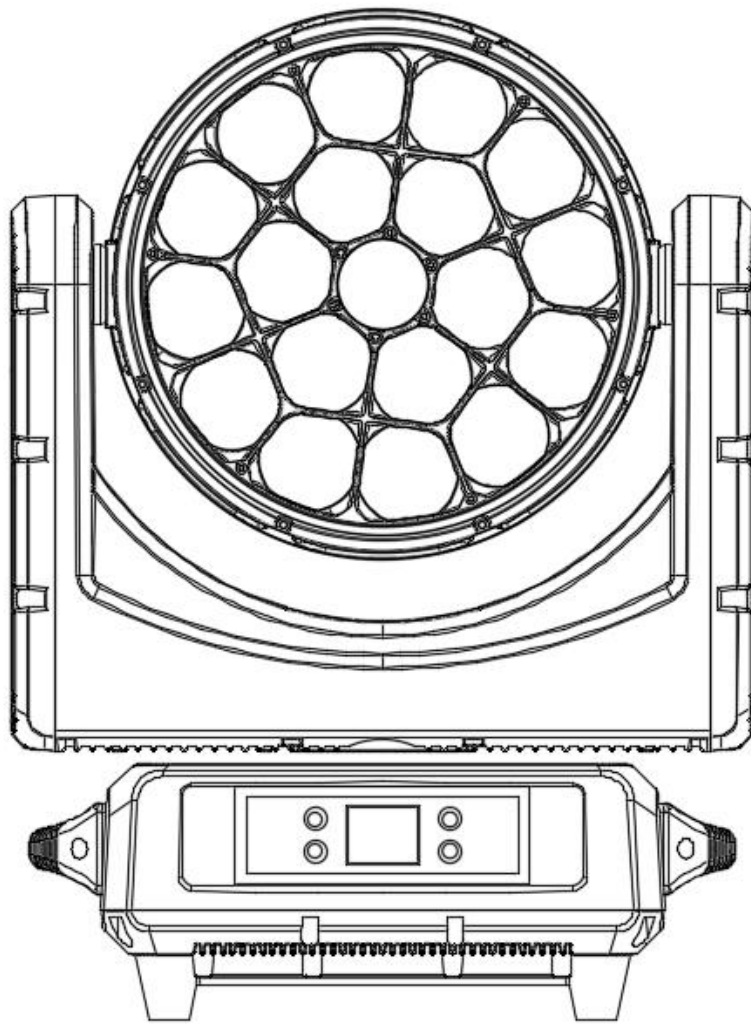


IP1940L



manual

1. Safety Instructions

Please read the instruction carefully which includes important information about the installation, usage and maintenance.

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction 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.

Unpack and check carefully to ensure that there is no transportation damage before using the unit.

DO install and operate by qualified operator.

DO NOT allow children to operate the fixture.

Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.

The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.

Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.

Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.

It's important to ground the yellow/green conductor to earth in order to avoid electric shock.

Minimum ambient temperature TA: 0°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.

DO NOT connect the device to any dimmer pack.

DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly. DO NOT touch any wire during operation as there might be a hazard of electric shock.

Avoid entanglement of the power cord with other wires.

The minimum distance to objects/surface must be more than 1 meters.

Disconnect mains power before fuse/lamp replacement or servicing.

In the event of serious operating problem, stop using the unit immediately.

Never turn on and off the unit time after time.

The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs

yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.

Disconnect this product from its power source before servicing.

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

Avoid direct eye exposure to the light source while the product is on.

Never touch bulb with bare fingers, as it is very hot after using.

DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once

Installation:

The fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing. DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2.INSTALLATIONS

installations Note: In order to increase protection, please install the lamp on the sidewalk, outside the seating area, or an area where unauthorized persons may touch the lamp

Before installing the fixture on any surface, make sure that the installation area can bear the minimum point load above 10 points of the weight of the equipment. The installation of the fixing device must always be fixed with auxiliary safety accessories (such as a suitable safety rope)

Do not stand directly under the equipment when installing, removing, or servicing fixtures

From the ceiling or set on a flat surface (see the picture below). Ensure that this fixture is kept at least 0.5m (1.5 feet) away from any flammable materials (decorations, etc.)

Be sure to use and install the supplied safety rope to ensure safety and prevent accidental damage and/or injury in case the fixture is damaged

Installation point: Overhead installation requires a wealth of experience, including calculation of working load limits, in-depth understanding of the installation materials used, and regular safety inspections of all installation materials and fixtures. If you do not have these qualifications, please do not try

