

**LiGHT SKY**  
FLY DRAGON LIGHTING EQUIPMENT CO.,LTD

## **AQUAPEARL-SMART User Manual**

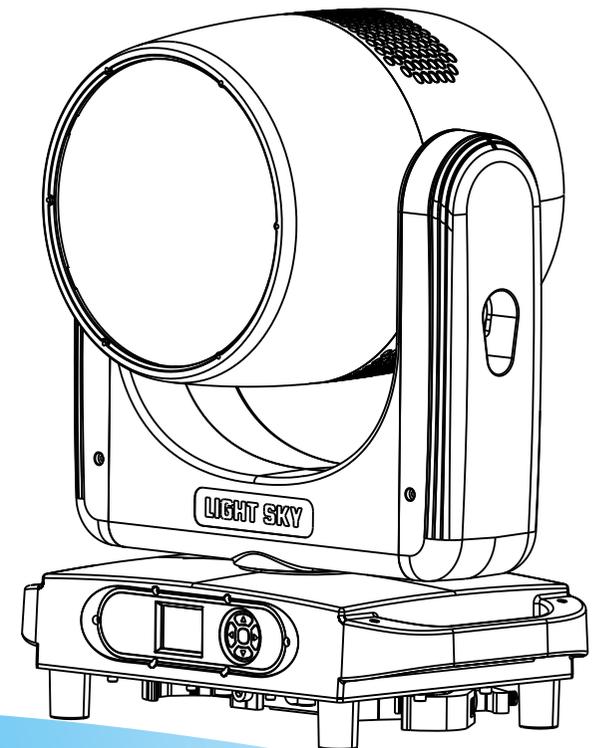
Web: [www.lightsky.com.cn](http://www.lightsky.com.cn)  
Tel: 0086-20-61828288  
Fax: 0086-20-61828188 Pc: 510820  
E-mail: [flydragon@lightsky.com.cn](mailto:flydragon@lightsky.com.cn)  
Address: No. 4, Jingneng Road 1,  
Huadu District, Guangzhou, China



**LiGHT SKY**



[WWW.LIGHTSKY.COM.CN](http://WWW.LIGHTSKY.COM.CN)



**Please read the instruction carefully bef!**

## CONTENTS

1. Safety Instructions.....	2
2. Technical Specifications .....	5
2.1. Attachment And Size .....	7
3. Connection and control .....	8
3.1. Power supply connection.....	8
3.2. DMX 512 Connection .....	9
3.3. Control Panel.....	10
4. How To Set The Unit.....	11
4.1. Main Function .....	11
4.2. Address Setting.....	13
4.3. DMX 512 Configuration .....	14
5. Electrical Connection Diagram .....	25
6. Troubleshooting.....	26
7. Fixture Cleaning.....	28
8. Duty exonerative and copyright protectio .....	28

### **Congratulations on choosing our company product! We thank you for your custom.**

- ◆ Please keep in mind that this product, like other products of the company, adheres to the concept of people-oriented design and manufacture, and takes product quality as the foundation.
- ◆ We put the interests of customers first, and do our best to meet customer requirements.
- ◆ Please read this instruction manual carefully and keep it for future reference. In the case of fully understanding the product information, strictly abide by theUse the instruction manual to ensure that the product is installed, used and serviced correctly and safely.
- ◆ Our company is not responsible for any damage to lamps or other performance due to personal failure to follow the instructions during installation, use and maintenance.responsibility.
- ◆ Our company reserves the right to modify the manual at any time and without prior notice.

## 1.Safety Instructions



Please read the instruction carefully which includes important information about the installation, usage and maintenance.

### WARNING

Please keep this User Manual for future consultation. If you sell the unit to another user, be sure that they also receive this manual.

The following symbols are used to identify important safety information on the product and in this manual:

<b>DANGER!</b> Safety hazard. Risk of severe injury or death.	<b>DANGER!</b> Refer to manual before installing, powering or servicing.	<b>DANGER!</b> Hazardous voltage.Risk of severe or lethal electric shock.	<b>Warning!</b> Fire hazard.	<b>Warning!</b> Burn hazard. Hot surface. Not touch. Do not touch	<b>Warning!</b> Risk of eye injury.Safety glasses must be worn.	<b>Warning!</b> Risk of hand injury. Safety gloves must be worn.	Avoid direct eye contact
Applies only to luminaires directly mounted on surfaces of non-combustible materials	Do not discard Trash can	Mark of ground	Replace all shatter shields	Take a short distance from the object to be photographed (meters)	Rated maximum ambient temperature	Do not point the lens towards the sun or strong light	Operation not allowed during runtime

### 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.
- Do install and operate by qualified operator.
- The light source in this luminaire should be replaced by the manufacturer or its service agent or a similarly qualified person, always cut off the power supply before replacing the light source.
- 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 20cm 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: -20°C. Maximum ambient temperature Ta: 45°C.  
Do not operate this product at a lower or higher temperature.
- Do not connect the device to any dimmer pack.
- When the lamp is running, do not place combustible objects next to it. The shortest distance between the device and inflammable and explosive objects or materials is 0.5m.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Unit's surface temperature may reach up to 55°C. Do not touch the housing bare-handed during its operation.
- 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 3 meters.
- 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 open the housing as there are no user serviceable parts inside.
- 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.

- 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. Technical Specifications

### OPTICS

- Light source: 12 × 40W RGBW LED
- Beam angle: 3.6 °~40 °
- Spot angle: 5 °~50 °
- Color temperature: 2500K-10000K
- Illuminance: 38000 lux @ 5 meters
- Luminous flux: 7100 Lm
- Average lifespan of light source: 20000H

### EFFECT

- Color Mixing System: Uniform RGBW Color Mixing System and Rainbow Effect.
- Zoom system: linear electric zoom.
- Single point control: The light source supports independent control of a single element, with outstanding transformation effects.
- Front aperture: The front aperture can be controlled at a single point, allowing for free pursuit of flowing color changing effects.
- Effect macros: static effect macros and dynamic effect macros functions.
- Dimming: Electronic dimming, providing four dimming curves+four dimming frequencies+four dimming speeds.
- Strobe: 1-30Hz electronic strobe and random strobe.

