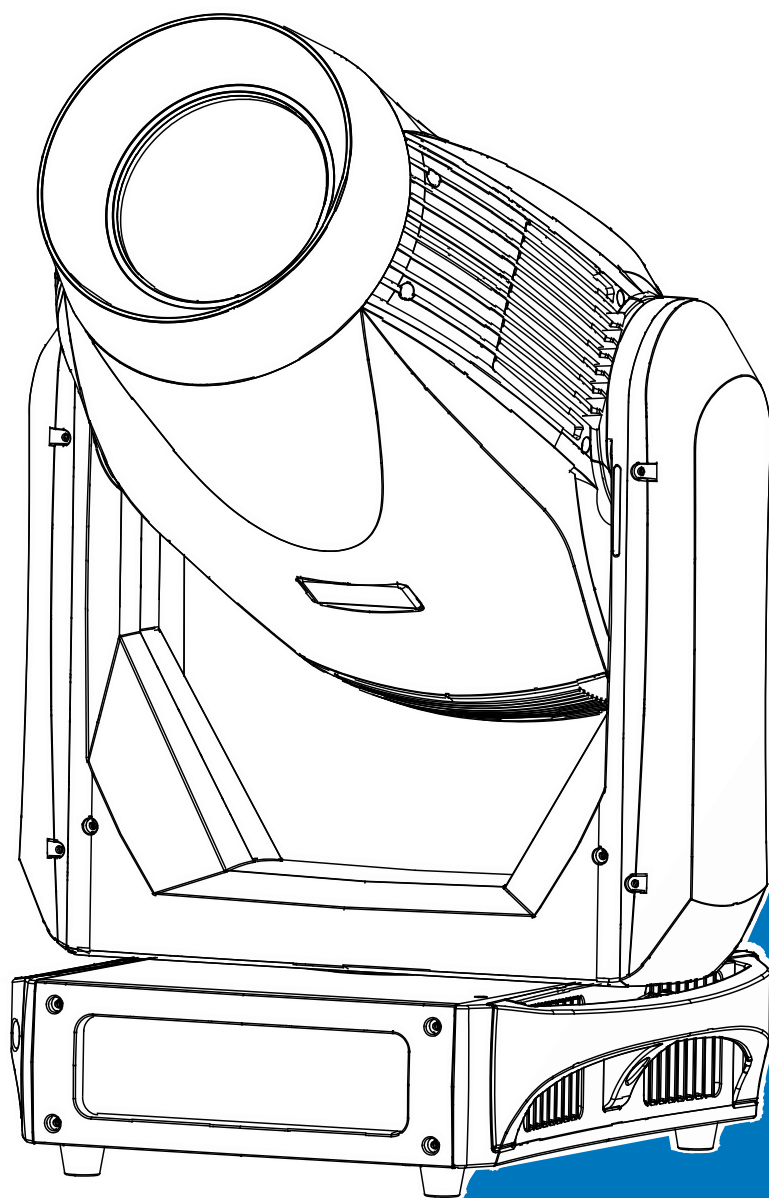




# GLORY FRAMING

XP-5000SZ F



## User Manual

Please read the instruction carefully before use

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## 1. Safety Instruction



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

### WARNING

Please keep this User Manual 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.
- The unit 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 are blocked; otherwise the unit will be overheated.
- Before operating, ensure that the voltage and frequency of power supply matches the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Maximum ambient temperature TA: 40°C, maximum ambient temperature TA: 0°C.
- Don't 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 85°C. Don't touch the housing bare-handed during its operation, and allow about 15 minutes for cooling the unit down before replacing bulb or maintenance as it could be very hot.
- 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 the fixture regularly.
- Do not touch any wire during operation as there might be a hazard of electric shock.
- Avoid power wires twist other cables.
- The minimum distance between light output and the illuminated 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 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 once again.
- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- 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.

**Caution:**

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- 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.

## 2. Technical Specification

◆ **Power Voltage:**

AC 230V, 50/60Hz

◆ **Power Consumption:**

1790W

◆ **Light Source:**

Osram HTI 1400W

◆ **Color Temperature:**

6000K

◆ **CRI:**

≥90

◆ **Zoom Range:**

9°~61°

◆ **Movement:**

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16 bit

Fixation: Pan/Tilt lock

◆ **Dimmer/Shutter:**

0~100% smooth dimming, various strobe speeds

◆ **Color wheel:**

6 colors plus open with rainbow effect

◆ **Gobo wheel:**

1 rotating gobo wheel with 5 gobos plus open

◆ **Animation Wheel:**

Perfect water wave and flame effects, rotatable and replaceable

## ◆ Control

DMX Channel: 34/40/25 channels

Control Mode: DMX, Art-Net, RDM

Firmware Upgrade: Update via DMX link

## ◆ Construction:

Display: LCD display

Battery backup for user operation without connecting to the mains

Data In/Out: 3-pin and 5-pin XLR

Power In/Out: Power Connector in

Protection Rating: IP20

## ◆ Features:

Motorized focus

CMY color mixing + linear CTO

Excellent color macro effect

4 fast and smooth framing shutters, each shutter blade position and angle can be controlled individually; Each shutter blade can block out light completely, the framing module can be rotated at  $\pm 45^\circ$

Motorized linear iris

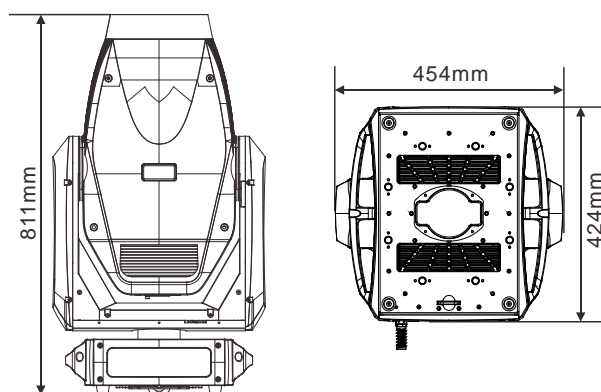
4 facets prism rotating in both directions

