ALED BSW 600 CMY

User Manual

Guangzhou Mitek Light Co.,LTD
Email: info@miteklight.com
Website: www.miteklight.com
Add: No. 21 Dongfeng Avenue, Automobile Industry Base, Huadu District, Guangzhou

TECHNICAL PARAMETERS

Light source

Voltage: AC90V-240V / 50-60HZ
Light source specification: 600W LED Module
Light source life: 20,000 hours

Optical

Zoom Angle: 3.5 to 50 degrees
Optical devices: combined optical lens

Controls

Channel mode: 26CH/34CH/39CH
Macro functions: console reset function, self-walking mode, master-slave mode
Display: 2.4 inch display + button operation, bilingual operating system in Chinese and English, can be reversed 180° display
Control signal: international standard DMX512, with RDM function, Software can be upgraded online and address codes can be dialed

Effect

Dimming system: 0-100% linear adjustment
Focus system: linear adjustment from 4 meters to 50 meters
Frost system: 1 independent frost effect, the light spot is soft and natural
High frequency strobe: 0-30 times/s, the speed control strobe effect can be adjusted
Color: 8 colors + white light
Color mixing system: linear CMY+CTO color mixing system
Fixed Gobo: 10 fixed gobos + white light
Rotating Gobo: 7 rotating gobos + white light, each rotating gobo can rotate independently in both forward and reverse directions
Prism system: 8 facet prisms +6 facet prisms, Each prism can rotate independently in both forward and reverse directions
Effect Disk: 1 independent effect disk

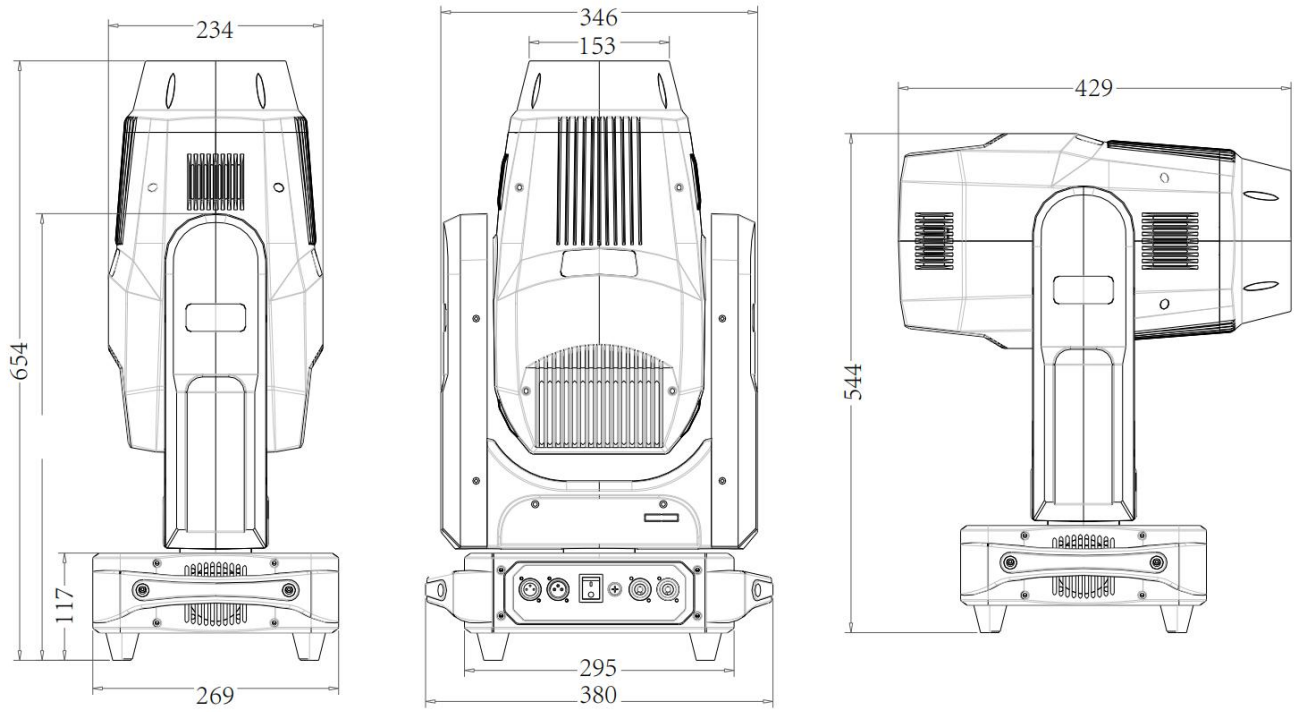
Construction

Horizontal scan: 540 degrees (16-bit precision scan) electronic error correction
Vertical scan: 270 degrees (16-bit precision scan) electronic error correction

Weight&Dimension

Net weight: 23KG
Product size: 38*27*67CM
Carton packing size: 75*36*47CM(1in1)
G.W: 27KG
Flight case size: 77*47*89CM(2in1)
G.W : 76KG/2PCS

SIZE DRAWING



Charpter 1 Precautions and installation

Tending

- This lamp should be kept dry and avoid working in a humid environment.
- Intermittent use will effectively extend the life of this lamp.
- In order to obtain good ventilation and lighting effect, attention should be paid to the regular cleaning of fans and fan nets as well as lenses.
- Do not use alcohol and other organic solvents to wipe the lamp shell, so as not to cause damage.

