Cabezas Móviles

BSW 420 PRO

MH000053

User Manual

Please read the instructions carefully before use.

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

STATEMENT

The product has well capability and intact packing when leave factory. All of the user should comply with warning item and manual, any misuse cause of the damages are not included in our guarantee, and also can not be responsible for any malfunction and problem owing to ignore the manual.

1. SAFETY INSTRUCTION

Please keep this user guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

Unpack and check carefully there is no transportation damage before using the unit.

Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit. Its important to ground the yellow/green conductor to earth in order to avoid electric shock.

The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.

Disconnect main power before replacement or servicing. Make sure there are no flammable materials close to the unit while operating as it is fire hazard.

Use safety cable when fixes this unit. Do not handle the unit by taking its head only, but always by taking its base.

Maximum ambient temperature is ta: 40c. Do not operate it where the temperature is higher than this unit surface temperature may reach up to 85c. Do not touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.

In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

Do not touch any wire during operation as high voltage might be causing electric shock.

⚠ WARNING:

To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture. Do not open the unit within five minutes after switching off. The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

CAUTION:

There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

INSTALLATION:

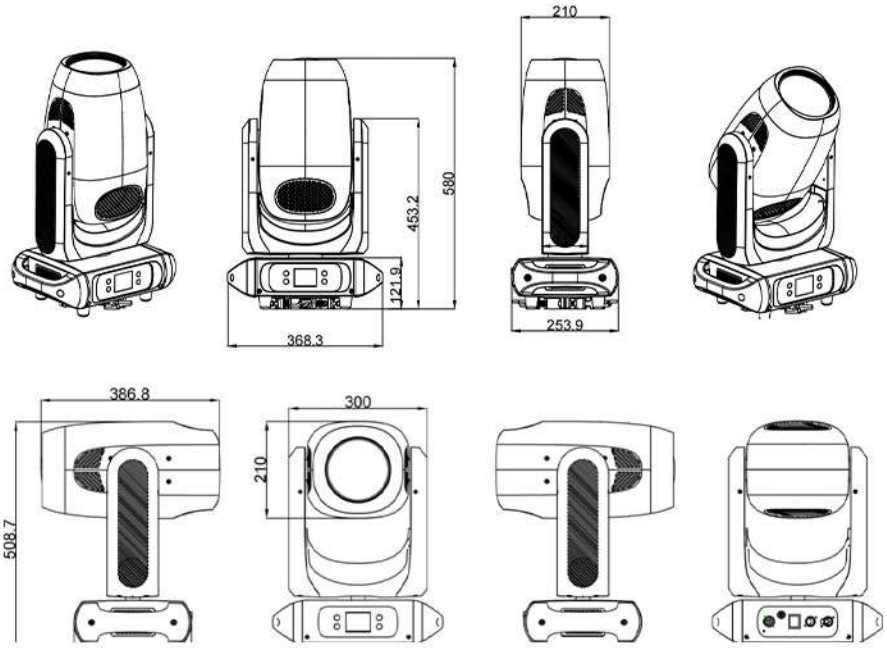
The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the units weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture. The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people.

PACKING ACCESORIES

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

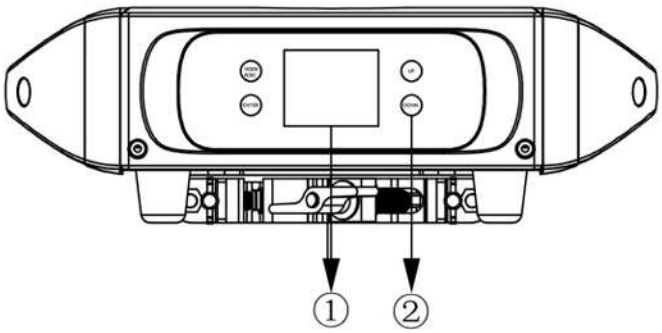
SIZE AND WEIGHT

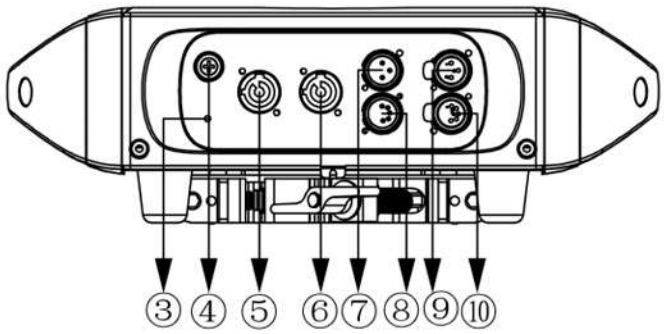
Metric system：368.3*253.9*680mm, 17kgs (version with fixed clamps)
Imperial：14.5"*9.99"*26.77"in, 37lb (version with fixed clamps)



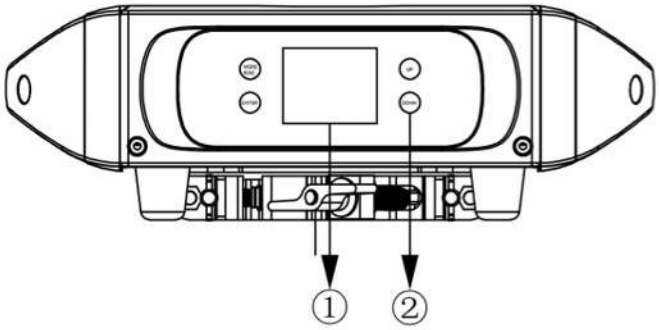
CONTROL PANEL

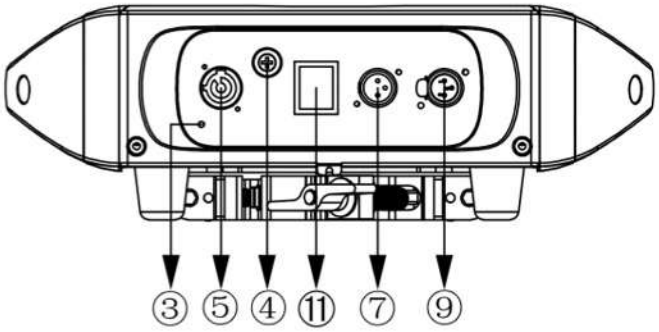
POWERCON A (Standard) :





POWERCON B:





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

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

④FUSE:Protect lamps from damage caused by excessive current or short circuit。

⑤POWER IN:Connecting to the power supply for lamps and lanterns。

⑥POWER OUT:Connect the next light fixture。

⑦DMX IN:For DMX512 link, use 3-pin XLR cable to link the unit and controller。

⑧DMX IN:For DMX512 link, use 3-pin XLR cable to link the unit and controller。

⑨DMX OUT:For DMX512 link, use 3-pin XLR cable to link the unit and controller。

⑩DMX OUT:For DMX512 link, use 3-pin XLR cable to link the unit and controller。

⑪SWITCH:Used for lighting switching power supply function。

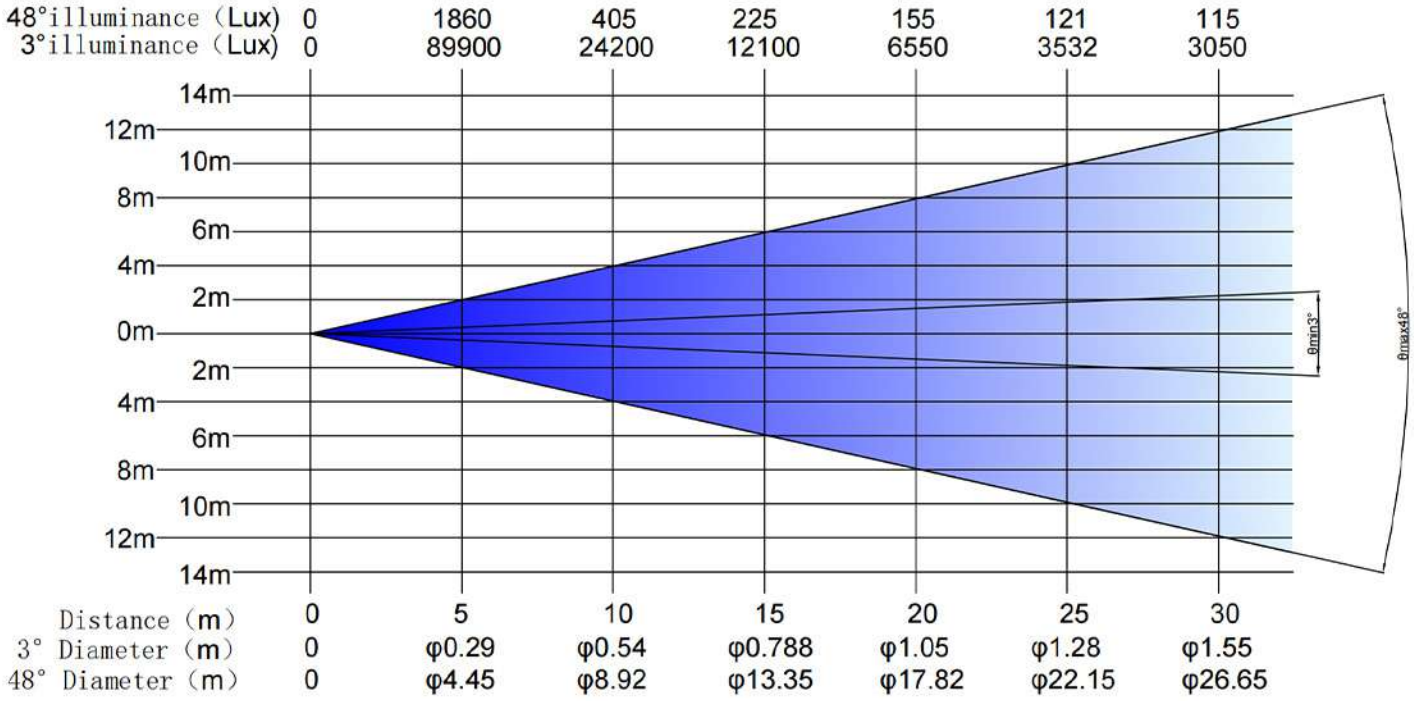
NOTICE:screensaver unlock password (UP DOWN UP DOWN) ENTER。

2. TECHNICAL SPECIFICATION

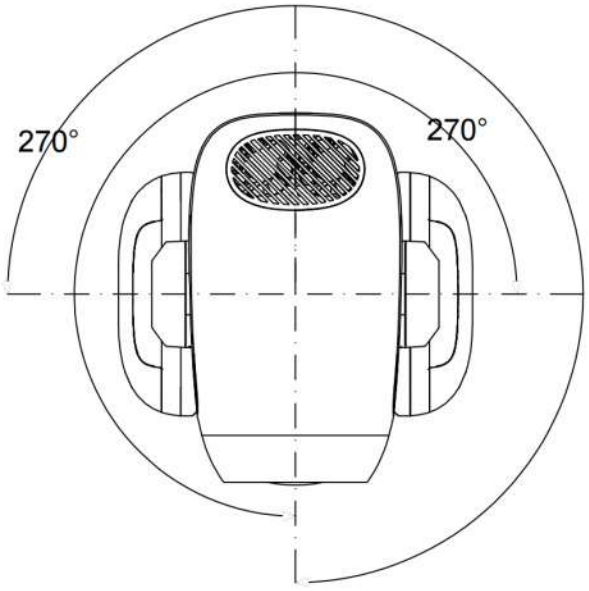
Optical parameters	**SPECIFICATIONS**
Light source	380W LED
Color temperature	7500K
Output	21000Lm
CRI	72
LED life	20000H
Beam angle	3°- 48°
Effect	
PAN	540°
TILT	270°
Color	color wheel （8+open）
	CMY， linear
	3200K~7500K， linear
Gobos	Gobos （rotating） 7 interchangeable+open
	Gobos （fixed） 9 fixed+open

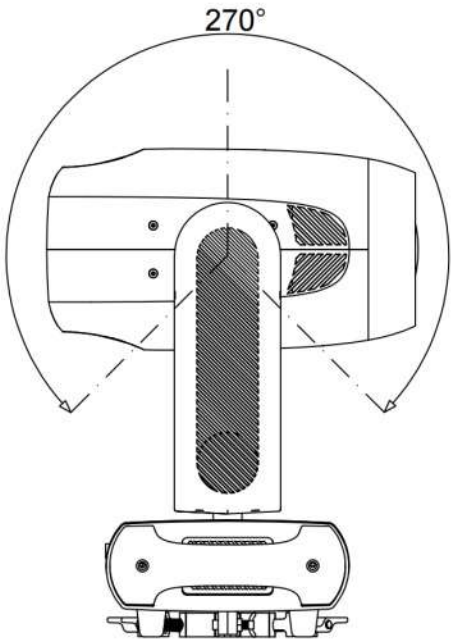
Zoom	Motorized
Frost	3° Frost
Strobe	0 - 30Hz
Dimming	4 dimming curves, 0~100% linear dimming
LED Refresh Rate	800Hz, 1200Hz, 3600Hz, 5000Hz, 10KHz, 15KHz, 20KHz, 25KHz
Dimming mode	Standard Mode, Stage Mode, TV Mode, Building Mode, Theater Mode
Prism	Rotating 5-facet prism+ rotating T-facet prism with variable speed
Electronic parameters	
Mains	100 - 240V, 50/60Hz
Consumption	220V@450W, 110V@480W
Fuse	T5A, 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	368.3*253.9*680mm
Weight	17KG
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
	ArtNet control (Optional)
DMX channels	25CH/36CH
Accessories	
Standard	Standard power signal line, safety rope, hanging parts
Optional	Flight Case

