PRODUCT: COLD SPARK MACHINE

MODEL: MK-E11/E15/E12/E16/E17

USER MANUAL

VERSION 2.0

1. PRECAUTIONS

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 of detail 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 effectsso 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.

3)Pls refer to related model explanation before use, the detail as below

Ground big 750W---------- page11-12
Ground mini 650W----------page13-14
Horizontal 650W---------- page15-16
Waterfall 650W---------- page17-18
Moving head 750W---------- page19-20

Package Contents

- 1 x cold spark machine;
- 1 x power cord;
- 1 x single cable;
- 1 x remote controller (moving head spark machines no have this)

2. DMX512 Controller

1)The machine adopts 3-pin signal wire connection (5-pin can be customized), with DMX IN and DMX OUT double interfaces, which can be used for multiple connections and is suitable for standard 512 signal control.

2)Please refer to the corresponding model in the attachment for the channel occupied by DMX and its description (Page 10-15)

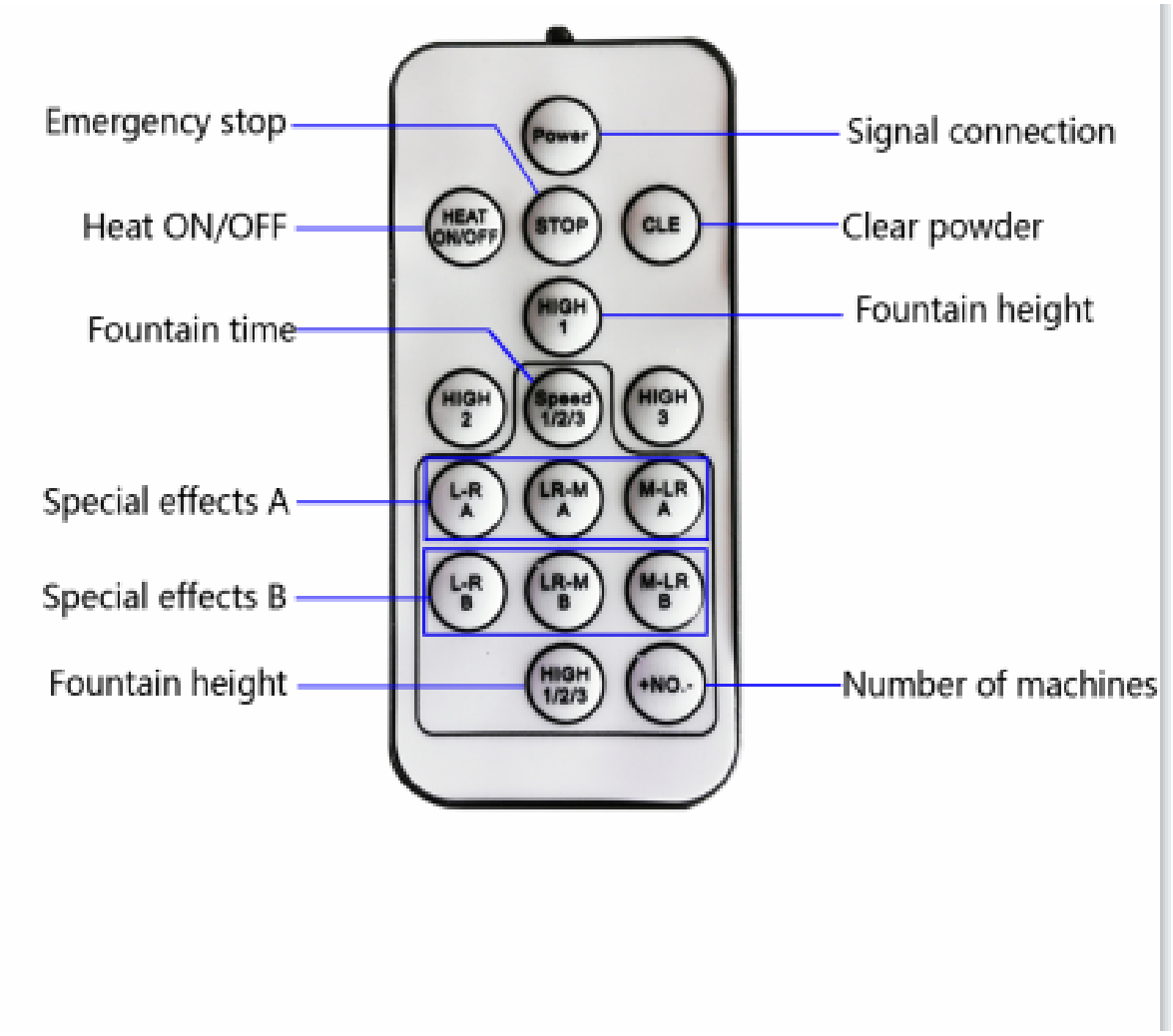
3)DMX address code adjustment

△ 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. Remote Controller

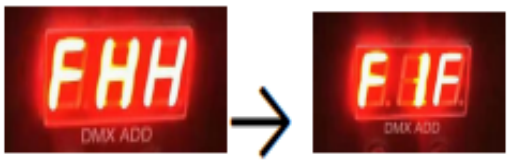


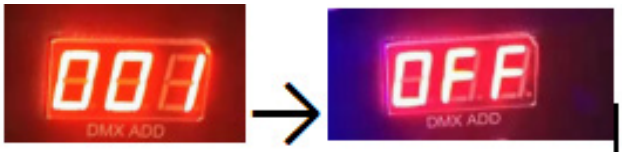
Suitable models instructionthis remote controller be suitable for all of models with remote function.

Suitable machines instructionthe remote controller be suitable for the new machines, which already updated programdelivery date after Apr. 2021this remote also can control previous machines, but just do the basic control functions, cannot realize special effects, that functions show in black line.

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

Power: (signal connectionshort) press 1second is connect the machine, the display will show "FHH" after connected, then "FHH" will change to special effects address as below show, that's connected successful. Long press 3seconds is unconnected, the display show "OFF", then change to "001" as below:

Signal connected successfu l 

Signal unconnected 

HEAT ON/OFF: (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, the heat indicator is off, show the address code of the special effects.

STOP: (Emergency stop) stop do fountain.

