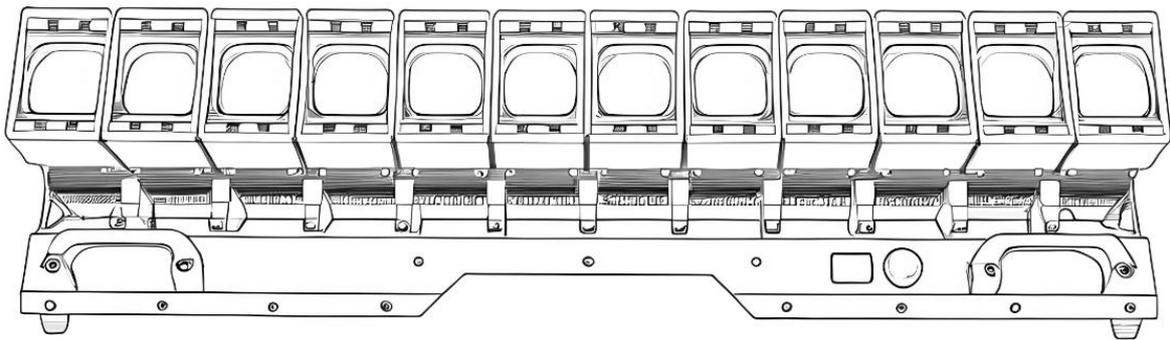


Thousand-hand Guanyin ecstasy beam

Lamp

users guide



CE F \perp IP20 LED $\left[\text{---}0.2\text{m} \right]$ $t_a 40^\circ\text{C}$ $t_c 150^\circ\text{C}$

(Please read the instructions carefully and carefully before using the product)

catalogue

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Chapter 1 Notes and installation

1. Remove the packaging

To correctly and safely use the product, please read the instructions carefully before installing and using the product. This specification contains important installation and application information. Please strictly follow the operation procedures when installing and operating the product. At the same time, please keep this instruction manual properly.

The beam beam lamp strictly follows CE standards, in line with the international standard DMX512 signal protocol, can be used alone control, can also be used online, with fast rotation, low noise, powerful characteristics, suitable for small and medium-sized concerts, theaters, studios, nightclubs and bars and other places.

Please remove the package carefully, check whether the product is damaged during transportation, and check whether the following contents are complete.

Thousand-hand Guanyin huahuaxiang beam lamp- - - -1

signal line- - - -1 Manual- - - -1 book

power cord- - - -1 Hanging parts- - - -1 set

The product is not equipped with relevant repair accessories. Product maintenance and repair can only be carried out by professionals!

Please do not change this product without authorization, otherwise the product may be damaged, so the damage caused is not covered by the warranty. Also, unprofessional operations can lead to short circuits, burns or electric shocks, and so on.

2. Safety instructions

pay attention to! Please be careful before operating this product, this product is high voltage product, if contact wire may be electric shock!

This product is a good product before delivery. In order to keep the product in good condition and ensure safe operation, users should follow the safety matters and the instructions. Important: Damage caused by not following this instruction is not covered by the warranty. The supplier is not responsible for the product problems arising from this. If the product has been exposed to extreme unstable temperature conditions (e. g., after transportation), do not supply the product immediately because water drops due to temperature changes may damage the product. Please use the product has returned to normal temperature.



This product can be used in the voltage range of 90-240V, and is used for indoor products. Please ensure that the ground voltage is not higher than the tolerable range of the product!! The power plug must be plugged into a protective class I socket. Green or tea-cyan conductors must be grounded.

Please check the product-level power cord frequently. Ensure that the power cord is not folded or damaged and not connected to other wires! Special attention is required when connecting the power cord or the related wiring. Unplug the power supply without using the product or before cleaning.

Before using the product, please be familiar with the operation function of the product. Please do not expose children or no professionals to the product.

Please do not shake this product. Do not use brute force when installing or operating the product. Do not allow unprofessionals to operate the product. Most of the damage is caused by an unprofessional operation.

The product is not equipped with relevant repair accessories. Product maintenance and repair can only be carried out by professionals!

Please do not change this product without authorization, otherwise the product may be damaged, so the damage caused is not covered by the warranty. Also, unprofessional operations can lead to short circuits, burns or electric shocks, and so on.

3. Product precautions

- If the product after a large temperature difference (for example, after transportation), do not immediately start the product, because the heat account cold contraction will damage the product. Please wait until the device reaches the normal room temperature before starting the product.
- pay attention to shock. Avoid strong collisions during product installation.
- Please do not raise the whole product through the lamp head, because the mechanical nature of the equipment may be damaged.
- When selecting the installation site, make sure the product is not exposed to overheated, wet or dusty areas. Please do not place any wires on the ground or you may be in danger of suffering an electric shock.

- Before installing the product, ensure the installation point.
- Please attach the product to the safety rope and check that all the screws are correct during installation.
- Make sure that the lens is in good condition. Replace the lens when the lens is damaged or scratched.
- It is recommended that technicians familiar with the product operate the product. Non-technical personnel are prohibited from operating this equipment because many losses are the result of non-professional operations.
- Please keep the packing materials properly for secondary transportation as required.
- Do not change the product without authorization without the guidance of the manufacturer or distributor.
- Any equipment failure caused by the failure to follow the instructions is not covered by the warranty. And any accident caused by short circuit, injury, electric shock, ultraviolet light caused by injury, bulb explosion accidents are not within the scope of warranty.

4. Lighting installation

Note: For more safety, install this product away from the walkway, seating area, or accessible area.

This lamp can be placed horizontally, oblique hanging and upside down, oblique hanging and upside down must pay attention to the installation method. Fixed installation of lamps: before the positioning of lamps, ensure the stability of the installation site, the lamps must not fall off the support frame, and use the support frame and the safety rope for auxiliary hanging; to ensure safety. Prevent the falling and sliding of the lamps and lanterns. During the installation and debugging, the pedestrians are prohibited to pass below, and regularly check whether the safety rope is worn and the hook screw is loose. If the installation of the lamp is not stable, the manufacturer will not bear any responsibility.

Before hanging the product, ensure that the installation point supports 10 times the weight of the product.

Product installation must have a double protection device, such as a safety rope.

When hanging, removing or repairing the product, it is prohibited to stand under the installation point.

Please ensure that this product should be installed at least 0.5 meters away from the flammable materials.

Hanging point: the top hanging requires that the installation personnel must be experienced, including calculating load-bearing requirements, installation materials used, periodic inspection of the safety status of installation materials and products. If you lack this knowledge, please do not try to install it yourself. If not incorrectly, it may lead to serious consequences such as personal injury.

Make sure that all the required hanging and installation steps are completed before the product is powered on.

Quick lock pendant: there are specially designed professional pendants at the bottom of this product, including the quick lock pendant and safety rope hanging points (please refer to the figure below).

When hanging this product to the truss, please remember to use a suitable quick lock, fix it to the quick lock pendant position of the product, and hang it with the screws of M10. To further ensure safety, please install the safety rope to the safety rope hanging point at the bottom of the product, and fix it to the truss.

