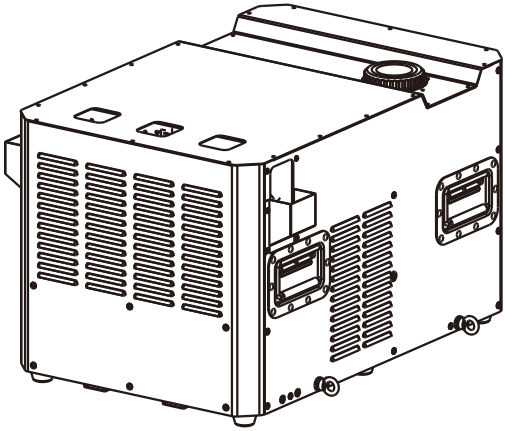
TOPCAT®
by DJPOWER



# HF-P5
## PYROSTORM 5

USER MANUAL

GUANGZHOU DJPOWER ELECTRONIC TECHNOLOGY CO.,LTD

# 1. BEFORE YOU BEGIN

## 1.1. What Is Included

PyroStorm 5 × 1

Flight Case × 1

Power Cord × 1

User Manual × 1

Warranty Card × 1

## 1.2. Unpacking Instructions

Carefully unpack the product immediately and check the container to make sure all the parts are in the package and are in good condition.

If the box or the contents (the product and included accessories) appear damaged from shipping, or show signs of mishandling, notify the carrier or dealer/seller immediately. In addition, keep the box and contents for inspection.

## 1.3. Symbols

| Symbol | Meaning |
|---|---|
|  | ***Caution***<br>Critical installation, configuration, or operation information. Not following these instructions may make the product not work, cause damage to the product, or cause harm to the operator. |
|  | ***Important***<br>Important installation or configuration information. Failure to comply with this information may keep the product from working correctly. |
|  | ***Information***<br>Useful information. |

## 1.4. Disclaimer

Thanks for choosing DJPOWER Flame Machine. When you purchase this machine, you will recognize the following instructions by default. 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 flame machine. If you have any doubts, please contact DJPOWER.

Use the flame machine only under the rules and instructions from this manual. Contact DJPOWER in case of doubts about the usage.

**We assume that you, your employees and others who use or come in contact with the machine are familiar with how the machine should be handled. This includes proper use, maintenance and repair of the machine as defined in this user guide. This also means that employees are familiar with the use of machinery through training or experience.**

**DJPOWER excludes liability for unsafe situations, accidents and damages resulting from:**

1. The machine is not arranged for use by professionals, and the machine is still used when the machine malfunctions or is damaged.
2. The Flame Fluid Can was not emptied before the machine was shipped.
3. Ignoring warnings or regulations as shown on Wave flame machine or this manual.
4. Use for other applications or circumstances other than those indicated herein.
5. Use this machine by unqualified or untrained personnel. including use of non-original spare parts.
6. Removed safety cover without authorization from DJPOWER.

DJPOWER is not liable for the damages caused by failure of the wave flame machine.

The information and specifications contained in this manual are subject to change without notice and keep the right to modify or revise this manual at any time. Copyright© 2024 DJPOWER All rights reserved.

## 1.5. Safety Notes

Please read the following Safety Notes carefully before working with the product. The notes include important safety information about installation, usage, and maintenance.

### 1.5.1. Personal Safety

- Make sure that children, unauthorized people, and animals do not gain access to the machine.
- After the machine is turned on, do not stay in the dangerous area. Safety distances for HF-P5: At least 15m in all projection directions, at least 5m to the other sides of the device.
- Please prepare dry powder and fire extinguishing equipment at the machine use place. Always have a dry powder fire extinguisher, CO2 fire extinguisher, and an extinguishing blanket in case of needed.

### 1.5.2. Mounting and Rigging

- CAUTION: When transferring product from extreme temperature environments, (e.g. cold truck to warm humid ballroom) condensation may form on the internal electronics of the product. To avoid causing a failure, allow product to fully acclimate to the surrounding environment before connecting it to power.
- Do not mount the product on a flammable surface (linoleum, carpet, wood, paper, carton, plastic, etc.). Keep a safe distance from the unit, the unit can only be placed horizontally.

### 1.5.3. Power and Wiring

- Please use a grounded socket to avoid the risk of electric shock.
- Make sure the power supply is consistent with the rated voltage of the equipment. Unplug and turn off the machine when not in use.
- Check that the power cord is not pinched or damaged.
- Do not connect the machine to a dimming controller or varistor.
- Do not disconnect the power supply by pulling the power cord.