CLE: (Clear powder) the machine will do clear powder 30seconds automatically. (pls pour out the rest powder from powder box of machine before do this function)

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

Speed: (Fountain time adjustment) multi-machines do fountain effects, the fountain time of each machine is 1-3seconds, can be adjusted by short press before do fountain.

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

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

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

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

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

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

HIGH1/2/3: do special effects can adjust fountain height, will show different fountain height press every-time.

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

Operation do normal fountain:

Press “power” to connect the machine.

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

Press “HIGH1/HIGH2/HIGH3” do fountain.

Operation do normal fountain:

1) Press “power” to connect the machine.

2) To adjust each machine special effects address code by address code button as picture showthe display will show the number or letter(ABCDEF are correspond number10 to 15 respectively), like below picture show “3” means this is the third machine.

3)Press “+NO.-”adjust the number of machines be used, the display will show number or letter(ABCDEF are correspond number 10 to 15 respectively), as below picture show the right number “4” means total machines qty.

4)Press “Heat ON/OFF” button start to heat, red indicator light will lighting, the display will show heating temperature.

5)Press special effects A or B buttons will have related special effects,it should be do based on finished heating,till the green indicator light always in lighting.

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

F18 F28 F38 F48 F58 F68 F78 F88

Indicator Description

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.

FAULTY ellow light The light is on with any malfunction.

HEATRed light When the machine is heating, signal light is on.

4. Consumables

The consumables are classified as:

SMALL: the spark fountain height 1.0-3.5m （error 0.5m） and the spot is rarely dropped,use for indoor.

LARGE: the spark fountain height 2.0-5.0m （error 0.5m） and the sprayed spot has dropped ground,use for outdoor.

