ONE
—PRO—

PRODUCT: COLD SPARK MACHINE

MODEL: MK-E22A

USER
MANUAL

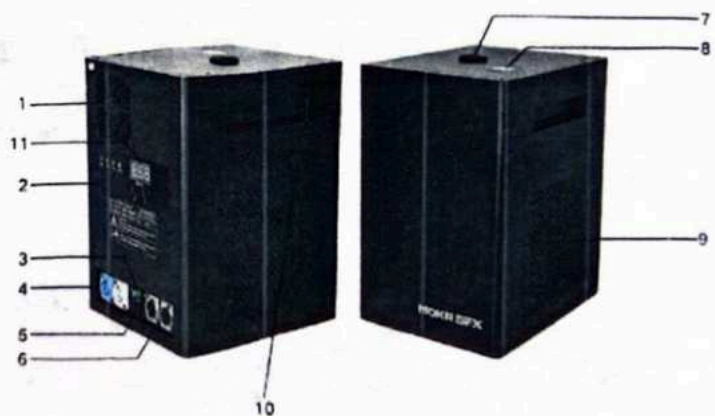**VERSION 2.0**

Dear customers:

Thanks for choose our cold spark machines, pls read the user manual careful before used to get better user experience.

1) Due to the manual content limited, pls understand missed some ofdetail and safety direction in using, and not undertake the responsible of the use result for missing.

2) We will continue to focus on products' research, development and technical improvement to create better experience effects, so we reserve the right to make changes to the products, not do inform, the manual just for your reference, the final based on the products you received.

1.Brief Introduction

Included in delivery:
1 x cold spark machine;
1x power cord;
1 x signal cable;
1 x remote controlle

	OUTLOOK FUNTION DESCRIPTION				
1	Cooling fan	5	Fuse	9	Dust net
2	Remote receiver signal	6	DMX port	10	Access hole
3	Power switch	7	Powder hole	11	Display
4	Power port	8	Spray hole	12	

Product Parameters

Fountain Height	3-6m	Fountain direction	Up
Interface	Double DMX input, Double AC power	Control mode	DMX / Remote
Gross Power	900w 8A(110V) 900w 4.1A (220V)	Heating way	Electromagnetic heating
Powder box capacity	250g	Housing material	Aluminum
Fuse	110V/12A, 220V/6A	Size/N.W	220*250*310mm 7.8kg

2.Operation Panel

READY: Green light. When the "READY" green light turns from flashing into light on, it indicates that the machine is ready to work.

DMX: Blue light. Flashing shows that DMX signal is connected, otherwise no signal.

FAULT: Yellow light. The light is on with any malfunction.

HEAT: Red light. When the machine is heating, signal light is on.
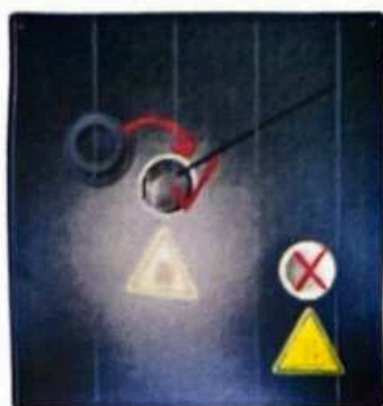
1) DMX address code adjustment.

△ : Means increasing DMX address code; long press helps increase fast.

▽ : Means decreasing DMX address code; long press helps decrease fast.

Note: When used DMX 512 signal control mode, each device is connected through DMX signal socket INPUT and OUTPUT of the device. The 3-pin XLRXL plug terminals of the connected device must correspond to each other. It is recommended to use DMX signal terminators when connecting device signals, and use double stranded shielded cables can avoid signal interference.

