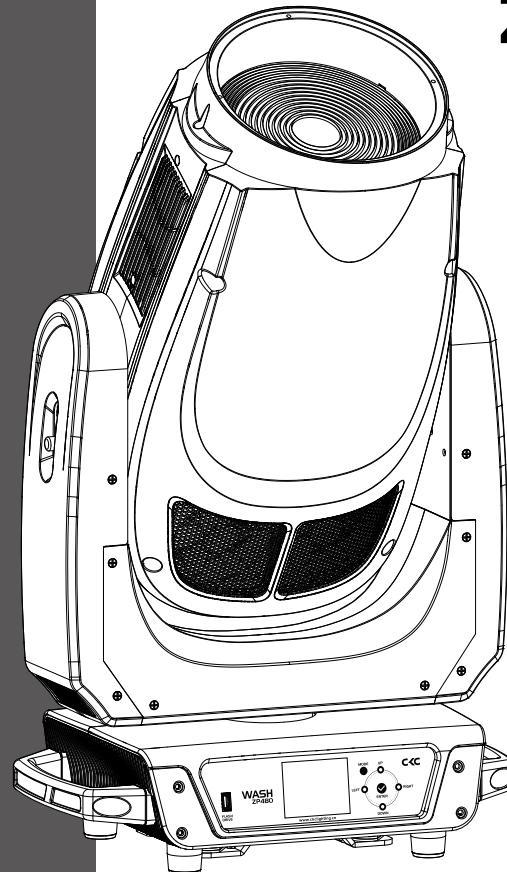


CKC

# WASH ZP480



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Before carrying out any installation, maintenance, or cleaning of the lighting fixtures, please confirm that the power has been cut off! Before using this fixture, please read this manual. Our company reserves the right to change product design and specifications without prior notice.

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# ★ Statement ★

- This manual contains important information on safe use and installation. Please read it carefully and follow the requirements for operation and installation. Please keep this manual properly;
- The equipment has good performance and complete packaging when it leaves the factory. The operator should strictly follow the warning items and operating instructions stated in the manual. Any malfunction or damage caused by misuse or neglect of the manual is not within the scope of our company's responsibility and warranty;
- The relevant information in this manual is for reference only. All lighting products are subject to the actual product. Any changes will not be notified separately, and our company reserves the right of final interpretation.

## 1. Security Warning Information



### Attention !

Please read the safety requirements information in this section carefully before installing, powering on, operating, or repairing the lighting fixtures.



- This product is for professional use and is not suitable for other purposes;
- After receiving the lighting fixtures, please check if the packaging is complete and unpack to check if the equipment has been damaged due to transportation. If there is any damage caused by transportation, please do not use this lamp and contact local technicians or manufacturers as soon as possible;
- When transporting again, please use the original packaging materials;
- If there is obvious damage to the machine casing, it should be replaced in a timely manner;
- When hanging lamps, it is necessary to verify that the hanging equipment can withstand more than 6 times the weight of the lamp. After installation, it is necessary to verify that the lamp cover and installation buckle are secure and undamaged. At the same time, a safety rope should be used as an auxiliary safety for the lamp and fixed on the truss;
- The light source inside this luminaire should be replaced by the manufacturer, its service agent, or a similarly qualified person;
- If you have any other questions about how to safely operate the equipment, please contact our technical personnel or call our service hotline;
- This product has a protection level of IP20 and is suitable for indoor use;
- Avoid direct external strong light shining on the lens, which may cause the lens to focus and burn out internal components.



- Lighting fixtures should be kept clean and avoid prolonged use in overheated or dusty environments to prevent contact with chemical liquids;
- When using the product, attention should be paid to avoiding serious or fatal injuries caused by fire, heat, electrical shock, and ultraviolet radiation. Before powering on or installing, read the instruction manual first. Follow the safety precautions for operation and pay attention to the warning signs on the instructions and equipment;
- Only professionals are allowed to install, operate, and maintain lighting fixtures, and strictly follow the procedures stated in the operating instructions.



- The eyes cannot directly look at the luminous object;
- Do not connect this device to any dimmer;
- If visible damage occurs to the protective casing, lens, and display screen on the lighting fixture, it is considered as damage to the point of loss;
- Please do not place any filters or other items at the light outlet, and do not replace non original parts;
- The minimum safe illumination distance of the lamp is 1m.



- Before installation, please confirm that the power supply voltage used matches the voltage indicated on the light fixture. Each lighting fixture should be properly grounded and electrically installed according to relevant standards;
- Please disconnect the power before repairing or cleaning the equipment;
- During the operation of the lighting fixtures, touching the wires is prohibited to prevent electric shock;
- If the external soft cable or wire of this lamp is damaged, the wire should be replaced by the manufacturer, its agent, or a similarly qualified person to avoid danger;
- Avoid flammable liquids, water, or metal conductors from entering the interior of the lamp to prevent electric shock or fire. If any foreign objects enter the lamp, immediately cut off the power supply;
- When multiple lamps are operated in series, the signal lines can be connected in multiple ways, but the power supply must be connected separately.



