CanadianPond

Owner's Manuel for

Thawline De-icer System

CONTENT

Thank you for purchasing a Thawline system at CanadianPond.ca! We hope this product allows you to achieve the best results for the maintenance and preservation of your water body! The user's manual will help you follow the installation steps in the right order to achieve the desired result.

If you need help or advice installing your Thawline system, don't hesitate to contact us at 1 866 249-0976 or by e-mail at info@canadianpond.ca. We'll be happy to guide you.

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING !

- Necessary precautions must be taken when handling electric components with moving parts:
    1. Unplug unit BEFORE starting working
    2. Unload the capacitor BEFORE handling it.

- 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 'thin ice' sign is included with your Thawline de-icing system.

- 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.

- The power line supplying the system must be equipped with a grounding plug (GFI) in accordance with local laws and regulations. Consult a qualified electrician for electrical installation and if you have any questions of an electrical nature.

- 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 or insulated to prevent an ice plug from forming in the tubing.

- If you need to use an X-ACTO type knife, we recommend that you wear protective goggles and gloves when handling a blunt object.

- Do not use an electrical extension cord.

- If you need a boat to install your Thawline system, don't use one that capsizes easily, such as a canoe. Instead, use a boat with a flat bottom, such as a rowboat.

- If you have to go out on the water in a boat during installation, it's important to follow safety rules, including wearing a personal flotation device (PFD).

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

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
- Air Compressor
- Cabinet or ventilated base
- All other required hardware

COMPRESSOR INSTALLATION

BASE MOUNT CABINET

If you have purchased a system without a cabinet, the compressor must be protected by a ventilated cabinet with a power supply. In this case, the compressor must be mounted on a base supplied with fan. The fan and compressor must be installed close to an electrical socket. **DO NOT USE EXTENSION CORDS**. Use screws to secure the base to the wall, floor or shelf, to prevent it from moving when in operation.

Image 1

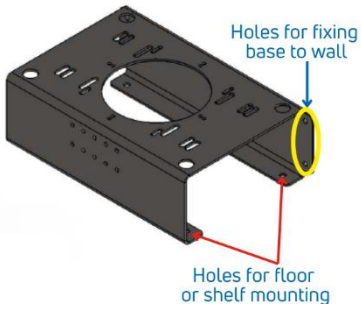

Image 2

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

CABINET INSTALLATION

Your cabinet must be installed close to a power source. It's important to choose a location that provides an optimal trajectory for the Torpedo to reach the water. We suggest, keeping the trajectory as short as possible and making sure that the compressor be higher than the shoreline in a continuous slope to the water. The cabinet can be placed directly on the ground or permanently fixed to a concrete base. The cabinet legs have holes that can be used to anchor the cabinet in place. The cabinet comes with a 0.9 m (3') or 1.8 m (6') power cable, including plug.

DO NOT USE EXTENSION CORDS.

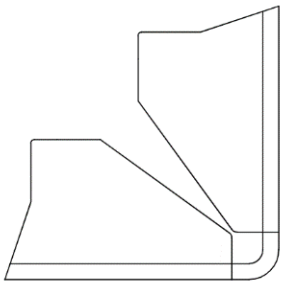

Image 3

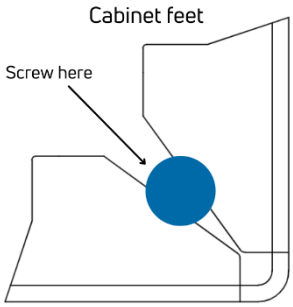

Image 4

Image 5

BUBBLE TUBING® PREPARATION

This step is best performed at a temperature above 10°C. Before connecting the Bubble Tubing® to the Torpedo supply line, unroll it carefully, making sure it is not twisted. A straight hose ensures uniform air diffusion along its entire length. Unwinding your lengths of Bubble Tubing® before installing them will improve the system's efficiency. Letting your Bubble Tubing® rest after uncoiling will facilitate installation.

Bubble Tubing® Handling

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

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 : Heat Hose and Torpedo

**The heat-resistant hose is the hose coming out of the cabinet or compressor (usually red, but can also be black with a yellow line).*

Insert a loosen clamp onto one end of the Torpedo feeder line, insert the tubing over the barbed portion of the union already installed to the heat-resistant hose, and tighten the clamp around the Torpedo tubing using a flathead screwdriver. Unroll the Torpedo hose down towards the shoreline. Do not cut off any excess air supply hose.

