

User Manual Please read the instruction carefully before use

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1. Safety Instructions



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

WARNING

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

Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is for indoor use only. Use only in a dry location.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 0°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 65[°]C. DO NOT touch the housing bare-handed during its operation.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.

- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 5 meters.
- Disconnect mains power before fuse replacement or servicing.
- Replace fuse only with the same type.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

Installation:

The fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing.

DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2. Technical Specifications

Power Voltage:

100-240V~ 50/60Hz

Power Consumption:

685W

Light Source:

SUL450N-80-R00

Color Temperature:

7000K

Beam Angel:

3°

Movement:

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16-bit

Fixation: Tilt lock

Dimmer/Shutter:

Smooth dimming from 0-100%; outstanding strobe effect with variable speed

Color Wheel:

1 x color wheel with 8 fixed colors plus 1 diffuser filter and open, with rainbow effect

Gobo Wheel:

1 x static gobo wheel with 10 gobos plus open

1 x rotating gobo wheel with 7 gobos plus open

Control:

DMX Channel: 20/19 Channels

Control Mode: DMX512, RDM

Firmware Upgrade via DMX link

Construction:

Display: LCD display

Date In/Out: 3-pin XLR (5-pin XLR is optional)

Power In/Out: Power Cord in; Power Connector In/Out

Protection Rating: IP20

Features:

Color Rendering Ra>70

2 x prisms: 8-facet prism+16-facet prism, rotatable in both directions and overlayable

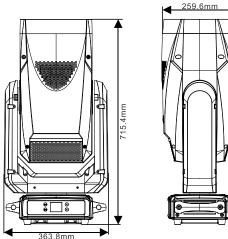
Outstanding color macro effect

Independent frost effect

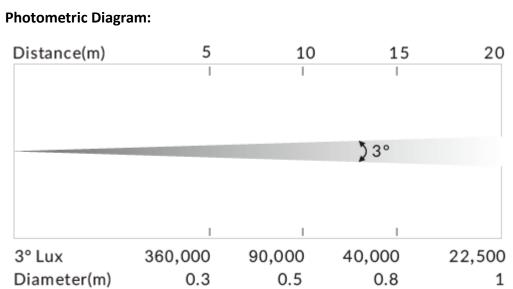
Dimension/Weight:

363.8x259.6x715.4mm, 28.9kgs

14.3"x10.2"x28.2"in, 63.7lbs

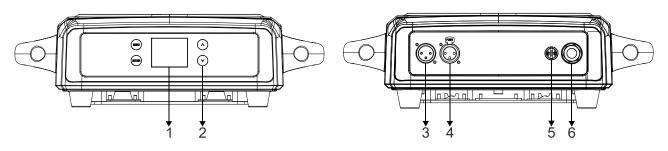




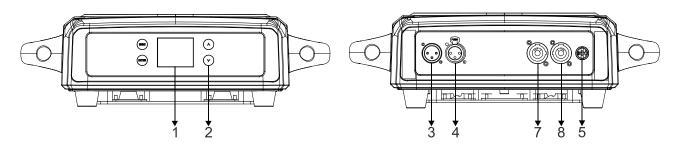


3. Control Panel

Power Cord Version:



Powercon Version:



1. Display: To show the various menus and the selected function

2. Button:

MENU	To enter into move backward or leave the menu
A UP	To go backward to move up in the menu
V DOWN	To go forward to move down in the menu
ENTER	To perform the desired functions

3. DMX IN:

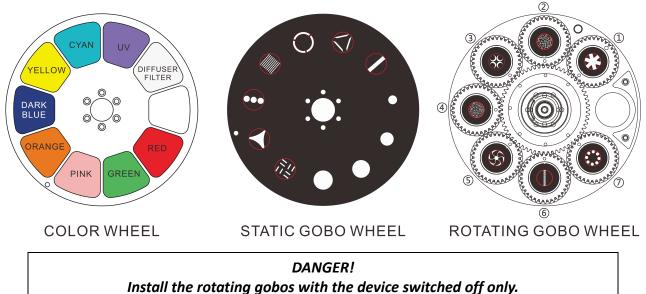
For DMX512 link, use 3-pin XLR cable to link the unit and DMX controller (5-pin XLR is optional)

