

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:  $0^{\circ}$ C. Maximum ambient temperature TA:  $40^{\circ}$ C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, and it will decrease gradually within 15 minutes.
- 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 90℃. 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 12 meters.
- Disconnect mains power before fuse/lamp replacement or servicing.
- Replace fuse/lamp 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.
- Hot lamp explosion hazard. DO NOT open the unit within 15 minutes after switching off.
- DO replace the bulb once it is damaged, deformed or life-expired.
- Avoid direct eye exposure to the light source while the product is on.
- Never touch bulb with bare fingers, as it is very hot after using.
- 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:
AC 100~240V, 50/60Hz
Power Consumption:
540W
Light Source (Optional):
OSRAM SIRIUS HRI 370W LL
PHILIPS MSD Platinum 18 R LL
Color Temperature:
7650K
Beam Angle:
2°
Movement:
Pan: 540°
Tilt: 270°
Pan/Tilt Resolution: 16 bit
Dimmer/Shutter:
Smooth dimming from 0-100%; outstanding strobe effect with variable speed
Color Wheel:
1 x color wheel with 14 colors plus open and rainbow effect
Gobo Wheel:
1 x static gobo wheel with 16 gobos plus open
Control:
DMX Channel: 14/17 Channels
Control Mode: DMX512, RDM
Firmware Upgrade via DMX link
Construction:
Display: LCD Color display
Data In/Out: 3-pin XLR (5-pin XLR is optional)
Power In/Out: Power Cord; Power Connector in/out
Protection Rating: IP20

#### **Features:**

Motorized focus

2 prisms: 8-facet prisms + 24-facet prisms, rotatable in both directions and overlayable Outstanding color macro effect

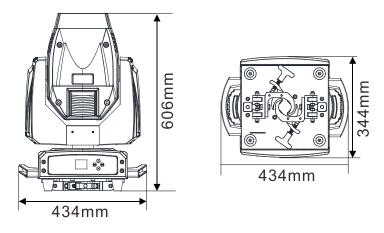
Independent frost effect

2 fixed clamps for 50mm truss, 2 pairs locking points of removable clamp for 70mm truss

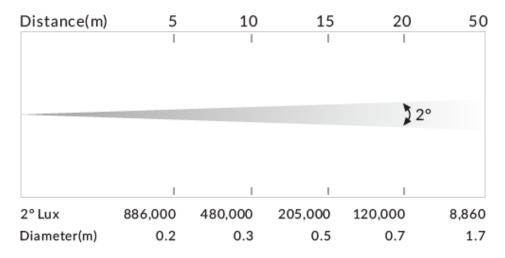
## **Dimension/Weight:**

434x344x606mm, 21.3kgs

17.1"x13.5"x23.9"in, 47lbs

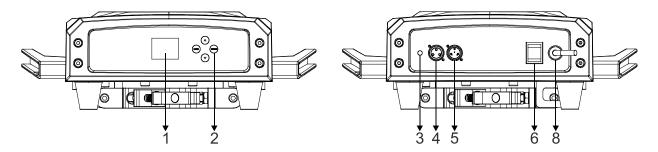


## **Photometric Diagram:**

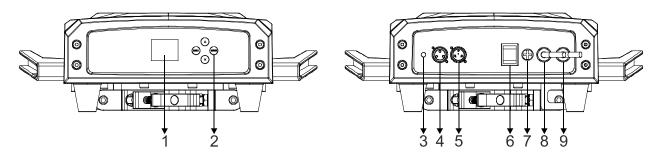


## 3. Control Panel

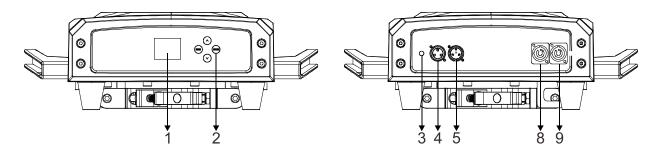
### Power Cord Version 1:



## Power Cord Version 2:



## **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			
▲ UP To go backward to move up in the menu				
▼ DOWN	To go forward to move down in the menu			
ENTER	To perform the desired functions			

## 3. BATTERY DISPLAY

## 4. DMX IN:

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

#### 5. DMX OUT:

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

### 6. POWER SWITCH:

Turns on/off the power

## 7. FUSE(T 10A):

Protect the unit from damage of over current or short-circuit

#### 8. POWER IN:

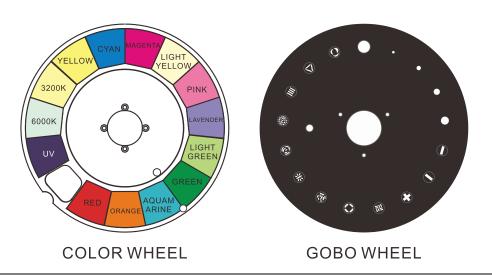
Use to connect to supply power

#### 9. POWER OUT:

Use to connect to the next fixture

## 4. Effect Wheels and Lamp

## 4.1 Effect Wheels



### DANGER!

Install the color wheel/gobo wheels with the device switched off only.

Unplug from mains before changing the color wheel/gobo wheels!

## 4.2 Light Source

#### **OSRAM SIRIUS HRI 370W LL**

#### PHILIPS MSD Platinum 18 R LL

- Because of its high internal pressure, there might be a risk that the Discharge lamp would explode during operation. The lamp emits intense UV radiation which is harmful to the eyes and skin. The high luminance of the arc can cause severe damage to the retina if you take a close look at the lamp.
- To protect the lamp, always turn off the lamp first (via control panel or DMX controller) and let the unit run at least five minutes to cool down before switching off the mains supply. Never handle the lamp or luminary when it is hot.
- Do not touch the bulb with bare hands. If this happens, clean the lamp with denatured alcohol and wipe it with a lint free cloth before installation.
- The lamp generates UV radiation. Never operate the lamp without appropriate shielding.
- When lighting up, the lamp operates at high pressure and there is a slight risk of arc tube rupture. The risk increases with age, temperature and improper handling of the lamp. Do not use the lamp longer than its lifespan.
- Make sure the lamp is located in the center of the reflector for the best projection.

## 4.3 Change The Lamp

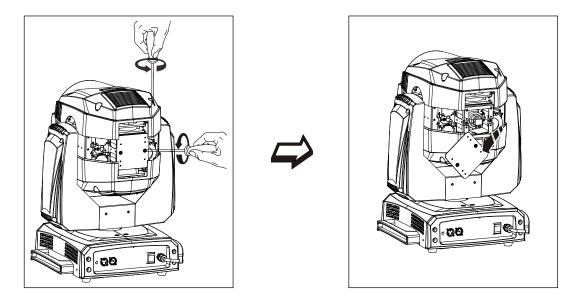
Attention: The entire light path and lens of the luminaire must be thoroughly cleaned before changing the bulb.

In the Work Mode, the lamp life is 1500 hours; when the Work Mode and the Sleep Mode are used alternately, the lamp life is between 1500 and 6000 hours according to the ratio of lamp use time; in the Sleep Mode, the lamp life is 6000 hours. Do not use the bulb beyond its lifetime, otherwise it may damage the luminaire. Check the Lamp Use Hour regularly. When the lamp replacement warning appears, we strongly recommend that you replace the bulb. After replacing the bulb, the use hours of the bulb must be cleared and reset.

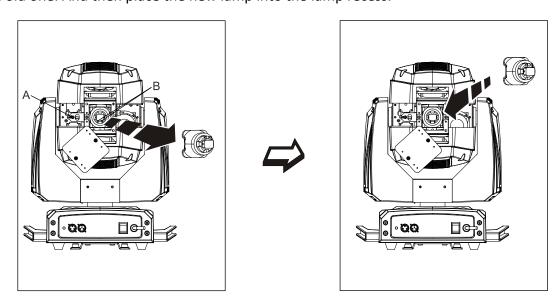
## To replace the lamp:

1. Ensure that the fixture is detached from power and has cooled down completely. It is a good idea to allow the fixture to run for 10 minutes after the lamp has been turned off, so that the cooling fans have time to works.