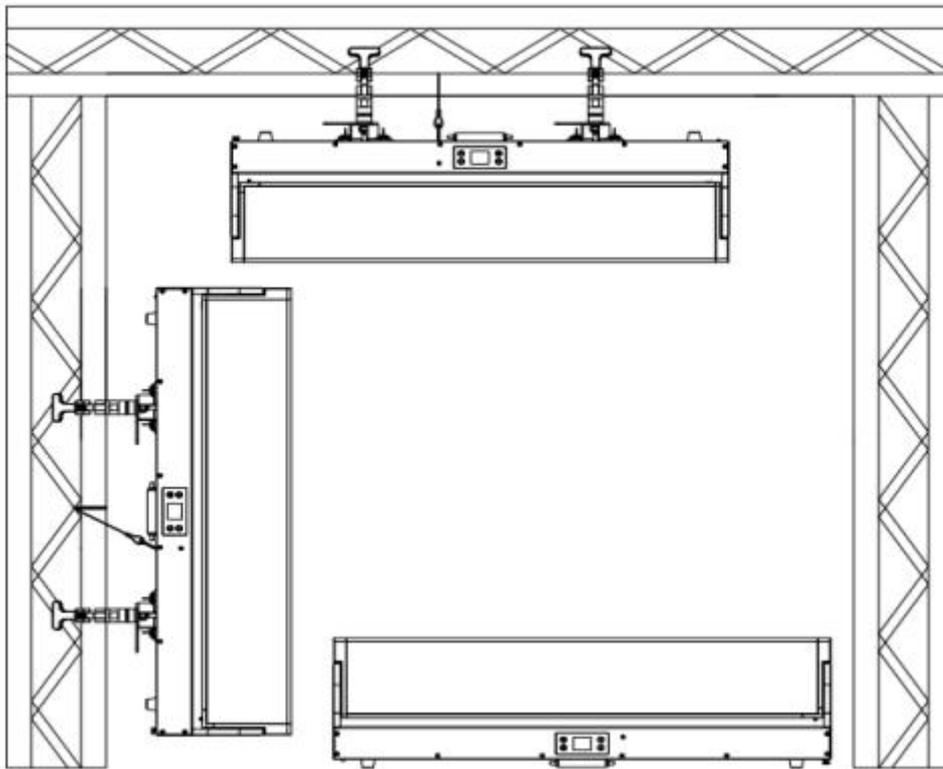


Figure 1 Schematic diagram of the lamp installation

Whatever hanging you choose, please remember to use a safety rope. The bottom of the product is equipped with a special safety rope hanging point, please refer to the above figure, and please remember to use the specially provided safety rope hanging point, do not put the safety rope in the handle position.

DMX-512 linkage

This lamp uses DMX512 signal control mode, and the control signal of each lamp is in parallel. When connecting the signals of multiple lamps, it is best to use dual-core shielding cable. When connecting, each lamp is connected through the DMX signal jack (Canon seat) INPUT (input) and OUTPUT (output). The 3-core XLR plug terminal of the signal line connecting the lamp must correspond to each other. When connecting the lamp signal, it is recommended to use the DMX signal terminal. To damaging the control signal due to electrical noise, the DMX signal terminal is a 120 ohm 1W resistance between the 2 and three feet of an XLR plug and connects it to the OUTPUT (output) jack of the last lamp.

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 A001 of the first lamp.
- 2: The basic number of controller should be greater than or equal to the total number of lighting channels.
- 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 A01 7; the starting address code of the third lamp is set to A03 3; and so on, (this setting mode should be determined by different console).

Please plug the male header of the XLR signal line into the signal output port of the controller and the master head into the signal input port on the back board of the product. You can talk about multiple products in series, the signal line needs to be three-heart, shielded, with XLR input and output head. Please refer to the figure below.

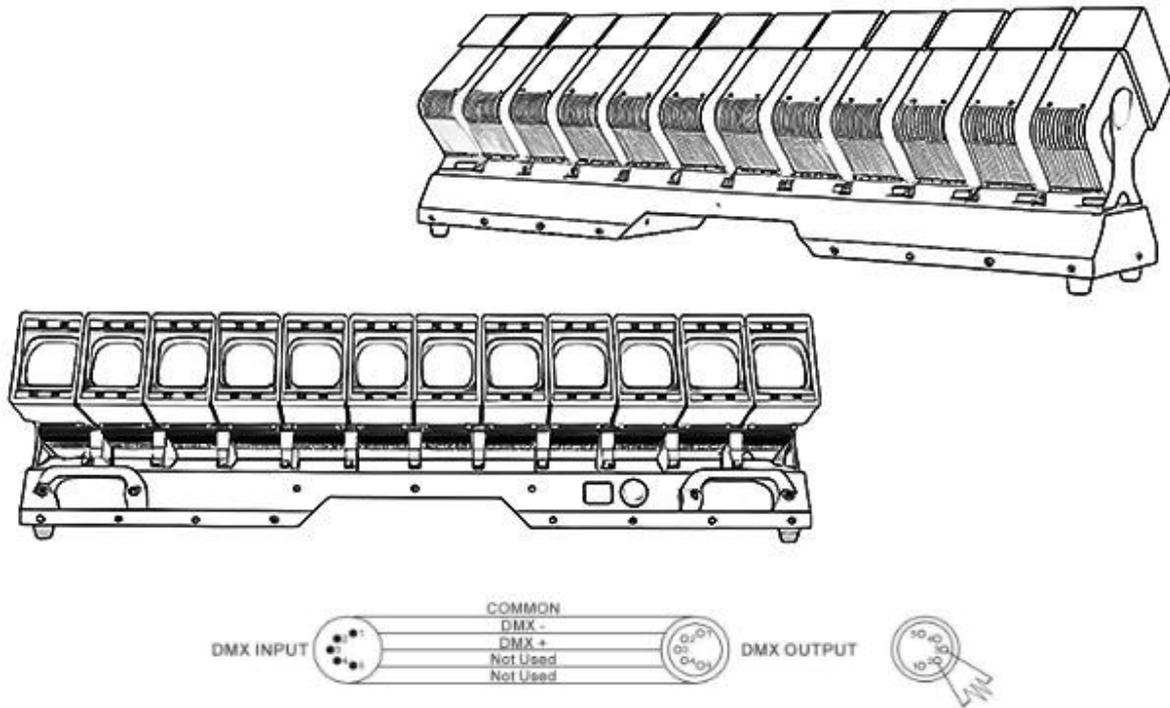


Figure Figure 2. A. Schematic diagram of the DMX512 connection

1. Lamp panel

The lamp panel schematic diagram is shown as ingraph 3As shown:

1) **Signal light:** DMX signal light is above when the light is connected with the console. Under the lamp, red light is lit in normal condition.

