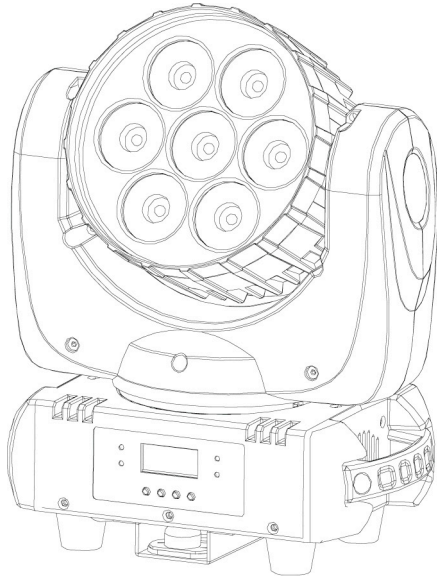




## Kudos 150



**Order code: ELUM034**

**User Manual**

[www.prolight.co.uk](http://www.prolight.co.uk)

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# 1. Safety Instruction



## WARNING

Please read carefully these instructions, 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 are no flammable materials close to the unit while operating as it could present a 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 degrees. DO NOT operate it where the temperature is higher than this.
- Unit surface temperature may reach up to 85 degrees. 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 repair the unit by yourself. Repairs carried out by unskilled people can lead to damage malfunction. Please contact the nearest authorised 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 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.
- Do not stare directly into the light
- Do not operate the fixture near stairways
- Provide advance notice that strobe lighting is in use
- Avoid extended periods of continuous flashing, particularly at frequencies of 10 to 100 flashes per second

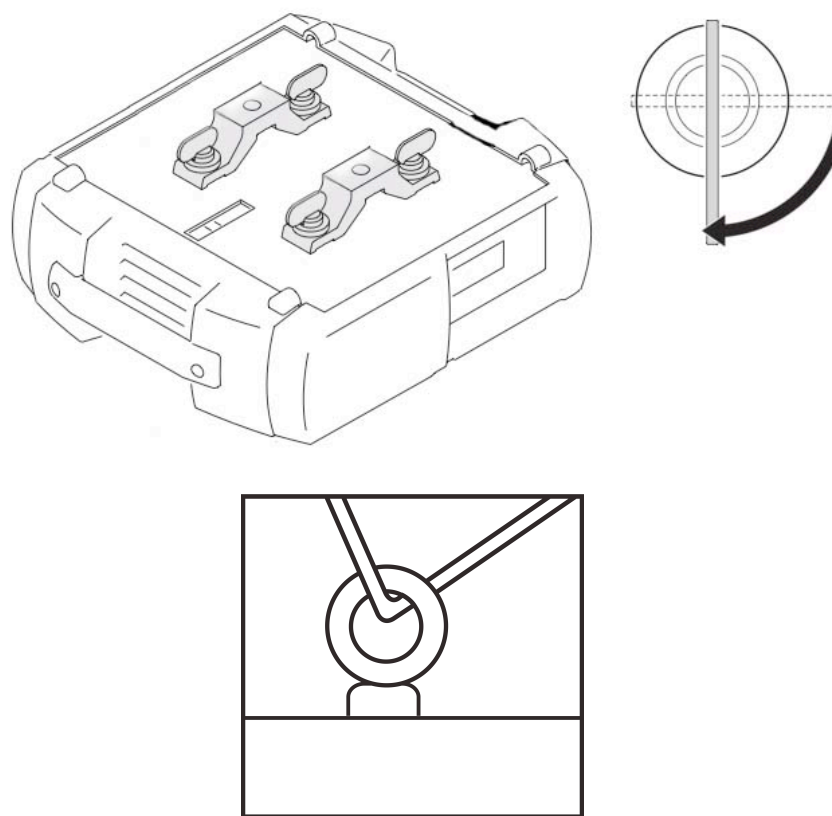
## Caution:

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

## Installation:

The unit should be mounted via omega bracket (see below). 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.

