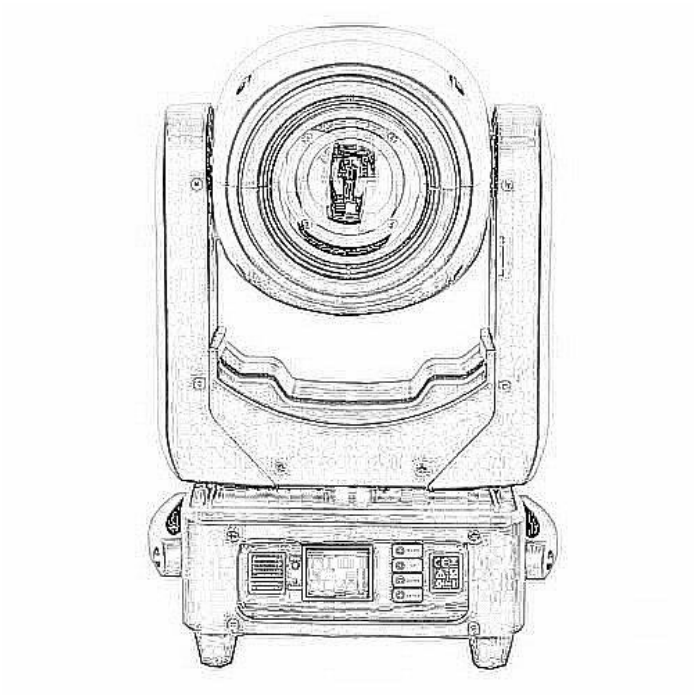
Beam Spot Wash 3 in 1
LED 250W



User manual

Thanks for choosing our goods please read this manual carefully before your operating

Introduction

OPTICAL SYSTEM
Lamp Type: Super bright 250w white LED
Lens: coated with anti-reflection film lens
Beam Angle: 6° - 35°

COLOR SYSTEM
9 color filters + white light, color rainbow can be created, two colors move with gradient effect (linear movement),
color wheel bidirectional rotation, color at random mode

GOBO SYSTEM
1 rotating gobo wheel with 7 glass gobos in bidirectional rotation way, it can achieve self-rotating, water running and shaking effect and gobo wheel can be positioned
1 fixed gobo wheel 9 metal gobos + white (bidirectional rotation) it can reach pulse/ animation at random

EFFECT EQUIPMENT
Prism: 1 rotating 3-facet prism with bidirectional rotation
Independent frost soft effect
Independent strobe equipment, strobe speed at 1-13 flash/second, multiple strobe effects (pulse/asynchronous/synchronous/slow- medium-fast at random)

MOVEMENT PARAMETER
Angle: Pan 540°, Tilt 270°

CONTROL AND PROGRAMMING
Control channel: 16 / 24 / 30 control channel modes
Protocol: Standard DMX512
Menu display: LCD display , random switch of Chinese and English language; menu available to display 180° reversely.

Safety Information

WARNING!
Read the safety precautions in this section before installing, powering, operating or servicing this product.

The following symbols are used to identify important safety information on the product and in this manual:

DANGER! Safety hazard. Risk of severe injury or death.

DANGER! Hazardous voltage. Risk of lethal or severe electric shock.

Protection from burn and fire.

WARNING! High brightness light source, With risk of burned eyes.

WARNING! Burn hazard. Hot surface. Do not touch.

WARNING! Wear protective Eye wear.

WARNING! Refer to user manual.

Warning!
High brightness light source,don’t look at the light directly so that keep the risk of burned eyes away.

This product is for professional use only. It is not for household use.
This product presents risks of severe injury or death due to fire and burn hazards, electric shock and falls.

Read this manual before installing, powering or servicing the fixture, follow the safety precautions listed below and observe all warnings in this manual and printed on the fixture.
If have any problem,please contact the supplier.

Data link

A DMX 512 data link is required in order to control a BSW250 via DMX.
The BSW250 has 5-pin XLR connectors for DMX data input and output. The pin-out on all connectors is pin 1 = shield, pin 2 = cold (-), and pin 3 = hot (+). Pins 4 and 5 in the 5-pin XLR connectors are not used in the BSW250 but are available for possible additional data signals as required by the DMX512-A standard.
Standard pin-out is pin 4 = data 2 cold (-) and pin 5 = data 2 hot (+).

The number of fixtures is either limited to 256 or limited by the number of DMX channels required by the fixtures in relation to the maximum 512 channels available in one DMX universe, whichever limit is lower. Note that if independent control of a fixture is required, it must have its own DMX channels.
Fixtures that are required to behave identically can share the same DMX channels.
To add more fixtures or groups

Connecting the data link

Connecting the data link To connect the LIGHT to data:
1. Connect the DMX data output from the controller to the closest BSW250 male 5/3-pin XLR DMX input connector.
2. Connect the DMX output of the fixture closest to the controller to the DMX input of the next fixture and continue connecting fixtures output to input.
3. Terminate the last fixture on the link with a 120 Ohm resistor.

