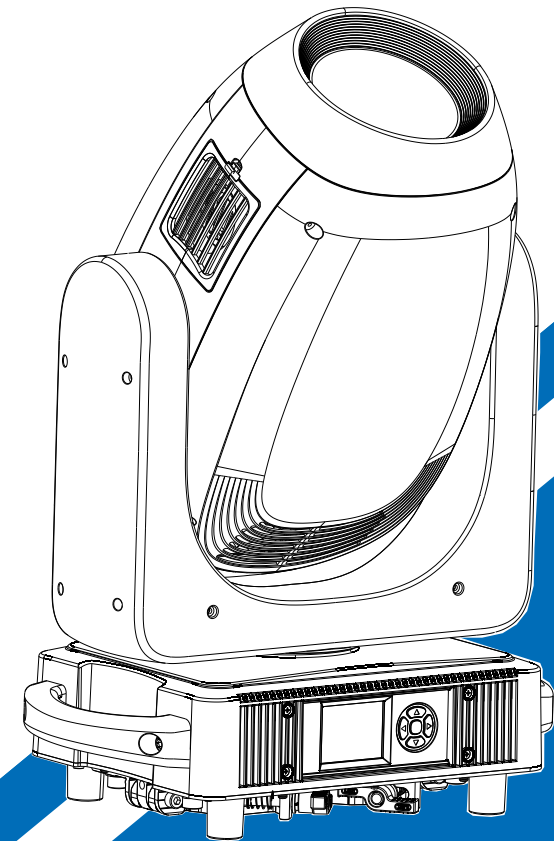


LiGHT SKY
FLY DRAGON LIGHTING EQUIPMENT CO.,LTD

SUPER SCOPE HYBRID



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



WWW.LIGHTSKY.COM.CN

User Manual

Please read the instruction carefully before use

CONTENTS

1. Safety Instructions.....	2
2. Technical Specifications	5
2.1. Attachment And Size	7
3.Color/Gobo/Prism	10
3.1.Replacing Rotating Gobos	11
4. Control Panel	13
5. Connection and control	14
5.1. Power supply connection.....	14
5.2. DMX 512 Connection.....	15
6. How To Set The Unit	16
6.1. Main Function.....	16
6.2. Channel Setting.....	22
6.3. Address Setting.....	22
6.4. DMX 512 Configuration	23
7. Electrical Connection Diagram	26
8. Troubleshooting.....	27
9. Fixture Cleaning.....	29
10. Duty exonerative and copyright protectio.....	29

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

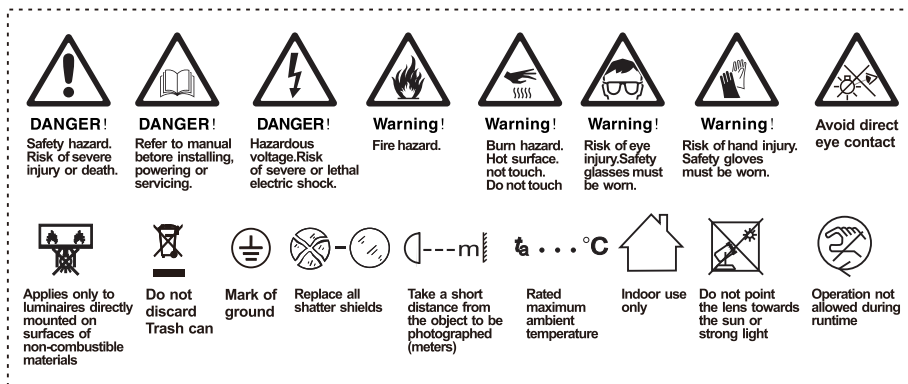


Please read the instruction carefully which includes important information about the installation, usage and maintenance.

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 the 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°C. Maximum ambient temperature Ta: 45°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 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°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 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: 450W white LED module
- Zoom range: 4° - 53°
- Optical lens: coated with high anti-reflection coating, diameter 133mm
- Color temperature: 6500K
- Color rendering index: $RA \geq 70$ / $RA \geq 90$ (cut into high rendering index filter)
- Illuminance: 24000 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, switching cycle, fixture mode, etc.)

COLOR

- CMY infinite color mixing
- CTO color temperature linear adjustment (3000K-6500K)
- 5 color chips + high-resolution finger + white light, can realize two-way color rainbow, two-color step-by-step gradient (linear movement), two-way rotation of color wheel, random color mode.

PATTERN

- Rotating gobo wheel: 7 kinds of glass patterns + white circle, pluggable and replaceable, can realize rotation, flowing water, shaking effects, the outer diameter of the gobo is 22.9mm, and the inner diameter of the gobo is 15mm.
- Effect disc (water texture) + CTO color temperature linear adjustment, which can achieve flowing and shaking effects.

