SHOWVEN®

# USER MANUAL
# SPARKULAR® MOBILE

V1.2

2025/06/16

Showven Technologies Co., Ltd.

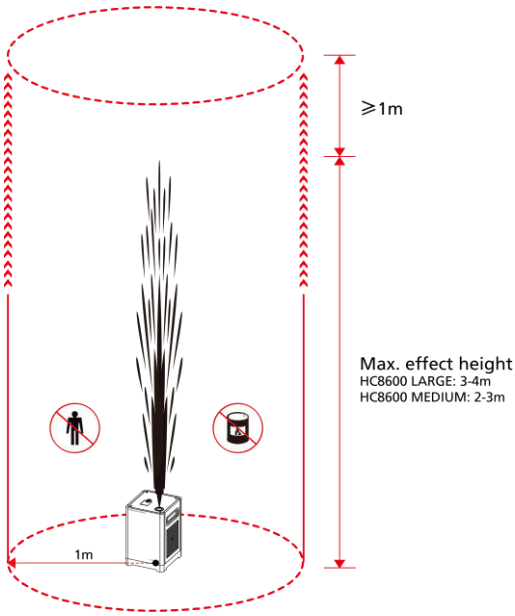
Thanks for choosing SPARKULAR® MOBILE, we wish it will sparks up your show. Please read the following manual carefully before operating this product.

## Δ Safety Instructions

\ Unauthorized repair are prohibited, it may cause serious incident.
\ Keep SPARKULAR® MOBILE dry and do NOT use in rain or snow.
\ Make sure lid of feeding hopper are well covered when use SPARKULAR® MOBILE.
\ Accidentally burning of consumable in hopper can use sands to extinguish to protect machine.
\ Consumables should be kept away from moisture and stored in a dry sealed environment.
\ Check whether there is consumable aggregate in the output nozzle both before and after each show, if any, please clean it up, or it will affect the firing effect or even damage SPARKULAR® MOBILE.
\ For better heat dissipation, blocking the air intake and air outlet is prohibited.
\ It is strictly forbidden to cover the nozzle when in use.
\ The device contains a lithium-ion battery, so use it at a temperature of -10℃C to 50℃C. Too high temperature may cause a fire, and too low temperature will reduce battery performance.
\ It is forbidden to disassemble or puncture the battery with a sharp object in any way, and avoid excessive physical impact and vibration.
\ Frequent over discharge can cause the battery to fail. To prevent battery over discharge please maintain a certain amount of electricity and remember to charging it timely after use. Remember to recharge it at least every two months no matter use it or not.

### Safety Distance

\ Keep audience and flammable material at a minimum distance of 1m from SPARKULAR® MOBILE.
\ Make sure sparks shoot out from SPARKULAR® MOBILE can NOT touch any objects. And keep a clearance with minimum 1m from the setting maximum effect height.
\ In windy environment, increase the safety distance according to the wind direction and speed.
\ The safety zone area changes accordingly when machine installed in tilt position. Please increase the safety distance in the direction which machine tilt.
\ Sparks and consumables from the machine can lead to serious eye injury. Always wear safety goggles when enter the safety zone.



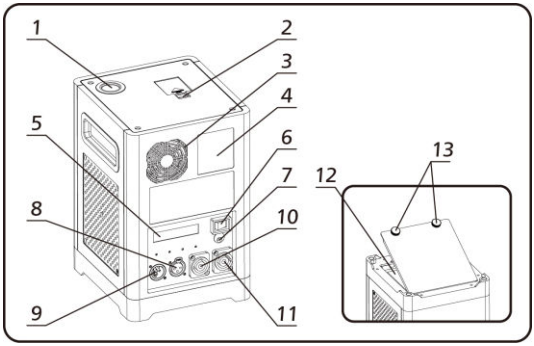

## Δ Description

SPARKULAR® MOBILE is a compact and portable SPARKULAR® machine that is specifically designed for small party settings. It can be placed anywhere without the need for complex wiring.

