Water Chemistry is crucial to the Chlorine Free System. Every year when pools are opened it is like starting a new pool all over again. Pools sit for 6-7 months every year. This allows Bacteria to start again. Follow the Steps for the best Results.

**Your Pool Must be cleaned prior to doing any of the follow Steps**

**Make sure to test with a White Background/ Natural Northern Light**

**Water Samples need to come from 18”-24” below the water’s surface**

**Backwashing: How to Establish Running Pressure & When to Backwash**

* To Determine Running Pressure:
	+ Backwash and Rinse Filter
	+ Clean out skimmer Basket, Clean out pump Basket, Clean out Debris Canister
	+ After you backwash and clean everything out, run the pump at high speed with all valves open ( 3450Rpm also known as override/clean depending on what pump you have), this will determine your operating pressure.
* When to Backwash?
	+ You will need to check your running pressure on a frequent basis.
	+ When the pressure gauge increases 7-8 lbs higher than running pressure it’s time to backwash.
	+ There is no set schedule for backwashing. You will only backwash based on the PSI on the gauge.

**Step One: Balancing pH**

* Start by Adjusting pH. pH needs to be in the Range of 7.4-7.8. However, 7.4 is our Target pH.
	+ Test this according to the Taylor test kit.
	+ Run equipment for 24 hrs then retest. If not within the Target of 7.4, adjust and retest again after 24 hrs. When you test and it is at 7.4 move on to step 2.

**Step 2: Balancing Alkalinity**

* Our Target For Alkalinity is 80-120 ppm.
	+ Test this according to the Taylor Test Kit. Balance and adjust if needed, Retest in 24hrs. Adjust again if needed, if in range go to step 3.

**Step 3: Treating Phosphates**

* Phosphate Remover is a key Element to the Chlorine Free System. It is Vital to add even if test results show zero.
	+ Orenda PR-10,000 phosphate remover should be added to the Skimmer after every backwash/Rinse you do. The rate is 2oz/10,000 gallons of water.
* Make sure to close your Main Drain line and if you have a Venturi Skimmer to close the Venturi line as well. This will put the Phosphate Remover straight into the Filter where it is needed. Test Phosphates again in 24 hrs. If shows Zero go to Step 4.

**Step 4: Testing Calcium**

* Calcium needs to be around 50 ppm. This will help with Calcium and lime staining. It will also help prevent the water from pulling calcium out of the equipment/concrete itself.
* Never Add Calcium Chloride if the water is cloudy or if there is dirt present in the water. If you do add in these conditions, it can cause bacteria to impregnate into the surrounding area.
	+ If above 50 ppm that is ok. Keep this logged.
* If needed to adjust, let the system run 24 hrs then retest. If good, go to step 5.

**Step 5: Chlorine**

* Why should you add chlorine, and Do i need it? Absolutely NOT!
	+ Chlorine is used if we want to test for bacteria or have a water condition where we want to add it.
	+ Chlorine is used as a tool in this system.
* You can add 1-5 oz/1000 gallons of water-Nevermore then that.
	+ Use Caution when adding this product to the water, as it is somewhat counter productive
* It can clean a pool quickly, however it can also push bacteria back into the pores of the plumbing, etc.
* Chlorine can only be added at Dusk/night as we do not use stabilizers in the water.
* **If you have an Autocover- NEVER add more than 2 oz/1000 gallons of water unless your cover is open!**

**Step 6: Target Zero**

* What does it do? Why do I need it?
	+ Target Zero Breaks down the Biofilm, it attacks all Carbon Chains and changes them back into their planktonic State.
	+ The UV light then turns this into a sand like substance that can be filtered out by the sand/glass filter.
	+ Target Zero sees Calcium as a Carbon Chain, and wants to remove it.
* Once you reach this step your pool is clean and Ready to start Target Zero.
* Add ½ tsp to 1 tsp /10,000 gallons of Water into the skimmer.
* Close Venturi and Main drain lines like you're adding the phosphate remover.
* 1 oz bottles of Target Zero = 6) Teaspoons or 12 ½ Teaspoons
* Do not backwash for 2 weeks. If pressure goes up please run the pump on low speed.
* Monitor and see how target zero if affecting the water. Black, yellow, brown spots are Target Zero working. May need to adjust dosage
* After 2 weeks Double Dosage if no spots or water issues.
* After 2 more weeks add 3 tsp/ 10,000 gallons- This is your 6 week goal.
* If you notice spots or water issues you will need to scale back the dosage.

Please Understand Customer Service is Only Available Monday through Friday from 9am - 5pm.

For Emergencies Call Keith- Emergencies for example include major water loss, something exploded.