FLANDINA 12 IP

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 suitable for wet locations. Do not immerse in water.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots 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 60℃. 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.

2. Technical Specifications

Power Voltage:

100-240V~ 50/60Hz

Power Consumption:

120W

Light Source:

12x15W RGBW LED

Beam Angle:

6°/32°

Field Angle:

11°/60°

Control:

DMX Channel: 51/48/13/12/7/5/4 Channel

Control Mode: DMX512, RDM

Firmware Upgrade via DMX link

Construction:

Display: OLED display

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

Power In/Out: Waterproof Power Connector in/out

Protection Rating: IP66

Features:

12pcs LED pixel control

0-100% smooth dimming

Outstanding strobe effect with variable speed

Double mounting brackets with adjustable angle of 180°

Dimension/Weight:

1000x82x108mm, 7.2kgs

39.4"x3.2"x4.3"in, 15.9lbs

Photometric Diagram:

Distance(m)	2	4	6	8
6° Lux	50,932	12,733	5,659	3,183
Diameter(m)	0.2	0.5	0.7	0.9
32° Lux	1,839	460	205	115
Diameter(m)	1.2	2.3	3.5	4.7
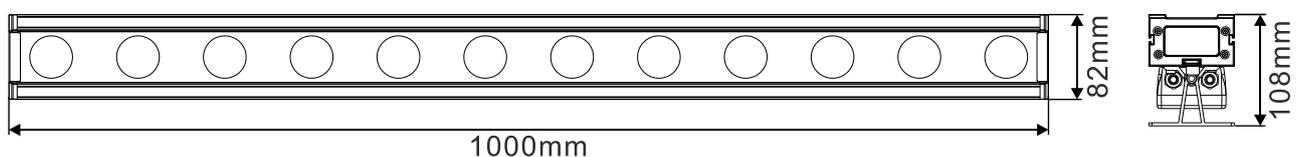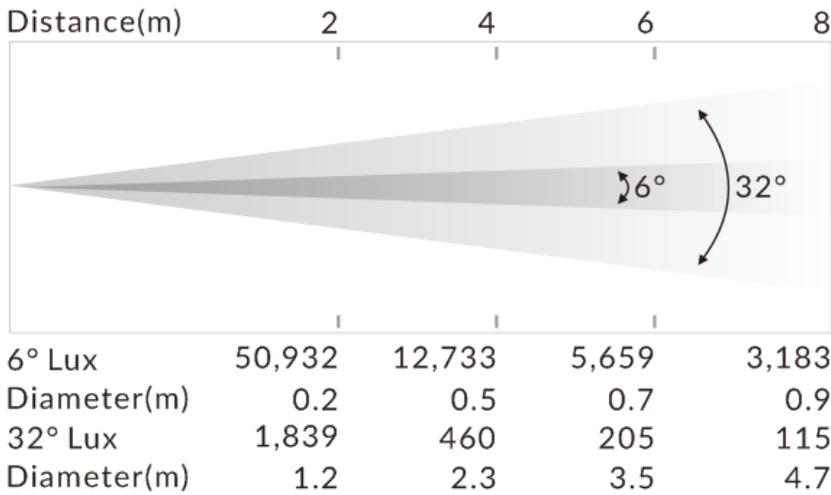
3. Control Panel
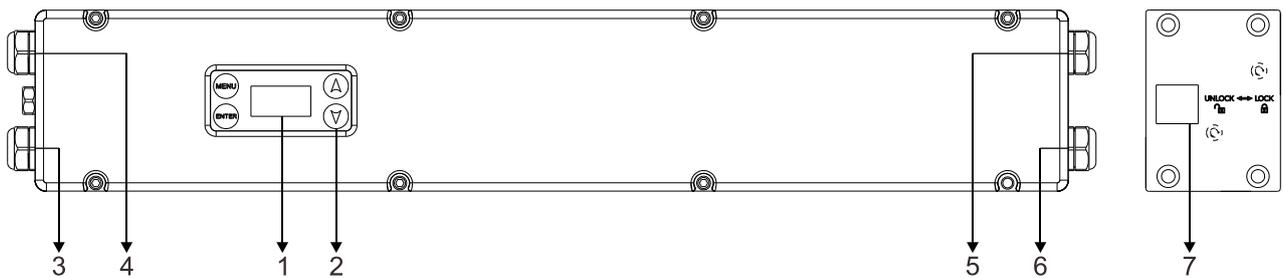
1. Display: To show the various menus and the selected function

2. Button:

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

3. POWER IN: To connect to supply power

4. DMX IN:

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

5. DMX OUT:

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

6. POWER OUT: To connect to the next fixture

7. LOCK CATCH: Used for splicing other fixtures

4. Fixture Installation

DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.

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 attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.

Fix the fixture on a flat level surface (such as the ground or a wall):

1. Drill four expansion screw holes (for M12 expansion screws) on a flat level surface (such as the ground or a wall) according to the size shown in Figure ①.

