OZONEX
PURE WATER

ADVICE FOR USING
of your automatic regulator
SMART'OZO

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OZONEX PURE WATER

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SUMMARY

IMPORTANT ADVICE

You have just acquired a SMART'OZO ozonator and a connected automatic controller.
We thank you for your confidence and we will put all our energy into earning it.

WHAT IS LEFT FOR YOU TO DO ?

This connected automatic regulator is very accurate, but this does not mean that you cannot periodically check the measurements on your smartphone.

These measurements are carried out by sensors (probes or measurement electrodes) which go inevitably wear out, get dirty, or even deteriorate.

Note a duration of :

- 2 to 3 years of correct operation for the probes (a letter will remind you).
- 1 to 2 months for a verification of the accuracy of the settings using a colorimeter.

Reversal of the ACID and BLEACH tubes on the injection cannulas is MANDATORY for prevent the bleach cannula from clogging. Think about it every 2 months.

Regularly check the level of your bins. Complete them before the end to avoid the depriming the pumps.

WARNING

FILLING THE CONTAINERS IS THE OPERATION THAT YOU WILL REQUIRE THE MOST CONCENTRATION.

INVERSION OF PRODUCTS IN BINS IS VERY DANGEROUS.

MAKE SURE THAT THE PRODUCT YOU ARE GOING TO POUR IS THE SAME AS THE ONE WHICH IS IN THE BIN. IT MUST BE IDENTICAL.

Use only products recommended by OZONEX. If in doubt, do not hesitate to contact us, an adviser will inform you.

To make a shock chlorine, use 1.5 liters of pure bleach (sodium hypochlorite) for 10 m^3 of water.

Example: a 70 m^3 swimming pool will need 10 liters of pure bleach.

NEVER USE ANY PRODUCT CONTAINING HYDROGEN PEROXIDE.
THIS PRODUCT IS INCOMPATIBLE WITH BLEACH (CHLORINE).

(BAQUATOP, REVATOP, JD-FLASH...)

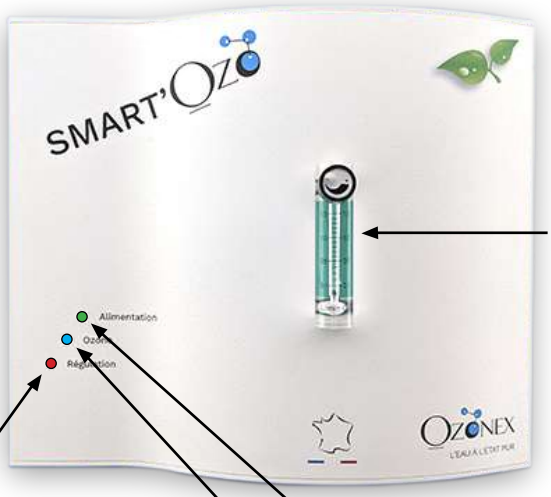
ALL THESE ADVICE ARE EXPLAINED IN THE NOTICE WE HAVE GIVEN YOU.

OVERVIEW OF THE BOX

Left view

Side ventilation

Front view



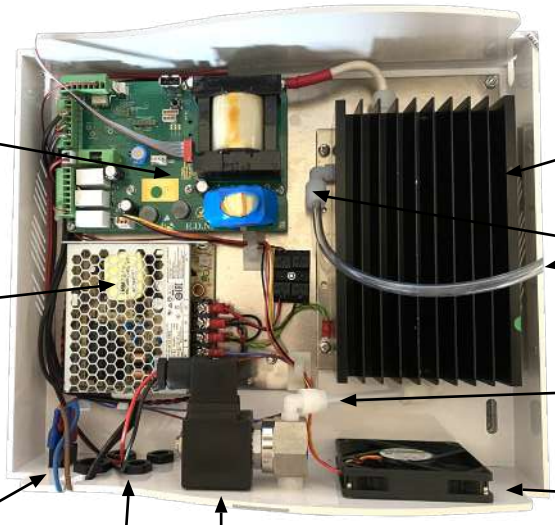
Air flow meter

"Regulation" LED (orange)

"Power" LED (green)

"Ozone" LED (blue)

Inside of the box



Electronic card
(see "Connection" sheet)

Transformer
(220V => 24V)

