BSW 380 IP
User Manual

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TECHNICAL PARAMETERS

Light source

Light source power: Osram 371W;

Voltage: AC 200V~240V/50~60Hz;

Optical

Zoom: 2 - 43°

Controls

Control mode: DMX512/ master-slave/automatic;

Effect

Color disk: each color disk is composed of a color plate + white light;
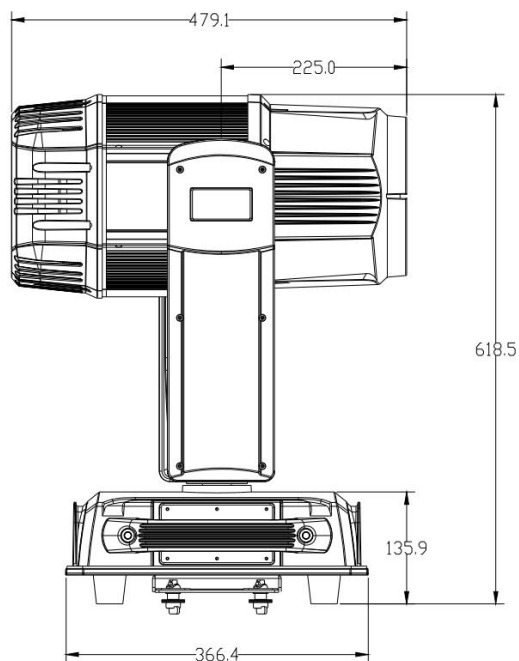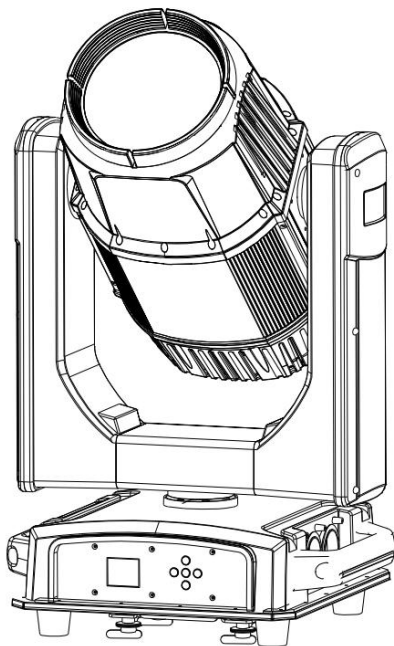
Pattern plate: a pattern effect;

Construction

540° pan, 270° tilt.

Overheat protection;

IP65 protection level

SIZE DRAWING

Gobo

1.Precautions and installation Precautions and installation

1.1 **DISCLAImer**

Thank you for choosing our products! 8, This product is in good condition and the package is complete when it leaves the factory. For your safe and effective use of this product, before you use this product, please read this manual carefully and completely. This manual contains important information for installation and use. 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 all responsibility for damage to lamps or other performance due to individuals not operating in accordance with 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.
- This lamp should be kept dry and avoid working in wet environment.
- Intermittent use will effectively extend the life of the luminaire.
- In order to obtain good ventilation and lighting effects, pay attention to cleaning the fan and fan net as well as the lens often.
- Do not rub the luminaires housing with organic solvents such as alcohol to avoid damage.

1.3 Product Precautions

- This lamp is for professional use only.
- Ensure that the power supply voltage matches the required power supply voltage of the equipment before operation.
- Do not place this product in a place that is easy to loose or shake.
- During use, if the lamp is abnormal, stop using the lamp in time.
- In order to ensure the service life of the product, this product should not be placed in a humid or leaking place, and should not work in an environment where the temperature exceeds 60 degrees.
- When the lamp is used, the power supply voltage change should not exceed ±10%, the voltage is too high, will shorten the life of the lamp, the voltage is too low, it will affect the light color of the lamp.
- After the power off, it takes 20 minutes to use the lamp to cool down fully before it can be used again.
- The rotating parts of the lamp and the attaching accessories must be checked regularly, and the loosening and shaking should be reinforced in time to prevent accidents.
- In order to ensure the normal use of this product, please read this instruction carefully.

1.4 Signal cable connection

Light fixtures feature standard DMX input and output 3-core or 5-core XLR sockets. Use a twisted-pair signal cable shielded specifically for DMX 512; The signal line is generally connected at a distance of 150 meters, and the DMX512 signal amplifier must be added for long distance signal transmission.
Use a shielded twisted-pair signal line from the DMX outlet of the controller to the DMX input of the first device, and from the DMX outlet of the first device to the DMX input of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3-pin connector of the connecting luminaire output on each line. (Weld a 4/1W, 120Ω resistor between the 2 and 3 pins of the 3-pin pin cannon plug).

