Instruction Manual
3000mw RGB Laser

ITEM NO.:

☐MY LITE X3 ILDA (only back panel different: ILDA port only)

☐MY LITE X3 SD (only back panel different: ILDA input & SD card player & DMX-512)

☐MY LITE X3 FB (only back panel different: ILDA input & Pangolin FB4 & DMX-512)

> **This product manual contains important information about the safe installation and use of this product. Please read and follow these instruction carefully and keep this manual in a safe place for future reference.**

Update: 2019.04.18

Legal notice

Thank you for purchasing this product.

Due to continual product developments and technical improvements the manufacturer reserve the right to make modifications to its products.
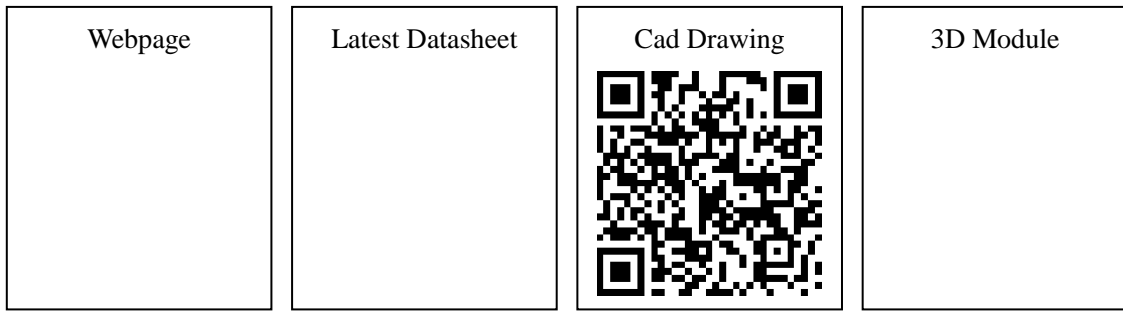
This manual and its content have been made with due care but the manufacturer cannot however, take any responsibility for any errors, omissions or any resulting damages forthwith.

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## Safety warning

- When unpacking and before disposing of the carton, check if there is any transportation damage before using the product. Should there be any damage caused by transportation, consult your dealer and do not use the apparatus.
- This equipment is not waterproof, keep it from rain, moisture and liquids.
- Do not install the product or project the beam onto inflammable surfaces. Minimum distance is 5 M ⃝ 5M ∮
- The product is only intended for installation, operation and maintenance by qualified personnel.
- Product should install in a cool place. Keep away from the wall 50cm
- Avoid direct exposure to the light from the lamp. The light is harmful to eyes.
- Keep the optical system clean. Do not touch the laser reflect lens with bare hands. Do not use any alcohol liquid or any other liquid to clean the optical system. Use medicinal absorbent cotton to clean it.
- Please do not attempt to dismantle and/or modify the product inner structure. Otherwise, would not provide 1 year of free warranty.
- Electrical connection must only be carried out by qualified personnel.
- Before installation, ensure that the voltage and frequency of power supply match the power requirement of the product.
- It is essential that each product is correctly earthed and that electrical installation conforms to all relevant standards.
- Do not connect this device to any other types of dimmer apparatus.
- Make sure that the power-cord is never crimped or damaged by sharp edges. Never let the power-cord come into contact with other cables. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord
- There is no user serviceable parts inside the product, do not open the housing and never operate the product with the cover removed.

If you have any questions, don't hesitate to consult our dealer or manufacturer.
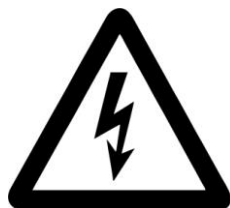
Product technical parameters

Voltage: AC90~240V 50~60HZ±10% (Mean Well PSU EPP-400-24)

Power consumption: 400W

Laser source: Semi-conductor laser diode.

Laser power /wavelength:

R680mw 637nm, **G1,000mw 520nm**, **B1,600mw 445nm**

Colors: Full color

Laser diode life span: ≥10,000hours

Laser beam diameter: 3.5X4.5mm

Laser beam divergence: ＜0.8mrad

Laser diode modulation: 0-5V analogue modulation signal, up to 100kHz TTL

Scanner system: DT-30 Scanner, ILDA Standard 30Kpps@8°Max.60Deg.

