



Jet Blaster 900



PFX900V Instruction Manual



CAUTION - ATTENTION - VORSICHT

**RISK OF ELECTRIC SHOCK- DO NOT OPEN
RISQUE D'ELECTROCUTION - NE PAS OUVRIR
STROMSCHLAGGEFAHR - NICHT OFFNEN**



In Compliance with the following directives: RoHS Directive (2002/95/EU) and WEEE directive (2002/96/EU)
If this product is no longer functional or reached the end of its usable life, please take it to an approved recycling plant.



User Manual

PFX900V Jet Blaster 900

Dear Customer,

Thank you for purchasing the Perform FX PFX900V Jet Blaster. With decades of experience in design and production, Perform FX are one of the leading manufacturers of professional effects and lighting equipment. This fog machine has been designed and manufactured to the highest of standards, so you can be assured you have made a good investment.

For your safety and to ensure you make full use of all the features available, please make sure you read this manual in full.

Important Safety Advice:

- You must read this manual in full before commencing operation.
- The machine should be operated by a responsible and competent adult only.
- Keep this manual in a safe place for future reference.
- Heed all warnings and instructions, both in this manual and on the product.
- Carry and transport this product with care.
- Impact to this machine or dropping may result in serious mechanical failure. The machine should not be used if it has been subjected to such incident.
- Turn off and unplug this machine from the mains supply when not in use.
- This machine is not water-proof and should not be used outside.
- In the event of any liquid entering the housing, unplug immediately & contact a qualified engineer.
- You must not attempt to modify this unit
- The manufacturer accepts no responsibility for injury or damage caused as a result of not following the manual provided.

Protection from Electric Shock:

- Only connect this unit to a mains socket with suitable trip and RCD protection.
- To disconnect from the mains socket, always remove by the mains plug. Do not attempt to remove by pulling the mains cable.
- Disconnect the unit from the mains supply before cleaning. Cleaning should be carried out with a soft, dry cloth.
- Do not submerge or expose this machine to any liquid.
- Do not operate near exposed water or in high humidity.
- Choose a suitable route for mains cables, ensuring trip hazards are avoided and the mains cable is not at risk of being crushed.
- Do not open this unit to service. There are no user-serviceable parts inside. Any servicing or repairs should be carried out by a qualified engineer only. Any attempt to service or adapt this unit will leave your warranty void and could result in serious malfunction or injury.

Protection from Fire:

- Do not place near sources of heat or ignition.
- Do not cover or block any ventilation holes.
- Check your AC wall socket will take the power you are applying to avoid overloading the mains supply.

Protecting Your Machine From Damage:

- Always install in a suitable location where vibrations to the unit are avoided.
- Check this unit matches the mains voltage and frequency before plugging it in to your mains socket.
- In the event that any object or liquid enters the machine switch off immediately, remove from mains and consult a qualified engineer.
- Should you experience any malfunction or damage to the mains cable, disconnect from the mains supply immediately and consult a qualified engineer.
- All parts should be replaced with genuine spare parts and carried out by a qualified engineer.
- Do not add liquids of any kind, especially flammable liquids to this machine or its intended fluid. Use only water based fluid, specifically designed for effects machines.
- Use high quality water-based liquid, recommended by your dealer to reduce clogging.
- During operation ensure there is sufficient fluid in the tank. Operating without fluid will damage the pump.
- If your machine fails to work disconnect immediately, remove all liquid and return in original packing to your dealer.
- Always drain the fluid and water tanks before transporting.
- Follow the cleaning and maintenance advice in this manual.
- If your machine fails to work, disconnect immediately, remove all liquid and return in original packing to your dealer.

Danger of Injury or Burns:

- For operation by adults only, ensure installation is away from the reach of children.
- Never leave the machine running unattended.
- Avoid all contact with the heater.
- Never aim the nozzle directly at people.
- Use only in a well ventilated area & do not cover the machine vents. In order to guarantee adequate ventilation, allow a free air space of at least 20cm around all sides of the machine.
- Effects fluids can cause irritation and injury, handle with care and keep out of the reach of children. Avoid contact with the eyes and skin, if this occurs rinse with warm water. If ingested call a doctor immediately.

Before Use:

Before commencing setup check the machine has not been damaged in transit. In the event there is any damage to the housing, cable or internal components contact your dealer immediately.

Contents Includes:

PFX900V
Power Cable
Wireless remote and receiver
Instructions

Specifications:

Code: PFX900V
Mains Supply: 230Vac 50Hz
Power Consumption: 950 Watts
Heat Up Time: 4 min
Liquid Consumption Rate: Approx 230ml/min
Dimensions: 340 x 250 x 130mm
Weight: 6.5Kg

Features:

- Powerful vertical fog output.
- Vertical blast of around 6m.
- Red, Green and Blue LED colour mixing.
- Six 3 watt tri-LEDs.
- DMX controllable, 5 Control Channels.
- Wireless Remote controllable.