Independent frost effect

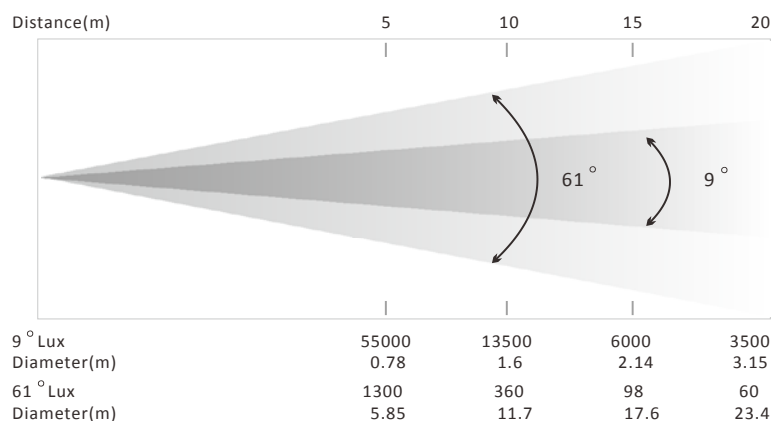
## ◆ Dimension/Weight:

454x424x811mm, 40kgs

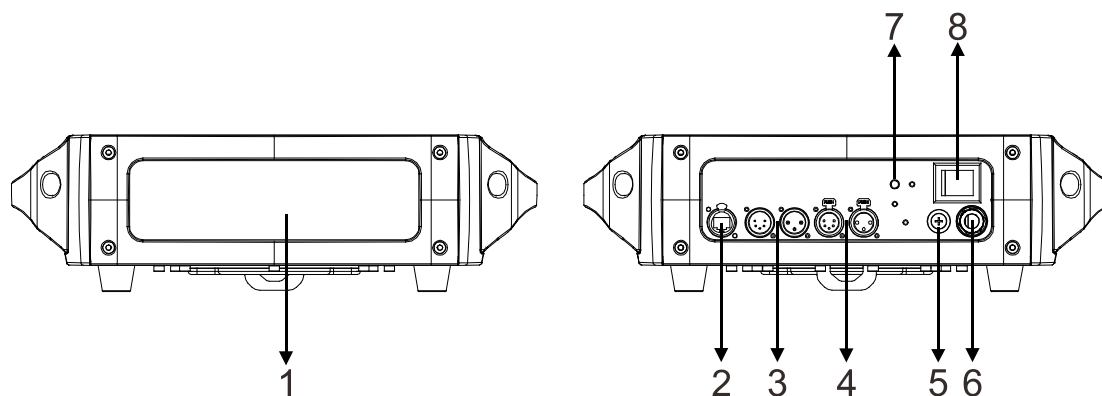
17.9"x16.7"x31.9" in, 88.2lbs



## Photometric Diagram:



### 3. Control Panel



#### 1. DISPLAY:

Shows the various menus and the selected functions

#### BUTTON:

<b>MENU</b>	To select the programming functions
<b>▲ UP</b>	To go backward in the selected functions
<b>▼ DOWN</b>	To go forward in the selected functions
<b>ENTER</b>	To confirm the selected functions

#### 2. ETHERNET:

Transfers fixture's information to a main controller

#### 3. DMX IN:

DMX 512 operation, use 3-pin/5-pin XLR cable to link the unit and DMX controller

#### 4. DMX OUT:

DMX 512 operation, use 3-pin/5-pin XLR cable to link the next units

#### 5. FUSE (T 15A):

Protect the unit from damage of over voltage or short circuit

#### 6. POWER:

Connect to the mains supply

#### 7. BATTERY DISPLAY:

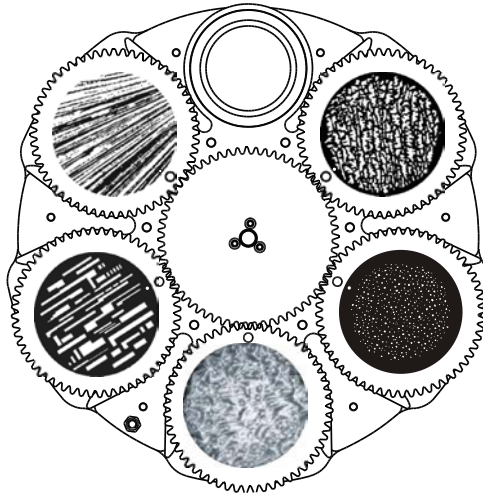
Shows the battery status

#### 8. POWER SWITCH:

Turns On/Off the power

## 4. Gobo Wheel and Lamp

### 4.1 Gobo Wheel



Rotation gobo wheel

#### ***DANGER!***

***Install/change the gobo-wheel with the device switched off only.***

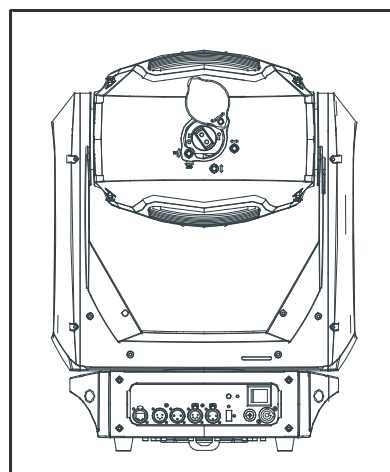
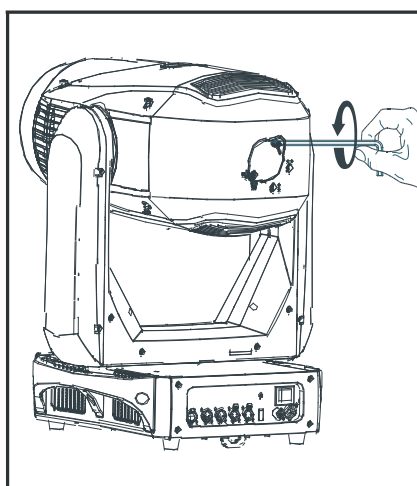
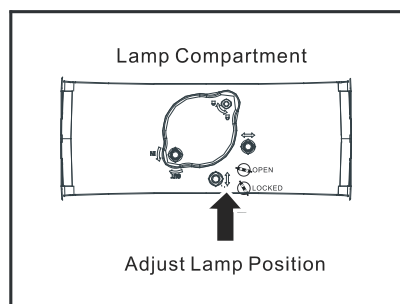
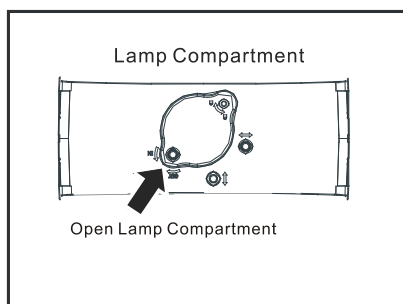
### 4.2 Lamp

