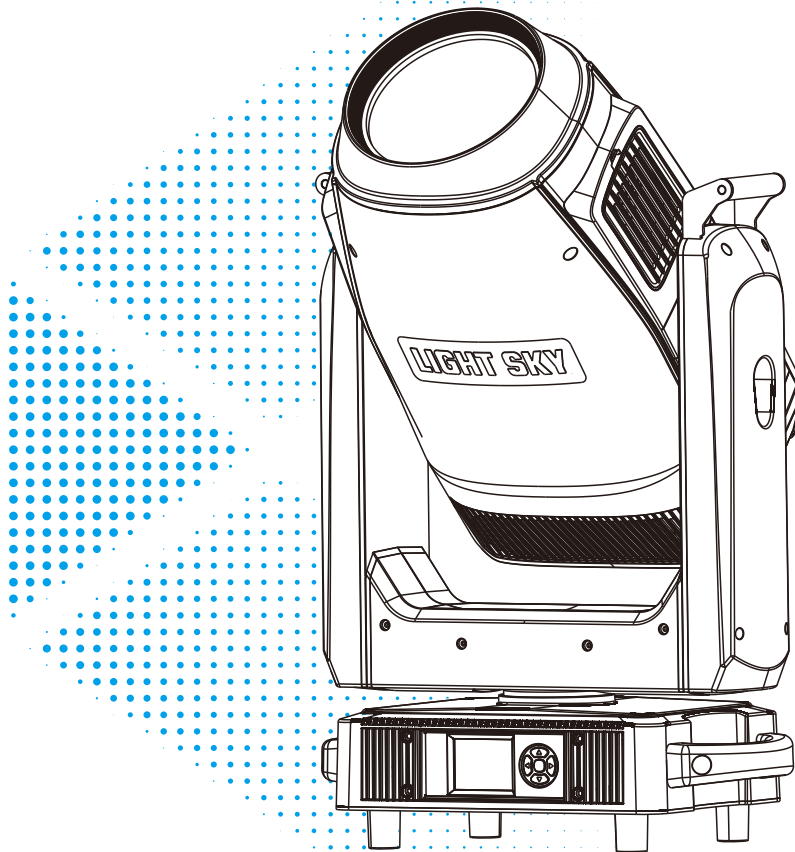


LIGHT SKY

www.lightsky.com.cn



SUPER SCOPE PLUS User Manual

Please read the instruction carefully before use

Fly Dragon Lighting Equipment Co., Ltd.

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Congratulations on choosing our company product! We thank you for your custom.

- Please keep in mind that this product, like other products of the company, adheres to the concept of people-oriented design and manufacture, and takes product quality as the foundation.
- We put the interests of customers first, and do our best to meet customer requirements.
- Please read this instruction manual carefully and keep it for future reference. In the case of fully understanding the product information, strictly abide by theUse the instruction manual to ensure that the product is installed, used and serviced correctly and safely.
- Our company is not responsible for any damage to lamps or other performance due to personal failure to follow the instructions during installation, use and maintenance.responsibility.
- Our company reserves the right to modify the manual at any time and without prior notice.

1.Safety Instructions



WARNING

Please read the instruction carefully which includes important information about the installation, usage and maintenance.

Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this manual.

The following symbols are used to identify important safety information on the product and in this manual:

WARNING! Safety hazard. Risk of severe injury or death.	WARNING! Refer to manual before installing, powering or servicing.	WARNING! Hazardous voltage. Risk of severe or lethal electric shock.	WARNING! Fire hazard.	WARNING! Burn hazard. Hot surface, not touch. Do not touch	WARNING! Risk of eye injury. Safety glasses must be worn.	WARNING! Risk of hand injury. Safety gloves must be worn.	WARNING! Avoid direct eye contact
DANGER! Applies only to luminaires directly mounted on surfaces of non-combustible materials	DANGER! Do not discard Trash can	DANGER! Mark of ground	DANGER! Replace all shatter shields	DANGER! Take a short distance from the object to be photographed (meters)	DANGER! Rated maximum ambient temperature	DANGER! Indoor use only	DANGER! Do not point the lens towards the sun or strong light
							DANGER! Operation not allowed during runtime

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is for indoor use only. Use only in a dry location.
- Do install and operate by qualified operator.
- The light source in this luminaire should be replaced by the manufacturer or its service agent or a similarly qualified person, always cut off the power supply before replacing he light source.
- Do not allow children to operate the fixture.
- The unit must be installed in a location with adequate ventilation, at least 20cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.

- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature Ta: -0°C. Maximum ambient temperature Ta: 40°C.
- Do not operate this product at a lower or higher temperature.
- Do not connect the device to any dimmer pack.
- When the lamp is running, do not place combustible objects next to it. The shortest distance between the device and inflammable and explosive objects or materials is 50cm.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 80°C. Do not touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- Do not operate in a dirty or dusty environment. Do clean the fixture regularly.
- Do not touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 3 meters.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- Do not open the housing as there are no user serviceable parts inside.
- Do not attempt to operate this unit if it becomes damaged. Do not attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- Do use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- Do not operate this product if you see damage on the housing, shields, or cables.
Have the damaged parts replaced by an authorized technician at once.

Installation:

The luminaire must be securely fastened to the quick-lock hook with screws to prevent vibration or slipping during operation. The supporting structure must be able to withstand 6 times the weight of the luminaire. Additionally, a safety cable must be installed that can endure 30 free-fall drops from 300mm without failure. Installation should only be performed by qualified professionals, and the luminaire must be mounted in an area inaccessible to unauthorized personnel or away from pedestrian traffic.

2. Technical Specifications

OPTICS

- Light source: 880W white LED module
 - Zoom range: 5.5° -52 °
 - Optical lens: coated with high anti-reflection film, $\phi 180\text{mm}$
 - Color temperature: 6800 K
 - Color rendering index: $RA \geq 71$ / $RA \geq 90$ (Cutting into high resolution digital filters)
 - Total light output flux: 41000 Lm
 - LED source life expectancy: 50000 hours
- (*LED source life depends on several factors, including but not limited to: environmental conditions, control dimming, power supply and voltage, switching cycle, fixture mode, etc.)

