# User manual



# 460 LED BSW

Please read the instructions carefully before use

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### **STATEMENT**

The product has well capability and intact packing when leave factory. All of the user should comply with warning item and manual, any misuse cause of the damages are not included in our guarantee, and also can not be responsible for any malfunction & problem owing to ignore the manual.

### 1.Safety Instructions

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

- •Unpack and check carefully there is no transportation damage before using the unit.
- •Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- •It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- •The unit is for indoor use only. Use only in a dry location.
- •The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- •Disconnect main power before replacement or servicing.
- •Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- •Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- •Maximum ambient temperature is Ta: 40 °C. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85 °C. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- •the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- •DO NOT touch any wire during operation as high voltage might be causing electric shock.

### Warning:

- •To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- •The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

#### Caution:

•There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer

#### Installation:

- •The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.
- •The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people.

## 2.Technical Specifications

460W LED BSW 3-in-1 moving head

Optics:

Life:>30000H

Beam angle:2°-38°

Input power:500W

AC100-240V 50-60HZ

Color temperature: 2500k-5600k

Pan movement:540°(16bit)

Tilt movement:270°(16bit)

Color: CMY+CTO color mixing system

1 color plate: 8 color plates + white light, half-color effect

Gobo: 1 effect plate

1 rotating gobo wheel: 8 gobos+white

1 fixed pattern plate: 10 pattern pieces + white

Prism: 3 face prism+5 face prism

High-speed strobe: 0-30 times/sec, Adjustable speed strobe effect, Strobe macro function

Focusing system: clearly linear adjustment focus

Atomizing mirror: atomizing diffuser

Dimming: fast electric iris 5-100% linear adjustment; 0-100% linear dimming

Display: 2.8-inch colorful LCD touch screen

#### Features:

DMX Channels:25channels

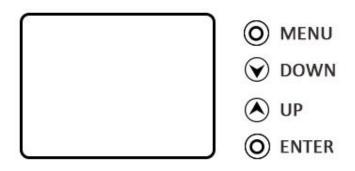
Control: DMX 512, RDM

Dimension: 36\*29\*66 cm (L\*W\*H); NW: 21 kg

## 3.Control Menu

### **Menu Operation**

On the base of the control panel offers a number of features, such as setting DMX fixture address, switch the lamp, run the test program, the mode selection.



	DMX Address	001-512	
		Dmx Mode	25CH
		Run Mode	DMX/Host
		Pan Invert	Close/Open
	Fixture Set	Tilt Invert	Close/Open
		Dimmer Fast	Close/Open
		No DMX State	Clear/Keep
		Exit	
Sottings		Language	CH/EN
Settings	Dianlay	Display Flip	Close/Open
	Display	Display Mode	60S/Show
		Exit	
		XY Reset	Cancel/Run
		Motor Reset	Cancel/Run
	Reset	All Reset	Cancel/Run
		Factory	Cancel/Run
		Exit	
	Exit		
	Time	Current Time	xxxxxH
		Total Time	xxxxxH
		Power Count	xxxxxH
	Sensor	Pan	
Info	CC1301		
		Panel	Vxx.x
	Software Version	XY	Vxx.x
		Motor	Vxx.x
	Exit		
	Pan	000-255	
Manual	Pan Fine	000-255	
,		000-255	
	Exit		

	Password	000-255	
	Pan	000-255	
Factory	Tilt	000-255	
		000-255	
	Exit		

## 4.DMX Channels

### DMX channel's functions and values (25DMX channels)

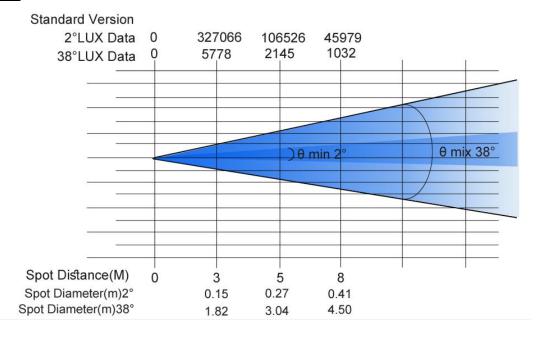
Standard mode	DMX Value	Function
1	0-255	Pan
2	0-255	Pan Low
3	0-255	Tilt
4	0-255	Tilt Low
5	0-255	P/T Speed
		Macro function
	0-199	Reserve
	200-209	XY Reset
6	210-219	Effect Reset
	220-229	All Reset
	230-255	Reserve
		Shutter
	0-3	Closed
	4-103	STROBE SLOW to FAST
7	104-107	Open
7	108-207	Invert STROBE SLOW to FAST
	208-212	Open
	213-251	Random Strobe SLOW - FAST
	252-255	Open
0		Dimmer
8	0-255	Linear Dimmer
9		CMY-C
9	0-255	Linear
40		CMY-M
10	0-255	Linear
4.4		CMY-Y
11	0-255	Linear
12		СТО

