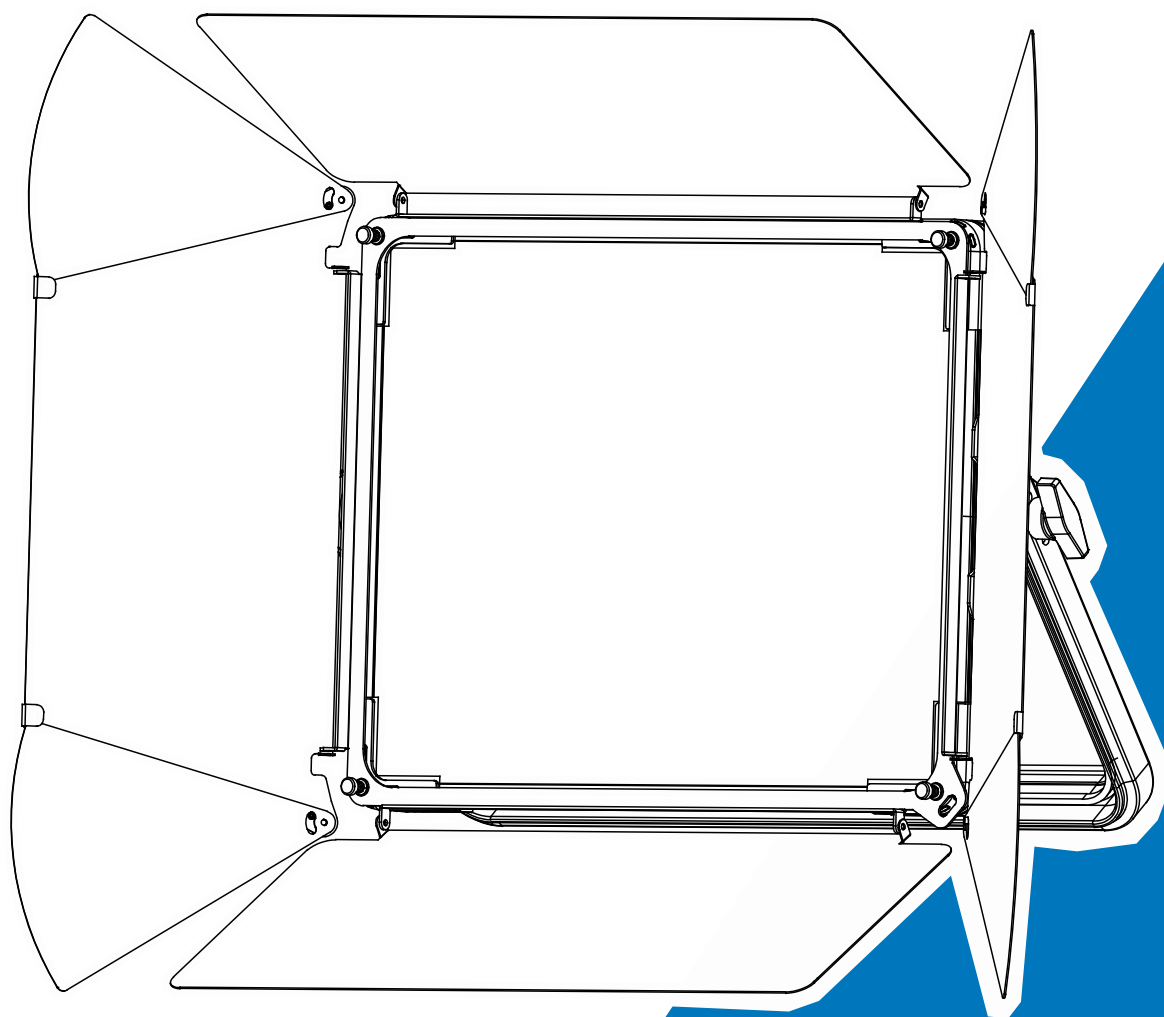




LIGHT PANEL  
*TV*  
2000



## User Manual

Please read the instruction carefully before use

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## 1. Safety Introductions



### WARNING

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

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

### Important:

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

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

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

**Installation:**

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

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

## 2. Technical Specifications

### Power Voltage:

AC 100~240V, 50/60Hz

