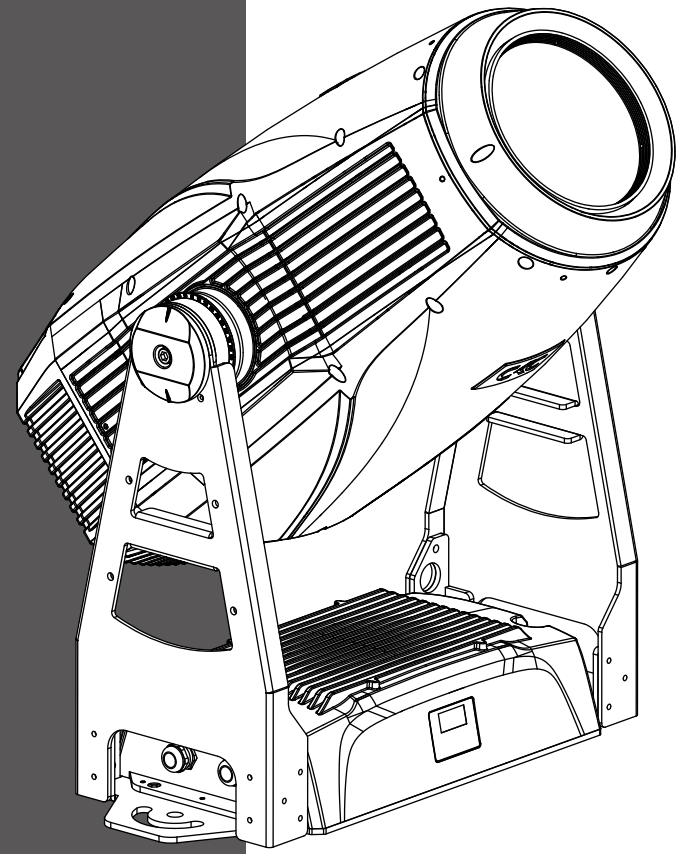
GOBO Projector
1000



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.

CKC LIGHTING CO.,LTD

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★ Statement ★

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

1. Security Warning Information

Attention !

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

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

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

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

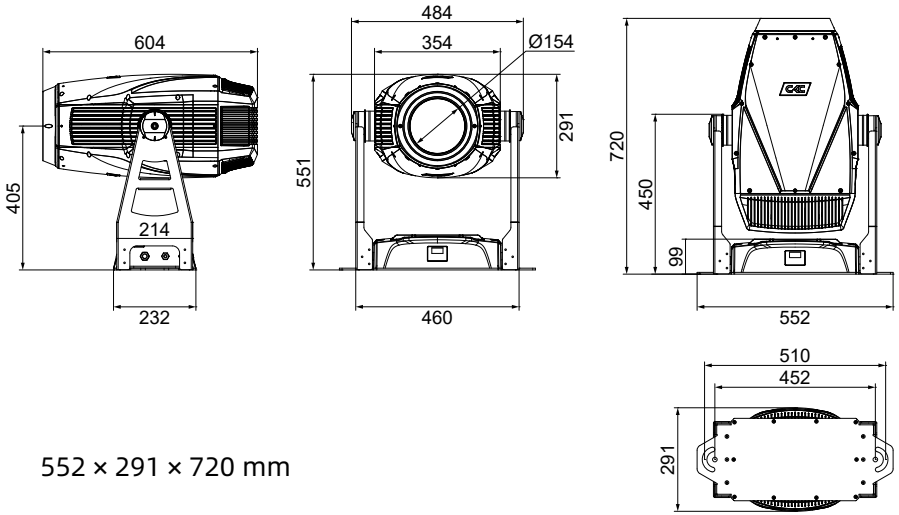
- Before installation, please confirm that the power supply voltage used matches the voltage indicated on the light fixture. Each lighting fixture should be properly grounded and electrically installed according to relevant standards;
- Please disconnect the power before repairing or cleaning the equipment;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

- The lighting fixtures work normally at -20 ℃ to 45 ℃ . 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 76 ℃ , 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

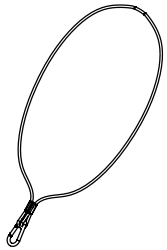
2.1 Exterior dimensions of lighting fixtures



552 × 291 × 720 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

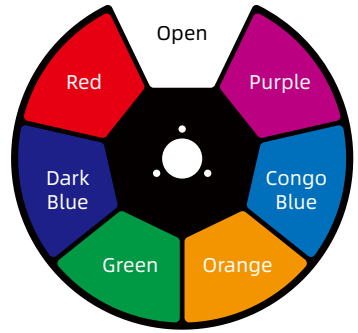
Rated input voltage：AC 100V-240V~ 50Hz/60Hz
Rated power of the entire fixture：1150W
Power factor：0.99F
Input Current：4.4A 220V

