LIGHT SKY®

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LUNAR BSW

LIGHT SKY®

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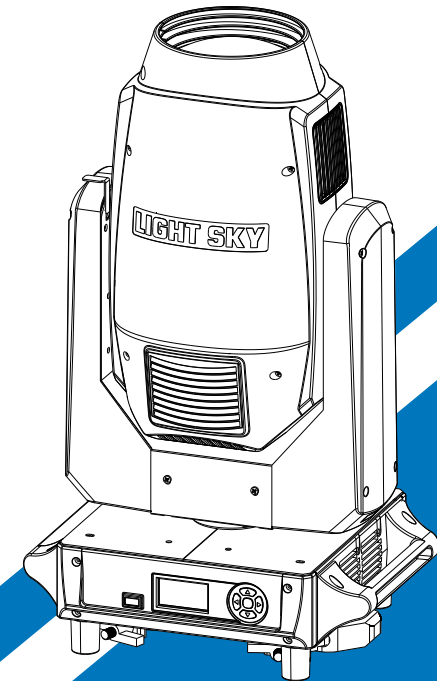middle-east@lightsky.com.cn

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LIGHT SKY®

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User Manual

Please read the instruction carefully before use

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.
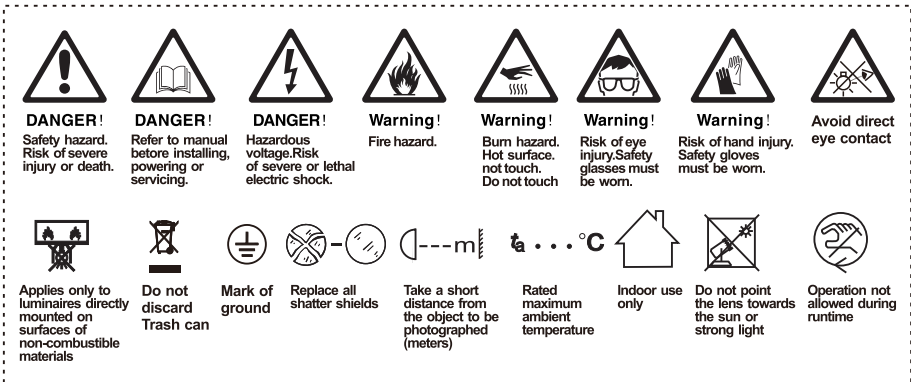
1.Safety Instructions

 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:

DANGER!	**DANGER**!	**DANGER**!	**Warning**!	**Warning**!	**Warning**!	**Warning**!	Avoid direct
Safety hazard. Risk of severe injury or death.	Refer to manual betore installing, powering or servicing.	Hazardous voltage.Risk of severe or lethal electric shock.	Fire hazard.	Burn hazard. Hot surface. not touch. Do not touch	Risk of eye injury.Safety glasses must be worn.	Risk of hand injury. Safety gloves must be worn.	eye contact

Applies only to luminaires directly mounted on surfaces of non-combustible materials	Do not discard Trash can	Mark of ground	Replace all shatter shields	Take a short distance from the object to be photographed (meters)	Rated maximum ambient temperature	Indoor use only	Do not point the lens towards the sun or strong light	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.

● 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: 0℃. Maximum ambient temperature Ta: 40℃. 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 12 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

OPTICAL

- Light source:

  OSL5 Adopt special customized bulbs jointly developed by our company and Osram.

- Zoom range: Beam mode 2.3-12°, Spot mode 9-36°, Wash mode 15-53°

- Optical lens: diameter 138mm

- Color temperature: 6200K

- Color rendering index: Ra≥80

- Light degree: 346000 lux @10M

COLOR

- CTO color temperature linear adjustment (2700K-6200K)

- 13 color chips + white light, can realize two-way color rainbow, two-color step-by-step gradient
  (linear movement), color wheel two-way rotation, random color mode.

PATTERN

- Rotating gobo wheel: 7 glass gobos + white light, pluggable and replaceable, the outer
  diameter of the gobo is 22.9mm, and the inner diameter of the gobo is 17mm, which can realize
  the effects of rotation, flowing water and shaking.

- Fixed gobo wheel: 11 gobos + white light + 1 uniform optical lens, which can realize the effects
  of rotation, flowing water and shaking.

- Dynamic wheel: it can be used alone or combined with the gobo wheel, and the speed of
  rotation in both directions can be adjusted.

EFFECT

- 8 prisms + 6 rows of prisms: can be rotated in both directions, can be switched independently,
  and can be superimposed.

- Soft light Effect: adjustable independent soft light effect

- Focus: high-precision electric focus- Strobe: 0.5-12 times/second adjustable pulse strobe and
  random strobe- Dimming: 0-100% linear adjustment

CONTROL AND PROGRAMMING

- Control channel: 21CH, 24CH

- Protocol: standard DMX512 protocol, RDM protocol

- Data connection: three-core or five-core signal input/output

- Display: LCD liquid crystal screen

SOFTWARE

- Upgrade software via USB or DMX interface

X/Y AXIS MOVEMENT ANGLE

- X-axis: 540° 8bit/16bit precision scanning

- Y axis: 270° 8bit/16bit precision scanning

POWER

- Input voltage: AC 100-240V 50/60Hz

- Maximum power: 550W

- Power factor: 0.987

SIZE & WEIGHT

- Product size: 380mm×300mm×646mm

- Net weight: 22.5 kg

- Carton packing (default): 450mm×390mm×745mm

- Gross weight: 26.2 kg

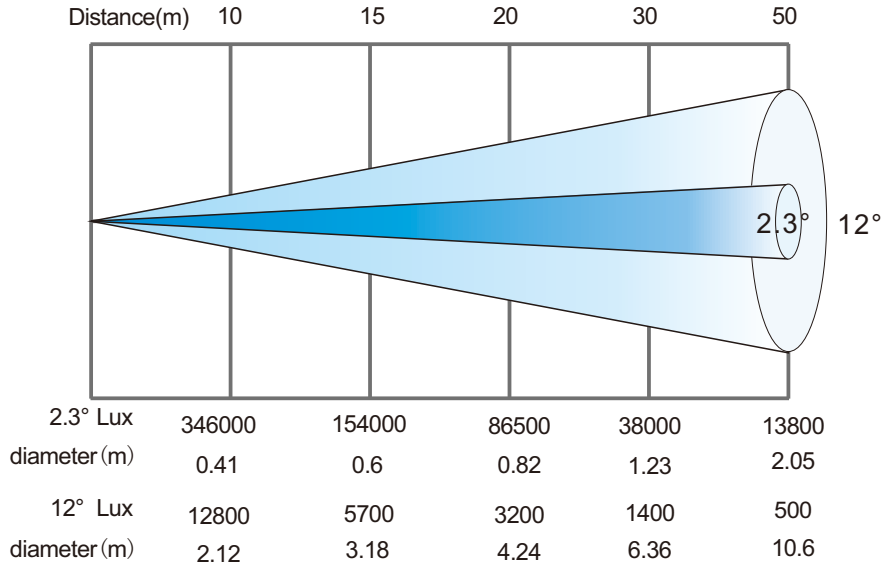- Flycase (option-2 sets) :810mmx530mmx845mm

