

# **USER MANUAL**

## **uFlamer**

V1.0  
2019.12



- ★ Please read this manual carefully before operating this product.
- ★ Warranty card attached in the manual, please keep it well.

## ▲Warning

- Unauthorized repair are prohibited, it may cause serious incident.
- Make sure power supply is consistent with the rated voltage of the equipment, and the socket must be well grounded. Unplug and turn off the machine when not use.
- Before connect the power cable, communication DMX cable should be well connected and ensure the command keep at firing OFF status. And safety lock stay at test mode.
- The device can only be placed horizontally. Safety distances are marked on the device (at least 15m in all projection directions, at least 5m to the other sides of the device).
- After turning on the device, no person allows to stay in the danger area. Ensure all persons that are part of the show be informed about the safety distance, risks and functions of the device.
- Always have a CO2 fire extinguisher and an extinguishing blanket in case of needed.
- If there be any doubt as to the safety operation of the device in any circumstances, the device should be taken out of service immediately. Be sure the device is in good operating condition before use. If fail to fire correctly, immediately shut down and check it accordingly.
- Be sure to use high quality flame fluid, otherwise, it is easily lead to failure or danger. Be careful when refill the flame fluid tank. Please keep flame fluid away from heat source, sparks, fire or other possibility of ignition. Do not smoke!
- The operator responsible for the control of uFlamer must always have a clear view of the device, so that he/she can stop the show immediately when there is danger. The main AC power switch should be near operator. So that operator can turn off the power of all devices in case of abnormal.
- The device shall not be altered and applied to other use purpose.

## ▲Foreword

Thanks for choosing uFlamer. Please read following manual carefully and completely before operating this product. Operate according to instructions is very important for safety, and can elongate the service life of the machine.

Strictly follow the instruction in the manual when operate uFlamer. If you have any doubts, please contact SHOWVEN technologies Co., Ltd by [info@showven.cn](mailto:info@showven.cn).

We assume the person who use or come in contact with the device are familiar with how the device should be handled. This includes proper use, maintenance and repair of the machine as defined in this user manual.

### Disclaimers:

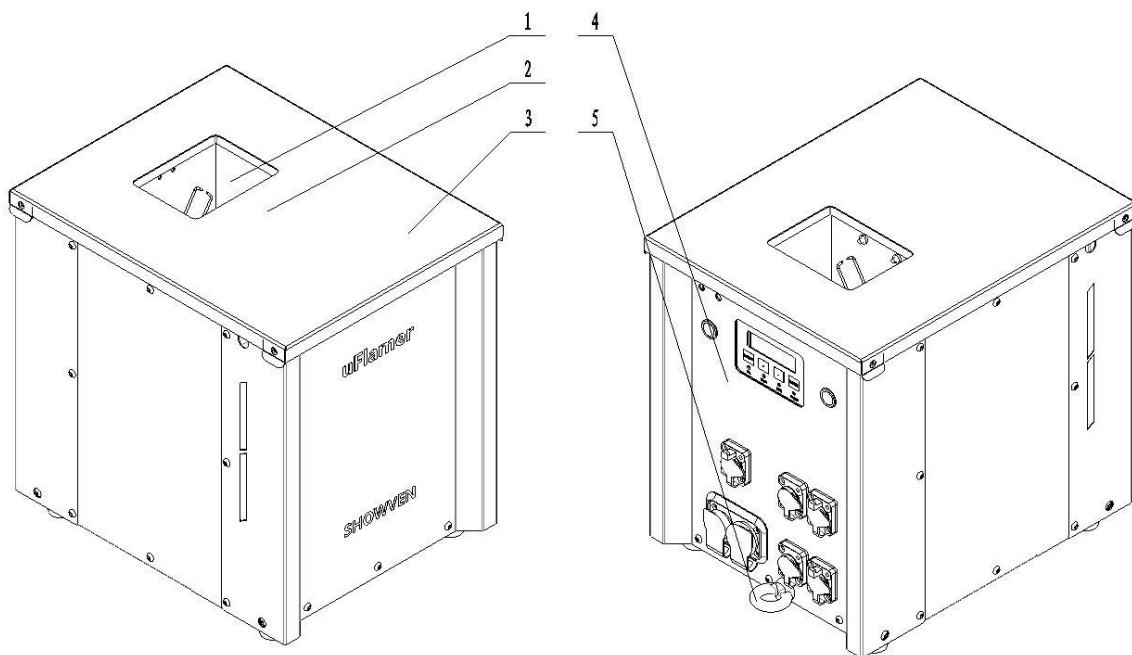
SHOWVEN technologies Co., Ltd excludes liability for unsafe situations, accidents and damages resulting from:

1. Ignoring warnings or regulations as shown on flamer or this manual.
2. Use for other applications or circumstances other than those indicated herein.
3. Changes to the flamer, including use of non-original spare parts.
4. Removed safety cover without authorization from SHOWVEN.
5. Use this machine by unqualified or untrained personnel.
6. Improper use of machine.

