

SPA FROG® Floating System Instructions

SPA FROG® sanitizes your hot tub by creating



**Fresh Mineral Water
Cleaner**
Easy

- because it kills bacteria two ways
- Clearer**
because it helps keep pH balanced
- Softer**
because there's up to 50%* less bromine
- Easier**
with pre-filled cartridges for no mess, or measuring

* Compared to the minimum ANSI recommended bromine level of 2.0 in a residential hot tub.

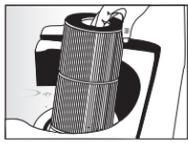
Step 1: Prepare the Hot Tub

1. Fill hot tub with fresh water.



If using source water that is high in iron or other metals, see your dealer before filling the hot tub. It may require the use of a metal control product.

2. Clean and replace filter cartridges. (Follow manufacturer's instructions).



3. Balance water by following STEPS a – d in order.

IMPORTANT: Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with the jets on and wait 6 hours before testing again and adding any additional balancing chemicals.

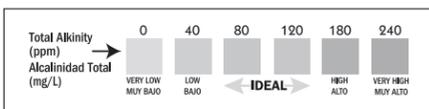
Water Balance Guidelines

pH:	7.2 - 7.8
Total Alkalinity:	80 - 120 ppm
Calcium Hardness:	150-250
Total Dissolved Solids:	<1500

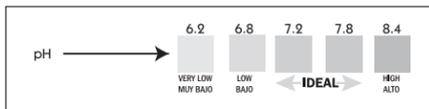
a. Take a water sample from the hot tub and dip a FROG Test Strip into it.



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. Lastly **test for Calcium Hardness**. It should be **between 150 and 250 ppm**. If higher, partially drain the hot tub (about 6 inches) and fill with water low in calcium. If lower, add Calcium Increaser.

If balancing takes longer than 2 days shock the water and maintain a chlorine level while continuing balancing.

4. **Very Important!** Establish an initial residual of 1.0-2.0 ppm bromine or chlorine. For best results use FROG Jump Start (EPA Reg. #53735-12) that quickly dissolves with an effervescent action – one packet per 500 gallons. Do not use a non-chlorine shock. Confirm proper residual amount before employing SPA FROG Floating System.

5. Heat water to the manufacturer's recommended temperature.

6. Begin routine hot tub care (see Step 4: Routine Hot Tub Care) as soon as hot tub is prepared.



Manufactured by: King Technology, Inc.
530 11th Ave S, Hopkins, MN 55343 U.S.A.
952-933-6118 • Customer Service 800-222-0169
FAX 952-933-2206 www.FrogProducts.com

Made in U.S.A. Patents: www.KingTechnology.com/IP

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Step 2: Set the Cartridges

1. The SPA FROG Floating System has two replaceable cartridges.



Blue = Minerals
Yellow = Bromine

The combination provides the **Fresh Mineral Water®** benefits of **cleaner, clearer and softer water that's easier to take care of.**

2. Set the mineral cartridge to #6 (hold the bottom and turn the top until 6 appears in the setting window). No further adjustments are necessary for the life of this cartridge.



3. Set the bromine cartridge to the setting that matches your hot tub size in gallons.



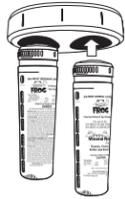
System Setting Chart	
200 Gallons	0
250 Gallons	1
300 Gallons	1
350 Gallons	2
400 Gallons	3
450 Gallons	4
500 Gallons	5
550 Gallons	5
600 Gallons	6

4. For one week test the water daily with FROG Test Strips and adjust cartridge up or down by 1 setting per day until the color on the test strip matches the ideal FROG bromine range of 1.0 to 2.0 ppm.



Step 3: Put the System to Work

1. Insert both cartridges into the green floating holder by pushing them into the openings until they stay in place.



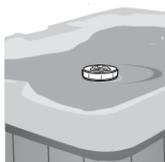
2. Let the Floating System free-float in the hot tub.



3. When using the hot tub, simply remove SPA FROG Floating System, drain the water into the hot tub and invert on the side of the hot tub.



4. **REMEMBER TO RETURN SPA FROG FLOATING SYSTEMS TO HOT TUB WHEN YOU GET OUT!**



Replacing Cartridges

Replace blue MINERAL CARTRIDGE every four months.



- Discard it in the trash even if it appears to have media left inside.
- Don't attempt to reuse: the minerals are spent after 4 months.
- Use the enclosed stickers to remind you when it's time to replace.

Replace yellow BROMINE CARTRIDGE when empty.



- Life of cartridge varies depending on hot tub size and number of users.
- Drain water from cartridge to ensure it is empty.
- Discard in trash or recycle.

Step 4: Routine Hot Tub Care

1. Drain and refill hot tub as directed by your hot tub manufacturer or every four months when FROG minerals need to be replaced.



2. Run filtration system as recommended by your hot tub manufacturer.



3. Regularly test water. Maintain pH, Total Alkalinity and Calcium Hardness levels with the precise FROG Test Strips.



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

4. Maintain at least 1.0 ppm bromine level at all times.
Note: Bromine or chlorine levels are lower only when used with FROG minerals.



5. Shock the hot tub once a week or as needed with a non-chlorine shock. Heavily used hot tubs may require more frequent shocking.

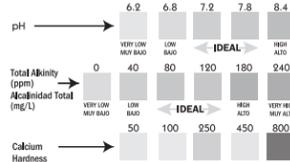


6. Replace mineral cartridge and bromine cartridges as directed in Step 3 #1.



Troubleshooting

• Cloudy Water or Low-Bromine Levels



- Check water balance. Ensure pH, Total Alkalinity and Calcium Hardness are correct.

• Check Bromine Cartridge. If empty, replace following directions in Step 3.

• Make sure your Mineral Cartridge is not older than 4 months as it will be ineffective and more bromine will be required to maintain the hot tub until you replace the minerals.

• Shock the hot tub with a non-chlorine shock to regain clarity.

• High Bromine Levels



• Remove the system from the hot tub until the bromine level is down to 2.0 ppm.

• Lower the Bromine Cartridge setting by 1 number and replace system in the hot tub.

• Test in 24 hours. Repeat process until bromine level stays within 1.0 to 2.0 ppm.