Light output and beam angle range

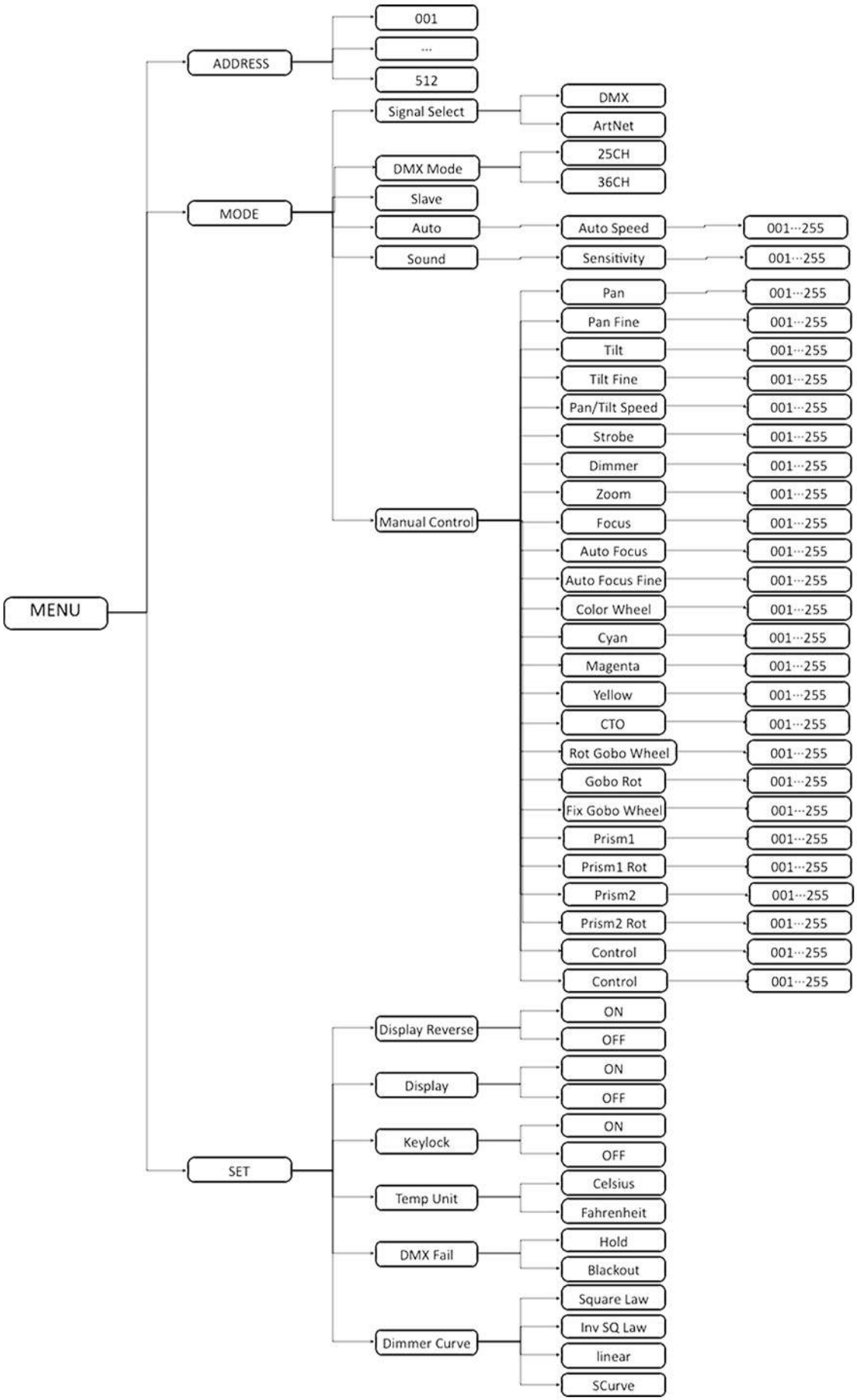


Pan/tilt scan

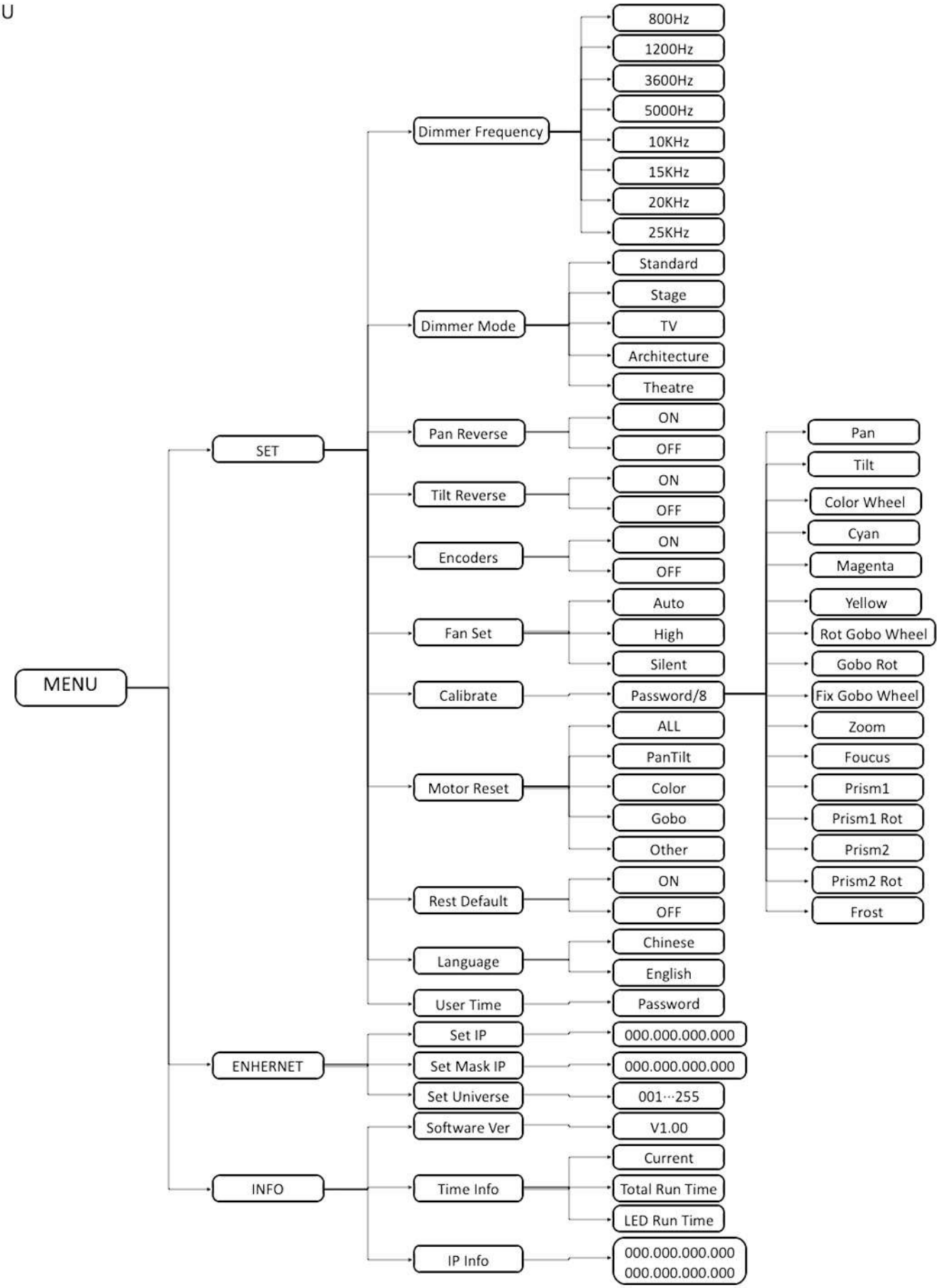




MENU


MENU
ADDRESS
001
...
512
MODE
Signal Select
DMX
ArtNet
DMX Mode
25CH
36CH
Slave
Auto
Auto Speed
001···255
Sound
Sensitivity
001···255
Manual Control
Pan
Pan Fine
Tilt
Tilt Fine
Pan/Tilt Speed
Strobe
Dimmer
Zoom
Focus
Auto Focus
Auto Focus Fine
Color Wheel
Cyan
Magenta
Yellow
CTO
Rot Gobo Wheel
Gobo Rot
Fix Gobo Wheel
Prism1
Prism1 Rot
Prism2
Prism2 Rot
Control
Control
SET
Display Reverse
ON
OFF
Display
Keylock
Temp Unit
Celsius
Fahrenheit
DMX Fail
Hold
Blackout
Dimmer Curve
Square Law
Inv SQ Law
linear
SCurve

MENU


MENU
SET
ENHERNET
INFO
Dimmer Frequency
800Hz
1200Hz
3600Hz
5000Hz
10KHz
15KHz
20KHz
25KHz
Dimmer Mode
Standard
Stage
TV
Architecture
Theatre
Pan Reverse
ON
OFF
Tilt Reverse
ON
OFF
Encoders
ON
OFF
Fan Set
Auto
High
Silent
Calibrate
Password/8
Pan
Tilt
Color Wheel
Cyan
Magenta
Yellow
Rot Gobo Wheel
Gobo Rot
Fix Gobo Wheel
Zoom
Foucus
Prism1
Prism1 Rot
Prism2
Prism2 Rot
Frost
Motor Reset
ALL
PanTilt
Color
Gobo
Other
Rest Default
ON
OFF
Language
Chinese
English
User Time
Password
Set IP
000.000.000.000
Set Mask IP
000.000.000.000
Set Universe
001…255
Software Ver
V1.00
Time Info
Current
Total Run Time
LED Run Time
IP Info
000.000.000.000
000.000.000.000

