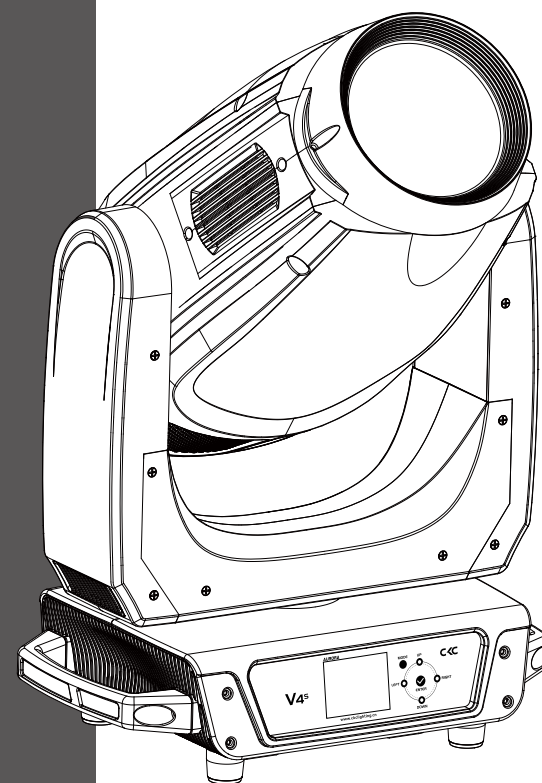


# CKC

# V4<sup>S</sup>



[www.ckclighting.com](http://www.ckclighting.com)

## CKC LIGHTING CO.,LTD

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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 IP20 and is suitable for indoor use;
- 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 5m.



- 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.



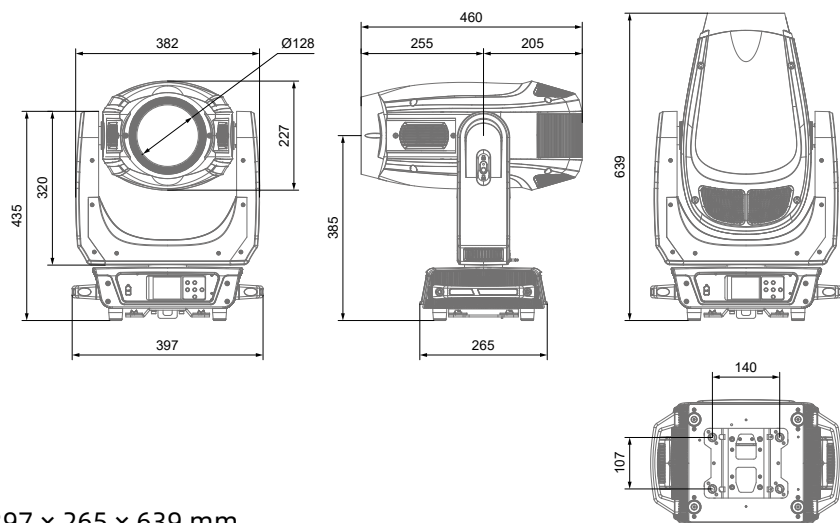
- The lighting fixtures work normally at -20 °C to 45 °C . When replacing any components or accessories in the equipment, ensure that the power is disconnected to prevent electric shock and injury;
- The maximum surface temperature of the lamp during operation can reach 80 °C , please do not touch it 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

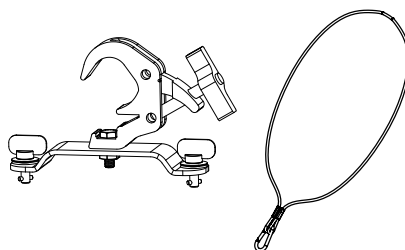
### 2.1 Exterior dimensions of lighting fixtures



397 × 265 × 639 mm

### 2.2 Packaging accessories

Name	QTY
Omega bracket	2 PCS
Clamp	2 PCS
Safety cable	1 PCS



## 3. Main technical parameters of the equipment

Product execution standards: GB7000.1-2015, GB7000.217-2008, Q/YF 1-2017

### ● Electrical parameter

Rated input voltage: AC 100V-240V~ 50Hz/60Hz  
 Rated power of the entire fixture: 494 W  
 Power factor: 0.953F  
 Input Current: 2.42A 220V

### ● Source lifespan

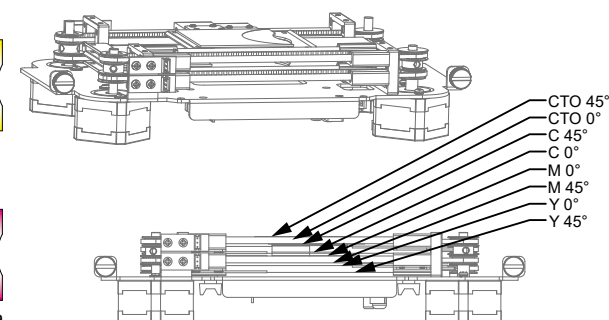
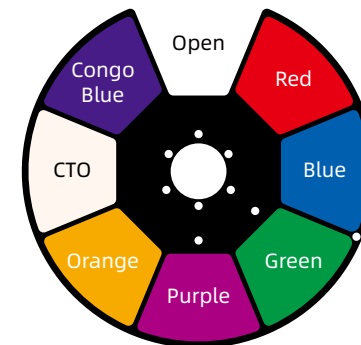
≥ 20000 hours