COLOR

- CMY infinite color mixing
- CTO color temperature linear adjustment : 2800K-6800K.
- 5 color chips+white light+CRI, can achieve bidirectional color rainbow, dual color step gradient (linear movement), color wheel bidirectional rotation, random color mode

PATTERN

- 2 rotating gobo wheels, 14 glass gobo pieces, the overlay effect is full of dynamics, pluggable and replaceable, and can realize the effects of rotation, flowing water and shaking.
- Rotary disk A: 7 kinds of glass patterns + white circle, the outer diameter of the gobo is 26.9mm, and the inner diameter of the gobo is 21.5mm.
- Rotary disc B: 7 kinds of glass patterns + white circle, the outer diameter of the gobo is 26.9mm, and the inner diameter of the gobo is 21.5mm.
- Dynamic effect plate
- Eight-way cutting: 4 gratings to achieve fast and smooth cutting, eight cutting directions and angles can be controlled separately, each single piece can achieve complete light closure, The whole cutting module can be rotated by $\pm 55^\circ$.

EFFECT

- Four prisms + four rows of mirrors, can rotate in two directions, can be switched independently, can be superimposed
- Heavy atomization + light atomization, can be switched independently, can be superimposed.
- With electric aperture, 5-100% linear adjustment, with macro function multi effect change
- Electronic dimming, 0-100% linear dimming, uniform spot
- Electronic strobe speed is 1-25 times/S
- LED refresh frequency: 1000Hz ~ 25KHz

CONTROL AND PROGRAMMING

- Control channels: 43CH, 55CH
- Protocol: Standard DMX512 protocol, RDM protocol, Art-Net
- Data connection: three or five core signal input/output
- RJ45 interface
- Display: LCD screen

SOFTWARE

- Upgrade software via DMX signal or USB interface
- Silent fan, three operating modes (HighOutput/Standard/Silent)
- Intelligent temperature control to ensure LED life

X/Y ANGLE OF MOTION

- X-axis: 540° 8bit/16bit precision scan
- Y-axis: 270° 8bit/16bit precision scan
- Reset function with automatic error correction
- Fixed lock: Y-axis lock

POWER

- Input voltage: AC 100-240V 50/60Hz
- Maximum power: 1400W
- Power factor: 0.996
- Maximum current of luminaire: 7A/220V; 14A / 110 V

SIZE & WEIGHT

- Lighting Size : 442×282×788mm
- N.W.: 38.0kg
- EPP Box Size : 660×560×740mm G.W.: 46.1kg
- Box Size : 520×370×870mm G.W.: 42.1kg
- EPP Flycase Size (Optional-1 set): 700X700X880mm
- G.W.: 74.6kg
- Flycase Size (Optional-1 set): 660X520X840mm
- G.W.: 70.5kg

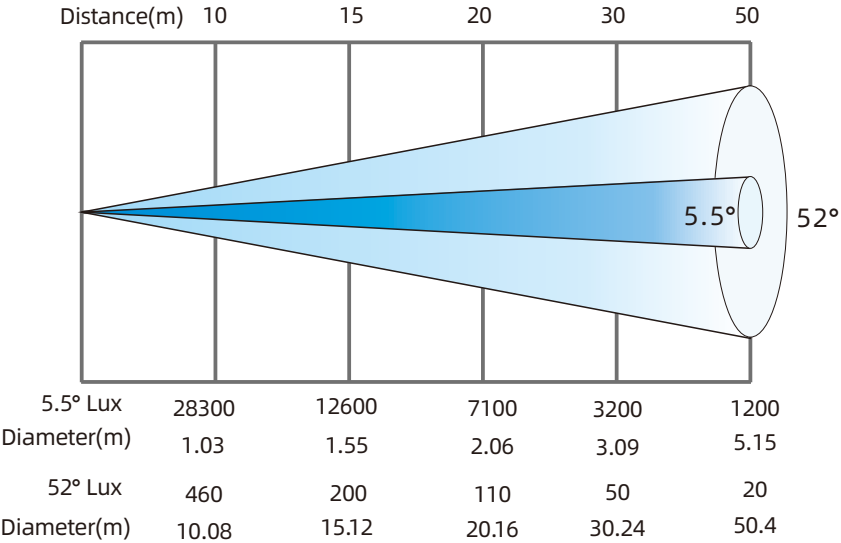
OTHERS

- IP rate : IP20
- Working Ambient : 0°C~ 40 °C
- Maximum temperature of lamp body surface: 80 °C

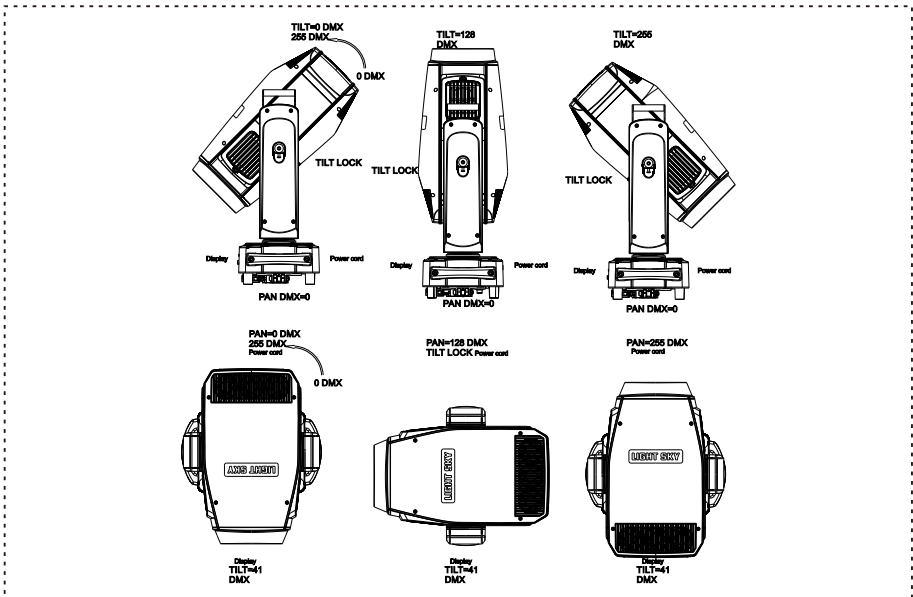
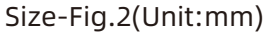
STANDARDS AND CERTIFICATION

