

FROG® Leap® Twin® Instruction Manual

Mineral Pool-Care System for Pools up to 40,000 Gallons



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



**FROG Leap Twin comes with the
FROG Leap Anti-Bac Mineral Pac®**
Patented Mineral Disinfectant

Customer Service 800-222-0169
frogproducts.com



WARNING

To minimize the risk of serious injury, death or damage, before installing or first using this equipment, read Instruction Manual and all safety labels and follow all safety instructions and precautions. Save manual for future reference.

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For information on King Technology's entire product line, visit our website at frogproducts.com

Welcome to easier pool care courtesy of FROG Leap Twin. With FROG Leap Twin, your pool water will look and feel better without a lot of work or a lot of chlorine. This system[†] controls bacteria using a combination of minerals and reduced chlorine levels. Chlorine lasts 2X longer with FROG Leap Twin Mineral System.*

Part 1 - FROG Leap Twin Infuzers

The water treatment center that controls the flow of water to each part of the FROG Leap Twin System.



FROG Leap Twin Mineral Infuzer

FROG Leap Twin Chlorine Infuzer

For any pool up to 40,000 gallons
Product # 01-01-7850

Part 3 FROG Leap Pool Wake Up!/Pool Hibernation

Three-step pool opening and closing kit with an Algae Protection Guarantee. Product # 01-10-7858.



FROG Leap Reveille®, FROG Leap Depth Charge® and FROG Leap ALL-OUT

There are 4 main parts to the FROG Leap Twin System:

1. FROG Leap Twin Infuzers
2. FROG Leap Anti-Bac Mineral Pac
3. FROG Leap Pool Wake Up!/Pool Hibernation®
4. FROG Leap Torpedo Pac

Part 2 - FROG Leap Anti-Bac Mineral Pac

Holds the minerals and fits inside the FROG Leap Twin Mineral Infuzer.

Product # 01-12-7852

THE FROG LEAP ANTI-BAC MINERAL PAC MUST BE REPLACED EVERY SIX MONTHS OR AFTER ONE POOL SEASON WHICHEVER IS SHORTER.



Part 4 FROG Leap 4 lb. Torpedo Pac

Pre-filled with chlorine tablets and fits inside the FROG Leap Twin Chlorine Infuzer.

Product # 01-03-7833



FROG Leap Anti-Bac Mineral Pac comes inside the FROG Leap Twin Mineral Infuzer and is also sold separately. Also sold separately: FROG Leap Torpedo Pac, FROG Leap ALL-OUT (Product # 01-10-7872) and FROG Leap Pool Wake Up!/Pool Hibernation.

[†]FROG Leap Mineral System consists of the FROG minerals silver chloride and carbonate used in conjunction with 0.5 ppm chlorine. The FROG Leap Anti-Bac Mineral Pac must be used in conjunction with the FROG Leap Torpedo Pac (EPA Reg. No.: 53735-2), an EPA registered chlorine pool product or a chlorine delivery device.

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

Notes and Safety Information

General Notes

These instructions contain information for the safe and proper operation of these Infuzers. Observe the following principles:

- Ensure that everyone using these Infuzers follows the instructions and safety precautions.
- Keep the instructions nearby and available for reference throughout the service life of these Infuzers.

These instructions do not provide for every possible contingency that might be encountered in connection with installation, operation or maintenance of this equipment. Should further information be desired or should particular issues arise which are not covered sufficiently in this manual, contact King Technology at 800-222-0169.





Explanation of the signal words

Signal words, which depict the probability and severity of harm, are used in these instructions. They are defined as follows:

Signal Word	Meaning
DANGER	Indicates an imminently hazardous situation which, if not avoided, will result in death, serious injury or major property damage.
WARNING	Indicates a hazardous situation which, if not avoided, could result in serious injury, death, or major property damage.
NOTICE	Indicates special instructions that are important but not related to physical injury hazards.


Explanation of the safety pictographs

The following pictographs illustrate the type of hazard.

Pictograph	Type of Danger
	Safety Alert/General Hazard
	Explosion Risk
	Hazardous Pressure
	Flammable Fire Hazard

Identification of warnings

Warnings are intended to help you recognize risks and avoid death, injury or property damage. This is how warnings are identified:

 Signal Word
Pictographs
Description of danger. Consequences if ignored. ⇒ The arrow signals a safety precaution to be taken to eliminate or reduce the risk.

Safety Label on Infuzers

Review this label before installing or operating this system. Contact King Technology at 800-222-0169 if this label is missing from your FROG Leap Twin Infuzers.



Fire, explosion and high pressure hazards

To minimize the risk of serious injury, death or property damage while using the FROG Leap Twin Infuzers:

- ⇒ Read, understand and follow all instructions and safety precautions in the manual, and on these FROG Leap Twin Infuzers and on any label for chemicals used with this system including FROG Leap Torpedo Pacs, FROG Leap Anti-Bac Mineral Pacs and FROG Leap Pool Wake Up!/Pool Hibernation (which includes FROG Leap Reveille, FROG Leap Depth Charge and FROG Leap ALL-OUT.)



DANGER

- ⇒ Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the FROG Leap Twin Infuzers.
- ⇒ Never mix Trichlor chlorine tablets with Calcium Hypochlorite, or with any other form of concentrated chlorine or other chemicals.
- ⇒ 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.
- ⇒ Do not contaminate the FROG Leap Twin Infuzers, FROG Leap Anti-Bac Mineral Pac, FROG Leap Torpedo Pac and FROG Leap Pool Wake Up!/Pool Hibernation (which includes FROG Leap Reveille, FROG Leap Depth Charge and FROG Leap ALL-OUT) with dirt, organic matter, pool chemicals (such as calcium hypochlorite or pool shocks), fertilizers or other household chemicals. Contact between any of these substances and the FROG Leap Twin Infuzers including FROG Leap Anti-Bac Mineral Pac, FROG Leap Torpedo Pac, FROG Leap Pool Wake Up!/Pool Hibernation (which includes FROG Leap Reveille, FROG Leap Depth Charge and FROG Leap ALL-OUT) will result in a chemical reaction with the generation of heat, liberation of hazardous gasses and fire or explosion.



WARNING

- ⇒ Use only FROG Leap Torpedo Pacs, FROG Leap Anti-Bac Mineral Pacs, FROG Leap Pool Wake Up!/Pool Hibernation (which includes FROG Leap Reveille, FROG Leap Depth Charge and FROG Leap ALL-OUT) in the FROG Leap Twin Infuzers. Never use bulk chemicals.
- ⇒ To prevent the build up of gas pressure in the FROG Leap Twin Infuzers, be sure the pool return line valves are open – except when opening or servicing the unit.
- ⇒ Do not inhale fumes from the FROG Leap Twin Infuzers or FROG Leap Torpedo Pac.
- ⇒ Avoid sparks, smoking, or any open flame near FROG Leap Twin Infuzers or chemicals.
- ⇒ Do not exceed maximum operating pressure of 50 psi or maximum temperature of 104° F.
- ⇒ Do not remove the cap while under pressure. Always turn off pump and bleed off pressure before opening FROG Leap Twin Infuzers.
- ⇒ Do not install automatic or fast shut off valves downstream of FROG Leap Twin Infuzers.
- ⇒ Always install the FROG Leap Twin Infuzers AFTER a heater (if applicable) on the return line.
- ⇒ Always install any additional sanitizing equipment AFTER and NEVER BEFORE the FROG Leap Twin Infuzers are installed on the return line.
- ⇒ Do not permit children to use or climb on this product. This product must be positioned to prevent children from using it as a means of access to the pool.
- ⇒ Always stand clear of the FROG Leap Twin Infuzers during pump start-up.
- ⇒ Replace FROG Leap Twin Infuzers if you see signs of cracks, damage or degradation to the Infuzers bodies or caps.

NOTICE

- ⇒ Prior to pressurizing, check with your dealer to ensure your plumbing connections meet building codes.
- ⇒ Failure to properly winterize your FROG Leap Twin Infuzers could result in freeze damage. (See page 19 for winterizing details.)

Installation Tips to Ensure Proper Performance

Before installing, read all directions carefully and contact your dealer for installation support.

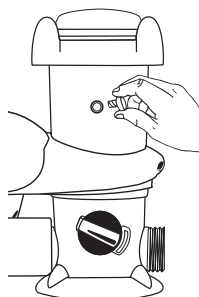


WARNING

- Do not exceed maximum operating pressure of 50 psi.
- Do not install automatic or fast shut off valves downstream of feeder.
- Always install the FROG Leap Twin Infusers AFTER the heater (if applicable) on the return line.
- Always install any additional sanitizing equipment AFTER and NEVER BEFORE the FROG Leap Twin Infusers are installed on the return line.

