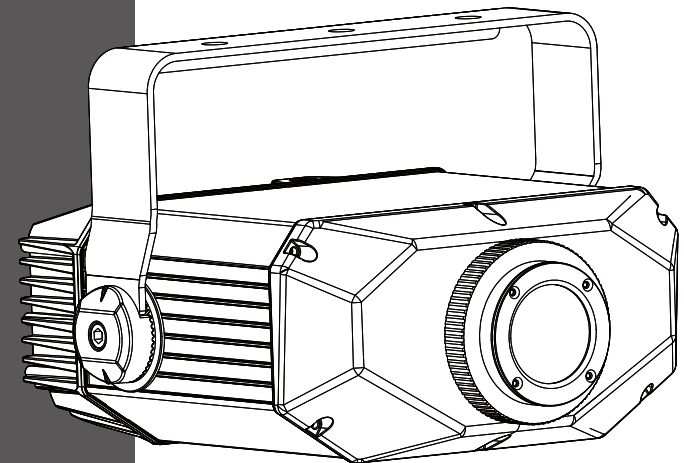


**CKC**

# **GOBO Projector** *100*



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Before carrying out any installation, maintenance, or cleaning of the lighting fixtures, please confirm that the power has been cut off! Before using this fixture, please read this manual. Our company reserves the right to change product design and specifications without prior notice.

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## ★ Statement ★

- This manual contains important information on safe use and installation. Please read it carefully and follow the requirements for operation and installation. Please keep this manual properly;
- The equipment has good performance and complete packaging when it leaves the factory. The operator should strictly follow the warning items and operating instructions stated in the manual. Any malfunction or damage caused by misuse or neglect of the manual is not within the scope of our company's responsibility and warranty;
- The relevant information in this manual is for reference only. All lighting products are subject to the actual product. Any changes will not be notified separately, and our company reserves the right of final interpretation.

### 1. Security Warning Information



#### Attention !

Please read the safety requirements information in this section carefully before installing, powering on, operating, or repairing the lighting fixtures.



- This product is for professional use and is not suitable for other purposes;
- After receiving the lighting fixtures, please check if the packaging is complete and unpack to check if the equipment has been damaged due to transportation. If there is any damage caused by transportation, please do not use this lamp and contact local technicians or manufacturers as soon as possible;
- When transporting again, please use the original packaging materials;
- If there is obvious damage to the machine casing, it should be replaced in a timely manner;
- When hanging lamps, it is necessary to verify that the hanging equipment can withstand more than 6 times the weight of the lamp. After installation, it is necessary to verify that the lamp cover and installation buckle are secure and undamaged. At the same time, a safety rope should be used as an auxiliary safety for the lamp and fixed on the truss;
- The light source inside this luminaire should be replaced by the manufacturer, its service agent, or a similarly qualified person;
- If you have any other questions about how to safely operate the equipment, please contact our technical personnel or call our service hotline;
- This product has a protection level of IP65 and can be used both indoors and outdoors;
- Avoid direct external strong light shining on the lens, which may cause the lens to focus and burn out internal components.



- Lighting fixtures should be kept clean and avoid prolonged use in overheated or dusty environments to prevent contact with chemical liquids;
- When using the product, attention should be paid to avoiding serious or fatal injuries caused by fire, heat, electrical shock, and ultraviolet radiation. Before powering on or installing, read the instruction manual first. Follow the safety precautions for operation and pay attention to the warning signs on the instructions and equipment;
- Only professionals are allowed to install, operate, and maintain lighting fixtures, and strictly follow the procedures stated in the operating instructions.



- The eyes cannot directly look at the luminous object;
- Do not connect this device to any dimmer;
- If visible damage occurs to the protective casing, lens, and display screen on the lighting fixture, it is considered as damage to the point of loss;
- Please do not place any filters or other items at the light outlet, and do not replace non original parts;
- The minimum safe illumination distance of the lamp is 1m.



- Before installation, please confirm that the power supply voltage used matches the voltage indicated on the light fixture. Each lighting fixture should be properly grounded and electrically installed according to relevant standards;
- Please disconnect the power before repairing or cleaning the equipment;
- During the operation of the lighting fixtures, touching the wires is prohibited to prevent electric shock;
- If the external soft cable or wire of this lamp is damaged, the wire should be replaced by the manufacturer, its agent, or a similarly qualified person to avoid danger;
- Avoid flammable liquids, water, or metal conductors from entering the interior of the lamp to prevent electric shock or fire. If any foreign objects enter the lamp, immediately cut off the power supply;
- When multiple lamps are operated in series, the signal lines can be connected in multiple ways, but the power supply must be connected separately.



