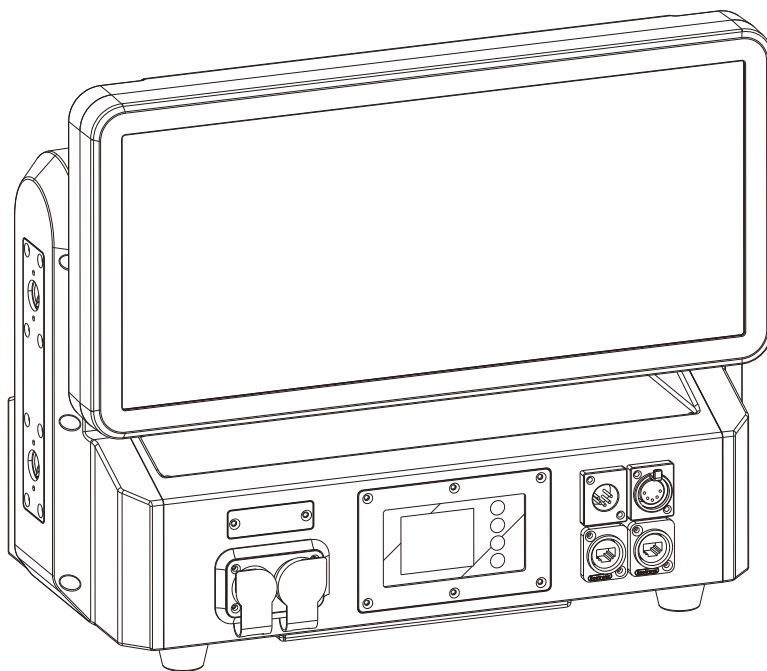


# HORIZON<sup>ST</sup>

## USER MANUAL



CE

Version:1.0

  
**LEDING**



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Congratulations on choosing our products! Please carefully read this instruction manual in its entirety and keep it well for using reference. This manual contained about the installation and the relative using information of this products. Plese refere this manual's relative instruction when using this equipment.

## 1. Open–Package guidelines

This equipment is made of new style, high intensity plastic. It fully shows the modern times light characteristic with beauty structure. And it is made according to CE standard. Fully agree with the international standard of DMX512 agreement.

When receive the product, please be careful to take and put, check if the product has damage or not because of transportation, and check the following parts:

- |                     |                       |
|---------------------|-----------------------|
| 1. Signal cable-1PC | 2. Safty cable-1PC    |
| 3. User Manual-1PC  | 4. Power cable-1PC    |
| 5. Service card-1PC | 6. Omega bracket-2PCS |

### 1.1 Package

Unpacking the fixture

1. Open the flight case cover.
2. With one person on each side, lift the fixture out of the flight case.

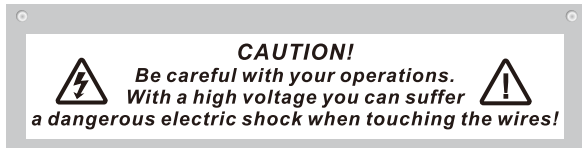
Packing the fixture

1. Disconnect the fixture from power and allow it to cool.
2. Adjust the rotating support, place it in the box.

## 2. Safety instructions

Every person involved with installation and maintenance of this device to:

- Be qualified
- Follow the instructions of this manual.








This device has been shipped with our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

### Important:

- The manufacturer will not accept liability for any resulting damages caused by the nonobservance of this manual or any unauthorized modification to the device.
- Please consider that damages caused by manual modifications to the device are not subject to warranty.
- Never let the power-cord come into contact with other cables! Handle the power cord and all connections with particular caution!
- Make sure that the available voltage is not higher than stated on the rear panel.
- Always plug in the power plug last. Make sure that the power-switch is set to off-position before you connect with the mains with particular caution!
- Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.
- Always disconnect from the mains, when the device is not in use or before cleaning it.
- Only handle the power-cord by the plug. Never pull out the plug by tugging the powercord.
- This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.
- The electric connection, repairs and servicing must be carried out by a qualified employee.
- Do not connect this device to a dimmer pack.
- Do not switch the fixture on and off in short intervals as this would reduce the lamp's life.
- Do not touch the device's housing bare hands during its operation (housing becomes hot)!
- For replacement use lamps and fuses of same type and rating only.