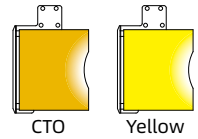
● Source lifespan

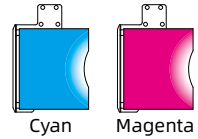
>20000 hours

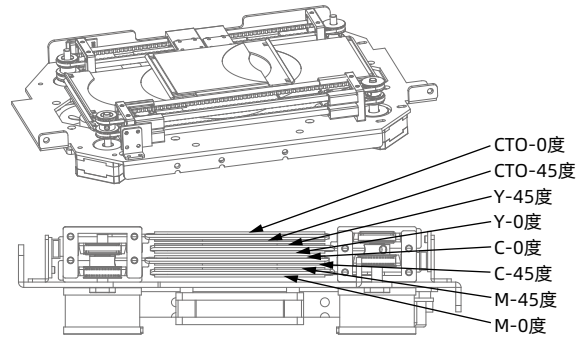
● Color system

CCT: 6500K
CRI：72
Color wheel: 6+1
CMY+CTO



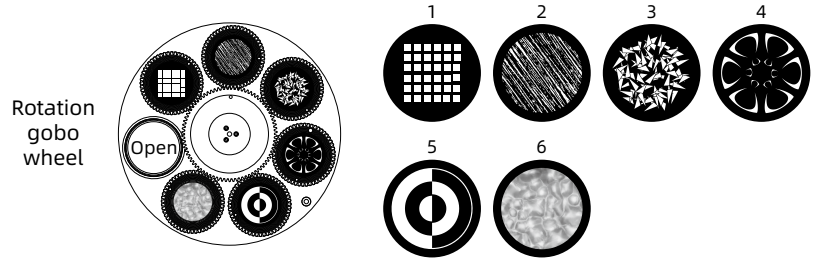


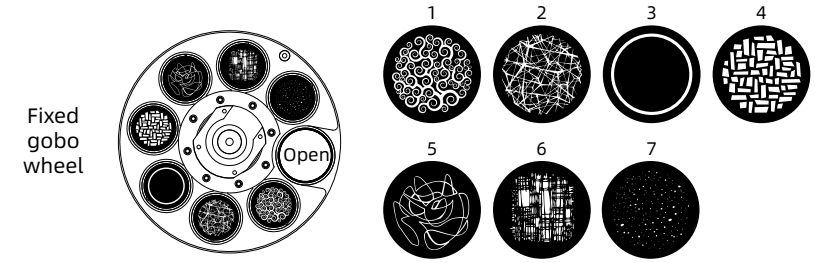




● Gobo system

Gobo outer diameter：30mm $^{+0}_{-0.2}$ mm
Internal diameter：25mm
Thickness：1.1mm

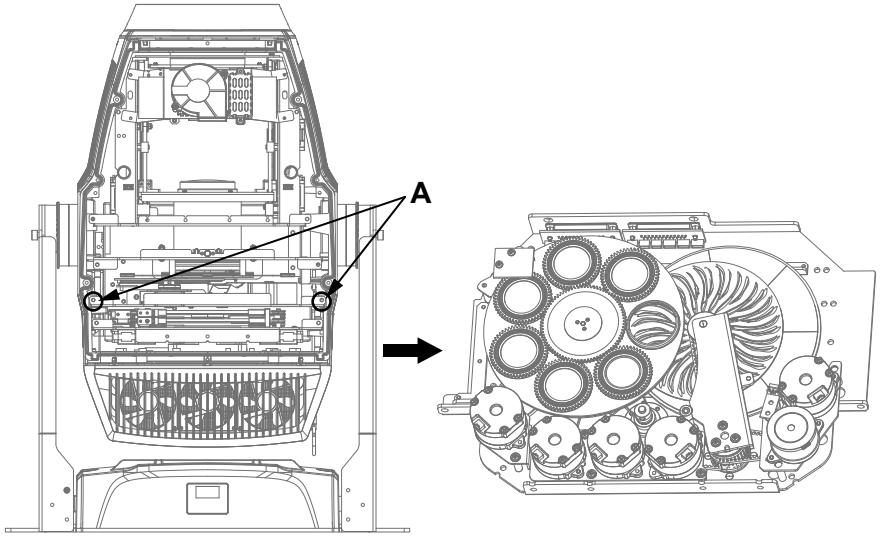




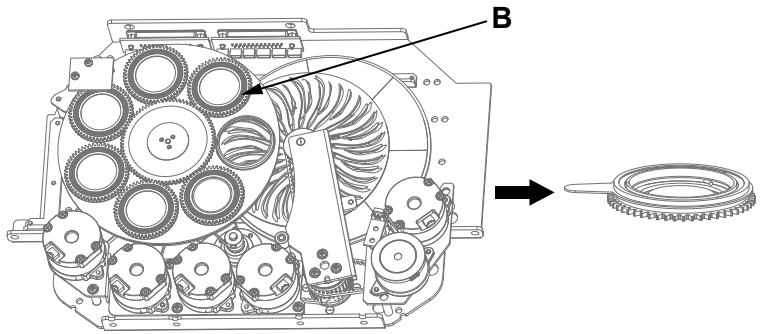
Gobo replace

1) Rotation gobo wheel

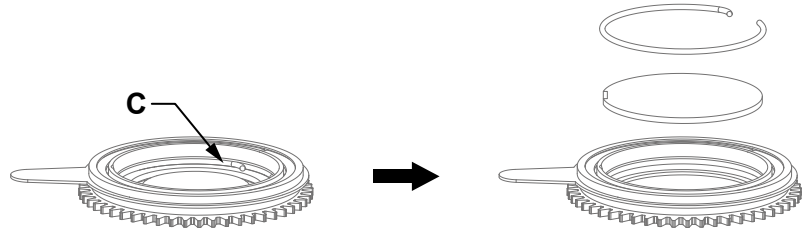
a). Remove the two screws at location **A**, unplug the power and signal adaptercables, and extract the Gobo component;



