

# LED-800BSWF MOVING HEAD

## USER MANUAL



**Please read and keep this manual carefully for further use!**

Thank you for buying our professional 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 signal cable	1	PC

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.**

## **Installation**

▶ This fixture is not suitable for direct installation on combustible material surface, please keep the fixture surface at least 0.5m from any combustible 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.

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▶ The applicable temperature for the fixture is between -25°C to 45°C. Do not use the lighting under or

above this temperature range.

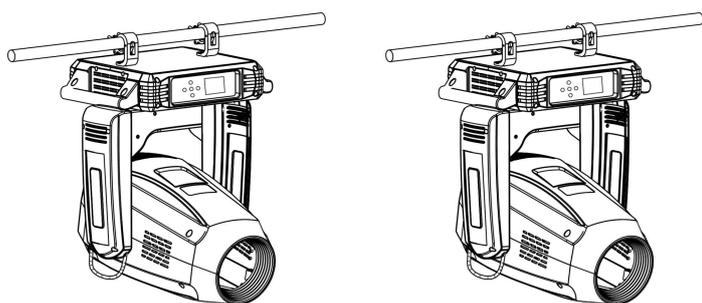
▶ The truss for hanging the fixture should be able to hold 10 times weight of this fixture and no deformation after 1 hour hang.

▶ 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.

## **Rigging:**



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.

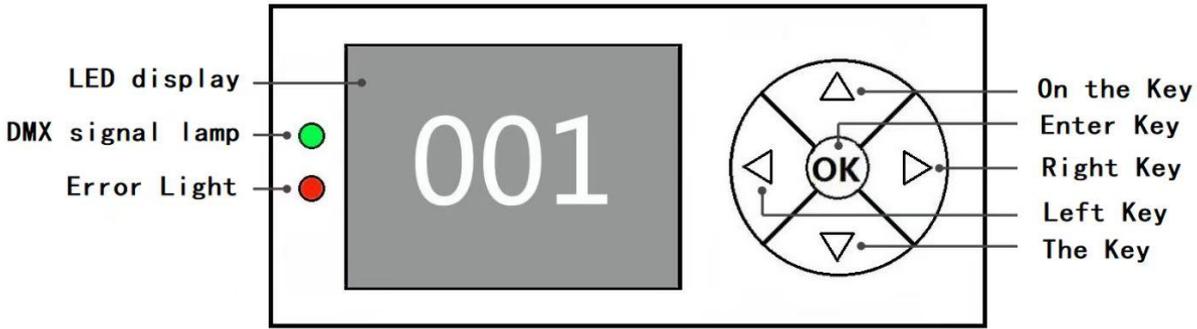
Pull the safety rope through the holes on the bottom of the base and fasten it on the truss or other fixing point.

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

## **Product specification**

1. Voltage: 100-240V, 50/60HZ;
2. Power Consumption: 900W;
3. Lamp: 800 W white led module
4. Fuse: 8A/250V,  $\varnothing$  5\*20
5. DMX Channel: 36CH
6. Operation mode: master-slave/DMX/Auto
7. Focus/Zoom: Yes, strobe: 25Hz
8. Fixed gobo wheel: 8 gobos
9. rotating gobo wheel: 6 replaceable gobos
10. Color wheel: 7 colors+open
11. Prism 1: 6-facet linear
12. Prism 2: 3-facet circular
13. Pan: 540°(16bits)
14. Tilt: 270°(16bits)
15. Frost /focus/zoom/flare effect/cut/iris/CMY/CTO/RDM: Yes
16. RDM: Yes
17. Display: LCD touch screen

# Display and operation



The function of the left and right keys is the same: return to the previous interface

Up, down keys: Select, edit

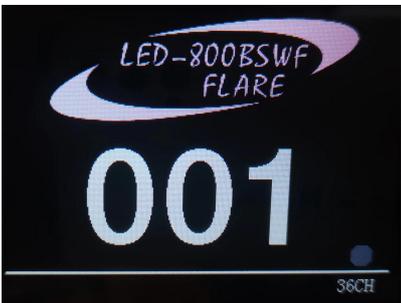
OK Key: Perform function, start edit, exit edit

Touch button	Function
Up	Option, Edit
Down	Option, Edit
Left	Backtrack, Edit
Right	Backtrack, Edit
OK	Enter to edit , confirm

## 2.2 MENU

### 2.1 opening interface

### main interface



### 2.2.1 DMXset

Button: press UP or DOWN button, or press LEFT or RIGHT button to adjust the DMX adress, then press OK to return.