#### **Osram HTI 1400W**

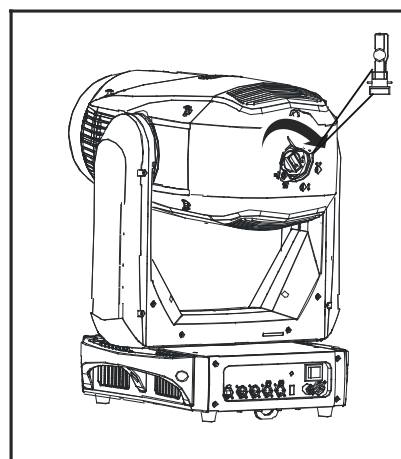
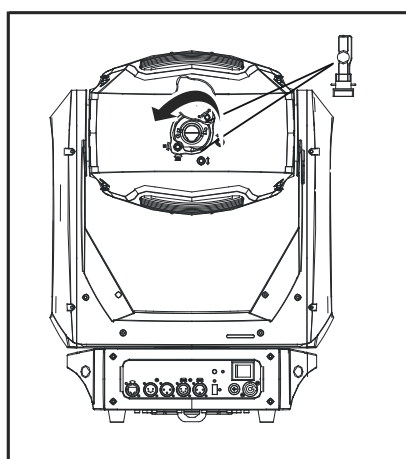
1. Because of its high internal pressure, there might be a risk that the Discharge lamp would explode during operation. The lamp emits intense UV radiation which is harmful to the eyes and skin. The high luminance of the arc can cause severe damage to the retina if you take a close look at the lamp.
2. 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.
3. 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.
4. The lamp generates UV radiation. Never operate the lamp without appropriate shielding.
5. When lining 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.
6. Make sure the lamp is located in the center of the reflector for the best projection.



### 4.3 Change The Lamp



Loosen the screw at the rear side of the fixture and open the lamp compartment cover.



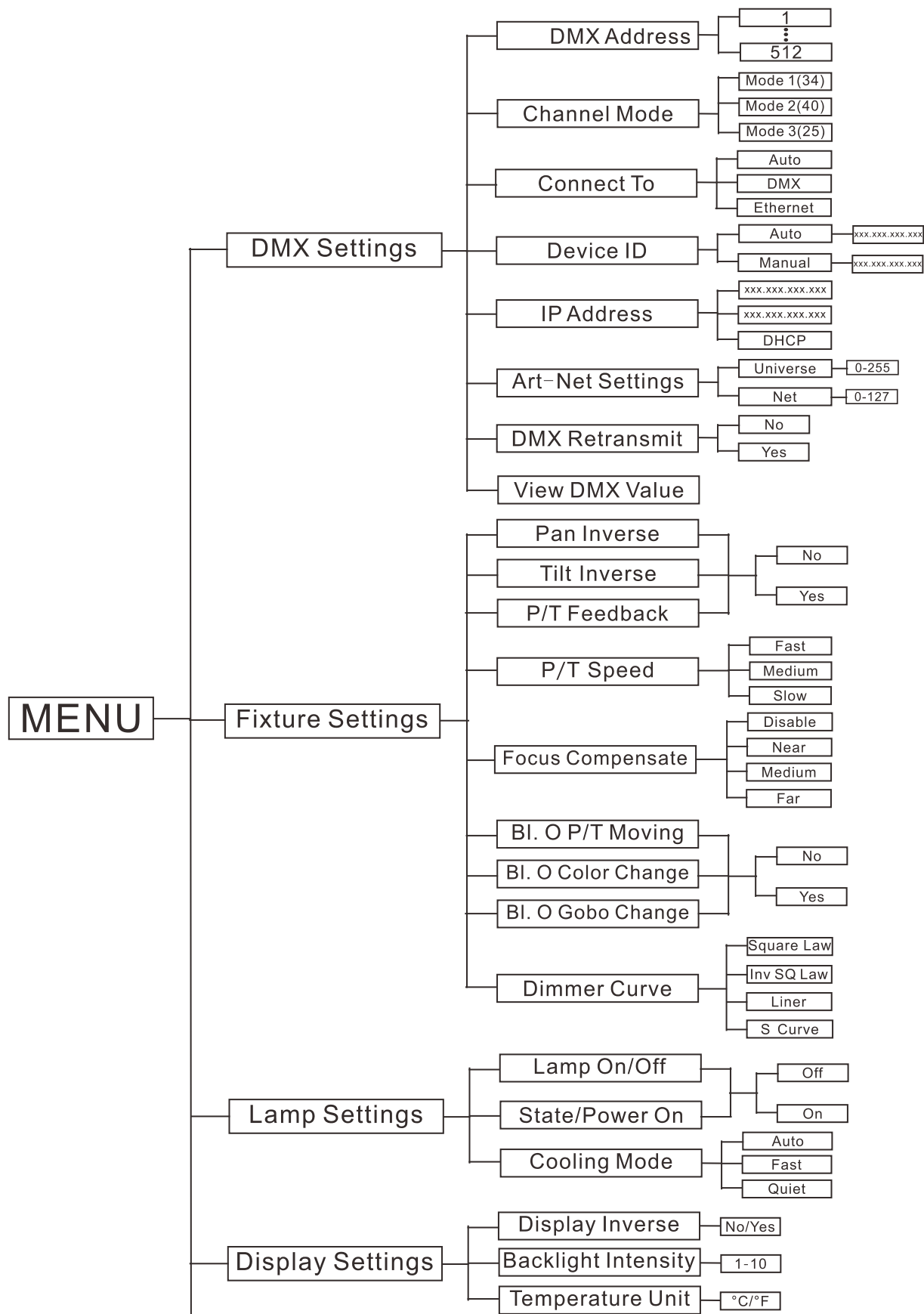
Remove the old lamp and turn the lamp left in order to take the lamp out, put a new lamp that must be the same type as the old one. And then place the new lamp into the lamp holder and turn the lamp right in order to fix. Finally reinstall the lamp compartment cover, fastening it securely before turning on power.