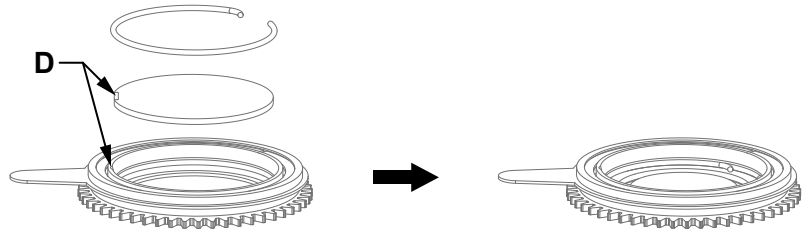
b). As shown in **B**, gently lift the driven wheel from the edge upwards from the front of the pattern plate and slowly pull it out to remove a single pattern seat;



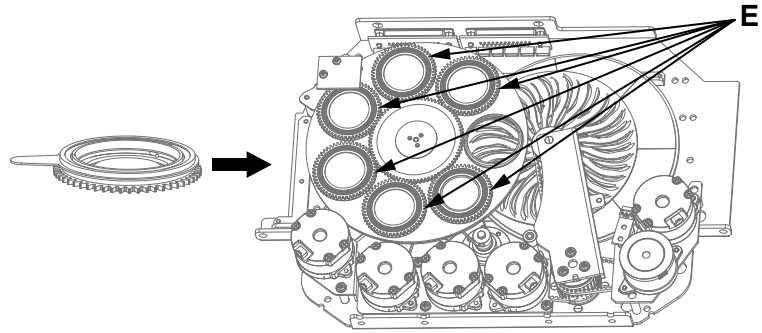
c). Use tweezers or other small grippers to remove the snap spring at point **C** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



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);

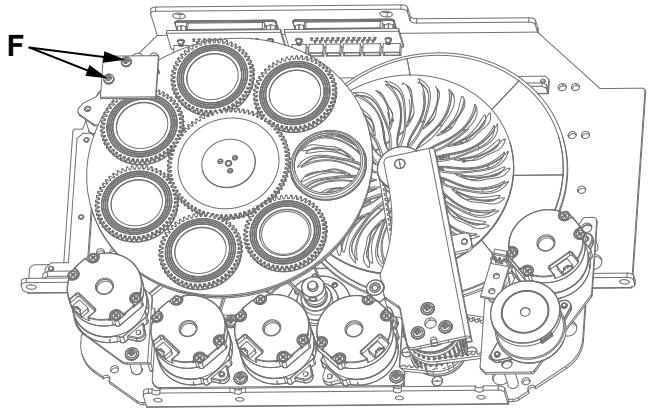


e). Insert the gobo holder into the drive wheel assembly, as shown in **E**, and reinstall the gobo holder in the order it was removed; The positioning point of the gobo holder should be aligned with the positioning point of the driving wheel; After installation, simply reinstall the gobo wheel component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

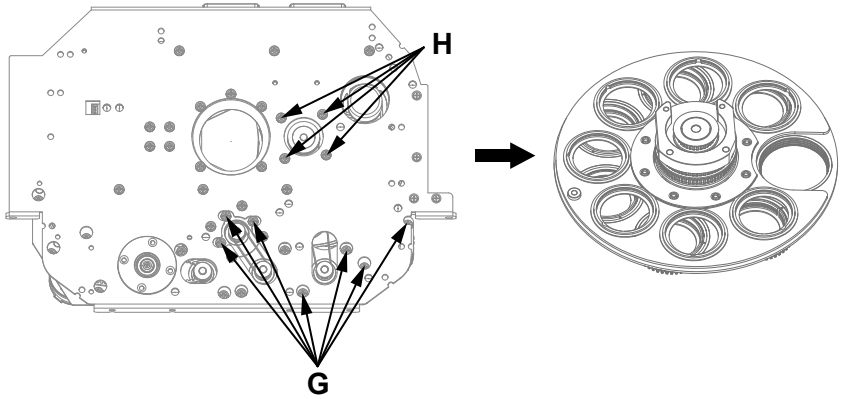


2) Fixed gobo wheel

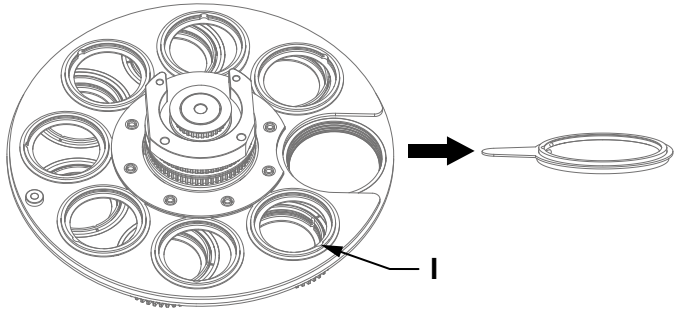
a). Unscrew the 2 screws on the front **F** of the gobo wheel component and remove the magnetic sensing plate;



