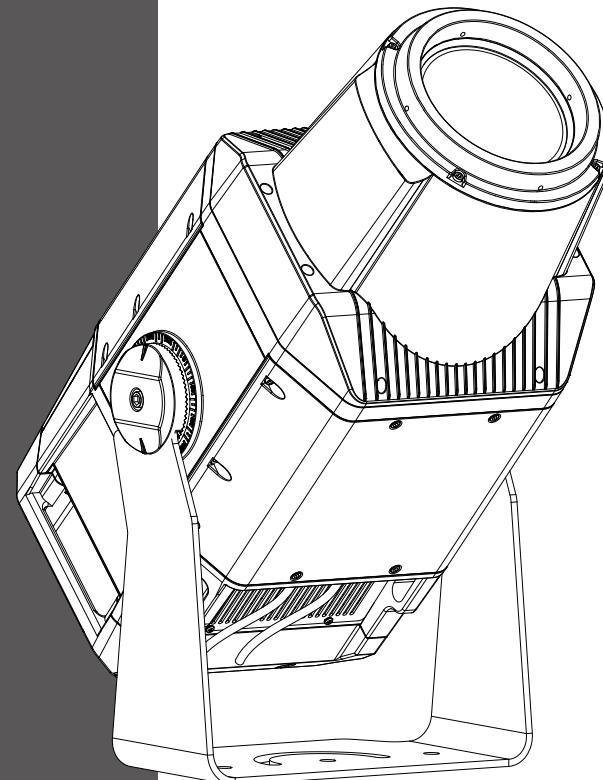


CKC

# GOBO PROJECTOR 500FC



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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 3m.



- 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.



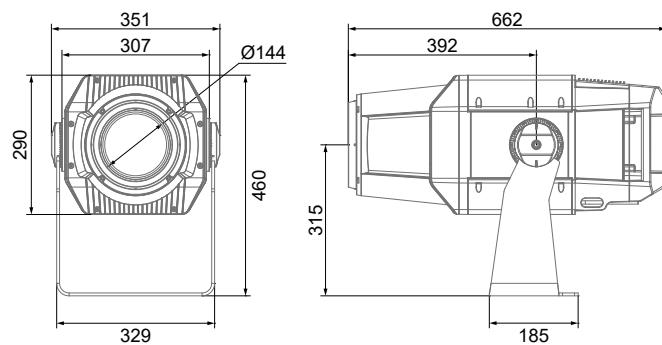
- The lighting fixtures work normally at -20 °C to 45 °C . When replacing any components or accessories in the equipment, ensure that the power is disconnected to prevent electric shock and injury;
- The maximum surface temperature of the lamp during operation can reach 65 °C , please do not touch it 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

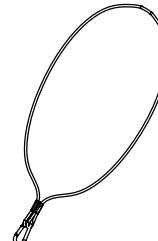
### 2.1 Exterior dimensions of lighting fixtures



351 × 662 × 460 mm

### 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: 705 W

Power factor: 0.99F

Input Current: 3.56A 220V

### ● Source lifespan

>20000 hours

### ● Color system

CCT: 1800 ~ 10000 K

CRI: 90

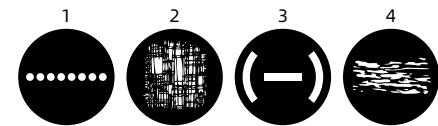
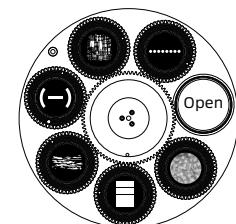
### ● Gobo system

Gobo outer diameter: 30 <sup>+0.2</sup> mm

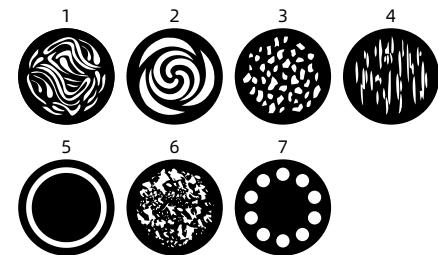
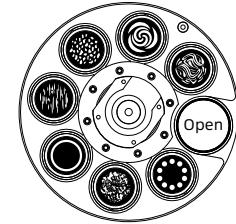
Internal diameter: 25mm