### 1.5.4. Operation

- The maximum ambient temperature is 40°C. Do not operate the machine in a high temperature environment.
- Do not operate this product if the machine casing or cable is damaged. Immediately ask the authorized technician to replace the damaged part.

- **Make sure there are no flammable materials around the machine before operation, and keep a safe distance between the person and the equipment. The safe distance for the HF-P5 is: at least 15m in all projection directions, at least 5m to the other sides of the device.**
- Before connecting the power cable, ensure that the communication DMX cable is well connected and that the command is kept at the firing OFF status. Also, ensure that the safety lock stays in test mode.
- The operator responsible for controlling the Wave flame machine must always have a clear view of the device so that he/she can stop the show immediately in case of 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 an abnormality.
- If there is any doubt as to the safe operation of the device under any circumstances, the device should be taken out of service immediately. Ensure the device is in good operating condition before use by checking the sparkle oil, fuse, cable, and power plug. If it fails to fire correctly, immediately shut it down and contact the factory.
- **Ensure the Flame Fluid Can is empty before transporting the machine.**
- The machine does not contain any user-disassembled, self-repaired, or modified parts. Do not attempt to repair or modify the machine yourself without proper training or authorization from technicians to avoid damage or malfunction.
- **Be sure to use the suitable flame fuel indicated in the user manual; otherwise, it can easily lead to failure or danger. Do not add any material other than the specified proportion of castor oil to the oil drum. Be careful when refilling the flame fluid tank. Please keep the flame fluid away from heat sources, sparks, fire, or other sources of ignition.**

**It is strictly forbidden to use water or other liquids instead of the specified consumables, as this will cause serious failure.**

**Please save this manual for future use. If you sell the machine again, be sure to include the instructions.**

# 2. INTRODUCTION

## 2.1. Description

HF-P5 is a new waterproof five-head flame machine by DJPOWER that uses fluid fuel. It's a stainless steel body, a waterproof structure design for the whole machine. IPX3 waterproof rate, making it suitable for outdoor on rainy days. The unique safety lock design allows you to switch between the use mode and the safety test mode to prevent false triggering. It's an intelligent electronic control system alarm function, which is safe and reliable. It adopts an integrated valve group design and imported injection valve, with a built-in 30L fuel tank and pumping system. The flame eruption distance is about 8-10 meters. Through DMX control, it can achieve nearly 100 kinds of flame-throwing special effects such as five nozzles spraying fire simultaneously or successively. It is spectacular and explosive. It's suitable for large-scale cultural and tourism scenic spots, concerts, music festivals and other outdoor activities that need to create a fiery atmosphere.

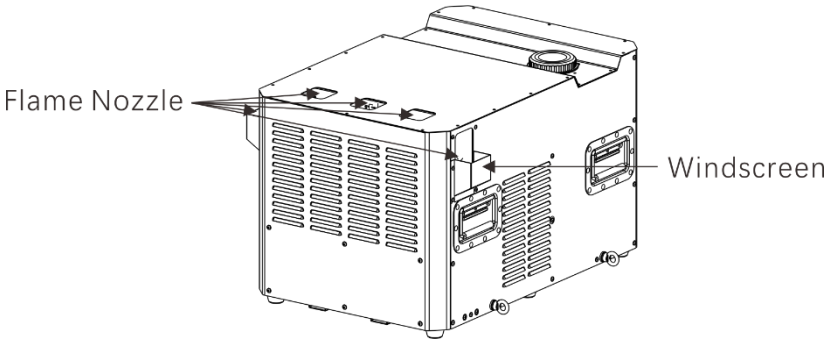
## 2.2. Features

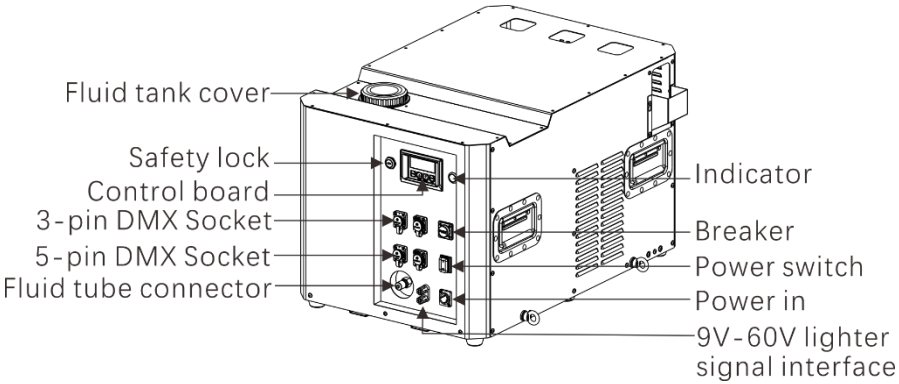
- Stainless steel body, waterproof structure design, IPX3 waterproof rate.
- The unique safety lock design, prevent false triggering.

