



**User Manual** 

Please read the instruction carefully before use

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# 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:  $0^{\circ}$ C. Maximum ambient temperature TA:  $40^{\circ}$ C.
- 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 50℃. 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 12 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:** 

340W

Light Source:

7x40W RGBW LED

Color Temperature:

2500-8000K

# Zoom Range:

6°~40°

# Movement:

Pan: 540°

Tilt: 270°

Pan/Tilt Resolution: 16bit

# Dimmer/Shutter:

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

# Control:

DMX Channel: 17/37 Channels

Protocols: DMX512, RDM

Firmware Upgrade via DMX link & USB disk

# **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:

Pixel control, uniform RGBW color mixing and rainbow effect

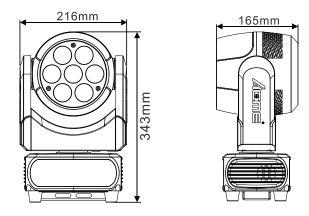
Motorized liner zoom system

Compact design, small size, fast and silent operation

# Dimension/Weight:

216x165x343mm, 5.3kgs

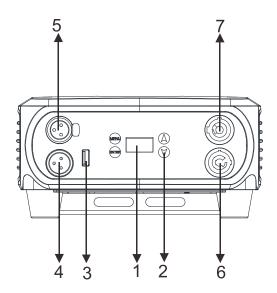
8.5"x6.5"x13.5"in, 11.7lbs



# Photometric Diagram

Distance(m)	5	10	15	20
			260	40°
6° Lux	5546	1386	616	346
Diameter(m)	0.8	1.6	2.4	3.2
40°Lux	300	75	33	19
Diameter(m)	5.7	11.4	17.1	22.8

# 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
A UP	To go backward to move up in the menu
V DOWN	To go forward to move down in the menu
ENTER	To perform the desired functions

### 3. Firmware Upgrade:

Used to upgrade the fixture firmware

# 4. DMX IN:

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

# 5. DMX OUT:

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

# 6. POWER IN:

To connect to supply power

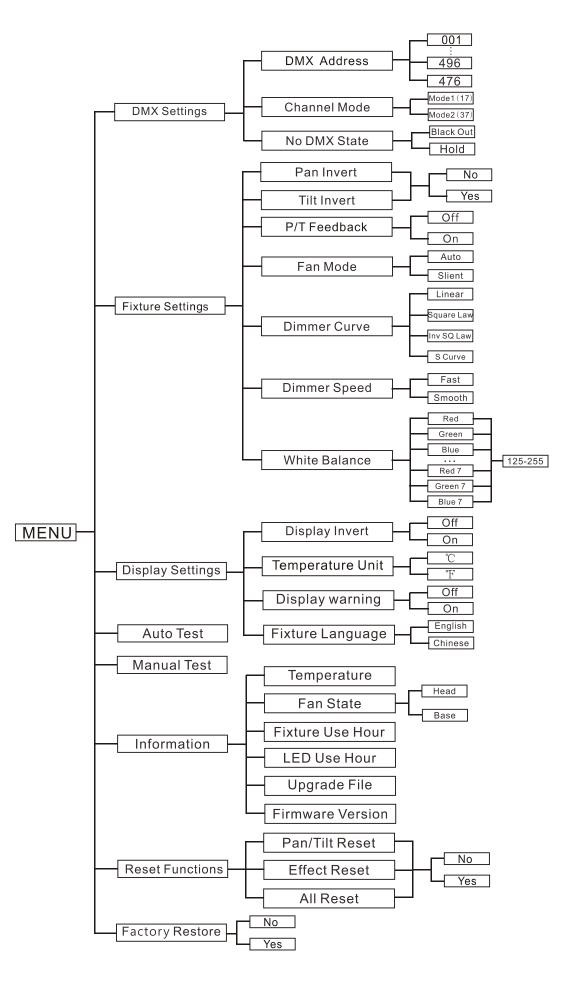
# 7. POWER OUT:

To connect to the next fixture

# 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 one minute to exit menu mode. The main functions are shown below:



#### **DMX** Settings

To select DMX Settings, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, Channel Mode or No DMX State.

#### **DMX Address**

To select **DMX Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **496/476**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Channel Mode**

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Mode1 (17)** or **Mode2 (37)**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

#### No DMX State

To select **No DMX State**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Black Out**(fixture blacks out if DMX signal stops) or **Hold**(fixture continues to obey the last command it received Via DMX if DMX signal stops), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

### **Fixture Settings**

To select **Fixture Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan Invert, Tilt Invert, P/T Feedback, Fan Mode, Dimmer Curve, Dimmer Speed** or **White Balance**.

