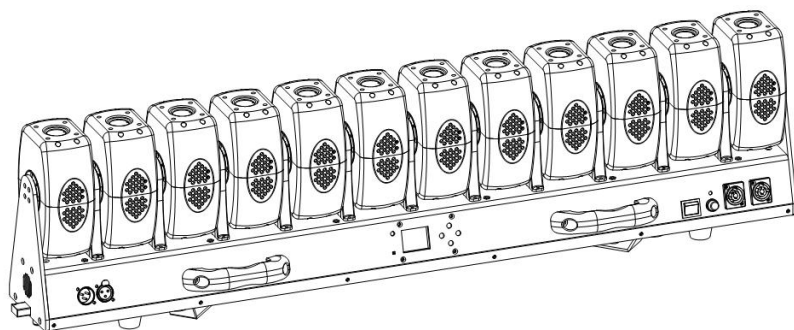


LASERARRAY12RGB

220W RGB Laser Moving Array



USER MANUAL

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1. Safety Guidance

Thank you for choosing our products. For your safety, please read this manual carefully before operation. This manual includes installation and use information.

The equipment is packaged in good condition when leaving the factory. Please operate according to the user manual. The machine failure caused by man-made reasons is not covered by the warranty.

1. Before using the product, please open it and check it carefully to ensure that there is no damage caused by transportation.
2. Don't let children operate the machine.
3. Use safe rope when fixing the equipment and lift the bottom of the light when moving it.
4. The device must be installed in a well-ventilated place, at least 50 cm from the proximal surface.
5. Ensure that the ventilation hole is unobstructed to avoid overheating when the light is running.
6. Before running, ensure that the power supply voltage is consistent with the required power supply voltage.
7. Please ground the conductor to prevent electric shock.
8. Do not place combustible articles near the light when it is running to prevent fire risk.
9. Before opening the light, please carefully check whether the power cable is damaged. If it is damaged, please replace it immediately.
10. Avoid flammable liquid, water, metal and other electrical conductors entering the light to avoid electric shock or fire. If foreign matter enters the light, cut off the power supply immediately.

11. Avoid operating lights in dirty and dusty environment, and clean and maintain lights regularly.
12. Do not touch the wire when the light is running to prevent electric shock.
13. Avoid entangling power cables with other wires.
14. Do not open the shell of the light without permission.
15. Please cut off the power supply when the light is not used or maintained for a long time.
16. Do not look directly at the light when it is running.

2. Packing List

This series of products are packed in standard carton, air carton is optional, please read this manual carefully before using. Follow operating rules to avoid damage to light or bodily injury. Please handle the products carefully after receiving them, and check whether the products are damaged during transportation. Open the cover of the box, take out the relevant accessories in the box, take out the light, and place the light on a horizontal table to facilitate related operations. Note: Do not squeeze plastic parts to avoid breakage or distortion. Check the parts as follows:

Stage light 1pc cable 1pc manual 1pc parts 1pc

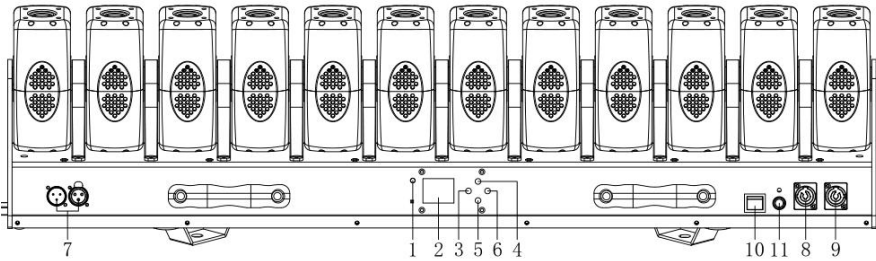
3. Installation Notes

1. When install this equipment please make sure there's no flammable surfaces (decorated things, etc) within at least 2.5M and maintain minimum distance of 0.5M from the equipment to the walls.
2. Before installation, please confirm whether the power supply voltage you are using matches the voltage marked by the light.
3. Make sure that the ventilation fan and exhaust passage are not blocked by other equipment or decorative materials, such as newspapers, tablecloths, curtains, etc.
4. The equipment should be fixedly installed. To ensure the stability of its installation point, at least a load-bearing structure that can withstand more than ten times the weight of the product.
5. For safety reasons, this machine should be connected to a main socket with a ground wire.