### Power Consumption:

210W

### Light Source:

480pcs CW+480pcs WW LED

### Color Temperature:

3200±150K~5600±250K

### Beam Angle:

110°

### Control:

DMX Channel: 2/3A/3B/4/5/6 channels

Control Mode: DMX512, RDM, Primary/Secondary, Art-Net

Firmware Upgrade: Update via DMX link

### Construction:

Display: LCD display

Data In/Out: 5-pin XLR

Power In/Out: Power Connector in

Protection Rating: IP20

### Optical:

CRI: VW≥94

CQS: VW≥94

TLCI: VW≥95

### Features:

With outstanding floodlight and soft light

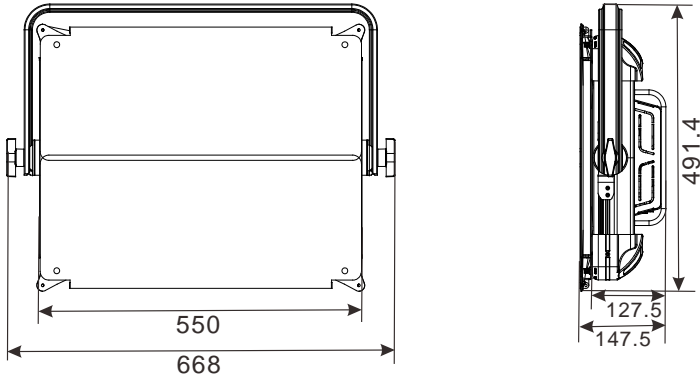
TV LIGHT PANEL 2000 is widely applied to photographic studio, TV station, conference room, shopping mall