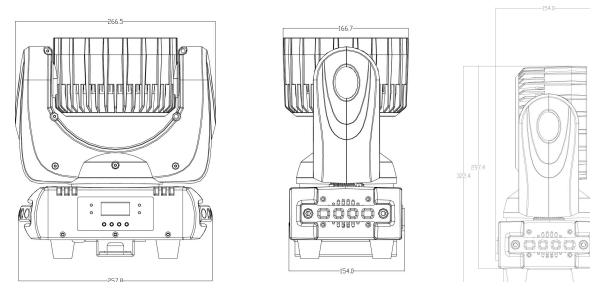
The equipment must be fixed by the professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.



## 2. Technical Specification

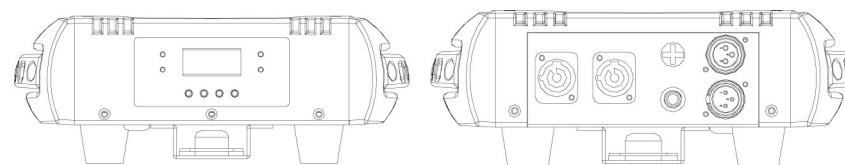
- ◇ Extremely small, fast and powerful LED moving beam and wash effect.
- ◇ DMX Channels: 1/9/12/14/16/28 channel mode
- ◇ Beam angle: 10 degrees
- ◇ Smooth electronic dimming: 0-100%
- ◇ Electronic strobe with pulse and random effects
- ◇ Optional easy controller CA-8 or CA-9 RTX for instant lighting shows at your fingertip!
- ◇ High efficiency, low power consumption
- ◇ Super compact, low weight

<b>Power Supply:</b>	AC 100V~240V, 50/60Hz
<b>Fuse:</b>	T 6.3A
<b>Power consumption:</b>	105W
<b>Light source:</b>	7 x 10W RGBW Cree LED
<b>Weight:</b>	5.7Kgs
<b>Dimension:</b>	258 x 167 x 322mm



## 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

## Only for remote control:

Connecting with CA-8/ CA-9RTX to control the unit for Stand by, Function and Mode function.

## Mains input:

Connect to power supply.

## Mains output:

Connect to supply power to the next unit.

## DMX input/output:

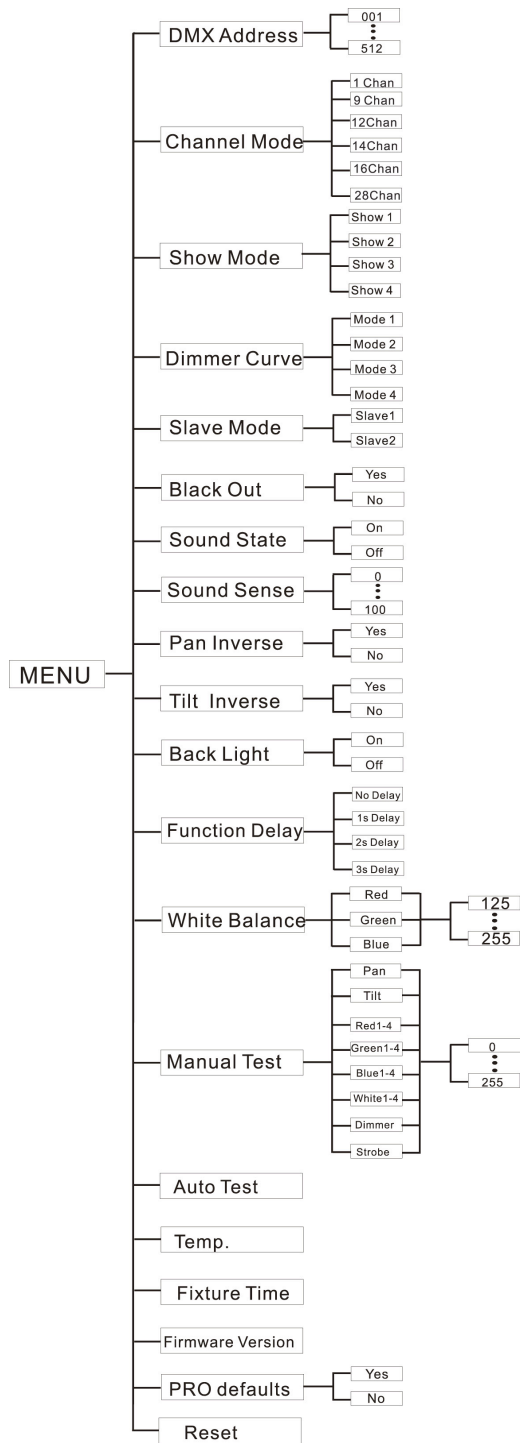
For DMX512 link, use 3/5-pin XLR cable to link the unit together.