Statement

The product is in good condition and complete when it leaves the factory. All users should strictly comply with the above stated warnings and instructions, any damage caused by misuse is not within the company's warranty, and the faults and problems caused by neglecting the operation manual are also not within the scope of the dealer's responsibility.

Any technical changes to this manual will not be notified.

Product notes

- In order to ensure the service life of the product, do not place the product in a damp or water leakage place, and do not work in the environment with temperature above 60 degrees.
- Do not place this product in a loose or vibrating area.
- To avoid the risk of electric shock, this product is repaired by a professional.

- When the bulb is used, the power supply voltage change should not exceed ±10%. If the voltage is too high, the life of the bulb will be shortened; if the voltage is too low, the light color of the bulb will be affected.
- After power failure, it takes 20 minutes for the lamp to be fully cooled before it can be used again.
- To ensure the normal use of this product, please read this instruction carefully.
- Signal line connection (DMX)

Use RS-485 cables that meet the specifications: shielded, 120ohm characteristic impedance, 22-24 AWG, low capacitance. Do not use microphone cables or cables with different specified characteristics. Terminal connections must use 3 or 5-pin XLR male/female connectors (minimum 1/4 W). Figure 1 shows a schematic diagram of signal line connections (the lamp in the figure is an example image and does not represent the actual appearance of this product).

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

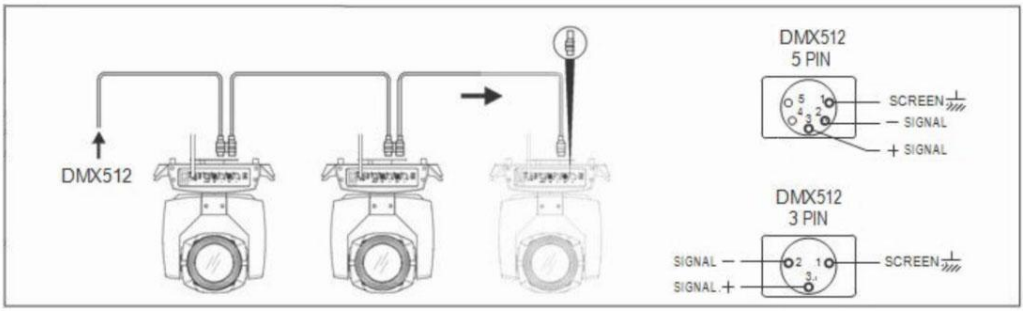


Figure 1 Schematic diagram of DMX signal line connection

Lighting installation

Lamps can be placed horizontally, hung at an Angle and hung upside down. Be sure to pay attention to the installation method when hanging at an Angle or upside down.

Before positioning the lamp, it is necessary to ensure the stability of the installation site. When installing the lamp in reverse hanging, it must be ensured that the lamp will not fall off the support frame. It is necessary to use safety ropes to pass through the support frame and the lamp handle for auxiliary hanging, so as to ensure safety and prevent the lamp from falling and sliding.

When the lamp is installed and adjusted, pedestrians are not allowed to pass under it. Check regularly whether the safety rope is worn out and whether the hook screw is loose.

Our company shall not be liable for any consequences caused by the falling of lamps due to unstable hanging installation.

Charpter 2 Panel operations

1. Summary

The schematic diagram of the lamp panel is shown in Figure 3. The number of lamp channels is indicated in the upper left corner of the title. The middle red font displays the usage time of the lamps. The upper right corner shows the fault status of the lamps (when there is no fault information to view, it displays "ERR"; otherwise, it displays "NOR"). Below is the status bar, which shows the current signal of the light, bulb status, communication status, etc. (The panel in the figure is an example image and does not represent the actual appearance of the product panel. Please refer to panels of the same type as your product for reference).

This lamp supports DMX/RDM protocol. When the lamp is searched by RDM host, the panel will show "RDM" three letters to indicate that the lamp is normally enumerated.

Note: Do not use sharp or pointed objects to click on the display screen to avoid damage.

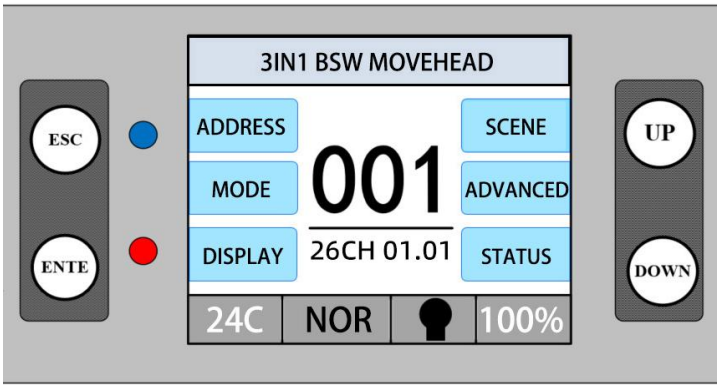


Figure 3 Schematic diagram of touch button display panel

2. Operation

1. Use the touch button to operate the lamp

- The middle area is the display area, and the two sides are the input area. You can use the touch button to control the cursor to select the items that need to be set or viewed, and press the OK key to complete the operation.

2. Parameter value input

When the selected parameter item needs to input a value, the window shown in Figure 4 will be opened:

Figure 4. Value Settings page

- Set the value: You can set the required value by pressing the "up" and "down" keys.
- Save value: After setting the data by pressing the button, press the "ENTE" key to save the value to the internal storage immediately. The saved value will be applied to the lamp when the next time is started.

