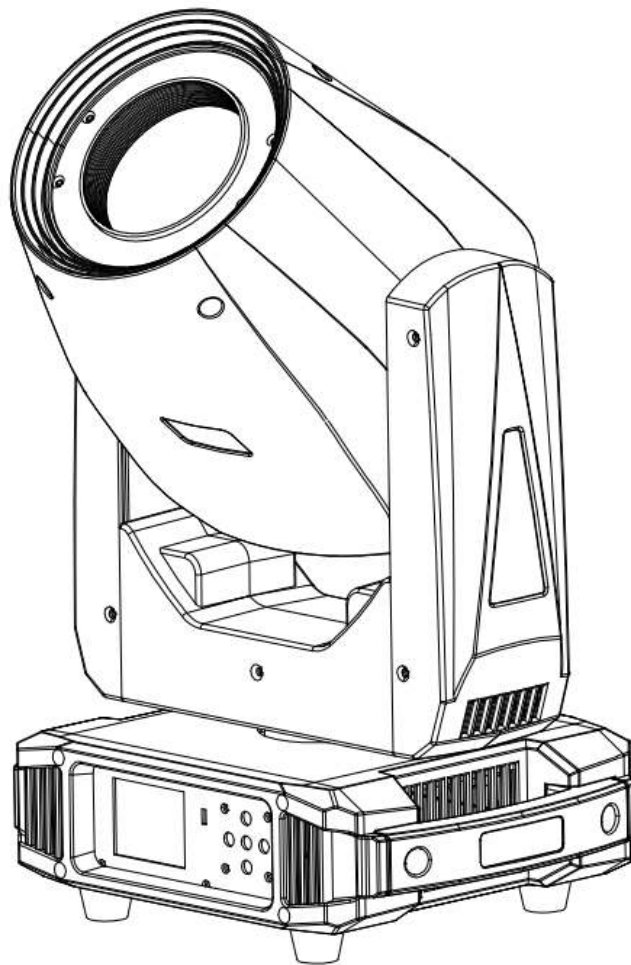


# 250W LED 3IN1 BSW Moving Head Light



User Manual  
Please read the instruction carefully before use

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# 1. Safety Instruction



Please read the instruction carefully which includes important information about the installation, usage and maintenance.

## WARNING

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction manual.

Unpack and check carefully there is no transportation damage before using the unit.

Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.

It's important to ground the yellow/green conductor to earth in order to avoid electric shock. The unit is for indoor use only. Use only in a dry location.

The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked. Disconnect main power before replacement or servicing.

Make sure there are no flammable materials close to the unit while operating as it is fire hazard.

Use safety cable when fixing this unit. DO NOT handle the unit by taking its head only, but always by taking its base.

Maximum ambient temperature is  $T_a$ : 40°C. DO NOT operate it where the temperature is higher than this.

Unit surface temperature may reach up to 85°C. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or servicing.

In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can

n lead to damage or malfunction.

Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

DO NOT touch any wire during operation as high voltage might be causing electric shock.

### Warning

To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture. DO NOT open the unit within five minutes after switching off.

The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

For AC 120V, 60Hz power supply, maximum fixtures that can be connected together from the same mains outlet is 4pcs;

For AC 230V, 50Hz power supply, maximum fixtures that can be connected together from the same mains outlet is 8pcs;

### Caution

There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

### Installation

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.