### ● Optical system

LED source: 380W CW LED  
 Beam angel: 7 ~ 50°  
 Output luminous flux: 15400 Lm

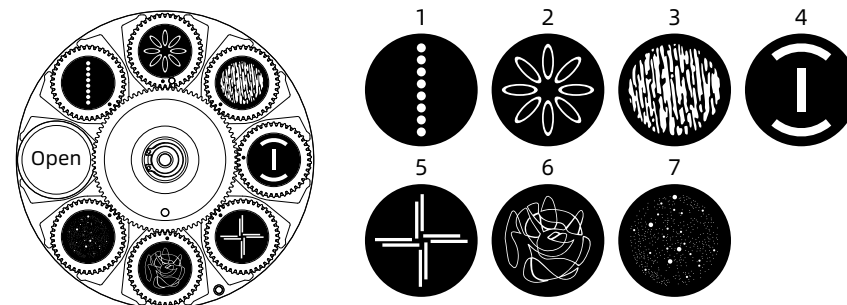
### ● Color system

CCT: 6500K  
 CRI: 72  
 Color wheel: 7+1  
 CMY+CTO



### ● Gobo system

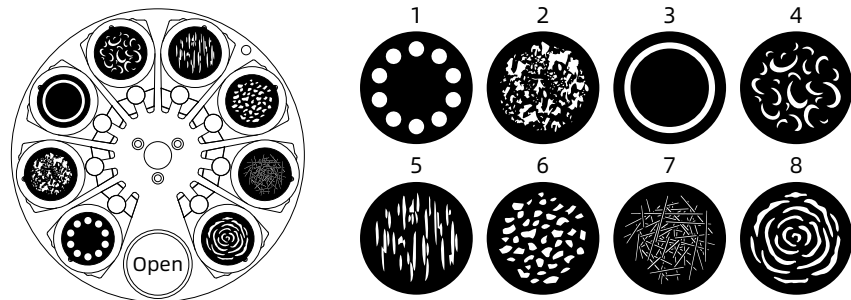
Rotation gobo: 7 + 1  
 Gobo outer diameter: 23 ±0.2 mm  
 Internal diameter: 19mm  
 Thickness: 1.1mm





## ● Gobo system

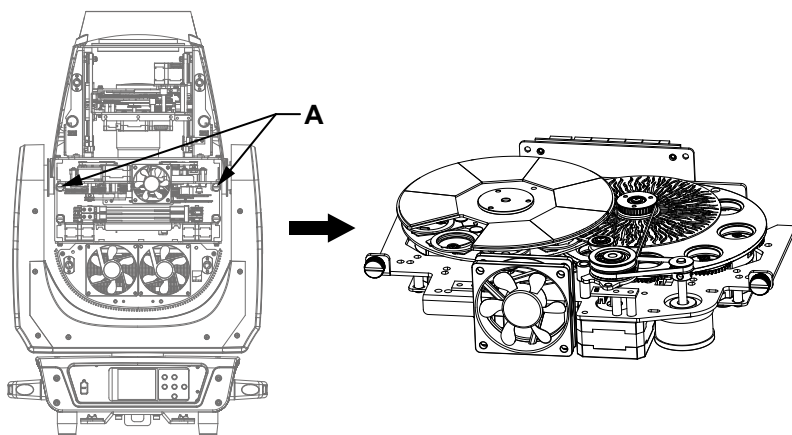
Fixed gobo: 8 + 1  
 Gobo outer diameter:  $23 \pm 0.2$  mm  
 Internal diameter: 19mm  
 Thickness: 1.1mm



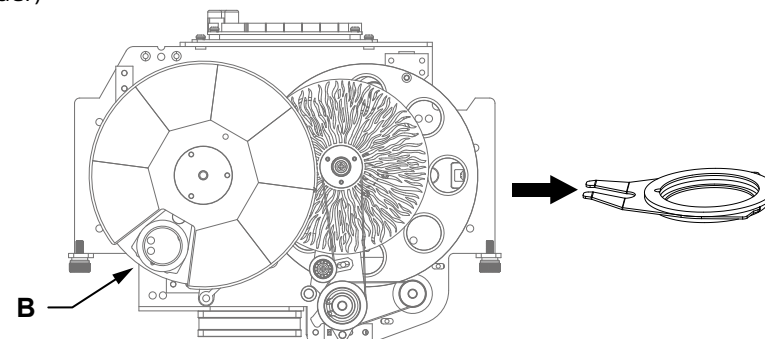
## Gobo replace

### 1) Fixed gobo wheel

a). Remove the two screws at location **A**, unplug the power and signal adapter cables, and extract the Gobo component;



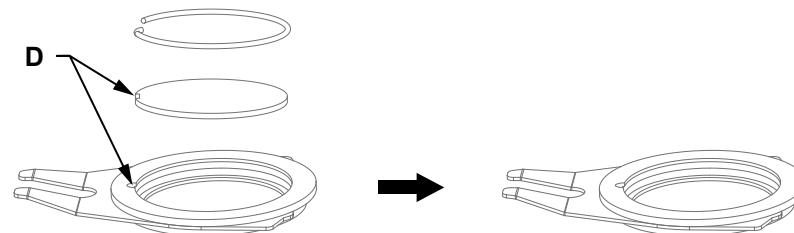
b). Turn the gap of the color wheel to position **B** to expose the fixed gobo wheel. Gently lift the wheel seat and pull out the gobo wheel holder;



