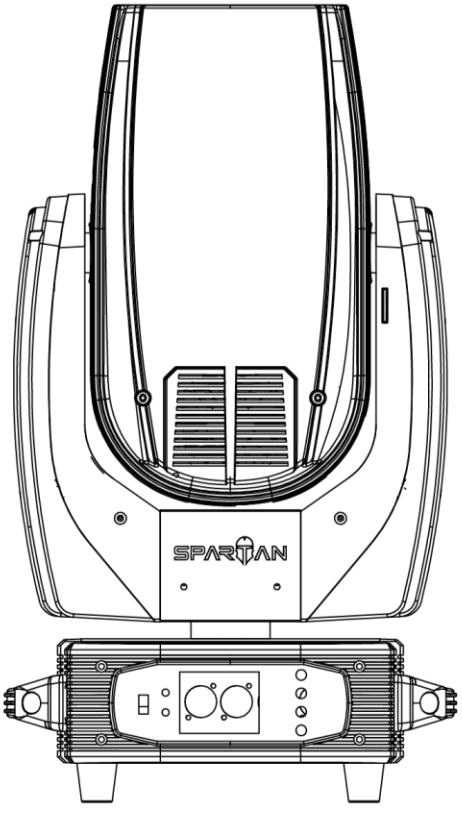
# SPARTAN 380W BEAM

# USER MANUAL



Read the instructions carefully before use

# Catalogue

# 1. Precautions and installation Precautions and installation

## 1.1 Statement

Thank you for choosing our products! 734 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, please read this instruction carefully and completely before you use this product. This instruction manual contains important information for installation and use. Please install and operate in accordance with the instructions. At the same time, please keep this instruction manual properly for use at any time. Our company does not assume all responsibility for damage to luminaires or other performance due to individuals not following the instructions during installation, use or maintenance.

This manual is subject to technical changes without prior notice.

## 1.2 Maintenance

- Disconnect the power supply before performing maintenance.
- The lamp should be kept dry and avoid working in wet environment.
- Intermittent use will effectively extend the life of the luminaire.
- For good ventilation and lighting, take care to clean the fan and fan net as well as the lens frequently.
- Do not rub the light fixture housing with organic solvents such as alcohol to avoid damage.

## 1.3 Product Precautions

- This lamp is for professional use only.
- Ensure that the power supply voltage is consistent with the equipment requirements before running.
- Do not place this product in a place that is easy to loosen or shake.
- In the process of use, if the lamp appears abnormal, it should stop using the lamp in time.
- In order to ensure the service life of the product, the product should not be placed in damp or leaking places, but also should not work in the environment where the temperature exceeds 60 degrees.
- When the bulb is used, the voltage change of the power supply should not exceed ±10%. If the voltage is too high, the life of the bulb will be shortened. If the voltage is too low, the light color of the bulb will be affected.
- 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 lamps and pasting accessories must be checked regularly. If they are loose and shake, they should be reinforced in time to prevent accidents.
- In order to ensure the normal use of this product, please read the instructions carefully.

## 1.4 Product Introduction

- Power supply :AC100V-240V
- Frequency :50Hz-60Hz
- Power :650W
- Fuse :7A

- Ballast: Electronic ballast
- Light Source: OSRAM SIRIUS HRI
- Lamp power: 371WS+
- Color temperature: 6700K
- Lamp life: 2000H
- Motors: A total of 14 silent motors, XY three-phase motors
- Dimmer: 0-100% linear adjustment.
- Color: 13 colors + white light (can be half color effect)
- Gobo: 7 fixed images +5 white lights of different sizes
- Prism: 8+8+8 prism, 8 prism (double prism can be superimposed 40, can be bidirectional independent rotation)
- Rainbow: 1 seven-color film (can do seven-color effect)
- Frost: 1 independent atomization effect, soft and natural light spot
- Control channel: 16CH
- Size: 32*22*58 (L * W * H)
- Control signal: DMX512
- Appearance: high temperature resistant plastic
- Light body color: black
- Protection level: IP20
- Net weight: 16.3kg

## 1.5 Signal cable connection

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

Connect 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 lights have been connected. Then install a terminal plug on the last connected light outlet 3-core jack on each circuit. (Weld a 4/1W, 120Ω resistor between the 2 and 3 pins of the 3-core pin cannon plug).

