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B461W beam lights

**Use an explanatory book**

Please read the instructions carefully before use

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# 1. Precautions and Installation Precautions and installation

## 1.1 The statement

Thank you for choosing our products!When this product leaves the factory, the performance is intact, the package is complete.In order to use this product safely and effectively, please read this instruction manual carefully and completely before using this product.This manual contains important installation and use information, please install and operate according to the requirements of the manual, at the same time, please keep this manual properly for use at any time.Our company does not assume any responsibility for the damage of the lighting or other performance caused by the failure of the individual to operate according to the instructions during installation, use and maintenance.

This manual is subject to technical changes without prior notice.

## 1.2 maintenance

- Disconnect the power supply before performing maintenance.
- The lamp should be kept dry, avoid working in damp environment.
- Intermittent use will effectively prolong the life of the lamps.
- For good ventilation and lighting, take care to clean fans and fan nets and lenses frequently.
- Do not use alcohol and other organic solvents to wipe the lamp shell, so as not to cause damage.

## 1.3 Product Precautions

- This lamp is for professional use only.
- Before operation, ensure that the power supply voltage is consistent with equipment requirements.
- Do not place the product in places where it is easy to loose or shake.
- In the process of use, if the lamp is abnormal, stop using the lamp in time.
- To ensure the service life of the product, do not put the product in the damp or leaking place, and do not work in the environment where the temperature is above 60 degrees.
- When the bulb is used, the voltage change of the power supply should not exceed  $\pm 10\%$ . If the voltage is too high, the life of the bulb will be shortened. If the voltage is too low, the light color of the bulb will be affected.
- After power off, it is necessary to use the lamp to cool down fully after 20 minutes before power on again.
- Rotating parts of lamps and lanterns and sticking accessories must be checked regularly, loose, shaking timely reinforcement, in case of accidents.
- To ensure the normal use of this product, please read this instruction carefully.

## 1.4 Product introduction

- Light source power: 461W;
- Voltage: AC 200V~240V/50~60Hz;
- Color plate: each color plate is composed of 13 color plates + white light;

- Pattern plate: 15 pattern effects;
- 540 degrees translation, 270 degrees tilt.
- Overheating protection;
- Control mode: DMX512/ master slave/automatic;
- IP20 protection level

## 1.5 Signal line connection

Lamps feature standard DMX input and output 3-core or 5-core XLR sockets. Please use shielded twisted-pair signal cable specially for DMX 512; The signal line is generally connected at a distance of 150 meters. When long-distance signal is transmitted, DMX512 signal amplifier must be added.

A shielded twisted-pair signal line is used to connect 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 lamps are connected. Then install a terminal plug on the 3-core jack of the last connecting lamp output in each circuit. (Weld a 4/1W, 120  $\Omega$  resistor between the 2 and 3 pins of the 3-core card plug with a needle).

Important: Wires should not touch each other or metal enclosures.

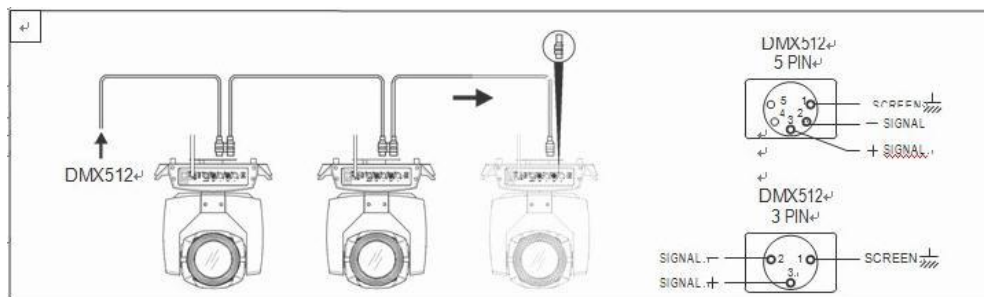


Figure 1 Schematic diagram of DMX signal cable connection

➤ Calculation method of initial address code of lamps:

The start address code of the current lamp is equal to (the start address code of the previous lamp)+(the number of channels of the lamp)

1: the start address of the first lamp is A001.