## 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 **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. Hold and press the **MENU** button about one second or wait for c minute to exit the menu mode.

The main functions are showing below:



### **DMX Address**

Select **DMX Address**, press the **ENTER** button to confirm, the present address will blink the display. Use the **UP** and **DOWN** button to adjust the address from **1** to **512**. Once address has been selected, press the **ENTER** button to setup, to go back to the functi without any change press the **MENU** button again. Hold and press the **MENU** button ab one second or wait for one minute to exit the menu mode.

### **Channel Mode**

Select **Channel Mode**, press the **ENTER** button to confirm, present mode will blink on display. Use the **DOWN** and **UP** button to select the **1chan**, **9chan**, **12chan**, **14ch**, **16chan** or **28chan** 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. H and press the **MENU** button about one second or wait for one minute to exit the menu mo

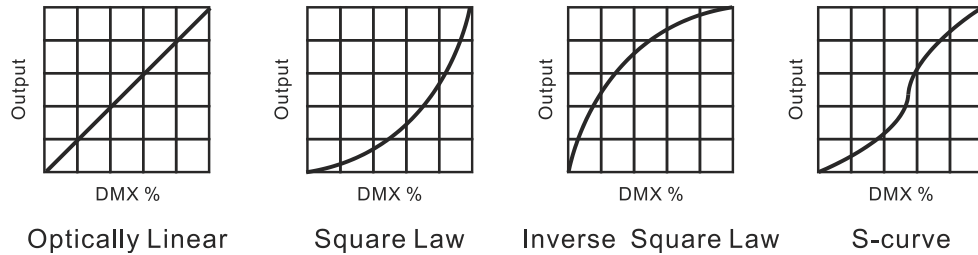
### **Show Mode**

Select **Show Mode**, press the **ENTER** button to confirm, present mode will blink on display. Use the **DOWN** and **UP** button to select the **Show 1** or **Show 2** or **Show 3** or **Sh 4** Mode. Once the mode has been selected, press the **ENTER** button to setup, to go back the functions without any change press the **MENU** button again. Hold and press the **ME** 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 display. Use the **DOWN** and **UP** button to select the **Mode1** or **Mode 2** or **Mode 3** or **Mc 4** mode. Once the mode has been selected, press the **ENTER** button to setup, to go back the functions without any change press the **MENU** button again. Hold and press the **ME** button about one second or wait for one minute to exit the menu mode.

## Dimmer Modes



**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 finer at high levels.

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

### Slave Mode

Select **Slave Mode**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Slave 1** (normal) or **Slave 2** (2 light show) 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.

### Black Out

Select **Slave Mode**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Yes** (yes blackout) or **No** (no blackout) 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.

### Sound State

Select **Sound State**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **On** (sound on) or **Off** (sound 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

### Sound Sense

Select **Sound Sense**, press the **ENTER** button to confirm, present mode will blink on display. Use the **DOWN** and **UP** button to change the sound sense from **0 ... 100**. Once 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.

### Pan Inverse

Select **Pan Inverse**, press the **ENTER** button to confirm, present mode will blink on 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

### Tilt Inverse

Select **Pan Inverse**, press the **ENTER** button to confirm, present mode will blink on 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. Hold and press 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 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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

### Function Delay

Select **Function Delay**, press **ENTER** button to confirm, present mode will blink on

display. Use **DOWN** and **UP** button to select the **No Delay** or **1S/2S/3S Delay** (Wait for 1/2/3 seconds before these Functions of 9/16/28CH are activated/deactivated) 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.

### **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** or **Blue**. Once the mode has been selected, press the **ENTER** button to setup, use the **DOWN** and **UP** button to change the value (125~255). Once the mode has been selected, press the **ENTER** button to setup, 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.