4. Technical Parameter

1. Power supply: AC 100 ~240V 50/60Hz,160W@220V
2. Light source: RGB 2W x 12pcs
3. Working mode: Auto/DMX512/ master-slave/User mode/Sound
4. DMX Control Channel: 14CH/74CH
5. Cool system: Intelligent air cooling system
6. Working environment: indoor
7. Working temperature: 0°C - 35°C
8. N.W./G.W.: 23kg/87kg
9. Package size: 107*61*52cm

5. Light Control Panel



No.	Interface	
1	Red indicator light	NO light/ normal light,The device system is in the dead state
		Flash : The equipment system is running normally
		Flash fast: The safety electronic lock of the device is not enabled
	Green indicator light	NO light: No DMX512 signal detected
		Flash: DMX512 signal detected
2	Menu	
3	O MENU	
4	▲ UP	
5	▼ DOWN	
6	● ENTER	
7	XLR - 3 pin DMX-512 Interface (IN/OUT)	
8	100-240V power input	
9	100-240V power output	
10	Switch	
11	fuse	

6. Light Setting

Open the device, press the MENU button to ENTER the menu mode, press the ENTER button to enter the selected function, then use the UP/DOWN button to select the required function, and press the Enter button to confirm. To return to the main MENU press the Menu button. The main functions are as follows:

6.1 OLED display control panel function menu setting ,as following:

Menu	Secondary Menu	Third Menu	
Operation	DMX-512	DMX Address	address setting (1-512)
		Channel mode	CH mode : 14/74CH(default)
		DMX status	Stand by / Hold
		View DMX value	DMX-512 Channel value view CH1—CH14 (such as 14CH channel value display 1-14)
	Play mode	Show	001-017. (17 all effects loop)
		Swing	0-100
		Master/slave	
		Sound	ON/OFF
		Sound sensitivity	0-100

	Test mode	Auto test	ON/OFF
	Use mode	Value setting (CH1-CH14 can customize the value of each channel of the light)	The program has a built-in console, restore the factory settings and save the data, if the data is cleared, press the reset option
Master Set	Motor setup	Y axis reverse	ON/OFF
Display	CN/EN	CN/EN	displays Chinese and English options
	screen reverse	ON/OFF	180° rotation of the screen
	Screen saver	30s - 120s	
Survey	Motor reset	ON/OFF	The motor is out of step and out of position. The motor position is calibrated by reset
	Defaults Reset	ON/OFF	The parameters are set to the original factory Settings
	Factory Init	0-999	Used by factory technicians, 999 is password

	A motor reset Error	Yes/No	
	B motor reset Error	Yes/No	
	RS485 Error	Yes/No	The reason for the error is that the control board is not powered on or the chip is broken or there is a problem with the signal line
	CPU version	GUI Hdw Ver	The reason for the error is that the control board is not powered on or the chip is broken or there is a problem with the signal line
		GUI Sfw Ver	
		MOT Hdw Ver (No. 1 to No.12)	
		MOT Sfw. Ver (No. 1 to No.12)	
SysInfo	Operational	Current device work mode	
	Channel Num.	Current device channel value	
	DMX address	Current device address	
	Effect version	Current device effect version	

	Device Temp.	Current device temperature.
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DMX512

Select DMX512 mode press ●ENTER key to confirm, the current mode will be displayed on the display, press the "●ENTER" button, use ▲UP, ▼DOWN button to select the number of channels according to the required effect of DMX control, channel mode has two kinds: 14/74CH channel mode. DMX status: Standby / Hold. The fixture is in a state setting without a 512 signal while under control. After setting, if you need to view the value of each channel, press ▲UP, ▼DOWN button to select the channel value and view the access channel. Console mode is slave mode at the same time. If DMX512 console signal is connected, it is console mode. Press the ●ENTER key to save, and press the MENU button to return to the upper-level menu.