Thickness: 1.1mm

Rotation gobo wheel



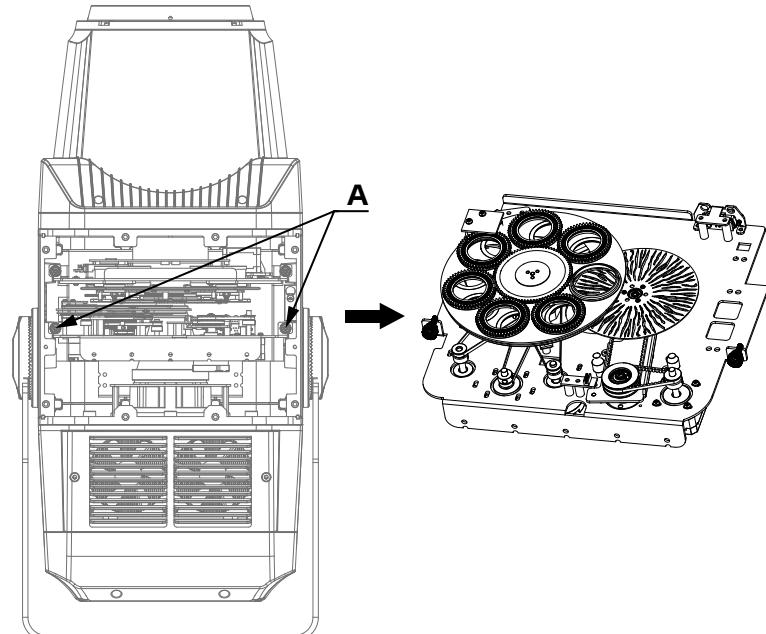
Fixed gobo wheel



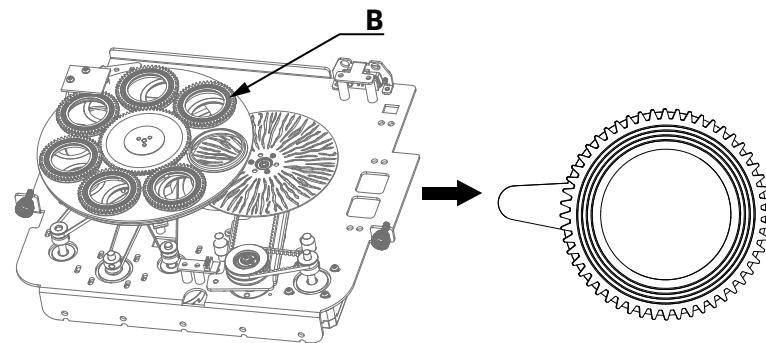
### Gobo replace

#### 1) Rotation gobo wheel

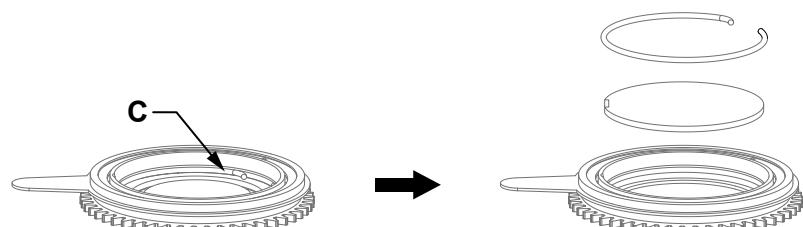
a). Remove the two screws at location A, unplug the power and signal adaptercables, and extract the Gobo component;



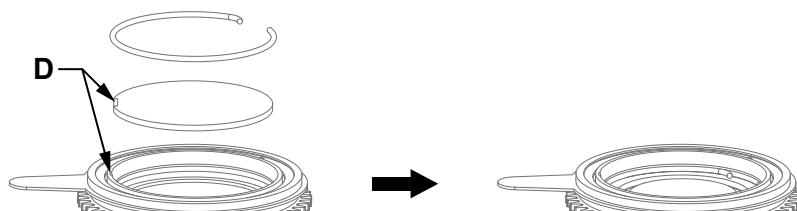
b). As shown in **B**, gently lift the driven wheel from the edge upwards from the front of the pattern plate and slowly pull it out to remove a single pattern seat;



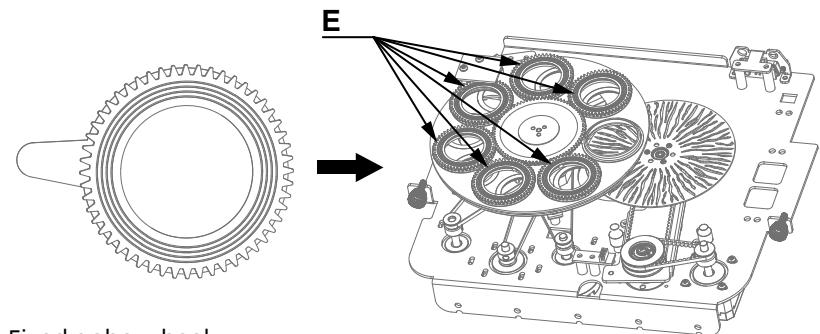
c). Use tweezers or other small grippers to remove the snap spring at point **C** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



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);

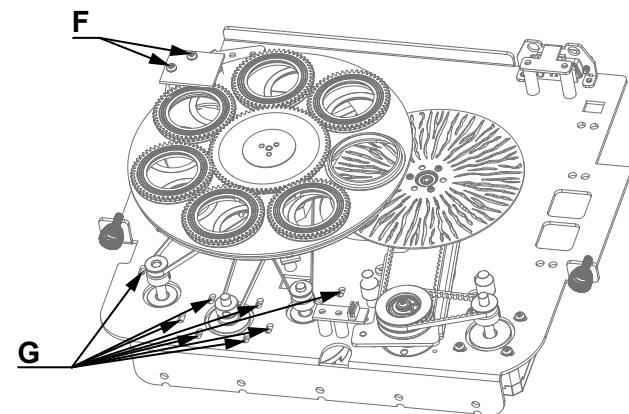


e). Insert the gobo holder into the drive wheel assembly, as shown in **E**, and reinstall the gobo holder in the order it was removed; The positioning point of the gobo holder should be aligned with the positioning point of the driving wheel; After installation, simply reinstall the gobo wheel component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

