

POOLEX

AQUALYSER

-  L'électrolyseur combiné
-  The combined chlorinator
-  El clorador combinado
-  Il clorinatore combinato
-  Der kombinierte Elektrolyseur
-  De gecombineerde chlorinator



-  Manuel d'installation et d'utilisation
-  Installation and user manual
-  Manual de usuario y instalación
-  Manuale d'installazione e d'uso
-  Installations und Gebrauchsanleitung
-  Installatie en gebruikershandleiding

 *Cher client,*

Nous vous remercions pour votre achat et pour la confiance que vous accordez à nos produits.

Nos produits sont le résultat d'années de recherche dans le domaine de la conception et de la production de pompe à chaleur pour piscine et spa. Notre ambition, vous fournir un produit de qualité aux performances hors normes.

Nous avons réalisé ce manuel avec le plus grand soin afin que vous puissiez tirer le meilleur de votre pompe à chaleur Poolex.

 *Dear customer,*

Thank you for your purchase and your trust in our products.

Our products are the result of years of research in the design and manufacture of heat pumps for pools. Our goal is to deliver high-quality products with exceptional performance.

We took great care to put together this manual so you can get the most out of your Poolex heat pump.

 *Estimado(a) cliente,*

Agradecemos que haya comprado este producto y que haya confiado en nuestra empresa.

Nuestros productos son el fruto de años de investigación en el sector del diseño y de la producción de bombas de calor para las piscinas. Nuestro objetivo es ofrecerle un producto de calidad con un rendimiento excepcional.

Hemos redactado este manual de tal forma que podrá aprovechar al máximo su Poolex bomba de calor.

 *Gentile cliente,*

La ringraziamo per il Suo acquisto e per la sua fiducia nei nostri prodotti.

Essi sono il risultato di anni di ricerche nella progettazione e produzione di pompe di calore per piscine. Il nostro scopo è di fornire. Le un prodotto di qualità con prestazioni fuori dal comune.

Abbiamo preparato questo manuale con la massima cura affinché Lei possa sfruttare al meglio la Sua pompa di calore Poolex.

 *Sehr geehrter Kunde,*

Vielen Dank für Ihren Kauf und das damit verbundene Vertrauen in unsere Produkte.

Unsere Produkte sind das Ergebnis einer jahrelangen Forschungsarbeit auf dem Gebiet der Konstruktion und Fertigung von Schwimmbecken-Wärmepumpen. Wir haben den Anspruch, Ihnen ein qualitativ hochwertiges Produkt mit hervorragenden Leistungseigenschaften zu liefern.

Die vorliegende Anleitung wurde mit größter Sorgfalt erstellt und soll Ihnen dabei helfen, die Vorteile Ihrer Poolex-Wärmepumpe bestmöglich zu nutzen.

 *Geachte klant,*

Bedankt voor uw aankoop en uw vertrouwen in onze producten.

Ons doel is om u een uitzonderlijk goed prester- end kwaliteitsproduct te leveren. Het is onze ambitie om u een kwaliteitsvol product met uitstekende prestaties te leveren.

We hebben deze handleiding met de grootste zorg samengesteld, zodat u het maximale uit uw Poolex-warmtepomp kunt halen.

! PLEASE READ CAREFULLY !

**These installation instructions form an integral part of the product.
They must be given to the installer and kept by the user.**

If you lose this manual, please visit our website:

www.poolex.fr

The warnings and guidelines contained in this manual must be carefully read and understood as they provide important information concerning the safe handling and operation of the chlorinator. **We recommend that you keep this manual handy for future reference.**

Installation must be performed by a qualified professional in accordance with regulations in force and the manufacturer's instructions. Errors made during installation can cause physical injuries to people and animals as well as mechanical damage for which the manufacturer shall not be held liable.

After unpacking the chlorinator, please check the contents for any damage.

Before plugging in the chlorinator, ensure that the instructions provided in this manual are compatible with actual installation conditions and do not exceed the maximum authorised limits for the product in question.

In the event of a defect and/or malfunction, electrical power must be switched off and no attempts to repair the fault should be made. Repairs must be carried out by an authorised technician using original spare parts. Non-compliance with the aforementioned clauses can negatively impact the safe operation of the chlorinator.

In order to guarantee the efficiency and proper functioning of the chlorinator, it must be regularly maintained in accordance with the instructions provided.

In the event the chlorinator is sold or transferred to another party, please ensure that all technical documentation is given to the new owner together with the equipment.

This chlorinator is designed exclusively to treat swimming pools. Any other use is considered inappropriate, incorrect and potentially dangerous.

All contractual and extra-contractual liability on the part of the manufacturer / distributor shall be considered null and void in the event of damage caused by errors in the installation or operation, or due to non-compliance with the instructions provided in this manual and standards in force for the installation of equipment discussed in this document.

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1. WARNINGS

Installation and maintenance of any upstream electrical components must be performed by a qualified electrician. Failing to do so may result in electric shock, serious injury, property damage and even death.

Prior to any maintenance or operation, ensure that the salt chlorinator and any other devices are shut down and the main power supply is off.

The salt chlorinator's external power adaptor must be connected to a main power supply separate from the filtration system (no feedback control), equipped with a 30mA residual current device and an earthing system.

The salt chlorinator must be plugged into an outlet located in a well-ventilated area to prevent overheating. Do not plug the salt chlorinator into an outlet where it could be damaged by humidity or rain.

The person responsible for installing the chlorinator must carefully read this manual. In the event of a malfunction or erroneous operation, please contact the nearest authorised reseller or technical support.

If a part is damaged, ensure a replacement is purchased from the manufacturer or an authorised reseller.

NOT COMPLYING WITH THESE WARNINGS CAN RESULT IN PROPERTY DAMAGE, ELECTRIC SHOCK, COMPLICATIONS OR OTHER SERIOUS INJURIES AND EVEN DEATH.

WARNING - To avoid the risk of injury, do not allow children to operate this device.

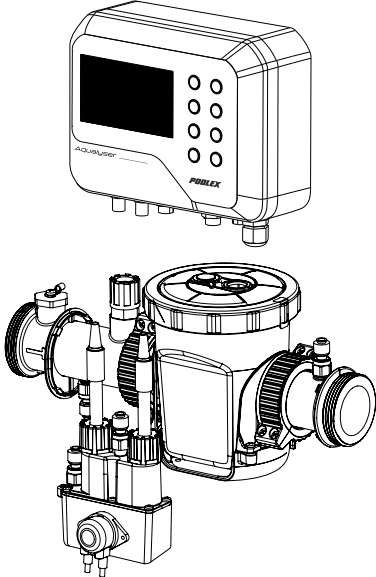
WARNING - Intensive use of the pool (or spa) or high temperatures may require an increased level of chlorine production in order to maintain adequate levels of free chlorine.

If used in an indoor swimming pool, under cover or cover, check the chlorine level regularly (< 2ppm) and ventilate regularly.

2. DESCRIPTION

1. Package contents

On receipt, please check that your parcel contains :

Aqualyser FLEX	Aqualyser TOTAL
• the control box with its power cable • electrolyser cell • the pH dosing pump on the probe holder • the pH probe and its connection • the ORP probe and its connection • 2 x 2" connections (D50) • this installation and user manual	• the control box containing the electrolyser cell and the probe holder, with its power cable • the pH dosing pump • the pH probe and its connection • the ORP probe and its connection • 2 x 2" connections (D50) • this installation and user manual
	

2. Other equipment required

You will also need a can of pH reducing liquid (sulphuric acid base) and calibration solutions pH 7.01 and ORP 470 mV.

2. DESCRIPTION

3. Operating principle

Salt chlorination of a pool works by using salt electrolysis to disinfect the water; this electrochemical process converts the salt present in the water into a disinfectant (hypochlorite ions).

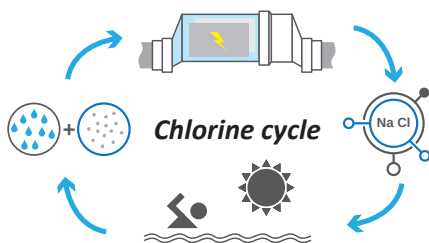
Once this process is complete, hypochlorite turns back into salt after coming into contact with organic material (bacteria, cells) or under the effect of UV rays or other sources of light, starting the cycle over again.

In order to maintain a good level of disinfectant in the water, the following guidelines must be respected:

- A proper concentration of salt in the water: **3 g/l**
- Adequate filtration time. As a reminder, a good estimate is:

$$\text{Filtration Time} = T_{\text{water}} / 2$$

- A good water balance with a pH between 7.0 and 7.8 (for more information see Taylor watergram)
- Regular cleaning of your pool to remove any plant debris
- In case of frequent use, consider using the boost function.



The more protected the pool, the lower the chlorine requirement.

The more people use the pool, the higher the chlorine requirement.

The combined chlorinator controller automatically coordinates your chlorinator, pH dosing pump and circulation pump.

Three operating modes are available:

- ORP control (automatic)
- Time control (programmed)
- Water flow control (manual/programmed)

ORP (oxidation reduction potential) or redox is an indicator of water quality based on the concentration of free chlorine in the water, as well as the pH and all the other elements present in the water. The ORP sensor, connected to the controller and the pH dosing pump, allows you to check the needs of your water in real time. The controller receives the ORP value of your water and adjusts the chlorine production and the activity of the pH dosing pump. According to the WHO, an ORP value of 650 mV guarantees disinfected water. Your controller allows you to choose a value between 400 mV and 800 mV. Preferably choose a value between 650 mV and 750 mV.

When time control is selected, chlorine production depends on the programmed time.

When flow control is selected, chlorine production depends on the operation of the circulation pump. When the flow rate is detected, production is triggered. Depending on the operation of your circulation pump, this mode can also be automated.

In all cases, your controller warns you when the salinity of the water is too low. The E5 error is displayed to let you know that it's time to add salt.

2. DESCRIPTION

The controller also warns you when it is time to replace your pH metering pump (peristaltic pump) or any other component. See section «7. Troubleshooting», page 40, for more information.

WARNING - Salt water chlorination alone will not clear up green water by itself. In the event of algae appearing (e.g. after a period of high temperatures or frequent use), it may be necessary to supplement with chlorine tablets. Do not put the chlorine tablets directly into the skimmer; use a floating dispenser.

4. Operating limits

The filtration time should be long enough to suit your pool. As with any swimming pool, take care to maintain a good chemical balance in the water, including pH, alkaline content and calcium levels.

