



Power Fog Industrial 9D (PFI9D) Operators Manual

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Note: Please read entire manual before operating the Power Fogger Industrial

Introduction

The Power Fogger Industrial 9D is a Microprocessor Controlled, Water Based Fog generating system.

Microprocessor Control

The Power Fog Industrial 9D (PFI-9D) features dual microprocessor control. From temperature regulation to taper back flow control, all of the functions are monitored and processed by the two on-board processors.

Water Base Fog Technology

Water Base Fog technology is achieved by pumping a glycol/water mixture through a heat exchanger. This will vaporize the fluid as it passes through the processing block. The vaporization of the fluid forces the hot mixture through the output nozzle. When mixed with ambient air, it forms an opaque aerosol (fog). The fog is made up of tiny droplets that form around small particles in the air. The suspended droplets refract the light, allowing the fog to take on the color of the light illuminating it.



Warning!!



Important Safety Instructions

1. Do not touch, place hands or expose skin within 20" (50 cm) of the discharge nozzle.
2. Do not remove the outer case.
3. Persons suffering from asthma or allergenic sensitivity may experience irritation, discomfort or allergic symptoms when exposed to fog effects.
4. Ensure that this unit is grounded at all times. Failure to do so may result in serious injury.
5. Use Ultratec Special Effects fluid ONLY.



Safety Precautions

1. Ensure that any operation of the machine is supervised by suitably trained and authorized personnel.
2. Do not modify the machine or use a machine which has been damaged in any way.
3. Allow sufficient air circulation around the machine at all times.
4. Protect the machine from direct weather effects and wet locations.
5. Only use fluids manufactured by Ultratec Special Effects.
6. Do not continue to produce fog when visibility is reduced to 20" 50cm or below.
7. Avoid directing fog output continuously at people, structures or objects within close proximity of the discharge nozzle.
8. Ensure that adequate exhausting arrangements are available in the event of an emergency.
9. Do not place hands or exposed skin within the first 20" (50 cm) of the discharge nozzle at any time during fog production.
10. Fog effects can trigger smoke alarms and detectors. Please take suitable precautions to prevent false alarms.

PFI Technical Specifications

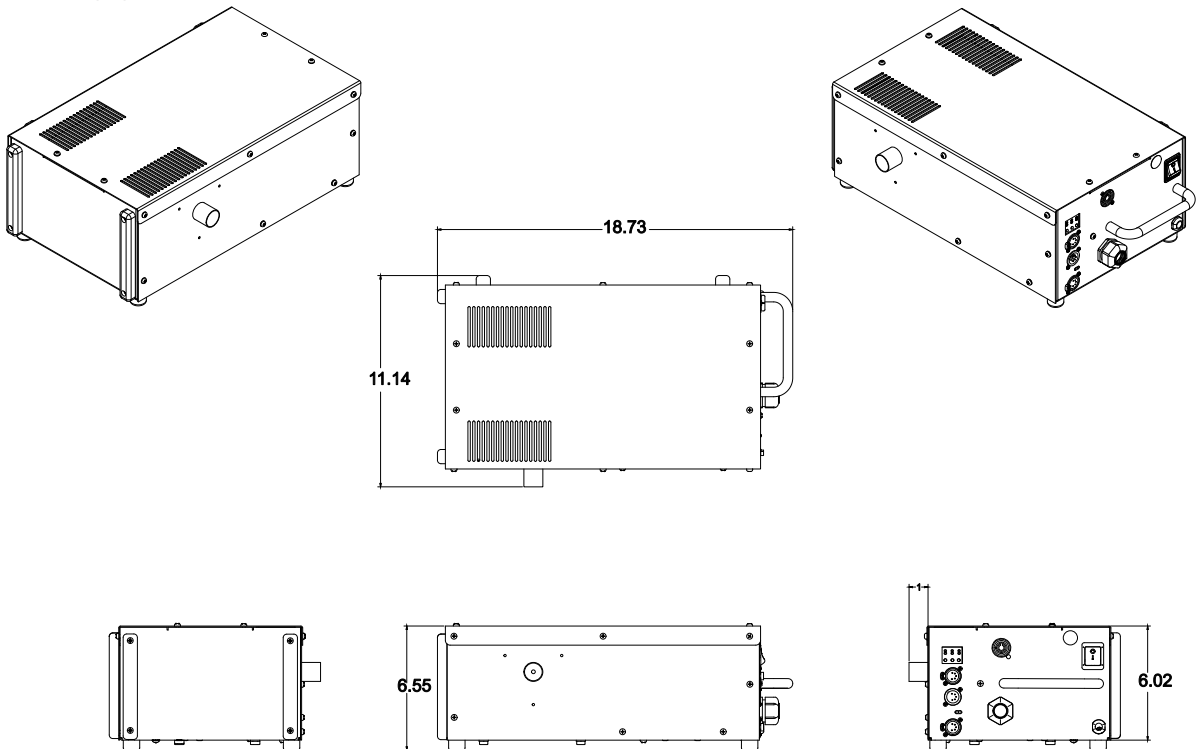
Model: Power Fog Industrial 9D (PFI-9D)