- Intelligent electronic control system alarm function, safe and reliable.
- Integrated valve group design and imported injection valve, more stable for using.
- 30L fuel tank and pumping system, up to 8-10 meters.
- Built in LCD control and DMX512 control.
- Using SEETRONIC waterproof connector.
- Can be used with a fuel supplier to achieve remote automatic refueling.

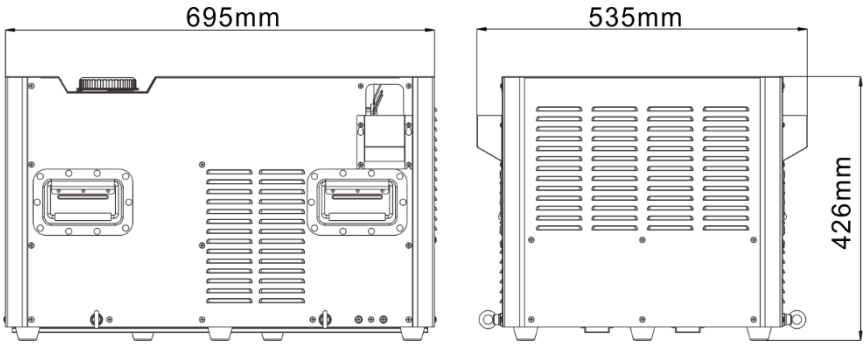
Note: The actual effect may be affected by the usage environment.

## 2.3. Product Overview

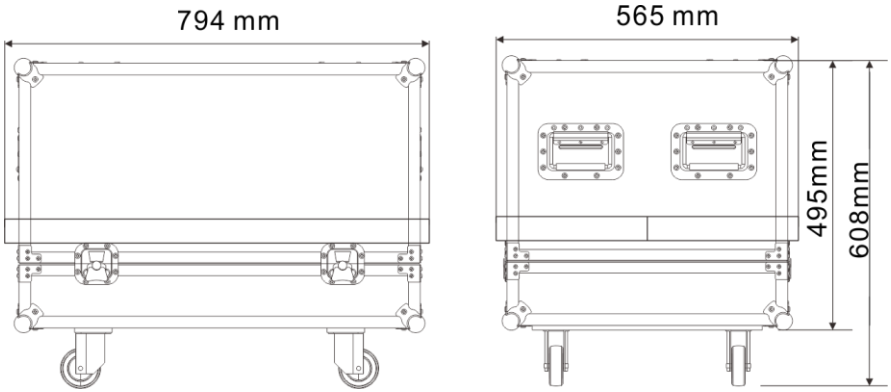


## 2.4. Product Dimensions




## 2.5. Flight Case Dimensions




# 3. TECHNICAL SPECIFICATIONS

| | |
|---|---|
| **Voltage** | AC 220-240 V, 50/60 Hz |
| **Breaker** | 10 A, 250 V |
| **Current limiting insurance type** | overload protector |
| **Power** | 2,000 W |
| **Tank Capacity** | 30 L |
| **IP rate** | IPX3 |
| **Horizontal placement** | √ |
| **Tilt** | × |
| **Side placement** | × |
| **Up-side-Down** | × |
| **Hang** | × |
| **Body Control** | LCD control panel |
| **Wireless Control** | × |
| **Wire Control** | √ |

| | |
|---|---|
| **Maximum Output Height** | Appr. 8-10 meters(no wind condition) |
| **Maximum effect Angle** | 5 directions |
| **Fluid Consumption Rate** | Appr. 0.32 min/L |
| **DMX address** | 6 |
| **Consumable** | ISOPAR-G ( isopropanol or bio-ethanol is optional only under special request, please consult sales manager first. In order to protect the fuel pump and pipeline, 10-20ml of hemp oil must be added to every 10L of fuel, otherwise the fuel pump and components will be damaged) |
| **Machine Net Weight (with flight case)** | 76kg |
| **Gross Weight** | 78kg |
| **Machine Dimensions** | 695 × 535 × 426 mm |
| **Flight case Dimensions** | 794 × 565 ×608 mm |
| **Packing Dimensions** | 800 × 580 ×525 mm |

# 4. SETUP

## 4.1. AC Power

The machine has two kinds of voltage power supply, it can work with an input voltage of AC 220 V-240 V, 50/60 Hz, depending on the specific model.

