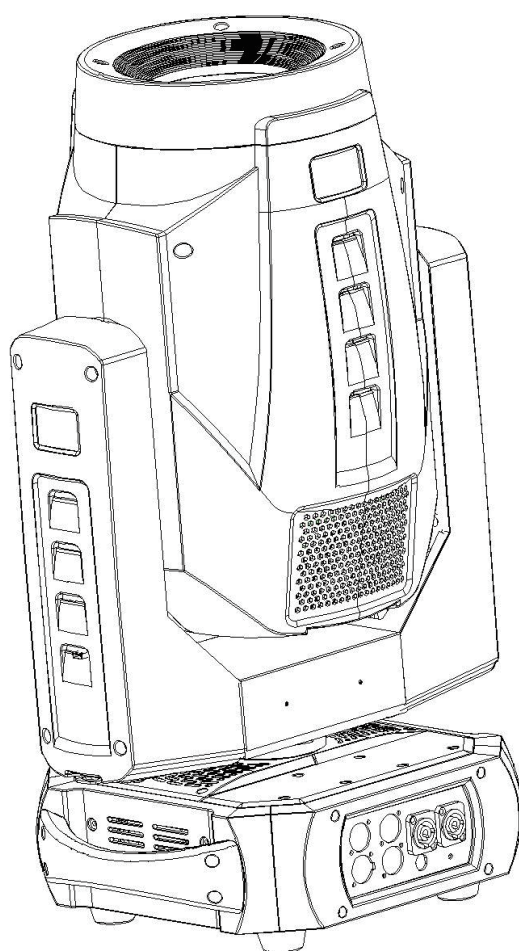


# 600 LED SPOT FRAMING MOVING HEAD LIGHT



## USER MANUAL

# FOREWORD

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Thanks for choosing 600 LED spot framing moving head light, it is our newest the latest independent research and development of a high-grade quality framing light. Compared with other same power lights, it's more light weight and convenient, and with perfect combination of international advanced electronic control technology and excellent human chemical. 600 led spot framing is in full compliance with the CE standard supports the international DMX512 signal control mode.

600 led spot framing light was adopted with 550w led module light source with super high lighting distance , and it is fitted with a gobo wheel (7 rotating gobos + open) clear gobo with super fast and smooth pan&tilt movement , a color wheel with 7 colors with open of a uniform color effect.

600 led spot framing light with a super high brightness and long lighting distance. Framing system:Our framing function is through Four cutting gates achieve fast and smooth cutting, and the cutting direction and Angle of each gate could be controlled independently. The whole cutting module can be rotated plus or minus 45 degrees ( $\pm 45^\circ$ )

600 led spot framing is widely used in TV stations, weddings, discos, dance halls, night clubs, performances and other professional places

# PRODUCT CATALOG

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# SAFETY INSTRUCTIONS

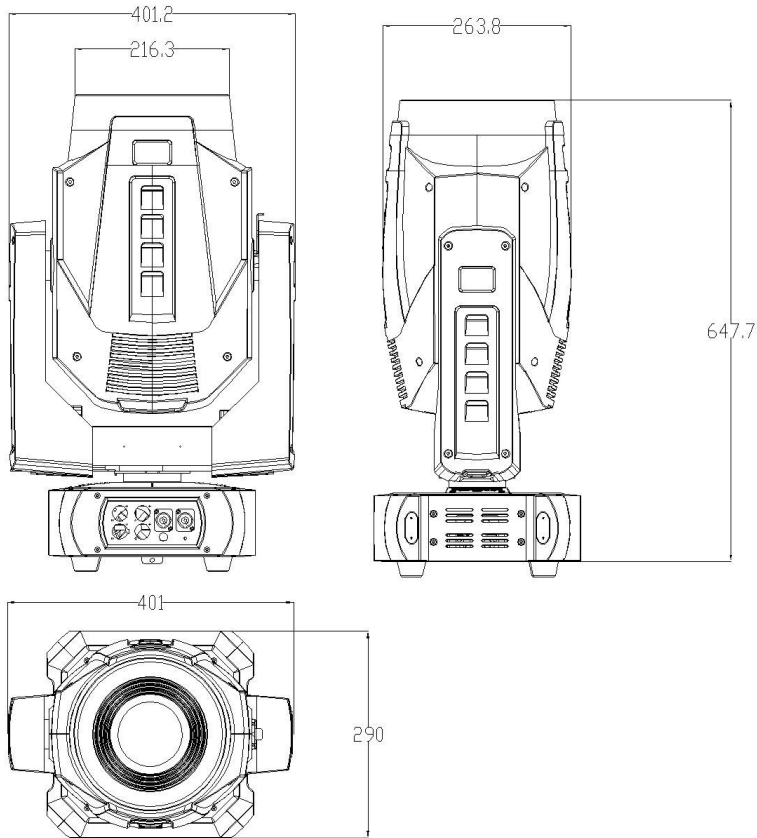
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- ◇ Before using this product, please observe carefully the product is not unwrap or damage during transportation. As a result of damage during transporting, please do not use the lights, and contact with the dealer or manufacturer.
- ◇ Before running products, to ensure that the voltage and Hertz in accordance with the requirements of lights。
- ◇ It's very important, connecting ground wire to avoid the electric shock。
- ◇ This product is for dry indoor environment。
- ◇ This product must be installed on the sufficient space, adjacent to interface the shortest distance of 50 cm, to ensure that the lights will not crash each other。
- ◇ Before moving or repairing the product , please unplug the power。
- ◇ When it working, ensure that no inflammable and explosive near objects。
- ◇ When installing this product, please use the safety rope. When handling this product, lift the armrest base, rather than the lamp body。
- ◇ This product is suitable for a maximum temperature of 40 degrees Celsius, when the surrounding environment is higher than 40 degrees Celsius, please do not use this product。
- ◇ Do not touch. When working, the product running very fast, to prevent bruising.
- ◇ Problems happens when operating performances, should immediately stop using the lights. Do not carry out maintenance, repair damage caused or likely to cause other problems. Please contact the company's maintenance repair. During the repair process, use the same type of accessories。
- ◇ Please read the instructions carefully, especially regarding the installation, using, maintenance parts. Important that the lighting in the transport process, must be packed anti-shock protection carton or flight case.