Part Number: CLF 4460 Power Fog Industrial 9D (PFI-9D) - 120 Volt
CLF 4456 Power Fog Industrial 9D (PFI-9D) - 120 Volt - w/ Air Option
CLF 4461 Power Fog Industrial 9D (PFI-9D) - 220-240 Volt
CLF 4457 Power Fog Industrial 9D (PFI-9D) - 220-240 Volt - w/ Air Option

Power Rating: 120 Volt A.C. 50/60 Hz. 13 Amps.
220-240 Volt A.C. 50/60 Hz. 8.5 Amps.
Fluid: Water Base Fog Fluid (Use only Ultratec Fluid)

Technical Drawings

Power Fogger Industrial 9D

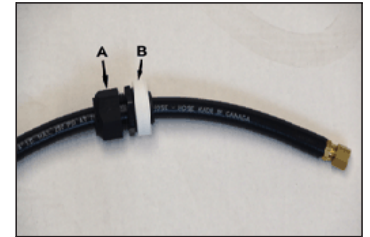


Operating Procedure

1. The fog machine must be connected to a grounded supply of at least 15 amps free of any electrical interference. Due to the heavy loads minimize length and maximize size of extension cords.
2. Open a 4L or 20 Litre (5 Gallon) container of Ultratec Special Effects fog fluid and insert the fluid pickup tube into the spout of the fluid container.
3. With the Optional Remote Handset connected to the rear panel labeled Remote or by watching the green LED located on the rear panel allow the unit to heat. (When using DMX the Remote is not required).
4. Activate the Power switch located on the rear panel. The green LED on the back of the 9D and Handset indicator will illuminate to indicate the presence of power. If the Handset indicator does not illuminate, ensure the connector is properly inserted.
5. The Handset indicator and the green LED on the back of the 9D will begin to flash slowly, but will speed up when the fog machine is ready to operate. After approximately 9 minutes, the fog machine will be fully heated and is ready for full output; the indicator will be on solid.
6. It may be necessary to prime fluid into the system to expel any air. The Variflow control on the remote handset should be set to the full position. A dry hose can take between 45-60 seconds to prime. This only needs to be done if the unit was left to run dry.

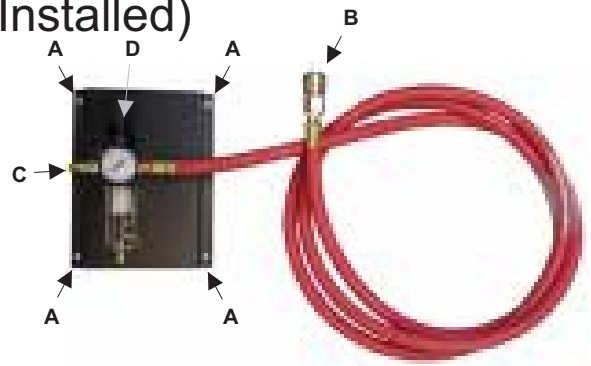
NOTE: In order to prime the fog machine, the green LED on the back of the 9D or red Handset LED must be on solid, which indicates that the fog machine is fully heated.

7. To adjust the depth of the hose, simply loosen Nut 'A' and slide up or down the hose and retighten. Be careful not to pinch off the flow of fluid.



