CLAIR LIGHTING
THUNDERBOLT 780W IP66

User’s Manual

CONTENTS

1. Safety warning

The products are packaged well when they leave the factory. Please keep the manual and read the "Installation, Use, Maintenance" and other safe operations. Equipment failure caused by man-made or irresistible reasons is not covered by the warranty.

- After receiving the lamp, please unpack and check whether there is any damage caused by transportation. If there is any damage, do not use the lamp and contact the supplier or manufacturer immediately.
- This product is suitable for indoor use, and its protection level is IP20. The lamps and lanterns should be kept clean, and should not be used in humid or dusty environments. Maintenance should be performed once or more every three months.
- Please install, use and maintain the lamps and lanterns under the operation of professionals, and operate in strict accordance with the product instructions.
- Before installing and using the lamp, please carefully check the power line and whether the signal line is damaged or damaged. When the lamp is not in use or maintained for cleaning, please unplug the power cord to prevent safety accidents.
- Make sure that the lamps work and use in a well-ventilated state, and keep a distance of at least 50cm between the product and obstacles or planes; ensure that the lamps and vents are unobstructed to avoid fire hazards caused by overheating of the lamps.
- Avoid water, liquid or solid metal objects from entering the interior of the lamp to prevent damage to the lamp or fire.
- Non-professionals, please do not open the lamp to repair by yourself; make sure that the external voltage matches the working voltage of the device before the lamp works.
- Be sure to ensure that each lamp is safely grounded, and the electrical installation complies with relevant standards to prevent electric shock.
- The product does not support direct connection to dimming devices.
- To ensure the safety of the surrounding environment, please do not place the lamps next to combustible items and explosive items to prevent fire hazards.
- If the lamp fails, please stop using it immediately and check with the power off.
- Under normal and stable operation, the surface temperature of the product should be around 70°C.

- When the lamp shell, internal accessories and lens are obviously damaged, please replace it in time.
- The distance between the lamp and the illuminated surface should be greater than 5M.

Before replacing the fuse, please disconnect the power; make sure to match the same type of fuse.

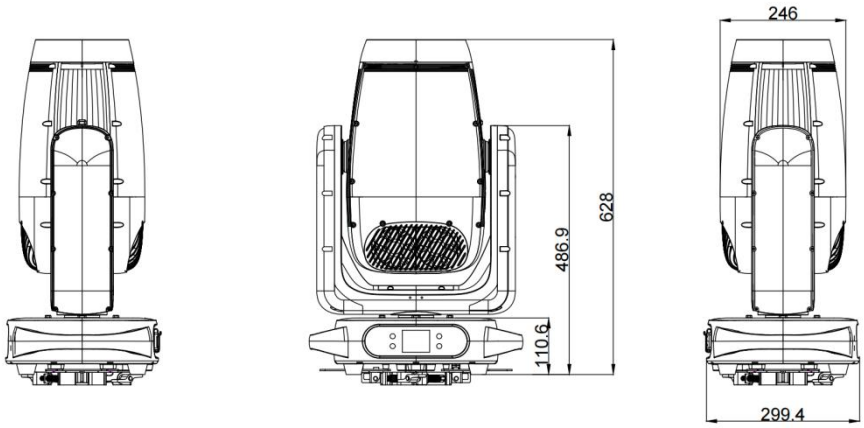
2. Packing accessories

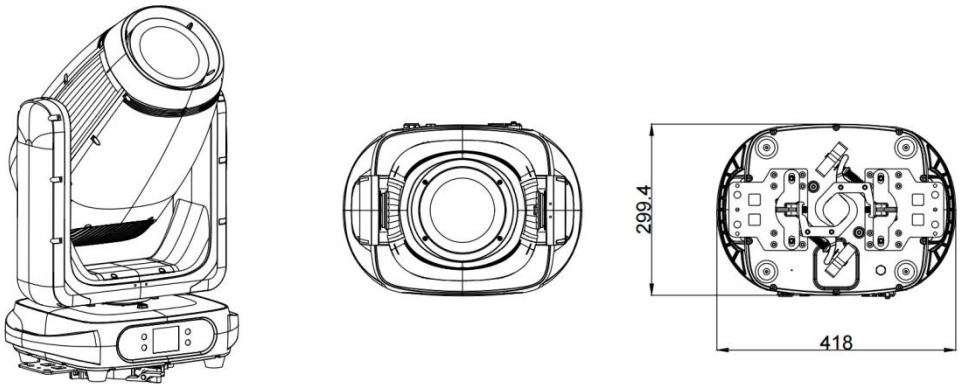
Name	QUANTITY	UNIT
Product	1	PCS
User Manual	1	PCS
Signal power line	1	PCS
Suspension fasteners	1	SET

3. Size and weight

Metric system：368.3*253.9*628mm，21kgs (version with fixed clamps)

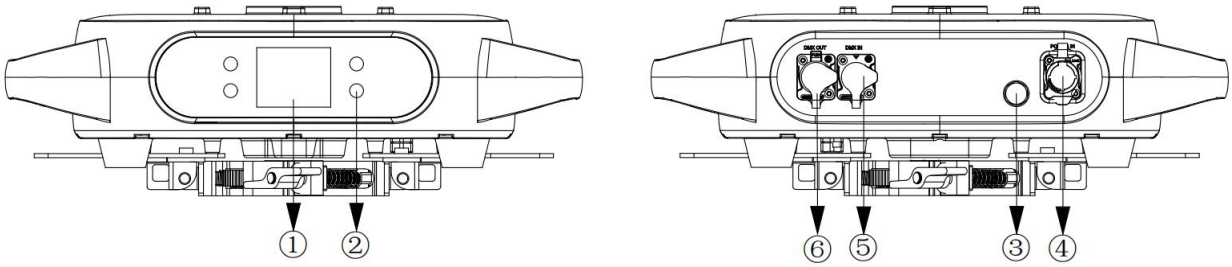
Imperial：14.5"*9.99"*24.724"in，46.297lb (version with fixed clamps)





4. Control Panel

POWERCON A（Standard）：



①DISPLAY：LCD Show menu functions

②TOUCH BUTTON：

Function	Illustrate	Functional description	Effect
MODE/ESC	menu selection	Enter the menu selection function	Menu operation
UP	UP	To previous selection	Changing the parameter increases
DOWN	DOWN	To the next choice	Change parameters to reduce
ENTER	ENTER	Confirm selected function	Save the last parameter

③Air vent valve：Explosion-proof protection, pressure balancing and air purification。

④POWER IN：Connecting to the power supply for lamps and lanterns。

⑤DMX IN：For DMX512 link, use 3-pin XLR cable to link the unit and controller。

⑥DMX OUT：For DMX512 link, use 3-pin XLR cable to link the unit and controller。

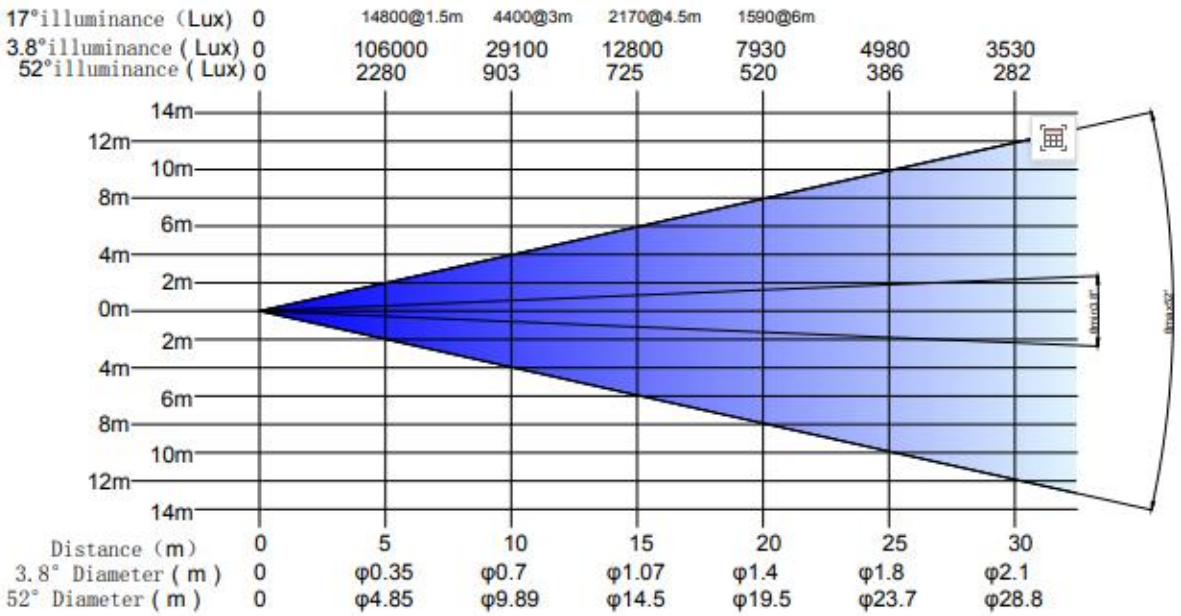
NOTICE：screensaver unlock password（UP DOWN UP DOWN）ENTER。