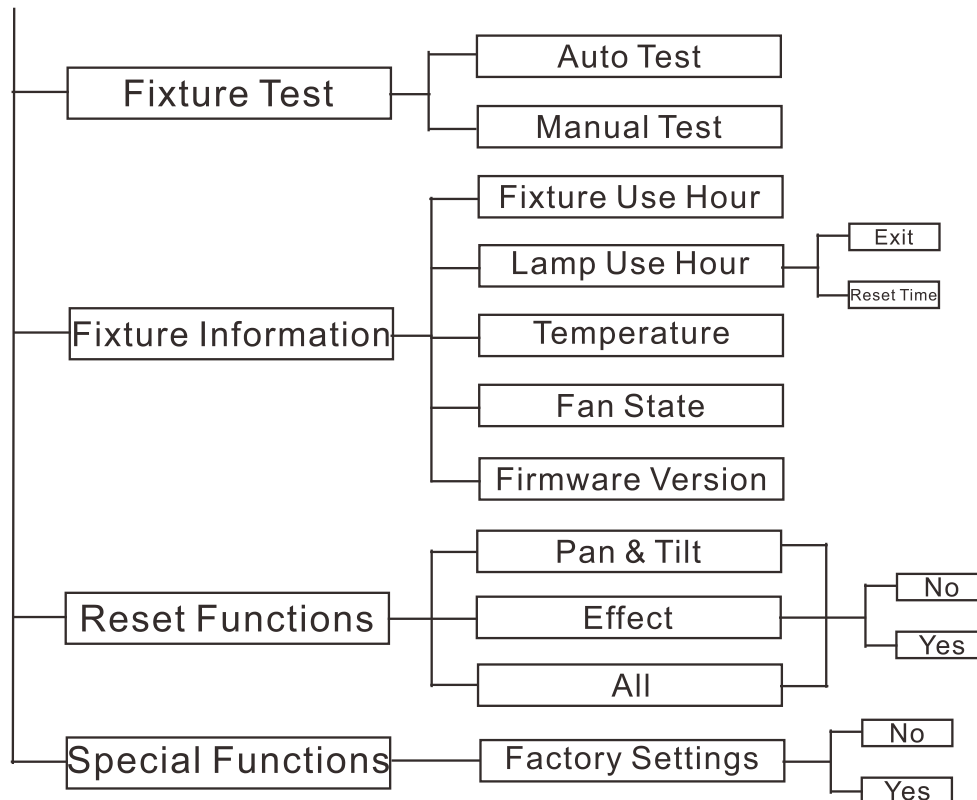
## 5. How To Set The Unit

### 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 one minute to exit menu mode.

The main functions are shown below:





## DMX Settings

To select **DMX Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address**, **Channel Mode**, **Connect To**, **Device ID**, **IP Address**, **Art-Net Settings**, **DMX Retransmit** 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 **1** to **512**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### Channel Mode

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1 (34)**, **Mode2 (40)** or **Mode3 (25)** Channel mode, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### Connect To

To select **Connect To**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Auto**, **DMX** or **Ethernet**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Device ID**

To select **Device ID**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Auto** or **Manual**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **IP Address**

To select **IP Address**, press the **ENTER** button to confirm and the display will show the current IP Address of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

### **Art-net Settings**

To select **Art-net Settings**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Universe** or **Net**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **DMX Retransmit**

To select **DMX Retransmit**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (DMX Retransmit), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute 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 one minute to exit menu mode.

## **Fixture Settings**

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan Inverse**, **Tilt Inverse**, **P/T Feedback**, **P/T Speed**, **Focus Compensate**, **Bl.O. P/T Moving**, **Bl.O. Color Change**, **Bl.O. Gobo Change** or **Dimmer Curve**.

### **Pan Inverse**

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

### **Tilt Inverse**

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

### **P/T Speed**

To select **P/T Speed**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Fast**, **Medium** or **Slow**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Focus Compensate**

To select **Focus Compensate**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Disable**, **Near**, **Medium** or **Far**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Bl.O. P/T Moving** — Blackout while pan/tilt moving

To select **Bl.O. P/T Moving**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal while pan/tilt moving) or **Yes** (blackout while pan/tilt moving), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Bl.O. Color Change** — Blackout while color changing

To select **Bl.O. Color Change**, press the **ENTER** button to confirm. Use **UP/DOWN** button to select **No** (normal while changing color) or **Yes** (blackout while color changing), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

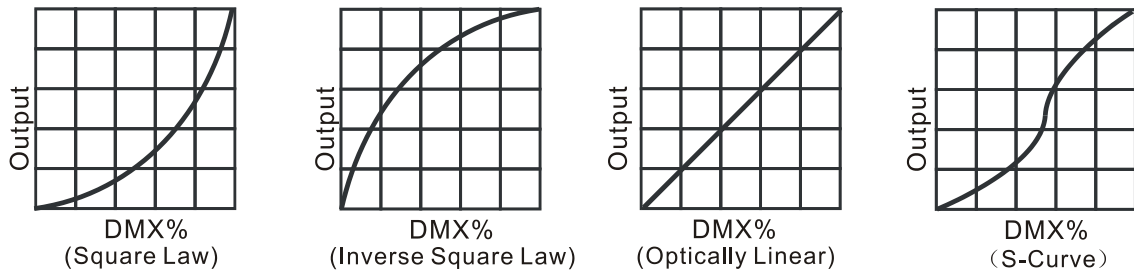
### **Bl.O. Gobo Change** — Blackout while gobo changing

To select **Bl.O. Gobo Change**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal while changing gobo) or **Yes** (blackout while gobo changing), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

## Dimmer Curve

To select **Dimmer Curve**, press the **ENTER** button to show the **DIMMER CURVE** on the display, use the **UP/DOWN** button to select **Square Law**, **Inv SQ Law**, **Liner** or **S Curve**. Once selected, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Dimmer Modes:



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

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

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

**S-cure:** 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**, **State/Power on** or **Cooling Mode**.

### 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 one minute 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 **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 one minute to exit menu mode.

### **Cooling Mode**

To select **Cooling Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Auto**, **Fast** or **Quiet**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

## **Display Settings**

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

### **Display Inverse**

To select **Display Inverse**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (display inverse), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Backlight Intensity**

To select **Backlight Intensity**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the value from **1** to **10**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Temperature Unit**

To 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 one minute 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**

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



## **Manual Test**

To 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 one minute.

**(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 Hour**, **Temperature**, **Fan State** or **Firmware Version**.

### **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 Use Hour**

To select **Lamp Use Hour**, press the **ENTER** button to confirm, lamp on time will show on the display, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Exit** or **Reset Time**, press the **ENTER** button to confirm. Press the **MENU** button back to the last menu or exit menu mode idling one minute.

### **Temperature**

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

### **Fan State**

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

### **Firmware Version**

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

## 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** — Reset Pan & Tilt

To select **Pan & Tilt**, 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 pan and tilt to their home positions), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Effect**

To 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), and press the **ENTER** button to store. Press the **MENU** button to exit.