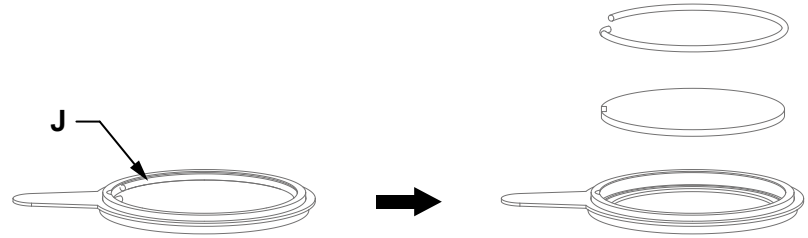
b). Reverse the components and loosen the 7 screws at **G** to loosen the belt; Unscrew the 4 screws at position **H** again to remove the gobo wheel component of the pattern disk;



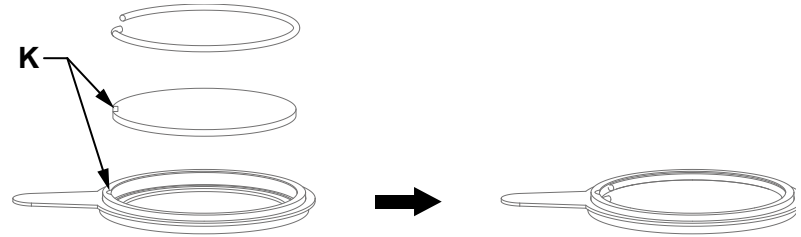
c). As shown in **I**, gently lift the gobo holder from the edge of the fixed gobo wheel and slowly pull it out to remove a single gobo holder;



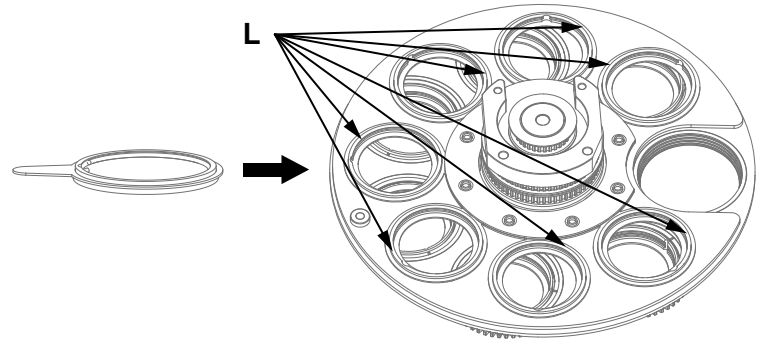
d). Use tweezers or other small grippers to remove the snap spring at point **J** (If the pattern piece is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap spring to avoid damaging the gobo);



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);



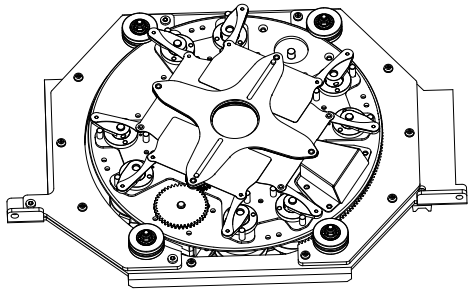
f). Insert the gobo wheel into the drive wheel assembly, as shown in **L**, and reinstall the gobo holder in the order it was removed;



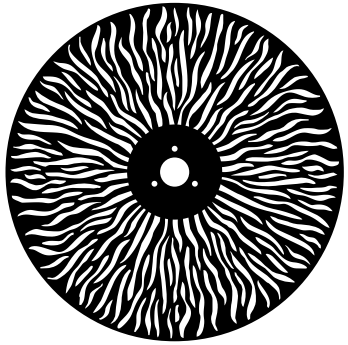
g). After installation, simply reinstall the gobo wheel component onto the light fixture.

● **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 ±60º

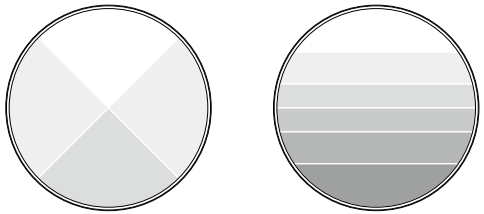


● **Animation**



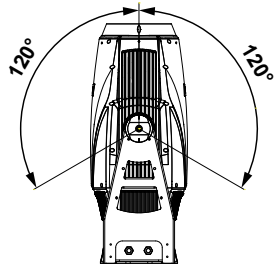
● **Prism system**

4 prism+ 6 linear



● **Tilt**

Horizontal fixed angle, can't be adjust
Vertical adjustable angle, adjustable angle range ±120°