- The lighting fixtures work normally at -20 °C to 45 °C . When replacing any components or accessories in the equipment, ensure that the power is disconnected to prevent electric shock and injury;
- The maximum surface temperature of the lamp during operation can reach 65 °C , please do not touch it with bare hands.

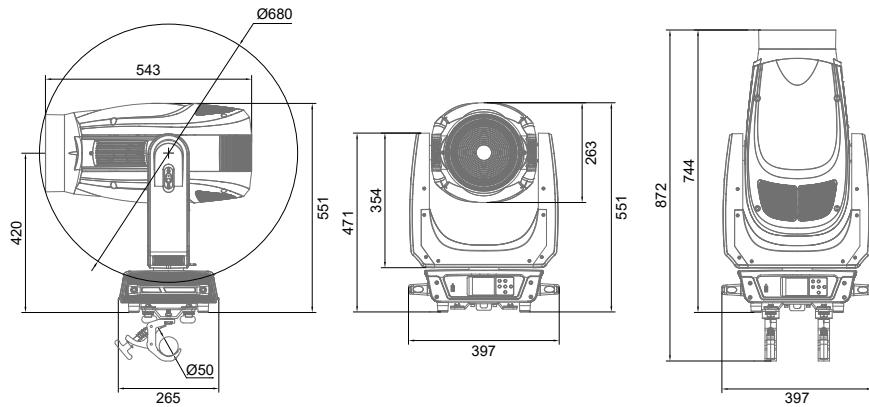


- The lighting fixtures must be installed in a sufficiently ventilated area, at least 0.5m away from adjacent surfaces, to ensure that no ventilation holes are blocked;
- Do not install the lighting fixtures directly on flammable objects;
- The minimum distance between all outer surfaces of the lamp and combustible materials is 0.5m.

## 2. Product Introduction

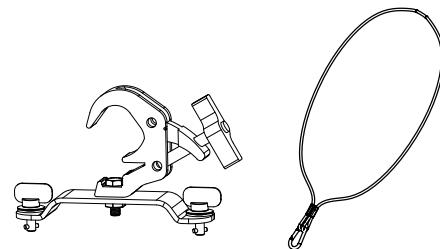
### 2.1 Exterior dimensions of lighting fixtures

397 × 265 × 744 mm



### 2.2 Packaging accessories

Name	QTY
Omega bracket	1 PCS
Clamp	1 PCS
Safety cable	1 PCS



## 3. Main technical parameters of the equipment

Product execution standards: GB7000.1-2023, GB7000.217-2023, Q/YF-2017

### ● Electrical parameter

Rated input voltage: AC 100V-240V~ 50Hz/60Hz  
 Rated power of the entire fixture: 690 W  
 Power factor: 0.999F  
 Input Current: 3.09A 220V

### ● Source lifespan

>20000 hours

### ● Optical system

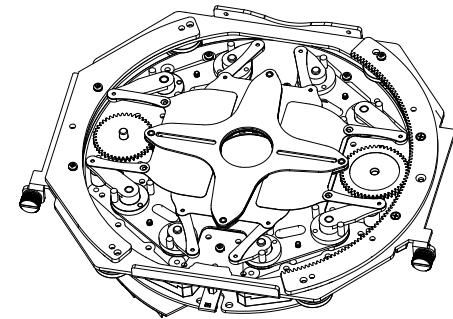
LED source: 480W RGBAL LED  
 Beam angel: 9 ~ 47°  
 Field angle: 13 ~ 64°  
 Output luminous flux: 12800 Lm

### ● Color system

CCT: 2000 ~ 10000 K  
 CRI: 90

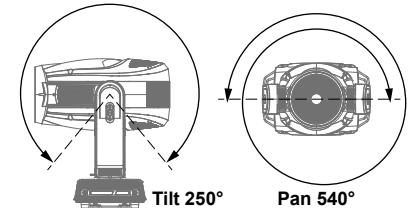
### ● Framing system

4 gratings achieve fast and smooth cutting, and the cutting direction and angle of each grating can be controlled separately. The single grating can achieve complete light closure, and the entire frame module can rotate ±60°