2) **Temperature:** as shown in the figure, the temperature of the lamp board is 30 degrees Celsius; if the temperature shows - - °C, the temperature of the lamp is abnormal. It may break the temperature control connection line. If the temperature shows * * * °C, and the obvious difference from the ambient temperature is too large, it may be the temperature control cable short circuit. Need professionals to repair and troubleshoot, before normal use.

3) **Address code:** display range 001-512, the address code is 001.

4) **DMX mode:** 512 mode.

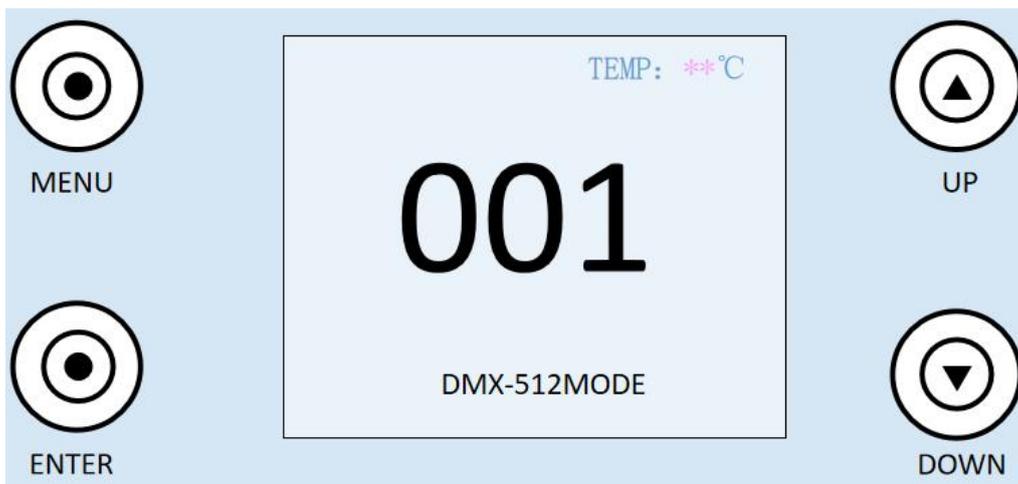
5) **Key: UP:** Upper key

MENU: Return to the key

ENTER: The confirmation key

DOWN: Down the key

Note: Do not use sharp or sharp display to prevent damage.



graph3Schematic representation of the four-key display panel

2. Menu first interface

The first interface of the menu contains 6 sub-menus. Select the corresponding sub-menu through the "UP" key and "DOWN" key, and click the "ENTER" key to enter the corresponding sub-menu interface. The first interface of the menu is shown in Figure 4:

1) **Address:** Click to enter the address code setting, and increase or reduce the address number through the "UP" key and "DOWN" address code. At this time, the address code displayed on the lamp panel will be updated synchronously.

2) **Settings:** Click to enter the system option to change the working mode, working parameters and panel display settings of the lamp.

- 3) Manual: Click to enter the manual mode to control the function of the lamp. For the specific content, see the channel table.
- 4) Calibration: Click to enter the password to enter the system calibration mode.
- 5) Reset: Click to enter the system reset mode and control the bulb.
- 6) Note: Click to enter to view the system error correction, hardware and software version and other information.

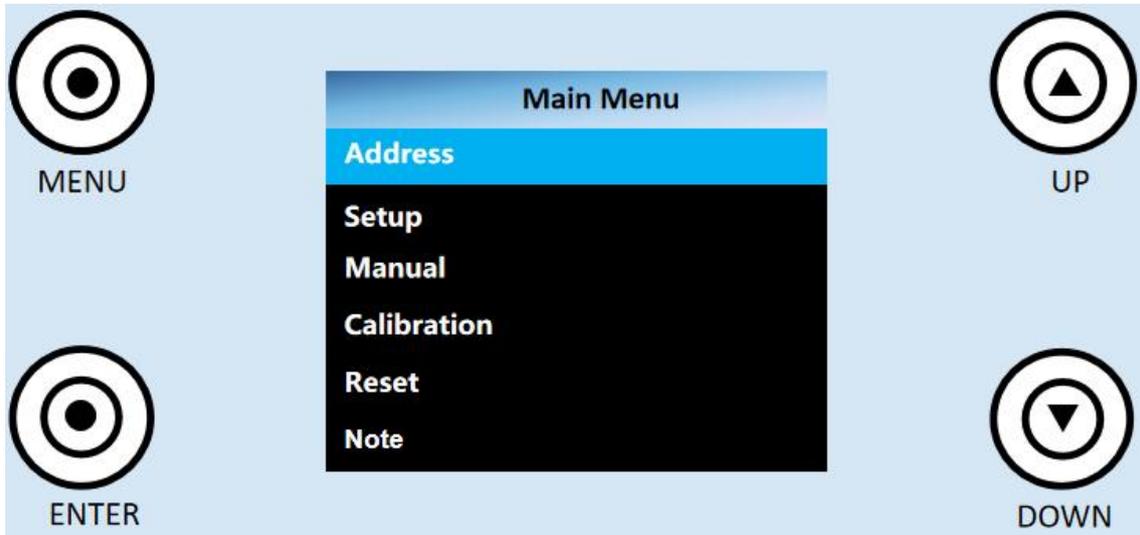


Figure 4 determines the input window

2.1 System Settings

System Setup		System Setup		System Setup	
Run Mode	DMX	Signal Keep	OFF	Dimmer Speed	Smooth
Channel Mode	20CH	Screen Saver	ON	LED Set	OFF
Invert Pixel	OFF	Invert Screen	OFF	Load Default	
Invert Tilt	OFF	Update slave	OFF		
Reserve	ON	Language	EN		
Encoder Crct	ON	Dimmer Curve	Curve2		

Figure 5. System Setup window

The system setting interface is shown in Figure 5. Enter the system setting, click "ENTER" to select the settings to be modified, then select the changed content through "UP" and "DOWN" button, and "ENTER" button to confirm and change the working mode, working parameters and Settings of the panel display. The details are shown in Table 1.

option	explain	
work pattern	Lighting operating mode: DMX /voice control/self-walking1/self-walking 2	
	DMX pattern	Console mode, receiving the DMX signal
	Self-walking mode 1	The lamp runs automatically according to the built-in self-walk program 1
	Self-walking	The lamp shall be run automatically according to the built-in self-walk program 2

	mode 2	
	Sound control mode	When the lamp detects a strong sound, the lamp automatically runs a scene according to the built-in program, otherwise maintain the last scene
channel pattern	20CH 53CH 101CH 155CH 169CH 179CH	
Pixel reversal	Set the pixel direction	
	close	Dont reverse
	open	opposite direction
Vertical reversal	Set the Y-axis direction	
	close	Dont reverse
	open	opposite direction
Reserved function 1	open/close	
Reserved function 2	Open/close	
The signal to keep	Output status of the lamp with no DMX signal	
	close	No signal, so the motor and the light source return to the position and state when the reset is complete
	open	No signal, keeping the last frame of the DMX data output
Screen protection	How long the screen is on	
	close	Position is not corrected after the misstep
	open	Position is automatically corrected after loss of step
Screen flip	close	The screen is positive
	open	The screen reverse
	voluntarily	The system can automatically rotate the screen according to the direction of gravity
Synchronous update	Synchronize the setting parameters or calibration parameters of multiple lamps	
	close	The synchronous update function is turned off.
	open	After opening, connect multiple lamps with DMX cable, and the information can be updated synchronously in the setting interface and calibration interface. (Note: Remove the DMX signal wire connected to the console)
language	the Chinese language /EN	
The dimming curve	Curve 1	straight line
	Curve 2	Square rate curve
	Curve 3	Anti-square rate curve
	Curve 4	S curve
The dimming speed	fast	Quick dimming
	smoothing	Slow dimming

