5W Laser
User Manual

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TECHNICAL PARAMETERS

Light source

Rated voltage: AC110V / AC230V ± 10%

Rated frequency: 50 Hz ~ 60 Hz

Rated power: 150W

Laser power: 5W

Laser source: semiconductor laser generator

Controls

Control channel: 16 signal channels

Control signal: international standard signal of DMX-512, international standard signal of ILDA, voice control, self-propelled

Control mode: signal control, voice control, self-propelled and master-slave mode

Effect

Laser modulation signal: analog modulation signal

Laser color: full color

Laser pattern: 500 laser effect patterns

Construction

Scanning system: 15kpps galvanometer scanning system

Scanning angle of galvanometer: ± 60 degrees

Cooling system: fan forced cooling system

Working environment: Indoor

Thank you very much for purchasing the full-color animation series laser performance device. For your personal safety and better use of the product, please read this manual carefully and operate according to the procedures, so as to avoid personal safety and lamp damage caused by misuse.

● **Packing list**：

Please check whether there are the following items when you open the packing box of the laser show：

·····A set of full color animation laser performance machine
·····A power line for full color animation laser performance
·····A full color ani.mation laser performance manual

● **Introduction of product and function effect**：

The light laser generator which meets the international standard for laser generator.   source of full color animation series laser performance adopts semiconductor The laser source has long service life and high stability

Effect features: built in 500 latest laser performance effect patterns, with space effect, projection effect, laser dimming effect, laser stroboscopic effect, space-time shuttle effect, 3D laser effect and other latest laser performance effects.

Classic effects: three dimensional laser effects, such as beam optical network, vast sea of clouds, light, rotation, zooming in and out, time and space tunnel, etc.

1

instructions：

      After opening the packing box, carefully check whether the laser performer is damaged due to transportation, such as whether the screw is loose, whether the reflector is broken, etc. After checking that everything is normal, select the right position, hang the lamp, adjust the angle, and connect the power supply and ground wire before power on.

This equipment belongs to class 1 protection equipment, so the yellow green conductor must be grounded

      New functions: when the second channel is less than 128, the second channel is normal self-propelled and voice control; when the second channel is more than 128, the third channel selects the effect, the fourth channel controls the color, and the fifth channel controls the speed.

Welcome to LaserSystem2.9 software

LED digital display panel

MENU ⬤ | LED DISPLAY | ⬤ UP

ENTER ⬤   ⬤ D OWN

Use touch buttons and digital tube menu display function

Select functions through the MENU button.

Confirm the function menu and save the function parameters by pressing the ENTER button.

Use the UP and DOWN buttons to select the addition or subtraction of functional parameters.

The LED menu functions are shown in the following table:

First level menu	Secondary Menu	Third level menu
1、A001 　DMX-512 mode	A001-A512 Address code	
2、CH16 　Channel Mode	Display the number of channels	
3、AUt0 　Self driving mode	Aut0:　　　Play all lists Aut1-Aut-15 Select Playlist The quantity depends on the download decision	
4、SP50 　Self driving speed setting	SP00-SP99 Self driving speed from slow to fast	
5、PAll 　Single Choice Program	PAll：List all programs P001-P255:Manually select list programs	
6、SoU0 　Audio Mode	SoU0:　　　Play all lists SoU1-SoU　　Select Playlist The quantity depends on the download decision	
7、80DB 　Voice sensitivity setting	00DB-99DB Sensitivity from low to high	
Press and hold the ENTER key to enter the testing menu, and press and hold the ENTER key to exit the testing menu		
TEST MENU	tESt	Select test images 1, 2, 3, and 4
	XY inversion and XY permutation settings	PHn1: normal　　　　　　　(XY non permutation)

2

			PHn2：Inverse Y (XY non permutation) PHn3：Inverse XY (XY non permutation) PHn4：Inverse X (XY non permutation) PHc1：normal (XY permutation) PHc2：Inverse Y (XY permutation) PHc3：Inverse XY (XY permutation) PHc4：Inverse X (XY permutation)
	H100 X direction size setting		H010-H100 From small to large in the X direction
	y100 Y-direction size setting		y010-y100 Y direction from small to large
	S100 XY direction size setting		S010-S100 XY direction from small to large
	SC15 Scanning speed setting		SC10-SC30 Scanning speed from slow to fast
	Co11 color setting		Co01-Co07: monochrome Co08:RGY Co09:RBP Co10:GBC Co11:RGB Co12:WYPC
	Beon/BeoF Security Protection Settings		Beon Security protection enabled BeoF Security protection turned off
	DEFA Restore Default		Yes It is to restore default settings No Do you want to restore default settings
	1921 VERSION		

