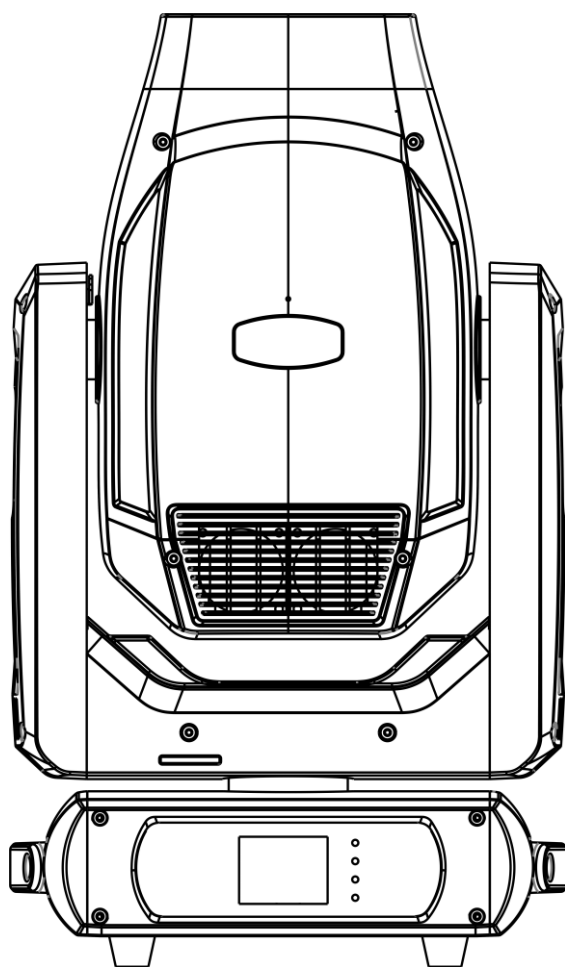


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# Moving Head

User Manual



M681BSW CMY

Please read and keep this manual carefully for further use!

Thank you for buying our professional Beam/Spot/Wash with CMY moving head.

This user manual includes important information for installation and operation, so please read this user manual carefully before installation and operation, and keep this user manual well for further use.

In order to install , operate, and maintain the lighting safety and correctly. We suggest that the installation and operation should be done by the verified technician and follow the instruction strictly.

### **Spare part includes:**

Name	QTY	Unit
Fixture	1	PC
User manual	1	PC
Power cable	1	PC
DMX Cable	1	PC
Safety rope	1	PC
Integrated hook	2	PCS

Please check carefully that there is no damage caused by transportation. Should there be any, consult your local dealer.

### **Cautions**

**Before delivery, this device has passed strict inspection, Please follow the user manual strictly for operation, if this fixture is damaged by improper operation and mistake, the fixture will be out of warranty, and manufacture or dealer won't be responsible for it. In case of any technology change in this manual,we won't advise in further .**

#### **CAUTION!**



**Keep this device away from rain and moisture!**








**Unplug mains lead before opening the housing!**



#### **Warning!**

**Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.**

## Symbol Instruction On The Device

	.....	CE Certificate
	.....	Suitable directly installed on the common combustibile materials devices
	.....	Only indoor use
	.....	Environmental protection
	.....	The minimum distance from lighted objects(meter)

## Safety Instructions

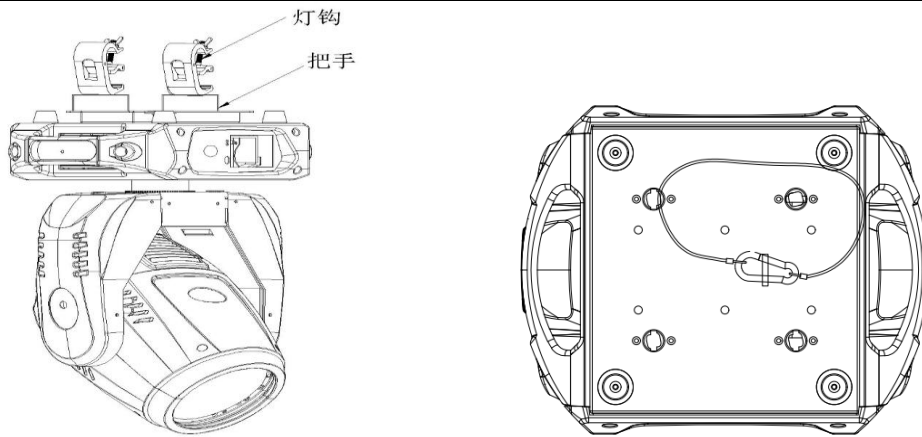


### CAUTION!

Please consider the GB7000.15/EN60598-2-17 and the other respective national norms during The installation. The installation must only be carried out by a qualified person.