220 V power button
(ON/OFF)

Stuffing box ramp

solenoid valve

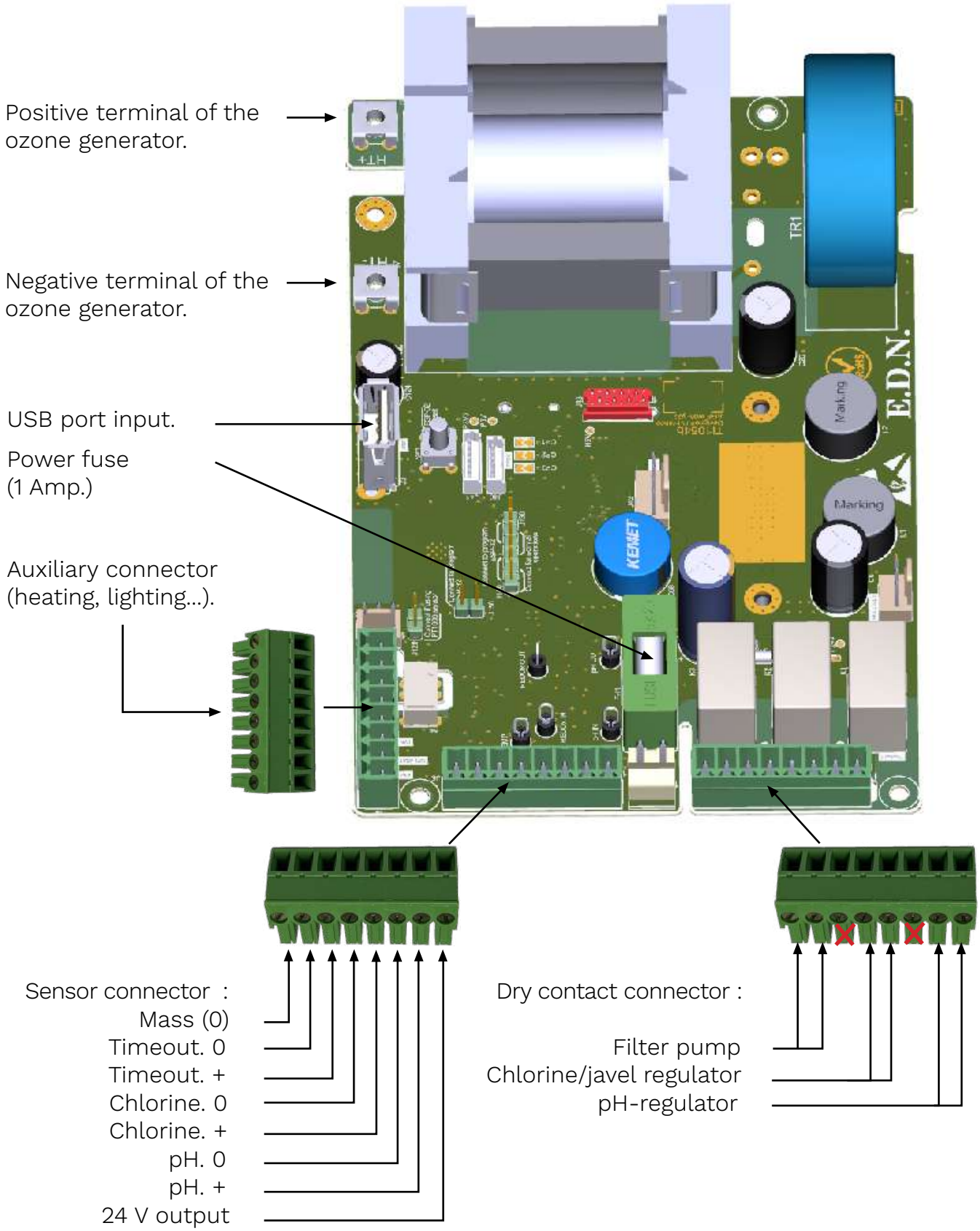
Ozone generator

Air suction
via the flow meter
facade (crystal tube)

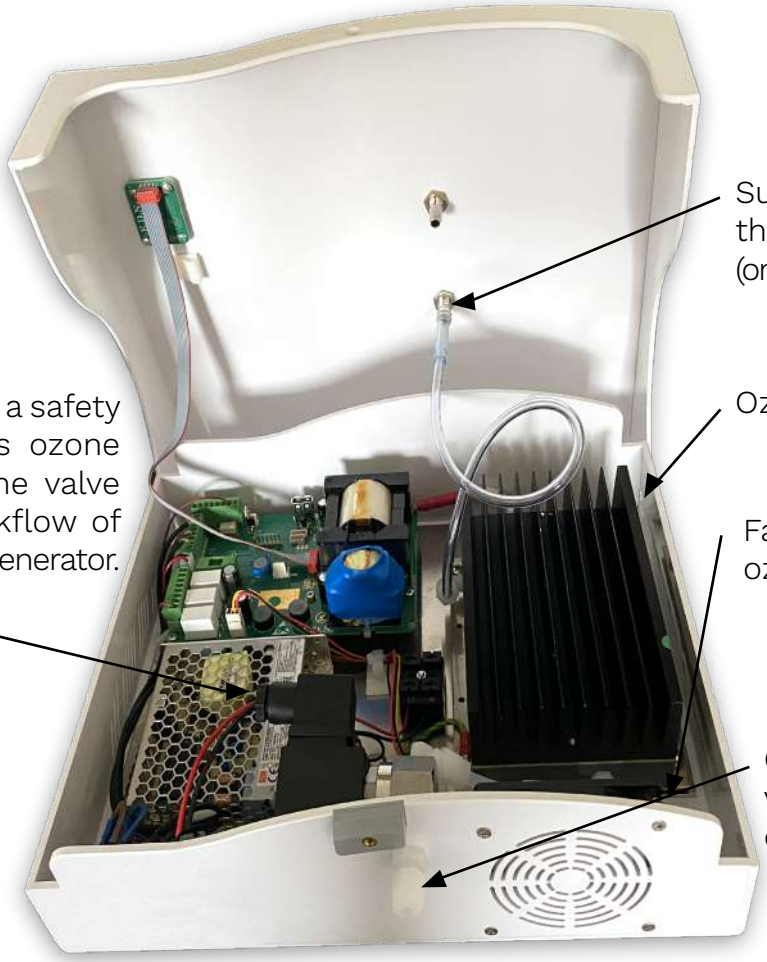
Ozone output
(PTFE tubing)

Fan

CONNECTORS


Positive terminal of the ozone generator.
Negative terminal of the ozone generator.
USB port input.
Power fuse (1 Amp.)
Auxiliary connector (heating, lighting...).
Sensor connector :
Mass (0)
Timeout. 0
Timeout. +
Chlorine. 0
Chlorine. +
pH. 0
pH. +
24 V output
Dry contact connector :
Filter pump
Chlorine/javel regulator
pH-regulator

OZONATOR



Suction of ambient air through the flow meter (on the front) to the generator.

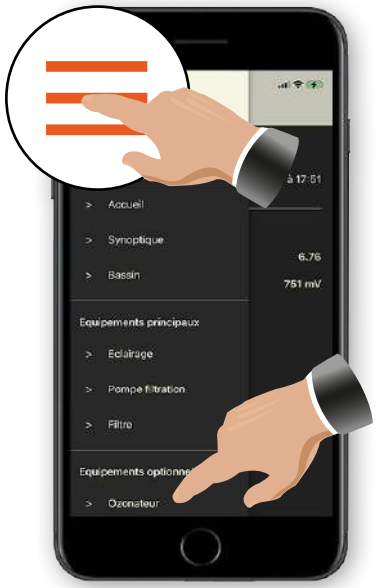
Ozone generator.

Fan for cooling the ozone generator.

Ozone outlet to check valve for pre-pump injection of ozone.

The solenoid valve is a safety element that allows ozone to be injected to the valve and blocks the backflow of water into the ozone generator.

Home screen of your "SMART'OZO" :



1. Click on the «hamburger» icon in the application.

2. The drop-down menu appears, choose "Ozonator".

3. On the ozonator page:
   - choose the operating mode (on, off or auto).
   - fill in the different parameters of the ozonator (the type, the number fan).

See page 13 "Ozonator management".

INSTALLATION OF THE SMARTPHONE APPLICATION

Today, a mobile phone does not only allow you to call your contacts.
He became smart and connected to the internet.
Thanks to this great development, you now have a free application to remotely manage your connected pool.

Where and how to download our “My Ozonex” application?

- Go to your search engine (example: GOOGLE)
- Enter the search “My Ozonex Application” for APPLE or ANDROID phone.
- Download it on your smartphone.

GET IT ON Google Play

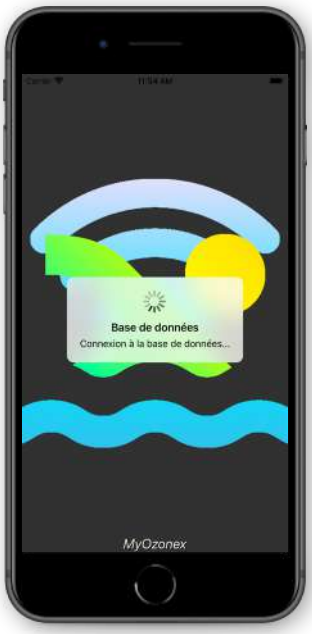
Download on the App Store

As soon as you open the application, you are asked for a username and password.
Enter the information we gave you when you purchased your “SMART’OZO” connected automatic regulator.

