



POOL FROG® Mineral Reservoir

Patented Mineral Pool Disinfectant

Operational Instructions

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



Cleaner
because it kills bacteria two ways

Clearer
because it helps keep pH in range

Softer
because it reduces chlorine use up to 50%*

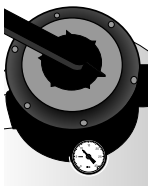
Easier
with pre-filled pacs for no mess,
no guess and no stress

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

Step 1: Preparing the Pool



1. Make sure the pool has adequate circulation. The 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. 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. If using source water that is high in iron or other metals, see your dealer before filling the pool. It may require the use of a metal control product.

4. 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.

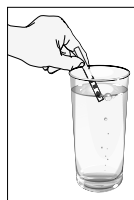
Our recommendation for achieving water balance is to follow steps **a through e** in order.

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

Water Balance Guidelines

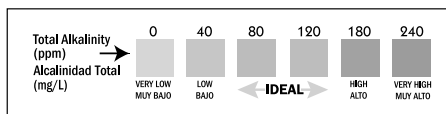
pH:	7.2 – 7.8
Total Alkalinity:	80 – 120 ppm
Calcium Hardness:	200 – 400
Total Dissolved Solids:	<1500
Stabilizer/Conditioner:	20 – 80 ppm
Free Chlorine:	0.5 – 1.0 ppm

a. Take a water sample from the pool and dip a FROG® Test Strip into it.

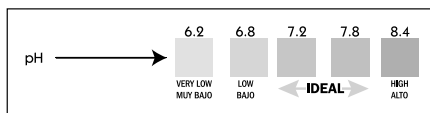


b. Look at the **Total Alkalinity** reading first.

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.



c. 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.



d. Then test for **Calcium Hardness**. It should be between **200 and 400 ppm**. If higher, partially drain the pool and fill with water low in calcium. If lower, add Calcium Increaser.



e. Lastly test for **Stabilizer** or **Conditioner** levels. Add Conditioner if the level is below 20 ppm. This will prevent chlorine burn off.



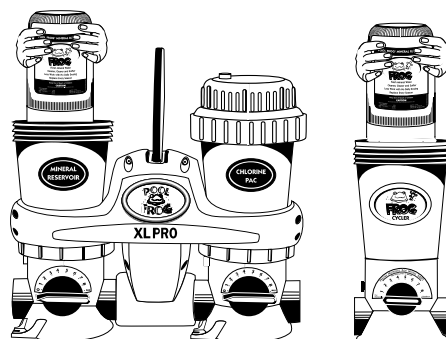
5. Shock the pool with an EPA registered chlorine shock to rid the water of contaminants. Follow manufacturer's directions carefully. **NOTE: THIS STEP IS VERY IMPORTANT TO START-UP. USE CHLORINE SHOCK ONLY.**



Do not add shock in or near the skimmer or into the POOL FROG Cyclor as it could damage equipment, risk potential explosion or discolor your pool surface.

6. Begin Routine Pool Care as soon as the pool is prepared.

Step 2: Putting the System to Work



1. Install a POOL FROG Mineral Reservoir into the POOL FROG Cyclor. (See page 3 for directions.)

REPLACE THE POOL FROG MINERAL RESERVOIR EVERY 6 MONTHS OR AFTER ONE POOL SEASON WHICHEVER IS SHORTER.

Continue...

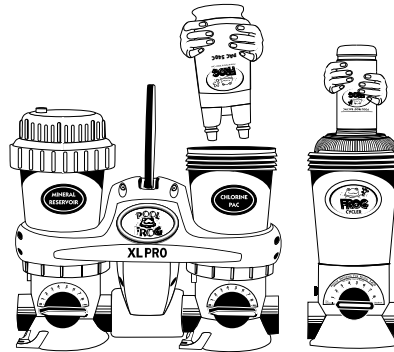
Continue Step 2: Putting the System to Work



2. Replace cap and run cycler, with POOL FROG Mineral Reservoir inserted, for 10 minutes on setting Maximum, Setting 5 or ON depending on the model.



3. For an Algae Protection Guarantee insert FROG BAM® into POOL FROG Mineral Reservoir in POOL FROG Cycler. (See page 3 for directions.)

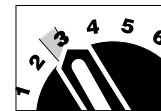


4. When chlorine reading is down to 1.0 ppm, which may take a few days, insert POOL FROG Bac Pac. (See page 4 for directions.)

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 charts below. **THIS IS A STARTING POINT ONLY** and may need to be adjusted to fit your individual pool needs. See #2 for directions.