- ▶ This fixture is not suitable for direct installation on combustibile material surface, please keep the fixture surface at least 0.5m from any combustibile material.
- ▶ If you use the quick lock cam in hanging up the fixture, please make sure the quick lock fasteners turned in the quick lock holes correctly.
- ▶ The applicable temperature for the fixture is between -25°C to 45°C. Do not use the lighting under or above this temperature range.
- ▶ The truss for hanging the fixture should be able to hold 10 times weight of this fixture and no deformation after 1 hour hang.
- ▶ Please don't stand under the fixture when install, uninstall, move or repair the fixture.
- ▶ Please ensure the light is connected correctly and invite professional technician to check and confirm the electrical data before installation.
- ▶ Please invite professional technician to check the fixture and installation each year.



Insert the quick-lock fasteners of the first holder into the respective holes on the bottom of the device. Tighten the quick-lock fasteners fully clockwise.

Fix the clamp on truss or other fixture bracket.

Pull the safety rope through the holes on the bottom of the base and fasten it on the truss or other fixing point.

Note: This step is quite important to ensure that fixture will not drop down for the clamp damage.

### **Product specification**

Voltage: 100-240V, 50/60HZ;

Power Consumption: 650W;

Lamp: 550W White LED

DMX Channel: 24CH

Operation mode: master-slave/DMX/Auto/RDM

Electronic strobe: 25Hz

Dimming: 0-100% linear dimming

Fixed gobo: 11 gobos+open

Rotation gobo: 7 gobos+open

Color: 9 colors+open+CTO+CTB

Prism 1: 8-facet

Prism 2: 3-facet

Pan: 540° (16-bits)

Tilt: 270° (16-bits)

Frost: Yes

Focus: Yes

Zoom: Yes

CMY: Yes

Display: LED LCD display

Integrated hook including

Flight case packing (2pcs in one case)

### **Display and operation**

Up	menu up selection
Down	menu down selection
Left	Menu select left/back
Right	Menu select right

ENTER	confirmation button
Time on the left in the upper right corner of the screen	Total system usage time (display can be turned off in standard settings)
Time at the top right corner of the screen	The total time of this power-on (the display can be turned off in the standard setting)
Dot in the upper right corner of the screen	Green: OK, no errors
	Red: There is an error (click "Information Menu/Error Information/View" to view the error)

### System Menu description:

Reverse	Invert the screen display
Exit	Exit to the main interface
Language	Simplified Chinese or English can be selected
Standard	Address code and some common function settings
Advanced	The main debugging parameter settings at the factory
Info	Information display of errors, software versions, etc.
Program	Manually control the operation, or edit the user program
Perform	Auto-run or voice-activated built-in program, user program
Reset	System reset to initial position

### System Menu tree description:

Standard	Default set	Enter?	Restore factory default parameters
	Address	001-512	Set light address code
	DMX mode	Mode1 Mode2 Mode3 Mode4	Select DMX control mode
	Effect mode	No/Yes	effect disc automatically finds the shortest distance to rotate
	Started lamp	Off/on	Choose whether the bulb is "on" or "off" every time you start it
	Switch lamp	Off/on	Turn on the light bulb manually
	No signal	Clear Hold	Keep DMX value or clear DMX channel value when there is no DMX signal
	UI Color	Green Blue Golden Gray	Choose an on-screen menu color
	Show time	No/Yes	Show runtime timer on main screen
	Brightness	000-255	Adjust screen brightness
	Screensaver	Off/on	Turn off the screen when there is no touch