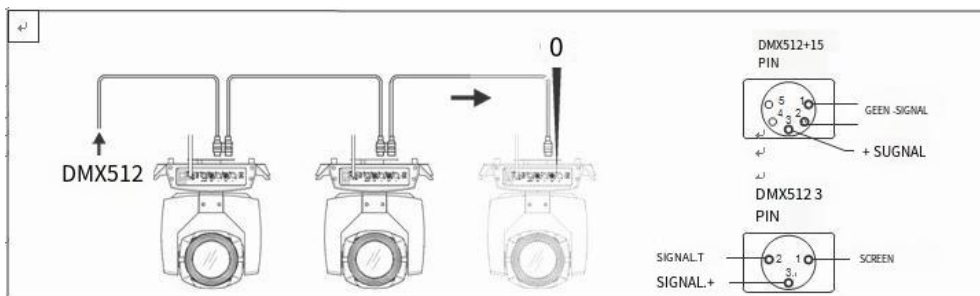Important: The wires should not touch each other or the metal housing.

Figure 1 Schematic diagram of DMX signal wire connection

➢ The calculation method of the starting address code of the lamp:

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

1: The initial address code value of the first luminaire A001.

2: The basic channel number 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 luminaire should have its own starting address code, if the first luminaire's starting address code is set A001, the number of luminaire channels is 16CH; Then 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 also needs to be determined according to different consoles)

1.5 Luminaire installation

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

As shown in Figure 2, before positioning the luminaire, it is necessary to ensure the stability of the installation site. During the reverse hanging installation, it is necessary to ensure that the luminaire does not fall down on the support frame. It is necessary to use the safety rope to pass through the support frame and the luminaire handle for auxiliary hanging to ensure safety. Prevent the luminaire from falling and sliding.

During the installation and debugging of the lamps, pedestrians are forbidden to pass under the lamps. Regularly check whether the safety rope is worn and whether the hook screws are loose.

If the hanging installation is not stable, resulting in all consequences caused by the fall of the lamp, our company does not assume any responsibility.
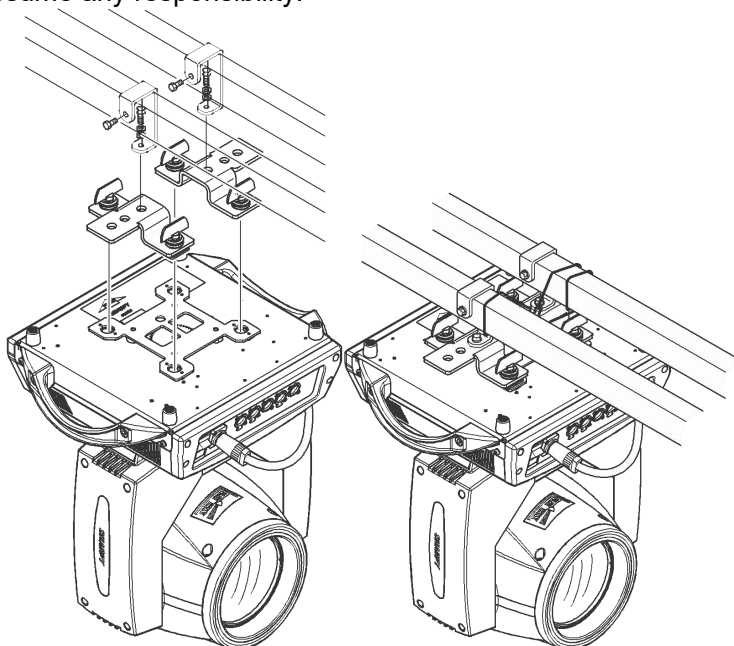
Figure 2 Schematic diagram of the lamp hanging upside down

