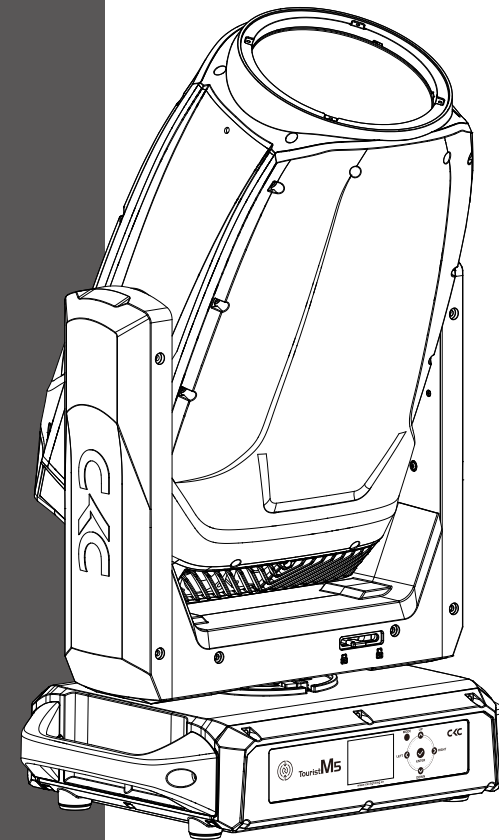


# CKC

# M5



[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 IP66 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.



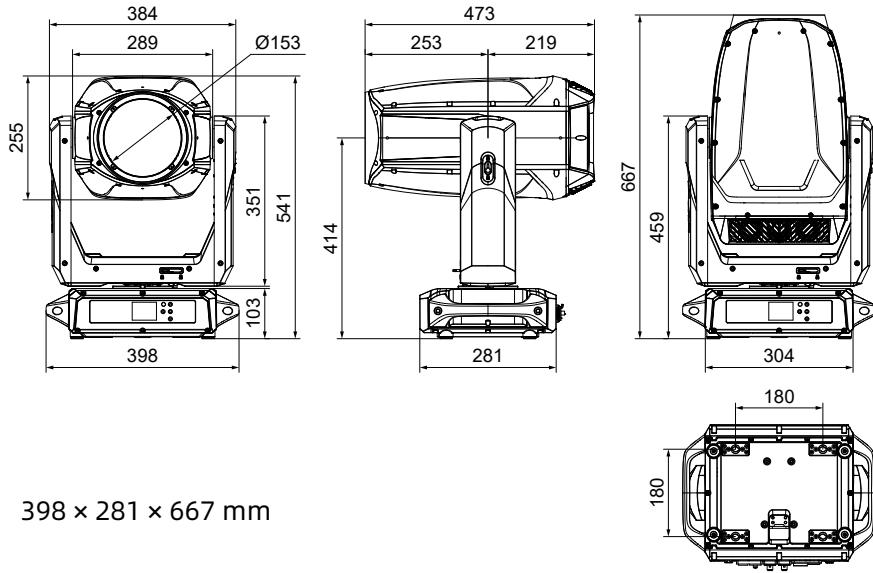
- The lighting fixtures work normally at -20 °C to 45 °C . When replacing any components or accessories in the equipment, ensure that the power is disconnected to prevent electric shock and injury;
- The maximum surface temperature of the lamp during operation can reach 74 °C , please do not touch it 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

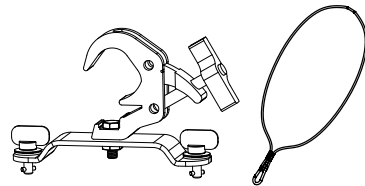
### 2.1 Exterior dimensions of lighting fixtures



398 × 281 × 667 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: GB7000.1-2023, GB7000.217-2023, Q/YF-2017

### ● Electrical parameter

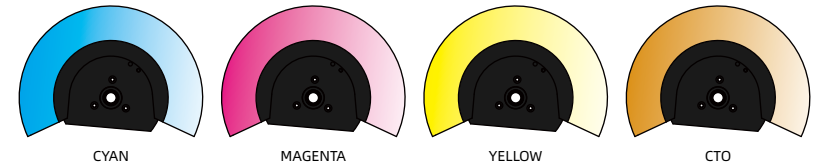
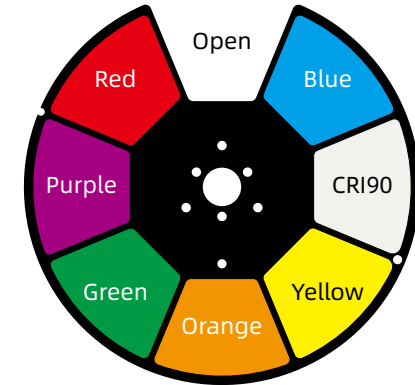
Rated input voltage: AC 100V-240V~ 50Hz/60Hz  
 Rated power of the entire fixture: 994W  
 Power factor: 0.99F  
 Input Current: 4.22A 220V