3.Operation Instruction

There have two operate mode: DMX 512 console, remote controller
Please ensure sufficient consumables before use; After added consumables, cover the rubber plug (don't add to wrong fountain hole)
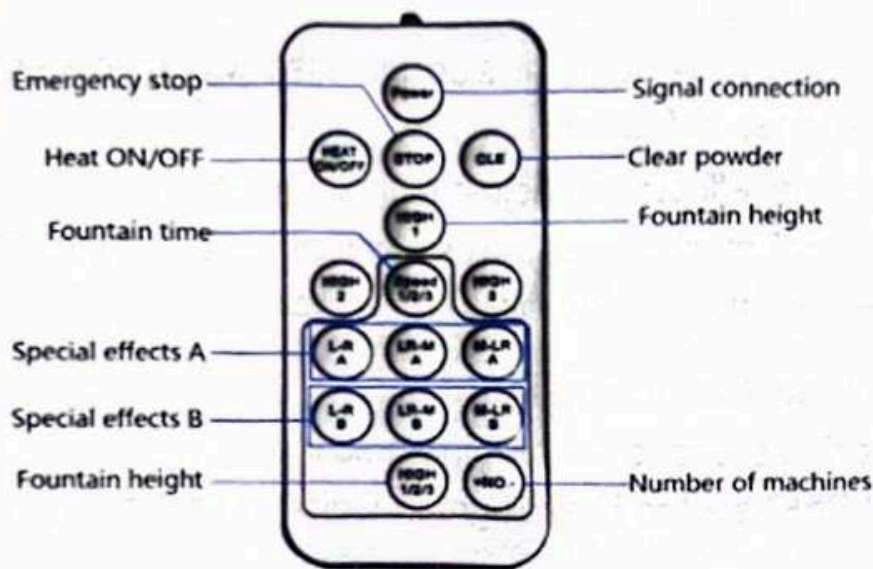

The hole add consumables

1) DMX Operation

DMX Channel (2 Channels)					
1st channel	0-10	11-220	221-239	240-255		
Function	Pre-heat turnoff	Emergency stop	Clear Powder	Pre-heat turn on		
Display	Add. code	E57	CLE	0-500		
2nd channel	0-15	16-39	40-63	64-87	88-111	112-135
Function	Turn off	Fountain 1	Fountain 2	Fountain 3	Fountain 4	Fountain 5
Display	OFF	F1	F2	F3	F4	F5
2nd channel	136-159	160-183	184-207	208-231	232-255	
Function	Fountain 6	Fountain 7	Fountain 8	Fountain 9	Fountain 10	
Display	F6	F7	F8	F9	F10	

Console operation(Occupied 2 channels)

1.Connect the power cable and DMX signal cable of machine, DMX blue indicator light keep in flashing, means DMX signal connected successful.

2.The first channel push to top start heating, till the green indicator light always in lighting, then can do fountain.

1ˢᵗ channel push to top, start heating (value: 240-255)

3.Push the second channel do fountain.

2nd channel do fountain (adjust the fountain height from up to down

4.End of event – Clean powder (cleaning operation refer to point 7)

1st channel down a little bit clean powder (between 221-239)

2)Remote Controller

Buttons usage instruction: the remote controller include two parts, one for basic functions, another for special effects(the functions within black line)

1.Power: short press 1second is connect the machine.

2.HEAT ON/OFF: press button start to heat, red indicator light will lighting, the display will show heating temperature; long press 3seconds is stop heating.

3.STOP: (Emergency stop) stop do fountain.

4.CLE: (Clear powder) the machine will do clear powder 30seconds automatically.

5.HIGH1/HIGH2/HIGH3: (Fountain height) high 1 - fountain lowest, high 3- fountain highest.

6.Speed: (Fountain time adjustment) multi-machines do fountain effects, the fountain time of each machine is 1-3second.

7.L-R A: from left to right each machine do fountain on sequence.

8.LR-M A: from left & right side to middle, there have two machines do fountain at the same time.

9.M-LR A: from middle to left & right side, there have two machines do fountain at the same time.

10.L-R B: from left to right increase one machine do fountain, till all the machines in fountain.