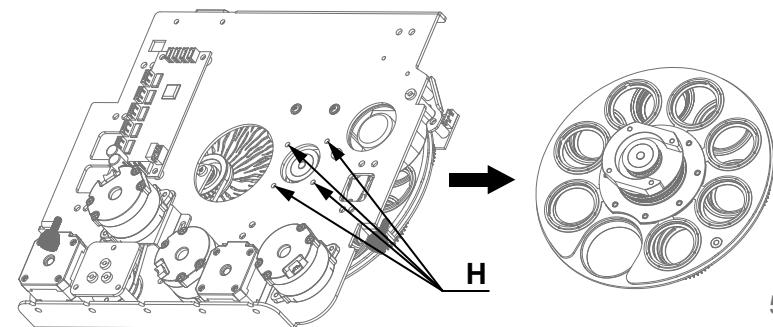


## 2) Fixed gobo wheel

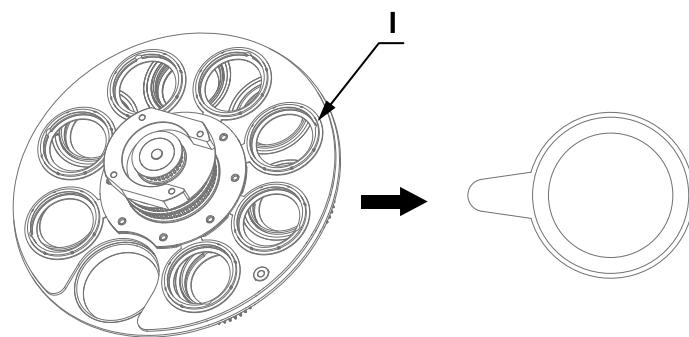
a). Unscrew the 2 screws on the front **F** of the gobo wheel component and remove the magnetic sensing plate; Loosen the 8 screws at point **G** and loosen the Gobo self rotating belt (to facilitate the next step of removing the Gobo wheel component);



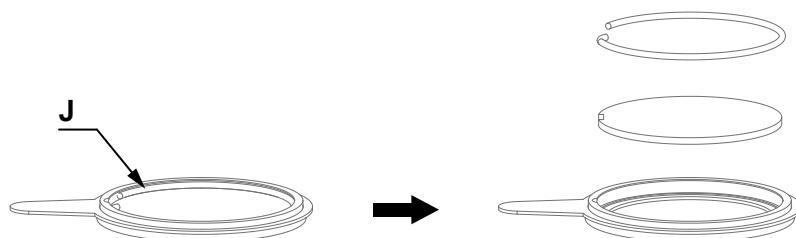
b). Reverse the components and unscrew the 4 screws at **H** to remove the gobo wheel component;



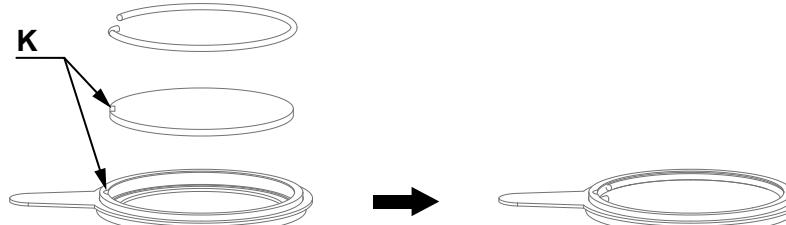
c). As shown in **I**, gently lift the gobo holder from the edge of the fixed gobo wheel and slowly pull it out to remove a single gobo holder;



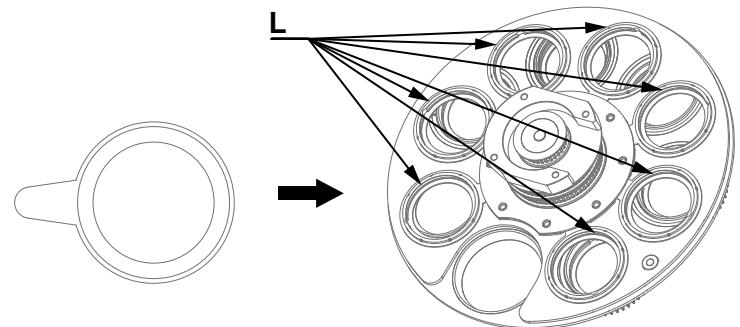
d). Use tweezers or other small grippers to remove the snap spring at point **J** (if the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



e). When assembling the gobo, avoid touching it directly with your hands. As shown in **K**, 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);



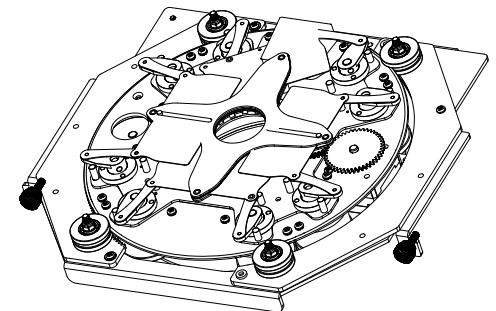
f). Insert the gobo wheel into the drive wheel assembly, as shown in **L**, and reinstall the gobo holder in the order it was removed;



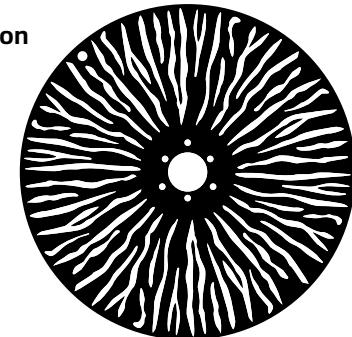
g). After installation, simply reinstall the gobo wheel component onto the light fixture.

