# ACME®

# FLANDINA 12

# CONTENTS

# 1. Safety Instructions



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

**WARNING**

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

**Important:**

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

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

the mains power immediately.

- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.

- DO NOT touch any wire during operation as there might be a hazard of electric shock.

- Avoid entanglement of the power cord with other wires.

- The minimum distance to objects/surface must be more than 0.5 meters.

- In the event of serious operating problem, stop using the unit immediately.

- Never turn on and off the unit time after time.

- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

- DO NOT open the housing as there are no user serviceable parts inside.

- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.

- Disconnect this product from its power source before servicing.

- DO use the original packaging if the device is to be transported.

- Avoid direct eye exposure to the light source while the product is on.

- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.


**Installation:**

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

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

# 2. Technical Specifications

**Power Voltage:**

100-240V~ 50/60Hz

**Power Consumption:**

55W

**Light Source:**

12x3W WW LED

**Beam Angle:**

4°

**Dimming/Strobe:**

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

**Control:**

DMX Channel: 16/14/5 Channels

Control Mode: DMX512, RDM, Primary/Secondary

Firmware Upgrade via DMX link

**Construction:**

Display: OLED display

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

Power In/Out: Power Connector in/out

Protection Rating: IP20

**Features:**

12 pcs LED pixel control

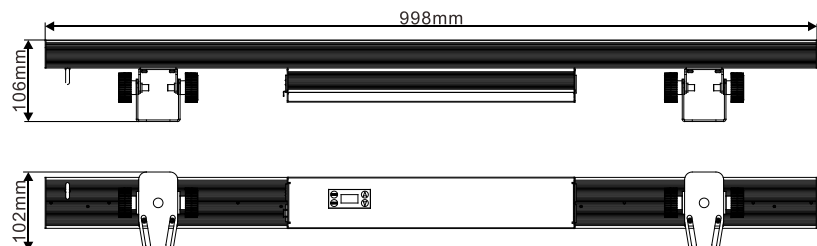High efficiency LED lens, 2700K golden yellow light, beam angle up to 4°

Suitable for project installation and touring performances

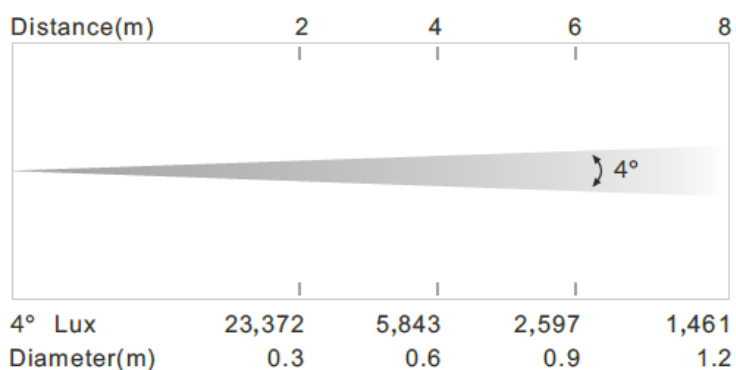Double mounting brackets design and the adjustable angle reaches 180 degrees in both direction

**Dimension/ Weight:**

998x102x106mm, 3.4kgs

39.3"x4"x4.2"in, 7.5lbs

**Photometric Diagram:**



| 4° Lux | 23,372 | 5,843 | 2,597 | 1,461 |
|---|---|---|---|---|
| Diameter(m) | 0.3 | 0.6 | 0.9 | 1.2 |