- The product implementation standard: GB/T 7000.1-2023 、 GB/T 7000.217-2023
- Approved certifications: CE、RoHs
- The product complies with the following EU directives:
Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

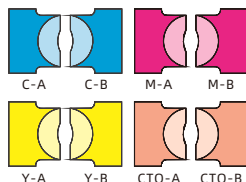
illumination diagram



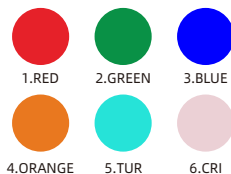
Attachment contents-Fig.1



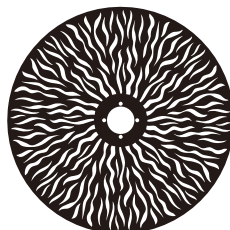
3.Color/pattern



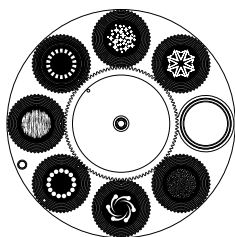
CMY



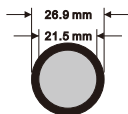
Color plate



Effect disc

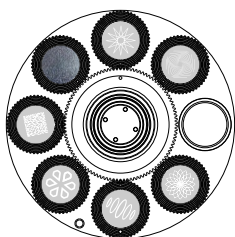


Rotating gobo wheel A

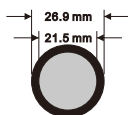


Rotation Gobo Size

Drawing Number	Part Number
FG2370A	C0700780025
FG1912C	C0700780026
FG2371A	C0700780027
FG2372A	C0700780028
FG2373A	C0700780029
FG2374A	C0700780030
FG2375A	C0700780031



Rotating gobo wheel B



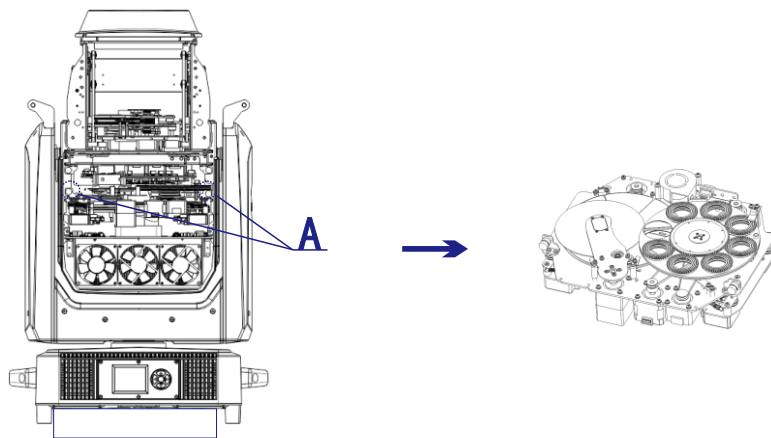
Rotation Gobo Size

Drawing Number	Part Number
FG2376A	C0700780032
FG2377A	C0700780033
FG1901E	C0700780034
FG2378A	C0700780035
FG2379A	C0700780036
FG2380A	C0700780037
FG2381A	C0700780038

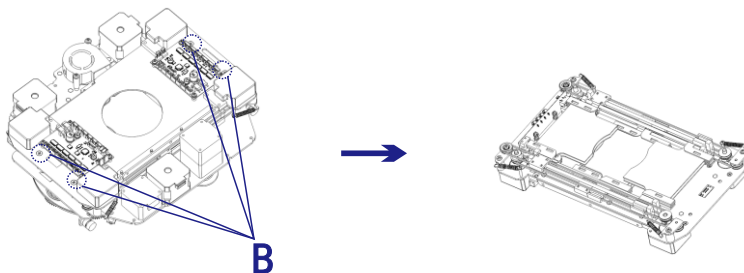
DANGER! Attention: When installing GOBO chips, it is necessary to strictly follow the order of the pictures and not change the original order and direction of the GOBO chips at will. Please disconnect the power supply when installing/replacing the rotating pattern piece!

3.1.Replacing Rotating Gobos

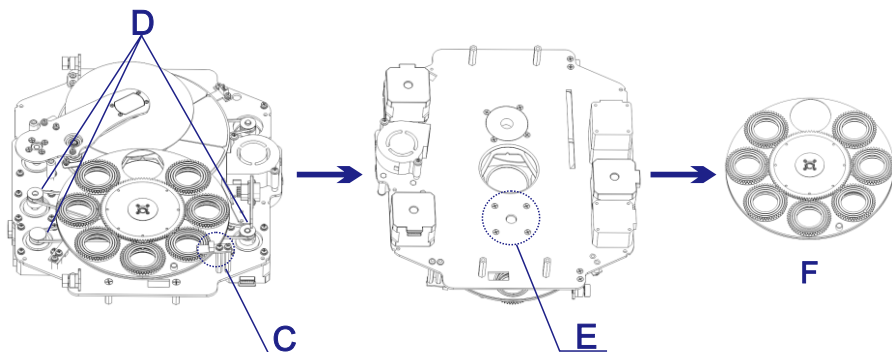
1.Use a screwdriver to unscrew the two screws at A to take out the pattern color module assembly;



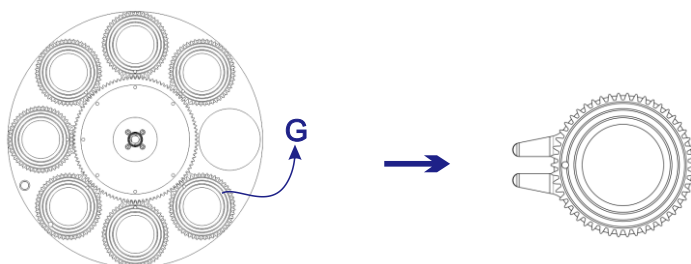
2. Reverse the assembly, and use a screwdriver to unscrew the four screws at B to separate the pattern color module from the CMY module;