#### ● Framing system

4 gratings achieve fast and smooth cutting, and the cutting direction and angle of each grating can be controlled separately. The single grating can achieve complete light closure, and the entire frame module can rotate  $\pm 60^\circ$

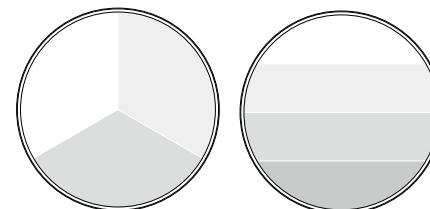


#### ● Animation



#### ● Prism system

3 prism+ 4 linear



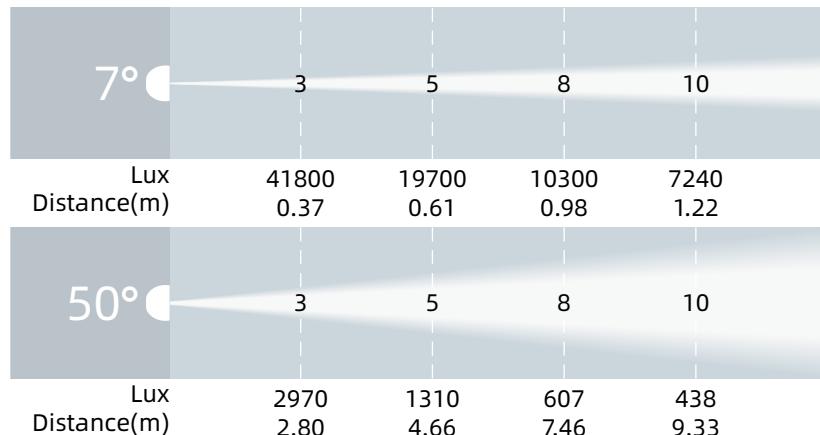
### ● Optical system

Source: 480W RGBAL LED  
Beam angel: 7 ~ 50°  
Output luminous flux: 15000 Lm

### ● Control and programming

Control channel: 32CH/34CH/49CH/53CH  
Protocol: DMX512, RDM  
Data connect: 3 pin signal in/out

### ● Illumination draw



### ● Other effect function

Fast electronic strobe: 1~25Hz  
LED refresh frequency: 900Hz-25KHz

Frost: 1  
Iris

### ● Other features and functions

Weight: 33.5 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.

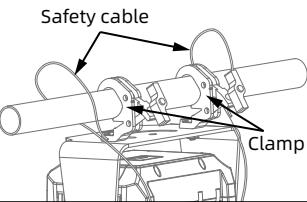
### 4.2 Equipment packaging

Disconnect the power supply before packaging the lighting fixtures to allow them to cool completely.

## 5. Installation Requirements Explanation

### 5.1 Clamp install

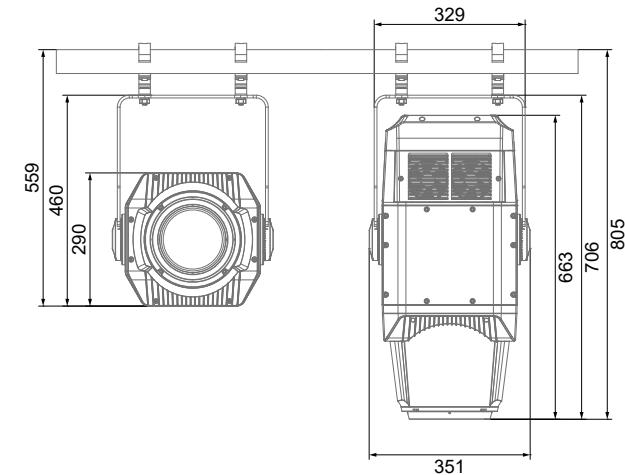
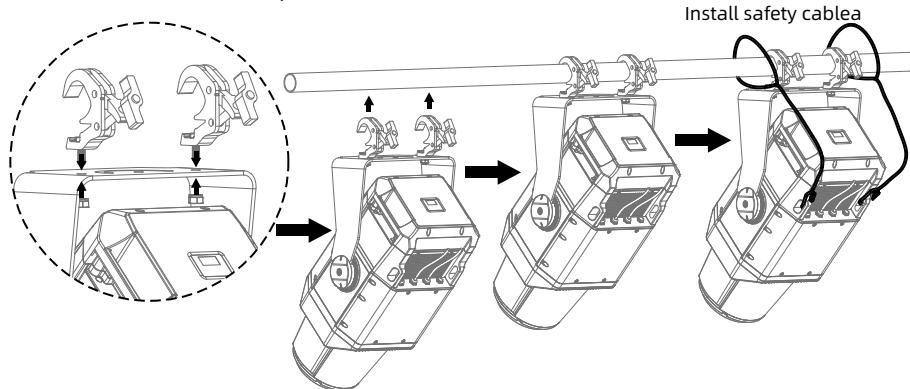
The lighting fixtures can be installed on the stage or on any direction of the truss, and the clamp can be quickly and easily locked onto the truss.



### Waining !

The lighting fixture must be fixed with 2 clamp device, and an additional safety rope must be added to connect it to the safety hook. Be careful not to connect it to the handle.