### **All** — Reset All

To 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

To select **Special Functions**, press the **ENTER** button to confirm and select **Factory Settings**.

### **Factory Settings**

Select **Factory Settings**, 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 (34/40/25 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 and hold 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 select the submenu, press the **ENTER** button to store and automatically return to the last menu. Press the **MENU** button to exit.

Offset Menu	Pan	-128-127
	Tilt	-128-127
	Shutter	0-255
	Dimmer	0-255
	Color	-128-127
	Gobo1	-128-127
	R-Gobo1	-128-127
	Iris	0-255
	Prism	0-255
	R-Prism	-128-127
	Frost	0-255
	Focus	0-255
	Zoom	0-255
	Cyan	0-255
	Magenta	0-255
	Yellow	0-255
	CTO	0-255
	Animation	-128-127
	Blade-RG2	0-255
	Blade-RG1	0-255
	Blade-UP1	0-255
	Blade-UP2	0-255
	Blade-DW1	0-255
	Blade-DW2	0-255
	Blade-LF2	0-255
	Blade-LF1	0-255
	Framing	0-255

#### **Pan** - pan home position adjustment

Enter offset mode, select **Pan**, press the **ENTER** button to confirm. 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** - Tilt home position adjustment

Enter offset mode, select **Tilt**, press the **ENTER** button to confirm. 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** - Shutter home position adjustment

Enter offset mode, select **Shutter**, press the **ENTER** button to confirm. 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.

#### **Dimmer** - Dimmer home position adjustment

Enter offset mode, select **Dimmer**, press the **ENTER** button to confirm. 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** - Color home position adjustment

Enter offset mode, select **Color**, press the **ENTER** button to confirm. 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.

#### **Gobo1** – Gobo1 home position adjustment

Enter offset mode, select **Gobo1**, press the **ENTER** button to confirm. 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 Gobo1** – Gobo1 rotation home position adjustment

Enter offset mode, select **R Gobo1**, press the **ENTER** button to confirm. 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.

#### **Iris**- Iris home position adjustment

Enter offset mode, select **Iris**, press the **ENTER** button to confirm. 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.

### **Prism** – Prism home position adjustment

Enter offset mode, select **Prism**, press the **ENTER** button to confirm. 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.

### **R Prism** – Prism rotation home position adjustment

Enter offset mode, select **R Prism**, press the **ENTER** button to confirm. 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** - Frost home position adjustment

Enter offset mode, select **Frost**, press the **ENTER** button to confirm. 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** - Focus home position adjustment

Enter offset mode, select **Focus**, press the **ENTER** button to confirm. 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.

### **Zoom** - Zoom home position adjustment

Enter offset mode, select **Zoom** press the **ENTER** button to confirm. 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.

### **Cyan**- Cyan home position adjustment

Enter offset mode, select **Cyan**, press the **ENTER** button to confirm. 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.

### **Magenta**- Magenta home position adjustment

Enter offset mode, select **Magenta**, press the **ENTER** button to confirm. 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.

### **Yellow**- Yellow home position adjustment

Enter offset mode, select **Yellow**, press the **ENTER** button to confirm. 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.

#### **CTO-** CTO home position adjustment

Enter offset mode, select **CTO**, press the **ENTER** button to confirm. 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.

#### **Animation-** Animation home position adjustment

Enter offset mode, select **Animation**, press the **ENTER** button to confirm. 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.

#### **Blade-RG2** - Blade-RG2 home position adjustment

Enter offset mode, select **Blade-RG2**, press the **ENTER** button to confirm. 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.

#### **Blade-RG1** - Blade-RG1 home position adjustment

Enter offset mode, select **Blade-RG1**, press the **ENTER** button to confirm. 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.

#### **Blade-UP1** - Blade-UP1 home position adjustment

Enter offset mode, select **Blade-UP1**, press the **ENTER** button to confirm. 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.

#### **Blade-UP2** - Blade-UP2 home position adjustment

Enter offset mode, select **Blade-UP2**, press the **ENTER** button to confirm. 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.

#### **Blade-DW1-** Blade-DW1 home position adjustment

Enter offset mode, select **Blade-DW1**, press the **ENTER** button to confirm. 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.

### Blade-DW2 - Blade-DW2 home position adjustment

Enter offset mode, select **Blade-DW2**, press the **ENTER** button to confirm. 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.

### Blade-LF2 - Blade-LF2 home position adjustment

Enter offset mode, select **Blade-LF2**, press the **ENTER** button to confirm. 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.

### Blade-LF1 - Blade-DW1 home position adjustment

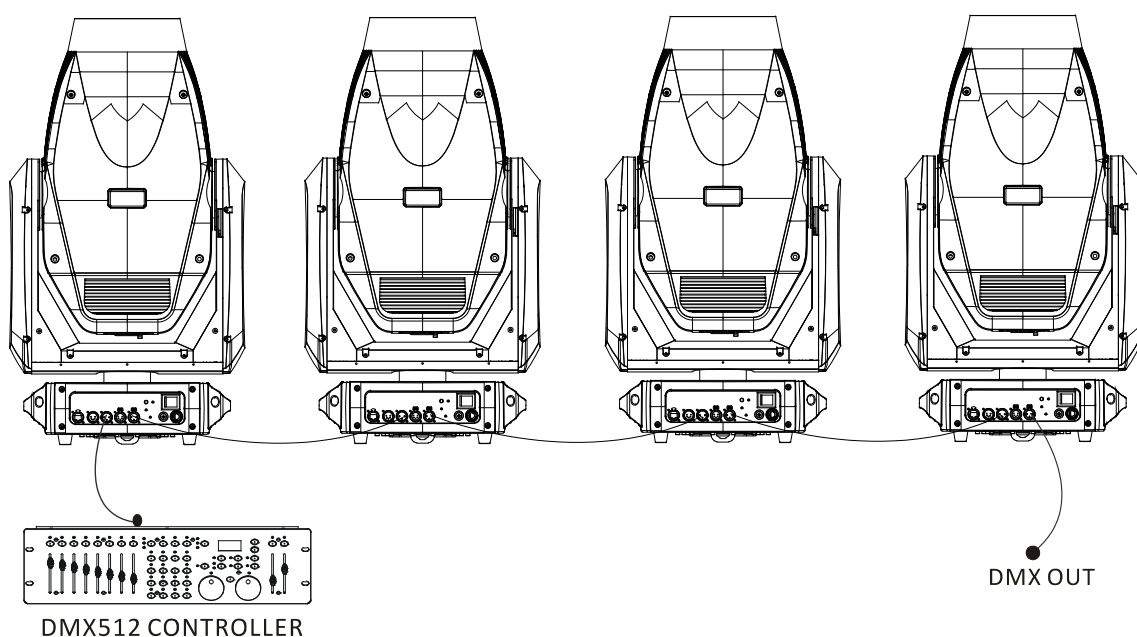
Enter offset mode, select **Blade-LF1**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to offset the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button to exit.