EFFECT

- Prism: 4 prism, capable of bidirectional rotation.
- Soft light effect: adjustable independent soft light effect.
- Electronic dimming, 0-100% linear dimming, uniform light spot
- Electronic strobe speed is 1-25 times/second
- LED refresh rate: 1000Hz ~ 25KHz

CONTROL

- Control channel: 22CH、25CH, See Channel table for details.
- Protocol: standard DMX512, RDM, ArtNet
- Data connection: three-core or five-core signal input/output
- Display: LCD liquid crystal screen

SOFTWARE

- Software upgrade via USB or DMX interface
- Intelligent temperature control to ensure LED life
- Mute 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:602W
- Power factor: 0.99
- Maximum lamp current: 6.02A/100V; 2.6A/220V

SIZE AND WEIGHT

- Size: 442×262×648mm
- N.W: 23.8kg
- Carton packing (default): 490×365×755mm G.W: 29.6 kg (include foldable clamp)
- Flycase Size (2 in 1): 730×575×850mm G.W: 87.7 kg (include foldable clamp)

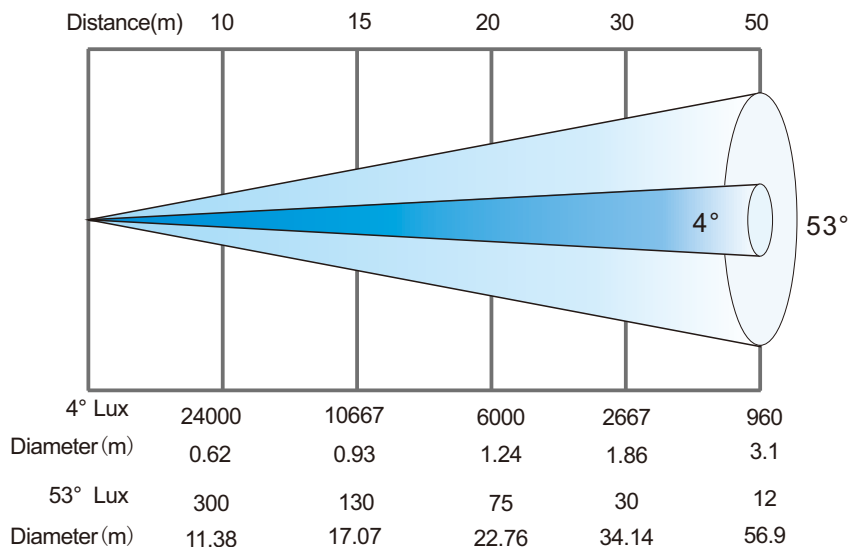
OTHER

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

APPROVALS

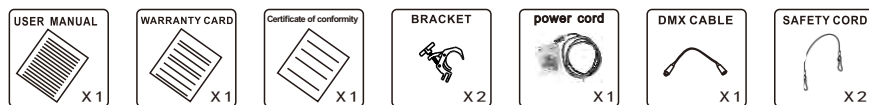
- The product implementation standard: GB/T 7000.1-2023 、 GB/T 7000.217-2023
- Approved certifications: CE、RoHs
- The product complies with the following EU directives:
- Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

