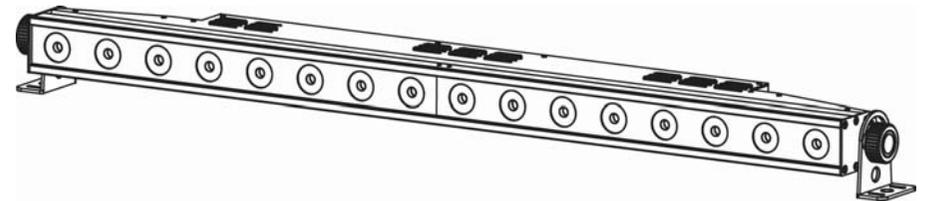


## COLOR BAR 16TC R



## CB-16TC R

### User Guide

Professional Entertainment Technology

**Innovation, Quality, Performance**

## TABLE OF CONTENTS

1. Safety Instruction
2. Technical Specification
3. How To Set The Unit
  - 3.1 Control Panel
  - 3.2 Main Function
4. How To Control The Unit
  - 4.1 Master/slave built-in preprogram function
  - 4.2 Easy controller
  - 4.3 Universal DMX controller
  - 4.4 DMX 512 Configuration
  - 4.5 DMX512 Connection
5. Troubleshooting
6. Fixture Cleaning

### EC - 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.

EN55014-2: 1997 A1: 2001, EN61000-4-2: 1995;  
EN61000-4-3: 2002;  
EN61000-4-4: 1995; EN61000-4-5: 1995, EN61000-4-6: 1996,  
EN61000-4-11: 1994.

&

#### **Harmonized Standard**

EN60598-1: 2000+ALL: 2000+A12: 2002

Safety of household and similar electrical appliances  
Part 1: General requirements

## 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 output and the fan does not work

1. Check the power connection and main fuse.
2. 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 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 cables and fixtures.
4. Try another DMX controller.
5. Check if the DMX cables run near or run alongside high voltage cables that may cause damage or interference to the DMX interface circuit.

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

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

### D. No response to the sound

1. Make sure the unit is not receiving a DMX signal.
2. Check if the sound sensitively is too low.

### E. One of the channels is not working

1. The cable connected to the PCB may be broken .

## 6. 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 surroundings 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 30/60 days.

## 1. Safety Instruction



### WARNING

Please read carefully the instruction, which includes important information about the installation, usage and maintenance.

- 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 is no flammable materials close to the unit while operating as it is fire hazard.
- Use a safety cable when fixing this unit.
- Maximum ambient temperature is TA: 40°C. Don't operate it where the temperature is higher than this.
- In the event of serious operating problems, 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 cable during operation as high voltage may cause electric shock.

### Warning

If using a 240Vac 50Hz power supply, do not connect in series more than 8 units, use another mains supply for the next 8 units.

If using a 120Vac 60Hz power supply, do not connect in series more than 4 units, use another mains supply for next 4 units.

- 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 or the lenses 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.

Hazardous optical radiation maybe emitted from this product.