3. Set the option on/off

- When the parameter is set to on/off, you can directly click the corresponding item to switch the parameter value, and the modified parameters will be saved to the internal memory. Press the parameter option on the right, and the corresponding option will turn gray. When you release your hand, the corresponding parameter will change and save.
- The determination of important parameters will be set through the confirmation window, as shown in Figure 5:

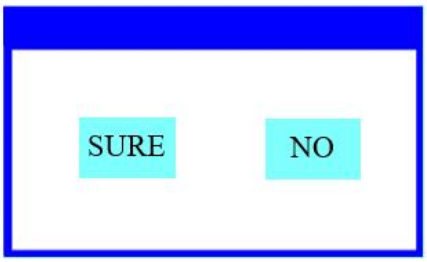


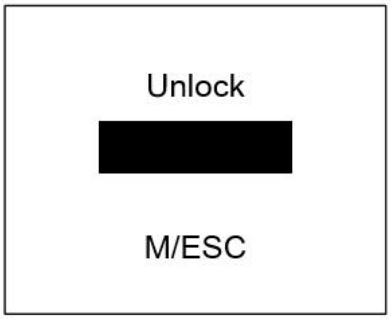
Figure 5 Determine the input window

4. Subpage (parameters)

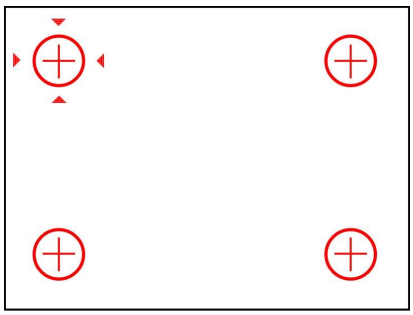
5. Key press to unlock the operation

If the product uses touch button operation, since touch buttons are non-mechanical (capacitive sensing), to prevent accidental mis-touch that could cause unexpected changes in the operating menu mode or data of the lighting equipment, the product includes a key unlock confirmation page for preventing accidental touch. To enter the menu to modify the mode or data of the lighting device, you can follow the prompts on the display and click the corresponding buttons one by one.

- After a period of display, the screen will enter the key anti-miscontact lock screen interface, which has two interfaces (please choose the interface that is consistent with the product for reference), as shown in Figure 7 below.



graph 7-1



graph 7-2

- For the interface shown in Figure 7-1, press the corresponding "ESC", "ENTER", "UP" and "DOWN" keys according to the requirements indicated below the interface before unlocking.
- For the interface shown in Figure 7-2, when a corresponding button is pressed, the red icon of that button will turn black, and the red indicator will point to the next button position. By pressing all four corresponding buttons in sequence, you can exit the anti-misoperation interface. If the button icon remains red after pressing a button, it indicates that the button was pressed at an incorrect position.

- After power-on, when editing the parameters of the lamp it will trigger the entry into the anti-misoperation interface; however, browsing parameters does not trigger this entry. When the "lock screen" function is enabled, after a certain period without operating the lamp display panel, editing the lamp parameters will also trigger the entry into the anti-misoperation interface. When the "lock screen" function is disabled, only upon re-powering on will editing the lamp parameters trigger the entry into the anti-misoperation interface. After unlocking and exiting the anti-misoperation interface, it will not re-enter the anti-misoperation interface during the current power-on cycle.
- "Lock Screen" function switch. To prevent accidental touch from turning off the "Lock Screen" function, when the "Lock Screen" is on, pressing the confirm button for the "Lock Screen" option will take you to an anti-mis-touch screen, which prompts you to turn off the "Lock Screen" function; if the "Lock Screen" is off, you can directly turn it on.

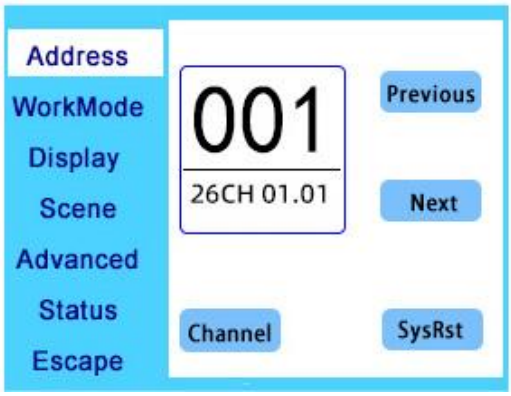
3. Function operation and parameter setting

Enter the Settings interface, as shown in Figure 6-1:

- In the main interface, you can select six buttons to enter the corresponding parameter setting interface.

1. Set the DMX address code

The DMX address and channel mode of the lamp can be set through the page shown in Figure 6-1 below.

