

# JetStream Manual

**A sincere, “Thank you!” for investing in an Admiral Lake and Pond product. We very much appreciate the trust 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 30-page tutorial stating the obvious!*

**Uses for the JetStream:** The JetStream is helpful in accomplishing a wide variety of lake and pond-cleaning tasks. It can be used to push muck, detritus, leaves and other undesirables from your shore bottom. It can also be used to flush out seasonal “floaties” like duckweed and filamentous algae. Furthermore, it functions as an aerator when used near the surface. This will help to increase oxygen levels, which in turn will improve both water clarity and quality, remove foul odors and mosquitos, and slow algae growth, among other benefits. In the winter, the JetStream may even be used as a de-icer to maintain open water in areas where it may be beneficial. You should be aware that when used as a de-icer, there are obvious safety concerns and as such, we recommend you do research on the topic and/or consult with the DNR.

**Start-up:** The JetStream does not include an on/off switch on the unit itself. It simply starts upon inserting the unit’s electrical plug into your GFCI outlet (or, in the case of most 2022 models and newer, with a separate remote-controlled outlet that powers your JetStream). To start your JetStream using the remote-controlled outlet (RCO), simply plug the RCO into your GFCI, connect your JetStream to the RCO, then control the on/off function via the included remote. While the RCO is not necessarily required for JetStream use - as it may be plugged into power directly - we highly recommend using the remote controlled option as it will save you time trudging to and from your electrical outlet.

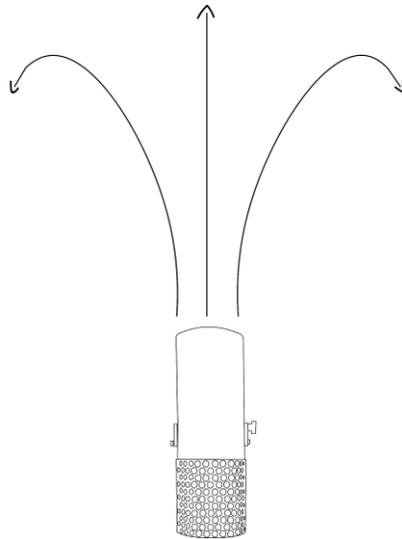
In case the Jetstream doesn't start up right away, try plugging and unplugging it from the outlet several times, as on rare occasions the magnet that powers the motor will become "high-centered" and stay in place - most commonly in very low temperatures. Connecting it and disconnecting it several times will allow the magnet to move and start the JetStream 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 JetStream does not immediately start after plugging it 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 JetStream's motor. If in doubt, use of a voltmeter can establish that your outlet is, in fact, putting out the ascribed 110 or 220 volts.

**Using the Jet Stream:** Every shoreline is different, so the following suggestions may need modifying as per your individual situation and, as with any piece of equipment, using your JetStream is the best way to master it. Read the following tips and instructions below to help you to use the JetStream most effectively.

**Agitation:** Lake/pond muck, sticks, and leaves are oftentimes practically suctioned to the bottom of the lake or pond. As such, any kind of agitation to help get debris up off the bottom and into the water column (specifically, in *front* of the JetStream's water flow) will greatly speed progress and aid the JetStream's effectiveness.

**The counter-flow factor:** One of the more important nuances to learn about the JetStream is the inherent counter-flow that it creates. This is a scientific cause & effect whereby the water on either side of the main central flow will curl around and run in the opposite direction (depicted below). The trick to combating this counterproductive effect is to either operate your JetStream along a “barrier” of sorts so as to minimize counter-flow on one side, or to rotate the JetStream in small, 10-15 degree increments. Doing so will ensure that the counter-flow will not bring debris back into clean areas.

