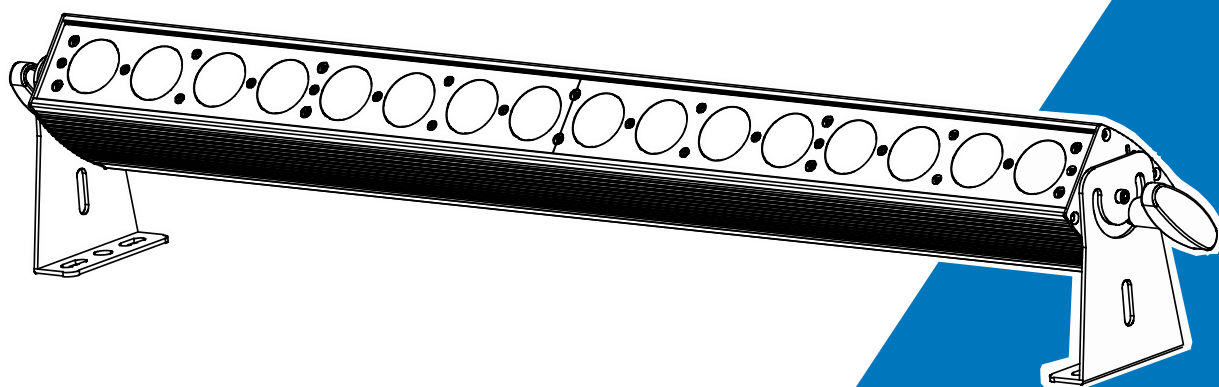




COLOR BAR
16FC

CB-16FC



User Manual

Please read the instruction carefully before use

CONTENTS

1. Safety Instruction	2
2. Technical Specification	3
3. How To Set The Unit	5
3.1 Control Panel	5
3.2 Main Function	6
4. How To Control The Unit	12
4.1 Master/Slave Built In Preprogrammed Function	12
4.2 DMX Controller.....	12
4.3 DMX 512 Configuration	13
4.4 DMX512 Connection	20
5. Troubleshooting	21
6. Fixture Cleaning	22

1. Safety Instruction



Please read this 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 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 fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is $T_a: 40^{\circ}\text{C}$. DO NOT operate it where the temperature is higher than this.
- Unit surface temperature may reach up to 85°C . DO NOT touch the housing bare-hand 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 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 wire during operation as high voltage might be causing electric shock.

Warning:

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- DO NOT open the unit within five minutes after switching off.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:

There are no user serviceable parts inside the unit. Do not open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

Installation:

The unit 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 unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by the professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.

2. Technical Specification**Power Voltage:**

AC 100~240V, 50/60Hz

Power Consumption:

165W

Light Source:

16x8W LED

Beam Angle:

45°

Control:

DMX Channel: 1/3/4/7/8/16/32/67 channels

Control Mode: DMX, Master/Slave, Stand-Alone, Sound Active

Firmware Upgrade: Update via DMX link

Construction:

Display: LED display

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

Power In/Out: IEC in/out

Protection Rating: IP20

Features:

Outstanding color mixing effect

Preset program in stand-alone mode

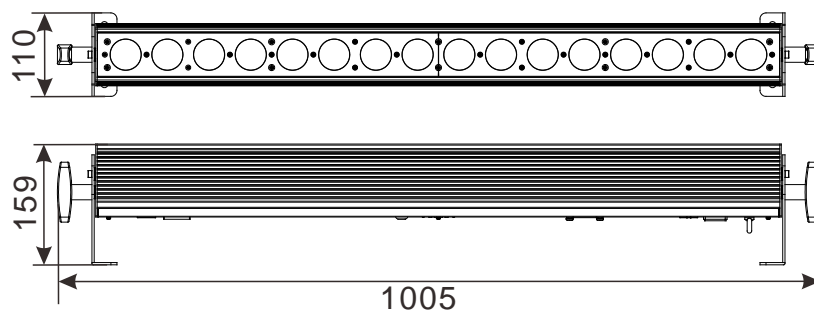
Various chase modes and strobe effects

LED can be controlled pixel by pixel

Dimension/ Weight:

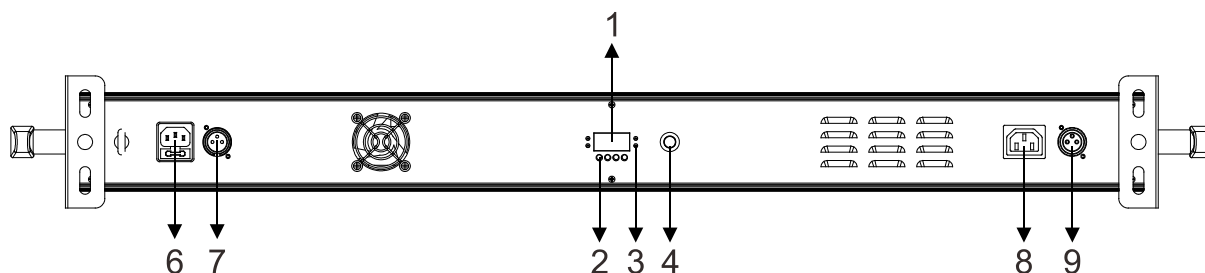
1005 X 110 X 159mm, 6.3Kgs

39.5"x4.3"x6.2" in, 13.9lbs

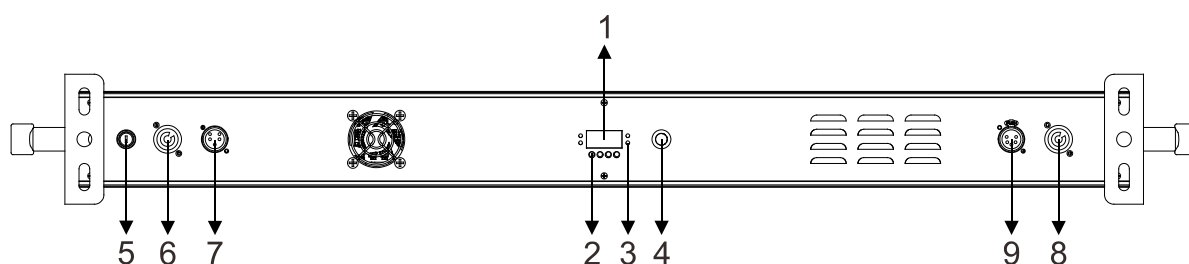


3. How To Set The Unit

3.1 Control Panel



POWERCON VERSION:



1. Display:

To show the various menus and the selected functions

2. Button:

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

3. LED:

DMX	On	DMX input present
MASTER	On	Master Mode
SLAVE	On	Slave Mode
SOUND	Flashing	Sound activation

4. MIC: To receive music for sound active

5. Fuse (T 5A):

To protect the unit from damage of over current

6. POWER IN:

Connect to supply power

7. DMX IN:

For DMX512 link, use 3-pin or 5-pin XLR cable to link the unit and the DMX controller

8. POWER OUT:

Connect to the next unit

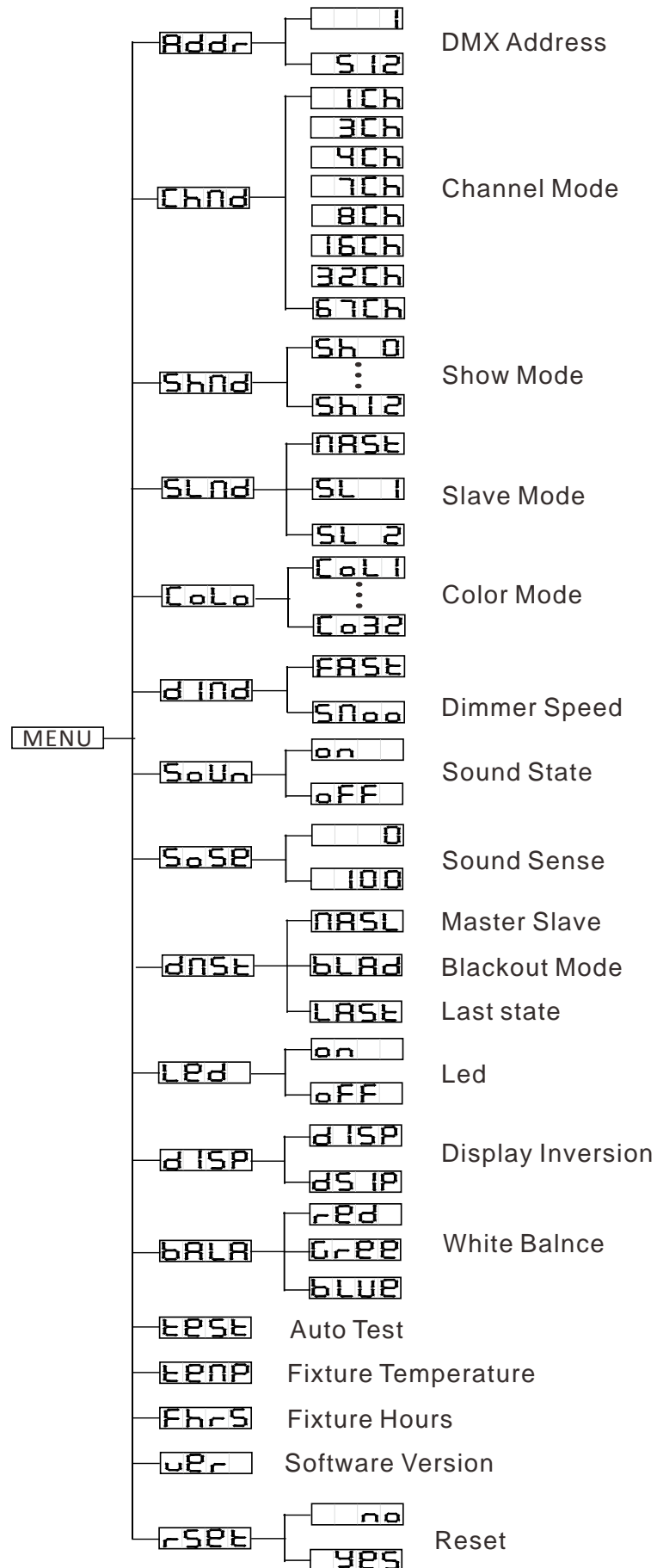
9. DMX OUT:

For DMX512 link, use 3-pin or 5-pin XLR cable to link the next unit and output DMX signal

3.2 Main Function

To select any of the given functions, press the **MENU** button up to when the required one is showing on the display. Select the function by **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, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

The main functions are showing below:



Addr DMX 512 Address Setting

Press the **MENU** button up to when the **Addr** is shown on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the value. 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Chnd Channel Mode

Press the **MENU** button to show **Chnd** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **1ch**, **3ch**, **4ch**, **7ch**, **8ch**, **16ch**, **32ch** or **67ch**. 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Shnd Show Mode

Press the **MENU** button up to when the **Shnd** is shown on the display. Pressing the **ENTER** button. Use **DOWN** and **UP** button to select the **Sh 0** (Show 0) **Sh 12** (Show 12) mode. 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

SLnd Slave Mode

Press the **MENU** button up to when the **SLnd** is shown on the display. Pressing the **ENTER** button. Use **DOWN** and **UP** button to select the **SL 1** (slave 1), **SL 2** (Slave 2) or **MASTER** (master) mode. 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

CoLo Color Mode

Press the **MENU** button up to when the **CoLo** is shown on the display. Pressing the **ENTER** button. Use **DOWN** and **UP** button to select the **CoL1** (Color 1) **Co32** (Color 32) mode. 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

dInD Dimmer Speed

Press the **MENU** button up to when the **dInD** is shown on the display. Pressing the **ENTER** button. Use **DOWN** and **UP** button to select the **FASt** (Fast) or **Snoo** (Smooth). 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

SoUn Sound State

Press the **MENU** button up to when the **SoUn** is shown on the display. Pressing **ENTER** button, Use **DOWN** and **UP** button to select the **on** (sound on) or **off** (sound off). 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

SoSe Sound Sense

Press the **MENU** button to show **SoSe** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to adjust the value from **0** (0) to **100** (100), 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

DMSE DMX State

Press the **MENU** button up to when the **DMSE** is shown on the display. Pressing **ENTER** button, Use **DOWN** and **UP** button to select the **MSL** (master slave), **BLAd** (blackout mode) or **LASE** (last state). 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

LED LED

Press the **MENU** button up to when the **LED** is shown on the display. Pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to select **On** (On) or **OFF** (Off), 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

DISP Display Inversion

Press **MENU** button until **DISP** is blinking on the display. Use the **DOWN** and **UP** button to select **DISP** (normal) or **DSIP** (inverse), 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

BALA White Balance

Press the **MENU** button to show **BALA** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select **Red** (Red), **GrEE** (Green) or **BLUE** (Blue). And adjust the value from **125** to **255**, 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

EESE Auto Test

Press the **MENU** button up to when the **EESE** is blinking on the display. Press the **ENTER** button and the unit will run the built-in programmer for self-test. To go back to the functions press the **MENU** button.

