COLD SPARK MACHINE
USER MANUAL

Model：vertical fountain-600W

1.Product Introduction

Package Contents：

1）Cold spark machine*1
2）Power cord*1
3）DMX signal cord*1
4）Remote*1
5）Manual*1
6）Hex wrench*1

Outlook function description					
1	Spray hole	5	Power switch	9	Powder hole
2	Remote receiver signal	6	Fuse	10	Handle
3	Display	7	DMX port		
4	Power port	8	Access hole		
Product Parameters					
Working height(m)		1-5			
Fountain direction		Up			
Heating system/Warm up		Electromagnetic heating；＜5minutes			
Control mode		DMX/Wireless remote			
Clear powder function		Yes			
Power(W)		600w 6A (110V)； 600w 3A (220V)			
Fuse		110V/10A, 220V/6A			
Interface		Dual DMX, dual AC power			
Housing material		Metal			
N.W(kg)		5kg			
Dimension(mm)		181*181*255mm			

2.Interface Functions

1) Indicator description

READY：Green light - ready for work do spray

DMX： Blue light   - DMX signal is connected, otherwise disconnected

FAULT：Yellow light   - the light on with malfunction

HEAT： Red light   - heating indicator

Note： Red indicator means heating, machine included intelligent interval cycle temperature control, it will start heating automatically(red indicator will light on) once temp. reaches lowest; the red indicator will go off when temp. reaches its max., this belongs to normal phenomenon.

2) Buttons instruction

MENU:

1: Address code setting: DMX address code when using console control.

2: Temp. Setting: fine-tune the heating temperature range, do not adjust it at will under normal conditions.

3: Master-slave setting: master-slave settings for remote control of flowing water effects (invalid in DMX control mode).

4: Total qty of machines: the total number of machines when doing flowing water effects be controlled by remote.

5: Remote address: remote control special effects when the machine corresponding address (non-DMX address) when doing flowing water effects be controlled by remote.

6: Backlight setting：LCD screen setting.

7: Language setting：CN-EN.

UP:

DOWN:

ENTER:

3.Remote Controller

1) **Suitable models instruction:** the remote only be suitable for this model, it will default to remote control automatically when unplugged DMX signal cord.

2) **Buttons usage instruction:** the remote controller include two parts, one for basic functions, another for special effects.
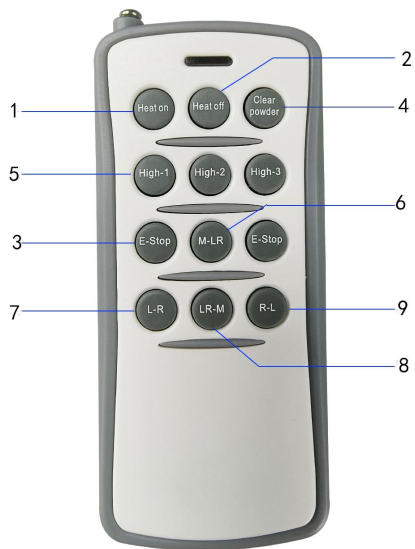
Basic functions:

❶Heat on: turn on heating

❷HEAT OFF: turn off heating

❸E-STOP: stop working

❹Clear powder: clear powder(automatic cleaning 30s, can press the E-stop to stop)

❺HIGH1/HIGH2/HIGH3: spray gears, HIGH1 - lowest spray height HIGH3 - highest spray height
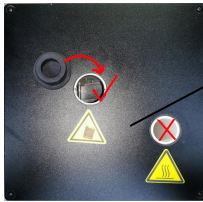
Flowing water effects area buttons

(need to do the machine coding in advance, please refer to the fourth operation instruction)

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

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

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

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

4.Operation Instruction

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

The hole add consumables

Remote control operation process: Two operation modes (normal mode/special effects mode)

1)Use remote do normal fountain:

❶Press(Heat on) -- Start heating, red indicator light on

❷Press(HIGH1/HIGH2/HIGH3) -- Do spray(after finished heating till green indicator light always in lighting)

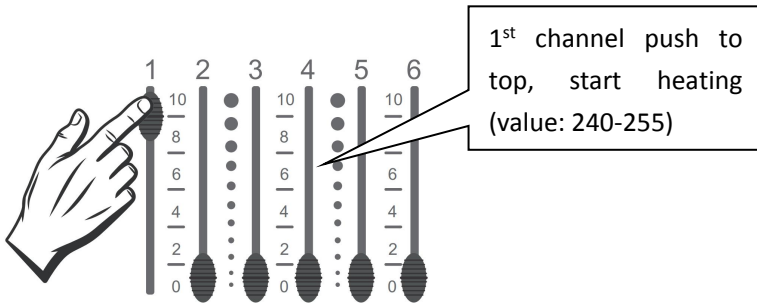❸End of event -- Press "CLE" do clean powder (cleaning operation refer to point 6)

2)Remote do flowing water effects operation

❶First connect all machines in series with the configured DMX cord first (supply the signal transmission, remember not to connect to the console).

❷Set the first machine as the host: adjust the third item of the display menu (master/slave settings) to the host, and adjust the fourth item (total number of machines) to the actual number of machines participating in the flowing water effects; Fifth item(remote control address) is adjusted to 1; Host setup complete.

❸The following machines adjust fifth item (remote control address) to 3, 5, 7... (must be empty 1 digit base in turn).

❹Press(Heat on) -- start heating, red indicator light.

❺Press(M-LR/L-R/LR-M/R-L) -- do spray (it will not be sprayed until all the machines are heated and the green indicator is on).

