200W LED BSW 3-IN-1

User Manual

Please read the instructions carefully

Chapter 1 Notes and Installation

1.Maintenance

- This luminaire should be kept dry and avoid working in wet conditions.
- Intermittent use can effectively extend the life of this lamp.
- In order to obtain good ventilation and lighting effects, pay attention to frequently clean the fan and fan network as well as lenses.
- Do not use organic solvents such as alcohol to rub the lamp housing to avoid damage.

2.statement

This product in the factory, the performance is good, packaging complete. All users shall strictly comply with the warnings and operating instructions stated above, any damage caused by misuse is not covered by the Company's warranty, and failures and problems caused by neglect of the operating manual are not the responsibility of the dealer.

This manual is subject to technical changes without notice.

3.Technical parameters

Input voltage:AC100-240V, 50/60Hz

Power:350W

Light source:200W white LED

Lamp life: Average life of 2000 hours

Color 9 colors plus white light, half-color effect, can be arbitrarily positioned

Rainbow effect, speed adjustable

Fixed pattern: 10 fixed delicate patterns with white light, pattern jitter effect,

Two-way rotation chart effect, speed adjustable

Rotating pattern:7 pluggable pattern pieces, pattern rotation, pattern flow effect

Prism: 1 separate spin prism 4 prism,knob speed adjustable

Independent atomization disk

Optics: High-precision multi-layer coatings with leak-proof optical lenses

X/Y motors: Faster, more powerful, and more muted with high-precision stepper motors

Number of channels:18 DMX512 channels

Control mode: International standard DMX 512/random mode / self-walking mode

Display:1.8 inch color screen, can be displayed positively / upside down, switch between Chinese and English

Power outlet: PowerCon input

Signal in/out: Three-core Cannon head socket

X-axis:540degrees/2.0 seconds

Y-axis:270 degrees /1.0 seconds. Positioning can be automatically corrected

With RDM functionality

Operating temperature:-10C to 45C

Protection Index: IP20

4.Product considerations

- To ensure the service life of the product, do not place the product in wet or leaky places, let alone work in environments above 60 degrees

- Do not place the appliance in a loose or vibrating place.

- To avoid the risk of electric shock, a repair request for this product is made to assist a professional.

- When the lamp is used, the supply voltage change should not exceed10%of the±, the voltage is too high, will shorten the life of the bulb, the voltage is too low, it affects the light color of the bulb.

- After the power is off, it takes 20 minutes to cool down sufficiently with the lamp before it can be powered on again.

- To ensure the normal use of this product, please read this instruction carefully. Signal line connection(DMX).

  Use A Compliant RS-485 Cable: Shielded,120ohm Characteristic Impedance,22-24 AWG,LowTolerance. Do not use microphone cables or cables with different specified characteristics. The terminals must be connected using a 3- or 5-pin XLR male/female connector. (Minimum 1 / 4 W).

Important: Lines cannot come into contact with each other or with metal housings.
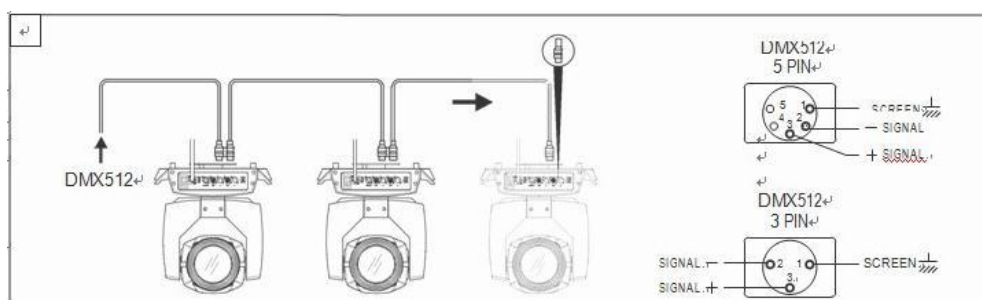

Figure 1 DMX signal line connection diagram

5.Lamp installation

Lamps can be placed horizontally, angled and upside down. Be sure to pay attention to the installation method when hanging and hanging upside down.

