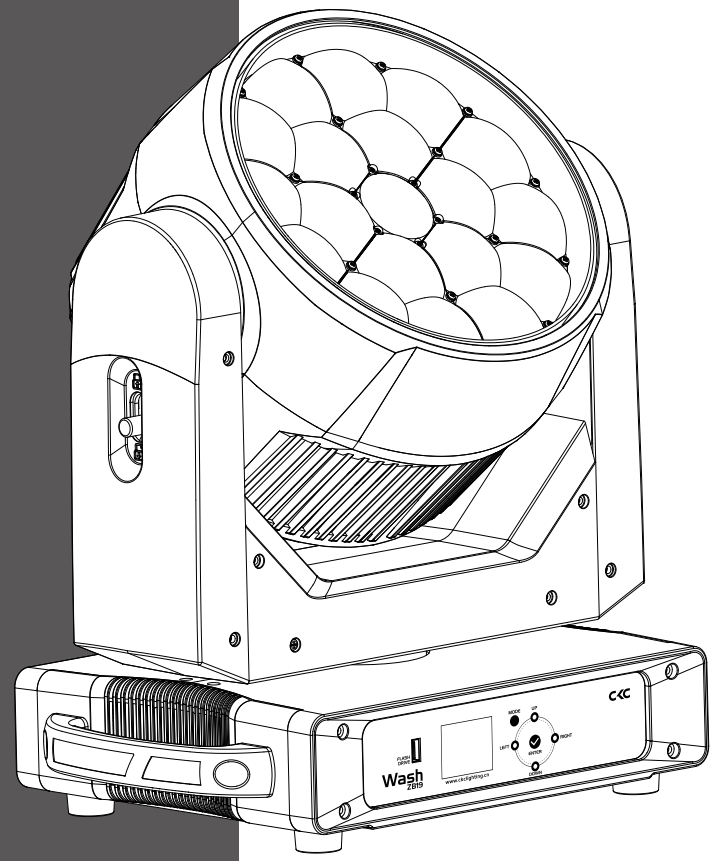
Wash
ZB19



www.ckclighting.com

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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CONTENTS

1. Security Warning Information 1

2. Product Introduction 3

2.1 Dimensional drawings 3
2.2 Fixture packaging accessories 3

3. Main technical parameters of the equipment 3

4. Packaging and transportation 5

4.1 Disassemble packaging 5
4.2 Equipment installation 5

5. Installation Requirements Explanation 5

5.1 Clamp installation 5
5.2 Fixture installtion 6
5.3 Hanging Installation Diagram 6

6. Power and signal connection 7

6.1 Power and signal socket 7
6.2 Power Connect 8
6.3 Signal Connect 8

7. Control panel 9

7.1 Panel Introduction 9
7.2 System menu 10

8. DMX control channel table 11

9. Control circuit diagram 15

10. Regular maintenance 16

10.1 Cleaning and maintenance 16
10.2 Fault analysis and handling 16

★ 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 IP30 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;
- Before turning off the lighting fixture, please adjust the zoom lens to the maximum angle (DMX value: 255), such as the position closest to the LED.

- 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 -40 °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 76 °C , please do not touch it with bare hands.

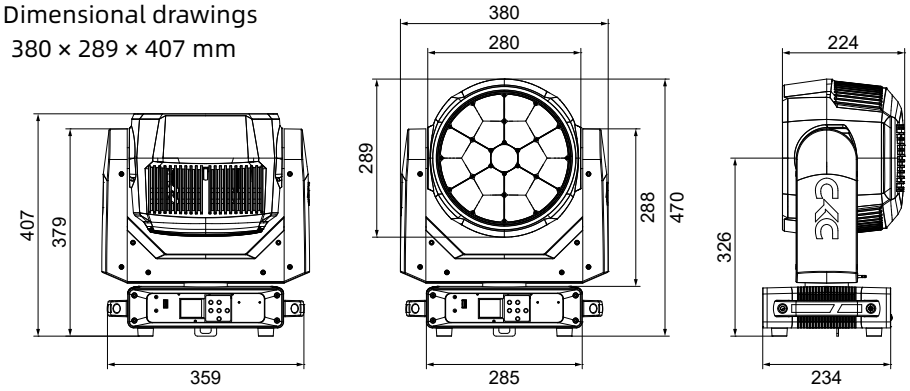
- The lighting fixtures must be installed in a sufficiently ventilated area, at least 0.5m away from adjacent surfaces, to ensure that no ventilation holes are blocked;
- Do not install the lighting fixtures directly on flammable objects;
- The minimum distance between all outer surfaces of the lamp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