Description:

The PFX900V is a powerful vertical smoke machine that can be used on the floor or hung upside down from trussing.

- 1. Heater Nozzle:** Smoke output, will get very hot do not touch..
- 2. Fluid Tank:** Fill the fluid tank with standard fog liquid, do not spill the liquid as this could damage the electronics.
- 3. Eye Bolt:** Used to connect safety wire.
- 4. DMX Input:** Female 3 pin to connect from a DMX controller or previous DMX fixture.
- 5. DMX Output:** Male 3 pin to connect to next DMX fixture in the chain.
- 6. Power Switch:** To turn the fogger on and off.
- 7. Fuse Holder:** If this blows once, replace if the correct size fuse, if it blows again, there may be a problem with the machine, seek professional help from an engineer.
- 8. Mains Lead:** Connect this to a suitable mains supply (230 Vac).
- 9. Remote Control:** For connection of the wireless receiver.
- 10. Menu Button:** To browse the setup menu.
- 11. Up Button:** To adjust setting in the menu.
- 12. Down Button:** To adjust setting in the menu
- 13. Enter Button:** Used enter sub menus in the main menu.
- 14. RGB LEDs:** These light up when fog is produced.



Set Up Menu:

The setup menu is used to adjust the different parameters of the smoke machine.

The MENU button is used to navigate through the menu options.

- **Addr:**

Press enter, use the up and down buttons to adjust the DMX address, then press enter to save settings.

- **rENo:**

Wireless control options. Press MENU button until rENo is displayed, press the ENTER button to enter this sub menu. Here you have 5 settings: CH1, CH2, CH3, CH4, CH5, OFF, use the up and down buttons to choose one and then press ENTER to save your setting.

- **CH5:**

By choosing this mode the remote will control 4 different colours when smoke is being emitted. A= Red, B=Green, C=Blue, D=Yellow. This is 4 colour mode.

- **CH1,CH2,CH3,CH4:**

By selecting one of these you can choose what button on the remote activates the fog machine at full output. This is 4 zone mode. This mode is useful when controlling multiple PFX900V units from one controller.

By selecting CH1 the machine will work from button A, CH2 button from B and so on. The colour can be set in the next menu sub group.

- **OFF:**

If this setting is used the wireless remote has no function.

- **CoLo:**

This menu sub group adjusts what colour is produced when CH1,CH2,CH3 or CH4 is selected in the previous sub menu. Co 0=no colour, Co 1=red, Co 2=green, Co 3=blue, Co 4=red and blue.

Press MENU to enter this sub menu, press ENTER to enter setup mode, use the UP and DOWN buttons to select the desired colour. Press ENTER to save your settings.

First Time Operation - Panel Controls:

- Before you start using this unit, please check there is no transportation damage, should there be any, please do not use the device and contact your dealer immediately.
- The PFX900V is designed to be used with water based fog or vapour liquid, NEVER OIL BASED.
- Put the smoke machine on a flat stable surface or hang from a suitable truss and use a safety wire as a secondary support. Make sure no one can put any body part close to the heater output
- Unscrew the Lid on the fluid bottle, fill up with a suitable fog liquid, make sure not to over fill. Then screw the plastic cap back on. Make sure the tank never runs dry during operation.
- Connect the PFX900V to a suitable mains supply.
- There is a simple 4 button menu with LCD display on the back of the unit, the 4 buttons control menu, up, down and enter.
- When you first turn on the smoke machine you will need to wait for around 3-5 minutes for the heater to warm up. Then you will get access to the controls. Press the menu button to scroll through options and use the up down buttons to make changes.

First Time Operation with Wireless Remote:

- Before you start using this unit, please check there is no transportation damage, should there be any, please do not use the device and contact your dealer immediately.
- The PFX900V is designed to be used with water based smoke, fog or vapour liquid.
- Put the smoke machine on a flat stable surface or truss mount following the instructions in this manual carefully. Make sure no one can put any body part close to the heater output.
- Unscrew the Lid on the fluid bottle, fill up with a suitable fog liquid, do not to overfill. Screw the plastic cap back on and ensure the tank never runs dry during operation.
- Plug the mains plug into a suitable mains supply and allow the unit to warm up for around 4 minutes.
- The wireless remote can be used at a distance of up to 25 metres. You can choose 2 ways to control, depending on the settings you make in the menu.
- The wireless remote has 4 buttons, A,B,C,D. Depending the menu settings the remote can control 4 colours or 4 zones.