2. As shown in Figure ②, unscrew the washers and nuts of the expansion screws, and insert the expansion screw tubes and screws into the drilled screw holes.

3. As shown in Figure ③, align the holes on the brackets of the fixture with the four screws, then put the washers and nuts of the expansion screws in turn and tighten them with a wrench.

4. After tightening the nuts, check whether the fixture is installed firmly, then adjust the fixture to the required angle through the brackets.

820mm

58mm

500mm

① 500~820mm

58mm

②

③

7A
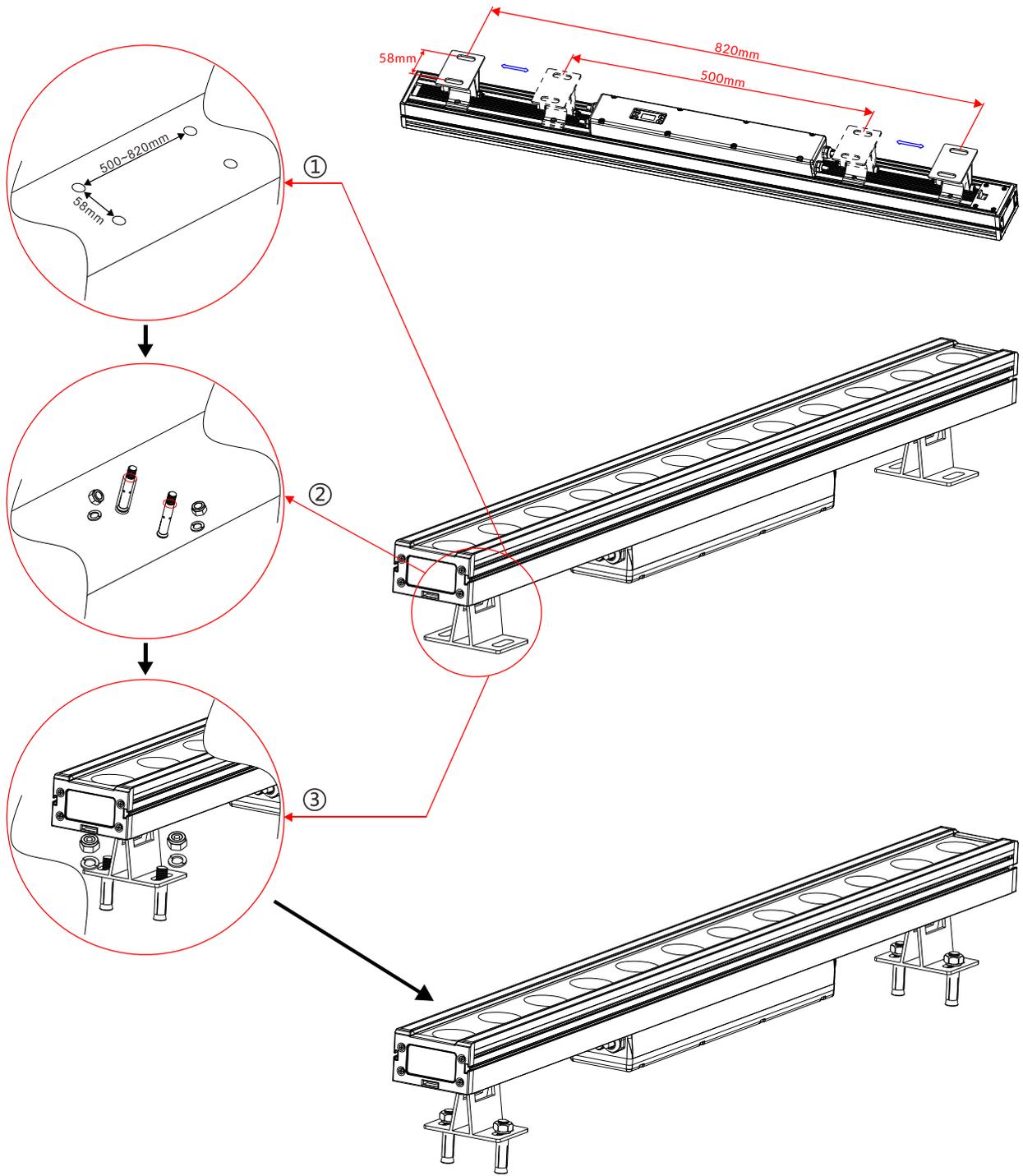
5. How To Set The Unit

5.1 Main Function

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

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

The main functions are shown below:

MENU

DMX Settings
- DMX Address
  - 1
  - ⋮
  - 462
  - 465
  - 500
  - 501
  - 506
  - 508
  - 509
- Channel Mode
  - Mode1(51)
  - Mode2(48)
  - Mode3(13)
  - Mode4(12)
  - Mode5(7)
  - Mode6(5)
  - Mode7(4)
- No DMX Status
  - Blackout
  - Hold
  - Manual
- View DMX Value