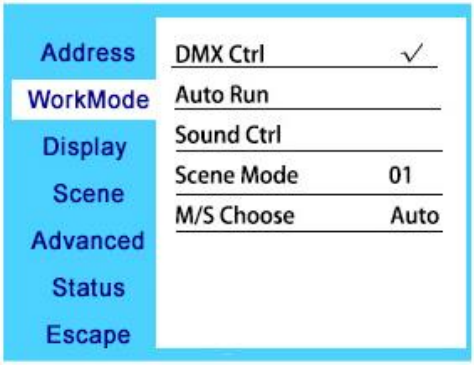


graph 6-1

The menu setting of the lamp optimizes the address setting. Several operations to set the address code are as follows:

- Select "previous" or "next", the lamp will automatically calculate the address code of the next or previous according to the current address code and channel data, which can be set quickly;
- Click the address code value to enter the value editing window, where you can set any valid address code, and the lamp automatically obtains the current channel number of the lamp and automatically filters out the unusable address code (512-current channel number).
- The lamp supports the RDM protocol and can be set remotely by RDM to set the lamp address code.
- Channel mode: different channel modes can be selected cyclically;

2. Set the working mode of the light



graph 6-2

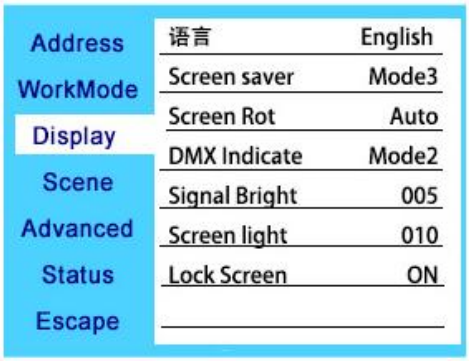
The operation mode of the lamp and the control of the lamp can be set through the page shown in Figure 6-2 above. The lamp supports four operation modes (DMX mode, self-walking mode, sound control mode and scene mode). For detailed parameter value setting, please refer to the previous section. The specific parameter description is shown in the following table:

running mode

DMX pattern	Console mode, receive DMX signal, RDM signal	
Self-driving mode	The lamp runs automatically according to the built-in program	
Voice-activated mode	When the lamp detects a strong sound, the lamp automatically runs a scene according to the built-in program, otherwise it keeps the last scene	
Scene mode 01	It can run in the way of setting scenes, and supports custom editing of up to 10 scenes	
	1~10	Output the specified scenario
	volunt arily	The scene is automatically output in the order of the set scene time (not 0), and the scene with time 0 is automatically skipped
Master-slave selection	When the non-DMX mode is effective, the mode of data output is selected. The lamp automatically detects the DMX status and automatically switches the output to prevent data conflict	
	main engine	The lamp operates internally. If there is no signal from DMX, the output data (synchronous) is output, otherwise no data is output
	slave	The lamp operates internally and does not output data (not synchronized with other lamps)
	volunt arily	If there is no signal from the DMX, the lamp operates according to the built-in signal, otherwise, the lamp operates according to the DMX signal

The scene mode is suitable for a single or small number of lamps. You only need to output a fixed scene, or you need to run a simple program. You can edit it in the scene page without connecting to the console.

3. Panel displays Settings



graph 6-3

The light supports Chinese and English bilingual display, hanging display, etc. Enter the corresponding parameters as shown in Figure 6-3 for setting. The specific menu contents are shown in the following table:

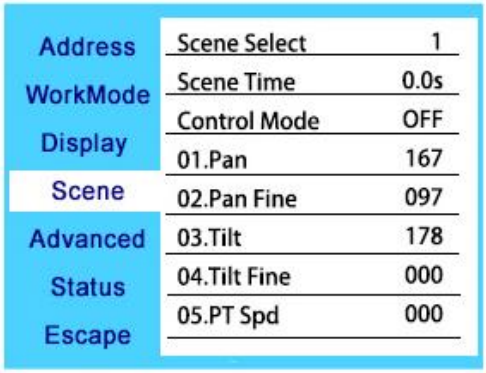
Display Settings

Language	Set the language of display	
	English	English display
	the Chinese language	Chinese display
Screen protection	Set the display content or mode of the screen after no operation is performed for 30 seconds	
	close	Keep the last operation page and light up the screen
	pattern 1	Turn off the screen
	pattern 2	Black screen, the address code of the current lamp is displayed in the lower left corner

	pattern 3	Display the trademark information, address code and operating mode
	pattern 4	Display the trademark information, address code and operating mode for 30 seconds before the screen is turned off
The screen rotates	Set the display direction of the screen	
	close	Do not reverse display
	open	Reverse display
DMX indicate	Set the indication mode of DMX signal indicator	
	pattern 1	It lights up when there is a signal and goes out when there is no signal
	pattern 2	It goes out when there is a signal and it lights up when there is no signal
	pattern 3	It flashes when there is a signal and goes out when there is no signal
Screen backlight	Set the brightness of the screen backlight after 10 seconds without operation, and fully bright when operating	
	1~10	Ten levels
Lock screen	Set whether to enable the anti-miscontact lock screen	
	close	Only after the power is reconnected, the editing of lamp parameters will enter the anti-miscontact interface once
	open	After a period of no operation, the lamp parameter editing will enter the anti-misoperation lock screen

4. Scene mode

Enter the page shown in Figure 6-4 (the channels displayed in the image are just examples for introduction; please refer to the channel table description in the following chapter for the specific channel table of this product). The lights enter scene editing mode. On this page, if the Control Console Mode option is turned off, the lights do not receive DMX control console data, and any edited data is immediately reflected on the lights. When enabled, it receives control console signals and reads the control console data, which is then reflected on the corresponding channel display.



