

E - C L E A R ON
T E C H N O L O G I E S OXYGEN

Healthy WATER. Healthy EARTH. Healthy YOU!



CLOUD



**INSTALLATION
GUIDE
E-CLEAR WITH
AIRCONNECT
2024**



What is Air Connect? NEW CUSTOMERS

The air connect cloud based monitoring system benefits EClear's customers by providing them with detailed information about the performance and operation of their EClear water sanitizer in real time.

Through the cloud based monitoring system, customers can view their current water sanitization state, receive notifications when maintenance is needed, track system performance over time, and receive personalized recommendations on how to optimize their system.

With this insight, customers can ensure they have complete control over their EClear water sanitization system and can take the necessary steps to ensure their water is safe and healthy at all times.

If the customer chooses, eclear will take remote electronic control of their E-Clear system so as to maximize the efficiency of their system

IT IS A SET AND FORGET SYSTEM

As a customer your only task is to test and enter the copper residual in the eclear app weekly.

WE WILL DO THE REST!

NO need to train staff or even read the user manuals.
E-Clear will take full control of your system.

Thereafter monitoring any system faults and consumable parts usage.

This is a fool proof eclear system.

As a reseller of E-Clear Systems, Why would I want to sell this Air Connect device to my customers?

1. We have found that due to lack of adequate training and high staff turnover, E-Clear Systems, over time are not looked after properly, as it is a newer technology that needs slightly different maintenance protocols.

Therefore pool water quality becomes unacceptable to the end users and the E-Clear system is simply switched off and forgotten, probably to be replaced by better understood chlorine additions to the pool.

The Air Connect Service will prevent this from happening.

We care for the running of the E-Clear system so that neither the customer nor the customer's pool maintenance service has to learn anything new when installing an E-Clear system nor does any training of staff or the customer need to take place.

For commercial pools this means less downtime, happier customers and staff and more profitability and better reviews..

With the Air Connect Service E-Clear will advise the end user or the maintenance company when to renew consumables or clean the electrodes.

If the premium service is chosen then E-Clear itself will adjust settings on the system to maintain most efficient running of the pool.

With the Air Connect Service in use the E-Clear's life will be prolonged and warranty protected.

The maintenance company, installer and customer have peace of mind knowing the E-Clear is always running at peak performance.. Even when your on holiday.

There is much less chance of your pool water ever going green.

You can check performance history and find out where problems occurred from the cloud history of your system so as not to repeat them

Easier problem solving when something does go wrong.

PRIOR TO INSTALLATION OF THE E-CLEAR SYSTEM

You may need to install a Wi-Fi Range Extender to your existing Wi-Fi network
OR

At larger commercial installations you may need to install a wired Wi-Fi modem in the pump room or installation area, especially if below ground

The Air Connect only connects via Wi-Fi, you cannot connect it to your network via a wired connection

How do you benefit from air connect

- 1.** Peace of mind- you know your Eclear system is working 100%
- 2.** It will prolong the life of the Eclear system and the pool because the Eclear will be properly maintained throughout its life
- 3.** You can monitor the health of your E-Clear system.
- 4.** You can Connect your NEW or EXISTING E-Clear Pool or House System via Wi-Fi directly to our SERVICE TECHNICIANS who will monitor the health of your E-Clear System hourly!
- 5.** It's like having an E-Clear maintenance Technician In your pump room 24/7 365! In fact, a technician from E-Clear will contact you via WhatsApp, email or text message when we see any issue. We can then discuss how to best resolve the issue.
- 6.** You'll never have to look at your E-Clear again.
COMPLETE peace of mind.
- 7.** If your water goes off, you know it's not the Eclear that's not functioning properly -It makes finding the reason your water is off much easier.
- 8.** We will remind you to change your consumables at exactly the optimal time. You don't waste money and your Eclear operates optimally at all times.
- 9.** Peace of mind while you're away on holiday or business
- 10.** A technician will contact you to make suggestions in case your pool water is off
- 11.** You can contact a technician on a dedicated WhatsApp line anytime for problem solving help.
- 12.** There is much less chance your pool water will ever go off.
- 13.** We can tell you exactly when, how long and at what power your Eclear system is running at.
- 14.** Information is stored permanently in the cloud for back reference.
- 15.** Less downtime for commercial and industrial pools - equals more profit and happier customers!
- 16.** No need to train new staff constantly
- 17.** No need to even read the problem solving guide
- 18.** Save on any sundry chemicals because your pool water should never need shocking

How AIR CONNECT Works



Connect to Local Wi-Fi network



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CUSTOMER AND/OR SERVICE COMPANY
Download the NEW E-CLEAR
Air Connect App

CUSTOMER CHOOSES IN APP
WHICH SERVICE TO USE

**Register E-Clear
For WARRANTY Purposes
(Free APP Download)**

OR

**Monitor E-CLEAR ONLY
(Monthly app fee)**

OR

**Monitor and Control E-CLEAR
(Monthly APP fee)**

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SERVICE TECHNICIAN



PRE- PHYSICAL INSTALLATION CHECKLIST

2. If you are installing Eclear on a new pool:

A. The most important aspect of your entire pool system is your pump and filter. It must be powerful enough to send the entire water volume of your pool through your filter in 4 hours or less.