			and key operation
	XY encoder	No/Yes	Cancel or use XY automatic error correction function
	X inversion	No/Yes	Select the X axis to run forward or backward
	Y inversion	No/Yes	Select the Y axis to run forward or backward
	Focus inversion	No/Yes	Select the focus axis to run forward or backward
	Zoom inversion	No/Yes	Choose to run the magnification axis in forward or reverse direction
Advanced	This setting is the main parameter setting of the light, and permission is required		
Info	Error List	No error/View	If there is no error or an error, click OK to view the error
	System ver	Vxxxxxxx	System version information
	Serial NO.	xxxxxxx	Equipment factory number
	SYS timer	00000.0H	Total system running time (hours)
	Run timer	000:00	Running time after this power-on (hours)
	Lamp timer	00000.0H	Total light bulb lighting time (hours)
	Equip TEMP	000	The temperature of the main parts of the device (requires device support)
	Head TEMP	000	The temperature of the light head of the device (requires device support)
perform	Run mode	Auto/Sound	Run selected programs automatically or by voice
	Run speed	255	Set the speed of the automatic running program
	Run cross	255	Set slides to run automatically or with voice control (requires device support)
	Built-in 1	Off/on	Device Built-in Test Procedures 1
	Built-in 2	Off/on	Device Built-in Test Procedures 2
	User PRO 1	Off/on	User-programmed program 1
	User PRO 2	Off/on	User-programmed program 2
	User PRO 3	Off/on	User-programmed program 3
	User PRO 4	Off/on	User-programmed program 4
	Circle shape	Off/on	(reserve)
	Square shape	Off/on	(reserve)
	Shape range	000	(reserve)
	Sound DB	000	Adjust voice control sensitivity
Program			
Reset	System reset to initial position		

## **24 DMX channel**

24CH	Function	Value	Description
CH1	Pan	0-255	0-540°

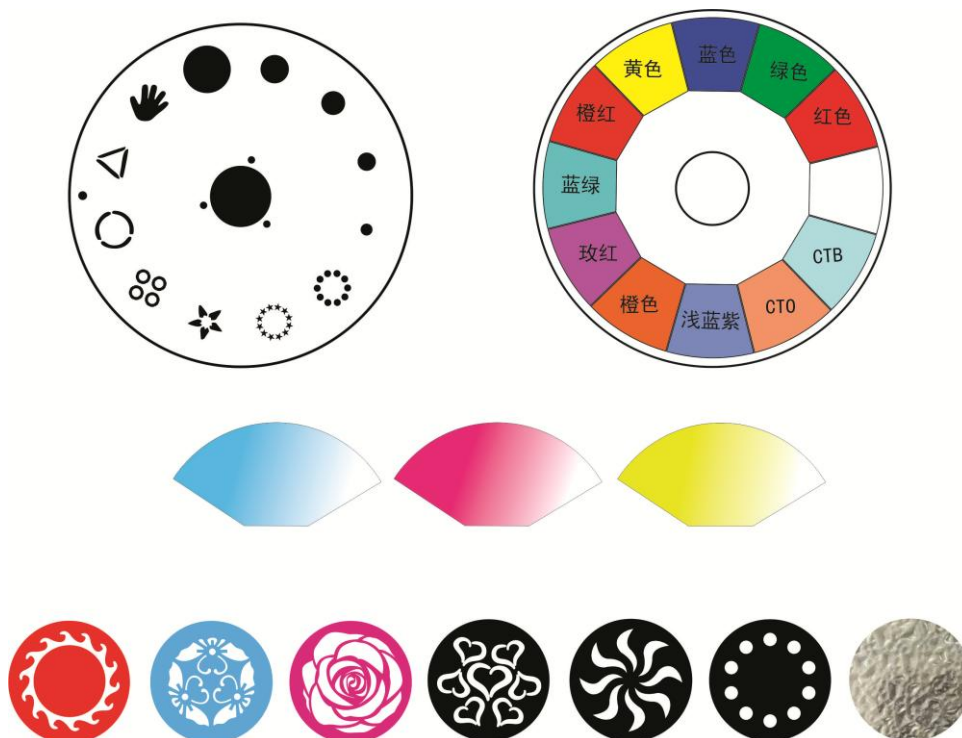
<b>CH2</b>	<b>Pan fine</b>	0-255	0-2°
<b>CH3</b>	<b>Tilt</b>	0-255	0-270°
<b>CH4</b>	<b>Tilt fine</b>	0-255	0-1°
<b>CH5</b>	<b>Pan/Tilt Speed</b>	0-255	Speed fast to slow
<b>CH6</b>	<b>Dimming</b>	0-255	0-100% dimming
<b>CH7</b>	<b>Strobe</b>	0-3	off
		4-127	Strobe from slow to fast
		128-131	on
		132-251	Random Strobe from slow to fast
		252-255	on
<b>CH8</b>	<b>Color</b>	0-4	White
		5-9	Red 1
		10-14	Green 2
		15-19	Blue 3
		20-24	Yellow 4
		25-29	Orange red 5
		30-34	Blue green 6
		35-39	Rose 7
		40-44	Orange 8
		45-49	Light blue purple 9
		50-54	CTO 10
		55-59	CTB11
		60-64	White + Red
		65-69	Red+ Green
		70-74	Green + Blue
		75-79	Blue + Yellow
		80-84	Yellow + Rose
		85-89	Rose + Blue green
		90-94	Blue green+ Rose
		95-99	Rose+ Orange
		100-104	Orange+ Light blue purple
		105-109	Light blue purple+ CTO
		110-114	CTO+CTB
		115-119	CTB+White
		120-185	Forward flow from fast to slow
		186-189	Stop
		190-255	Reverse flow from slow to fast
<b>CH9</b>	<b>CMY1</b>	0-255	CMY Blue
<b>CH10</b>	<b>CMY2</b>	0-255	CMY Red
<b>CH11</b>	<b>CMY3</b>	0-255	CMY Yellow
<b>CH12</b>	<b>Fixed gobo</b>	0-5	White
		6-11	Gobo 1
		12-17	Gobo 2
		18-23	Gobo 3
		24-29	Gobo 4
		30-35	Gobo 5
		36-41	Gobo 6