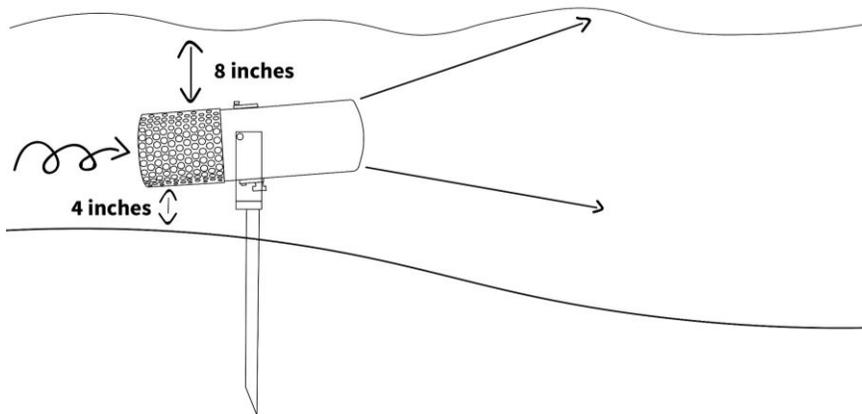


**Wind helps:** Whenever possible, use the JetStream on the upwind side of the area to be cleaned, with the unit’s water flow headed downwind. Working with Mother Nature is *much* more effective than working against her. If your prevailing winds tend to shift from left to right from one day to the next, you may want to start the cleaning process in the center of your shoreline and work left or right depending on wind direction. Note that with any major change in wind direction, so too should your JetStream positioning be adjusted.

**Locomotion:** “Everybody’s doing a brand new dance now” (just checking to make sure you’re still paying attention). Like a locomotive, the JetStream can take a while - up to several minutes - to build up momentum to get the stream established and debris moving. Allowing the stream time to become established will result in much more effective use.

**Cavitation:** The JetStream can be used in water as shallow as 18 inches. However, any shallower and you will either blow trenches in the lake bottom or cause *cavitation* (an entrance of air into water). Cavitation in the JetStream occurs via small air vortices or “tornados” that will form and allow air into the propulsion system via the unit’s intake. This drastically reduces performance. As such, make sure that the JetStream is placed deep enough that cavitation does not occur, which is generally right around 8 inches from the water surface. **TIP:** To avoid cavitation in shallow water, you may use a small rag to cover the top of the JetStream’s intake to remove or greatly reduce this effect. Maintain at least 4 inches from the bottom to avoid excess ingress of bottom-dwelling muck and debris that could cause propeller damage.

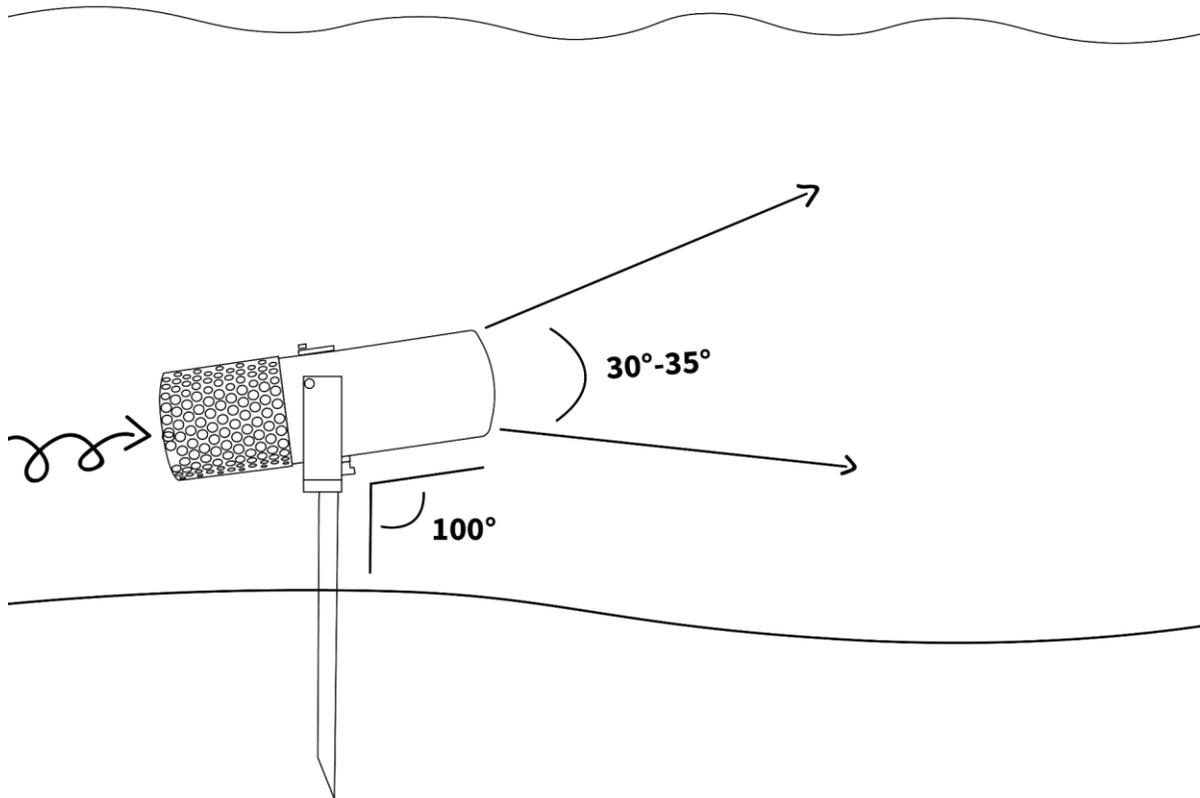
**Submerge the JetStream at least 8 inches underwater to avoid cavitation.**