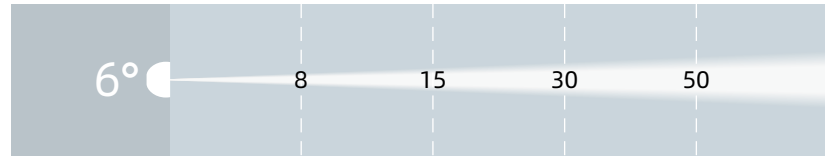
● **Optical system**

Source：800W CW LED
Beam angel: 6 ~ 53°
Output luminous flux：40000 Lm

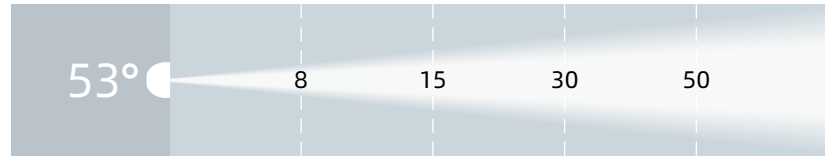
● **Control and programming**

Control channel：32CH/47 CH
Protocol：DMX512, RDM
Data connect：3 pin signal in/out

● **Illumination draw**



Lux	33270	10530	2093	753
Distance(m)	0.84	1.57	3.14	5.24



Lux	1519	420	90
Distance(m)	8.00	14.96	29.91

● **Other effect function**

Fast electronic strobe：1~25Hz
LED refresh frequency：900Hz-25KHz
Frost：Light frost+heavy frost
Iris

● **Other features and functions**

Weight：35 KG
Carton size: 88.5 × 62.5 × 45.5 cm
N.W: 41.8 KG

4. Packaging and transportation

4.1 Disassemble packaging

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

4.2 Equipment packaging

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

5. Installation Requirements Explanation

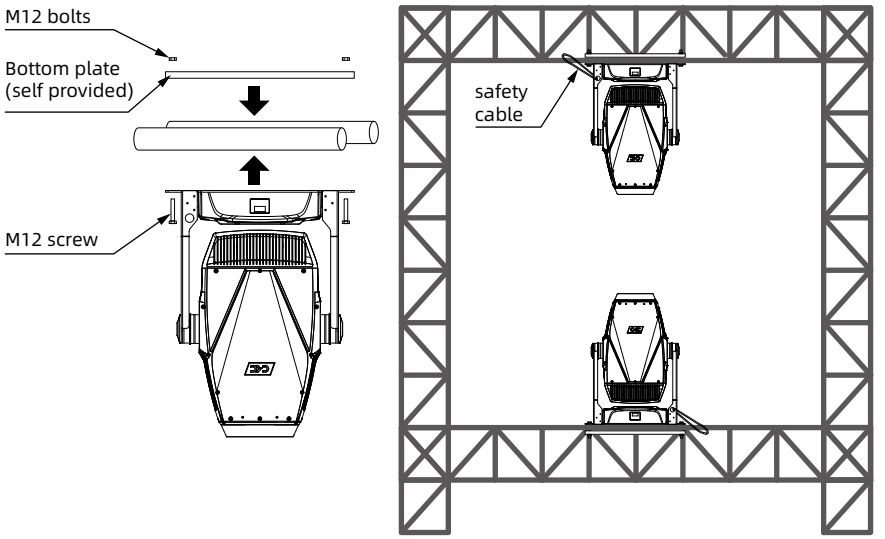
5.1 Clamp install

1. After the bottom plate of the fixtures is tightly attached to the truss, use M12 bolts to pass through the installation holes on the bottom plate, and lock the other end with M12 nuts.
2. After fixing the fixture on the truss, one safety cable must be added and connected to the circular hole of the fixture arm.

Waining !

The lighting fixture must be fixed with 2 M12 screws, and an additional safety rope must be connected to the safety rope holes on the left and right support plates of the arm. Be careful not to connect it to the handling handle.

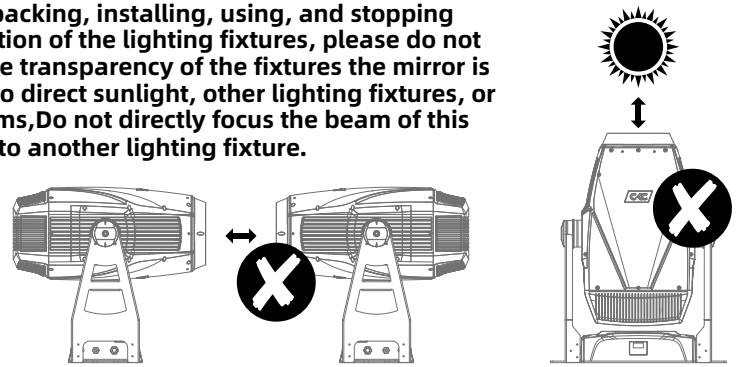
5.2 Installation Diagram



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.

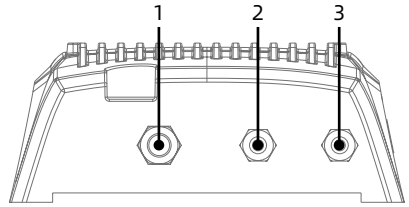
When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams,Do not directly focus the beam of this device onto another lighting fixture.



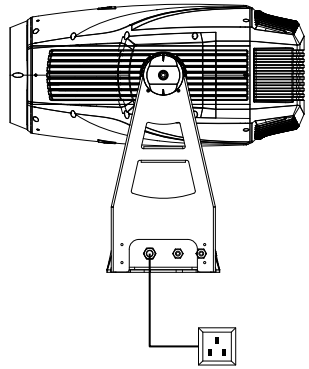
6. Power、Signal connect

6.1 Power and signal socket

1、Power Input
2、DMX In
3、DMX Out



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.

