LED 7PCS*40W 4IN1 ZOOM MOVING HEAD LIGHT

USER MANUAL

TABLE OF CONTENTS

1. Safety Instructions

⚠️ **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 are no flammable materials close to the unit while operating as it is fire hazard.
- ☒ Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- ☒ Maximum ambient temperature is Ta: 40℃. DO NOT operate it where the temperature is higher than this.
- ☒ Unit surface temperature may reach up to 85℃. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- ☒ In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- ☒ DO NOT touch any wire during operation as high voltage might be causing electric shock.

Warning:

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

Caution:

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

> If using a 230V 50Hz power supply, DO NOT connect in series more than 11 units; use another main supply for the next 11 fixtures.
> If using a 120V 60Hz power supply, DO NOT connect in series more than 5 units; use another main supply for the next 5 fixtures.

Installation:

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

The equipment must be fixed by 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 specifications

- ◇ Extremely small, fast and powerful LED moving beam.
- ◇ DMX Channels: 14 channels mode
- ◇ Operation modes: DMX512, Master/Slave
- ◇ Great built-in lighting shows under Master/Slave mode
- ◇ Blue LCD display for easy navigation
- ◇ Perfect for stage, theatre, TV studio, rental and discotheques

Voltage:	AC 100V~240V, 50/60Hz
Power consumption:	245W320
LED:	7X40W RGBW4 LED4in1
Dimension:	324.8X188X395.4mm
Weight:	9.2Kgs
Beam Angel:	10°~60°
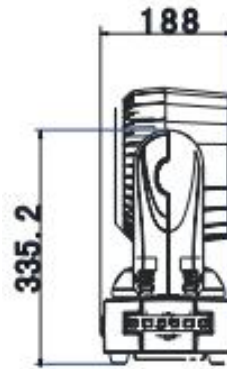
3. How to set the unit

3.1 Control panel
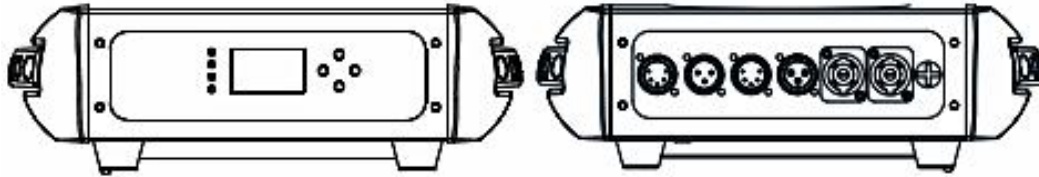
Display:

To show the various menus and the selected functions

LED:

POWER	ON	Power On
NULL		No function
NULL		No function
DMX	ON	DMX input present

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

DMX input :
For DMX512 link,use3/5-pin XLR cable to link the unit together

DMX Output :
For DMX512 link,use3/5-pin XLR cable to link the unit together

Mains input :
 Connect to power supply

Mains Output :
Connect to supply power to the next unit

Fuse(T6.3A) :
Protect the unit from damage of the over-current

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 functions 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 ho back to the functions without any
change press the **MEN**U button again.Hold and press the **MEN**U button about one second or wait for one minute
to exit the menu mode.
The main functions are showing below:

```
                                                    ┌─ 1
                         ┌─ DMX Address ────────────┤
        ┌─ DMX Functions ┤                          └─ 512
        │                └─ View DMX Value
        │
        │                                           ┌─ No
        │                 ┌─ Pan Inverse ───────────┤
        │                 │                          └─ Yes
        │                 │                          ┌─ No
        │                 ├─ Tilt Inverse ───────────┤
        │                 │                          └─ Yes
        │                 │                          ┌─ No
        │                 ├─ P/T Feedback ───────────┤
        │                 │                          └─ Yes
        │                 │                          ┌─ No
        ├─ Fixture Setting┼─ Bl.o. P/T Moving ───────┤
        │                 │                          └─ Yes
        │                 │                          ┌─ Red
        │                 ├─ White Balance ──────────┼─ Green
        │                 │                          └─ Blue
        │                 │                          ┌─ Auto
        │                 ├─ Cooling Mode ───────────┤
        │                 │                          └─ Low
        │                 │                          ┌─ Linear
        │                 │                          ├─ Square Law
        │                 └─ Dimmer Curve ───────────┤
        │                                            ├─ Inverse Squ.
        │                                            └─ S-curve
        │
        │                                            ┌─ No
        │                 ┌─ Display Inverse ────────┤
        │                 │                          └─ Yes
        │                 │                          ┌─ No
        │                 ├─ Backlight Auto Off ─────┤
        │                 │                          └─ Yes
MENU ───┼─ Display Setting┼─ Backlight Intensity ──── 1~10
        │                 │                          ┌─ °C
        │                 ├─ Temperature Unit ───────┤
        │                 │                          └─ °F
        │                 │                          ┌─ No
        │                 ├─ Display Warning ────────┤
        │                 │                          └─ Yes
        │                 │                          ┌─ English
        │                 └─ Language ───────────────┤
        │                                            └─ Chinese
        │
        │                 ┌─ Auto Test
        ├─ Fixture Test ──┤
        │                 └─ Manual Test
        │
        │                     ┌─ Fixture use time
        │                     │                      ┌─ Exit
        ├─ Fixture Information┼─ Lamp On time ───────┤
        │                     │                      └─ Reset Time
        │                     └─ Fireware Version
        │
        │                 ┌─ Pan/Tilt
        │                 │                          ┌─ No
        ├─ Reset Function ┼─ Zoom ───────────────────┤
        │                 │                          └─ Yes
        │                 └─ All
        │
        │                     ┌─ Fixture Maintenance ┬─ Interval
        └─ Special Functions ─┤                      └─ Remain Time
                              │                      ┌─ No
                              └─ Factory Settings ───┤
                                                     └─ Yes
```

DMX functions

Enter MENU mode, select DMX functions,press **ENTER** button to confirm,use **UP** and **DOWN** button to select **DMX address**, **DMX channel mode** or **view DMX value**

DMX address

Select **DMX address,**press **ENTER** button to confirm,the present address will blink on the display,use **UP** and **DOWN** button to adjust from 1 to 512,press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

View DMX value

Select **View DMX value,**press **ENTER** button to confirm,Channel functions and its value will show on the display,use **UP** and **DOWN** button to view other DMX value,Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Fixture setting

Enter MENU mode,select **Fixture setting,**press **ENTER** button to confirm,then use **UP** and **DOWN** button to select **PAN inverse,TILT inverse,P/T Feedback,BL.O.P/T Moving,White Balance,Cooling Mode or Dimmer Curve.**

Pan Inverse

Select **Pan Inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **No**(Normal) or **Yes**(pan inverse),press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Tilt Inverse

Select **Tilt Inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **No**(Normal) or **Yes**(Tilt inverse),press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

P/T Feedback

Select **Tilt Inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **No**(Pan or tilt's position will not feedback while out of step) or **Yes**(Feedback while pan/tilt out of step),press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

BL.O.P/T Moving

Select **Tilt Inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **No**(normal while pan/tilt moving) or **Yes**(blackout while pan/tilt moving),press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

White Balance

Select **Tilt Inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **Red**, **Green**, or **Blue**,Once selected,press **ENTER** button,then use **UP** and **DOWN** button to adjust the value from 125 to 255, press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Cooling Mode

Select **Tilt Inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **Auto**(Normal) or **Low**(Low speed),Once selected,press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.
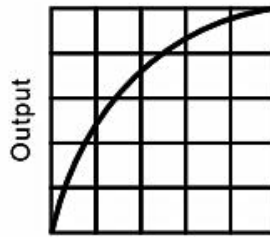
Dimmer Curve

Select **Tilt Inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **Linear,Square Law,Inverse Squ.or S-curve**,Once selected,press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.
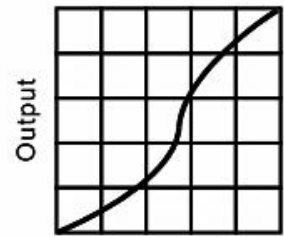
Dimmer modes
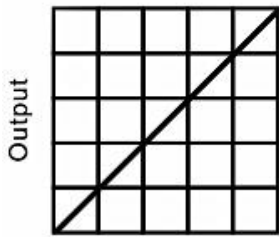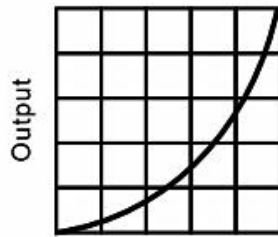
| Optically Linear | Square Law | Inverse Square Law | S-curve |

Linear: The increase in light intensity appears to be linear as DMX value is increased.
Square Law: Light intensity control is finer at low levels and coarser at high levels.
Inverse Square Law: Light intensity control is coarser at low levels and finger at high levels.
S-curve: Light intensity control is finger at low levels and at high levels and coarser at medium levels.