	0-255	Linear
		Colour
	0-4	White
	5-9	White+Colour 1
	10-14	Colour 1
	15-19	Colour 1+Colour 2
	20-24	Colour 2
	25-29	Colour 2 + Colour 3
	30-34	Colour 3
	35-39	Colour 3 + Colour 4
	40-44	Colour 4
40	45-49	Colour 4 + Colour 5
13	50-54	Colour 5
	55-59	Colour 5 + Colour 6
	60-64	Colour 6
	65-69	Colour 6 + Colour 7
	70-74	Colour 7
	75-79	Colour 7 + Colour 8
	80-84	Colour 8
	85-89	Colour 8 + Colour 9
	90-170	FAST ROTATION - SLOW ROTATION
	171-174	STOP
	175-255	SLOW ROTATION - FAST ROTATION
		Static Gobo
	0-9	white1
	10-19	white2
	20-29	Gobo 1
	30-39	Gobo 2
	40-49	Gobo 3
14	50-59	Gobo 4
	60-69	Gobo 5
	70-79	Gobo 6
	80-89	Gobo 7
	90-99	Gobo 8
	100-109	Gobo 9
	110-119	Gobo 1 Jitter

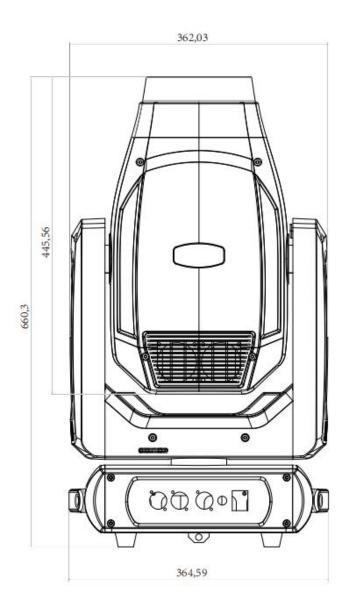
120-129   Gobo 2 Jitter	Г		<u> </u>
140-149 Gobo 4 Jitter 150-159 Gobo 5 Jitter 160-169 Gobo 6 Jitter 170-179 Gobo 7 Jitter 180-189 Gobo 8 Jitter 190-199 Gobo 9 Jitter 200-225 FAST ROTATION - SLOW ROTATION 226-229 STOP 230-255 SLOW ROTATION - FAST ROTATION Rot Gobo 0-9 white 10-19 Gobo 2 -1 20-29 Gobo 2 -2 30-39 Gobo 2 -2 30-39 Gobo 2 -3 40-49 Gobo 2 -4 50-59 Gobo 2 -5 60-69 Gobo 2 -5 60-69 Gobo 2 -7 80-89 Gobo 2 -7 80-89 Gobo 2 -3 Jitter 100-109 Gobo 2 -3 Jitter 110-119 Gobo 2 -3 Jitter 110-129 Gobo 2 -5 Jitter 110-129 Gobo 2 -5 Jitter 110-149 Gobo 2 -5 Jitter 110-159 Gobo 2 -5 Jitter 150-159 Gobo 2 -5 Jitter 160-169 Gobo 2 -8 Jitter 170-213 FAST ROTATION - SLOW ROTATION 214-255 SLOW ROTATION - FAST ROTATION 191-192 STOP		120-129	Gobo 2 Jitter
150-159   Gobo 5 Jitter		130-139	Gobo 3 Jitter
160-169 Gobo 6 Jitter 170-179 Gobo 7 Jitter 180-189 Gobo 8 Jitter 190-199 Gobo 9 Jitter 200-225 FAST ROTATION - SLOW ROTATION 226-229 STOP 230-255 SLOW ROTATION - FAST ROTATION Rot Gobo 0-9 white 10-19 Gobo 2 -1 20-29 Gobo 2 -2 30-39 Gobo 2 -3 40-49 Gobo 2 -3 40-49 Gobo 2 -5 60-69 Gobo 2 -5 60-69 Gobo 2 -7 80-89 Gobo 2 -7 80-89 Gobo 2 -1 Jitter 100-109 Gobo 2 -1 Jitter 100-109 Gobo 2 -2 Jitter 110-119 Gobo 2 -3 Jitter 120-129 Gobo 2 -5 Jitter 140-149 Gobo 2 -5 Jitter 150-159 Gobo 2 -5 Jitter 150-159 Gobo 2 -7 Jitter 160-169 Gobo 2 -8 Jitter 170-213 FAST ROTATION - SLOW ROTATION 214-255 SLOW ROTATION - FAST ROTATION 191-192 STOP		140-149	Gobo 4 Jitter
170-179		150-159	Gobo 5 Jitter
180-189 Gobo 8 Jitter  190-199 Gobo 9 Jitter  200-225 FAST ROTATION - SLOW ROTATION  226-229 STOP  230-255 SLOW ROTATION - FAST ROTATION  Rot Gobo  0-9 white  10-19 Gobo 2 -1  20-29 Gobo 2 -2  30-39 Gobo 2 -3  40-49 Gobo 2 -4  50-59 Gobo 2 -5  60-69 Gobo 2 -6  70-79 Gobo 2 -7  80-89 Gobo 2 -3 Jitter  100-109 Gobo 2 -3 Jitter  110-119 Gobo 2 -3 Jitter  120-129 Gobo 2 -5 Jitter  120-129 Gobo 2 -5 Jitter  130-139 Gobo 2 -5 Jitter  140-149 Gobo 2 -5 Jitter  140-149 Gobo 2 -5 Jitter  150-159 Gobo 2 -6 Jitter  140-149 Gobo 2 -6 Jitter  150-159 Gobo 2 -6 Jitter  160-169 Gobo 2 -8 Jitter  170-213 FAST ROTATION - SLOW ROTATION  214-255 SLOW ROTATION - FAST ROTATION  191-192 STOP		160-169	Gobo 6 Jitter
190-199 Gobo 9 Jitter 200-225 FAST ROTATION - SLOW ROTATION 226-229 STOP 230-255 SLOW ROTATION - FAST ROTATION Rot Gobo 0-9 white 10-19 Gobo 2 -1 20-29 Gobo 2 -2 30-39 Gobo 2 -3 40-49 Gobo 2 -5 60-69 Gobo 2 -6 70-79 Gobo 2 -7 80-89 Gobo 2 -3 Jitter 100-109 Gobo 2 -1 Jitter 100-109 Gobo 2 -2 Jitter 110-119 Gobo 2 -3 Jitter 110-119 Gobo 2 -5 Jitter 110-119 Gobo 2 -5 Jitter 110-149 Gobo 2 -5 Jitter 110-159 Gobo 2 -5 Jitter 140-149 Gobo 2 -5 Jitter 150-159 Gobo 2 -5 Jitter 160-169 Gobo 2 -5 Jitter 170-213 FAST ROTATION - SLOW ROTATION 214-255 SLOW ROTATION - FAST ROTATION 191-192 STOP		170-179	Gobo 7 Jitter
