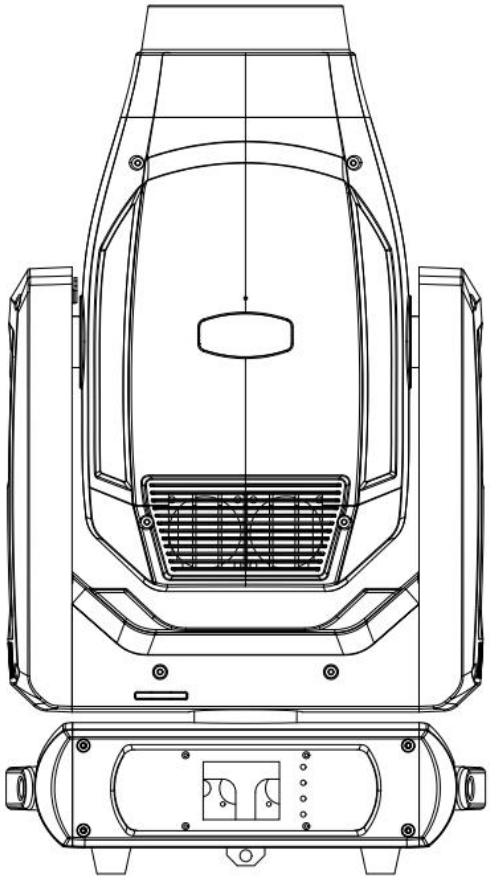
LED500W3in1 CMY SPOT

Instructions for use



Please read the instructions carefully before use

Catalogue

1. Notes and installation precautions and installation

1、State

Thank you for choosing our company's products! This product in the factory, the performance is intact, complete packaging. In order to use the product safely and effectively, please read the instructions carefully and completely before you use the product. This manual contains important information for installation and use. Please install and operate according to the instructions. Meanwhile, please keep this manual properly for use at any time. Our company does not assume all responsibility for damaging the lamps or other performance due to the installation, use and maintenance in accordance with the instructions.

This manual is subject to technical changes without prior notice.

1.1 tending

Disconnect the power supply prior to the maintenance process.

This lamp shall be kept dry to avoid working in a wet environment.

Intermittent use will effectively prolong the life of this lamp.

In order to achieve good ventilation and lighting effects, pay attention to regularly clean the fans, fan nets and lenses.

Do not wipe the lamp shell with organic solvents such as alcohol to avoid damage.

1.2 Precautions for products

This lamp is for professionals only.

Ensure that the power supply voltage matches the equipment required power supply voltage before operation.

Do not place the product in a place that is easy to loosen or vibrate.

In the process of use, if the lamps are abnormal, stop using the lamps in time.

In order to ensure the service life of the product, the product should not be placed in a wet or leaky place, nor to work in the temperature above 60 degrees.

When the bulb is used, the voltage change of the power supply should not exceed ± 10%. If the voltage is too high, it will shorten the life of the bulb. If the voltage is too low, it will affect the light color of the bulb.

After power failure, it takes 20 minutes to use the lamp to cool adequately before energizing again.

The rotating parts of the lamps and the fittings of the paste must be checked regularly, loose and strengthened in time to prevent accidents.

To ensure the normal use of this product, please read the instructions carefully.

1.3 product presentation

- Light source power: 700W;
- Voltage: AC 200V~240V / 50~60Hz;
- Color plate: each color plate is composed of 8 color slices + CTO + white light;
- Unlimited color mixing: CMY
- Pattern plate: 11 patterns + white light composition;
- Glass pattern plate: 9 patterns + white light composition;
- 540 translation, 270 tilt.

- overheat protection;
- Control mode: DMX512 / main-slave / automatic;
- IP20 Protection grade

1.4 Signal line connection

The lamps is provided with standard DMX 3 or 5 core XLR socket for DMX input and output. Please use the signal line for DMX 512; the signal line is 150 m, DMX512 signal amplifier must be added.

A shielded twisted pair signal line is used to connect the DMX input port of the first device from the DMX output port of the controller, and from the DMX output port of the first device to the DMX input port of the second device, and so on until all the lamps are connected, and then a terminal plug is installed on the output 3-core socket of the last connecting lamp of each continuous circuit.(Welding a 4 / 1W, 120 Ω resistance between 2 and 3 pins with 3-core pins).