- N.W: 45.0 Kg   G.W: 84.5Kg

OTHERS

- Protection class: IP20

- Working environment: 0℃ ~ 40℃

- Maximum surface temperature of the lamp body: 80℃

- Maximum lamp current: 5.5A/110V; 2.75A/220V

APPROVALS

- The product implementation standard: GB 7000.1-2015 GB7000. 217-2008

- Approved certifications: CE、RoHs

- The product complies with the following EU directives:

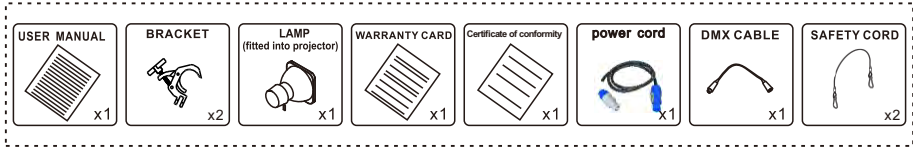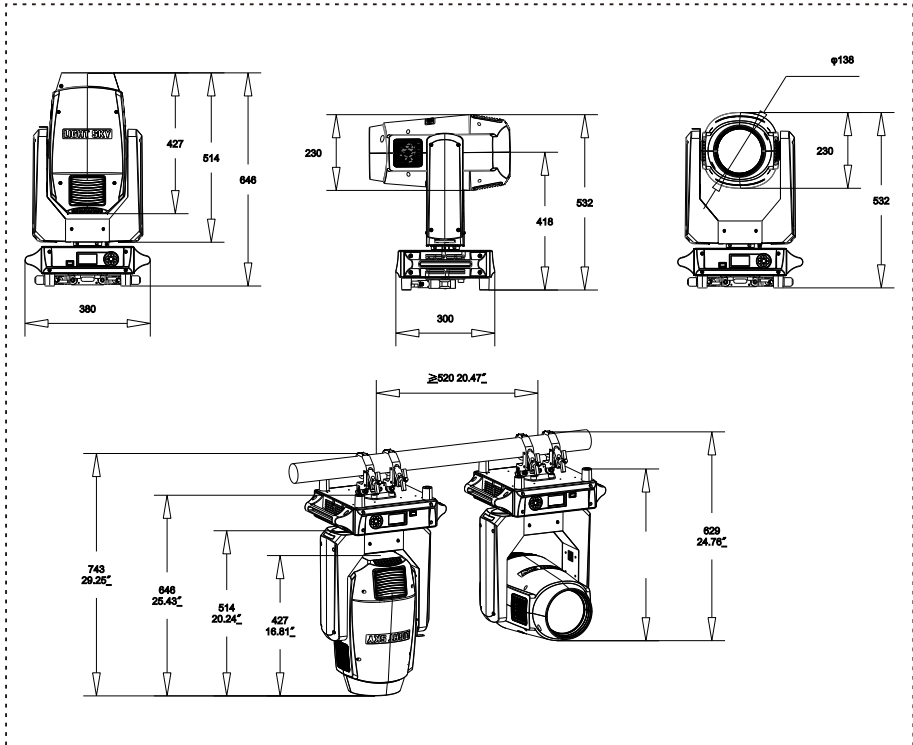 Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

illumination diagram

Distance(m)	10	15	20	30	50
2.3° Lux	346000	154000	86500	38000	13800
diameter（m）	0.41	0.6	0.82	1.23	2.05
12° Lux	12800	5700	3200	1400	500
diameter（m）	2.12	3.18	4.24	6.36	10.6

2.3°   12°

2.1.Attachment And Size

Attachment contents-Fig.1

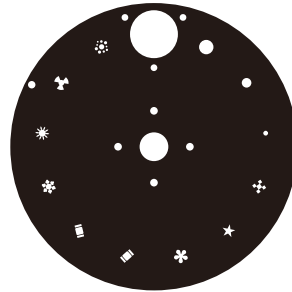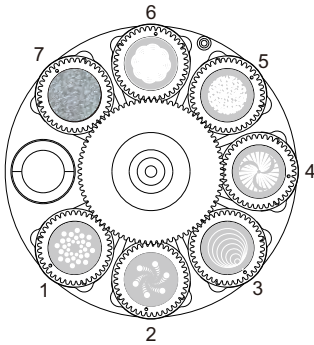| USER MANUAL	BRACKET	LAMP (fitted into projector)	WARRANTY CARD	Certificate of conformity	power cord	DMX CABLE	SAFETY CORD
x1	x2	x1	x1	x1	x1	x1	x2

Size-Fig.2

Color、Effect

Linear CTO
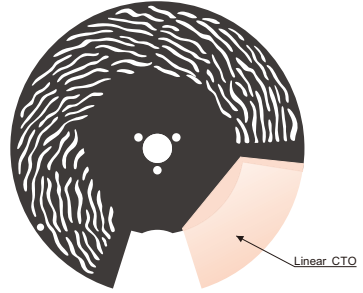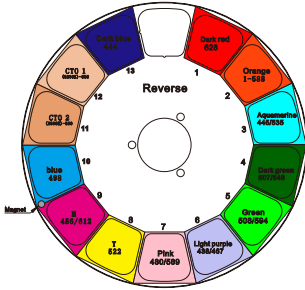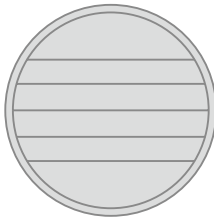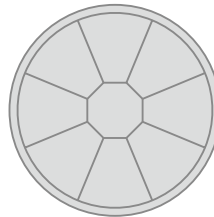
GOBO

Prism

6 Prism

8Prism

3.1. Replacing Rotating Gobos

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

A
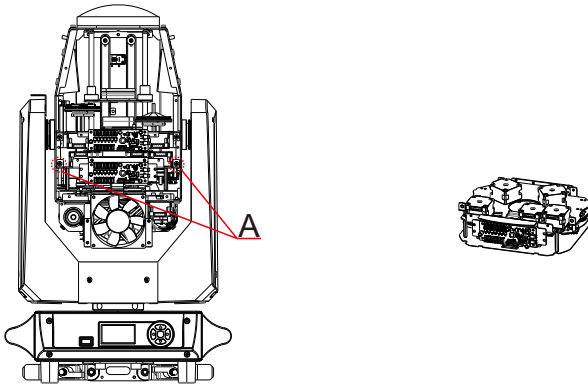
2.Turn the module upside down, remove the corresponding materials in the following order, and then remove the rotating gobo wheel.

