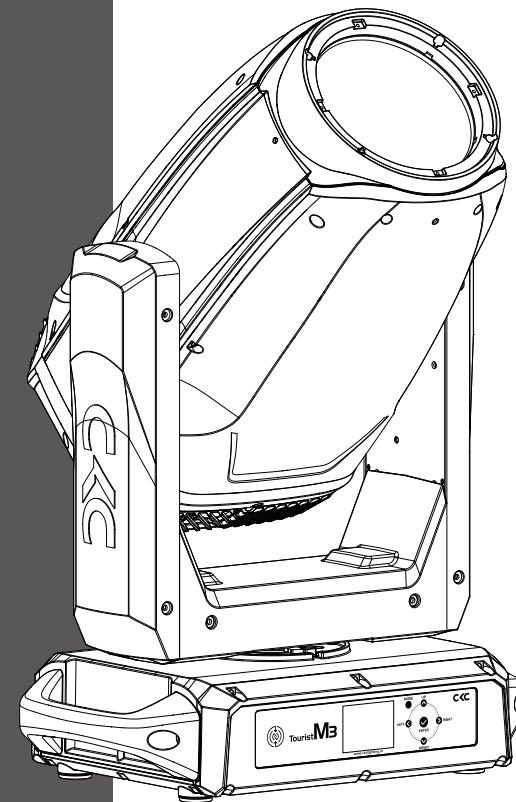


# CKC

# M3



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

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TEL: (020)3920 4506 FAX: (020)3920 4631  
WEB: [www.ckclighting.com](http://www.ckclighting.com)



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.



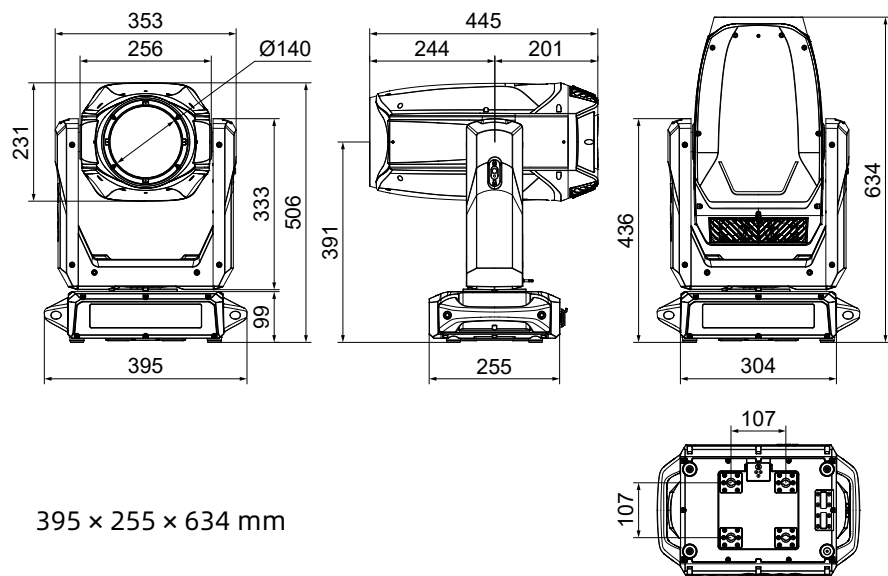
- The lighting fixtures work normally at -20 °C to 45 °C . When replacing any components or accessories in the equipment, ensure that the power is disconnected to prevent electric shock and injury;
- The maximum surface temperature of the lamp during operation can reach 68 °C , please do not touch it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



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

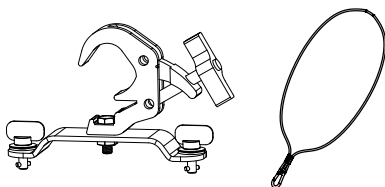
## 2. Product Introduction

### 2.1 Exterior dimensions of lighting fixtures



### 2.2 Packaging accessories

名称	数量	单位
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

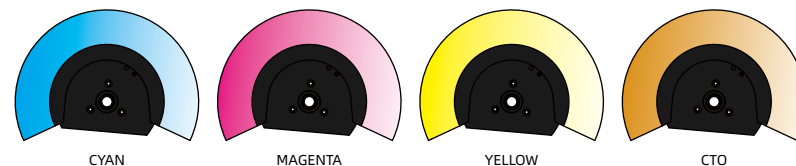
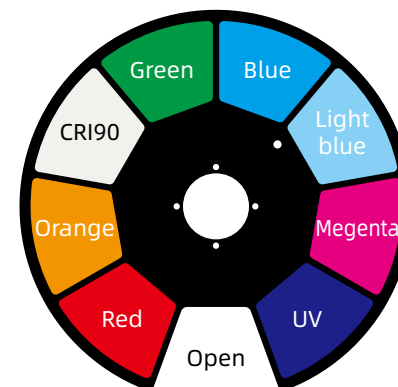
Rated input voltage: AC 100V-240V~ 50Hz/60Hz  
 Rated power of the entire fixture: 677W  
 Power factor: 0.99F  
 Input Current: 2.89A 220V