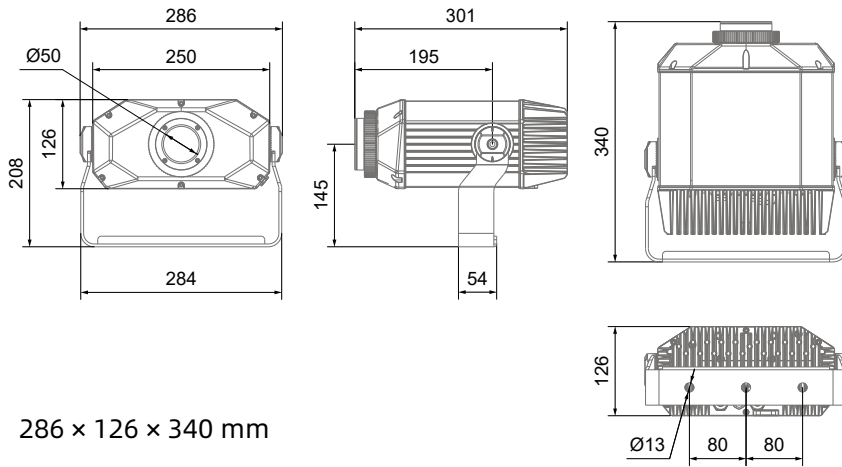
- The lighting fixtures work normally at -20 °C to 45 °C . When replacing any components or accessories in the equipment, ensure that the power is disconnected to prevent electric shock and injury;
- The maximum surface temperature of the lamp during operation can reach 68 °C , please do not touch it with bare hands.



- The lighting fixtures must be installed in a sufficiently ventilated area, at least 0.5m away from adjacent surfaces, to ensure that no ventilation holes are blocked;
- Do not install the lighting fixtures directly on flammable objects;
- The minimum distance between all outer surfaces of the lamp and combustible materials is 0.5m.

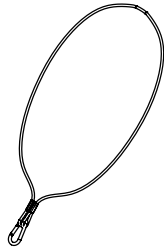
## 2. Product Introduction

### 2.1 Exterior dimensions of lighting fixtures



### 2.2 Packaging accessories

| Name         | QTY   |
|--------------|-------|
| Safety cable | 1 PCS |



## 3. Main technical parameters of the equipment

Product execution standards: GB7000.1-2023, GB7000.217-2023, Q/YF-2017

### ● Electrical parameter

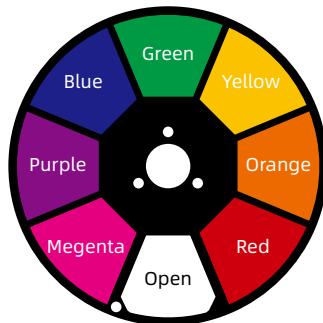
Rated input voltage: AC 100V-240V~ 50Hz/60Hz  
 Rated power of the entire fixture: 90W  
 Power factor: 0.94F

