

GENERAL MAINTENANCE

CASA BLUI

SAFETY & MAINTENANCE WARNINGS

- Before performing any electrical or mechanical work, switch OFF power at the breaker and secure the system against restart (lock-out/tag-out where applicable).
- Do not handle or service the equipment with wet hands or feet.
- Allow components to cool before touching them.
- Use only manufacturer-approved parts and follow all product instructions.

ACRYLIC/SOLID SURFACE SHELL CARE

- Use mild, non-abrasive household cleaners suitable for acrylic. For routine cleaning, use a soft cloth or non-scratch sponge with a little soap and water. Rinse thoroughly and dry with a clean microfiber cloth.
- If using any commercial cleaner, confirm it is specifically recommended for acrylic surfaces by its manufacturer. Always spot-test in an inconspicuous area first.
- Never use abrasive powders, scouring pads, or polishing creams that can dull or scratch the surface.
- Keep the acrylic away from ketones or esters (e.g., acetone), acetates (e.g., nail-polish remover or dry-cleaning agents), chlorinated or aromatic solvents, gasoline, paint thinners, varnishes, or similar chemicals.
- Wipe away dust and smudges with a soft, slightly moist cloth; dry immediately to prevent water spots.
- Remove grease, oil, paint, and ink marks with isopropyl alcohol (up to 70%). Apply with a soft cloth, then rinse with water and dry with a clean cloth.
- Do not use razors, scrapers, or any sharp tools on the acrylic.
- For light surface marks, use a fine automotive polish or a plastic/acrylic scratch-removal product. Buff gently with a clean cloth and follow the product instructions. Avoid waxes that may leave slippery residue on areas contacted by bathers.
- Weekly: Clean the sections of the spa above the waterline (areas not submerged) and, if desired, apply a spa-safe acrylic polish to maintain gloss. Do not polish floor or seating areas where slip resistance is important.

ATTENTION: Never leave the spa uncovered, empty, and exposed to direct sunlight. Prolonged UV and heat can cause warping, discoloration, and surface damage that is not covered by the warranty. If the spa must be drained, keep it shaded and covered, and refill promptly.

WATER MAINTENANCE

Water maintenance is one of the areas that requires the greatest attention due to its impact on safety, comfort, and equipment longevity. The specific actions and frequency depend on the mineral content of the fill water, how often the spa is used, and the number of people using it.

The most important thing to keep in mind is that the water should be changed every 6 months.

The three main points to consider are:

- Filtration
- Chemical Analysis
- · Disinfection of the water

SAFE HANDLING AND USE OF CHEMICAL PRODUCTS

Before using any chemical product, always read the instructions on its product label and follow the manufacturer's recommendations.

- Assign one trained person to handle all spa chemicals.
- Keep products out of reach of children and pets.
- Measure carefully and add only the recommended amount.
- Store in sealed containers, in a cool, dry, well-ventilated place, away from sunlight.
- Avoid breathing vapors or dust; prevent contact with skin, eyes, and mouth.
- Wash hands thoroughly after handling chemicals.
- In case of spills or exposure, follow the emergency directions on the product label.
- Keep away from flames, sparks, and smoking areas many products are flammable.
- Never store chemicals inside the spa cabinet or near electrical components.
- Add chemicals to water one at a time, allowing time between doses to prevent reactions.
- Do not add products while people are in the spa.
- Test water daily for pH and sanitizer levels during frequent use.
- Use only products specifically designed for spas or hot tubs.
- Dispose of containers safely, following local waste regulations.

FILTRATION

REGULAR MAINTENANCE

Rinse the filter cartridge with a gentle garden-hose stream every 1–2 weeks with heavy use (daily/large family) or about monthly with lighter use. A quick rinse between the pleats removes hair, lint, and fine debris to keep water flow strong. If oils/lotions build up, a spray-on filter cleaner can be used for a quick degrease before rinsing.

Do not use dish soap, bleach, or household cleaners—they leave residue and can damage the media.

How to do it:

- 1. Turn power off and remove the cartridge(s).
- 2. Hose from top to bottom, spreading the pleats with your fingers or a hose attachment so water reaches the inner folds. Avoid pressure washers or dishwashers.
- 3.Optional: apply an instant/spray filter cleaner, wait the labeled contact time (typically a few minutes), then rinse thoroughly.
- 4. Reinstall when fully rinsed.

DEEP SOAK CLEANING

Perform a chemical soak to remove embedded oils, soap film, and minerals about once a month for heavy use or every 2–3 months for lighter use. Also tie a deep soak to each drain/refill. Allow the cartridge to air-dry fully before reinstalling.

