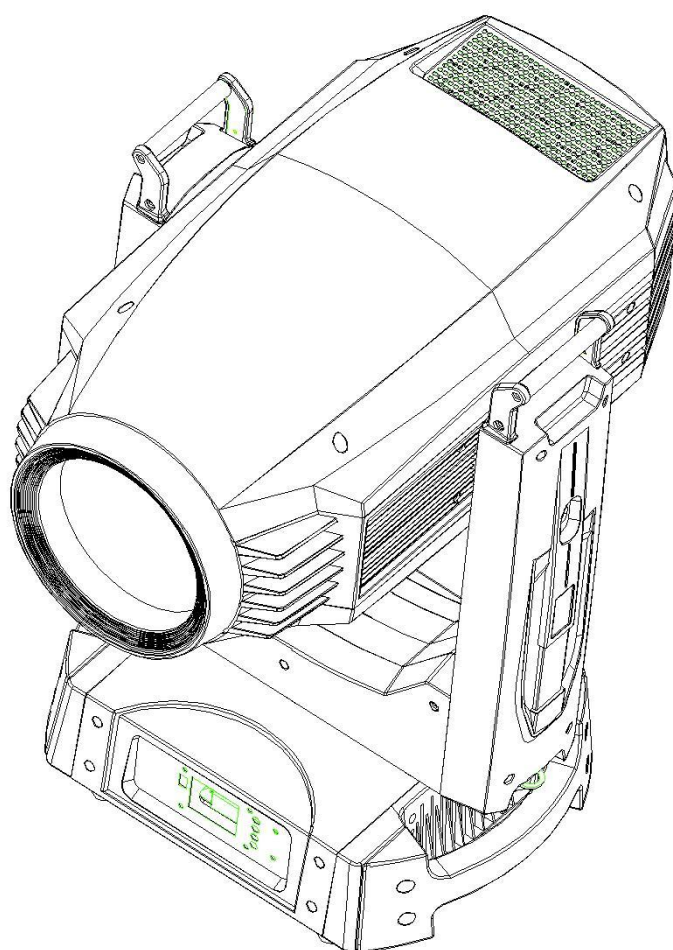




# **LED SPOT PROFILE 1200W**

## **User Manual**

# Foreword

Thank you for choosing the 1200W Framing 4 IN 1 series of products. This moving head light is the latest high-quality beam light independently developed by our company. It is lighter and more convenient in the same power. It has the characteristics of perfect combination of international advanced electronic control technology and excellent humanized industrial design. The product fully complies with CE standards and supports international DMX512 signal control mode.

1200W Framing 4 IN 1, using LED module light source, strong light effect, 6 replaceable and self-rotating glass gobos, clear gobo, 5 static gobos + 2 open, XY axis running fast and stable, precise positioning, 6 color pieces + high CRI, high standard color wheel, color is pure and uniform. Independent linear CMY system and independent CTO system can mix colors arbitrarily and switch quickly, standard 4-facet prism effect, prism pattern is clearly visible, creating more dreamy effects for the stage, standard moderate frost effect, frost spot can be linearly zoomed, edge overlap without overlapping shadows.

1200W Framing 4 IN 1 has super high and ultra-long range, framing system: 4 blades achieve fast and smooth framing, each blade cutting direction and angle can be independently controlled; the entire framing module can rotate  $\pm 90^\circ$

1200W Framing 4 IN 1 is widely used in various professional places such as TV stations, large gymnasiums, disco, dance halls, nightclubs, large performances, etc.

# Catalog

|                                      |       |
|--------------------------------------|-------|
| 1:Safety Instructions -----          | 4-5   |
| 2: Technical Parameter-----          | 5-6   |
| 3:Schematic Lighting Components----- | 7-8   |
| 4: Packing -----                     | 8-9   |
| 5: SAFETY STANDARDS-----             | 9-13  |
| 6: AC POWER-----                     | 13-14 |
| 7: Light Source -----                | 14    |
| 8: Function Description-----         | 15-16 |
| 9: Display Setting -----             | 16-34 |
| 10: DMX PROTOCOL:-----               | 34-45 |
| 11: Trouble Shooting-----            | 46    |
| 12: Cleaning-----                    | 47    |
| 13: PHOTOMETRIC DIAGRAM-----         | 48    |

# 1: Safety Instructions

- ◇ Before using this product, please inspect carefully the product is not unwrapped or damaged during transportation. If there is any damage during transportation, please do not use the lights first, and contact with the dealer or manufacturer for further information.
- ◇ Before running products, ensure that the voltage and Hertz in accordance with the requirements of lights.
- ◇ It's very important to connect ground wire to avoid the electric shock.
- ◇ This product is for dry indoor environment ONLY.
- ◇ This product must be installed on the sufficient space, adjacent to interface the shortest distance of 50 cm, to ensure that the lights will not crash each other.
- ◇ Before moving or repairing the product , please unplug the power.
- ◇ When it working, ensure that no inflammable and explosive near objects.
- ◇ When installing this product, please use the safety rope. When handling this product, lift the armrest base, rather than the lamp body.
- ◇ This product is suitable for a maximum temperature of 40 degrees Celsius, when the surrounding environment is higher than 40 degrees Celsius, please do not use this product.
- ◇ Do not touch the fixture when it is working.
- ◇ If there is any problem with the operation during the performance, the lamp should be stopped immediately. Please do not perform repairs without authorization, as repairs may easily cause damage or cause other malfunctions. Please contact the company's maintenance point for repair. During the repair

process, please use accessories of the same model.

◇ Please read this instruction manual carefully, especially the installation, use and maintenance sections.

Importantly, the lamp must be transported in an anti-shock protective carton or flight case.

## **2: Technical Parameter**

◇ Number of DMX channels: 39 channels

◇ Operation mode: DMX512 mode, RDM, etc.

◇ LCD LED display + button control

◇ 1200W white LED module, lifespan: 20,000 hours

◇ Pan movement: 540°, Tilt movement: 270°, automatic position correction.