### ● Source lifespan

>20000 hours

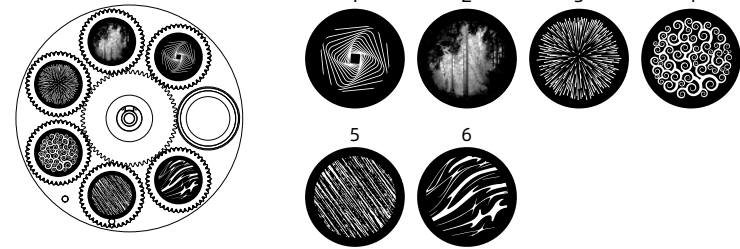
### ● Color system

CRI: 80  
 Color wheel: 7+1



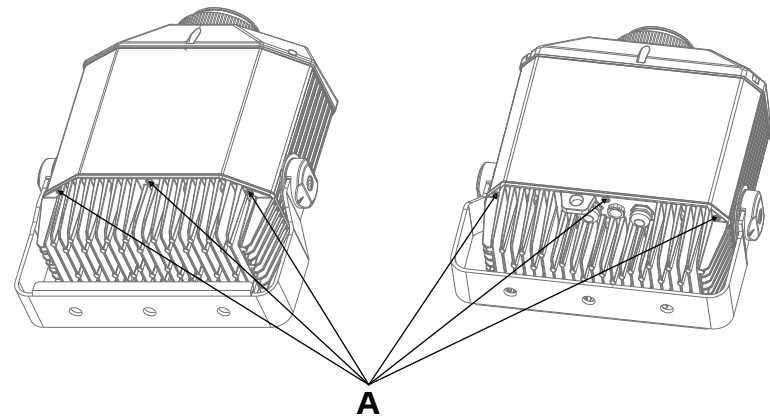
### ● Gobo system

Rotation gobo: 6+1  
 Gobo outer diameter: 23 ±0.2 mm  
 Internal diameter: 10mm

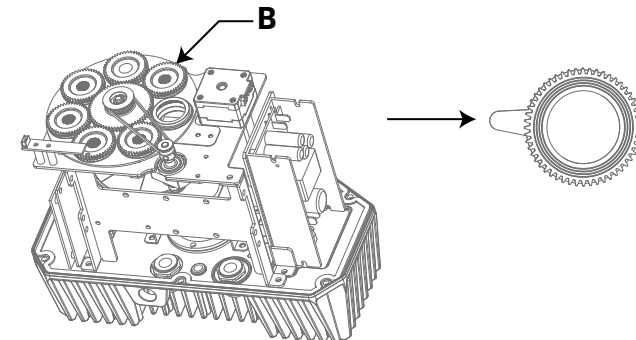


### Gobo replacement

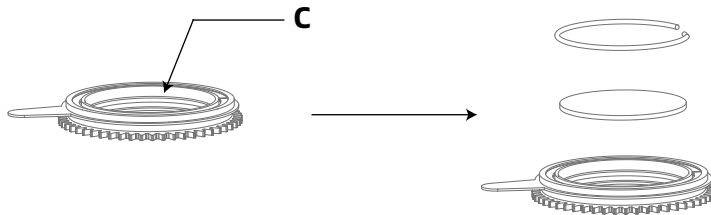
a. Use a T3 hex wrench to remove the 6 screws at point A, then remove the housing;



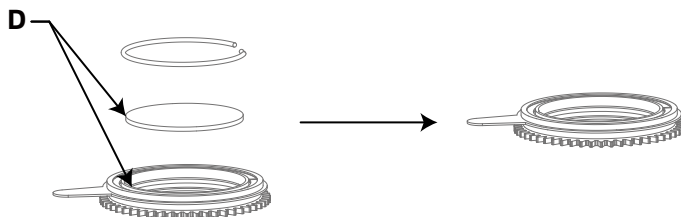
b. As shown in Figure B, gently lift the driven wheel upward from the edge of the gobo wheel's front side and slowly pull it out to remove a single gobo holder



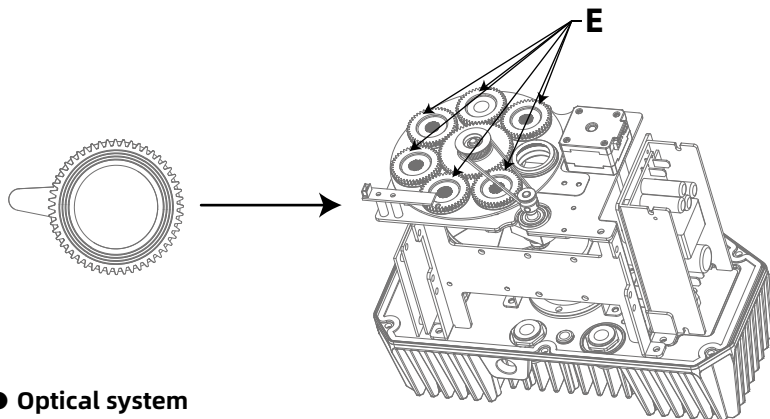
c. Use tweezers or another small, precision tool to remove the retaining ring at point C (if the gobo is secured with silicone sealant, use a specialized cleaner to remove the sealant before removing the retaining ring to avoid damaging the gobo);



d. When installing the gobo, avoid touching it directly with hands. Align the notched edge of the gobo with the recess in the driven pulley assembly, as shown in Figure D (the coated side of the gobo should face the light engine);



e. Insert the gobo holder into the drive wheel assembly, as shown in Figure E. Reinstall the gobo holder in the reverse order of removal; align the gobo holder's positioning points with those of the drive wheel. Once installed, reattach the gobo wheel assembly to the fixture.