Operating Procedure w/ Air Option (If Installed)

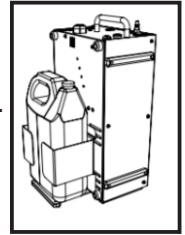
- A) Mount the Regulator Bracket to a wall or other secure location with the condensate trap hanging down.
- B) Attach the female coupler to the male coupler of the Power Fog Industrial w/ Air Option or Power Fog Industrial 9D w/ Air Option.
- C) Attach the air hose to the male coupler of the mounted regulator.
- D) Adjust for the desired air pressure (typically 25-50 psi).



Options

Remotes - The Show Control Remote and Timer/ Duration Remote are compatible with the Power Fog Industrial, Power Fog Industrial w/ Air Option, Power Fog Industrial 9D and Power Fog Industrial 9D w/ Air Option. Each remote is sold separately.

Jug Holder - The Power Fog Industrial 9D and Power Fog Industrial 9D w/ Air Option has been designed to be versatile in any setting. For ease of operation, a jug holder may be used to secure the fluid to the machine in the vertical orientation. The Jug Holder is sold separately.



4" Hose Adapter - If your intention is to connect a 4" hose to the machine and direct the fog elsewhere, a 4" Hose Adapter (CXP 1046) is available. This adapter is compatible with the Power Fog Industrial, Power Fog Industrial w/ Air Option, Power Fog Industrial 9D and Power Fog Industrial 9D w/ Air Option.

Optional Show Control Remote Operations

The Show Control Remote Handset LED was designed to indicate operation modes.

These are as follows:

Slow Flashing Light: Indicates unit is not ready to operate but still in heating mode, fog is not available at this point.

Quick Flashing Light: Indicates unit is ready to operate but still in heating mode, some fog is available at this point.

Solid Light: Indicates that the unit is ready to fog at full output.

Triple Pattern Flashing Light: Indicates that the unit is in an over temperature condition and has shut down.

No Light: Indicates problems; a loss of power or remote is not connected. If these fail to correct the problem, contact your local Ultratec Special Effects dealer.



Show Control Operation

Show control is achieved by connecting a "Dry" or zero voltage contact to the show control terminals. The Power Fog Industrial/9D requires no power to signal the fog, only one set of contacts that close for the entire fogging cue.

For Show Control Operation, the DMX Address must be set on 555.

Closing the Show Control Remote terminals with dry contacts, triggers the following machine functions:

- C + 1 = Fog On/ Off w/ Variflow
- C + 2 = ECLIPSE On
- C + 3 = Air Option

Optional Timer/ Duration Remote Operations

The Timer/ Duration Remote offers Duration, Interval, Variflow and fog on/ off controls.

Timer/ Duration Remote LED Indicator

The Timer/ Duration Remote Handset was designed to indicate operation modes.

These are as follows:

Slow Flashing Light: Indicates unit is not ready to operate but still in heating mode, fog is not available at this point.

Quick Flashing Light: Indicates unit is ready to operate but still in heating mode, some fog is available at this point.

Solid Light: Indicates that the unit is ready to fog at full output.

Triple Pattern Flashing Light: Indicates that the unit is in an over temperature condition and has shut down.

No Light: Indicates problems; a loss of power or remote is not connected. If these fail to correct the problem, contact your local Ultratec Special Effects dealer.

Variflow Sets the desired fog output rate from 0 to full output.

Duration Sets fog "on time" from 0-4.25 minutes when using the timer settings.

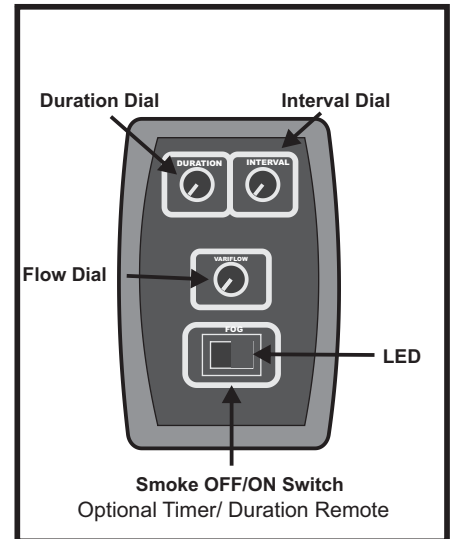
Interval Sets fog "off time" from 0-4.25 minutes when using the timer settings.

The interval time must be set to 0 to disable the timer operation.