Scanning angle: ±30 degrees

DMX Channel:

- MY LITE X3 ILDA version without DMX-512 Control
- MY LITE X3 SD version 3 modes of channels(13CH/14CH/25CH)
- MY LITE X3 FB version using Pangolin FB4 Controller, please check more information in http://www.pangolin.com

Control signal: DMX-512 or ILDA (MY LITE X3 ILDA version without DMX-512)

Control mode:

- MY LITE X3 ILDA version: ILDA, Back Panel
- MY LITE X3 SD version: Sound-activated, Stand-Alone, master-slave, DMX-512, ILDA, SD-card display, Back Panel
- MY LITE X3 FB version: Stand-Alone, DMX-512, Art-Net, Pangolin Beyond or Quick show, ILDA, Back Panel
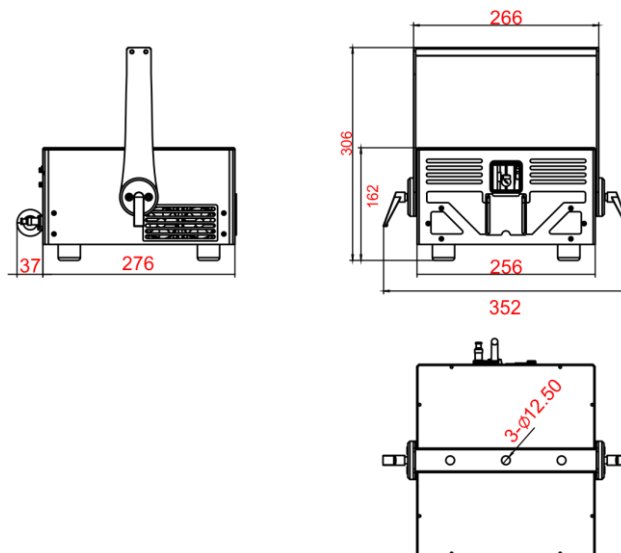
Cooling system: fan

Operation environment: Indoor

Operation temperature: 10°C~35°C

Size: 352x389x306mm

N.W.: 8.9kg

Housing Color: Black

Product packing list

These items are packed together with the lighting fixture. Upon unpack, please check：

Name	quantity	Unit	Note
Laser projector	1	set	
Power cable	1	pc	
Bracket(Hanger)	1	pc	
Hanger screw	2	pcs	
Product manual	1	pc	

Power Connections Method

Please connect power as following ：

L(live wire)=brown wire

E(earth wire)=yellow/green double color wire

N(null line)=blue wire

When connecting, ensure that the voltage and frequency of power supply match the power requirement of the product.

This product is Class 1 protection equipment. The yellow-green double colors wire must be earthed by qualified personnel. Before installation, ensure that the voltage and frequency of power supply match the power requirements of product. In power supply and voltage fluctuation large areas, we suggest you to use 110V or 220V or use voltage regulator to supply power. After electrical connection, this product will have a few seconds self-check action, self-check finished can be used. Important: It is essential that Yellow/green double color wire is correctly earthed and that electrical installation conforms to all relevant standards

