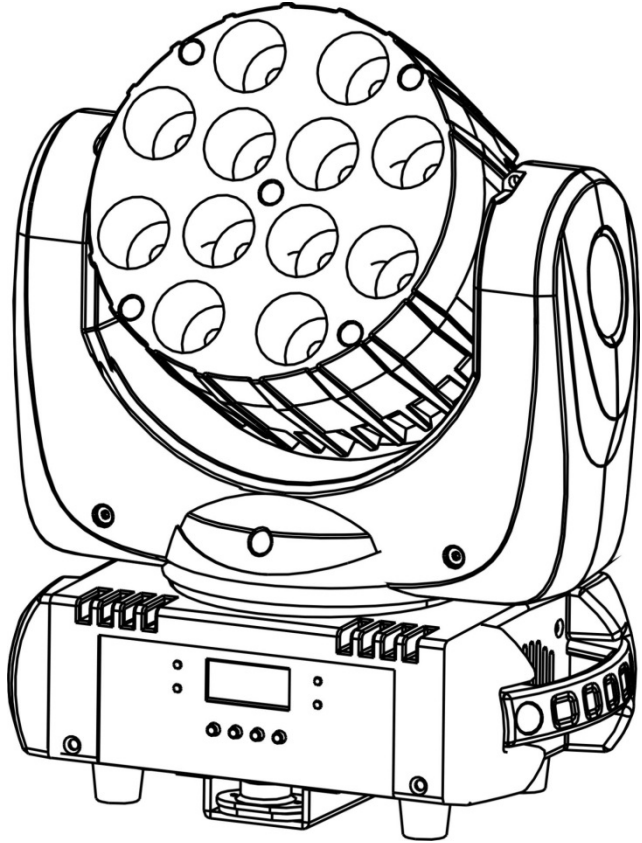


eLumen8 KUDOS CM 120 MKII



Order code: ELUM031

User Manual

Contents

1. Safety Instructions
2. Features & Specifications
3. How To Set The Unit
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1. Safety Instructions



Please read the instructions carefully as they include important information about 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.

Unpack and check carefully that there is no transportation damage before using the unit.

- Before operating, ensure that the voltage and frequency of the 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 the mains power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as they may cause a fire hazard.
- Always use a safety cable when installing this unit.
- The maximum ambient temperature is: 40°. Don't operate it where the temperature is higher than this.
- In the event of a serious operating problem stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- Do not touch any power cables during operation as the high voltage may cause an 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 and lenses must be replaced if they are visibly damaged.
- This lighting fixture is for professional use only - it is not designed for or suitable for household use. The product must be installed by a qualified technician in accordance with local territory regulations. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls.
- Warning! Risk Group 2 LED product according to EN 62471. Do not view the light output with optical instruments or any unit that may concentrate the beam.

- WARRANTY: Two years from date of purchase.

Installation

The unit should be mounted via its screw holes onto the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. Make sure that the structure to which you are attaching the unit to is secure and is able to support a weight of 10 times of the unit's weight. Always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

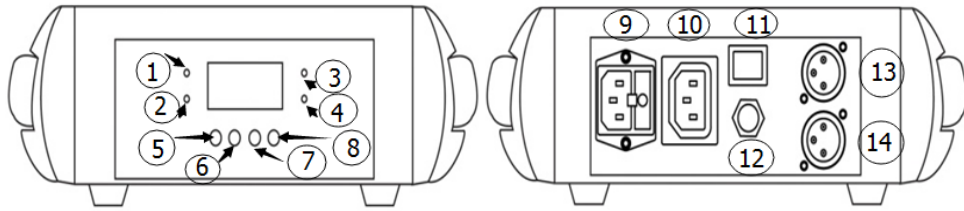
The equipment must be installed by professionals and it must be installed in a place where is out of the reach of people and no one can pass by or under it