200-225		180-189	Gobo 8 Jitter
226-229   STOP		190-199	Gobo 9 Jitter
230-255   SLOW ROTATION - FAST ROTATION		200-225	FAST ROTATION - SLOW ROTATION
Rot Gobo		226-229	STOP
0-9   white		230-255	SLOW ROTATION - FAST ROTATION
10-19			Rot Gobo
20-29   Gobo 2 -2		0-9	white
30-39   Gobo 2 -3		10-19	Gobo 2 -1
40-49   Gobo 2 -4		20-29	Gobo 2 -2
Solution   Gobo 2 - 5   Gobo 2 - 5   Gobo 2 - 6   To - 79   Gobo 2 - 7   Solution   Gobo 2 - 8   Gobo 2 - 8   Gobo 2 - 8   Gobo 2 - 1 Jitter   Gobo 2 - 2 Jitter   Gobo 2 - 2 Jitter   Gobo 2 - 3 Jitter   Gobo 2 - 4 Jitter   Gobo 2 - 5 Jitter   Gobo 2 - 5 Jitter   Gobo 2 - 5 Jitter   Gobo 2 - 6 Jitter   Gobo 2 - 6 Jitter   Gobo 2 - 7 Jitter   Gobo 2 - 7 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 7 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   Gobo 2 - 8 Jitter   To - 213   FAST ROTATION - SLOW ROTATION   Gobo 2 - 8 Jitter   To - 213   Gobo 2 - 8 Jitter   To - 213   Gobo 2 - 2		30-39	Gobo 2 -3
15   Gobo 2 -6		40-49	Gobo 2 -4
To-79   Gobo 2 -7		50-59	Gobo 2 -5
Sobo 2 - 8   Gobo 2 - 8     Gobo 2 - 1 Jitter     100-109   Gobo 2 - 2 Jitter     110-119   Gobo 2 - 3 Jitter     120-129   Gobo 2 - 3 Jitter     130-139   Gobo 2 - 5 Jitter     130-139   Gobo 2 - 5 Jitter     140-149   Gobo 2 - 6 Jitter     150-159   Gobo 2 - 7 Jitter     160-169   Gobo 2 - 8 Jitter     170-213   FAST ROTATION - SLOW ROTATION     214-255   SLOW ROTATION - FAST ROTATION   Gobo2/Rot     0-127   Linear     128-190   FAST ROTATION - SLOW ROTATION     191-192   STOP     STOP		60-69	Gobo 2 -6
15   90-99   Gobo 2 -1 Jitter		70-79	Gobo 2 -7
90-99   Gobo 2 -1 Jitter	45	80-89	Gobo 2 -8
110-119   Gobo 2 -3 Jitter     120-129   Gobo 2 -4 Jitter     130-139   Gobo 2 -5 Jitter     140-149   Gobo 2 -6 Jitter     150-159   Gobo 2 -7 Jitter     160-169   Gobo 2 -8 Jitter     170-213   FAST ROTATION - SLOW ROTATION     214-255   SLOW ROTATION - FAST ROTATION     Gobo2/Rot     0-127   Linear     16   128-190   FAST ROTATION - SLOW ROTATION     191-192   STOP	15	90-99	Gobo 2 -1 Jitter
120-129   Gobo 2 -4 Jitter		100-109	Gobo 2 -2 Jitter
130-139   Gobo 2 -5 Jitter		110-119	Gobo 2 -3 Jitter
140-149   Gobo 2 -6 Jitter     150-159   Gobo 2 -7 Jitter     160-169   Gobo 2 -8 Jitter     170-213   FAST ROTATION - SLOW ROTATION     214-255   SLOW ROTATION - FAST ROTATION     Gobo2/Rot     0-127   Linear     128-190   FAST ROTATION - SLOW ROTATION     191-192   STOP		120-129	Gobo 2 -4 Jitter
150-159   Gobo 2 -7 Jitter     160-169   Gobo 2 -8 Jitter     170-213   FAST ROTATION - SLOW ROTATION     214-255   SLOW ROTATION - FAST ROTATION     Gobo2/Rot     128-190   FAST ROTATION - SLOW ROTATION     191-192   STOP		130-139	Gobo 2 -5 Jitter
160-169   Gobo 2 -8 Jitter		140-149	Gobo 2 -6 Jitter
170-213 FAST ROTATION - SLOW ROTATION 214-255 SLOW ROTATION - FAST ROTATION  Gobo2/Rot  0-127 Linear  16 128-190 FAST ROTATION - SLOW ROTATION 191-192 STOP		150-159	Gobo 2 -7 Jitter
214-255   SLOW ROTATION - FAST ROTATION		160-169	Gobo 2 -8 Jitter
Gobo2/Rot		170-213	FAST ROTATION - SLOW ROTATION
16 0-127 Linear 16 128-190 FAST ROTATION - SLOW ROTATION 191-192 STOP		214-255	SLOW ROTATION - FAST ROTATION
16 128-190 FAST ROTATION - SLOW ROTATION 191-192 STOP			Gobo2/Rot
191-192 STOP		0-127	Linear
	16	128-190	FAST ROTATION - SLOW ROTATION
400.055		191-192	STOP
193-255 SLOW ROTATION - FAST ROTATION		193-255	SLOW ROTATION - FAST ROTATION

