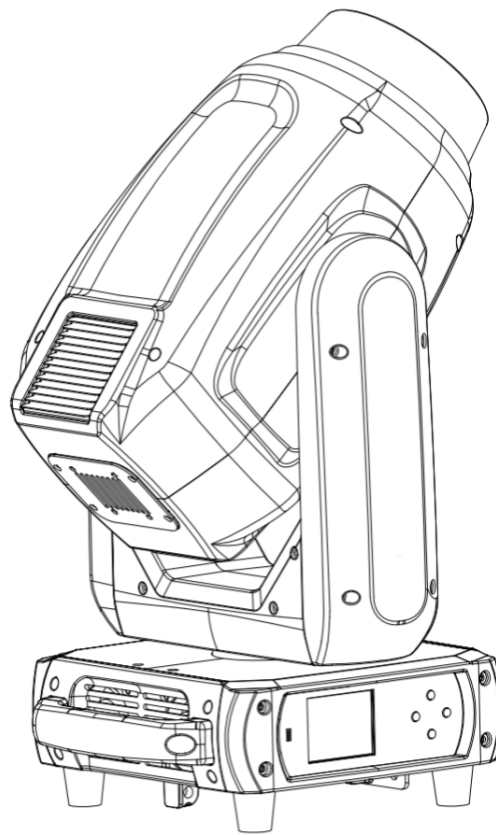




# HYBRID18R

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370W 3in1 LED Moving Head



## USER MANUAL



## **Warning**

Before using this product, Please read the instructions carefully.

Please keep this instruction, As a basis for future advice, If you sell this product to other users, Please make sure they also get this manual.

Please use it correctly on the basis of understanding the content.

## **Note:**

The equipment is well packed when it leaves the factory, Please follow the user Manual to operate, human causes of machine failure is not covered by warranty.

- ♦ Before using the product, Please open and check carefully to ensure that the lamps are not damaged by transportation.
- ♦ The lamp is suitable for indoor drying only.
- ♦ Installation and operation of lamps and lanterns should be carried out by professionals.
- ♦ Don't let children operate machines.
- ♦ Use a safety cord when fixing equipment, lift the bottom while moving the lamp.
- ♦ Equipment must be installed in good ventilation at least 50 cm from adjacent plane.
- ♦ Make sure the ventilation hole is unobstructed so as not to overheat the lamp during operation.
- ♦ Ensure that the power supply voltage is in line with the required power supply voltage before operation.
- ♦ Please ground the conductive body to prevent electric shock.
- ♦ Ambient temperature: do not run lamps below -25°C or above 45°C.
- ♦ It is forbidden to connect lamps directly to dimming equipment.
- ♦ Do not place combustible items within 1 meter next to the lamp to prevent fire.
- ♦ Please check carefully whether the power cord is damaged before opening the lamp. If there is any damage, please replace it immediately.
- ♦ Lamp operation surface temperature can reach 55°C, do not touch with bare hands.
- ♦ Avoid flammable liquids, water or metal conductors entering the interior of the lamp to avoid electric shock or fire. If any foreign body enters the lamp, please cut off the power immediately.
- ♦ Avoid operating in dirty, dusty environment, and regularly clean and maintain lamps.
- ♦ Do not touch the wire when the lamp is running to prevent electric shock.
- ♦ Avoid winding power cord with other wire.

- ♦ Distance between lamp and irradiation surface is greater than 15 M.
- ♦ Disconnect the power before replacing the fuse or bulb.
- ♦ Use the same model to replace fuse or bulb.
- ♦ Serious Operation Failure Occurred, please stop using it immediately.
- ♦ Do not repeat opening.
- ♦ Please replace the case, lens or UV filter visible damage.
- ♦ No spare parts inside the lamp, do not open the lamp shell without authorization.
- ♦ Do not operate the machine on your own, non-professional operation will cause damage to the equipment or functional failure, For maintenance, please contact the nearest authorized service center.
- ♦ Please cut off the power supply when the lamp is not used or repaired for a long time.
- ♦ For re-transportation, please use the original package.
- ♦ To avoid fire or electric shock, do not expose lamps to rain or wet areas.
- ♦ High temperature light bulb is in danger of explosion, do not turn on the lamp within 15 minutes of power failure.
- ♦ Light bulb damage, thermal deformation or beyond service life please replace in time.
- ♦ Do not look directly at the lamp in operation.
- ♦ Do not look directly at the lamp in operation.
- ♦ The plug must be grounded in operation.
- ♦ Do not operate the machine when the lamp has no shield or shell damage.