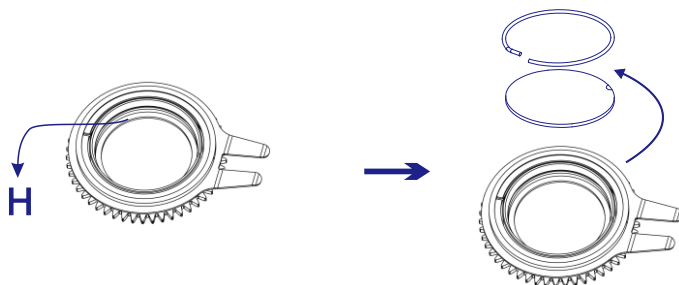
3. Use a screwdriver from the front of the pattern module to unscrew the two screws of the magnetic induction board at C, and remove the magnetic induction board; then half loosen the screws on the three motors at D, move the motor and take off the belt; turn the pattern module back. Come here, unscrew the four screws at E with a screwdriver, and you can take out the rotating gobo and fixed gobo assembly (as shown in Figure F, the front is the rotating gobo, and the back is the fixed gobo)



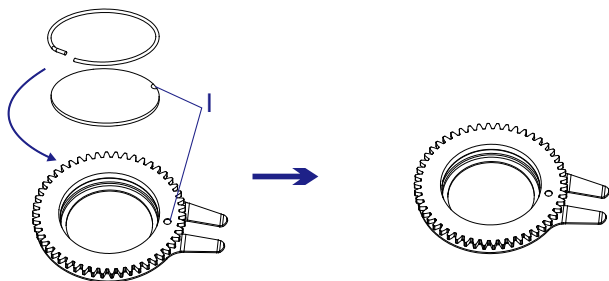
4. As shown in G, gently lift the gobo driven wheel from the edge upwards from the back of the gobo wheel and pull it out slowly to take out a single gobo;



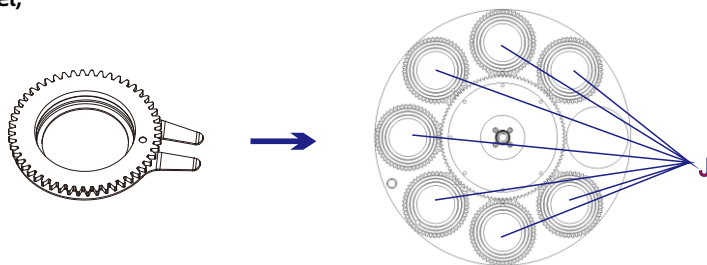
5. Take out the circlip at H with tweezers or other small objects that can be held (if the gobo is coated with glass glue for fixing, please use a professional cleaning agent to remove the glass glue and then take out the circlip to avoid damage to the gobo);



6. When assembling the gobo, avoid touching the gobo directly with your hands, and as shown in I, align the notched part of the gobo with the depression of the driven wheel assembly (the coating surface of the gobo should face the light source);



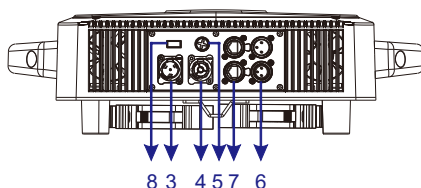
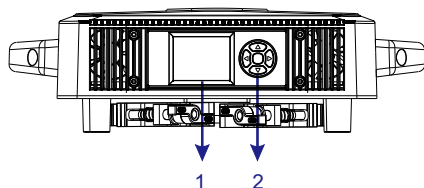
7. Insert the gobo driven wheel into the driving wheel assembly, as shown in J, the concave point of the gobo driven wheel must be positioned towards the center of the driving wheel;



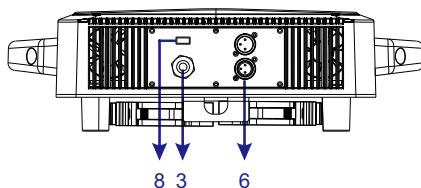
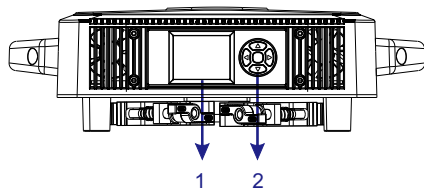
8. After installation, put the component back to the fixture.

4.Control Panel

Socket Version



PG Version



1.Display: To show the various menus and the selected function

2.Button:

	OK confirmation key
	UP
	DOWN
	To the left
	To the right

3.Socket version power input: connect the power supply.

4.Socket version power output: Connect the lamp power output adapter (The maximum current output of the power supply shall not exceed 3.15A) .

5.Fuse holder: Used for the bottom box battery pack power supply display board when not powered on.(Note: In the case of air transportation, the lighting fixtures will require disassembly of fuses for shipment, and they must be installed by themselves upon receipt.)

6.DMX input/output: Used for DMX512 connection, use 3/5 core XLR signal cable to connect console and lamps,And input/output DMX signal.

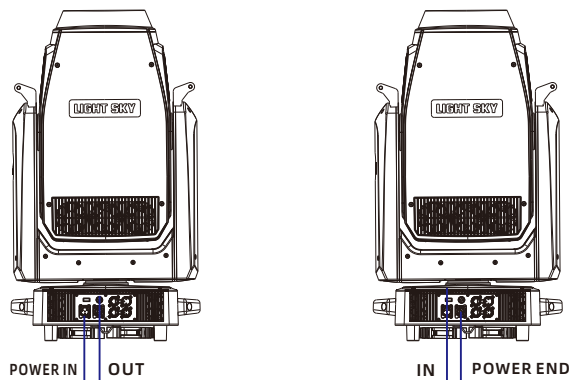
7.Art-net: The information of the lamp can be transmitted to the main controller through the network cable, and the lamp can be controlled through RJ45(optional).

8.Firmware upgrade: Used to upgrade the fixture's firmware.