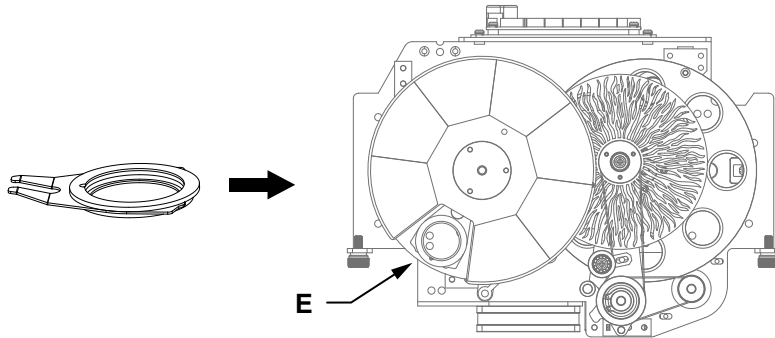
c). Use tweezers or other small grippers to remove the snap spring at point **C** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



d). When assembling the gobo, avoid touching it directly with your hands. As shown in **D**, align the notch of the gobo with the recess of the driven wheel component (the coating surface of the gobo should face the light source);



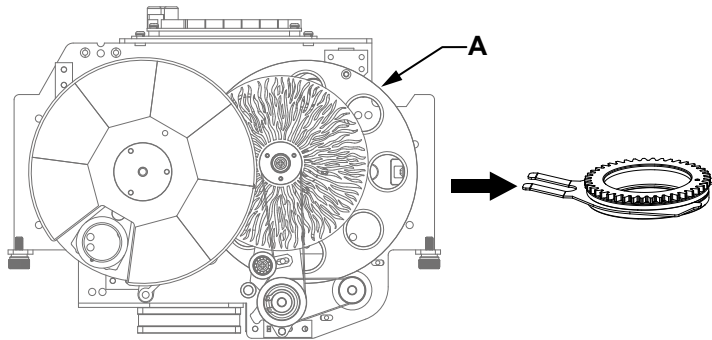
e). Insert the gobo wheel into the drive wheel assembly, as shown in **E**, and reinstall the gobo holder in the order it was removed;



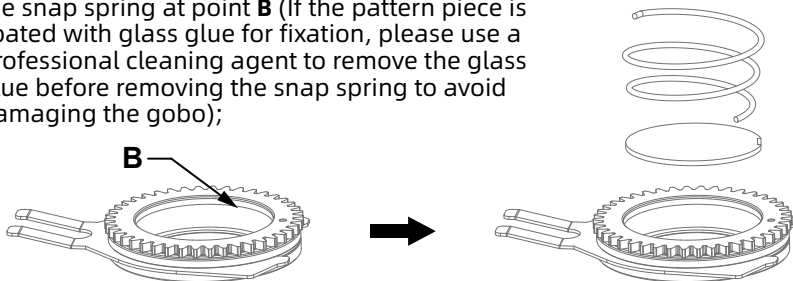
f). After installation, simply reinstall the gobo wheel component onto the light fixture.

## 2) Rotation gobo wheel

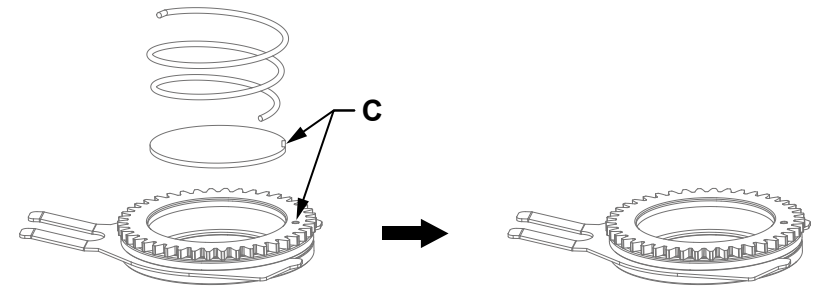
a). After removing the gobo component from the lighting fixture, you can start dismantling the gobo holder and replacing the gobo. Gently lift the driven wheel from the edge downwards at point **A** and slowly pull it out to remove a single gobo holder;



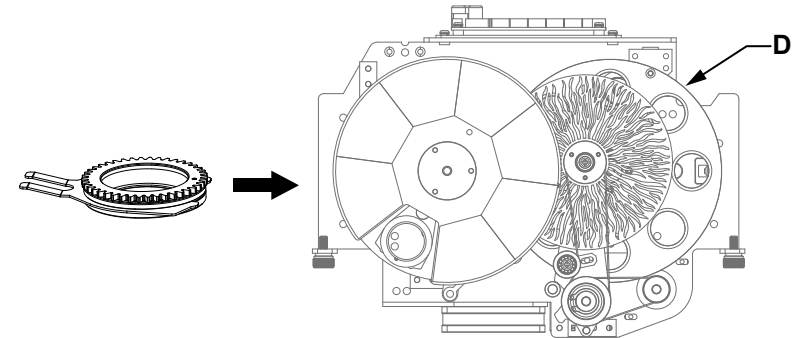
b). Use tweezers or other small grippers to remove the snap spring at point **B** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