### ● Source lifespan

>20000 hours

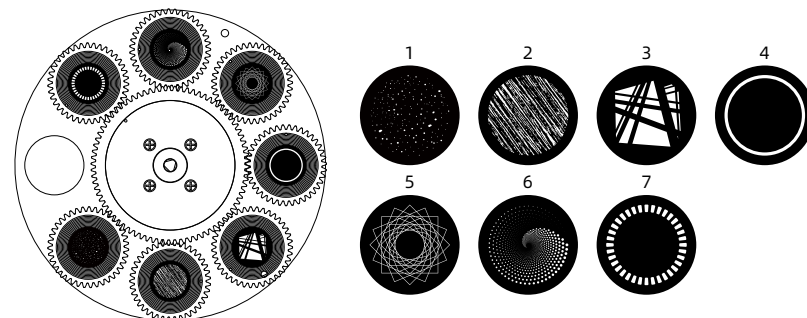
### ● Color system

CCT: 6500K  
 CRI: 72(With CRI filter)  
 Color wheel: 8+1  
 CMY+CTO



### ● Gobo system

Gobo outer diameter: 16.5mm  $\pm 0.2$  mm Internal diameter: 12mm  
 Thickness: 1.1mm

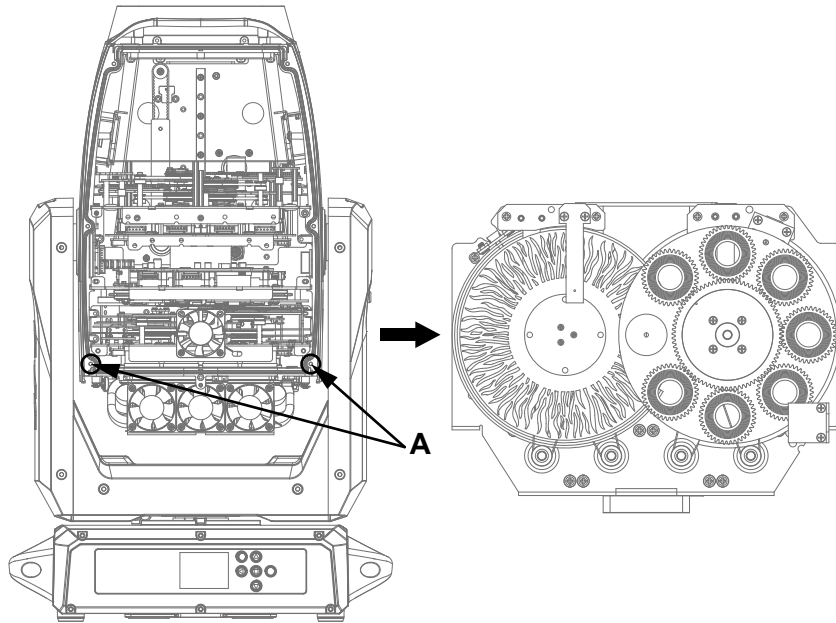




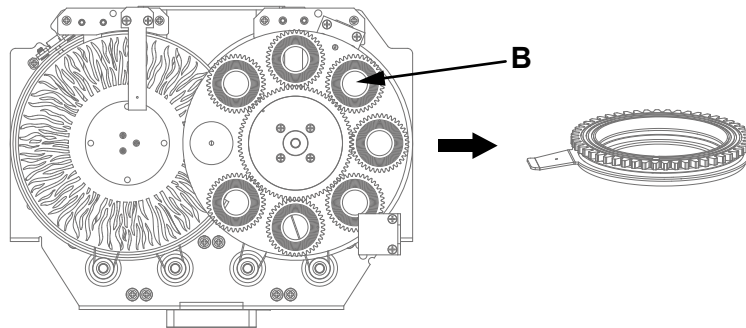
## Gobo replace

### 1) Rotation gobo wheel

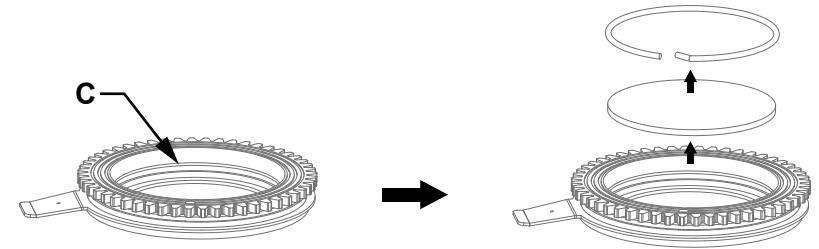
a). Remove the two screws at location **A**, unplug the power and signal adapter cables, and extract the Gobo component;



