

# PH CONNECT & RX CONNECT

*Connected dosing pumps for pH and Redox management*



DISPONIBLE SUR  
Google play

Disponible dans  
App Store

## Installation and user manual

EN / FR / DE

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# PHCONNECT BOX INSTALLATION MANUAL

## 1.1 Principle of operation

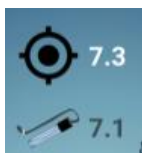
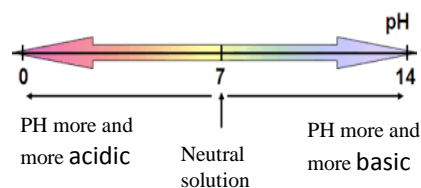
The pH of the water is the essential element, often neglected for lack of knowledge, for the comfort of bathers but also to keep water pure, healthy and clear; In doing so we can ensure maximum efficiency of disinfectants and especially chlorinated products. The variation of the pH is related to many parameters, frequentation of the swimming pool, nature and quality of the water, method of treatment, temperature, cascade and movements, etc. It is therefore essential to maintain the pH in its ideal range between 6.8 and 7.3. Generally the optimal set point is set at 7.2 but if in doubt you can consult your dealer for a balance check as well as a general analysis of your water. Thanks to the Taylor scale your pool will show you your ideal pH.

**PHCONNECT** is a state-of-the-art machine that is extremely simple and fun to use. At a glance you can view on your smartphone screen or tablet the different states of your pool. **PHCONNECT** makes it possible to automatically regulate the PH of your swimming pool for a comfort of the bathers and to avoid handling of dangerous products. The control system by **PHCONNECT** is delivered with all the parameters preset at the factory, so it can be connected without intervening on the settings or settings except the calibration of the probe. The assembly, adjustment, the principle of operation and maintenance are very simple and everything is done from your smartphone.



It is imperative to calibrate the pH probe with buffer solutions PH 4 and PH 7 attached to the package before use. The calibration check of the probe is done at least once a year and proceed to the wintering following instructions.

In most regions the waters are called "hard" or basic. The instrument is factory set to inject a PH - (acid) corrector. In case the water of the region is naturally acidic, modify the correction product in the application parameter screen and check inject a PH + corrector (base).



**PHCONNECT** automatically analyzes and regulates your pH thanks to its specific probe. The reference PH and the PH read are always indicated on your "control window". The absence of the probe is a fault indicated on the box by the blinking of red LED "STATE".

**PHCONNECT** benefits from a double proportional and sequential control, this type of regulation takes into account the inertia of the volume of the basin and guarantees a stabilized pH within its defined range and avoids the overdoses and overconsumption of corrective products. You can change these settings at your leisure.



**PHCONNECT** comes with a water temperature sensor as an option. This function allows PH compensation according to the water temperature. A hot or cold environment may slightly vary the reading of the PH.



**PHCONNECT** can be fitted with an end-of-tank sensor (optional ready-to-install) which indicates on the screen when the corrector canister is empty and blocks the pump operation to prevent premature wear of the doser (this fault is also indicated on the PHCONNECT box by the flashing red LED "STATE"). A terminal block is already waiting on the card and its assembly requires no skill or adjustment. This is an extremely useful option and strongly recommended.

## 1.2 Installation of the PHCONNECT system



- *The electrical installation must be done by a professional*
- *All PHCONNECT devices have been individually tested in the workshop to ensure an irreproachable product in perfect working order. Consequently, no guarantee can be given to a new appliance with a defect, if the installation instructions are not respected and there is no proof that the assembly was carried out by a qualified specialist with electrical authorization. . This proof must be certified by an invoice paid.*
- *Disconnect the device from the mains when it is put in place*
- *Always turn off the power before connecting or disconnecting a sensor*
- *Always turn off the unit with the M / A button when filter washing*
- *Never open the device except for technical intervention*

### 1.2.1 Installation of the PHCONNECT box and connection in software control

When you have a **PUMPCONNECT** box installed in your installation, the **PHCONNECT** box operates automatically without any filter servoing and without any specific cabling. Simply place the power plug on the **PHCONNECT** box and connect it to a standard power outlet. Connecting the **PHCONNECT** box to a socket physically disconnects the device from the power grid during a storm.

### 1.2.2 Installation of the PHCONNECT box and connection in electrical control

**PHCONNECT** operates in servocontrol with a conventional filtration cabinet. It is advisable to install a slave socket on the contactor of the pool pump and to connect your slave devices. In addition, connecting the **PHCONNECT** box to a slave socket physically disconnects the device from the power grid during a storm.