Fixture Settings
- Dimmer Curve
  - Linear
  - Square Law
  - Inv SQ Law
  - S Curve
- Dimmer Speed
  - Fast
  - Smooth
- White Balance
  - Red
  - Green
  - Blue
  - Red1
  - Green1 — 125-255
  - Blue1
  - ⋮
  - Red12
  - Green12
  - Blue12
- Invert Pixel
  - No
  - Yes
- LED Frequency
  - 900Hz
  - 1000Hz
  - 1100Hz
  - 1200Hz
  - 1300Hz
  - 1400Hz
  - 1500Hz
  - 2500Hz
  - 4000Hz
  - 5000Hz
  - 6000Hz
  - 10KHz
  - 15KHz
  - 20KHz
  - 25KHz

Display Settings
- Display Invert — No/Yes
- Temperature Unit — °C/°F
- Language — English/Chinese

Fixture Test
- Auto Test
- Manual Test
  - Mode 1
  - Clear — No/Yes
  - Red1
  - Green1
  - Blue1
  - White1
  - ⋮
  - Red12 — 0-255
  - Green12
  - Blue12
  - White12
  - Strobe
  - Dimmer
  - Mode 2
    - Clear — No/Yes
    - Red
    - Green
    - Blue
    - White
    - Strobe
    - Dimmer — 0-255
    - CTO
    - Color Macro
    - BK Dimmer
    - BK Color
    - Pixel Select
    - Pixel Speed
  - ...

Information
- Fixture Use Hour
- LED Use Hour
  - Total LED Hour
  - LED On Hour
  - LED Hours Reset
    - No
    - Yes — Passcode=050
- Temperature
  - LED
    - Current
    - Max temp
- Firmware Version
- RDM UID
- Error Logs
  - Fixture Errors
  - Reset Error Log
    - No
    - Yes — Passcode=050

Factory Restore
- No
- Yes

9A

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 **462/465/500/501/506/508/509**, 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(51), Mode2(48), Mode3(13), Mode4(12)**, **Mode5(7)**, **Mode6(5)** or **Mode7(4)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

No DMX Status

To select **No DMX Status**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Blackout**(fixture blacks out if DMX signal stops), **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops) or **Manual**(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, White Balance, Invert Pixel** or **LED Frequency.**

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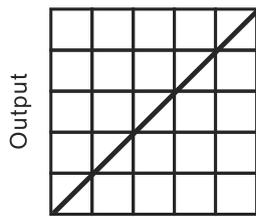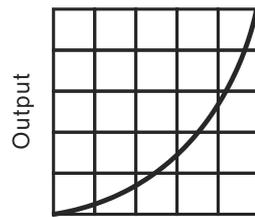
| Optically Linear | Square Law | Inverse Square Law | S-curve |
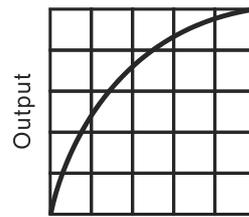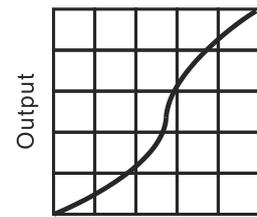
Dimmer Speed

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.

White Balance

To select **White Balance**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Red, Green, Blue, Red1, Green1, Blue1......** or **Red12, Green12, Blue12,** press the **ENTER** button to store. Use the **UP/DOWN** button to adjust the value from **125** 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.

Invert Pixel

To select **Invert Pixel**, 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.

**LED Frequency**

To select **LED Frequency**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **900Hz, 1000Hz, 1100Hz, 1200Hz, 1300Hz, 1400Hz, 1500Hz, 2500Hz, 4000Hz, 5000Hz, 6000Hz, 10KHz, 15KHz, 20KHz** or **25KHz**, 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.

Fixture Test

To select **Fixture Test**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Auto Test** or **Manual Test.**

Auto Test

Select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test itself. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, the present channel will show on the display, use the **UP/DOWN** button to select channel, press the **ENTER** button to confirm, then use the **UP/DOWN** button to adjust the value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the **MENU** button back to the last menu or exit menu mode idling 30 seconds.

(The fixture will return to the previous DMX state after exiting Manual Test 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, select **LED**, press the **ENTER** button to confirm, fixture's current temperature and max temperature of the LED 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 (51/48/13/12/7/5/4 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.