step 1：Remove pattern color module light baffle

step 2：Disassemble the color plate

step 3：Remove the fixed pattern plate

step 4：Disassemble the effect plate

step 5：Remove the rotating gobo wheel
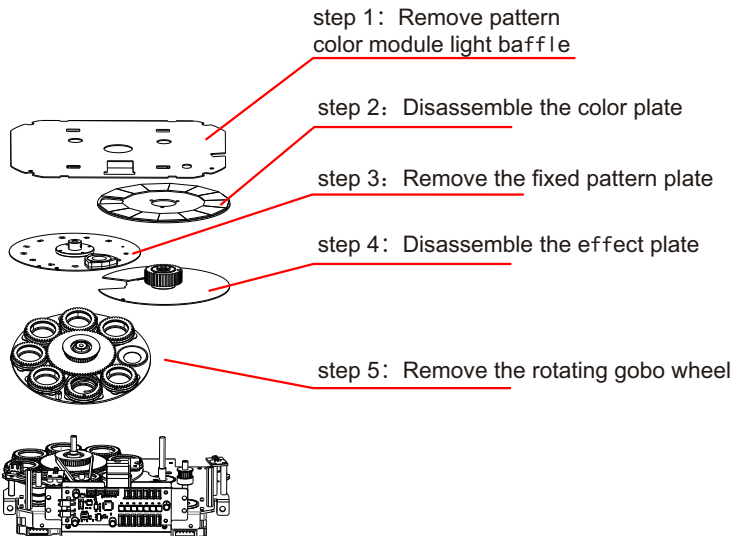
3.As shown in [B], gently lift the gobo driven wheel from the edge upwards from the back of the gobo wheel and pull it out slowly to take out a single gobo.
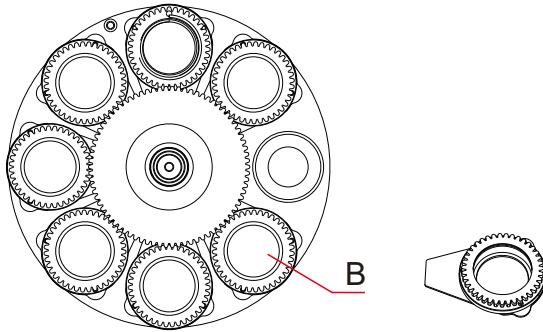
4.Use tweezers or other small objects to take out the snap ring at [C] (if the pattern piece is coated with glass glue for fixing, please use a professional Use the cleaning agent to remove the glass glue and then take out the circlip, so as not to damage the pattern piece).
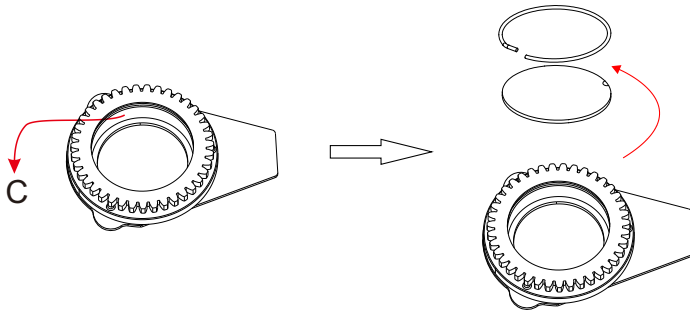
5. When assembling the gobo, avoid touching the gobo directly with your hands, and as shown in [D], the coated surface of the gobo should face the light source.
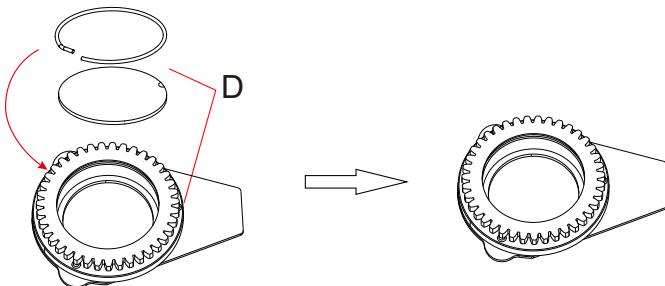
6. Insert the gobo driven wheel into the driving wheel assembly, as shown in [E], the concave point of the gobo driven wheel must face the center of the driving wheel when positioning.
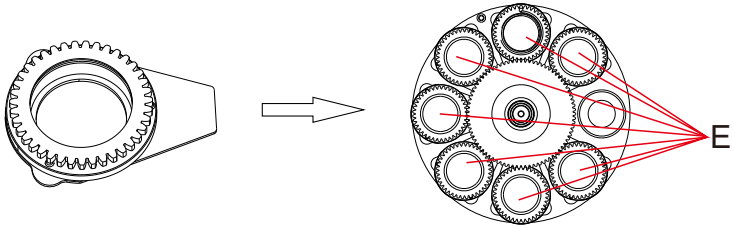
7. After the installation is complete, put the pattern plate assembly back on the lamp.

4.Connection and control

4.1.Power supply connection
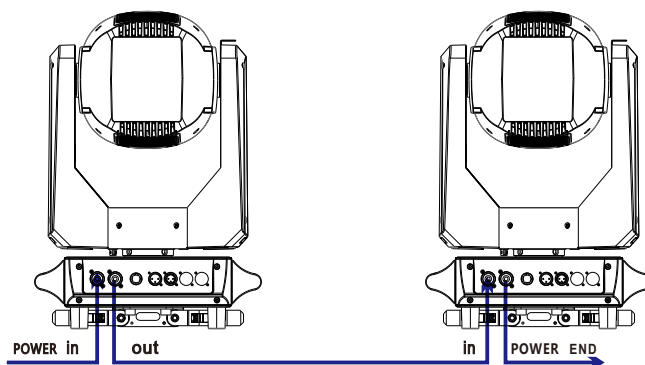
The N terminal is connected with the blue line.

The ground wire is connected to the yellow-green wire

N

L
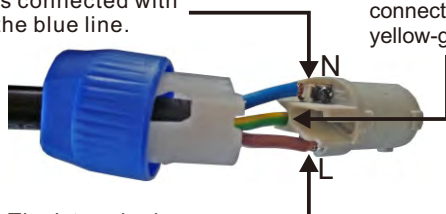
The L terminal is connected with the brown line.

