



**PRO  
LUX**



## **LED 1940IP BY**

Please keep reading this manual carefully for further use!

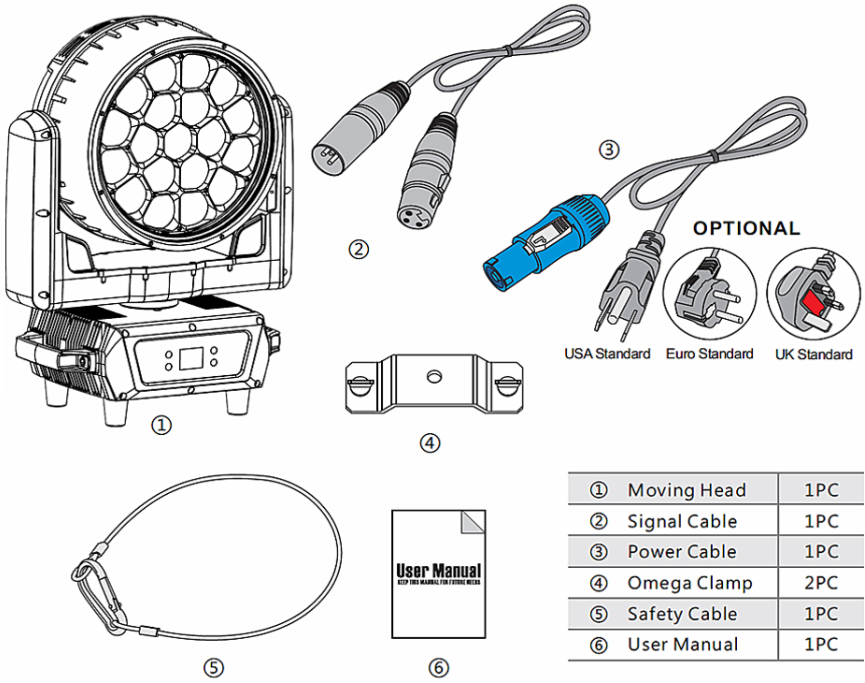
**USER MANUAL**

# 1. UNPACKING

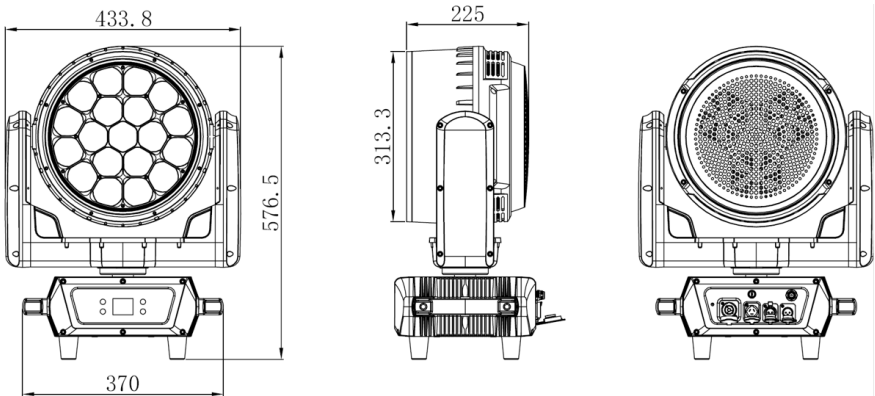
Thank you for choosing our fixture. For your own safety, please read this manual before installing the device. This manual covers the important information on installation and applications. Please install and operate the fixture with following instructions. Meanwhile, please keep this manual well for future needs.

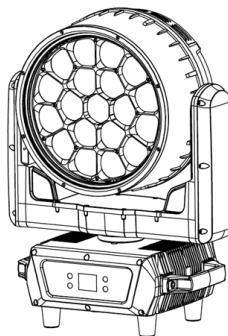
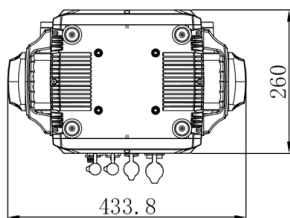
This fixture is made of a new type of high temperature strength of engineering plastics and cast aluminum casing with nice outlook. The fixture is designed and manufactured strictly following CE standards, complying with international standard DMX512 protocol. It's available independently controlled and linkable with each other for operation. And it is applicable for large-scale live performances, theater, studio, nightclubs and discos.

4-IN-1 LEDs(RGBW) which features high brightness and stability. Please carefully unpack it when you receive the fixture and check whether it is damaged during the transportation. And please check whether the following items are included inside the box:



## 2. PRODUCT DIMENSION (MM)





### 3. 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 necessary for the user to follow the safety instructions and warning notes written in this user manual.



#### 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 temperature.
- 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.
- The device shall only be used with rate voltage and frequency.
- Make sure that the available voltage is not

higher than stated at the end of this manual.

- 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.
- Fixtures cannot be installed on combustible substances, keep more than 50cm distance with wall for smooth air flow, so there should be no shelter for fans and ventilation for heat radiation.
- 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.

## **4. OPERATION INSTRUCTIONS**

- The fixture is for beam wash and effect use.
- Don't turn on the fixture if it's been through severe temperature difference like after transportation because it might damage the light due to the environment changes. So make sure to operate the fixture until it is in normal temperature.
- This light should be kept away from strong

shaking during any transportation or movement.

- Don't pull up the light by only the head, or it might cause damages to the mechanical parts.
- Don't expose the fixture in overheat, moisture or environment with too much dust when installing it. And don't lay any power cables on the floor. Or it might cause electronic shock to the people.
- Make sure the installation place is in good safety condition before installing the fixture.
- Make sure to put the safety chain and check whether the screws are screwed properly when installing the fixture.
- Make sure the lens is in good condition. It's recommended to replace the units if there are any damages or severe scratch.
- Make sure the fixture is operated by qualified personnel who knows the fixture before using.
- Keep the original packages if any second shipment is needed.
- Don't try to change the fixtures without any instruction by the manufacturer or the appointed repairing agencies.
- It is not in warranty range if there are any malfunctions from not following the user manual to operate or any illegal operation, like shock short circuit, electronic shock, lamp broke, etc.