2. Loosen the screws on the head of the fixture and open the fixture head covers.



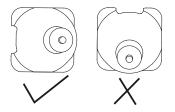
3. Loosen the screw that holds the lamp in place. Unplug the leads of the lamp and lift the lamp out of its recess, disconnect the lamp and connect a new lamp that must be the same type with the old one. And then place the new lamp into the lamp recess.



Finally reinstall the head cover, fastening it securely before reapplying power.

## Warning:

The installing direction of lamp:



## 4.4 Lamp Replacement Warning

- When the lamp reaches 300 hours before its service time, the display will flash the message "Replace Lamp Soon" for up to 5 minutes. During this period, the fixture will still work normally.
- When the lamp reaches its service time, the display will flash the message "Replace Lamp Now" for up to 10 minutes. After 10 minutes, the fixture will return to normal operation.
- When the lamp is continuously used overtime, the display will flash the message "Lamp
  Timeout Use, Replace Lamp Now" for up to 10 minutes. After 10 minutes, the fixture will return
  to normal operation.

Attention: Damages caused by the failure to replace the bulb in time are not subject to warranty.

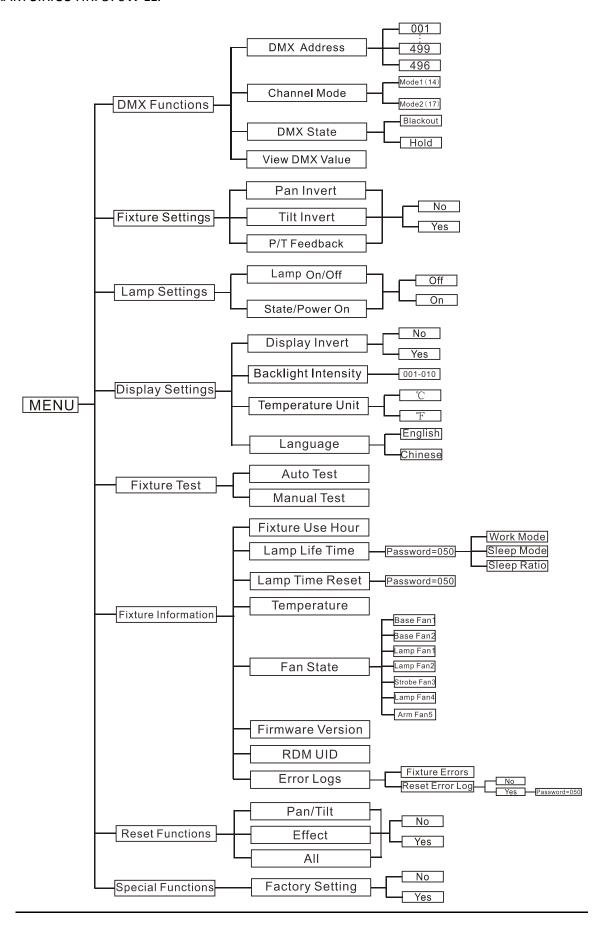
## 5. How To Set The Unit

## 5.1 Main Function

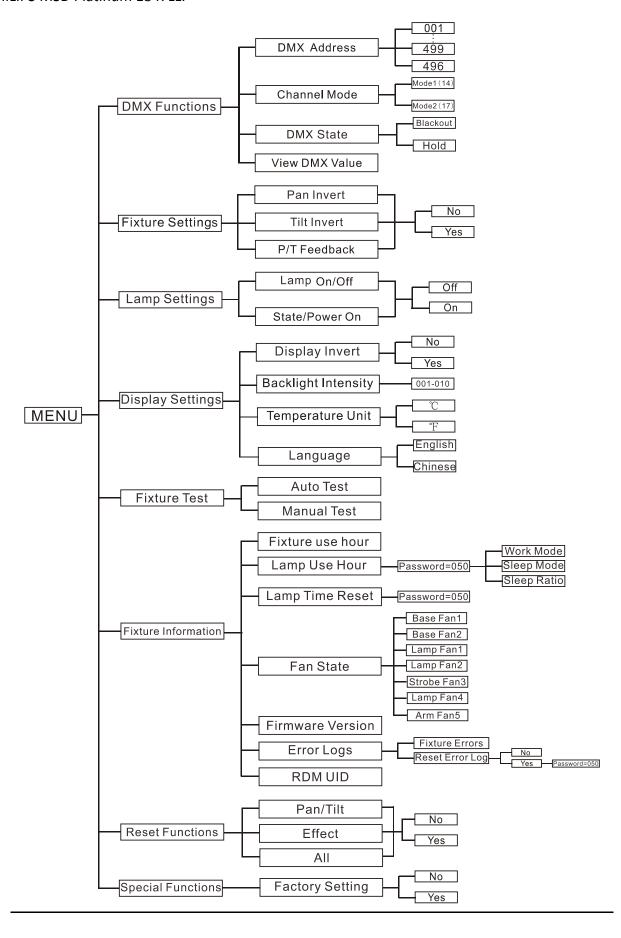
Turn on the unit, press the MENU button into menu mode, and press the UP/DOWN button until the required function is shown on the monitor. Select the function by pressing the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last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

The main functions are shown below:

#### **OSRAM SIRIUS HRI 370W LL:**



#### PHILIPS MSD Platinum 18 R LL:



#### **DMX Functions**

To select **DMX Functions**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address**, **Channel Mode**, **DMX State** 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 499/496, 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.

#### **Channel Mode**

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1 (14)** or **Mode2 (17)**, 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 State**

To select **DMX State**, 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** or **P/T Feedback**.

#### **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.

## **Lamp Settings**

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Lamp On/Off** or **State/Power on**.

#### Lamp On/Off

To select **Lamp On/Off**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **On**(lamp on) or **Off**(lamp off), 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.