LCD display home page Introductions

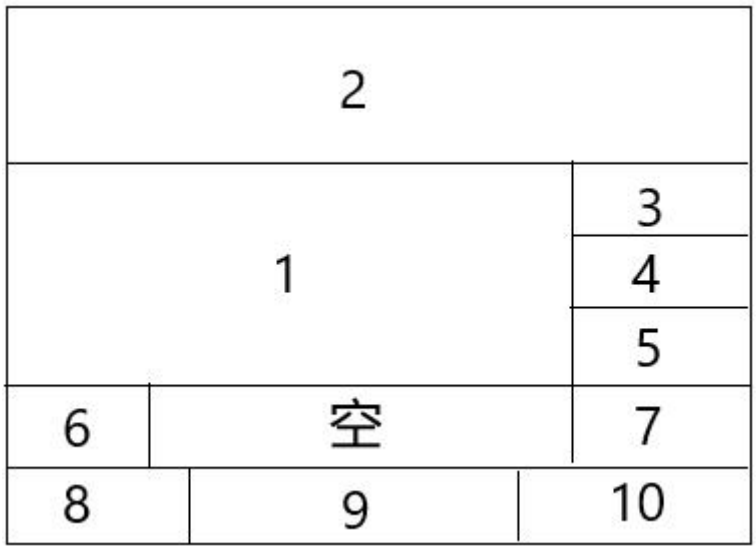
2 — click to open main menu.

3 — click to set the language.
4 — click to turn on or off the lamp, or select the dim curve for LED light.
5 —
6 — click to reverse the display.
7 — Show the DMX signal state. Click to toggle Master/Slave mode, and the figure's meaning is as follows:

Green down arrow: The device is receiving DMX signal from console.
Yellow "X" ： The DMX signal is lost.
Blue up arrow: The device is working on master mode, and it is sending signal to outside now.

8 — click to set the running mode. If the figure is highlighted, that means the device is running in this mode as is shown.

9 —Click to open the error information menu for more details.
10 — click to show the version of the firmware.



1 — Shows current DMX address in big font size.
2 — Customer logo display area.
3 — DMX signal frame rate (FPS).
4 — Display the channels mode, and the figures shows current channels number.
5 — Fan speed display. (select whether to display according to the lighting conditions)
6 —Current mode (Master or slave).
7 — Current operating mode (DMX512, self-propelled, user).
8 — error information. It turns yellow if has some errors when self-test.(Press the down key to view specific error messages)
9 — Temperature display or other(according to lamp configuration).
10 — Sn term display.

Since the product model is numerous, the function is different, and often upgrades, causes the menu content to change frequently, this manual instruction is hard to update in time, therefore only lists part of the important menu items here.

DMX Addr: Use the menu to set desired fixture address setting

Channel Mode: Use the menu to select desired DMX channel mode. The numbers on the menu represents the number of control channels.

Reset Operating: Reset Motors

Motor power off: Select “Y” to turn off the motors power，and select “N” to turn on the motors power， it will reset automatically. You can plug the motor and reset it without turn

off main power supply via this menu.

Pan/Tilt: Use the menu to reset Pan and Tilt

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Run: Use the menu to select operational mode

Following is the instructions of the menu options(Note： the "test" mode option may be different according to product model):

- DMX：Controlled by DMX512 signal。
- Test(factory)：Controlled by built-in program which is for factory test.
- Program： Controlled by User's program。 User the menu [Running Cnfg]- [Mixed Scene] and [Scene Edit] to set up or edit the scenes。

Lamp: Use the menu to turn on or off the lamp. It will take effect after 3 seconds , if the value was switched back in 3 seconds, the operation will be canceled. If the lamp was turn off， it must wait for 1 to 2 minutes before it can turn on again。 You can set the menu value to "on" and it will turn on automatically after 1 to 2 minutes。

An example of the value is shown below :

Manual Control: Set DMX value manually

CHN1: Set the DMX value of CHN 1.

CHN2: Set the DMX value of CHN 2.

CHN3: Set the DMX value of CHN 3.

…….

Running Cnfg: configuration of Running.

M/S Mode: Slave mode is for receiving external DMX signals and Master mode is for sending DMX signals to external slave fixtures

Maunual Pan/Tilt: Select "Y" to Manual Pan/Tilt.