### ● Source lifespan

>20000 hours

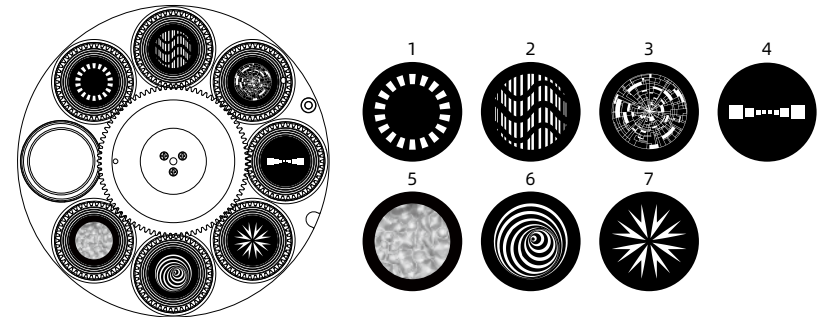
### ● Color system

CCT: 6500K  
 CRI: 72(With CRI filter)  
 Color wheel: 7+1  
 CMY+CTO



### ● Gobo system

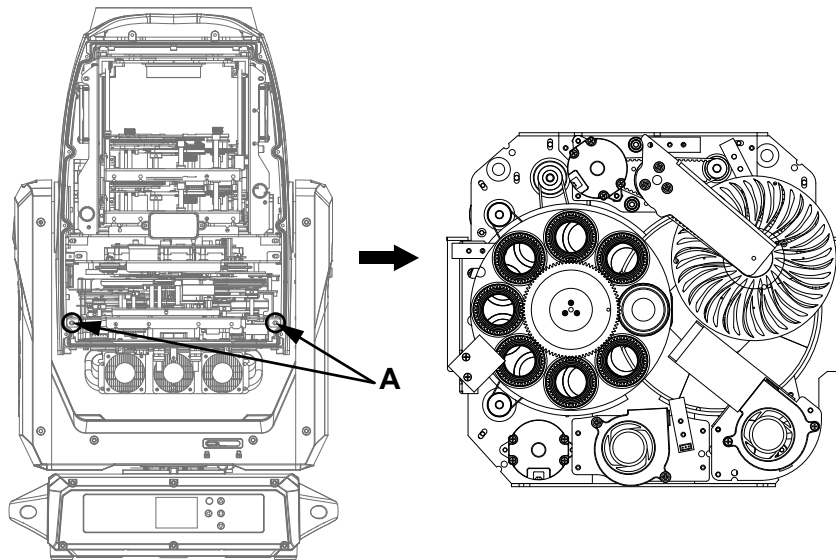
Rotation Gobo: 7+1  
 Gobo outer diameter: 23mm  $\pm 0.2$  mm Internal diameter: 15mm  
 Thickness: 1.1mm



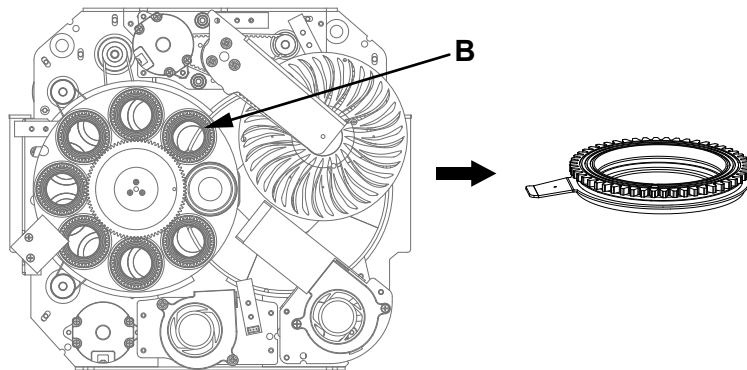
## Gobo replace

### 1) Rotation gobo wheel

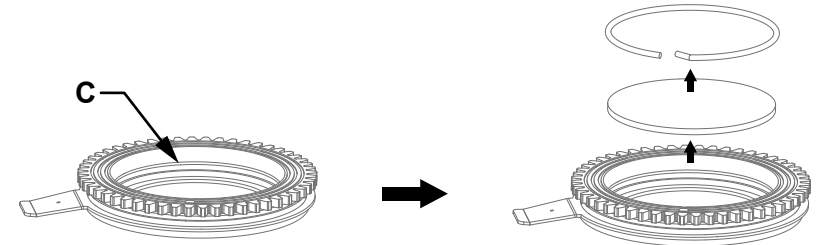
a). Remove the two screws at location **A**, unplug the power and signal adaptercables, and extract the Gobo component;



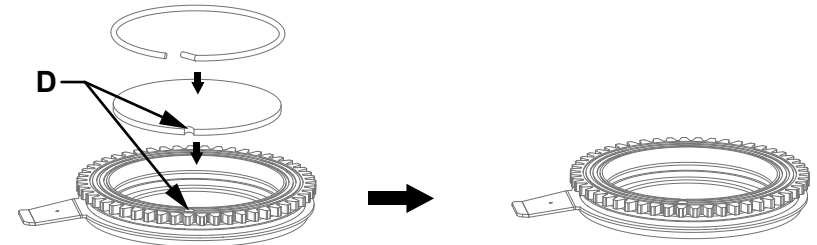
b). As shown in **B**, gently lift the driven wheel from the edge upwards from the front of the pattern plate and slowly pull it out to remove a single pattern seat;



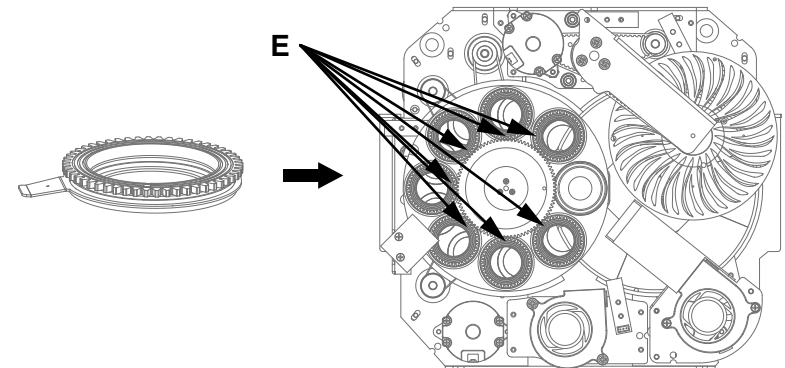
c). Use tweezers or other small grippers to remove the snap spring at point **C** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



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);