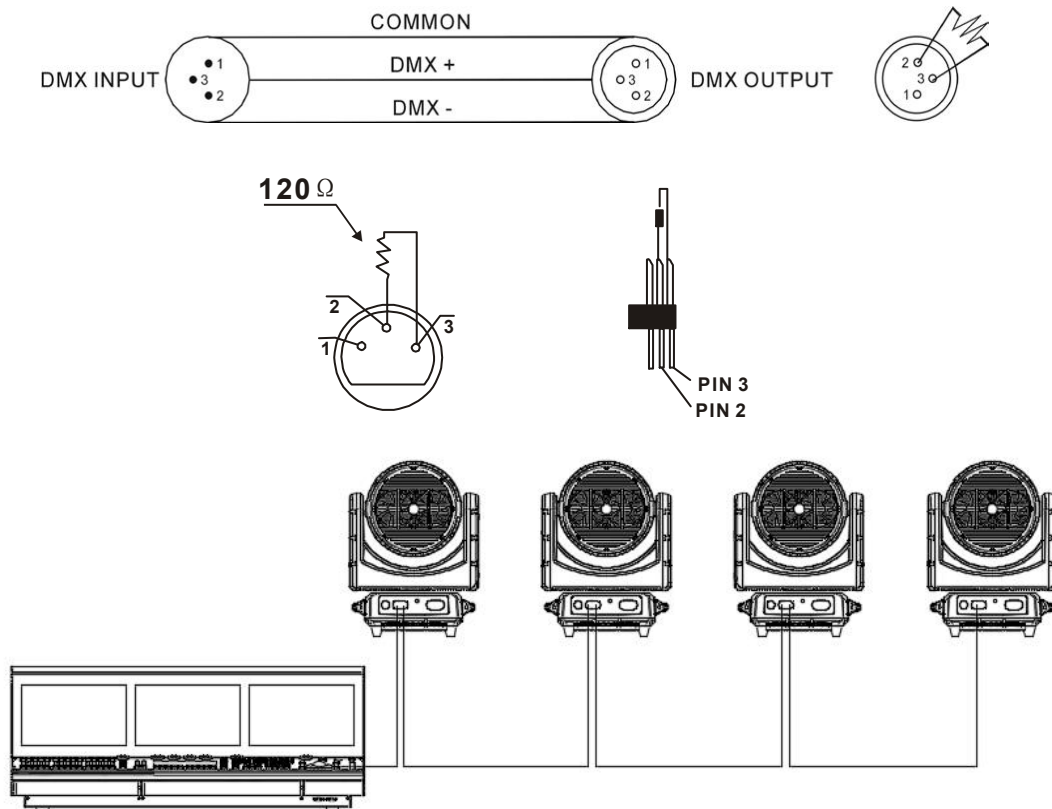
to install it yourself. Improper installation can cause personal injury
Before connecting the main power cord to an appropriate wall outlet, make
sure to complete all assembly and installation procedures
LED installation: LED shaking head provides a unique mounting bracket
assembly, which integrates the bottom of the base and the fixing point of the
safety cable into one unit . When installing the fixture to the truss, make sure to
use the appropriate tools to fix it on the attached bracket, and use the M10
screw that passes through the center hole of the "bracket" to fix it. As an
additional safety measure, make sure to use at least one safety cable
integrated in the base assembly to connect at least one appropriately rated
safety cable to the fixture.

3. 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.

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



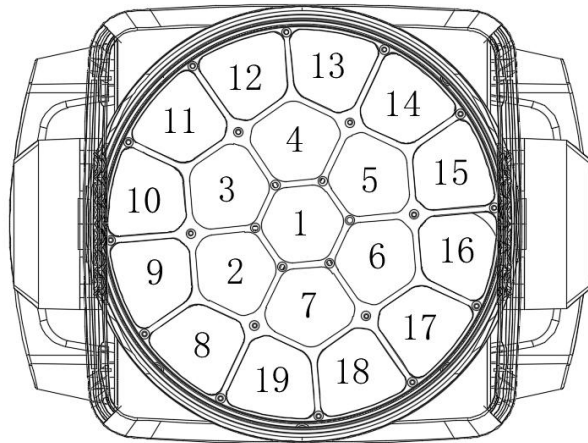
4.Address code setting

If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 so that the units can receive DMX signal.

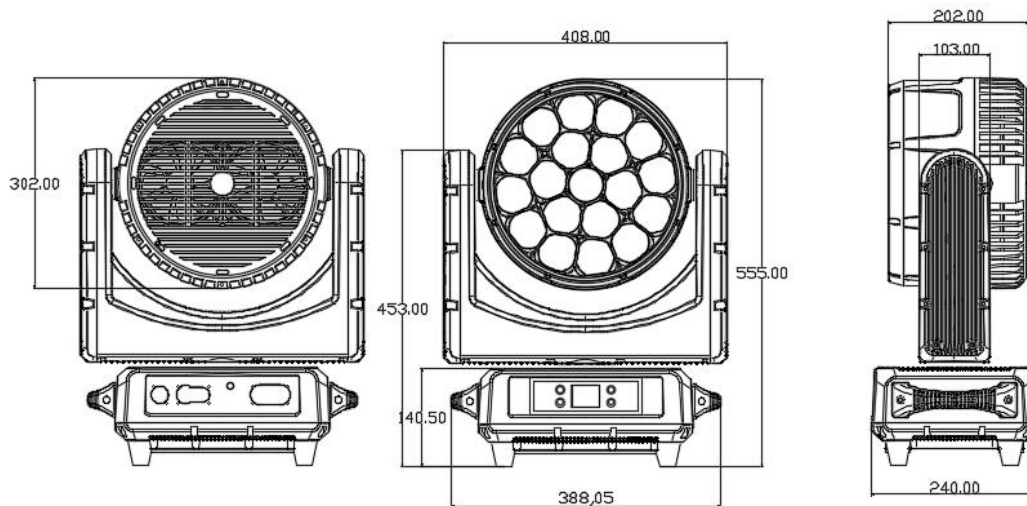
Press the MENU button to enter menu mode, select DMX Settings, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will blink in the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode. Please refer to the following diagram to address your DMX512 channel for the first 4 units.