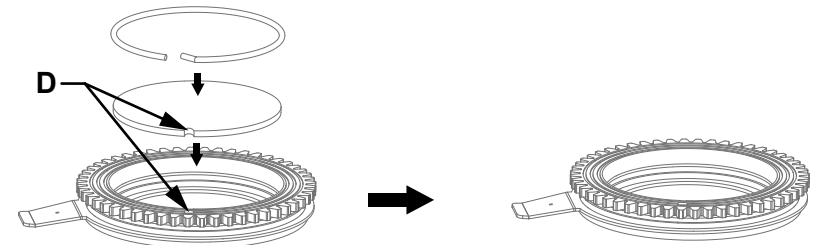
b). As shown in **B**, gently lift the driven wheel from the edge upwards from the front of the pattern plate and slowly pull it out to remove a single pattern seat;



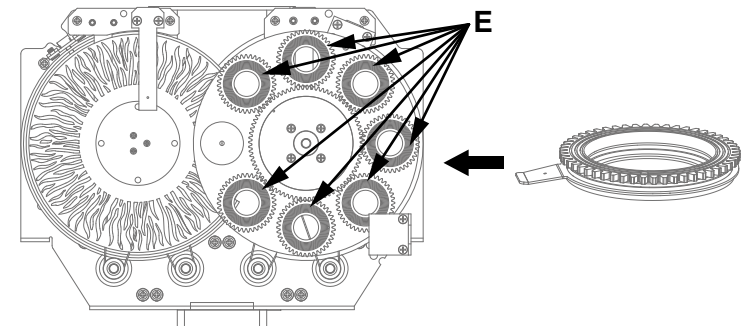
c). Use tweezers or other small grippers to remove the snap spring at point **C** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



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.

