LED pattern lamp with rocking head lamp

（RDM、color display、Touch operation）

Please read this manual before using it

Catalogue

- In order to ensure that multiple lamps and lanterns better comply with the scene effect, lamps and lanterns should not always be in the unfinished current scene, that is, to start

Chapter 1 Notes and Installation

1. Tending

- This lamp should be kept dry to avoid working in a humid environment.
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- In order to obtain good ventilation and lighting effect, attention should be paid to cleaning fans and fan networks as well as lenses.
- Do not use organic solvents such as alcohol to test the shell of the lamp in order to avoid damage.

2. State

When this product leaves the factory, the performance is in good condition and the packing is complete. All users shall strictly abide by the warnings and instructions stated above, any damage caused by misuse is not within the warranty of the Company, and failures and problems caused by neglect of the operation manual are not within the scope of the distributor's responsibility.

This manual is subject to technical changes without prior notice.

3. Matters needing attention in products

- In order to ensure the service life of the product, the product should not be placed in a wet or leaky place, let alone work in an environment with a temperature above 60 degrees.
- Do not place this product in a place that is easy to loosen or vibrate.
- In order to avoid the danger of electric shock, the maintenance of the product is requested for professional maintenance.
- When the bulb is used, the change of power supply voltage should not exceed ± 10%. If the voltage is too high, the life of the bulb will be shortened, and the light color of the bulb will be affected if the voltage is too low.
- After power outage, it takes 20 minutes to fully cool the lamp before it can be powered on again.

In order to ensure the normal use of this product, please read this note carefully. Signal line connection (DMX)

RS-485 cable according to specification: with shielding,120 ohm characteristic impedance,22-24 AWG, low capacitance. Do not use a microphone cable or a cable with different specified characteristics. The connection of the terminal must be a 3-or 5-pin XLR male/ female connector. (minimum 1/4 W).

Important: The wires are not in contact with each other or in contact with the metalshell.

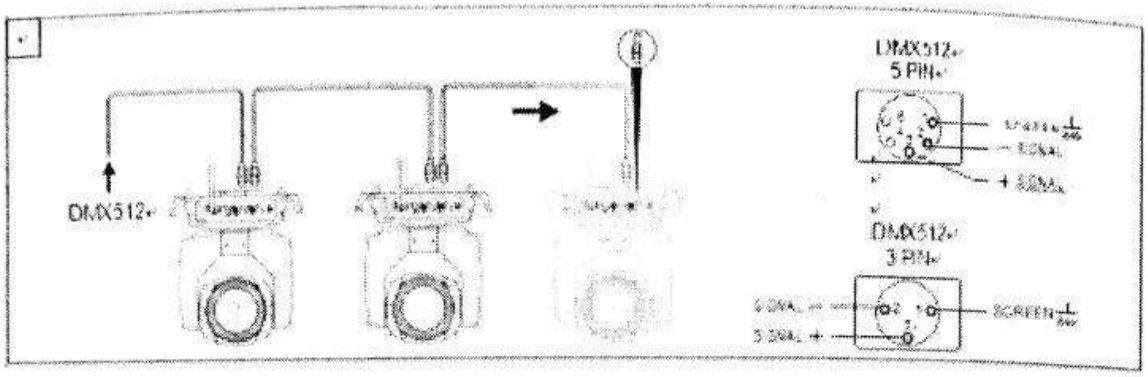

Figure 1 schematic diagram of DMX signal line connection

4. Lamp installation

Lamps and lanterns can be placed horizontally, obliquely and upside down. Be sure to pay attention to the installation method when hanging obliquely and upside down. As shown in figure 2, in order to ensure the stability of the installation site before positioning the lamps and lanterns, it is necessary to ensure that the lamps and lanterns do not fall on the support frame when the installation is reversed, and that the safety rope is needed to pass through the support frame and the lamp handle to ensure safety. Prevent lamps from falling and sliding.When the lamps and lanterns are installed and debugged, pedestrians are prohibited below, and regular checks are made on whether the safety rope is worn and the hook screws are loose.

If because the hanging installation is unstable, causes the lamp to fall all the consequences, our company does not bear any responsibility.

