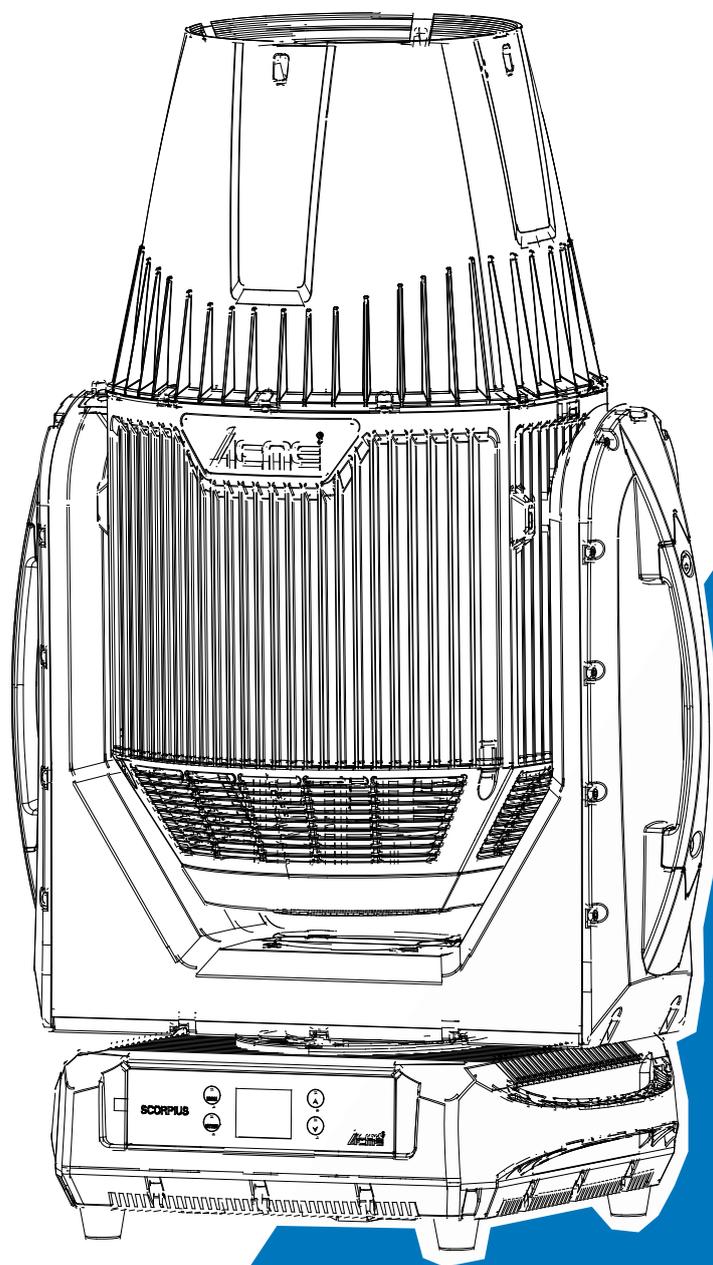


# ACME<sup>®</sup>

## SCORPIUS



### User Manual

Please read the instruction carefully before use

## CONTENTS

1. Safety Instructions .....	2
2. Technical Specifications .....	4
3. Control Panel .....	6
4. Color/Gobo and Lamp.....	6
4.1 Color/Gobo .....	6
4.2 Light Source .....	7
4.3 Change The Lamp.....	7
4.4 Lamp Replacement Warning .....	9
5. How To Set The Unit.....	9
5.1 Main Function.....	9
5.2 Home Position Adjustment .....	17
6. Control By Universal DMX Controller .....	21
6.1 DMX512 Connection .....	21
6.2 Address Setting .....	22
6.3 DMX512 Configuration.....	22
7. Error Information .....	27
8. Troubleshooting .....	35
9. Fixture Cleaning .....	35

## 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 that there is no transportation damage before using the unit.
- This product is suitable for wet locations. Do not immerse in water.
- 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 are blocked, otherwise the unit will be overheated.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- 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 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.
- Make sure there are no flammable materials close to the unit while operating to avoid fire hazard.
- Examine the power wires carefully; replace them immediately if there is any damage.
- Unit's surface temperature may reach up to 75°C. DO NOT touch the housing bare-handed during its operation.
- Avoid any inflammable liquids, water or metal objects entering the unit. Once it happens, cut

off the mains power immediately.

- DO NOT operate in dirty or dusty environment, do clean fixtures regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid power wires together twist other cables.
- The minimum distance between light output and the illuminated surface must be more than 15 meters.
- Disconnect mains power before lamp replacement or servicing.
- Replace 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 unit as there are no user serviceable parts inside.
- Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect the mains power if the fixture is has not been used for a long time.
- DO use the original packing materials before transporting it again.
- 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.
- DO NOT look directly at the light while the bulb is on.
- Never touch bulb with bare fingers, as it is very hot after using.
- DO NOT start on the unit without bulb enclosure or when housing is damaged.

### **Installation:**

The fixture should be mounted via its Omega Quick Release Clamp bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating and make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the fixtures weight. Always use a safety cable that can hold 12 times of the weight of the fixture when installing.

The equipment must be installed by professionals. It must be installed in a place where is out of the reach of people and no one can pass by or under it.

## 2. Technical Specifications

### **Power Voltage:**

AC 100~240V, 50/60Hz

### **Power Consumption:**

810W

### **Light Source:**

PHILIPS MSD Platinum 25 R

### **Color Temperature:**

7800K

### **Beam Angle:**

1.8°

### **Movement:**

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16 bit

Fixation: Pan/Tilt lock

### **Dimmer/Shutter:**

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

### **Color Wheel:**

1 x color wheel with 14 colors plus white, and rainbow effect

### **Gobo Wheel:**

1 x static gobo wheel with 18 gobos plus open

1 x rotating gobo wheel with 7 gobos plus open

### **Control:**

DMX Channel: 23/17 channels

Protocols: DMX, RDM, Wireless (optional)

Firmware Upgrade via DMX link

### **Construction:**

Display: LCD display

Data In/Out: 5-pin IP XLR(3-pin XLR cable is optional)

Power In/Out: Waterproof Power Connector in/out

Protection Rating: IP66

**Features:**

Motorized focus

Linear CMY color mixing

Variable CTO

2 x prisms: 8-facet prism + 6-facet linear prism, rotatable in both directions and overlayable

