

PREPARING THE POOL WATER

Basic Water Chemistry

Your Pool Pilot Digital is designed to produce chlorine on a daily basis. To monitor your system's efficiency, the water chemistry ranges and schedule of periodic checks outlined below should be followed.

CHEMICAL	IDEAL RANGE	IDEAL TEST SCHEDULE	EFFECT OF LOW/HIGH LEVELS	CORRECTIVE ACTIONS
Free Chlorine	1.0 To 3.0 ppm	Weekly	<u>Low free chlorine:</u> Not enough residual chlorine to safely sanitize pool water. <u>High free chlorine:</u> Corrosive to metallic fixtures in pool water. Can bleach swimwear and hair.	<u>Low free chlorine:</u> Check for combined chlorine level and shock as necessary. Increase purifier output to maintain a 1-3 ppm residual reading. <u>High free chlorine:</u> Decrease purifier output. Let chlorine dissipate normally until 1-3 ppm is achieved. In extreme cases, pool water can be diluted with fresh water or a chlorine neutralizer added. (Diluting will reduce salt and CYA. Check and adjust as needed.)
pH	7.2 To 7.8	Weekly	<u>Low pH:</u> (acidic) Equipment corrosion, eye/skin irritation, plaster etching, rapid chlorine consumption <u>High pH:</u> (basic) Scale formation, cloudy water, eye/skin irritation, poor chlorine effectiveness	<u>Low pH:</u> Add sodium carbonate or soda ash <u>High pH:</u> Add muriatic acid or sodium bisulfate.
Total Alkalinity	80 To 120 ppm	Monthly	<u>Low TA:</u> Eye irritation, pH "bounce", stained/etched plaster and metal corrosion. <u>High TA:</u> Constant acid demand, difficulty in maintaining pH, and contributes to scale formation or cloudy water conditions.	<u>Low TA:</u> Add sodium bicarbonate. <u>High TA:</u> Add muriatic acid often, a little at a time (may take a week or more to lower the TA). Aerate by pointing return jets toward the surface.
Salt	2500 To 3500 ppm	Monthly	<u>Low Salt:</u> Below 2,400 ppm causes premature cell failure and reduces chlorine production <u>High Salt:</u> Above 6,000 ppm can cause corrosion of metallic fixtures and will taste salty. <i>Note: AutoPilot can safely operate with salt levels up to 35,000.</i>	<u>Low Salt:</u> Add salt according to digital display on Pool Pilot unit or salt chart. <u>High Salt:</u> If undesirably high, partially drain and refill the pool with fresh water. (Diluting will reduce CYA. Check and adjust as needed.)
Calcium Hardness	200 To 400 ppm	Monthly	<u>Low CH:</u> Etching of plaster, equipment corrosion <u>High CH:</u> Scale formation, cloudy water. Rapid buildup of scale may exceed the system's self-cleaning capability and require manual cleaning of the SuperCell.	<u>Low CH:</u> Add calcium chloride flakes. <u>High CH:</u> Partially drain and refill pool with fresh water to dilute. (Diluting will reduce salt and CYA. Check and adjust as needed.)
Cyanuric Acid (CYA or Stabilizer)	60 To 80 ppm 30 To 50 ppm	Monthly	<u>Low CYA:</u> destruction of chlorine by the UV rays from the sun. <u>High CYA:</u> Requires more chlorine to maintain proper sanitizer levels. <i>Note: CYA not needed for indoor or bromine pools.</i> CYA can be reduced to 30 – 50 ppm for Pool Pilot Digital TC/ORP or colder climate regions.	<u>Low CYA:</u> Add cyanuric acid (1 lb/5000 gallons increases CYA 25 ppm) <u>High CYA:</u> Partially drain and refill pool with fresh water to dilute. (Diluting will reduce salt. Check and adjust as needed.)

! WARNING

Excessively high chlorine levels can cause premature cell failure and corrosion damage to pool fixtures and equipment.

! WARNING

Always follow the instructions on the manufacturer's label whenever adding chemicals to your pool.