2015.03.24

Innovation, Quality, Performance
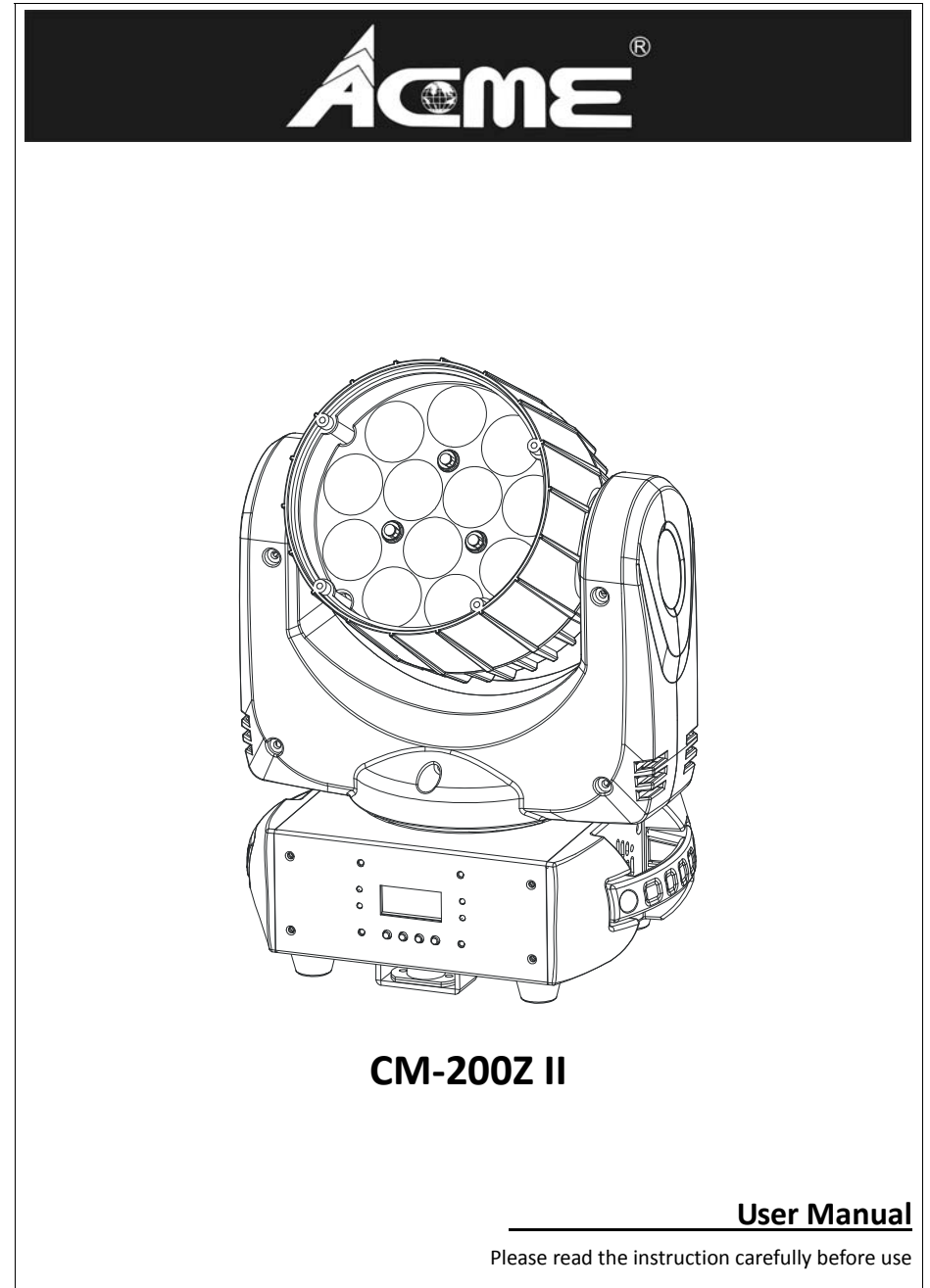
CM-200Z II

<u>User Manual</u>

Please read the instruction carefully before use

CONTENTS

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.

