

# SPA WATER MAINTENANCE GUIDE

A SIMPLE, EASY GUIDE TO KEEPING  
YOUR SPA WATER PROPERLY  
BALANCED

# COLD WEATHER STARTUP

Filling a Spa with cold Well or City Water? Putting 45 degree water into a Spa that has been sitting outside in temperatures below 25 degrees is not recommended. If the Spa has any residual wetness inside the pumps from factory testing, the impellers could be stuck. Turning on the Spa may or may not free the impellers, but the spa will likely go into freeze protection mode instantly. If the impellers are stuck, the pump fuse(s) could easily blow. At temperatures less than 10 degrees, water will flash-freeze on contact with plastic or metal parts.

If it's not possible to wait for moderating temperatures, our suggestion is to put a small electric ceramic space heater inside the spa cabinet overnight to pre-warm the plumbing before putting cold water into the spa. These types of inexpensive small space heaters are available at many discount stores and home centers, and are the same kind often used to place under desks in cold offices.

# CONGRATULATIONS ON THE PURCHASE OF YOUR NEW MASTER SPA!

Spas are meant to be fun, healthful and relaxing. To make maintaining your spa as easy and effortless as possible, we have divided this simple booklet into the types of care your spa will need:

*\*Routine maintenance of your spa water to keep it crystal clear.*

*\*What to do if your water has some type of problem, such as cloudiness, foam, etc.*

*\*Maintenance of your spa surface and cover. Protection and maintenance of your spa equipment.*

*\*Accessory products such as test strips, fragrances, etc.*

Our spa products are the finest quality warm water treatment products (chemicals) available. Each is designed for a specific job and the directions should always be followed carefully. Caring for your spa is different from caring for a swimming pool because of the water temperature and the number of people to gallons of water ratio. Chemicals, to be strong enough to be effective, can be harmful if misused. Always keep them where children and pets can't reach them.

The manual that came with your spa will tell you how many gallons it holds so that you can determine the correct amount of each product to use. Always follow the directions on the container.

**Master Spas**

800-860-7727

Okay, your spa has been delivered and the  
Electrician has finished his work.

### **What now?**

**START UP:** Actually, there's very little you need to do before beginning to enjoy your spa. It has been cleaned and polished at the factory, but you may want to wipe it down with a damp cloth to eliminate any surface dust. Your spa manual has instructions on how to check the equipment area to be sure the drain hose is closed and the gate valves are all open.

**FILL YOUR SPA:** Your garden hose is just fine to fill your spa, but first run some water through it to eliminate any standing water. Put the end of the hose in the filter hole and turn on the water. This keeps the hose from spewing water everywhere and makes the water fill from the bottom jets. Filling in this manner eliminates air in your lines. Fill to the top of the highest jets (not counting neck jets) and be sure water comes to about 3 inches above the top of the filter basket. This is usually just below the head rests.

**TURNING ON THE PUMP:** Turn the pump on before adding any spa products so that they will circulate through the water. The heater comes on automatically based on the temperature of the water when the pump is operating.

**WHY TREAT THE WATER?** There are 2 reasons chemical products are needed. The temperature of the water and the number of people using the spa. Deodorant, perfumes, residual soaps, cosmetics and natural body oils are released into the water and contaminate it.

4 people using a spa is the equivalent to 300 people in an average size swimming pool. Pool chemicals and spa chemicals are formulated differently for their specific situations.

Our spa products are powerful compounds designed specifically to deal with various types of contaminants and keep your spa water clear, fresh and pure. They protect your spa and its mechanical components.

## **SPA WATER TESTING**

It's important to test your spa water at least twice a week. pH level, Total Alkalinity and Chlorine levels should be checked each time you use your test strips. Depending on the type of spa you have, how much use it gets and other factors, you may need to check your levels more often. Always test the water before and after adding chemicals. MORE IS NOT BETTER.

**NOTE:** For ease of use, our instructions in this book are based on an average spa holding 350 to 500 gallons. If your spa is smaller or larger, you will need to use slightly more or less. Read bottle levels for actual dosages.

## THE FIRST DAY

To protect your equipment and keep the water clear and balanced, we recommend that you add the following products to the water before using your spa for the first time. With the pump running, add the following products to the water and wait about 5 minutes for them to circulate. Wait 30 minutes between adding different chemicals.

