



USER'S MANUAL



Model: BC-M400CMY

400w CMY Led Moving Head Light

Package Includes:

- 1 x led 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

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Chapter 1 Safety Guidance and Parameters

Attention

The equipment is well packaged when it leaves the factory. Please follow the user's manual, and the machine failure is not covered by the warranty due to human reasons

1. Safety guidance

Please keep this instruction manual as a basis for a future consultation, and if you sell this product to other users, please make sure that they also get it.

- ◆ The lamp is only suitable for indoor drying places.
- ◆ The installation and operation of the lamps should be carried out by professionals.
- ◆ Don't let the child operate the machine.
- ◆ Use a safe rope when fixing the equipment, and hold up the bottom when moving the lamps.
- ◆ Equipment must be installed in a well-ventilated place, at least 50 cm from the adjacent level.
- ◆ Ensure that the vents are unobstructed to avoid overheating during lamp operation.
- ◆ Ensure that the supply voltage complies with the equipment supply voltage before operation.
- ◆ Please ground the electric conductor to prevent the electric shock.
- ◆ Do not operate lamps above 40°C.
- ◆ Do not connect the lamps directly to the dimming device.
- ◆ The new lamp may have little smoke or odor, and will disappear after 15 minutes of operation.
- ◆ Do not place combustible items next to the lamps when running to prevent fire risk.
- ◆ Before opening the lamp, please carefully check whether the power cord is damaged. If there is any damage, please replace it immediately.
- ◆ The surface temperature of the lamp can reach 90°C, do not touch with bare hands.
- ◆ Avoid flammable liquid, water, or metal and other electrical conductors from entering the lamp interior to avoid electric shock or fire. If any foreign body enters the lamp, please cut off the power supply immediately.
- ◆ Avoid operating in a dirty and dusty environment, and clean and maintain the lamps regularly.
- ◆ Do not touch the wire to prevent electric shock.
- ◆ Avoid winding the power cord with other wires.
- ◆ The distance between the lamp and the irradiation surface shall be greater than 12M.
- ◆ Disconnect the power supply before replacing the fuse or light bulb.
- ◆ Use the same model when replacing the fuse or light bulb.
- ◆ Severe operation failure occurs, please stop the use immediately.
- ◆ Do not turn on the lamp repeatedly.
- ◆ Please replace the lamp shell, lens or UV filter.
- ◆ There are no available parts inside the lamp, do not open the lamp shell without authorization
- ◆ Do not operate the machine by yourself. Non-professional operation will cause damage to the equipment or functional failure. If maintenance is needed, please contact the nearest authorized service center.
- ◆ Cut off the power supply when the lamps are not used or repaired for a long time.
- ◆ To avoid fire or electric shock, do not expose the lamps to rain or wet areas.

- ◆ High temperature bulb explosion risk, do not open the lamp within 15 minutes of power failure.
- ◆ Please replace the bulb when damaged, heat-deformed or beyond its service life.
- ◆ Do not look directly at the lamps during their operation.
- ◆ The light bulb will be very hot when the lamp is running. Do not touch it with your bare hands.
- ◆ Do not operate the machine when the bulb is not without a protective cover or the housing is damaged.

BSW400 3in1 computer shake head light, using a single 400W LED light engine, set light beam, pattern, staining in one, energy saving, super long life, fast heat dissipation, powerful function, simple control. Design fixed disk and rotating disk, the pattern effect can present multiple angles under the variable lens; the beam angle can be doubled through the variable lens, making the beam more flexible. In addition to the two-way rotating six prism, independent atomization effect and electric focusing functions, to fully meet the dyeing needs of different occasions, very suitable for bars, dance halls, nightclubs, performances and other entertainment places.