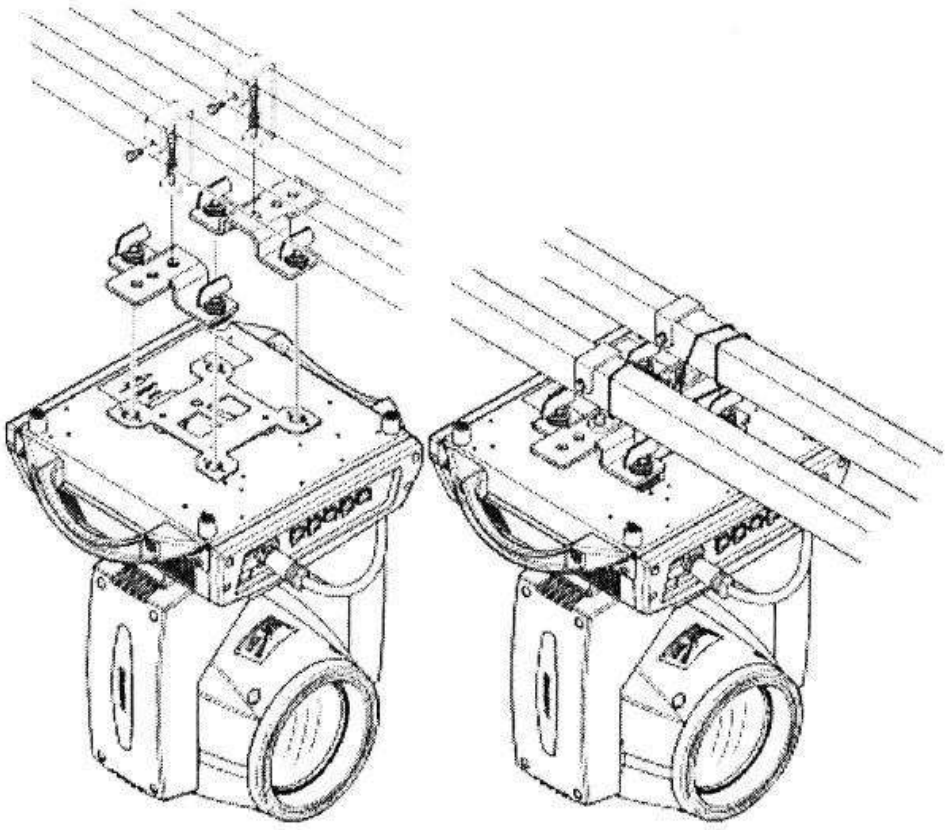

Figure 2 Schematic diagram of reverse hanging lamp.

1. summary

The lamp panel is shown in Fig. 3. The above title shows the name of the lamp, and the status bar below shows the current lamp signal, bulb status, fault(when the fault information is not viewed, ``ERR" is displayed, otherwise, ``NOR" is displayed), etc.

This lamps and lanterns support DMX/RDM protocol, when the lamps are searched by the RDM host, the panel will appear "RDM" three letters, indicating that the lamps and lanterns are enumerated normally.Display and operation are similar to the Android operating system, with fingertips or blunt objects click on the corresponding item to operate.

Note: do not use sharp or sharp objects to click on the display screen to prevent damage.

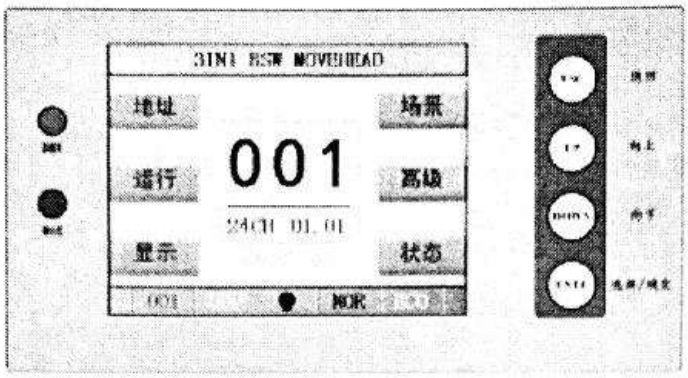

Figure 3 Schematic of the panel

2. Menu operation

1. Select Menu Item

- The left area is the TFT display area and the touch area. Click on the panel content with finger or blunt surface hardware, that is, you can complete the operation of parameter setting or viewing status.The right area is auxiliary input. If you do not use TFT's own touch function, you can use auxiliary input to select items that need to be set or viewed to complete the operation.