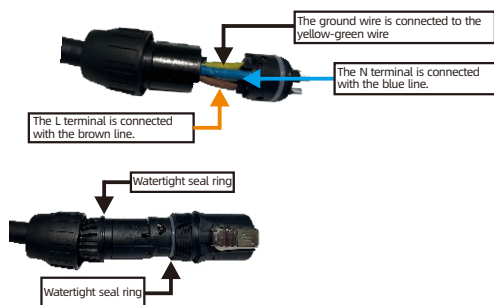
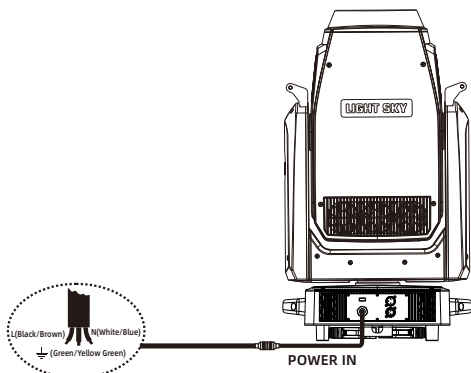
5.Connection and control

5.1.Power supply connection

Socket Version



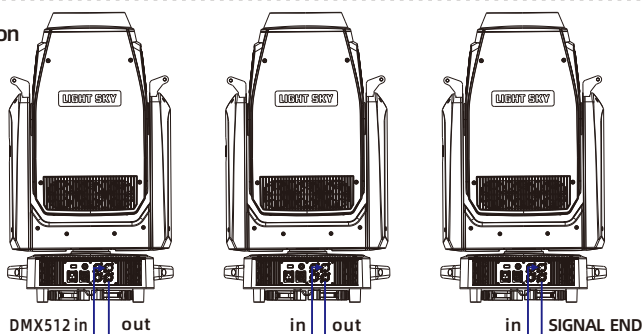
PG Version



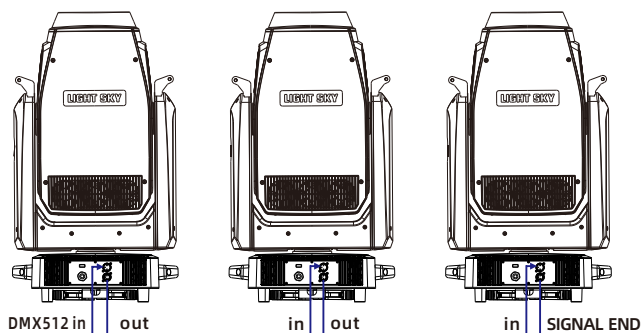
- The bus connecting the power supply must be installed by a qualified professional technician.
- After completing all the above operations and ensuring that it is installed, you can power on the lamp to operate.

5.2.DMX 512 Connection

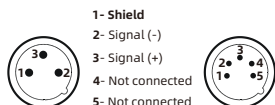
Socket version



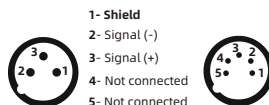
PG Version



DMX-input



DMX - output



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 Ω 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.
2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable cannot be branched or split to a "Y" cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.
5. The end of the DMX 512 system should be terminated to reduce signal errors.
6. 3 pin XLR connectors are more popular than 5 pins XLR.
 - 3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
 - 5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

6.How To Set The Unit

6.1.Main Function

Main menu	I menu	II menu	III menu	IV menu
DMX SETTING	Address	→ 1-512		
	→ Channel mode	→ Standard (43)		
		→ Extended (55)		
	Input mode	→ DMX 512		
Info	Fixture times	→ Power on time	0 - 99999H	
		→ LED on time	0 - 99999H	
		→ All time	0 - 99999H	
		→ LED TEMP		
	Temperatures	→ Drive TEMP		
	RDM info	→ UID:0x3888XXXXXX		
	DMX live	→ 1.Pan	0 - 255	
		→ 2.Pan fine	0 - 255	
		→ 3.....	0 - 255	
	Version info	→ Display	VX.XXX	
		Pan/Tilt	VX.XXX	
		CMY module	VX.XXX	
		Gobo module	VX.XXX	
		→ Profile1	VX.XXX	
		Profile2	VX.XXX	
		Zoom module	VX.XXX	
		Led FanDrv	VX.XXX	
	Fan Info	In Fan		
		Out Fan		
		Gobo Fan		
		Profile Fan		
		Focus Fan		
		In Fan1		
		In Fan2		
		In Fan3		
		Out Fan1		
		Out Fan2		
		Out Fan3		
		CMY Fan		
		Gobo Fan		
		Profile Fan		
		Focus Fan1		
		Focus Fan2		
Person	Pan/Tilt	→ PT swap	OFF	
		→ Pan invert	ON	
			OFF	
		→ Tilt invert	ON	
	Noise mode	→ Super silent	OFF	
		→ Silent	ON	
		→ Hight Brightness		
	Display	→ Language	Chinese	
			English	
		→ Backlight time	Always	
			Auto (30s)	
	Dimmer Curve	→ Intensity	0 - 100	
			Normal	
		→ Rotation	Rotate 180	
			Auto (30s)	
	Led Preq Set	→ Linear		
		→ Square(Default)		
		→ I-Square		
		→ S Curve		
	Zomm Invert Set	→ 1000 Hz		
		→ 3600 Hz		
		→ 7200 Hz		
		→ 25000 Hz		
		→ OFF		
		→ ON		