In the following you will find two possible wiring, depending on whether your pumping system is single-phase (Figure 1) or three-phase (Figure 2).

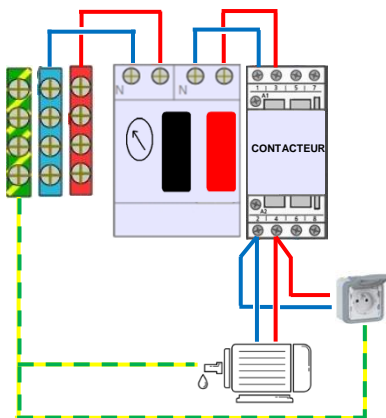


Figure 1 : Single phase pump servo

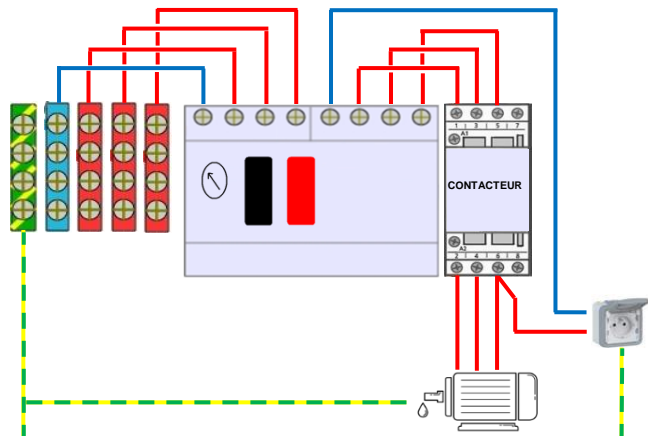


Figure 2 : Servoing on three-phase pump



The electrical standard C.15-100, forbid to connect more than 2 wires on the same pin or electrical contact.



### 1.2.3.2 PH probe placed in an analysis chamber (Figure 6).

This method is strongly recommended for reading quality and longevity of the probe. The analysis chamber is optional equipment, ask your dealer.