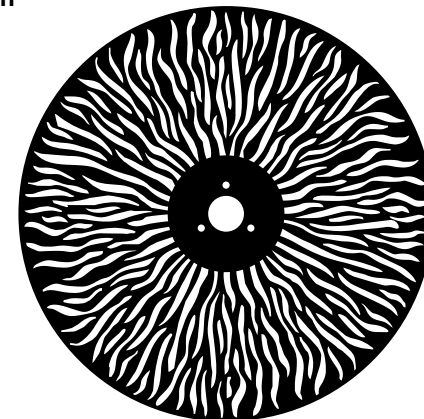
c). When assembling the gobo, avoid touching it directly with your hands. As shown in **C**, align the notch of the gobo with the recess of the driven wheel component (the coating surface of the gobo should face the light source);



d). Insert the gobo holder into the drive wheel assembly, as shown in **D**, and reinstall the gobo holder in the order it was removed; The positioning point of the gobo holder should be aligned with the positioning point of the driving wheel; After installation, simply reinstall the gobo wheel component onto the light fixture.

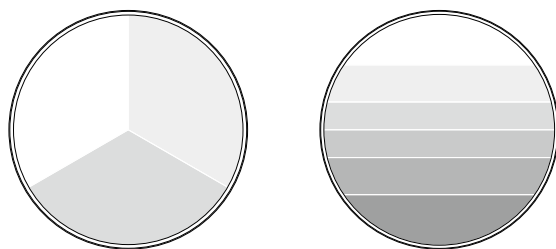


## ● Animation



## ● Prism system

3 prism+ 6 linear



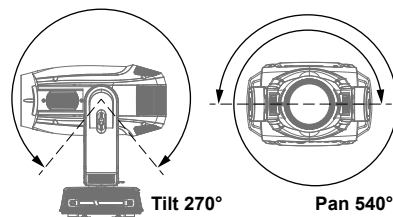
## ● Pan/Tilt

### Pan scan:

540° or 630° 8-bit/16bit resolution scanning

### Tilt scan:

270° 8-bit/16bit precision scanning



## ● Control and programming

Control channel: 24CH/29CH/34CH

Protocol: DMX512, RDM

Data connect: 3 or 5 pin signal in/out

## ● Illumination draw

7°	5	7	10	12
Lux	38540	20100	9755	6804
Distance(m)	0.61	0.86	1.22	1.47

50°	5	7	10	12
Lux	1387	789	421	299
Distance(m)	4.66	6.53	9.33	11.20

## ● Other effect function

Fast electronic strobe: 1~25Hz

Iris

Frost: 1

## ● Other features and functions

Weight: 23.5 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.

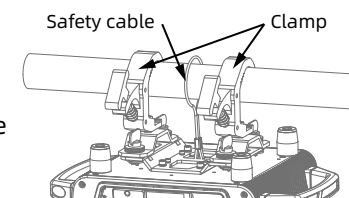
### 4.2 Equipment packaging

- 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

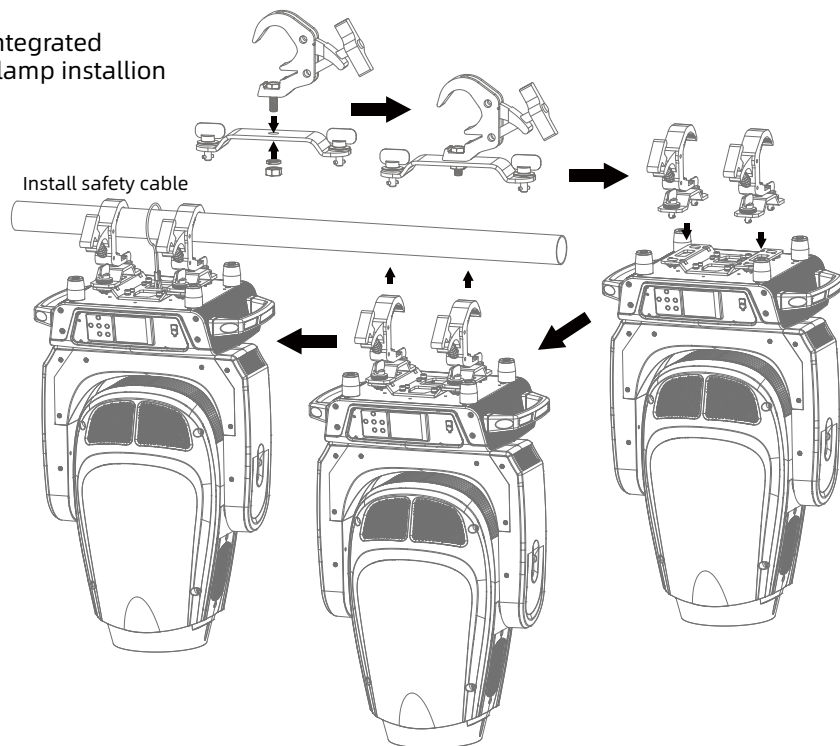
The lighting fixtures can be installed on the stage or on any direction of the truss, and the clamp can be quickly and easily locked onto the truss.



### Warning !

The lighting fixtures are divided into two versions: integrated light hook and normal. When using the integrated light hook version, the clamp is broken up and locked onto the truss. The normal version must use 2 clamps to secure the device and fasten it with a 1/4 rotation. Regardless of the version, one safety rope must be added and connected to the base hole, but be careful not to connect it to the handling handle.