**The JetStream intake must be at least 4 inches off the bottom, possibly more depending on bottom sediment.**

**Trenching:** Unless you are planning on farming your lake or pond bottom (which we can't imagine you are), you can avoid making trenches by doing two things: Make sure to tilt the unit upwards (which will also enhance effectiveness) and again, avoid placing the JetStream too close to the bottom.

**Water exiting the JetStream will do so at a 30-35 degree angle depending on wind and other factors. Keep this in mind to achieve optimum results.**



**Also mind the slope of the lake bed when using the JetStream in order to avoid digging trenches on the lake/pond bottom. In most cases, this will require pointing it slightly upwards (though this is highly dependent upon each individual situation).**

**Starting out:** The ease of placing the JetStream & stake into your lake bottom will depend upon how dense or hard-packed the bottom is as well as the presence of rocks. Only in the most extreme situations should it be necessary to first drive in the stake (using a rubber mallet and a block of wood to avoid damaging the stake) before placing the JetStream atop the stake. Otherwise, attach the JetStream to the stake first, grasp either end of the JetStream with your hands, and use your weight to drive the stake in. To help facilitate the process, you may apply a bit of a jerking/wiggling motion or use your knee - pushing on the center of the unit - to drive the stake in further.

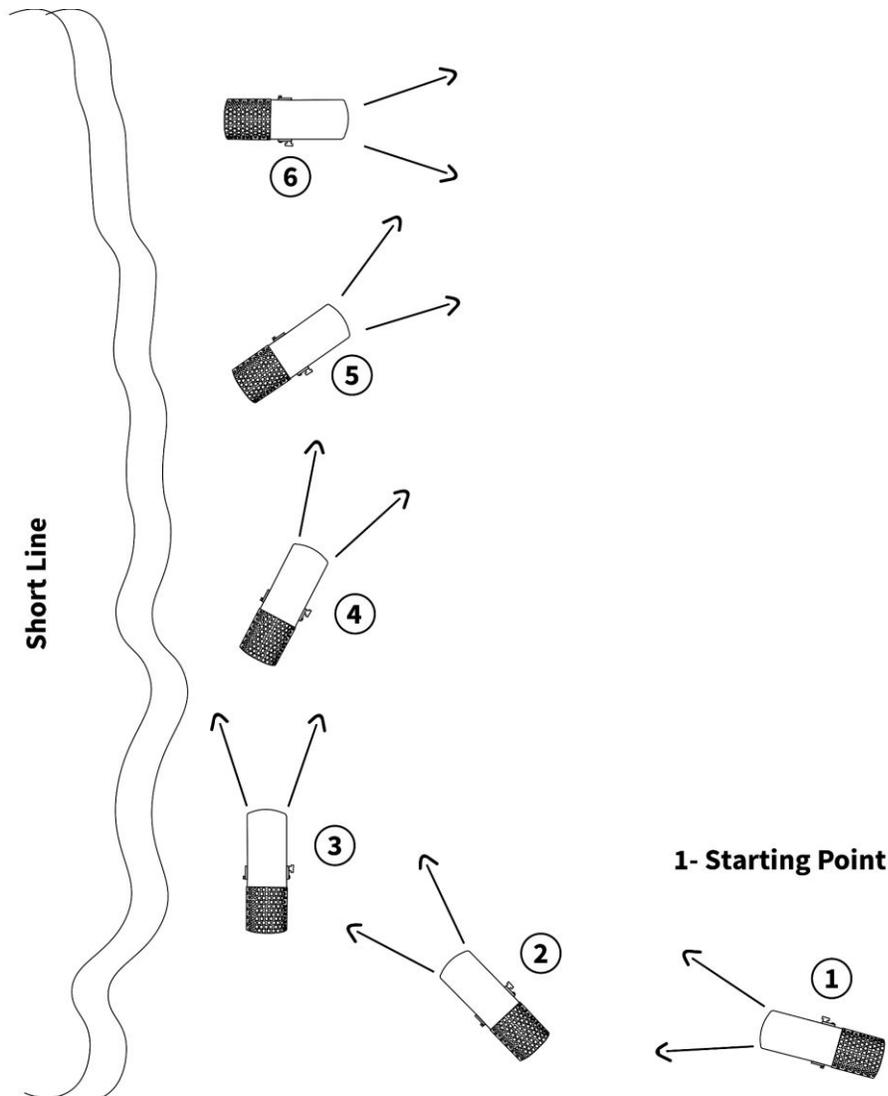
Where to start? We recommend that you start the cleaning process by working out of the cleanest “corner” of your shoreline before moving progressively towards the problem areas. If there are no particularly clear areas from which to start, it's best to start the cleaning process from a single point, preferably upwind. Why wouldn't you start in the most problematic areas? This would be akin to putting an explosive in the middle of a garbage heap in an effort to clean it up (not practical!) As such, avoid placing your JetStream in very mucky areas (anything more than a foot deep/thick should be avoided until muck is reduced). Below we will provide a possible example of first-time JetStream use:

**1)** Stake the JetStream offshore and angle it towards the shoreline. How far out from the shoreline depends; you want to make sure that the flow has enough force to reach the shore and clean said area, but without causing erosion. After the JetStream has cleared a clean path (it should result in a clean, 35-degree angle “V” shape emanating from the front of the unit) it is ready to be moved and staked in a new position. See graph depicted on page 7 for visual representation.

**2)** Stake the JetStream closer to the shore, following the downwind leg of the clean “V”. This will open the “V” shape until eventually the clean area will resemble an “L” shape with a fairly “edge” separating the clean and debris-filled areas.

**3)** Continue to place the JetStream further down the continually widening leg of the clean area until the JetStream is blowing parallel to the shoreline. This will probably require 3-4 total movements/placements of the JetStream because rotation should be done in small increments (10-15 degrees at a time). If necessary, you may continue the process until the JetStream is pushing water back out towards the middle of your lake or pond.

Keep in mind that this is not the only process that will work. In fact, this same process may be repeated in reverse, pointing the opposite direction, with equally positive results. It will really depend on finding the right starting point, with the main factors that were discussed above (wind, depth, and muck) making the ultimate determination.



**Aeration:** One of the JetStream’s best features is that it can be used to clear debris and aerate your lake or pond at the same time. JetStream use will cause bubbling and substantial agitation at the water’s surface, which will oxygenate and aid the nearby area greatly, benefitting fish, reducing the presence of algae, and enhancing water quality. It will also provide clarity to your water and reduce foul odors and other maladies. Whether or not aeration is your main goal, the JetStream should always be pointed upwards at a 100-degree angle or more. This will result in more effective water movement and further enhance aeration. Naturally, the closer the JetStream is to the surface and the greater the angle, the more effective it will be as an aerator.

Targeting Surface Debris & Weeds: When encroaching weeds and surface debris are the main problem, position the JetStream a foot or more below the water's surface so that it may blow "upwards" at its targets. Shoot for something between a 100-degree to 120-degree angle (of course, keeping in mind the vertical limits of the JetStream due to cavitation and trenching on the high and low ends, respectively). The higher angles - opposed to a 90-degree, "flat" angle - will keep weeds and surface debris suspended in the water column long enough to move them far away.

Targeting Bottom Debris & Muck: Referring back to the images on pages 4 and 5, it is important when targeting bottom-dwelling debris and muck to maintain a water exit angle that matches the slope of your lake bed. This angle, though not pointed directly at the target, will help to avoid trenching and still take care of bottom-dwelling debris and muck. It is also important to remember that the unit should be at least 4 inches away from the bottom of the lake or pond debris. In case of substantial amounts of debris or muck, that distance should be increased progressively to avoid damage to the propeller, which can be caused when the large amount of sediment that is driven into the water column is pulled through the unit. As a general rule of thumb, the 4 inch minimum distance should be increased by a half inch for every 3 inches of bottom debris/muck present.