#### Pan Invert

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

#### Tilt Invert

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

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# P/T Feedback

To select **P/T Feedback**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Off**(Pan or tilt's position will not feedback while out of step) or **On**(Feedback while pan/tilt out of step), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

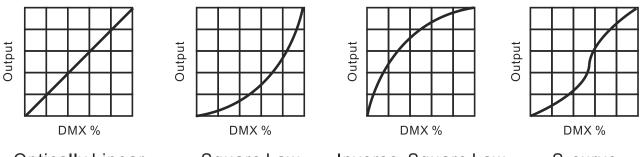
### Fan Mode

To select **Fan Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Auto**(Fan mode keep auto mode) or **Silent**(Fan mode keep silent mode), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

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

# Dimmer Modes



Optically Linear

Square Law Ir

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**(Fast Speed) or **Smooth**(Slow Speed), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

#### 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**, **Red2**, **Green2**, **Blue2** ......**Red7**, **Green7**, **Blue7**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

#### **Display Settings**

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

#### **Display Invert**

To select **Display Invert**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **Off** or **On**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

#### **Temperature Unit**

To select **Temperature Unit**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select  $^{\circ}$ C or  $^{\circ}$ F, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

#### **Display Warning**

To select **Display Warning**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **Off** or **On**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

#### **Fixture Language**

To select **Fixture 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 **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute 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. Press the **MENU** button back to the last menu or exit menu mode after auto test.

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#### Manual Test

To select **Manual Test**, press the **ENTER** button to confirm, the present channel will show on the display, use the UP/DOWN button to select channel **Pan**, **Pan Fine**, **Tilt**, **Tilt Fine**, **Zoom**, **Spe**. **Func.**, **Dimmer**, **Shutter**, **Red**, **Green**, **Blue**, **White**, **CTO**, **Color** and **Pixel**, press the ENTER button to confirm, then use the **UP** and **DOWN** button to adjust the value, press the **ENTER** button to store, the fixture will run as the channel value indicates. Press the MENU button back to the last menu or exit menu mode idling one minute.

(All channels value will become 0 after exiting Manual Test menu)

### Information

To select Information, press the ENTER button to confirm, use the UP/DOWN button to select Temperature, Fan State, Fixture Use Hour, LED Use Hour, Upgrade File or Firmware Version.

#### Temperature

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

#### Fan State

To select **Fan State**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **Head** or **Base**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

#### **Fixture Use Hour**

To 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, LED use hour will show on the display, press the **MENU** button to exit.

#### **Upgrade File**

To select **Upgrade File**, press the **ENTER** button to confirm, upgrade file will show on the display, press the **MENU** button to exit.

#### **Firmware Version**

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

# **Reset Functions**

To select **Reset Functions**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan/Tilt Reset**, **Effect Reset** or **All Reset**.

### Pan/Tilt Reset

To select **Pan/Tilt Reset**, 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 one minute to exit menu mode.

### **Effect Reset**

To select **Effect Reset**, 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 one minute to exit menu mode.

# All Reset

To select **All Reset**, 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 one minute to exit menu mode.

# **Factory Restore**

To 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 restore), 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 (17/37 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 PAN INVERT menu and the fixture will run the pan invert mode.

Select the TILT INVERT menu and the fixture will run the tilt invert mode.

Select the RESET DEVICE menu, the WARM RESET/COLD RESET option will be displayed. When WARM RESET is selected, the fixture will start a warm reset, and exit when COLD RESET is selected.

# 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.

	Pan	-128-127
	Tilt	-128-127
	Zoom	-128-127
	Red1	28-1000
	•	
	Red7	28-1000
	Green1	20-1000
	•	
Offset Menu	Green7	20-1000
	Blue1	20-1000
	•	
	Blue7	20-1000
	White1	23-1000
	•	
	White7	23-1000

#### <u>Pan</u>

Enter offset mode, Select **Pan**, 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.

#### <u>Tilt</u>

Enter offset mode, Select **Tilt**, 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.

#### <u>Zoom</u>

Enter offset mode, Select **Zoom**, 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.