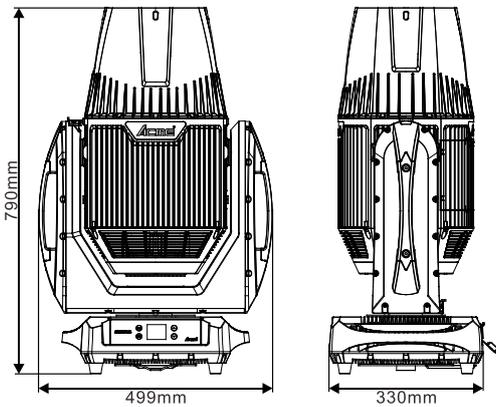
Independent frost effect

IP66 protection rotating, can be used outdoors all year round

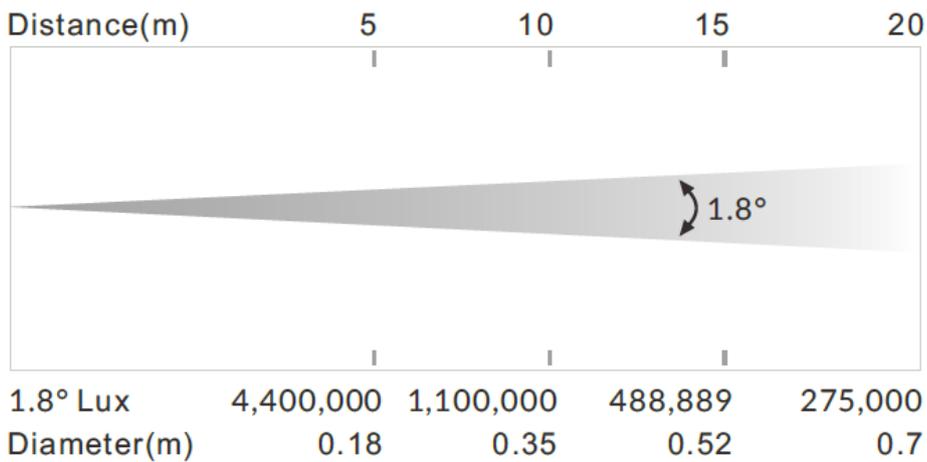
**Dimension/Weight:**

499x330x790mm, 41kgs

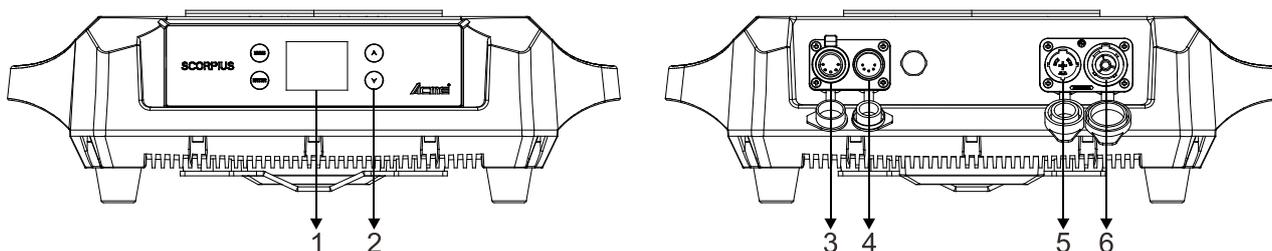
19.6"x13"x31" in, 90.4lbs



**Photometrics Diagram:**



### 3. Control Panel



**1. DISPLAY:** To show the various menus and the selected function

**2. Button:**

<b>MENU</b>	To enter into move backward or leave the menu
<b>▲ UP</b>	To go backward to move up in the menu
<b>▼ DOWN</b>	To go forward to move down in the menu
<b>ENTER</b>	To perform the desired functions

**3. DMX OUT:**

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

**4. DMX IN:**

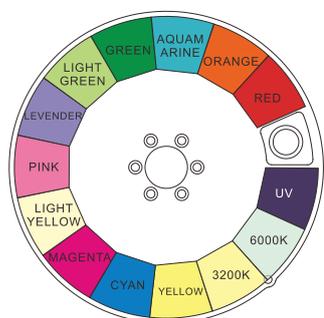
For DMX512 link, use 5-pin XLR cable to link the unit and controller (3-pin XLR cable is optional)

**5. POWER IN:** To connect to supply power

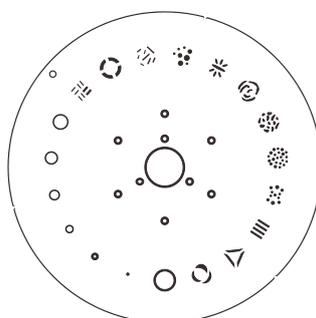
**6. POWER OUT:** To connect to the next fixture

### 4. Color/Gobo and Lamp

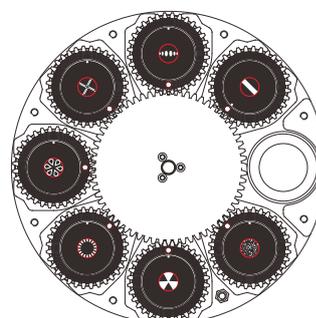
#### 4.1 Color/Gobo



COLOR WHEEL



STATIC GOBO WHEEL



ROTATING GOBO WHEEL

**DANGER!**  
**Install the color wheel/gobo wheel with the device switched off only.**  
**Unplug from mains before changing the color wheel/gobo wheel!**

## 4.2 Light Source

### PHILIPS MSD Platinum 25 R

- 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.

