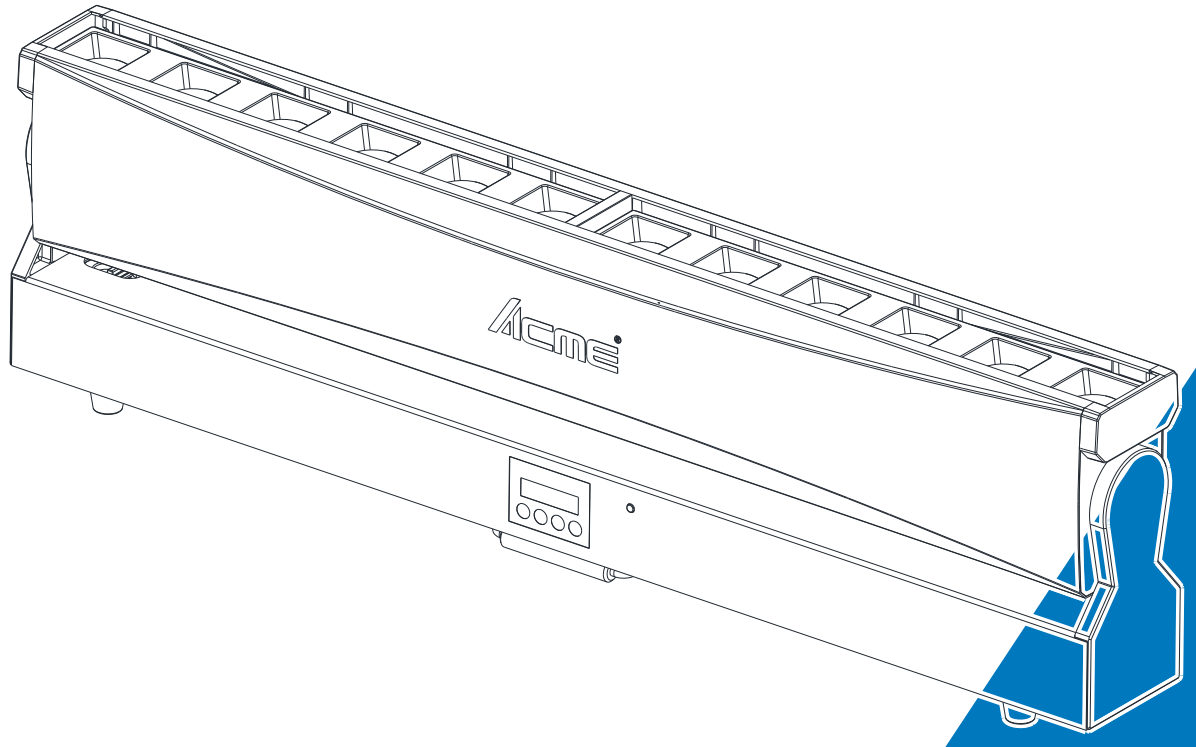
Dotline360

TB-1230 QW



User Manual

Please read the instruction carefully before use

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1. Safety Instructions

Please read the instructions carefully which includes important information about the installation, operation 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 booklet.

- Unpack and check carefully there is no transportation damage before using the unit.
- 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.
- The unit is for indoor use only. Use only in a dry location.
- 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.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when installing this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is Ta: 40 degrees C. DO NOT operate it where the temperature is higher than this.
- Unit surface temperature may reach up to 70 degrees C. DO NOT touch the housing with bare-hands during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In the event of a serious operating problem, stop using the unit immediately. 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. Always use the same type spare parts.
- DO NOT touch any cables during operation as high voltage may cause electric shock.

Warning:

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- The housing and lenses must be replaced if they are visibly damaged.

