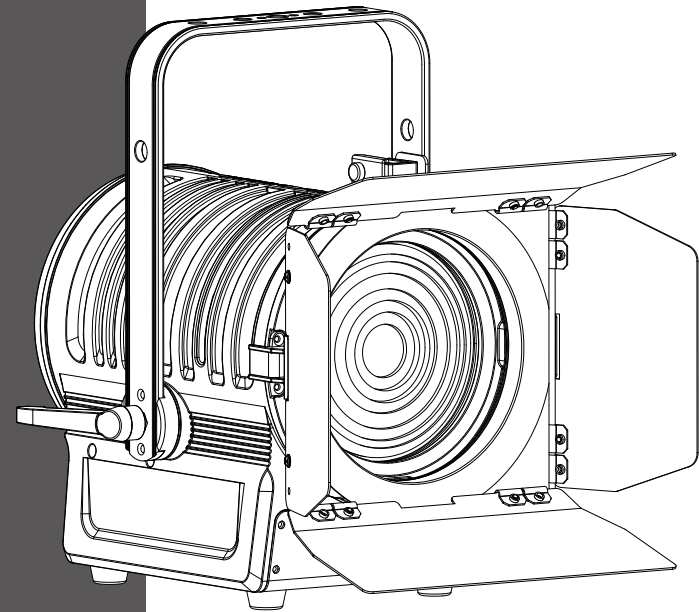


CKC

Fresnel

180TW



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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.

CONTENTS

1. Security Warning Information	1
2. Product Introduction	3
2.1 Exterior dimensions	3
2.2 Fixture packaging accessories	3
3. Main technical parameters of the equipment	3
4. Packaging and transportation	4
4.1 Disassemble packaging	4
4.2 Equipment installation	4
5. Installation Requirements Explanation	4
5.1 Clamp installation	4
5.2 Fixture installtion	5
5.3 Hanging Installation Diagram	5
5.4 Barndoor and Gel frame installation	6
6. Power and signal connection	6
6.1 Power and signal socket	6
6.2 Power Connect	6
6.3 Signal Connect	7
7. Control panel	8
7.1 Panel Introduction	8
7.2 System menu	8
8. DMX control channel table	9
9. Control circuit diagram	13
10. Regular maintenance	14
10.1 Cleaning and maintenance	14
10.2 Fault analysis and handling	14

★ 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 can be used both indoors and outdoors;
- 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 76 °C , please do not touch it with bare hands.

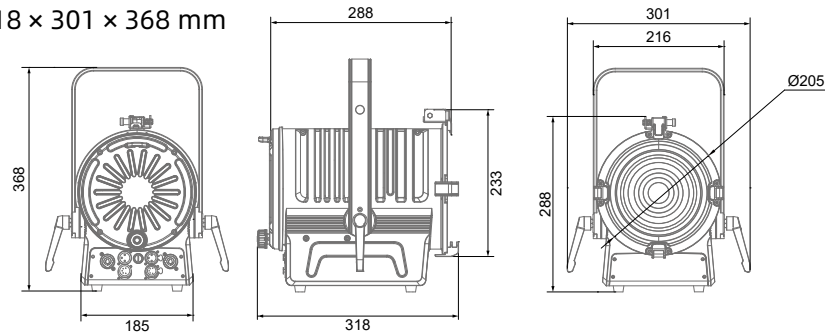


- The lighting fixtures must be installed in a sufficiently ventilated area, at least 0.5m away from adjacent surfaces, to ensure that no ventilation holes are blocked;
- Do not install the lighting fixtures directly on flammable objects;
- The minimum distance between all outer surfaces of the lamp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

2. Product Introduction

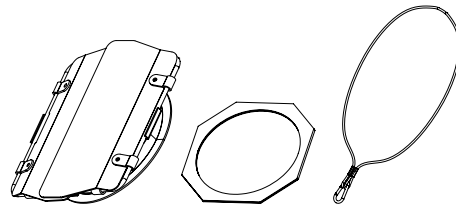
2.1 Exterior dimensions of lighting fixtures

318 × 301 × 368 mm



2.2 Packaging accessories

Name	QTY	
Barndoor	1	PCS
Gel frame	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, CE