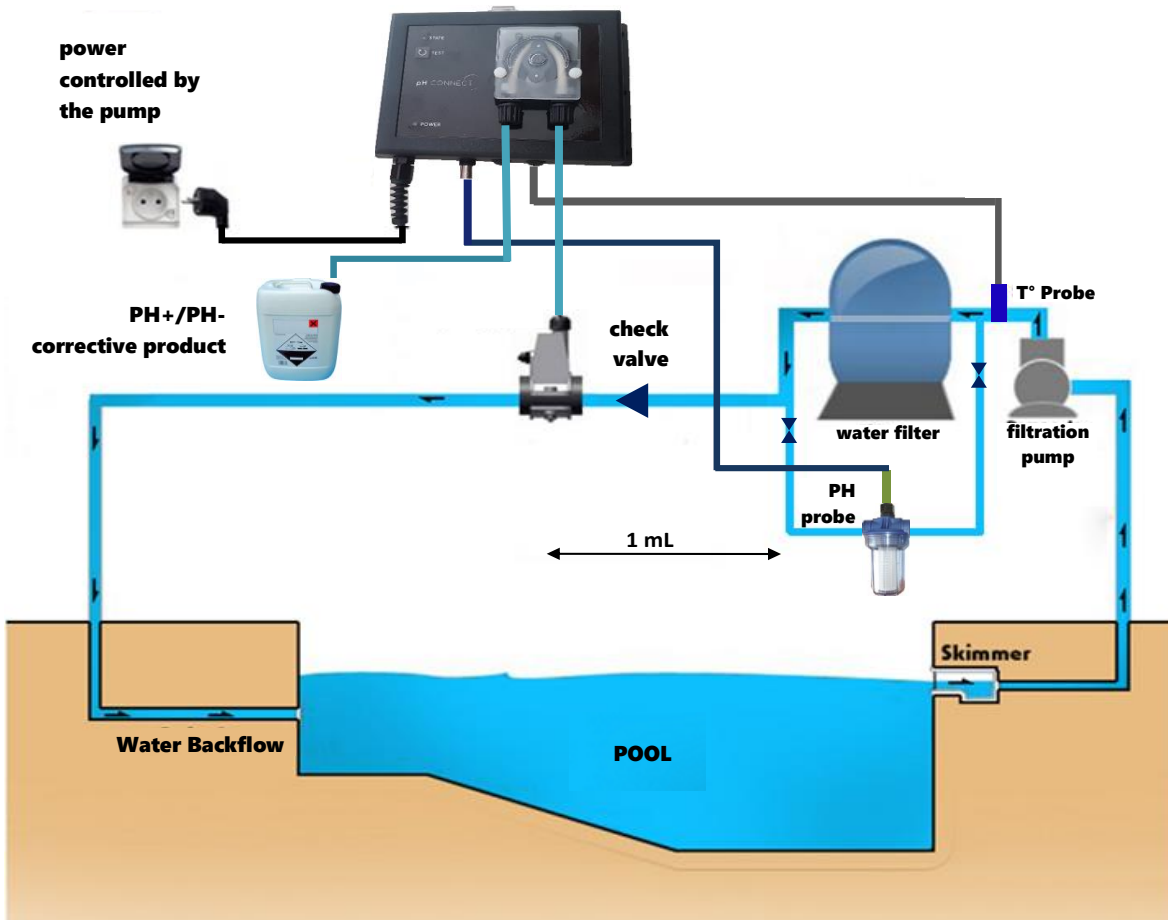


Figure 6 : PHCONNECT box assembly with analysis chamber

### 1.2.4 Mounting the temperature probe

The temperature probe option (Figure 7) is to be wired directly on the PHCONNECT box. In addition, it must be placed on the pipe, using its porte "50mm temperature probe holder collar" (Figure 8) delivered in the package. It must be placed on the pipe side to be in permanent contact with the water and allow a more reliable reading of the temperature.



Figure 7 : Temperature Probe probe holder



Figure 8 : Temperature probe holder collar

To do this, make a hole of 14 mm on the pipe and mount on the collar of support, delivered in the packing, on which you will screw the probe of temperature. It should be noted that the ideal position of the temperature sensor is between the pump and the filter (Figure 5-6). No adjustment on the temperature sensor is necessary. It is already accurately calibrated in the factory.

### 1.2.5 Mounting of the dosing pump

Perform the pump assembly as shown (Figure 9) using:

1. The pump
2. The injector
3. The adapter 3/8 ", 1/2"
4. The injector collar 1/2 "50mm
5. Strainer
6. Ballast
7. The tubing that the installer will adjust to his installation

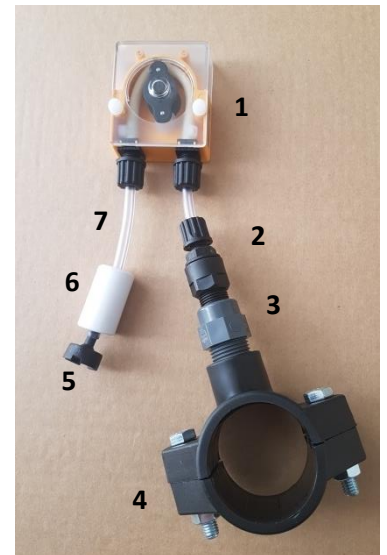


Figure 9 : pump assembly

## 2

# ASSEMBLY INSTRUCTIONS FOR THE RXCONNECT HOUSING

## 2.1 Principle of operation

**PH and Chlorine are constantly changing elements in a swimming pool.** Their maintenance manually is not very precise and difficult because related to many parameters, frequentation of the swimming pool, nature and quality of the water, method of treatment, temperature, etc. It is therefore essential to keep them in their ideal ranges in an automated way..

Reading Redox (ORP) indirectly determines a good disinfectant activity of the water and depends directly on the pH of the water.

PH between 6.8 and 7.4 (determine your equilibrium pH according to the Taylor balance, but know that the lower the pH, the more the action of chlorine will be active).

Redox (ORP) between 300 and 900 mV (depending on attendance, usage and temperature, between 400 and 650 mV for domestic pool), factory setting on 550 mV.

To obtain a reliable redox reading and optimal disinfection, three essential elements must be checked:

- PH between 6.8 and 7.4 regulated by a **PHCONNECT**
- Isocyanuric acid (stabilizer) level between 30 and 50 ppm (maximum 70 ppm)
- Grounding the pond water or the analysis chamber.

**RXCONNECT** is a state-of-the-art automation system that is extremely simple and fun to use. At a glance you can view on your smartphone screen or tablet the different states of your pool. **RXCONNECT** makes it possible to automatically regulate the disinfectant threshold of your swimming pool for bathers' comfort and to avoid handling dangerous products. The regulation system by **RXCONNECT** is delivered with all the factory preset parameters, so it can be connected without intervening on the settings or settings except the calibration of the probe. The assembly, adjustment, the principle of operation and maintenance are very simple and everything is done from your smartphone.



