

Product Warranty card

Warranty Terms

- 1、 The products sold come with a two-year free warranty and lifetime repair service. That is, within two years, the quality problems of the product itself will be repaired free of charge, After two years, a certain cost is charged for product repair or replacement parts.
- 2、 The software included in the products sold can enjoy free upgrades and functional improvement services in the later stage.
- 3、 Provide corresponding technical support and cooperation for the products sold, and ensure a 24-hour technical service hotline.
- 4、 The following product damage or other reasons caused by non-company factors are not included in the company's free repair:
 - (1) . Incorrect installation
 - (2) . Voltage mismatch
 - (3) . Improper use caused by failure to operate in accordance with the instruction manual
 - (4) . Repairs or alterations not authorized by the Company
 - (5) . The machine lacks necessary maintenance
 - (6) . Failure to provide the proper working environment
 - (7) . Product damage caused by secondary transportation by the user
 - (8) . System failure caused by software or viruses other than the Company
 - (9) . Force majeure factors such as natural disasters (lightning strikes, earthquakes, tsunamis, floods, etc.) and unexpected circumstances
 - (10) . The product power supply must be effectively grounded

The above guarantee has the same legal effect for each user. Due to country or region changes, other rights may only apply to specific customers.

A10 Series RGB laser light



Please read this manual carefully
and carefully before use

USE CAUTION

- CHECK THAT THE LOCAL POWER SUPPLY MEETS THE PRODUCT INPUT VOLTAGE REQUIREMENTS.
- WHETHER THERE ARE LEAKAGE PROTECTORS, OVERCURRENT PROTECTORS, ETC. ON SITE WITH LOAD REQUIREMENTS.
- DO NOT USE A POWER CORD WITH DAMAGED INSULATION AND DO NOT LAP THE POWER CORD TO OTHER WIRES.
- WHEN INSTALLING EQUIPMENT, THE FIXING SCREWS MUST BE STRONG, EQUIPPED WITH SAFETY CABLES, AND CHECKED REGULARLY.
- THE TEMPERATURE OF THE LIGHT OUTLET OF THE DEVICE IS TOO HIGH, PLEASE DO NOT TOUCH IT CLOSE TO AVOID SCALDING.
- DURING USE, IF THE EQUIPMENT IS ABNORMAL, IT SHOULD BE STOPPED IN TIME TO PREVENT OTHER FAILURES.
- PLEASE BE INSTALLED AND DEBUGGED BY PROFESSIONALS, NON-PROFESSIONALS ARE STRICTLY FORBIDDEN TO DISASSEMBLE THE LAMPS PRIVATELY.
- DO NOT LOOK DIRECTLY AT THE LAMP WITH THE NAKED EYE, IT MAY CAUSE DAMAGE TO THE EYES.
- DO NOT CHANGE THE INTERNAL CIRCUIT STRUCTURE OF THE LAMP WITHOUT PERMISSION, WHICH MAY CAUSE THE LAMP TO SHORT CIRCUIT OR BURN OUT.
- WHEN NOT USING THE LAMP OR CLEANING THE LAMP, CUT OFF THE POWER.