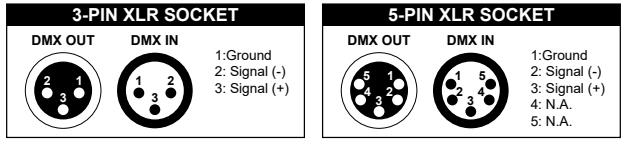
Power In

This product uses Powercon In/Out to connect power cable. Due to power limitations, a 2mm power cable can drive up to 1 fixtures at 220V.

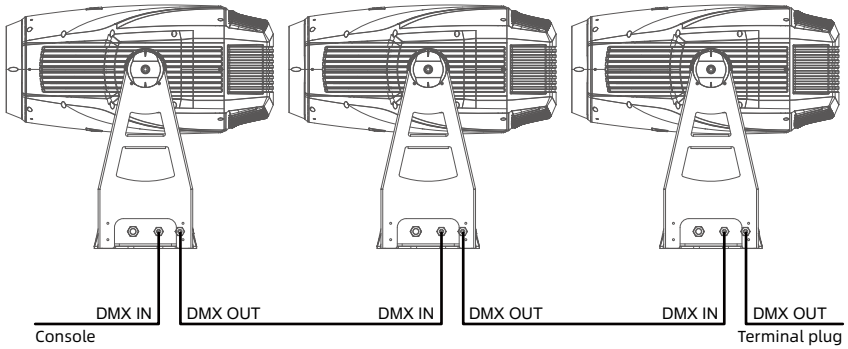
Waining !

- 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.

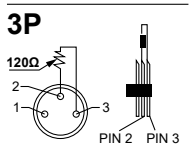
6.3 Signal connect

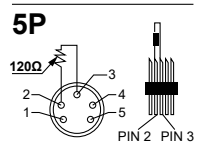


The lighting fixtures are equipped with standard DMX XLR input and output sockets. Please use DMX512 shielded twisted pair signal cables or Category 5 or above network twisted pair cables for connection. The typical connection distance for DMX signal lines is 150 meters. When transmitting signals over long distances, a DMX512 signal amplifier must be added.



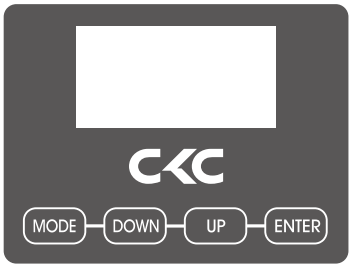
Connect a shielded twisted pair signal cable from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3 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 CKC Gobo Pro. 1000 Please Wait... Motor Reset...			
DMX Settings	Dmx Presets	A001~AXXX	
	DMX Mode	Standard (32CH) Extend (47CH)	
	No DMX Status	Face to Black/Hold Last/Manual Control	
Menu Personality	Status	Hibernation	OFF, 01M~99M, 15M
	Dim Mode	Standard Stage TV Architectural Theatre	
	Dim Curves	Linear	
		Square	
		Square Inverse	
		S-Curve	
	Frequency	1200Hz/3600Hz/5000Hz/10KHz/15KHz/20KHz/25KHz	
	Fan Set	Head Fan	Auto High Low
	LCD Settings	Backlight	30S/01M~10M /OFF
		Key Lock	OFF/ON/ ON1
		Flip Display	ON/OFF
		Flip Display	ON/OFF
	Reset Motor	Reset Head All motors	
	Calibrarion (Password 50)	Cyan 000-255 Magenta 000-255 Yellow 000-255 ...	
	DFSE	ON/OFF	
Menu Manual Control	Dimmer Dimmer Fine Strobe ... Control	000-255 000-255 000-255 ... 000-255	

Menu Info	Time.Info	Current Time	xxxxx Hours
		Total Time	xxxxx Hours
		Last Time	xxxxx Hours
		Timer PIN	(000-255)
		Clear Last (50)/ Clear Total (60)	ON/OFF
	Temp. Info	LED Temp Base Temp	xxxF/xxxC xxxF/xxxC
	Fan Speed	LED 1: xxxx RPM LED 2: xxxx RPM LED 3: xxxx RPM LED 4: xxxx RPM LED 5: xxxx RPM LED 6: xxxx RPM LED 7: xxxx RPM LED 8: xxxx RPM CMY 1: xxxx RPM CMY 2: xxxx RPM Gobo 1: xxxx RPM Gobo 2: xxxx RPM Blade: xxxx RPM Head 1: xxxx RPM Head 2: xxxx RPM Base 1: xxxx RPM Base 2: xxxx RPM	
	Error. Info	NONE/Cyan...	
	Model. Info	Gobo Pro. 1000	
	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	
Program	Play Scene/Loop	User Scene 1~4	running built-in program 1~4
	Edit User Scene	User Scene 1~4	Edit Step 1...15
	Clear Program	User Scene 1~4 Clear All	Clear Step1...15 + Clear Scene