4. DMX OUT:

For DMX512 link, use 3-pin XLR cable to link the next units (5-pin XLR is optional)

- 5. FUSE(T 10A): Protects the unit from damage of over-voltage or short circuit
- 6. POWER(Power Cord Version): To connect to supply power
- 7. POWERCON IN(Powercon Version): To connect to supply power
- 8. POWERCON OUT (Powercon Version): To connect to the next fixture

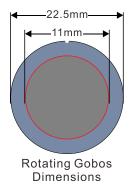
4. Effect Wheels



Unplug from mains before changing the rotating gobos!

CAUTION: Never unscrew the screws of the rotating gobo as the ball bearing will otherwise be opened!

R-Gobos	Part Number
① Gobo1	3011001118
② Gobo2	3011001117
③ Gobo3	3011001114
④ Gobo4	3011001116
5 Gobo5	3011001115
6 Gobo6	3011001113
⑦ Gobo7	3011001112

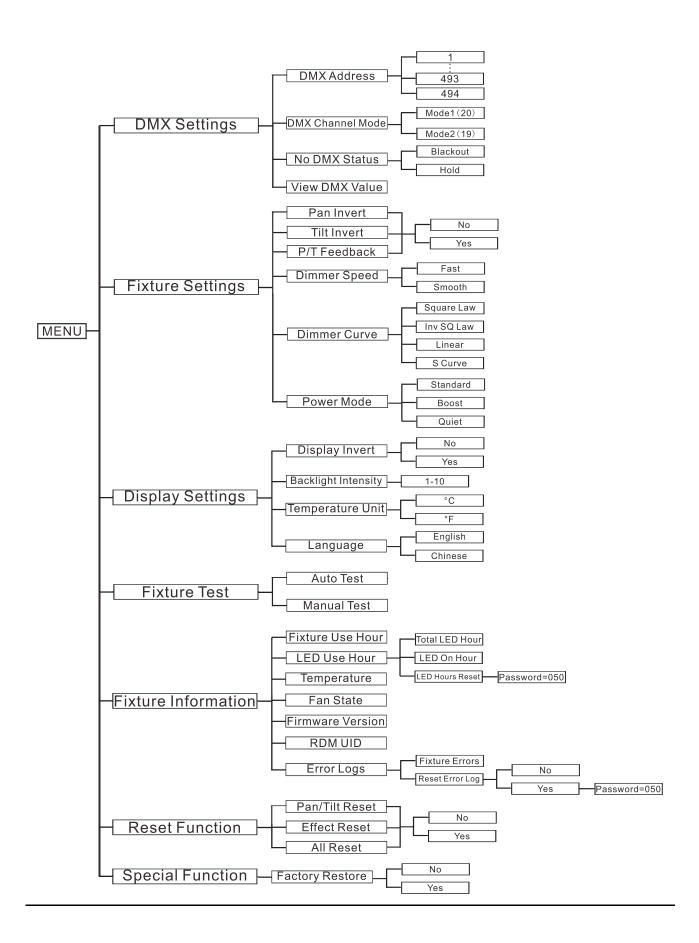


5. How To Set The Unit

5.1 Main Function

Turn on the unit, press the MENU button into menu mode, and press the UP/DOWN button until the required function is shown on the monitor. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press the MENU button or let the unit idle 30 seconds to exit menu mode.

The main functions are shown below:



DMX Settings

To select DMX Settings, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, DMX Channel Mode, No DMX Status or View DMX Value.

DMX Address

To select **DMX Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **493/494**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

DMX Channel Mode

To select **DMX Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1(20)** or **Mode2(19)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

No DMX Status

To select **No DMX Status**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Blackout**(fixture blacks out if DMX signal stops) or **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

View DMX Value

To select **View DMX Value**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to view the DMX channel value. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Settings

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan Invert, Tilt Invert, P/T Feedback, Dimmer Speed, Dimmer Curve** or **Power Mode**.

