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## Installation & Operation Manual

### Ozone System



### **ClearWater Tech, LLC**

Ozone Systems for Water & Air Purification

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**Obtaining Service Under the Warranty**

Any product and/or part not performing satisfactorily may be returned to CWT for evaluation. A Return Goods Authorization (RGA) number must first be obtained by either calling or writing your local authorized dealer, distributor or CWT direct, prior to shipping the product. The problem experienced with the product and/or part must be clearly described. The RGA number must appear prominently on the exterior of the shipped box(es). The product and/or part must be packaged either in its original packing material or in comparable and suitable packing material, if the original is not available. You are responsible for paying shipping charges to CWT and for any damages to the product and/or part that may occur during shipment. It is recommended that you insure the shipment for the amount you originally paid for the product and/or part.

If, after the product and/or part is returned prepaid and evaluated by CWT, it proves to be defective while under warranty, CWT will, at its election, either repair or replace the defective product and/or part and will return ship at lowest cost transportation prepaid to you except for shipments going outside the 50 states of the United States of America. If upon inspection, it is determined that there is no defect or that the damage to the product and/or part resulted from causes not within the scope of this limited warranty, then you must bear the cost of repair or replacement of damaged product and/or part and all return freight charges. Any unauthorized attempt by the end user to repair CWT manufactured products without prior permission shall void any and all warranties. For service, contact your authorized dealer or distributor or CWT direct at (805) 549-9724.

**Exclusive Warranty**

There is no other expressed warranty on CWT products and/or parts. Neither this warranty, nor any other warranty, expressed or implied, including any implied warranties or merchantability of fitness, shall extend beyond the warranty period. Some states do not allow limitation on how long an implied warranty lasts, so that the above limitation or exclusion may not apply to you.

**Disclaimer of Incidental and Consequential Damages**

No responsibility is assumed for any incidental or consequential damages; this includes any damage to another product or products resulting from such a defect. Some states do not allow the exclusion or limitation of incidental or consequential damages, so that above limitation or exclusion may not apply to you.

**Legal Remedies of Purchaser**

This warranty gives you specific legal rights and you may also have other rights, which vary from state to state.

**THIS STATEMENT OF WARRANTY SUPERSEDES ALL OTHERS  
PROVIDED TO YOU AT ANY PRIOR TIME.**

# APPENDIX B – WARRANTY INFORMATION

## ClearWater Tech, LLC. Limited One-Year Warranty

### Summary of the Warranty

ClearWater Tech, LLC (“CWT”) makes every effort to assure that its products meet high quality and durability standards and warrants the products it manufactures against defects in materials and workmanship for a period of one (1) year, commencing on the date of original shipment from CWT, with the following exceptions: 1) The warranty period shall begin on the installation date if the installation is performed within 90 days of the original shipment from CWT; 2) The warranty period shall begin on the date of the bill of sale to the end user if the installation date is more than 90 days after the original shipment date. To validate the warranty, a warranty card, accompanied by a copy of the bill of sale, must be returned to CWT and must include the following information:

- End user name
- Complete address, including telephone number
- Date installed
- Complete model and serial number information
- Name of company from which the unit was purchased



Repairs and replacement parts provided under this warranty shall carry only the unexpired portion of this warranty or 90 days, whichever is longer.

### Items Excluded from the Warranty

This warranty does not extend to any product and/or part from which the factory assigned serial number has been removed or which has been damaged or rendered defective as a result of:

- An accident, misuse, alteration or abuse
- An act of God such as flood, earthquake, hurricane, lightning or other disaster resulting only from the forces of nature
- Normal wear and tear
- Operation outside the usage parameters stated in the product user’s manual
- Use of parts not sold by CWT
- Service or unit modification not authorized by CWT
- Damage which may occur during shipping
- Failure to meet service requirements as outlined in the I & O manual
- Damage due to exposure to other chemicals

