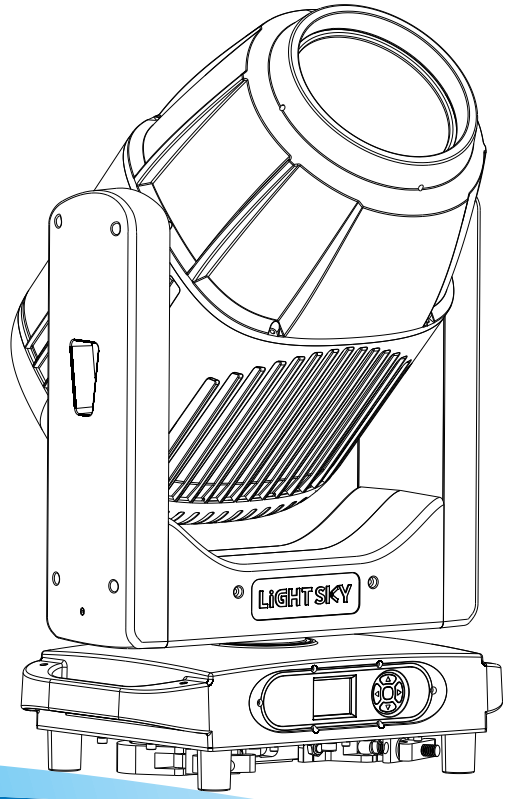
LiGHT SKY

FLY DRAGON LIGHTING EQUIPMENT CO.,LTD

# AURORA AQUA
# User Manual

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LiGHT SKY

Please read the instruction carefully bef!

## CONTENTS



**Congratulations on choosing our company product! We thank you for your custom.**

- ◆ Please keep in mind that this product, like other products of the company, adheres to the concept of people-oriented design and manufacture, and takes product quality as the foundation.
- ◆ We put the interests of customers first, and do our best to meet customer requirements.
- ◆ Please read this instruction manual carefully and keep it for future reference. In the case of fully understanding the product information, strictly abide by theUse the instruction manual to ensure that the product is installed, used and serviced correctly and safely.
- ◆ Our company is not responsible for any damage to lamps or other performance due to personal failure to follow the instructions during installation, use and maintenance.responsibility.
- ◆ Our company reserves the right to modify the manual at any time and without prior notice.

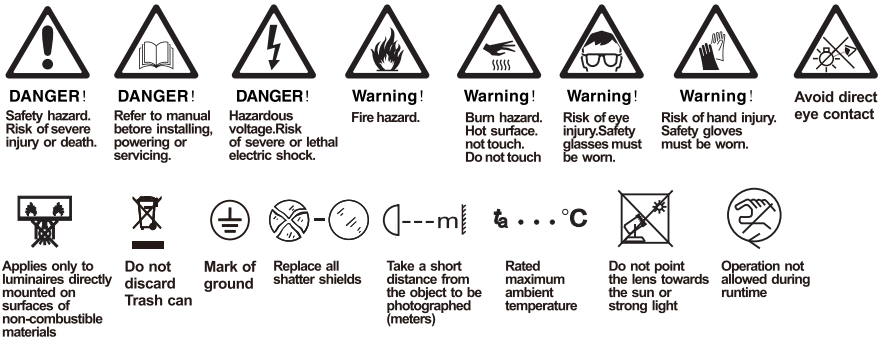
## 1.Safety Instructions

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

**WARNING**

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

The following symbols are used to identify important safety information on the product and in this 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.
- The light source in this luminaire should be replaced by the manufacturer or its service agent or a similarly qualified person, always cut off the power supply before replacing he light source.
- 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 20cm 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: -10℃. Maximum ambient temperature Ta: 40℃. Do not operate this product at a lower or higher temperature.
- Do not connect the device to any dimmer pack.
- When the lamp is running, do not place combustible objects next to it. The shortest distance between the device and inflammable and explosive objects or materials is 0.5m.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 80℃. do not touch the housing bare-handedduring its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- 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 3 meters.
- 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 open the housing as there are no user serviceable parts inside.
- 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.

- 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.Technical Specifications

**OPTICS**

- Light source: USHIO NSL U8
- Lamp angle: Beam mode 1.8°-24°, Spot mode 3°-45°, Spot mode 2.6°-43°
- Optical lens: ϕ 160mm
- Color temperature: 7000 K
- Luminous flux: 16000 lm
- Color rendering index: Ra≥80 (Cut into the indicator piece RA≥88)
- Illuminance: 620000 @10 meters
- Light source lifespan: 4000 hours

**COLOR**

- Linear CMY color mixing system
- Linear CTO
- 14 color chips + white light, can achieve two-way color rainbow, two-color step gradient (linear movement), two-way rotation of color wheel, random color mode

**PATTERN**

- 1 fixed pattern plate: 13 patterns + white circles, which can achieve flowing water and shaking effects
- 1 rotating pattern plate: 9 kinds of glass patterns + white circles, pluggable and replaceable, can achieve rotation, running water and shaking effects, the outer diameter of the pattern piece is 14.0mm, the inner diameter of the pattern piece is 9.5mm
- Dynamic effects wheel

**EFFECT**

- 5 prisms: 2 beam prisms, 3 pattern prisms, rotatable in both directions, switchable independently, and stackable.
- 2 atomizer sheets: adjustable independent soft light effect
- Focus: High-precision electric focus
- Strobe: 0.5-12 times/second adjustable pulse strobe and random strobe
- Dimming: 0-100% linear adjustment

**CONTROL AND PROGRAMMING**

- Control channel: 33CH、35CH
- Protocol: Standard DMX512 protocol, RDM protocol, ArtNet protocol
- Data connection: three-core or five-core signal input/output、Network input
- Display: LCD screen

**SOFTWARE**

- Upgrade software through DMX interface

**X, Y AXIS MOVEMENT ANGLE**

- X-axis: 540°8bit/16bit precision scanning
- Y-axis: 270°8bit/16bit precision scanning

**POWER AND POWER**

- Input voltage: AC 100-240V 50/60Hz
- Maximum power: 700W
- Power factor: 0.98

**SIZE AND WEIGHT**

- Product size: 401mm×272mm×691mm
- Net weight: 29.0 kg
- Carton packaging (default): 785mm×510mm×360mm
- Gross weight: 34.5 kg