1) If using a multi-speed pump, run pump for at least 6 hours per day at high speed (at least 40 gpm).

If the pump will run on low speed 24 hours per day or less than 6 hours per day on high speed, you must bleed the air while the pump is on by unscrewing both Infuser back knobs until water appears from both Infusers. Then screw the knob back in. Repeat this process each time the cap is removed for any reason.



2) Install system with 4-8 psi back pressure.

Lower back pressures could result in under chlorination. Change the eyeball fittings in the return jets to a smaller size to increase back pressure. Contact King Technology at 800-222-0169 for a specially designed Infuser pressure gauge to determine back pressure at pool start-up.



PN #01-22-4000

3) Special Installation Requirements:

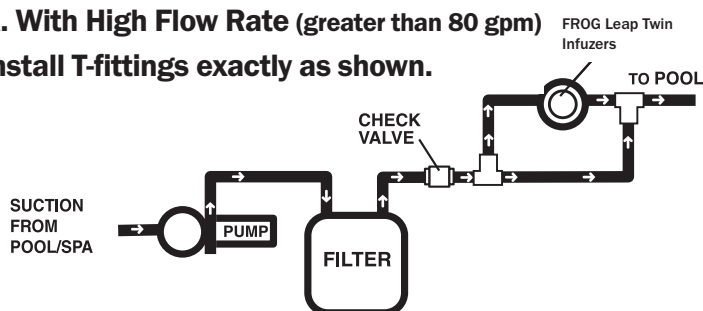
IMPORTANT: Over chlorination or damage to the FROG Leap Twin Infusers or other equipment could result if special installations A, B or C are not used in these situations.

- If water flow is higher than 80 gallons per minute (gpm), see diagram A.
- If an in-floor cleaner is included with pool, see diagram B, with two options. Preferred installation is Option 1 with two separate lines.
- If set-up is a pool and spa combination with common equipment, see diagram C.

Questions? Call Customer Service at 800-222-0169 Monday thru Friday, 8 am to 5 pm central standard time.

A. With High Flow Rate (greater than 80 gpm)

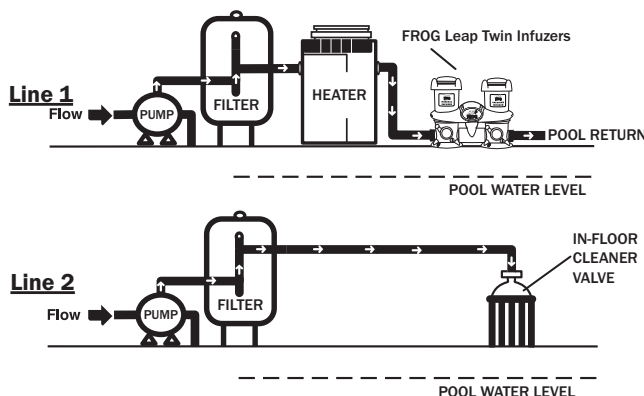
Install T-fittings exactly as shown.



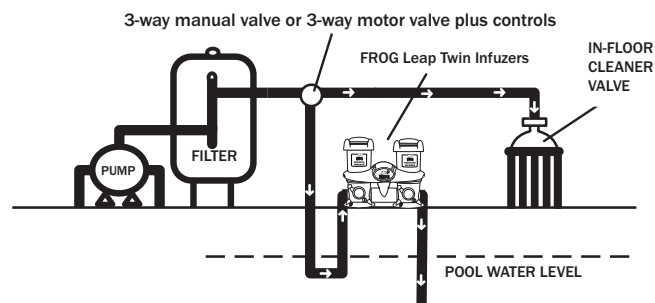
B. With In-Floor Cleaner - TWO OPTIONS

OPTION 1- A Two-Line Installation

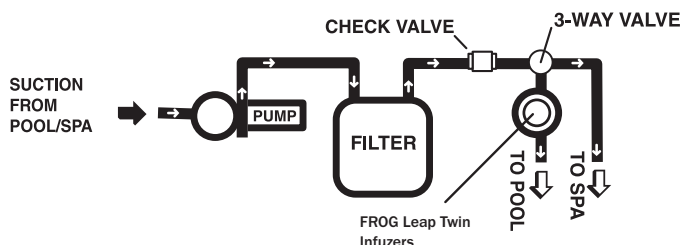
The best option is to have two lines. One line with pump, filter, heater and FROG Leap Twin Infusers and a second line with a separate pump for the in-floor cleaning system (filter optional).



OPTION 2 - A 3-Way Valve Installation

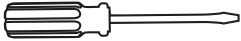


C. Pool and Spillover Spa Combination

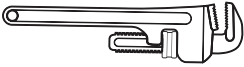
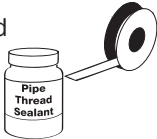
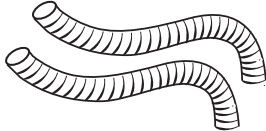


TOOLS NEEDED

Screwdriver

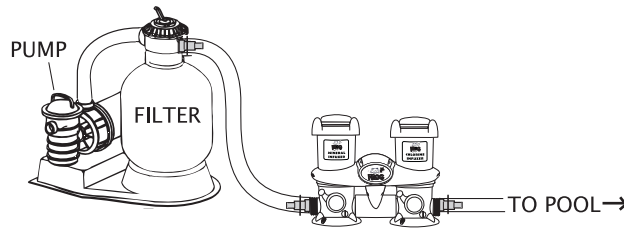


Pipe Wrench

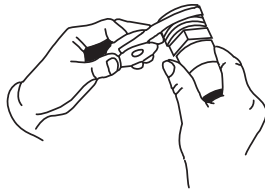
**MATERIALS NEEDED**Pipe Thread
Tape
or SealantTwo hose adapters
1½" x 1½" x 1¼"Two Sections of 1½" or
1¼" Flex HoseTwo
Hose
Clamps**RECOMMENDED**

4-8 psi Back Pressure

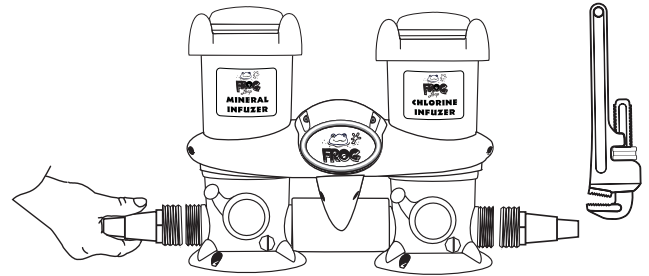
To avoid over or under chlorination, replace eyeball fittings in the return jets to a smaller or larger size to adjust back pressure. For best results use King Technology's pressure gauge, order part number 01-22-4000.

**Base Flex-Hose Installation**

The FROG Leap Twin Infuzers should always be installed between the filter and pool (or between heater and pool if applicable). Never install FROG Leap Twin Infuzers before the heater or damage to the heater could occur.

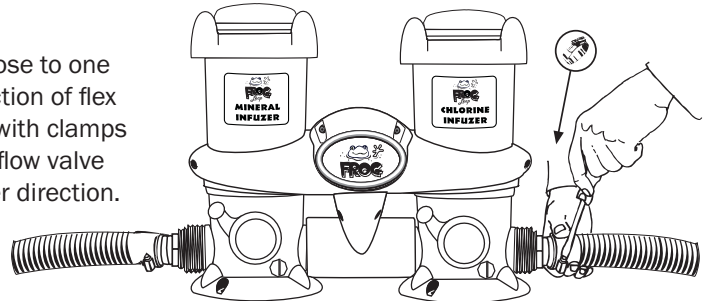


1. Apply pipe thread tape or sealant to the threaded end of both hose adapters.

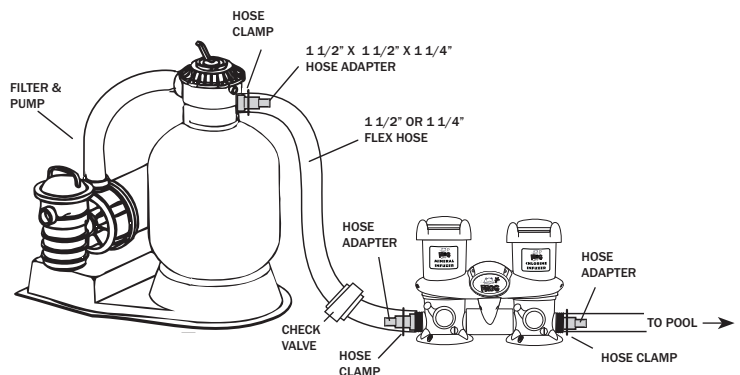


2. Screw adapters into each end of the FROG Leap Twin Infuzers. Hand tighten. Finish tightening by turning 1 to 2 revolutions with a pipe wrench. **DO NOT OVER TIGHTEN.**

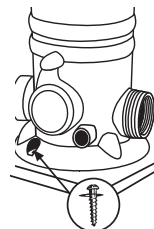
3. Attach the filter section of flex hose to one hose adapter and the return section of flex hose to the other hose adapter with clamps and tighten with screwdriver. Bi-flow valve design allows water flow in either direction.



