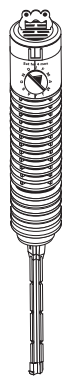


FILTER FROG®

Patented Mineral Hot Tub Disinfectant Operation Manual

FILTER FROG® sanitizes your hot tub by creating



Fresh Mineral Water
Easy.

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

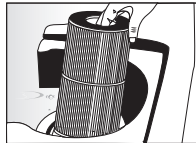
* Compared to the minimum ANSI recommended bromine level of 2.0 in a residential hot tub.

Hot Tub Start-Up

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 or replace filter cartridge.
(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.

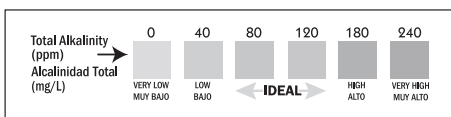
Water Balance Guidelines

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

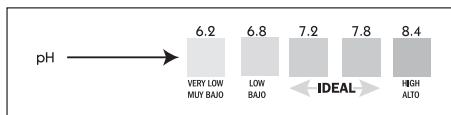
a. Take a water sample from the hot tub and dip a FROG Test Strip into it.



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. Shock hot tub to establish a bromine or chlorine residual of 1.0-2.0 ppm with an EPA approved hot tub shock. For best results use FROG Jump Start® (EPA Reg. #53735-12) start-up hot tub shock packet that quickly dissolves with an effervescent action – one packet per 500 gallons (Follow manufacturer's directions).



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

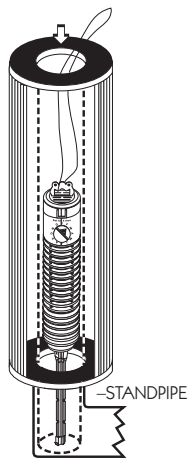
6. As soon as hot tub is prepared begin **Regular Hot Tub Care**.

Installing FILTER FROG®

- Set for 4 mos.
1. Set reminder dial on FILTER FROG® to 4 months from month of installation. Turn dial by hand or with a coin if needed.
- Place FILTER FROG® in one of the following locations in hot tub:

Diagram A

Majority of Hot Tubs



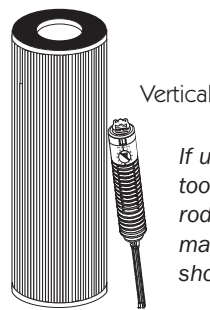
Insert FILTER FROG® inside filter cartridge core.

If FILTER FROG® is inside a standpipe, attach a string to the FROG® head handle for easy removal.

Do not allow FILTER FROG® to sit too low in the filter. If blocking water flow, install in filter well (Diagram B).

Diagram B

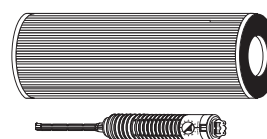
High Flow Hot Tubs In Filter Well



Vertical

If unit is too tall, cut rod at hash marks to shorten.

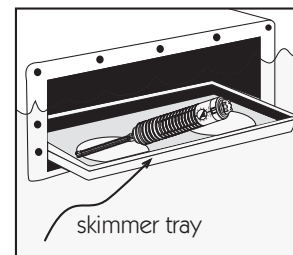
Or Horizontal



On skimmer filters with 2.5 HP or larger pump motors, place FILTER FROG® in filter well outside the filter cartridge.

Diagram C

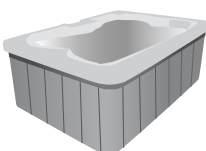
Small Cartridge or Other Hot Tubs



Place FILTER FROG® in skimmer tray.

Regular Hot Tub Care

1. Drain and refill hot tub as directed by your hot tub manufacturer or every 4 months when FROG® minerals need to be replaced.



2. Run filtration system a minimum of three hours per day.



3. Regularly test water for pH, Total Alkalinity and bromine or chlorine levels.



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

5. Shock the hot tub once a week or as needed.



Additional shocking may be required if the hot tub is under heavy use.

6. FILTER FROG® must be replaced every 4 months. After four months of use or when draining and refilling the hot tub with fresh water, discard the FILTER FROG® in trash even if, upon shaking, it appears there is spent media left inside. Once wetted the time released minerals are effective up to four months. Non-refillable product. Do not reuse or refill this container. Do not attempt to reuse the product once removed from the hot tub.



Troubleshooting Most issues are caused by improper water balance or sanitizer levels.

If water is cloudy:



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

2. Make sure your chlorine or bromine levels are at least 1.0-2.0 ppm.

3. Make sure your FILTER FROG® is not older than 4 months as it will be ineffective and more bromine/chlorine will be required to maintain the hot tub until you replace the minerals.



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



Learn more at www.FrogProducts.com

Product Description: The FILTER FROG® contains a patented mineral formula that destroys bacteria while neutralizing acids, which helps keep the pH in an acceptable range with less monitoring. Using the FROG® Mineral System with reduced levels of bromine or chlorine improves hot tub pleasure by reducing the problems associated with bromine or chlorine including faded bathing suits, premature damage to hot tub equipment or surfaces and smelly odors.

Replace FILTER FROG® after 4 months or when draining and refilling hot tub with fresh water.

+ FROG® Mineral System consists of the FROG® minerals silver chloride and carbonate used with 1.0 ppm bromine or chlorine. FILTER FROG® must be used in conjunction with an EPA registered bromine or chlorine hot tub product or a bromine or chlorine delivery device.

Active Ingredient: Silver Chloride 0.5%
Other Ingredients: 99.5%
Total: 100.0%

Net Wt.: 58 grams
EPA Reg. No.: 53735-11
EPA Est. No.: 071209-AZ-001

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.



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
EPA Est. No.: 071209-AZ-001 E092816553091643R5N 20-48-0140