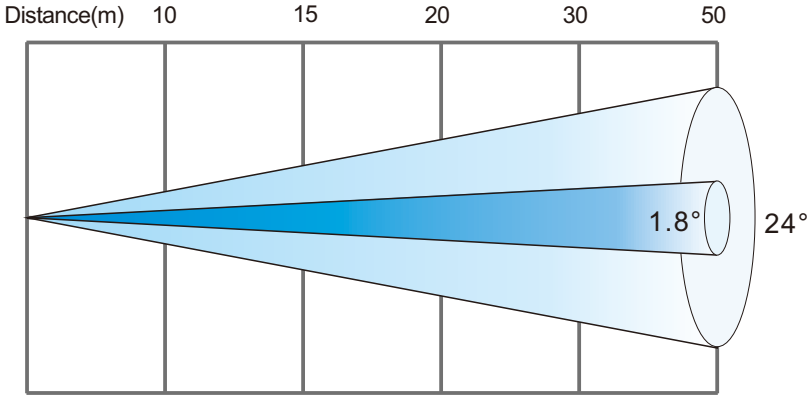
**OTHER**

- Protection level: IP66
- Working environment: -10°C ~ 40°C
- Maximum temperature of lamp body surface: 80°C
- Maximum current of lamps: 3.18A/220V, 7A/110V

**APPROVALS**

- The product implementation standard: GB 7000.1-2015 GB7000. 217-2008
- Approved certifications: CE、RoHs
- The product complies with the following EU directives:
- Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

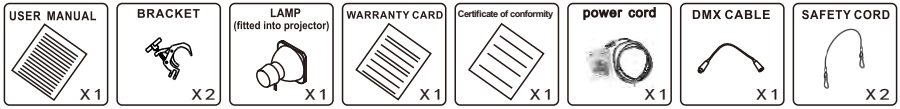
# illumination diagram



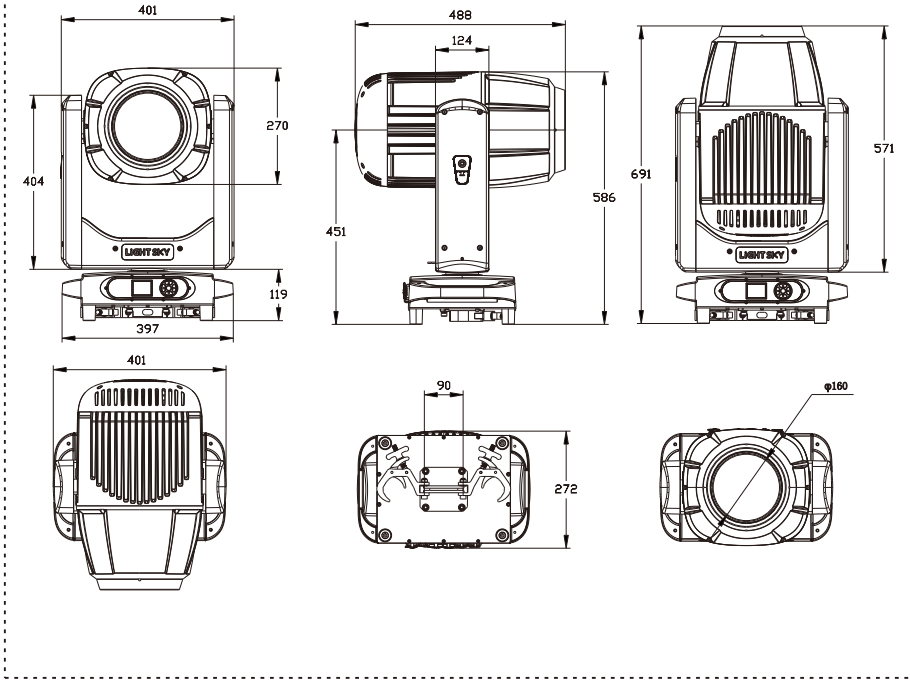

| | | | | | |
|---|---|---|---|---|---|
| 1.3° Lux | 620000 | 275556 | 155000 | 68889 | 24800 |
| Diameter(m) | 0.3 | 0.45 | 0.6 | 0.9 | 1.5 |
| 23° Lux | 3900 | 2000 | 1125 | 500 | 180 |
| Diameter(m) | 4.04 | 6.06 | 8.08 | 12.12 | 20.20 |

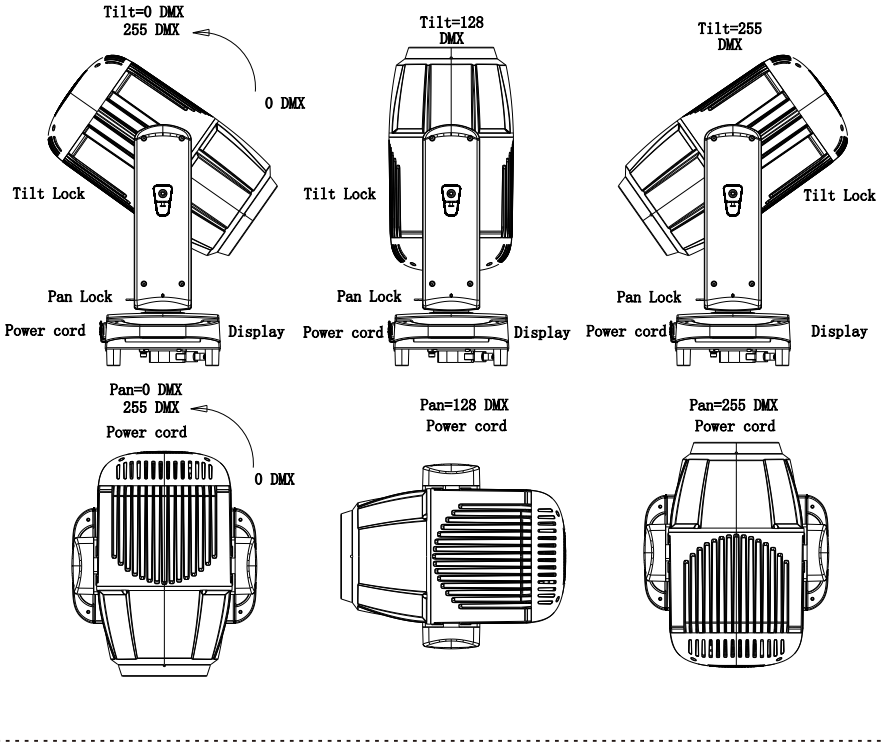
## 2.1.Attachment And Size

Attachment contents-Fig.1



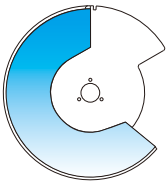

Size-Fig.2（Unit:mm）



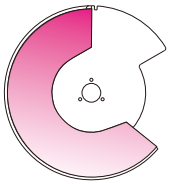

Tilt=0 DMX
255 DMX
0 DMX
Tilt Lock
Pan Lock
Power cord
Display
Tilt=128
DMX
Tilt Lock
Pan Lock
Power cord
Display
Tilt=255
DMX
Tilt Lock
Pan Lock
Power cord
Display
Pan=0 DMX
255 DMX
Power cord
0 DMX
Pan=128 DMX
Power cord
Pan=255 DMX
Power cord