		42-47	Gobo 7
		48-53	Gobo 8
		54-59	Gobo 9
		60-65	Gobo 10
		66-71	White 11
		72-77	Gobo 1 shake from slow to fast
		78-83	Gobo 2 shake from slow to fast
		84-89	Gobo 3 shake from slow to fast
		90-95	Gobo 4 shake from slow to fast
		96-101	Gobo 5 shake from slow to fast
		102-107	Gobo 6 shake from slow to fast
		108-113	Gobo 7 shake from slow to fast
		114-119	Gobo 8 shake from slow to fast
		120-125	Gobo 9 shake from slow to fast
		126-131	Gobo 10 shake from slow to fast
		132-136	Gobo 11 shake from slow to fast
		137-190	Reverse flow from fast to slow
		191-192	Stop
		193-255	Forward flow from slow to fast
		CH13	Glass gobo
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 8		
63-69	Gobo 1 shake from slow to fast		
70-76	Gobo 2 shake from slow to fast		
77-83	Gobo 3 shake from slow to fast		
84-90	Gobo 4 shake from slow to fast		
91-97	Gobo 5 shake from slow to fast		
98-104	Gobo 6 shake from slow to fast		
105-111	Gobo 7 shake from slow to fast		
112-118	Gobo 8 shake from slow to fast		
119-184	Forward flow from fast to slow		
185-255	Reverse flow from slow to fast		
CH14	Gobo rotation	0-127	0-360°
		128-190	Reverse flow from fast to slow
		191-192	Stop
		193-255	Forward flow from slow to fast
CH15	Prism 1	0-127	no prism
		128-255	prism 1
CH16	Prism 1 rotation	0-127	0-400°
		128-187	Forward flow from fast to slow
		188-195	Stop



		196-255	Reverse flow from slow to fast
<b>CH17</b>	<b>Prism 2</b>	0-127	no prism
		128-255	prism 2
<b>CH18</b>	<b>Prism 2 rotation</b>	0-127	0-400°
		128-187	Forward flow from fast to slow
		188-195	Stop
		196-255	Reverse flow from slow to fast
<b>CH19</b>	<b>Frost</b>	0-127	No effect
		128-255	Frost
<b>CH20</b>	<b>Zoom</b>	0-255	Small to large
<b>CH21</b>	<b>Focus</b>	0-255	far to near
<b>CH22</b>	<b>Focus fine</b>	0-255	
<b>CH23</b>	<b>Auto</b>	0-49	No effect
		50-99	Pan auto
		100-149	Tilt auto
		150-199	Pan/Tilt auto
		200-255	Sound
<b>CH24</b>	<b>Reset</b>	0-209	No effect
		210-215	Pan/Tilt reset after 6s
		220-235	Effect motor reset after 6s
		240-255	All reset after 6s