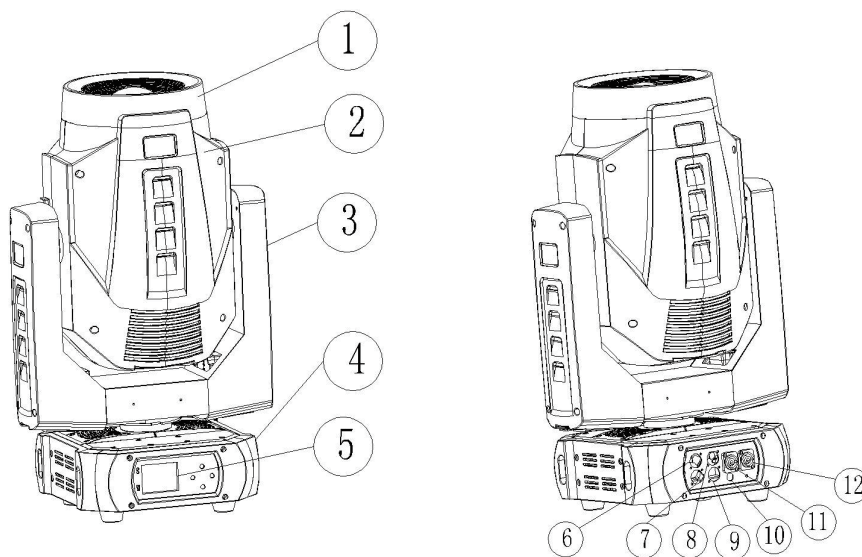
## 2. TECHNICAL PARAMETERS

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- ◇DMX Channel: 25CHs
  - ◇Control model:DMX512, RDM etc
  - ◇LED LCD touch screen + press button control, Chinese/English mode
  - ◇top-level LED module 550w led light source
  - ◇Super fast and ultra silence 3-phase step motors
  - ◇ Color temperature is 8000K, life span is 20000Hs
  - ◇7 colors +open, semi color effect
  - ◇7 rotating gobo + white
  - ◇ Four cutting gates achieve fast and smooth cutting, and the cutting direction and Angle of each gate could be controlled independently. The whole cutting module can be rotated plus or minus 45 degrees ( $\pm 45^\circ$ )
  - ◇Optical lens: High precision glued optical lens
  - ◇Soft light effect: the angle of the spot that can adjust the soft light
  - ◇ Focus: Linear Focus
  - ◇Dimmer: 0-100% linear dimmer.
  - ◇Beam angle: 8-32 degree.
  - ◇Strobe: electronic strobe (0.5-20FPS)
  - ◇16pcs super silence motors, pan & tilt 2pcs 3-phase step motors,16bit.
  - ◇Housing: High temperature resistant alloy plastic + plastic handle
  - ◇Rated power: 600W
  - ◇IP rate: IP20
- Weight: 20.7KG
- Size: 401\* 290\* 647.7mm
- Extended function: support the lamp power off, the display board can set the address code.(Pre-equipped battery)



### 3. SCHEMATIC LIGHTING COMPONENTS



1. Lens front cover 2. Lamp body cover 3. Light arm 4. Bottom case cover 5. LCD Display 6. 5 pin XLR DMX input 7. 5 pin XLR DMX output 8. 3 pin XLR DMX input 9. 3 pin XLR DMX input 10. Insurance 11. Power in 12. Power out

# 4. PACKING AND SHIPPING

---

## 4.1 Packing Material and Accessories

600W LED is packaged by carton or standard 2-in-1 flight case (Other options is the 1-in-1 flight case). Accessories as below.