To determine the product's power requirements (circuit breaker, power outlet, and wiring), use the current value listed on the label affixed to the product's back panel, or refer to the product's specifications chart. The listed current rating indicates the product's average current draw under normal conditions.

**Always connect the product to a protected circuit (circuit breaker or fuse). Make sure the product has an appropriate electrical ground to avoid the risk of electrocution or fire.**

**Never connect the product to a rheostat (variable resistor) or dimmer circuit, even if the rheostat or dimmer channel serves only as a 0 to 100% switch.**

## 4.2. AC Plug

The Flame Machine HF-P5 comes with a power input cord terminated with a Lockable Powerkon connector on one end and an EU plug on the other end (EU & China market). If the power input cord that came with your product has no plug, or if you need the change the plug, use the table below to wire the new plug:

| Connection | Wire (U.S.) | Wire (Europe) |
|---|---|---|
| **AC Live** | Black | Brown |
| **AC Neutral** | White | Blue |
| **AC Ground** | Green/Yellow | Green/Yellow |

## 4.3. Resetting the Breaker

This product is equipped with a resettable breaker. If the breaker trips, all sections of this product will lose power.

- Remove the power cord from mains power.
- Reset the breaker by pressing the button with your finger.
- Plug the product's power cord into the power outlet and continue using as recommended.

# 5. OPERATION

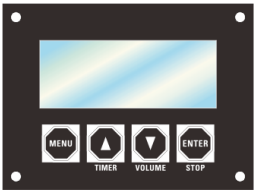
## 5.1. Preparing for Operation

Before operating the machine, please follow the below steps to prepare:

- Before operation, please ensure that there are no flammable materials around the machine, and people and equipment should maintain a certain safe distance. **Safety distances for HF-P5: At least 15m in all projection directions, at least 5m to the other sides of the device.**
- After checking that all the parts are intact and complete, position the machine on flat.
- Please connect the communication line before the power is turned on, and ensure that the communication command is non-injected and the device is in test mode.
- Always connect the product to a grounded circuit. Before power on, make sure it is connected with the rated voltage.
- The operator should near the machine and be able to directly see the status, and immediately terminate the performance when there is a danger. There should be a total AC power switch near the operator. When an abnormality occurs, the power should be disconnected in time. This is the safest way to do this.

## 5.2. On-device Control Panel

To access the control panel functions, use the four buttons located underneath the LCD display.




| Button | Function |
|---|---|
| **<MENU>** | Switch menu pages to select a function |
| ▲ | Increases the numeric value of current function |
| ▼ | Decreases the numeric value of current function |
| **<ENTER>** | Switch between current menu page and Standby Page |

## 5.3. On-device Control Mode & Operation

### 5.3.1. Programming

- Refer to the Menu Map to understand the menu options. The menu map shows the main level and a variable number of programming levels for each option.
- To go to the desired main level, press <MENU> repeatedly until the option shows on the display. This will take you to the first programming level for that option.
- To select an option or value within the current programming level, press <TIMER> <▲> or <VOLUME><▼> until the option shows on the display. If there is another programming level, you will see that first option, or you will see the selected value.

- Press <MENU> repeatedly to switch menu pages.
- Press <STOP> to return to the standby page.

