

# **FIRE LASER GHOST**

**Model  
Fire 120 & Fire 250**

## **USER MANUAL**

### **Professional Laser Professional Brand**

### **Ice-Fire Era Series Laser Performer**

Thank you for using Ice-Fire era series Laser Projector. For the sake of safety and better operation of this projector, please read this manual carefully before use and operate the projector, lest incur any personal injury or damage to the projector.

#### ➤ **Packing list:**

When you unpack the case, please take some time to examine the items as follow:

.....Ice-Fire era series laser projector	1ps
.....Ice-Fire era series laser projector power cord	1ps
.....Ice-Fire era series laser projector user manual	1ps
.....Ice-Fire era series laser projector laser lock keys	2pcs
.....Ice-Fire era series laser projector handle	2pc
.....Ice-Fire era series laser projector remote control plug	1pc

#### ➤ **Product Introduction:**

This series of products adopt the latest design with various laser patterns, it can realize to show four different patterns with different effect. Geometric patterns and animation, word pattern controlled by separate page mode, custom can select animation, word pattern is setting in the animation pages.

It has compacted size and weight, delicate shape and good heat cooling system. With solid semiconductor laser generator, the wavelength is 532nm and with emerald green color, and with double temperature control laser generator. Laser generator has long life span and high stability, complying with the international laser generator standard.

Vibratory mirror system uses the latest research and development of medium-speed vibratory mirror control technology\_ with international standard DMX-512 signal control, built-in 85 geometric patterns and 43 animation word patterns, pre-Show 26 kinds laser show performances with 4 pattern and 6 kinds of animation SHOW effect and word performance, laser beam show, animation show. With spatial effect, projection effects, animation effects etc. With scientificcircuit design of the laser light and fast laser vibratory mirror scanning speed (20kpps).

Control mode: The Ice-Fire era series projector has 15 DMX-512 signal channels, multiple control models: DMX-512 control, music active\_ automatic\_ master & slave.

This product is applied for various highly demand public entertainments such as disco, night-club, TV station and theater etc.

#### ➤ **Instructions:**

After unfolding the package, please check whether the projector has been damaged by transport. Please check if the lamp is installed steadily, if the supply voltage comply with the light demands, if the electrical connection is correct before use, it only can use after ensure the accuracy, man-made damage is out of the range of f r e e m a i n t a i n .

This product is Class 1 protection electrical equipment, when you use it, please connect with the grounding line to ensure personal safety. This product with laser safety lock, you must use the key to open the laser source.

This product has a laser remote control connector, it can connect with external remote control switch through a plug.

This products with anti-drop safety handle, it can be fix with a safety rope when u n d e r u s i n g .

In order to ensure the service life of semiconductor laser, it is recommended every 30 minutes work should be suspended for 10 minutes to rest. When connecting the DMX signal, pls. try to avoid make the same group with the other high-pressure gas discharge lamps, in order to avoid puncture damage.

#### ➤ **Technical Parameters:**

Rated voltage: AC110V/ AC230V±10%

Rated frequency: 50Hz~60Hz

Power consumption: 30W

Laser power: 120mw/230mw

Laser source: solid semiconductor laser generator

Laser wavelength:emerald green(532nm)

Laser pattern: 85 geometric patterns and 43 animation word patterns

Scanning: 20kpps scanner system

Scanning angle: ±20 degree

Control mode: music control, DMX-512 signal control, automatic, master and slave

Control channels: 15 DMX-512 signal control channel

Cool system: fan

Operating environment: indoor  
Case material: synthetic aluminum

### ➤ Channel Function:

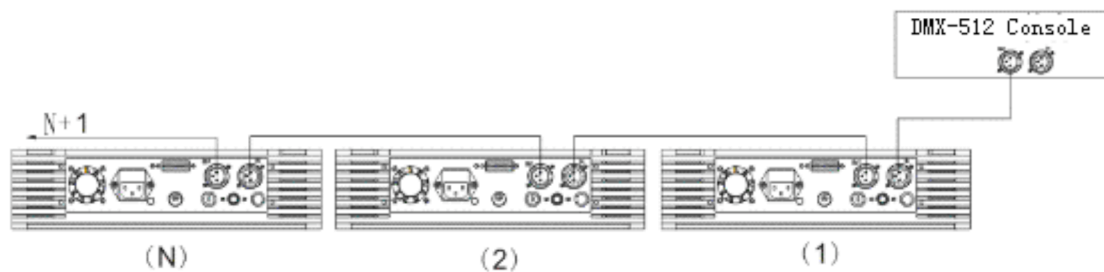
Ice-Fire era series adopt international standard signal, have 15 model channels, details as below:

CHANNEL		DMX-512 NUMERICAL VALUE 0_255	CONTROL CONTENT
CH1	geometric pattern page	0_30	Laser source turn off
		31_61	DMX geometric pattern model
		62_92	DMX geometric SHOW editing model
		93_123	DMX geometric SHOW automatic model
		124_154	DMX geometric SHOW music control model
	animation patterns page	155_185	DMX animation patterns model
		186_216	DMX animation SHOW editing model
		217_247	DMX animation SHOW automatic model
248_255		DMX animation SHOW music control model	
CH2	Multiple channel	1_255	Pattern model: pattern A selection
		0_255	SHOW model_laser SHOW selection
CH3	Multiple channel	1~255	Pattern model: pattern B selection
		0~255	SHOW model_laser SHOW part selection
CH4	pattern C selection	1~255	Pattern model: pattern C selection
CH5	pattern D selection	1~255	Pattern model: pattern D selection
CH6	Multiple channel	0~51	A_B_C_D pattern be controlled simultaneou
		52~103	Pattern A control effect
		104~155	Pattern B control effect
		156~207	Pattern C control effect
		208~255	Pattern D control effect
		0~255	1. 0 is the turn-off laser SHOW part editing function 2. 1~255is the turn-on laser SHOW part editing function
CH7	Rotation effect	1~127	Angel rotating selection_15CH speed adjustment
		128~191	anticlockwise
		192~255	clockwise
CH8	Vertical reversal effect	1~127	Vertical rotation linearity adjustment_15CH speed adjustment
		128~255	Vertical rotation speed selection
CH9	Horizontal reversal effect	1~127	Horizontal rotationlinearity selection, 15CH speed adjustment
		128~255	Horizontal rotation speed selection
CH10	Moving effect	1~127	Horizontal moving speed selection
		128~255	Vertical moving speed selection
CH11	Gradual drawing effect	0~41	gradual increasing drawing
		42~83	gradual decreasing drawing
		84~127	gradual increasing and decreasing drawing
	Dot effect	128~255	Adjustment of point brightness

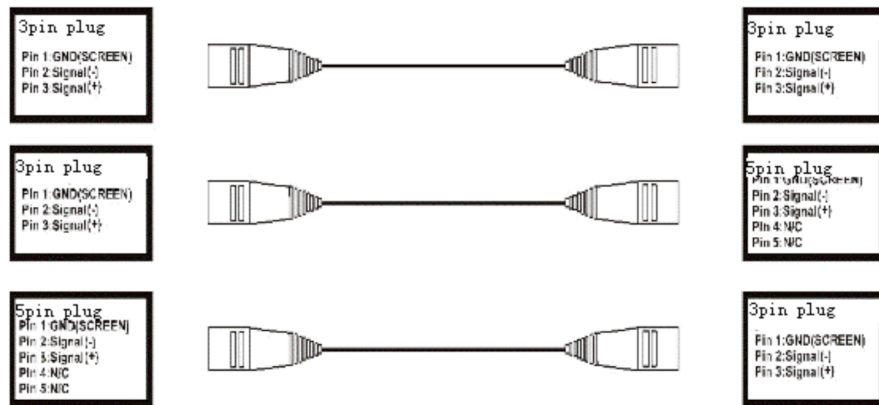
CH12	Vertical position	1~255	Vertical position adjustment
CH13	Horizontal	1~255	Horizontal position adjustment 15CH speed adjustment
CH14	Zoom in/out effect	1~127	Adjustment of pattern size 15CH speed adjustment
		128~169	Pattern from small to big 15CH speed adjustment
		170~211	Pattern from big to small, 15CH adjustment speed
		212~255	Zoom patterns 15CH speed adjustment
CH15	Speed adjustment	0~255	CH11_CH12_CH13_CH14 show speed adjustment

### ➤ Signal Connection and Address Code Dialing

DMX signal transmission adopts EIA-422/485 dedicated serial communication shielded twisted-pair cable, to connect through a pair of "input" and "output" of the 3-pin XLR socket. Control signal entry from the "input", and exit from the "output", XLR sockets Pin 1 Ground, Pin 2 Positive and Pin 3 Negative. If it fails to control by the wrong polarity, the 2 and 3 can be exchanged mutually. Each circuit could connect 32 lamps at most, the total length of the line should be controlled within 300 meters, and the terminal should be in the lamp output of 2 \_ 3 feet connect a resistance of 120 ohm,0.25W to ensure the normal communication. Connection as follows:



If your DMX-512 signal controller adopt 5 pins XLR plug, you need one transfer line from 5 pin to 3 pins, the transfer method as following:



When you use the DMX-512 control, all of the ice-fire era serial laser performers should set the start address code in order to control information can be transmitted accordingly. When set the first lamp starting address code as 1, due to with 15 channels, so the second lamp starting address code should be base on previous lamp start address code and to add the channel, that is to set 16. Similarly, the third lamp starting address code should be set to 31, and so on.

DMX-512 DIP binary switch (from left is 1) set the start address in the following table:

1	2	3	4	5	6	7	8	9	Dialing code
1	2	4	8	16	32	64	128	256	Numerical value

computational formula: the address code=(N-1) x Channel number+1(N means the number of light you use)

for example:

the address code of the eighth laser light= $8-1 \times 15+1=106$  accordingly the binary dialing code 2\_4\_6\_7 is (ON), the rest is (OFF)

The details of DMX-512 signal control mode address switch as following

Light No	Start address	Binary code ON
1	1	1
2	16	5
3	31	1 2 3 4 5
4	46	2 3 4 6
5	61	1 3 4 5 6
6	76	3 4 7
7	91	1 2 4 5 7
8	106	2 4 6 7
9	121	1 4 5 6 7
10	136	4 8

The Ice-Fire era series projector system adopts the running mode of using on/off switch dialing code to operate the product. The unit set the address code of DMX 512 signal from 1 to 9, 10 is the exchange switch of DMX512 signal control and music control automatic master and slave.