5.2 Home Position Adjustment

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

```
                    ┌─────────────┐
              ┌─────│    Red      │
              │     ├─────────────┤
              │     │   Green     │
              │     ├─────────────┤
              │     │    Blue     │
              │     ├─────────────┤
              │     │   White     │
              │     ├─────────────┤
              │     │   Red1      │
              │     ├─────────────┤
              │     │  Green1     │
┌───────────┐ │     ├─────────────┤     ┌──────────┐
│OFFSET MENU├─┤     │   Blue1     ├─────│  0-255   │
└───────────┘ │     ├─────────────┤     └──────────┘
              │     │  White1     │
              │     │     ⋮       │
              │     ├─────────────┤
              │     │   Red12     │
              │     ├─────────────┤
              │     │  Green12    │
              │     ├─────────────┤
              │     │  Blue12     │
              │     ├─────────────┤
              └─────│  White12    │
                    └─────────────┘
```
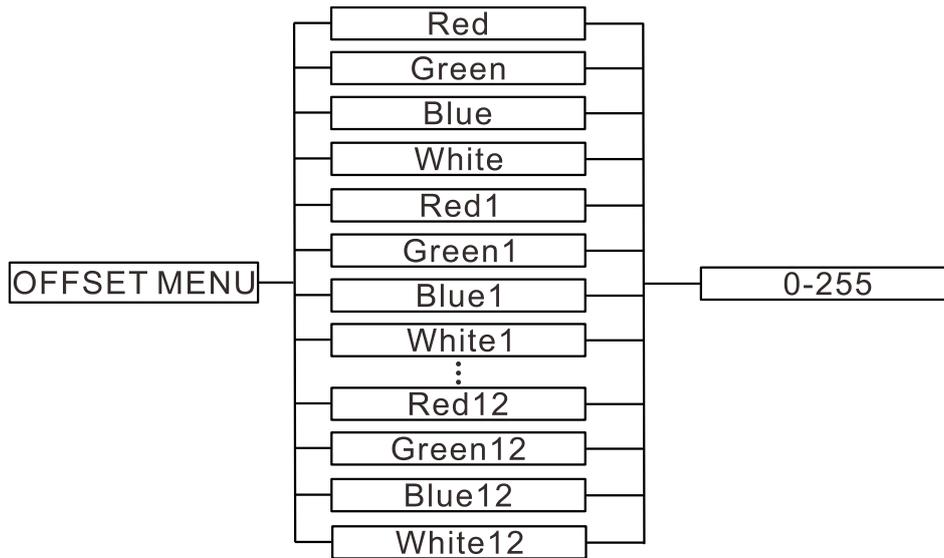
Red

Enter offset mode, select **Red**, 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.

Green

Enter offset mode, select **Green**, 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.

Blue

Enter offset mode, select **Blue**, 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.

White

Enter offset mode, select **White**, 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.

Red1

Enter offset mode, select **Red1**, 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.

Green1

Enter offset mode, select **Green1**, 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.

Blue1

Enter offset mode, select **Blue1**, 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.

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.

……

Red12

Enter offset mode, select **Red12**, 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.

Green12

Enter offset mode, select **Green12**, 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.

Blue12

Enter offset mode, select **Blue12**, 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.

6. Control By Universal DMX Controller

6.1 DMX512 Connection
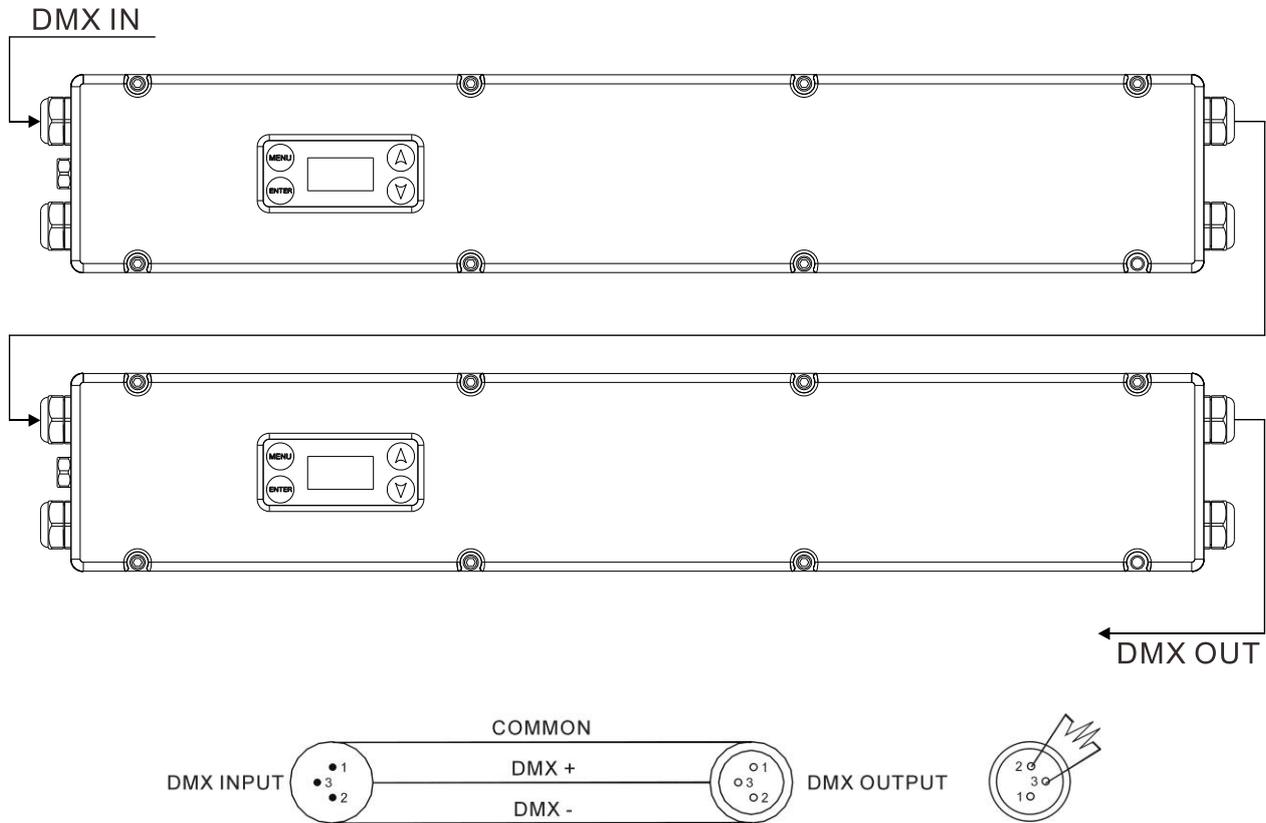
1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1⁄4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable 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.