| Channel MODE | UNIT1 ADDRESS | UNIT2 ADDRESS | UNIT3 ADDRESS | UNIT4 ADDRESS |
|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 21CH | 1 | 22 | 43 | 64 |
| 23CH | 1 | 24 | 47 | 70 |
| 35CH | 1 | 36 | 71 | 106 |
| 78CH | 1 | 79 | 157 | 135 |
| 92CH | 1 | 93 | 185 | 177 |
| 97CH | 1 | 98 | 195 | 292 |
| 99CH | 1 | 100 | 199 | 298 |

5.LED arrangement order



6.Fixture size



7. LED technical parameters

Input Voltage: 100-240V, 50/60Hz

Output Voltage: V1:36V(LED driver+ main board),

Power consumption: 760W

Power supply: 1000W

Single LED power: 40W

Light source: 19x40W RGBW 4IN LED

Beam angle: 4-60°

Adjustable color temperature

DMX Channel: 21/23/35/78/92/97/99 CH

Operate mode: DMX512, AUTO master/slave, Voice control, RDM

Electronic dimmer:0~100%16bit linear

Linear CTO color temperature adjustment: 2500-8000K

Four dimming curve functions

Rich color gradient effects

Rich and diverse dynamic effects

Infinite color mixing

Automatically calculate the address code of the next fixture

Infinite honeycomb rotation, adjustable forward and backward speeds

Encoding positioning is used for the XY axis

Three phase silent motor fast and stable

Fast operation speed and noiseless operation

No flickering under high-definition camera

Dust and oil resistant design

Waterproof grade:IP65

Fixture size: 388*240*555mm

Feature:

LED shaking head dyeing light, with fast operation speed, no noise during operation, and no flicker under high-definition camera. It consists of 19x40W RGBW four color LEDs as a light source, creating a uniform color mixing system and rainbow effect, easily creating a fast and powerful beam, adding dynamism to the stage. Multiple channel modes are available, with point by point control of the light beads. The lighting engineer can flexibly switch colors, angles, and lighting effects. A linear focusing system with a beam angle of 4°-60° , multiple speed stroboscopic effects, and a smooth dimming function of 0~100% 16BIT.

8. Menu Actions

| Main Menu | Secondary menu | tertiary menu/parameters | |
|--------------------------|------------------------------|--|--|
| Address | 001 - 512 | | |
| System settings | Run mode | DMX/sound/auto1/auto2 | |
| | Channel | 21CH/23CH/35CH/78CH/92CH/97CH/99CH | |
| | Invert pan | on/off | |
| | Invert Tilt | on/off | |
| | Hall error correction | on/off | |
| | Optocoupler error correction | on/off | |
| | KEEP Signal | on/off/auto | |
| | screen saver | on/off | |
| | screen flipping | Auto/off | |
| | synchronous update | Off/on | |
| | language | 中/EN | |
| | Screen Lock | on/off | |
| | Fast dimmer | Fast/standard | |
| | Dimming curve | Curve1/Curve2/ Curve3/Curve4 | |
| | silent mode | on/off | |
| Restore factory settings | OK/Cancel | | |
| Auto | Current channel mode channel | 0-255 | |
| Adjust | Enter password | xxxx | |
| | Reset Head | | |
| | Reset XY | | |
| | Reset ALL | | |
| Info | Error message | Display specific information content | |
| | DMX data | Display specific testing content for DMX | |
| | Sensor information | Hall Information | |
| | | X optocoupler information | |
| | | Y optocoupler information | |
| | Hardware version | Display hardware version | |
| Software version | Display software version | | |

9DMX512

21CH

| CH | Function | Value | Details |
|----|----------------|---------|--|
| 1 | Red | 0-255 | Red dimmer |
| 2 | Red Fine | 0-255 | Red fine control |
| 3 | Green | 0-255 | Green dimmer |
| 4 | Green Fine | 0-255 | Green fine control |
| 5 | Blue | 0-255 | Blue dimmer |
| 6 | Blue Fine | 0-255 | Blue fine control |
| 7 | White | 0-255 | White dimmer |
| 8 | White Fine | 0-255 | White fine control |
| 9 | CTO | 0-255 | Color temperature linear control |
| 10 | Macro color | 0-255 | Built in color gradient |
| 11 | Strobe | 0-3 | NO function |
| | | 4-103 | Synchronous strobe speed from slow to fast (1HZ-25HZ) |
| | | 104-107 | OPEN |
| | | 108-207 | Split the strobe speed from slow to fast |