2. technical specifications

- ◆ Light source: 1 x 400W LED, optical engine
- ◆ LED expected service life: 20,000 hours
- ◆ Color temperature: 8,000 K
- ◆ Standard mode: Ra> 80
- ◆ LED expected service life: 20,000 hours
- ◆ Adaptive power supply
- ◆ Input voltage range: AC 190-240 V, 50 / 60 Hz
- ◆ Power: 500 W
- ◆ Power connector input / output
- ◆ Signal input / output: three-core Canon head socket
- ◆ Electric and dynamic linear focusing system
- ◆ Beam angle: 4° -35°
- ◆ Mixed color system: linear CMY mixed color
- ◆ Linear CTO color temperature regulation of 2700K-6500K
- ◆ Rotary pattern plate: 1 rotating pattern plate, 7 kinds of patterns plus white circle, can realize running water, jitter, random dynamic and positive and negative direction slow and fast conversion effect, special high temperature resistant materials, with hall, magnet positioning with "slot and lock" system, easy replacement of Gobos
- ◆ Fixed pattern plate: 1 fixed pattern plate, 12 fixed patterns + white light, can realize running water, jitter, random dynamic and positive and reverse direction slow and fast conversion effect, special high temperature resistant metal materials, with hall, magnet positioning
- ◆ Color disk: 1 color disk, 8 fixed colors plus white, two-way rainbow effect, can realize the half-color, full-color, single and two-color gradient and the positive and negative direction of the slow and fast rainbow effect, with the hall, magnet positioning and any Angle automatic error correction function.

- ◆ Prism system: equipped with two-way rotation and superimposed 4-prisms and 4-row mirrors
- ◆ 0-100% smooth dimming
- ◆ Independent atomization effect
- ◆ Outstanding strobe effect, with variable speed
- ◆ No flashing under the HD camera
- ◆ Horizontal scan: 540 degrees (16bit precision scan) electronic error correction
- ◆ Vertical scan: 270 degrees (16bit precision scan) electronic error correction
- ◆ X-axis / Y-axis position misstep automatic correction
- ◆ Control panel: 4.8-inch LCD touch display, temperature display, Chinese and English display, plus 4 physical buttons
- ◆ Control protocol: DMX512, RDM, self-walk, voice control
- ◆ DMX channel mode: 22C H / 26CH
- ◆ Software upgrade: Update the software via a DMX connection
- ◆ Cooling mode: use the axial fan to strengthen the cooling
- ◆ Safety device:with electronic temperature overheating protection, electronic temperature control automatic power off protection when overheating system failure
- ◆ Intelligent fan speed regulation: when the lamps are not bubble or closed, the fan will automatically slow down to reduce the noise of the fan and create a good performance environment.
- ◆ Working environment: -20 degrees, 40 degrees
- ◆ Protection level: IP20
- ◆ Product net weight: 22.5KG
- ◆ Product Dimensions: 54 * 45 * 61CM (L * W * H)

Chapter 2 Panel operation

1. Summary

- ◆ The schematic diagram of the lamp panel is shown in Figure 1. The above title shows the name of the lamp, and the following status bar shows the signal of the current lamp, the bulb status, the fault (when the fault information is not viewed, display "E RR", otherwise "N OR" is displayed), etc.
- ◆ This lamp supports DMX / RDM. When the lamp is searched by the RDM host, three letters "RDM" will appear in the panel, indicating that the lamp is enumerated normally.
- ◆ Display and operation are similar to "Android operating system", with fingertips or blunt hard objects click the corresponding item can operate.

Note: Never use sharp or sharp display to prevent damage.



Figure 1 shows a schematic representation of the panel

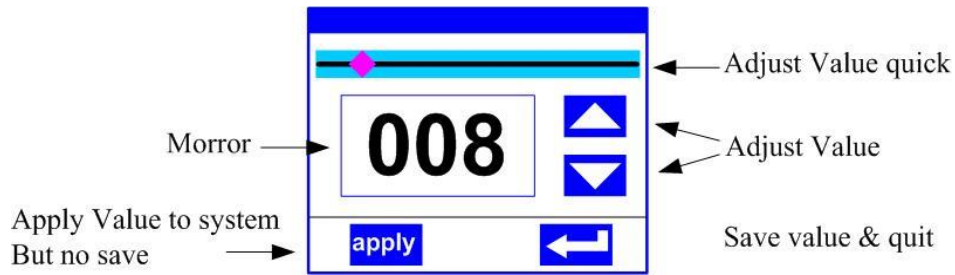
2. operate

2.1 Use intuitive touch or auxiliary input for lamp (touch enabled product)

- ◆ The left area is the TFT display area and the touch area. With the content of the panel, you can complete the parameter setting or view the state and other operations.
- ◆ On the right area is the auxiliary input. If you do not use the TFT's own touch function, you can use the auxiliary input to select the items to set or view and complete the operation.

