

USER MANUAL

uFlamer

V2.0

2021/11/04



USER MANUAL

uFlamer

- ★ 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 in use
- \ Before connecting the power cable, communication DMX cable should be well connected and ensure the command keeps at firing OFF status. And safety lock stays at test mode
- \ The device can only be placed horizontally. Safety distances are marked on the device (at least 15m in projection direction, at least 5m around the device)
- \ After turning on the device, no person is allowed to stay in the danger area. Ensure all persons that are part of the show are informed about the safety distance, risks and functions of the device
- \ Always have a CO2 fire extinguisher and an extinguishing blanket in case of need
- \ If there is 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 it fails to fire correctly, immediately shut down and check it accordingly
- \ Be sure to use high quality flame fluid, otherwise, it is easily led to failure or danger. Be careful when refilling 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 the operator. So that the operator can turn off the power of all devices in case of abnormal
- \ The device shall not be altered and applied to other use purposes

Disclaimers:

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

1. Ignoring warnings or regulations as shown on the 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 of this machine by unqualified or untrained personnel.
6. Improper use of the machine.

▲ 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. 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.

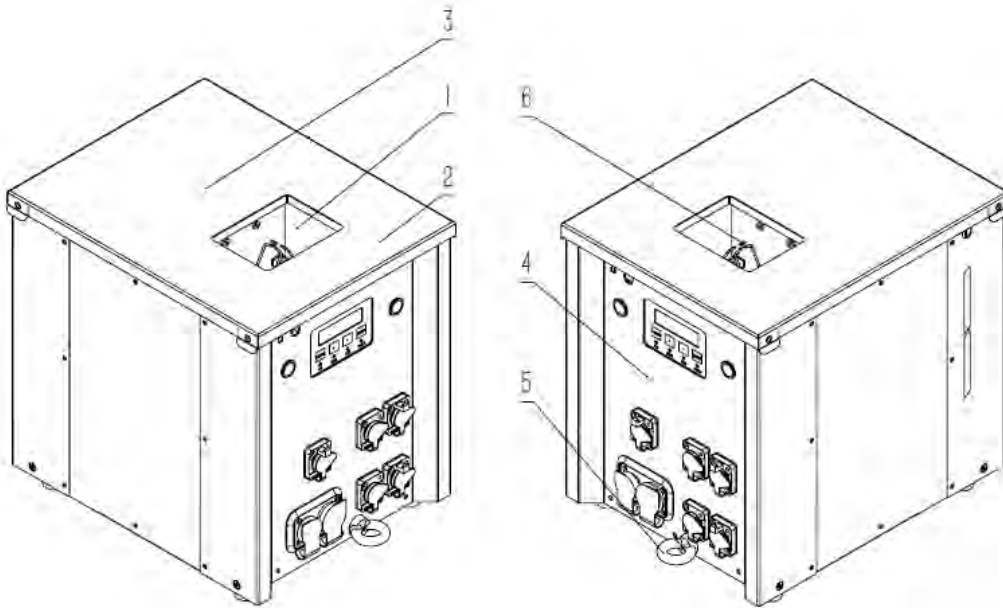
▲ Functional Characteristics

- \ Fluid driven vertical flamer original designed by SHOWVEN
- \ Flame up to 8-10m, indoor nozzle optional
- \ Dual ignitor, built-in pump, plug and play system
- \ Super compact pumping system design, easy carrying
- \ Stainless steel housing, IPX3 waterproof design, reliable and durable
- \ Built-in 5L fuel tank, no external hose connection needed
- \ Safety lock with switchable test mode, safer for service
- \ Tilt protection, the tilt sensor will be activated when machine slant Over 45°
- \ Intelligent control system, safer for use
- \ Standard DMX control, compatible with all DMX console
- \ Neutrik®powerCON TRUE1 connectors
- \ Built-in battery, support 5min continuous firing or 2 days standby