### Eye damage!

**Avoid looking directly into the light source (meant especially for epileptics)!**

-  **Minimum distance of illuminated objects**  
The projector needs to be positioned so that the objects hit by the beam of light are at least 0.80 metres from the lens of the projector.
- t<sub>a</sub> 45 °C** **Maximum ambient temperature**  
Do not operate the fixture if the ambient temperature (T<sub>a</sub>) exceeds 45 °C (113 °F).
- t<sub>c</sub> 80 °C** **Temperature of the external surface**  
The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 80 °C (176 °F).
- IP 65** **IP65 protection rating**  
Completely prevent external intrusion and dust entering. Avoid the damages to devices of water coming from the nozzle from different directions.
-  **Photobiological Safety**  
CAUTION. Possibly hazardous optical radiation emitted from this product. Do not stare at operating lamp. May be harmful to the eyes.
-  **Risk Group 2 According to EN62471**
-  **Light collimation system**  
This product contains internal light collimation system. Avoid intense light from any angle.
- CE** **The products to which this manual refers comply with the European Directives pursuant to:**
- Safety of electrical equipment supplied at low voltage (LVD)  
EN 60598-1:2015  
EN 60598-2-17:1989+A2:1991
  - Electromagnetic Compatibility (EMC)  
EN 55015:2013/A1:2015  
EN 61000-3-2:2014  
EN 61000-3-3:2013  
EN 61547:2019
-  **Protection against electrical shock**  
Connection must be made to a power supply system fitted with efficient earthing (Class I appliance according to standard EN 60598-1). It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

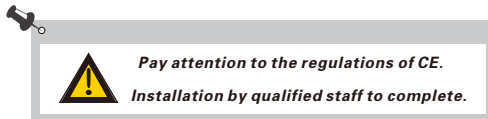
### 3. Operating determinations

- This device is a moving-head for creating decorative effects and was designed for indoor use only.
- If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.
- Never run the device without lamp!
- Do not shake the device, avoid brute force when installing or operating the device.
- Never lift the fixture by holding it at the projector head, as the mechanics may be damaged. Always hold the fixture at the transport handles.
- When choosing the installation spot, please make sure that the device is not exposed to heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

- The minimum distance between light output and the illuminated surface must be more than 0.2 meters.
- Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.
- Always fix the fixture with an appropriate safety rope, Fix the safety rope at the correct holes only.
- Operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- The lamp must never be ignited if the objective-lens or any housing-cover is open, as discharge lamps may explode and emit a high ultraviolet radiat, which may cause burns.
- The maximum ambient temperature 45° C must never be exceeded.
- Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!
- Please use the original packaging if the device is to be transported.
- Please consider that unauthorized modifications on the device are forbidden due to safety reasons!
- If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, crash etc.

## 4. Rigging the fixture

### 4.1 Mounting



- ☞ For the various mounting positions of the FIXTURE (standing on the floor, sideways or hanging different accessories kits are available.
- ☞ Through this a safe and firm installation is assured.
- ☞ You'll find special connectors on the bottom side of the system which are put to use here.

### 4.2 Installing the Clamps

Please consider the respective national norms during the installation! The installation must only be carried out by an authorized dealer!

The installation of the projector has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall if the main attachment fails.

When servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

The projector should be installed outside areas where persons may walk by or be seated.

**Important!** Overhead rigging requires extensive experience CE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the projector. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and or damage to property.

The projector has to be installed out of the reach of people.

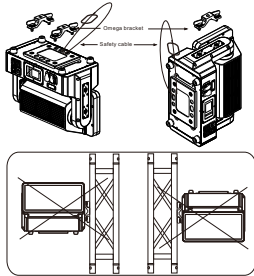
If the projector shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The projector must never be fixed swinging freely in the room.

**Caution** Projectors may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the projector!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the projector's weight.

The projector can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics.

For overhead use, always install a safety-rope that can hold at least 10 times the weight of the fixture. You must only use safety-ropes with screw-on carabines. Pull the safety-rope through the two apertures on the bottom of the base and over the trussing system etc.



**Warning:** it is necessary to make sure that the installation location is perfectly appropriate, and the installation location is safe and reliable.

Use only the DOWN orientation when mounting the fixture from the side/arm.

### 4.3 Power supply connection and cut off

Connect the light source to the main power source with the plug of the power cord, or cut off the power supply:

### 4.4 Power Connection

If you wish to change the power supply settings, see the chapter appendix. Connect the fixture to the mains with the enclosed power cable and plug.

