

## Owner's Manual

# THAWLINE™ BUBBLER DE-ICING SYSTEM

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## **IMPORTANT SAFETY INSTRUCTIONS**

### **WARNING!**

- Necessary precautions must be taken when handling electric components with moving parts.
- Always be careful when around open water.
- During winter, aeration systems create openings in the ice above the diffuser locations in the water. Thin ice will be surrounding the area. Respect local regulations. Some areas require sufficient signage to indicate the danger of falling through the ice.
- The owner assumes the risks related to the use of a Thawline™ Bubbler De-Icing System.
- Do not use waders in deep ponds/lakes, and where slopes are steep and/or muddy because of the risks of drowning if they get filled with water.
- Do not use boats that tip easily for installation, such as a canoe, and follow all boating safety rules and regulations, always wear a PFD (Personal Floating Device).
- Means for disconnection must be incorporated in the fixed wiring in accordance with local and national wiring rules.
- Consult a qualified electrician for electrical installation.

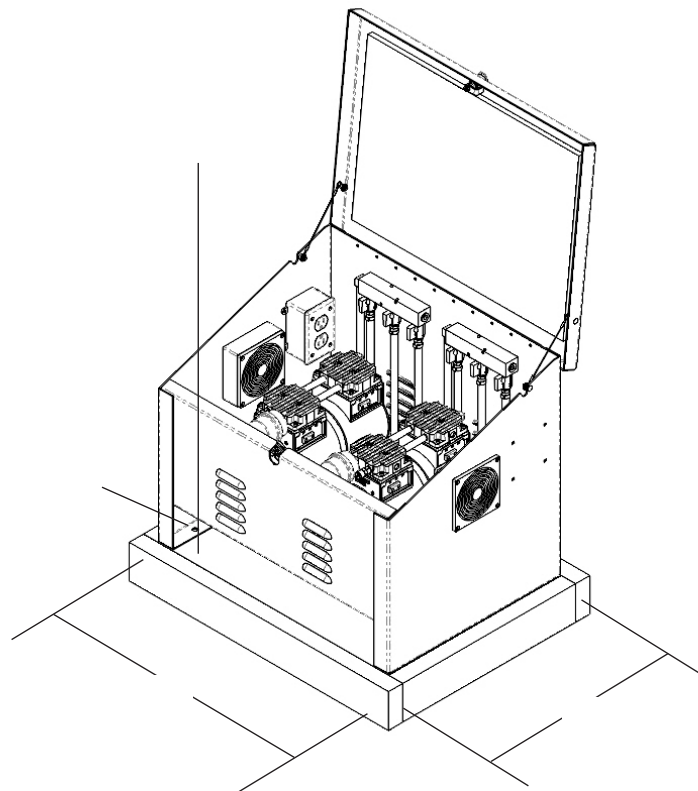
## BASE MOUNT CABINET INSTALLATION

Choose a location for placing your base cabinet assembly. The location should be placed far enough from the shore to avoid potential of flooding. Plants or shrubs can be used to help hide the cabinet from sight, however be sure that both the inlet and outlet vents will not be blocked as fresh air is needed to keep the compressor from over-heating.

The cabinet can be placed directly on the ground or can be permanently attached to a concrete pad. The bottom feet of the cabinet have holes which can be used to anchor the cabinet in place.

The cabinet should be placed adjacent to the electrical service which will provide power to the system. The cabinet will have 3' (0.9m) or 6' (1.8m) of power cord with a plug.

