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FreshWater Salt System Water Chemistry

Important Start Up Tips

- **ALWAYS** turn off power when draining your hot tub.
- When refilling your hot tub, always refill through your **filter compartment**. Stick your garden hose down the main filter standpipe (generally under the grey cap). This allows the tub to be filled through the plumbing lines first and then enter the pool of the tub avoiding air locks and going into protection mode.
- **NEVER REFILL A HOT TUB WITH HOT WATER**, always use cold or tempered water.

Start Up

1. Add CU LATER metal remover floater to the tub during fill up.
2. Phosphate levels need to be below 300 ppb, but not 0 ppb.
 - a. Use Phosphate test strips to check level and follow bottle instructions to lower Phosphates into ideal range. Do not overdose.
3. Insert the Freshwater Silver Ion Cartridge into the grey standpipe in your filter compartment.
Cartridges have a lifespan of 4 months
4. Get the temperature above 100 degrees. Use a test strip and check levels:
 - a. Maintain total alkalinity between 40ppm – 120ppm
 - i. If total alkalinity is low use Total Alkalinity Increaser to raise levels
 - ii. If total alkalinity is high use pH Decreaser to lower levels
 - iii. After adjusting total alkalinity wait 8 hrs before checking and adjusting pH. However, you can move on and adjust calcium hardness/chlorine in the meantime. ***Total alkalinity affects pH and therefore needs to stabilize before you can get an accurate reading***
 - b. Maintain pH between 7.2 – 7.8.
 - i. If pH is low after adjusting total alkalinity use pH Increaser to raise levels
 - ii. If pH is high after adjusting total alkalinity use pH Decreaser to lower levels
 - c. Maintain Calcium Hardness below 75 ppm
 - i. If calcium hardness is high use a Vanishing Act Calcium Removing pillow
5. **Adjust Free Chlorine level to 5 ppm**
 - a. **Add 1 tablespoon of Chlorine Concentrate at start-up, test with a test strip immediately to confirm 5ppm or more of chlorine is registering. If not, add another tablespoon until 5ppm is hit. Then add 1 tablespoon of Chlorine Concentrate at a time (every few hours) over the first 1-3 days of start up until chlorine shows 3-5ppm six hours after the last addition of chlorine.**
6. Approximately Day 3 or 4 of Ownership - Add Salt: one cup at a time (allow 5 minutes for each cup to dissolve) through the filter compartment (usually 5-13 cups depending on hot tub size). Salt level should be between 1,500ppm-2,000ppm (1,750 ppm ideal) – **saltwater test strips are the most accurate way to test salt level.**



- a. Ensure that the “System Status Meter” under the Water Droplet/Salt System menu is in the green. If it is too low add additional salt ½ cup at a time until the proper level is reached. This meter measures more than just salt content.
 - b. Set Output: Water Droplet (Salt System menu)-Water Droplet with Level
 - i. Initially, set output at 10 and stop adding Chlorinating Concentrate
 - ii. Reduce output by one level each day until a consistent 3-5 ppm is being maintained solely by the salt system. 3-8 is the typical range for most users (3 for couples and infrequent use, 8 for families with frequent usage).
 - iii. You will not need to supplement with additional chlorine
 - iv. You will need to use the Boost function when your tub is being used more than normal. Boost before and after.
7. Start-up video located here: [Allen Youtube Channel](#)



Weekly

1. Use 5-way test strip, check levels, and adjust pH and alkalinity accordingly
 - a. Through the production of chlorine with the salt system, the process will raise pH and high pH is very common. Consider adding 1 tablespoon of pH Decreaser weekly to help maintain pH levels.
2. Confirm salt system output (the logo light will flash as a reminder every 10 days)
3. Add 1 teaspoon of Chlorine Concentrate weekly if needed (will clear cloudy water)
4. Add 1 fl oz of Phosphate Remover if needed
5. Add Silk Balance dosage shown on bottle cap
6. Rotate filters

Monthly

1. Remove filters and rinse them with a high-pressure hose monthly.
 - a. TriX filters (hard, ceramic filters standard on Highlife Collection tubs) can be cleaned in the dishwasher by using a hot water rinse, no detergent, and with the heat dry cycle off.
2. Remove your filters and soak them in a solution of the Filter Cleaner pod or Liquid Filter Cleaner and water. Follow cleaner recommendations for process.
 - a. DO NOT use filter cleaner pods (or any cleaner/soap) in the dishwasher
 - b. It is best to let filters air dry for 24 hrs before putting them back into the tub. Consider getting a second set of filters to be able to use the tub while the other set of filters are being cleaned or drying.

Every 4 Months

1. Replace Salt System cartridge (**your hot tub control panel will tell you when your salt system cartridge needs to be replaced, each cartridge lasts up to 4 months**). Detailed instructions on how to replace a salt system cartridge can be found on the hot tub’s control panel or in the FreshWater Salt System owner’s manual.



- a. Press the “Replace Cartridge” button on the control panel and follow the on-screen instructions. **ALWAYS HIT THE “REPLACE CARTRIDGE” BUTTON BEFORE REMOVAL.**
- b. Remove the housing cap
- c. Press the button on top of the cartridge and remove the cartridge from the housing
- d. Insert the new cartridge by pressing the button on top of the cartridge and push it into housing
- e. Secure the housing cap
- f. Follow instructions on control panel to complete the installation

Near the end of a salt cartridges life, you may start to experience false “low salt” readings. It is important to double check and verify your salt level with a salt test strip before adding more salt

2. Replace Silver Ion Cartridge located in your filter standpipe.

Important Tips

1. **Heavy Usage:**

- a. When you first get your hot tub there is a tendency for customers to **experience cloudiness due to high usage**. Most of our dosing recommendations are based on two people using the tub a few times a week. **If more people are using the tub more frequently you may need to use the Boost function more frequently.**
- b. **Laundry detergent, body oils, lotions, hair products** are the main things that cause cloudiness or foaming in the tub. If you are wearing bathing suits, be sure that you run them through a warm water rinse cycle in the washer without detergent and make that bathing suit your dedicated hot tub suit. Also encourage guests to rinse off before entering the tub.

2. **Winter Weather:**

- a. **IF THE POWER GOES OUT DO NOT DRAIN YOUR HOT TUB**
- b. **DO NOT DRAIN AND REFILL YOUR HOT TUB IF THE TEMPERATURE OUTSIDE IS BELOW 32 DEGREES.**
- c. Your Winter Blanket should be installed in your equipment compartment between November through April.
- d. Maintain a temperature of 100 – 104 degrees during winter months. A common misconception is that turning the temperature down will save electricity. Savings are minimal and power outages are common in our area.

3. **Cleaning:**

- a. It is typically necessary to drain and refill your hot tub every 6 months, ideally in the Spring and Fall.
- b. Used properly, the salt system may permit you to extend the life of your water to 12 months. We would recommend draining each fall to ensure the tub will not need to be drained and refilled during the winter months.
- c. If you ever experience a buildup of dirt and oils along the water line, Mr. Clean Magic Erasers work very well for cleaning the water line.