## 2. Technical specifications

**Source:**

10~240, 50/60Hz

**Power:**

530W (90V)

**Lamp bulb:**

**OSRAM SIRIUS HRI 371W. (Light bulb rated life: ≥1500H)**

**Colour temperature : 8000K**

**Power off display function :**

Connect the USB socket when power is off you can enter the menu to set the address code and other settings.

**Optical system:**

Efficient optical systems

Strong Optical Output

High quality optical lens

**Mobile:**

Level:540°.

Vertical:270°.

The speed of horizontal / vertical movement can be adjusted.

Automatic completion of horizontal/vertical corrections.

**Dimming/ Shutte:**

0%~100% smooth dimming,

0-12 Hz shutter effect

**Colors:**

Color plate :13 color white light, any half-color effect, with two-way rotation rainbow effect and Two-way Rainbow Effect.

**Gobos:**

Fixed Gobo: 11 Gobos + open

Rotating Gobo: 7 Gobos + open

**Prism:**

Prism 1: 6-facet linear prism, rotating

Prism 2: 8-facet round prism, rotating

Prism overlapping

**Focus:**

Electronic focus

**Zoom**

2.6°-42° electronic Zoom

**Cooling:**

Fan cooling.

**Control:**

DMX 512/Auto/Master/Slave

Signal input/output:

3 pin XLR signal interface

**Net weight:**

14Kg

**Gross weight (carton):**

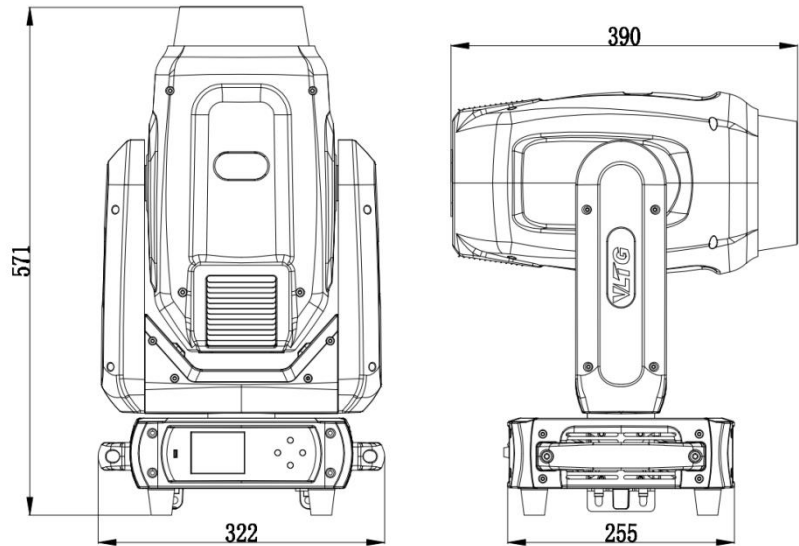
17.5Kg

**Product size:**

571\*322\*255

**Packing Size (Cartons):**

580× 520 × 405mm

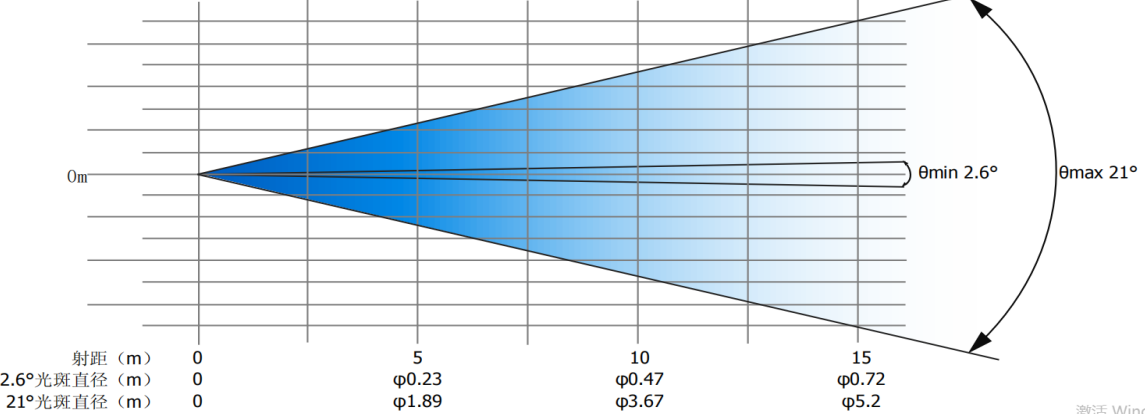


**Product Illumination Chart**

**BEAM model:**

● 照度表

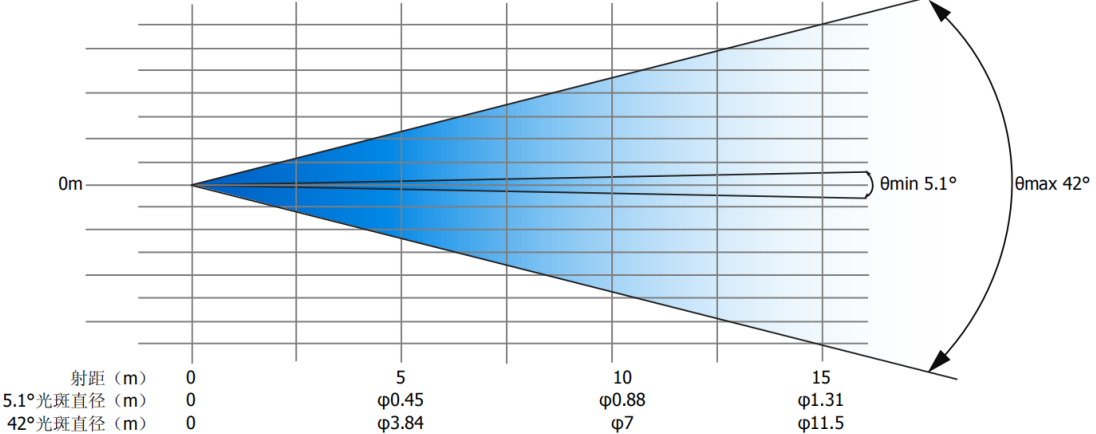
21°光照度 (lux)	0	16790	4500	1850
2.6°光照度 (lux)	0	660000	183000	79100