## 3.Color/Gobo/Prism

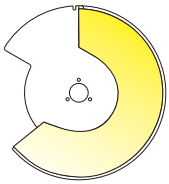
### Color/Effect



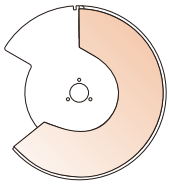
C



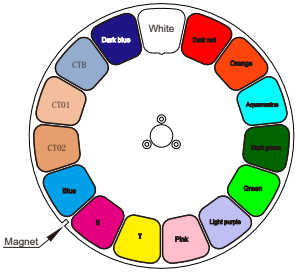
M



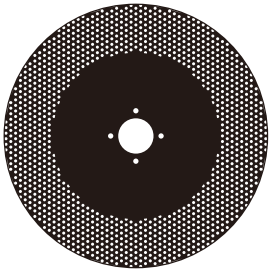
Y



CTO

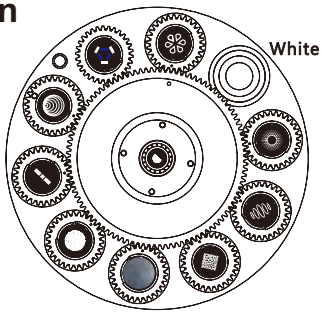



Color wheel

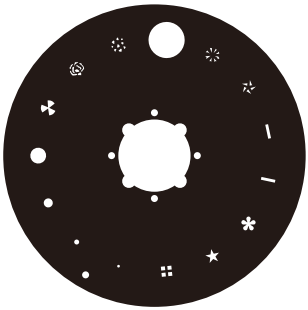


Effect disk

### Pattern

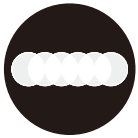



Rotating gobo wheel



Static gobo wheel

### Prism



6 Prism

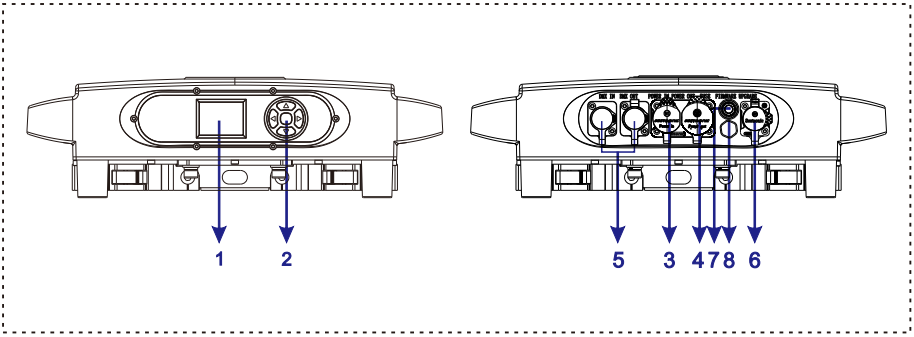
8 Prism

4 Prism

8 Prism

24 Prism

## 4.Control Panel



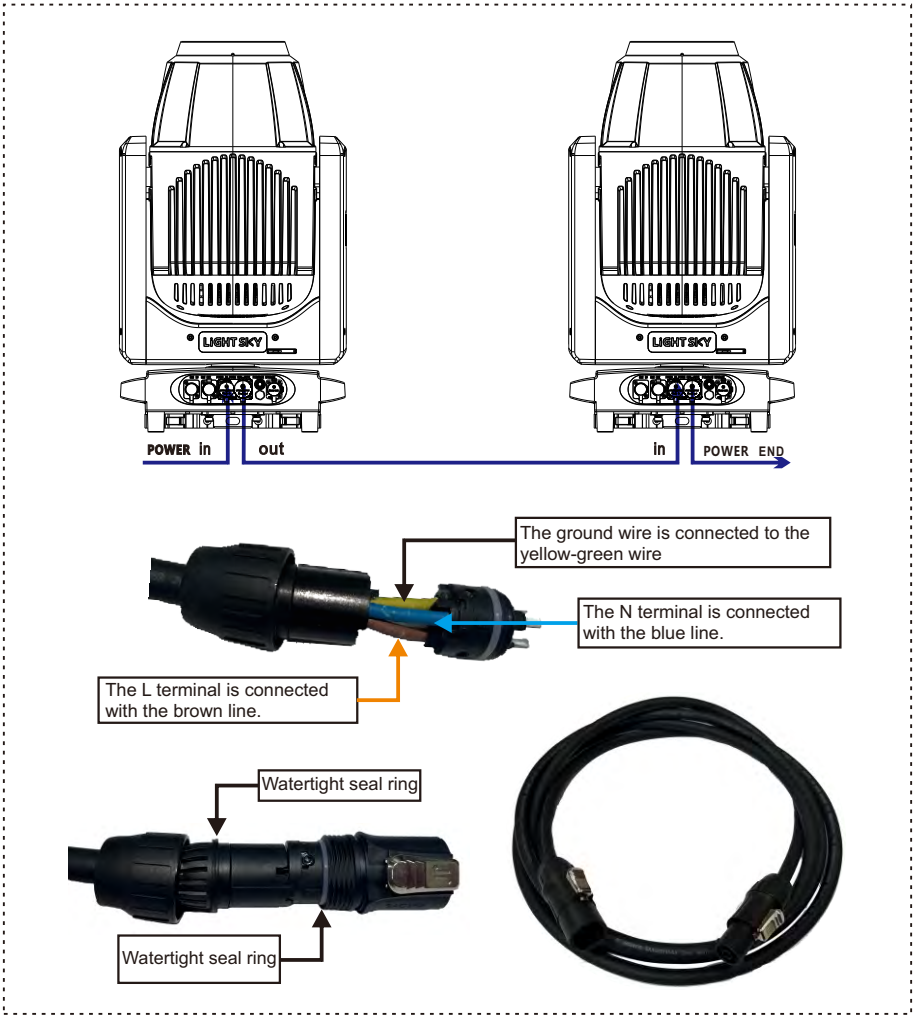

1. Display: To show the various menus and the selected function.
2. Button:

| | |
|---|---|
| ● | OK confirmation key |
| ▲ | UP |
| ▼ | DOWN |
| ◀ | To the left |
| ▶ | To the right |

3. Socket version power input: connect the power supply.
4. Power output: Connect the lamp power output adapter.
5.DMX inputloutput: Used for DMX512 connection, use 3/5 core XLR signal cable toconnect console and lamps,And input/output DMX signal.
6.Art-net: The information of the lamp can be transmitted to the main controllerthrough the network cable, and the lamp can be controlled through RJ45(USB optional).
7.Fuse holder: Used for the bottom box battery pack power supply display board when not powered on.(Note: In the case of air transportation, the lighting fixtures will require disassembly of fuses for shipment, and they must be installed by themselves upon receipt.)
8.Breathable valve.