illumination diagram

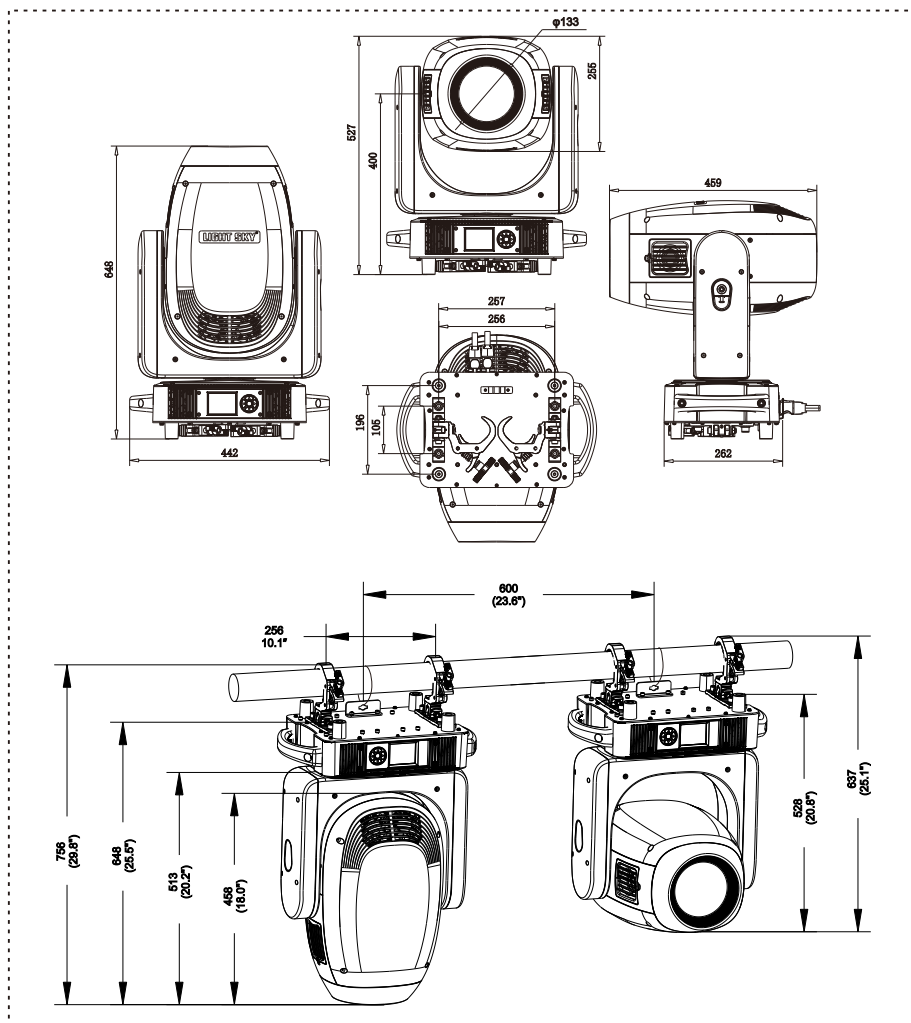


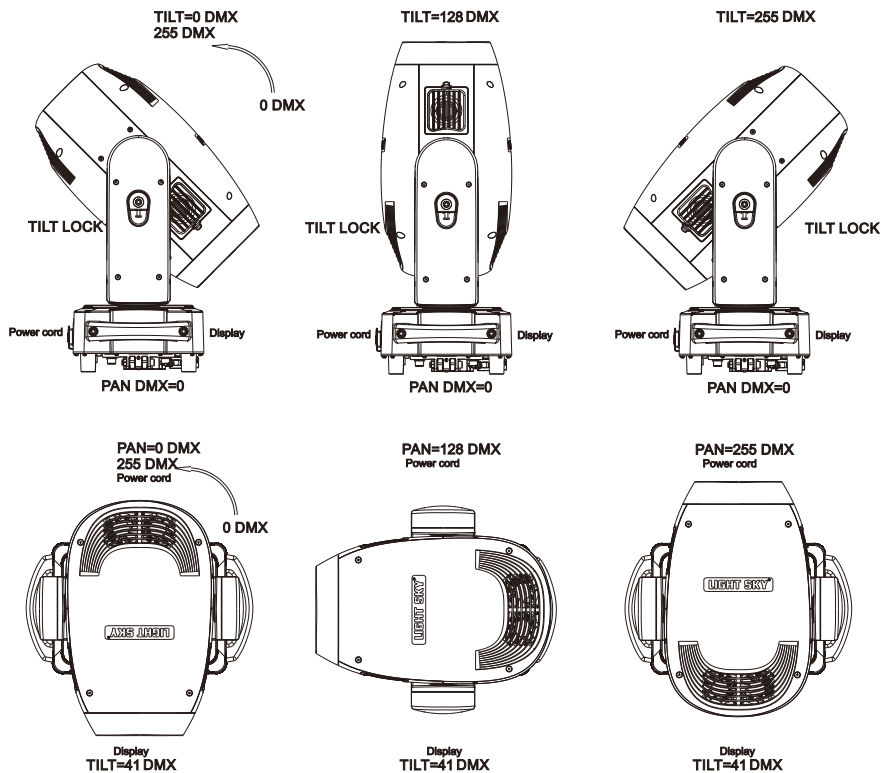
2.1.Attachment And Size

Attachment contents-Fig.1



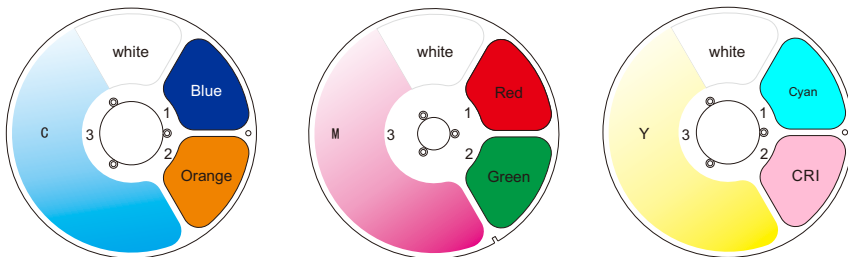
Size-Fig.2



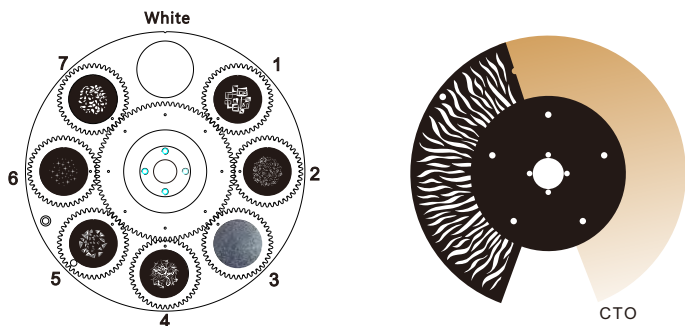


3.Color/Gobo/Prism

CMY-color wheel

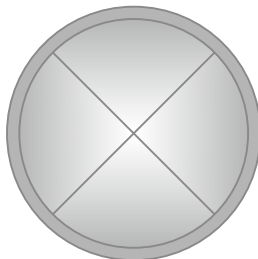


Pattern-Effect disc



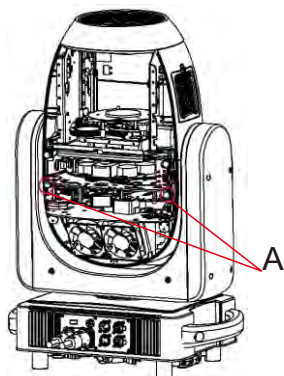
Attention: When installing GOBO chips, it is necessary to strictly follow the order of the pictures and not change the original order and direction of the GOBO chips at will.

Prism

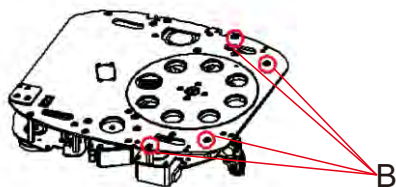


3.1.Replacing Rotating Gobos

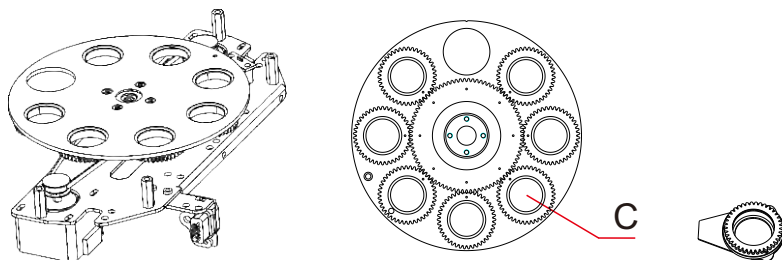
1.Use a screwdriver to unscrew the two screws at [A] to take out the pattern color module assembly.