**SPOT model:**

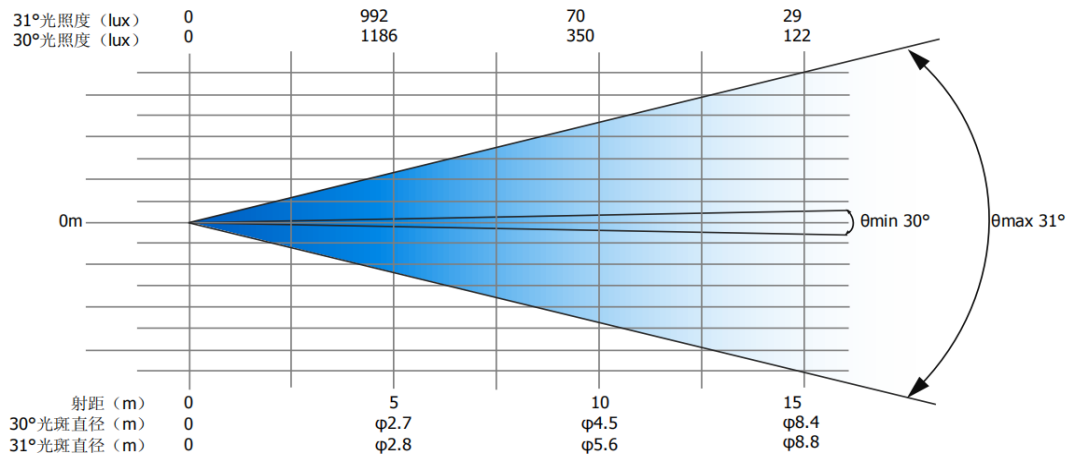
● 照度表

42°光照度 (lux)	0	2095	535	232
5.1°光照度 (lux)	0	105000	28000	11350



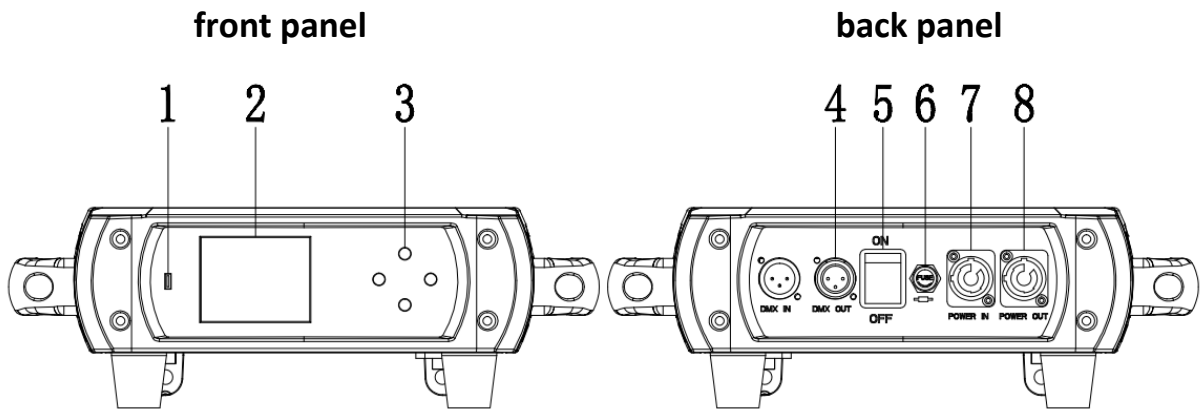
**Wash model:**

● **照度表**



**3. Description**

**3.1 Control Panel**



- 1. USB socket:** USB connection data.
- 2. Display screen :** After 30 seconds of standby, the key is automatically locked to prevent misoperation.

Activate display by pressing and holding the **MENU** button for 2 seconds;

**3. Button:**

<b>MENU</b>	return
<b>▲ DOWN</b>	To select or decrease value
<b>▼ UP</b>	To select or increase value

<b>ENTER</b>	Enter menu selection function\confirm selected function
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#### 4. DMX Input and Output:

For DMX 512 control, Use DMX cable with 3pin XLR In/Out to link DMX console and moving head.

5. **Protective tube** : Over current protection.

6. **Power Input Block:**

Power supply.

7. **Power output seat:**

Connected Power Transmission

( 110V power supply can connect up to 3 lamps,220 V power supply can connect up to 6 lamps ) .

## 4. Lamp

**OSRAM SIRIUS HRI<sup>®</sup> 371W**

There is high pressure inside the lamp and there is a risk of cracking during operation.The ultraviolet light emitted by the lamp is harmful to the eyes and skin. Do not look directly when the lamp is running.

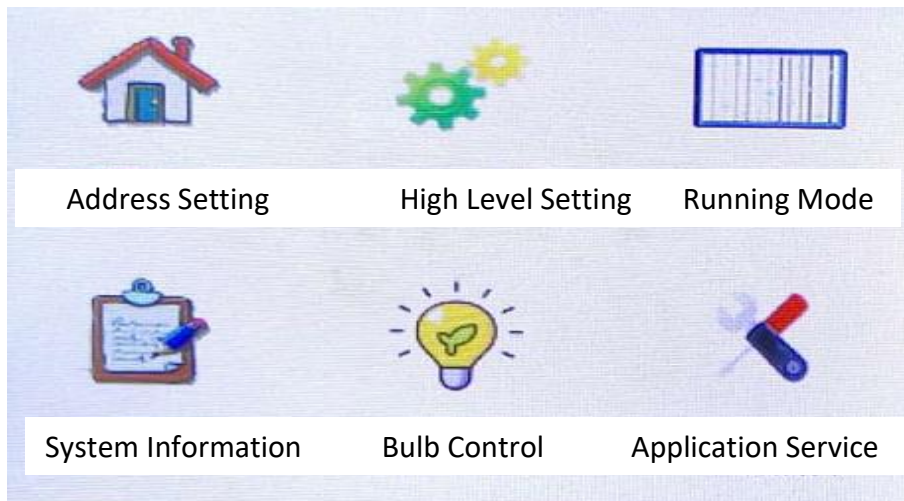
- 1 In order to protect the lamp,please turn off the lamp first and run for at least 5 minutes before disconnecting the power.
- 2 Do not touch the lamp with bare hands.Once in hand contact, scrub with alcohol and dry with a soft linen cloth.
- 3 When the light is on, the lamp runs under high pressure, so there is a risk of rupture.The degree of risk is related to the length of service time, temperature and unreasonable operation.Therefore, please do not use lamps that exceed the service life.
- 4 Make sure the lamp is installed in the center to ensure the best lights effects.