- 1. Metal Gon/Metal Protect** Add 16oz. This should be added ONLY when filling your spa.
- 2. pH Up or pH Down** Once the spa is hot, test the water using test strips to check pH, Alkalinity and Chlorine levels and adjust accordingly.
- 3. Stain and Scale Defense/Defender** Add 2oz. to the water to prevent scale from developing on the surface of your spa.
- 4. Oxidizing Shock** Add 2oz. when filling your spa. (Add 2oz. PER PERSON EVERY TIME you get out).
- 5. Clarifier** Add 2oz. to the water to help remove small particles and oils.
- 6. Chlorine (Chlorinating granules)** Chlorine may be added directly to your spa water. Sprinkle 2 capfuls over the surface. We recommend anywhere from 1-4 tablespoons per week, depending on frequency of use, number of people, etc. You'll have to find your magic number for the Chlorine to be where it needs to be on the test strip. Add Chlorine last. Always keep the cover at least ½ open after adding Chlorine to allow the gases to release. This helps prevent damage to the inside of the cover and an overpowering smell. Wait 30-60 min to re-test and enter.

\*If you don't mind cold water, you can jump in now. Your water will heat at the rate of about 3-4 degrees per hour.

## WEEKLY MAINTENANCE (example)

### MONDAY AND WEDNESDAY

Use test strips to check pH, Alkalinity and Chlorine.

### WEDNESDAY

Add 2oz. Stain and Scale Defense/Defender

Add 2oz. Clarifier

Add 1-4 tablespoons of Chlorine

\*On a regular basis: Add 2oz. of Shock per person, **each time** you get out.

### MONTHLY

The best way to clean the inside of your spa is with a Mr. Clean Magic Eraser and water. Get a cleaner for your spa cover and head rests to clean and protect them.

Clean your filters weekly with the Easy Clean 6000 (bright yellow hose attachment). Filters play an important role in maintaining water quality. Check weekly to make sure filters are clean and operating properly. Remove the filter and wash away surface dirt using your garden hose and Easy Clean 6000. In Winter months, use your kitchen sink sprayer/laundry sink or even bathtub/shower to clean them.

Every few months, soak the filters (but NOT the inner mineral filter) overnight in a filter cleaning solution to remove embedded impurities. After cleaning, hose down the filter again and put them back in your spa's filter compartment.

**\*Maintain your spa in proper mechanical order, immediately replacing broken or lost parts.**

## EVERY 6 – 9 MONTHS

Use a Spa and Tub Flush prior to draining the spa in order to clean the plumbing. Drain and refill your spa. If it's heavily used, you'll need to do this more often.

Clean the filter overnight with a filter cleaning solution. Clean and protect the cover and head rests. Repeat the "First day steps", adding:

16oz. Metal Protect/Metal Gon

2oz. Stain and Scale/Defender

2oz. Clarifier

Chlorine as needed

### SPA WATER BALANCE

There are 2 important factors in proper water balance: pH and total Alkalinity.

**pH:** Potential Hydrogen. The pH number measures acidity in the spa water. The reading on your test strip should be between 7.2 and 7.6. The ideal reading is 7.4. Low pH can cause corrosive damage to the spa, pumps and support equipment. High pH can cause scale build up and reduces the effectiveness of the spa sanitizers. Regular use of the proper spa care solutions should prevent problems. pH can be adjusted by using pH Up or pH Down.

**TOTAL ALKALINITY:** This measures the water's ability to resist a change in the pH. Improper alkalinity can cause the pH reading to fluctuate and give false information. For most spas, the range should be between 80ppm and 120ppm. To lower high alkalinity, use pH Down. To raise low alkalinity, use pH Up.

**OXIDIZER/SHOCK:** This activates Chlorine to kill bacteria, helps keep water clear and eliminates odors.

**SANITATION:** Sanitation is the process of destroying harmful bacteria and organisms that can cause problems in a spa and keep the water from being pure and clear. The most common compound used in spas to keep them sanitary is Chlorine.