As shown in Figure 2, before positioning the lamp, to ensure the stability of the installation site, when reversing the suspension installation, it is necessary to ensure that the lamp does not fall on the support frame, the need to use safety ropes through the support frame and lamp handle for auxiliary hanging to ensure safety,. Prevent lamps from falling and sliding.

When the lamp is installed and commissioned, pedestrians are not allowed to pass below, and safety ropes are regularly checked for wear and hook screws are loose.

If the suspension installation is not stable, resulting in the fall of the lamp and all consequences, we do not assume any responsibility.
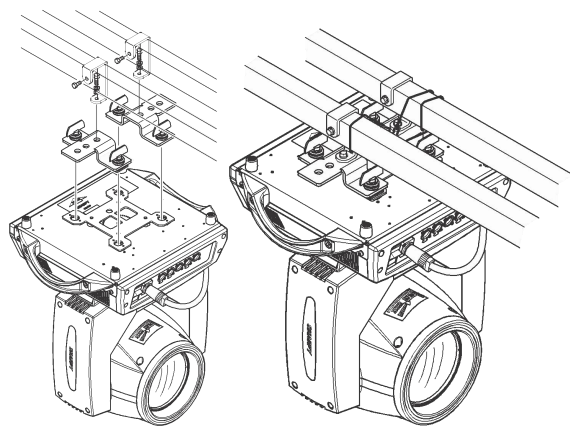
Figure 2 Hanging lighting graphics

Chapter 2 Panel Operations

6.overview

The lamp face board diagram shows   the name of the lamp, the status bar below, the signal of the current luminaire, the light bulb status, the fault (when the fault information is not viewed, the "ERR"is displayed, otherwise "NOR" is displayed,etc.).

This luminaire supports the DMX/RDM protocol, and when the luminaire is searched by the RDM host, the panel displays the three letters"RDM" indicating that the luminaire is enumerated normally.

Display and operate like "Android Operating System" and click on the corresponding item with your fingertips or blunt hard objects.

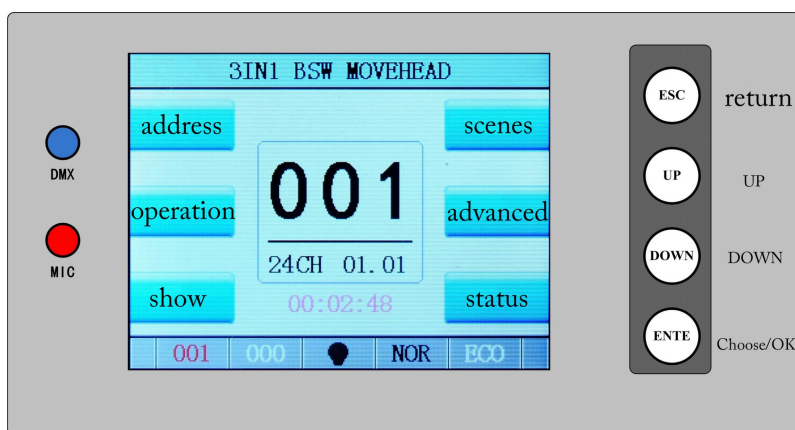Note: Do not tap the display with sharp or sharp objects to prevent damage.

Figure 3 shows a panel diagram

7.operate

1.Operate the luminaires with intuitive touch or input assistance (touch-enabled products)

第 1 章 The left area is the TFT display and touch area, and you can click on the panel content with your finger or blunt surface hardware, which means you can complete things like parameter setting or view status.

第 2 章 The area on the right is the assisted input, which you can use to select the items you need to set up or view without using the touch feature that comes with TFT.