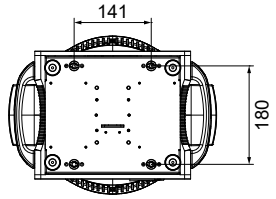
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2. Product Introduction

2.1 Dimensional drawings

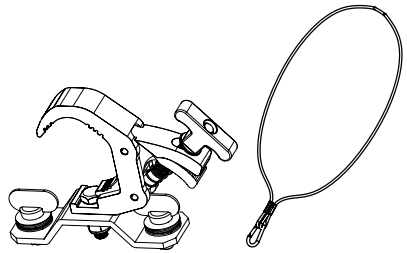
380 × 289 × 407 mm





2.2 Packaging accessories

Name	QTY
Omega bracket	2 PCS
Clamp	2 PCS
Safety cable	1 PCS



3. Main technical parameters of the equipment

Product execution standards:

GB43472-2023、GB/T7000.1-2023、GB/T7000.217-2023

● Electrical parameter

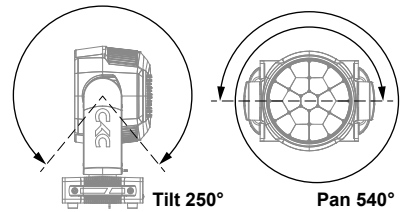
Rated input voltage: AC 100V-240V~ 50Hz/60Hz
Power: 950W@220V; 990W@100V
Power factor: 0.99@220V
Input Current: 4.4A@220V

● LED lifespan

>50000 hours

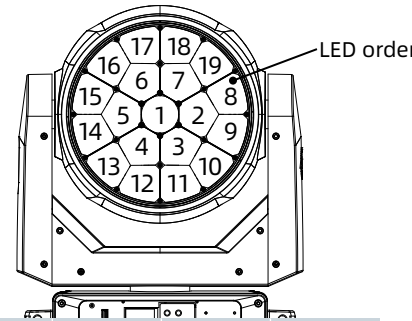
● Pan/Tilt

Pan scan:
540° or 630° 8-bit/16bit recision scanning
Tilt scan:
250° 8-bit/16bit precision scanning



● Control and programming

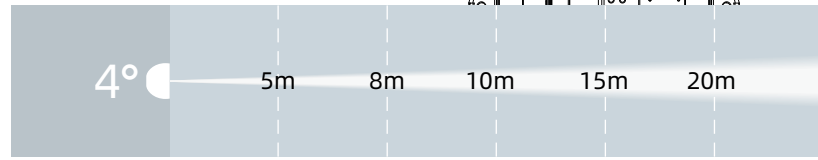
Control channel: 17/21/93 CH
Protocol: DMX512, RDM
Data connect: 3 or 5 pin XLR in/out



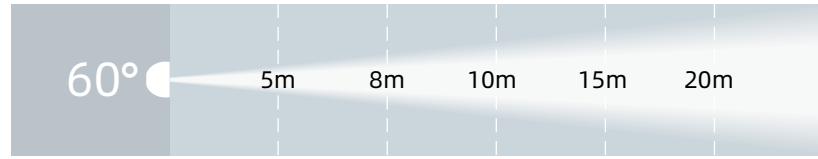
● Optical system

LED source: 19 × 40W RGBW LED
Beam angel: 4 ~ 60°
Output luminous flux: 12000 Lm

● Illumination map



	5m	8m	10m	15m	20m
Lux	52400	21800	13800	5822	3275
Diameter(m)	0.35	0.56	0.70	1.05	1.40



	5m	8m	10m	15m
Lux	1900	860	598	210
Diameter(m)	5.77	9.24	11.55	17.32

● Other effect function

Fast electronic strobe: 1~25Hz

Dimming curve: 4 kinds

● Other features and functions

Weight: 19 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.

