USER'S MANUAL

Model: BC-M380

380W Beam Moving Head Light

Package Includes:

1 x beam moving head light

1 x clamp

1 x handle

1 x safe cable

1 x power cable

1 x DMX cable

Please read this manual before use

Contents

1. Notes and installation

1.1 Statement

Thank you for choosing our company's products! This product in the factory, the performance is intact, complete packaging. In order to use the product safely and effectively, please read the instructions carefully and completely before you use this product. This manual contains important information for installation and use. Please install and operate according to the instructions, please keep this manual properly for use at any time. Our company does not assume all responsibility for damaging the lamps or other performance due to the installation, use and maintenance in accordance with the instructions.

This manual is subject to technical changes without prior notice.

1.2 Tending

● Disconnect the power supply prior to the maintenance process.
● This lamp shall be kept dry to avoid working in a wet environment.
● Intermittent use will effectively prolong the life of this lamp.
● In order to achieve good ventilation and lighting effects, pay attention to regularly clean the fans and fan nets and lenses.
● Do not wipe the shell of lamps with organic solvents such as alcohol to avoid damage.

1.3 Precautions for products

● This lamp is for professionals only.
● Ensure that the supply voltage matches the supply voltage required by the equipment before operation.
● Do not place the product in a place that is easy to loosen or vibrate.
● In the process of use, if the lamps are abnormal, stop using the lamps in time.
● In order to ensure the service life of the product, the product should not be placed in a wet or leaky place, nor to work in the temperature above 60 degrees.
● When the bulb is used, the voltage change of the power supply should not exceed $\pm 10\%$. If the voltage is too high, it will shorten the life of the bulb. If the voltage is too low, it will affect the light color of the bulb.
● After power failure, it takes 20 minutes to cool the lamp adequately before energizing again.
● The rotating parts of the lamps and the fittings of the paste must be checked regularly, loose and strengthened in time to prevent accidents.
● To ensure the normal use of this product, please read the instructions carefully.

1.4 Product presentation

● Rated voltage: AC100-240V~50 / 60Hz
● Power: 650W
● Light source: Original Philips light bulb 380w
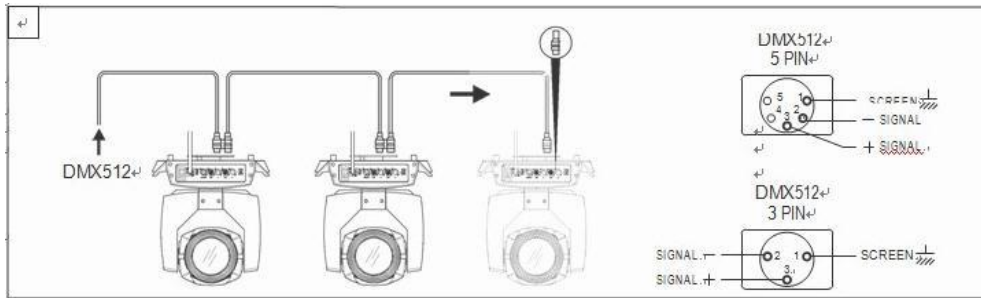● Bulb life: about 2,000 hours

- Color temperature: 7,800 K
- Insurance tube: T8A / 250V
- Fixed pattern plate: a pattern of white circle, can realize running water, jitter, positive and negative direction and so on 13 + 1
- Color plate: a kind of fixed color plus white, can achieve half color, full color, positive and negative direction slow fast rainbow effect 14
- Prism: one, prism, a honeycomb prism, can be two-way rotation, can be double prism superposition 8 8 + 8 + 8
- Beam angle: 0 ° -2 °
- Optical diameter: 155mm in diameter
- Aerozation: independent atomization effect + independent six-color mirror effect 1
- Strobe: electric focus system, outstanding strobe effect, variable speed
- Dimming: smooth dimming, no flashing 0-100% under HD camera
- X 540 ° 16bit axis running Angle: precision scan
  Y 270 ° 16bit axis running Angle: precision scan
- Fixed lock: Vertical lock
- XY axis / axis position lost step automatic correction
- Working environment: -10-40℃
- Control panel: color LCD panel + buttons, Chinese and English display interface LCD 5
- Control mode: self, master, voice DMX512, RDM,
- Control channel: channel DMX 16CH
- Bubble system: design of remote bulb control system
- Software Upgrade: Update the software DMX by connection
- Power outlet: Power connector input / output outlet
- Control signal: three-core and five-core Canon head socket
- Protection level: IP20
- Product Dimensions: 323x250x472mm (L * W * H)
- Package size: 550x440x420mm (L * W * H)
- Net weight: 13kg, gross weight: 16kg

