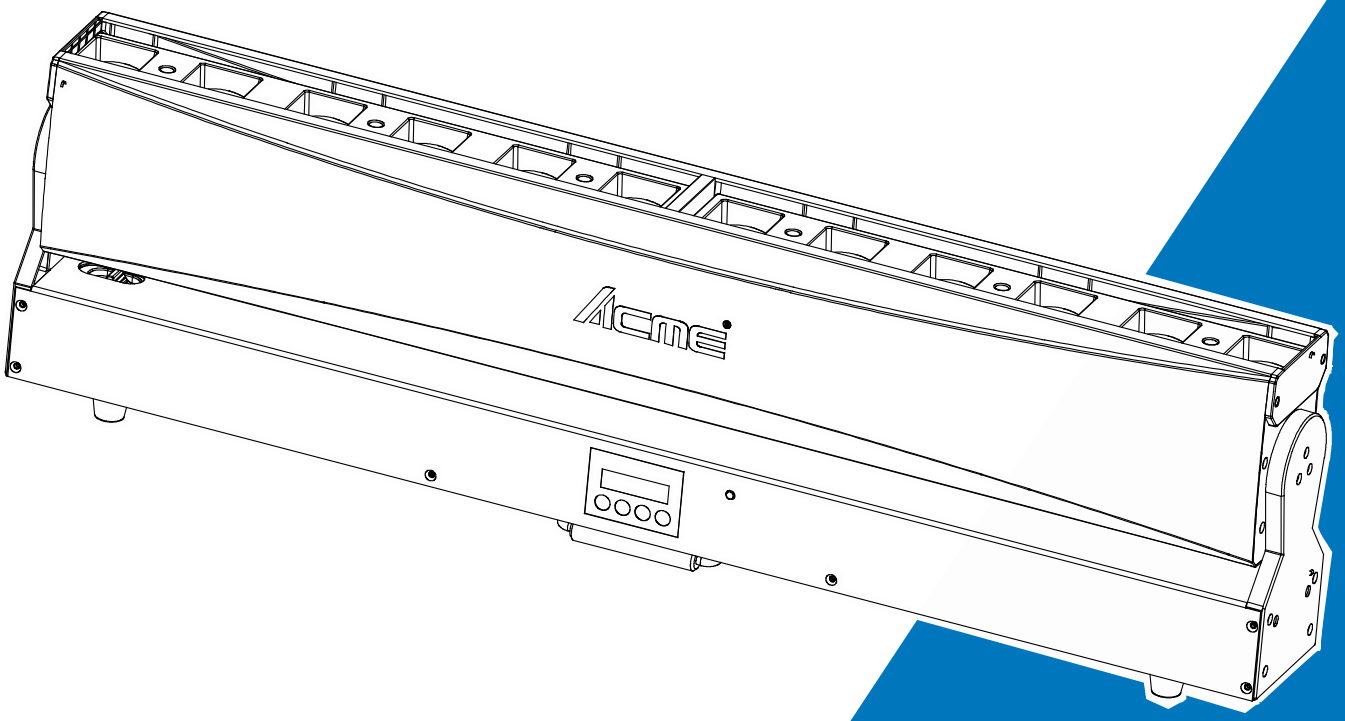
Dotline360



User Manual

Please read the instruction carefully before use

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 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 are blocked, otherwise the unit will be overheated.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 0℃. Maximum ambient temperature TA: 40℃.
- DO NOT connect the device to any dimmer pack.
- During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, and it will decrease gradually within 15 minutes.
- Make sure there are no flammable materials close to the unit while operating to avoid fire hazard.
- Examine the power wires carefully; replace them immediately if there is any damage.
- Unit's surface temperature may reach up to 55℃. DO NOT touch the housing bare-handed during its operation.

- Avoid any inflammable liquids, water or metal objects entering the unit. Once it happens, cut off the mains power immediately.
- DO NOT operate in dirty or dusty environment, do clean fixtures regularly.
- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid power wires together twist other cables.
- The minimum distance between light output and the illuminated surface must be more than 0.5 meters.
- 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 unit as there are no user serviceable parts inside.
- Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect the mains power if the fixture is has not been used for a long time.
- DO use the original packing materials before transporting it again.
- DO NOT look directly at the light while the LED is on.
- DO NOT start on the unit without LED enclosure or when housing is damaged.

