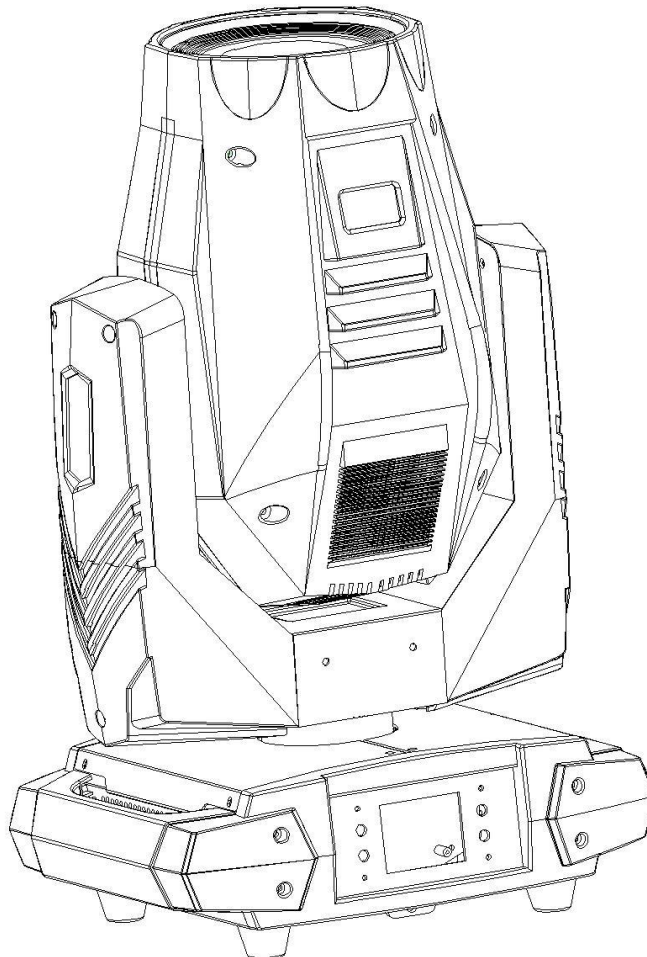


HL-150BSW LED

USER MANUAL



The LED BSW 3-in-1 is a powerful LED Moving Head to date. It uses a specially designed 150W LED engine that offers massive output for most large venues and event productions. It is a great hybrid utility fixture as it acts as a beam, spot and wash all in one fixture. What's more, is it comes in a smaller footprint than most other movers in its class.

The LED BSW 3-in-1 offers motorized focus, motorized zoom, circular rotating prism, 1 color wheel, 2 GOBO wheels (1 wheel fixed metal & one wheel rotating/replaceable GOBOs). There is a LCD function display on the front panel, with the rear panel offering powerCON In/Out and 3-pin DMX connections.

Protect the LED BSW 3-in-1 during storage and transport with the road case..

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1. Safety Instructions

- Before using this product, please observe carefully the product is not unwrap or damage during transportation.
- As a result of damage during transporting , please do not use the lights, and contact with the dealer or manufacturer. If you have questions about how to operate the fixture safely, please contact us by calling the 24-hour service hot line on +86 -02036633371.
- Before running products, to ensure that the voltage and Hertz in accordance with the requirements of lights.
- It's very important, connecting ground wire to avoid the electric shock.
- This product is for dry indoor environment.
- This product must be installed on the sufficient space, adjacent to interface the shortest distance of 50 cm, to ensure that the lights will not crash each other.
- Before moving or repairing the product, please unplug the power.
- When it working, ensure that no inflammable and explosive near objects.
- When handling this product, lift the armrest base, rather than the lamp body.
- This product is suitable for a maximum temperature of 40 degrees Celsius, when the surrounding environment is higher than 40 degrees Celsius, please do not use this product.
- Do not touch when working, the product runs very fast. Prevent hand injury.
- Problems happens when operating performances, should immediately stop using the lights.
- Do not carry out maintenance, repair damage caused or likely to cause other problems.
- Please contact the company's maintenance repair. During the repair process, use the same type of accessories.
- Please read the instructions carefully, especially regarding the installation, using, maintenance parts.
- Always transport the lighting in a packed anti-shock protection carton or flight case