| | | | |
|----|----------------|---------|------------------------------------|
| | | | (1HZ-25Hz) |
| | | 208-212 | OPEN |
| | | 213-225 | Low speed random flashing |
| | | 226-238 | Medium speed random strobe |
| | | 239-251 | High speed random flashing |
| | | 252-255 | OPEN |
| 12 | Dimmer | 0-255 | Linear dimming from dark to bright |
| 13 | Dimmer Fine | 0-255 | Dimming and fine-tuning control |
| 14 | Pan | 0-255 | 0-540° |
| 15 | Pan Fine | 0-255 | 16bit |
| 16 | Tilt | 0-255 | 0-270° |
| 17 | Tilt Fine | 0-255 | 16bit |
| 18 | Function | 0-255 | reserve |
| 19 | Reset | 0-79 | NO Function |
| | | 80-99 | curve1(5s) |
| | | 100-119 | curve2(5s) |
| | | 120-139 | curve3(5s) |
| | | 140-159 | curve4(5s) |
| | | 160-179 | Slow dimming mode (5s) |
| | | 180-199 | Fast dimming mode (5s) |

| | | | |
|----|------------------|---------|---|
| | | 200-209 | Effect motor reset (5s) |
| | | 210-219 | XY motor reset (5s) |
| | | 220-229 | Reset all motors (5s) |
| 20 | Zoom | 0-255 | Linear adjustment of angle from small to large |
| 21 | Zoom Rotation | 0-127 | 0~60° |
| | | 128-191 | Turning counterclockwise from fast to slow endlessly |
| | | 200-255 | Clockwise rotation from slow to fast |

23CH

| CH | Function | DMX | Details |
|----|------------------|---------|--------------------------------------|
| 1 | Pan | 0-255 | 0-540° |
| 2 | Pan Fine | 0-255 | 16bit |
| 3 | Tilt | 0-255 | 0-270° |
| 4 | Tilt Fine | 0-255 | 16bit |
| 5 | P/T speed | 0-255 | Speed from fast to slow |
| 6 | Zoom | 0-255 | Linear adjustment |
| 7 | Zoom Rotation | 0-127 | 0~60° |
| | | 128-199 | Turning counterclockwise from fast |
| | | 200-255 | Clockwise rotation from slow to fast |
| 8 | Dimmer | 0-255 | Linear dimming from dark to bright |

| | | | |
|----|----------------------|---------|---|
| 9 | Strobe | 0-3 | NO function |
| | | 4-103 | Synchronous strobe speed from |
| | | 104-107 | OPEN |
| | | 108-207 | Split the strobe speed from slow to |
| | | 208-212 | OPEN |
| | | 213-225 | Low speed random flashing |
| | | 226-238 | Medium speed random strobe |
| | | 239-251 | High speed random flashing |
| | | 252-255 | OPEN |
| 10 | R | 0-255 | Red dimmer |
| 11 | G | 0-255 | Green dimmer |
| 12 | B | 0-255 | Blue dimmer |
| 13 | W | 0-255 | White dimmer |
| 14 | CTO | 0-255 | Color temperature linear control |
| 15 | Macro color | 0-255 | Built in color gradient |
| 16 | Static effect | 0-255 | Each 5 DMX value is a kind of static |
| 17 | Dynamic effect | 0-255 | Each 5 DMX value is a kind of dynamic effect |
| 18 | Dynamic effect speed | 0-255 | Speed from slow to fast,pls operate against 15 CH |
| 19 | Background R | 0-255 | 1-100% Background Red linear dimmer from dark to bright |

| | | | |
|----|-----------------|---------|--|
| 20 | Background G | 0-255 | 1-100% Background Blue linear dimmer from dark to bright |
| 21 | Background B | 0-255 | 1-100% Background Green linear dimmer from dark to bright |
| 22 | Background W | 0-255 | 1-100% Background Blue linear dimmer from dark to bright |
| 23 | Reset | 0-79 | NO Function |
| | | 80-99 | curve1(5s) |
| | | 100-119 | curve2(5s) |
| | | 120-139 | curve3(5s) |
| | | 140-159 | curve4(5s) |
| | | 160-179 | Slow dimming mode (5s) |
| | | 180-199 | Fast dimming mode (5s) |
| | | 200-209 | Effect motor reset (5s) |
| | | 210-219 | XY motor reset (5s) |
| | | 220-229 | Reset all motors (5s) |

35CH

| CH | Function | Value | Details |
|----|-------------|---------|---|
| 1 | Red | 0-255 | Red dimmer |
| 2 | Red Fine | 0-255 | Red fine control |
| 3 | Green | 0-255 | Green dimmer |
| 4 | Green Fine | 0-255 | Green fine control |
| 5 | Blue | 0-255 | Blue dimmer |
| 6 | Blue Fine | 0-255 | Blue fine control |
| 7 | White | 0-255 | White dimmer |
| 8 | White Fine | 0-255 | White fine control |
| 9 | CTO | 0-255 | Color temperature linear control |
| 10 | Macro color | 0-255 | Built in color gradient |
| 11 | Strobe | 0-3 | NO function |
| | | 4-103 | Synchronous strobe speed from slow to fast (1HZ-25HZ) |
| | | 104-107 | OPEN |
| | | 108-207 | Split the strobe speed from slow to fast (1HZ-25Hz) |
| | | 208-212 | OPEN |
| | | 213-225 | Low speed random flashing |
| | | 226-238 | Medium speed random strobe |

