



Owner's Manual

For

Thawline De-icer System



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CONTENT

IMPORTANT SAFETY INSTRUCTIONS	p.3
BASE MOUNT CABINET INSTALLATION	p.4
POST MOUNT CABINET INSTALLATION	p.5
COMPRESSOR WITH MOUNTING BASE INSTALLATION	p.5
BUBBLE TUBING® PREPARATION	p.5
SYSTEM INSTALLATION	p.6-8
WINTER AERATION WARNING	p.9
MAINTENANCE	p.10-11
TROUBLESHOOTING	p.12
WARRANTY	p.13

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, deicing 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 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 installations, 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.
- It is recommended to install the Thawline system before any ice formation on the surface of the water for ease of install and comfort.
- 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.

COMPONENTS

Here are the components of the system:

- Bubble Tubing® diffuser (length(s) varies depending on the selected system)
- Torpedo self-sinking feeder lines (required length depending on the system selected). Regular PVC tubing is not recommended in these systems, but if they are used in the water, they should be weighted by bricks or rocks, without crushing them
- Heat-resistant hose.
- Compressor
- Cabinet
- All other required hardware's

CABINETS

Your cabinet can be installed either on the ground (base mount) or on a post (post-mount). For the base mount, the location should be far away from the shore to avoid any potential flooding. Plants and shrubs can be used to hide the cabinet; however, be sure that as they grow, they do not block the inlet or outlet air vents. This flow of air is needed to keep the compressor from overheating.

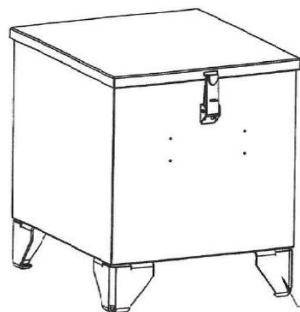
BASE MOUNT CABINET INSTALLATION

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 overheating.

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' (0.9 m) or 6' (1.8 m) of power cord with a plug.

DO NOT USE EXTENSION CORDS.



POST MOUNT CABINET INSTALLATION

Our Mini-Cab can be mounted on a post or a wall. Cabinet can be attached to a 4x4 (10 cm x 10 cm) post or a vertical wall such as in a shed with electrical service. Two (2) lag screws are provided to mount the post mount cabinet. Pre-drill holes (2 x 3/16"). Install one (1) lag screw into the wall or post, leaving the hex head out about 1/4" (5 mm) using a standard 7/16" socket wrench. Hang the cabinet from this screw using the bottom keyhole 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

If you have selected a system without a cabinet, a ventilated shelter with power onsite is required. In this case, the compressor must be mounted on the base with the fan provided. Both the fan and the compressor will need to be plugged to the power outlet so the base should be fixed near the power plug. Use screws to fix the base to a wall, floor or shelf and make sure it remains stable when in operation.

BUBBLE TUBING® PREPARATION

Before connecting the Bubble Tubing® to the feeder line, unroll it, 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 and affect life of the compressor. Let the tubing rest unrolled before the installation of the system.



SYSTEM INSTALLATION

Multiple connections are needed to assemble the Thawline Deicing system. Here is the order in which you need to assemble them. Use the hardware and fittings provided for a leak-free connection and follow the instructions below:

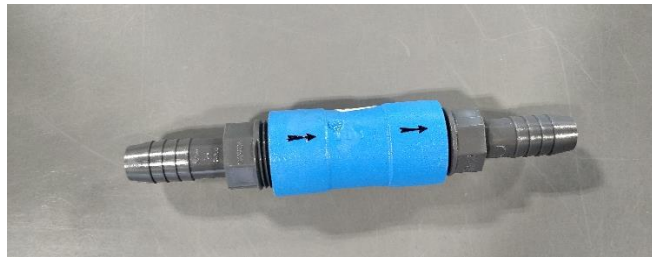
TUBING CONNECTION – STEP 1

Once the air compressor is in place, connect the Torpedo feeder line to the heat-resistant hose. The heat-resistant hose is the hose coming out of the cabinet (usually a red or black tube) using the provided clamp. Unroll the Torpedo hose towards the shoreline.

