

# User Manual

## SBW 470 CMY



**Check that the unit has not been damaged during transport**



**Read all cautions and warnings prior to operation of the unit**

### **Protection Against Fire**



1. Maintain a minimum of 150cm distance from any type of flame
2. Replace fuse only with the specified type and rating
3. Do not install the unit too close to a heat source
4. Make sure cables are properly secured away from unit movement
5. Maximum surface operating temperature 80°

### **Protection Against Electrical**



1. Disconnect power before servicing
2. The unit must be earthed (electronically grounded)

### **Protection Against Mechanical Hazards**



1. Use safety chain when hanging unit
2. Use quality clamps or bolts when positioning unit
3. Do not open unit while it is on, risk of electrical shock

## Technical Information

---

### Source

- Light Source: OSRAM SURIUS HRI 461 W bulb (7000K)
- Average Lifetime: 2,000 Hour

### Power

- Input Voltage: 100-240VAC, 50/60Hz
- Power Consumption: 550W max

### Optical System

- Zoom: 2.9° - 40° linear motorized
- Focus: Motorized focus controllable linearly
- Frost: Motorized frost controllable linearly
- Strobe: 0-20Hz variable speed, synchronization, pulse and random strobe
- Dimmer: 0-100% variable linear dimming curves

### Colors

- 11 Dichoric Colors+2 CTO filters, Index / Shake / Bi-directional rotating rainbow effect
- Cyan: 0-100%, Magenta: 0-100%, Yellow: 0-100%

### Gobos

- 7 inter-changeable glass gobos plus open, Shake / Bi-directional rotating rainbow effect
- 11 fixed metal gobos plus open, Shake / Bi-directional rotating rainbow effect
- Animation disk with 5 gobos

### Prism

- Prism wheel 1 with 8-facet + linear prism, stackable with prism wheel 2
- Prism wheel 2 with 16-facet+25-facet prism, stackable with prism wheel 1

### Movement

Pan range: 540°, 16bit; Tilt range : 270°, 16bit

### Control/Connection

- DMX Channel: 23/26CH
- Control Mode: DMX, Stand-Alone, Sound Control.
- Connector: True-One system with Power In+Out; 3pin DMX Input+Output