2.2 Parameter numerical input

When the selected parameter item needs to enter a numerical value, the window as shown in Figure 2 opens:

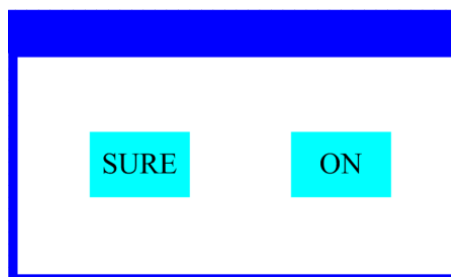


2 Figure 2. Value setting page

- ◆ Set the value: you can directly pull the slider bar to quickly set the required value, or click the "up" or "down" button on the right to accurately set the required value, or set it with the auxiliary input.
- ◆ Application value: When the data is set by the "up" or "down" button, and then press the "apply" application button in the lower left corner, the value is immediately sent to the lamp, but the value is not saved.
- ◆ Save the value: at any time, click on the "OK" key in the lower right corner, namely, save the current value to the internal memory, the next boot to save the value applied to the lamp.

2.3 Set the Boolean parameter

- ◆ When the parameter is set to a Boolean value (such as ON or OFF), then directly click on the corresponding item to switch the parameter value, which will be saved to the internal memory. Press the parameter option on the right, and the corresponding option becomes gray. When releasing the hand, the corresponding parameters are changed and saved. If you press the parameter option is not the parameter that you want to change, then move your finger elsewhere on the screen, and the corresponding parameters will not change.
- ◆ Important Boolean parameters are determined by the determination window, as shown in Figure 3 below:3



3Figure 3 determines the input window

2.4 Subpage (parameter)



3. Functional operation and parameter setting

Enter the setup interface, as shown in Figure 6-1:

- ◆ In the main interface, you can enter the corresponding parameter setting interface by selecting six buttons.
- ◆ In the parameter setting interface, you can press the left blue option and quickly switch to the other setting interface.

3.1 Set up the DMX address code

The DMX address, channel mode, etc. can be set on the page shown in Figure 6-1.

The menu setting of the lamp optimizes the address setting. Several setting address code operations are as follows:

- ◆ Select "Last" or "Next", the lamp will automatically calculate the next or last address code according to the current address code and channel data, which can be quickly set;
- ◆ Click on the address code value to enter the value editing window, where any valid address code can be set, the lamp can automatically obtain the current number of channels of the lamp, and automatically filter the unusable address code (512-the current number of channels).
- ◆ The lamp supports the RDM protocol, and the lamp address code can be set remotely via the RDM.
- ◆ Provide two push-buttons:
- ◆ Channel mode: Different channel modes can be selected periodically;
- ◆ Light lamp reset: reset all motors.

3.2 Set up the lamp operating mode

The operation mode of lamps and control lamp gun can be set through the page shown in Figure 6-2. The lamp supports four operating modes (DMX mode, self-walking mode, sound control mode and scene mode). Please refer to the previous section for detailed parameter value setting. The specific parameter description is shown in the following table:

running mode

| | | |
|--------------------|--|--|
| DMX pattern | Console mode, receiving DMX signal, RDM signal | |
| Self-walking mode | The lamps are run automatically according to the built-in program | |
| Sound control mode | When the lamp detects a strong sound, the lamp automatically runs a scene following the built-in program, otherwise maintain the last scene | |
| Scene Mode 01 | Run as a set scenario, and support custom editing for up to 10 scenarios | |
| | 1~10 | Outputs the specified scene |
| | voluntarily | Automatically cycle output scenes in the set scene time (non-0) order, and scenes with time 0 automatically skip ignored |
| Master from choice | When the non-DMX mode works, select the data output mode, and the lamp automatically detects the DMX status and automatically switch the output to prevent data conflict | |
| | main engine | The lamp runs built-in, if DMX has no signal, output data (synchronization), otherwise data is not output |
| | slave | Lamps run as built-in, without data output (not synchronized with other lamps) |
| | voluntarily | If the DMX has no signal, the lamp runs as built-in, otherwise, the lamp works as the DMX signal |
| Light bulb switch | (Bulb light source) pop up the confirmation dialog box, select "SURE" to confirm the current operation, turn on or off the bulb, and the switch time interval is limited to 30 seconds | |
| | close | The current bulb output is already turned off |
| | open | The current light output is already turned on |

- ◆ Scene mode is suitable for a single set or a small number of lamps, just output a fixed scene, or need to run a simple program, you can be edited in the scene page without connecting to the console.
- ◆ If the light source is the bulb, wait 10 minutes before turning on the bulb after turning it off.