5. Product Specifications

Optical parameters	**SPECIFICATIONS**
Light source	680W LED engine
Color temperature	6800K
Output	23800Lm
CRI	72
LED life	20000H
Beam angle	3.8°- 50°
Effect	
PAN	540°
TILT	270°
Color	color wheel（7+open）
	CMY，linear
	3200K~6800K，linear
Gobos	Gobos（rotating）7 interchangeable+open
Animation	Animation wheel with variable speed
Zoom	Motorized
Frost	3° Frost
Strobe	0 - 30Hz
Dimming	4 dimming curves, 0~100% linear dimming
LED Refresh Rate	800Hz，1200Hz，3600Hz，5000Hz，10KHz，15KHz，20KHz，25KHz
Dimming mode	Standard Mode, Stage Mode, TV Mode, Building Mode, Theater Mode
Prism	Rotating 5-facet prism+ rotating T-facet prism with variable speed
Electronic parameters	
Mains	100 - 240V，50/60Hz
Consumption	220V@950W，110V@1080W

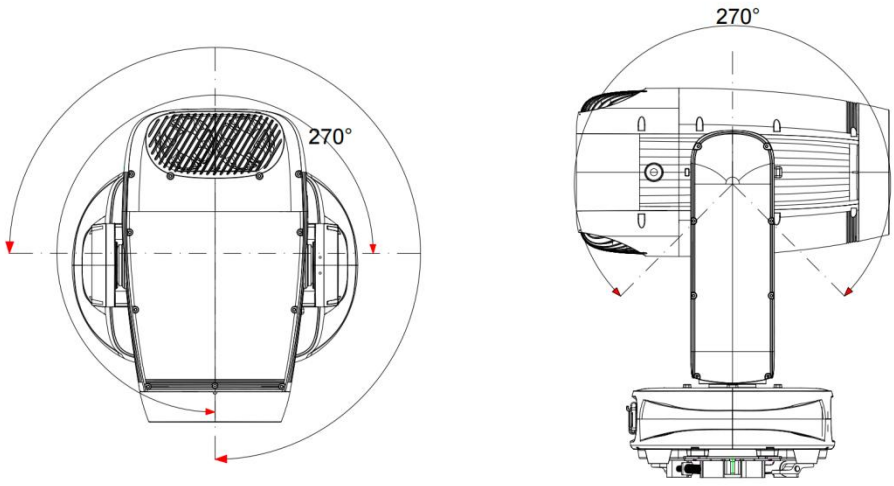
Fuse	T10A，250V
Power connections	PowerCon IN/OUT
Data connections	3pin and 5pin DMX IN/OUT
Power Factor	0.96@220V，0.97@110V
Working environment	0 - 45℃
Structural parameters	
Dimension	393*290*628mm
Net Weight	26KG
Gross weight	30KG
Carton size	58*52.5*67CM
Shell	Standard black environmentally friendly flame retardant ABS, black fine sand pattern
Installation method	Flat ground, side hanging, hanging installation
Protection level	IP66
Control	
Control protocol	DMX512、RDM
	ArtNet control 、SACN（Optional）
DMX channels	Standard (36CH)/Basic (34CH)/Extended (56CH)
Accessories	
Standard	Standard power signal line, safety rope, hanging parts
Optional	Flight Case 2IN1　SIZE :77CM*48CM*86CM

5.1 Light output and beam angle range



5.2 Pan/tilt scan

5.3



〔Pan〕 〔Tilt〕

5.4 MENU

MAIN MENU	SUBMENU	CHOICES 1	CHOICES 2	VALUES
Set config	Address	001~512		
	Channel mode	Standard (36CH)		
		Basic (34CH)		
		Extended (56CH)		
	Mode	DMX		

		Slave		
		Auto	Auto Speed	0~255
		Sound	Sensitivity	0~255
	Fixture settings	No DMX	Blackout	
			Freeze	
		Pan Reverse	OFF	
			ON	
		Tilt Reverse	OFF	
			ON	
		Encoders	OFF	
			ON	
		Display Reverse	OFF	
			ON	
		Fan Set	Silent	
			Auto	
			High	
		Dimmer Curve	Square Law	
			Inv SQ Law	
			Linear	
			S Curve	
		Dimmer Mode	Standard	
			Stage	
			TV	
			Architecture	
			Theatre	
		Dimmer Frequen	800Hz	
			1200Hz	
			3600Hz	
			5000Hz	
			10KHz	
			15KHz	
			20KHz	
			25KHz	
		Gobo Correction	OFF	
			ON	
		Defaults	Factory Load	OFF
				ON
			User Load	OFF
				ON
			User save	OFF
				ON

		Language	English	
			Chinese	
		User Time	Password	*****
			Time	
Information	Time Info	Current Time	***h	
		Total Run Time	***h	
		LED Run Time	***h	
	Temp Unit	Celsius		
		Fahrenheit		
	Error Info	No Error Record		
	Model Info			
	Software Ver	V1.00		
Manual	Test	OFF		
		ON		
	Manual Control	Pan	0~255	
		Pan Fine	0~255	
		Tilt	0~255	
		Tile Fine	0~255	
		Pan/Tilt Speed	0~255	
		Strobe	0~255	
		Dimmer	0~255	
		Reserved	0~255	
		Reserved	0~255	
		Reserved	0~255	
		Zoom	0~255	
		Focus	0~255	
		Auto Focus	0~255	
		Auto Focus Fine	0~255	
		Color Wheel	0~255	
		Cyan	0~255	
		Magenta	0~255	
		Yellow	0~255	
		CTO	0~255	
		Rot Gobo Wheel	0~255	
		Gobo Rot	0~255	
		Animation wheel	0~255	
		Iris	0~255	
		Prism	0~255	
		Prism Rot	0~255	
		Frost	0~255	
		Blade 1A	0~255	

		Blade 1B	0~255
		Blade 2A	0~255
		Blade 2B	0~255
		Blade 3A	0~255
		Blade 3B	0~255
		Blade 4A	0~255
		Blade 4B	0~255
		AllBlade Rot	0~255
	Reset	All	
		Pan&Tilt	
		Color	
		Gobo	
		Other	
Calibrate	Password(008)	***(008)	
		Pan	0~255
		Tilt	0~255
		Color Wheel	0~255
		Cyan	0~255
		Magenta	0~255
		Yellow	0~255
		Rot Gobo Wheel	0~255
		Gobo Rot	0~255
		Zoom	0~255
		Focus	0~255
		Iris	0~255
		Prism	0~255
		Prism Rot	0~255
		Frost	0~255
		Blade 1A	0~255
		Blade 1B	0~255
		Blade 2A	0~255
		Blade 2B	0~255
		Blade 3A	0~255
		Blade 3B	0~255
		Blade 4A	0~255
		Blade 4B	0~255
		AllBlade Rot	0~255