LED number	Set the lamp ID	
	close	The lamp ID editing function is disabled
	1-12	After selecting the ID to be edited and clicking "Confirm", the Y-axis will automatically enter the editing mode vertically. At this time, move the Y-axis in the direction of the screen until the red light is up, and then move the Y-axis in the opposite direction again until the red light is off, indicating that the ID of the lamp head has been edited successfully
factory data reset	Lighting parameters are returned to the factory settings	
	cancel	res sic stantibus
	affirm	Light ture to factory settings

Table 1

primary menu	Sublevel menu	Terlevel menu / parameters
address	001 - 512	(Number of channels added each time, minus normal)
System Settings	running mode	DMX / self walking 1 / self 2 / voice control
	channel pattern	20CH 53CH 101CH 155CH 169CH 179CH
	Pixel reversal	Open / close
	Vertical reversal	Open / close
	Reserved function	Open / close
	Optical coupling error correction	Open / close
	The signal to keep	Open / close
	Screen protection	Open / close
	Screen flip	Open / close / automatic
	Synchronous update	Open / close
	language	centre /EN
	The dimming speed	Fast / smooth
	The dimming curve	Curve 1 / curve 2 / curve 3 / curve 4
	LED number	Pass / 1-12
factory data reset	Confirm / cancel	
manual mode	Current channel mode channel	0-255
system calibration	enter password	Lighting calibration
system reset	Effect motor reset	Effect disk reset other than XY
	Scan the motor for reset	The XY axis was reset only
	Full motor reset	Lamps reset
system info	Reset information	Device error message
	And DMX data monitoring	Channel values for the receiving console
	sensor information	Sensor status information
	Hardware version	Displays the hardware version
	software release	Displays the software version

Table 2

2.2 System calibration

Calibration		Calibration		Calibration	
TILT-1	127	Balance-Blue	255	Balance7-Green	255
Focus-1	127	Balance3-White	255	Balance7-Blue	255
TILT-2	127	Balance1-Red	255	Balance7-White	255
Focus-2	127	Balance1-Green	255	Balance8-Red	255
TILT-3	127	Balance1-Blue	255	Balance8-Green	255
Focus-3	127	Balance1-White	255	Balance8-Blue	255
TILT-4	127	Balance2-Red	255	Balance8-White	255
Focus-4	127	Balance2-Green	255	Balance9-Red	255
TILT-5	127	Balance2-Blue	255	Balance9-Green	255
Focus-5	127	Balance2-White	255	Balance9-Blue	255
TILT-6	127	Balance3-Red	255	Balance9-White	255
Focus-6	127	Balance3-Green	255	Balance10-Red	255
TILT-7	127	Balance3-Blue	255	Balance10-Green	255
Focus-7	127	Balance3-White	255	Balance10-Blue	255
TILT-8	127	Balance4-Red	255	Balance10-White	255
Focus-8	127	Balance4-Green	255	Balance11-Red	255
TILT-9	127	Balance4-Blue	255	Balance11-Green	255
Focus-9	127	Balance4-White	255	Balance11-Blue	255
TILT-10	127	Balance5-Red	255	Balance11-White	255
Focus-10	127	Balance5-Green	255	Balance12-Red	255
TILT-11	127	Balance5-Blue	255	Balance12-Green	255
Focus-11	127	Balance5-White	255	Balance12-Blue	255
TILT-12	127	Balance6-Red	255	Balance12-White	255
Focus-12	127	Balance6-Green	255	MIC	127
Power	255	Balance6-Blue	255	Change password >>	

Figure 6. The system calibration interface

Press "6688" to enter the system calibration interface. Change the value through the "UP" key and "DOWN" key to modify the lamp power and motor stroke parameters. The system calibration interface is shown in Figure 6, and the details are shown in Table 3.

option	explain
Initial position calibration	After entering the sub-interface, the reset position of Y-axis 1-12 motor and focusing motor 1-12 can be adjusted to compensate for the error on the hardware installation. The adjustment range is + -127 values (representing up / down / left / right), and 127 indicates no adjustment.
white balance	After entering the sub-interface, the white balance of LED1-12 can be adjusted from 0~255,255 indicating no adjustment.
power	After entering the sub-interface, the maximum power of the lamp can be adjusted, and 255 indicates the maximum power
change password	Set the system calibration password

Table 3

2.3 Manual mode

Manual Drive		Manual Drive		Manual Drive	
1. Tilt	000	9. Effect Speed	000	17. Red	000
2. Tilt Fine	000	10. Effect Delay	000	18. Green	000
3. Motor Speed	000	11. Bg Color	000	19. Blue	000
4. Motor Macro	000	12. Bg Dimmer	000	20. White	000
5. Linear CTO	000	13. Dimmer	000		
6. Macro Colour	000	14. Strobe	000		
7. Pattern	000	15. Zoom	000		
8. Effect	000	16. Macro Function	000		

Figure 7. Manual mode interface

2.4 System reset



Figure 8. The system reset interface

2.5 System information

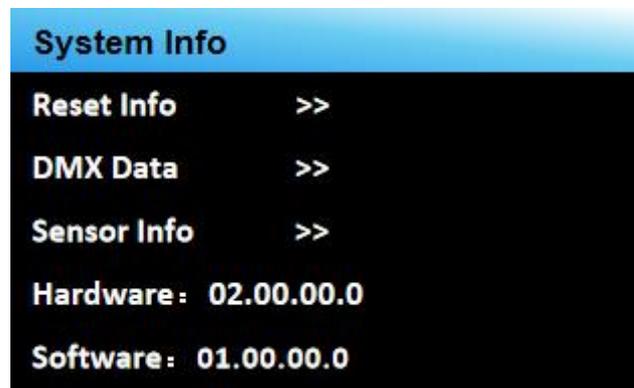


Figure 9. The system information interface

Press the "ENTER" button to enter the information interface, select the "UP" button and "DOWN", and then click "ENTER" to view the corresponding content. The system calibration interface is shown in Figure 8, and the details are shown in Table 4.

option	explain
Reset the error message	1) IC1 / IC2 communication fault (communication failure between light board and display board) 2) X / Y optical coupling error reporting 3) Focal adjustment motor reset failure
DMX data monitoring	This enters the subinterface to display channel values for viewing

