

INSTALLATION PROCEDURES – Natural Oxygen systems

The MK7/CF1- 75 has a 63mm Cell. Reduce to your pipe size (reducers not supplied)
The MK7/CF1-150 has a 90mm Cell

“CHECK LIST” BEFORE INSTALLATION: - To Achieve a prompt clear non toxic water.

1. Change your sand regardless of age. Filtration is paramount. The sand required is a minimum of 150kg for a normal sized pool. If unsure, please check with us. The larger the filter the better the filtration. Use high grade glass (silica) sand between 0.4 to 0.8 filter grit size.
2. If you have poor grouting, regrout the pool with high grade grouting pH neutral. If your pool is old then acid wash your pipes to remove calcium. We recommend you do this even if the pool is just a few years old.
3. If your pool has been used with a salt system, you will need to **change all the water**. Salt is simply too corrosive. Even if your pool is new (using salt), you must also change the sand.
4. Your Chlorine or Bromine needs to be depleted. Do NOT add these products from here onwards.
5. If the above is adhered to, you will have a trouble free pool that will last for years and years! This will also make your initial start-up very easy.

REQUIRED FOR WATER SET UP BEFORE SWITCH ON: -

1. 5-10 litres of Active Oxygen. (Depending on pool size)
2. 5-10 litres of non copper based algaecide. (Depending on pool size)
3. Non metallic floc cubes (optional).

FOR YOUR REFERENCE – DIAGRAM ATTACHED.

CELL POSITION: -

The electrode chambers can be installed horizontally or vertically if need be. It is preferable to keep the unit and cells in the supplied frame but on occasions this may not be possible depending on your pump room.

CELL CHAMBER PIPE CONNECTIONS: -

Connections are shown in the attached diagram. Please pay attention to these Connections e.g. Note they are the same connections but fitted in reverse.

WATER FLOW:-

Water must first flow through the pump, filter, eClear chambers and then back to the return jets and into the pool. Connect the eClear system using a BYPASS.

CABLE CONNECTIONS TO ELECTRODES: -

The White cables – (**Figure 10**) connect to the Oxygen electrodes with the thin Black Plates!
The Black cables – (**Figure 11**) connect to the Algaecide electrodes with the thick Red Plates.

INSTALL: -

Install the unit on the wall (bolts and spacers supplied) where ever convenient for your pipe work. Cut your existing pipe after the filter and before the return jest. Connect a BYPASS. If you need to clean your electrodes or replace the algaecide electrodes this will make life easier and it is just good maintenance to use the bypass when adding pH correction or vacuuming the pool. **The Unit must be OFF!** Now **Check for leaks** and circulate.

Procedure 1: -

1. Open BYPASS pipe Valve and close the eClear pipe Valves so the water will not flow through the eClear chambers.
2. Backwash and Rinse Filters very well.
3. Switch Multi-Valve to Circulation. Commence to circulate water.
4. Correct pH by mixing pH correction into a bucket of water and add this directly into the skimmer so that the solution goes through the Circulation (not through the filter) and then into the Pool-Water.
5. Wait 10 minutes. Switch Multi-Valve back to FILTRATION and circulate water.
6. Considering you have depleted your chlorine or Bromine levels, add **ACTIVE OXYGEN** (see product label for instructions) Add directly into the skimmer. You can also add a little NON COPPER based algaecide. These products are used only for the first 1 or 2 weeks! These should be added with Multi-Valve on FILTRATION.
7. Check that all the settings on the Unit are set to HIGH. This is achieved by switching the pool-size switch - (**Figure 2**) to maximum pool size and **setting A**. The Potentiometer knob - (**Figure 3**) should be fully anti clockwise. Switch the **Unit ON** - (**Figure 7**) Make sure the **OXYGEN** and **IONIZATION** switches are ON - (**Figure:14-15**) **If you have the UV (Optional)** Then also switch on the **UV** - (**Figure 9**).
8. Check the conductivity mA meter. (**Figure 1**) Raise to 200mA for the MK7/CF1-75. For the MK7/CF1-150 raise to 250mA. This is achieved by setting the pool size switch - (**Figure 2**) to **A or B**, then turn the potentiometer knob slowly clockwise - (**Figure 3**). This will also depend on the conductivity of your water. If the dosing meter indicates a very high output e.g. 400mA or above, turn down the potentiometer (**Figure 3**). If the reading is still too high change the switch - (**Figure 2**) to the **B** setting to achieve an output of 200mA to 300mA maximum.
9. Run the pool 24/7 non-stop for 7 days an Re-Check the pH. Correct if necessary. Check the copper residual by following the instructions from the test kit provided. Take the water sample from a depth of at least 40cm and from the centre of the longest pool wall. The level of Copper residual required is between 0.5ppm and 0.7ppm. If lower, continue filtration 24/7 until you reach the 0.5ppm – 0.7ppm optimum Copper residual.
10. Whilst the copper residual is rising add a little more Active Oxygen and the non Metallic algaecide at this point. This will keep your pool clear until the water is fully Ionised.
11. When the above readings are achieved, switch Ionization **OFF** - (**Figure 15**) and continue to sanitize your pool water on the **Oxygen Mode only (Figure 14)**. You will only switch your Ionization on again if your Copper residual drops below 0.5ppm as indicated by the test kit supplied. If this happens then run the filtration again 24/7 and check every 24 hours the copper level until you have achieved again the 0.5ppm to 0.7ppm copper residual. Otherwise you remain constantly on your Oxygen Mode.
12. Now set your filtration to Automatic and the hours necessary.
13. Follow water maintenance weekly programme supplied.