### 5.3.2 Menu Map

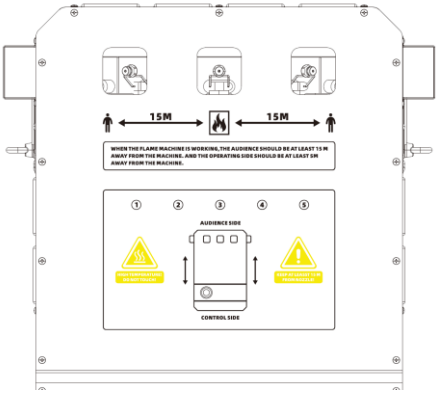
| | Display | Description | Parameter Range |
|---|---|---|---|
| **Starting Page** | **HF-P5 Version 1.0<br>AC-230V 50Hz** | | |
| | **DMX Supply pressure mode<br>P:0 V：12** | After the control mode is selected as DMX supply voltage, it is displayed when no DMX signal is connected. | |
| **Standby Page** | **DMX address: 1<br>P:0 V：12** | After the control mode is selected as DMX supply voltage, it is displayed when DMX signal is connected. | |
| **Working Status Page** | **DMX address:<br>1** | Setting DMX address | 1-512 |
| | **Control mode<br>DMX supply press ure** | Choose supply pressure, default DMX supply pressure | DMX supply pressure/ Manual pressure supply |
| **Menu Page** | **Manual pressure supply<br>OFF** | When the control mode is set to manual pressure supply mode, you can choose to open or close the manual pressure supply, which is closed by default. This parameter is not saved. | ON/ OFF |
| | **External trigger function<br>ON** | Selecting an external trigger sequence | 1-95 |
| | **Tilt switch<br>ON** | Setting the tilt protection<br>(In case it is ON, if the machine tilts over 45° , it stops the unit from firing) | ON/ OFF |
| | **Refueling function<br>ON** | When open, refueling can be done through the refueling valve | ON/ OFF |
| | **Screen backlight<br>ON** | The screen background light is on by default. When it is set to OFF, the screen will be black if the button is not pressed for 30s, and the screen will be lit when the button is pressed. | ON/ OFF |
| | **(language)<br>English** | Language setting | English/ Chinese |
| **Error and Warning Pag** | **E1: Boost pressure Err<br>P:0 L：12** | Pressure failed to reach 100% after 13s pressurizing, system will report E1<br>Possible fault: No fuel; pump failure; pipeline problem etc | |
| | **E2: Tilt Err<br>P:0 L：12** | The machine tilts over 45° , it stops running, system will report E2 | |

| | | | |
|---|---|---|---|
| | E3: Battery Err<br>P:0 L：12 | Machine stops running due to battery voltage higher than 15V or lower than 10V for 5s contentiously | |
| | E5: Pressure relief Err<br>P:0 L：12 | Pressure relief error due to pipeline can't release pressure<br>Possible fault: pressure release valve failure; pipeline problem or control system problem etc | |
| | E6: Pressure Err<br>P:0 L：12 | Pressure sensor failure<br>Possible fault: pressure sensor, pipeline problem or control system problem etc | |
| | E7: Low fluid<br>P:0 L：12 | Low fluid<br>Possible fault: low fluid, fluid sensor or control system problem etc | |
| | E8: Fluid refill timeout<br>P:0 L：12 | Ext auto refueling timeout<br>Possible fault: fluid sensor, no fluid in ext refueling tube or control system problem etc | |

## 5.4. Operation

### 5.4.1. Orientation

Please read the safety distance print on the top panel of the FLAMER carefully.

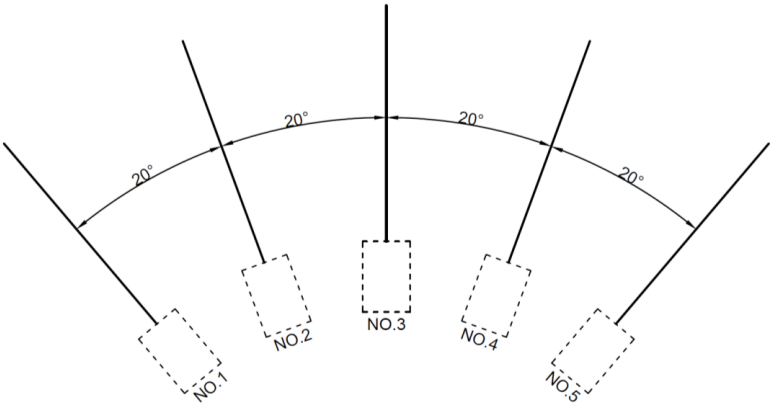



Note:

1. Safety distances for Wave flame machine are indicated in above picture. Safety distances for HF-P5: At least 15m in all projection directions, at least 5m to the other sides of the device.In order to indicate correct direction, please place the top panel correctly.
2. The nozzle is still hot after the flamer worked, to prevent burns, do not touch, wait for natural cooling.

### 5.4.2. Safety Blocker

The five jet angles of the HF-P5 from the spectator side view are shown in the figure below.




## 5.4.3. Control of Flamer

HF-P5 has 97 preset sequences, operator can use related channel DMX value or sequence No. to show.