### ● Pan/Tilt

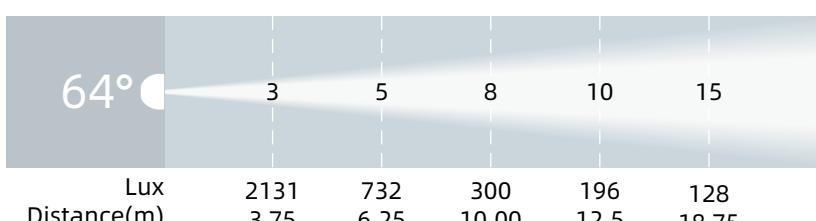
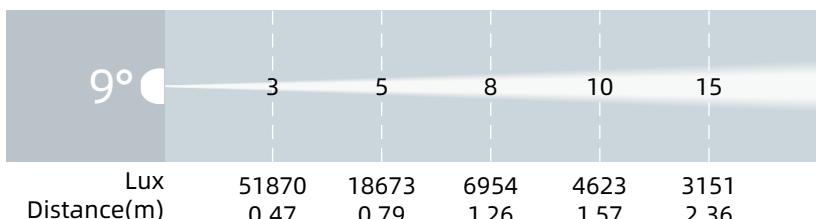
**Pan scan:**  
 540° or 630° 8-bit/16bit precision scanning  
**Tilt scan:**  
 270° 8-bit/16bit precision scanning



### ● Control and programming

Control channel: 27CH/31CH/39CH  
 Protocol: DMX512, RDM  
 Data connect: 3/5 pin signal in/out

### ● Illumination draw



### ● Other effect function

Fast electronic strobe: 1~25Hz      Frost

### ● Other features and functions

Weight: 27 KG

## 4. Packaging and transportation

### 4.1 Disassemble packaging

**!** Notice: After receiving the fixture, please unpack and check for any damage caused by transportation. If there is any damage caused by transportation, please do not use this fixture and contact the local technical personnel or manufacturer as soon as possible.

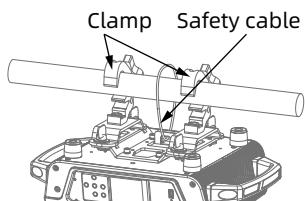
### 4.2 Equipment packaging

- 1). Disconnect the power supply before packaging the lighting fixtures to allow them to cool completely;
- 2). Flight cases can only be stacked in two layers and are not allowed to be reversed.

## 5. Installation Requirements Explanation

### 5.1 Clamp install

The lighting fixtures can be installed on the stage or on any direction of the truss, and the clamp can be quickly and easily locked onto the truss.

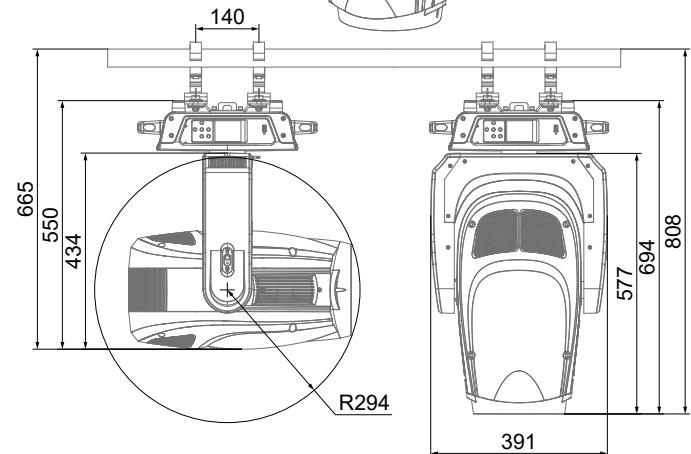
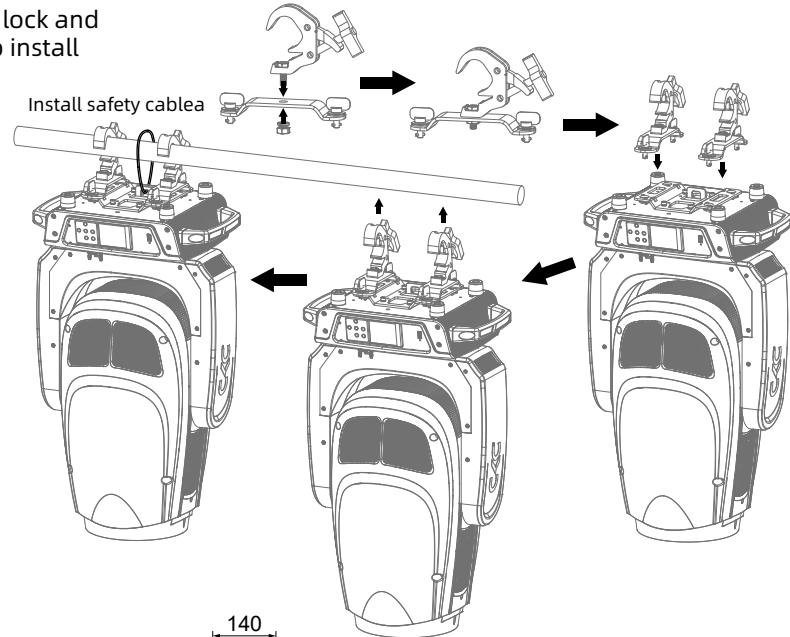


#### Warning !

The lighting fixtures are divided into two versions: integrated light hook and normal. When using the integrated light hook version, the clamp is broken up and locked onto the truss. The normal version must use 2 clamps to secure the device and fasten it with a 1/4 rotation. Regardless of the version, one safety rope must be added and connected to the base hole, but be careful not to connect it to the handling handle.