2. Parameter numerical input

When the selected parameter item needs to enter a value, the window shown in figure 4

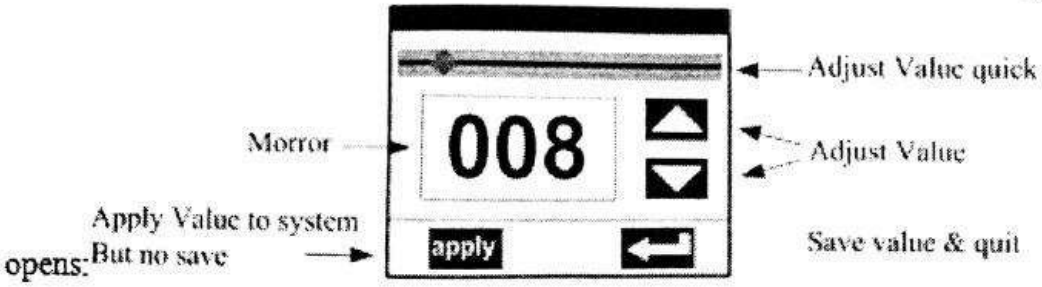

Figure 4 numerical setting page

- **Set value:** You can pull the slider directly to quickly set the desired value, or you can click on the "up" or "down" button on the right to precisely set the desired value or set it with an auxiliary input.

- **Application value :** When the data is set through the "on" or the "down" key, press the "apply" application key in the lower left corner, and the value will be sent to the lamp immediately, but the value is not saved.
- **Save value :** At any time, click the "OK" key in the lower right corner to save the current value to the internal storage, and the next boot to apply the saved value to the lamp.

3. Set Boolean parameters

- When the parameter set is a Boolean value (such as ON or OFF), you can directly click on the corresponding item to switch the parameter value, and the parameters will be modified and saved to the internal storage. Press the parameter option on the right and the corresponding option will become gray. When you let go of your hand, the corresponding parameters are changed and saved. If pressing the parameter option is not the parameter you want to change, you can move your finger elsewhere on the screen and the corresponding parameter will not change.

The determination of the important Boolean parameter is set by, for example, the determination window, as shown in Figure 5 below

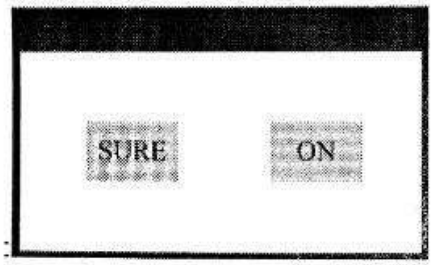

Figure 5. Determine the Input Window

4. Subpages (parameters)

图 6-1地址设置

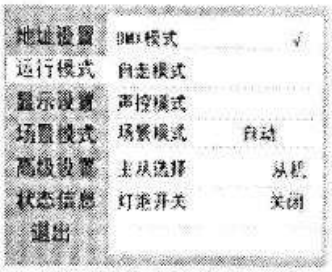

图 6-2运行设置

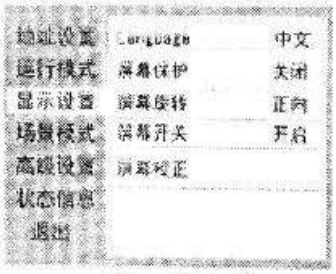

图 6-3显示设置

图 6-4场景设置

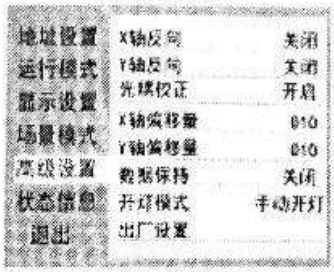

图 6-5高级设置

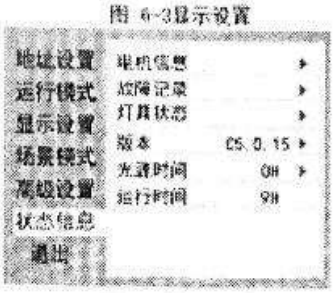

图 6-6状态信息

blue option on the left.