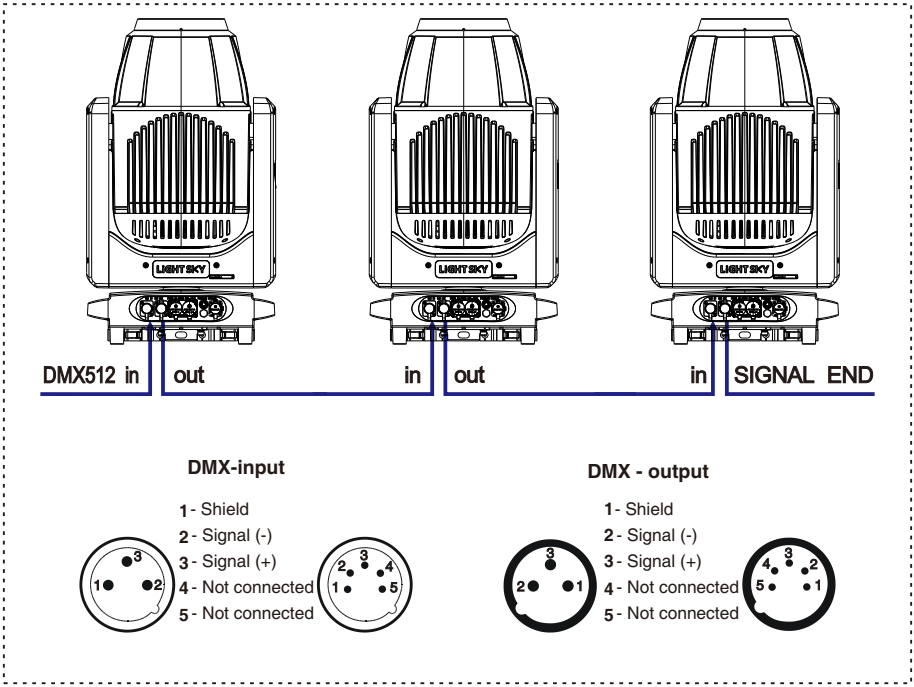
## 5.Connection and control

### 5.1.Power supply connection




- The bus connecting the power supply must be installed by a qualified professional technician.
- After completing all the above operations and ensuring that it is installed, you can power on the lamp to operate.

## 5.2.DMX 512 Connection




1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 1200hm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a “daisy chain” by XLR plug cable from the output of the unit to the input of the next unit. The cable cannot be branched or split to a “Y” cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units’ power is disconnected.

4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

# 6.How To Set The Unit

## 6.1.Main Function

The lamp is powered on. When the system initialization and lamp reset are completed, and the standby interface is displayed on the display screen, press OK to enter the preset menu interface. The main functions are as follows:

| Main menu | I menu | II menu | III menu |
|---|---|---|---|
| DMX Address | Address | 1-512 | |
| | Channel | 33CH | |
| | | 35CH | |
| | State | Black | |
| | | Hold | |
| Information | Time | Total Power Time | |
| | | Power Time | |
| | | Total Light Time | |
| | | Light time | |
| | Temperature | PVE_TEM | |
| | | Head Temp | |
| | Fan Info. | CMYFanVol | |
| | | CMYFan1Sp | |
| | | CMYFan2Sp | |
| | | BigFanVol | |
| | | LampFanVol | |
| | | OutFanVol | |
| | | BigFan1Sp | |
| | | BigFan2Sp | |
| | | OutFan1Sp | |
| | | FocusFan1Vol | |
| | | FocusFan2Vol | |
| | | FocusFan1Sp | |
| | | FocusFan2Sp | |
| | | FocusFan3Sp | |
| | | BaseFanVol | |
| | | BaseFan1Sp | |
| | | BaseFan2Sp | |
| | Fixture state | MCU(XY)... | |
| | RDM UID | 3888: xxxxxxxx | |
| | DMX Live | DMX | |
| | Software | Disp. Ver... | |
| Personal | Auto Lamp On | Off/On | |
| | PanTilt Setting | Pan Invert | OFF / ON |
| | | Tilt Invert | OFF / ON |
| | | P/T Rectify | OFF / ON |
| | Display Setting | Language | EN /ZH |
| | | Disp. Backlight | OFF / ON |
| | | Disp. Direction | Forward / Reverse |
| Manual Control | Channel control | | |
| | Reset | PanTilt | |
| | | Color Module | |
| | | Gobo Module | |
| | | Zoom Module | |
| | | All | |
| Service | Calibration | Pan ... | |
| | Factory Reset | NO / YES | |
| | Reset Timers | Total Power Time | |
| | | Total Light Time | |
| | | Power Time | |
| | | Light Time | |
| | Developer | 1.Logo Se | |
| | | 2.Up Logo | |
| | | 3.Language | |
| | | 4.Fixture Type | |
| | Firmware update | | |
| Lamp Control | Off/On | | |
| Test | Test PanTilt | | |
| | Test Head Module | | |
| | Test All | | |
| Rotate Display | | | |

## 6.2.Address Setting

Enter MENU, select the DMA setting function, select the address code setting, press the OK button to confirm, and the current DMA address will be displayed in the On screen display. Use the up/down buttons to select addresses 001-512, press the OK button to save the current address code, and return to the previous menu level.

**Please refer to the following diagram to address your DMX512 channel for the first 4 units.**

| Channel mode | Unit **1** Address | Unit **2** Address | Unit **3** Address | Unit **4** Address |
|---|---|---|---|---|
| 33 CH | 1 | 34 | 67 | 100 |
| 35 CH | 1 | 36 | 71 | 106 |