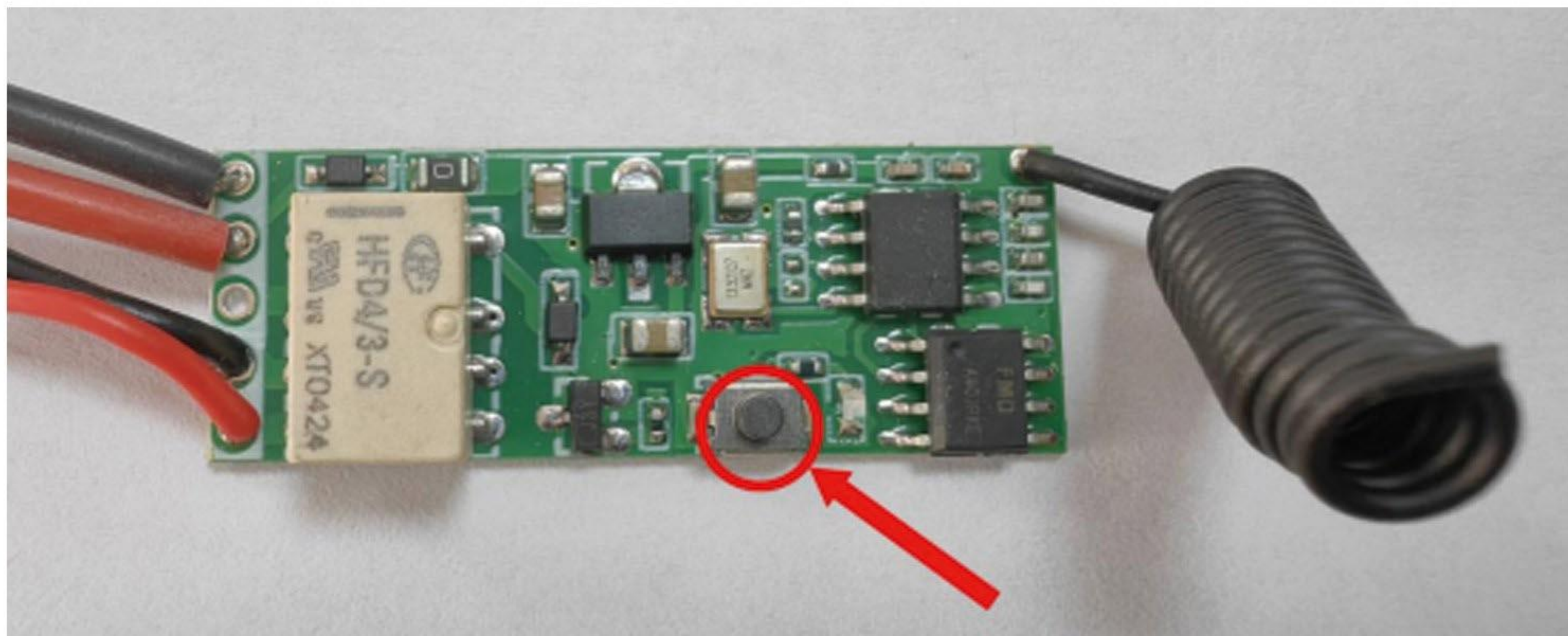
NOTES

Special considerations		
Electronic devices are prohibited from pointing at laser lamps for exit cameras		
Easy to burn out the camera!		
Mobile phone / Camera / Camcorder/ other photography and video products		
Burnt out sample display		
Sample ①	Sample ②	Sample ③
		

INSTRUCTIONS FOR USING WIRELESS REMOTE CONTROL SWITCHES

Working mode description:

1. Interlock mode: Press one button on the remote control (such as A button) to energize the line, and then press another button on the remote control (such as B button) to disconnect;
2. The function of turning on the lights when a call comes in: that is, the entire circuit automatically connect after power is supplied.



(The red marked circle is the setting key)

Operation method:

Clear function: Press the setting button 9 times continuously, the LED flashes 5 times and then goes out, indicating successful clearing. (Note: If you need to change the working mode of the same remote control, please clear the existing working mode first and then set a new working mode)

(The red marked circle is the setting key)

AB switch: Press the setting button on the control panel 3 times continuously, the LED indicator will flash once and then stay on, entering the setting state; at this time, press the remote control button that needs to be paired, such as the "A" button is set to open, and the control board LED indicator light will flash 3 times and then stay on again. Continue to press "B" on the remote control to turn it off. The LED indicator flashes three times again and then goes out, indicating that the setting is successful. The function of turning on the lights when a call comes in: Press the setting button on the control panel 8 times continuously, the LED indicator light will flash once and then light up, entering the setting state; at this time, press the remote control button (A button) that needs to be paired, and the LED indicator on the receiver will flash 3 times and then go out, indicating successful setting.

GENERAL INFORMATION

The following chapters explain important information about lasers in general, basic laser safety and some tips about how to use this device correctly. Please spend some time reading these information as some of them are critical for safe and efficient operation of this laser display system.



DIRECTORY

- 1.1)Product technical parameters
- 1.2)Device diagram
- 1.3)Connection diagram
- 1.4)Display instructions
- 1.5)Channel mode
- 1.6)Installation instructions
- 1.7)Maintenance, upkeeping, calibration

POWER-OFF PROTECTION DEVICE

If the AC power is lost, the user is required to reset the projector via the remote control. (A key is on, B key is off) This function has been tested. The machine comes with a 1-to-1 dedicated remote control now.



OVERHAUL PROTECTION DEVICE

When the product needs to be overhauled and we open the top cover of the machine, the machine will automatically turn off. We need to turn on the toggle switch (as shown in the picture) so that the machine can work normally.