1. Set the DMX address code

- The DMX address, channel mode, etc., can be set by the page shown in figure 6 / 1.
- Select "previous" or "next", lamps and lanterns will automatically calculate the next or previous address code according to the current address code and channel data, which can be set quickly;
- Click on the address code value, you can enter the numerical editing window, where you can set any valid address code, lamps and lanterns automatically obtain the current number of channels, automatically filter the unusable address code (512-current channel number).
- Lamps and lanterns support RDM protocol, can set lamp address code remotely through RDM.
- Channel mode: cycle can choose different channel mode;
- Lamp reset: reset all motors.

2. Set the working mode of lamps and lanterns

The lamp cannon can be controlled by setting the running mode of the lamp through the page shown in figure 6 / 2. Lamps and lanterns support four modes of operation (DMX mode, self-walking mode, sound control mode and scene mode). Please refer to the previous section for detailed parameter numerical settings, and the specific parameters are described in the following table:

Running mode

DMXmode	Console mode, receive DMX signal, RDM signal	
Self-walking mode	Lamps and lanterns run automatically according to built-in procedures	
Voice control mode	When the lamp detects a strong sound, the lamp automatically runs a scene according to the built-in program, otherwise the last scene is maintained	
Scene mode 01	Run as a set scene, supporting up to 10 custom editing of the scene	
	1~10	Output the specified scene
	volunta rily	Automatically iterates through the output of the scene in the set scene time (non-0) order, and the scene with time 0 automatically skipped and ignored
Master-slave selection	Non - DMX mode, select data output mode, lamp auto - detect DMX state auto - switch output, prevent data conflicts.	
	main engine	Lamps and lanterns run as built-in, if DMX has no signal, output data (synchronization), otherwise do not output data
	Slave machine	Lamps and lanterns operate as built-in and do not output data (not synchronizing other lamps and lanterns)
	volunta rily	If the DMX has no signal, the lamp runs according to the built-in, otherwise, the lamp works according to the DMX signal
Bulb switch	(bulb light source) pop up the confirmation dialog box, select "SURE" to confirm the current operation, turn on or off the bulb, and the switching interval is limited to 30 seconds	

	close	The current bulb output is off
	open	The current light output is already on

Scene mode is suitable for single or a small number of lamps and lanterns, only need to output a fixed scene, or need to run a simple program, you can do not connect to the console, edit in the scene page.

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

3. Panel display settings

In the lamp support, the English-Chinese, reverse-hung display, etc., enter the corresponding parameter settings as shown in Figure 6-3. The specific menu contents are shown in the following table:

Display settings

language	Set the language to display	
	English	English display
	Chinese	Chinese display
Screen protection	The display content or method of the screen is displayed after the setting screen is not operated within 30 seconds	
	close	Keep the last operation page, bright screen
	Mode 1	Screen extinguishing
	Mode 2	Black screen, displaying the address code of the current lamp in the lower left corner
	Mode 3	Display trademark information, address code, and mode of operation
Screen rotation	Set the display direction of the screen	
	close	Do not reverse display
	open	Reverse display
	voluntarily	Automatic detection of lamp direction, automatic switch display direction.
DMX indicate	Set the indication mode of DMX signal indicator	
	Mode 1	When there is a signal, it is bright, but when there is no signal, it is extinguished.
	Mode 2	When there is a signal, when there is a signal, when there is no signal, when there is no signal.
	Mode 3	The signal is flashing when there is a signal, and the signal is out when there is no signal
Signal indicates brightness	Set the brightness of the signal indicator	
	1~10	10 个 grade
Screen backlight	Sets the brightness of the screen backlight after 10 seconds without operation, and is fully lit when operating	
	1~10	10 grades

Touch screen switch	Select whether to disable the touch screen. When the screen is accidentally damaged, you can disable the touch function and use auxiliary input to set the lamp.
Touch correction	When the screen touch is inaccurate, you can enter the correction page correction screen

Lighting fixtures with support of touch operation can enter the correction page to recalibrate the touch accuracy of the touch screen in case of any poor touch. Under normal conditions, please do not enter this page. If the touch is damaged, select Disable Touch Switch.