2. Technical Parameters

Optical

- Light Source: 150W White LED
- Beam Angle: 8° to 30°
- Spot Angle: 30°
- Wash Angle: 10° to 37°

Specifications

- Pan / Tilt Range: 540° / 270°
- Color Wheel 1: 8 + Open
- GOBO Wheel 1: 6 Fixed + 4 Open
- GOBO Wheel 2: 6 Rotating/Replaceable + Open
- Shutter: Electronic
- Focus: Motorized
- Frost: 37° (Wash)
- Prism: Rotating Circular Prism (Inner circular 8 facet prism + outer circular 16 facet prism)
- Dimensions (LxWxH): 9.15" x 6.75" x 14.1" / 305 x 225 x 470mm
- Weight: 22.7 lbs. / 10.3 kg.

Connections

- Power Input: powerCON
- Power Pass through: powerCON @ 220V

Control

- Control Channels: 17
- DMX Modes: 3
- Control: 3-pin DMX
- Pan / Tilt Correction: Automatic

Electrical

- Input Voltage: 100-220V 50Hz/60Hz (Auto Sensing)
- Power draw 120V 60Hz: 205W, 1.72 Amps, PF 0.99
- Power draw 220V 50Hz: 205W, 0.93 Amps, PF 0.99

Certifications

- CE, ROHS
- IP 20: Dry area, No liquids

What's Included

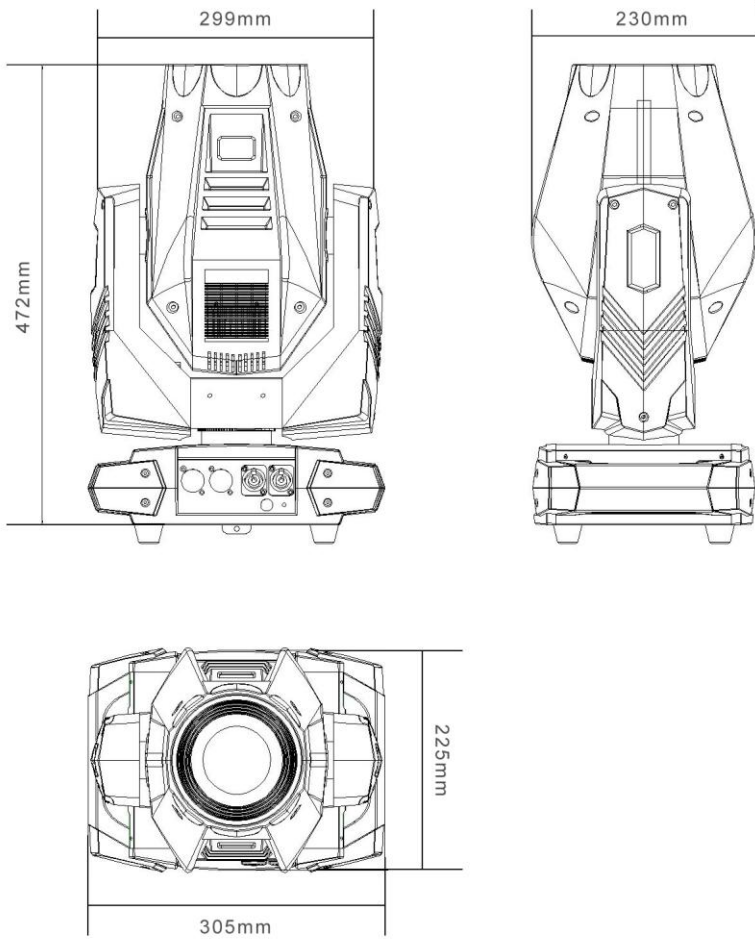
- Power Cable- 1.2M/3.6' PowerCON
- Qty: 2 Clamps
- Powercon In & Out
- Manual