2. Features & Specifications

- ◇ Extremely small, fast and powerful LED moving beam.
- ◇ DMX Channels: 9/12/14/16/28
- ◇ Pan/Tilt: 630/200, speed adjustable
- ◇ Smooth electronic dimming: 0-100%
- ◇ Electronic strobe with pulse and random effects
- ◇ Optional easy controller CA-8 for instant lighting shows at your fingertips
- ◇ High efficiency, low power consumption
- ◇ Super compact, low weight
- 12pcs of 10W RGBW quad colour LEDs
- Voltage: 100V~240V, 50/60Hz
- Fuse: T 6.3A
- Power consumption: 150W
- Dimension: 304 x 267 x 167 mm
- Weight: 5.8 kg
- Power sockets: IEC IN/OUT
- XLR sockets: 3-pin XLR IN/OUT

3. How To Set The Unit

3.1 Control panel



1) DMX 2) MASTER 3) SLAVE 4) SOUND 5) MENU 6) DOWN 7) UP 8) ENTER 9) POWER IN 10) POWER OUT 11) POWER ON/OFF 12) EASY CONTROLLER 13) DMX IN 14) DMX OUT

Display

Show the various menus and the selected functions

LEDs

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

3.2 Main Function

To select any of the functions press the **MENU** button up to where the required one is showing on the display. Select the function by pressing 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 confirm.

The main functions are as below:

Menu	DMX Address setting	001-512
	Channel mode	9CH
		12CH
		14CH
		16CH
		28CH
	Show mode	Show 1
		Show 2
		Show 3

	Show 4
Dimmer curve	Mode 1
	Mode 2
	Mode 3
	Mode 4
Slave mode	Slave1
	Slave2
Blackout	Yes - No
Sound	ON - OFF
Sound Sensitivity	0-100
Pan inverse	Yes - No
Tilt inverse	Yes - No
Back Light	ON - OFF
Function Delay	NO delay
	1S delay
	2S delay
	3S delay
White Balance	Red
	Green
	Blue
Manual Test	Pan
	Tilt
	Red1
	Green1
	Blue1
	White1
	...
	Red4
	Green4
	Blue4
	White4
	Dimmer
	Shutter
Auto-Test	Auto-Test
Temp:	0 -XXX°C
Fixture Time	
Firmware version	Ver XXX
Defaults	Yes - No
Reset	

DMX Address

Select **DMX Address**, press the **ENTER** button and the current mode will blink on the display. Use the **UP** and **DOWN** buttons to adjust the address from **1** to **512**. Once the address has been selected press the **ENTER** button to confirm.

Channel Mode

Select **Channel Mode**, press the **ENTER** button to confirm and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select the **9**, **12**, **14**, **16** or **28** channel mode. Once the mode has been selected press the **ENTER** button to confirm.

Show Mode

Select **Show Mode**, press the **ENTER** button and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select **Show 1** or **Show 2** or **Show 3** or **Show 4** mode. Once the mode has been selected press the **ENTER** button to confirm.

Dimmer Curve

To select **Dimmer Curve**, press the **ENTER** button to show **DIMMER CURVE** on the display. Use the **DOWN/UP** buttons to select **Mode 1**(Optically Linear) or **Mode 2**(Square Law) or **Mode 3**(Inverse Square Law) or **Mode 4**(S-Curve). Once the mode has been selected press the **ENTER** button to setup.

Mode 1(Optically Linear): The increase in light intensity appears to be linear as the 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-curve): 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 and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select **Slave 1** (normal) or **Slave 2** (2 light show) mode. Once the mode has been selected press the **ENTER** button to confirm.

Black Out

Select **Blackout Mode**, press the **ENTER** button and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select **Yes**

(yes blackout) or **No** (no blackout) mode. Once the mode has been selected press the **ENTER** button to confirm.

Sound State

Select **Sound State**, press the **ENTER** button and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select **ON** (Sound on) or **OFF** (Sound Off) mode. Once the mode has been selected press the **ENTER** button to confirm.

Sound Sensitivity

Select **Sound Sense**, press the **ENTER** button to confirm and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to adjust the sensitivity from **0...100** and press the **ENTER** button to confirm.

Pan Inverse

Select **Pan Inverse**, press the **ENTER** button and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select **Yes** (pan inversion) or **No** (normal) mode and press the **ENTER** button to confirm.

Tilt Inverse

Select **Pan Inverse**, press the **ENTER** button and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select **Yes** (tilt inversion) or **No** (normal) mode and press the **ENTER** button to confirm.