4. To prevent damage to heaters or filters, see your dealer about installing a **corrosion resistant check valve** which will reduce the back flow of chlorine gas when the FROG Leap Twin Infuzers are turned off.

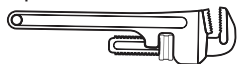


5. For better stability, FROG Leap Twin Infuzers may be mounted on a treated wood base using **Phillips pan head screws**, one in front and two in back. If you have questions about stability, please contact your dealer or King Technology.

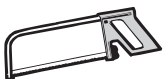


TOOLS NEEDED

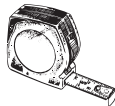
Pipe Wrench



Hacksaw

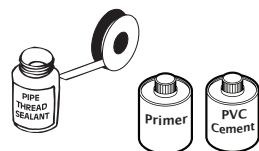


Tape Measure



MATERIALS NEEDED

Pipe Thread Tape or Sealant, Primer and PVC Cement



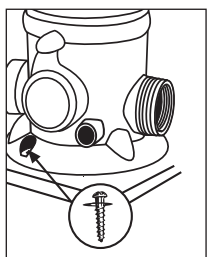
1½" Male Adapter (slip x MPT)

or

2" Female Adapter (slip x FPT)

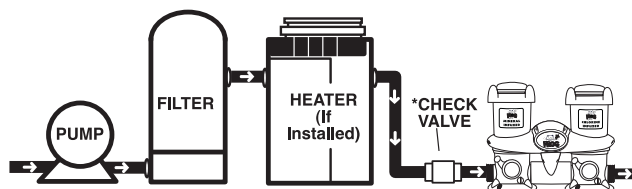


SECURE INFUZER



For better stability, FROG Leap Twin Infuzers may be mounted on a treated wood base using **Phillips pan head screws**, one in front and two in back. If you have questions about stability, please contact your dealer or King Technology.

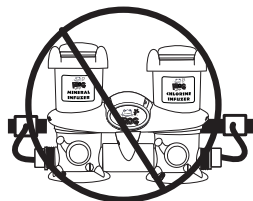
Hard-Plumbed Installation



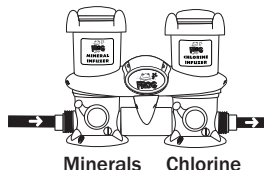
The FROG Leap Twin Infuzers should always be installed between the filter and pool (or between heater and pool if applicable). Never install FROG Leap Twin Infuzers before the heater or damage to the heater could occur.



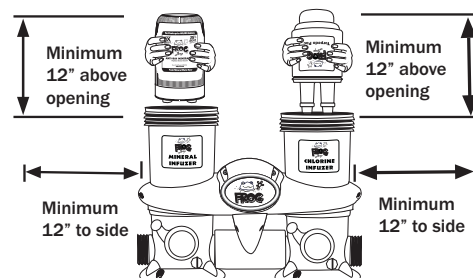
Do NOT install in copper pipe if using FROG Leap Torpedo Pac as chemical corrosion may lead to pipe failure.



Do NOT install FROG Leap Twin Infuzers off-line.

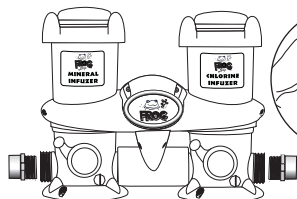


Install with water flowing through the minerals first and then the chlorine.

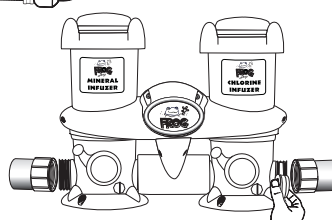


Allow a minimum of 12" above and on each side of FROG Leap Twin Infuzers to ensure room for easy replacement of FROG Leap Anti-Bac Mineral Pac and FROG Leap Torpedo Pac.

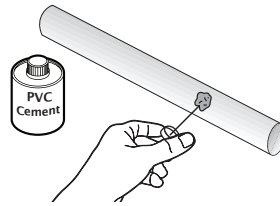
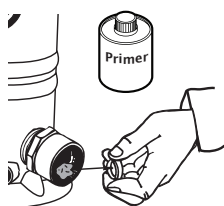
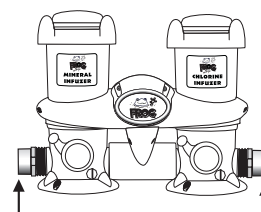
1. Screw adapters into each end of FROG Leap Twin Infuzers following directions for a male adapter or a female adapter. Hand tighten. Finish tightening by turning 1 to 2 revolutions with a pipe wrench. **DO NOT OVER TIGHTEN.**



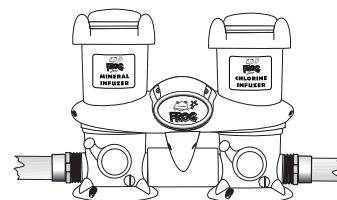
- 1a. If using **Male adapters**, apply pipe thread tape or sealant to the threaded end of each.



- 1b. If using **Female adapters**, apply pipe thread tape or sealant to the threaded end of each.

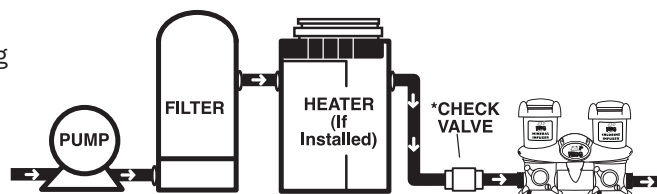


3. Following Primer directions, brush Primer on the inside of the adapters and to ends of pipe. Repeat this process with PVC cement following manufacturer's directions on that product.



4. Insert PVC pipe into adapters with a twisting action. Hold in place 5 to 10 seconds to bond.

5. To prevent damage to heaters or filters, see your dealer about installing a **corrosion resistant check valve** which will reduce the back flow of chlorine gas when the FROG Leap Twin Infuzers are turned off.



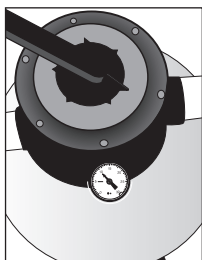
Step 1: Preparing the Pool

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 filter per the manufacturer's directions. A dirty filter will slow the flow of water which could hamper proper circulation.



WARNING

Do not exceed maximum operating pressure of 50 psi.

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) to test for the important Water Balance Guidelines.

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

Water Balance Guidelines

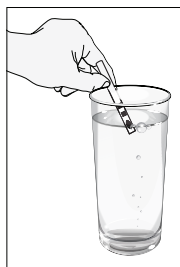
pH:	7.2 – 7.8
Total Alkalinity:	80 – 120 ppm
Calcium Hardness:	200 – 400
Total Dissolved Solids:	<1500
Stabilizer:	20 – 80 ppm
Free Chlorine:	0.5 – 1.0 ppm

Continue... Step 1: Preparing the Pool

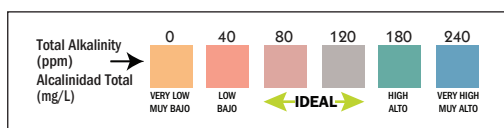
Continue... Step 1: Preparing the Pool

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

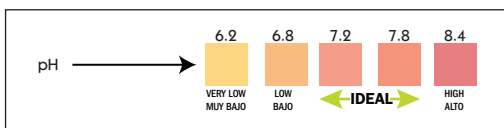
5a. Take a water sample from the pool and dip a FROG Test Strip into it.



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 manufacturer's directions carefully. See the DANGER box below for important guidance on shocking.