EEHP Fixture Temperature

Press the **MENU** button up to when the **EEHP** is blinking on the display. Press the **ENTER** button and the display will show the number of working hours of the unit. To go back to the functions press the **MENU** button.

FHrS Fixture Hours

Press the **MENU** button up to when the **FHrS** is blinking on the display. Press the **ENTER** button and the display will show the temperature of the unit. To go back to the functions press the **MENU** button.

VER Software version

Press the **MENU** button up to when the **VER** is blinking on the display. Press the **ENTER** button and the display will show the version of software of the unit. To go back to the functions press the **MENU** button.

rSEt Reset

Press the **MENU** button up to when the **rSEt** is blinking on the display. To go back to the functions press the **MENU** button.

4. How To Control The Unit

You can operate the unit in three ways:

1. Master/slave built-in preprogram function
2. Universal DMX controller

No need to turn the unit off when you change the DMX address, as new DMX address setting will be affect at once. Every time you turn the unit on, it will show “LED MB200R” on the display and move all the motors to their ‘home’ position and you may hear some noises for about 20 seconds. After that the unit will be ready to receive DMX signal or run the built in programs.

4.1 Master/Slave Built In Preprogrammed Function

By linking the units in master/slave connection, the first unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show. You have to set the first unit in master mode **Show Mode** and select **show 0** **show 12** mode. Its DMX input jack will have nothing plugged into it, and Its master LED will be constantly on and sound LED will flash to the music. The other units will have to set in **slave mode** and select **Slave 1** (normal) or **Slave 2** (2 light show) mode, Their DMX cables plugged into the DMX input jacks (daisy chain) and the slave led lights will constantly on.

2-light show

In **slave mode**, **Slave 1** means the unit works normally and **Slave 2** means 2-light show. In order to create a great light show, you can set **Slave 2** on the second unit to get contrast movement to each other, even if you have two units only.

4.2 DMX Controller

By using a universal DMX controller to control the units, you will need to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press the **MENU** button up to when the **DMX Address** is showing on the display. Pressing the **ENTER** button and the display will blink. Use the **DOWN/UP** button to change the DMX512 address. Once the address has been selected, press the **ENTER** button to setup, to go back to the functions

without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the 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
1 channels	1	2	3	4
3 channels	1	4	7	10
4 channels	1	5	9	13
7 channels	1	8	15	22
8 channels	1	9	17	25
16 channels	1	17	33	49
32 channels	1	33	65	97
67 channels	1	68	135	202

4.3 DMX 512 Configuration

1 CH MODE (MODE 1):

CHANNEL	VALUE	FUNCTION
1		SHOW MODE
	000-007	Off
	008-027	Show 1
	028-047	Show 2
	048-067	Show 3
	068-087	Show 4
	088-107	Show 5
	108-127	Show 6
	128-147	Show 7
	148-167	Show 8
	168-187	Show 9
	188-207	Show 10
	208-227	Show 11
	228-247	Show 12
	248-255	Show 0

3 CH MODE (MODE 2):

CHANNEL	VALUE	FUNCTION
1	000 – 255	RED: 0% → 100%
2	000 – 255	GREEN: 0% → 100%
3	000 – 255	BLUE: 0% → 100%

4 CH MODE (MODE 3):

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

7 CH MODE (MODE 4):

CHANNEL	VALUE	FUNCTION
1	000 – 255	RED: 0% → 100%
2	000 – 255	GREEN: 0% → 100%
3	000 – 255	BLUE: 0% → 100%
4	000 – 255	WHITE: 0% → 100%
5	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Off open Strobe slow to fast open Slow open Fast close Open Slow close Fast open Open Random strobe open

6	000 – 255	DIMMER: 0% → 100%
7	000	COLOR Off
	001-007	Color 1
	008-015	Color 2
	016-023	Color 3
	024-031	Color 4
	032-039	Color 5
	040-047	Color 6
	048-055	Color 7
	056-063	Color 8
	064-071	Color 9
	072-079	Color 10
	080-087	Color 11
	088-095	Color 12
	096-103	Color 13
	104-111	Color 14
	112-119	Color 15
	120-127	Color 16
	128-135	Color 17
	136-143	Color 18
	144-151	Color 19
	152-159	Color 20
	160-167	Color 21
	168-175	Color 22
	176-183	Color 23
	184-191	Color 24
	192-199	Color 25
	200-207	Color 26
	208-215	Color 27
	216-223	Color 28
	224-231	Color 29
	232-239	Color 30
	240-247	Color 31
	248-255	Color 32

