

1. General instructions

Thank you for purchasing this product. Please read user guide for safety and operations information before using the product for better use and safety operation. Keep this manual for future reference. This product can create perfect laser programs and effects since it has passed a series of strictly tests before delivery.

Please handle with care after receiving the unit and check the attachments listed on the page after opening the carton. In the event of carton damage or attachment missing in transit, please contact your dealer or our after sales service department.

Attachments:

1. Laser Light 1PCS 2. Power Cable 1PCS 3. User Guide 1PCS

2. Notice:

1. Do not exposure the human eye direct to laser beam.
2. Do not turn on and off the unit frequently.
3. Before using this unit makes sure the power supply is ground.
4. This unit is intended for indoor use only and should be prevented form water, moisture and shake. The working temperature of this unit is 18~30℃, do not use this continuously over 4 hours, otherwise it shortens the lifetime of the unit.
5. Use cleaning tissue to remove the dust absorbed on the external lenses periodically to optimize light output.
6. Do not remove or break the warranty label, otherwise it void the warranty.
7. Always replace with the exact same type fuse, replacement with anything other than the specified fuse can cause fire or electric shock and damage your unit, and will void your manufactures warranty.



This product installation operation and maintenance should be by professionalism.



Warning! Do not exposure the human eye direct to laser beam.

3. Installation

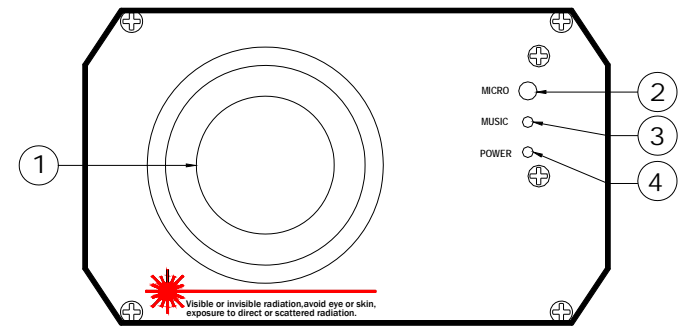
1. Before installation, please make sure power voltage is proper as the one marked on the unit.
2. This product should be installed by professional to make sure it is fixed safely and have adjusted suitable shining

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angel.

- When installing this unit, please make sure there is nothing flammable or explosive 0.5 meter near the unit. Make sure there is 15 mm distance between the unit and the wall. Please make sure to use safety rope which can support tenfold weight of the unit to assist fitting.