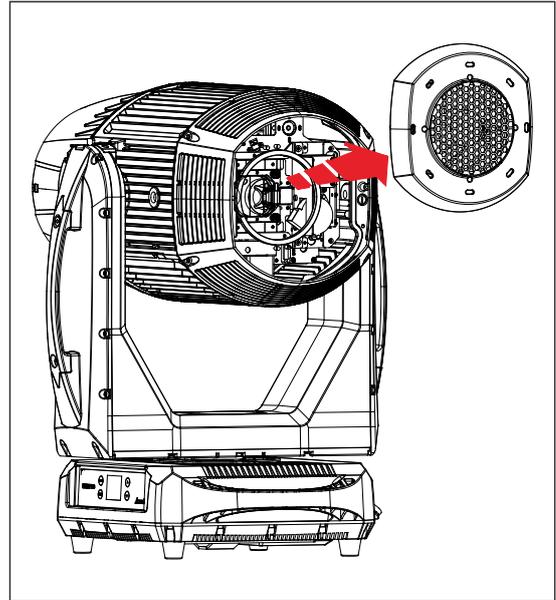
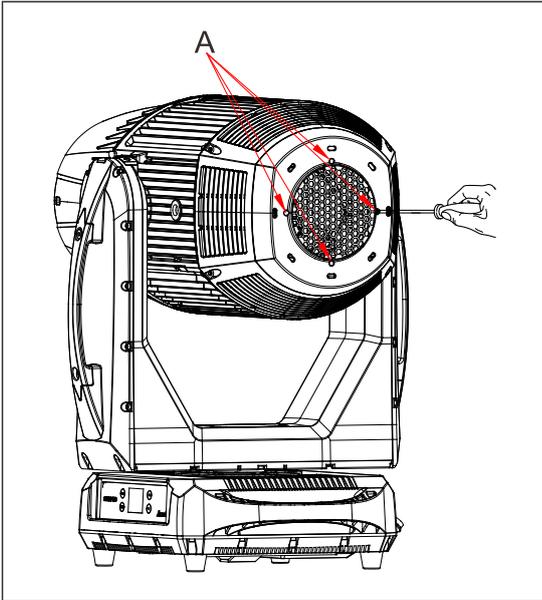
## 4.3 Change The Lamp

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

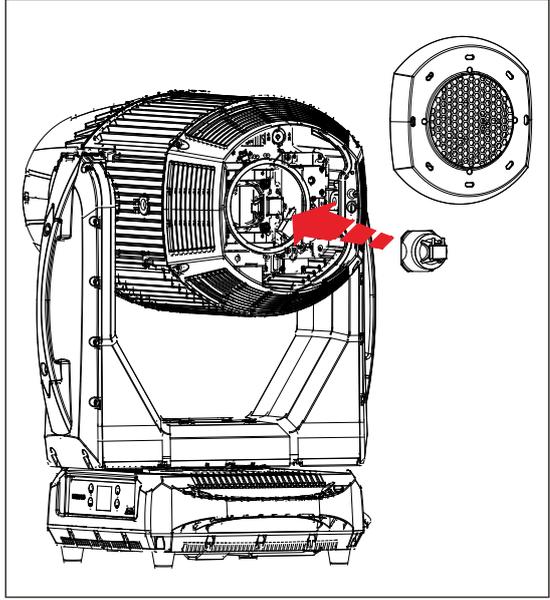
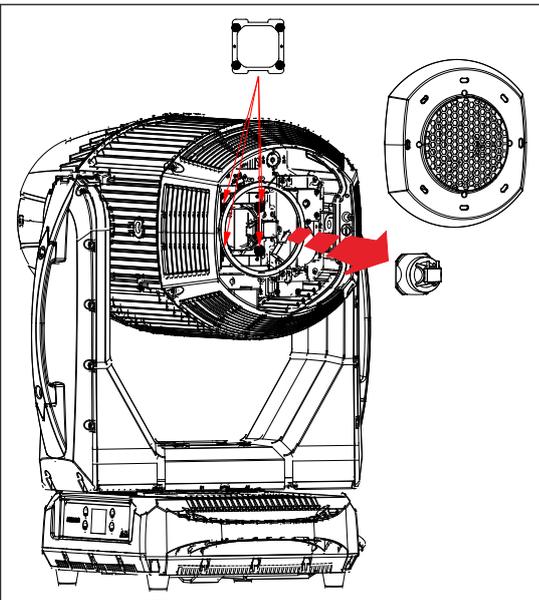
Do not use this lamp more than 1500 hours, using the lamp any longer than its set life could seriously damage your unit. Periodically checking the lamp running time, when the lamp reaches the 1500 hour mark, or close to it, we strongly suggest you switch the lamp out. Reset the lamp time after you have replaced the lamp.

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



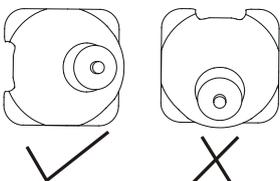
3. Loosen the screws of the quick lock plate that holds the lamp in place. Unplug the leads of the lamp and lift the lamp out of its recess, disconnect the lamp and connect a new lamp that must be the same type with the old one. And then place the new lamp into the lamp recess.



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 1200 hours of usage, 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 1500 hours of usage, 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.