2.Control panel

2.1 Key Instructions
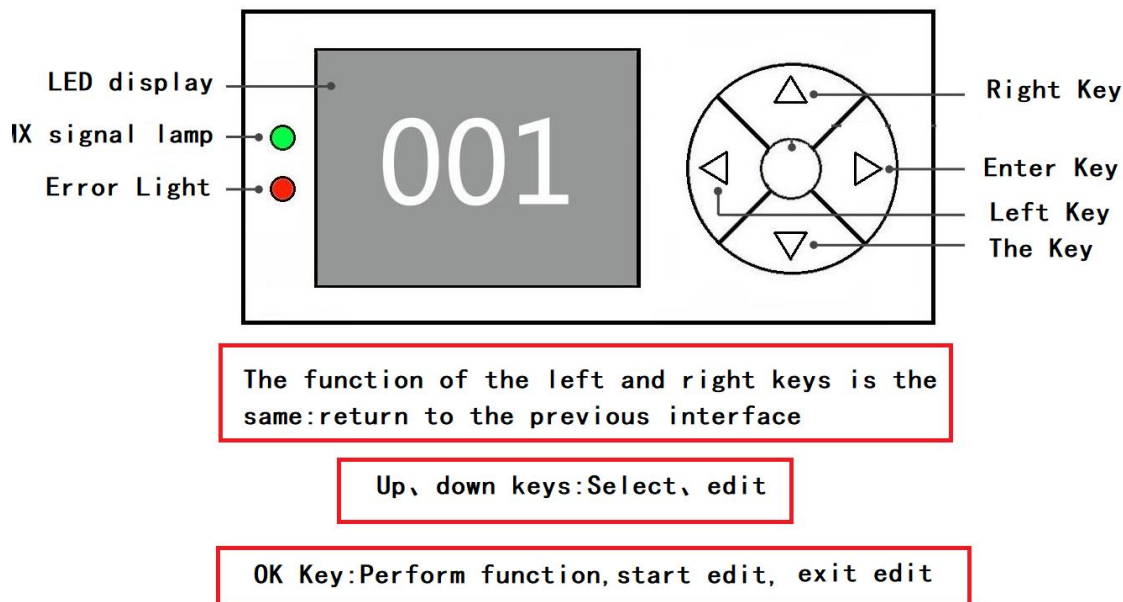
Figure 3 Schematic diagram of key description on the panel

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 home screen, press the "up" key or "down" key to select the "Settings" button

3. Press the "OK" key to enter the "Settings" interface

4, in the "Settings" interface, press the "up" key or "down" key to select "DMX address"

5, press the "OK" key to enter the editing state

6, press the "up" key or "down" key to modify the DMX address code

7, press the "OK" key to exit the editing state

2.2 Menu Description

Figure 4 Schematic diagram of main menu

4

2.2.1 Settings

Options		Instructions
Running mode	DMX	Slave state: Receives DMX signals from the console or host
	Bootstrap	Host status: Self-drive and send DMX signal to slave
	Voice Control	
DMX address	1-512	Press "OK" to enter the editing state. At this time, the hundreds digit is selected, and press the "up" and "down" keys to change the address code. Press the "OK" key again to select the tens edit. Press "OK" again to select the ones edit. Press again to exit the editing state
Bulb	Off	Off Bubble
	On	Bright Bubble
Motor reset	Off	
	On	Light fixture reset
Channel mode	Standard 20CH	Standard 20 channel mode
Language	Chinese	Set to the Chinese interface
	English	Set to English interface
Screen flip	Off	Front display
	On	Screen inverted display
X Inversion	Off	
	On	
Y Reversal	Off	
	On	
XY swap	Off	
	On	Channel to swap XY axes (incl. trims)
XY encoder	On	Use an encoder (optocoupler) to judge out of step and automatically correct the position
	Off	Correct position without using an encoder (optocoupler)
DMX signal	Hold	Continue running in its original state
	Reset	Turn the motor back and stop running
Wind speed low turn off bubble	On	If the blower speed is too low, the bubble will be automatically deflated
	Off	The blower speed is too low to automatically deflate bubbles
Turn on bright bubble	Off	Reset directly after powering on, no light bulb (need to manually light bubbles with menu or console)
	On	Automatically light the bubble after power on, and wait for the lamp to successfully light up before reset
Linear color	On	The color wheel changes linearly
	Off	Color wheel nonlinear change, half-color change
Restore default Settings		Press "OK" to see the confirmation dialog box, press "OK" again to restore the default Settings

2.2.2 System

Options		Instructions
DIS		Display board software version
MT		Motor board software version
Manual control		This interface is used to control the current luminaire (does not receive DMX signals), corresponding to the channel. Refer to the channel table for details
Time Information	Total bright bubble	Cumulative brightening time (accurate to minute)
	Total usage	Cumulative usage time (accurate to minute)

System error		If the red ERR indicator light shines, it indicates that the lamp is running incorrectly, and the details can be viewed from this sub-interface. After viewing, you can press the "Clear" button to clear the error record
Blower speed		Displays the current blower speed
Hall Status	0000000	0 when magnetic is detected, 1 otherwise
The X-axis encodes the disk step value	0000	The number of steps should increase for forward travel and decrease for reverse travel. The number should be normal every time you reach the same point
The Y-axis encodes the disk step value	0000	The step value should increase in the forward direction and decrease in the reverse direction. The number should be normal every time you reach the same point