### Framing -Framing home position adjustment

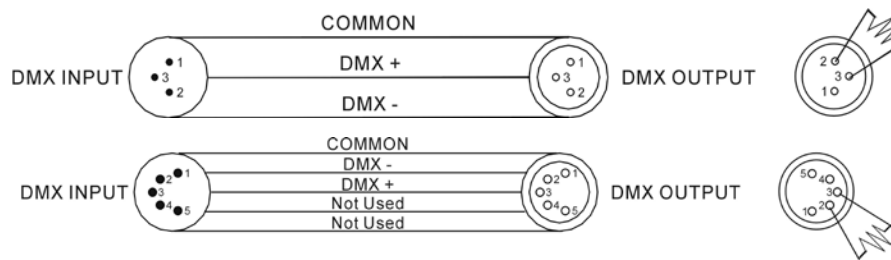
Enter offset mode, select **Framing**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to offset the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button to exit.

## 6. Control By Universal DMX Controller

### 6.1 DMX Connections







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 0-511 (usually 0 & 1 are equal to 1).
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 Channel Mode Setting

Enter menu mode, select *DMX Settings*, press the ENTER button to confirm, select *Channel Mode*, press the ENTER button to confirm, present channel mode will blink on the display, use the UP/DOWN button to select Mode1(34), Mode2(40) or Mode3(25), and press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode.

## 6.3 Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press the MENU button to enter menu mode, select *DMX Settings*, press the ENTER button to confirm, use the UP/DOWN button to select *DMX Address*, press the ENTER button to confirm, the present address will blink on the display. Use the UP/DOWN button to adjust the address from 1 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle one minute to exit menu mode.

Please refer to the following diagram to set the address for the first 4 units.

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
34 channels	1	35	69	103
40 channels	1	41	81	121
25 channels	1	26	51	76

## 6.4 DMX 512 Configuration

34Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000 – 019	<b>STROBE</b>
	020 – 049	Shutter closed, lamp switches to low power
	050 – 200	Shutter Open
	201 – 210	Strobe, slow → fast
	211 – 255	Shutter Open
2	000 – 255	Random strobe, slow → fast
3	000 – 255	<b>DIMMER</b> 0% → 100%
4	000 – 255	<b>DIMMER FINE</b>
5	000 – 255	<b>CYAN</b> 0% → 100%
6	000 – 255	<b>MAGENTA</b> 0% → 100%
7	000 – 255	<b>YELLOW</b> 0% → 100%
8		<b>CTO</b>

	000 – 255	6000K → 3200K
8		<b>COLOR WHEEL</b>
	000	Open
	001 – 014	Open → Color 1
	015	Color 1
	016 – 029	Color 1 → Color 2
	030	Color 2
	031 – 044	Color 2 → Color 3
	045	Color 3
	046 – 059	Color 3 → Color 4
	060	Color 4
	061 – 074	Color 4 → Color 5
	075	Color 5
	076 – 089	Color 5 → Color 6
	090	Color 6
	091 – 104	Color 6 → Open
	105 – 140	Open
	141 – 145	Color 1
	146 – 150	Color 2
	151 – 155	Color 3
	156 – 160	Color 4
	161 – 165	Color 5
	166 – 170	Color 6
	171 – 185	Open
	186 – 211	CW Rotation, fast → slow
	212 – 217	Stop
	218 – 243	CCW Rotation, slow → fast
	244 – 255	No Function
9		<b>GOBO WHEEL</b>
	000 – 009	Open
	010 – 014	Gobo-1
	015 – 019	Gobo-2
	020 – 024	Gobo-3
	025 – 029	Gobo-4
	030 – 034	Gobo-5
	035 – 309	Gobo1 Rotation
	040 – 044	Gobo2 Rotation
	045 – 049	Gobo3 Rotation
	050 – 054	Gobo4 Rotation
	055 – 059	Gobo5 Rotation
	060 – 089	Gobo1 shake: slow → fast
	090 – 119	Gobo2 shake: slow → fast
	120 – 149	Gobo3 shake: slow → fast
	150 – 179	Gobo4 shake: slow → fast
	180 – 209	Gobo5 shake: slow → fast
	210 – 232	Gobo wheel CW Rotation, fast → slow

	233 – 255	Gobo wheel CCW Rotation, slow → fast
10	000 – 002 003 – 125 126 – 128 129 – 252 253 – 255	<b>GOBO WHEEL ROTATION:</b> Index to 0° CW Rotation: fast → slow Stop CCW Rotation: slow → fast Index to 90°
11	000 – 255	<b>GOBO WHEEL ROTATION FINE</b>
12	000 – 009 010 – 019 020 – 124 125 – 132 133 – 236 237 – 255	<b>Animation</b> Off Open CW Rotation: fast → slow Stop CCW Rotation: slow → fast Open
13	000 – 255	<b>Framing</b> 0% → 100%
14	000 – 255	<b>Blade - UP1</b> 100% → 0%
15	000 – 255	<b>Blade - UP2</b> 100% → 0%
16	000 – 255	<b>Blade - DW1</b> 100% → 0%
17	000 – 255	<b>Blade - DW2</b> 100% → 0%
18	000 – 255	<b>Blade - LF1</b> 100% → 0%
19	000 – 255	<b>Blade - LF2</b> 100% → 0%
20	000 – 255	<b>Blade - RG1</b> 100% → 0%
21	000 – 255	<b>Blade - RG2</b> 100% → 0%
22	000 – 255	<b>FROST</b> 0% → 100%
23	000 – 010 011 – 138 139 – 255	<b>PRISM</b> Off Prism Indexing Prism Rotation
24	000 – 002 003 – 126 127 – 129 130 – 253	<b>R-PRISM</b> Stop at 0° position CW Rotation, fast → slow Stop CCW Rotation, slow → fast