graph 6-4

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

Scene mode

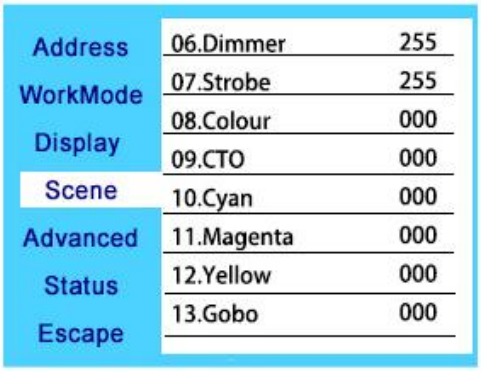
Scene selection	Select the current operation scenario	
	1~10	10 scene setting formats
Scene time	Set the retention time of the current scene in automatic mode. The final time is determined by the multiple of the scene time, with a unit of 0.1 seconds	
	0	The current scene does not participate in automatic 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 sequence correspond to the channel table of the lamp one by one
……	0-255	
……	0-255	
N. function	0-255	

If the reset channel in the scene is edited to effectively reset the data, the light will be reset. However, after resetting, the value of the corresponding reset channel will be automatically cleared to prevent multiple consecutive resets.

View this page to obtain the current channel table order of the lamp. For specific channel data, please refer to the detailed channel description.

5. Set the working parameters of the lamp



graph 6-5

Enter the page shown in Figure 6-5 above, adjust the field parameters of the lamp to facilitate the field installation of the lamp:

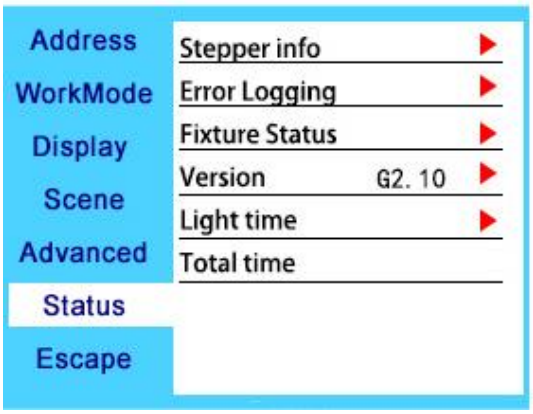
advanced setup

The Y axis is reversed	Set the Y axis rotation direction	
	close	Not reverse
	open	opposite direction
Photoelectric coupling correction	Set whether the light detects XY loss of step and corrects it	
	close	Do not correct your position after losing your balance
	open	The position is automatically corrected after the loss of step, and the fault of loss of step is recorded
Data-hold	Set the output status of the light when there is no DMX signal	
	close	No signal, so the motor and light source return to the position and state when reset is completed
	open	No signal, keep the last frame of DMX data output
Scene time multiplier	The scene retention time is determined together with the scene time	
	1-255	Retention time = scene time * multiple
Lighting reset	A confirmation box will pop up. After selecting "SURE", the light position will return to the initial position	
Factory Settings	A confirmation box will pop up. After selecting "SURE", the light parameters will return to the factory setting	

When the light cannot be calibrated, check whether the "optocoupler correction" is turned off.

When the signal is removed, if the position of the light is not as expected output, check the "data retention" setting first.

6. Check the current status of the light



graph 6-6

Enter the page shown in Figure 6-6 to view the information and real-time status of the lamp, so as to know the use status of the light. If the light needs after-sales service, please provide the status information displayed on this page as the basis for judgment, as shown in the following table:

status information

Motor information	Display the information status of all motors and signals in the light	
	Hoare	Not displayed, indicating that the motor is not corrected by Hall, 0 indicates that the motor is away from the correction position point, and 1 indicates that the motor is at the correction position point
	state	Display the status of the reset of the motor
	X axle	Display the real-time position value of the X-axis optical coupling feedback
	Y axle	Display the real-time position value of the Y-axis optical coupling feedback
	optocoupler	Display the level state of two signals of optical coupler X and Y axes in binary
Fault/state logging	Display the last 8 fault records of the light reset and operation. The fault records are not saved after power failure, and are valid for the current power cycle	
	fault data	The total number of faults detected after power-on
	12：:03	The power-on time when the fault occurs, in minutes
	Hall fault	The motor does not detect an effective Hall signal when the motor is reset
	Hall short circuit	The Hall signal of the motor is detected to be valid when the motor reset is corresponding
	Photoelectric coupling fault	No valid optocoupler signal was detected when the motor was reset
	fall out step	Corresponding to the motor losing step during operation
	Push the lever	The positioning rod is hit when the motor is reset
	Light bulb faulty	The bulb unexpectedly blew out
	Sensor failure	Temperature sensor signal is abnormal
	Fan failure	The main fan is not working properly
Lighting status	Display the key status data of the current lamp for reference	
	communication	0~100%, communication quality of data link inside the lamp
	miscount	The total number of error frames detected after power-on is accumulated
	Light source temperature	Display the temperature of the current light source. "---" indicates no detection
	Display board temperature	Displays the temperature of the current display panel or the ambient temperature nearby

	Sensor 1 temperature	Displays the current motherboard temperature or ambient temperature of the motherboard installation location
Version information	Display the information and version of the current lamp, which is an important reference for after-sales maintenance	
	equipment	The name of the lamp is the same as the equipment information of RDM
	model	The model of the lamp is the same as the model information of RDM
	display board	The firmware version and serial number of the display board
	Mainboard 1	Firmware version and serial number of motherboard 1
Light source time	Record the total cumulative time of the light source opening, in minutes. The user manually clears it as a reference time for regular maintenance of the light source	
Lighting time	Record the total cumulative time of light opening, unit minutes, cannot be deleted	