## **5. MOUNTING AND INSTALLATION**

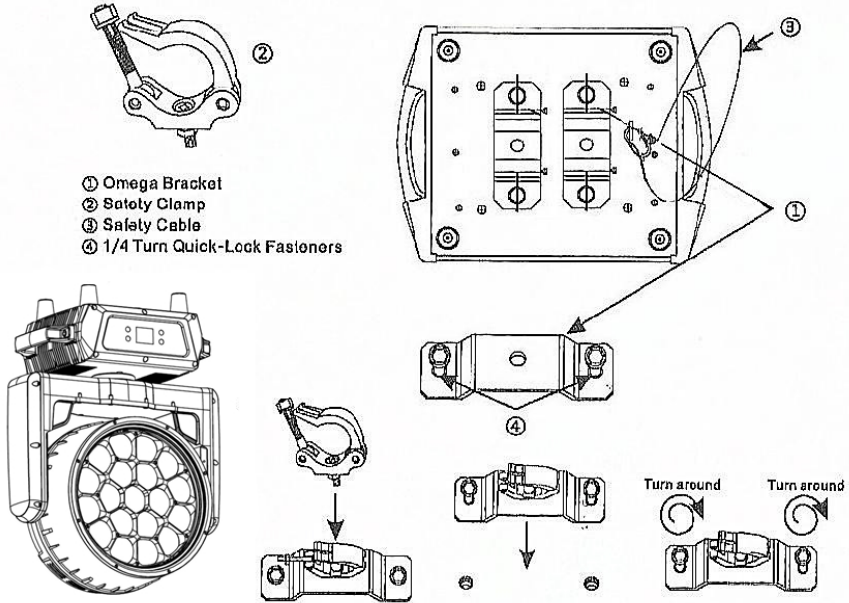
### **CAUTIONS:**

- 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 product 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 one of the safety cable rigging points integrated in the base assembly.



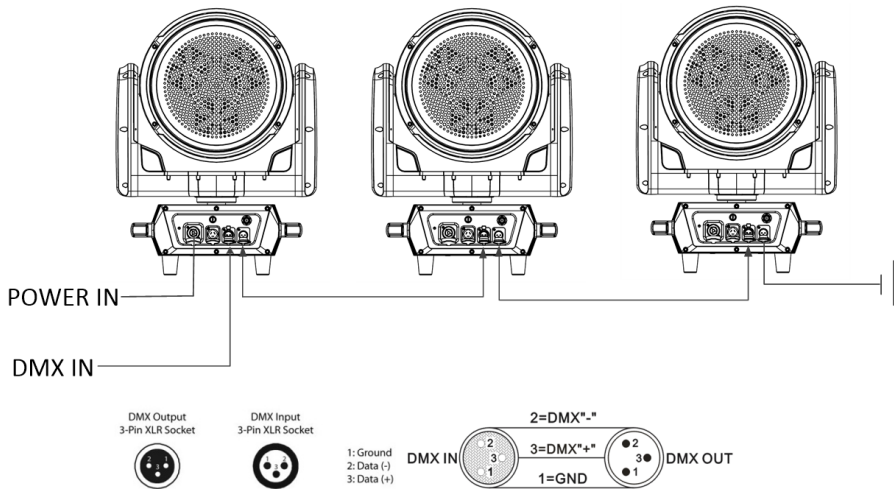
Regardless of the rigging option you choose for our fixture, always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and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

## 6. 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.

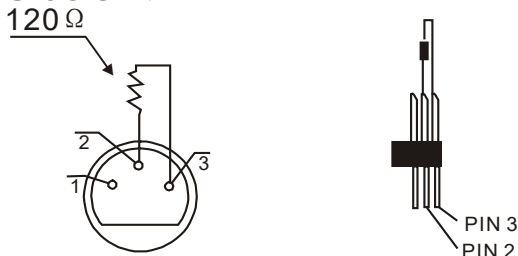
Moving heads be connected through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

### DMX-512 CONNECTION WITH DMX TERMINATOR



For installations where the DMX cable must 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

$\Omega$  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.



## 7.KEY FEATURES

- Voltage: AC100V~240V 50-60HZ
- Rated Power: 760W
- LED Source: 19x40W high power RGBW 4 in 1 LEDs
- Zoom: 1:6 zoom range from 7 to 42 degree
- Strobe: 0-25Hz
- Control Mode: DMX512,Sound-activated,Master/slave
- DMX Channels: 21/35/43/78/92/97 six channel mode
- Dimmer: 0-100% linear dimmer with 4 kinds of dimmer curve.
- Pan: 540°+16bit fine
- Tilt: 250°+16bit fine
- Display: LCD display with touch buttons.
- IP: IP65
- Fixture dimension: 434\*430\*590mm
- N.W:23 Kg
- G.W: 26 Kg(1pc/ctn)
- G.W: 75 Kg(2pcs/case)
- Package dimension: 61\*53\*45 CM (1pc/ctn)
- Flight case size: 91\*49\*77 CM(2pcs/case)

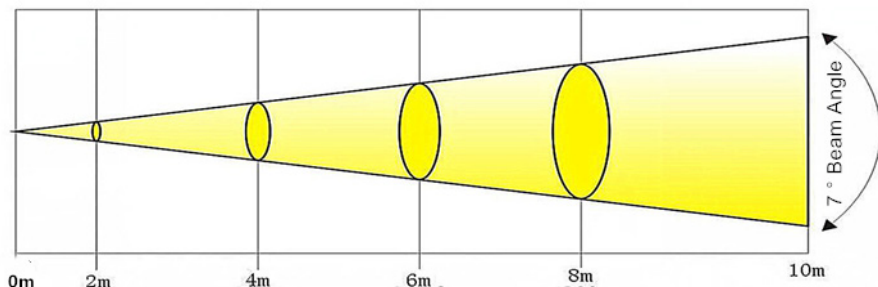
**SPECIAL POINTS.**

1. Each LED can be controlled individually. With unique honeycomb designed lens
2. The front lens can rotate without limitation in forward and reverse direction to create amazing effects
3. Can be used as beam, wash or effect light use (Kaleido effects)
4. With a extra LED ring for eye-candy effect, LED ring with macro effect
5. Pure aluminum casting waterproof housing, suitable for all kinds of environment.