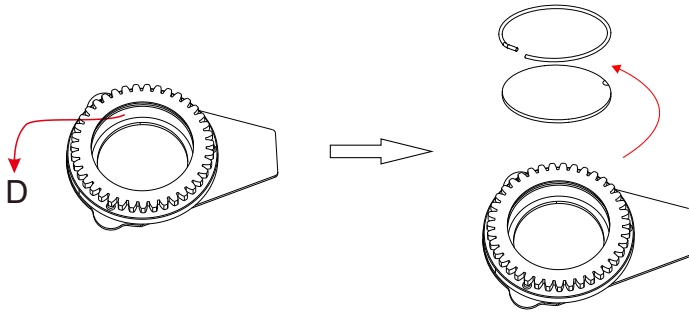
2. Remove the four screws at 【 B 】 and then remove the rotating pattern plate.



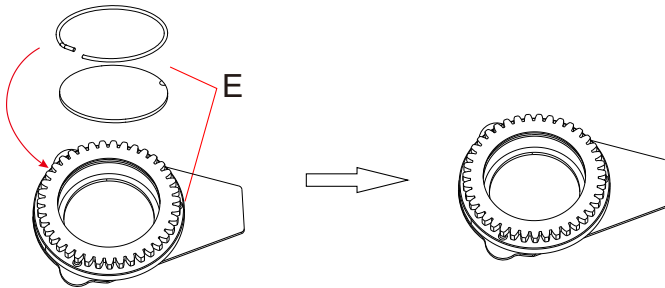
3. As shown in 【 C 】 , gently lift the pattern piece from the edge of the moving wheel on the back of the pattern disc and slowly pull it out to remove a single pattern piece;



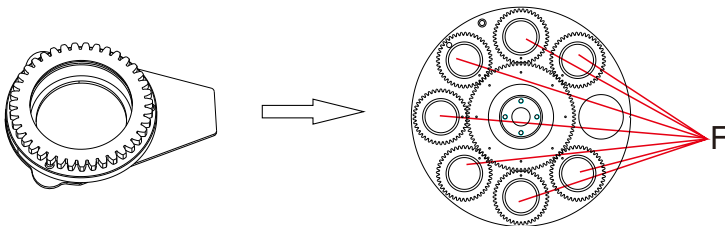
4. Use tweezers or other small gripping objects to remove the snap ring at 【 D 】 (if the pattern sheet is coated with glass glue for fixation, please use a professional cleaning agent to remove the glass glue before removing the snap ring to avoid damaging the pattern sheet).



5. When assembling the pattern sheet, avoid touching it directly with your hands, and as shown in [E], the coated surface of the pattern sheet should face the light source.

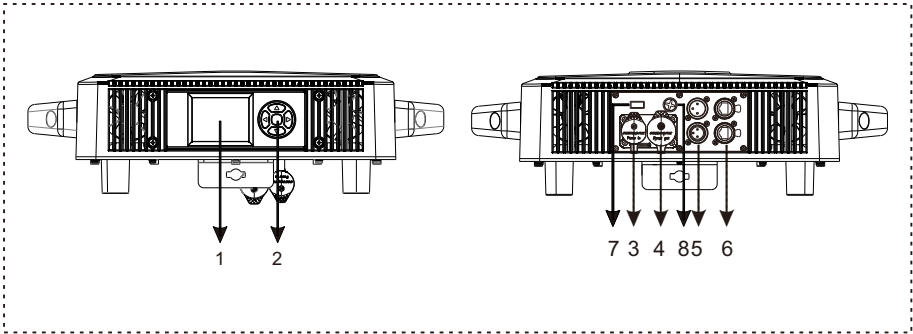


6. Insert the pattern piece from the driving wheel into the driving wheel assembly, as shown in 【 F 】 When positioning the pattern piece from the concave point of the driving wheel, it must face the center of the driving wheel



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. Socket version power input: connect the power supply.