CONNECTION STEPS

1. Enter your codes

2. Server connection



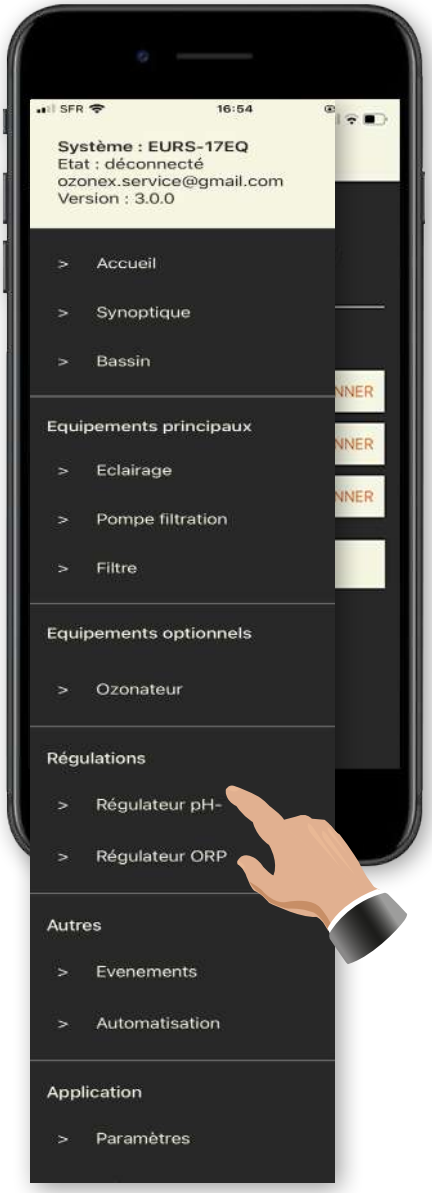
3. You are connected

THE SMARTPHONE DROP-DOWN MENU

To allow you to easily navigate the application and choose the page to view or modify, a drop-down menu is dedicated to this purpose.

1. Click on the “hamburger” icon of the app.

2. The drop-down menu appears, choose the page you wish to check or modify.



THE SYNOPTIC VIEW

On this “Synoptic” page, you will be able to view the operation of all your equipment in real time. You can also configure the material you have selected, (synoptic, filtration, automatic regulator...).

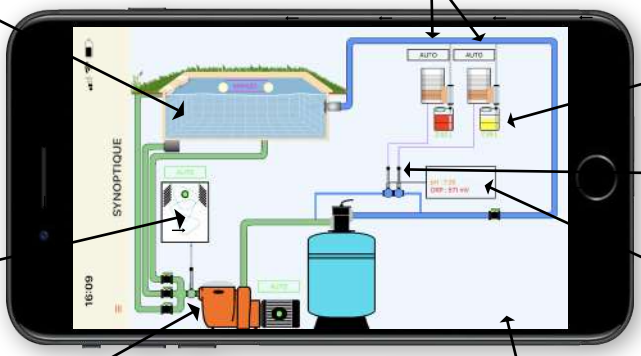
Home screen of your “SMART’OZO” :

1. Click on the “hamburger” icon of the app.

2. The drop-down menu appears, choose “synoptic”.

the pool
(indicating the temperature optional)

automatic regulators
(the pH and ORP pumps are in Auto + indication of the volume remaining in each bin)



the bins
(here 7.35L remaining)

probes
(here pH and ORP)

the ozonator
(direct access to ozonator parameters)

regulator values
(display of pH and ORP values)

the filtration pump
(in function, the colour of the water is green)

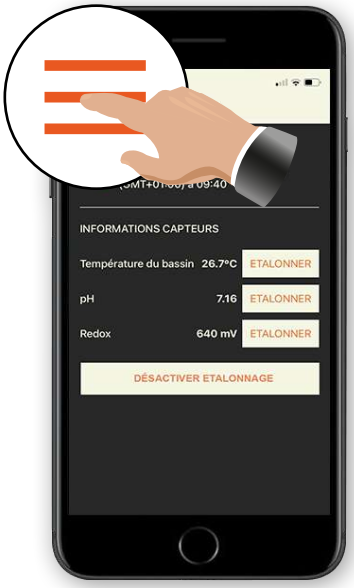
the filter
(optional pressure sensor for high and low alarm)

By clicking directly on the targeted element (filter, heater...), the corresponding page of your choice opens and allows you to check or modify your current configuration.

AUTOMATION

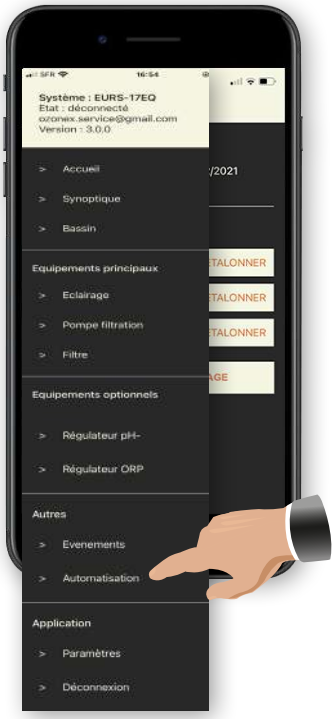
This page allows you to configure some options automatically.

Home screen of your “SMART’OZO” :



1. Click on the ‘hamburger’ icon in the application.

2. The drop-down menu appears, choose ‘’Automation’’.



Automation page :

If this option is activated, the pool equipment must be respected in relation to the volume of the pool. If you install other pumps than those provided by OZONEX, you must uncheck this function to modify the flow rate of the pump in question.
AUTOMATION HAS PRIORITY

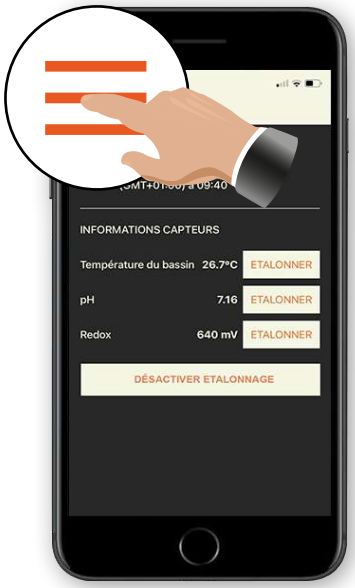
This function will free you from the settings of your pool clock (only with the temperature sensor option). Enter the start time and the minimum working time in case of a problem with the temperature sensor.
Once this function is activated, you will not be able to program any

These activated functions will order the operating times, or even the rest times, of the regulation pumps.
Whether your pool is in TOR or LINEAR mode, the pre-established calculations will apply.
To be able to modify these settings (calculated by OZONEX) you must first deactivate these automatic functions.
DO NOT DO THIS UNLESS YOU ARE FAMILIAR WITH THE OPERATION OF THE CONTROL SYSTEM.

