



E-CLEAR 100% CHLORINE FREE NATURAL OXYGEN AND IONIC FRESH “MINERAL WATER” PURIFICATION SYSTEM.

**PLEASE NOTE IMPORTANT!!!
WHEN COMMENCING - A CALCIUM HARDNESS OF 200ppm IN THE WATER IS ESSENTIAL TO OPERATE THE SYSTEM.**

After the System has been installed – and you have checked that the Calcium Hardness is around 200-300ppm –Switch the **OXYGEN & IONIZATION ON** and Filter the Pool water **NON STOP**.

CHECK YOUR FRONT METER IT SHOULD INDICATE – 2000 mA (Set Point No 2)

Shock Treat with Chlorine until you have reached the Ionization level of 0.5ppm (Test Kit Provided). This can take a few days.

Then **CONTINUE TO Maintain Water On The Oxygen Electrodes ONLY.**
ONLY then does your Pool water become 100% Chlorine Free.

To achieve the Copper residual quickly- filter your pool water **NON STOP** until you have reached the 0.5ppm Copper residual **ONLY** then switch **OFF** Ionization and continue on Oxygen. Switch Back to Ionization only if the copper drops below 0.5ppm and circulate water for 24hour periods to raise back your copper residual quickly.

PLEASE REFER TO IONIC PROGRAM ON FRONT PANEL.

PLEASE NOTE! If your pH is too high (pH7.3 and above) then you will get a false Copper reading! Please ensure that you reduce the pH below 7.3 then test your Copper residual and maintain at 0.5ppm residual of copper. **(TEST KIT PROVIDED)**

PLEASE NOTE: IF YOU ALLOW THE pH TO RISE OVER 7.2 FOR LONGER THAN 48 HOURS THE WATER CAN TURN GREEN- PLEASE MANAGE THE pH CORRECTLY AS THIS IS VERY IMPORTANT!!

Procedure 1:

1. Switch Unit **OFF** at the bottom underneath electronic box.
2. Backwash and Rinse Filters very well.
3. Test pH if not between 6.8 and 7.2 correct by mixing pH correction chemicals into a bucket of water **PREMIX ACID IN WATER FIRST** and add this directly over the pool surface.....allow the acid to mix in well with the water for about 30minutes.

Procedure 2:

1. Allow sufficient time for the pH to reduce between 6.8 and 7.2. Re-test pH and confirm reading is correct.
2. **SWITCH UNIT ON AND CHECK ALL IS OPERATING AND YOU HAVE 2,000mA READING ON E-BOX.**
3. **NOW YOU ARE READY TO TEST YOUR COPPER RESIDUAL**

Follow the procedure from your Copper Test Kit. Ensure that your Copper residual colour reflects 0.5ppm. If the Copper is low, then maintain 24hour circulation non-stop ON THE IONIZATION MODE until you achieve the required Copper reading.

Test your Copper every 24 Hours. REMEMBER! Ensure your pH is at 6.8 to 7.2 before testing copper.

Once you have a copper reading of 0.5 ppm switch Ionization OFF. The OXYGEN (Oxidation) must remain ON and leave.

At these OPTIMUM levels of pH and Copper residual, you will ensure perfect Bacteria/Algae free Pool-Water and maximum performance of the "Natural Oxygen Process"!

Under normal conditions you would Oxidise (Oxygen ON Permanently) and then IONIZE occasionally, depending on Body load of the pool and weather conditions. Winter months you would Oxidise permanently and IONIZE for shorter periods.

REFER TO IONIC PROGRAM ON FRONT PANEL

NEVER SWITCH OFF THE OXYGEN POWER AS THIS WILL CAUSE GREEN WATER.

FILTRATION

If you have a heated pool and you are circulating for 24 hours then you need to install a separate timer onto the unit so as to operate the sanitising for the periods shown below.

Too much oxygen will make your water hazy. Too much copper over 0.5ppm can stain your pool.

Pool volume:

40 - 50 m3	8 hours	
55 - 75 m3	10hours	
80 -100 m3	12 hours	14hours in very hot weather
105 -125 m3	15 hours	18hours in very hot weather
130 -150 m3	18 hours	24hours in very hot weather

Hazy Water:

Filters too small. You should always have a minimum of between 160kgs to 400kg depending on size of pool- of high quality filter sand. A deep filter bed is required for a 100% Successful operation **800mm-1metre deep filter sand is vital.**

If your filter size is adequate and water still hazy and Copper residual is 0.5ppm
Add a filter flocculent or Gel Bloc Tablet to assist the filters and add a standard Algaecide into the water, circulate 24hours then backwash.

If problem persists then your flow rate is too weak. You require a minimal 4 Hour flow rate. Either your pump is too weak or your circulation pipes are too small. Heating should have its own dedicated pump with a dedicated suction and return line.

Electrode Cleaning: If you encounter a layer of green/white/black deposit build up on your electrode plates, this requires you clean the electrodes with a 10 part water and 1part **hydrochloric acid/muriatic acid solution.**

If you allow your plates to build up with this residue you will encounter hazy water. Dirty Oxygen Plates will retard the oxidation levels....Keep your electrode Plates Clean.

Method:

- 1: Remove cables from Clear PVC chambers.
- 2: Loosen the plastic PVC unions at each end of the clear chamber
- 3: Now you can remove the chamber. The black O ring in the groove should be removed
- 4: Drop entire chamber into acid solution and leave for 15minutes until plates are clean.
- 5: Wash chambers with fresh water and replace black O ring into groove.
- 6: Replace chamber and tighten unions to hold chamber securely inline.

**NB: ENSURE YOU CONNECT THE WHITE CABLE TO THE BLACK PLATES.
THE BLACK CABLE TO THE COPPER PLATES.**

Although the e-clear oxygenator system is self-cleaning, it is a good idea to clean the copper and oxygen electrodes every 3 months.

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