4. Scene mode

Enter the page as shown in figure 6-4, the lamp enters the scene editing mode, under this page, the lamp does not receive DMX console data, and the edited data is instantly reflected on the lamp.

The content of the page depends on the currently selected channel, and the channel content and order displayed are consistent with the lamp channel table. Through this page, you can edit 10 scenarios, as shown in the following table:

Scene mode

Scene selection	Select the current action scenario	
	1~10	10 scene formatting
Scene time	Sets the time, in 0.1 seconds, for the current scene to be 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	the data of each channel is set, and the display content and the order are one-to-one correspondence with the channel table of the lamp;
------	0-255	
------	0-255	
N. function	0-255	

If the reset channel in the scene edits the effective reset data, the lamp will be reset, but after reset, the corresponding reset channel value will automatically clear zero to prevent multiple successive reset.Look at this page, that is, you can get the current channel table order of lamps and lanterns, please refer to the detailed channel description for specific channel data.

5. Set the working parameters of lamps and lanterns

Enter the page shown in figure 6 / 5, adjust the field parameters of the lamps and lanterns, facilitate the field installation of the lamps and lanterns, etc.

Advanced setting

X-axis reverse	Set the rotation direction of the X axis	
	close	No reverse
	open	opposite direction
Y-axis reverse	Set the Y-axis direction of rotation	
	close	No reverse
	open	opposite direction

		sync and the out-of-sync fault is recorded.
X axis offset	Set the position of the zero point on the X axis of the lamp	
	4-150	
Y axis offset	Set the position of the Y-axis zero of the lamp	
	4-48	
data-hold	Set the output status of lamps and lanterns when there is no DMX signal for lamps and lanterns	
	close	No signal, so the motor and light source return to the position and state of the reset completion
	open	No signal, hold last frame DMX data output.
Light mode	Set the way the bulb is turned on for the first time after it is powered on	
	upper open cell	Turn on the light bulb and reset the lamp after 30 seconds.
	Blistering after reduction	Reset the lamp after power-on for 3 seconds, and turn on the light bulb after the reset is completed
	Manual foaming	When reset is complete, manually turn on the bulb through the menu or console.
Factory setting	Pop up the confirmation box, select "SURE", the lamp parameters return to the factory settings	

When choosing the electric foaming mode, the lamp will wait 30 seconds for the bulb to start fully, after the internal voltage is stable enough, then start the reset program. If the field capacity is stable, it is recommended to turn on the bulb mode.

When the lamp cannot correct the position, please check that Optocoupling Correction is turned off.

When the signal is removed, check the "data retention" setting if the position of the lamp is not to be output as envisaged.

When setting the XY offset, control the XY with the maximum stroke after the setting is complete to check the setting and the X Y does not bump into the positioning rod or housing.

6. View the current status of lamps and lanterns

In the page shown in Figure 6-6, you can view the information and real-time status of the lamp in order to know the usage status of the lamp. If the lamp requires after-sales, please provide the status information displayed on the page for the judgment basis, as shown in the following table:

	close	The current bulb output is off
	open	The current light output is already on

Scene mode is suitable for single or a small number of lamps and lanterns, only need t output a fixed scene, or need to run a simple program, you can do not connect to the console, edi in the scene page.

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Touch screen switch	Select whether to disable the touch screen. When the screen is accidentally damaged, you can disable the touch function and use auxiliary input to set the lamp.
Touch correction	When the screen touch is inaccurate, you can enter the correction page correction screen

Lighting fixtures with support of touch operation can enter the correction page to recalibrate the touch accuracy of the touch screen in case of any poor touch. Under normal conditions, please do not enter this page. If the touch is damaged, select Disable Touch Switch.

4. Scene mode

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	1~10	10 scene formatting
Scene time	Sets the time, in 0.1 seconds, for the current scene to be 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	the data of each channel is set, and the display content and the order are one-to-one correspondence with the channel table of the lamp;
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------	0-255	
N. function	0-255	

If the reset channel in the scene edits the effective reset data, the lamp will be reset, but after reset, the corresponding reset channel value will automatically clear zero to prevent multiple successive reset.Look at this page, that is, you can get the current channel table order of lamps and lanterns, please refer to the detailed channel description for specific channel data.

