



250W Beam moving head



User manual

Notes and Installation Notes and Installation

Thank you for choosing our company's products! This product has good performance and complete packaging when it leaves the factory. For your safe and effective use of this product, please read this instruction manual carefully and completely before you use this product. This manual contains important information for installation and use. Please install and operate in accordance with 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 personal failure to follow the instructions during installation, use, and maintenance.

This manual is subject to technical changes without notice.

Maintenance

- Please disconnect the power before performing maintenance.
- The lamp should be kept dry and avoid working in a humid environment.
- Intermittent use will effectively extend the life of the lamp.
- In order to obtain good ventilation and lighting effects, it is necessary to clean the fan, fan net and lens frequently.
- Do not wipe the lamp housing with organic solvents such as alcohol to avoid damage.

Product precautions

- This lamp is for professional use only.
- Before operation, make sure that the power supply voltage matches the power supply voltage required by the equipment.
- Do not place the product in a place that is easy to loose or shake.
- Stop using the lamp in time if the lamp is abnormal during use.
- In order to ensure the service life of the product, this product must not be placed in a humid or leaking place, and it must not be used in an environment where the temperature exceeds 60 degrees.
- When the bulb is in use, the power supply voltage should not change more than $\pm 10\%$. Too high voltage will shorten the life of the bulb, and too low voltage will affect the light color of the bulb.
- After the power is cut off, it takes 20 minutes before the lamp is fully cooled before being powered on again.
- The rotating parts of the lamp and the pasted accessories must be checked regularly. If there is any looseness, the shaking should be reinforced in time to prevent accidents.
- To ensure the normal use of this product, please read this manual carefully.

Product introduction

- Light source power: Yodn 250W lamp;
- Voltage: AC 90V~240V,50~60Hz;
- Color wheel: each color wheel is composed of 13 color chips + white light;
- Gobo plate: 14 pattern effects;
- Lens diameter:147mm
- 3 group prism:8+16prism;16+24prism;two group prism combination effect;
- Rainbow prism

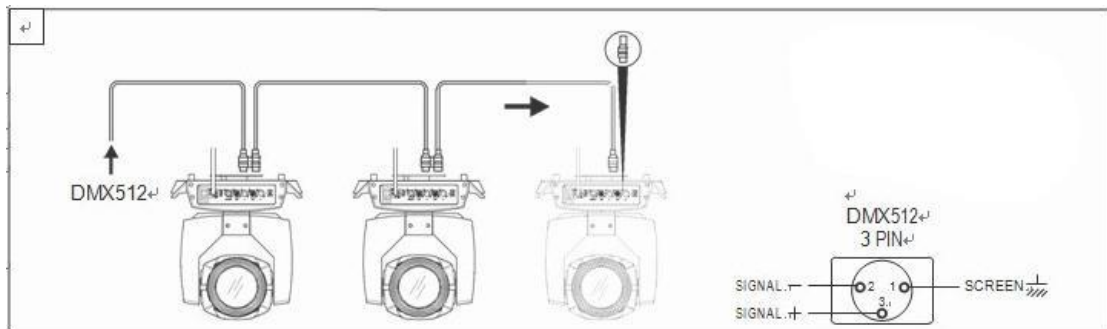
- Prism rotation
- Beam spot wash 3in1
- Focus 0~100%,frost
- Liner dimmer0~100%
- Powercon in and out
- DMX 3pin in and out
- 540° pan, 270° tilt。
- Overheat protection;
- Control mode: DMX512/master-slave/auto, master and slave;
- Silent fan system
- IP20 protection level
- Package:1in1 carton (G.W:16.5KG)
- 2in1 flightcase

1.2 Signal line connection

The lamp is equipped with standard DMX input and output 3-pin sockets. Please use shielded twisted pair signal wire specially designed for DMX 512; the signal wire is generally connected at a distance of 150 meters, and DMX512 signal amplifier must be added for long distance signal transmission.