It is imperative to calibrate the Redox probe with the 470 mV Redox buffer solution attached to the package before use. Calibration of the probe is done at least once a year at the start of spring. Proceed to wintering following instructions.

**RXCONNECT** automatically analyzes and regulates your chlorine level thanks to its specific probe. The reference Redox and the read Redox are always indicated on your application. The absence of the probe is a fault indicated on the case by the blinking of red LED "STATE" as well as on the screen.

**RXCONNECT** benefits from a double proportional and sequential control, this type of regulation takes into account the inertia of the volume of the basin and guarantees an optimal and stabilized regulation within its defined range and avoids the overdoses and overconsumption of correcting products. You can modify and customize the time settings of the sequential mode at your leisure.

**RXCONNECT** can be equipped with an end-of-tank sensor (optional ready-to-install) that indicates on the screen when the correction product can is empty and blocks the pump operation to prevent premature wear of the doser (this fault is also indicated on the **RXCONNECT** box by the flashing red LED "STATE"). A terminal block is already waiting on the card and its assembly requires no skill or adjustment. This is an extremely useful option and highly recommended..

## 2.2 Installation of the RX CONNECT system



- ***The electrical installation must be done by a professional.***
- ***All RXCONNECT devices have been individually tested in the workshop to ensure an irreproachable product in perfect working order. Consequently, no guarantee can be given to a new appliance with a defect, if the installation instructions are not respected and if there is no proof that the assembly was carried out by a qualified specialist with authorization. electric. This proof must be certified by an invoice paid.***
- ***Disconnect the appliance from the mains when installing it.***
- ***Always turn off the power before connecting or disconnecting a sensor.***
- ***Always turn off the unit using the On / Off button when filter washing.***
- ***Never open the device except for technical intervention.***

### 2.2.1 Mounting of the RX CONNECT box and connection in software control

When you have a PUMPCONNECT box in your installation, the RXCONNECT box operates automatically without any filter servoing and without any specific cabling. Simply place the plug on the RXCONNECT cable and connect it to a standard power socket. Connecting the RXCONNECT box to a socket allows you to physically disconnect the device from the power grid during a storm.

## 2.2.2 Mounting of the RXCONNECT box by connection in electrical servocontrol

**RXCONNECT** operates in servo with a classic filtration cabinet. It is advisable to install a slave socket on the contactor of the pool pump and to connect your slave devices. In addition, connecting the RXCONNECT box to a slave socket allows you to unplug the device during a storm.

In the following you will find two wiring possible, depending on whether your pumping system is single-phase (Figure 10) or three-phase (Figure 11).

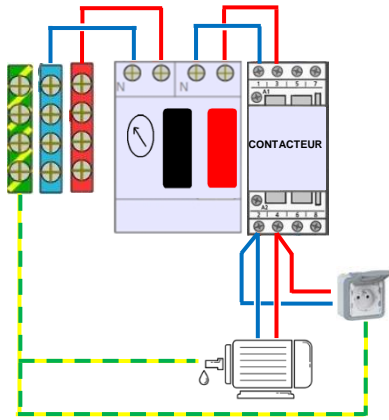


Figure 10 :: Single phase pump servo

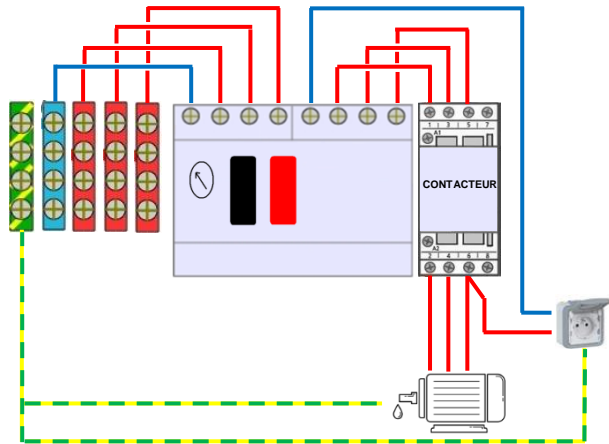


Figure 11 :: Servoing on three-phase pump

The electrical standard C.15-100, forbids to connect more than 2 wires on the same pin or electrical contact.

## 2.2.3 Mounting the Redox probe



- a redox probe must always be mounted vertically with its cord upwards; upstream of the injection of the correction product and immersed to the maximum.
- The cables of the PH or ORP probes must never be in the same sheath as the electrical cables.
- No warranty is given on Redox probes, it is a fragile measuring element and its handling and installation must be done with care.