#### ● Optical system

Source: 90W CW LED  
 Beam angle: 25° / 45° / 55° (This product comes standard with two lenses, which can be replaced by loosening them by hand)  
 Output luminous flux: 1100 Lm

#### ● Control and programming

Control channel: 6CH  
 Protocol: DMX512, RDM  
 Power input/output: Waterproof gland

#### ● Illumination draw

| Beam Angle | Distance (m) | 3m   | 5m   | 8m   |
|------------|--------------|------|------|------|
| 25°        | Lux          | 2070 | 743  | 283  |
|            | Distance (m) | 1.33 | 2.22 | 3.55 |
| 45°        | Lux          | 1120 | 402  | 155  |
|            | Distance (m) | 2.49 | 4.14 | 6.63 |
| 55°        | Lux          | 497  | 182  | 81   |
|            | Distance (m) | 3.12 | 5.21 | 8.33 |

#### ● Other effect function

Fast electronic strobe: 1~25Hz      LED refresh frequency: 900Hz-25KHz  
 Water pattern mirror: 2

#### ● Other features and functions

Weight: 6.8 KG

#### 4. Packaging and transportation

##### 4.1 Disassemble packaging



Notice: After receiving the fixture, please unpack and check for any damage caused by transportation. If there is any damage caused by transportation, please do not use this fixture and contact the local technical personnel or manufacturer as soon as possible.

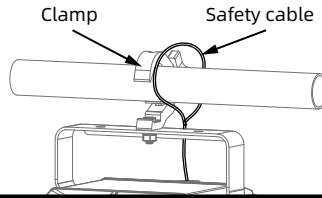
4.2 Equipment packaging


- 1). Disconnect the power supply before packaging the lighting fixtures to allow them to cool completely;
- 2). Flight cases can only be stacked in two layers and are not allowed to be reversed.

5. Installation Requirements Explanation

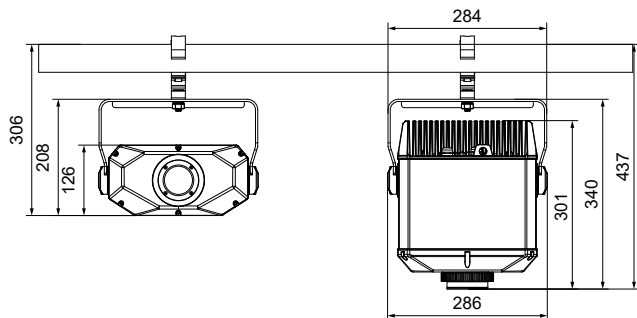
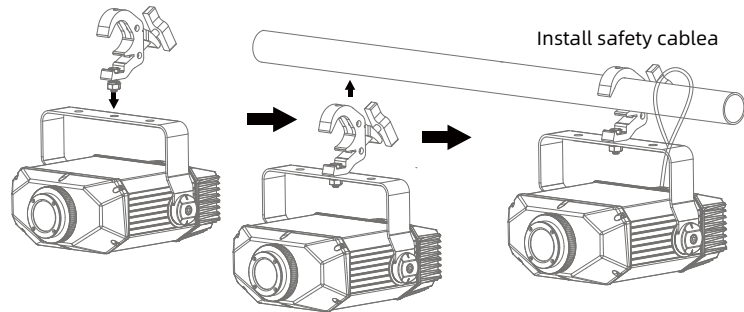
5.1 Clamp install

The lighting fixtures can be installed on the stage or on any direction of the truss, and the clamp can be quickly and easily locked onto the truss.





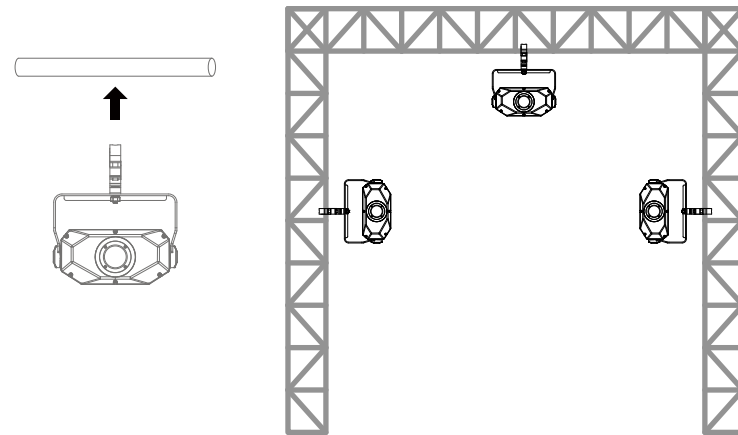
**Warning !**  
The lighting fixture must use one clamp to fix the device, and an additional safety cable must be connected to the safety hanging hole of the lamp body. Be careful not to connect it to the handle.