#### State/Power On

To select **State/Power On**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **On**(Lamp on while power on) or **Off**(Lamp off while power on), 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, present mode will blink on the display, 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, present mode will blink on the display, use the **UP/DOWN** button to adjust backlight intensity from **001** (dark) to **010** (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, present mode will blink on the display, 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, present mode will blink on the display, 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, shutter, color, gobo, prism, prism rotation, focus, frost, 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**, **Lamp Life Time (Lamp Use Hour)**, **Lamp Time Reset**, **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 time will show on the display, press the **MENU** button to exit.

### Lamp Life Time (Lamp Use Hour)

Select Lamp Life Time (Lamp Use Hour), press the ENTER button to confirm, lamp life time (lamp use hour) will show on the display. Use the UP/DOWN button to set the password 050, press the ENTER button to confirm and lamp life time (lamp use hour) in Work Mode, Sleep Mode or Sleep Ratio can be viewed, press the ENTER button to confirm. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

#### **Lamp Time Reset**

Select **Lamp Time Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to set the password **050**, press the **ENTER** button to reset lamp time. Press the **MENU** button back to the last menu or exit menu mode idling 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. Use the UP/DOWN button to select Base Fan1, BaseFan2, Lamp Fan1, Lamp Fan2, Strobe Fan3, Lamp Fan4 or Arm Fan5, press the ENTER button to confirm. Press the MENU button back to the last menu or exit menu mode idling 30 seconds.

## **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.

#### **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**

To 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. To 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. To select **Yes**, press the **ENTER** button to confirm, use the **UP/DOWN** button to set the password **050**, press the **ENTER** button to reset error log. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

### **Reset Functions**

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

## Pan/Tilt

Select **Pan/Tilt**, 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 the **ENTER** button to store. Press the **MENU** button to exit.