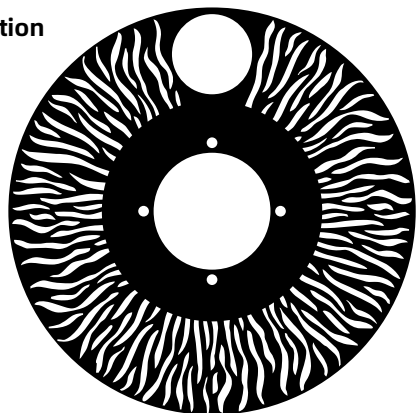


### ● Framing system

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  $\pm 60^\circ$

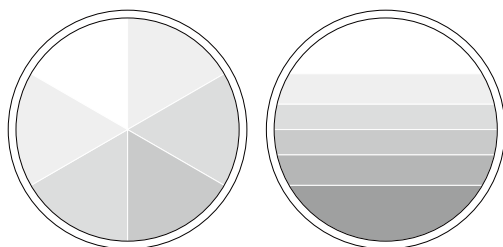


### ● Animation



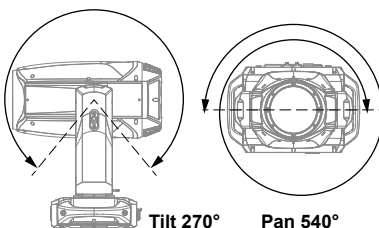
### ● Prism system

6 prism+ 6 linear



### ● Pan/Tilt

**Pan scan:**  
540° or 630° 8-bit/16bit precision scanning  
**Tilt scan:**  
270° 8-bit/16bit precision scanning



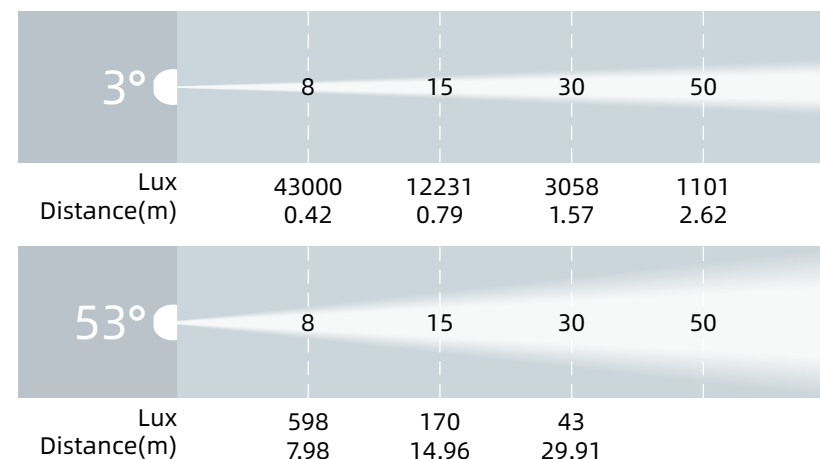
### ● Optical system

Source: 400W CW LED  
Beam angle: 3 ~ 53°  
Output luminous flux: 17000 Lm

### ● Control and programming

Control channel: 38CH/52CH  
Protocol: DMX512, RDM, Art-net/sACH  
Data connect: 3 pin signal In/Out, RJ45 In/Out

### ● Illumination draw



### ● Other effect function

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

Frost: Light frost+heavy frost  
Iris

### ● Other features and functions

Weight: 24.1 KG  
Carton size: 80 × 50.5 × 43.5 cm

G.W.: 31 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.

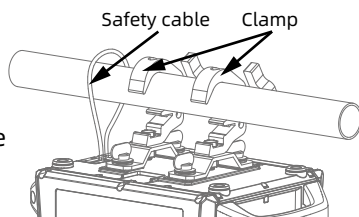
## 4.2 Equipment packaging

- 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.

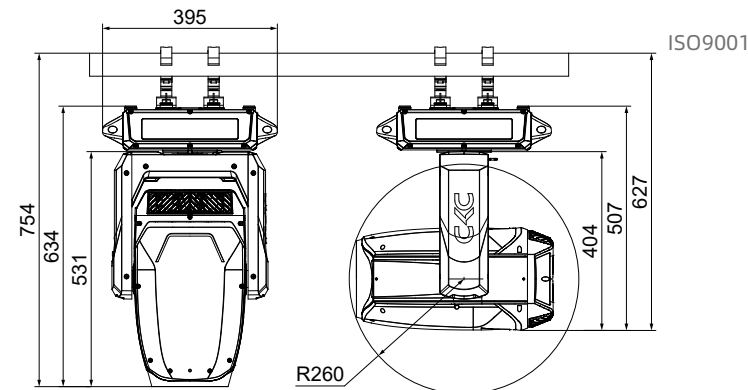
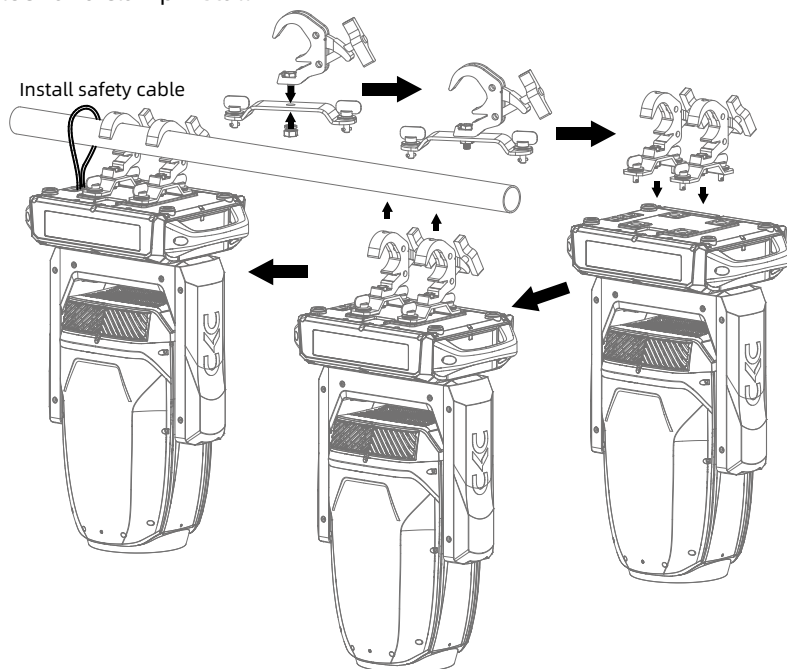