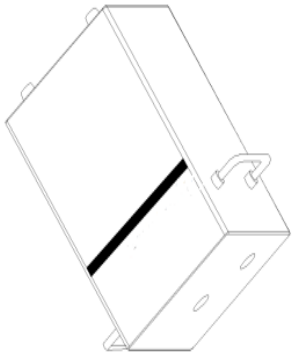
Consumables choice (Consumables are the customized formula for the test of our machines. Please select our consumables to avoid affecting the effect of the machine; (No warranty service is provided for machines damage caused by consumables not from our company).

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

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

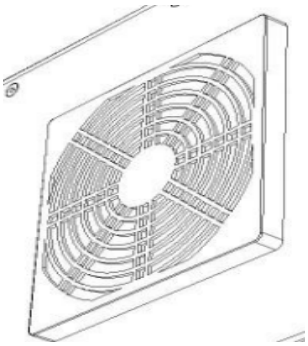
4. Clean and Maintenance

Clear powder Pls empty the remaining consumables after used, and power on use Clear Powder process to clear the remaining material by remote controller or DMX controller. (Note: problems caused by improper cleaning will not be covered by the free warranty).



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

4Internal cleaningThere have clear hole at the bottom of the machine, through which the internal dust can be poured out.

5. After-sales

Warranty1 Year (Subject to the date of manufacture)
Each machine is affixed with the factory code. The factory code shall be provided when enjoying the warranty service. It is invalid if torn

Fault light (yellow) display and processing method

Display content	Fault causes	Solution
E01	Heating failure	1Check if the heat dissipation plate is normal. 2: Replace the heat dissipation plate or heating board.
E02	Heating is not controlled	Replace the heating board.
E03	The internal temperature of the machine is extremely high	1Check the cooling fan. 2: stop heating and operating, restart after 10 minutes.
E04	The air blower does not work	1Check if there is any foreign object falling into the nozzle. 2: Replace the air blower motor.
E05	The sensor is faulty	1Check sensor socket. 2: replace the sensor.

Note: when the fault light is on, users are expected to restart the machine until the fault light is off.

6. Warnings and Cautions

	Warning: High temperature warning, high temperature at exit.
	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)Do not shoot more than 30 seconds each time. If the continuous shooting time is
too long, the internal temperature will rise sharply and cause permanent damage. After a single long-time shooting, the machines should have a short pause to cool down

2)The spark shooting will stop automatically after 30 seconds. If users need it to
work again, please operate the second channel again.

3) Max connection is 6 pieces via power connecting cablestoo many devices work together can cause damage or fire

4) If there is no spark out with enough consumables, it is possible that the chain is
stuck and please open the side rubber and rotate the chain manually. Please contact after-sale service for help if it does not work.

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

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

7) Make sure the device is off before filling the consumables

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

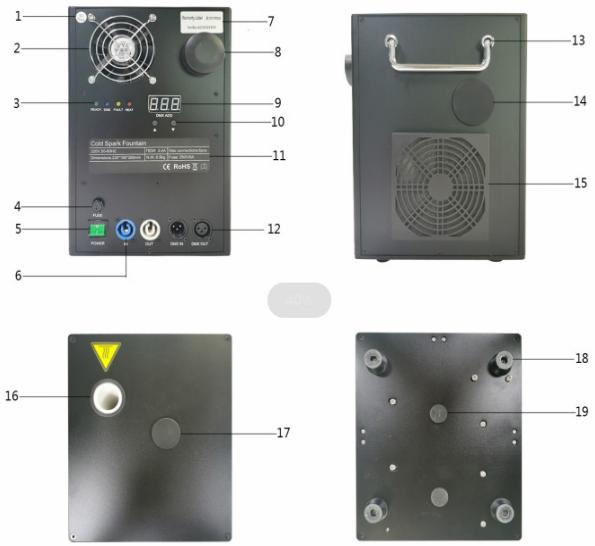
9) Damage caused by improper use or human factors is not covered by the warranty.

10) The final interpretation right belongs to our company.

