

Eye 900

LED Wash



This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place

User manual

Please read the instructions carefully before use

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STATEMENT

The product has full capability and intact packing when leaves factory. All the users should comply with provided warnings and manual. Any damages caused by misuse are not included in our guarantee. We cannot be responsible for any malfunctions & problems owing to ignoring the manual.

1. Safety Instructions

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Unpack and check carefully there is no transportation damage before using the unit.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit is for indoor use only. Use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is T_a : 40°C. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85°C.
- DO NOT touch the housing bare-hands during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In case of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance centre. Always use the same type spare parts.
- DO NOT touch any wire during operation as high voltage might be causing electric shock.
- This unit belongs to class 1 protective lights, so the lights must be grounded well. Should be grounded by the professional.
- Please confirm the voltage is among the range mentioned in this user manual.
- Please confirm the power cord is undamaged.
- Please cut off the power before cleaning the lights.
- Don't use knife to drag the power cord when unplugging.
- Be careful when installing the light. Don't touch the bare wire, to avoid the electric shock.
- Don't look straight at the light source when the light is on, otherwise your eyes can be hurt.
- When choosing the installing position, please confirm the light is not exposed to the high temperature, moist or dusty place. Minimum distance between units is 0.5 m.
- Please use proper, applicable and safe wires to connect the light.
- Installation or dismantling should be operated by professional engineer.
- Please don't modify the light on your own, which can cause short circuit, burn, electric shock, etc. Otherwise the manufacturer won't consider warranty.

Warning:

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.

- DO NOT open the unit within five minutes after switching off.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:

There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs by yourself. If your unit requires service, please contact your nearest dealer.

Installation:

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at the safe place where it is not available for other people.

AC Power Supply

The equipment power supply is able to adapt to the wide input voltage range. Please confirm if the input voltage is in the scale of rated voltage. The equipment can adapt to 100V-240V AC voltage, Frequency 50-60HZ. It cannot be used with rheostat (variable resistor) or in dimmer circuits.

2. Unpacking

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:

Equipment x 1

Power cable with Plug x 1

User manual x 1

Iron holder x 2

3. Features & Specifications

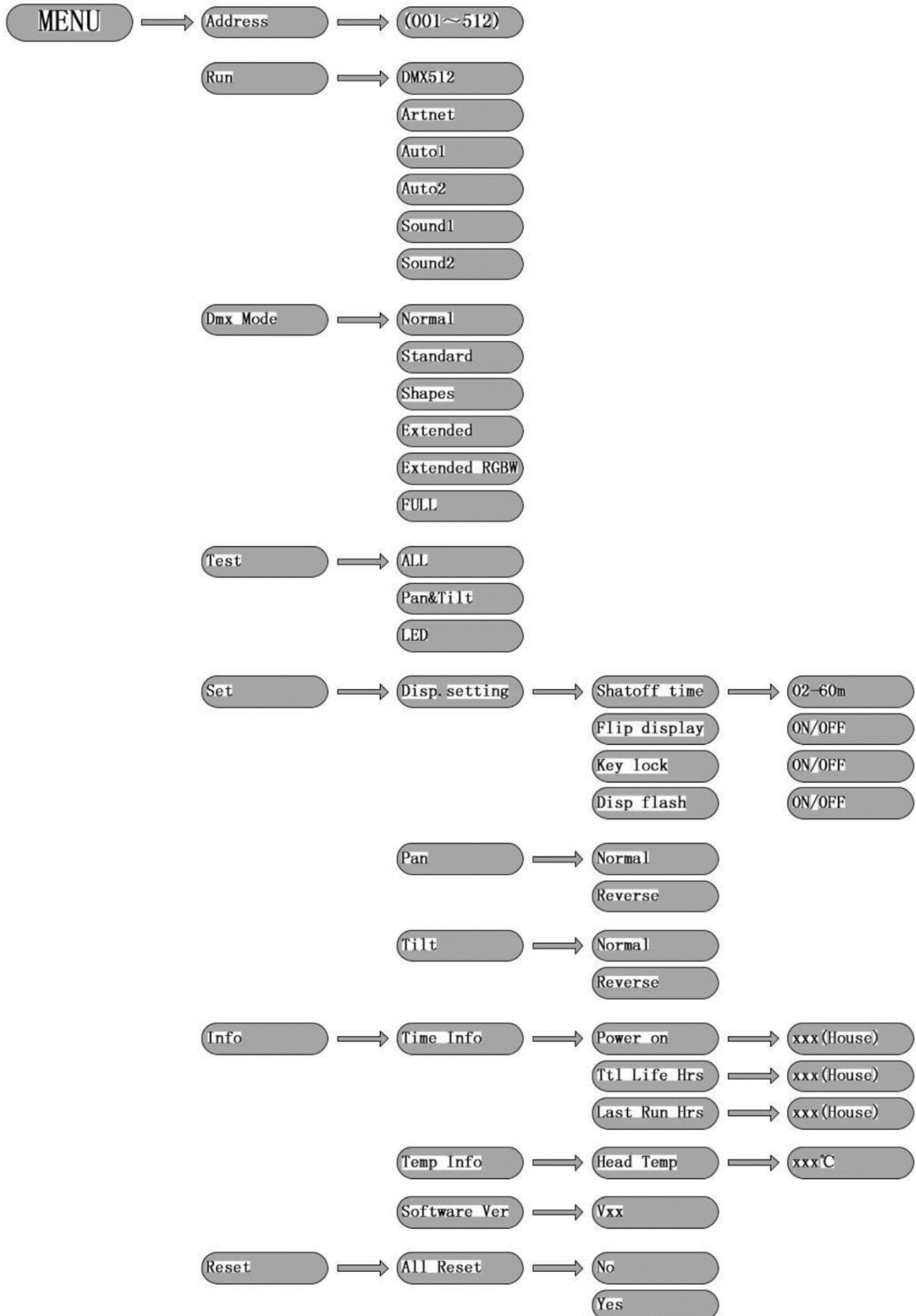
- Rated Voltage: AC100V~240V 50-60HZ
- Rated Power: 450W
- LED Qty: 19x15W high power 4in1 LEDs
- LED Drive Current: 1000mA
- Beam Angle: 4-60°Zoom
- IP: IP20
- DMX Mode: 21CH (Standard/35CH(Shapes)/78CH(Extend)/97CH(Extend RGBW))/92CH(Full)
- Net weight: 15 Kg
- Gross weight: 18.2Kg
- XLR sockets input/output 3Pin
- Power input/output
- 3 kinds of control model: DMX512, Sound active, Master/slave
- LCD display screen
- Display screen can be turned upside down with 180°to fit the installation in different place
- Indoor operation temperature: -20°C~ +40°C
- 5 DMX modes: 21/35 /78/97/92CH
- dimmer:0-100% linear dimmer
- Pan/tilt:
 - 16bit fine pan/tilt control
 - Smooth and accurate locating
 - Pan: 540° Tilt:210°
 - Motor rotation in forward and reverse can be set up
- Each LED can be controlled individually
- 0-20HZ Strobe, pulse strobe, Asynchronous stroboscopic effect.
- Super mixed color and rainbow effect
- All the color can be for the total dimmer.
- 7 programmable program is invoked by controller.
- Fan cooling(fan will be change the speed with the temperature variation.
- Temperature detecting system (If the temperature detection error, the light doesn't work).

5. Menu Operations

Control board function

| Button | Function |
|--------|---|
| MENU | Choose Menu or function exit |
| ENTER | Current show menu or enter into the current selected function |
| UP | Increase the value |
| DOWN | Decrease the value |

Menu Map



8. DMX Channels

DMX Channel Table EXTENDED RGBW

| CHAN-NEL | CHANNEL MODE |
|----------|---------------|
| 1 | Red |
| 2 | Red fine |
| 3 | Green |
| 4 | Green fine |
| 5 | Blue |
| 6 | Blue fine |
| 7 | White |
| 8 | White fine |
| 9 | Linear CTO |
| 10 | Macro colour |
| 11 | Strobe |
| 12 | Dimmer |
| 13 | Dimmer Fine |
| 14 | PanPan |
| 15 | PanPan Fine |
| 16 | Tilt |
| 17 | Tilt Fine |
| 18 | Function |
| 19 | Reset |
| 20 | Zoom |
| 21 | Zoom Rotation |
| 22 | Red LED 1 |
| 23 | Green LED 1 |
| 24 | Blue LED 1 |
| 25 | White LED 1 |
| | Red LED ... |
| | Green LED ... |
| | Blue LED ... |
| | White LED ... |
| 90 | Red LED 18 |
| 91 | Green LED 18 |
| 92 | Blue LED 18 |
| 93 | White LED 18 |
| 94 | Red LED 19 |
| 95 | Green LED 19 |
| 96 | Blue LED 19 |
| 97 | White LED 19 |