Back panel ILDA version(MY LITE X3 SD version only)
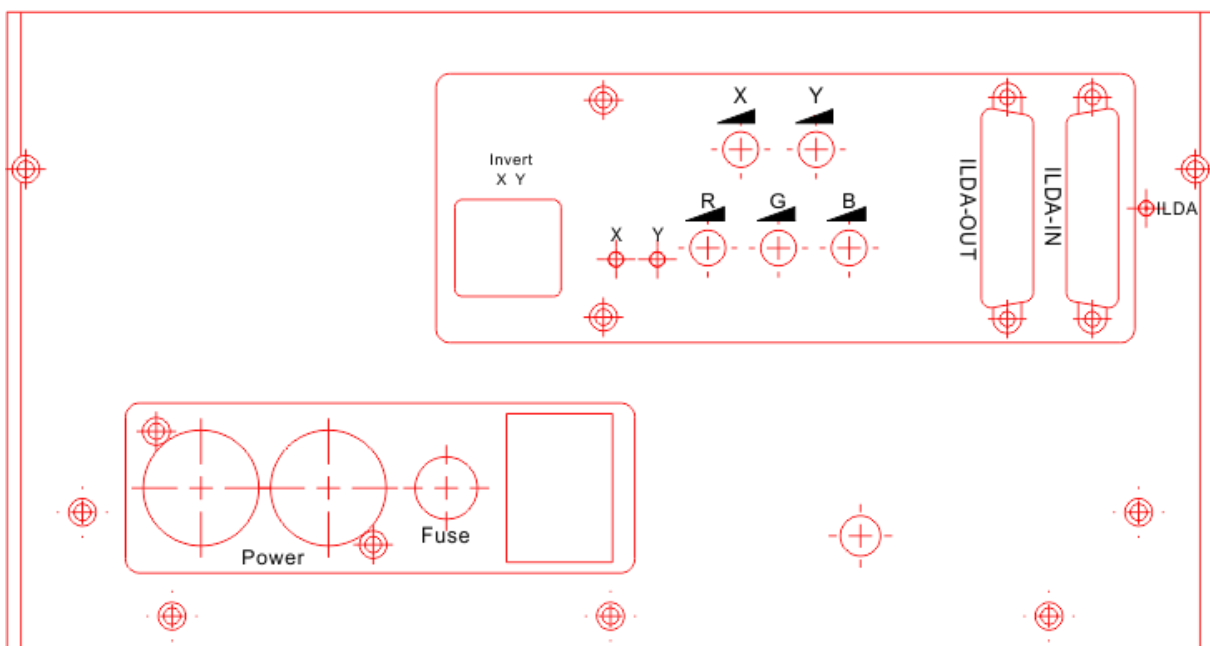
1. Invert X/Y: Pattern's X/Y axis mirror switch
2. Inver X/Y state.
3. X/Y Size adjusts.
4. R/G/B Brightness adjusts.
5. ILDA IN/ILDA OUT: ILDA signal connectors
6. ILDA state: When the ILDA connector was connected, this LED will ON.
7. Power-Con in & out.
8. Fuse: 220V/3A

Back panel SD version(MY LITE X3 SD version only)
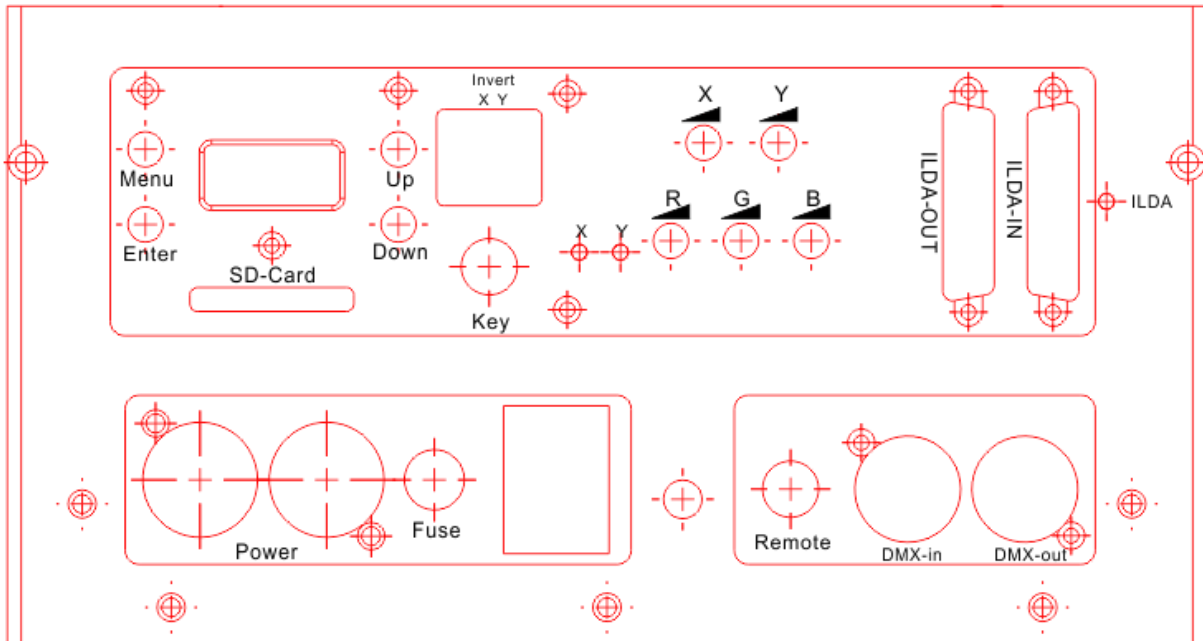
1. Menu Key: to return back to previous menu.
2. ENTER Key: to confirm the function you choose
3. UP/DOWN Key: to go up or down the menu
4. Invert X/Y: X/Y axis switch
5. Safety key: Turn ON/OFF the laser diode.
6. Inver X/Y state.
7. X/Y Size adjusts.
8. R/G/B Brightness adjusts.
9. ILDA IN/ILDA OUT: ILDA signal connectors
10. ILDA state: When the ILDA connector was connected, this LED will ON.
11. Power-Con in & out.
12. Fuse: 220V/3A
13. REMOTE: emergency-stop button connector
14. DMX-512 IN/DMX-512 OUT: DMX-512 signal connectors with 3pins XLR