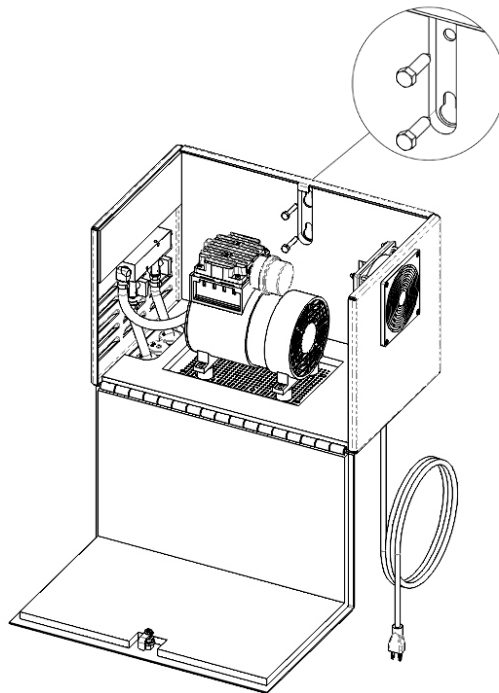
**DO NOT USE EXTENSION CORDS.**



## POST MOUNT CABINET INSTALLATION

The post mount cabinet can be attached to a 4x4 (10cm x 10cm) post or a vertical wall with electrical service. Two (2) lag screws are provided to mount the post mount cabinet. Pre-drill holes (2 x 3/16") vertically spaced 2 3/8" (6cm) apart. Install one (1) lag screw into the wall or post, leaving the hex head out about 1/4" (5mm) using a standard 7/16" socket wrench. Hang the cabinet from this screw using the bottom key-hole slot in the cabinet (a second person may be needed to help hold the cabinet in place). Install the second lag screw in the top mounting hole. Tighten the bottom lag screw.

**DO NOT USE EXTENSION CORDS.**



## COMPRESSOR WITH MOUNTING BASE INSTALLATION

Some systems are shipped without a cabinet as a ventilated shelter with power exist onsite. In this case, the compressor has to be mounted on the base with or without fan provided. Both the fan and the compressor will need to be plugged to the power outlet so the based should be fixed near the power plug. Used screws to fix the base to a wall, floor or shelve and make sure it will not move during operation.

## SYSTEM INSTALLATION

The Thawline™ Bubbler De-Icing System comes with length(s) of Bubble Tubing® as standard diffuser. The system is usually shipped with the required lengths of self sinking feeder lines. If regular PVC tubing is used as feeder lines, the lines will need to be weighted down, without being crushed, by bricks or rocks. Airlines outside the water and running on the floor should be buried 4" (10 cm) into the ground to insulate it and protect it from frost. All exposed lines should be insulated.

Once the air compressor is in place, connect the feeder line to the heat resistant hose of the compressor coming out of the cabinet (usually a red or black tube) using the provided clamp, and unroll the hose towards the shoreline. The compressor can be turned on to have air in the line as you are going to need it to install the diffuser (it will give you a line of bubbles you can use as visual reference of the position of the diffuser at the bottom). On the shoreline, do not cut the excess of feeder line except if you are installing a manifold. If you are not using a manifold, the remaining length of unused tubing is used to bring the air to the diffuser at the bottom of the water.

## BUBBLE TUBING® PREPARATION

Make sure Bubble Tubing® is not twisted when installing in the water. To get a uniform bubble curtain for aeration, mixing or de-icing, it is best to unroll the complete length of tubing on the ground. Tubing with loops, twists or kinks will influence the system performance and affect life of the compressor. When installing Bubble Tubing® with a boat, it is best to unroll the tubing on the shore to remove twists. Then coil it back to load on the boat. This will allow to drop the tubing in the water in a straight line without twists.

**Unroll the tubing making sure it is not twisted.**

**Tubing well straighten allows a uniform dispersion of air through all its length. By unrolling the tubing length before installing them, you improve efficiency of the system. Let the tubing rest under the sun after uncoiling, it will get more flexible.**



## CONNECTING BUBBLE TUBING®

For leak free connection, use the hardware and fittings provided. Each end of Bubble Tubing® length used must have a plug held by a clamp.



Make sure not to cut the air tube (superior part) when using an x-acto to make the slits at the end of the lines to install the clamps (see above pictures).

## CHECK VALVE INSTALLATION

Bottom aeration system diffusers must have a check valve to prevent water from going back in the airlines when the system is stopped. The check valve ensures an easy start-up of the compressor when the system is turned on and prevent premature wear of its moving parts in the long term.

The check valve must be installed before the diffuser. Check the arrow indicating the airflow direction on the check valve to make sure it is installed the right way (towards the diffuser). The check valve is provided with the necessary adapters and clamps required to fit to the system components.