4. Power output: Connect the lamp power output adapter.

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

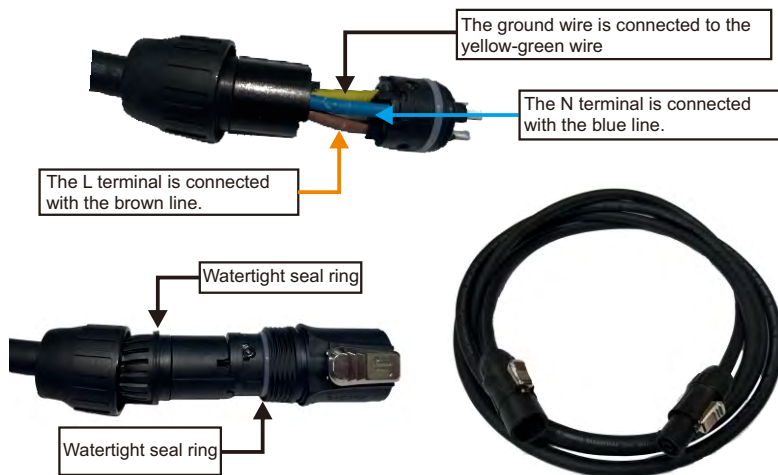
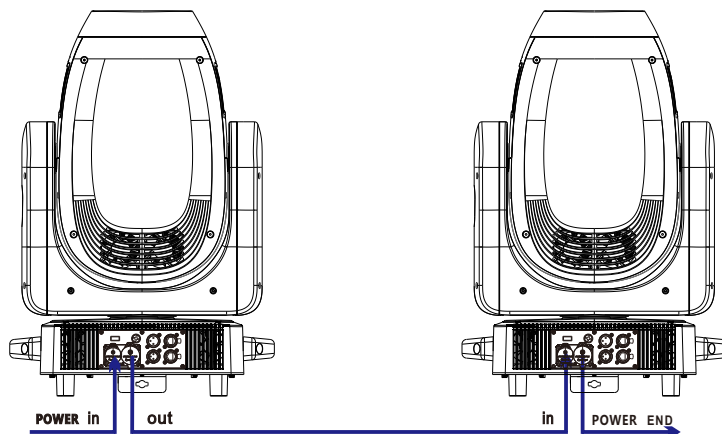
6.Art-net: The information of the lamp can be transmitted to the main controller through the network cable, and the lamp can be controlled through RJ45(optional).

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

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.)

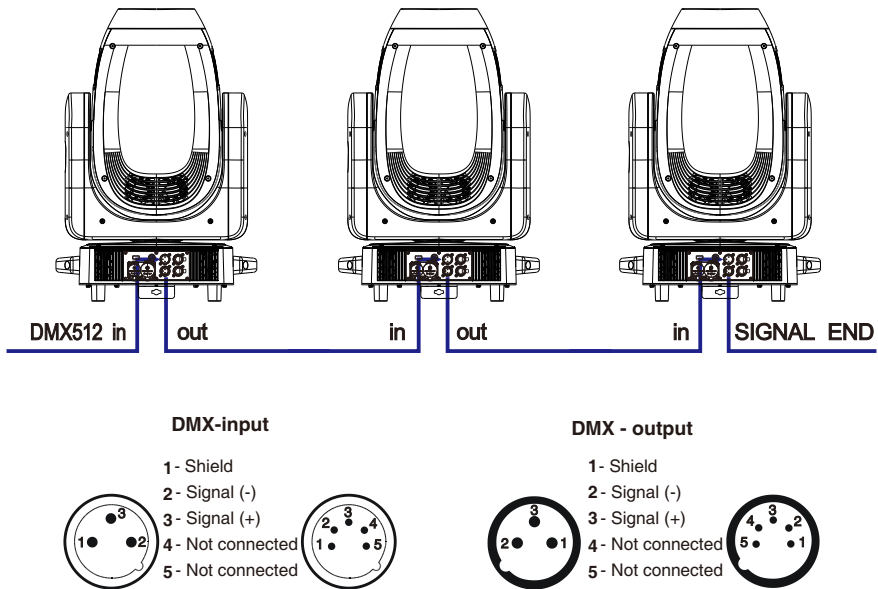
5.Connection and control

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.

① DMX settings

Enter the Preset Menu interface, select the DMX Settings function, and use the Up/Down keys to select the ② level menu: address code, channel mode, input mode, status.

② Address

Select the Address Code function, press OK to enter the lower-level menu, press the Up/Down keys to select and set the address code (001~512) of the lamp according to the current channel mode, and press Left/Right to fine-tune the address code. Press OK to confirm the settings and return to the previous menu.

② Channel mode

Select the Channel Mode function, press the OK key to enter the lower-level menu, and press the Up/Down keys to select the channel mode of the lamp: Standard (22) (default), Extended (25). Press OK to confirm the selection, press left/right to return to the previous menu.

② Input mode

Select the Input Mode function, press OK to enter the lower-level menu, and press the Up/Down keys to select the channel mode of the lamp: DMX 512 (default), Artnet. Press OK to confirm the selection, press left/right to return to the previous menu.

② Status

Select the status function, press the OK key to enter the lower-level menu, and press the up/down keys to select the channel mode of the lamp: lights out (default), hold. Press OK to confirm the selection, press left/right to return to the previous menu.

① Info

Enter the Preset Menu interface, select the Device Information function, and use the Up/Down keys to select the ② level menu: device time, device temperature, fan information, RDM information, device channel, version information, fan information.

② Fixture times

Select the device time function, press OK to enter the lower-level menu, and you can view the device: power-on time (H), lighting time, and total time. Press the left/right key to return to the previous menu.

② Temperatures

Select the Device Temperature function, press OK to enter the lower-level menu, and you can view the device: LED temperature (°C), driver board temperature (°C). Press the left/right key to return to the previous menu.

② RDM info

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

② DMX live

Select the Device Channel function and press OK to enter the lower-level menu, where you can view the device: channel information in the current channel mode. Press the up/down keys to view the current DMX value information of each channel, and press the left/right keys to return to the upper menu.

② Version info

Select the version information function, press OK to enter the lower-level menu, and you can view the version information of the equipment: display board, XY board, LED module, pattern module, and zoom module. Press the left/right key to return to the previous menu.

② Fan Info

Select the Fan Information function and press OK to enter the lower-level menu. You can select: the status of the air inlet fan, air outlet fan, air inlet fan 1, air inlet fan 2, air outlet fan 1, air outlet fan 2, pattern fan, and head fan. Press OK to return to the previous menu.