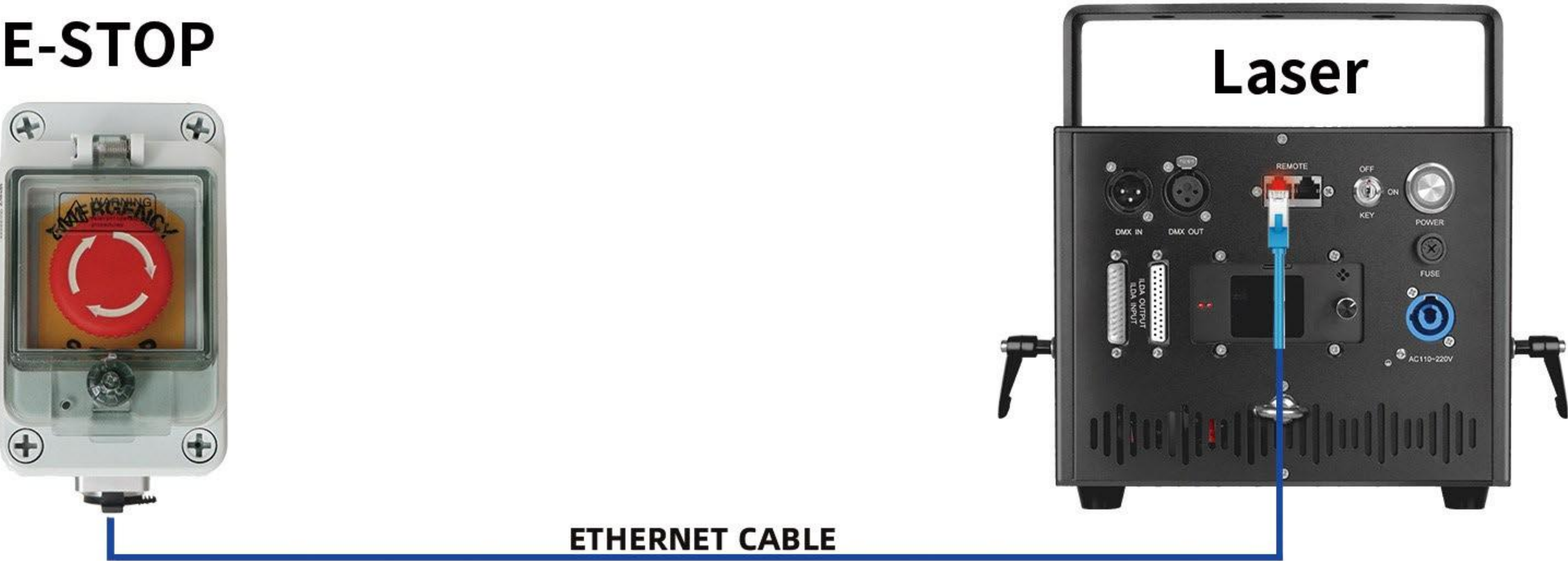
E-STOP
CONNECTION

(No switch, please
ignore)

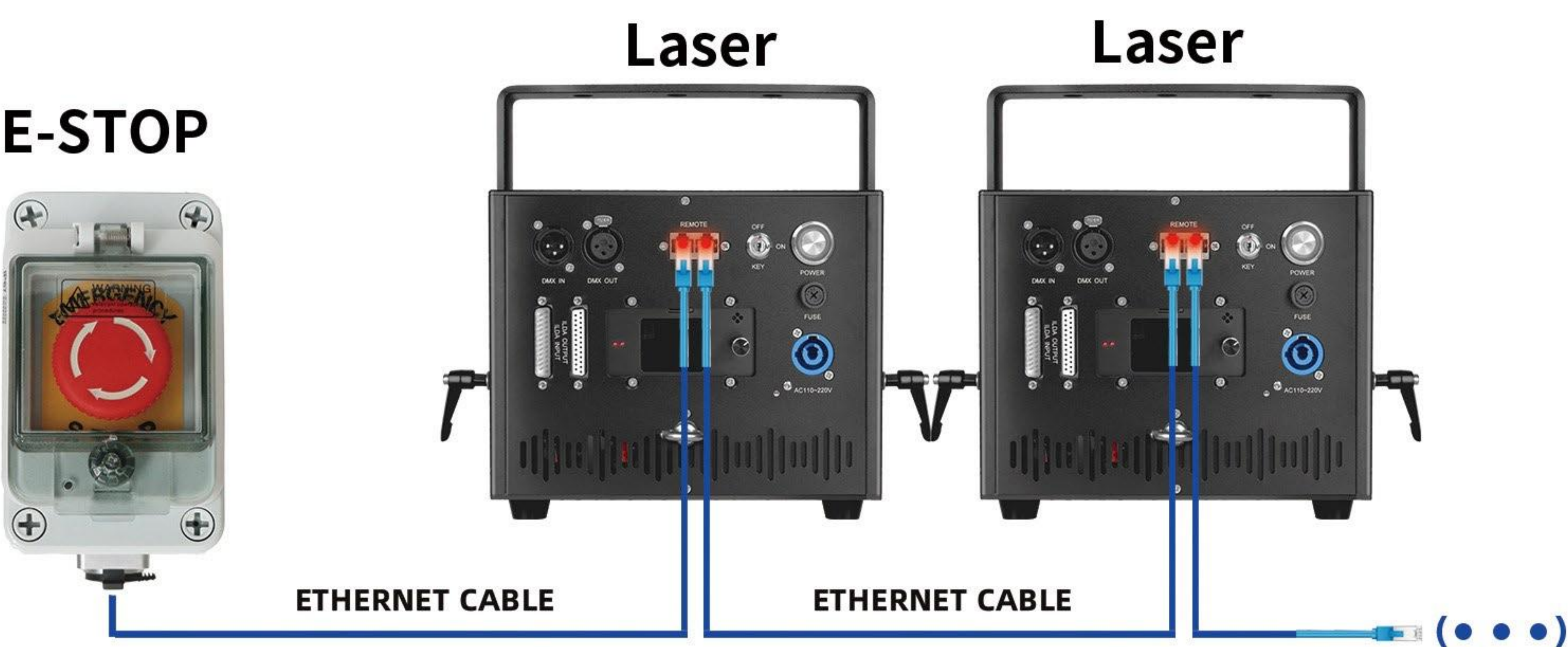
NOTICES: 1. PLEASE CHECK THAT ALL THE SIGNAL AND POWER LEADS ARE CORRECTLY INSTALLED AND THAT THE SAFETY KEYS ARE INSERTED IN ALL NECESSARY POSITIONS.