### Warning !

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

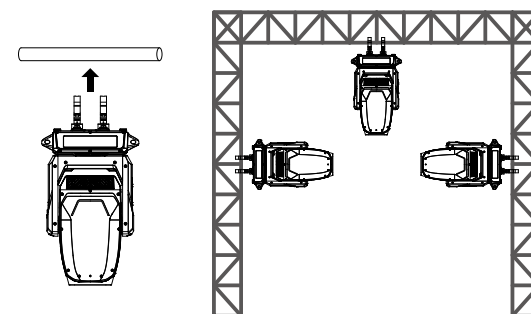


ISO9001

### 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).

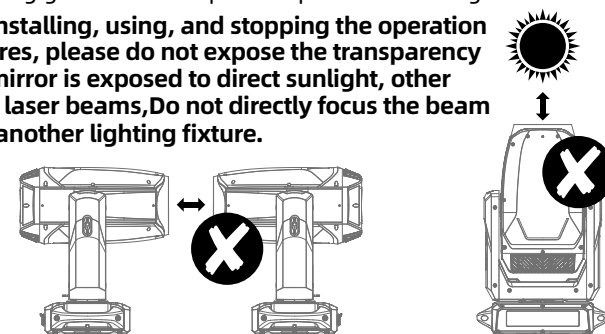
### 5.3 Hanging Installation Diagram



**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.

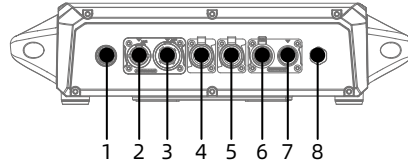
**When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams, Do not directly focus the beam of this device onto another lighting fixture.**



## 6. Power、Signal connect

### 6.1 Power and signal socket

- |                |                    |
|----------------|--------------------|
| 1.Fuse holder  | 2.Power input      |
| 3.Power output | 4.RJ45 output      |
| 5.RJ45 input   | 6.XLR female       |
| 7.XLR male     | 8.Breathable valve |



### 6.2 Power connect

#### Connection method:

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

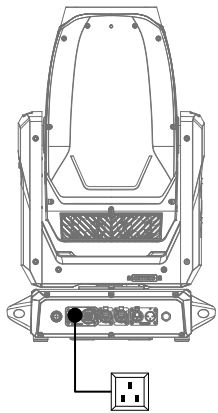
**E**(Ground wire) - yellow/green dual color line

**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.



Power In

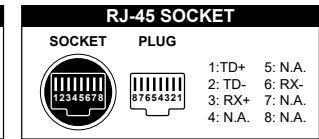
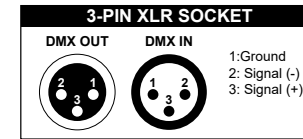
This product uses Powercon In/Out to connect power cords. Due to power limitations, a 2 square meter power cord can carry up to 4 products at 220V and 1 product at 110V.

### Warning !

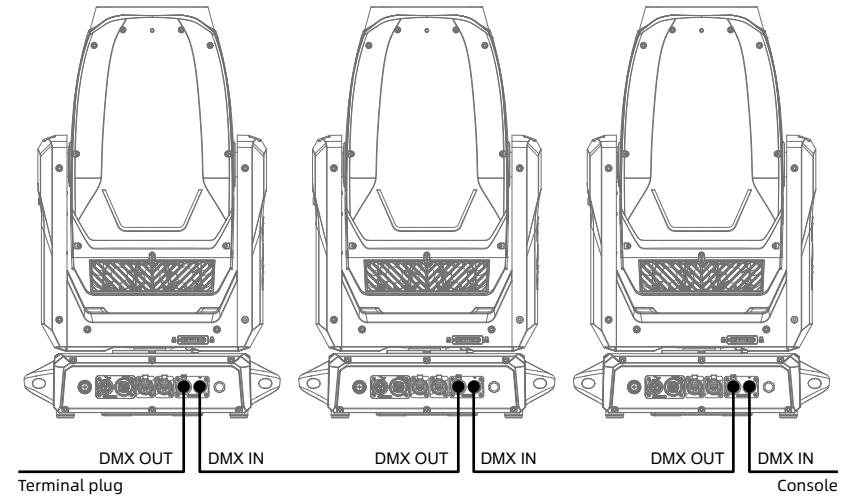
- Do not connect too many fixtures or overload a single power cord;
- Do not use power cords with damaged insulation layers, and do not place power cords on other wires;
- When the fixture is not in use or cleaned, please unplug the power cord; Do not forcefully unplug or drag the power cord directly.