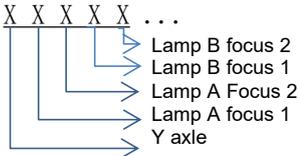
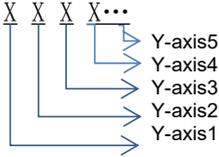
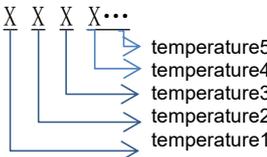
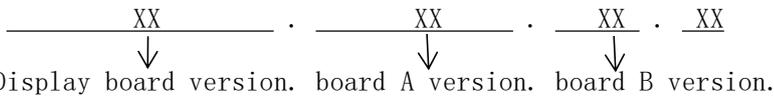
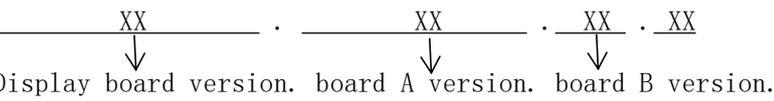
<p>sensor information</p>	<p>1) Blow up Hall:</p>  <p>2) Y-axis hall:</p>  <p>3) Temperature 1-12</p>  <p>Note: Up and down keys to turn the page</p>
<p>Hardware version number</p>	<p>Lighting hardware information</p> <p>  </p>
<p>Software version number</p>	<p>Lamp software version</p> <p>  </p>

Table 4

Channe 3 description and technical parameters

1. channel table

53CH、101CH、155CH、179CH

53 CH	101 CH	155 CH	179 CH	Function	Value	Percent/Setting
1	1	1	1	Tilt 1	000 - 255	0-100%
2	2	2	2	Fine tilt 1	000 - 255	0-100%
3	3	3	3	Tilt 2	000 - 255	0-100%
4	4	4	4	Fine tilt 2	000 - 255	0-100%
5	5	5	5	Tilt 3	000 - 255	0-100%
6	6	6	6	Fine tilt 3	000 - 255	0-100%
7	7	7	7	Tilt 4	000 - 255	0-100%
8	8	8	8	Fine tilt 4	000 - 255	0-100%
9	9	9	9	Tilt 5	000 - 255	0-100%
10	10	10	10	Fine tilt 5	000 - 255	0-100%
11	11	11	11	Tilt 6	000 - 255	0-100%
12	12	12	12	Fine tilt 6	000 - 255	0-100%
13	13	13	13	Tilt 7	000 - 255	0-100%
14	14	14	14	Fine tilt 7	000 - 255	0-100%
15	15	15	15	Tilt 8	000 - 255	0-100%
16	16	16	16	Fine tilt 8	000 - 255	0-100%
17	17	17	17	Tilt 9	000 - 255	0-100%
18	18	18	18	Fine tilt 9	000 - 255	0-100%
19	19	19	19	Tilt 10	000 - 255	0-100%
20	20	20	20	Fine tilt 10	000 - 255	0-100%
21	21	21	21	Tilt 11	000 - 255	0-100%
22	22	22	22	Fine tilt 11	000 - 255	0-100%
23	23	23	23	Tilt 12	000 - 255	0-100%
24	24	24	24	Fine tilt 12	000 - 255	0-100%
25	25	25	25	Tilt speed	000 - 255	Fast to slow
26	26	26	26	Tilt macro	000 - 004	No function
					005 - 255	see Tilt Macro
27	27	27	27	CTC	000	No function
					001 - 255	From 19000K to 2700K

28	28	28	28	Color macro	000	No function
					001 - 255	see Color Chart
29	29	29	29	Pattern (see Patterns)	000	No function
					001 - 002	Pattern 1-255
30	30	30	30	LED built-in	000 - 015	No function
					016 - 255	see LED Macro
31	31	31	31	LED built-in speed	000 - 127	Fast to slow
					128	Stop
					129 - 255	Slow to fast
32	32	32	32	LED built-in delay	000 - 255	Fast to slow
33	33	33	33	Background color	000	No function
					001 - 255	see Color Chart
34	34	34	34	Background color dimmer	000 - 255	0-100%
-	-	35	35	Background color fine dimmer	000 - 255	0-100%
35	35	36	36	Dimmer	000 - 255	0-100%
-	-	37	37	Fine dimmer	000 - 255	0-100%
36	36	38	38	Strobe	000 - 019	Off
					020 - 255	see Strobe Settings
37	37	39	39	Zoom 1	000 - 255	0-100%
38	38	40	40	Zoom 2	000 - 255	0-100%
39	39	41	41	Zoom 3	000 - 255	0-100%
40	40	42	42	Zoom 4	000 - 255	0-100%
41	41	43	43	Zoom 5	000 - 255	0-100%
42	42	44	44	Zoom 6	000 - 255	0-100%
43	43	45	45	Zoom 7	000 - 255	0-100%
44	44	46	46	Zoom 8	000 - 255	0-100%
45	45	47	47	Zoom 9	000 - 255	0-100%
46	46	48	48	Zoom 10	000 - 255	0-100%
47	47	49	49	Zoom 11	000 - 255	0-100%
48	48	50	50	Zoom 12	000 - 255	0-100%
49	49	51	51	Control	000 - 009	No function
					010 - 255	see Control Settings
50	50	52	52	Red Cyan	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	53	53	Fine red Fine cyan	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
51	51	54	54	Green Magenta	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%

-	-	55	55	Fine green Fine magenta	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
52	52	56	56	Blue Yellow	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	57	57	Fine blue Fine yellow	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
53	53	58	58	White	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	59	59	Fine white	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	60	Dimmer 1	000 - 255	0-100%
-	-	-	61	Fine dimmer 1	000 - 255	0-100%
-	54	60	62	Red 1 Cyan 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	61	63	Fine red 1 Fine cyan 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	55	62	64	Green 1 Magenta 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	63	65	Fine green 1 Fine magenta 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	56	64	66	Blue 1 Yellow 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	65	67	Fine blue 1 Fine yellow 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	57	66	68	White 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	67	69	Fine white 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	70	Dimmer 2	000 - 255	0-100%
-	-	-	71	Fine dimmer 2	000 - 255	0-100%
-	58	68	72	Red 2 Cyan 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	69	73	Fine red 2 Fine cyan 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	59	70	74	Green 2 Magenta 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	71	75	Fine green 2 Fine magenta 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	60	72	76	Blue 2 Yellow 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	73	77	Fine blue 2 Fine yellow 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	61	74	78	White 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	75	79	Fine white 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	80	Dimmer 3	000 - 255	0-100%
-	-	-	81	Fine dimmer 3	000 - 255	0-100%
-	62	76	82	Red 3 Cyan3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	77	83	Fine red 3 Fine cyan 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	63	78	84	Green 3 Magenta 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	79	85	Fine green 3 Fine magenta 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	64	80	86	Blue 3 Yellow 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	81	87	Fine blue 3 Fine yellow 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%