## 5.1 Lighting fixtures

Go to menu mode by pressing the ENTER button. Use UP and DOWN buttons to select menus. Press ENTER button to confirm when the preset menu is displayed on the display screen. Use the UP and DOWN buttons to select the sub-menu, press the ENTER button to save the settings or automatically return to the upper menu. Press the **MENU** button to return, or wait 30 seconds to automatically exit menu mode.

Press and hold **MENU** button for 3 seconds to enter menu mode without power connection. After setting, press the **ENTER** button for 1 second or wait 40 seconds to automatically exit the setting function.

**The main features are shown below**





Menu operation					
Level 1 menu	second-level menu	Three-level menu	Four-level menu	Five-level menu	
Address settings	001-512				
Advanced setup	X axis reverse	On/off		(Default closed)	
	Y axis reverse	On/off		(Default closed)	
	Screen rotation	Forward/reverse/automatic		(default positive)	
	The screen is always on	On/off		(Default closed)	
	Optocoupler Correction	On/off		(Default on)	
	language	Chinese/English		(factory default Chinese)	
	Error	On/off		(Default on)	
	Touch screen calibration	Yes/No			
	Factory setting				
	Drop out				
Running mode	Select Channel Mode	(CH)		(factory default)	
		Streamlining Mode 20(CH)			
	View the current channel	x-axis	0-255		
		.....			
		Functional channels			
	Manual control lamps	DMX mode			
		Self-propelled Mode			
		Sound Control Mode			
		Scene mode	Automatic /1-10		
		Master-slave mode	Automatic/ host/ slave		
		Scenario settings	Scene selection		01-10
	Scene time			0.00S	
	Drop out				

			01X axis	0-255	
			....	0-255	
			24 Reset function	0-255	
Running mode	Manual control lamps	Lamp reset	X axis Y axis	Yes/No	
			Dyestuff	Yes/No	
			Wheel	Yes/No	
			strobe	Yes/No	
			Focus and Prism	Yes/No	
			Whole	Yes/No	
	Drop out				
	Drop out				
	Drop out				
System information	Equipment Version Number				
	Device status				
	Error recording				
	Light source time				
	Equipment running time				
	Drop out				
Light lamp control	Bright bubbles	On/off		(Default closed)	
	Turn on the light lamp	On/off		(Default closed)	
	Control of Bright Bubbles	On/off		(Default closed)	
	Bubble opening delay	0-535			
	Half power delay	0-535			
	Reset lamp time	Yes/No			
	Light lamp timing maintenance	Internal use		0-255	
		Remaining maintenance time		Heavy/No	
	Drop out				
Application service	Service contact information				
	Equipment maintenance				

	Equipment fine calibration			
	Equipment data removal			
	Equipment usage records			
	Drop out			

## 5.2 Error message

### Temperature error

The temperature board may be damaged

### Fan error

The fan and its control may be broken

### Magnetic error

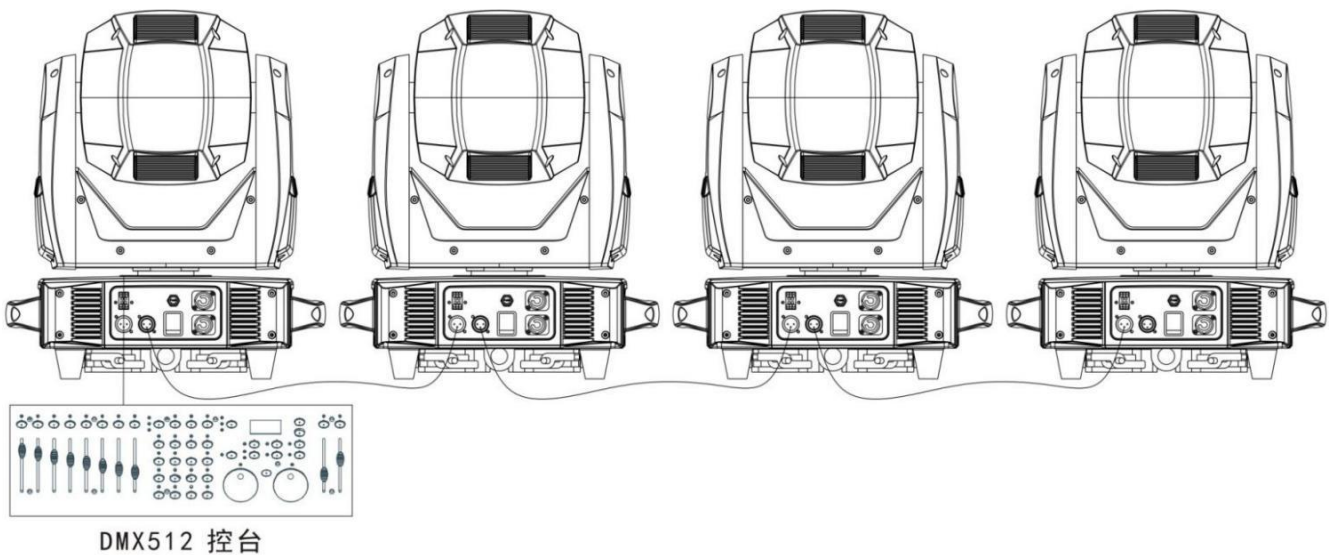
For the magnetic sensing function part may be broken.