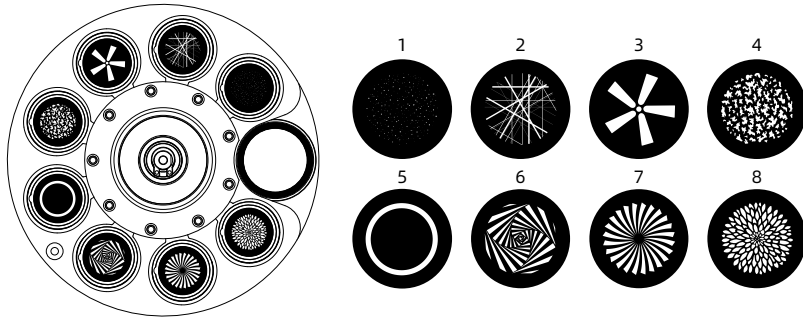
e). Insert the gobo holder into the drive wheel assembly, as shown in **E**, and reinstall the gobo holder in the order it was removed; The positioning point of the gobo holder should be aligned with the positioning point of the driving wheel; After installation, simply reinstall the gobo wheel component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



Fixed Gobo: 8+1

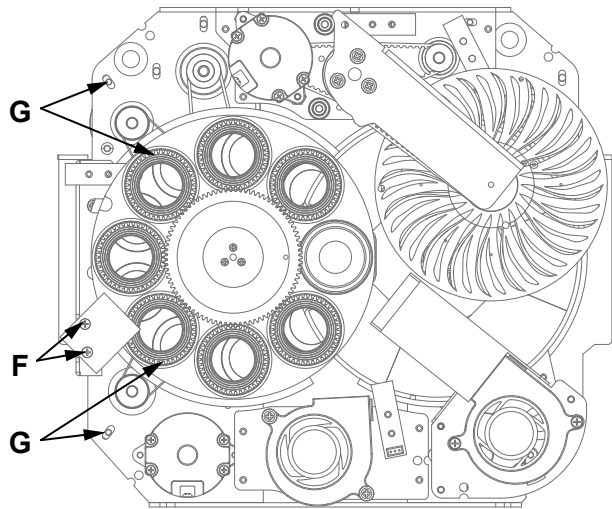
Gobo outer diameter: 23mm  $\pm 0.2$  mm Internal diameter: 11mm

Thickness: 1.1mm

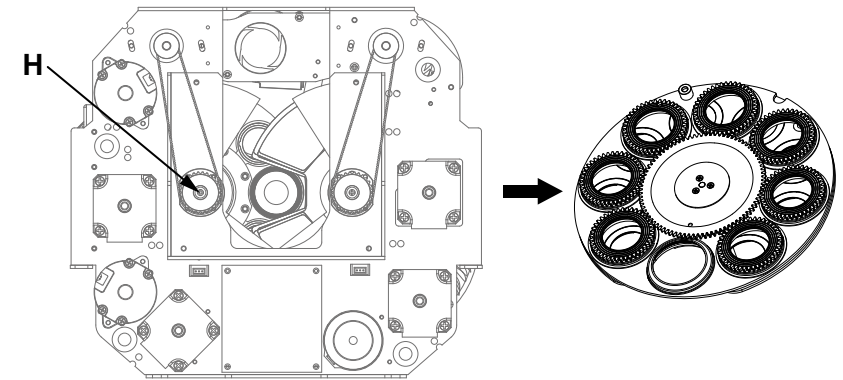


### Gobo replace

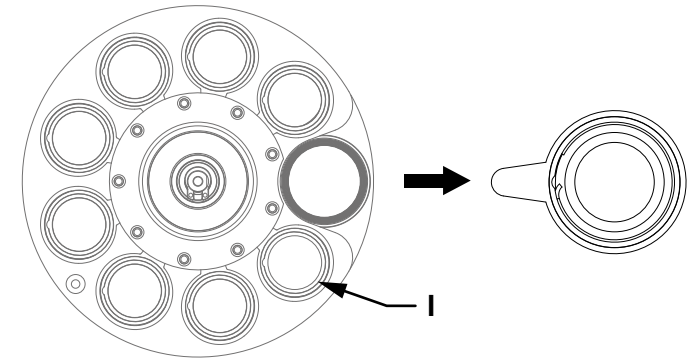
a). Unscrew the 2 screws on the front **F** of the gobo wheel component and remove the magnetic sensing plate; Loosen the 6 screws at point **G** and loosen the Gobo self rotating belt (to facilitate the next step of removing the Gobo wheel component);



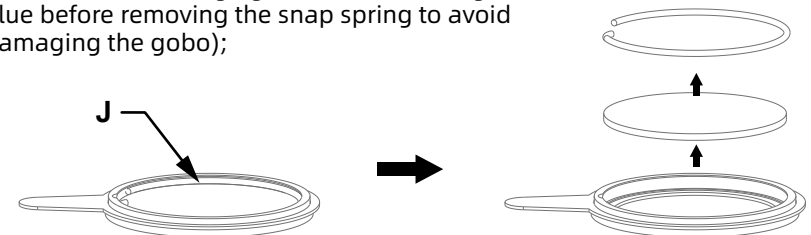
b). Reverse the components, unscrew the 3 screws on the top and sides of the pulley at **H**, remove the pulley, and then take out the Gobo wheel component;



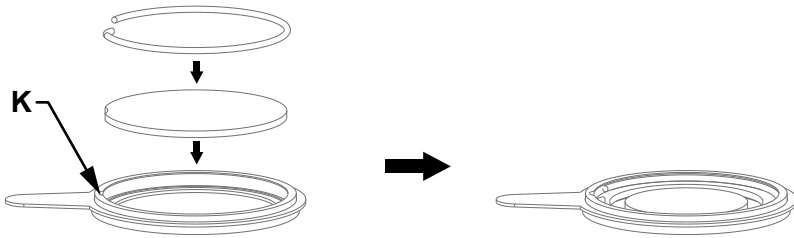
c). As shown in **I**, gently lift the gobo holder from the edge of the fixed gobo wheel and slowly pull it out to remove a single gobo holder;