DMX-512 Channel description：

1. STD mode: 16CH

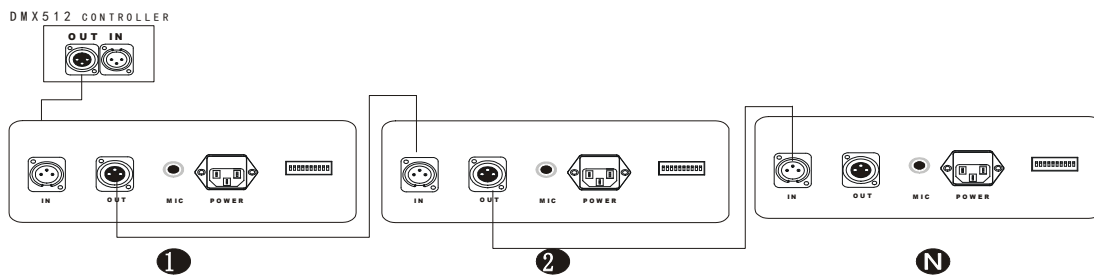|	Channel	Channel value	Control instructions
CH1	Switching lights	0	Turn off the lights
		1～255	Turn on the lights 1-100% brightness selection
CH2	Auto effect speed selection	0～26	Default Auto speed
		27～127	The overall speed of the Auto effect changes from slow to fast. Note that static patterns require a variation effect to see the speed adjustment effect
	Sensitivity selection for voice control	128～255	Select voice sensitivity
CH3	Pattern group	0～127	Select a pattern group for every 16 values
	Effects Group	128～255	Select an effect group for every 16 values
CH4	Pattern selection	0～255	Choose a pattern for every 5 values
	Effect selection	0～1	Play all selected effect groups
		2～255	Choose an effect for every 2 values
CH5	colour	0~3	0 white light, 1-3 pattern original colors

3

		4~31	Fixed color selection, choose one every 4 values
		32～35	Colorful color changing effect
		36～39	Red, green, and blue color changing effect
		40～43	Original color change effect
		44～239	Multiple flow effects, choose one every 4 values
		240～255	Gradual drawing effect
CH6	Color speed	0~3	Color speed off
		4~127	Color speed changes from slow to fast, positive phase
		128~255	Color speed changes from slow to fast, reversed
CH7	Pattern line	0～63	Highlight line scanning speed selection
		64～127	Line scanning speed selection
	Pattern Points	128～255	Point scanning speed selection
CH8	Pattern Size	0～255	Pattern selection from large to small
CH9	Rotate Z	1～127	Rotation Z angle selection
		128～255	Rotation Z speed selection
CH10	Rotate X	1～127	Rotation X angle selection
		128～255	Rotation X speed selection
CH11	Rotate Y	1～127	Rotation Y angle selection
		128～255	Rotation Y speed selection
CH12	horizontal movement	1～127	Horizontal movement position selection
		128～255	Horizontal movement speed selection
CH13	vertical movement	1～127	Vertical movement position selection
		128～255	Vertical movement speed selection
CH14	Zoom	1～127	Scaling size selection
		128～255	Zoom speed selection
CH15	Gradual drawing	1～255	Gradual drawing speed selection
CH16	X waves	1～127	X Wave Speed Selection
	Y waves	128～255	Y Wave Speed Selection