Optional Accessories

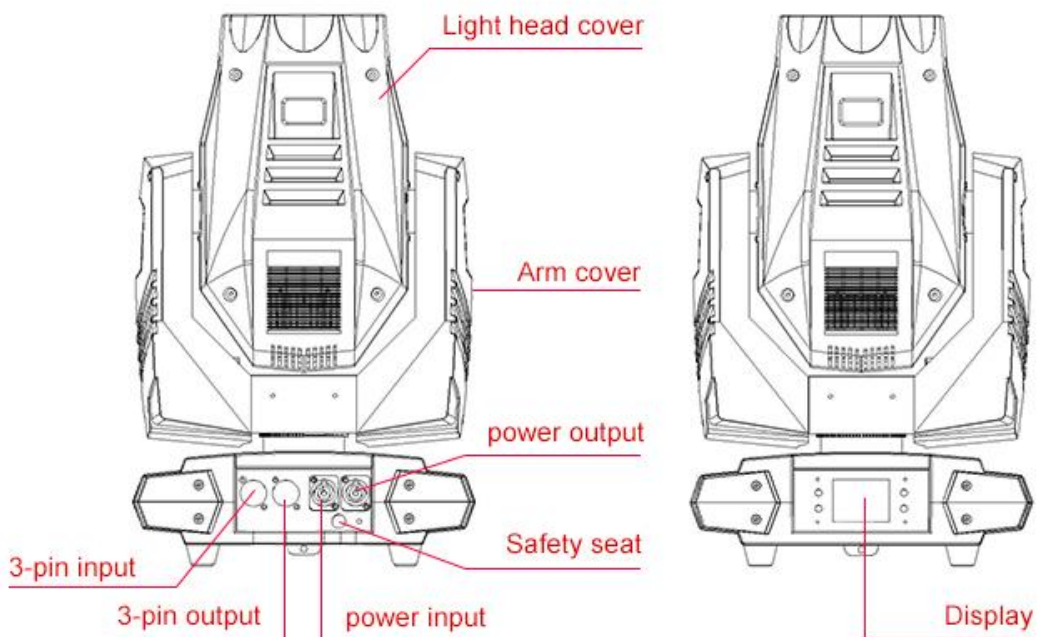
- Road Case (Fits 2)