## 6.3.DMX 512 Configuration

**Please control the fixture by referring to the configurations below**

| 35 Channel | DMX | Function | Note |
|---|---|---|---|
| 1 | 0-255 | **Pan positioning** | |
| 2 | 0-255 | **Fine Pan positioning** | |
| 3 | 0-255 | **Tilt positioning** | |
| 4 | 0-255 | **Fine Tilt positioning** | |
| 5 | 0-255 | **PTSpeed** | |
| 6 | | **Function** | |
| | 0-129 | Unused Range | |
| | 130-139 | Lamp ON | |
| | 140-149 | PAN/TITL Reset | |
| | 150-159 | Color Reset | |
| | 160-169 | Gobo Reset | |
| | 170-179 | Unused Range | |
| | 180-189 | Zoom Reset | |
| | 190-199 | Unused Range | |
| | 200-209 | Complete Reset | |
| | 210-229 | Unused Range | |
| | 230-239 | Lamp OFF | |
| | 240-255 | Unused Range | |
| 7 | 0-255 | **Dimmer** | |
| 8 | 0-255 | **DimmerFine** | |
| 9 | | **Strobe** | |
| | 0-31 | Closed | |
| | 32-63 | Open | |
| | 64-95 | Slow-Fast Strobe | |
| | 96-127 | Open | |
| | 128-143 | Plus-Fast Close | |
| | 144-159 | Plus-Fast Open | |
| | 160-191 | Open | |
| | 192-223 | Random Slow-Fast Strobe | |
| | 224-255 | Open | |
| 10 | 0-255 | **Cyan** | |
| 11 | 0-255 | **Magenta** | |
| 12 | 0-255 | **Yellow** | |
| 13 | 0-255 | **CTO** | |
| 14 | | **ColorWheel** | |
| | 0 | White | |
| | 1-127 | Continual positioning | |
| | 128-131 | CTB 8000 | |
| | 130-134 | Red | |
| | 135-138 | Orange | |
| | 139-143 | Aquamarine | |
| | 144-147 | Green | |
| | 148-152 | Light Green | |
| | 153-157 | Lavender | |
| | 158-161 | Pink | |
| | 162-166 | Yellow | |
| | 167-171 | Magenta | |
| | 172-176 | Cyan | |
| | 177-180 | CTO 260/CTO2 | |
| | 181-185 | CTO 190 | |
| | 186-189 | Blue | |
| | 190-215 | CCW，Fast→Slow Rotation | |

| 35 Channel | DMX | Function | Note |
|---|---|---|---|
| | 216-217 | Stop | |
| | 218-243 | CW, Slow→Fast Rotation | |
| | 244-249 | random colour selection | |
| | 250-255 | Auto random colour selection from fast to slow | |
| **15** | 0-255 | **Colour fine positioning** | |
| | | **FixgoboWheel** | |
| | 0-3 | Open | |
| | 4-9 | FixGobo 1(Open) | |
| | 10-15 | FixGobo 2 | |
| | 16-21 | FixGobo 3 | |
| | 22-27 | FixGobo 4 | |
| | 28-33 | FixGobo 5 | |
| | 34-39 | FixGobo 6 | |
| | 40-45 | FixGobo 7 | |
| | 46-51 | FixGobo 8 | |
| | 52-57 | FixGobo 9 | |
| | 58-63 | FixGobo 10 | |
| | 64-69 | FixGobo 11 | |
| | 70-75 | FixGobo 12 | |
| | 76-81 | FixGobo 13 | |
| | 82-87 | FixGobo 14 | |
| | 88-95 | FixGobo1shake,slow to fast | |
| **16** | 96-103 | FixGobo2shake,slow to fast | |
| | 104-111 | FixGobo3shake,slow to fast | |
| | 112-119 | FixGobo4shake,slow to fast | |
| | 120-127 | FixGobo5shake,slow to fast | |
| | 128-135 | FixGobo6shake,slow to fast | |
| | 136-143 | FixGobo7shake,slow to fast | |
| | 144-151 | FixGobo8shake,slow to fast | |
| | 152-159 | FixGobo9shake,slow to fast | |
| | 160-167 | FixGobo10shake,slow to fast | |
| | 168-175 | FixGobo11shake,slow to fast | |
| | 176-183 | FixGobo12shake,slow to fast | |
| | 184-191 | FixGobo13shake,slow to fast | |
| | 192-199 | FixGobo14shake,slow to fast | |
| | 200-201 | Open/hole | |
| | 202-222 | FixGoboWheel CW fast to slow | |
| | 223-228 | Stop | |
| | 229-249 | FixGoboWheel CCW slow to fast | |
| | 250-255 | Auto random gobo selection from fast to slow | |
| | | **RotgoboWheel** | |
| | 0 | Open | |
| | 1-10 | WhiteOpen | |
| | 11-16 | RotGobo1 | |
| | 17-22 | RotGobo 2 | |
| | 23-28 | RotGobo 3 | |
| | 29-34 | RotGobo 4 | |
| | 35-40 | RotGobo 5 | |
| | 41-46 | RotGobo 6 | |
| | 47-52 | RotGobo 7 | |
| | 53-58 | RotGobo 8 | |
| | 59-64 | RotGobo 9 | |
| **17** | 65-71 | RotGobo1shake,slow to fast | |
| | 72-78 | RotGobo2shake,slow to fast | |
| | 79-85 | RotGobo3shake,slow to fast | |

| 35 Channel | DMX | Function | Note |
|---|---|---|---|
| | 86-92 | RotGobo4shake,slow to fast | |
| | 93-99 | RotGobo5shake,slow to fast | |
| | 100-106 | RotGobo6shake,slow to fast | |
| | 107-113 | RotGobo7shake,slow to fast | |
| | 114-120 | RotGobo8shake,slow to fast | |
| | 121-127 | RotGobo9shake,slow to fast | |
| | 128-190 | RotGoboWheel CW fast to slow | |
| | 191-192 | Stop | |
| | 193-255 | RotGoboWheel CCW slow to fast | |
| | | **GoboRot** | |
| | 0-127 | GoboRot indexing 0°- 360° | |
| **18** | 128-187 | RotGobo CW fast to slow | |
| | 188-195 | Stop | |
| | 196-255 | RotGobo CCW slow to fast | |
| | | **Animation** | |
| **19** | 0-19 | Open | |
| | 20-127 | Proportional indexing | |
| | 128-255 | Animation | |
| | | **AnimationRot** | |
| | 0 | AnimationRot indexing 0° | |
| **20** | 1-127 | AnimationRot CW fast to slow | |
| | 128 | Stop | |
| | 129-255 | AnimationRot CCW slow to fast | |
| | | **GoboPrism** | |
| | 0-3 | Prism out | |
| | | Index - set indexing on channel GoboPrismRot | |
| | 4-15 | PrismPos1 | |
| | 16-27 | PrismPos2 | |
| **21** | 28-39 | PrismPos3 | |
| | | Rotation - set rotation on channel GoboPrismRot | |
| | 40-51 | PrismPos1 | |
| | 52-63 | PrismPos2 | |
| | 64-75 | PrismPos3 | |
| | 76-255 | PrismPos3 | |
| | | **GoboPrismRot** | |
| | | Prism indexing | |
| | 0-255 | Prism indexing | |
| | | Prism rotation | |
| **22** | 0 | Prism indexing | |
| | 1-127 | Forwards prism rotation from fast to slow | |
| | 128 | Stop | |
| | 129-255 | Backwards prism rotation from slow to fast | |
| | | **BeamPrism1** | |
| | 0-3 | Prism out | |
| | | Index - set indexing on channel BeamPrismRot1 | |
| **23** | 4-15 | Prism In | |
| | | Rotation - set rotation on channel BeamPrismRot1 | |
| | 16-27 | Prism In | |
| | 28-255 | Prism In | |
| | | **BeamPrismRot1** | |
| | | Prism indexing | |
| | 0-255 | Prism indexing | |

