

CLAIR LIGHTING FRAMING MOJO 1000



User's Manual

CONTENTS

1. Safety warning	3
2. Packing accessories	4
3. Size and weight	4
4. Control Panel	5
5. Product Specifications	6
5.1 Light output and beam angle range	8
5.2 Pan/tilt scan	8
5.3 MENU	9
5.4 Menu control channel	12
5.5 DMX channel	13
6. Function Description	19
6.1 Color Wheels	19
6.2 Gobo Wheel	20
6.3 Animation wheel	错误! 未定义书签。
7. Installation and connection	22
7.1 Installation diagram	22
7.2 Fixed clamps Install	23
7.3 Luminaire size after installation	23
7.4 Precautions	23
7.5 Power I Connection	24
7.6 Signal Connection	25
7.7 Signal Connection illustrate	25
7.9 Ethernet connection layout, shown as Fig.	26
7. 10 DMX set	27
8. Error Information	27
9. Troubleshooting	30
10. Equipment maintenance and cleaning	31
10.1 Cleaning Precautions	31
10.2 Head filter sponge cleaning	32
10.3 Base filter sponge cleaning	32
10. 4 Lighting fan distribution diagram	31

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 50°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.

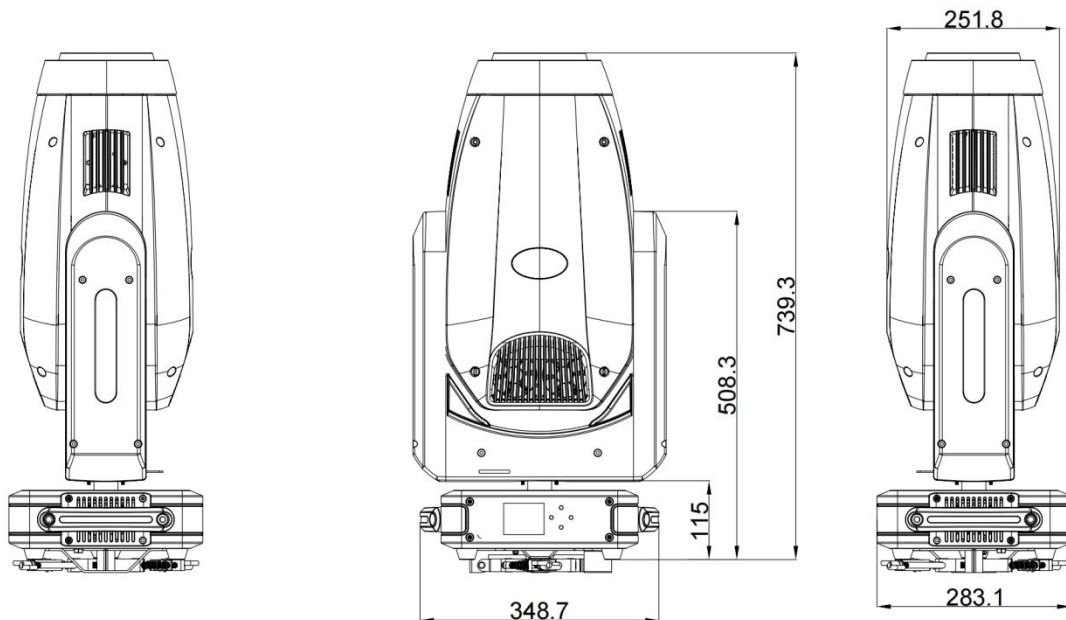
2. Packing accessories

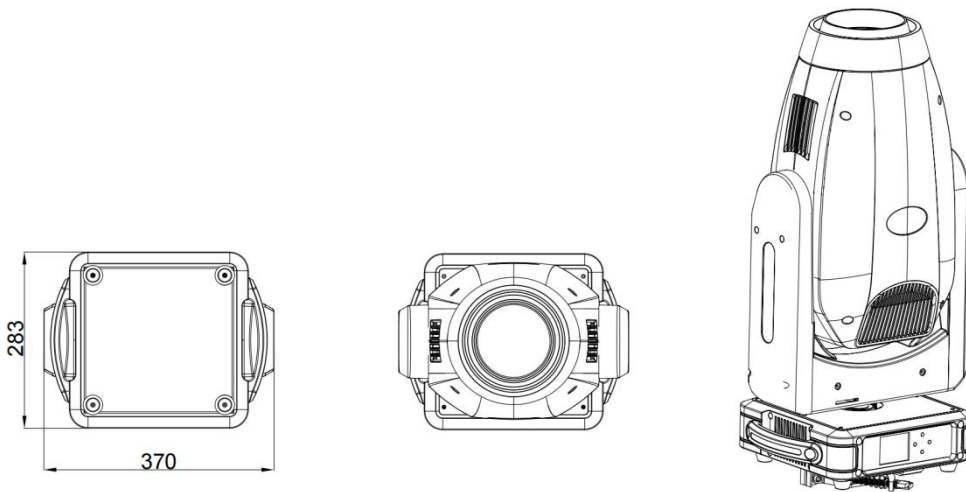
Name	QUANTITY	UNIT
Product	1	PCS
User Manual	1	PCS
Signal power line	1	PCS
Suspension fasteners	1	SET

3. Size and weight

Metric system: 348.7*283.1*739.3mm, 32kgs (version with fixed clamps)

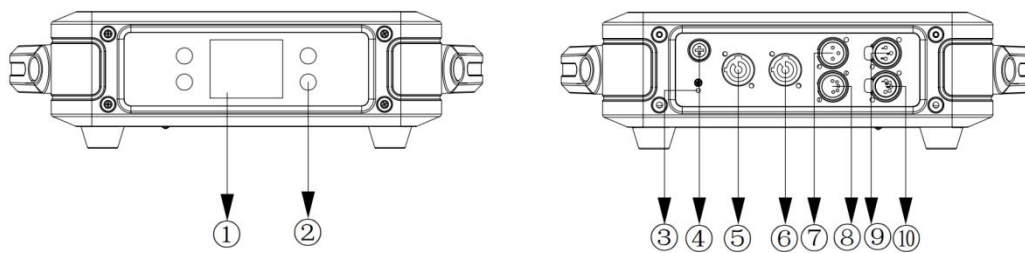
Imperial: 13.728"*11.146"*29.106" in, 70.548lb (version with fixed clamps)





4. Control Panel

POWERCON A (Standard) :



① DISPLAY: LCD Show menu functions

② TOUCH 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

③ Ground Security Screw: Lamps are safely grounded to prevent electric shock.