| | | | |
|----|----------------|---------|------------------------------------|
| | | 239-251 | High speed random flashing |
| | | 252-255 | OPEN |
| 12 | Dimmer | 0-255 | Linear dimming from dark to bright |
| 13 | Dimmer Fine | 0-255 | Dimming and fine-tuning control |
| 14 | Pan | 0-255 | 0-540° |
| 15 | Pan Fine | 0-255 | 16bit |
| 16 | Tilt | 0-255 | 0-270° |
| 17 | Tilt Fine | 0-255 | 16bit |
| 18 | Function | 0-255 | reserve |
| 19 | Reset | 0-79 | NO Function |
| | | 80-99 | curve1(5s) |
| | | 100-119 | curve2(5s) |
| | | 120-139 | curve3(5s) |
| | | 140-159 | curve4(5s) |
| | | 160-179 | Slow dimming mode (5s) |
| | | 180-199 | Fast dimming mode (5s) |
| | | 200-209 | Effect motor reset (5s) |
| | | 210-219 | XY motor reset (5s) |
| | | 220-229 | Reset all motors (5s) |
| 20 | Zoom | 0-255 | Linear adjustment |

| | | | |
|----|----------------------|---------|---|
| | | | of angle from small to large |
| 21 | Zoom Rotation | 0-127 | 0~60° |
| | | 128-191 | Turning counterclockwise from fast to slow endlessly |
| | | 200-255 | Clockwise rotation from slow to fast |
| 22 | Pattern selection | 0-7 | NO |
| | | 8 | static effect1 |
| | | 9 | static effect2 |
| | | 10 | static effect3 |
| | | 11 | NO |
| | | 12 | static effect4 |
| | | 13 | static effect5 |
| | | 14 | NO |
| | | 15 | Trends Effect1 |
| | | 16 | Trends Effect2 |
| | | 17 | Trends Effect3 |
| | | 18 | Trends Effect4 |
| | | 19 | Monochromatic random |
| | | 20 | Full color random |
| | | 21 | Rainbow Effect1 |
| 22 | Rainbow Effect2 | | |

| | |
|----|------------------|
| 23 | Trends Effeect5 |
| 24 | Trends Effeect6 |
| 25 | Trends Effeect7 |
| 26 | Trends Effeect8 |
| 27 | Trends Effeect9 |
| 28 | Trends Effeect10 |
| 29 | Trends Effeect11 |
| 30 | Trends Effeect12 |
| 31 | Trends Effeect13 |
| 32 | Trends Effeect14 |
| 33 | NO |
| 34 | NO |
| 35 | Trends Effeect15 |
| 36 | Trends Effeect16 |
| 37 | Trends Effeect17 |
| 38 | Trends Effeect18 |
| 39 | Trends Effeect19 |
| 40 | Trends Effeect20 |
| 41 | NO |
| 42 | Trends Effeect21 |
| 43 | NO |

| | |
|----|------------------|
| 44 | Trends Effeect22 |
| 45 | Trends Effeect23 |
| 46 | Trends Effeect24 |
| 47 | Trends Effeect25 |
| 48 | Trends Effeect26 |
| 49 | Trends Effeect27 |
| 50 | Trends Effeect28 |
| 51 | Trends Effeect29 |
| 52 | Trends Effeect30 |
| 53 | Trends Effeect31 |
| 54 | Trends Effeect32 |
| 55 | Trends Effeect33 |
| 56 | Trends Effeect34 |
| 57 | Trends Effeect35 |
| 58 | Trends Effeect36 |
| 59 | Trends Effeect37 |
| 60 | Trends Effeect38 |
| 61 | Random location1 |
| 62 | Random location2 |
| 63 | Random location3 |
| 64 | NO |

| | | | |
|----|-----------------------|--------|------------------------------|
| | | 65 | Random location4 |
| | | 66 | Random location5 |
| | | 67 | Trends Effeect39 |
| | | 68 | Trends Effeect40 |
| | | 69 | NO |
| | | 70 | Trends Effeect41 |
| | | 71-255 | NO |
| 23 | Pattern effect speed | 0-255 | Pattern effect speed control |
| 24 | Pattern effect fading | 0-255 | Pattern effect fading |
| 25 | Pattern effect R | 0-255 | Pattern effect R |
| 26 | Pattern effect G | 0-255 | Pattern effect G |
| 27 | Pattern effect B | 0-255 | Pattern effect B |
| 28 | Pattern effect W | 0-255 | Pattern effect W |

| | | | |
|----|---------------------------|-------|---|
| 29 | Pattern dimming | 0-255 | Pattern dimming0-100% |
| 30 | Background dimming | 0-255 | Background dimming0-100% |
| 31 | Pattern effect transition | 0-255 | Pattern change control |
| 32 | Pattern effect supplement | 0-255 | Pattern translation |
| 33 | Foreground Strobe | 0-255 | Foreground strobe (same as channel 11) |
| 34 | Background Strobe | 0-255 | Background strobe (same as channel 11) |
| 35 | Background selection | 0-255 | Background selection |