## Effect Wheels

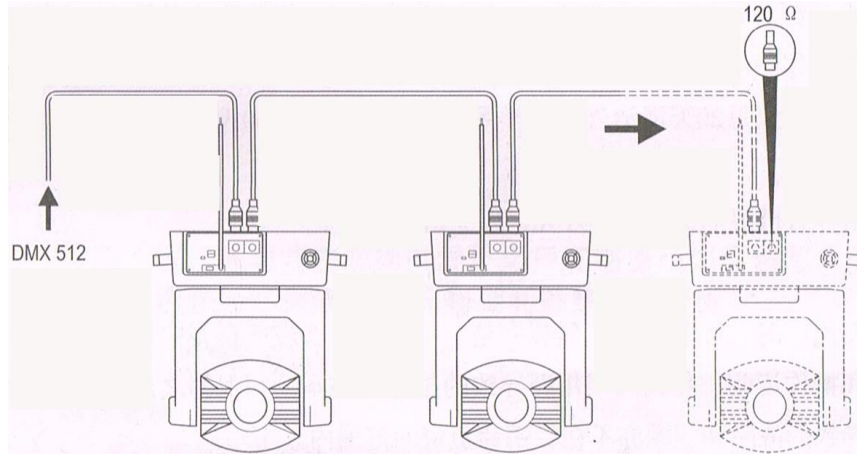


## DMX-512 connection

Connect the provided XLR cable to the male 3-pin XLR output of your controller and the other side

to the female 3-pin XLR input of the light. then connect the DMX signal to the first fixture to the 2<sup>nd</sup> fixture, after all fixtures are connected,

The signal cable should be two - core with screened cable with XLR input and output connectors. Please refer to the diagram below



### **DMX address setting**

Each fixture must set a specific starting address. When receiving signal transmission, fixture will receive channels control signals which from the starting address.

According to different requirements or easy to use, the user can set many fixtures to the same address, also can set up a separately address for every device.

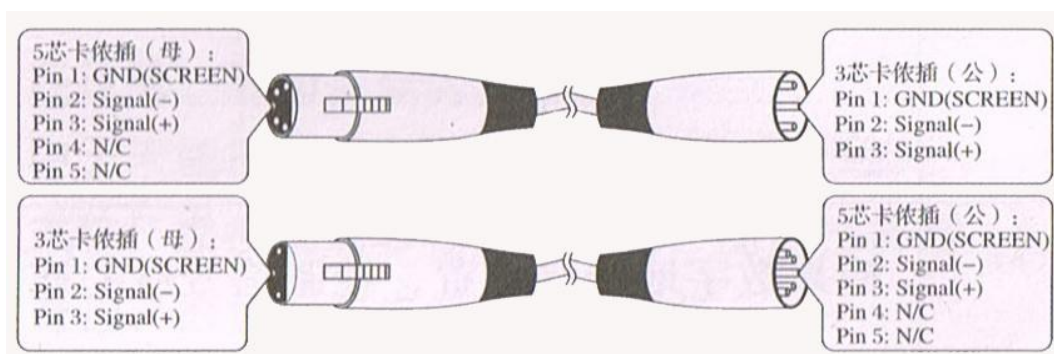
If more than one fixtures set to the same address, all of them receive from DMX channels signal. All connections fixtures are jointly controlled, controller can't separate control a device.

If each device set to a different address, each device will be separate from its particular set the starting address and began accepting DMX512 control signal, so that more convenient separate control one of device. Using this method must be based on channel quantity of device to determine a starting address.