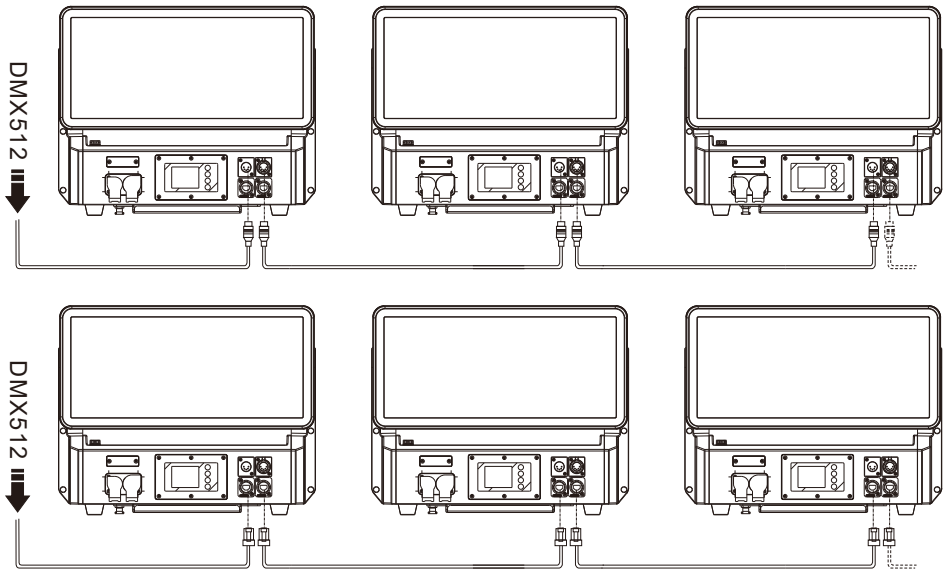


**Warning:** please verify the power of the power supply equipment prior to the connection! Earth wire must be grounded!

CABLE(EU)	CABLE(US)	Pin	INTERNATIONAL
Brown	Black	Live	<b>L</b>
Light blue	White	Neutral	<b>N</b>
Yellow/Green	Green	Earth	<b>⏚</b>

### 4.5 DMX-512 connection/connection between fixtures

Only use stereo shielded cable and 3-pin XLR-plugs and connectors in order to connect.



Max loop 3 fixture at 110V, Max loop 6 fixture at 240V.

**Caution**

At the last fixture, the DMX-cable has to be terminated with a terminator. solder a 120 resistor between signal(-) and Signal (+) into a 5-pin XLR-plug and plug it in the DMX-output of the last fixture.

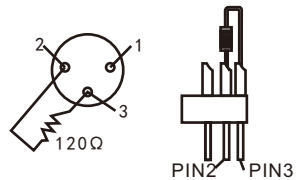
DMX output 3-pin XLR socket      DMX iutput 3-pin XLR socket



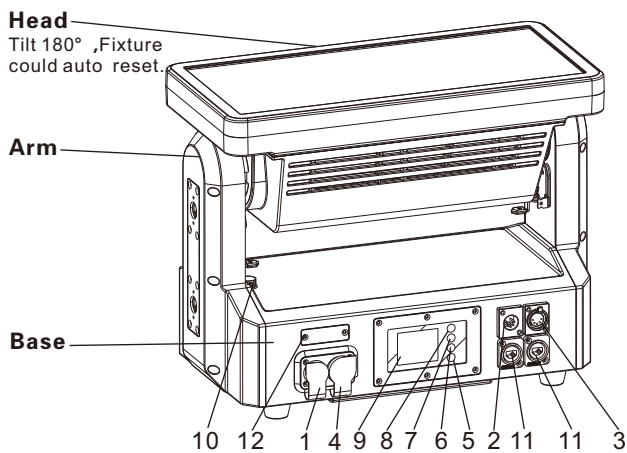
- 1 : Ground
- 2 : Signal (-)
- 3 : Signal (+)