3 phase mute sound motor, 16 bit

◇ Color temperature: 7800K

◇ Color wheel: 6 color + high CRI film + open

◇ Static gobo wheel: 5 gobo + 2 open

◇ Glass gobo wheel: 6 replaceable rotating glass gobo + open,

◇ Glass gobo size: image diameter 23 mm, outside diameter: 28 mm, thickness: 1.1 mm

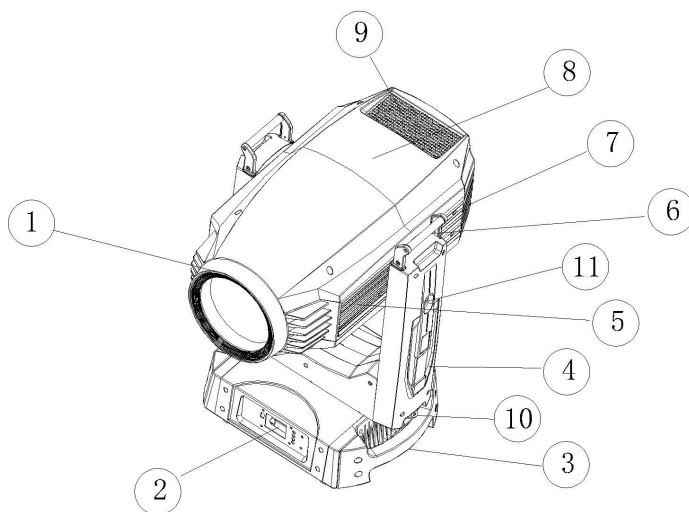
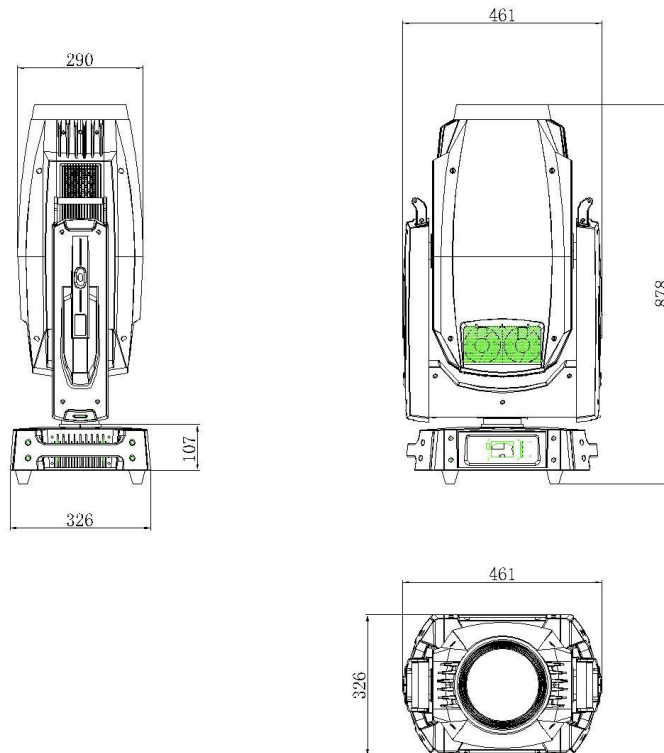
◇ Framing system: 4 blades, each with separate movement and full blackout, smooth with variable speed, fast for creating mid-air effects, the blades can be precisely positioned,  $\pm 90^\circ$  of the complete framing system, 180° rotation angle

◇ Iris: fast electric iris, linear spot zoom from 5% to 100%, with macro function and multi-effect changes

- ◇ Prism: high-definition 4-prism effect
- ◇ Optical lens: high-precision cemented optical lens
- ◇ Soft light effect: The spot angle of the soft light can be adjusted linearly
- ◇ Focus: linear focus
- ◇ Dimming: 0-100% linear adjustment
- ◇ Beam angle: 5-50°
- ◇ Strobe: electronic strobe (0.5-20 times/second)
- ◇ Housing: made of 5052 aluminum for good heat dissipation, high-quality nylon+ glass fiber material (V0 level flame retardant and waterproof ), ensuring that the fixture can withstand high temperature, low temperature and ultra-high level fire protection
- ◇ Rated power: 1400W
- ◇ Protection level: IP20
- ◇ Net weight: 46KG
- ◇ Dimension: 326\* 461 \* 878mm

### 3: Schematic Lighting Components

---



1. Lens front cover 2. Lamp body cover 3. Arm cover 4. Arm cover

5. Body upside cover
6. Arm handle
7. Body downside cover
8. Body cover
9. Heat dissipation high density iron mesh
10. Pan left and right zipper
11. Tilt left and right zipper

## 4: Packing

### 4.1 Packing Material and Accessories

The fixture is packaged by carton or standard 1-in-1 flight case , accessories are as below:

| Item           | Quantity | Unit  |
|----------------|----------|-------|
| User Manual    | 1        | Piece |
| Signal Line    | 1        | Piece |
| Safety Rope    | 1        | Piece |
| Bracket+ Clamp | 2        | Piece |
| Power Cable    | 1        | Piece |

### 4.2 Protection Lock for Transport

For the convenience of transportation, the light has 2 protection locks (Each of it is on

the X-axis and Y-axis.). There are 4 locked buttons on the X-axis and 3 locked buttons on the Y-axis to lock the light's position. The lock position is locked at the center and the light body is in a vertical position with the arm.

### 4.3 Packing

1. Power off to let the lamp cool completely before packaging at least 15 minutes or more



2. Lock the light protection locks when cleaning the surface of the light.
3. Use the packing bag to cover the light, grab the handle on both sides of the equipment and put it upside down and put it into the box gently.
4. Put the light's accessories into packing box after putting the light into the box.
5. It's only up to two crates stacked and is prohibited upside down.

#### 4.4 Unpacking

1. Open the packing box and packing bag
2. Grab the equipment's handles, lifting and carrying away the light from the packing box or opening the flight case cover placing lift boom close to the light base, then equipping light hook on light base bottom tightening quick Install locks. At last rising away boom to the top of the lamp from flight case, put the flight case away.
3. Unlock the light protection lock before turning on the light

#### Note:

Upon receipt of light, please check if there is damage to the light caused by transport, please do not use the fixture if any damage, and contact us as soon as possible.

## 5: SAFETY STANDARDS

Please kindly be notified that You should ensure that light and installation materials are checked regularly. Please do not install it by yourself if you do not have the professional work condition and similar experience. Please ask the professionals to operate it. Incorrect

installation will cause danger.

The working temperature for the equipment is available between minus 20 degree and 40 degrees Celsius. Do not use the equipment outside of this environment. Don't stand under the light when the light is installed, dismantled, moved or serviced. The operator must ensure that the fixtures are securely connected. Installing the light after professionals approving electrical parameters make sure that these installation must be checked at least once per year by experts.