-	65	82	88	White 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	83	89	Fine white 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	90	Dimmer 4	000 - 255	0-100%
-	-	-	91	Fine dimmer 4	000 - 255	0-100%
-	66	84	92	Red 4 Cyan 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	85	93	Fine red 4 Fine cyan 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	67	86	94	Green 4 Magenta 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	87	95	Fine Green 4 Fine Magenta 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	68	88	96	Blue 4 Yellow 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	89	97	Fine blue 4 Fine yellow 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	69	90	98	White 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	91	99	Fine white 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	100	Dimmer 5	000 - 255	0-100%
-	-	-	101	Fine dimmer 5	000 - 255	0-100%
-	70	92	102	Red 5 Cyan 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	93	103	Fine red 5 Fine cyan 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	71	94	104	Green 5 Magenta 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	95	105	Fine green 5 Fine magenta 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	72	96	106	Blue 5 Yellow 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	97	107	Fine blue 5 Fine yellow 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	73	98	108	White 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	99	109	Fine white 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	110	Dimmer 6	000 - 255	0-100%
-	-	-	111	Fine dimmer 6	000 - 255	0-100%
-	74	100	112	Red 6 Cyan 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	101	113	Fine red 6 Fine cyan 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	75	102	114	Green 6 Magenta 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	103	115	Fine green 6 Fine magenta 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	76	104	116	Blue 6 Yellow 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	105	117	Fine blue 6 Fine yellow 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	77	106	118	White 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	107	119	Fine white 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	120	Dimmer 7	000 - 255	0-100%
-	-	-	121	Fine dimmer 7	000 - 255	0-100%

-	78	108	122	Red 7 Cyan 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	109	123	Fine red 7 Fine cyan 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	79	110	124	Green 7 Magenta7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	111	125	Fine green 7 Fine magenta 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	80	112	126	Blue7 Yellow 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	113	127	Fine blue 7 Fine yellow 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	81	114	128	White 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	115	129	Fine white 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	130	Dimmer 8	000 - 255	0-100%
-	-	-	131	Fine dimmer 8	000 - 255	0-100%
-	82	116	132	Red 8 Cyan 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	117	133	Fine red 8 Fine cyan 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	83	118	134	Green 8 Magenta 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	119	135	Fine green 8 Fine magenta 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	84	120	136	Blue 8 Yellow 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	121	137	Fine blue 8 Fine yellow 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	85	122	138	White 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	123	139	Fine white 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	140	Dimmer 9	000 - 255	0-100%
-	-	-	141	Fine dimmer 9	000 - 255	0-100%
-	86	124	142	Red 9 Cyan 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	125	143	Fine red 9 Fine cyan 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	87	126	144	Green 9 Magenta 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	127	145	Fine green 9 Fine magenta 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	88	128	146	Blue9 Yellow 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	129	147	Fine blue 9 Fine yellow 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	89	130	148	White 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	131	149	Fine white 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	150	Dimmer 10	000 - 255	0-100%
-			151	Fine dimmer 10	000 - 255	0-100%
-	90	132	152	Red 10 Cyan 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-		133	153	Fine red 10 Fine cyan 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	91	134	154	Green 10 Magenta 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%

-		135	155	Fine green10 Fine magenta10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	92	136	156	Blue 10 Yellow10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-		137	157	Fine blue 10 Fine yellow 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	93	138	158	White 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	139	159	Fine white 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	160	Dimmer 11	000 - 255	0-100%
-	-	-	161	Fine dimmer 11	000 - 255	0-100%
-	94	140	162	Red 11 Cyan 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	141	163	Fine red 11 Fine cyan 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	95	142	164	Green11 Magenta 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	143	165	Fine green11 Fine magenta11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	96	144	166	Blue 11 Yellow 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	145	167	Fine blue 11 Fine yellow 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	97	146	168	White 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	147	169	Fine white 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	-	170	Dimmer 12	000 - 255	0-100%
-	-	-	171	Fine dimmer 12	000 - 255	0-100%
-	98	148	172	Red 12 Cyan 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	149	173	Fine red 12 Fine cyan 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	99	150	174	Green 12 Magenta 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	151	175	Fine green12 Fine magenta12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	100	152	176	Blue 12 Yellow 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	153	177	Fine blue 12 Fine yellow 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	101	154	178	White 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
-	-	155	179	Fine White 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%

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Channel	Function	Value	Percent/Setting
1	Control	000 - 009	No function
		010 - 255	see Control Settings
2	Tilt speed	000 - 255	Fast to slow
3	Tilt macro	000 - 004	No function
		005 - 255	see Tilt Macro

4	CTC	000	No function
		001 - 255	From 19000K to 2700K
5	Color macro	000	No function
		001 - 255	see Color Chart
6	Pattern (see Patterns)	000	No function
		001 - 002	Pattern 1-255
7	LED built-in	000 - 015	No function
		016 - 225	see LED Macro
8	LED built-in speed	000 - 127	Fast to slowt
		128	stop
		129 - 255	slow to fas
9	LED built-in delay	000 - 255	Fast to slow
10	Background color	000	No function
		001 - 255	see Color Chart
11	Background color dimmer	000 - 255	0-100%
12	Background color fine dimmer	000 - 255	0-100%
13	Strobe	000 - 019	Off
		020 - 255	see Strobe Settings
14	Tilt 1	000 - 255	0-100%
15	Fine tilt 1	000 - 255	0-100%
16	Zoom 1	000 - 255	0-100%
17	Dimmer 1	000 - 255	0-100%
18	Fine dimmer 1	000 - 255	0-100%
19	Red 1 Cyan 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
20	Fine red 1 Fine cyan 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
21	Green 1 Magenta 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
22	Fine green 1 Fine magenta 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
23	Blue 1 Yellow 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
24	Fine blue 1 Fine yellow 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
25	White 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
26	Fine white 1	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
27	Tilt 2	000 - 255	0-100%
28	Fine tilt 2	000 - 255	0-100%
29	Zoom 2	000 - 255	0-100%

30	Dimmer 2	000 - 255	0-100%
31	Fine dimmer2	000 - 255	0-100%
32	Red 2 Cyan 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
33	Fine red 2 Fine cyan 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
34	Green 2 Magenta 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
35	Fine green 2 Fine magenta 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
36	Blue 2 Yellow 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
37	Fine blue 2 Fine yellow 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
38	White 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
39	Fine white 2	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
40	Tilt 3	000 - 255	0-100%
41	Fine tilt 3	000 - 255	0-100%
42	Zoom 3	000 - 255	0-100%
43	Dimmer 3	000 - 255	0-100%
44	Fine dimmer 3	000 - 255	0-100%
45	Red 3 Cyan 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
46	Fine red 3 Fine cyan 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
47	Green 3 Magenta 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
48	Fine green 3 Fine magenta 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
49	Blue 3 Yellow 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
50	Fine blue 3 Fine yellow 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
51	White 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
52	Fine white 3	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
53	Tilt 4	000 - 255	0-100%
54	Fine tilt 4	000 - 255	0-100%
55	Zoom 4	000 - 255	0-100%
56	Dimmer 4	000 - 255	0-100%
57	Fine dimmer 4	000 - 255	0-100%
58	Red 4 Cyan 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
59	Fine red 4 Fine cyan 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
60	Green 4 Magenta 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
61	Fine green 4 Fine magenta 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%