| 35 Channel | DMX | Function | Note |
|---|---|---|---|
| 24 | | Prism rotation | |
| | 0 | Prism indexing | |
| | 1-127 | Forwards prism rotation from fast to slow | |
| | 128 | Stop | |
| | 129-255 | Backwards prism rotation from slow to fast | |
| 25 | | **BeamPrism2** | |
| | 0-3 | Prism out | |
| | | Index - set indexing on channel BeamPrismRot2 | |
| | 4-15 | Prism In | |
| | | Rotation - set rotation on channel BeamPrismRot2 | |
| | 16-27 | Prism In | |
| | 28-255 | Prism In | |
| 26 | | **BeamPrismRot2** | |
| | | Prism indexing | |
| | 0-255 | Prism indexing | |
| | | Prism rotation | |
| | 0 | Prism indexing | |
| | 1-127 | Forwards prism rotation from fast to slow | |
| | 128 | Stop | |
| | 129-255 | Backwards prism rotation from slow to fast | |
| 27 | 0-255 | **Frost** | |
| 28 | 0-255 | **Frost2** | |
| 29 | 0-255 | **Zoom** | |
| 30 | 0-255 | **ZoomFine** | |
| 31 | 0-255 | **Focus** | |
| 32 | 0-255 | **FocusFine** | |
| 33 | | **AutoFocus** | |
| | 0-15 | Autofocus Off | |
| | 16-55 | 10 metres | |
| | 56-95 | 15 metres | |
| | 96-135 | 20 metres | |
| | 136-175 | 30 metres | |
| | 176-215 | 40 metres | |
| | 216-255 | 50 metres | |
| 34 | 0-255 | **AutoFocusFine** | |
| 35 | 0-255 | **Hotspot control** | |

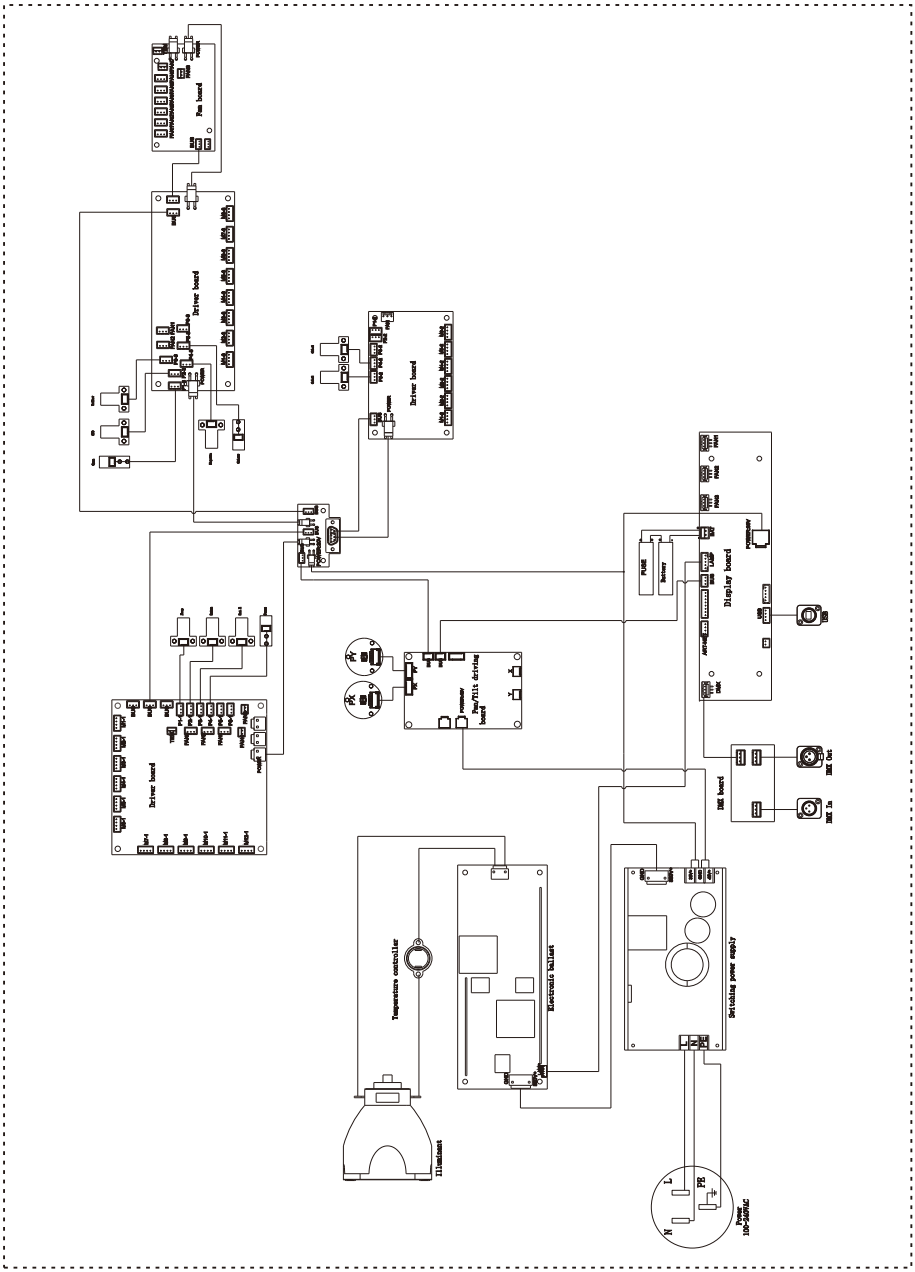
| 33 Channel | DMX | Function | Note |
|---|---|---|---|
| 1 | 0-255 | **Pan positioning** | |
| 2 | 0-255 | **Fine Pan positioning** | |
| 3 | 0-255 | **Tilt positioning** | |
| 4 | 0-255 | **Fine Tilt positioning** | |
| 5 | 0-255 | **PTSpeed** | |
| 6 | | **Function** | |
| | 0-129 | Unused Range | |
| | 130-139 | Lamp ON | |
| | 140-149 | PAN/TITL Reset | |
| | 150-159 | Color Reset | |
| | 160-169 | Gobo Reset | |
| | 170-179 | Unused Range | |
| | 180-189 | Zoom Reset | |
| | 190-199 | Unused Range | |
| | 200-209 | Complete Reset | |
| | 210-229 | Unused Range | |
| | 230-239 | Lamp OFF | |
| | 240-255 | Unused Range | |
| 7 | 0-255 | **Cyan** | |
| 8 | 0-255 | **Magenta** | |
| 9 | 0-255 | **Yellow** | |
| 10 | | **ColorWheel** | |
| | 0 | White | |
| | 1-127 | Continual positioning | |
| | 128-131 | CTB 8000 | |
| | 130-134 | Red | |
| | 135-138 | Orange | |
| | 139-143 | Aquamarine | |
| | 144-147 | Green | |
| | 148-152 | Light Green | |
| | 153-157 | Lavender | |
| | 158-161 | Pink | |
| | 162-166 | Yellow | |
| | 167-171 | Magenta | |
| | 172-176 | Cyan | |
| | 177-180 | CTO 260/CTO2 | |
| | 181-185 | CTO 190 | |
| | 186-189 | Blue | |
| | 190-215 | CCW，Fast→Slow Rotation | |
| | 216-217 | Stop | |
| | 218-243 | CW，Slow→Fast Rotation | |
| | 244-249 | random colour selection | |
| | 250-255 | Auto random colour selection from fast to slow | |
| 11 | 0-255 | **Colour fine positioning** | |
| 12 | | **Animation** | |
| | 0-19 | Open | |
| | 20-127 | Proportional indexing | |
| | 128-255 | Animation | |
| 13 | | **AnimationRot** | |
| | 0 | AnimationRot indexing 0° | |
| | 1-127 | AnimationRot CW fast to slow | |
| | 128 | Stop | |