3. Schematic Lighting Components

Dimensions



Parts



4. Packing And Shipping

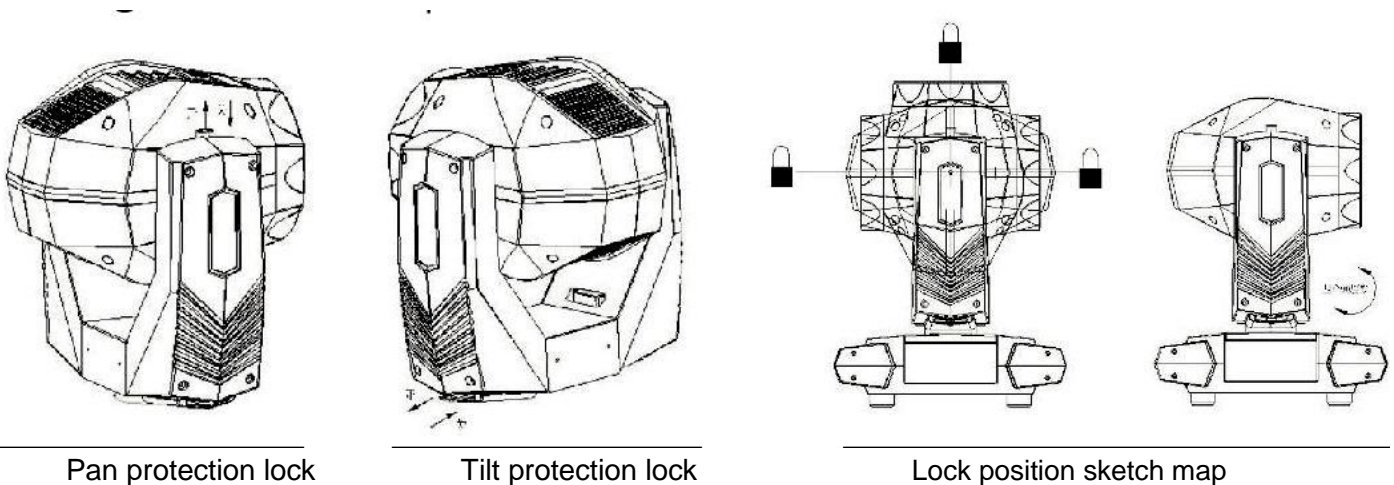
4.1 Packing

Moving Head LED light is packaged by carton or standard 2in1flight case.(selectable 1in1 or 4in1), Random accessories items shown below

Name	Quantity	Unit
User Manual	1	piece
Signal Line	1	piece
Powercon In & Out	1	set
Hanging lamp hook and fastener	2	piece
Power line	1	piece

4.2 Transport protection locks

In order to transport it easy to protect the lamp body has two locks (XY axes each a lock), X-axis has four lock position, Y-axis triple lock, lock locked in the center position in the transportation and light a vertical position with the arm member



4.3 Packing

1. Disconnect the power supply so that the lamp to cool completely before packaging equipment, at least 15 minutes or more.
2. Close the light protect lock, when cleaning the surface of the light dust
3. Cover the light, seize the equipment both aluminum handles on to make it upside down and gently placed in the box.
4. Add lighting accessories after placing the light in box.
5. Up to two crates stacked prohibited upside down.

4.4 Unpacking

1. Open the box and bag
2. Seizing the equipment handles, lifting and carrying away the light from the box .Or opening the flight case cover placing lift boom close to the light base, then equipping light hook on light base bottom tightening Quick Install locks. At last rising away boom to the top of the lamp from flight case, put the flight case away.
3. Before turing on the light,should open the light protecting lock

Note:

Upon receipt of lamps, please check if there is damage to the fold closure caused by transport, where there is transportation damage, please do not use this fixture, and contact us as soon as possible

Users should ensure that light and installation materials are checked for regular safety checks, Unprofessional incorrect installation can lead to dangerous, if the lack of working conditions and professional standards, please operate the light by professionals. Do not use the light if the working temperature isn't -15° - 40° .When the lighting installation, dismantling, moving, or servicing, do not stand directly beneath the lamp. The operator must ensure that the fixtures are securely connected, installing the light after professionals approving electrical parameters make sure that these installation must be checked at least once per year by experts.

5. Installation

5.1 Installing rigging

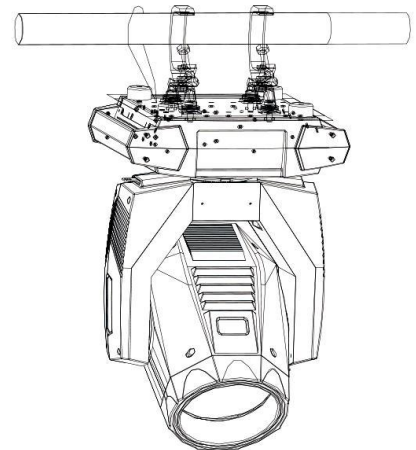
150W LED 3 In 1 moving head lights can be placed on the stage or on a stand in any direction. Quick lock system can quickly and easily remove or install a light hook.