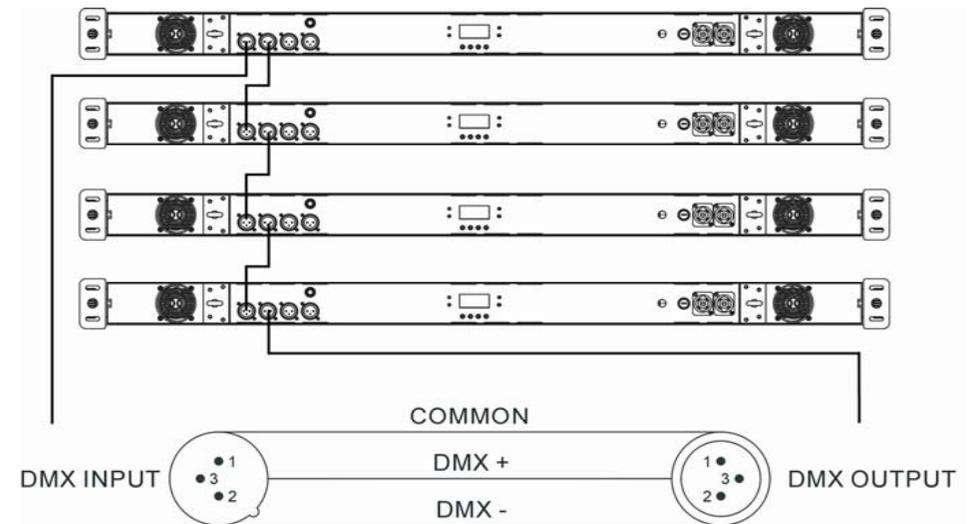
### Installation

The unit should be mounted via its metal hole in the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Always ensure that the structure to which you are attaching the unit is secure and is able to support 10 times the weight of the unit.

## 2. Technical Specification

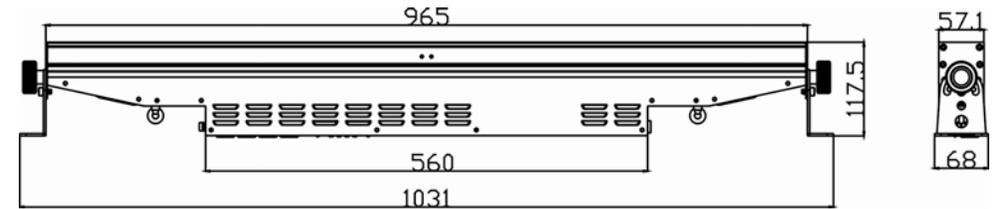
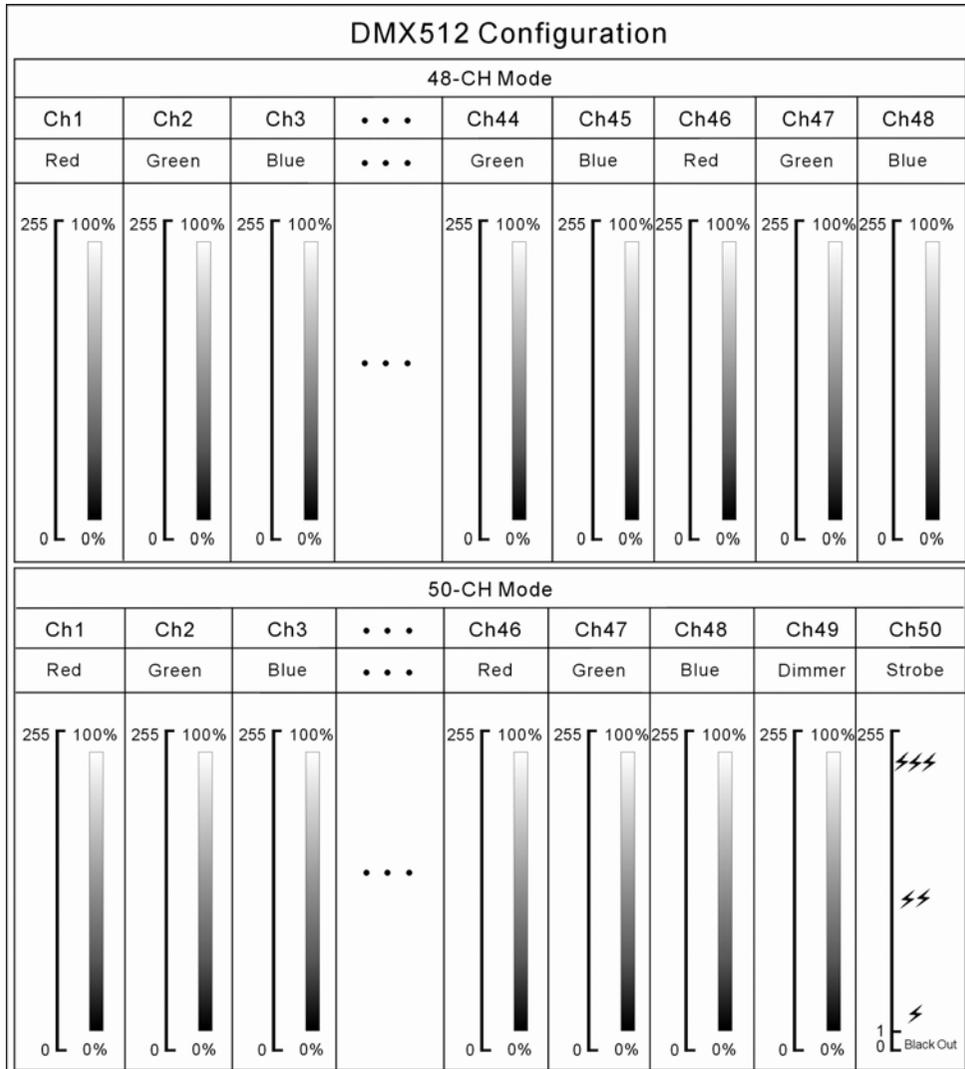
- 1/3/4/5/6/12/24/48/50 channels switchable.
- Automatic switching between music trig and auto mode
- Great built-in programs under Master/Slave mode triggered by music
- Individual control of each LED cluster
- Sound sensitivity adjustable via the menu
- Auto-fading show with 3 different speeds
- Specially designed stand for floor operation
- LCD display for easy addressing and setting
- **Power Supply:** 120~230V 50/60Hz
- **Fuse:** T 6.3A
- **Power consumption:** 74W
- **LED:** 3W Tri-color x 16pcs
- **Dimension:** 965 x 167 x 152 mm
- **Weight:** 6.4 kgs