## **BUBBLE TUBING® INSTALLATION**

### **Installation with a boat**

If you are using a boat, put the length of Bubble Tubing® needed as per instructed on p.5 and get on the water keeping the end of the feeder line in your hand. Continue uncoiling the feeder line until you reach the desired location of the diffuser. At this point, connect the end of the feeder line to the check valve of the diffuser using the clamp provided, and then continue on the water slowly lowering the diffuser as it self-sinks to the bottom. With the compressor turned on, you should see bubbles and can use them as visual reference to make sure the tubing is diffusing through its length. Place the tubing around the structure to be protected based on setup planned when the system was acquired.

### **Installation without boat**

To install the system without a boat, use a long rope. Once the tubing is uncoiled as instructed, connect the check valve and diffuser to the end of the feeder line. Tie the rope to the end of the diffuser tubing and go near the structure you want to protect. Once in line with the wanted position of the diffuser in the water, pull on the rope to bring the Bubble Tubing® at the bottom. The air provided by the system should give you a visual reference of the position of the tubing in the water as you pull on the rope. Place the tubing around the structure to be protected based on setup planned when the system was acquired.

### **Laying the Bubble Tubing® down**

Install Bubble Tubing® at the same depth throughout its length, keeping it level as possible. The tubing is flexible and can follow shapes of structure in the water. For more information, see our videos available on YouTube.

### **WARNING!**

**DO NOT USE BOATS THAT TIP EASILY FOR INSTALLATION, SUCH AS A CANOE, AND FOLLOW ALL BOATING SAFETY RULES AND REGULATIONS, INCLUDING WEARING A PFD (PERSONAL FLOTATION DEVICE).**

## **WINTER WARNING**

Check your local laws and ordinances as some areas require warning signs to be posted. The owner will assume all risks with operating the Thawline™ Bubbler De-Icing System during winter months.

Operating the Thawline™ Bubbler De-Icing System during the winter or freezing temperatures will create open areas in the ice at the diffuser locations. Also, ice will be thin surrounding those areas. Extreme caution should be used in these areas to avoid injury or fatality from falling through the ice. It is highly recommended to post warning signs to indicate the danger to others. Follow local rules and regulations at all time.

### **Installation of tubing during winter**

Bubble Tubing® and feeder lines like any other PVC made tubing, must be handled in temperatures above 30°F (0° Celsius). If the coil of tubing is left outside in freezing temperatures, run hot water through the tubing for a few minutes before uncoiling and installing the tubing.

### **Winter operations**

In areas when temperatures drop below freezing level, it is recommended to insulate the feeder lines from the cabinet to 3' in the water from the shoreline. You can use polyurethane (PU) foam isolation tubes to isolate each airline and prevent ice chunk formation created by condensation in the lines. A chunk of ice in the airline can prevent air circulation to the diffuser and damage the compressor. If water level fluctuation exists, make sure to insulate each line even further out into the water to ensure no section of the tubing outside the water is exposed without isolation at low tide. If your goal is to keep a small opening in the ice to prevent winter fish kill, bring the diffuser closer to shore.



## MAINTENANCE

### **Warning!**

**Product surfaces become very hot during operation, allow product surfaces to cool before handling.**

### **Warning!**

**Disconnect electrical power supply cord before handling and performing maintenance.**

The compressor is Oil-Less and **DOES NOT NEED LUBRIFICATION.**

### **Air filter**

Check intake filter after the first 500 hours of operation. Clean filter and determine how frequently filters should be checked during future operation. CanadianPond.ca Products Ltd. recommends checking the filter every month. Clean or replace as necessary.

This one procedure will help assure the product's performance and service life. Failure to maintain clean air filter elements will lead to clogging which will cause excessive heat and premature failure of the compressor.

- Remove filter cover
- Remove filter cartridge and replace filter element
- Replacement filter cartridges are readily available. Contact CanadianPond.ca Products Ltd. to order.
- Reinstall filter element and cover.

### **Bubble Tubing® maintenance**

The Bubble Tubing® is designed to permanently stay at the bottom of water. Various conditions (biofilm, calcification, etc.) can reduce aeration performance with time (less bubbles visible at the surface). In this case, cleaning the tubing might be needed. For optimal performance, we recommend cleaning the tubing once or twice a year, based on water quality.

### **Cleaning the air lines**

BioPurge™ is the only product tested and approved to clean the Bubble Tubing®. Before using any other product, contact us to check if you can use the product with Bubble Tubing®.