5.2 Equipment installation

- 1). Before installation, it is necessary to verify that the lamp hook and safety rope are not damaged, and that the installation object can withstand 6 times the total weight of the lamp and cable accessories;
2. Install the clamp on the handle, insert the clamp horizontally into the handle mounting hole, and tighten the screw (the shape of the light hook should be based on the actual product).

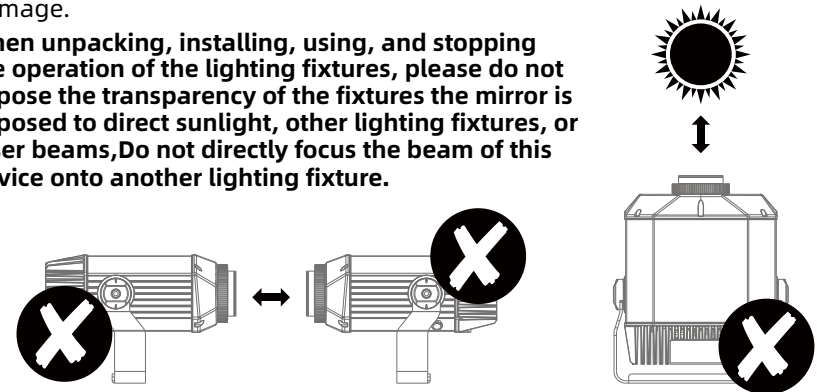
5.3. Hanging Installation Diagram



 **Reminder:** External beam source may damage internal lighting fixtures

External beams from direct sunlight, lighting fixtures, and lasers that are directly focused onto the casing or penetrate the lens to illuminate the interior of the fixture may cause damage to the components. This is a common issue with all lighting fixtures and does not occur alone with CKC products. Although there is no way to completely prevent this problem from occurring, following the following guidelines can prevent potential damage.

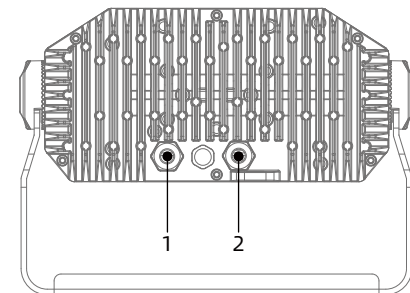
**When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams, Do not directly focus the beam of this device onto another lighting fixture.**



6. Power、Signal connect

6.1 Power and signal socket

1. Power/DMX input
2. Power/DMX output



6.2 Power connect

**Connection method:**

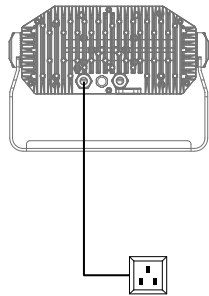
**L**(live wire) - brown wire

**E**(Ground wire) - yellow/green dual color line

**N**(Zero Line) - Blue Line

When connecting the power supply, please note that the voltage and frequency of the power supply must match the voltage and frequency marked on the light fixture. When multiple fixtures are used simultaneously, it is recommended to connect the power supply of each fixture separately, so that each fixture can be individually controlled for power on/off.

**⚠ Attention:** When connecting the power supply, the ground wire (yellow/green dual color wire) must be safely grounded and comply with all relevant electrical installation standards.

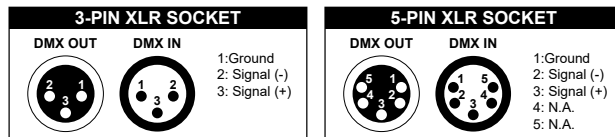


This product uses Powercon In/Out to connect power cords. Due to power limitations, a 2 square meter power cord can carry up to 27 products at 220V and 12 product at 110V.

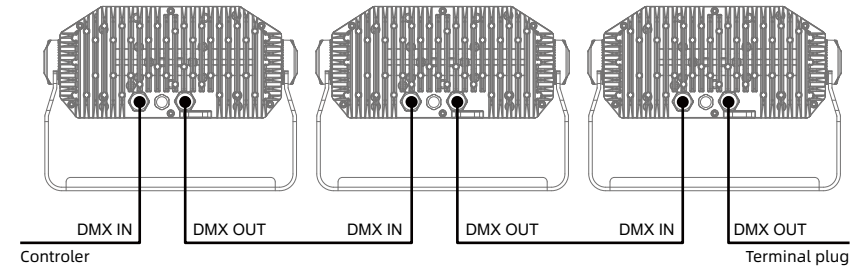
**Warning !**

- Do not connect too many fixtures or overload a single power cord;
- Do not use power cords with damaged insulation layers, and do not place power cords on other wires;
- When the fixture is not in use or cleaned, please unplug the power cord; Do not forcefully unplug or drag the power cord directly.