Access to battery

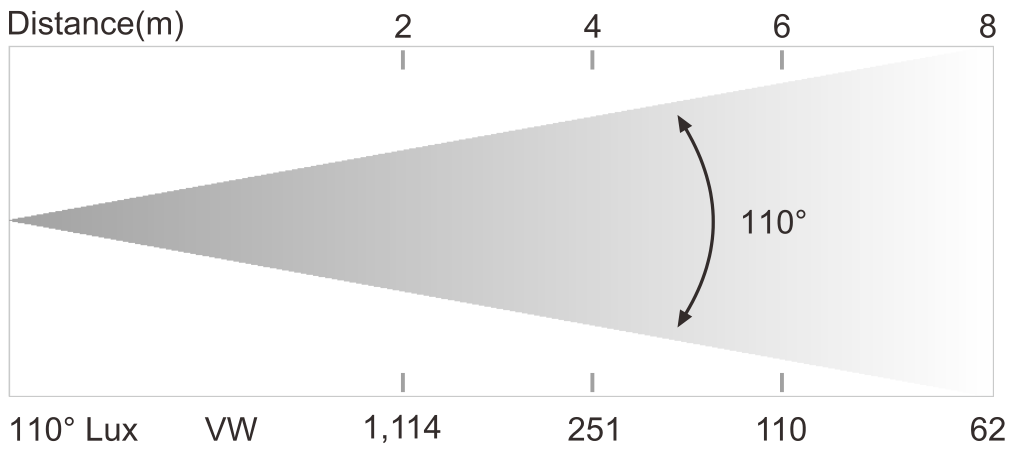
**Dimensions/Weight:**

668x147.5x491.4mm, 13kgs

26.3"x5.8"x19.3" in, 28.7lbs

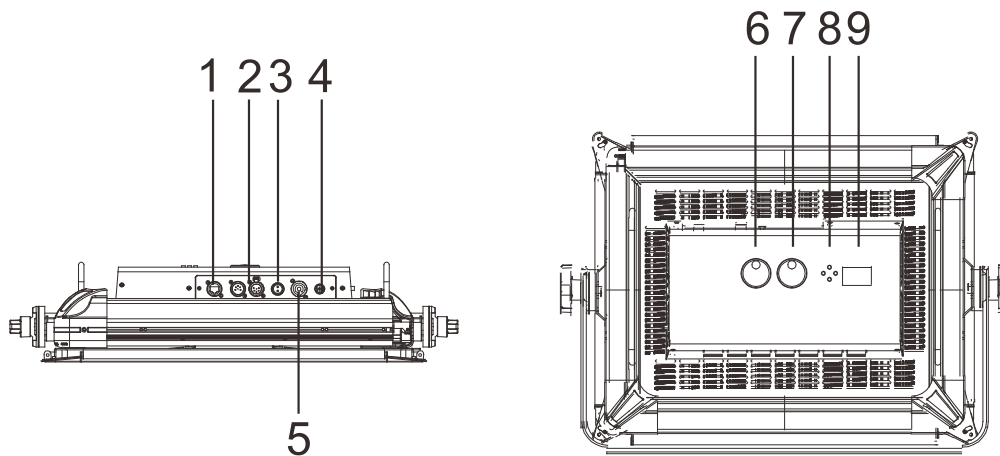


**Photometric Diagram:**



### 3. How To Set The Unit

#### 3.1 Control Panel



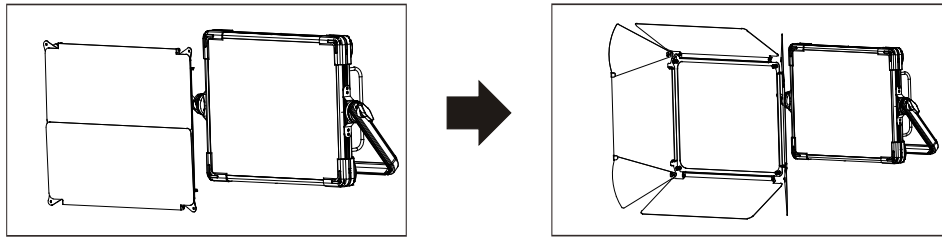
- 1. ETHERNET:** Transfers fixture's information to a main controller
- 2. DMX IN/OUT :** For DMX512 link, use 5-pin XLR cable to link the unit to a DMX controller or the next unit and input/output DMX signal
- 3. BATTERY(DC 48V):** Connects to external battery
- 4. FUSE(T 5A):** To protect the unit from damage of over current
- 5. MAINS IN:** Connects to mains supply power
- 6. Color Temperature Knob:** Adjust the color temperature
- 7. Dimmer Knob:** Adjust the dimmer

**8. Button:**

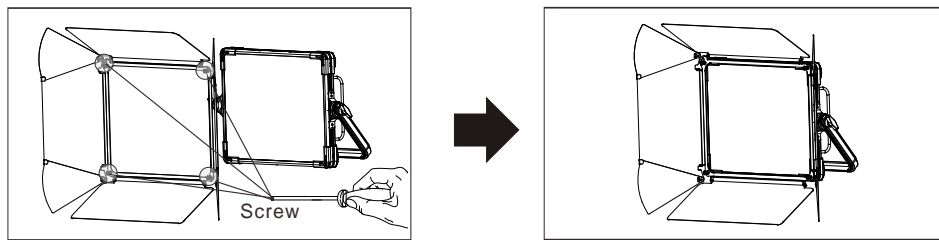
<b>MENU</b>	To select the programming functions
<b>UP</b>	To go backward in the selected functions
<b>DOWN</b>	To go forward in the selected functions
<b>ENTER</b>	To confirm the selected functions

- 9. Display:** Shows the various menus and the selected functions

### 3.2 The Plate for Barn Door Installation



At first, please push the barn door by hand.