Ltem	Quantity	Unit
User Manual	1	Piece
Waterproof Signal Line	1	Piece
Safety Rope	1	Piece
Bracket and Clamp	2	Piece
Waterproof Power Line	1	Piece

## 4.2 Protection Lock for Transport

For the convenience of transportation, the light has 2 protection locks (Each of it is on the X-axis and Y-axis.). There are 4 locked buttons on the X-axis and 3 locked buttons on the Y-axis to lock the light's position. The lock position is locked at the center and the light body is in a vertical position with the arm.

## 4.3 Packing

1. Power off to let the lamp cool completely before packaging at least 15 minutes or more.
2. Lock the light protection locks when cleaning the surface of the light.

3. Use the packing bag to cover the light, grab the handle on both sides of the equipment and put it upside down and put it into the box gently.
4. Put the light's accessories into packing box after putting the light into the box.
5. It's only up to two crates stacked and is prohibited upside down.

## 4.4 Unpacking

1. Open the packing box and packing bag
2. Grab the equipment's handles, lifting and carrying away the light from the packing box or opening the flight case cover placing lift boom close to the light base, then equipping light hook on light base bottom tightening quick Install locks. At last rising away boom to the top of the lamp from flight case, put the flight case away.
3. Unlock the light protection lock before turning on the light.

Note: Upon receipt of light, please check if there is damage to the light caused by transport, please do not use the fixture if any damage, and contact us as soon as possible.

## 5. SAFETY STANDARD INSTALLATION

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Users should ensure that light and installation materials are checked for regular safety check. Please do not install it yourself if you do not have the professional work condition and similar experience. Please ask the professionals to operate it.



Incorrect installation will cause danger. The working temperature for the equipment is available between -20 degrees and 40 degrees Celsius. Do not use the equipment outside of this environment. Don't stand under the light when the light is installed, dismantled, moved or serviced. The operator must ensure that the fixtures are securely connected. Installing the light after professionals approving electrical parameters make sure that these installation must be checked at least once per year by experts

## **5.1 Hook Clamp Installation**

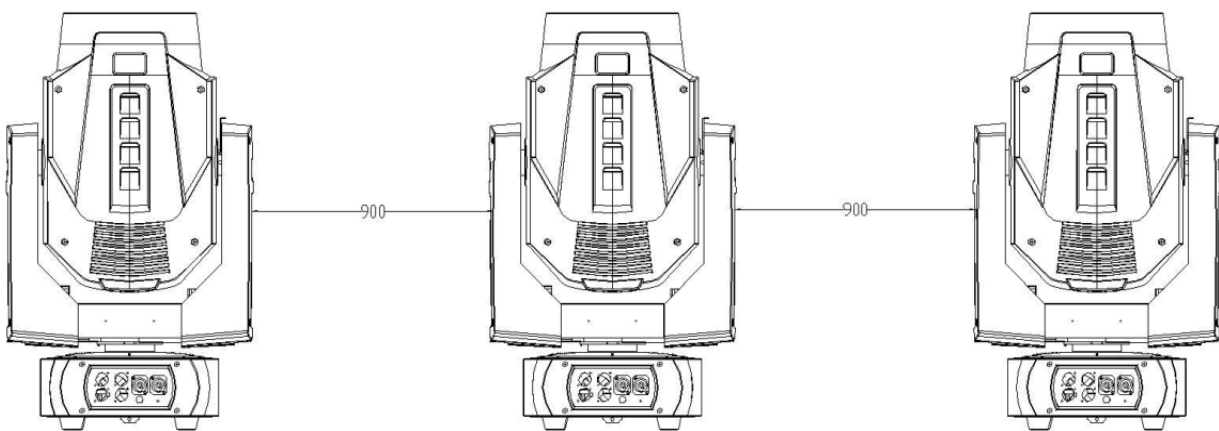
600 L E D can be placed on the stage or on a stand in any direction , quick lock system can quickly and easily remove or install a light hook. Note: The light is fitted with folding hook, please pull up the folding hook and ensure they're all in the same direction if use.

## **5.2 Fixing Equipment**

1. Please confirm the rigging equipment is not damaged and can bear at least 10 times of light's weight before installing. Also check the building can be bore at least 10 times of total weights of light, fixture, and cable accessories.
2. Insert the locked hook fastener into base mounting holes horizontally, grab the handle clockwise 90 degrees fasteners, in the same way to install a second fastener, make sure the fastener is fastened under the light base.

3. If truss can be lifted the equipment can be directly clamped from flight case and locked fixture base. Then hung on the light and fixed it. Before rising the light to right height, connect the power line and signal line.

Note: Add a safety rope attached the light's base insurance shelf, do not connect the light's handle.