First Time Operation With DMX:

- Before you start using this unit, please check there is no transportation damage, should there be any, please do not use the device and contact your dealer immediately.
 - The PFX900V is designed to be used with water based smoke, fog or vapour liquid.
 - Put the smoke machine on a flat stable surface or truss mount following the instructions in this manual carefully. Make sure no one can put any body part close to the heater output.
 - Unscrew the Lid on the fluid bottle, fill up with a suitable fog liquid, do not to overfill. Screw the plastic cap back on and ensure the tank never runs dry during operation.
 - Connect a DMX controller to the DMX input socket. Terminate the output socket or connect to other DMX fixtures.
 - Plug the mains plug into a suitable mains supply. Allow the unit to warm up for around 4 minutes
- This unit uses 4 channels of DMX.
- Set a suitable DMX address via the digital display.

DMX Channel Layout:

Note: Channels 2, 3 and 4 connect be combined together, channel 3 has priority over 4 and channel 2 has priority over 3 and 4.

Channel:	Value:	Function:
1	000-005	NO fog output
	006-255	FOG output ON
2	000-005	No Colour
	006-085	RED
	086-170	GREEN
	171-255	BLUE
3	000-005	No Colour
	006-085	RED + BLUE
	086-170	GREEN + RED
	171-255	BLUE + GREEN
4	000-005	No Colour
	006-085	RANDOM Colour

Overhead Rigging:

The installation must be carried out by a qualified engineer only. Improper installation can result in injuries or damage to property. Overhead rigging requires experience, working loads should be adhered to and certified materials should be used. The installed device should be regularly inspected for safety.

- Make sure the working area is clear from people and obstructions during rigging, de rigging and servicing.
- Locate the smoke machine in a well ventilated area away from flammable materials and liquids. The smoke machine needs to be 50cm away from surrounding walls and fixtures.
- The smoke machine should be installed out of reach of people and not where people are seated, walking or standing.
- When mounting make sure the installation point can take the weight.
- Make sure a safety chain or wire is always used and can take the weight of the smoke machine. The safety bond should not be used as a primary support.
- The machine should be well fixed and free from swinging.
- Do not cover any ventilation holes.
- Disconnect the power when the machine is not in use.
- The operator must make sure the smoke machine has been installed correctly to all the necessary guidelines before each use. The installation should be inspected every 6 months.



Flying The Machine Upside Down

- If you want to hang the PFX900V upside down the fog liquid container needs to be moved.
- Remove the 2 screws holder the top plate of the fluid container.
- Remove the cap and tube for the liquid container.
- Remove the liquid container.
- Turn the machine upside down.
- Remove the base plate. (A)
- Turn the machine again to its normal position. Put the base plate this side.
- Turn the machine upside down again.
- Install the liquid container back inside.
- Install the top plate back on.
- Hang the smoke machine via the 3 M10 fixing points, either with clamps, eye bolts or stud. (B)
- Make sure you use a safety chain or wire as a secondary support.

Maintenance:

- Do not allow liquid to become contaminated. Always replace the cap on the liquid container immediately after filling.
- After every 40 hours of operation, or if the unit is not to be used for one month, It is recommended to run a cleaning solution of 20% clear vinegar and 80% distilled water through the system to prevent clogging in the heater. This should be carried out in a well-ventilated room.
- Always empty the fluid and water tanks after every use. Use a dry cloth to wipe down the outside of the fog machine. Make sure the power cable is disconnected from the mains supply.
- Make sure the mains cable is in impeccable condition and should be replaced when a small defect is detected.
- All other maintenance should be carried out by a qualified engineer.

DMX BASICS:

- DMX is short for “digital multiplexer”, which is a universal protocol designed for the entertainment industry. It allows control of intelligent fixtures like scanners, moving heads, LED par cans, dimmer packs & effects machines etc.
- DMX allows you to control many fixture channels, normally up to 512, with varying channels from 0-255 (0-100%).
- This will give control of channels such as gobo selection, movement, colours, dimming and timing to name just a few.
- DMX is a very good system, as all this information can be sent down one cable. Used in conjunction with a DMX controller with memory, all of your channel settings can be saved and recalled easily.
- DMX was designed so that all manufacturers can use the same protocol/language to control their fixtures, allowing the end user to use any make of fixture from their DMX controller as long as both are DMX compatible, and the controller has enough channels to control the fixture that is attached.
- Fixtures have an input and output DMX socket, allowing you to connect from the controller to the first fixture then from that fixture to the next (this is often referred to as “daisy chaining”).
- Sockets are normally 3 pin XLR but can be 5 pin XLR.