**DMX Terminator Diagram**

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

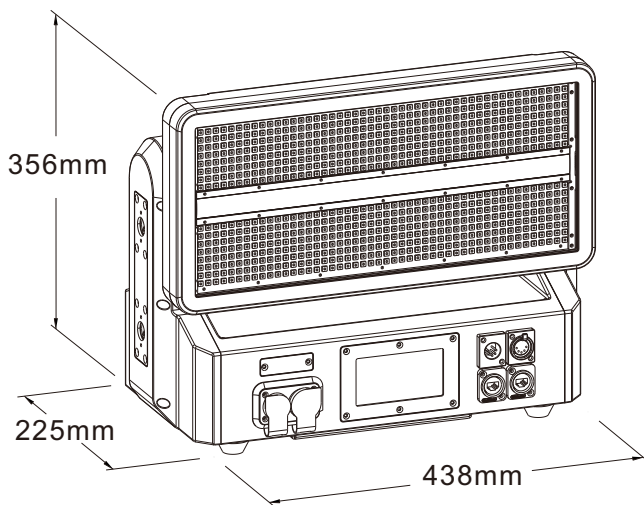


## 5.Description of the device



- 1.Power-In
- 2.3-pin XLR male
- 3.3-pin XLR female
- 4.Power-Out
- 5.ENTER button
- 6.DOWN button
- 7.UP button
- 8.MODE button
- 9.Display
- 10.Respirator
- 11.ETHERNET
- 12.ANTENNA

## 6.Dimension



## 7.Display control

### 7.1 Navigation in the Menu

Using the buttons, and this can be simply and easily set the address code and function code.

If you view or modify the lighting feature set, then press ENTER button, the display will enter the menu interface. Both there is sub menu corresponding to the functional operation of the main menu. Each of the menus is representative of the specific features of the lamp. The specific contents shows as the table menu below.

Set or browse lighting function, press UP or DOWN button.

Press ENTER to save your changes or enter the submenu. Press the UP or DOWN can change the numerical (increase or decrease in value).

Press the MODE button to return to menu.

If there is a channel failure in the reset process, the LCD screen will display the corresponding fault information, can be compared to the information content of the lamp to be amended, if in doubt, consult the relevant technical personnel. - (Error List)

CODE #	ERRO INFO	Check Measurement	NOTE
	<b>BD1 Error</b>	<b>Check main cable ABAB ( 485 ) chip.</b>	<b>RESET ERROR</b>
	<b>BD2 Error</b>		
	<b>BD3 Error</b>		
	<b>Tilt FB. Error</b>	<b>Check the light coupling line, optical coupling switch and a plate of the relative position measurement.</b>	
	<b>ArtNet Mdl Error</b>	<b>Check the fan of ArtNet, communication signal.</b>	
	<b>BaseFan1 Error</b>	<b>Check the fan of Base.</b>	
	<b>BaseFan2 Error</b>		
	<b>LEDFan1 Error</b>	<b>Check the fan of headLED.</b>	
	<b>LEDFan2 Error</b>		
	<b>LEDFan3 Error</b>		

### 7.2 Menu Maps

DMX Setup	DMX Address	001*–XXX	
	Channel Mode	Mode1*	
		Mode2	
		Mode3	
		Mode4	
		Mode5	
	Fixture ID	Close*–999	
	Dmx In	Wire In*	
		Wireless In	
		WirelessIN / XLROut	
		Ethernet In	
		EthernetIN / XLROut	
	No DMX	Hold	
		Close	
Static			
Ethernet	Universe	000–999	
	IP Address	xxx.xxx.xxx.xxx	
	MASK Address	xxx.xxx.xxx.xxx	
Information	Fixture Time	Resettable xxxx H xx M	
		Total xxxx H xx M	
	LED Time	Resettable xxxx H xx M	
		Total xxxx H xx M	
	Error List		
DMX Values			
System Information			

Personality	TILT Invert	ON / OFF*	
	Feedback	ON* / OFF	
	Plate Swap	ON / OFF*	
	Beam Swap	ON / OFF*	
	Dim.Curve	Liner	
		Scurve	
		Inv Sq	
		Square	
	Screen Time	OFF / 1Min. / 2Min. / 5Min. / 10Min.	
	Auto Screen	ON / OFF*	
	Fan Mode	Auto	
		Fast	
	DimmerSpeed	Fast	
		Smooth	
600HZ*			
LED Freq	1200HZ		
	2000HZ		
	4000HZ		
	6000HZ		
	25000HZ		
RDM	ON*/OFF		
Language	English* / 中文		
Ethernet	ON/OFF* (password:0921)		
Wireless	ON/OFF* (password:0921)		
Manual	Tilt		
	Master Dimmer		
	Plate Dimmer		
	Beam Dimmer		
	Plate Duration		
	Plate Rate		
	Beam Duration		
	Beam Rate		
	Plate red		
	Plate green		
	Plate blue		
Service	Reset	Reset TILT	
	Calibrations	Tilt	0-255 (Default 128*)
		Red	0-255 (Default 128*)
		Green	0-255 (Default 128*)
		Blue	0-255 (Default 128*)
		Beam	0-255 (Default 128*)
Factory Default			