## Δ Technical Specifications

\ **DIMENSION:** 168×180×257mm
\ **WEIGHT:** 6kg
\ **CHASSIS MATERIAL:** FLAME RETARDANT ABS AND ALUMINUM
\ **VOLTAGE**: AC 100-240V 50/60Hz
\ **WORK POWER:** 100W
\ **BATTERY:** LITHIUM ION BATTERY(10000mAh @25.2V)
\ **HEATING TIME:** 2 MINS
\ **STANDY TIME**: >144h(NOT HEATING UP)
>3h (HEATING UP STATUS)
\ **CHARGING TIME:** 5h (MAXIMUM CHARGING TIME)
\ **TEMPERTURE:** -10℃~50℃
\ **EFFECT HEIGHT:** 2-3m (MEDIUM), 3-4m (LARGE)
\ **SPRAYING DIRECTION:** VERTICAL UP
\ **HOPPER CAPACITY:** 100g
\ **CONSUMABLE CONSUMPTION:** 15g/min
\ **INTERFACE:** 3-pin XLR, POWER IN/OUT
\ **CONTROL:** DMX 2 CHANNELS, 2.4GHz WIRELESS, 433 MHz WIRELESS

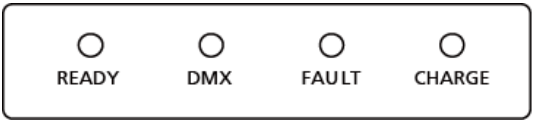
## Structure of SPARKULAR® MOBILE




1.Output Nozzle
2.Feeding Hopper Lid
3.Cooling Fan
4.Swipe area
5.LCD Screen
6.Power Switch
7.DC 5V Output
8.DMX OUT
9.DMX IN
10.POWER IN
11.POWER OUT
12.Battery
13.Hand Screws of battery compartment

## Δ Operation Panel

**1. LED display area**




**READY:** After turn on machine, it will automatically preheat around 2 minutes, when the "READY" green light turns from flashing into long on, indicates that the machine is ready to work.

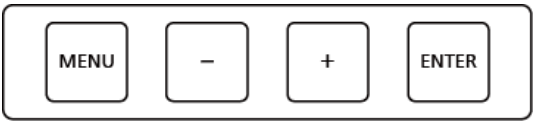
**DMX:** Flashing shows that DMX signal or wireless signal is connected, otherwise is without signal.

**FAULT:** When any malfunction, the indicate light turn on.

**CHARGE**: The charging indicator light. RED - charging, GREEN - charging is complete.

**Note:** The CHARGE indicator light will work when the power cord is connected, regardless of whether the device is powered on or off.

### 2. Control button area




**MENU**: Short press to switch interface, press and hold for 3 seconds can switch to the advanced setup interface

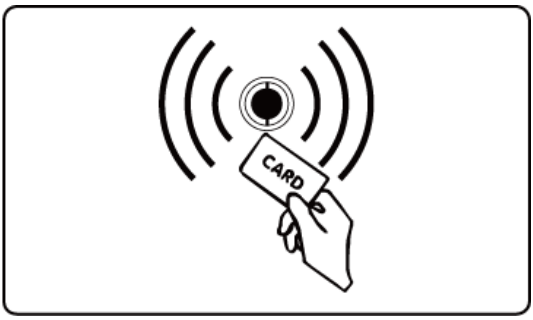
**-:** Parameters down

**+:** Parameters up

**ENTER**: Confirm and save parameters.

**Note:** If there is no button operation within 15 seconds, the display will automatically switch to the main interface.

### 3. RFID area



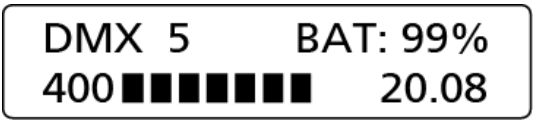

The consumables come with an identification card, which is used for swiping to identify the parameters and types of consumables.