POWER in   out   in   POWER END

- 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.

4.2.DMX 512 Connection

DMX-input

1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Not connected
5 - Not connected

DMX - output

1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Not connected
5 - Not connected
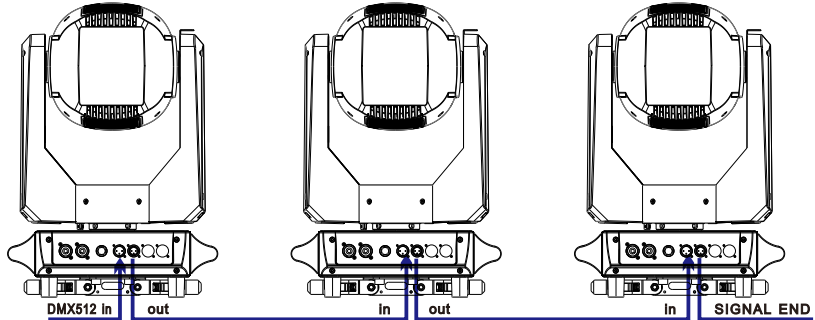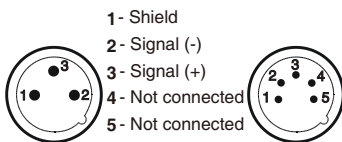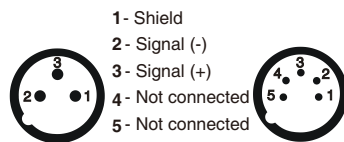
1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120Ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

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.

4.3.Control Panel
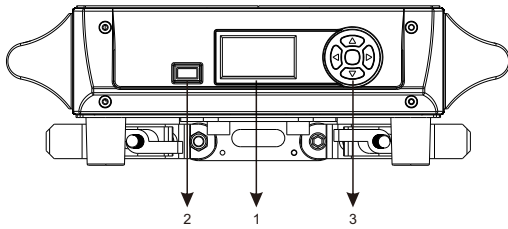
1. Display: To show the various menus and the selected function.
2. USB：Used to update software versions
3. Button：

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

5.How To Set The Unit

5.1.Main Function

The lamp is powered on. When the system initialization and lamp reset are completed, and the standby interface is displayed on the display screen, press OK to enter the preset menu interface. Use the up/down/left/right keys to select ① level menu: DMX address, basic information, personality settings, manual control, service options, bulbs, language, screen rotation. The main functions are as follows:

Main menu	I menu	II menu	III menu
DMX Address	Address:001-512	1-512	ESC is -1, ENTER is +1 UP is + current channel number, DOWN is - current channel number
Information	Lamp hours	Clear device time	
	Light source time	Clear Light Time	
	Temperature	light source/display panel/sensor 1/sensor 2 temperature	
	communication status	Display the communication status between the board and the motor board	
	Motor information	Motor information in the device	
	fault status record	Record the fault name and fault time	
	Device channel	The current communication data of the device	
	Version	Manufacturer/device name/model/display board version and date/motherboard version and date	
Manual control	light bulb switch	ON/OFF	A confirmation dialog box will pop up, press the confirm key to confirm the current operation, and ESC/ENTER to exit. Turn on or off the light bulb, the switch time interval is limited to 30S
	Mode selection	DMX/self-propelled/voice control/scene	OK key to switch
	Scene mode	automatic/1~10	OK key to switch
	Channel control	scene selection(1~10)	OK key to switch
		scene time (0s-25.5s)	Press OK to enter the parameter modification interface
		Channel parameter setting (0~255)	Press OK to enter the parameter modification interface
	Reset	X axis Yaxis	Reset XY axis
		colour	reset color wheel
		pattern	Reset the gobo
		Strobe	reset strobe
		Focusing and Prisms	Reset focus and prism
		whole	reset all
Personal	Channel selection	Select according to the number of existing channels in the program	
	Master-slave mode (effective when not in DMX mode, select the data output mode, the lamp automatically detects the DMX state and automatically switches the output to prevent data conflict)	automatic	The light fixture operates as built-in, if there is no DMX signal, it will output data (synchronization), otherwise it will not output data
		Slave	The lamps operate as built-in and do not output data (do not synchronize with other lamps)
		main engine	If there is no DMX signal, the luminaire operates as built-in, otherwise, the luminaire operates as the DMX signal
	X axis reversal	ON/OFF	
	Y axis reversal	ON/OFF	
	Optocoupler Correction	ON/OFF	
	X axis offset	4~150	
	Y axis offset	4~48	
	Light-on mode (sets the way the bulb is turned on for the first time after it is powered on)	Power-on	Turn on the bulb first when power on, reset the lamp after 30S
		manual	After the reset is completed, manually turn on the bulb through the menu or console
		after reset	Reset the lamp after 3 seconds of power-on, and turn on the bulb after the reset is complete
	Factory settings	Restore to factory default parameter settings	
display setting	language	Chinese /English	
	screen protector	closure	The screen is always on
		model 1	Screen off after 20S
		model 2	The channel information is displayed after 20S, and the screen backlight turns off after 30S
		model 3	The manufacturer's LOGO is displayed after 20S, and the screen backlight turns off after 30S
	screen rotation	positive/reverse	
	pilot lamp	model 1	On when there is a signal, off when there is no signal
		model 2	Off when there is a signal, on when there is no signal
		model 3	Flashes when there is a signal, off when there is no signal
	screen backlight	1~10	After a period of inactivity, it will return to the set brightness, and if it is operated, it will return to full brightness
Parameter calibration	On the main interface, press and hold the exit button (the button on the left side of the upright display) for 3 seconds, and a password box will pop up. Enter the password 2222 to enter the parameter calibration interface.		

① **- DMX Address**

Enter the **preset menu** interface，select function，Press the OK key to enter the lower menu, and use the up/down key to set the lamp address Code (001~497), the default address code of the lamp is 001. After setting, press OK to confirm and return to the upper menu。

① **− Information**

Enter the **preset menu** interface，select function，Press the OK key to enter the lower menu, and use the up/down keys to select the② level menu:Total running time, equipment time, equipment temperature, RDM address, fan speed/voltage, equipment channel, software information, exit.

② **Total Time**

Select the **Total Time** function and press the OK key to enter the lower menu to view the equipment: total power on (H) and total bright bulb (H). Press the OK key or the left/right key to return to the previous menu.

② **Totel time function**

Select the **Totel time function** and press the OK key to enter the lower menu to view the equipment: power on time (H) and light on time (H). Press OK key or left/right key to return to the upper menu.