5.5 Menu control channel

CONTROL CHANNEL			
CH	Standard (36CH)	Basic (34CH)	Extended (56CH)
1	Pan	Pan	Pan
2	Pan Fine	Tilt	Pan Fine
3	Tilt	Speed Pan/Tilt	Tilt
4	Tilt Fine	Shutter	Tilt Fine
5	Speed Pan/Tilt	Dimmer	Speed Pan/Tilt
6	Shutter	Reserved	Shutter
7	Dimmer	Reserved	Dimmer
8	Reserved	Reserved	Dimmer Fine
9	Reserved	Zoom	Reserved
10	Reserved	Focus	Reserved
11	Zoom	Auto Focus	Reserved
12	Focus	Auto Focus Fine	Zoom
13	Auto Focus	Color Wheel	Zoom Fine
14	Auto Focus Fine	Cyan Color	Focus
15	Color Wheel	Magenta Color	Focus Fine
16	Cyan Color	Yellow Color	Auto Focus
17	Magenta Color	CTO Color	Auto Focus Fine
18	Yellow Color	Rotating gobo	Color Wheel
19	CTO Color	Rotating gobo index	Color Wheel Fine
20	Rotating gobo	Animation wheel	Cyan Color
21	Rotating gobo index	Iris	Cyan Color Fine
22	Animation wheel	Prism	Magenta Color
23	Iris	Rotating prism	Magenta Color Fine
24	Prism	Frost	Yellow Color
25	Rotating prism	Blade 1A	Yellow Color Fine
26	Frost	Blade 1B	CTO Color
27	Blade 1A	Blade 2A	CTO Color Fine
28	Blade 1B	Blade 2B	Rotating gobo
29	Blade 2A	Blade 3A	Rotating gobo index
30	Blade 2B	Blade 3B	Rotating gobo index Fine
31	Blade 3A	Blade 4A	Animation wheel
32	Blade 3B	Blade 4B	Iris
33	Blade 4A	All Blade Rotation	Iris Fine
34	Blade 4B	Reset、LCD、Fans	Prism

35	All Blade Rotation		Rotating prism
36	Reset、LCD、Fans		Rotating prism Fine
37			Frost
38			Blade 1A
39			Blade 1A Fine
40			Blade 1B
41			Blade 1B Fine
42			Blade 2A
43			Blade 2A Fine
44			Blade 2B
45			Blade 2B Fine
46			Blade 3A
47			Blade 3A Fine
48			Blade 3B
49			Blade 3B Fine
50			Blade 4A
51			Blade 4A Fine
52			Blade 4B
53			Blade 4B Fine
54			All Blade Rotation
55			All Blade Rotation Fine
56			Reset、LCD、Fans

5.6 DMX channel

DMX channel's functions and their values (56DMX channels):

Mode/Channel			Value	Function	
St	Ba	Ex			
36CH	34CH	56CH			
1	1	1		PAN Movement 8bit :	
			0-255	Pan Movement	
2		2		Pan Fine 16bit	
			0-255	Fine control of Pan movement	
3	2	3		TILT Movement 8bit :	
			0-255	Tilt Movement	

4		4		Tilt Fine 16bit	
			0-255	Fine control of Tilt movement	
5	3	5		Speed Pan/Tilt movement:	
			0-225	max to min speed	
			226-235	blackout by movement	
			236-245	blackout by all wheel changing	
			246-255	no function	
6	4	6		Shutter, strobe:	
			00-10	Shutter closed	
			11-20	No function (shutter open)	
			21-117	Strobe effect slow to fast	
			118-126	No function (shutter open)	
			127-180	Pulse-effect in sequences	
			181-191	No function (shutter open)	
			192-245	Random strobe effect slow to fast	
			246-255	No function (shutter open)	
7	5	7		Dimmer intensity:	
			0-255	Intensity 0 to 100%	
		8		Fine Dimmer intensity:	
			0-255	Dimmer intensity fine	
8	6	9		Reserved	
9	7	10		Reserved	
10	8	11		Reserved	
11	9	12		Zoom :	
			0-255	Zoom adjustment from small to big	
		13		Zoom Fine:	
			0-255	Zoom adjustment Fine	
12	10	14		Focus :	
			0-255	Continuous adjustment from near to far	
		15		Focus Fine:	
			0-255	Continuous adjustment Fine	
13	11	16		Auto Focus :	
			0-50	Auto Focus Off	
			51-100	5m	
			101-150	7.5m	
			151-200	10m	
			201-255	15m	
14	12	17		AutoFocus Fine:	
			0-255	Continuous adjustment Fine	
15	13	18		Color Wheel:	
			00-3	Open / white	

			4-7	Color 1(CTB)	
			8-11	Color 2(Magenta)	
			12-15	Color 3(Congo Blue)	
			16-19	Color 4(Green)	
			20-23	Color 5(Orange)	
			24-27	Color 6(Light Blue)	
			28-31	Color 7(Red)	
			32-127	Color indexing	
			128-189	Forwards rainbow effect from fast to slow	
			190-193	No rotation	
			194-255	Backwards rainbow effect from slow to fast	
		19		Color Wheel Fine :	
			0-255	Color Wheel colour change to any position Fine	
16	14	20		Cyan Color :	
			0-255	Cyan (0-white, 255-100% Cyan)	
		21		Cyan Color Fine :	
			0-255	Cyan Fine	
17	15	22		Magenta Color :	
			0-255	Magenta (0-white, 255-100% magenta)	
		23		Magenta Color Fine :	
			0-255	Magenta Fine	
18	16	24		Yellow Color :	
			0-255	Yellow (0-white, 255-100% Yellow)	
		25		Yellow Color Fine :	
			0-255	Yellow Fine	
19	17	26		CTO Color :	
			0-255	CTO (0-white, 255-100% CTO)	
		27		CTO Color Fine :	
			0-255	CTO Fine	
20	18	28		Rotating gobos, cont. rotation 1:	
			00-9	Open	
			10-19	Rot. gobo 1	
			20-29	Rot. gobo 2	
			30-39	Rot. gobo 3	
			40-49	Rot. gobo 4	

			50-59	Rot. gobo 5	
			60-69	Rot. gobo 6	
			70-77	Rot. Gobo 7	
			78-93	Gobo 1 shake slow to fast	
			94-109	Gobo 2 shake slow to fast	
			110-125	Gobo 3 shake slow to fast	
			126-141	Gobo 4 shake slow to fast	
			142-157	Gobo 5 shake slow to fast	
			158-173	Gobo 6 shake slow to fast	
			174-189	Gobo 7 shake slow to fast	
			190-221	Gobo wheel rotation forwards from fast to slow	
			222-223	No rotation	
			224-255	Gobo wheel rotation f backwards from slow to fast	
21	19	29		Rotating gobo index, rotating gobo rotation 1:	
			0-127	Gobo indexing	
			128-189	Forwards gobo rotation from fast to slow	
			190-193	No rotation	
			194-255	Backwards gobo rotation from slow to fast	
		30		Rotating gobo indexing Fine 1:	
			0-255	Fine indexing	
22	20	31		Animation wheel:	
			0-7	open	
			8-127	Forwards rotation from fast to slow	
			128-135	No rotation	
			136-255	Backwards rotation from slow to fast	
23	21	32		Iris:	
			0-191	Max. diameter to Min.diameter	
			192-223	Pulse closing fast to slow	
			224-255	Pulse opening slow to fast	
		33		Iris Fine:	
			0-255	Iris Fine	
24	22	34		Prism:	
			0-127	Open	
			128-255	5-Facet Prism	
25	23	35		Rotating prism index, rotating prism rotation	
			0-127	Prism indexing	
			128-189	Forwards prism rotation from fast to slow	
			190-193	No rotation	
			194-255	Backwards prism rotation from slow to fast	