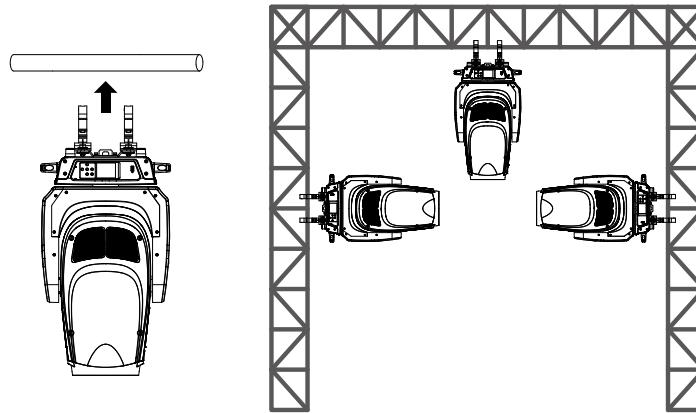
### Quick lock and clamp install



### 5.2 Equipment installation

- 1). Before installation, it is necessary to verify that the lamp hook and safety rope are not damaged, and that the installation object can withstand 6 times the total weight of the lamp and cable accessories;
- 2). Install the quick lock clamp on the base of the lamp body. Insert the clamp horizontally into the mounting hole of the base, rotate it clockwise 1/4 turn to lock it, and install the second clamp using the same method (the shape of the clamp should be based on the actual product).

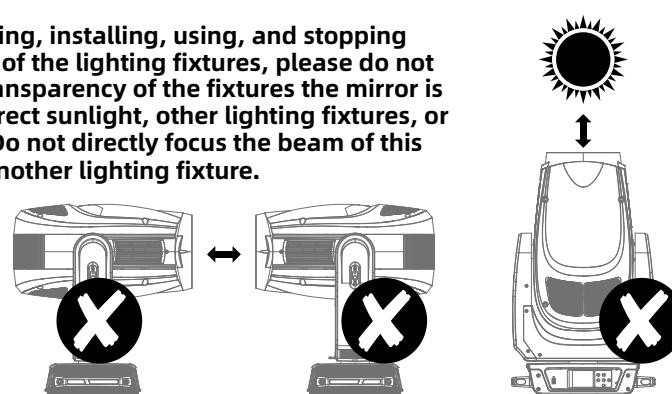
### 5.3 Hanging Installation Diagram



**Reminder:** External beam source may damage internal lighting fixtures

External beams from direct sunlight, lighting fixtures, and lasers that are directly focused onto the casing or penetrate the lens to illuminate the interior of the fixture may cause damage to the components. This is a common issue with all lighting fixtures and does not occur alone with CKC products. Although there is no way to completely prevent this problem from occurring, following the following guidelines can prevent potential damage.

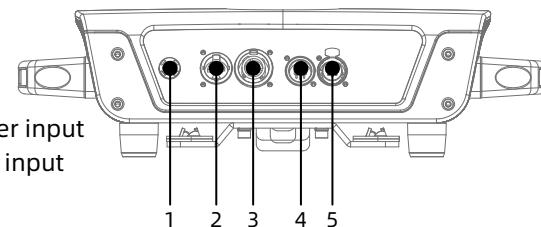
**When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams, Do not directly focus the beam of this device onto another lighting fixture.**



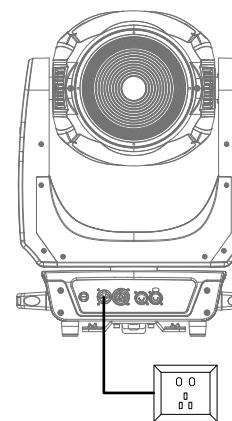
### 6. Power、Signal connect

#### 6.1 Power and signal socket

1. Fuse holder
2. Power input
3. Power output
4. DMX input
5. DMX output



### 6.2 Power connect



#### Connection method:

L(live wire) - brown wire

E(Ground wire) - yellow/green dual color line

N(Zero Line) - Blue Line

When connecting the power supply, please note that the voltage and frequency of the power supply must match the voltage and frequency marked on the light fixture. When multiple fixtures are used simultaneously, it is recommended to connect the power supply of each fixture separately, so that each fixture can be individually controlled for power on/off.



**Attention:** When connecting the power supply, the ground wire (yellow/green dual color wire) must be safely grounded and comply with all relevant electrical installation standards.

This product uses Powercon In/Out to connect power cords. Due to power limitations, a 2 square meter power cord can carry up to 3 products at 220V and 1 product at 110V.

