



## Start Up and Maintenance

### Daily Testing First Week

**Calcium hardness:** 250 - 400 ppm, 300, ideal. Once this result is obtained, test monthly  
**pH:** 7.0-7.2 is ideal. pH tends to drift up. Test every day, or, until test results are consistent.

**Adjust dosing dials:** Blue Oxygen power indicator, (1.50 - 2.00)

Red Ionic power indicator (.200 - .300)

Ionic percentage dial at startup is 100% Copper will rise. Test every day.

**Copper:** .5 ideal. After a .5 test result is achieved. Turn percentage dial down (25%) to maintain .3 -.5. You may be able to turn the ionizer portion off completely.

**Phosphates:** Zero. Test monthly.

**Total Alkalinity:** 40-70 ppm, high TA is not helpful to the pH balance. Lower TA is preferred.

### Weekly

1. Check flow meter for proper GPM. If GPM falls below established minimum, backwash and rinse filter media. System requires a minimum of two turns per 24hr period. Three turns ideal during higher temps and bather loads. (Maximum GPM of 80-150 plus, 40-75 plus)
2. Brush pools walls. Very important!
3. Net out all floating debris/keep skimmer and pump baskets clean.
4. Vacuum all debris from pool floor.
5. Maintain pH at 7.0-7.2 ideal, lower pH using diluted acid mixture, never use test strips!
6. Check copper ion residual. Test results are accurate when pH is within range. Adjust copper ionization using the percentage dial. Maintain .5 residual. Copper must be tested and adjusted weekly. Most common mistake is letting copper levels get too high!
7. Visually check the digital control box. Blue amp reading should be between 1.50 - 2.00. Red milliamp reading should be between .200 - .300.
8. Visually inspect titanium plates and copper plates for contaminant build up. Build-up may signal water imbalance. Check copper plates for thickness. Remove Chamber and closely inspect every three months.
9. Maintain phosphates at zero.

### Six Months/Seasonal

1. Test calcium levels. Calcium levels should be 250-400 ppm for either a concrete or vinyl pools. Calcium helps to achieve proper conductivity in the water. If blue power indicator is not within 1.50 - 2.00 range, check calcium levels and chamber connections. Cleaning may be needed.
2. Closely inspect copper plates and titanium stack. Remove chamber from system to inspect closely. A plate thickness of under 4mm requires replacement. Clean both the copper plates and titanium stack if needed. Disconnect, and remove chamber, immerse bars and stack separately. Mix an acid/water solution of 1 part acid to 5 parts water. Clean copper bars first, will take only a couple minutes. Flip chamber, soak titanium bars, next. Immerse for no more than ten minutes. Rinse with fresh water and re-install.
3. Systems with the "Plus" UV option, must replace lamp(s) every 10,000 hours. After two seasons the UVC lamps will be much less effective. The lamps may need replacing even if the red indicator light is on.
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