# 3. Control Panel
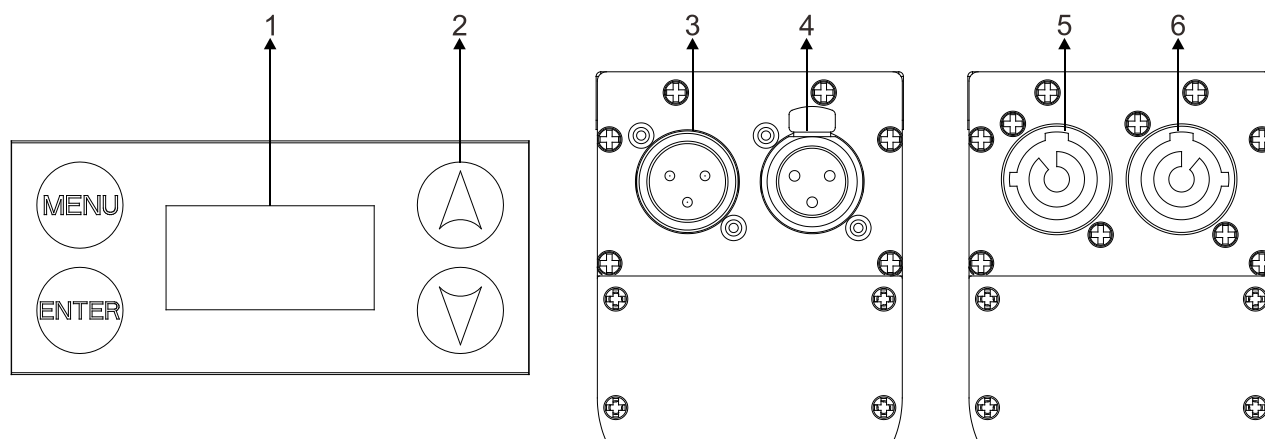


**1. DISPLAY:** To show the various menus and the selected functions

**2. Button:**

| MENU | To select the programming functions |
|---|---|
| ▼ DOWN | To go forward in the selected functions |
| ▲ UP | To go backward in the selected functions |
| ENTER | To confirm the selected functions |

**3. DMX IN:**

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

**4. DMX OUT:**

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

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

**6. POWERCON OUT:** To connect to the next unit

# 4. How to Set the Unit

## 4.1 Main Function

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

The main functions are shown below:
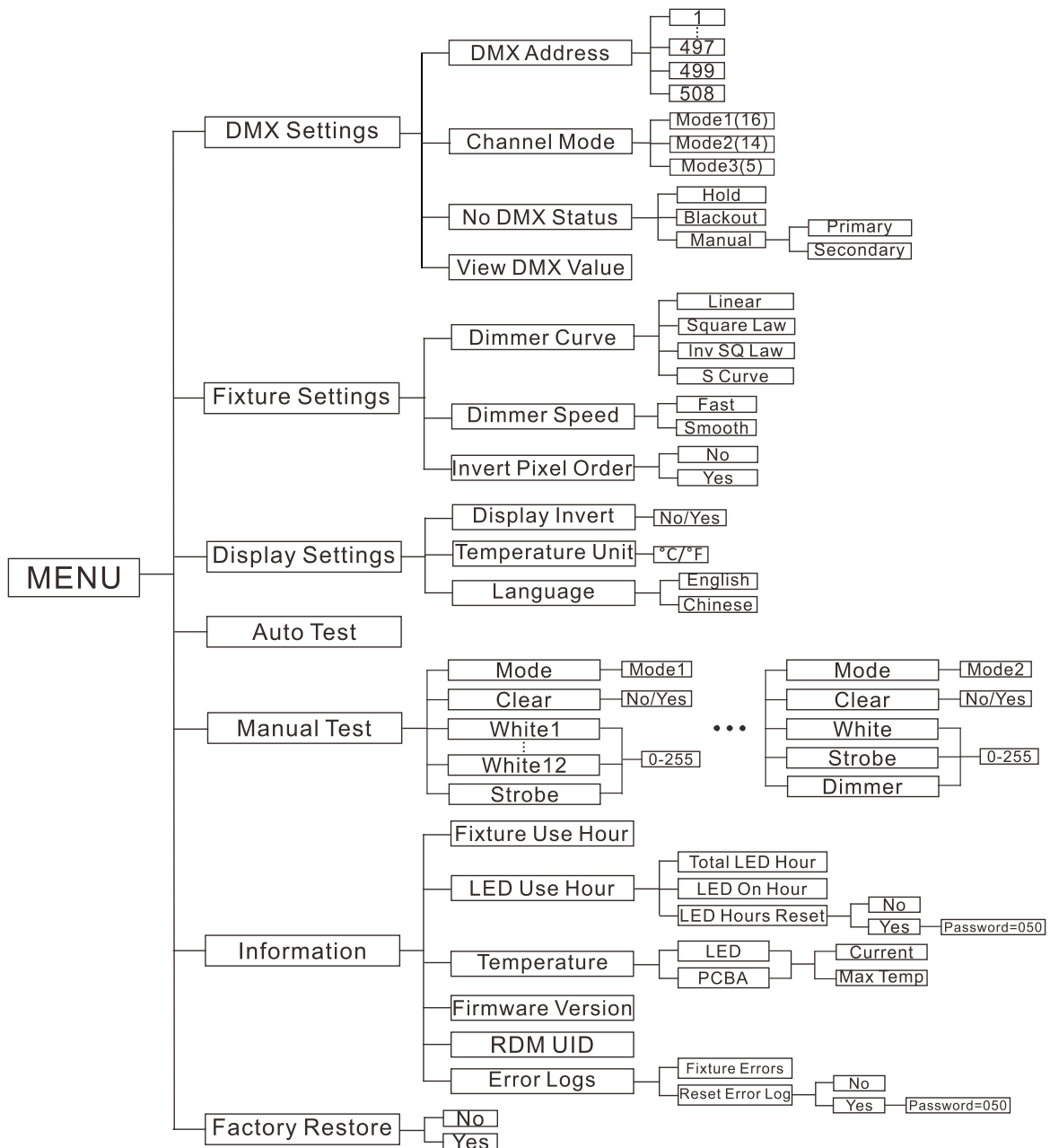
## *DMX Settings*