2. E-STOP CONNECTED WELL AND LASER SYSTEM SAFETY KEY MUST BE INSERTED AND SWITCHED TO ON POSITION IN ORDER TO DISABLE THE INTERLOCK.

CONNECTION DIAGRAM (SINGLE-UNIT)



CONNECTION DIAGRAM (MULTIPLE)



DEVICE PARAMETERS

Product technical parameters

Voltage	AC110 ☐ 220V ☐ 90-240V ☐ 50 ☐ 60HZ ☐				
lamp power	10W ☒				
Laser power	Red: 3000mw Green: 3000mw Blue: 4000mw				
Power consumption	150W ☒				
wavelength	Red: 638nm		Green:525nm		Blue:450nm
Laser source	Diode(NICHIA)				
Colors	RGB full color				
External Modulation	100K Analog ☒ TTL ☐				
DMX Channel	19CH/32CH				
Scanner system	20kpps ☐ 25kpps ☒ 30kpps ☐ 40kpps ☐ 50kpps ☐				
Control mode	Music ☒	Auto ☒	Master-slave ☒	DMX-512 ☒	ILDA Control ☒
Cooling system	fan				
Environment	Indoor				
Temperature	-20℃～45℃				
Net Weight	5.1KG				
Dimension Size	26*36*19cm				
Package	Carton(1 in 1) ☐		FlightCase(1 in 1) ☐		FlightCase(2 in 1) ☐
Package dimension	34.5*34.5*24.5cm		38.5*37*32cm		71*39*38cm
Package weight	6.2KG		13.1KG		23.3KG
Package picture					

*Main panel displays:

Version:Software version;

DMX Address:DMX address code;

Mode:Current working mode;

File:The current working file;

1.In the main panel,click the button to enter the menu.

2.In the main panel,ILD and RPG mode,double-click the button to change the folder

3.After entering the menu,you can double-click the button to exit.

*LCD setting of menu:

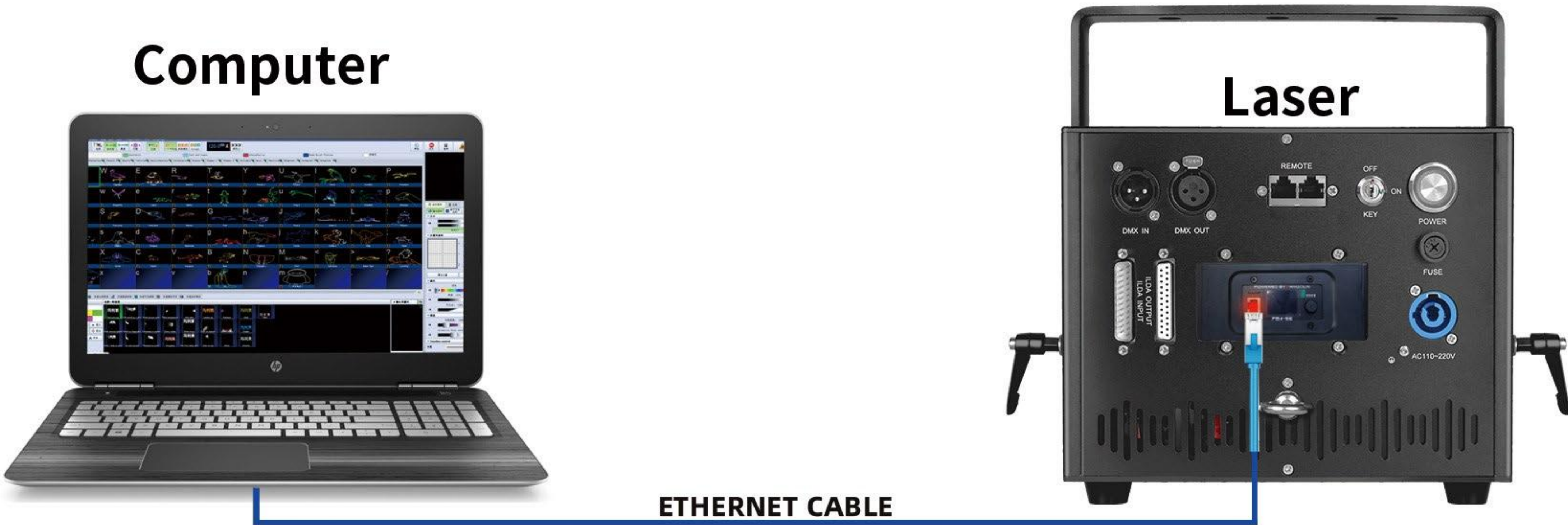
NO.	First-grade menu	Menu description	Setting item	Setting instructions	Note
1	DMX Address	DMX address setting	1-512	DMX address value	
2	Show Mode	Play mode	ILD	ILD program single loop playback	Automatically switch to DMX mode when connected to DMX
			PRG	Play according to PRG list order	
			Auto	Self-propelled mode	
			Sound	Voice control mode	
3	Program	Select a self-propelled program	Progr 0	Program 0	Programs 1 to 3 need to be edited with the console and imprted
			Progr 1	Program 1	
			Progr 2	Show 2	
			Progr 3	Program 3	
			Progr 4	Program 4	
4	SD File	Folder inside SD card	Folder name	The currently selected folder name	Only valid when playing SD card
5	Size X	Graphic size	-100-100	Built-in program phase	Only valid for Auto mode/DMX mode
6	Size Y	Graphic size	-100-100		
7	Speed	Playspeed	8-40	Speed of built-in shows	Set according to the galvanometer
8	DMX State	State without DMX signal	Show	Set palyback according to Show Mode	
			Black	No light	
9	Slave Mode	Master-slave status	Slave	Slave	Set to Slave state when not connected
			Master	Host	