## **2. TECHNICAL PARAMETERS**

**Light source model: 250W white LED**

**Maximum power: 320W**

**Power supply: 100v-240v 50-60Hz**

**Color temperature: 7500k-8500k**

**Lamp life: 50000 hours**

**Beam angle: 6 ° - 26 °**

**Spot angle: 7 ° - 37 °**

**Control mode: DMX512, master-slave operation, sound control**

**Channel mode: 17CH/ 20CH**

**Support RDM function, DMX software upgrade function**

**Optional network function support: artnet, klingnet, sacn, network protocol**

**Pan: 540 degree + fine**

**Tilt: 270 degree + fine**

**Color Wheel: 7colors + open, with rainbow effect**

**Static Gobo Wheel: 7 gobos + open, with rotation and running water effect**

**Rotation gobo wheel: 6 gobos+open**

**Prism: 3 facet prism with bi-direction rotating**

**Frost: With frost effect**

**Focus: motorized focus**

**Display: color LCD, Chinese and English display, reverse display**

**Strobe: 1-25 Hz with pulse effect**

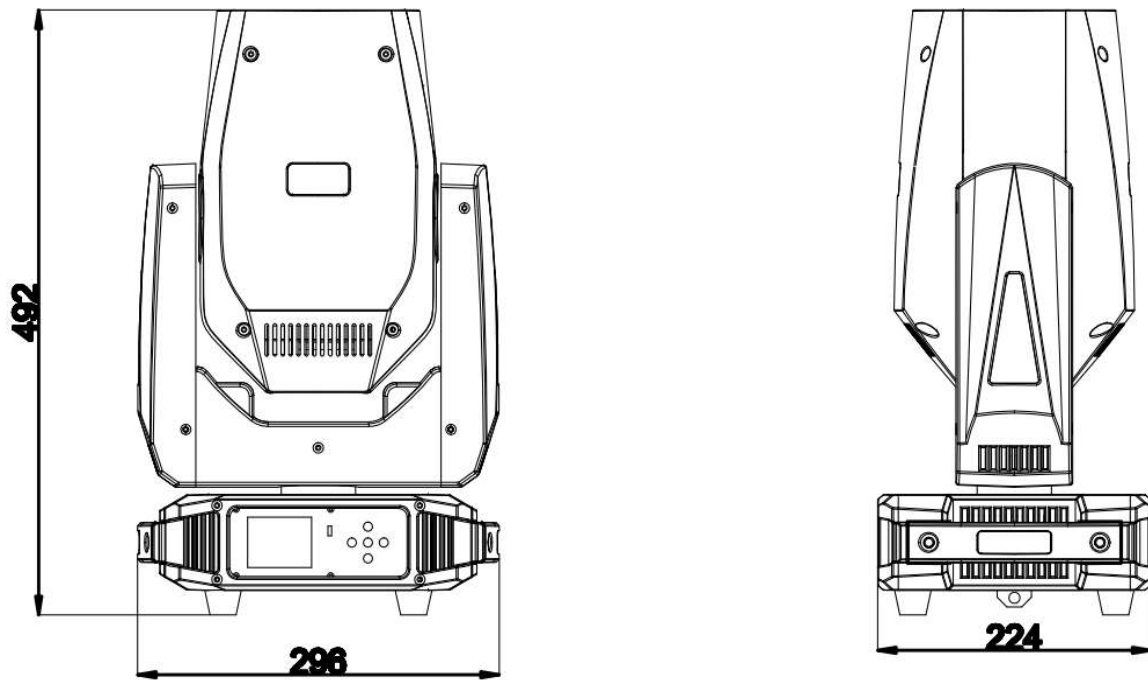
**Dimmer: 0-100% linear dimmer(16bit)**

**Working environment temperature: 0 ° C-45 ° C**

**Product size: 296 \* 224 \* 492**

**Package size:420\*400\*530**

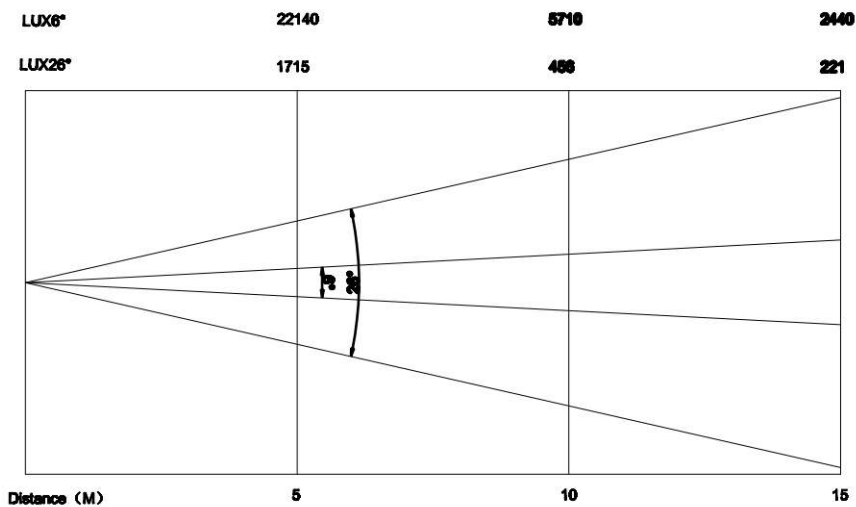