Charpter 3 Channel description

1. Channel table

Note: The different light channel tables are different, the following channel table is for reference only. The channel of this light can be viewed in the scene mode. The channel mode is set in the "address Settings" page, and the specific detailed data are shown in the following table:

channel table

26CH	Name	Value	Description
CH1	Pan	0-255	0-540(degree)
CH2	Pan Fine	0-255	0-2(degree)
CH3	Tilt	0-255	0-270(degree)
CH4	Tilt Fine	0-255	0-1(degree)
CH5	PT Speed	0-255	Fast to slow
CH6	Dimmer	0-255	0-100% Dimmer
CH7	Strobe	0-31	Dark
		32-63	Open
		64-95	Pluse strobe slow to fast
		96-127	Open
		128-143	Fade in strobe slow to fast
		144-159	Fade out strobe slow to fast
		160-191	Open
		192-223	Random strobe slow to fast
		224-255	Open
CH8	Colour	0-127	Linear colour
		128-129	White
		130-134	Red
		135-138	Green
		139-143	Blue
		144-147	Rose Red
		148-152	Orange

		153-157	Purple
		158-161	Amaranth
		162-189	Brown
		190-215	Forward water effect from fast to slow
		216-217	Stop
		218-255	Backward water effect from slow to fast
CH9	C	0-255	C
CH10	M	0-255	M
CH11	Y	0-255	Y
CH12	CTO	0-255	CTO
CH13	Fixed Gobo	0-3	White
		4-9	Gobo1
		10-15	Gobo2
		16-21	Gobo3
		22-27	Gobo4
		28-33	Gobo5
		34-39	Gobo6
		40-45	Gobo7
		46-51	Gobo8
		52-57	Gobo9
		58-63	Gobo10
		64-69	Gobo10
		70-87	Gobo10
		88-95	Shake slow to fast Gobo1
		96-103	Shake slow to fast Gobo2
		104-111	Shake slow to fast Gobo3
		112-119	Shake slow to fast Gobo4
		120-127	Shake slow to fast Gobo5
		128-135	Shake slow to fast Gobo6
		136-143	Shake slow to fast Gobo7
		144-151	Shake slow to fast Gobo8
		152-159	Shake slow to fast Gobo9
		160-167	Shake slow to fast Gobo10
		168-175	Shake slow to fast Gobo10
		176-183	Shake slow to fast Gobo10
		184-191	Shake slow to fast Gobo10
		192-199	Shake slow to fast Gobo10
		200-201	White
		202-222	Backward water effect from fast to slow
		223-255	Forward water effect from slow to fast
CH14	Zoom	0-255	Large to small
CH15	Focus	0-255	Far to near
CH16	Focus Fine	0-255	
		0-4	White

CH17	Rotate Gobo	5-7	Gobo1	
		8-10	Gobo2	
		11-13	Gobo3	
		14-16	Gobo4	
		17-19	Gobo5	
		20-22	Gobo6	
		23-31	Gobo7	
		32-34	Gobo1	
		35-37	Gobo2	
		38-40	Gobo3	
		41-43	Gobo4	
		44-46	Gobo5	
		47-49	Gobo6	
		50-59	Gobo7	
		60-67	Shake slow to fast Gobo1	
		68-75	Shake slow to fast Gobo2	
		76-83	Shake slow to fast Gobo3	
		84-91	Shake slow to fast Gobo4	
		92-99	Shake slow to fast Gobo5	
		100-107	Shake slow to fast Gobo6	
		108-129	Shake slow to fast Gobo7	
		130-137	Shake slow to fast Gobo1	
		138-145	Shake slow to fast Gobo2	
		146-153	Shake slow to fast Gobo3	
		154-161	Shake slow to fast Gobo4	
		162-169	Shake slow to fast Gobo5	
		170-177	Shake slow to fast Gobo6	
		178-199	Shake slow to fast Gobo7	
		200-201	White	
		202-222	Forward water effect from fast to slow	
		223-255	Backward water effect from slow to fast	
CH18	Gobo Rotation	0-255	0-360 degrees	In coordination with the rotating gobo 5-31
		0	Stop	
		1-127	Rotate forward from fast to slow	In coordination with the rotating gobo 32-59
		128	Stop	
		129-255	Rotate backward from slow to fast	
CH19	Gobo Rotation Fine	0-255		
CH20	Gobo Effects	0-5	None	
		6-87	Shake from slow to fast	
		88-172	Forward water effects from fast to slow	
		173-255	Forward water effects from fast to slow	
CH21	8 Facet Prisms	0-3	None	
		4-255	Inert 8 facet prisms	

CH22	8 Facet Prisms Rotation	0-127	0-360 degrees
		128-190	Rotate forward from fast to slow
		191-192	Stop
		193-255	Rotate backward from slow to fast
CH23	6 Facet Prisms	0-3	None
		4-255	Inert 6 facet prisms
CH24	6 Facet Prisms Rotation	0-127	0-360 degrees
		128-190	Rotate forward from fast to slow
		191-192	Stop
		193-255	Rotate backward from slow to fast
CH25	Frost	0-127	None
		128-255	Frost
CH26	Reset/Function	0-139	None
		140-149	Reset XY motor over 3 seconds
		150-199	Reset effect motor over 3 seconds
		200-209	Reset whole light over 3 seconds
		210-255	None