Installation:

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

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

2. Technical Specifications

Power Voltage:

AC 100~240V, 50/60Hz

Power Consumption:

440W

Light Source:

12x30W RGBW LED

Zoom Range:

3.5°~38°

Fixture Rotation Angle Range:

0°-220°

Dimming/Strobe:

Smooth dimming from 0-100%, adjustable strobe speeds

Control:

DMX Channel: 57/14/9+ Channels

Protocols: DMX512, RDM, Art-Net

Firmware Upgrade: Update via DMX link

Construction:

Display: OLED display

Battery backup for user setup without mains connection

Data In/Out: 5-pin XLR (3-pin XLR is optional), RJ-45

Power In/Out: Power Connector in/out

Protection Rating: IP20

Features:

Two zoom sections that could be controlled independently

This fixture has two shafts that help to well assembly in line several Dotline360

The led pitch is the same between 2 fixtures once connected with shafts

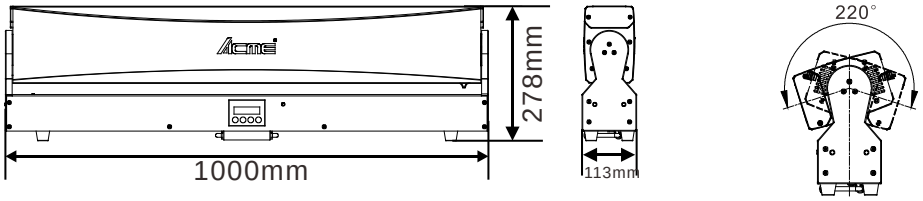
Linear motorized zoom

Outstanding color mixing effect

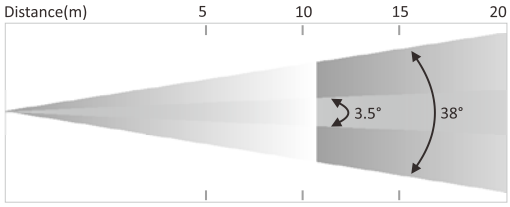
Dimension/ Weight:

1000x113x278mm, 18.5kg

39.3"x4.4"x10.9"in, 40.8lbs



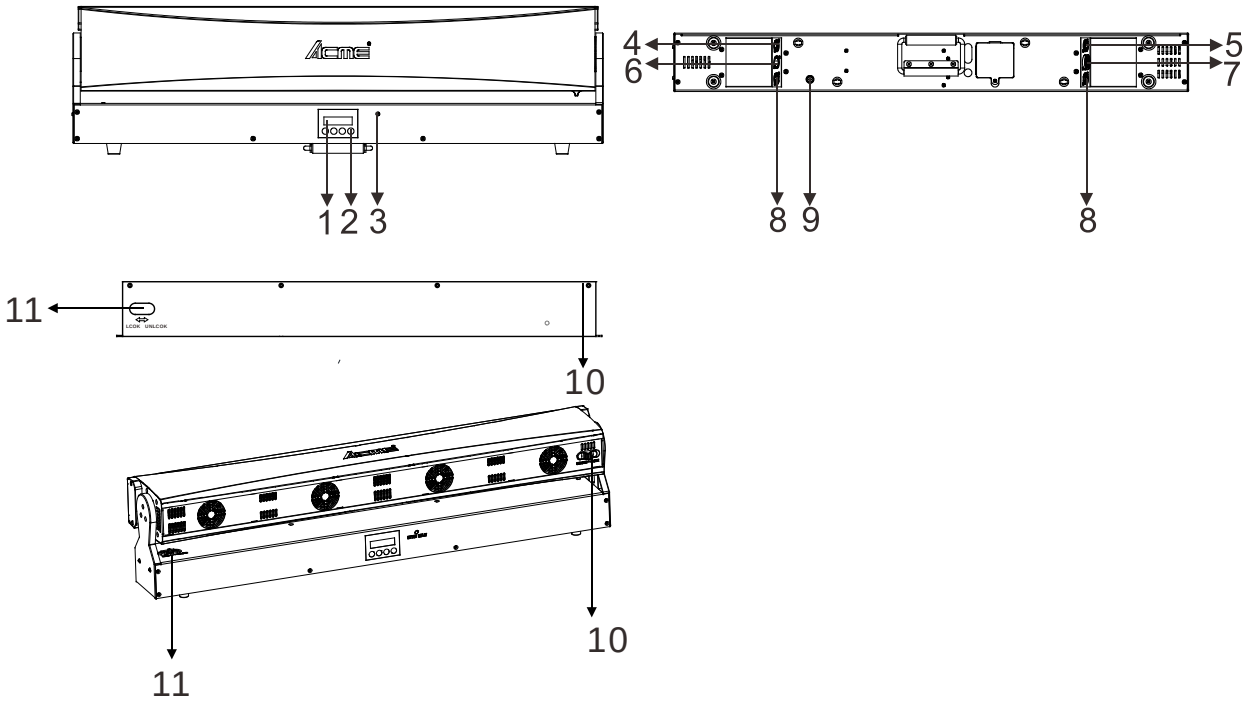
Photometrics Diagram



3.5° Lux RGBW	11009	2752	1223	688
Diameter(m)	0. 33	0. 67	1	1. 3
38°Lux RGBW	553	138	61	35
Diameter(m)	3. 1	6. 2	9. 4	12. 5

3. Description

3.1 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. BATTERY DISPLAY:

To show battery status

4. DMX IN:

For DMX512 operation, use 5-pin XLR cable to input DMX signal (3-pin XLR is optional)

5. DMX OUT:

For DMX512 operation, use 5-pin XLR cable to output DMX signal (3-pin XLR is optional)

6. POWER IN:

To connect to supply power

7. POWER OUT:

To connect to the next unit

8. ETHERNET:

Transfers fixture's information to a main controller

9. FUSE(T 10A):

Protect the unit from damage of the overcurrent

10. PUSH BUTTON 1 (Head Push Button):

Before the fixture is powered on, please push the button to "UNLOCK" of the head

11. PUSH BOTTON 2:

When the fixture is online, please push the button to "LOCK"

3.2 How to Install the Clamp

1. Fasten the clamp to the quick-lock fastener with a nut in the direction shown in fig.1 or fig.2.

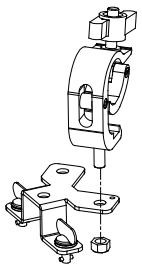


fig. 1

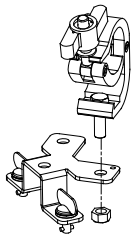


fig. 2

2. As shown in fig.3, tighten the quick-lock fasteners clockwise and fix them in the quick-lock fastener positioning holes of the luminaire; and lock the clamps on the truss. (Installation in the direction of fig.4 is optional)

