CLAIR LIGHTING
MINI MIGHTY 200W

MANUAL

Read the instructions carefully before use

Catalogue

Precautions and installation Precautions and installation

1.Disclaimer

Thank you for choosing our products! 8, This product is in good condition and the package is complete when it leaves the factory. For your safe and effective use of this product, before you use this product, please read this manual carefully and completely. This manual contains important information for installation and use. Please install and operate according to 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 individuals not operating in accordance with the instructions during installation, use and maintenance.

This manual is subject to technical changes without prior notice.

2.Maintenance

- Disconnect the power supply before performing maintenance.
- This lamp should be kept dry and avoid working in wet environment.
- Intermittent use will effectively extend the life of the luminaire.
- In order to obtain good ventilation and lighting effects, pay attention to cleaning the fan and fan net as well as the lens often.
- Do not rub the luminaires housing with organic solvents such as alcohol to avoid damage.

3.Product Precautions

- This lamp is for professional use only.
- Ensure that the power supply voltage matches the required power supply voltage of the equipment before operation.
- Do not place this product in a place that is easy to loose or shake.
- During use, if the lamp is abnormal, stop using the lamp in time.
- In order to ensure the service life of the product, this product should not be placed in a humid or leaking place, and should not work in an environment where the temperature exceeds 60 degrees.
- When the lamp is used, the power supply voltage change should not exceed ±10%, the voltage is too high, will shorten the life of the lamp, the voltage is too low, it will affect the light color of the lamp.
- After the power off, it takes 20 minutes to use the lamp to cool down fully before it can be used again.
- The rotating parts of the lamp and the attaching accessories must be checked regularly, and the loosening and shaking should be reinforced in time to prevent accidents.
- In order to ensure the normal use of this product, please read this instruction carefully.

4.Product Description

- Light source power: 200W;
- Voltage: AC 200V~240V/50~60Hz;
- Color disk: Each color disk consists of 9 color plates + white light;
- Pattern plate: 9 pattern effects;
- Pattern plate: 7 pattern effects;
- 540° pan, 270° tilt.
- Overheat protection;
- Control mode: DMX512/ master-slave/automatic;
- IP20 protection level

5.Signal cable connection

Light fixtures feature standard DMX input and output 3-core or 5-core XLR sockets. Use a twisted-pair signal cable shielded specifically for DMX 512; The signal line is generally connected at a distance of 150 meters, and the DMX512 signal amplifier must be added for long distance signal transmission.

Use a shielded twisted-pair signal line from the DMX outlet of the controller to the DMX input of the first device, and from the DMX outlet of the first device to the DMX input of the second device, and so on, until all the lamps are connected. Then install a terminal plug on the last 3-pin connector of the connecting luminaire output on each line. (Weld a 4/1W, 120Ω resistor between the 2 and 3 pins of the 3-pin pin cannon plug).

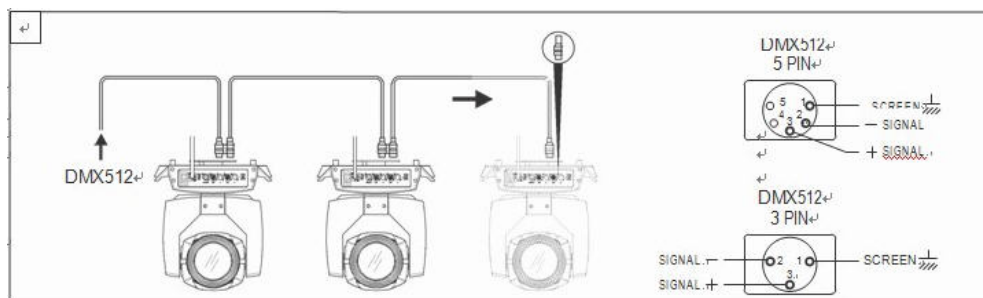Important: The wires should not touch each other or the metal housing.

Figure 1 Schematic diagram of DMX signal wire connection

➢ The calculation method of the starting address code of the lamp:
The initial address code of the current luminaire is equal to (the initial address code of the previous luminaire)+(the number of channels of the luminaire)
1: The initial address code value of the first luminaire A001.
2: The basic channel number of the controller should be greater than or equal to the total number of channels used by the luminaire.
3: Note: when using any controller, each luminaire should have its own starting address code, if the first luminaire's starting address code is set A001, the number of luminaire channels is 16CH; 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 also needs to be determined according to different consoles)

6.Luminaire installation

Luminaires can be placed horizontally, hung diagonally, and hung upside down. Be sure to pay attention to the installation method when hanging diagonally and upside down.

As shown in Figure 2, before positioning the luminaire, it is necessary to ensure the stability of the installation site. During the reverse hanging installation, it is necessary to ensure that the luminaire does not fall down on the support frame. It is necessary to use the safety rope to pass through the support frame and the luminaire handle for auxiliary hanging to ensure safety. Prevent the luminaire from falling and sliding.