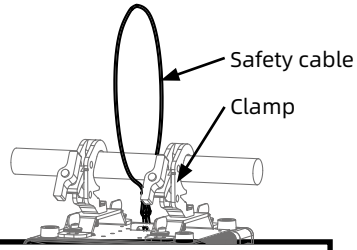
4.2 Equipment packaging

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

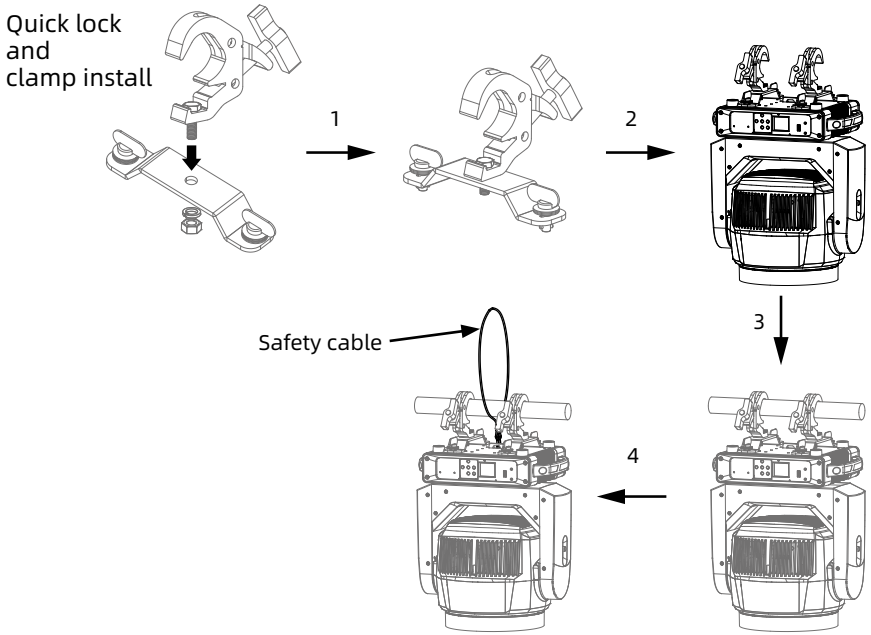
5.1 Clamp install

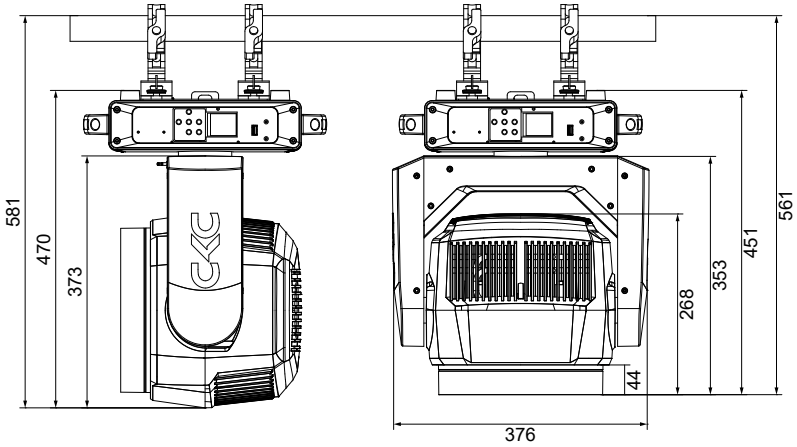
The lighting fixtures can be installed on the stage or on any direction of the truss, and the clamp can be quickly and easily locked onto the truss.



Waining !

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.