Back panel FB version(MY LITE X3 FB version only)
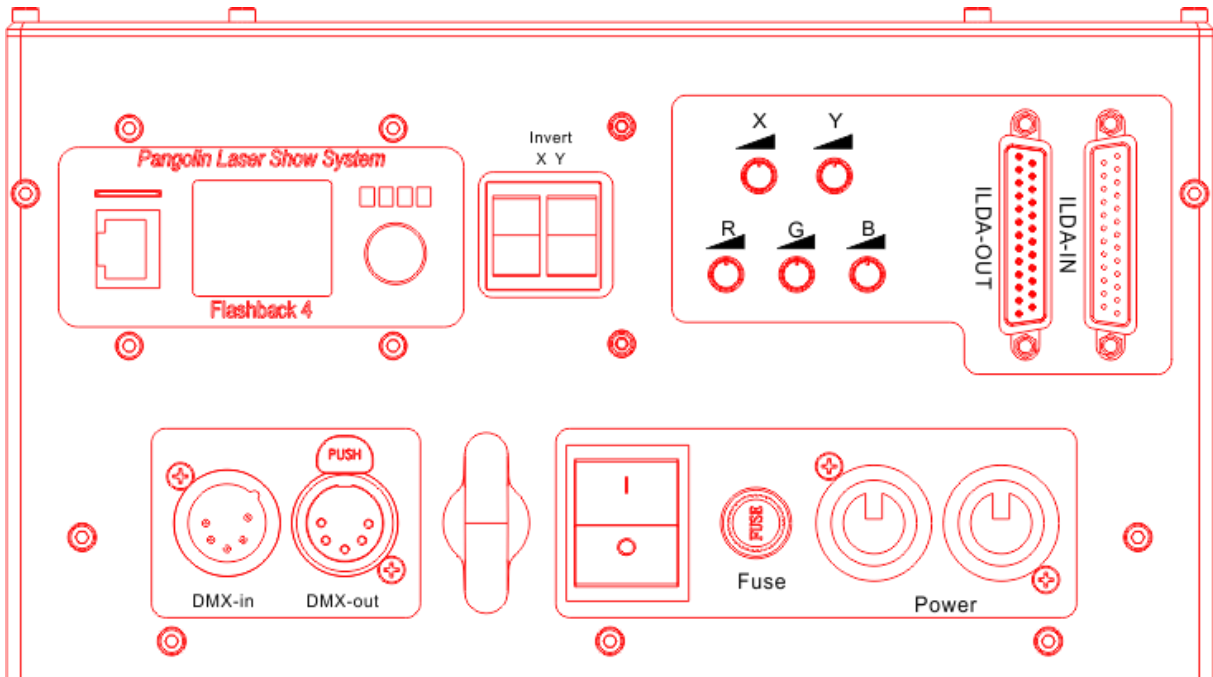
1. Pangolin FB4 Panel.
2. Invert X/Y: Pattern's X/Y axis mirror switch
3. X/Y Size adjusts.
4. R/G/B Brightness adjusts.
5. ILDA IN/ILDA OUT: ILDA signal connectors.
6. DMX-512 IN/DMX-512 OUT: DMX-512 signal connectors with 3pins XLR
7. Fuse: 220V/3A
8. Power-Con in & out.