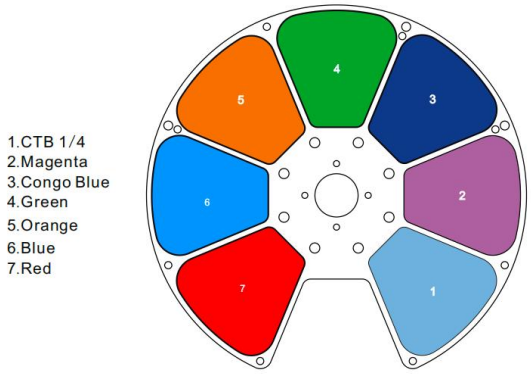
		36		Rotating prism indexing Fine :	
			0-255	Fine indexing	
26	24	37		Frost:	
			0-255	0-100% Frost	
27	25	38		Blade 1A :	
			0-255	Open to Close	
		39		Blade 1A Fine :	
			0-255	Open to Close Fine	
28	26	40		Blade 1B :	
			0-255	Open to Close	
		41		Blade 1B Fine :	
			0-255	Open to Close Fine	
29	27	42		Blade 2A :	
			0-255	Open to Close	
		43		Blade 2A Fine :	
			0-255	Open to Close Fine	
30	28	44		Blade 2B :	
			0-255	Open to Close	
		45		Blade 2B Fine :	
			0-255	Open to Close Fine	
31	29	46		Blade 3A:	
			0-255	Open to Close	
		47		Blade 3A Fine :	
			0-255	Open to Close Fine	
32	30	48		Blade 3B :	
			0-255	Open to Close	
		49		Blade 3B Fine :	
			0-255	Open to Close Fine	
33	31	50		Blade 4A :	
			0-255	Open to Close	
		51		Blade 4A Fine :	
			0-255	Open to Close Fine	
34	32	52		Blade 4B :	
			0-255	Open to Close	
		53		Blade 4B Fine :	
			0-255	Open to Close Fine	
35	33	54		All Blade Rotation :	
			0-255	All Blade Rotation	
		55		All Blade Rotation Fine :	
			0-255	All Blade Rotation Fine	
36	34	56		Control, reset, internal programs:	
			00-4	unused	

			5-9	Display Off	
			10-14	Display On	
			15-19	Display Invert Off	
			20-24	Display Invert On	
			25-26	Auto fan control mode	
			27-28	Stage fan control mode	
			29-30	Silence fan control mode	
			31-32	Super Silence fan control mode	
			33-34	Constant Fans Off	
			35-36	Constant Fans On	
			37-44	unused	
			45-49	Square Law	
			50-54	Linear	
			55-58	1.2K	
			59-62	2.4K	
			63-66	16K	
			67-69	25K	
			70-74	Gobo correction Off	
			75-79	Gobo correction On	
			80-84	All motor reset	
			85-87	Scan motor reset	
			88-90	Colors motor reset	
			91-93	Gobo motor reset	
			94-96	unused	
			97-99	Other motor reset	
			100-119	unused	
			120-139	unused	
			140-159	unused	
			160-179	unused	
			180-199	unused	
			200-219	unused	
			220-239	unused	
			240-255	unused	

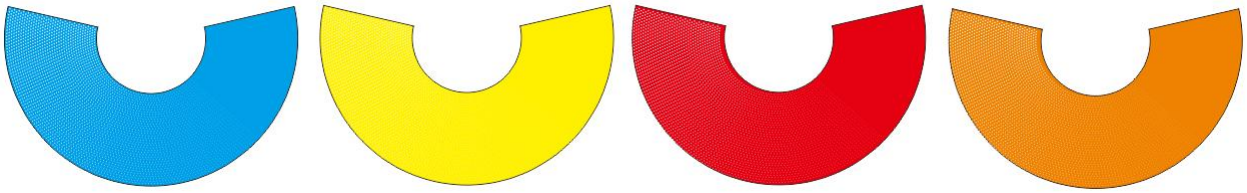
6. Function Description

6.1 Color Wheels

A：The color chip wheel consists of 7 high-standard fixed colors, which are composed as follows. When used with the pattern wheel, colorful pattern effects can be changed at will.



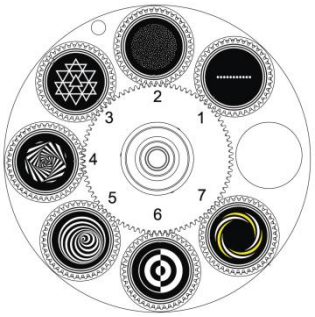
B：CMY+CTO linear



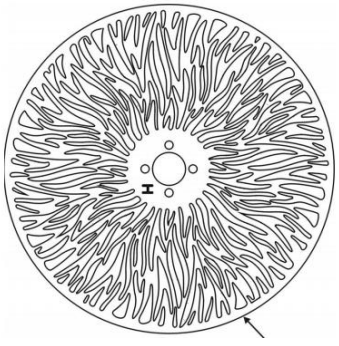
6.2 Gobo Wheel

As shown in（Fig.6.2-1），1 rotating gobo with 7 gobos.

Animation wheel（Fig.6.2-2），Animation wheel with variable speed.



rotating gobo（Fig.6.2-1）



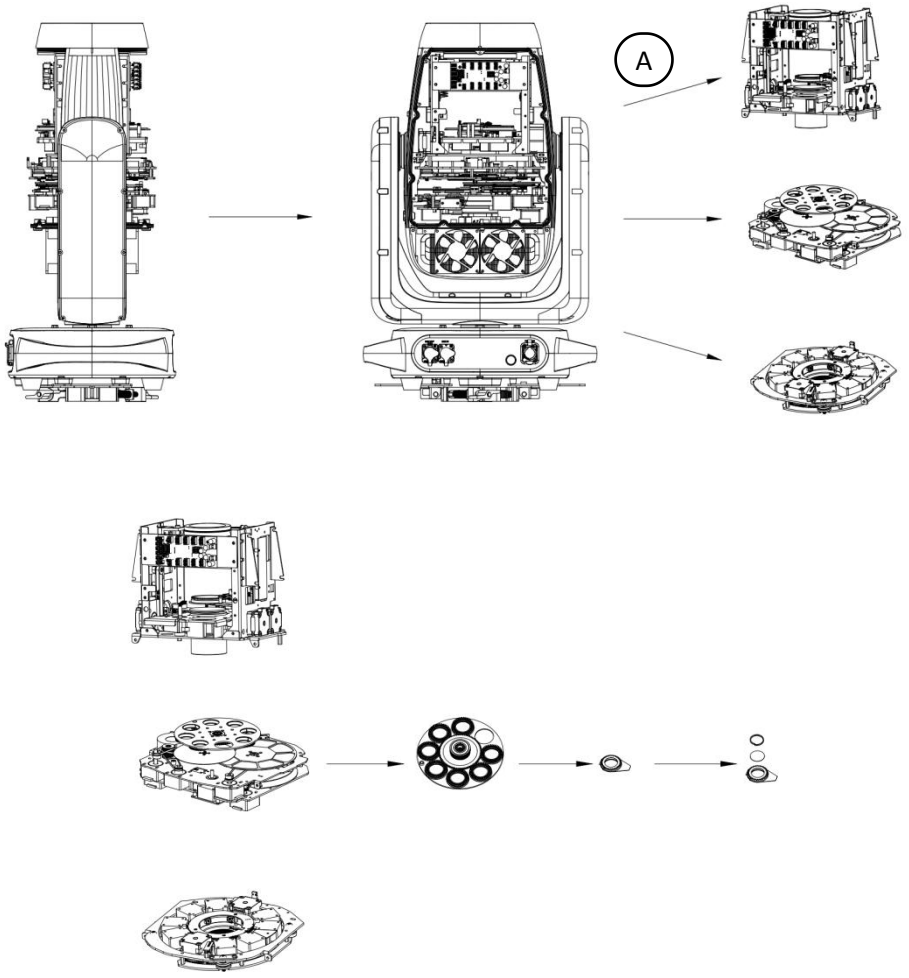
Animation wheel（Fig.6.2-2）

6.3 Gobo Replacement

Danger!

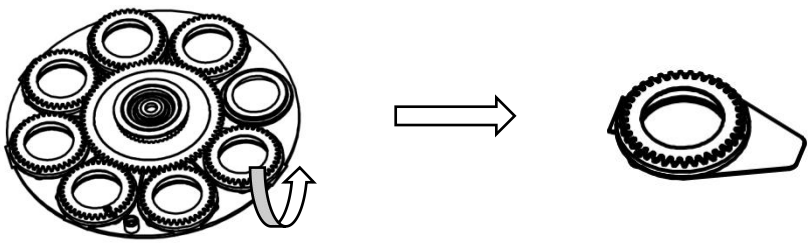
Please disconnect the power when installing/replacing the rotating gobo!

