

# AQUA SMARTE Plus®

REPLACE EVERY 6 MONTHS OR AFTER ONE POOL SEASON, WHICHEVER IS SHORTER.



# AQUA SMARTE Plus® Mineral Activator®

## Patented Mineral Pool Disinfectant Operational Instructions

### Step 1: Preparing the Pool



**1.** Make sure the pool has adequate circulation. The total volume of pool water must completely circulate through the pump and filter at least 1 to 2 times per day. This usually requires 8 to 12 hours of circulation. Check with your dealer for the proper circulation time for your pool.



**2.** Check the pool's filter gauge often and periodically clean the filter per the manufacturer's directions. A dirty filter will slow the flow of water which could hamper proper circulation.

**3.** Check the Water Hardness of your fill water before adding to the pool. If calcium content is higher than 400 ppm find a soft water source to fill your pool instead; otherwise water balance will be very difficult.

**4.** Check for metals in the pool such as iron or copper. Before attempting water balance these should be removed. See your dealer for a metal out or sequesterant and follow the label directions carefully.

**5.** Before beginning with any pool care program, you must first balance your pool water. Take a water sample to your local pool professional (or use a complete test kit) that will test for the important Water Balance Guidelines.

For best results in achieving water balance, follow steps **5a through 5e** in order.

**IMPORTANT:** Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with circulation running. Wait 8-12 hours before testing again and adding any additional balancing chemicals.

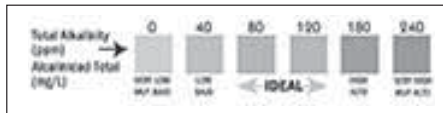
#### Water Balance Guidelines

pH:	7.2 – 7.8
Total Alkalinity:	80 – 120 ppm
Hardness:	200 – 400
Total Dissolved Solids:	<1500
Stabilizer/Conditioner:	20 – 80 ppm
Free Chlorine:	0.5 – 1.0 ppm

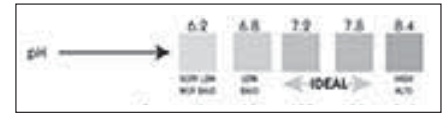
**5a.** Take a water sample from the pool and dip an AQUA SMARTE Plus Test Strip into it.



**5b.** Look at the **Total Alkalinity** reading first. Adjustments should be made to bring the Total Alkalinity in the range of **80 – 120 ppm** prior to making any adjustments to pH even if it throws pH off further.



**5c.** After Total Alkalinity is in range, test for **pH**. It should be between **7.2 and 7.8**. If higher or lower, add a pH adjuster.



**5d.** Then test your **Water Hardness** again. If lower than **200 ppm**, add Calcium Increaser. Always maintain **200-400 ppm**.

**5e.** Lastly test for **Stabilizer or Conditioner levels**. Add Conditioner if the level is below 20 ppm. This will prevent chlorine burn off. If stabilizer level is above 80 ppm, partially drain water and re-fill.

**6.** Initially shock the pool with a chlorine shock only to rid the water of contaminants and establish a chlorine residual. Always follow the manufacturers' directions carefully. See the DANGER box below for important guidance on shocking.



#### DANGER

- Never add any other types of chlorine, pH adjusters, shock treatments or algaecides through the skimmer. These products should be added directly into the pool if required.
- Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the AQUA SMARTE Plus Docking Station®.

### Step 2: Putting the System to Work



**1.** Install an AQUA SMARTE Plus Mineral Activator into the AQUA SMARTE Plus Docking Station (see page 3 for directions).

Replace AQUA SMARTE Plus Mineral Activator every 6 months or after one pool season, whichever is shorter. After that time, you will hear the spent media inside, however it is no longer effective and must be replaced.

**2.** Replace cap and run AQUA SMARTE Plus Docking Station with AQUA SMARTE Plus Mineral Activator inserted, for 10 minutes on the highest setting.



**3.** Shock the pool with AQUA SMARTE Plus Shine® to rid the water of contaminants (see page 3 for directions).

**4.** Create a chlorine residual with AQUA SMARTE Plus Optimize® or a chlorine shock. **THIS STEP IS VERY IMPORTANT TO START-UP. Always begin with chlorine in the pool water** (see page 3 for directions).



**5.** For a 90-day algae protection guarantee, insert AQUA SMARTE Plus CANNONBALL!® into AQUA SMARTE Plus Mineral Activator in AQUA SMARTE Plus Docking Station (see page 4 for directions).