Note: To operate the Eclipse Low Fog Generator using the Timer/ Duration Remote, the DMX Address must be set on 555 and the Duration control set over 50%. If the Duration is set at anything less than 50%, the Switched Power Port will be off.

The Show Control Remote and Timer/ Duration Remote cable may be extended from the machine and operated effectively away from the Power Fogger 9D.

The maximum allowable extension cable length is 200 Feet, **less is better.**



DMX Operation

The Power Fogger Industrial 9D is equipped with DMX-RDM controls as a standard feature. 2 channels of DMX are required.

The base address = Fog Output Control.
The base address + 1 = Eclipse aux. port control.

1. Plug in the Power Fogger Industrial 9D and switch the Main Power ON to warm it up (Solid green LED on back of machine).
2. Apply a DMX signal to the DMX IN 5 pin connector on the rear of the unit. A terminator may be required on the DMX OUT connector in some applications.

Base DMX= Fog rate controlled 0-100%
DMX+1=Eclipse power on above 50%
DMX+2= Air on above 50%

3. Select a valid DMX address with the arrow keys to set the base address of the fogger.
Note: The display goes to sleep when not in use. Touching any key once wakens it.

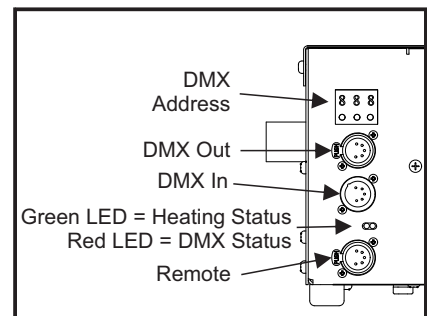
The set DMX address controls the fog flow rate from 1-100%. The next consecutive address turns on the auxiliary port if it is set over 50% for control of an Eclipse. Also

Note: If the air option is present, 3 consecutive DMX addresses will be required.

4. The red valid DMX LED is on solid if good DMX signal is present.
DMX control will override hand remote only while active.
Slow or irregular flashing indicates poor DMX data

RDM Functions

RDM features will allow remote identify by flashing the DMX display, DMX address changing and machine temperature monitoring. As well the machine's group and manufacturer identification data is available.



Maintenance

Exterior

The casing of the PFI9D is stainless steel with a powder paint coating. To clean simply wash with mild soap and warm water.

Heat Exchanger

Using high quality Ultratec Special Effects fluid should result in a long heat exchanger life.

See Power Fog Industrial 9D Rapid Change Technology Replacement Guide R-A manual on how to change out copper tube.

Troubleshooting

UNIT NOT POWERING UP

- 1) Check that unit is connected to a suitable power source.
- 2) Check that the power switch is in the ON position and not tripped OFF. (Power switch is a resettable style breaker. If tripped, it will rest midway between ON and OFF. Switch to OFF position (downwards) then flip back ON (upwards). If power switch trip's again; further investigation is required.
- 3) Check that unit has not shutdown due to over temperature condition and that mechanical safety temperature fuse (Thermal Bulb) has not tripped open.
Wait about 1 hour and then check again to see if temperature fuse (Thermal Bulb) can be reset by pressing the reset button inside the machine and if unit powers back up.
Contact Ultratec Special Effects for further help.
- 4) Check both fuses on circuit board if blown open. Note: Fuses are soldered onto circuit board.
Contact Ultratec Special Effects for more help with this.

UNIT DOES NOT PRODUCE FOG

- 1) Check that fluid pickup hose is sufficiently submerged into fluid in jug.
- 2) Ensure fluid pickup line is fully primed with fluid.
- 3) Ensure that green heater status LED is ON solid, indicating that unit is fully heated.
- 4) If using DMX control, ensure that DMX address on 9D is set between 001 to 511 range.
- 5) If using DMX control, ensure that red Valid DMX LED is ON solid and that correct DMX channel on the DMX console matches DMX address set on the 9D.
- 6) If using hand held optional remotes, ensure that DMX address on 9D is set between 001 - 511.
- 7) If using hand held optional remotes, ensure that red Valid DMX LED is not turn ON solid. This should be off.
Remove DMX signal or cable if connected to 9D to use remotes.
- 8) Check that heater block is not plugged when unit is cool. Complete heater block maintenance if necessary.
- 9) Contact Ultratec Special Effects for further help.