### **Manual Test**

Select **Manu 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/ Red1/ Green1/ Blue1/ White1/...Red4/ Green4/ Blue4/ White4/ Dimmer** or **Strobe**. Once the mode has been selected, press the **ENTER** button to setup, use the **DOWN** and **UP** button to change the value (0~255). Once the mode has been selected, press the **ENTER** button to setup, 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.

### **Auto-Test**

Press the **MENU** button up to when the **Auto-Test** is blinking on the display. Pressing **ENTER** button and the unit will run self-test by built-in program. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

### **Temperature**

Press the **MENU** button up to when the **Temperature Test** is blinking on the display. Pressing **ENTER** button and the display will show the temperature of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

### **Fixture Time**

Press the **MENU** button up to when the **Fixture Time** is blinking on the display. Press **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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

### **Firmware Version**

Press the **MENU** button up to when the **Firmware version** is blinking on the display. Pressing **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. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

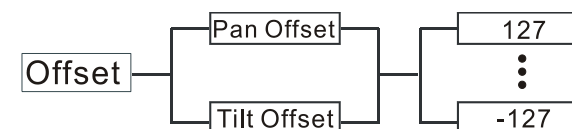
### **PRO Defaults**

Press the **MENU** button to show **PRO Defaults** on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **Yes** (run built-in program to set the fixture to PRO Defaults settings) or **No**. 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.

### **Reset**

Press the **MENU** button up to when the **Reset** is blinking on the display. Pressing **ENTER** button and all channels of the unit will return to their standard position.

## **3.3 Home Position Adjustment**



In the main functions, hold **Enter** button for at least 3 seconds into offset mode, use **DOWN** and **UP** button up to chose **Pan Offset** or **Tilt Offset**, pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to adjust the home position of the Pan, Tilt

Once the position 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.

## 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

No need to turn the unit off when you change the DMX address, as new DMX address setting will be effect at once. Every time you turn the unit on, it will show "KUDOS CM-150" 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

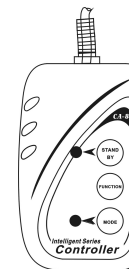
By linking the units in master/slave connection, the first unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show. You have to set the first unit in master mode **Show Mode** and select **show 1** or **show 2** or **show 3** or **show 4** 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 order to create a great light show, you can set **Slave 2** on the second unit to get contr movement to each other, even if you have two units only.

### 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, and Mode selection.



Stand By	Blackout the unit			
Function	1. Sync. Strobe 2. Async strobe 3. Sound Strobe	Show 1-4	1. Pan index 2. Tilt index 3. Dimmer	Fade Speed 1. Fast 2. Middle 3. Slow
Mode	Sound (LED OFF)	Show (LED Slow Blinking)	Show (LED Fast Blinking)	LED ON

### 4.3 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. Press **ENTER** button and the display will blink. Use **DOWN** and **UP** button to change the DMX 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 **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:

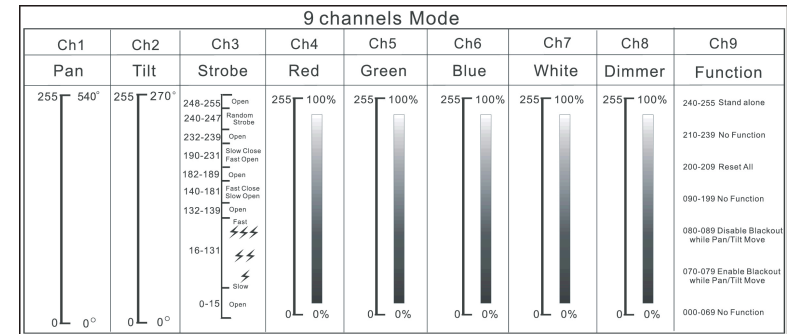
Channel mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
9channels	1	10	19	28
12channels	1	13	25	37
14channels	1	15	29	43
16channels	1	17	33	49
28channels	1	29	57	85