## ▲Technical Specifications

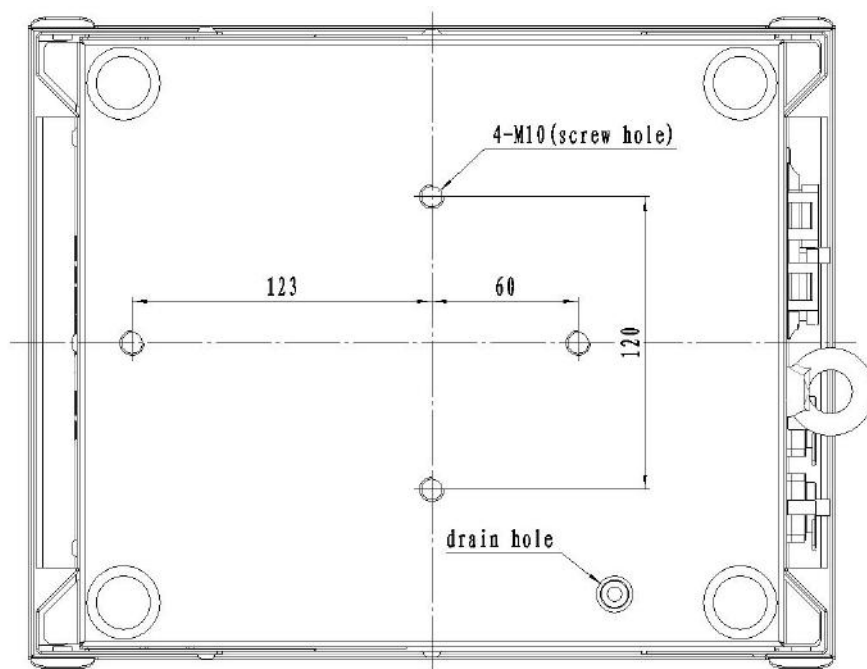
MODEL	uFlamer
Dimension	330 x 260 x 320mm
Input	AC 100-240V, 50-60Hz
Work power	300W
Interface	Double DMX Interface;
Control	Standard DMX
Effect Maximum Height	8-10m (no wind)
Fuel	ISOPROPANOL ISOPAR G,H,L,M
Fuel Bottle Capacity	5L
Weight (no fuel)	14KG
Fuel Consumption Rate	60ml/s