- ④ FUSE: Protect lamps from damage caused by excessive current or short circuit。
- ⑤ POWER IN: Connecting to the power supply for lamps and lanterns。
- ⑥ POWER OUT: Connect the next light fixture。
- ⑦ DMX IN: For DMX512 link, use 3-pin XLR cable to link the unit and controller。
- ⑧ DMX IN: For DMX512 link, use 3-pin XLR cable to link the unit and controller。
- ⑨ DMX OUT: For DMX512 link, use 3-pin XLR cable to link the unit and controller。
- ⑩ DMX OUT: For DMX512 link, use 3-pin XLR cable to link the unit and controller。
- ⑪ SWITCH: Used for lighting switching power supply function。

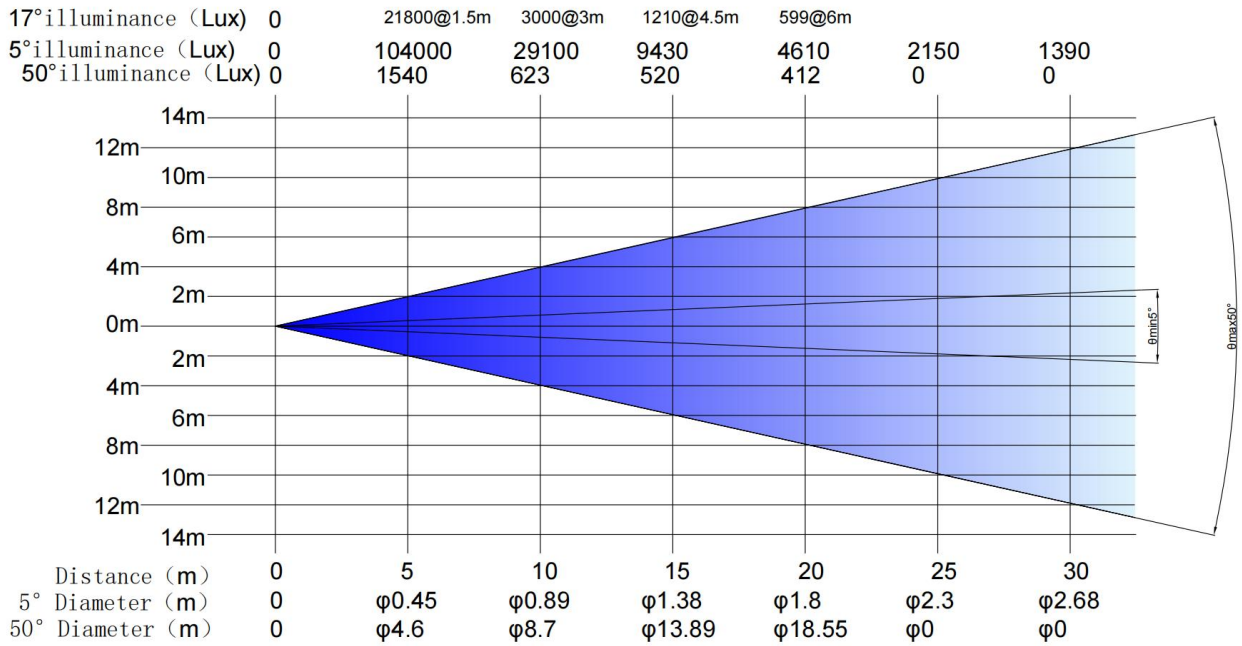
NOTICE: screensaver unlock password (UP DOWN UP DOWN) ENTER.

5. Product Specifications

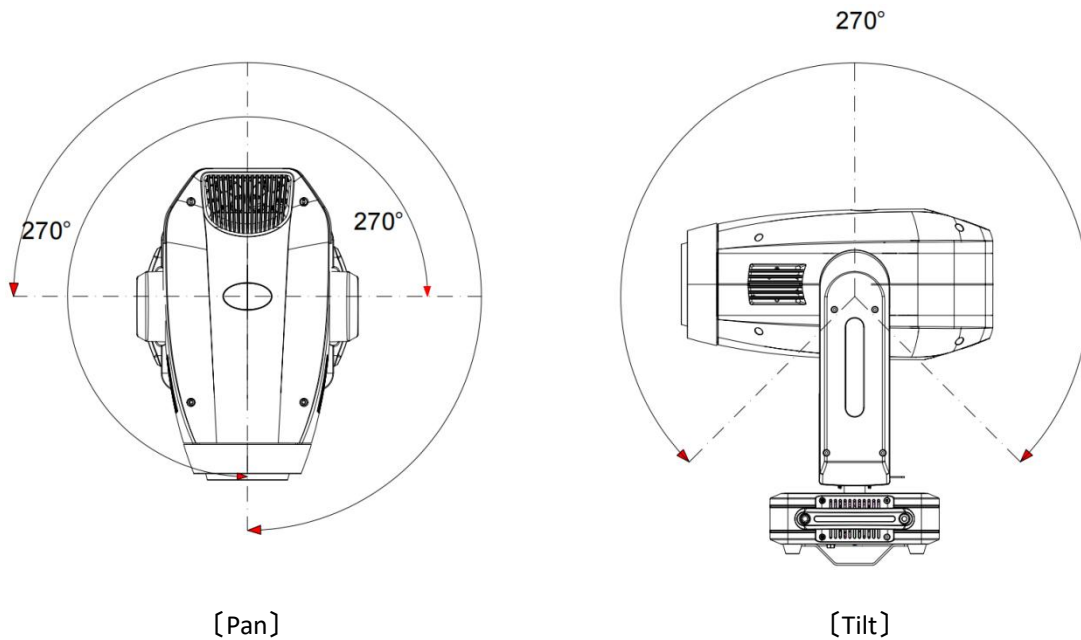
Optical parameters	SPECIFICATIONS
Light source	850W LED Engine
Color temperature	7500K
Output	60000Lm@LED Engine
CRI	72
LED life	20000H
Beam angle	5°- 50°
Effect	
PAN	540°
TILT	270°
Color	color wheel (7+open)
	CMY linear
	CTO: 3200K~6800K, linear
Gobos	Gobos (rotating) 7 interchangeable+open
	Gobos (fixed) 10 Fixed+open
Animation	1 animation wheel
Iris	15-leaf, motorized iris, 15%~100% adjustable

Framing System	4 independent blades, each with +/-60° rotation,
	Complete system with +/-45° rotation
Zoom	5° ~ 50°(10x) motorized zoom
Frost	3° Frost
	1° Frost
Strobe	0 - 30Hz
Dimming	4 dimming curves, 0~100% linear dimming
Prism	Rotating 5-facet prism
	Rotating 5-facet linear prism
Electronic parameters	
Mains	100 - 240V, 50/60Hz
Consumption	230V@1000W, 110V@1100W
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°C
Structural parameters	
Dimension	348.7*283.1*739mm
Weight	32KG
Shell	Standard black environmentally friendly flame retardant ABS, black fine sand pattern
Installation method	Flat ground, side hanging, hanging installation
Protection level	IP20
Control	
Control protocol	DMX512, RDM
	sACN/ArtNet control (Optional)
DMX channels	41CH/39CH/62CH
Accessories	
Standard	Standard power signal line, safety rope, hanging parts
Optional	Flight Case