3.3 Panel display settings

Lighting lamps support bilingual Chinese and English, inverted display, etc. Enter the corresponding parameters as shown in Figure 6-3. The specific menu content is shown in the following table:

Display settings

| | | |
|---------------------------------|---|--|
| language | Set the displayed | |
| | English | English display |
| | the Chinese language | Chinese display |
| Screen protection | Set the content or mode of the screen within 30 seconds | |
| | close | Keep the last operation page, bright screen |
| | pattern 1 | Out of the screen |
| | pattern 2 | Black screen, showing the address code of the current lamp in the lower left corner |
| Screen rotation | pattern 3 | Display trademark information, address code and operation mode |
| | Set the display direction of the screen | |
| | close | No reversal is shown |
| | open | Reverse display |
| DMX indicate | voluntarily | Automatically detect the hanging direction of lamps and automatically switch the display direction |
| | Set the mode of DMX signal indicator | |
| | pattern 1 | Bright with signal, no signal out |
| | pattern 2 | Out of signal, bright when no signal |
| The signal indicates brightness | pattern 3 | Flash with a signal, and extinguish with no signal |
| | Set the brightness of the signal indicator lamp | |
| | 1~10 | Ten grades |
| Screen backlight | Set the brightness of the screen backlight after 10 seconds without operation, all bright during operation | |
| | 1~10 | Ten grades |
| Touch screen switch | Select whether to disable the touch screen. When the screen touch is accidentally damaged, disable the touch function and set the lamp with auxiliary input | |
| Touch correction | When the screen touch is not accurate, you can enter the correction page correction screen | |

Lamps that support touch operation. If a bad touch phenomenon occurs, you can enter the correction page to recorrect the touch accuracy of the touch screen. Under normal circumstances, please do not enter this page. If the touch is damaged, select to disable the touch switch.

3.4 Scene mode

- ◆ Enter the page shown in Figure 6-4, and the lamps enter the scene editing mode. Under this page, the lamp does not receive the DMX console data, and the edited data is reflected on the lamp immediately.
- ◆ The content of the page depends on the currently selected channel, and the channel content and order displayed match the lamp channel table. Through this page, 10 scenes can be edited, as shown in the following table:

Scene mode

| | | |
|--------------------|--|--|
| Scenario selection | Select the current required operation scenario | |
| | 1~10 | 10 Scene Format |
| Scene time | Sets the time when the current scene is automatic in 0.1 seconds | |
| | 0 | The current scene does not participate in the automatic scene output |
| | 1-255 | 0.. One second to 25.5 seconds |
| 1. X axis | 0-255 | Set the data of each channel, and the display content and sequence correspond to the channel table of the lamp |
| | 0-255 | |
| | 0-255 | |
| N.function | 0-255 | |

- ◆ If the valid reset data is edited in the reset channel in the scene, the lamp will be reset, but after the reset, the value of the corresponding reset channel will be automatically reset to prevent multiple continuous reset.
- ◆ View this page for the current channel table order of the lamp. Please refer to the detailed channel description for the specific channel data.

3.5 Set the lamp operating parameters

Enter the page shown in Figure 6-5 and adjust the field parameters of lamps to facilitate the field installation of lamps:

advanced setup

| | | |
|-----------------------------|---|---|
| X axis reverse | Set the X-axis rotation direction | |
| | close | Don't reverse |
| | open | opposite direction |
| Y axis reverse | Set the direction of the Y-axis rotation | |
| | close | Don't reverse |
| | open | opposite direction |
| Optical coupling correction | Set whether the lamp detects the XY misstep and corrects it | |
| | close | No correct position after loss of step |
| | open | Correct the position automatically after the misstep, and the misstep fault is recorded |
| X-axis offset | Set the position of the zero point of the lamp X-axis | |
| | 4-150 | |
| Y axis offset | Set the position of the Y axis | |
| | 4-48 | |
| data-hold | Set the output state of the lamp when the lamp has no D MX signal | |
| | close | There is no signal, so the motor and the light source return to the position and state when the reset is complete |
| | open | No signal, maintain the last frame of D MX data |

| | | |
|------------------------|---|--|
| | | output |
| Turn on the light mode | Set the way the bulb first turns on after it is powered on | |
| | On the electric bubble | Turn on the light bulb first when going on, and reset the lamp after 30 seconds |
| | Followed after reduction | Return the lamp after 3 seconds, and turn on the bulb after the reset is completed |
| | Manual foaming | After the reset, open the bulb manually through the menu or console |
| Factory setting | The confirmation box, select "SURE", the lamp parameters return to the factory settings | |