Your Eclear will not function properly and you will need to add chemicals occasionally, if this criteria is not met! You must also take into account head loss and pressure loss due to the setup of the pool filtration system as well as solar heating panels on the roof.

In this regard we do not recommend electricity saving pumps because the way they save is simply by reducing flow or power. This means you will not achieve the 4 hour total volume through the filter requirement.

B. There should be no dead spots in the pool, where there is no water movement, eg. corners or steps or seats. Maneuver the return jets to form a mild swirling flow motion in the pool. Algae will form at dead spots or shallow areas if there sufficient water movement. Install more returns than if you were running a chlorine pool. Alamo install returns to move water in shallow areas like steps and martini seats.

C. If your pool walls are made of a calcium based substrate, such as cement, gunite, or tiles with cement grouting, may begin to give off a powdery residue to which copper will bind. This calls for a strict control of the pH of the pool. It must rise above 7.2 in order to prevent such staining which will manifest in a blue/green Colour.

We suggest the use of an automated pH Doser to strictly maintain pH between 6.8-7.2

For a new pool we recommend Pvc liners, Fibreglass, inert resin or tiles with silicone grouting.

D. We recommend using ACTIVATED recycled crushed glass media in your filters. The deeper the filter media bed the better.

E. You cannot use borehole water, with a high iron and mineral content to fill your pool. It will cause staining. Rainwater or municipal water or filtered borehole water is fine.

F. Pool pipe and filter/pump sizes:

0-20kl pool- 3 bag filter, 0.75kw pump and 50mm pipework

20-75kl pool- 5 bag filter, 1.1kw pump, 50mm pipework at least

75-130kl pool- 7 bag filter, 1.5 kw pump, 63mm pipework throughout

130-230kl- 2x 7bag filters, 2 x 1.5 kw pumps, 63mm pipework on each separate pump filter system

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D. You do not need to replace the pool water when moving to the Eclear system

E. You should replace the filter media. We recommend using ACTIVATED recycled crushed glass media

F. Eclear is not recommended for white walled beach pools. The high a amount of sunlight reaching the extended shallow areas will cause algae to flourish.

G. You cannot use borehole water, with a high iron and mineral content to refill your pool. It will cause staining. Rainwater or municipal water or filtered borehole water is fine.

H. If your existing underground pipework is smaller than 50mm, it will need to be replaced to facilitate good water in the pool as you will not be using harsh chemicals to make up for inadequacies in filtration.

For pools up to 75kl. You will need at least 50mm pipework throughout.

For pools above 75kl you will need 63mm pipework in most of your filtration setup. 50mm if splitting into 2 returns for instance.

PHYSICAL INSTALLATION INSTRUCTIONS

Step 1

The e-Clear must only operate when the pool pump is running. Either connect to the same power source as the pool pump or to the same timer clock.

Step 2

The e-Clear system must be installed as last piece of equipment before water returns to the pool. Even after the heater. If one is installed.

Step 3

The chamber can be fitted in a vertical orientation, or horizontally as long as no air pockets form in the chambers.

Step 4

Water must flow through the ultraviolet chamber first (if installed) then the oxygen chamber and finally the ionization chamber.

Step 5

The white electrode cable attaches to the black oxygen plates. The black electrode cable attaches to the pink ionization plates. The white 4 pin cable attached to the silver electrodes. Undo cable ties and plug cable into ebox.