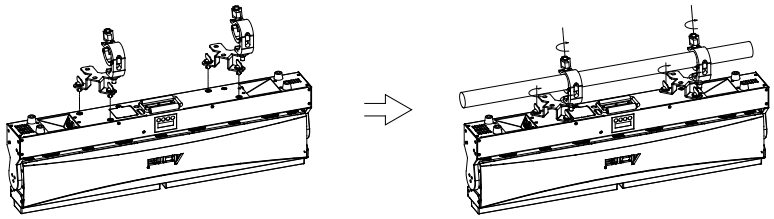


fig. 3

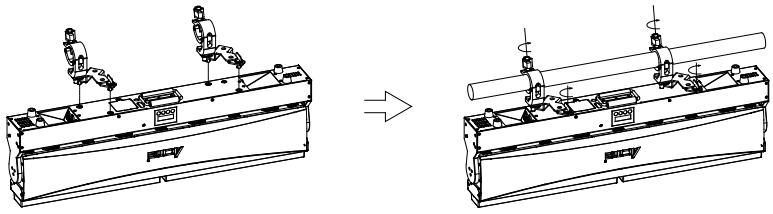


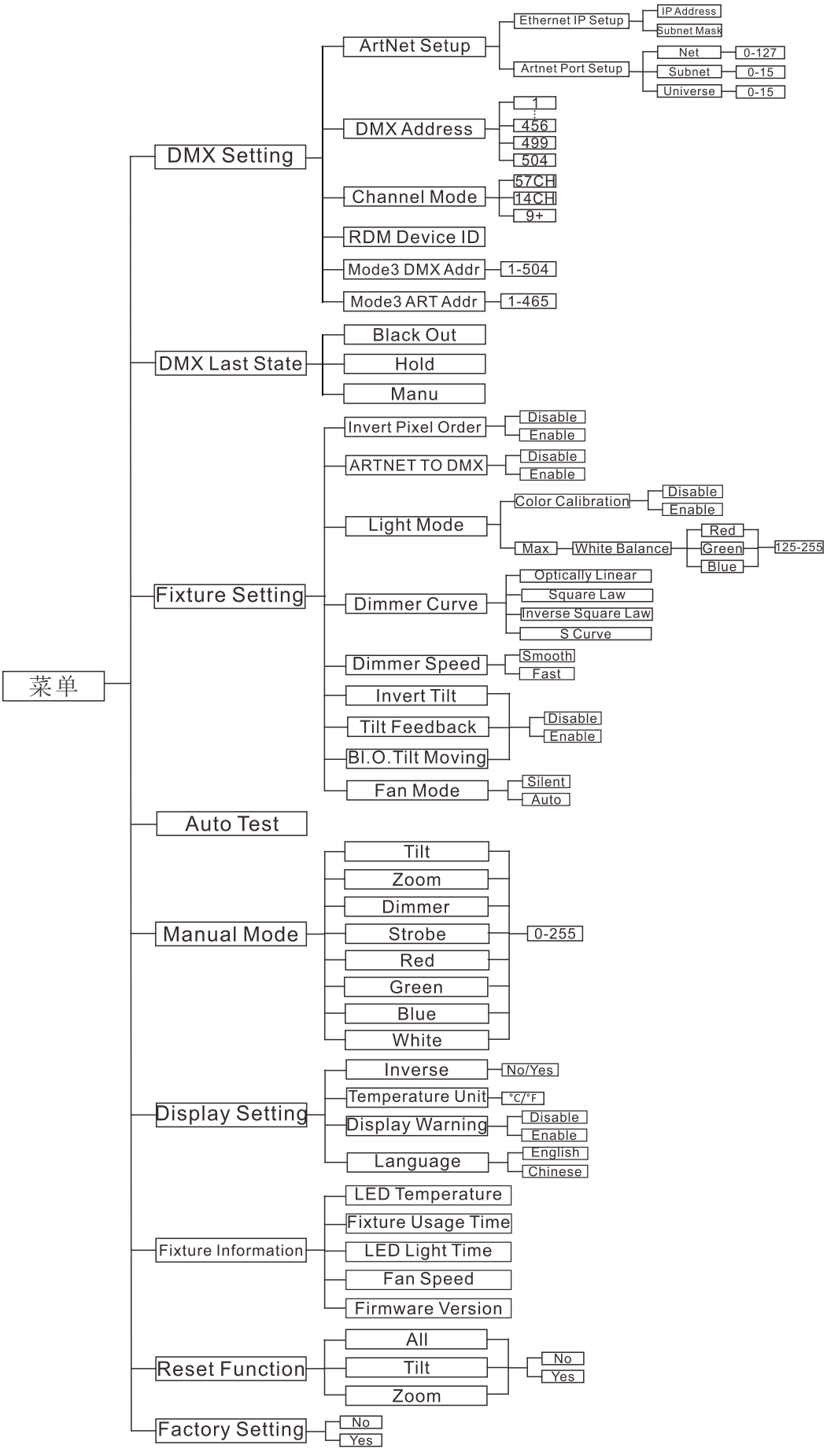
fig. 4

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 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:


菜单
DMX Setting
ArtNet Setup
Ethernet IP Setup
IP Address
Subnet Mask
Artnet Port Setup
Net
0-127
Subnet
0-15
Universe
0-15
DMX Address
1
456
499
504
Channel Mode
57CH
14CH
9+
RDM Device ID
Mode3 DMX Addr
1-504
Mode3 ART Addr
1-465
DMX Last State
Black Out
Hold
Manu
Fixture Setting
Invert Pixel Order
Disable
Enable
ARTNET TO DMX
Disable
Enable
Light Mode
Color Calibration
Disable
Enable
Max
White Balance
Red
Green
Blue
125-255
Dimmer Curve
Optically Linear
Square Law
Inverse Square Law
S Curve
Dimmer Speed
Smooth
Fast
Invert Tilt
Tilt Feedback
Disable
Enable
Bl.O.Tilt Moving
Fan Mode
Silent
Auto
Auto Test
Manual Mode
Tilt
Zoom
Dimmer
Strobe
Red
Green
Blue
White
0-255
Display Setting
Inverse
No/Yes
Temperature Unit
°C/°F
Display Warning
Disable
Enable
Language
English
Chinese
Fixture Information
LED Temperature
Fixture Usage Time
LED Light Time
Fan Speed
Firmware Version
Reset Function
All
Tilt
Zoom
No
Yes
Factory Setting
No
Yes

DMX Setting

To select **DMX Setting**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **ArtNet Setup, DMX Address, Channel Mode, RDM Device ID, Mode3 DMX Addr** or **Mode3 ART Addr.**

ArtNet Setup

To select **ArtNet Setup**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Ethernet IP Setup** or **ArtNet Port Setup**, press the **ENTER** button to store. Once select **Ethernet IP Setup**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **IP Address** or **Subnet Mask**, press the **ENTER** button to store. Once select **ArtNet Port Setup**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Net, Subnet** or **Universe**, press the **ENTER** button to store. Use the **UP**/**DOWN** button to adjust the value of Net, Subnet or Universe, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

DMX Address

To select **DMX Address**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to adjust the address from 001 to 456/499/504, 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 **57 CH, 14 CH** or **9+**, 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.

RDM Device ID

To select **RDM Device ID**, press the **ENTER** button to show the RDM Device ID on the display. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Mode3 DMX Addr (DMX address of 9+ channel)

To select **Mode3 DMX Addr**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to adjust the address from 001 to 504, 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.

Mode3 ART Addr (Artnet address of 9+ channel)

To select **Mode3 ART Addr**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to adjust the address from 001 to 465, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

DMX Last State

To select **DMX Last State**, press the **ENTER** button to confirm. Use the **UP/DOWN** buttons to select **Black Out** (When the DMX signal stops, the fixture will black out)**, Hold** (When the DMX signal stops, the fixture will hold its last state) or **Manual** (Only after selecting this mode can you control the fixture through the "Manual Mode" menu function). Once selected, press the **ENTER** button to setup. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Setting

To select **Fixture Setting**, press the **ENTER** button to confirm. Use the **UP/DOWN** buttons to select **Invert Pixel Order, ARTNET TO DMX, Light Mode, Dimmer Curve, Dimmer Speed, Invert Tilt, Tilt Feedback, Bl.O. Tilt Moving** or **Fan Mode**.