**8. PHOTOMETRIC DATA:**

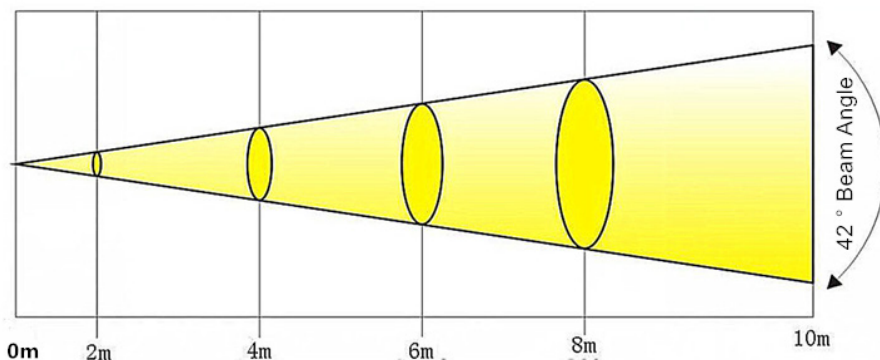
**LUX DATA OF 7 DEGREE BEAM ANGLE:**

|      |                  |                 |                 |                 |                  |
|------|------------------|-----------------|-----------------|-----------------|------------------|
| R    | 27700<br>lux@2m  | 7330<br>lux@4m  | 3490<br>lux@6m  | 1890<br>lux@8m  | 1210<br>lux@10m  |
| G    | 68800<br>lux@2m  | 18560<br>lux@4m | 8720<br>lux@6m  | 4750<br>lux@8m  | 3010<br>lux@10m  |
| B    | 103400<br>lux@2m | 33800<br>lux@4m | 16000<br>lux@6m | 8770<br>lux@ 8m | 5650<br>lux@10m  |
| W    | 80300<br>lux@2m  | 23100<br>lux@4m | 10940<br>lux@6m | 5970<br>lux@8m  | 3860<br>lux@10m  |
| RGBW | 160400<br>lux@2m | 68500<br>lux@4m | 33800<br>lux@6m | 18600<br>lux@8m | 12040<br>lux@10m |



**LUX DATA OF 42 DEGREE BEAM ANGLE:**

|      |                 |                |                |                |                 |
|------|-----------------|----------------|----------------|----------------|-----------------|
| R    | 3470<br>lux@2m  | 909<br>lux@4m  | 425<br>lux@6m  | 237<br>lux@8m  | 155<br>lux@10m  |
| G    | 9060<br>lux@2m  | 2350<br>lux@4m | 1110<br>lux@6m | 625<br>lux@8m  | 403<br>lux@10m  |
| B    | 17720<br>lux@2m | 4650<br>lux@4m | 2200<br>lux@6m | 1230<br>lux@8m | 795<br>lux@10m  |
| W    | 11000<br>lux@2m | 2830<br>lux@4m | 1350<br>lux@6m | 750 lux@<br>8m | 488<br>lux@10m  |
| RGBW | 35900<br>lux@2m | 9290<br>lux@4m | 4500<br>lux@6m | 2450<br>lux@8m | 1610<br>lux@10m |



**9.MENU FUNCTION:**

Press menu for 3seconds to unlock

| Menu     | Sub-Menu | Secondary submenu | Function             |
|----------|----------|-------------------|----------------------|
| Address  | 001-512  |                   | DMX address          |
| Run mode | DMX      | 21CH              | Same as B-EYE K10 CH |
|          |          | 35CH              | Same as B-EYE K10 CH |
|          |          | 78CH              | Same as B-EYE K10 CH |
|          |          | 92CH              | Same as B-EYE K10 CH |

|         |                 |             |                             |
|---------|-----------------|-------------|-----------------------------|
|         |                 | 97CH        | Same as B-EYE K10 CH        |
|         |                 | 43CH        | Shape + LED Ring            |
|         | Auto Test       |             | System detection            |
|         | Manual Test     |             | Manual test                 |
|         | Auto            |             | Auto run                    |
|         | Channel Test    |             | Manual control each channel |
| Setting | Pan Reverse     | YES/NO      | Pan reverse                 |
|         | Tilt Reverse    | YES/NO      | Tilt reverse                |
|         | Screen Reverse  | YES/NO      | Screen reverse              |
|         | Screen Lock     | YES/NO      | Screen Lock                 |
|         | No Signal Hold  | YES/NO      | No DMX mode                 |
|         | Pan Angle       | 540/360/180 | Pan angle                   |
|         | Tilt Angle      | 250/180/90  | Tilt angle                  |
|         | Arefaction Time | 0-255       | Arefaction Time             |
|         | Language        | EN/CH       | Language                    |
|         | Dimmer Speed    | Smooth      | Smooth dimmer mode          |
|         |                 | Fast        | Fast dimmer mode            |
|         | Dimmer Curve    | Linear      | Linear dimmer               |
|         |                 | SCurve      | S curve dimmer              |
|         |                 | Square      | Square dimmer               |
|         |                 | l Square    | l Square dimmer             |
|         | Reset Functions | Pan/Tilt    | Pan/Tilt reset              |
|         |                 | Zoom        | Zoom reset                  |
|         |                 | All         | All reset                   |
|         | Factory Reset   | YES/NO      | Factory mode                |

|          |                   |  |  |
|----------|-------------------|--|--|
| Sys Info | Ver: V1.2         |  |  |
|          | Running Mode: DMX |  |  |
|          | Dmx Address: 001  |  |  |
|          | Temperature: xx   |  |  |
|          | Fixture Hours     |  |  |

## 10.CHANNEL MODE

|    |               |    |               |    |               |
|----|---------------|----|---------------|----|---------------|
| ch | std-21        | ch | shape-35      | ch | extended-78   |
| 1  | Red           | 1  | Red           | 1  | Red           |
| 2  | Red fine      | 2  | Red fine      | 2  | Red fine      |
| 3  | Green         | 3  | Green         | 3  | Green         |
| 4  | Green fine    | 4  | Green fine    | 4  | Green fine    |
| 5  | Blue          | 5  | Blue          | 5  | Blue          |
| 6  | Blue fine     | 6  | Blue fine     | 6  | Blue fine     |
| 7  | White         | 7  | White         | 7  | White         |
| 8  | White fine    | 8  | White fine    | 8  | White fine    |
| 9  | Linear CTO    | 9  | Linear CTO    | 9  | Linear CTO    |
| 10 | Macro color   | 10 | Macro color   | 10 | Macro color   |
| 11 | Strobe        | 11 | Strobe        | 11 | Strobe        |
| 12 | Dimmer        | 12 | Dimmer        | 12 | Dimmer        |
| 13 | Dimmer fine   | 13 | Dimmer fine   | 13 | Dimmer fine   |
| 14 | Pan           | 14 | Pan           | 14 | Pan           |
| 15 | Pan fine      | 15 | Pan fine      | 15 | Pan fine      |
| 16 | Tilt          | 16 | Tilt          | 16 | Tilt          |
| 17 | Tilt fine     | 17 | Tilt fine     | 17 | Tilt fine     |
| 18 | Function      | 18 | Function      | 18 | Function      |
| 19 | Reset         | 19 | Reset         | 19 | Reset         |
| 20 | Zoom          | 20 | Zoom          | 20 | Zoom          |
| 21 | Zoom rotation | 21 | Zoom rotation | 21 | Zoom rotation |