Menu control channel

CONTROL CHANNEL		
CH	25CH	36CH
1	Pan	Pan
2	Pan Fine	Pan Fine
3	Tilt	Tilt
4	Tilt Fine	Tilt Fine
5	Speed Pan/Tilt	Speed Pan/Tilt
6	Shutter	Shutter
7	Dimmer	Dimmer
8	Zoom	Dimmer Fine
9	Focus	Zoom
10	Auto Focus	Zoom Fine
11	Auto Focus Fine	Focus
12	Color Wheel	Focus Fine
13	Cyan Color	Auto Focus
14	Magenta Color	Auto Focus Fine
15	Yellow Color	Color Wheel
16	CTO Color	Color Wheel Fine
17	Rotating gobo	Cyan Color
18	Rotating gobo index	Cyan Color Fine
19	Fixed Gobo	Magenta Color
20	Prism 1	Magenta Color Fine
21	Rotating prism 1	Yellow Color
22	Prism 2	Yellow Color Fine
23	Rotating prism 2	CTO Color
24	Frost	CTO Color Fine
25	Reset	Rotating gobos
26		Rotating gobo index
27		Rotating gobo indexing Fine
28		Fixed Gobo
29		Prism 1
30		Rotating prism 1
31		Rotating prism 1 indexing Fine
32		Prism 2
33		Rotating prism 2 index
34		Rotating prism 2 indexing Fine
35		Frost
36		Reset、LCD、Fans

4. DMX CHANNEL TABLE

Mode		Value	Function
25CH	36CH		
1	1		Pan Movement 8bit:
		0-255	Pan Movement
2	2		Pan Fine 16bit
		0-255	Fine control of Pan movement
3	3		Tilt Movement 8bit:
		0-255	Tilt Movement
4	4		Tilt Fine 16bit
		0-255	Fine control of Tilt movement
5	5		Speed Pan/Tilt movement:
		0-255	max to min speed
6	6		Shutter,strobe
		0-10	Shutter closed
		11-21	Shutter open
		22-126	Strobe effect slow to fast
		127-137	Shutter open
		138-201	Pulse-effect in sequences
		202-212	Shutter open
		213-244	Random strobe effect slow to fast
		245-255	Shutter open
7	7		Dimmer intensity:
		0-255	Intensity 0 to 100%
	8		Dimmer intensity Fine:

	8	0-255	Dimmer intensity fine
8	9		Zoom:
		0-255	Zoom adjustment from small to big
	10		Zoom Fine:
		0-255	Zoom adjustment Fine
9	11		Focus:
		0-255	Continuous adjustment from near to far
	12		Focus Fine:
		0-255	Continuous adjustment Fine
10	13		Auto Focus:
		0-51	Auto Focus Off
		52-102	5m
		103-153	7.5m
		154-204	10m
		205-255	15m
11	14		Auto Focus Fine:
		0-255	Continuous adjustment Fine
			Color Wheel:
		0-19	Open
		20-25	Open/Color1
		26-31	Color1
		32-37	Color1/Color2
		38-43	Color2
		44-49	Color2/Color3
		50-55	Color3
		56-61	Color3/Color4
		62-67	Color4
		68-73	Color4/Color5

12	15	74-79	Color5
		80-85	Color5/Color6
		86-91	Color6
		92-97	Color6/Color7
		98-103	Color7
		104-109	Color7/Color8
		110-115	Color8
		116-121	Color8/Open
		122-127	Open
		128-189	Forwards rainbow effect from fast to slow
		190-193	No rotation
		194-255	Backwards rainbow effect from slow to fast
	16		Color Wheel Fine:
		0-255	Color Wheel colour change to any position Fine
13	17		Cyan Color:
		0-255	Cyan (0-white,255-100% Cyan)
	18		Cyan Color Fine:
		0-255	Cyan Fine
14	19		Magenta Color:
		0-255	Magenta (0-white,255-100% Magenta)
	20		Magenta Color Fine:
		0-255	Magenta Fine
15	21		Yellow Color:
		0-255	Yellow (0-white,255-100% Yellow)
	22		Yellow Color Fine:
		0-255	Yellow Fine
16	23		CTO Color:
		0-255	CTO (0-white,255-100% CTO)

	24		CTO Color Fine:
		0-255	CTO Fine
17	25		Rotating gobos,cont.rotation 1:
		0-7	Open
		8-20	Rot.gobo1
		21-33	Rot.gobo2
		34-46	Rot.gobo3
		47-59	Rot.gobo4
		60-72	Rot.gobo5
		73-85	Rot.gobo6
		86-98	Rot.gobo7
		99-111	Gobo 1 shake slow to fast
		112-124	Gobo 2 shake slow to fast
		125-137	Gobo 3 shake slow to fast
		138-150	Gobo 4 shake slow to fast
		151-163	Gobo 5 shake slow to fast
		164-176	Gobo 6 shake slow to fast
		177-189	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 backwards from slow to fast
18	26		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
	27		Rotating gobo indexing Fine 1:
		0-255	Fine indexing

19	28		Fixed Gobo2:
		0-9	Open
		10-17	Gobo 1
		18-25	Gobo 2
		26-33	Gobo 3
		34-41	Gobo 4
		42-49	Gobo 5
		50-57	Gobo 6
		58-65	Gobo 7
		66-73	Gobo 8
		74-81	Gobo 9
		82-89	Gobo 10
		90-99	Gobo 1 shake slow to fast
		100-109	Gobo 2 shake slow to fast
		110-119	Gobo 3 shake slow to fast
		120-129	Gobo 4 shake slow to fast
		130-139	Gobo 5 shake slow to fast
		140-149	Gobo 6 shake slow to fast
		150-159	Gobo 7 shake slow to fast
		160-169	Gobo 8 shake slow to fast
		170-179	Gobo 9 shake slow to fast
		180-189	Gobo 10 shake slow to fast
		190-221	Gobo wheel rotation forwards from fast to slow
		222-223	No rotation
		224-255	Gobo wheel rotation backwards from slow to fast
20	29		Prism 1:
		0-127	Open
		128-255	Prism

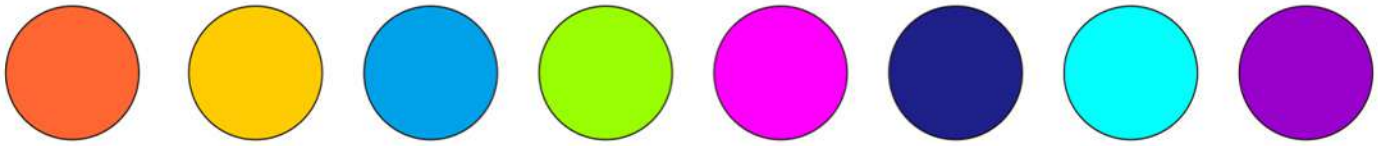
21	30		Rotating prism 1 index,rotating prism rotation
		0-127	Prism indexing
		128-189	Forwards prism rotation from fast to slow
		190-193	No rotation
		194-255	Backwards prism rotation from slow to fast
	31		Rotating prism 1 indexing Fine:
		0-255	Fine indexing
22	32		Prism 2:
		0-127	Open
		128-255	Prism
23	33		Rotating prism 2 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
	34		Rotating prism 2 indexing Fine:
		0-255	Fine indexing
24	35		Frost:
		0-127	Open
		128-255	Frost
			Reset、LCD、Fans
		0-9	unused
		10-19	Display Off
		20-29	Display On
		30-36	Display Invert Off
		37-43	Display Invert On
		44-49	Display Invert Auto
		50-59	Auto fan control mode

25	36	60-69	High fan control mode
		70-79	Silent fan control mode
		80-82	Square Law
		83-85	Inv SQ Law
		86-88	Linear
		89-91	S Curve
		92-94	800Hz Refresh rate
		95-97	1200Hz Refresh rate
		98-100	3600Hz Refresh rate
		101-103	5000Hz Refresh rate
		104-106	10KHz Refresh rate
		107-109	15KHz Refresh rate
		110-112	20KHz Refresh rate
		113-115	25KHz Refresh rate
		116-118	Standard
		119-121	Stage
		122-124	TV
		125-127	Architecture
		128-130	Theatre
		131-149	unused
		150-159	All motor reset
		160-169	Scan motor reset
		170-179	Colors motor reset
		180-189	Gobo motor reset
		190-199	Other motor reset
		200-255	unused