## ▲Structure of uFlamer

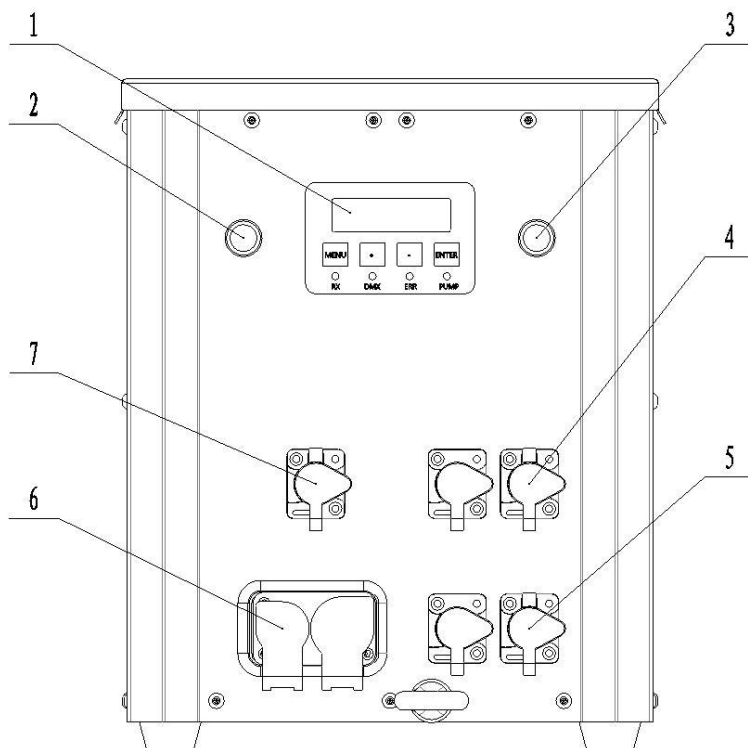


1. Firing Box
2. Top Panel
3. Fuel Bottle Area
4. Control Panel
5. Safety Loop

## ▲Connection dimension diagram of bottom bracket of the flamer

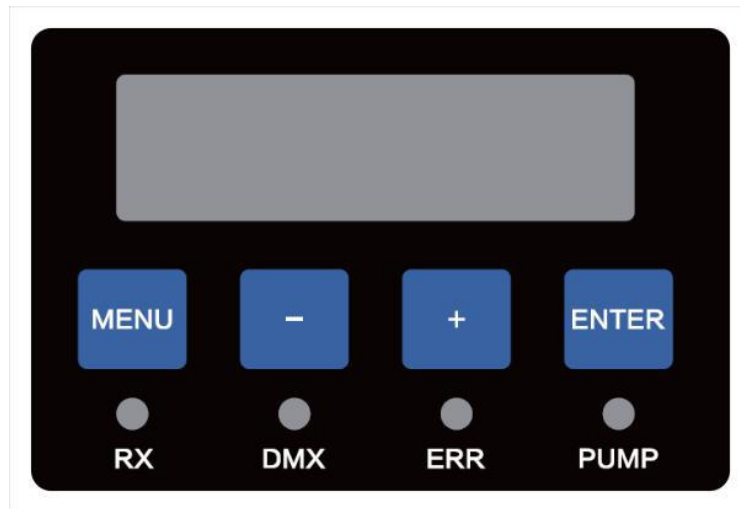


## ▲Overview of Control Panel



1. LCD screen operate panel
2. ON/OFF switch
3. Safety Lock
4. 3-pin DMX socket
5. 5-pin DMX socket
6. 110V/220V Power socket
7. Input Charging

## ▲Operation Panel



### 1. LED Display Area

- RX : Radio receiving (reserved)
- DMX : DMX signal. Flash means DMX signal available, otherwise no DMX signal
- ERR : Light on when there is an error
- PUMP : Light on when pump is running

### 2. Button Functions:

- MENU : Switch interface to setup parameter;
  - + : Parameter Up
  - : Parameter Down
  - ENTER : Confirm and save parameters (screen will flash when parameters saved)
- Note: screen display will switch to main interface if don't press button for a long time.*

### 3. Welcome Interface

- First Line:** Product model and software version
- Second Line:** Equipment series number

uFlamer191129  
X-F1190006

### 4. Main Interface

- First Line:** Fire address or Safe address ;  
DMX ChannelMode( **2CH-P** / 6CH / 2CH-N )
- Second Line:** Pressure100 (e.g. 100=10bar); V: 13.6 means internal voltage is 13.6V.

Fire :1      M:6CH  
P: 100      V: 13.6

Safe :2      M:6CH  
P: 100      V: 13.6

## 5. Alert Message

Alert Message		Explanation
E0	Test Mode	Safety lock located at TEST MODE
	Factory Mode	DMX signal blocked in factory mode
E1 Pressure Err		Pressuriser for about 13s, pressure value failed to reach 100%, system will report E1. Possible fault: No fuel, pump failure, pipeline problem etc.
E2 P Relief Err		Pipeline can't release pressure leads to pressure relief error. Possible fault: pressure release valve failure, pipeline problem or control system problem etc.
E5 Voltage Err		Battery voltage>15V or <10V for continuous 5s, machine stops running Possible fault: the battery is low
E6 Tip Err		if the machine slant over 45°, it stops running, system will report E6

## 6. Interface setup

Press "MENU" to switch through setup menu

Menu	Range	Explanation
Set Fire Address	1~512	DMX address setup
Set Safe Address	1~512	Only activated in 2CH-P DMX ChannelMode

## 7. Advanced Interface

Press "MENU" 3s enter advanced interface, press "MENU" to switch interface, press "MENU" 3s can back to main interface.