&

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

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.

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.

1. Safety Instructions

⚠ **WARNING**

Please read the instruction carefully 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.

• Please 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.

• Please disconnect main power before replacement or servicing.

• Please make sure there are no flammable materials close to the unit while operating as it is fire
hazard.

• Please 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 Ta: 40℃. DO NOT operate it where the temperature is higher
than this.

• Unit surface temperature may reach up to 75℃. 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 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, 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 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. 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 professionals and it must be fixed in a place where is out of the reach of people and no one can pass by or under it.

2. Technical Specifications

◇ Compact design, fast and powerful LED moving beam wash

◇ DMX512 Control with 14 channels mode

◇ Perfect strobe with smooth dimming 0~100%

◇ Outstanding color macro effect

◇ Blue LCD display for easy navigation

◇ Low heat with long life span for fixture and LEDs

◇ Ideal for stage, theatre, TV studio, rental and discotheques

◇ **Input Voltage:**   AC 100V~240V, 50/60Hz

◇ **Power Consumption:**   167W

◇ **Power Cable Daisy Chains:**   8 Fixtures Max. (230V, 50Hz)

4.3 DMX 512 Configuration

14 Channels Mode:

14 Channels Mode

Ch 1	Ch 2	Ch 3	Ch 4	Ch 5	Ch 6	Ch 7	Ch 8
Pan	Pan Fine	Tilt	Tilt Fine	P/T Speed	Reset	Dimmer	Shutter

Ch 1 Pan: 255 = 540°, 0 = 0°
Ch 3 Tilt: 255 = 220°, 0 = 0°
Ch 5 P/T Speed: 255 Slow, 0 Fast

Ch 6 Reset:
015-255 No Function
010-014 Reset All
000-009 No Function

Ch 7 Dimmer: 255 = 100%, 0 = 0%

Ch 8 Shutter:
245-255 open
230-244 burst
225-229 open
210-224 sine wave
205-209 open
190-204 random burst pulse
185-189 open
170-184 burst pulse
165-169 open
150-164 random closing pulse
145-149 open
130-144 random opening pulse
125-129 open
110-124 random strobe
105-109 open
090-104 closing pulse
085-089 open
070-084 opening pulse
065-069 open
025-064 strobe 1
020-024 open
000-019 closed

Ch 9	Ch 10	Ch 11	Ch 12	Ch 13	Ch 14
Red	Green	Blue	White	Color Wheel	Zoom

Ch 9 Red: 255 = 100%, 0 = 0%
Ch 10 Green: 255 = 100%, 0 = 0%
Ch 11 Blue: 255 = 100%, 0 = 0%
Ch 12 White: 255 = 100%, 0 = 0%

Ch 13 Color Wheel:
250-255 Open
245-249 Slow
240-244 Medium
235-239 Fast
    (Random Color)
230-234 Open
208-229 Counter-clockwise, slow to fast
202-207 Stop
180-201 Clockwise, fast to slow
    (Color wheel rotation effect)
175-179 Open
170-174 LEE164 - Flame Red
165-169 LEE135 - Deep Gold Amber
160-164 LEE778 - Millennium Gold
155-159 LEE021 - Gold Amber
150-154 LEE105 - Orange
145-149 LEE179 - Chrome Orange
140-144 LEE104 - Deep Amber
135-139 LEE100 - Spring Yellow
130-134 LEE088 - Lime Green
125-129 LEE738 - JAS Green
120-124 LEE122 - Fern Green
115-119 LEE089 - Moss Green
110-114 LEE139 - Primary Green
105-109 LEE124 - Dark Green
100-104 LEE116 - Medium Blue Green
095-099 LEE118 - Light Blue
090-094 LEE353 - Lighter Blue
085-089 LEE117 - Steel Blue
080-084 LEE202 - Half CT Blue
075-079 LEE201 - Full CT Blue
070-074 LEE161 - State Blue
065-069 LEE200 - Double CT Blue
060-064 LEE132 - Medium Blue
055-059 LEE079 - Just Blue
050-054 LEE120 - Deep Blue
045-049 LEE071 - Tokyo Blue
040-044 LEE181 - Congo Blue
035-039 LEE194 - Surprise pink
030-034 LEE345 - Fuchsia pink
025-029 LEE328 - Follies pink
020-024 LEE332 - Special rose pink
015-019 LEE157 - Pink
010-014 LEE790 - Moroccan pink
000-009 Open

Ch 14 Zoom: 255 = 10°, 0 = 60°

1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.

