

5-Way Flame Machine



- ★ Please read this manual carefully before use
- ★ Including warranty card, please make sure to keep it properly

▲ Precautions

- Do not open the shell for repair on your own
- Please confirm if the power supply voltage matches the rated voltage of the equipment
- It is not allowed to add fuel while powered on
- Please pay attention to the usage environment. The safe distance has been marked on the device
- There must be no water in the fuel tank of the equipment
- If firefighting is required, use a carbon dioxide fire extinguisher
- Please make sure to use high-quality professional flame oil, otherwise there may be malfunctions or dangers, and do not add any other materials to the oil drum
- The operator should be able to directly see the status near the equipment. When there is danger, the performance can be terminated immediately, which is the safest approach

- The device cannot be used for purposes other than manufacturing and design purposes

▲ Foreword

Thank you for using our 5-Way Flame Machine. Before use, we recommend carefully reading the instruction manual to ensure your safety and maximize the performance of the equipment, as well as extend its service life. If you have any questions about usage, please contact our company. The personnel operating the equipment must have relevant professional knowledge, including correct use, maintenance, and repair of the equipment defined in the instructions

▲ Disclaimers:

Not responsible for accidents and damages caused by the following reasons:

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

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

3: Using non-original spare parts, insufficient maintenance, etc.

4: Accidents or damage caused by unauthorized dismantling of equipment

5: Improper use of equipment

▲ Functional Features

- Liquid fuel direct injection, maximum flame height: 8-10 meters
- IPX3 rainproof rating + full series waterproof connectors
- Built-in pumping device, no external air source required
- 3-core + 5-core dual DMX waterproof interface
- Built-in fuel tank level sensor for accurate fuel level detection
- Tilt sensor; the nozzle will shut off when tilted 45 degrees in any direction
- Full stainless steel body with rainproof structural design
- Equipped with electronic safety lock and low fuel alarm function
- Optional fuel supply device enables remote automatic fuel refueling
- Built-in 40L large-capacity fuel tank, no need for frequent refueling
- The DMX controller can realize dozens of combined flame spray effects

▲ Technical Parameter

product name	5-Way Flame Machine
Scope of use	Large-scale stage performances
Use voltage	AC100-240V
power	1600W
control mode	DMX512
Waterproof Level	IPX3 (rainproof design)
Consumables	Isopropanol; Isomeric alkanes G, H, L, M
Machine size	Length 71 CM Width 51 CM Height 44 CM
net weight	65KG
Fuel Capacity	40L
Single Nozzle Fuel Consumption	60 milliliters per second
Spray angle	Five directions
Spray height	8-10 meters (windless condition)



▲ Electric control surface

1. Display Screen
2. Electronic Safety Lock
3. 3-core DMX512 Input/Output
4. 5-core DMX512 Input/Output
5. Power Switch
6. Fuse
7. Power Output
8. Power Input

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

▲ DMX512 Channel Chart

Channel	Function	Reference Value 1	Function 1	Reference Value 2	Function 2
1	No.1 Port	0-200	Nozzle Off	200-255	Nozzle On
2	No.2 Port	0-200	Nozzle Off	200-255	Nozzle On
3	No.3 Port	0-200	Nozzle Off	200-255	Nozzle On
4	No.4 Port	0-200	Nozzle Off	200-255	Nozzle On
5	No.5 Port	0-200	Nozzle Off	200-255	Nozzle On
6	Sequence	0-24	Manual Mode	25-255	Sequence Mode
7	Ignition	200-255	Fire		
8	Refueling	200-255	Refuel		

Caution:

Channel 1/2/3/4/5 correspond to No.1/2/3/4/5 flame nozzle of the flame machine

When Channel 6 is switched to Sequence Mode, Channels 1, 2, 3, 4, and 5 are inactive

▲ Serial number

Numbers 1, 2, 3, 4, and 5 represent the serial numbers of the flame nozzles; 0 indicates								
Step	Time	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Sequence Range
5	Short	12345	0	12345	0	12345		25-29
3	Short	15	24	3				30-34
3	Short	3	24	15				35-39
3	Short	15	1245	12345				40-44
3	Short	3	234	12345				45-49
4	Short	1	4	2	5			50-54
4	Short	15	1245	345	3			55-59
4	Short	3	345	1245	15			60-64
4	Short	5	2	4	1			65-69
5	Short	1	2	3	4	5		70-74
5	Short	5	4	3	2	1		75-79
5	Short	3	24	15	24	3		80-84
5	Short	1	24	3	24	5		85-89
5	Short	1	12	123	1234	12345		90-94
5	Short	5	45	345	2345	12345		95-99
5	Short	123	0	345	0	12345		100-104
5	Short	345	0	123	0	12345		105-109
5	Short	15	24	3	24	15		110-114