During the installation and commissioning of the lamp, pedestrians are prohibited from passing under the lamp, and the safety rope is regularly checked for wear and whether the hook screws are loose.

If the hanging installation is not stable, resulting in the fall of the lamp and all the consequences, our company does not assume any responsibility.
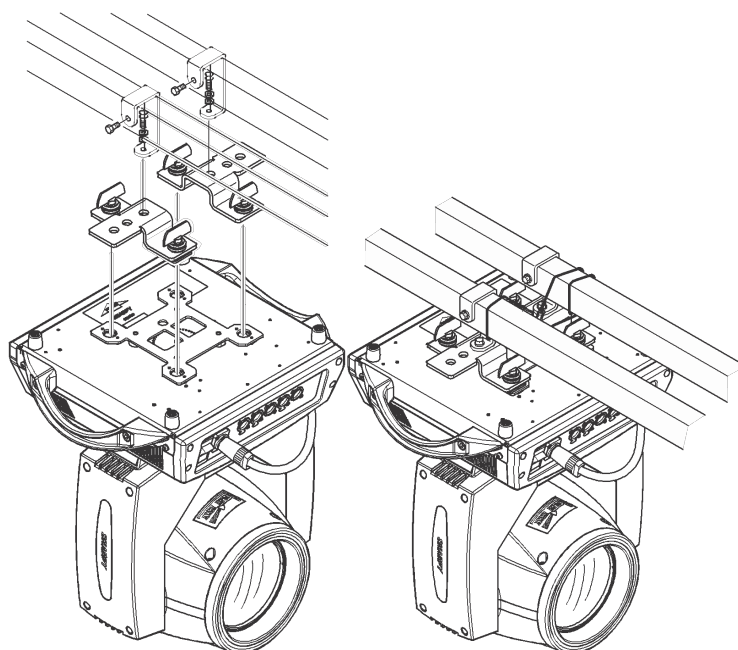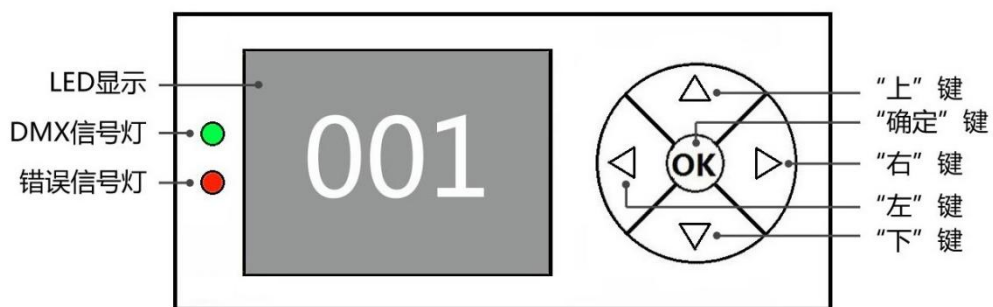
Figure 2 Schematic diagram of the lamp hanging upside down

2. Control panel

2.1 Key Instructions

"左""右"键的功能是一样的：返回上一界面

"上"、"下"键：选择、编辑

"确定"键（即"OK"键）：执行功能、开始编辑、退出编辑

Figure 3 Schematic diagram of key description on the panel

The following takes "Modify DMX address code" as an example to describe the use of keys:
1, if the current is not the main interface, press the "left" key (one or more times) to return to the main interface
2, in the home screen, press the "up" key or "down" key to select the "Settings" button
3. Press the "OK" key to enter the "Settings" interface
4, in the "Settings" interface, press the "up" key or "down" key to select "DMX address"
5, press the "OK" key to enter the editing state
6, press the "up" key or "down" key to modify the DMX address code
7, press the "OK" key to exit the editing state

2.2 Menu Description

Figure 4 Schematic diagram of main menu

2.2.1 Settings

Options		Instructions
Running mode	DMX	Slave state: Receives DMX signals from the console or host
	Bootstrap	Host status: Self-drive and send DMX signal to slave
	Voice Control	
DMX address	1-512	Press "OK" to enter the editing state. At this time, the hundreds digit is selected, and press the "up" and "down" keys to change the address code. Press the "OK" key again to select the tens edit. Press "OK" again to select the ones edit. Press again to exit the editing state
Motor reset	close	
	open	Light fixture reset
Channel mode	Standard 17CH	Standard 17 channel mode
	Standard 21CH	Standard 21 channel mode
Language	Chinese	Set to the Chinese interface
	English	Set to English interface
Screen flip	close	Front display
	open	Screen inverted display
X Inversion	close	
	open	
Y Reversal	close	
	open	
XY swap	close	
	open	Channel to swap XY axes (incl. trims)
XY encoder	open	Use an encoder (optocoupler) to judge out of step and automatically correct the position
	close	Correct position without using an encoder (optocoupler)
DMX signal	Hold	Continue running in the original state
	Reset	Turn the motor back and stop running
Restore default Settings		Press "OK" to see the confirmation dialog box, press "OK" again to restore the default Settings