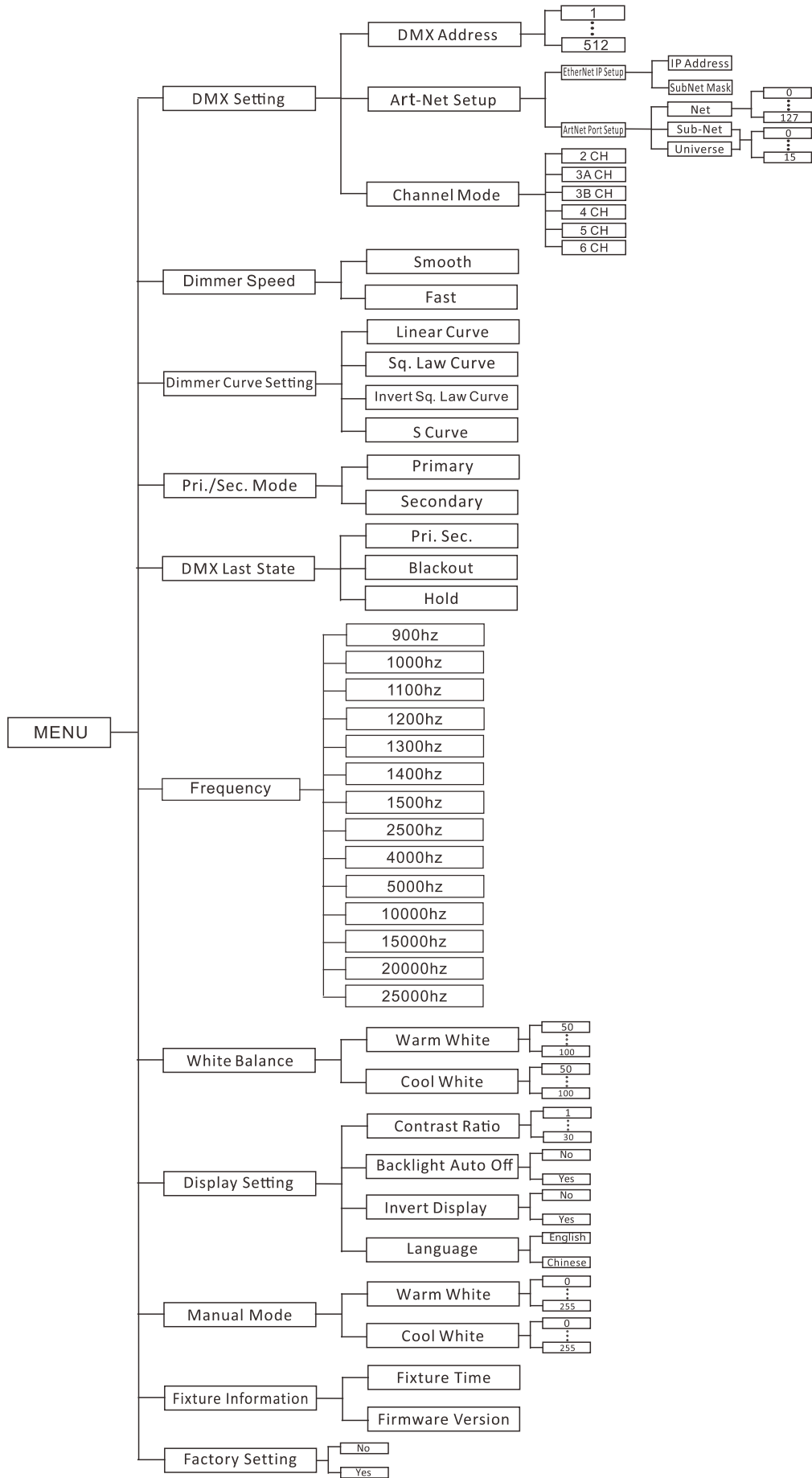
Secondly, please put the Barn Door into the unit, to fasten the screws of the slot, then finish the barn door installation.

### 3.3 Main Function

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

The main functions are shown below:





## ***DMX Setting***

Select the **DMX Setting**, press the **ENTER** button to confirm. Use the **UP** and **DOWN** button to select **DMX Address**, **Art-Net Setup** or **Channel Mode**.

### **DMX Address**

Select the **DMX Address**, press the **ENTER** button to confirm, the display will show the present address. Use the **UP** and **DOWN** button to select **1** to **512**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### **Art-Net Setup**

Select the **Art-Net Setup**, press the **ENTER** button to confirm. Use the **UP** and **DOWN** button to select the **EtherNet IP Setup** or **ArtNet Port Setup**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### **Channel Mode**

Select the **Channel Mode**, press the **ENTER** button to confirm, the display will show the present channel mode. Use the **UP** and **DOWN** button to select **2 CH**, **3A CH**, **3B CH**, **4 CH**, **5 CH** or **6 CH**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

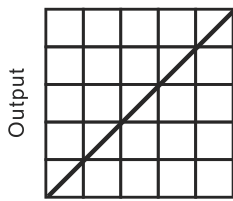
## ***Dimmer Speed***

Select the **Dimmer Speed**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select the **Smooth** or **Fast**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

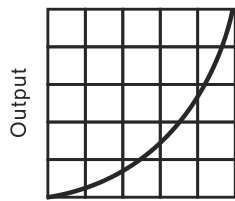
## ***Dimmer Curve Setting***

Select **Dimmer Curve Setting**, press the **ENTER** button to confirm. Use the **DOWN/UP** button to select the **Linear Curve**, **Sq. Law Curve**, **Invert Sq. Law Curve** or **S Curve**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

