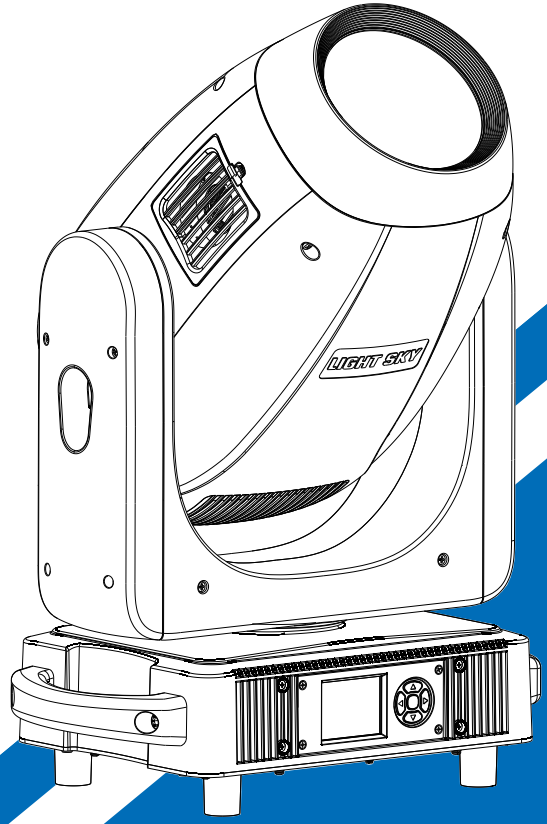
LiGHT SKY

FLY DRAGON LIGHTING EQUIPMENT CO.,LTD

SUPER SCOPE HYBRID PRO



WWW.LIGHTSKY.COM.CN

User Manual

Please read the instruction carefully before use

LiGHT SKY

Web:www.lightsky.com.cn

Tel: 0086-20-61828288

Fax:0086-20-61828188 Pc:510820

E-mail: flydragon@lightsky.com.cn

Address: No. 4, Jingneng Road 1,
Huadu District, Guangzhou, China

CONTENTS

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.

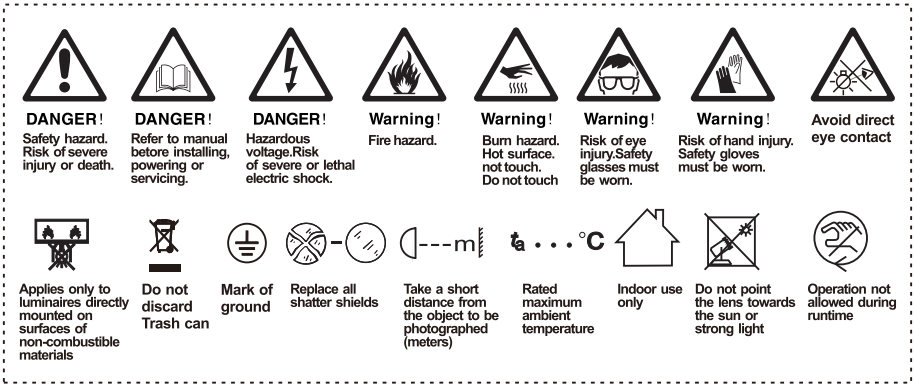
1.Safety Instructions

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

WARNING

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:



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.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.

- 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: -10℃. Maximum ambient temperature Ta: 45℃. 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 0.5m.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 80℃. do not touch the housing bare-handedduring 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 fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing.do install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2.Technical Specifications

OPTICS

- Light source: 520W white LED module
- Zoom range: 3.8 ° -50 °
- Optical lens: coated with high anti reflective film, with a diameter of 140mm
- Color temperature: 7000 K
- Color rendering index: RA ≥ 72 (High CRI filter up to 88)
- Light intensity: 24500 Lux@10m
- Luminous flux: 20000 Lm
- LED source life expectancy: 40000 hours(*LED source life depends on several factors, including but not limited to:environmental conditions, control dimming, power supply and voltage, switchingcycle, fixture mode, etc.)

COLOUR

- CMY infinite color mixing
- CTO color temperature linear adjustment (3000K-7000K)
- 6 color chips+white light+1 CRI, can achieve bidirectional color rainbow, dual color step gradient (linear movement), color wheel bidirectional rotation, random color mode.

PATTERN

- Double rotating pattern disc: 7+7 glass patterns+white circles, can be plugged and replaced, can achieve self rotation, flowing water, and shaking effects. The outer diameter of the pattern disc is 22.9mm, and the inner diameter of the pattern disc is 15mm.
- Effect disk: can achieve flowing effects.