To select **DMX Settings,** press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Address, 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 **497/499/508**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

### Channel Mode

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1(16), Mode2(14)** or **Mode3(5)**, 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 **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops), **Blackout**(fixture blacks out if DMX signal stops) or **Manual**(the fixture will automatically read the DMX value in the "Manual Test" menu for operation after selecting this mode), 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 **Dimmer Curve, Dimmer Speed** or **Invert Pixel Order.**
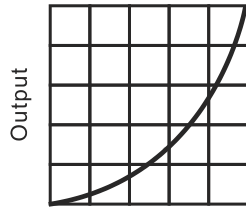
### Dimmer Curve

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
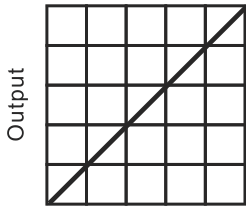


|  |  |  |  |
|---|---|---|---|
| Optically Linear | Square Law | Inverse Square Law | S-curve |

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

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

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

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

### Dimmer Speed

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

### Invert Pixel Order

To select **Invert Pixel Order**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** or **Yes**, 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.
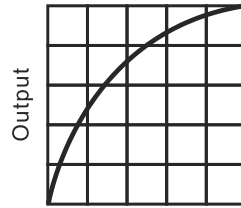
## *Display Settings*

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

### Display Invert

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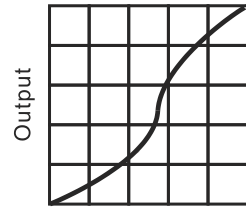
**Temperature Unit**

Select **Temperature Unit**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select ℃ or ℉, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

**Language**

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

## *Auto Test*

To select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test its functions. 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, use the **UP/DOWN** button to select **Mode, Clear, White1……White12, Strobe** or **White, Shutter Dimmer,** press the **ENTER** button to confirm, use the **UP/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 let the unit idle 30 seconds to exit menu mode.

(The fixture will return to the previous DMX state after exiting Manual Mode menu and the Manual Test parameters will be automatically saved after power off and restart.)

## *Information*

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

**Fixture Use Hour**

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

**LED Use Hour**

To select **LED Use Hour**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Total LED Hour, LED On Hour** or **LED Hours Reset**, press the **ENTER** button to store. To select **LED Hours Reset**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** or **Yes**, press the **ENTER** button to confirm. To select **Yes**, press the **ENTER** button to confirm, use the **UP/DOWN** button to set the password **050** to reset the LED hours, press the **ENTER** button to store. Press the **MENU** button back to the last menu or exit menu mode let the unit idle 30 seconds.

**Temperature**

Select **Temperature**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **LED** or **PCBA**, press the **ENTER** button to confirm, fixture's current temperature and max temperature of the LED or PCBA 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 store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

## *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 (16/14/5 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.