▲ Technical Specifications

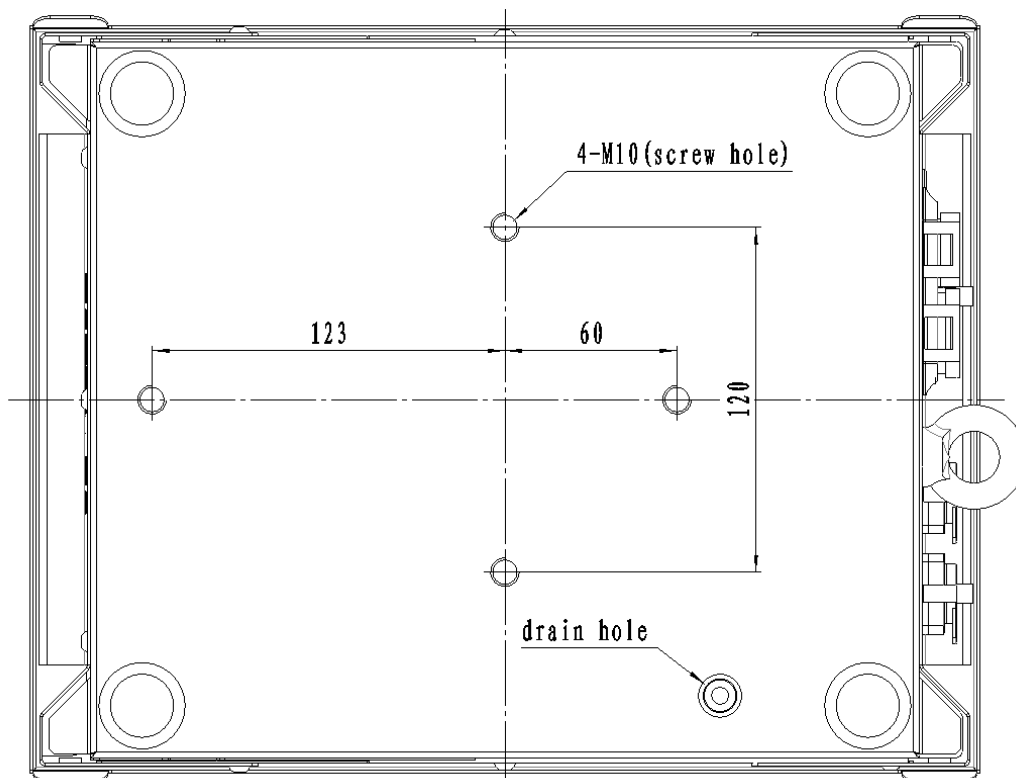
- \ Model: uFlamer
- \ DIMENSION: 330×260×320mm
- \ WEIGHT: 14kg
- \ VOLTAGE: 100-240V, 50/60Hz
- \ POWER: 300W
- \ CONTROL: DMX\ INTERFACE: Waterproof 3-pin&5-pin XLR IN/OUT
- \ FLAME HEIGHT: 8-10m (no wind)
- \ FUEL: ISOPROPANOL, ISOPAR-G,H,L,M
- \ FUEL TANK CAPACITY: 5L
- \ FUEL CONSUMPTION RATE: 60ml/s
- \ FUEL LEVEL SENSOR: YES
- \ EFFECT DIRECTION: Vertical
- \ LGNITION: High voltage electron ignition
- \ IGNITOR: Dual
- \ BUILT-IN BATTERY: OPTIONAL
- \ WATERPROOF LEVEL: IPX3

