
Beam light moving head light

Use the instruction book



Read the instructions carefully before use

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1. Precautions and Installation Precautions and Installation

1.1 Statements

Thank you for choosing our products! This product comes out of the factory with perfect performance and intact packaging. For your safe and effective use of this product, please read this instruction manual carefully and completely before you use this product. This manual contains important information for installation and use. Please install and operate in accordance with the requirements of the manual. Also, please keep this manual properly for use at any time. Our company shall not be held responsible for any damage to the lamp or other performance caused by an individual's failure to follow the instructions during installation, use or maintenance.

Technical changes to this manual will not be notified separately.

1.2 Maintenance and Servicing

- Disconnect the power supply before performing maintenance.
- This luminaire should be kept dry and avoid working in damp conditions.
- Intermittent use will effectively extend the lifespan of this lamp.
- For good ventilation and lighting, pay attention to regularly cleaning the fan and fan mesh as well as the lens.
- Do not wipe the lamp housing with organic solvents such as alcohol to avoid damage.

1.3 Product Precautions

- This luminaire is for professional use only.
- Make sure the power supply voltage matches the power supply voltage required by the equipment before operation.
- Do not place this product in a place that is loose or prone to vibration.
- If the lamp malfunctions during use, stop using it immediately.
- To ensure the lifespan of the product, do not place this product in a damp or leaking area, and do not work in an environment with a temperature above 60 degrees.
- When the bulb is in use, the power supply voltage should not change by more than $\pm 10\%$. A voltage that is too high will shorten the bulb's lifespan, and a voltage that is too low will affect the color of the bulb's light.
- After the power is cut off, the lamp should be fully cooled for 20 minutes before it can be powered on again.
- The rotating parts of the lamp and the attached accessories must be inspected regularly. Any looseness or shaking should be reinforced in time to prevent accidents.
- For the normal use of this product, please read this instruction carefully.

1.4 Product Description

- Light source power: 380W;
- Voltage: AC 200V to 240V/50 to 60Hz;
- Color disk: Each color disk consists of a color sheet plus white light;
- Pattern disk: A pattern effect;
- 540° pan, 270° tilt.

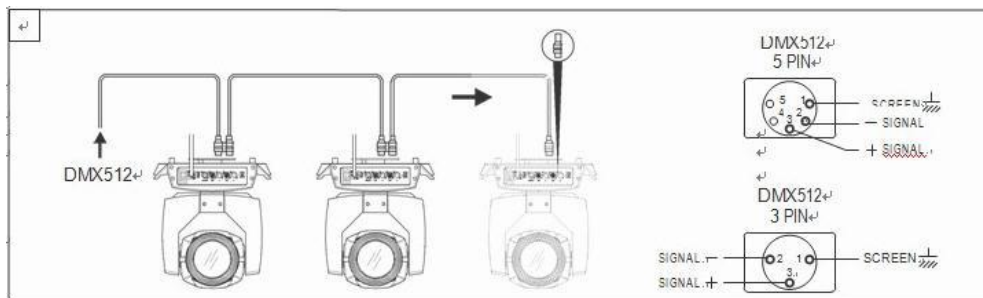
- Overheat protection;
- Control mode: DMX512/ master-slave/Auto;
- IP20 protection class

1.5 Signal line connection

The luminaires have standard 3-pin or 5-pin XLR sockets for DMX input and output. Use a shielded twisted-pair signal cable specifically for DMX 512; The signal line is generally connected at a distance of 150 meters. For long-distance signal transmission, a DMX512 signal amplifier must be added.

Use a shielded twisted-pair signal line from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3-core socket connected to the lamp output in each row. (Solder a 4/1W, 120Ω resistor between the 2 and 3 pins of a 3-pin XLR plug).

Important note: Wires must not touch each other or come into contact with the metal casing.