① Personal

Enter the Preset Menu interface, select the Personal Settings function, use the Up/Down keys to select the ② level menu: XY axis, fan mode, display settings, dimming curve, LED frequency setting, press OK key to enter the lower level menu.

② Pan/Tilt

Select the XY axis function, press the OK key to enter the lower-level menu, you can use the up/down keys to select: X-axis reverse, Y-axis reverse, press the OK key to confirm the selection and enter the lower-level menu, or press the left/right key to return to the upper level menu.

③ Pan invert

Select the X-axis reverse function, press the OK key to enter the lower-level menu, you can use the up/down keys to select: off (default), on, press the OK key to confirm the selection, press the left/right key to return to the upper-level menu.

③ Tilt invert

Select the Y-axis reverse function, press the OK key to enter the lower-level menu, you can use the up/down keys to select: off (default), on, press the OK key to confirm the selection, press the left/right key to return to the upper-level menu.

② Fan mode

Select the Display Settings function, press the up/down keys to select: Hight Brightness , Silent (default) , Super Silent, press the OK key to confirm the selection and enter the lower-level menu.

② Display

Select the Display Settings function, press the up/down keys to select: language selection, backlight time, backlight adjustment, screen rotation, press the OK key to confirm the selection and enter the lower-level menu.

③ Language

Select the Language Selection function, press the OK key to enter the lower-level menu, you can use the up/down keys to select: English(default), Chinese , press the OK key to confirm the selection, press the left/right key to return to the upper-level menu.

③ Backlight time

Select the backlight time function, press the OK key to enter the lower-level menu, you can use the up/down keys to select: always on, automatic (30S) (default), press the OK key to confirm the selection, press the left/right key to return to the upper-level menu.

③ Intensity

Select the backlight adjustment function, press OK to enter the lower-level menu, you can use the left/right keys to adjust the screen brightness, adjustment range: 0-100 (default: 50) press OK to confirm the selection and return to the upper-level menu.

③ Rotation

Select the screen rotation function, press the OK key to enter the lower-level menu, you can use the up/down keys to select: normal, rotate 180 degrees, automatic (default), press the OK key to confirm the selection, press the left/right key to return to the upper-level menu.

① Manual

Select the manual function, press the OK key to enter the lower-level menu, press the up/down keys to select: manual control, reset, press the OK key to confirm the selection and enter the lower-level menu.

② Manual Control

Select the manual control function, press the OK button to enter the lower-level menu, press the up/down button to select each channel of the current channel mode, press the left/right button to manually adjust and control the DMX value of each channel from 0 to 255, press the OK button Return to the previous menu, and at the same time the lamp is reset to its just-turned-on state.

② Reset

Select the reset function and press the OK key to enter the lower-level menu. You can use the up/down keys to select: machine reset, XY reset, pattern reset, color reset, zoom reset, effect reset. Press the OK key to confirm and execute the selection. Reset the command and return to the previous menu, or press the left/right keys to return to the previous menu only.

① Test

Select the test equipment function, press the OK key to enter the lower-level menu, press the up/down keys to select: all tests, X Y test, head test, press the OK key to confirm the selection, and enter the test interface to start executing the selected test command, press Press left/right to end the test and return to the previous menu.

① Service

Select the Service Options function, press the Up/Down keys to select: lamp status, calibration, factory settings, press the OK key to confirm the selection and enter the lower-level menu.

② Fixture state

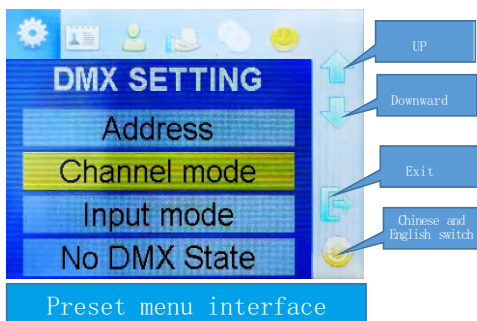
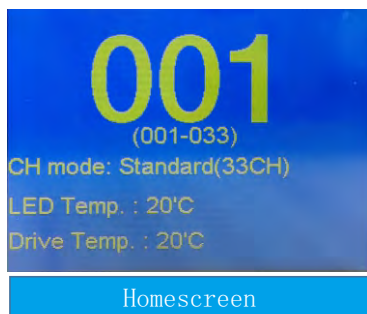
Select the lamp status function and press OK to enter the lower-level menu. You can use the up/down keys to view: memory chip, angle sensor, horizontal encoder, vertical encoder, horizontal, vertical, zoom, focus, cyan, magenta, yellow , rotating pattern, pattern rotation, dynamic disk, press the left/right key to return to the upper menu.

② Adjust

Select the calibration function, press the OK button to enter the lower-level menu, press the up/down button to select each channel of the current channel mode, press the OK button to enter the lower-level menu, press the left/right button to manually fine-tune the DMX of each channel from 0~255 value (default 128), press OK to confirm and return to the upper menu.

② Factory

Select the Factory Settings function and press OK to enter the lower-level menu. You can use the up/down keys to select: factory reset, clear time, software upgrade, and logo selection. Press OK to enter the lower-level menu. Note that the functions under this menu require a password to proceed to the next step.