EFFECT

- Prism: 4 rows of prisms+4 prisms, rotatable in both directions
- Soft light effect: mild atomization+severe atomization, adjustable independent soft light effect.
- Electronic dimming, 0-100% linear dimming, uniform spot
- The electronic strobe speed is 1-25 times/second
- LED refresh rate: 1000Hz~25KHz

CONTROL AND PROGRAMMING

- Control channel: 30CH 、 34CH， Please refer to the channel table for details
- Protocol: Standard DMX512 protocol, RDM protocol, ArtNet protocol
- Data connection: Three core or five core signal input/output
- Display: LCD screen

SOFTWARE

- Upgrade software through USB or DMX interface
- Intelligent temperature control ensures LED lifespan
- Silent fan, three working modes (high Output/standard/silent)

X/Y AXIS MOVEMENT

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

POWER AND POWER

- Input voltage rangr: AC 100-240V ~ 50/60Hz
- Maximum power:840W
- Power factor: 0.99
- Maximum lamp current: 8.4 A/100V; 3.8 A/220V

SIZE AND WEIGHT

- Size:442mm×267mm×656mm
- Carton packing (default)：495mm×355mm×775mm
- N.W: 27.1 kg G.W：32.2 kg (include foldable clamp)

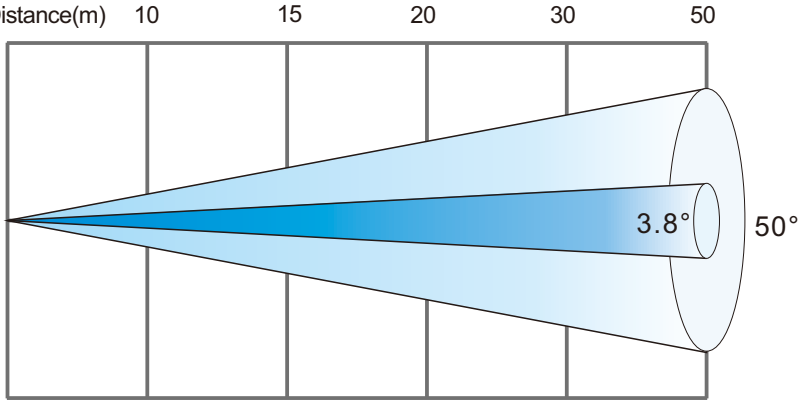
OTHER

- Protection class: Ip20
- Working environment: -10℃~45℃
- Maximum surface temperature of the lamp body: 80°C

APPROVALS

- 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

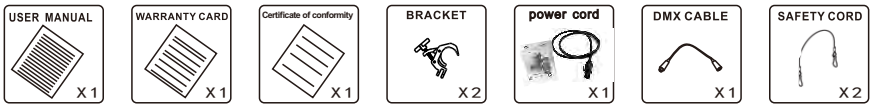
illumination diagram



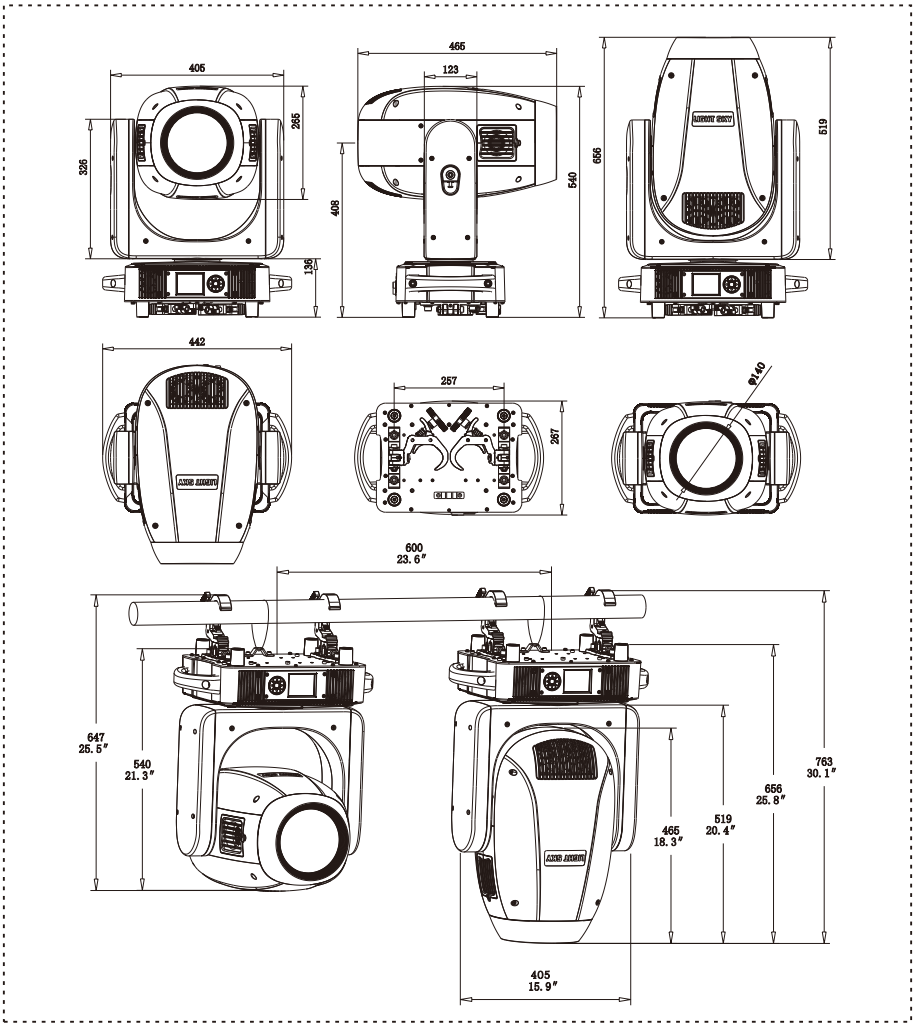
3.8° Lux	24500	10889	6125	2722	980
Diameter(m)	0.66	0.99	1.32	1.98	3.3
50° Lux	335	149	84	37	13
Diameter(m)	9.34	14.01	18.68	28.02	46.7