2.Argument numeric input

When the selected parameter item needs to be entered, the window as shown in Figure 4
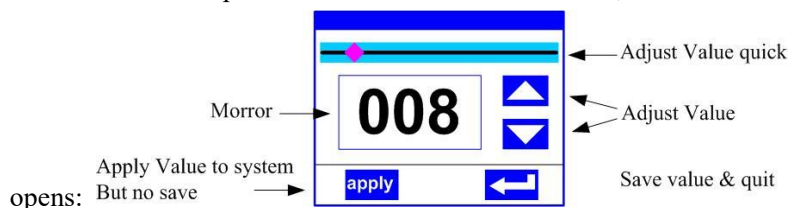

Figure 4 Numeric Settings page

- **Set the value:** You can quickly set the desired value by pulling the slider directly, or you can click on the "up" or "down" button on the right to set the desired value precisely or set it with the assisted input.
- **Apply value:** When the data is set by the "up" or "down" button, and then press the "apply" app key in the lower left corner, the value is immediately sent to the luminaire, but the value is not saved.
- **Save values:** At any time, click the OK key in the lower right corner to save the current value to the internal storage, and apply the saved value to the lamp next time you turn it on.

3.Set the Boolean parameter

- When the set parameter is Boolean (such as ON or OFF),clickdirectly on the corresponding item to switch parameter values, which are modified and saved to the internal storage. Press the parameter option on the right and the corresponding option will turn gray. When you release your hand, the parameters change and save. If pressing the parameter option is not the parameter you want to change, you can move your finger to another part of the screen and the parameters will not change.
- The determination of the important Boolean parameter is set by the determination window, as shown in Figure 5 below:
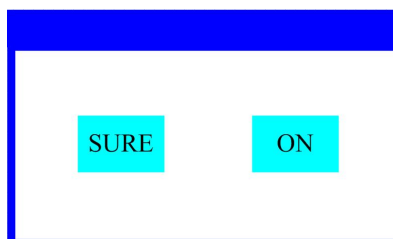
Figure 5 determines the input window

4.Subpages (parameters)

Figure 6-1 Address set

Figure 6-2 Run set

Figure 6-3 Display set

Figure 6-4 Scene set
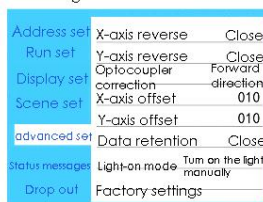
Figure 6-5 Advanced set

Figure 6-6 Status messages

8.Function operation and parameter settings

Go to the settings interface, as shown in Figure 6-1:

- In the main interface, you can enter the appropriate parameter settings by selecting six buttons.
- In the parameter settings interface, you can press the blue option on the left to quickly switch

5

to a different settings interface.

5.Set the DMX address code

The DMX address, channel mode, and so on of the luminaire can be set from the page shown in Figures 6-1.

The menu settings for the luminaires optimize the setting of the address, and several settings for address codes are as follows:

- Select "previous" or "next", the lamp will be based on the current address code and channel data, automatically calculate the next or previous address code, can be quickly set;

- Click on the address code value to enter the value editing window, where you can set any valid address code, the lamp automatically obtains the current number of channels of the lamp, automatically filters the unusable address code(512- the current number of channels).

- The luminaire supports the RDM protocol and can be remotely coded by RDM.
  Two buttons are available:

- Channel mode: different channel modes can be selected in a circular way;

- Luminaire reset: Reset all motors.