DMX fixtures need to have a DMX address set, this is so they can then decode the correct information from the controller. This is normally done by a digital display panel, where the address can be changed by simple up and down buttons; the address ranges from 1-512. Alternatively it may be controlled by a row of small switches, called dip switches; on this type system, the required address is then converted to a binary number.

DMX Connector Wiring

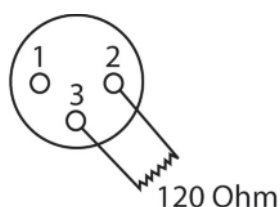
3 PIN	5 PIN
PIN 1 GND	PIN 1 GND
PIN 2 -	PIN 2 -
PIN 3 +	PIN 3 +
	PIN 4 NOT USED
	PIN 5 NOT USED

3 Pin wiring is more common, but the 5 pin configuration is often used on larger equipment. With the 5 pin configuration, not all pins are used, though it is worth checking the fixture manual, as some equipment use the extra pins for low voltage control. 5 Pin connectors are ideal so there is no confusion over mixer leads and DMX leads in larger rigs. Sending a mixers 48v phantom power down a DMX cable could damage the DMX light or fixture.

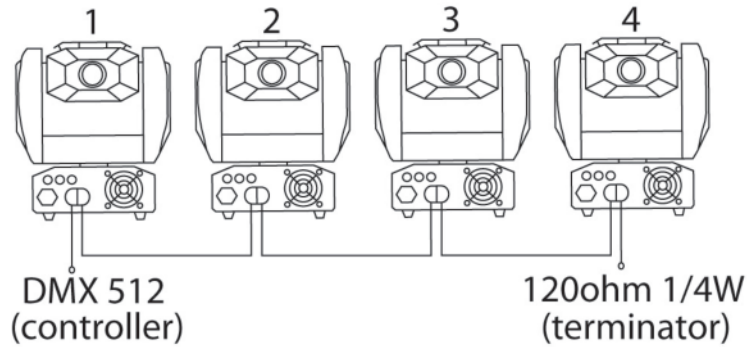
If making cables, always use suitable DMX cable and do not connect pin 1 GND to the outer casing of the connector as you might do with audio cables, as this may cause erratic behaviour from your fixture.

Do not make “Y” leads to split cables to fixtures; always use the in and out sockets or a DMX splitter, as again this may cause erratic behaviour from your fixture.

We recommend you to plug a DMX terminator into any fixture that hasn't got a DMX lead connected from the output socket to another fixture; This again is to reduce unexpected behaviour. A DMX terminator is simply a male XLR plug with 120 ohm, ¼ watt resistor soldered across pin 2 & 3.



Example of a DMX line



Ch1	Ch2	Ch3	Ch4	Normal	Colour
Pan	Tilt	Shutter/Shaking	Gobo		Split
540°	270°	246-255 Open	255 Fastest speed Gobo change	255 Fastest speed Rainbow Effect	255 Fastest speed Rainbow Effect
		247 Fastest speed shaking			
			128 Slowest speed Gobo change		128 Slowest speed Rainbow effect
			120-127	128 Slowest speed Rainbow effect	121-127 Pink
			111-119	118-127 Pink	113-120 Yellow+Pink
			103-110	107-117 Yellow	106-112 Yellow
			094-102	096-106 Orange	098-105 Orange+Yellow
		132 Slowest speed shaking	086-083	086-095 Light Green	091-097 Orange
		131 Fastest speed shutter	077-085	075-085 UV Purple	083-090 Light Green+Orange
			069-076	064-074 Blue	076-082 Light Green
			060-068	054-063 Red	068-075 UV Purple
		16 Slowest speed shutter	052-059	043-053 Amber	061-067 Blue
			044-051	032-042 Light Blue	053-060 Red+Blue
		008-015 Open	035-043	022-031 Magenta	046-052 Red
		000-007 Blackout	0-26-034	011-021 Green	038-045 Amber
0°	0°		018-025	000-010 White	031-037 Light Blue
			009-017		023-030 Magenta
			000-008		016-022 Green+Magenta
					008-016 Green
					000-007 White

Each fixture takes up 5 DMX Channels (See Above)

You have a cable from the controller to the first fixture cable, then from first to second and so on. The last light then has a DMX terminator plugged in.

Fixture 1 would be set to DMX address 1

Fixture 2 would be set to DMX address 6

Fixture 3 would be set to DMX address 11

Fixture 4 would be set to DMX address 16

When setting these addresses, ensure that the fixture addresses dont overlap. You can set two fixtures to the same address as long as they have the same channel layout, they will then perform in the same way.

We recommend you to read manuals for your DMX fixture and controller in full. Some controllers tell you what each fixture address needs to be, and some equipment will need other settings changed before they will work.