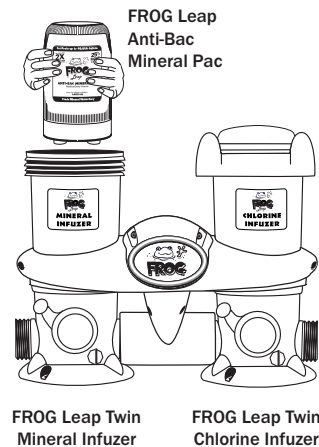


DANGER

- 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 FROG Leap Twin Infusers.

Step 2: Putting the System to Work

1.



Install a FROG Leap Anti-Bac Mineral Pac into the FROG Leap Twin Mineral Infuser. (See page 14 for directions.)

IMPORTANT:

Replace the FROG Leap Anti-Bac Mineral Pac 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 FROG Leap Twin Mineral Infuser, with FROG Leap Anti-Bac Mineral Pac inserted, for 10 minutes on Setting ON.

3.



Shock the pool with FROG Leap Depth Charge to rid the water of contaminants. (See page 15 for FROG Leap Depth Charge directions.)

4.



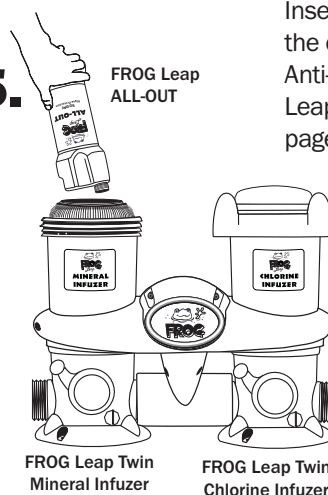
Create a chlorine residual with FROG Leap Reveille or a chlorine shock. (See page 15 for FROG Leap Reveille directions.)



DANGER

If using standard chlorine shocks do not add in or near the skimmer or into the FROG Leap Twin Infusers as it could damage equipment, risk potential explosion or discolor your pool surface.

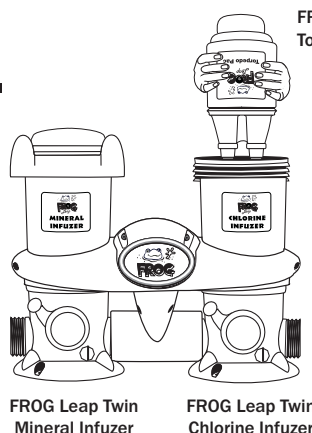
5.



Insert FROG Leap ALL-OUT into the open center of the FROG Leap Anti-Bac Mineral Pac in FROG Leap Twin Mineral Infuser. (See page 16 for directions.)

Use FROG Leap ALL-OUT for a 90-day Algae Protection Guarantee!

6.



When chlorine reading is down to 1.0 ppm, which may take a few days, insert FROG Leap Torpedo Pac into the FROG Leap Twin Chlorine Infuser. (See page 17 for directions.)

Step 3: Setting the Chlorine Infuzer Control Dial

1. These Infuzers are designed to work effectively with a variety of pool equipment as long as the following basic procedures are followed.

1a. Set FROG Leap Twin Mineral Infuzer control dial to Setting 10. No further adjustments are needed.

1b. Set FROG Leap Twin Chlorine Infuzer 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 below for adjusting directions.

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 the pump at low speed only or on high speed less than 6 hours, please follow the 24 hour low-speed directions below.

POOL SIZE		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')	4.0	3.5	3.0	2.5	2.0	1.5	0.5	2.5^	1.0	0.5	0.5	1.5^
9,000	(21')	4.5	4.0	3.5	3.0	2.5	2.0	1.5	3.0^	1.5	1.0	0.5	2.0^
12,000	(24')	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.5	2.0	1.5	1.0	2.5^
15,000		NR	5.0	4.5	4.0	3.5	3.0	2.5	2.0	2.5	2.0	1.5	1.0
20,000		NR	NR	5.0	4.5	4.0	3.5	3.0	2.5	3.0	2.5	2.0	1.5
25,000		NR	NR	5.5	5.0	4.5	4.0	3.5	3.0	3.5	3.0	2.5	2.0
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

^ – Bypass installation recommended. See “Installation Tips” on page 6.

RECOMMENDED FLOW RATE: 20-60 gpm

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

24 HOUR, LOW-SPEED PUMP-RUN TIME

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

EXAMPLE

POOL SIZE		12 Hour Pump Run Time			
		Pump Size			
Gallons	Diameter	1/2 hp	3/4 hp	1 hp	1 1/2 hp
7,000	(18')	2.0	1.5	0.5	2.5^
9,000	(21')	2.5	2.0	1.5	3.0^
12,000	(24')	3.0	2.5	2.0	1.5
15,000		3.5	3.0	2.5	2.0
20,000		4.0	3.5	3.0	2.5
25,000		4.5	4.0	3.5	3.0

Find your starting dial setting by matching up the parameters of your pool on the above chart. An above ground pool with approximately 12,000 gallons with a 1 horse pump running 12 hours a day would require a starting setting of 2.0.

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 each testing, adjust the dial up by 1/2 increment if the free chlorine reading has dropped below 0.5 ppm or adjust 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.

IMPORTANT: Control dial settings in excess of these recommendations could result in excess trichlor levels being discharged into the pool. This can result in bleaching or discoloration of areas around the pool inlet or in some cases bleaching or discoloration of the entire pool liner or paint. In addition, excess trichlor in the pool can create health hazards to bathers.

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

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.



WARNING

To prevent the build up of gas pressure in the FROG Leap Twin Infusers, be sure the pool return line valves are open –except when opening or servicing the unit.

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.

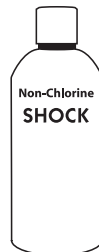
Note: These lower chlorine levels are only acceptable when using FROG minerals.



DANGER

Do not contaminate the FROG Leap Twin Infusers, FROG Leap Anti-Bac Mineral Pac, FROG Leap Torpedo Pac, FROG Leap Pool Wake Up!/Pool Hibernation (which includes FROG Leap Depth Charge, FROG Leap Reveille and FROG Leap CANNONBALL!) with dirt, organic matter, pool chemicals (such as calcium hypochlorite or pool shocks), fertilizers or other household chemicals. Contact between any of these substances and the FROG Leap Twin Infusers, FROG Leap Anti-Bac Mineral Pac, FROG Leap Torpedo Pac, FROG Leap Pool Wake Up!/Pool Hibernation (which includes FROG Leap Depth Charge, FROG Leap Reveille and FROG Leap CANNONBALL!), will result in a chemical reaction with the generation of heat, liberation of hazardous gasses and fire or explosion.

4.



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



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 FROG Leap Twin Infusers.

5.



Before closing the pool for the winter, use FROG Leap Pool Hibernation following the same directions as FROG Leap Pool Wake Up! on page 15.

6.



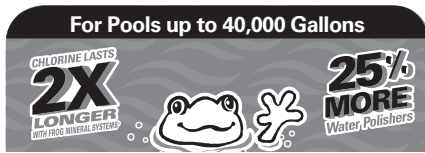
Remember to replace FROG Leap Anti-Bac Mineral Pac and all other FROG Leap replacements as directed.

Replacing a FROG Leap Anti-Bac Mineral Pac

Must be replaced every 6 months or after one pool season.



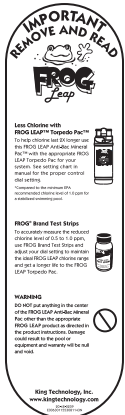
1.



Check the top of the box and back label of product to make sure you have the correct FROG Leap Anti-Bac Mineral Pac to fit your FROG Leap Twin Mineral Infuser.

IMPORTANT: The FROG Leap Anti-Bac Mineral Pac must be replaced every 6 months or after one pool season, whichever is shorter.

2.



IMPORTANT: Remove and read the information card.

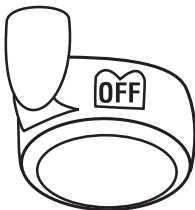
Please note: Complete instructions for inserting a FROG Leap Anti-Bac Mineral Pac, and all other FROG Leap products are included inside the FROG Leap Anti-Bac Mineral Pac.



DANGER

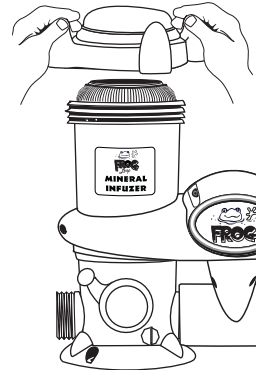
- Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the FROG Leap Twin Infusers.

3.