2: the basic number of channels of the controller should be greater than or equal to the total number of channels used by the lamp.

3: Note: when using any controller, each lamp should have its own start address code, if the start address code of the first lamp is set to A001, the number of lamps is 16CH; The starting address code of the second lamp is set to A017. The starting address code of the third lamp is set to A033; And so on, (this setting method also needs to be determined according to different console)

## 1.6 Installation of lamps and lanterns

Lamps can be placed horizontally, diagonally or upside down. Pay attention to the installation method when slant and upside down.

As shown in Figure 2, it is necessary to ensure the stability of the installation site before positioning the lamp. During the installation of the inverted hanging, it is necessary to ensure that the lamp does not fall off from the support frame, and the safety rope should be used to pass through the support frame and the handle of the lamp for auxiliary hanging to ensure safety. Prevent lamp from falling and sliding.

During the installation and debugging of the lamps, pedestrians are not allowed to pass under the lamps. Check regularly whether the safety ropes are worn or the hook screws are loose.

Our company will not assume any responsibility for any consequences caused by falling of the lamp due to unstable hanging installation.

## 2. The control panel

### 2.1 Key Description

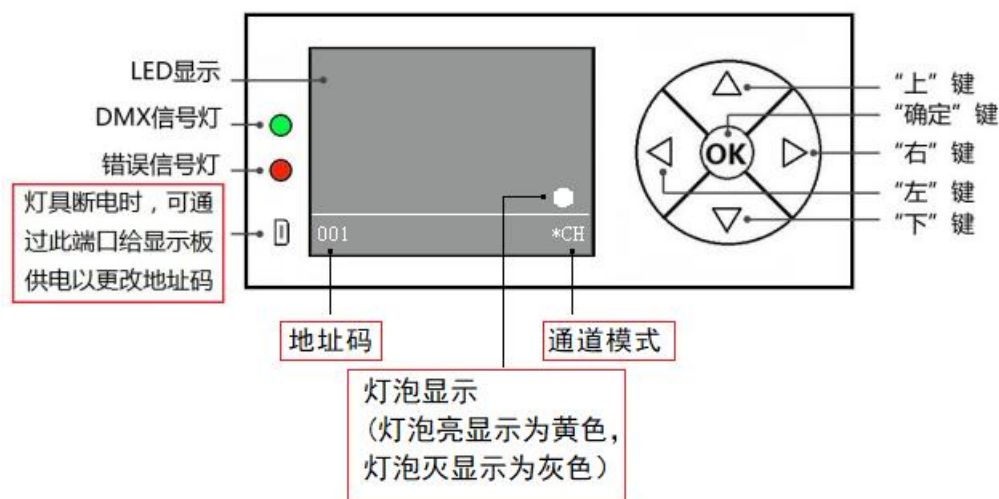


FIG. 2 Schematic diagram of panel keys

“Left” key: return key;

“Right” button: only available on the main interface. Press the “right” button on the main interface to flip the screen. The “right” button on other interfaces is useless.

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"Up" and "Down" keys: Select and edit;  
OK key: Perform the function, start editing, and exit editing

(Note: Press "OK" to enter the menu interface and press "left" to enter the address code adjustment interface.)