- ◆ When choosing the electric bubble mode, the lamp will wait for the bulb for 30 seconds, so that the bulb can fully start, the internal voltage is stable enough, and then start the reset program. If the field power capacity is stable, it is recommended that the electric bulb mode is opened.
- ◆ When the lamp cannot correct the position, first check if the optical coupling correction is turned off.
- ◆ When removing the signal, if the lamp position is not output as intended, check the Data Hold setting first.
- ◆ When setting the X Y offset, after completing the setting, please control the X Y with the maximum stroke first to check the setting, and the X Y will not hit the positioning rod or shell.

3.6 View the current status of the lamp

Entering the page shown in Figure 6-6, you can view the information and real-time status of the lamps to know the use status of the lamps. If the lamps need after-sales service, please provide the status information displayed on the page for the judgment basis, as shown in the following table:

status information

| | | |
|---------------------|---|--|
| Motor information | Displays the information status of all the motors and signals in the lamp | |
| | Hoare | Not shown, it means that the motor has no Hall correction, 0 means that the motor leaves the correction position point, and 1 means that the motor is at the correction position point |
| | state | Displays the motor reset completion state |
| | X axle | Displays the real-time position value of the X-axis optical coupling feedback |
| | Y axle | Displays the real-time position value of the Y-axis optical coupling feedback |
| | optocoupler | Shows the level state of two signals with X and Y axis, binary |
| Fault status record | / | Display the last 8 failure records of the lamp reset and operation, the failure record is not saved after the power failure, when the next power cycle is valid |

| | | |
|---------------------|--|--|
| | error data | Total number of faults detected after power |
| | 12: :03 | Power-up time in minutes when a fault occurs |
| | Hall error | The motor does not detect an effective Hall signal when the corresponding motor is reset |
| | Hall short circuit | The Hall signal detected by the motor is always valid when the corresponding motor is reset |
| | Optical coupling failure | No effective photocoupling signal is detected when the corresponding motor is reset |
| | fall out step | The corresponding motor is out of step during operation |
| | Crash rod | Crash the positioning lever when the motor is reset |
| | Bulb failure | Light bulb accidentally extinguished |
| | Sensor failure | Temperature sensor signal is not normal, |
| | Fan error | The main fan is not working properly |
| Lighting status | Displays the critical status data for the current fixture for reference | |
| | communication | 0~100%, Communication quality of lamp internal data link |
| | miscount | The total number of error frames detected after power on, accumulated |
| | Light source temperature | Displays the temperature of the current light source, and "- -" indicates no detection |
| | Display plate temperature | Displays the temperature of the current display board or the ambient temperature nearby |
| | Sensor 1 temperature | Displays the current motherboard temperature or the ambient temperature of the motherboard installation location |
| Version information | Display the information and version of the current lamps, and be an important reference for after-sales maintenance | |
| | equipment | Name of lamp, as with equipment information of RDM |
| | model | Model of lamp as model information of RDM |
| | display board | Firmware version and serial number of the display board |
| | Main board 1 | Firmware version and serial number of motherboard 1 |
| Light source time | Record the total accumulative time of light source opening, the user will manually clear, as a reference for regular maintenance of light source | |
| Lamps time | Record the total accumulative time of lamp opening, unit minutes, do not clear | |

Chapter 3 Channel description

1. channel table

This lamp has 2 channel modes, 22CH / 26CH

Channel order can be viewed in scene mode. Channel mode is set in the Address Settings page.

Detailed data are shown in the following table:

channel table

| channel 1 | channel 2 | name | numeric value | description |
|-----------|-------------------|-----------------------|---------------|--|
| CH1 | CH1 | X axle | 0-255 | 0-540 degrees |
| CH2 | CH2 | X axis fine-tuning | 0-255 | 0-2 Degrees |
| CH3 | CH3 | Y axle | 0-255 | 0-270 degrees |
| CH4 | CH4 | Y axis fine-tuning | 0-255 | 0-1 degrees |
| CH5 | | XY velocity | 0-255 | From fast to slow |
| CH6 | CH5 | aiming | 0-255 | 0-100% dimming |
| CH7 | CH6 | strobeflash | 0-3 | Guan Guang |
| | | | 4-103 | From slow to fast pulse strobe |
| | | | 104-107 | opening the light |
| | | | 108-155 | From slow to fast gradually open strobe |
| | | | 156-207 | From slow to fast gradually closed strobe |
| | | | 208-212 | switch |
| | | | 213-251 | From slow to fast to random strobe |
| | | | 252-255 | opening the light |
| CH8 | CH7 | pigment | 0-9 | white light |
| | | | 10-19 | Color 1 |
| | | | 20-29 | Color 2 |
| | | | 30-39 | Color 3 |
| | | | 40-49 | Color 4 |
| | | | 50-59 | Color 5 |
| | | | 60-69 | Color 6 |
| | | | 70-79 | Color 7 |
| | | | 80-89 | Color 8 |
| | | | 90-99 | White light + color 1 |
| | | | 100-109 | Color 1 + Color 2 |
| | | | 110-119 | Color 2 + Color 3 |
| | | | 120-129 | Color 3 + Color 4 |
| 130-139 | Color 4 + Color 5 | | | |

| | | | | |
|---------|-------------------------------------|---------|---------|---|
| | | | 140-149 | Color 5 + Color 6 |
| | | | 150-159 | Color 6 + Color 7 |
| | | | 160-169 | Color 7 + Color 8 |
| | | | 170-179 | Color 8 + Color 9 |
| | | | 180-215 | From fast to slow forward flow water |
| | | | 216-220 | cease |
| | | | 221-255 | From slow to fast, the reverse flow water |
| CH9 | CH8 | CTO | 0-255 | |
| CH10 | CH9 | C | 0-255 | |
| CH11 | CH10 | M | 0-255 | |
| CH12 | CH11 | Y | 0-255 | |
| CH13 | CH12 | pattern | 0-4 | white light |
| | | | 5-9 | Pattern 1 |
| | | | 10-14 | Pattern 2 |
| | | | 15-19 | Pattern 3 |
| | | | 20-24 | Pattern 4 |
| | | | 25-29 | Pattern 5 |
| | | | 30-34 | Pattern 6 |
| | | | 35-39 | Pattern 7 |
| | | | 40-44 | Pattern 8 |
| | | | 45-49 | Pattern 9 |
| | | | 50-54 | Pattern 10 |
| | | | 55-59 | Pattern 11 |
| | | | 60-64 | Pattern 12 |
| | | | 65-69 | From slow to fast jitter pattern 2 |
| | | | 70-74 | From slow to fast jitter pattern 3 |
| | | | 75-79 | From slow to fast jitter pattern 4 |
| | | | 80-84 | From slow to fast jitter pattern 5 |
| | | | 85-89 | From slow to fast jitter pattern 6 |
| | | | 90-94 | From slow to fast jitter pattern 7 |
| | | | 95-99 | From slow to fast jitter pattern 8 |
| 100-104 | From slow to fast jitter pattern 9 | | | |
| 105-109 | From slow to fast jitter pattern 10 | | | |

| | | | | |
|---------|---|------------------|---------|---|
| | | | 110-114 | From slow to fast jitter pattern 11 |
| | | | 115-119 | From slow to fast jitter pattern 12 |
| | | | 120-127 | Pattern 12 |
| | | | 128-190 | From fast to slow forward flow water |
| | | | 191-192 | cease |
| | | | 193-255 | From slow to fast, the reverse flow water |
| CH14 | CH13 | Rotation pattern | 0-9 | white light |
| | | | 10-19 | Pattern 1 |
| | | | 20-29 | Pattern 2 |
| | | | 30-39 | Pattern 3 |
| | | | 40-49 | Pattern 4 |
| | | | 50-59 | Pattern 5 |
| | | | 60-69 | Pattern 6 |
| | | | 70-79 | Pattern 7 |
| | | | 80-89 | From slow to fast jitter pattern 1 |
| | | | 90-99 | From slow to fast jitter pattern 2 |
| | | | 100-109 | From slow to fast jitter pattern 3 |
| | | | 110-119 | From slow to fast jitter pattern 4 |
| | | | 120-129 | From slow to fast jitter pattern 5 |
| | | | 130-139 | From slow to fast jitter pattern 6 |
| | | | 140-149 | From slow to fast jitter pattern 7 |
| | | | 150-200 | From fast to slow forward flow water |
| | | | 201-205 | cease |
| 206-255 | From slow to fast, the reverse flow water | | | |
| C15 | CH14 | Pattern rotation | 0-127 | 0-400 degrees |
| | | | 128-190 | From fast to slow forward flow water |
| | | | 191-192 | cease |
| | | | 193-255 | From slow to fast, the reverse flow water |
| | | | | |