**6.** When chlorine reading is down to 1.0 ppm, which may take a few days, insert AQUA SMARTE Plus MizerMax Pac® (see page 4 for directions).

# Step 3: Setting the Control Dial

This system is designed to work effectively with a variety of pool equipment as long as the basic procedures below are followed.

1. Set control dial by matching up the parameters of your pool on the chart below. **THIS IS A STARTING POINT ONLY** and may need to be adjusted to fit your individual pool needs. See #2 for directions.

AQUA SMARTE Plus		Single-Speed or High-Speed Pump Run Time											
		8 HOUR PUMP RUN TIME				12 HOUR PUMP RUN TIME				24 HOUR PUMP RUN TIME			
		PUMP SIZE				PUMP SIZE				PUMP SIZE			
Gallons	Diameter	1/2 hp	3/4 hp	1 hp	1 1/2 hp	1/2 hp	3/4 hp	1 hp	1 1/2 hp	1/2 hp	3/4 hp	1 hp	1 1/2 hp
7,000	(18')	5.0	4.5	4.0	3.5	4.5	4.0	3.0	5.0 <sup>^</sup>	3.5	3.0	2.5	4.0 <sup>^</sup>
9,000	(21')	5.5	5.0	4.5	4.0	5.0	4.5	4.0	5.5 <sup>^</sup>	4.0	3.5	3.0	4.5 <sup>^</sup>
12,000	(24')	6.0	5.5	5.0	4.5	5.5	5.0	4.5	4.0	4.5	4.0	3.5	5.0 <sup>^</sup>
15,000		NR	6.0	5.5	5.0	6.0	5.5	5.0	4.5	5.0	4.5	4.0	3.5
20,000		NR	NR	6.0	5.5	NR	6.0	5.5	5.0	5.5	5.0	4.5	4.0
25,000		NR	NR	6.5	6.0	NR	6.5	6.0	5.5	6.0	5.5	5.0	4.5

<sup>^</sup> - Bypass installation recommended. NR - This pump size is not recommended for this size pool. Recommended Flow Rate 20-60 gpm

**IMPORTANT:** If using a multi-speed pump, pump-run times of at least 6 hours per day at high speed are recommended for proper performance. If running low speed only or on high speed less than 6 hours per day, please follow the 24 Hour Low-Speed directions below.

### 24 HOUR, LOW-SPEED PUMP-RUN TIME

In order to ensure proper performance when running on low speed for 24 hours or high speed less than 6 hours, bleed the air while the pump is on by unscrewing the back knob until water appears. Then screw the knob back in. Repeat this process each time the cap is removed for any reason. Set the control dial at #6 and follow the adjustment directions in Step 2 to determine the correct setting for your pool.



2. For the first week, test the pool water daily for free chlorine with AQUA SMARTE Plus Test Strips to ensure correct dial setting. Continue to test weekly throughout the season.



After testing, adjust the dial up by 1/2 increment if the free chlorine reading has dropped below 0.5 ppm or down by 1/2 increment if the reading has risen above 1.0 ppm. Continue this process each day until the free chlorine reading stabilizes to at least 0.5 ppm.

Remember to adjust dial by 1/2 increments only, in order to prevent over chlorination which may bleach pool surfaces.



**If using another means of chlorine, set the AQUA SMARTE Plus Docking Station to the highest setting. No adjustments needed. Maintain a minimum chlorine reading of 0.5 ppm with a chlorine delivery device or hand feeding.**

# Step 4: Routine Pool Care



1. Run filtration system enough hours to circulate all water 1 to 2 times per day. More than that could result in over chlorination.



2. Regularly test water with AQUA SMARTE Plus Test Strips to maintain pH and Total Alkalinity.

**Note:** Water balance is affected by bather load, chemical usage, evaporation and the makeup of source water, so maintaining water balance regularly is important.



3. Maintain 0.5 to 1.0 ppm free chlorine level at all times.

**Note:** These lower chlorine levels are only acceptable when using AQUA SMARTE Plus minerals.



4. Shock the pool every other week or as needed. We recommend a non-chlorine shock as reducing chlorine use is the goal of AQUA SMARTE Plus products. However, using a chlorine shock is OK too.



5. Before closing the pool for the winter, use AQUA SMARTE Plus Pool Asleep® following the same directions as AQUA SMARTE Plus Pool Awake® on page 3.