FOR POOLS THAT SHUT DOWN IN THE WINTER

PROCEDURE 2: -

1. Back-Wash and rinse filters.
2. Switch Unit to **IONIZATION**. Run 24/7 non-stop and check Copper level. Run Unit until you achieve a reading of 1ppm.
3. Shut down the pool. **Switch Unit OFF**.
4. **START-UP** procedure beginning of new season: - **Unit should be OFF** Set **BYPASS** valves to BYPASS the eClear system.
5. Back-Wash and rinse filters thoroughly.
6. Adjust pH to between 6.8ppm and 7.2ppm with the Multi-Valve set to CIRCULATION.
7. Set Multi-Valve to FILTRATION. Add **ACTIVE OXYGEN** to **shock** pool water - (see product label for instructions) Add directly into the skimmer.
8. Place a natural Non Metallic Floc cube into the pump Pre-Filter. (**Action Cube** recommended).
9. Add a Non-Metallic Algaecide through the skimmer (See recommended dosage on the container) normally at 1 Litre per 40m³
10. Run pump on FILTRATION 24/7 Non-Stop until clear. Back-Wash filters every 24 Hours!
11. When water is clear. Set **BYPASS** Valves to flow through the eClear.
12. **Switch Unit ON**. Now begin at number **7** of PROCEDURE **1**.

WARNING FOR INSTALLATION IN OLD POOLS

PROCEDURE 3: -

After a few days of use, considering the water was crystal clear, your pool may then become cloudy! The natural **OXYGEN** process will begin to detoxify your pool walls and pipe-work. It will begin to leach out the Calcium.

NOTE!!! It could take as long as 2 weeks to finally obtain clear consistent water.

REMEDY:-

This is a short term and initial set up problem meaning that you did not confirm your pool shell and filtration system with us prior to installation for full advice! If your tiled pool has sound grouting, the filter sand is new and the pipes have been cleaned then your pool is being detoxified. The natural Oxygen process is leaching out calcium from your pool walls, floor and pipe work (if they were not cleaned). It will give your pool a new lease of life. You will need some Active Oxygen shock treatment and a non metallic flocculent cube (Action Cube) to be placed into the pump pre-filter. Run the pump 24/7 non stop until clear, back washing the filters every 24 hours until your water is perfect. Normally, 3 or 4 days. This may reoccur 2 or 3 times in old pools. Just repeat the process. This process is doing the world of good for your pool water that has been abused by Toxic chemicals for years.

WHEN USING WELL WATER

PROCEDURE 4: -

Regardless if the water looks clear! **Unit OFF!**

1. Set **BYPASS** valves to BYPASS the eClear system.
2. Adjust pH to 7.2ppm
3. Use Metal – Iron remover. Normally 3Lt per 100m³ but read instructions on the product. Mix in a bucket of water first and put into the skimmer. Circulate on FILTRATION.
4. Add an Action Cube or non metallic filter flocculent into the pump pre-filter.
5. Run pump Non-Stop 24/7 and Back-Wash filter every 24 Hours.
6. Go to number **3** of **PROCEDURE 1**.

PROCEDURE 5: -

If the water is very murky! **Unit OFF!**

1. Set **BYPASS Valves** to BYPASS the eClear system.
2. Adjust pH to 7.4ppm – 7.6ppm
3. **Switch PUMP OFF.**
4. You will need a surface level flocculent (**Alum Powder or liquid**)
5. Sprinkle the floc all over the surface of the pool and leave over night.
6. **SWITCH PUMP ON.** Vacuum all debris to waste and not through the filter.
7. Repeat above points 2 to 4 if still not clear.
8. When clear go to number **3** of **PROCEDURE 1.**

MARBLE AND VINYL - NEW POOLS - Unit OFF!

PROCEDURE 6: -

New Marble pools need to be de-gassed and plaster/cement dust removed. Vinyl pools need to be de-gassed. The procedure is the same. The process is best over a 3 week period. This is to the benefit of the owner!

1. Back-Wash and Rinse filters thoroughly.
2. Adjust pH to 6.8ppm – 7.2ppm (**Always Pre-Mix** pH correction chemicals in water and enter into skimmer with eClear on **Bypass and switched OFF**)
3. Use house-hold bleach at 4 Litres per 50m³ and per week.
4. Add a Non-Metallic Algaecide through the skimmer at 1 Litre per 40m³ each week for 3 weeks.
5. Add 1 Action Cube or Non Metallic filter flocculent in to the pump Pre-Filter. Replace when used.
6. Back-Wash and rinse filters after 24 Hours then once each week.
7. After 3 weeks, go to number **3** of **PROCEDURE 1.**

NOTE: If you continue to use Chlorine then the procedure will take another week. So 4 weeks of degassing and plaster dust removal.

IMPORTANT: - If a Marble pool. After the degassing and cleaning period, remove the filter top, and remove any debris. Mix well the top sand. If necessary, replace the sand. Back-wash for 5 minutes and then rinse for 3 minutes.

F.A.Q.

Algae Problems: - Copper residual below 0.5ppm Raise this to 0.7ppm but first shock treat with ACTIVE OXYGEN and Non metal Algaecide.

Good Maintenance: - It is a good idea to clean your electrodes once each year. Remove Cell and mix 1 part acid to 2 parts water.
Pass the liquid several times through the Cells in a bucket.