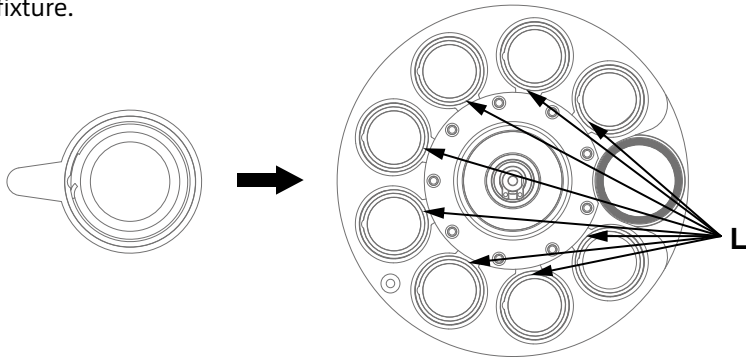
d). Use tweezers or other small grippers to remove the snap spring at point **J** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



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);

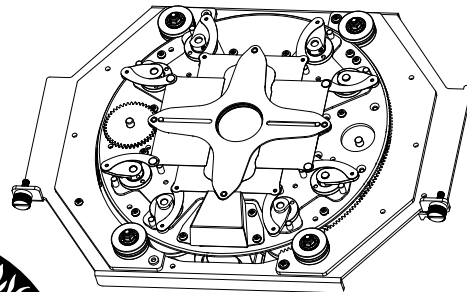


f). Insert the gobo wheel into the drive wheel assembly, as shown in **L**, and reinstall the gobo holder in the order it was removed. After installation, simply reinstall the gobo wheel component onto the light fixture.

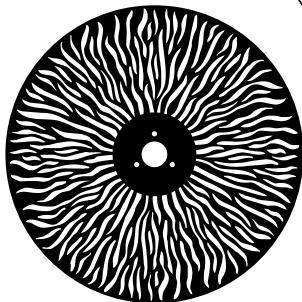


● **Framing system**

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  $\pm 60^\circ$

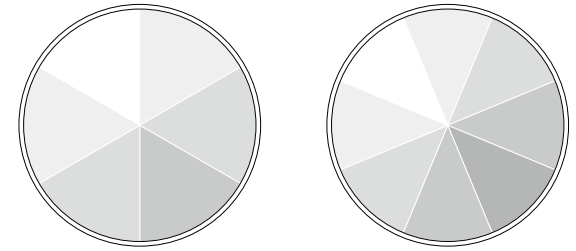


● **Animation**



● **Prism system**

6 prism+ 8 linear



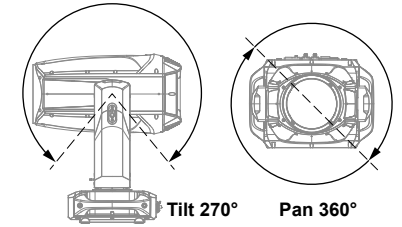
● **Pan/Tilt**

**Pan scan:**

Infinite rotation ( $360^\circ$ )

**Tilt scan:**

$270^\circ$  8-bit/16bit precision scanning



● **Optical system**

Source: 500W CW LED

Beam angle:  $3.5 \sim 53^\circ$

Output luminous flux: 23000 Lm

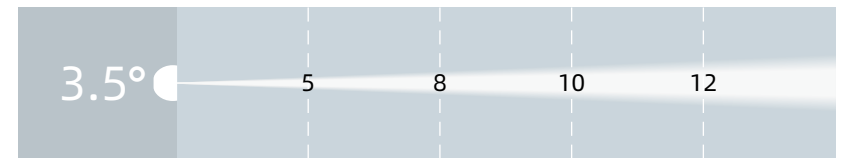
● **Control and programming**

Control channel: 38CH/56CH

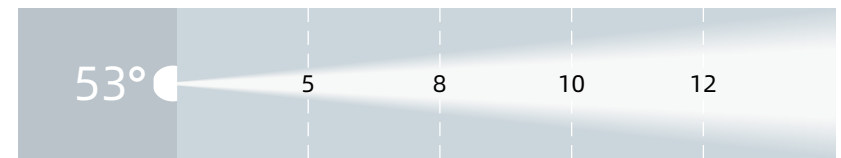
Protocol: DMX512, RDM, Art-net/sACH

Data connect: 3 pin signal in/out, RJ45 in/out

● **Illumination draw**



Lux	124000	47900	30500	21200
Distance(m)	0.31	0.49	0.61	0.73



Lux	4580	1930	925	442
Distance(m)	4.99	7.98	9.97	11.97

### ● Other effect function

Fast electronic strobe: 1~25Hz  
Iris

Frost: Light frost+heavy frost


### ● Other features and functions

Weight: 30 KG  
Carton size: 82.5 × 51.5 × 45.5 cm

G.W: 37 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.