6.2 Address Setting

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

Press the MENU button to enter menu mode, select DMX Settings, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will 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
51 channels	1	52	103	154
48 channels	1	49	97	145
13 channels	1	14	27	40
12 channels	1	13	25	37
7 channels	1	8	15	22
5 channels	1	6	11	16
4 channels	1	5	9	13

6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below

Attentions:

1. The unit will maintain the last condition until reset if you cut-off the DMX signal.

2. For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

51 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1		**STROBE**
	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open
	140-181	Slow Open Fast Close from Slow to Fast
	182-189	Open
	190-231	Fast Open Slow Close from Slow to Fast
	232-239	Open
	240-247	Random Strobe from Fast to Slow
	248-255	Open
2	000-255	**DIMMER** 0%→100%
3	000-255	**DIMMER FINE**
4	000-255	**RED1** 0%→100%
5	000-255	**GREEN1** 0%→100%
6	000-255	**BLUE1** 0%→100%
7	000-255	**WHITE1** 0%→100%
8	000-255	**RED2** 0%→100%
9	000-255	**GREEN2** 0%→100%
10	000-255	**BLUE2** 0%→100%
11	000-255	**WHITE2** 0%→100%
12	000-255	**RED3** 0%→100%
13	000-255	**GREEN3** 0%→100%
14	000-255	**BLUE3** 0%→100%
15	000-255	**WHITE3** 0%→100%
16	000-255	**RED4** 0%→100%
17		**GREEN4**

	000-255	0%→100%
18	000-255	**BLUE4** 0%→100%
19	000-255	**WHITE4** 0%→100%
20	000-255	**RED5** 0%→100%
21	000-255	**GREEN5** 0%→100%
22	000-255	**BLUE5** 0%→100%
23	000-255	**WHITE5** 0%→100%
24	000-255	**RED6** 0%→100%
25	000-255	**GREEN6** 0%→100%
26	000-255	**BLUE6** 0%→100%
27	000-255	**WHITE6** 0%→100%
28	000-255	**RED7** 0%→100%
29	000-255	**GREEN7** 0%→100%
30	000-255	**BLUE7** 0%→100%
31	000-255	**WHITE7** 0%→100%
32	000-255	**RED8** 0%→100%
33	000-255	**GREEN8** 0%→100%
34	000-255	**BLUE8** 0%→100%
35	000-255	**WHITE8** 0%→100%
36	000-255	**RED9** 0%→100%
37	000-255	**GREEN9** 0%→100%
38	000-255	**BLUE9** 0%→100%

CHANNEL	VALUE	FUNCTION
39	000-255	**WHITE9** 0%→100%
40	000-255	**RED10** 0%→100%
41	000-255	**GREEN10** 0%→100%
42	000-255	**BLUE10** 0%→100%
43	000-255	**WHITE10** 0%→100%
44	000-255	**RED11** 0%→100%
45	000-255	**GREEN11** 0%→100%
46	000-255	**BLUE11** 0%→100%
47	000-255	**WHITE11** 0%→100%
48	000-255	**RED12** 0%→100%
49	000-255	**GREEN12** 0%→100%
50	000-255	**BLUE12** 0%→100%
51	000-255	**WHITE12** 0%→100%

48 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	**RED1** 0%→100%
2	000-255	**GREEN1** 0%→100%
3	000-255	**BLUE1** 0%→100%
4	000-255	**WHITE1** 0%→100%
5	000-255	**RED2** 0%→100%
6	000-255	**GREEN2** 0%→100%