Use a shielded twisted pair signal cable to connect from the DMX output port of the controller to the DMX input port of the first device, and from the DMX output port of the first device to the DMX input port of the second device, and so on, Until all the lamps are connected, install a terminal plug on the output 3-pin jack of the last connected lamp of each connection. (Weld a 4/1W, 120Ω resistor between the 2 and 3 pins of the 3-pin XLR plug).

Important note: the wires cannot touch each other or the metal shell.



➤ Figure 1 Diagram of DMX signal line connection

Calculation method of lamp start address code:

The starting address code of the current fixture is equal to (the starting address code of the previous fixture) + (the number of channels of the fixture)

1: The starting address code value of the first lamp is A001.

2: The number of basic channels of the controller should be greater than or equal to the total number of channels used by the lamp.

3: Note: When using any controller, each lamp must have its own start address code. If the start address code of the first lamp is set to A001, the number of channels of the lamp is 16CH; then The start address code of the two lamps is set to A017; the start address code of the third lamp is set to A033; and so on, (this setting method also needs to be

determined according to different **consoles**)

1.1 Fixture Lamp installation

The lamps can be placed horizontally, hung diagonally and upside down. Pay attention to the installation method when hanging diagonally and upside down.

As shown in Figure 2, before locating the luminaire, ensure the stability of the installation site. When reversing the hanging installation, you must ensure that the luminaire does not fall down on the support frame. You need to use a safety rope to pass through the support frame and the luminaire lift. Hand assist hanging to ensure safety and prevent the lamp from falling and sliding.

When the lamps are installed and debugged, pedestrians are prohibited from passing underneath. Regularly check whether the safety ropes are worn and the hook screws are loose.

Our company will not bear any responsibility for all the consequences caused by the falling of the lamp due to the unstable installation of the hanging.

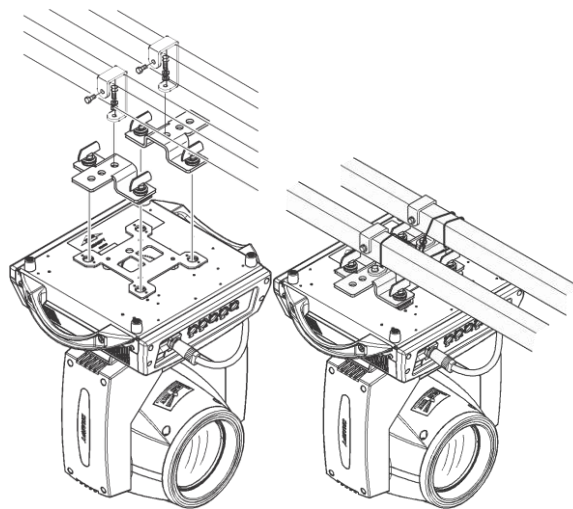


Figure 2 Schematic diagram of upside-down lamps

2.1 key instruction

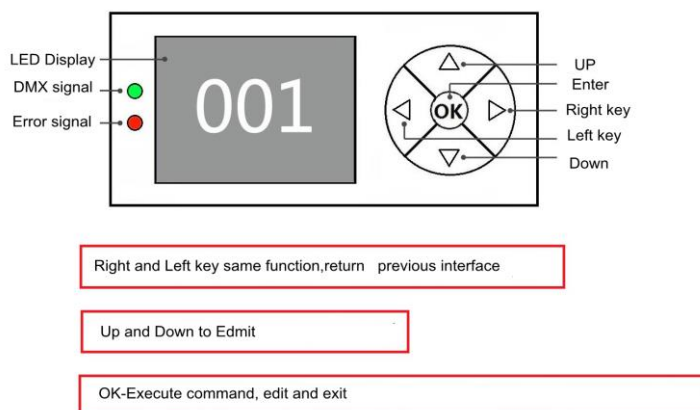


Figure 3 Schematic diagram of panel keys

Take "Modify DMX Address Code" as an example to describe the use of buttons:

1. If the current interface is not the main interface, press the "left" key (one or more times) to return to the main interface
2. In the main interface, press "Up" or "Down" to select the "Settings" button
3. Press the "OK" button to enter the "Settings" interface
4. In the "Settings" interface, press the "Up" or "Down" keys to select "DMX Address"
5. Press "OK" to enter the editing state
6. Press "Up" or "Down" to modify the DMX address code
7. Press "OK" to exit the editing state

2.2.1 Manual

This interface is used to control the current lamp and automatically enter the host state (do not receive DMX signals, send DMX signals to the bus to the slave).