PRO Mode: **36CH**

	Channel	Channel value	Control instructions
CH1	Switching lights	0	Turn off the lights
		1～255	Turn on the lights 1-100% brightness selection
CH2	Auto effect speed selection	0～26	Default Auto speed
		27～127	The overall speed of the Auto effect changes from slow to fast. Note that static patterns require a variation effect to see the speed adjustment effect
	Sensitivity selection for voice control	128～255	Select voice sensitivity
CH3	Pattern group	0～127	Select a pattern group for every 16 values
	Effects Group	128～255	Select an effect group for every 16 values
CH4	Pattern selection	0～255	Choose a pattern for every 5 values
	Effect selection	0～1	Play all selected effect groups
		2～255	Choose an effect for every 2 values
CH5	Pattern Size	0～255	Pattern selection from large to small
CH6	Horizontal Position MSB	0～255	Horizontal position MSB selection, with a value of 128 indicating the middle position and closed light outside the boundary
CH7	Vertical Position	0～255	Vertical position MSB selection, with a value of 128 indicating the

4

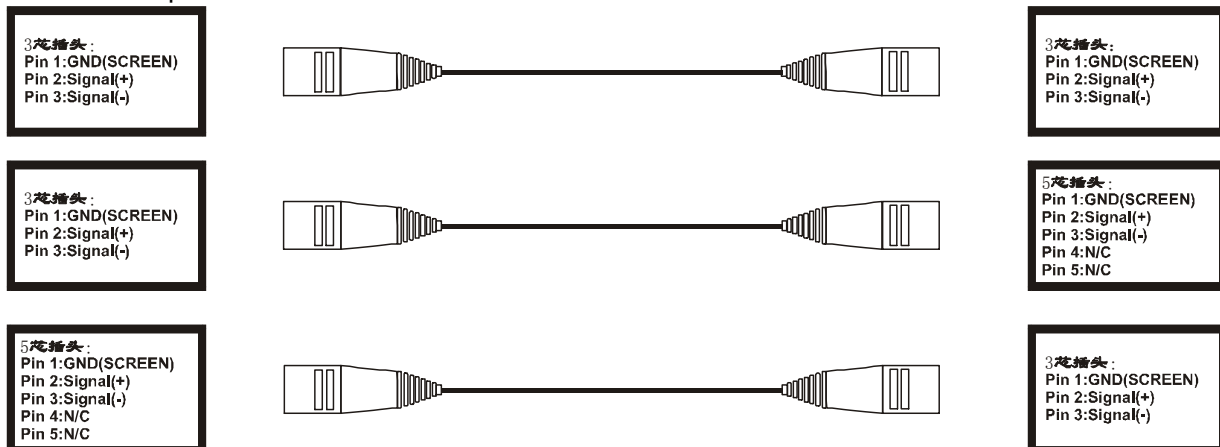|			
	MSB		middle position and closed light outside the boundary
CH8	colour	0~3	0 white light, 1-3 pattern original colors
		4~31	Fixed color selection, choose one every 4 values
		32~35	Colorful color changing effect
		36~39	Red, green, and blue color changing effect
		40~43	Original color change effect
		44~239	Multiple flow effects, choose one every 4 values
		240~255	Gradual drawing effect
CH9	Color speed	0~3	Color speed off
		4~127	Color speed changes from slow to fast, positive phase
		128~255	Color speed changes from slow to fast, reversed
CH10	Pattern line	0~63	Highlight line scanning speed selection
		64~127	Line scanning speed selection
	Pattern Points	128~255	Point scanning speed selection
CH11	strobe	1~255	Strobe speed selection
CH12	Rotate Z	1~127	Rotation Z angle selection
		128~255	Rotation Z speed selection
CH13	Rotate X	1~127	Rotation X angle selection
		128~255	Rotation X speed selection
CH14	Rotate Y	1~127	Rotation Y angle selection
		128~255	Rotation Y speed selection
CH15	horizontal movement	1~127	Horizontal movement position selection
		128~255	Horizontal movement speed selection
CH16	vertical movement	1~127	Vertical movement position selection
		128~255	Vertical movement speed selection
CH17	Zoom	1~127	Scaling size selection
		128~255	Zoom speed selection
CH18	Gradual drawing	1~255	Gradual drawing speed selection
CH19	X waves	1~127	X Wave Speed Selection
	Y waves	128~255	Y Wave Speed Selection
CH20	Pattern group	0~255	Select a pattern group for every 16 values
CH21	pattern	0~255	Choose a pattern for every 5 values
CH22	Pattern Size	0~255	Pattern selection from large to small
CH23	Horizontal Position MSB	0~255	Horizontal position MSB selection, with a value of 128 indicating the middle position and closed light outside the boundary
CH24	Vertical Position MSB	0~255	Vertical position MSB selection, with a value of 128 indicating the middle position and closed light outside the boundary
CH25	colour	0~3	0 white light, 1-3 pattern original colors
		4~31	Fixed color selection, choose one every 4 values
		32~35	Colorful color changing effect
		36~39	Red, green, and blue color changing effect
		40~43	Original color change effect
		44~239	Multiple flow effects, choose one every 4 values
		240~255	Gradual drawing effect
CH26	Color speed	0~3	Color speed off
		4~127	Color speed changes from slow to fast, positive phase
		128~255	Color speed changes from slow to fast, reversed
CH27	Pattern line	0~63	Highlight line scanning speed selection
		64~127	Line scanning speed selection
	Pattern Points	128~255	Point scanning speed selection
CH28	strobe	1~255	Strobe speed selection
CH29	Rotate Z	1~127	Rotation Z angle selection