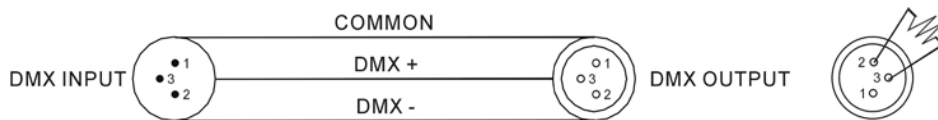
### Optical Coupling Error

The optocoupler and its control may be broken.

The above conditions may occur when the machine is turned on or reset, possibly some parts are damaged. Please contact the authorized maintenance centre.

## 6. General DMX Controller Control





- 1 In order to reduce signal errors and avoid signal weakening and interference during transmission. The resistance of 90-120Ω(0.25W) can be added between 2 cores and 3 cores at the DMX output of the last machine.
- 2 Connect the lamp with a XLR signal line, one end to the outlet of the lamp, the other end is connected to the input port of the next lamp. XLR signal lines can only be used in series, not in parallel. DMX512 signal transmission is fast. Signal lines are damaged, welding is not secure, contact is not good. Will affect signal transmission, causing the system to shut down
- 3 When the machine power supply of a unit is broken, the connection between DMX output and input is bypassed in order to maintain the connection of the DMX line. Each lamp should have an address code that can receive messages from the console, ranging from 0-512, usually 0&1 and 1 Same).
- 4 A terminal DMX512 the system needs to be assembled to reduce signal transmission errors.
- 5 3 core XLR connector:  
Three cores XLR : PIN 1: GND, PIN 2: negative, PIN 3: positive.

## 6.1 Channel settings

Press the ENTER button to enter the menu mode, **Run Mode** → **Select Channel Mode**, press the ENTER button to confirm, the current channel mode will flash on the display, use the UP and DOWN buttons to select the full mode 24 (CH), press the ENTER button to save. Press the **MENU** button to return to the previous menu or wait 30 seconds and automatically exit the menu mode.

## 6.2 Address code settings

When applying universal DMX controllers to control lamps, you need to set the starting address (1-512) for the lamps so that the machine can receive DMX signals.

Press **ENTER** button to enter menu mode, select DMX function, press **ENTER** button to confirm, The current address flashes on the display screen, then the **UP/DOWN** button is used to select the address code (1-512), and the **ENTER** button is pressed to save it. Click the **MENU** button to return to the next menu or exit menu mode after waiting 30 seconds.

Please refer to the chart below to set the address code for the first 4 fixtures

Channel Wheel	Lamps 1 Address code	Lamps 2 Address code	Lamps 3 Address code	Lamps 4 Address code
24 channels	1	25	49	73
20 channels	1	21	41	61