Manual: press digital directly, First you put the hundreds, then the tens, and then the last place.(for example: input DMX address 286, press 2, then press 8, then press 6 at the last).

DMX address	1~512	press "OK" to enter the edit status. Select the hundred digit and press the Up and Down keys to change the address code. Press "OK" again to select the ten edit. Press the "OK" key again to select a bit for editing. Click again to exit the edit
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## 2.2.2 set up

OPTION	DETAILS	
DMX channel	36CH	36channel mode
RDM function	OFF	
	ON	
Language	Chinese	Set Chinese interface
	English	Set English interface
Display reverse	OFF	Frontal display
Display AUTO reverse	ON	Display auto reverse
DMX signal	keep	Continue running in the original state
	clear	Motor return, stop running
screen saver	Off	
	ON	
X reverse	Off	
	ON	
Y reverse	Off	
	ON	
XY swap	Off	
	ON	Swap XY channel (include XY fine)
XY encoder	Off	No encoder (optocoupler) is used to correct the position
	ON	Use the encoder (optocoupler) to determine the out-of-step and automatically correct the position
restore default		Press "OK" to see the confirmation dialog box, press "OK" again to restore the default Settings

## 2.2.3 run mode

OPTION	DETAILS
Auto mode	Dmx
	Sound activated
	Auto
Manual control	Manual control (no DMX signal control)
Light reset	Light reset
XY reset	XY reset
Motor reset	MT reset

## 2.2.4 system

OPTION	DETAILS
System version	Show system version details
Temperature	Display LED temperature
System time	Display use time
Sensor monitoring	
System error	When there is error, interface shows "error", when no error, interface shows "no error"
DMX monitoring	

Common error	details
MT connection failure	The motor board is not responding. The serial communication line connecting the display board and the motor board is faulty, or the motor board is faulty.
X reset failure	problem with the X-axis photoelectric switch, or the X-axis motor or motor board
Y reset failure	problem with the Y-axis photoelectric switch, or the Y-axis motor or motor board
X Hall error	problem with the X-axis Hall, or the motor board
Y Hall error	problem with the Y-axis Hall, or the motor board
Color wheel reset failure	problem with the color wheel Hall, or the motor board for color wheel
Gobo wheel reset failure	problem with the gobo wheel Hall, or the motor board for gobo wheel
Focus reset failure	problem with the focus Hall, or the motor board for focus
Lamp control failure	Failure to turn OFF/ON the lamp, problem with lamp or ballast

## 2.2.5 dimmer curve

OPTION	DETAILS	OPTION
Lamp control	Dimmer curve	Linear
		scurve
		Insquare
		Square

## 2.2.6 factory setting

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Enter passcord: press "UP" "DOWN" "UP" "DOWN" , then press "OK"

Motor calibration	X calibration	After entering the sub-interface, you can adjust the reset position of the X axis, Y axis and other motors to make up for the error on the hardware installation. The adjustment range is -128 to +127, and +0 indicates that there is no adjustment.
	.....	
	color	
Stroke calibration	X stroke	
	Y stroke	
XY speed adjustment	X speed	
	Y speed	