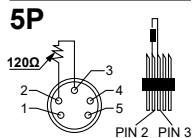
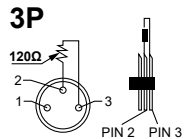
### 6.3 Signal connect



The lighting fixtures are equipped with standard DMX XLR 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  $\Omega$  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 1.8 "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 CKC Network reset Temperature detection LED temperature: xxxC Head temperature: xxxC Head humidity: xxx% PSU temperature: xxxC Base temperature: xxxC Base humidity: xxxC Tourist M3 Motor Reset Please Wait...			
<b>Receive</b>	Set Address	A001-XXX	
<b>User Mode</b>	User Modes	Standard Extend	
<b>Network</b>	Network	Net Protocol	ArtNet sACN
	Status	No DMX Mode P.Reverse T. Reverse Pan Regree Feedback Move.Speed Hibernation	Black/Hold/Auto ON/OFF ON/OFF 630/540 ON/OFF Speed 1~4 15M, 01M~99M
	Wheels	Color Short Color Scrol1 Gobo Short Gobo Scrol1	OFF/ON OFF/ON OFF/ON OFF/ON

Function	Fixture ID	Service PIN	XXX(50)
		Universe	xxx
		IP Address	xxx.xxx.xxx.xxx
		Mask Address	xxx.xxx.xxx.xxx
	Net Switch	ON/OFF	
	Dim Mode	Standard Stage TV Architecture Theatre	
		Celsius Fahrenheit	
		Linear/Square /Inv-Square/S-Curve	
		900Hz/1000Hz/1100Hz/1200Hz/1300Hz/1400Hz/1500Hz/2500Hz/4000Hz/5000Hz/10KHz/15KHz/20KHz/25KHz	
	Fan.Set	Head Fan	Auto High low
		Base Fan	Auto High low
	LCD.Set	Backlight	02~60m <05m>
		Flip Display	ON/OFF
		Key Lock	ON/OFF
		DispFlash language	ON/OFF English/Chinese
	Disp.Set	Chan.Value	PAN.....
		Slave Set Auto.Prog	Slave1,Slave2 Master / Alone
	DFSE	ON/OFF	
Test	Reset.Motor	A11/Pan&Tilt/Other	
	Test.Channel	PAN .....	
	Panel.Ctrl.	PAN =XXX:	
	Calibrate	-Password-(050) PAN、Tilt...	
	Time.Info	Current Time Total Time Last Time Time PIN Clear Last	
		LEDTemp: xxxF/C HeadTemp: xxxF/C PowerTemp: xxxF/C BaseTemp: xxxF/C	



Fan Speed	BaseFan1:xxxxRPM BaseFan2:xxxxRPM GoboFan:xxxxRPM BladeFan:xxxxRPM CoolFan1:xxxxRPM CoolFan2:xxxxRPM CoolFan3:xxxxRPM CoolFan4:xxxxRPM CoolFan5:xxxxRPM CoolFan6:xxxxRPM Head1Fan1 :xxxxRPM Head1Fan2 :xxxxRPM BoardFan: xxxxRPM
	Humi.Info HeadHumi:xxx% BaseHumi:xxx%
	Error. Info Pan,Tilt.....
	Model. Info Tourist M3
	Software.V 1U:V1.x.x 2U:V1.x.x 3U:V1.x.x 4U:V1.x.x 5U:V1.x.x 6U:V1.x.x 7U:V1.x.x 8U:V1.x.x 9U:V1.x.x

### 8. DMX channel table:

ST.	EX.	Values	Function
1	1	000~255	<b>Pan</b> 0% to 100%
2	2	000~255	<b>Pan fine</b> 0% to 100%
3	3	000~255	<b>Tilt</b> 0% to 100%
4	4	000~255	<b>Tilt fine</b> 0% to 100%
5	5	000~255	<b>Dimmer</b> 0% to 100%
6	6	000~255	<b>Dimmer fine</b> 0% to 100%
7	7		<b>Strobe</b>
		000~031	No function (shutter closed)
		032~063	No action, shutter open
		064~095	Strobe slow to fast
		096~127	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
8	8	000~255	<b>Cyan</b> 0% to 100%
	9	000~255	<b>Cyan fine</b> 0% to 100%
9	10	000~255	<b>Magenta</b> 0% to 100%
	11	000~255	<b>Magenta fine</b> 0% to 100%
10	12	000~255	<b>Yellow</b> 0% to 100%
	13	000~255	<b>Yellow fine</b> 0% to 100%
11	14	000~255	<b>CTO</b> 0% to 100%
	15	000~255	<b>CTO fine</b> 0% to 100%
12	16		<b>Color Wheel</b>
		000~000	Color off (open)
		001~011	Open / Color1
		012~022	Color1
		023~033	Color1 / Color2
		034~044	Color2
		045~055	Color2 / Color3
		056~066	Color3
		067~077	Color3 / Color4
		078~088	Color4
		089~099	Color4 / Color5
		100~110	Color5
		111~121	Color5 / Color6
		122~132	Color6
		133~143	Color6 / Color7
		144~154	Color7
		155~165	Color7 / Color8
		166~176	Color8
		177~188	Color8 / Open
		189~192	Open
		193~223	Color Wheel rot. fast -> slow, fwd
		224~224	Color Wheel rot. stop
		225~255	Color Wheel rot. slow -> fast, bwd
			<b>Gobo Wheel 1</b>
		000~013	Open
		014~030	Gobo 1