7	000-255	**BLUE2** 0%→100%
8	000-255	**WHITE2** 0%→100%
9	000-255	**RED3** 0%→100%
10	000-255	**GREEN3** 0%→100%
11	000-255	**BLUE3** 0%→100%
12	000-255	**WHITE3** 0%→100%
13	000-255	**RED4** 0%→100%
14	000-255	**GREEN4** 0%→100%
15	000-255	**BLUE4** 0%→100%
16	000-255	**WHITE4** 0%→100%
17	000-255	**RED5** 0%→100%
18	000-255	**GREEN5** 0%→100%
19	000-255	**BLUE5** 0%→100%
20	000-255	**WHITE5** 0%→100%
21	000-255	**RED6** 0%→100%
22	000-255	**GREEN6** 0%→100%
23	000-255	**BLUE6** 0%→100%
24	000-255	**WHITE6** 0%→100%
25	000-255	**RED7** 0%→100%
26	000-255	**GREEN7** 0%→100%
27	000-255	**BLUE7** 0%→100%
28	000-255	**WHITE7** 0%→100%

29	000-255	**RED8** 0%→100%
30	000-255	**GREEN8** 0%→100%
31	000-255	**BLUE8** 0%→100%
32	000-255	**WHITE8** 0%→100%
33	000-255	**RED9** 0%→100%
34	000-255	**GREEN9** 0%→100%
35	000-255	**BLUE9** 0%→100%
36	000-255	**WHITE9** 0%→100%
37	000-255	**RED10** 0%→100%
38	000-255	**GREEN10** 0%→100%
39	000-255	**BLUE10** 0%→100%
40	000-255	**WHITE10** 0%→100%
41	000-255	**RED11** 0%→100%
42	000-255	**GREEN11** 0%→100%
43	000-255	**BLUE11** 0%→100%
44	000-255	**WHITE11** 0%→100%
45	000-255	**RED12** 0%→100%
46	000-255	**GREEN12** 0%→100%
47	000-255	**BLUE12** 0%→100%
48	000-255	**WHITE12** 0%→100%

13 Channels (Mode 3):

CHANNEL	VALUE	FUNCTION
1	000-255	**RED** 0%→100%
2	000-255	**RED FINE**
3	000-255	**GREEN** 0%→100%
4	000-255	**GREEN FINE**
5	000-255	**BLUE** 0%→100%
6	000-255	**BLUE FINE**
7	000-255	**WHITE** 0%→100%
8	000-255	**WHITE FINE**
9	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	**STROBE** Close Open Strobe from Slow to Fast Open Slow Open Fast Close from Slow to Fast Open Fast Open Slow Close from Slow to Fast Open Random Strobe from Fast to Slow Open
10	000-255	**DIMMER** 0%→100%
11	000-255	**DIMMER FINE**
12	000 001-004 005-009 010-013 014-018 019-022 023-027 028-031 032-036 037-040 041-045 046-049 050-054	**CTO (8000K-2500K)** Null 8000K 7900K 7800K 7700K 7600K 7500K 7400K 7300K 7200K 7100K 7000K 6900K

	055-058	6800K
	059-063	6700K
	064-067	6600K
	068-072	6500K
	073-076	6400K
	077-081	6300K
	082-085	6200K
	086-090	6100K
	091-094	6000K
	095-099	5900K
	100-103	5800K
	104-108	5700K
	109-112	5600K
	113-117	5500K
	118-121	5400K
	122-126	5300K
	127-130	5200K
	131-135	5100K
	136-139	5000K
	140-144	4900K
	145-148	4800K
	149-153	4700K
	154-157	4600K
	158-162	4500K
	163-166	4400K
	167-171	4300K
	172-175	4200K
	176-180	4100K
	181-184	4000K
	185-189	3900K
	190-193	3800K
	194-198	3700K
	199-202	3600K
	203-207	3500K
	208-211	3400K
	212-216	3300K
	217-220	3200K
	221-225	3100K
	226-229	3000K
	230-234	2900K
	235-238	2800K
	239-243	2700K
	244-247	2600K
	248-255	2500K
		COLOR MACRO
13	000-009	Open
	010-014	LEE 790-Moroccan Pink