### 6.3 DMX 512 channels

Please refer to the following channel diagram to control the lamp

**Notice:**

1. If DMX signal is fails, the light will remain in the state before the disconnect signal unless reset.

## Channel table :

Standa Stream rd lining model model 24 20 (CH (CH ) )		Channel Name	Channel value	Function
1	1	<b>Pan</b>	000-255	0-540 degrees
2	2	<b>Pan fine</b>	000-255	16 bit Adjustable
3	3	<b>Tilt</b>	000-255	0-270 degrees
4	4	<b>Tilt fine</b>	000-255	16 bit Adjustable
5	5	<b>Pan/Tilt speed</b>	000-255	From fast to slow
6	6	<b>Dimmer</b>	000-255	0-100% dimmer
7		<b>Dimmer fine</b>	000-255	16 bit Adjustable
8	7	<b>Strobe</b>	0-7	No function
			8-15	Opening the light
			16-131	Synchronous stroboscopic from slow to fast
			132-167	Turn it off, turn it off
			168-203	Turn it off quickly, from slow to fast
			204-239	Pulse stroboscopic from slow to fast
			240-247	Random strobe, from slow to fast
248-255	Opening the light			
9	8	<b>Colour wheel</b>	0-4	White
			5-9	Red
			10-14	Blue
			15-19	Green
			20-24	Orange
			25-29	Purple
			30-34	Light yellow
			35-39	Plum red
			40-44	Pale blue purple
			45-49	Cold colour
			50-54	Blue Green
			55-59	Yellow green
			60-64	CTO5600K
65-69	Fluorescence			

			70-76	White light → red
			77-83	Red → blue
			84-90	Blue → green
			91-97	Green → orange
			98-104	Orange→purple
			105-111	Fuchsia → light yellow
			112-118	Light yellow → plum red
			119-125	Plum red → light blue purple
			126-132	Light blue purple → cool color
			133-139	Cool color → blue green
			140-146	Blue-green → yellow-green
			147-152	Yellow-green → CTO5600K
			153-159	CTO5600K→ Fluorescence
			160-219	Positive rainbow, from fast to slow
			220-223	Stop
			224-255	Reverse rainbow, from slow to fast
10	9	<b>Fixed Gobo wheel</b>	0-3	Open
			4-7	Gobo 1
			8-11	Gobo 2
			12-15	Gobo 3
			16-19	Gobo 4
			20-23	Gobo 5
			24-27	Gobo 6
			28-31	Gobo 7
			32-35	Gobo 8
			36-39	Gobo 9
			40-43	Gobo 10
			44-47	Gobo 11
			48-51	Gobo 11 shaking from slow to fast
			52-55	Gobo 10 shaking from slow to fast
			56-59	Gobo 9 shaking from slow to fast
			60-63	Gobo 8 shaking from slow to fast
			64-67	Gobo 7 shaking from slow to fast
			68-71	Gobo 6 shaking from slow to fast
			72-75	Gobo 5 shaking from slow to fast
			76-79	Gobo 4 shaking from slow to fast
			80-83	Gobo 3 shaking from slow to fast
			84-87	Gobo 2 shaking from slow to fast
			88-91	Gobo 1 shaking from slow to fast

			92-95	Open
			96-173	Gobo wheel clock-wise rotates from slow to fast
			174-177	Stop
			178-255	Gobo wheel counter clock-wise rotates from slow to fast
11	10	<b>Rotating Gobo</b>	0-3	Open
			4-6	filter gets in
			7-13	Gobo 1
			14-20	Gobo 2
			21-27	Gobo 3
			28-34	Gobo 4
			35-41	Gobo 5
			42-48	Gobo 6
			49-55	Gobo 7
			56-62	Gobo 1 shaking from slow to fast
			63-69	Gobo 2 shaking from slow to fast
			70-76	Gobo 3 shaking from slow to fast
			77-83	Gobo 4 shaking from slow to fast
			84-90	Gobo 5 shaking from slow to fast
			91-97	Gobo 6 shaking from slow to fast
			98-104	Gobo 7 shaking from slow to fast
			105-109	Open
			110-180	Gobo wheel clock-wise rotates from slow to fast
181-184	Stop			
185-255	Gobo wheel counter clock-wise rotates from slow to fast			
12	11	<b>Gobo rotating</b>	0-63	Forward rotation, from slow to fast
			64-145	Rotating pattern hovering position
			146-150	Stop
			151-231	Rotate forward and backward from slow to fast
			232-255	Reverse rotation, from slow to fast
13		<b>Gobo rotating fine</b>	000-255	16 bit Adjustable
14	12	<b>Prism 1</b>	0-15	No functioning
			16-255	6-facet linear prism
15	13	<b>Prism 1 rotation</b>	0-127	prism rotation position
			128-189	Forward rotation, from fast to