## 8.DMX protocol

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value						
1	1	1	1	1	Tilt	Tilt 0 – 100%	0–255						
2	2	2	2	2	Tilt Fine	Tilt Fine	0–255						
3	3	3	3	3	Dimmer	Dimmer 0 – 100%	0–255						
*	4	4	*	4	Plate Dimmer	Plate Dimmer 0 – 100%	0–255						
*	5	5	*	5	Beam Dimmer	Beam Dimmer 0 – 100%	0–255						
4	*	*	4	*	Strobe	Close	0 – 15						
						Random Strobe	16 – 47						
						Ramp Up	48 – 79						
						Ramp Down	80 – 111						
						Ramp Up & Ramp Down	112 – 143						
						Strobe (Slow1hz->Fast25hz)	144 – 239						
						Open	240 – 255						
						*	6	6	*	6	Plate Flash Duration	Plate Flash Duration 0–100%	0–255
						*	7	7	*	7	Plate Flash Rate	Plate Flash Rate 0–100%	0–255
						*	8	8	*	8	Beam Flash Duration	Beam Flash Duration 0–100%	0–255
*	9	9	*	9	Beam Flash Rate	Beam Flash Rate 0–100%	0–255						
5	10	10	*	10	Plate Pixel red	Plate Pixel red 0–100%	0–255						
6	11	11	*	11	Plate Pixel green	Plate Pixel green 0–100%	0–255						
7	12	12	*	12	Plate Pixel blue	Plate Pixel blue 0–100%	0–255						
8	*	*	*	*	Beam	Beam 0–100%	0–255						
*	*	*	5	13	Pixel / Plate Pixel 1 red	Pixel / Plate Pixel 1 red 0–100%	0–255						
*	*	*	6	14	Pixel / Plate Pixel 1 green	Pixel / Plate Pixel 1 green 0–100%	0–255						
*	*	*	7	15	Pixel / Plate Pixel 1 blue	Pixel / Plate Pixel 1 blue 0–100%	0–255						
*	*	*	8	16	Pixel / Plate Pixel 2 red	Pixel / Plate Pixel 2 red 0–100%	0–255						
*	*	*	9	17	Pixel / Plate Pixel 2 green	Pixel / Plate Pixel 2 green 0–100%	0–255						
*	*	*	10	18	Pixel / Plate Pixel 2 blue	Pixel / Plate Pixel 2 blue 0–100%	0–255						
*	*	*	11	19	Pixel / Plate Pixel 3 red	Pixel / Plate Pixel 3 red 0–100%	0–255						
*	*	*	12	20	Pixel / Plate Pixel 3 green	Pixel / Plate Pixel 3 green 0–100%	0–255						
*	*	*	13	21	Pixel / Plate Pixel 3 blue	Pixel / Plate Pixel 3 blue 0–100%	0–255						
.	.	.	.	.	.	.	.						
*	*	*	38	46	Pixel / Plate Pixel 12 red	Pixel / Plate Pixel 12 red 0–100%	0–255						
*	*	*	39	47	Pixel / Plate Pixel 12 green	Pixel / Plate Pixel 12 green 0–100%	0–255						
*	*	*	40	48	Pixel / Plate Pixel 12 blue	Pixel / Plate Pixel 12 blue 0–100%	0–255						
*	*	*	41	49	Beam pixel 1	Beam pixel 1 0–100%	0–255						
*	*	*	42	50	Beam pixel 2	Beam pixel 2 0–100%	0–255						
*	*	*	43	51	Beam pixel 3	Beam pixel 3 0–100%	0–255						
.	.	.	.	.	.	.	.						
*	*	*	52	60	Beam pixel 12	Beam pixel 12 0–100%	0–255						
*	*	13	*	61	Plate 1 Pattern	No Function	0–5						
						Static Pattern ( 22kinds in total )	6–27						
						No Function	28–79						
						Animated Pattern ( 62 kinds in total )	80–115						
						Random Pattern ( 4 kinds in total )	116–123						
						No Function	124–255						
*	*	14	*	62	Plate 1 Fade	Plate 1 Fade 0–100%	0–255						
*	*	15	*	63	Plate 1 Speed	Plate 1 Speed 0–100%	0–255						
*	*	16	*	*	Plate 1 red	Plate 1 red 0–100%	0–255						
*	*	17	*	*	Plate 1 green	Plate 1 green 0–100%	0–255						
*	*	18	*	*	Plate 1 blue	Plate 1 blue 0–100%	0–255						
*	*	19	*	64	Plate 2 Pattern	No Function	0–5						
						Static Pattern ( 22kinds in total )	6–27						
						No Function	28–79						
						Animated Pattern ( 62 kinds in total )	80–115						
						Random Pattern ( 4 kinds in total )	116–123						
						No Function	124–255						
*	*	20	*	65	Plate 2 Fade	Plate 2 Fade 0–100%	0–255						
*	*	21	*	66	Plate 2 Speed	Plate 2 Speed 0–100%	0–255						
*	*	22	*	*	Plate 2 red	Plate 2 red 0–100%	0–255						
*	*	23	*	*	Plate 2 green	Plate 2 green 0–100%	0–255						