Invert Pixel Order

To select **Invert Pixel Order**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Disable** or **Enable,** 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.

ARTNET TO DMX X

To select **ARTNET TO DMX**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Disable** or **Enable,** 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.

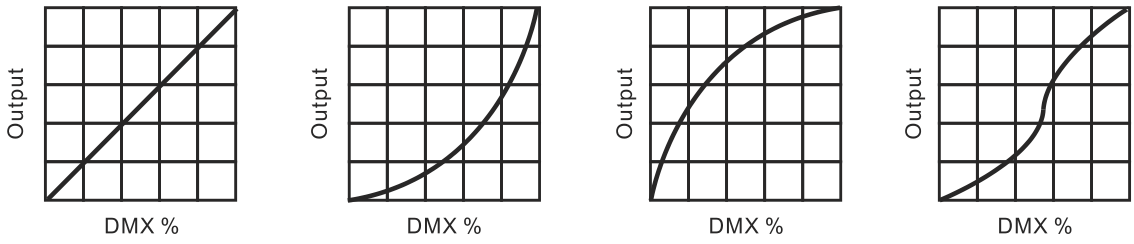
Light Mode

To select **Light Mode**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Color Calibration** or **Max**, press the **ENTER** button to store. When choose **Color Calibration**, use the **UP**/**DOWN** button to select **Disable** or **Enable**, press the **ENTER** button to store**.** When choose **Max**, press the **ENTER** button to enter **White Balance**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Red, Green** or **Blue**, press the **ENTER** button to confirm, 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.

Dimmer Curve

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

Invert Tilt

To select **Invert Tilt**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Disable** or **Enable**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Tilt Feedback

To select **Tilt Feedback**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Disable** or **Enable**, 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.

Bl.O. Tilt Moving

To select **Bl.O. Tilt Moving**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Disable** or **Enable**, 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.

Fan Mode

To select **Fan Mode**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Silent** or **Auto**, 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.

Auto Test

To select **Auto Test**, press the **ENTER** button to confirm and the unit will run a self-test. To go back to the functions without any changes press the **MENU** button again.

Manual Mode

To select **Manual Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Tilt, Zoom, Dimmer**, **Strobe, Red, Green, Blue** or **White**, press the **ENTER** button to confirm. Use the **UP/DOWN** buttons to specify a value for the chosen effect 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.

(Only when the “Manu” mode is selected in the “DMX Last State” menu can this “Manual Mode” function be used to control the fixture.)

Display Setting

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

Inverse

To select **Inverse**, 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.

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 30 seconds to exit menu mode.

Display Warning

To select **Display Warning**, press the **ENTER** button to confirm. Use the **UP**/**DOWN** button to select **Disable** or **Enable**, 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

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

Fixture Information

To select **Fixture Information**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **LED Temperature, Fixture Usage Time, LED Light Time, Fan Speed** or **Firmware Version.**

LED Temperature

To select **LED Temperature**, press the **ENTER** button to confirm, LED temperature will show on the display, press the **MENU** button to exit.

Fixture Usage Time

Select **Fixture Usage Time**, press the **ENTER** button to confirm, fixture use time will show on the display, press the **MENU** button to exit.

LED Light Time

Select **LED Light Time**, press the **ENTER** button to confirm, LED light time will show on the display, press the **MENU** button to exit.

Fan Speed

Select **Fan Speed**, press the **ENTER** button to confirm, fan speed 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.

Reset Function

Enter menu mode, select **Reset Function**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **All, Tilt** or **Zoom.**

All

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.

Tilt

Select **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 tilt to its home positions), 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.

Zoom

Select **Zoom,** 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 zoom to its home positions), 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 Setting

To select **Factory Setting**, 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.

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 (57/14/9+ channel).

Select the DMX PERSONALITY DESCRIPTION menu to display the current channel mode of the fixture.