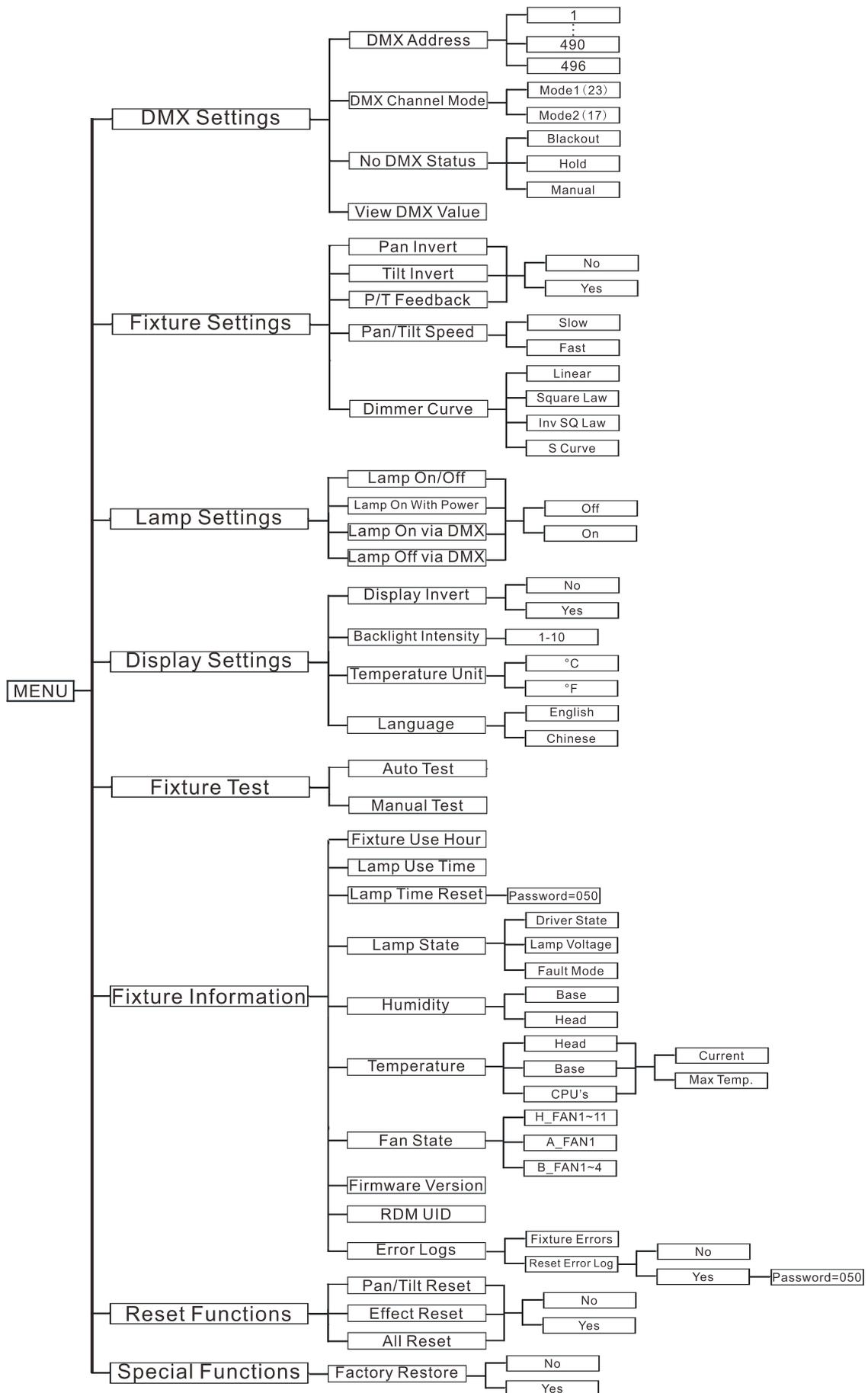
## **5. How To Set The Unit**

### **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 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 screen will be automatically locked if there is no operation for a long time, and can be unlocked by long-pressing the MENU button.

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 **490/496**, 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.

### **DMX Channel Mode**

To select **DMX Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1 (23)** 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.

### **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), **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops) or **Manual**(Only after selecting this mode can you control the fixture through the “Manual Test” menu function), 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, Pan/Tilt Speed** or **Dimmer Curve**.

### **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.

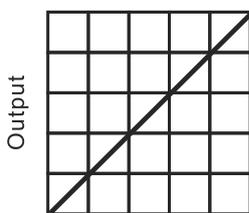
### Pan/Tilt Speed

To select **Pan/Tilt Speed**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Slow** or **Fast**, 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.

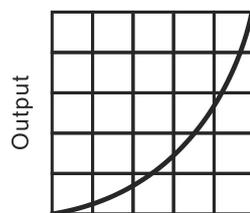
### Dimmer Curve

To select **Dimmer Curve**, press the **ENTER** button to confirm. Use the **DOWN/UP** button to select **Linear**, **Square Law**, **Inv SQ Law** 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.

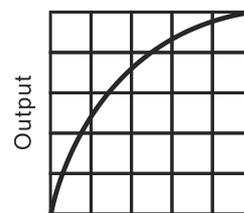
## Dimmer Modes



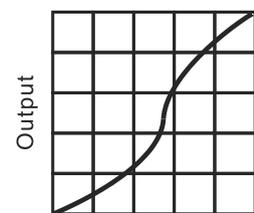
Optically Linear



Square Law



Inverse Square Law



S-curve

#### Mode 1(Optically Linear):

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

#### Mode 2(Square Law):

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

#### Mode 3(Inverse Square Law):

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

#### Mode 4(S-Curve):

Light intensity control is finer at low levels and high levels and coarser at medium levels.

## ***Lamp Settings***

To select **Lamp Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Lamp On/Off**, **Lamp On With Power**, **Lamp On via DMX** or **Lamp Off via DMX**.

### **Lamp On/Off**

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

### **Lamp On With Power**

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

### **Lamp On via DMX**

To select **Lamp On via DMX**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Off** or **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.

### **Lamp Off via DMX**

To select **Lamp Off via DMX**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Off** or **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. 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 °C or °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, animation, prism, prism rotation, strobe, 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**, **Lamp Use Time**, **Lamp Time Reset**, **Lamp State**, **Humidity**, **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.

### **Lamp Use Time**

Select **Lamp Use Time**, press the **ENTER** button to confirm, lamp use time will show on the display, press the **MENU** button to exit.

### **Lamp Time Reset**

Select **Lamp Time Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to set the password **050** to reset lamp use time, press the **MENU** button to exit.

### **Lamp State**

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

### **Humidity**

Select **Humidity**, press the **ENTER** button to confirm, fixture' base and head humidity will show on the display, press the **MENU** button to exit.

Attention: When the humidity is  $\geq 75\%$ , the fixture will display an alarm that the humidity is too high, and the bulb cannot be turned on in the current state (if the bulb is currently on, it will be automatically turned off); only when the humidity drops to  $\leq 60\%$  can the bulb be turned on and the alarm be cleared.

### **Temperature**

Select **Temperature**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Head**, **Base** or **CPU's**, press the **ENTER** button to confirm, current temperature and max temperature of fixture's head, base and CPU 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.

### **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 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 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 the **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 the **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 Functions***

### **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 (23/17 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.