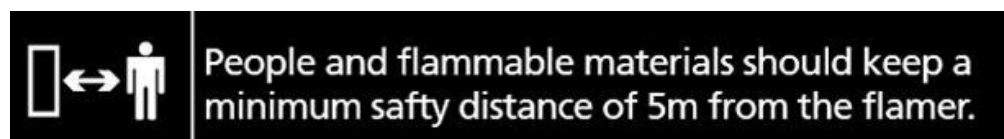
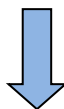
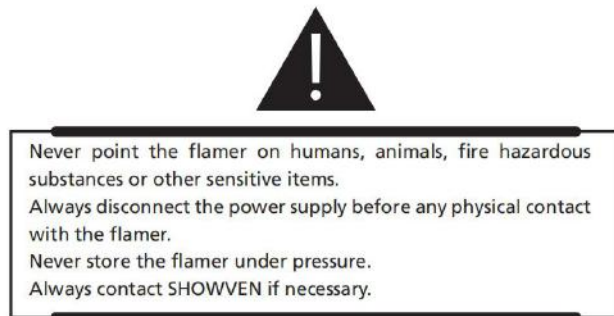
Items	Contents	Description
Drive Test	OFF / Pump / Igniter / Relief Valve / Jet Valve	
	1. Pump	Pump running 1s, if pressure reached the target value, the pump will not running.
	2. Igniter	Ignite 1s
	3. Relief Valve	Release valve will be on and off for 3 times
	4. Jet Valve 1	Safety lock located at user mode, release pressure for 5s, jet valve will be on and off for 3 times
	5. Jet Valve 2	
语言 (Language)	English / Chinese	Language switch
Mode Select	Normal Mode / Factory Mode	Factory mode is for test in factory only
DMX ChannelMode	2CH-P / 6CH / 2CH-N	Change the DMX ChannelMode
DefaultParameter	OFF / ON	Reset default parameter settings

## ▲Operation Instructions

### 1. Direction explanation

Please read the safety instructions printed on the top panel of uFlamer carefully.

Safety distances for uFlamer **is at least 15m in projection directions and 5m around.**




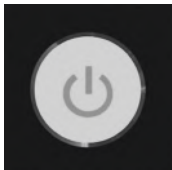
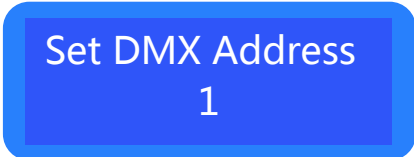


### 2. DMX ChannelMode selection for host controller ZK6200/ZK6300





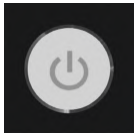



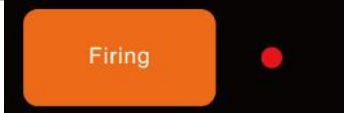



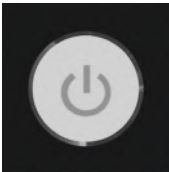
DMX ChannelMode	host controller device selection	host controller ZK6200/ZK6300 device setting
2CH-P mode	--none--	Press F3 --Select device items--Confirm
6CH mode	CIRCLE FLAMER / uFlamer6CH	
2CH-N mode	SPARKULAR / uFlamer2CH-N	

### 3. Quick Operation Sheet for reference (Specialized for host controller ZK6200/ZK6300)

Immediately upon receiving the machine, carefully unpack the carton, check the machine received in good condition. Ensure safety operation of machine, please do following below operation procedures when operate uFlamer.

Operation step	Schematic diagram and explanation	Explanation
1. Installation	The device can only be placed horizontally, if placed on truss, please locked with extra safety ropes.	
2. Locate safety lock at TEST MODE	 <p>Press the button off, The LED is off.</p>	<p>Before operate machine please locate safety lock at TEST MODE.</p> <p><b>TEST MODE:</b> operator can test the rotate of nozzle, but the fuel ejection function disabled, so there is no fuel eject and flames.</p> <p><b>USER MODE:</b> the device can generate flames normally. Please strictly follow the safety distance requirement, remove all human, animal or flammable objects in the danger area.</p>
3. Fueling	 <p>FUEL INFORMATION: ISOPROPANOL ISOPAR G,H,L,M</p>	Please fueling with high quality fuel according to requirement of this manual
4. Power and DMX cable connection		
5. Switch ON the machine	 <p>Press the button on, The LED is off for the pressure is not getting on.</p>	Please confirm safety lock located at TEST MODE before switch on the POWER ON/OFF.
6. Set DMX address		