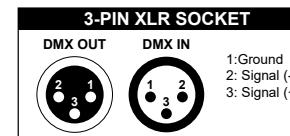


Power In

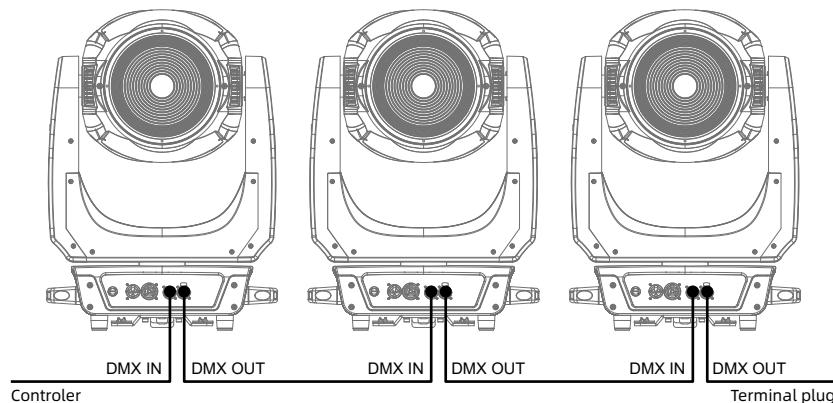
#### Waining !

- Do not connect too many fixtures or overload a single power cord;
- Do not use power cords with damaged insulation layers, and do not place power cords on other wires;
- When the fixture is not in use or cleaned, please unplug the power cord; Do not forcefully unplug or drag the power cord directly.

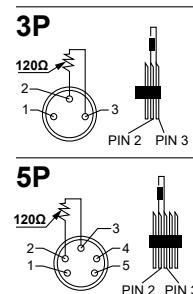
### 6.3 Signal connect



The lighting fixtures are equipped with standard DMX512 input and output sockets. Please use DMX512 shielded twisted pair signal cables or Category 3/5 or above network twisted pair cables for connection. The typical connection distance for DMX signal lines is 150 meters. When transmitting signals over long distances, a DMX512 signal amplifier must be added.

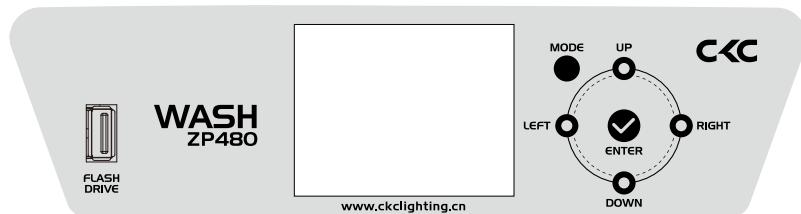


Connect a shielded twisted pair signal cable from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3 pin socket of each connected lamp output. (Weld a 4/1W, 120 Ω resistor between the 2 and 3 pins of a 3 or 5 core pin XLR plug).



## 7. Control panel

### 7.1 Panel Introduction



- Adopting a 1.8 "LCD display screen, the operation panel is equipped with a rechargeable battery, which can enter the menu to set address codes and make other settings without powering on;
- Press the MODE key to view or modify the lighting function settings, and press the UP, DOWN, LEFT, and RIGHT keys to select the function menu;
- Press the ENTER key to confirm your selected function menu, which will take you to the corresponding sub menu in the menu. Each menu item represents a specific function of the lighting fixture (as shown in the table below);
- Press the ENTER key to save your modifications or enter a submenu, and press the UP or DOWN key to modify values (increase or decrease values); Press the MODE key to return to the previous menu or exit.
- Press the MODE key to return to the previous menu or exit.

## 7.2. System menu

Note: The gray color block is the default setting value

Software Update Please Wait... CKC Wash ZP480 Motor Reset Please Wait...		
<b>SET</b>	Dmx Presets User Mode	A001~AXXX Basic Standard Extend
	Status	No DMX Mode P.Reverse T.Reverse Pan Degree Feedback Move.Speed Hibernation
	Dim Mode	Black/Hold/Auto ON/OFF ON/OFF 630/540 ON/OFF Speed 1~ 4 OFF, 01M~99M, 15M
	Temp. C/F	Standard Stage TV Architectural Theatre
	Dim Curve	Celsius Fahrenheit Linear Square Inv-Square S-Curve
	Frequency	1200Hz/3600Hz/5000Hz/10KHz/15KHz/20KHz/25KHz
<b>Function</b>	Fan Set	Head Fan Auto High Low
	Base Fan	Auto High
	LCD.Set	Backlight 01~60m Flip Display OFF/ON Key Lock OFF/ON DispFlash OFF/ON Language English
	Disp.Set	Channel Value PAN..... Slave Set Slave1,Slave2,Slave3 Auto.Prog Master / Alone
	DFSE	OFF/ON
	USB Update	OFF/ON
	Reset.M	All Pan&Tilt Blade Other