# O<sub>3</sub>

## INTRODUCTION

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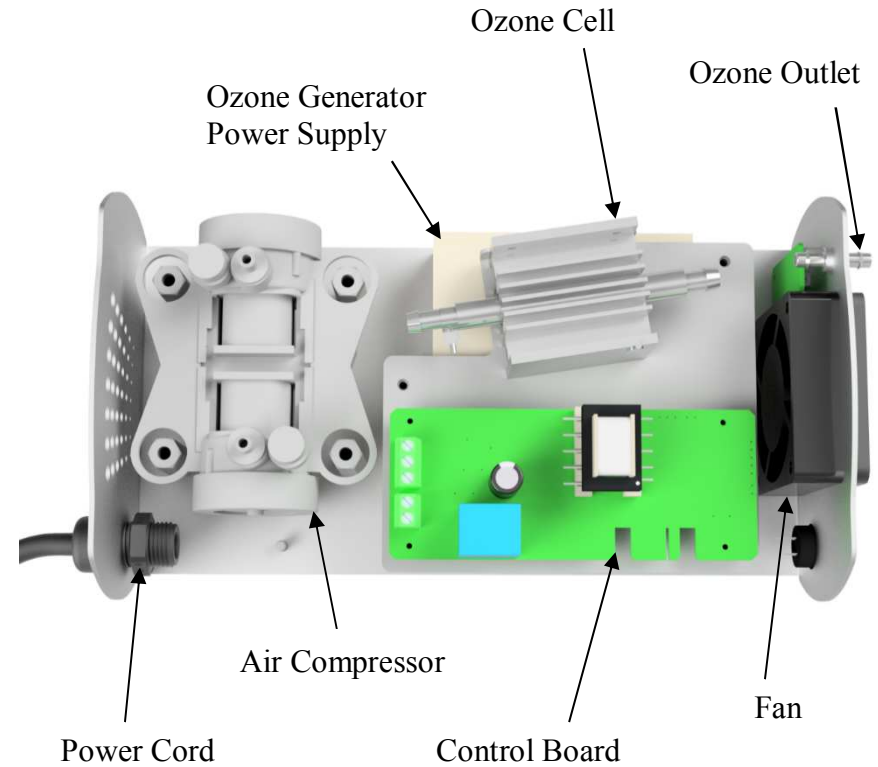
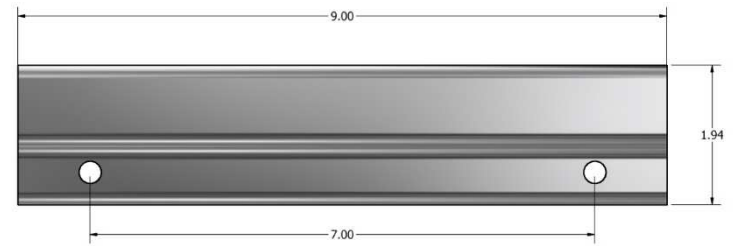
This Installation and Operation Manual is written to assist in the installation, operation and maintenance of systems manufactured by ClearWater Tech, LLC. This equipment has been designed using the most modern materials and technology available.

Please read this manual carefully and in its entirety before proceeding with any installation, operation, or maintenance procedure associated with this equipment. Failure to follow these instructions could result in personal injury, damage to the equipment, or reduced product performance.

In an ongoing effort to improve reliability and operating efficiency, ClearWater Tech, LLC may find it necessary to make changes to its products. Therefore, the information contained in this manual may not conform in every respect to earlier versions of ClearWater Tech, LLC systems found in the field. If you have any questions, please contact your ClearWater Tech, LLC dealer or the ClearWater Tech, LLC service department.

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# APPENDIX A - SPECIFICATIONS

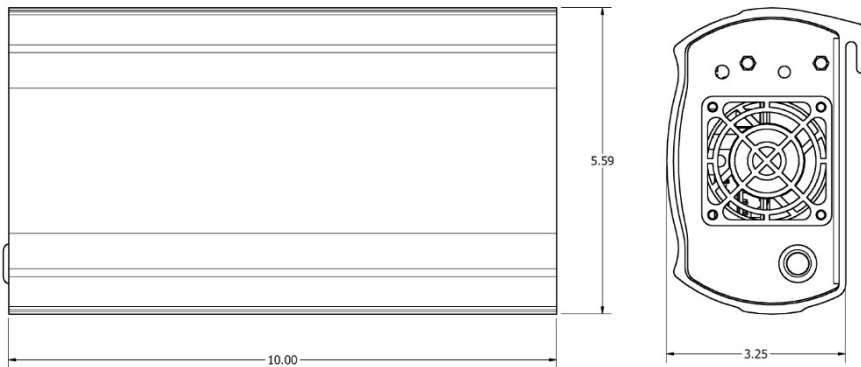
System	
Dimensions	10W x 5.6T x 3.6D inches (254W x 142T x 92D mm)
Outlet	3/16" Barb
Power	90-265 VAC, 50-60 Hz, 0.38-0.17 A
Power Connection	6' (1.8m) 3-prong cord
Mounting	Z-bar
Ambient Conditions	32-95 °F (0-35 °C) 10-90% RH non-condensing
Shipping Weight	3.5 lbs (1.6 kg)
Performance	
Air Flow	0.5-2.0 SCFH (0.2-1.0 L/min)
Ozone Output (Continuous)	150 mg/hr at 2 SCFH on ambient air