015-019	LEE 157-Pink
020-024	LEE 332-Special Rose Pink
025-029	LEE 328-Follies Pink
030-034	LEE 345-Fuchsia Pink
035-039	LEE 194-Surprise Pink
040-044	LEE 181-Congo Blue
045-049	LEE 071-Tokyo Blue
050-054	LEE 120-Deep Blue
055-059	LEE 079-Just Blue
060-064	LEE 132-Medium Blue
065-069	LEE 200-Double CT Blue
070-074	LEE 161-State Blue
075-079	LEE 201-Full CT Blue
080-084	LEE 202-Half CT Blue
085-089	LEE 117-Steel Blue
090-094	LEE 353-Lighter Blue
095-099	LEE 118-Light Blue
100-104	LEE 116-Medium Blue Green
105-109	LEE 124-Dark Green
110-114	LEE 139-Primary Green
115-119	LEE 089-Moss Green
120-124	LEE 122-Fern Green
125-129	LEE 738-JAS Green
130-134	LEE 088-Lime Green
135-139	LEE 100-Spring Yellow
140-144	LEE 104-Deep Amber
145-149	LEE 179-Chrome Orange
150-154	LEE 105-Orange
155-159	LEE 021-Gold Amber
160-164	LEE 778-Millennium Gold
165-169	LEE 135-Deep Gold Amber
170-174	LEE 164-Flame Red
175-179	Open
180-201	Clockwise Rotation, Fast to Slow
202-207	Stop
208-229	Counter-clockwise Rotation, Slow to Fast
230-234	Open
235-239	Random Color: Fast
240-244	Random Color: Medium
245-249	Random Color: Slow
250-255	Open

12 Channels (Mode 4):

CHANNEL	VALUE	FUNCTION
1	000-255	**RED** 0%→100%
2	000-255	**GREEN** 0%→100%
3	000-255	**BLUE** 0%→100%
4	000-255	**WHITE** 0%→100%
5		**STROBE**
	000-007	Close
	008-015	Open
	016-131	Strobe from Slow to Fast
	132-139	Open
	140-181	Slow Open Fast Close from Slow to Fast
	182-189	Open
	190-231	Fast Open Slow Close from Slow to Fast
	232-239	Open
	240-247	Random Strobe from Fast to Slow
	248-255	Open
6	000-255	**DIMMER** 0%→100%
7		**CTO (8000K-2500K)**
	000	Null
	001-004	8000K
	005-009	7900K
	010-013	7800K
	014-018	7700K
	019-022	7600K
	023-027	7500K
	028-031	7400K
	032-036	7300K
	037-040	7200K
	041-045	7100K
	046-049	7000K
	050-054	6900K
	055-058	6800K
	059-063	6700K
	064-067	6600K
	068-072	6500K
	073-076	6400K
	077-081	6300K
	082-085	6200K
	086-090	6100K

	091-094	6000K
	095-099	5900K
	100-103	5800K
	104-108	5700K
	109-112	5600K
	113-117	5500K
	118-121	5400K
	122-126	5300K
	127-130	5200K
	131-135	5100K
	136-139	5000K
	140-144	4900K
	145-148	4800K
	149-153	4700K
	154-157	4600K
	158-162	4500K
	163-166	4400K
	167-171	4300K
	172-175	4200K
	176-180	4100K
	181-184	4000K
	185-189	3900K
	190-193	3800K
	194-198	3700K
	199-202	3600K
	203-207	3500K
	208-211	3400K
	212-216	3300K
	217-220	3200K
	221-225	3100K
	226-229	3000K
	230-234	2900K
	235-238	2800K
	239-243	2700K
	244-247	2600K
	248-255	2500K
		COLOR MACRO
	000-009	Open
	010-014	LEE 790-Moroccan Pink
	015-019	LEE 157-Pink
	020-024	LEE 332-Special Rose Pink
8	025-029	LEE 328-Follies Pink
	030-034	LEE 345-Fuchsia Pink
	035-039	LEE 194-Surprise Pink
	040-044	LEE 181-Congo Blue
	045-049	LEE 071-Tokyo Blue
	050-054	LEE 120-Deep Blue

	055-059	LEE 079-Just Blue
	060-064	LEE 132-Medium Blue
	065-069	LEE 200-Double CT Blue
	070-074	LEE 161-State Blue
	075-079	LEE 201-Full CT Blue
	080-084	LEE 202-Half CT Blue
	085-089	LEE 117-Steel Blue
	090-094	LEE 353-Lighter Blue
	095-099	LEE 118-Light Blue
	100-104	LEE 116-Medium Blue Green
	105-109	LEE 124-Dark Green
	110-114	LEE 139-Primary Green
	115-119	LEE 089-Moss Green
	120-124	LEE 122-Fern Green
	125-129	LEE 738-JAS Green
	130-134	LEE 088-Lime Green
	135-139	LEE 100-Spring Yellow
	140-144	LEE 104-Deep Amber
	145-149	LEE 179-Chrome Orange
	150-154	LEE 105-Orange
	155-159	LEE 021-Gold Amber
	160-164	LEE 778-Millennium Gold
	165-169	LEE 135-Deep Gold Amber
	170-174	LEE 164-Flame Red
	175-179	Open
	180-201	Clockwise Rotation, Fast to Slow
	202-207	Stop
	208-229	Counter-clockwise Rotation, Slow to Fast
	230-234	Open
	235-239	Random Color: Fast
	240-244	Random Color: Medium
	245-249	Random Color: Slow
	250-255	Open
9		**BACKGROUND DIMMER**
	000-255	0%→100%
10		**BACKGROUND COLOR**
	000-009	Open
	010-014	LEE 790-Moroccan Pink
	015-019	LEE 157-Pink
	020-024	LEE 332-Special Rose Pink
	025-029	LEE 328-Follies Pink
	030-034	LEE 345-Fuchsia Pink
	035-039	LEE 194-Surprise Pink
	040-044	LEE 181-Congo Blue
	045-049	LEE 071-Tokyo Blue
	050-054	LEE 120-Deep Blue
	055-059	LEE 079-Just Blue