Step 6

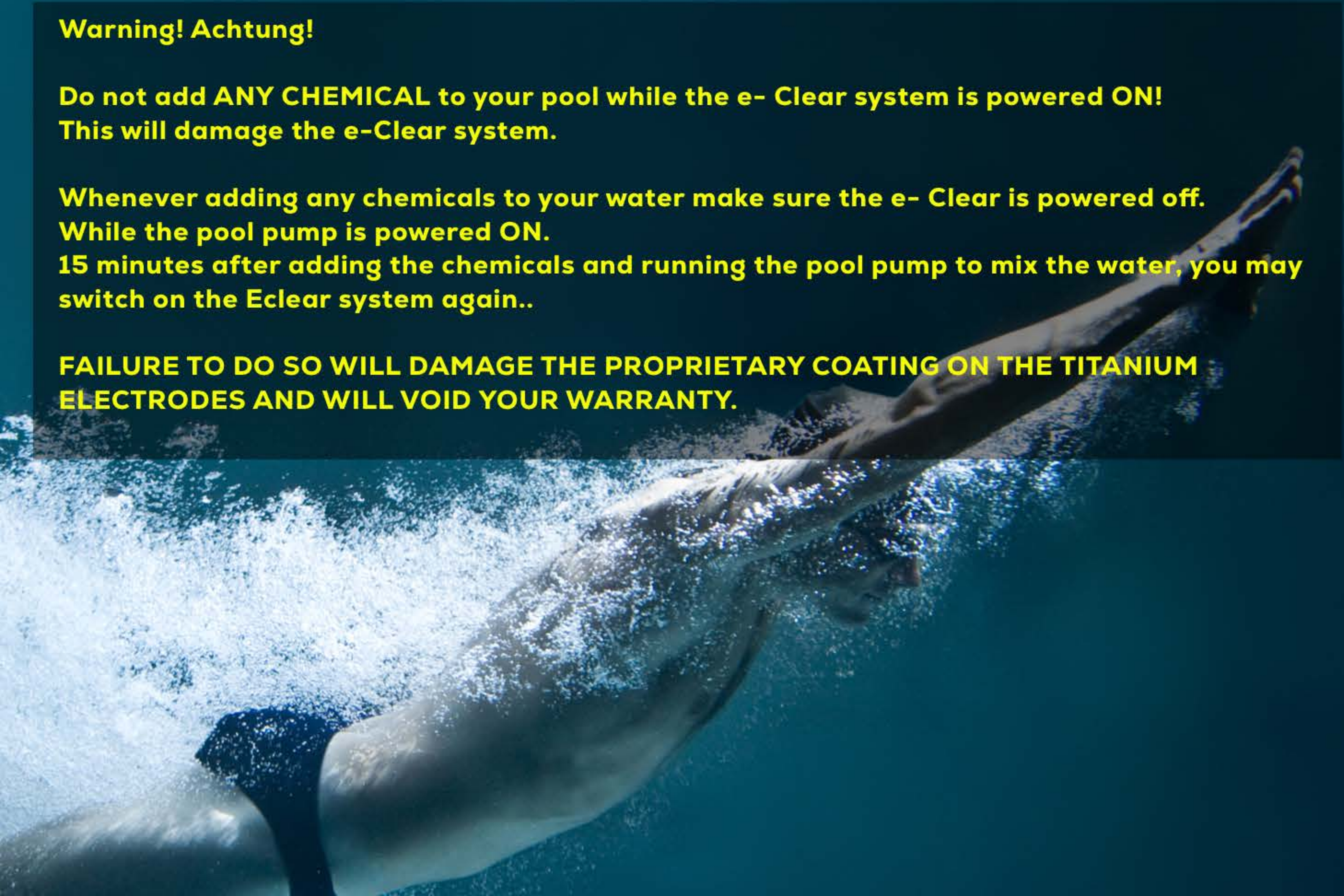
Large assembly type units must be installed according to technical installation drawings to maximize flow through the electrode chambers.

Warning! Achtung!