### 5.1 Hook Installation

The equipment can be placed on the stage or on a stand in any direction, quick lock system can quickly and easily remove or install a light hook

**Note:**The lamp has been installed with a folding lamp hook. When in use, the folding lamp hook is erected and a rotatable folding lamp hook can be rotated so that the hanging sides of the lamp hook are in the same direction.

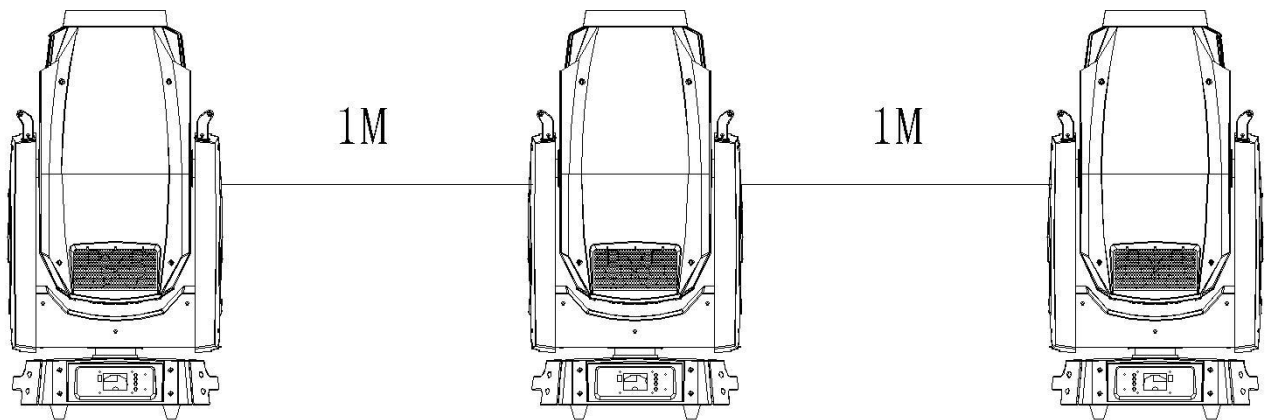
### 5.2 Fixing Equipment

1. Please confirm the rigging equipment is not damaged and can bear at least 10 times of light's weight before installing. Also check the building can be bore at least 10 times of total weights of light, fixture, and cable accessories.

2.If truss can be lifted the equipment can be directly clamped from flight case and locked fixture base. Then hung on the light and fixed it. Before rising the light to right height, connect the power line and signal line.

**Note:** Add a safety rope to the bottom box safety rack, never connect it

to the equipment handle.



**Note: Lights be placed vertically upward, the shortest distance between working lights must be more than or equal 900mm, lighting installation layout as above photo.**

### 5.3 Data Cable Connect

Data cable is DMX512 signal.

Note: Signal line connections is X-type connector.

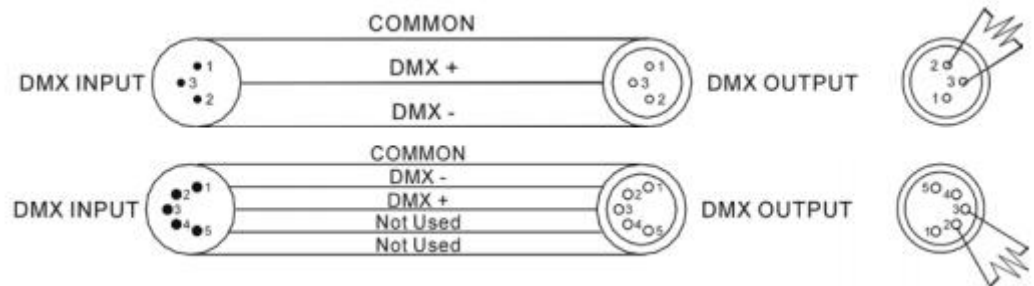
X-type connector --- If the external flexible cable or cord of this light is damaged, please replace the professional cable or cord from the manufacture or

its agent.

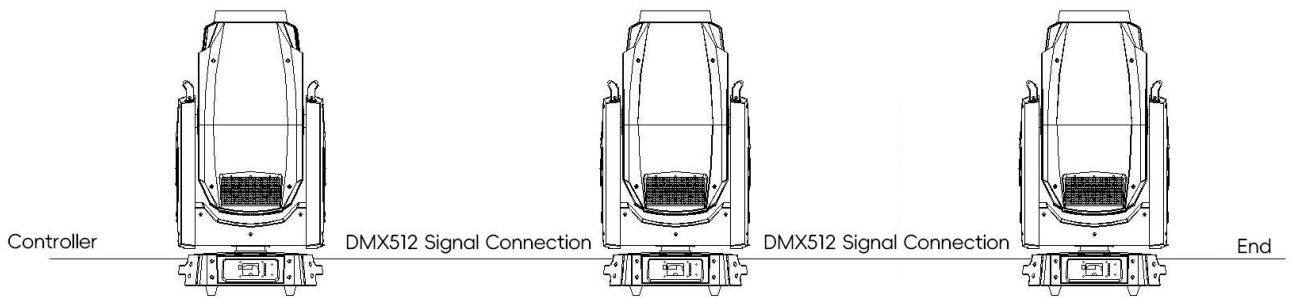
DMX of lights input and output connects to a 3&5-pin XLR,

1. first pin is grounded.
2. second negative signal is second pin.
3. third pin connects to the positive polarity signal.
4. empty.
5. empty.

In order to prevent reception reflection and interference control signal, a terminal plug must be installed on the first branch of the connected device last 3-pin output jack.



The controller connects to the nearest input XLR 3-pin/5-Pin, then from the output of the device connects to the input of the next device, continuous connection one by one, the final output data cable terminal equipment plug one end into the terminal.



When transmitting signals over long distances, a 512 signal amplifier is required. Firstly, please connect the controller to the DMX512 signal amplifier input terminal, then connect its output terminal to the lamps, and finally equip it with a terminal plug.

**Note:** Please use two output separation connections, if you want to separate the continuous connection branches, you must use a DMX512 signal amplifier to separate them..

Please use a shielded twisted pair cable that is specifically configured for DMX512. Standard amplifier cables cannot reliably control data over long distances..