On the shoreline, do not cut the excess of feeder lines 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.

TUBING CONNECTION - STEP 2

Connect the check valve to the Torpedo feeder line. **Make sure the airflow follows the directional arrow written on the valve.** The Thawline deicing system diffusers must have a check valve to prevent water from going back to 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.



TUBING CONNECTION - STEP 3

Connect the Bubble Tubing® to the other side of the check valve using this below technique (video also available: <https://vimeo.com/350864766/939c5e011c>). If requested in advance, the Bubble Tubing can already be connected to the check valve (assembly cost may apply).

- 1- With a knife, cut 1 inch deep between the ballast and the diffuser tubing on both ends of the Bubble Tubing®. Make sure not to cut the air tube (shallow part).



- 2- Insert the Check valve and secure it with a clamp.



- 3- On the other end of the Bubble Tubing® insert a plug and secure it with a clamp.



INSTALLATION OF THE BUBBLE TUBING® DIFFUSER LINE

Installation with a boat

Recommended if your installation is surrounding a structure. Using a stable boat like a flat bottom, bring the hose assembly to the shoreline and put the rest of the hose in the boat and go on the water while keeping the Torpedo feeder line in your hand. Uncoil the Torpedo feeder line until you reach the desired location of the Bubble Tubing® diffuser. With the diffuser already connected to the Torpedo air feeder line, slowly continue lowering into the water 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.

Installation Without Boat

To install the system without a boat, use a long rope. Once the tubing is uncoiled as instructed, tie the rope to the end of the diffuser tubing using a loop (see photo below). Pull the rope to put the diffuser into position in the water. The diffuser will already be at the bottom of the water while it is being pulled. A

second person should be hanging on the feeder line to help with the placement of the diffuser. Once in line with the wanted position release and retrieve your rope.



***Pro tip*:** Start the compressor right before installing the Bubble Tubing® linear diffuser in the water, the bubble will guide you to settle the diffuser at the desired place in the water.

WARNING!

FOLLOW ALL BOATING SAFETY RULES AND REGULATIONS, INCLUDING WEARING A PFD (PERSONAL FLOTATION DEVICE) WHILE ON A BOAT AT ALL TIME.

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 De-Icing System during winter months.

Operating the Thawline 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. Always follow local rules and regulations.

Winter Installations Procedure

Although possible, a winter installation is not recommended. We recommend installing the Thawline Deicing system before any ice formation on the surface of the water for safety and comfort. Bubble Tubing® and feeder lines like any other PVC made tubing must be handled in temperatures above 0°C (30°F). Make sure the tubing is warmed up for the installation in a heated location.

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. Dig the feeder line 6" to 8" minimum in the ground or 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 fluctuations exist, 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 kills, 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 filters 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 Airlines

BioPurge and EcoPurge are the only products 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 OTHER 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 up debris and accumulated water in the lines after cleaning with BioPurge or EcoPurge.

Warning!

- DO NOT USE A COMPRESSOR PROVIDING MORE THAN 50 psi 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 AIRLINES 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, replaced or the compressor need to be rebuilt.

"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 airflow 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.

"The compressor still running but lower quantity of bubbles than usual appears at the surface."

The piston and the seal on the compressor might need to be changed. A repair kit can easily be purchased and installed to fix this issue.

WARRANTY

Cabinet: 1 year
Compressor: 2 years
Bubble Tubing®: 1 year
Torpedo: 3 years

Canadianpond.ca Products Ltd. warrants this Thawline 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. Customers 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 the 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 obtain a return number and notify us beforehand. Ship to:

Canadianpond.ca Products Ltd.
Att.: Repair department
570, 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.

Thank you for purchasing a Thawline Deicing system at CanadianPond.ca! We hope this product allows you to achieve the best results for the maintenance and preservation of your water body!

Proud of your installation? Send us pictures! info@canadianpond.ca