.
BACKGROUND SELECT	Allows to reduce, if needed, the background to a lower amount of "rings". With selected macros this allows to mirror the image between the two halves of the fixture's head (in this case the RGBW channels of the washlight will set the colour of the mirrored half and the background will remain black.

Note of Foreground Shape Effect:

Shapes will be available while (**Dimmer** CH12), (**Strobe** CH11), (**Shape dimmer** CH29), (**Foreground strobe** CH33), (**Shape color** CH25/26/27/28) turned on then selecting the Shapes on (**Shape Selection** CH22) with different speed on (**Shape Speed** CH23).

Background Effect: Meanwhile the (**BG dimmer** CH30), (**BG strobe** CH34), (**Color RGBW** CH1/3/5/7) turned on. (CH value mentioned above is based on SHAPE MODE L10Rotation)

Vortex effect: With **Shape slot 3** (Ring 2 on Shape Selection Value 10) and **Zoom rotation** turned on.

SHAPE SELECTION*SHAPE SPEED*SHAPE OFFSET*SHAPE FADE*BACKGROUND SELECT

• **SHAPE FADE**

BIT	EFFECT
246-255	Smooth, fading curve with automatic gamma *
245	Smooth, fading curve gamma 2
243	Smooth, fading curve gamma 1,998
244	Smooth, fading curve gamma 1,993
...	...
18	Smooth, fading curve gamma 0,513
17	Smooth, fading curve gamma 0,508
16	Smooth, fading curve gamma 0,5
0-15	Snap

• **SHAPE TRANSITION**

BIT	EFFECT
255	4 sec
...	...
216	3 sec
171	2 sec
113	1 sec
73	0,5 sec
5	100 ms
0-4	No fade

• **SHAPE RGBW
SHAPE DIMMER
BACKGROUND DIMMER**

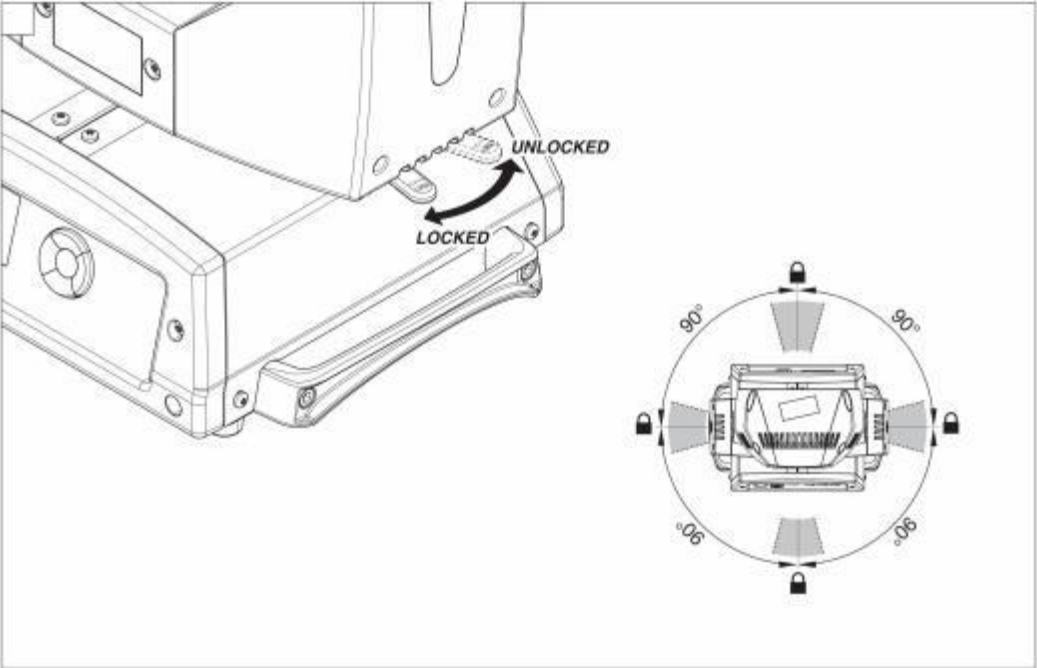


BIT	EFFECT
255	LED ON
...	...
0	LED OFF

• **BACKGROUND SELECT**

BIT	EFFECT
18-255	No selection
...	...
15	Ring 2 + Ring 3
14	Pool 1 + Ring 2 + Ring 3
13	Pool 1 + Ring 2
12	Pool 1 + Ring 3
11	Ring 3
10	Ring 2
9	Pool 1
8	No selection

PACKING CONTENTS



REMARK

The product has perfect performance and integrity packing. All users should be strictly comply with the warning and operating instructions as stated. Or we aren't in charge of any result by misusing.

Any damage resulting by misuse is not within the Company's warranty.

Any fault or problem caused by neglecting the manual is also not in the charge of dealers.

Errors and omissions for every information given in this manual excepted.

All information is subject to change without prior notice.