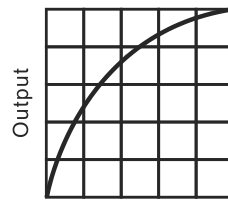
## Dimmer Modes



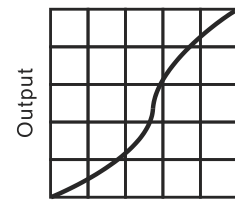
Optically Linear



Square Law



Inverse Square Law



S-curve

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

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

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

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

### ***Pri./Sec. Mode***

Select the **Pri./Sec. Mode**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select the **Primary** or **Secondary**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### ***DMX Last State***

Select **DMX Last State**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select **Pri. Sec.**, **Blackout** or **Hold**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### ***Frequency***

Select **Frequency**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select **900hz**, **1000hz**, **1100hz**, **1200hz**, **1300hz**, **1400hz**, **1500hz**, **2500hz**, **4000hz**, **5000hz**, **10000hz**, **15000hz**, **20000hz** or **25000hz**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## ***White Balance***

Select **White Balance**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select **Warm White** or **Cool White** and adjust the value from **50** to **100**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

## ***Display Setting***

Select **Display Setting**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **Contrast Ratio**, **Backlight Auto off**, **Invert Display** or **Language**.

### **Contrast Ratio**

Select **Contrast Ratio**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to adjust from **1** to **30**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### **Backlight Auto Off**

Select **Backlight Auto Off**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### **Invert Display**

Select **Invert Display**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select **No** or **Yes**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### **Language**

Select **Language**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select **English** or **Chinese**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### ***Manual Mode***

Select **Manual Mode**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select the **Warm White** or **Cool White**, press the **ENTER** button and use the **UP** and **DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or idling 30 seconds to exit menu mode.

### ***Fixture Information***

Select **Fixture Information**, press the **ENTER** button to confirm, use the **UP** and **DOWN** button to select **Fixture Time** or **Firmware Version**.

#### **Fixture Time**

Select **Fixture Time**, press the **ENTER** button and the display will show the number of working hours of the unit. To go back to the functions press the **MENU** button again.

#### **Firmware Version**

Select **Firmware Version**, press the **ENTER** button and the display will show the version of firmware of the unit. To go back to the functions press the **MENU** button again.

### ***Factory Setting***

Select **Factory Setting**, press the **ENTER** button to confirm, the present mode will blink on the display, use the **UP** and **DOWN** button to select the **No** or **Yes**, the fixture will back to factory setting once select Yes.

## **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 (2/3A/3B/4/5/6 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 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.

## **4. How To Control The Unit**

You can operate the unit in three ways:

1. By primary/secondary function
2. By DMX controller
3. By multimedia software via ArtNet

No need to turn the unit off when you change the DMX address, as new DMX address setting will be affected at once.

### **4.1 Primary/Secondary Function**

By linking the units in primary/secondary connection, the first unit will be primary automatically. You should set the primary unit effect via its knobs, then the other units (secondary) will lighting as the same.

## 4.2 DMX Controller

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 Setting, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will blink in the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

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

Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
2 channels	1	3	5	7
3A channels	1	4	7	10
3B channels	1	4	7	10
4 channels	1	5	9	13
5 channels	1	6	11	16
6 channels	1	7	13	19

## 4.3. DMX512 Configuration

Please control the fixture by referring to the configurations below

### Attentions:

1. The unit will maintain the last condition until reset if you cut-off the DMX signal.
2. For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

**2 Channel Mode:**

<b>CHANNEL</b>	<b>VALUE</b>	<b>FUNCTIONS</b>
<b>1</b>	000-255	<b>COLOR TEMPERATURE</b> 5600K-3200K
<b>2</b>	000-255	<b>DIMMER</b> 0%→100%

**3A Channel Mode:**

<b>CHANNEL</b>	<b>VALUE</b>	<b>FUNCTIONS</b>
<b>1</b>	000-255	<b>WW DIMMER</b> 0%→100%
<b>2</b>	000-255	<b>CW DIMMER</b> 0%→100%
<b>3</b>	000-255	<b>DIMMER</b> 0%→100%

