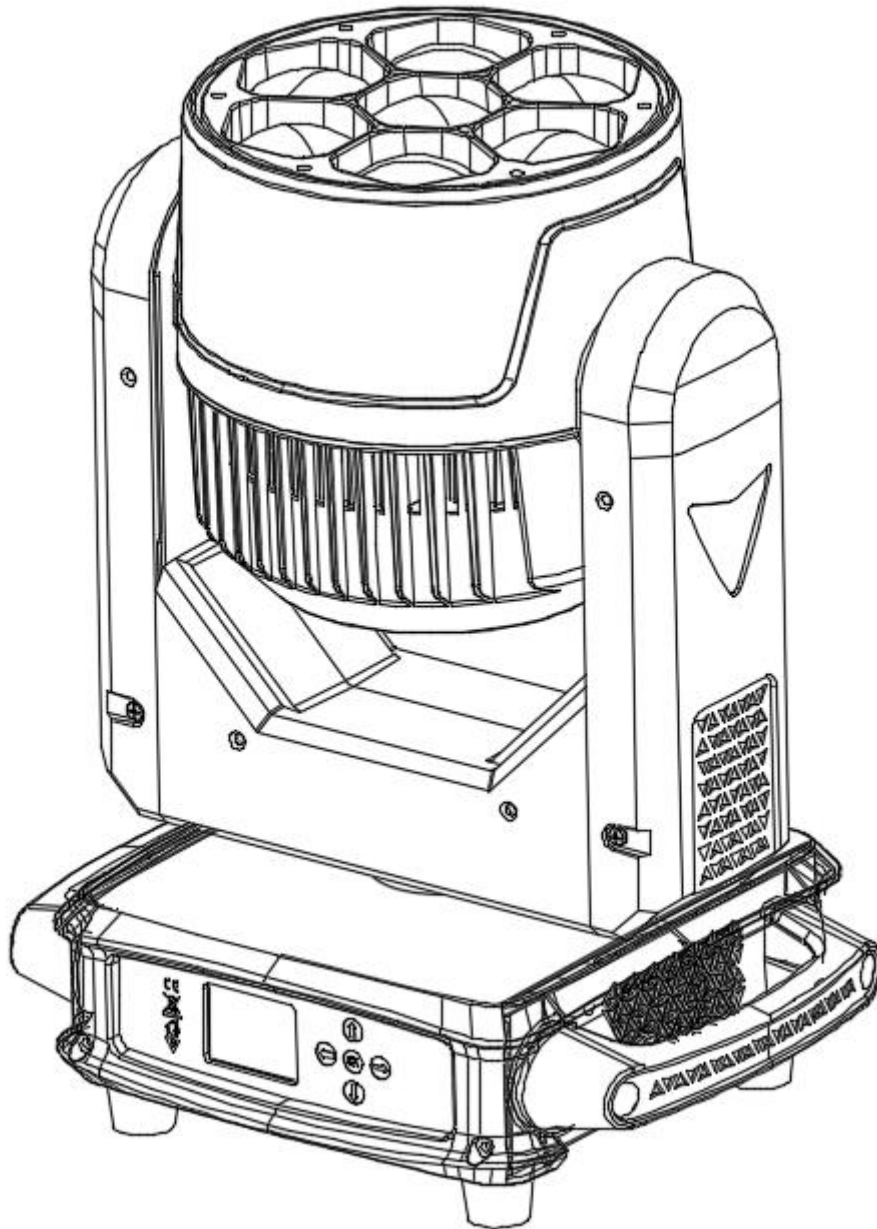# R740L

User manual

1. Safety Instructions
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 manual.
Important:
Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

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

This product is for indoor use only. Use only in a dry location.
DO install and operate by qualified operator.
DO NOT allow children to operate the fixture.
Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
Minimum ambient temperature TA: 0℃. Maximum ambient temperature TA: 40℃. Do not operate this product at a lower or higher temperature.
DO NOT connect the device to any dimmer pack.

Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.
DO NOT touch any wire during operation as there might be a hazard of electric shock.
Avoid entanglement of the power cord with other wires.
The minimum distance to objects/surface must be more than 1 meters.

Disconnect mains power before fuse/lamp replacement or servicing.

Replace fuse/lamp only with the same type.