①Pull out the communication cable and signal transfer cable, unscrew the four screws at A with a screwdriver, and take out the component;

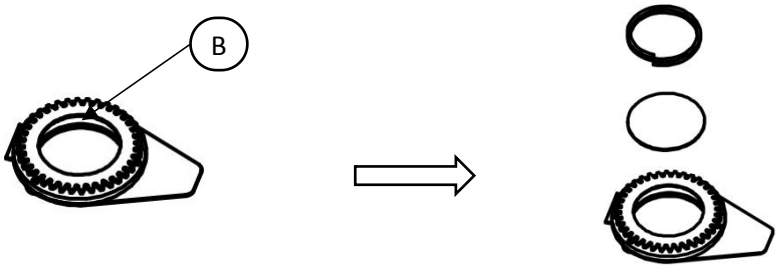


② As shown in the figure below, gently lift the gobo driven wheel from the edge upwards from the back of the gobo wheel and pull it out slowly to take out a single gobo

piece;

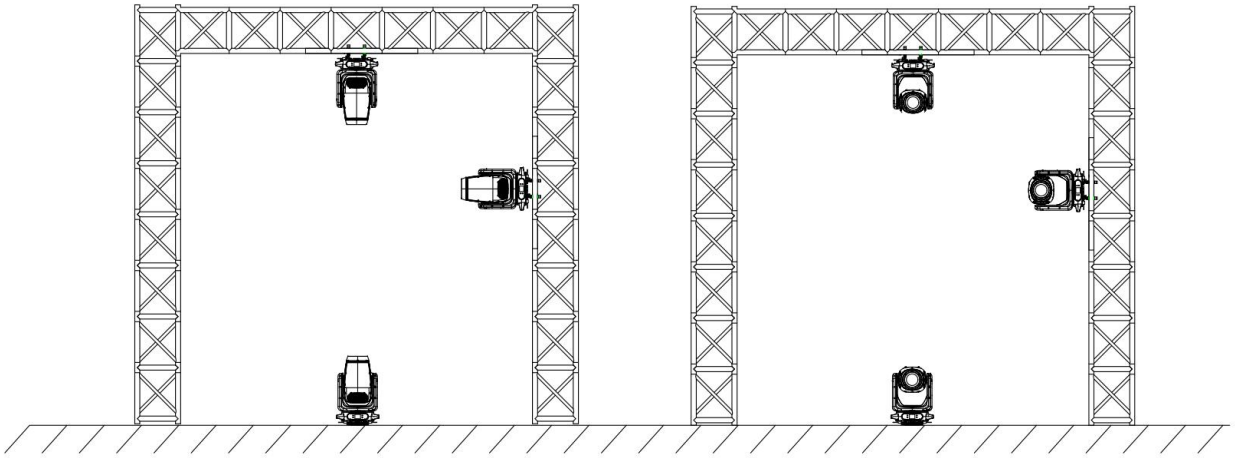


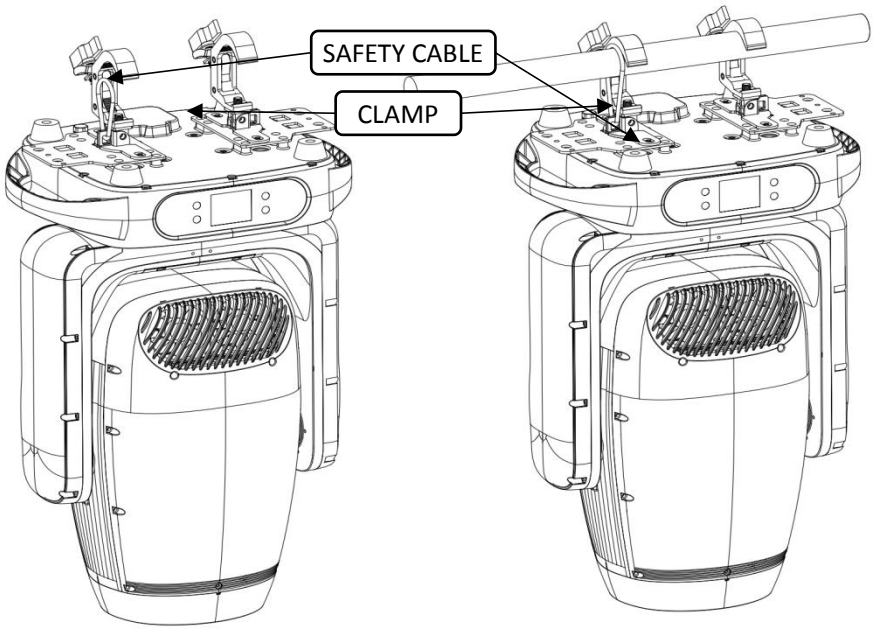
③Use tweezers or other small graspable objects to take out the circlip at B. Please use professional tools to remove the circlip to avoid damage to the gobo.