Lighting Fixture's DMX and IP function set-up method

(MY LITE X3 SD & MY LITE X3 FB version only)
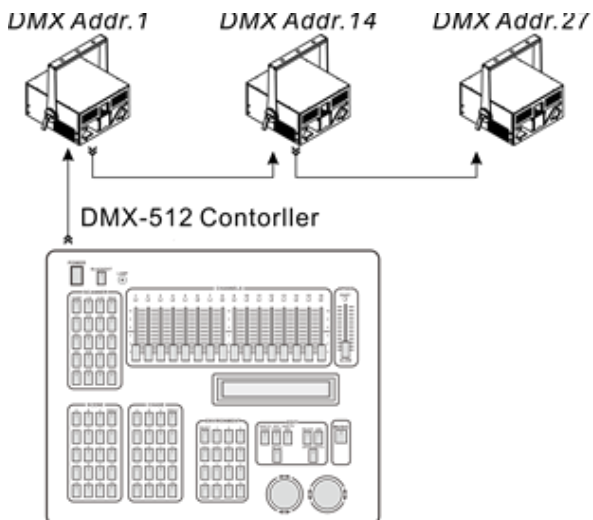
When using DMX-512 Controller to control several pieces lighting fixtures, each lighting fixture must be given a DMX start address so that the correct lighting can respond to correct signals. If we

choose 13CH mode DMX-512 control Channels, then we set the No.1 lighting DMX start address as 001,No.2 lighting address as 014,No.3 lighting address as 027,No.4 lighting address as 040,and so on.

DMX Connection method

DMX control signal connection must be made with a two core-screened cable, with each core having at least a 0.5mm diameter. Please use the product's signal cable OUT and IN as connection. The signal OUT and IN cables connection shown as above picture.
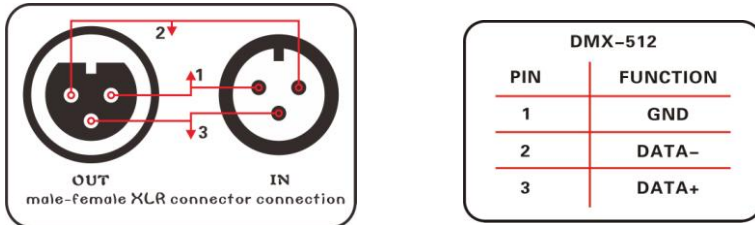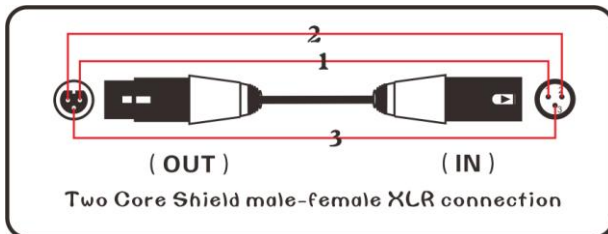
Note: Please do not connect the signal cable OUT and IN in other way except above shown.

This product accepts digital control signals in protocol DMX512(1990).The amount of lighting fixtures connected in parallel is no more than 32.Connect the DMX controller's **Output** to the first lighting fixture's **Input** cable with a 2 core XLR signal cable(Shown as above),connect the first lighting fixture's **Output** cable to the second lighting fixture's **Input cable** and connect the rest light fixtures in the same way. Eventually, connect the last lighting fixture's Output cable to a DMX terminator

Under DMX-512 signal control mode, the last lighting fixture's DMX Output must be connected with a DMX terminator. This prevents electrical noise from disturbing and corrupting the DMX control signals. The DMX terminator is simply an XLR connector with a 120Ω(ohm) resistor connected across pins 2 and 3,which is then plugged into the output socket on the last projector in the chain. Then connections are illustrated above.

LCD menu(MY LITE X3 SD version only)

| Level 1 menu	Level 2 menu	Level 3 menu	Functions
DMX-512	Address / 001~512		Set DMX DIP code
Iplay Build-in display mode	Show	Show~001	Choose the performance effects
	Music	OFF / ON	Sound-active function

SDplay	Play	001 ild	SD-card display mode functions
		FileName	
	List	001 eff	
		ListName	
	Mode	PlayOne	
		PlayAll	
	Music	OFF / ON	
Testing	Scan	Scan 30KPPS	Scanner speed setting
	Color	Single1-7 RGY RBP GBA RGB 6WYAP	Color setting
Setting	Light	ON / ON 5S	Background light of the LCD setting
	OneBeam	OFF / ON	One point laser safety setting
	Master	OFF / ON	Master laser setting
	Channel	13CH / 25CH	Channel mode setting
	TTLMode	OFF / ON	Change the modulation to TTL or not
Default	Yes / No		Restitution

