

Ice-Out De-Icer Manual

A sincere, “Thank you!” for investing in an Admiral Lake and Pond Restoration product. We very much appreciate the confidence that you have placed in us by making this purchase.

Practically every User Manual ever written prefaces with, “Please read through completely before using this product” and then proceeds to thoroughly insult your intelligence. In contrast, the following is a fairly quick read that will offer truly useful tips, a bit of humor, and important points you should know. We promise, no 20-page tutorial stating the obvious!

Uses for the Ice-Out: The Ice-Out is helpful in accomplishing a variety of tasks. Often it's used to keep an area of water open so that docks, piers, yachts, etc. can remain in the water year round and remain free of ice. It is also commonly used to avoid ice from forming on ponds, which may cause stagnation, fish kill, and debris build-up. The Ice-Out can also be used to draw in wildlife for nature watching or hunting. Hunters and wildlife enthusiasts alike have been thrilled at how open water that would normally be covered in ice attracts geese, ducks, swans, and even pelicans (!) and allows them to stay all season.

Moreover, there are great environmental benefits associated with use of the Ice-Out. During winter, ice acts as an air-tight “lid” on frozen lakes and ponds; by keeping an area of water open, oxygen is able to reach the water and substantially improve the living conditions for fish and other species. In fact, “Winter Kill,” the number one cause of death amongst all aquatic species, can be deterred when just 1% of a lake’s surface remains open!

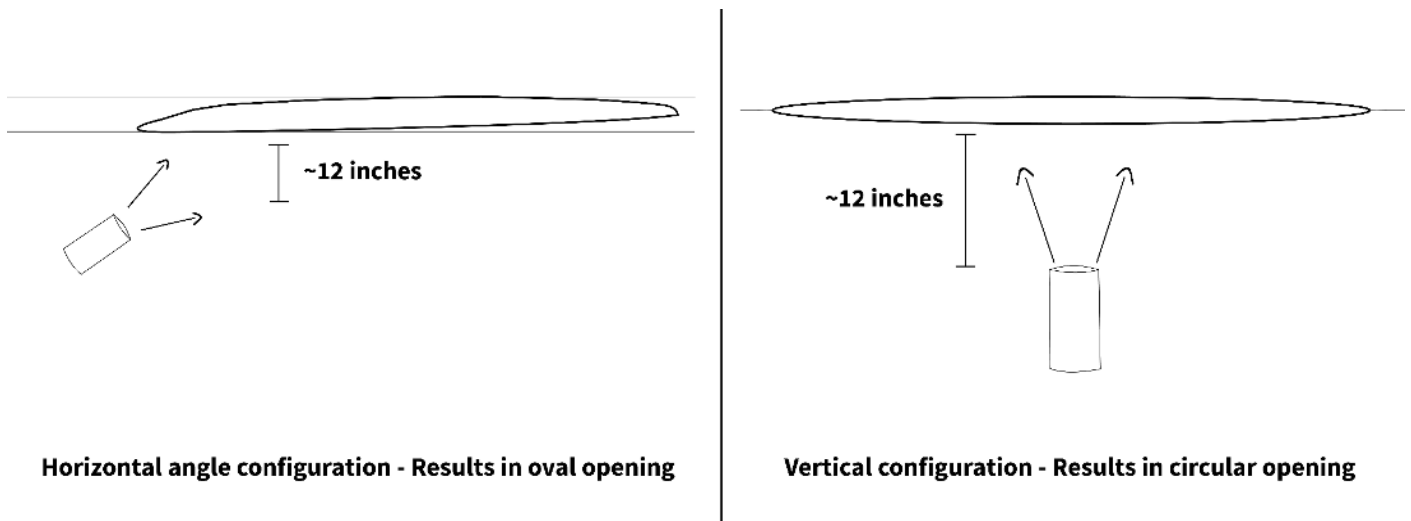
Start-up: The Ice-Out does not include an on/off switch on the unit itself. It simply starts upon inserting the electrical plug into your GFCI power outlet. In case the Ice-Out doesn’t start up right away, try plugging and unplugging it from the outlet several times, as on rare occasions the magnet that powers the motor will become “high-centered” and stay in place - most commonly in very low temperatures. Connecting it and disconnecting it several times will

allow the magnet to move and start the Ice-Out normally. If problems persist, check for electrical issues.

