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Pool Care **GUIDE**

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King Technology Inc has been providing water care solutions to pool owners for over 20 years. No matter what method you are using, this guide includes basic tips for a fun and healthy pool season. For information on specific King Technology products see page 12 or visit kingtechnology.com

Pool Care Basics

Four Important Steps To a Clear, Inviting Pool

The four points below are the basics of excellent pool maintenance. Pay attention to these areas to help your pool look its best.



Circulation

Pool water must be circulated for your pool care products to work their best. The best time to circulate pool water is during the day when the pool is in use.



Filtration

The filter is one of your most important pieces of equipment. It removes all of the debris and keeps the water sparkling clear. A filter should be back washed or cleaned when the water pressure in the filter reaches 10 pounds above normal. (Check manufacturer's guidelines).



Cleaning

All swimming pools have areas of poor circulation. This is where algae and bacteria can begin to grow. At least once a week, brush the walls and floors then vacuum to remove debris that the filter misses. Automatic pool cleaners that climb the walls are a big help in keeping the pool clean.



Testing

Testing your pool water regularly is the best way to keep your pool looking great. The tests for pH, total alkalinity and active sanitizer (usually available chlorine or total bromine residuals) are the most important and should be checked several times per week using either a drop test kit or test strips.

In addition bring a sample of pool water to your dealer at pool opening, then every four to six weeks, and at closing. This will help you maintain proper balance and greatly reduce potential for problems.



Test Strips

Opening Your Pool

Follow these simple steps to open your pool properly and get ready to swim!

1. Remove Pool Cover

(New pools can skip this step.) If your pool has a solid cover, drain off the water. Don't let the standing water get into the pool. Sweep off the cover and then clean it thoroughly to prevent sticking and unpleasant odors. Once it's clean, store the cover in a dry place that's free of debris and protected from the sun and outside elements.

3.Fill Pool

Fill the pool to the middle of the skimmer opening for proper circulation

3. Check Your Equipment

Make sure everything is clean and in working order, including the pump, skimmer, heater and filter. Start the circulation system, and remove debris from the pool. Check the diving board, slide and stairs for wear, looseness or corrosion. Also pay close attention to your filter; it's a very important part of your pool's maintenance program. If it's not working properly, neither will the products you add. Follow care instructions as recommended by the filter manufacturer.



4. Clean Surfaces

Give your pool a good brushing and vacuuming, and skim the top for debris. (If your pool is newly plastered, wait several weeks before vacuuming.)

5. Test And Balance Water

Take a sample of your pool water to your local dealer for a complete water analysis. They will check the free chlorine or total bromine residuals and pH levels. When your pool water test indicates a free chlorine reading of 1.0 to 3.0 ppm and a pH of 7.2 to 7.8, you're ready to swim! (Ideal range for pH is 7.4 to 7.6.) Pool sanitized with brominating products should maintain a total bromine level of 1.0 to 3.0 ppm. Maintain the total alkalinity between 60 to 120 ppm. (See balancing pool water on page 6).

6. Shock Your Pool

Use a chlorine based product at start up to remove organic waste and make the water sparkle.

7. Begin Regular Maintenance Program

Now you should be ready to swim! And it's also time to start your regular maintenance program. (See maintaining your pool on page 8).



Balancing Pool Water

Balancing your pool water is crucial for keeping your water clear and inviting. When your pool water is “balanced,” it means that the total water chemistry is right where it should be. Balanced pool water makes swimming more comfortable by preventing eye and skin irritation. It also helps the chemicals work better to keep water clear.

Let's look at four factors and how to adjust them to stay balanced.

pH

pH is a measure of how acidic (low pH) or how basic (high pH) your water is. Based on a scale of 0 to 14, the ideal pH range is between 7.2 and 7.8. pH is the most important factor in balancing your water.

Adjusting pH

If you see your pH is too low after testing, add a pH increaser. If your pH is too high, add a pH de-creaser.

Total Alkalinity

Total alkalinity refers to the total concentration of several chemicals in your pool water. It is not the same as pH, but proper total alkalinity does help stabilize pH. If your total alkalinity is too low, the pH level will be very sensitive and may suffer drastic swings. High alkalinity, in addition to contributing to cloudy water and scaling, can keep your pH rigidly fixed.

Adjusting Total Alkalinity

Total alkalinity should be between 60 and 120 ppm for all pools. If it's too low, add Total Alkalinity Increaser. If it's too high, add a pH de-creaser.

Calcium Hardness

How “hard” water is has to do with the amounts of dissolved calcium in it. Pool water needs a proper calcium hardness level to prevent damage or scaling to surfaces and equipment.

Adjusting Calcium Hardness

The desired range for water hardness is between 200 and 250 parts per million (ppm) for plaster pools, and 175 to 225 ppm for vinyl, fiberglass and painted pools. If your water is above 400 ppm, just drain some water from the pool and replace it with new water lower in calcium hardness. If your calcium level is low, add Calcium Hardness Increaser.

Metals

Some pool water contains traces of metals including iron, copper and manganese. The metal content usually depends on your source of fill water.