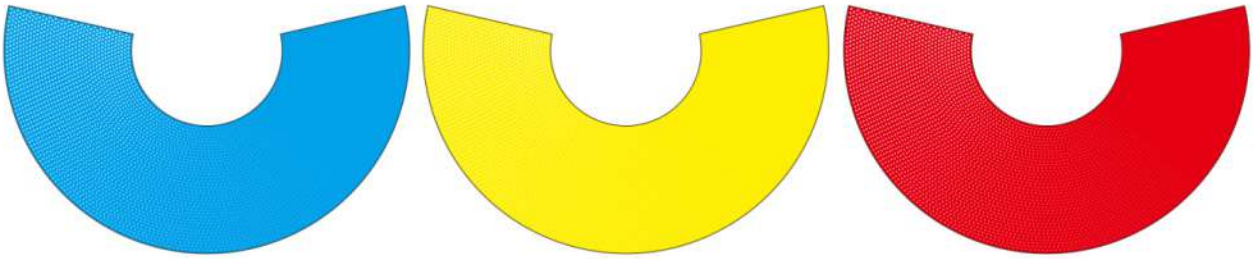
FUNCTION DESCRIPTION

Color Wheels

A:The color chip wheel consists of 8 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

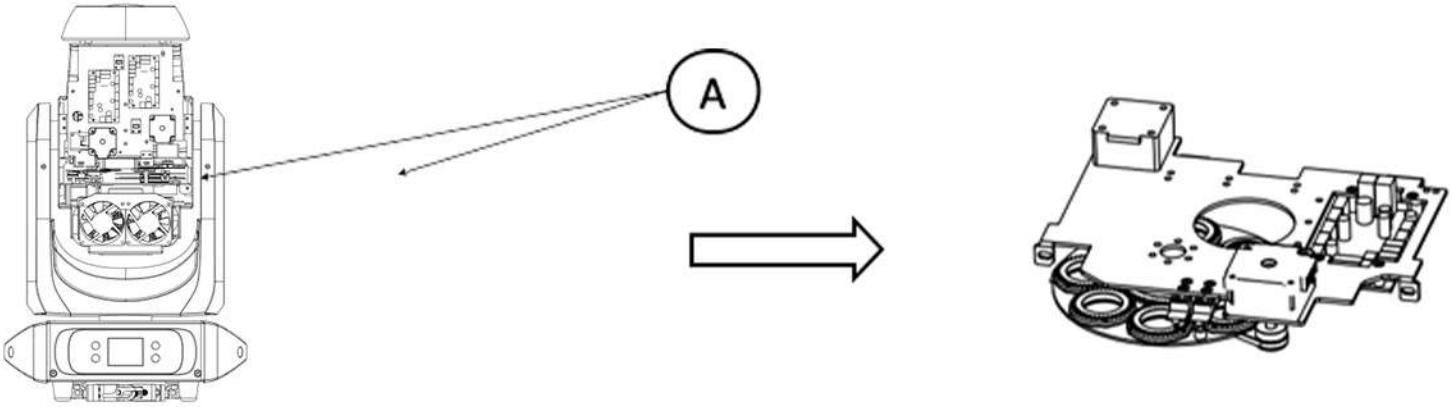


Gobo Wheel

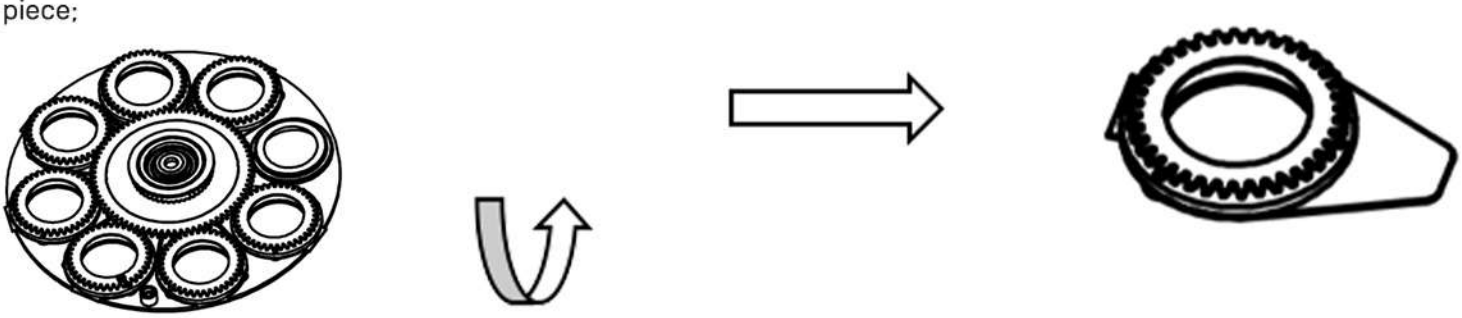
1 rotating gobo with 7 gobos.

Gobo Replacement

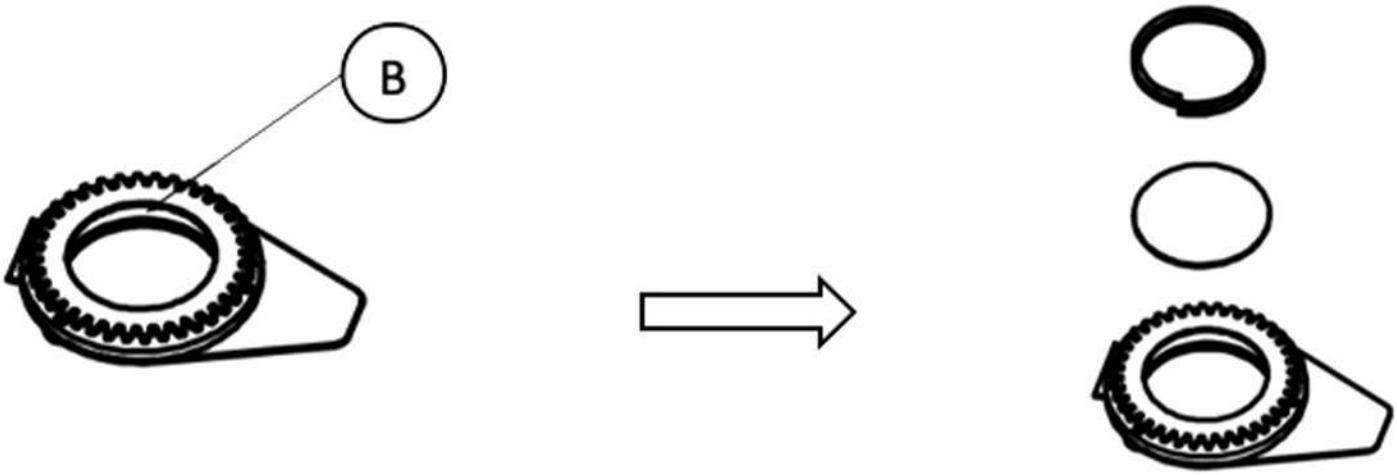
①Pull out the communication cable and signal transfer cable, unscrew the four screws at A with a screwdriver, and take out the component;



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;