The use of an electrolyzer requires maintaining good levels of salt and stabilizer to avoid corrosion or scaling. Check your water at least once a week to check the values of the basic parameters. For added safety, have the pool water tested by a professional at least twice a season.

Your pool shop can not only supply you with the chemicals you will need, but can also advise you on the procedures to follow to adjust the chemical properties of the water. Inform them that you are using a salt-based chlorinator.

Temperature also has a major effect on the correct use of the chlorinator:

- A water temperature below 10°C will render the system inoperative (E2 alarm).
- Water temperatures above 32°C will reduce the effects of hypochlorite. If these high temperatures persist, we recommend adding chlorine pebbles, not directly into the skimmer but rather into a floating diffuser.

ORP measurement is influenced not only by the chlorine level but also by the pH and all the other elements present in the water. Your controller ensures the stability of the pH and the free chlorine content of the water. You still need to check the stabiliser level, total alkalinity and hardness of your water regularly.

Refer to the 'Recommended levels tables' on page 10 for target values.

The most important thing is to choose an appropriate target ORP (redox) value. The controller allows you to choose a value between 400 mV and 800 mV. However, it is recommended not to go below 650 mV and not to go above 750 mV. Too high a redox level can irritate the skin and respiratory tract, and damage your equipment. A redox level that is too low encourages the growth of bacteria and algae, leading to the appearance of green water.

2. DESCRIPTION

5. Recommended rate tables

Check your values and correct them at least once a week.

Parameter	Target values	Comments
ORP (oxidation-reduction potential)	650 to 750 mV	The controller allows you to choose a value between 400 mV and 800 mV. However, it is recommended not to go below 650 mV and not to go above 750 mV. Too high a redox can irritate the skin and respiratory tract, and damage your equipment. Redox levels that are too low encourage the growth of bacteria and algae, leading to the appearance of green water.
Salinity	3 to 4 g/l	Once the salt is dissolved in the water (+/- 24 to 48h), salt concentration will only vary slightly over the course of the season.
pH level	7.0 to 7.4	Please note, a pH above 7.8 suppresses the disinfecting properties of hypochlorite.
Free chlorine concentration	From 0.5 to 3.0 ppm	Measurements must be taken from around the return inlets when the chlorinator is switched on, preferably in the morning and out of direct sunlight.
! important ! Stabilizer rate (Cyanuric Acid)	From 20 to 50ppm	Hypochlorite is a relatively unstable disinfectant. With too low a level of stabilizer, the hypochlorite will turn back into salt too quickly without having had enough time to disinfect. Conversely, with too high a level of stabilizer, the hypochlorite will be blocked. Be careful, if the level of stabilizer is much too high, the pool will have to be partially drained to add water without stabilizer.
Other possible parameter checks		
Total alkalinity content (TAC)	From 80 to 150 ppm	This level measures the concentration of mineral salts (carbonates, bicarbonates, hydroxides) in the water. It stabilizes / buffers the water balance. High TA levels interfere with the effects of pH regulation and scale deposits may begin to appear.
Hardness (TH)	From 150 to 300 ppm	Water hardness represents the amount of calcium carbonate present in your water.

CAUTION - The presence of iron in your water (ferruginous water) may lead to rust deposits on your pool and require the use of a metal sequestrant. Please consult to a professional about this.

When checking your rates, proceed in the following order:

1. Check the stabiliser level,
2. Check the TAC and TH,
3. Check the pH and then the salinity of the water,
4. Check the free chlorine level.

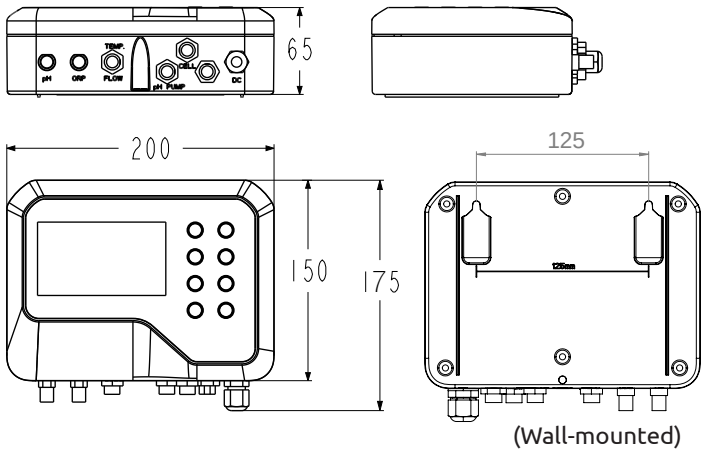
2. DESCRIPTION

6. Technical specifications

	Aqualyser FLEX	Aqualyser TOTAL
Power supply voltage	100 - 240 Vac ~ 50-60 Hz	
Max. power / standby	120 W / 5 W	
Transformer output voltage (Vdc)	24	
Output current (A)	2,5	
Operating temperature water	10°C ~35°C	
Operating temperature air	15°C ~45°C	
Flow rate	6 to 10 m³/h	
Dimensions L x H x D (mm)	box 200 x 150 x 65 cell 382 x 130 x 230	380 x 325 x 260
Polarity reversal	YES (adjustable 4h/6h/8h)	
Production rate	adjustable : 4 g/h, 8 g/h, 12 g/h, 16 g/h or 20 g/h	
ORP probe	YES	
pH probe	YES	
pH pump	OUI (0,5 L/h)	
Temperature sensor	YES	
Flow detector	YES	
BOOST mode	YES	
Wifi	YES	
Operating modes	ORP (recommended) / time / flow	

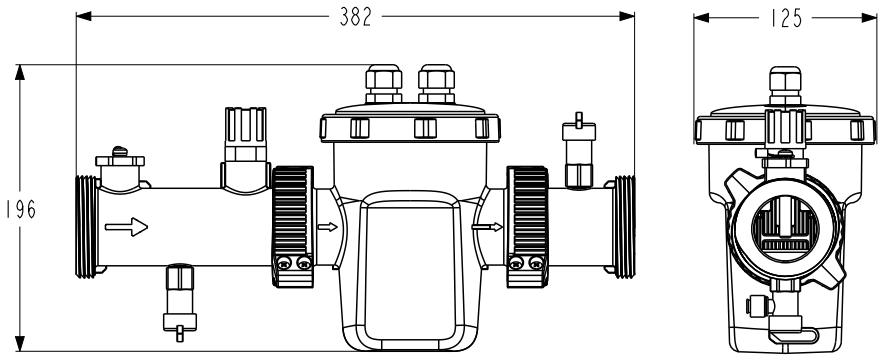
7. Dimensions

1. FLEX controller

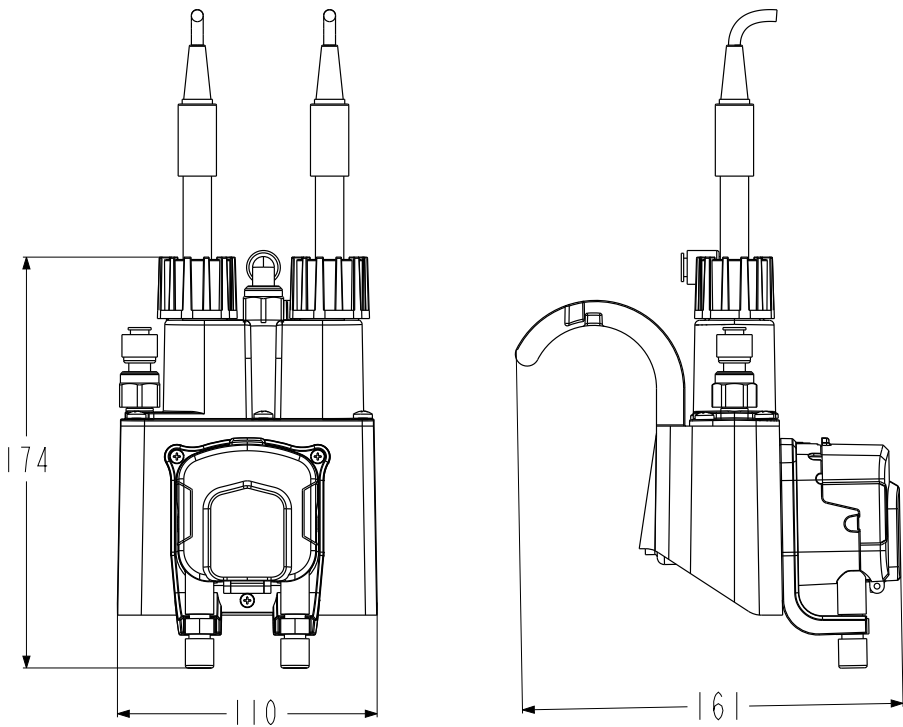


2. DESCRIPTION

2. Electrolyser

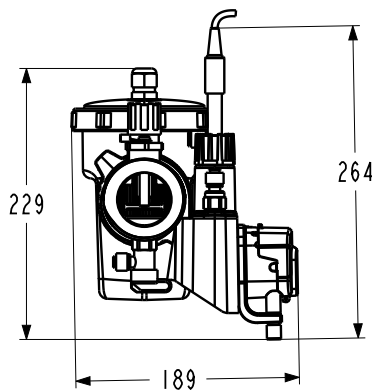
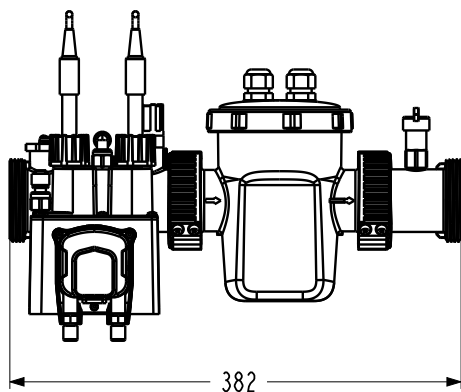