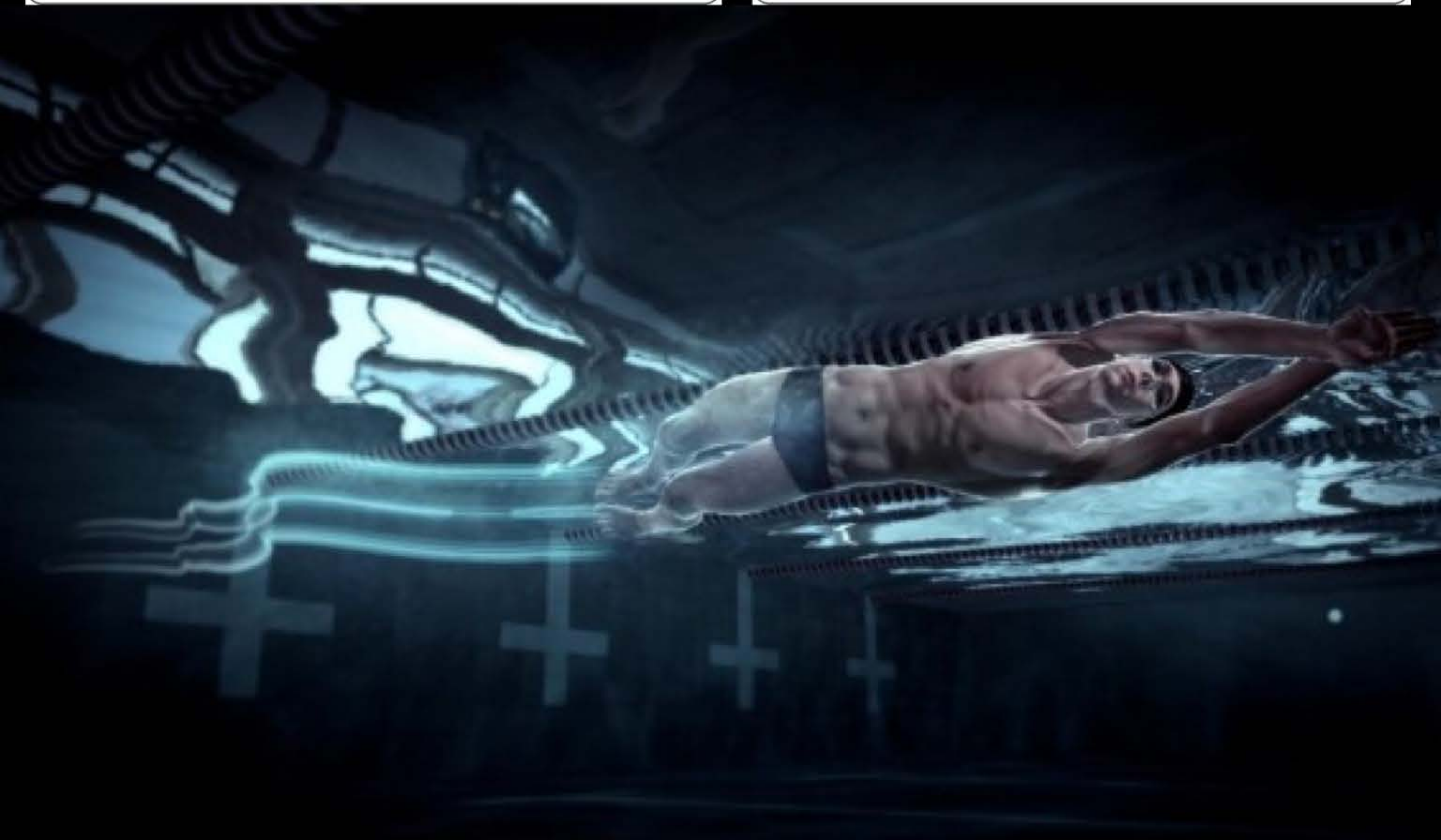
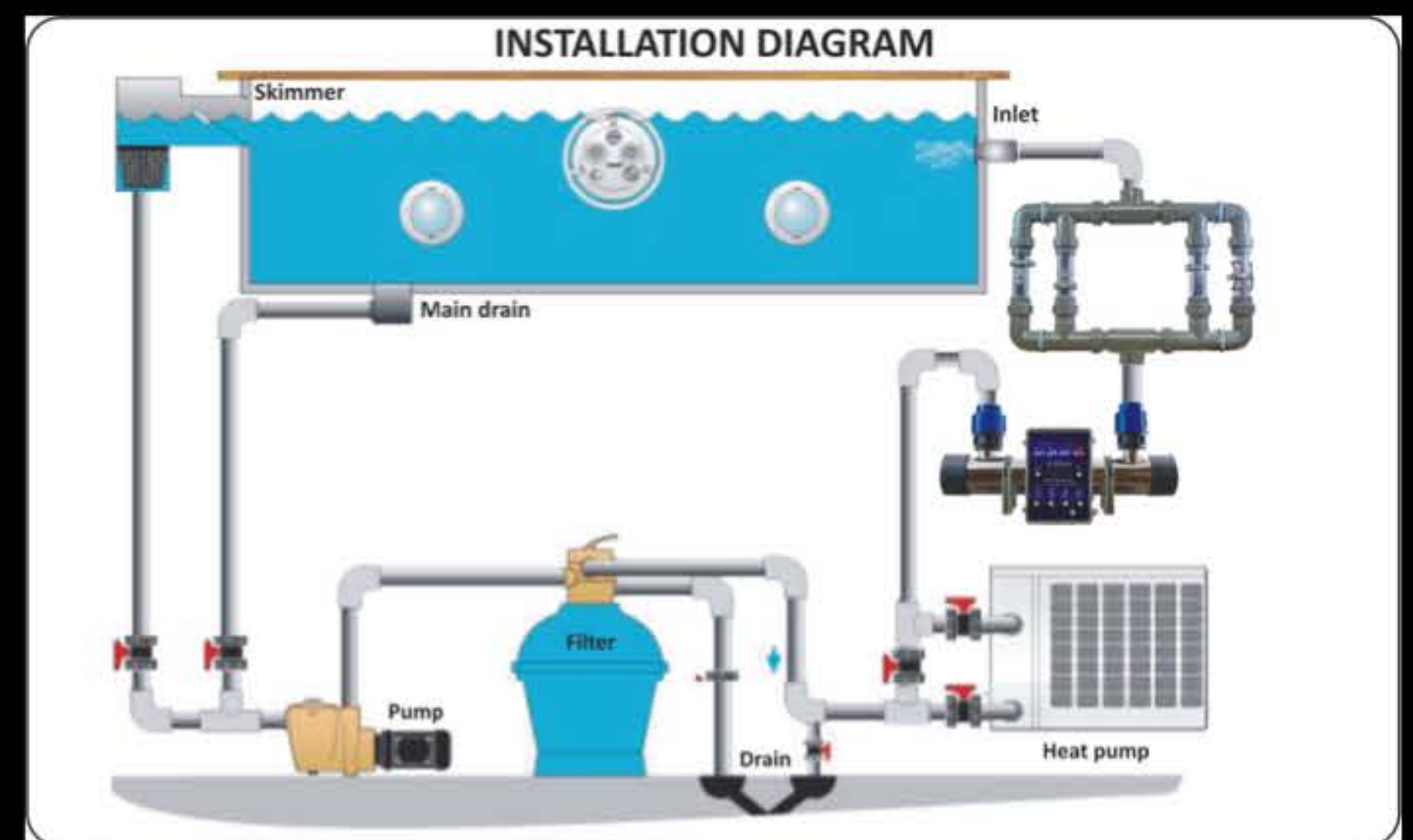