Net weight: 13kg



### 3. Optical Lumen Diagram

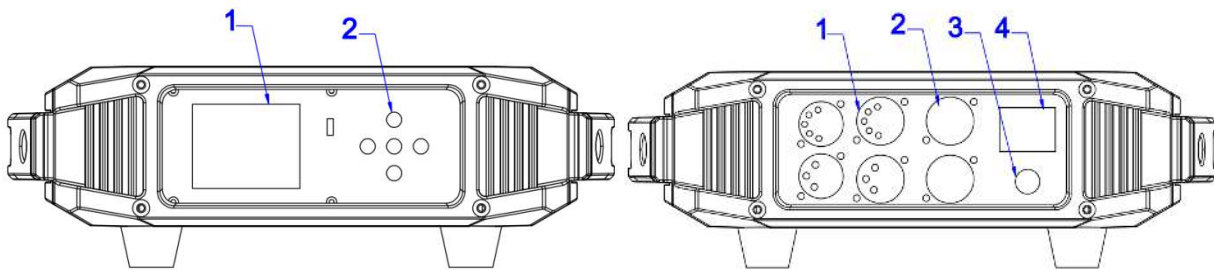
6 °22140 LUX @5m    5710 LUX@10m                    2440 LUX@15m  
 26 °1715 LUX @5m    488LUX@10m                    221 LUX@15m

PHOTO METRICS DIAGRAM



# 4. How To Set The Unit

## 4.1 Fixture Overview



### 1. Display:

To show the various menus and the selected functions

### 2. Button:

<b>MENU</b>	To select the programming functions
<b>▼ DOWN</b>	To go backward in the selected functions
<b>▲ UP</b>	To go forward in the selected functions
<b>ENTER</b>	To confirm the selected functions

### 1. DMX IN:

DMX512 link, use 3/5-pin XLR cable to link the fixture and the DMX controller

### DMX OUT:

DMX512 link, use 3/5-pin XLR cable to link the next fixture

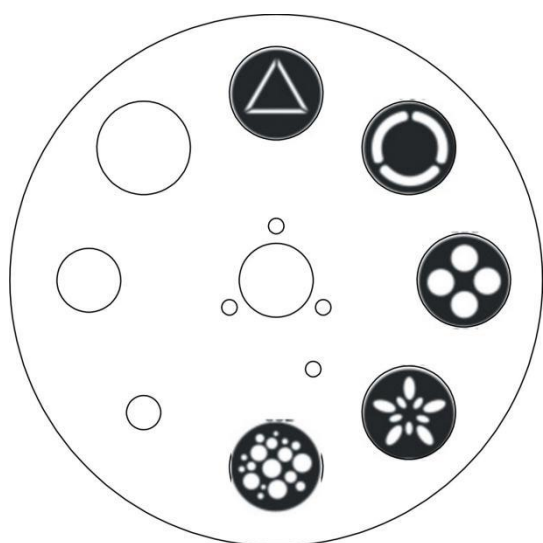
### 2. Power Cable:IN/OUT

### 3. Fuse (T 6.3A):

Protects the unit from over-voltage or short circuit

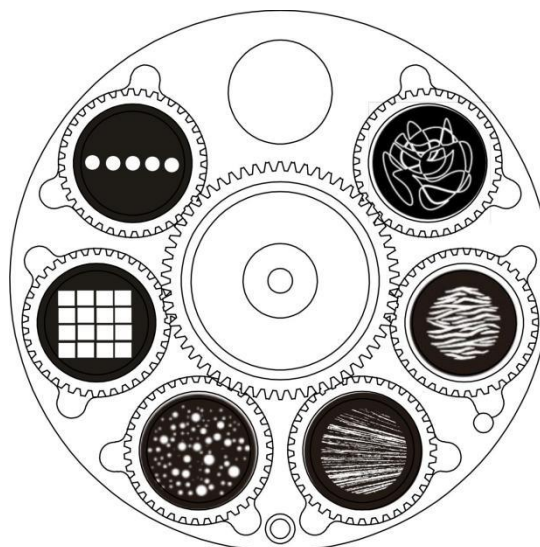
### 4. Power Switch: Turns On/Off the power.