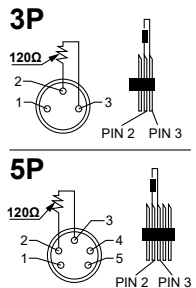
6.3 Signal connect



The lighting fixtures are equipped with standard DMX XLR input and output sockets. Please use DMX512 shielded twisted pair signal cables or Category 3 or above network twisted pair cables for connection. The typical connection distance for DMX signal lines is 150 meters. When transmitting signals over long distances, a DMX512 signal amplifier must be added.



Connect a shielded twisted pair signal cable from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3 pin socket of each connected lamp output. (Weld a 4/1W, 120 Ω resistor between the 2 and 3 pins of a 3 or 5 core pin XLR plug).



7. RDM Menu Operation

Note: The gray color block is the default setting value

|                         |                    |               |
|-------------------------|--------------------|---------------|
| <b>Label</b>            | Gobo Projector 100 |               |
| <b>Model</b>            | Gobo Projector 100 |               |
| <b>Manufacturer</b>     | CKC                |               |
| <b>Firmware:</b>        | V1.01              |               |
| <b>DMX Address</b>      | 001(006)           |               |
| <b>DMX Personality</b>  | 06CH               |               |
| <b>DMX Slots</b>        | 006                |               |
| <b>Identify</b>         | ON/OFF             |               |
| <b>Sensor</b>           | Temperature:xx°C   |               |
| <b>NO DMX</b>           | Blackout           |               |
|                         | Freeze             |               |
|                         | Stand-Alone        |               |
| <b>Slave mode</b>       | Single             |               |
|                         | Master             |               |
|                         | Slave              |               |
| <b>Stand-Alone Mode</b> | Master Dimmer      | (0-255)       |
|                         | Flash              | (0-255)       |
|                         | Color Wheel        | White/Red.... |
|                         | Gobo Wheel         | Open/Gobo1-6  |
|                         | Gobo rotation      | (0-255)       |
|                         | USER macro         | Yes/No        |

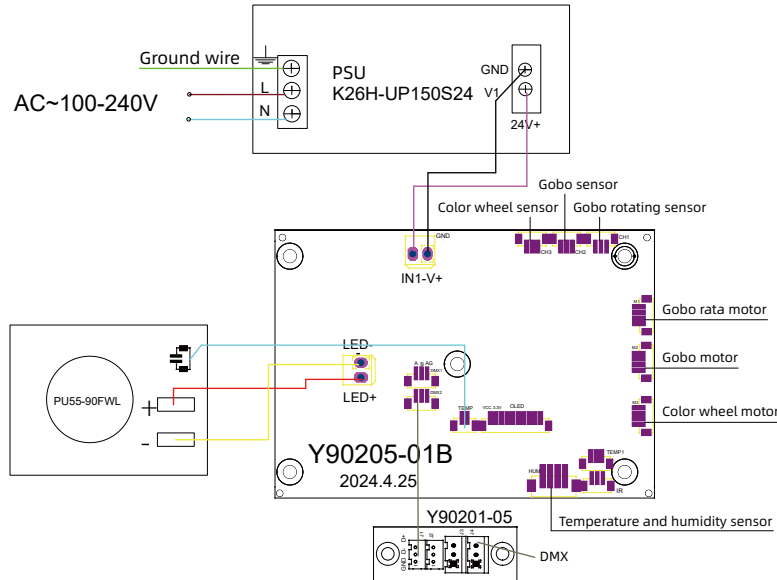
|                     |                 |                          |                  |         |  |
|---------------------|-----------------|--------------------------|------------------|---------|--|
| <b>Fixture Menu</b> | Edit USER Macro | Play Time                | 0(0-99)          |         |  |
|                     |                 | Play Fade                | 0 (0-99)         |         |  |
|                     |                 | Edit Step NB             | 1 (1-20)         |         |  |
|                     |                 | Edit Steps               | Edit Step        | 1 to 20 |  |
|                     |                 |                          | Master Dimmer    |         |  |
|                     |                 |                          | Flash            |         |  |
|                     |                 |                          | Color Wheel      |         |  |
|                     |                 |                          | Gobo Wheel       |         |  |
|                     |                 |                          | Gobo rotation    |         |  |
|                     |                 | Dimmer curves            | Linear           |         |  |
|                     | Exponential     |                          |                  |         |  |
|                     | Logarithmic     |                          |                  |         |  |
|                     | S-Curve         |                          |                  |         |  |
|                     | PWM Frequency   | 900/1200/2400/3600       |                  |         |  |
|                     | Offset          | Color Wheel (-100 - 100) |                  |         |  |
|                     | Temperature     | ° c<br>° f               |                  |         |  |
|                     | Time info       | xx:xx h                  |                  |         |  |
|                     | Setting Mode    | Copy proj settings       | NO               |         |  |
|                     |                 |                          | DMX ADDRESS      | NO/YES  |  |
|                     |                 |                          | DMX Personality  | NO/YES  |  |
|                     |                 |                          | NO DMX           | NO/YES  |  |
|                     |                 |                          | Slave Mode       | NO/YES  |  |
|                     |                 |                          | Stand-Alone Mode | NO/YES  |  |
|                     |                 |                          | Edit User Macro  | NO/YES  |  |
|                     |                 |                          | Dimmer Curves    | NO/YES  |  |
|                     |                 |                          | White Balance    | NO/YES  |  |
|                     |                 |                          | PWM Frequency    | NO/YES  |  |
|                     |                 | DFSET                    | All Parameters   | NO/YES  |  |
| DFSET               |                 |                          |                  | OFF/ON  |  |
|                     |                 |                          | OFF/ON           |         |  |