8. DMX channel table:

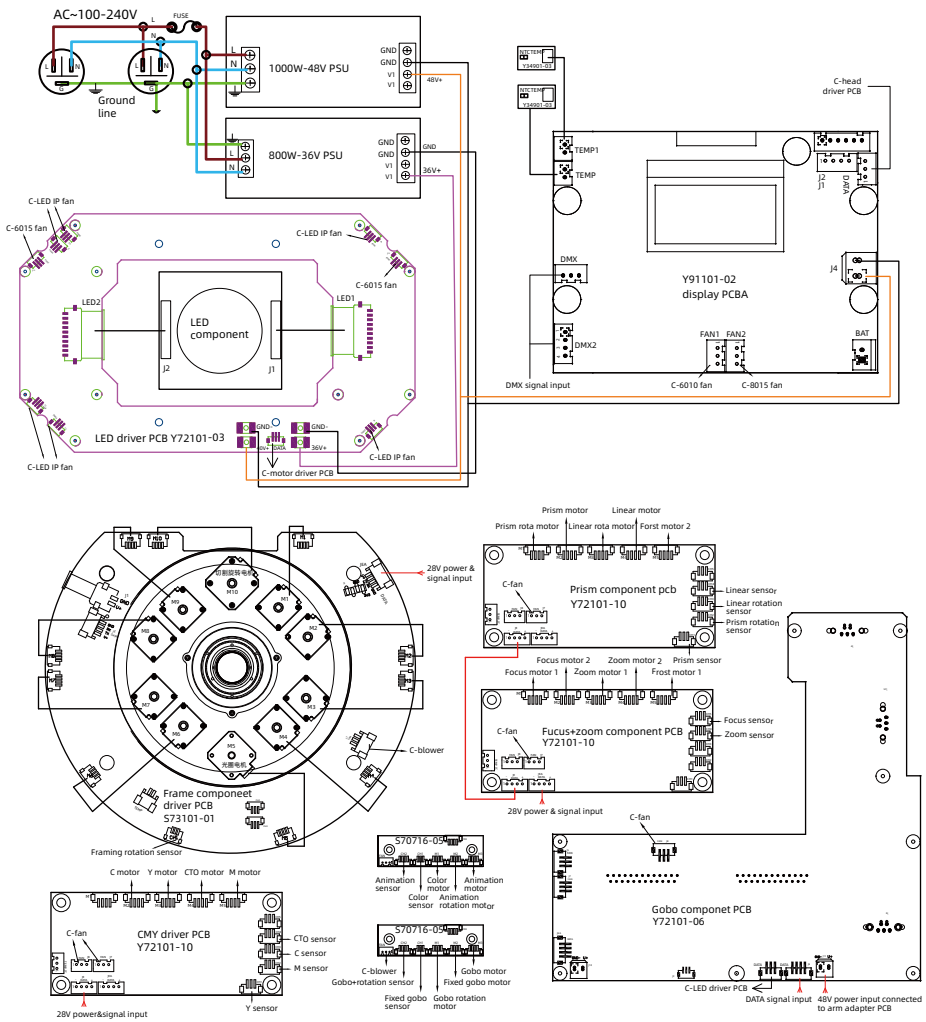
ST.	EX.	Function	Values	
1	1	Dimmer	000~255	Intensity 0 to 100%
2	2	Dimmer fine	000~255	Dimmer Intensity Fine
			Shutter, Strobe:	
			000~031	shutter closed
			032~063	shutter open
3	3	Strobe functions	064~095	strobe Slow to fast
			096~127	shutter open
			128~159	pulse effect Slow to fast
			160~191	shutter open
			192~223	random strobe Slow to fast
			224~255	shutter open
4	4	Cyan	000~255	0% to 100%
	5	Cyan Fine	000~255	0% to 100%
5	6	Magenta	000~255	0% to 100%
	7	Magenta Fine	000~255	0% to 100%
6	8	Yellow	000~255	0% to 100%
	9	Yellow Fine	000~255	0% to 100%
7	10	CTO	000~255	0% to 100%
	11	CTO Fine	000~255	0% to 100%
8	12	Colour Wheel	**Color Wheel :**	
			000~005	Color off (open)
			006~115	Open → Color1..Color6 → Open
			116~120	Open
			121~130	Deep Red
			131~140	Deep Blue
			141~150	Green
			151~160	Orange
			161~170	Congo Blue
			171~180	Lavender
			181~192	Color off (open)
			193~223	Color Wheel rot. Slow -> Fast, CW
			224~224	Color Wheel rot. Stop
			225~255	Color Wheel rot. Fast -> Slow, CCW
9	13	Colour Wheel Fine	000~255	0% to 100%
10	14	GoboWheel 1	**Rotanting Gobos:**	
			000~005	Open
			006~020	Gobo 1
			021~035	Gobo 2
			036~050	Gobo 3
			051~065	Gobo 4
			066~080	Gobo 5
			081~095	Gobo 6
			096~110	Gobo 1 shake (slow-fast)
			111~125	Gobo 2 shake (slow-fast)

