



# EVERPURE® OXIDICE ICE MACHINE DISINFECTION SYSTEM INSTALLATION, OPERATION & MAINTENANCE GUIDE



## WARNING

Read all instructions and warnings before installing or operating this product. For questions or assistance, please contact Pentair® Everpure® customer service at 800-942-1153 or servicespecialist@pentair.com for technical support.

## IMPORTANT - PLEASE READ

- This installation and operation guide is written to assist in the installation, operation, and maintenance of the Oxidice system.
- 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, Pentair 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 Pentair systems found in the field. Please contact the Pentair service department if you have any questions.

## TABLE OF CONTENTS

SAFETY.....	2
THEORY OF OPERATION.....	3
INSTRUCTIONS .....	3
SPECIFICATIONS.....	3
FEATURES .....	3
INSTALLATION INSTRUCTIONS.....	4
FIGURE 1 - FEATURE CALLOUTS.....	5
FIGURE 2 - TYPICAL INSTALLATION.....	5
OPERATING INSTRUCTIONS.....	6
LED INDICATORS.....	6
TROUBLESHOOTING .....	6
SERVICING.....	6
APPENDIX A - SPECIFICATIONS.....	7

## SAFETY

This Pentair Everpure Oxidice system must be installed by a licensed professional in accordance with all applicable codes and standards for the jurisdiction in which it is installed. In addition, all plumbing attached to or used with the Oxidice system must be installed by a licensed, professional plumber.

### ⚠ NOTICE:

This manual section contains safety warnings and must be read, understood, and applied during the installation, operation, and maintenance of the Oxidice system. Failure to obey the warnings and instructions herein may present potential health and safety hazards resulting in death or serious bodily injury to personnel and damage to the equipment. Therefore, the safety information contained in this manual is intended to be read thoroughly.

### ⚠ WARNING:

Ozone is a colorless gas with a strong odor. Ozone can be hazardous and can cause severe respiratory toxicity. Breathing ozone can damage the lungs and cause headaches, chest pain, coughing, shortness of breath, and throat irritation. In addition, higher exposure can cause fluid buildup in the lungs (pulmonary edema). Ozone can also worsen chronic respiratory diseases such as asthma and compromise a person's ability to fight respiratory infections. In the event of ozone leakage, move to fresh air immediately.

### ⚠ WARNING:

**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.

### ⚠ 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 doubt whether the appliance is properly grounded. Do not modify the plug provided with the appliance; if it does not fit the outlet, have a proper outlet installed by a qualified technician.

### ⚠ NOTICE:

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.

### ⚠ 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.

### ⚠ WARNING:

This system is not intended for use by persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge. Children should be supervised to ensure that they do not play with the appliance.

## THEORY OF OPERATION

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Pentair® Everpure® Oxidice is a disinfection system that treats the ice machine's water supply using dissolved ozone. It supports the reduction of the growth of bacteria, molds, yeast, and other contaminants by treating the air, water, and surfaces within the machine.

Using only 45 watts of electricity, Oxidice takes oxygen from the air and converts it into ozone (O<sub>3</sub>), a very powerful natural oxidizer created by sunlight, 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, discharging no harsh chemicals into the water. As a result, the taste of the water and subsequent ice produced is not impacted.

This system will adapt to any sized ice machine via a simple ozone delivery line into the water reservoir. The system delivers ozone through a single hole in the ice machine to a diffuser in the sump. As the ozone passes through the diffuser, it transforms into tiny bubbles that allow the ozone gas to dissolve in the water and provide treatment for the water and the surfaces under the water.

Any ozone that does not dissolve will mix with the air inside the ice machine, thus treating all of 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 Pentair® Everpure® Oxidice system is mounted horizontally (see installation instructions). Do not mount to a wall vertically or at any angle. The system may also be placed on a flat, horizontal surface.
4. Do not operate the system with the cover removed.
5. Do not use an extension cord.
6. Clean the system with a damp cloth. Avoid using harsh chemicals, abrasives, or cleaners.
7. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified persons to avoid a hazard.