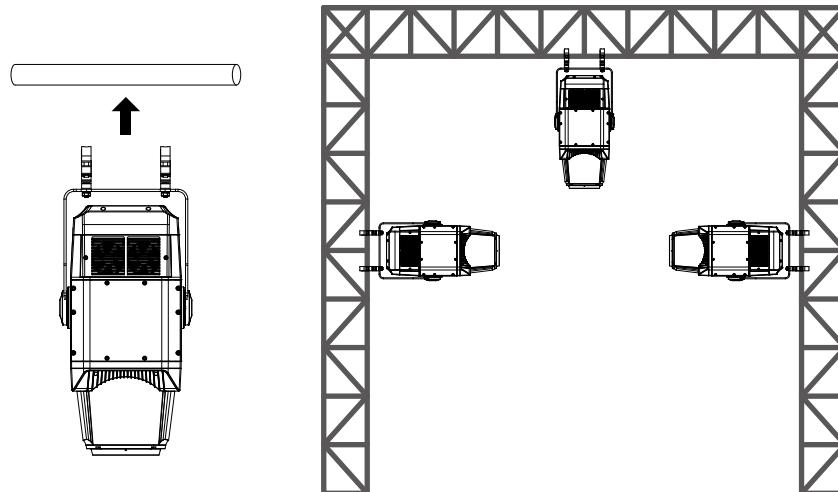
### Quick lock and clamp install



## 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).

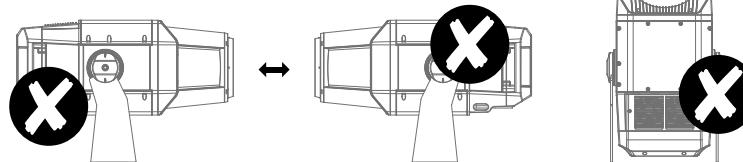
## 5.3、Hanging Installation Diagram



**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.

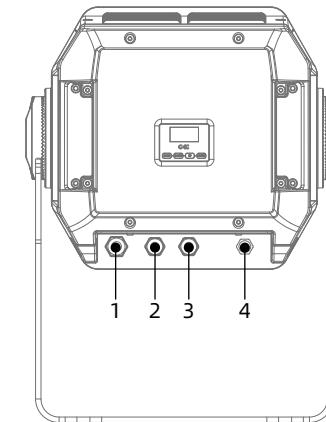
**When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams,Do not directly focus the beam of this device onto another lighting fixture.**



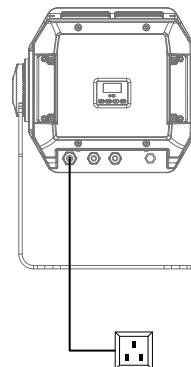
## 6. Power、Signal connect

### 6.1 Power and signal socket

- 1、Power Input
- 2、DMX Input
- 3、DMX Output
- 4、Breathable valve



### 6.2 Power connect



Power In

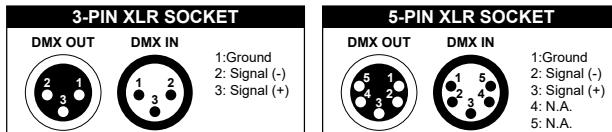


This product uses Powercon In/Out to connect power cords. Due to power limitations, a 2-square 220V power cord can carry up to 1 products.

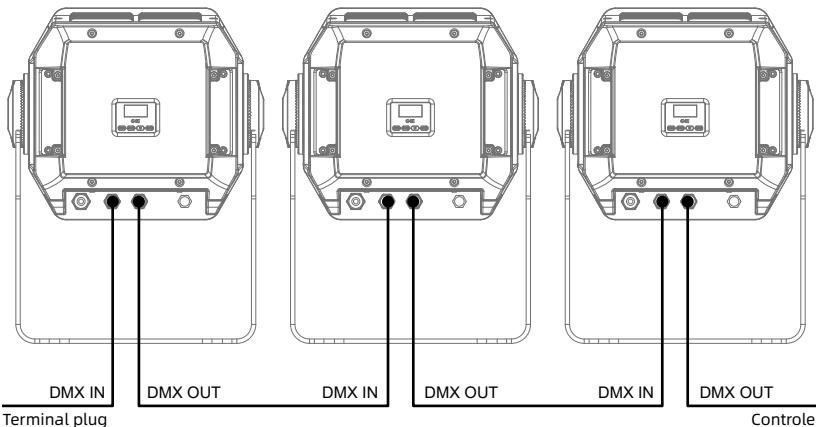
### Waining !

- 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.

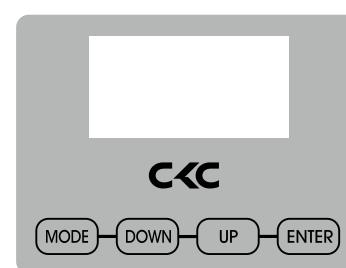


Connect a shielded twisted pair signal cable from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3/5 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. Control panel

#### 7.1 Panel Introduction

- Adopting a LCD display screen;
- Press the MODE key to view or modify the lighting function settings, and press the UP, DOWN 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...		
CKC		
Gobo Projector 500FC		
Head Temp		
xxxF/xxxC		
Motor Reset		
Please Wait..		
<b>Menu Address</b>	Address 001	001-xxx
<b>Menu User Mode</b>	Standard(34CH) Extend (53CH) CMY Standard(32CH) CMY Extend (49CH)	
<b>Menu Function</b>	Status	Lost Dmx Hibernation
	Master	ON / OFF
	Slave	ON / OFF
	Fan Settings	Auto High Low
	Dim Modes	Standard Stage TV Architectural Theatre
	Dim Curves	Linear Square Square Inverse S-Curve
	Frequency	900/1000/1100/1200/1300/1400/1500/2500/4000/ 5000/10K/15K/20K/25K
	DTW Switch	ON/OFF
	Reset Motors	Reset All Motors Gobo Reset Focus Reset Other Reset
		YES / NO