Back Light

Select **Back Light**, press the **ENTER** button and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select **ON** (Led display menu on) or **OFF** (Led display menu off) mode. Press the **ENTER** button to confirm.

Function Delay

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

White Balance

Select **White Balance**, press the **ENTER** button and the current mode will blink on the display. Use the **DOWN** and **UP** buttons to select

Red/Green/Blue. Once the mode has been selected press the **ENTER** button to setup, use the **DOWN** and **UP** buttons to change the value (125~255) and press the **ENTER** button to confirm.

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.

Auto-Test

Press the **MENU** button until the **Auto-Test** is blinking on the display. Press the **ENTER** button and the unit will run self-test with the built-in programs.

Temperature

Press the **MENU** button until the **Temperature Test** is blinking on the display. The temperature will be shown on the display.

Fixture Time

Press the **MENU** button up to when the Fixture Time is blinking on the display. Pressing **ENTER** button and the display will show the number of working hours of the unit.

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.

PRO Defaults: For professional users, a detailed explanation follows:

☞	Slave Mode	→ Slave 1
☞	Black Out	→ Yes
☞	Sound State	→ Off
☞	Pan Inverse	→ No
☞	Tilt Inverse	→ No
☞	Back Light	→ Off
☞	Function delay	→ 3S delay

Reset

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

3.3 Home Position Adjust



Hold the **Enter** button for at least 3 seconds to enter offset mode. Use the **DOWN** and **UP** buttons to choose **Pan Offset** or **Tilt Offset** and then press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to adjust the home position of the Pan or Tilt, Once the position has been selected, press the **ENTER** button to confirm.

4. How To Control The Unit

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

There is no need to turn the unit off when you change the DMX address as the new DMX address setting will be effected at once. Every time you turn the unit on, it will show "CM-120" on the display and move all the motors to their 'home' position.

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 as master and select **show 1, show 2, show 3** or **show 4** from the **Show Mode**. The DMX input must be unplugged. The master LED will be constantly on and the sound LED will blink. The other units must be set to either **Slave 1** (normal) or **Slave 2** (2 light show) mode. DMX cables between the units for linking are needed. The LED indicators on the slave units will constantly be on if the setting is correct.

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 for the second unit to get contrast movement to each other, even if you only have two units.

4.2 Easy Controller

The easy remote controller is used only in master/slave mode. By connecting to the 1/4 microphone jack of the first unit, 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

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 until **DMX Address** is showing on the display. Press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** buttons to change the DMX 512 address. Once the address has been selected, press the **ENTER** button to confirm.

Please refer to the below 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
9channel	1	10	19	28
12channels	1	13	25	37
14channels	1	15	29	43
16channels	1	9	17	25
28channels	1	29	57	85

4.3 DMX 512 Configuration

9 channels mode :

Channel	Value	Function
---------	-------	----------

1	000-255	Pan	
2	000-255	Tilt	
3	248-255	Open	
	240-247	Random Strobe	
	232-239	Open	
	190-231	Slow close Fast Open	
	182-189	Open	
	140-181	Slow Open Fast close	
	132-139	Open	
	16-131	Strobe(slow-fast)	
4	000-15	Open	
	000-255	Red	
	000-255	Green	
	000-255	Blue	
	000-255	White	
	000-255	Dimmer	
	9	250-255	Stand By
		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	

12 channels mode:

Channel	Value	Function
1	Shutter Effect	
	0-019	Shutter closed
	020-049	Shutter open
	050-064	Strobe 1 (Faster to Slow)
	065-069	Shutter Open
	070-084	Strobe 2 (Faster to Slow)
	085-089	Shutter Open
	090-104	Strobe 3 (Faster to Slow)
	105-109	Shutter Open