6. Remember to replace AQUA SMARTE Plus Mineral Activator and all other AQUA SMARTE Plus replacements as directed.

# Replacing an AQUA SMARTE Plus Mineral Activator



**1.** The Mineral Activator will fit AQUA SMARTE Plus Docking Station Model 7700 and AQUA SMARTE Plus Docking Station Models 5700 or 6700.

**THE AQUA SMARTE PLUS MINERAL ACTIVATOR MUST BE REPLACED EVERY 6 MONTHS OR AFTER ONE POOL SEASON WHICHEVER IS SHORTER.**



**2. IMPORTANT:** Remove and read the inserted information card.



### DANGER

Use **ONLY** the factory recommended AQUA SMARTE Plus replacement AQUA SMARTE Plus Mineral Activator, AQUA SMARTE Plus All-Out, AQUA SMARTE Plus Mizer-Max Pac and AQUA SMARTE Plus Pool Awake or Pool Asleep. **DO NOT USE** bulk chemical tablets in the AQUA SMARTE Plus Docking Station or put anything inside the AQUA SMARTE Plus Docking Station other than the appropriate AQUA SMARTE Plus products as directed in the product instructions. Use of any other product could result in damage to pool equipment or surface, unsafe pool conditions, fire or explosion. Warranty will be VOID if the correct AQUA SMARTE Plus products are not used.

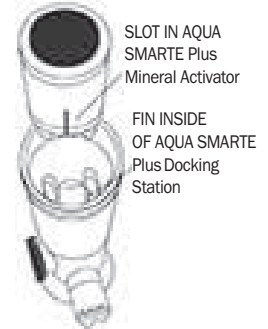


**3.** Turn off pump and turn dial to the lowest setting. This reduces the flow of water into the unit when the cap is open.



**4.** Open cap. If using the AQUA SMARTE Plus Mizer-Max Pac stand back to avoid inhaling chlorine fumes. **Repeat Steps 3 and 4 for each product you insert into the AQUA SMARTE Plus Docking Station.**

**5.** Find slot on side of the AQUA SMARTE Plus Mineral Activator and line up with fin inside the AQUA SMARTE Plus Docking Station. Lower the AQUA SMARTE Plus Mineral Activator into the AQUA SMARTE Plus Docking Station until secure.



Mark your calendar for the six month replacement of the AQUA SMARTE Plus Mineral Activator. Once wetted, the time-released mineral coating is effective up to 6 consecutive months or one pool season, whichever is shorter. After that time, even if you hear spent media inside, it is no longer effective and must be replaced.

# Using AQUA SMARTE Plus Awake



AQUA SMARTE Plus Shine



AQUA SMARTE Plus Optimize



AQUA SMARTE Plus CANNONBALL!

**AQUA SMARTE Plus Shine** is a one time start-up product used to rid the water of contaminants.

**AQUA SMARTE Plus Optimize** is also used at start up and sets the chlorine residual to help find the proper dial setting for maintaining up to 50% less chlorine\*.

**AQUA SMARTE Plus CANNONBALL!** offers a 90-day Algae Protection Guarantee.

\*Compared to the minimum EPA recommended chlorine level of 1.0 ppm for a stabilized swimming pool.

### For AQUA SMARTE Plus Shine and Optimize



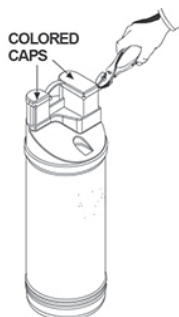
### DANGER

Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the AQUA SMARTE Plus Docking Station.



### WARNING

Avoid sparks, smoking, or any open flame near AQUA SMARTE Plus Docking Station or chemicals.



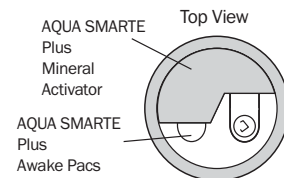
**1.** To remove colored caps, grab onto the lip of one cap with a pliers and pull up until cap releases. Repeat the process for the other cap.



**2.** Turn pac over and shake slightly until ingredients fall into tower areas.



**3.** Line up the small leg of the AQUA SMARTE Plus Shine or AQUA SMARTE Plus Optimize with the small opening in the AQUA SMARTE Plus Mineral Activator and the large leg with the large opening. Lower pac into AQUA SMARTE Plus Mineral Activator until secure.