In the event of serious operating problem, stop using the unit immediately.

Never turn on and off the unit time after time.

The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs

yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.

Disconnect this product from its power source before servicing.

DO use the original packaging if the device is to be transported.

Avoid direct eye exposure to the light source while the product is on.

Never touch bulb with bare fingers, as it is very hot after using.

DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once

Installation:

The fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing.DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2.INSTALLATIONS

installations Note: In order to increase protection, please install the lamp on the sidewalk, outside the seating area, or an area where unauthorized persons may touch the lamp

Before installing the fixture on any surface, make sure that the installation area can bear the minimum point load above 10   points of the weight of the equipment. The installation of the fixing device must always be fixed with auxiliary safety accessories (such as a suitable safety rope)

Do not stand directly under the equipment when installing, removing, or servicing fixtures

From the ceiling or set on a flat surface (see the picture below). Ensure that this fixture is kept at least 0.5m (1.5 feet) away from any flammable materials (decorations, etc.)

Be sure to use and install the supplied safety rope to ensure safety and prevent accidental damage and/or injury in case the fixture is damaged

Installation point: Overhead installation requires a wealth of experience, including calculation of working load limits, in-depth understanding of the installation materials used, and regular safety inspections of all installation materials and fixtures. If you do not have these qualifications, please do not try to install it yourself. Improper installation can cause personal injury

Before connecting the main power cord to an appropriate wall outlet, make sure to complete all assembly and installation procedures

LED installation: LED shaking head provides a unique mounting bracket assembly, which integrates the bottom of the base and the fixing point of the safety cable into one unit . When installing the fixture to the truss, make sure to use the appropriate tools to fix it on the attached bracket, and use the M10 screw that passes through the center hole of the "bracket" to fix it. As an additional safety measure, make sure to use at least one safety cable integrated in the base assembly to connect at least one appropriately rated safety cable to the fixture.

3. DMX-512 control connections

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple

Moving heads be connected together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors.

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below
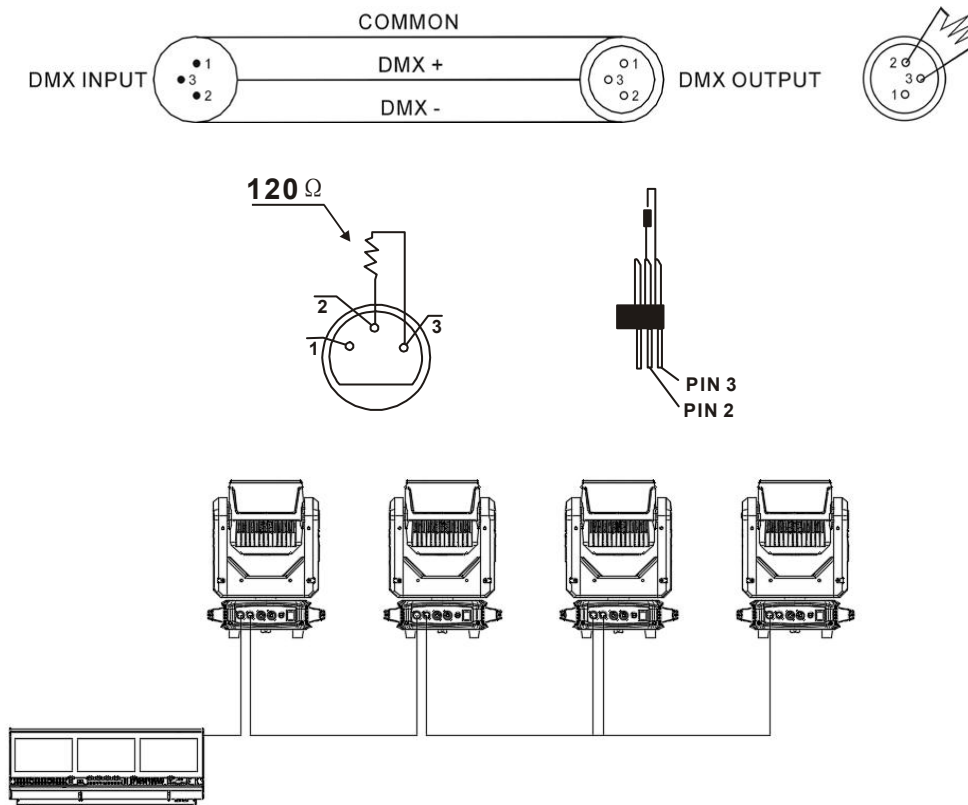
4.Address code setting