BASIN INFORMATION

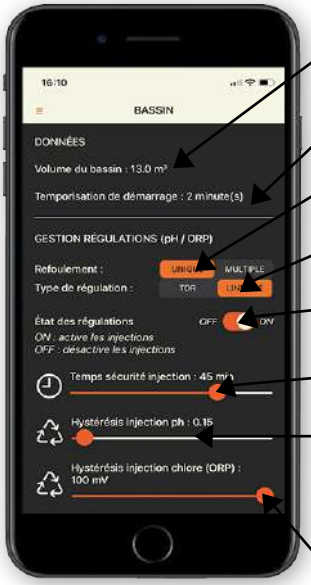
This page allows you to configure some very important options.
The volume of the pool automatically determines the power of the control pumps to be provided as well as their injection and rest times.

Home screen of your “SMART’OZO” :



1. Click on the “hamburger” icon of the app.

2. The drop-down menu appears, choose “Basin”.



the volume of your basin

start delay

the number of discharges present in the basin

the type of regulation (TOR or linéaire)

the state of regulators (ON/OFF)

the maximum injection time per day

pH hysteresis (acceptable margin of error before the triggering of the pH pump)
Example: If you want a pH of 7.20, the hysteresis is 0.10, the pump will start at 7.30

the hysteresis of the ORP (acceptable margin of error before the triggering of the ORP pump)
Example: If you want the ORP at 600 mV, the hysteresis is 10, the pump will start at 590 mV

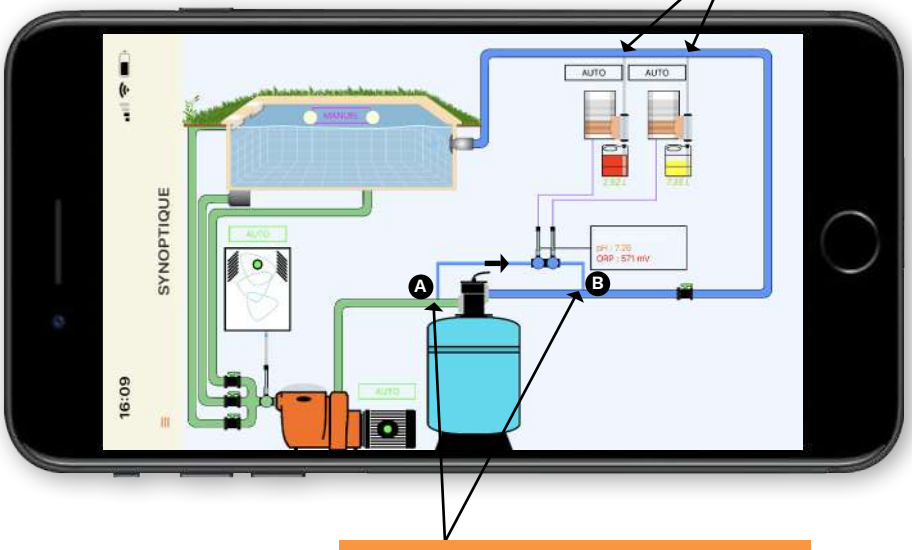
LINEAR

OZONEX offers several ways to proceed for the tapping of the water analysis on the filtration.

It is obvious that the choice must correspond to the assembly carried out on your filtration and not by chance.

Linear assembly

Cannula positions for product injections.



Positions of the water passage fittings (probe holders).

This way of reading is the most common. It is performed a connection (A) between the pump and the filter, at this point the pressure is between 0.8 and 1.2 bars.
The tapping must be connected to the inlet of the probe holder.
After the filter, the tap (B) must be connected to the outlet of the probe holder, the pressure there is much lower.
Inevitably the water will pass from A to B in order to be analyzed by the probes.

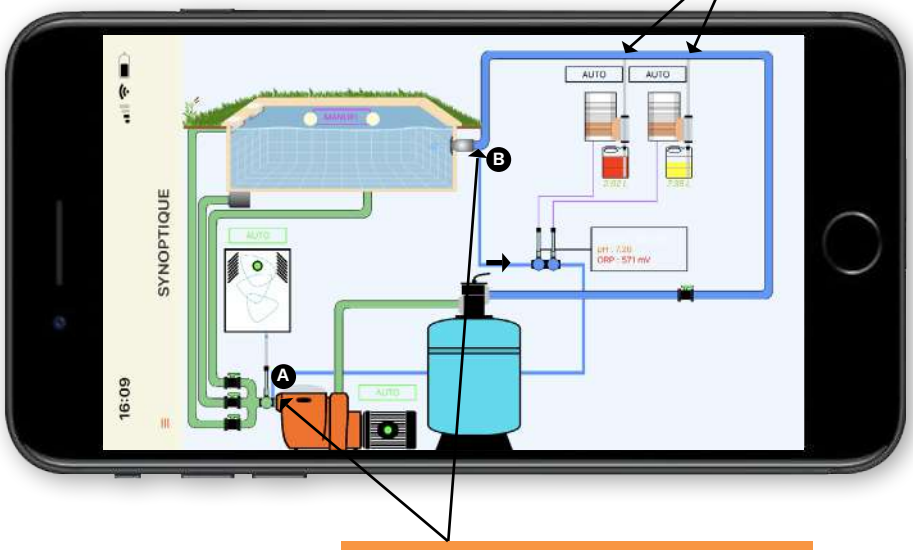
In this configuration the products can be injected at the same time.
If it is possible to place the injections on two separate delivery pipes, there will be no problem.
In the event of injection on a single pipe, it is important to report it to SMART'OZO who will take this specific case into consideration by alternating the injections to avoid mixing the products.
This way of proceeding will allow a reduction in the pH or even a very gradual increase in the ORP.
As the injection times take place after the samples have been taken, the products will initially go to the swimming pool and will return after being diluted, a good quarter of an hour later.
The injection times will be calculated according to the difference observed between the values measured by the probes and those of their setpoints (pH/ORP).
The greater the difference, the longer the injection time.

T.O.R (ALL OR NOTHING)

OZONEX offers several ways to proceed for the tapping of the water analysis on the filtration.

It is obvious that the choice must correspond to the assembly carried out on your filtration and not by chance.