ECLIPSE AUXILIARY PORT NOT TURNING ON.

- 1) Check the unit is connected to a suitable power source.
- 2) Check that the power switch is in the ON position.
- 3) Check that unit has correct mode settings based on type of operation being used I.E. Hand held remotes / DMX.
- 4) Check that Eclipse power cord is properly connected to back of 9D auxiliary port.

Recommended Fluid

Director's Choice Fog Fluid: The choice of professionals. Director's Choice creates a cloud of fog with a medium hang time while remaining clean, white, dry, and odorless.

Pro Beam Long Lasting Fog Fluid: With a hang time 2-3x greater than the Director's Choice Fog Fluid, the Pro Beam solution produces a slightly less white fog while remaining clean, dry, and odorless.

Quick Dissipating Fog Fluid: This fast dissipating fluid is great for applications or effects that require quick dissipation of fog. It produces excellent steam effects that resemble nitrogen bursts and it also keeps low-lying fog from rising too quickly when it is used with the Eclipse Low Fog Generator or LSX.

Extra Quick Dissipating Fog Fluid: Dissipates 2x the rate of Quick Dissipating Fog Fluid while maintaining similar characteristics.

Molecular Fog Fluid: A faster dissipation versus the Director's Choice Fog Fluid. This thick, clean, white fog is an optimal solution for a dense low-lying fog effect when chilled with the Eclipse Low Fog Generator or LSX machines.

Party Fog Fluid: Quality fog fluid on a budget. An excellent solution for DJs, Nightclubs, Haunted Houses etc., looking to enhance light beams and creating various smoke effects.

Maxi Fog Fluid: The perfect balance between price and performance. Maxi Fog is the ideal solution for those who require high volume without compromise.

Maintenance Fluid

EZ Kleen Preventative Maintenance Fluid: Using EZ Kleen preventative maintenance fluid on a regular basis ensures longer life for the heat exchanger in Ultratec fog machines by reducing blockage.

All our Fog Fluids are water based. Damage will occur if Haze Fluid is used in the Power Fogger Industrial 9D.

Warranty

Hardware products come with a five-year warranty on parts and labor. If the unit in question has a material defect or fault that is caused in manufacturing, Ultratec Special Effects will provide free parts and labor to remedy the equipment. Ultratec Special Effects service department must be advised in a timely manner after defect appearance and the date of warranty request must be within five years of sale/purchase. Proof of sale and/or proof of purchase will be required for warranty to take effect.

Warranty service will be performed as follows: faulty parts will be repaired or replaced with the same or comparable parts, based on availability. Freight to our facility for warranty requests will be prepaid by the user/dealer. Upon completion of the repair, Ultratec Special Effects will return the unit via the most economical means available. Should you require the item express-returned, the user/dealer is responsible for indicating this request and for any difference in freight cost.

Warranty will be voided, and customer will lose all rights guaranteed by the warranty if any of the following are observed/occur:

If any non Ultratec Special Effects fluid is used at any point of operation.

If any adjustments or repairs are done to the machine in question by repair technicians not authorized by Ultratec Special Effects.

If our repair technicians observe any signs of incorrect handling/treating of machine in question.

Warranty services do not cause an extension of the warranty nor does a repaired product start a new warranty. This warranty only applies to the product supplied by Ultratec Special Effects, Ultratec Special Effects is not responsible for any losses, costs, or damages from the use of a defective product.

Any additional costs incurred are the responsibility of the Dealer and/ or the customer.

An RA (Return Authorization) number must be noted on the outside of each box being returned to our facility. Any package(s) without an RA number clearly marked, will not be accepted by our receiving department.

Export Distributors are required to carry out the warranty repair, parts will be supplied by Ultratec.

Please do not forget to remove any liquid from the machine when sending in for repair.

Please remember to include the RA Number on all items being shipped for repairs.

To request a Return Authorization number please refer to our website - instructions below:

- 1) www.ultratecfx.com
- 2) Click on the Fog & Atmospheric Icon
- 3) Click on the REQUEST RMA Tab along the top of the screen
- 4) Fill in the required information
- 5) Click "Submit" button

If you have any questions or require assistance please contact service at 519-951-3355/866-534-5557 or by email at Service@Ultratecfx.com.

Contact Us

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