#### <u>Red1</u>

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 28 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Red2

Enter offset mode, Select **Red2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 28 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Red3</u>

Enter offset mode, Select **Red3**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 28 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Red4

Enter offset mode, Select **Red4**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 28 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Red5</u>

Enter offset mode, Select **Red5**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 28 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

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#### Red6

Enter offset mode, Select **Red6**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 28 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Red7</u>

Enter offset mode, Select **Red7**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 28 to 1000, 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 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Green2

Enter offset mode, Select **Green2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Green3

Enter offset mode, Select **Green3**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Green4

Enter offset mode, Select **Green4**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Green5

Enter offset mode, Select **Green5**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Green6

Enter offset mode, Select **Green6**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### Green7

Enter offset mode, Select **Green7**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Blue1</u>

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 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Blue2</u>

Enter offset mode, Select **Blue2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Blue3</u>

Enter offset mode, Select **Blue3**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Blue4</u>

Enter offset mode, Select **Blue4**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Blue5</u>

Enter offset mode, Select **Blue5**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Blue6</u>

Enter offset mode, Select **Blue6**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### <u>Blue7</u>

Enter offset mode, Select **Blue7**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 20 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

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#### 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 23 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### White2

Enter offset mode, Select **White2**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 23 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### White3

Enter offset mode, Select **White3**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 23 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### White4

Enter offset mode, Select **White4**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 23 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### White5

Enter offset mode, Select **White5**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 23 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### White6

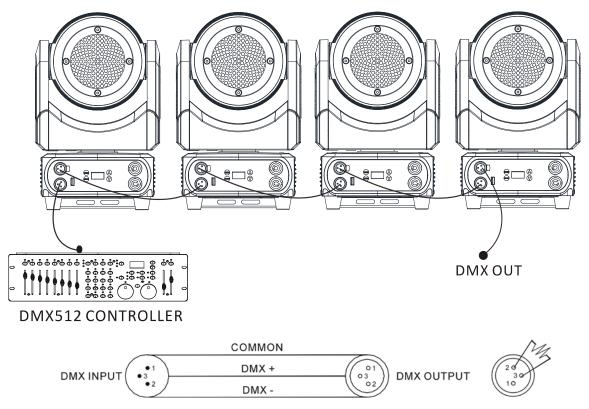
Enter offset mode, Select **White6**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 23 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

#### White7

Enter offset mode, Select **White7**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from 23 to 1000, press the **ENTER** button to store. Press the **MENU** button to exit.

# 5. Control By Universal DMX Controller

# 5.1 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 cannot be branched or split to a "Y" cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.
- 3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
- 4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
- 5. The end of the DMX 512 system should be terminated to reduce signal errors.
- 6.3 pin XLR connectors are more popular than 5 pins XLR.

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

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

# 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 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 blinking 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 idling let the unit idle one minute 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
17 channels	1	18	35	52
37 channels	1	38	75	112

# 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.
- For the channel Function, keep the value for about 5 seconds, then the corresponding function will take into effect.

# 17 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	<b>PAN</b> 0°→540°
2	000-255	PAN FINE
3	000-255	<b>TILT</b> 0°→270°
4	000-255	TILT FINE
5	000-255	<b>ZOOM</b> Narrow→Wide
6	000-255	<b>DIMMER</b> 0%→100%

7	000-255	DIMMER FINE	
		SHUTTER	
	000-007	Close	
	008-015	Open	
	016-131	Strobe effect slow to fast	
	132-139	Open	
8	140-181	Fast close slow open, slow to fast	
	182-189	Open	
	190-231	Fast open slow close, slow to fast	
	232-239	Open	
	240-247	Random strobe effect, slow to fast	
	248-255	Open	
		Red1	
9	000-255	0%→100%	
10		Green1	
10	000-255	0%→100%	
11		Blue1	
	000-255	0%→100%	
12		White1	
	000-255	0%→100%	
		Linear CTO	
	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	
13	046-049	7000K	
12	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	5900К	
	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	4300K 4400K
	167-171	4300K
	172-175	4200K
	176-180	4100K
	181-184	4000K
	185-189	3900К
	190-193	3800K
	194-198	3700K
	199-202	3600K
	203-207	3500К
	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	2700K 2600K
		2500K 2500K
	248-255	
		Color Macro
	000-007	NULL
	008-011	Color1
	012-015	Color2
	016-019	Color3
	020-023	Color4
	024-027	Color5
14	028-031	Color6
	032-035	Color7
	036-039	Color8
	040-043	Color9
	044-047	Color10
	048-051	Color11
	052-055	Color12
	056-059	Color12 Color13
	000-009	