5.1 Light output and beam angle range



5.2 Pan/tilt scan



5.3 MENU

MAIN MENU	SUBMENU	CHOICES	VALUES
ADDRESS	001~512		
MODE	Signal Select	DMX	
		sACN	
		AetNet	
	DMX Mode	41CH	
		39CH	
		62CH	
	Slave		
	Auto	Auto Speed	000~255
	Sound	Sensitivity	000~255
	Manual Control	Pan	000~255
		Pan Fine	000~255
		Tilt	000~255
		Tile Fine	000~255
		Pan/Tilt Speed	000~255
		Strobe	000~255
		Dimmer	000~255
		Reserved1	000~255
		Reserved2	000~255
		Reserved3	000~255
		Zoom	000~255
		Focus	000~255
		Auto Focus	000~255
		Auto Focus Fine	000~255
		Coler Wheel	000~255
		Reserved	000~255
		Cyan	000~255
		Magenta	000~255
		Yellow	000~255
		CTO	000~255
		Rot Gobo Wheel	000~255
		Gobo Rot	000~255
		Fix Gobo Wheel	000~255
Animation		000~255	
Iris	000~255		
Prism1	000~255		
Prism1 Rot	000~255		
Prism2	000~255		

		Prism2 Rot	000~255
		Frost1	000~255
		Frost2	000~255
		Blade1A	000~255
		Blade1B	000~255
		Blade2A	000~255
		Blade2B	000~255
		Blade3A	000~255
		Blade3B	000~255
		Blade4A	000~255
		Blade4B	000~255
		All Blade Rot	000~255
SET	Display Reverse	OFF	
		ON	
	Display	OFF	
		ON	
	Keylock	OFF	
		ON	
	Temp Unit	Celsius	
		Fahrenheit	
	DMX Fail	Hold	
		Blackout	
	Dimmer Curve	Square Law	
		Inv SQ Law	
		Linear	
		S Curve	
	Dimmer Frequen	25KHz	
		20KHz	
		15KHz	
		10KHz	
		5000Hz	
		3600Hz	
		1200Hz	
		800Hz	
	Dimmer Mode	Standard	
		Stage	
		TV	
		Architecture	
		Theatre	
	Pan Reverse	OFF	
		ON	
	Tilt Reverse	OFF	
		ON	
	Encoders	OFF	

		ON	
	Fan Set	Silent	
		Auto	
		High	
	CTB	OFF	
		ON	
	Linear Frost	OFF	
		ON	
	Calibrate	Password=008	Pan
			Tilt
			Color Wheel
			Zoom
			Focus
			Color Wheel
			Cyan
			Magenta
			Yellow
			CTO
			Rot Gobo Wheel
			Gobo Rot
			Fix Gobo Wheel
			Animation
			Animation Rot
			Iris
			Prism1
			Prism1 Rot
			Prism2
			Prism2 Rot
			Frost1
			Frost2
			Blade1A
			Blade1B
			Blade2A
			Blade2B
			Blade3A
	Blade3B		
	Blade4A		
	Blade4B		
	All Blade Rot		
	Motor Reset	ALL	
		Pan&Tilt	
		Color	
		Gobo	
		Other	

	Reset Default	OFF	
		ON	
	Language	English	
		Chinese	
User Time	Password		
	Time		
ETEHERENT	Set Ip	000.000.000.000	
	Set Mask Ip	000.000.000.000	
	Set Universe	000~255	
INFO	Software Ver	V1.00	
	Time Info	Current Time	1h
		Total Run Time	1h
		LED Run Time	1h
	IP Info	000.000.000.000	
		000.000.000.000	
Humidity	50%		

5.4 Menu control channel

CONTROL CHANNEL			
CH	41CH	39CH	62CH
1	Pan	Pan	Pan
2	Pan Fine	Tilt	Pan Fine 16bit
3	Tilt	Speed Pan/Tilt	Tilt
4	Tilt Fine	Shutter	Tilt Fine 16bit
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	Reserved	Focus
15	Color Wheel	Cyan Color	Focus Fine
16	Reserved	Magenta Color	Auto Focus
17	Cyan Color	Yellow Color	Auto Focus Fine
18	Magenta Color	CTO Color	Color Wheel
19	Yellow Color	Rotating gobos	Color Wheel Fine
20	CTO Color	Rotating gobo index	Reserved
21	Rotating gobos	Fixed Gobo	Cyan Color
22	Rotating gobo index	Animation wheel	Cyan Color Fine

23	Fixed Gobo	Iris	Magenta Color
24	Animation wheel	Prism1	Magenta Color Fine
25	Iris	Rotating prism	Yellow Color
26	Prism1	Prism2	Yellow Color Fine
27	Rotating prism	Rotating prism	CTO Color
28	Prism2	Frost1	CTO Color Fine
29	Rotating prism	Frost2	Rotating gobos
30	Frost1	Blade 1A	Rotating gobo index
31	Frost2	Blade 1B	Rotating gobo indexing Fine
32	Blade 1A	Blade 2A	Fixed Gobo
33	Blade 1B	Blade 2B	Animation wheel
34	Blade 2A	Blade 3A	Iris
35	Blade 2B	Blade 3B	Iris Fine
36	Blade 3A	Blade 4A	Prism1
37	Blade 3B	Blade 4B	Rotating prism
38	Blade 4A	All Blade Rotation	Rotating prism Fine1
39	Blade 4B	Control	Prism2
40	All Blade Rotation		Rotating prism
41	Control		Rotating prism Fine2
42			Frost1
43			Frost2
44			Blade 1A
45			Blade 1A Fina
46			Blade 1B
47			Blade 1B Fine
48			Blade 2A
49			Blade 2A Fina
50			Blade 2B
51			Blade 2B Fine
52			Blade 3A
53			Blade31A Fina
54			Blade 3B
55			Blade 3B Fine
56			Blade 4A
57			Blade 4A Fina
58			Blade 4B
59			Blade 4B Fine
60			All Blade Rotation
61			All Blade Rotation Fine
62			Control

5.5 DMX channel

EURUS (From Software V201)

DMX channel's functions and their values (62DMX channels):				
Mode/Channel			Value	Function
St	Ba	Ex		
41CH	39CH	62CH		
1	1	1		<u>PAN Movement 8bit :</u>
			0-255	Pan Movement
2		2		<u>Pan Fine 16bit</u>
			0-255	Fine control of Pan movement
3	2	3		<u>TILT Movement 8bit :</u>
			0-255	Tilt Movement
4		4		<u>Tilt Fine 16bit</u>
			0-255	Fine control of Tilt movement
5	3	5		<u>Speed Pan/Tilt movement:</u>
			0-225	max to min speed
			226-235	blackout by movement
			236-245	blackout by all wheel changing
6	4	6	246-255	no function
				<u>Shutter, strobe:</u>
			00-10	Shutter closed
			11-20	No function (shutter open)
			21-117	Strobe effectslow to fast
			118-126	No function (shutter open)
			127-180	Pulse-effect in sequences
			181-191	No function (shutter open)
192-245	Random strobe effectslow to fast			
7	5	7	246-255	No function (shutter open)
				<u>Dimmer intensity:</u>
		8	0-255	Intensity 0 to 100%
		8		<u>Fine Dimmer intensity:</u>
			0-255	Dimmer intensity fine
8	6	9		Reserved
9	7	10		Reserved
10	8	11		Reserved
11	9	12		<u>Zoom :</u>
			0-255	Zoom adjustment from small to big
		13		<u>Zoom Fine:</u>
			0-255	Zoom adjustment Fine
12	10	14		<u>Focus :</u>
			0-255	Continuous adjustment from near to far
		15		<u>Focus Fine:</u>
			0-255	Continuous adjustment Fine
13	11	16		<u>Auto Focus:</u>
			0-50	Auto Focus Off
			51-100	5m