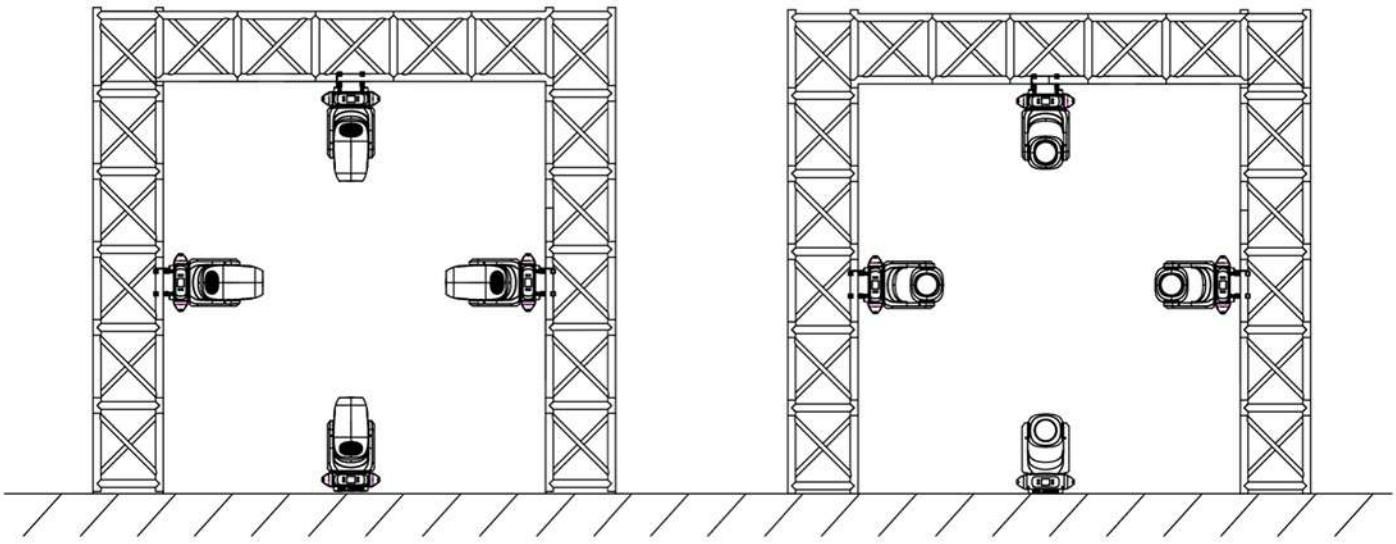


③Use tweezers or other small graspable objects to take out the circlip at B. Please use professional tools to remove the circlip to avoid damage to the gobo.

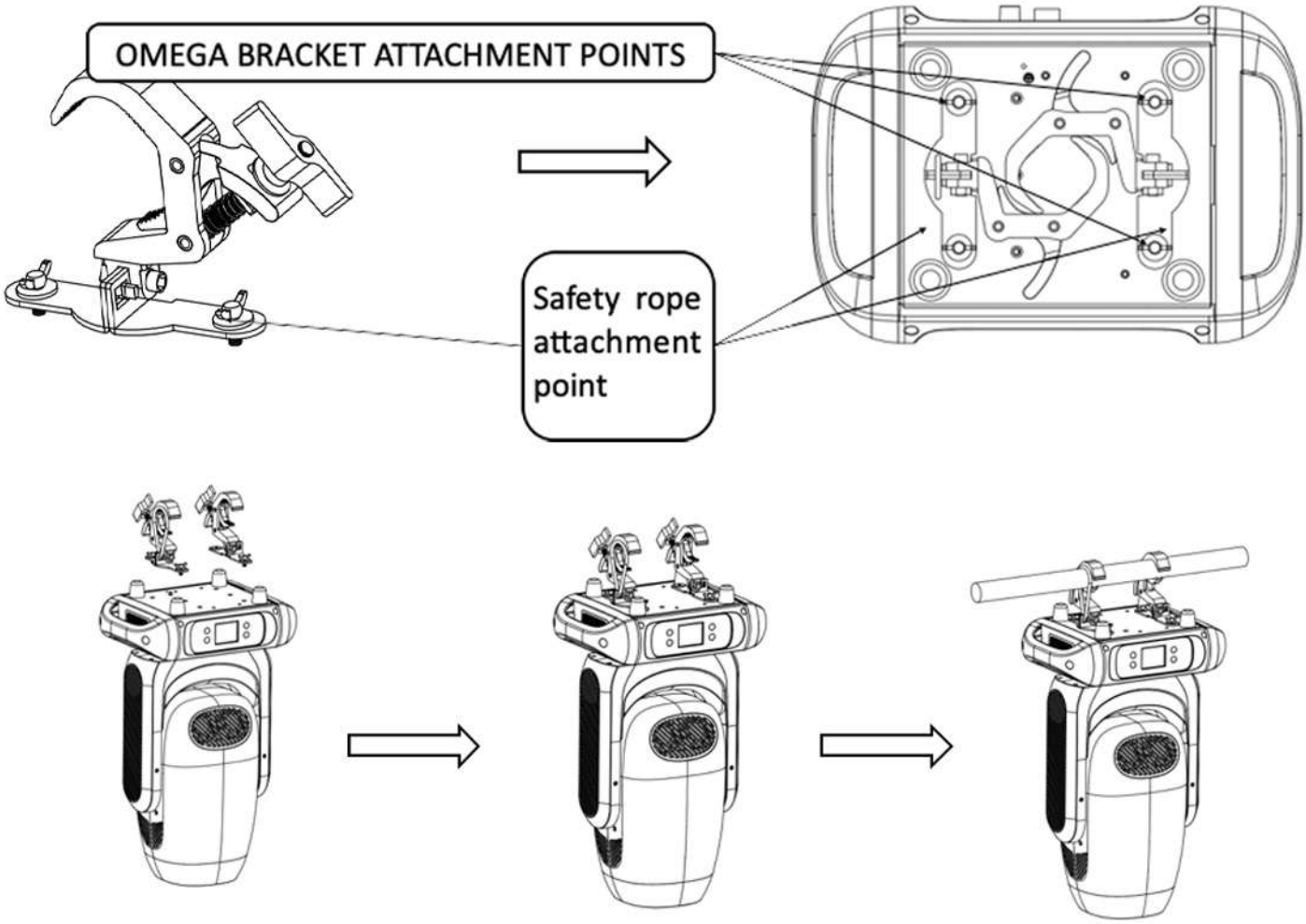


INSTALLATION AND CONNECTION

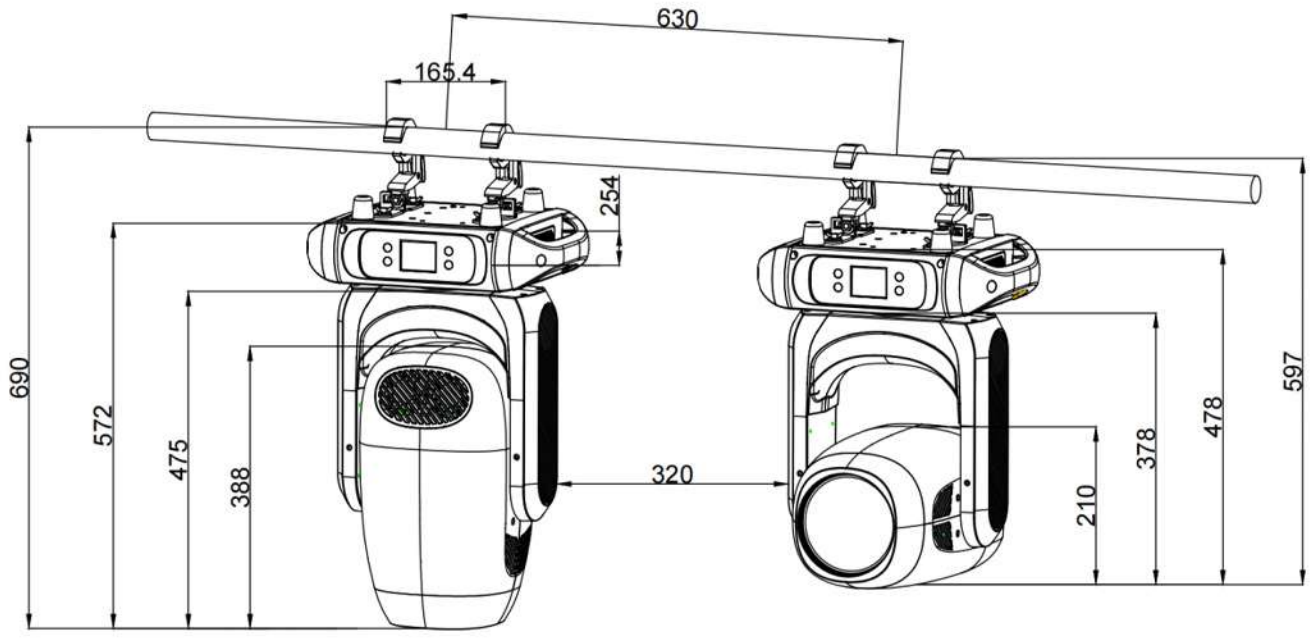
Installation diagram



Fixed clamps Install



Luminaire size after installation



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.