Display setting

Enter menu mode,select **Display Setting,**press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Display Inverse ,Backlight Auto off ,Backlight intensity,Temperature unit,Display Warning or Language .**

Display inverse
Select **Display inverse,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **No**(Normal display) or **Yes**(Inverse display),Once selected,press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Backlight Auto off
Select **Backlight Auto off,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **No**(display always on) or **Yes**(display goes off one minute after exiting menu mode), Once selected,press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Backlight intensity
Select **Backlight intensity ,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to adjust backlight intensity from **1** to **10**(bright), press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Temperature unit
Select **Temperature unit,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select ℃ or ℉, press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Display Warning
Select **Display Warning ,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **No**(normal) or **Yes**(display will show the error warning when the unit went wrong).Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Language
Select **Display Warning ,**press **ENTER** button to confirm,present mode will blink on the display,use **UP** and **DOWN** button to select **English** or **Chinese**.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Fixture Test

Enter menu mode,select **Fixture test,**press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Auto Test** or **Manual Test.**

Auto Test
Select **Auto Test ,**press **ENTER** button to confirm ,The unit will run built-in program to automatically test pan,tilt,gobo,shutter, dimmer,prism,red, green, blue,white,CTC,frost,focus and lamp on/off. Press **MENU** button back to the last menu or exit menu mode after auto test.

Manual Test

Select **Manual Test** ,press **ENTER** button to confirm,the present channel will show on the display,use **UP** and **DOWN** button to select channel,press **ENTER** button to confirm, then use **UP** and **DOWN** button to adjust the value, press **ENTER** button to to store, the fixture will run as the channel value indicates.Press **MENU** button back to the last menu or exit menu mode let the unit idle one minute.

(All channels value will become 0 after exiting Manual Test menu)

Fixture Information

Enter menu mode,select **Fixture Information,**press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Fixture use time,Lamp on time** or **Fixture Version.**

Fixture use time

Select **Fixture use time** ,press **ENTER** button to confirm,fixture use time will show on the display,press MENU button to exit.

Lamp on time

Select **Lamp on time ,**press **ENTER** button to confirm,lamp on time will show on the display,press **ENTER** button to confirm,use **UP** and **DOWN** button to select Exit or Reset Time,press **ENTER** button to confirm .Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Fixture Version

Select **Fixture Version**,press **ENTER** button to confirm,firmware version will show on the display,press MENU button back to exit.

Fixture Functions

Enter MENU mode,select **Fixture Function,**press **ENTER** button to confirm,then use **UP** and **DOWN** button to select **Pan/Tilt,Zoom** or **All.**

Pan/Tilt-Reset Pan/Tilt

Select **Pan/Tilt,**press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Yes** (the unit will run built-in program to reset pan/ tilt to their home position) or **No**,press **ENTER** button to store.Press **MENU** button back to the last menu or let the unit idle one minute to exit menu mode.

Zoom -Reset zoom

Select **Zoom ,**press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Yes** (the unit will run built-in program to reset Zoom to their home position) or **No**,press **ENTER** button to store.Press **MENU** button back to exit

All-Reset all

Select **All ,**press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Yes** (the unit will run built-in program to reset all motors to their home position) or **No**,press **ENTER** button to store.Press **MENU** button back to exit.

Special functions

Enter MENU mode,select **Special functions,**press **ENTER** button to confirm,then use **UP** and **DOWN** button to select **Fixture maintenance** or **Factory Setting.**

Fixture maintenance

Select **Fixture maintenance ,**press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Interval** or **Remain Time**

Interval

Select **Interval ,**press **ENTER** button to confirm,the interval time will show on the display .Press **MENU** button back to exit.

Remain Time

Select **Remain Time ,**press **ENTER** button to confirm,the remaining time will show on the display.press **ENTER** button to confirm,use **UP** and **DOWN** button to select **Exit** or **Reset Time,**Press **MENU** button back to exit.