	060-063	Color14
	064-067	Color15
	068-071	Color16
	072-075	Color17
	076-079	Color18
	080-083	Color19
	084-087	Color20
	088-091	Color21
	092-095	Color22
	096-099	Color23
	100-103	Color24
	104-107	Color25
	108-111	Color26
	112-115	Color27
	116-119	Color28
	120-123	Color29
	124-127	Color30
	128-131	Color31
	132-135	Color32
	136-165	Rotate CW Fast to Slow
	166-195	Rotate CCW Slow to Fast
	196-205	Red→Green Fast to Slow
	206-215	Red→Blue Fast to Slow
	216-225	Red→White Fast to Slow
	226-235	Green→Blue Fast to Slow
	236-245	Green→White Fast to Slow
	246-255	Blue→White Fast to Slow
	240 233	
	000.000	Pixel
	000-003	Open
	004-007	Pattern 1
	008-011	Pattern 2
	012-015	Pattern 3
	016-019	Pattern 4
	020-023	Pattern 5
	024-027	Pattern 6
	028-031	Pattern 7
15	032-035	Pattern 8
15	036-039	Pattern 9
	040-043	Pattern 10
	044-047	Pattern 11
	048-051	Pattern 12
	052-055	Pattern 13
	056-059	Pattern 14
	060-063	Pattern 15
	064-067	Pattern 16
	068-071	Pattern 17
	072-075	Pattern 18
	0/2-0/5	rallelli 10

16	000-031	NULL
	232 233	Pixel Rotating
	252-255	Open
	244-247	Pattern 61
	240-243	Random(Pattern 1-7)
	240-243	Pattern 60
	236-239	Pattern 59
	232-235	Pattern 58
	224-227 228-231	Pattern 56 Pattern 57
	220-223 224-227	Pattern 55 Pattern 56
	216-219	Pattern 54 Battern 55
	212-215	Pattern 53 Battern 54
	208-211	Pattern 52
	204-207	Pattern 51
	200-203	Pattern 50
	196-199	Pattern 49
	192-195	Pattern 48
	188-191	Pattern 47
	184-187	Pattern 46
	180-183	Pattern 45
	176-179	Pattern 44
	172-175	Pattern 43
	168-171	Pattern 42
	164-167	Pattern 41
	160-163	Pattern 40
	156-159	Pattern 39
	152-155	Pattern 38
	148-151	Pattern 37
	144-147	Pattern 36
	140-143	Pattern 35
	136-139	Pattern 34
	132-135	Pattern 33
	128-131	Pattern 32
	124-127	Pattern 31
	120-123	Pattern 30
	116-119	Pattern 29
	112-115	Pattern 28
	108-111	Pattern 27
	104-107	Pattern 26
	100-103	Pattern 25
	096-099	Pattern 24
	092-095	Pattern 23
	088-091	Pattern 22
	084-087	Pattern 21
	080-083	Pattern 20
	076-079	Pattern 19

	032-091	Rotate CW, fast to slow
	092-101	NULL
	102-161	Rotate CCW, slow to fast
	162-255	NULL
		Function
	000-079	Null
	080-089	Dimmer Smooth
	090-099	Dimmer Fast
47	100-139	Null
17	140-149	Pan/Tilt Reset
	150-159	Zoom Reset
	160-199	Null
	200-209	Reset All
	210-255	Null

# 37 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION	
1		PAN	
	000-255	0°→540°	
2	000-255	PAN FINE	
3	000-255	<b>TILT</b> 0°→270°	
4	000-255	TILT FINE	
5	000-255	<b>ZOOM</b> Narrow→Wide	
6	000-255	<b>DIMMER</b> 0%→100%	
7	000-255	DIMMER FINE	
		Shutter	
	000-007	Close	
	008-015	Open	
	016-131	Strobe effect slow to fast	
	132-139	Open	
8	140-181	Fast open slow close, slow to fast	
	182-189	Open	
	190-231	Fast close slow open, slow to fast	
	232-239	Open	
	240-247	Random strobe effect, slow to fast	
	248-255	Open	
9		Red1	
5	000-255	0%→100%	