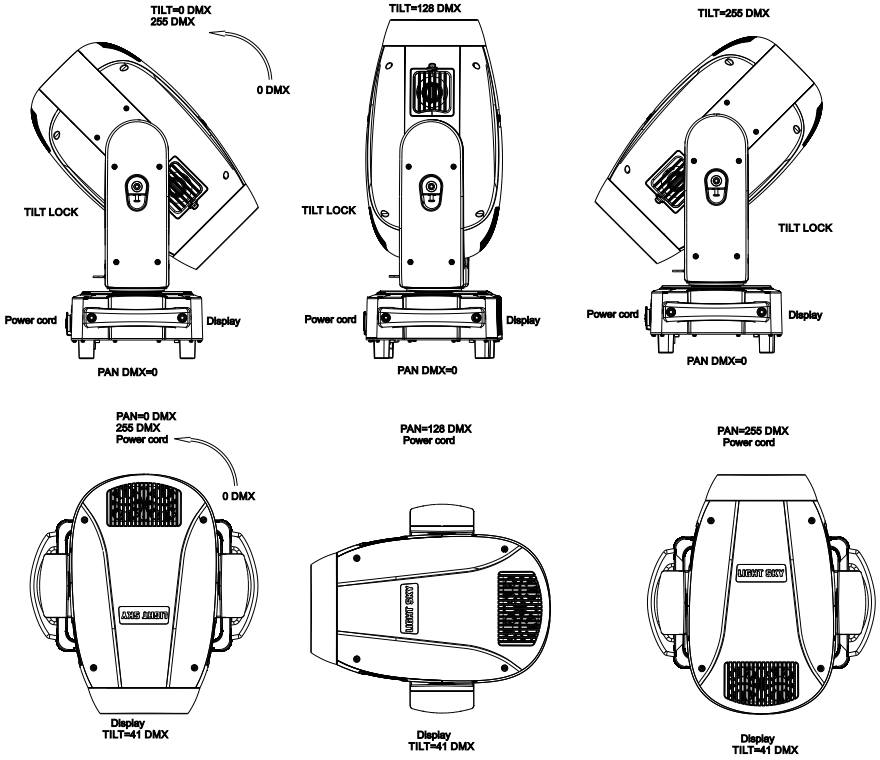
2.1.Attachment And Size

Attachment contents-Fig.1



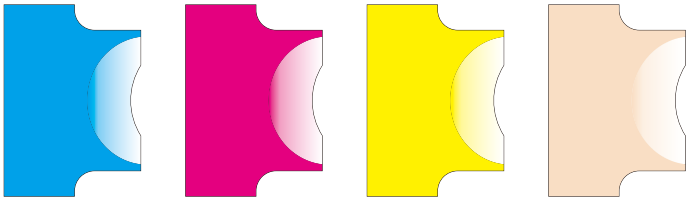
Size-Fig.2 (Unit： mm)



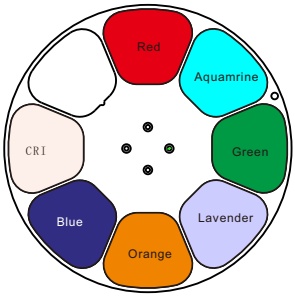

TILT=0 DMX
255 DMX
0 DMX
TILT LOCK
Power cord
Display
PAN DMX=0
TILT=128 DMX
TILT LOCK
Power cord
Display
PAN DMX=0
TILT=255 DMX
TILT LOCK
Power cord
Display
PAN DMX=0
PAN=0 DMX
255 DMX
Power cord
0 DMX
Display
TILT=41 DMX
PAN=128 DMX
Power cord
Display
TILT=41 DMX
PAN=255 DMX
Power cord
Display
TILT=41 DMX