Gobo 1 Schematic diagram of DMX signal line connection

➤ Method for calculating the starting address code of the luminaire:

The starting address code of the current luminaire is equal to (starting address code of the previous luminaire)+(number of channels of the luminaire) note:

- 1: The starting address code value A001 of the first luminaire.
- 2: The basic number of channels of the controller should be greater than or equal to the total number of channels used by the luminaire.
- 3: Note: When using any controller, each lighting fixture must have its own starting address code, for example, if the starting address code of the first lighting fixture is set A001, the number of lighting fixture channels is 16CH; Then the starting address code for the second lighting fixture is set to A017; Set the starting address code for the third lamp to A033; And so on. (This setting may vary depending on the console.)

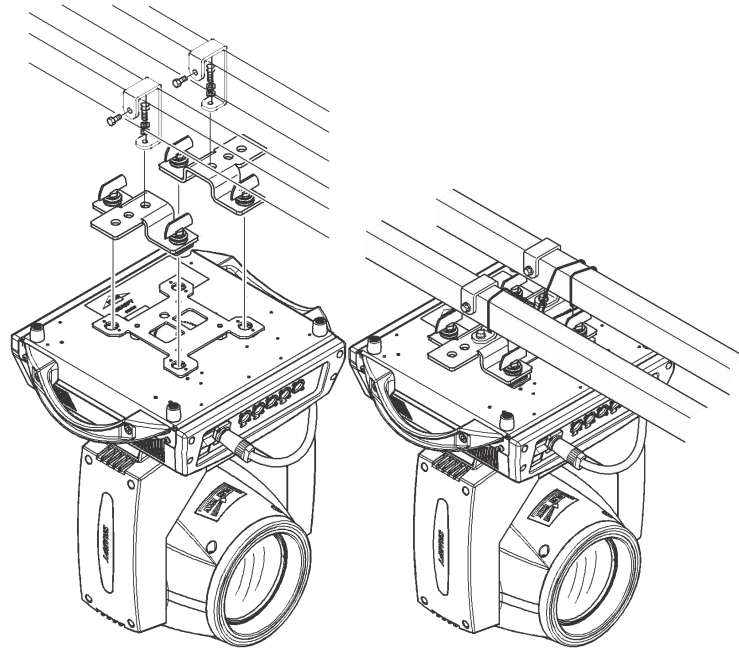
1.6 Luminaire installation

Lamps can be placed horizontally, slanted, and upside down. Be sure to pay attention to the installation method when hanging diagonally and upside down.

As shown in Gobo 2, before positioning the luminaires, ensure the stability of the installation site. When installing the inverted hanging, make sure the luminaires do not fall off the support frame. Use safety ropes to pass through the support frame and the luminaires handle for auxiliary hanging to ensure safety. Prevent the luminaires from falling and sliding.

When installing and commissioning the lamps, pedestrians are prohibited from passing under them. Regularly check whether the safety ropes are worn and whether the hook screws are loose.

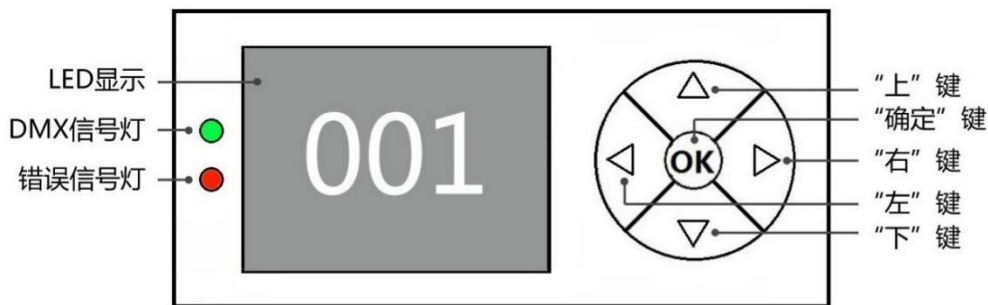
Our company shall not be held responsible for any consequences resulting from the fall of the luminaires due to unstable hanging installation.