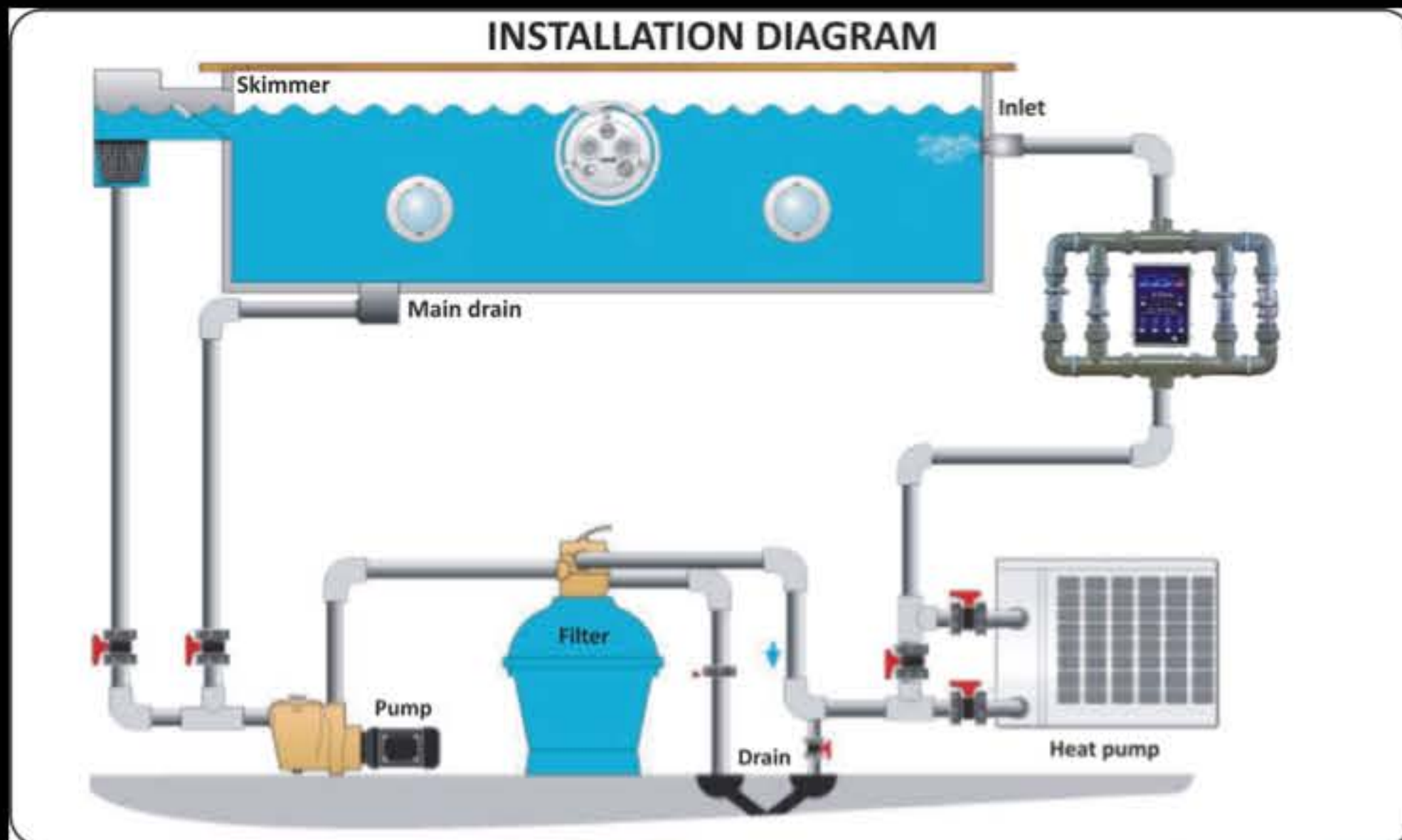
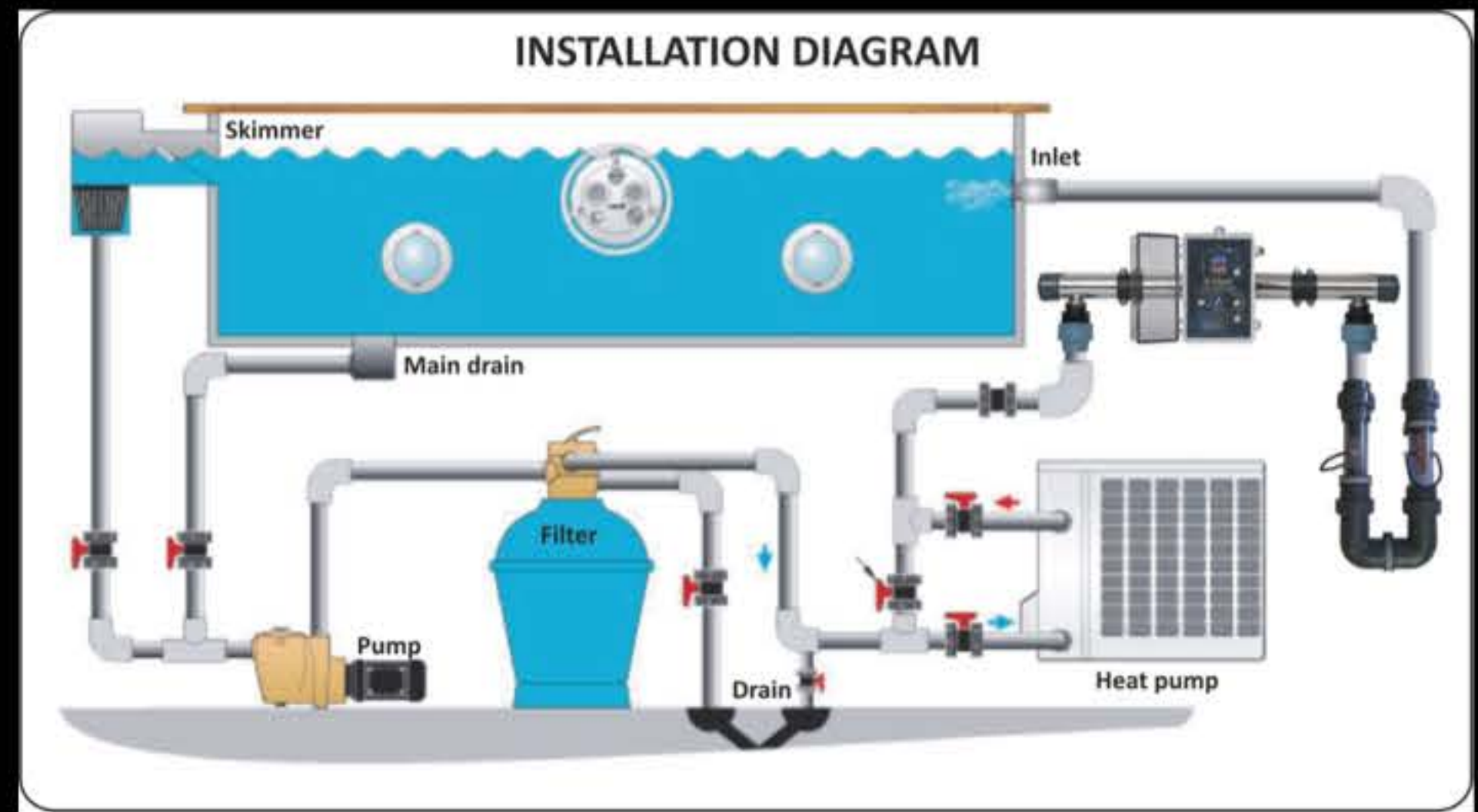