TOR assembly



The tapping on the discharge must be placed after the injections (**A**), the pressure is positive.
This connection must be connected to the inlet of the probe holder.
The output will be placed in front filter pump (**B**), so the pressure will be negative.
Inevitably, the water will pass from **A** to **B** in order to be analyzed by the probes.

At each injection, part of the product will systematically pass through the probes.
Example: my pH is at 7.45 => 15 seconds after the start of the injection it will drop sharply to be around 6.0 at the time of the injection.
It is obvious that this analysis is truncated and only gives the pH of the water coming from the filtration pipes and not that of the swimming pool.
The injection of each product is calibrated once and for all regardless of the difference with its own instruction.
A time delay is set so that the system has time to see that the product has circulated in the pool (sharp drop in acid or even sharp rise in pH+ or bleach).
If this difference has not been observed, the SMART'OZO will let you know by sending an error message "RESPONSE TIME pH- EXCEEDED" and will tell you the cause and the solution to be applied.

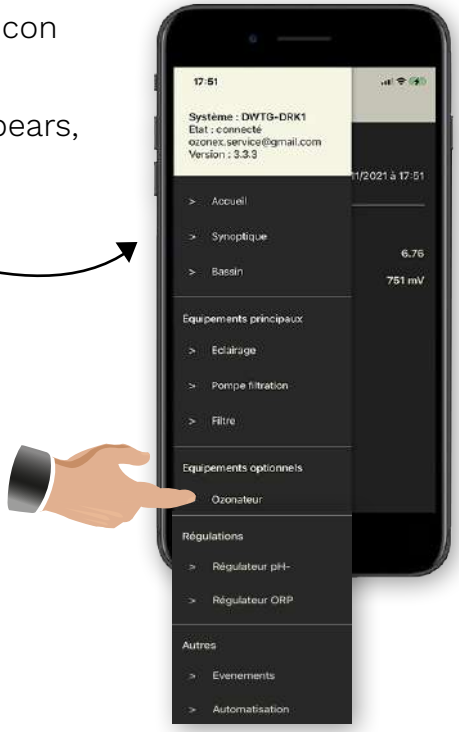
OZONATOR MANAGEMENT

Your SMART'OZO is equipped with an integrated ozonator, it must be configured.

Home screen of your "SMART'OZO"

1. Click on the "hamburger" icon of the app.

2. The drop-down menu appears, choose "Ozonator".



The page "Ozonator".

the operating mode (the ozonator works in line with the triggering of the filtration pump with a time delay of 2 minutes), set to "Auto".

the type of ozonator (generator)

the number of built-in fans

error handling:
- current consumption
- generator consumption
-the presence of the generator
If one of the functions is not annotated "OK", check that it is working correctly and the connection concerned.

FILTRATION PUMP MANAGEMENT

To manage the filtration pump, an electrical connection must be made beforehand on your SMART'OZO so that it manages it for you.
(THE DRY CONTACT IS TO BE ENTRUST EXCLUSIVELY TO A PROFESSIONAL)

Click on the hamburger icon on your home page, choose "Pump filtration".

You can manage the filter pump in 2 ways :

1. In instantaneous operation it will operate continuously.

2. Automatically with a pre-set time slot.

To create a time slot, click on "Add slot".

2.1. Enter the start and end of the desired range then. ✓

2.2. The time slot is well programmed.

Don't forget to set the mode to AUTO.

You can change or add a time range as you wish.
VERY IMPORTANT: Uncheck Automatism via pool temperature on the device.
To delete or modify a time slot, click on the icon and start again the time slot creation operation (4 time slots maximum).

PH- REGULATOR MANAGEMENT

Click on the hamburger icon on your homepage, choose “pH- regulator”.

You can manage your controller in 2 ways :

1. Instant on if the filtration pump is running.
2. Automatically with set point and hysteresis controls for product injection.

Set point and hysteresis
(see pool page for settings).

information about the consumption ofproducts are available visually.
-The volume remaining in the acid bin.
-Filling the bin (see the corresponding page).

The “Enslavement” part is reserved for Ozonex, it concerns injection and control times.
If you want a modification, contact us.

High and low pH alarm.

MANAGEMENT OF THE ORP REGULATOR

Click on the hamburger icon on your homepage, choose “ORP Regulator”.

You can manage your controller in 2 ways :

1. Instant on if the filtration pump is running.
2. Automatically with set point and hysteresis controls for product injection.

Set point and hysteresis
(see pool page for settings).

Information about the consumption of products are available visually.
-The volume remaining in the chlorine (bleach) bin.
-Filling the bin (see the corresponding page).

The “Enslavement” part is reserved for Ozonex, it concerns injection and control times.
If you want a modification, contact us.

For “SUPER CHLORINATION”, see page 17.

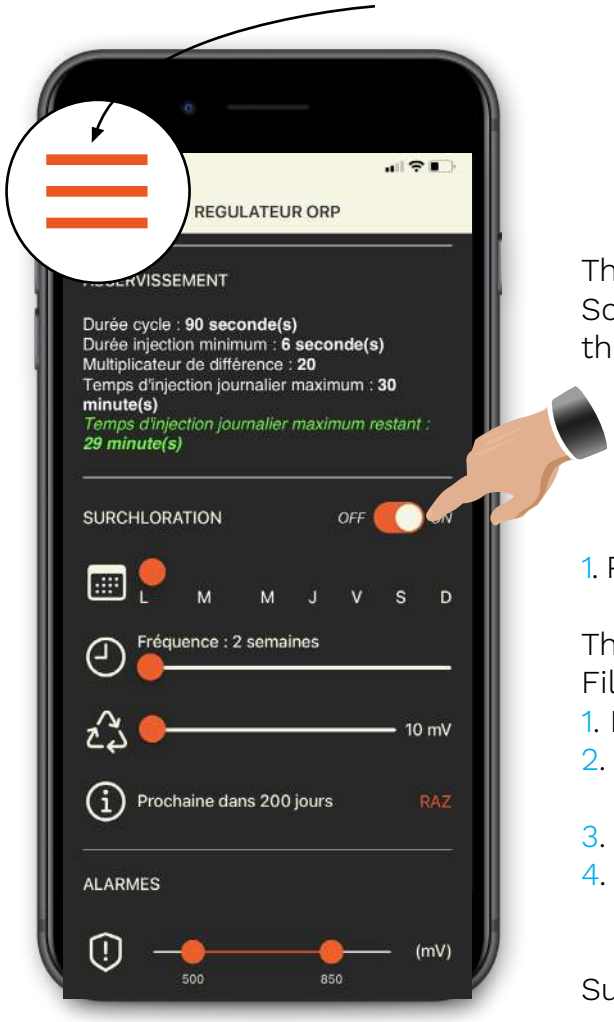
High and low ORP alarm.

SUPERCHLORINATION

With global warming, the water in swimming pools is getting hotter and hotter.