Pan Invert

To select **Pan Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (pan invert), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Tilt Invert

To select **Tilt Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or Yes (tilt invert), press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

P/T Feedback

To select P/T Feedback, press the ENTER button to confirm. Use the UP/DOWN button to select No (Pan or tilt's position will not feedback while out of step) or Yes (Feedback while pan/tilt out of step), press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

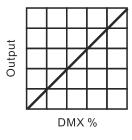
Dimmer Speed

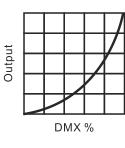
To select **Dimmer Speed**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select Fast or Smooth, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

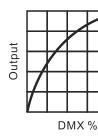
Dimmer Curve

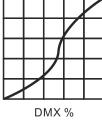
To select Dimmer Curve, press the ENTER button to confirm. Use the DOWN/UP button to select Square Law, Inv SQ Law, Linear or S Curve, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Dimmer Modes









Output

Optically Linear

Square Law

Inverse Square Law

S-curve

Optically Linear: The increase in light intensity appears to be linear as DMX value is increased.

Square Law: Light intensity control is finer at low levels and coarser at high levels.

Inverse Square Law: Light intensity control is coarser at low levels and finger at high levels.

S-Curve: Light intensity control is finger at low levels and high levels and coarser at medium levels.

Power Mode

To select Power Mode, press the ENTER button to confirm. Use the UP/DOWN button to select Standard, Boost or Quiet, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Display Settings

To select **Display Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Display Invert, Backlight Intensity, Temperature Unit** or **Language.**

Display Invert

Select **Display Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal display) or **Yes** (invert display), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Backlight Intensity

Select **Backlight Intensity**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust backlight intensity from **1** (dark) to **10** (bright), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Temperature Unit

Select **Temperature Unit**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select $^{\circ}$ C or $^{\circ}$ F, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Language

Select Language, press the ENTER button to confirm. Use the UP/DOWN button to select English or Chinese, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Test

To select **Fixture Test**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Auto Test** or **Manual Test**

Auto Test

Select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test pan, tilt, color, gobo, gobo rotation, prism, prism rotation, frost, focus, etc. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, the present channel will show on the display, use the **UP/DOWN** button to select channel, press the **ENTER** button to confirm, then use the **UP/DOWN** button to adjust the value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to the last menu or exit menu mode idling 30 seconds.

(All channels value will become 0 after exiting Manual Test menu)

Fixture Information

To select Fixture Information, press the ENTER button to confirm, use the UP/DOWN button to select Fixture Use Hour, LED Use Hour, Temperature, Fan State, Firmware Version, RDM UID or Error Logs.

Fixture Use Hour

Select **Fixture Use Hour**, press the **ENTER** button to confirm, fixture use hour will show on the display, press the **MENU** button to exit.

LED Use Hour

To select LED Use Hour, press the ENTER button to confirm, use the UP/DOWN button to select Total LED Hour, LED On Hour or LED Hours Reset, press the ENTER button to store. Use the UP/DOWN button to select LED Hours Reset, press the ENTER button to confirm, use the UP/DOWN button to set the password 050 to reset the LED hours, press the ENTER button to store. Press the MENU button back to the last menu or exit menu mode let the unit idle 30 seconds.

Temperature

Select **Temperature**, press the **ENTER** button to confirm, fixture temperature will show on the display, press the **MENU** button to exit.

Fan State

Select **Fan State**, press the **ENTER** button to confirm, fan state will show on the display, press the **MENU** button to exit.

Firmware Version

Select **Firmware Version**, press the **ENTER** button to confirm, firmware version will show on the display, press the **MENU** button back to exit.

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RDM UID

Select **RDM UID**, press the **ENTER** button to confirm, RDM UID will show on the display, press the **MENU** button back to exit.