### CONTROL AND PROGRAMMING

- Control channels: standard 28CH, 40CH, 72CH, 35CH, see channel table for details
- Control protocols: Standard DMX512 protocol, RDM protocol, Art Net protocol, sACN protocol
- Data connection: Three core or five core signal input/output
- Display: LCD screen

### SOFTWARE

- Upgrade software through DMX signal interface
- Upgrade software via USB interface (optional)
- Intelligent temperature control ensures LED lifespan

### X/Y AXIS MOTION ANGLE

- X-axis: 540 ° (8-bit/16bit precision scanning)
- Y-axis: 270 ° (8-bit/16bit precision scanning)
- Reset function with automatic error correction
- Fixed lock: Y-axis lock

**POWER**

- Input voltage: AC 100-240V 50/60Hz
- Maximum power: 560W
- Power factor: 0.996
- Maximum current of the lamp: 2.43A/220V, 5.0A/110V

**DIMENSION**

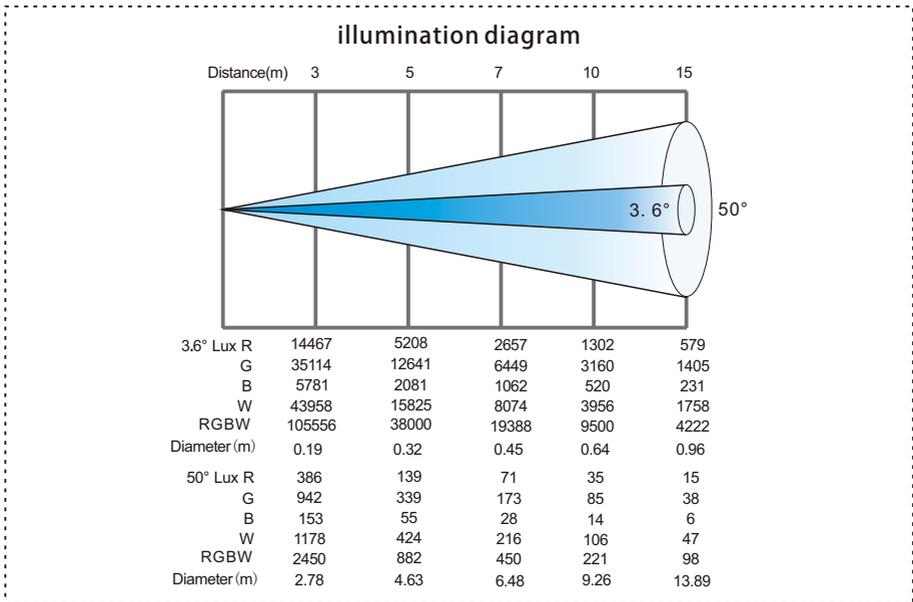
- Product size: 397 × 280 × 539mm
- N.W.: 21.1 kg
- Carton packaging (default): 470 × 350 × 670mm
- G.W.: 25.3 kg
- Flycase Size(2 unit ): 720 × 520 × 745 mm
- G.W.: 81kg

**OTHER**

- Protection level: Ip66
- Working environment: -20 °C~45 °C
- Maximum surface temperature of lamp body: 55 °C

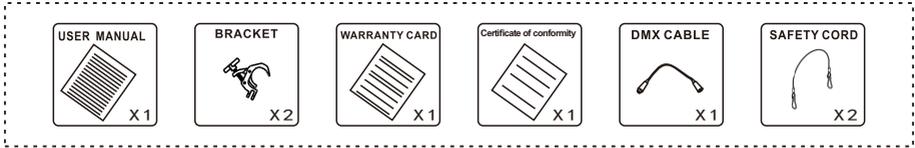
**APPROVALS**

- The product implementation standard: GB/T 7000.1-2023 、 GB/T 7000.217-2023
- Approved certifications: CE、 RoHs
- The product complies with the following EU directives:  
Low Voltage Directive 2014/35/EU . EMC Directive 2014/30/EU

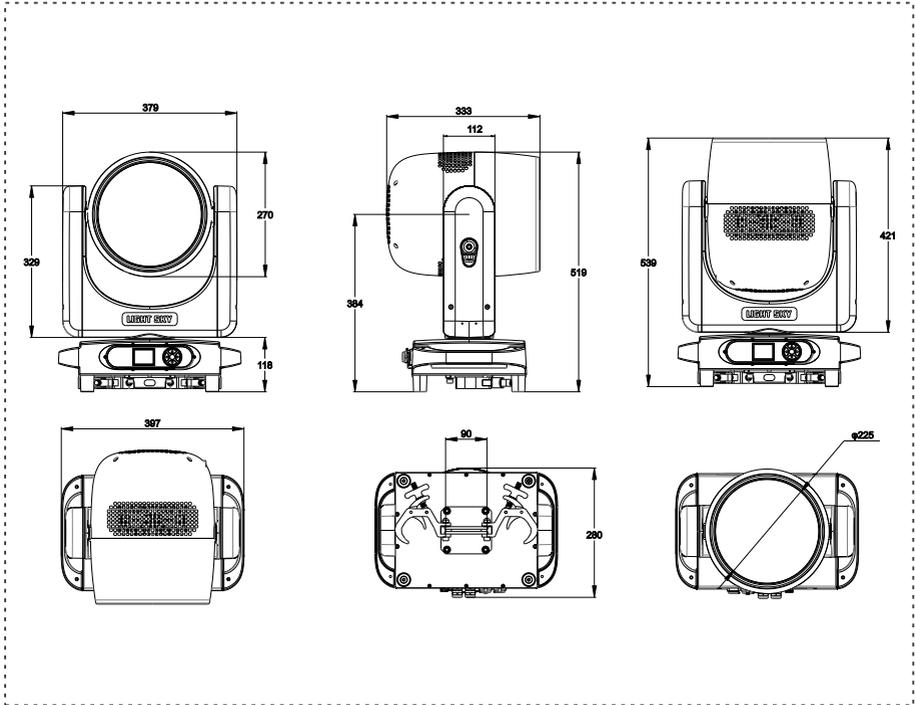


## 2.1.Attachment And Size

Attachment contents-Fig.1

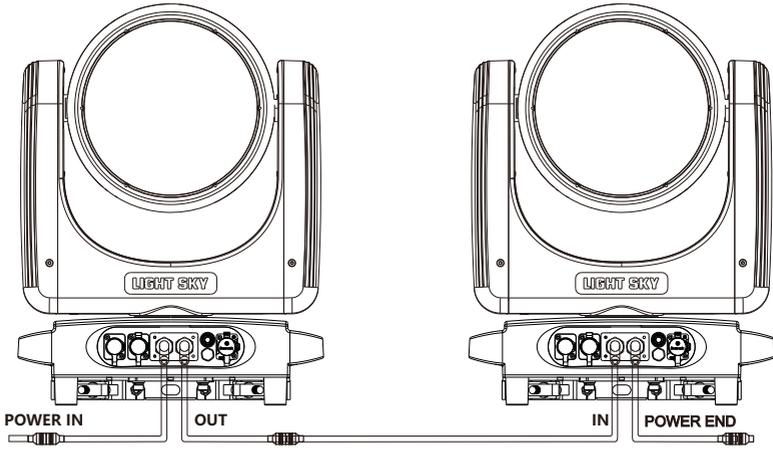


Size-Fig.2 (Unit:mm)