1.5 Signal line connection

 The lamps is provided with standard DMX 3 or 5 core XLR socket for DMX input and output. Please use the signal line specially for DMX 512; the connection distance of signal line is 150 m. DMX512 signal amplifier must be added.

 A shielded twisted pair signal line is used to connect the DMX input port of the first device from the DMX output port of the controller, 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, and then a terminal plug is installed on the output 3-core socket of the last connecting lamp of each continuous circuit.(Welding a 4 / 1W, 120 Ω resistance between 2 and 3 pins with 3-core pins).

Important: **The ines shall not contact each other or with the metal shell.**

◆ **Calculation method of lamp starting address code:**

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

1: Start address code value of the first lamp A001.

2: The basic number of channels of the controller shall be greater than or equal to the total number of channels using the lamps.

3: Note: when any controller is used, each lamp must have its own starting address code. If the starting address code of the first lamp is set A001, the pass number of the lamp is 16 CH; then the starting address code of the second lamp is set to A017; the starting address code of the third lamp is set to A033; and so on, (this setting mode should be determined by different console)
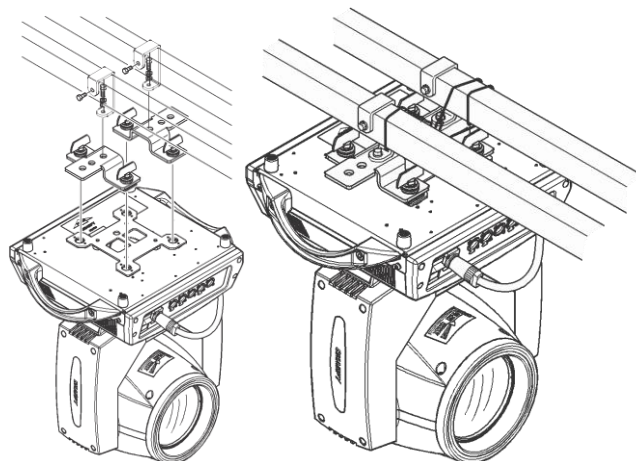
1.6 Lighting installation

Lamps can be placed horizontally, oblique and upside down. We must pay attention to the installation method when hanging in oblique and inverted hanging.

1 As shown in Figure 2, before the positioning of the lamp, to ensure the stability of the installation site, in the reverse hanging installation, must ensure that the lamp does not fall off the support frame, need to use a safety rope through the support frame and the lamp handle for auxiliary hanging, to ensure safety. Prevent the lamps from falling and sliding.

When the lamps are installed and tested, pedestrians are not allowed to pass below. Regularly check whether the safety rope is worn and whether the hook screws are loose.
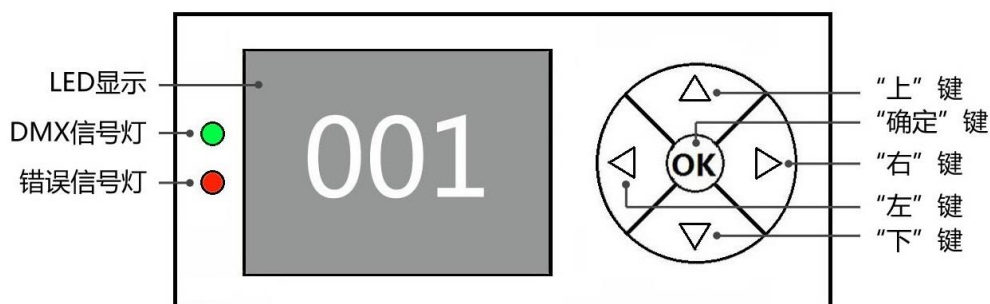
Our company shall not bear any responsibility for all the consequences caused by the unstable installation of the hanging and the lamp falling.

