

# **800W BSWF**

## **User Manual**

**Please read the instructions carefully**

## Chapter 1 Notes and Installation

### 1. Maintenance

- This luminaire should be kept dry and avoid working in wet conditions.
- Intermittent use can effectively extend the life of this lamp.
- In order to obtain good ventilation and lighting effects, pay attention to frequently clean the fan and fan network as well as lenses.
- Do not use organic solvents such as alcohol to rub the lamp housing to avoid damage.

### 2. statement

This product in the factory, the performance is good, packaging complete. All users shall strictly comply with the warnings and operating instructions stated above, any damage caused by misuse is not covered by the Company's warranty, and failures and problems caused by neglect of the operating manual are not the responsibility of the dealer.

This manual is subject to technical changes without notice.

### 3. Technical parameters

Input voltage: AC100-240V, 50/60Hz

Power:

Light source: white LED

Lamp life: Average life of 20000 hours

Color 5 colors plus white light, half-color effect, can be arbitrarily positioned

Fixed pattern: 6 fixed delicate patterns with white light, pattern jitter effect,

Rotating pattern: 7 pluggable pattern pieces, pattern rotation, pattern flow effect

Prism: one Prism

DMX512 channels

Control mode: International standard DMX 512/random mode / self-walking mode

X-axis: 540 degrees

Y-axis: 270 degrees

With RDM functionality

Operating temperature: -10C to 45C

Protection Index: IP20

### 4. Product considerations

- To ensure the service life of the product, do not place the product in wet or leaky places, let alone work in environments above 60 degrees
- Do not place the appliance in a loose or vibrating place.
- To avoid the risk of electric shock, a repair request for this product is made to assist a professional.
- When the lamp is used, the supply voltage change should not exceed 10% of the  $\pm$ , the voltage is too high, will shorten the life of the bulb, the voltage is too low, it affects the light color of the bulb.
- After the power is off, it takes 20 minutes to cool down sufficiently with the lamp before it can be powered on again.

- To ensure the normal use of this product, please read this instruction carefully. Signal line connection(DMX).

Use A Compliant RS-485 Cable: Shielded,120ohm Characteristic Impedance,22-24 AWG,LowTolerance. Do not use microphone cables or cables with different specified characteristics. The terminals must be connected using a 3- or 5-pin XLR male/female connector. (Minimum 1 / 4 W).

Important: Lines cannot come into contact with each other or with metal housings.

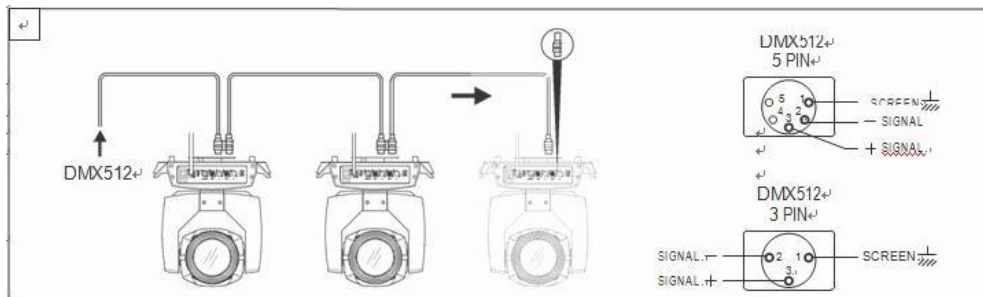


Figure 1 DMX signal line connection diagram

## 5.Lamp installation

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

As shown in Figure 2 before positioning the lamp, to ensure the stability of the installation site, when reversing the suspension installation, it is necessary to ensure that the lamp does not fall on the support frame, the need to use safety ropes through the support frame and lamp handle for auxiliary hanging to ensure safety,. Prevent lamps from falling and sliding.

When the lamp is installed and commissioned, pedestrians are not allowed to pass below, and safety ropes are regularly checked for wear and hook screws are loose.

If the suspension installation is not stable, resulting in the fall of the lamp and all consequences, we do not assume any responsibility.