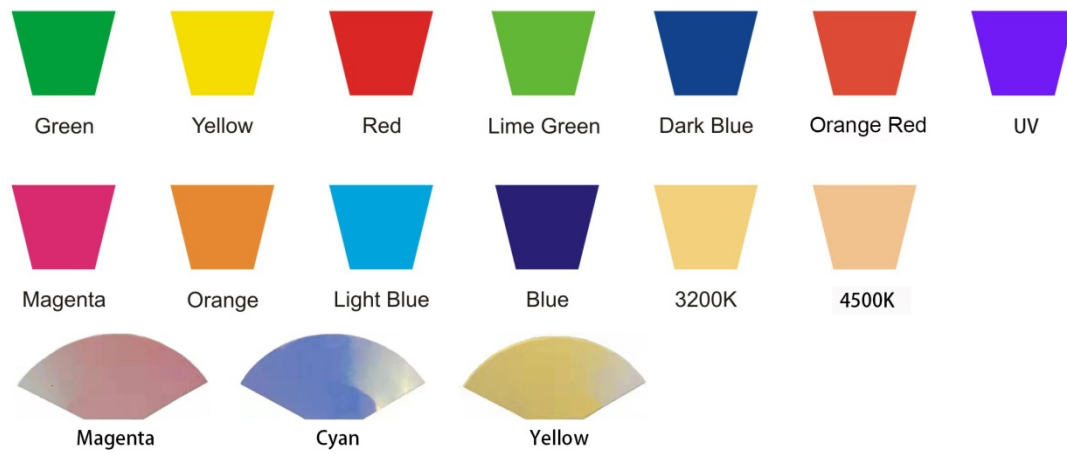
### Physical

- Body Material: Aluminum+plastic housing+glass
- IP Rate: IP20

### Weight/Diameter

- Net Weight: 26kg
- Dimension: 387x309x606mm

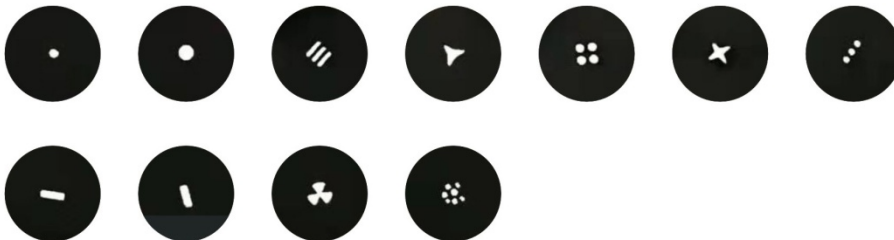
## Colour



## Rotating Gobos



## Fixed Gobos



## Animation Disk



## Prism Wheels





## Main Power Connection

### Caution!

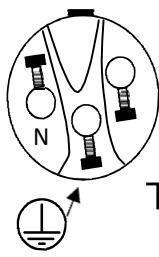
1. Do not connect fixture to a dimmer system.
2. This unit has Autoswitching power supply. It will respond to 110V or 220V automatically
3. This unit must be earthed. (Electronically grounded)
4. Replace fuse only with the specified type and rating.

The occupation of the connection-cable is as follows:

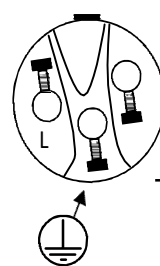
This fixture is equipped with an electronic power supply that will let the unit operate from 90V to 240V from 50Hz to 60Hz

Cable (USA)	Cable (EU)	Pin	110V	220V
Black	Brown	Live	L	L
White	Light Blue	Neutral	N	L
Green	Yellow/Green	Ground		

110V  
Connection



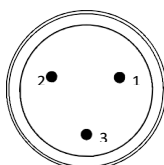
220V  
Connection



## DMX-512 Connection

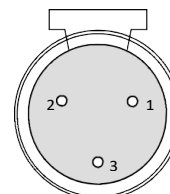
The fixture is equipped with 3 pin XLR Sockets for DMX input and output. The sockets are wired in parallel. Only use a shielded twisted pair cable designed for RS-485 and 3 pin XLR plugs and connectors in order to connect the controller with the fixture or the fixture with another.

DMX—input



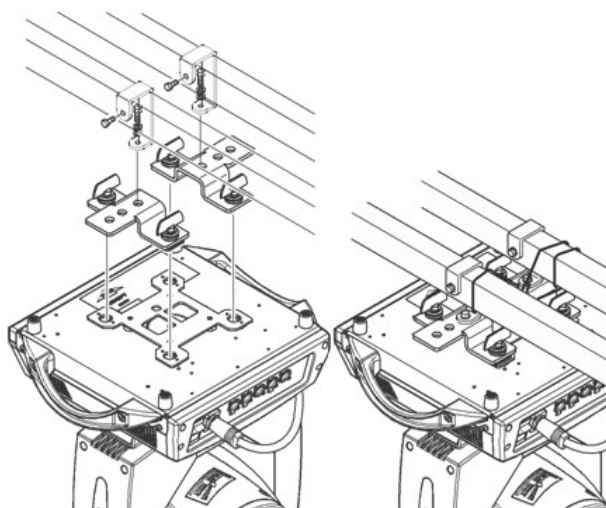
1. Shield
2. Signal (-)
3. Signal (+)