1Figure 2 Schematic diagram of the inverted lamp

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2. control panel

2.1 Key press description

Figure 3 Schematic illustration of the panel keys

Take the "Modify DMX address code" as an example for the use of keys:

1. If it is not the main interface currently, press the "Left" key (one or more times) to return to the main interface

2. Under the main interface, press the Up button or the Down button to select the Settings button

3. Press OK to enter the Settings tings interface

4. Under the Settings interface, press Up or Down to select DMX Address

5. Press OK to enter the edit state

6. Press the Up key or the Down key to modify the DMX and the address code

7. Press OK to exit the editing status

8. Press the right button on the main interface, which is to enter the calibration menu.

9, note: the dot bubble at the bottom of the main interface, middle / British, screen flip and reset shortcut keys can only be manually, not button.

2.2 Menu description

Figure 4. Schematic diagram of the main menu

2.2.1 Setting

option	explain	
move	DMX	Machine status: receiving DMX signal from the automatic control table or host
	Since go sound control	Host status: go away and send the DMX signal to the slave
DMX address	1~512	Press OK to enter the edit state. At this time, select the hundred digits, press "up" and "down" key to change the address code. Press OK again to select the ten editors. Press OK again to select the single bit edit. Press to exit the edit status again
lamp bulb	close	Close the bubble
	open	Bright bubble
Motor reset	close	
	open	Lamps reset
channel	Standard number of 16 CH	Standard, and 16-channel mode
	Extended 20CH	Extend the 20-channel mode
language	English	Set it to the English interface
	the Chinese language	Set it to the Chinese interface
Screen flip	close	Front display
	open	The screen is turned upside down
X reversal	close	
	open	The X motor direction is rotated by 540 degrees
Y reversal	close	
	open	Y motor is rotated 270 degrees
XY exchange	close	
	open	Channel channel for XY axis (including fine tuning)
XY encoder	open	Use the encoder (optocoupler) to judge the lost step and automatically correct the position
	close	Do not correct the position by using the encoder (optical coupling)
DMX signal	keep	Continue running in the original state
	zero clearing	Motor back, stop operation
Boot bright bubble	close	
	open	Bright bubble after boot
Color linearity	open	The color wheel changes linearly
	close	The color wheel changes nonlinearly, and the

		half-color changes
Restore the default	open	
	close	Press OK to see the confirmation dialog box, and press OK again to restore the default settings

2.2.2 Manual control

This interface is used to control the current lamp (no DMX signal is received), corresponding to the channel. Refer to the channel table for more details.

option	explain	
1CH.	0~255	Press OK to enter the edit state. When hundreds are selected, press up and Down to change the channel value. Press OK again to select the ten editors. Press OK again to select the single bit edit. Press to exit the edit status again
……	0~255	
15CH.	0~255	
……	0~255	

2.2.3 Information

option		explain
Ver		Displays the software version
DIS		Display board software version
MT		Motor board software version
temporal information	1. Total bright bubble 2. Total use	The cumulative bright bubble time was recorded Record the time of lamp use
system mistake		If the red ERR indicator shines, the lamp is running wrong, and details can be viewed in the subinterface. After viewing, you can press the Clear " key to clear the error record
Drum fan speed		Display the current blower rotation speed
Hall state	0000	0 when magnetic is detected, 1 otherwise
The X-axis encodes the disk-step value	0000	In the positive direction, the step value should increase, and in the opposite direction, the step value should decrease. The value is the same each time you go to the same point
The Y-axis encodes the disk-step value	0000	In the positive direction, the step value should increase, and in the opposite direction, the step value should decrease. The value is the same each time you go to the same point
Permission duration		9999 No encryption; other values have encryption