|    |                   |     |              |
|----|-------------------|-----|--------------|
| 22 | Shape selection   | 22  | Red Led 1    |
| 23 | Shape speed       | 23  | Green Led 1  |
| 24 | Shape fade        | ... | Blue Led 1   |
| 25 | Shape R           | ... | Red Led...   |
| 26 | Shape G           | ... | Green Led... |
| 27 | Shape B           | 75  | Blue Led...  |
| 28 | Shape W           | 76  | Red Led19    |
| 29 | Shape Dimmer      | 77  | Green Led19  |
| 30 | Background dimmer | 78  | Blue Led19   |
| 31 | Shape transition  |     |              |
| 32 | Shape offset      |     |              |
| 33 | Foreground strobe |     |              |
| 34 | Background strobe |     |              |
| 35 | Background select |     |              |

| ch | extended rgbw-92 | ch | extended rgbw-97 | ch | share ring-43 |
|----|------------------|----|------------------|----|---------------|
| 1  | Red              | 1  | Red              | 1  | Red           |
| 2  | Red fine         | 2  | Red fine         | 2  | Red fine      |
| 3  | Green            | 3  | Green            | 3  | Green         |
| 4  | Green fine       | 4  | Green fine       | 4  | Green fine    |
| 5  | Blue             | 5  | Blue             | 5  | Blue          |
| 6  | Blue fine        | 6  | Blue fine        | 6  | Blue fine     |
| 7  | White            | 7  | White            | 7  | White         |
| 8  | White fine       | 8  | White fine       | 8  | White fine    |
| 9  | Linear CTO       | 9  | Linear CTO       | 9  | Linear CTO    |
| 10 | Macro color      | 10 | Macro color      | 10 | Macro color   |
| 11 | Strobe           | 11 | Strobe           | 11 | Strobe        |

|     |                 |     |               |    |                   |
|-----|-----------------|-----|---------------|----|-------------------|
| 12  | Dimmer          | 12  | Dimmer        | 12 | Dimmer            |
| 13  | Dimmer fine     | 13  | Dimmer fine   | 13 | Dimmer fine       |
| 14  | Pan             | 14  | Pan           | 14 | Pan               |
| 15  | Pan fine        | 15  | Pan fine      | 15 | Pan fine          |
| 16  | Tilt            | 16  | Tilt          | 16 | Tilt              |
| 17  | Tilt fine       | 17  | Tilt fine     | 17 | Tilt fine         |
| 18  | Function        | 18  | Function      | 18 | Function          |
| 19  | Reset           | 19  | Reset         | 19 | Reset             |
| 20  | Zoom            | 20  | Zoom          | 20 | Zoom              |
| 21  | Zoom rotation   | 21  | Zoom rotation | 21 | Zoom rotation     |
| 22  | Shape selection | 22  | Red Led 1     | 22 | Shape selection   |
| 23  | Shape speed     | 23  | Green Led 1   | 23 | Shape speed       |
| 24  | Shape fade      | 24  | Blue Led 1    | 24 | Shape fade        |
| 25  | Shape R         | 25  | White Led 1   | 25 | Shape R           |
| 26  | Shape G         | 26  | Red Led 2     | 26 | Shape G           |
| 27  | Shape B         | 27  | Green Led 2   | 27 | Shape B           |
| 28  | Shape W         | 28  | Blue Led 2    | 28 | Shape W           |
| ... | ...             | ... | White Led 2   | 29 | Shape Dimmer      |
| ... | ...             | ... | Red Led...    | 30 | Background dimmer |
| 90  | Red Led 19      | ... | Green Led...  | 31 | Shape transition  |
| 91  | Green Led 19    | ... | Blue Led...   | 32 | Shape offset      |
| 92  | Blue Led 19     | 93  | White Led...  | 33 | Foreground strobe |
|     |                 | 94  | Red Led 19    | 34 | Background strobe |
|     |                 | 95  | Green Led 19  | 35 | Background select |
|     |                 | 96  | Blue Led 19   | 36 | Reversed          |
|     |                 | 97  | White Led 19  | 37 | LED ring dimmer   |
|     |                 |     |               | 38 | LED ring strobe   |
|     |                 |     |               | 39 | LED ring red      |

|    |                |
|----|----------------|
| 40 | LED ring green |
| 41 | LED ring blue  |
| 42 | LED ring macro |
| 43 | LED ring speed |

NOTE: On conclusion of resetting in case of absence of DMX signal, Pan & Tilt move to the «Home» position (Pan 128 bit - Tilt 128 bit) all the others channels stay at 0 bit.

- RED
- GREEN
- BLUE
- WHITE



| BIT | EFFECT  |
|-----|---------|
| 255 | LED ON  |
| 0   | LED OFF |

- RED FINE
- GREEN FINE
- BLUE FINE
- WHITE FINE



| BIT | EFFECT |
|-----|--------|
| 255 | UP     |
| 0   | LOW    |

- LINEAR CTO

| BIT | EFFECT       |
|-----|--------------|
| 255 | 2500 K       |
| ... | ...          |
| 224 | 3200 K       |
| ... | ...          |
| 188 | 4000 K       |
| ... | ...          |
| 144 | 5000 K       |
| ... | ...          |
| 117 | 5600 K       |
| ... | ...          |
| 99  | 6000 K       |
| ... | ...          |
| 54  | 7000 K       |
| ... | ...          |
| 10  | 8000 K       |
| 0-9 | UNUSED RANGE |

**Note: If CTO channel is active, the WHITE channel is disabled.**

## MACRO COLOR

| BIT     | LEE REF. | COLOR             | BIT VALUE |     |     |     |
|---------|----------|-------------------|-----------|-----|-----|-----|
|         |          |                   | R         | G   | B   | W   |
| 209-255 | -        | White             | 255       | 235 | 66  | 255 |
| 208     | -        | Dirty White       | 255       | 255 | 122 | 255 |
| 207     | 197      | Alice Blue        | 128       | 255 | 143 | 0   |
| 191-206 | 181      | Congo Blue        | 77        | 0   | 255 | 0   |
| 184-190 | 174      | Dark Steel Blue   | 181       | 255 | 95  | 0   |
| 180-183 | 170      | Deep Lavender     | 255       | 168 | 64  | 0   |
| 179     | 169      | Lilac Tint        | 255       | 199 | 49  | 0   |
| 175-178 | 165      | Daylight Blue     | 82        | 214 | 90  | 0   |
| 174     | 164      | Flame Red         | 255       | 46  | 2   | 0   |
| 172-173 | 162      | Bastard Amber     | 255       | 181 | 28  | 0   |
| 168-171 | 158      | Deep Orange       | 222       | 84  | 0   | 0   |
| 162-167 | 152      | Pale Gold         | 253       | 171 | 26  | 0   |
| 157-161 | 147      | Apricot           | 255       | 143 | 13  | 0   |
| 151-156 | 141      | Bright Blue       | 0         | 255 | 87  | 0   |
| 149-150 | 139      | Primary Green     | 77        | 255 | 0   | 0   |
| 147-148 | 137      | Special Lavender  | 219       | 197 | 79  | 0   |
| 146     | 136      | Pale Lavender     | 255       | 197 | 61  | 0   |
| 145     | 135      | Deep Golden Amber | 255       | 58  | 0   | 0   |
| 142-144 | 132      | Medium Blue       | 0         | 255 | 143 | 0   |
| 138-141 | 128      | Bright Pink       | 255       | 53  | 36  | 0   |
| 136-137 | 126      | Mauve             | 227       | 41  | 56  | 0   |
| 134-135 | 124      | Dark Green        | 84        | 255 | 13  | 0   |
| 131-133 | 121      | Leaf Green        | 206       | 255 | 0   | 0   |
| 129-130 | 119      | Dark Blue         | 0         | 186 | 255 | 0   |
| 128     | 118      | Light Blue        | 74        | 255 | 82  | 0   |