# THEORY OF OPERATION

This Oxidice™ System is an environmentally friendly device allowing you to infuse dissolved ozone into an ice maker water reservoir. Using only a small amount of electricity, the Oxidice™ System takes oxygen from the air and converts it into ozone (O<sub>3</sub>), a very powerful natural oxidizer, and then bubbles that ozone into the water sump inside the ice machine.

Since ozone is created using only oxygen and electricity, any unused ozone quickly breaks down to oxygen, leaving no harsh chemical residue and discharging no harsh chemicals into the water. No chemicals mean the taste of the water and subsequent ice produced is not negatively impacted.

This unit will adapt to any size ice machine via a simple ozone delivery line into the water reservoir. The unit delivers ozone through a single hole in the ice machine to a diffuser in the sump. As the ozone passes through the diffuser it becomes small bubbles. The small bubbles allow some of the ozone to become dissolved in the water, providing a sanitizer in the water. Any ozone that doesn't dissolve will mix with the air inside the ice machine sanitizing all the remaining internal surfaces.



# INSTRUCTIONS

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1. **Save these instructions Before using, please read the owner's manual carefully.**
2. **Disconnect power before servicing.**
3. **Make sure the Oxidice™ System is horizontal. See installation instructions. Do not mount to a wall vertically or at any angle. The unit may also be placed on a flat horizontal surface.**
4. **Do not operate the unit with the cover removed.**
5. **Do not use an extension cord.**
6. **The Oxidice™ System should be cleaned with a damp cloth. Avoid using harsh chemicals, abrasives, or cleaners.**
7. **Warning - The unit has only been evaluated for mechanical, electric shock, and fire hazards. The method to control ozone release or the effectiveness of the water treatment has not been investigated.**
8. **Warning – Short term inhalation of high concentrations of ozone and long-term inhalation of ozone can cause serious harmful physiological effects. Do not inhale ozone gas produced by this device.**
9. **This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge.**
10. **Children should be supervised to ensure that they do not play with the appliance.**

# TROUBLE SHOOTING

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## **Light does not come on**

- Verify the unit has power
- Push the mode select button to see if the unit will cycle through different modes

## **Bubbles do not come out of diffuser**

- Make sure that the indicator LED is blinking. If the light is on but not blinking, the unit is in standby. Wait for 10 minutes for another ozone cycle to occur.
- Clean the diffuser (see servicing for details)

# SERVICING

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## **Note**

Disconnect power from unit before performing any maintenance procedures.

## **As Needed**

Clean fan filter: Remove fan cover by grasping the fan grill with a pair of needle nose pliers and gently pulling. Take out foam filter, wash filter with warm soapy water, allow to dry, and re-install.

Clean Diffuser: submerge diffuser in vinegar for 2 hours and rinse clean.

## **Red Light Illuminated**

The light on the Oxidice™ system will turn red after the ozone cell has run for approximately 9000 hours. This will typically take between 1 and 3 years depending on which mode the unit is in. At this time the unit needs to be serviced. Servicing includes replacing the ozone generator and barbed ozone outlet fitting.

# OPERATING INSTRUCTIONS

Once installed, the Oxidice™ System is ready to use, simply press the mode select button to cycle through different flow profiles. Use the chart below to choose the appropriate profile based off your ice maker’s 24-hour ice yield and the conditions of your facility.

The Oxidice™ System’s LED indicator light stays illuminated, letting you know the unit is operating normally and in standby mode waiting for the next ozone cycle. When the integrated timer triggers, the Oxidice™ System will automatically turn on the internal pump. The indicator LED will blink indicating that ozone is flowing through the system. The timer is tied to a programmed universal clock that starts when the unit is plugged in and cycles every ten minutes. Ozone is only produced at the beginning of a cycle for a time period based on your profile, and the unit must reach a new cycle before ozone is produced again.