| | | | | |
|------|------|----------------------|---------|--|
| CH16 | | Rotation fine-tuning | 0-255 | |
| CH17 | CH15 | Prism 1 | 0-63 | Remove the prism |
| | | | 64-127 | Prism 1 |
| CH18 | CH16 | Prism 1 rotation | 0-127 | 0-400 degrees |
| | | | 128-187 | From fast to slow forward flow water |
| | | | 188-195 | cease |
| | | | 196-255 | From slow to fast, the reverse flow water |
| CH19 | CH17 | Prism 1 | 0-63 | Remove the prism |
| | | | 64-127 | Prism 1 |
| CH20 | CH18 | Prism 2 rotation | 0-127 | 0-400 degrees |
| | | | 128-187 | From fast to slow forward flow water |
| | | | 188-195 | cease |
| | | | 196-255 | From slow to fast, the reverse flow water |
| CH21 | CH19 | atomization | 0-127 | not have |
| | | | 128-255 | atomization |
| CH22 | | continue to have | 0-255 | |
| CH23 | CH20 | amplify | 0-255 | grow from a small beginning into a mighty |
| CH24 | CH21 | focus | 0-255 | From far to near |
| CH25 | | Focus tuning | | |
| CH26 | CH22 | function | 210-215 | Reduction effect motor for over 6 seconds |
| | | | 220-235 | Reduction effect motor for over 6 seconds |
| | | | 240-255 | All cases are reset in more than 6 seconds |

Chapter 4 Common faults and use attention

1. Common fault handling

The lamps include the microcomputer circuit board, high voltage power supply and other professional components. For your safety and product life, non-professionals do not remove the lamps and related accessories without authorization.

● **Bulb not bright (except L ED light source)**

Possible causes: the bulb is not completely cooled, or the bulb reaches its life, and is treated as follows:

- ◆ Due to abnormal operation, the bulb is not completely cooled, should let the lamp body cool for more than 10 minutes, so that its internal completely restored to the normal state, and then start the power supply again;
- ◆ Check whether the bulb has reached the service life, and should replace a new bulb;
- ◆ Check whether the bulb and lamp lighter line leakage, shedding or poor contact;
- ◆ Replace a new lamp lighter.

● **The beam looked dim**

Possible reasons: bulb long use or light path is not clean, treated as follows:

- ◆ Check whether the bulb has reached the service life, and should replace a new bulb;
- ◆ Check whether the optical components or light bulbs are clean, and whether there is dust accumulated on the light bulbs and other optical devices. The light bulbs and all components in the lamps should be cleaned and maintained regularly.

● **The pattern projection is vague**

- ◆ Check if the electron focus channel values are appropriate for the current projection distance.

● **The lamps work intermittently**

Cause: Internal line enters protection state and handles as follows:

- ◆ Check whether the fan is running normally or whether it is dirty, causing the internal temperature of the lamp to rise;
- ◆ Check whether the internal temperature control switch is in a closed state;
- ◆ Check the bulb for service life and replace a new bulb.

● **No console control is accepted after the lamp is normally reset**

Possible reasons: signal line failure or abnormal lamp parameter setting, handled as follows:

- ◆ Check the starting address code and the connection of the DMX signal line (whether the signal line cable is intact and whether the Alcock head connection is loose);

- ◆ Add a signal amplifier, add 120 ohm terminal resistance;

● **The lamps cannot be started**

Available reasons: poor power line, treated as follows:

- ◆ Check whether the insurance on the power input socket is fused and replace the insurance;
- ◆ Lighting have poor line contact due to vibration in long-distance transportation
- ◆ Check input power supply, computer board and other plug devices.