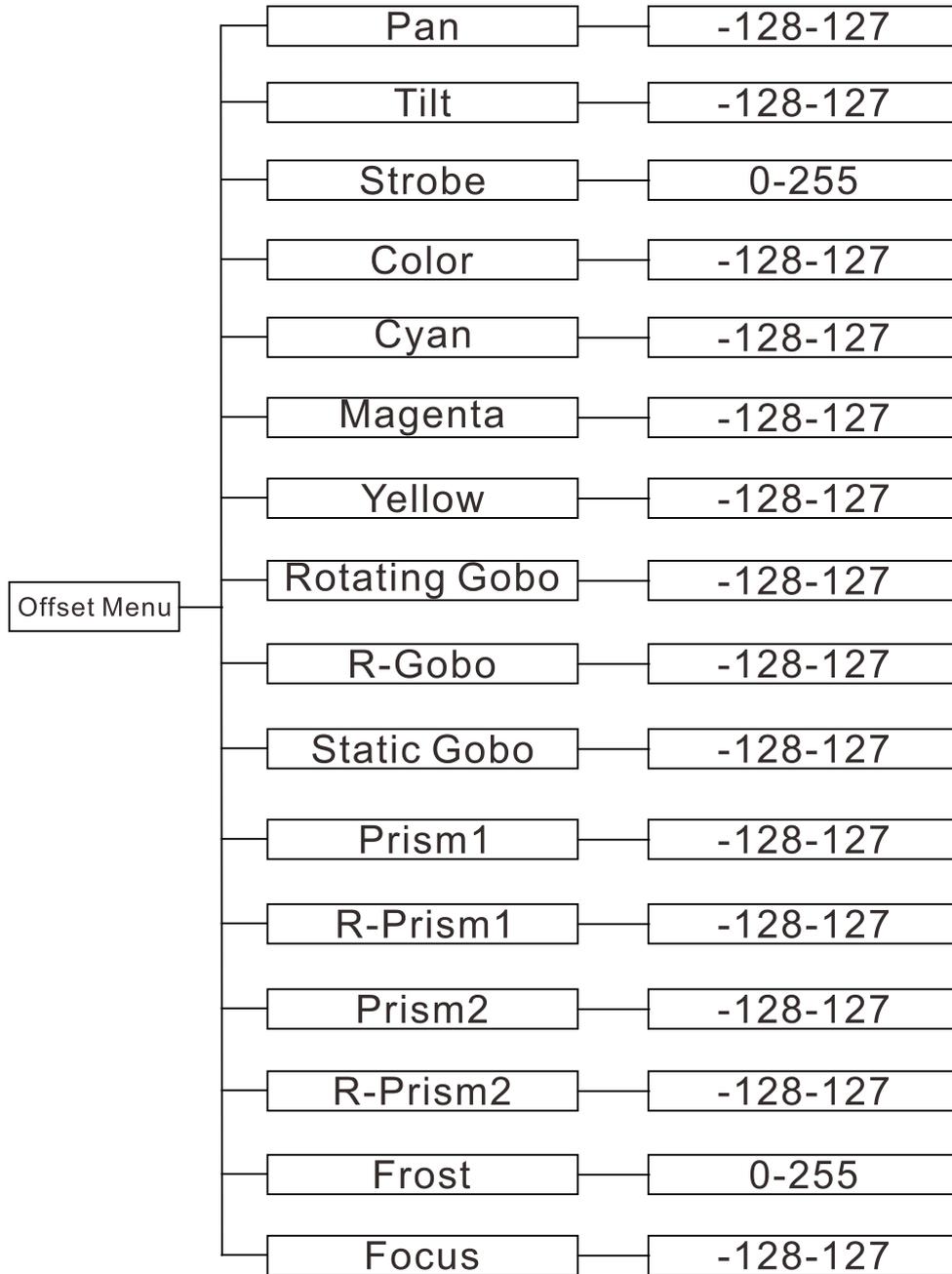
Select the PAN INVERT menu and the fixture will run the pan invert mode.

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 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.

### **Strobe**

Enter offset mode, Select **Strobe**, 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.

### **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.

### **Cyan**

Enter offset mode, Select **Cyan**, 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.

### **Magenta**

Enter offset mode, Select **Magenta**, 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.

### **Yellow**

Enter offset mode, Select **Yellow**, 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.

### **Rotating Gobo**

Enter offset mode, Select **Rotating 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.

### **R-Gobo**

Enter offset mode, Select **R-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.

### **Static Gobo**

Enter offset mode, Select **Static 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.

### **Prism 1**

Enter offset mode, Select **Prism 1**, 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 1**

Enter offset mode, Select **R-Prism 1**, 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.

### **Frost**

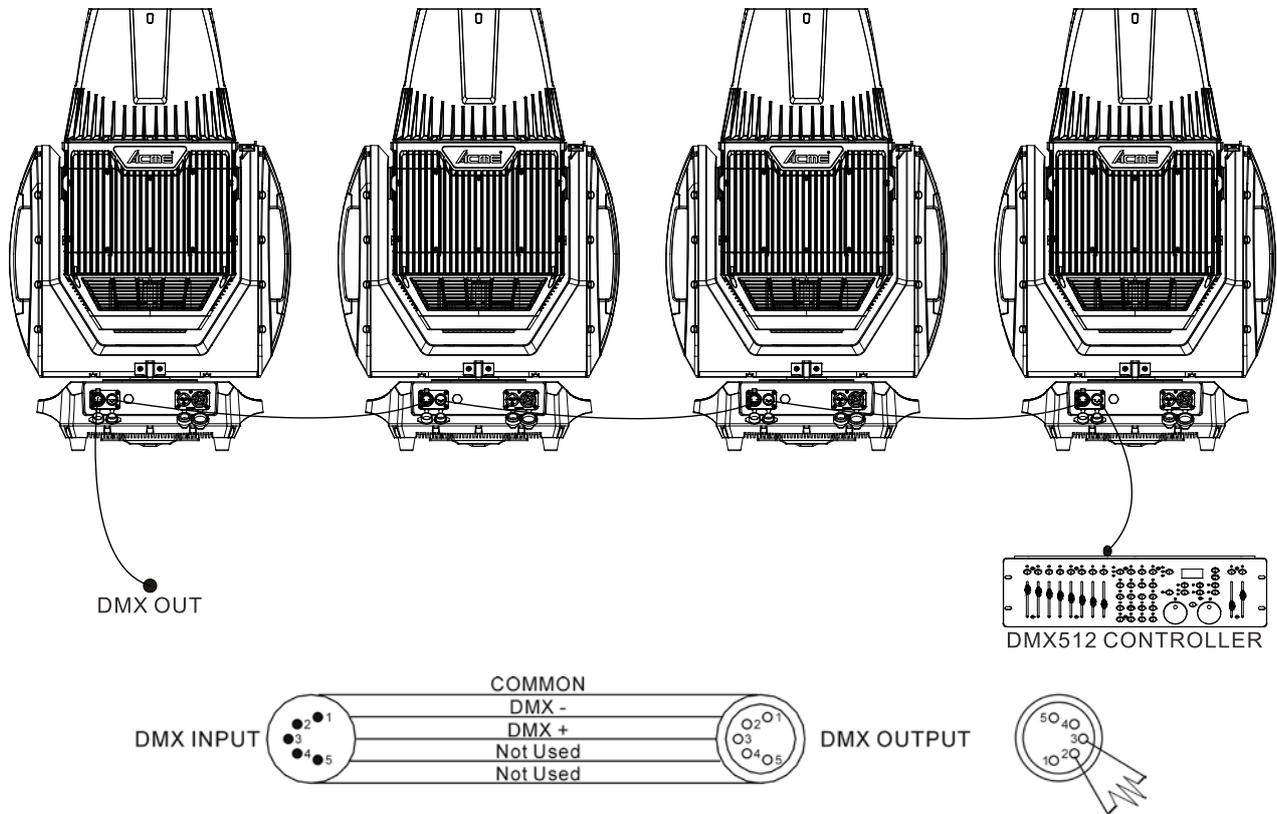
Enter offset mode, Select **Frost**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 0 to 255, press the **ENTER** button to store. Press the **MENU** button to exit.

