RH-B200S

Use explanatory book

Catalogue

1. Precautions and installation

Precautions and installation

1.1 Declaration

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.

1.2 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.

1.3 Product precautions

- This light fixture 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.

1.4 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: 7 pattern effects +1 long picture effect;
- Glass pattern plate: 7 pattern effects;
- 540° translation, 270° tilt.
- Overheat protection;
- Control mode: DMX512/ master-slave/automatic;
- IP20 protection level

1.5 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.

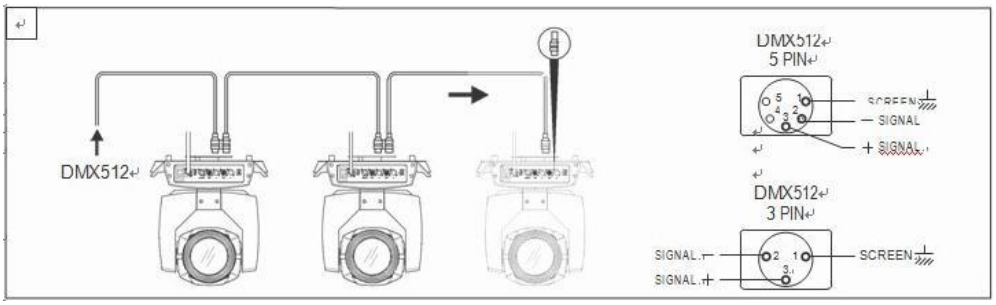

Figure 1 Schematic diagram of DMX signal wire connection

➢ 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)

1.6 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. Figure 2 Schematic diagram of the lamp hanging upside down1Prevent the luminaire from falling and sliding.

During the installation and debugging of the lamps, pedestrians are forbidden to pass under the lamps. Regularly check whether the safety rope is worn 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.