Main menu	I menu	II menu	III menu	IV menu
Manual	Manual Control	→ 1.Pan	0 - 255	
		→ 2.Pan fine	→ 0 - 255	
		3.....	0 - 255	
	Reset	Total reset		
		Pan/Tilt reset		
		Gobo reset		
		→ Color reset		
		Profile reset		
		Focus reset		
		Effect reset		
Test	Test all	Testing		
	→ Test pan/tilt	→ Testing		
	Test effects	Testing		
Service	Fixture state	Memory IC	OK/Reset/Error	
		Angle Sensor	OK/Reset/Error	
		Pan Encoder	OK/Reset/Error	
		Tilt Encoder	OK/Reset/Error	
		Pan	OK/Reset/Error	
		Tilt	OK/Reset/Error	
		Cyan	OK/Reset/Error	
		Magenta	OK/Reset/Error	
		Yellow	OK/Reset/Error	
		CTO	OK/Reset/Error	
		→ Colorwheel	→ OK/Reset/Error	
		Gobo1	OK/Reset/Error	
		Gobo1 Rot.	OK/Reset/Error	
		Gobo2	OK/Reset/Error	
		Gobo2 Rot.	OK/Reset/Error	
		Fram Rot.	OK/Reset/Error	
		Zoom	OK/Reset/Error	
		Focus	OK/Reset/Error	
		Prism1	OK/Reset/Error	
		Prism2	OK/Reset/Error	
		Prism Rot.	OK/Reset/Error	
	Adjust	Pan	0 - 255	
		→ Tilt	→ 0 - 255	
			0 - 255	
	Factory	Factory Reset	→ YES / NO	
		Reset timers	Reset power on timers	YES/NO
			→ Reset led timers	→ YES/NO
			Reset all timers	YES/NO
		Update	Simple update	Display
				Pan/Tilt
				CMY module
				Gobo module
				→ Framing module1
				Framing module2
				Zoom module
				LEDQD
				ALL
			Whole update	Display
				Pan/Tilt
				CMY module
				Gobo module
				Framing module1
				Framing module2
				Zoom module
		Power select	880W	
			1000W	
		Logo select		
		Fixture Type		

6.2.Channel Setting

Press the OK button to confirm, use the up/down buttons to select the channel mode: standard mode (43CH), extended mode (55CH), press the OK button to save.
Press the left/right button to return to the previous menu.

6.3.Address Setting

When using a universal DMX controller to control the fixture, you need to set the starting address (1-512)for the fixture so that the machine can receive the DMX signal.Select the DMX address, press the OK button to confirm, the current DMX address will be shown on the display. Use the left/right buttons to select 001~512 address, press the OK button to save. Press the left/right button to return to the previous menu.

Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
43 Channel	1	44	87	130
55 Channel	1	56	111	166

6.4.DMX 512 Configuration

55 Channel	43 Channel	DMX	Function	Note
1	1	0–255	Pan Pan movement/positioning	
2	2	0–255	Pan fine Fine Pan positioning	
3	3	0–255	TILT Tilt movement/positioning	
4	4	0–255	TILT fine Fine Tilt movement/positioning	
5	5	0–255	PAN TILT Speed Pan Tilt movement Speed From Fast To Slow	
6	6	0–10 NO function 11 – 20 All Reset 21 – 30 XY Reset 31 – 40 Color System Reset 41 – 50 Gobo System Reset 51 – 60 Profile System Reset 61 – 70 Focus System Reset 71 – 80 Super silent 81 – 90 Silent 91 – 100 Hight Brightness 101 – 110 Effect Reset 111 – 120 Zoom Invert 121 – 130 Zoom Forward 131 – 140 NO function 141 – 150 NO function 151 – 160 NO function 161 – 170 NO function 171 – 180 NO function 181 – 190 Display Back light is Auto 191 – 200 function Open 201 – 255 NO function		
7	7	0–255	Cyan White → full cyan	
8	/	0–255	Cyan Fine Cyan Fine movement/positioning	
9	8	0–255	Magenta White → full magenta	
10	/	0–255	Magenta Fine Magenta Fine movement/positioning	
11	9	0–255	Yellow White → full yellow	
12	/	0–255	Yellow Fine Yellow Fine movement/positioning	
13	10	0–255	CTO Color Temperature from Deep to mall	
14	/	0–255	CTO Fine CTO Fine movement/positioning	
15	11	0–89 0–360° 90–101 OPEN 102–114 COLOR1 115–127 COLOR2 128–140 COLOR3 141–153 COLOR4 154 –166 COLOR5		