Error Logs

Select Error Logs, press the ENTER button to confirm. Use the UP/DOWN button to select Fixture Errors or Reset Error Log, press the ENTER button to store. Select Reset Error Log, press the ENTER button to confirm. Use the UP/DOWN button to select No or Yes, press the ENTER button to store. Select Yes, press the ENTER button to confirm. Use the UP/DOWN button to set the password 050, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Reset Function

To select **Reset Function**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan/Tilt Reset**, **Effect Reset** or **All Reset**.

Pan/Tilt Reset

Select **Pan/Tilt Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the unit will run built-in program to reset pan and tilt to their home positions), press **ENTER** button to store. Press the **MENU** button to exit.

Effect Reset

Select **Effect Reset,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the unit will run built-in program to reset effect to their home positions), press **ENTER** button to store. Press the **MENU** button to exit.

All Reset

Select **All Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No**(normal) or **Yes** (the unit will run built-in program to reset all motors to their home positions), press **ENTER** button to store. Press the **MENU** button to exit.

Special Function

Factory Restore

Select Factory Restore, press the ENTER button to confirm, use the UP/DOWN button to select No(normal) or Yes (the fixture will reset to factory settings), press ENTER button to store. Press the MENU button to exit.

RDM FUNCTIONS

Select the MANUFACTURER menu to display the manufacturer of the fixture.

Select the SOFTWARE VERSION menu and the program version number of the fixture will be displayed.

Select the DMX START ADDRESS menu to change the DMX 512 address (001-512).

Select the DEVICE MODEL DESCRIPTION menu to display the model of the fixture.

Select the DEVICE LABEL menu to change the model of the fixture.

Select the DMX PERSONALITY menu to set the channel mode of the fixture (20/19 channel).

Select the DMX PERSONALITY DESCRIPTION menu to display the current channel mode of the fixture.

Select the DEVICE HOURS menu to display the running time of the fixture.

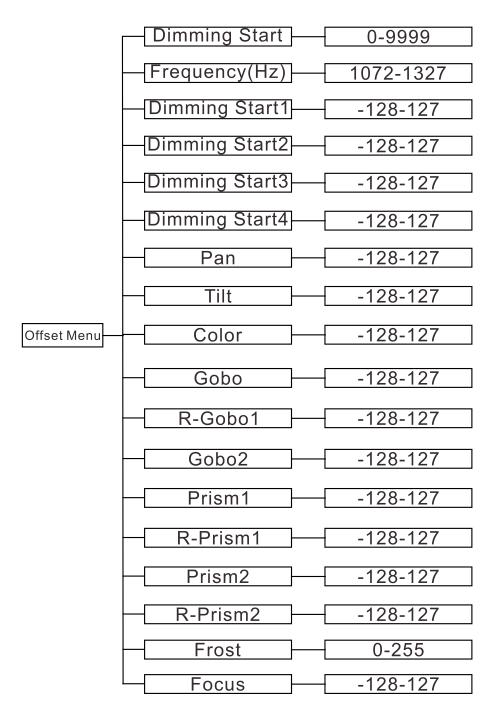
Select the PAN INVERT menu and the fixture will run the pan invert mode.

Select the TILT INVERT menu and the fixture will run the tilt invert mode.

Select the RESET DEVICE menu, the WARM RESET/COLD RESET option will be displayed. When WARM RESET is selected, the fixture will start a warm reset, and exit when COLD RESET is selected.

5.2 Home Position Adjustment

Press the MENU button into menu mode, then press the ENTER button for about 3 seconds into offset mode to adjust the home position. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press MENU button to exit.



Dimming Start

Enter offset mode, Select **Dimming Start**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 9999, press the **ENTER** button to store. Press the **MENU** button to exit.

Frequency(Hz)

Enter offset mode, Select **Frequency(Hz)**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 1072 to 1327, press the **ENTER** button to store. Press the **MENU** button to exit.