Please note that the card can increase specific working time for a single machine.The RFID card is disposable, one card can only use one time.

Each RFID card come with 50g package HC8600 can increase single machine 4min working time, the maximum recharge time for SPARKULAR® MOBILE is 30min, when time remain reached 30min, please don't swipe anymore RFID card.

## Δ Interface

### 1. Main Interface




**First line Left Side:** Display DMX address is "5"

**First line Right Side:** Display the current remaining battery power

**Second line Left Side:** Display the present inner core temperature and the temperature progress bar

**Second line Right Side:** Display remaining time is 20 minutes and 8 seconds

## 2. Error Information

| Error codes | Error information | Explanation |
|---|---|---|
| E0 | System | Systematic error |
| E1 | Fan/Shaft | The fan motor or shaft motor is wrong |
| E2 | Temp. Sensor | Temperature sensor is not connected or damage |
| E3 | P Temp. Over | Chassis over-temperature |
| E4 | Time Remain | Insufficient granules or remaining time, please swiping time card |
| E5 | K Temp. Over | Heating chamber over-temperature |
| E6 | Heat Fail | Heating failed |
| E7 | Tip Over | Dump alarm |
| E8 | Heat Protect | Heating overload protection |
| E9 | Battery Error | Battery alarm |

## 3. Setting Menu

Press "MENU" to enter the Setting interface, press the "MENU" button to enter different options until you return to the main interface.

| Options | Range | Default | Explanation |
|---|---|---|---|
| Set DMX Address | 1-512 | 1 | Set the DMX address |
| DMX Channel Mode | 2CH-N/3CH-P | 2CH-N | DMX channel mode selection |
| Wireless Remote | ON/OFF | ON | Wireless function switch, you can match machine with remote controller when at "ON" status |
| Manual Fountain | ON/OFF | OFF | Manual fountain switch , for testing purposes only |
| Auto Heat | ON/OFF | OFF | Automatic heating switch(When set to ON, DMX and wireless cannot turn off the preheat function) |

## 4. Advanced Menu

Press and hold "MENU" for 3 seconds to enter the advanced setup interface, press MENU key to enter different options, wait 3 seconds to return to the main interface.

| Options | Range | Default | Explanation |
|---|---|---|---|
| Set Temperature | 350-520 | 400 | Setup inner Core temperature |
| Density | 70-100 | 100 | Adjust the sparks density |
| Mode Selection | User Mode<br>Factory Mode | User Mode | User Mode/Factory Mode |
| Tip Over Error | ON/OFF | ON | Tilt protection function switch |
| Standby Switch | ON/OFF | OFF | When ON, the machine can firing only when heating up was finished |

## 5. Monitoring Interface

After pressing the ENTER key, you can enter the monitoring menu. Press the MENU key to access different options, and press the ENTER key again to return to the main interface.

| Options | Explanation |
|---|---|
| PCBA Temperature | PCB Temperature |
| Fan Sensor | Fan Sensor |
| Fan Out | Fan Feedback |
| Shaft Sensor | Shaft motor Sensor |
| HEAT Sensor | Heat Function Sensor |

## 6. DMX Channel Mode

There are two different channel mode optional for SPARKULAR MOBILE. 2CH-N and 3CH-P.

**2CH-N:**

SPARKULAR MOBILE occupies 2 operational DMX channels. First channel is for effect height, second channel for effect trigger and clear material etc.

| CH1 | Functions |
|---|---|
| 0-15 | Fountain OFF |
| 16-135 | Low Effect Height |
| 136-255 | High Effect Height |
| **CH2** | **Functions** |
| 0-10 | Pre-heat OFF |
| 20-40 | Stop Fountain |
| 60-80 | Clear Material |
| 240-255 | Pre-heat ON |

**3CH-P:**

In 3 channel mode, SPARKULAR MOBILE occupies 2 operational DMX channels and a separate safety channel.