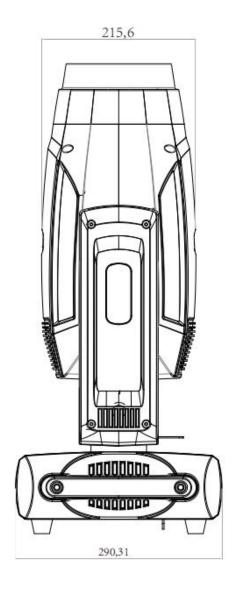
17		Prism-1
	0-255	Prism-1
		Prism-1/Rot
	0-127	Rotation
18	128-189	FAST ROTATION - SLOW ROTATION
	190-192	STOP
	193-255	SLOW ROTATION - FAST ROTATION
19		Prism-2
19	0-255	Prism-2
		Prism-2/Rot
	0-127	Rotation
20	128-189	FAST ROTATION - SLOW ROTATION
	190-192	STOP
	193-255	SLOW ROTATION - FAST ROTATION
		Frost
21	0-127	Reserve
	128-255	Frost
22	0-255	Focus
23	0-255	Focus Fine
24		Zoom
	0-255	Linear Zoom
25	0-255	Zoom Fine

## 5.LUX Date



## 6.Trouble Shooting





### 7.Trouble Shooting

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 connection of power and main fuse.
- 2. Measure the mains voltage on the main connector.
- 3. Check the power on LED.

#### B. Not responding to DMX controller

- 1. DMX LED should be on. If not, check DMX connectors, cables to see if link 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 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

## 8.Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

Clean with soft cloth using normal glass cleaning fluid.

Always dry the parts carefully.

Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.