## SPECIFICATIONS

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- **System (Model/Part No.)**  
CD385A - 120V US/Can  
CD390A - EU  
CD390B - UK/Saudi Arabia  
CD390C - AUS/NZ  
CD390D - 240V US/Can
- **Ozone Output**  
150 mg/hr @ 2.0 SCFH (56.6 L/h) on ambient air
- **Outlet**  
3/16" (4.76 mm) barb
- **Ambient Requirements**  
32° - 95°F; (0° - 35°C) 10 - 75% RH non-condensing
- **Dimensions**  
5.59" H x 10.0" W x 3.6" D  
(14.2 cm x 25.4 cm x 9.14 cm)
- **Air Flow**  
0.5-2.0 SCFH (14-56.6 L/h), back pressure 2 PSI (13.8 kpa) max
- **Power**  
90-265VAC, 50-60Hz, 0.38-0.17A
- **Power Connection**  
6' (1.8 m) grounded power cord
- **Mounting**  
Z-bar
- **Weight**  
3.5 lbs (1.59 kg)

## FEATURES

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- Variable ozone output to fit any sized ice machine
- LED status indicators
- Fast and simple installation
- Fits most ice machines
- Microprocessor controlled
- Unique application method that treats the water, air, and internal surfaces
- Universal power supply
- Automated service timer
- No chemicals - nothing to fill or recharge
- Only byproduct is oxygen\*

\*Any ozone that does not react with another compound will break down to oxygen. In water, half of the unused ozone will revert to oxygen in 20 minutes at 68°F (20°C). In the air, half of the unused ozone will revert to oxygen in three (3) days at 68°F (20°C).

## INSTALLATION PROCEDURES

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### Clean Ice Maker

Clean your ice maker according to industry standards. The Oxidice system is designed to keep a clean ice maker from becoming dirty. It will treat a dirty ice maker, but it may still appear dirty.

### Unpacking

Make sure all components are in the box before the installation process. In addition to this manual, the following parts are included:

- Oxidice system
- Z-bar mount
- 10 ft (3 m) tube
- Rubber grommet
- Power cord
- Diffuser
- Check valve

### Find 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 system may also be placed on a flat, level surface. Please consider the following when selecting a mounting location:

1. Never install the system in an area where water may freeze. Freezing water will damage the internal components.
2. Mount horizontally. Do not mount vertically or at an angle. Always use a level when installing this unit.
3. The system should be close enough to a power outlet, so an extension cord is not necessary.
4. Mount the system no further than 10 ft (3 m) from the point of use and above the entry point of the ozone line into the ice maker.

### Mounting the System

1. 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.
2. Place the system onto the z-bar.
3. Plug the supplied power cord (found in the parts bag) into the Oxidice.
4. Plug the power cord into a GFCI protected outlet.

## INSTALLATION INSTRUCTIONS

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Before making any modifications to your ice machine, make sure to read and understand the ice machine manufacturer's warranty statement.

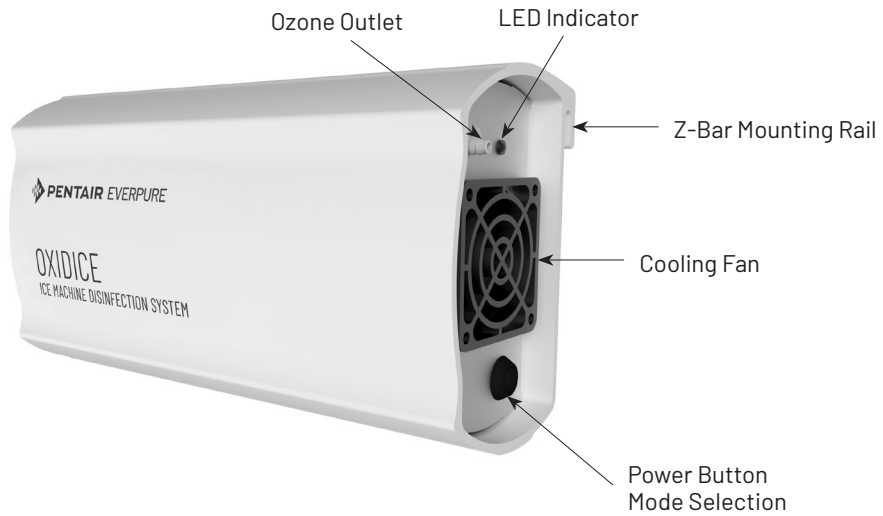
1. Must use a Pentair installer or a certified installer familiar with the ice machine manufacture.
2. Remove the panel to be drilled. Do not select a panel that is double-paned, insulated, or coated.
3. Drill a 9/16" hole in the panel. Position the hole above the water level in the sump and where it would be most advantageous so the tubing run is as short as possible.
4. Ensure no sharp edges remain after the drilling process.
5. Once drilling is complete, look at the entire ice machine and make sure none of the panels were accidentally scratched or damaged during this installation process. If there is any damage to a coated surface, use an NSF-compliant touchup paint to repair the damaged areas.
6. Once the paint dries, install the included grommet.
7. Replace the panel.
8. Run the Oxidice delivery tube through the grommet into the ice machine.
9. Install the stainless steel diffuser into the end of the tube on the inside of the ice machine.
10. Position the tubing so the stainless steel diffuser can be placed in the water reservoir of the ice machine. DO NOT place the tubing in the way of moving parts. DO NOT place the tubing in the ice drop zone. DO NOT place the tubing through the ice bin.