			101-150	7.5m
			151-200	10m
			201-255	15m
14	12	17		<u>AutoFocus Fine:</u>
			0-255	Continuous adjustment Fine
15	13	18		<u>Color Wheel:</u>
			00-3	Open / white
			4-7	Color 1: CTB 1/4
			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: 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		<u>Color Wheel Fine:</u>
			0-255	Color Wheel colour change to any position Fine
16	14	20		Reserved
			0-255	Cyan Fine
17	15	21		<u>Cyan Color :</u>
			0-255	Cyan (0-white, 255-100% Cyan)
		22		<u>Cyan Color Fine :</u>
			0-255	Cyan Fine
18	16	23		<u>Magenta Color :</u>
			0-255	Magenta (0-white, 255-100% magenta)
		24		<u>Magenta Color Fine :</u>
			0-255	Magenta Fine
19	17	25		<u>Yellow Color :</u>
			0-255	Yellow (0-white, 255-100% Yellow)
		26		<u>Yellow Color Fine :</u>
			0-255	Yellow Fine
20	18	27		<u>CTO Color :</u>
			0-255	CTO (0-white, 255-100% CTO)
		28		<u>CTO Color Fine :</u>
			0-255	CTO Fine
21	19	29		<u>Rotating gobos, cont. rotation 1:</u>
			00-9	Open
			10-19	Rot. gobo 1: Dot Line 11
			20-29	Rot. gobo 2: Star Dust
			30-39	Rot. gobo 3: Nested Triangle
			40-49	Rot. gobo 4: Vortex

			50-59	Rot. gobo 5: Black & White Target
			60-69	Rot. gobo 6: Nested Rings Yellow
			70-77	Rot. Gobo 7: CMY Liquid Effect
			78-93	Gobo 1 shakeslow to fast
			94-109	Gobo 2 shakeslow to fast
			110-125	Gobo 3 shakeslow to fast
			126-141	Gobo 4 shakeslow to fast
			142-157	Gobo 5 shakeslow to fast
			158-173	Gobo 6 shakeslow to fast
			174-189	Gobo 7 shakeslow 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
22	20	30		<u>Rotating gobo index.rotating gobo rotation 1:</u>
			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
		31		<u>Rotating gobo indexing Fine 1:</u>
			0-255	Fine indexing
23	21	32		<u>Fixed Gobo2 :</u>
			0-13	open
			14-18	Gobo 1: Conical Tunnel Effect
			19-23	Gobo 2: Smoke Rings
			24-28	Gobo 3: Fireworks
			29-33	Gobo 4: Abstract Square
			34-38	Gobo 5: Iron Filings
			39-43	Gobo 6: Lost In The Brain
			44-48	Gobo 7: Deep Forest
			49-53	Gobo 8: Tree Bark
			54-58	Gobo 9: Mirror Ball
			59-63	Gobo 10: Digital
			64-68	unused
			69-79	Gobo 1 shakeslow to fast
			80-90	Gobo 2 shakeslow to fast
			91-101	Gobo 3 shakeslow to fast
			102-112	Gobo 4 shakeslow to fast
			113-123	Gobo 5 shakeslow to fast
			124-134	Gobo 6 shakeslow to fast
			135-145	Gobo 7 shakeslow to fast
			146-156	Gobo 8 shakeslow to fast
			157-167	Gobo 9 shakeslow to fast
			168-178	Gobo 10 shakeslow to fast
			179-189	unused

			190-221	Clock-wise scroll from fast to slow
			222-223	Reserved
			224-255	Counter clock-wise scroll from slow to fast
24	22	33		<u>Animation wheel:</u>
			00-7	open
			8-2027	Forwards rotation from fast to slow
			128-135	No rotation
			136-255	Backwards rotation from slow to fast
25	23	34		<u>Iris:</u>
			0-191	Max. diameter to Min.diameter
			192-223	Pulse closing fast to slow
			224-255	Pulse opening slow to fast
		35		<u>Iris Fine:</u>
			0-255	Iris Fine
26	24	36		<u>Prism 1:</u>
			0-127	Open
			128-255	5-Facet Circular Prism
27	25	37		<u>Rotating prism index, rotating prism rotation 1</u>
			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
		38		<u>Rotating prism indexing Fine 1:</u>
			0-255	Fine indexing
28	26	39		<u>Prism 2:</u>
			0-127	Open
			128-255	4-Facet Linear Prism
29	27	40		<u>Rotating prism index, rotating prism rotation 2:</u>
			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
		41		<u>Rotating prism indexing Fine 2:</u>
			0-255	Fine indexing
30	28	42		Frost 1 (light):
			0-255	0-100%
31	29	43		Frost 2 (heavy):
			0-255	0-100%
32	30	44		Blade 1A:
			0-255	Open to Close
		45		Blade 1A Fine:
			0-255	Open to Close Fine
33	31	46		Blade 1B:
			0-255	Open to Close

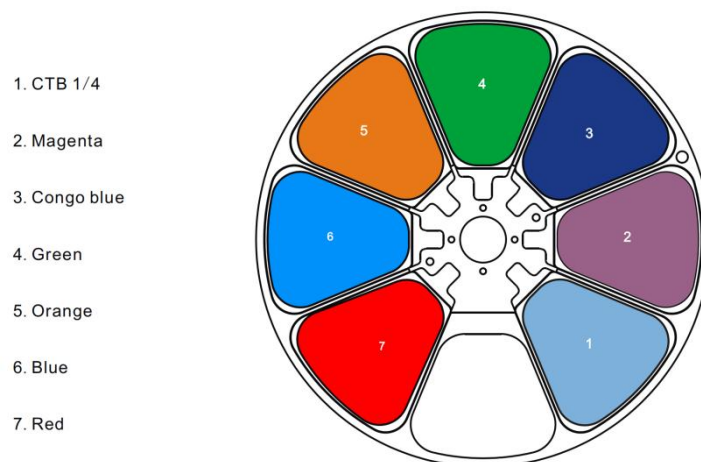
		47		Blade 1B Fine:
			0-255	Open to Close Fine
34	32	48		Blade 2A:
			0-255	Open to Close
		49		Blade 2A Fine:
			0-255	Open to Close Fine
35	33	50		Blade 2B:
			0-255	Open to Close
		51		Blade 2B Fine:
			0-255	Open to Close Fine
36	34	52		Blade 3A:
			0-255	Open to Close
		53		Blade 3A Fine:
			0-255	Open to Close Fine
37	35	54		Blade 3B:
			0-255	Open to Close
		55		Blade 3B Fine:
			0-255	Open to Close Fine
38	36	56		Blade 4A:
			0-255	Open to Close
		57		Blade 4A Fine:
			0-255	Open to Close Fine
39	37	58		Blade 4B:
			0-255	Open to Close
		59		Blade 4B Fine:
			0-255	Open to Close Fine
40	38	60		All Blade Rotation:
			0-255	All Blade Rotation
		61		All Blade Rotation Fine:
			0-255	All Blade Rotation Fine
41	39	62		Control, reset, internal programs:
			0-4	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	High fan control mode
			29-30	Silent fan control mode
			31-32	unused
			33-34	unused
			35-36	unused
			37-44	unused
			45-49	Square Law