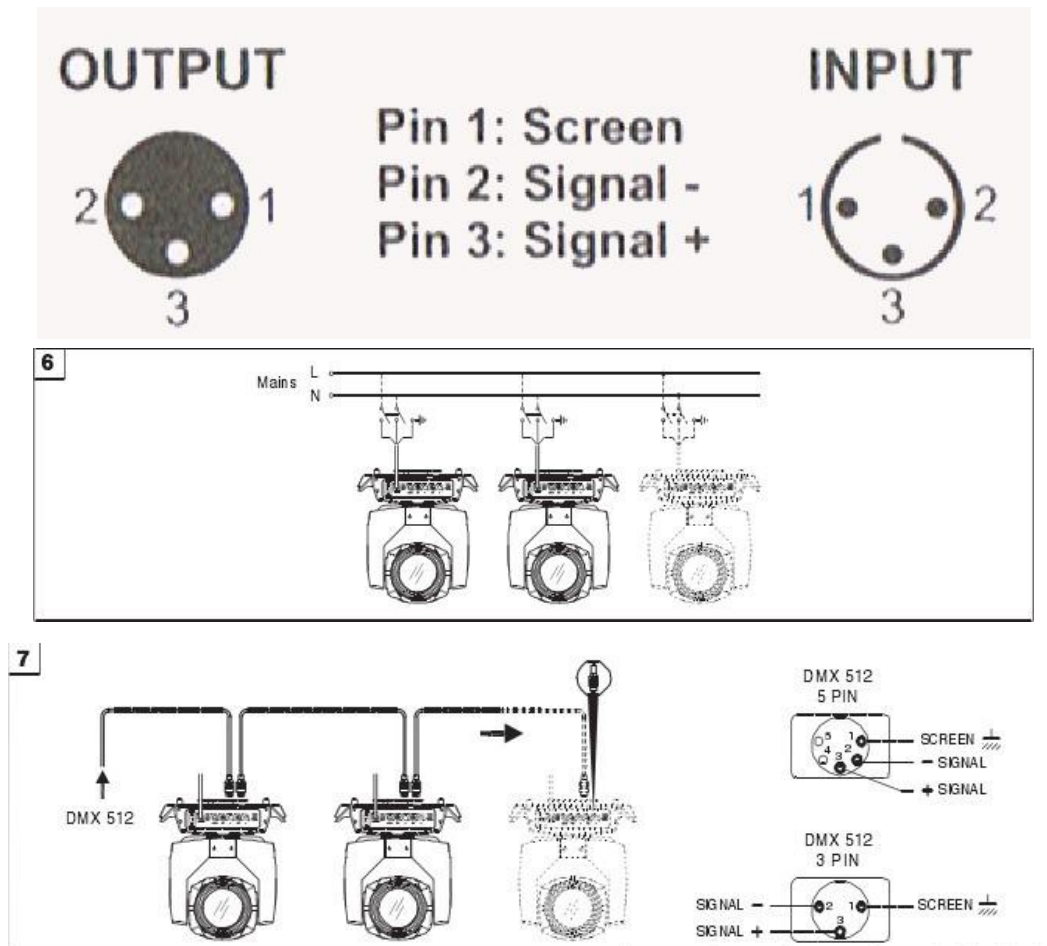
This device have 24 channels, so the first device starting address set 1, second is 25, third is 49 and so on.

### **DMX terminator connection**

If there are many lines or lights, it is recommended to use a DMX terminator to prevent DMX signal corruption, the DMX terminator is an simple XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain.



### 3-Pins connection



## Cleaning and maintenance

Cleaning should be performed every 15-day period, by using a sponge which is dipped with alcohol, rather than wet cloth or other chemical liquid, to clean the mirror.



### CAUTION

Cut off power before cleaning and maintenance!

### Attention

Do not see directly light source when open the light, and make sure power off before do any installation or maintenance.



### CAUTION!

Never look directly into the light source,  
as sensitive persons may suffer an epileptic shock.



### CAUTION

Wires connection must be done professional person!

## **Cautions**

Before delivery, this device has passed strict inspection, Please follow the user manual strictly for operation, if this fixture is damaged by improper operation and mistake, the fixture will be out of warranty, and manufacture or dealer won't be responsible for it. In case of any technology change in this manual, we won't advise in further .

## **Trouble shooting**

Corresponding solutions have been proposed for some common faults. Any unresolved issues should be handled by professionals. Before maintaining the lighting fixtures, please turn off the power supply.

### **1. The light bulb does not light up**

Check if a voltage matches the light;

Check for poor contact at the power supply connection or control switch of the lighting fixture;

Check if the power supply is insufficient;

Check if the DMX512 controller has sent instructions.