34CH	39CH	Name	Value	Description
CH1	CH1	Pan	0-255	0-540 degrees
CH2	CH2	Pan Fine	0-255	0-2 degrees
CH3	CH3	Tilt	0-255	0-270 degrees
CH4	CH4	Tilt Fine	0-255	0-1 degree
CH5	CH5	PT Spd	0-255	Fast to slow
CH6	CH6	Reset/Function	0-139	None
			140-149	Reset XY motor over 3 seconds
			150-199	Reset effect motor over 3 seconds
			200-209	Reset whole light over 3 seconds
			210-255	None
CH7	CH7	C	0-255	C
CH8	CH8	M	0-255	M
CH9	CH9	Y	0-255	Y
CH10	CH10	Color Wheel	0-127	Linear color
			128-129	White
			130-134	Red
			135-138	Green
			139-143	Blue
			144-147	Rose Red
			148-152	Orange
			153-157	Purple

			158-161	Amaranth
			162-189	Brown
			190-215	Forward water effects from slow to fast
			216-217	Stop
			218-255	Backward water effects from slow to fast
	CH11	Color Wheel Fine	0-255	
CH11	CH12	Color wheel 3	0-132	CMY color mixing effects
			133-255	White
CH12	CH13		0-255	
CH13	CH14	Color Wheel Speed	0-255	
CH14	CH15	Light effect speed	0-255	
CH15	CH16	CTO	0-255	
CH16	CH17	Effect Tray	0-5	None
			6-87	Shake from slow to fast
			88-172	Forward water effects from fast to slow
			173-255	Forward water effects from fast to slow
CH17	CH18		0-255	
CH18	CH19	Fixed Gobo	0-3	White
			4-9	Gobo1
			10-15	Gobo2
			16-21	Gobo3
			22-27	Gobo4
			28-33	Gobo5
			34-39	Gobo6
			40-45	Gobo7
			46-51	Gobo8
			52-57	Gobo9
			58-63	Gobo10
			64-69	Gobo10
			70-87	Gobo10
			88-95	Shake slow to fast Gobo1
			96-103	Shake slow to fast Gobo2
			104-111	Shake slow to fast Gobo3
			112-119	Shake slow to fast Gobo4
			120-127	Shake slow to fast Gobo5
			128-135	Shake slow to fast Gobo6
			136-143	Shake slow to fast Gobo7

			144-151	Shake slow to fast Gobo8
			152-159	Shake slow to fast Gobo9
			160-167	Shake slow to fast Gobo10
			168-175	Shake slow to fast Gobo10
			176-183	Shake slow to fast Gobo10
			184-191	Shake slow to fast Gobo10
			192-199	Shake slow to fast Gobo10
			200-201	White
			202-222	Backward water effects from fast to slow
			223-255	Forward water effects from slow to fast
CH19	CH20	Rotating Gobo	0-4	White
			5-7	Gobo1
			8-10	Gobo2
			11-13	Gobo3
			14-16	Gobo4
			17-19	Gobo5
			20-22	Gobo6
			23-31	Gobo7
			32-34	Gobo1
			35-37	Gobo2
			38-40	Gobo3
			41-43	Gobo4
			44-46	Gobo5
			47-49	Gobo6
			50-59	Gobo7
			60-67	Shake slow to fast Gobo1
			68-75	Shake slow to fast Gobo2
			76-83	Shake slow to fast Gobo3
			84-91	Shake slow to fast Gobo4
			92-99	Shake slow to fast Gobo5
			100-107	Shake slow to fast Gobo6
			108-129	Shake slow to fast Gobo7
			130-137	Shake slow to fast Gobo1
			138-145	Shake slow to fast Gobo2
			146-153	Shake slow to fast Gobo3
			154-161	Shake slow to fast Gobo4
			162-169	Shake slow to fast Gobo5

			170-177	Shake slow to fast Gobo6	
			178-199	Shake slow to fast Gobo7	
			200-201	White	
			202-222	Forward water effects from fast to slow	
			223-255	Backward water effects from slow to fast	
CH20	CH21	Rotating Gobo Rotation	0-255	0-360 Degrees	In coordination with the rotating gobo 5-31
			0	Stop	
			1-127	Rotate forward from fast to slow	In coordination with the rotating gobo 32-59
			128	Stop	
			129-255	Rotate backward from slow to fast	
	CH22	Gobo Rotation Fine	0-255		
CH21	CH23	8 Facet Prisms	0-3	None	
			4-255	Insert 8 facet prisms	
CH22	CH24	8 Facet Prisms Rotation	0-127	0-360 degrees	
			28-190	Rotate forward from fast to slow	
			91-192	Stop	
			93-255	Rotate backward from slow to fast	
CH23	CH25	6 Facet Prisms	0-3	None	
			4-255	6 facet prisms	
CH24	CH26	6 Facet Prisms Rotation	0-127	0-360 degrees	
			28-190	Rotate forward from fast to slow	
			91-192	Stop	
			93-255	Rotate backward from slow to fast	
CH25	CH27	Prism Marco	0-255		
CH26	CH28		0-255		
CH27	CH29		0-255		
CH28	CH30		0-255		
CH29	CH31	Frost	0-127	None	
			128-255	Frost	
CH30	CH32	Zoom	0-255	From large to small	
	CH33	Zoom Fine	0-255		
CH31	CH34	Focus	0-255	From far to near	
	CH35	Focus Fine	0-255		
CH32	CH36	Effect	0-255		
CH33	CH37	Strobe	0-31	Close	
			32-63	Open	

			64-95	Pulse strobe from slow to fast
			96-127	Open
			128-143	Fade in strobe from slow to fast
			144-159	Fade out strobe from slow to fast
			160-191	Open
			192-223	Random strobe from slow to fast
			224-255	Open
CH34	CH38	Dimmer	0-255	0-100% dimmer
	CH39	Dimmer Fine	0-255	

Charpter 4 Common faults and usage precautions

1. Common troubleshooting

The light contains microcomputer circuit board, high voltage power supply and other professional components, for your safety and product life, non-professionals do not disassemble the lamp and related accessories without authorization.