### 3.Connection and control

#### 3.1.Power supply connection

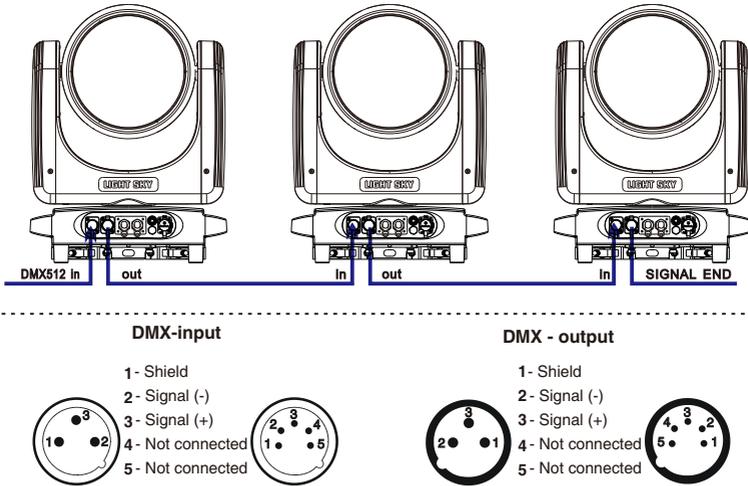


The color code and power connection of the power cord are shown in the table below:

Conductor	Symbol	Wire Color (EU models)	Wire Color (US models)
live	<b>L</b>	brown	black
neutral	<b>N</b>	blue	white
ground(earth)	 or 	yellow-green	green

- The bus connecting the power supply must be installed by a qualified professional technician.
- After completing all the above operations and ensuring that it is installed, you can power on the lamp to operate.

## 3.2.DMX 512 Connection



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120  $\Omega$  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 unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable cannot be 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.

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

4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

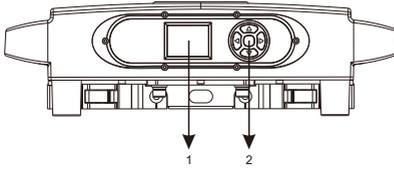
5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

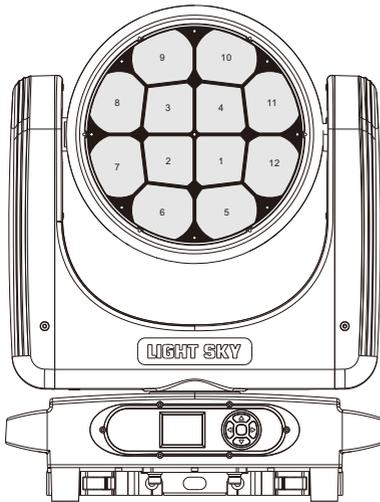
5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

### 3.3.Control Panel



1. Display: To show the various menus and the selected function.
2. Button :

<b>OK</b>	OK confirmation key
▲	UP
▼	DOWN
◀	To the left
▶	To the right



Light source control sequence

## 4.How To Set The Unit

### 4.1.Main Function

The lamp is powered on. When the system initialization and lamp reset are completed, and the standby interface is displayed on the display screen, press OK to enter the preset menu interface. The main functions are as follows:

Main menu	I menu	II menu	III menu	IV menu				
Dmx Setting A	1. Address	→ 001-512 28CH						
	2. Channel	→ 40CH 72CH 35CH						
	3. State	→ Black Hold						
	4. InputMode	→ DMX ARTNET		This menu can only be displayed when connected to the ARTNET module				
Information	1. Time	→ Total Power Time ***H Power Time **:*I Total Light Time ***H Light time **:*I						
	2. Temperature	→ Head Temp ***°C						
	3. Fan Information		LedFanVol ***V LedFan1Sp ***R LedFan2Sp ***R LedFan3Sp ***R LedFan4Sp ***R LedFan5Sp ***R BaseFanVol **:*V BaseFan1Sp ***R BaseFan2Sp ***R					
		4. Fixture Status		MCU(XY) *** MCU(ZOOM) *** MCU(LED1) *** MCU(LED2) *** MCU(LED3) *** Fan *** Tilt *** Zoom *** Zoom Rot *** LedFan1 *** LedFan2 *** LedFan3 *** LedFan4 *** LedFan5 *** Basefan1 *** Basefan2 ***				
			5. RDM UID	→ 3888:*****				
			6. DMX Live		1. Pan *** 2. PanFine *** 3. ....			
				7. Software		1. Display Ver. Vxxx 2. XY Ver. Vxxx 3. ZOOM Ver. Vxxx 4. LED1 Ver. Vxxx 5. LED2 Ver. Vxxx 6. LED3 Ver. Vxxx		
					1. Dimmer&Fan Setting	1. Dimmer Curve	→ Linear(Default) Square I-Square S-Curve	
			→ 1800HZ 3600HZ 7200HZ(Default) 25000HZ					
	2. Dimmer Freq							
			3. Dimmer Speed	→ Normal(Default) Smooth 1 Smooth 2 Smooth 3				
				→ Standard(Default) Hhighlight Silent				
	4. Fan Mode							

Main menu	I menu	II menu	III menu	IV menu	
	2. PanTilt Setting	1. Pan Invert	→ OFF ON		
		2. Tilt Invert	→ OFF ON		
		3. P/T Rectify	→ OFF ON		
		4. P/T Mode	→ Normal (Default) Fast Precise		
	3. Display Setting	1. Language	→ EN(Default) ZH		
		2. Dis. Backlight.	→ OFF(Default) ON		
		3. Dis. Direction	→ Forward(Default) Reverse		
		4. Dis. Blink	→ OFF ON (Default)		
	4. Artnet Setting	IP Address	→ ***.***.***.***		This menu can only be displayed when connected to the ARTNET module
		Mask Address	→ ***.***.***.***		
		Net Address	→ 0-127		
		Sub Net Address	→ 0-15		
	Manual	1. Channel	→ 1. Pan *** 2. Pan Fine *** 3. ....		
2. Reset		→ 1. PanTilt 2. Head Module 3. All			
Service	1. Calibrate	1. Pan ***			
		2. Tilt ***			
		3. Zoom ***			
		4. Zoom Rot ***			
		5. Red1 ***			
		6. Green1 ***			
7. Blue1 ***					
8. White1 ***					
9. Red2 ***					
10. Green2 ***					
11. Blue2 ***					
12. White2 ***					
.....					
52. Red12 ***					
53. Green12 ***					
54. Blue12 ***					
55. White12 ***					
	2. Factory Reset	→ Password: ****	→ NO/YES		
	3. Reset timers	→ Password: ****	→ 1. Total Power Time	NO	
			→ 2. Total Light Time	YES	
			→ 3. Power Time	NO	
			→ 4. Light time	YES	
4. Developer	→ Password: ****				
Language	→ EN				
	→ ZH				
Test	→ 1. Test PanTilt	→ Running:Step ***/***			
	→ 2. Test Head Module	→ Running:Step ***/***			
	→ 3. Test All	→ Running:Step ***/***			
Display Rotate	→ Normal				
	→ Rotate 180				

## 4.2.Address Setting

Enter MENU, select the DMX setting function, select the address code setting, press the OK button to confirm, the current DMX address will be displayed on the display. Use the up/down buttons to select addresses 001~512, and press the OK button to save. Press the OK button to return to the previous menu.