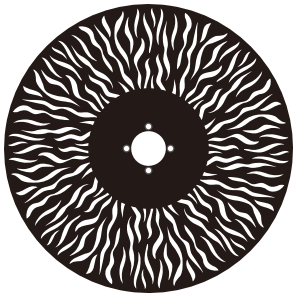
3.Color/Gobo/Prism

CMY-color wheel-Effect disc

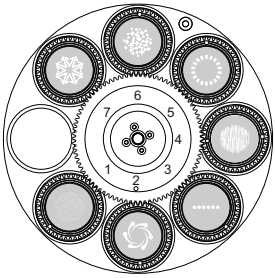


C M Y CTO

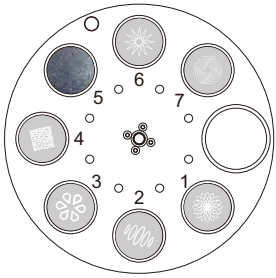




Pattern



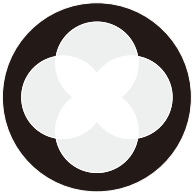
Rotating gobo wheel 1



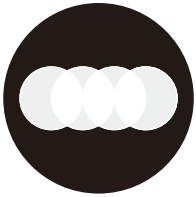
Rotating gobo wheel 2

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.

Prism



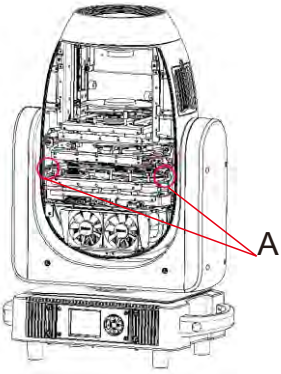
4 Prism



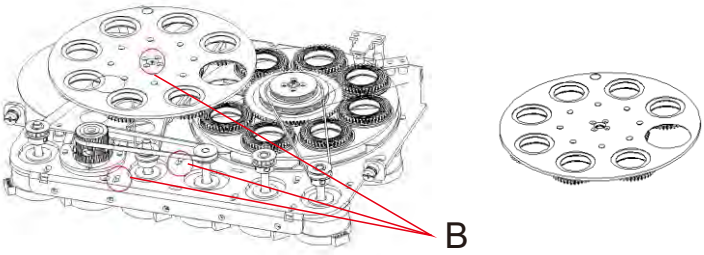
4 Prism

3.1.Replacing Rotating Gobos

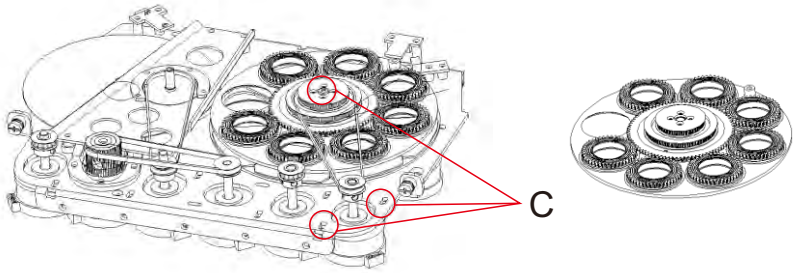
1.Use a screwdriver to unscrew the two screws at [A] to take out the pattern color module assembly.



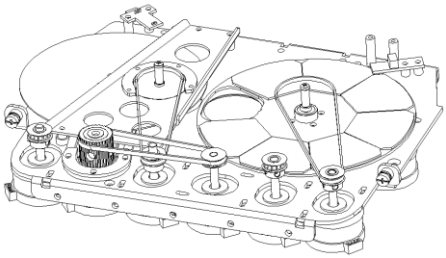
2.Remove the screws at 【 B 】 to remove the rotating pattern plate.

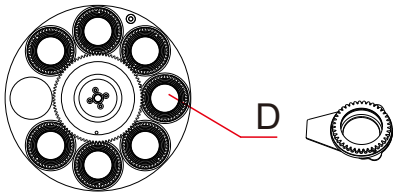


3.Remove the screws at [C] to remove the rotating pattern plate 2.

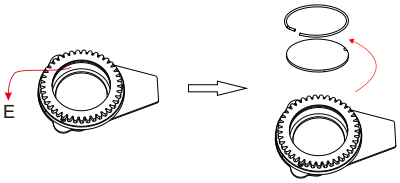


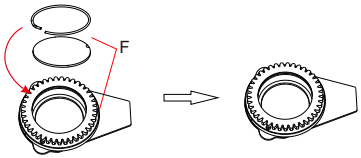
4. As shown in 【 D 】, gently lift the pattern plate from the edge of the moving wheel and slowly pull it out to remove a single pattern plate.