7. Compression	 	<b>Host controller:</b> Press “pre-heat” button (both of the lights on)
8. Check device status in TEST MODE	 <p>The LED is off.</p>	Reconfirm safety lock located at TEST MODE before test. In this status, the igniter will activated, but there is no flame.
9. Pressure Relief	 	<b>Host controller:</b> Press “pre-heat” key (both of the lights off)
10. Press the safety lock to USER MODE	 <p>Press the button on, The LED is on.</p>	Before switch to USER MODE, Please strictly follow the safety distance requirement, remove all human, animal or flammable objects in the danger area.
11. Compression	 	<b>Host controller:</b> Press “pre-heat” button (both of the lights on)
12. Firing		<b>Host controller:</b> Press “FIRING” key
13. Pressure Relief	 	Relief pressure when shows finished or uFlamer not use for a long period. <b>Host controller:</b> Press “pre-heat” key (both of the lights off)
14. Switch safety lock to TEST MODE	 <p>Press the button off, The LED is off.</p>	Guarantee safety use for next time
15. Power off	 <p>Press the button off.</p>	Power off uFlamer, tear down power cable and DMX cable, pack up the device when it is cooled down.

## 4. DMX CONTROL (2CH-P)

Channel	Function
CH1	<b>Ignition ON/OFF:</b> (0~110) Ignition OFF, (111~255) Ignition ON
CH2	<b>Mode setup:</b> (0~49) Pressure Relief Mode (Emergency Stop), (50~200) Compression Mode, (201~255) Pressure Relief Mode (Emergency Stop)

## 5. DMX CONTROL (6CH)

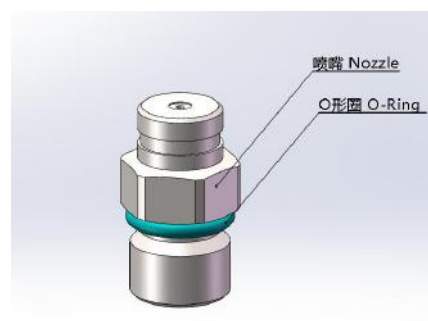
Channel	Function
CH1	--none--
CH2	--none--
CH3	<b>Ignition ON/OFF:</b> (0~253) Ignition OFF, (254~255) Ignition ON
CH4	<b>Firing Duration setup:</b> 0 and 255 is permanent fire (8s is limit duration time); 1~254 is 10~2540ms duration time (Manual firing duration = DMX Value * 10ms)
CH5	--none--
CH6	<b>Mode setup:</b> (0~49) Pressure Relief Mode (Emergency Stop), (50~200) Compression Mode, (201~255) Pressure Relief Mode (Emergency Stop)

## 6. DMX CONTROL (2CH-N)

Channel	Function
CH1	<b>Ignition ON/OFF:</b> (0~110) Ignition OFF, (111~255) Ignition ON
CH2	<b>Mode setup:</b> (0~49) Pressure Relief Mode (Emergency Stop), (240~255) Compression Mode,

## ▲Maintenance

1. To maintain the system in good performance and running status, it is recommended to running the device at least once per month.
2. Maintenance of the nozzle: Nozzle need to be cleaned up , and it is recommended that once every six months (depending on the environment and frequency of use). In the process of using the equipment, if the flame shape is seriously deformed or the fuel injection line is significantly deformed or coarsened, the nozzle should be removed immediately for cleaning.
3. Maintenance of the O-ring: If it is found that the O-ring of the nozzle is damaged or ageing when cleaning the nozzle, the O-ring should be replaced in time (material and size of O-ring: fluororubber O-ring, the outermost diameter is 14 mm, and the line diameter is 2 mm).



## Warranty Instructions

▲Sincere thanks for your choosing our product, you will receive quality service from us.

▲The product 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:

- 1.Damage caused by improper transportation, usage, management, and maintenance, or damage caused by human factors;
- 2.Disassemble, modify or repair products without Showven's permission;
- 3.Damage caused by external reasons (lightning strike, power supply etc)
- 4.Damage caused by improper installation or use;

For product damage not included in warranty range, we can provide paid service.

★Invoice and warranty card are necessary when applying for maintenance service from SHOWVEN.

## Warranty Card

Product Name:		Serial No.	
Purchase Date:			
Tel:			
Address:			
Info.feedback about the problem			
Actual problem:			
Maintenance detail:			
Service Engineer:		Service Date:	

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