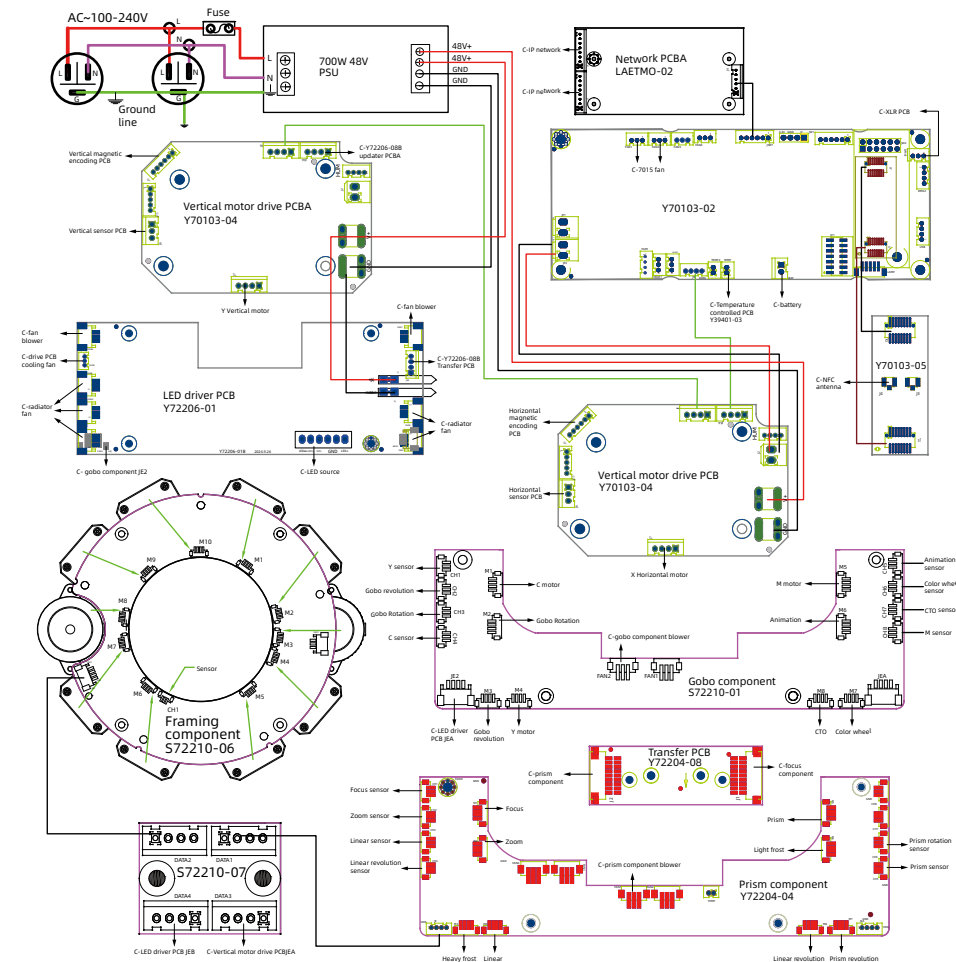
13	17	031~047	Gobo 2
		048~064	Gobo 3
		065~081	Gobo 4
		082~098	Gobo 5
		099~115	Gobo 6
		116~132	Gobo 7
		133~159	Open
		160~162	Gobo Shake 1 (slow -> fast)
		163~165	Gobo Shake 2 (slow -> fast)
		166~168	Gobo Shake 3 (slow -> fast)
		169~171	Gobo Shake 4 (slow -> fast)
		172~174	Gobo Shake 5 (slow -> fast)
		175~177	Gobo Shake 6 (slow -> fast)
		178~180	Gobo Shake 7 (slow -> fast)
		181~191	Open
		192~223	Gobo Wheel rotation fast -> slow, fwd
		224~224	Gobo Wheel rotation Stop
		225~255	Gobo Wheel rotation slow -> fast, bwd
14	18		<b>Gobo 1 Rotation</b>
		000~128	Gobo position 0° ... 540°
		129~191	Gobo rotation, fast -> slow, fwd
		192~192	Gobo rotation stop
		193~255	Gobo rotation, slow -> fast -> , bwb
15	19	000~255	<b>Gobo1 Rotation fine</b> Gobo indexing fine
16	20	000~255	<b>Zoom</b> Narrow to wide
	21	000~255	<b>Zoom fine</b> Narrow to wide
17	22	000~255	<b>Focus</b> 0% to 100%
18	23	000~255	<b>Focus fine</b> 0% to 100%
19	24		<b>Iris</b>
		000~191	Max. diameter to Min.diameter
		192~212	Pulse opening fast to slow
		213~233	Pulse closing slow to fast
		234~254	Random effect, slow -> fast
		255~255	Fast opening to Fast closing
20	25		<b>Prism 1</b>
		000~005	Prism Off
		006~255	Prism 1
21	26		<b>Prism 1 Rot</b>
		000~128	Prism1 position 0° ... 540°
		129~191	Prism1 rotation, fast -> slow, fwd
		192~192	Prism1 rotation Stop