			50-54	Linear
			55-59	1200Hz Refresh rate
			60-64	3600Hz Refresh rate
			61-63	15KHz Refresh rate
			64-69	25KHz Refresh rate
			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	unused
			95	unused
			96	unused
			97-99	Other motor reset
			100-102	Frost Progressive Off
			103-105	Frost Progressive On
			106-108	unused
			109-111	unused
			112-255	unused

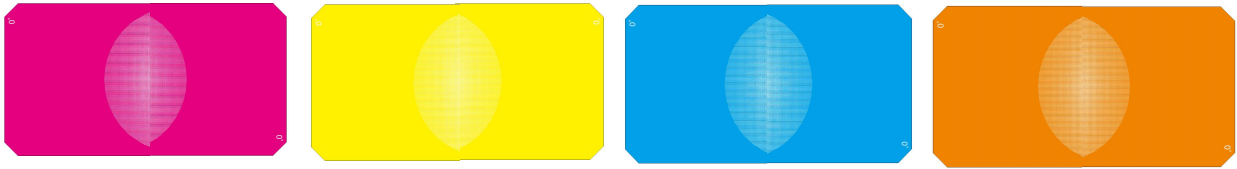
6. Function Description

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.

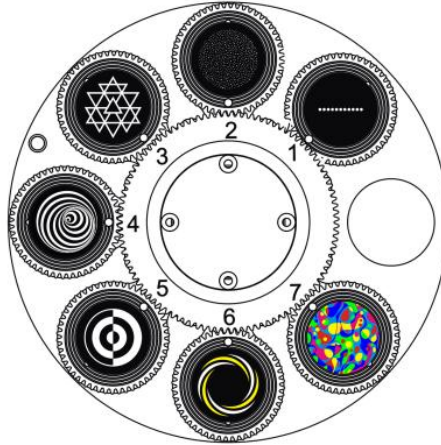


B: CMY+CTO linear



6.2 Gobo Wheel

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



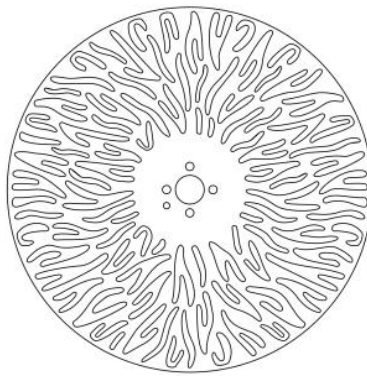
Rotating gobo (Fig.6.2-1)

As shown in (Fig.6.2-2) , 1 fixed gobo wheel with 9gobos.



fixed gobo (Fig.6.2-2)

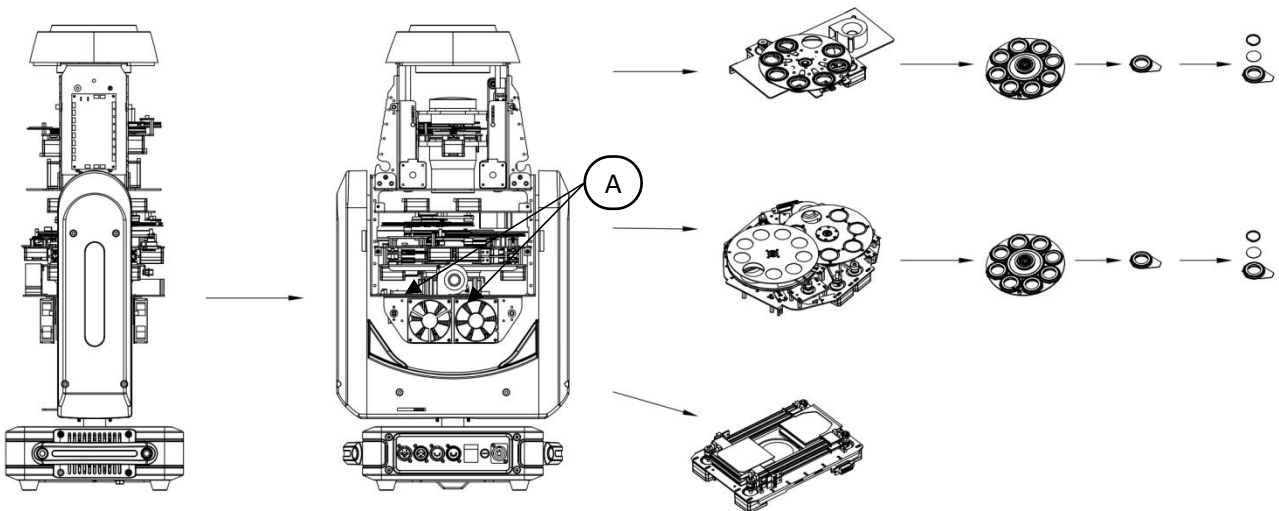
6.3 Animation wheel



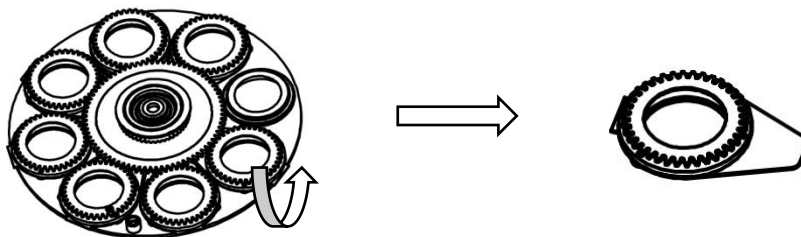
Animation wheel (Fig.6.3-1)

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

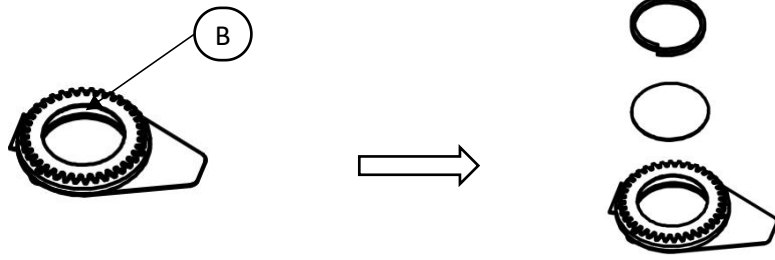
① Pull out the communication cable and signal transfer cable, unscrew the four screws at A with a screwdriver, and take out the component;



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;