CONTROL BOX CONNECTION

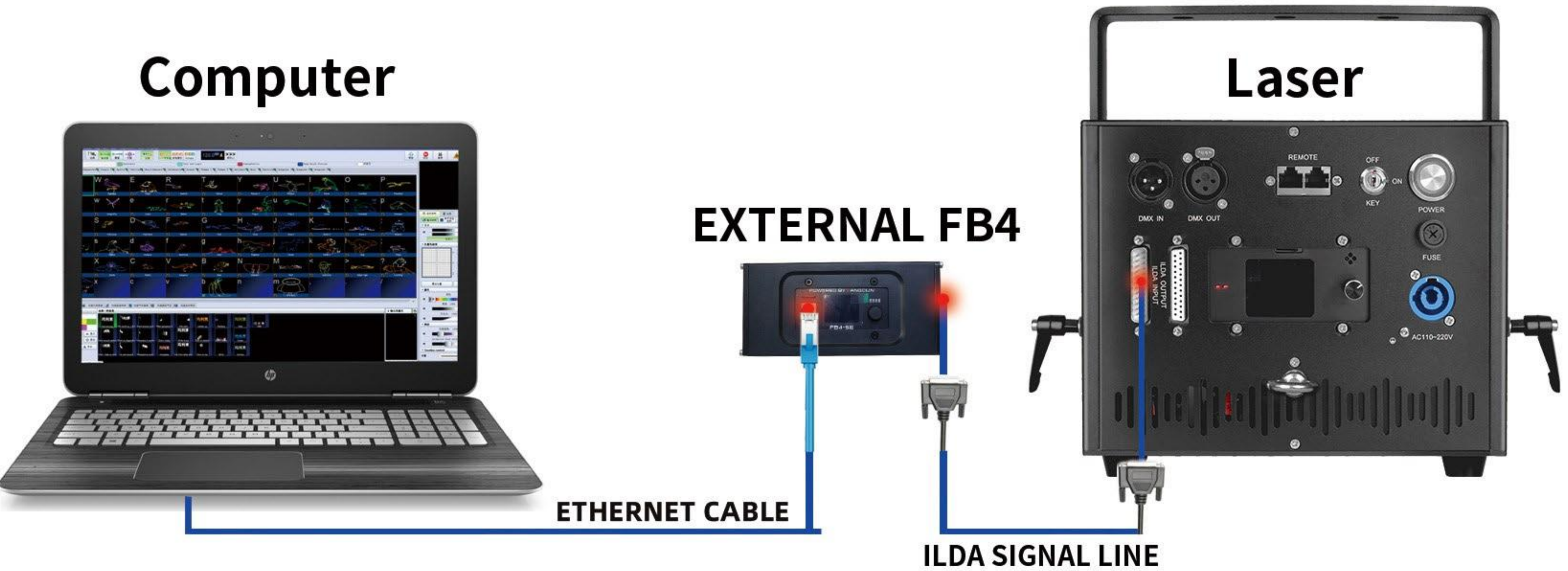
(No control box, please ignore)

- NOTICES: 1.IF THE LAPTOP DOES NOT HAVE A CRYSTAL HEAD INTERFACE, YOU NEED TO ADD A USB TO CRYSTAL HEAD ADAPTER
- 2.IF THERE ARE MULTIPLE LASER LIGHT DEVICES, YOU NEED TO ADD A SWITCH
- 3.If the distance is more than 80 meters,use optical fiber cable