2. The last units DMX cable has to be terminated with a 120 ohm 1⁄4W resistor between pin 2(DMX-) and pin 3(DMX+) of 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` by 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, soldered joints or corroded connectors can easily distort the signal and shut down the system.

4. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.

5. Each fixture unit 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. The end of the DMX 512 system should be terminated to reduce signal errors.

7. 3 pin XLR connectors are more popular than 5 pin 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 (+)

   Pin 4⁄Pin 5: Not used.

4.2 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 the **DMX Address**, press the **ENTER** button to confirm, the present address will blink on the display, use the **UP**/**DOWN** button to adjust the address from 001 to 512, press the **ENTER** button to save. Press the **MENU** button back to the last menu or let the unit idle 7 seconds to exit menu mode.

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

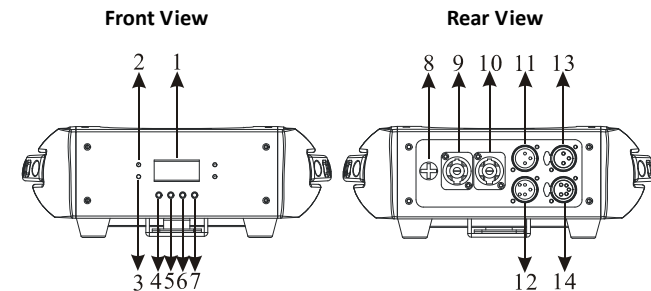| Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
14 channels	1	15	29	43

4 Fixtures Max. (120V, 60Hz)

◇ **LED Sources:**   Quad-Color 10W × 12pcs LEDs

◇ **Beam Angel:**   10° ~ 60°

◇ **Dimension:**   263 × 183 × 340mm

◇ **Weight:**   7.5Kgs
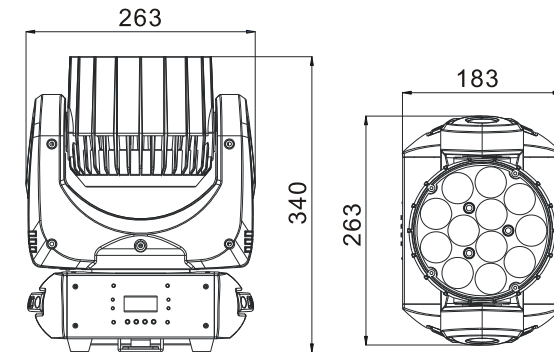
3. How To Set The Unit

3.1 Control Panel

Front View   Rear View

1. Display:

   To show the various menus and the selected functions

LED:

2. POWER	On	Power On
3. DMX	On	DMX input present

Button:

4.MENU	To select the programming functions
5. ▼ DOWN	To go backward in the selected functions
6. ▲ UP	To go forward in the selected functions
7. ENTER	To confirm the selected functions

8. Fuse (T 6.3A)**:**

    Protect the unit from damage of the over current.

9. POWERCON IN:

    Connect to a socket (AC 100~240V, 50/60Hz) via the supplied mains cable.

10. POWERCON OUT:

    Connect to supply power to the next unit.

11. DMX IN (3-pin XLR):

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

12. DMX IN (5-pin XLR):

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

13. DMX OUT (3-pin XLR):

    For DMX512 link, use 3-pin XLR cable to link the next unit.

14. DMX OUT (5-pin XLR):

    For DMX512 link, use 5-pin XLR cable to link the next unit.