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

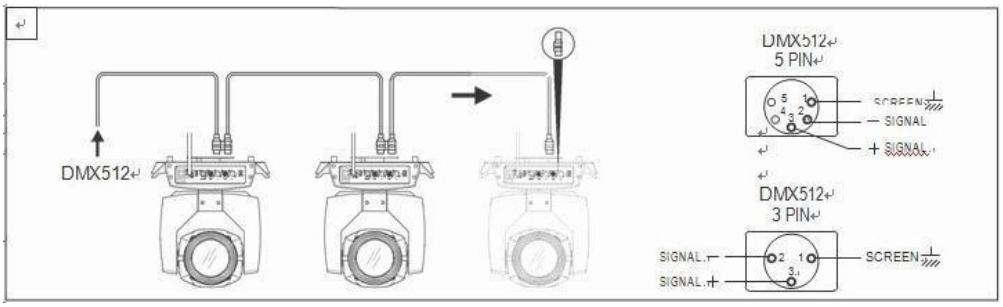



Figure 1 Schematic diagram of DMX signal cable connection

➢ Calculation method of starting address code of luminaire:

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: Start address code value A001 of the first luminaire.

2: The basic channel number of the controller, should be greater than or equal to the total number of channels used by the lamp.

3: Note: when using any controller, each lamp should have its own initial address code, if the initial address code of the first lamp is set A001, the number of lamp channel pass is 16CH; Then the start of the second lamp address code is set to A017; The initial address code of the third lamp is set to A033; And so on,(this setting also needs to be determined according to different control platforms)

## 1.6 Luminaire installation

Light fixtures can be placed horizontally, slanted, 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 lamp, it is necessary to ensure the stability of the installation site. When installing the reverse hanging, it is necessary to ensure that the lamp does not fall down on the support frame. It is necessary to use the safety rope through the support frame and the lamp handle for auxiliary hanging to ensure safety. Figure 2. Schematic diagram of the lamp hanging upside down1Prevent the luminaire from falling and sliding.

When installing and debugging the lamps, it is forbidden for pedestrians to pass under them. Regularly check whether the safety rope is worn and whether the hook screws are loose.

Our company does not assume any responsibility for all the consequences caused by the fall of the lamp due to the unstable installation of the hanging.