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Advanced setting

X-axis reverse	Set the rotation direction of the X axis	
	close	No reverse
	open	opposite direction
Y-axis reverse	Set the Y-axis direction of rotation	
	close	No reverse

Touch screen switch	Select whether to disable the touch screen. When the screen is accidentally damaged, you can disable the touch function and use auxiliary input to set the lamp.
Touch correction	When the screen touch is inaccurate, you can enter the correction page correction screen

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	close	No reverse
	open	opposite direction
Y-axis reverse	Set the Y-axis direction of rotation	
	close	No reverse
	open	opposite direction

Photocoupling correction	Set whether or not the lamp detects the XY out-of-step and correct	
	close	Do not correct position after out of step
	open	The position is automatically corrected after out of sync and the out-of-sync fault is recorded.
X axis offset	Set the position of the zero point on the X axis of the lamp	
	4-150	
Y axis offset	Set the position of the Y-axis zero of the lamp	
	4-48	
data-hold	Set the output status of lamps and lanterns when there is no DMX signal for lamps and lanterns	
	close	No signal, so the motor and light source return to the position and state of the reset completion
	open	No signal, hold last frame DMX data output.
Light mode	Set the way the bulb is turned on for the first time after it is powered on	
	upper open cell	Turn on the light bulb and reset the lamp after 30 seconds.
	Blistering after reduction	Reset the lamp after power-on for 3 seconds, and turn on the light bulb after the reset is completed
	Manual foaming	When reset is complete, manually turn on the bulb through the menu or console.
Factory setting	Pop up the confirmation box, select "SURE", the lamp parameters return to the factory settings	

When choosing the electric foaming mode, the lamp will wait 30 seconds for the bulb to start fully, after the internal voltage is stable enough, then start the reset program. If the field capacity is stable, it is recommended to turn on the bulb mode.

When the lamp cannot correct the position, please check that Optocoupling Correction is turned off.

When the signal is removed, check the "data retention" setting if the position of the lamp is not to be output as envisaged.

When setting the XY offset, control the XY with the maximum stroke after the setting is complete to check the setting and the X Y does not bump into the positioning rod or housing.

6. View the current status of lamps and lanterns

In the page shown in Figure 6-6, you can view the information and real-time status of the lamp in order to know the usage status of the lamp. If the lamp requires after-sales, please provide the status information displayed on the page for the judgment basis, as shown in the following table:

status information

Motor information	Display information status of all motors and signals in the lamp	
	Hoare	No display, indicating that the motor has no Hall correction, 0 indicates that the motor leaves the correction position point, and 1 indicates that the motor is at the correction position point
	status	Show motor reset completion status
	x-axis	Display the real-time position value of the X-axis
		photocoupler feedback
	Y-axis	Display the real-time position value of Y-axis Optocoupling feedback
	Optical coupling	Display the level status of X, Y-axis optically coupled two signals, binary, binary
Fault / status record	The fault record of the last 8 times during the reset and operation of the lamp is shown. The fault record is not saved after the power-off, and the fault record is valid when the secondary power cycle is valid.	
	fault data	Total number of faults detected after power up.
	12: :03	The power-on time, in minutes, at the time of the failure
	Hall fault	The motor does not detect a valid Hall signal when the corresponding motor is reset
	Hall short circuit	The Hall signal of the motor is always valid when the corresponding motor is reset.
	optical coupling fault	No effective photocoupling signal was detected when the corresponding motor was reset.
	fall out step	The corresponding motor is out of step in the process of operation
	Impact rod	Corresponding motor reset impact positioning rod
	Bulb failure	Accidental defoaming of light bulb
	Sensor failure	The temperature sensor signal is not normal,
	Fan failure	The main fan is not working properly
Lamp state	Displays critical status data for the current lamp for reference	
	communication	0~100%, Communication quality of data Link in Lamps
	miscount	The total number of error frames detected after power on, cumulative

