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**FOG-MAX™**

**Operating Instructions**

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**P/N 100092 (110 VAC w/DMX)**

**P/N 100096 (230 VAC w/DMX)**

## **Thank you for purchasing this FOG-MAX™**

- **As you will notice from the table of contents, the manual for your new product is quite extensive.**
- **To guarantee perfect and successful work with this machine, please take some time to read the manual carefully.**
- **And finally, we believe you will enjoy years of great smoke effects if you care for and maintain your FOG-MAX™.**

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## **1. Set of Equipment Supplied**

- **Fog-Max™ w/DMX (w/5-pin XLR connectors)**
- **Remote Cycle-Timer Controller w/5-pin XLR connector**
- **Bracket for hanging**
- **Instruction booklet**

## **2. Accessories and Parts**

### **CITC Natural Fogging Fluid™**

**(available in gallons (3.8 liter) and 5-gallon (19 liter) cubitainer)**

**P/N 150450 Long-Lasting Fog Fluid**

**P/N 150410 Regular Fog Fluid**

**P/N 150490 Low-Ground fog Fluid**

- **C-Clamp w/Safety Cable (P/N 250110)**
- **C-Clamp w/eyebolt & hanging harness for 5 gallon (19 liter) Cubitainer (P/N 250076)**

**Please check whether all the products you ordered are supplied.**

### 3. Description of the Fog-Max™

The Fog-Max™ w/DMX is CITC's latest fogging system. No other comparable machine delivers a thicker, whiter output of 30,000 cfm (850m<sup>3</sup>/minute) of digitally controlled fog. New and improved, the Fog-Max™ can produce longer on high than the stiffest competition. Accurate temp control makes shut down history. It now has a quieter pump with a 1500 watt heating head, a 1-channel DMX on board, remote control cycle-timer and hanging bracket. Best bet for professional fog. Uses water-based CITC fogging fluid, regular, long-lasting or low-ground. The extra dry fog leaves no mess, no residue and can be fully controlled with DMX.

The following sequence produces fog:

1. The fog generator is preheated for 7 – 8 minutes.
2. The pump is controlled from 0 – 100% output by the Remote Cycle-Timer Controller or by DMX.
3. At 100% output. (3 o'clock on Volume Control) the unit will produce heavy fog continuously without delay
4. At highest output or Blast, the unit will produce a heavy fog for up to 30 minutes without delays. After 10 minutes fog generator is again warmed up and again ready to produce fog.

### 4. Safety instructions

**WARNING: Read and understand all labels and operating instructions before attempting installation.**

- Never open the machine without disconnecting power lead first!  
**Risk of electrical shock-** This device is supplied with a grounding conductor. To reduce risk of electrical shock, connect only to properly grounded, grounding type receptacles. Never remove the third prong from the plug.
- This machine requires a 110VAC/20A circuit for operation (or a 230VAC/10A circuit for the 230VAC machine). The Fog-Max™ draws approximately 15 amps at 110 VAC (8 amps at 230VAC). During Fog-Max™ operation this circuit should be dedicated to the Fog-Max™. If you have any doubts about the capacity or grounding of your existing circuits, consult a qualified electrician.
- Be sure area around fogger is dry before applying electrical power.
- Make sure that your unit is pointed in a direction that leaves a 10ft (3m) open area out in front. Place the front of the machine away from direct contact with electrical instruments and people. Close output is very hot and wet..
- Never operate the pump without fluid passing through the tube. This could cause the pump to overheat and damage the piston. Operating the pump without fluid is not covered under warranty.
- Fluid is very slippery when spilled. Care in keeping any drips or spills cleaned up is necessary.
- Do not store Fog-Max™ in freezing conditions.

## 5. Operating the FOG-MAX™

### 5.1 Selecting the Location

Secure a good location for the machine to rest solidly on the floor or suspended so that the output of the machine will not be restricted. Make sure that your unit is pointed in a direction that leaves an open area out in front and can travel 10ft (3m) without restriction. Place the front of the machine away from direct contact with electrical instruments and people. Close output is very hot and wet. Always allow plenty of air circulation to allow the fog to expand, separate and enlarge.