## 6: AC POWER

### 6.1 Fuse

The power supply and fuse configurations are as follows:

| Power Supply | Fuse                  |
|--------------|-----------------------|
| 100-240v~    | 12A    5*20 Main Fuse |

### 6.1 Power Connection

If the external flexible cable or cord of this light is damaged, the line is up to the manufacturer or its service agent or a similar qualified person to replace, in order to avoid danger.

Connect the power supply personnel must have the appropriate qualifications before proceeding, you must make sure you are using the power supply voltage matches the voltage identified and have overload or leakage protection. Directly connect the device to the power supply, do not connect to the silicon box dimming system, otherwise damage to the equipment.

## **7: Light Source**

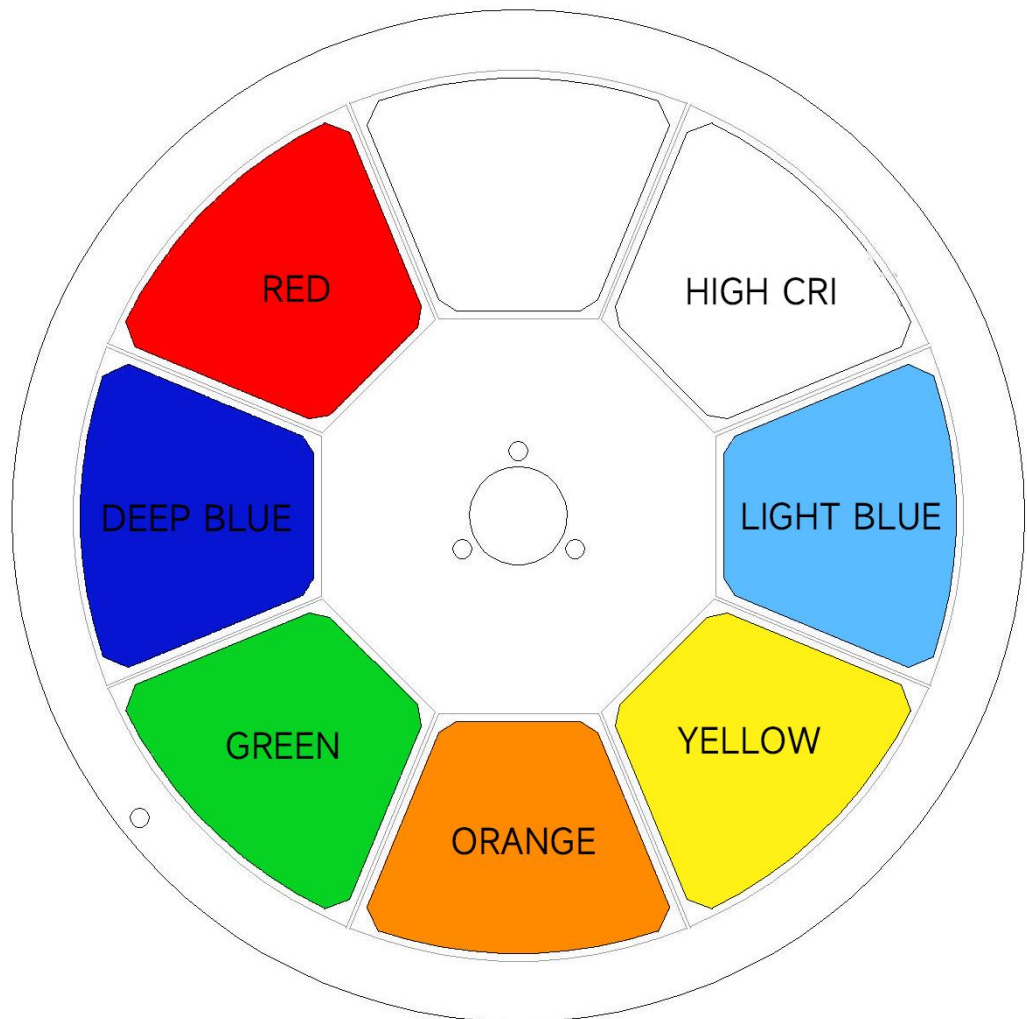
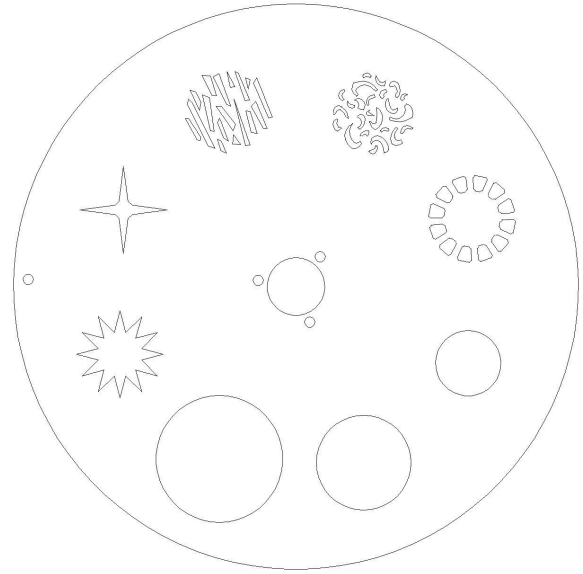
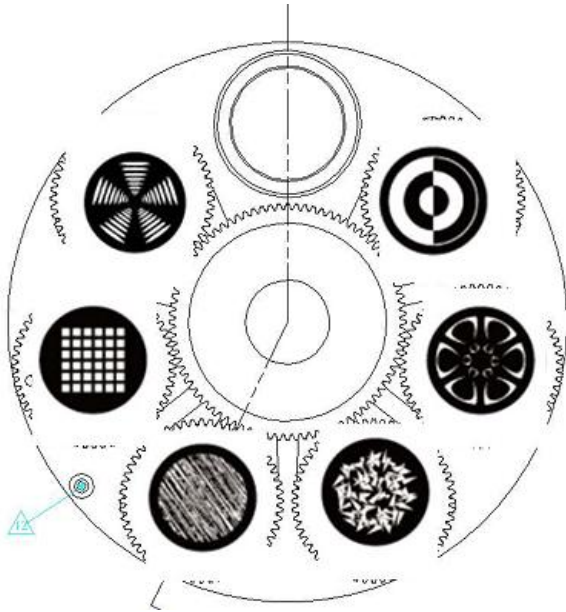
### **7.1 Light source specification**

1200 led framing light uses LED module, which provides a very stable color temperature at 7800K, color rendering index greater than 70, and an average life of more than 20,000 hours (depending on the use environment of the lamp)

#### **Note:**

- 1. Please do not install other similar modules, otherwise it will cause safety hazards or damage the equipment.**
- 2. To reduce the risk of damaging the lamp, replace the bulb before the service life of the bulb is exceeded.**
- 3. Do not use scratched and damaged LED light sources**

## 8: Function Description



## 8.1 Optical lens focusing

Two high-precision screw motors work synchronously to adjust the optical lens to achieve the clarity of the light spot.