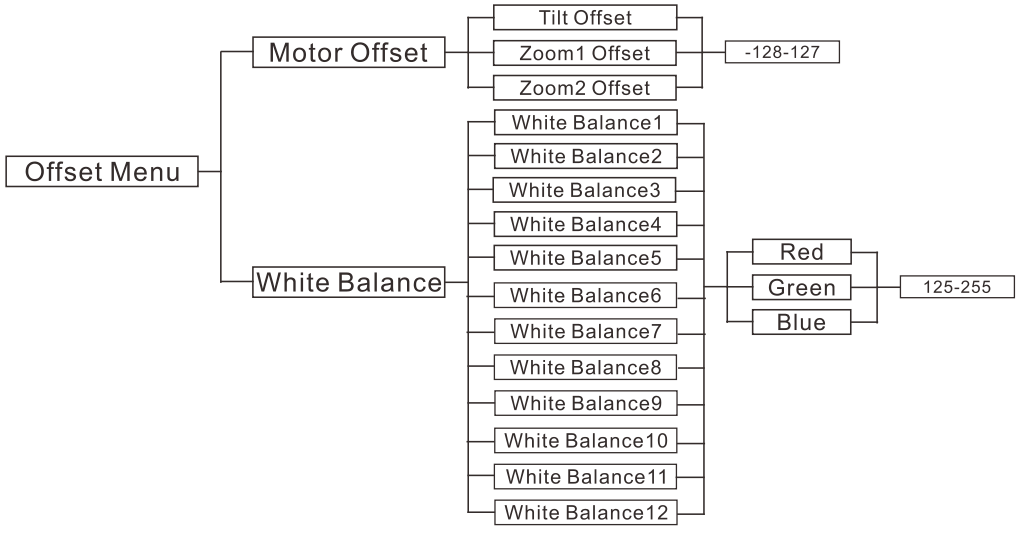
Select the DEVICE HOURS menu to display the running time of the fixture.

Select the 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.

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 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.



Motor Offset

Enter offset mode, Select **Motor Offset**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Tilt Offset, Zoom1 Offset** or **Zoom2 Offset**, press the **ENTER** button to store. Press the **MENU** button to exit.

Tilt Offset

Enter offset mode, Select **Tilt Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Zoom1 Offset

Enter offset mode, Select **Zoom1 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Zoom2 Offset

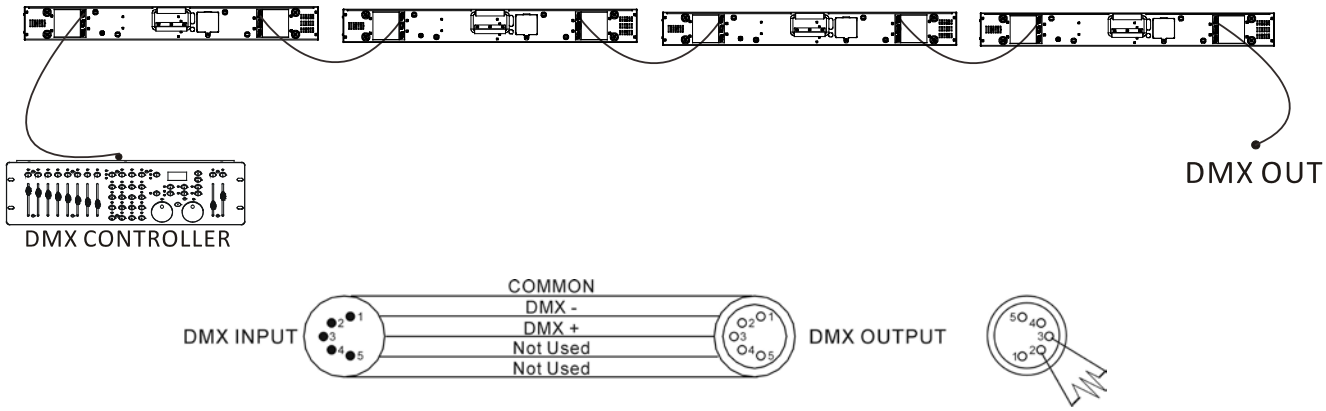
Enter offset mode, Select **Zoom2 Offset**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP**/**DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

White Balance

Enter offset mode, Select **White Balance**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **White Balance1, White Balance2……** or **White Balance12**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Red, Green** or **Blue**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to adjust the value from **125** 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 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.

5.2 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 on the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

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

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
57 Channel	1	58	105	162
14 Channel	1	15	29	43
9+ Channel (Controlled by DMX)	1	10	19	28
9+ Channel (Controlled by Artnet)	1	49	97	145

5.3 DMX512 Configuration

Please refer to below configurations to control the fixtures

Attentions:

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

57 Channels Mode:

CHANNEL	VALUE	FUNCTION
1	000-255	**Tilt** 0°→220°
2	000-255	**Tilt Fine**
3	000-007 008-247 248-255	**Tilt Speed** auto speed slow-fast auto speed
4	000-255	**Zoom1** 0%→100%
5	000-255	**Zoom2** 0%→100%
6	000-255	**Dimmer** 0%→100%
7	000-255	**Dimmer Fine**
8	000-031 032-063 064-095 096-127 128-159 160-191 192-223 224-255	**Strobe** Shutter closed shutter open Strobe effect fast to slow shutter open Pulse-effect in sequences shutter open Random strobe effect slow to fast shutter open
9	000-255	**LED1 RED** 0%→100%
10	000-255	**LED1 GREEN** 0%→100%
11	000-255	**LED1 BLUE** 0%→100%
12	000-255	**LED1 WHITE** 0%→100%
13	000-255	**LED2 RED** 0%→100%
14	000-255	**LED2 GREEN** 0%→100%
15	000-255	**LED2 BLUE** 0%→100%
16	000-255	**LED2 WHITE** 0%→100%