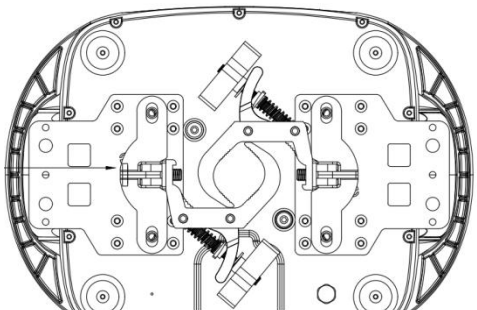
7. Installation and connection

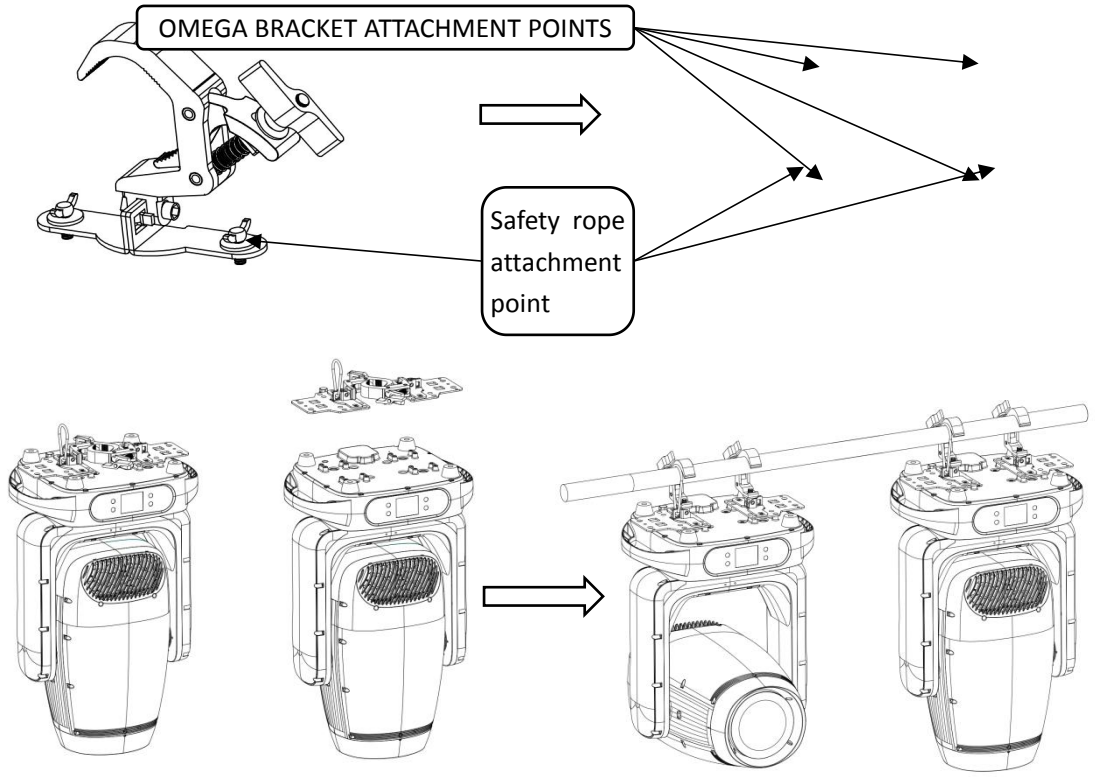
7.1 Installation diagram



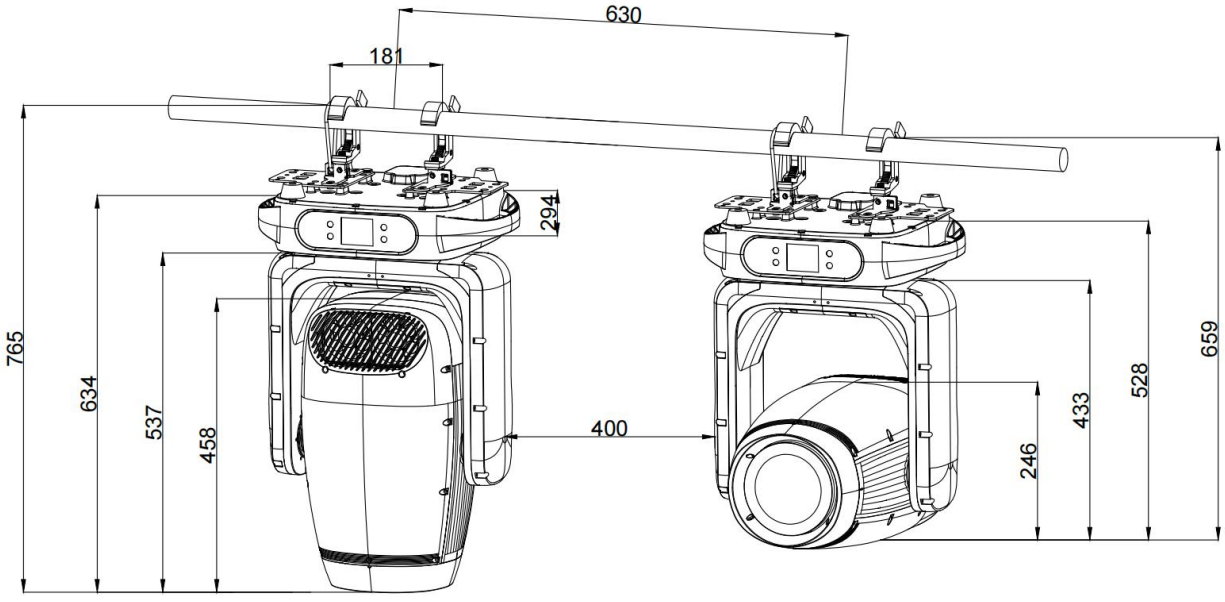


7.2 Fixed clamps Install





7.3 Luminaire size after installation



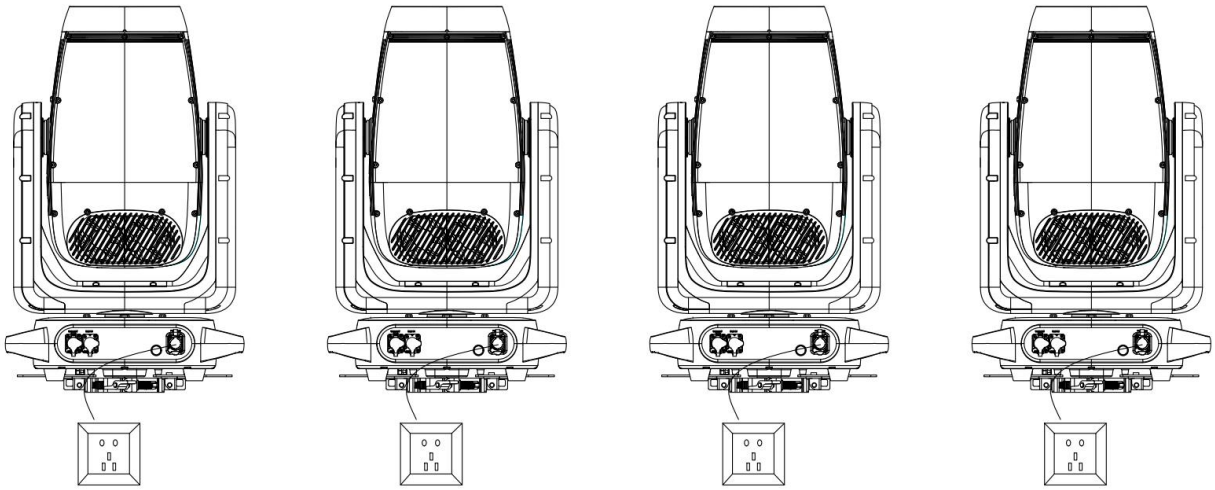
7.4 Precautions

- This product is only suitable for indoor use, and its protection level is IP20. The lamp should be kept clean, and should not be used in a humid or dusty environment. It should be maintained every three months.
- Only qualified professionals can install, operate and maintain the lamps, and ensure that the operation is

strictly in accordance with the procedures described in this manual.

- The lamps and lanterns should be installed in a well-ventilated place, at least 50CM away from the wall, and check whether the ventilation holes are unobstructed. Do not look directly at the light source to avoid damage to the eyes.
- Parts that make electrical connections must be operated by qualified installers.
- Each lamp should be safely grounded, and electrical installation should be carried out in accordance with relevant standards.
- Do not use the power cord whose insulation layer has been damaged, and do not put the power cord on other wires. When the lamp is not in use or cleaned, please unplug the power cord. Do not pull or pull the power cord vigorously.
- If the back cover of the lamp is equipped with a safety buckle or a connection hole, for safety reasons, please use the safety rope to pass through the connection hole for auxiliary hoisting.

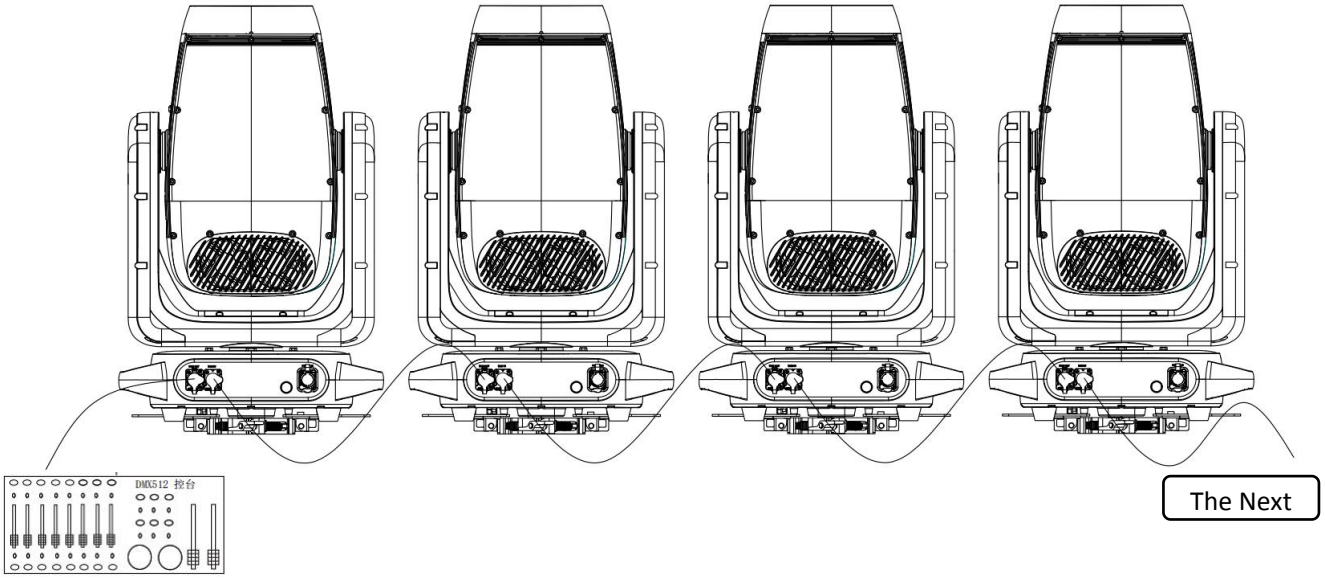
7.5 Power l Connection



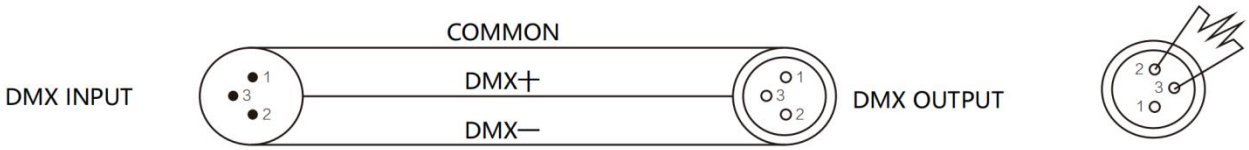
- The standard product uses Powercon in , a single connection power cord.
- Note: Due to power reasons, a 1.5 square power cord can carry up to 2-4 units (220V).