DMX—output

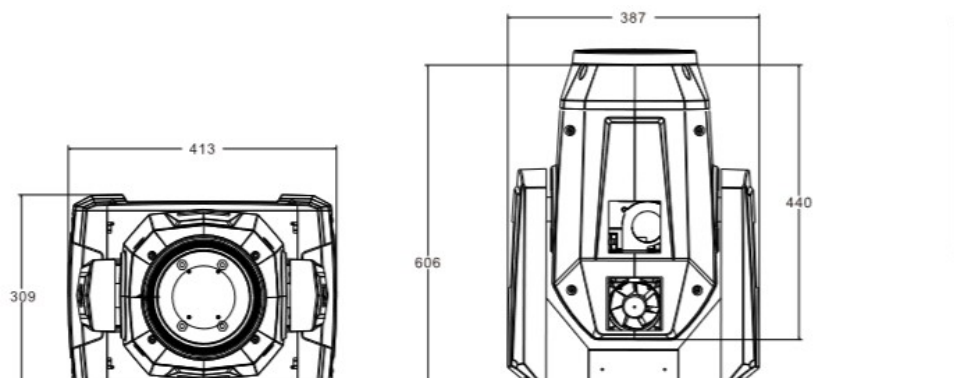


## Fixture & Installation

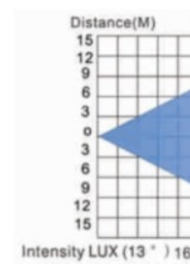
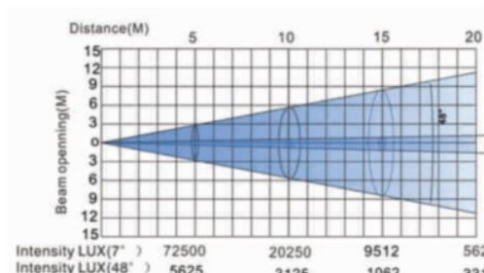
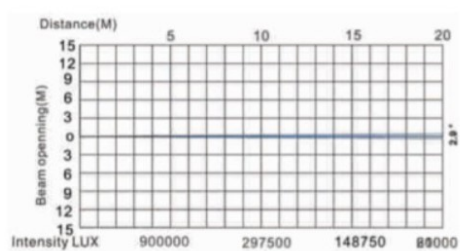
- The fixture can be mounted in any position.
- Always ensure that mounting surface can withstand 10 times the weight of the fixture.
- Always use a safety cable when mounting the fixture in any elevated position.



## Dimension Drawing (387x309x606mm)

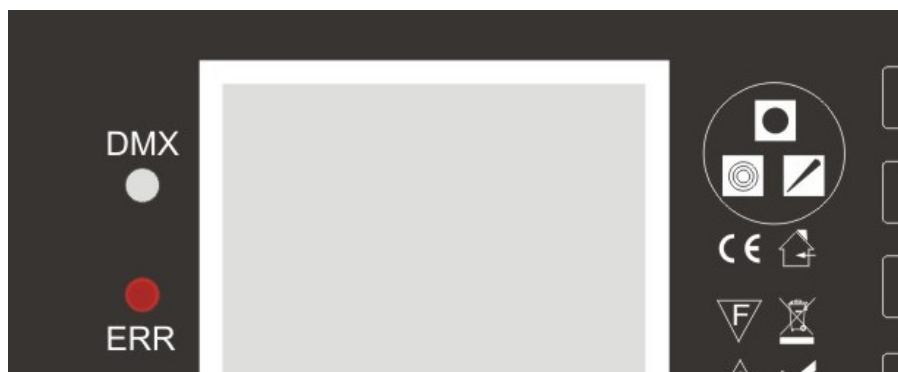


## Photometric Data



## Main Control

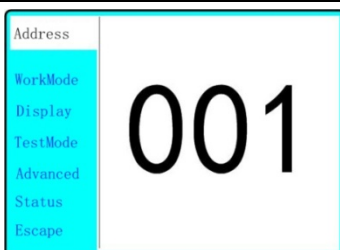
The control board on the fixture base is your interface to access and control all functions on the unit. It's Touch Screen LCD display gives you a code view of the options and functions. The following will explain each function and its options



**ATTENTION! DON'T USE SHARP STUFFS TOUCH SCREEN IN ORDER NOT DAMAGE DISPLAY!**



This first display let you know main menus the fixture has, the display issues existing dmx address you set. It is touch screen allows you select and confirm setting by hand touch. You are allowed to confirm DMX CABLE/AUTO RUN/LAMP STATUS quickly.



This function allows you to turn knob select desired start address from 001 to 512 , press enter to confirm setting

Address	DMX Ctrl
WorkMode	Auto Run
Display	Sound Ctrl
TestMode	M/S Choose OFF
Advanced	Light Switch OFF
Status	Lamp When Manual
Escape	Channel Qty Model

Press DMX Ctrl to set fixture work at DMX mode

Press Auto Run to run built-in programs

Press Sound Ctrl to set fixture work with sound

Press M/S Choose to set fixture be master or slave in chain

Press Light Switch ON/OFF to switch lamp

Press Manual to set lamp ON via Ch 20/23 at value 200-205

Press RetDone to set lamp ON after reset. Press PowerON to set lamp ON when fixture connected to power.