Electrical: It is imperative that you use a GFCI outlet AND that you do not use extension cords! Doing so may damage your unit and void your warranty. If your Ice-Out does not immediately start after plugging in (and attempting to plug/unplug it a few times to be sure it's not high-centered), check the power cord for any damage. If the power cord is not damaged, check that the GFCI is not tripped and/or that the breaker switch has not tripped at the main panel. If your GFCI trips with regularity, it could be that the GFCI is in need of replacement, that it is on a small amperage breaker (we recommend at least a 20 amp breaker), or that the outlet is not supplying the full 110 or 220 volts. We have witnessed on several occasions where old cabins and DIY electrical work done in years past may have worked fine for dock lights, etc. but is not up to the task of powering the Ice-Out's motor. If in doubt, use of a voltmeter can establish that your outlet is, in fact, putting out the ascribed voltage.

Placing/Mounting the Ice-Out: Every situation is different, so keep in mind that the following suggestions may need modifying as per your unique circumstances. That said, regardless of how you install your unit, there are some basics that will always remain constant, including:

1. A water body's size, temperature, and depth, coupled with the angle the Ice-Out is placed at, will determine the shape and surface area of your open water area.
2. Placing the unit vertically will create a fairly uniform open circle of water, typically around 50 to 70 feet in diameter (though this may vary depending upon the factors listed above).
3. If the Ice-Out is placed at an angle, it will create a more elongated, oval-shaped opening in the ice. Depending on the angle, the oval shape could vary greatly, between 6 to 50 feet wide and 50-80 feet long.
4. Wind will generally help agitate water and keep it open, but when it blows strongly against your intended water flow, it can be counterproductive. Always try to point your unit in the direction that wind and water naturally move when using a horizontally-angled orientation.



5. In smaller, shallower bodies of water such as ponds, where water depth is limited to 5 feet or less, depth placement of the Ice-Out should be roughly 1 foot from the surface and at least 1 foot from the pond bottom to avoid sucking in debris that could damage the unit's propeller.
6. Moving water from deeper to shallower areas (in other words, inclining the Ice-Out to force water towards the surface) is always more effective than the other way around because in winter, warmer water is located in the depths and cold water in the shallows - the opposite of summertime.
7. It is important to note that though lowering the Ice-Out increasingly deeper in the water will help to bring increasingly warmer water up to the surface, water agitation at the surface (which is also helpful in maintaining open water) will be gradually reduced. As you angle your unit, this dynamic will continue to change. As such, you will want to experiment with depth and positions in order to find the best compromise between agitation and warm water draw.
8. In larger, deeper bodies of water (or more than 5 feet), your Ice-Out should be placed ~2 feet below the water's surface or a foot below watercraft or other objects below the waterline. When using horizontal configurations, we recommend an angle somewhere between 25 - 45 degrees - going with natural wind and water flow - for maximizing open water space. Below, read on to learn about the various types of mounts available for the Ice-Out and how to install them.

Standard Sling Mount: This configuration is most commonly used to protect watercraft, though it will certainly work to accommodate other types of use as

well. Everything needed for this mounting configuration comes standard with the Ice-Out. It contains 3 mounting ropes which should be separated (one longer 20-foot rope from the two shorter 15-foot ropes) to avoid confusion. Tie both of the 15-foot ropes to the eye bolts on either side of the front end of the Ice-Out. These two lines are typically then run to dock posts or pilings on either side of the dock, pier, or watercraft. The Ice-Out is usually then placed mid-ship or on one end of your dock/pier and approximately 2 feet below the water's surface or 1 foot below the watercraft's mid point.