## 8.2 Dimming and strobe

0-100% electronic dimming, instant on and off, strobe speed can be adjusted at will, up to 20 times/second, and comes with a special function of random strobe.

## 8.3 Horizontal and vertical scanning

Horizontal scanning 540 degrees, vertical scanning 270 degrees, both equipped with XY axis magnetic encoders, with 16BIT precise positioning function.

Horizontal and vertical speeds are adjustable.

# 9: Display Setting

## 9.1 Display panel introduction



## 9.2 Menu Operation:

| Button                  |
|-------------------------|
| ESC   Enter   up   down |



|   |                    |                     |        |
|---|--------------------|---------------------|--------|
| 1 | DMXAddress: 00-512 |                     |        |
| 2 | Channel: 39        |                     |        |
| 3 | Reset              | Motor power supply  | ON/OFF |
|   |                    | XY                  | ON/OFF |
|   |                    | Color               | ON/OFF |
|   |                    | Gobo                | ON/OFF |
|   |                    | Light Road          | ON/OFF |
| 4 | Operation          | DMX//AUTO/USER      |        |
| 5 | Manual<br>Control  | X                   | 0-255  |
|   |                    | Y                   | 0-255  |
|   |                    | XY Speed            | 0-255  |
|   |                    | Strobe              | 0-255  |
|   |                    | Dimmer              | 0-255  |
|   |                    | Color               | 0-255  |
|   |                    | Rotating Gobo Wheel | 0-255  |
|   |                    | Rotating Gobo       | 0-255  |
|   |                    | Framing 01          | 0-255  |
|   |                    | Framing 02          | 0-255  |
|   |                    | Framing03           | 0-255  |
|   |                    | Framing 04          | 0-255  |
|   |                    | Framing05           | 0-255  |
|   |                    | Framing06           | 0-255  |
|   |                    | Framing07           | 0-255  |

|   |                      |                       |                                      |                                                  |                 |
|---|----------------------|-----------------------|--------------------------------------|--------------------------------------------------|-----------------|
|   |                      | Framing08             |                                      | 0-255                                            |                 |
|   |                      | Framing Disc Rotating |                                      | 0-255                                            |                 |
|   |                      | Iris                  |                                      | 0-255                                            |                 |
|   |                      | Focus                 |                                      | 0-255                                            |                 |
|   |                      | Zoom                  |                                      | 0-255                                            |                 |
| 6 | Operation<br>Setting | Master& Slave Mode    |                                      | Master/Slave                                     |                 |
|   |                      | XY Setting            | 1. Manual Scanning<br>Yes/No         | 1. Manual Scanning Yes/No                        |                 |
|   |                      |                       | 2. X Reverse Yes/No                  | 2. X Direction Yes/No                            |                 |
|   |                      |                       | 3. Y Reverse Yes/No                  | 3. Y Reverse Yes/No                              |                 |
|   |                      |                       | 4. Speed channel<br>real-time Yes/No | 4. Speed channel real-time Yes/No                |                 |
|   |                      | Dimming curve         |                                      | Linear/Square/Square Root/S<br>Curve/Logarithmic |                 |
|   |                      | Self-Progra<br>mming  | Manual Editing                       | Step01                                           | Time: 0-255     |
|   |                      |                       |                                      |                                                  | Channel 1:0-255 |
|   |                      |                       |                                      |                                                  | Channel 2:0-255 |
|   |                      |                       |                                      |                                                  | Channel 3:0-255 |
|   |                      |                       |                                      |                                                  | Channel 4:0-255 |
|   |                      |                       |                                      |                                                  | Channel 5:0-255 |
|   |                      |                       |                                      |                                                  | Channel 6:0-255 |
|   |                      |                       |                                      |                                                  | Channel 7:0-255 |
|   |                      |                       |                                      |                                                  | Channel8:0-255  |
|   |                      |                       |                                      |                                                  | Channel 9:0-255 |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 02 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel8:0-255   |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 03 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel8:0-255   |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 04 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel 8:0-255  |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel 15:0-255 |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 05 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |

|  |  |  |  |  |                  |
|--|--|--|--|--|------------------|
|  |  |  |  |  | Channel 2:0-255  |
|  |  |  |  |  | Channel 3:0-255  |
|  |  |  |  |  | Channel 4:0-255  |
|  |  |  |  |  | Channel 5:0-255  |
|  |  |  |  |  | Channel 6:0-255  |
|  |  |  |  |  | Channel 7:0-255  |
|  |  |  |  |  | Channel 8:0-255  |
|  |  |  |  |  | Channel 9:0-255  |
|  |  |  |  |  | Channel 10:0-255 |
|  |  |  |  |  | Channel 11:0-255 |
|  |  |  |  |  | Channel 12:0-255 |
|  |  |  |  |  | Channel 13:0-255 |
|  |  |  |  |  | Channel 14:0-255 |
|  |  |  |  |  | Channel 15:0-255 |
|  |  |  |  |  | Channel 16:0-255 |
|  |  |  |  |  | Channel 17:0-255 |
|  |  |  |  |  | Channel 18:0-255 |
|  |  |  |  |  | Channel 19:0-255 |
|  |  |  |  |  | Channel 20:0-255 |
|  |  |  |  |  | Channel 21:0-255 |
|  |  |  |  |  | Channel 22:0-255 |
|  |  |  |  |  | Channel 23:0-255 |
|  |  |  |  |  | Channel 24:0-255 |
|  |  |  |  |  | Channel 25:0-255 |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  | Step 06 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel8:0-255   |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |



|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 07 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel 8:0-255  |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel 15:0-255 |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 08 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel8:0-255   |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 09 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel8:0-255   |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 10 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel8:0-255   |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 11 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel 8:0-255  |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |
|  |  |  |  |         | Channel 12:0-255 |
|  |  |  |  |         | Channel 13:0-255 |