3. pH dosing pump and probe holder

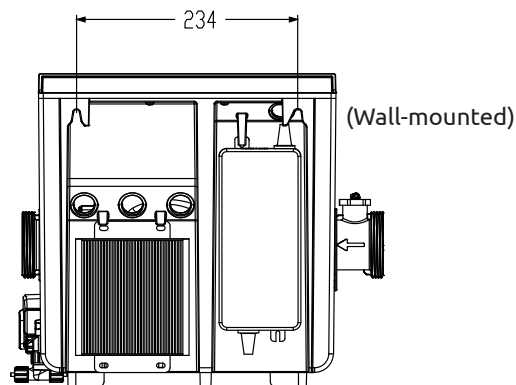
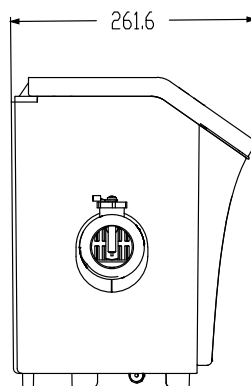
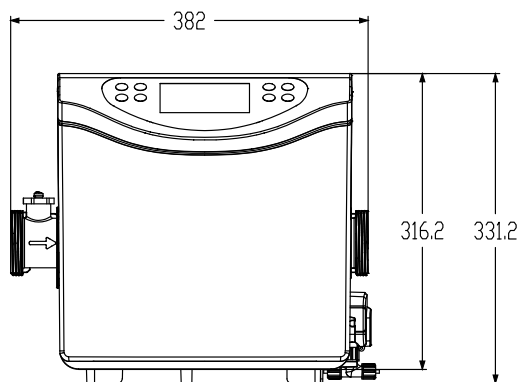