How to do it:

- 1. Fill a clean bucket with water and add filter-cleaner per its label.
- 2. Submerge the cartridge fully and soak several hours
- 3. Rinse until runoff is clear and let the filter dry completely before putting it back.
- 4. Any cleaner left in the media can cause foaming.

REPLACEMENT SCHEDULE

For standard pleated cartridges, plan on:

- Typical residential use: about 12–24 months.
- Light use/very clean water: up to 24–36 months.
- Heavy use/commercial or frequent parties: 6-12 months.

Replace earlier if you see tears, frayed or flattened pleats, cracked end caps, persistent discoloration/odor after cleaning, or chronically reduced flow.

Recommendation: Keep a second cartridge on hand and rotate: one in the spa while the other is soaking and drying. This avoids downtime and improves cleaning results.

CHEMICAL ANALYSIS

For optimal spa performance and low-maintenance water, keep pH, alkalinity, and hardness within the recommended ranges. Test these parameters regularly and adjust as needed to maintain proper balance.

- pH: Maintain between <u>7.4 and 7.6</u> for disinfectants to work effectively.
- Alkalinity: Keep between 80 125 ppm to stabilize pH and protect equipment.
- Hardness: Keep between 100 200 ppm.

Balanced water ensures it remains clear, clean, and easy to manage over time.

Water Source: Tap vs. Well

Maintaining clean, high-quality water is essential for both spa hygiene and long-term durability.

- Tap water is generally safe, as it is microbiologically treated and free from most metals, organic matter, and other impurities that could harm the spa.
- Well water, on the other hand, can contain oxides, dissolved metals, organic debris, and bacteria. These can encourage algae growth and lead to staining, scaling, or other damage to the spa's surfaces and components.

For best results, use treated tap water or properly filtered and disinfected well water before filling your spa.

Water Hardness

It reflects the total dissolved calcium in the water. It influences how corrosive or scale-forming the spa water is.

Very low hardness ("soft" water) is not recommended because it's aggressive to equipment and can stain the shell.

Very high hardness ("hard" water) promotes scale on surfaces and components.

If hardness is too high:

- Lower it by dilution—use a mix of roughly 75% hard water + 25% soft water as a starting point.
- If soft water isn't available, dose a stain/scale control product as directed on its label.

If hardness is too low:

- Avoid filling with soft water; raise hardness by topping up with a higher-calcium (harder) source.
- Once hardness is in range, it generally stays stable unless you add water that's much harder or softer.

Water Alkalinity

Alkalinity refers to the concentration of alkaline compounds (such as carbonates, bicarbonates, and hydrates) dissolved in the water.

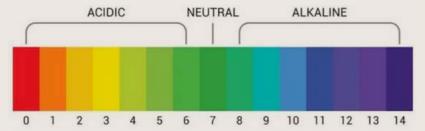
When alkalinity drops below 80 mg/l or rises above 125 mg/l, pH can become unstable, making it harder to maintain proper water balance.

If below 80 mg/L, add an **alkalinity increaser**; if above 125 mg/L, lower with small doses of **pH decreaser or partially dilute with fresh water**. Run the pumps to circulate, then retest. Be sure the products are compatible with hot tubs.

Water pH

It measures the level of hydrogen ions (H+) in the water, indicating its acidity or alkalinity. The recommended range is between 7.4 and 7.6 (neutral is 7). Maintaining this range helps:

- Protect bathers' comfort the skin, eyes, and mucous membranes are close to this natural pH level.
- Extend the lifespan of the spa's surfaces and components.
- Ensure sanitizing chemicals work effectively, reducing overall product use.



If below 7.4, add a **pH increaser** (Sodium Hidrogen Carbonate); if above 7.6, add a **pH decreaser** (Sodium Bisulfate). Run the pumps to circulate, then retest. Be sure the products are compatible with hot tubs.

QUICK REFERENCE

Steps	Parameter	Ideal Range (ppm) – Minimum	Ideal Range (ppm) – Maximum	What Chemicals to Use — To Raise	What Chemicals to Use — To Lower
1	Total Alkalinity	80	125	Sodium Hydrogen Carbonate, or Sodium Bicarbonate	Sodium Bisulfate
2	Calcium Hardness	100	200	Calcium Hardness Increaser	Use a mixture of 75% hard water and 25% soft water or use a Stain and Scale Inhibitor
3	рН	7.4	7.6	Sodium Hydrogen Carbonate	Sodium Bisulfate

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DISINFECTION OF THE WATER

Maintaining the correct disinfectant level is essential to eliminate algae, bacteria, and other microorganisms that can develop in spa water. Overdosing should be avoided, as it may cause skin or eye irritation and can affect the spa's components.