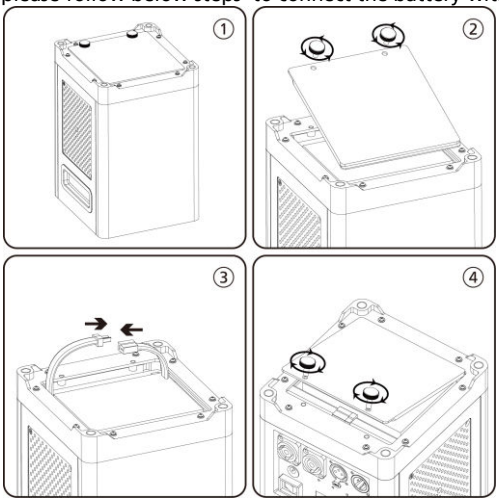
**Note**: The safety channel address can be assigned through the "Safety Address" in menu. After the setting the safety channel, "DMX" address and the "SAFE" address will display on the main interface alternatively.

| CH1 | Functions |
|---|---|
| 0-15 | Fountain OFF |
| 16-135 | Low Effect Height |
| 136-255 | High Effect Height |
| **CH2** | **Functions** |
| 0-10 | Pre-heat OFF |
| 20-40 | Stop Fountain |
| 60-80 | Clear Material |
| 240-255 | Pre-heat ON |
| **CH-Safety Address** | **Functions** |
| 50-200 | Deviced armed |
| 0-49, 201-255 | Device disarmed |

## Δ Operation Guide

### 1. Connect SPARKULAR MOBILE with battery

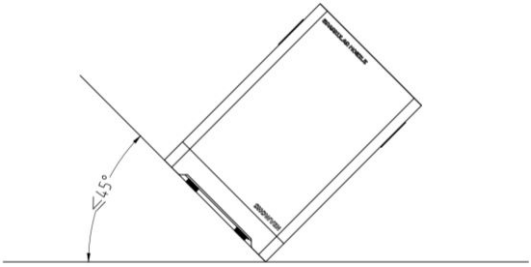
For safety, the battery of SPARKUALR MOBILE is disconnected from the machine. After unbox the machine, please follow below steps to connect the battery with machine.



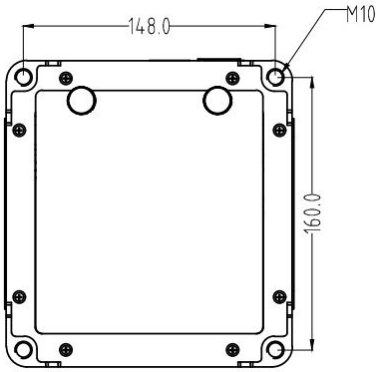

①Turn the machine upside down
② Remove the screws of the bottom plate.
③ Take out the wires and connect. (Make sure POWER SWITCH of macine stays at OFF status when connecting)
④ Put the wire back and cover the bottom plate, screw tight the screws.

### 2. Install SPARKULAR® MOBILE

a) Horizontal installation is preferred for SPARKULAR® MOBILE. If need to installed SPARKULAR® MOBILE in angles, please turn the Tip over to OFF status first, maximum firing angle is 45 ° and can only be angled to the right side as below picture.
b) Make sure the machine is securely installed to avoid tipping.
c) The safety zone area shifts accordingly when machine installed in tilt position. Please increase the safety distance in the direction which machine tilt.
d) Check carefully the output nozzle of each machine, make sure the output nozzle is in good shape and there is no powder aggregate.



e) SPARKULAR® MOBILE can also be installed on truss through four M10 screw hole at the bottom.