### **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.

## 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 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 be blinking on 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
23 channels	1	24	47	70
17 channels	1	18	35	52

## 6.3 DMX512 Configuration

Please refer to below configurations to control the fixtures

### 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.

Attention: To prevent the sunlight from continuously irradiating the bulb through the light hole, when the bulb turns off, the strobe will be turned off and the frost will be turned on. In this state, both of the strobe and frost cannot be controlled manually or by DMX.

### 23 Channels (Mode 1):

通道	通道值	功能
1	000-255	<b>CYAN</b> 0%→100%
2	000-255	<b>MAGENTA</b> 0%→100%
3	000-255	<b>YELLOW</b> 0%→100%

<b>4</b>	000-255	<b>CTO</b> 6000K→3200K
<b>5</b>	000-007 008-011 012-015 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-055 056-059 060-063 064-127 128-189 190-193 194-255	<b>COLOR</b> Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11 Color 12 Color 13 Color 14 Index Counter-Clockwise Rotation Fast to Slow Stop Clockwise Rotation Slow to Fast
<b>6</b>	000-003 004-103 104-107 108-207 208-212 213-251 252-255	<b>STROBE</b> Close Strobe from slow to fast Open Pulsation from slow to fast Open Random Strobe Open
<b>7</b>	000-255	<b>DIMMER</b> 0%→100%
<b>8</b>	000-255	<b>DIMMER FINE</b>
<b>9</b>	000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-072 073-081 082-090 091-099	<b>ROTATING GOBO</b> Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 1 Shaking Gobo 2 Shaking Gobo 3 Shaking Gobo 4 Shaking

	100-108 109-117 118-127 128-189 190-193 194-255	Gobo 5 Shaking Gobo 6 Shaking Gobo 7 Shaking Clockwise Rotation Fast to Slow Stop Counter-Clockwise Rotation Slow to Fast
<b>10</b>	000-127 128-189 190-193 194-255	<b>GOBO ROTATION</b> Index Counter-Clockwise Rotation Fast to Slow Stop Clockwise Rotation Slow to Fast
<b>11</b>	000-255	<b>FINE GOBO ROTATION</b>
<b>12</b>	000-003 004-007 008-011 012-015 016-018 019-022 023-026 027-030 031-034 035-037 038-041 042-045 046-049 050-053 054-056 057-060 061-064 065-068 069-071 072-113 114-117 118-159 160-165 166-170 171-175 176-181 182-186 187-191 192-197 198-202 203-207 208-214 215-218	<b>STATIC GOBO</b> Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 8 Gobo 9 Gobo 10 Gobo 11 Gobo 12 Gobo 13 Gobo 14 Gobo 15 Gobo 16 Gobo 17 Gobo 18 Counter-Clockwise Rotation Fast to Slow Stop Clockwise Rotation Slow to Fast Gobo 1 Shaking Gobo 2 Shaking Gobo 3 Shaking Gobo 4 Shaking Gobo 5 Shaking Gobo 6 Shaking Gobo 7 Shaking Gobo 8 Shaking Gobo 9 Shaking Gobo 10 Shaking Gobo 11 Shaking

	219-223 224-229 230-234 235-239 240-245 246-250 251-255	Gobo 12 Shaking Gobo 13 Shaking Gobo 14 Shaking Gobo 15 Shaking Gobo 16 Shaking Gobo 17 Shaking Gobo 18 Shaking
<b>13</b>	000-010 011-132 133-223 224-255	<b>PRISM</b> Close Prism 1 Prism 2 Prism 1+ Prism 2 mixing effect
<b>14</b>	000-127 128-189 190-193 194-255	<b>PRISM ROTATION</b> Index Counter-Clockwise Rotation Fast to Slow Stop Clockwise Rotation Slow to Fast
<b>15</b>	000-255	<b>FROST</b> 0%→100%
<b>16</b>	000-255	<b>FOCUS</b> 100%→0%
<b>17</b>	000-255	<b>FOCUS FINE</b>
<b>18</b>	000-255	<b>PAN</b> 0°→540°
<b>19</b>	000-255	<b>PAN FINE</b>
<b>20</b>	000-255	<b>TILT</b> 0°→270°
<b>21</b>	000-255	<b>TILT FINE</b>
<b>22</b>	000-255	<b>PAN/TILT SPEED</b> Fast to Slow
<b>23</b>	000-129 130-139 140-149 150-159 160-169 170-179 180-199 200-209 210-229 230-239 240-255	<b>SPECIAL FUNCTION</b> No Function Lamp On Reset X/Y Reset Effect Soft Filter Disable Soft Filter Enable No Function Reset All No Function Lamp Off No Function

17 Channels (Mode 2):

通道	通道值	功能
1	000-255	<b>PAN</b> 0°→540°
2	000-255	<b>PAN FINE</b>
3	000-255	<b>TILT</b> 0°→270°
4	000-255	<b>TILT FINE</b>
5	000-255	<b>PAN/TILT SPEED</b> Fast to Slow
6	000-255	<b>CYAN</b> 0%→100%
7	000-255	<b>MAGENTA</b> 0%→100%
8	000-255	<b>YELLOW</b> 0%→100%
9	000-255	<b>CTO</b> 6000K→3200K
10	000-007 008-011 012-015 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-055 056-059 060-063 064-127 128-189 190-193 194-255	<b>COLOR</b> Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11 Color 12 Color 13 Color 14 Index Counter-Clockwise Rotation Fast to Slow Stop Clockwise Rotation Slow to Fast
11	000-003 004-103 104-107 108-207	<b>STROBE</b> Close Strobe from slow to fast Open Pulsation from slow to fast

	208-212 213-251 252-255	Open Random Strobe Open
<b>12</b>	000-255	<b>DIMMER</b> 0%→100%
<b>13</b>	000-255	<b>DIMMER FINE</b>
<b>14</b>	000-255	<b>FROST</b> 0%→100%
<b>15</b>	000-255	<b>FOCUS</b> 100%→0%
<b>16</b>	000-255	<b>FOCUS FINE</b>
<b>17</b>	000-129 130-139 140-149 150-159 160-169 170-179 180-199 200-209 210-229 230-239 240-255	<b>SPECIAL FUNCTION</b> No Function Lamp On Reset X/Y Reset Effect Soft Filter Disable Soft Filter Enable No Function Reset All No Function Lamp Off No Function

## 7. Error Information

### 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 485 (DATA) lead is disconnected.

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

### 2. Pan Reset Error

Check if the position of the pan mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the pan operating range.