Mode1	Mode2	Mode3	Mode4	Mode5	Fade Type	Function	Dmx Value
*	*	24	*	*	Plate 2 blue	Plate 2 blue 0-100%	0-255
						No Function	0-5
*	*	25	*	67	Beam 1 Pattern	Static Pattern ( 22kinds in total )	6-27
						No Function	28-79
						Animated Pattern ( 62 kinds in total )	80-115
						Random Pattern ( 4 kinds in total )	116-123
						No Function	124-255
*	*	26	*	68	Beam 1 Fade	Beam 1 Fade 0-100%	0-255
*	*	27	*	69	Beam 1 Speed	Beam 1 Speed 0-100%	0-255
						No Function	0-5
*	*	28	*	70	Beam 2 Pattern	Static Pattern ( 22kinds in total )	6-27
						No Function	28-79
						Animated Pattern ( 62 kinds in total )	80-115
						Random Pattern ( 4 kinds in total )	116-123
						No Function	124-255
*	*	29	*	71	Beam 2 Fade	Beam 2 Fade 0-100%	0-255
*	*	30	*	72	Beam 2 Speed	Beam 2 Speed 0-100%	0-255
						No Function	0-5
						Liner	6-10
						Square	11-15
						Inv Square	16-20
						Scurve	21-25
						600HZ	26-30
						1200HZ	31-35
						4000HZ	36-40
						6000HZ	41-45
						25000HZ	46-50
						Fan Mode Auto	51-55
						Fan Mode Fast	56-60
						Tilt Reset	61-65
						Tilt Invert ON	66-70
						Tilt Invert OFF	71-75
						Plate Invert ON	76-80
						Plate Invert OFF	81-85
						Beam Invert ON	86-90
						Beam Invert OFF	91-95
						Dimmer Speed: Smooth	96-100
						Dimmer Speed: Fast	101-105
						No DMX: Hold	106-110
						No DMX: Shutter Closed	111-115
						No DMX: Static Mode	116-120
						No Function	121-255
9	13	31	53	73	Function		

---

## 9. Maintenance and cleaning

**DANGER: Disconnect from the mains before starting any maintenance work.**

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke fluid residues must not buildup on or within the fixture. Otherwise, the fixtures light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably through out its life. A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

The front objective lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.

The gobos may be cleaned with a soft brush, The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.

There are no serviceable parts inside the device except for the lamp and the fuse.

Replacing the fuse: If the lamp burns out, the fine-wire fuse of the device might fuse, too. Only replace the fuse by a fuse of same type and rating. Before replacing the fuse, unplug mains lead.

Maintenance and maintenance of the operation, please contact the manufacturer or distributor.