Attached as below

Ground big 750W

Product Parameters	
Working Height	1-5m
Fountain direction	Up
Working Temperature	-10℃-50℃
Heating Power	750w 6.8A(110V) 750w 3.4A (220V)
Fuse	110V/10A, 220V/6A
Interface	Double DMX input, Double AC power
Control mode	DMX / Remote
Housing material	Aluminum
N.W	8.5kg
Size	230*195*300mm

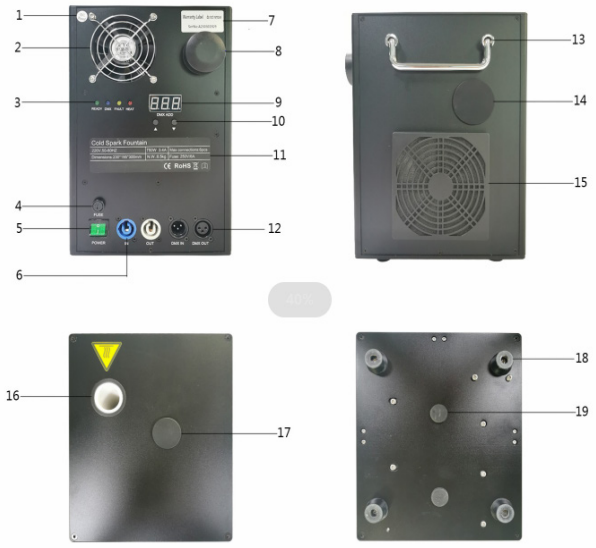


Outlook function description			
1	QC	11	DMX port
2	Cooling fan	12	Fuse
3	Indicator	13	Foldable handle
4	Power port	14	Access hole
5	Power switch	15	Dust net
6	Remote receiver signal	16	Spray hole
7	Display	17	Consumables hole
8	Adjust buttons	18	Pads
9	Parameter label	19	Cleaning hole
10	Factory code		

DMX Channel（2 Channels）					
1st channel	0-10	11-220	221-239	240-255		
Function	Pre-heat turn off	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	Fountain6	Fountain 7	Fountain 8	Fountain 9	Fountain10	
Display	F6	F7	F8	F9	F10	

Ground big 650W

Product Parameters	
Working Height	1-5m
Fountain direction	Up
Working Temperature	-10℃-50℃
Heating Power	650w 6A (110V) 650w 3A (220V)
Fuse	110V/10A, 220V/6A
Interface	Double DMX input, Double AC power
Control mode	DMX / Remote
Housing material	Aluminum
N.W	5.9kg
Size	185*185*252mm



Outlook function description			
1	QC	11	DMX port
2	Cooling fan	12	Fuse
3	Indicator	13	Foldable handle
4	Power port	14	Access hole
5	Power switch	15	Dust net
6	Remote receiver signal	16	Spray hole
7	Display	17	Consumables hole
8	Adjust buttons	18	Pads
9	Parameter label	19	Cleaning hole
10	Factory code		

DMX Channel（2 Channels）						
1st channel	0-10	11-220	221-239	240-255		
Function	Pre-heat turn off	Emergency stop	Clear Powder	Pre-heat turn on		
Display	Add. code	E57	CLE	0-500		
2nd channel	0-15	16-63	64-111	112-159	160-207	208-255
Function	Turn off	Fountain 1	Fountain 2	Fountain 3	Fountain 4	Fountain 5
Display	OFF	F1	F2	F3	F4	F5

Horizontal 650W

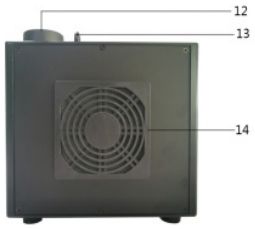
Product Parameters	
Working Height	1-5m
Fountain direction	Upside down
Working Temperature	-10℃-50℃
Heating Power	650w 6A (110V); 650w 3A (220V)
Fuse	110V/10A, 220V/6A
Interface	Double DMX input, Double AC power
Control mode	DMX / Remote
Housing material	Aluminum
N.W	6.3kg
Size	205*205*193mm