**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
28 CH	1	29	57	85
40 CH	1	41	81	121
72 CH	1	73	145	217
35 CH	1	36	71	106

## 4.3.DMX 512 Configuration

Please control the fixture by referring to the configurations below

28 CH	40 CH	72 CH	DMX	Function	Note			
1	1	1	0-255	Pan				
2	2	2	0-255	Pan Fine				
3	3	3	0-255	Tilt				
4	4	4	0-255	Tilt Fine				
5	5	5	0-25	Special functions				
			0-25	No Function				
			26-30	Zoom Reset				
			31-40	P/T Reset				
			41-50	Fixture Reset				
			51-55	LED NORMAL FAN				
			56-60	LED MAXIMAL FAN				
			61-65	LED MINIMAL FAN				
			66-70	LED SILENT FAN				
			71-75	Display blink on				
			76-80	Display blink off				
			81-85	DISPLAY ON				
			86-90	DISPLAY OFF				
			91-95	Pan invert on				
			96-100	Pan invert off				
			101-105	Tilt invert on				
			106-110	Tilt invert off				
			111-115	1800HZ				
			116-120	3600HZ				
			121-125	7200HZ				
			126-130	25000HZ				
			131-135	Dimmer curve linear				
			136-140	Dimmer curve square				
			141-145	Dimmer curve inv-square				
146-150	Dimmer curve "S"							
151-155	Dimmer Speed1							
156-160	Dimmer Speed2							
161-165	Dimmer Speed3							
166-170	Dimmer Speed4							
171-175	XY Normal mode							
176-180	XY Fast mode Speed3							
181-185	XY Precise mode							
186-255	No Function							
6	6	6	0-255	Zoom				
7	7	7	0-127	Zoom Rotation				
			128-190	LENS ANGLE 0-90°				
			191-192	CW Rotation speed Fast to Slow				
			193-255	Stop rotation				
			193-255	CCW Rotation speed Slow to Fast	It only has an effect when the 6th channel ZOOM<66			
8	8	8	0-255	Dimmer from 0% to 100% (0=default)				
9	9	9	0-255	Dimmer Fine from 0% to 100% (0=default)				
10	10	10	0-9	Shutter				
			10-49	No Function				
			50-89	Slow closing, Fast opening, Slow → Fast				
			90-119	Fast closing, Slow opening, Slow → Fast				
			120-179	Slow closing, Slow open, Slow → Fast				
			180-249	Random strobe, Slow → Fast				
			250-255	Synchronous strobe, Slow → Fast				
			250-255	Shutter open				
			0-4	Macro				
			5-19	No Function				
			20	CCT				
			21	LEE 002 Rose Pink				
			22	LEE 004 Medium Bastard Amber				
			23	LEE 007 Pale Yellow				
			24	LEE 008 Dark Salmon				
			25	LEE 009 Pale Amber Gold				
			26	LEE 010 Medium Yellow				
			27	LEE 013 Straw Tint				
			28	LEE 015 Deep Straw				
			29	LEE 017 Surprise Peach				
			30	LEE 020 Medium Amber				
			31	LEE 022 Dark Amber				
			32	LEE 025 Sunset Red				
			33	LEE 026 Bright Red				
			34	LEE 036 Medium Pink				
			35	LEE 048 Rose Purple				
			36	LEE 058 Lavender				
			37	LEE 063 Pale Blue				
			38	LEE 068 Sky Blue				
			39	LEE 071 Tokyo Blue				
			40	LEE 075 Evening Blue				
			41	LEE 088 Lime Green				
			42	LEE 089 Moss Green				
			43	LEE 090 Dark Yellow Green				
			44	LEE 101 Yellow				
			45	LEE 103 Straw				
						45	LEE 104 Deep Amber	

28 CH	40 CH	72 CH	DMX	Function	Note
			46	LEE 105 Orange	
			47	LEE 106 Primary Red	
			48	LEE 107 Light Rose	
			49	LEE 108 English Rose	
			50	LEE 109 Light Salmon	
			51	LEE 110 Middle Rose	
			52	LEE 111 Dark Pink	
			53	LEE 113 Magenta	
			54	LEE 115 Peacock Blue	
			55	LEE 117 Steel Blue	
			56	LEE 118 Light Blue	
			57	LEE 119 Dark Blue	
			58	LEE 121 LEE Green	
			59	LEE 122 Fern Green	
			60	LEE 124 Dark Green	
			61	LEE 126 Mauve	
			62	LEE 127 Smokey Pink	
			63	LEE 128 Bright Pink	
			64	LEE 131 Marine Blue	
			65	LEE 132 Medium Blue	
			66	LEE 134 Golden Amber	
			67	LEE 135 Deep Golden Amber	
			68	LEE 137 Special Lavender	
			69	LEE 138 Pale Green	
			70	LEE 139 Primary Green	
			71	LEE 140 Summer Blue	
			72	LEE 141 Bright Blue	
			73	LEE 142 Pale Violet	
			74	LEE 143 Pale Navy Blue	
			75	LEE 144 No Colour Blue	
			76	LEE 147 Apricot	
			77	LEE 148 Bright Rose	
			78	LEE 151 Gold Tint	
			79	LEE 152 Pale Gold	
			80	LEE 153 Pale Salmon	
			81	LEE 154 Pale Rose	
			82	LEE 156 Chocolate	
			83	LEE 157 Pink	
			84	LEE 158 Deep Orange	
			85	LEE 161 Slate Blue	
			86	LEE 162 Bastard Amber	
			87	LEE 164 Flame Red	
			88	LEE 165 Daylight Blue	
			89	LEE 170 Deep Lavender	
			90	LEE 172 Lagoon Blue	
			91	LEE 174 Dark Steel Blue	
			92	LEE 176 Loving Amber	
			93	LEE 179 Chrome Orange	
			94	LEE 180 Dark Lavender	
			95	LEE 181 Congo Blue	
			96	LEE 183 Moonlight Blue	
			97	LEE 192 Flesh Pink	
			98	LEE 194 Surprise Pink	
			99	LEE 195 Zenith Blue	
			100	LEE 196 True Blue	
			101	LEE 197 Alice Blue	
			102	LEE 198 Palace Blue	
			103	LEE 199 Regal Blue	
			104	LEE 200 Double CTB	
			105	LEE 201 Full CTB	
			106	LEE 202 Half CTB	
			107	LEE 203 Quarter CTB	
11	11	11	108	LEE 204 Full CTO	
			109	LEE 205 Half CTO	
			110	LEE 206 Quarter CTO	
			111	LEE 207 Full CTO + .3 ND	
			112	LEE 208 Full CTO + .6 ND	
			113	LEE 212 LCT Yellow (Y1)	
			114	LEE 213 White Flame Green	
			115	LEE 219 LEE Fluorescent Green	
			116	LEE 230 Super Correction LCT Yellow	
			117	LEE 232 Super Correction W.F. Green	
			118	LEE 236 HMI (to Tungsten)	
			119	LEE 237 CID (to Tungsten)	
			120	LEE 238 CSI (to Tungsten)	
			121	LEE 241 LEE Fluorescent	
			122	LEE 242 LEE Fluorescent	
			123	LEE 243 LEE Fluorescent	
			124	LEE 244 LEE Plus Green	