A. Error message description

Common error information	explain
The MT plate connection has failed	Motor board did not respond. There is a problem with the serial port communication line connecting the display board and the motor board, or with the motor board.
X axis reduction failed	X axis photoelectric switch, or X axis motor or motor board problem
The reduction of the Y axis failed	Y axis photoelectric switch, or Y axis motor or motor board has a problem
X-axis Hall error	X-axis Hall, or have problems with the motor plate
Y-axis Hall error	Y-axis Hall, or have problems with the motor plate
The color disk reset failed	Color disc Hall, or color disc motor problems
Pattern disk reset failed	Pattern disk Hall, or pattern disk motor problems
The focus reset failed	Focus Hall, or focus motor problems
Bulb control failed	Bright bubble or anti-bubble failure, the lamp or bulb problem

2.2.4 Factory

calibration	Data download	After changing the display board, download the calibration data of the original display board from the motor board
	X axle	After entering the sub-interface, the reset position of the X-axis and Y-axis motors can be adjusted to make up for the error in the hardware installation. The adjustment range is -128~ + 127, and + 0 means that there is no adjustment.
	Y axle	
	pigment	
	pattern	
	focus	
	aiming	
	Prism 1 zero point	
	Prism 1 trip	
	Prism 2 zero point	
	Prism 2 trip	
	Fog trip	
	Colorful mirror trip	
	zero clearing	close
		Open, the data recovery default value
	X Hoare	Guan, X Hall reported the wrong pass
		Open, X Hall to stagger
	Y Hoare	Guan, Y Hall reported the wrong pass

		Open, Y Hall reported to stagger
	half-power	Off, with no half-power function
		Open, with a half-power function

3. Channel function

3.1   channel table

channel	channel pattern	
	16	20
1	X	X
2	X fine-tuning	X fine-tuning
3	Y	Y
4	Y fine-tuning	Y fine-tuning
5	XY velocity	XY velocity
6	atomization	atomization
7	Cut light / flash	Cut light / flash
8	aiming	aiming
9	Color plate	Color plate
10	Pattern plate	Pattern plate
11	Prism 1	Prism 1
12	Prism 2	Prism 2
13	prism rotation	prism rotation
14	colorful	colorful
15	focus	focus
16	Reset & light	Reset & light
17		not have
18		Color speed
19		The dimming speed
20		pattern velocity

Channel parameter value (full version):

1	X axle	000-255	Horizontal 540-degree scan
2	X axis fine-tuning	000-255	Level of a 1.2-degree fine-tuning
3	Y axle	000-255	Vertical 270-degree scan
4	Y axis fine-tuning	000-255	Vertical to 1.2 degrees of fine-tuning
5	XY velocity	000-255	Speed from fast to slow
6	atomization	000-127	all-or-none
		128-255	Fog cut in
7	stroboflash	000 - 003	The light switch is closed
		004 - 103	Flash from slow to fast

		104 - 107	Light lock open (controlled by dimming channel)
		108 - 207	Pulse flash
		208 - 212	Light lock open (controlled by dimming channel)
		213 - 251	Random flash
		254 -255	Light lock open (controlled by dimming channel)
8	aiming	000-255	From dark to bright
9	Color plate	000-004	white light
		005 -009	White light + color 1
		010 - 014	Color 1
		015 - 019	Color # 1 + color # 2
		020 - 024	Color 2
		025 - 029	Color # 2 + color # 3
		030 - 034	Color 3
		035 - 039	Color # 3 + color # 4
		040 - 044	Color 4
		045 - 049	Color 4 + color 5
		050 - 054	Color 5
		055 - 059	Color # 5 + color # # 6
		060 - 064	Color 6
		065 - 069	Color # 6 + color # # 7
		070 - 074	Color 7
		075 - 079	Color # 7 + color # # 8
		080 - 084	Color 8
		085 - 089	Color # 8 + color # # 9
		090 - 094	Color 9
		095099	Colour 9 + color 10
		100 - 104	Color 10
		105 - 109	Colour 10 + color 11
		110 - 114	Color 11
		115 - 119	Colour 11 + color 12
		120 – 124	Color 12
		125 – 129	Colour 12 + color 13
		130 - 134	Color 13
		135 -139	Colour 13 + color 14
		140 – 144	Color 14
		145 - 149	Color of 14 + white light
		150 -200	Forward flowing water (from fast to slow)
		201 - 255	Reverse water flow (from slow to fast)
10	Pattern plate	000 - 004	Solid figure 1
		005009	Solid figure 2
		010 - 014	Solid figure 3
		015 - 019	Solid figure 4
		020 - 024	Solid figure 5
		025029	Solid figure 6
		030 - 034	Solid figure 7
		035 - 039	Solid figure 8