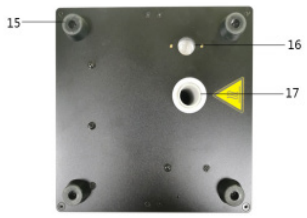
Outlook function description			
1	QC	9	Factory code
2	Power port	10	Adiust buttons
3	Indicator	11	Cooling fan
4	Parameter label	12	Remote receiver signal
5	Power switch	13	Safety rope hook
6	DMX port	14	Pads
7	Fuse	15	Spray hole
8	Display		

DMX Channel（2 Channels）						
1st channel	0-10	11-220	221-239	240-255		
Function	Pre-heat turn off	Emergency stop	Clear Powder	Pre-heat turn on		
Display	Add. code	E57	CLE	0-500		
2nd channel	0-15	16-63	64-111	112-159	160-207	208-255
Function	Turn off	Fountain 1	Fountain 2	Fountain 3	Fountain 4	Fountain 5
Display	OFF	F1	F2	F3	F4	F5

Waterfall 650W

Product Parameters	
Working Height	1-5m
Fountain direction	Upside down
Working Temperature	-10℃-50℃
Heating Power	650w 6A (110V); 650w 3A (220V)
Fuse	110V/10A, 220V/6A
Interface	Double DMX input, Double AC power
Control mode	DMX / Remote
Housing material	Aluminum
N.W	6.3kg
Size	205*205*193mm





Outlook function description			
1	QC	11	DMX port
2	Cooling fan	12	Fuse
3	Indicator	13	Foldable handle
4	Power port	14	Access hole
5	Power switch	15	Dust net
6	Remote receiver signal	16	Spray hole
7	Display	17	Consumables hole
8	Adjust buttons	18	Pads
9	Parameter label	19	Cleaning hole
10	Factory code		

DMX Channel（2 Channels）						
1st channel	0-10	11-220	221-239	240-255		
Function	Pre-heat turn off	Emergency stop	Clear Powder	Pre-heat turn on		
Display	Add. code	E57	CLE	0-500		
2nd channel	0-15	16-63	64-111	112-159	160-207	208-255
Function	Turn off	Fountain 1	Fountain 2	Fountain 3	Fountain 4	Fountain 5
Display	OFF	F1	F2	F3	F4	F5

Moving head 750W

Product Parameters	
Working Height	1-5m
Fountain direction	Upside down
Working Temperature	-10℃-50℃
Heating Power	650w 6A (110V); 650w 3A (220V)
Fuse	110V/10A, 220V/6A
Interface	Double DMX input, Double AC power
Control mode	DMX / Remote
Housing material	Aluminum
N.W	6.3kg
Size	205*205*193mm

Outlook function description			
1	Cooling fan	7	Consumables hole
2	Parameter label	8	Power switch
3	Display	9	DMX port
4	Indicator	10	Fuse
5	Adjust buttons	11	Power port
6	Spray hole		

DMX Channel（5 Channels）						
1st channel	0-10	11-220	221-239	240-255		
Function	Pre-heat turn off	Emergency stop	Clear Powder	Pre-heat turn on		
Display	Add.code	E57	CLE	0-500		
2nd channel	0-15	16-63	64-111	112-159	160-207	208-255
Function	Turn off	Fountain 1	Fountain 2	Fountain 3	Fountain 4	Fountain 5
Display	OFF	F1	F2	F3	F4	F5
3rd Channel	X-axis rotation angle（540°）					
4th Channel	Y-axis rotation angle（120°）					
5th Channel	Rotation speed adjustment					

1.Address adjustment: MENU-- DMX Address Setup --OK --UP/DOWN

2.Temperature adjustment: MENU-- Temperature Setup --OK -- UP/DOWN

(Temperature range: 580-650 degree, presetting: 620 degree)

3.X-axis direction: MENU-- X Reverse Setup-- OK --UP/DOWN

(ON: clockwise direction, OFF: anticlockwise direction)

4.Y-axis direction: MENU -- Y Reverse Setup -- OK --UP/DOWN

(ON: clockwise direction, OFF: anticlockwise direction)

5.Screen Saver Setup: MENU -- Screen Saver Setup -- OK -- UP/DOWN

(ON: clockwise direction, OFF: anticlockwise direction)