Redox probe can be mounted in 2 ways:

### 2.2.3.1 Probe placed directly on the pipe (Figure 14)

We use the probe holder (Figure 12) that is screwed on the probe holder collar (Figure 13) delivered in your original carton.

In this case, make a hole of 14 mm on the pipe and mount on it the collar of support 50 mm x 2 "and the door probe delivered in the packing.



Figure 12 : probe holder



Figure 13 : probe holder collar

If the probe is installed on the pipe, it must be out of turbulence, in constant load and out of physical aggression.

To avoid any risk of turbulence, the probe must be placed on a straight pipe at least 50 cm after a PVC connection or other turbulence zone and a maximum passage speed  $\leq 1 \text{ m/s}$ .

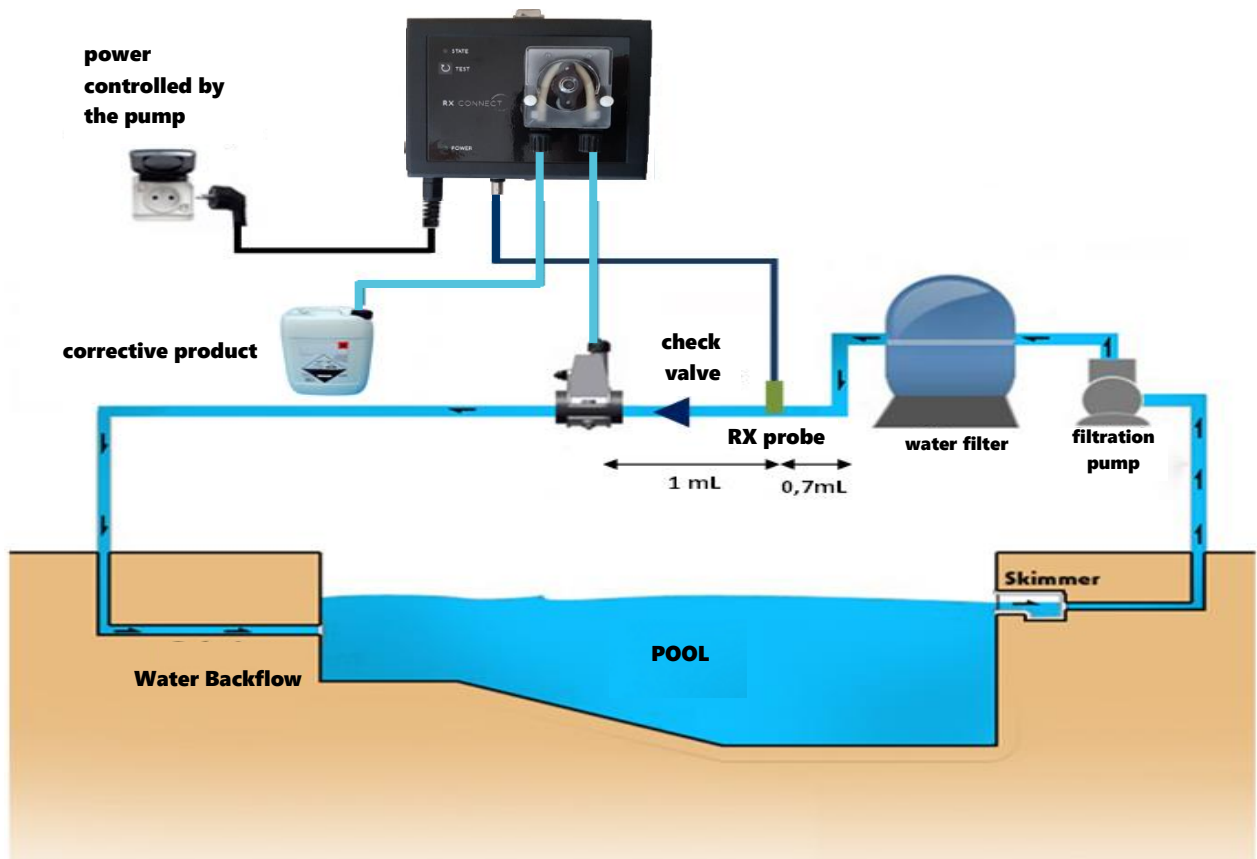


Figure 14 : RXCONNECT box assembly without analysis chamber



- The pipe on which the probe is mounted must always be supported.
- In case of air intake or defusing: the probe must be mounted with an analysis chamber and install a non-return valve between the probe and the injector to prevent any return of correction product.