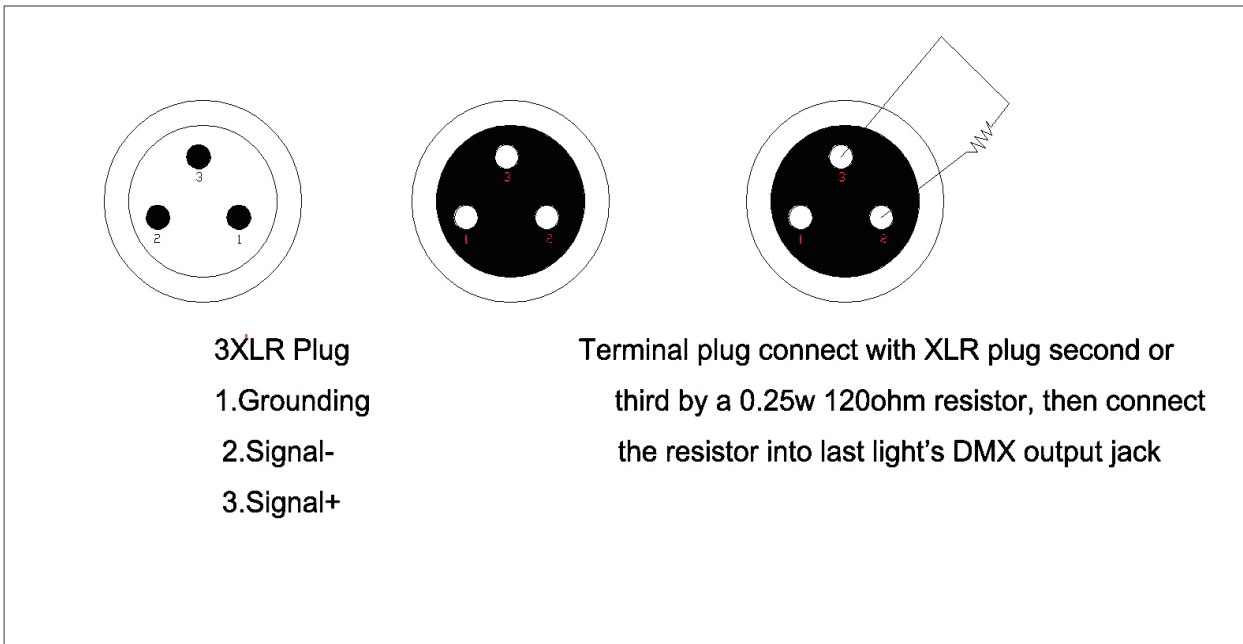


Note: Lights be placed vertically upward, the shortest distance between working lights must be more than or equal 900mm, lighting installation layout as following.

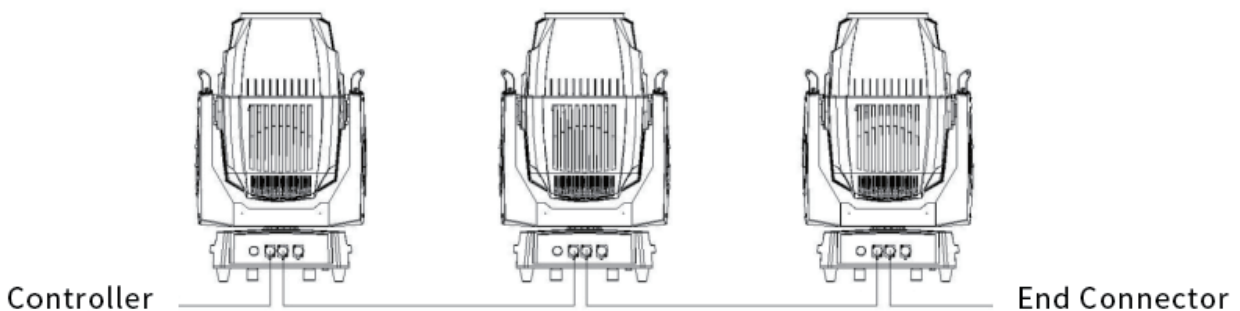
### 5.3 Data Cable

Data cable is DMX512 signal Caution: Signal line connections is X-type connector X-type connector-----If the external flexible cable or cord of this light is damaged, please replace the professional cable or cord from the manufacture or its agent. Lights'DMX input and output connects to a 3&5pin XLR, first pin is grounded, then negative signal is second pin, third pin connects to the positive polarity signal, the fourth and fifth is empty.

In order to prevent reception reflection and interference control signal, a terminal plug must be installed on the first branch of the connected device last 3-pin output jack



The controller connects to the nearest input XLR 3-pin, then from the output of the device connects to the input of the next device, continuous connection one by one, the final output data cable terminal equipment plug one end into the terminal.



If the signal transmission is long-distance, 512 signal amplifier must be added. DMX512 signal controller connect to the input of the amplifier first, then connect to the fixture from its output, couple with the terminal plug last.

Note:

1. Do not use two separate output connections. To connect the branch, a separating consecutive DMX512 signal amplifier must be used to separate.
2. Please use the specialized DMX512 shielded twisted-pair cable.- Standard microphone cables can not be reliably controlled long-distance data.