FULL

| CHAN-NEL | CHANNEL MODE |
|----------|------------------------------|
| 1 | Red |
| 2 | Red fine |
| 3 | Green |
| 4 | Green fine |
| 5 | Blue |
| 6 | Blue fine |
| 7 | White |
| 8 | White fine |
| 9 | Linear CTO |
| 10 | Macro colour |
| 11 | Strobe |
| 12 | Dimmer |
| 13 | Dimmer Fine |
| 14 | PanPan |
| 15 | PanPan Fine |
| 16 | Tilt |
| 17 | Tilt Fine |
| 18 | Function |
| 19 | Reset |
| 20 | Zoom |
| 21 | Zoom Rotation |
| 22 | Shape Selection |
| 23 | Shape Speed |
| 24 | Shape Fade |
| 25 | Shape R |
| 26 | Shape G |
| 27 | Shape B |
| 28 | Shape W |
| 29 | Shape Dimmer |
| 30 | Background Dimmer |
| 31 | Shape Transition |
| 32 | Shape Offset |
| 33 | Foreground Strobe (reserved) |
| 34 | Background Strobe (reserved) |
| 35 | Background Select (reserved) |
| 36 | Red LED 1 |
| 37 | Green LED 1 |
| 38 | Blue LED 1 |
| | Red LED ... |
| | Green LED ... |
| | Blue LED ... |
| 90 | Red LED 19 |
| 91 | Green LED 19 |
| 92 | Blue LED 19 |

NORMAL

| CHAN-NEL | CHANNEL MODE |
|----------|-------------------|
| 1 | Pan |
| 2 | Pan Fine |
| 3 | Tilt |
| 4 | Tilt Fine |
| 5 | XY Speed |
| 6 | Zoom |
| 7 | Zoom Rotation |
| 8 | Dimmer |
| 9 | Strobe |
| 10 | Red |
| 11 | Green |
| 12 | Blue |
| 13 | White |
| 14 | Macro color |
| 15 | Shape Selection |
| 16 | Shape Speed |
| 17 | Shape Fade |
| 18 | Shape R. |
| 19 | Shape G |
| 20 | Shape B |
| 21 | Shape W |
| 22 | Background Dimmer |
| 23 | Reset |

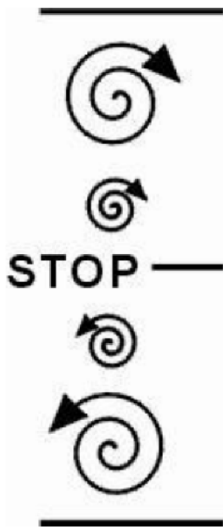
SHAPE SELECTION-SHAPE SPED-SHAPE OFFSET

| BIT | SHAPE-SELECTION | Description | PANDOM COLORS 1 | SHAP E SPEED | SHAPE OFFSET |
|--------|---|--|-----------------|---|---|
| 0-7 | Macro OFF | | N.a | N.a | N.a |
| 8 | Ring 1 | Static effects.The ring or rings used by the macro are turned-on with the foreground colour. | N.a | N.a | N.a |
| 9 | Ring 2 | | | | |
| 10 | Ring 3 | | | | |
| 11 | No function | | | | |
| 12 | Ring 1+2 | | | | |
| 13 | Ring 1+3 | | | | |
| 14 | No function | | | | |
| 15 | Ring Opening (Closing) | | Yes | 0-63 = Radius size, static. 64-158 = max to min speed, Closing effect 159-160 = STOP | 0-9 → continuous 10-255 → random distribution of flash from 2 to 20 fixtures 从 2-20 |
| 16 | Ring Opening (Closing) Filled | | Yes | 161-255 = min to max speed, Opening effect | |
| 17 | Ring Opening (Close/open) | | Yes | 0-63 = Radius size, static. 64-158 = max to min speed, Closing effect 159-160 = STOP. | |
| 18 | Ring Opening (Close/open) Filled | | Yes | 161-255 = min to max speed, Opening effect | |
| 19 | Random pixels distributed on many fixtures | | Yes | 0-63 = STOP 64-158 = max to min speed, Instant-on +fadeout. 159-160 = STOP. 161-255 = min to max speed, FadeIn + Fade Out | 0-255 → select random distribution from 2 up to 20 fixtures |
| 20 | Random pixels with variable density and speed | | Yes | Fade or snap depending on fade channel | 0-255 →select pixel density |
| 21 | Rainbow 1 Variable speed | | N.a | 0-63 = Angle 0-360°, static. 64-158 = max to min speed, c.cw rotation 159-160 = STOP 161-255 = min to max speed, cw rotation | 0-255 → angle offset from 0 to 360° |
| 22 | Rainbow 2 Fixed speed with variable color offset | | N.a | 0-63 = STOP 64-158 = c.cw rotationc.cw 159-160 = STOP 161-255 = cw rotation The value64-158 or 161-255 change the rainbow angle offset (the orange starting angle). | N.a |
| 23 | Fan (3 ams) | | N.a | 0-63 = angle offset, 0-360° 64-158 = max to min speed, c.cw rotation 159-160 = STOP1 61-255 = min to maxspeed, cw rotationt | 0-255 → angle offset from 0 to 360° |
| 24 | Bar (2 ams) | | | | |
| 25 | Half moon | | | | |
| 26 | Triangle | | | | |
| 27 | Two rotating bars of different colors | | | | |
| 28 | Two rotating arcs of different colors | | | | |
| 29 | Two rotating arcs of different colors and direction | | | | |
| 30-255 | Reserved | | N.a | N.a | |