Clogging: As the JetStream runs, it creates a "sucking" effect that can attract floating debris and weeds, which may become stuck on the unit's intake. For best results and most effective JetStream operation, it is important that the unit's perforated intake screen is kept clear of weeds and debris to allow for unimpeded water flow. While a few stray weeds won't impede operation much at all, a large group of "cling-ons" are not a good thing (just ask Captain Kirk). Periodic checks on your JetStream to assure the weed accumulation isn't too serious are encouraged, and if there are weeds, simply brush them forward, where the JetStream's flow will push them away. **TIP:** In cases where weed growth is very heavy, installing some chicken wire around your unit can work wonders, as well as make weed collection much easier.

**JetStream Mounting Options:** The JetStream offers many mounting options beyond the standard mounting stake to give optimum flexibility of use. Below we will cover installation instructions and features of each. In the case of all mounting options, use will depend on the goal, as discussed in the sections above.

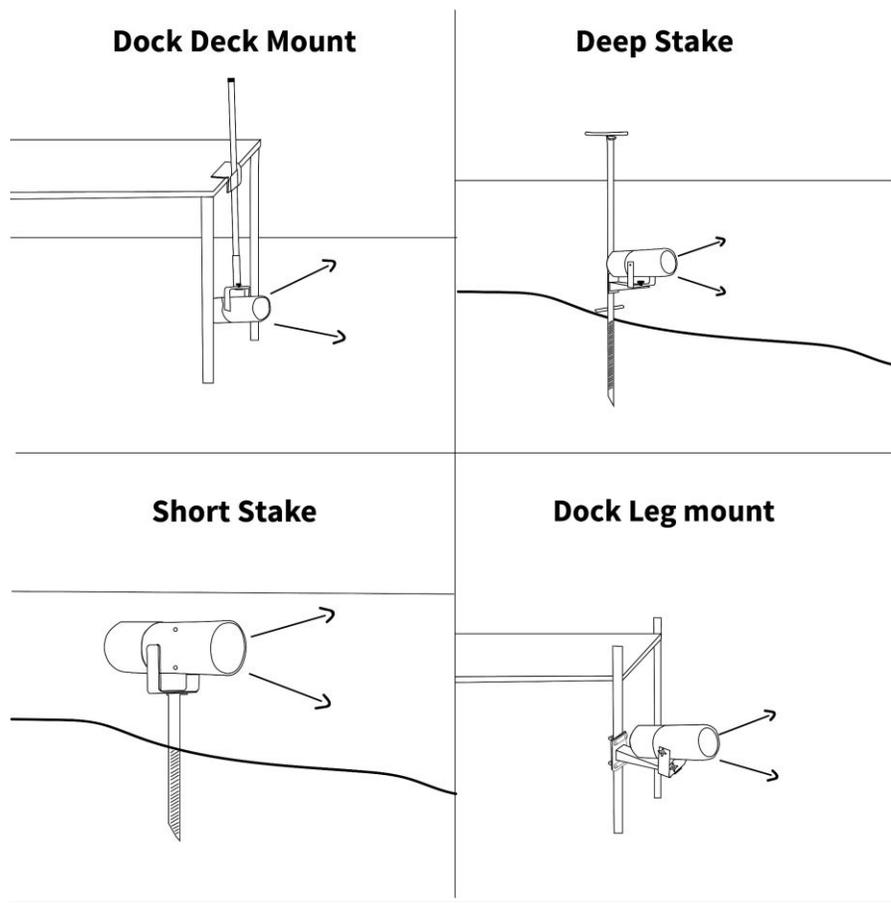
**Dock Deck Mount:** The Dock Deck Mount is a convenient option providing those with docks an option to control their JetStream's vertical and horizontal movements from outside of the water. It comes in 3 pieces; a 1.5-inch tube, a mounting plate, and an adjustable collar. The mounting plate is first attached to the dock via 2-4 screws or bolts. The 6-foot tube will then be inserted into the mounting plate, and the collar will be placed on last, sitting on top of the mounting plate. Lastly, the JetStream will be attached to the bottom of the tube via a "hanging" configuration, with the JetStream's mounting bracket facing upwards and attached via the tightening knob. The mounting collar may be adjusted to move the tube in order to control height and rotation conveniently from your dock. This means that you may use your JetStream without the need to get in the water - great for any cats that may be in charge of JetStream operation, we might add.