The manual menu will display 16 channels or 20 channels according to the standard 16-channel or extended 20-channel mode set in the setting menu.

DMX channel	Description	
1CH. Gobo wheel	0~255	Press the "OK" key to enter the editing state. At this time, the hundreds place is selected, press the "up" and "down" keys to change the channel value. Press the "OK" key again to select the ten digits for editing. Press the "OK" key again to select the ones digit to edit. Press again to exit the editing state
.....	0~255	
14CH.frost	0~255	
16CH.reset		Press the "OK" button to see the confirmation dialog box, press the "OK" button again to enter the reset interface, and all motors are reset
16CH.lamp control	on	
	Off	
17CH.keep	0~255	Display when the channel mode is "Extended CH20"
18CH. Color wheel speed	0~255	Display when the channel mode is "Extended CH20"
19CH. dimmer-prism-frost speed	0~255	Display when the channel mode is "Extended CH20"
20CH. Gobo wheel speed	0~255	Display when the channel mode is "Extended CH20"

Menu	Description	
Mode	DMX	Slave state: receiving DMX signal from the console or host
	Auto run1	Master status: self-propelled and send DMX signal to

	Auto run 2	slave
	random	
	Voice control	
DMX address	1~512	Press the "OK" key to enter the editing state. At this time, the hundreds digit is selected, press the "up" and "down" keys to change the address code. Press the "OK" key again to select the ten digits for editing. Press the "OK" key again to select the ones digit to edit. Press again to exit the editing state
Channel mode	16CH	Standard 16-channel mode, the 17th to 20th channels is invalid
	20CH	Extended 20 channel mode, the 17th to 20th channels controls the speed (see channel table)
X Reverse	off	
	on	
Y Reverse	Off	
	On	
XY exchange	Off	
	On	Exchange the channels of XY axis (including fine adjustment)
XY Encoder	On	Use encoder (optocoupler) to judge out-of-step and automatically correct position
	Off	Correct position without using encoder (optocoupler)
DMX	Keep	Continue to run as it was
	Clear 0	Motor returns to position and stops running
screen protector	On	Turn off the backlight after 30 seconds of idle
	Off	Backlight always bright
Turn on the lamp	Off	Reset directly after power-on, without light bulb (you need to use the menu or console to manually light the bulb)
	On	The bulb will light up automatically after power on, and it will be reset only after the bulb lights up successfully
The color wheel changes linearly	On	The color wheel changes linearly
	Off	Non-linear change of color wheel, half color change
Restore default settings		Press the "OK" button to see the confirmation dialog box, press the "OK" button again to restore the default settings

2.2.3 system

	description	
DIS		Display board software version
MT		Motor board software version

Reset calibration	X axis calibration	After entering the sub-interface, you can adjust the reset position of the X-axis, Y-axis and other motors to compensate for the error in the hardware installation. The adjustment range is -128~+127, and +0 means no adjustment.
	Y axis calibration	
	Color calibration	
	Pattern calibration	
	Focus calibration	
	Dimming calibration	
	Prism 1 calibration	
	Prism 2 calibration	
	Atomization calibration	
Sensor monitoring	X-axis Hall	0 when magnetism is detected, 1 otherwise
	Y-axis Hall	0 when magnetism is detected, 1 otherwise
	Color wheel hall	0 when magnetism is detected, 1 otherwise
	Gobo Hall	0 when magnetism is detected, 1 otherwise
	Focusing Hall	0 when magnetism is detected, 1 otherwise
	Prism 1 Hall	0 when magnetism is detected, 1 otherwise
	Prism 2 Hall	0 when magnetism is detected, 1 otherwise
	X axis encoder disk status	2 digits, each corresponding to a photoelectric switch in the encoding disk
	Y axis encoder disk status	2 digits, each corresponding to a photoelectric switch in the encoding disk
	X axis encoder disc step value	When walking in the positive direction, the step value should increase, and when walking in the reverse direction, the step value should decrease. Every time you go to the same point, the value is the same as normal
Y axis encoder disc step value	When walking in the positive direction, the step value should increase, and when walking in the reverse direction, the step value should decrease. Every time you go to the same point, the value is the same as normal	
System error		If the red ERR indicator is on, it means that the lamp is running wrong, and you can enter the sub-interface to view the details. After viewing, you can press the "Clear" button to clear the error record
DMX monitor		Real-time monitoring of console signals