	Light source temperature	Displays the temperature of the current light source, "-" indicates no detection
	Display board temperature	Displays the temperature of the current display board or the ambient temperature in the vicinity
	Sensor 1 temperature	Displays the current motherboard temperature or ambient temperature at the motherboard mounting position.
Version information	Display current lamp information and version, after - sale maintenance important reference.	
	equipment	The name of the lamp, the same as the equipment information of the RDM
	model	The model of the lamp, the same as the model information of the RDM
	display board	Firmware version and serial number of display board
	Motherboard 1	Firmware version and serial number of motherboard 1
Light source time	Record the total cumulative use time of the lamp source, unit minutes, the user uses manual clearance, as a reference for the regular maintenance and maintenance of the	

	light source
Lamp time	Record the total cumulative use time of lamps and lanterns, unit minutes, can not be cleared

Chapter 2Channel description

1. channel table

This lamp channel can view the sequence in scene mode. The channel mode is set in the "Address Settings" page. Details are shown in the following table:

CH	NAME	VALUE	describe
CH1	stroboflash	0-3	Turn off the light
		4-127	From slow to fast pulse stroboscopic
		128-191	Gradual stroboscopic from slow to fast
		192-251	From slow to fast random stroboscopic
		252-255	opening the light
CH2	aiming	0-255	0-100%aiming
CH3	x-axis	0-255	0-540°
CH4	Y-axis	0-255	0-270°
CH5	XYspeed	0-255	from fast to slow
CH6	color	0-7	white light
		8-15	White light color 1
		16-23	Color 1
		24-31	Color 1+Color 2.
		32-39	Color 2
		40-47	Color 2 + Color 3
		48-55	Color 3
		56-63	Color 3 + Color 4
		64-71	Color 4
		72-79	Color 4 +color 5
		80-87	Color 5

		88-95	Color 5 + color 6
		96-103	Color 6
		104-111	Color 6 + color 7
		112-119	Color 7
		120-127	Color 7 + white light
		128-190	from fast to slow forward flow
		191-192	stop
		193-255	from slow to fast reverse flow
CH7	pattern	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
		80-84	From slow to fast jitter pattern 1
		85-89	From slow to fast jitter pattern 2
		90-94	From slow to fast jitter pattern 3
		95-99	From slow to fast jitter pattern 4
		100-104	From slow to fast jitter pattern 5
		105-109	From slow to fast jitter pattern6
		112-127	From slow to fast jitter pattern7
		128-190	from fast to slow forward flow
		191-192	stop
		193-255	from slow to fast reverse flow

CH8	Rotating pattern	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	From slow to fast jitter pattern 1
		80-89	From slow to fast jitter pattern 2
		90-99	From slow to fast jitter pattern 3
		100-109	From slow to fast jitter pattern 4
		110-119	From slow to fast jitter pattern 5
		120-127	From slow to fast jitter pattern6
		128-190	from fast to slow forward flow
		191-192	stop
		193-255	from slow to fast reverse flow
CH9	Pattern rotation	0-127	0 degrees 400 degrees
		128-190	from fast to slow forward flow
		191-192	stop
		193-255	from slow to fast reverse flow
CH10	Prism 1 rotation	0-19	none
		20-63	prism
		64-255	From slow to fast forward flow.
CH11	focus	0-255	From far to near
CH12	X axis fine tuning	0-255	0-2°
CH13	Y axis fine tuning	0-255	0-1°

CH14	Auxiliary light stroboscopic	0-10	close
		11-249	From slow to fast stroboscopic
		250-255	opening the light
CH15	auxiliary light effect	0-3	close
		4-7	red
		8-11	green
		12-15	blue
		16-19	yellow
		20-23	ching
		24-27	purple
		28-31	white
		32-63	Running horse 1
		64-95	Running horse 2
		96-127	background
		128-149	Warm color
		150-199	Change colors from slow to fast
		200-255	Change colors from slow to fast jump
CH16	function	0-25	inaction
		26-76	Reset XY for more than 3 seconds
		77-127	4-second reset effect motor
		128-255	Reset all over 5 seconds

1. Common fault treatment

7. The lamp includes a microcomputer circuit board, a high-voltage power supply and other professional parts. For your safety and product life, the non-professional person must not disassemble the lamp and related accessories without authorization.