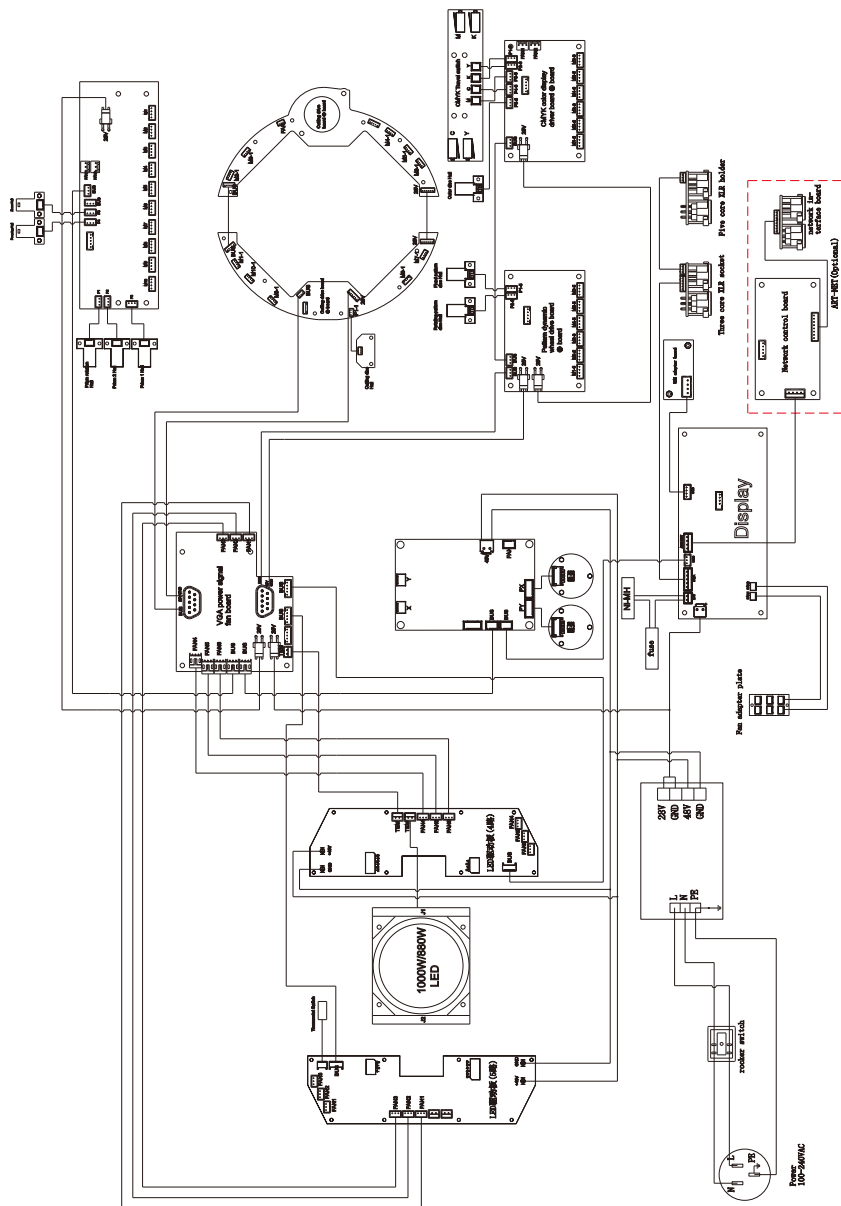
55 Channel	43 Channel	DMX	Function	Note
		167–179 180–214 215–249 250–255	COLOR6 Forwards Color rotation from slow to fast Backwards Color rotation from fast to slow Random Color	
16	12	0–9 10–19 20–29 30–39 40–49 50–59 60–69 70–79 80–87 88–95 96–103 104–111 112–119 120–127 128–135 136–139 140–194 195–249 250–255	Gobo Open GOBO1 GOBO2 GOBO3 GOBO4 GOBO5 GOBO6 GOBO7 Gobo 1 shake slow to fast Gobo 2 shake slow to fast Gobo 3 shake slow to fast Gobo 4 shake slow to fast Gobo 5 shake slow to fast Gobo 6 shake slow to fast Gobo 7 shake slow to fast OPEN Forwards gobo rotation from slow to fast Backwards gobo rotation from fast to slow Random Gobo	
17	13	0–127 128–189 190–193 194–255	Gobo Rotation 0°–360° Forwards gobo rotation from fast to slow Gobo rotation stop Backwards gobo rotation from slow to fast	
18	14	0–9 10–19 20–29 30–39 40–49 50–59 60–69 70–79 80–87 88–95 96–103 104–111 112–119 120–127 128–135 136–139 140–194 195–249 250–255	Gobo2 Open GOBO1 GOBO2 GOBO3 GOBO4 GOBO5 GOBO6 GOBO7 Gobo 1 shake slow to fast Gobo 2 shake slow to fast Gobo 3 shake slow to fast Gobo 4 shake slow to fast Gobo 5 shake slow to fast Gobo 6 shake slow to fast Gobo 7 shake slow to fast OPEN Forwards gobo rotation from slow to fast Backwards gobo rotation from fast to slow Random Gobo	
19	15	0–127 128–189 190–193 194–255	Gobo2 Rotation 0°–360° Forwards gobo rotation from fast to slow Gobo rotation stop Backwards gobo rotation from slow to fast	
20	16	0–255	Blade 1A Blade Out→In	

55 Channel	43 Channel	DMX	Function	Note
21	/	0--255	Blade 1A Fine Fine Blade positioning	
22	17	0--255	Blade 1B Blade Out→In	
23	/	0--255	Blade 1B Fine Fine Blade positioning	
24	18	0--255	Blade 2A Blade Out→In	
25	/	0--255	Blade 2A Fine Fine Blade positioning	
26	19	0--255	Blade 2B Blade Out→In	
27	/	0--255	Blade 2B Fine Fine Blade positioning	
28	20	0--255	Blade 3A Blade Out→In	
29	/	0--255	Blade 3A Fine Fine Blade positioning	
30	21	0--255	Blade 3B Blade Out→In	
31	/	0--255	Blade 3B Fine Fine Blade positioning	
32	22	0--255	Blade 4A Blade Out→In	
33	/	0--255	Blade 4A Fine Fine Blade positioning	
34	23	0--255	Blade 4B Blade Out→In	
35	/	0--255	Blade 4B Fine Fine Blade positioning	
36	24	0--255	Framing Rotation 0°--110°	
37	25	0 -- 10 11 -- 20 21 -- 30 31 -- 40 41 -- 50 51 -- 60 61 -- 70 71 --80 81 --90 91 --100 101 --110 111 --120 121 --130 131 --140 141 --150 151 --160 161 --170 171 --180 181 --190 191 --200 201 --255	Framing Macro No function Square rectangle Isosceles triangle trapezoidal The Fan(Facing Up) parallelogram Right Angle trapezoid The Fan(Down) triangle prismatic The stripes bar Upper left quadrant semicircle (Up) Upper right quadrant Right semicircle Right lower quadrant Semicircle (Down) The lower left quadrant Left Semicircle	
38	26	0--255	Framing Macro Zoom Framing Macro Zoom	

55 Channel	43 Channel	DMX	Function	Note
39	27	0--10 11--100 101--190 191--255	Prism Prism Out Prism 1 Prism 2 Prism 1&2	
40	28	0 1--63 64--127 128--191 192--207 208--223 224--239 240--255	Prism Rotation No Function 0--360° Forwards rotation from fast to slow Backwards rotation from slow to fast from slow to fast 90°Swing from slow to fast 180°Swing from slow to fast 270°Swing from slow to fast 360°Swing	
41	29	0--9 10--239 240--255	Effect Effect Out Effect In Effect In&Shake	
42	30	0--2 3--130 131--255	Effect Rotation No Function Forwards rotation from fast to slow Backwards rotation from fast to slow	
43	31	0--127 128--159 160--191 192--255	Frost1 Frost From Min To Max No Function No Function No Function	
44	32	0--127 128--159 160--191 192--255	Frost2 Frost From Min To Max No Function No Function No Function	
45	33	0--127 128--159 160--191 192--255	Iris From Max To Min Slow In Fast Out from slow to fast Fast In Slow Out from slow to fast Slow In Slow Out from slow to fast	
46	34	0--255	Zoom WIDE BEAM →NARROW BEAM	
47	35	0--255	ZoomFine Fine Zoom positioning	
48	36	0--255	Focus Infinity→near	
49	37	0--255	Focus Fine Fine Focus positioning	
50	38	0--9 10 -- 19 20 -- 29 30 -- 39 40 -- 49 50 -- 59 60--69 70--79 80 -- 255	Autofocus Distance NO function 7M 10M 15M 20M 25M 30M 40M 50M	