Factory Setting.
Select **Factory Setting ,**press **ENTER** button to confirm,the fixture will reset to factory setting and exit menu mode.


3.3 Home position adjust
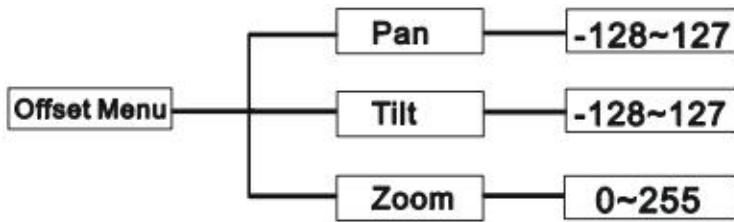
In the main functions ,hold **ENTER** button for at least3 seconds into offset mode,use **Down** and **Up** button to chose **Pan offset,Tilt offset** or **Zoom offset**,pressing **ENTER** button and the display will blink.Use **Down** and **Up** button to adjust the home position of the Pan,Tilt, Zoom,Once the position has been selected,press the **ENTER** button to setup, to go back to the functions without any changes ,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. Control by Universal DMX controller
4.1 DMX 512 connection
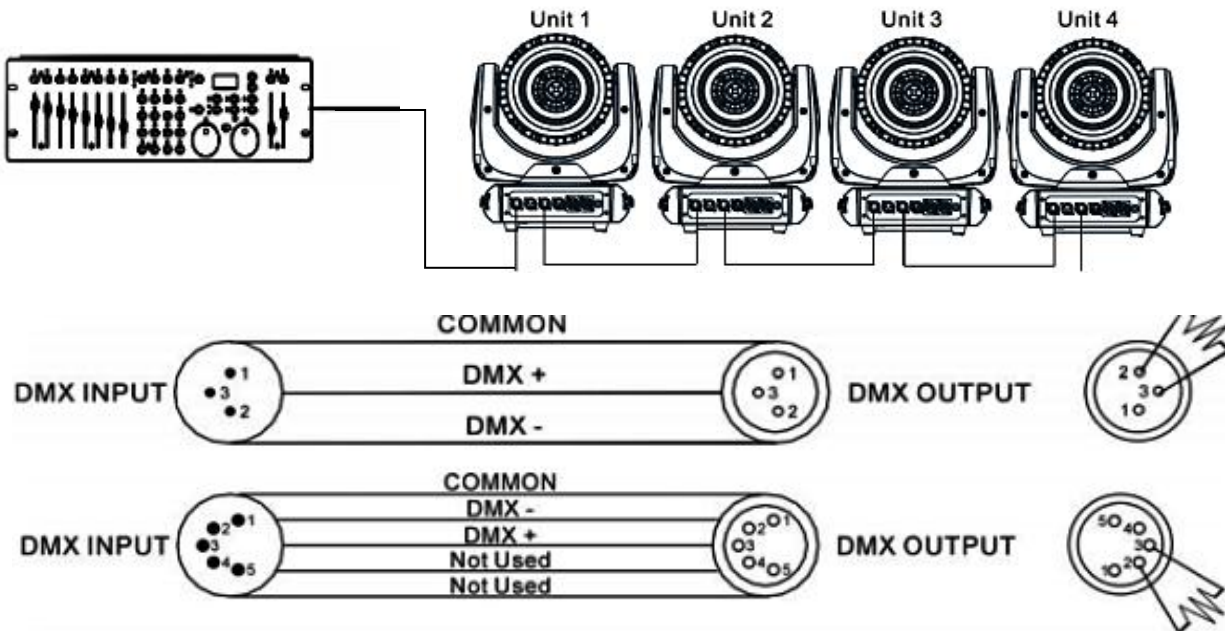
1. If you using a controller with 5 pins DMX output,you need to use a 5 to 3 pin adapter-cable.

2. At last unit,the DMX cable had to be terminated with a terminator.Solder a 120ohm 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 last unit.

3. Connect the unit together in a 'daisy chain' by XLR plug from the output of the unit ot the input of the next unit.The cable can not branched or split to a 'Y' cable.DMX512is a very high-speed signal.Inadequate or damage 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 unit's 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 DMX512 system should b terminated to reduce signal errors.