Main menu	I menu	II menu	III menu	IV menu
DMX SETTING	→ Address	→ 1-512		
	→ Channel mode	→ Standard (22)		
		→ Extended (25)		
	→ Input mode	→ DMX 512		
		→ Artnet		
Info	→ State	→ Black		
		→ Hold		
	→ Fixture times	→ Power on time	0 - 99999H	
		→ LED on time	0 - 99999H	
		→ All time	0 - 99999H	
	→ Temperatures	→ LED TEMP		
		→ Drive TEMP		
	→ RDM info	→ UID:0x3888XXXXXXX		
	→ DMX live	→ 1.Pan	0 - 255	
		→ 2.Pan fine	0 - 255	
		→ 3.....	0 - 255	
	Version info	→ Display	VX.XXX	
		→ Pan/Tilt	VX.XXX	
		→ LED module	VX.XXX	
		→ Gobo module	VX.XXX	
		→ Zoom module	VX.XXX	
	Fan Info	→ InFan Voltage		
		→ OutFan Voltage		
		→ InFan1		
		→ InFan2		
		→ OutFan1		
		→ OutFan2		
		→ GoboFan		
		→ HeadFan		
Person	Pan/Tile	→ Pan invert	OFF	
			ON	
		→ Tilt invert	OFF	
			ON	
	Fan mode	→ HightOutput		
		→ Standard		
	Display	→ Silent		
		→ Language	English	
			Chinese	
		→ Backlight time	Always	
			Auto (30S)	
		→ Intensity	0 - 100	
			Normal	
		→ Rotation	Rotate 180	
	Art-Net		Auto	
		→ IP Address	xxx.xxx.xxx.xxx	
		→ Mask Address	xxx.xxx.xxx.xxx	
		→ Net Address	xxx.xxx.xxx.xxx	
		→ Sub Net Address	xxx.xxx.xxx.xxx	
	Dimmer Curve	→ Universe Address	xxx	
		→ Linear		
		→ Square 1(Default)		
		→ Square 2		
	Led Preq Set	→ SCurve		
		→ 1000 Hz		
		→ 3600 Hz (Default)		
		→ 7200 Hz		
		→ 25000 Hz		

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			
		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		
		Zoom	OK/Reset/Error		
		Focus	OK/Reset/Error		
		Cyan	OK/Reset/Error		
		→ Magenta	→ OK/Reset/Error		
		Yellow	OK/Reset/Error		
		RotGobo	OK/Reset/Error		
		GoboRot	OK/Reset/Error		
		Animation	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
				...	
				ALL	
			Whole update	Display	→ Pan/Tilt
				...	
				ALL	
		Logo select			

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:22 channels (default), 25channels, 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
22 CH	1	23	45	67
25 CH	1	26	51	76

6.4.DMX 512 Configuration

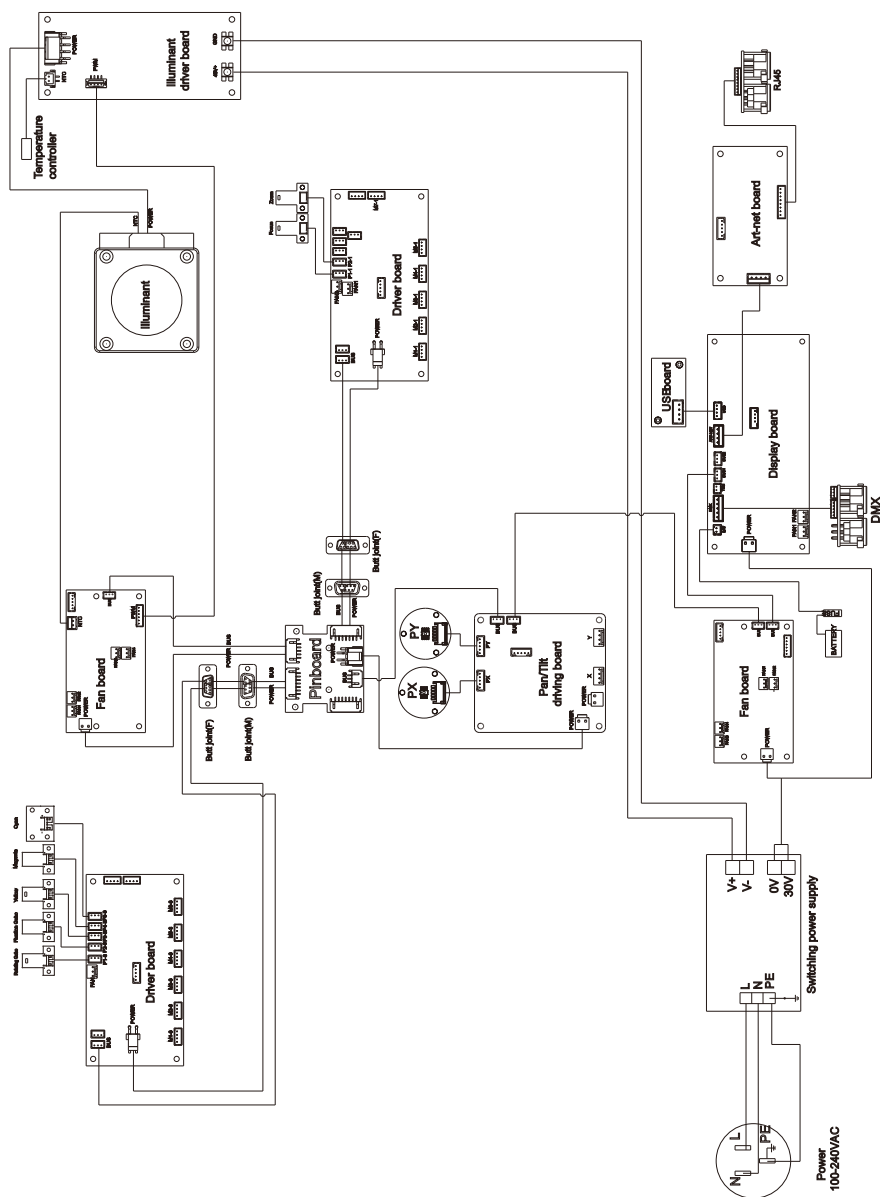
Please control the fixture by referring to the configurations below