	254 – 255	Stop at 45° position
<b>25</b>	000 – 255	<b>IRIS</b> 100% → 0%
<b>26</b>	000 – 255	<b>ZOOM</b> Wide → narrow
<b>27</b>	000 – 255	<b>ZOOM FINE</b>
<b>28</b>	000 – 255	<b>FOCUS</b> Far → near
<b>29</b>	000 – 255	<b>FOCUS FINE</b>
<b>30</b>	000 – 255	<b>PAN</b> 0° → 540°
<b>31</b>	000 – 255	<b>PAN FINE</b>
<b>32</b>	000 – 255	<b>TILT</b> 0° → 270°
<b>33</b>	000 – 255	<b>TILT FINE</b>
<b>34</b>	000 – 009 010 – 014 015 – 029 030 – 034 035 036 – 037 038 – 039 040 – 044 045 – 049 050 – 059 060 – 064 064 – 069 070 – 074 075 – 079 080 – 084 085 – 089 090 – 094 095 – 104 105 – 109 110 – 114 115 – 119 120 – 124 125 – 126 127 – 134 135 – 255	<b>SPECIAL FUNCTIONS</b> No function Reset all Reset effect Reset Pan/Tilt Fan Speed Quiet Fan Speed Auto Fan Speed Fast Lamp On Lamp Off No Function Dimmer curve: liner Dimmer curve: square law Dimmer curve: inverse square law Dimmer curve: s curve Pan/Tilt Speed: fast Pan/Tilt Speed: medium Pan/Tilt Speed: slow No function Focus Compensate: disable Focus Compensate: near Focus Compensate: medium Focus Compensate: far Lamp Full Power Lamp Half Power No function

#### 40 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
<b>1</b>	000 – 019	<b>STROBE</b>
	020 – 049	Shutter closed, lamp switches to low power
	050 – 200	Shutter Open
	201 – 210	Strobe, slow → fast
	211 – 255	Shutter Open Random strobe, slow → fast
<b>2</b>	000 – 255	<b>DIMMER</b> 0% → 100%
<b>3</b>	000 – 255	<b>DIMMER FINE</b>
<b>4</b>	000 – 255	<b>CYAN</b> 0% → 100%
<b>5</b>	000 – 255	<b>MAGENTA</b> 0% → 100%
<b>6</b>	000 – 255	<b>YELLOW</b> 0% → 100%
<b>7</b>	000 – 255	<b>CTO</b> 6000K → 3200K
<b>8</b>	000	<b>COLOR WHEEL</b> Open
	001 – 014	Open → Color 1
	015	Color 1
	016 – 029	Color 1 → Color 2
	030	Color 2
	031 – 044	Color 2 → Color 3
	045	Color 3
	046 – 059	Color 3 → Color 4
	060	Color 4
	061 – 074	Color 4 → Color 5
	075	Color 5
	076 – 089	Color 5 → Color 6
	090	Color 6
	091 – 104	Color 6 → Open
	105 – 140	Open
	141 – 145	Color 1
	146 – 150	Color 2
	151 – 155	Color 3
	156 – 160	Color 4
	161 – 165	Color 5
	166 – 170	Color 6
	171 – 185	Open
	186 – 211	CW Rotation, fast → slow
	212 – 217	Stop

	218 – 243 244 – 255	CCW Rotation, slow → fast No Function
<b>9</b>	000 – 009 010 – 014 015 – 019 020 – 024 025 – 029 030 – 034 035 – 309 040 – 044 045 – 049 050 – 054 055 – 059 060 – 089 090 – 119 120 – 149 150 – 179 180 – 209 210 – 232 233 – 255	<b>GOBO WHEEL</b> Open Gobo-1 Gobo-2 Gobo-3 Gobo-4 Gobo-5 Gobo1 Rotation Gobo2 Rotation Gobo3 Rotation Gobo4 Rotation Gobo5 Rotation Gobo1 shake: slow → fast Gobo2 shake: slow → fast Gobo3 shake: slow → fast Gobo4 shake: slow → fast Gobo5 shake: slow → fast Gobo wheel CW Rotation, fast → slow Gobo wheel CCW Rotation, slow → fast
<b>10</b>	000 – 002 003 – 125 126 – 128 129 – 252 253 – 255	<b>GOBO WHEEL ROTATION:</b> Index to 0° CW Rotation: fast → slow Stop CCW Rotation: slow → fast Index to 90°
<b>11</b>	000 – 255	<b>GOBO WHEEL ROTATION FINE</b>
<b>12</b>	000 – 009 010 – 019 020 – 124 125 – 132 133 – 236 237 – 255	<b>Animation</b> Off Open CW Rotation: fast → slow Stop CCW Rotation: slow → fast Open
<b>13</b>		<b>Reserved</b>
<b>14</b>	000 – 255	<b>Blade - UP1</b> 100% → 0%
<b>15</b>	000 – 255	<b>Blade - UP2</b> 100% → 0%
<b>16</b>	000 – 255	<b>Blade - DW1</b> 100% → 0%
<b>17</b>	000 – 255	<b>Blade - DW2</b> 100% → 0%

<b>18</b>	000 – 255	<b>Blade - LF1</b> 100% → 0%
<b>19</b>	000 – 255	<b>Blade - LF2</b> 100% → 0%
<b>20</b>	000 – 255	<b>Blade - RG1</b> 100% → 0%
<b>21</b>	000 – 255	<b>Blade - RG2</b> 100% → 0%
<b>22</b>	000 – 255	<b>Framing</b> 0% → 100%
<b>23</b>	000 – 255	<b>FROST</b> 0% → 100%
<b>24</b>	000 – 010 011 – 138 139 – 255	<b>PRISM</b> Off Prism Indexing Prism Rotation
<b>25</b>	000 – 002 003 – 126 127 – 129 130 – 253 254 – 255	<b>R-PRISM</b> Stop at 0° position CW Rotation, fast → slow Stop CCW Rotation, slow → fast Stop at 45° position
<b>26</b>	000 – 255	<b>IRIS</b> 100% → 0%
<b>27</b>	000 – 255	<b>ZOOM</b> Wide → narrow
<b>28</b>	000 – 255	<b>ZOOM FINE</b>
<b>29</b>	000 – 255	<b>FOCUS</b> Far → near
<b>30</b>	000 – 255	<b>FOCUS FINE</b>
<b>31</b>	000 – 255	<b>PAN</b> 0° → 540°
<b>32</b>	000 – 255	<b>PAN FINE</b>
<b>33</b>	000 – 255	<b>TILT</b> 0° → 270°
<b>34</b>	000 – 255	<b>TILT FINE</b>
<b>35</b>	000 – 009 010 – 014 015 – 029 030 – 034 035 036 – 037	<b>SPECIAL FUNCTIONS</b> No function Reset all Reset effect Reset Pan/Tilt Fan Speed Quiet Fan Speed Auto