| 33 Channel | DMX | Function | Note |
|---|---|---|---|
| | 129-255 | AnimationRot CCW slow to fast | |
| | | **FixgoboWheel** | |
| | 0-3 | Open | |
| | 4-9 | FixGobo 1(Open) | |
| | 10-15 | FixGobo 2 | |
| | 16-21 | FixGobo 3 | |
| | 22-27 | FixGobo 4 | |
| | 28-33 | FixGobo 5 | |
| | 34-39 | FixGobo 6 | |
| | 40-45 | FixGobo 7 | |
| | 46-51 | FixGobo 8 | |
| | 52-57 | FixGobo 9 | |
| | 58-63 | FixGobo 10 | |
| | 64-69 | FixGobo 11 | |
| | 70-75 | FixGobo 12 | |
| | 76-81 | FixGobo 13 | |
| | 82-87 | FixGobo 14 | |
| | 88-95 | FixGobo1shake,slow to fast | |
| **14** | 96-103 | FixGobo2shake,slow to fast | |
| | 104-111 | FixGobo3shake,slow to fast | |
| | 112-119 | FixGobo4shake,slow to fast | |
| | 120-127 | FixGobo5shake,slow to fast | |
| | 128-135 | FixGobo6shake,slow to fast | |
| | 136-143 | FixGobo7shake,slow to fast | |
| | 144-151 | FixGobo8shake,slow to fast | |
| | 152-159 | FixGobo9shake,slow to fast | |
| | 160-167 | FixGobo10shake,slow to fast | |
| | 168-175 | FixGobo11shake,slow to fast | |
| | 176-183 | FixGobo12shake,slow to fast | |
| | 184-191 | FixGobo13shake,slow to fast | |
| | 192-199 | FixGobo14shake,slow to fast | |
| | 200-201 | Open/hole | |
| | 202-222 | FixGoboWheel CW fast to slow | |
| | 223-228 | Stop | |
| | 229-249 | FixGoboWheel CCW slow to fast | |
| | 250-255 | Auto random gobo selection from fast to slow | |
| | | **RotgoboWheel** | |
| | 0 | Open | |
| | 1-4 | WhiteOpen | |
| | 5-16 | RotGobo1 | |
| | 17-28 | RotGobo 2 | |
| | 29-40 | RotGobo 3 | |
| | 41-52 | RotGobo 4 | |
| | 53-64 | RotGobo 5 | |
| | 65-76 | RotGobo 6 | |
| | 77-88 | RotGobo 7 | |
| | 89-100 | RotGobo 8 | |
| **15** | 101-112 | RotGobo 9 | |
| | 113-124 | RotGobo1shake,slow to fast | |
| | 125-136 | RotGobo2shake,slow to fast | |
| | 137-148 | RotGobo3shake,slow to fast | |
| | 149-160 | RotGobo4shake,slow to fast | |

| 33 Channel | DMX | Function | Note |
|---|---|---|---|
| | 161-172 | RotGobo5shake,slow to fast | |
| | 173-184 | RotGobo6shake,slow to fast | |
| | 185-196 | RotGobo7shake,slow to fast | |
| | 197-208 | RotGobo8shake,slow to fast | |
| | 209-220 | RotGobo9shake,slow to fast | |
| | 221-249 | WhiteOpen | |
| | 250-255 | Auto random gobo selection from fast to slow | |
| | | **GoboRot** | |
| | 0-127 | GoboRot indexing 0°- 360° | |
| **16** | 128-187 | RotGobo CW fast to slow | |
| | 188-195 | Stop | |
| | 196-255 | RotGobo CCW slow to fast | |
| | | **GoboPrism** | |
| | 0-3 | Prism out | |
| | | Index - set indexing on channel GoboPrismRot | |
| | 4-15 | PrismPos1 | |
| | 16-27 | PrismPos2 | |
| **17** | 28-39 | PrismPos3 | |
| | | Rotation - set rotation on channel GoboPrismRot | |
| | 40-51 | PrismPos1 | |
| | 52-63 | PrismPos2 | |
| | 64-75 | PrismPos3 | |
| | 76-255 | PrismPos3 | |
| | | **GoboPrismRot** | |
| | | Prism indexing | |
| | 0-255 | Prism indexing | |
| | | Prism rotation | |
| **18** | 0 | Prism indexing | |
| | 1-127 | Forwards prism rotation from fast to slow | |
| | 128 | Stop | |
| | 129-255 | Backwards prism rotation from slow to fast | |
| | | **BeamPrism1** | |
| | 0-3 | Prism out | |
| | | Index - set indexing on channel BeamPrismRot1 | |
| **19** | 4-15 | Prism In | |
| | | Rotation - set rotation on channel BeamPrismRot1 | |
| | 16-27 | Prism In | |
| | 28-255 | Prism In | |
| | | **BeamPrismRot1** | |
| | | Prism indexing | |
| | 0-255 | Prism indexing | |
| | | Prism rotation | |
| **20** | 0 | Prism indexing | |
| | 1-127 | Forwards prism rotation from fast to slow | |
| | 128 | Stop | |
| | 129-255 | Backwards prism rotation from slow to fast | |
| | | **BeamPrism2** | |
| | 0-3 | Prism out | |
| | | Index - set indexing on channel BeamPrismRot2 | |
| **21** | 4-15 | Prism In | |
| | | Rotation - set rotation on channel BeamPrismRot2 | |
| | 16-27 | Prism In | |
| | 28-255 | Prism In | |