Important: The ines shall not contact each other or with the metal shell.

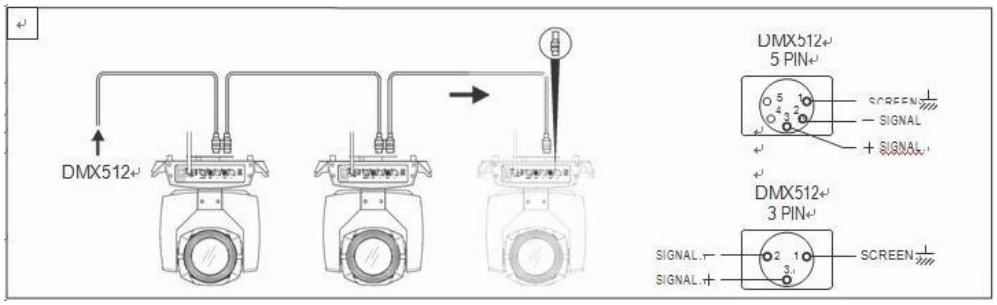


Figure 1 Schematic diagram of DMX signal connection

Calculation method of lamp starting address code:
The starting address code of the current lamp is equal to (the starting address code of the previous lamp) + (number of channels of the lamp) description:
1: Start address code value of the first lamp A001.
2: The basic number of channels of the controller should be greater than or equal to the total number of channels using the lamps.
3: Note: when any controller is used, each lamp must have its own starting address code. If the starting address code of the first lamp is set A001, the pass number of the lamp is 16 CH; 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 mode should be determined by different console)

1.5 Lighting installation

Lamps can be placed horizontally, oblique and upside down. We must pay attention to the installation method when hanging in oblique and inverted hanging.

As shown in Figure 2, before positioning the lamps, to ensure the stability of the installation site, in the reverse hanging installation, must ensure that the lamps do not fall off the support frame, need to use a safety rope through the support frame and the lamp handle 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 caused by the unstable installation of the hanging and the lamp falling.

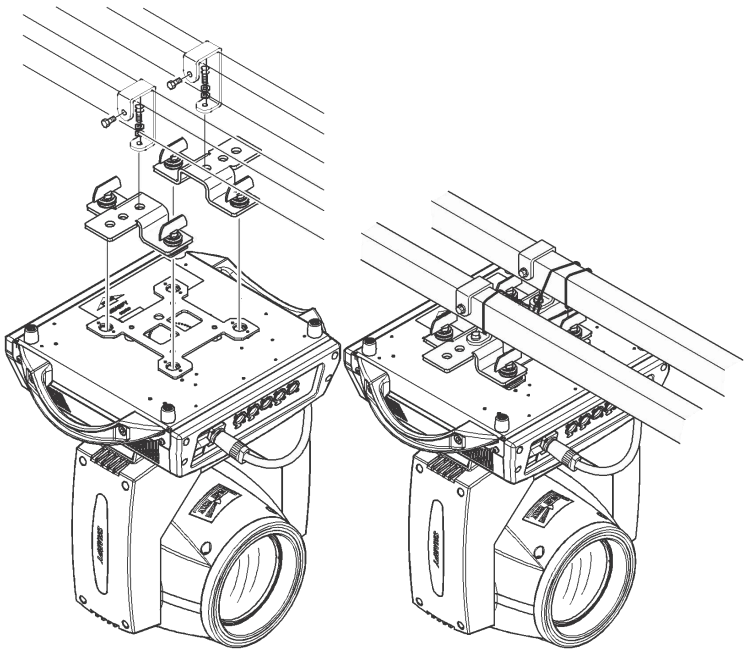


Figure 2 Schematic diagram of the inverted lamp

2、control panel

2.1 Key instructions

Figure 3 Schematic illustration of the panel keys

The following is about the use of the keys:

1. If it is not the main interface currently, press the "Left" key (one or more times) to return to the main interface
2. Under the main interface, press the Up button or the Down button to select the Settings button
3. Press OK to enter the Settings tings interface
4. Under the Settings interface, press Up or Down to select Menu
5. Press OK to enter the edit state
6. Press the Up button or the Down button to modify the menu
7. Press OK to save and exit the edit status

2.2 Menu instructions

Figure 4. Schematic diagram of the main menu

2.2.1 DMX set up

DMX address	001~512	Key description: press up or down for + 1 or-1 mode; press the right button for the next one, press the left button for the last one; confirm key to save and exit. Manual description: first input 100 bits, then to ten places, and finally one bit. (For example, enter 286 address code, then point 2, then 8, and finally 6)

2.2.2 Lighting setting

DMX channel	23CH	23 Channel mode
	28CH	28 Channel mode
RDM function	open	There is RDM function
	close	There is no RDM function
language	the Chinese language	Set it to the Chinese interface
	English	Set it to the English interface
Screen flip	close	Front display
	open	The screen is turned upside down
DMX signal	keep	Disconnect the console signal, and the lamp will maintain the data of the original console
	clean up	Disconnect the console signal and clear the console data
screensaver	open	Have a screensaver
	close	Screen-free protection
X reversal	close	
	open	
Y reversal	close	
	open	
XY exchange	close	
	open	Channel channel for XY axis (including fine tuning)
XY encoder	open	Use the encoder (optocoupler) to judge the missteps and automatically correct the position
	close	Do not correct the position by using the encoder (optical coupling)
Color linearity	open	The color wheel changes linearly
	close	The color wheel changes nonlinearly, and the half-color changes
Restore the default		Press OK to see the confirmation dialog box, and press OK again to restore the default settings

2.2.3 running mode

option	explain	
Self-walking mode	DMX	Machine status: receiving DMX signal from the automatic control table or host
	Since go	Host status: go away and send the DMX signal to the slave
	sound control	
manual control		This interface is used to control the current lamp

		(no DMX signal is received), corresponding to the channel. Refer to the channel table for more details
Lamps reset		Full motor reset
XY reset		XY motor reset
MT reset		Small motor reset

2.2.4 system info

option	explain	
System version	Ver	Motor board XY Motor module software version
	DIS	Motor board small motor module software version
	MT	Display board software version
	XY	Display the lamp software version
Temperature information		Displays the current temperature of the lamp
Fan information		Display the blower rotation speed
System time	Show this use time	
	Displays the total usage time	
	Show the bright bubble time	
	Total bright bubble time is shown	
	Permission duration	9999 represents no encryption, can be long-term use; Other values indicate the remaining usage time, with encryption;
Sensor monitoring	X Hoare	Optical coupling Hall state viewing; 0 when the magnetic field is detected, otherwise 1;
	Y Hoare	
	Color hall	
	Pattern hall	
	GIF Hall	
	GIF Rotation Hall	
	Amplification hall	
	Focus hall	
	Prism 2 by rotating Hall	
	X encoding state	
	Y encoding state	
	X encodes the step value	XY encoding step value: the step value should increase in the forward direction, and the step

