



## Floating Sanitizing System Operating Instructions

**⚠** This is not a toy. For sanitizing hot tubs only!

**FROG® @ease® is the hot tub sanitizing system\* that takes the guess work out of water care so you always feel at ease while enjoying your hot tub.**

**FROG @ease Mineral Cartridge** DIRECTIONS FOR USE: For use in hot tubs up to 600 gallons. Use with the FROG @ease SmartChlor Cartridge. Ensure all hot tub equipment is working properly. Operate the pump and filter as recommended by your hot tub manufacturer. Clean filter following manufacturer's directions. May be used with a previously filled hot tub unless it was sanitized with bromine or biguanides. Then drain and fill the hot tub with fresh water before using this product. **Start-up:** Balance the water according to the water balance guidelines with pH between 7.2 to 7.8 and total alkalinity at 80 to 120 ppm. Establish a free chlorine residual of 0.5 to 1.0 ppm with FROG Jump Start start-up shock or an EPA approved hot tub chlorine shock following the directions for that product.

**To assemble:** **1.** Remove outer packaging. **2.** Align arrows on blue FROG @ease Mineral Cartridge and silver FROG @ease SmartChlor Cartridge. **3.** Push together and twist to lock. **4.** Set the dial on the chlorine cartridge (see Setting Chart in manual). **5.** Place entire system in the hot tub water. **6.** Shock the hot tub when replacing a FROG @ease SmartChlor Cartridge or once a month.

**Replacing the Cartridges:** Replace the FROG @ease SmartChlor Cartridge when the system flips over. Follow label directions carefully. After four months or when draining and refilling the hot tub, replace the FROG @ease System that includes a FROG @ease Mineral Cartridge.

**For complete instructions read the entire manual.**

### 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.

**If previously using bromine** and switching to the FROG @ease System, you must drain and refill your hot tub before using this product.

**If previously using dichlor** you may convert to the FROG @ease System without having to drain the hot tub.

**2.**  Clean or replace filter cartridges when dirty (Follow manufacturer's instructions).

**3. Balance water by following STEPS a - d in order.**

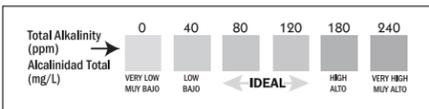
**IMPORTANT:** Always follow printed instructions on the balancing chemical packages. Add balancing chemicals in small increments one at a time with the jets on and wait 6 hours before testing again and adding any additional balancing chemicals.

#### Water Balance Guidelines

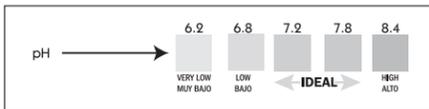
pH:	7.2 - 7.8
Total Alkalinity:	80 - 120 ppm
Calcium Hardness:	150 - 250 ppm
Total Dissolved Solids:	<1500

**a.** Take a water sample from the hot tub and dip a FROG @ease 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.

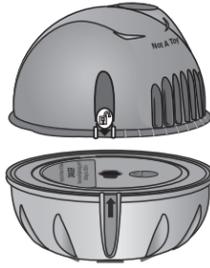
**If balancing takes longer than 2 days shock the water and maintain a chlorine level while continuing balancing.**

**4.**  **Very Important!** After balancing and before using cartridges, establish an initial residual of 0.5 - 1.0 ppm free chlorine with FROG® Jump Start® start-up shock, included in this package, that quickly dissolves with an effervescent fizzing action - one packet per 600 gallons.

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

**Active Ingredient:** Silver Chloride .....0.5%  
**Other Ingredients:** .....99.5%  
**Total:** .....100.0%  
**KEEP OUT OF REACH OF CHILDREN CAUTION**  
 It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

### Step 2: Put the System To Work



TOP HALF (Blue)  
FROG @ease Mineral Cartridge

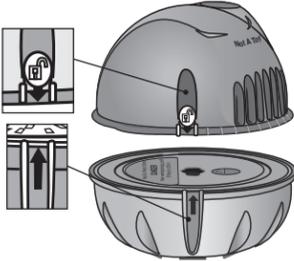
BOTTOM HALF (Silver)  
FROG @ease SmartChlor Cartridge

**The FROG @ease Floating System has two replaceable cartridges.**  
 Blue = FROG @ease Mineral Cartridge  
 Silver = FROG @ease SmartChlor Cartridge

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

#### Simply follow these easy steps:

**1.**  Remove outer packaging from the FROG @ease SmartChlor Cartridge.

**2.**  Line up arrows on both cartridges, push together to lock.

**3.**  Setting # on the FROG @ease SmartChlor Cartridge

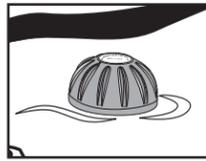
Setting Chart	
Gallons	Setting #
200-299	1
300-450	2
451-550	3
551-600	4

Twist the dial on the FROG @ease SmartChlor Cartridge to the setting number for your hot tub. (See chart based on gallons).