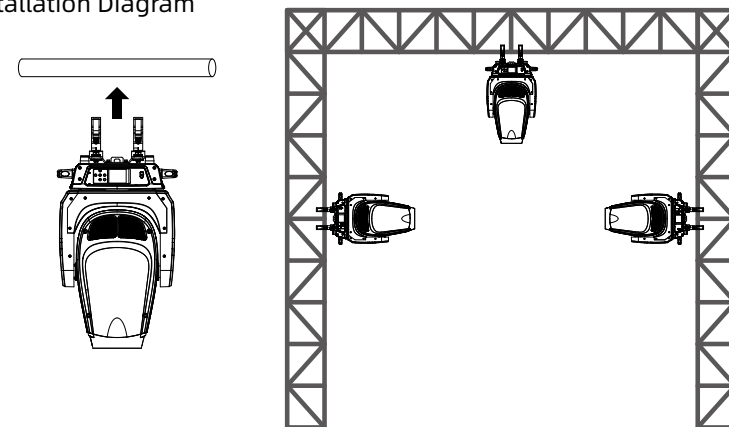
## Integrated clamp installation



## 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 quick lock clamp on the base of the lamp body. Insert the clamp horizontally into the mounting hole of the base, rotate it clockwise 1/4 turn to lock it, and install the second clamp using the same method (the shape of the clamp should be based on the actual product).

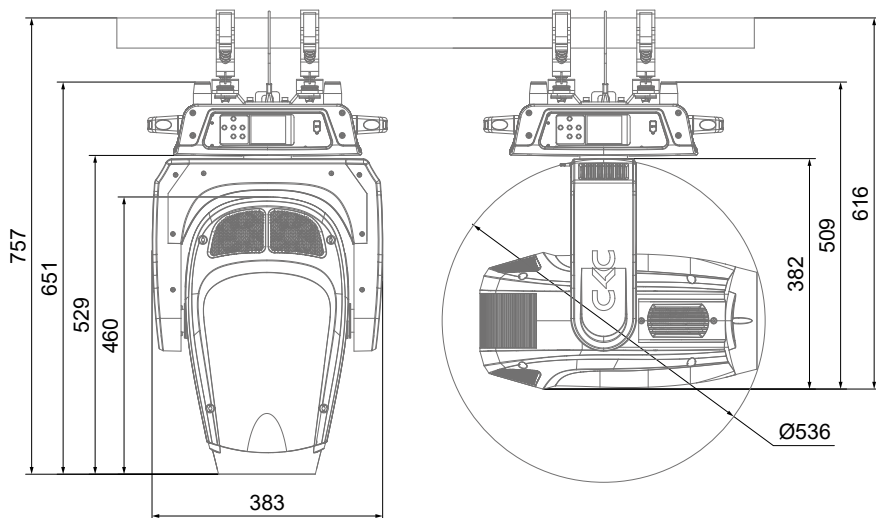
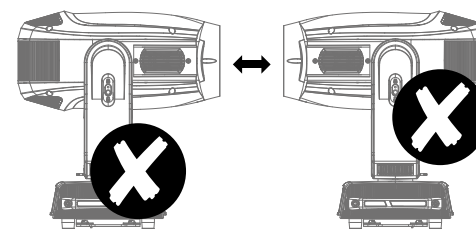
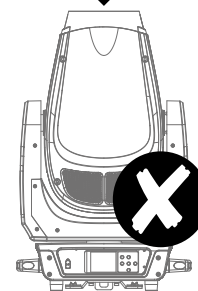
## 5.3 Hanging Installation Diagram



**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.

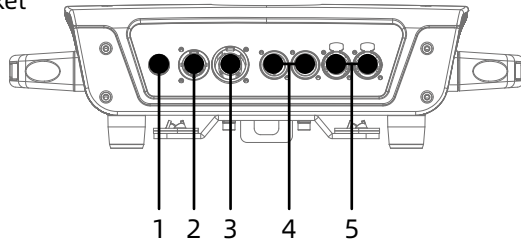
**When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams, Do not directly focus the beam of this device onto another lighting fixture.**



## 6. Power、Signal connect

### 6.1 Power and signal socket

- 1.Fuse holder
- 2.Power input
- 3.Power output
- 4.DMX input
- 5.DMX output



### 6.2 Power connect

#### Connection method:

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

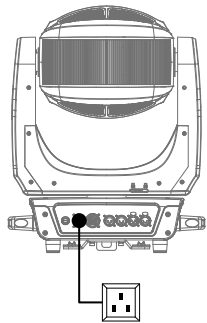
**E**(Ground wire) - yellow/green dual color line

**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.



Power In

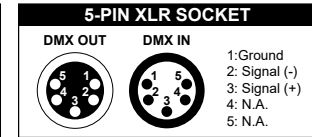
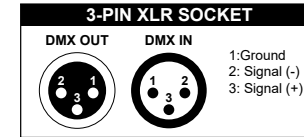
This product uses Powercon In/Out to connect power cords. Due to power limitations, a 2 square meter power cord can carry up to 4 products at 220V and 1 product at 110V.