2. DESCRIPTION

4. FLEX assembly



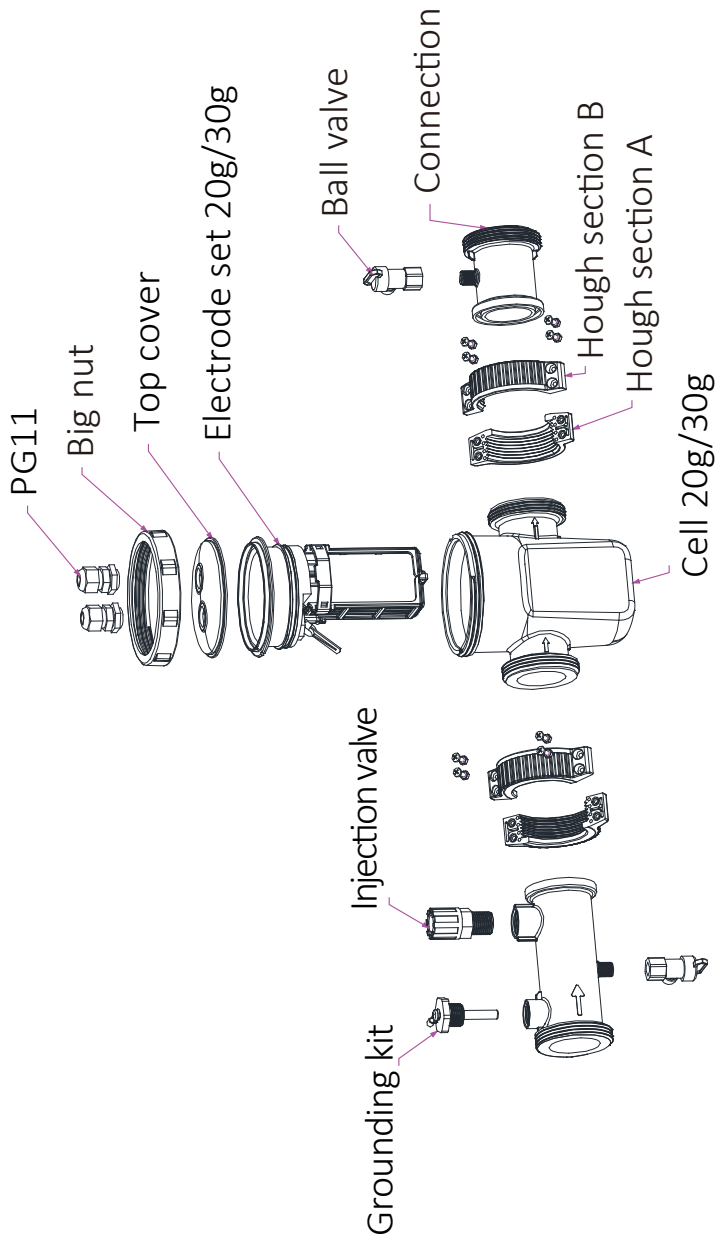
5. TOTAL



2. DESCRIPTION

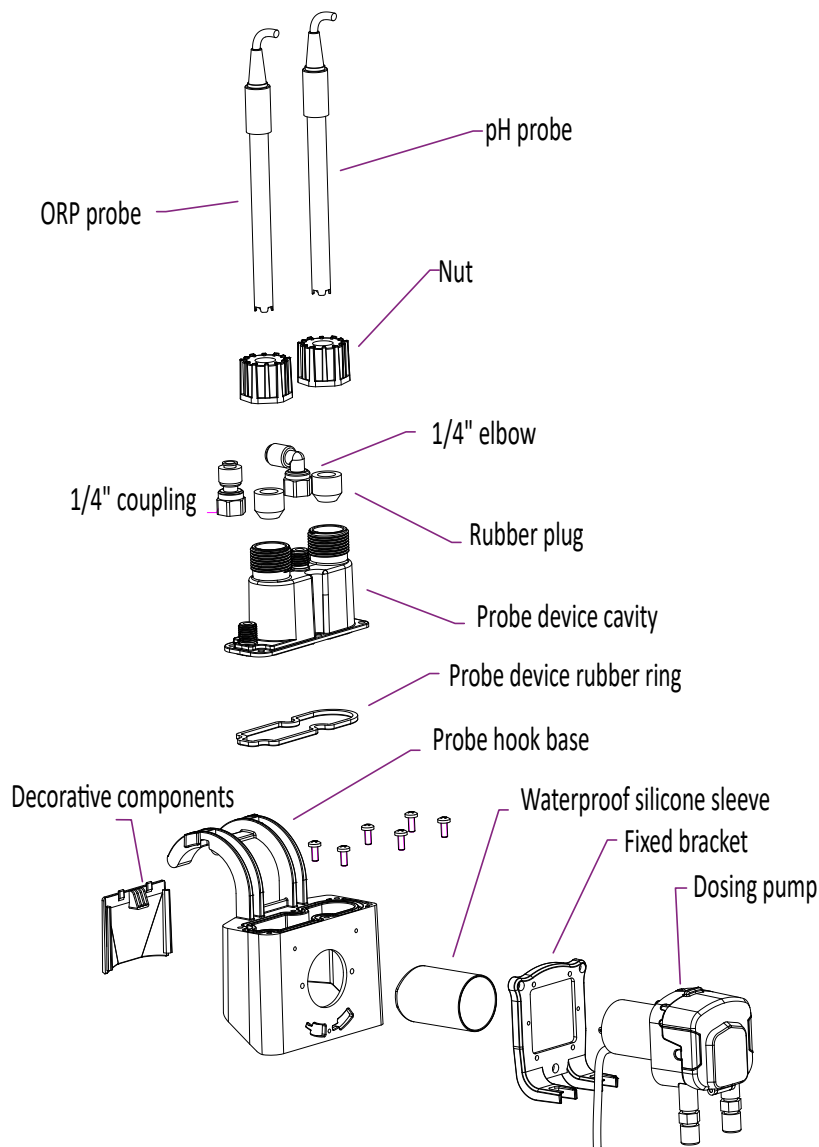
8. Exploded views

1. Electrolyser



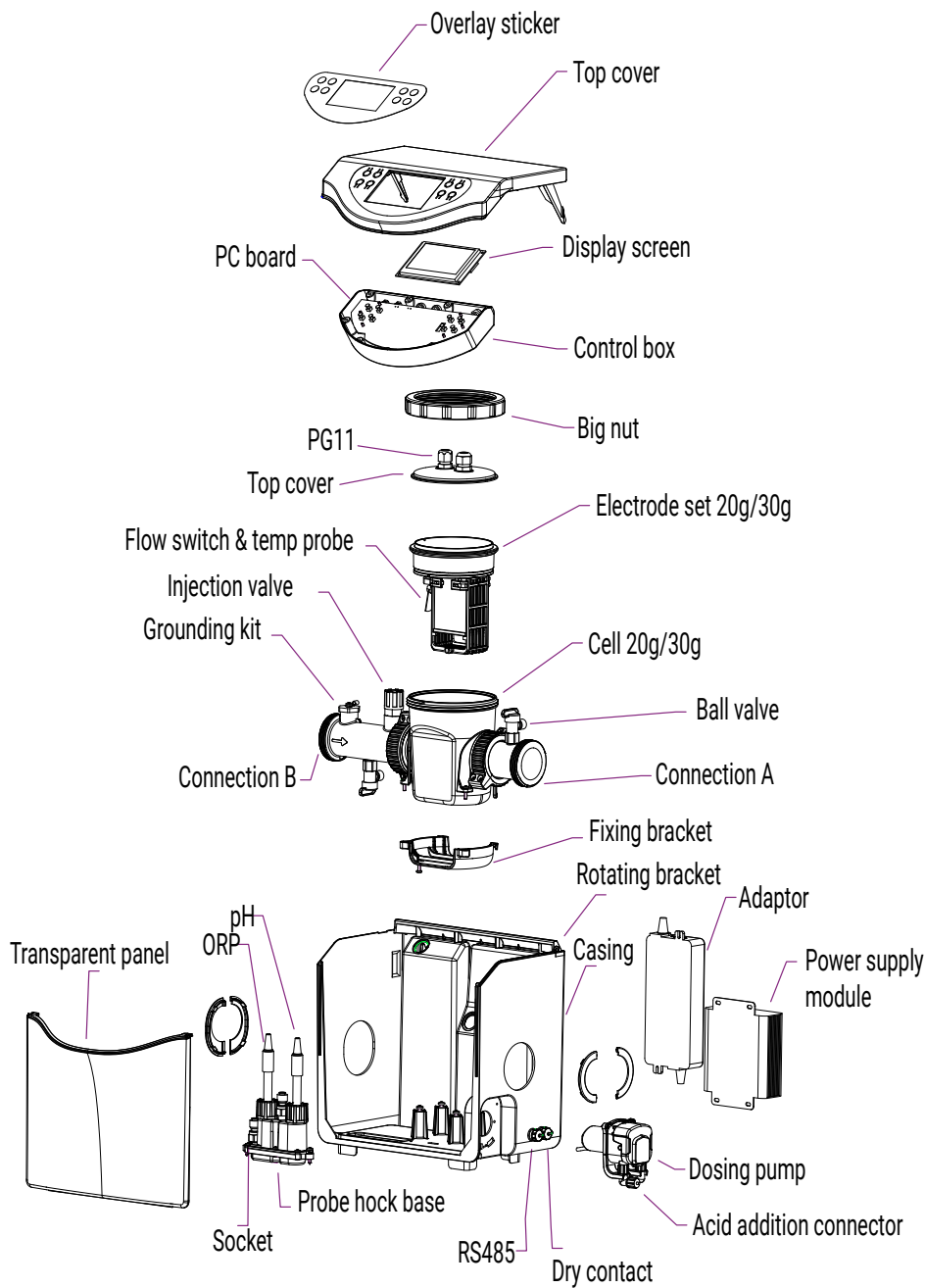
2. DESCRIPTION

2. pH dosing pump and probe holder



2. DESCRIPTION

3. TOTAL



2. DESCRIPTION

9. Control panel

1. Buttons



TOTAL



FLEX

EN

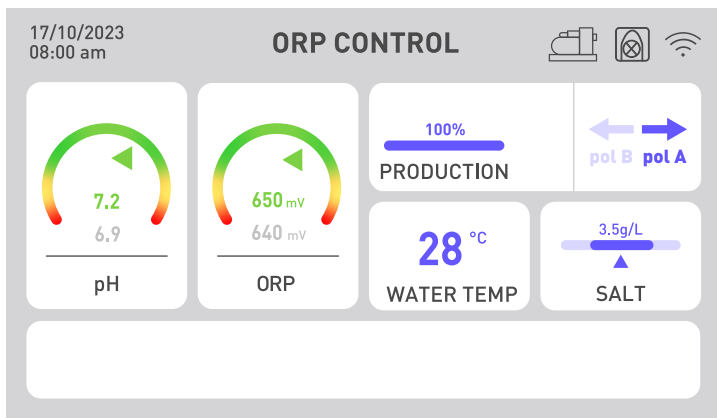
Button	Designation	Function
	Menu	Go to menu
	ON/OFF	Start/Stop the device (press briefly) Reset the device (press and hold for 10s.)
	pH	Start / Stop the pH function
	BOOST	Start / Stop BOOST mode
	Minus / Previous	Move -1 item in a list (menu) Increment a negative step in a sequence (value) Decrease the value of the production ratio by -20%.
	Plus / Next	Move +1 item in a list (menu) Increment a positive step in a sequence (value) Increase the value of the production ratio by +20%.
	Previous	Back to previous page Go up a notch after validating
	OK	Confirm Enter the selected section
	Lock	Unlock (child lock)

2. DESCRIPTION

2. Home screen displays

The home screen adapts according to the operating mode chosen.

On the **ORP control** mode home screen :

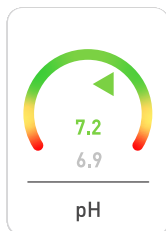


The pH and ORP indicators show the current value in green if it is correct, in yellow if it deviates from the target value and in red if it is urgent to restore the value by manual action. In the latter case, the box is circled in red. The information written in grey below the coloured indication is a permanent reminder of the instructions.

The chlorine production rate can be adjusted from 20 to 20, to adapt the treatment to the size of your pool and the climatic conditions (it's hotter during the day, so the treatment needs to be longer).

Alerts may appear in the white box at the bottom of the screen (see «2. Diagnosis and resolutions», page 94).

2. DESCRIPTION

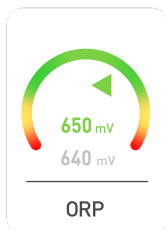


The pH indicator

It displays the pH value measured by the probe in real time.

Your target value is recalled in gray.

The arrow indicates the actual value relative to the target value.



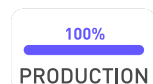
The ORP indicator

It displays the ORP value measured by the probe in real time.

Your target value is recalled in gray.

The arrow indicates the actual value relative to the target value:

- If the arrow is green, everything is fine.
- If the arrow is yellow, the value varies, but remains correct.
- If the arrow is red, the value varies a lot so manual action is required.



The production indicator

It indicates the production level of the chlorinator.

You can adjust it using the arrows ◀ and ▶, from 10 to 10.

You can also use the 'boost' button to make the chlorinator produce at 100% for 24 hours.



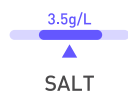
Polarity indicator (A or B)

Reversing polarity limits clogging of the chlorinator caused by limescale deposits. The harder your water, the shorter the polarity inversion time. The harder your water, the more frequently you need to clean it. This indicator shows the current polarity.

28 °C
WATER TEMP

Water temperature display

It is connected to the temperature sensor and gives the water temperature in real time. The hotter your water, the more you'll need to treat it.



The salinity indicator

It indicates the salt level in your water.

Salt does not escape through evaporation. Salinity will remain stable as long as you do not lose water otherwise (e.g., splashing, cleaning the filter).

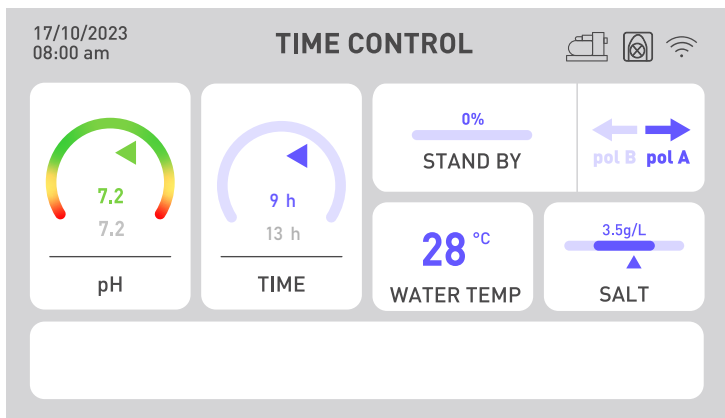
A readjustment at each season restart is necessary.

The volume of salt to add is indicated according to the volume of your pool.

2. DESCRIPTION

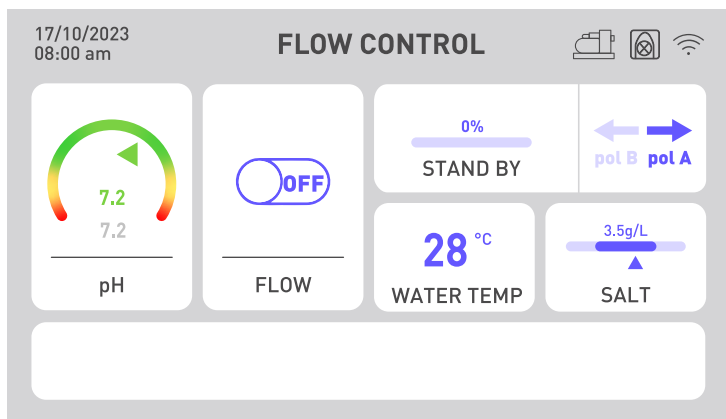
The pH and ORP sensors are sensitive. Renewal once a season is recommended. If your ORP sensor is malfunctioning, you can switch to the other two modes while you wait for it to be replaced.

On the **Time Control** home screen :



The ORP indicator is replaced by a time indicator. The actual amount of time spent is shown above the target time. The filtration time must be greater than the time set.

On the **flow control** mode home screen :



The ORP indicator is replaced by a flow indicator. If the flow is detected, the button switches to ON and the electrolysis starts. If no flow is detected, the button remains OFF and the electrolysis will not start. Remember to adjust the production rate to get the right chlorine concentration.

If you have a pH problem, for example if the pH sensor malfunctions or if you run out of liquid pH minus, switch off the pH dosing pump.

2. DESCRIPTION

3. Tips for choosing your settings

To choose your **treatment and/or filtration time** intelligently, refer to the table opposite:

Water temperature	10°C≤t°<20°C or indoor pool	20°C≤t°<25°C	25°C≤t°<28°C	t°≥28°C	t°≥28°C or heavy traffic	t°≥30°C or heavy traffic
Processing time	2h	4h	6h	8h	12h	24h BOOST
Filtration time	5h to 10h	10h to 12h	12h to 16h	16h to 24h	24h	24h

To choose your **production rate** intelligently, refer to the table opposite:

Pool size	15 m ³	30 m ³	50 m ³	60 m ³	80 m ³
Minimum production rate	20%	40%	60%	80%	100%
Production quantity	4 g/h	8 g/h	12 g/h	16 g/h	20 g/h

To choose your **polarity inversion time** intelligently, refer to the table opposite:

Water hardness (TH)	Th < 30°F	Th < 40°F	Th < 50°F	Th > 50°F
Polarity inversion time	8h	6h	4h	2h

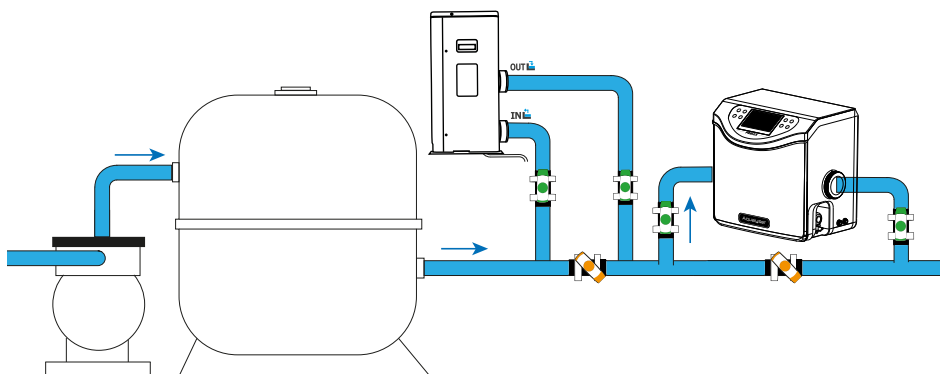
Hydrotimetric title, or water hardness, is an indicator of the mineral content of the water, which can lead to limescale deposits. The more calcareous your water, the greater the need for cleaning. To do this, reduce the polarity inversion time as indicated in the table above.

The **pH setpoint** should be chosen between 6.8 and 7.6. We advise you to set your dosing pump with a set point between 7.0 and 7.3.

The recommended **ORP setpoint** is between 650 mV and 700 mV.

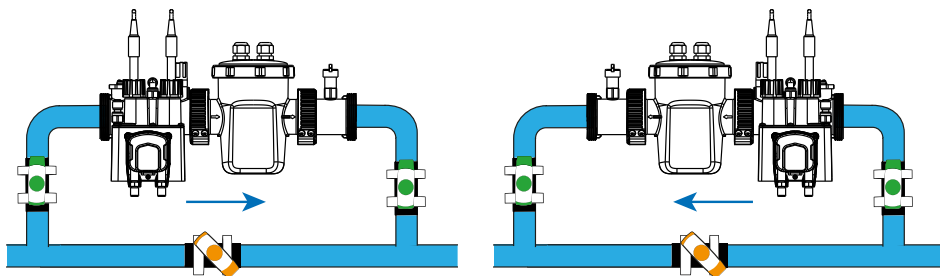
3. GETTING STARTED

1. Hydraulic installation



When you leave the pool, you should install your circulation pump and filtration system first. The chlorinator must always be the last piece of equipment in the hydraulic circuit. **The direction of water circulation in Aqualyser must also be respected.** If you have other equipment (e.g. a heat pump), be sure to install it upstream of the chlorinator.