**Single Ignition Sequence List**

| Sequence No. | Ignition head No. | Description | Flame Activity | Sequence Duration | CH5 DMX Reference Value |
|---|---|---|---|---|---|
| 1 | 1 | Single ignition SHORT flame | Static | 0.1s | 3-5 |
| 2 | 2 | Single ignition SHORT flame | Static | 0.1s | 6-7 |
| 3 | 3 | Single ignition SHORT flame | Static | 0.1s | 8-10 |
| 4 | 4 | Single ignition SHORT flame | Static | 0.1s | 11-12 |
| 5 | 5 | Single ignition SHORT flame | Static | 0.1s | 13-15 |
| 6 | 1 | Single ignition LONG flame | Static | 0.28s | 16-17 |
| 7 | 2 | Single ignition LONG flame | Static | 0.28s | 18-20 |
| 8 | 3 | Single ignition LONG flame | Static | 0.28s | 21-22 |
| 9 | 4 | Single ignition LONG flame | Static | 0.28s | 23-25 |
| 10 | 5 | Single ignition LONG flame | Static | 0.28s | 26-28 |

**Step Sequences List**

| Sequence No. | Ignition head No. | Description | Flame Activity | Sequence Duration | CH5 DMX Reference Value |
|---|---|---|---|---|---|
| 11 | Step 1-5 | SHORT flame Step sequence | L > R | 0.54s | 29-30 |
| 12 | Step 5-1 | SHORT flame Step sequence | R > L | 0.54s | 31-33 |
| 13 | Step1>3>5>2>4 | SHORT flame Step sequence | L>M>R>L>R | 0.54s | 34-35 |
| 14 | Step5>3>1>4>2 | SHORT flame Step sequence | R>M>L>R>L | 0.54s | 36-38 |
| 15 | Step1>5>2>3>4 | SHORT flame Step sequence | L>R>L>M>R | 0.54s | 39-40 |
| 16 | Step5>1>4>3>2 | SHORT flame Step sequence | R>L>R>M>L | 0.54s | 41-43 |
| 17 | Step1>5>2>4>3 | SHORT flame Step sequence | L>R>L>R>M | 0.54s | 44-45 |
| 18 | Step5>1>4>2>3 | SHORT flame Step sequence | R>L>R>L>M | 0.54s | 46-48 |
| 19 | Step2>4>1>5>3 | SHORT flame Step sequence | L>R>L>R>M | 0.54s | 49-50 |