11.LR-M B: from left & right side to middle increase two machines do
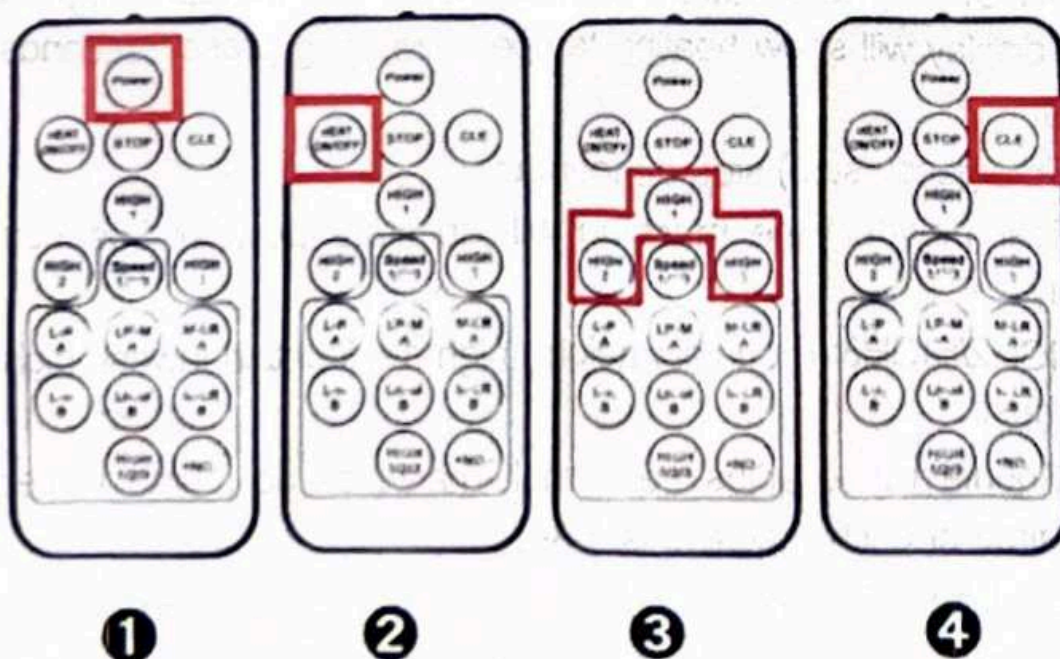
fountain, till all the machines in fountain.

12.M-LR B: from middle to left & right side increase two machines do fountain,till all the machines in fountain.

13.HIGH1/2/3: do special effects can adjust fountain height.

14.+NO.-: the number of machines be adjustment, then adjust the same number as used, the maximum add to fifteen machines.

1) Use remote do normal fountain:

1.Short press "Power" 1second to connect the machine

2.Press "HEAT ON/OFF" start to heat till green indicator light always in lighting.

3.Press "HIGH1/HIGH2/HIGH3" do fountain.

4.End of event – Press "CLE" do clean powder

❶   ❷   ❸   ❹

2) Use remote do special effects fountain:

1.Press "Power" to connect the machine

2.To adjust each machine special effects address code by each machine address code button as picture show; The display will show number or letter like below pictureshow "3" means this is the third machine.

3.Press "+NO.-"adjust the number of machines be used, the display will show number or letter as below pictureshow the right number "4" means total machinesqty, number must be adjusted to meet you need used machinesqty.

4.Press "Heat ON/OFF" start to heat till green indicator light always in lighting.

5.Press special effects A or B buttons will have related special effects.

6.End of event – Press "CLE" do clean powder.

Eg: there have eight machines do special effects, then the programme will show as below:

F18   F28   F38   F48   F58   F68   F78   F88

4.Clean and Maintenance

1)Clear powder:Pls must do Clear Powder after each events used, The series of products designed Two automatic modes of cleaning remaining consumables.

Operation step: When the machine still in the preparatory state after the event, clean the Powder directly (remote controller press button CLE; DMX console use 1ˢᵗ channel push number between 221-239). The automatic cleaning time is 30 seconds, also can stop the cleaning in advance by manually (remote controller press Stop button, push number between 1-221 in 1ˢᵗ channel).
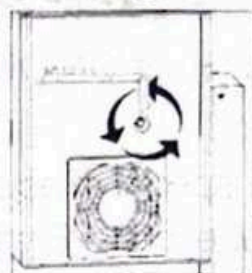
If you need to save the equipment, please pour out the remaining powder inside for separate storage after cleaning, avoid to affect the next use of the remaining powder affected by moisture

2)Dust net cleaning: Please clean the dust net regularly, to avoid block the dust net and influence heat dissipation

of machine.