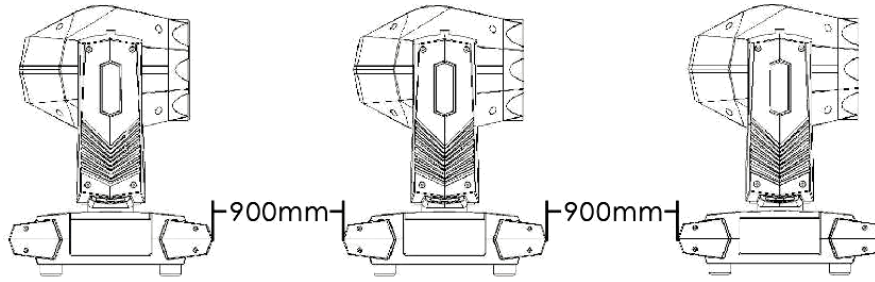
Note:

Must use two clamps fixed equipment, and are 1/4 buckle fastening jig, only fully rotated 90 degrees clockwise to lock fastener.

5.2 Fixed equipment

1. Before installing fixtures must verified rigging equipments are not damaged, and can bear at least 10 times of light's weight. Check the building can be beared at least 10 times of total weights of light, fixture, and cable accessories
2. Insert the locked hook fastener into base mounting holes horizontally, grab the handle clockwise 90 degrees fasteners, in the same way to install a second fastener, make sure the fastener is fastened under the light base.
3. If truss can be lifted the equipment can be directly clamped from flight case and locked fixture base. Then hung on the light and fixed it. Before rising the light to right height, connect the power cord and signal cable.





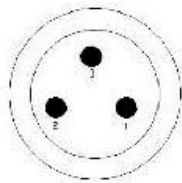
Lights must be placed vertically upward. The shortest distance between working lights must be more than or equal to 900mm. Layout the lighting installation as shown above..

5.3 Data cable

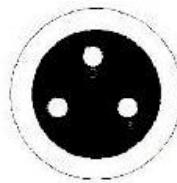
Data cable is DMX512 signal

Signal line connections is X-type connector, X-type connector-----If the external flexible cable or cord of this light is damaged, please replace professional cable or cord from the manufacture or its agent.Lights' DMX input and output connects to a three-pin XLR, first pin is grounded, then negative signal is second pin, third pin connects to the positive polarity signal.

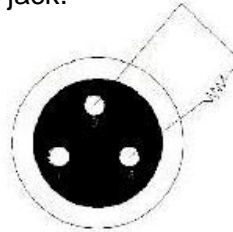
In order to prevent reception reflection and interference control signal, a terminal plug must be installed on the first branch of the connected device last 3-pin output jack.



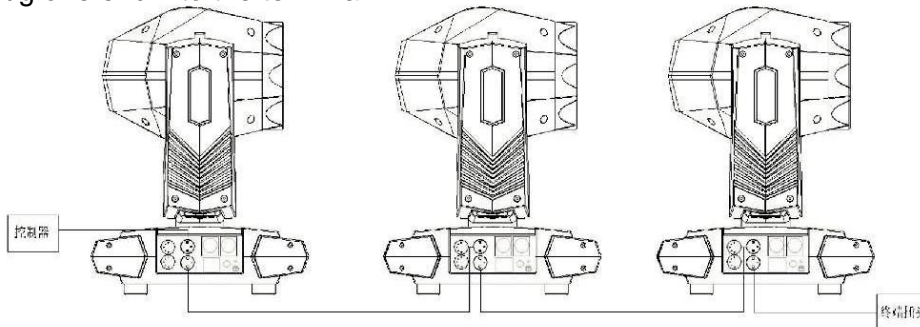
3XLR plug
1.Grounding
2.Signal-
3.Signal+



Terminal plug connect with XLR plug second or third by a 0.25w 120ohm resistor, then connect the resistor into last light's DMX output jack



The controller connects to the nearest input XLR 3-pin, then from the output of the device connects to the input of the next device, continuous connection one by one, the final output data cable terminal equipment plug one end into the terminal.



If the signal transmission is long-distance , 512 signal amplifier must be added. DMX512 signal controller connect to the input of the amplifier first, then connect to the fixture from its output, couple with the terminal plug last.

Do not use two separate output connections. To connect the branch, a separating consecutive DMX512 signal amplifier must be used to separate.