▲ Structure of uFlamer

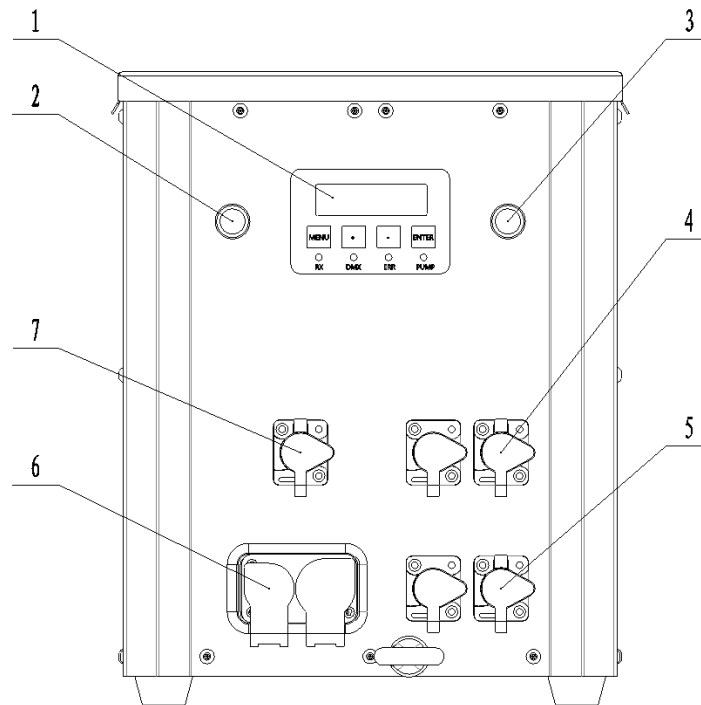


1. Firing Box
2. Top Panel
3. Fuel Bottle Area
4. Control Panel
5. Safety Loop
6. Ignitor (dual)

▲ Overview of Bottom Panel

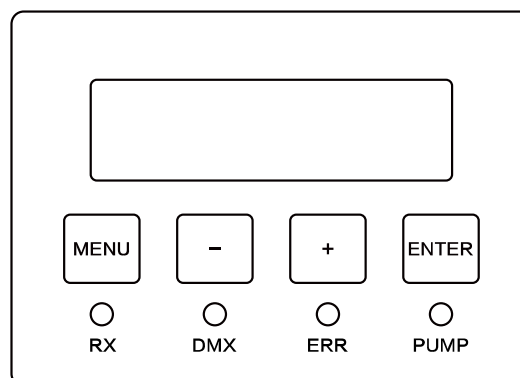


▲ Overview of Control Pane



1. LCD screen operate panel
2. ON/OFF switch
3. Safety Lock
4. 3-pin DMX socket
5. 5-pin DMX socket (Wireless DMX512 power DC5V between 1 and 4 pin)
6. 110V/220V Power socket C
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 runni

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 there is no operation in 15s.

3. Welcome Interface :

uFlamer191129
X-F1190006

First Line: Product model and software version

Second Line: Equipment series number

4. Main Interface:

FIRE 1 M:2CH-P P:75 V:13.6	Safe 2 M:2CH-P P:75 V:13.6	DMX:2 M:2CH-N P:70 V:13.6
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First Line: Fire address and Safe address on the DMX ChannelMode(2CH-P); DMX address on the DMX ChannelMode(6CH / 2CH-N);

Second Line: Pressure75 (e.g. 100=10bar); V: 13.6 means internal voltage is 13.6V.

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	Pressure value failed to reach the target value, 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 is abnormal. 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:

DMX Channel Mode	Menu	Range	Explanation
6CH / 2CH-N	Set DMX Address	1~512	DMX address setup
2CH-P	Fire Address	1~512	Fire address setup
	Safety Address	1~512	Safety address setup

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, if pressure reached the target value, the pump will not running.
	2. Igniter	Ignite running
	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 a period of time, jet valve will be on and off for 3 times
	5. Jet Valve 2 (none)	
Language	English / Chinese	Language switch
Mode Select	Normal Mode / Factory Mode	Factory mode is for test in factory only
Tip setting	OFF / ON	Turn ON or OFF When turning on, if the machine slant over 45°, the flamer stops running, system will report E6
DMX Channel Mode	2CH-P / 6CH / 2CH-N	Change the DMX Channel Mode.
Default Parameter	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.



Never point the flamer on humans, animals, fire hazardous substances or other sensitive items.
Always disconnect the power supply before any physical contact with the flamer.
Never store the flamer under pressure.
Always contact SHOWVEN if necessary.


uFlamer	
AC 100V-240V 50/60Hz	300W
Showven Technologies Co.,Ltd.	
www.showven.cn	
info@showven.cn	
+86-731-83833068	
Building B1, Changsha E Center, Liuyang Economic Development Zone, Hunan,China.	
	WARNING Hazardous voltage inside, please do not remove the cover unless by trained personnel.
	People and flammable materials should keep a minimum safety distance of 5m from the flame r.







MADE IN CHINA

Serial Number



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People and flammable materials should keep a minimum safety distance of 5m from the flamer.