### **2. After the light is reset normally, it does not accept control from the DMX controller**

Check if the digital start address value and function options of the lighting fixtures are correct;

Check if the connection of the communication control line is correct, if the communication line is too long or has been interrupted;

Check if the control equipment is malfunctioning and if the signal amplifier connected in series is malfunctioning;

Check if the communication line is too long or if there are other devices interfering with each other;

Optimize wiring, shorten the length of control signal lines, and separate high-voltage and low-voltage lines for wiring;

Add a signal amplifier;

The signal line adopts high-quality shielded twisted pair;

Connect the signal terminal resistor (120 ohms) at the end of the light.

### **3. The light cannot be activated**

Check whether the power supply parameters match the lighting fixtures;

Inspect the lighting fixtures for poor contact during long-distance transportation due to compression deformation, internal component vibration, moisture, and other reasons or fall off.

Please check if the internal wires and connectors of the light have fallen off or become loose.

Check if the electronic components of the lighting fixtures (such as electronic transformers, PCB boards, motor control boards, etc.) are loose, short circuited, or burnt out.

### **4. During operation, the X-axis or Y-axis of the lighting fixture does not operate normally**

Check one by one according to the previous step;

Check whether the transmission belts corresponding to the X and Y axis directions inside the light are detached or broken;

Check if the data feedback receiver (optocoupler) corresponding to the X and Y directions inside the light is damaged;

Restart and reset once.

### **Operating Attention**

- ▶ This device is a LED moving-head lighting effect for creating decorative effects. This product was designed for indoor use only. This device is designed for professional use, e.g. On stages, in discotheques, theater etc.
- ▶ The device can last for eight hours, stop to rest appropriately if working more than this time, this will reduce the probability of damage of it, and can prolong the service life of fixture.
- ▶ Handle with care, do not make the device by strong shocks.
- ▶ Please do not in damp, overheat or dusty environment install and use the device. Do not use light on fuel. The distance between the device and the projectile to keep at least 1 meter.
- ▶ The device must only be installed on a non-flammable surface. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.
- ▶ If use quickly locked to suspension device, please ensure quick lock fastener tighten rapidly locked on the base mounting holes in the fixture. And combined with the distribution of the safety rope.
- ▶ Most of the damage to the equipment because of non-standard operation. Please familiar with the function and operation method of the device before using.
- ▶ Do not let the non-professional personnel for installation and operation.
- ▶ Please properly retention the device's foam packaging, cartons and other packaging materials, in case of need to use in the future.
- ▶ Don't allow remove the fixture.
- ▶ 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, crash etc.

**Attention: Do not open and run when the fixture power in.**

### **RDM Operation Attention**

RDM is an extended version of the DMX512-A protocol and is a remote device management (Remote Device Management) protocol. Traditional DMX512 protocol communication is one-way communication. The protocol is based on the RS-485 bus. RS-485 is a time-sharing multi-point, half-duplex protocol. , only one port is allowed to output to the host at the same time, so please pay attention to the following points when using RDM.

- Must using the controller or fixture which supporting RDM Protocol
- It is necessary to use a bidirectional signal amplifier. The traditional one-way signal amplifier is not suitable for the RDM protocol, because the RMD protocol requires feedback data. Using a one-way amplifier will block the returned data, resulting in no lamps being searched.
- All the fixtures must setting DMX mode, make sure just 1PCS master on all DMX line.
- A 120ohm impedance matching resistor must be inserted between terminals 2 and 3 of the terminal plug. When the signal line is relatively long, reducing signal reflection will make the differential signal more stable, which is beneficial to the quality of communication.
- When there is a fixture that accepts DMX control but cannot be searched by RDM, first check the signal amplifier, and then check whether there is a bad contact in Lines 2 and 3 of the signal line.

# Warranty Card

This product is made of high-brightness transistor. We will provide 1 year warranty under the condition that user has operated the light normally and lifetime service. We won't provide warranty if the damage is caused by artificial or force majeure event. Cost of fittings should be charged by user if product need maintenance after 1 year .Please cut this warranty card and shipped it along with the product to our factory when applying for warranty.

**Product:**

**Purchasing date:**

**Code of invoice:**

**Warranty date: From**

**To**

**User's name:**

**Add:**

**Company:**

**Tel:**