

USER MANUAL

uPumper P4

V1.0

2022.03

SHOWVEN®



SHOWVEN Technologies Co., Ltd

Thanks for choosing SHOWVEN uPumper P4, we wish it will bring you lots of exciting moments. Please read the following manual carefully before operating this product.

▲ **Warning**

- ∨ Unauthorized repair are prohibited, it may cause serious incident.
- ∨ Make sure power supply in consistent with the rated voltage of the equipment, and the socket must well grounded. Unplug and turn off the machine when not use.
- ∨ 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. Any questions please always contact SHOWVEN (info@showven.cn) for help.
- ∨ Be sure to use high quality flame fluid, otherwise, it is easily leads 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 uPumper P4 and flame head 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 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.

▲ **Disclaimers**

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

1. Ignoring warnings or regulations as shown on uPumper P4 or this manual.
2. Use for other applications or circumstances other than those indicated herein.
3. Changes to the uPumper P4, including use of non-original spare parts, lack of maintenance etc.
4. Dismantling uPumper P4 without authorization from SHOWVEN.
5. Use this machine by unqualified or untrained personnel.
6. Improper use of machine.

▲ **Functional Characteristics**

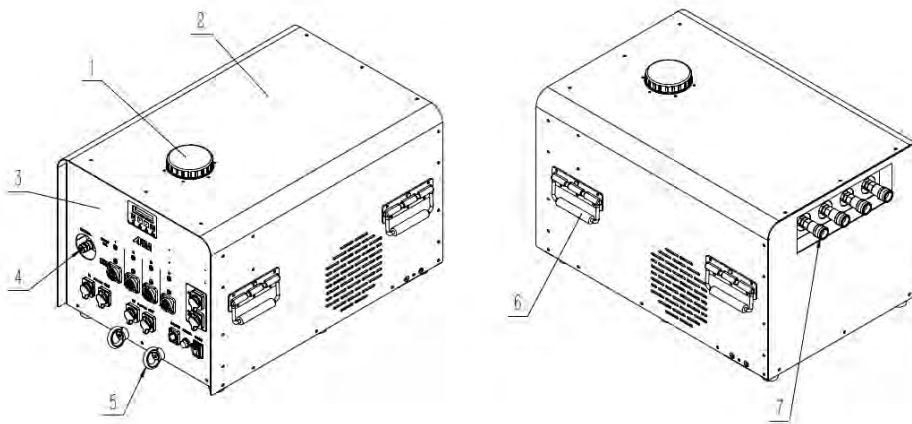
- ∨ Remote fuel and pressure supply for flame head
- ∨ Built in pump, no need extra Nitrogen tank
- ∨ Electronic digital fuel level display
- ∨ Configured with pressure and fuel level monitoring
- ∨ Refueling and pumping function switchable

▲ **Technical Specifications**

- ∨ **Model:** uPumper P4
- ∨ **Dimension:** 580x420 x460mm
- ∨ **Weight:** 48KG
- ∨ **Casing Material:** 304 stainless steel
- ∨ **Work Power:** 1800W
- ∨ **Input:** AC200-240V, AC100-120V, 50-60Hz
- ∨ **Tank Capacity:** 32L

- \ Pump Output: 15L/min
- \ Work TEMP.: -20 °C-50 °C
- \ Voltage Output: AC220V or AC110V
- \ Voltage Output Interface: Neutrik NAC3FPX-TOP
- \ Voltage Output Interface No.: 4
- \ Fuel Output Quick Coupler: ISO 7241B G1/4 female
- \ Fuel Output Interface Quick Coupler No.: 4
- \ Working Mode: Fueling or Pumping switchable
- \ Max. Supported Flame Head: 4

▲ Structure



- 1. Fuel Tank
- 2. Top Panel
- 3. Control Panel
- 4. Fuel IN
- 5. Safety Loop
- 6. Handle
- 7. Fuel Output