1:Random colors activation with foreground R,G B,W=0

| BIT | LEE REFERENCE | COLOUR | 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 |

•ZOOM ROTATION



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

•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 |

Rainbows

DMX channel value:23-24 simulates a rainbow effect.

The Shape Speed channel increases the speed and defines the rotation: from 126 (min speed) to 0 (max speed) counter clock wise rotation and from 129 (min speed) to 255 (max speed) clock wise rotation. With DMX value 127 or 128 the macro stays still.

For the macro 24 (Rainbow with fixed) the Shape Speed channel also defines angle offset (the orange sector starting angle)

Rotating shapes

DMX channel value: from 25 to 31.

Shapes available: Fan(3 arms). Bar (2 arms), Half Moon, Triangle, Two rotating bars of different colors, Two rotating arcs of different colors, Two rotating arcs of different colors and direction.

The Shape Speed channel increases the speed and defines the rotation: from 126 (min speed) to 0 (max speed) counter clock wise rotation and from 129 (min speed) to 255 (max speed) clock wise rotation With DMX value 127 or 128 the macro stays still.

The Shape Offset channel defines the angle offset from 0 (0 degree) to 255 (360 degree).

• 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 |

Macro Off

DMX channel value: from 0 to 7.

No shape effects activated Turns off any previously selected shape

Static Rings

DMX channel value: from 8 to 14 .

The ring or ring used by the macro are turned on with the foreground colour (Shape Red+Shape, Green+Shape, blue+Shape, White)

Available combinations: Ring 1 On, Ring 2 On, Ring 3

Dynamic Ring

DMX channel value: From 15 to 18.

The ring used by the macro is turned on sequentially, simulating an opening, closing or both. The Shape Speed channel increases the speed from 126 (min speed) to 0 (max speed) for the Closing and closing/opening effects and from 129 (min speed) to 255 (max speed) for the opening and opening/closing effects. With DMX value=127 or 128 the macro stays still.

The Shape Offset channel defines the macro effect diction over a number of fixtures (affects also the behaviour of a single fixture) DMX values from 0 to 9: continuous distribution;

DMX values from 10 to 255 random distribution of flash from 2 to 20 fixtures. If foreground colors are all set to 0, the Random-Colors mode is activated. The color used by the macro changes at every restart.

Rings with variable radius

DMX channel value:19-20.

The Shape Speed channel defines the ring radius: 0=min, 255=max

Random pixels

DMX channel value: 21-22.

LEDs are turned and off randomly .

The Shape Speed channel increases the speed and defines the fade effect for the LEDs: from 126(min speed) to 0(max speed) with an instant-on/fade-out led effect and from 129 (min speed) to 255 (max speed)with a fade-in+fade-out led effect, At a DMX value of 127 and 128 the macro stays still.

For macro 21 the Shape Offset channel defines LEDs random distribution from 0 (2 fixtures) to 255 over a set of fixtures (20 fixtures)

For macro 22 the Shape Offset channel defines, pixels density from 0 (min density) to 255 (max density)

If foreground colors are all set to 0 the Random-Colors mode is activated. The Shape Smoothing channel adjusts the fading effect applied to the macro movement. The color used by the macro changes at every restart.

10. Maintenance and Cleaning

The following points have to be considered during the inspection:

- All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
- Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- 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.

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

- Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.
- Clean the fan each week.
- 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 to clean the device frequently. Please use a moist, lint-free cloth. Never use alcohol solvents.

There are no serviceable parts inside the device. Please refer to the instructions under "Installation instructions".

If you need any spare parts, please order genuine parts from your local dealer.