CONNECTION DIAGRAM (BUILT-IN VERSION FB4)



CONNECTION DIAGRAM (EXTERNAL VERSION FB4)



INSTALLATION INSTRUCTIONS

Installation matters	
1.The iron frame for carrying laser lights on the ground must be higher than 3M (Except for rooftops or other special areas) 2.The bottom of the iron frame must be fixed, welded to the ground, or in case of soft ground, cement piles must be built 3.The equipment on the shelf must be protected and fixed to prevent typhoons from falling and causing unnecessary losses 4.After the show starts, try not to let customers get too close to the equipment and keep a certain distance to enjoy	
Installation reference style	
Sample ① Hang on the truss by clamp	Sample ② Standing on top of a stand
	

10	Y Phasic	Y direction	Positive	Positive	Valid for signals from this unit and ILDA
			Reverse	Anti-	
11	X Phasic	X direction	Positive	Positive	
			REverse	Anti-	
12	Color Mode	Color mode	RGB	Color	
			White	Monochrome	
13	Laser Lock	Laser light lock	ON	Open	Closed laser protection when the laser angle is too small
			OFF	Turn off	
14	Sound sense	Voice control sensitivity	0-100	Voice control sensitivity percentage	
15	SD Sound	Animation content voice control switch	ON	Open	
			OFF	Turn off	
16	Highlight	Brightness setting	0-100	Highlight setting percentage	Set as a highlight at the color junction
17	ILDA Lock	ILDA mode lock	0-100	Locked as input signal from ILDA	Select lock to switch to ILDA input when using RJB5 interface
			OFF	Not locked	
18	Load Flash	Load FLASH	ON	Import ILD programs from SD card	Import programs from the SD card's<LOAD> folder
			OFF		
19	Update Prog	Update built-in shows	OFF	DON't update	Import shows from show 1.yuq-show 4.yuq
			Progr 1	Update show 1	
			Progr 2	Update 2	
			Progr 3	Update 3	
			Progr 4	Update 4	
20	Red dimmer	Red brightness	0-255		Only valid for Auto mode/DMX mode,no valid for ILDA
21	Green dimmer	Green brightness	0-255		Note:19CH/32CH is availabe only
22	Blue dimmer	Blue brightness	0-255		
23	DMX mode	DMX mode select	6ch/19ch 32ch/29ch 52ch	DMX mode	
24	Language	Language select	中文/ English	Language	

*DMX-512 Channel function

19CH mode:

Channel	Function	Value	Description
CH1	Dimmer	0-255	Dimmer from dark to bright
CH2	Mode selection	0-49	Auto
		50-99	Voice control mode
		100-149	RPG file sequential palyback
		150-199	ILD file loop playback
		250-255	Built-in graphics
CH3	Grapjocs selection	0-255	Graphic selection,one graphic for every values
CH4	Display mode	0-63	Normal
		64-127	Highlight display
		128-191	Segmented display
		192-255	Point display
CH5	Selection of color	0-16	White
		17-33	Red
		34-50	Green
		51-67	Blue
		68-84	Yellow
		85-101	Purple
		102-118	Cyan
		119-135	White,Red,Green and blue color segments
		136-152	Blue,Yellow,Purple and Cyan color segments
		153-169	WHite Red Green Blue Yellow Purple Cyan color segmentation
		170-186	White,Red,Green,Blue colors flowing
		187-203	Blue,Yellow,Purple and Cyan colors flow
		204-220	White Red Green Blue Yellow Purple Cyan color flow
		221-237	Color breaks based on graphic breakpoints
		238-255	Voice-controlled color change
CH6	X move	0-125	Adjust the position manually
		126-175	Automatic left and right circular motion
		176-225	Automatic jump left and right circular movement
		226-245	Automatic irregular jumping
		246-255	Voice-controlled irregular jump
CH7	Y move	0-125	Adjust the position manually
		126-175	Automantic up and down cycle movement
		176-225	Auto jump up and down cyclic movement
		226-245	Automatic irregular jumping
		246-255	Voice-controlled irregular jump

EQUIPMENT
MAINTENANCE

FRONT DUST GLASS LENSES

WIPE IN ONE DIRECTION WITH A COTTON SWAB AND ALCOHOL,
AND WIPE AGAIN WITH A DRY PAPER TOWEL,
AFTER THE SHOW, COVER THE SUNSHADE.

THE RADIATOR IS PARTIALLY CLEAN

THE COMMONLY USED BLOW GUN IS AIMED AT THE HEAT DISSIPATION PART TO BLOW OFF THE DUST,
LET THE LASER LIGHT DISSIPATE HEAT BETTER,
EXTEND THE LIFE OF THE LIGHT SOURCE.