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 DMX Settings, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will blink in the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel MODE	UNIT1 ADDERSS	UNIT2 ADDERSS	UNIT3 ADDERSS	UNIT4 ADDERSS
23CH	1	24	47	70
35CH	1	36	71	106
51CH	1	52	103	155

5.Fixture size

6.Illuminance chart:

Distnace (m)	3m	5m	7m	10m
4° LUX	59840	31135	15418	7865
Diameter(m)	0.235	0.392	0.55	0.785
60° LUX	1950	820	403	208
Diameter(m)	2.48	4.14	5.8	8.3
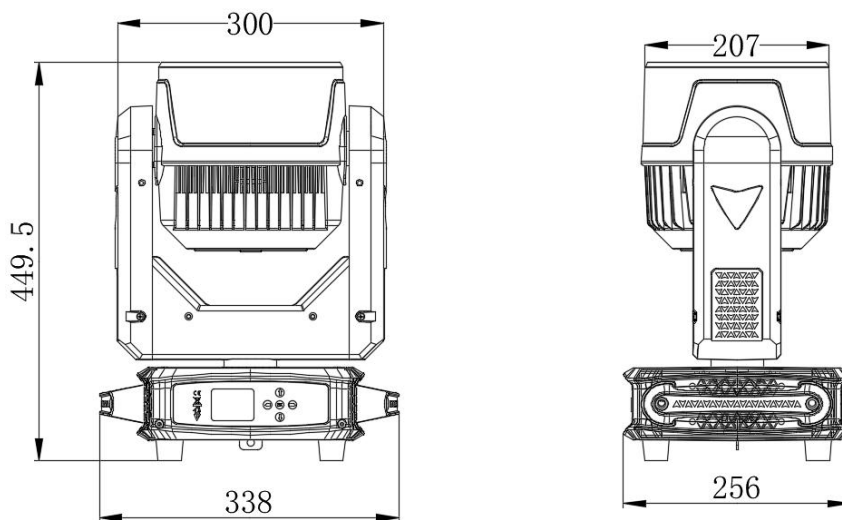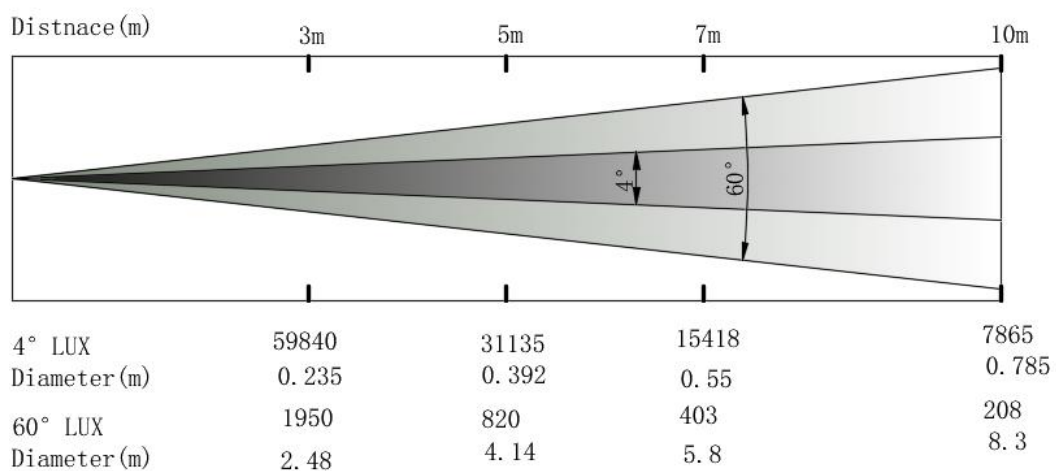
7. LED technical parameters