### Note

- Remove the tubing and stainless steel diffuser from the water reservoir of the ice machine before cleaning the ice machine using the CIP instructions provided by the ice machine manufacturer. Once the ice machine is clean, use the CIP instructions for the Oxidice diffuser and tubing located in this manual to clean the diffuser and tubing before placing them back into the water reservoir.

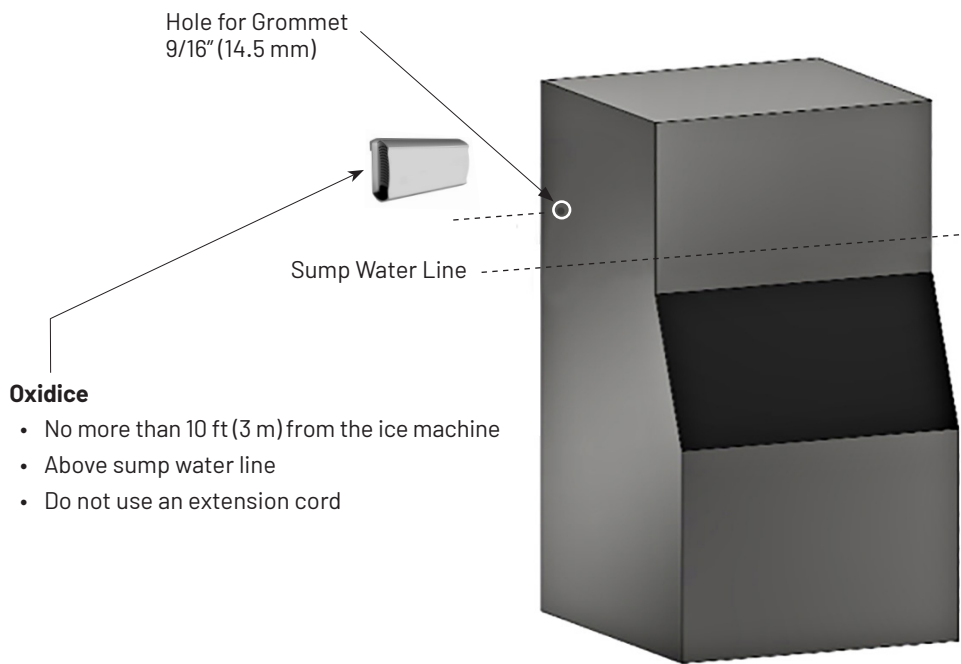
## FEATURE CALLOUT - FIGURE 1

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## TYPICAL INSTALLATION - FIGURE 2

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## OPERATING INSTRUCTIONS

- Once installed, the Pentair Everpure Oxidice system is ready to use. Press the mode select button to cycle through different flow profiles.
- The unit's LED indicator light stays illuminated when the ozone flows into the system and will pulse when the system is in standby mode waiting for the next ozone cycle. When the integrated timer triggers, the system will automatically turn on the internal pump.
- If there is 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 system will leave the pump and fan on for approximately 10 seconds to purge ozone from the system and cool down the ozone generator.

## LED INDICATORS

The Oxidice system can be used in most ice makers. The ozone production time can be increased or decreased based on the ice maker's production rate in a 24-hour time period, and the environment in which the ice maker is located.

Use the chart below to choose the appropriate profile based upon your ice maker's 24-hour ice yield and the conditions of your facility. NOTE: Each mode has a distinct color, and the light will also blink the corresponding mode number.