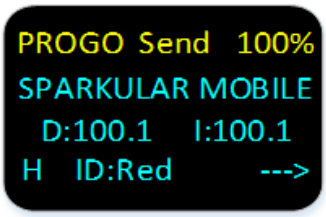



### 3. Fill SPARKULAR® MOBILE

a) Open powder bags and fill the feeding hopper. Hopper capacity of SPARKULAR® MOBILE is 100g.
b) Choose correct consumable according to the application scenario. HC8600 LARGE will have some sparks drop on ground, suggest HC8600 MEDIUM or SMALL for indoor use.
c) Maximum effect height for HC8600 LARGE is 4m, HC8600 MEDIUM is 3m.
d) Make sure the lid of hopper is locked tight after filling.

### 4. Power ON SPARKULAR® MOBILE and Control

a) Switch ON SPARKULAR® MOBILE. Check the time remain of each machine, if there is not enough time for the show please swipe RFID card.
b) Control by FXmote, SHOWVEN FXmote can realize multi effects control on SPARKULAR MOBILE such as chasing etc effects for multi units of machine. Please set it according to below steps.
c) FXmote setting: power on FXmote, in “Device” menu please choose SPARKULAR MOBILE trhough the switch with “+” or “-“ untill find “SPARKULAR MOBILE PROGO”. Press “MENU” back to main interface, it will show as below.



d) Set the wireless remote function to ON status at setting menu and press ENTER to save the change on SPARKULAR MOBILE.

e) Press the "SET" button on FXmote to match FXmote with SPARKULAR MOBILE.

f) Press the related button to firing and stop of SPARKULAR MOBILE.

**Note:**

Wireless function disabled when SPARKULAR® MOBILE connect with DMX cable.

For more detailed control of SPARKULAR MOBILE via FXmote please refer to FXmote manual.

### 5. Turn off and Clean up

a) Power off SPARKULAR® MOBILE, allow SPARKULAR® MOBILE to cool down.

b) Empty the remaining HC8600 in hopper, and store the remaining HC8600 in a dry sealed bottle for next time use. Never touch the output nozzle of SPARKULAR® MOBILE when empty the hopper. DANGER OF GET BURNT!

c) Clean the surroundings to remove powder residues.

## Δ Charging for SPARKULAR® MOBILE

SPARKULAR® MOBILE can be connected in daisy chain with power link cable, with a maximum of 16 devices connect in series. 16 devices connect in series require a power close to 1600W, the wire core should exceed 1.5 square wire diameter.

## Δ Maintenance

a) Empty the feeding hopper before shipment of machine.

b) Empty the feeding hopper if long time not use, for high humidity environment we suggest to empty feeding hopper after show.

c) Clear material both before and after the show for SPARKULAR® MOBILE.

d) Recommended to wash or replace the air intake filter every two months.

e) Please fully charge SPARKULAR® MOBILE if not use for a period of time.

f) Remember to recharge it at least every two months no matter use it or not.

## Δ Warranty Instructions

\ Sincere thanks for your choosing our products, you will receive quality service from us
\ The warranty period of battery of SPARKULAR® MOBILE is 6months after shipping out from our factory.
\ The main part of SPARKULAR® MOBILE warranty period is one year. If there are any quality problems within 7 days after shipping out from our factory, we can exchange a brand new same model machine for you.
\ We will offer free of charge maintenance service for machines which with hardware malfunction (except for the instrument damage caused by human factors) in warranty period. Please don't repair machine without factory permission

**Below situations NOT included in warranty service:**

\ Damage caused by use other type of consumable which is not originally from SHOWVEN®.
\ Damage caused by improper transportation, usage, management, and maintenance, or damage caused by human factors;
\ Disassemble, modify or repair products without permission;
\ Damage caused by external reasons (lightning strike, power supply etc.)
\ Damage caused by improper installation or use;

For product damage not included in warranty range, we can provide paid service.
Invoice is necessary when applying for maintenance service from SHOWVEN®.

SHOWVEN®

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