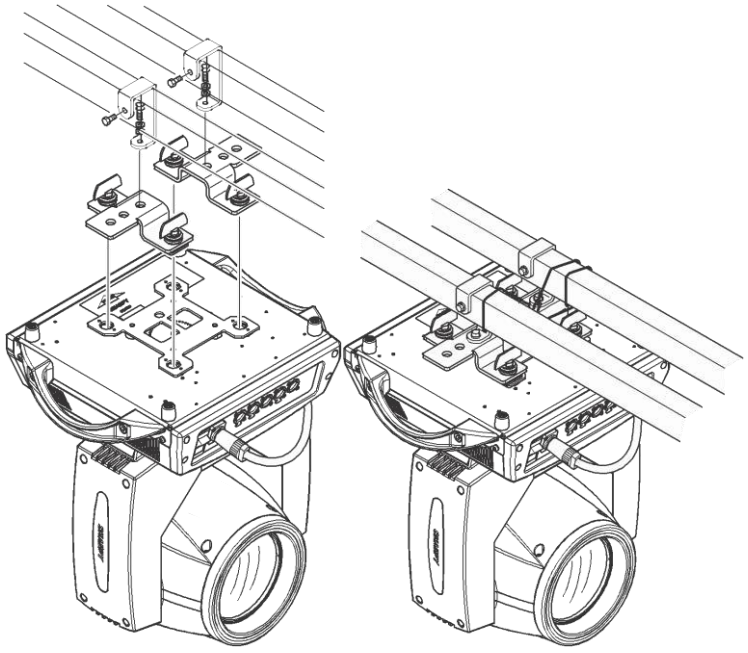


Figure 2. Schematic diagram of the lamp hanging upside down1

# 2. Control panel

## 2.1 Key Instructions

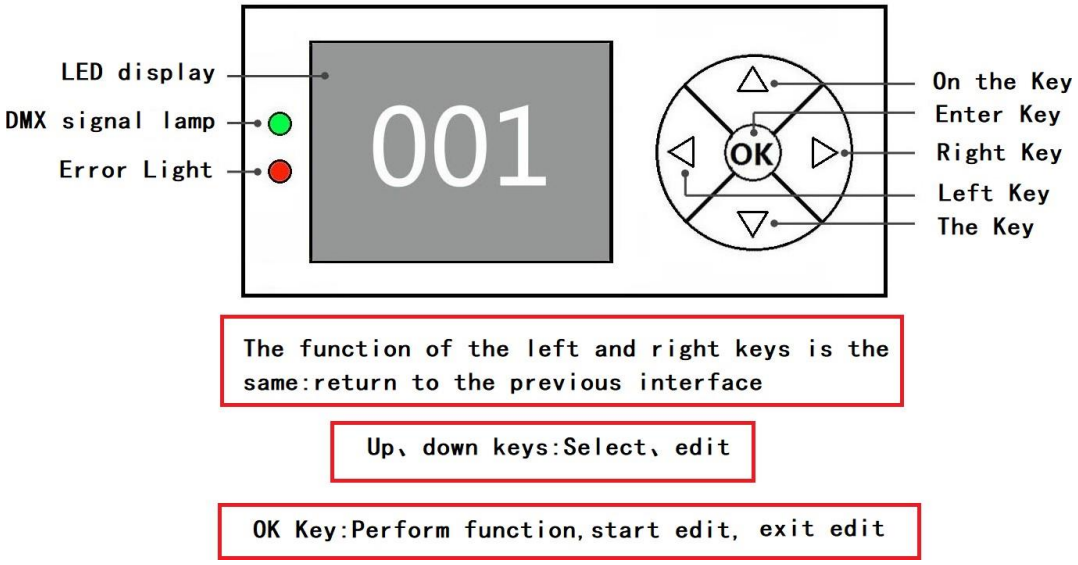



Figure 3 Schematic diagram of key description on the panel

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

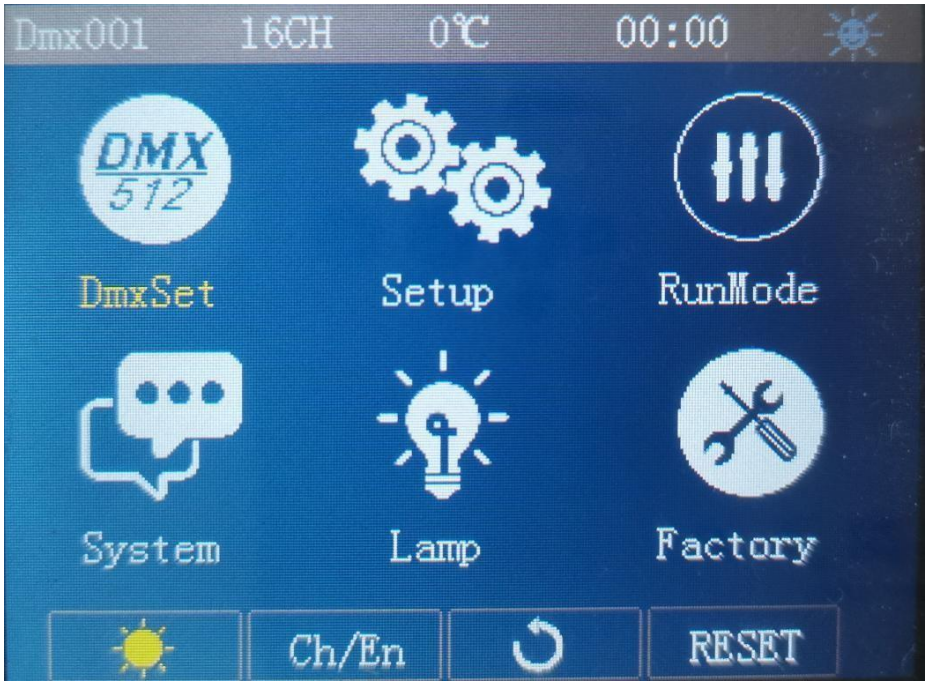



Figure 4 Schematic of the main menu

# 2.2.1 DMX Settings

| | | |
|---|---|---|
| DMX address | 1-512 | Press "OK" to enter editing mode. At this point, 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" once more to select the ones edit. Press again to exit the editing state |