8 CH MODE (MODE 4):

CHANNEL	VALUE	FUNCTION
1	000 – 255	RED 1: 0% → 100%
2	000 – 255	GREEN 1: 0% → 100%
3	000 – 255	BLUE 1: 0% → 100%
4	000 – 255	WHITE 1: 0% → 100%
5	000 – 255	RED 2: 0% → 100%
6	000 – 255	GREEN 2: 0% → 100%
7	000 – 255	BLUE 2: 0% → 100%
8	000 – 255	WHITE 2: 0% → 100%

16 CH MODE (MODE 5):

CHANNEL	VALUE	FUNCTION
1	000 – 255	RED 1: 0% → 100%
2	000 – 255	GREEN 1: 0% → 100%
3	000 – 255	BLUE 1: 0% → 100%
4	000 – 255	WHITE 1: 0% → 100%
5	000 – 255	RED 2: 0% → 100%
6	000 – 255	GREEN 2: 0% → 100%
7	000 – 255	BLUE 2: 0% → 100%
8	000 – 255	WHITE 2: 0% → 100%
9	000 – 255	RED 3: 0% → 100%
10	000 – 255	GREEN 3: 0% → 100%
11	000 – 255	BLUE 3: 0% → 100%
12	000 – 255	WHITE 3: 0% → 100%
13	000 – 255	RED 4: 0% → 100%
14	000 – 255	GREEN 4: 0% → 100%
15	000 – 255	BLUE 4: 0% → 100%
16	000 – 255	WHITE 4: 0% → 100%

32 CH MODE (MODE 6):

CHANNEL	VALUE	FUNCTION
1	000 – 255	RED 1: 0% → 100%
2	000 – 255	GREEN 1: 0% → 100%
3	000 – 255	BLUE 1: 0% → 100%
4	000 – 255	WHITE 1: 0% → 100%
5	000 – 255	RED 2: 0% → 100%
6	000 – 255	GREEN 2: 0% → 100%
7	000 – 255	BLUE 2: 0% → 100%
8	000 – 255	WHITE 2: 0% → 100%
9	000 – 255	RED 3: 0% → 100%
10	000 – 255	GREEN 3: 0% → 100%
11	000 – 255	BLUE 3: 0% → 100%
12	000 – 255	WHITE 3: 0% → 100%
13	000 – 255	RED 4: 0% → 100%
14	000 – 255	GREEN 4: 0% → 100%
15	000 – 255	BLUE 4: 0% → 100%
16	000 – 255	WHITE 4: 0% → 100%
17	000 – 255	RED 5: 0% → 100%
18	000 – 255	GREEN 5: 0% → 100%
19	000 – 255	BLUE 5: 0% → 100%
20	000 – 255	WHITE 5: 0% → 100%
21	000 – 255	RED 6: 0% → 100%
22	000 – 255	GREEN 6: 0% → 100%
23	000 – 255	BLUE 6: 0% → 100%
24	000 – 255	WHITE 6: 0% → 100%
25	000 – 255	RED 7: 0% → 100%
26	000 – 255	GREEN 7: 0% → 100%
27	000 – 255	BLUE 7: 0% → 100%
28	000 – 255	WHITE 7: 0% → 100%