Gobo 2 Schematic diagram of the upside-down lamp

2. Control panel

2.1 Key Instructions



“左” “右” 键的功能是一样的：返回上一界面

“上”、“下” 键：选择、编辑

“确定” 键（即 “OK” 键）：执行功能、开始编辑、退出编辑

Gobo 3 Schematic diagram of panel key instructions

The following is an example of “modifying the DMX address code” to illustrate how to use the keys:

1. If you are not on the main interface, press the left key (once or multiple times) to return to the main interface
2. Under the main interface, press the Up or down key to select the Settings button
- 3 Press the OK button to enter the Settings interface
4. Under Settings, press Up or Down to select DMX Address.
- 5 Press the “OK” key to enter the editing mode
- 6 Press the Up key or down key to modify the DMX address code
- 7 Press the “OK” key to exit editing

2.2 Menu Instructions



Gobo 4 Schematic diagram of the main menu

2.2.1 Settings

Options	Instructions	
Operating mode	DMX	Slave status: Receiving DMX signals from the console or host
	Self-propelled	Host status: Self-propelled and sends DMX signals to the slave
	Voice-controlled	
DMX address	1-512	Press the "OK" key to enter editing mode. At this point, you have selected a hundred bits. Press the up and down keys to change the address code. Press the "OK" key again to select the tens for editing. Press the "OK" key again to select the units edit. Press once again to exit the editing state
Light bulb	close	Close the bubble
	open	Bright bubble
Motor reset	close	
	open	Light reset
Channel mode	Standard 18CH	Standard 18-channel mode
Language	Chinese	Set the interface to Chinese

	English	Set the interface to English
Screen flip	close	Front display
	open	The screen is displayed upside down
X Inverted	close	
	open	
Y reversal	close	
	open	
XY exchange	close	
	open	Swap the XYchannels (including fine)
XY encoder	open	Use an encoder (optocoupler) to identify out-of-step and automatically correct position
	close	Do not use an encoder (optocoupler) to correct the position
DMX signal	Maintain	Continue running as it is
	Reset	The motor returns to its original position and stops running
Startup bubbling	close	Reset directly after power-on and do not light up the bulb (you need to manually light up the bulb using the menu or console)
	open	The bulb lights up automatically upon power-on and does not reset until the bulb lights up successfully
Color linearity	open	The color wheel changes linearly
	close	Color wheel non-linear change, half-color change
Restore to default		Press "OK" to see the confirmation dialog box. Press "OK" again to restore the default Settings

2.2.2 Manual Control

This interface is used to control the current lamp (not receiving DMX signals) corresponding to the channel. See the channel table for details

Options	Instructions	
1CH.	0 ~ 255	Press the "OK" key to enter editing mode.
.....	0 ~ 255	At this point, the 100 bits are selected.
15CH.	0 ~ 255	Press the Up and down keys to change the channel values. Press the "OK" key again to select the tens edit. Press the "OK" key again to select the units edit. Press once again to exit the editing state
.....	0 ~ 255	

2.2.3 Information

Options	Instructions	
Ver		Software version
DIS		Display board software version
MT		Motor board software version
Time information	1. Total bright bubbles 2. Use in total	Record the cumulative bubbling time Record the usage time of the luminaires
System error		If the red ERR indicator light is on, it indicates that the lamp is operating incorrectly. For more details, you can enter the subinterface from here. After viewing, press the "Clear" button to clear the error record
Blower speed		Show the current blower speed
Hall state	0000000	When magnetism is detected, it is 0; otherwise, it is 1
The Xencodes disk step values	0000	When moving forward, the step value should increase; when moving backward, the step value should decrease. It is normal for the values to be the same each time you turn to the same point
The Yencodes disk step values	0000	When moving forward, the step value should increase; when moving backward, the step value should decrease. It is normal for the values to be the same each time you turn to the same point
Permission duration		9999 unencrypted; Other values are available for use with encrypted time