# 2.2.2 Light Fixture Settings

| | | |
|---|---|---|
| DMX channel | Standard 16CH<br>Extended 20CH | Standard 16-channel model<br>Expand the 20-channel model |

| | | |
|---|---|---|
| RDM features | On | Have RDM function |
| | Off | No RDM function |
| Language | Chinese | Set the interface to Chinese |
| | English | Set to the English interface |
| Screen flip | Off | Front display |
| | On | Screen reverse display |
| DMX signal | Hold | Disconnect the console signal and the lamp will keep the data from the original console |
| | Clear | Disconnect console signal and clear console data to zero |
| Screen Saver | On | Have a screensaver |
| | Off | No screensaver |
| X Reversal | Off | |
| | On | |
| Y-reverse | Off | |
| | On | |
| XY swap | Off | |
| | On | Channel for switching XY axes (including trims) |
| XY encoder | On | Use an encoder (optocoupler) to judge out of step and automatically correct the position |
| | Off | No encoder (photocoupler) is used to correct the position |
| The color wheel changes linearly | On | The color wheel changes linearly |
| | Off | Color wheel nonlinear change, half color change |
| Restore default Settings | | When you see the confirmation dialog after pressing "OK", press "OK" again to restore the default Settings |

# 2.2.3 Run Mode

| Options | Instructions | |
|---|---|---|
| Self-walking pattern | DMX | Slave state: Receives DMX signals from the console or mainframe |
| | Bootstrapping | Host state: Self-actuated and sends DMX signal to slave |
| | Voice control | |
| Manual control | | Corresponding channel table function |
| Luminaire reset | | All motor reset |
| XY reset | | XY motor reset |
| MT reset | | Small motor reset |

# 2.2.4 System Information

| Options | Instructions |
|---|---|

| | | |
|---|---|---|
| System version | DIS | Display board software version |
| | MT | Motor board software version |
| Temperature information | | Display current lamp temperature |
| Fan information | | Display blower speed |
| System time | Displays total brightening bubble time | |
| | Display the time of this brightening bubble | |
| | Displays total usage time | |
| | Displays the current usage time | |
| | Permission duration | 9999 means no encryption and can be used for a long time;<br>Other values represent the remaining use time, with encryption; |
| System error | | Shows which function of the light fixture is faulty |
| DMX monitoring | | Check console data |

# 2.2.5 Bulb control

| Options | Instructions | |
|---|---|---|
| Light bulb | On | Bubble opening |
| | Off | Quench the bubbles |
| Turn on brightening bubbles | On | Reset complete, auto brightening bubble |
| | Off | Reset complete, will not automatically brighten the bubble |
| Spacing | 0-20 | Bubble interval (unit minute) |
| Wind speed low turn off bubble | On | The blower will deflate the bubble when it detects that the speed is too low |
| | Off | The blower will not deflate when too low |