Do not connect too many lamps to a single power cord, or overload it.
Do not use the power cord with damaged insulation, and do not put the power cord on other wires.
When the lamp is not in use or cleaned, please unplug the power cord.
Do not pull or plug in vigorously or drag the power cord directly.

7.6 Signal Connection



7.7 Signal Connection illustrate

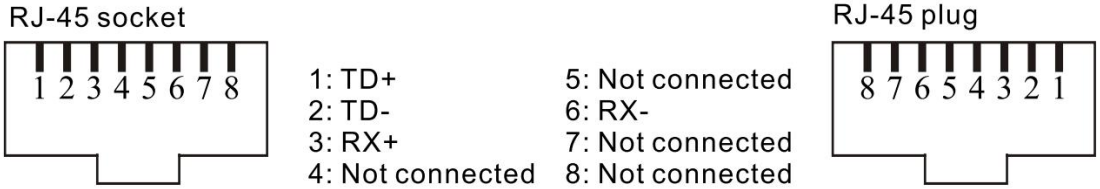


- Please use a shielded twisted-pair cable configured for DMX512. The DMX input and output of the device adopt 3-pin or 5-pin XLR connection socket.
- **Pin1：GND，Pin2：Signal（-），Pin3：Signal（+）**
- At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit
- 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 can only be used in series and cannot be connected in parallel. 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.
- The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units’ power is disconnected.
- Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.
- Each lamp must have an address code, which can receive the information sent by the console.

- The end of the DMX 512 system should be terminated to reduce signal errors.
- Connect the fixtures with Max.11 pieces. Make sure to insert the "signal in" terminal in the last connecting fixture.

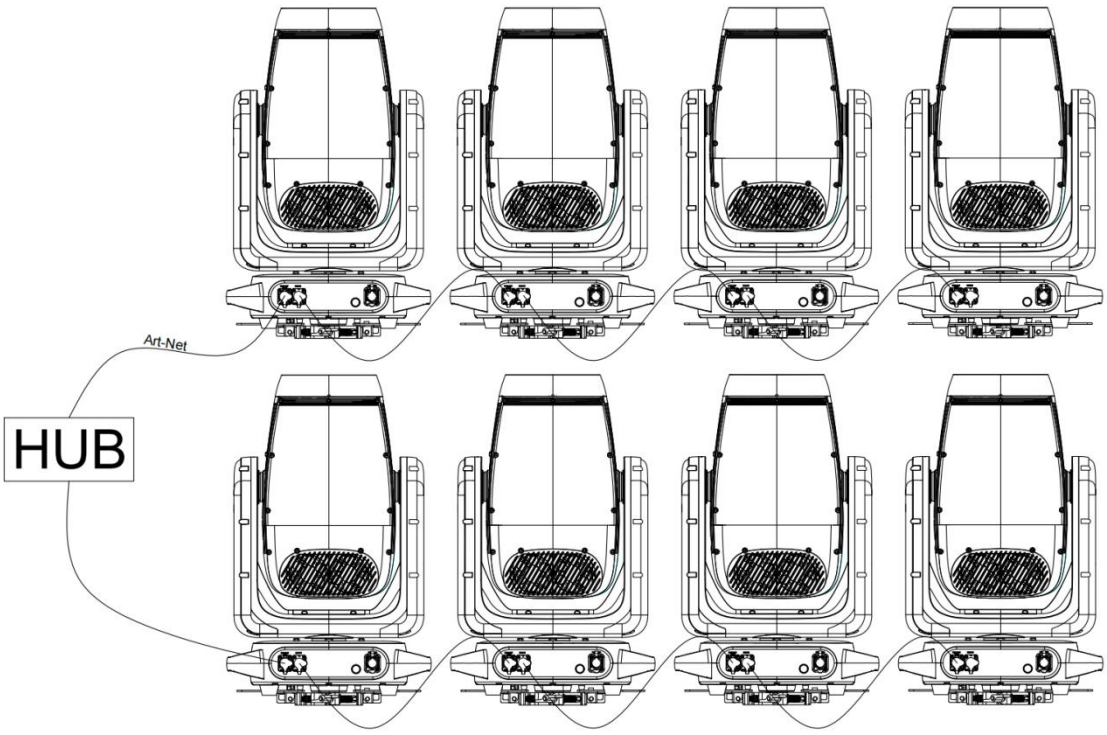
7.8 Ethernet connection

- The data communication is provided with Art-Net protocol， thus the controll-ing utilities used in the lighting controller or PC must support such protocol. The maximum transferring speed can reach 10Mb/s.
- The fixture is provided with 8-pin RJ-45 connector for internet input. Please use class 5 cables and standard RJ-45 connector for internet connection， Shown as Fig.

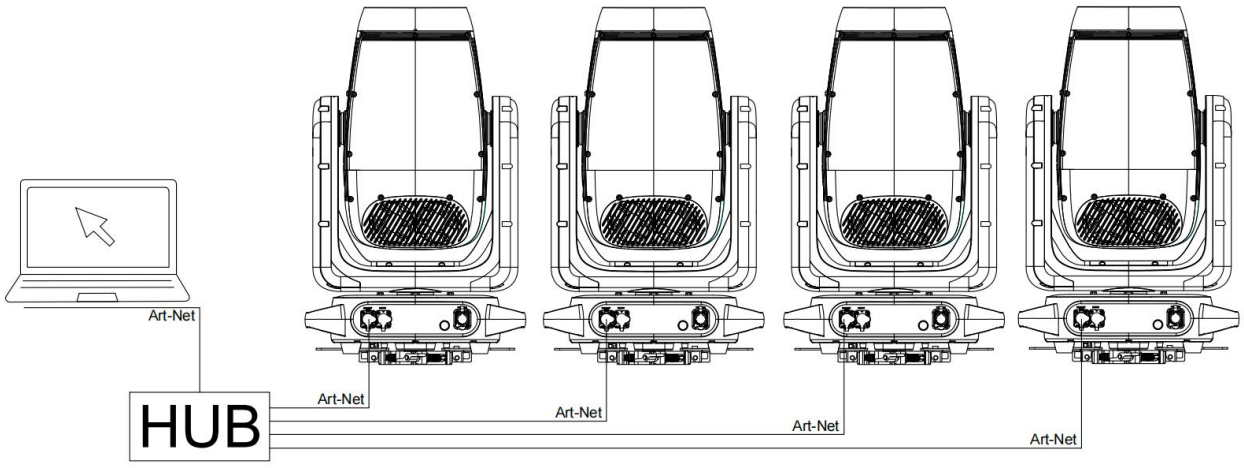


- Type A IP address is configured as default addresses.

7.9 Ethernet connection layout， shown as Fig.



Connection method ONE



Connection method TWO

7. 10 DMX set

- If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 so that the units can receive DMX signal.
- Press the〔MODE/ESC〕button to enter menu mode, select DMX Settings, press the 〔ENTER〕 button to confirm, use the〔UP/DOWN〕button to select DMX Address, press the〔ENTER〕 button to confirm, the present address will blink in the display, use the 〔UP/DOWN〕 button to adjust the address from 001 to 512, press the〔ENTER〕button to store. Press the 〔MODE/ESC〕 button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
36 channels	1	37	73	99
34 channels	1	35	69	103
56 channels	1	57	113	169

8. Error Information

- Error codes are shown continuously in the display when the fixture fails and they will not disappear until the fixture is repaired.

① **Pan Reset Error**

Check whether the position of the pan where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the pan operating range.

Check whether the Hall element on the pan is damaged.

Check whether the lead connecting the Hall element on the pan and the PCB board is in poor contact or disconnected.

Check whether the motor on the pan is damaged.

Check whether the related circuit of the motor drive board on the pan is damag.

① Pan/Tilt Encode Error

Check whether the encoder on the pan is damaged.

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact

③ Tilt Reset Error

Check whether the position of the tilt where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the tilt operating range.

Check whether the Hall element on the tilt is damaged.

Check whether the lead connecting the Hall element on the tilt and the PCB board is in poor contact or disconnected.

Check whether the motor on the tilt is damaged.

Check whether the related circuit of the motor drive board on the tilt is damage.

④ Color Reset Error

Check whether the position of the color wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the color wheel operating range.