5	Short	3	24	15	24	3		115-119
6	Short	1	12	23	34	45	5	120-124
6	Short	5	45	34	23	21	1	125-129
9	Short	1	2	3	4	5	4	130-134
		3	2	1				
11	Short	1	12	23	34	45	5	135-139
		45	34	23	12	1		
5	Long	12345	0	12345	0	12345		140-144
3	Long	15	24	3				145-149
3	Long	3	24	15				150-154
3	Long	15	1245	12345				155-159
3	Long	3	234	12345				160-164
4	Long	1	4	2	5			165-169
4	Long	15	1245	345	3			170-174
4	Long	3	345	1245	15			175-179
4	Long	5	2	4	1			180-184
5	Long	1	2	3	4	5		185-189
5	Long	5	4	3	2	1		190-194
5	Long	3	24	15	24	3		195-199
5	Long	1	24	3	24	5		200-204
5	Long	1	12	123	1234	12345		205-209

5	Long	5	45	345	2345	12345		210-214
5	Long	123	0	345	0	12345		215-219
5	Long	345	0	123	0	12345		220-224
5	Long	15	24	3	24	15		225-229
5	Long	3	24	15	24	3		230-234
6	Long	1	12	23	34	45	5	235-239
6	Long	5	45	34	23	21	1	240-244
9	Long	1	2	3	4	5	4	245-249
		3	2	1				
11	Long	1	12	23	34	45	5	250-254
		45	34	23	12	1		
11	Short	12345	0	12345	0	12345	0	255-255
		12345	0	12345	0	12345		

Caution:

Slide Channel 6 sequence selection to the target sequence range, then activate Channel 7 to trigger the corresponding flame combination effect of the sequence range

Digits 1, 2, 3, 4, and 5 correspond to the respective flame nozzle numbers.

Please refer to the spray angle diagram. Digit 0 stands for stop

▲ Set DMX Address Code

Set the address code of the flame machine as follows:

Spitfire machine serial number	DMX address code
1	1
2	9
3	17
4	25
5	33
6	41
7	49
8	57
9	65
10	73
11	81
12	89
13	97
14	105
15	113
16	121

Attention: Incorrect DMX address code may cause flamethrower to lose control

▲ Quick operation instructions

1. Install the machine. It shall only be mounted horizontally on the ground or a sturdy truss. If installed on a truss, ensure the machine is firmly fixed and fitted with safety locks
2. Refueling: Please only use original dedicated flame machine fuel. The use of inferior fuel may cause poor spray effect, nozzle blockage, and other faults
3. Plug in the power cord and connect the signal cable
4. Turn on the power switch, please confirm that the electronic safety lock is in an inactive state before turning it on
5. Set the DMX address code. The flame machine occupies 8 channels. Please refer to the DMX channel table for detailed information
6. Turn on the electronic safety lock. Press the electronic safety lock button once; the green light will turn on, and the flame machine is ready for normal ignition
7. Enable all five nozzles (push Channels 1, 2, 3, 4, and 5 to the maximum, within the range of 200-255)

8. Refueling (Push Channel 8 to maximum, set to 200-255)
9. Ignition (Push Channel 7 to maximum, set to 200-255)
10. After use, first drain the fuel (pull down Channel 8 to 0)
11. Press the electronic safety lock button again. The green light will go out, and the flame machine will be locked
12. Power off the unit, disconnect the power cord and signal cable. Drain and collect any unused fuel from the fuel tank. Store the equipment only after the nozzles have fully cooled down

▲ Maintenance

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, it is recommended to use the factory-provided aviation case for installation to avoid direct sunlight and moisture
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. Before and after each performance, it is necessary to check whether there are any foreign objects on the ignition electrode. If there are, please clean them up in a timely manner

Warranty Statement

Sincere thanks for choosing this product. 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, it can be replaced with a product of the same model

During the warranty period, if the hardware malfunction is caused by the product itself, our company will provide free repair services for customers. Please do not disassemble and repair it yourself

The following situations are not covered by the warranty service:

1. Improper handling, use, maintenance, or human damage by users
2. Unauthorized disassembly of the product
3. External factors (lightning strikes, water immersion, etc)
4. Damage caused by incorrect installation or use by the user

Products that are not covered by warranty will be provided with paid repair services

warranty card

Product Name:		Serial number:	
Purchase date:			
contact number:			
Address:			
Situation reflection:			
Actual malfunction:			
Processing details:			
Repair personnel:		Repair date:	