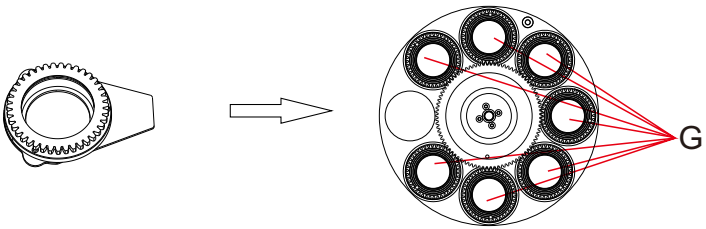


5.Use tweezers or other small gripping objects to remove the snap ring at position [E] (if the pattern piece is coated with glass glue for fixation, use a professional cleaning agent to remove the glass glue before removing the snap ring to avoid damaging the pattern piece).
When assembling the pattern piece, avoid touching it directly with your hands, and as shown in [F], the coating surface of the pattern piece should face the direction of the light source



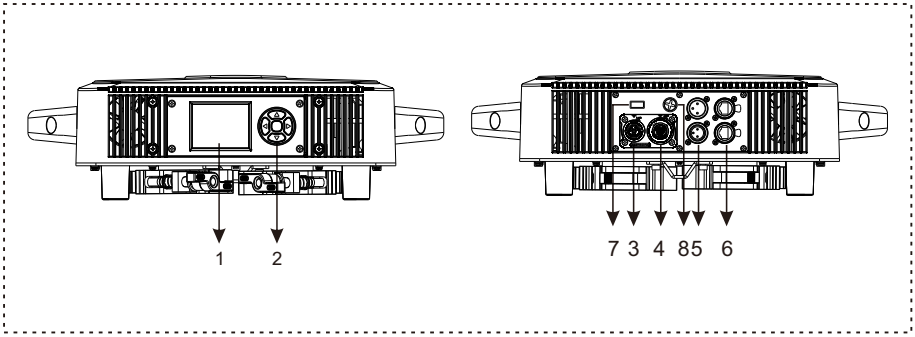


6. Insert the pattern piece from the driving wheel into the driving wheel assembly, as shown in 【 G 】. When positioning the pattern piece from the concave point of the driving wheel, it must face the center of the driving wheel



7. After installation, simply install the pattern disk component back onto the lamp.

4.Control Panel



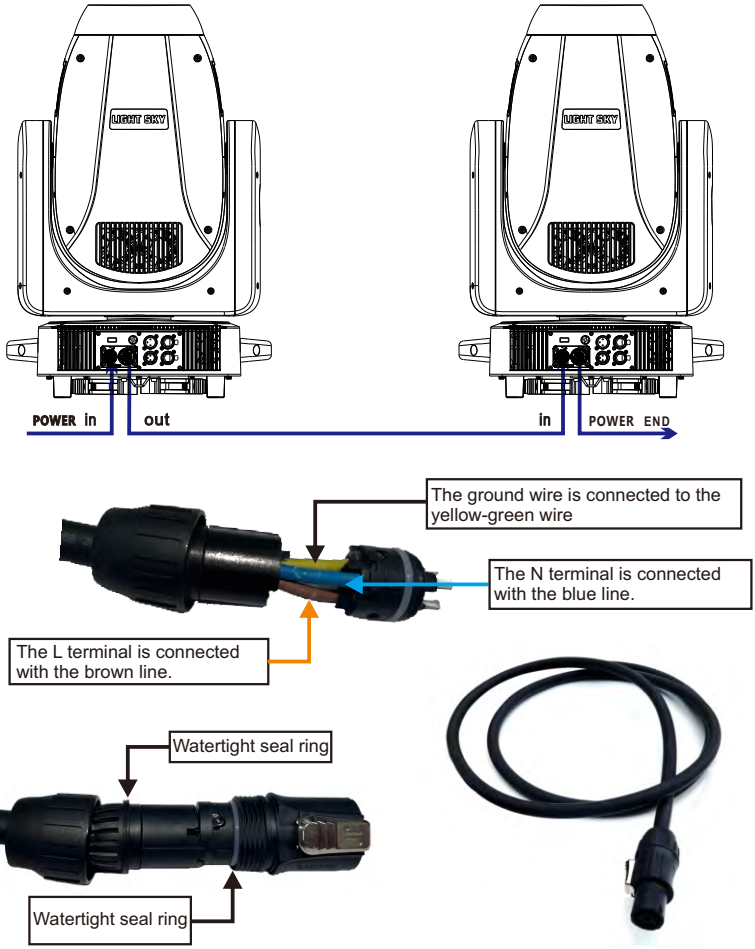
1. Display: To show the various menus and the selected function.
2. Button:

●	OK confirmation key
▲	UP
▼	DOWN
◀	To the left
▶	To the right

3. Power input: Connect the power supply to provide power.
4. Power output: Connect the lamp power output adapter.
5.DMX input/output: Used for DMX512 connection, connect the console and lighting fixtures with 3 or 5-core XLR signal lines for input/output.
6.Art-net: The information of the lamp can be transmitted to the main controllerthrough the network cable, and the lamp can be controlled through RJ45(optional).
7.USB: Used for upgrading lighting software.
8.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.)