6.Set the lamp operating mode

The operating mode of the lamp and the control of the lamp gun can be set from the page shown in Figures 6-2.   The luminaire supports four operating modes(DMX mode, self-walking mode, voice control mode, and scene mode), and detailed parameter numerical settings are referred to in the previous section, as described in the table below:

Run mode

DMX mode	Console mode, receiving DMX signal,RDM signal	
Self-walking mode	The luminaires run automatically according to the built-in program	
Voice mode	When a lamp detects a strong sound, the luminaire automatically runs a scene according to the built-in program, otherwise the last scene is maintained	
Scene mode 01	Runs as a set scene, supporting custom editing of up to 10 scenes	
	1~10	Output the specified scene
	automatic	The scene is automatically looped out in the set scene time (non-0) order, and the scene with a time of 0 is automatically skipped and ignored
Master-from-selection	When non-DMX mode takes effect, select the mode of the data output, and the luminaire automatically detects the DMX status to automatically switch outputs to prevent data conflicts	
	host	The luminaire operates as built-in, and if the DMX has no signal, the data is output (synchronized), otherwise the data is not output
	From the machine	The luminaires operate as built-in and do not output data (other luminaires out of sync)
	automatic	If the DMX has no signal, the luminaire runs as built-in, otherwise the luminaire operates on the DMX signal
Light bulb switch	(Light bulb light source) pops up the confirmation dialog box, selects "SURE" to confirm the current operation, on or off the bulb, and switches for a limited interval of 30 seconds	

	Shut down	The current bulb output is turned off
	Open	The current light output is on

Scene mode is suitable for a single or small number of luminaires, just output a fixed scene, or need to run a simple program, you can not take the console, edit in the scene page.

If the luminaire light source is a light bulb, wait 10 minutes before turning on the bulb after turning it off.

7.The panel displays the settings

The luminaires support Both Chinese and English, upside down displays, etc., and enter the parameter settings for the settings shown in Figures 6-3, as shown in the table below:

Show settings

language	Set the language that appears	
	English	Shown in English
	Chinese	Chinese display
Screen saver	Set what or how the screen will appear after no action has been performed for 30 seconds	
	Shut down	Keep the last action page, bright screen
	Mode 1	Turn off the screen
	Mode 2	Black screen, showing the address code of the current luminaire in the lower left corner
	Mode 3	Displays trademark information, address codes, and operating modes
The screen rotates	Set the display direction of the screen	
	Shut down	The display is not reversed
	Open	Reverse the display
	automatic	Automatic detection of the direction of the lamp hanging lamp, automatically switching the display direction
DMX indicates	Set how the DMX signal indicator is indicated	
	Mode 1	When there is a signal, when there is no signal, it goes out
	Mode 2	When there is a signal, when there is no signal, it lights up
	Mode 3	Flashes when there is a signal and goes out when there is no signal
The signal indicates brightness	Set the brightness of the signal indicator	
	1~10	10 levels
Screen backlighting	Set the brightness of the screen backlight after 10 seconds of operation, when fully lit	
	1~10	10 levels
Touch switch	Choose whether to disable the touch screen, and when the screen touch is accidentally damaged, disable the touch function and set the lamp with the auxiliary input	
Touch correction	When the screen touch is inaccurate, you can go to the correction page correction screen	

Touch-enabled luminaires, if there is a bad touch phenomenon, can go to the correction page to recalibrate the touch accuracy of the touch screen, under normal circumstances, do not enter this

page. If the touch is damaged, select Disable the touch switch.

8.Scene mode

Go to the page shown in Figures 6-4, the lamp enters scene editing mode, under which the luminaire does not receive DMX console data, and the edited data is immediately reflected on the lamp.

The contents of the page are determined by the channel currently selected, and the contents and order of the channels displayed are consistent with the luminaire channel table, from which you can edit 10 scenes, as shown in the following table:

Scene mode

Scene selection	Select the scenario that you currently need to operate on	
	1~10	10 scene formatting
Scene time	Set the amount of time, in units 0.1 seconds, that the current scene is retained when it is automatic	
	0	The current scene does not participate in automatic scene output
	1−255	0..1 seconds to 25.5 seconds
1. X-axis	0−255	Set the data for each channel, which corresponds to the display content and order and the channel table of the luminaire
••••••	0−255	
••••••	0−255	
N. function	0−255	

If you edit a valid reset data in the reset channel in the scene, the luminaire resets, but after the reset, the value of the corresponding reset channel is automatically zeroed to prevent multiple consecutive resets.