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 the **ENTER** button and the display will blink. Use the **DOWN** and **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. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.
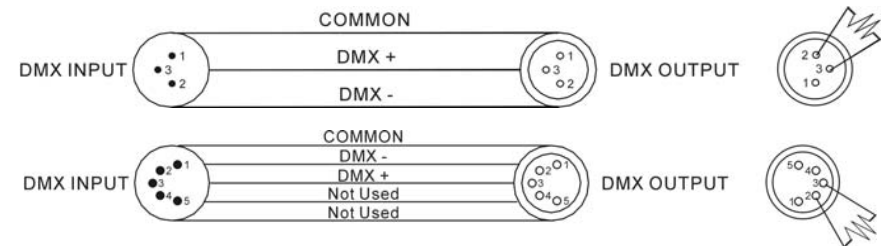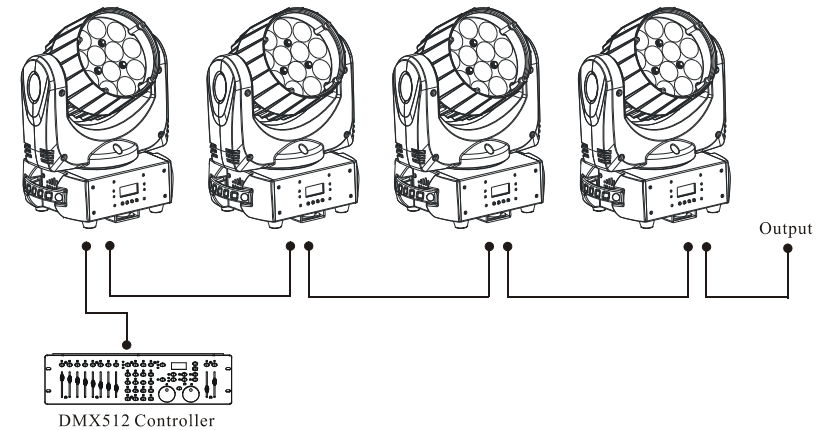
The main functions are showing below:

Reset

Select **Reset**, press the **ENTER** button and all channels of the unit will return to their standard position.,

4. Control By Universal DMX Controller

4.1 DMX 512 Connection

DMX512 Controller

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

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Pan / Tilt** / **Red** / **Green** / **Blue / White /Zoom / Dimmer** or **Strobe**. Once you find a function or a color you wish to test, press the **ENTER** button, use the **DOWN** and **UP** button to adjust the values (0~255). Once finished the test, press the **ENTER** button to save, 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.