### 5.2 Electrical Power Requirements

This machine requires a separate 110VAC/20Amp (or 230VAC/10Amp) circuit for operation. The Fog-Max™ draws approximately 15 amps at 110 VAC and 8 amps at 230VAC. During Fog-Max™ operation this circuit should be dedicated to the Fog-Max™. If you have any doubts about the capacity or grounding of your existing circuits, consult a qualified electrician. Do not add other equipment on this circuit.

### 5.3 Hooking things up

Plug the 5-pin XLR of the Remote Control to the inlet marked "Remote Control". Fill the bottle with CITC's Natural Fogging Fluid in Low-Ground, Long-Lasting or Regular. Place the filter end of the tube inside the bottom of the bottle and tighten cap. Be sure the vent hole in the cap is not blocked.

### 5.4 Operating the machine

1. While turning on the power switch on the fogger, check to see the red light in the switch and the red LED on the Remote both come on. Wait approximately 7-8 minutes for the green "ready " light located on the remote control to come on.
2. Using the "vary output" button, you may adjust the output volume with the volume control. Using the timer button, you may adjust the "on" and "off" knobs for timing the fog and the Volume Control knob. The amount of fog can be adjusted by using the volume "output" knob. **NOTE:** Do not depress "vary output" when using timer. When using the manual control (blast), you will not have timer, adjuster, and volume output control. The "blast" button is only full blast smoke as long as you hold the button down.

### 5.5 DMX Control

With DMX control, you will be able to adjust the fog levels on/off, from 0 – 100%. When depressing the manual fog button located on the machine, it is operating at its highest level only and will override the DMX control for testing. (See section 5.9).

## 5.6 Rest Period

Continuous operation of this machine can be accomplished when volume is set at the 3 o'clock position. If dial is set for full output or blast, 30 minutes is the maximum time of fog ability before a 3 minute rest period for reheating is necessary. If you wait a full 10 minutes, you will be able to fog again for at least 30 minutes on full.

## 5.7 Shut down

When finished with the machine, clean the tube and pump by operating the unit while running a pint of 5% vinegar/distilled water mix through the pump and then rinse with a pint of distilled water. This will keep the piston in the pump from becoming stuck and not working. When finished, water should remain in the line for storage. Do not drain or empty the tube of water.

## 5.8 Troubleshooting

### 1. If the pump does not draw fluid

If the pump does not draw fluid into the fogging unit, be sure the unit is warm and ready to operate. Then check to see that the tubing is in the fluid, not above the fluid. Check electrical power to the machine. Hold up tubing, remove filter and push, blow or use a turkey baster to force the fluid inside the pump. Try again to see if it will pump now. Check to hear any sound coming from the pump side (nearest the top). A slight vibrating sound should be heard if the pump is pumping fluid. A loud knocking sound will be heard if only air is in the line and fluid has not come in yet. Force fluid through the line to get it started. This is called "priming" and the line needs to be full of fluid for the fog mechanism to work. **Note: do not run the pump without fluid passing through the tube. This will cause the pump to become hot and could damage the piston. This is not covered under warranty.**

### 2. If the Green Ready Light Starts Flashing

If you are not a factory-authorized dealer, this is the only owner-permitted troubleshooting step that will not void the warranty. If the green ready starts flashing after warm-up or at any time during operation, this may possibly indicate the unit has overheated and the heat safety breaker has released. This may happen if there is not enough air circulation, if it is in a closed area or if it is suspended above hot lights. You will need to find a cooler location for the instrument if this occurs. It will not reset until the unit has cooled to 169°. Then when you reset, it will be ready to use again.

It is possible to reset by first disconnecting all power and then removing the cover. The reset button is located on top of the heater cylinder. There is a small button on the top of the breaker, which must be pushed after the unit has cooled down. Replace the cover and screw it down. Then plug in the unit and warm it up again. The green ready light should come on after 10 minutes. Call your dealer if this does not solve the problem.

## 5.9 Notes on DMX operation

Each DMX'd unit will occupy a unique DMX address on the DMX chain. By adjusting the dip switches on the side of the machine near the DMX cable plug-ins, the user may assign one address to the machine, giving you on/off and volume control with one DMX channel (there is no timer on this DMX).

Step 1). Attach the DMX cable (5-pin XLR) to the upper "in" female connector located on the back of the fogger.

Step 2). The DMX address is configured by adding the dip switch numbers together to total the number required. For example, DipSwitch 1 + 6 = 33. Your DMX channel would be 33.