● Electrical parameter

Rated input voltage: AC 100V-240V~ 50Hz/60Hz

Rated power of the entire fixture: 197W

Power factor: 0.997F

Input Current: 0.9A 220V

● LED lifespan

> 20000 hours

● Optical system

Source: 180W RGBALC LED

Zoom angle: 13° ~ 60°

CCT: 2800 ~ 8000K

CRI: Ra/94 R9/95

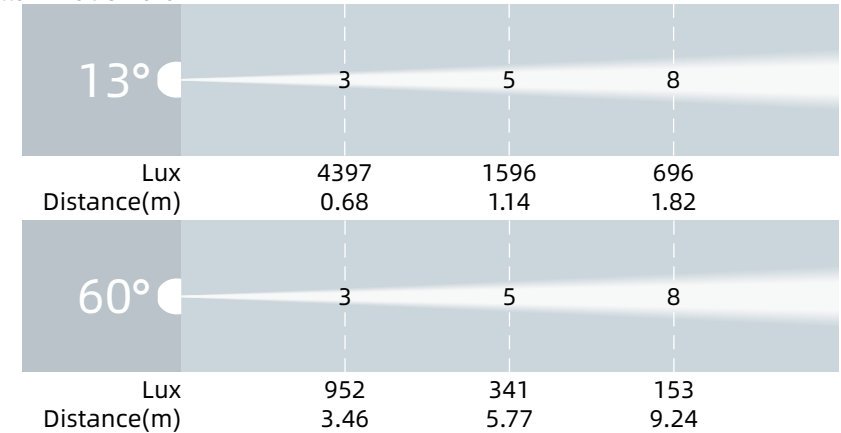
● Control and programming

Control channel: 1/3-1/3-2/3-3/6/11/13CH

Protocol: DMX512, RDM

Data connect: 3 or 5 pin signal in/out

● Illumination draw



● Other effect function

Fast electronic strobe: 1~25Hz

● Other features and functions

Weight: 7.5 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.

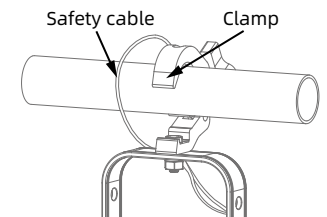
4.2 Equipment packaging

- 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

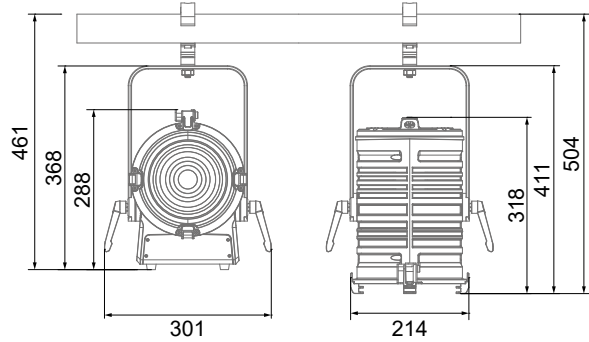
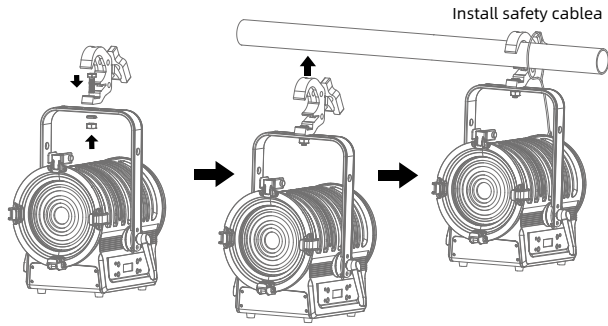
The lighting fixtures can be installed on the stage or on any direction of the truss, and the clamp can be quickly and easily locked onto the truss.



Warning !

Fixture can be used to fix the equipment, and a safety rope must be connected to the safety hook. Note that it cannot be connected to the handle.