**3B Channel Mode:**

<b>CHANNEL</b>	<b>VALUE</b>	<b>FUNCTIONS</b>
<b>1</b>	000-255	<b>COLOR TEMPERATURE</b> 5600K-3200K
<b>2</b>	000-255	<b>DIMMER</b> 0%→100%
<b>3</b>	000-255	<b>DIMMER FINE</b>

**4 Channel Mode:**

<b>CHANNEL</b>	<b>VALUE</b>	<b>FUNCTIONS</b>
<b>1</b>	000-255	<b>WW DIMMER</b> 0%→100%
<b>2</b>	000-255	<b>CW DIMMER</b> 0%→100%
<b>3</b>	000-255	<b>DIMMER</b> 0%→100%
<b>4</b>	000-255	<b>DIMMER FINE</b>



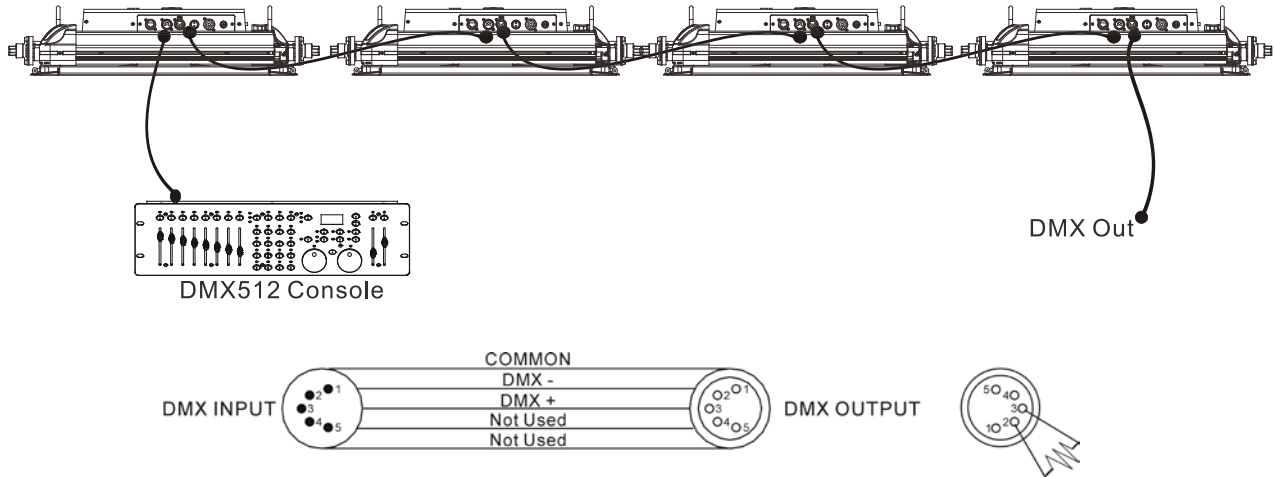
**5 Channel Mode:**

CHANNEL	VALUE	FUNCTIONS
1	000-255	<b>WW DIMMER</b> 0%→100%
2	000-255	<b>CW DIMMER</b> 0%→100%
3	000-031 032-063 064-095 096-127 128-159 160-191 192-223 224-255	<b>STROBE</b> Off On Strobe: Slow → Fast On Strobe Pulse: Fast → Slow On Random Strobe On
4	000-255	<b>DIMMER</b> 0%→100%
5	000-255	<b>DIMMER FINE</b>

**6 Channel Mode:**

CHANNEL	VALUE	FUNCTIONS
1	000-255	<b>WW DIMMER</b> 0%→100%
2	000-255	<b>CW DIMMER</b> 0%→100%
3	000 001-255	<b>COLOR TEMPERATURE</b> Off 5600K-3200K
4	000-031 032-063 064-095 096-127 128-159 160-191 192-223 224-255	<b>STROBE</b> Off On Strobe: Slow → Fast On Strobe Pulse: Fast → Slow On Random Strobe On
5	000-255	<b>DIMMER</b> 0%→100%
6	000-255	<b>DIMMER FINE</b>

## 4.4. DMX512 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 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.

## **5. Troubleshooting**

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

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

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

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

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

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

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

## **6. Fixture Cleaning**

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

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

**Innovation, Quality, Performance**