		193~255	Prism1 rotation, slow -> fast , bwd
22	27		<b>Prism 2</b>
		000~005	Prism Off
		006~255	Prism 2
23	28		<b>Prism 2 Rot</b>
		000~128	Prism2 position 0° ... 540°
		129~191	Prism2 rotation, fast -> slow, fwd
		192~192	Prism2 rotation Stop
24	29	000~255	<b>Frost soft</b> 0% to 100%
25	30	000~255	<b>Frost heavy</b> 0% to 100%
26	31		<b>Animation</b>
		000~005	Animation Off
		006~063	Animation indexing
		064~094	Animation Rotation fast to slow, CW
		095~096	No rotation
		097~127	Animation Rotation slow to fast, CCW
		128~158	Animation Rotation slow to fast, CW to CCW
		159~160	No rotation
		161~191	Animation Snap.fast to slow, CW
		192~193	No rotation
		194~224	Animation Snap.slow to fast, CCW
		225~255	Animation Snap.slow to fast, CW to CCW
27	32	000~255	<b>Blade 1A</b> 0% to 100%
	33	000~255	<b>Blade 1A fine</b> 0% to 100%
28	34	000~255	<b>Blade 1B</b> 0% to 100%
	35	000~255	<b>Blade 1B fine</b> 0% to 100%
29	36	000~255	<b>Blade 2A</b> 0% to 100%
	37	000~255	<b>Blade 2A fine</b> 0% to 100%
30	38	000~255	<b>Blade 2B</b> 0% to 100%
	39	000~255	<b>Blade 2B fine</b> 0% to 100%
31	40	000~255	<b>Blade 3A</b> 0% to 100%
	41	000~255	<b>Blade 3A fine</b> 0% to 100%

32	42	000~255	<b>Blade 3B</b> 0% to 100%
	43	000~255	<b>Blade 3B fine</b> 0% to 100%
33	44	000~255	<b>Blade 4A</b> 0% to 100%
	45	000~255	<b>Blade 4A fine</b> 0% to 100%
34	46	000~255	<b>Blade 4B</b> 0% to 100%
	47	000~255	<b>Blade 4B fine</b> 0% to 100%
35	48	000~255	<b>Blade Rotation</b> 0% to 100%
	49	000~255	<b>Blade Rotation fine</b> 0% to 100%
36	50	000~255	<b>Pan/Tilt Speed</b> Pan/Tilt Fast -> Slow
37	51		<b>Dim Mode</b>
		000~020	Standard
		021~040	Stage
		041~060	TV
		061~080	Architectural
		081~100	Theatre
		101~255	Default to Unit Setting
38	52		<b>Device settings</b>
		000~005	No function
		006~007	Blackout while P/T moving on
		008~009	Blackout while P/T moving off
		010~011	Blackout while wheels moving on
		012~013	Blackout while wheels moving off
		014~041	No function
		042~043	Invert Pan on (hold 3s)
		044~045	Invert Pan off (hold 3s)
		046~047	Invert Tilt on (hold 3s)
		048~049	Invert Tilt off (hold 5s)
		050~051	Pan Angle 540° (hold 3s)
		052~053	Pan Angle 630° (hold 3s)
		054~101	No function
		102~103	Fan Constant Low (hold 3s)
		104~105	Fan Constant Auto (hold 3s)
		106~107	Fan Constant High (hold 3s)
		108~163	No function
		164~165	Dimmer Curve Linear (hold 3s)
		166~167	Dimmer Curve Square (hold 3s)
		168~169	Dimmer Curve Inv-Square(hold 3s)

170~171	Dimmer Curve S-Curve (hold 3s)
172~221	No function
222~223	Reset Pan / Tilt (hold 3s)
224~233	No function
234~235	Reset Head complete (hold 3s)
236~237	Reset all functions (hold 3s)
250~255	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		