<b>Test</b>	Test.Chan	PAN .....
	Panel.Ctrl.	PAN =XXX :
	Calibrate	-Password- PAN :
<b>Info</b>	Time.Info	Current Time (Hours) Total Time (Hours) Last Time (Hours) Timer PIN (ON/OFF) Clear Last (Password=50)
	Temp. Info	Head Temp. Base Temp.
	Fan Speed	Base Fan1:xxxx RPM Base Fan2: xxxx RPM Cool Fan1: xxxx RPM .....
	Error. Info	Pan,Tilt.....
	Model. Info	Wash ZP480
	Software. V	1U V 1.X.X 2U V 1.X.X 3U V 1.X.X :

#### 8. DMX channel table:

Channel			Value	Function
Ba	St	Ex		
1	1	1	0-255	<b>PAN Movement 8bit</b> Pan Movement By 630/540
				<b>Pan Fine 16bit</b> Fine control of Pan movement
2	3	3	0-255	<b>TILT Movement 8bit</b> Tilt Movement
				<b>Tilt Fine 16bit</b> Fine control of Tilt movement
3	5	5	0-255	<b>Dimmer (Intensity)</b> Intensity 0 to 100%
				<b>Dimmer Fine</b> Intensity 0 to 100%
4	7	7	0-255	<b>Shutter, strobe</b> 0-31 No function (shutter closed)
				32-63 No action,shutter open
				64-95 Slow to fast strobe
				96-127 No action,shutter open

			128-159	Slow to fast pulse effect
			160-191	No action,shutter open
			192-223	Slow to fast random strobe
			224-255	No action,shutter open
5	8	8	0-255	<b>Red:</b> Intensity 0 to 100%
		9	0-255	<b>Red Fine:</b> Intensity 0 to 100%
6	9	10	0-255	<b>Green:</b> Intensity 0 to 100%
		11	0-255	<b>Green Fine:</b> Intensity 0 to 100%
7	10	12	0-255	<b>Blue:</b> Intensity 0 to 100%
		13	0-255	<b>Blue Fine:</b> Intensity 0 to 100%
8	11	14	0-255	<b>Amber:</b> Intensity 0 to 100%
		15	0-255	<b>Amber Fine:</b> Intensity 0 to 100%
9	12	16	0-255	<b>Lime:</b> Intensity 0 to 100%
		17	0-255	<b>Lime Fine:</b> Intensity 0 to 100%
10	13	18		<b>Color Macros:</b>
		0		No function
		1-60		Color Macros(see separate sheet)
		61-255		open
11	14	19		<b>CTO:</b>
		000-019		No function
		020-100		2000K - 10000K(1DMX → 100K)
		101-255		10000K
12	15	20		<b>Green Shift:</b>
		0		No function
		1-127		Full Minus Green to Neutral
		128		Neutral White
		129-255		Neutral to Full Plus Green
13	16	21	0-255	<b>Zoom</b> Zoom from min. to max.beam angle
		22	0-255	<b>Zoom-fine</b> Fine zooming
14	17	23	0-255	<b>Focus</b> Continuous adjustment from near to far
		24	0-255	<b>Focus-fine</b> Fine focusing