|         |     |                   |     |     |     |     |
|---------|-----|-------------------|-----|-----|-----|-----|
| 127     | 117 | Steel Blue        | 206 | 255 | 56  | 0   |
| 126     | 116 | Med Blu Green     | 206 | 255 | 56  | 0   |
| 125     | 115 | Peacock Blue      | 51  | 255 | 51  | 0   |
| 123-124 | 113 | Magenta           | 255 | 20  | 15  | 0   |
| 121-122 | 111 | Dark Pink         | 255 | 109 | 33  | 0   |
| 120     | 110 | Middle Rose       | 217 | 130 | 28  | 0   |
| 119     | 109 | Light Salmon      | 255 | 138 | 31  | 0   |
| 118     | 108 | English Rose      | 255 | 148 | 23  | 0   |
| 117     | 107 | Light Rose        | 255 | 141 | 31  | 0   |
| 115-116 | 105 | Orange            | 255 | 122 | 0   | 0   |
| 114     | 104 | Deep Amber        | 255 | 166 | 0   | 0   |
| 113     | 103 | Straw             | 230 | 160 | 0   | 69  |
| 112     | 102 | Light Amber       | 237 | 163 | 0   | 0   |
| 110-111 | 100 | Spring Yellow     | 245 | 202 | 0   | 0   |
| 100-109 | 90  | Dark Yellow Green | 41  | 219 | 0   | 0   |
| 89-99   | 79  | Just Blue         | 0   | 194 | 130 | 0   |
| 78-88   | 68  | Sky Blue          | 0   | 255 | 135 | 0   |
| 68-77   | 58  | Lavender          | 243 | 117 | 133 | 199 |
| 62-67   | 52  | Light Lavender    | 243 | 117 | 39  | 197 |
| 49-61   | 39  | Pink Carnation    | 255 | 107 | 0   | 130 |
| 46-48   | 36  | Medium Pink       | 255 | 87  | 0   | 107 |
| 45      | 35  | Light Pink        | 255 | 112 | 0   | 141 |
| 35-44   | 25  | Sunrise Red       | 255 | 83  | 2   | 0   |
| 32-34   | 22  | Dark Amber        | 255 | 65  | 0   | 0   |
| 31      | 21  | Gold Amber        | 255 | 100 | 0   | 0   |
| 30      | 20  | Medium Amber      | 255 | 135 | 0   | 0   |
| 29      | 19  | Fire              | 255 | 56  | 0   | 0   |
| 27-28   | 17  | Sunrise Peach     | 198 | 114 | 9   | 0   |
| 23-26   | 13  | Straw Tint        | 152 | 115 | 9   | 0   |

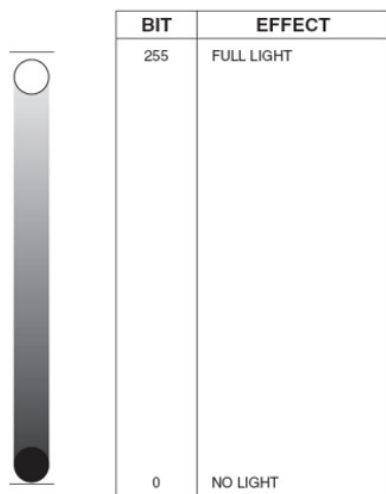
|       |    |                 |     |     |     |     |
|-------|----|-----------------|-----|-----|-----|-----|
| 20-22 | 10 | Medium Yellow   | 156 | 126 | 0   | 0   |
| 19    | -  | Black           | 0   | 0   | 0   | 0   |
| 18    | -  | White 5000K     | 255 | 137 | 0   | 193 |
| 17    | -  | White 3700K     | 255 | 201 | 25  | 255 |
| 16    | -  | White 7000K     | 216 | 237 | 61  | 255 |
| 15    | -  | Magenta         | 255 | 0   | 255 | 0   |
| 14    | -  | Yellow          | 255 | 255 | 0   | 0   |
| 13    | -  | Cyan            | 0   | 255 | 255 | 0   |
| 12    | -  | Blue            | 0   | 0   | 255 | 0   |
| 11    | -  | Green           | 0   | 255 | 0   | 0   |
| 10    | -  | Red             | 255 | 0   | 0   | 0   |
| 0-9   | -  | Macro color OFF | -   | -   | -   | -   |

• **STOP STROBE - FOREGROUND STROBE - BACKGROUND STROBE**

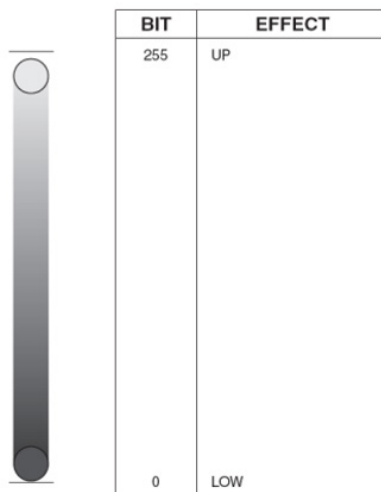


| BIT       | EFFECT                         |
|-----------|--------------------------------|
| 252 - 255 | OPEN                           |
| 239 - 251 | RANDOM FAST STROBE             |
| 226 - 238 | RANDOM MEDIUM STROBE           |
| 213 - 225 | RANDOM SLOW STROBE             |
| 208 - 212 | OPEN                           |
| 207       | FAST PULSATION (25 flash/sec)  |
| -----     |                                |
| 108       | SLOW PULSATION (0,5 flash/sec) |
| 104 - 107 | OPEN                           |
| 103       | FAST STROBE (25 flash/sec)     |
| -----     |                                |
| 4         | SLOW STROBE (1 flash/sec)      |
| 0 - 3     | CLOSED                         |