Your SMART'OZO has foreseen this situation.
Algae could get used to daily doses of chlorine and at the same time get vaccinated.
To avoid this, and if you wish, the SMART'OZO is designed to carry out superchlorination (OZONEX usually provides 50 mV every 3 weeks, preferably on Mondays).

Switching on the superchlorination function :
Click on the hamburger icon on your homepage, choose "ORP Regulator".



The ORP controller page is open.
Scroll down the display with your finger to reach the location of the overchlorination.

1. Put the slider on "ON"

The drop-down menu appears.
Fill in the information :
1. Frequency => week or month
2. The frequency between 2 injections:
   (number of weeks or months)
3. Increase in setpoint (mV)
4. The chosen injection day (Monday, Tuesday, Wednesday...).

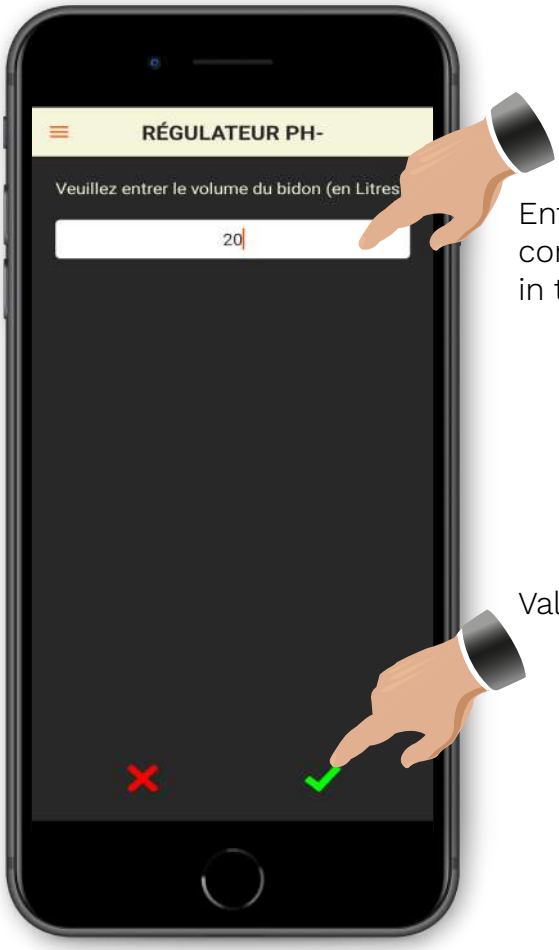
Superchlorination is programmed.

FILLING THE PH BIN

Click on the hamburger icon on your homepage, choose “pH- regulator”.

1. In the pH-regulator menu, click on the button “BIN FILLING”.

2. The pH bin filling page opens, enter the new volume present and confirm.



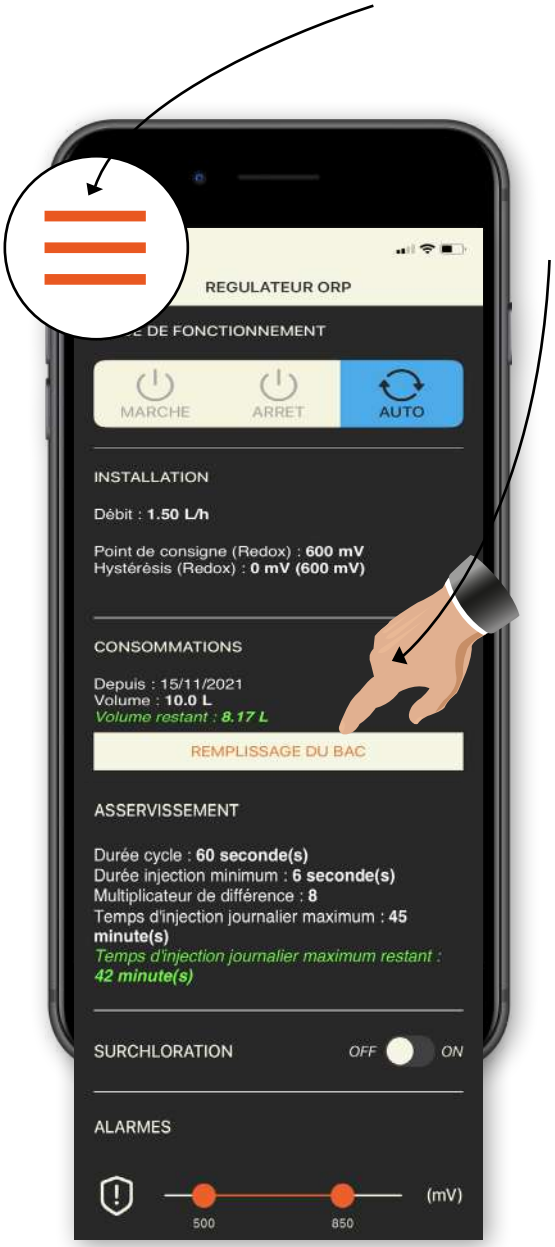
Enter the new contained volume in the bin.

Validate.

Mixing products is very dangerous.
Make sure before putting a product in one of the bins that it contains the same product.

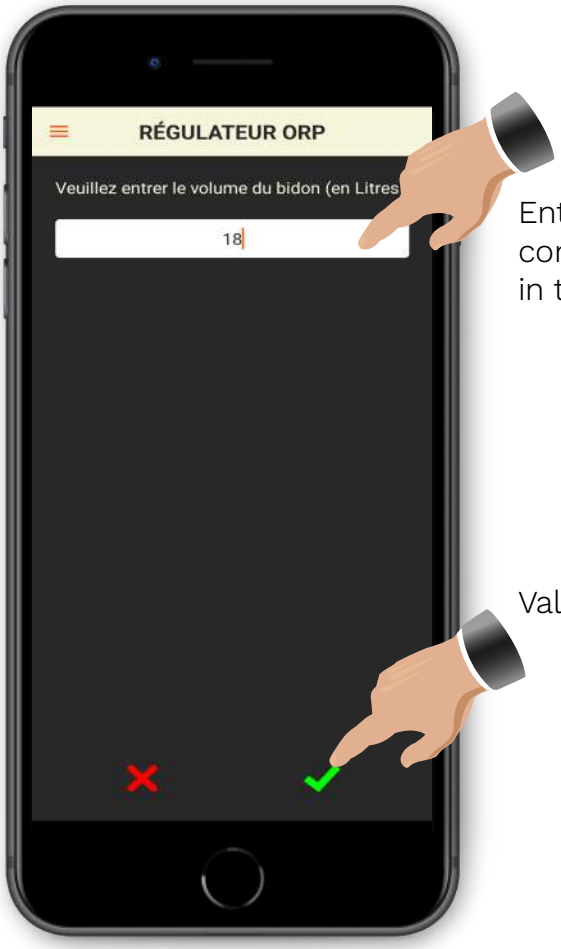
FILLING THE ORP BIN (BLEACH OR CHLORINE)

Click on the hamburger icon on your homepage, choose “ORP Regulator”.