Please use the shielded twisted-pair cable. Standard microphone cables can not be reliably controlled long-distance data.

6. AC Power

6.1 Fuse Size

Power: 100-240v~

Fuse: 4A 5 * 20 main fuse

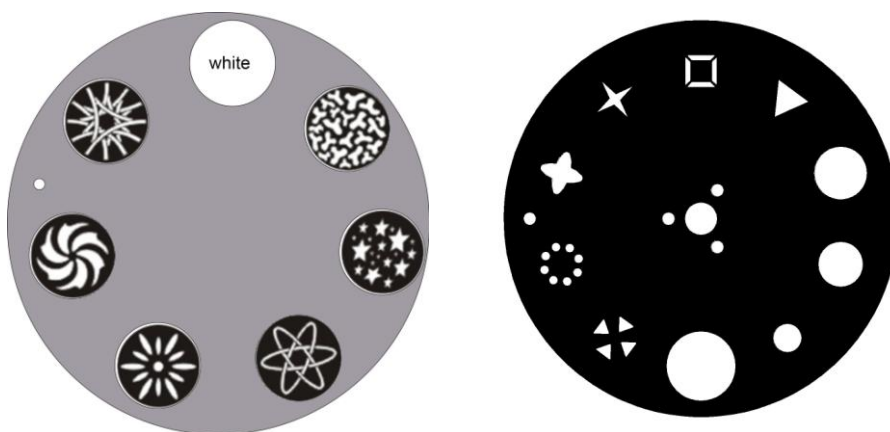
6.2 Power Connection

If the external flexible cable or cord of this light is damaged, the line is up to the manufacturer or its service agent or a similar qualified person to replace, in order to avoid danger. Connect the power supply personnel must have the appropriate qualifications before proceeding, you must make sure you are using the power supply voltage matches the voltage identified and have overload or leakage protection. Directly connect the device to the power supply, do not connect to the silicon box dimming system, otherwise damage to the equipment.

7. Dynamic Effects

7.1 Gobo wheel

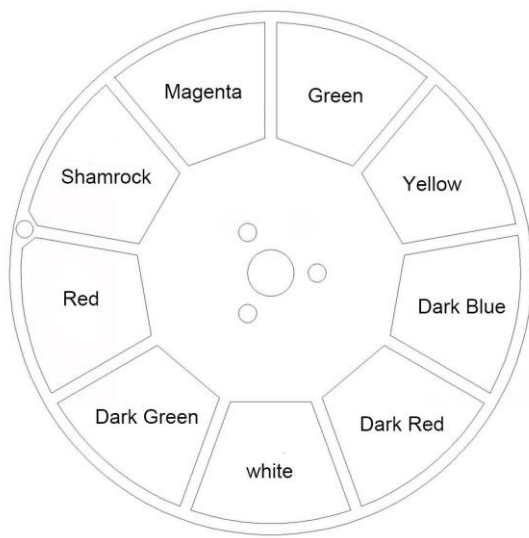
A 6 rotating gobo +1 open composed of glass gobo wheel, customers could change them according to the needs of their own custom a variety of simple gobos. A static gobo wheel made of 6 fixed gobo +4 open



7.2 Color Wheel

One color wheel is with 8 colors.

The color can be customized.



7.3 Optical Lens focus/zoom

Adjust the optical lens, using mute sound motor + zoom system to make the gobo clearly.

7.4 Prism

The circular prism can be clockwise & counter-clockwise direction rotating and the speed can be adjustable. Perfect match color & gobo, adding rotating effect, can create a variety of gorgeous dynamic lighting effects.

7.5 Dimmer & Shutter

0-100% Mechanical Dimmer.