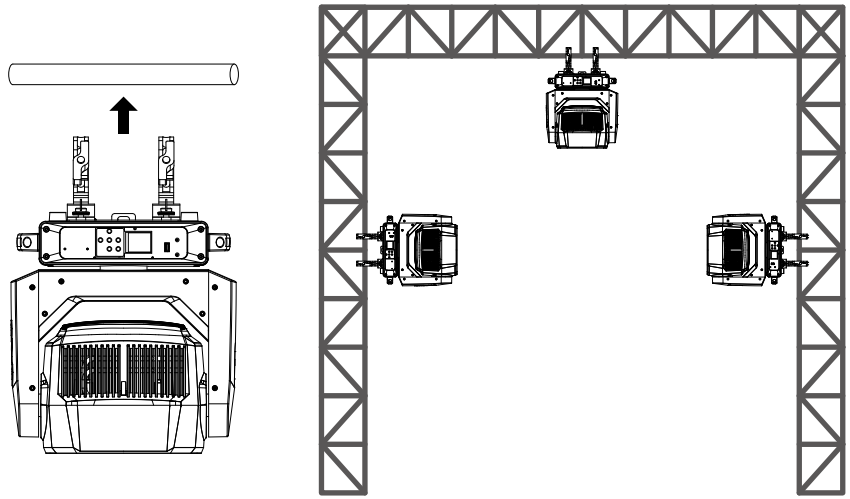




5.2 Equipment installation

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).

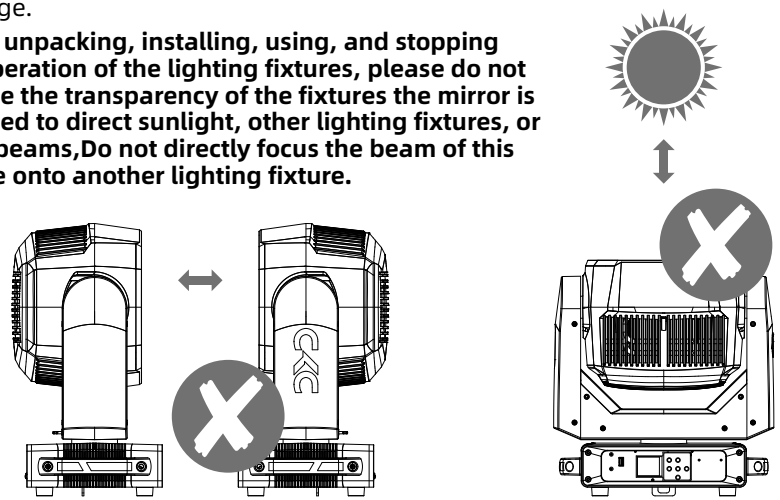
5.3 Hanging Installation Diagram



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.

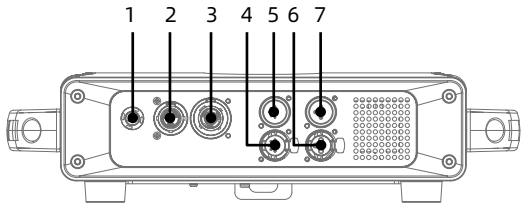
When unpacking, installing, using, and stopping the operation of the lighting fixtures, please do not expose the transparency of the fixtures the mirror is exposed to direct sunlight, other lighting fixtures, or laser beams,Do not directly focus the beam of this device onto another lighting fixture.



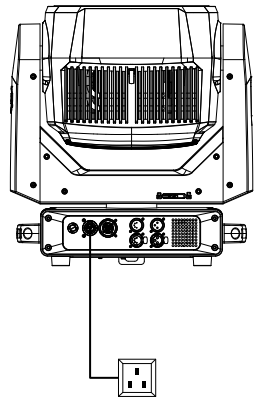
6. Power、Signal connect

6.1 Power and signal seat

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



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.



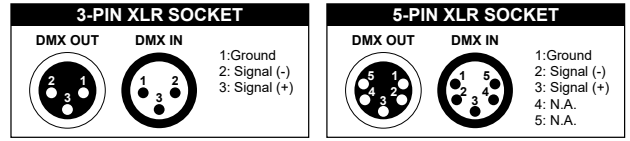
Power In

This product uses Powercon In/Out to connect power cords. Due to power limitations, a 2 square 240V power cord can carry up to 3 products.