LCD Settings	Backlight	30S/01M~10M /OFF
	Key Lock	ON/OFF/ON1
	Flip Display	ON/OFF
	DispFlash	ON/OFF
Calibration (Password=50)	Red 000-255	
	Green 000-255	
Menu Manual Control	Blue 000-255	
	...	
	DFSE	ON/OFF
	Red Green Blue ... Control	000-255 000-255 000-255 ... 000-255
Menu Infor- mation	Time.Info	Current Time(Hours)
		Total Time(Hours)
		Last Time(Hours)
		Timer PIN (ON/OFF)
		Clear Last>Password=050)
		Clear Total>Password=060)
Fan Speed	Temp. Info	LED Temp
		xxxF/xxxC
		Base Temp
		xxxF/xxxC
	Cool 1: xxxx RPM	
DMX Values	Cool 2: xxxx RPM	
	Cool 3: xxxx RPM	
	Cool 4: xxxx RPM	
	Blade : xxxx RPM	
	Gobo : xxxx RPM	
Product ID's	Base 1: xxxx RPM	
	Base 2: xxxx RPM	
	Red	
	Green	
	...	
Error. Info	Control	
	RDM UID	
	NONE/GoboRot/FixedGobo...	
	Model. Info	
Software.V	Gobo Projector 500FC	
	1U:V1.0.1	
	2U:V1.0.1	
	3U:V1.0.1	
	4U:V1.0.1	
Program	5U:V1.0.1	
	6U:V1.0.1	
	Play Scene/ Loop	
	User Scene 1	
Edit User Scene	User Scene 2	
	User Scene 1	Edit Step1...15
	User Scene 2	Edit Step 1...15   Hold + Fade   0.1s-20min
Clear Program	User Scene 1	
	Clear Step 1...15 + Clear Scene	
Clear Program	User Scene 2	
	Clear Step 1...15 + Clear Scene	
Clear Program	Clear All	

## 8. DMX channel table:

34CH	53CH	32CH	49CH	Value	Function
		1	1		<b>Cyan:</b>
				0-255	Cyan (0-100% Cyan)
		2			<b>Cyan Fine:</b>
				0-255	Cyan Fine
		2	3		<b>Magenta:</b>
				0-255	Magenta (0-100% Magenta)
		4			<b>Magenta Fine:</b>
				0-255	Magenta Fine
		3	5		<b>Yellow:</b>
				0-255	Yellow (0-100% Yellow)
		6			<b>Yellow Fine:</b>
				0-255	Yellow Fine
1	1				<b>Red:</b>
				0-255	Red (0-100% Red)
	2				<b>Red Fine:</b>
				0-255	Red Fine
2	3				<b>Green:</b>
				0-255	Green (0-100% Green)
	4				<b>Green Fine:</b>
				0-255	Green Fine
3	5				<b>Blue:</b>
				0-255	Blue (0-100% Blue)
	6				<b>Blue Fine:</b>
				0-255	Blue Fine
4	7				<b>Amber:</b>
				0-255	Amber(0-100% Amber)
	8				<b>Amber Fine:</b>
				0-255	Amber Fine
5	9				<b>Lime:</b>
				0-255	Lime(0-100% Lime)
	10				<b>Lime Fine:</b>
				0-255	Lime Fine
6	11	4	7		<b>CTO:</b>
				0-17	Open
				18 -100	CTO 1800K - 10000K
				101-255	10000K
					<b>Color:</b>
				0	Open
				1-60	Virtual Swatch Book (see separate sheet)
				61-179	Open
					<b>Color Scroll</b>

7	12	5	8	180-201	Clockwise, fast → slow
				202-207	Stop
				208-229	Counter-clockwise, slow → fast
				230-234	Open
				<b>Random Slots</b>	
				235-239	Fast
				240-244	Medium
				245-249	Slow
				250-255	Open
				<b>Green Shift:</b>	
			13	0	Idle
			9	1-127	Full Minus Green to Neutral
				128	Neutral White
				129-255	Neutral to Full Plus Green
				<b>Rotating Gobo</b>	
				0-9	Open
				10-19	Rot. gobo 1
				20-29	Rot. gobo 2
				30-39	Rot. gobo 3
				40-49	Rot. gobo 4
				50-59	Rot. gobo 5
				60-69	Rot. gobo 6
8	14	6	10	70-89	Gobo 1 shake slow to fast
				90-109	Gobo 2 shake slow to fast
				110-129	Gobo 3 shake slow to fast
				130-149	Gobo 4 shake slow to fast
				150-169	Gobo 5 shake slow to fast
				170-189	Gobo 6 shake slow to fast
				190-221	Scroll CW fast to slow
				222-223	Stop
				224-255	Scroll CCW slow to fast
				<b>Rotating Gobo Index, Rotation</b>	
9	15	7	11	0-127	Gobo indexing
				128-189	Clockwise gobo scroll from fast to slow
				190-193	No rotation
				194-255	Counter-clockwise gobo scroll from slow to fast
10	16	8	12	<b>Rotating gobo fine indexing:</b>	
				0-255	Fine indexing
				<b>Fixed gobos1</b>	
				0-9	Open
				10-19	Gobo 1
				20-29	Gobo 2
				30-39	Gobo 3
				40-49	Gobo 4