2. Light bulb is not bright (except LED light source)

- Possible reason: the bulb is not completely cooled, or the bulb reaches its life, as follows:
- Due to abnormal operation, the bulb is not completely cooled, so that the lamp body should be cooled for more than 10 minutes, so that its interior can be completely restored to the normal state, and then start the power supply again;
- Check whether the bulb has reached its useful life and replace the new bulb;
- Check whether the wiring of the bulb and the lighting device is electric leakage, falling off or poor contact;
- Replace the new lamp lighter.

3. The beam looks dim

- Possible reason: the bulb takes a long time or the light path is not clean, and the treatment is as follows:
- Check whether the bulb has reached its useful life and replace the new bulb;
- Check whether the optical parts or light bulbs are clean, whether there is dust accumulated on the light bulbs and other optical devices, and clean and maintain the light bulbs and components in the lamps and lanterns on a regular basis.

4. Pattern projection blur

- Check that the electron focal channel value is suitable for the current projection distance.

5. Intermittent work of lamps and lanterns

Possible reason: the internal line is in a protected state, dealing with the following:

- Check whether the fan is running normally or dirty, resulting in an increase in the internal temperature of the lamps and lanterns;
- Check whether the internal temperature control switch is closed;
- Check that the bulb has reached its useful life and replace the new bulb。

6. Lamps and lanterns are not subject to the control of the console after normal reset.

- Possible cause: signal line failure or abnormal setting of lamp parameters, handle as follows:Check the initial address code and check the connection of the DMX signal cable (whether the signal cable is in good condition and whether the connection of the Nong head is loose);

1. Lamps and lanterns cannot start

- Possible reason: the power line is not good, the treatment is as follows:
- Check whether the insurance on the power input socket is fuse and replace the insurance;
- Poor line contact caused by vibration of lamps and lanterns in long distance transportation
- Check the input power supply, computer board and other plug-in devices.

Considerations for use

- Check whether the local power supply meets the requirements of the rated voltage of the product, the leakage protector, the over-current protector and the like comply with the load requirements of the product;
- Do not use an insulated power cord that has been damaged and cannot lap the power cord over another wire;
- Lamps and lanterns use strong wind refrigeration, easy to accumulate dust, must be cleaned once a month, especially heat dissipation tuyere, otherwise due to dust blockage, resulting in poor heat dissipation, so that lamps and lanterns appear abnormal.
- When installing lamps and lanterns, the fixing screws must be fastened and equipped with safety cables, and checked regularly;
- When the lamp is installed and positioned, any point on the surface of the lamp and any flammable explosive should be kept at a minimum distance of 10 meters and 2.5 meters from the illuminator. Please do not install the lamp directly on the surface of the combustible material.
- The continuous working time of lamps and lanterns should not exceed 10 hours, and the interval between continuous starting lamps should not be less than 10 minutes, otherwise it will not be triggered normally because of the overheating protection of light bulbs.
- The closing time of the switch valve should not exceed 5 minutes. If the light is closed for a long time, the lamp gun should be turned off by using the control table (lamp gun control channel).

the next scene action, preferably not more than 3 minutes, to ensure that multiple lamps and lanterns can run synchronously.

- In the course of use, if the lamp is abnormal, the use of the lamp should be stopped in time to prevent other faults.

RDM Use Considerations

RDM is an extended version of DMX512-A protocol, is a remote device management (Remote Device Management) protocol, the traditional DMX512 protocol communication is one-way communication, the protocol is based on RS-485 bus, RS-485 for time-sharing multi-point, half-duplex protocol, only one port is allowed to output for the host at the same time, so when using RDM, we should pay attention to the following points:

- To use a console or host device that supports RDM protocol hosts;
- In order to use bidirectional signal amplifier, the traditional one-way signal amplifier is not suitable for RDM protocol, because RMD protocol needs feedback data, and the use of one-way amplifier will block the returned data, resulting in no search for lamps and lanterns.
- All lamps and lanterns must be set to DMX mode to ensure that there is only one mainframe on the signal line;
- a 120 ohm impedance matching resistor must be inserted between the terminals 2 and 3 of the terminal plug, and when the signal line is relatively long, the signal reflection can be more stable by using the differential signal, and the quality of the communication is facilitated;
- When the lamp is controlled by DMX, but can not RDM search lamp, first check the signal amplifier, and then check the signal line 2, 3 line is not in good contact.

- Add signal amplifier, add 120 ohmic terminal resistance;