Input Voltage: 100-240V, 50/60Hz
Output Voltage: V1:36V(LED driver+ main board),
Power consumption: 300W
Power supply: 350W
Single LED power: 40W
Light source: 7x40W RGBW 4IN LED
Beam angle: 4-60°
Adjustable color temperature
DMX Channel: 23/35/51CH
Operate mode: DMX512, AUTO master/slave, Voice control，RDM
Electronic dimmer:0～100% linear
Linear CTO color temperature adjustment: 2500-8000K
Four dimming curve functions
Rich color gradient effects
Rich and diverse dynamic effects
Infinite color mixing
Equipped with a color correction system to ensure consistent color output
Automatically calculate the address code of the next fixture
Infinite honeycomb rotation, adjustable forward and backward speeds
Encoding positioning is used for the XY axis
Three phase silent motor fast and stable
Fast operation speed and noiseless operation
No flickering under high-definition camera
Dust and oil resistant design
Fixture size: 338*256*449.5mm

Feature:

LED shaking head dyeing light, with fast operation speed, no noise during operation, and no flicker under high-definition camera. It consists of 7 40W RGBW four color LEDs as a light source, creating a uniform color mixing system and rainbow effect, easily creating a fast and powerful beam, adding dynamism to the stage. Multiple channel modes are available, with point by point control of the light beads. The lighting engineer can flexibly switch colors, angles, and lighting effects. A linear focusing system with a beam angle of 4.5 ° -45 ° , multiple speed stroboscopic effects, and a smooth dimming function of 0~100% 16BIT. The shell is made of nylon material, which is wear-resistant and resistant to falling, and is a sturdy LCD display screen,

8.Menu Actions

8.1:Home interface menu display

First interface	Description	explain
address	001 - 512	Button up and down: Change the address code of this light, for example, if the channel value is 23CH, then the address code of this light is 1, and the address code of the next light is 24; Left and right buttons: Each time the address code of this light increases by 1 or the address code decreases by 1
signal	OK/NG	DMX signal
Channel	21CH/23CH/35CH	
Mode	DMX512/Auto1/auto2/sound	Current operating mode of the LED
TEMP	20℃	Current temperature of the LED
	**℃	Abnormal temperature display
Reset information	Display reset status	1) Normal 2) Exception: Reset the specific content of the exception. View the information options on the setting interface

8.2:Shortcut interface menu

shortcut menu	Description	explain
address	address：001 - 512	Same interface menu structure operation
Adjust	Enter password	LED calibration
中/EN	中/EN	Change Language
Normal	Normal	Screen does not display in reverse
	Invert	Screen inversion display
	Auto	The system can automatically rotate the screen according to the

		direction of gravity
Setup	Setup	Enter the settings interface

8.3:Settings interface menu

Main Menu	Secondary menu	tertiary menu/parameters
Address	001 - 512	
System settings	Run mode	DMX/sound/auto1/auto2
	Channel	23CH/35CH/51CH
	Pan def Pos	000
	Tilt def Pos	127
	Invert pan	on/off
	Invert Tilt	on/off
	Swap pan/tilt	on/off
	Fast dimming	on/off
	KEEP Signal	on/off/auto
	Encoder Correct	on/off
	Hall correct	中/EN
	Back lighting time	15s/30s/LOGO/OFF
	Curve	Curve1/Curve2/Curve3/Curve4
	Load default	OK/Cancel
Adjust	Enter password	xxxx
TEST	Current channel mode Channel	0-255
reset	Motor ON/OFF	
	Reset Head	
	Reset XY	
	Reset ALL	
Info	Error message	Display specific information content
	DMX data	Display specific testing content for DMX
	Sensor info	Display specific information of optocoupler and Hall
	Version	Display version number and RDM code
	Usage time	xxxxH