## 4.4 DMX 512 Configuration

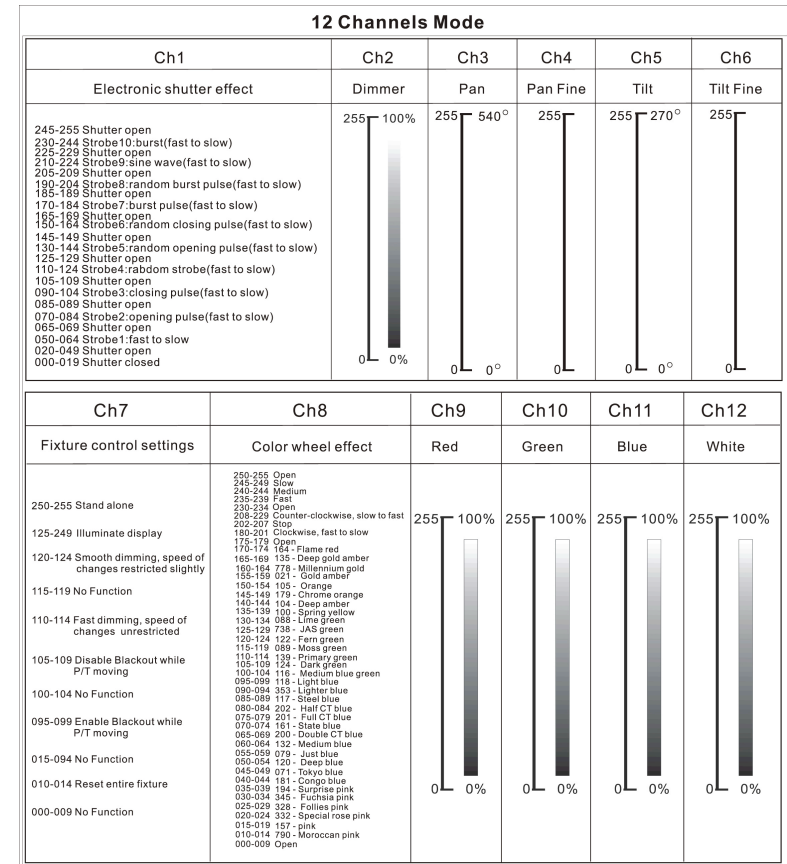
1 channel mode:

1 channel mode
Ch1
Function
248-255 Random Shows
188-247 Show4
128-187 Show3
068-127 Show2
008-067 Show1
000-007 Blackout

9 channel mode:



12 channel mode:



14 channel mode:

14 Channel Mode						
Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7
Pan	Pan Fine	Tilt	Tilt Fine	Pan/Tilt Speed	Pan/Tilt Macro	Pan/Tilt Macro Speed
255 540° 0 0°	255 0	255 270° 0 0°	255 0	255 Slow 0 Fast	236-255 Macro 12 216-235 Macro 11 196-215 Macro 10 176-195 Macro 9 156-175 Macro 8 136-155 Macro 7 116-135 Macro 6 096-115 Macro 5 076-095 Macro 4 056-075 Macro 3 036-055 Macro 2 016-035 Macro 1 000-015 No effect	255 Slow 0 Fast
Ch8	Ch9	Ch10	Ch11	Ch12	Ch13	Ch14
Function	Dimmer	Strobe	Color1	Color2	Color3	Color4
240-255 Stand alone 210-239 No Function 200-209 Reset All 090-199 No Function 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 No Function	255 100% 0 0%	248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow Close Fast Open 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast 16-131 8-15 Slow Open 0-7 Blackout	255 0	255 0	255 0	255 0

16 channel mode:

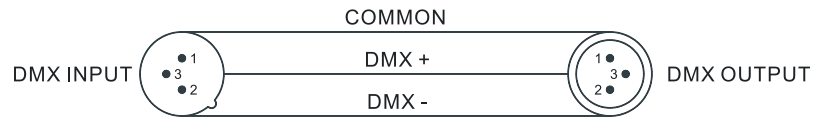
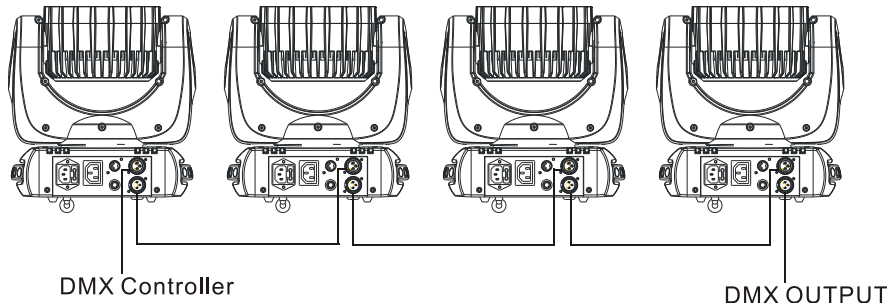
16 channel Mode							
Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7	Ch8
Pan	Pan Fine	Tilt	Tilt Fine	Pan/Tilt Speed	Pan/Tilt Macro	Pan/Tilt Macro Speed	Function
255 540° 0 0°	255 0	255 270° 0 0°	255 0	255 Slow 0 Fast	236-255 Macro 12 216-235 Macro 11 196-215 Macro 10 176-195 Macro 9 156-175 Macro 8 136-155 Macro 7 116-135 Macro 6 096-115 Macro 5 076-095 Macro 4 056-075 Macro 3 036-055 Macro 2 016-035 Macro 1 000-015 No effect	255 Slow 0 Fast	250-255 Stand alone 210-249 No Function 200-209 Reset All 090-199 No Function 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 No Function
Ch9	Ch10	Ch11	Ch12	Ch13	Ch14	Ch15	Ch16
Dimmer	Strobe	Red	Green	Blue	White	Color	Fade speed
255 100% 0 0%	248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow Close Fast Open 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast 16-131 8-15 Slow Open 0-7 Blackout	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	192-255 Color fade 1~16 120-191 Color macro1~18 008-119 Color 1~32 000-007 Normal	255 Fas 0 Slo

28 channel mode:

28 Channel Mode (1)						
Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7
Pan	Pan Fine	Tilt	Tilt Fine	Pan/Tilt Speed	Pan/Tilt Macro	Pan/Tilt Macro Speed
255 540° 0 0°	255 0	255 270° 0 0°	255 0	255 Slow 0 Fast	236-255 Macro 12 216-235 Macro 11 196-215 Macro 10 176-195 Macro 9 156-175 Macro 8 136-155 Macro 7 116-135 Macro 6 096-115 Macro 5 076-095 Macro 4 056-075 Macro 3 036-055 Macro 2 016-035 Macro 1 000-015 No effect	255 Slow 0 Fast
Ch8	Ch9	Ch10	Ch11	Ch12	Ch13	Ch14
Function	Dimmer	Strobe	Red1	Green1	Blue1	White1
250-255 Stand alone 210-249 No Function 200-209 Reset All 090-199 No Function 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 No Function	255 100% 0 0%	248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow Close Fast Open 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast 16-131 Slow 8-15 Open 0-7 Blackout	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%

28 Channels Mode (2)							
Ch15	Ch16	Ch17	Ch18	Ch19	Ch20	Ch21	Ch22
Red 2	Green2	Blue2	White2	Red 3	Green3	Blue3	White3
255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%
Ch23	Ch24	Ch25	Ch26	Ch27	Ch28		
Red 4	Green4	Blue4	White4	Color	Fade speed		
255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	255 100% 0 0%	192-255 Color fade 1~16 120-191 Color macro 1~18 008-119 Color 1~32 000-007 Normal	255 Fast 0 Slow		

## 4.5 DMX512 Connection



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.



1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.
2. At last unit, the DMX cable has to be terminated with a terminator (3-pin, CABL90), (5-pin, CABL90). 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` 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 lighting 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

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 at DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on P 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 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 great 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.

## **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**

EN60598-2-17:1989 + A2:1991; EN60598-1:2008+ A11: 2009  
Safety of household and similar electrical appliances  
Part 1: General requirements

**English**



***Correct Disposal of This Product  
(Waste Electrical & Electronic Equipment)***

**(Applicable in the European Union and other European countries with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.