22 Channel	25 Channel	DMX	Function	Note
1	1	0—255	Pan positioning	
2	2	0—255	Fine Pan positioning	
3	3	0—255	Tilt positioning	
4	4	0—255	Fine Tilt positioning	
/	5	0—255	Speed pan/tilt	
5	6		DeviceSet(Hold 3s)	
		0-9	No function	
		10-19	Fan high speed	
		20-29	Fan auto speed	
		30-39	Fan slow speed	
		40-49	Reset Pan&Tilt	
		50-59	Reset CMY	
		60-69	Reset Gobo	
		70-79	Reset Frame	
		80-89	Reset Head	
		90-99	Reset other(except P&T)	
		100-109	Reset All	
		110-119	No function	
		120-129	No function	
		130-139	Pan invert on	
		140-149	Pan invert off	
		150-159	Tilt invert on	
		160-169	Tilt invert off	
		170-177	LED frequency 1kHz	
		178-185	LED frequency 3.6kHz	
		186-193	LED frequency 7.2kHz	
		194-199	LED frequency 25kHz	
		200-204	Dimmer curve linear	
		205-209	Dimmer curve square1	
		210-214	Dimmer curve square2	
		215-219	Dimmer curve “S”	
		220-229	Dimmer fast	
		230-239	Dimmer smooth	
		240-255	No function	
6	7	0—255	Cyan	
7	8	0—255	Magenta	
8	9	0—255	Yellow	
9	10		Virtual ColorWheel	
		0-5	CMY enable	
		6-23	Red	
		24-41	Green	
		42-59	Blue	
		60-77	Orange	
		78-95	light blue	

22 Channel	25 Channel	DMX	Function	Note
		96-113 114-133 134-194 195-255	CRI CMY enable virtual Colorwheel CW slow to fast virtual Colorwheel CCW fast to slow	
10	11	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	RotgoboWheel Open RotGobo1 RotGobo 2 RotGobo 3 RotGobo 4 RotGobo 5 RotGobo 6 RotGobo 7 RotGobo1shake, slow to fast RotGobo2shake, slow to fast RotGobo3shake, slow to fast RotGobo4shake, slow to fast RotGobo5shake, slow to fast RotGobo6shake, slow to fast RotGobo7shake, slow to fast Open RotGoboWheel CW fast to slow RotGoboWheel CCW slow to fast Random Gobo	
11	12	0-127 128-189 190-193 194-255	GoboRot GoboRot indexing 0° - 360° RotGobo CW fast to slow Stop RotGobo CCW slow to fast	
12	13	0-255	CTO	
13	14	0-127 128-255	Animation Animation index Animation rotation	
14	15	0-9 10-63 64-127 128-191 192-207 208-223 224-239 240-255	Prism&PrismRot Prism out Prism In & indexing Forwards prism rotation from slow to fast Backwards prism rotation from fast to slow prism flickered 90° prism flickered 180° prism flickered 270° prism flickered 360°	
15	16	0-255	Frost	
16	17	0-255	Focus8bit	
/	18	0-255	FocusFine16bit	

22 Channel	25 Channel	DMX	Function	Note
17	19	0-255	Zoom8bit	
/	20	0-255	ZoomFine16bit	
18	21	0-9 10-19 20-68 69-79 80-128 129-139 140-188 189-255	Strobe Strobe closed Strobe open Normal strobe effect slow to fast Strobe open Pulse strobe Strobe open Random strobe Strobe open	
19	22	0-255	Dimmer	
20	23	0-255	Dimmer Fine	
21	24	0-127 128-158 159-190 191-225 226-255	Auto Focus Auto Focus Disable 10m Auto Focus Enable 15m Auto Focus Enable 20m Auto Focus Enable 30m Auto Focus Enable	
22	25	0-255	Auto FocusFine	

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 500RPM. 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**

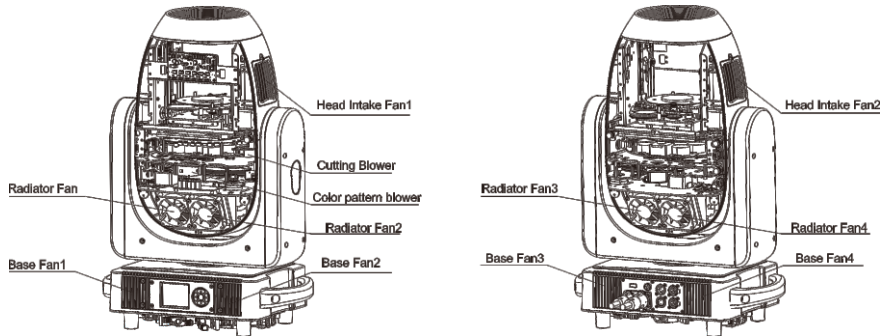
- Click the previous step to check one by one.

- 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.

The position of each fan of the fixture:



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

- * 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.