Turn off pump and turn the FROG Leap Twin Mineral Infuser control dial to Setting OFF. This reduces the flow of water into the unit when the cap is open.

4.

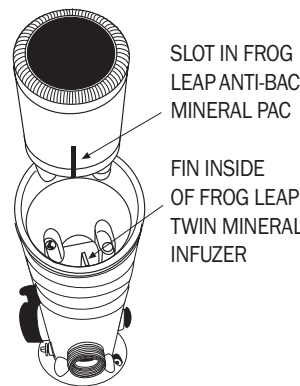


Open FROG Leap Twin Mineral Infuser cap.

5.

Remove the Anti-Bac Mineral Pac and discard if it has been used for one pool season or 6 months, whichever is shorter.

6.



Find slot on side of FROG Leap Anti-Bac Mineral Pac and line up with fin inside the FROG Leap Twin Mineral Infuser. Lower FROG Leap Anti-Bac Mineral Pac into FROG Leap Twin Mineral Infuser until secure.

7.



Mark your calendar for the six month replacement of the FROG Leap Anti-Bac Mineral Pac. **Once wetted, the time-released mineral coating of this product is effective up to 6 consecutive months or 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.**

Using FROG Leap Pool Wake Up!



FROG Leap
Depth Charge



FROG Leap
Reveille



FROG Leap
ALL-OUT

FROG Leap Depth Charge is a one time start-up product used to rid the water of all contaminants.

FROG Leap Reveille - also used at start up, sets the chlorine residual to help find the proper dial setting for maintaining up to 50%* less chlorine.

FROG Leap ALL-OUT offers a 90-day Algae Protection Guarantee.

FROG Leap ALL-OUT is also sold separately.

Operate

For FROG Leap Depth Charge and Reveille



DANGER

Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the FROG Leap Twin Infusers.



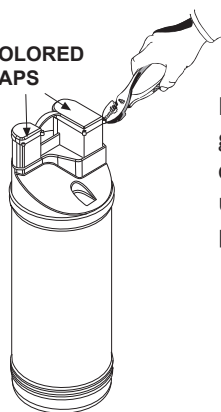
WARNING

Avoid sparks, smoking, or any open flame near FROG Leap Twin Infusers or chemicals.

Important: Read the labels on the FROG Leap Depth Charge, Reveille and ALL-OUT products carefully before using.

Important: Make sure the FROG Leap Chlorine Infuser is empty when using the 3 FROG Leap Pool Wake Up! products in the FROG Leap Mineral Infuser.

1. COLORED CAPS



Remove colored caps by grabbing on to the lip of one cap with a pliers and pull up until cap releases. Repeat the process for the other cap.

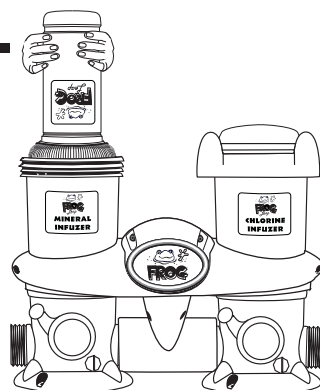
2.



PAC TOWERS — PAC TOWERS

Coloque el Pac boca abajo y agítelo suavemente hasta que los ingredientes caigan en las áreas de las torres.

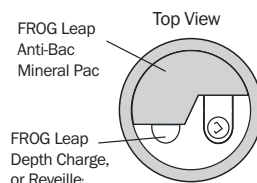
3.



FROG Leap Twin
Mineral Infuser

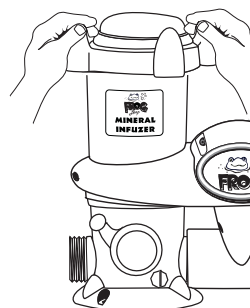
FROG Leap Twin
Chlorine Infuser

Line up the small leg of the Depth Charge or Reveille with the small opening in the FROG Leap Anti-Bac Mineral Pac and the large leg with the large opening. Lower pac into FROG Leap Anti-Bac Mineral Pac until secure.



FROG Leap
Depth Charge,
or Reveille

4.



Replace cap by hand only.
DO NOT OVER TIGHTEN.

5.



Turn the control dial on the FROG Leap Twin Mineral Infuser to Setting ON.

6.

Run the pump and filter for each pac according to the directions on the product label. Remove from the FROG Leap Twin Mineral Infuser when empty and discard or offer for recycling.

Using FROG Leap ALL-OUT for an Algae-Protection Guarantee

If you are not using FROG Leap ALL-OUT, refer to page 17 for using the FROG Leap Torpedo Pac. See FROG Leap ALL-OUT product labeling for complete directions for use (EPA Reg. No. 53735-9).

For a preventive dose add:

- One FROG Leap ALL-OUT for pools up to 15,000 gallons.
- Two FROG Leap ALL-OUT for pools between 15,000 to 30,000 gallons.
- Three FROG Leap ALL-OUT for pools between 30,000 to 40,000 gallons.

***NOTE:** If using directly after a shock treatment, test the water first to ensure the pH is in the proper range of 7.2-7.8 and the chlorine level is no more than 4.0 ppm. Avoid using other chemicals until this product has been circulated (filtered) for at least 24 hours.



DANGER

Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the FROG Leap Twin Infusers.

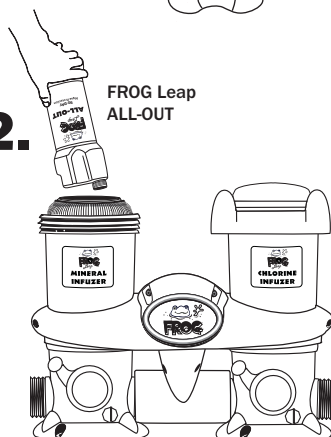
Important: If storing FROG Leap ALL-OUT prior to use, always keep in a cool, dry place away from children and pets.

1.



Remove cap from FROG Leap ALL-OUT without removing seal.

2.



FROG Leap Twin Mineral Infuser

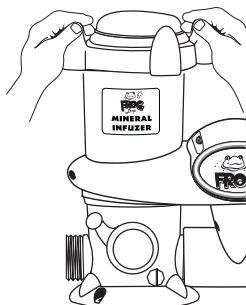
FROG Leap Twin Chlorine Infuser

Insert upside down into center of FROG Leap Anti-Bac Mineral Pac pushing down firmly on FROG Leap ALL-OUT bottle allowing key in FROG Leap Twin Mineral Infuser to puncture seal.

Looking down at top of bottle

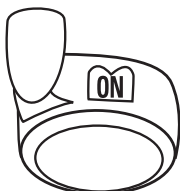


3.



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

4.



Turn the FROG Leap Twin Mineral Infuser control dial to setting ON.

5.



Turn pump on for 90 minutes allowing FROG Leap ALL-OUT to circulate through pool.

6.



To remove expended FROG Leap ALL-OUT bottle, turn pump off and turn dial to OFF on the FROG Leap Twin Mineral Infuser.

7.



Remove FROG Leap Twin Mineral Infuser cap.

8.

Lift FROG Leap ALL-OUT up and allow any water in the container to drain through the FROG Leap Twin Mineral Infuser before discarding in trash or offering for recycling. Do not reuse or refill this container.



FROG Leap Twin Mineral Infuser

FROG Leap Twin Chlorine Infuser

NOTE: If water shows more than a hint of blue inside FROG Leap Twin Mineral Infuser, replace the cap, turn dial to ON and run the pump for one minute.

8a. If pool size requires additional FROG Leap ALL-OUT, repeat steps 1-8.

8b. When water is clear in FROG Leap Twin Mineral Infuser, insert a FROG Leap Torpedo Pac into the FROG Leap Twin Chlorine Infuser according to the instructions on page 17.

Using FROG Leap Torpedo Pac



FROG Leap Torpedo Pac is required to assure up to 50% reduction in chlorine use*. FROG Leap Torpedo Pac sold separately. (EPA Reg. No. 53735-2)

IMPORTANT: Read the label on the FROG Leap Torpedo Pac carefully before using.



DANGER

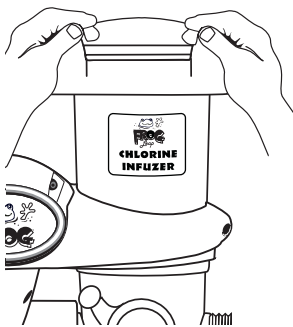
Never use fast dissolving chlorine tablets, liquid bleach, or calcium hypochlorite in the FROG Leap Twin Infusers.



WARNING

Avoid sparks, smoking, or any open flame near FROG Leap Twin Infusers or chemicals.