4. Front Panel



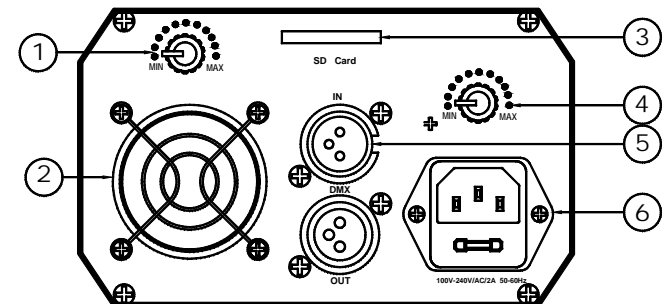
1. Laser Aperture

2. Power Indicator

3. Sound Active Indicator

4. Sound Active Microphone

5. Rear Panel



1 Pattern Size Knob

2 Fan

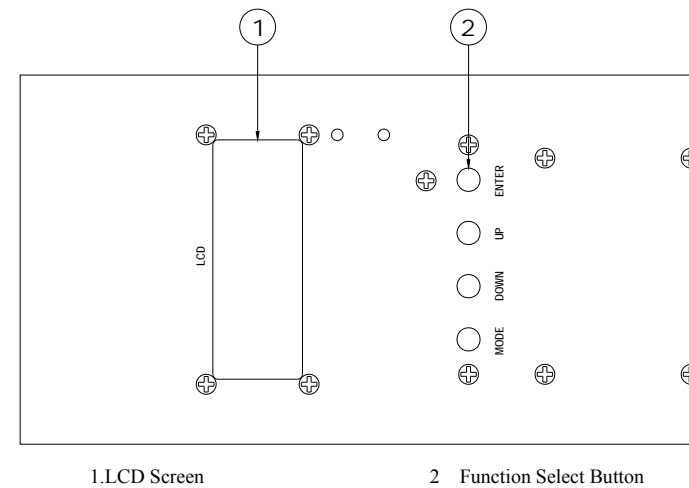
3 SD Card

4 Sound Active Knob

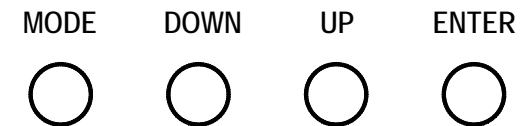
5 DMX Connector

6 Power supply

6. Top Panel



7. Function Setting



MODE : Press to change the work mode.

DOWN and UP: Change the working file During ILD and PRG mode.

Change the speed of rhythms During the Sound mode.

ENTER: Change the working file folder During ILD and PRG mode.

Press more than 1 second to save now state. Like mode, file, file folder, rhythms speed of Sound .When the machine is reopen, the state is the saved one.

PHASIC SET: you can change the direction of the output pattern by using UP or DOWN button when the LCD is on X or Y position, then use ENTER button to confirm.

Working mode:

1. Prg mode: UP or DOWN button to choose program list. ENTER button to change the file folder in the SD

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- card.
- 2. ILDA MODE: UP or DOWN button to choose ild file. ENTER button to change the file folder in the SD card.
- 3. Audio Mode: Laser beam changed with the rhythm of music. Press UP or DOWN to adjust the speed of rhythms.
- 4. Auto Mode: Show the program in the project .it can work without SD Card.
- 5. Dmx Mode: DMX mode: use UP and DOWN button to set the address of the project. then you can control the project by using the DMX control(DMX line should be connected first)

8. Edit the program:

After you have made a new ild files .you can add the ild files to the SD card.

The system only support FAT32 format .so if you use a new SD card, you must format it to FAT32.

The system only support short file name .the long of the ild or prg file name must least than 8. and must be number \ , letter and _

The total file folder in the SD card is not more than 100. And each folder must be least at 255 files.

You can use windows note book to edit the program list. The extension must be prg, and the name of the prg file must same as the file folder. The program list is contains file name, show speed, show repeat times. And use, in each of it. For example .you want show three ild File file1.ild file2.ild and file2.ild .file1 at 10K speed ,repeat 3 times .file2 at 20K speed ,repeat 5 times file3 at 15K speed ,repeat 2 times.

The file is under **show** file folder.

So the name of the program list is **show.prg**

The file contained in show.prg is below:

file1.ild, 10, 3

file2.ild, 20, 5

file3.ild, 15, 2

You can add more ild files in the prg file, but be sure it least than 255.

If you want more prg file, you can copy and rename the old one in SD card, Then Edit it.

9. DMX Control

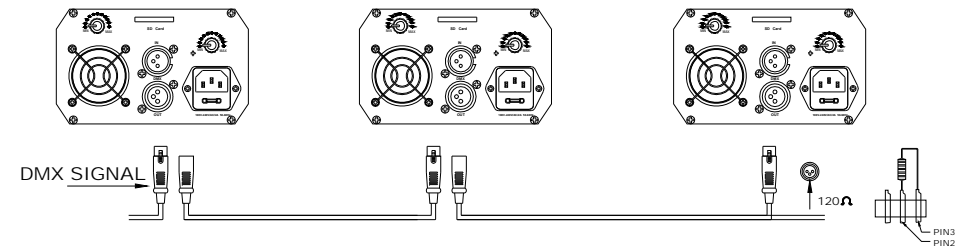
Channel		DMX512 Value	Description	
1	Mode	1:0~73	No laser	
		2:34~110	PRG mode	
		3:111~147	ILD mode	
		4:147~184	Sound active mode	
		5:185~221	Auto active mode	
		6:222~255	Hand control	
2	Pattern select File folder select	0~255	Pattern select , two number allot one pattern(mode 6) File folder select(mode 2 and 3)	
3	Flickering (mode 6)	0~10	No flickering	Show file select (mode 2 and 3)
	Show file select	11~199	Auto active flickering	
		200~255	Sound active flickering	
4	Horizontal Moving	0~125	Hand control horizontal moving	
		126~185	Auto cycle from left to right	
		186~225	Auto jump from left to right	
		226~245	Auto jump	
		246~255	Sound control jump	
5	Vertical Moving	0~125	Hand control Vertical moving	
		126~185	Auto cycle from top to bottom	
		186~225	Auto jump from top to bottom	
		226~245	Auto jump	
		246~255	Sound control jump	
6	Scale	0~10	No scale	
		11~100	Hand control size	
		101~150	Small to big	
		151~200	Big to small	
		201~255	recycle small and big	
7	X-axis Rotation	0~10	No rotation	