#### **Effect**

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

#### ΑII

Select **All**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** 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 Functions**

### **Factory Setting**

Select Factory Setting, 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 (14/17 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 LAMP HOURS menu to display the running time of the lamp.

Select the LAMP STATE menu to turn on/off the lamp.

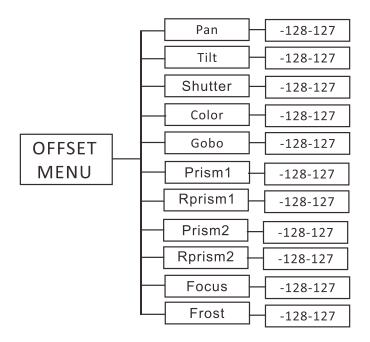
Select the PAN INVERT menu and the fixture will run the pan invert mode.

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.



#### 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.

#### Shutter

Enter offset mode, Select **Shutter**, 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.

#### 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.

#### Prism 2

Enter offset mode, Select **Prism 2**, 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-Prism 2

Enter offset mode, Select **R-Prism 2**, 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.

#### **Focus**

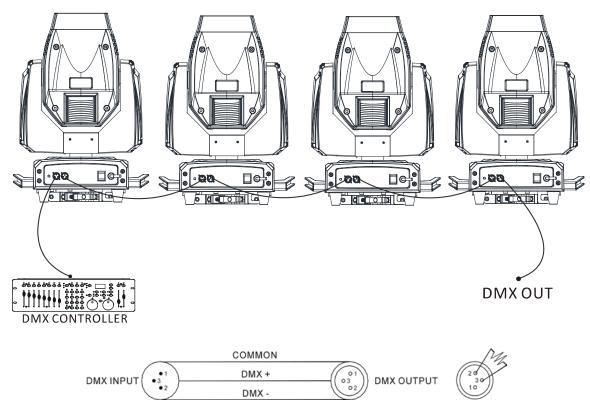
Enter offset mode, Select **Focus**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

#### **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 -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

## 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 cannot be branched or split to a "Y" cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
- 3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
- 4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.
- 5. The end of the DMX 512 system should be terminated to reduce signal errors.
- 6. 3 pin XLR connectors are more popular than 5 pins XLR.
  - 3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)
  - 5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

## 6.2 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 Functions, 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
14 channels	1	15	29	43
17 channels	1	18	35	52

## 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.

### 14 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1		PAN
	000-255	0°→540°
2		TILT
2	000-255	0°→270°
2		P/T SPEED
3	000-255	Fast→Slow
		COLOR
	000-003	White
4	004-007	Color 1
	008-011	Color 2
	012-015	Color 3

	016-019	Color 4	
	020-023	Color 5	
	024-027	Color 6	
	028-031	Color 7	
	032-035	Color 8	
	036-039	Color 9	
	040-043	Color 10	
	044-047	Color 11	
	048-051	Color 12	
	052-055	Color 13	
	056-059	Color 14	
	060-127	White to Color 14	
	128-189	Clockwise Rotation Fast to Slow	
	190-193	Stop	
	194-255	Counter-Clockwise Rotation Slow to Fast	
	13 . 233	GOBO	
	000-007	White	
	008-010		
		Gobo 1	
	011-013	Gobo 2	
	014-016	Gobo 3	
	017-019	Gobo 4	
	020-022	Gobo 5	
	023-025	Gobo 6	
	026-028	Gobo 7	
	029-031	Gobo 8	
5	032-034	Gobo 9	
J	035-037	Gobo 10	
	038-040	Gobo 11	
	041-043	Gobo 12	
	044-046	Gobo 13	
	047-049	Gobo 14	
	050-052	Gobo 15	
	053-055	Gobo 16	
	056-127	Gobo shaking slow to fast	
	128-189	Clockwise Rotation Fast to Slow	
	190-193	Stop	
	194-255	Counter-Clockwise Rotation Slow to Fast	
		PRISM1	
6	000-007	Close	
·	008-255	Open	
	555 255	R-PRISM 1	
	000-127	0%→100%	
7			
7	128-189	Counter-Clockwise rotation, fast to slow	
	190-193	Stop	
	194-255	Clockwise rotation, slow to fast	
8		PRISM 2	