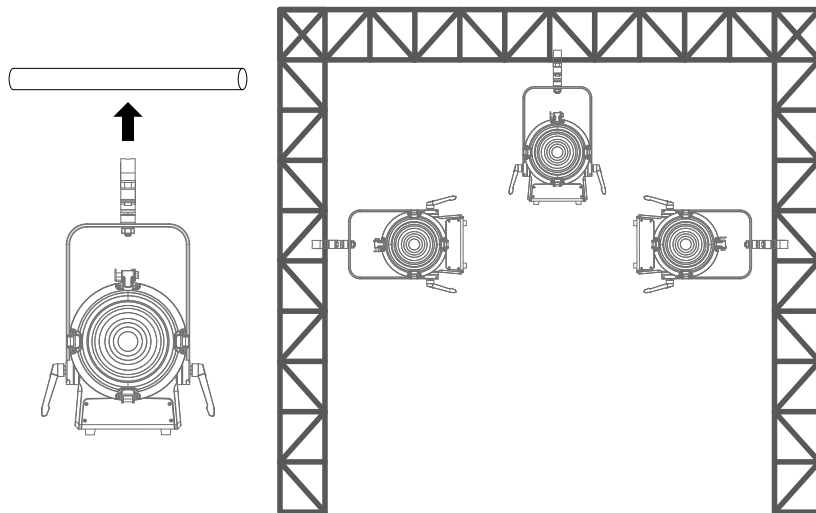
Installation of clamps and safety cable



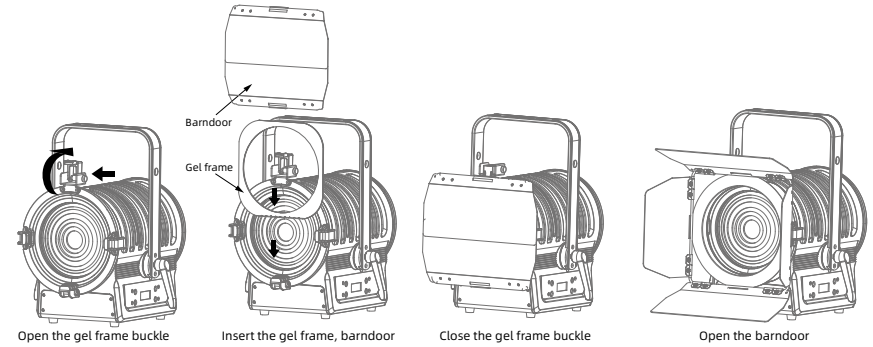
5.2 Equipment installation

- 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). The clamp is installed on the handle. Insert the clamp into the handle mounting hole horizontally and tighten it with bolts (the shape of clamp shall be subject to the actual object)..

5.3 Hanging Installation Diagram



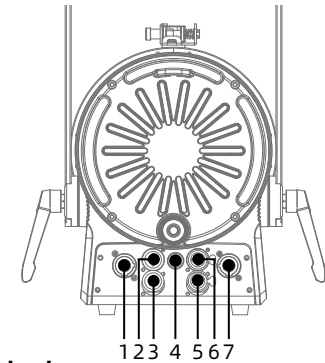
5.4. Barndoor and Gel frame installation



6. Power、Signal connect

6.1 Power and signal socket

1. Power input
2. 3Pin XLR male
3. 5Pin XLR male
4. Fuse holder
5. 3Pin XLR female
6. 5Pin XLR female
7. Power output



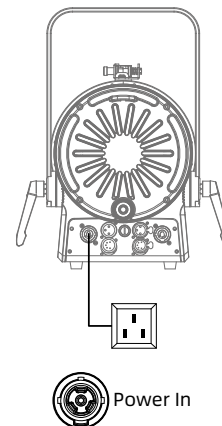
6.2 Power connect

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.



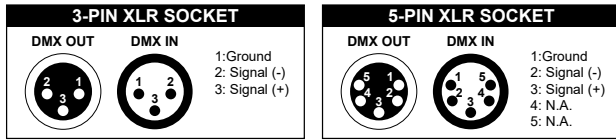
This product uses Powercon In/Out to connect power cords. Due to power limitations, a 2 square meter power cord can carry up to 15 products at 220V and 8 product at 110V.



