

SPARK EFFECT SP-F90 flame machine



★ Please read this manual carefully before use

★ This manual includes a warranty card

▲ **matters needing attention**

● Do not open the shell for repair on your own

● Please confirm if the power supply voltage matches the rated voltage of the equipment and use a grounded socket

● It is not allowed to add fuel while powered on

● The safe distance between people and flammable materials has been marked on the equipment

● There must be no water in the oil tank of the machine

● Need to extinguish the fire, use a carbon dioxide fire extinguisher

● Please use high-quality professional flame oil, otherwise there may be malfunctions or dangers. Do not add any other materials to the oil drum, and be very careful when adding flame oil

● The operator should be able to directly see the status near the equipment and can immediately terminate the performance. When an abnormality occurs, all equipment power should be disconnected in a timely manner

● The structure of the device should not be changed, and the device cannot be used for purposes other than manufacturing design

▲ **preface**

Thank you for our company's flamethrower products. Before starting to use, we recommend carefully reading the instruction manual. Following the instructions in the manual can ensure your safety while using the device, maximize its performance, and extend its lifespan. Use the flamethrower only according to the rules and instructions in this manual. If you have any questions about usage, please call our company. The personnel operating the device must possess relevant professional knowledge

▲ **Disclaimers**

Our company does not assume responsibility for the following reasons:

1: Ignore the warning displayed in the flamethrower or this document

2: For purposes and environments other than those described in this article

3: Changes in flamethrowers, including the use of non original spare parts

4: Accidents or damages caused by unauthorized dismantling of equipment

5: Improper use of equipment

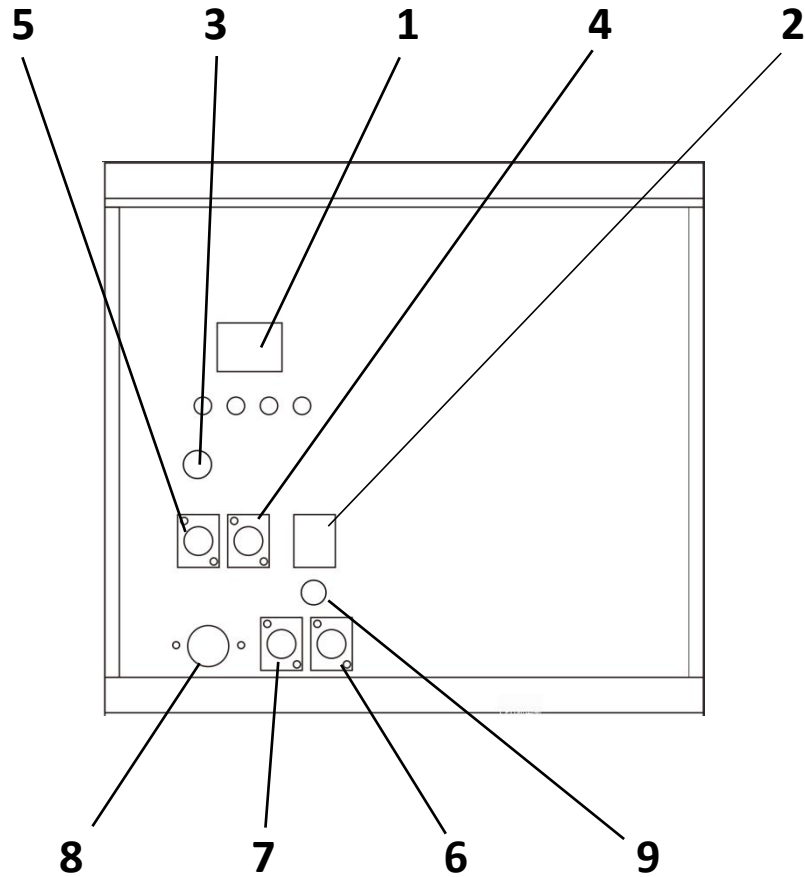
Functional Features

- Liquid fuel direct injection, flame height 8-10 meters
- Stainless steel shell, sturdy and durable without rusting
- Dual ignition system ensures ignition success rate
- IPX3 waterproof rating, can be used normally even in rainy weather
- Equipped with a tilt sensor, any tilt of 45 degrees in any direction will close the nozzle
- Provide DMX model control, compatible with any DMX console
- Built in 5L fuel tank, no need for external piping
- Provide an English menu with simple and convenient operation
- Anti tipping function, the machine will stop and sound an alarm if tilted 45 degrees

▲ technical parameter

Product Name	SPARK EFFECT - SP-F90 Flame machine
Scope of use	Outdoor and indoor
Use voltage	AC100-240V
power	350W
control mode	DMX512
Waterproof grade	IPX3
Use consumables	Isopropanol; Isomeric alkanes G, H, L, M
External dimensions	Length 36 CM, Width 35 CM, Height 35 CM
Net weight (without fuel)	15.3KG
Fuel capacity	5L
Fuel consumption	60 milliliters per second
Spray angle	Vertical upward
Spray height	8-10 meters

▲ Detailed explanation of control surface



1. display
2. power switch
3. Safety lock
4. DMX512 signal output
5. DMX512 signal input
6. Power input
7. Power output
8. Charging connector
9. Insurance