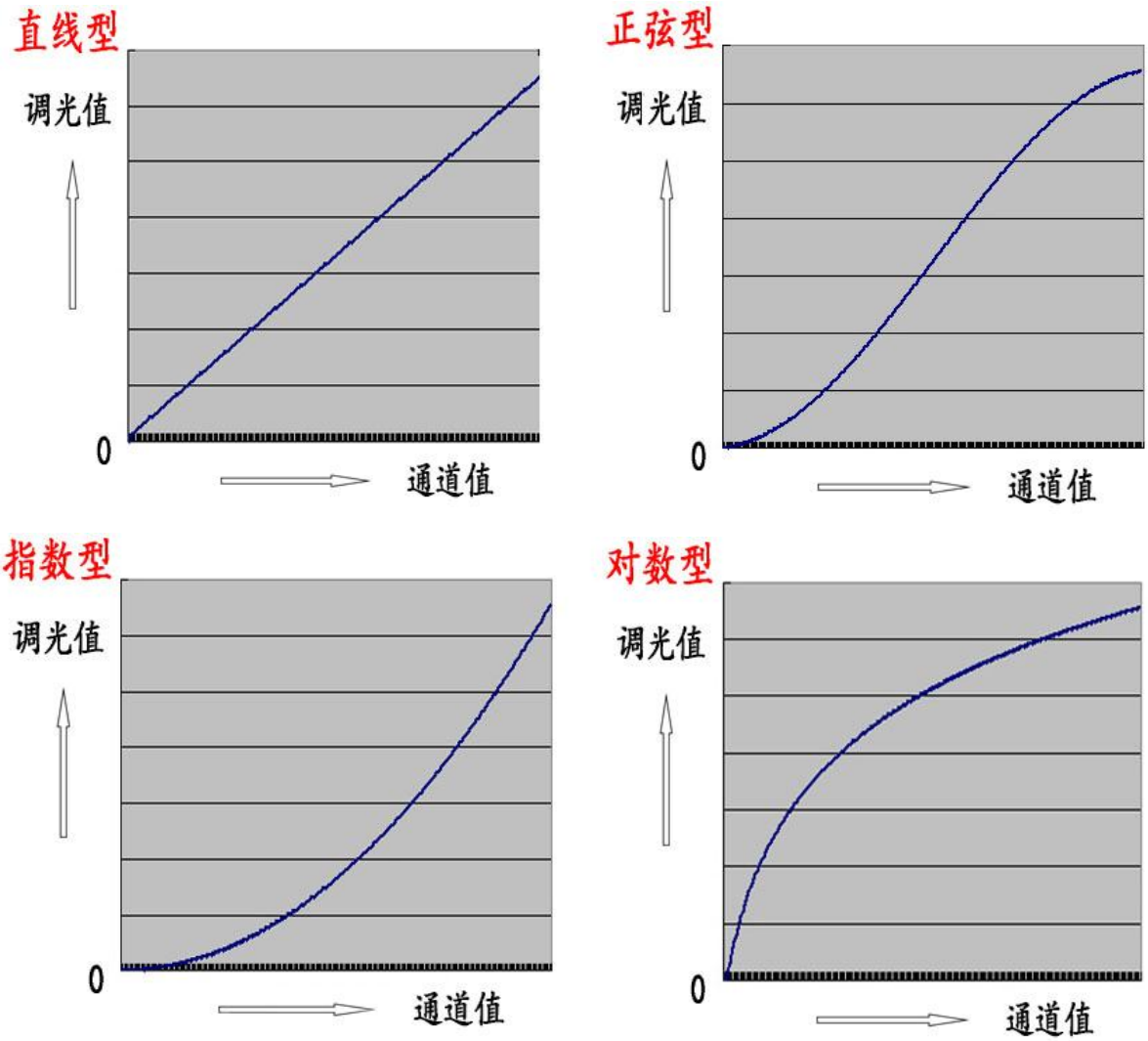
	Y encoding step values	value should decrease in the opposite direction. The value is the same every time you move to the same point;
system mistake		Display the lamp which function is wrong
DMX supervisory control		Detection console data

Common error information	explain
The MT plate connection has failed	Motor board did not respond. There is a problem with the serial port communication line connecting the display board and the motor board, or with the motor board.
X axis reduction failed	X axis photoelectric switch, or X axis motor or motor board has a problem
The reduction of the Y axis failed	Y axis photoelectric switch, or Y axis motor or motor board has a problem
X-axis Hall error	X-axis Hall, or have problems with the motor plate
Y-axis Hall error	Y-axis Hall, or have problems with the motor plate
The color disk reset failed	Color disc Hall, or color disc motor problems
Pattern disk reset failed	Pattern disk Hall, or pattern disk motor problems
The focus reset failed	Focus Hall, or focus motor problems
Bulb control failed	Bright bubble or anti-bubble failure, the lamp or bulb problem

2.2.5 Bulb control

option	explain	
The dimming curve	Linear (Right Line)	The dimming curve is linear by default, refer to the dimming curve diagram
	Square (Index)	
	InSquare (Log)	
	SCurve (Sine)	

Tuning curve diagram:



2.2.6 Factory setting

Motor calibration	X axle	After entering the sub-interface, the reset position of the X-axis and Y-axis motors can be adjusted to make up for the error in the hardware installation. The adjustment range is-128~ + 127, and + 0 means that there is no adjustment.
	Y axle	
	pigment	
	C	
	M	
	Y	
	pattern	
	motion graph	
	GIF rotation	
	focus	
	amplify	

	Prism 1 zero point	
	Prism 1 trip	
	Prism 2 zero point	
	Prism 2 trip	
	Prism 2 rotation	
	Fog zero	
	Fog trip	
Fan regulation	Fan regulation	Adjust the blower voltage or speed, power does not save, temperature measurement
XY speed adjustment	Drum fan speed	Current blower rotation speed
X Hoare	X axis speed	000-255, the speed is fast to slow
Y Hoare	Y axis speed	
LED power	Open / close	On, the light with a Hall reset; Pass, lamp without Hall reset
Fan regulation	Open / close	
XY speed adjustment	0-255	

Channel function

3.1 channel table

23 channel	function	28 channel	function
1	X axle	1	X axle
2	X axis fine-tuning	2	X axis fine-tuning
3	Y axle	3	Y axle
4	Y axis fine-tuning	4	Y axis fine-tuning
5	XY velocity	5	XY velocity
6	Cut light / flash	6	Cut light / flash
7	aiming	7	aiming
8	Color plate	8	Tuning fine-tuning
9	CTO	9	Color plate
10	C	10	Color disc fine-tuning
11	M	11	CTO
12	Y	12	C
13	Pattern plate	13	M
14	Glass pattern	14	Y
15	Botograph rotation	15	Pattern plate
16	Prism 1	16	Glass pattern
17	Prism 1 rotation	17	Botograph rotation

18	Prism 2	18	Glass graph rotation fine-tuning
19	Prism 2 rotation	19	Prism 1
20	atomization	20	Prism 1 rotation
21	amplify	21	Prism 2
22	focus	22	Prism 2 rotation
23	function	23	atomization
		24	amplify
		25	Amplification fine-tuning
		26	focus
		27	Focus tuning
		28	function

Channel parameter value (full version):

23 channel	28 channel	function	The channel value	effect
1	1	X axle	000-255	Horizontal 540-degree scan
2	2	X axis fine-tuning	000-255	Level of a 1.2-degree fine-tuning
3	3	Y axle	000-255	Vertical 270-degree scan
4	4	Y axis fine-tuning	000-255	Vertical to 1.2 degrees of fine-tuning
5	5	XY velocity	000-255	Speed from fast to slow
6	6	Cut light / flash	000-003 004-103 104-107 108-207 208-212 213-251 252-255	The light switch is closed Flash from slow to fast Light lock open (controlled by dimming channel) Pulse strobe from slow to fast Light lock open (controlled by dimming channel) Random strobe from slow to fast Light lock open (controlled by dimming channel)
7	7	aiming	000-255	From dark to bright
	8	Tuning fine-tuning	000-255	Tuning fine-tuning
8	9	Color plate	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	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

			070-074 075-079 080-084 085-089 090-170 171-255	Color 7 Color # 7 + color # # 8 Color 8 Color # 8 + color # # 9 Forward flow water (from fast to slow) Reverse water flow (from slow to fast)
	10	Color disc fine-tuning	000-255	Color disc fine-tuning
9	11	CTO	000-255	CTO
10	12	C	000-255	ching
11	13	M	000-255	rose
12	14	Y	000-255	yellow
13	15	Pattern plate	 000-004 005-009 010-014 015-019 020-024 025-029 030-034 035-039 040-044 045-049 050-054 055-059 060-064 065-069 070-074 075-079 080-084 085-089 090-094 095-099 100-104 105-109 110-180 181-255	Solid figure 1 Solid figure 2 Solid figure 3 Solid figure 4 Solid figure 5 Solid figure 6 Solid figure 7 Solid figure 8 Solid figure 9 Solid figure 10 Solid figure 11 Solid figure 1 jitter (from slow to fast) Solid figure 2 jitter (from slow to fast) Solid figure 3 jitter (from slow to fast) Solid figure 4 jitter (from slow to fast) Solid figure 5 jitter (from slow to fast) Solid figure 6 jitter (from slow to fast) Solid figure 7 jitter (from slow to fast) Solid figure 8 jitter (from slow to fast) Solid figure 9 jitter (from slow to fast) Solid figure 10 jitter (from slow to