② **Equipment temperature**

Select the **Equipment temperature** function, and press OK to enter the lower menu to view the equipment: temperature measurement board temperature. Press the OK key or the left/right key to return to the previous menu.

② **RDM address**

Select the **RDM address** function and press the OK key to enter the lower menu to view the device: RDM address information. Press the OK key or the left/right key to return to the previous menu.

② **Fan speed/voltage**

Select the **Fan speed/voltage** function and press the OK key to enter the lower menu to view the speed of the equipment: blower 1, blower 2, blower 1 and blower 2. Press the OK key or the left/right key to return to the previous menu.

② **DMX live**

Select the **DMX live** function and press the OK key to enter the lower menu to view the channel information of the equipment in the current channel mode. Press the OK key or the left/right key to return to the previous menu.

② **Version information**

Select the **Version information** function and press the OK key to enter the lower menu to view the version information of the equipment: XY board, effect board and display board. Press the OK key or the left/right key to return to the previous menu.

① − **Personal**

Enter the **preset menu** interface, select function，press the OK key to enter the lower menu, and use the Up/Down key to select the ② menu: channel mode, automatic light bulb opening, horizontal and vertical inversion, display setting, exit, press the OK key to enter the lower menu, or press the left key to return to the upper menu.。

② **Channel Mode**

Select the **Channel Mode** function and press OK to enter the lower menu. You can use up/down keys to select: standard mode (24CH), simple mode (21CH). Press OK to confirm the selection and return to the upper menu.

② **Auto lamp on**

Select the **Auto lamp on** function, press the OK key to enter the lower menu, press the Up/Down key to select: On/Off（default), press the OK key to confirm the selection and return to the upper menu.

② **P/T invert**

Select the **P/T invert** function, and press OK to enter the lower menu. You can use up/down keys to select: horizontal reverse and vertical reverse. Press OK to confirm the selection and return to the upper menu.

② **Display Settings**

Select the **Display Settings** function, press the OK key to enter the lower menu, and use the up/down keys to select the③menu: Language, backlight, screen rotation, backlight flashing, and exit. Press the OK key to enter the lower menu, or press the left key to return to the upper menu.

③ **Language**

Select the **Language** function and press OK to enter the lower menu. You can use up/down keys to select Chinese and English. Press OK to confirm the selection and return to the upper menu.

③ **Back Light**

Select the Back Light function, press the OK key to enter the lower menu, use the up/down key to select: normally on, automatically off(15S), press the OK key to confirm and return to the upper menu.

③ **Screen rotation**

Select the **Screen rotation** function, press the OK key to enter the lower menu, and use the up/down key to select: normal (default), 180 degree rotation, press the OK key to confirm and return to the upper menu.

③ **Backlight blink**

Select the **Backlight blink** function, press the OK key to enter the lower menu, and use the up/down key to select: open (default), close, press the OK key to confirm and return to the upper menu.

① 〔╪╪╪〕 – **Manual control**

Enter the **preset menu** interface，select 〔╪╪╪〕 function，press the OK key to enter the lower menu, and use the up/down keys to select the ② menu: channel control, reset, test lamps, exit, press the OK key to enter the lower menu, or press the left key to return to the upper menu.

② **Channel control**

Select the **Channel control** function, press the OK key to enter the lower menu, press the Up/Down key to select each channel of the current channel mode, press the Left/Right key to manually adjust the DMX value of each channel from 0 -255, and press the OK key to return to the upper menu.

② **Reset**

Select the **Reset** function, press the OK key to enter the lower menu, and use the up/down keys to select: system reset (i.e. machine reset), horizontal and vertical reset, head motor reset, and exit. Press the OK key to confirm and execute the selected reset command, and return to the upper menu.

② **Test Lamp**

Select the **Test Lamp** function, press the OK key to enter the lower menu, and you can use the up/down key to select: test horizontal and vertical, test head effect, overall test, exit, then press the OK key to confirm the selection, and execute the selected test command, and press the OK key or the left/right key to return to the upper menu.

① − **Service**

Enter the **preset menu** interface, select function, press the OK key to enter the lower menu, you can use the up/down keys to select: historical fault information, clear fault information, calibration, factory setting, exit, press the OK key to enter the lower menu, or press the left/right key to return to the upper menu.

② **Error list**

Select the **Error list** function, press OK to enter the lower menu, you can view the fault record of the whole machine, press OK or left/right to return to the upper menu.

② **Clean Error**

Select the **Clean Error** function, press OK to enter the lower menu, use up/down keys to select: Clear, Keep, you can clear or retain the fault records of lamps, press OK to confirm and return to the upper menu.

② **Calibration**

Select the **Calibration** function, press the OK key to enter the lower menu, press the Up/Down key to select each channel of the current channel mode, press the Left/Right key to manually fine tune the DMX value of each channel from 0 to 255 (default 128), and press the OK key to return to the upper menu.

② **Factory Setup**

Select the **Factory Setup** function, press OK key to enter the sub-menu, you can use the up/down key to select: factory default, time clear, developer, software upgrade, exit, press OK key to enter the sub-menu. Note that the functions under this menu require a password to proceed to the next step.

① − **Lamp**

Enter the **preset menu** interface， select function， Press OK key to enter the subordinate menu, you can use the up/down key to select: close (default), open, press OK key to confirm and return to the superior menu.

① − **Language**

Enter the **preset menu** interface， select function， Press OK to switch between Chinese (default) and English.

① − **Reversal**

Enter the **preset menu** interface， select function， Press OK to toggle the screen between normal and rotated 180 degrees.

preset menu interface

Scroll to display the current channel information

Current address code

External DMX link status

Standby interface
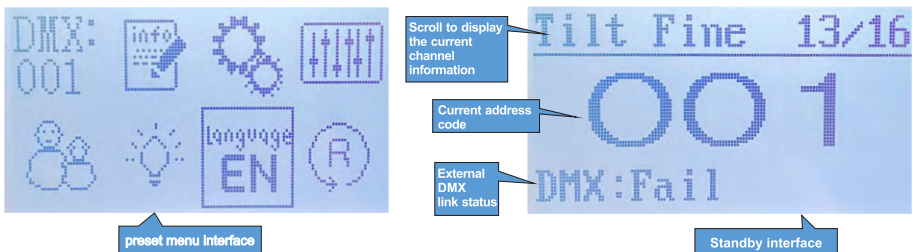
5.2.Channel Setting

Enter the MENU menu, select the personality setting function, select the channel mode, press OK button to confirm, you can use the up and down key to select: 24 channel (default), 21 channel, press OK key to select confirm and return to the next level menu.