Check if the pan Hall elements is damaged.

Check if the pan Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the pan motor is damaged.

Check if there is any damage to the circuit of the pan motor drive board.

### **3. Pan Encode Error**

Check if the pan encoder is damaged.

Check if the pan encoder is in poor contact with the lead of the PCB board or disconnected.

### **4. Tilt Reset Error**

Check if the position of the tilt mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the tilt operating range.

Check if the tilt Hall elements is damaged.

Check if the tilt Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the tilt motor is damaged.

Check if there is any damage to the circuit of the tilt motor drive board.

### **5. Tilt Encode Error**

Check if the tilt encoder is damaged.

Check if the tilt encoder is in poor contact with the lead of the PCB board or disconnected.

### **6. Cyan Reset Error**

Check if the position of the cyan color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the cyan color wheel operating range.

Check if the cyan color wheel Hall elements is damaged.

Check if the cyan color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the cyan color wheel motor is damaged.

Check if there is any damage to the circuit of the cyan color wheel motor drive board.

### **7. Magenta Reset Error**

Check if the position of the magenta color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the magenta color wheel operating range.

Check if the magenta color wheel Hall elements is damaged.

Check if the magenta color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the magenta color wheel motor is damaged.

Check if there is any damage to the circuit of the magenta color wheel motor drive board.

## **8. Yellow Reset Error**

Check if the position of the yellow color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the yellow color wheel operating range.

Check if the yellow color wheel Hall elements is damaged.

Check if the yellow color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the yellow color wheel motor is damaged.

Check if there is any damage to the circuit of the yellow color wheel motor drive board.

## **9. Color Reset Error**

Check if the position of the color wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the color wheel operating range.

Check if the color wheel Hall elements is damaged.

Check if the color wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the color wheel motor is damaged.

Check if there is any damage to the circuit of the color wheel motor drive board.

## **10. Rotating Gobo Error**

Check if the position of the rotating gobo wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the rotating gobo wheel operating range.

Check if the rotating gobo wheel Hall elements is damaged.

Check if the rotating gobo wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the rotating gobo wheel motor is damaged.

Check if there is any damage to the circuit of the rotating gobo wheel motor drive board.

## **11. R-Gobo Reset Error**

Check if the position of the rotating gobo wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the rotating gobo wheel operating range.

Check if the rotating gobo wheel Hall elements is damaged.

Check if the rotating gobo wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the rotating gobo wheel motor is damaged.

Check if there is any damage to the circuit of the rotating gobo wheel motor drive board.

## **12. Static Gobo Error**

Check if the position of the static gobo wheel mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the static gobo wheel operating range.

Check if the static gobo wheel Hall elements is damaged.

Check if the static gobo wheel Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the static gobo wheel motor is damaged.

Check if there is any damage to the circuit of the static gobo wheel motor drive board.

## **13. Prism1/2 Reset Error**

Check if the position of the Prism1/2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the Prism1/2 operating range.

Check if the Prism1/2 Hall elements is damaged.

Check if the Prism1/2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the Prism1/2 motor is damaged.

Check if there is any damage to the circuit of the Prism1/2 motor drive board.

## **14. R-Prism1/2 Reset Error**

Check if the position of the Prism1/2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the Prism1/2 operating range.

Check if the Prism1/2 Hall elements is damaged.

Check if the Prism1/2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the Prism1/2 motor is damaged.

Check if there is any damage to the circuit of the Prism1/2 motor drive board.

## **15. Focus Reset Error**

Check if the position of the focus mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the focus operating range.

Check if the focus Hall elements is damaged.

Check if the focus Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the focus motor is damaged.

Check if there is any damage to the circuit of the focus motor drive board.

**16. BaseFan1/2/3/4 Start Err**

Check if the fan is not running.

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

Check if the fan is damaged.

Check if there are other interference items in the fan operating range.

**17. BaseFan1/2/3/4 Stop Err**

Check if the fan circuit on the motherboard breaks down.

Check if the component is damaged.

**18. BaseFan1/2/3/4 Too Low**

Check if the fan is out of order.

Check if there are other interference items in the fan operating range.

**19. BaseFan1/2/3/4 Too High**

Check if the fan is out of order.

Check if the fan circuit on the motherboard breaks down.

**20. HeadFan1/2/3/4/5/6/7/8/9/10/11 Start Err**

Check if the fan is not running.

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

Check if the fan is damaged.

Check if there are other interference items in the fan operating range.

**21. HeadFan1/2/3/4/5/6/7/8/9/10/11 Stop Err**

Check if the fan circuit on the motherboard breaks down.

Check if the component is damaged.

**22. HeadFan1/2/3/4/5/6/7/8/9/10/11 Too Low**

Check if the fan is out of order.

Check if there are other interference items in the fan operating range.

**23. HeadFan1/2/3/4/5/6/7/8/9/10/11 Too High**

Check if the fan is out of order.

Check if the fan circuit on the motherboard breaks down.

**24. ArmFan1 Start Err**

Check if the fan is not running.

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

Check if the fan is damaged.

Check if there are other interference items in the fan operating range.

**25. ArmFan1 Stop Err**

Check if the fan circuit on the motherboard breaks down.

Check if the component is damaged.

**26. ArmFan1 Too Low**

Check if the fan is out of order.

Check if there are other interference items in the fan operating range.

**27. ArmFan1 Too High**

Check if the fan is out of order.

Check if the fan circuit on the motherboard breaks down.

**28. Head Humidity Error**

Check if the humidity sensor is faulty

Check if the lead wire connecting the humidity sensor is installed in place or disconnected.

**29. Base Humidity Error**

Check if the humidity sensor is faulty

Check if the lead wire connecting the humidity sensor is installed in place or disconnected.

**30. G Sensor Error**

Check if the gravity sensor on board E is damaged.

**31. Ballast Comm Err**

Check if the power supply 380V has no output.

Check if the ballast is damaged.

Check if the communication lines are installed in place or disconnected.