A. Error message description

Common Error Messages	Instructions
MT board	The motor board did not respond. There is a problem with the

connection failed	serial communication line connecting the display board and the motor board, or there is a problem with the motor board.
Xreset failed	There is a problem with the Xphotoelectric switch, or the Xmotor or motor board
Failed Yreset	There is a problem with the Yphotoelectric switch, or the Ymotor or motor board
XHall error	XHall, or there's a problem with the motor board
YHall error	YHall, or there's something wrong with the motor board
The color disk reset failed	Color disk Hall, or there is a problem with the color disk motor
Pattern disk reset failed	Pattern disk Hall, or there is a problem with the pattern disk motor
Focus reset failed	Focus Hall, or there is a problem with the focus motor
Lamp Control failed	Failed to light up or extinguish the bulb, or there is a problem with the lamp or bulb

2.2.4 Factory

Calibration	Fan regulation (test)	Fan regulation
		Blower speed
		Low wind speed off bubble on/off
	Data download	After replacing the display board, download the calibration data of the original display board from the motor board
	X	After entering the sub-interface, the reset positions of motors such as the X and Y can be adjusted to compensate for hardware installation errors. The adjustment range is -128 to +127, and +0 indicates no adjustment.
	Y	
	Color	
	Pattern	
	Focus	
	Dimming	
	Prism zero	
	Prism 1 Stroke	
	Prism 2 Zero	
	Prism 2 Stroke	
	Frost zero point	
	Frost stroke	
	Colorful Mirror journey	
	Reset	On/Off
	X Hall	On/Off
	Y Hall	On/Off
	Half power	On/Off

3. Channel function

3.1 Channel Table

Channels	18 Channels
1	X
2	X Fine
3	Y
4	Y Fine
5	XY speed
6	Cut light/Shutter
7	Dimming
8	Focus
9	Color Wheel
10	Pattern disk
11	Prism 1
12	Prism 1 Rotation
13	Prism 2
14	Prism 2 Rotation
15	Frost
16	Colorful
17	Lamp Control
18	Reset

Channel parameter values (Full version) :

Channels	Features	Channel values	Effects
1	X	000-255	Horizontal 540-degree scan
2	Xfine	000-255	Horizontal 1.2-degree fine
3	Y	000-255	Scan vertically 270 degrees
4	Yfine	000-255	Vertical 1.2-degree fine
5	XY speed	000-255	Speed from fast to slow
6	Shutter	000-003 004-103 104-107 108-207 208-212 213-251 252-255	The light switch is off. Shutter from slow to fast The light gate opens → (controlled by the dimming channel) Pulse Shutter from slow to fast Switch on → (controlled by dimming channel) Random Shutter from slow to fast Switch on → (controlled by dimming channel)
7	Dimming	000-255	From dark to bright
8	Focus	000-255	Pattern clarity from far to near
9	Color	000 - 004 005 - 009 010 - 014 015 - 019 020 - 024 025 - 029 030 - 034 035 - 039 040 - 044 045 - 049 050 - 054 055 - 059 060 - 064 065 - 069 070 - 074 075 - 079 080 - 084 085 - 089 090 - 094 095 - 099 100 - 104 105 - 109 110 - 114	White light White light + color 1 Colour 1 Colour 1+ Colour 2 Color 2 Colour 2+ Colour 3 Colour 3 Colour 3+ Colour 4 Colour 4 Colour 4+ Colour 5 Colour 5 Colour 5+ Colour 6 Colour 6 Colour 6+ Colour 7 Colour 7 Colour 7+ Colour 8 Colour 8 Colour 8+ Colour 9 Colour 9 Colour 9+ Colour 10 Color 10 Colour 10+ Colour 11 Colour 11