**SPA WATER FILTRATION AND CLARITY:** Spa filters are designed to trap and remove larger particles of debris. Most spas are equipped with woven fiber type elements and **MUST** be cleaned on a regular basis to prevent damage to the filter itself, and the other equipment in your spa. We recommend cleaning them weekly, by just spraying them off with water from a hose or sprayer. Deep clean the filter by soaking it in a filter cleaning solution to loosen oils and trapped contaminants, according to the bottle's directions. Rinse with clean water and replace. It's a good idea to have a spare set of filters to use while the dirty ones are being cleaned.

**HIGH pH:** (Above 7.8). Add pH Down in the quantity indicated on the bottle to bring the level to 7.2 to 7.6. Retest in 5 minutes.

**LOW pH:** (Below 7.4). Add 2 ½ capfuls of pH Up. Retest in 5 minutes.

**ALKALINITY:** If your pH is in the acceptable range, alkalinity normally will be fine. When alkalinity is not in the 80 to 120 range, it can be adjusted with either pH Up or pH Down. Follow the instructions on the containers. Alkalinity problems can cause erratic pH readings or make maintaining pH balance difficult.

**LOW CHLORINE:** (Below 3 ppm). Sprinkle a small handful (approx. 5 tbsp) of chlorinating granules over the surface of the water and re-check 30-60 min later, until a reading of 3-5 ppm is reached on your test strip.

**HIGH CHLORINE:** Open or remove the cover on your spa for a couple of hours or drain at least half of the water out of your spa and then add fresh water. Retest.

## NORMAL WATER TREATMENT

### PRODUCT

### WHAT IT DOES

#### Clarifier

Keeps water clear but doesn't fix it if it becomes cloudy. Breaks down body oils and particles to make cleaning the filters easier.

#### Filter Clean

Available in liquid and powder. Deep cleans filters for cleaner water.

#### pH Up

Raises pH in water.

#### pH Down

Lowers pH in water.

#### Oxidizer (Shock)

A non-chlorine powder that eliminates odors, reduces irritants in spa water, helps with water clarity and activates chlorine to kill bacteria.

#### Chlorinating Granules

Granules formulated to kill bacteria and disinfect warm spa water.

#### Mineral Filter

Purifies water the same way nature purifies water with all natural minerals and elemental silver.

#### Spa and Tub Flush

Stops the growth of bacteria in the lines. Removes buildup of scale and other particles.

## EQUIPMENT PROTECTION

### PRODUCT

### WHAT IT DOES

#### **Scale Defense**

Prevents calcium stain and scale buildup on spa surfaces, water lines and inside heaters and pumps.

#### **Metal Protect**

Prevents metal particles from staining and damaging spa surface and equipment. Especially designed for spa water temperatures and high filtration rates.

#### **Troubled Water**

Foam, scum, colored, cloudiness or unpleasant odors indicate something is out of balance in your spa water. There are spa products that are carefully formulated to correct the problems.

#### **Foam**

Spa water foam is the natural result of mixing body oils, detergents, lotions and warm water. Asking bathers to shower before entering the spa will help, but if excessive foam becomes a problem, it can be controlled by using Unique.

## **BE SAFE!! PHYSICAL CONDITION:**

- PHYSICAL PROBLEMS:** If you have a history of heart disease, circulatory problems, diabetes, blood pressure problems or are pregnant, it is wise to check with your physician before using a spa.
- MEDICATIONS:** If you're taking antihistamines, tranquilizers or anticoagulants-any medications that may cause drowsiness-consult your physician before using your spa.
- ALCOHOL/DRUGS:** Don't drink alcoholic beverages or use narcotics before using your spa or while you are in it. These conditions, combined with hot water, could lead to drowsiness or even unconsciousness.
- SKIN PROBLEMS:** People with skin, ear or other body infections or open sores or wounds should not use the spa while these conditions exist.
- THE WATER:** Spa water should never be warmer than 104 degrees F. The warmer the water, the less time you should spend in it. DO NOT allow children to use the spa without supervision.
- GENERAL SAFETY:** Do not use electrical appliances or the telephone while using your spa. It's a good idea to keep a list of emergency phone numbers and procedures nearby and in plain sight. Make sure your spa wiring conforms with the National Electrical Code, all relevant local codes and Underwriter Laboratories (UL) specifications.

## **REGULAR MAINTENANCE IS IMPORTANT**

A regular weekly maintenance program will protect your spa and spa equipment and ensure that your investment will give you many years of pleasure. While maintaining your spa properly takes only a few minutes each week, it is vitally important.