SD-Card files manufacturing process

Prepare the SD-Card files(MY LITE X3 SD version only)

Create a new PESLASER folder in the SD card root directory, go to the PESLASER folder and create three new folders as following(ddrfiles / ildfiles/ playlist)
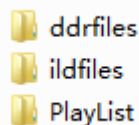
1, Ddrfiles folder stores DDR files and DDR files are generated by IHSOW software.   Remark: The folder cannot be in Chinese, the length of the file cannot be greater than 8, the reference is as follows:
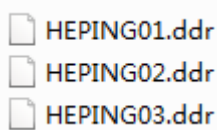
Remark: Storage of DDR files can also create a new folder, but the folder cannot be in Chinese, and

the length of the file cannot be greater than 8, the reference is as follows, create a new "ddrloves" folder to store new DDR files:

```
ddrfiles
ddrloves
ildfiles
PlayList
```

2, The ildfiles folder holds the standard files, the file name cannot be used in Chinese, the file length cannot be greater than 8, the reference is as follows

```
laser001.ild
laser002.ild
laser003.ild
```
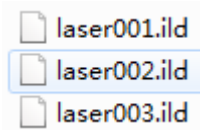
Remark: Storage of ILD files can also create a new folder, but the folder cannot be in Chinese, and the length of the file cannot be greater than 8, the reference is as follows, create a new "ildloves" folder to store new ILD files:

```
ddrfiles
ddrloves
ildfiles
ildloves
PlayList
```

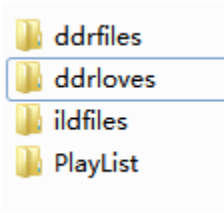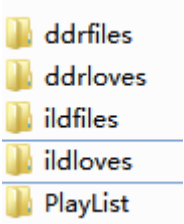**3,** The PlayList folder contains the effects file- "eff" file, the list file- "pla" file, which can be opened in notepad and read as follows.

```
EFFEC000.eff
EFFEC001.eff
PlayList.pla
```
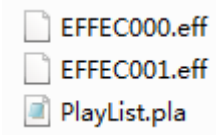
SD-Card effects programming:

1, First of all, you should put the newly designed files and DDR files into ddrfiles and ildfiles of SD card

2, To duplicate an effect file, EFFEC000. Eff, rename to loves001. Eff, open with notepad, as follows:

```
1, (ddrfiles/HEPING12.ddr, TI=5,  SI=180,  CO=150, )
2, (ddrfiles/HEPING06.ddr, TI=10, SI=180,  CO=80,  )
3, (ddrfiles/HEPING12.ddr, TI=5,  SI=150,  CO=250, )

6, (ildfiles/Aurora9.ild,  TI=5,  )
7, (ildfiles/Aurora18.ild, TI=5,  )
8, (ildfiles/Aurora19.ild, TI=5,  )
```

There are four parts: effect number, + (file path, + time, + effect,) :

Effect number	File path	Time	Effect
1，	ddrfiles/heping12.ddr,	TI=5,	SI=180, CO=150,
2，	ddrfiles/heping06.ddr,	TI=10,	SI=180, CO=80,
3，	ddrfiles/heping12.ddr,	TI=5,	SI=150, CO=250,
6，	ildfiles/Aurora9.ild,	TI=5,	
7，	ildfiles/Aurora18.ild,	TI=5,	
8，	ildfiles/Aurora19.ild,	TI=5,	

The TIME unit is seconds: for example: TI = 5, the playback TIME is 5 seconds, TI is capital letter, it is called TIME

There are nine effects: RO, HR, VR, HB, VB, SI, DR, BE, CO. they are DMX channels:

The RO is CH6, HR is CH7, VR is CH8, HB is CH9, VB is CH10, SI is CH11, DR is CH12, BE is CH13, and CO is CH14

The effect value is the channel value, so that the effect can be adjusted by DMX, then the effect file will be written and saved, and will be played through the laser.

Remark: The interval comma, the parentheses (), the two symbols cannot be reduced, otherwise the effect of the lamp will be different from your design:

```
1, (EFFEC000.eff)
2, (EFFEC001.eff)
3, (EFFEC002.eff)
4, (EFFEC003.eff)
4, (loves001.eff)
```

Finally, add the effect file to the playlist.pla and save it.

Insert the SD card into the laser to view the editing effect.