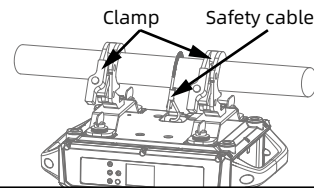
### 4.2 Equipment packaging

- 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

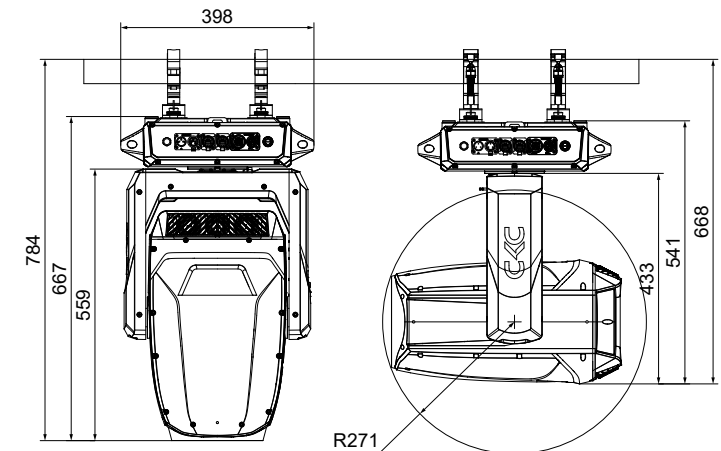
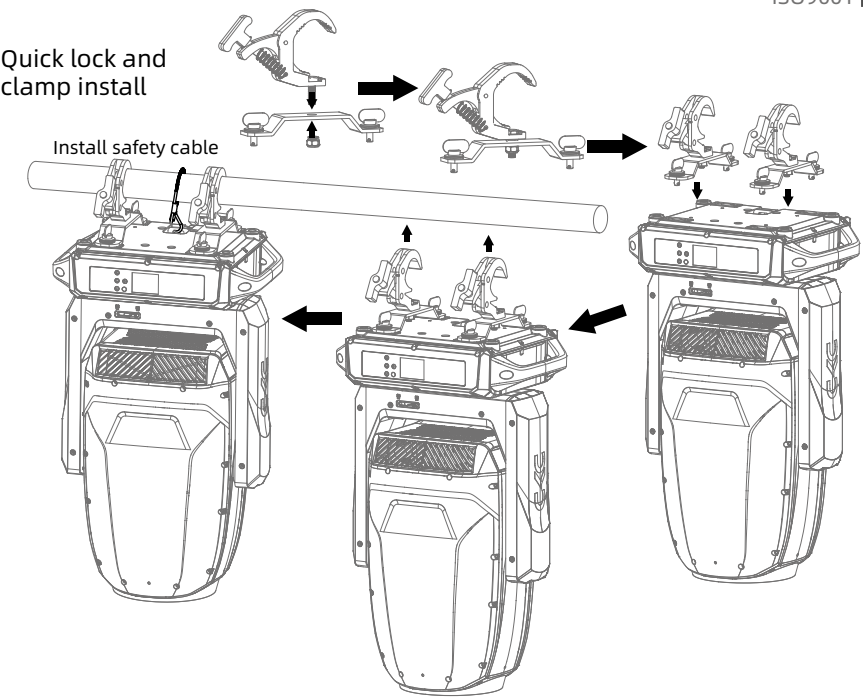
The lighting fixtures can be installed on the stage or on any direction of the truss, and the clamp can be quickly and easily locked onto the truss.



### 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.

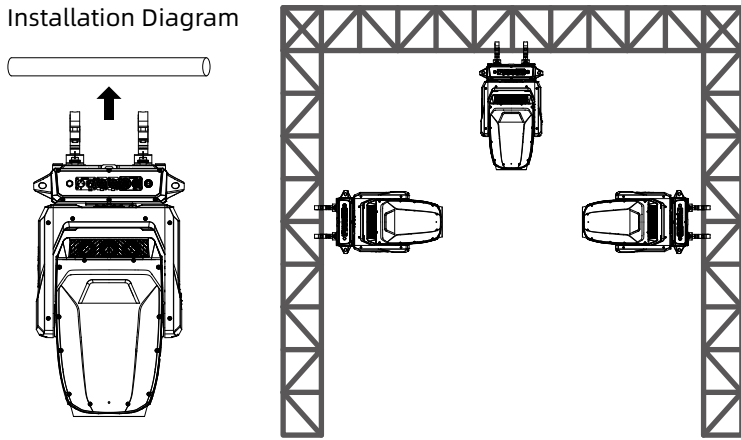
Quick lock and clamp install



### 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 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).

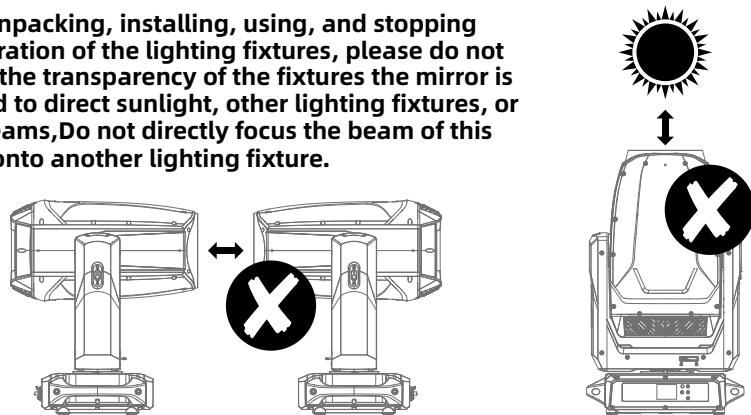
5.3 Hanging Installation Diagram



**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.

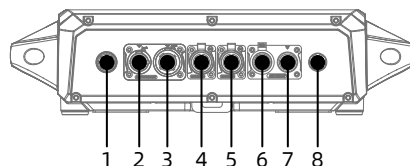
**When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams, Do not directly focus the beam of this device onto another lighting fixture.**



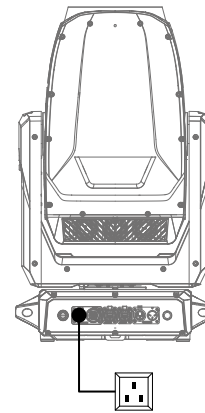
6. Power, Signal connect

6.1 Power and signal socket

- 1.Fuse holder
- 2.Power input
- 3.Power output
- 4.RJ45 output
- 5.RJ45 in
- 6.3Pin XLR male
- 7. 3Pin XLR female
- 8. Breathable valve



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.

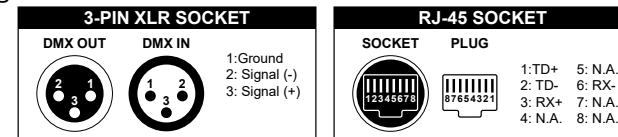
**Attention:** When connecting the power supply, the ground wire (yellow/green dual color wire) must be safely grounded and comply with all relevant electrical installation standards.