| | | | | | |
|---|---|---|---|---|---|
| 20 | Step4>2>5>1>3 | SHORT flame Step sequence | R>L>R>L>M | 0.54s | 51-53 |
| 21 | Step2>4>3>1>5 | SHORT flame Step sequence | L>R>M>L>R | 0.54s | 54-56 |
| 22 | Step4>2>3>5>1 | SHORT flame Step sequence | R>L>M>R>L | 0.54s | 57-58 |
| 23 | Step2>3>4>1>5 | SHORT flame Step sequence | L>M>R>L>R | 0.54s | 59-61 |
| 24 | Step4>3>2>5>1 | SHORT flame Step sequence | R>M>L>R>L | 0.54s | 62-63 |
| 25 | Step3>1>5>2>4 | SHORT flame Step sequence | M>L>R>L>R | 0.54s | 64-66 |
| 26 | Step3>5>1>4>2 | SHORT flame Step sequence | M>R>L>R>L | 0.54s | 67-68 |
| 27 | Step 3>2>4>1>5 | SHORT flame Step sequence | M>L>R>L>R | 0.54s | 69-71 |
| 28 | Step 3>4>2>5>1 | SHORT flame Step sequence | M>R>L>R>L | 0.54s | 72-73 |
| 29 | Step 2>3>4 | SHORT flame Step sequence | L>M>R | 0.32s | 74-76 |
| 30 | step 4>3>2 | SHORT flame Step sequence | R>M>L | 0.32s | 77-79 |
| 31 | step 1>3>5 | SHORT flame Step sequence | L>M>R | 0.32s | 80-81 |
| 32 | step 5>3>1 | SHORT flame Step sequence | R>M>L | 0.32s | 82-84 |
| 33 | Step 1>2>3>4>5 | SHORT flame Step sequence | L>R | 0.21s | 85-86 |
| 34 | Step 5>4>3>2>1 | SHORT flame Step sequence | R>L | 0.21s | 87-89 |
| 35 | Step 2>3>4 | SHORT flame Step sequence | L>R | 0.21s | 90-91 |
| 36 | Step 4>3>2 | SHORT flame Step sequence | R>L | 0.21s | 92-94 |
| 37 | Step 1>2>3>4>5 | LONG flame Step sequence | L>R | 1.45s | 95-96 |
| 38 | Step 5>4>3>2>1 | LONG flame Step sequence | R>L | 1.45s | 97-99 |
| 39 | Step 1>3>5>2>4 | LONG flame Step sequence | L>M>R>L>R | 1.45s | 100-101 |
| 40 | Step 5>3>1>4>2 | LONG flame Step sequence | R>M>L>R>L | 1.45s | 102-104 |
| 41 | Step 1>5>2>3>4 | LONG flame Step sequence | L>R>L>M>R | 1.45s | 105-107 |
| 42 | Step 5>1>4>3>2 | LONG flame Step sequence | R>L>R>M>L | 1.45s | 108-109 |
| 43 | Step 1>5>2>4>3 | LONG flame Step sequence | L>R>L>R>M | 1.45s | 110-112 |
| 44 | Step 5>1>4>2>3 | LONG flame Step sequence | R>L>R>L>M | 1.45s | 113-114 |
| 45 | Step 2>4>1>5>3 | LONG flame Step sequence | L>R>L>R>M | 1.45s | 115-117 |
| 46 | Step 4>2>5>1>3 | LONG flame Step sequence | R>L>R>L>M | 1.45s | 118-119 |
| 47 | Step2>4>3>1 >5 | LONG flame Step sequence | L>R>M>L>R | 1.45s | 120-122 |
| 48 | Step 4>2>3>5>1 | LONG flame Step sequence | R>L>M>R>L | 1.45s | 123-124 |
| 49 | Step 2>3>4>1>5 | LONG flame Step sequence | L>M>R>L>R | 1.45s | 125-127 |
| 50 | Step 4>3>2>5>1 | LONG flame Step sequence | R>M>L>R>L | 1.45s | 128-130 |
| 51 | Step 3>1>5>2>4 | LONG flame Step sequence | M>L>R>L>R | 1.45s | 131-132 |
| 52 | Step 3>5>1>4>2 | LONG flame Step sequence | MI>R>L>R>L | 1.45s | 133-135 |
| 53 | Step3>2>4>1 >5 | LONG flame Step sequence | M>L>R>L>R | 1.45s | 136-137 |
| 54 | Step 3>4>2>5>1 | LONG flame Step sequence | M>R>L>R>L | 1.45s | 138-140 |
| 55 | Step 2>3>4 | LONG flame Step sequence | L>M>R | 0.86s | 141-142 |
| 56 | step 4>3>2 | LONG flame Step sequence | R>M>L | 0.86s | 143-145 |
| 57 | step 1>3>5 | LONG flame Step sequence | L>M>R | 0.86s | 146-147 |
| 58 | step 5>3>1 | LONG flame Step sequence | R>M>L | 0.86s | 148-150 |
| 59 | Step 1>2>3>4>5 | LONG flame Step sequence | L>R | 0.57s | 151-152 |
| 60 | Step 5>4>3>2>1 | LONG flame Step sequence | R>L | 0.57s | 153-155 |
| 61 | Step 2>3>4 | LONG flame Step sequence | L>R | 0.57s | 156-158 |
| 62 | Step4>3>2 | LONG flame Step sequence | R>L | 0.57s | 159-160 |

| | | | | | |
|---|---|---|---|---|---|
| 63 | step 15>3>24 | SHORT flame Step sequence | LR>M>LR | 0.4s | 161-163 |
| 64 | step 24>3>15 | SHORT flame Step sequence | LR>M>LR | 0.4s | 164-165 |
| 65 | step 15>24>3 | SHORT flame Step sequence | LR>LR>M | 0.4s | 166-168 |
| 66 | step 3>24>15 | SHORT flame Step sequence | MI>LR>LR | 0.4s | 169-170 |
| 67 | step 3>15>24 | SHORT flame Step sequence | MI>LR>LR | 0.4s | 171-173 |
| 68 | step 24>15>3 | SHORT flame Step sequence | LR>LR>M | 0.4s | 174-175 |
| 69 | step 24>135 | SHORT flame Step sequence | LR>LMR | 0.25s | 176-178 |
| 70 | step 135>24 | SHORT flame Step sequence | LMR>LR | 0.25s | 179-181 |
| 71 | step 15>234 | SHORT flame Step sequence | LR>LMR | 0.25s | 182-183 |
| 72 | step 234>15 | SHORT flame Step sequence | LMR>LR | 0.25s | 184-186 |
| 73 | step 15>3>24 | LONG flame Step sequence | LR>M>LR | 0.86s | 187-188 |
| 74 | step 24>3>15 | LONG flame Step sequence | LR>M>LR | 0.86s | 189-191 |
| 75 | step 15>24>3 | LONG flame Step sequence | LR>LR>M | 0.86s | 192-193 |
| 76 | step 3>24>15 | LONG flame Step sequence | M>LR>LR | 0.86s | 194-196 |
| 77 | step 3>15>24 | LONG flame Step sequence | M>LR>LR | 0.86s | 197-198 |
| 78 | step 24>15>3 | LONG flame Step sequence | LR>LR>M | 0.86s | 199-201 |
| 79 | step 24>135 | LONG flame Step sequence | LR>LMR | 0.57s | 202-203 |
| 80 | step 135>24 | LONG flame Step sequence | LMR>LR | 0.57s | 204-206 |
| 81 | step 15>234 | LONG flame Step sequence | LR>LMR | 0.57s | 207-209 |
| 82 | step 234>15 | LONG flame Step sequence | LMR>LR | 0.57s | 210-211 |