17	000-255	**LED3 RED** 0%→100%
18	000-255	**LED3 GREEN** 0%→100%
19	000-255	**LED3 BLUE** 0%→100%
20	000-255	**LED3 WHITE** 0%→100%
21	000-255	**LED 4RED** 0%→100%
22	000-255	**LED4 GREEN** 0%→100%
23	000-255	**LED4 BLUE** 0%→100%
24	000-255	**LED4 WHITE** 0%→100%
25	000-255	**LED5 RED** 0%→100%
26	000-255	**LED5 GREEN** 0%→100%
27	000-255	**LED5 BLUE** 0%→100%
28	000-255	**LED5 WHITE** 0%→100%
29	000-255	**LED6 RED** 0%→100%
30	000-255	**LED6 GREEN** 0%→100%
31	000-255	**LED6 BLUE** 0%→100%
32	000-255	**LED6 WHITE** 0%→100%
33	000-255	**LED7 RED** 0%→100%
34	000-255	**LED7 GREEN** 0%→100%
35	000-255	**LED7 BLUE** 0%→100%
36	000-255	**LED7 WHITE** 0%→100%
37		**LED8 RED**

	000-255	0%→100%
38	000-255	**LED8 GREEN** 0%→100%
39	000-255	**LED8 BLUE** 0%→100%
40	000-255	**LED8 WHITE** 0%→100%
41	000-255	**LED9 RED** 0%→100%
42	000-255	**LED9 GREEN** 0%→100%
43	000-255	**LED9 BLUE** 0%→100%
44	000-255	**LED9 WHITE** 0%→100%
45	000-255	**LED10 RED** 0%→100%
46	000-255	**LED10 GREEN** 0%→100%
47	000-255	**LED10 BLUE** 0%→100%
48	000-255	**LED10WHITE** 0%→100%
49	000-255	**LED11 RED** 0%→100%
50	000-255	**LED11 GREEN** 0%→100%
51	000-255	**LED11 BLUE** 0%→100%
52	000-255	**LED11 WHITE** 0%→100%
53	000-255	**LED12 RED** 0%→100%
54	000-255	**LED12 GREEN** 0%→100%
55	000-255	**LED12 BLUE** 0%→100%
56	000-255	**LED12 WHITE** 0%→100%
57	000-060	**Special Function** No function

	061-080	Black out when Tilt moving
	081-100	Disable Black out when Tilt moving
	101-120	Reset All Motor
	121-140	Reset Tilt Motor
	141-160	Reset Zoom Motor
	161-180	Dimmer Speed: Smooth
	181-200	Dimmer Speed: Fast
	201-255	No Function

14 Channels Mode:

CHANNEL	VALUE	FUNCTION
1	000-255	**Tilt** 0°→220°
2	000-255	**Tilt Fine**
3	000-255	**Zoom** 0%→100%
4	000-255	**Dimmer** 0%→100%
5	000-255	**Dimmer Fine**
6	000-031 032-063 064-095 096-127 128-159 160-191 192-223 224-255	**Strobe** Shutter closed shutter open Strobe effect fast to slow shutter open Pulse-effect in sequences shutter open Random strobe effect slow to fast shutter open
7	000-008 009-038 039-068 069-098 099-128 129-158 159-187 188-255	**Macro** No function macro1 macro2 macro3 macro4 macro5 macro6 macro7
8	000-255	**Foreground Color** 0%→100%

9	000-255	**Background Color** 0%→100%
10	000-255	**RED** 0%→100%
11	000-255	**GREEN** 0%→100%
12	000-255	**BLUE** 0%→100%
13	000-255	**WHITE** 0%→100%
14	000-060 061-080 081-100 101-120 121-140 141-160 161-180 181-200 201-255	**Special Function** No function Black out when Tilt moving Disable Black out when Tilt moving Reset All Motor Reset Tilt Motor Reset Zoom Motor Dimmer Speed: Smooth Dimmer Speed: Fast No Function

9+ Channels Mode (Controlled by DMX):

CHANNEL	VALUE	FUNCTION
1	000-255	**Tilt** 0°→220°
2	000-255	**Tilt Fine**
3	000-007 008-247 248-255	**Tilt Speed** auto speed slow-fast auto speed
4	000-255	**Zoom1** 0%→100%
5	000-255	**Zoom2** 0%→100%
6	000-255	**Dimmer** 0%→100%
7	000-255	**Dimmer Fine**
8	000-031	**Strobe** Shutter closed

	032-063 064-095 096-127 128-159 160-191 192-223 224-255	shutter open Strobe effect fast to slow shutter open Pulse-effect in sequences shutter open Random strobe effect slow to fast shutter open
9	000-060 061-080 081-100 101-120 121-140 141-160 161-180 181-200 201-255	**Special Function** No function Black out when Tilt moving Disable Black out when Tilt moving Reset All Motor Reset Tilt Motor Reset Zoom Motor Dimmer Speed: Smooth Dimmer Speed: Fast No Function