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

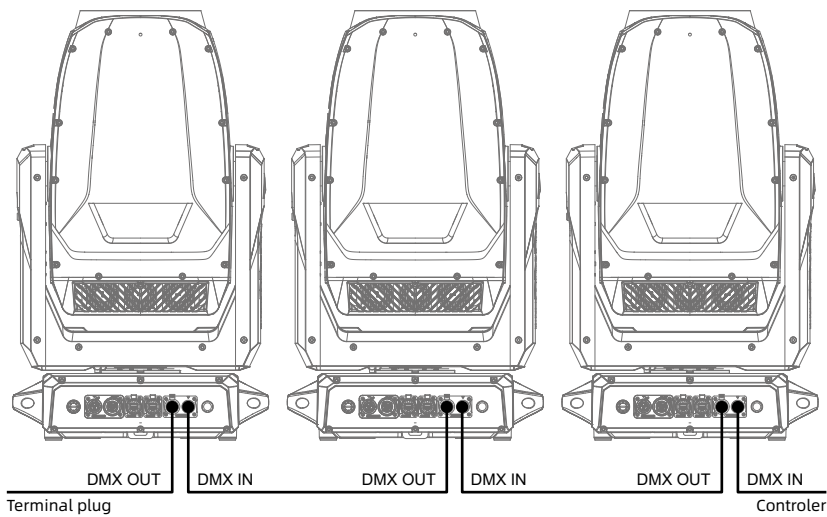
**Warning !**

- 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.

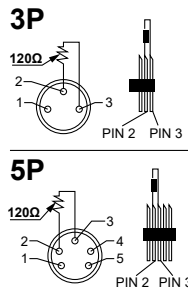
6.3 Signal connect



The lighting fixtures are equipped with standard DMX XLR and RJ-45 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 Ω resistor between the 2 and 3 pins of a 3 or 5 core pin XLR plug).



## 7. Control panel

### 7.1 Panel Introduction



- NFC: The lighting fixtures do not require power on and can be directly set up, diagnosed, and perform other functions through the CKC app;
- Adopting a 2.4 "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... CKC Ethernet Reset Fixture Check Temp Check LedTemp: xxx°C HeadTemp: xxx°C Tourist M5 Motor Reset Please Wait...			
SET	Dmx Presets	A001~AXXX	
	User Mode	Standard Extend	
Network	Net Protocol	ArtNET/sACH	
	Status	No DMX Mode P.Reverse T.Reverse Pan Degree Feedback Move.Speed Hibernation RESET Mode	Black/Hold/Auto ON/OFF ON/OFF 630/540 ON/OFF Speed 1~4 OFF, 01M~99M, 15M Fast Reset/Traditional
Fixture ID	Service PIN	Password=050	
	Universe	000~255	
	IP Address	2.XXX.XXX.XXX	
	Mask Address	255.XXX.XXX.XXX	
Net Switch	ON/OFF		
Dim Mode	Standard Stage TV Architectural Theatre		
	Temp. C/F	Celsius Fahrenheit	
	Dim Curve	Linear Square Inv-Square S-Curve	
	Frequency	1200Hz/3600Hz/5000Hz/10KHz/15KHz/20KHz/25KHz	
Fan Set	Head Fan	Auto/High/Low	
	Base Fan	Auto/High/Lo	
LCD.Set	Backlight	01~60m	
	Flip Display	OFF/ON	
	Key Lock	OFF/ON	
	DispFlash	OFF/ON	
	Language	English/Chinese	

	Disp.Set	Channel Value Slave Set Auto.Prog	PAN..... Slave1,Slave2,Slave3 Master / Alone
	DFSE	OFF/ON	
	Scan Record	-Service PIN-(password:050) Record Status No Record/Pan Record/Tilt Record/ All Record	
<b>Test</b>	Reset.M	All Pan&Tilt Other	
	Test.Chan	PAN .....	
	Panel.Ctrl.	PAN =XXX :	
	Calibrate	-Password- PAN :	
<b>Info</b>	Time.Info	Current (Hours) Total Time (Hours) Last Time (Hours) Timer PIN (Password=50) Clear Last (ON/OFF)	
	Temp. Info	LED Temp: xxx°C Head Temp: xxx°C Base Temp: xxx°C	
	Fan Speed	Cool Fan1: xxxx RPM Cool Fan2: xxxx RPM Cool Fan3: xxxx RPM Cool Fan4: xxxx RPM Cool Fan5: xxxx RPM Cool Fan6: xxxx RPM Gobo Fan1: xxxx RPM Gobo Fan2: xxxx RPM Head Fan1: xxxx RPM Head Fan2: xxxx RPM Base Fan1: xxxx RPM Base Fan2: xxxx RPM	
	Humi.Info	BasHumi HeadHumi	XXX % XXX %
	Error. Info	Pan,Tilt.....	
	Model. Info	Tourist M5	
	Software. V	1U V1.0.X 2U V1.0.X 3U V1.0.X 4U V1.0.X 5U V1.0.X 6U V1.0.X 7U V1.0.X 8U V1.0.X	

**8. DMX channel table:**

ST.	EX.	Values	Function
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	3	0~255	<b>TILT Movement 8bi:</b> Tilt Movement
4	4	0~255	<b>Tilt Fine 16bit</b> Tilt Fine
5	5		<b>PAN Continuous Rotation:</b>
		0~127	No function
		128~189	Pan clockwise from fast to slow
		190~193	No rotation
	194~255	Pan counter-clockwise from slow to fast	
6	6	0~255	<b>Dimmer (intensity):</b> Intensity 0 to 100%
7	7	0~255	<b>Dimmer Fine 16-bit:</b> Intensity 0 to 100%
8	8		<b>Shutter, strobe:</b>
		0~31	No function (shutter closed)
		32~63	No action, shutter open
		64~95	Strobe slow to fast
		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		
	224~255	No action,shutter open	
9	9	0~255	<b>Cyan:</b> Cyan (0-100%)
	10	0~255	<b>Cyan Fine:</b> Cyan Fine
10	11	0~255	<b>Magenta:</b> Magenta (0-100%)
	12	0~255	<b>Magenta Fine:</b> Magenta Fine
11	13	0~255	<b>Yellow:</b> Yellow (0-100%)
	14	0~255	<b>Yellow Fine:</b> Yellow Fine
12	15	0~255	<b>CTO:</b> CTO (0-100%)
	16	0~255	<b>CTO Fine:</b> CTO Fine
			<b>Color Wheel:</b>