2. Precautions for use

- Check whether the local power supply meets the product rated voltage requirements, leakage protection device, overcurrent protection device to meet the load requirements;
- Do not use a damaged power cord with insulation, and cannot lap the power cord to other wires;
- The lamps and lanterns are using strong air refrigeration, easy to accumulate dust, it must be cleaned once a month, especially the heat dissipation tuyere, otherwise it will be blocked due to the dust accumulation, resulting in poor heat dissipation, so that the lamps and lanterns appear abnormal.
- When installing lamps, the fixed screws must be tightened, and equipped with a safety cable, and regular check;
- In the installation and positioning, any point on the lamp surface and any easy burning explosive, the minimum distance is 10 meters, the distance from the irradiation is 2.5 meters, please do not install the lamps directly on the surface of combustible substances;
- It is recommended that the continuous working time of lamps should not exceed 10 hours, and the interval between the continuous starting of lamps should not be less than 10 minutes, otherwise it will not be triggered normally because of the overheating protection of the bulb;
- The closing time of using the on-off valve should not exceed 5 minutes. If the light is closed for a long time, the console (light gun control channel) should be used to turn off the light gun;
- In order to ensure that multiple lamps can better comply with the scene effect, the lamps should not always be in the unfinished current scene, that is, to start the next scene action, it is best that this state is not more than 3 minutes, to ensure that multiple lamps can run synchronously;
- During the use process, the lamps should be stopped in time to prevent other faults.

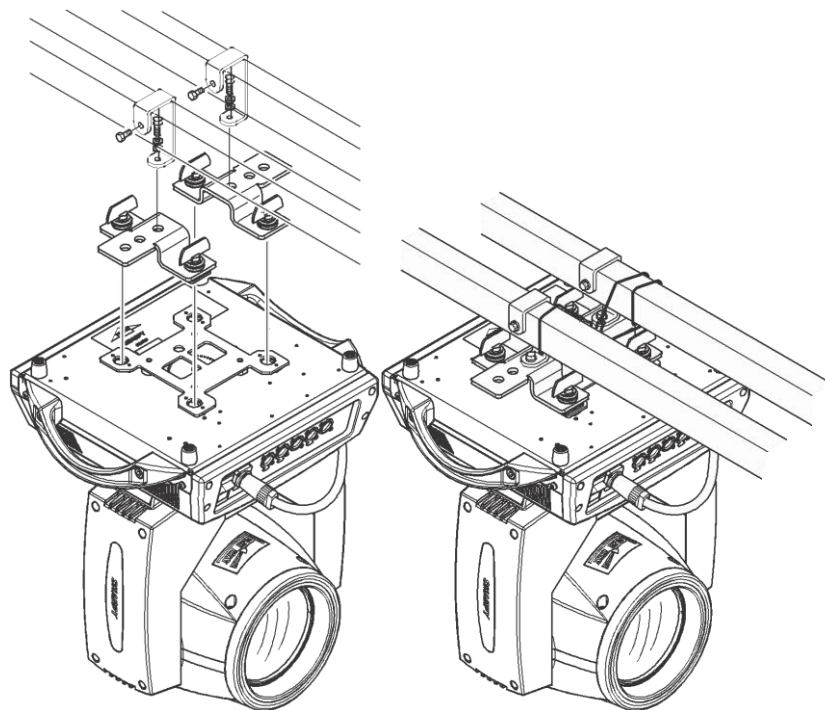
3.RDM Use Notes

RDM is an extended version of DMX512-A protocol, is the remote device management (Remote Device Management) protocol, traditional DMX512 protocol communication is one-way communication, protocol is based on R S-485 bus, R S-485 is multi-sharing, half-duplex protocol, the same time allows only one port for the host output, so, pay attention to the following points when using R DM:

- To use a console or host device that supports the R DM protocol host;
- To use the two-way signal amplifier, the traditional unidirectional signal amplifier is not applicable to the RDM protocol, because the R MD protocol needs feedback data, the use of the one-way amplifier will block the returned data, resulting in no search for lamps;
- All lamps must be set to D MX mode to ensure that there is only one host on the signal line;
- An 120ohm impedance matching resistance must be inserted between the terminals 2 and 3 of the terminal plug. When the signal line is relatively long, reducing the signal reflection will use the differential signal more stable, which is conducive to the quality of communication;
- When the lamp receives D M X control, but cannot R DM search the lamp, first check the signal amplifier, and then check whether the signal line 2,3 lines have bad contact.

4. Lighting installation

- Lamps can be placed horizontally, oblique and upside down. We must pay attention to the installation method when oblique and inverted.
- 4As shown in Figure 4, 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 down on the support frame, need to use a safety rope through the support frame and the lamp lift 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 of the falling of the lamps due to the unstable installation of the hanging.



4Figure 4 Schematic diagram of the inverted lamp

● Statement

- ◆ The product leaves the factory. All users shall strictly comply with the warnings and operating instructions stated above, any damage caused to misuse is not covered by the Company, and faults and problems from neglecting the operating manual.
- ◆ This manual is subject to technical changes without prior notice.

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