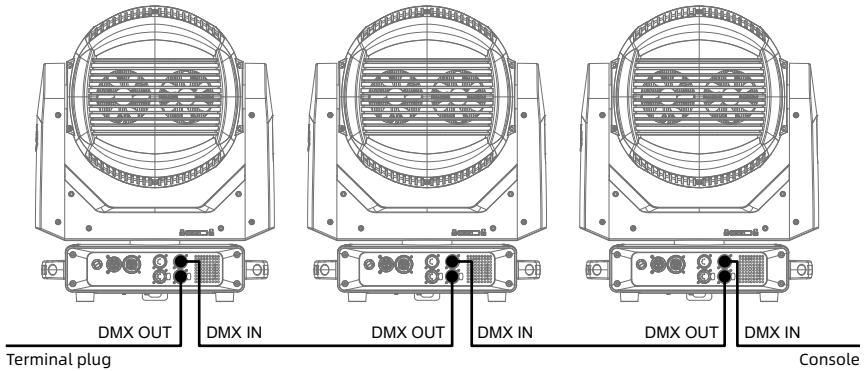
Waining !

- 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.

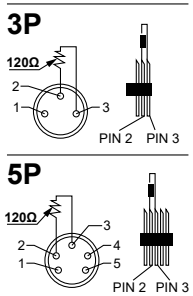
6.3 Signal connect



The lighting fixtures are equipped with standard DMX XLR 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.

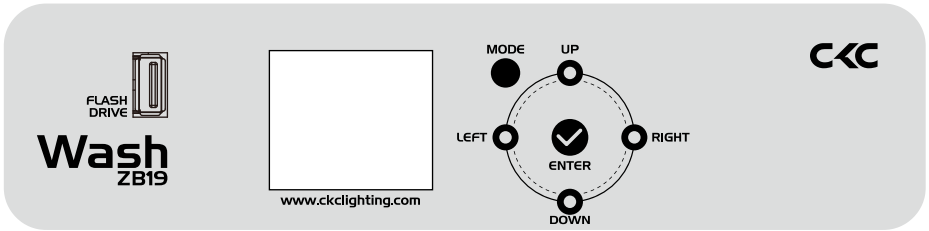


Connect a shielded twisted pair signal cable from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3 or 5 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 ZB19 Motor Reset Please Wait...			
Receive	Set Address	001~XXX	
User Mode	User Mode	Basic Standard Extend User A User B User C	
	Edit A Edit B Edit C	Max Chan PAN :	
Function	Status	No DMX Mode P.Reverse T.Reverse Pan Degree Feedback Move.Spd Hibernation	Hold/Auto/black ON/OFF ON/OFF 630/540 ON/OFF Speed 1~ 4 OFF, 01M~99M，15M
	Dim Mode	Standard、Stage、TV、Architectural、Theatre	
	Temp. C/F	Celsius Fahrenheit	
	Dim Curve	Linear Square Square Inverse S-CURVE	
	Frequency	900Hz/1000Hz/1100Hz/1200Hz/1300Hz/1400Hz/ 1500Hz/2500Hz/4000Hz/5000Hz/10KHz/15KHz/ 20KHz/25KHz	
	White Mode	Full Mode 10000K	
	Fan Set	Head Fan	Auto High Silent
	LCD.Set	Backlight FlipDisplay Key Lock DispFlash	02~60m <05m> ON/OFF ON/OFF ON/OFF

	Disp.Set	Chan.Value Slave Set Auto.Prog	PAN..... Slave1,Slave2,Slave3 Master / Alone
	DFSE	ON/OFF	
	USB Update	ON/OFF	
Info	Time.Info	Current Time (Hours) Total Time (Hours) Last Time (Hours) Timer PIN (ON/OFF) Clear Last (Password=050)	
	Temp. Info	Head：xxxx Base：xxxx	
	Fan Speed	Head：xxxxRPM Base：xxxxRPM	
	Error. Info	NONE/Pan,Tilt...	
	Model. Info	WASH ZB19	
	Software.V	1U: V1.0.X 2U: V1.0.X 3U: V1.0.X 4U: V1.0.X	
Test	Reset.Motor	All Pan & Tilt Head	
	Test.Channel	PAN	
	Panel.Ctrl.	PAN =XXX :	
	Calibrate	-Password- PAN Tilt :	