1. The bulb does not light up (except for LED light source)

Possible reasons: The bulb is not completely cooled, or the bulb has reached its life. Handle as follows:

- Because of abnormal operation, the bulb is not completely cooled, let the lamp body cool for more than 10 minutes to make its internal state fully restored to normal, and then restart the power supply;
- Check whether the bulb has reached the service life, and replace the new bulb;
- Check whether the bulb and lamp circuit are leaking, falling off or poor contact;
- Replace the new light bulb.

2. The beam appeared dim

Possible reasons: the bulb has been used for a long time or the light path is not clean, deal with it as follows:

- Check whether the bulb has reached the service life, and replace the new bulb;
- Check whether the optical parts or bulbs are clean, and whether there is dust on the bulbs and other optical devices. The bulbs and other components in the lamps should be cleaned regularly.

3. The gobo projection is blurred

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

4. The lights work intermittently

Possible reason: The internal line enters the protection state. Handle as follows:

- Check whether the fan is running normally or dirty, resulting in the internal temperature of the lamp rising;
- Check whether the internal temperature control switch is closed;
- Check whether the bulb has reached its service life and replace it with a new one.

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

Possible reasons: Signal line fault or lamp parameter setting is not normal, deal with the following:

- Check the starting address code and check the connection of DMX signal lines (whether the signal cable is intact, whether the connector is loose);
- Add signal amplifier, add 120 ohm terminal resistor;

6. The light can’t be started

Possible reasons: poor power line. Handle as follows:

- Check whether the fuse on the power input socket is blown, and replace the fuse;
- The light is subjected to vibration during long-distance transportation, resulting in poor contact of the line
- Check the input power supply, computer board and other plug-in devices.

2. Use precautions

- Check whether the local power supply meets the rated voltage requirements of the product, and whether the leakage protection device and overcurrent protection device meet the requirements of the load;
- Do not use power cords with damaged insulation, and do not connect power cords to other wires;
- The light adopts strong wind cooling, which is easy to accumulate dust. It must be cleaned once a month, especially the heat dissipation air outlet. Otherwise, it will be blocked by dust accumulation, resulting in poor heat dissipation and abnormal lamp.
- When installing lamps, the fixing screws must be tightened, and the safety cable should be added, and checked regularly;
- When the light is installed and positioned, any point on the surface of the lamp should be kept at a minimum distance of 10 meters from any inflammable and explosive objects, and 2.5 meters from the irradiation object. Please do not directly install the lamp on the surface of combustible substances;
- The continuous working time of the lamp is recommended not to exceed 10 hours, and the interval time between continuous starting of the lamp should not be less than 10 minutes, otherwise it will not be able to trigger normally because of the overheating protection of the bulb;
- The closing time of the switch valve should not exceed 5 minutes. If it is necessary to close the light for a long time, the lamp should be turned off by using the control console (lamp control channel);
- In order to ensure that multiple lights better comply with the scene effect, the lamps should not always be in an incomplete current scene, that is, start the next scene action, it is best not to exceed 3 minutes in this state, to ensure that multiple lamps can run synchronously;
- During use, if the lamp is abnormal, stop using the lamp in time to prevent other faults.

3. RDM usage notes

RDM is an extended version of the DMX512-A protocol, which is a remote device management (Remote Device Management) protocol. Traditional DMX512 communication is one-way communication. The protocol is based on RS-485 bus, which is a time-sharing multi-point, half-duplex protocol. Only one port can be used as the host output at the same time. Therefore, when using RDM, you should pay attention to the following points:

- Use a console or host device that supports the RDM protocol;
- In order to use a bidirectional signal amplifier, traditional unidirectional signal amplifiers are not suitable for the RDM protocol, because the RMD protocol requires feedback data, and using a unidirectional amplifier will block the returned data, resulting in the search for lamps;
- All lights must be set to DMX mode, ensuring that there is only one host on the signal line;
- A 120ohm impedance matching resistor must be inserted between terminal 2 and 3 of the terminal plug. When the signal line is relatively long, differential signals are used to reduce signal reflection for more stable, which is conducive to the quality of communication;
- When the light is controlled by DMX but can’t search for the light by RDM, check the signal amplifier first, and then check whether there is a contact failure in line 2 or 3 of the signal line.

REMARK

The product has perfect performance and intergrity packing.

All users should be strictly comply with the warning and operating instructions as stated.

Or we aren ’t in charge of any result by misusing.

Any damage resulting by misuse is not within the Company ’s warranty.

Any fault or problem caused by neglecting the manual is also not in the charge of dealers.

Errors and omissions for every information given in this manual excepted.

All information is subject to change without prior notice.