28 CH	40 CH	72 CH	DMX	Function	Note
			125	LEE 245 Half Plus Green	
			126	LEE 247 LEE Minus Green	
			127	LEE 248 Half Minus Green	
			128	LEE 249 Quarter Minus Green	
			129	LEE 281 Three Quarter CTB	
			130	LEE 283 One and a Half CTB	
			131	LEE 285 Three Quarter CTO	
			132	LEE 286 One and a Half CTO	
			133	LEE 287 Double CTO	
			134	LEE 322 Soft Green	
			135	LEE 323 Jade	
			136	LEE 327 Forest Green	
			137	LEE 328 Follies Pink	
			138	LEE 332 Special Rose Pink	
			139	LEE 343 Special Medium Lavender	
			140	LEE 345 Fuchsia Pink	
			141	LEE 352 Glacier Blue	
			142	LEE 353 Lighter Blue	
			143	LEE 354 Special Steel Blue	
			144	LEE 363 Special Medium Blue	
			145	LEE 366 Cornflower	
			146	LEE 441 Full CT Straw	
			147	LEE 442 Half CT Straw	
			148	LEE 444 Eighth CT Straw	
			149	LEE 500 Double New Colour Blue	
			150	LEE 501 New Colour Blue (Robertson Blue)	
			151	LEE 502 Half New Colour Blue	
			152	LEE 504 Waterfront Green	
			153	LEE 505 Sally Green	
			154	LEE 506 Marlene	
			155	LEE 507 Madge	
			156	LEE 508 Midnight Maya	
			157	LEE 525 Argent Blue	
			158	LEE 550 ALD Gold	
			159	LEE 604 Full CT Eight Five	
			160	LEE 650 Industry Sodium	
			161	LEE 651 HI Sodium	
			162	LEE 652 Urban Sodium	
			163	LEE 700 Perfect Lavender	
			164	LEE 701 Provence	
			165	LEE 702 Special Pale Lavender	
			166	LEE 703 Cold Lavender	
			167	LEE 704 Lily	
			168	LEE 706 King Fals Lavender	
			169	LEE 708 Cool Lavender	
			170	LEE 709 Electric Lilac	
			171	LEE 710 Spir Special Blue	
			172	LEE 711 Cold Blue	
			173	LEE 712 Bedford Blue	
			174	LEE 714 Elysian Blue	
			175	LEE 715 Cabana Blue	
			176	LEE 716 Mikkel Blue	
			177	LEE 719 Colour Wash Blue	
			178	LEE 721 Berry Blue	
			179	LEE 722 Bray Blue	
			180	LEE 723 Virgin Blue	
			181	LEE 724 Ocean Blue	
			182	LEE 725 Old Steel Blue	
			183	LEE 727 QFD Blue	
			184	LEE 728 Steel Green	
			185	LEE 729 Scuba Blue	
			186	LEE 736 Twickenham Green	
			187	LEE 738 IAS Green	
			188	LEE 742 Bram Brown	
			189	LEE 744 Dirty White	
			190	LEE 747 Easy White	
			191	LEE 748 Seedy Pink	
			192	LEE 763 Wheat	
				Color Effect	
			193-202	Color wheel change speed from fast to slow	
			203-212	Color wheel change speed from fast to slow	
			213-222	Color wheel change speed from fast to slow	
			223-232	Color wheel change speed from fast to slow	
			233-242	Rainbow color speed from slow to fast	
			243-252	Rainbow color speed from slow to fast	
			253-255	Rainbow color speed from slow to fast	

28 CH	40 CH	72 CH	DMX	Function	Note
12	12	12	0-2	CCT No Function	
			3-255	CCT color 10000K-2500K	
			3	10000K	
			23	9500K	
			43	9000K	
			63	8500K	
			83	8000K	
			103	7500K	
			120	7000K	
			135	6500K	
			150	6000K	
			162	5600K	
			180	5000K	
			195	4500K	
			210	4000K	
			219	3700K	
			225	3500K	
234	3200K				
240	3000K				
249	2700K				
255	2500K				
13	13	13	0-7	Static LED Effect	142 scenes
			8-149	No Function	
			150-255	Static Scene1-142 No Function	
14	14	14	0-7	Move LED Effect	51 scenes
			8-111	No Function	
			112-127	Dynamic scene 1-51(2 dmx for every scene)	
			128-255	Random scene No Function	
15	15	15	0-126	Move LED Effect Speed	
			127-128	Forwards move led effect speed from fast to slow	
			129-255	Stop Backwards move led effect speed from slow to fast	
16	16	16	0-255	LED Effect Delay LED effect delay from fast to slow	
17	17	17	0-1	Background Color	
			2-255	No Function Color for background	
18	18	18	0-255	Background Dimmer Background dimmer from 0% to 100%(0=default)	
19	19	/	0-255	Red (0%-100%)	
20	20	/	0-255	Green (0%-100%)	
21	21	/	0-255	Blue (0%-100%)	
22	22	/	0-255	White (0%-100%)	
/	23	/	0-255	Color1	
/	24	/	0-255	Color2	
/	25	/	0-255	Color3	
/	26	/	0-255	Color4	
/	27	/	0-255	Color5	
/	28	/	0-255	Color6	
/	29	/	0-255	Color7	
/	30	/	0-255	Color8	
/	31	/	0-255	Color9	
/	32	/	0-255	Color10	
/	33	/	0-255	Color11	
/	34	/	0-255	Color12	
/	/	19	0-255	Red1 (0%-100%)	
/	/	20	0-255	Green1 (0%-100%)	
/	/	21	0-255	Blue1 (0%-100%)	
/	/	22	0-255	White1 (0%-100%)	
/	/	23	0-255	Red2 (0%-100%)	
/	/	24	0-255	Green2 (0%-100%)	
/	/	25	0-255	Blue2 (0%-100%)	
/	/	26	0-255	White2 (0%-100%)	
/	/	27	0-255	Red3 (0%-100%)	
/	/	28	0-255	Green3 (0%-100%)	
/	/	29	0-255	Blue3 (0%-100%)	
/	/	30	0-255	White3 (0%-100%)	
/	/	31	0-255	Red4 (0%-100%)	
/	/	32	0-255	Green4 (0%-100%)	
/	/	33	0-255	Blue4 (0%-100%)	
/	/	34	0-255	White4 (0%-100%)	
/	/	35	0-255	Red5 (0%-100%)	