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

* – Bypass installation recommended.
NR – This pump size is not recommended for this size pool.

Using Model 6100		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*	3.5	3.0	2.5	4.0*
9,000	(21')	5.5	5.0	4.5	4.0	5.0	4.5	4.0	5.5*	4.0	3.5	3.0	4.5*
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*
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

SINGLE-SPEED PUMP OR HIGH-SPEED PUMP RUN TIME

Using Model 5400		6 HOUR PUMP RUN TIME				12 HOUR PUMP RUN TIME				24 HOUR PUMP RUN TIME			
		PUMP SIZE				PUMP SIZE				PUMP SIZE			
Gallons		3/4 hp	1 hp	1 1/2 hp	2 hp	3/4 hp	1 hp	1 1/2 hp	2 hp	3/4 hp	1 hp	1 1/2 hp	2 hp
7,000		4.0	3.5	3.0	3.0*	3.0	2.5	4.0*	3.5*	1.5	3.5*	3.0*	2.5*
9,000		4.5	4.0	3.5	3.0	3.5	3.0	2.5	4.0*	2.5	4.0*	3.5*	3.0*
12,000		5.0	4.5	4.0	3.5	4.0	3.5	3.0	2.5	3.0	2.5	1.5	3.5*
18,000		NR	5.0	4.5	4.0	5.0	4.0	3.5	3.0	3.5	3.0	2.5	2.0
25,000		NR	NR	5.0	4.0	NR	5.0	4.0	3.5	4.0	3.5	3.0	2.5
30,000		NR	NR	6.0	5.0	NR	5.5	5.0	4.0	4.5	4.0	3.5	3.0
35,000		NR	NR	7.0	6.0	NR	6.5	5.5	5.0	5.5	4.5	4.0	3.5
40,000		NR	NR	NR	7.0	NR	NR	6.5	5.5	6.5	5.5	4.5	4.0

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 cap knob until water appears. Then screw the knob back on. 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.



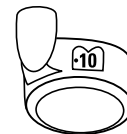
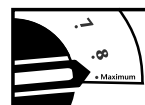
2. For the first week test the pool water daily for free chlorine with FROG Test Strips to ensure correct dial setting. Continue to test weekly throughout the season.



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 color on the test strip matches the ideal FROG range of 0.5 ppm to 1.0 ppm chlorine.

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 maintain setting of Maximum, Setting 10 or ON depending on the model. Maintain a minimum chlorine reading of 0.5 ppm with a chlorine delivery device or hand feeding. No adjustments needed.



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 FROG 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: Chlorine levels are lower only when used with FROG minerals



4. Shock the pool every other week or as needed with a non-chlorine shock. Additional shocking may be required if the pool is under heavy use, high heat or rain.



Do not add shock in or near the skimmer or into the POOL FROG Cyclor as it could damage equipment, risk potential explosion or discolor your pool surface.



5. Before closing the pool for winter, use FROG BAM following the directions below.



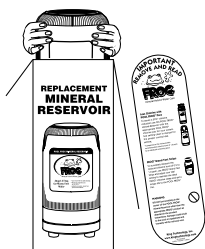
6. Remember to replace POOL FROG Mineral Reservoir and all other FROG replacements as directed.

Replacing a POOL FROG Mineral Reservoir



1. Make sure you have the correct POOL FROG Mineral Reservoir to fit your POOL FROG Cyclor.

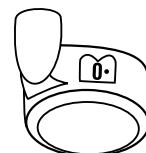
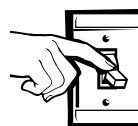
THE POOL FROG MINERAL RESERVOIR MUST BE REPLACED EVERY 6 MONTHS OR AFTER ONE POOL SEASON WHICHEVER IS SHORTER.



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



USE ONLY the factory recommended replacement POOL FROG Mineral Reservoir, FROG BAM and POOL FROG Pac. DO NOT USE any other pac or bulk chemical tablets in the cyclor. 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 POOL FROG Mineral Reservoir, FROG BAM and POOL FROG Pac are not used.

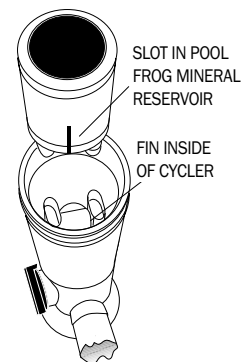


3. Turn off pump and turn dial to Pac Removal, Setting 0 or OFF depending on the model.

4. Open cap. If using a chlorine pac stand back to avoid inhaling chlorine fumes.

5. Find slot on side of POOL FROG Mineral Reservoir and line up with fin inside the POOL FROG Cyclor. Lower POOL FROG Mineral Reservoir into POOL FROG Cyclor until secure.

