



Pool & Spa Operation and Maintenance

Water Chemistry:

Maintaining proper water chemistry (i.e., “Balanced Water”) is critical to water clarity and sanitization. It is also critical to prevent damage (corrosion or scaling) to the pool and/or equipment due to the harmful nature of “out of balance” water. Water chemistry should be checked and adjusted at least once per week and more often if possible. Test strips may be used to make the required checks. Alternately, a liquid reagent test kit can be used for more accurate testing.

Chlorine: Ideal range for “free” chlorine is 2.0 – 4.0 ppm; Ideal range for “combined” chlorine is 0.2 max. Initial chlorination (i.e. shocking) is done using liquid chlorine. On-going chlorine levels are maintained either by:

- The addition of liquid chlorine
- By use of a chlorine feeder using chlorine tablets
- Generated by a “Salt Generator” system

pH: Ideal range is 7.4- 7.6. Use pH “Up” (Soda Ash) or pH “Down” (Muriatic Acid) as needed to bring the pH reading within the desired range.

Calcium Hardness: Ideal range is 150 – 400 ppm. Calcium hardness may be increased by adding calcium chloride to the water (dissolve in 5 gallons of water and pour around edge of pool). Only add 6-8 lbs. at a time and let circulate for 6+ hours before retesting. Make additional additions if required. If hardness needs to be reduced, the only solution is to drain water from the pool and refill with fresh water to reduce the calcium concentration.

Total Alkalinity: Ideal range is 80 – 120 ppm. Use Alkalinity “Up” (Baking Soda) or “Down” (Muriatic Acid) additives as needed to bring the Total Alkalinity reading within the desired range.

Saturation Index (Langelier Index) is a good over all indicator of pool water “balance”: Ideal range is -0.3 – 0.3 and an acceptable range is -0.5 – 0.5. Automated methods of calculating the index are available from Taylor Technologies, Inc. (www.taylor technologies.com).

Note:

- An excellent video of how to use a liquid reagent kit to test all aspects of water chemistry can be found at: http://www.taylor technologies.com/products_choose_slideshow.asp?PartNumber=6026-12
- You should keep in mind that adjusting one of the above parameters may have an impact on one or more of the other parameters. Consequently, adjustments should be made in increments with accompanying re-testing of all parameters after the water has had a chance to circulate and reach a new steady-state environment.



The Ultimate Choice for Luxury Pools & Outdoor Living

Cleaning:

Filter: The filter should be cleaned when the pressure reading on the gauge on top increases by 10 psi from its “just cleaned” value.

- Shut off filter pump
- Release pressure on filter by opening relief valve on top of filter
- Remove joining clamp at center of filter and remove top half of filter casing
- Remove filter and rinse off with hose (check for tears and/or general degradation — replace if necessary)
- Replace filter, top casing, joining clamp and tighten
- Restart pump and bleed off entrapped air with bleeder valve until water flows freely

Pool and/or Spa: The pool/spa should be cleaned as needed (visual check)

- Brushing and localized debris:
 - Attach brush to pool pole and brush needed areas
 - Remove debris by hand or using mesh basket attached to pool pole
- Vacuuming and general overall cleaning:
 - Open flow valve completely for skimmer to be used for suction
 - Close any other skimmer valves
 - Partially close main drain valves until ample suction through skimmer is attained
 - Attach vacuum head to pool pole, place in pool and fill hose with water—then insert into skimmer
 - Vacuum pool/spa
 - When finished, return all valves to normal operating position and remove vacuum hose from skimmer.

Other Things To Check:

- Periodically check filter baskets in pumps for debris—remove and clean if needed:
 - Shut off pump
 - Shut valves on both pump inlet and outlet piping
 - Remove basket cover (1/4 turn breach lock)
 - Remove basket and clean out
 - Reinstall basket and cover
 - Open inlet & outlet valves to normal operating positions
 - Restart pump
- Periodically check all fittings and equipment for leaks