				fast) Solid figure 11 jitter (from slow to fast) Reverse water flow (from fast to slow) Forward flowing water (from slow to fast)
14	16	Glass pattern	 000-009 010-019 020-029 030-039 040-049 050-059 060-069 070-079 080-089 090-099 100-109 110-119 120-129 130-139 140-149 150-159 160-169 170-210 211-255	Pattern 1 (greater or 5 cut into the white circle) Pattern 2 Pattern 3 Pattern 4 Pattern 5 Pattern 6 Pattern 7 Pattern 8 Pattern 9 Pattern 2 jitter (from slow to fast) Pattern 3 jitter (from slow to fast) Pattern 4 jitter (from slow to fast) Pattern 5 jitter (from slow to fast) Pattern 6 jitter (from slow to fast) Pattern 7 jitter (from slow to fast) Pattern 8 jitter (from slow to fast) Pattern 9 jitter (from slow to fast) Forward running water (from fast to slow) Reverse water flow (from slow to fast)
15	17	Botograph rotation	 000-127 128-190 191-192 193-255	Angle adjustment Forward and fast rotation to slow rotation cease Reverse slow rotation to fast rotation
	18	Glass graph rotation fine-tuning	 000-255	 Glass graph rotation fine-tuning
16	19	Prism 1	000-127 128-255	Prism 1 pops up Prism 1 cut in
17	20	Prism 1 rotation	000-127 128-190 191-192 193-255	Prism angle regulation Forward rotation (from fast to slow) cease

				Reverse rotation (from slow to fast)
18	21	Prism 2	000-127 128-255	Prism 2 pops up Prism 2 cut in
19	22	Prism 2 rotation	 000-127 128-190 191-192 193-255	Prism angle regulation Forward rotation (from fast to slow) cease Reverse rotation (from slow to fast)
20	23	atomization	000-127 128-255	Fog cut out Fog cut in
21	24	amplify	000-255	Patterns from small to large
	25	Amplification fine-tuning	000-255	Amplification fine-tuning
22	26	focus	000-255	Pattern clarity goes from far to near
	27	Focus tuning	000-255	Focus tuning
23	28	function	000-025 026-050 061-085 251-255	Invalid area Small motor reset XY reset The whole machine reset

2. Common fault

1. For some common faults, the corresponding solutions are proposed. Any problems that cannot be resolved should be handled by the professionals. Disconnect the power supply before maintaining the lamp

2. .The light bulb is not bright

Check whether the voltage matching with the lamp is installed;

Check whether the power supply connection or control switch of the lamp is in bad contact;

Check whether the power supply is insufficient;

Check that the DMX512 controller has sent the instructions.

- The control of the console is not accepted after the lamp is normally reset
- Check whether the lamp digital startup address value and function options are correct;
- Check whether the connection of the communication control line is correct, whether the

communication line is too long or has been interrupted;

3. Check whether the control equipment is invalid, and check whether the serial connected signal amplifier is invalid;

4. Check whether the communication line is too long or any other equipment interferes with each other;

5. Optimize the wiring, shorten the length of the control signal line, high voltage and low voltage line wiring separately;

6. Add a signal amplifier;

7. The signal line adopts high-quality shielding twisted-pair line;

8. Connect the signal terminal resistor (120 ohms) at the end of the lamp.

3.The lamps cannot be started

Check whether the power supply parameters are consistent with the lamps;

Check the lamp due to extrusion deformation, vibration of internal parts, damp and other reasons Or fall off.

Please check whether the wire product connector inside the lamp is falling off and loose.

Check whether the electronic components (such as electronic transformer, PCB board, motor control board, etc.) are loose, short circuit and burned out.

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

- Check one by step according to the previous step;
- Check whether the transmission belt corresponding to the X and Y axes in the lamp falls off and breaks;
- Check whether the data feedback receiver (optical coupling) in the X and Y direction in the lamp is damaged;
- Restart it on and reset it once.