## 4.2 Gobo Wheel



GOBO

1



GOBO

2

### **DANGER!**

Install the gobos with the device switched off only.

Unplug from mains before changing gobos!

## 4.3 Main Function

To select any of the given functions, press the MENU button until the required function is showing on the display. Select the function by pressing the ENTER button and the display will blink. Use the DOWN/UP buttons to change the mode. Once the required mode has been selected, press the ENTER button to setup, to go back to the functions without any change press the MENU button.



tion again. Press and hold the MENU button for about one second or wait for one minute to exit the menu mode.

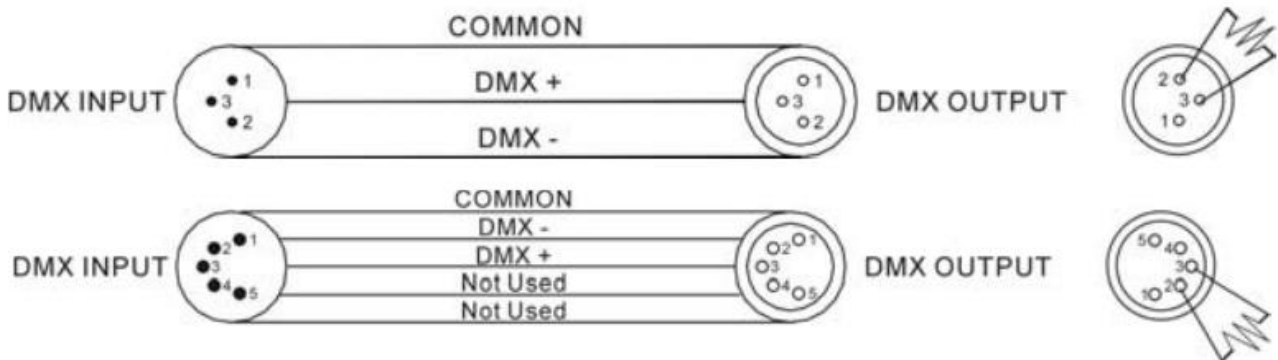
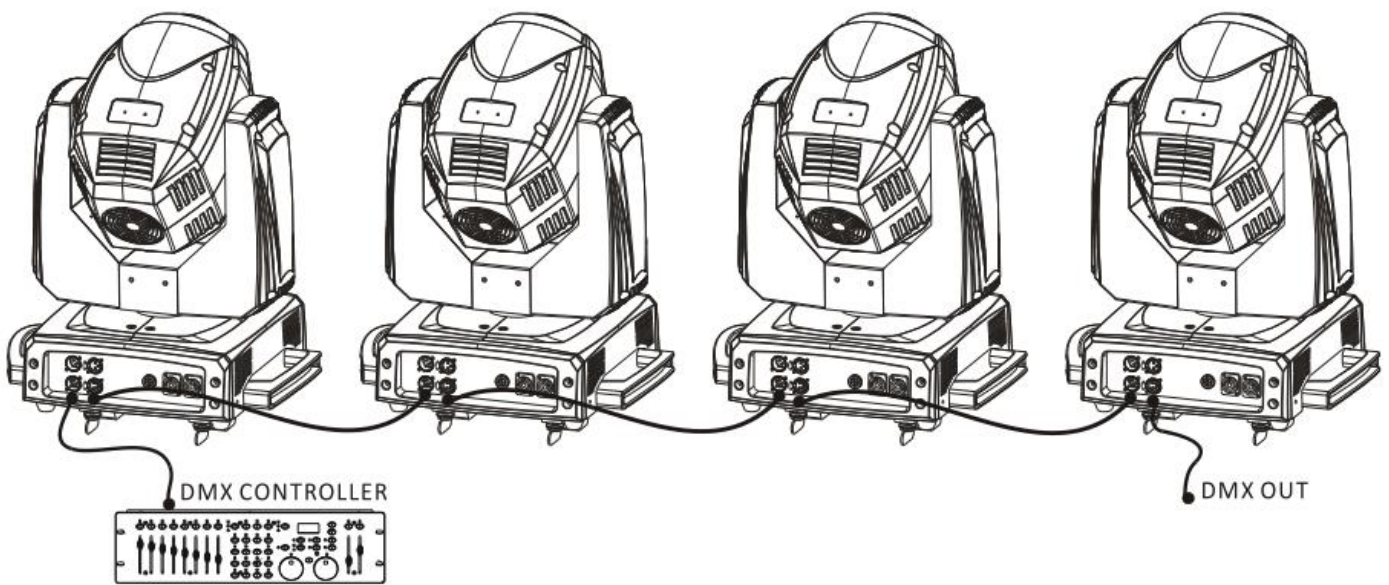
**The main functions are shown overleaf:**