## **6. AC POWER**

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### **6.1 Fuse Size**

Power: 100-240v

Fuse: 8A 5 \* 20 main fuse

### **6.2 Power Connection**

If the external flexible cable or cord of this light is damaged, the line is up to the manufacturer or its service agent or a similar qualified person to replace, in order to avoid danger.

Connect the power supply personnel must have the appropriate qualifications before proceeding, you must make sure you are using the power supply voltage matches the voltage identified and have overload or leakage protection. Directly connect the device to the power supply, do not connect to the silicon box dimming system, otherwise damage to the equipment .

# 7. LIGHT SOURCE

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## 7.1 Light Source Description

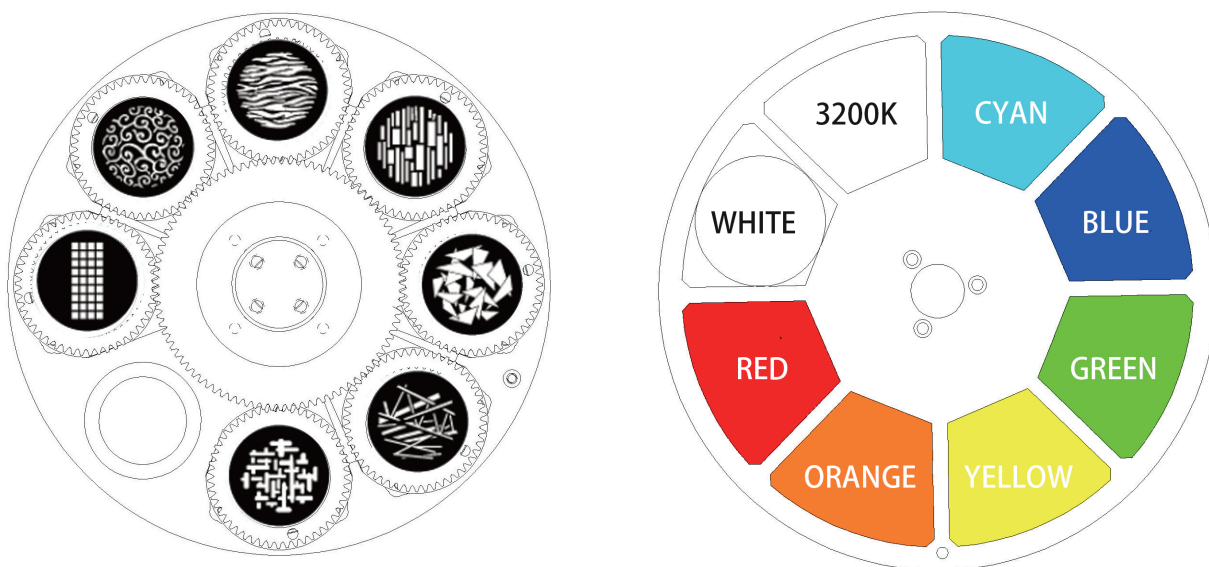
400LED three-in-one LED module, this LED module provides a very stable color temperature of 8000K, color rendering index greater than 85, and average life of more than 20,000 hours (depending on the lighting environment)

Note:

1. Please do not install other similar light bulbs, otherwise it will cause safety hazards or damage the equipment.
2. To reduce the risk of damage to the luminaire, replace the lamp before it exceeds the life of the lamp.
3. It is forbidden to use scratched and damaged LED light source

# 8. DYNAMIC EFFECTS

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## 8.1 Optical Lens Focusing

Synchronous work with two high-precision screw motors is used to adjust the optical lens to complete the gobo definition.

## 8.2 Dimmer & Strobe

0-100% electronic dimming, instant switching, stroboscopic speed can be adjusted freely, up to 20 times / sec, with special function of random strobe.