**8. DMX channel table:**

| 6Ch | Function | Values  |                      |
|-----|----------|---------|----------------------|
| 1   | Dimmer   | 0-255   | 0% to100%            |
| 2   | Strobe   | 0-31    | Closed               |
|     |          | 32-63   | Open                 |
|     |          | 64-95   | Strobe (slow → fast) |
|     |          | 96-127  | Open                 |
|     |          | 128-159 | Pulse (slow → fast)  |

|         |                      |                                    |                                   |                              |
|---------|----------------------|------------------------------------|-----------------------------------|------------------------------|
|         | 3                    | Colour Wheel                       | 160-191                           | Open                         |
|         |                      |                                    | 192-223                           | Random (slow → fast)         |
|         |                      |                                    | 224-255                           | Open                         |
|         |                      |                                    | <b>Color Wheel :</b>              |                              |
|         |                      |                                    | 0-5                               | Color off (open)             |
|         |                      |                                    | 6-115                             | Open → Color1..Color6 → Open |
|         |                      |                                    | 116-120                           | White /Color off (open)      |
|         |                      |                                    | 121-130                           | Red                          |
|         |                      |                                    | 131-140                           | Orange                       |
|         |                      |                                    | 141-150                           | Yellow                       |
|         |                      |                                    | 151-160                           | Green                        |
|         |                      |                                    | 161-170                           | Cyan                         |
|         | 171-180              | Lavendel                           |                                   |                              |
|         | 181-190              | Magenta                            |                                   |                              |
|         | 191-192              | White /Color off (open)            |                                   |                              |
|         | 193-223              | Color Wheel rot. Fast -> Slow, CW  |                                   |                              |
|         | 224                  | Color Wheel rot. Stop              |                                   |                              |
|         | 225-255              | Color Wheel rot. Slow -> Fast, CCW |                                   |                              |
|         | 4                    | Gobo Wheel 1                       | <b>Rotating Gobos:</b>            |                              |
|         |                      |                                    | 0-5                               | Open                         |
|         |                      |                                    | 6-20                              | Gobo 1                       |
|         |                      |                                    | 21-35                             | Gobo 2                       |
|         |                      |                                    | 36-50                             | Gobo 3                       |
|         |                      |                                    | 51-65                             | Gobo 4                       |
|         |                      |                                    | 66-80                             | Gobo 5                       |
|         |                      |                                    | 81-95                             | Gobo 6                       |
|         |                      |                                    | 96-110                            | Gobo 1 shake (slow-fast)     |
|         |                      |                                    | 111-125                           | Gobo 2 shake (slow-fast)     |
| 126-140 |                      |                                    | Gobo 3 shake (slow-fast)          |                              |
| 141-155 |                      |                                    | Gobo 4 shake (slow-fast)          |                              |
| 156-170 |                      |                                    | Gobo 5 shake (slow-fast)          |                              |
| 171-185 |                      |                                    | Gobo 6 shake (slow-fast)          |                              |
| 186-192 |                      |                                    | Open                              |                              |
| 193-223 |                      |                                    | Gobo Wheel rot. Fast -> Slow, CW  |                              |
| 224-224 |                      |                                    | Gobo Wheel rot. Stop              |                              |
| 225-255 |                      |                                    | Gobo Wheel rot. Slow -> Fast, CCW |                              |
| 5       | Gobo 1 Rotation      | <b>Rotating Gobo Index:</b>        |                                   |                              |
|         |                      | 0-5                                | Gobo1 Rot. Off                    |                              |
|         |                      | 6-128                              | Gobo Position 0° ... 540°         |                              |
|         |                      | 129-191                            | Gobo Rotation, Fast -> Slow, CW   |                              |
|         |                      | 192                                | Gobo Rotaion Stop                 |                              |
| 6       | Gobo 1 Rotation Fine | 193-255                            | Gobo Rotation, Slow -> Fast, CCW  |                              |
|         |                      | 0-255                              |                                   |                              |