Note: The flamethrower can only start the flamethrower when the power switch and safety lock button are pressed simultaneously. The safety lock button is only in test mode, and the flamethrower does not spray fuel

▲ LCD display operation panel



▲ Key function

“MENU”: menu

“UP”: DMX 通道加 0-255

“DOWN”: DMX channel minus 0-255

“ENTER”: Confirm key, save DMX address

Requires DMX console control, with a total of 3 channels

1 channel: Spitfire (maximum duration of 2 seconds)

2 channels: Invalid channels, to prevent false triggering, should always be 0

3 channels: pressurization/safety

▲ Boot Sequence

1. Power on and power on (At this time, the safety lock must be in the closed state, otherwise it will alarm and cannot be used. - Power off and restart)
2. Adjust the DMX address code and insert the signal line (the machine will lock the screen and the buttons will be invalid when the signal is connected)
3. Open the safety lock and confirm that there are no abnormal states after the machine is powered on
4. Evacuate personnel to a distance of 5 meters away

▲ Operation sequence

- 1、 Pressurize the machine before work - push 3 channels to 255 (pressurization takes approximately 40 seconds)
- 2、 1-channel flamethrower (value in the range of 200-255, maximum time: 2 seconds)
 - Attention: Insufficient pressure during flame spraying will also automatically stop
 - Oil free state cannot be pressurized

▲ 使用流程

When using, it should be done in the following order

- 1、 Place the machine on a level surface and use the fixing screw holes on both sides of the machine to secure it to the ground
- 2、 Remove the rain cover and add sufficient specialized fuel to the oil drum
- 3、 Ensure that the safety lock of the machine is in the testing position
- 4、 Ensure that all corresponding DMX channels are set to 0
- 5、 Plug in the power cord to the machine and turn it on
- 6、 Ensure that there are no abnormal states after the machine is powered on
- 7、 Turn the safety lock to the working state and keep people away
- 8、 Push 3 channels to 255 for pressurization 3 minutes before work
- 9、 Ensure that there are no personnel around before starting work
- 10、 Push channel 1 to 255 and start the flamethrower
- 11、 After completing the work, first reset the 3 channels to 0 and release the pressure to the machine
- 12、 After channel 3 is reset to 0, turn off the main power switch
- 13、 After turning off the main power switch, unplug the DMX data cable, turn

the machine switch to the off state, and turn the safety lock to the test state

14、 It is not allowed to add fuel after powering on

15、 When setting the DMX address, first turn the security lock to the testing state, turn off the machine power switch, unplug the DMX data cable, restart, then set the DMX address, press ENTER to save, turn off the power, and plug in the data cable

▲ Safety lock



**Rotate clockwise at this time
to switch to normal mode**

▲ When the safety lock key is in parallel (facing red), it is in test mode and the machine does not spray oil. This mode can be used as a test machine

Attention: If the current state is not turned on, please ensure that the safety lock is in normal mode before turning it on. Otherwise, the machine will beep and sound an alarm after turning on, and all functions will be disabled



Rotate counterclockwise at this point to switch to testing mode

▲ When the safety lock key is in a vertical position (facing green), it is in normal mode and the machine can be used normally. This mode can spray real flames, please pay attention to safety

Attention: When the safety lock key is in a vertical position (facing green) before turning on the machine, the machine will beep an alarm after turning on, and all functions cannot be used. At this time, the machine should be turned off and the safety lock position should be set to a parallel state (facing red) to use it normally

▲ Maintenance and upkeep

- 1、 It is recommended to have the equipment run at least once a month to maintain optimal performance and equipment condition
- 2、 After use, spray the fuel in the equipment pipeline clean. The oil pot should not be filled with water, and the equipment should not be drained of water, otherwise it will damage the internal parts
- 3、 When not in use, the waterproof cover of the plug should be covered and placed in a cool and dry place, away from moisture and direct sunlight. It is recommended to use the factory made cardboard box (aviation box) for packaging
- 4、 The fuel tank should be kept dry at all times, and there should be no dust, leaves, or other debris entering. Except for fuel specifically designed for flame spraying, there should be no liquid or debris inside the fuel tank
- 5、 The 2 safety locks equipped should be properly kept to prevent loss. If accidentally lost, please contact the manufacturer for replacement

Warranty Statement

- ▲ Sincere thanks for choosing this product. As a customer of our company, you will receive high-quality after-sales service provided by our company
- ▲ The warranty period for this product is one year, If there is a quality issue within seven days of leaving the factory, our company can guarantee a replacement of the same model of product
- ▲ During the warranty period, if there is a hardware malfunction caused by the product itself, our company will provide free repair services for customers. Please do not disassemble and repair it yourself
- ★ The following are not within the scope of warranty services:
 - 1、 Improper handling, use, management, and maintenance by users
 - 2、 Unauthorized disassembly, modification, or repair
 - 3、 Due to external factors (lightning strikes, water immersion)
 - 4、 Damage caused by incorrect installation or use by the userProducts not covered by warranty require payment for repairs
- ★ Please present the warranty card during maintenance

warranty card

Product Name:		Product model:	
Purchase date:			
contact number:			
Address:			
Reflect information:			
Actual malfunction:			
Processing details:			
Repair personnel:		Repair date:	