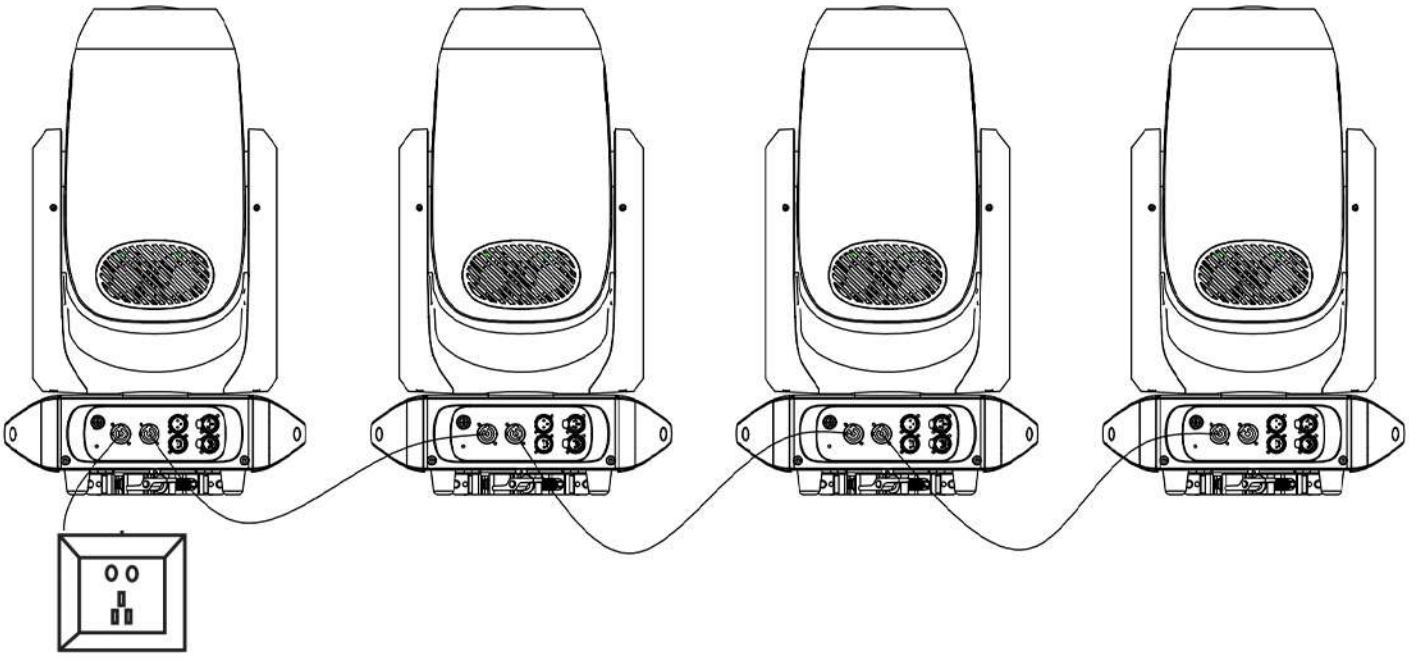
Each lamp should be safely grounded, and electrical installation should be carried out in accordance with relevant standards.

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.

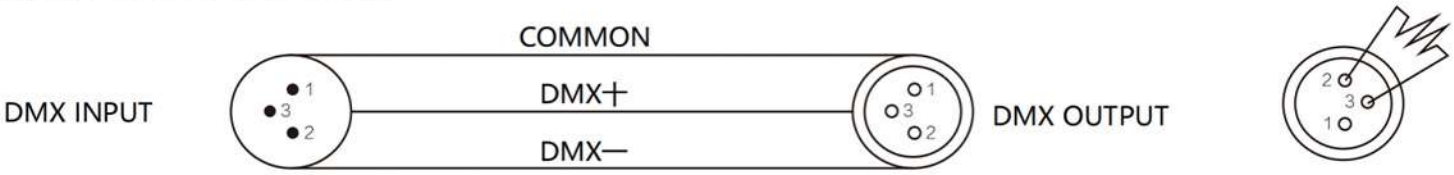
Power I Connection



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).

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.

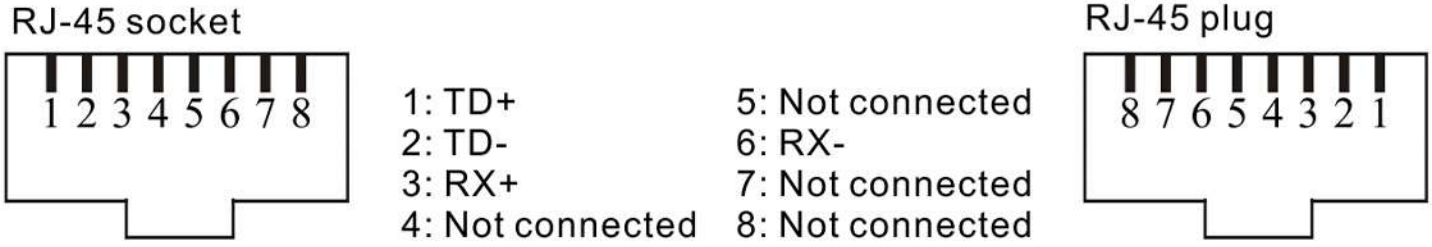
Each lamp must have an address code, which can receive the information sent by the console.

The end of the DMX 512 system should be terminated to reduce signal errors.

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.

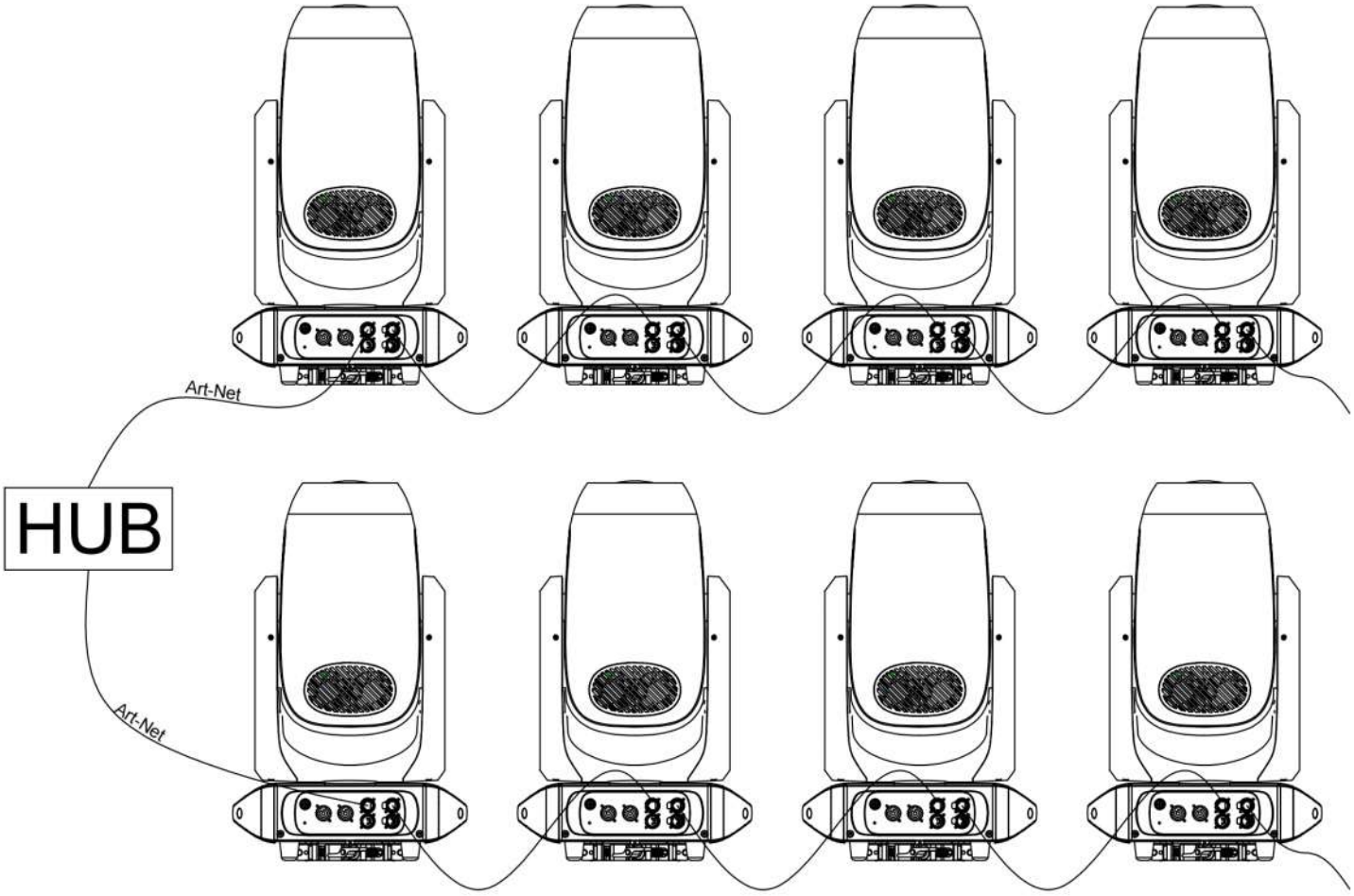
The fixture is provided with 8-pin RJ-45 connector for internet input. Please use class 5 cables and standard RJ-45 connector for internet connection, Shown as Fig.