28 CH	40 CH	72 CH	DMX	Function	Note
/	/	36	0-255	Green5 (0%-100%)	
/	/	37	0-255	Blue5 (0%-100%)	
/	/	38	0-255	White5 (0%-100%)	
/	/	39	0-255	Red6 (0%-100%)	
/	/	40	0-255	Green6 (0%-100%)	
/	/	41	0-255	Blue6 (0%-100%)	
/	/	42	0-255	White6 (0%-100%)	
/	/	43	0-255	Red7 (0%-100%)	
/	/	44	0-255	Green7 (0%-100%)	
/	/	45	0-255	Blue7 (0%-100%)	
/	/	46	0-255	White7 (0%-100%)	
/	/	47	0-255	Red8 (0%-100%)	
/	/	48	0-255	Green8 (0%-100%)	
/	/	49	0-255	Blue8 (0%-100%)	
/	/	50	0-255	White8(0%-100%)	
/	/	51	0-255	Red9 (0%-100%)	
/	/	52	0-255	Green9 (0%-100%)	
/	/	53	0-255	Blue9 (0%-100%)	
/	/	54	0-255	White9 (0%-100%)	
/	/	55	0-255	Red10 (0%-100%)	
/	/	56	0-255	Green10 (0%-100%)	
/	/	57	0-255	Blue10 (0%-100%)	
/	/	58	0-255	White10 (0%-100%)	
/	/	59	0-255	Red11 (0%-100%)	
/	/	60	0-255	Green11 (0%-100%)	
/	/	61	0-255	Blue11 (0%-100%)	
/	/	62	0-255	White1 1(0%-100%)	
/	/	63	0-255	Red12 (0%-100%)	
/	/	64	0-255	Green12 (0%-100%)	
/	/	65	0-255	Blue12 (0%-100%)	
/	/	66	0-255	White12 (0%-100%)	
23	35	67	0-255	LED ring Dimmer from 0% to 100% (0=default)	
24	36	68	0-255	LED ring RFD (0%-100%)	
25	37	69	0-255	LED ring GREEN (0%-100%)	
26	38	70	0-255	LED ring BLUE (0%-100%)	
27	39	71	0-9 10-19 20-39 40-255 40-68 69-255	<b>LED ring Effect Macro</b> Shutter open Shutter closed Strobe speed from slow to fast Effect Macro Dynamic scene 1-15 with user colors(2 dmx for every scene) Dynamic scene 1-63 with auto colors(3 dmx for every scene)	15 scenes 63 scenes
28	40	72	0-126 127-128 129-255	LED ring Effect Speed Forwards move led effect speed from fast to slow Stop Backwards move led effect speed from slow to fast	

35 CHANNEL	DMX	Function	Note
1	0-255	Red (0%-100%)	
2	0-255	Red Fine (0%-100%)	
3	0-255	Green (0%-100%)	
4	0-255	Green Fine(0%-100%)	
5	0-255	Blue (0%-100%)	
6	0-255	Blue Fine (0%-100%)	
7	0-255	White (0%-100%)	
8	0-255	White Fine (0%-100%)	
9		CCT	
	0-2	No Function	
	3-255	CCT color 10000K-2500K	
	3	10000K	
	23	9500K	
	43	9000K	
	63	8500K	
	83	8000K	
	103	7500K	
	120	7000K	
	135	6500K	
	150	6000K	
	162	5600K	
	180	5000K	
	195	4500K	
	210	4000K	
	219	3700K	
	225	3500K	
234	3200K		
240	3000K		
249	2700K		
255	2500K		
		Macro	
	0-4	No Function	
	5-19	CCT	
	20	LEE 002 Rose Pink	
	21	LEE 004 Medium Bastard Amber	
	22	LEE 007 Pale Yellow	
	23	LEE 008 Dark Salmon	
	24	LEE 009 Pale Amber Gold	
	25	LEE 010 Medium Yellow	
	26	LEE 013 Straw Tint	
	27	LEE 015 Deep Straw	
	28	LEE 017 Surprise Peach	
	29	LEE 020 Medium Amber	
	30	LEE 022 Dark Amber	
	31	LEE 025 Sunset Red	
	32	LEE 026 Bright Red	
	33	LEE 036 Medium Pink	
	34	LEE 048 Rose Purple	
35	LEE 058 Lavender		

35 CHANNEL	DMX	Function	Note
	36	LEE 063 Pale Blue	
	37	LEE 068 Sky Blue	
	38	LEE 071 Tokyo Blue	
	39	LEE 075 Evening Blue	
	40	LEE 088 Lime Green	
	41	LEE 089 Moss Green	
	42	LEE 090 Dark Yellow Green	
	43	LEE 101 Yellow	
	44	LEE 103 Straw	
	45	LEE 104 Deep Amber	
	46	LEE 105 Orange	
	47	LEE 106 Primary Red	
	48	LEE 107 Light Rose	
	49	LEE 108 English Rose	
	50	LEE 109 Light Salmon	
	51	LEE 110 Middle Rose	
	52	LEE 111 Dark Pink	
	53	LEE 113 Magenta	
	54	LEE 115 Peacock Blue	
	55	LEE 117 Steel Blue	
	56	LEE 118 Light Blue	
	57	LEE 119 Dark Blue	
	58	LEE 121 LEE Green	
	59	LEE 122 Fern Green	
	60	LEE 124 Dark Green	
	61	LEE 126 Mauve	
	62	LEE 127 Smokey Pink	
	63	LEE 128 Bright Pink	
	64	LEE 131 Marine Blue	
	65	LEE 132 Medium Blue	
	66	LEE 134 Golden Amber	
	67	LEE 135 Deep Golden Amber	
	68	LEE 137 Special Lavender	
	69	LEE 138 Pale Green	
	70	LEE 139 Primary Green	
	71	LEE 140 Summer Blue	
	72	LEE 141 Bright Blue	
	73	LEE 142 Pale Violet	
	74	LEE 143 Pale Navy Blue	
	75	LEE 144 No Colour Blue	
	76	LEE 147 Apricot	
	77	LEE 148 Bright Rose	
	78	LEE 151 Gold Tint	
	79	LEE 152 Pale Gold	
	80	LEE 153 Pale Salmon	
	81	LEE 154 Pale Rose	
	82	LEE 156 Chocolate	
	83	LEE 157 Pink	
	84	LEE 158 Deep Orange	