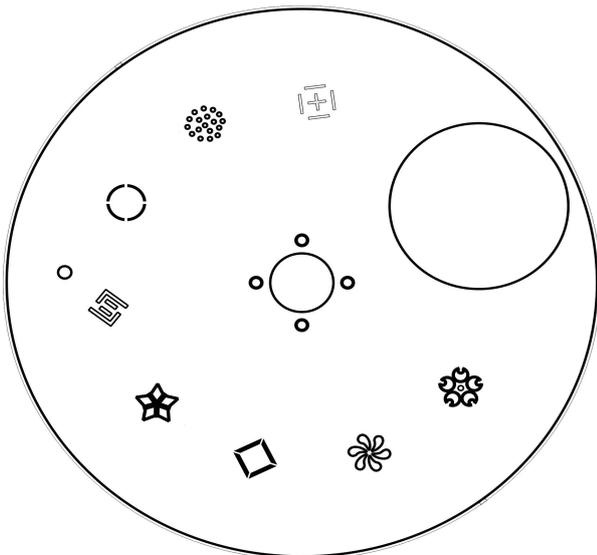
### **36DMX channel**

Channel	Function	value	Details
CH1	X rotation	0-255	0-540°
CH2	X fine	0-255	0-2°
CH3	Y rotation	0-255	0-270°
CH4	Y fine	0-255	0-1°
CH5	XY speed	0-255	fast to slow
CH6	strobe	0-3	off
		4-127	puls strobe slow to fast
		128-191	strobe fading slow to fast
		192-251	random strobe slow to fast
		252-255	ON
CH7	dimmer	0-255	0-100% dimmer
CH8	C	0-255	0-100% dimmer
CH9	M	0-255	0-100% dimmer
CH10	Y	0-255	0-100% dimmer
CH11	CTO	0-255	0-100% dimmer
CH12	color wheel	0-127	linear color
		128-137	color 1
		138-146	color 2
		147-155	color 3
		156-164	color 4
		165-173	color 5
		174-182	color 6
		183-191	color 7
		192-222	gobo flowing clockwise fast to slow
		223-224	stop
225-255	gobo flowing anticlockwise slow to fast		
CH13	CRI option	0-255	CRI option
CH14	fixed gobo wheel	0-9	open
		10-19	gobo 1
		20-29	gobo 2
		30-39	gobo 3
		40-49	gobo 4
		50-59	gobo 5
		60-69	gobo 6

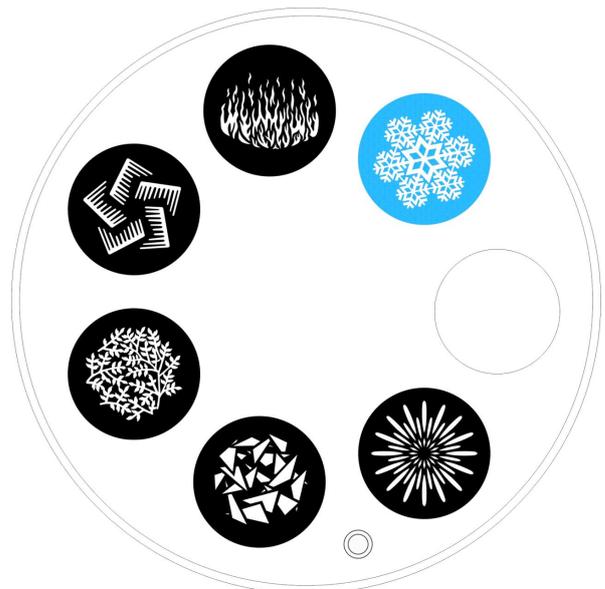
		70-79	gobo 7
		80-89	gobo 8
		90-99	gobo 1 shake slow to fast
		100-109	gobo 2 shake slow to fast
		110-119	gobo 3 shake slow to fast
		120-129	gobo 4 shake slow to fast
		130-139	gobo 5 shake slow to fast
		140-149	gobo 6 shake slow to fast
		150-159	gobo 7 shake slow to fast
		160-169	gobo 8 shake slow to fast
		170-212	gobo clockwise flowing slow to fast
		213-215	stop
		216-255	gobo anti clockwise flowing slow to fast
CH15	rotating gobo wheel	0-9	open
		10-19	gobo 1
		20-29	gobo 2
		30-39	gobo 3
		40-49	gobo 4
		50-59	gobo 5
		60-69	gobo 6
		70-79	gobo shake slow to fast gobo 1
		80-89	gobo shake slow to fast gobo 2
		90-99	gobo shake slow to fast gobo 3
		100-109	gobo shake slow to fast gobo 4
		110-119	gobo shake slow to fast gobo 5
		120-129	gobo shake slow to fast gobo 6
		130-190	gobo clockwise flowing slow to fast
		191-192	stop
193-255	gobo anti clockwise flowing slow to fast		
CH16	rotating gobo wheel rotation	0-127	switch angle
		128-190	gobo wheel flowing clockwise fast to slow
		191-192	stop
		193-255	gobo flowing anti clockwise slow to fast
CH17	effect wheel	0-10	remove
		11-255	insert
CH18	effect wheel rotation	0-2	stop
		3-128	flowing clockwise fast to slow
		129-255	flowing anti clockwise slow to fast
CH19	focus	0-255	focus
CH20	focus fine	0-255	focus fine
CH21	zoom	0-255	zoom small to big
CH22	prism 1+2	0-63	no prism
		64-127	prism 1
		128-191	prism 2
		192-255	prism 1+2 overlay
CH23	prism 1 rotation	0-127	switch angle
		128-187	flowing clockwise fast to slow
		188-195	stop
		196-255	flowing anti clockwise slow to fast
CH24	prism 2 rotation	0-127	switch angle