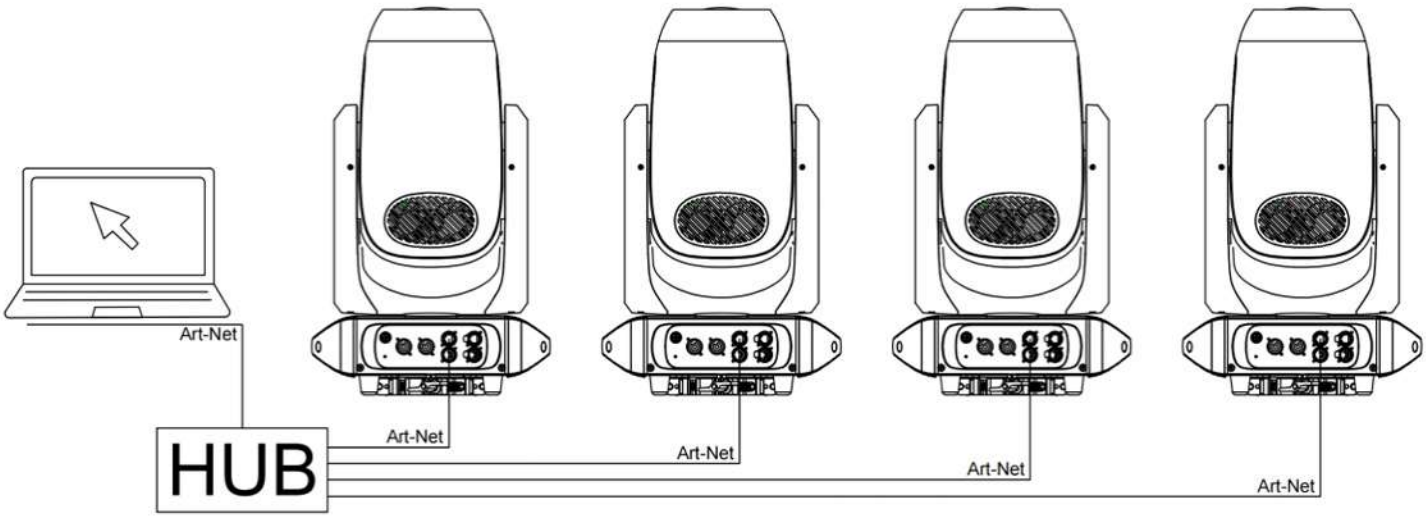
Type A IP address is configured as default addresses.

Ethernet connection layout, shown as Fig.

Connection method ONE



Connection method TWO



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
25 channels	1	26	51	76
36 channels	1	37	73	99

ERROR INFORMATION

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

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.

5. TROUBLE SHOOTING

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

a. The unit does not work, no light and the fan does not work

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

b. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

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	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

	control of the console 5. Other parameters are set incorrectly 6. After entering the menu without pressing the confirm button	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 flickers slightly	The light source is damaged or the driver board has no current output	1. Replace the light source 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

6. FIXTURE 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.

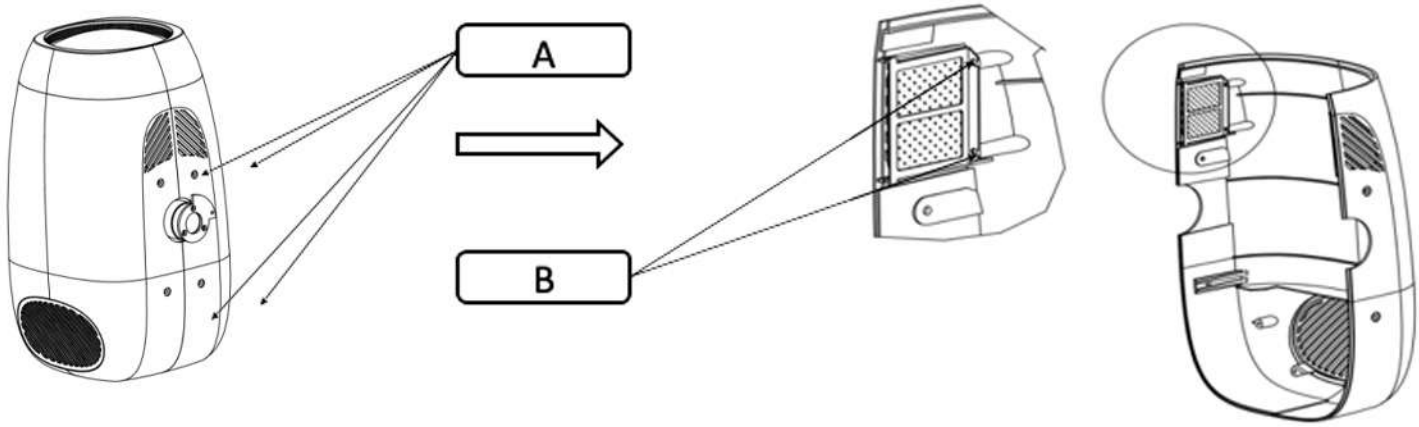
Cleaning fan and air vents

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

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;

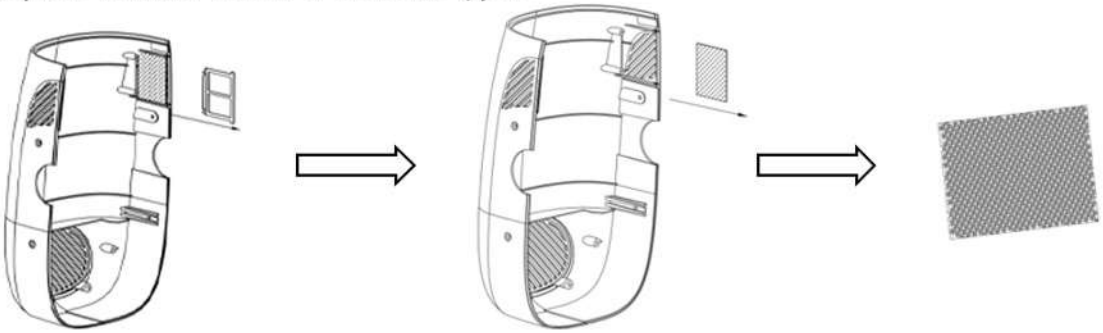
②Use a screwdriver to unscrew the two screws at B on the left and right sides of the head cover, and take out the sponge;



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;



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;

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