## 2.2 Menu Description

<b>The home page</b>	<b>instructions</b>
The menu	Main Menu Settings
address	Address code adjustment
The light bulb	Switch to soak
The calibration	Electrical calibration
081 write	Screen rotation
In the EN /	Switching between English and Chinese

### Language switching

<b>options</b>	<b>instructions</b>
In the English /	Press "OK" button twice to switch between Chinese and English

### Screen rotation

<b>options</b>	<b>instructions</b>
Rotate 180	Press "OK" twice to rotate the screen 180 degrees

degrees	
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The light bulb	guan	Shut down the light bulb
	open	Open the light bulb
Switch on light bubble	guan	Do not light the bulb after powering on and answering the position (need to use the menu or console to manually light the bubble)
	open	The bubble will be automatically lit after the power-on response
Time interval between	00 ~ 20	The unit is minute. The default value is 3. After the bulb is defrosted, it takes 3 minutes to turn on the bulb again

### Address code

options	instructions	
Address code	001 ~ 512	<ul style="list-style-type: none"> <li>▶ Press the "up" and "Down" keys to change the address code (add or subtract only one value);</li> <li>▶ Press the Right key to switch to the address code of the next device (for example, if the channel mode is 20CH and the address code is 021, press the Right key to change the address code to 041).</li> <li>▶ After you move the desired address code, press "OK" again to save the address code and exit the address code editing interface.</li> </ul>

### The light bulb

The main menu	I menu	II menu	instructions
DMX Settings	DMX channel	Standard 16 channel	(See channel table for details)
		Expansion of	

		20 channels	
	DMX signal	keep	Continue running as before
		remove	Motor back, stop running
	RDM function	open	On the RDM function
		guan	If the RDM function is disabled, the RDM function is unavailable
	DMX monitoring		This leads to a subinterface that displays channel values in numerical and percentage terms for viewing
The test of lamps and lanterns	Since the go	guan	Turn off self-running (slave state: receive DMX signal from console or host)
		open	Turn on the bootloader (host state: bootloader and send DMX signal to slave)
	Manual control	1. The color wheel 000-255.	Manual control interface is used to control the current lamps and lanterns, and automatically enter the host state (do not receive DMX signal, send DMX signal to the bus to the slave). Press "OK" to enter editing mode.
		2. Light cutting/stroboscopic 000-255.	
		...	
	19. The atomization 000-255.		
	Lamps and lanterns is reset		Press "OK" twice to reset
XY reset			
MT reset			
System information	The temperature information	Display panel temperature	Display motherboard temperature
		Motor board temperature	
	Fan	Blower speed	Display blower speed



	informat ion			
	System version		Displays the software version number	
	The system time	Total service time	Total usage time (accurate to minutes)	
		Time of use	Usage time since this startup (accurate to minute)	
		Total bubble time	Cumulative bubble time (accurate to minutes)	
		Time of this bubble	Time of this bubbling (accurate to minutes)	
Sensor monitori ng	The X axis hole, Y hall	0 when magnetic is detected, 1 otherwise		
	Color hall			
	Design hall			
	Effect pattern Hall			
	Dynamic figure hall			
	Adjustable JiaoHuoEr			
	Enlarge hole, Prism 1 Hall			
	Prism 2 Hall			
	X-axis coded state			Two digits, each corresponding to a photoelectric switch on the coding disk
	Y-axis coding state			Two digits, each corresponding to a photoelectric switch on the coding disk
	X-axis coding step value	In the forward direction, the step value should increase, and in the backward direction, the step value should decrease. The value is normal every time you turn to a certain point		
	Y-axis coding step value	In the forward direction, the step value should		

			increase, and in the backward direction, the step value should decrease. The value is normal every time you turn to a certain point
	System error		If the red ERR indicator lights up, it indicates that the lamp is running wrong. Details can be viewed in the sub-interface. After viewing, you can press the "Clear" button to clear error records
Set of lamps and lanterns	language	English	Switching between English and Chinese
		Chinese	
	Screen rotation	guan	
		open	If set to on, the interface reverses
	Screen saver	open	Turn off backlight after idle for 30 seconds
		guan	Backlit yongliang
	X inversion	guan	Switch on for starting point and end point, default is off
		open	
	Y inversion	guan	Switch on for starting point and end point, default is off
		open	
	XY exchange	guan	Channels for exchanging XY axis (including fine tuning)
		open	
	XY encoder	open	Use an encoder (optocoupler) to determine out-of-step and automatically correct position
		guan	No encoder (optocoupler) is used to correct position
	Color wheel changes	open	Color wheel changes linearly
guan		Color wheel nonlinear	