000-007	Close	
008-255	Open	
	R-PRISM 2	
000-127	0%→100%	
	Counter-Clockwise rotation, fast to slow	
	Stop	
	Clockwise rotation, slow to fast	
20 : 200	SHUTTER	
000-007	Close	
	Open	
	Strobe from slow to fast	
	Fast close slow open	
	Fast open slow close	
	Pulsation from slow to fast	
	Random Strobe	
	Open	
1.0 100	DIMMER	
000-255	0%→100%	
	FOCUS	
000-255	0%→100%	
	FROST	
000-007	Close	
008-255	Open	
	SPECIAL FUNCTION	
000-069	No Function	
070-079	Blackout While Pan Tilt Move Enable	
080-089	Blackout While Pan Tilt Move Disable	
090-099	Blackout While Color Move Enable	
100-109	Blackout While Color Move Disable	
110-119	Blackout While Gobo Move Enable	
120-129	Blackout While Gobo Move Disable	
130-139	Lamp On	
140-149	Reset XY	
150-159	Reset Effect	
160-199	No Function	
200-209	Reset All	
210-229	No Function	
230-239	Lamp Off	
240-255	No Function	
	000-127 128-189 190-193 194-255  000-007 008-015 016-131 132-167 168-203 204-239 240-247 248-255  000-255  000-255  000-069 070-079 080-089 090-099 100-109 110-119 120-129 130-139 140-149 150-159 160-199 200-209 210-229 230-239	

## 17 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION	
1		PAN	
	000-255	0°→540°	
2	000-255	PAN FINE	
3		TILT	
	000-255	0°→270°	
4	000-255	TILT FINE	
5		P/T SPEED	
	000-255	Fast→Slow	
		COLOR	
	000-003	White	
	004-007	Color 1	
	008-011	Color 2	
	012-015	Color 3	
	016-019	Color 4	
	020-023	Color 5	
	024-027	Color 6	
	028-031	Color 7	
	032-035	Color 8	
6	036-039	Color 9	
	040-043	Color 10	
	044-047	Color 11	
	048-051	Color 12	
	052-055	Color 13	
	056-059	Color 14	
	060-127	White to Color 14	
	128-189	Clockwise Rotation Fast to Slow	
	190-193	Stop	
	194-255	Counter-Clockwise Rotation Slow to Fast	
		GOBO	
	000-007	White	
	008-010	Gobo 1	
	011-013	Gobo 2	
	014-016	Gobo 3	
	017-019	Gobo 4	
	020-022	Gobo 5	
7	023-025	Gobo 6	
	026-028	Gobo 7	
	029-031	Gobo 8	
	032-034	Gobo 9	
	035-037	Gobo 10	
	038-040	Gobo 11	
	041-043	Gobo 12	
	0-1 0-0	3000 12	

	_	
	044-046	Gobo 13
	047-049	Gobo 14
	050-052	Gobo 15
	053-055	Gobo 16
	056-127	Gobo shaking slow to fast
	128-189	Clockwise Rotation Fast to Slow
	190-193	Stop
	194-255	Counter-Clockwise Rotation Slow to Fast
		PRISM1
8	000-007	Close
	008-255	Open
		R-PRISM 1
	000-127	0%→100%
9	128-189	Counter-Clockwise rotation, fast to slow
-	190-193	Stop
	194-255	Clockwise rotation, slow to fast
	20 : 200	PRISM 2
10	000-007	Close
10	008-255	Open
	000 233	R-PRISM 2
	000-127	R-PRISIVI 2 0%→100%
11	128-189	
11	190-193	Counter-Clockwise rotation, fast to slow
	194-255	Stop Clockwise rotation, slow to fast
	194-233	
	000 007	SHUTTER
	000-007	Close
	008-015 016-131	Open Strobe from slow to fast
12		
12	132-167	Fast close slow open
	168-203	Fast open slow close Pulsation from slow to fast
	204-239	
	240-247	Random Strobe
	248-255	Open
13	222.255	DIMMER
	000-255	0%→100%
14		FOCUS
	000-255	0%→100%
15	000-255	FOCUS FINE
		FROST
16	000-007	Close
-	008-255	Open
		SPECIAL FUNCTION
	000-069	No Function
17	070-079	Blackout While Pan Tilt Move Enable
	080-089	Blackout While Pan Tilt Move Disable
	000-003	DIACKOUL WITHE FAIT THE WIOVE DISABLE