Adjusting Metals

When dissolved iron, copper and manganese are in the water they cause stains on pool surfaces. Use a metal out or sequestering product following the label directions carefully, **DO NOT OVER DOSE.**



Maintaining Your Pool

Sanitize, Shock, And Prevent Algae

You need to do several things to maintain a beautiful pool. But it's not terribly time-consuming if you perform these tasks on a regular basis.

• Sanitize The Water

Add chlorine, bromine, or mineral products to sanitize your pool water and kill bacteria 24 hours a day. Chlorine and bromine are available in a variety of convenient forms including sticks, tablets and granules. Keep your free chlorine level at 1.0 to 3.0 ppm or your bromine level at 2.0 to 4.0 ppm. If using a mineral system, chlorine and bromine use can be reduced by 50% to 0.5 to 1.0 ppm at all times.

• Shock Regularly

Shocking is another important step because it removes undesirable contaminants - like suntan lotion, perspiration, make-up, body oil, urine - from the pool water. Shock once a week or as needed (with a chlorine or non-chlorine based shock). More frequent shocking is needed after rain storms, heavy bather load, or exceptionally hot weather.

• Prevent Algae

An ounce of prevention is definitely worth a pound of cure when it comes to algae. Applying an algae preventative should eliminate outbreaks of these unwanted microscopic plants. Preventing Algae before it starts is another great reason for regular maintenance.

Closing Your Pool

When the temperature drops you need to prepare your pool for the winter months. Depending on where you live, you may close your pool completely or just use it occasionally. Either way, you want to winterize your pool properly so spring start-up takes less time and money.

Closing for cold climates:

- Balance the water. Test pH, total alkalinity, water hardness and adjust as needed.
- Run the filter for 24 to 48 hours.
- Clean up. Vacuum and brush your pool. Clean out the skimmer basket and traps.
- Shock the pool to rid it of all contaminants.
- Add Algaecide to prevent algae growth.
- Prepare equipment. Following manufacturers' instructions, lower the water level; shut off the filter pump; drain the pump, filter, heater, hoses and all other applicable equipment; and store. Where necessary, use an antifreeze formulated for pools.
- Replace cover. Covering your pool keeps unwanted debris from getting into it, plus it also keeps valuable chemicals from getting out. A good cover will save many hours when it's time to open your pool next season.

Closing for warm climates:

- Cut down maintenance. Keep balancing the water, chlorinating and shocking - but do it about half as often.
- Reduce the filter running time, by about half.
- Consider a cover. A cover will save work by keeping debris out and helping you conserve pool chemicals. Do not use a floater to prevent damage to the cover.

Trouble Shooting Guide

This section will give you the pool care tips to use when encountering some common problems. Of course the best thing you can do is practice prevention through regular maintenance.

Algae

If any of these types of Algae occur-Green,Black, Yellow, and Pink Slime, adjust pH to 7.4. Depending on pool's surface, vigorously brush spots with appropriate brush and treat with a copper based algaecide as soon as algae is detected. Re-treatment may be necessary.

Scale

If rough, sandpaper-like deposits form on the pool's surfaces and inside the circulatory plumbing, leading to reduced circulation, adjust and maintain pH to the acceptable range of 7.2 to 7.6 (ideal range is 7.4 to 7.6).

Metals and stains

If staining appears as discoloration on pool surfaces, see your dealer immediately for treatment ideas and brush the stains to help with removal. All permanent stains (ones not easily brushed off) are the result of some chemical imbalance or metals present in the water.

Trouble Shooting Guide Continued

Cloudy Water

Note: Clear water is essential to the safety and health of the bathers. Cloudy water can impair visibility of the pool's safety equipment and other bathers in the water. This creates a potentially hazardous situation.

If unable to see the bottom of the pool, and water lacks sparkle, operate filter at least 10 hours per day continuously until water clears.

If weak flow from return inlets, and built up pressure in the filter, clean filter at least twice a season. Dirt and oil buildup can be removed with filter cleaners.

If high pH (over 7.6) and high level of total alkalinity (over 200 ppm), use muriatic acid

If buildup of organic contamination causes dull-looking water, oxidize the contaminants with a shock.

If sanitizer (chlorine) level is below 1.0 ppm, add chlorinating sticks, tablets, or granular chlorinating sanitizer.

If difficult to maintain 1.0 - 3.0 free chlorine residual, increase amount of chlorinating sticks, tablets, or granules in your chlorinator and/or increase pump circulation time per day.

If early stages of algae infestation, slimy walls, black spots, or mustard-colored dust in areas of poor circulation, add algaecide (see trouble-shooting guide page 10).

If high levels of calcium hardness and total dissolved solids, partially drain and refill pool.

Introducing FROG®

FROG® Mineral Systems use a low level of silver in the water to fight bacteria so up to 50% less chlorine is needed. That makes the water feel softer while preventing faded swimsuits, smelly odors and permanent damage to surfaces or equipment. The complete POOL FROG® is easy to install with replacements that are pre filled for no measuring or mess and last weeks or months at a time.

Call Us at 800-222-0169
or visit kingtechnology.com
for more information on FROG® products



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