13	17	0~5	Color off (open)
		6~115	Open → Color1..Color7 → Open
		116~120	Open
		121~130	Color 1
		131~140	Color 2
		141~150	Color 3
		151~160	Color 4
		161~170	Color 5
		171~180	Color 6
		181~190	Color 7
		191~192	Open
		193~223	Color Wheel rot. Fast -> Slow, CW
		224~224	Color Wheel rot. Stop
		225~255	Color Wheel rot. Slow -> Fast, CCW
14	18	<b>Rotating gobos:</b>	
		0~6	Open
		7~13	Gobo 1
		14~20	Gobo 2
		21~27	Gobo 3
		28~34	Gobo 4
		35~41	Gobo 5
		42~48	Gobo 6
		49~55	Gobo 7
		56~62	Gobo 1 shake (slow-fast)
		63~69	Gobo 2 shake (slow-fast)
		70~76	Gobo 3 shake (slow-fast)
		77~83	Gobo 4 shake (slow-fast)
		84~90	Gobo 5 shake (slow-fast)
		91~97	Gobo 6 shake (slow-fast)
		98~104	Gobo 7 shake (slow-fast)
		105~178	Gobo Wheel rot. Fast -> Slow, CW
		179~181	Gobo Wheel rot. Stop
		182~255	Gobo Wheel rot. Slow -> Fast, CCW
15	19	<b>Gobo rotation:</b>	
		0~5	Gobo1 Rot. Off
		6~128	Gobo Position 0° ... 540°
		129~191	GoboRot clockwise from fast to slow
		192~192	Gobo Rotation Stop
		193~255	GoboRot counter-clockwise from slow to fast
16	20	0~255	<b>Gobo rotation Fine:</b> Gobo indexing fine
		<b>Fixed gobos:</b>	
		0~6	Open
		7~13	Gobo 1
		14~20	Gobo 2

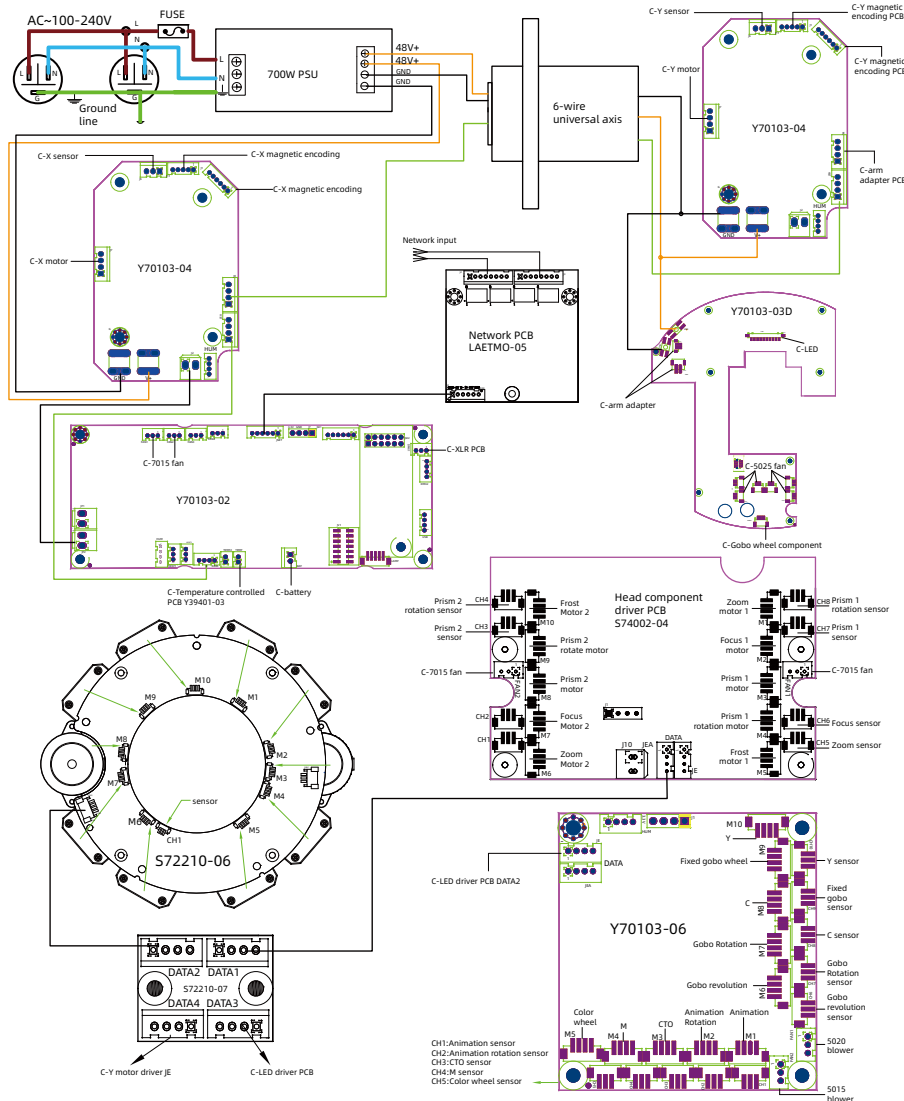
17	21	21~27	Gobo 3
		28~34	Gobo 4
		35~41	Gobo 5
		42~48	Gobo 6
		49~55	Gobo 7
		56~62	Gobo 8
		63~69	Gobo 1 shake (slow-fast)
		70~76	Gobo 2 shake (slow-fast)
		77~83	Gobo 3 shake (slow-fast)
		84~90	Gobo 4 shake (slow-fast)
		91~97	Gobo 5 shake (slow-fast)
		98~104	Gobo 6 shake (slow-fast)
		105~111	Gobo 7 shake (slow-fast)
		112~118	Gobo 8 shake (slow-fast)
119~185	Fixed Gobo Wheel rot. Fast -> Slow, CW		
186~188	Fixed Gobo Wheel rot. Stop		
189~255	Fixed Gobo Wheel rot. Slow -> Fast, CCW		
18	22	0~255	<b>Zoom:</b> Zoom from min. to max.beam angle
	23	0~255	<b>Zoom fine 16-bit:</b> Zoom fine
19	24	0~255	<b>Focus:</b> Continuous adjustment from far to near
	25	0~255	<b>Focus fine 16-bit:</b> Focus fine
20	26	<b>Iris:</b>	
		0~191	Open - Close
		192~207	Pulse up, slow -> fast
		208~223	Pulse down, slow -> fast
		224~239	Random effect, slow -> fast
240~255	Fast Up-Fast Down slow -> fast		
21	27	0~5	<b>Prism 1:</b> No Effect
		6~255	Prism1
22	28	Rotating prism 1 index, prism 1 rotation:	
		0~5	Prism Rot. Off
		6~128	Prism Position 0 ... 540°
		129~191	Clockwise rotation from fast to slow
		192~192	No rotation
		193~255	Counter-Clockwise rotation from slow to fast
	29	0~255	<b>Prism 1 Index fine 16-bit:</b> Prism 1 Index fine
23	30	<b>Prism 2:</b>	
		0~5	No Effect
		6~255	Prism2