5.3.Address Setting

Enter MENU, select the DMX setting function, select the address code setting, press the OK button to confirm, the current DMX address will be displayed on the display. Use the up/down buttons to select addresses 001~512, and press the OK button to save. Press the OK 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
24 CH	1	25	49	74
21 CH	1	22	43	64

5.4.DMX 512 Configuration

Please control the fixture by referring to the configurations below
24CH

Channel	DMX	Percentage	Function	Note
1	0-255	0-100	**Pan**	
2	0-255	0-100	**Pan Fine**	
3	0-255	0-100	**Tilt**	
4	0-255	0-100	**Tilt Fine**	
5	0-255	0-100	**XY Speed**	
6			**Reset**	
	0-25	0-9.8	Unused Range	
	26-30	10.2-11.8	Effects Reset	
	31-35	12.2-13.7	PAN/TITL Reset	
	36-40	14.4-15.7	Complete Reset	
	41-180	16.1-70.6	Unused Range	
	181-200	71.0-78.4	Lamp OFF	
	201-220	78.8-86.3	Unused Range	
	221-255	86.7-100	Lamp ON	
7			**Colour Wheel**	
	0-1		White	
	2-6		White + Color1	
	7-10		Color1	
	11-15		Color1 + Color2	
	16-19		Color2	
	20-24		Color2 + Color3	
	25-29		Color3	
	30-33		Color3 + Color4	
	34-38		Color4	
	39-42		Color4 + Color5	
	43-47		Color5	
	48-52		Color5 + Color6	
	53-56		Color6	
	57-61		Color6 + Color7	
	62-65		Color7	
	66-70		Color7 + Color8	
	71-74		Color8	
	75-79		Color8 + Color9	
	80-83		Color9	
	84-88		Color9 + Color10	
	89-93		Color10	
	94-97		Color10 + Color11	
	98-102		Color11	
	103-107		Color11 + Color12	
	108-111		Color1	
	112-115		Color12 + Color13	
	116-120		Color12	
	121-124		Color13 + White	
	125-129		White	
	130-189		Color switching	
	190-220		Fast-Slow Rotation(CW)	
	221-224		Stop	
	225-255		Slow-Fast Rotation(CCW)	
8	0-255	0-100	**CTO**	

Channel	DMX	Percentage	Function	Note
			Gobo	
	0-9		White	
	10-14		Gobo1	
	15-19		Gobo2	
	20-24		Gobo3	
	25-29		Gobo4	
	30-34		Gobo5	
	35-39		Gobo6	
	40-44		Gobo7	
	45-49		Gobo8	
	50-54		Gobo9	
	55-59		Gobo10	
	60-64		Gobo11	
9	65-69		Gobo1 Shake Slow-Fast Speed	
	70-74		Gobo2 Shake Slow-Fast Speed	
	75-79		Gobo3 Shake Slow-Fast Speed	
	80-84		Gobo4 Shake Slow-Fast Speed	
	85-89		Gobo5 Shake Slow-Fast Speed	
	90-94		Gobo6 Shake Slow-Fast Speed	
	95-99		Gobo7 Shake Slow-Fast Speed	
	100-104		Gobo8 Shake Slow-Fast Speed	
	105-109		Gobo9 Shake Slow-Fast Speed	
	110-114		Gobo10 Shake Slow-Fast Speed	
	115-127		Gobo11 Shake Slow-Fast Speed	
	128-190		Fast-Slow Rotation(CW)	
	191-192		Stop	
	193-255		Slow-Fast Rotation(CCW)	
			Effect gobo wheel	
10	0-14		White	
	15-255		Gobo Shake Slow-Fast Speed	
			Rotating gobo wheel	
	0-9		White	
	10-19		Gobo1	
	20-29		Gobo2	
	30-39		Gobo3	
	40-49		Gobo4	
	50-59		Gobo5	
	60-69		Gobo6	
	70-79		Gobo7	
11	80-89		Gobo1 Shake Slow-Fast Speed	
	90-99		Gobo2 Shake Slow-Fast Speed	
	100-109		Gobo3 Shake Slow-Fast Speed	
	110-119		Gobo4 Shake Slow-Fast Speed	
	120-129		Gobo5 Shake Slow-Fast Speed	
	130-139		Gobo6 Shake Slow-Fast Speed	
	140-149		Gobo7 Shake Slow-Fast Speed	
	150-199		Fast-Slow Rotation(CW)	
	200-205		Stop	
	206-255		Slow-Fast Rotation(CCW)	
			Gobo rotation	
	0-127		Gobo indexing 0-360°	
12	128-190		Fast-Slow Rotation(CW)	
	191-192		Stop	
	193-255		Slow-Fast Rotation(CCW)	

Channel	DMX	Percentage	Function	Note
13	0-255	0-100	**Gobo rotation fine**	
14			**Prism1**	
	0-127		No Function	
	128-255		Prism1	
15			**Prism 1 rotation**	
	0-127		Prism1 indexing 0-360°	
	128-187		Fast-Slow Rotation(CW)	
	188-195		Stop	
	196-255		Slow-Fast Rotation(CCW)	
16			**Prism2**	
	0-127		No Function	
	128-255		Prism2	
17			**Prism 2 rotation**	
	0-127		Prism2 indexing 0-360°	
	128-187		Fast-Slow Rotation(CW)	
	188-195		Stop	
	196-255		Slow-Fast Rotation(CCW)	
18			**Frost**	
	0-127		No Function	
	128-255		Open	
19	0-255	0-100	**Zoom**	
20	0-255	0-100	**Focus**	
21	0-255	0-100	**Focus fine**	
22	0-255	0-100	**Macro**	
23			**Strobe**	
	0-3	0-1.2	closed	
	4-103	1.6-40.4	Slow-Fast Strobe	
	104-107	40.8-42.0	Open	
	108-157	42.4-61.6	Slow-Fast Quick close slow open	
	158-207	62.0-81.2	Slow-Fast Quick opening and slow closing	
	208-212	81.6-83.1	Open	
	213-251	83.5-98.4	Random Slow-Fast Strobe	
	252-255	99.8-100	Open	
24	0-255	0-100	**Dimmer**	