1.



Turn off pump. Turn control dial on FROG Leap Twin Chlorine Infuser to 0.

Remove cap from FROG Leap Twin Chlorine Infuser and stand back to let any chlorine fumes dissipate.

2.

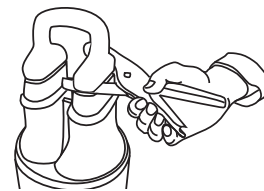
Cut handle from FROG Leap Torpedo Pac using a PVC cutting tool (KEEP OUT OF REACH OF CHILDREN).

A. Find the indent in the plastic.



B. Place curved section of tool around the narrow end of one pac tower and line up blade on indent.

PVC cutting tool available at local hardware stores.

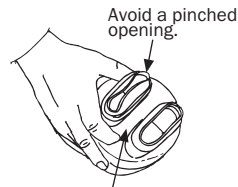


C. Squeeze the handles together. Repeat for other side

Finished cut ends



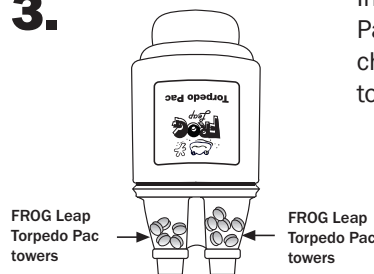
D. Make sure the blade comes straight across on the indent line for a clean cut.



A correct oval opening.

E. If openings are pinched together, open with fingers or re-cut closer to the colored screens inside FROG Leap Torpedo Pac. Leave at least 1/4" of plastic to fit into FROG Leap Twin Chlorine Infuser base.

3.

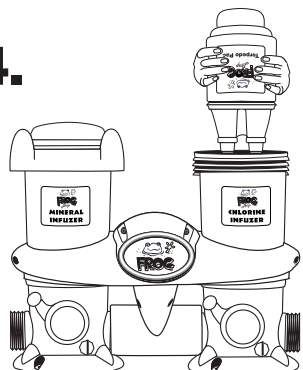


Invert FROG Leap Torpedo Pac and shake slightly until chlorine tablets fall into tower areas.

Continue...page 18
Using the FROG Leap Torpedo Pac

Continue... Using FROG Leap Torpedo Pac

4.

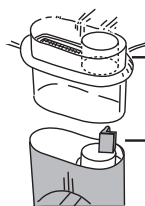


FROG Leap Twin
Mineral Infuser

FROG Leap Twin
Chlorine Infuser

Insert FROG Leap Torpedo Pac into FROG Leap Twin Chlorine Infuser, lining up the openings in the FROG Leap Torpedo Pac with keys in the FROG Leap Twin Chlorine Infuser.

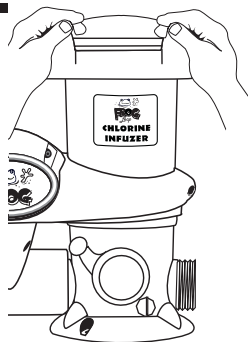
NOTE: Openings are a different shape than keys



Opening in
FROG Leap
Torpedo Pac

Key in FROG
Leap Twin
Chlorine
Infuser

5.



Replace cap by hand only.

DO NOT OVERTIGHTEN.

6.



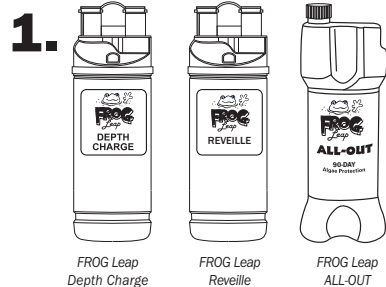
The chlorine pac container is made of HDPE plastic. Non-refillable container. Do not reuse or refill this container. Offer for recycling if available. Rinse thoroughly before recycling or discarding in trash.

7.



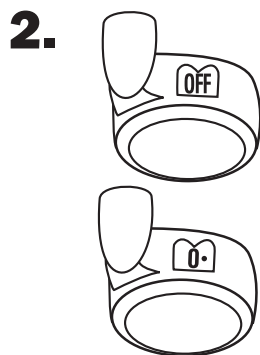
Mark your calendar ahead for the approximate replacement times for the FROG Leap Torpedo Pac.

Winterizing

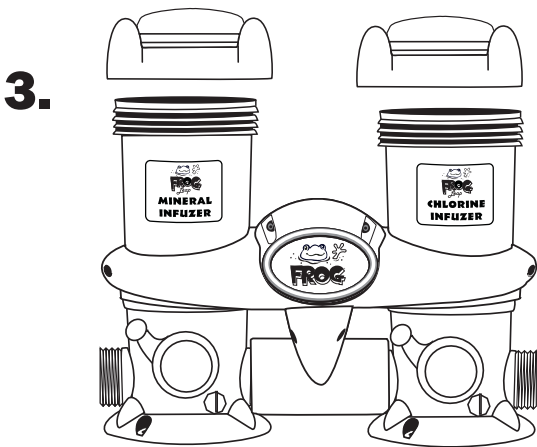


Before closing your pool, refer to page 15 and follow directions for using FROG Leap Pool Hibernation, (same directions as using FROG Leap Pool Wake Up!)

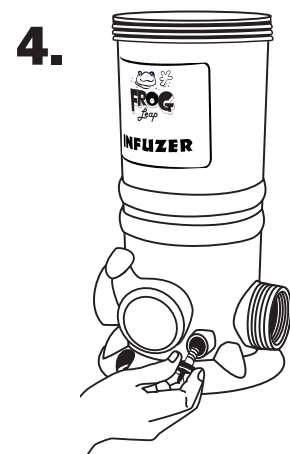
Then follow Steps 2-6 below.



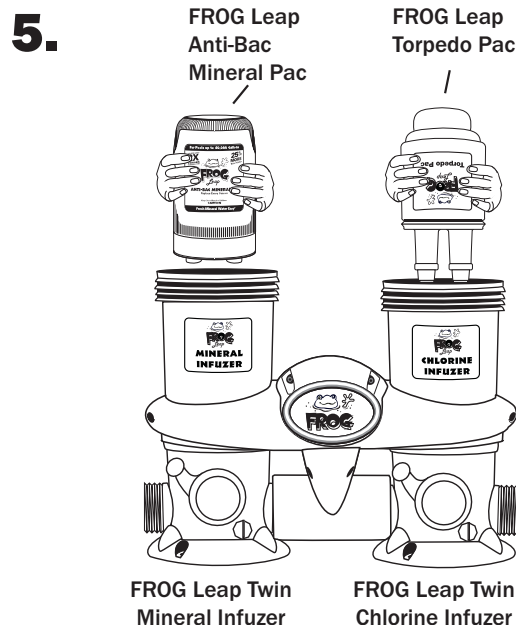
Turn pump off and turn dial to OFF on FROG Leap Twin Mineral Infuser and to setting 0 on FROG Leap Twin Chlorine Infuser.



Remove both caps.



Unscrew knob from the front of BOTH FROG Leap Twin Infusers. Allow all water to drain.



Remove the FROG Leap Anti-Bac **Mineral Pac** and discard in trash. You will hear spent media inside, however it is no longer effective.

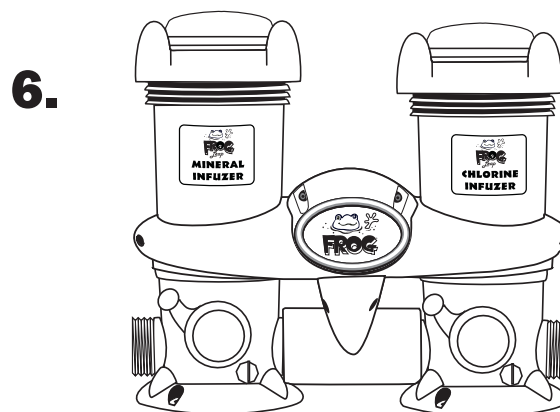
Remove the FROG Leap **Torpedo Pac**. If it still contains chlorine, wrap in plastic bag and store in shed or cool, dry, well-ventilated location away from children, pets, cars, motorcycles, or anything metal that can rust, pit, etc.

If empty, rinse and recycle.



WARNING

Avoid sparks, smoking, or any open flame near FROG Leap Twin Infusers or chemicals.