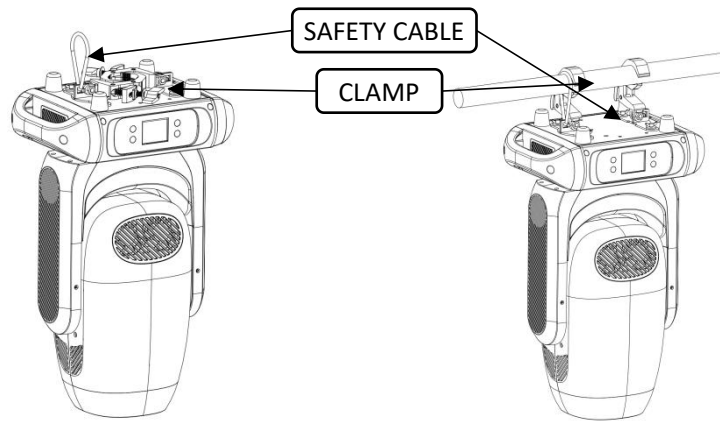
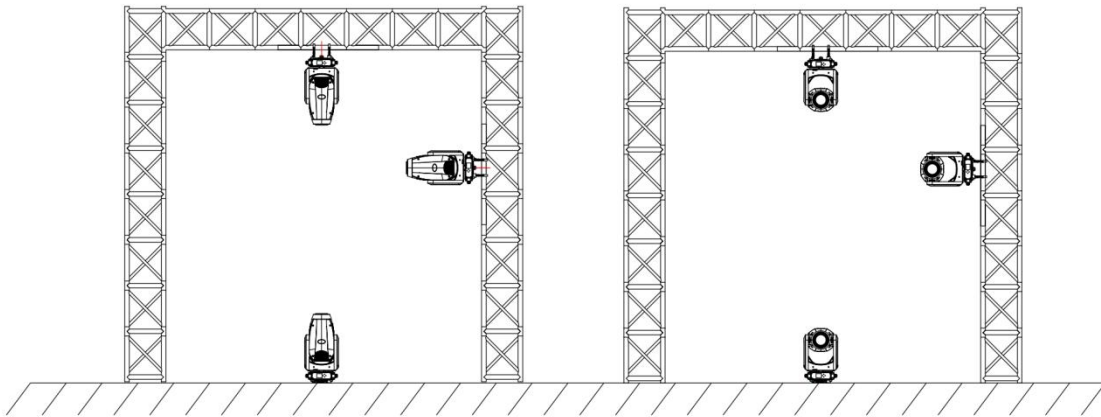


③ Use tweezers or other small graspable objects to take out the circlip at B. Please use professional tools to remove the circlip to avoid damage to the gobo.