|  |  |  |  |         |                  |
|--|--|--|--|---------|------------------|
|  |  |  |  |         | Channel 14:0-255 |
|  |  |  |  |         | Channel15:0-255  |
|  |  |  |  |         | Channel 16:0-255 |
|  |  |  |  |         | Channel 17:0-255 |
|  |  |  |  |         | Channel 18:0-255 |
|  |  |  |  |         | Channel 19:0-255 |
|  |  |  |  |         | Channel 20:0-255 |
|  |  |  |  |         | Channel 21:0-255 |
|  |  |  |  |         | Channel 22:0-255 |
|  |  |  |  |         | Channel 23:0-255 |
|  |  |  |  |         | Channel 24:0-255 |
|  |  |  |  |         | Channel 25:0-255 |
|  |  |  |  | Step 12 | Time: 0-255      |
|  |  |  |  |         | Channel 1:0-255  |
|  |  |  |  |         | Channel 2:0-255  |
|  |  |  |  |         | Channel 3:0-255  |
|  |  |  |  |         | Channel 4:0-255  |
|  |  |  |  |         | Channel 5:0-255  |
|  |  |  |  |         | Channel 6:0-255  |
|  |  |  |  |         | Channel 7:0-255  |
|  |  |  |  |         | Channel8:0-255   |
|  |  |  |  |         | Channel 9:0-255  |
|  |  |  |  |         | Channel 10:0-255 |
|  |  |  |  |         | Channel 11:0-255 |

|   |          |      |              |                     |                                |
|---|----------|------|--------------|---------------------|--------------------------------|
|   |          |      |              |                     | Channel 12:0-255               |
|   |          |      |              |                     | Channel 13:0-255               |
|   |          |      |              |                     | Channel 14:0-255               |
|   |          |      |              |                     | Channel15:0-255                |
|   |          |      |              |                     | Channel 16:0-255               |
|   |          |      |              |                     | Channel 17:0-255               |
|   |          |      |              |                     | Channel 18:0-255               |
|   |          |      |              |                     | Channel 19:0-255               |
|   |          |      |              |                     | Channel 20:0-255               |
|   |          |      |              |                     | Channel 21:0-255               |
|   |          |      |              |                     | Channel 22:0-255               |
|   |          |      |              |                     | Channel 23:0-255               |
|   |          |      |              |                     | Channel 24:0-255               |
|   |          |      |              |                     | Channel 25:0-255               |
|   |          |      | Record DMX   | Choose Step<br>0-12 | Choose Step 0-12               |
|   |          |      |              | Time 0-255          | Time 0-255                     |
|   |          |      |              | Record              | Record                         |
|   |          |      | All Cleaning |                     |                                |
|   |          |      | No Signal    | ON                  | Center/Auto/User/<br>No Effect |
|   |          |      |              | Operating           | Save/Light-off                 |
| 7 | Advanced | Fine | X            | 0-255               |                                |

|   |             |            |                     |                    |        |
|---|-------------|------------|---------------------|--------------------|--------|
|   | Setting     |            | Y                   | 0-255              |        |
|   |             |            | Color               | 0-255              |        |
|   |             |            | Focus               | 0-255              |        |
|   |             |            | Rotating Gobo Wheel | 0-255              |        |
|   |             |            | Rotating Gobo       | 0-255              |        |
|   |             |            | Zoom                | 0-255              |        |
|   |             |            | Framing 1           | 0-255              |        |
|   |             |            | Framing 2           | 0-255              |        |
|   |             |            | Framing 3           | 0-255              |        |
|   |             |            | Framing 4           | 0-255              |        |
|   |             |            | Framing 5           | 0-255              |        |
|   |             |            | Framing 6           | 0-255              |        |
|   |             |            | Framing 7           | 0-255              |        |
|   |             |            | Framing 8           | 0-255              |        |
|   |             |            | Iris                | 0-255              |        |
|   |             |            | Framing Rotating    | 0-255              |        |
|   |             |            | Language            | Chinese/English    |        |
|   |             |            | Ignore Mistake      | Code disk waveform | Yes/No |
|   |             |            | Recovery Fine       |                    |        |
| 8 | Information | DMX Number | Channel 1: 000      |                    |        |
|   |             |            | Channel 2: 000      |                    |        |
|   |             |            | Channel3: 000       |                    |        |



|  |  |  |                |
|--|--|--|----------------|
|  |  |  | Channel4: 000  |
|  |  |  | Channel5: 000  |
|  |  |  | Channel6: 000  |
|  |  |  | Channel7: 000  |
|  |  |  | Channel8: 000  |
|  |  |  | Channel9: 000  |
|  |  |  | Channel10: 000 |
|  |  |  | Channel11: 000 |
|  |  |  | Channel12: 000 |
|  |  |  | Channel13: 000 |
|  |  |  | Channel14: 000 |
|  |  |  | Channel15: 000 |
|  |  |  | Channel16: 000 |
|  |  |  | Channel17: 000 |
|  |  |  | Channel18: 000 |
|  |  |  | Channel19: 000 |
|  |  |  | Channel20: 000 |
|  |  |  | Channel21: 000 |
|  |  |  | Channel22: 000 |
|  |  |  | Channel23: 000 |
|  |  |  | Channel24: 000 |
|  |  |  | Channel25: 000 |
|  |  |  | Channel26: 000 |
|  |  |  | Channel27: 000 |

|  |  |          |                |
|--|--|----------|----------------|
|  |  |          | Channel28: 000 |
|  |  |          | Channel29: 000 |
|  |  |          | Channel30: 000 |
|  |  | Mistake  |                |
|  |  | Led chip | Using Time     |
|  |  |          | Time Clear     |