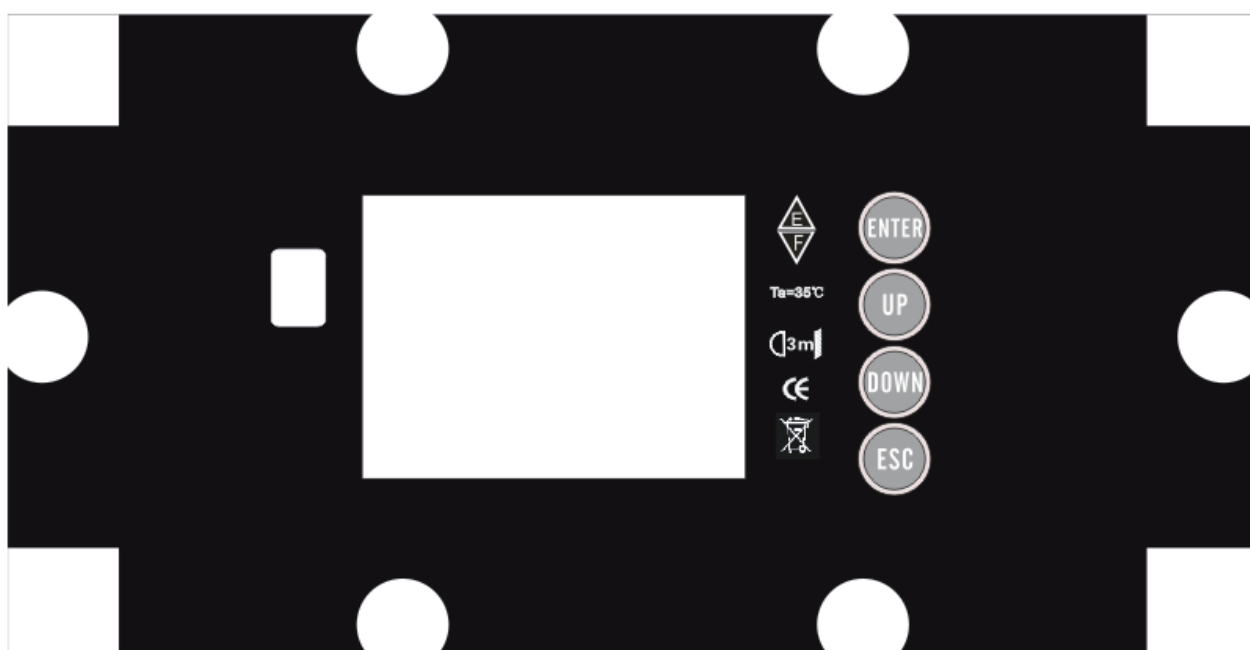
## 8.3 Pan & Tilt

Pan 540 degrees, Tilt 270 degrees, with 16BIT precise positioning function. Pan & Tilt speed can be adjusted.

# 9. DISPLAY SETTINGS

---

## 9.1 Display Lnstruction



# Menu Operation:

Press:		
FUNC ( Confirm) 、 UP (Last One) 、 DOWN (Next One) 、 ESC (Return)		
1、 DMX address: 00-512		
2、 Channel mode: 25		
3、 Reset Operation	Motor off	Yes/No
	XY	Yes/No
	Color	Yes/No
	Spot	Yes/No
	Light Path	Yes/No
4、 Operation	DMX/AUTO/USER	
5、 Manual Control	X	0-255
	Y	0-255
	XY Speed	0-255
	Strobe	0-255
	Dimmer	0-255
	Color	0-255
	Rotating Gobo Wheel	0-255
	Rotating Gobo	0-255
	Framing 01	0-255
	Framing 02	0-255
	Framing 03	0-255
	Framing 04	0-255
	Framing 05	0-255
	Framing 06	0-255
	Framing 07	0-255
	Framing 08	0-255
	Framing Rotating	0-255
Spot	0-255	

	Focus		0-255	
	Zoom		0-255	
6、 Run settings:	Master/Slave		Master/Slave	
	XY Setting	manual scanning	Yes/No	
		X reverse	Yes/No	
		Y reverse	Yes/No	
		Speed Channel Real Time	Yes/No	
	Dimmer Curve	Linear/Square/square root /S curve/log		
	self-programming	Manual editing	step number 01	Time: 0-255
				Channel 1:0-255
				Channel 2:0-255
				Channel 3:0-255
				Channel 4:0-255
				Channel 5:0-255
				Channel 6:0-255
				Channel 7:0-255
				Channel 8:0-255
				Channel 9:0-255
Channel 10:0-255				
Channel 11:0-255				
Channel 12:0-255				
Channel 13:0-255				
Channel 14:0-255				
Channel 15:0-255				
Channel 16:0-255				



6、 Run settings:	self-programming	Manual editing	step number 01	Channel 17:0-255
				Channel 18:0-255
				Channel 19:0-255
				Channel 20:0-255
				Channel 21:0-255
				Channel 22:0-255
				Channel 23:0-255
				Channel 24:0-255
				Channel 25:0-255
			Time: 0-255	
			step number 1:0-255	
			step number 2:0-255	
			step number 3:0-255	
			step number 4:0-255	
			step number 5:0-255	
			step number 6:0-255	
			step number 7:0-255	
			step number 8:0-255	
			step number 9:0-255	
			step number 10:0-255	
			step number 11:0-255	
			step number 12:0-255	
			step number 13:0-255	
step number 14:0-255				
step number 15:0-255				

6、 Run settings:	self-programming	Manual editing	step number 01	step number 16:0-255
				step number 17:0-255
				step number 18:0-255
				step number 19:0-255
				step number 20:0-255
				step number 21:0-255
				step number 22:0-255
				step number 23:0-255
				step number 24:0-255
				step number 25:0-255
			Step Number 03	Time: 0-255
				Channel 1:0-255
				Channel 2:0-255
				Channel 3:0-255
				Channel 4:0-255
				Channel 5:0-255
				Channel 6:0-255
				Channel 7:0-255
				Channel 8:0-255
				Channel 9:0-255
Channel10:0-255				
Channel 11:0-255				
Channel 12:0-255				
Channel 13:0-255				
Channel 14:0-255				