Mirror info	Description
MT board connection failed	The motor board does not respond. There is a problem with the serial communication line connecting the display board and the motor board, or there is a problem with the motor board.
X axis reset failed	X-axis photoelectric switch, or X-axis motor or motor board has a problem
Y axis reset failed	Y-axis photoelectric switch, or Y-axis motor or motor board has a problem

X axis Hall error	X-axis Hall, or motor board problem
Y axis Hall error	Y-axis Hall, or motor board problem
Color wheel reset failed	The color wheel Hall, or the color wheel motor has a problem
Gobo reset failed	Gobo Hall, or gobo motor has a problem
Focus reset failed	There is a problem with the focus hall or the focus motor
Lamp control failed	Failure to turn on or off the bulb, there is a problem with the lighter or bulb

1. Function

3.1 DMX channel chart

CH	mode	
	16ch	20ch
1	Color wheel	Color wheel
2	Cut light/strobe	Cut light/strobe
3	Dimming	Dimming
4	Pattern plate	Pattern plate
5	Prism 1: 8+16 Prism king	Prism 1: 8+16 Prism king
6	Prism 1 rotation	Prism 1 rotation
7	Prism 2: 16+24 Prism	Prism 2: 16+24 Prism
8	Focus	Focus
9	X	X
10	X fine-tuning	X fine-tuning
11	Y	Y
12	Y fine-tuning	Y fine-tuning
13	XY speed	XY speed
14	Frost	Frost
15	Rainbow prism	Rainbow prism
16	Bulb control & reset	Bulb control & reset
17		/
18		Color wheel speed
19		Dimming-Prism-Atomization Speed
20		Gobo speed

Channel data:

CH	Function	Data	Effect
1	Color wheel	000-004 005 -009 010 - 014	White light White light + color 1 Color 1

		015 - 019 020 - 024 025 - 029 030 - 034 035 - 039 040 - 044 045 - 049 050 - 054 055 - 059 060 - 064 065 - 069 070 - 074 075 - 079 080 - 084 085 - 089 090 - 094 095 - 099 100 -104 105 -109 110 -114 115 -119 120 -124 125 -129 130 -134 135 -139 140 -199 200 - 255	Color 1+color 2 Color 2 Color 2+color 3 Color 3 Color 3+color 4 Color 4 Color 4+color 5 Color 5+color 6 Color 6 Color 6+color 7 Color 7 Color 7+color 8 Color 8 Color 8+color 9 Color 9 Color 9+color 10 Color 10 Color 10+color 11 Color 11 Color 11+color 12 Color 12 Color 12+color 13 Color 13 Color 13+white light Positive flow (from fast to slow) Reverse flow (from slow to fast)
2	Strobe	000-003 004-103 104-107 108-207 208-212 213-251 252-255	Shutter closed Stroboscopic from slow to fast Shutter open → (controlled by dimming channel) Pulse strobe from slow to fast Shutter open → (controlled by dimming channel) Random strobe from slow to fast Shutter open → (controlled by dimming channel)
3	Dimmer	000-255	
4	Gobo wheel	000 - 004 005 - 009 010 - 014 015 - 019 020 - 024 025 - 029 030 - 034 035 - 039 040 - 044	Solid figure 1 Solid picture 2 Solid figure 3 Solid figure 4 Solid Figure 5 Solid figure 6 Solid figure 7 Solid figure 8 Solid figure 9