Image 7

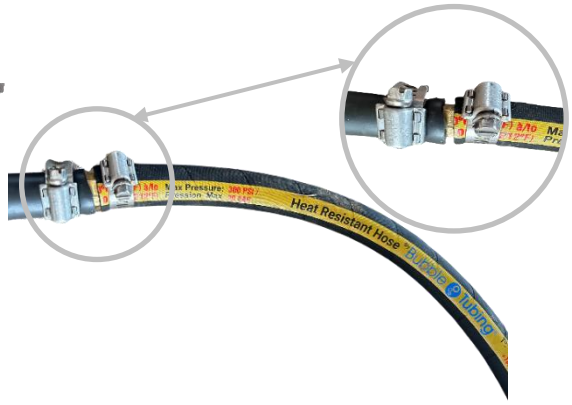

Image 8

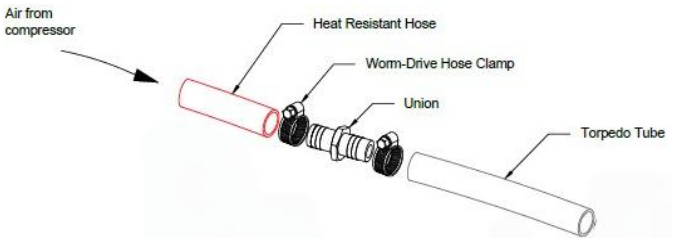

Image 9

Torpedo Isolation

Although possible, installation when ice has already formed is not recommended, as there are many risks. We recommend insulating your air feeder lines, starting at the cabinet and extending up to 1 m (3') into the water from the shoreline. The use of polyurethane foam insulation sleeves will help insulate the air lines and prevent the formation of ice plugs created by condensation. Ice plugs in the vent line can prevent air supply to the diffuser and damage the compressor. If the water level fluctuates significantly, insulate the vent line even further into the water, so that the tubing remains protected, even at the lowest water level.

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

Step 2 : Torpedo and Check-Valve

Have the unconnected end of the air supply hose and the check valve on hand (the other end should already be connected to the heat-resistant hose or the feeder). Insert a loose clamp onto the unconnected end of the air supply hose, then push the hose onto the barbed part of the correct side of the check valve. Make sure the airflow follows the directional arrow on the valve (see the black arrows in the photo below) and tighten the clamp around the air supply hose using a flathead screwdriver. The Thawline de-icing system diffuser must have a check valve to prevent water from reaching the compressor. The check valve ensures easy compressor startup and prevents premature wear of its parts.

Connect the Torpedo hose (at the left of the valve in this case). The airflow must follow the direction of the black arrow towards the diffuser hose. See assembly diagram on page 7 for reference.

Step 3 : Bubble Tubing® Connection

WARNING Wear protective goggles and gloves when handling blunt objects.

Connect the Bubble Tubing® to the other side of check valve using the technique illustrated below in images 11 to 15 (video also available, by scanning this QR code).

Scan this QR code to watch the video

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 tubing (shallow part).

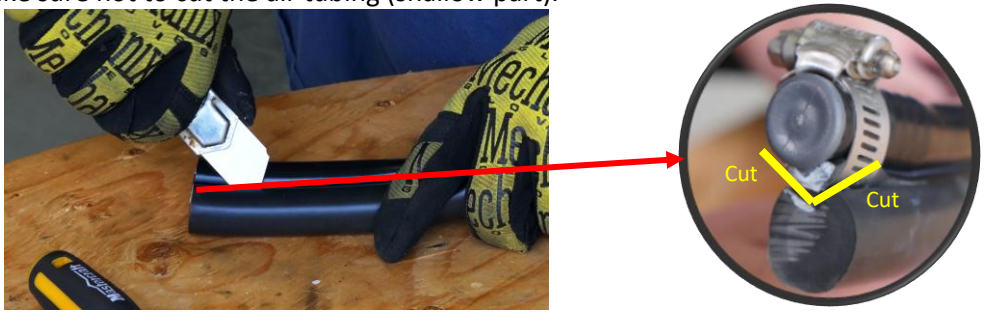

Image 11

2- Insert a loose collar at one end of the Bubble Tubing®, insert the tubing over the barbed section on the unconnected side of the check-valve and tighten the collar with a screwdriver.