In the event of power loss, the Oxidice™ System will remember what profile it was set at, and resume function when it receives power again. If the system is turned off in the middle of producing ozone or once a cycle completes, the Oxidice™ System will leave the pump and fan on for approximately 10 seconds to purge ozone from the system and cool down the ozone generator.

## Summary of LED Indicators

Figure 3

Light Color	24 Hour Ice Yield, Normal Environment	24 Hour Ice Yield, Extreme Environment*	Air flow (SCFH)	Repeating Runtime (Minutes)
Off	Off			
Yellow	<400 lbs	n/a	0.5	1 On / 9 Off
Green	400-600 lbs	<400 lbs	1.0	2 On / 8 Off
Blue	600-1000 lbs	400-600 lbs	1.5	4 On / 6 Off
Purple	1000+ lbs	600+ lbs	2.0	7 On / 3 Off
Red	Service Required			

\*Examples of extreme operating environments include bakery operations, bar and taverns, microbreweries, etc.

11. **GROUNDING INSTRUCTIONS – This appliance must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electric shock by providing a path of least resistance for electric current. This appliance is equipped with a cord having an appliance-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is installed and grounded in accordance with all local codes and ordinances.**
12. **WARNING – Improper connection of the appliance-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service representative if you are in doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance; if it will not fit the outlet, have a proper outlet installed by a qualified technician.**
13. **If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.**

# INSTALLATION PROCEDURES

## Clean Ice Maker

Clean your ice maker to industry standards. The Oxidice™ System is designed to keep a clean ice maker from becoming dirty. It will sterilize a dirty ice maker, but it will still appear dirty.

## Unpacking

Make sure all components are in the box before beginning installation of the Oxidice™ System. In addition to this manual, you should have (1) Oxidice™ unit, (1) z-bar mount, (10ft) tube, (1) rubber grommet, and (1) diffuser.

## Locate a Mounting Location

Before beginning the installation, locate a suitable location for the Oxidice™ System. Find a flat portion of a wall, close to the ice maker. The unit may also be placed on a flat, level surface. Please consider the following when selecting a mounting location:

- Never install the Oxidice™ System in an area where water may freeze. Freezing water will damage the internal components.
- The Oxidice™ System is mounted horizontally. Refer to the installation instructions. Do not mount vertically or at an angle. Always use a level when installing this unit.
- The Oxidice™ System is close enough to a power outlet so an extension cord is not necessary.
- The Oxidice™ System is to be mounted no further than 10 feet from the point of use.
- Mount the Oxidice™ System above the entry point of the ozone line into the ice machine.

## Mount the Oxidice™ System

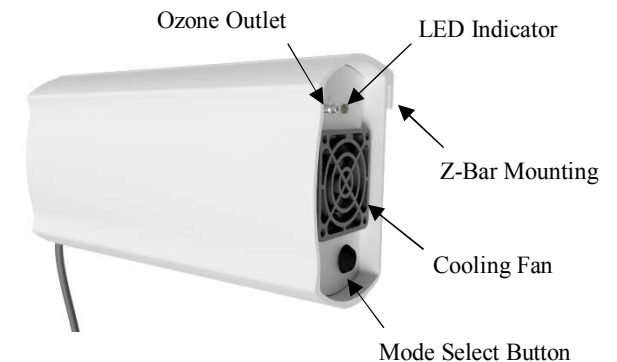
- Use the appropriate tools and mounting hardware (not provided) for the material the wall is constructed from and install the z-bar.
- Use a level to make sure it is horizontal.
- Place the Oxidice™ System onto the z-bar.

## Connect Diffuser

- Drill one Ø7/16-inch hole into ice maker close to and above the water reservoir. Install grommet provided into hole.
- Attach one end of the supplied tubing to the ozone outlet of the Oxidice™
- Run tubing through grommet installed in ice maker. Attach the opposite end of the tubing to the barbed fitting of the diffuser provided and place the diffuser into the water reservoir.
- Plug the Oxidice™ System into a GFCI protected outlet.

## Feature Callout

Figure 1



## Typical Installation

Figure 2