9.DMX512

<table>
<tr><th colspan="4">23CH</th></tr>
<tr><th>CH</th><th>function</th><th>DMX value</th><th>description</th></tr>
<tr><td>1</td><td>X</td><td>0-255</td><td>X rotate</td></tr>
<tr><td>2</td><td>X fine</td><td>0-255</td><td>X-axis fine adjustment</td></tr>
<tr><td>3</td><td>Y</td><td>0-255</td><td>Y rotate</td></tr>
<tr><td>4</td><td>Y fine</td><td>0-255</td><td>Y-axis fine adjustment</td></tr>
<tr><td>5</td><td>XY speed</td><td>0-255</td><td>Fast-slow</td></tr>
<tr><td>6</td><td>zoom</td><td>0-255</td><td>Angle From large to small</td></tr>
<tr><td rowspan="4">7</td><td rowspan="4">rotating</td><td>0-127</td><td>0-60 degree</td></tr>
<tr><td>128-188</td><td>Antiwise fast-slow</td></tr>
<tr><td>189-193</td><td>Stop</td></tr>
<tr><td>194-255</td><td>Forward slow-fast</td></tr>
<tr><td>8</td><td>dimmer</td><td>0-255</td><td>Linear dimming from dark to light</td></tr>
<tr><td rowspan="10">9</td><td rowspan="10">strobe</td><td>0-3</td><td>OFF</td></tr>
<tr><td>4-103</td><td>Synchronous strobe speed from slow to fast (1HZ-25HZ)</td></tr>
<tr><td>104-107</td><td>Open</td></tr>
<tr><td>108-207</td><td>Split the strobe speed from slow to fast (1HZ-25HZ)</td></tr>
<tr><td>208-212</td><td>Open</td></tr>
<tr><td>213-225</td><td>Low speed random strobe</td></tr>
<tr><td>226-238</td><td>Medium speed random strobe</td></tr>
<tr><td>239-251</td><td>High speed random strobe</td></tr>
<tr><td>252-255</td><td>Open</td></tr>
<tr><td>10</td><td>R</td><td>0-255</td><td>From dark-bright</td></tr>
<tr><td>11</td><td>G</td><td>0-255</td><td>From dark-bright</td></tr>
<tr><td>12</td><td>B</td><td>0-255</td><td>From dark-bright</td></tr>
<tr><td>13</td><td>W</td><td>0-255</td><td>From dark-bright</td></tr>
<tr><td>14</td><td>CT</td><td>0-255</td><td>Linear CT control</td></tr>
<tr><td>15</td><td>Color Macro</td><td>0-255</td><td>Inner color gradual change</td></tr>
<tr><td>16</td><td>Static effects</td><td>0-255</td><td>5 no. One effect</td></tr>
<tr><td>17</td><td>Dynamic effects</td><td>0-255</td><td>5 no. One effect</td></tr>
<tr><td>18</td><td>Dynamic</td><td>0-127</td><td>Forward from fast-slow</td></tr>
</table>

CH	function	DMX value	description
	effects Speed	128-255	Reverse from slow-fast
19	Background R	0-255	Dark-bright
20	Background G	0-255	Dark-bright
21	Background B	0-255	Dark-bright
22	Background W	0-255	Dark-bright
23	reset	0-79	No function
		80-99	Curve 1 (5s)
		100-119	Curve 2 (5s)
		120-139	Curve 3 (5s)
		140-159	Curve 4 (5s)
		160-179	Slow dimming mode (5s)
		180-199	Fast dimming mode (5s)
		200-209	Effect motor reset (5s)
		210-219	XY motor reset (5s)
		220-229	Reset all motors (5s)

35CH			
CH	function	DMX value	description
1	R	0-255	Red dimmer
2	R Fine	0-255	Red dimmer fine
3	G	0-255	Green dimmer
4	G Fine	0-255	Green dimmer fine
5	B	0-255	Blue dimmer
6	B fine	0-255	Blue dimmer fine
7	W	0-255	White dimmer
8	W Fine	0-255	White dimmer fine
9	CT	0-255	Linear CT control
10	Color Macro	0-255	Color Macro function
11	strobe	0-3	off
		4-103	Synchronous strobe slow-fast（1HZ-25HZ）
		104-107	on
		108-207	Divide strobe from slow-fast（1HZ-25HZ）