Address	语言	English
WorkMode	Screen Saver	Model
Display	Screen Rotate	ON
TestMode	Touch Enale	ON
Advanced	Touch Rectify	
Status		
Escape		

Press English to confirm language

Press Screen Saver to set backlight keeps ON/OFF, Model 1 is OFF, Model 2 is ON

Press Screen Rotate to invert display ON/OFF

Press Touch Enale to set screen touchable ON/OFF

Press Touch Rectify to reset screen touch rectification, this function is only for emergency

Address	01. Strobe	000
WorkMode	02. Dimmer	000
Display	03. Dimmer	000
TestMode	04. Colour	000
Advanced	05. Gobo	000
Status	06. Rot. Gobo	000
Escape	07. Gobo. R	000
	08. Gobo. R F	000

This function allows you control channels manually: 01 Strobe;02 Dimmer;03

Dimmer;04 Colour; 05 Color;06 Color;07 Color; 08 Gobo;09 Rotating Gobo;10 Gobo Rotation;11 Gobo Rotation Fine;12 Gobo;13 Focus;14 Focus Fine;15 Zoom;16 Prism 1;17 Prism 1 Rotaiton;18 Prism 2;19 Prism 2 Rotation;20 Forst; 21 Pan;22 Pan Fine;23 Tilt;24 Tilt Fine;25 P/T speed;26 Function

Address	Pan Invert	OFF
WorkMode	Tilt Invert	OFF
Display	Pan Offset	010
TestMode	Tilt Offset	010
Advanced	Data hold	OFF
Status	P/T Rectify	ON
Escape	Factory Setting	
	Show Mode	ON

This function allows you to reset some functions as applications need, they are Pan Invert; Tilt Invert; Pan/Tilt fine; Pan/Tilt Sensor correction; Factory Setting; Show Mode

Address	Work Mode	DMX...
WorkMode	Address	
Display	Version	C1.2.1
TestMode	Elapse	
Advanced	Total	
Status	DMX Ctrl Stop	
Escape		

This page displays information of fixture, including: Working Mode;Address Value;Software Version; Power Time;Total Worked Time

Address	
WorkMode	
Display	
TestMode	
Advanced	
Status	
Escape	

Turn "Escape " back to main display



## DMX Profile

26CH	23CH		DMX Value	Description
CH1	CH1	Strobe	0-3	Close
			4-103	Pulse Strobe Slow to Fast
			104-107	Open
			108-207	Strobe Slow to Fast
			208-212	Open
			213-251	Random Strobe Slow to Fast
			252-255	Open
CH2	CH2	Dimmer	0-255	0-100%
CH3	/	Dimmer Fine	0-255	
CH4	CH3	C	0-255	Cyan
CH5	CH4	M	0-255	Magenta
CH6	CH5	Y	0-255	Yellow
CH7	CH6	Color	0-4	Open
			5-9	White + Color 1
			10-14	Color 1
			15-19	Color 1 + Color 2
			20-24	Color 2
			25-29	Color 2 + Color 3
			30-34	Color 3
			35-39	Color 3 + Color 4
			40-44	Color 4
			45-49	Color 4 + Color5
			50-54	Color5
			55-59	Color5 + Color6
			60-64	Color6
			65-69	Color6 + Color7
			70-74	Color7
			75-79	Color7 + Color8
			80-84	Color8
			85-89	Color8 + Color9
			90-94	Color9
			95-99	Color9 + Color10
			100-104	Color10
			105-109	Color10 + Color11
			110-114	Color11
			115-119	Color11 + Color12

			120-124	Color12
			125-129	Color12 + Color13
			130-134	Color13
			135-139	Color13 + White
			140-199	Forward Color Fast to Slow
			200-255	Backward Color Slow to Fast
CH8	CH7	Static Gobo (only working with beam mode in CH14/17)	0-4	Open
			5-9	双凹镜
			10-14	Gobo 1
			15-19	Gobo2
			20-24	Gobo3
			25-29	Gobo4
			30-34	Gobo5
			35-39	Gobo6
			40-44	Gobo7
			45-49	Gobo8
			50-54	Gobo9
			55-59	Gobo10
			60-64	Gobo11
			65-69	Gobo1 Shake Slow to Fast
			70-74	Gobo2 Shake Slow to Fast
			75-79	Gobo3 Shake Slow to Fast
			80-84	Gobo4 Shake Slow to Fast
			85-89	Gobo5 Shake Slow to Fast
			90-94	Gobo6 Shake Slow to Fast
			95-99	Gobo7 Shake Slow to Fast
			100-104	Gobo8 Shake Slow to Fast
			105-109	Gobo9 Shake Slow to Fast
			110-114	Gobo10 Shake Slow to Fast
			115-127	Gobo11 Shake Slow to Fast
			128-190	Forward Rotation Fast to Slow
			191-192	Stop
			193-255	Backward Rotation Slow to Fast
CH9	CH8	Rotating Gobo (only working with spot mode in CH14/17)	0-9	Open
			10-19	Gobo 1
			20-29	Gobo 2
			30-39	Gobo 3
			40-49	Gobo 4
			50-59	Gobo 5