## 10: DMX PROTOCOL

| DMX<br>Parameter<br>number | DMX<br>Value | Function                           |
|----------------------------|--------------|------------------------------------|
| 39                         |              |                                    |
| 1                          |              | CMY-C                              |
|                            | 0-255        | Linear change from shallow to deep |
|                            |              |                                    |
| 2                          |              | CMY-M                              |
|                            | 0-255        | Linear change from shallow to deep |
|                            |              |                                    |
| 3                          |              | CMY-Y                              |
|                            | 0-255        | Linear change from shallow to deep |
|                            |              |                                    |
| 4                          |              | CTO                                |
|                            | 0-255        | CTO                                |

|          |         |                       |
|----------|---------|-----------------------|
|          |         |                       |
| <b>5</b> |         | <b>COLOR FUNCTION</b> |
|          | 0-85    | Full Color            |
|          | 86-170  | Half Color            |
|          | 171-255 | Linear                |
|          |         |                       |
| <b>6</b> |         | <b>COLOR WHEEL</b>    |
|          |         | Full Color            |
|          | 0-15    | White                 |
|          | 16-31   | Color 1               |
|          | 32-47   | Color 2               |
|          | 48-63   | Color 3               |
|          | 64-79   | Color 4               |
|          | 80-95   | Color 5               |
|          | 96-111  | Color 6               |
|          | 112-127 | Color 7               |
|          | 128-190 | Forward Flow          |
|          | 191-192 | Stop                  |
|          | 193-255 | Reverse Flow          |

|  |         |                   |
|--|---------|-------------------|
|  |         | Half Color        |
|  | 0-7     | Color 1 ( White ) |
|  | 8-15    | Color 1+ Color 2  |
|  | 16-23   | Color 2           |
|  | 24-31   | Color 2+ Color 3  |
|  | 32-39   | Color 3           |
|  | 40-47   | Color 3+ Color 4  |
|  | 48-55   | Color 4           |
|  | 56-63   | Color 4+ Color 5  |
|  | 64-71   | Color 5           |
|  | 72-79   | Color 5+ Color 6  |
|  | 80-87   | Color 6           |
|  | 88-95   | Color 6+ Color 7  |
|  | 96-103  | Color 7           |
|  | 104-111 | Color 7+ Color 8  |
|  | 1       |                   |
|  | 112-119 |                   |
|  | 120-127 | Color 8+ Color 1  |
|  | 7       |                   |
|  | 128-190 | Forward Flow      |
|  | 191-192 | Stop              |

|          |             |                                         |
|----------|-------------|-----------------------------------------|
|          | 193-25<br>5 | Reverse Flow                            |
|          |             | <b>Linear</b>                           |
|          | 0-127       | Color Linear                            |
|          | 128-19<br>0 | Forward Flow                            |
|          | 191-19<br>2 | Stop                                    |
|          | 193-25<br>5 | Reverse Flow                            |
|          |             |                                         |
|          |             |                                         |
| <b>7</b> |             | <b>STROBE</b>                           |
|          | 0-3         | Closed                                  |
|          | 3-103       | Linear Strobe from slow to fast         |
|          | 104-10<br>7 | Open                                    |
|          | 108-15<br>7 | Fast on and slow off, from fast to slow |
|          | 158-20<br>7 | Fast off and slow on, from fast to slow |
|          | 208-21<br>2 | Open                                    |
|          | 213-25      | Random strobe, from slow to fast        |

|           |         |                                                      |
|-----------|---------|------------------------------------------------------|
|           | 1       |                                                      |
|           | 252-255 | Open                                                 |
|           | 5       |                                                      |
|           |         |                                                      |
| <b>8</b>  |         | <b>DIMMER</b>                                        |
|           | 0-255   | Continuously adjust light intensity: from 0% to 100% |
|           |         |                                                      |
| <b>9</b>  |         | <b>DIMMER FINE (16 bit)</b>                          |
|           | 0-255   | Dimmer fine                                          |
|           |         |                                                      |
| <b>10</b> |         | <b>IRIS</b>                                          |
|           | 0-127   | IRIS from large to small                             |
|           | 137-171 | Simulated Shutter                                    |
|           | 172-211 |                                                      |
|           | 212-251 |                                                      |
|           |         |                                                      |
| <b>11</b> |         | <b>STATIC GOBO WHEEL</b>                             |
|           | 0-8     | Open                                                 |
|           | 9-17    | Gobo 1                                               |
|           | 18-26   | Gobo 2                                               |
|           | 27-35   | Gobo 3                                               |
|           | 36-44   | Gobo 4                                               |
|           | 45-53   | Gobo 5                                               |
|           | 54-62   | Gobo 6                                               |

|           |         |                                                |
|-----------|---------|------------------------------------------------|
|           | 63-71   | Gobo 7                                         |
|           | 72-113  | The Gobo scrolls forward, from fast to slow    |
|           | 114-117 | Stop scroll                                    |
|           | 118-159 | The Gobo scrolls in reverse, from slow to fast |
|           | 160-173 | Gobo 1 shakes from slow to fast                |
|           | 174-187 | Gobo 2 shakes from slow to fast                |
|           | 188-200 | Gobo 3 shakes from slow to fast                |
|           | 201-214 | Gobo 4 shakes from slow to fast                |
|           | 215-227 | Gobo 5 shakes from slow to fast                |
|           | 228-241 | Gobo 6 shakes from slow to fast                |
|           | 242-255 | Gobo 7 shakes from slow to fast                |
|           |         |                                                |
| <b>12</b> |         | <b>Rotating Gobo</b>                           |
|           | 0-10    | Open                                           |
|           | 11-20   | Gobo 1                                         |

|           |         |                                              |
|-----------|---------|----------------------------------------------|
|           | 21-30   | Gobo 2                                       |
|           | 31-40   | Gobo 3                                       |
|           | 41-50   | Gobo 4                                       |
|           | 51-60   | Gobo 5                                       |
|           | 61-71   | Gobo 6                                       |
|           | 72-113  | Positive gobo flow effect: from fast to slow |
|           | 114-117 | Stop                                         |
|           | 118-159 | Reverse gobo flow effect: from slow to fast  |
|           | 160-175 | Gobo 1 swing, from slow to fast              |
|           | 176-191 | Gobo 2 swing, from slow to fast              |
|           | 192-207 | Gobo 3 swing, from slow to fast              |
|           | 208-223 | Gobo 4 swing, from slow to fast              |
|           | 224-239 | Gobo 5 swing, from slow to fast              |
|           | 240-255 | Gobo 6 swing, from slow to fast              |
|           |         |                                              |
| <b>13</b> |         | <b>Rotation gobo indexing and rotation</b>   |