Play mode

Select the Play mode, press the ●ENTER key to confirm, the current mode will be displayed on the display screen, press the "●ENTER" button, use ▲UP, ▼DOWN button to select 17 kinds of built-in effect auto mode, the 17th is all effect loop play. If you need to use ▲UP, ▼DOWN button to select the primary and secondary Settings ON /OFF off. You can also choose a voice-activated trigger to play the selection effect. Press the ●ENTER button to save, and press the MENU button to return to the upper-level menu.

Test mode

Select the test mode, press the ●ENTER key to confirm, the current mode will be displayed ON the screen, automatic test is a special mode, only after entering the automatic test interface can be called, by ▲UP, ▼DOWN button to select ON/OFF to open automatic check whether there are problems with the

light, After exiting the interface, resume the previous operation mode and press the MENU button to return to the upper-level menu.

User mode

Select User mode and press ●ENTER to confirm. The current mode will be displayed on the screen. Channel CH1~CH48, press the ●ENTER to determine the button through the ▲UP, ▼DOWN button to select 0~255 value setting press ▼DOWN touch the button button for the next channel setting, through the operation needs the numerical effect to set the light (user mode setting data: Restore factory Settings data unchanged, such as clear data press the reset option) press the ●ENTER button to save, press the MENU button to return to the previous level of menu.

Master Set

Select Master Set, press the ●ENTER key to confirm, ▲UP, ▼DOWN key to select motor Settings/other Settings, Settings press the ●ENTER button to save, press the MENU button to return to the upper level menu.

Motor setting: Select the motor setting, press the ●ENTER key to confirm, the current mode will be displayed on the display screen, use ▲UP, ▼DOWN button to select, X motor horizontal reverse setting, set the motor running direction to positive (clockwise), or reverse (counterclockwise); Y The motor is set horizontally and in reverse. The operation direction of the motor is set as forward (clockwise) or reverse (counterclockwise). Press the ●ENTER button to save, and press the MENU button to return to the upper-level menu.

Display Settings

Select display, press the ●ENTER key to confirm, the current mode will be displayed on the screen, use ▲UP, ▼DOWN button to select: Chinese /EN

Settings (Chinese and English options are displayed on the interface), screen reverse Settings (180° screen rotation) press ●ENTER button to save, press touch MENU button to return to the previous menu.

Defaults Setting

Select Defaults, press the ●ENTER key to confirm, the current mode will be displayed on the screen, use ▲UP, ▼DOWN button to select: Reset the motor (motor out of step, position deviation through reset to calibrate the motor position), restore the factory Settings, set the parameters to the initial setting of the factory (channel mode value, user mode value and DMX512 address remain unchanged) press the ●ENTER button to save, press the touch MENU button to return to the upper menu.

Survey

Select the survey and press the ●ENTER key to confirm. The current mode will be displayed on the screen. Use the ▲UP and ▼DOWN buttons to view: whether the version information is displayed, the hardware display version, the hardware and software versions of the 1st to 12th heads of the motor (the reason why the motor board cannot be read is that the motor board is not powered on, the chip is damaged, or there is a problem with the signal line). After viewing, press the MENU button to return to the previous menu.

SysInfo

Select the SysInfo, press the ●ENTER key to confirm, the current mode will be displayed on the screen, use ▲UP, ▼DOWN buttons to view the system information.

Operation mode: the working mode of the current light;

channel mode: the channel mode of the current device;

Address code: the working address of the current light;

Effect version: the effect version played by the current device; Equipment temperature: The current internal temperature of the device (if a negative temperature is displayed, it indicates that the internal probe is not connected).
press the MENU button to return to the upper-level menu after viewing.