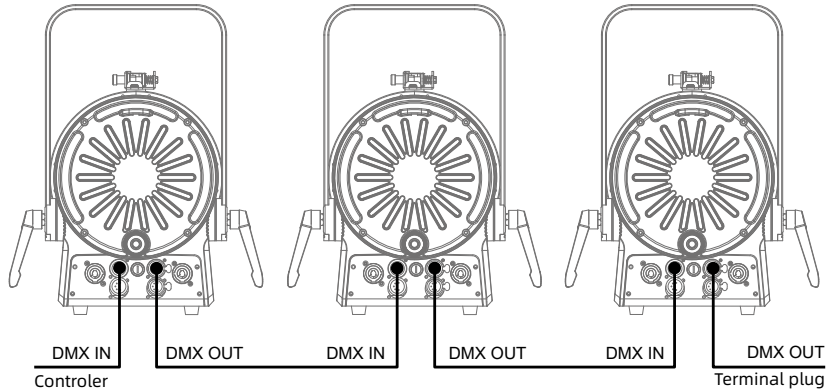
Warning !

- 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.

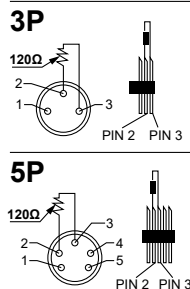
6.3 Signal connect



The lighting fixtures are equipped with standard DMX XLR input and output sockets. Please use DMX512 shielded twisted pair signal cables or Category 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 1602A LCD display screen;
- Press the MODE key to view or modify fixture function settings, and press UP and DOWN;
- 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.

7.2. System menu

Note: The gray color block is the default setting value

Update Wait... Fresnel 180TW SOFTWARE V1.02					
No.	MENU				
1	Menu DMX Addr	DMX Addr 001	001-512		
2	Menu Mode	Mode DMX	DMX Mode 1CH	1CH/3CH1/3CH2/3CH3/6CH/11CH/13CH	
		Mode Static	Static Dimmer	Dimmer	000-255
				Strobe	000-255
				Red	000-255
				Green	000-255
				Blue	000-255
				Amber	000-255
				Lime	000-255
				Cyan	000-255
		Mode CCT	CCT Dimmer	Dimmer	000-255
		Mode HSI	HSI Intens	Temp	2800-8000K
				Tint	-128- +127 (000)
Strobe	000-255				
Intens	000-100%				
		Hue	000-360 Deg		
		Saturat	000-100%		
		Strobe	000-255		
Mode Slave					

3	Menu Settings	Settings DispBack	DispBack Off	On/Off		
		Settings DMX Fail	DMX Fail Hold	Hold/Blackout		
		Settings Fan	Fan Auto	Auto/Silent		
		Settings RedShift	RedShift Off	On/Off		
		Settings DimCurve	DimCurve Linear	Linear/Expo/Log/S-Curve		
		Settings DimResp.	DimResp. LED	LED/Halogen		
		Settings PWM	PWM 650Hz	650/1530/3600/12K/25K Hz		
		Settings FacReset	FacReset No	Yes/No		
		Settings Calibrat	Calibrat Red	Red	000-255	
				Green	000-255	
Blue	000-255					
Amber	000-255					
Lime	000-255					
Settings Service	Service PW:xxx	PW:060	ClearTim Yes/No			
4	Menu Sys Info	Sys Info Firmware	Firmware V1.02			
		Sys Info Temp	Temp LED	Temp xxx° C		
			Temp Unit	Unit °C	°C/°F	
Sys Info Time	Time xxxx.xx h					

8. DMX channel table:

1CH Mode		
Ch.	Function	Values
1	Dimmer	000-255 0% to 100%

3CH Mode 1		
Ch.	Function	Values
1	Dimmer	000-255 0% to 100%
2	Dimmer fine	000-255 0% to 100%
3	Strobe	000-005 Strobe open
		006-255 Strobe slow -> fast <1Hz - 20Hz

3CH Mode 2 HSI coarse		
Ch.	Function	Values
1	Dimmer	000-255 0% to 100%
2	Hue	000-255 0° - 360°
3	Strobe	000-255 100% - 0%