MAIN	SECOND	THIRD
Dmx Address		001 -512
Fixture	Dmx Mode	STD/EXT
	Run Mode	DMX/Host/Sound
	Pan Invert	Close/Open
	Tilt Invert	Close/Open
Manual	Pan	0 - 255
	Pan Fine	0 - 255
	Tilt	0 - 255
	Tilt Fine	0 - 255
	PTSpeed	0 - 255
	Strobe	0 - 255
	Dimmer	0 - 255
	Color	0 - 255
	RotGobo	0 - 255
	GoboRot	0 - 255
	Zoom	0 - 255
	Focus	0 - 255
	Frost	0 - 255
	Prism	0 - 255
	PrismRot	0 - 255
Reset	0 - 255	

Information	Time	Current Time: xxx H
		Total Time: xxx H
		Power Count: xxx
	Sensor	Type Information
	Temperature	xxx°C
	Software Version	Panel: Vx.xxx
		XY Motor: Vx.xxx
		Motor: Vx.xxx
Factory	Password	0 - 255
	Pan	0 - 255
	Tilt	0 - 255
	Color Dimmer	0 - 255
	FixGobo	0 - 255
	RotGobo	0 - 255
	RotGobo	0 - 255
	Zoom	0 - 255
	Focus	0 - 255
	Frost	0 - 255
	Prism	0 - 255
	PrismRot	0 - 255
	Reset	0 - 255
Reset	All Reset	Off/on
	Factory	Off/on

MAIN	SECOND	THIRD
Display	Language	CH/EN
	Display Flip	Close/Open
	Display Mode	Show/60s

## 5.1 DMX 512 Connection



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120 ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin

n XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a `daisy chain` by XLR plug from the output of the unit to the input of the next unit. The cable can not be branched or split to a `Y` cable. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when power is disconnected to the unit.

4. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).

5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pin XLR.

3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

Pin 4/5: Not used.

## 5.2 DMX Address Setting

By using a universal DMX controller to control the units, you will need to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press the MENU button up to when the DMX Address is showing on the display. Pressing the ENTER button and the display will blink. Use the UP/DOWN buttons to change the DMX address.

Once the address has been selected, press the ENTER button to setup, to go

o back to the functions without any change press the MENU button again. Press and hold the MENU button about one second or wait for about one minute to exit the menu mode.