7. Light Control mode

① DMX512 control mode:

1. Set the DMX512 address code, the light will receive the standard DMX512 signal

2. Set the corresponding channel control mode

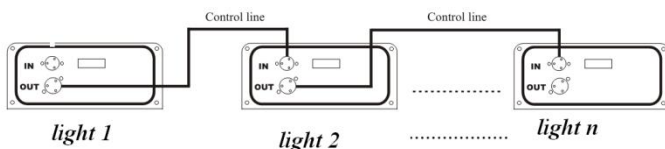
②Auto mode:

When the light does not receive the external signal, the device can choose the built-in preprogramming effect to run automatically. At the same time, you can also select the voice control mode to trigger the playback.

③ master/slave mode:

Master -- main menu ▲UP, ▼DOWN key enter select "operation mode" - Play mode menu host set ON (default is OFF), at this time for the host light. ●ENTER save, MENU button back to the upper menu.

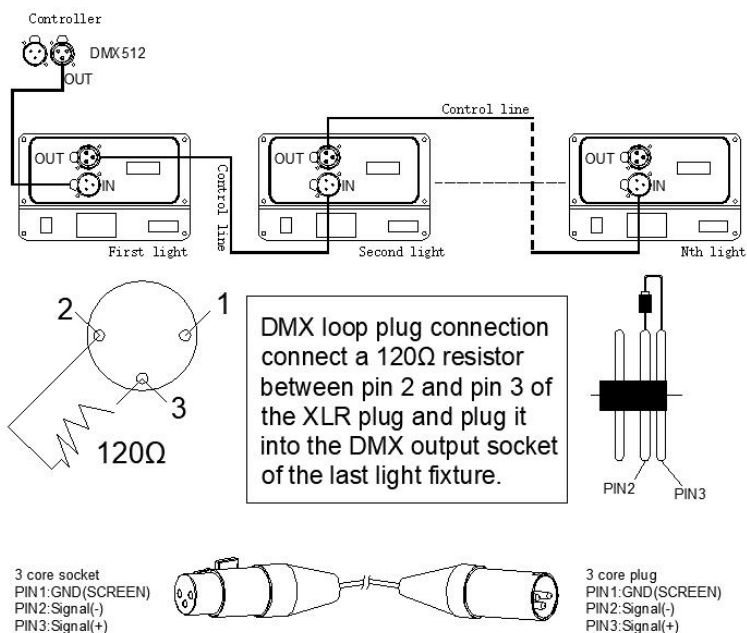
Slave machine -- MENU ▲UP, ▼DOWN button enter select "Operation mode" - Play mode menu host set to OFF (default is OFF), press the menu button to return to the previous level of menu.



④User mode: The numerical lights of each channel can be controlled through the operation interface.

8. DMX512 Control

8.1DMX512 Connect



1. In order to reduce signal errors and avoid signal weakening or interference during transmission, a 120Ω resistance loop can be inserted between the 2 cores and the 3 cores of the DMX output terminal of the last machine.
2. Connect the light with XLR signal, one end is connected to the output port of the light, and the other end is connected to the input port of the next light. XLR signal lines

can only be used in series, not in parallel. DMX512 signal transmission speed is very fast. Damage to the signal line, weak welding, poor contact, etc., will affect the signal transmission and cause the system to shut down.

3. When a unit of machine power disconnect, DMX output or input connection is bypass, in order to maintain the DMX line and connectivity.
4. Each light must have an address code, which can receive the information sent by the console, ranging from 1 to 512.
5. The terminal of the DMX512 system needs to be equipped with a terminator to reduce signal transmission errors.
6. The 3-pin XLR connector is more common than the 5-pin XLR:

3 pin XLR: PIN1: GND, PIN2: - Signal , PNI3: + Signal

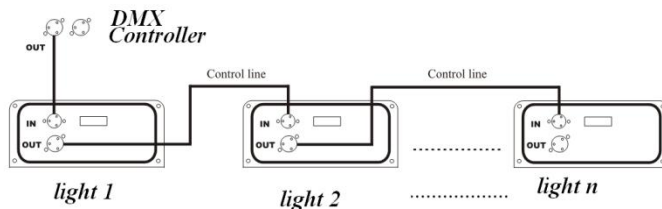
5 pin XLR: PIN1: GND, PIN2: - Signal, PIN3: + Signal, PIN4/PIN5:No

USE

8.2 DMX512 Chanel setting:

Press ●ENTER button to enter menu mode, use ▲UP, ▼DOWN key select "DMX512 mode" channel mode (14CH/74CH), select the channel mode you need, address code Settings. ●ENTER save, MENU button back to the upper menu.