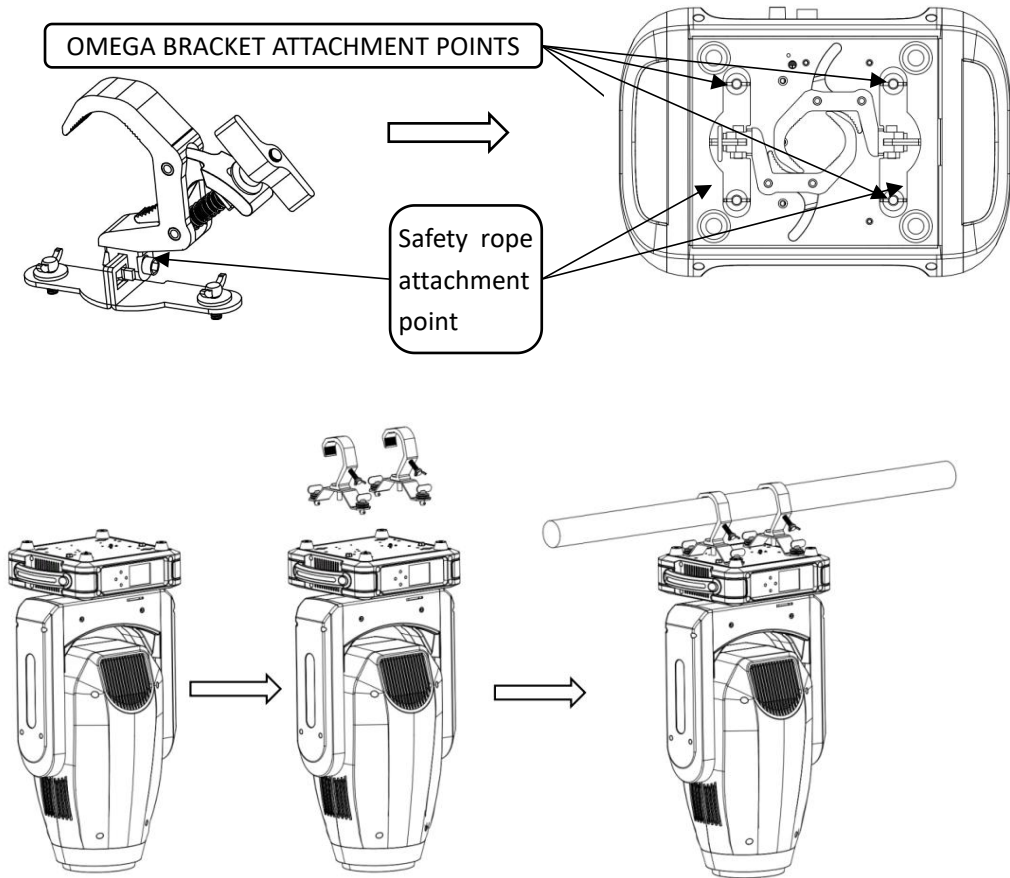


7. Installation and connection

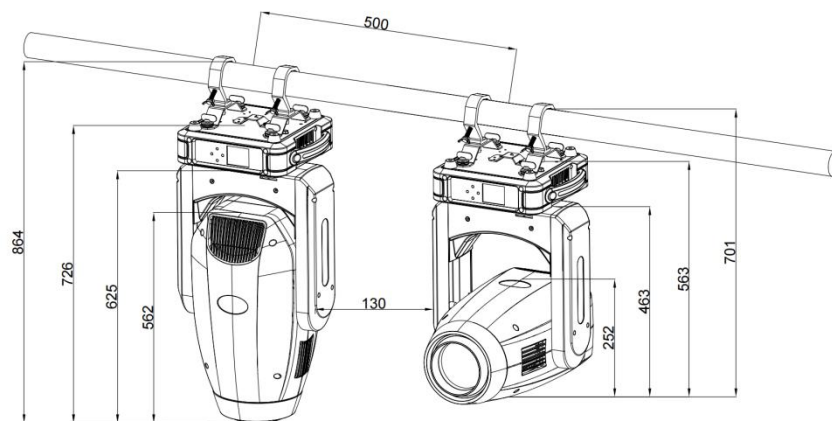
7.1 Installation diagram



7.2 Fixed clamps Install



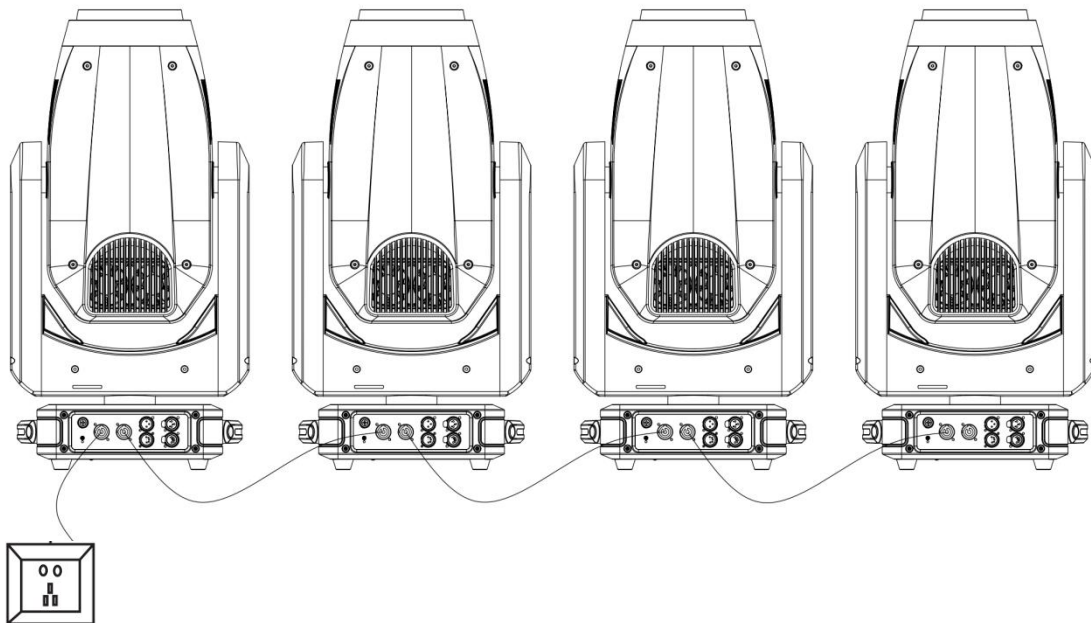
7.3 Luminaire size after installation



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 | Connection



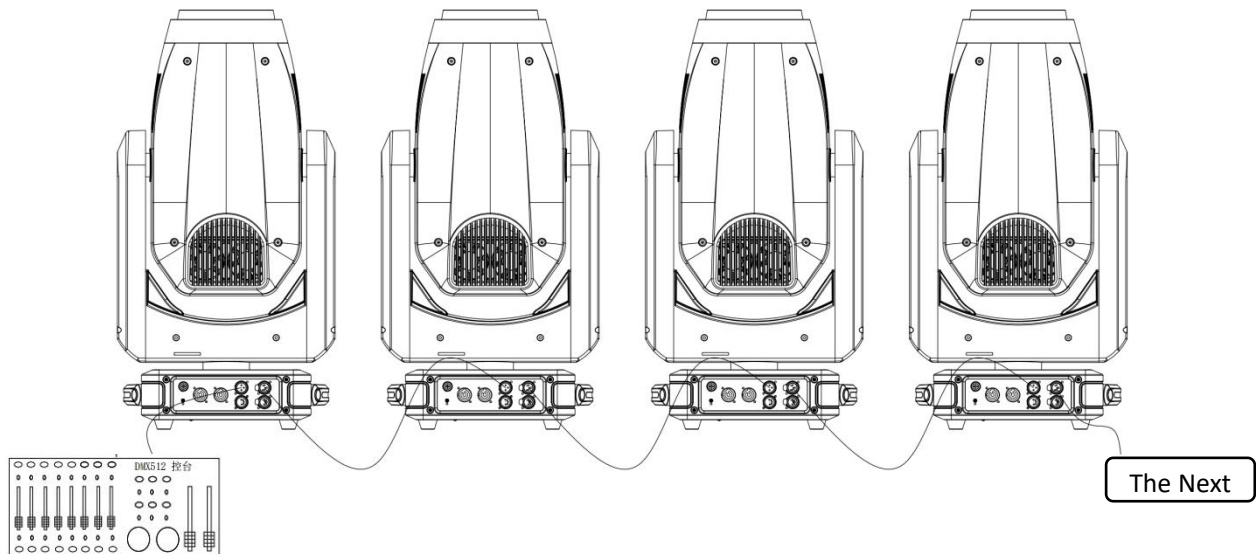
- The standard product uses Powercon in /out, a single connection power cord.
- Note: Due to power reasons, a 1.5 square power cord can carry up to 2-4 units (220V).



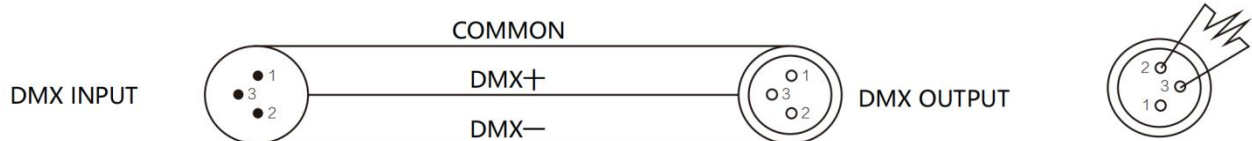
**Do not connect too many lamps to a single power cord, or overload it.
Do not use the power cord with damaged insulation, and do not put the
power cord on other wires.**

**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

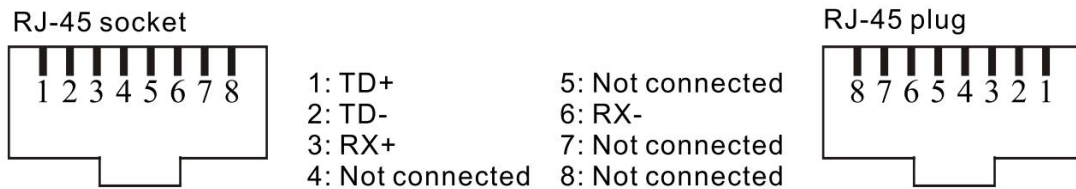


- Please use a shielded twisted-pair cable configured for DMX512. The DMX input and output of the device adopt 3-pin or 5-pin XLR connection socket.
- **Pin1: GND, Pin2: Signal (-) , Pin3: Signal (+)**
- At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor 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.