1. In the ORP controller menu, click the button “BIN FILLING”.

2. The ORP bin filling page opens, enter the new volume present and validate.



Enter the new contained volume in the bin.

Validate.

Mixing products is very dangerous.

Make sure before putting a product in one of the bins that it contains the same product.

INVERSION OF TUBES ON INJECTION RODS

It is imperative to do this operation every 2 months.
Bleach is a product that crystallizes very easily and risks clogging the injection inlet of product in the cannula.
By placing the acid inlet tube in place of the bleach one (and vice versa), this will naturally clean the beginning of the filling made by the bleach.
This operation should preferably be preventive and not curative.
If you do not maintain the bleach injection cane, it will end up inevitably clogged and the injections will no longer be made.

Injection rods.

Reverse the two tubes held by the nuts.

Nuts to unscrew and reverse.

Injection cannula not to be unscrewed.

Cannula foot not to be unscrewed
(be careful, it ensures the tightness of the whole).

The tube of acid will now inject bleach into the ex-cannula and thereby clean it.
Repeat the operation every 2 months.

REPLACEMENT OF ANALYSIS PROBES

IMPORTANT

It is imperative to change your probes every two years.
These are the probes that measure the water in your pool and give the injection order for the different products.

ONLY ORIGINAL PARTS ARE AUTHORIZED BY OUR DEPARTMENTS.

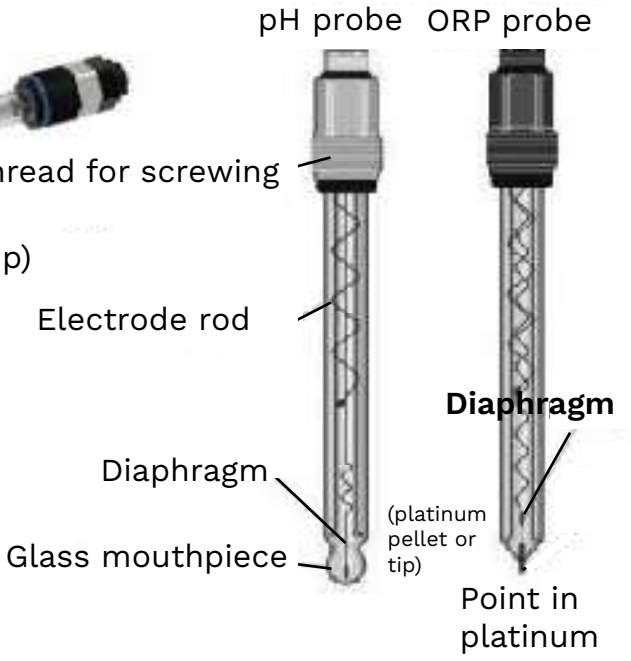
You have two solutions :

- you call on our technicians (travel of the technician charged).
- you order the probes from us and our services will send you a complete kit.

pH probe (glass tip)

ORP probe (metal tip)

Benchmark products
(pH 7 pH 4)



LOCATION OF PROBES :
The pH probe is placed on the left in the probe holder.

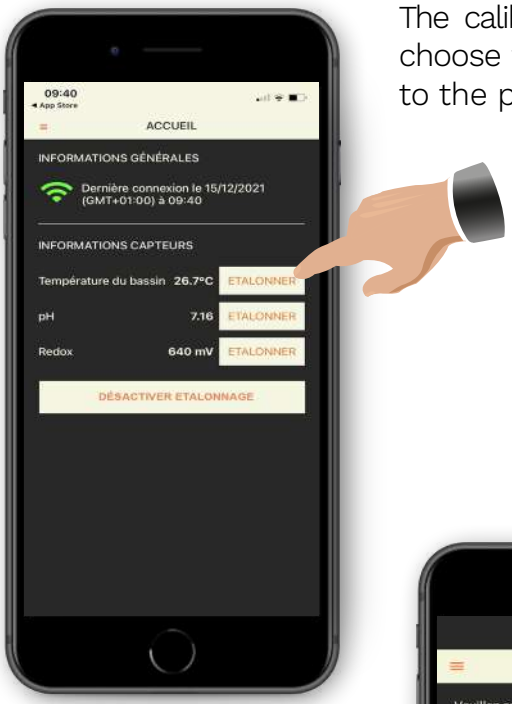
The ORP probe is placed on the right.

The temperature probe (if you have chosen the “heating” option) is placed on the filtration circuit with a support collar.

TEMPERATURE PROBE CALIBRATION

Go to the “HOME” page.

On the home page, click the button “ENABLE CALIBRATION”.



The calibration buttons appear, choose the one corresponding to the pool temperature.

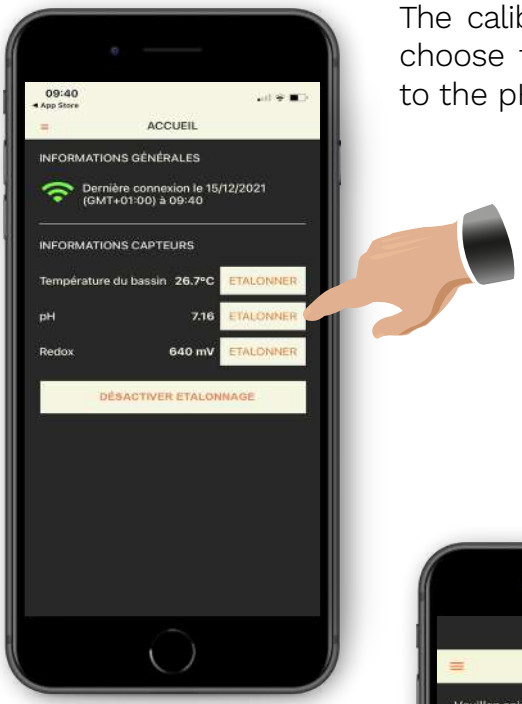
Enter the new pool water temperature taken with a thermometer.

Validate.

CALIBRATION OF THE PH PROBE

Go to the “HOME” page.

On the home page, click the button “ENABLE CALIBRATION”.



