

Quick Start Guide



Chlorine-Bromine Free System for Spas & Hot Tubs

It takes just a few minutes to read this Guide and master the simple Cleanwater Blue™ System. If you follow these instructions, you'll have a much more carefree spa, and a lot more time to enjoy it since routine maintenance is done just once every two weeks!

IMPORTANT- Your spa's water volume determines product dosages. An easy way to find it is by fill time, since you have to drain and refill the spa anyway. First, clock the time to fill the spa. (Convert minutes & seconds to total seconds). Then, using same hose pressure, time the seconds it takes to fill a 1-gallon container. Divide spa-fill seconds, by gallon-fill seconds, and you have it! Example: Filled spa in 30 minutes (30 x 60 = 1800 seconds) and filled gallon container in 6 seconds. 1800 divided by 6 = 300 gallons.

Write it here: The volume of my spa is _____ gallons.

Easy Startup:

Using your spa water volume (above) calculate product dosages. Write the amounts in the blanks below, before adding anything to the spa water. A handy dosage cup is provided.

1. Drain and clean spa, install clean filter and refill.
2. Test water balance with Cleanwater Blue™ 3-way Test Strips. Adjust Total Alkalinity first, then pH, with water balance products (as described on reverse). The proper ranges for the Cleanwater Blue™ system are:
 - Total Alkalinity: 30-90 ppm
 - pH: 7.2 - 7.6
3. Add 1 tablespoon non-chlorine shock per 150 gallons.
Write it here: Add _____ tablespoons non-chlorine shock to my spa at startup.
4. Add 1 teaspoon dichlor per 250 gallons (optional - recommended, as described on reverse).
Write it here: Add _____ teaspoons dichlor to my spa at startup.
5. Add 10 milliliters of Cleanwater Prep™ per 100 gallons. While spa is heating, allow filtration for 2 to 4 hours or overnight, before proceeding to step 6. Excess calcium will be removed, and deposited to the filter.
Write it here: Add _____ ml Cleanwater Prep™ to my spa at startup.
6. Clean Filter to remove any calcium deposits collected. (**VERY IMPORTANT**)
7. After cleaning filter, add 5 milliliters of Cleanwater Blue™ Algicide/Bactericide per 100 gallons.
Write it here: Add _____ ml Cleanwater Blue™ to my spa at startup.

NOTE: Do not add Cleanwater Purge™ at startup. It is first used in two weeks (below). If using a clarifier, add now and as needed per label directions. Use only natural clarifier products.

After Each Use:

Add 1 to 2 teaspoons non-chlorine shock per 100 gallons.

Write it here: Add _____ teaspoons non-chlorine shock to my spa after each use.

Every 2 Weeks:

1. Test water balance with Cleanwater Blue™ 3-way Test Strips. Adjust Total Alkalinity first, then pH, with water balance products (as described on reverse). The proper ranges for the Cleanwater Blue™ system are:
 - Total Alkalinity: 30-90 ppm
 - pH: 7.2 - 7.6
2. Test copper level with Cleanwater Blue™ 3-way Test Strips. Replenish copper ions by adding Cleanwater Blue™ Algicide/Bactericide with supplied dosage cup, according to this chart:

		Dosage Chart- Every 2 Weeks						
		Gallons:	150	200	300	400	500	700
		Milliliters of Cleanwater Blue™ Algicide/Bactericide to Add:						
Copper Level	0.2 ppm	6	10	12	18	21	30	
	0.5 ppm	3	6	6	10	12	15	
	0.9 ppm	0	0	0	0	0	0	

3. Add 5 milliliters Cleanwater Purge™ Stain & Scale Inhibitor per 100 gallons.

Write it here: Add _____ ml Cleanwater Purge™ to my spa every 2 weeks.

As Needed:

If occasional cloudy water occurs or due to heavy use occurs, shocking with dichlor will normally clear it up quickly. Many spa owners prefer to use non-chlorine shock as their primary shock, but also apply dichlor shock once or twice a month for good measure. Use 1 teaspoon dichlor per 250 gallons.

Every 3 to 4 Months:

Most spa manufacturers recommend that you drain and replace your spa water every 3-4 months, depending upon bather load. After draining, repeat the startup procedure (top).

Helpful Information:

The Cleanwater Blue™ System: The heart of the system is Cleanwater Blue™ copper ion Algicide/Bactericide. The companion products are Cleanwater Prep™ which controls water calcium hardness, and Cleanwater Purge™ which inhibits unwanted stain & scale causing metals, without removing the beneficial copper ions. (Other metal, stain & scale preventing products cannot be used with Cleanwater Blue™). The copper ion levels, as well as Total Alkalinity (TA) and pH are tested with Cleanwater Blue™ 3-way Test Strips. These products all work together to assure the maximum effectiveness of Cleanwater Blue™.

Water Balance: As with any system, proper balance of TA, pH, and Calcium Hardness will ensure optimum effectiveness of Cleanwater Blue™ and clear, comfortable water. Unbalanced water may result in skin & eye irritation, cloudy or discolored water, equipment problems, and ineffective bacteria & algae control. Water balance is tested with Cleanwater Blue™ 3-way Test Strips. Low TA and pH are raised with products labeled with names such as *Alkalinity Up, Spa Up, pH Increaser*, etc. High TA and pH are lowered with products labeled with names such as *Spa Down, pH Decreaser*, etc.

TA & pH are closely related. Proper TA acts as a buffer to pH, preventing fluctuations or "pH bounce." When adjusting water balance, always correct TA first, then if necessary, adjust the pH.