Auto Test

Select **Auto Test,** press the **ENTER** button and the unit will run self-test by built-in program. To go back to the functions press the **MENU** button again. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.
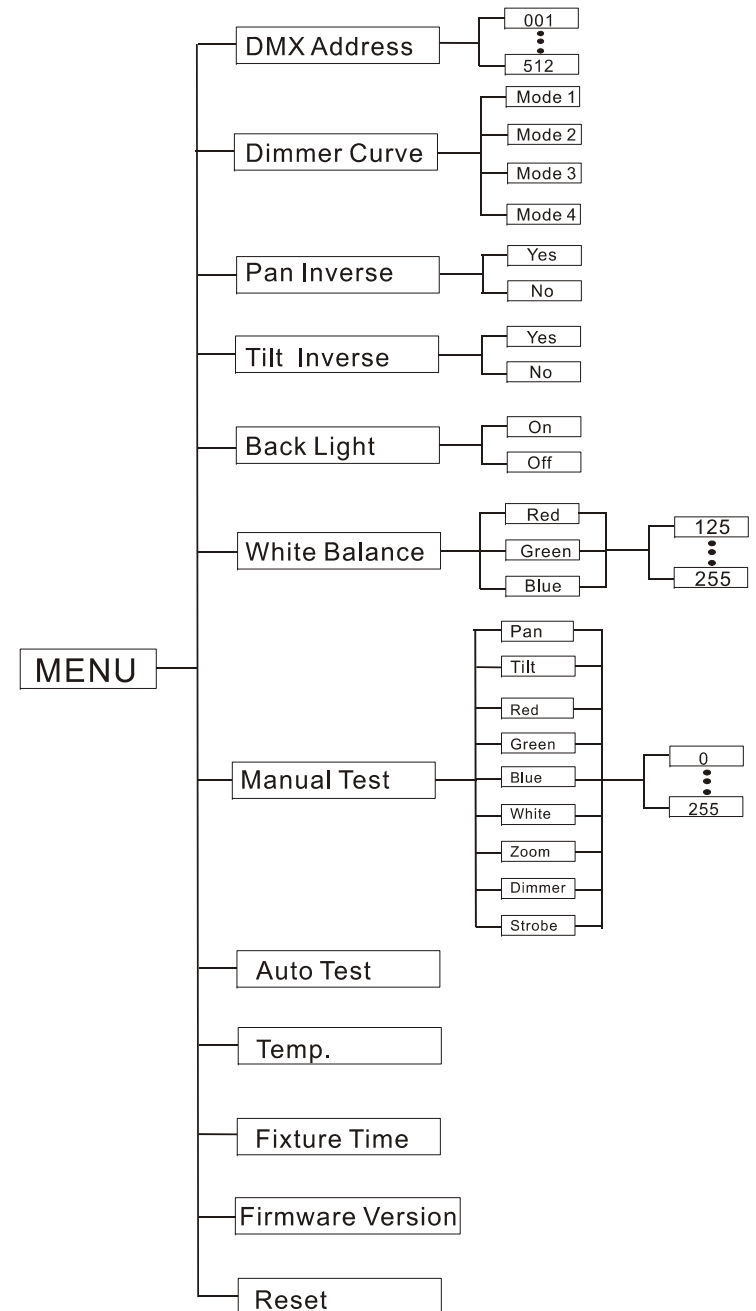
Temp.

Select **Temp.**, press the **ENTER** button and the display will show the temperature of the unit. To go back to the functions press the **MENU** button again. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

Fixture Time

Select **Fixture Time**, 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 again. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

Firmware Version

Select **Firmware version**, 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 again. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

DMX Address

Select **DMX Address**, press the **ENTER** button to confirm, the present address will blink on the display. Use the **UP** and **DOWN** button to adjust the address from **1** to **512**. 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. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

Dimmer curve

Select **Dimmer curve**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Mode1**, **Mode 2**, **Mode 3** or **Mode 4** 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. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

Dimmer Modes

| Optically Linear | Square Law | Inverse Square Law | S-curve |
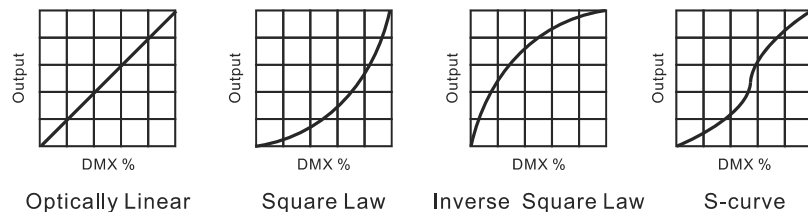
Mode 1(Optically Linear): The increase in light intensity appears to be linear as DMX value is increased.

Mode 2(Square Law): Light intensity control is finer at low levels and coarser at high levels.

Mode 3(Inverse Square Law): Light intensity control is coarser at low levels and finger at high levels.

Mode 4(S-cure): Light intensity control is finger at low levels and high levels and coarser at medium levels.

Pan Inverse

Select **Pan Inverse**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Yes** (pan inversion) or **No** (normal) 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. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

Tilt Inverse

Select **Tilt Inverse**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Yes** (tilt inversion) or **No** (normal) 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. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

Back Light

Select **Back Light**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **On** (LED on) or **Off** (LED off) 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. Press and hold the **MENU** button about one second or wait for one minute to exit the menu mode.

White Balance

Select **White Balance**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Red** or **Green**, **Blue**. Once the mode has been selected, press the **ENTER** button to setup, use the **DOWN** and **UP** button to adjust the value (125~255). Once selected, press the **ENTER** button to setup, 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.