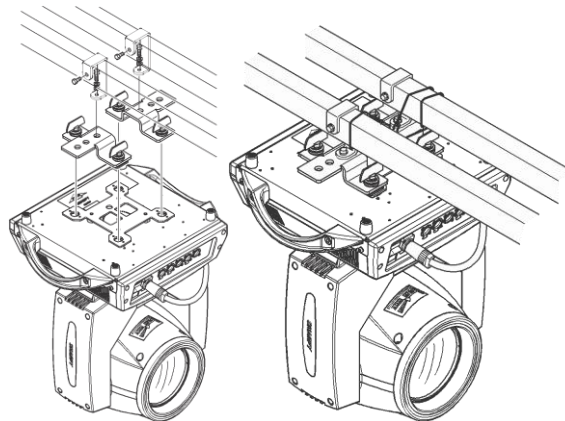


Figure 2 Hanging lighting graphics

## Chapter 2 control panel

### 2.1 Key Instructions

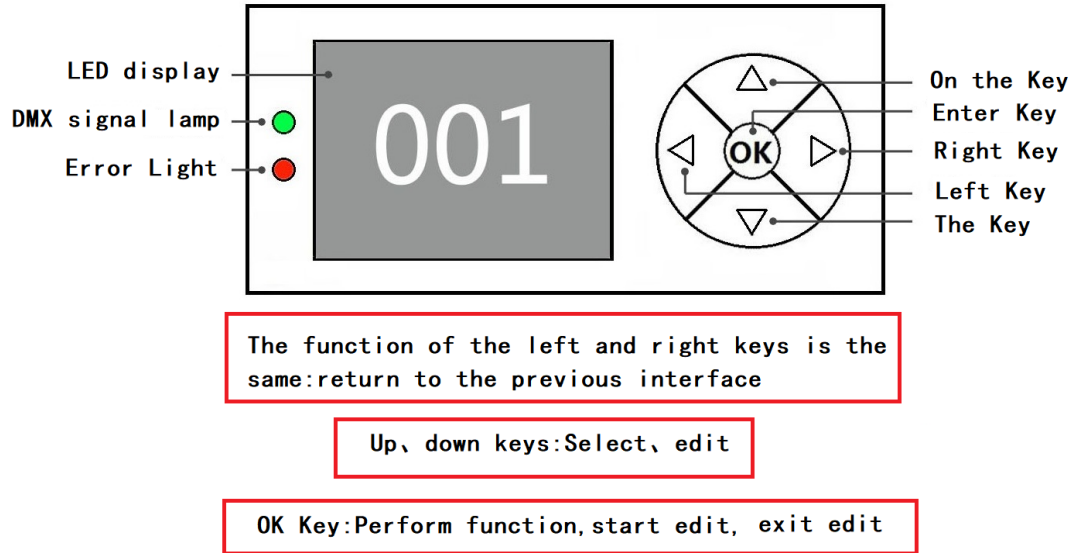


Figure 3 Schematic diagram of key description on the panel

The following takes "Modify DMX address code" as an example to describe the use of keys:

- 1, if the current is not the main interface, press the "left" key (one or more times) to return to the main interface
- 2, in the main interface, press the "up" key or "down" key to select the "DMX Settings" button
3. Press the "OK" key to enter the "DMX Settings" interface
- 4, press the "up" key or "down" key to modify the DMX address code
- 5, press the "OK" key to exit the editing state
6. Press the right button on the main interface to enter the calibration interface shortcut key.
7. Note: The shortcut keys at the bottom of the main interface, Chinese/English, screen rollover and reset, can only be manually touched, not pressed.

Figure the main menu diagram

#### 2.2.1 DMX Settings

Key description: Press up or down is +1 or -1 mode; Press the right button is the next one; Press the left and confirm button to save and exit.

Manual instructions: Enter the hundreds place first, then the tens place, then the last place. (For example, to enter the 286 address code, click 2, then 8, and finally 6)

## 2.2.2 Menu

Main menu	Secondary menu	Three-level menu	Four-level menu	Five-level menu	
DMX Setup	Dmx Address	1 - 512			
	Channel Mode	35CH			
	Run Mode	DMX			
		Auto			
Sound					
Personality	Pan Inverse	No			
		Yes			
	Tilt Inverse	No			
		Yes			
	Tilt Feedback	Off			
		On			
	Dimmer Curve	Linear			
		Square Law			
		Inv SQ Law			
		S-Curve			
	LED Frequency	600Hz			
		1200Hz			
		2400Hz			
		4800Hz			
9600Hz					
12000Hz					
24000Hz					
No Data Mode	Blackout				
	Hold				
M/S Mode	Slave				
	Master				
Sensitivity	10 - 100				
Display	Display Rotate	Normal			
		Rotate 180			
	Display Intensity	1-100			
	Temperature Unit	° C			
° F					
Language	English				
	中文				
Motor Reset	All	No			
		Yes			
	Tilt	No			
		Yes			
	Effect	No			
		Yes			
Manual Control	Pan	0 - 255			
	***	0 - 255			
	Function	0 - 255			
DMX Live	Pan	0 - 255			
	***	0 - 255			
	Function	0 - 255			
Service	Password	Calibration	Motor	Pan	-128 -> 127
				***	-128 -> 127
		Factory Default	No		
			Yes		
		Clear Power On Time	No		
			Yes		
Clear Lamp Hours	No				
	Yes				
Information	Power On Time	xxxxxH			
	LED Hours	xxxxxH			
	SW Version	1U: Vx.x.x (display PCBA)			
		2U: Vx.x.x (Arm PCBA)			
RDM UID	0xXXXX-XXXXXXX				