	linearly		change, half-color change
	Restore the default		Press OK to see the confirmation dialog box. Press OK again to restore the default Settings
<p>The factory set up (The password is "up, down, up." Specific operation process: press the "up" button once (the first "*" appears), and press the "Down" button again. Key (the second "*" appears), press the "up" key again (the third "*" appears), press the "down" key again (appears The fourth "*"), and finally press the "OK" key for password verification.</p>	Electric al calibration	The X axis	The reset position of X axis, Y axis and other motors can be adjusted to make up for errors in hardware installation. The adjustment range is -128~+127, +0 means no adjustment.
		Y	
		color	
		pattern	
		Effect of pattern	
		Glass design	
		focusing	
		amplification	
		The dimming zero	
		The dimming schedule	
	Prism 1 zero		
	Prismatic 1 stroke		
	Prism 2 zero		
	Prismatic 2 stroke		
	Atomization trip		
	Calibrat ion schedule	The X axis stroke	
Y trip		Adjust the range from 0 to 255, corresponding to Y axis 0° to 270°.	
Focusing the trip		Range 0-255, stroke adjustment	
Zoom in stroke			
XY speed regulati on	The X axis speed	The speed ranges from 000 to 255 from slow to fast	
	The Y axis speed		
Fan regulati on	Turn on the white light blower	The fan speed ranges from 000 to 255	
	Turn on the color blower		

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		Closed white light blower	
		Closed light color blower	

### 3. Channel function

#### 3.1 The channel table

channel	The channel model	
	16	20
1	Color plate	Color plate
2	Light cutting/stroboscopic	Light cutting/stroboscopic
3	The dimmer	The dimmer
4	Pattern plate	Pattern plate
5	A prism	A prism
6	Prism rotating	Prism rotating
7	empty	empty
8	atomization	atomization
9	focusing	focusing
10	X	X
11	X fine-tuning	X fine-tuning
12	Y	Y
13	Y fine-tuning	Y fine-tuning
14	XY speed	XY speed
15	reset	reset
16	The light bulb control	The light bulb control
17		empty
18		Color speed
19		Adjustable speed of light
20		Design speed

#### Channel parameter values (full version) :

channel	function	Channel numerical	The effect
1	Color plate	000-004. 005-009.	The white light White light + color 1

		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. 115-119. 120-124. 125-129. 130-134. 135-139. 140-200. 201-255.	Color 1 Color 1 plus color 2 2 colors Color 2 plus color 3 The color of 3 Color 3 plus color 4 4 color Color 4 plus color 5 Color 5 Color 5 plus color 6 Color 6 Color 6 plus color 7 Seven colors Color 7 plus color 8 Color 8 Color 8 plus color 9 Color 9 Color 9 plus color 10 Color 10 Color 10 plus color 11 Color 11 Color 11 plus color 12 Color 12 Color 12 plus color 13 The color of 13 Color 13+ white light Forward flow (from fast to slow) Reverse flow (from slow to fast)
2	stroboscopic	000-003. 004-103. 104-107. 108-207. 208-212. 213-251. 252-255.	Brake light off Stroboscopic from slow to fast Light switch open → (controlled by dimming channel) Pulse stroboscope from slow to fast Light switch open → (controlled by dimming channel) Random stroboscopic from slow to fast Light switch open → (controlled by dimming channel)
3	The dimmer	000-255.	From dark to bright
4	Pattern plate	000-004. 005-009. 010-014. 015-019. 020-024.	In figure 1 In figure 3 In figure 4 In figure 5 In figure 6