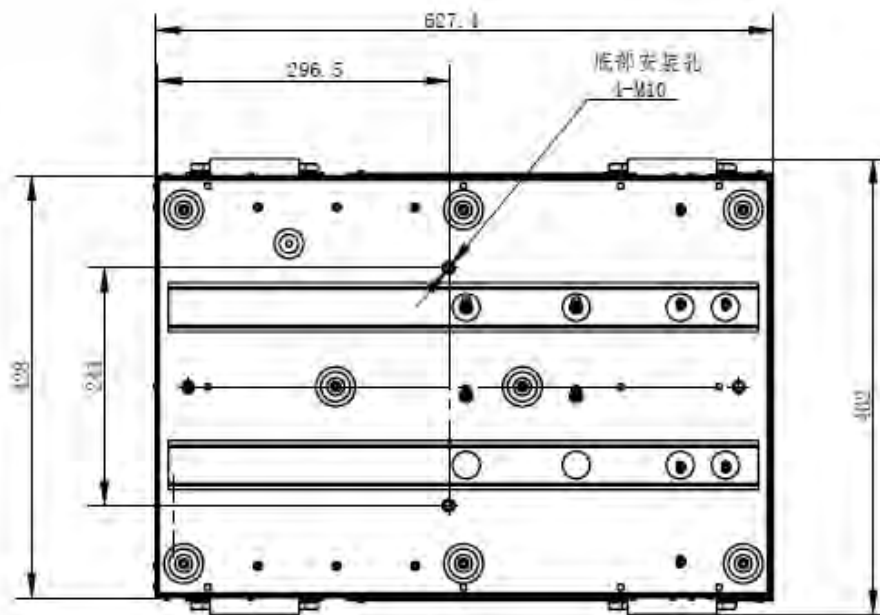
Control Panel



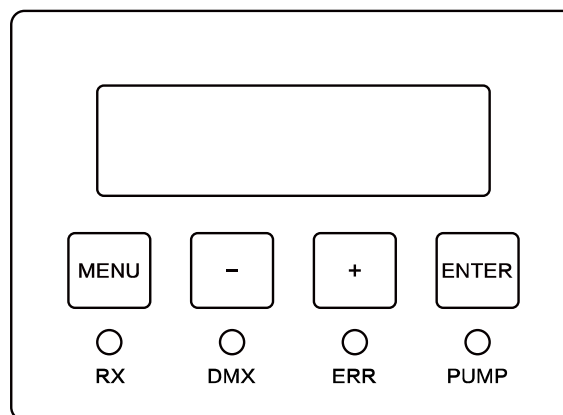
- 1. LCD Screen
- 2. Status Indicator Light
- 3. Fuel Output Indicator Light

- 4. Power Output Indicator Light
- 5. 3-pin DMX Safety Control Interface
- 6. Power IN
- 7. Fuse
- 8. Power Switch
- 9. Fuel IN
- 10. 110V/220V Power Out
- 11. 5-pin XLR
- 12. 3-pin XLR

Bottom Panel



▲ Operation Panel



a) 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.

b) 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 in 15s.

c) Indicator Light

Indicator light	Status	Explanation
ARM light	Long ON	ARM light setting at ON and pressure \geq 40
	OFF	ARM light setting at OFF or ARM light setting at ON but pressure $<$ 40
Fuel Output Indicator Light	ON	Solenoid valve ON
Power Output Indicator Light	ON	Power output

d) Welcome Interface

First Line: Product model and software version

Second Line: Equipment series number

P4-220426
XXXXXXXXXXXX

e) Main Interface

First Line

DMX: DMX address 1 (value from 1-512)

M: Modes selection, **DMX-P** means DMX pressurize, **M-P** means manual pressurize

Second Line:

P: Pressure Value 100 (100=10bar)

L: Liquid level 50%

DMX: 1 M: F-P
P: 100 L: 50%

f) Alert Message

Alert Message	Explanation
E0Prim Valve ON	Priming valve is ON
E0 Factory Mode	Machine under factory mode, set up at advanced menu
E1 Pressure Err	Pressurize error, if pressure not reached target value in designed time, system report E1. Please restart machine. Possible reason: No fuel in fuel tank, pump malfunction, pipeline error etc.
E2 P Relief Err	Depressurize error, if pressure can't depressurized to 1/3 of the target value in designed time, system report E2. Possible reason: Relief solenoid valve malfunction, pipeline or control system problem.
E3 Voltage Err	Voltage error. When voltage $>$ 18V or $<$ 11V for more than 3s, machine stops running.
E6 Tip Err	Tip over, when machine slant over 45 degree, machine stops running.
E7 Low Fuel	Fuel level low

g) Interface Setup

Press "MENU" to switch through setup menu.