| | | |
|---|---|---|
| | | a speed is detected |

## 2.2.6 Factory Settings

| | | |
|---|---|---|
| Motor calibration | X-axis | After entering the sub-interface, you can adjust the reset position of the motor such as X axis and Y axis to make up for the error on the hardware installation. The adjustment range is -128~+127, and +0 indicates no adjustment. |
| | Y-axis | |
| | Color | |
| | Gobo | |
| | Focus | |
| | Dimming | |
| | Prism 1 zero | |
| | Prism 1 stroke | |
| | Prism 2 zeros | |
| | Prism 2 stroke | |
| | Frost calibration | |
| | Colorful mirror | |
| Error Tips | X-axis Hall error | On, when Hall has a problem, an error will be reported<br>Off, when Hall has a problem, no error will be reported |
| | Y-axis Hall error | |
| | Focus Hall error | |
| Fan adjustment | Fan conditioning | 000-255. |
| | Blower speed | Show the blower speed |
| Stroke regulation | X-axis stroke | 000-255. |
| | Y-axis stroke | 000-255. |
| | Focusing stroke | 000-255. |
| | Dimming stroke | 000-255. |
| XY Speed adjustment | X axis speed | 000-255. |
| | Y-axis speed | 000-255. |

| Common Error messages | Instructions |
|---|---|
| Failed to connect the MT board | The motor board is 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 with the X-axis motor or motor board |
| Y-axis reset | Y-axis photoelectric switch, or Y-axis motor or motor board |

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

# 3. Channel function

## 3.1 Channel Table

| Channels | 16 channel mode | |
|---|---|---|
| 1 | Color | |
| 2 | Shutter | |
| 3 | DimmQJ | |
| 4 | Gobo | |
| 5 | Prism | |
| 6 | Prism 1 Rotate | |
| 7 | Prism 2 Rotate | |
| 8 | Focus | |
| 9 | X | |
| 10 | X Fine | |
| 11 | Y | |
| 12 | Y Fine | |
| 13 | XY Speed | |
| 14 | Frost | |
| 15 | Rainbow | |
| 16 | Lamp & reset | |

## Channel parameter values (full version) :

| channel | Features | Channel value | Effects |
|---|---|---|---|
| 1 | Color | 000- 004 | White light |
| | | 005 -009 | White light + Color 1 |
| | | 010 - 014 | Color 1 |
| | | 015 - 019 | Color 1+ Color 2 |
| | | 020 - 024 | Color 2 |
| | | 025 - 029 | Color 2+ Color 3 |
| | | 030 - 034 | Color 3 |
| | | 035 - 039 | Color 3+ Color 4 |
| | | 040 - 044 | Color 4 |
| | | 045 - 049 | Color 4+ Color 5 |
| | | 050 - 054 | Color 5 |
| | | 055 - 059 | Color 5+ Color 6 |
| | | 060 - 064 | Color 6 |
| | | 065 - 069 | Color 6+ Color 7 |
| | | 070 - 074 | Color 7 |
| | | 075 - 079 | Color 7+ Color 8 |
| | | 080 - 084 | Color 8 |
| | | 085 - 089 | Color 8+ Color 9 |
| | | 090 - 094 | Color 9 |
| | | 095 - 099 | Color 9+ Color 10 |
| | | 100 -104 | Color 10 |
| | | 105 -109 | Color 10+ Color 11 |
| | | 110 -114 | Color 11 |
| | | 115 -119 | Color 11+ Color 12 |
| | | 120 -124 | Color 12 |
| | | 125 -129 | Color 12+ Color 13 |
| | | 130 -134 | Color 13 |
| | | 135 -139 | Color 13+ White light |
| | | 140 -200 | Positive flowing water (from fast to slow) |
| | | 201- 255 | Reverse flow (slow to fast) |
| 2 | Shutter | 000-003 | Light brake off |
| | | 004-103 | Stroboscopic from slow to fast |
| | | 104-107 | Light brake on → (controlled by dimmer channel) |
| | | 108-207 | Pulse stroboscopic from slow to fast |
| | | 208-212 | Light brake on → (controlled by dimmer channel) |
| | | 213-251 | Random stroboscopic from slow to fast |
| | | 252-255 | Light brake on → (controlled by dimmer channel) |