### Warning !

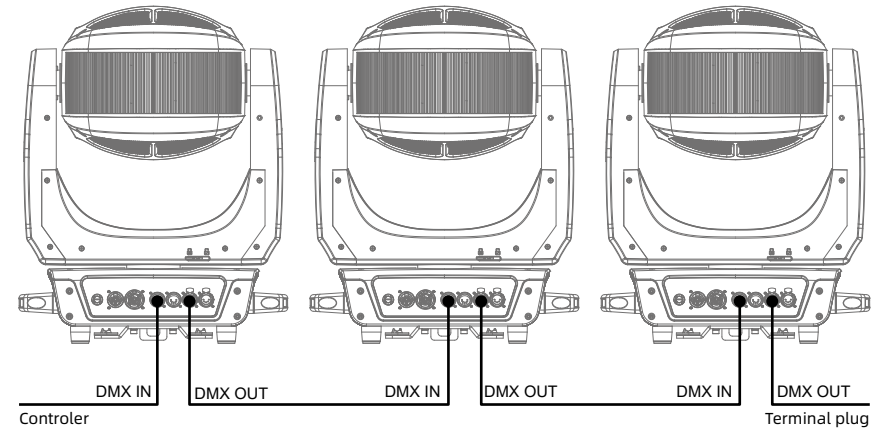
- Do not connect too many fixtures or overload a single power cord;
- Do not use power cords with damaged insulation layers, and do not place power cords on other wires;
- When the fixture is not in use or cleaned, please unplug the power cord; Do not forcefully unplug or drag the power cord directly.



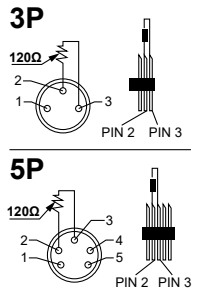
### 6.3 Signal connect



The lighting fixtures are equipped with standard DMX XLR input and output sockets. Please use DMX512 shielded twisted pair signal cables or Category 5 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.

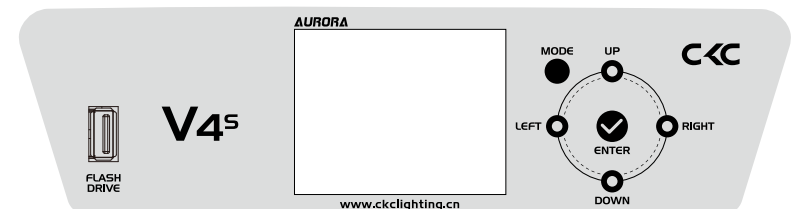


Connect a shielded twisted pair signal cable from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, until all the lamps are connected. Then install a terminal plug on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



## 7. Control panel

### 7.1 Panel Introduction



● Adopting a 2.8 "LCD display screen, the operation panel is equipped with a rechargeable battery, which can enter the menu to set address codes and make other settings without powering on;

● Press the MODE key to view or modify the lighting function settings, and press the UP, DOWN, LEFT, and RIGHT keys to select the function menu;

● Press the ENTER key to confirm your selected function menu, which will take you to the corresponding sub menu in the menu. Each menu item represents a specific function of the lighting fixture (as shown in the table below);

● Press the ENTER key to save your modifications or enter a submenu, and press the UP or DOWN key to modify values (increase or decrease values); Press the MODE key to return to the previous menu or exit.

● Press the MODE key to return to the previous menu or exit.

## 7.2、System menu

Note: The gray color block is the default setting value

Software Update Please Wait... Fixture Type Check Motor Reset			
SET	Dmx Presets	A001~AXXX	
	User Mode	29 Channels 24 Channels 34 Channels	
Function	Status	No DMX Mode P.Reverse T.Reverse Pan Degree Feedback Move.Spd Hibernation	Black/Hold/Auto ON/OFF ON/OFF 630/540 ON/OFF Speed 1~4 OFF, 01M~99M, 15M
	Dim Mode	Standard Stage TV Architectural Theatre	
	Temp. C/F	Celsius Fahrenheit	
	Curve	Linear/Square/Inv-Square/S-Curve	
	Frequency	900/1000/1100/1200/1300/1400/1500/2500/4000/ 5000/10K/15K/20K/25K	
	Power Mode	Normal/Theatre	

Fan Set	Head Fan	Auto High Low
	Base Fan	50% 75% 90%
LCD.Set	Backlight Flip Display Key Lock DispFlash	02~60m <05m> OFF/ON OFF/ON OFF/ON
Disp.Set	Channel Value Slave Set Auto.Prog	PAN..... Slave1,Slave2,Slave3 Master / Alone
DFSE	OFF/ON	
USB Update	OFF/ON	
Test	Reset.M	All Pan&Tilt CMY Gobo Other
	Test.Chan	PAN .....
	Panel.Ctrl.	PAN =XXX :
	Calibrate	-Password=050- PAN :
Info	Time.Info	Current (Hours) Total Time (Hours) Last Time (Hours) Timer PIN (Password=50) Clear Last (ON/OFF)
	Temp. Info	Base Temp. Head Temp.
	Fan Speed	Base fan: xxxxRPM CoolFan1: xxxxRPM :
	Error. Info	Pan,Tilt.....
	Model. Info	CKC-V4S
	Software.V	1U V1.0.2 2U V1.0.2 3U V1.0.2 :