		128～255	Rotation Z speed selection
CH30	Rotate X	1～127	Rotation X angle selection
		128～255	Rotation X speed selection
CH31	Rotate Y	1～127	Rotation Y angle selection
		128～255	Rotation Y speed selection
CH32	horizontal movement	1～127	Horizontal movement position selection
		128～255	Horizontal movement speed selection
CH33	vertical movement	1～127	Vertical movement position selection
		128～255	Vertical movement speed selection
CH34	Zoom	1～127	Scaling size selection
		128～255	Zoom speed selection
CH35	Gradual drawing	1～255	Gradual drawing speed selection
CH36	X waves	1～127	X Wave Speed Selection
	Y waves	128～255	Y Wave Speed Selection

If 5-core XLR socket (head) is used in your signal console, you must use a conversion line from 5-core to 3-core. The specific conversion method is as follows:

When the control signal of the console is input to the seven color animated laser performers, all the seven color animated laser performers must first set the address code. So that the corresponding control signal works. In this way, when using any controller, each lamp must have its own address code. Therefore, when the address of the first lamp is set to 1, the address code of the second lamp is set to 23 (address code 1 of the first lamp plus 22 channels), and the third lamp is set to 55. And so on (this setting method also needs to be determined according to different console, now only according to the general rules). The specific setting of the address code switch of the signal control mode of the DMX-512 is shown in the figure below：

Light signal	Starting address	Binary dialing（ON）
1	1	1
2	23	1、2、3、5
3	55	1、2、3、5、6
⋮	⋮	⋮

How to use ILDA interface control function mode:

When the standard ILDA interface signal line is connected, it will automatically switch to ILDA interface control mode.

Note: first disconnect the power supply, and then plug in the signal line of ILDA interface to avoid damaging the lamp.

Notes on master slave synchronization function：

1. When the lamp is the host, the lamp will send DMX-512 signal, and cannot be connected to the DMX-512 console at this time, otherwise it will interfere with each other and cannot run synchronously.

2. Multiple lamps are operated simultaneously, only one is the main unit and the other is slave. Otherwise, it cannot be run synchronously.

The master-slave synchronous connection diagram is as follows：

●Safety instructions：

！ Before the installation and maintenance of the lamp, please make sure that the power supply of the lamp body is disconnected.

！ Please make sure that the fan mouth of the lamp is unblocked and the surrounding environment is well ventilated. Do not use this product in humid environment for a long time.

！ When the lamp is used indoors or maintained, please prevent the lamp from contacting with water drops. If it is used outdoors, please take sufficient waterproof measures.

！ Installation, operation and maintenance personnel must be familiar with the performance of the lamp before they start to operate, otherwise the lamp will be damaged.

！ Please do not use other different specifications of power supply voltage and laser generator.

！ Do not look directly at the laser source to avoid eye injury.

！ Do not use this product with shaking.

●maintain：

1. Try to prevent dust, dirt and smoke oil from artificially laying or even flowing into the lamp body, and try to keep the grating effect series of laser performers clean;

2. Please use professional glass cleaning agent regularly every month and clean the reflector with flannelette, so as to ensure the maximum brightness output of the laser and prolong the service life of the light source

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.