|           |         |                                               |
|-----------|---------|-----------------------------------------------|
|           | 0       | No action                                     |
|           | 1-127   | <b>Rotation gobo indexing</b>                 |
|           | 128-191 | Forward gobo rotation: from fast to slow      |
|           | 192-255 | Reverse gobo rotation: from slow to fast      |
|           |         |                                               |
| <b>14</b> |         | <b>Rotation gobo indexing fine adjustment</b> |
|           | 0-255   | Rotation gobo indexing fine adjustment        |
|           |         |                                               |
| <b>15</b> |         | <b>Prism 1</b>                                |
|           | 0-127   | No prism effect                               |
|           | 128-255 | Prism 1 Insert                                |
|           |         |                                               |
| <b>16</b> |         | <b>Prism 1 rotation and indexing</b>          |
|           | 0-127   | Prism rotation                                |
|           | 128-191 | Forward prism rotation: from fast to slow     |
|           | 192-255 | Reverse prism rotation: slow to fast          |
|           |         |                                               |
| <b>17</b> |         | <b>Empty</b>                                  |
|           |         |                                               |

|           |         |                                        |
|-----------|---------|----------------------------------------|
| <b>18</b> |         | <b>Empty</b>                           |
|           |         |                                        |
| <b>19</b> |         | <b>Frost</b>                           |
|           | 0-63    | Empty                                  |
|           | 64-255  | Linear cut-in                          |
| <b>20</b> |         | <b>Empty</b>                           |
|           |         |                                        |
| <b>21</b> |         | <b>Focus</b>                           |
|           | 0-255   | Continuous adjustment from far to near |
|           |         |                                        |
| <b>22</b> |         | <b>Zoom</b>                            |
|           | 0-255   | Zoom: beam angle from small to large   |
|           |         |                                        |
| <b>23</b> |         | <b>BLADE 1 - Linear Insertion</b>      |
|           | 0       | Empty                                  |
|           | 1-255   | Blade 1Insert 0~100%                   |
|           |         |                                        |
| <b>24</b> |         | <b>BLADE 1 swings</b>                  |
|           | 0-127   | -30°                                   |
|           | 128     | 0°                                     |
|           | 129-255 | 30°                                    |
|           | 5       |                                        |
|           |         |                                        |
| <b>25</b> |         | <b>BLADE 2 - Linear Insertion</b>      |

|           |              |                                   |
|-----------|--------------|-----------------------------------|
|           | 0            | Empty                             |
|           | 1-255        | Blade 2 Insert 0~100%             |
|           |              |                                   |
| <b>26</b> |              | <b>BLADE 2 swings</b>             |
|           | 0-127        | -30°                              |
|           | 128          | 0°                                |
|           | 129-255<br>5 | 30°                               |
|           |              |                                   |
| <b>27</b> |              | <b>BLADE 3 - Linear Insertion</b> |
|           | 0            | Empty                             |
|           | 1-255        | Blade 3 Insert 0~100%             |
|           |              |                                   |
| <b>28</b> |              | <b>BLADE 3 swings</b>             |
|           | 0-127        | -30°                              |
|           | 128          | 0°                                |
|           | 129-255<br>5 | 30°                               |
|           |              |                                   |
| <b>29</b> |              | <b>BLADE 4 - Linear Insertion</b> |
|           | 0            | Empty                             |
|           | 1-255        | Blade 4 Insert 0~100%             |
|           |              |                                   |
| <b>30</b> |              | <b>BLADE 4 swings</b>             |

|           |         |                                     |
|-----------|---------|-------------------------------------|
|           | 0-127   | -30°                                |
|           | 128     | 0°                                  |
|           | 129-255 | 30°                                 |
|           | 5       |                                     |
|           |         |                                     |
| <b>31</b> |         | <b>FRAMING ROTATION</b>             |
|           | 0-255   | FRAMING ROTATION                    |
|           |         |                                     |
| <b>32</b> |         | <b>FRAMING MACRO</b>                |
|           | 0-7     | Empty                               |
|           | 8-255   | FRAMING MACRO                       |
|           |         |                                     |
| <b>33</b> |         | <b>FRAMING MACRO function speed</b> |
|           | 0-255   | Switching speed from slow to fast   |
|           |         |                                     |
| <b>34</b> |         | <b>Pan</b>                          |
|           | 0-255   | Pan rotation                        |
| <b>35</b> |         | <b>Pan Fine</b>                     |
|           | 0-255   | Pan fine                            |
| <b>36</b> |         | <b>Tilt</b>                         |
|           | 0-255   | Tilt rotation                       |
| <b>37</b> |         | <b>Tilt Fine</b>                    |
|           | 0-255   | Tilt fine                           |
|           |         |                                     |

|           |         |                                  |
|-----------|---------|----------------------------------|
|           |         |                                  |
| <b>38</b> |         | <b>Reset</b>                     |
|           | 0-99    | Empty                            |
|           | 100-127 | All reset                        |
|           | 128-255 | Empty                            |
|           |         |                                  |
| <b>39</b> |         | <b>Functional Channel</b>        |
|           | 0-40    | Empty                            |
|           | 41-50   | Dimming curve: Straight line     |
|           | 51-60   | Dimming curve: Square            |
|           | 61-70   | Dimming curve: Cubic             |
|           | 71-75   | Dimming curve: Hyperbola         |
|           | 76-80   | Dimming curve: logarithmic curve |
|           | 81-140  | Empty                            |
|           | 141-150 | Fan mode: Silent                 |
|           | 151-160 | Fan mode: Theater mode           |
|           | 161-255 | Empty                            |

## 11: Trouble Shooting

Listed below are a few common problems that you may encounter, with solutions.

Unit does not work, No light output and the fan does not work;

1. Check the power connection and main fuse.
2. Detects the mains supply voltage at the connector.

Not responding to DMX Control;

1. Check the DMX connectors/cables to see if they are linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and the DMX controller polarity.
3. Try using another DMX controller.
4. Check to see if the DMX cables run near or run alongside to high voltage cable. It may cause damage or interference to DMX interface circuit.
5. Please change to another DMX console

One of the channels is not working well;

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

broken.

2. The motor's drive IC on the PCB might be out of condition.

## **12: Cleaning**

Regularly clean the outside of the optical lens focusing on the dust. Based on the number of LEDs use a clean environment to determine: Are they moist, smoked or is the surrounding environment particularly dirty, which can cause dust deposition LEDs.

Please use a glass cleaning solution and a soft cloth to wipe the focusing optical lens. Carefully dry each part. At least 20 days to clean the dust outside a lens, the lens inside 30-60 days to clean up the dust once. Regular inspection LED fan and bottom case fan, a fan of at least 20\days to clean up dust deposition.

Cleaning must be executed in case of power failure.

# 13: PHOTOMETRIC DIAGRAM

## LED SPOT PROFILE 1200W