24	31		<b>Rotating prism 2 index, prism 2 rotation:</b>
		0~5	Prism Rot. Off
		6~128	Prism Position 0 ... 540°
		129~191	Clockwise rotation from fast to slow
		192~192	No rotation
	32	0~255	<b>Prism 2 Index fine 16-bit:</b> Prism 2 Index fine
25	33	0~255	<b>Frost1:</b> Open to Full Frost
26	34	0~255	<b>Frost2:</b> Open to Full Frost
27	35		<b>Animation index, animation rotation:</b>
		0~5	Open
		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
28	36	0~255	<b>Blade 1A:</b> 0% - 100%
	37	0~255	<b>Blade 1A Fine:</b> 0% - 100%
29	38	0~255	<b>Blade 1B:</b> 0% - 100%
	39	0~255	<b>Blade 1B Fine:</b> 0% - 100%
30	40	0~255	<b>Blade 2A:</b> 0% - 100%
	41	0~255	<b>Blade 2A Fine:</b> 0% - 100%
31	42	0~255	<b>Blade 2B:</b> 0% - 100%
	43	0~255	<b>Blade 2B Fine:</b> 0% - 100%
32	44	0~255	<b>Blade 3A:</b> 0% - 100%
	45	0~255	<b>Blade 3A Fine:</b> 0% - 100%
33	46	0~255	<b>Blade 3B:</b> 0% - 100%
	47	0~255	<b>Blade 3B Fine:</b> 0% - 100%
34	48	0~255	<b>Blade 4A:</b> 0% - 100%
	49	0~255	<b>Blade 4A Fine:</b> 0% - 100%

35	50	0~255	<b>Blade 4B:</b> 0% - 100%
	51	0~255	<b>Blade 4B Fine:</b> 0% - 100%
36	52		<b>Frame Rotation:</b>
		0~126	Min (-60 degrees)
		127~128	Parallel (0 degrees)
		129~255	Max (+60 degrees)
	53	0~255	<b>Frame Rotation Fine:</b> 0% - 100%
	54	0~255	<b>Pan/Tilt Speed:</b> Max to min speed
37	55		<b>Dim Modes:</b>
		0~20	Standard
		21~40	Stage
		41~60	TV
		61~80	Architectural
		81~100	Theatre
		101~255	Default to Unit Setting
38	56		<b>Device settings:</b>
		000~005	No function
		006~010	Display OFF(Hold 3s)
		011~015	Display ON(Hold 3s)
		016~020	Invert Pan on (Hold 3s)
		021~025	Invert Pan off (Hold 5s)
		026~030	Invert Tilt on (Hold 3s)
		031~035	Invert Tilt off (Hold 5s)
		036~040	Fan Auto (Default)
		041~045	Fan Silent (Hold 3s)
		046~050	Fan High(Hold 3s)
		051~055	Linear Dimmer Curve (hold 3s)
		056~060	Square Dimmer Curve (hold 3s)
		061~065	Inv-Square Dimmer Curve (hold 3s)
		066~070	S - Dimmer Curve (hold 3s)
		071~075	Led Freq. 1200 Hz (hold 3s)
		076~080	Led Freq. 3600 Hz (hold 3s)
		081~085	Led Freq. 5000 Hz (hold 3s)
		086~090	Led Freq. 10.000 Hz (hold 3s)
091~095	Led Freq. 15.000 Hz (hold 3s)		
096~100	Led Freq. 20.000 Hz (hold 3s)		
101~105	Led Freq. 25.000 Hz (hold 3s)		
106~110	All motor reset(hold 3s)		
111~115	P/T motor reset(hold 3s)		
116~120	Other motor reset(hold 3s)		
121~130	No Function		

131~135	Fast Reset
136~140	Traditional
141~155	No Function
156~160	Factory Default(Hold 3s)
161~255	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

**⚠ Attention!** The above analysis is for abnormal reference only. Non professionals are not allowed to disassemble and repair the machine