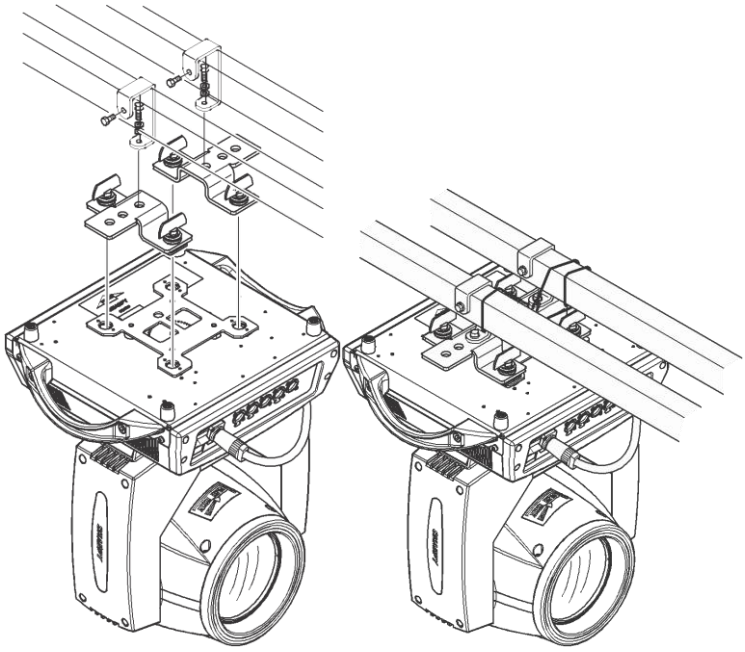

Figure 2 Schematic diagram of the lamp hanging upside down1

1. Control panel

2.1 Key Instructions

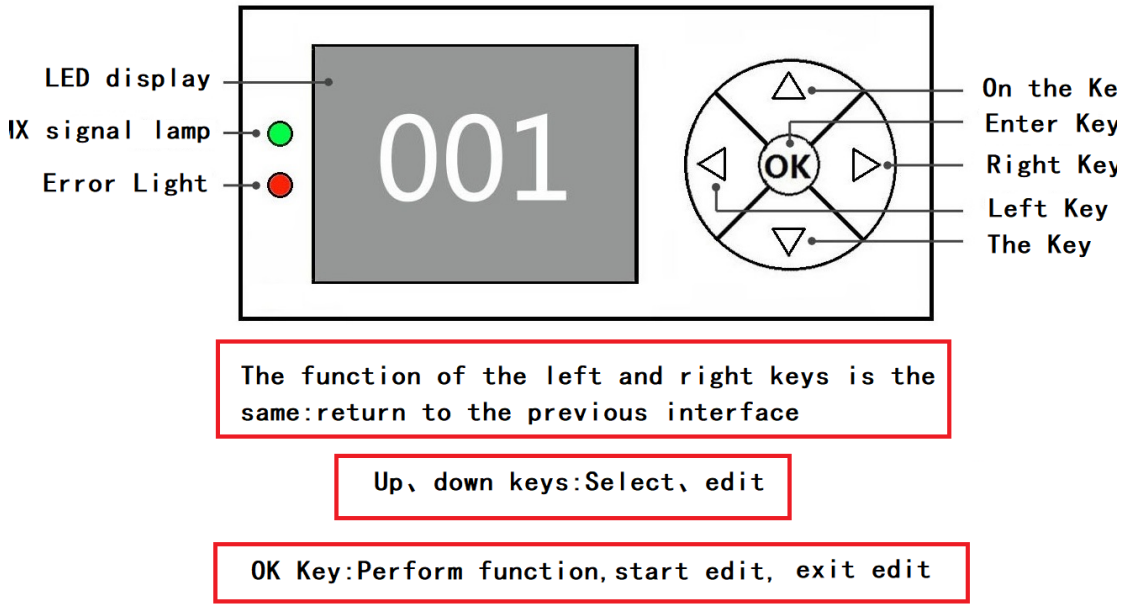

Figure 3 Schematic diagram of key description on the panel

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

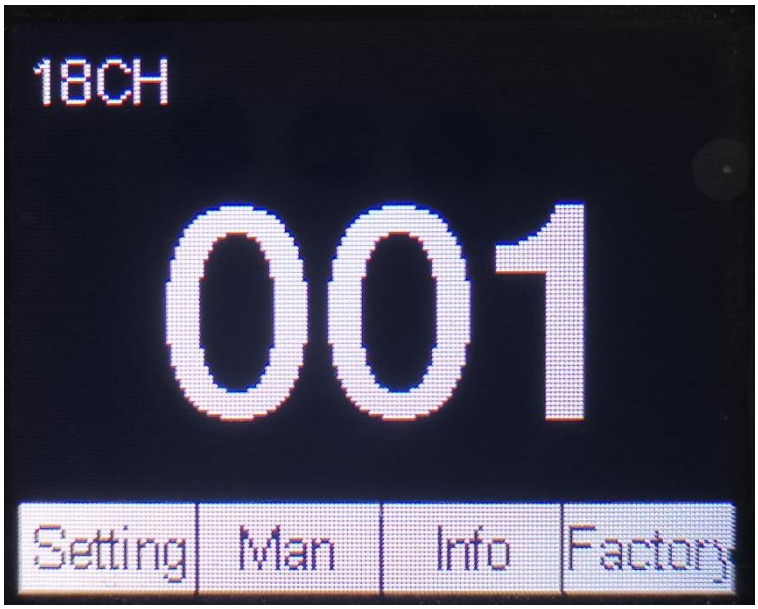

Figure 4 Main menu diagram

2.2.1 Settings

Options	Instructions	
Run	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	Luminaire reset
Channel	Standard 18CH	Standard 18 channel mode
Language	English	Set to English interface
	Chinese	Set to the Chinese interface
Screen flip	close	Front display
	open	Screen inverted display
X Inversion	close	
	open	X Motor rotated 180 degrees in the direction
Y reversal	close	
	open	Y Turn the motor 180 degrees in the direction
XY switching	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 its original state
	Reset	Turn the motor back and stop running
Color linearity	open	The color wheel changes linearly
	close	Color wheel nonlinear change, half-color change
Restore default	open	
	close	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" keys to change the channel value. Press the "OK" key again
……	0 ~ 255	
15CH.	0 ~ 255	
……	0 ~ 255	

		to select the tens edit. Press "OK" again to select the ones edit. Press again to exit the editing state

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	Instructions

Messages	
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 plate Hall, or color plate motor problem
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