		128-187	flowing clockwise fast to slow
		188-195	stop
		196-255	flowing anti clockwise slow to fast
CH25	Frost	0-127	no
		128-255	frost
CH26	cutter 1A	0-255	insert linearly cutter 1A
CH27	cutter 1B	0-255	insert linearly cutter 1B
CH28	cutter 2A	0-255	insert linearly cutter 2A
CH29	cutter 2B	0-255	insert linearly cutter 2B
CH30	cutter 3A	0-255	insert linearly cutter 3A
CH31	cutter 3B	0-255	insert linearly cutter 3B
CH32	cutter 4A	0-255	insert linearly cutter 4A
CH33	cutter 4B	0-255	insert linearly cutter 4B
CH34	cutter rotation	0-255	switch angle
CH35	iris	0-127	from big to small
		128-255	slow to fast
CH36	reset	0-209	no
		210-215	reset XY after 6 seconds
		220-235	reset motors after 6 seconds
		240-255	reset all after 6 seconds

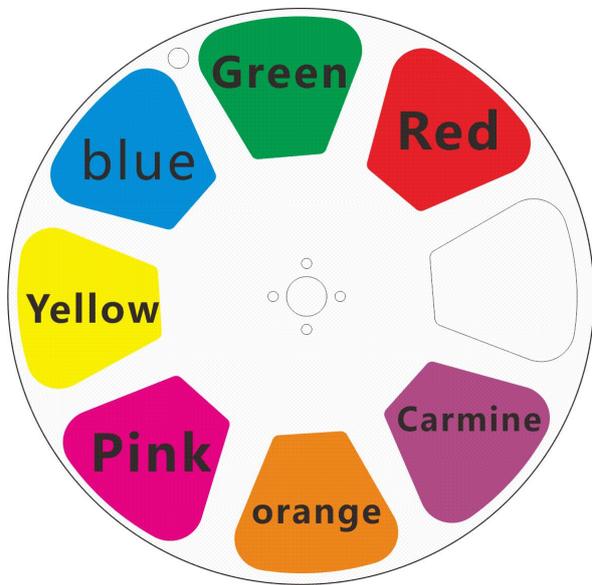