**Dock Leg Mount:** The Dock Leg Mount is a more simplistic dock mount option featuring a "leg" on top of which the JetStream sits, attached to your dock supports via 2 U-bolts. It can rotate a full 360 degrees and may be moved vertically along dock leg supports as well as from one support to another by loosening/tightening the U-bolts. Installation is a breeze - after fastening the U-bolts, simply tighten the JetStream's mounting knob when the desired position is obtained and you'll be ready to go!

**Concrete Disk Mount:** The Concrete Disk Mount, lovingly referred to as "The Pancake" here at Admiral, allows for convenient use at the bottom of lakes and ponds. It is mobile and ideal for shallow water mounting, especially when rocks are present that impede stake usage. By tying a rope to the eye hook at the front of the disc, it can be easily dragged from one area to another, and rotated by pulling the rope from side to side. The low footprint of the concrete disc mount makes removal of bottom debris very effective. As is the case with all

JetStream mounts, vertical angles may be adjusted via tightening/loosening the knob on the aluminum bracket.

**Deep Stake Mount:** The Deep Stake is an excellent deep water option that combines the mobility of the short stake with all of the advantages of the Dock Leg Mount. How, you ask? The Deep Stake is simply a longer stake (nearly 8 feet) with a Dock Leg Mount attached to the upper part of the stake. As such, that upper “arm” of the mount can be attached there and then easily moved to your dock by swapping the Deep Stake-specific U-bolts for U-bolts that fit your dock supports. The Deep Stake features full rotation of the JetStream as well as 4.5 feet of vertical JetStream movement along its upper half via U-bolt adjustment of the upper arm. When “planting” the Deep Stake, look for an area with few to no rocks, and push the tip of the stake as far down as possible into the lakebed, stepping on the horizontal metal bar 1/3 of the way up the stake while gripping the handles above. If necessary, a bit of “hopping” up and down can help get the job done.



Tips for Longevity: Your JetStream will provide years of dependable service provided that it is properly cared for. 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 on unimpeded water flow - not only to provide the best performance possible - but also to also keep the motor cool. As such, it is very important to make sure that the unit remains submerged in the water during use, and to a lesser extent that the perforated intake screen is kept at least somewhat clear of weeds/debris. If you live in a frigid climate, the JetStream may also serve as a de-icer in the winter. However, it is important that when you are not running the unit, your JetStream be stored in an area above 32 degrees so as to avoid water in the unit freezing.

Keep in mind that while your JetStream 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.

Lastly, we recommend that the zinc anode that comes included on most post-2021 models be replaced once every season or two. Indicators that your anode is ready to be replaced are either that the anode has turned a "white" color or has visibly shrunk to 50% or less of its original size (2.5 to 3 inches in diameter and ~.5 centimeters in thickness). In order to replace the anode, simply remove the original screw that held the anode - located at the end of the aluminum intake - put the new anode on the screw, and tighten, leaving the anode placed snugly against the outside end of the intake. Be careful not to tighten too hard or you can distort the shape of your unit's intake. If you have purchased a unit made in 2021 or earlier and would like to order an anode, please contact us.

## The infamous “What not to do’s”:

Doing the following could damage your JetStream and/or void its warranty. So.....

- 1) Don't start the unit while laying on its side in shallow water. Doing so will suck in bottom sediment and almost certainly ruin the propeller.
- 2) Do not store or leave the JetStream disconnected in temperatures below freezing.
- 3) The JetStream should not be run when children are present.
- 4) The JetStream should only be used by adults familiar with its operation.
- 5) Don't use extension cords. This will void your warranty and may damage or compromise the unit if the cord gauge is insufficient.
- 6) Connect only to a GFI outlet and make sure electrical leading up to GFI is apt for connection (at least a 15 amp breaker, sufficient cord gauge).
- 7) Never stick hands, feet or objects into either end of the JetStream.
- 8) Finally, do not attempt to eat or stick the JetStream 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!