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	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	
	Colors	
	Gobo	
	Gobo 2	
	Gobo 2 Rotation	
	Focus	
	Zoom	
	Prism zero	
	Prism stroke	
	Frost zero	
	Frost stroke	
	Colorful zeros	
	Seven-color itinerary	
	Zeroclear	close
		On, the data is restored to default values

	Power	Adjust Led power
	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

1. Channel function

3.1 Channel Table

Channels	Channel mode
	18
1	X
2	X Fine
3	Y
4	Y Fine
5	XY Speed
6	Frost
7	Shutter
8	Dimming
9	Color
10	Gobo
11	Gobo 2
12	Gobo 2 Rot
13	Prism
14	Prism Rotation
15	Zoom
16	Focus
17	RFU
18	Reset

Channel parameter values (full version) :

Channel	Features	Channel values	Effects
1	X	000-255	Horizontal 540 degree scan
2	X Fine	000-255	Horizontal 1.2 degree fine tuning
3	Y	000-255	Vertical 270 degree scan
4	Y Fine	000-255	Vertical 1.2 degree fine tuning
5	XY Speed	000-255	Speed from fast to slow
6	Frost	000-127 128-255	None Frost cut in

7	Shutter	000-003 004-103 104-107 108-207 208-212 213-251 252-255	Light brake open Stroboscopic from slow to fast Light gate on → (controlled by dimmer channel) Pulse stroboscopic from slow to fast Light gate open → (controlled by dimming channel) Random strobe from slow to fast Light gate on → (controlled by dimmer channel)
8	Dimmer	000-255	Go from dark to light
9	Color	000 - 004 005 - 009 010 - 014 015 - 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 - 177 178 - 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 Reverse running water (fast to slow) Forward flow (slow to fast)
10	Gobo	000 - 009 010 - 019 020 - 029 030 - 039 040 - 049 050 - 059 060 - 089 090 - 099 100 - 109 110 - 119 120 - 129 130 - 139 140 - 149	Gobo 1 (white light) Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Linear Gobo Gobo 1 Shake(from slow to fast) Gobo 2 Shake(from slow to fast) Gobo 3 Shake(from slow to fast) Gobo 4 Shake(from slow to fast) Gobo 5 Shake(from slow to fast) Gobo 6 Shake(from slow to fast)

		150 - 159	Linear Gobo Shake(from slow to fast)
		160 - 205	Forward flowing water (from fast to slow)
		206 - 255	Backward flow (from slow to fast)
11	Gobo 2	000 - 009	Gobo 1 (White light)
		010 - 019	Gobo 2
		020 - 029	Gobo 3
		030 - 039	Gobo 4
		040 - 049	Gobo 5
		050 - 059	Gobo 6
		060 - 069	Gobo 7
		070 - 079	Gobo 8
		080 - 089	Gobo 2 Shake (from slow to fast)
		090 - 099	Gobo 3 Shake (from slow to fast)
		100 - 109	Gobo 4 Shake (from slow to fast)
		110 - 119	Gobo 5 Shake (from slow to fast)
		120 - 129	Gobo 6 Shake (from slow to fast)
		130 - 139	Gobo 7 Shake (from slow to fast)
		140 - 149	Gobo 8 Shake (from slow to fast)
		170 - 212	Backward running water (from fast to slow)
		213 - 255	Forward flow (from slow to fast)
12	Gobo2 Rotation	000-127	Boto Angle adjustment
		128-190	Reverse rotation (from fast to slow)
		191-192	Stop
		193-255	Forward rotation (slow to fast)
13	Prism	000-127	None
		128-255	Prism cut in
14	Prism Rotation	000-127	Prism Angle adjustment
		128-190	Forward rotation (from fast to slow)
		191-192	Stopping
		193-255	Reverse rotation (from slow to fast)
15	Zoom	000-255	Gobo from small to large
16	Focus	000-255	Gobo sharpness from far to near
17	RFU	000-255	
18	Reset	000-025	Safe
		026-050	Reset Effect
		061-085	Reset XY
		251-255	Reset All

Common faults

In view of 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 that the DMX512 controller is sending 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 whether 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 luminaire is abnormal

- 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.