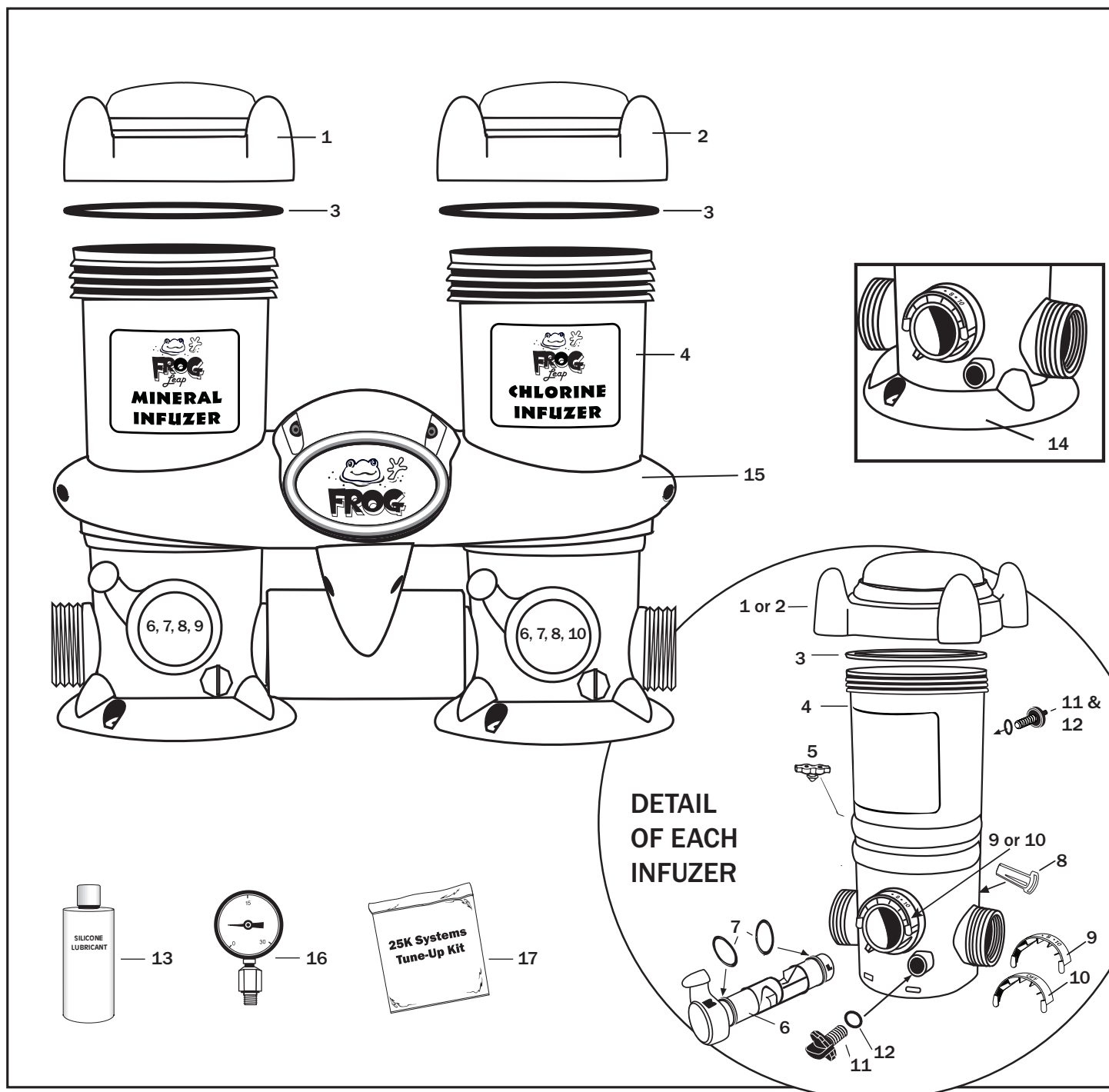
Replace both the caps and knobs loosely.

Troubleshooting

For more in-depth troubleshooting, go to frogproducts.com or call King Technology at 800-222-0169.

Problem	Remedy		
1. What do I do if the water looks cloudy?	<p>1. Make sure your filtration system is working properly (i.e. clean filter, skimmer and pump basket).</p> <p>2. Make sure circulation time is adequate – increase pump time if not.</p>	<p>3. Make sure the pool is properly balanced (see page 9).</p> <p>4. Shock the water to eliminate build up of any organic matter.</p>	<p>5. Make sure pool has a free chlorine reading of 0.5 to 1.0 ppm.</p> <p>6. Check with your dealer for more information.</p>
2. What do I do if the water turns color?	<p>1. Algae may be trying to form – shock the pool, increase circulation time if needed and clean the filter.</p>	<p>2. Metals in the fill water may have been oxidized. Have the pool tested. See pool dealer if a metal control product is required.</p>	<p>3. Check with your dealer for more information.</p>
3. What do I do if algae forms in or on my pool?	<p>1. Use FROG Leap ALL-OUT or an effective algaecide per the directions on the bottle and brush the sides of the pool often.</p> <p>2. Clean the filter and shock the pool with chlorine daily until water</p>	<p>clarity returns.</p> <p>3. If you are in an area of the country that struggles with algae growth, see your dealer regarding a 90-day Algae-Protection Guarantee using FROG Leap ALL-OUT. See product hang tag for guarantee details.</p>	<p>4. Check with your dealer for more information.</p>
4. What do I do if I am under chlorinating with the FROG Leap Torpedo Pac?	<p>1. If you are unable to maintain 0.5 to 1.0 ppm, first make sure there are chlorine tablets in the tower areas of the FROG Leap Torpedo Pac and it is installed properly. If a correction was made, test the water in 24 hours.</p> <p>2. If still low, turn the dial up one setting and test the water again in 24 hours. Continue raising the setting by one increment each day until the proper reading is achieved.</p>	<p>3. Shock the pool if the reading has been lower than 0.5 ppm for more than one day.</p> <p>4. Make sure pump run time is at least 6 hours on high speed (40 gpm or higher) or if not, bleed the air from the back knobs each time cap is open.</p> <p>5. Contact your dealer to have your back pressure tested. If under 4 psi consider a smaller eye-ball fitting in the return jet.</p>	<p>6. Check for a suction side leak by looking for air bubbles in your pump basket or at the return jet. Your water level will be low and the skimmer will be taking in air. Contact dealer for help in correcting this situation.</p> <p>7. Contact King Technology's Customer Service Department at 800-222-0169.</p>
5. What do I do if I am over chlorinating with the FROG Leap Torpedo Pac?	<p>1. If the chlorine reading is over 3.0 ppm, remove the Torpedo Pac from the FROG Leap Twin Chlorine Infuser and test the water daily until the reading is down to 1.0 ppm.</p> <p>2. Reinsert the FROG Leap Torpedo Pac, lower the dial one setting and test the water again in 24 hours. If the reading has risen, lower the dial one setting again. Continue this process until proper reading is achieved.</p>	<p>3. If over-chlorinating at the lowest possible setting, consider decreasing the circulation time. Depending on your pump size, you may be circulating the water more than is necessary.</p> <p>4. Contact your dealer to have your back pressure tested. If over 8 psi consider a larger eye-ball fitting in the return jet.</p>	<p>5. Check to see if the pressure relief valve is loose or missing and replace. It is a clear plastic piece approximately 1" long installed inside near the base. If loose or missing, it can provide another avenue for water to reach the chlorine.</p> <p>6. Contact King Technology's Customer Service Department at 800-222-0169.</p>