3CH Mode 3 CCT coarse		
Ch.	Function	Values
1	Dimmer	000-255 0% to 100%
2	CCT	000-255 Warm - Cold / 2800K - 8000K
3	Tint	000-000 no function
		001-255 001 magenta <-- 128 neutral --> 255 green

6CH Mode Direct		
Ch.	Function	Values
1	Red	000-255 0% to 100%
2	Green	000-255 0% to 100%
3	Blue	000-255 0% to 100%
4	Amber	000-255 0% to 100%
5	Lime	000-255 0% to 100%
6	Cyan	000-255 0% to 100%

11CH Mode 2 HSI fine		
Ch.	Function	Values
1	Dimmer	000-255 0% to 100%
2	Dimmer fine	000-255 0% to 100%
3	Strobe functions	000-005 Strobe open
		006-010 Strobe closed
		011-033 Puls Random, slow -> fast
		034-056 Ramp up Random, slow -> fast
		057-079 Ramp down Random, slow -> fast
		080-102 Random Strobe Effect, slow -> fast
		103-127 Strobe Break Effect, 5s.....1s (Short burst with break)
		128-250 Strobe slow -> fast <1Hz - 20Hz
251-255 Strobe open		
4	Hue	000-255 0° - 360°
5	Hue fine	000-255 0° - 360°
6	Saturation	000-255 100% - 0%
7	Saturation fine	000-255 100% - 0%
8	CCT overrides Hue + aturation	000-005 no function
		006-255 Warm - Cold / 2800K - 8000K
9	Tint	000-000 no function
		001-255 001 magenta <-- 128 neutral --> 255 green

10	Colour Macro (overrides everthing) & Colour Jumping & Colour Fading	000-005	Colour off
		006-013	Red
		014-021	Amber
		022-029	Yellow warm
		030-037	Yellow
		038-045	Green
		046-053	Turquoise
		054-061	Cyan
		062-069	Blue
		070-077	Lavender
		078-085	Mauve
		086-093	Magenta
		094-101	Pink
		102-109	Warm White
		110-117	White
		118-125	Cold White
		126-127	Colour Jumping Stop
		128-191	Colour Jumping Speed slow -> fast / Colour 1 -> 12
		192-255	Colour Fading Speed slow -> fast / Colour 1 -> 12
		11	Device settings
078-079	Dimmer Response LED (Hold 1.5s)		
080-081	Dimmer Response Halogen (Hold 1.5s)		
082-083	DTW (Redshift) on (Hold 1.5s)		
084-085	DTW (Redshift) off (Hold 1.5s)		
086-097	no function		
098-099	Silent Fan (Hold 3s)		
100-101	Auto Fan (Hold 3s)		
102-123	no function		
124-125	PWM 650 Hz (Hold 5s)		
126-127	PWM 1530 Hz (Hold 5s)		
128-129	PWM 3600 Hz (Hold 5s)		
130-131	PWM 12 kHz (Hold 5s)		
132-133	PWM 25 kHz (Hold 5s)		
134-143	no function		
144-145	Display on (Hold 3s)		
146-147	Display off (Hold 3s)		
158-167	no function		
168-169	Dimmer Curve Linear (Hold 3s)		
170-171	Dimmer Curve Exponential (Hold 3s)		
172-173	Dimmer Curve Logarithmic (Hold 3s)		
174-175	Dimmer Curve S-Curve (Hold 3s)		
176-255	no function		