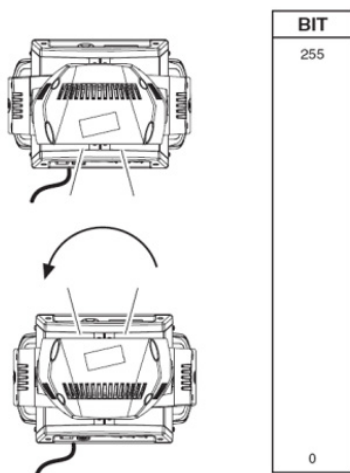
• DIMMER



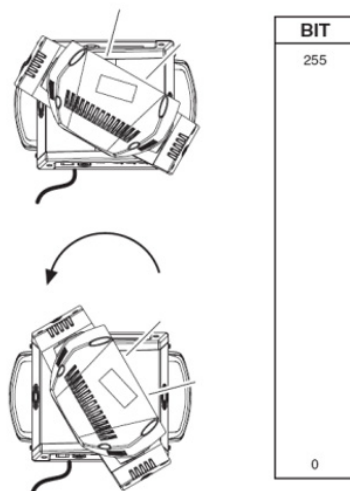
• DIMMER FINE



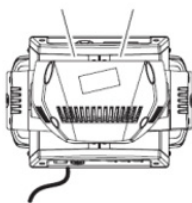
• PAN



• PAN FINE



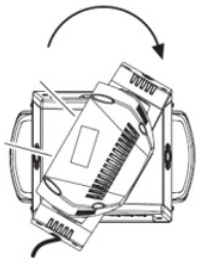
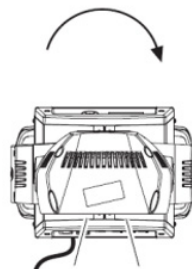
Operation with option *InvertPan*  $\diamond$  Off  
 (Tilt conventionally represented at 35 bit and option *Invert Tilt*  $\diamond$  Off)



| BIT |
|-----|
| 255 |
| 0   |



| BIT |
|-----|
| 255 |
| 0   |



Operation with option *InvertPan* ◇ On

(Tilt conventionally represented at 35 bit and option *Invert Tilt* ◇ Off)

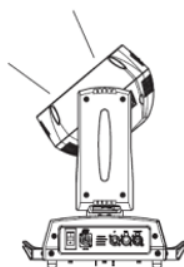
• TILT



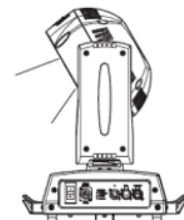
| BIT |
|-----|
| 255 |
| 0   |



• TILT FINE

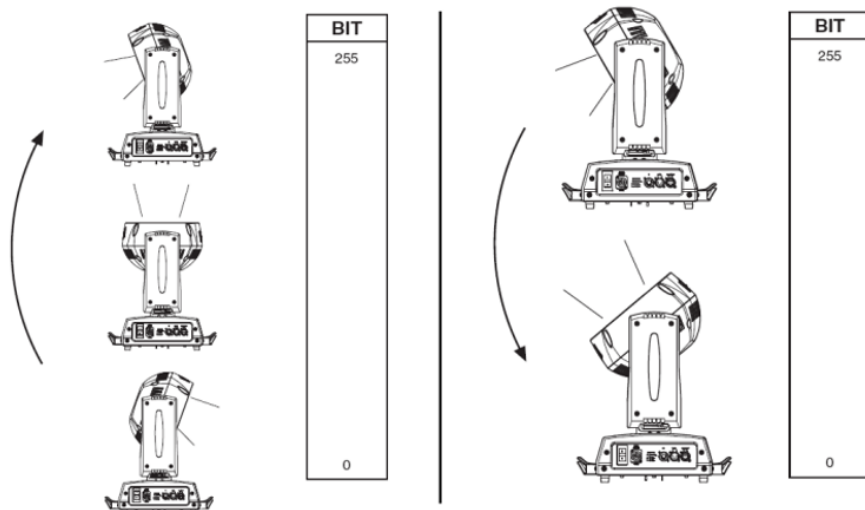


| BIT |
|-----|
| 255 |
| 0   |



Operation with option *InvertPan* ◇ Off

(Tilt conventionally represented at 35 bit and option *Invert Tilt* ◇ Off)



Operation with option *InvertPan*  $\diamond$  On  
 (Tilt conventionally represented at 35 bit and option *Invert Tilt*  $\diamond$  Off)

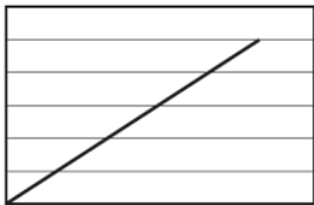
• **FUNCTION**

| BIT       | EFFECT   |
|-----------|--|
| 103 – 255 | Reserved   |
| 98 – 102  | Halogen Lamp Simulation, type 5 (2500 W)      Linear CTO @ 0 bit |
| 93 – 97   | Halogen Lamp Simulation, type 4 (2000 W)      Linear CTO @ 0 bit |
| 88 – 92   | Halogen Lamp Simulation, type 3 (1200 W)      Linear CTO @ 0 bit |
| 83 – 87   | Halogen Lamp Simulation, type 2 (1000 W)      Linear CTO @ 0 bit |
| 78 – 82   | Halogen Lamp Simulation, type 1 (750W)      Linear CTO @ 0 bit   |
| 73 – 77   | Halogen Lamp Simulation OFF (Default)                            |
| 68 – 72   | RGBW Gamma curve 3 – gamma = 2.0                                 |
| 63 – 67   | RGBW Gamma curve 2 – gamma = 1.5                                 |
| 58 – 62   | RGBW Gamma curve 1 – gamma = 1.0                                 |
| 52 – 57   | Dimmer Curve 4   |
| 48 – 52   | Dimmer Curve 3   |
| 43 – 47   | Dimmer Curve 2   |
| 38 – 42   | Dimmer Curve 1   |
| 24 – 37   | Pan Tilt Normal  |
| 12 – 24   | Pan Tilt Fast (Default)  |
| 0 – 11    | Function off – rearmed   |

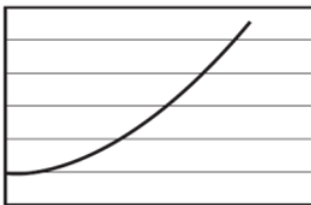
The functions are activated passing through the “unused range” and staying 5 seconds in necessary level.

Last selected function still active. Enable setting a new function.