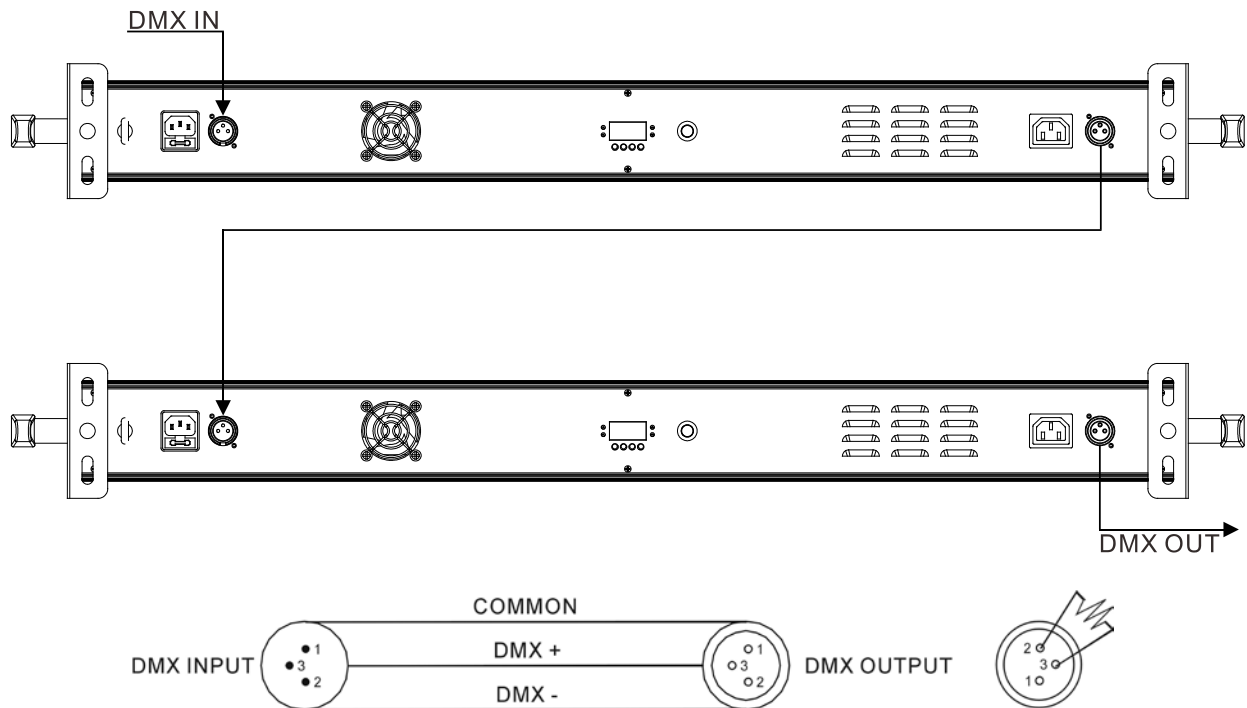
29	000 – 255	RED 8: 0% → 100%
30	000 – 255	GREEN 8: 0% → 100%
31	000 – 255	BLUE 8: 0% → 100%
32	000 – 255	WHITE 8: 0% → 100%

67 CH MODE (MODE 7):

CHANNEL	VALUE	FUNCTION
1	000 – 255	RED 1: 0% → 100%
2	000 – 255	GREEN 1: 0% → 100%
3	000 – 255	BLUE 1: 0% → 100%
4	000 – 255	WHITE 1: 0% → 100%
5	000 – 255	RED 2: 0% → 100%
6	000 – 255	GREEN 2: 0% → 100%
7	000 – 255	BLUE 2: 0% → 100%
8	000 – 255	WHITE 2: 0% → 100%
9	000 – 255	RED 3: 0% → 100%
10	000 – 255	GREEN 3: 0% → 100%
11	000 – 255	BLUE 3: 0% → 100%
12	000 – 255	WHITE 3: 0% → 100%
13	000 – 255	RED 4: 0% → 100%
14	000 – 255	GREEN 4: 0% → 100%
15	000 – 255	BLUE 4: 0% → 100%
16	000 – 255	WHITE 4: 0% → 100%
.....
61	000 – 255	RED 16: 0% → 100%
62	000 – 255	GREEN 16: 0% → 100%
63	000 – 255	BLUE 16: 0% → 100%
64	000 – 255	WHITE 16: 0% → 100%
65	000-007 008-015 016-131 132-139 140-181	STROBE Off open Strobe slow to fast open Slow open Fast close

	182-189 190-231 232-239 240-247 248-255	Open Slow close Fast open Open Random strobe open
66	000 – 255	DIMMER: 0% → 100%
67	000 001-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119 120-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	COLOR Off Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 19 Color 20 Color 21 Color 22 Color 23 Color 24 Color 25 Color 26 Color 27 Color 28 Color 29 Color 30 Color 31 Color 32

4.4 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. 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 connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link 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 if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. Some units don't respond to the easy controller

1. You may have a break in the DMX cabling. Check the LED for the response of the master/slave mode signal.
2. Wrong DMX address in the unit. Set the proper address.

D. No response to the sound

1. Make sure the unit does not receive DMX signal.
2. Check microphone to see if it is good by tapping the microphone

E. 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.

6. 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+A1:2012; EN55103-2: 2009;
EN61000-3-2: 2014; EN61000-3-3: 2013.

&

Harmonized Standard

EN 60598-1:2015; 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