## Chapter 3 Channel Description

### 9.Channel table

This luminaire channel can view the order in scene mode, which is set on the Address Settings page, as shown in the table below:

Channel table

channel	function	Channel value			effect
35CH					
1	Pan	000	-	255	0-100%
2	PanFine	000	-	255	0-100%
3	Tilt	000	-	255	0-100%
4	TiltFine	000	-	255	0-100%
5	PanTiltSpeed	000	-	255	Horizontal and vertical speed, from fast to slow
6	Strobe	000	-	003	close light
		004	-	103	Pulsed flicker from slow to fast
		104	-	107	Open light
		108	-	207	Slow to fast gradual flicker
		208	-	212	Open light
		213	-	251	Random flicker from slow to fast
		252	-	255	Open light
7	Dimmer	000	-	255	Dim from 0% to 100%
8	Cyan	000	-	255	0-100%
9	Magenta	000	-	255	0-100%
10	Yellow	000	-	255	0-100%
11	CTO	000	-	255	0-100%
12	Colour	000	-	009	white light
		010	-	019	Color 1
		020	-	029	Color2
		030	-	039	Color3
		040	-	049	Color4
		050	-	059	Color5
		060	-	069	Color5+Color4
		070	-	079	Color4+Color3
		080	-	089	Color3+Color2
		090	-	099	Color2+Color1
		100	-	109	Color1+white light
		110	-	255	Slow to fast forward
13	CRI	000	-	127	acanthophysis
		128	-	255	explicit insertion
14	FixGobo	000	-	009	white light
		010	-	019	pattern1
		020	-	029	pattern2
		030	-	039	pattern3
		040	-	049	pattern4
		050	-	059	pattern5
		060	-	069	pattern6
		070	-	079	pattern1Jitter from slow to fast
080	-	089	pattern2Jitter from slow to fast		

channel	function	Channel value		effect
35CH		090	- 099	pattern3Jitter from slow to fast
		100	- 109	pattern4Jitter from slow to fast
		110	- 119	pattern5Jitter from slow to fast
		120	- 129	pattern6Jitter from slow to fast
		130	- 191	Fast forward to slow
		192	- 255	Reverse from slow to fast
15	RotGobo	000	- 009	white light
		010	- 019	Rotate1
		020	- 029	Rotate2
		030	- 039	Rotate3
		040	- 049	Rotate4
		050	- 059	Rotate5
		060	- 069	Rotate6
		070	- 079	Rotate7
		080	- 089	Rotate1Jitter from slow to fast
		090	- 099	Rotate2Jitter from slow to fast
		100	- 109	Rotate3Jitter from slow to fast
		110	- 119	Rotate4Jitter from slow to fast
		120	- 129	Rotate5Jitter from slow to fast
		130	- 139	Rotate6Jitter from slow to fast
		140	- 149	Rotate7Jitter from slow to fast
		150	- 190	Fast forward to slow
		191	- 192	Stop
193	- 255	Reverse from slow to fast		
16	GoboRot	000	- 127	Angle adjustment
		128	- 190	Pattern fast to slow
		191	- 192	Stop
		193	- 255	Pattern Inversion from Slow to Fast
17	Animation Disk	000	- 009	white light
		010	- 127	linearity pattern
		128	- 255	Slow to fast pattern jitter
18	Zoom	000	- 255	0-100%
19	Focus	000	- 255	0-100%
20	FocusFine	000	- 255	0-100%
21	Prism	000	- 127	No prism
		128	- 255	Prism Cut-in
22	PrismRot	000	- 127	prism angle adjustment
		128	- 187	The prism rotates from fast to slow
		188	- 195	prism stop rotation
		196	- 255	Prism reversal from slow to fast
23	Frost	000	- 003	NO Frost
		004	- 255	Linear Frost
24	Framing 1	000	- 255	0-100%
25	Framing 2	000	- 255	0-100%
26	Framing 3	000	- 255	0-100%
27	Framing 4	000	- 255	0-100%
28	Framing 5	000	- 255	0-100%
29	Framing 6	000	- 255	0-100%
30	Framing 7	000	- 255	0-100%
31	Framing 8	000	- 255	0-100%

channel	function	Channel value			effect
35CH					
32	Framing Macro	000	-	009	nonfunction
		010	-	247	Select shape
		248	-	255	Auto Switch Graphics
33	Framing Rota	000	-	255	0-100%
34	Iris	000	-	127	linear aperture
		128	-	159	fast in slow out
		160	-	191	slow in, fast out
		192	-	255	fast aperture in and out
35	Function	210	-	215	XY reset, hold 3S
		220	-	235	head motor reset, hold 3S
		240	-	255	reset all motors, hold 3S

## Chapter 4 Common Faults and Precautions for Use

### 10.Common fault handling

Lamps contain microcomputer circuit boards, high-voltage power supply and other professional components, for your safety and product life, non-professionals should not remove lamps and related accessories without authorization.