By looking at this page, you can get the current channel table order of the luminaire, and refer to the detailed channel description for the specific channel data.

9.Set the working parameters of the lamp

Go to the page shown in Figures 6-5 to adjust the field parameters of the lamp, facilitate the on-site installation of the lamp, etc. :

Advanced settings

The X-axis is reversed	Sets the direction in which the X-axis rotates	
	Shut down	Not in reverse
	Open	reverse
The Y-axis is reversed	Sets the direction in which the Y axis rotates	
	Shut down	Not in reverse
	Open	reverse
Optocoupling correction	Set whether the luminaire detects XY strides and corrects them	
	Shut down	The position is not corrected after the step is lost
	Open	The position is automatically corrected after the step is lost and the stall fault is logged
X-axis offset	Set the position of the lamp X-axis zero	
	4−150	

Y-axis offset	Set the position of the lamp Y-axis zero	
	4-48	
Data retention	Set the output status of the luminaire without a DMX signal	
	Shut down	There is no signal, so the motor and light source return to their position and state when the reset is complete
	Open	No signal to maintain the last frame ofD MX data output
Turn on the light mode	Set how the bulb is turned on for the first time after it is powered on	
	Power on and open the bubble	Turn on the bulb when powered on and reset the lamp after 30 seconds
	Open after resetting	Power up 3 seconds after resetting the lamp, reset the completion of the light bulb
	Open the bubble manually	When the reset is complete, manually turn on the bulb through the menu or console
Factory settings	Pop up the confirmation box and select "SURE" and the luminaire parameters return to the factory settings	

When selecting the power-on foaming mode, the lamp will wait for the bulb to start fully for 30 seconds after powering up, so that the bulb is fully started, the internal voltage is stable enough, and then start the reset procedure, if the use of on-site electricity capacity is stable, it is recommended to turn on the light bulb mode.

When the luminaire cannot correct the position, first check that Optocoupling Correction is turned off.

When the signal is unplugged, check the Data Hold setting first if the lamp is not positioned to output as envisaged.

When setting the XY offset, when you're done setting up, control XYwith maximum travel to check thatX Y won't hit the positioning lever orhousing.

10.View the current status of the luminaire

Go to the page shown in Figures 6-6 to view the lighting information and real-time status to find out the status of the lamp's use, and if the lamp needs to be sold out, please provide the status information displayed on the page for judging, as shown in the following table:

<div align="center">Status information</div>

	Displays the information status of all motors and signals in the luminaire	
Motor information	Hall	Not displayed indicates that the motor is not corrected, 0 indicates that the motor is out of the correction position point, and 1 indicates that the motor is at the correction position point
	state	Displays the completion status of the motor reset
	X-axis	Display the real-time position value of the X-axis optocoupler feedback
	Y-axis	Displays real-time position values for Y-axis optocoupled feedback
	Optocoupled	Displays the level status of the X and Y axes optically

		coupled signals, binary
Fault/status record	Displays the last 8 fault records for lamp reset and runtime, which are not saved after power-down, and are valid for the last power-up cycle	
	Fault data	The total number of faults detected after powering up
	12: :03	The power-up time, in minutes, at the time of the failure
	Hall fault	The motor did not detect a valid Hall signal when the motor was reset
	Hall short circuit	The Hall signal that detected the motor when the motor was reset has been valid
	Optocoupling failure	No valid optocoupled signal was detected when the corresponding motor was reset
	out of step	The corresponding motor is out of sync during operation
	Hit the pole	Hit the positioning lever when the motor is reset
	The bulb is faulty	The light bulb went out unexpectedly
	Sensor failure	The temperature sensor signal is not correct,
	Fan failure	The main fan is not working properly
The status of the lamp	Displays critical status data for the current luminaire for reference	
	correspondence	0 to 100%, the communication quality of the internal data link of the lamp
	Error count	The number of error frames detected after power-up, cumulative
	The temperature of the light source	Displays the temperature of the current light source, and --- indicates no detection
	Display board temperature	Displays the temperature of the current display board or the ambient temperature nearby
	Sensor 1 temperature	Displays the current board temperature or the ambient temperature at the board installation location
Version information	Displays information and version of the current luminaire, an important reference for after-sales maintenance	
	equipment	The name of the luminaire is the same as the device information of the RRDM
	Model	The model number of the luminaire is the same as the model information of the RRDM
	The display board	The firmware version and serial number of the display board
	Motherboard 1	The firmware version and serial number of Motherboard 1
Light source time	Record the total cumulative time of the light source on, unit minutes, the user manually cleared, as the light source regular maintenance time reference	
Lamp time	Record the total cumulative time spent on the lamp, unit minutes, can not be cleared	

