



**IN-LINE SYSTEM
OPERATING
INSTRUCTIONS**



Congratulations!

Your spa came with the most advanced, revolutionary sanitation system available today. When using the unique SPA FROG Mineral Cartridge with the exclusive SPA FROG Bromine Cartridge, you'll enjoy your spa more with LESS WORK and LESS BROMINE.



Less Work Because:

- Minerals continuously work to control bacteria for four full months.
- Cartridges last longer to eliminate daily maintenance.
- Cartridges are pre-filled for no measuring or mess.
- Simply adjust to your setting and relax for weeks.

Less Bromine Because:

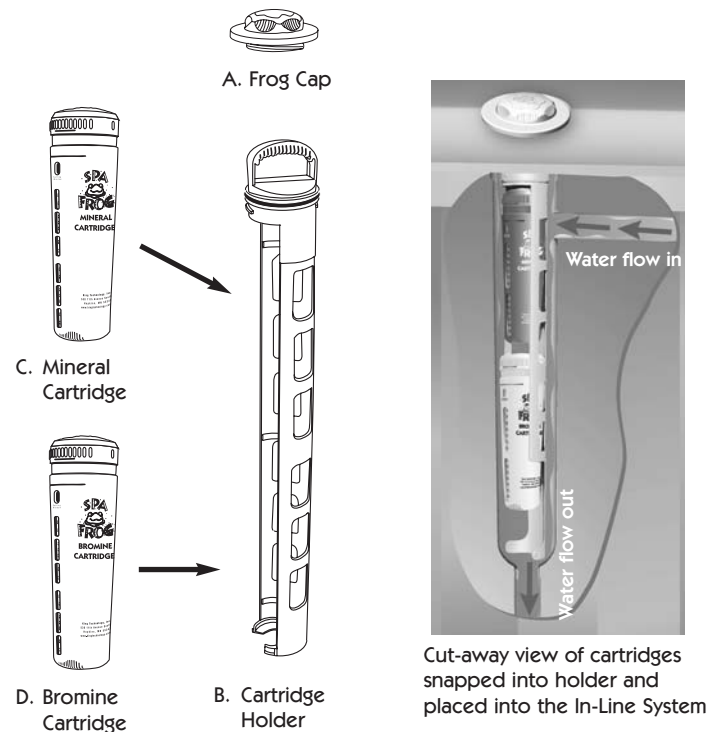
- With minerals in the water, bromine use is cut by up to 50%.*
- Bromine lasts longer: 2-4 weeks on a 350 gallon spa with average use.
- With minerals and low levels of bromine, the water feels softer.
- The system reduces odors and leaves the water crystal clear.
- SPA FROG has the only minerals that work with bromine.

You're going to love your SPA FROG System. If you have any questions, contact our customer service representatives at **800-222-0169**.

*Compared to the ANSI/NSPI recommended minimums for bromine in a spa.

Let Us Dissect This Frog For You:

The SPA FROG In-Line System is made up of (A) a Frog cap that is easily distinguishable among the fittings on the top of the spa, (B) a cartridge holder that pulls out of the system, (C) a Mineral Cartridge that controls bacteria in the water and (D) a Bromine Cartridge that helps support the minerals while oxidizing contaminants like body oils. The cartridges are adjustable to meet your specific spa water care needs.



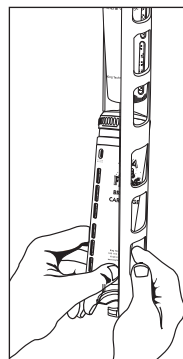
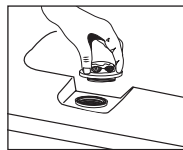
START UP • Follow all directions from your spa manufacturer on filling and balancing the water in your spa.

Standard guidelines for balancing the water are as follows:

*NOTE: Bromine levels are lower only when used with FROG minerals.