Dip Switch	1	2	3	4	5	6	7	8	9
Channel #	1	2	4	8	16	32	64	128	256

**When you move the slide control or digital control;**

0 – 5%	=	Off
6– 80%	=	Volume Control
80 – 100%	=	Maximum Blast Output

"Input" and "Output" designations on the DMX plugs are arbitrary (i.e., you can use the input plug for output and visa-versa). It is not necessary to attempt converting your DMX line's connector to female/male to match the appropriate socket on the plug. As long as it is looped in/out, it will work.

Once your fogger is warm and the green ready lite is on, you may control the fog output from the control booth.

## 6. Service and Maintenance

**Care of your Fog-Max™ will give you years of service. Note: cleaning your unit is going to pay off in constant good performance.**

1. Dry all areas on the exterior of the machine once it is cool. Clean with a soft cloth to remove any flog fluid from inside the fluid compartment or outside area.
2. Do not store with fog fluid inside. When finished with the machine, clean the tube and pump by operating the unit while running a pint of 5% vinegar/distilled water mix through the pump and then rinse with a pint of distilled water. This will keep the piston in the pump from becoming stuck and not working. When finished, water should remain in the line for storage. Do not drain or empty the tube of water.
3. Do not transport or ship with flog fluid inside the machine.

## 7. Technical Data

Fog-Max™ Technical Data P/N 100092/100096	
Type of Fog	Thick, white, dry, low-ground fog
Weight	26 lbs (11.8 kg)
Size	20" x 9" x 9" (51cm x 23cm x 23cm)
Shipping Weight	33 lbs (15 kg)
Shipping Box Size	26" x 13" x 13" (66 cm x 33 cm x 41 cm)
DMX	Built in DMX (optional)
CITC Fogging Fluid (water-based)	Long-Lasting P/N 150450 Regular P/N 150410 Low-Ground P/N 150490
Warm Up Time	5-10 minutes
Continuous Fog	Up to 30 minutes at a time
Heating unit	1500 watts
Electrical Supply	110 VAC, 15 A, 60 Hz or 230 VAC, 8 A, 50 Hz
Breaker	110VAC: 15A ; 230VAC: 7A
Limited Warranty	One Year
Rev: 9/5/03	

## **8. Limited Warranty Conditions for the FOG-MAX™**

- 1. Subject to the following conditions we will repair any defect or fault in the unit if it is caused by a proven factory fault and has been advised immediately after appearance and within 30 days of delivery to the end user. Insignificant deviations of the regular product quality does not guarantee replacement rights, nor do faults or defects caused by water, by generally abnormal environment conditions or Force Majeure.**
- 2. Limited Warranty Service will be done in the following way: Faulty parts will be repaired or replaced (our choice) with correct parts. Faulty units have to be shipped to us or sent to us at customer's expense. The RMA# has to come with the faulty unit.**
- 3. The customer loses all rights for limited warranty services, if any repairs or adjustments are done to the units by unauthorized persons and/or if spare parts are used, which are not approved by us. The right of limited warranty service is also lost if a fluid other than CITC water-based Natural Fogging Fluid™ has been used or if units are sent to us with full fluid bottles. Also non-compliance with the instructions in this manual or mistakes by incorrect handling/treating of the machine, any faults and damages caused by undue force will lead to a loss of limited warranty.**
- 4. Freight costs to CITC when under the limited warranty services are the responsibility of the customer. CITC will pay freight upon return.**
- 5. Limited warranty services do not cause an extension of the limited warranty time or the start of a new limited warranty time. The warranty of replaced parts ends with the limited warranty time of the whole unit.**
- 6. If a defect/fault can not be repaired by us in a satisfactory time, we will, within 30 days after sale of the unit, our choice either:**
  - Replace the whole unit for free or**
  - Refund the lesser value or**
  - Take back the whole unit and refund the purchase price, but not more than the usual market price at the time of refund.**
- 7. Further claims, especially for damages, losses etc. outside the unit are excluded.**

**If you should send the unit for service, do not forget to remove any liquid from the fluid bottle. Obtain your RMA# by calling CITC. Payment arrangements for repair must be made before receiving RMA # in case unit is not covered under Limited Warranty.**

**Send unit to:**

**CITC  
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