Channel	DMX	Percentage	Function	Note
1	0-255	0-100	**Pan**	
2	0-255	0-100	**Pan Fine**	
3	0-255	0-100	**Tilt**	
4	0-255	0-100	**Tilt Fine**	
5	0-255	0-100	**XY Speed**	
6			**Reset**	
	0-25	0-9.8	Unused Range	
	26-30	10.2-11.8	Effects Reset	
	31-35	12.2-13.7	PAN/TITL Reset	
	36-40	14.4-15.7	Complete Reset	
	41-180	16.1-70.6	Unused Range	
	181-200	71.0-78.4	Lamp OFF	
	201-220	78.8-86.3	Unused Range	
	221-255	86.7-100	Lamp ON	
7			**Colour Wheel**	
	0-1		White	
	2-6		White + Color1	
	7-10		Color1	
	11-15		Color1 + Color2	
	16-19		Color2	
	20-24		Color2 + Color3	
	25-29		Color3	
	30-33		Color3 + Color4	
	34-38		Color4	
	39-42		Color4 + Color5	
	43-47		Color5	
	48-52		Color5 + Color6	
	53-56		Color6	
	57-61		Color6 + Color7	
	62-65		Color7	
	66-70		Color7 + Color8	
	71-74		Color8	
	75-79		Color8 + Color9	
	80-83		Color9	
	84-88		Color9 + Color10	
	89-93		Color10	
	94-97		Color10 + Color11	
	98-102		Color11	
	103-107		Color11 + Color12	
	108-111		Color1	
	112-115		Color12 + Color13	
	116-120		Color12	
	121-124		Color13 + White	
	125-129		White	
	130-189		Color switching	
	192-220		Fast-Slow Rotation(CW)	
	221-224		Stop	
	225-255		Slow-Fast Rotation(CCW)	
8	0-255	0-100	**CTO**	

Channel	DMX	Percentage	Function	Note
9			**Gobo**	
	0-9		White	
	10-14		Gobo1	
	15-19		Gobo2	
	20-24		Gobo3	
	25-29		Gobo4	
	30-34		Gobo5	
	35-39		Gobo6	
	40-44		Gobo7	
	45-49		Gobo8	
	50-54		Gobo9	
	55-59		Gobo10	
	60-64		Gobo11	
	65-69		Gobo1 Shake Slow-Fast Speed	
	70-74		Gobo2 Shake Slow-Fast Speed	
	75-79		Gobo3 Shake Slow-Fast Speed	
	80-84		Gobo4 Shake Slow-Fast Speed	
	85-89		Gobo5 Shake Slow-Fast Speed	
	90-94		Gobo6 Shake Slow-Fast Speed	
	95-99		Gobo7 Shake Slow-Fast Speed	
	100-104		Gobo8 Shake Slow-Fast Speed	
	105-109		Gobo9 Shake Slow-Fast Speed	
	110-114		Gobo10 Shake Slow-Fast Speed	
	115-127		Gobo11 Shake Slow-Fast Speed	
	128-190		Fast-Slow Rotation(CW)	
	191-192		Stop	
	193-255		Slow-Fast Rotation(CCW)	
10			**Effect gobo wheel**	
	0-14		White	
	15-255		Gobo Shake Slow-Fast Speed	
11			**Rotating gobo wheel**	
	0-9		White	
	10-19		Gobo1	
	20-29		Gobo2	
	30-39		Gobo3	
	40-49		Gobo4	
	50-59		Gobo5	
	60-69		Gobo6	
	70-79		Gobo7	
	80-89		Gobo1 Shake Slow-Fast Speed	
	90-99		Gobo2 Shake Slow-Fast Speed	
	100-109		Gobo3 Shake Slow-Fast Speed	
	110-119		Gobo4 Shake Slow-Fast Speed	
	120-129		Gobo5 Shake Slow-Fast Speed	
	130-139		Gobo6 Shake Slow-Fast Speed	
	140-149		Gobo7 Shake Slow-Fast Speed	
	150-199		Fast-Slow Rotation(CW)	
	200-255		Slow-Fast Rotation(CCW)	
12			**Gobo rotation**	
	0-127		Gobo indexing 0-360°	
	128-187		Fast-Slow Rotation(CW)	
	188-195		Stop	
	196-255		Slow-Fast Rotation(CCW)	
13			**Prism1**	
	0-127		No Function	
	128-255		Prism1	

Channel	DMX	Percentage	Function	Note
14	0-127 128-187 188-195 196-255		**Prism 1 rotation** Prism1 indexing 0-360° Fast-Slow Rotation(CW) Stop Slow-Fast Rotation(CCW)	
15	0-127 128-255		**Prism2** No Function Prism2	
16	0-127 128-187 188-195 196-255		**Prism 2 rotation** Prism2 indexing 0-360° Fast-Slow Rotation(CW) Stop Slow-Fast Rotation(CCW)	
17	0-127 128-255		**Frost** No Function Open	
18	0-255	0-100	**Zoom**	
19	0-255	0-100	**Focus**	
20	0-3 4-103 104-107 108-157 158-207 208-212 213-251 252-255	0-1.2 1.6-40.4 40.8-42.0 42.4-61.6 62.0-81.2 81.6-83.1 83.5-98.4 99.8-100	**Strobe** closed Slow-Fast Strobe Open Slow-Fast Quick close slow open Slow-Fast Quick opening and slow closing Open Random Slow-Fast Strobe Open	
21	0-255	0-100	**Dimmer**	

6.Electrical Connection Diagram

The position of each fan of the fixture:

7.Troubleshooting

PAN ERROR:

- Check whether there are other items interfering with the operation and reset of the X axis within the operation range.
- Check whether the connecting wire of the X-axis magnetic encoder is in bad contact or disconnected.
- Check whether the connecting wire of the X-axis motor is in bad contact or disconnected.
- Check whether the X-axis magnetic sensing plate is loose, detached or damaged.
- Check whether the relevant circuit of the X-axis motor driver board is damaged.
- Check whether the X-axis motor is damaged.
- Check the display board itself for damage.

TILT ERROR:

- Check whether there are other items within the operation range of the Y-axis to interfere with its operation and reset.
- Check whether the connection line of the Y-axis magnetic sensing plate is in bad contact or disconnected.
- Check whether the connecting wire of the Y-axis motor is in bad contact or disconnected.
- Check whether the Y axis magnetic sensing plate is loose, shed or damaged.
- Check whether the relevant circuit of Y-axis motor driver board is damaged.
- Check whether the Y-axis motor is damaged.
- Check the display board itself for damage.

FOCUS ERROR:

Check whether there are other items in the focus operation range that interfere with its operation and reset;

Check whether the connection wire of the focusing magnetic sensor board is poorly connected or disconnected;

Check whether the connecting wire of the focusing motor is poorly connected or disconnected;

Check if the focusing magnet is loose, falling off or damaged;

Check if the focusing magnetic plate is loose, falling off or damaged;

Check whether the related circuit of the focusing motor driver board is damaged;

Check if the focusing motor is damaged;

Check the display board itself for damage.