Check whether the Hall element on the color wheel is damaged.

Check whether the lead connecting the Hall element on the color wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the color wheel is damaged.

Check whether the related circuit of the motor drive board on the color wheel is damage.

⑤ Gobo Reset Error

Check whether the position of the gobo wheel where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel operating range.

Check whether the Hall element on the gobo wheel is damaged.

Check whether the lead connecting the Hall element on the gobo wheel and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel is damage.

⑥ Prism Reset Error

Check whether the position of the prism where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism operating range.

Check whether the Hall element on the prism is damaged.

Check whether the lead connecting the Hall element on the prism and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism is damaged.

Check whether the related circuit of the motor drive board on the prism is damage.

⑦ Focus Reset Error

Check whether the position of the focus where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the focus operating range.

Check whether the Hall element on the focus is damaged.

Check whether the lead connecting the Hall element on the focus and the PCB board is in poor contact or disconnected.

Check whether the motor on the focus is damaged.

Check whether the related circuit of the motor drive board on the focus is damage.

⑧ Zoom Reset Error

Check whether the position of the focus where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the focus operating range.

Check whether the Hall element on the focus is damaged.

Check whether the lead connecting the Hall element on the focus and the PCB board is in poor contact or disconnected.

Check whether the motor on the focus is damaged.

Check whether the related circuit of the motor drive board on the focus is damage.

⑨ Led Temp. Error

Check whether the temperature detecting board is normal.

Check whether the components of the temperature detecting board are damaged.

Check whether the lead on the temperature detecting board is installed in place or disconnected.

⑩ LED Too Hot Off

When the fixture temperature reaches 90℃, it will automatically turn off to protect the fixture.

9. Troubleshooting

Symptoms	Cause of issue	Approach
No menu displayed	1. No AC input 2. The switching power supply is damaged 3. Display board failure	1. Check the power supply line 2. Check whether the switching power supply has voltage output 3. Replace the display board
Can't receive DMX signal	1. DM signal line failure 2. The wiring sequence of the signal line is wrong 3. The IC receiving the signal at the signal input terminal is damaged 4.4. The DMX address code setting does not match the corresponding control of the console 5. Other parameters are set incorrectly 6. After entering the menu without pressing the confirm button	1. Check or replace the signal line 2. Check the wiring sequence of the signal lines 3. Check whether the signal receiving IC of the display board and the two resistors connected in series on the signal line are open 4. Check or reset the address code or restore the factory settings and try again 5. Press MENU to exit to the main menu
The surface temperature of the lamp body exceeds 90°C and cannot be protected by temperature control	1. The thermistor on the light source board is faulty 2. The temperature control circuit on the display board is faulty	1. Replace the thermistor 2. Check the temperature control circuit on the motherboard
Uneven color mixing of light spots, uneven color spots	1. Improper welding of light source 2. The lens or bracket is not installed properly	1. Check the bulb welding condition 2. Check the lens assembly process and adjust the assembly direction of the bracket
The light source is off or	The light source is damaged or the	1. Replace the light source

flickers slightly	driver board has no current output	2. Replace the damaged light source or check the driver board circuit 3. Replace the corresponding driver IC
The whole lamp does not work when it is powered on	When the temperature is too high, the temperature control protection causes the over-temperature protection of the switching power supply to not work	1. Wait for the lamp body to cool down before turning it on

10.Equipment maintenance and cleaning

10.1 Cleaning Precautions

Routine cleaning and maintenance are required. The service life of the equipment depends largely on the operating environment. Please consult a professional for advice.

Excessive dust，smoke fluid and particulate bildup will degrade performance ad cause over heating or damage to the fixture tha is not covered by the warranty. Please unplug the fixture before you open any covers.

- Cleaning

①Optical components should be cleaned carefully and lightly. Coating face is easily damaged， do not use harmful solvent so as to avoid damage to plastic parts or coating parts.

②Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.

- Cleaning optical components

①Switch off the fixture and keep it cool completely，then open the cover.

②Clean the floats by dust collector or compressed.

③Use cotton paper without smell or cotton cloth soaked with the water，distilled water to wipe the granular thing，don't wipe the surface，float thing should be blown away by the pressure gas.

④Use the cotton cloth or cotton paper without smell soaked with isopropyl alcohol to remove the smoke and other residuse. A commercial glass cleaner may be used， but residuse must be removed with distilled water. Clean with a slow cirular motion from center to edge. Dry with a clean， soft and lint-free

cloth or comperessed air.

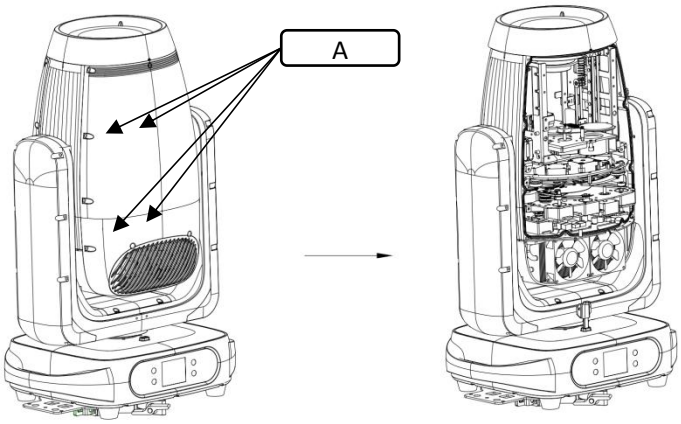
- Cleaning fan and air vents

①Remove dust from the fans and air vents with a soft brush，cotton paper，vacuum，or compressed air.

10.2 Head filter sponge cleaning

①Disconnect the power supply, unscrew the four screws at A on the left and right of the shell with a screwdriver, and take out the head cover；

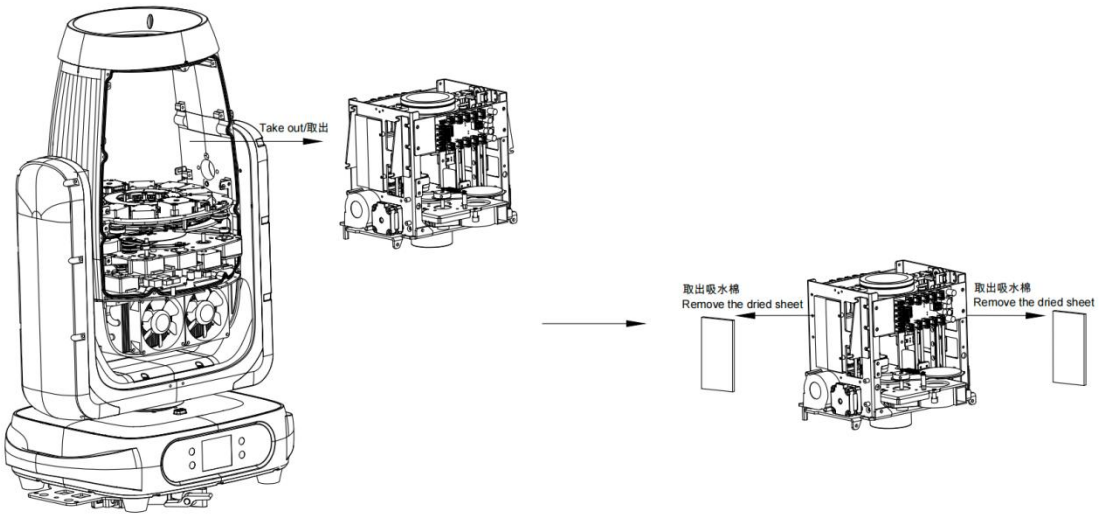
②Use a screwdriver to unscrew the two screws at B on the left and right sides of the head cover, and take out the sponge；



③Take out the fixing bracket along the direction of the arrow；

④Take out the filter sponge in the direction of the arrow；

⑤Gently blow off the dust and floating objects with a vacuum cleaner or a pressure blower. If it is serious, please replace the filter cotton of the same type；



10.3 Base filter sponge cleaning

①Open the buckle along the direction A, and pull out the baffle in the direction B；

②Open the baffle along direction C and take out the filter sponge；

③Gently blow off the dust and floating objects with a vacuum cleaner or a pressure blower. If it is serious, please replace the filter cotton of the same type；

10.4 The position of each fan of the fixture