PFX
PERFORM FX

Professional Hazer 1650

PFX1650HPRO Instruction Manual

CAUTION - ATTENTION - VORSICHT

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

RoHS

CE

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.

Dear Customer,

Thank you for purchasing the Perform FX PFX1650HPRO. 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 irratation 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:
PFX1650HPRO
Power Cable
Instructions

Specifications:
Code: PFX1650HPRO
Mains Supply: 240Vac 50Hz
Power: 1650 Watts
Heat Up Time: 5 min
Dimensions: 330 x 640 x 600mm
Weight: 35kg

Features:
• Powerful 1650 watt heater.
• Self cleaning system
• 6L Fluid Tank.
• Uses water based Haze fluid.
• Manual Control with timer function.
• DMX controllability, 2 channels of control.
• Adjustable fan speed.
• 3 pin DMX Connections
• Supplied built into a strong flightcase with wheels

Description:

The PFX1650H Pro comes in a flightcase with wheels, the front and back lids are removable.

1   Haze Fluid Container: To be filled with a good quality water haze fluid
2   Haze Output: Fog is emitted from here, this can get hot be careful.
3   Air Intake: Do not cover these air in takes. The foam filter should be cleaned when dirty.
4   Control Panel: Used to control the workings of the hazer.
5   DMX Sockets: Used to connect and link DMX fixtures and controller, 3pin.
6   Main Input: Connect the supplied mains cable here.
7   Circuit Breaker: If this trips reset once, if it trips again, there may be a problem with the machine. Seek advice from a qualified engineer.
8   Menu Button: used to browse the setup menu.
9   Timer Button: Used to increase a level or to activate the timer.
10   Volume Button: Used to decrease a level or switch the output manually on.
11   Stop Button: Used to stop the timer or manual operation.
12   Power Switch: Turns on and off the haze machine
13   Fan Air Output: The tray can be adjusted to modify the direction of the air stream.
14   Mains Supply: 230 Volt AC Mains input socket

Set Up Menu:

The setup menu is used to adjust the different parameters of the hazer.
The MENU button is used to navigate through the menu options.

- **DMX512 Add:** press the up and down arrows to adjust the DMX address.
- **FAN SPEED:** Press the up and down arrows to adjust the fan speed.
- **VOLUME OUT:** Press the up and down arrows to adjust the output volume 1-100%
- **INTERVAL SET:** Press the up and down arrows to adjust the interval time 10s-200s
- **DURATION SET:** Press the up and down arrows to adjust the duration time 10s-100s

First Time Operation - Panel Control:

- 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 PFX1650H PRO is designed to be used with water based haze liquid, NEVER OIL BASED.
- Put the haze machine on a flat stable surface. 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 the PFX1650H PRO to a suitable mains supply.
- There is a simple 4 button with LCD display on the back of the unit, the buttons control menu, Timer, Volume and Stop
- When you first turn on the fog 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.
- Use the 4 button Menu to set, fan speed, volume, interval and duration.
- Once set the volume button activates manual mode, timer button activates timer mode. The stop button stops timer and manual mode.
- After pressing stop allow the self cleaning function to run before turning the haze machine off.

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 PFX1650H PRO is designed to be used with water based haze liquid. NEVER OIL BASED.
• Put the haze machine on a flat stable surface. 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 the PFX1650H PRO to a suitable mains supply.
• Connect to a suitable DMX controller.
• When you first turn on the haze 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.
• Set a DMX address via the 4 button display.
• Once heated the hazer can be controlled by 2 channels of DMX, 1=Fan Speed and 2= Volume Output
• Remember to set the volume output to zero, this runs the self cleaning function. Wait while this is performed, then turn off the haze machine.

Self-Cleaning Function:

• Please do not turn your unit straight off after using. This machine has a self-cleaning function. This pushes air through the pump and heater to remove any residue of liquid left after use, this will prolong the life of the heater.
• If in DMX mode turn the haze output to zero, then turn the power off after about 1 minute 30 seconds.
• If using the internal menu, use the stop button, then turn power off after 1minute 30 seconds.

Maintenance:

• Always perform the self cleaning function after every use. This will prolong the life of the pump and heater.
• Do not allow liquid to become contaminated. Always replace the cap on the liquid container immediately after filling.
• Always empty the fluid tank after every use.
• Wipe clean the unit with a dry cloth.
• Occasionally clean the foam filters.
• 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.
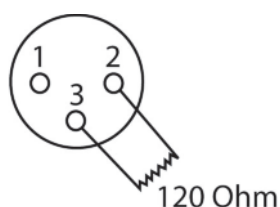
DMX Connector Wiring

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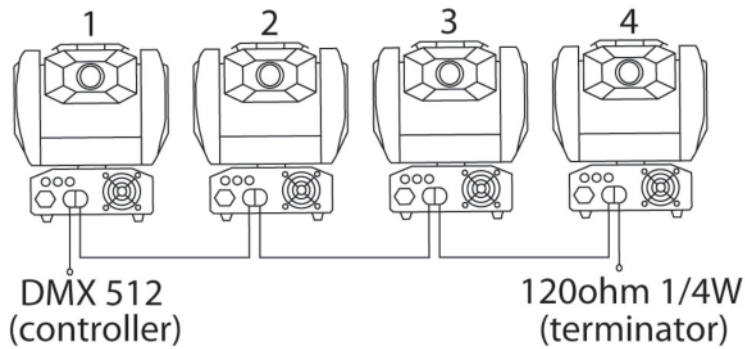
If making cables, always use suitable DMX cable and do not connect pin 1 GND to the outer casing of the connector as you might do with audio cables, as this may cause erratic behaviour from your fixture.

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.

120 Ohm

Example of a DMX line

DMX 512 (controller)
120ohm 1/4W (terminator)

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

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.