If you decide to angle your Ice-Out on a more horizontal plane to achieve an oval-shaped hole in the ice (great for docks and piers), attach the third rope to the aft end of the Ice-Out. By pulling the rope upwards, you may adjust the angle of the Ice-Out and therefore change the shape - the higher the rope is pulled, the longer the oval shape. We recommend playing with angles and depth to assure the best resulting open water area. Afterwards, make sure to periodically check things as the weather cools to assure that you have a healthy cushion of water surrounding whatever objects you're looking to safeguard. What's the worst that could happen if you fail to do this? Your boat, dock, pier or otherwise could be subject to serious damage - so unless you don't mind losing a few thousand dollars, take your time and be cautious!

Dock Deck Mount Kit: With the Dock Deck Mount Kit, you will have the ability to control the Ice-Out's vertical and rotational movement from the comfort of your dock with no need to get into potentially freezing water! This feature alone is a big plus (unless you're into hypothermia and such - but we can't imagine you are). With vertical movement of up to 6 feet and 360-degree rotational movement, creating your desired open water shape is simple. Depth control may be performed by hand-tightening bolts on the unit's collar, and 360-degree control is as simple as turning the pole. Once you have figured out where to place your mount along your dock, tighten 2-4 bolts to hold your dock plate securely to your dock or pier. Experiment with your Ice-Out/Dock Deck Kit to see what depth and positions work best. As with anything, practice helps!

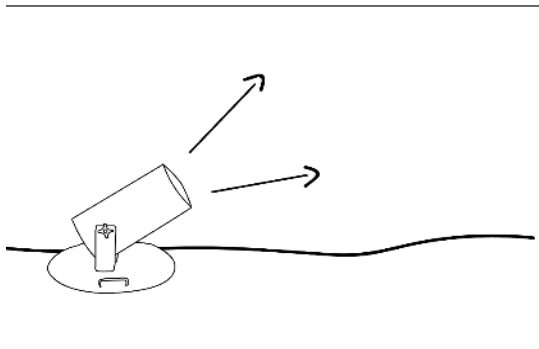
Dock Leg Mount Kit: With the Dock Deck Mount Kit, you will have the ability to control the Ice-Out's rotational movement by tightening the knob on the aluminum bracket. Vertical changes can be made via tightening and loosening

the included U-bolts vertically along your dock leg supports. Any changes in position will of course result in changes in the open water area. Keeping that in mind, experiment with your Ice-Out to see what depth and positions work best. Remember, ~2 feet below the waterline (or 1 foot below watercraft) and a 20-45 degree angle are generally preferable for optimal results on docks.

Concrete Disk Mount Kit: The Concrete Disk Mount Kit, lovingly referred to as “The Pancake” here at Admiral, allows for stand-alone Ice-Out use. This makes it a top option for nature lovers and hunters where docks or otherwise may not be readily available. Vertical movement is accomplished via tightening/loosening the knob on the Ice-Out’s aluminum bracket, and side-to-side movement is achieved by attaching one of the included ropes to the eye hook at the front of the disk and pulling in either direction. This same rope can also be used to pull the unit from place to place, making it very convenient. Any changes in position will, of course, result in changes in the open water area. Try experimenting with different angles, depths, and positions to determine which work best.