55 Channel	43 Channel	DMX	Function	Note
51	39	0--255	Autofocus Adjustment Auto Focus Fine	
52	40	0--9 10--49 50--89 90--119 120--179 180--255	Strobe No Function Closing pulses in sequences from fast to slow Opening pulses in sequences from fast to slow No Function Random strobe,slow → fast Strobe,slow → fast	
53	41	0--255	Dimmer Dimmer from Dark To Bright	
54	42	0--255	Dimmer Fine Dimmer Fine	
55	43	0--15 16--255	Gobo Macro No Function Gobo Macro Function	

7. Electrical Connection Diagram



8.Troubleshooting

The following are common faults of lamps and corresponding solutions. Faults that cannot be repaired by yourself should be handled by professionally qualified personnel. Disconnect the power supply to the lamp during maintenance!

- The light source is not bright
 - Check that a suitable light source is installed for the luminaire.
 - Check whether the power supply connection of the lamp or the control switch is in poor contact.
 - Check whether the light source has reached the end of its service life or is damaged, and replace it with a high-quality light source of the same specification.
 - Measure whether the power supply is insufficient.
 - Check whether the light source has not cooled down completely due to abnormal operation. Let the lamp cool down for more than 15 minutes to allow the light source to cool down. After returning to the normal start-up range, turn the power on again and it can be used normally.
 - Check whether the DMX512 controller sends a command to turn on the light source.
 - Check whether the light source and trigger circuit are disconnected or defective.
 - Check whether the wiring terminals on the internal trigger are in poor contact and tighten the plug.
 - Check the "Fan Speed and Voltage" in the "Basic Information" menu to see if the speed of FAN1/FAN2/FAN3 is above 500RPN. If it is below 500RPM, the light source will not light up. Replace the fan with the same specification.
 - Check whether the over-temperature protection temperature switch inside the lamp is damaged. Go to the menu "Basic Information" and select "Equipment Temperature" to check - whether the temperature measuring plate shows that the temperature is too high or there is no temperature display.
- The beam appears dim and uneven
 - The light source may have reached the end of its service life and does not emit enough light. Replace it with a light source of the same specification.
 - Check whether there is dust accumulated in the optical part and clean it.
 - Measure whether the power supply is insufficient.
 - Finely adjust the screw device used to change the height of the lamp until the ideal light is achieved. Enter the menu "Service Options" and select "Calibration" to enter color and pattern adjustment, which can be adjusted to the center.
- The projected image is blurry
 - Check whether the DMX512 controller channel value corresponding to the electronic focus system is suitable for the current projection distance.
 - Check whether the mechanical part of the focusing system is stuck, remove the dust and add antifreeze and temperature-resistant lubricating oil.
- The light source of the lamp works intermittently
 - Check whether the fan is running normally or is blocked by dust and paper debris.
 - Check whether the inlet and outlet cooling air vents are blocked by dust.
 - Check whether the lamp has reached the end of its service life.

- Check whether the power supply is insufficient, and whether the power switch and wiring are in poor contact or aging.
- Check whether the over-temperature protection temperature switch inside the lamp is damaged.
- Although it emits light, the lamp does not accept instructions from the controller
- Check whether the digital start address value and function options of the lamp are correct.
- Check whether the connection of the communication control line is correct. The communication line is too long or has been interrupted.
- Check whether the control equipment fails and whether the signal amplifier connected in series fails.
- Check whether the communication line is too long or if other devices interfere with each other.
- Optimize wiring, shorten the length of control signal lines, and route high-voltage and low-voltage lines separately
- Add signal amplifier isolator.
- The signal line is made of high-quality shielded twisted pair (impedance characteristic is 75Ω), and the signal terminal resistor is connected at the end of the lamp.
- Check that the circuit board communication IC or CPU is burned out because the bulb performs an abnormal operation when it is not completely cooled, causing the instantaneous ultra-high voltage leakage generated by the trigger, and replace the PCB board.
- The lamp cannot be started
- Check whether the power supply parameters match the lamps.
- Check whether the fuse at the light fixture's power input is blown.
- Check that the lamp has poor contact or falls off due to extrusion deformation, vibration of internal parts, moisture, etc. during long-distance transportation.
- Check whether the internal wires and connectors of the lamp are desoldered or loose.
- Check whether the electrical components of the lamp (such as power switch, transformer, ballast, capacitor, varistor, filter, power supply PCB board, motor control PCB board, etc.) are loose, short-circuited, burned out, etc.
- Some functions of the lamp cannot accept controller instructions
- Check whether the control device sends correct action instructions for these functions.
- Check whether the mechanical parts corresponding to these functions are loose or deformed.
- Check whether the motor sockets corresponding to these functions are loose or the corresponding driver chips are burned out.
- Check whether the motor wires corresponding to these functions are broken at the corners.
- Check whether the motors corresponding to these functions are damaged.
- During operation, the x or Y direction of the lamp does not move normally
- Click the previous step to check one by one.
- Check whether the corresponding drive belts in the X and Y directions of the lamp are detached or broken.
- Check whether the data feedback receiver (photoelectric sensor) corresponding to the X and Y directions in the lamp is damaged.
- Restart the computer and reset it once.

9. Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- Always dry the parts carefully.
- Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.



CAUTION ! ! !

Disconnect from mains before starting maintenance operation.

10. Duty exonerative and copyright protection

- The manufacturer shall not bear any responsibility for any damage caused by failure to operate in accordance with this instruction.
- All the information in this manual shall be interpreted by the manufacturer.
- All the information in this manual shall not be copied without permission.
- The data contained in this statement are subject to change in the future without prior notice.