The dimmer can be operated immediately. The shutter speed can be adjusted and the highest speed can be up to 25times/seconds. Shutter: Pulse effect; random strobe slow to fast (0.5-9F.P.S)

7.6 Frost

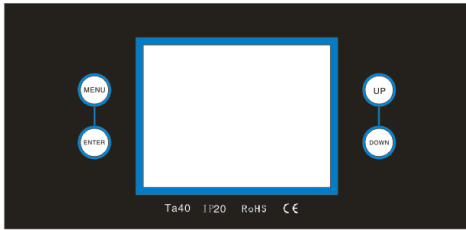
Compose of a piece of frost, can achieve spot zoom to complete the soft effect according to the actual control.

7.7 PAN & TILT MOVEMENT

PAN:540 Tilt:270 16 Bit

PAN&TILT movement speed can be adjusted

8. LCD Control



First level menu	Second level menu	Third level menu
Setup	Channel Mode	Standard
		Extend
	Dmx Address	Address 001-512
	Auto Mode	
	Sound Mode	Sensibility 0-100%
Option	Pan invert	No
		Yes
	Tilt invert	No
		Yes
	P/T Encoder	No
		Yes
	Display	off
		On
		Auto
	Fan intelligent	No
		Yes
	Languge	English
Chinese		
Dimmer curve	Curve 1	
	Curve 2	
	Curve 3	
	Curve 4	
Dimmer speed	01~16	
Information	Fixturs Hours	Total time
		Lamp on Time
		Power on Times
		Power on time
	System Info	Display info
		Motor Driver info
		LED driver info
DMX Monitor	CH01-CHXX	
Battery Minitor		
Manual control	Reset	All Motor Reset
		Pan Reset
		Tilt Reset
	Channel	CH01-CHXX

Manual Control –you can adjust beam spot wash

Beam - Setting adjustment

1. Press the ENTER button, then screen touch MAUNAL CONTROL and select Channel
2. Use the UP and DOWN buttons or screen touch to make your adjustments, make FIXATION GOBO value 013, FOCUS value 243, ZOOM value 007, then will show beam effect.

Spot- Setting adjustment

1. Press the ENTER button, then screen touch MAUNAL CONTROL and select Channel
2. Use the UP and DOWN buttons or screen touch to make your adjustments, make FOCUS value 097, ZOOM value 253, ROTATING GOBO value 036, then will show gobo effect.

Wash- Setting adjustment

1. Press the ENTER button, then screen touch MAUNAL CONTROL and select Channel
2. Use the UP and DOWN buttons or screen touch to make your adjustments, make FOCUS value 168, ZOOM value 253, ROTATING GOBO value 255, then will reach the maximum wash area.

9. DMX Channels

Channel	Value	Description
1		PAN MOVEMENT
2		PAN FINE
3		TILT MOVEMENT
4		TILT FINE
5	0-255	PAN & TILT FAST TO SLOW
6 Dimmer	0-255	Linear Dimming
7 Shutter	0-4	Shutter off
	5-64	Random shutter
	65-128	Regular shutter
	129-160	From dark to bright shutter
	161-192	From bright to dark shutter
	193-224	Shutter effect1
	225-249	Shutter effect2
	250-255	Shutter on
8 Color	0-8	White
	9-16	Color1+white
	17-24	Color1
	25-32	Color1+color2
	33-40	Color2
	41-48	Color2+color3
	49-56	Color3
	57-64	Color3+color4
	65-72	Color4
	73-80	Color4+ color 5
	81-88	Color 5
	89-96	Color 5+ color 6
	97-104	Color 6
	105-112	Color 6+ color7
	113-120	Color 7
	121-128	Color 7+ color 8
	129-136	Color 8
	137-144	Color 8+white
	145-200	Clockwise flow
	201-255	Counter-clockwise flow
9 Fixed gobo	0-6	White
	7-13	Gobo1
	14-20	Gobo 2
	21-27	Gobo 3
	28-34	Gobo 4
	35-41	Gobo 5
	42-48	Gobo 6
	49-55	Gobo 7
	56-62	Gobo 8
	63-69	Gobo 9
	70-76	Gobo 9 shake
	77-83	Gobo 8 shake