	110-124	Strobe 4 (Faster to Slow)
	125-129	Shutter Open
	130-144	Strobe 5 (Faster to Slow)
	145-149	Shutter Open
	150-164	Strobe 6 (Faster to Slow)
	165-169	Shutter Open
	170-184	Strobe 7 (Faster to Slow)
	185-189	Shutter Open
	190-204	Strobe 8 (Faster to Slow)
	205-209	Shutter Open
	210-224	Strobe 9 (Faster to Slow)
	225-229	Shutter open
	230-244	Strobe 10 (Fast to slow)
	245-255	Shutter Open
	2	0-255
3	0-255	PAN
4	0-255	PAN FINE
5	0-255	TILT
6	0-255	TILT FINE
7	Control setting	
	000-009	No function
	010-014	Reset
	015-039	No function
	040-044	Pan/tilt speed(Normal)
	045-049	Pan/tilt speed(Fast)
	050-054	Pan/tilt speed(Slow)
	055-059	No function
	060-064	Fan Mode Full
	065-069	No function
	070-074	Fan Mode Regulated
	075-094	No function
	095-099	Enable Blackout while Pan/tilt
	100-104	No function

	105-109	Disable blackout while pan/tilt
	110-114	Dimmer speed(slow to fast)
	115-119	No function
	120-124	DIMMER 0%-100%
	125-249	Illuminate display
	250-255	Stand alone
	8	Colour wheel effect
000-009		Open-RGB Colour mixing
010-014		LEE790-Moroccan Pink
015-019		LEE157-Pink
020-024		LEE332-Special rose pink
025-029		LEE328-Follies pink
030-034		LEE345-Fuchsia Pink
035-039		LEE194-Surprise pink
040-044		LEE181-Congo Blue
045-049		LEE071-Tokyo Blue
050-054		LEE120-Deep Blue
055-059		LEE079-Just Blue
060-064		LEE132-Medium Blue
065-069		LEE200-Double CT Blue
070-074		LEE161-Slate Blue
075-079		LEE201-Full CT Blue
080-084		LEE202-Half CT Blue
085-089		LEE117-Steel Blue
090-094		LEE353-Lighter Blue
095-099		LEE118-Light Blue
100-104		LEE116-Medium Blue Green
105-109	LEE124-Dark Green	
110-114	LEE139-Primary Green	
115-119	LEE089-Moss Green	
120-124	LEE122-Fern Green	
125-129	LEE738-JAS Green	
130-134	LEE088-Lime Green	

	135-139	LEE100-Spring Yellow
	140-144	LEE104-Deep Amber
	145-149	LEE179-Chrome Orange
	150-154	LEE105-Orange
	155-159	LEE021-Gold Amber
	160-164	LEE778-Millennium Gold
	165-169	LEE135-Deep Golden Amber
	175-179	Open
	180-201	Colour Speed(Fast to Slow)
	202-2-7	Stop
	208-229	Colour Speed(Slow to Fast)
	230-234	Open
	235-239	Colour Speed(Fast)
	240-244	Colour Speed(Medium)
	245-249	Colour Speed(Slow)
	250-255	Open
9	000-255	RED
10	000-255	GREEN
11	000-255	BLUE
12	000-255	WHITE

14 channels mode :

Channel	Value	Function
1	000-255	Pan
2	000-255	Pan Fine
3	000-255	Tilt
4	000-255	Tilt Fine
5	000-255	Pan/tilt speed
6	Pan/tilt macro	
	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
7	000-255	Pan/tilt macro speed
8	250-255	Stand By
	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
9	250-255	Stand By
	210-249	NO Function
9	000-255	Dimmer
10	248-255	Open
	240-247	Random Strobe
	232-239	Open
	190-231	Slow close Fast Open
	182-189	Open
	140-181	Slow Open Fast close
	132-139	Open
	16-131	Strobe(slow-fast)
	8-15	Open
		000-007
11	000-255	1 st Quadrant LED Colour Macro's
12	000-255	2nd Quadrant LED Colour Macro's
13	000-255	3rd Quadrant LED Colour Macro's.
14	000-255	4th Quadrant LED Colour Macro's

16 channels mode :

Channel	Value	Function
---------	-------	----------

1	000-255	Pan
2	000-255	Pan fine
3	000-255	Tilt
4	000-255	Tilt fine
5	000-255	Pan/tilt speed
6	Pan/tilt macro	
	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	
7	000-255	Pan/tilt macro speed
8	250-255	Stand By
	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
	250-255	Stand By
	210-249	NO Function
9	000-255	Dimmer
10	248-255	Open
	240-247	Random Strobe
	232-239	Open
	190-231	Slow close Fast Open
	182-189	Open
	140-181	Slow Open