Image 12

Image 13

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

3- On the other end of the Bubble Tubing®, insert a non-tightened collar, insert the barbed part of the plug and tighten the collar with a screwdriver.


Image 14

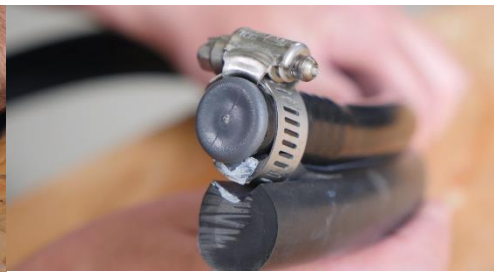
Image 15

4- Roll up the Torpedo and Bubble Tubing® assembly into a self-folding coil (see image 16).


Image 16

SYSTEM INSTALLATION

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

1. Dock Installation

This type of installation is recommended for de-icing around a dock near the shore. Assembly and connections are made entirely from the dock, so no boat is required. Once all the connections have been made, let the diffuser tubing fall into the water, sections by section. It will sink to the bottom on its own, as it is self-sinking. With the system's compressor running, you should see bubbles coming out of the diffuser as soon as you put it in the water, and you can use these bubbles to guide you. Once the diffuser tubing is in the water, it can be adjusted as needed. You can cut the excess Torpedo tubing and redo the connections or place it at the bottom of the water (image 18) at a depth of more than 3 ft (1 m). (**Important**: DO NOT put the excess on the dock & avoid rolling the tubing on itself out of the water as shown in the image 19).


Image 17

√ DO'S

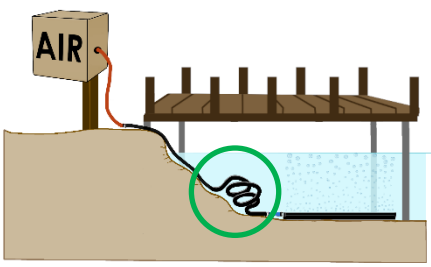

Image 18

✖ DON'T

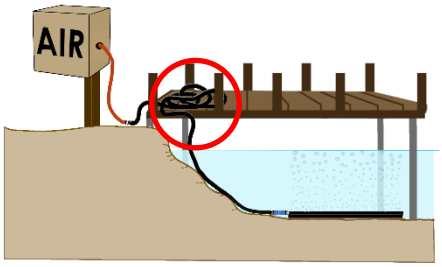

Image 19

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

2. Boathouse and Other Structures

⚠ **WARNING** Follow all boating safety rules and regulations, including wearing a pfd (personal flotation device) while on a boat at all time.

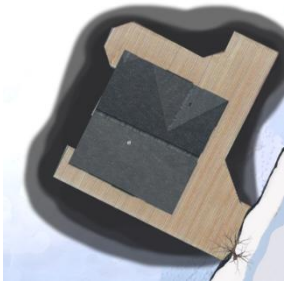

Image 20

Recommended if you are surrounding a structure with your Thawline de-icing system and a boat is required. Start the compressor and unroll the tubing assembly to the shore. Place the remaining Torpedo and diffuser in the boat. Go on the water, keeping the Torpedo air supply line in your hand. Unwind the Torpedo air supply line until you reach the desired location of the Bubble Tubing® diffuser. If you have excess Torpedo tubing, you can cut it and redo the connections, or place the excess tubing at the bottom of the water. (**Important**: DO NOT put the excess tubing on the dock, and avoid coiling the tubing on itself outside of the water, see image 18 on page 8). Continue lowering the weighted diffuser tubing into the water at the desired location. With the system's compressor running, you should see bubbles coming out of the diffuser as soon as you launch it, and you can use these bubbles (image 21) to guide you during installation.

Image 21

3. Installation in the middle of a small water body

This type of installation is recommended for de-icing away from shore for small ponds. For installation without a boat, you'll need a long rope (twice the length of the pond) and a shorter rope (approx. 1 to 2 ft.). Use the shorter rope to form a loop (Image 22) at the end of the diffuser. Pass the long rope through the loop, and holding both ends of the long rope, pull the diffuser and guide it into position. The diffuser will settle itself to the bottom of the water as it is pulled. A second person should hold the Torpedo air supply line to help position the diffuser. Once the diffuser is in the desired position, release one end of the cord and retrieve your cord by pulling on the other end. If you have excess Torpedo tubing, you can cut off the excess tubing and reconnect the heat-resistant hose to the Torpedo. Another option is to place the excess tubing on the bottom of the water to a depth of at least 3 ft (1 m). (**Important**: DO NOT put the excess on the dock and avoid rolling the tubing on itself out of the water, see image 18 on page 8).