#### 1.The bulb is not lit (except for the LED light source).

Possible causes: The bulb is not completely cooled, or the bulb has a lifetime, as follows:

- Due to abnormal operation, the bulb is not completely cooled, should let the lamp body cool for more than 10 minutes, so that its interior fully restored to normal state, and then start the power supply again can be;
- Check that the bulb has reached service life and replace it with a new one;
- Check that the light bulb and the light-lighting line leak, fall off or come into poor contact;
- Replace the new light-lighting machine.

#### 2.The beam appears dim

Possible causes: Long use of light bulbs or dirty light paths, handled as follows:

- Check that the bulb has reached service life and replace it with a new one;
- Check that the optics or bulbs are clean, that dust is accumulated on the optics such as the bulbs, and that the bulbs and components in the lamps need to be cleaned and maintained regularly.

#### 3.The pattern projection is blurry

- Check that the electron focus channel value is appropriate for the current projection distance.

#### 4.The lamps work intermittently

Reason: The internal line goes into a protected state and is handled as follows:

- Check whether the fan is operating normally or dirty, resulting in an increase in the internal temperature of the lamp;
- Check that the internal temperature control switch is closed;
- Check that the bulb has reached service life and replace the new bulb.

#### 5.The lamp does not accept the control of the console after a normal reset

Possible cause: signal line failure or incorrect luminaire parameter settings, handled as follows:

- Check the starting address code and check the connection of the DMX signal cable (Whether the signal wire and cable are in good condition and the connection of the signal head is loose);
- Add a signal amplifier, plus 120 ohm terminal resistors;

## 6.The lamp does not start

Can cause: poor power supply lines, handled as follows:

- Check if the insurance on the power input socket is blown off and replace the insurance;
- Lamps are in poor contact with the line due to vibration during long-distance transport
- Check the input power supply, computer board, etc. for plug-in devices.

## 11.Precautions for use

- Check whether the local power supply meets the product voltage rating requirements, leakage protectors, overcurrent protectors, etc. meet the load requirements;
- Do not use a damaged power cord in the insulation and do not connect the power cord to other wires;
- Lamps are used in strong wind cooling, easy to accumulate dust, must be cleaned once a month, especially the cooling air vents, otherwise it will be blocked by dust accumulation, resulting in poor heat dissipation, so that the lamp abnormal.
- When installing lamps, the fixed screws must be tightened, and equipped with safety ropes, and timely inspection;
- When the lamp is installed and positioned, any point on the surface of the lamp is associated with any flammable and explosive material, maintaining a minimum distance of 10 meters and a distance of 2.5 meters from the irradiant, please do not install the lamp directly on the surface of the combustible substance;
- The continuous working time of the lamp is not recommended to exceed 10 hours, the interval between continuous start lamps should not be less than 10 minutes, otherwise it will not be able to trigger properly because the bulb overheats to protect;
- Use the switch valve closed for not more than 5 minutes, if you need to close the light for a long time, should use the console (lamp gun control channel) to close the lamp gun;
- In order to ensure that multiple luminaires better comply with the scene effect, lamps should not always be in the incomplete current scene, that is, to start the next scene action, it is best not to exceed 3 minutes, to ensure that multiple lamps can run synchronously;
- During use, if the lamp abnormal should stop using the lamp in time to prevent other failures.

## 12.Notes on the use of RDM

The RDM is an extended version of the DMX512-A protocol, the Remote Device Management protocol, and the traditional DMX512 protocol communication is one-way communication, based on the RS-485 bus, RS-485 is a time-sharing multipoint, half-duplex protocol, allowing only one port to be output for the host at the same time, so there are a few things to note when using RDM

- To use a console or host device that supports the RDM protocol host;
- To use a bidirectional signal amplifier, the traditional one-way signal amplifier does not apply to the RDM protocol because the RMD protocol requires feedback data, and the use of a one-way amplifier blocks the returned data, resulting in a search for luminaires;
- All luminaires must be set to DMX mode to ensure that there is only one host on the signal line;

- Terminals 2 and 3 of the terminal plug must be inserted between a 120ohm impedance matching resistor, when the signal line is longer, reduce signal reflection will use differential signal more stable, conducive to the quality of communication;
- When a luminaire is controlled by DMX, but cannot R DM search for the luminaire, check the signal amplifier first, and then check the signal line 2and3 lines for poor contact.