### Mode Selection

LIGHT COLOR	NUMBER OF BLINKS	24 HOUR ICE YIELD, NORMAL ENVIRONMENT	24 HOUR ICE YIELD, EXTREME ENVIRONMENT*	AIR FLOW (SCFH)	REPEATING RUN TIME (MINUTES)
Off		Off			
Yellow	1	< 400 lbs 182 kgs	NA	0.5 14 L/h	10n/9 Off
Green	2	400-600 lbs 182-273 kgs	< 400 lbs < 182 kgs	1.0 28.3 L/h	20n/8 Off
Blue	3	600-1000 lbs 273-455 kgs	400-600 lbs 182-273 kgs	1.5 42. L/h	40n/6 Off
Purple	4	< 1000+ lbs 455+ kgs	< 600+ lbs < 273+ kgs	2.0 56.6 L/h	70n/3 Off
Red		Service Required			

\*Examples of extreme environments include bakery operations, bars, taverns and microbreweries.

## TROUBLESHOOTING

### Light Does Not Come On

1. Verify the system has power.
2. Push the mode select button to see if the unit will cycle through different modes.

### Bubbles Do Not Come Out of Diffuser

1. Make sure that the indicator LED is blinking. If the light is on but not flashing, the system is in standby mode. Wait for 10 minutes for another ozone cycle to occur.
2. Clean the diffuser (see service for details).

## SERVICING

### Note

- Disconnect power from the system 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 the foam filter, wash it with warm soapy water, allow to dry, and re-install.

## Clean-In-Place (CIP) Instructions

### Note

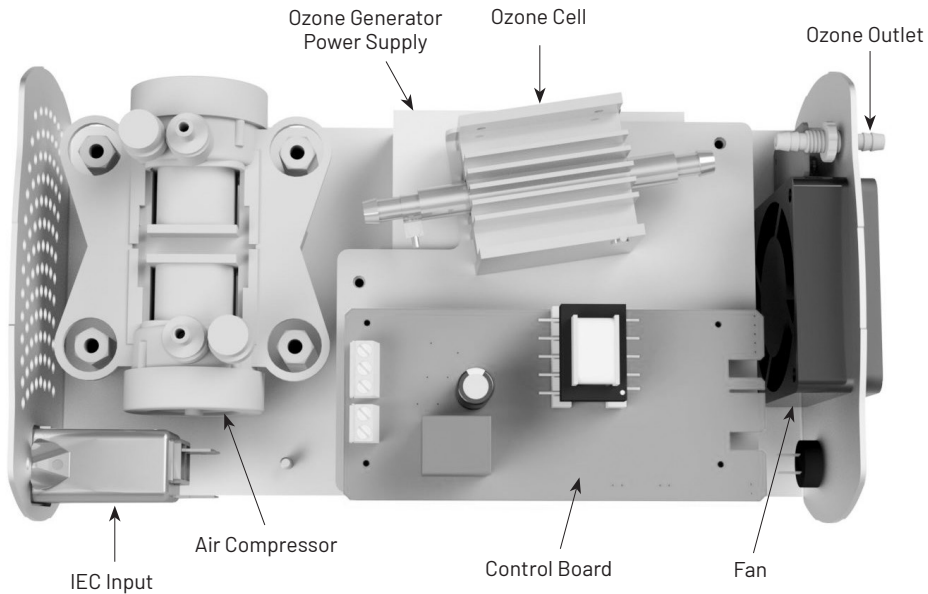
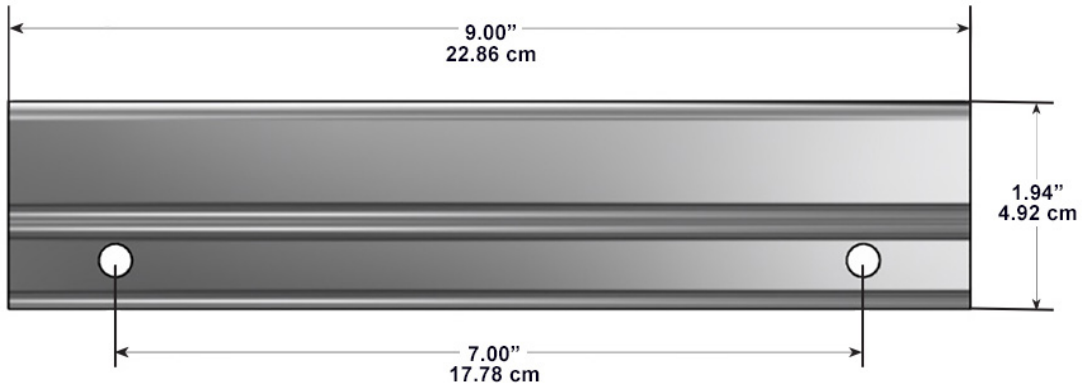
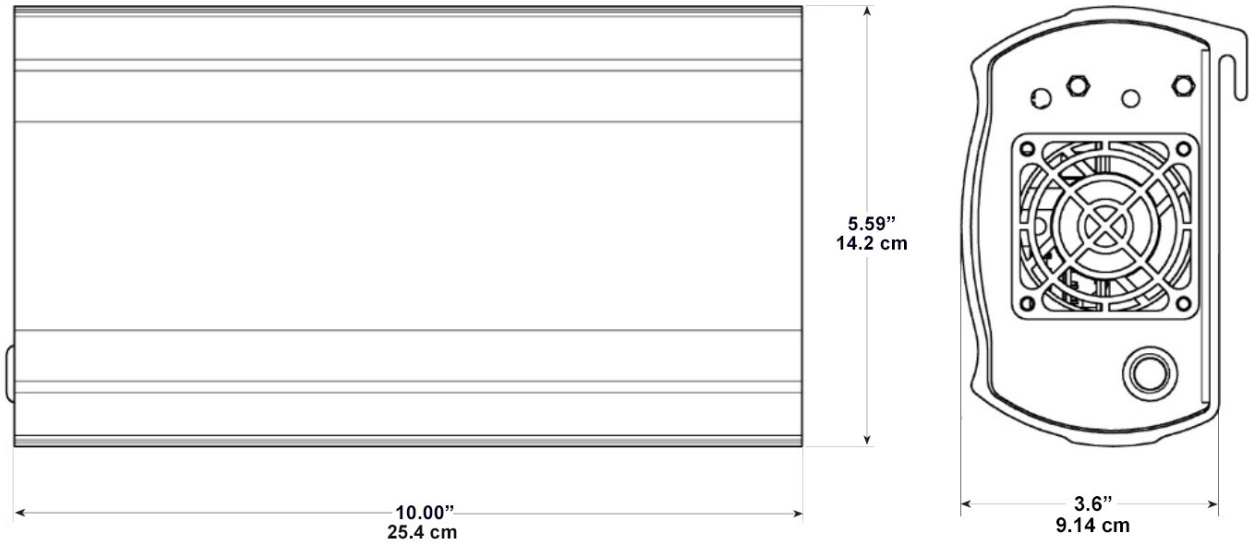
These cleaning instructions should not hinder or replace the cleaning procedure of the ice maker. First, remove the tubing and stainless steel diffuser from the water reservoir of the ice machine before cleaning the ice machine using the CIP instructions provided by the ice machine manufacturer. Once the ice machine is clean, use the CIP instructions for the Oxidice diffuser and tubing located in this manual to clean the diffuser and tubing before placing them back into the water reservoir.