The recommended primary disinfectant is bromine tablets, placed in the pre-filter or a suitable feeder to dissolve gradually and provide a constant residual in the water. Test the bromine concentration daily using an appropriate analyser kit, and ensure it remains within the range of 2.2 to 3.3 ppm.

If chlorine is used instead, maintain free residual chlorine between **0.5 and 1.5 ppm**. Always add chemicals separately and with no bathers in the spa.

When the sanitizer level is below the recommended range, increase dosing and allow the water to circulate thoroughly before re-testing. If the level is above the range, circulate with the cover open to allow dissipation, or dilute with fresh water as necessary.

Secondary systems such as ozone or UV can support oxidation and water clarity but must never replace a continuous bromine or chlorine residual. All test results and corrective actions should be documented as part of the spa's maintenance records, and any stricter local regulations should take precedence.

USE OF SPECIAL PRODUCTS

Beyond the main sanitizer program, the following spa-specific products help keep water and surfaces in good condition. Use as directed by the manufacturer.

- <u>Scale inhibitor:</u> Prevents calcium scale, especially in hard-water areas. Dose weekly and after every water change.
- <u>Algaecide:</u> Suppresses algae growth in the spa water. Add weekly and each time the water is renewed.
- <u>Foam remover:</u> Controls foam caused by aeration and body oils. Use only when noticeable foam appears.
- <u>Grease/line cleaner:</u> Removes the oily ring on spa walls. For best results, drain the spa, apply with a sponge to the affected areas, then rinse immediately with plenty of water.

QUICK REFERENCE

Product	Reason for use	Check pH daily with a test kit.	
pH ADJUSTER	Use when pH is outside 7.4–7.6: if above, add pH Minor; if below, add pH Major.		
BROMINE TABLETS	Add if the bromine residual is below the recommended range (2.2–3.3 ppm).	Test bromine daily with a Br test kit.	
LIMESCALE REMOVER	Prevents formation of calcium scale.	Once per week and after each water change.	
ALGAECIDE	Prevents algae growth in the water.	Once per week and after each water change.	
GREASE REMOVER	Removes oily/dirt rings on spa walls.	Whenever deposits are observed; scrub with a sponge and rinse immediately with plenty of water.	
FOAM REMOVER	Treats visible foam on the water surface.	Whenever foam appears in the water.	



FILTRATION

Task	When (Residential)	Notes
Quick hose rinse	Every 1–2 weeks with heavy use; about monthly with lighter use	Gentle garden-hose stream between pleats; avoid pressure washers/dishwashers.
Spray cleaner (instant)	About monthly or whenever oily film builds up	Apply, wait label contact time, then rinse thoroughly.
Deep soak (chemical)	Monthly with heavy use; every 2–3 months with lighter use; also at each drain/refill	Fully submerge in filter-cleaner solution for several hours to overnight; rinse until runoff is clear; air-dry fully before reinstalling.
Rotate spare filter	Whenever you deep-clean	Keep a second cartridge to avoid downtime while one dries.
Replace cartridge	Typically 12–24 months (light use up to 24–36 months; heavy use 6–12 months)	Replace sooner if tears, flattened pleats, cracked end caps, persistent discoloration/odor, or chronically reduced flow after cleaning.

CHEMICAL ANALYSIS

Parameter / Action	When (Residential)	Target / Guidance	
Test pH	Daily during frequent use; otherwise regularly	Keep 7.4–7.6 ; adjust with spa-compatible pH increaser/decreaser; circulate and retest.	
Test Total Alkalinity	At start-up and after major top- ups or when pH won't hold	Keep 80–125 ppm to stabilize pH; adjust with alkalinity increaser or small doses of pH decreaser/dilution.	
Test Calcium Hardness	At start-up; reassess after significant water additions or if scaling/corrosion signs appear	Keep 100–200 ppm; if high, dilute or use stain/scale control; if low, raise hardness (avoid prolonged "soft" water).	

DISINFECTION OF THE WATER

Task	When (Residential)	Target / Guidance
Maintain primary sanitizer (bromine tablets in feeder/prefilter)	Continuous; test daily	Keep 2.2–3.3 ppm bromine; add tablets/adjust as needed. If low, increase dosing and circulate; if high, circulate with cover open or dilute; never add chemicals with bathers in spa.
(If using chlorine instead)	Continuous; test daily	Keep 0.5–1.5 ppm free chlorine.
Support products (if used): scale inhibitor; algaecide	Weekly and after every water change	Follow product labels; these support clarity/scale control but do not replace a sanitizer residual.
Foam remover; grease/line cleaner	As needed; grease/line cleaner best used during a drain	Use only when foam appears; for grease line, apply while drained and rinse well.
Ozone/UV (secondary) Continuous (if equipped)		Aids clarity/oxidation but never replaces bromine/chlorine residual. Document test results and actions.



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