COMMON
FAILURES

THE LASER LIGHT DOES NOT EMIT LIGHT

- CHECK THAT THE FRONT VISOR IS OPEN.
- THE SUPPLY VOLTAGE IS UNSTABLE.
- THE CONNECTING WIRE LEAKS AND THE SIGNAL CABLE FALLS OFF OR POOR CONTACT.
- IF IT IS A BUILT-IN CONTROLLER, A COMPUTER LASER LIGHT MUST BE CONNECTED TO WORK.
- WHETHER THE GB 110V □ 220V □ VOLTAGE IS CONNECTED CORRECTLY.

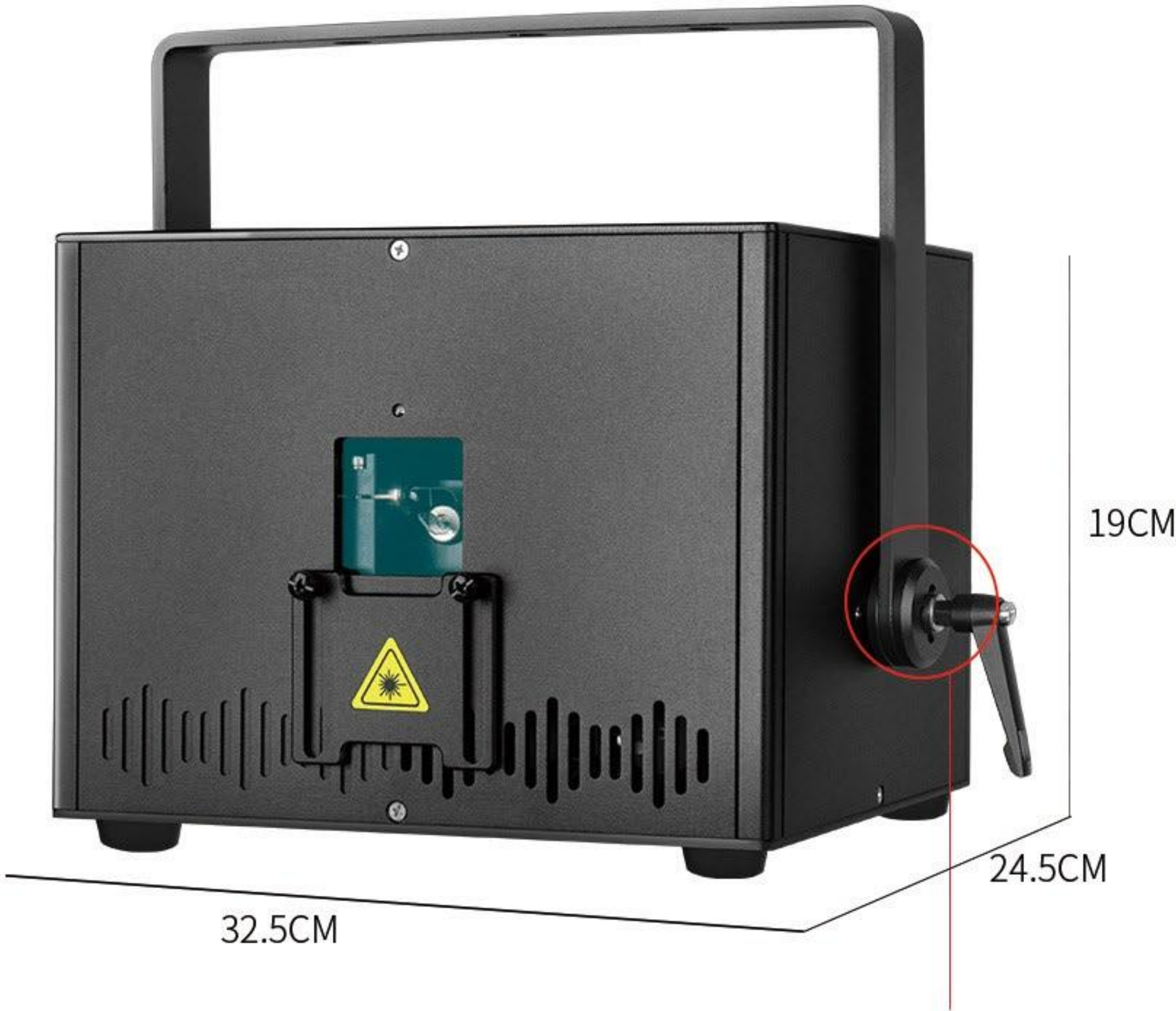
SCHEMATIC OF THE DEVICE



HOOD ON THE FRONT OF THE DEVICE

TO START THE DEVICE, MAKE SURE THE FRONT VISOR IS TURNED ON
DO NOT POINT YOUR PHONE CAMERA DIRECTLY IN FRONT OF THE EXIT
SO AS NOT TO CAUSE THE CAMERA TO BURN OUT!