Installation:

The fixture should be mounted via its screw holes on the 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 and 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

◈ **2 DMX Channel Modes:** 57 / 14 Channels

♢ **Power Supply:** AC 100~240V, 50/60Hz

♢ **Power Consumption:** 450W

♢ **Power Supply:** 12 ×30W RGBW LED

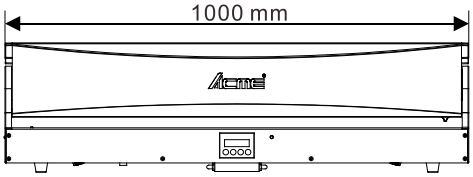
♢**Power Cable Daisy Chain:** 4 Fixtures Max.(120V, 60Hz); 7 Fixtures Max. (230V, 50Hz)

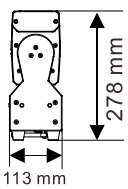
♢ **Beam Angle:** 3.5°-38°

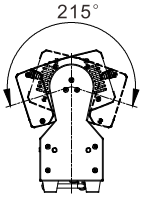
♢ **Weight:** 17.5Kgs

♢ **Dimension:** 1000 × 113 × 278mm

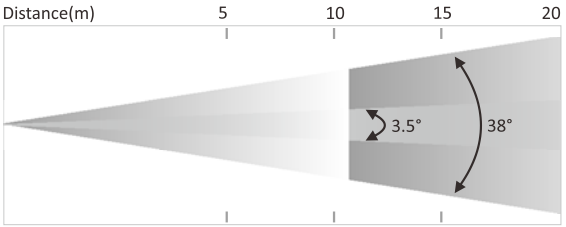
♢ **Fixture Rotation Angle Range:** 0°-215°







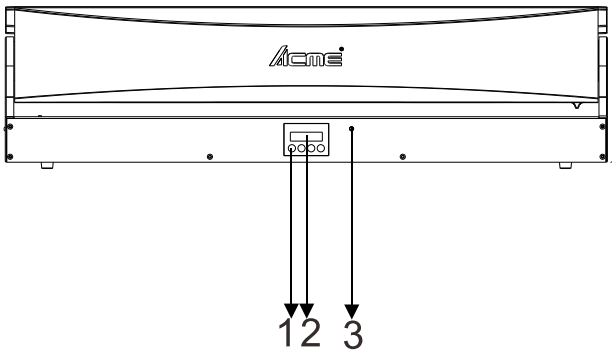
Photometrics Diagram

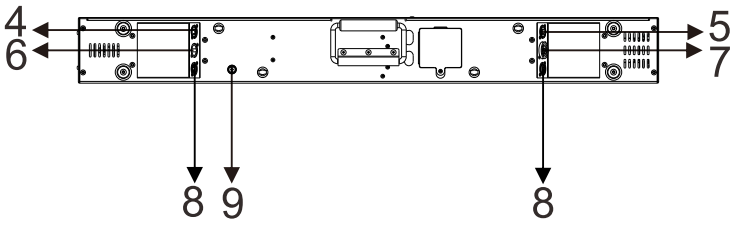


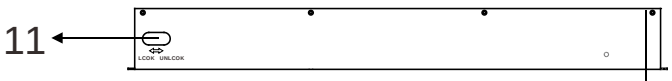
3.5° Lux RGBW	11009	2752	1223	688
Diameter(m)	0. 33	0. 67	1	1. 3
38°Lux RGBW	553	138	61	35
Diameter(m)	3. 1	6. 2	9. 4	12. 5

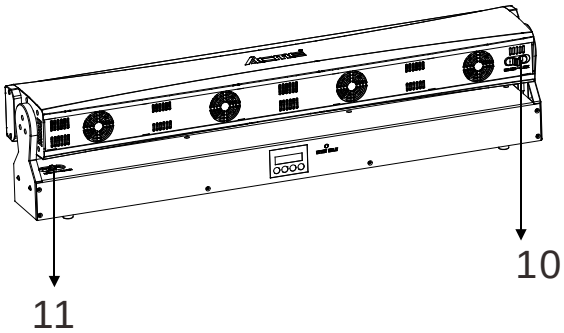
3. How To Set The Unit

3.1 Control panel









1. Button:

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

2. Function Display:

Show the various menus and the selected functions;

3. Battery Display:

To show battery status.

4. DMX IN:

Water proof 5-pin XLR connectors for DMX 512 operation;

5. DMX OUT:

Water proof connectors for DMX 512 operation, 5-pin XLR cable to output DMX signal;

6. POWER IN:

To connect to the mains supply;

7. POWER OUT:

connect to the next unit;

8. ETHERNET:

Transfers fixture's information to a main controller.