8. DMX channel table:

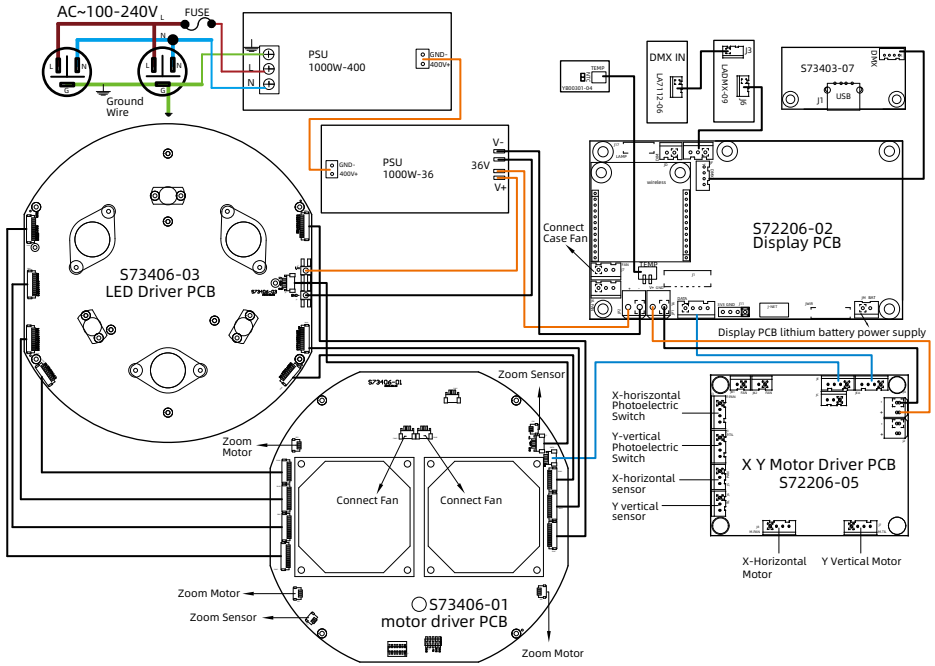
Basic	Standard	Extend	Value	Function
1	1	1	0~255	Pan
	2	2	0~255	Pan fine
2	3	3	0~255	Tilt
	4	4	0~255	Tilt fine
	5	5	**P/T Speed**	
			0~225	Max to min speed
			226~235	Blackout by movement
			236~255	No function
3	6	6	0~255	Genneral dimmer
	7	7	0~255	Genneral dimmer fine
4	8	8	**Strobe**	
			0~31	Shutter closed
			32~63	shutter open
			64~95	Strobe effect slow to fast
			96~127	No function (Shutter open)
			128~159	Pulse-effect in sequences
			160~191	No function (Shutter open)
			192~223	Random strobe effect slow to fast
			224~255	No function (Shutter open)
5	9		000~255	Red
6	10		000~255	Green
7	11		000~255	Blue
8	12		000~255	White
		9	000~255	Red 1
		10	000~255	Green 1
		11	000~255	Blue 1
		12	000~255	White 1
		...	...	...
		81	000~255	Red 19
		82	000~255	Green 19
		83	000~255	Blue 19
		84	000~255	White 19
9	13	85	**Virtual Wheel Color forground**	
			000	No function
			1	10000K
			2	8000K
			3	6500K
			4	5600K
			5	5000K
			6	4500K
			7	4000K
			8	3200K
			9	3000K
			10	2700K
			011~250	Virtual color wheel
			251~253	Color Wheel rotation between the color level 12 to 250
			254~255	Color rotation backward