	060-064	LEE 132-Medium Blue
	065-069	LEE 200-Double CT Blue
	070-074	LEE 161-State Blue
	075-079	LEE 201-Full CT Blue
	080-084	LEE 202-Half CT Blue
	085-089	LEE 117-Steel Blue
	090-094	LEE 353-Lighter Blue
	095-099	LEE 118-Light Blue
	100-104	LEE 116-Medium Blue Green
	105-109	LEE 124-Dark Green
	110-114	LEE 139-Primary Green
	115-119	LEE 089-Moss Green
	120-124	LEE 122-Fern Green
	125-129	LEE 738-JAS Green
	130-134	LEE 088-Lime Green
	135-139	LEE 100-Spring Yellow
	140-144	LEE 104-Deep Amber
	145-149	LEE 179-Chrome Orange
	150-154	LEE 105-Orange
	155-159	LEE 021-Gold Amber
	160-164	LEE 778-Millennium Gold
	165-169	LEE 135-Deep Gold Amber
	170-174	LEE 164-Flame Red
	175-179	Open
	180-201	Clockwise Rotation, Fast to Slow
	202-207	Stop
	208-229	Counter-clockwise Rotation, Slow to Fast
	230-234	Open
	235-239	Random Color: Fast
	240-244	Random Color: Medium
	245-249	Random Color: Slow
	250-255	Open
11		**PIXEL EFFECT SELECT**
	000-003	Open
	004-007	Built-in Effect 1
	008-011	Built-in Effect 2
	012-015	Built-in Effect 3
	016-019	Built-in Effect 4
	020-023	Built-in Effect 5
	024-027	Built-in Effect 6
	028-031	Built-in Effect 7
	032-035	Built-in Effect 8
	036-039	Built-in Effect 9
	040-043	Built-in Effect 10
	044-047	Built-in Effect 11
	048-051	Built-in Effect 12
	052-055	Built-in Effect 13

	056-059	Built-in Effect 14
	060-063	Built-in Effect 15
	064-067	Built-in Effect 16
	068-071	Built-in Effect 17
	072-075	Built-in Effect 18
	076-079	Built-in Effect 19
	080-083	Built-in Effect 20
	084-087	Built-in Effect 21
	088-091	Built-in Effect 22
	092-095	Built-in Effect 23
	096-099	Built-in Effect 24
	100-103	Built-in Effect 25
	104-107	Built-in Effect 26
	108-111	Built-in Effect 27
	112-115	Built-in Effect 28
	116-119	Built-in Effect 29
	120-123	Built-in Effect 30
	124-127	Built-in Effect 31
	128-131	Built-in Effect 32
	132-135	Built-in Effect 33
	136-255	Null
		PIXEL EFFECT SPEED
12	000-127	Slow to Fast without Fade
	128-255	Slow to Fast with Fade

7 Channels (Mode 5):

CHANNEL	VALUE	FUNCTION
1	000-255	**DIMMER** 0%→100%
2	000-255	**DIMMER FINE**
3	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	**STROBE** Close Open Strobe from Slow to Fast Open Slow Open Fast Close from Slow to Fast Open Fast Open Slow Close from Slow to Fast Open Random Strobe from Fast to Slow Open
4	000-255	**RED** 0%→100%
5	000-255	**GREEN** 0%→100%
6	000-255	**BLUE** 0%→100%
7	000-255	**WHITE** 0%→100%

5 Channels (Mode 6):

CHANNEL	VALUE	FUNCTION
1	000-255	**RED** 0%→100%
2	000-255	**GREEN** 0%→100%
3	000-255	**BLUE** 0%→100%
4	000-255	**WHITE** 0%→100%
5	000-007 008-015 016-131 132-139	**STROBE** Close Open Strobe from Slow to Fast Open

	140-181	Slow Open Fast Close from Slow to Fast
	182-189	Open
	190-231	Fast Open Slow Close from Slow to Fast
	232-239	Open
	240-247	Random Strobe from Fast to Slow
	248-255	Open

4 Channels (Mode 7):

CHANNEL	VALUE	FUNCTION
1	000-255	**RED** 0%→100%
2	000-255	**GREEN** 0%→100%
3	000-255	**BLUE** 0%→100%
4	000-255	**WHITE** 0%→100%

7. Error Information

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

1. LED Temp. 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 75℃, it will automatically turn off to protect the fixture.

3. LED Timeout Use

8. Troubleshooting

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

A. The unit does not work 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.

9. Fixture Cleaning

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

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

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