The Aqualyser FLEX can be turned upside down to adapt to the flow direction of your hydraulic system. However, for Aqualyser TOTAL, the water must enter on the left and leave on the right of the product.



To install the probes, unscrew the plugs and position the silicone rings slightly higher around the probe, then screw the assembly back on.

WARNING! probe tips should always be kept moist. If not in use, leave them in a little water to preserve them. Failure to do so may prematurely destroy the electrolyte contained in the probes.

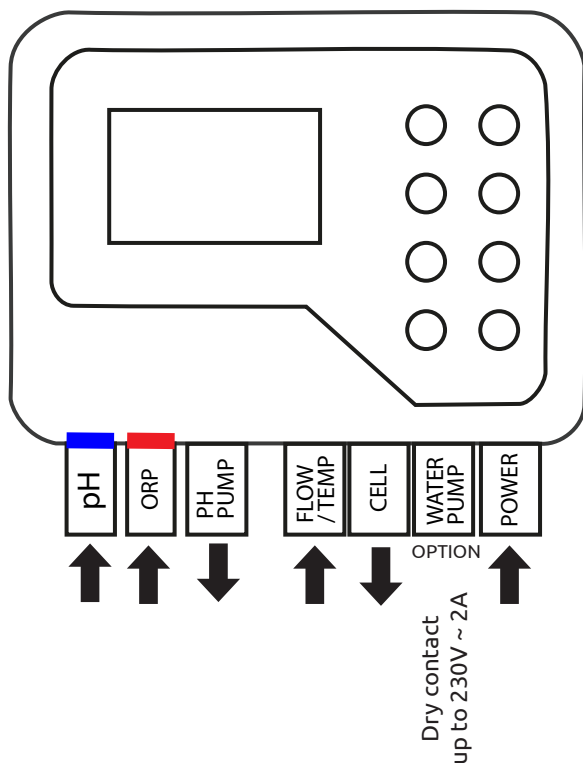
3. GETTING STARTED

2. Electrical installation

The ORP controller must be electrically connected to the chlorinator, the pH dosing pump and your circulation pump. Please check that they are correctly installed before starting.

The names of the fittings are indicated below them.

1. Connect the pH sensor to the 'PH' connector.
2. Connect the ORP probe to the 'ORP' connector.
3. Connect the pH dosing pump to the 'PH PUMP' connector.
4. Connect the chlorinator input to the 'FLOW/TEMP' connector.
5. Connect the output of the chlorinator to the 'CELL' connector.
6. Unscrew the protective cap on the 'WATER PUMP' connection.
7. Connect the circulation pump to the 'WATER PUMP' connection.
8. Connect the ORP controller to your mains supply.



3. GETTING STARTED

3. Setting

When you start up for the first time or after a reset, you need to follow the steps for setting up the device.

1. Choose your language

- a. Use the  and  arrows to select your language.
- b. Press  (OK) to confirm.

2. Define the parameters

- a. Answer 'YES' to the question 'Do you need to set parameters? The selected answer is coloured.
- b. Press  (OK) to confirm.

3. Specify the volume of your pool

- a. Use the  and  arrows to specify the volume of your pool to within plus or minus 5 m³.
The default size is 5 m³ to avoid overdosing with salt.
- b. If you need to round up, choose the next higher rounding.
- c. Press  (OK) to confirm.

4. Select operating mode

- a. You can choose between ORP control (automatic), hourly control (programmed) or water flow control (manual).
- b. Use the  and  arrows to select the operating mode of your choice.
Press  (OK) to confirm.

4. USE

1. Unlock the keyboard

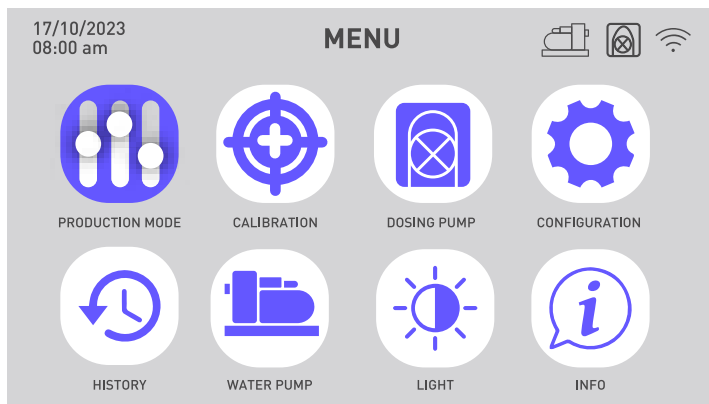
After 15 minutes without action, the device locks automatically.

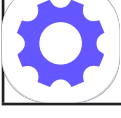
When locked, the screen displays the icon  in the top right-hand corner.

To unlock the device, press the back  and  (OK) keys simultaneously for 5 seconds.

2. Menu screen

To enter or exit the menu, use the 'menu'  or 'back'  buttons.



	Choosing and setting the operating mode		View the history of the last two days View the error report
	Calibration		Programming the circulation pump
	Activating and configuring the pH metering pump		Change screen brightness
	Activate wifi Change time and date Change device language		Contact technical support

4. USE

3. Choosing and setting the operating mode

Menu > Work mode

1. To change and/or set the operating mode, go to the menu  and confirm the 'Work mode' menu  selection by clicking  (OK).
2. Use the  and  arrows to select the operating mode of your choice. Press  (OK) to confirm.
You can choose between three operating modes: control by ORP, control by time or control by flow.

Operating modes	Description
ORP CONTROL (default and recommended mode)	The operation of your chlorinator is automated according to the ORP value read by the ORP sensor.
TIME CONTROL (in the event of problems with the ORP probe)	The operation of your chlorinator is programmed according to the chlorine production time set in the parameters. Pay attention to the filtration time.
FLOW CONTROL (in the event of problems with the ORP probe)	The operation of your chlorinator depends on the operation of your circulation pump. Only the polarity inversion time needs to be set. Adjust your production rate.

3. The selected box is coloured. Use the  and  arrows to enter the required value, then press  (OK) to confirm and move on to the next box.

Paramètre	Description
ORP setpoint	It defines the target value targeted by the ORP sensor to decide whether or not to activate your chlorinator. The step size is 10 mV.
Chlorine production time	It defines the number of hours your chlorinator will run each day. The step is 1 hour.
Polarity inversion time	Remember to set the polarity inversion time (2h / 4h / 6h / 8h) according to the hardness of your water. The harder your water, the shorter the polarity inversion time. The step is 2 hours. Reversing the polarity prevents limescale deposits.

4. USE

4. Activating and configuring the pH metering pump

The  button is used to quickly switch the pH dosing pump on and off.

If the dosing pump is deactivated, the «Dosing pump» menu is greyed out and cannot be selected. Then use the  button to enter the pH dosing pump parameters.

When the dosing pump is activated, the  icon is visible at the top right of the screen.

1. Prime the dosing pump

Menu > Dosing pump > Priming

- Go to the menu , use the  and  arrows to select the 'Dosing pump' menu, then confirm your selection by clicking  (OK).
- Use the  and  arrows to select 'Priming'. Press  (OK) to confirm.
- Use the  and  to change the priming time value.
The minimum priming time is 10 seconds and the maximum is 120 seconds, in 10 second steps.
- Press  (OK) to confirm and start the boot process.
A pop-up window will appear to tell you whether or not the boot was successful.
- To exit this menu, use the back arrow .

2. Check the dosing pump

Menu > Dosing pump > Check

- Go to the menu , use the  and  arrows to select the 'Dosing pump' menu, then confirm your selection by clicking  (OK).
- Use the  and  arrows to select 'Check'. Press  (OK) to confirm.
- Press again  (OK) to start the check. The device checks that it can start the dosing pump. A pop-up window will appear to tell you whether the procedure was successful or not.

3. Adjusting the dosing pump

Menu > Dosing pump > pH target

- Go to the menu , use the  and  arrows to select the 'Dosing pump' menu, then confirm your selection by clicking  (OK).
- If required, use the  and  arrows to select 'pH target'. Press  (OK) to confirm.
- Use the  and  arrows to change the pH setpoint value.

4. USE

5. Calibration

Before using for the first time, or when changing a probe, each probe must be calibrated. Calibration solutions are not supplied for initial use. The correction enables the probes to be calibrated without having to use a calibration solution.

1. Calibrate the pH sensor

Menu > Calibration > Calibration > pH calibration probe

- Go to the menu , use the  and  arrows to select the 'Calibration' menu . This takes you to the 'Calibrate pH probe' menu.
- Follow the instructions on the screen:
 - 1 - Rinse the pH probe.
 - 2 - Immerse the head of the probe in the pH7.01 buffer solution.
 - 3 - Confirm with  (OK).
- A 5-minute countdown starts while the calibration takes place.
Keep the probe in the buffer solution during calibration.

2. Etalonner la sonde ORP

Menu > Calibration > Calibration > ORP calibration probe

- Go to the menu , use the  and  arrows to select the 'Calibration' menu . Confirm with  (OK).
- Use the  and  arrows to select 'ORP calibration probe' menu. Press  (OK) to confirm.
- Follow the instructions on the screen:
 - 1 - Rinse the pH probe.
 - 2 - Immerse the head of the probe in the 470 mV buffer solution.
 - 3 - Confirm with  (OK).
- A 10-minute countdown starts while the calibration takes place.
Keep the probe in the buffer solution during calibration.

3. pH correction

Menu > Calibration > Correction > pH correction

The pH of the water used for this step must be known. You can use pH test strips, for example.

- Rinse the pH sensor.
- Immerse the pH probe in this water and confirm with  (OK).
- Wait one minute.
- Use the  and  arrows to indicate the pH value measured.
- Confirm with  (OK) then use the back arrow  to exit this menu.

4. USE

4. Correction of the ORP

Menu > Calibration > Correction > ORP correction

The ORP of the water used for this step must be known. This can be done, for example, using an ORP tester.

- Rinse the ORP sensor.
- Immerse the ORP probe in this water and confirm with  (OK).
- Wait one minute.
- Use the  and  arrows to indicate the ORP value measured.
- Confirm with  (OK) then use the back arrow  to exit this menu.