6. Run settings:	self-programming	Manual editing	step number 03	Channel 15:0-255
				Channel 16:0-255
				Channel 17:0-255
				Channel 18:0-255
				Channel 19:0-255
				Channel 20:0-255
				Channel 21:0-255
				Channel 22:0-255
				Channel 23:0-255
				Channel 24:0-255
			Channel 25:0-255	
			Step Number 04	Time: 0-255
				Channel 1:0-255
				Channel 2:0-255
				Channel 3:0-255
				Channel 4:0-255
				Channel 5:0-255
				Channel 6:0-255
				Channel 7:0-255
				Channel 8:0-255
Channel 9:0-255				
Channel 10:0-255				
Channel 11:0-255				
Channel 12:0-255				
Channel 13:0-255				

6、 Run settings:	self-programming	Manual editing	step number 04	Channel 14:0-255
				Channel 15:0-255
				Channel 16:0-255
				Channel 17:0-255
				Channel 18:0-255
				Channel 19:0-255
				Channel 20:0-255
				Channel 21:0-255
				Channel 22:0-255
				Channel 23:0-255
				Channel 24:0-255
				Channel 25:0-255
			Step Number 05	Time: 0-255
				Channel 1:0-255
				Channel 2:0-255
				Channel 3:0-255
				Channel 4:0-255
				Channel 5:0-255
				Channel 6:0-255
				Channel 7:0-255
Channel 8:0-255				
Channel 9:0-255				
Channel 10:0-255				
Channel 11:0-255				
Channel 12:0-255				

6、 Run settings:	self-programming	Manual editing	step number 05	Channel 13:0-255
				Channel 14:0-255
				Channel 15:0-255
				Channel 16:0-255
				Channel 17:0-255
				Channel 18:0-255
				Channel 19:0-255
				Channel 20:0-255
				Channel 21:0-255
				Channel 22:0-255
				Channel 23:0-255
				Channel 24:0-255
				Channel 25:0-255
			Step Number 06	Time: 0-255
				Channel 1:0-255
				Channel 2:0-255
				Channel 3:0-255
				Channel 4:0-255
				Channel 5:0-255
				Channel 6:0-255
Channel 7:0-255				
Channel 8:0-255				
Channel 9:0-255				
Channel 10:0-255				
Channel 11:0-255				

6、 Run settings:	self-programming	Manual editing	step number 07	Channel 12:0-255
				Channel 13:0-255
				Channel 14:0-255
				Channel 15:0-255
				Channel 16:0-255
				Channel 17:0-255
				Channel18:0-255
				Channel 19:0-255
				Channel 20:0-255
				Channel 21:0-255
				Channel 22:0-255
				Channel 23:0-255
				Channel 24:0-255
			Channel25:0-255	
			Step Number 08	Time: 0-255
				Channel 1:0-255
				Channel 2:0-255
				Channel 3:0-255
				Channel 4:0-255
				Channel 5:0-255
Channel 6:0-255				
Channel 7:0-255				
Channel 8:0-255				
Channel 9:0-255				
Channel 10:0-255				

6、 Run settings:	self-programming	Manual editing	step number 08/09/10/11/12	Channel 11:0-255
				Channel 12:0-255
				Channel 13:0-255
				Channel 14:0-255
				Channel 15:0-255
				Channel 16:0-255
				Channel 17:0-255
				Channel18:0-255
				Channel 19:0-255
				Channel 20:0-255
				Channel 21:0-255
				Channel 22:0-255
				Channel 23:0-255
				Channel 24:0-255
				Channel25:0-255
Record DMX	Choose Step Number	01-12		
	Time	0-255		
	Record			
All Clear				
No DMX	Power on	Middle/Auto/User/No effect		
	Running	Save/Close Light		
Fine Adjustment	X Axis	0-255		
	Y Axis	0-255		
	Color	0-255		
	Focus	0-255		

7、 Advance Setting	Fine Adjustment	Rotating Gobo Wheel	0-255	
		Rotating Gobo	0-255	
		Zoom	0-255	
		Framing 1	0-255	
		Framing 2	0-255	
		Framing 3	0-255	
		Framing 4	0-255	
		Framing 5	0-255	
		Framing 6	0-255	
		Framing 7	0-255	
		Framing 8	0-255	
		Spot	0-255	
		Rotating Framing	0-255	
		Language	Chinese/English	
		Ignore Mistake	Wave	Yes/No
		Fine Recovery		
8、 Information	DMX Number	Channel 1: 000		
		Channel 2: 000		
		Channel 3: 000		
		Channel 4: 000		
		Channel 5: 000		
		Channel 6: 000		
		Channel 7: 000		
		Channel 8: 000		
		Channel 9: 000		