		208-212	on
		213-225	Random strobe in low speed
		226-238	Random strobe in middle speed
		239-251	Random strobe in high speed
		252-255	on
12	dimmer	0-255	Linear dimmer from dark-bright
13	Dimmer Fine	0-255	Dimmer fine
14	X	0-255	pan
15	X fine	0-255	Pan fine
16	Y	0-255	tilt
17	Y fine	0-255	Tilt fine
18	function	0-255	reserve
19	reset	0-79	No function
		80-99	Curve 1 (5s)
		100-119	Curve 2 (5s)
		120-139	Curve 3 (5s)
		140-159	Curve 4 (5s)
		160-179	Slow dimming mode (5s)
		180-199	Fast dimming mode (5s)
		200-209	Effect motor reset (5s)
		210-219	XY motor reset (5s)
		220-229	Reset all motors (5s)
20	zoom	0-255	zoom
21	rotating	0-127	0-60 degree
		128-188	Antiwise fast-slow
		189-193	Stop
		194-255	Forward slow-fast
22	pattern	0-255	Pattern rotate
23	Pattern speed	0-255	Pattern speed
24	Pattern effect fade	0-255	Pattern effect fade
25	Pattern effect R	0-255	Pattern effect R
26	Pattern effect G	0-255	Pattern effect G
27	Pattern effect B	0-255	Pattern effect B
28	Pattern effect W	0-255	Pattern effect W
29	Pattern dimmer	0-255	Pattern 0-100% dimmer

30	Background dimmer	0-255	Background 0-100% dimmer
31	Pattern Transition	0-255	Pattern change control
32	Pattern angle adjustment	0-255	Pattern translation
33	Prospect strobe	0-255	Prospect strobe（with 11 chs）
34	Background strobe	0-255	Background strobe（with 11 chs）
35	Background selection	0-255	Background selection

51CH			
ch	function	DMX value	description
1	X	0-255	pan
2	X fine	0-255	Pan fine
3	Y	0-255	tilt
4	Y fine	0-255	Tilt fine
5	XY speed	0-255	Fast-slow
6	zoom	0-255	Small-big
7	rotating	0-127	0-60 degree
		128-188	Antiwise fast-slow
		189-193	Stop
		194-255	Forward slow-fast
8	dimmer	0-255	Dark-bright
11	strobe	0-3	off
		4-103	Synchronous strobe slow-fast（1HZ-25HZ）
		104-107	on
		108-207	Divide strobe from slow-fast （1HZ-25HZ）
		208-212	on
		213-225	Random strobe in low speed
		226-238	Random strobe in middle speed
		239-251	Random strobe in high speed
		252-255	on
10	R dimmer	0-255	
11	G dimmer	0-255	

12	B dimmer	0-255	
13	W dimmer	0-255	
14	CT	0-255	Linear CT control
15	Wash	0-255	
16	Static effect	0-255	5 no. One effect
17	Dynamic effect	0-255	5 no. One effect
18	Dynamic effect speed	0-127	Forward fast-slow
		128-255	Reverse slow-fast
19	Background R	0-255	Dark-bright
20	Background G	0-255	Dark-bright
21	Background B	0-255	Dark-bright
22	Background W	0-255	Dark-bright
19	reset	0-79	No function
		80-99	Curve 1 (5s)
		100-119	Curve 2 (5s)
		120-139	Curve 3 (5s)
		140-159	Curve 4 (5s)
		160-179	Slow dimming mode (5s)
		180-199	Fast dimming mode (5s)
		200-209	Effect motor reset (5s)
		210-219	XY motor reset (5s)
		220-229	Reset all motors (5s)
24	R1 LED dimmer	0-255	R1 LED dimmer
25	G1 LED dimmer	0-255	G1 LED dimmer
26	B1 LED dimmer	0-255	B1 LED dimmer
27	W1 LED dimmer	0-255	W1 LED dimmer
…	…	……	……
…	…	……	……
48	R7 LED dimmer	0-255	R7 LED dimmer
49	G7 LED dimmer	0-255	G7 LED dimmer
50	B7 LED dimmer	0-255	B7 LED dimmer
51	W7 LED dimmer	0-255	W7 LED dimmer

9.Trouble shooting

**Following are a few common problems that may occur during operation.
Here are some suggestions for easy troubleshooting:
The unit does not work, no light and the fan does not work**

Check the connection of power and main fuse.

Measure the mains voltage on the main connector.

Check the power on LED.

Not responding to DMX controller

DMX LED should be on. If not, check DMX connectors, cables to see if link properly.

If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.

If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.

Try to use another DMX controller.

Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

One of the channels is not working well
The stepper motor might be damaged or the cable connected   to   the PCB is broken.

10. 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 greater accumulation of dirt on the unit's optics.

**1.Clean with soft cloth using normal glass cleaning fluid.
2.Always dry the parts carefully.
3.Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.**