		045 - 049 050 - 054 055 - 059 060 - 064 065 - 069 070 - 074 075 - 079 080 - 084 085 - 089 090 - 094 095 - 099 100 - 104 105 - 109 110 - 114 115 - 119 120 - 124 125 - 129 130 - 134 135 - 139 140 - 200 201 - 255	Solid figure 10 Solid figure 11 Solid figure 12 Solid figure 13 Solid figure 14 Fixed image 1 (from slow to fast) Fixed image 2 (from slow to fast) Fixed image 3 (Slow to fast) Fixed image 4 (from slow to fast) Fixed image 5 (from slow to fast) Fixed image 6 (from slow to fast) Fixed image 7 (from slow to fast) Fixed image 8 (from slow to fast) Fixed image 9 (from slow to fast) Fixed image10 (from slow to fast) image11 (from slow to fast) Fixed image 12 (from slow to fast) Fixed image 13 (from slow to fast) Fixed image 14 (from slow to fast) Reverse flow (from fast to slow) Positive flow (from slow to fast)
5	Prism 1	000-127 128-255	Prism 1 pops up Prism 1 cut in
6	Prism rotation	000-127 128-190 191-192 193-255	Prism angle adjustment Reverse rotation (from fast to slow) stop Forward rotation (from slow to fast)
7	Prism 2	000-127 128-255	Prism 2 pops up Prism 2 cut in
8	focusing	000-255	Pattern definition from far to near
9	X axis	000-255	Horizontal 540-degree scan
10	X-axis fine adjustment	000-255	Level 1.2-degree fine adjustment
11	Y axis	000-255	Vertical 270-degree scan
12	Y-axis fine adjustment	000-255	Vertical 1.2-degree fine adjustment
13	XY speed	000-255	Speed from fast to slow
14	Frost	000-255	
15	Atomization & Colorful Mirror	000-127 128-191 192-255	no Colorful mirror cut in Atomized slice cut in
16	Bulb control	000-099 100-105	Invalid area Turn off the bulb

		200-205 250-255	Light up the bulb All motors reset
	17	Keep	000-255 Speed from fast to slow
	18	Color speed	
	19	Dimming-Prism-Atomization Speed	
	20	Gobo wheel speed	

Common faults

For some common faults, corresponding solutions are proposed. Any problems that cannot be solved should be handled by professionals. Before servicing the lamp, please disconnect the power supply.

1. Light bulb does not light up

- **Check whether CH16 has set up to be “200~205” dmx data range,after set well,then wait a few seconds to wait its light up;**
- Check whether the voltage matching the lamp is installed;
- Check whether the connection of the power supply of the lamp or the control switch is bad;
- Check whether the power supply is insufficient;
- Check if the DMX512 controller has sent instructions.

2.After the lamp is reset normally, it does not accept the control of the console

- Check whether the numerical start address and function options of the lamp 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, and check whether the serially connected signal amplifier is invalid;
- Check whether the communication line is too long or other equipment interferes with each other;
- Optimize wiring, shorten the length of control signal lines, and separate high-voltage and low-voltage lines;
- Add signal amplifier;
- The signal line adopts high-quality shielded twisted pair;
- Connect a signal terminal resistor (120 ohm) at the end of the lamp.

3.fixture cannot be started

- Check whether the power supply parameters are consistent with the lamps;
- Check that the lamp has poor contact due to extrusion deformation, internal parts vibration, moisture and other reasons during long-distance transportation or fall off.
- Please check whether the internal wire product connector of the lamp is off or loose.
- Check whether the electronic components of the lamp (such as electronic transformers, PCB

boards, motor control boards, etc.) are loose, short-circuited and burned out.

4. When working, the X-axis or Y-axis of the lamp does not work properly

- Check one by one according to the previous step;
- Check whether the transmission belt corresponding to the X and Y axis directions in the lamp is off or broken;
- Check whether the data feedback receiver (optocoupler) corresponding to the X and Y directions in the lamp is damaged;
- Reboot and reset once