Pan Reverse cnfg:

Reverse: The item allows to invert Tilt movement

Tilt Reverse cnfg:

Reverse: The item allows to invert Tilt movement

Pan Cnfg:

Origin: Set desired Origin value to change Pan Movement range (set the DMX value to 0 before changing this value, the tile motor will move when changing this value)

End: Set desired final stop value to change Pan movement range (set the DMX value to 255 before changing this value, the tile motor will move when changing this value)

Tilt Cnfg:

Origin: Set desired Origin value to change Tilt movement range (set the DMX value to 0 before changing this value, the tile motor will move when changing this value)

End: Set desired final stop value to change Tilt movement range (set the DMX value to 255 before changing this value, the tile motor will move when changing this value)

Color linear: You can set the color wheel rotate by “half color” or “linear”.

Dim Curves: Select the dim curve (For LED light only).

DMX Lost:

Advanced:

Fine Adj: This is the factory adjustment function locked with password.

DMX Lost: Use the menu to select run mode when external DMX cannot be connected.

Start Up: Following is the instructions of the menu options：

- Middle: The DMX of pan and tilt are set to 128, all other DMX are set to 0.
- Test (factory/gobo/color) ： Controlled by built-in program. Refer to the menu “Run” for more information.
- Program：Program：Controlled by User's program。User the menu [Running Cnfg]-[Mixed Scene] and [Scene Edit] to set up or edit the scenes.

Running: Whenever the DMX is lost：

- Keep：Keep the last state when reset finished..
- Shutter Off:.shutter off.

Fan Speed: Set the fan speed mode. This function is only valid on some models, please refer to the specification for more information.

Language: Use the menu to select desired system language

Lamp Off: Use the menu to select what the motor should do when lamp is off. If ""No Act"" is selected, lamp doesn't lead to any changes of motors. If "Sleep" is selected, motors except Pan/Tilt will sleep when lamp is off.

Info:

DMX Monitor: Display the DMX value from controller

Chn: Use the menu to select desired channel which you need to watch.

Value: Show the current value of the selected channel

Err State: Error information (If there is any error shown in this menu, a exclamatory mark will show at the top right corner of menu cover)

Storage: This message will appear when Flash goes bad.

Sensor Err: The states of all of the sensors

Pan Raster: Is the position sensor (raster) error.

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Lamp: The communication between CPU and lamp driver. If this communication go out of work, the CPU cannot determine the lamp is on or off, and some functions may

be affected.

Bus: This message informs you that the communication between the display PCB in the fixture base and the motor driver PCB in the fixture head failed, and cables may be broken.

Lamp Driver: The communication between CPU and lamp driver. If this communication go out of work, the CPU cannot determine the lamp is on or off, and some functions may be affected.

RAM Err: A memory allocation failure occurs. Please contact your Dealer or Fabricator for repair assistance.

Fan Stalling: Fan stop.

Lamp Service time: Lamp service time

ThisTime (m): The menu shows the total number of the operation hours with the lamp on since the last operation of clear.

Clear Lamp Time: Use the menu to reset the counter of operation hours with the lamp to 0, when a new lamp replaces the old one.

Test mode: for factory test, users do not need to pay attention to it

Product Code: the internal code of the product, which is only for product production and maintenance reference.

DMX Protocol

Mode/channel			DMX value	Function	Type of control
24	*16*	*30*			
1	1	1		**Pan**	
			0-255	Pan movement by 540°	proportional
2	*	2		**Pan Fine**	
			0-255	Fine control of pan movement by 2.11°	proportional
3	2	3		**Tilt**	
			0-255	Tilt movement by 246°	proportional
4	*	4		**Tilt Fine**	
			0-255	Fine control of tilt movement 1°	proportional
5	3	5		**Pan/Tilt speed**	
			0	Max speed	step
				Speed mode	
			1-255	Speed from max. to min.	proportional
				Time mode	
			1-255	Time from 0.1 sec to 25.5 sec	proportional
6	4	6		**Reset**	
				To activate following functions, stop in DMX value	

Mode/channel			DMX value	Function	Type of control
24	*16*	*30*			
				for at least 4s , and must activated from Menu first.	
			0-25	invalid	step
			26-76	Small motors reset	step
			77-127	Pan tilt reset	
			128-200	All reset	step
					step
7	5	7		**Color wheel**	
			0-127	Continual positioning	proportional
			128-190	Rainbow effect fast to slow	step
			191-192	Rainbow effect stop	proportional
			193-255	Rainbow effect slow to fast	step
8	*	8		**Color wheel fine positioning**	
			0-255	Fine positioning	proportional
9	6	9		**Rot.Gobo shake**	
			0	No shake	step
			1-255	Shaking the gobo from slow to fast	proportional
*	*	10		**Frost time**	
			0	Function is off	step
			1-255	Time of frost movement (0.1 sec. to 25.5 sec.)	proportional
*	*	11		**Color time**	
			0	Function is off	step
			1-255	Time of color wheel movement (0.1 sec. to 25.5 sec.)	proportional
*	*	12		**Static gobo time**	
			0	Function is off	step
			1-255	Time of static gobo wheel movement (0.1 sec. to 25.5 sec.)	proportional
*	*	13		**Prism time**	
			0	Function is off	step
			1-50	Time of prism movement (0.1 sec. to 5 sec.)	proportional
			1-255	Time of prism rotation (0.1 sec. to 25.5 sec.)	proportional
*	*	14		**Zoom time**	