**Fixed gobo wheel**



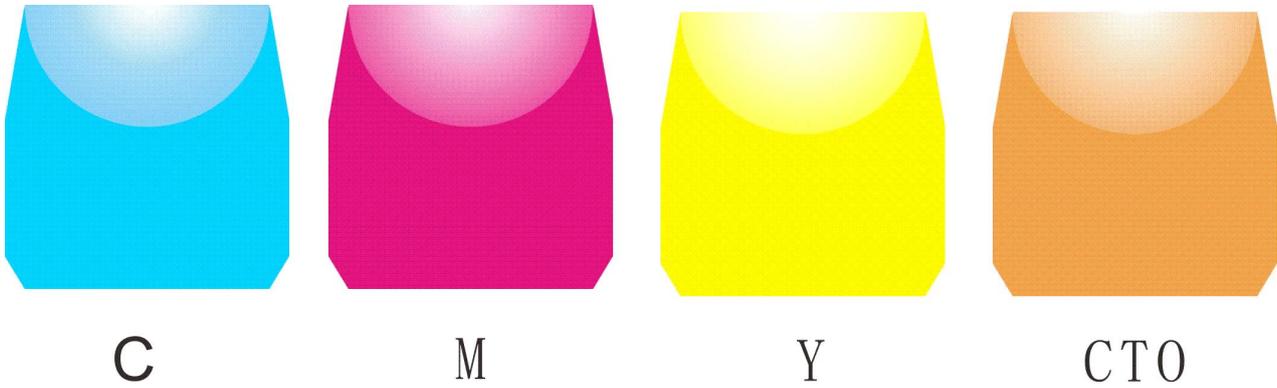
**Rotating gobo wheel**



**Color wheel**



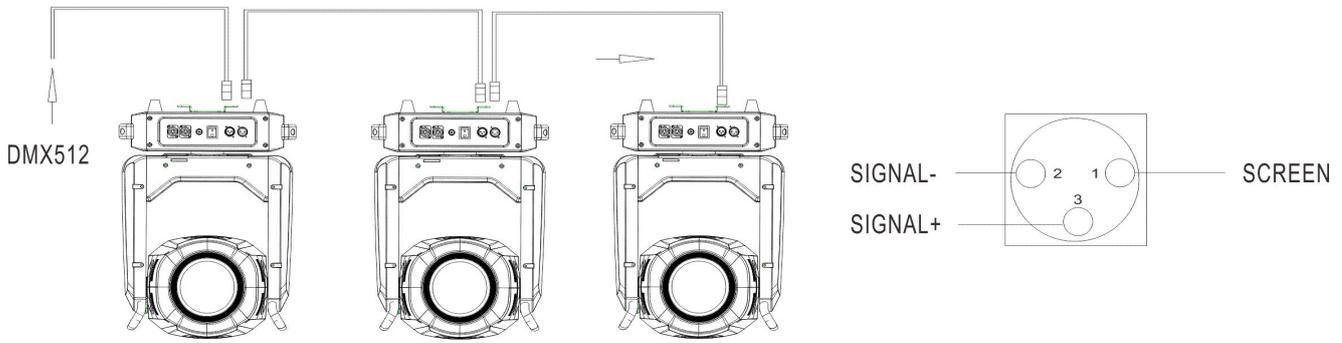
### CMY



### DMX-512 connection

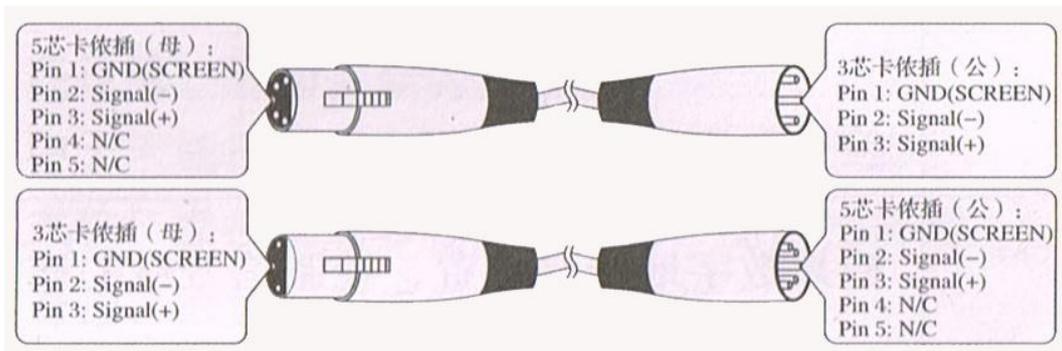
Connect the provided XLR cable to the male 3-pin XLR output of your controller and the other side to the female 3-pin XLR input of the light. then connect the DMX signal to the first fixture to the 2<sup>nd</sup> fixture, after all fixtures are connected,

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

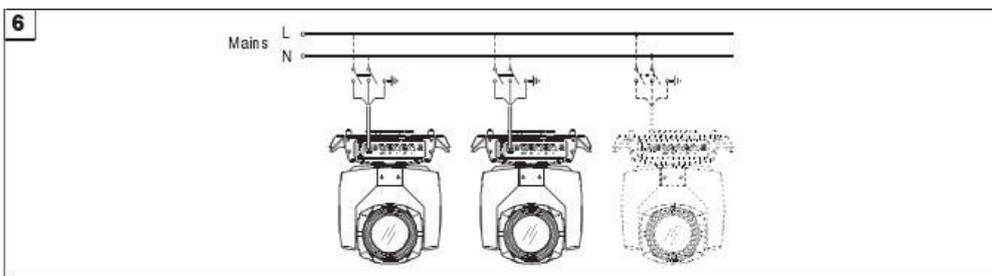


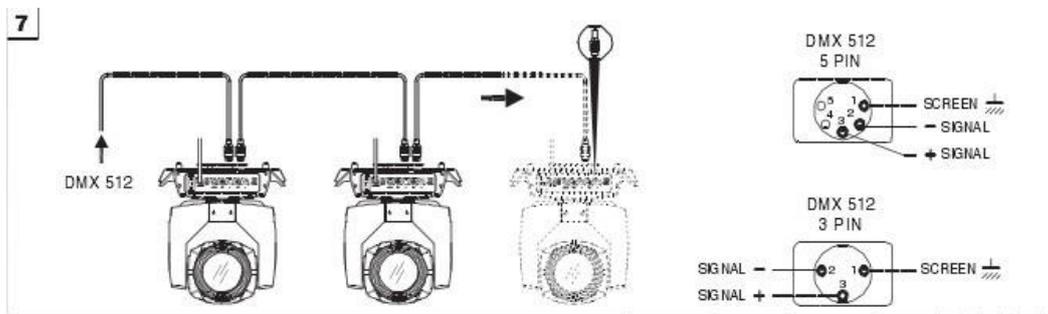
## DMX terminator connection

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!

## 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.