### **Warning!**

**DO NOT USE CHLORINE, JAVEX, DRANO OR ANY OTHERS CHEMICAL PRODUCT TO CLEAN THE TUBING.**

"Blowing out" the lines with a slightly stronger compressor than the one normally used is an efficient way to clean debris and accumulated water in the lines after cleaning with BioPurge™.

**Warning!**

- DO NOT USE A COMPRESSOR PROVIDING MORE THAN 50psi AS EXCESSIVE PRESSURE MAY DAMAGE THE BUBBLE TUBING®.
- DO NOT USE A SHOP COMPRESSOR NOT EQUIPPED WITH A PRESSURE REGULATOR. MAKE SURE PRESSURE DOES NOT EXCEED 50 psi.
- IF YOU ARE USING A SLIGHTLY STRONGER COMPRESSOR TO BLOW OUT THE LINES, DO NOT LET IT RUN MORE THAN 5 TO 10 MINUTES.

**Warning!**

**ANY OTHER WAY TO CLEAN THE AIR LINES WILL VOID THE WARRANTY OF THE BUBBLE TUBING®.**

## TROUBLESHOOTING

Here are some helpful troubleshooting tips. If a problem occurs, please double check the assembly and installation instructions. Please contact CanadianPond.ca Products Ltd. if problems persist after reviewing these instructions.

### **"Compressor and fan are not working"**

Check to make sure the power cord is connected. Check if the user supplied GFCI circuit is tripped and if it is, push the reset button.

### **"The fan is running but the compressor is not"**

Check the compressor and capacitor wiring. If no damage is seen, a bad capacitor or compressor may be the issue.

### **"The compressor and fan are running, but there are no bubbles coming out of any diffusers"**

Check for any leaks in the line connections and in the cabinet. Retighten any loose connections. The compressor air filter may need to be cleaned or replaced.

### **"The compressor and fan are running. There are bubbles coming out of some diffusers, but not all of them"**

The valves in the cabinet or at the manifold may need to be balanced correctly. There may be a clog on a diffuser that needs to be removed. The compressor may be faulty and need a rebuild kit.

### **"The compressor stops and restarts"**

Possibly a heat issue. Check to see if the fan is working properly.

### **"The Bubble Tubing® is not providing an even bubble curtain throughout its length"**

Bubble Tubing® must be set at the same level/depth throughout its length to ensure the air flow will reach the end of the tubing. If a section of the tubing does not provide as much bubbles as the remaining length, this section is probably going through a hole or recess point at the bottom. To correct this, simply move the tubing on either side of the hole.

## WARRANTY

Cabinet: 1 year  
Compressor: 2 years  
Bubble Tubing® and Torpedo™: 5 years

Canadianpond.ca Products Ltd. warrants this Thawline™ Bubbler De-Icing System to be free from defects in material or workmanship under normal use, conditions and service. Canadianpond.ca Products Ltd. obligations under this warranty is limited to replacing or repairing free of charge any defective part within the warranty period. Customer shall pay shipping charges for returning the unit to Canadianpond.ca Products Ltd. THIS WARRANTY IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND ANY OTHER OBLIGATION OR LIABILITY WHATEVER ON THE PART OF CANADIANPOND.CA PRODUCTS LTD. AND IN NO EVENT SHALL CANADIANPOND.CA PRODUCTS LTD. BE LIABLE FOR ANY SPECIAL OR CONSEQUENTIAL DAMAGES.

Warranty is void if:

- The system is not maintained properly according to the maintenance recommendations supplied in this owner's manual.
- The system is damaged by unauthorized tampering.
- The system is damaged by a natural event or power surcharge.

### **Warranty Claim Procedure**

The best method for establishing warranty period is by the original receipt. Once the warranty coverage has been established, please call Canadianpond.ca Products Ltd. at 450-243-0976 prior to shipping, to attain a return number and notify us beforehand. Ship to:

Canadianpond.ca Products Ltd.  
Att.: Repair department  
513, ch. De Knowlton  
Lac-Brome, QC  
JOE 1V0

Canadianpond.ca Products Ltd. will cover the return fees for repairs under warranty by ground service within Canada. If a faster shipping method is required, up charges may be applicable and the service is not guaranteed.

### **Other Repairs**

Most failed equipment can be repaired at substantially lower cost than a new replacement. Please contact us for more details and procedures to have the item repaired. A credit card number is required to confirm any service request.