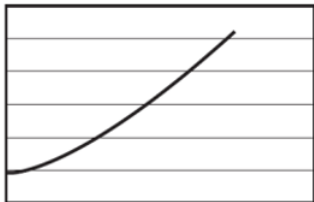
DIMMER CURVE 1 - GAMMA 1 LINEAR



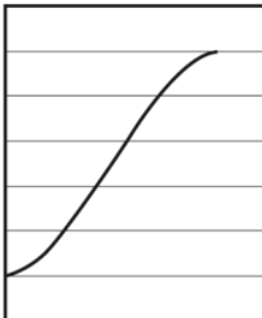
DIMMER CURVE 3 - GAMMA 2,0



DIMMER CURVE 2 - GAMMA 1,5



DIMMER CURVE 4 - S



• RESET

| BIT   | EFFECT  |
|-------|---|
| 255   | COMPLETE RESET  |
| ..... | Complete reset is activated passing through the unused range and staying 5 seconds in complete reset levels     |
| 128   | COMPLETE RESET  |
| 127   | PAN / TILT RESET  |
| ..... | Pan / Tilt reset is activated passing through the unused range and staying 5 seconds in Pan / Tilt reset levels |
| 77    | PAN / TILT RESET  |
| 76    | ZOOM RESET  |
| ..... | Effects reset is activated passing through the unused range and staying 5 seconds in Effects reset levels.      |
| 26    | ZOOM RESET  |
| 25    |   |
| 0     | UNUSED RANGE  |

• ZOOM



| BIT   | EFFECT      |
|-------|-------------|
| 255   | WIDE BEAM   |
| ..... |             |
| 0     | NARROW BEAM |

• ZOOM ROTATION



| BIT       | EFFECT          |
|-----------|-----------------|
| 255       | FAST ROTATION   |
| .....     |                 |
| 193       | SLOW ROTATION   |
| 191 - 192 | STOP            |
| 190       | SLOW ROTATION   |
| .....     |                 |
| 128       | FAST ROTATION   |
| 127       | .....           |
| .....     |                 |
| 0         | LINEAR ROTATION |

• **ZOOM ROTATION (available on zoom channel from 0 bit to 42 bit)**

| BIT     | MACRO EFFECT                             |
|---------|--|
| 193-255 | CCW Rotation, speed from 3 RPH to 10 RPM |
| 191-192 | Stop rotation                            |
| 128-190 | CW Rotation, speed from 10 RPM to 3 RPH  |
| 127     | Indexed zone. Lens angle = 60.00         |
| 126     | Indexed zone. Lens angle = 59.52         |
| ....    |  |
| 3       | Indexed zone. Lens angle = 1.42          |
| 2       | Indexed zone. Lens angle = 0.94          |
| 1       | Indexed zone. Lens angle = 0.47          |
| 0       | Indexed zone. Lens angle = 0             |

• **ZOOM ROTATION (available on zoom channel at 255 bit only)**

| BIT     | MACRO EFFECT                    |
|---------|---------------------------------|
| 128-255 | Lens offset angle: 0.00 degree  |
| 127     | Lens offset angle: +4.00 degree |
| 126     | Lens offset angle: +3.94 degree |
| 125     | Lens offset angle: +3.87 degree |
| ...     |                                 |
| 1       | Lens offset angle: +0.06 degree |
| 0       | Lens offset angle: 0.00 degree  |

- **RED LED 1 to...**
- **GREEN LED 1 to...**
- **BLUE LED 1 to...**
- **WHITE LED 1 to...**



| BIT | EFFECT  |
|-----|---------|
| 255 | LED ON  |
| 0   | LED OFF |

## 11. SHAPE MODE DESCRIPTION

### CONCEPTS: FOREGROUND AND BACKGROUND

The powerful shapes engine 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 one 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 wash light.

### 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 backgrounddimmer 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 RGBWchannels 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. Fadetime 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.  |
| BACKGROUND STROBE | Allows to set a strobe rate for the pixels NOT 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 (DimmerCH12), (StrobeCH11), (ShapedimмерCH29), (Foreground strobe CH33), (Shape colorCH25/26/27/28) turned on then selecting the Shapes on (Shape Selection CH22) with different speed on (Shape Speed CH23).

Background Effect: Meanwhile the (BG dimmerCH30), (BG strobeCH34), (Color RGBW CH1/3/5/7) turned on. (CH value mentioned above is based on SHAPE 35/SHAPE RING 43)

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**

| Sel. | Slot | Shape Name    | Random Colors *1 | Shape Speed | Shape Offset | Shape Fade                            | Background Select(*3)(*4)               |
|------|------|---------------|------------------|-------------|--------------|---------------------------------------|---|
| 0-7  |      | Macro OFF     | No               | No          | No           | No                                    | No                                      |
| 8    | 1    | Pixel 1       | No               | No          | No           | 0 = snap effect<br>1-25 = Fade effect | 0-7=Wash<br>8-15=Bgrings<br>16-255 wash |
| 9    | 2    | Ring 1        |                  |             |              |                                       |   |
| 10   | 3    | Ring 2        |                  |             |              |                                       |   |
| 11   | 4    | Reserved      |                  |             |              |                                       |   |
| 12   | 5    | Pixel 1+ring1 |                  |             |              |                                       |   |
| 13   | 6    | Pixel 1+ring2 |                  |             |              |                                       |   |
| 14   | 7    | Reserved      |                  |             |              |                                       |   |

|    |    |                            |     |  |  |  |   |
|----|----|----------------------------|-----|--|--|--|---|
| 15 | 8  | Single ring (Ramp -/+)     | Yes |  |  |  |   |
| 16 | 9  | Filled ring (Ramp -/+)     | Yes | 0-63 = Radius size, static<br>64-158 = max to minspeed, Closing effect<br>159-160 = STOP<br>161-255 = min to max speed, Opening effect | 0-9 → continuous<br>10-255 → random Distribution of flash<br>From 2 to 20 fixtures | 0 = snap effect<br>1-255 = Fade effect | 0-7=Wash<br>8-15=Bgrings<br>16-255 wash |
| 17 | 10 | Open/Close 1               | Yes |  |  |  |   |
| 18 | 11 | Open/Close 2               | Yes |  |  |  |   |
| 19 | 12 | Random pixels 1            | Yes | 0-63 = STOP<br>64-158 = max to min speed, Instant-on + fadeout.<br>159-160 = STOP.<br>161-255 = min to max speed, FadeIn + FadeOut.    | 0-255 → select random distribution from 2 up to 20 fixtures                        |  | 0-7=Wash<br>8-15=Bgrings<br>16-255 wash |
| 20 | 13 | Random pixels 2            | Yes |  | 0-255 Select pixel density   | 0 = snap effect<br>1-255 = Fade effect | All fixtures:<br>255=Mirror effect      |
| 21 | 14 | Rainbow 1 (Variable speed) | NO  | 0-63 = Angle 0-360°, static.<br>64-158 = max to min speed, c.cw rotation<br>159-160=STOP<br>161-255 =min to max speed, Cw rotation     | 0-255 angle offset from 0 to 360°  | 0=snap effect<br>1-255 = Fade effect   | 0-7=Wash<br>8-15=Bgrings<br>16-255 wash |