DMX Channel Function(MY LITE X3 SD version only)

IPLAY MODE CH13:

CH	Function of each channel	DMX Data	Control function
CH1	Laser on/off	0～29	Switch light of laser
	I PLAY mode	30～59	Automatic by manual control
		60～89	Automatic display
		90～119	Sound-active display by manual control
		120～149	Sound-active display
	SD play mode	150～255	Invalid when in I PLAY mode
CH2	Pattern selection	0～255	Select a pattern for every three values

CH3	Pattern rotation	1～127	Angle adjustment of pattern rotation
		128～159	30 degrees rotating speed selection
		160～191	180 degrees rotating speed selection
		192～223	Reverse rotation speed selection Horizontal rotating position selection
		224～255	Forward rotation speed selection Vertical rotating speed selection
CH4	Horizontal flip of laser pattern	1～127	Horizontal flip position selection
		128～255	Horizontal flip speed selection
CH5	Vertical flip of laser pattern	1～127	Vertical flip position selection
		128～255	Vertical flip speed selection
CH6	Horizontal movement of laser pattern	1～127	Horizontal moving position selection
		128～255	Horizontal moving speed selection
CH7	Vertical movement of laser pattern	1～127	Vertical moving position selection
		128～255	Vertical moving speed selection
CH8	Pattern zoom-in &zoom out	1～127	Pattern size selection
		128～159	zoom out speed selection
		160～191	zoom-in speed selection
		192～255	Zooming speed selection
CH9	Pattern size	1～255	Pattern zooming size selection
CH10	Pattern gradually painting	1～255	Gradually painting speed selection
CH11	Scanning speed Spot effects	1～255	Scanning speed selection
CH12	Color selection	0～63	Fixed color selection
		64～127	Color change speed selection
		128～223	Speed selection of flow speed
		224～255	Gradually painting speed selection
CH13	Full color	1～255	255 colors selection

IPLAY MODE CH25:

CH	Function of each channel	DMX Data	Control function
CH1	Laser on/off	0～29	Switch light of laser
	I PLAY mode	30～59	Automatic by manual control
		60～89	Automatic display
		90～119	Sound-active display by manual control
		120～149	Sound-active display
	SD play mode	150～255	Invalid when in I PLAY mode
CH2	Pattern A selection	0～255	Select a pattern for every three values

CH3	Pattern A rotation	1～127	Angle adjustment of pattern rotation
		128~159	30 degrees rotating speed selection
		160～191	180 degrees rotating speed selection
		192～223	Reverse rotation speed selection Horizontal rotating position selection
		224～255	Forward rotation speed selection Vertical rotating speed selection
CH4	Pattern A Horizontal rotating	1～127	Horizontal flip position selection
		128～255	Horizontal flip speed selection
CH5	Pattern A Vertical rotating	1～127	Vertical flip position selection
		128～255	Vertical flip speed selection
CH6	Pattern A Horizontal movement	0～127	Horizontal moving position selection
		128～255	Horizontal moving speed selection
CH7	Pattern A Vertical movement	1～127	Vertical moving position selection
		128～255	Vertical moving speed selection
CH8	Pattern A zoom-in &zoom out	1～127	Pattern size selection
		128～159	zoom out speed selection
		160～191	zoom-in speed selection
		192～255	Zooming speed selection
CH9	Pattern A size	1～255	Pattern zooming size selection
CH10	Pattern A gradually painting	1～255	Gradually painting speed selection
CH11	Pattern A Spot effects	1～255	Scanning speed selection
CH12	Pattern A color	0～63	Fixed color selection
		64～127	Color change speed selection
		128～223	Speed selection of flow speed
		224～255	Gradually painting speed selection
CH13	Pattern A full color	1～255	
CH14	Pattern B selection	0～255	Select a pattern for every three values
CH15	Pattern B rotation	1～127	Angle adjustment of pattern rotation
		128~159	30 degrees rotating speed selection
		160～191	180 degrees rotating speed selection
		192～223	Reverse rotation speed selection Horizontal rotating position selection
		224～255	Forward rotation speed selection Vertical rotating speed selection
CH16	Pattern B Horizontal flip	0～127	Horizontal flip position selection
		128～255	Horizontal flip speed selection
CH17	Pattern B Vertical	0～127	Vertical flip position selection