11	17	9	13	50-59	Gobo 5
				60-69	Gobo 6
				70-77	Gobo 7
				78-93	Gobo 1 shake slow to fast
				94-109	Gobo 2 shake slow to fast
				110-125	Gobo 3 shake slow to fast
				126-141	Gobo 4 shake slow to fast
				142-157	Gobo 5 shake slow to fast
				158-173	Gobo 6 shake slow to fast
				174-189	Gobo 7 shake slow to fast
				190-221	Clockwise gobo scroll from fast to slow
				222-223	No rotation
				224-255	Counter-clockwise gobo scroll from slow to fast
				<b>Prism</b>	
12	18	10	14	0-5	Open
				6-127	Prism1
				128-255	Prism2
				<b>Rotating prism index, rotating gobo rotation:</b>	
13	19	11	15	0-127	Prism indexing
				128-189	Clockwise prism rotation from fast to slow
				190-193	No rotation
				194-255	Counter-clockwise prism rotation from slow to fast
				<b>Rotating prism indexing Fine :</b>	
14	20	12	16	0-255	Fine indexing
				<b>Focus:</b>	
15	21	13	17	0-255	Continuous adjustment from near to far
				<b>Focus Fine:</b>	
16	22	14	18	0-255	Continuous adjustment Fine
				<b>Zoom:</b>	
17	23	15	19	0-255	Zoom adjustment from small to big
				<b>Zoom Fine:</b>	
18	24	16	20	0-255	Zoom adjustment Fine
				<b>Shutter, strobe:</b>	
				0-31	Shutter closed
				32-63	No function (shutter open)
				64-95	Strobe effect slow to fast
				96-127	No function (shutter open)
				128-159	Pulse-effect in sequences
				160-191	No function (shutter open)
				192-223	Random strobe effect slow to fast
				224-255	No function (shutter open)
				<b>Dimmer:</b>	
20	26	18	22	0-255	Intensity 0 to 100%

21	27	19	23	<b>Dimmer Fine:</b>
				0-255 Dimmer fine
				<b>Dim Modes</b>
			24	0-20 Standard
				21-40 Stage
				41-60 TV
				61-80 Architectural
				81-100 Theatre
				101-255 Default to Unit Setting
				<b>Iris:</b>
22	29	20	25	0-191 Max. diameter to Min.diameter
				192-223 Pulse opening fast to slow
				224-255 Pulse closing slow to fast
	30		26	<b>Iris Fine:</b>
				0-255 Iris Fine
23	31	21	27	<b>Frost</b>
				0-255 Open to Full Frost
				<b>Animation index, animation rotation:</b>
				0-5 open
24	32	22	28	6-127 Animation indexing
				128-189 Clockwise animation rotation from fast to slow
				190-193 No rotation
				194-255 Counter-clockwise animation rotation from slow to fast
25	33	23	29	<b>Blade 1A</b>
				0-255 Open to Close
	34		30	<b>Blade 1A Fine</b>
				0-255 Open to Close Fine
26	35	24	31	<b>Blade 1B</b>
				0-255 Open to Close
	36		32	<b>Blade 1B Fine</b>
				0-255 Open to Close Fine
27	37	25	33	<b>Blade 2A</b>
				0-255 Open to Close
	38		34	<b>Blade 2A Fine</b>
				0-255 Open to Close Fine
28	39	26	35	<b>Blade 2B</b>
				0-255 Open to Close
	40		36	<b>Blade 2B Fine</b>
				0-255 Open to Close Fine
29	41	27	37	<b>Blade 3A</b>
				0-255 Open to Close