## 4.2 Home Position Adjustment

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

```
                          ┌─ Frequency(Hz) ─ 1072-1327
                          ├─ White1
                          ├─ White2
                          ├─ White3
                          ├─ White4
          OFFSET MENU ────┼─ White5
                          ├─ White6 ─ 0-255
                          ├─ White7
                          ├─ White8
                          ├─ White9
                          ├─ White10
                          ├─ White11
                          └─ White12
```
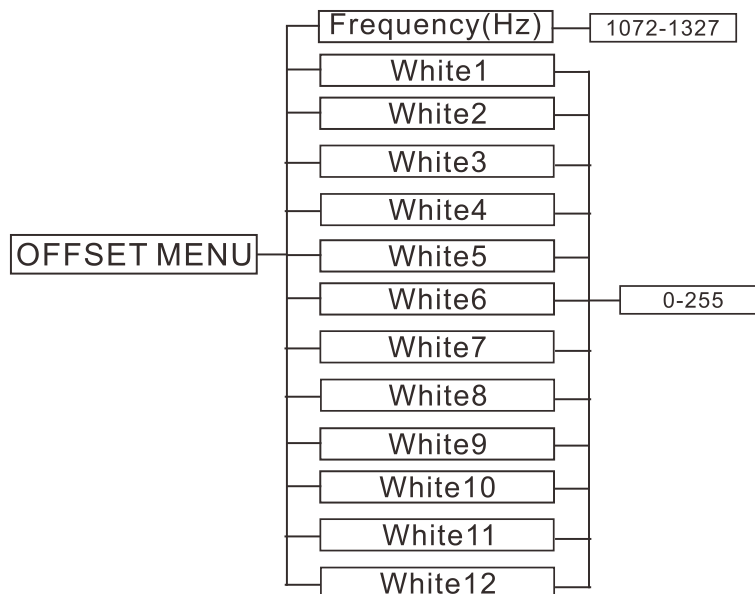
**Frequency(Hz)**

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

**White1**

Enter offset mode, select **White1**, 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.

......

**White12**

Enter offset mode, select **White12**, 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.
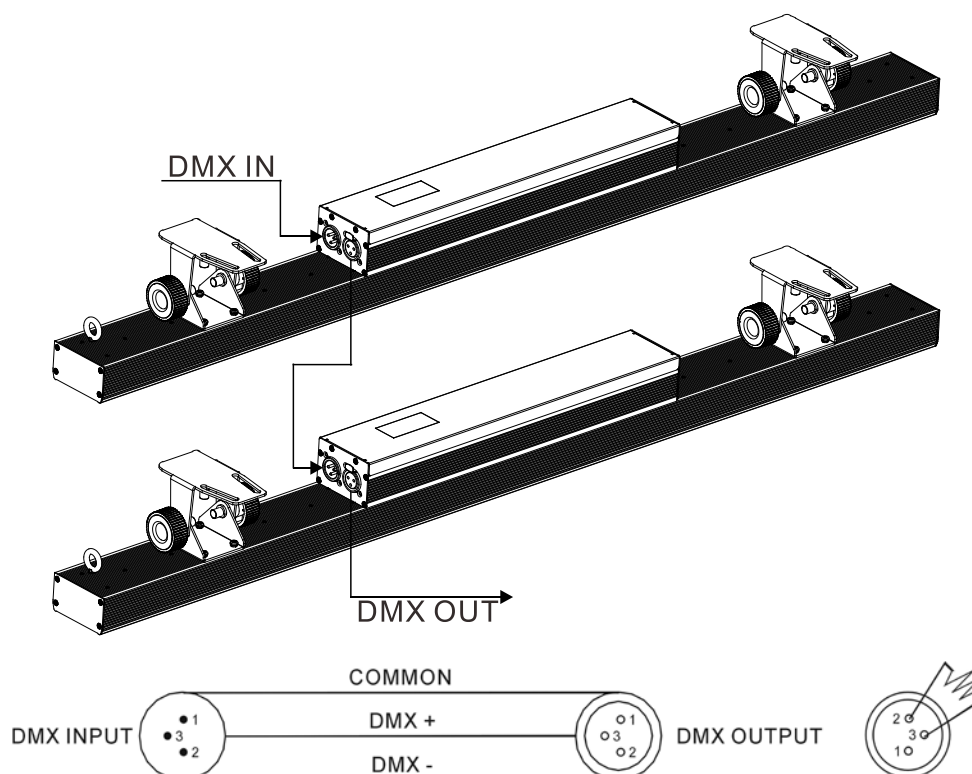
## 5. Control by Universal DMX Controller

## 5.1 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 can only be used in series and cannot be connected in parallel. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

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

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

5.  The end of the DMX 512 system should be terminated to reduce signal errors.

6.  3 pin XLR connectors are more popular than 5 pins XLR.