**Please refer to the following diagram to address your D MX512 channel for the first 4 units:**

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
17CH	1	18	35	52
20CH	1	21	41	61

## 6.DMX Mode

### 17/20CH Mode

17CH	20CH	DMX value	Function
1CH	1CH	000—255	X
2CH	2CH	000—255	X Fine
3 CH	3 CH	000—255	Y
4 CH	4 CH	000—255	Y Fine
5 CH	5 CH	000—255	XY speed
6CH Strobe	6CH Strobe	000-003	OFF
		004-103	Strobe from slow to fast
		104-107	ON
		108-207	Pulse strobe from slow to fast

		208-212	Open Light
		213-225	Random slow strobe
		226-238	Random mid-speed strobe

<b>17CH</b>	<b>20CH</b>	<b>DMX value</b>	<b>Function</b>
6CH	6CH	239-251	Random fast strobe
		252-255	Open light
7 CH	7 CH	000-255	Dimming
/	8 CH	000-255	Dimming fine
8 CH Color wheels	9 CH Color wheels	000-09	White
		010-019	White+Color 1
		020-029	Color 1
		030-039	Color 1+ Color 2
		040-049	Color 2
		050-059	Color 2+Color3
		060-069	Color3
		070-079	Color3+Color4
		080-089	Color4
		090-099	Color4+Color5
		100-109	Color5
		110-119	Color5+Color6
		120-129	Color6
		130-139	Color6+Color7
140-149	Color7		
150-159	Color7+White		

		160-205	From fast to slow water effect
		206-209	Water effect stop
		210-255	From slow to fast water effect

<b>17CH</b>	<b>20CH</b>	<b>DMX value</b>	<b>Function</b>
/	10 CH	000-255	Color wheel fine-tuning
9CH Gobo wheel	11CH Gobo wheel	000-090	Open
		010-019	Gobo1
		020-029	Gobo2
		030-039	Gobo3
		040-049	Gobo4
		050-059	Gobo5
		060-069	Gobo6
		070-079	Gobo7
		080-094	Gobo1 shaking (from slow to fast)
		095-109	Gobo2 shaking (from slow to fast)
		110-124	Gobo3 shaking (from slow to fast)
		125-139	Gobo4 shaking (from slow to fast)
		140-154	Gobo5 shaking (from slow to fast)
		155-169	Gobo6 shaking (from slow to fast)
		170-184	Gobo7 shaking (from slow to fast)
185-218	Gobo Positive water effect (from fast to slow)		
219-221	Water effect stop		

		222-255	Gobo Reverse water effect (from slow to fast)
10CH	12CH	000-090	white
		010-019	GOBO1

17CH	20CH	DMX value	Function
10CH	12CH	020-029	GOBO2
		030-039	GOBO3
		040-049	GOBO4
		050-059	GOBO5
		060-069	GOBO6
		070-079	Gobo1 shaking slowto fast
		080-089	Gobo2 shaking slowto fast
		090-099	Gobo3 shaking slowto fast
		100-109	Gobo4 shaking slowto fast
		110-119	Gobo5 shaking slowto fast
		120-129	Gobo6 shaking slowto fast
		130-189	Gobo Positive water effect (from fast to slow)
		190-195	Water effect stop
		196-255	Gobo Reverse water effect (from slow to fast)
11CH	13CH	000-063	Rotation map rotation linear positioning
		064-126	Gobo Positive water effect (from fast to slow)
		127-128	Water effect stop



		129-191	Gobo Reverse water effect (from slow to fast)
		192-255	Positive and negative rotation (from slow to fast)

17CH	20CH	DMX value	Function
12CH	14 CH	000-255	Zoom
13CH	15 CH	000-255	Focusing
/	16CH	000-255	Focusing fine
14CH	17 CH Frost	000-255	Liner frost
15CH	18 CH Prism	000-127	Empty
		128-255	Prism on
16CH	19CH	000-127	Empty
		127—128	Water running effect stop
		129—191	Counterclockwise from slow to fast
		192—255	Positive reversal rotation(from slow to fast)
17CH	20CH	000-199	Empty
		200—250	Light reset
		251-255	Empty

## 7. Troubleshooting

Following are a few common problems that may occur during operation. He

Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. Some units don't respond to the easy controller

1. You may have a break in the DMX cabling. Check the LED for the response of the master/slave mode signal.
2. Wrong DMX address in the unit. Set the proper address.

D. No response to the sound

1. Make sure the unit does not receive DMX signal.
2. Check microphone to see if it is good by tapping the microphone

E. 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

## 6. Fixture Cleaning

The cleaning of external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

Clean with soft cloth using normal glass cleaning fluid.

Always dry the parts carefully.

Clean the external optics at least every 30 days.