		Fast close
	132-139	Open
	16-131	Strobe(slow-fast)
	8-15	Open
	000-007	Blackout
11	000-255	Red.
12	000-255	Green.
13	000-255	Blue.
14	000-255	White.
15	000-007	Normal
	008-127	Colour Macro 1-32
	128-135	Colour Chase
	136-143	Fade In/Out
	144-191	Quadrant Macro Chase
	192-219	2 Colour Cross Fades
	220-255	3 Colour Cross Fades
16	000-255	Fade Speed

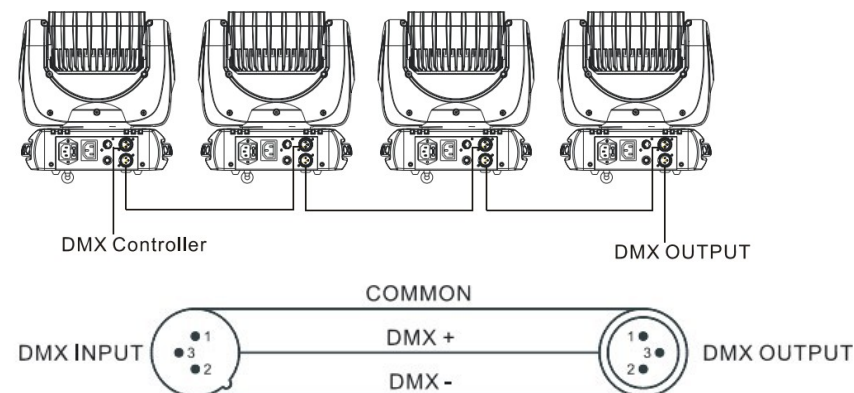
24 channels mode :

Channel	Value	Function
1	000-255	Pan
2	000-255	Pan fine
3	000-255	Tilt
4	000-255	Tilt fine
5	000-255	Pan/tilt speed
6	Pan/tilt macro	
	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
7	000-255	Pan/tilt macro speed
8	250-255	Stand By
	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
	250-255	Stand By
	210-249	NO Function
9	000-255	Dimmer
10	248-255	Open
	240-247	Random Strobe
	232-239	Open
	190-231	Slow close Fast Open
	182-189	Open
	140-181	Slow Open Fast close
	132-139	Open
	16-131	Strobe(slow-fast)
	0-15	Open
11	000-255	Red1.
12	000-255	Green1.
13	000-255	Blue1.
14	000-255	White1.
15	000-255	Red2.
16	000-255	Green2.
17	000-255	Blue2.
18	000-255	White2.
19	000-255	Red3.
20	000-255	Green3.
21	000-255	Blue3.
22	000-255	White3.
23	000-255	Red4.

24	000-255	Green4.
25	000-255	Blue4.
26	000-255	White4
27	000-007	Normal
	008-127	Colour Macro 1-32
	128-135	Colour Chase
	136-143	Fade In/Out
	144-191	Quadrant Macro Chase
	192-219	2 Colour Cross Fade
28	220-255	3 Colour Cross Fade
	000-255	Fade Speed

4.4 DMX 512 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) 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.
- 2) Connect the units together in a `daisy chain` with XLR cables from the output of the unit to the input of the next unit. The cable cannot branch or split to a `Y` cable.
- 3) The DMX output and input connectors are a pass-through type to

maintain the DMX circuit even when one of the units' power is disconnected.

- 4) Each unit needs to have an address setup to receive the data sent from the controller. The address number is between 1-512
- 5) 3 pin wiring configuration:
3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

5. Trouble shooting

Following are a few common problems that may occur during operation and 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 the main fuse.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX cables to see if linked correctly.
2. If the DMX LED is on and no response to the controller check the address settings and DMX polarity.
3. Try another DMX controller.

C. No response to the sound

1. Make sure the unit is not receiving a DMX signal.
2. Check the microphone to see if it is O.K. by tapping it.
The microphone is located on the base of the unit.
3. Check that the unit is not set into "BLACKOUT" mode.

6. Fixture Cleaning

The cleaning of the external optical lenses 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 a greater accumulation of dirt on the unit's optics.

- Clean with soft cloth using normal glass cleaning fluid or mild soapy water.
- Always dry the parts carefully.
- Clean the external optics at least every 20 days.