7. 3 pin XLR connectors are more popular than 5 pin XLR
    3 pin XLR :Pin 1:GND,Pin2:Negative signal(-),Pin3:Positive signal (+)
    3 pin XLR :Pin 1:GND,Pin2:Negative signal(-),Pin3:Positive signal (+),Pin4/Pin5: Not used

4.2 Address setting

If you using 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 **MENU** button to enter menu mode,select DMX functions.press **ENTER** button to confirm,Use **UP** and **DOWN** button to select DMX address,press **ENTER** button to confirm,the present address will blink on display.Use **UP** and **DOWN** button to adjust the address from 0 to 512,press **ENTER** button to store.Press **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 fro the first 4 units.

Channels	Unit 1 address	Unit 1 address	Unit 1 address	Unit 1 address
14 channel	1	15	29	43

4.3 DMX 512 Configuration

14 channel mode:

14 Channels

Ch1	Ch2	Ch3	Ch4	Ch5	Ch6	Ch7
Pan	Pan Fine	Tilt	Tilt Fine	P/T Speed	Reset	Dimmer

Ch1 Pan: 255 — 540°, 0 — 0°
Ch2 Pan Fine: 255, 0
Ch3 Tilt: 255 — 220°, 0 — 0°
Ch4 Tilt Fine: 255, 0
Ch5 P/T Speed: 255 — Slow, 0 — Fast

Ch6 Reset:
015-255 No function
010-014 Reset all
000-009 No function

Ch7 Dimmer: 255 — 100%, 0 — 0%

Ch8	Ch9	Ch10	Ch11	Ch12
Shutter	Beam Red	Beam Green	Beam Blue	Beam White

Ch8 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
020-024 open
000-019 closed

Ch9 Beam Red: 255 — 100%, 0 — 0%
Ch10 Beam Green: 255 — 100%, 0 — 0%
Ch11 Beam Blue: 255 — 100%, 0 — 0%
Ch12 Beam White: 255 — 100%, 0 — 0%

		Color wheel effect	
Ch 13	000-009	Open	
	010-014	LEE 790 - Moroccan pink	
	015-019	LEE 157 - pink	
	020-024	LEE 332 - Special rose pink	
	025-029	LEE 328 - Follies pink	
	030-034	LEE 345 - Fuchsia pink	
	035-039	LEE 194 - Surprise pink	
	040-044	LEE 181 - Congo blue	
	045-049	LEE 071 - Tokyo blue	
	050-054	LEE 120 - Deep blue	
	055-059	LEE 079 - Just blue	
	060-064	LEE 132 - Medium blue	
	065-069	LEE 200 - Double CT blue	
	070-074	LEE 161 - State blue	
	075-079	LEE 201 - Full CT blue	
	080-084	LEE 202 - Half CT blue	
	085-089	LEE 117 - Steel blue	
	090-094	LEE 353 - Lighter blue	
	095-099	LEE 118 - Light blue	
	100-104	LEE 116 - Medium blue green	
	105-109	LEE 124 - Dark green	
	110-114	LEE 139 - Primary green	
	115-119	LEE 089 - Moss green	
	120-124	LEE 122 - Fern green	
	125-129	LEE 738 - JAS green	
	130-134	LEE 088 - Lime green	
	135-139	LEE 100 - Spring yellow	
	140-144	LEE 104 - Deep amber	
	145-149	LEE 179 - Chrome orange	
	150-154	LEE 105 - Orange	
	155-159	LEE 021 - Gold amber	
	160-164	LEE 778 - Millennium gold	
	165-169	LEE 135 - Deep gold amber	
	170-174	LEE 164 - Flame red	
	175-179	Open	
		Color wheel rotation effect	
	180-201	Clockwise, fast to slow	
	202-207	Stop(this will stop wherever the color is at the time)	
	208-229	Counter-clockwise, slow to fast	
	230-234	Open	
		Random color	
	235-239	Fast	
	240-244	Medium	
	245-249	Slow	
	250-255	Open	
		Zoom	
Ch 14	000-255		

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 connections 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 setting and DMX polarity.
3.   If you have intermittent DMX signal problems,check the pins on connectors or in the PCB of the unit or the previous one.
4.   Try to use another DMX controller.
5.   Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C.   One of the channels is not working well.
1.   The stepper motor might be damage 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 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 fixture'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 at least 30/60 days.