Common Error Messages	Instructions
MT board connection failed	Motor board not responding. There is a problem with the serial communication line connecting the display board to the motor board, or there is a problem with the motor board.
X-axis reset failed	There is a problem with the X-axis photoelectric switch, or the X-axis motor or motor board
Y-axis reset failed	Y-axis photoelectric switch, or Y-axis motor or motor board problem
X-axis Hall error	X-axis Hall, or a problem with the motor board
Y-axis Hall error	Y-axis Hall, or a problem with the motor board
Color disk reset failed	Color disk Hall, or there is a problem with the color disk motor
The pattern plate failed to reset	Pattern plate Hall, or pattern plate motor problem
The focus reset failed	Focusing Hall, or a problem with the focusing motor
Bulb control failure	Failure to light or extinguish bubbles, lamplighter or bulb problem

2.2.3 Factory

Calibrate	X-axis	After entering the sub-interface, the reset position of the motor such as X axis and Y axis can be adjusted to make up for the error on the hardware installation. The adjustment range is -128~+127, and +0 indicates no adjustment.
	Y-axis	
	Colors	
	Gobo	
	Gobo2	
	Gobo2 Rotation	
	Focus	
	Zoom	
	Dimming	
	Prism 1 Zero	
	Prism 1 Stroke	
	Prism 2 Zero	
	Prism 2 Stroke	
	Prism rotation	
	Frost zero	
	Atomizing stroke	

3.Channel function

3.1　Channel Table

Channels	Channel mode
	20
1	X
2	X Fine
3	Y
4	Y Fine
5	XY Speed
6	Shutter
7	Dimming
8	Colors
9	Gobo
10	Gobo2
11	Gobo2 Rotation
12	Prism 1
13	Prism 1 Rotate
14	Prism 2
15	Prism 2 Rotate
16	Frost
17	Zoom
18	Focus
19	Reset
20	Lamp

Channel parameter values (full version) :

20 channels	Features	Channel values	Effects
1	X	000-255.	Horizontal 540 degree scan
2	X Fine	000-255.	Horizontal 1.2 degree fine tuning
3	Y	000-255.	Vertical 270 degree scan
4	Y Fine	000-255.	Vertical 1.2 degree fine trim
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.	Light brake off Stroboscopic from slow to fast Light gate on → (controlled by dimmer channel) Pulse stroboscopic from slow to fast Light gate open → (controlled by dimmer channel) Random strobe from slow to fast Light gate on → (controlled by dimmer channel)
7	Dimming	000-255.	Dark to light
8	Colors	000-004 005-009 010-014 015-019 020-024 025-029 030-034 035-039 040-044	White Light White light + Color 1 Color 1 Color 1+ Color 2 Color 2 Color 2+ Color 3 Color 3 Color 3+ Color 4 Color 4

		045-049	Color 4+ Color 5
		050-054	Color 5
		055-059	Color 5+ Color 6
		060-064	Color 6
		065-069	Color 6+ Color 7
		070-074	Color 7
		075-079	Color 7+ Color 8
		080-084	Color 8
		085-089	Color 8+ Color 9
		090-094	Color 9
		095-099	Color 9+ Color 10
		100-104	Color 10
		105-109	Color 10+ Color 11
		110-114	Color 11
		115-119	Color 11+ Color 12
		120-124	Color 12
		125-129	Color 12+ Color 13
		130-134	Color 13
		135-139	Color 13+ white light
		140-200	Positive flowing water (from fast to slow)
		201-255	Backward flow (slow to fast)
9	Gobo	000-004	White Light
		005-009	Gobo 1
		010-014	Gobo 2
		015-019	Gobo 3
		020-024	Gobo 4
		025-029	Gobo 5
		030-034	Gobo 6
		035-039	Gobo 7
		040-044	Gobo 8
		045-049	Gobo 9
		050-054	Gobo 10
		055-059	Gobo 11
		060-064	Gobo 12
		065-069	Gobo 13
		070-074	Gobo 14
		075-079	Gobo 1 Shake(from slow to fast)
		080-084	Gobo 2 Shake(from slow to fast)
		085-089	Gobo 3 Shake(from slow to fast)
		090-094	Gobo 4 Shake(from slow to fast)
		095-099	Gobo 5 Shake(from slow to fast)
		100-104	Gobo 6 Shake(from slow to fast)
		105-109	Gobo 7 Shake(from slow to fast)
		110-114	Gobo 8 Shake(from slow to fast)
		115-119	Gobo 9 Shake(from slow to fast)
		120-124	Gobo 10 Shake(from slow to fast)
		125-129	Gobo 11 Shake(from slow to fast)
		130-134	Gobo 12 Shake(from slow to fast)
		135-139	Gobo 13 Shake(from slow to fast)
		140-144	Gobo 14 Shake(from slow to fast)
		145-200	Backward running water (fast to slow)
		201-255	Forward flow (slow to fast)
10	Gobo2	000-004	White Light
		005-009	Gobo 1
		010-014	Gobo 2
		015-019	Gobo 3
		020-024	Gobo 4
		025-029	Gobo 5

