

BROMINE or CHLORINE PURIFICATION SYSTEMS (2017)

FILLING HOT TUB

Fill Hot tub, with the filter removed and the hose in the filter can hole (to prevent air-lock) to the proper level with drinkable tap water. WE DO NOT RECOMMEND USING ANY SOFT WATER TO FILL YOUR HOT TUB OR SWIM SPA. Make sure that tub drain plug and pump freeze plugs are in.

PUMP PRIMING

Turn on breaker to hot tub and turn on pumps. If for some reason the pumps do not run (jets do not produce any flow) turn the pump on for 10 seconds and then off again for up to 10 or 12 cycles. If this does not prime the pump (eliminate air-lock) you should refer to your owner's manual or call Take a Break Spas (801-489-6005). **Note:** *You may need to loosen the plastic nut couplers on either side of the primary pump - then turn pumps on - to eliminate air-lock.*

PART #1 - Mineral & Scale Control

METAL GON (or SEQUA SOL)

Add "**Metal Gon**" (one bottle - 16oz at water change- every 3-4 months) OR "**Stain & Scale Control**" (1 oz per 300 gallons per week) OR "**Sequa Sol**" (as directed based on water volume) to the entire body of spa water.

THEN ADD

DEFENDER - Leisure Time

Add 1 oz. per week (for up to 400 gallons) for regular "**Stain and Scale**" control.

OR

"Stain & Scale Control" - Spa Essentials (1 oz per 300 gallons per week) to the entire body of spa water.

PART #2 – Water Balance

PH/ALKALINITY (Test Strips)

Take a test strip and dip at least 12" down into water and hold for a second or two. Immediately remove without shaking off water and compare strip to the guide on the bottle. Pay particular attention to the ALKALINITY reading on the strip. Use "**Spa Up**" or "**Spa Down**" as recommended to adjust the ALKALINITY (& PH) level. **Note: The ALKALINITY & PH levels will take approximately 1-2 weeks to stabilize (check every day for the first 5-10 days using no more than Two Caps of Spa Up or Spa Down per dosage (do not over-treat water), be patient. Adjusting the PH will usually adjust the Alkalinity over time. If it does not then Alkalinity Increaser may be required. NOTE: Improper pH levels will cause pillow, jet, AND OR cover erosion and discoloration of plastics which will VOID spa WARRANTY.**

PART #3 - Sanitizer

BROMINE or CHLORINE SANATIZER

Crush up (and dispense in filter basket not in spa body) 2-3 Bromine(or chlorine) tablets or add 1 Teaspoon of granular Bromine (or Chlorine) per 200 gallons of water to the spa to establish a base. Add more Bromine (or Chlorine) as necessary to achieve a 2-3ppm "BASE" level of sanitizer. Fill the spa tablet feeder with bromine/chlorine tablets and open the spiral vent half way. An adjustment to this vent may be necessary to maintain an appropriate level of bromine over time and continual usage. **Tablet feeders may not keep up the base demand of Chlorine or Bromine and it is common to have to add more granular Bromine/Chlorine to maintain the (free or available) BASE.**

SHOCK

Add 1-2 Tablespoons of "Shock Oxidizer" (*Spa Essentials*) or "Renew" (*Leisure Time*) MPS (*Potassium Peroxymonosulphate*) as a shock (after each spa use) to the water with the jets on. Leave the cover off and let the spa jets run for 15 minutes to remove bacteria and keep the spa smelling and looking clean and clear.

- **Set or check filter cycles (days, times and duration) to keep up with your spa demand and usage**
- **Clean filters regularly (with Filter Cleaner - weekly to monthly as needed)**
- **Treat spa cover regularly with 303 Protectant to protect against UV light - fading.**
- **Drain and re-fill your hot tub every 3-4 months - follow re-fill procedures previously noted**

PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Cloudy water	Filter problems	Clean filter cartridge and inspect for integrity issues.
	Microscopic particles or high TDS (>2000)	Rinse off before using the hot tub to remove oils, lotions and hair shampoo/conditioners. Add BRIGHT AND CLEAR to remove particles through filter.
	High Alkalinity (80-120ppm) High pH level	Test pH and Alkalinity and lower if necessary with SPA DOWN.
Skin and/or eye irritation	Low pH (7.2-7.6)	Raise Ph level with SPA UP to eliminate acidic water (itching).
Algae growth	Low sanitizer levels	Shock your spas water with your sanitizer (Renew, Chlorine or Bromine). Brush the spa walls. Run the filter for a 24-hour period to increase distribution of sanitizer and add Spa Algaecide.
Excessive foam	Buildup of body oils or cosmetics.	Rinse off before using the hot tub to remove oils, lotions and hair shampoo/conditioners. Use FOAM DOWN to temporarily break up the contaminants and then to help the filter remove them. If a oily water line is present the spa should be wiped out and the filter cleaned with FILTER CLEANER.. An oil absorbing sponge such as SCUMBUG can help in preventing this.
	Laundry Detergent	Run an extra rinse cycle on the washing machine or re-rinse well by hand.
	Excess organic contaminants	Some organic matter will cause foamy water, FOAM DOWN will temporarily break up the contaminants, then use BRIGHT AND CLEAR to help the filter remove them. It may necessary to drain and refill spa.
	Low or High Calcium Hardness (150-400ppm)	Test water with a TOTAL HARDNESS TEST KIT and if necessary increase. If high, change the water.
Oily water line	Body oils, dirt, soaps	Scum line may be able to be removed with paper towel. Alternating weekly between BRIGHT AND CLEAR and ENZYME along with frequent filter cleanings usually eliminates this problem.
Scaly Waterline	High ph and/or Alkalinity	Lower pH and Alkalinity levels with SPA DOWN or Alkalinity Decreaser specifically to decrease hard water (scale) build-up.
Stains	High Mineral Content	Sequester mineral content with METAL GON and consistent use of STAIN & SCALE CONTROL OR DEFENDER products. One may also use a mineral sanitizer stick.
Unstable pH	Low total alkalinity levels	Test total alkalinity levels with an accurate TEST STRIP OR KIT and if necessary increase with SPA UP.
pH resistant to changing	High total alkalinity levels	Test total alkalinity levels with an accurate TEST STRIP OR KIT and if necessary decrease with SPA DOWN.