Dimming Start1

Enter offset mode, Select **Dimming Start1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dimming Start2

Enter offset mode, Select **Dimming Start2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dimming Start3

Enter offset mode, Select **Dimming Start3**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Dimming Start4

Enter offset mode, Select **Dimming Start4**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Pan

Enter offset mode, Select **Pan**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Tilt

Enter offset mode, Select **Tilt**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Color

Enter offset mode, Select **Color**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo

Enter offset mode, Select **Gobo**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

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R-Gobo1

Enter offset mode, Select **R-Gobo1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Gobo2

Enter offset mode, Select **Gobo2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Prism1

Enter offset mode, Select **Prism1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

R-Prism1

Enter offset mode, Select **R-Prism1**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Prism2

Enter offset mode, Select **Prism2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

R-Prism2

Enter offset mode, Select **R-Prism2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Frost

Enter offset mode, Select **Frost**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

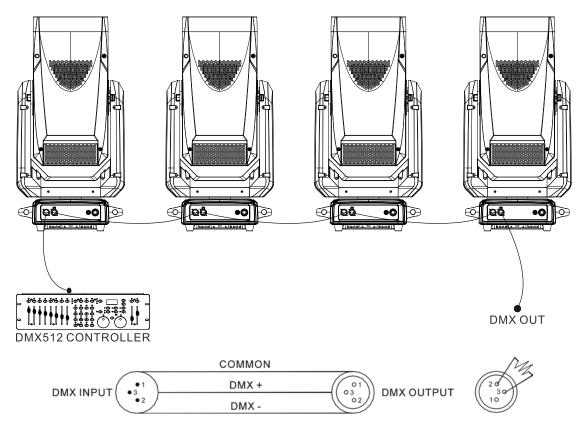
Focus

Enter offset mode, Select **Focus**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

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6. Control By Universal DMX Controller

6.1 DMX512 Connection



1. 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.

2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable 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.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.

4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

- 5. The end of the DMX 512 system should be terminated to reduce signal errors.
- 6. 3 pin XLR connectors are more popular than 5 pins XLR.

3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

6.2 Address Setting

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 MENU 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 MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
20 channels	1	21	41	61
19 channels	1	20	39	58

6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below

Attentions:

1. The unit will maintain the last condition until reset if you cut-off the DMX signal.

2. For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

20 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→270°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-007	COLOR Open

	008-011	Color 1
	012-015	Color 2
	016-019	Color 3
	020-023	Color 4
	024-027	Color 5
	028-031	Color 6
	032-035	Color 7
	036-039	Color 8
	040-127	Color Index
	128-189	Rotation Fast to Slow
	190-193	Stop
	194-255	Rotation Slow to Fast
		GOBO1
	000-007	Open
	008-015	Gobo 1
	016-023	Gobo 2
	024-031	Gobo 3
	032-039	Gobo 4
	040-047	Gobo 5
	048-055	Gobo 6
	056-063	Gobo 7
7	064-071	Gobo 1 Shaking Slow to Fast
7	072-079	Gobo 2 Shaking Slow to Fast
	080-087	Gobo 3 Shaking Slow to Fast
	088-095	Gobo 4 Shaking Slow to Fast
	096-103	Gobo 5 Shaking Slow to Fast
	104-111	Gobo 6 Shaking Slow to Fast
	112-127	_
		Gobo 7 Shaking Slow to Fast
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		R-GOBO1
	000-127	Index 0°→360°
8	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		GOBO2
	000-007	Open
	008-013	Gobo 1
	014-019	Gobo 2
9	020-025	Gobo 3
3	026-031	Gobo 4
	032-037	Gobo 5
	038-043	Gobo 6
	044-049	Gobo 7
	050-055	Gobo 8