## 4.5 DMX512 Connection



Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminator. (Resistance 120 ohm 1/4W) between pin2(DMX-) and pin3(DMX+) of the last fixture.

1. If you are using a controller with a 5 pin DMX output, you need to use a 5 to 3 pin adapter-cable.
2. In the 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.
3. Connect the unit together in a `daisy chain` with the XLR plug from the output of the unit to the input of the next unit. The cable can not branched or split to a `Y` cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, Bad soldered joints or corroded connectors can easily distort the signal and shut down the system.
4. The DMX output and input connectors pass-through to maintain the DMX circuit, when power is disconnected to the unit.
5. Each 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).
6. 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 (+)  
Pin 4/5: Not used.



### 3. How To Set The Unit

#### 3.1 Control Panel



#### Display

To show the various menus and the selected functions

#### LED

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

#### 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

#### Microphone

Receives the sound to control the unit

#### Only for remote control

Connect to the 1/4" microphone jack to control the unit in Stand by and Mode functions.

#### Mains input

Connect to power supply.

#### Mains output

Connect to supply mains power to other units.

#### Fuse

For over current protection.

**DMX input/output**

For DMX512 link, use 3/5-pin XLR plug cable to link the unit together.

**Safety Ring**

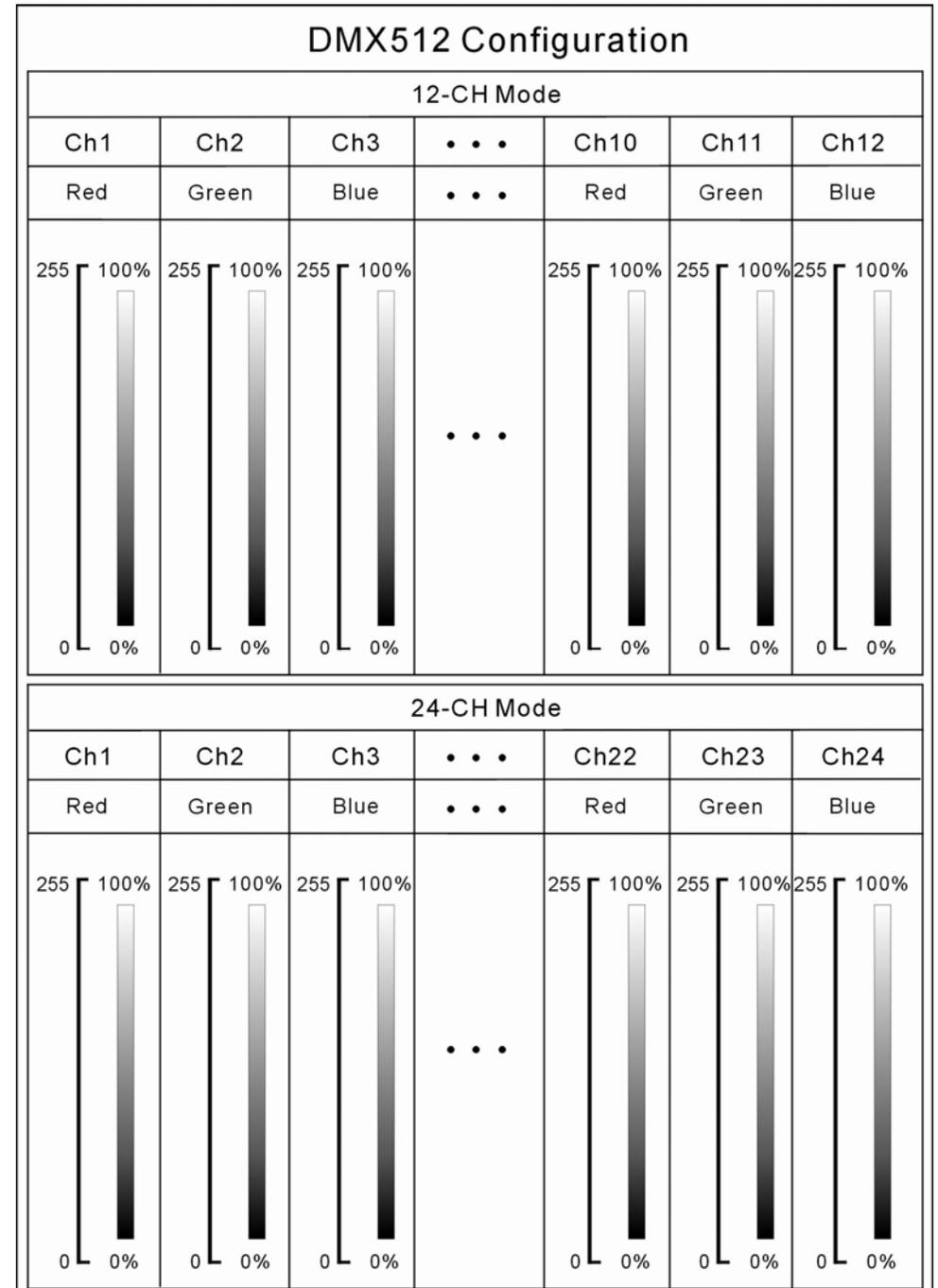
For safety wire fixing.