(The dust screen can be

removed directly from the outside)

3)External cleaning: Please wipe the machine

gently with soft cotton, to avoid scratch the machine housing.

4)Machine be stuck: pls use the wrench

turn the gear counterclockwise; until it loosens,

Then press"cle"do clear powder

5.After-sales

1)Each machine is affixed with the factory code. The factory code shall be provided when enjoying the warranty service. It is invalid if torn.

2)It's may need provide some videos or pictures to confirm the problems.

Fault light (yellow) display and processing method

Display content	Fault causes	Solution
E2	Heating is not controlled/ The internal temperature of the machine is extremely high	1.Check the cooling fan 2.Check if the heat dissipation plate is normal. 3.Replace the heat dissipation plate or heating board.
E3	The heating electronic control panel has no power supply	Replace the electronic master control board
E5	The sensor is faulty	1.Check sensor socket. 2. replace the sensor.

E6	Anti-tilt safety function is enabled	1.Pls restart the machine, don't tilt machine again after power on. 2.Or disable the protection function
E7/E8	Safety protection of blower motor	Shut down the machine to check whether the blower motor is working properly

The display error code will be accompanied by a yellow fault indicator light, and the machine will stop working.

Note:A brief display of E57 indicates that you acted on the stop key, not an error code.

6.Consumables

1)The consumables are classified as:SMALL: the spark fountain height 2.0-4m (error 0.5m), and the spot is rarely dropped,use for indoor. LARGE: the spark fountain height 3.0-6.0m (error 0.5m), and the sprayed spot has dropped ground,use for outdoor.

2)Consumables choice: Consumables are the customized formula for the test of our machines. Please select our consumables to avoid affecting the effect of the machine; (No warranty service is provided for machines damage caused by consumables not from our company).

3)Consumables save: Consumables should be kept in a dry and sealed environment to prevent moisture.(wet and sundry consumables should not be used)

4)Consumables add: Pls stop running the machines before add the consumables, to avoid accidental injury.

7.Warnings and Cautions

⚠	Warning: High temperature warning, high temperature at exit.
⚠	The hole for adding powder
⚠	The sign is to remind users of paying attention to risk and security.Please note that the machines are not meant to be a continuous duration effect. The maximum running time is 30 second and can be repeated but should not be done to overheat the machine.
👓	Eye protection warning sign is to remind you of protecting the eyes during the machine operation.
⚡	Warning: Dangerous voltages are present in this machine when electrical power is applied. There is a danger of injury from electric shock. Under no circumstances are you to attempt to open the machine or attempt to remove or adjust any components fitted within the machine. Only fully trained engineers can open the equipment.
☂	Use caution so that any liquids do not wet the machine. Keep the machine and controller dry and not use rainy or snowy days unless covered.
Cleaning	Please inspect fountain nozzle before use and confirm whether there are accumulation granulates.If it does, please clean out by inverting the machine to clean out port.

1)The machine built-in protection procedures, will stop auto. once do fountain over 30s each time. If need it to work again, please operate the second channel again. The continuous shooting time is too long, the internal temperature will rise sharply and cause permanent damage.

Suggest not do continuous shooting over 1 minutes.

2)Max connection is 4 pieces via power connecting cables, too many devices work together will cause damage or fire.

3) If there is no spark out with enough consumables or other abnormal situation, pls stop running machine and contact after-sale service for help.

4) After use the machines, do not immediately turn off the power. The heat-dissipating fan should take out the internal air when the power is on. Otherwise, the internal heat is quickly transmitted to the surface of housing.

5) Please place the equipment in an open place and keep a safe distance of more than 5 meters from the personnel.

6) Make sure the device is off before filling the consumables.

7) If the consumables are accidentally ignited, please use the sand to extinguish, do not use water.

8) Damage caused by improper use or human factors is not covered by the warranty.