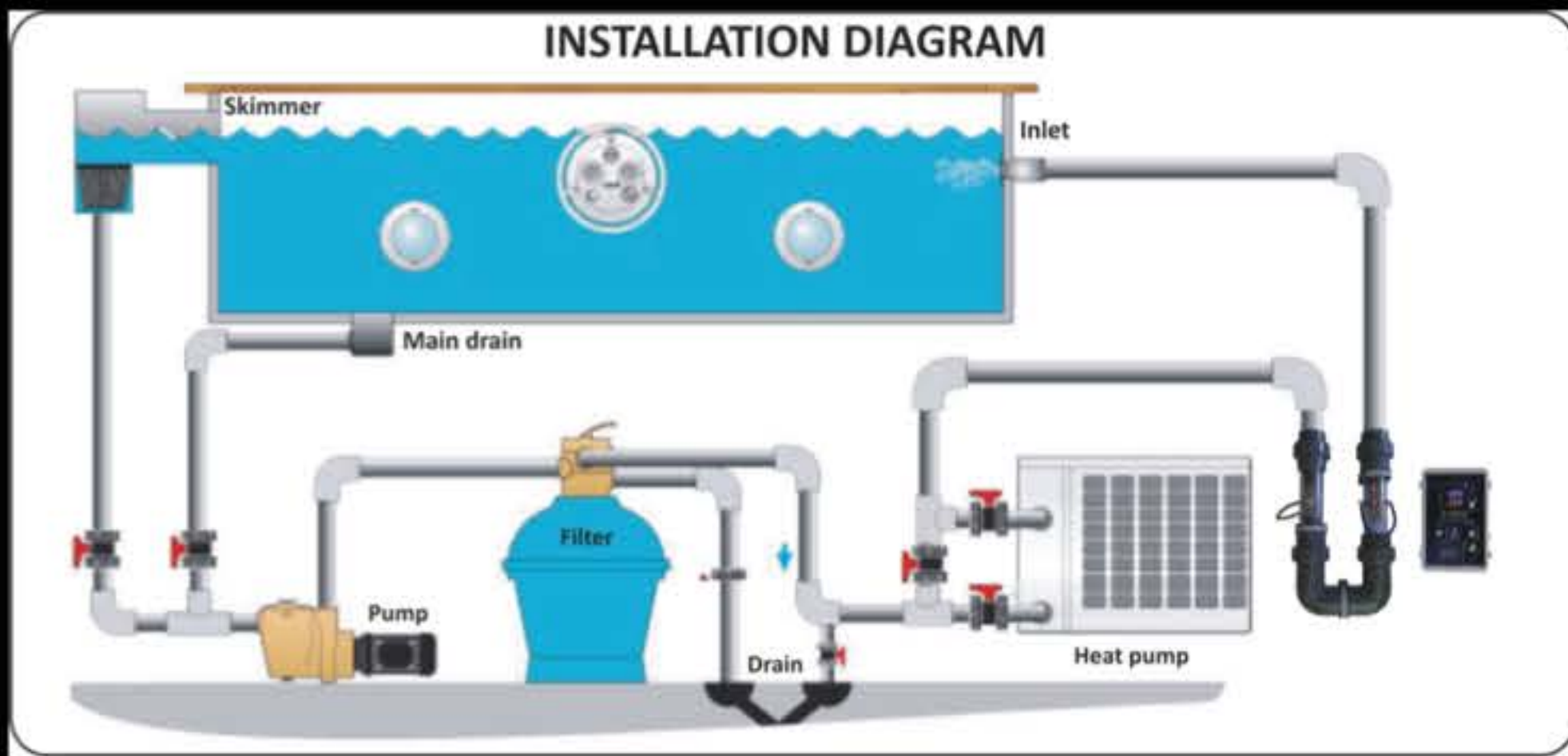
**Do not add ANY CHEMICAL to your pool while the e- Clear system is powered ON!
This will damage the e-Clear system.**