78CH

| CH | Function | Value | Details |
|-----------|-----------------|--------------|---|
| 1 | Red | 0-255 | Red dimmer |
| 2 | Red Fine | 0-255 | Red fine control |
| 3 | Green | 0-255 | Green dimmer |
| 4 | Green Fine | 0-255 | Green fine control |
| 5 | Blue | 0-255 | Blue dimmer |
| 6 | Blue Fine | 0-255 | Blue fine control |
| 7 | White | 0-255 | White dimmer |
| 8 | White Fine | 0-255 | White fine control |
| 9 | CTO | 0-255 | Color temperature linear control |
| 10 | Macro color | 0-255 | Built in color gradient |
| 11 | Strobe | 0-3 | NO function |
| | | 4-103 | Synchronous strobe speed from slow to fast (1HZ-25HZ) |
| | | 104-107 | OPEN |
| | | 108-207 | Split the strobe speed from slow to fast (1HZ-25Hz) |
| | | 208-212 | OPEN |
| | | 213-225 | Low speed random flashing |
| | | 226-238 | Medium speed random strobe |

| | | | |
|----|----------------|---------|------------------------------------|
| | | 239-251 | High speed random flashing |
| | | 252-255 | OPEN |
| 12 | Dimmer | 0-255 | Linear dimming from dark to bright |
| 13 | Dimmer Fine | 0-255 | Dimming and fine-tuning control |
| 14 | Pan | 0-255 | 0-540° |
| 15 | Pan Fine | 0-255 | 16bit |
| 16 | Tilt | 0-255 | 0-270° |
| 17 | Tilt Fine | 0-255 | 16bit |
| 18 | Function | 0-255 | reserve |
| 19 | Reset | 0-79 | NO Function |
| | | 80-99 | curve1(5s) |
| | | 100-119 | curve2(5s) |
| | | 120-139 | curve3(5s) |
| | | 140-159 | curve4(5s) |
| | | 160-179 | Slow dimming mode (5s) |
| | | 180-199 | Fast dimming mode (5s) |
| | | 200-209 | Effect motor reset (5s) |
| | | 210-219 | XY motor reset (5s) |
| | | 220-229 | Reset all motors (5s) |
| 20 | Zoom | 0-255 | Linear adjustment |

| | | | |
|-----|------------------|---------|---|
| | | | of angle from small to large |
| 21 | Zoom Rotation | 0-127 | 0~60° |
| | | 128-191 | Turning counterclockwise from fast to slow endlessly |
| | | 200-255 | Clockwise rotation from slow to fast |
| 22 | R1 | 0-255 | R1 LED Dim |
| 23 | G1 | 0-255 | G1 LED Dim |
| 24 | B1 | 0-255 | B1 LED Dim |
| ... | ... | ... | |
| 76 | R19 | 0-255 | R19 LED Dim |
| 77 | G19 | 0-255 | G19 LED Dim |
| 78 | B19 | 0-255 | B19 LED Dim |

92CH

| CH | Function | Value | Details |
|-----------|-----------------|--------------|---|
| 1 | Red | 0-255 | Red dimmer |
| 2 | Red Fine | 0-255 | Red fine control |
| 3 | Green | 0-255 | Green dimmer |
| 4 | Green Fine | 0-255 | Green fine control |
| 5 | Blue | 0-255 | Blue dimmer |
| 6 | Blue Fine | 0-255 | Blue fine control |
| 7 | White | 0-255 | White dimmer |
| 8 | White Fine | 0-255 | White fine control |
| 9 | CTO | 0-255 | Color temperature linear control |
| 10 | Macro color | 0-255 | Built in color gradient |
| 11 | Strobe | 0-3 | NO function |
| | | 4-103 | Synchronous strobe speed from slow to fast (1HZ-25HZ) |
| | | 104-107 | OPEN |
| | | 108-207 | Split the strobe speed from slow to fast (1HZ-25Hz) |
| | | 208-212 | OPEN |
| | | 213-225 | Low speed random flashing |
| | | 226-238 | Medium speed random strobe |

| | | | |
|----|----------------|---------|------------------------------------|
| | | 239-251 | High speed random flashing |
| | | 252-255 | OPEN |
| 12 | Dimmer | 0-255 | Linear dimming from dark to bright |
| 13 | Dimmer Fine | 0-255 | Dimming and fine-tuning control |
| 14 | Pan | 0-255 | 0-540° |
| 15 | Pan Fine | 0-255 | 16bit |
| 16 | Tilt | 0-255 | 0-270° |
| 17 | Tilt Fine | 0-255 | 16bit |
| 18 | Function | 0-255 | reserve |
| 19 | Reset | 0-79 | NO Function |
| | | 80-99 | curve1(5s) |
| | | 100-119 | curve2(5s) |
| | | 120-139 | curve3(5s) |
| | | 140-159 | curve4(5s) |
| | | 160-179 | Slow dimming mode (5s) |
| | | 180-199 | Fast dimming mode (5s) |
| | | 200-209 | Effect motor reset (5s) |
| | | 210-219 | XY motor reset (5s) |
| | | 220-229 | Reset all motors (5s) |
| 20 | Zoom | 0-255 | Linear adjustment |

| | | | |
|----|----------------------|---------|---|
| | | | of angle from small to large |
| 21 | Zoom Rotation | 0-127 | 0~60° |
| | | 128-191 | Turning counterclockwise from fast to slow endlessly |
| | | 200-255 | Clockwise rotation from slow to fast |
| 22 | Pattern selection | 0-7 | NO |
| | | 8 | static effect1 |
| | | 9 | static effect2 |
| | | 10 | static effect3 |
| | | 11 | NO |
| | | 12 | static effect4 |
| | | 13 | static effect5 |
| | | 14 | NO |
| | | 15 | Trends Effect1 |
| | | 16 | Trends Effect2 |
| | | 17 | Trends Effect3 |
| | | 18 | Trends Effect4 |
| | | 19 | Monochromatic random |
| | | 20 | Full color random |
| | | 21 | Rainbow Effect1 |
| 22 | Rainbow Effect2 | | |