Shocking: All purification systems require periodic shocking of the spa water to oxidize organic material such as dead bacteria cells. Use non-chlorine shock (monopersulfate - MPS) after each use. It is also a good practice, when starting a new system or after a period of neglect, to shock your spa with dichlor (granular chlorine) to help eradicate any existing contaminants. Dichlor can also be used to clear up occasional cloudiness or odor caused by high bather loads or other contamination. (Chlorine will soon dissipate).

Tips:

Filtration: Most spa manufacturers recommend water circulation (filtration) of at least 6 to 8 hours per day for optimum water quality, but you cannot filter too much. Clean cartridge filters in cleaning solution every 2 or 3 months or with each spa water change, and after adding Cleanwater Prep™. Replace annually.

Water Balance Chemicals: When you add a chemical to lower or raise TA or pH, allow the spa water to equilibrate by circulating for a half hour or overnight, before retesting.

Calcium Hardness: A hardness level of under 300 ppm is best for Cleanwater Blue™. Cleanwater Prep™ will help to correct higher calcium. Be sure to clean your filter after adding Cleanwater Prep™, or the trapped calcium will re-dissolve into the water. There is no practical way to lower extremely high calcium except to replace part of the water with water lower in calcium. Low calcium hardness does not generally cause problems with Cleanwater Blue™, so increasing calcium hardness level is not recommended.

Spa Cover: Keep your cover clean, especially the underside, to prevent odor and water cross-contamination.

Dosages: Do not add Cleanwater Blue™ more often than every two weeks. Over-dosing may cause water problems. If you accidentally add too much, simply drain off a portion of the spa water and replace with fresh source water. Test and rebalance as necessary.

Frequently Asked Questions:

Why do I have to know my spa's gallons? For good results, it is essential to add proper dosages of Cleanwater Blue™ system products, as determined by your spa's water volume. Dosing too much, or too little can cause water problems, so correct amounts are very important.

Is Cleanwater Blue™ compatible with other spa chemicals? Cleanwater Blue™ is compatible with chlorine, bromine and the standard water balance chemicals. Do not use it with pH-locking products or with metal and scale reducers, other than Cleanwater Purge™. Not compatible with biguanides or other algicides. Enzyme products and natural clarifiers are compatible. Do not use synthetic flocculants.

What is the shelf life? Cleanwater Blue™ keeps indefinitely, if capped & stored above freezing (32° F).

Can I use Cleanwater Blue™ with my spa's ozonator? Yes! Cleanwater Blue™ is 100% ozone-compatible, and actually enhances the effectiveness of your ozonator.

Is water treated with Cleanwater Blue™ safe? At the recommended application rate of 0.5 to 1.0 ppm, the level of copper introduced is actually LOWER than the maximum allowable ppm of the government standard for safe drinking water. This is one reason why so many people prefer it to chlorine or bromine.

Will Cleanwater Blue™ harm my spa? No, Cleanwater Blue™ is very gentle to spas and equipment.

Is Cleanwater Blue™ expensive to use? Definitely not! Most users find that it is more economical to use than other systems. One reason: it does not "gas off" like other products. During periods when no demand is placed on the copper ions (when spa is not used) Cleanwater Blue™ remains largely undepleted in the water.

Is Cleanwater Blue™ Algicide/Bactericide EPA registered? Yes, it has been rigorously tested for your peace of mind. The EPA registration number is indicated on the Cleanwater Blue™ label.

Troubleshooting:

PROBLEM: Cloudy Water...

- **Cause:** Failure to shock after each use. **Remedy:** Shock with non-chlorine shock or dichlor to oxidize dead cells, oils, scum and organic material. Filter 2-4 hours or overnight.
- **Cause:** High TA or pH or adding too much Alkalinity Increaser. **Remedy:** Lower TA/pH as necessary, to recommended ranges.
- **Cause:** Failure to add Cleanwater Prep™ at startup. **Remedy:** Add 10 ml Cleanwater Prep™ per 100 gallons. Run filter 2-4 hours or overnight. IMPORTANT: Clean filter to remove calcium deposits.
- **Cause:** Failure to perform periodic maintenance. **Remedy:** Check & adjust water every two weeks.
- **Cause:** Adding calcium increaser. **Remedy:** Add 10 ml Cleanwater Prep™ per 100 gallons to remove excess calcium. Run filter 2-4 hours or overnight. IMPORTANT: Clean filter to remove calcium deposits so they do not re-dissolve into the spa water.

PROBLEM: Green or blue tinted, or discolored water...

- **Cause:** TA or pH out of Range. **Remedy:** Test for TA & pH balance. If balance chemicals are added, wait 24 hours for water to equilibrate before retesting or adding more chemicals.
- **Cause:** Over-dose of Cleanwater Blue™. **Remedy:** Do not add more while copper level is above 0.9 ppm. Add 10 ml. Cleanwater Prep™ per 100 gallons. Circulate 2-4 hours or overnight; clean filter.
- **Cause:** Well water. **Remedy:** Dose with Cleanwater Prep™ per instructions at startup. (If adding make-up well water, add 5 ml). If iron is present, add 2 tablespoons non-chlorine shock. Filter 24 hours.

PROBLEM: Musty odor...

- **Cause:** Failure to perform periodic maintenance. **Remedy:** Immediately shock with dichlor, 1 teaspoon per 250 gallons. Check & adjust water every two weeks. Clean spa cover, including underside.

Storage: Do not store Cleanwater Blue™ below 32° F. Read label cautions.

NOTE: This Guide information is reliable to the best of our knowledge. The suggestions contained herein are the opinion of D. Williams & Co. Determine for yourself if these products are suitable for your objectives and applications. D. Williams & Co. makes no guarantee of satisfactory results from reliance on this Guide, and disclaims any liability for any resulting loss or damage. This information is not intended to supersede or conflict with federal, state, or local statutes or regulations.