			126~140	Gobo 3 shake (slow-fast)
			141~155	Gobo 4 shake (slow-fast)
			156~170	Gobo 5 shake (slow-fast)
			171~185	Gobo 6 shake (slow-fast)
			186~192	Open
			193~223	Gobo Wheel rot. Slow -> Fast, CW
			224~224	Gobo Wheel rot. Stop
			225~255	Gobo Wheel rot. Fast -> Slow, CCW
11	15	Gobo 1 Rotation	**Rotanting Gobo Index:**	
			000~005	Gobo1 Rot. Off
			006~128	Gobo Position 0° ... 540°
			129~191	Gobo Rotation, Slow -> Fast, CW
			192~192	Gobo Rotaion Stop
			193~255	Gobo Rotation, Fast -> Slow, CCW
12	16	Gobo 1 Rotation fine	000~255	Gobo indexing fine
13	17	GoboWheel 2	**Fixed Gobo:**	
			000~005	Open
			006~018	Gobo 1
			019~031	Gobo 2
			032~044	Gobo 3
			045~057	Gobo 4
			058~070	Gobo 5
			071~083	Gobo 6
			084~096	Gobo 7
			097~109	Gobo 1 shake (slow-fast)
			110~122	Gobo 2 shake (slow-fast)
			123~135	Gobo 3 shake (slow-fast)
			136~148	Gobo 4 shake (slow-fast)
			149~161	Gobo 5 shake (slow-fast)
			162~174	Gobo 6 shake (slow-fast)
			175~187	Gobo 7 shake (slow-fast)
			188~192	Open
			193~223	Gobo Wheel rot. Slow -> Fast, CW
			224~224	Gobo Wheel rot. Stop
			225~255	Gobo Wheel rot. Fast -> Slow, CCW
14	18	Zoom	000~255	Narrow to wide
	19	Zoom fine	000~255	narrow to wide
15	20	Focus	000~255	0% to 100%
	21	Focus fine	000~255	0% to 100%

16	22	Iris	**Iris:**	
			000~225	Open - Close
			226~235	Pulse up, slow -> fast
			236~245	Pulse dowm, slow -> fast
			246~255	Random effect, fast -> solw
17	23	PrismWheel	**PrismWheel:**	
			000~005	No Prism
			006~130	Prism 1 (6 liner Prism)
			131~255	Prism 2 (4 Facet Prism)
18	24	Prism rotation	**Prism rotation:**	
			000~005	Prism Rot. Off
			006~128	Prism Position 0 ... 540°
			129~191	Prism Rotation, Slow -> Fast, CW
			192~192	Prism Rotation Stop
			193~255	Prism Rotation, Fast -> Slow, CCW
19	25	Frost1	000~255	0% to 100%
20	26	Frost2	000~255	0% to 100%
21	27	Effect Wheel	**Animation1:**	
			000~005	Wheel Rot. Off
			006~128	Wheel Position 0 ... 540°
			129~191	Wheel rot. Slow -> Fast, CW
			192~192	Wheel rot. Stop
			193~255	Wheel rot. Fast -> Slow, CCW
22	28	Blade 1A	000~255	0% - 100%
	29	Blade 1A fine	000~255	0% - 100%
23	30	Blade 1B	000~255	0% - 100%
	31	Blade 1B fine	000~255	0% - 100%
24	32	Blade 2A	000~255	0% - 100%
	33	Blade 2A fine	000~255	0% - 100%
25	34	Blade 2B	000~255	0% - 100%
	35	Blade 2B fine	000~255	0% - 100%
26	36	Blade 3A	000~255	0% - 100%
	37	Blade 3A fine	000~255	0% - 100%
27	38	Blade 3B	000~255	0% - 100%
	39	Blade 3B fine	000~255	0% - 100%
28	40	Blade 4A	000~255	0% - 100%
	41	Blade 4A fine	000~255	0% - 100%
29	42	Blade 4B	000~255	0% - 100%
	43	Blade 4B fine	000~255	0% - 100%

30	44	Shape Rotation	000~255	Rotation from 0 to 120°
	45	Shape Rotation Fine	000~255	0% - 100%
31	46	Set dimmer Mode	**Dimmer Mode:**	
			000~020	Standard
			021~040	Stage
			041~060	TV
			061~080	Architectural
			081~100	Theater
			101~255	Default to Unit Setting
32	47	Device settings	**Device settings:**	
			000~053	No function
			054~065	Fan Auto (Hold 3s)
			066~070	Fan Silent (Hold 3s)
			071~077	Fan Hihg (Hold 3s)
			078~089	Linear Dimmer Curve (hold 3s)
			090~101	Square Dimmer Curve (hold 3s)
			102~113	Inv-Square Dimmer Curve (hold 3s)
			114~125	S - Dimmer Curve (hold 3s)
			126~137	Led Freq. 1200 Hz (hold 3s)
			138~149	Led Freq. 3600 Hz (hold 3s)
			150~161	Led Freq. 5000 Hz (hold 3s)
			162~173	Led Freq. 10.000 Hz (hold 3s)
			174~185	Led Freq. 15.000 Hz (hold 3s)
			186~197	Led Freq. 20.000 Hz (hold 3s)
			198~209	Led Freq. 25.000 Hz (hold 3s)
			210~221	No function
			222~233	Reset only Head (Hold 3s)
			234~255	Reset All Functions (Hold 3s)

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.

Waining !

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