Chapter 3 Channel Description

9.Channel table

This luminaire channel can view the order in scene mode, which is set on the Address Settings page, as shown in the table below:

Channel table

Channel 1	name	numeric value	description
CH1	Pan	0-255	0-540 degrees
CH2	**Pan fine**	0-255	0-2 degrees
CH3	**Tilt**	0-255	0-270 degrees
CH4	**Tilt fine**	0-255	0-1 degrees
CH5	**Pan/Tilt speed**	0-255	From fast to slow
CH6	**Dimmer**	0-255	0-100% dimming
CH7	**Strobe**	0-3	Turn off the light
		4-99	Strobe from slow to fast pulse
		100-199	Strobe from slow to fast gradient
		200-249	Random strobe from slow to fast
		250-255	Light on
CH8	**Color**	0-199	Linear color
		200-226	Flowing in the direct direction from fast to slow
		227-229	Stop it
		230-255	Flow from slow to fast reverse
CH9	**Static gobo wheel**	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
		55-64	From slow to fast jitter pattern 1
		65-74	From slow to fast jitter pattern 2
		75-84	From slow to fast jitter pattern 3

		85−94	From slow to fast jitter pattern 4
		95−104	From slow to fast jitter pattern 5
		105−114	From slow to fast jitter pattern 6
		115−124	From slow to fast jitter pattern 7
		125−134	From slow to fast jitter pattern 8
		135−144	From slow to fast jitter pattern 9
		145−154	From slow to fast jitter pattern 10
		155−202	Flowing in the direct direction from fast to slow
		203−206	Stop it
		207−255	Flow from slow to fast reverse
CH10	**Rotation gobo wheel**	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
		150−159	Shake the white light from slow to fast
		160−206	Flowing in the direct direction from fast to slow
		207−210	Stop it
		211−255	Flow from slow to fast reverse
CH11	**Rotation gobo rotates**	0−127	0-400 degrees
		128−190	Flowing in the direct direction from fast to slow
		191−192	Stop it
		193−255	Flow from slow to fast reverse
CH12	**Prism 1**	0−127	Remove the prism
		128−255	Insert Prism 1
CH13	**Prism 1 rotation**	0−127	0-400 degrees

		128–190	Flowing in the direct direction from fast to slow
		191–192	Stop it
		193–255	Flow from slow to fast reverse
CH14	**Frost**	0–127	not
		128–255	atomization
CH15	**Focus**	0–255	From far to near
CH16	**Zoom**	0–255	From small to large
CH17	**retain**		
CH18	**function**	251–255	Reset all in more than 5 seconds

Chapter 4 Common Faults and Precautions for Use

10.Common fault handling

Lamps contain microcomputer circuit boards, high-voltage power supply and other professional components, for your safety and product life, non-professionals should not remove lamps and related accessories without authorization.

1.The bulb is not lit (except forthe LED light source).

Possible causes: The bulb is not completely cooled, or the bulb has a lifetime, 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 interior fully restored to normal state, and then start the power supply again can be;
- Check that the bulb has reached service life and replace it with a new one;
- Check that the light bulb and the light-lighting line leak, fall off or come into poor contact;
- Replace the new light-lighting machine.