8、 Information	DMX Number	Channel 11: 000
		Channel 12: 000
		Channel 13: 000
		Channel 14: 000
		Channel 15: 000
		Channel 16: 000
		Channel 17: 000
		Channel 18: 000
		Channel 19: 000
		Channel 20: 000
		Channel 21: 000
		Channel 22: 000
		Channel 23: 000
		Channel 24: 000
		Channel 25: 000
		Channel 26: 000
		Channel 27: 000
		Channel 28: 000
		Channel 29: 000
		Channel 30: 000
Mistake		
LED	Used Time	
	Clear Time	

# 10. CHANNEL

---

Channel 25	Function	DMX Value	Description
1	Color Wheel	1-3	White
		4-7	White+Red
		8-11	Red
		12-15	Red+Orange
		16-19	Orange
		20-23	Orange+Yellow
		24-27	Yellow
		28-31	Yellow+Green
		32-35	Yellow
		36-39	Yellow+ Dark Blue
		40-43	Dark Blue
		44-47	Dark Blue+Cyan
		48-51	Cyan
		52-55	Cyan+3200K
		56-59	3200K
		60-63	3200K+White
		64-66	White
		67-127	Color Rotating
		128-189	Reverse color flow effect: from fast to slow
		190-255	Positive Color Flow effect: from slow to fast
	Strobe	0-2	Nothing
		3-7	Open light

2	Strobe	8-19	Slow open but fast close
		20-44	Fast open and fast close
		45-62	Fast strobe
		63-84	Pluse Strobe 1
		85-97	Pluse Strobe 2
		98-100	Open light
		101-189	Random Strobe 1
		190-249	Random Strobe 2
		250-255	Open light
3	Dimmer	0-255	Adjust brightness
4	Dimmer Fine	0-255	
5	Rotating Gobo	0-5	White
		6-15	GOBO 1
		16-25	GOBO 2
		26-35	GOBO 3
		36-45	GOBO 4
		46-55	GOBO 5
		56-65	GOBO 6
		66-75	GOBO 7
		76-92	GOBO 1 Shake、 slow to fast
		93-109	GOBO 2 Shake、 slow to fast
		110-126	GOBO 3 Shake、 slow to fast
		127-143	GOBO 4 Shake、 slow to fast
		144-160	GOBO 5 Shake、 slow to fast
		161-177	GOBO 6 Shake、 slow to fast

		178-199	GOBO 7 Shake、 slow to fast
		200-201	White
		202-229	Gobo rotae reverse、 fast to slow
		230-255	Gobo rotae positive、 slow to fast
6	Gobo Auto Rotate	0-127	Gobo rotate and position
		128-199	Gobo auto rotate reverse,fast to slow
		200-255	Gobo auto rotate positive, slow to fast
7	Framing UP 1	0-255	Adjust the cutting Angle in turn
8	Framing Down 1	0-255	Adjust the cutting Angle in turn
9	Framing UP 2	0-255	Adjust the cutting Angle in turn
10	Framing Down 2	0-255	Adjust the cutting Angle in turn
11	Framing UP 3	0-255	Adjust the cutting Angle in turn
12	Framing Down 3	0-255	Adjust the cutting Angle in turn
13	Framing UP 4	0-255	Adjust the cutting Angle in turn
14	Framing Down 4	0-255	Adjust the cutting Angle in turn
15	Framing Auto Rotate	0-255	Rotate the framing gate in turn
16	Spot	0-255	
17	Focus	0-255	
18	Focus Fine	0-255	
19	Zoom	0-255	
20	Pan Rotate	0-255	
21	Pan Fine	Pan Fine	0-255
22	Tilt Rotate	Tilt Rotate	0-255
23	Tilt Fine	Tilt Fine	0-255
24	XY Speed	XY Speed	0-255

25	Reset	0-99	Nothing
		100-149	XY motor reset
		150-199	Function Reset
		200-255	All Reset

## 11. TROUBLE SHOOTING

---

Listed below are a few common problems that you may encounter, with solutions.

Unit does not work, No light output and the fan does not work;

1. Check the power connection and main fuse.
2. Be sure the fuse holder is completely and properly seated.

Not responding to DMX Control;

1. Check the DMX connectors/cables to see if they are linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and the DMX controller polarity.
3. Try using another DMX controller.
4. Check to see if the DMX cables run near or run alongside to high voltage cable. It may cause damage or interference to DMX interface circuit.

One of the channels is not working well;

1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motor's drive IC on the PCB might be out of condition.

# 12. CLEANING

---

Regularly clean the outside of the optical lens focusing on the dust. Based on the number of lamps use a clean environment to determine: Are they moist, smoked or is the surrounding environment particularly dirty, which can cause dust deposition lamps.

Please use a glass cleaning solution and a soft cloth to wipe the focusing optical lens. Carefully dry each part. At least 20 days to clean the dust outside a lens, the lens inside 30-60 days to clean up the dust once. Regular inspection lamp fan and bottom case fan, a fan of at least 20\days to clean up dust deposition.

Cleaning must be executed in case of power failure.