The warmth of the water is what makes your spa so enjoyable. Unfortunately, bacteria love it too! Regular water treatment will keep water clear and fresh and prevent problems from developing. Chlorine kills bacteria and disinfects warm spa water.

Probably the most important element in maintaining your spa is keeping the pH and alkalinity properly balanced. A high pH reading is not as crucial, but low pH, over a prolonged period, attacks the heater elements, the seals on your pump and other mechanical elements. Proper alkalinity balance is important for maintaining the pH balance. Damage from improper chemical usage is not covered under your warranty.

### **A FEW CAUTIONS**

\*Always add chemical products to the water. Never add water to chemicals.

\*DO NOT smoke around spa chemicals.

\*DO NOT add chemicals directly into skimmer.

\*Allow about an hour for the chemicals to dissolve and disperse through the spa water before you go in the water.

\*Pour liquid products slowly to avoid splashing.

# CHEMICALS

**Chlorine:** Kills bacteria. 1-4 tbsp/week. Wait 40min before closing cover after adding. It'll register 1 hour after adding. You may have to add a lot until it registers on the test strip. Start with 5 tbsp. Re-check until it's in the ok range on the test strip. Too much, open the cover for a few hours or drain 1/2 of the water and add fresh water. Retest. (Doesn't need to be in the "okay" range all the time). White = more Chlorine because there's still too much bacteria in water.

**Oxidizer/Shock:** Non-Chlorine booster. Puts more Oxygen in the water which activates the Chlorine which is what kills the bacteria. It will also help with removing impurities like sweat, body oil and lotions. Helps control odors. 1 capful per person, each time you exit the tub. Use tub multiple times in the day, just use when you're done using it.

**PH Down:** Use when Alkalinity is high. Low PH can cause corrosive damage to the spa, pumps and support equipment. Used a lot in Minnesota where there's a lot of Iron in the water.

**PH Up:** Use when Alkalinity is low. \*Alkalinity is moved by PH Up and Down. It takes a lot to move so it's possible to use a lot of either Up or Down to get the Alkalinity where it needs to be. High PH can cause scale build up and reduces effectiveness of sanitizers.

**Clarifier:** Clarifies cloudy water, controls oil, scum and excess metals. For use with all sanitizers. Makes cleaning filters faster and easier. Ok to use weekly for maintenance.

**Unique:** Great for foam, cloudy water, Well water. Removes Iron, stains, rust, scum, foam. Smells like Fish Oil. Keep cover open for at least 40min after adding. 1 hour after, clean filters really well. Don't leave in direct sunlight. Only good if it's purple.

**Stain and Scale Control:** Prevents stains from body oil, rust, etc. and creating a "ring" around the tub (calcium stain), prevents scale buildup on surfaces, water lines, heaters and pumps.

**Defoamer:** Helps reduce foam, prevents a lot of foam- doesn't totally get rid of it. Scoop out with your hand. Unique is the best.

**The Natural:** Conditions water, softens and moisturizes skin. Has Vitamins A, B, C and E. Helps balance PH and Alkalinity. Helps prevent scum lines. Not necessary for water. New bottle every 90 days.

**Bromine: Do not use in Master Spas.** It eats away the shell and plumbing faster than Chlorine.

**Oxy-Brite:** Shock that turns water a light blue. Use the same as regular Shock.

**Spa Increaser/Decreaser:** Same as PH Up and Down. Liquid, so faster and more effective.

**System Flush:** Use when changing water. Stops the growth of bacteria in the lines, removes buildup of scale and other particles. Remove filters, put in tub for a while, drain. Flushes out plumbing. Clean filters before putting them back.

**Algimycin:** Fights algae. 600-3000 for Pools. For Hot Tub, use 1,000, 2,000 or 3,000. Drain 24hrs later.

**Spa Pure Hardness Increaser:** Helps get more calcium. (Liquid Calcium hardness-up is the same).

**Pre-Filter:** Attaches to garden hose to fill tub. Good for hard water and/or well water. Run 1min before putting water in the spa.

**Watertite:** Pool or tub small leaks, helps prevent leaks.

**Metal Gone/Metal Protect:** Prevents build-up of Iron and other Metals in spa water. It sequesters Iron, Copper and other minerals to prevent stains on spa surfaces. It's highly concentrated and only needs to be added at start up (new water).