## 8. DMX channel table:

Mode/ Channel			Value	Function
St	Ba	Ex		
1	1	1	0-255	<b>PAN Movement 8bit</b> Pan Movement By 630/540
2		2	0-255	<b>Pan Fine 16bit</b> Fine control of Pan movement
3	2	3	0-255	<b>TILT Movement 8bit</b> Tilt Movement
4		4	0-255	<b>Tilt Fine 16bit</b> Fine control of Tilt movement
5	3	5		<b>Speed pan/tilt movement</b>
			0-225	max to min speed
			226-235	blackout by movement
			236-245	no function
	4	6	0-255	<b>Cyan/Red 8bit</b> Colour saturation control - coarse(0-100%)
			7	<b>Cyan/Red 16bit</b> Colour saturation control - fine
7	5	8	0-255	<b>Magenta/Green 8bit</b> Colour saturation control - coarse(0-100%)
			9	<b>Magenta /Green 16bit</b> Colour saturation control - fine
8	6	10	0-255	<b>Yellow/Blue 8bit</b> Colour saturation control - coarse(0-100%)
			11	<b>Yellow / Blue 16bit</b> Colour saturation control - fine
9	7	12	0-255	<b>CTO 8bit</b> CTO saturation control - coarse(0-100%)
			13	<b>CTO 16bit</b> CTO saturation control - fine
				<b>Rotating gobos, cont. rotation</b>
			0~9	Open/Hole
			10~19	Gobo 1
			20~29	Gobo 2
			30~39	Gobo 3
			40~49	Gobo 4
			50~59	Gobo 5
			60~69	Gobo 6
			70~79	Gobo 7
			80~94	Gobo 1 shake, from slow to fast

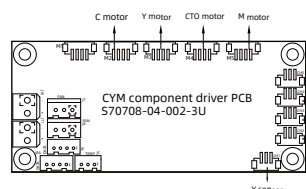
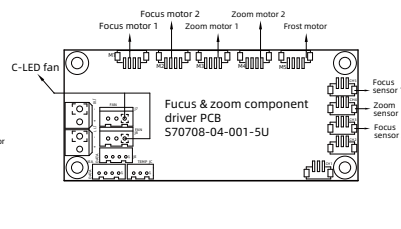
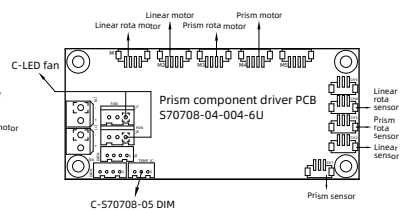
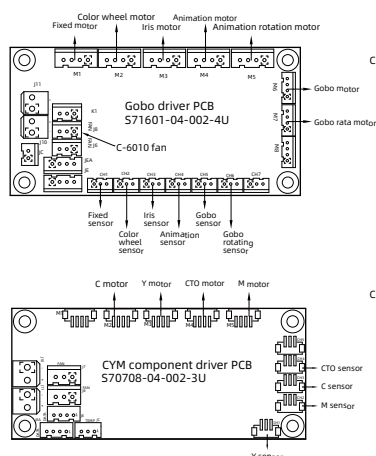
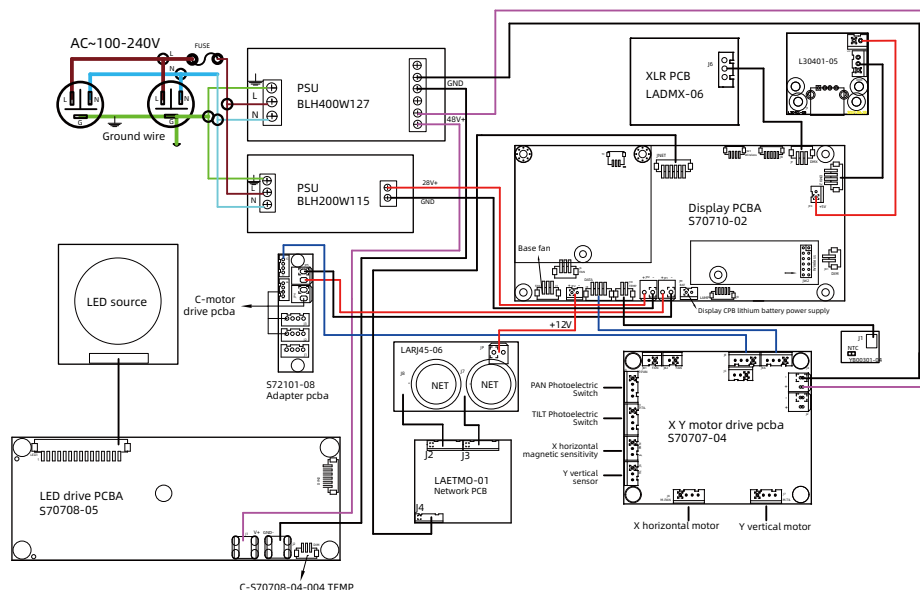
10	8	14	95~109	Gobo 2 shake, from slow to fast
			110~124	Gobo 3 shake, from slow to fast
			125~139	Gobo 4 shake, from slow to fast
			140~154	Gobo 5 shake, from slow to fast
			155~169	Gobo 6 shake, from slow to fast
			170~189	Gobo 7 shake, from slow to fast
			190~221	Rotating gobo wheel clockwise from fast to slow
			222~223	No rotation
11	9	15		<b>Rotating gobo index, rotating gobo rotation</b>
			0-127	GoboRot indexing
			128-189	GoboRot clockwise from fast to slow
			190-193	No rotation
12	10	16	194-255	GoboRot counter-clockwise from slow to fast
				<b>Color Wheel:</b>
			0~004	Open / white
			005~017	Split Open -Colour1
			018~030	Colour 1
			031~043	Split Colour 1-Colour2
			044~056	Colour 2
			057~069	Split Colour2 -Colour3
			070~082	Colour 3
			083~095	Split Colour3 -Colour4
			096~108	Colour 4
			109~121	Split Colour4 -Colour5
			122~134	Colour 5
			135~147	Split Colour5 -Colour6
			148~160	Colour 6
			161~173	Split Colour6 - Colour7
			174~186	Colour 7
			187~199	Split Colour7 -Colour8
			200~226	Colour wheel clockwise from fast to slow
			227~228	No rotation
			229~255	Colour wheel counter-clockwise from slow to fast
				<b>Fixed Gobos Wheel</b>
			0~5	Open
			6~14	FixedGobo1
			15~23	FixedGobo 2
			24~32	FixedGobo 3
			33~41	FixedGobo 4
			42~50	FixedGobo 5
			51~59	FixedGobo 6
			60~68	FixedGobo 7