|    |    |   |     |  |                                     |   |   |
|----|----|---|-----|--|-------------------------------------|---|---|
| 22 | 15 | Rainbow 2<br>(Fixed speed with variable color offset) | NO  | O-63 = STOP<br>64-158 = c.cw rotation<br>159-160 = STOP<br>161-255 = cw rotation<br>The value 64-158 or 161-255 change the rainbow angle offset (the orange starting angle). | NO                                  | O = snap effect<br>1-255 = Fade effect                        | O-7=Wash<br>8-15=Bgrings<br>16-255=wash   |
| 23 | 16 | Fan   | NO  | O-63 = Angle<br>O-360°, static.<br>64-158 = max to min speed, c.cw rotation<br>159-160=STOP<br>161-255 =min to max speed, Cw rotation  | O-255 → angle offset from O to 360° | O = snap effect<br>1-255 = Fade effect                        | O-7=Wash<br>8-15=Bgrings<br>16-255 wash<br><br>For all fixtures:<br>Marco 25 26<br>255=Mirror<br>Effect with bkgnd color<br><br>Macro<br>27 28 29<br>255= Show<br>Alternative<br>Color  |
| 24 | 17 | Bar 1   |     |  |                                     |   |   |
| 25 | 18 | Half moon   |     |  |                                     |   |   |
| 26 | 19 | Triangle  |     |  |                                     |   |   |
| 27 | 20 | Segment 1   |     |  |                                     |   |   |
| 28 | 21 | Arc 1   |     |  |                                     |   |   |
| 29 | 22 | Arc 2   |     |  |                                     |   |   |
| 30 | 23 | Bar 2<br>(Variable size)                              | NO  | O-63 = STOP,<br>indexed speed<br>64-158 = max to min speed, c.cw rotation.<br>159-160 = STOP.<br>161-255 = min to max speed cc rotation.                                     | O-255 → select shape width          | O = Snap effect<br>1-255 = Fade effect                        | O-7 = wash<br>8-15 = Bkgnd rings<br>selection<br>16-254 = wash<br>255 = Mirror effect<br>withbkgnd color<br><br>Note: Mirror effect<br>unavailable for macro 31.<br>Macro<br>67,68,69:the mirror effect<br>is available only for<br>options 1,3,9 |
| 31 | 24 | Rando explosion                                       | Yes |  | O-255 → select Random distribution  | O = Snap effect<br>1-255 = select the wake of the faded macro |   |
| 32 | 25 | Segment 2   | NO  |  | O-255 → select shape width          |   |   |
| 33 | 26 | Reserved  |     |  | O-255 → select macro offset         | O = Snap effect   |   |
| 34 | 27 | Reserved  |     |  |                                     |   |   |
| 35 | 28 | Bumping Selection                                     |     |  |                                     |   |   |



|    |    |                          |     |   |  |   |   |
|----|----|--------------------------|-----|---|--|---|---|
| 61 | 54 | Vertical pixel scrolling | NO  | 0-63 = STOP, indexed speed<br>64-158 = max to min speed, c.cw rotation.<br>159-160 = STOP.<br>161-255 = min to max speed cc rotation. | 0-255 → select random distribution   | 0 = Snap effect<br>1-255 = Fade effect                        | 0-7 = wash<br>8-15 = Bkgnd rings selection<br>16-254 = wash<br>255 = Mirror effect with bkgnd color<br><br>Note: Mirror effect unavailable for macro 31.<br>Macro 67,68,69: the mirror effect is available only for options 1,3,9 |
| 62 | 55 | Random center section    | Yes |   |  |   |   |
| 63 | 56 | Random ring 2            |     |   |  |   |   |
| 64 | 57 | Reserved                 |     |   |  |   |   |
| 65 | 58 | Random ring 1+2          |     |   |  |   |   |
| 66 | 59 | Random ring 2            | NO  |   | 0-255 → select the NO. of led: 1,2,3,6,9 this NO. depends on the ring size | 0 = Snap effect<br>1-255 = select the wake of the faded macro |   |
| 67 | 60 | Single pixel ring 1      |     |   |  |   |   |
| 68 | 61 | Single pixel ring 2      |     |   |  |   |   |
| 69 | 62 | Reserved                 |     |   | 0-255 → select macro width   |   |   |
| 70 | 63 | Spiral                   |     |   |  |   |   |

• **SHAPE FADE**

| BIT     | EFFECT                                      |
|---------|---|
| 246-255 | Smooth, fading curve with automatic gamma * |
| 245     | Smooth, fading curve gamma 2                |
| 243     | Smooth, fading curve gamma 1,986            |
| 244     | Smooth, fading curve gamma 1,993            |
| .....   |   |
| 18      | Smooth, fading curve gamma 0,513            |
| 17      | Smooth, fading curve gamma 0,506            |
| 16      | Smooth, fading curve gamma 0,5              |
| 0-15    | Snap  |

- **SHAPE RGBW**  
**SHAPE DIMMER**  
**BACKGROUND DIMMER**



| BIT | EFFECT  |
|-----|---------|
| 255 | LED ON  |
| 0   | LED OFF |

- **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 |

• **BACKGROUND SELECT**

| BIT    | EFFECT                    |
|--------|---------------------------|
| 16-255 | No selection              |
| 15     | Ring 2 + Ring 3           |
| 14     | Pixel 1 + Ring 2 + Ring 3 |
| 13     | Pixel 1 + Ring 2          |
| 12     | Pixel 1 + Ring 3          |
| 11     | Ring 3                    |
| 10     | Ring 2                    |
| 9      | Pixel 1                   |
| 8      | No selection              |

**LED RING MACRO**

| BIT     | EFFECT                           |
|---------|----------------------------------|
| 0-1     | No function                      |
| 2-51    | Static color on every 2 dmx ch   |
| 52-54   | The 1st dynamic effect           |
| 55-250  | Dynamic effect on every 4 dmx ch |
| 251-255 | The 51th dynamic effect          |

**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.

## **11. MAINTENANCE AND CLEANING**

The following points must be considered during the inspection:

1. All screws for installing the devices or parts of the device must be tightly connected and must not be corroded.
2. There must not be any deformations on the housing, color lenses, fixations and installation 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 must 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 lifetime, 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. There are no serviceable parts inside the device. Please refer to the instructions under “Installation instructions”. Should you need any spare parts, please order genuine parts from your local dealer.