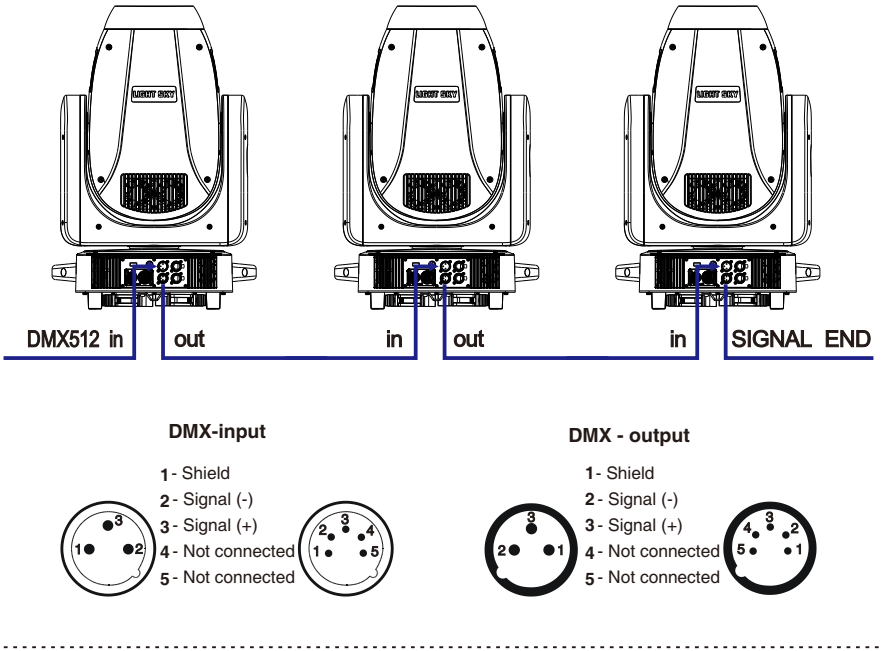
5.Connection and control

5.1.Power supply connection



- 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



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 1200hm 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

After powering on, press OK to enter the preset menu interface, and use the left/right keys to select: DMX settings, device information, personal settings, manual, test equipment, and service options.

Main menu	I menu	II menu	III menu	IV menu
DMX SETTING	Address	1-512		
	Channel mode	Standard (42)		
		Extended (54)		
	Dmx state	Black		
		Hold		
	Input mode	DMX 512		
		Art-Net		The Art Net option only appears when connected to a network board
Info	Fixture times	Power on time	0 - 99999H	
		LED on time	0 - 99999H	
		All time	0 - 99999H	
	Temperatures	LED TEMP		
		Drive TEMP		
	RDM info	UID:0x3888XXXXXXXX		
	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	
		Profile	VX.XXX	
		Zoom module	VX.XXX	
		LedFanDrv	VX.XXX	
	Fan Info	InFan		
		OutFan		
		GoboFan		
		FocusFan		
		InFan1		
		InFan2		
		OutFan1		
		OutFan2		
		GoboFan		
		FocusFan1		
		FocusFan2		
Person	Pan/Tilt	PT swap	OFF	
			ON	
		Pan invert	OFF	
			ON	
		Tilt invert	OFF	
			ON	
	Noise mode	Silent		
		Standard		
		High Output		
	Display	Language	English	
			Chinese	
		Backlight time	Always	
			Auto (30S)	
		Intensity	0 - 100	
		Rotation	Normal	
			Rotate 180	
			Auto	
	Art-Net	IP Address	***.***.***.***	This menu can only be displayed when connected to the artnet module
		Mask Address	***.***.***.***	
		Net Address	0-127	
		Sub Net Address	0-15	
		Universe Address	0-15	
	Dimmer Curve	Linear		
		Square(Default)		
		I-Square		
		SCurve		
		1000 Hz		

Main menu	I menu	II menu	III menu	IV menu
	Led Preq Set	3600 Hz		
		7200 Hz		
		25000 Hz(Default)		
	Zomm Invert Set	OFF		
		ON		
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 Encodeer	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	
		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 module
				Zoom module
				LEDQD
				ALL
			Whole update	Display
				Pan/Tilt
				CMY module
				Gobo module
				Framing module
				Zoom module
				LEDQD
				ALL
		Power select		
		Logo select		
		Fixture Type		

6.2.Channel Setting

Enter the MENU menu, select the Personal Settings function, select the channel mode, press the OK button to confirm, you can use the up and down keys to select:30 channels (default), 34channels, Press the OK key to enter the selection confirmation and return to the previous menu.

6.3.Address Setting

Enter MENU, select the DMA setting function, select the address code setting, press the OK button to confirm, and the current DMA address will be displayed in the On screen display. Use the up/down buttons to select addresses 001-512, press the OK button to save the current address code, and return to the previous menu level.