1. Remove the diffuser from the water reservoir.
2. Soak the diffuser in vinegar, citric acid (20% solution, approximately one (1) tablespoon of powder per two (2) cups of water), or similar acid for 30 minutes with liquid at ambient temperature to break up any mineral deposits. Ensure the stainless steel diffuser is completely submerged in the acidic solution for the entire 30 minutes.
3. Rinse with two (2) cups of tap water or until all of the acid has been washed off.
4. Soak the diffuser in 200 ppm of chlorine bleach (approximately 1/2 tsp 6% bleach solution to two (2) cups of water) with liquid at ambient temperature for 30 minutes.
5. Rinse with two (2) cups of tap water or until all bleach solution has been washed off.
6. Wipe down outside of the delivery tube with the 200 ppm bleach solution. Apply so that the tubing remains visibly wet for 20 seconds.
7. Install the diffuser back into the delivery tube.
8. Place the diffuser back into the water sump after the ice machine has been cleaned in accordance with the ice machine's instruction manual.

### Red Light Illuminated

- The light on the Oxidice system will turn red after the ozone cell has run for approximately 9000 hours, which will typically take between one (1) and three (3) years, depending on which system mode is used. At this time, the system needs to be serviced.
- Servicing includes replacing the ozone generator, check valve, and barbed ozone outlet fitting. Service kits are available.
- Once the system has been serviced, the service light will need to be manually turned off. To do this, with the unit powered, press and hold the push button until the red service light turns off (approximately 10 seconds).

# APPENDIX A - SPECIFICATIONS



For Pentair Everpure Product Warranties in North American visit: <http://pentair.com/assets/foodservice-warranty>  
In other regions, please refer to the standard terms & conditions.  
EPA No. 967203-CA-001



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