2. DMX ChannelMode selection for host controller ZK6200/ZK6300






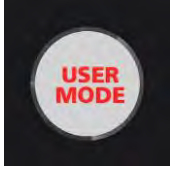


DMX ChannelMode	Host controller device selection	Host controller ZK6200/ZK6300 device setting	Note
2CH-P mode	--none--	Press F3 --Select device items--Confirm	--
▲ 6CH mode	FLAMER		Feedback the pressure value
2CH-N mode	SPARKULAR		Feedback the pressure value




▲ 6CH mode is recommended, when you use host controller ZK6200/ZK6300 for the show control.

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. TEST MODE: operator can test the ignition of the flamer, but the fuel ejection function disabled, so there is no fuel eject.</p> <p>USER MODE: 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.</p>	Please confirm safety lock located at TEST MODE before switch on the POWER ON/OFF.
6. Set DMX address	<div style="border: 1px solid black; padding: 5px; text-align: center;"> Set DMX Address 1 </div>	
7. Compression	 <p>The blue LED shows the pressure is ready.</p>	Host controller: 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		Host controller: 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		Host controller: Press "pre-heat" button (both of the lights on)
12. Firing		Host controller: Press "FIRING" key

13. Pressure Relief		Relief pressure when shows finished or uFlamer not use for a long period. Host controller: Press "pre-heat" key (both of the lights off)
14. Switch safety lock to TEST MODE	 Press the button off, The LED is off.	Guarantee safety use for next time
15. Power off	 Press the button off.	Power off uFlamer, tear down power cable and DMX cable, pack up the device when it is cooled down.

4. DMX CONTROL (2CH-P, 2CH Professional Mode)

Channel	Function
CH-F	Ignition ON/OFF: (0~110) Ignition OFF, (111~255) Ignition ON. The default value F=1
CH-S	Mode setup: (0~49) Pressure Relief Mode (Emergency Stop), (50~200) Compression Mode, (201~255) Pressure Relief Mode (Emergency Stop). The default value S=2

Note: F = Fire Address ; S = Safety Address.

5. DMX CONTROL (6CH, 6CH Mode)

Channel	Function
CH-1	--none--
CH-2	--none--
CH-3	Ignition ON/OFF: (0~253) Ignition OFF, (254~255) Ignition ON
CH-4	Firing Duration setup: 0 and 255 is permanent fire (8s is limit duration ignition time, the default value);1~254 is 10~2540ms duration time(Manual firing duration = DMX Value * 10ms)
CH-5	--none--
CH-6	Mode setup: (0~49) Pressure Relief Mode (Emergency Stop), (50~200) Compression Mode, (201~255) Pressure Relief Mode (Emergency Stop)

6. DMX CONTROL (2CH-N , 2CH Normal Mode)

Channel	Function
CH-1	Ignition ON/OFF: (0~110) Ignition OFF, (111~255) Ignition ON
CH-2	Mode setup: (0~239) Pressure Relief Mode (Emergency Stop), (240~255) Compression Mode

▲SHOWVEN Flamer Nozzle Information

1. Nozzle Type:

●SFSMA002 Nozzle M

Short flame: 5~7m

Long flame: 8~10m

●SFSMA003 Nozzle L

Short flame: 3~5m

Long flame: 6~8m

Standard configuration is Nozzle M SFSMA002.



2. Nozzle replacement

Change nozzle

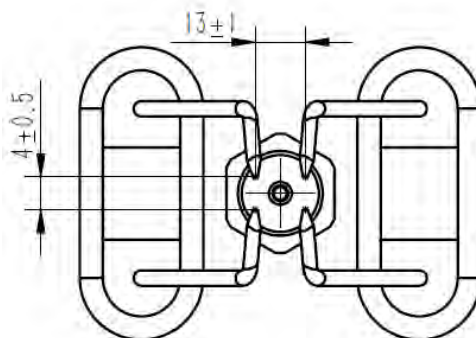
Use 14mm outer hexagon socket wrench to disassemble the nozzle, clean the nozzle and nozzle socket with air gun (air compressor), change a different nozzle and install it.