Connect the XLR control line from the DMX outlet of the controller to the DMX input port of each light, and so on until all lights are connected, and then connect the loop plug to the signal outlet of the last light to complete the connection, as shown in the figure below:



When using any controller, each device must have its own address code. Therefore, when the address of the first light is set as 1 and the address code of the second light is set as 15/75, the address code of the first light is set as 1 plus 14/74 channels, and the third light is set as 29/149. And so on (this setting also needs to be determined according to different console, now only according to the general convention).

The specific DMX-512 signal control mode address code settings are as follows:

Light NO.	Start Address	Display (ON)
1	1	1
2	15/75	015/075
3	29/149	029/149
⋮	⋮	⋮

8.3 DMX-512Channel introduce:

This light has two channel modes 14/74CH (channel mode can be selected from console mode → channel mode setting), and the mode and description are as follows:

1. 14CH mode as following:

Channel	value	control content
CH1	0~255	Y axis Angle
CH2	0~255	Y fine adjustment
CH3	0~255	Y axis speed (only CH1/CH2)
CH4	0~255	Y motor macro (each 16 value is a macro, total 16 macro)
CH5	0~255	Y motor macro speed (only CH4)

CH6	0~255	Y motor Macro range (only CH4)
CH7	0~007	Lights OFF, but motor can work.
	007~255	Full function work
CH8	0~255	Red brightness 0-100%
CH9	0~255	Green brightness 0-100%
CH10	0~255	Blue brightness 0-100%
CH11	0~255	Strobe Slow to Fast
CH12	0~255	Lights macro (each 4 value is a macro, total 64 macro)
CH13	0~255	Lights macro speed (Slow to Fast)
CH14	0~240	No function
	241~255	Wait 5s, motor reset

2. 74CH mode as following:

Channel	value	control content
CH1	001~255	Y axis Angle (when CH1=0, Z motor can be controlled)
CH2	001-255	Y fine adjustment
CH3	001-255	Y axis speed (only CH1/CH2)
CH4	001-255	Y motor macro (each 16 value is a macro, total 16 macro)
CH5	001-255	Y motor macro speed (only CH4)
CH6	001-255	Y motor Macro range (only CH4)
CH7	000-007	Lights OFF, but motor can work.
	008-255	Full function work
CH8	000-255	Red brightness 0-100%
CH9	000-255	Green brightness 0-100%
CH10	000-255	Blue brightness 0-100%

CH11	000-255	Strobe Slow to Fast
CH12	001-255	Lights macro (each 4 value is a macro, total 64 macro)
CH13	001-255	Lights macro speed (Slow to Fast)
CH14	000-240	No function
	241-255	Wait 5s, motor reset
CH15	001-255	Z1 Angle selection
CH16	001-255	Z1 Angle fine adjustment
CH17	001-255	Lights 1R
CH18	001-255	Lights 1G
CH19	001-255	Lights 1B
CH20	001-255	Z2 Angle selection
CH21	001-255	Z2 Angle fine adjustment
CH22	001-255	Lights 2R
CH23	001-255	Lights 2G
CH24	001-255	Lights 2B
CH25	001-255	Z3 Angle selection
CH26	001-255	Z3 Angle fine adjustment
CH27	001-255	Lights 3R
CH28	001-255	Lights 3G
CH29	001-255	Lights 3B
CH30	001-255	Z4 Angle selection
CH31	001-255	Z4 Angle fine adjustment
CH32	001-255	Lights 4R
CH33	001-255	Lights 4G
CH34	001-255	Lights 4B