Mode/channel			DMX value	Function	Type of control
24	*16*	*30*			
			0	Function is off	step
			1-255	Time of zoom movement (0.1 sec. to 25.5 sec.)	proportional
*	*	15		**Focus time**	
			0	Function is off	step
			1-255	Time of focus movement (0.1 sec. to 25.5 sec.)	proportional
10	7	16		**Static gobo wheel**	
			0-4	Open	step
			5-76	Gobo positioning	proportional
			77-199	Gobo shake slow to fast	step
			200-201	open	proportional
			202-227	forward gobo wheel rotation from fast to slow	
			228-229	stop	proportional
			230-255	backward gobo wheel rotation from slow to fast	step
11	8	17		**Rotating gobo wheel**	
			0-5	open	step
			6-127	Gobo positioning	
			128-190	Forward gobo wheel rotation from fast to slow	step
			191-192	stop	proportional
			193-255	Backward gobo wheel rotation from slow to fast	step
12	9	18		**Rot. gobo indexing and rotation**	
				Gobo indexing - set position on channel 11/8/17	
			1-127	Gobo indexing	proportional
			128-191	Forward gobo rotation from fast to slow	step
			192-255	Backward gobo rotation from slow to fast	proportional
13	*	19		**Rot. gobo indexing and rotation - fine**	
			0-255	Fine indexing(rotation)	proportional
14	10	20		**Prism**	
			0-63	Open (hole)	step

Mode/channel			DMX value	Function	Type of control
24	*16*	*30*			
			64-255	Prism in	
15	11	21		**Prism rotation and indexing**	
			0-127	Prism indexing	proportional
			128-190	backward prism rotation from fast to slow	proportional
			191-192	No rotation	step
			193-255	forward prism rotation from slow to fast	proportional
16	12	22		**Frost**	
			0-63	Open	step
			64-255	frost	proportional
17	13	23		**Zoom**	
			0-255	Zoom from max. to min beam angle	proportional
18	*	24		**Zoom - fine**	
			0-255	Fine zooming	proportional
19	14	25		**Focus**	
			0-255	Continuous adjustment from far to near	proportional
20	*	26		**Focus -fine**	
			0-255	Fine focusing	proportional
21	*	27		**Rot.Gobo speed/Time**	
			1-255	Time of rot.gobo movement (0.1 sec. to 25.5 sec.)	proportional
22	15	28		**Shutter/Strobe**	
			0-3	close	step
			4-103	Strobe slow to fast	step
			104-107	Open	proportional
			108-155	Strobe effect 1	step
			156-207	Strobe effect 2	proportional
			208-212	Open	proportional
			213-251	Strobe effect 3	step
			252-255	open	proportional
23	16	29		**Dimmer intensity**	
			0-255	Dimmer intensity from 0% to 100%	proportional
24	*	30		**Dimmer intensity - fine**	
			0-255	Fine dimming	proportional

Gobo replacement

Identification of gobo wheel To replace a gobo:
• Disconnect the fixture from power and allow to cool.
• Position the head and apply the tilt lock.
• Remove the rear head cover located on the same side as the pan lock See figure below.
• Remove the gobo wheel cover for access to the gobo wheel.
• Turn the gobo wheel until the gobo you want to replace is accessible.
• Unhook the end of the spring and turn it upwards. Pull the gobo holder out of the gobo wheel.

Service and maintenance

Warning! Disconnect the fixture from AC mains power and allow to cool for at least 10 minutes before handling. Do not view the light output from less than 4 meters without shade 4-5 welding goggles. Be prepared for the fixture to light suddenly if connected to power.
Warning! Refer any service operation not described in this user manual to a qualified service technician.
Important! Excessive dust, smoke fluid, and particle buildup degrades performance, causes overheating and will damage the fixture. Damage caused by inadequate cleaning or maintenance is not covered by the product warranty.
Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work
1. Check the connect power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED to see if it can be light up or not.

B. Not responding to DMX controller
1. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well
1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motor’s drive IC on the PCB might be out of condition.