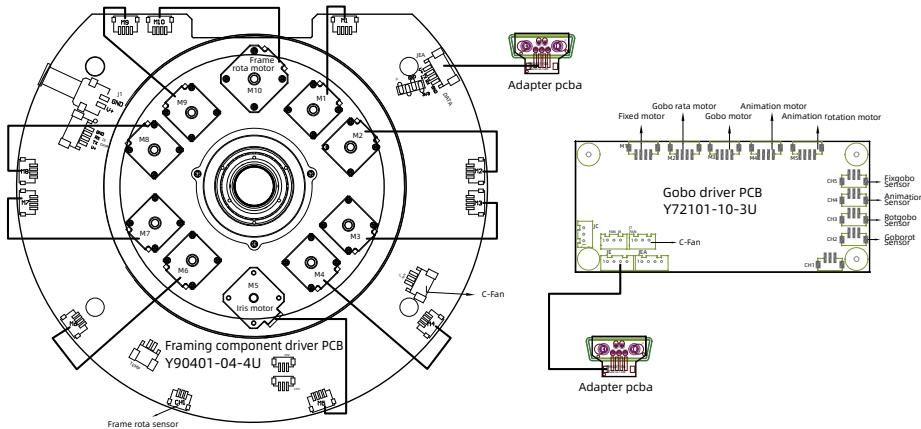
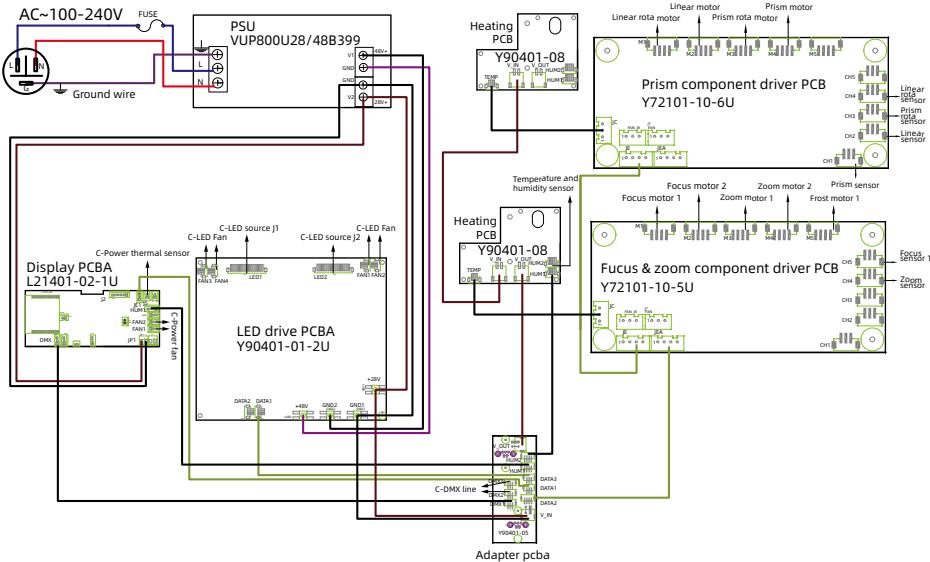
	42		38	<b>Blade 3A Fine</b>
				0-255 Open to Close Fine
30	43	28	39	<b>Blade 3B</b>
				0-255 Open to Close
	44		40	<b>Blade 3B Fine</b>
				0-255 Open to Close Fine
31	45	29	41	<b>Blade 4A</b>
				0-255 Open to Close
	46		42	<b>Blade 4A Fine</b>
				0-255 Open to Close Fine
32	47	30	43	<b>Blade 4B</b>
				0-255 Open to Close
	48		44	<b>Blade 4B Fine</b>
				0-255 Open to Close Fine
33	49	31	45	<b>Framing Rotation:</b>
				0-255 Rotation from 0 to 120°
	50		46	<b>Framing Rotation Fine:</b>
				0-255 Framing Rotation Fine
	51		47	<b>Framing Speed:</b>
				0-255 Speed Max - >Min
				<b>Framing Macro:</b>
				0-7 OFF
				8-15 Macro1
				16-23 Macro2
				24-31 Macro3
				32-39 Macro4
				40-47 Macro5
				48-55 Macro6
				56-63 Macro7
				64-71 Macro8
				72-79 Macro9
				80-87 Macro10
				88-95 Macro11
				96-103 Macro12
				104-111 Macro13
				112-119 Macro14
				120-127 Macro15
				128-135 Macro16
				136-143 Macro17
				144-151 Macro18
				152-159 Macro19
				160-167 Macro20
				168-175 Macro21

				176-183	Macro22
				184-191	Macro23
				192-199	Macro24
				200-207	Macro25
				208-215	Macro26
				216-223	Macro27
				224-231	Macro28
				232-239	Macro29
				240-247	Macro30
				248-255	Macro31
				<b>Control:</b>	
				0-30	No Function
				31-40	Fan Mode Auto
				41-50	Fan Mode High
				51-60	Fan Mode Low
				61-70	All motor reset
				71-80	Gobo reset
				81-90	Focus reset
				91-100	Other motor reset
				101-105	900 Hz LED Refresh Rate
				106-110	1000 Hz LED Refresh Rate
				111-115	1100 Hz LED Refresh Rate
				116-120	1200 Hz LED Refresh Rate
				121-125	1300 Hz LED Refresh Rate
				126-130	1400 Hz LED Refresh Rate
				131-135	1500 Hz LED Refresh Rate
				136-140	2500 Hz LED Refresh Rate
				141-145	4000 Hz LED Refresh Rate
				146-150	5000 Hz LED Refresh Rate
				151-155	10,000 Hz LED Refresh Rate
				156-160	15,000 Hz LED Refresh Rate
				161-165	20,000 Hz LED Refresh Rate
				166-170	25,000 Hz LED Refresh Rate
				171-180	Dimmer Curve Linear
				181-190	Dimmer Curve Square
				191-200	Dimmer Curve Inverse Square
				201-210	Dimmer Curve S-Curve
				211-220	DTW OFF
				221-230	DTW ON
				231-255	No Function

## Virtual Swatch Book

Value	Filter Number	Name	Value	Filter Number	Name
1	7	pale yellow	31	126	mauve
2	103	straw	32	49	medium purple
3	151	gold tint	33	58	lavender
4	100	spring yellow	34	199	palace blue
5	10	medium yellow	35	119	dark blue
6	101	yellow	36	132	medium blue
7	104	deep amber	37	120	deep blue
8	15	deep straw	38	165	daylight blue
9	179	loving amber	39	161	slate blue
10	21	gold amber	40	118	light blue
11	105	orange	41	68	sky blue
12	158	deep orange	42	143	pale navy blue
13	22	dark amber	43	131	marine blue
14	778	millenium gold	44	115	peacock blue
15	135	deep golden amber	45	172	lagoon blue
16	24	scarlet	46	116	medium blue green
17	106	primary red	47	90	dark yellow green
18	26	bright red	48	139	primary green
19	27	medium red	49	122	fern green
20	19	fire	50	89	moss green
21	157	pink	51	124	dark green
22	36	medium pink	52	88	lime green
23	111	dark pink	53	138	pale green
24	128	bright pink	54	203	Quarter CT Blue
25	148	bright rose	55	202	Half CT Blue
26	332	special rose pink	56	201	FULL CT Blue
27	793	vanity fair	57	200	double CT Blue
28	113	magenta	58	206	Quarter CT Orange
29	46	dark magenta	59	205	Half CT Orange
30	48	rose purple	60	204	FULL CT Orange

## 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	