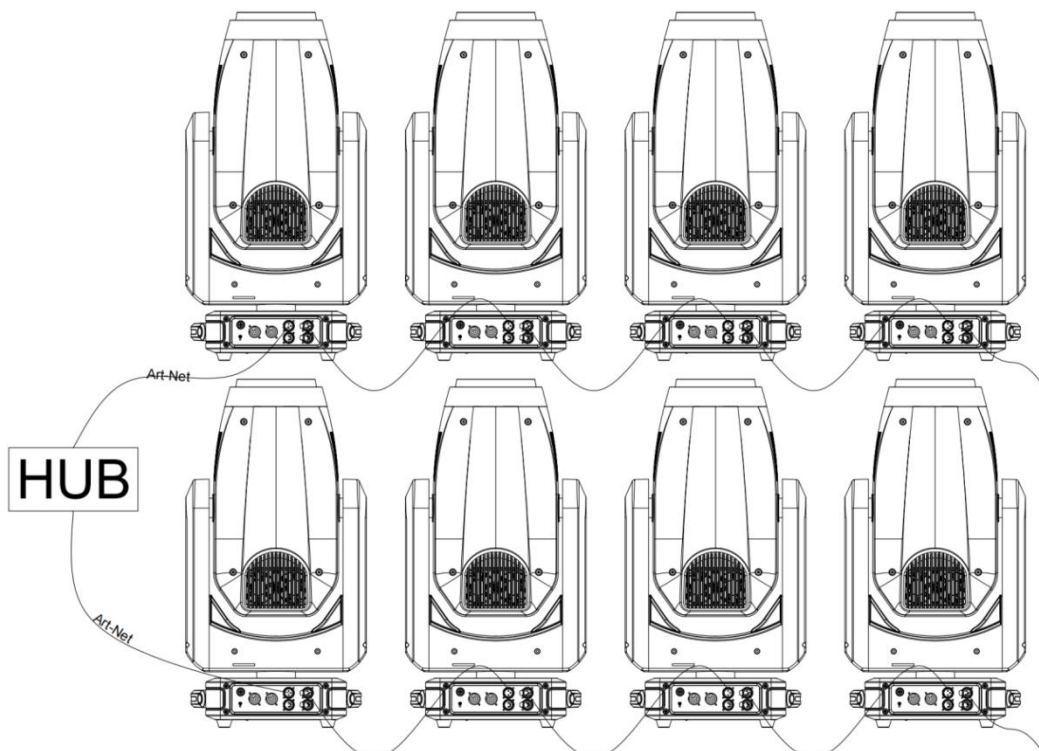
7.8 Ethernet connection

- The data communication is provided with Art-Net protocol, thus the controlling 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.

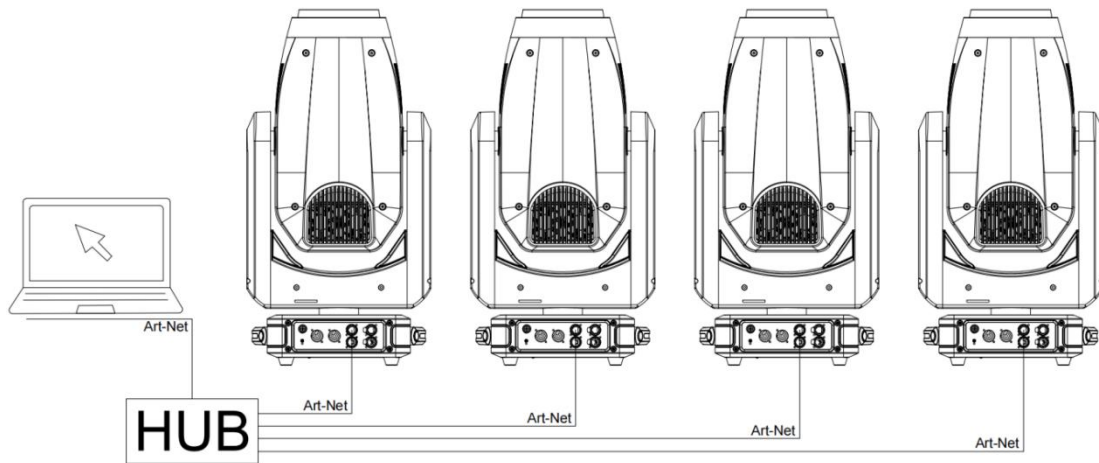


- Type A IP address is configured as default addresses.

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
39 channels	1	40	79	118
41 channels	1	42	83	124
62 channels	1	63	125	187

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 damaged.

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 damaged.

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 damaged.

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°C, it will automatically turn off to protect the fixture.

9. Troubleshooting

Symptoms	Cause of issue	Approach
No menu displayed	<ol style="list-style-type: none"> 1. No AC input 2. The switching power supply is damaged 3. Display board failure 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 1. The thermistor on the light source board is faulty 2. The temperature control circuit on the display board is faulty 	<ol style="list-style-type: none"> 1. Replace the thermistor 2. Check the temperature control circuit on the motherboard
Uneven color mixing of light spots, uneven color spots	<ol style="list-style-type: none"> 1. Improper welding of light source 2. The lens or bracket is not installed properly 	<ol style="list-style-type: none"> 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	<ol style="list-style-type: none"> 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 buildup will degrade performance and cause overheating or damage to the fixture that is not covered by the warranty. Please unplug the fixture before you open any covers.

- Cleaning

① Optical 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.

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

- Cleaning optical components

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

② Clean the floats by dust collector or compressed.

③ Use 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.

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

cloth or compressed air.

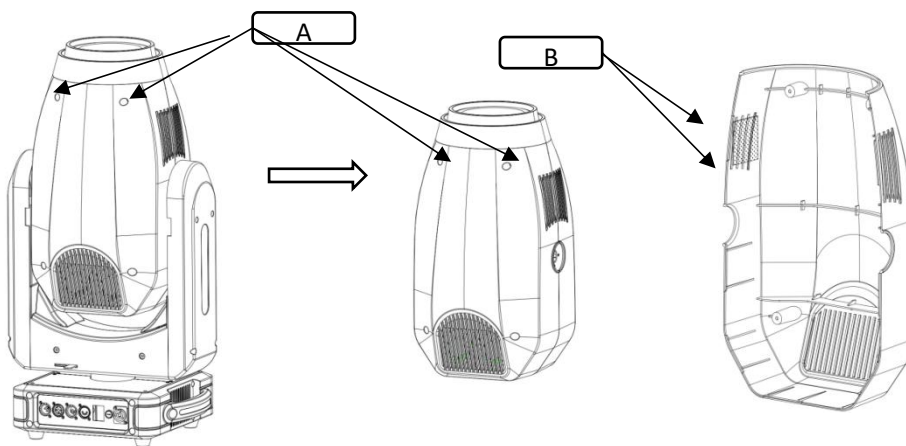
- Cleaning fan and air vents

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

10.2 Head filter sponge cleaning

① Disconnect 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;

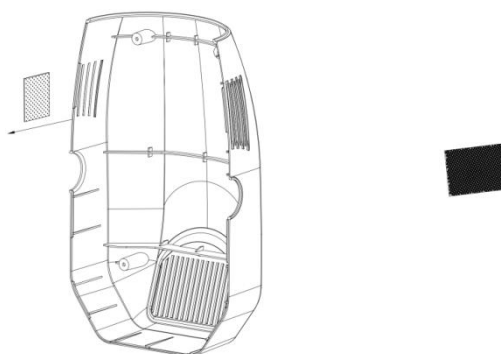
② Use a screwdriver to unscrew the two screws at B on the left and right sides of the head cover, and take out the sponge;



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

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

⑤ Gently 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

- ① Open the buckle along the direction A, and pull out the baffle in the direction B;
- ② Open the baffle along direction C and take out the filter sponge;
- ③ Gently 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 Lighting fan distribution diagram