6. Programming the filtration pump (optional)

The filtration pump can be activated directly or programmed to run in regular cycles or according to one to three timers.

When it is active, the  icon is visible. When it encounters a connection problem, the  icon flashes.

1. Activate the circulation pump

Menu > Filtration pump > OFF

- To activate the circulation pump, go to the menu , use the  and  arrows to select the 'Filtration pump'  menu, then confirm your selection by clicking  (OK).
- Use the  and  arrows to select 'OFF'. Press  (OK) to confirm.

2. Programming on a regular cycle

Menu > Filtration pump > CYCLE

- Go to the menu , use the  and  arrows to select the 'Filtration pump'  menu, then confirm your selection by clicking  (OK).
- Use the  and  arrows to select 'CYCLE'. Press  (OK) to confirm.
- Use the  and  arrows to change parameter values and  (OK) to confirm and move from one line to another.

In the 'CYCLE' menu, you can also activate the 'Autocontrol' function. If enabled, this function automatically keeps the filter pump running if the ORP value is incorrect.

4. USE

Parameter	Description
Runtime Execution time	Running time of the pump during a cycle. The running time can be neither less than 15 minutes nor more than 120 minutes (2h). The step between two available values is 15 minutes.
Frequency Interval time	Time interval between stopping and restarting the water pump. It must be between 0 and 24 hours. The step between two available values is 1 hour.

3. Programming with timers

Menu > Filtration pump > TIMER

Each timer has a start time, an end time and an activate function.

- Go to the menu , use the  and  arrows to select the 'Filtration pump' menu, then confirm your selection by clicking  (OK). 
- Use the  and  arrows to select 'TIMER'. Press  (OK) to confirm.
- Use the  and  arrows to select a cycle to modify. The line of the selected cycle is framed. Press  (OK) to confirm.
- The 'start' box is selected. Use the  and  arrows to change the time in increments of 15 minutes, or press  (OK) to move on to the next box.
If you change the start time, the end time is automatically adjusted to set a time slot of at least 15 minutes; conversely, if you change the end time, the start time is automatically adjusted to set a time slot of at least 15 minutes.
- When you are on the 'activate' setting, use the  and  arrows to change the ON/OFF value. Then press  (OK) to confirm the line.

7. Activate wifi

Menu > Config > Wifi (OK > OK > OK)

- Go to the menu , use the  and  arrows to select the 'Configuration' menu and confirm. 
- Press  (OK) to enter the 'WiFi' menu.
- Turn the push button to the right, using the  and  arrows, to activate WiFi.
- Press  (OK) to confirm. The icon  starts flashing during pairing.

Wifi must be accessible in the technical room. If you need help, ask your dealer for advice. You may need to install [WifiLink](#).

4. USE

8. Changing the time and date

The time and date are automatically adjusted after connecting to Wi-Fi.

Menu > Config > Time

1. Go to the menu , use the  and  arrows to select the 'Configuration' menu  and confirm.
2. Use the  and  arrows to select the 'Time' menu, then confirm  (OK).

If you have wifi enabled, check the synchronisation at this stage.

3. The pre-selected value starts flashing. Use the  and  arrows to select the value to be changed, then press  (OK).
4. Use the  and  arrows to change the value, then confirm  (OK).
5. The next value is automatically selected and ready to be modified. Use the back arrow  to return to the preset state. Return to step 3.
6. To exit the 'Time' menu, use the back arrow  several times, or menu , or confirm  (OK) the year.

9. Changing the device language

Menu > Config > Language

1. Go to the menu , use the  and  arrows to select the 'Configuration' menu  and confirm.
2. Use the  and  arrows to select the 'Languages' menu, then confirm  (OK).
3. Use the  and  arrows to select your language then confirm  (OK). The device language is updated immediately.

10. Modify sound settings

Menu > Config > Sound

1. Go to the menu , use the  and  arrows to select the 'Configuration' menu  and confirm.
2. Use the  and  arrows to select the 'Sounds' menu, then confirm  (OK).
3. Use the  and  arrows to change the position of the push buttons and confirm.  (OK) to switch from one to the other.

4. USE

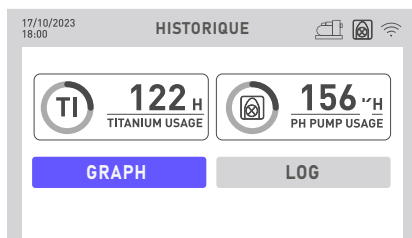
11. Change screen brightness

Menu > Brightness

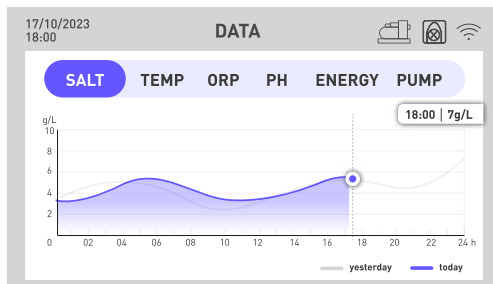
1. Go to the menu , use the  and  arrows to select the 'Brightness' menu  and confirm.
2. Use the  and  arrows to decrease or increase screen brightness.
3. Use the back arrow  to return to the main menu.

12. View the history of the last two days

Menu > History > Chart



1. Go to the menu , use the  and  arrows to select the 'History' menu  and confirm.
Two pieces of information are available on this page: the operating times of the dosing pump and the chlorinator.
2. Confirm  (OK) again to enter the 'Chart' menu.



This menu gives you access to various data in graphical form over time. A blue line shows the day's data and a grey line shows the previous day's data.

3. Use the  and  arrows to select the menu of your choice: salinity, temperature, ORP, pH, energy consumption or circulation pump activation.
4. Press  (OK) to display the exact values for the day, hour by hour, in an insert.
5. Use the back arrow  to return to the data menu.

4. USE

13. Consult the report on errors encountered

Menu > History > Report

1. Go to the menu , use the  and  arrows to select the 'History' menu  and confirm.
2. Use the  and  arrows to select the 'Report' menu, then confirm  (OK). This page lists the errors encountered by the device.
3. Use the  and  arrows to navigate between the different pages.

14. Contact technical support

Menu > Info > Help

1. Go to the menu , use the  and  arrows to select the 'Info' menu and confirm.
2. To access the product's web data, scan the QR code on the left.
3. To send an email to the after-sales service, scan the QR code on the right.

5. APPLICATION

1. Download & Installation of the «Poolex» application

About the Poolex app:

To control your heat pump remotely, you need to create a Poolex account.

The Poolex application lets you control your pool equipment remotely, wherever you are. You can add and control several devices at once. Appliances compatible with Smart Life or Tuya (depending on the country) are also compatible with the Poolex application.

With the Poolex application, you can share the devices you've set up with other Poolex accounts, receive real-time operating alerts and create scenarios with several devices, based on the application's weather data (geolocation essential).

Using the Poolex application also means taking part in the continuous improvement of our products.

ios :

Scan or search for «Poolex» in the App Store to download the app:



Check the compatibility of your phone and the version of your OS before installing the application.

Android :

Scan or search for «Poolex» in the play to download the app:



Check the compatibility of your phone and the version of your OS before installing the application.

5. APPLICATION

2. Pairing your combination chlorinator

To pair your device, follow these steps:

1. Check that your wifi is activated and compatible with the application: **The Poolex application only supports 2.4 GHz WiFi networks.**

If your WiFi network uses the 5GHz frequency, go to your home WiFi network interface to create a second 2.4 GHz WiFi network (available for most Internet boxes, routers and WiFi access points).

2. Launch the Poolex application and create an account.
3. Press the ⬅️ and ➡️ arrows simultaneously for 5 seconds.

On your application, go to the «Add a device» tab.



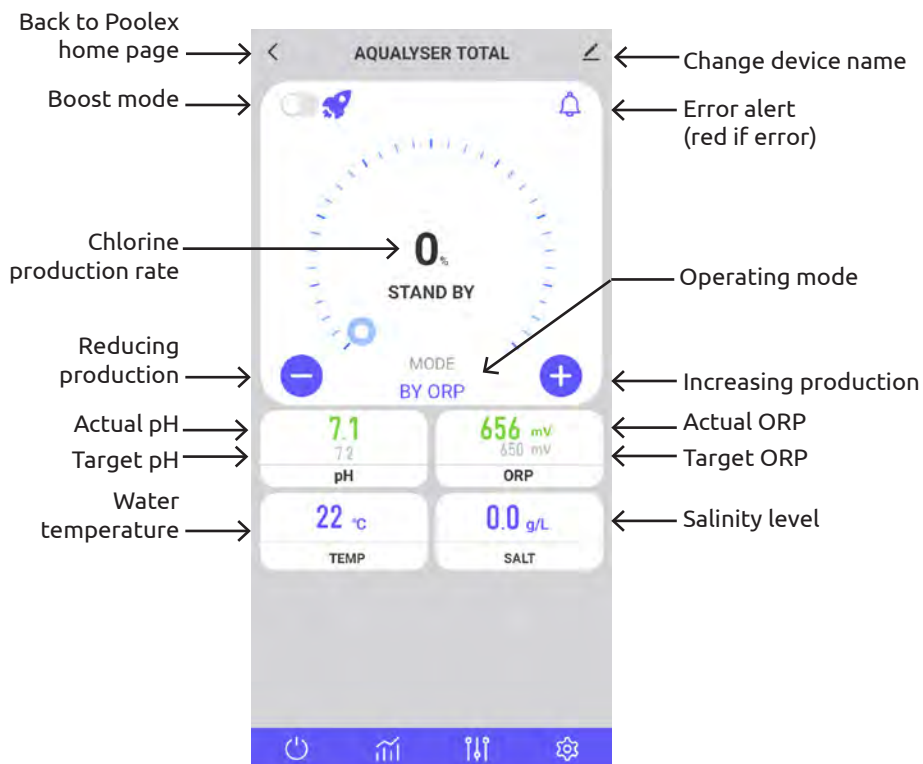
Your combined chlorinator will appear in this tab on the application when pairing is launched. Select it and confirm the addition.

Wifi must be accessible in the technical room. If you need help, ask your dealer for advice. You may need to install [WifiLink](#).



5. APPLICATION

3. Interface



Start or stop the combined electrolyser



Access the graphs showing the values of the last two days



Change the operating mode of the electrolyser



Adjust the electrolyser parameters

5. APPLICATION

Errors are highlighted in red to make it easier for you to keep track of your settings.