| 33 Channel | DMX | Function | Note |
|---|---|---|---|
| 22 | | **BeamPrismRot2** | |
| | | Prism indexing | |
| | 0-255 | Prism indexing | |
| | | Prism rotation | |
| | 0 | Prism indexing | |
| | 1-127 | Forwards prism rotation from fast to slow | |
| | 128 | Stop | |
| | 129-255 | Backwards prism rotation from slow to fast | |
| 23 | | **Frost** | |
| | 0 | Frost Out | |
| | 1-50 | Frost1 indexing | |
| | 51-83 | Frost1 In | |
| | 84-86 | Frost Out | |
| | 87-136 | Frost2 indexing | |
| | 137-169 | Frost2 In | |
| | 170-172 | Frost Out | |
| | 173-255 | Frost In | |
| 24 | 0-255 | **Zoom** | |
| 25 | 0-255 | **ZoomFine** | |
| 26 | 0-255 | **Focus** | |
| 27 | 0-255 | **FocusFine** | |
| 28 | 0-255 | **AutoFocusFine** | |
| 29 | | **AutoFocus** | |
| | 0-15 | Autofocus Off | |
| | 16-55 | 10 metres | |
| | 56-95 | 15 metres | |
| | 96-135 | 20 metres | |
| | 136-175 | 30 metres | |
| | 176-215 | 40 metres | |
| | 216-255 | 50 metres | |
| 30 | | **Strobe** | |
| | 0-31 | Closed | |
| | 32-63 | Open | |
| | 64-95 | Slow-Fast Strobe | |
| | 96-127 | Open | |
| | 128-143 | Plus-Fast Close | |
| | 144-159 | Plus-Fast Open | |
| | 160-191 | Open | |
| | 192-223 | Random Slow-Fast Strobe | |
| | 224-255 | Open | |
| 31 | 0-255 | **Dimmer** | |
| 32 | 0-255 | **DimmerFine** | |
| 33 | 0-255 | **Hotspot control** | |

## 7.Electrical Connection Diagram



## 8.Troubleshooting

**The following are common faults of lamps and corresponding solutions. Faults that cannot be repaired by yourself should be handled by professionally qualified personnel. Disconnect the power supply to the lamp during maintenance!**

● **The light source is not bright**

- Check that a suitable light source is installed for the luminaire.
- Check whether the power supply connection of the lamp or the control switch is in poor contact.
- Check whether the light source has reached the end of its service life or is damaged, and replace it with a high-quality light source of the same specification.
- Measure whether the power supply is insufficient.
- Check whether the light source has not cooled down completely due to abnormal operation. Let the lamp cool down for more than 15 minutes to allow the light source to cool down. After returning to the normal start-up range, turn the power on again and it can be used normally.
- Check whether the DMX512 controller sends a command to turn on the light source.
- Check whether the light source and trigger circuit are disconnected or defective.
- Check whether the wiring terminals on the internal trigger are in poor contact and tighten the plug.
- Check the "Fan Speed and Voltage" in the "Basic Information" menu to see if the speed of FAN1/FAN2/FAN3 is above 500RPN. If it is below 500RPM, the light source will not light up. Replace the fan with the same specification.
- Check whether the over-temperature protection temperature switch inside the lamp is damaged. Go to the menu "Basic Information" and select "Equipment Temperature" to check - whether the temperature measuring plate shows that the temperature is too high or there is no temperature display.

● **The beam appears dim and uneven**

- The light source may have reached the end of its service life and does not emit enough light. Replace it with a light source of the same specification.
- Check whether there is dust accumulated in the optical part and clean it.
- Measure whether the power supply is insufficient.
- Finely adjust the screw device used to change the height of the lamp until the ideal light is achieved. Enter the menu "Service Options" and select "Calibration" to enter color and pattern adjustment, which can be adjusted to the center.

● **The projected image is blurry**

- Check whether the DMX512 controller channel value corresponding to the electronic focus system is suitable for the current projection distance.
- Check whether the mechanical part of the focusing system is stuck, remove the dust and add antifreeze and temperature-resistant lubricating oil.

● **The light source of the lamp works intermittently**

- Check whether the fan is running normally or is blocked by dust and paper debris.
- Check whether the inlet and outlet cooling air vents are blocked by dust.
- Check whether the lamp has reached the end of its service life.

- Check whether the power supply is insufficient, and whether the power switch and wiring are in poor contact or aging.
- Check whether the over-temperature protection temperature switch inside the lamp is damaged.

● **Although it emits light, the lamp does not accept instructions from the controller**

- Check whether the digital start address value and function options of the lamp are correct.
- Check whether the connection of the communication control line is correct. The communication line is too long or has been interrupted.
- Check whether the control equipment fails and whether the signal amplifier connected in series fails.
- Check whether the communication line is too long or if other devices interfere with each other.
- Optimize wiring, shorten the length of control signal lines, and route high-voltage and low-voltage lines separately
- Add signal amplifier isolator.
- The signal line is made of high-quality shielded twisted pair (impedance characteristic is 75Ω), and the signal terminal resistor is connected at the end of the lamp.
- Check that the circuit board communication IC or CPU is burned out because the bulb performs an abnormal operation when it is not completely cooled, causing the instantaneous ultra-high voltage leakage generated by the trigger, and replace the PCB board.

● **The lamp cannot be started**

- Check whether the power supply parameters match the lamps.
- Check whether the fuse at the light fixture's power input is blown.
- Check that the lamp has poor contact or falls off due to extrusion deformation, vibration of internal parts, moisture, etc. during long-distance transportation.
- Check whether the internal wires and connectors of the lamp are desoldered or loose.
- Check whether the electrical components of the lamp (such as power switch, transformer, ballast, capacitor, varistor, filter, power supply PCB board, motor control PCB board, etc.) are loose, short-circuited, burned out, etc.

● **Some functions of the lamp cannot accept controller instructions**

- Check whether the control device sends correct action instructions for these functions.
- Check whether the mechanical parts corresponding to these functions are loose or deformed.
- Check whether the motor sockets corresponding to these functions are loose or the corresponding driver chips are burned out.
- Check whether the motor wires corresponding to these functions are broken at the corners.
- Check whether the motors corresponding to these functions are damaged.

● **During operation, the X or Y direction of the lamp does not move normally**

- Click the previous step to check one by one.
- Check whether the corresponding drive belts in the X and Y directions of the lamp are detached or broken.
- Check whether the data feedback receiver (photoelectric sensor) corresponding to the X and Y directions in the lamp is damaged.
- Restart the computer and reset it once.

## 9.Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

* A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
* Always dry the parts carefully.
* Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.

**CAUTION！！！**

**Disconnect from mains before starting maintenance operation.**

## 10.Duty exonerative and copyright protectio

* Light source belongs to consumption products, not within the scope of warranty.
* The manufacturer shall not bear any responsibility for any damage caused by failure to operate in accordance with this instruction.
* All the information in this manual shall be interpreted by the manufacturer.
* All the information in this manual shall not be copied without permission.
* The data contained in this statement are subject to change in the future without prior notice.