090-099	Blackout While Color Move Enable
100-109	Blackout While Color Move Disable
110-119	Blackout While Gobo Move Enable
120-129	Blackout While Gobo Move Disable
130-139	Lamp On
140-149	Reset XY
150-159	Reset Effect
160-199	No Function
200-209	Reset All
210-229	No Function
230-239	Lamp Off
240-255	No Function

## 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 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. 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.

#### 8. 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.

#### 9. Frost Reset Error

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

Check whether there are obstacles in the frost operating range.

Check whether the Hall element on the frost is damaged.

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

Check whether the motor on the frost is damaged.

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

### 10. 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. 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.

### 12. BaseFan1/2 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

### 13. BaseFan1/2 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

### 14. BaseFan1/2 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

## 15. LampFan1/2/4 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.

## 16. LampFan1/2/4 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

## 17. LampFan1/2/4 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

## 18. LampFan1/2/4 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

## 19. StrobeFan3 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.

#### 21. StrobeFan3 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

#### 21. StrobeFan3 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

## 22. StrobeFan3 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

#### 23. ArmFan5 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.

### 24. ArmFan5 Stop Err

Check whether the fan circuit on the motherboard breaks down.

Check whether the component is damaged.

#### 25. ArmFan5 Too Low

Check whether the fan is out of order.

Check whether there are obstacles in the fan operating range.

## 26. ArmFan5 Too High

Check whether the fan is out of order.

Check whether the fan circuit on the motherboard breaks down.

## 27. Lamp Hot Power Off

Check whether the temperature switch of the lamp is off.

Check whether the fans are still running properly.

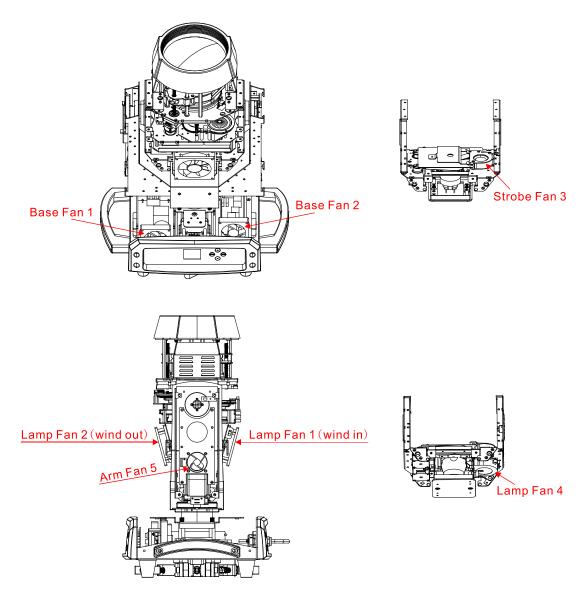
### 28. Gravity Sensor Error

Check whether the gravity sensor on board E is damaged.

### 29. Lamp Maintenance

Check lamp use time and replace the lamp in time.

## 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.
- 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.

## D. The lamp is cutting out intermittently

- 1. The lamp is not working well. Check whether the voltage is too high or too low.
- 2. The internal temperature may be too high. Replace the cooling fan if necessary.

## 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; EN 61000-3-2: 2014; EN 61000-3-3: 2013; EN 55035: 2017.

# & 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 Part 2: Particular requirements Innovation, Quality, Performance