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
30 CH	1	31	61	91
34 CH	1	35	69	103

6.4.DMX 512 Configuration

Please control the fixture by referring to the configurations below

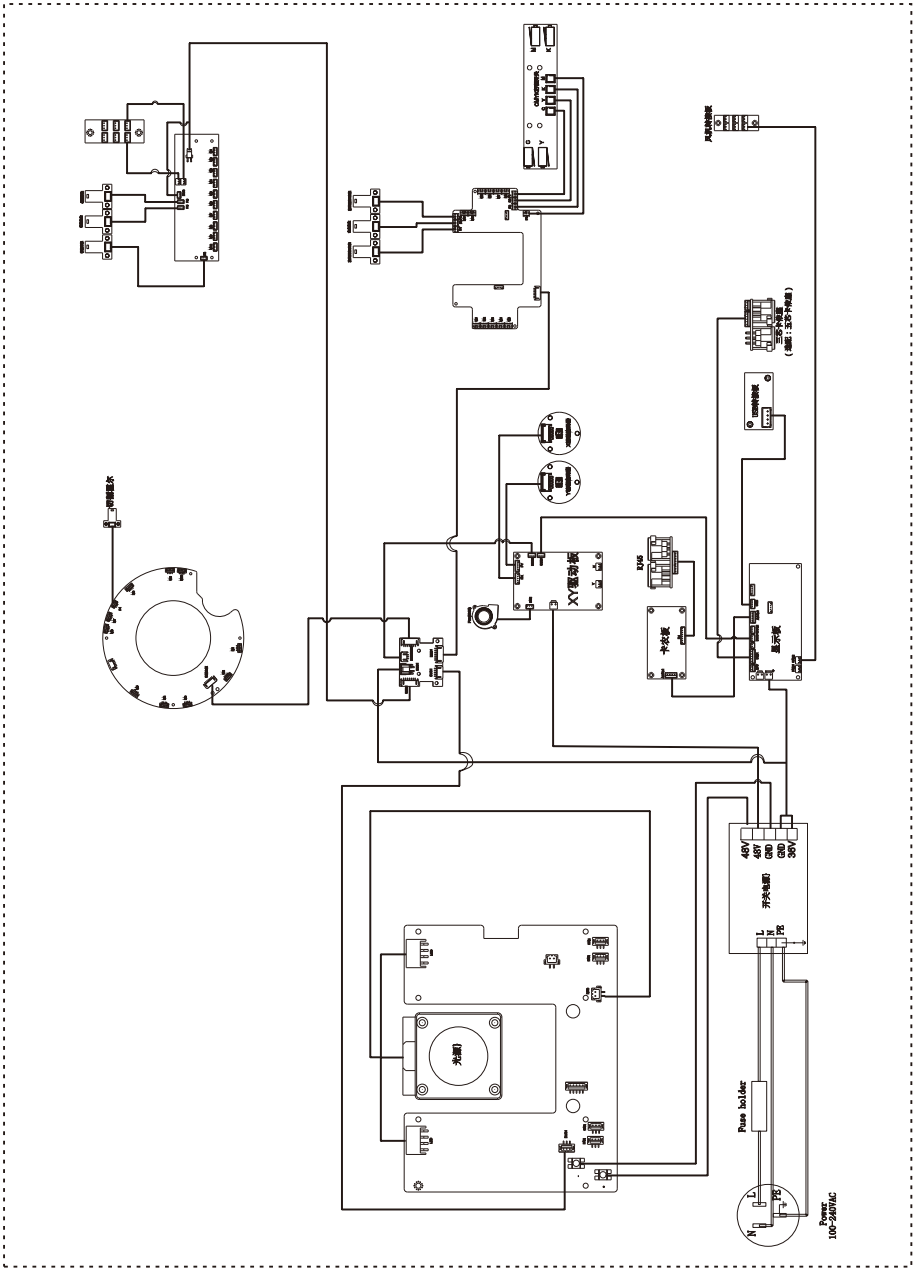
34 Channel	30 Channel	DMX	Function	Note
1	1	0-255	**Pan** Pan movement/positioning	
2	2	0-255	**Pan fine** Fine Pan movement/positioning	
3	3	0-255	**TILT** Tilt movement/positioning	
4	4	0-255	**TILT fine** Fine Tilt movement/positioning	
5	5	0-255	**PAN TILT Speed** Pan Tilt movement Speed From Fast To Slow	
6	6		**Functions**	
		0 - 10	NO function	
		11 -- 20	All Reset	
		21 -- 30	XY Reset	
		31 -- 40	Color System Reset	
		41 -- 50	Gobo System Reset	
		51 -- 60	NO function	
		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	Dmx state black	
		141 -- 150	Dmx state hold	
		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	