**PhosFight:** Gets rid of Phosphorus. Use the whole bottle.

**Test Strips:** They have a shelf life of 1year. Wait 30min-1hr before testing water after adding chemicals. Only worry about Chlorine, Alkalinity and PH.

**Scumballs:** soaks up body oils. Squeeze outside tub every few days. Should last about a month. Toss when it starts coming off in chunks.

## COMMON RULES:

**Don't add different chemicals together at the same time.** (Chlorine, Shock, Clarifier, etc., wait 30min between each one).

**Clean Filters every week.** Mineral Filters only get sprayed with water-no treatment liquids. Replace every 6mo. Use Filter Cleaner on outer filters only, use according to bottle instructions. Clean more often when having chemical issues. Use hose, tub, sink, etc. Don't cross contaminate with dirt, etc. Use Easy Clean 6000, or thumb. Don't use pressure washer. Will help outer filters last 1+years, otherwise only 6-8 mo. More oil saturates filters, pumps have to work harder to get it to the filters. Always clean filters after fixing any water issues.

**Fill all Spas through the Filter area** with the Filters IN. This prevents air bubbles and air lock in the pumps.

**Do not use tablet dispensers of any kind.** Because of our Ozone Generator and mineral filtration system, it keeps the Chlorine active. Constant dispensing of Chlorine is actually too much and can cause damage.

## WATER ISSUES:

**Green Water:** It could be from adding chemicals together, using Bromine (don't use), or too much Iron in the water. Use a Metal Protect and Scale Defense. Clean Filters, check PH and ALK, adjust if needed. Run 15-20min. If still green, add 5 tbsp Chlorine. Continuously clean filters. If still green, drain water.

**Yellow Water:** 1 splash every day of Unique. PH Down every day for 3-4 days- 2 big capfuls, wait one day, adjust until it's where it should be. Clean filters frequently while fixing this and weekly going forward.

**Blue Water:** Too much Chlorine (sanitizer). Blue water cannot be fixed. Drain water and start over.

**Purple Water/Crystals/Sand:** There's too much Calcium, Alkalinity and PH is off. Add chemicals separately, 20-30min between. Balance PH and ALK. Wipe crystals away (if tub is empty) or use wet/dry vac or sump pump if full. Add 2-4oz Stain and Scale Defense or Metal Protect. Wait 30min, wipe down shell with rag. Do this weekly afterward.

## WATER ISSUES:

**Brown Water:** Too much Iron (can't help in MN) and filters are clogged up. Rinse Filters and run 30min-1 hour. Take out filters, rinse, run. Repeat until it's no longer Brown.

**Foam:** Could be from using certain laundry detergent, combining chemicals, not washing filters enough. Tide is the most concentrated detergent, so it will cause bubbles/foam. Don't use any detergent on swimsuits. Don't add chemicals together at the same time. Use Defoamer if desired. Scoop foam out. Still have foam, use Unique-follow bottle instructions.

**Scum Line:** From body oil. Will always be there. Wipe off with clean rag. Use Clarifier- prevents cloudy water, breaks down body oil in the water. Need to clean filters weekly and use Clarifier weekly.

**Algae:** Brought in from different source of water (lake), birds, snails/slugs. Drain immediately.

**CLOUDY WATER:** Varied reasons. Could be from adding chemicals at the same time, having dirty filters, body oils and lotions, make-up, sweat. Try Clarifier or Metal Protect/Metal Gone. Clean filters. Wait one hour. (Clean filters weekly anyways). Make sure to use Shock after each use, 2 tbsp per person. 8oz Unique. Change filter times: Twilight spas: 2 hours twice a day. Legacy spas: 8 hours. If none of these work, drain water to ½. Fill the rest with new water. 4tbsp Chlorine every 3 days for a lot of people/use. If Chlorine doesn't register, that's bad because that means there's a lot of bacteria. Do 5-6 capfuls of Chlorine. Test. If it doesn't register, add 1-2 more. When a lot of people use it in one day, use 5 tbsp after they're done.

**Musty Smell:** it's the cover. Take out the Styrofoam and spray off. Spray cover skin and wipe down. Use white vinegar and water.

\*You can watch you tube videos and "Hot Tub University" videos for help