		Green1			
10	000-255	0%→100%			
11		Blue1			
	000-255	0%→100%			
12		White1			
	000-255	0%→100%			
13		Red2			
	000-255	0%→100%			
14		Green2			
	000-255	0%→100%			
15		Blue2			
	000-255	0%→100%			
16		White2			
10	000-255	0%→100%			
17		Red3			
±/	000-255	0%→100%			
18		Green3			
	000-255	0%→100%			
19		Blue3			
	000-255	0%→100%			
20		White3			
	000-255	0%→100%			
21		Red4			
	000-255	0%→100%			
22		Green4			
	000-255	0%→100%			
23	000 255	Blue4			
	000-255	0%→100%			
24	000 255	White4			
	000-255	0%→100%			
25	000-255	<b>Red5</b> 0%→100%			
	000 233	Green5			
26	000-255	0%→100%			
	000 233	Blue5			
27	000-255	0%→100%			
28		White5			
	000-255	0%→100%			
29		Red6			
	000-255	0%→100%			
30		Green6			
	000-255	0%→100%			
31					
	000-255				
31	000-255	<b>Blue6</b> 0%→100%			

32		White6		
	000-255	0%→100%		
33		Red7		
22	000-255	0%→100%		
34		Green7		
54	000-255	0%→100%		
35		Blue7		
	000-255	0%→100%		
36		White7		
50	000-255	0%→100%		
		Function		
	000-079	Null		
	080-089	Dimmer Smooth		
	090-099	Dimmer Fast		
27	100-139	Null		
37	140-149	Pan/Tilt Reset		
	150-159	Zoom Reset		
	160-199	Null		
	200-209	Reset All		
	210-255	Null		

The display effect of each pattern in 15th channel of channel 17 is as follows:

Value: 0-3	Value: 4-7	Value: 8-11	Value: 12-15	Value: 16-19	Value: 20-23	Value: 24-27	Value: 28-31
Value: 32-35	Value: 36-39	Value: 40-43	Value: 44-47	Value: 48-51	Value: 52-55	Value: 56-59	Value: 60-63
Value: 64-67	Value: 68-71	Value: 72-75	Value: 76-79	Value: 10 01	Value: 84-87	Value: 88-91	Value: 92-95
Value: 96-99	Value: 100-103	Value: 104-107	Value: 108-111	Value: 112-115		Value: 120-123	Value: 124-127
Value: 128-131	Value: 132-135	Value: 136-139	Value: 140-143	Value: 144-147	Value: 148-151	Value: 152-155	Value: 156-159
Value: 160-163	Value: 164-167	Value: 168-171	Value: 172-175	Value: 176-179	Value: 180-183	Value: 184-187	Value: 188-191
Value: 192-195	Value: 196-199	Value: 200-203	Value: 204-207	Value: 208-211	Value: 212-215	Value: 216-219	Value: 220-223
Value: 224-227	Value: 228-231	Value: 232-235	Value: 236-239	Value: 240-243	Value: 244-247	Value: 248-251	Value: 252-255

# 6. Error Information

# 1. Pan Reset Error

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

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

Check if the pan Hall elements is damaged.

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

Check if the pan motor is damaged.

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

# 2. Pan Encoder Error

Check if the pan encoder is damaged.

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

# 3. 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.

# 4. 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.

# 5. CPU-B/C/D 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-B/C/D board is damaged.

# 6. BaseFan/HeadFan cannot start

Check if basefan/headfan is not running

# 7. BaseFan/HeadFan cannot stop

Check if the basefan/headfan is still running when the temperature drops to  $37^{\circ}$ C.

# 8. BaseFan/HeadFan speed too fast

Check if the basefan/headfan is out of order.

# 9. BaseFan/HeadFan speed too slow

Check if the basefan/headfan is out of order.

# 10. Zoom Reset Fail

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

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

Check if the zoom Hall elements is damaged.

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

Check if the zoom motor is damaged.

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

# 11. LED Temp. 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.

# 12. Led Temp. 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.
- 2. Measure the mains voltage on the main connector.
- 3. Check the power on LED to see if it can be light up or not.

# B. Not responding to DMX controller

- 1. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.
- 2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
- 3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
- 4. Try to use another DMX controller.
- 5. Check to see if the DMX cables run near or run alongside 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 of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- Clean with soft cloth and use normal glass to clean liquid.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.

# **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 IEC 61000-3-2: 2019; EN 61000-3-3: 2013; EN 55035: 2017.

> & Harmonized Standard

EN 60598-1:2015 + A1: 2018; EN 60598-2-17: 2018; EN 62493: 2015 Safety of household and similar electrical appliances Part 1: General requirements and tests Part 2: Particular requirements

# Innovation, Quality, Performance