	84-90	Gobo 7 shake
	91-97	Gobo 6 shake
	98-104	Gobo 5 shake
	105-111	Gobo 4 shake
	112-118	Gobo 3 shake
	119-125	Gobo 2 shake
	126-132	Gobo 1 shake
	133-192	Gobo Clockwise flow
	193-255	Gobo Counter-clockwise flow
10 Rotating gobo	0-8	White
	9-17	Gobo1
	18-26	Gobo2
	27-35	Gobo3
	36-44	Gobo4
	45-53	Gobo5
	54-62	Gobo6
	63-72	Gobo6 shake
	73-82	Gobo5 shake
	83-92	Gobo4 shake
	93-102	Gobo3 shake
	103-112	Gobo2 shake
	113-122	Gobo1 shake
	123-132	white shake
133-193	Clockwise gobo flow	
194-255	Counter-clockwise gobo flow	
11 Gobo rotation	0-9	Off
	10-91	Gobo clockwise rotating
	92-173	Gobo Counter-clockwise rotating
	174-255	Gobo rotating back and forth
12 Prism	0-7	No prism
	8-36	Prism
	37-73	Prism1 macro
	74-110	Prism 2 macro
	111-147	Prism 3 macro
	148-184	Prism 4 macro
	185-221	Prism 5 macro
222-255	Prism 6 macro	
13 Prism Rotating	0-9	Prism shut
	10-91	Prism clockwise rotating
	92-173	Prism counter-clockwise rotating
	174-255	Prism rotating back and forth
14 Frost	0-255	Linear frost
15 Focus	0-255	Focus
16 Zoom	0-255	Linear Zooming
17 Reset	0-79	No function
	80-100	Auto
	101-255	Reset

10. Trouble Shooting

Listed below are a few common problems that you may encounter, with solutions.

Unit does not work, No light output and the fan does not work;

1. Check the power connection and main fuse.
2. Be sure the fuse holder is completely and properly seated.

Not responding to DMX Control;

1. Check the 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 the DMX controller polarity.
3. Try using another DMX controller.
4. Check to see if the DMX cables run near or run alongside to high voltage cable. It may cause damage or interference to DMX interface circuit.

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.

11. Cleaning

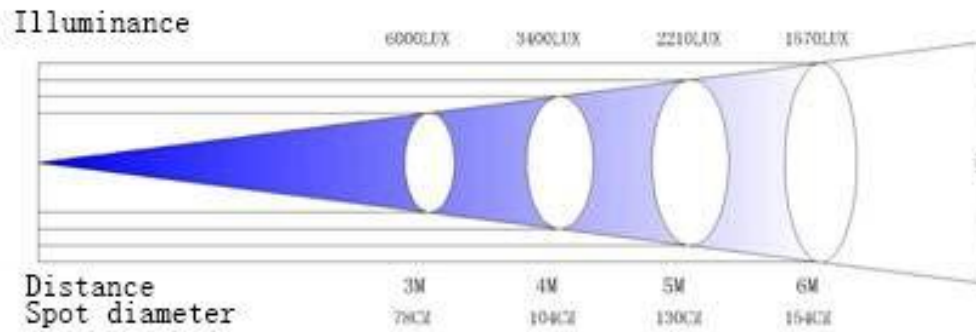
Regularly clean the outside of the optical lens focusing on the dust. Based on the number of lamps use a clean environment to determine: **Are they moist, smoked or is the surrounding environment particularly dirty, which can cause dust deposition lamps.**

Please use a glass cleaning solution and a soft cloth to wipe the focusing optical lens. Carefully dry each part. At least 20 days to clean the dust outside a lens, the lens inside 30-60 days to clean up the dust once. Regular inspection lamp fan and bottom case fan, a fan of at least 20\days to clean up dust deposition.

Cleaning must be executed in case of power failure.

12. Photometric Chart

150W LED 3 In 1 moving head light shine table



150W LED 3 In 1 moving head light shine table