9+ Channels Mode (Controlled by Artnet):

CHANNEL	VALUE	FUNCTION
1	000-255	**LED1 RED** 0%→100%
2	000-255	**LED1 GREEN** 0%→100%
3	000-255	**LED1 BLUE** 0%→100%
4	000-255	**LED1 WHITE** 0%→100%
5	000-255	**LED2 RED** 0%→100%
6	000-255	**LED2 GREEN** 0%→100%
7	000-255	**LED2 BLUE** 0%→100%
8	000-255	**LED2 WHITE** 0%→100%
9	000-255	**LED3 RED** 0%→100%
10	000-255	**LED3 GREEN** 0%→100%

11	000-255	**LED3 BLUE** 0%→100%
12	000-255	**LED3 WHITE** 0%→100%
13	000-255	**LED 4RED** 0%→100%
14	000-255	**LED4 GREEN** 0%→100%
15	000-255	**LED4 BLUE** 0%→100%
16	000-255	**LED4 WHITE** 0%→100%
17	000-255	**LED5 RED** 0%→100%
18	000-255	**LED5 GREEN** 0%→100%
19	000-255	**LED5 BLUE** 0%→100%
20	000-255	**LED5 WHITE** 0%→100%
21	000-255	**LED6 RED** 0%→100%
22	000-255	**LED6 GREEN** 0%→100%
23	000-255	**LED6 BLUE** 0%→100%
24	000-255	**LED6 WHITE** 0%→100%
25	000-255	**LED7 RED** 0%→100%
26	000-255	**LED7 GREEN** 0%→100%
27	000-255	**LED7 BLUE** 0%→100%
28	000-255	**LED7 WHITE** 0%→100%
29	000-255	**LED8 RED** 0%→100%
30	000-255	**LED8 GREEN** 0%→100%
31		**LED8 BLUE**

	000-255	0%→100%
32	000-255	**LED8 WHITE** 0%→100%
33	000-255	**LED9 RED** 0%→100%
34	000-255	**LED9 GREEN** 0%→100%
35	000-255	**LED9 BLUE** 0%→100%
36	000-255	**LED9 WHITE** 0%→100%
37	000-255	**LED10 RED** 0%→100%
38	000-255	**LED10 GREEN** 0%→100%
39	000-255	**LED10 BLUE** 0%→100%
40	000-255	**LED10WHITE** 0%→100%
41	000-255	**LED11 RED** 0%→100%
42	000-255	**LED11 GREEN** 0%→100%
43	000-255	**LED11 BLUE** 0%→100%
44	000-255	**LED11 WHITE** 0%→100%
45	000-255	**LED12 RED** 0%→100%
46	000-255	**LED12 GREEN** 0%→100%
47	000-255	**LED12 BLUE** 0%→100%
48	000-255	**LED12 WHITE** 0%→100%

6. Error Information

1. CPU- B/C/D/E/F Error

Check whether the 485 (DATA) leads on the PCB board are install in place or disconnected.

Check whether the 485 (DATA) lead is disconnected.

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

2. Tilt Reset Error

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

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

Check if the tilt Hall elements is damaged.

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

Check if the tilt motor is damaged.

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

3. Tilt Encoder Error

Check if the tilt encoder is damaged.

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

4. Zoom1/2 Reset Error

Check if the position of the zoom1/2 mounting magnetic steel falls off or is damaged.

Check if there are other interference items in the zoom1/2 operating range.

Check if the zoom1/2 Hall elements is damaged.

Check if the zoom1/2 Hall elements is in poor contact with the lead of the PCB board or disconnected.

Check if the zoom1/2 motor is damaged.

Check if there is any damage to the circuit of the zoom1/2 motor drive board.

5. Fan1/2/3/4/5 Error

Check if the fan is not running or check if the voltage of the fan is correct.

Check if the fan leads are installed or disconnected.

Check if the fan circuit on the PCB board is abnormal.

6. Temperature Error

Check if the temperature test is normal.

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

Check if the lead of the temperature detecting board is disconnected.

7. Temp is Too High

Check if the fan is working properly.

Check if the fan speed is normal.

Check if the ambient temperature is abnormal.

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

C. One of the channels is not working well

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

8. Fixture Cleaning

The cleaning 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 using normal glass cleaning fluid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30 days.

Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 2014/30/EU.

EN 55032: 2015; EN 61000-3-2: 2014;
EN 61000-3-3: 2013; EN 550103-2: 2009.

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Harmonized Standard

EN 60598-1: 2015; EN 60598-2-17: 2018;
EN 62493: 2015
Safety of household and similar electrical appliances
Part 1: General requirements

Innovation, Quality, Performance