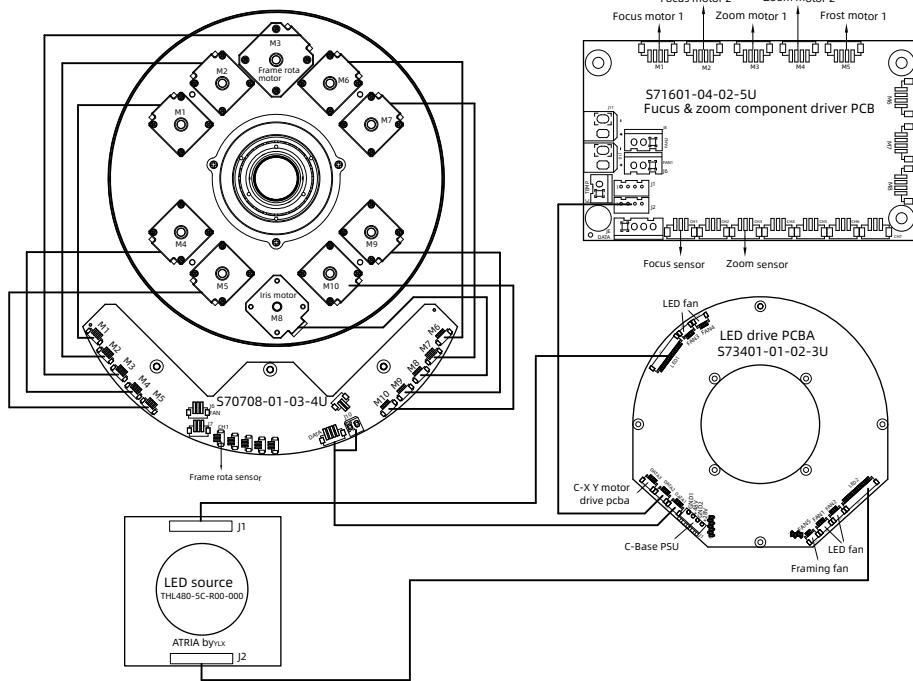
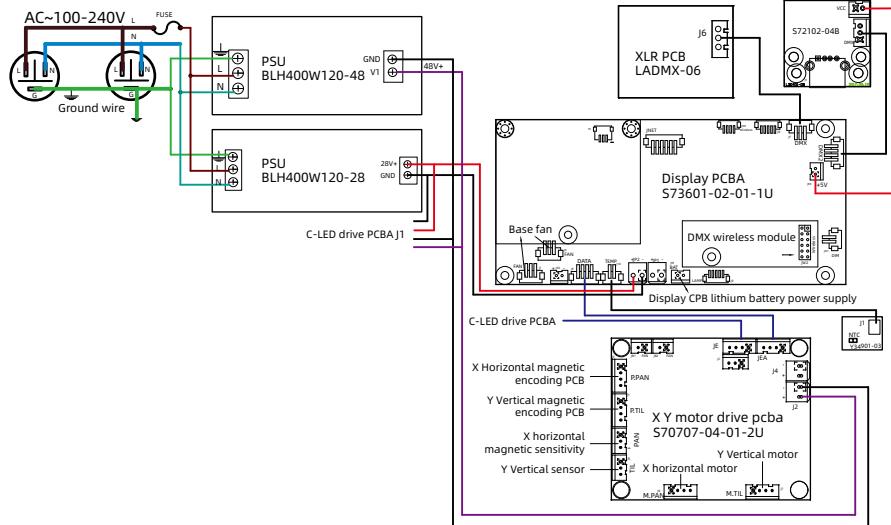
				<b>Iris:</b>
15	18	25	000-225	Open - Closed
			226-235	Pulse up, slow -> fast
			236-245	Pulse down, slow -> fast
			246-255	Random effect, slow -> fast
16	19	26	0-255	<b>Frost:</b>
				Frost:0 - 100%(Linear)
17	20	27	0-255	<b>Framing shutters module rotation</b>
				Rotation from right 0° to 120°
18	21	29	0-255	<b>Framing shutters module rotation Fine (16Bit)</b>
				Fine Rotation from right 0° to 120°
19	22	30	0-255	<b>Framing shutters 1-Angle A</b>
				Movement from Outward to Inward
20	23	31	0-255	<b>Framing shutters 1-Angle B</b>
				Movement from Outward to Inward
21	24	32	0-255	<b>Framing shutters 2-Angle B</b>
				Movement from Outward to Inward
22	25	33	0-255	<b>Framing shutters 3-Angle A</b>
				Movement from Outward to Inward
23	26	34	0-255	<b>Framing shutters 3-Angle B</b>
				Movement from Outward to Inward
24	27	35	0-255	<b>Framing shutters 4-Angle A</b>
				Movement from Outward to Inward
25	28	36	0-255	<b>Framing shutters 4-Angle B</b>
				Movement from Outward to Inward
26	30	38	0-255	<b>Speed pan/tilt movement</b>
				max to min speed
				<b>Dim Modes</b>
				0-20 Standard
				21-40 Stage
				41-60 TV
				61-80 Architectural
				81-100 Theater
				101-255 Default to Unit Setting
				<b>Lamp on/off, reset, internal programs</b>
				0-6 No function
				7-17 Invert Pan on (Hold 3s)
				18-29 Invert Pan off (Hold 5s)
				30-41 Invert Tilt on (Hold 3s)
				42-53 Invert Tilt off (Hold 5s)
				54-65 Fan Auto (Hold 3s)
				66-70 Fan Silent (Hold 3s)
				71-77 Fan High (Hold 3s)

27	31	39	78-89	Linear Dimmer Curve (hold 3s)
			90-101	Square Dimmer Curve (hold 3s)
			102-113	Inv-Square Dimmer Curve (hold 3s)
			114-125	S - Dimmer Curve (hold 3s)
			126-137	Led Freq. 1200 Hz (hold 3s)
			138-149	Led Freq. 3600 Hz (hold 3s)
			150-161	Led Freq. 5000 Hz (hold 3s)
			162-173	Led Freq. 10.000 Hz (hold 3s)
			174-185	Led Freq. 15.000 Hz (hold 3s)
			186-197	Led Freq. 20.000 Hz (hold 3s)
			198-209	Led Freq. 25.000 Hz (hold 3s)
			210-221	Reset Pan/Tilt (Hold 3s)
			222-233	Reset only Head (Hold 3s)
			234-255	Reset All Functions (Hold 3s)