| | |
|----|------------------|
| 23 | Trends Effeect5 |
| 24 | Trends Effeect6 |
| 25 | Trends Effeect7 |
| 26 | Trends Effeect8 |
| 27 | Trends Effeect9 |
| 28 | Trends Effeect10 |
| 29 | Trends Effeect11 |
| 30 | Trends Effeect12 |
| 31 | Trends Effeect13 |
| 32 | Trends Effeect14 |
| 33 | NO |
| 34 | NO |
| 35 | Trends Effeect15 |
| 36 | Trends Effeect16 |
| 37 | Trends Effeect17 |
| 38 | Trends Effeect18 |
| 39 | Trends Effeect19 |
| 40 | Trends Effeect20 |
| 41 | NO |
| 42 | Trends Effeect21 |
| 43 | NO |

| | |
|----|------------------|
| 44 | Trends Effeect22 |
| 45 | Trends Effeect23 |
| 46 | Trends Effeect24 |
| 47 | Trends Effeect25 |
| 48 | Trends Effeect26 |
| 49 | Trends Effeect27 |
| 50 | Trends Effeect28 |
| 51 | Trends Effeect29 |
| 52 | Trends Effeect30 |
| 53 | Trends Effeect31 |
| 54 | Trends Effeect32 |
| 55 | Trends Effeect33 |
| 56 | Trends Effeect34 |
| 57 | Trends Effeect35 |
| 58 | Trends Effeect36 |
| 59 | Trends Effeect37 |
| 60 | Trends Effeect38 |
| 61 | Random location1 |
| 62 | Random location2 |
| 63 | Random location3 |
| 64 | NO |

| | | | |
|----|-----------------------|--------|------------------------------|
| | | 65 | Random location4 |
| | | 66 | Random location5 |
| | | 67 | Trends Effeect39 |
| | | 68 | Trends Effeect40 |
| | | 69 | NO |
| | | 70 | Trends Effeect41 |
| | | 71-255 | NO |
| 23 | Pattern speed | 0-255 | Pattern effect speed control |
| 24 | Pattern effect fading | 0-255 | Pattern effect fading |
| 25 | Pattern effect R | 0-255 | Pattern effect R |
| 26 | Pattern effect G | 0-255 | Pattern effect G |
| 27 | Pattern effect B | 0-255 | Pattern effect B |
| 28 | Pattern effect W | 0-255 | Pattern effect W |
| 29 | Pattern | 0-255 | Pattern dimming0-100% |

| | | | |
|-----|---------------------------|-------|---|
| | dimming | | |
| 30 | Background dimming | 0-255 | Background dimming 0-100% |
| 31 | Pattern effect transition | 0-255 | Pattern change control |
| 32 | Pattern effect supplement | 0-255 | Pattern translation |
| 33 | Foreground Strobe | 0-255 | Foreground strobe (same as channel 11) |
| 34 | Background Strobe | 0-255 | Background strobe (same as channel 11) |
| 35 | Background selection | 0-255 | Background selection |
| 36 | R1 | 0-255 | R1 LED Dim |
| 37 | G1 | 0-255 | G1 LED Dim |
| 38 | B1 | 0-255 | B1 LED Dim |
| ... | ... | ... | |
| 90 | R19 | 0-255 | R19 LED Dim |
| 91 | G19 | 0-255 | G1 LED Dim |
| 92 | B19 | 0-255 | B1 LED Dim |

97CH

| CH | Function | Value | Details |
|-----------|-----------------|--------------|---|
| 1 | Red | 0-255 | Red dimmer |
| 2 | Red Fine | 0-255 | Red fine control |
| 3 | Green | 0-255 | Green dimmer |
| 4 | Green Fine | 0-255 | Green fine control |
| 5 | Blue | 0-255 | Blue dimmer |
| 6 | Blue Fine | 0-255 | Blue fine control |
| 7 | White | 0-255 | White dimmer |
| 8 | White Fine | 0-255 | White fine control |
| 9 | CTO | 0-255 | Color temperature linear control |
| 10 | Macro color | 0-255 | Built in color gradient |
| 11 | Strobe | 0-3 | NO function |
| | | 4-103 | Synchronous strobe speed from slow to fast (1HZ-25HZ) |

| | | | |
|----|-------------|---------|---|
| | | 104-107 | OPEN |
| | | 108-207 | Split the strobe speed from slow to fast (1HZ-25Hz) |
| | | 208-212 | OPEN |
| | | 213-225 | Low speed random flashing |
| | | 226-238 | Medium speed random strobe |
| | | 239-251 | High speed random flashing |
| | | 252-255 | OPEN |
| 12 | Dimmer | 0-255 | Linear dimming from dark to bright |
| 13 | Dimmer Fine | 0-255 | Dimming and fine-tuning control |
| 14 | Pan | 0-255 | 0-540° |
| 15 | Pan Fine | 0-255 | 16bit |
| 16 | Tilt | 0-255 | 0-270° |
| 17 | Tilt Fine | 0-255 | 16bit |
| 18 | Function | 0-255 | reserve |
| 19 | Reset | 0-79 | NO Function |
| | | 80-99 | curve1(5s) |
| | | 100-119 | curve2(5s) |