| | | | |
|---|---|---|---|
| 3 | Dimming | 000-255. | Dark to light |
| 4 | Gobo | 000 - 005 | White |
| | | 006 - 009 | Gobo 1 |
| | | 010 - 014 | Gobo 2 |
| | | 015 - 019 | Gobo 3 |
| | | 020 - 024 | Gobo 4 |
| | | 025 - 029 | Gobo 5 |
| | | 030 - 034 | Gobo 6 |
| | | 035 - 039 | Gobo 7 |
| | | 040 - 044 | Gobo 8 |
| | | 045 - 049 | Gobo 9 |
| | | 050 - 054 | Gobo 10 |
| | | 055 - 059 | Gobo 11 |
| | | 060 - 064 | Gobo 12 |
| | | 065 - 069 | Gobo 13 |
| | | 070 - 074 | Gobo 1 Shake(from slow to fast) |
| | | 075 - 079 | Gobo 2 Shake(from slow to fast) |
| | | 080 - 084 | Gobo 3 Shake(from slow to fast) |
| | | 085 - 089 | Gobo 4 Shake(from slow to fast) |
| | | 090 - 094 | Gobo 5 Shake(from slow to fast) |
| | | 095 - 099 | Gobo 6 Shake(from slow to fast) |
| | | 100 - 104 | Gobo 7 Shake(from slow to fast) |
| | | 105 - 109 | Gobo 8 Shake(from slow to fast) |
| | | 110 - 114 | Gobo 9 Shake(from slow to fast) |
| | | 115 - 119 | Gobo 10 Shake(from slow to fast) |
| | | 120 - 124 | Gobo 11 Shake(from slow to fast) |
| | | 125 - 119 | Gobo 12 Shake(from slow to fast) |
| | | 120 - 124 | Gobo 13 Shake(from slow to fast) |
| | | 125 - 200 | Reverse flowing water (from fast to slow) |
| | | 201 - 255 | Forward flow (slow to fast) |
| 5 | Prism | 000 - 019 | None |
| | | 020 - 075 | Prism 1 cut in |
| | | 076 - 127 | Prism 2 cut in |
| | | 128 - 255 | Double Prism |
| 6 | Prism 1 Rotate | 000-127 | Prism Angle adjustment |
| | | 128-190 | Reverse rotation (from fast to slow) |
| | | 191-192 | Stop |
| | | 193-255 | Forward rotation (from slow to fast) |
| 7 | Prism 2 Rotate | 000-127 | Prism Angle adjustment |
| | | 128-190 | Reverse rotation (from fast to slow) |
| | | 191-192 | Stop |
| | | 193-255 | Forward rotation (from slow to fast) |
| 8 | Focus | 000-255. | Gobo clarity from far to near |
| 9 | X | 000-255. | Horizontal 540 degree scan |

| | | | |
|---|---|---|---|
| 10 | X Fine | 000-255. | Horizontal 1.2 degree fine tuning |
| 11 | Y | 000-255. | Vertical 270 degree scan |
| 12 | Y Fine | 000-255. | Vertical 1.2 degree fine tuning |
| 13 | XY Speed | 000-255. | Speed from fast to slow |
| 14 | Frost | 000-127.<br>128-255. | None<br>Frost cut in |
| 15 | Colorful | 000-127.<br>128-255. | None<br>Colorful cut in |
| 16 | Lamp &<br>Reset | 000-099.<br>100-105.<br>200-205.<br>250-255. | None<br>Lamp Off<br>Lamp On<br>Reset All |

## 4. Common faults

According to some common faults, the corresponding solutions are put forward. Any unsolvable problems should be dealt with by professionals. Disconnect the light fixture before maintaining it.

### 1. Light bulb is not on

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

### 2. The lamp will not be controlled by the console after normal reset

- Check luminaire digital start address value and function options are correct;
- Check whether the connection of 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 serial access signal amplifier is invalid;
- Check whether the communication line is too long or other equipment interferes with each other;
- Optimize wiring, shorten the length of control signal lines, 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 ohm) at the end of the lamp.

### 3. Luminaire does not start

- Check that the power supply parameters are consistent with the lamp;
- Check the poor contact caused by extrusion deformation, vibration and moisture of internal parts in the long distance transportation process

  Or fall off.
- Please check whether the internal wire integration connector of the lamp has fallen off or loosened.
- 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 or Y axis of the lamp is not normal

- Follow the previous step to check one by one;
- Check whether the transmission belt corresponding to the X and Y axis directions 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 the machine and reset it once.