			Virtual Wheel Color Background	
10	14	86	000 1 2 3 4 5 6 7 8 9 10	Background Off 10000K 8000K 6500K 5600K 5000K 4500K 4000K 3200K 3000K 2700K
			011~250	Virtual color wheel
			251~253	Color Wheel rotation between the color level 12 to 250
			254~255	Color rotation backward
11	15	87	000~255	Fade during color wheel change or speed of the color wheel rotation
12	16	88	**Patterns programs**	
			000~009	No Program
			010~019	Program 1
			020~029	Program 2
			030~039	Program 3
			040~049	Program 4
			050~059	Program 5
			060~069	Program 6
			070~079	Program 7
			080~089	Program 8
			090~099	Program 9
			100~109	Program 10
			110~119	Program 11
			120~129	Program 12
			130~139	Program 13
			140~149	Program 14
			150~159	Program 15
			160~169	Program 16
			170~179	Program 17
			180~189	Program 18
			190~199	Program 19
			200~209	Program 20
			210~255	No used

			Pattern Programs - Step/Auto Chase	
13	17	89	0~4	Static step 1
			5~9	Static step 2
			10~14	Static step 3
			15~19	Static step 4
			20~24	Static step 5
			25~29	Static step 6
			30~34	Static step 7
			35~39	Static step 8
			40~145	Chase Forward Fast > Slow
			146~149	Stop
			150~255	Chase Backward Slow > Fast
14	18	90	0~255	Fade Fast > Slow
15	19	91	0~255	Zoom
16	20	92	**Dim Modes**	
			0~20	Standard
			21~40	Stage
			41~60	TV
			61~80	Architectural
			81~100	Theatre
			101~255	Default to Unit Setting
17	21	93	**Control**	
			0~5	No function
			6~17	Invert Pan on (Hold 3s)
			18~29	Invert Pan off (Hold 3s)
			30~41	Invert Tilt on (Hold 3s)
			42~53	Invert Tilt off (Hold 3s)
			54~65	Fan Silent (Hold 3s)
			66~77	Fan Auto (Hold 3s)
			78~89	Fan High (Hold 3s)
			90~101	Linear Dimmer Curve (Hold 3s)
			102~113	Square Dimmer Curve (Hold 3s)
			114~125	Inv-Square Dimmer Curve (Hold 3s)
			126~131	S - Dimmer Curve (Hold 3s)
			132~137	Led Freq. 900 Hz (Hold 3s)
			138~143	Led Freq. 1000 Hz (Hold 3s)
			144~149	Led Freq. 1100 Hz (Hold 3s)
			150~155	Led Freq. 1200 Hz (Hold 3s)
			156~161	Led Freq. 1300 Hz (Hold 3s)

162~167	Led Freq. 1400 Hz (Hold 3s)
168~173	Led Freq. 1500 Hz (Hold 3s)
174~179	Led Freq. 2500 Hz (Hold 3s)
180~185	Led Freq. 4000 Hz (Hold 3s)
186~191	Led Freq. 5000 Hz (Hold 3s)
192~197	Led Freq. 10000 Hz (Hold 3s)
198~203	Led Freq. 15000 Hz (Hold 3s)
204~209	Led Freq. 20000 Hz (Hold 3s)
210~215	Led Freq. 25000 Hz (Hold 3s)
216~218	Reset Pan/Tilt (Hold 3s)
219~221	Reset only Head (Hold 3s)
222~224	Reset All Functions (Hold 3s)
225~227	Full Mode
228~230	10000K
231~255	No function

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.

Waining !

Before opening any lid, disconnect the power supply. Cleaning optical components requires gentle wiping as the coating surface is prone to scratching. Do not use damaging liquids or hard objects , as they may damage the plastic or coating surface.

- 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 the 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 aing or damaged	Replace
	Power pcb malfunction	Check/ replace
	Loose or poor contact of the circuit	Reconnect
	Switching power supply 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 on the power circuit pcb	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 the light guide column
	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 interferences within the operating range of the fan	Adjust the interference object

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