WATER BALANCE GUIDELINES	
pH:	7.2-7.8
Total Alkalinity:	60-120 ppm
Calcium Hardness:	150-400
Total Dissolved Solids:	<1500
*Free Bromine:	1.0-2.0 ppm

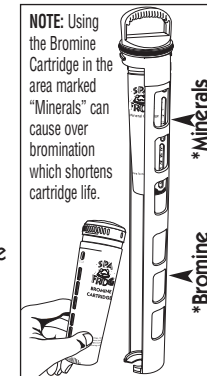
- Use a metal out or sequestering agent if fill water is high in metals. Wait 24 hours before continuing start up.
 - Shock spa to establish a 1.0-2.0 ppm chlorine or bromine residual and remove all contaminants. Add directly to spa following manufacturers' directions. Do NOT add through the SPA FROG System.
 - When spa reaches operating temperature per your spa manufacturer's directions, set the Mineral and Bromine Cartridges according to directions on page 6 and insert them into the System.
 - Open cap of SPA FROG In-Line System and set aside. DO NOT OPEN CAP WHILE JETS ARE ON.
 - Remove holder by pushing down and turning counterclockwise before pulling out.
 - Remove spent cartridge by pushing bottom out through openings in back of holder. Then grab cartridge and pull out. Drain water from hole openings to confirm it is empty. Then discard.
- NOTE: Mineral Cartridge may contain spent media after four months. Discard and replace.



- Snap the Mineral Cartridge into the area marked "Minerals" (top portion) and the Bromine Cartridge into the area marked "Bromine" (bottom portion) making sure to line up the indentation at the top of the cartridges with the raised area on the holder.



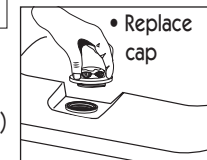
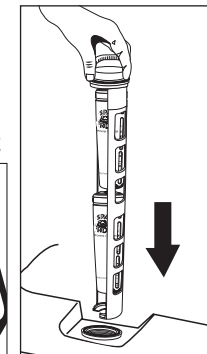
*Placement printed on back of holder



- Slowly insert holder into system. Line up holder arrow-1 with system arrow-2. Push down until holder tabs-3 go past system tabs-4 and turn holder to the right (clockwise) until it stops. To ensure a locked position, attempt to pull holder up. If it stays in place, the lock is secure.



- Begin regular spa care procedures (see pg 7) as soon as start-up is complete.



Adjusting & Replacing Mineral Cartridge:

Open Mineral Cartridge wide open to setting #6 by holding the top of the unit and turning the bottom counterclockwise until the #6 appears in the setting window.



The Mineral Cartridge must be replaced every 4 months. For ease in remembering, mark your calendar with the Reminder Stickers included with this manual or replace the SPA FROG Mineral Cartridge every time you drain and fill your spa (every 90 to 120 days—see spa manufacturer's draining recommendations).

Adjusting and Replacing Bromine Cartridge: As every spa is different, finding the right setting for the Bromine Cartridge will require monitoring your usage for the first week or two. Begin with an initial setting based on the chart below and monitor bromine levels daily or before each use, adjusting the cartridge by one setting per day until a 1.0-2.0 ppm level has been achieved. To adjust cartridge, remove from system and turn to the next highest setting if the bromine level is low, or the next lower setting if the bromine level is high. The Bromine Cartridge needs to be replaced when empty. On most spas, it will last between 2 and 4 weeks. Always maintain 1.0-2.0 ppm bromine level.

INITIAL START-UP SETTING

Daily Filter Time	Spa Size (gallons)		
	250-300	300-400	400-500
One hour	2	3	4
Two hours	2	2	3
Four hours	1	2	2

NOTE: The more you use the spa, for instance when you first get it, the greater the setting to achieve a constant 1.0-2.0 ppm. (This may require a higher setting than what is listed in the chart.) If usage decreases or the bromine level is greater than 2.0 ppm, the setting should be lowered.

Regular Spa Care Procedures:

Always follow the directions for operating your particular spa.

1. Run filtration system as directed by your spa manufacturer to maintain proper water flow through the SPA FROG In-Line System.



2. Regularly test water for pH, total alkalinity and bromine levels. Maintain a 1.0-2.0 ppm bromine level at all times.



3. Shock the spa with granular chlorine or a non-chlorine shock once a week or if water looks hazy.

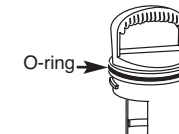
Additional shocking may be required if the spa is under heavy use. This is often the case when the spa is new.



4. Remember to replace Bromine Cartridge when empty and replace your SPA FROG Mineral Cartridge every 4 months or whenever you drain and refill spa. NOTE: Once wetted the time released mineral coating of the product is effective up to 4 months. After that time, even if you hear the spent media inside, it is no longer effective and must be replaced.



5. Lubricate o-ring twice a year with a silicone lubricant.





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