## Virtual Swatch Book

Value	Filter Number	Name	Value	Filter Number	Name
1	7	pale yellow	31	126	mauve
2	103	straw	32	49	medium purple
3	151	gold tint	33	58	lavender
4	100	spring yellow	34	199	palace blue
5	10	medium yellow	35	119	dark blue
6	101	yellow	36	132	medium blue
7	104	deep amber	37	120	deep blue
8	15	deep straw	38	165	daylight blue
9	179	loving amber	39	161	slate blue
10	21	gold amber	40	118	light blue
11	105	orange	41	68	sky blue
12	158	deep orange	42	143	pale navy blue
13	22	dark amber	43	131	marine blue
14	778	millenium gold	44	115	peacock blue
15	135	deep golden amber	45	172	lagoon blue
16	24	scarlet	46	116	medium blue green
17	106	primary red	47	90	dark yellow green
18	26	bright red	48	139	primary green
19	27	medium red	49	122	fern green
20	19	fire	50	89	moss green
21	157	pink	51	124	dark green
22	36	medium pink	52	88	lime green
23	111	dark pink	53	138	pale green
24	128	bright pink	54	203	Quarter CT Blue
25	148	bright rose	55	202	Half CT Blue
26	332	special rose pink	56	201	FULL CT Blue
27	793	vanity fair	57	200	double CT Blue
28	113	magenta	58	206	Quarter CT Orange
29	46	dark magenta	59	205	Half CT Orange
30	48	rose purple	60	204	FULL CT Orange

## 9. Control circuit diagram



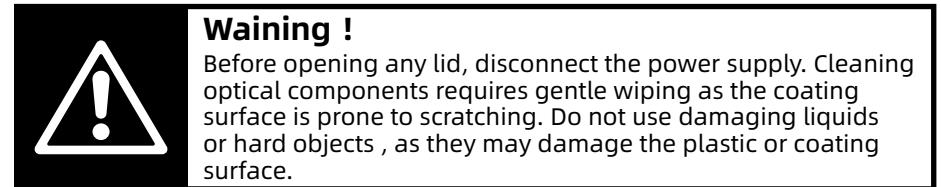
## 10. Regular maintenance

### 10.1 Cleaning and maintenance

Lighting fixtures require daily cleaning and maintenance, and their service life largely depends on the operating environment and standards. If you have any questions, please consult our technical engineers for advice. Maintenance and repair work not included in this book should be entrusted to our qualified technical engineers.



**Attention!** Damage caused by dust, e-liquid, or other reasons, as well as abnormal use, is not covered by the warranty.



- When the lens is cracked or otherwise damaged, it should be replaced in a timely manner;
- When the brightness significantly decreases, the LED may have reached its expiration date and should be replaced in a timely manner;
- When the fixture cannot start, please check if the fixture power fuse is blown. If it is blown, a fuse of the same specification must be used for installation;
- The fixture is equipped with a temperature protection device. When the temperature is too high, the protection device will automatically reduce power.
- When this situation occurs, please check whether the fan is running normally, whether the fan and fan mesh are clogged with dust, identify the fault and repair it before starting the fixture. Please note that only qualified technicians are allowed to carry out maintenance work;
- To maintain smooth movement of the focusing lens, it is recommended to lubricate the guide rail of the focusing lens every three months. Excellent and high-temperature resistant lubricating grease should be used, and excessive grease should not be used as it can easily dirty adjacent components.

### 10.2 Fault analysis and handling

Fault description	Analysis	Processing method
No action after power on	Check if the power switch is turned on	Turn on
	Check if the fuse is blown	Replace
	Check if the output of PSU is normal	Detecting voltage
	Check if poor contact in the internal circuit	Reconnect

Uncontrolled lighting fixtures	Check if the DMX signal cable is connected correctly (If there is no signal, the display screen will flash)	Reconnect or replace
	Check if the address code is correct and if the DMX mode of the lighting fixture matches the settings	Reconfirm
	The main control PCB is damaged	Replace
Not bright	LED aging or damage	Replace
	Power PCB malfunction	Check/ Replace
	Loose or poor contact of the circuit	Reconnect
	PSU malfunction	Replace
Automatically turn off or dim the lights	LED aging	Replace
	Damaged cooling fan or abnormal wind speed	Replace
	Check the power output of the fan	Check/ Replace
	The temperature control switch is damaged	Replace
Weak light efficiency and uneven light spot	LED aging	Replace
	LED not centered with the lens	Adjust LED
	The optical mirror has accumulated dust or stains	Clean
	The optical mirror is damaged	Replace
Impure color	Weakening of light efficiency	Replace led PCB
Head or base fan stops rotating	Check if the fan leads are installed properly or disconnected	Re connect
	Check if the fan is damaged	Replace
	Check if there are any other interfering objects within the operating range of the fan	Adjust



**Attention!** The above analysis is for abnormal reference only. Non professionals are not allowed to disassemble and repair the machine