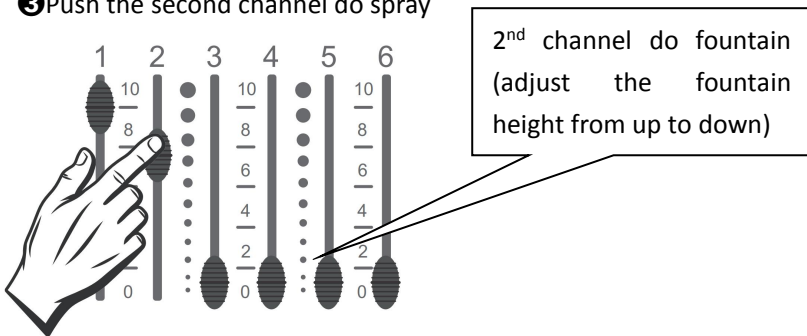❻End of event -- Press CLE do Clean powder(refer to point 6).

Note: All special effects horse automatic running cycle will automatically stop after 5 times; You can also press E-stop to stop the race in advance
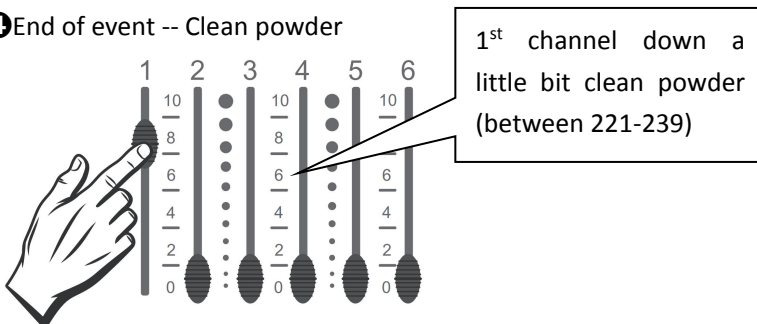
Console operation(Occupied 2 channels):

❶ Connect DMX signal cable till blue indicator keep lighting, means successful connection.

❷The first channel push to top start heating(the display will show dynamic temp. figures in real time), till the green indicator light always in lighting, then can do spray.

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

❸Push the second channel do spray

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

❹End of event -- Clean powder

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

Console channel:

1)The machine uses 3-pin signal line link, included DMX IN and DMX OUT dual interface, can be used for multiple connections, applicable to standard DMX 512 controller.

2)DMX channel:

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

5.Consumables

1) 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.

2) Consumables choice: Please select the corresponding consumables from our factory, so as not to affect the effect of the machine(because the selection of other unqualified consumables caused by the machine stuck or damage does not enjoy the warranty). Please choose different types of

corresponding consumables according to the used occasions.

3) Consumables save: Consumables should be kept in a dry and sealed environment to prevent moisture(wet and sundry consumables should not be used).
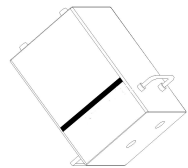
4) Consumables add: If found the spray is less, please turn off the machine and observe whether there are consumables in the barrel and add them.

6.Clean and Maintenance

1)Clear powder： Pls must do Clear Powder after each events used, avoid be stuck by inside powder for next use. The series of products designed two automatic modes of cleaning remaining consumables.
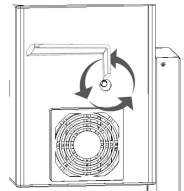
Operation step: When the machine still in the preparatory state after the event, clean the powder directly (remote controller press button Clear powder; DMX console use 1st channel push number between 221-239). The automatic cleaning time is 30 seconds, also can stop the cleaning in advance by manually (remote controller press E-stop button, the console to stop the cleaning, push number between 1-221 in 1st channel).

If need to store the equipment again, after the cleaning is completed, before storage, please dump the remaining consumables for separate storage. Avoid the remaining consumables be affected by moisture for next time use.

2)External cleaning： Please wipe the machine gently with soft cotton, to avoid scratch the machine housing.

3)Be stuck handling: When the machine is stuck,

it can be rotated counterclockwise with the

configured hex wrench until it is turned, then clear powder.

7.After-sales

1) Warranty: 1 Year (subject to the date of manufacture)
2) Each machine is affixed with the factory code. The factory code shall be provided when enjoying the warranty, it is invalid if torn.
3) When dealing with after-sales problems, it may be necessary to provide some videos or pictures for reference.

Fault light (yellow) display and processing method

Display content	Fault causes	Solution
E01	Heating failure	The heating plate or heater is damaged (first check whether the indicator light on the heating plate is on)
E02/E03	Temperature probe	Check whether the temperature probe has fallen off or if in poor contact
E04	Heating plate overheats	The heating plate is not controlled. Replace the heating plate
E05	Machine inside is overheated	Check whether the heat dissipation fan is normal

Note： After the fault light is on, please turn off the power supply of the machine and stop operation in time, and contact the after-sales service to avoid additional losses. After the fault light is on, you need to restart the machine until the fault light is off.

8.Warnings

	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.
☂	Warning: The moisture warning indicates that the operator should keep the spray machine and controller in dry, and do not use it in rain or snow.
Cleaning	After the performance, it should be observed whether there is nodulation in the spray hole, if there is, it needs to be cleaned up, nodulation will affect the spray effect, even damage the machine. After the performance, the cleaning function should be used to remove the residual consumables in the spray machine pipeline. Before transportation, the residual consumables in the storage tank of the spray machine should be poured out, and be stored in a dry and sealed environment.

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.

2) If machine not spray normally or other abnormal conditions during use, please stop the machine operation immediately and contact the after-sales service.

3) 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.

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

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

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

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