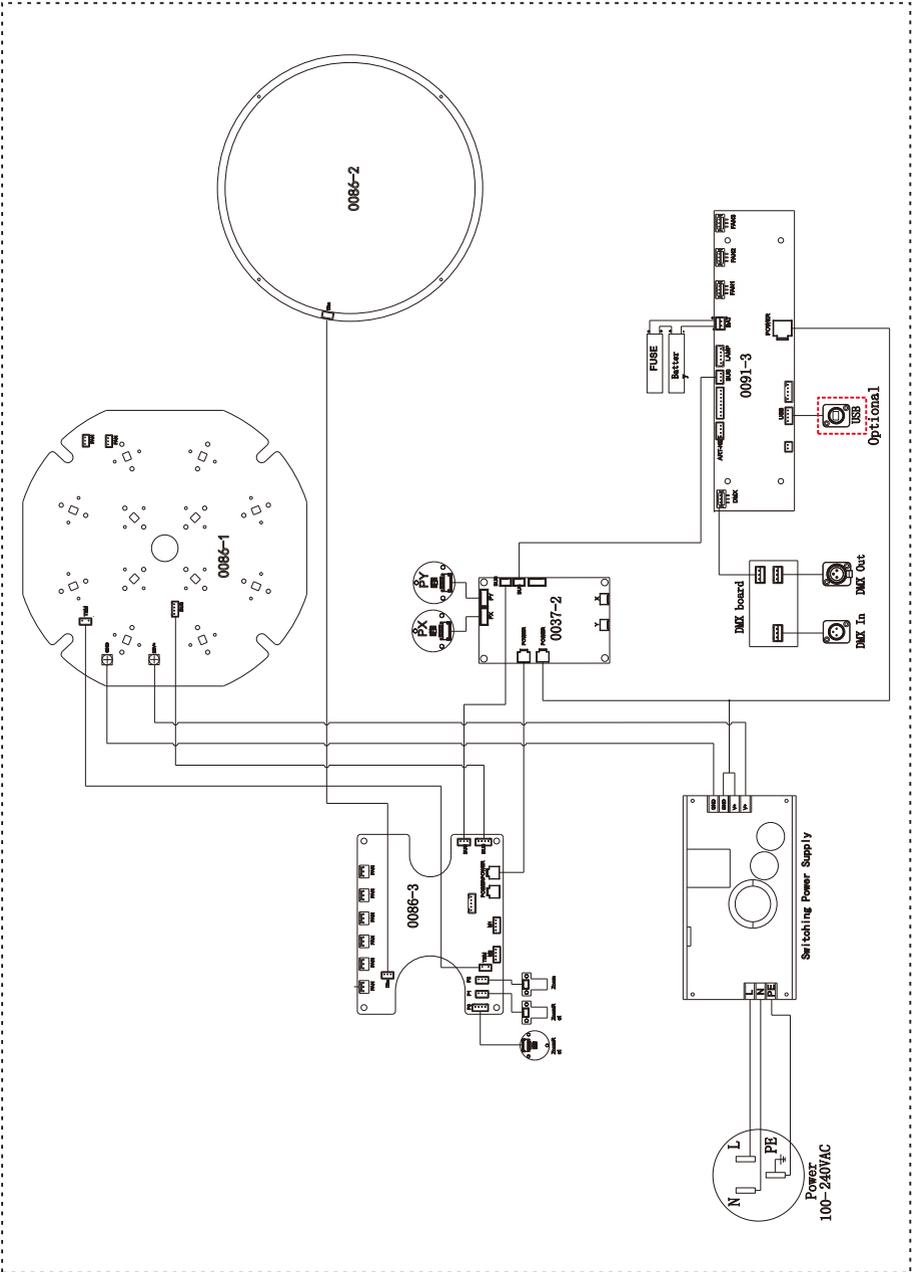
35 CHANNEL	DMX	Function	Note
	85	LEE 161 Slate Blue	
	86	LEE 162 Bastard Amber	
	87	LEE 164 Flame Red	
	88	LEE 165 Daylight Blue	
	89	LEE 170 Deep Lavender	
	90	LEE 172 Lagoon Blue	
	91	LEE 174 Dark Steel Blue	
	92	LEE 176 Loving Amber	
	93	LEE 179 Chrome Orange	
	94	LEE 180 Dark Lavender	
	95	LEE 181 Congo Blue	
	96	LEE 183 Moonlight Blue	
	97	LEE 192 Flesh Pink	
	98	LEE 194 Surprise Pink	
	99	LEE 195 Zenith Blue	
	100	LEE 196 True Blue	
	101	LEE 197 Alice Blue	
	102	LEE 198 Palace Blue	
	103	LEE 199 Regal Blue	
	104	LEE 200 Double CTB	
	105	LEE 201 Full CTB	
	106	LEE 202 Half CTB	
	107	LEE 203 Quarter CTB	
	108	LEE 204 Full CTO	
10	109	LEE 205 Half CTO	
	110	LEE 206 Quarter CTO	
	111	LEE 207 Full CTO + .3 ND	
	112	LEE 208 Full CTO + .6 ND	
	113	LEE 212 LCT Yellow (Y1)	
	114	LEE 213 White Flame Green	
	115	LEE 219 LEE Fluorescent Green	
	116	LEE 230 Super Correction LCT Yellow	
	117	LEE 232 Super Correction W.F. Green	
	118	LEE 236 HMI (to Tungsten)	
	119	LEE 237 CID (to Tungsten)	
	120	LEE 238 CSI (to Tungsten)	
	121	LEE 241 LEE Fluorescent	
	122	LEE 242 LEE Fluorescent	
	123	LEE 243 LEE Fluorescent	
	124	LEE 244 LEE Plus Green	
	125	LEE 245 Half Plus Green	
	126	LEE 247 LEE Minus Green	
	127	LEE 248 Half Minus Green	
	128	LEE 249 Quarter Minus Green	
	129	LEE 281 Three Quarter CTB	
	130	LEE 283 One and a Half CTB	
	131	LEE 285 Three Quarter CTO	
	132	LEE 286 One and a Half CTO	
	133	LEE 287 Double CTO	

35 CHANNEL	DMX	Function	Note
	134	LEE 322 Soft Green	
	135	LEE 323 Jade	
	136	LEE 327 Forest Green	
	137	LEE 328 Follies Pink	
	138	LEE 332 Special Rose Pink	
	139	LEE 343 Special Medium Lavender	
	140	LEE 345 Fuchsia Pink	
	141	LEE 352 Glacier Blue	
	142	LEE 353 Lighter Blue	
	143	LEE 354 Special Steel Blue	
	144	LEE 363 Special Medium Blue	
	145	LEE 366 Cornflower	
	146	LEE 441 Full CT Straw	
	147	LEE 442 Half CT Straw	
	148	LEE 444 Eighth CT Straw	
	149	LEE 500 Double New Colour Blue	
	150	LEE 501 New Colour Blue (Robertson Blue)	
	151	LEE 502 Half New Colour Blue	
	152	LEE 504 Waterfront Green	
	153	LEE 505 Sally Green	
	154	LEE 506 Marlene	
	155	LEE 507 Madge	
	156	LEE 508 Midnight Maya	
	157	LEE 525 Argent Blue	
	158	LEE 550 ALD Gold	
	159	LEE 604 Full CT Eight Five	
	160	LEE 650 Industry Sodium	
	161	LEE 651 HI Sodium	
	162	LEE 652 Urban Sodium	
	163	LEE 700 Perfect Lavender	
	164	LEE 701 Provence	
	165	LEE 702 Special Pale Lavender	
	166	LEE 703 Cold Lavender	
	167	LEE 704 Lily	
	168	LEE 706 King Fals Lavender	
	169	LEE 708 Cool Lavender	
	170	LEE 709 Electric Lilac	
	171	LEE 710 Spir Special Blue	
	172	LEE 711 Cold Blue	
	173	LEE 712 Bedford Blue	
	174	LEE 714 Elysian Blue	
	175	LEE 715 Cabana Blue	
	176	LEE 716 Mikkel Blue	
	177	LEE 719 Colour Wash Blue	
	178	LEE 721 Berry Blue	
	179	LEE 722 Bray Blue	
	180	LEE 723 Virgin Blue	
	181	LEE 724 Ocean Blue	
	182	LEE 725 Old Steel Blue	