	flip	128～255	Vertical flip speed selection
CH18	Pattern B Horizontal movement	0～127	Horizontal moving position selection
		128～255	Horizontal moving speed selection
CH19	Pattern B Vertical movement	1～127	Vertical moving position selection
		128～255	Vertical moving speed selection
CH20	Pattern B zoom-in &zoom out	1～127	Pattern size selection
		128～159	zoom out speed selection
		160～191	zoom-in speed selection
		192～255	Zooming speed selection
CH21	Pattern B size	1～255	Pattern zooming size selection
CH22	Pattern B gradually painting	1～255	Gradually painting speed selection
CH23	Pattern B Spot effects	1～255	Scanning speed selection
CH24	Pattern B color	0～63	Fixed color selection
		64～127	Color change speed selection
		128～223	Speed selection of flow speed
		224～255	Gradually painting speed selection
CH25	Pattern B full color	1～255	255 colors selection

SD PLAY MODE CH14:

CH	Function of each channel	DMX Data	Control function
CH1	Laser on/off	0～29	Switch light of laser
	I PLAY mode	30～149	SD PLAY mode, this function is invalid
	SD PLAY mode	150～179	Automatic under manual control, CH7-CH14 are effective
		180～209	Automatic display built-in patterns, CH7-CH14 are invalid
		210～239	Sound-active under manual control,CH2-CH10 are effective
		240～255	Sound-active display built-in patterns, CH7-CH14 are invalid
CH2	Effects list	0～255	Select one effect list library for each 28 values
CH3		0～255	Select one effect list library for each 10 values
CH4	Pattern	0～255	Select one pattern library for each 28 values
CH5	Selection	0～255	Select one pattern library for each 10 values
CH6	Display control	1～127	The whole cycle display from the auto&sound-active control
		128~255	The cycle display of the auto or sound-active control
	Pattern RO rotation	1～127	Angle adjustment of pattern rotation
		128～159	30 degrees rotating speed selection

		160～191	180 degrees rotating speed selection
		192～223	Reverse rotation speed selection Horizontal rotating position selection
		224～255	Forward rotation speed selection Vertical rotating speed selection
CH7	Pattern HR Horizontal rotating	0～127	Horizontal flip Angle selection
		128~255	Horizontal flip speed selection
CH8	Pattern VR Vertical flip	1～127	Vertical flip angle selection
		128～255	Vertical flip speed selection
CH9	Pattern HB Horizontal movement	1～127	Horizontal moving position selection
		128～255	Horizontal moving speed selection
CH10	Pattern VB Vertical moving	1～127	Vertical moving position selection
		128～255	Vertical moving speed selection
CH11	SI pattern zooming	1～127	Pattern size selection
		128～159	Zoom out speed selection
		160～191	Zoom in speed selection
		192～255	Zooming speed selection
CH12	Pattern DR gradually painting	1～255	Gradually painting speed selection
CH13	Pattern BE Spot effects	1～255	Scanning speed selection
CH14	Pattern CO color	0～63	Fixed color selection
		64～127	Color change speed selection
		128～223	Speed selection of flow speed
		224～255	Gradually painting speed selection

Maintenance

To prolong the life of the product, it is very important to do maintenance work. The environment is hash outdoors, or if the product is idle for a long time, damp, smoke or particularly dirty surroundings can cause greater accumulation of dirt on its cover and housing. So it should be cleaned to maintain an optimum light output and at the same time to prevent it from corrupted by acid gas.

Cleaning frequency depends on the environment in which the fixture operates. Soft cloth and typical glass cleaning products should be used for cleaning. It is recommended to clean product at least once every 20 days.

Friendly notice: Do not use any organic solvent, e.g. alcohol to clean housing of the apparatus.

Troubleshooting

Problems	Action
The product doesn't switch on	Power connection is not correct. Re-connect the power.
	Power supply is damaged or abnormal. Call a qualified personnel to fix it.
	Connection of control board is not correct. Call a qualified personnel to fix it.
The product can turn on, but no light coming out.	Control mode is wrongly setting up. Resetting it according to instruction book
	Control section is damaged. Call a qualified personnel to fix it.
The beam appears dim	The product is too hot. Take ventilation measures to make it cool.

Note: This product is under warranty for 1 year (From the date of delivery), 1 years after can provide paid maintenance services. But if it is because of natural disasters or user's operation not according to manual. We won't provide warranty.