Control mode set up, detail as bellow:

	MODE	Binary code dialing (ON)
1	DMX-512 mode	1~9 set Switch-address code 10 is ON
2	Geometric show Music active mode Master mode	1_9 is ON_10 is OFF
3	Animation show Music active mode Master mode	2,9 is ON, 10 is OFF
4	Geometric show automatic mode Master mode	1 is ON_9,10 is OFF

5	Animation show automatic mode Master mode	2 is ON, 9,10 is OFF
6	Slave mode	10 is ON, the rest no need to set

➤ **Four LED Indicator Light Explanation:**

1. Red indicator light: on is light error protection status, off is normal status.
2. Green indicator light: on is light normal working status.
3. Blue indicator light: on is under sound control status.
4. Yellow indicator light: on is under DMX-512 model or slave model status, when the indicator is flashing, it's under with signal status.
5. When the blue and yellow light is off, it is under automatic statue.

➤ **The skill of editing various patterns with DMX-512:**

Pattern A\_B\_C\_D's channel is controlled separately, you can turn on or off, exchange pattern freely, it's very convenient to use.

When the CH2\_CH3\_CH4\_CH5's channel address is 0, it will turn on/off the pattern A\_B\_C\_D accordingly\_

The four pattern's effects controlling channel is used repeatedly, it can switch through CH6:

When the CH6 is 0~51, the A\_B\_C\_D patterns be controlled simultaneously  
When the CH6 is 52~103, the pattern is A, When the CH6 is 104~155, the pattern is B, When the CH6 is 156~207, the pattern is C, When the CH6 is 208~255, the pattern is D.

➤ **Edit the DMX-512 inside laser show segment:**

1\_CH2 for laser SHOW selection, CH3 for selection the SHOW segment of being edited, when CH6 is 0, it will turn off SHOW segment edit , when CH6 is 1~255, it will turn on SHOW segment edit.

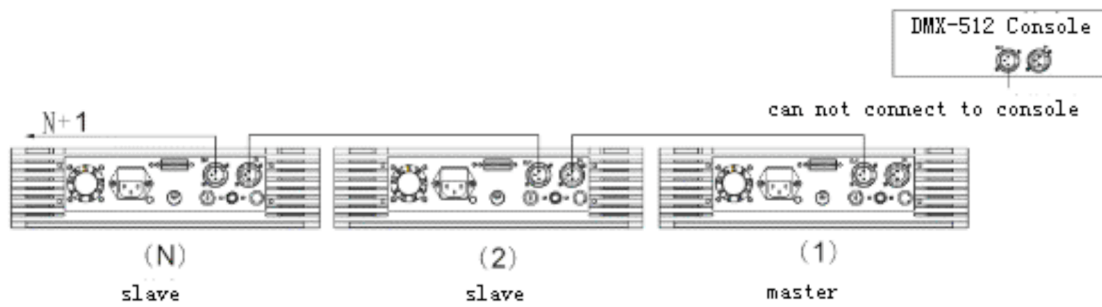
2\_ When CH6 is 0~51, the pattern is under A\_B\_C\_D control simultaneously , When CH6 is 52~103, the pattern is A, When CH6 is 104~155, the pattern is B, When CH6 is 156~207, the pattern is C, When CH6 is 208~255, the pattern is D.

➤ **Notice about master-slave synchronization:**

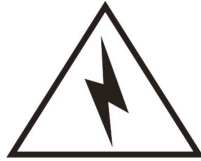
1. When the master machine is running, the light will send DMX-512 signals, but it can't be connected to the DMX-512 controller at that time, otherwise, they will interrupt each other, so they can not be synchronized.

2. When many lights are operating master-slave synchronization, only one of them can be master, the others are slave, or they can't be synchronized.

Master & slave connection details as bellow:



## ➤ Safety marks\_



! This product is Class 1 protection electrical equipment, when you use it, please connect with the grounding line to ensure personal safety.

\_ Please make sure to switch off the power before installation or maintenance.

\_ Please keep the fan entrance and environment ventilated.

\_ This product is suitable for indoor working only.

\_ Please assign eligible person for the installation\_ operation and maintenance, due to most of the broken reason is caused by the error operation.

\_ Please avoid the static laser light shot your eyes, in order to avoid damage your eyes

\_ Avoid electric shock! Bulb overheating\_

\_ Do not use it frequently under the humid atmosphere\_

## ➤ Maintenance\_

It is very important to keep The Ice-Fire era series laser light clean, therefore please clean reflector lens monthly to keep the lights away from dust, dirt or fog juice. We suggest that clean the light with professional glass cleaning lotion and downy cloth. Keep the light clean regularly will not only maintain the maximum laser output brightness but also will extend the life span of the laser