CH35	001-255	Z5 Angle selection
CH36	001-255	Z5 Angle fine adjustment
CH37	001-255	Lights 5R
CH38	001-255	Lights 5G
CH39	001-255	Lights 5B
CH40	001-255	Z6 Angle selection
CH41	001-255	Z6 Angle fine adjustment
CH42	001-255	Lights 6R
CH43	001-255	Lights 6G
CH44	001-255	Lights 6B
CH45	001-255	Z7 Angle selection
CH46	001-255	Z7 Angle fine adjustment
CH47	001-255	Lights 7R
CH48	001-255	Lights 7G
CH49	001-255	Lights 7B
CH50	001-255	Z8 Angle selection
CH51	001-255	Z8 Angle fine adjustment
CH52	001-255	Lights 8R
CH53	001-255	Lights 8G
CH54	001-255	Lights 8B
CH55	001-255	Z9 Angle selection
CH56	001-255	Z9 Angle fine adjustment
CH57	001-255	Lights 9R
CH58	001-255	Lights 9G
CH59	001-255	Lights 9B

CH60	001-255	Z10 Angle selection
CH61	001-255	Z10 Angle fine adjustment
CH62	001-255	Lights 10R
CH63	001-255	Lights 10G
CH64	001-255	Lights 10B
CH65	001-255	Z11 Angle selection
CH66	001-255	Z11 Angle fine adjustment
CH67	001-255	Lights 11R
CH68	001-255	Lights 11G
CH69	001-255	Lights 11B
CH70	001-255	Z12 Angle selection
CH71	001-255	Z12 Angle fine adjustment
CH72	001-255	Lights 12R
CH73	001-255	Lights 12G
CH74	001-255	Lights 12B

9. Maintenance

1. Maintenance should be performed every 15-day period, by using a sponge which is dipped with alcohol, rather than wet cloth or other chemical liquid, to clean the mirror. Always disconnect from the power when the device is not in use or before cleaning it.

2. Cooling fan cleaning: Use compressed air to clean the fan of the device. The fan position plays a vital role in the normal operation of the device. Please ensure the normal operation of the fan.

3. When the equipment is used frequently, the fan should be cleaned every 1 month, or in a dusty and oily environment, the number of cleanings should be increased. The actual operation should be implemented according to the application environment of the equipment to ensure the normal operation of the fan.

4. Internal optical cleaning: cleaning internal optical components requires professional authorized technicians to operate. Incorrect cleaning techniques or improper cleaning choices can cause serious damage to the equipment. Since the optical part and the rest of the light source system are separated and sealed, this operation should not be performed more than once a year.

10. Warning and Declaration

Do not look directly at the light source with your eyes when turning on the light. Before any installation and maintenance work, please make sure that the power has been cut off.



Electrical safety



Optical security

Product common breakdown comparative chart	
breakdown cause	Major breakdown analysis and solution
The light no emitting or no work	1. Check the power cable whether to connect the light,whether the fuse does burn out 2. Check the input voltage whether to assign the voltage match with the light. Check work order is normal reset or not.
No sound control	1.Check whether the keys on the display screen are set to the voice control mode according to the instructions. 2. If the sound sensitivity value is small, select a larger value.

The light can emit light normally and is not controlled by the controller	1.Check whether the start address code of the display screen of the light is set correctly. 2.Check whether the XLR signal is damaged.
Master-slave synchronization mode, the master is normal, and the slave is abnormal	1.Confirm that there is only one host, and the host is not connected to the DMX console, and set to voice control or auto-propelled mode. 2.There is still a problem with the correct master and slave settings, please check the online line.
Key failure, no work	1.Check whether any of the keys has not been reset normally.
The light is dim and the brightness is obviously reduced	1.Check whether the light source has reached the expiration date. 2.Check whether the internal and external optical system is clean.
If the fault cannot be eliminated according to the above method, please contact with dealer.	