		040 - 044	Solid figure 9
		045 - 049	Solid figure 10
		050 - 054	Solid figure 11
		055059	Solid figure 12
		060-064	Solid figure 13
		065-069	Solid figure 1 jitter (from slow to fast)
		070-074	Solid figure 2 jitter (from slow to fast)
		075 - 079	Solid figure 3 jitter (from slow to fast)
		080-084	Solid figure 4 jitter (from slow to fast)
		085-089	Solid figure 5 jitter (from slow to fast)
		090-094	Solid figure 6 jitter (from slow to fast)
		095-099	Solid figure 7 jitter (from slow to fast)
		100-104	Solid figure 8 jitter (from slow to fast)
		105-109	Solid figure 9 jitter (from slow to fast)
		110-114	Solid figure 10 jitter (from slow to fast)
		115-119	Solid figure 11 jitter (from slow to fast)
		120-124	Solid figure 12 jitter (from slow to fast)
		125-129	Solid figure 13 jitter (from slow to fast)
		130-200	Forward flowing water (from fast to slow)
		201-255	Reverse water flow (from slow to fast)
11	Prism 1	000-127	Prism pop up
		128-255	Prism cut in
12	Prism 2	000-127	Prism pop up
		128-255	Prism cut in
13	prism rotation	000-127	Prism angle regulation
		128-190	Reverse rotation (from fast to slow)
		191-192	despin
		193-255	Forward rotation (from slow to fast)
14	colorful	000-127	all-or-none
		128-255	Colorful pieces cut in
15	focus	000-255	Pattern clarity goes from far to near
16	Reset & light bulb control	000-099	of no avail
		100-105	The bubble
		200-205	The bubble
		251-255	Full motor reset
17	continue to have	000-255	Speed from fast to slow
18	Color wheel speed		
19	Dimmer-prism-atomization speed		
20	Pattern disk speed		

4. Common fault

For some common faults, the corresponding solutions are proposed. Any problems that cannot be resolved should be handled by the professionals. Disconnect the power supply before maintaining the lamp.

◆ The light bulb is not bright

- Check whether the voltage matching with the lamp is installed;
- Check whether the power supply connection or control switch of the lamp is in bad contact;
- Check whether the power supply is insufficient;
- Check that the DMX512 controller has sent the instructions.

◆ The control of the console is not accepted after normal reset

- Check whether the lamp digital startup address value and function options are correct;
- Check whether the connection of the communication control line is correct, whether the communication line is too long or has been interrupted;
- Check whether the control equipment is invalid and whether the serial connected signal amplifier is invalid;
- Check whether the communication line is too long or any other equipment interferes with each other;
- Optimize the wiring, shorten the length of the control signal line, high voltage and low voltage line wiring separately;
- Add a signal amplifier;
- The signal line adopts high-quality shielding twisted-pair line;
- Connect the signal terminal resistor (120 ohms) at the end of the lamp.

◆ The lamps cannot be started

- Check whether the power supply parameters are consistent with the lamps;
- Check the lamp due to extrusion deformation, vibration of internal parts, damp and other reasons
- Or fall off.
- Please check whether the wire product connector inside the lamp is falling off and loose.
- Check whether the electronic components (such as electronic transformer, PCB board, motor control board, etc.) are loose, short circuit and burned out.

◆ **When working, the X axis or Y axis of the lamp is not normal**

- Check one by step according to the previous step;
- Check whether the transmission belt corresponding to the X and Y axes in the lamp falls off and breaks;
- Check whether the data feedback receiver (optical coupling) in the X and Y directions in the lamp is damaged;
- Restart it on and reset it once.

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