		030-034	Gobo 6
		035-039	Gobo 7
		040-044	Gobo 8
		045-049	Gobo 9
		050-059	Gobo 1 Shake (from slow to fast)
		060-069	Gobo 2 Shake (slow to fast)
		070-079	Gobo 3 Shake (slow to fast)
		080-089	Gobo 4 Shake (slow to fast)
		090-099	Gobo 5 Shake(slow to fast)
		100-109	Gobo 6 Shake(slow to fast)
		110-119	Gobo 7 Shake(slow to fast)
		120-129	Gobo 8 Shake(slow to fast)
		130-139	Gobo 9 Shake(slow to fast)
		140-200	Forward flowing water (fast to slow)
		201-255	Backward flow (slow to fast)
11	Gobo2 Rotation	000-127.	Angle adjustment
		128-190.	Forward fast rotation to slow rotation
		191-192.	Stop
		193-255.	Reverse slow spin to fast spin
12	Prism 1	000-127.	None
		128-255.	Prism 1 Cut in
13	Prism 1 Rotate	000-127.	Prism Angle adjustment
		128-190.	Forward rotation (from fast to slow)
		191-192.	Stopping
		193-255.	Reverse rotation (from slow to fast)
14	Prism 2	000-127.	None
		128-255.	Prism 2 Cut in
15	Prism 2 Rotate	000-127.	Prism Angle adjustment
		128-190.	Forward rotation (from fast to slow)
		191-192.	Stopping
		193-255.	Reverse rotation (from slow to fast)
16	Frost	000-127.	None
		128-255.	Frost cut in
17	Zoom	000-255.	Gobo clarity from far to near
18	Focus	000-255.	Gobo clarity from far to near
19	Reset	000-025.	None
		026-050.	Reset Effect
		061-085.	Reset XY
		251-255.	Reset All
20	Lamp	000-099.	None
		100-109.	Lamp Off
		200-209.	Lamp On

4. Common faults

According to some common faults, the corresponding solutions are put forward. Any problems that cannot be solved should be dealt with by professionals. Disconnect the light fixture from the power supply before maintaining it.

The light bulb is not working

● Check that the voltage that matches the light fixture is installed;
● Check whether the lamp power supply connection or control switch is in poor contact;
● Check whether the power supply is insufficient;
● Check that the DMX512 controller is sending instructions.

The light fixture does not accept control from the console after normal reset

- Check luminaire digital start address value and function options are correct;
- Check whether the connection of the communication control line is correct, the communication line is too long or has been interrupted;
- Check whether the control equipment is invalid, check whether the signal amplifier connected to the series is invalid;
- Check whether the communication line is too long or other devices interfere with each other;
- Optimize wiring, shorten the length of the control signal line, high-voltage and low-voltage lines separate wiring;
- Add signal amplifiers;
- Signal line using high quality shielded twisted pair wire;
- Connect the signal terminal resistor (120 ohms) at the end of the lamp.

Luminaire does not start

- Check that the power supply parameters are consistent with the luminaire;
- Check the lamps in the long distance transportation process due to extrusion deformation, internal parts vibration, moisture and other reasons, resulting in poor contact
  Or fall off.
- Please check whether the internal wire integration connector of the lamp has fallen off and is loose.
- Check whether the electronic components of the lamp (such as electronic transformer, PCB board, motor control board, etc.) are loose, short circuit and burned out.

When working, the action of the X axis or Y axis of the luminaire is abnormal

- Check them one by one by following the previous step;
- Check whether the transmission belt corresponding to the X and Y axis direction in the lamp falls off and breaks;
- Check whether the data feedback receiver (optocoupler) corresponding to the X and Y directions in the lamp is damaged;
- Reboot and reset once.

REMARK

The product has perfect performance and intergrity packing. All users should be strictly comply with the warning and operating instructions as stated.

Or we aren 't in charge of any result by misusing.

Any damage resulting by misuse is not within the Company 's warranty.

Any fault or problem caused by neglecting the manual is also not in the charge of dealers.

Errors and omissions for every information given in this manual excepted.

All information is subject to change without prior notice.