34 Channel	30 Channel	DMX	Function	Note
14	/	0--255	**CTO Fine** CTO Fine movement/positioning	
15	**11**		**Colour wheel**	
		0 - 89	0 - 360°	
		90 - 100	OPEN	
		101 - 111	COLOR1	
		112 - 122	COLOR2	
		123 - 133	COLOR3	
		134 - 144	COLOR4	
		145 - 155	COLOR5	
		156 - 166	COLOR6	
		167 - 179	COLOR7	
		180 - 214	Forwards Color rotation from slow to fast	
		215 - 249	Backwards Color rotation from fast to slow	
		250 - 255	Random Color	
16	**12**		**Gobo**	
		0 - 9	Open	
		10-19	GOBO1	
		20 - 29	GOBO2	
		30 - 39	GOBO3	
		40 - 49	GOBO4	
		50 - 59	GOBO5	
		60 - 69	GOBO6	
		70-79	GOBO7	
		80-87	Gobo 1 shake slow to fast	
		88-95	Gobo 2 shake slow to fast	
		96-103	Gobo 3 shake slow to fast	
		104-111	Gobo 4 shake slow to fast	
		112-119	Gobo 5 shake slow to fast	
		120-127	Gobo 6 shake slow to fast	
		128-135	Gobo 7 shake slow to fast	
		136-139	Open	
		140 - 194	Forwards gobo rotation from slow to fast	
		195 - 249	Backwards gobo rotation from fast to slow	
		250 - 255	Random Gobo	
17	**13**		**Gobo Rotation**	
		0 - 127	0° - 360°	
		128 - 189	Forwards gobo rotation from fast to slow	
		190 - 193	Gobo rotation stop	
		194 - 255	Backwards gobo rotation from slow to fast	
			Gobo2	
		0 - 9	Open	
		10-19	GOBO1	
		20 - 29	GOBO2	
		30 - 39	GOBO3	

34 Channel	30 Channel	DMX	Function	Note
18	**14**	40 - 49	GOBO4	
		50 - 59	GOBO5	
		60 - 69	GOBO6	
		70-79	GOBO7	
		80-87	Gobo 1 shake slow to fast	
		88-95	Gobo 2 shake slow to fast	
		96-103	Gobo 3 shake slow to fast	
		104-111	Gobo 4 shake slow to fast	
		112-119	Gobo 5 shake slow to fast	
		120-127	Gobo 6 shake slow to fast	
		128-135	Gobo 7 shake slow to fast	
		136-139	Open	
		140 - 194	Forwards gobo rotation from slow to fast	
		195 - 249	Backwards gobo rotation from fast to slow	
		250 - 255	Random Gobo	
19	**15**		**Gobo2 Rotation**	
		0 - 127	0° - 360°	
		128 - 189	Forwards gobo rotation from fast to slow	
		190 - 193	Gobo rotation stop	
		194 - 255	Backwards gobo rotation from slow to fast	
20	**16**		**Prism**	
		0 - 10	Prism Out	
		11-100	Prism 1	
		101-255	Prism 2	
21	**17**		**Prism Rotation**	
		0	No Function	
		1--63	0--360°/Linear adjust	
		64-127	Forwards rotation from fast to slow	
		128-191	Backwards rotation from slow to fast	
		192-207	from slow to fast 90°Swing	
		208-223	from slow to fast 180°Swing	
		224-239	from slow to fast 270°Swing	
		240-255	from slow to fast 360°Swing	
22	**18**		**Effect**	
		0 - 9	Effect Out	
		10 - 255	Effect In	
23	**19**		**Effect Rotation**	
		0 - 2	No Function	
		3 - 130	Forwards rotation from fast to slow	
		131 - 255	Backwards rotation from fast to slow	
24	**20**		**Frost**	
		0 - 10	Frost Out	
		11-100	Frost1	
		128 - 255	Frost2	

34 Channel	30 Channel	DMX	Function	Note
25	**21**	0 - 255	**Zoom** WIDE BEAM→NARROW BEAM	
26	**22**	0 - 255	**ZoomFine** Fine Zoom positioning	
27	**23**	0 - 255	**Focus** Infinity→near	
28	**24**	0 - 255	**Focus Fine** Fine Focus positioning	
29	**25**		**Autofocus Distance**	
		0 - 9	NO function	
		10 -- 19	7M	
		20 -- 29	10M	
		30 -- 39	15M	
		40 -- 49	20M	
		50 -- 59	25M	
		60 - 69	30M	
		70 - 79	40M	
		80 -- 255	50M	
30	**26**	0-255	**Autofocus Adjustment** Auto Focus Fine	
31	**27**		**Strobe**	
		0-9	No Function	
		10-49	Closing pulses in sequences from fast to slow	
		50-89	Opening pulses in sequences from fast to slow	
		90-119	No Function	
		120 - 179	Random strobe,slow → fast	
		180-255	Strobe,slow → fast	
32	**28**	0 - 255	**Dimmer** Dimmer from Dark To Bright	
33	**29**	0 - 255	**Dimmer Fine** Dimmer Fine	
34	**30**		**Gobo Macro**	
		0-15	No Function	
		16-255	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 protectio

* Light source belongs to consumption products, not within the scope of warranty.
* 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.