**4.** Replace cap by hand only. **DO NOT OVER TIGHTEN.**



**5.** Turn the control dial to 10. Run the pump and filter for each pac according to the directions on the product label. Remove from the AQUA SMARTE Plus Docking Station when empty and discard or offer for recycling if available.

# Using AQUA SMARTE Plus CANNONBALL! for an Algae Protection Guarantee

## For a preventive dose add:

- One AQUA SMARTE Plus CANNONBALL! for pools up to 15,000 gallons.
- Two AQUA SMARTE Plus CANNONBALL! for pools between 15,000 and 30,000 gallons.



**1.** Remove cap from the AQUA SMARTE Plus CANNONBALL! without removing seal.



**2.** Insert upside down into center of AQUA SMARTE Plus Mineral Activator pushing down firmly on AQUA SMARTE Plus Cannonball! bottle allowing key in the AQUA SMARTE Plus Docking Station to puncture seal.

Replace cap by hand only. **DO NOT OVER TIGHTEN.** Turn control dial to the highest setting.

**3.** Turn pump on for 90 minutes allowing AQUA SMARTE Plus CANNONBALL! to circulate through pool.



**4.** To remove, turn pump off, turn dial to lowest setting and remove cap. Lift AQUA SMARTE Plus CANNONBALL! up to allow any water in the container to drain through the AQUA SMARTE Plus Docking Station before discarding in trash or offer for recycling if available.

Mark your calendar for the 90-day replacement of AQUA SMARTE Plus CANNONBALL!.

See AQUA SMARTE Plus CANNONBALL! product labeling for complete directions for use.

# Using AQUA SMARTE Plus MizerMax Pac



AQUA SMARTE Plus MizerMax Pac for use in the AQUA SMARTE Plus Docking Station



**2.** Invert AQUA SMARTE Plus MizerMax Pac and shake slightly until chlorine tablets fall into tower areas.



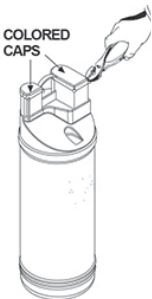
**4.** The chlorine pac is made of HDPE plastic. Non-refillable container. Do not reuse or refill this container. Rinse thoroughly before discarding in trash or offer for recycling if available.

**WARNING**

Avoid sparks, smoking, or any open flame near AQUA SMARTE Plus Docking Station or chemicals.

**DANGER**

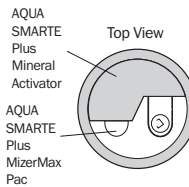
Never use fast, dissolving chlorine tablets liquid bleach, or calcium hypochlorite in the AQUA SMARTE Plus Docking Station.



**1.** Open Pac. Remove colored caps, grab onto the lip of one cap with pliers and pull up until cap releases. Repeat the process for the other cap.



**3.** Insert Pac into AQUA SMARTE Plus Docking Station. Line up small leg of AQUA SMARTE Plus MizerMax Pac with small opening in AQUA SMARTE Plus Mineral Activator, and large leg with large opening. Lower pac until secure.



**5.** Once you know how long your pacs last, mark your calendar for the approximate replacement time for the AQUA SMARTE Plus MizerMax Pac.

# Troubleshooting [Learn more at kingtechnology.com](http://kingtechnology.com)

## Cloudy Water or Low-Chlorine Levels

- Check water balance. Ensure pH, Total Alkalinity, Calcium Hardness and Stabilizer levels are correct.
- Check AQUA SMARTE Plus MizerMax Pac. If empty, replace following directions on the label.
- Make sure the AQUA SMARTE Plus Mineral Activator is not older than 6 months as it will be ineffective and more chlorine will be required to maintain the pool until you replace the AQUA SMARTE Plus Mineral Activator.
- Shock the pool to regain clarity.

## High-Chlorine Levels

- Remove the AQUA SMARTE Plus MizerMax Pac from the AQUA SMARTE Plus Docking Station until the chlorine level is down to 1.0 ppm.
- Lower the dial setting on the AQUA SMARTE Plus Docking Station by 1 number.
- Test in 24 hours. Repeat process until chlorine level stays within 0.5 to 1.0 ppm.

## Algae

- Use an algicide following manufacturer's directions carefully. This may involve more than one dose.
- Run circulation 24 hours a day and brush the sides of the pool often
- When clarity starts to return shock the pool
- To prevent algae for 90 days try AQUA SMARTE Plus CANNONBALL! and its Algae Protection Guarantee.

Manufactured for



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