9. FUSE(T10A):

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;

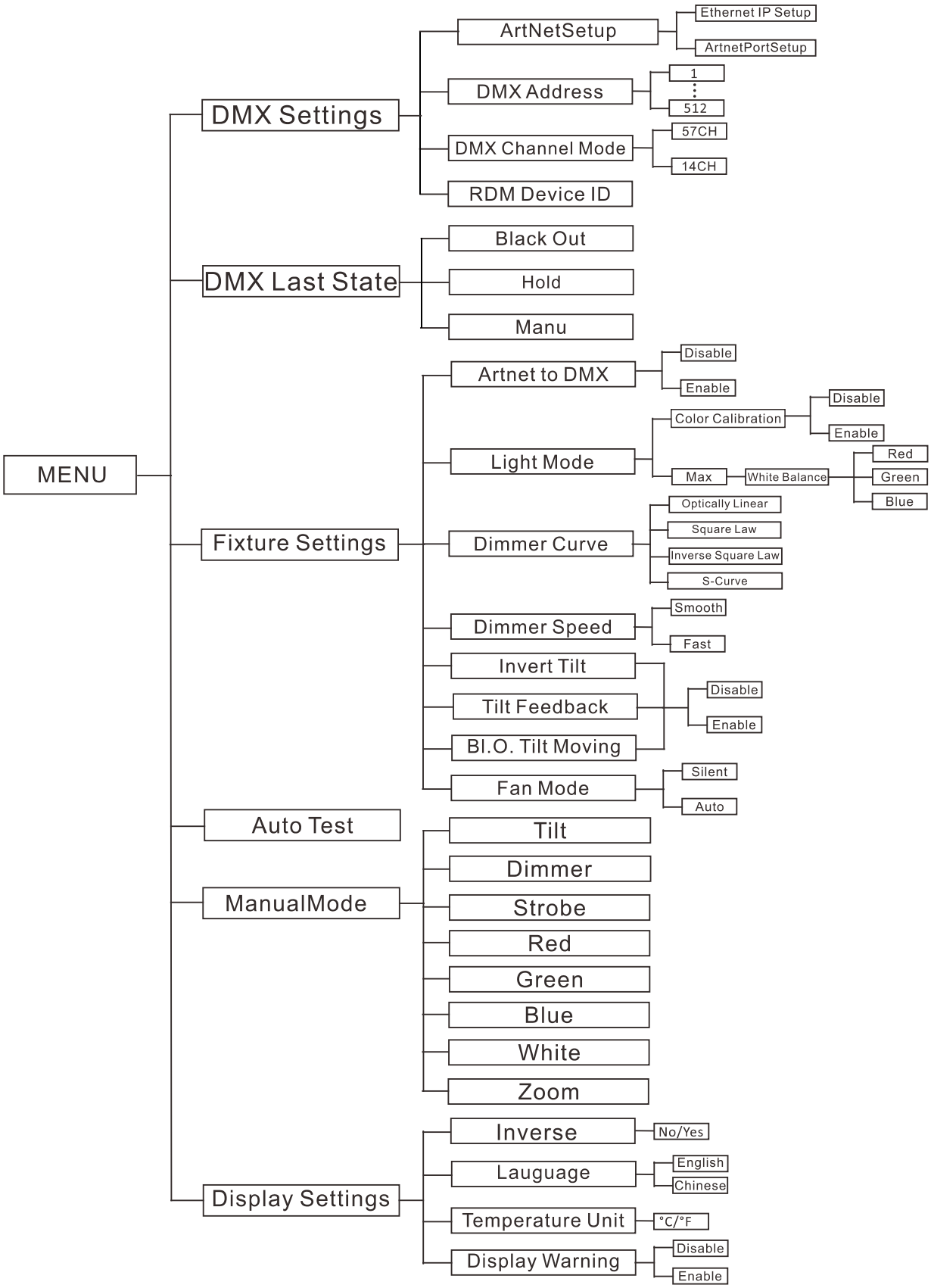
11. PUSH BOTTON 2:

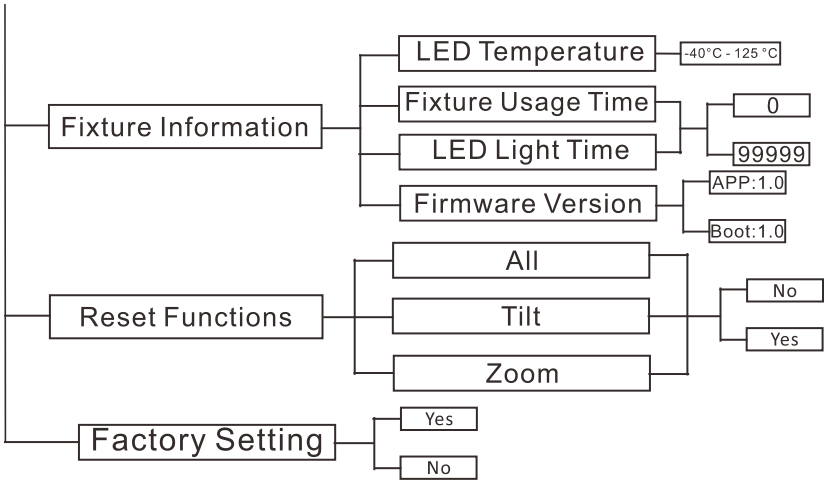
When the fixture is online , please push the button to "LOCK";

3.2 Main Functions

To select any functions, press the **MENU** button until the required one is shown on the display. Select the function by the **ENTER** button and the display will blink. Use the **DOWN**/**UP** button to change the mode. Once the required mode has been selected, press the **ENTER** button to setup or it will automatically return to the main functions without any change after idling one minute. Back to the functions without any change press the **MENU** button.

The main functions are shown below:


MENU
DMX Settings
ArtNetSetup
Ethernet IP Setup
ArtnetPortSetup
DMX Address
1
512
DMX Channel Mode
57CH
14CH
RDM Device ID
DMX Last State
Black Out
Hold
Manu
Fixture Settings
Artnet to DMX
Disable
Enable
Light Mode
Color Calibration
Disable
Enable
Max
White Balance
Red
Green
Blue
Dimmer Curve
Optically Linear
Square Law
Inverse Square Law
S-Curve
Dimmer Speed
Smooth
Fast
Invert Tilt
Tilt Feedback
Bl.O. Tilt Moving
Disable
Enable
Fan Mode
Silent
Auto
Auto Test
ManualMode
Tilt
Dimmer
Strobe
Red
Green
Blue
White
Zoom
Display Settings
Inverse
No/Yes
Lauguage
English
Chinese
Temperature Unit
°C/°F
Display Warning
Disable
Enable



DMX Setting

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

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** channels mode, press the **ENTER** button to store. When choose **Ethernet IP Setup**, use the **UP/DOWN** button to select **IP Address** or **Subnet Mask.** When choose **Art-Net Port Setup**, use the **UP/DOWN** button to select **Net, Subnet** or **Universe.** Press the **MENU** button back to the last menu or let the unit idle one minute 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 **512**, 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 **57 CH** or **14 CH** channels 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.

RDM Device ID

To select **RDM Device ID**, press the **ENTER** button to show **RDM Device ID** on the display, and press the **ENTER** button again, it will show the **RDM Device ID**. To go back to the functions without any changes press the **MENU** button.

DMX Last State

To select **DMX Last State** , press the **ENTER** button to show **DMX Last State** on the display. Use the **DOWN**/**UP** buttons to select **Black Out, Hold** or **Manu**, Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for about one second or wait for 7 seconds to exit the menu mode.

Fixture Setting

To select **Fixture Setting**, press the **ENTER** button to show **Fixture Setting** on the display. Use the **DOWN**/**UP** buttons to select **Light Mode, Dimmer Curve, Dimmer Speed, Invert Tilt, Tilt Feedback, Bl.O. Tilt Moving** or **Fan Mode**. Once the mode has been selected, press the **ENTER** button to setup. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for about one second or wait for 7 seconds to exit the current mode.

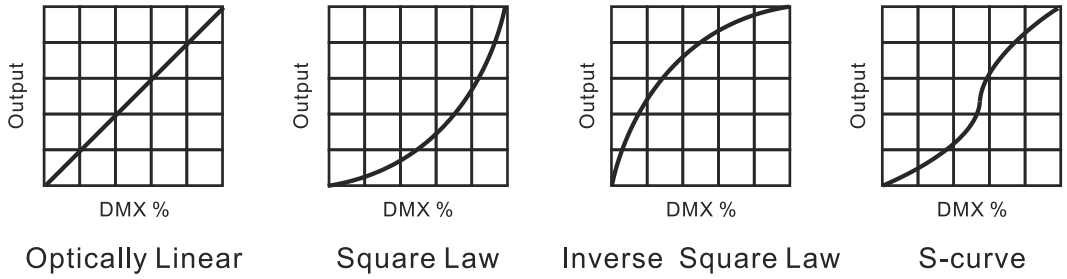
Light Mode

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.** When choose **Max**, press the **ENTER** button to enter **White Balance** ， use the **UP**/**DOWN** button to select **Red, Green** or **Blue.** 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 show the **DIMMER CURVE** on the display. Use the **DOWN**/**UP** button to select the **Optically Linear** or **Square Law** or **Inverse Square Law** or **S-Curve**. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Press and hold the **MENU** button about one second or wait for one minute to exit the 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-cure:

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 one minute 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 one minute 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 one minute 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 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** or **Silent**, 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 show **AUTO TEST** on the display and the unit will run a self-test . To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for about one second or wait for 7 seconds to exit the current mode.

Manual Mode

To select **Manual Mode**, press the **ENTER** button to show **Manual Mode** on the display. Use the **DOWN**/**UP** button to select **Tilt, Dimmer**, **Strobe, Red, Green, Blue**, **White** or **Zoom** on the display. Once the mode has been selected, press the **ENTER** button to confirm. Use the **DOWN**/**UP** buttons to specify a value for the chosen effect from **0** to **255**. To go back to the functions without any changes press the **MENU** button again. Press and hold the **MENU** button for about one second or wait for 7 seconds to exit the menu mode.

Display Settings

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

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 one minute 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 one minute 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 one minute 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 one minute 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** or **Firmware Version.**

Led Temperature

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

Fixture Usage Time

Select **Fixture Usage Time r**, 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 use time 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 Functions

Enter menu mode, select ***Reset Function***, press the **ENTER** button to confirm, use the **UP**/**DOWN** button

to select ***All,*** **Tilt** or **Zoom.**

All — Reset All

Select **All,** press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Yes** (the unit will run built-in program to reset all motors to their home positions) or **No**, press **ENTER** button to store. Press the **MENU** button to exit.

Tilt —Reset Tilt

Select **Tilt**, press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Yes** (the unit will run built-in program to reset tilt to their home positions) or **No**(normal), 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.

Zoom —Reset Zoom

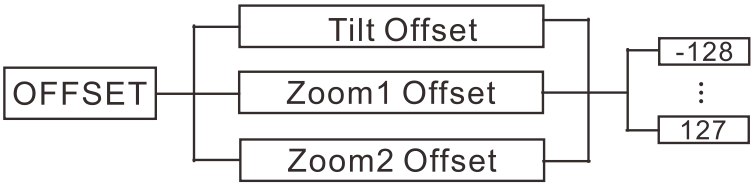
Select **Zoom,** press the **ENTER** button to confirm, use the **UP**/**DOWN** button to select **Yes** (the unit will run built-in program to reset Zoom to their home positions) or **No**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Factory Setting

To select **Factory Setting** , press the **ENTER** button to show **Factory Setting** on the display. Press the **ENTER** button and the unit will Reset to Factory Defaults. To go back to the functions press the **MENU** button again.

3.3 HomePosition 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.



Tilt Offset—Tilt home position adjustment

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.

Zoom1 Offset—Zoom1 home position adjustment

Enter offset mode, Select ***Zoom1***, 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—Zoom2 home position adjustment

Enter offset mode, Select ***Zoom2***, 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.

4.DMX Controller

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

Press the **MENU** button, then select the **DMX Settings** button and the **Channel Mode** will blink on the display. Use the **DOWN**/**UP** button to change the DMX512 address. Once the address has been selected, press and keep **ENTER** button pressed up to when the display stops blinking or storing automatically one minute later. To go back to the functions without any change press the **MENU** button again.

If you use 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

4.1 DMX 512 Configurations

57 Channels Mode:

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

14		**LED2 GREEN**
	000-255	0% ~ 100%
15		**LED2 BLUE**
	000-255	0% ~ 100%
16		**LED2 WHITE**
	000-255	0% ~ 100%
…	…	**…**
53		**LED12 RED**
	000-255	0% ~ 100%
54		**LED12 GREEN**
	000-255	0% ~ 100%
55		**LED12 BLUE**
	000-255	0% ~ 100%
56		**LED12 WHITE**
	000-255	0% ~ 100%
57		**Special Function**
	000-060	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:

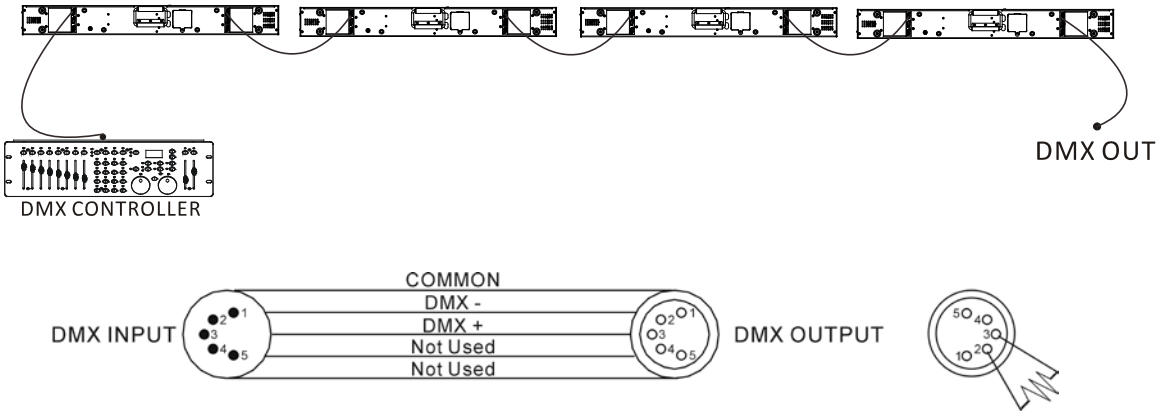
CHANNEL	VALUE	FUNCTION
1	000-255	**Tilt DMX**
2	000-255	**Tilt DMX Fine**
3	000-255	**Zoom DMX**
4	000-255	**Dimmer**
5	000-255	**Dimmer Fine**
6		**Strobe**
	000-031	Shutter closed
	032-063	shutter open
	064-095	Strobe effect fast to slow
	096-127	shutter open
	128-159	Pulse-effect in sequences

	160-191	shutter open
	192-223	Random strobe effect slow to fast
	224-255	shutter open
7		**Macro**
	000-008	No function
	009-038	macro1
	039-068	macro2
	069-098	macro3
	099-128	macro4
	129-158	macro5
	159-187	macro6
	188-255	macro7
8	000-255	**Foreground Color**
9	000-255	**Background Color**
10	000-255	**RED**
11	000-255	**GREEN**
12	000-255	**BLUE**
13	000-255	**WHITE**
15		**Special Function**
	000-060	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

5. How to Control the Unit

5.1 DMX 512 Connections

The DMX512 is widely used in intelligent lighting control, with a maximum of 512 channels.



1. Connect the fixture together in a “daisy chain” by XLR plug cable from the output of the fixture to the input of the next fixture. The cable cannot be branched or split to a “Y” cable. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system
2. The DMX output and input connectors are pass-through to maintain the DMX circuit when one of the units’ power is disconnected.
3. At last fixture, the DMX cable has to be terminated with a terminator to reduce signal errors. Solder a 120Ω, 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 fixture.
4. Each lighting fixture needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
5. 5 pin XLR connectors are more popular than 5 pins XLR.

   5pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

6. Troubleshooting

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

Problem	Possible Cause	Action
The unit does not work, no light.	Incorrect power cable connection.	Check the connection of power.
	Incorrect mains voltage.	Measure the mains voltage on the main connector.
The unit does not respond properly to the DMX control.	Incorrect DMX cable connection.	Check DMX connectors and cables to see if link properly. Repair or replace damaged wires.
	Incorrect address assignment to the units.	Check the addresses of the units and the protocol settings.
	Unfinished data connection.	Insert a terminal plug in the output jack of the last unit of the connection.
	It has been set up an operating mode different from the DMX mode used.	Check the operating mode set up.
		Try to use another DMX controller.

7. 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 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 89/336/EEC.

EN55103-1: 2009 ; EN55103-2: 2009; EN62471: 2008;
EN61000-3-2: 2006 + A1:2009 + A2:2009; EN61000-3-3: 2008.

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Harmonized Standard

EN 60598-1:2008 + All:2009; EN 60598-2-17:1989 + A2:1991;
EN 62471:2008; EN 62493: 2010
Safety of household and similar electrical appliances
Part 1: General requirements

Innovation, Quality, Performance