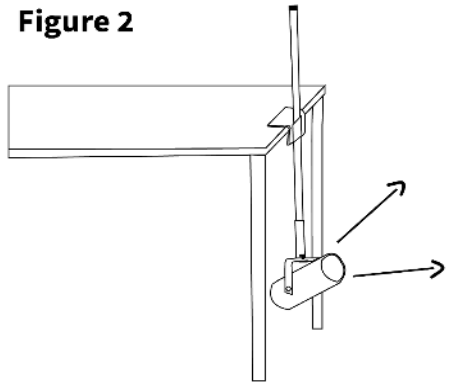
Concrete Disk Mount

Figure 1



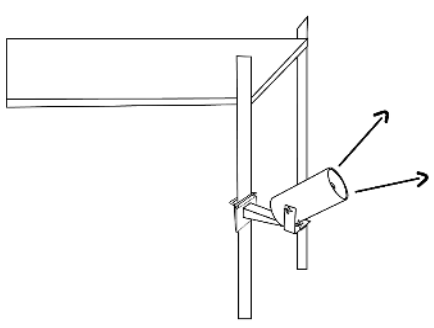
Dock Deck Mount

Figure 2



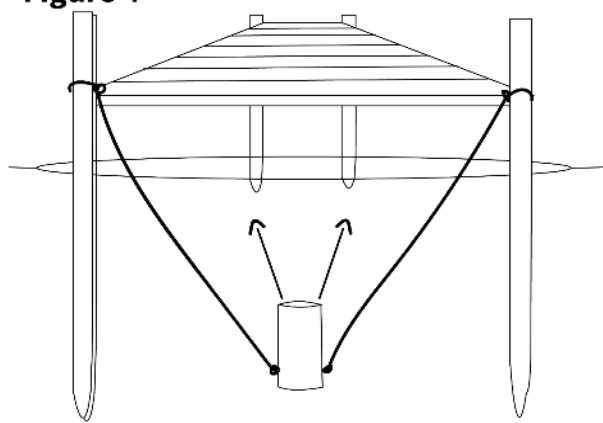
Dock Leg mount

Figure 3



Ice-Out De-Icer

Figure 4



Maintenance: Your Ice-Out will provide years of dependable service provided that it is properly cared for. To ensure its longevity and keep it within warranty guidelines requires minimal effort on your part, however. One of the more important factors to keep in mind is that, though your unit comes equipped with a thermal shut-down feature, it relies upon unimpeded water flow - not only to provide the best performance possible - but also to keep the motor cool. As such, it is very important to make sure that the unit remains fully submerged in the water during use and that it is not dry-run for more than a minute at a time.

Keep in mind that while your Ice-Out is built to last many years beyond its warranty, it is still important to check the unit periodically to be sure that nothing looks to be damaged or impeding normal operation. We recommend taking a close look at your unit upon storage at the end of the season and before placing it in the water during the beginning of the next season. Propellers, in particular, can be prone to wear and tear and cause noticeable drops in performance despite what appear to be minimal damages. They should be changed as soon as any damage is noticed, or otherwise replaced once every 3 seasons under normal use.

When storing the Ice-Out, remember to do so in temperatures above freezing. When the unit is not running, any water that may be on or inside of the unit will freeze and may cause damage to it. Lastly, to the delight of Ice-Out owners world-wide, the unit does *not* require oil changes.

Safety Warning: Please be sure to check local laws and regulations regarding de-icer / bubbler use and follow them accordingly. Improper use can lead to fines, serious injury, or death. Be sure to alert any potentially affected parties with warnings and signs alerting to the presence of the de-icer and the potential for thin ice or open water.

The infamous “What not to do’s”:

Doing the following may damage your Ice-Out and/or void its warranty.
So.....

- 1) Don't use in water under 3 feet. Doing so could suck in bottom sediment and damage the propeller. Place at least 1 foot off of the lake/pond bottom.
- 2) Don't forget to test different Ice-Out depths and angles for best results.
- 3) Don't use extension cords. Doing so will void your warranty and may damage or compromise the unit if the cord gauge is insufficient.
- 4) Connect only to a GFI outlet and make sure electrical leading up to the GFI is apt for connection so as to avoid warranty issues and damage to your unit.
- 5) Don't forget to consult with local authorities before Ice-Out installation to be sure all local regulations are met.
- 6) Don't use the Ice-Out when there are swimmers present.
- 7) The Ice-Out should only be used by adults familiar with its operation.
- 8) Never stick hands, feet or objects into either end of the Ice-Out.
- 9) Do not store or leave the Ice-Out disconnected in temps below freezing.
- 10) Finally, do not attempt to eat or stick the Ice-Out in your eye. Nothing good can come of this!

If you have any questions, suggestions, or feedback, please don't hesitate to give us a call (952-401-3792)! Customer satisfaction is our top priority!