Parts List



Troubleshoot

INCLUDED with FROG Leap Twin Infusers

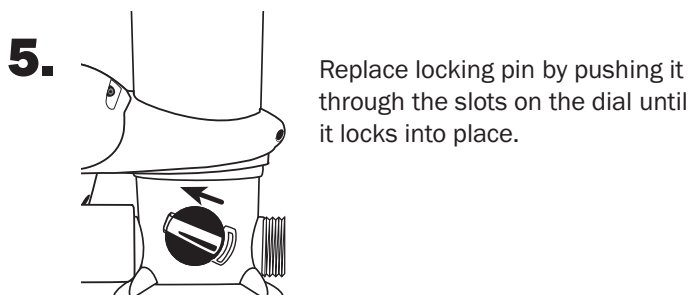
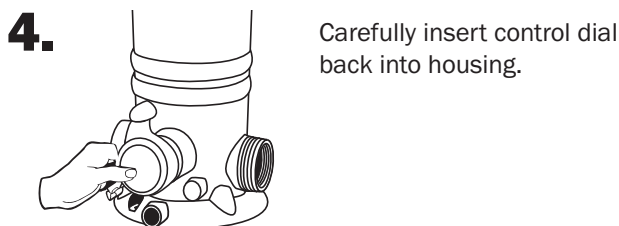
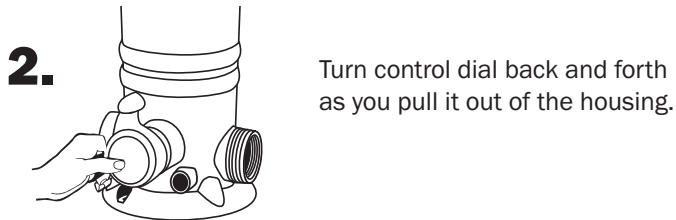
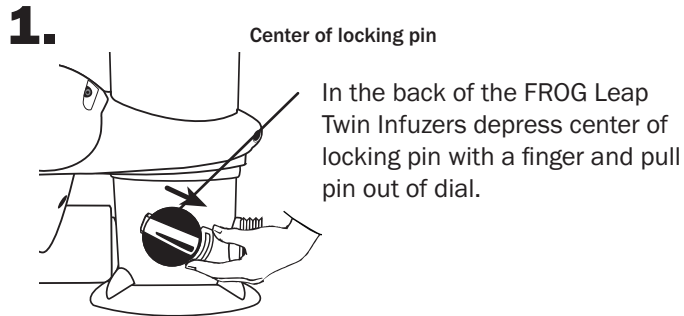
REF. #	DESCRIPTION	QTY. INCLUDED
1 & 3	Cap w/O-Ring (for Mineral Infuser)	1
2 & 3	Cap w/O-Ring (for Chlorine Infuser)	1
4	Body	2
5	Pressure Relief Valve	2
6, 7, 8, 9	Mineral Control Dial with O-Rings, Locking Pin and On/Off Number Plate	2
6, 7, 8, 10	Chlorine Control Dial with O-Rings Locking Pin and 0-10 Number Plates	2
11 & 12	Knob with O-Ring	4
13	Silicone Lubricant	1
14	Mounting Base	2
15	Shroud	1

REPLACEMENT parts for FROG Leap Twin Infusers

REF. #	PART NO.	DESCRIPTION
1 & 3	01-22-1410	Cap w/O-Ring (for Chlorine Infuser)
2 & 3	01-22-1413	Cap w/O-Ring (for Mineral Infuser)
3	01-22-1926	Cap O-Ring
5	01-22-9486	Pressure Relief Valve
6, 7, 8, 9 or 10	01-22-1457	Control Dial with O-Rings Locking Pin and both Number & On/Off Plates
7	01-22-1456	Control Dial O-Ring Set
11 & 12	01-22-9627	Knob with O-Ring
13	01-22-9970	Silicone Lubricant
14	01-22-1481	Mounting Base
16	01-22-4000	Pressure Gauge
17	01-22-1470	25k Tune-Up Kit

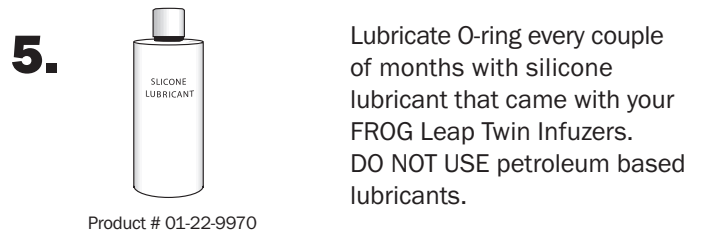
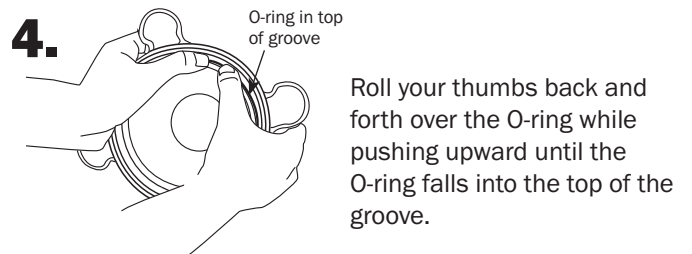
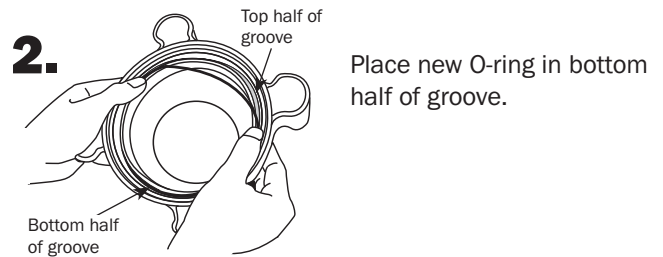
FROG Leap Twin Infuzers Maintenance

Replacing the Control Dial O-Rings



Replacing Cap O-Ring

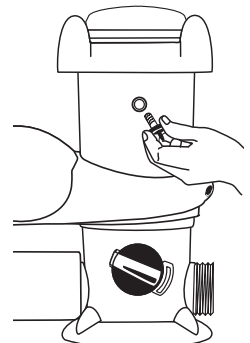
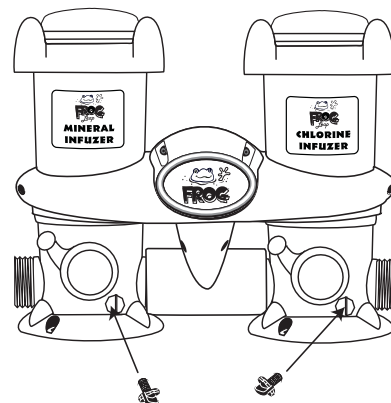
1. Remove old O-ring.



Replacing Knobs

Front of Infuzers

Back of Infuzers



To replace, simply unscrew old knob and replace with the new one.

FROG Leap Twin Infusers Two-Year Limited Warranty

Register your product online today to extend your FROG Leap warranty to lifetime.
frogproducts.com/reg

King Technology, Inc. will warrant this unit with a complete replacement for the original purchaser, should it prove defective by reason of improper workmanship and/or material for a period of two (2) years from the date of original purchase/installation. This warranty covers body, cap and control dial excluding O-rings. King Technology holds the option of replacing any defective part without charge if it is determined to be all that is needed to correct any situation. Parts used for replacement, with the exception of O-rings, are warranted for the remainder of the original warranty.

1. To obtain warranty service, you must deliver product to King Technology or its nearest authorized dealer. Shipping expenses are the purchaser's responsibility. The name of the nearest authorized dealer can be obtained at frogproducts.com/find-a-dealer or by calling King Technology at 1-800-222-0169. Proof of purchase is required when requesting warranty service. Purchaser must present the sales receipt or other document which establishes proof of purchase. To extend your warranty to a lifetime warranty, go to frogproducts.com/reg.

2. This warranty does not cover defects caused by: modification, alteration, repair or service of the product contrary to the accompanying instructions; physical abuse to or misuse of the product or operation or installation in a manner contrary to the accompanying instructions. This warranty also excludes all costs arising from the installation, adjustment, removal or replacement of defective units or parts. This warranty also excludes any and all claims arising out of the chemicals used in the product or their characteristics.

3. Any express warranty not provided for herein, and any remedy for breach of warranty or breach of contract which, but for this provision, might arise by implication or operation of law, is hereby expressly excluded and disclaimed. The implied warranties of merchantability and of fitness for any particular purpose are expressly limited to a term of two years. Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

4. Under no circumstance shall King Technology be liable to purchaser or any other person for any damage or loss incurred because of any chemicals used in the product or their physical characteristics, or interruption of service of the product, or any special, incidental or consequential damages or losses, whether arising out of breach of warranty, breach of contract or otherwise. Some states do not allow the exclusion or limitation of incidental consequential damages, so the above limitation or exclusion may not apply to you.

5. Misuse or failure to use the proper FROG Leap Anti-Bac Mineral Pac, FROG Leap Torpedo Pac or FROG Leap Pool Wake Up!/Pool Hibernation (which includes FROG Leap Depth Charge, FROG Leap Reveille and FROG Leap ALL-OUT) may cause damage to equipment or personal injury. All warranty null and void if this product is not used with the recommended FROG Leap Anti-Bac Mineral Pac, FROG Leap Torpedo Pac or FROG Leap Pool Wake Up!/Pool Hibernation.

Don't forget to register your warranty and sign up to receive emails on special offers and helpful water care tips. Visit frogproducts.com/reg

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POOL FROG®	FROG BAM®	FROG @ease®	New Water®
POOL FROG XL PRO®	FROG Serene™	SmartChlor®	Perform-Max

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