**Multi Ignition Firing Sequence List**

| Sequence No. | Ignition head No. | Description | Flame Activity | Sequence Duration | CH5 DMX Reference Value |
|---|---|---|---|---|---|
| 83 | 12345 | Multi Ignition Short flame | Static | 0.1s | 212-214 |
| 84 | 1245 | Multi Ignition Short flame | Static | 0.1s | 215-216 |
| 85 | 234 | Multi Ignition Short flame | Static | 0.1s | 217-219 |
| 86 | 135 | Multi Ignition Short flame | Static | 0.1s | 220-221 |
| 87 | 15 | Multi Ignition Short flame | Static | 0.1s | 222-224 |
| 88 | 24 | Multi Ignition Short flame | Static | 0.1s | 225-226 |
| 89 | 12345 | Multi Ignition Long flame | Static | 0.28s | 227-229 |
| 90 | 1245 | Multi Ignition Long flame | Static | 0.28s | 230-232 |
| 91 | 234 | Multi Ignition Long flame | Static | 0.28s | 233-234 |
| 92 | 135 | Multi Ignition Long flame | Static | 0.28s | 235-237 |
| 93 | 15 | Multi Ignition Long flame | Static | 0.28s | 238-239 |
| 94 | 24 | Multi Ignition Long flame | Static | 0.28s | 240-242 |
| 95 | 3 | Multi Ignition Long flame | Static | User defined | 243-244 |
| 96 | 234 | simultaneously | Static | User defined | 245-247 |
| >97 | 12345 | simultaneously | Static | User defined | 248-255 |

### 5.4.4. DMX CONTROL

**HF-P5 can be operated using DMX controller.**

- Connect the machine to a suitable electrical outlet.
- Open the machine.
- Connect the DMX output of the DMX controller to the DMX input socket on the machine via the DMX signal cable

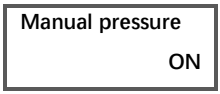
**HF-P5 Channel address range: 001-507, with 6 Channels**

After short pressing MENU to enter the interface menu, set the control mode to DMX supply pressure mode. In this mode, the console is used for control. When the DMX signal is connected, the menu automatically jumps to the "DMX address" page. Push the 6 channels to the pressure value to supply pressure, and push to the pressure relief value to release pressure.

| Channel | DMX value and function | |
|---|---|---|
| (CH1) | 0 | All nozzle |
| | 1-51 | ① nozzle |
| | 52-102 | ② nozzle |
| | 103-153 | ③ nozzle |
| | 154-204 | ④ nozzle |
| | 205-255 | ⑤ nozzle |
| (CH2) | None | |
| (CH3) | 0-253 | Close fire |
| | 254-255 | Ignite |
| (CH4) | 0/255 | Longest flame-throwing time ( When 5 nozzles work together, the longest time is 2S. Otherwise the longest time is 8S |
| | 1-254 | 10~2540ms<br>Setting time ( flaming time= DMX value* 10ms) |
| (CH5) | 0-2 | No sequence, follow CH1 to choose nozzle, follow CH4 to set the time of ignite |
| | 3-255 | Sequence selection, CH1 and CH4 are fail |
| (CH6) | 0-49 | Pressure relief mode |
| | 50-200 | Boost pressure mode |
| | 201-255 | Pressure relief mode |

### 5.4.5. Manual control

Short press the MENU button on the control panel to enter the menu and set the control mode to manual pressure supply. (the console operation has no effect in this mode), Then switch to the manual pressure supply menu, set it to open. It will automatically pressurize to the target value, close it to release the pressure



In manual pressure supply mode, the corresponding flame sequence can be selected through the external trigger sequence. And the ignition operation can be performed through the external trigger interface

| | | | | |
|---|---|---|---|---|
| | **Ext trigger sequence** 1 | | Choose Ext trigger sequence | 1-95 |

# 6. 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. In order to lubricate the pipeline and pump it is highly necessary to add 10-20ml castor oil per 10L canister.

**It must not be pressurized without fuel in the tank, otherwise it will cause damage to the main board and the pump.**