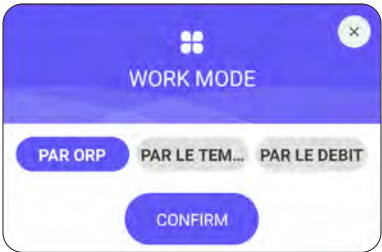
EN

4. Modify the operating mode

To change the operating mode, press . The operating mode selection window opens. Press the desired operating mode.

The default mode, which is ORP control, is recommended to take advantage of all the features of your combined electrolyser.

The degraded modes, which are time control and flow control, are intended to temporarily remedy a malfunction of the ORP probe. See “3. Choosing and setting the operating mode”, page 74, for more information.



5. APPLICATION

5. Changing the production rate

To change the chlorine production rate, use the  and  buttons. Each press increments +/- 20% production.



1. BOOST mode

BOOST mode allows the production rate to be increased to 100% for 24 hours. Press the  pushbutton to the left of the  icon to activate or deactivate BOOST mode.



2. Recommendations

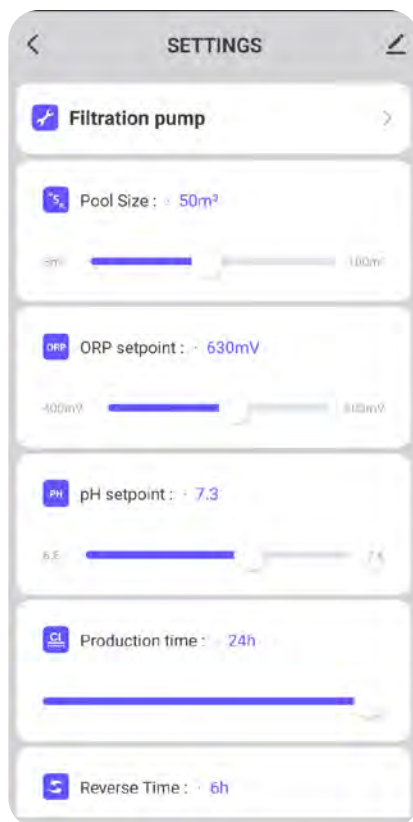
Adjust the production rate according to the needs of your pool.
A lower rate will consume less energy.
A higher rate will be necessary in case of high traffic and in case of high temperature.
Rinse yourself before entering the pool to reduce the chlorine needs.

6. Modify the parameters of the selected mode

To adjust the selected mode, press the  button. The settings menu adapts according to the mode selected.

Parameter	Description
ORP set point	It defines the target value targeted by the ORP sensor to decide whether or not to activate your chlorinator. The step size is 10 mV.
Chlorine production time	It defines the number of hours your chlorinator runs each day. The step is 1 hour.
Polarity reversal time 	Remember to set the polarity inversion time (2h / 4h / 6h / 8h) according to the hardness of your water. The harder your water, the shorter the polarity inversion time. The step is 2 hours. Reversing the polarity prevents limescale deposits.

5. APPLICATION



EN

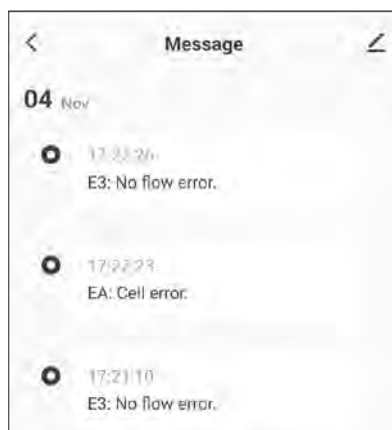
7. View error history

When an error is detected, the  button turns red.

Then use the  button to access the error history.

The date is entered in the format “year / month / day”.

See section «2. Diagnosis and resolutions», page 94, for details and solutions associated with each error.



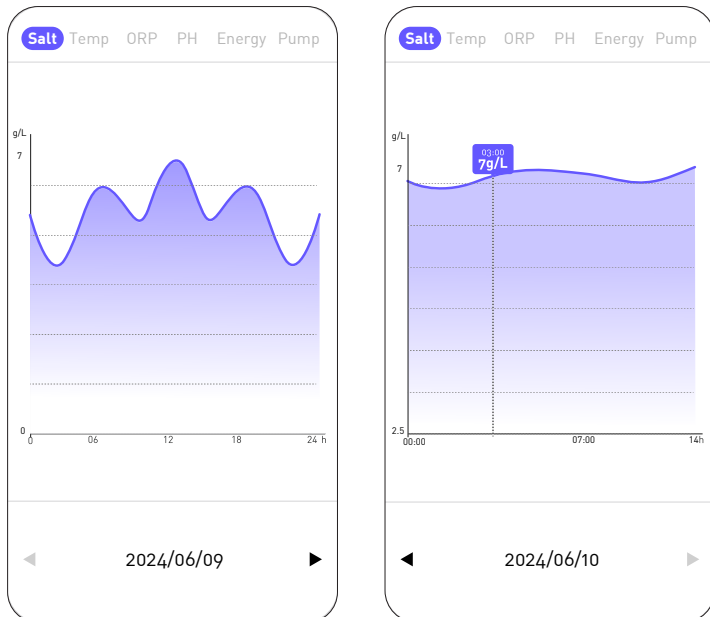
5. APPLICATION

8. View device data

Data from each probe (salinity, temperature, ORP, PH, flow rate) and energy consumption. These data are presented in the form of a graph over the hours.

Use the arrows to the left of the date to see the data from the previous day and the arrow to the right of the date to return to the present day.

Click on the line to obtain a value at a given time.



The «Salt» curve gives the amount of salt in the water in g/L throughout the day.

The «Temp» curve gives the temperature in °C throughout the day.

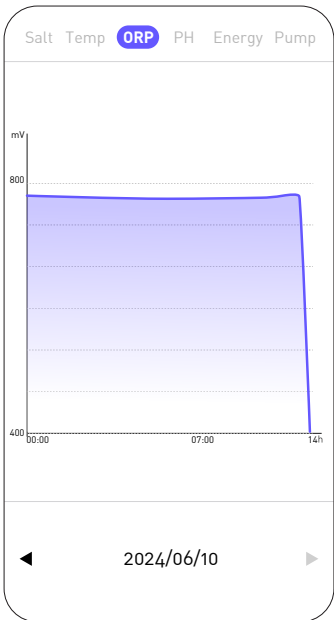
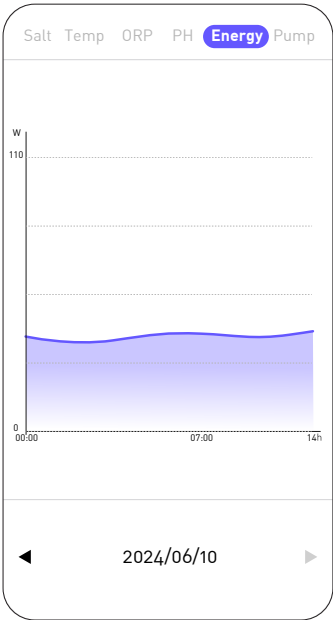
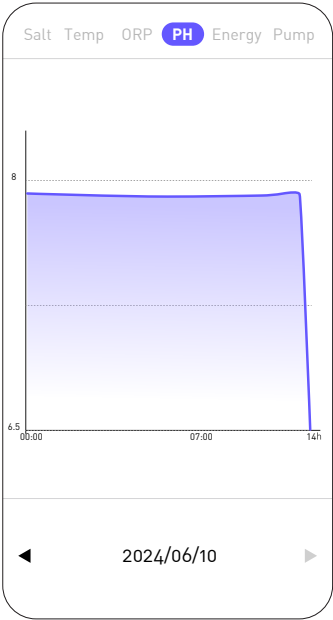
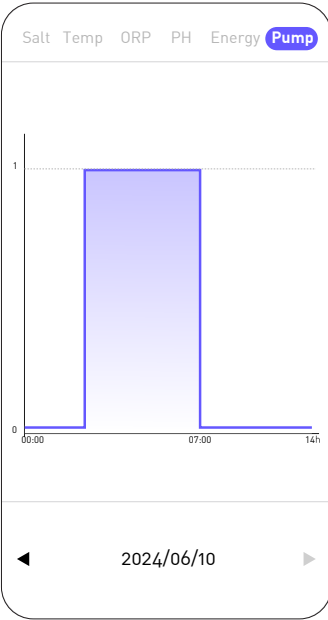
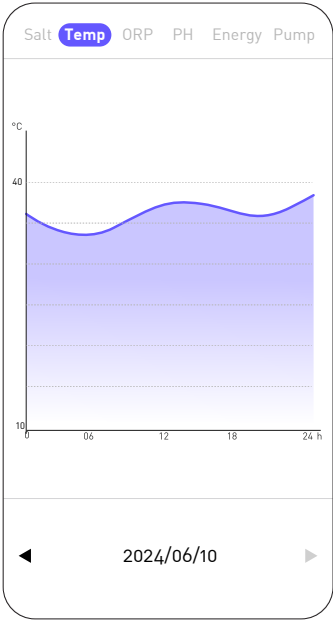
The «ORP» curve gives the ORP value in mV throughout the day.

The «PH» curve gives the pH throughout the day.

The «Energy» curve gives the consumption in W throughout the day.

The «Pump» curve indicates whether the circulation pump is active (1) or not (0).

5. APPLICATION



5. MAINTENANCE

1. Entretien général

Periodic maintenance is very important for long-term operation. These operations must be carried out systematically and meticulously, following the advice below.

- Periodically check the level of the tank containing the pH-minus solution, to prevent the dosing pump from running empty.
- Check that the suction and discharge pipes do not contain impurities. Impurities can damage the pump body pipe and cause an anomaly in the discharge.
- Regularly check the operation of the dosing pump, by checking the condition of the pump filter. A clogged filter can cause a reduction in flow.
- Check that the probes are not clogged.
- Clean the electrolyser cell 1 to 2 times per season.
- Check the stabiliser level (Cyanuric Acid) concentration of 20 to 50 ppm
- Check for the presence of phosphates and nitrates, which generally contribute to a high chlorine demand: if the tests are positive, carry out a shock treatment with an oxidising agent.
- Do not use fertilizers near your pool. Fertilizers are one of the many sources containing Nitrates or Phosphates, causing high chlorine demand in the pool water and deposits on the cell.
- As much as possible, install the system (controller, dosing pump and chlorinator) in the shade or away from sunlight.