**3.2 Main Function**

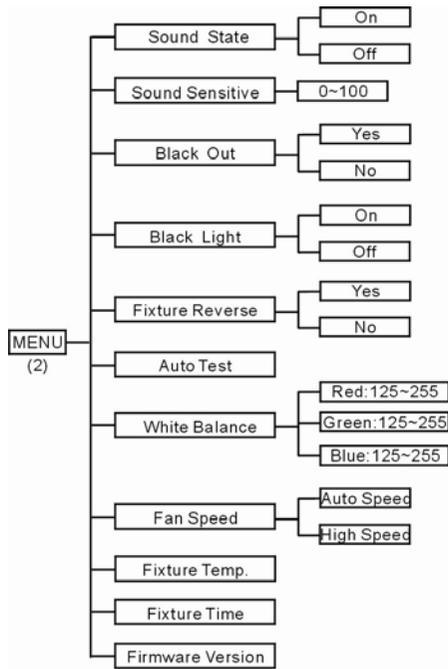
To select any of the given functions, press the **MENU** button to show the required option on the display. Select the function with the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the mode. Once the required mode has been selected, Press the **ENTER** button to store. To go back to the main menu without any changes press the **MENU** button or wait for 8 seconds.

Hold the **MENU** button to exit the menu mode, the unit will run the built-in program you have selected. At this time you can press the **DOWN** and **UP** buttons to change the show, the new show will take effect immediately. If you select show 1-8 or Auto Fade, you can press the **ENTER** button to choose the speed. The unit will run in the speed that has been selected or run to the music.

The main functions are shown below:







**DMX Address**

Press the **MENU** button to show **DMX Address** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the DMX512 address. Once the address has been selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

**Setup Mode**

Press the **MENU** button to show **Setup Mode** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the tube amount from **1** to **1000**. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

**Channel Mode**

Press the **MENU** button to show **Channel Mode** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the **1**, **3**, **4**, **5**, **6**, **12**, **24**, **48**, **50** channels mode. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

**4.3 DMX Controller**

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

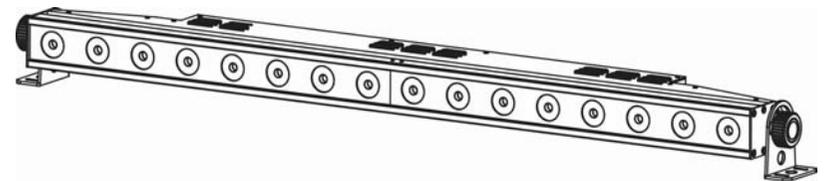
Press the **MENU** button to show **DMX Address** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the DMX512 address. Once the address has been selected, press and keep the **ENTER** button to store. To go back to the functions without any change press the **MENU** button or wait for 8 seconds to exit menu mode.

Please refer to the following diagram to address your DMX512 channels for the first 4 units:

Channel Mode	Unit 1	Unit 2	Unit 3	Unit 4
1 channels	1	2	3	4
3 channels	1	4	7	10
4 channels	1	5	9	13
5 channels	1	6	11	16
6 channels	1	7	13	19
12 channels	1	13	25	37
24 channels	1	25	49	73
48 channels	1	49	97	145
50 channels	1	51	101	151

**4.4 DMX 512 Configuration**

Front View:



## 4. How To Control The Unit

You can operate the unit in three ways:

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

### 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.

### 4.2 Easy Controller

The easy remote control is used only in master/slave mode. By connecting to the 1/4" microphone jack of the first unit, you will find that the remote controller on the first unit will control all the other units in Stand by, Function and Mode selection.



Stand By	Blackout the unit		
Function	1. Sync. Strobe in white 2. Sound strobe in white 3. Sound Strobe in color	Select Manua Color or color 1-32	Select Chase Auto Mode Sound Mode DB Mode
Mode	Sound 1 (LED OFF)	Manual(LED On)	Sound 2(Slow blinking)

### Show Mode

Press the **MENU** button to show **Show Mode** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select **Auto Mode** (Auto show), **Sound Mode** or **DB Mode** once selected, press the **ENTER** button to store and return to the last menu, then the unit will run to music.