	0-0-1	
	056-061	Gobo 9
	062-067	Gobo 10
	068-073	Gobo 1 Shaking Slow to Fast
	074-079	Gobo 2 Shaking Slow to Fast
	080-085	Gobo 3 Shaking Slow to Fast
	086-091	Gobo 4 Shaking Slow to Fast
	092-097	Gobo 5 Shaking Slow to Fast
	098-103	Gobo 6 Shaking Slow to Fast
	104-109	Gobo 7 Shaking Slow to Fast
	110-115	Gobo 8 Shaking Slow to Fast
	116-121	Gobo 9 Shaking Slow to Fast
	122-127	Gobo 10 Shaking Slow to Fast
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
	101 200	PRISM1
10	000-007	No Effect
10		
	008-255	On
		R-PRISM1
	000-127	Index 0°→360°
11	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		PRISM2
12	000-007	PRISM2 No Effect
12	000-007 008-255	
12		No Effect
12		No Effect On
12 13	008-255	No Effect On R-PRISM2
	008-255	No Effect On R-PRISM2 Index 0°→360°
	008-255 000-127 128-189	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow
13	008-255 000-127 128-189 190-193	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast
	008-255 000-127 128-189 190-193	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop
13	008-255 000-127 128-189 190-193 194-255	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100%
13	008-255 000-127 128-189 190-193 194-255 000-255	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE
13	008-255 000-127 128-189 190-193 194-255 000-255 000-007	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close
13	008-255 000-127 128-189 190-193 194-255 000-255 000-255	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close Open
13	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close Open Strobe from Slow to Fast
13 14	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139	No Effect On R-PRISM2 Index $0^{\circ} \rightarrow 360^{\circ}$ Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST $0\% \rightarrow 100\%$ STROBE Close Open Strobe from Slow to Fast Open
13	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139 140-181	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close Open Strobe from Slow to Fast Open Fast Open Slow Close
13 14	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139 140-181 182-189	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close Open Strobe from Slow to Fast Open Fast Open Slow Close Open
13 14	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139 140-181 182-189 190-231	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast Counter-Clockwise Rotation Slow to Fast 0%→100% STROBE Close Open Strobe from Slow to Fast Open Fast Open Slow Close Open Fast Open Slow Close Open Fast Close Slow Open
13 14	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast O%→100% STROBE Close Open Strobe from Slow to Fast Open Fast Open Slow Close Open Fast Open Slow Close Open Fast Close Slow Open Open
13 14	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close Open Strobe from Slow to Fast Open Strobe from Slow to Fast Open Fast Open Slow Close Open Fast Close Slow Open Fast Close Slow Open Open Random Strobe
13 14	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close Open Strobe from Slow to Fast Open Strobe from Slow to Fast Open Fast Open Slow Close Open Fast Close Slow Open Fast Close Slow Open Open Random Strobe Open
13 14	008-255 000-127 128-189 190-193 194-255 000-255 000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247	No Effect On R-PRISM2 Index 0°→360° Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast FROST 0%→100% STROBE Close Open Strobe from Slow to Fast Open Strobe from Slow to Fast Open Fast Open Slow Close Open Fast Close Slow Open Fast Close Slow Open Open Random Strobe

17	000-255	DIMMER FINE
18	000-255	FOCUS 0%→100%
19	000-255	FOCUS FINE
	000-029	FUNCTION Null Dimmer Curve Linear
	030-039 040-049 050-059	Dimmer Curve Square Law Dimmer Curve Inv Square Law
	060-069 070-079 080-089	Dimmer Curve S Power Mode Standard Power Mode Boost
	090-099 100-109	Power Mode Boost Power Mode Quiet Led Frequency Setting Enable
20	110-119 120-129	Led Frequency Setting Disable Soften Enable
	130-139 140-179	Soften Disable Null
	180-189 190-199	Dimmer Speed Fast Dimmer Speed Smooth
	200-209	Reset All
	210-219 220-229	Reset Effect Reset Pan/Tilt
	230-255	Null

19 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→270°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-007 008-011 012-015 016-019 020-023	COLOR Open Color 1 Color 2 Color 3 Color 4