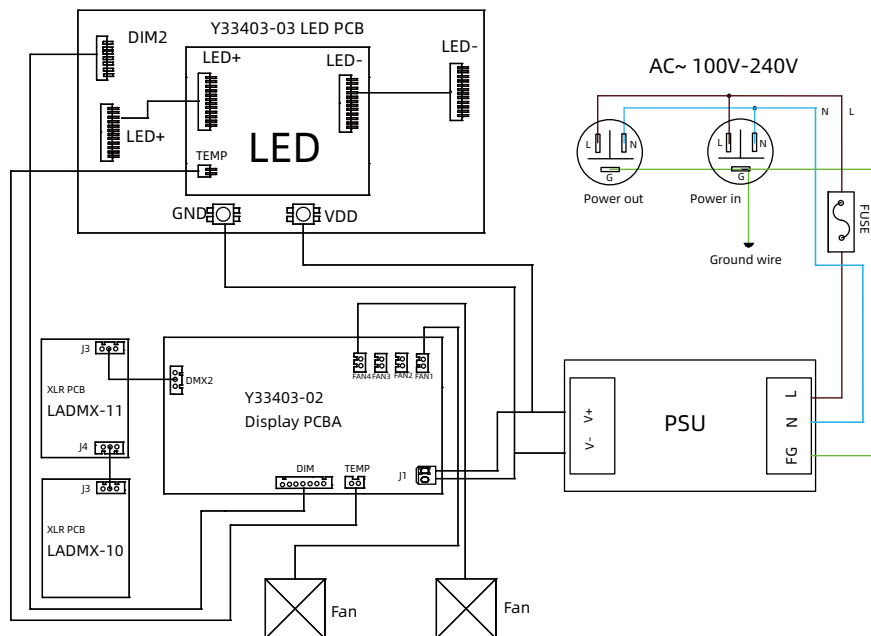
13CH Mode Direct Mode Fine					
Ch.	Function	Values			
1	Dimmer	000-255 0% to 100%			
2	Dimmer fine	000-255 0% to 100%			
3	Strobe functions	000-005	Strobe open		
		006-010	Strobe closed		
		011-033	Puls Random, slow -> fast		
		034-056	Ramp up Random, slow -> fast		
		057-079	Ramp down Random, slow -> fast		
		080-102	Random Strobe Effect, slow -> fast		
		103-127	Strobe Break Effekt, 5s.....1s (Short burst with break)		
		128-250	Strobe slow -> fast <1Hz - 20Hz		
		251-255	Strobe open		
		4	Red	000-255	0% to 100%
5	Green	000-255	0% to 100%		
6	Blue	000-255	0% to 100%		
7	Amber	000-255	0% to 100%		
8	Lime	000-255	0% to 100%		
9	Cyan	000-255	0% to 100%		
10	CCT overrides RGBALC	000-005	no function		
		006-255	Warm - Cold / 2800K - 8000K		
11	Tint	000-000	no function		
		001-255	001 magenta <-- 128 neutral --> 255 green		
12	Colour Macro (overrides everthing) & Colour Jumping & Colour Fading	000-005	Colour off		
		006-013	Red		
		014-021	Amber		
		022-029	Yellow warm		
		030-037	Yellow		
		038-045	Green		
		046-053	Turquoise		
		054-061	Cyan		
		062-069	Blue		
		070-077	Lavender		
		078-085	Mauve		
		086-093	Magenta		
		094-101	Pink		
		102-109	Warm White		
		110-117	White		
		118-125	Cold White		
		126-127	Colour Jumping Stop		
		128-191	Colour Jumping Speed slow -> fast / Colour 1 -> 12		
		192-255	Colour Fading Speed slow -> fast / Colour 1 -> 12		
				000-077	no function
				078-079	Dimmer Response LED (Hold 1.5s)
				080-081	Dimmer Response Halogen (Hold 1.5s)

13

Device settings

082-083	DTW (Redshift) on (Hold 1.5s)
084-085	DTW (Redshift) off (Hold 1.5s)
086-097	no function
098-099	Silent Fan (Hold 3s)
100-101	Auto Fan (Hold 3s)
102-123	no function
124-125	PWM 650 Hz (Hold 5s)
126-127	PWM 1530 Hz (Hold 5s)
128-129	PWM 3600 Hz (Hold 5s)
130-131	PWM 12 kHz (Hold 5s)
132-133	PWM 25 kHz (Hold 5s)
134-143	no function
144-145	Display on (Hold 3s)
146-147	Display off (Hold 3s)
158-167	no function
168-169	Dimmer Curve Linear (Hold 3s)
170-171	Dimmer Curve Exponential (Hold 3s)
172-173	Dimmer Curve Logarithmic (Hold 3s)
174-175	Dimmer Curve S-Curve (Hold 3s)
176-255	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.




Warning !

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;

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
	The optical mirror has accumulated dust or stains	Clean
	The optical mirror is damaged	Replace
Impure color	Weakening of light efficiency	Replace led PCB
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		