Image 22

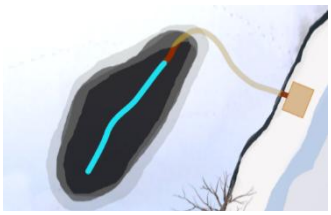

Image 23

Image 24

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

Winter Aeration Warning

The Thawline de-icing system creates openings in the ice above the diffusers. The ice around these openings will also be thin and fragile. Precautions should be taken around these areas to prevent risks of injury or drowning. Clearly visible warning signs (image 25) are strongly recommended to indicate the danger to passers-by. A 'thin ice' sign is included with your Thawline de-icing system.

Image 25

MAINTENANCE

⚠ WARNING
Product surfaces become very hot during operation, allow product surfaces to cool before handling.
Disconnect electrical power supply cord before handling and performing maintenance.
The compressor is oil-free and **NEEDS NO LUBRICATION.**

⚠ WARNING
Do not use chlorine, javex, drano or other chemicals products to clean the tubing.
Any other method of cleaning the vent lines will void the Bubble Tubing® warranty.

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.

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

Bubble Tubing® Maintenance

If the Bubble Tubing® is permanently installed, but only used in winter, we recommend running it for about 1 hour every two weeks to prevent an organic film from forming in the tubing. If in doubt, cleaning at the start of the winter season is strongly recommended.

Ice Blockage

The heat generated by the compressor can create condensation inside the tubing, which may cause ice plugs in the sections of tubing located outside the water. Ice plugs should not occur if you have followed the installation instructions. If blockages do occur, locate the ice plug by feeling along the tubing for a cold area with ice. Once you've located the ice plugs in the tubing, warm the affected area using a heating blanket or hot water. Be sure not to exceed 50°C. Please contact us for further information.

⚠ 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're using a slightly stronger compressor to blow out the lines, do not let it run more than 5 to 10 minutes.

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. Contact-us.

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

Check air supply lines and cabinet for leaks. Check and tighten all connections if necessary. The compressor air filter may need cleaning or replacement, or the compressor may require repair service.

" The pressure relief valve (PRV) constantly releases "

First check whether the compressor is discharging air through the pressure relief valve. If this is the case, there is probably a blockage in the Torpedo tubing caused by an ice plug. Ice plugs can occur frequently if the Torpedo tubing is not installed correctly. To remedy this problem, first locate the ice plugs in the tubing. Warm up the area where the ice plugs are located with a heating blanket or hot water. Be sure not to exceed a temperature of 50°C. Repeat until the plug melts. If this doesn't work, contact us.

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

" Compressor and fan running, but no bubbles coming out of all diffusers "

Only if your system has a manifold, the manifold in the cabinet or on the shore needs to be calibrated correctly. There may also be a blockage in the line which should be removed. The compressor may be damaged and require repair.

" 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 many bubbles as the remaining length, this section is probably going through a variation in depth 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 "

First, check if the air filter is clogged. If not, the compressor piston and seal may need changing. A repair kit can easily be purchased and installed to solve this problem.

WARRANTY

Cabinet: 1 year
Compressor: 3 years
Bubble Tubing®: 5 years
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's. obligation 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 :

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

CanadianPond.ca Products Ltd.
570, Knowlton Rd., Lac-Brome, QC J0E 1V0 CANADA
T: 450 243-0976 info@canadianpond.ca

Warranty Claim Procedure

Refer to the date of purchase on your original invoice to determine if the product is under warranty. Contact CanadianPond.ca Products Ltd. service department at 450 243-0976 or by e-mail info@canadianpond.ca before returning the product to validate that the damage is under warranty. An inspection in our workshop may be necessary to determine the eligibility of the repair. A Return Merchandise Authorization (RMA) number will be issued. Return the product with the RMA # to:

Canadianpond.ca Products Ltd.
Att.: Repair department
570, ch. De Knowlton
Lac-Brome, QC
J0E 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.

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