13	11	17	69~77	FixedGobo 8
			78~91	FixedGobo 1 shake, from slow to fast
			92~105	FixedGobo 2 shake, from slow to fast
			106~119	FixedGobo 3 shake, from slow to fast
			120~133	FixedGobo 4 shake, from slow to fast
			134~147	FixedGobo 5 shake, from slow to fast
			148~161	FixedGobo 6 shake, from slow to fast
			162~175	FixedGobo 7 shake, from slow to fast
			176~189	FixedGobo 8 shake, from slow to fast
			190~221	Rotating gobo wheel clockwise from fast to slow
			222~223	No rotation
			224~255	Rotating gobo wheel counter-clockwise from fast to slow
14	12	18		<b>Animation1:</b>
			0-127	No function
			128-189	Forwards Animation1 rotation from fast to slow
			190-193	No rotation
			194-255	Backwards Animation1 rotation from slow to fast
15	13	19		<b>Prism1:</b>
			0-31	Open
			32-255	5 liner prism
16	14	20		<b>Rotating prism1 index, rotating prism 1 rotation :</b>
			0-127	Prism1 indexing
			128-189	Forwards prism1 rotation from fast to slow
			190-193	No rotation
			194-255	Backwards prism1 rotation from slow to fast
17	15	21		<b>Prism2:</b>
			0-31	Open
			32-255	3 facet prism 8 facet prism
18	16	22		<b>Rotating prism2 index, rotating prism2 rotation :</b>
			0-127	Prism2 indexing
			128-189	Forwards prism2 rotation from fast to slow
			190-193	No rotation
			194-255	Backwards prism2 rotation from slow to fast
19	17	23		<b>Frost:</b>
			0-225	Frost:0 - 100%(Linear)
			226-235	Pulse opening effect from fast to slow
			236-245	Pulse closing effect from slow to fast
			246-255	Frost at 100%
20	18	24		<b>Iris:</b>
			0-225	Iris:0 - 100%(Linear)
			226-235	Pulse opening effect from fast to slow
			236-245	Pulse closing effect from slow to fast
			246-255	Iris random effect from slow to fast 100%

		25	0-255	<b>Iris-fine</b> Fine iris movement
21	19	26	0-255	<b>Zoom</b> Zoom from max. to min.beam angle
22		27	0-255	<b>Zoom-fine</b> Fine zooming
23	20	28	0-255	<b>Focus</b> Continuous adjustment from far to near
24		29	0-255	<b>Focus-fine</b> Fine focusing
25	21	30		<b>Shutter, strobe</b>
			0-31	No function (shutter closed)
			32-63	No action,shutter open
			64-95	Slow to fast strobe
			96-127	No action,shutter open
			128-159	Slow to fast pulse effect
			160-191	No action,shutter open
			192-223	Slow to fast random strobe
26	22	31	0-255	<b>Dimmer (intensity)</b> Intensity 0 to 100%
27		32	0-255	<b>Dimmer Fine</b> Intensity 0 to 100%
28	23	33		<b>Dim Modes</b>
			0-20	Standard
			21-40	Stage
			41-60	TV
			61-80	Architectural
			81-100	Theater
			101-255	Default to Unit Setting
29	24	34		<b>Lamp on/off, reset, internal programs</b>
			0-79	No function
			80-84	All motor reset
			85-87	Pan/Tilt motor reset
			88-90	CMY motor reset
			91-93	Gobo motor reset
			94-96	Other motor reset
			97-255	No function



## 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
	Damaged cooling fan or abnormal wind speed	Replace
	Check the power output of the fan	Check/ Replace
	The temperature control switch is damaged	Replace
Gobo wheel misalignment or abnormal control	Poor contact of motor wire	Reconnect
	Corresponding motor drive board malfunction	Refixed
	Misalignment or magnetic damage between the magnetic tube and the positioning magnet	Adjust/Replace
	Motor malfunction	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
Head or base fan stops rotating	Check if the fan leads are installed properly or disconnected	Re connect
	Check if the fan is damaged	Replace
	Check if there are any other interfering objects within the operating range of the fan	Adjust
 <b>Attention!</b> The above analysis is for abnormal reference only. Non professionals are not allowed to disassemble and repair the machine		