## 10. Electric equipment specification

### 10.1 Electrical paramters

SOURCE:RGB 768 LED-0.5W,Cool White 192LED-5W  
Max POWER:1400W  
VOLTAGE:AC100-240V 50/60HZ  
Color temperature: 10000K(Cool White)

### 10.2 Weight and dimensions

Dimensions : 438X225X536mm  
NET WEIGHT:18.5Kg

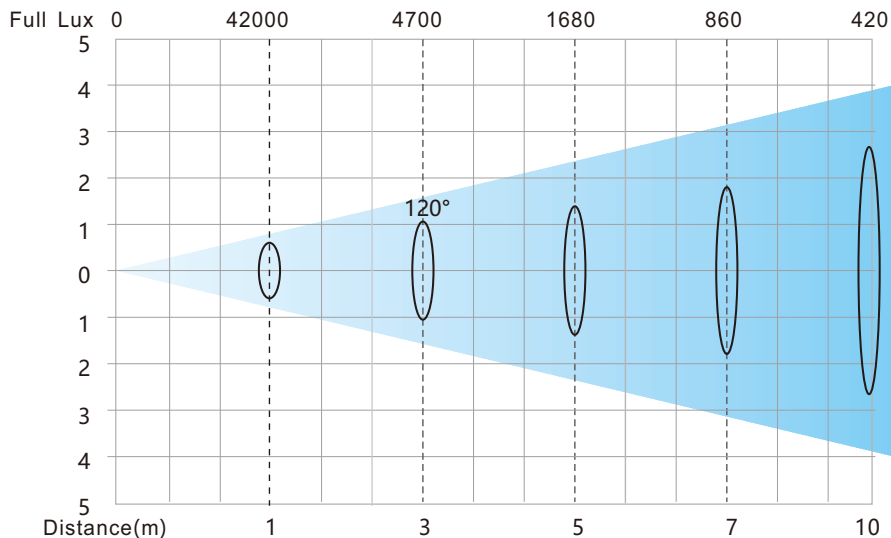
### 10.3 Channel Characteristics

- 1.Channel:9、13、31、53、73 DMX-512.
- 2.Dimmer: linear dimmer.
- 3.Shutter: electronic shutter, random strobe.
4. preseting automatical temperature control system.

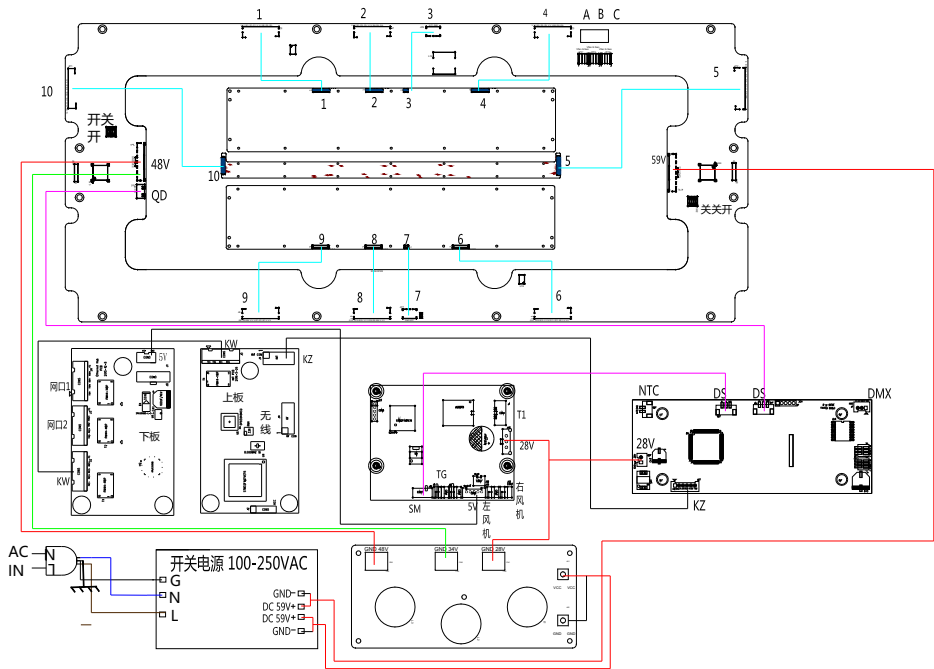
### 10.4 Menu Function

- 1.OLED display.
- 2.Display the time using of lighting feature and lamp as well as the times of turning on for lamp.
- 3.After the DMX signal is disconnected, the display will be bright and dark.
- 4.Software upgrade function.

### 10.5 light table



## 11. Electronic drawing



**Note: The above contents for reference only and is subject to change without prior notice, please take specification you have on hand and our company reserves the final right of interpretation.**