2.2.2 Manual control

This interface is used to control the current luminaire (does not receive DMX signals), corresponding to the channel. Refer to the channel table for details

Options		Instructions
1CH.	0 ~ 255	Press "OK" to enter the editing state. At this time, the hundreds digit is selected, and press the "up" and "down"

......	0 ~ 255	selected, and press the up and down keys to change the channel value. Press the "OK" key again to select the tens edit. Press "OK" again to select the ones edit. Press again to exit the editing state
15CH.	0 ~ 255	
......	0 ~ 255	

2.2.3 Information

Options	Instructions	
Ver		Software version
DIS		Display board software version
MT		Motor board software version
Time information	Time information Steps 1 Total brightening bubbles 2. Total use	Record the cumulative bright-bubble time Record the lighting time
System error		If the red ERR indicator light shines, it indicates that the lamp is running incorrectly, and the details can be viewed from this sub-interface. After viewing, you can press the "Clear" button to clear the error record
Blower speed		Displays the current blower speed
Hall Status	11100010	0 when magnetic is detected, 1 otherwise
The X-axis encodes the disk step value	0000	When traveling in the forward direction, the step value should increase, and when traveling in the reverse direction, the step value should decrease. The number should be normal every time you reach the same point
The Y-axis encodes the disk step value	0000	When traveling in the forward direction, the step value should increase, and when traveling in the reverse direction, the step value should decrease. The number should be normal every time you reach the same point
Permission Duration		9999 No encryption; Other values can be used with encryption

A. Error message description

Common Error Messages	Instructions
MT board connection failed	Motor board not responding. There is a problem with the serial communication line connecting the display board to the motor board, or there is a problem with the motor board.

X-axis reset failed	There is a problem with the X-axis photoelectric switch, or the X-axis motor or motor board
Y-axis reset failed	Y-axis photoelectric switch, or Y-axis motor or motor board problem
X-axis Hall error	X-axis Hall, or a problem with the motor board
Y-axis Hall error	Y-axis Hall, or a problem with the motor board
Color disk reset failed	Color disk Hall, or there is a problem with the color disk motor
The pattern plate failed to reset	Pattern plate Hall, or pattern plate motor has a problem
The focus reset failed	Focusing Hall, or a problem with the focusing motor
Bulb control failure	Failure to light or extinguish bubbles, lamplighter or bulb problem

2.2.4 Factory

calibrate	Data download	After changing the display board, download the calibration data of the original display board from the motor board
	X-axis	After entering the sub-interface, the reset position of the motor such as X axis and Y axis can be adjusted to make up for the error on the hardware installation. The adjustment range is -128~+127, and +0 indicates no adjustment.
	Y-axis	
	Colors	
	Patterns	
	GIFs	
	GIF rotation	
	Focusing	
	Zoom in	
	Prism zero	
	Prism stroke	
	Fogging zero	
	Atomizing stroke	
	Zero clearing	close
		On, the data is restored to default values
	Power	Power regulation
	X Hall	Off, X Hall report wrong off
		On, X Hall reports the wrong off
	Y Hall	Off, Y Hall reports wrong off
		On, Y Hall reports an error

3.   Channel function

3.1

Channel Table

Channels	17 Channel mode	21 Channel mode
1	X	X
2	X Fine tuning	X Tweaks
3	Y	Y
4	Y Fine tuning	Y Tweaks
5	XY speed	XY speed
6	Dimmer	Dimming
7	Cut light/strobe	Cut light/stroboscopic
8	Color disc	Color plate
9	Pattern tray	Pattern plate
10	Glass Chart	Botu
11	Botu rotation	Botu rotation
12	Focusing	Focusing
13	Zoom in	Zoom in
14	Prism	Prisms
15	Prism rotation	Prism rotation
16	Atomization	Atomizing
17	resetting	Reset
18		Retain
19		Color speed
20		Dimming speed
21		Pattern speed

Channel	Features	Channel values	Effects
1	X-axis	000-255	Horizontal 540 degree scan
2	X-axis fine-tuning	000-255	Horizontal 1.2 degree fine tuning
3	Y-axis	000-255	Vertical 270 degree scan
4	Y-axis fine-tuning	000-255	Vertical 1.2 degree fine tuning
5	XY speed	000-255	Fast to slow
6	Dimming	000-255	Go from dark to light
7	Stroboscopic	000-003 004-250 251-255	Lightbrake off Stroboscopic from slow to fast Light gate on → (controlled by dimmer
8	Color dial	000-002 003 -005 006- 008 009 - 011 012- 014 015- 017 018- 020 021- 023 024- 026 027- 029 030- 032 033- 035 036- 038 039- 041 042- 044 045- 047 048- 050 051- 053 054- 056 057- 059 060-159 160 -205 206 - 255	White light White light + Color 1 Color 1 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 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+ white light Color linear Reverse flow (fast to slow) Forward flow (slow to fast)