ZOOM ERROR:

Check whether there are other items in the zoom operation range that interfere with its operation and reset;

Check whether the connection wire of the zoom magnetic sensor board is in poor contact or disconnected;

Check whether the connecting wire of the scaling motor is poorly connected or disconnected;

Check if the zoom magnet is loose, detached or damaged;

Check whether the zoom magnetic sensor board is loose, falling off or damaged;

Check whether the circuit related to the zoom motor driver board is damaged;

Check the zoom motor for damage;

Check the display board itself for damage.

ROTA GOBO ERROR:

Check whether there are other objects in the rotating gobo wheel that interfere with its operation and reset;

Check whether the connecting wire of the rotating gobo wheel and the magnetic sensor board is in poor contact or disconnected;

Check whether the connecting wire of the rotary gobo motor is poorly connected or disconnected;

Check whether the rotating gobo magnet is loose, falling off or damaged;

Check whether the rotating gobo wheel magnetic plate is loose, falling off or damaged;

Check whether the circuit related to the rotating gobo wheel motor drive board is damaged;

Check whether the rotary gobo motor is damaged;

Check the display board itself for damage.

ROTA GOBOROT ERROR:

Check whether there is any other object in the rotating range of the rotating gobo wheel that interferes with its operation and reset;

Check whether the connection wire of the rotating gobo wheel is in poor contact or disconnected;

Check whether the connecting wire of the rotary gobo wheel self-rotating motor is poorly connected or disconnected;

Check whether the magnet of the rotating gobo wheel is loose, falling off or damaged;

Check whether the rotating gobo wheel rotates on its own and whether the magnetic induction plate is loose, falling off or damaged;

Check whether the circuit related to the motor drive board of the rotating gobo wheel is damaged;

Check whether the rotary gobo wheel self-rotation motor is damaged;

Check the display board itself for damage.

FIX GOBO ERROR:

Check whether there are other objects in the operation range of the fixed gobo wheel that interfere with its operation and reset;

Check whether the connecting wire of the fixed gobo wheel and the magnetic sensor board is in poor contact or disconnected;

Check whether the connecting wire of the fixed gobo wheel motor is poorly connected or disconnected;

Check if the fixed gobo magnet is loose, falling off or damaged;

Check if the fixed gobo wheel magnetic plate is loose, falling off or damaged;

Check whether the circuit related to the fixed gobo wheel motor drive board is damaged;

Check if the fixed gobo motor is damaged;

Check the display board itself for damage.

COLOR ERROR:

Check whether there are other items within the operating range of the color wheel that interfere with its operation and reset;

Check whether the connection wires of the color wheel and the magnetic sensor board are in poor contact or disconnected;

Check whether the connecting wire of the color wheel motor is poorly connected or disconnected;

Check whether the color wheel magnet is loose, falling off or damaged;

Check whether the magnetic plate of the color wheel is loose, falling off or damaged;

Check whether the circuit related to the color wheel motor drive board is damaged;

Check whether the color wheel motor is damaged;

Check the display board itself for damage.

EFFECT GOBO ERROR:

Check whether there are other items in the operating range of the effect disc that interfere with its operation and reset;

Check whether the connection wire of the effect disc and the magnetic induction board is in poor contact or disconnected;

Check whether the connecting wire of the effect disc motor is poorly connected or disconnected;

Check if the effect disc magnet is loose, falling off or damaged;

Check whether the magnetic sensor board of the effect plate is loose, falling off or damaged;

Check whether the circuit related to the effect disc motor drive board is damaged;

Check whether the effect disc motor is damaged;

Check the display board itself for damage.

PRISM 1 ERROR:

Check whether there are other items within the operating range of prism 1 that interfere with its operation and reset;

Check whether the wire of the prism 1 running motor is loose or falls off;

Check whether the related circuit of the Prism 1 motor driver board is damaged;

Check if the Prism 1 motor is damaged;

Check the display board itself for damage.

PRISM 1 ROT ERROR:

Check whether the wire of the prism 1 rotating motor is loose or falls off;

Check whether the circuit related to the prism 1 rotation drive board is damaged;

Check whether the prism 1 rotation motor is damaged;

Check the display board itself for damage.

PRISM 2 ERROR:

Check whether there are other items within the operating range of Prism 2 that interfere with its operation and reset;

Check whether the Prism 2 running motor wire is loose or falls off;

Check whether the related circuit of the Prism 2 motor driver board is damaged;

Check whether the Prism 2 motor is damaged;

Check the display board itself for damage.

PRISM 2 ROT ERROR:

Check if the Prism 2 rotation motor wire is loose or disconnected;

Check whether the circuit related to the prism 2 rotation drive board is damaged;

Check whether the Prism 2 rotation motor is damaged;

Check the display board itself for damage.

FROST ERROR:

Check whether the atomization motor wire is loose or falls off;

Check whether the circuit related to the atomization driver board is damaged;

Check whether the atomization rotating motor is damaged;

Check the display board itself for damage.

DIMMER ERROR:

Check whether the dimming 1 motor wire is loose or disconnected;

Check whether the relevant circuit of the dimming 1 driver board is damaged;

Check whether the dimming 1 rotating motor is damaged;

Check the display board itself for damage.

DIMMER 2 ERROR:

Check whether the dimming 2 motor wire is loose or falls off;

Check whether the relevant circuit of the dimming 2 driver board is damaged;

Check whether the dimming 2 rotating motor is damaged;

Check the display board itself for damage.

LAMP FAN1 ERROR:

Check whether the related wires of blower 1 are loose or fall off;

Check whether the circuit related to the blower 1 drive board is damaged;

Check whether the blower 1 itself is damaged;

Check the display board itself for damage.

LAMP FAN2 ERROR:

Check whether the related wires of blower 2 are loose or fall off;

Check whether the circuit related to the blower 2 drive board is damaged;

Check whether the blower 2 itself is damaged;

Check the display board itself for damage.

IN FAN ERROR:

Check whether the wires related to the air intake fan are loose or fall off;

Check whether the circuit related to the drive board of the intake fan is damaged;

Check whether the intake fan itself is damaged;

Check the display board itself for damage.

OUT FAN ERROR:

Check whether the wires related to the air outlet fan are loose or fall off;

Check whether the related circuit of the air outlet fan driver board is damaged;

Check whether the outlet fan itself is damaged;

Check the display board itself for damage.

PVG UART ERROR:

Check whether the ballast communication wire is loose or falls off;

Check whether the ballast itself is damaged;

Check the display board itself for damage.

PVG TEMP HIGHT:

Check whether the ballast cooling fan is running normally;

Check whether the ballast itself is damaged;

Check the display board itself for damage.

PVG LOW VOLTAGE:

Check if the ballast input voltage is normal;

Check whether the ballast itself is damaged;

Check the display board itself for damage.

8.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.

9.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.