| | | | |
|-----|------------------|---------|---|
| | | 120-139 | curve3(5s) |
| | | 140-159 | curve4(5s) |
| | | 160-179 | Slow dimming mode (5s) |
| | | 180-199 | Fast dimming mode (5s) |
| | | 200-209 | Effect motor reset (5s) |
| | | 210-219 | XY motor reset (5s) |
| | | 220-229 | Reset all motors (5s) |
| 20 | Zoom | 0-255 | Linear adjustment of angle from small to large |
| 21 | Zoom Rotation | 0-127 | 0~60° |
| | | 128-191 | Turning counterclockwise from fast to slow endlessly |
| | | 200-255 | Clockwise rotation from slow to fast |
| 22 | R1 | 0-255 | R1 LED Dim |
| 23 | G1 | 0-255 | G1 LED Dim |
| 24 | B1 | 0-255 | B1 LED Dim |
| 25 | W1 | 0-255 | W1 LED Dim |
| ... | ... | ... | ... |
| 94 | R19 | 0-255 | R19 LED Dim |
| 95 | G19 | 0-255 | G19 LED Dim |

| | | | |
|----|-----|-------|-------------|
| 96 | B19 | 0-255 | B19 LED Dim |
| 97 | W19 | 0-255 | W19LEDDim |

99CH

| C | Function | DMX | Details |
|----------|------------------|------------|--------------------------------------|
| 1 | Pan | 0-255 | 0-540° |
| 2 | Pan Fine | 0-255 | 16bit |
| 3 | Tilt | 0-255 | 0-270° |
| 4 | Tilt Fine | 0-255 | 16bit |
| 5 | P/T speed | 0-255 | Speed from fast to slow |
| 6 | Zoom | 0-255 | Linear adjustment |
| 7 | Zoom Rotation | 0-127 | 0~60° |
| | | 128-191 | Turning counterclockwise from fast |
| | | 200-255 | Clockwise rotation from slow to fast |
| 8 | Dimmer | 0-255 | Linear dimming from dark to bright |
| 9 | Strobe | 0-3 | NO function |
| | | 4-103 | Synchronous strobe speed from slow |
| | | 104-107 | OPEN |
| | | 108-207 | Split the strobe speed from slow to |
| | | 208-212 | OPEN |
| | | 213-225 | Low speed random flashing |
| | | 226-238 | Medium speed random strobe |
| | | 239-251 | High speed random flashing |
| | | 252-255 | OPEN |
| 10 | R | 0-255 | Red dimmer |

| | | | |
|----|----------------------|---------|---|
| 11 | G | 0-255 | Green dimmer |
| 12 | B | 0-255 | Blue dimmer |
| 13 | W | 0-255 | White dimmer |
| 14 | CTO | 0-255 | Color temperature linear control |
| 15 | Macro color | 0-255 | Built in color gradient |
| 16 | Static effect | 0-255 | Each 5 DMX value is a kind of static |
| 17 | Dynamic effect | 0-255 | Each 5 DMX value is a kind of dynamic effect |
| 18 | Dynamic effect speed | 0-255 | Speed from slow to fast,pls operate against 15 CH |
| 19 | Background R | 0-255 | 1-100% Background Red linear dimmer from dark to bright |
| 20 | Background G | 0-255 | 1-100% Background Blue linear dimmer from dark to bright |
| 21 | Background B | 0-255 | 1-100% Background Green linear dimmer from dark to bright |
| 22 | Background W | 0-255 | 1-100% Background Blue linear dimmer from dark to bright |
| 23 | Reset | 0-79 | NO Function |
| | | 80-99 | curve1(5s) |
| | | 100-119 | curve2(5s) |

| | | | |
|-----|-----|---------|-------------------------|
| | | 120-139 | curve3(5s) |
| | | 140-159 | curve4(5s) |
| | | 160-179 | Slow dimming mode (5s) |
| | | 180-199 | Fast dimming mode (5s) |
| | | 200-209 | Effect motor reset (5s) |
| | | 210-219 | XY motor reset (5s) |
| | | 220-229 | Reset all motors (5s) |
| 24 | R1 | 0-255 | R19 LED Dim |
| 25 | G1 | 0-255 | G19 LED Dim |
| 26 | B1 | 0-255 | B19 LED Dim |
| 27 | W1 | 0-255 | W19LEDDim |
| ... | ... | ... | |
| 96 | R19 | 0-255 | R19 LED Dim |
| 97 | G19 | 0-255 | G19 LED Dim |
| 98 | B19 | 0-255 | B19 LED Dim |
| 99 | W19 | 0-255 | W19LEDDim |

11.Trouble shooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

The unit does not work, no light and the fan does not work

Check the connection of power and main fuse.

Measure the mains voltage on the main connector.

Check the power on LED.

Not responding to DMX controller

DMX LED should be on. If not, check DMX connectors, cables to see if link properly.

If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.

If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.

Try to use another DMX controller.

Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

One of the channels is not working well

The stepper motor might be damaged or the cable connected to the PCB is broken.