**32. Lamp Hot Power Off**

Check if the temperature switch of the lamp is off.

Check if the fans are still running properly.

**33. Lamp On Error**

Turn on the lamp four times. If it still fails, there could be a problem with the software.

**34. Lamp volt. too high**

Check if the lamp is damaged.

Check if the lamp has reached its lifetime.

Check if the ballast is damaged.

**35. Ballast Temp. high**

Check if the ambient temperature exceeds 45°C.

Check if the ballast fan speed is too slow.

Check if the ballast is damaged.

**36. Head Humi. Too High**

Disassemble the casing of the fixture to dehumidify.

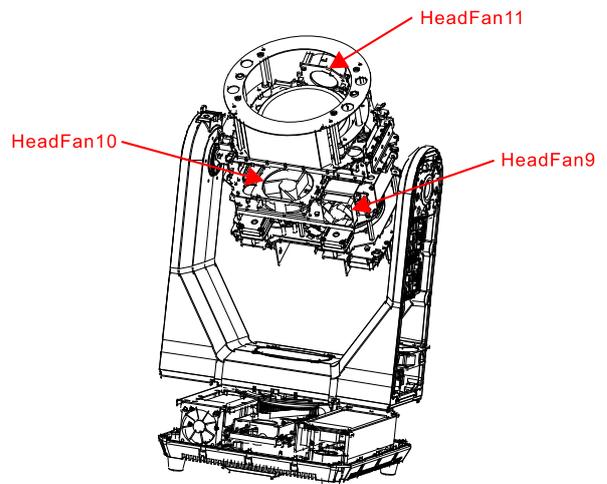
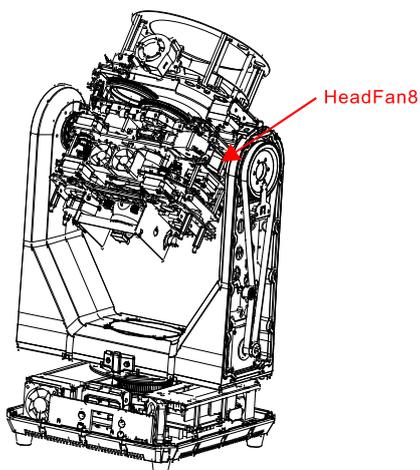
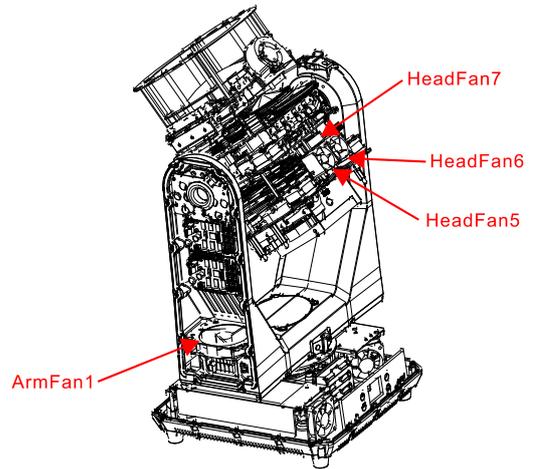
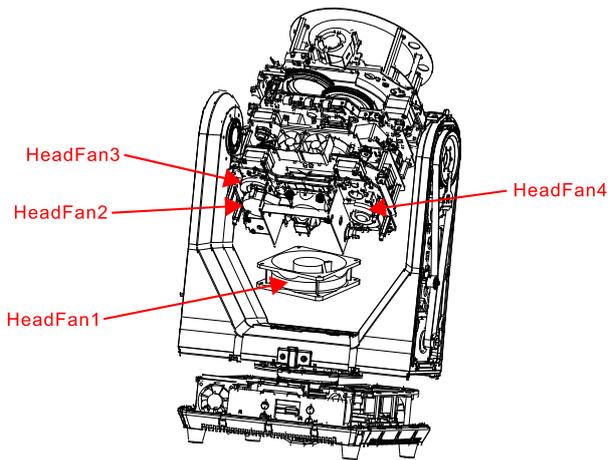
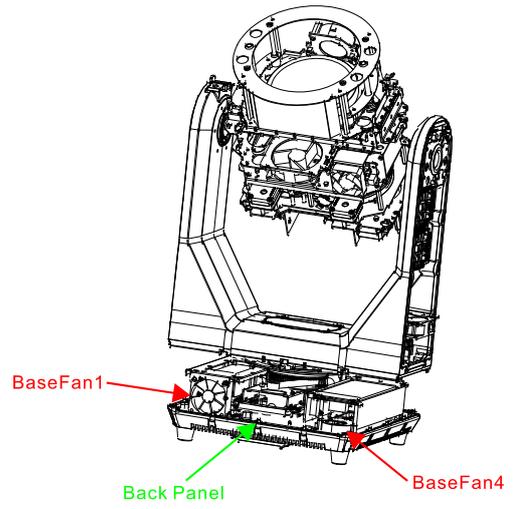
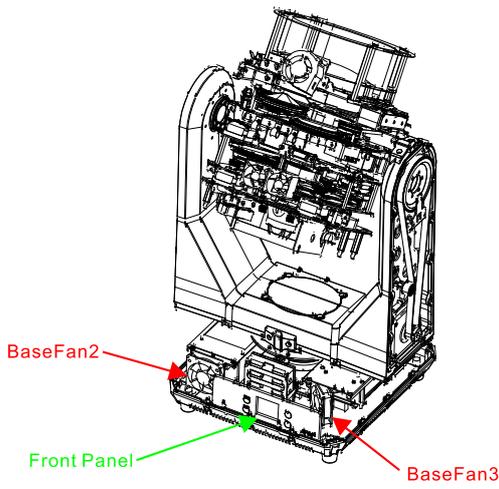
**37. Base Humi. Too High**

Disassemble the casing of the fixture to dehumidify.

**38. 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 easy troubleshooting:

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

1. Check the connect power.
2. Measure the mains voltage on the main connector.
3. Check the power on LED to see if it can be light up or not.

### **B. Not responding to DMX controller**

1. Check DMX connectors, cables to see if they are linked properly.
2. Check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

### **C. One of the channels is not working well**

1. The stepper motor might be damaged or the cable connected to the PCB is 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 the mains voltage either too high or too low.
2. Internal temperature may be too high. Check if replacement of fan is needed on the head.

## **9. Fixture Cleaning**

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- Clean with soft cloth and use normal glass to clean liquid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days.







**Innovation, Quality, Performance**