	Ī	
	024-027	Color 5
	028-031	Color 6
	032-035	Color 7
	036-039	Color 8
	040-127	Color Index
	128-189	Rotation Fast to Slow
	190-193	Stop
	194-255	Rotation Slow to Fast
		GOBO1
	000-007	Open
	008-015	Gobo 1
	016-023	Gobo 2
	024-031	Gobo 2 Gobo 3
	032-039	Gobo 3 Gobo 4
	040-047	Gobo 4 Gobo 5
	048-055	Gobo S Gobo 6
		Gobo 8 Gobo 7
-	056-063	
7	064-071	Gobo 1 Shaking Slow to Fast
	072-079	Gobo 2 Shaking Slow to Fast
	080-087	Gobo 3 Shaking Slow to Fast
	088-095	Gobo 4 Shaking Slow to Fast
	096-103	Gobo 5 Shaking Slow to Fast
	104-111	Gobo 6 Shaking Slow to Fast
	112-127	Gobo 7 Shaking Slow to Fast
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		R-GOBO1
	000-127	Index 0°→360°
8	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		GOBO2
	000-007	Open
	008-013	Gobo 1
	014-019	Gobo 1 Gobo 2
	020-025	Gobo 2 Gobo 3
	026-031	Gobo 4
9	032-037	Gobo 5
	038-043	Gobo 6
	044-049	Gobo 7
	050-055	Gobo 8
	056-061	Gobo 9
	062-067	Gobo 10
	068-073	Gobo 1 Shaking Slow to Fast
	074-079	Gobo 2 Shaking Slow to Fast

	000.007	
	080-085	Gobo 3 Shaking Slow to Fast
	086-091	Gobo 4 Shaking Slow to Fast
	092-097	Gobo 5 Shaking Slow to Fast
	098-103	Gobo 6 Shaking Slow to Fast
	104-109	Gobo 7 Shaking Slow to Fast
	110-115	Gobo 8 Shaking Slow to Fast
	116-121	Gobo 9 Shaking Slow to Fast
	122-127	Gobo 10 Shaking Slow to Fast
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		PRISM1
10	000-007	No Effect
	008-255	On
		R-PRISM1
	000-127	Index 0°→360°
11	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		PRISM2
12	000-007	No Effect
	008-255	On
		R-PRISM2
	000-127	Index 0°→360°
13	128-189	Clockwise Rotation Fast to Slow
-	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		FROST
14	000-255	0%→100%
	000 200	STROBE
	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open
	102 100	
15	140-181	Fast Open Slow Close
15	140-181 182-189	Fast Open Slow Close
15	182-189	Open
15	182-189 190-231	Open Fast Close Slow Open
15	182-189 190-231 232-239	Open Fast Close Slow Open Open
15	182-189 190-231 232-239 240-247	Open Fast Close Slow Open Open Random Strobe
15	182-189 190-231 232-239	Open Fast Close Slow Open Open Random Strobe Open
15 16	182-189 190-231 232-239 240-247 248-255	Open Fast Close Slow Open Open Random Strobe Open DIMMER
16	182-189 190-231 232-239 240-247 248-255 000-255	Open Fast Close Slow Open Open Random Strobe Open DIMMER 0%→100%
	182-189 190-231 232-239 240-247 248-255	Open Fast Close Slow Open Open Random Strobe Open DIMMER 0%→100% DIMMER FINE
16	182-189 190-231 232-239 240-247 248-255 000-255	Open Fast Close Slow Open Open Random Strobe Open DIMMER 0%→100%

		FUNCTION
	000-029	Null
	030-039	Dimmer Curve Linear
	040-049	Dimmer Curve Square Law
	050-059	Dimmer Curve Inv Square Law
	060-069	Dimmer Curve S
	070-079	Power Mode Standard
	080-089	Power Mode Boost
	090-099	Power Mode Quiet
10	100-109	Led Frequency Setting Enable
19	110-119	Led Frequency Setting Disable
	120-129	Soften Enable
	130-139	Soften Disable
	140-179	Null
	180-189	Dimmer Speed Fast
	190-199	Dimmer Speed Smooth
	200-209	Reset All
	210-219	Reset Effect
	220-229	Reset Pan/Tilt
	230-255	Null

7. 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. CPU-B/C/D/E/F Error

Check whether the 485 (DATA) leads on the PCB board are installed in place or disconnected.

Check whether the related 485 (DATA) signal circuit on the PCB board is damaged.

2. 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 damage.