## 9. Control circuit diagram



## 10. Regular maintenance

### 10.1 Cleaning and maintenance

Lighting fixtures require daily cleaning and maintenance, and their service life largely depends on the operating environment and standards. If you have any questions, please consult our technical engineers for advice. Maintenance and repair work not included in this book should be entrusted to our qualified technical engineers.

**Attention!** Damage caused by dust, e-liquid, or other reasons, as well as abnormal use, is not covered by the warranty.



### Warning !


Before opening any lid, disconnect the power supply. Cleaning optical components requires gentle wiping as the coating surface is prone to scratching. Do not use damaging liquids or hard objects, as they may damage the plastic or coating surface.

- When the lens is cracked or otherwise damaged, it should be replaced in a timely manner;
- When the brightness significantly decreases, the LED may have reached its expiration date and should be replaced in a timely manner;
- When the fixture cannot start, please check if the fixture power fuse is blown. If it is blown, a fuse of the same specification must be used for installation;

- The fixture is equipped with a temperature protection device. When the temperature is too high, the protection device will automatically reduce power.
- When this situation occurs, please check whether the fan is running normally, whether the fan and fan mesh are clogged with dust, identify the fault and repair it before starting the fixture. Please note that only qualified technicians are allowed to carry out maintenance work;
- To maintain smooth movement of the focusing lens, it is recommended to lubricate the guide rail of the focusing lens every three months. Excellent and high-temperature resistant lubricating grease should be used, and excessive grease should not be used as it can easily dirty adjacent components.

### 10.2 Fault analysis and handling

| Fault description                        | Analysis  | Processing method    |
|--|---|----------------------|
| No action after power on                 | Check if the power switch is turned on  | Turn on              |
|  | Check if the fuse is blown  | Replace              |
|  | Check if the output of PSU is normal  | Detecting voltage    |
|  | Check if poor contact in the internal circuit   | Reconnect            |
| Uncontrolled lighting fixtures           | Check if the DMX signal cable is connected correctly (If there is no signal, the display screen will flash) | Reconnect or replace |
|  | Check if the address code is correct and if the DMX mode of the lighting fixture matches the settings       | Reconfirm            |
|  | The main control PCB is damaged   | Replace              |
| Not bright                               | LED aging or damage   | Replace              |
|  | Power PCB malfunction   | Check/ Replace       |
|  | Loose or poor contact of the circuit  | Reconnect            |
|  | PSU malfunction   | Replace              |
| Automatically turn off or dim the lights | LED aging   | Replace              |
|  | Check the power output of the fan   | Check/ Replace       |
|  | The temperature control switch is damaged   | Replace              |

|  |   |                 |
|--|---|-----------------|
| Weak light efficiency and uneven light spot  | LED aging   | Replace         |
|  | LED not centered with the lens                    | Adjust LED      |
|  | The optical mirror has accumulated dust or stains | Clean           |
|  | The optical mirror is damaged                     | Replace         |
| Impure color   | Weakening of light efficiency                     | Replace led PCB |
|  | The color filter has accumulated dust or stains   | Clean           |
|  | The color filter has been demolded or damaged     | Replace         |
| Gobo is unclear  | The optical mirror has accumulated dust or stains | Clean           |
|  | The optical mirror is damaged                     | Replace         |
|  <b>Attention!</b> The above analysis is for abnormal reference only. Non professionals are not allowed to disassemble and repair the machine |   |                 |