Mark your calendar for the six month replacement of the POOL FROG Mineral Reservoir. 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 FROG BAM for an Algae Protection Guarantee

For a preventive dose add:

- One FROG BAM for pools up to 15,000 gallons.
- Two FROG BAM for pools between 15,000 and 30,000 gallons.



1. Remove cap from FROG BAM without removing seal.



2. Insert upside down into center of POOL FROG Mineral Reservoir pushing down firmly on key to puncture seal.

3. Turn pump on for 90 minutes allowing FROG BAM to circulate through pool.

4. To remove, turn pump off, turn dial to lowest setting and remove cap. Lift FROG BAM up to allow any water in the container to drain through the cyclor before recycling or discarding in trash.

Mark your calendar for the 90-day replacement of FROG BAM.

See FROG BAM product labeling for complete directions for use (EPA Reg. No. 53735-9).



Using the Chlorine Pacs



POOL FROG
BAC PAC
for use in the
in ground and above
ground systems



POOL FROG
PAC 540C
for use in the
XL PRO Chlorine
Cycler



POOL FROG
PAC 610C
for use in the
POOL FROG Twin Dual
System Chlorine Cycler

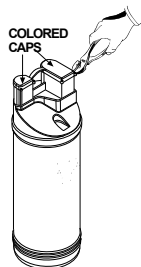


Avoid sparks,
open flame or
smoking when
handling a
chlorine pac.

1. OPEN PAC

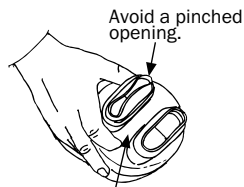
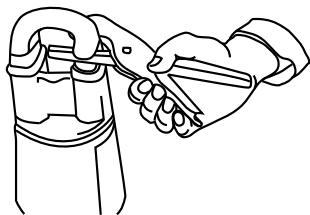
1a. POOL FROG BAC PAC

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.



1b. POOL FROG PAC 540C and 610C

For 540C and 610C pacs, find the indent in the plastic handle and cut using a 2" PVC cutter. Make sure the blade comes straight across on the indent line for a clean cut. If openings are pinched together, open with fingers or re-cut closer to the colored screens inside the POOL FROG Pac. Leave at least 1/4" of plastic to fit into the POOL FROG Cycler.



A correct oval opening.



BAC PAC
towers



540C
Pac towers



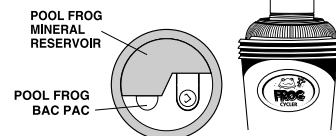
610C
Pac towers

1.c. Invert Pac and shake
until chlorine tablets fall into
tower areas.

2. INSERT PAC INTO CYCLER

2a. POOL FROG BAC PAC

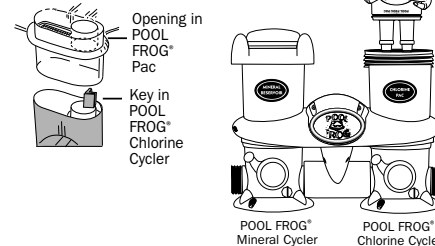
For Bac Pac, line up small leg with small opening in POOL FROG Mineral Reservoir and large leg with large opening. Lower pac until secure.



2b. POOL FROG PAC 540C and 610C

For 540C or 610C, line up the openings in the pacs with the keys in the POOL FROG Chlorine Cycler.

Note: Openings are a different shape than keys. Lower pac until secure.



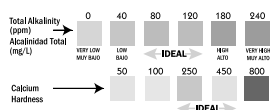
3. The chlorine pacs are made of HDPE plastic. Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Rinse thoroughly before recycling or discarding in trash.



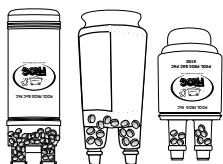
4. Mark your calendar for the approximate replacement times for the POOL FROG Pacs.

Troubleshooting Learn more at frogproducts.com

Cloudy Water or Low-Chlorine Levels



1. Check water balance. Ensure pH, Total Alkalinity, Calcium Hardness and Stabilizer levels are correct.



2. Check Chlorine Pac. If empty, replace following directions on the label.

3. Make sure your Mineral Reservoir 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 minerals.

4. Shock the pool to regain clarity.



High-Chlorine Levels

- Remove the chlorine pac from the FROG System until the chlorine level is down to 1.0 ppm.
- Lower the dial setting on the FROG System 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 FROG BAM and its Algae Protection Guarantee.