			60-69	Gobo 6
			70-79	Gobo 7
			80-89	Gobo1 Shake    Slow to Fast
			90-99	Gobo2 Shake    Slow to Fast
			100-109	Gobo3 Shake    Slow to Fast
			110-119	Gobo4 Shake    Slow to Fast
			120-129	Gobo5 Shake    Slow to Fast
			130-139	Gobo6 Shake    Slow to Fast
			140-149	Gobo7 Shake    Slow to Fast
			150-199	Forward Rotation    Fast to Slow
			200-255	Backward Rotation Slow to Fast
CH10	CH9	Gobo Rotation (only working with spot mode in CH14/17)	0-63	0-400°
			64-126	Forward Rotation    Fast to Slow
			127-128	Stop
			129-191	Backward Rotation Slow to Fast
			192-255	Forward/Backward Rotation Slow to Fast
CH11	/	Gobo Fine	0-255	
CH12	CH10	Animation	0-14	Open
			15-29	Gobo 1
			30-44	Gobo 2
			45-59	Gobo 3
			60-74	Gobo 4
			75-89	Gobo 1 Shake    Slow to Fast
			90-104	Gobo 2 Shake    Slow to Fast
			104-114	Gobo 3 Shake    Slow to Fast
			115-127	Gobo 4 Shake    Slow to Fast
			128-255	Gobo 5    Slow to Fast
CH13	CH11	Focus	0-255	Far-Close
CH14	/	Focus Fine	0-255	Far-Close
CH15	CH12	Zoom	0-255	Small-Big
CH16	CH13	Prism 1	0-127	No Function
			11-132	8-Facet Prism
			133-255	Linear Prism
CH17	CH14	Prism 1 Rotation	0-63	0-400°    Prism Fine
			64-126	Forward Rotation Fast to Slow
			127-128	Stop
			129-191	Backward Rotation Slow to Fast
			192-255	Forward/Backward Rotation

				Slow to Fast
CH18	CH15	Prism 2	0-127	No Function
			11-132	16-Facet Prism
			133-255	25-Facet Prism
CH19	CH116	Prism 2 Rotation	0-63	0-400° Prism Fine
			64-126	Forward Rotation Fast to Slow
			127-128	Stop
			129-191	Backward Rotation Slow to Fast
			192-255	Forward/Backward Rotation Slow to Fast
CH20	CH17	Mode	000-126	Beam Mode
			127-191	Gobo Mode
			192-255	Wash Mode
CH21	CH18	Pan	0-255	0-540°
CH22	CH19	Pan Fine	0-255	0-2°
CH23	CH20	Tilt	0-255	0-270°
CH24	CH21	Tilt Fine	0-255	0-1°
CH25	CH22	Speed	0-255	Fast to Slow
CH26	CH23	Reset	0-090	No Function
			100-105	Lamp Off
			200-205	Lamp On
			240-255	Reset

## Cleaning!

Due to fog residue, smoke, and dust cleaning the internal and external optical lenses must be carried out periodically to optimize light output.

1. Use normal glass cleaner and a soft cloth to wipe off the outside casing.
2. Clean the external optics with glass cleaner and a soft cloth every 20 days.
3. Always be sure to dry all parts completely before plugging the unit back in.

Cleaning frequency depends on the environment in which the unit operates (i.e. smoke, fog residue, dust, dew).

## Unit not responding to DMX:

Check that the DMX cables are connected properly and are wired correctly (pin 3 is “hot”; on some other DMX devices pin 5 may be “hot”). Also, check that all cables are connected to the right connectors; it does matter which way the inputs and outputs are connected.