**Whenever adding any chemicals to your water make sure the e- Clear is powered off.
While the pool pump is powered ON.
15 minutes after adding the chemicals and running the pool pump to mix the water, you may switch on the Eclear system again..**

FAILURE TO DO SO WILL DAMAGE THE PROPRIETARY COATING ON THE TITANIUM ELECTRODES AND WILL VOID YOUR WARRANTY.



TYPICAL INSTALLATION DIAGRAMS



INSTALLATION- WATER BALANCING

Step 1

With the pool pump running and e-Clear system switched off, adjust the calcium hardness to 200 - 300ppm using calcium flakes.

(available from your local pool shop). Roughly 8 kg of Calcium Flakes per 50 000L of water renders a calcium residual of 300ppm, if calcium at 0ppm. Calcium should then only be tested once or twice a year.

We sell calcium test kits.

Step 2

Adjust the pH to between 6.8-7.2 using hydrochloric pool acid. The water is most stable and copper ionization most effective at 6.8. Try to keep it there! Never allow the pH to rise above 7.2, the copper ions may fall out of suspension and be rendered ineffective, possibly staining your pool. The pH in gunnite or marbelite pools must therefore be maintained more strictly.

Warning

High pH will damage your electrodes and cause a build-up on your electrodes rendering the sanitization process impossible.

Step 3

Switch on the e-Clear system making sure all switches are on and all dials are at 100%. The display should show a blue oxygen reading of 100% and a red ionization reading of 100%. If you have purchased a system with Silver, then the silver reading should also show 100%.

If lower, check calcium or connections.

Step 4

Once switched on it should take a week or two for the copper residual to rise to the required efficacy level of 0.5ppm. To speed up the process we recommend running your pool pump and e-Clear 24 hours a day. During this time, it may be necessary to shock the water to kill algae and maintain water quality. Use hydrogen peroxide

Step 5

Phosphates are food for algae. They are added to your pool by municipal water, rain runoff, grass, leaves and swimmers. Phosphates should be kept at 0ppb. Use a phosphate remover, available from your pool shop, if your copper residual is 0.5ppm but algae is still growing.

Step 6

Test copper residual once a week using supplied copper test kit and switch on or off on the side switch of the eclear box as necessary to maintain a residual of 0.5ppm

Step 7

Alkalinity should left alone.

Step 8

Once your copper level reaches 0.5ppm your pool is running on the patented e-Clear system. Run your pool pump normal hours (around 6-10 hours a day for average sized pools). You should not need to add anything except pool acid to adjust your pH. Remember to do so with the eclear powered off.

Step 9

On a weekly basis- check pH, check copper, backwash and rinse, and perform normal pool maintenance, clean pool of leaves, grass and brush walls.



INSTALLATION- CONNECT THE ECLEAR SYSTEM TO YOUR WI-FI

After physical installation and balancing the water according to the installation guide, proceed to power up the E-Clear Air Connect system by switching on the power button on the underside of the device

A. Open the Wi-Fi page in your phone or tablet's settings. Find the eclear Wi-Fi device. Click on it and use default password 123456. Press enter.

Your E-Clear system is now connected to your local Wi-Fi network.

Now scan the QR code on the front of the E-Clear system.

This will take you to your devices App Store to download the brand new E-Clear app.

If your phone cannot read QR codes then search for the E-Clear app in your App Store.

1. Once the app is on your device, open the app. You will receive a 4 digit code which you can share with up to 4 other devices, either (your own or your pool maintenance company or installer or your other devices).

2. Enter your personal details on the registration page in the app and tick the box that says we can use your information only within E-Clear. We will never share your personal info.



REGISTER WARRANTY OR SIGN UP FOR AIR CONNECT SERVICE

3. Choose the free option if you don't want us to monitor your E-Clear system. You can then use the app as a reference source for maintenance info and other helpful info for E-Clear customers

4. Choose the Air Connect service option if you want us to monitor your E-Clear system for any faults and adjust the system parameters remotely and contact you regarding anything we can't adjust remotely to advise you how to correct the issue.

5. This is a proactive diagnostic monitoring service attached to your E-Clear system for a monthly service fee, which you can cancel at any time

6. If you represent a commercial entity, such as a hotel, spa, gym, hospital, or any other business then choose the professional option. This can monitor larger E-Clear systems. Each separate pool or body of water at the establishment will need a separate monitoring service but discounts are applicable for establishments with multiple pools or spas. Discounts also apply for paying for a year's service fees upfront

7. By clicking agree, you enter into a paid app contract with Google or Apple on a month to month basis until you cancel the AIR CONNECT service