2.The beam appears dim

Possible causes: Long use of light bulbs or dirty light paths, handled as follows:

- Check that the bulb has reached service life and replace it with a new one;
- Check that the optics or bulbs are clean, that dust is accumulated on the optics such as the bulbs, and that the bulbs and components in the lamps need to be cleaned and maintained regularly.

3.The pattern projection is blurry

- Check that the electron focus channel value is appropriate for the current projection distance.

4.The lamps work intermittently

Reason: The internal line goes into a protected state and is handled as follows:

- Check whether the fan is operating normally or dirty, resulting in an increase in the internal temperature of the lamp;
- Check that the internal temperature control switch is closed;
- Check that the bulb has reached service life and replace the new bulb.

5.The lamp does not accept the control of the console after a normal reset

Possible cause: signal line failure or incorrect luminaire parameter settings, handled as follows:

- Check the starting address code and check the connection of the DMX signal cable (Whether the signal wire and cable are in good condition and the connection of the signal head is loose);
- Add a signal amplifier, plus 120 ohm terminal resistors;

6.The lamp does not start

Can cause: poor power supply lines, handled as follows:

● Check if the insurance on the power input socket is blown off and replace the insurance;

● Lamps are in poor contact with the line due to vibration during long-distance transport

● Check the input power supply, computer board, etc. for plug-in devices.

11.Precautions for use

● Check whether the local power supply meets the product voltage rating requirements, leakage protectors, overcurrent protectors, etc. meet the load requirements;

● Do not use a damaged power cord in the insulation and do not connect the power cord to other wires;

● Lamps are used in strong wind cooling, easy to accumulate dust, must be cleaned once a month, especially the cooling air vents, otherwise it will be blocked by dust accumulation, resulting in poor heat dissipation, so that the lamp abnormal.

● When installing lamps, the fixed screws must be tightened, and equipped with safety ropes, and timely inspection;

● When the lamp is installed and positioned, any point on the surface of the lamp is associated with any flammable and explosive material, maintaining a minimum distance of 10 meters and a distance of 2.5 meters from the irradiant, please do not install the lamp directly on the surface of the combustible substance;

● The continuous working time of the lamp is not recommended to exceed 10 hours, the interval between continuous start lamps should not be less than 10 minutes, otherwise it will not be able to trigger properly because the bulb overheats to protect;

● Use the switch valve closed for not more than 5 minutes, if you need to close the light for a long time, should use the console (lamp gun control channel) to close the lamp gun;

● In order to ensure that multiple luminaires better comply with the scene effect, lamps should not always be in the incomplete current scene, that is, to start the next scene action, it is best not to exceed 3 minutes, to ensure that multiple lamps can run synchronously;

● During use, if the lamp abnormal should stop using the lamp in time to prevent other failures.

12.Notes on the use of RDM

The RDM is an extended version of the DMX512-A protocol, theRemote DeviceManagementprotocol, and the traditional DMX512 protocol communication is one-way communication, based on the RS-485 bus,RS-485 is a time-sharing multipoint, half-duplex protocol, allowing only one port to be output for the host at the same time, so there are a few things to note when using RDM

● To use a console or host device that supports the RDM protocol host;

● To use a bidirectional signal amplifier, the traditional one-way signal amplifier does not apply to the RDM protocol because the RMD protocol requires feedback data, and the use of a one-way amplifier blocks the returned data, resulting in a search for luminaires;

● All luminaires must be set to DMX mode to ensure that there is only one host on the signal line;

- Terminals 2 and 3 of the terminal plug must be inserted between a 120ohm impedance matching resistor, when the signal line is longer, reduce signal reflection will use differential signal more stable, conducive to the quality of communication;
- When a luminaire is controlled by DMX, but cannot R DM search for the luminaire, check the signal amplifier first, and then check the signal line 2and3 lines for poor contact.