35 CHANNEL	DMX	Function	Note
	183	LEE 727 QFD Blue	
	184	LEE 728 Steel Green	
	185	LEE 729 Scuba Blue	
	186	LEE 736 Twickenham Green	
	187	LEE 738 JAS Green	
	188	LEE 742 Bram Brown	
	189	LEE 744 Dirty White	
	190	LEE 747 Easy White	
	191	LEE 748 Seedy Pink	
	192	LEE 763 Wheat	
		Color Effect	
	193-202	Color wheel change speed from fast to slow	
	203-212	Color wheel change speed from fast to slow	
	213-222	Color wheel change speed from fast to slow	
	223-232	Color wheel change speed from fast to slow	
233-242	Rainbow color speed from slow to fast		
243-252	Rainbow color speed from slow to fast		
253-255	Rainbow color speed from slow to fast		
11		Shutter	
	0-9	No Function	
	10-49	Slow closing, Fast opening, slow → fast	
	50-89	Fast closing, Slow opening, Slow → Fast	
	90-119	Slow closing, Slow open, Slow → Fast	
	120-179	Random strobe, Slow → Fast	
	180-249	Synchronous strobe, slow → fast	
250-255	Shutter open		
12	0-255	Dimmer from 0% to 100% (0=default)	
13	0-255	Dimmer Fine from 0% to 100% (0=default)	
14	0-255	Pan	
15	0-255	Pan Fine	
16	0-255	Tilt	
17	0-255	Tilt Fine	
18		Special functions	
	0-25	No Function	
	26-30	No Function	
	31-40	No Function	
	41-50	No Function	
	51-55	Fan mode: Standard	
	56-60	Fan mode: High Output	
	61-65	Fan mode: Silent	
	66-70	No Function	
	71-75	Display blink on	
	76-80	Display blink off	
	81-85	Display on	
	86-90	Display off	
	91-95	Pan invert on	
	96-100	Pan invert off	
101-105	Tilt invert on		
106-110	Tilt invert off		

35 CHANNEL	DMX	Function	Note
	111-115	Dimmer frequency:1800HZ	
	116-120	Dimmer frequency:3600HZ	
	121-125	Dimmer frequency:7200HZ	
	126-130	Dimmer frequency:25000HZ	
	131-135	Dimmer curve: Linear	
	136-140	Dimmer curve: Square	
	141-145	Dimmer curve: Inv-square	
	146-150	Dimmer curve: S-Curve	
	151-155	Dimmer speed:Normal	
	156-160	Dimmer speed:Smooth 1	
	161-165	Dimmer speed:Smooth 2	
	166-170	Dimmer speed:Smooth 3	
	171-175	XY Normal mode	
	176-180	XY Fast mode Speed3	
181-185	XY Precise mode		
186-255	No Function		
19		Reset	
	0-25	No Function	
	26-70	Zoom Reset	
	77-127	P/T Reset	
	128-255	Fixture Reset	
20	0-255	Zoom	
21		Zoom Rotation	Only effective when the ZOOM of the 6th channel is less than 66
	0-127	Lens Angle 0-90°	
	128-190	CW Rotation speed Fast to slow	
	191-192	Stop rotation	
	193-255	CCW Rotation speed,slow to fast	
22	0-255	Shape Selection	
23	0-255	Shape Speed	
24	0-255	Shape Fade	
25	0-255	Shape R	
26	0-255	Shape G	
27	0-255	Shape B	
28	0-255	Shape W	
29	0-255	Shape Dimmer	
30	0-255	Background Dimmer	
31	0-255	Shape Transition	
32	0-255	Shape Offset	
33	0-255	Foreground Strobe	
34	0-255	Background Strobe	
35	0-255	Background Select	

## 5. Electrical Connection Diagram



## 6. Troubleshooting

The following are common faults of lighting fixtures and corresponding solutions. Malfunctions that cannot be repaired by oneself should be handled by personnel with professional qualifications. Before maintaining the lamp, please disconnect the power supply first.

### ■ LED off:

- Please check if install the suitable voltage
- Please check whether the led will reach the end of their life can explode; please replace a same description led.
- Please check if the power supply is enough.
- Please check whether the DMX 512 controller pass the "turn on" order.

### ■ The light couldn't accept the control order:

- Please check the start code address and the function option are correct.
- Please check whether the communicate control cable is on good connection or the cable is too long or interrupt.
- Please check the control system is not valid, check the signal amplifier of chain connected is valid.
- Please check whether the communicate cable is too long or the other equipment is mutually conjugate.
- Please arrange the wire well, shorter the signal cable, put the high voltage cable and low voltage cable separately.
- Add the signal amplify isolator.
- Signal cable is used the excellent screening doublet (Resistance 75 Ω)
- The end of the light end and the end resistance.

### ■ The light can't move:

- Please check if the power supply is suitable for the light voltage data.
- Please check the light if they are deformation, inside parts is broken, become wet etc will lead the loose contact.
- Please check the if the inside lead wire and the connector is loose.
- Please check the electric parts(such as the transformer,PCB board,contrller) is short-circuit or burn down.

### ■ On working,the pan &tilt couldn't work normally:

- Please check according to the above step by step,
- Please check the belt of the X.Y is broken.
- Please check the X/Y direction data to the receiver is damage.
- Re-projector reset.

## 7. Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- \* Before maintenance and disassembly of lighting fixtures, the power supply must be disconnected and live operation is not allowed.
- \* A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- \* Always dry the parts carefully.
- \* You need to wipe the outside of the lens at least once every 20 days.
- \* After the colored paper performance of the lighting fixtures, it is necessary to check whether there are any paper scraps stuck or sucked in at the air inlet and outlet, and clean them thoroughly, otherwise it may damage the fan or cause a fire hazard.

**CAUTION ! ! !**

**Disconnect from mains before starting maintenance operation.**

## 8. Duty exonerative and copyright protectio

- \* Light source belongs to consumption products, not within the scope of warranty.
- \* The manufacturer shall not bear any responsibility for any damage caused by failure to operate in accordance with this instruction.
- \* All the information in this manual shall be interpreted by the manufacturer.
- \* All the information in this manual shall not be copied without permission.
- \* The data contained in this statement are subject to change in the future without prior notice.