Nozzle disassemble tool: SFMET944



Ignitor Position Adjustment

Whenever changed the nozzle or ignition is not good, please check ignitor pole position according to below parameters. The right position for each pair of pole should have a gap from tip to tip of 4 ± 0.5 mm and a gap between two ignitor of 13 ± 1 mm.



Note: Do unplug the power cable when service flamer.

▲ SHOWVEN host controller ZK6200/ZK6300

1. Hardware description:

\ MODEL: ZK6200/ZK6300

\ DIMENSION: 390×300×110mm

\ WEIGHT: 3.5kg

\ VOLTAGE: 100-240V, 50/60Hz

\ POWER: 15W

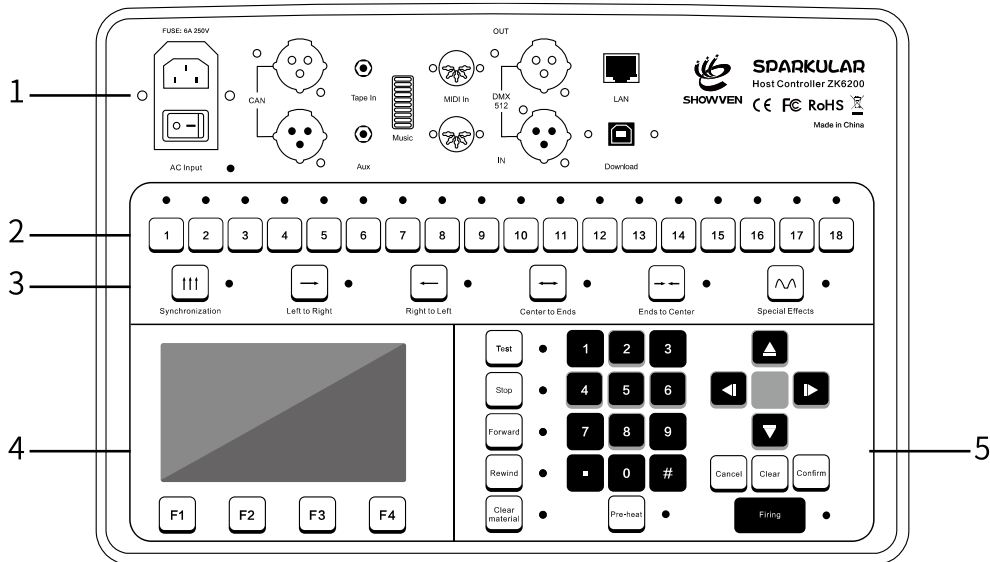
\ MAX CASCADE OF SPARKULAR: 18units (ZK6200)/ 54units (ZK6300)

\ SUPPORT MACHINES: SPARKULAR series, CIRCLE FLAMER series, SONICBOOM series

2. SHOWVEN host controller introduction:

1. Standard DMX512 signal output
2. Support 18units CIRCLE FLAMER (ZK6200) or 54units CIRCLE FLAMER (ZK6300) at the same time
3. 5 standard dynamic modes: Synchronization, Center to Ends, Ends to Center, Left to Right, Right to Left. And an user definable Special Effect mode, support 8 files, each file support 36000 lines maximum (effects lasts for 30min)
4. Multi trigger sources: manual, music or midi input
5. RDMX monitoring function: system can send back circle flamer working status info such as pressure, warming etc. and display on the screen
6. Emergency stop function

3. Operational Panel



▲ Battery and Maintenance

1. Battery Recommendation

Standard	5200mah 20c-70c
Voltage	14.8V
Size	L:140 * H:43 * W:44mm

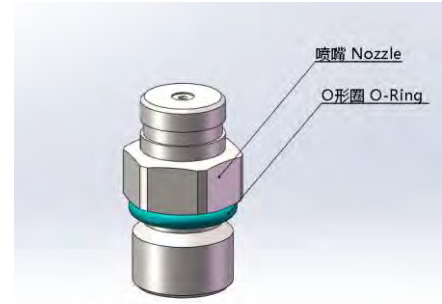
Charge Jack	2.54-5A
Discharge Jack	XT60
Installation	Contact our sales for the video

2. Maintenance

1. To maintain the system in good performance and running status, it is recommended to running the device at least once per month.

3. 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.

4. 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 uFlamer, 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:	

SHOWVEN[®]

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