	038 – 039 040 – 044 045 – 049 050 – 059 060 – 064 064 – 069 070 – 074 075 – 079 080 – 084 085 – 089 090 – 094 095 – 104 105 – 109 110 – 114 115 – 119 120 – 124 125 – 126 127 – 134 135 – 255	Fan Speed Fast Lamp On Lamp Off No Function Dimmer curve: liner Dimmer curve: square law Dimmer curve: inverse square law Dimmer curve: s curve Pan/Tilt Speed: fast Pan/Tilt Speed: medium Pan/Tilt Speed: slow No function Focus Compensate: disable Focus Compensate: near Focus Compensate: medium Focus Compensate: far Lamp Full Power Lamp Half Power No function
<b>36</b>		<b>Reserved</b>
<b>37</b>		<b>Reserved</b>
<b>38</b>		<b>Reserved</b>
<b>39</b>		<b>Reserved</b>
<b>40</b>		<b>Reserved</b>

### 25 Channels (Mode 3):

CHANNEL	VALUE	FUNCTION
<b>1</b>	000 – 019	<b>STROBE</b> Shutter closed, lamp switches to low power
	020 – 049	Shutter Open
	050 – 200	Strobe, slow → fast
	201 – 210	Shutter Open
	211 – 255	Random strobe, slow → fast
<b>2</b>	000 – 255	<b>DIMMER</b> 0% → 100%
<b>3</b>	000 – 255	<b>DIMMER FINE</b>
<b>4</b>	000 – 255	<b>CYAN</b> 0% → 100%
<b>5</b>	000 – 255	<b>MAGENTA</b> 0% → 100%

<b>6</b>	000 – 255	<b>YELLOW</b> 0% → 100%
<b>7</b>	000 – 255	<b>CTO</b> 6000K → 3200K
<b>8</b>	000 001 – 014 015 016 – 029 030 031 – 044 045 046 – 059 060 061 – 074 075 076 – 089 090 091 – 104 105 – 140 141 – 145 146 – 150 151 – 155 156 – 160 161 – 165 166 – 170 171 – 185 186 – 211 212 – 217 218 – 243 244 – 255	<b>COLOR WHEEL</b> Open Open → Color 1 Color 1 Color 1 → Color 2 Color 2 Color 2 → Color 3 Color 3 Color 3 → Color 4 Color 4 Color 4 → Color 5 Color 5 Color 5 → Color 6 Color 6 Color 6 → Open Open Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Open CW Rotation, fast → slow Stop CCW Rotation, slow → fast No Function
<b>9</b>	000 – 009 010 – 014 015 – 019 020 – 024 025 – 029 030 – 034 035 – 309 040 – 044 045 – 049 050 – 054 055 – 059 060 – 089 090 – 119 120 – 149	<b>GOBO WHEEL</b> Open Gobo-1 Gobo-2 Gobo-3 Gobo-4 Gobo-5 Gobo1 Rotation Gobo2 Rotation Gobo3 Rotation Gobo4 Rotation Gobo5 Rotation Gobo1 shake: slow → fast Gobo2 shake: slow → fast Gobo3 shake: slow → fast

	150 – 179 180 – 209 210 – 232 233 – 255	Gobo4 shake: slow → fast Gobo5 shake: slow → fast Gobo wheel CW Rotation, fast → slow Gobo wheel CCW Rotation, slow → fast
<b>10</b>	000 – 002 003 – 125 126 – 128 129 – 252 253 – 255	<b>GOBO WHEEL ROTATION:</b> Index to 0° CW Rotation: fast → slow Stop CCW Rotation: slow → fast Index to 90°
<b>11</b>	000 – 255	<b>GOBO WHEEL ROTATION FINE</b>
<b>12</b>	000 – 009 010 – 019 020 – 124 125 – 132 133 – 236 237 – 255	<b>Animation</b> Off Open CW Rotation: fast → slow Stop CCW Rotation: slow → fast Open
<b>13</b>	000 – 255	<b>FROST</b> 0% → 100%
<b>14</b>	000 – 010 011 – 138 139 – 255	<b>PRISM</b> Off Prism Indexing Prism Rotation
<b>15</b>	000 – 002 003 – 126 127 – 129 130 – 253 254 – 255	<b>R-PRISM</b> Stop at 0° position CW Rotation, fast → slow Stop CCW Rotation, slow → fast Stop at 45° position
<b>16</b>	000 – 255	<b>IRIS</b> 100% → 0%
<b>17</b>	000 – 255	<b>ZOOM</b> Wide → narrow
<b>18</b>	000 – 255	<b>ZOOM FINE</b>
<b>19</b>	000 – 255	<b>FOCUS</b> Far → near
<b>20</b>	000 – 255	<b>FOCUS FINE</b>
<b>21</b>	000 – 255	<b>PAN</b> 0° → 540°
<b>22</b>	000 – 255	<b>PAN FINE</b>
<b>23</b>	000 – 255	<b>TILT</b> 0° → 270°

24	000 – 255	TILT FINE
25		<b>SPECIAL FUNCTIONS</b>
	000 – 009	No function
	010 – 014	Reset all
	015 – 029	Reset effect
	030 – 034	Reset Pan/Tilt
	035	Fan Speed Quiet
	036 – 037	Fan Speed Auto
	038 – 039	Fan Speed Fast
	040 – 044	Lamp On
	045 – 049	Lamp Off
	050 – 059	No Function
	060 – 064	Dimmer curve: liner
	064 – 069	Dimmer curve: square law
	070 – 074	Dimmer curve: inverse square law
	075 – 079	Dimmer curve: s curve
	080 – 084	Pan/Tilt Speed: fast
	085 – 089	Pan/Tilt Speed: medium
	090 – 094	Pan/Tilt Speed: slow
	095 – 104	No function
	105 – 109	Focus Compensate: disable
	110 – 114	Focus Compensate: near
	115 – 119	Focus Compensate: medium
	120 – 124	Focus Compensate: far
	125 – 126	Lamp Full Power
	127 – 134	Lamp Half Power
	135 – 255	No function

## 7. 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 and main fuse.
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. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check to see if the DMX cables run near or run alongside 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.

## **8. 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. Clean the internal optics at least every 30/60 days.





**Innovation, Quality, Performance**