If you choose **Auto Mode**, press the **ENTER** button to confirm, then you can use the **DOWN** and **UP** buttons to select **Auto ST Chase** or **Auto MO Chase** or **Auto MT Chase** or **Auto MC Chase** or **Auto WL Chase** or **Auto Random** or **Auto Fade** or **Auto SO Chase** mode. Press the **ENTER** button to confirm, then you can use the **DOWN** and **UP** buttons to select **Speed1** ...to **Speed 5** or **Left/Right Speed1** ...or **Left/Right Speed5**. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

If you choose **Sound Mode**, press the **ENTER** button to confirm, then you can use the **DOWN** and **UP** buttons to select **Sound Random** or **Sound TC Chase** or **Sound SO Chase** or **Sound ST Chase** or **Sound MO Chase** or **Sound MT Chase** or **Sound C Change** or **Sound C Strobe**. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

If you choose **DB Mode**, press the **ENTER** button to confirm, then you can use the **DOWN** and **UP** buttons to select **DB Random** or **DB Red** or **DB Green** or **DB Blue** or **DB Black** or **DB R\_Y\_G** or **DB Differ** or **DB Same** mode. Press the **ENTER** button to confirm, then you can use the **DOWN** and **UP** buttons to select **Left** or **Right**. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

### Color Mode

Press the **MENU** button to show **Color Mode** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the **Manu** (manual setting), **Color 1** or ... or **Color 32**, once selected, press the **ENTER** button to store. If you choose **Maun** mode, press the **ENTER** button to confirm, you can use the **DOWN** and **UP** buttons to select **Red** or **Green** or **Blue**, press the **ENTER** button to confirm and use the **DOWN** and **UP** buttons to adjust the value. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

### **Sound State**

Press the **MENU** button to show **Sound State** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the **on** (sound control on) or **off** (sound control off) mode. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

### **Sound Sense**

Press the **MENU** button to show **Sound Sense** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to adjust the sound sensitively (0-100) of the unit. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

### **Black Out**

Press the **MENU** button to show **Black Out** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the **yes** (yes blackout) or **no** (no blackout) mode. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

### **Back Light**

Press the **MENU** button to show **Back Light** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the **on** (back light on) or **off** (back light off 1 minute after auto show) mode. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

### **Fixture Reverse**

Press the **MENU** button to show **Fixture Reverse** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select the **yes** or **no**. Once selected, press the **ENTER** button to store. To return to the main menu without any changes press the **MENU** button or wait for 8 seconds.

### **Auto Test**

Press the **MENU** button to show **Auto Test** on the display. Press the **ENTER** button and the display will show **Test...** and the unit will run a self-test with its built-in programs. To return to the main menu press the **MENU** button or wait for 8 seconds.

### **White Balance**

Press the **MENU** button to show **White Balance** on the display. Press the **ENTER** button and **r 255** will blink, use the **DOWN** and **UP** buttons to adjust the value. Next press the **ENTER** button to store and **g 255** will blink on the display, use the **DOWN** and **UP** buttons to adjust the value and press the **ENTER** button to store and **b 255** will blink on the display, use **DOWN** and **UP** button to adjust the value, and press **ENTER** button to store. To return to the main menu without any changes, press the **MENU** button.

### **Fan Speed**

Press the **MENU** button to show **Fan Speed** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to select **Auto Speed** (When the temperature of the unit under 40°C, FAN stops; between 45°C~55°C, FAN runs at half speed; above 60°C, FAN runs at full speed. The LEDs will be off if the temperature is higher than 75°C) or **High Speed**, press the **ENTER** button to store. To return to the main menu press the **MENU** button.

### **Fixture Temp.**

Press the **MENU** button to show **Fixture Temp** on the display. Press the **ENTER** button and the display will show the temperature of the unit. To return to the main menu press the **MENU** button.

### **Fixture Time**

Press the **MENU** button to show **Fixture Time** on the display. Press the **ENTER** button and the display will show the number of working hours of the unit. To return to the main menu press the **MENU** button.

### **Firmware Version**

Press the **MENU** button to show **Firmware Version** on the display. Press the **ENTER** button and the display will show the version of software inside the unit. To return to the main menu press the **MENU** button.