		115 - 119 120 - 124 125 - 129 130 - 134 135 - 139 140 - 200 201 - 255	Colour 11+ Colour 12 Colour 12 Colour 12+ Colour 13 Colour 13 Colour 13+ Colour 14 Reverse flow (from fast to slow) Forward flow (from slow to fast)
10	Gobo	000 - 004 005 - 009 010 - 014 015 - 019 020 - 024 025 - 029 030 - 034 035 - 039 040 - 044 045 - 049 050 - 054 055 - 069 070 - 074 075 - 079 080 - 084 085 - 089 090 - 094 095 - 099 100 - 104 105 - 109 110 - 114 115 - 119 120 - 124 125 - 129 130 - 190 191 - 255	Fix Gobo 1 (white light) Gobo 2 Gobo 3 Gobo 4 Gobo 5 Fixed Gobo 6 Gobo 7 Gobo 8 Gobo 9 Gobo 10 Gobo 11 Gobo 12 (Linear pattern) Gobo 1 Shaking (from slow to fast) Gobo 2 Jitter (from slow to fast) Gobo 3 Jitter (from slow to fast) Gobo 4 Jitter (from slow to fast) Gobo 5 Jitter (from slow to fast) Gobo 6 Jitter (from slow to fast) Gobo 7 Jitter (from slow to fast) Gobo 8 Jitter (from slow to fast) Gobo 9 Jitter (from slow to fast) Gobo 10 Jitter (from slow to fast) Gobo 11 Jitter (from slow to fast) Gobo 12 Jitter (from slow to fast) Forward flow (from fast to slow) Reverse flow (from slow to fast)
11	Prism 1	000-127 128-255	No prism effect Prism 1
12	Prism 1 Rotation	000-127 128-190 191-192 193-255	Prism Angle adjustment Forward rotation (from fast to slow) Stop Reverse rotation (from slow to fast)
13	Prism 2	000-127 128-255	No prism effect Prism 2
14	Prism 2 Rotation	000-127 128-190 191-192	Prism Angle adjustment Forward rotation (from fast to slow) Stop

		193-255	Reverse rotation (from slow to fast)
15	Frost	000-127 The 128-255	No effect Frost
16	Colorful	000-127 The 128-255	No effect Colorful
17	Lamp Control	000-025 026-100 101-255	No, there is no action in areas without specified functions Extinguish the light bulb Light up the bulb
18	Reset	000-127 128-255	No, no action in areas where no function is specified Reset all motors

Common Faults

Corresponding solutions are proposed for some common faults. Any unsolvable problem should be dealt with by a professional. Before maintaining the lamp, disconnect the power supply first.

1. The bulb doesn't light up

- Check if a voltage that matches the luminaire is installed;
- Check for poor contact at the power supply connection or control switch for the lighting fixtures;
- Check if the power supply is insufficient;
- Check if the DMX512 controller has sent instructions.

2. The lamp does not accept control from the console after a normal reset

- Check if the digital start address values and function options of the luminaire 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 whether the control equipment has failed and whether the signal amplifiers connected in series have failed.
- Check if the communication lines are too long or if there are other devices interfering with each other;
- Optimize wiring, shorten the length of control signal lines, and lay out high-voltage and low-voltage lines separately;
- Add signal amplifiers;
- Signal lines use high-quality shielded twisted pairs;
- Connect the signal terminal resistor (120 ohms) at the end of the lamp.

3. The lamp does not start

- Check if the power supply parameters match the lamp;
- Check if the lamps have poor contact due to compression deformation, internal part vibration, moisture, etc. during long-distance transportation

Or fall off.

- Please check if the internal wire connectors of the luminaire are loose or detached.
- Check the electronic components of the lamp (such as the electronic transformer, PCB board, motor control board, etc.) for looseness, short circuit and burnout.

4. The X or Y of the lamp is not functioning properly when it is in operation

- Check each one as in the previous step;
- Check if the drive belts corresponding to the X and Y axes inside the lamp are loose or broken;
- Check whether the data feedback receiver (optocoupler) corresponding to the X and Y directions in the lamp is damaged;
- Restart and reset once.