62	Blue 4 Yellow 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
63	Fine blue 4 Fine yellow 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
64	White 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
65	Fine white 4	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
66	Tilt 5	000 - 255	0-100%
67	Fine tilt 5	000 - 255	0-100%
68	Zoom 5	000 - 255	0-100%
69	Dimmer 5	000 - 255	0-100%
70	Fine dimmer 5	000 - 255	0-100%
71	Red 5 Cyan 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
72	Fine red 5 Fine cyan 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
73	Green 5 Magenta 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
74	Fine green 5 Fine magenta 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
75	Blue 5 Yellow 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
76	Fine blue 5 Fine yellow 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
77	White 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
78	Fine white 5	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
79	Tilt 6	000 - 255	0-100%
80	Fine tilt 6	000 - 255	0-100%
81	Zoom 6	000 - 255	0-100%
82	Dimmer 6	000 - 255	0-100%
83	Fine dimmer 6	000 - 255	0-100%
84	Red 6 Cyan 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
85	Fine red 6 Fine cyan 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
86	Green 6 Magenta 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
87	Fine green 6 Fine magenta 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
88	Blue 6 Yellow 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
89	Fine blue 6 Fine yellow 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
90	White 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
91	Fine white 6	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
92	Tilt 7	000 - 255	0-100%
93	Fine tilt 7	000 - 255	0-100%

94	Zoom 7	000 - 255	0-100%
95	Dimmer 7	000 - 255	0-100%
96	Fine dimmer7	000 - 255	0-100%
97	Red 7 Cyan 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
98	Fine red 7 Fine cyan 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
99	Green 7 Magenta 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
100	Fine green 7 Fine magenta 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
101	Blue 7 Yellow 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
102	Fine blue 7 Fine yellow 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
103	White 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
104	Fine white 7	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
105	Tilt 8	000 - 255	0-100%
106	Fine tilt 8	000 - 255	0-100%
107	Zoom 8	000 - 255	0-100%
108	Dimmer 8	000 - 255	0-100%
109	Fine dimmer 8	000 - 255	0-100%
110	Red 8 Cyan 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
111	Fine red 8 Fine cyan 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
112	Green 8 Magenta 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
113	Fine green 8 Fine magenta 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
114	Blue 8 Yellow 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
115	Fine blue 8 Fine yellow 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
116	White 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
117	Fine white 8	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
118	Tilt 9	000 - 255	0-100%
119	Fine tilt 9	000 - 255	0-100%
120	Zoom 9	000 - 255	0-100%
121	Dimmer 9	000 - 255	0-100%
122	Fine dimmer 9	000 - 255	0-100%
123	Red 9 Cyan 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
124	Fine red 9 Fine cyan 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
125	Green 9 Magenta 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%

126	Fine green 9 Fine magenta 9	000 - 255	RGBW Mode:O-100%/CMY Mode:100-0%
127	Blue 9 Yellow9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
128	Fine blue 9 Fine yellow 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
129	White 9	000 - 255	RGBW Mode:O-100%/CMY Mode:100-0%
130	Fine white 9	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
131	Tilt 10	000 - 255	0-100%
132	Fine tilt 10	000 - 255	0-100%
133	Zoom 10	000 - 255	0-100%
134	Dimmer 10	000 - 255	0-100%
135	Fine dimmer 10	000 - 255	0-100%
136	Red 10 Cyan 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
137	Fine red 10 Fine cyan 10	000 - 255	RGBW Mode:O-100%/CMY Mode:100-0%
138	Green 10 Magenta 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
139	Fine green 10 Fine magenta 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
140	Blue 10 Yellow 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
141	Fine blue 10 Fine yellow 10	000 - 255	RGBW Mode:O-100%/CMY Mode:100-0%
142	White 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
143	Fine white 10	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
144	Tilt 11	000 - 255	0-100%
145	Fine tilt 11	000 - 255	0-100%
146	Zoom 11	000 - 255	0-100%
147	Dimmer 11	000 - 255	0-100%
148	Fine dimmer 11	000 - 255	0-100%
149	Red 11 Cyan 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
150	Fine red 11 Fine cyan 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
151	Green 11 Magenta 11	000 - 255	RGBW Mode:O-100%/CMY Mode:100-0%
152	Fine green 11 Fine magenta 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
153	Blue11 Yellow 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
154	Fine blue 11 Fine yellow 11	000 - 255	RGBW Mode:O-100%/CMY Mode:100-0%
155	White 11	000 - 255	RGBW Mode:O-100%/CMY Mode:100-0%
156	Fine white 11	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
157	Tilt 12	000 - 255	0-100%

158	Fine tilt 12	000 - 255	0-100%
159	Zoom 12	000 - 255	0-100%
160	Dimmer 12	000 - 255	0-100%
161	Fine dimmer 12	000 - 255	0-100%
162	Red 12 Cyan 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
163	Fine red 12 Fine cyan 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
164	Green 12 Magenta 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
165	Fine green 12 Fine magenta 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
166	Blue 12 Yellow 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
167	Fine blue 12 Fine yellow 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
168	White 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%
169	Fine white 12	000 - 255	RGBW Mode:0-100%/CMY Mode:100-0%

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Channel	Function	Value	Percent/Setting
1	Tilt 1-12	000 - 255	0-100%
2	Fine tilt 1-12	000 - 255	0-100%
3	Tilt speed	000 - 255	0-100%
4	Tilt macro	000 - 004	No function
		005 - 255	See Tilt Macro
5	CTC	000	No function
		001 - 255	From 19000K to 2700K
6	Color macro	000	No function
		001 - 255	see Color Chart
7	Pattern	000	No function
		001 - 255	see Patterns
8	LED built-in	000 - 015	No function
		016 - 255	see LED Macro
9	LED built-in speed	000 - 127	Fast to slow
		128	Stop
		129 - 255	Slow to fast
10	LED built-in delay	000 - 255	Fast to slow
11	Background color	000	No function
		001 - 255	see Color Chat
12	Background color dimmer	000 - 255	0-100%
13	Dimmer	000 - 255	0-100%
14	Strobe	000 - 019	Off
		020 - 255	see Strobe Settings
15	Zoom 1-12	000 - 255	0-100%

16	Control	000 - 009	No function
		010 - 255	see Control Settings
17	Red Cyan	000 - 255	0-100%
18	Green Magenta	000 - 255	0-100%
19	Blue Yellow	000 - 255	0-100%
20	White	000 - 255	0-100%

Yaxis macro table:

Y-axis macro	000-004	无
	005-009	Y-axis macro1
	010-014	Y-axis macro2

	250-254	Y-axis macro50
	255	Y-axis macro51

Note:

When the Y-axis macro takes effect, Y-axis 1 is coarse-adjusted to adjust the start position of the Y-axis macro, Y-axis 1 is fine-tuned to adjust the swing amplitude of the Y-axis macro, and Y-axis motor speed is Y-axis macro speed (from slow to fast).
The effective value of Y-axis macro amplitude is 1-255

Color macro table:

Color macro	000	无
	001- 002	White 2700K
	003- 004	White 3200K
	005- 006	White 4200K
	007- 008	White 5600K
	009- 010	White 8000K
	011	Blue
	012- 048	+ Green
	049	Cyan
	050- 086	-Blue
	087	Green
	088- 124	+ Red
	125	Yellow
	126- 162	-Green
	163	Red
	164- 200	+ Blue
	201	Magenta
	202- 238	-Red
	239	Blue
	240- 247	Color fade, fast to slow
248-255	Color snap, fast to slow	

Stroboscopic chart:

stroboscopic	000-019	Off
	020-024	On
	025-064	Strobe, fast to slow
	065-069	On
	070-084	Strobe 100-0%, fast to slow
	085-089	on
	090-104	Strobe 0-100%,fast to slow
	105-109	On
	110-124	Random strobe, fast to slow
	125-129	On
	130-144	Random strobe 100-0%, fast to slow
	145-149	On
	150-164	Random strobe 0-100%, fast to slow
	165-169	On
	170-184	Pulse strobe, fast to slow
	185-189	On
	190-204	Random pulse strobe, fast to slow
	205-209	On
	210-224	Strobe 0-100-0%, fast to slow
	225-229	On
230-244	Random pulse strobe, fast to slow	
245-255	On	

Control chart:

resetting	000-054	There is no
	056-060	Y-axis motor reset (keep 5S effective)
	061-065	Zoom motor reset (keep 5S effective)
	066-075	Reset all (Hold 5S to take effect)
	076-255	reserve

2. Technical parameters:

Voltage: AC100~240V 50 /60 HZ

Power: 12 * 60W (800W)

Beads: 124-160 watt LED beads

Control mode: DMX512, self-travel, master-slave, voice control, with RDM function.

Channel: CH20 CH53 CH101 CH155 CH169 CH179

Dimming: 32bit 0~100% Linear dimming

Features: single sway +
staining + beam

Operating temperature:

-30degrees ~50 degrees

Floribe

frequency:1 - 30HZ

Software Upgrade: Upgrade the software via a DMX connection

structure:

Signal input / output

Power socket DMX512 input / output / waterproof power connector input / output

Protection level: IP20

main features:

Excellent color mixing effect;

Built-in splicing plug-in, can realize the machine fast splicing;

Appearance:metal,

black;

Chapter 4 Common faults and use attention

1. Common fault handling

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

1. Bulb is not light on (except for LED light source)

Possible reasons: The bulb is not fully cooled or the bulb reaches life, treated as follows:

- Due to abnormal operation, the bulb is not completely cooled, the light body should be cooled for more than 10 minutes, so that its internal completely restored to the normal state, and then start the power supply again;
- Check whether the bulb has reached the service life, and replace it with a new bulb;
- Check whether the bulb and the lamp lighting device circuit leakage, fall off or poor contact;
- Replace the new lamp lighter.

2. The beam looked dim

Possible reasons: bulb is used long or light path is not clean, as follows:

- Check whether the bulb has reached the service life, and replace it with a new bulb;
- Check whether the optical components or bulbs are clean, and whether there is dust accumulation on the bulbs and other optical components, and the bulbs and the components should be cleaned and maintained regularly.

3. The pattern projection is vague

- Check if the electronic focus channel values are appropriate for the current projection distance.

4. The light fixtures work intermittently

Possible reasons: The internal line enters the protection state and handles as follows:

- Check whether the fan is running normally or whether it is dirty, causing the temperature inside the lamp to rise;
- Check whether the internal temperature control switch is in a closed state;
- Check the bulb and replace the new bulb.

5. The control of the console is not accepted after normal reset

Possible cause: signal line fault or lamp parameter set abnormal, handle as follows:

- Check the starting address code and the connection of DMX signal line (whether the signal cable is intact and whether the Alcock head connection is loose);
- Add a signal amplifier, add 120 ohm terminal resistance;

6. The lamps cannot be started

Possible reasons: Poor power line, handled as follows:

- Check whether the insurance on the power input socket is fused and replace the insurance;
- Poor line contact of lamp travel due to vibration in long-distance transportation
- Check the input power supply, computer board and other plug-in devices.

2. Precautions for use

- Check whether the local power supply meets the rated voltage requirements of the product, leakage protector, overcurrent protector and meet the load requirements;
- Do not use damaged power cord with insulation and do not attach power cord to other wires;

- The lamps and lanterns use strong air refrigeration, which is easy to accumulate dust. They must be cleaned once a month, especially the cooling outlet, otherwise it will be blocked due to dust, resulting in poor heat dissipation, so that the lamps appear abnormal.
- When installing the lamps, the fixed screws must be tightened, and equipped with safety cables, and regular inspection;
- In the installation and positioning of the lamp, any point on the surface of the lamp and any burning explosive, keep the minimum distance of 10 meters, the distance from the irradiation is 2.5 meters, please do not install the lamp directly on the surface of combustible material;
- It is recommended that the continuous working time of lamps should not exceed 10 hours, and the interval time of continuous starting lamps should not be less than 10 minutes, otherwise it will not be triggered normally because of the overheating protection of the bulb;
- The closing time of using the on-off valve should not exceed 5 minutes. If the light needs to be closed for a long time, the console (light gun control channel) should be used to turn off the light gun;
- In order to ensure that multiple lamps better comply with the scene effect, the lamps should not always be in the unfinished current scene, that is, start the next scene action, it is best that this state is not more than 3 minutes, to ensure that multiple lamps can run synchronously;
- In the process of use, if the lamp is abnormal, the lamp should be stopped in time to prevent other faults.

3. RDM use considerations

RDM is an extended version of DMX512-A protocol, which is a remote device management (Remote Device Management) protocol. Traditional DMX512 protocol communication is one-way communication, protocol is based on RS-485 bus, RS-485 is time-sharing multi-point and semi-duplex protocol, and only one port is allowed at the same time, so the following points when using RDM:

- To use the console or host device that supports the RDM protocol host;
- To use the two-way signal amplifier, the traditional one-way signal amplifier is not applicable to the RDM protocol, because the RMD protocol needs feedback data, the use of the one-way amplifier will block the returned data, resulting in the search for lamps;
- All lamps must be set to DMX mode to ensure that there is only one host on the signal line;
- A 120 ohm impedance matching resistance must be inserted between terminals 2 and 3 of the terminal plug. When the signal line is relatively long, reduce the signal reflection, which is conducive to the quality of communication;
- When the lamp is subject to DMX control, but can not RDM search the lamp, first check the signal amplifier, and then check whether the 2 and 3 lines of the signal line have poor contact.