			190-193	slow
			194-255	Stop
				Reverse rotation, from slow to fast
16	14	<b>Prism 2</b>	0-15	No functioning
			16-255	8-facet round prism
17	15	<b>Prism 2 rotation</b>	0-127	Prism rotation position
			128-189	Forward rotation, from fast to slow
			190-193	Stop
			194-255	Reverse rotation, from slow to fast
18	16	<b>Frost</b>	0-15	No functioning
			16-255	Frost
19	17	<b>Focus</b>	0-255	Adjust the focus
20		<b>Focus fine</b>	0-255	16 bit Adjustable
21	18	<b>Zoom</b>	0-255	From max. to min.
22		<b>Zoom fine</b>	0-255	16 bit Adjustable
23	19	<b>Effect</b>	0-255	No
24	20	<b>Function channel</b>	0-129	No function
			130-139	Lamp on
			140-199	No function
			200-209	All reset
			210-219	No function
			220-229	No function
			230-239	Lamp off
			240-255	No function

## 7. Fault treatment

The following are some of the problems that often occur in operation, with some suggestions for troubleshooting:

### A. Lamps do not work, no lights, Fan does not rotate

1. Check for electrical contact and fuse integrity.
2. Detection voltage.
3. Check the power switch indicator.

### B. Control of uncontrolled stations

- 1 Check DMX signal connectors and signal lines to see if they are connected correctly.
- 2 Check that the address code is set correctly.

- 3 If DMX signal is intermittent, check that the Canon is connected to the signal line.
- 4 Try the other controllers.
- 5 Check that DMX signal lines and high voltage wires are too close to each other, which can damage or interfere with signal circuits.

**C. One channel failed**

1. The stepper motor or motor lead may be damaged.
2. The drive circuit of the motor may be damaged.

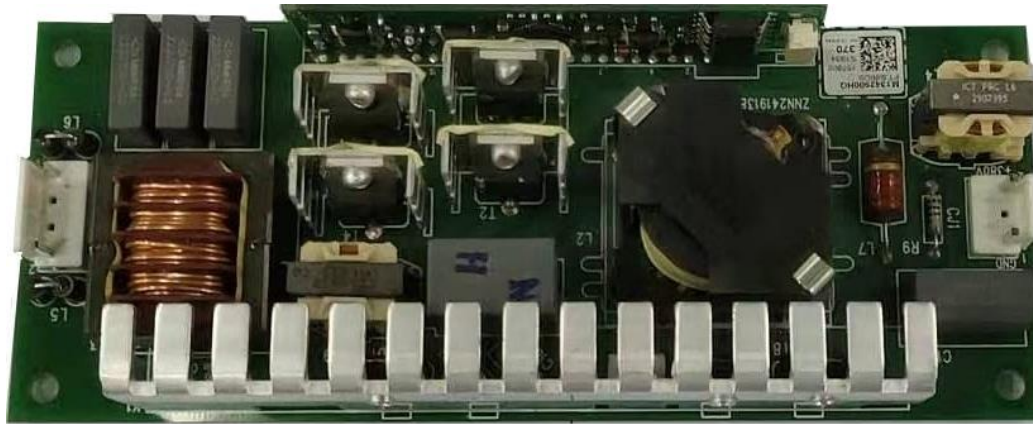
**D. Light lamps are good and bad**

1. The light lamp can not be lit normally. See if the voltage is too high or too low.
2. The internal temperature may be too high. If necessary, replace the cooling fan.

## 8. Maintenance and cleaning

### Maintenance:

#### Ballast resistor



- A. When the color of each pin of the ballast is yellow, please consider replacing it in time.
- B. Be sure to maintain the machine every 2 months and ensure that all parts of the screws and terminals shown above are locked and not loosened. To ensure performance. Poor maintenance may cause malfunction of the machine.

### cleaning:

The inside and outside of the lens and the reflector must be cleaned regularly so that the lighting can be better. The wiping frequency depends on the environment. Wet, smoky, especially dirty environment easy to dust the lens.

- \* Soft linen and special glass scrub.
- \* Carefully wipe the cadres.
- \* Wipe the outside of the lens at least every 20 days. Clean the interior at least every 30 days.

Clean the dust-proof sponge on the bottom cover at least every 30 days (depending on the actual environment)