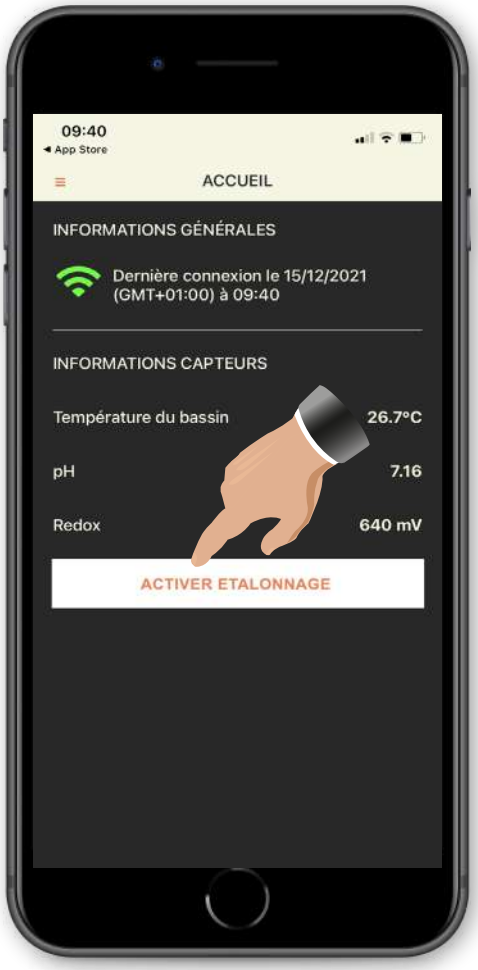
The calibration buttons appear, choose the one corresponding to the pH.

Enter the new value recorded in the water of the basin concerned using a photometer.

Validate.

ORP SENSOR CALIBRATION

Go to the “HOME” page.



On the home page, click the button “ENABLE CALIBRATION”.

The calibration buttons appear, choose the one corresponding to the REDOX.

Enter the new value recorded in the water of the basin concerned using a photometer.

Validate.

For a good REDOX value, take into account the water temperature and the pH (contact us).

WINTERING OF ANALYSIS PROBES

OZONATOR :
Stopping your filtration puts your ozonator out of service. No precaution is necessary.

REGULATION :
The controller must be shut down via the circuit breaker or switch.

On the other hand, a very important element : **“THE PROBES”.**

It is imperative that the tips of both probes are :

- In contact with water (the membrane must always be wet or it will dry out and be destroyed).
- Protected from frost.

Before starting to disassemble, remember to identify the wires, the probes and their places in the probe holder to facilitate reassembly.

Put the two probes in a glass that contains 5 to 6 cm of water.
Place everything in a frost-free place.

REASSEMBLY

pH probe => glass mouthpiece.

To be replaced to the left of the probe holder.

ORP probe => metal tip.

To be replaced to the right of the probe holder.

THINK NOW ABOUT TREATING YOUR POOL WATER
WITH WINTERING PRODUCTS.

FROST PROTECTION MODE

ONLY WITH TEMPERATURE OPTION

If you prefer not to winterize your swimming pool, an automation is at your disposal.
The “Frost protection” mode => only if you have chosen the “temperature probe” option.
Your SMART’OZO will ensure that your water does not freeze by turning on your filtration (outside the operating ranges already determined) as soon as the water temperature reaches the threshold you have determined.
Click on the hamburger icon on your homepage, choose “Filtration pump”.

1. Click on the “Filtration pump” menu.

2. The filtration pump page opens, fill in your “Freeze protection” mode.

Put the slider on “ON”.

Fill in the information that appears :
1. the trigger temperature (3°C) and the shutdown temperature (5°C).
2. frequency :
the temperature will be checked every 2 hours to start the filtration if necessary.

MAKE A COLORIMETER

It is imperative to control your water using a pH/chlorine “COLORIMETER”

It is advisable to bring a colorimeter with tablets.

1) Pellets are less perishable than drops.
2) The pellets are more precise than the drops and much more than the tabs (difficult to measure with the tabs).

PROCEDURE

Take the box upside down and immerse it in water 30 cm below the surface.
Go back there so that it fills with water.
Drop a “phenol” tablet from the pH side (left).
Drop a “DPD 1” tablet on the chlorine side (right).

FOR DETAILS, DO NOT TOUCH THE TABLETS WITH YOUR FINGERS.

Close the box. (the excess water will be expelled)
Shake it until the pellets are completely melted.
Your water will be colored.
Now place the assembly on a white surface (wall, garden furniture...).
Compare the colors obtained with those indicated on the box. For each column, pH and chlorine, one of the colors in the box will be very close, if not identical, to that of your mixture. Note the number corresponding to this color.

If there is a difference with the measurements displayed on your smartphone screen, calibrate the pH or ORP using this manual.

IMPORTANCE OF THE TAC

The TAC is the Complete Alkalimetric Title.

This is the measure of the minerals in your water (Bicarbonate). This TAC is important essential for the balance of your pH. A pH that is always out of balance may be due to a lack of TAC. The rate should be between 80 and 120 ppm. If this level drops your pH will continue to drop. To measure it, there are strips that we only recommend for this measurement which is not of the order of ppm. Effectively, as soon as you need to get values precise of the order of 10th prefer the pellet colorimeter.

If the measurement is below 80 ppm put TAC+ (carbonate and baking soda).
The quantity of product to add is very easy to calculate because it is linear.

EXAMPLE :
You find 30 ppm and your pool is 50 m³.
The average rate of the TAC must be 100 ppm.
So 100 – 30 = 70 ppm. The TAC must be increased by 70 ppm.
It takes 200 g of TAC+ to raise the TAC of 10 m³ of water by 10 ppm.
So 200 g x 7 (i.e. 1 Kg 400) will go up the 10 m³ at 100 ppm.
Since I have 50 m of water, I therefore multiply by 5, i.e. 1.4 kg x 5 = 7 kg.
Put 7 kg of TAC+ in the pool 3 or 4 times over 3 days after setting the pH pump to 0, leave your filtration running.

Example of TAC+ product

CUSTOMER COMMENTS

Please note on this page all your personal observations concerning the pH and chlorine values : Example: pH: 7.18 / chlorine: 620mV

Date	Read values by the probes	Measured values by colorimeter	Date	Read values by the probes	Measured values by colorimeter
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :
	pH : chlorine :	pH : chlorine :		pH : chlorine :	pH : chlorine :

MAINTENANCE BOOKLET

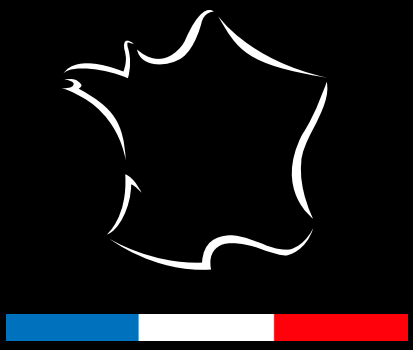
Material : **SMART'OZO**
Installation date :

Installer's name :

Date	Technician	Diagnostic	Changed parts	observations

OZONEX
PURE WATER

MAKER



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