Menu	Range	Default	Explanation
Set DMX Address	1~512	1	DMX address setup
Control Mode	DMX-P / M-P	DMX-P	Pressurize mode selection

Working Mode	Pressure / Fueling	Pressure	Pressure / Fueling Mode switch
Manual Pressure	ON/OFF	OFF	Display only when Working Mode is Pressure.
Manual Fueling	ON/OFF	OFF	Display only when Working Mode is Fueling
Fuel Valve 1	ON/OFF	OFF	Enable the pressure and fuel supply of fuel output nozzle 1 when ON
Fuel Valve 2	ON/OFF	OFF	Enable the pressure and fuel supply of fuel output nozzle 2 when ON
Fuel Valve 3	ON/OFF	OFF	Enable the pressure and fuel supply of fuel output nozzle 3 when ON
Fuel Valve 4	ON/OFF	OFF	Enable the pressure and fuel supply of fuel output nozzle 4 when ON

h) Advanced Interface

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

Menu	Contents	Default	Explanation
Drive Test	Pump	-	Pump running 1s, if pressure exceed set value, pump will not running.
	Output Voltage	-	Indicator light for output voltage will on in serial from 1 to 4
	Relief Valve	-	Relief valve ON / OFF 3 times
	Priming Valve	-	Priming valve ON / OFF 3 times
	Fuel Valve 1	-	6s after relief valve was ON, the related fuel valve ON / OFF 3 times
	Fuel Valve 2	-	
	Fuel Valve 3	-	
	Fuel Valve 4	-	
	ARM LED	-	ARM indicator light ON/OFF 3 times
Pressurize Time	1-200	15	Pressurize up limit time. When pressurize machine, if the pressure not reached target value in this setting time, machine report E1.
P Relief Time	0-200	15	Depressurize up limit time. When depressurize machine, if the pressure not reached 1/3 of the target value in this setting time, machine report E2.
Language	English/Chinese	English	Language switch
Background Light	ON/OFF	ON	LCD screen background light setting. If in OFF status, LCD screen light will OFF if not touch keypad in 30s.
ARM LED	ON/OFF	ON	LCD screen background light setting, default is ON. ON: when pressure > 40, ARM light will ON. OFF: ARM Light OFF, whatever the pressure value.
Tip Setting	ON/OFF	OFF	Turn ON/OFF tip over function
Default Parameter	ON/OFF	OFF	Reset default parameter settings
Fuel Input	ON/OFF	OFF	When ON, operators can fuel machine through Fuel Input Quick Coupler
PV ON fuel level	0-80%	20%	When fuel level lower than set value, priming valve will open automatically
PV OFF fuel level	10-100%	100%	When fuel level reached set value, priming valve will close automatically
RV EMER Open	ON/OFF	OFF	Turn on the Priming Valve, turn off automatically 5s later.
Current Voltage	12V	-	Main board voltage supply display

Mode Select	Normal Mode/Factory Mode	Normal Mode	Factory mode for manufacturer use only
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▲ Control

Pressure Mode - DMX Control

uPumper P4 occupy 6 channels.

Channel	Function
CH1	0-253 output voltage 1: OFF 254-255 output voltage 1: Enable
CH2	0-253 output voltage 2: OFF 254-255 output voltage 2: Enable
CH3	0-253 output voltage 3: OFF 254-255 output voltage 3: Enable
CH4	0-253 output voltage 4: OFF 254-255 output voltage 4: Enable
CH5	reserved
CH6	0~49: Depressurize (Emergency Stop) 50~200: Pressurize 201~255: Depressurize (Emergency Stop)

Pressure Mode - Manual Control

Please disconnect with console if need to manual control the uPumper P4. Press MENU find "Manual Pressure" switch to ON status. Machine will automatically pressurize to set pressure. Switch to "OFF" will start depressurize.

Fueling Mode - DMX Control

uPumper P4 occupy a single channel.

DMX Value	Function
0 - 49	Pump OFF, Depressurize
50 - 200	Pump ON, Fueling
201 - 255	Pump OFF, Depressurize

Fueling Mode - Manual Control

Please disconnect with console if need to manual control the uPumper P4. Press MENU find "Manual Fueling" switch to ON status. Machine will automatically refueling for flammers, Maximum fueling time is 5min or when fueling level reached flamer's up limit. Switch to "OFF" will stop Fueling.

▲ 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. Ensure there is enough fuel inside fuel tank before turn on machine.

▲ Warranty Instructions

- ∨ Sincere thanks for your choosing our products, 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:

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

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

Invoice is necessary when applying for maintenance service from SHOWVEN

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