3. Pan 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 or disconnected.

4. 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.

5. Tilt Encode Error

Check whether the encoder on the tilt is damaged.

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

6. 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.

7. Gobo1/2 Reset Error

Check whether the position of the gobo wheel1/2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel1/2 operating range.

Check whether the Hall element on the gobo wheel1/2 is damaged.

Check whether the lead connecting the Hall element on the gobo wheel1/2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel1/2 is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel1/2 is damage.

8. R-Gobo1 Reset Error

Check whether the position of the gobo wheel1 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the gobo wheel1 operating range.

Check whether the Hall element on the gobo wheel1 is damaged.

Check whether the lead connecting the Hall element on the gobo wheel1 and the PCB board is in poor contact or disconnected.

Check whether the motor on the gobo wheel1 is damaged.

Check whether the related circuit of the motor drive board on the gobo wheel1 is damage.

9. Prism1/2 Reset Error

Check whether the position of the prism1/2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism1/2 operating range.

Check whether the Hall element on the prism1/2 is damaged.

Check whether the lead connecting the Hall element on the prism1/2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism1/2 is damaged.

Check whether the related circuit of the motor drive board on the prism1/2 is damage.

10. R-Prism1/2 Reset Error

Check whether the position of the prism1/2 where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the prism1/2 operating range.

Check whether the Hall element on the prism1/2 is damaged.

Check whether the lead connecting the Hall element on the prism1/2 and the PCB board is in poor contact or disconnected.

Check whether the motor on the prism1/2 is damaged.

Check whether the related circuit of the motor drive board on the prism1/2 is damage.

11. 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.

12. 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.

13. Led Temp. Too High

Check if the fan is working properly.

Check if the fan speed is normal.

Check if the ambient temperature is abnormal.

14. BaseFan1/2 Start Err

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

15. BaseFan1/2 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

16. BaseFan1/2 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

17. BaseFan1/2 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

18. HeadFan1/2/3/4/5/6/7/8 Start Err

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

19. HeadFan1/2/3/4/5/6/7/8 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

20. HeadFan1/2/3/4/5/6/7/8 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

21. HeadFan1/2/3/4/5/6/7/8 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

22. ArmFan1 Start Err

Check whether the fan is not running.

Check whether the fan leads are installed in place or disconnected.

Check whether the fan is damaged.

Check whether there are obstacles in the fan operating range.

23. ArmFan1 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

24. ArmFan1 Too Low

Check whether the fan is out of order.

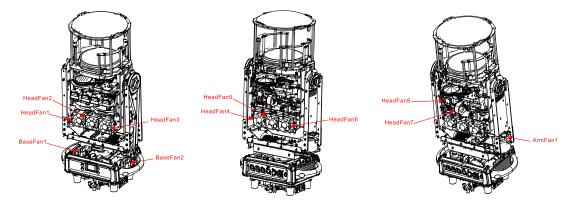
Check whether there are obstacles in the fan operating range.

25. ArmFan1 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

The position of each fan of the fixture:



8. Troubleshooting

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

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

- 1. Check the connected power and main fuse.
- 2. Measure the voltage.
- 3. Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

- 1. Check whether the DMX connectors and the DMX cables are connected correctly.
- 2. Check whether the DMX address is correctly set.
- 3. If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
- 4. Try it with another DMX controller.
- 5. Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

C. One of the channels is not working well

- 1. The stepper motor might be damaged or the cable connected to the PCB might be broken.
- 2. The motor's drive IC on the PCB might be out of condition.

9. Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- Always dry the parts carefully.
- Clean the external optical lens at least every 20 days and the internal optical lens every 30 days.

Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 2014/30/EU.

EN 55032: 2015+A11:2020; EN IEC 61000-3-2: 2019; EN 61000-3-3: 2013+A1: 2019; EN 55035: 2017+A11: 2020.

> & Harmonized Standard

EN 60598-1: 2015+A1: 2018; EN 60598-2-17: 2018; EN 62493: 2015. Safety of household and similar electrical appliances Part 1: General requirements and tests

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