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		11~110	Hand control rotation
		111~255	Auto rotation
8	Y-axis Rotation	0~10	No rotation
		11~110	Hand control rotation
		111~255	Auto rotation
9	Z-axis Rotation	0	No rotation
		1~180	Hand control rotation
		181~217	Auto clockwise rotation
		218~255	Auto counterclockwise rotation
10	Draw gradually	0~74	Hand control
		75~104	Auto gradually(add)
		105~144	Auto gradually(sub)
		145~184	Auto gradually recycle
		185~224	Auto gradually recycle(add)
		225~255	Auto gradually recycle(sub)
11	wave	0~10	no wave
		10~199	Wave speed
		200~255	Wave amplitude

10. DMX Control Connection

The System only accepts the DMX512 signal of international standard to control the system mode, the laser beam ON/OFF, running direction, running speed and twinkle speed etc.



11. Technical Parameter

Item \ Spec	SD-200
Laser Light	Green; Red
Laser Power	Green: 60mW , Red: 150 mW
Dimension	210*145*85mm
Net Weight	2.0 kg
Scan System	High speed XY Scanner Module (scan speed 15kpps; scan angle $\pm 30^\circ$; input signal $\pm 5v$; linearity distortion $<2\%$)
System Port	DMX512 input and output port
Control Mode	Sound Active, Automatic, DMX512(12 channels), SD card support
Demo Effect	Blanking, rotating, zoom, retro flexion, moving, strobe, 3D etc, used for words, Cartoon, and beam show and laser advertisement.
Work Environment	10-35°C Indoor
Power Supply	AC100/240V 50-60Hz 30W
Work Place	Disco, KTV, Bars, Clubs, Family party, Opera House Advertisement etc.

12. Troubleshooting

- In Stand-Alone operation, if the power supply indicator is light up and sound active indicator isn't light up, but the laser is shut off doesn't work, Please check if unit has been set up in slave mode, then set up in master mode.
- In Master-Slave operation, slave unit don't function, please check as below.
 - Make sure to there's only one master in the chain, and the others are set in slave mode.
 - Make sure to control the unit without DMX console controlling.
 - Make sure to take a good quality power cable and connection.
- In DMX mode operation, the laser is OFF and the DMX signal indicator is unlighted, please check as below
Make sure to set up the DMX mode, make sure to have a good connection.
- In DMX operation, the unit can't be controlled by the DMX console, but the DMX signal indicator is flashing, please make sure the DMX console and unit have the same channel.
- If the unit is fail, please turn off the unit, and then turn on again after 5 minutes.

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- After trying the above solution you still have a problem, please contact your dealer or our company for service.

Trouble manifestation	Trouble shooting
If the power supply indicator doesn't light up and laser doesn't work	Please check the power supply and the input voltage
If the sound active indicator isn't light up with music active	Please increase the music volume or audio sensitivity with sensitivity knob
In Automatic mode operation, if power supply indicator is light up, but laser light is not light up	Please check if any trouble with laser machinery
If the laser beam is at rest in working mode	Product problem
After trying the above solution you still have a problem, please contact your dealer or our company for service	