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

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

## 5.2 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 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 |
|---|---|---|---|---|
| 16 Channel | 1 | 17 | 33 | 49 |
| 14 Channel | 1 | 15 | 29 | 43 |
| 5 Channel | 1 | 6 | 11 | 16 |

## 5.3 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.

**16 Channels Mode:**

| CHANNEL | VALUE | FUNCTION |
|---|---|---|
| 1 | 000-255 | **WHITE1**<br>0%→100% |
| 2 | 000-255 | **WHITE2**<br>0%→100% |
| 3 | 000-255 | **WHITE3**<br>0%→100% |
| 4 | 000-255 | **WHITE4**<br>0%→100% |
| 5 | 000-255 | **WHITE5**<br>0%→100% |
| 6 | 000-255 | **WHITE6**<br>0%→100% |
| 7 | 000-255 | **WHITE7**<br>0%→100% |
| 8 | 000-255 | **WHITE8**<br>0%→100% |
| 9 | 000-255 | **WHITE9**<br>0%→100% |
| 10 | | **WHITE10** |

| | 000-255 | 0%→100% |
|---|---|---|
| **11** | | **WHITE11** |
| | 000-255 | 0%→100% |
| **12** | | **WHITE12** |
| | 000-255 | 0%→100% |
| **13** | | **STROBE** |
| | 000-007 | Close |
| | 008-015 | Open |
| | 016-131 | Strobe from Slow to Fast |
| | 132-139 | Open |
| | 140-181 | Slow Open Fast Close |
| | 182-189 | Open |
| | 190-231 | Fast Open Slow Close |
| | 232-239 | Open |
| | 240-247 | Random Strobe |
| | 248-255 | Open |
| **14** | | **DIMMER** |
| | 000-255 | 0%→100% |
| **15** | 000-255 | **DIMMER FINE** |
| **16** | | **FUNCTION** |
| | 000-029 | Null |
| | 030-039 | Dimmer Curve: Linear |
| | 040-049 | Dimmer Curve: Square Law |
| | 050-059 | Dimmer Curve: Inv SQ Law |
| | 060-069 | Dimmer Curve: S Curve |
| | 070-099 | Null |
| | 100-109 | Led Frequency Setting Enable |
| | 110-119 | Led Frequency Setting Disable |
| | 120-179 | Null |
| | 180-189 | Dimmer Speed: Fast |
| | 190-199 | Dimmer Speed: Smooth |
| | 200-255 | Null |

**14 Channels Mode:**

| CHANNEL | VALUE | FUNCTION |
|---|---|---|
| 1 | 000-255 | **WHITE1**<br>0%→100% |
| 2 | 000-255 | **WHITE2**<br>0%→100% |
| 3 | 000-255 | **WHITE3**<br>0%→100% |
| 4 | 000-255 | **WHITE4**<br>0%→100% |
| 5 | 000-255 | **WHITE5**<br>0%→100% |
| 6 | 000-255 | **WHITE6**<br>0%→100% |
| 7 | 000-255 | **WHITE7**<br>0%→100% |
| 8 | 000-255 | **WHITE8**<br>0%→100% |
| 9 | 000-255 | **WHITE9**<br>0%→100% |
| 10 | 000-255 | **WHITE10**<br>0%→100% |
| 11 | 000-255 | **WHITE11**<br>0%→100% |
| 12 | 000-255 | **WHITE12**<br>0%→100% |
| 13 | 000-255 | **DIMMER**<br>0%→100% |
| 14 | 000-255 | **DIMMER FINE** |

**5 Channels Mode**:

| CHANNEL | VALUE | FUNCTION |
|---|---|---|
| **1** | 000-255 | **WHITE1** <br> 0%→100% |
| **2** | 000-255 | **WHITE FINE** |
| **3** | 000-007 <br> 008-015 <br> 016-131 <br> 132-139 <br> 140-181 <br> 182-189 <br> 190-231 <br> 232-239 <br> 240-247 <br> 248-255 | **STROBE** <br> Close <br> Open <br> Strobe from Slow to Fast <br> Open <br> Slow Open Fast Close <br> Open <br> Fast Open Slow Close <br> Open <br> Random Strobe <br> Open |
| **4** | 000-255 | **DIMMER** <br> 0%→100% |
| **5** | 000-255 | **DIMMER FINE** |

## 6. Error Information

**Error codes are shown continuously in the display when the fixture fails and they will not disappear until the fixture is repaired.**

**1. LED Tem. Error**

Check whether the temperature detecting board is normal.

Check whether the components of the temperature detecting board are damaged.

Check whether the lead on the temperature detecting board is installed in place or disconnected.

**2. LED Too Hot Off**

When the fixture temperature reaches 83℃, it will automatically turn off to protect the fixture.

**3. LED Timeout Use**

## 7. Troubleshooting

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

**A. The unit does not work and no light**

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.


## 8. 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**