9	Pattern plate	000 - 009	White light
		010 - 019	Solid Figure 1
		020 - 029	Solid Figure 2
		030 - 039	Solid Figure 3
		040 - 049	Solid Figure 4
		050 - 059	Fixation Figure 5
		060 - 069	Solid Figure 6
		070 - 079	Fixation Figure 7
		080 - 089	Fixation Figure 8
		090 - 094	White light jitter (slow to fast)
		095 - 099	Solid Figure 1 Jitter (slow to fast)
		100 - 104	Solid Picture 2 Jitter (slow to fast)
		105 - 109	Solid Figure 3 Jitter (from slow to fast)
		110 - 114	Fixed Figure 4 Jitter (from slow to fast)
		115 - 119	Solid Figure 5 Jitter (slow to fast)
		120 - 124	Solid Figure 6 Jitter (from slow to fast)
		125 - 129	Solid picture 7 Jitter (from slow to fast)
		130 - 134	Fixed Figure 8 Jitter (from slow to fast)
		135 - 200	Forward flowing water (from fast to slow)
		201 - 255	Backward flow (slow to fast)
10	Glass pattern	000 - 009	Pattern 1
		010 - 019	Pattern 2
		020 -029	Pattern 3
		030 -039	Pattern 4
		040 - 049	Pattern 5
		050 - 059	Pattern 6
		060 - 069	Pattern 7
		070- 079	Pattern 8
		080- 089	Pattern 2 Jitter (slow to fast)
		090- 099	Pattern 3 Shake (slow to fast)
		100- 109	Pattern 4 Shake (slow to fast)
		110- 119	Pattern 5 Jitter (slow to fast)
		120 - 129	Pattern 6 Jitter (slow to fast)
		130- 139	Pattern 7 Jitter (slow to fast)
		140- 149	Pattern 8 Jitter (slow to fast)
		150- 200	Backward running water (fast to slow)
		201- 255	Forward flow (slow to fast)
11	Glass pattern rotation	000-127	Angle adjustment
		128-191	Reverse fast rotation to slow rotation
		192-255	Forward slow spin to fast spin
12	Focusing	000-255	Pattern sharpness from far to near
13	Enlarge	000-255	Pattern clarity from far to near
14	Prisms	000-127	Prism pop
		128-255	Prism cut

15	Prism rotation	000-127 128-191 192-255	Prism Angle adjustment Reverse rotation (from fast to slow) Forward rotation (slow to fast)
16	Atomizing	000-127 128-255	Atomizing cut out Atomizing cut
17	Reset	000-249 250-255	Invalid area Whole machine reset
18	Retain	000-255	Speed from fast to slow
19	Color wheel speed		
20	Dimming - P r i s m - atomization speed		
21	Pattern disk speed		

4. Common faults

According to some common faults, the corresponding solutions are put forward. Any problems that cannot be solved should be dealt with by professionals. Disconnect the light fixture from the power supply before maintaining it.

1. The light bulb is not working

- Check that the voltage that matches the light fixture is installed;
- Check whether the lamp power supply connection or control switch is in poor contact;
- Check whether the power supply is insufficient;
- Check whether the DMX512 controller sent instructions.

2. The light fixture does not accept control from the console after normal reset

- Check luminaire digital start address value and function options 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, check whether the signal amplifier connected to the series is invalid;
- Check whether the communication line is too long or other devices interfere with each other;
- Optimize wiring, shorten the length of the control signal line, high-voltage and low-voltage lines separate wiring;
- Add signal amplifiers;
- Signal line using high quality shielded twisted pair wire;
- Connect the signal terminal resistor (120 ohms) at the end of the lamp.

3. Luminaire does not start

- Check that the power supply parameters are consistent with the luminaire;
- Check the lamps in the long distance transportation process due to extrusion deformation, internal parts vibration, moisture and other reasons, resulting in poor contact
  Or fall off.

- Please check whether the internal wire integration connector of the lamp has fallen off and is loose.
- Check whether the electronic components of the lamp (such as electronic transformer, PCB board, motor control board, etc.) are loose, short circuit and burned out.

4. When working, the action of the X axis or Y axis of the lamp is not normal

- Check them one by one by following the previous step;
- Check whether the transmission belt corresponding to the X and Y axis direction in the lamp falls off and breaks;
- Check whether the data feedback receiver (optocoupler) corresponding to the X and Y directions in the lamp is damaged;
- Restart and reset once.