		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. 115-119. 120-124. 125-129. 130-134. 135-139. 140-197. 198-255.	In figure 7 In figure 8 In figure 9 Solid figure 10. In figure 11. In figure 12 In figure 13 In figure 14 In figure 15 Solid figure 1 Jitter (from slow to fast) Solid figure 3 Jitter (from slow to fast) Solid Figure 4 Jitter (from slow to fast) Figure 5 Jitter (from slow to fast) Figure 6 Jitter (from slow to fast) Figure 7 Jitter (from slow to fast) Figure 8 Jitter (from slow to fast) Solid figure 9 Jitter (from slow to fast) Solid figure 10 Jitter (from slow to fast) Solid figure 11 Jitter (from slow to fast) Solid figure 12 Jitter (from slow to fast) Figure 13 Jitter (from slow to fast) Figure 14 Jitter (from slow to fast) Solid figure 15 Jitter (from slow to fast) Reverse flow (from fast to slow) Forward flow (from slow to fast)
5	A prism	000-127. 128-255.	Prism 1 pops up Prism 1 cut in
6	Prism rotating	000-127. 128-190. 191-192. 193-255.	Prism Angle adjustment Reverse rotation (from fast to slow) stop Forward rotation (from slow to fast)
7	keep	empty	empty
8	atomization	000-127. 128-255.	Atomization cut out Atomized into
9	focusing	000-255.	Design clarity from far to near
10	The X axis	000-255.	Horizontal scan 540 degrees
11	The X axis fine-tuning	000-255.	Level 1.2 degrees fine tuning
12	Y	000-255.	Vertical 270 degree scan
13	Y fine-tuning	000-255.	1.2 degrees vertical fine tuning
14	XY speed	000-255.	The speed goes from fast to slow
15	reset	000-025. 026-050. 061-085.	Invalid region Effect motor reset XY motor reset

		250-255.	Reset of all motor
16	The light bulb control	000-099. 100-105. 200-205.	Invalid region Put out the light bulb Light bulb
17	keep	empty	empty
18	Color speed	000-255.	The speed goes from fast to slow
19	Adjustable speed of light	000-255.	The speed goes from fast to slow
20	Design speed	000-255.	The speed goes from fast to slow

#### 4. Common faults

In view of some common faults, the corresponding solutions are put forward. Any problems that can't be solved should be dealt with by professionals. Disconnect the power supply before servicing the lamp.

<b>Fault description</b>	<b>Analysis of the</b>	<b>To deal with</b>
No action after power on	Check whether the power switch is on	Open the
	Check whether the fuse is blown	replace
	Check whether the output end of the switching power supply is normal	Detecting voltage
	Check whether the internal wiring is in bad contact	Reconnect the
Lamps are not controlled	Check whether the DMX signal cable is correctly connected (if there is no signal input, the green signal indicator is off)	Reconnect or replace the device
	Check whether the address code is correct and whether the DMX mode of the lamp is consistent with the console setting	To confirm
	Display panel damaged	replace
The light bulb not bright	Bulb aging or damaged	replace
	Power board failure	Check/Replace
	Loose or poor line contact	Reconnect the
	Trigger failure	replace
	Ballast failure	replace
Automatic out	The light bulb aging	replace



bubble	The heat dissipation fan is damaged or the wind speed is abnormal	replace
	Check the fan power output of the power circuit board	Check/Replace
	The temperature switch is damaged	replace
Pattern plate misalignment or abnormal control	Motor wire contact is poor	Reconnect the
	The corresponding motor drive plate is faulty	Fixed again
	The magnetic sensitive tube and the positioning magnet have dislocation or magnetic sensitive damage	Adjustment/replacement
	Motor fault	replace
Weak light effect, uneven spot	The light bulb aging	replace
	Bulb misalignment	Adjust the light bulb
	Dust or stain on the optical lens	clean
	The optical lens is broken	replace
Color is not pure	Weak light efficiency	replace
	The color film has dust or stains	clean
	Color strip is demoulded or damaged	replace
Not clear pattern	Dust or stain on the optical lens	clean
	The optical lens is broken	replace
Attention! The above analysis is only for abnormal reference, please do not disassemble the machine for maintenance		