**4.**  Toss into the hot tub. It will float in the water at a slight tilt.  
 If you like, remove the FROG @ease System from the spa while soaking. Lift out the FROG @ease System and let drain into the hot tub. Place on any surface not susceptible to chlorine bleaching. Remember to return it to the hot tub afterwards.

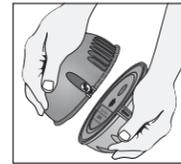
#### Replacing Cartridges:

**When the FROG @ease Floating System flips completely over, remove the FROG @ease SmartChlor cartridge.**



FROG @ease SmartChlor Cartridge will last about 3-4 weeks for an average 400 gallon hot tub.

Floating System naturally lists in the water. To check if FROG @ease SmartChlor Cartridge is empty, lift up and drain all water from the system, then replace in the hot tub and see if it flips completely.



Detach FROG @ease SmartChlor Cartridge by twisting to align with "unlock" arrow and pull apart.

Attach new cartridge (see Step 2: Put the System to Work)

Discard in trash or offer for recycling if available.

**Note:** If the FROG @ease SmartChlor Cartridge still contains a small amount after detaching, place in hot tub to float on its own until empty. Do not let it sink to bottom as it may bleach hot tub surface.



### Step 3: 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 with FROG @ease Test Strips and follow directions in Step 1 for maintaining pH, Total Alkalinity and Calcium Hardness.

**NOTE:** pH is affected by bather load, chemicals used, evaporation and the make-up of your source water so maintaining water balance regularly is important.

**4.** FROG @ease SmartChlor Cartridge will maintain 0.5-1.0 ppm free chlorine level as long as the water is balanced.  
**NOTE: Free Chlorine levels are reduced up to 75%\* when using FROG @ease Minerals.**

**NOTE:** Why FROG @ease Test Strips? The FROG @ease SmartChlor Cartridge forms a chlorine reserve that will be inaccurately measured as total chlorine on other test strips. Unlike conventional chlorine, the SmartChlor reserve readily shifts to free chlorine as needed, maintaining spa health with a low level of chlorine.

**5.**  Shock the hot tub with a non-chlorine shock when you replace the FROG @ease SmartChlor Cartridge or once a month.

**6.**  Replace the FROG @ease SmartChlor Cartridge when the system flips over and the complete FROG @ease Floating System that includes a FROG @ease Mineral Cartridge as directed.

### Troubleshooting

#### Cloudy Water or Low-Chlorine Levels

- Check water balance. pH and Total Alkalinity need to be in the proper ranges for the FROG @ease System to work correctly.
- Check FROG @ease SmartChlor Cartridge and replace if empty—see instructions under "Replacing Cartridges".
- If FROG @ease SmartChlor Cartridge is not empty, turn dial setting up 1 number and monitor chlorine levels for a few days while maintaining water balance. If needed turn the dial up again.
- Check your calendar. The entire FROG @ease System, including the FROG @ease Mineral Cartridge, needs to be replaced every four months. Without the minerals, SmartChlor will not be enough to sanitize the hot tub.

#### FROG @ease SmartChlor Cartridge Life

- If hot tub is larger than 400 gallons with significant bather load, you may require a higher dial setting which will shorten cartridge life.
- If you think the cartridge setting is too high, you can turn the dial setting down 1 number and monitor chlorine levels for a few days

while maintaining water balance. If needed, turn dial down again.

- If the FROG @ease System is continually sucked into the skimmer or filter well, tether the product to the tub away from the jets.
- Remove the FROG @ease System while using the hot tub with the jets running.

#### High Chlorine Levels

- This is highly unlikely with the FROG @ease System because SmartChlor is self-regulating. However, if you use standard test strips, it may appear that total chlorine is higher than the free chlorine.
- No worries—the strip is measuring the SmartChlor reserve, which will shift to free chlorine as needed. Please always use the FROG @ease Test Strips that were included with your System.



Learn more at [frogproducts.com](http://frogproducts.com) or call 800.222.0169  
 Register your FROG @ease Floating Sanitizing System at [frogproducts.com](http://frogproducts.com)



**Manufactured by: King Technology**  
 530 11th Ave S, Hopkins, MN 55343 U.S.A.  
 952-933-6118 • Customer Service 800-222-0169  
 FAX 952-933-2206 [frogproducts.com](http://frogproducts.com)

+ FROG @ease System consists of the FROG minerals silver chloride and carbonate used with 0.5 ppm of FROG @ease SmartChlor Cartridge. The FROG @ease Mineral Cartridge (EPA Reg. No. 53735-11) must be used in conjunction with the FROG @ease SmartChlor Cartridge (EPA Reg. No. 53735-14).  
 \* Compared to the minimum ANSI recommended chlorine level of 2.0 ppm for a hot tub.  
 Made in U.S.A. Patents: [kingtechnology.com/IP](http://kingtechnology.com/IP)  
 EPA Est. No.: 64114-MN-1 E081418553091843R5N 20-48-0192