2. Cleaning the electrolyser cell

WARNING - Always use a specific descaling product for pool chlorinator cells and strictly follow the manufacturer's instructions for use and safety.

Using an unsuitable or overly concentrated product (pure acid) can cause visible and irreversible damage to the cell, which is not covered by the warranty and can potentially be dangerous.

When cleaning the cell, always wear suitable protection such as rubber gloves and eye protection.

Always work in a well-ventilated area. Acid splashes can cause serious injury and/or property damage.

Never put water in the acid.

5. MAINTENANCE

Procedure :

1. Cut off all power and close the return valves as appropriate.
2. Disconnect the transformer cable.
3. Unscrew the threaded nuts around the PVC fittings that connect the cell to the pipes.
4. Empty the residual water (let it flow into a container to put it back in the pool).
5. Remove the cell completely from the union fittings. DO NOT pull or carry the cell by its cable.
6. Using a cleaning cap (e.g. ref. CL-TSLCAP), plug one end and hold the cell in a vertical position, cap down.
7. Pour the descaler directly into the cell until it covers all the plates.
8. Wait 10 to 20 minutes, shaking the tube regularly.
9. Check that there is no more scale left. If necessary, repeat the operation.
10. When there is no more scale left, rinse and reinstall the cell.

3. Wintering

1. Dosing pump

The pump tube is the element to be protected when winterizing the installation.

It is recommended to pump clean water to rinse the tube and avoid chemical attack at rest.

In order not to press the tube in the part that sucks the product, please turn the rotating roller clockwise to orient it as shown.



2. Electrolyser

When temperatures are low, very little chlorine is needed. However, below 10°C, the chlorinator will not produce chlorine and will go into error, a feature that extends the life of the cell. If the water temperature continues to fall until it freezes, the cell will be damaged by the icy water, as will your pool's plumbing. Before the first frost, as a precaution, you should dismantle the cell by closing the bypass to isolate the circuit. Store your cell in a dry place.

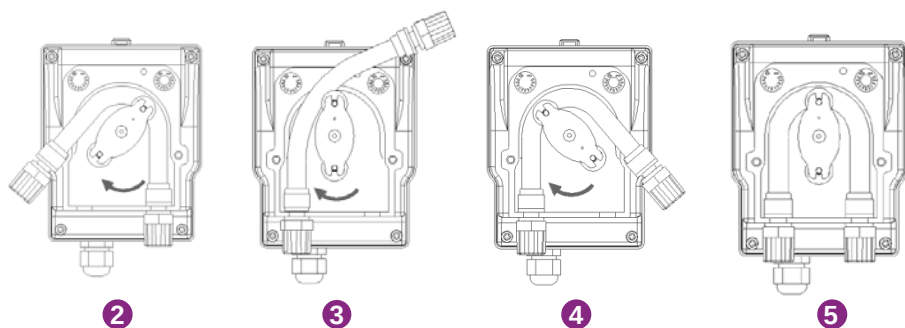
4. Replacing the electrolysis cell

When the titanium plates inside the electrolysis cell have reached the end of their service life (after approximately 10,000 hours), they can be replaced. To guarantee quality and value, only original spare parts should be used.

5. MAINTENANCE

5. Replacing the dosing pump tube

1. Open the front of the housing to remove the transparent cover.
2. Remove the old hose by first unlocking the left connection. Turn the rotating roller in the direction of the arrow to release the hose up to the right connection.
3. Insert the left connection of the new hose into the appropriate location, making sure that the rounded part is positioned inwards.
4. Turn the rotating roller clockwise to position the hose correctly.
5. Insert the right connection into its location.
6. Present the cover on the pump and screw in the two screws on the front of the housing.



6. Adding salt

1. Salt level required

The system can operate in a wide range of salinity, from a minimum of 2700 ppm (parts per million) up to 4500 ppm. However, the ideal salt concentration is around 3000 ppm. To reach this level of salinity, add approximately 3 kg of salt, standard EN 16401, for 1m³ of water (or 25 pounds of salt for 1000 gallons of water).

When the salinity level is too low, the error code E5 is displayed to warn you of the action to be taken. If you have correctly set the volume of your pool, the control box will recommend the amount of salt to add. We nevertheless recommend that you check your settings regularly.

2. Process for adding salt

- a. Prepare the necessary amount of salt.
- b. Turn off the cell.
- c. Locate the deepest end of the pool.
- d. Empty the necessary salt at this location (the deepest end of the pool).
- e. Run the filtration pump continuously for at least 24/48 hours to circulate the water and dissolve all the salt.

6. DÉPANNAGE

In case of green water (coming out of wintering, very high temperature), the electrolyser will not be able to catch up with the water. A one-off addition of chlorine tablets may be necessary. To do this, do not put the chlorine directly into the skimmer, but rather into a floating diffuser.

If it is necessary to do a chlorine shock treatment, be sure to turn off the electrolyser first to avoid damaging the cell.

Do not use stabilised chlorine. Prefer hypochlorite.

1. Checks on the entire system

Although our chlorinator is manufactured with the utmost care, it may break down.

In the event of a fault and/or malfunction, the power supply must be disconnected and no attempt must be made to repair the fault. Repair work must only be carried out by an authorised technical assistance service using original spare parts.

Failure to comply with the above clauses may adversely affect the safe operation of the controller.

However, other factors inherent in the device may affect treatment performance. If you have a problem with the quality of your water (water starting to turn green), please check the following points:

- Check that the electrical outlet is still plugged in
- Check that the power supply is still present and that the differential protection is not tripped (or the circuit breaker upstream). If in doubt, call a professional.
- Check that the water parameters (salt level, stabilizer level, pH and possibly TH and TAC) are correct
- Check that the water flow rate is between 2m³/h and 10m³/h
- Check that the filtration time is long enough:

$$\text{Filtration Time} = T \text{ water} / 2$$

For optimum treatment, we advise you to **select the right mode for the temperature of your water**, and to use the two BOOST modes if conditions make this necessary (high temperature or high use). Depending on your use and your pool (volume, exposure to vegetation, sunlight, etc.), you may need to change the mode up or down. These modes are pre-set: they restart each day at the time the mode was selected.

If you're still having problems, it could be that your chlorinator has broken down. The chlorinator also has a self-diagnosis system that indicates any problems by means of error codes.

6. DÉPANNAGE

2. Diagnosis and resolutions

Your controller is equipped with a self-diagnosis system for faults and regular maintenance tasks. Please refer to the table opposite for more information.

Code	Error	Solution
E1	Overheating protection.	Turn off power. Check wiring/temp.
E2	Abnormal water temperature.	Check the water temperature limits (min/max). The normal operating range for water temperature is between 10°C and 45°C. If your pool water temperature is < 10°C, consider winterizing your product. If your pool water temperature is actually > 45°C, turn off the chlorinator and wait for the water temperature to return to the operating range. If the actual water temperature is within the operating range, then check for the simultaneous presence of error E3 or E7
E3	No water flow.	Check or clean the pipes and pump to ensure sufficient flow. The normal operating range of the flow sensor is between 2m ³ /h and 10m ³ /h. If the daily filtration time is divided into several periods and the periods are shorter than the treatment time then this error may appear temporarily during the breaks between periods until the treatment time is completed on the subsequent periods. Check that the filtration time is long enough to cover the entire treatment time. Check that the bypass is passing enough water into the cell and that the valves are correctly adjusted Check that the filter is not clogged / blocked (if necessary, clean it). Check that the pump flow is sufficient Check for debris / scale in the cell that could jam the sensor (if necessary, see «2. Cleaning the electrolyser cell», page 90). If all of the above is correct, but the error persists, contact the after-sales service to have the flow sensor replaced.

6. DÉPANNAGE

Code	Error	Solution
E4	Abnormal operation of the peristaltic pump.	Check the pump wiring. Check that the suction and discharge pipes do not contain impurities. Impurities can damage the pump body pipe and cause an anomaly in the discharge. Check the condition of the pump filter. A clogged filter can cause a decrease in flow.
E5	Low water salinity.	Add salt. The normal operating range for salt concentration is 2700-4500 ppm. However, the ideal salt concentration is approximately 3000 ppm. To achieve this level of salinity, add approximately 3 kg of salt per 1 m³ of water (or 25 pounds of salt per 1000 gallons of water). Before adding salt, ALWAYS perform a test to measure pre-existing salt levels (strips or electronic tester). Only use salt that meets EN 16401 to ensure the life and performance of the electrolysis cell. The electrolysis cell should not be turned on until the salt is added and the salt is completely dissolved. In the summer, the salt may take 24-48 hours to dissolve, and even longer in the winter.
E6	Abnormal temperature in the electronics.	Disconnect the transformer, wait 1 minute then reconnect it. If the error persists, contact after-sales service to replace the corresponding electronic cards.
E7	Abnormal water temperature.	Restart the device.
E8	Abnormal mains voltage	Check the input voltage. If the error persists, contact customer service for a replacement transformer or cell.
E9	Abnormal electrolysis current.	Restart the device. If the error persists, contact customer service for a cell replacement.

6. DÉPANNAGE

Code	Error	Solution
EA	Abnormal operation of the electrode.	Restart the device.
T1	Calibration maintenance	Calibrate the pH/ORP sensor (3 months/time)
T2	Electrode maintenance	Electrode set replacement check (6 months/time)
T3	Electrode maintenance	Electrode set replacement check (accumulated 10,000 hours)
T4	Flexible pump maintenance	Peristaltic pump hose replacement check (cumulative 12 months)
T5	Pump maintenance	Peristaltic pump replacement check (800 cumulative hours)

7. WARRANTY

Poolstar warrants to the original owner against defects in materials and workmanship of the ORP Controller for a period of **five (5) years** or **10,000 hours** of operation.

Probes are consumable components not covered by the warranty.

The date on which the guarantee comes into effect is the date of the last invoice.

The guarantee does not apply in the following cases:

- Malfunction or damage resulting from installation, use or repair not in accordance with safety instructions.
- Malfunction or damage resulting from an unsuitable chemical environment in the pool.
- Malfunction or damage resulting from conditions unsuitable for the intended use of the device.
- Damage resulting from negligence, accident or force majeure.
- Malfunction or damage resulting from the use of unauthorized accessories.

Repairs carried out during the warranty period must be approved in advance and carried out by an authorised technician. The warranty will lapse if the appliance is repaired by a person not authorised by Poolstar.

Warranty parts will be replaced or repaired at Poolstar's discretion. Defective parts must be returned to our factory within the warranty period to be covered. The warranty does not cover unauthorised labour or replacement costs. The return of the defective part is not covered by the warranty.

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