THE TEMPERATURE OF THE LIGHT OUTLET IS HIGH
DO NOT TOUCH IT CLOSE TO AVOID SCALDING



THE HANDLE CAN BE ROTATED 360 DEGREES

THIS DEVICE ALLOWS 360-DEGREE ADJUSTMENT OF THE HANDLE DIRECTION
EASY INSTALLATION (THE SIZE OF THE DEVICE IS MEASURED MANUALLY, THERE ARE 2-3
CM ERROR, THANK YOU FOR YOUR UNDERSTANDING!)

CH8	Zoom	0-10	No scaling
		11-87	Resize manually
		88-150	Zoom
		151-200	Zoom out
		201-255	Loop zoom
CH9	X rotation	0	No rotation
		1-128	Manual adjustment
		129-255	Automatic rotation
CH10	Y rotation	0	No rotation
		1-128	Manual adjustment
		129-255	Automatic rotation
CH11	Center rotation	0	No rotation
		1-128	Manual adjustment
		129-192	Automatic clockwise rotation
		193-255	Automatic counterclockwise rotation
CH12	Gradual painting	0-10	No fade
		10-74	Adjust the fader manually
		75-104	Auto-grading(increase)
		105-144	Automatic fade (minus)
		145-184	Automatic loop fade Automatic loop fade
		185-224	End-to-end loop drawing gradually(increase)
		225-255	End-to-end loop gradual drawing(minus)
CH13	X wave	0-9	No waves
		10-69	Small amplitude wave
		70-129	Medium amplitude wabe
		130-189	Large wave
		190-255	Maximum amplitude wave
CH14	Y wave	0-9	No waves
		10-69	Small amplitude wave
		70-129	Medium amplitude wave
		130-189	Large wave
		190-255	Maximum amplitude wave
CH15	Strobe	0-10	No strobe
		11-199	Auto strobe(from slow to fast)
		200-255	Strobe by Voice
CH16	Red modualtion	0-255	Red light from brightest to dark
CH17	Green modulation	0-255	Green light from brightest to dark
CH18	Blue modulation	0-255	Blue light from brightest to dark
CH19	Movement out of bounds effect	0-49	Out of bounds rebound
		50-99	Out-of-bounds to be line
		100-149	Out-of-bounds blanking
		150-255	Out-of-bounds pass through

CH1 to CH19 is same as 19Chs mode.From CH20 to CH32,the laser light will output second Graphics at same time,CH20 to CH32 is for second Graphics as below:

32CH mode:

Channel	Function	Value	Description
CH20	Graphics selection	0-255	Graphic selection,one graphic for every two values
CH21	Display mode	0-63	Normal
		64-127	Highlight display
		128-191	Segmented display
		192-255	Point display
CH22	Selection of color	0-16	White
		17-33	Red
		34-50	Green
		51-67	Blue
		68-84	Yellow
		85-101	Purple
		102-118	Cyan
		119-135	White,Red,Green and Blue color segments
		136-152	Blue,Yellow,Purple and Cyan color segments
		153-169	White Red Green Blue Yellow Purple Cyan color segmentation
		170-186	White,Red,Green Blue colors flowing
		187-203	Blue,Yellow,Purple and Cyan colors flow
CH23	X move	0-125	Adjust the position manually
		126-175	Automatic left and right circular motion
		176-225	Automatic jump left and right circular movement
		226-245	Automatic irregular jumping
		246-255	Voice-controlled irregular jump
CH24	Y move	0-125	Adjust the position manually
		126-175	Automatic up and down cycle movement
		176-225	Auto jump up and down cyclic movement
		226-245	Automatic irregular jumping
		246-255	Voice-controlled irregular jump

CH25	Zoom	0-10	No scaling
		11-87	Resize manually
		88-150	zoom
		151-200	Zoom out
		201-255	Loop zoom
CH26	X rotation	0	No rotation
		1-128	Manual adjustment
		129-255	Automatic rotation
CH27	Y rotation	0	No rotation
		1-128	Manual adjustment
		129-255	Automatic rotation
CH28	Center rotation	0	No rotation
		1-128	Manual adjustment
		129-192	Automatic clockwise rotation
		193-255	Automatic counterclockwise rotation
CH29	Gradual painting	0-10	No fade
		10-74	Adjust the fader manually
		75-104	Auto-grading (increase)
		105-144	Automatic fade (minus)
		145-184	Automatic loop fade
		185-224	End-to-end loop drawing gradually (increase)
		225-255	End-to-end loop gradual drawing (minus)
CH30	X wave	0-9	No waves
		10-69	Small amplitude wave
		70-129	Medium amplitude wave
		130-189	Large wave
		190-255	Maximum amplitude wave
CH31	Y wave	0-9	No waves
		10-69	Small amplitude wave
		70-129	Medium amplitude wave
		130-189	Large wave
		190-255	Maximum amplitude wave
CH32	Movement out of bounds effect	0-49	Out of bounds rebound
		50-99	Out -of -bounds to be line
		100-149	Out-of-bounds blanking
		150-255	Out-of-bounds pass through