### 2.2.3.2 Redox probe placed in an analysis chamber (Figure 15)

This method is strongly recommended for reading quality and longevity of the probe. The analysis chamber is optional equipment, so ask your dealer.

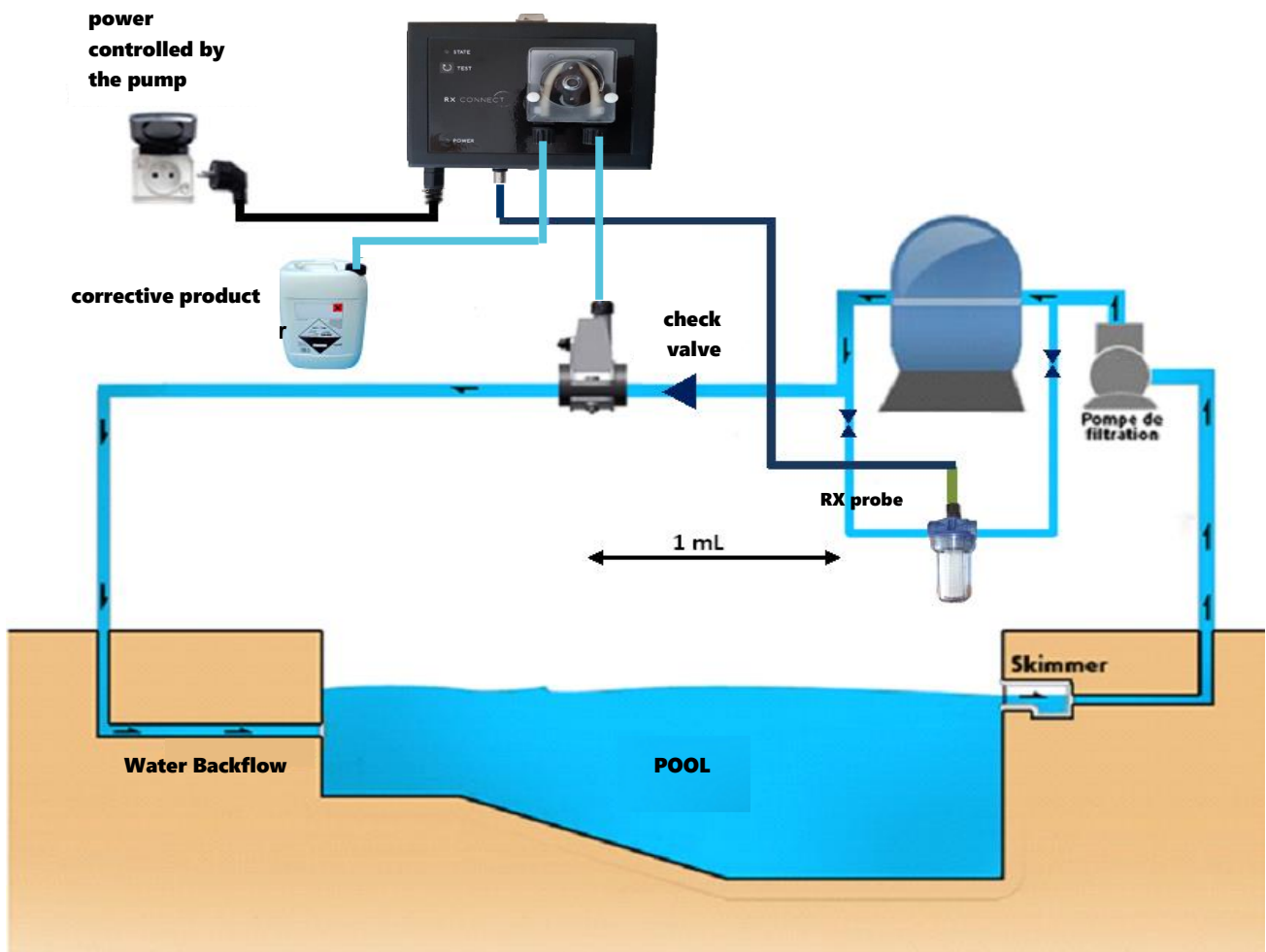


Figure 15: RXCONNECT box assembly with analysis chamber

### 2.2.4 POOL TERRE mounting

If the Redox threshold is not stable and oscillates, you have stray currents in the pool water. To verify this, put the probe in a seal filled with the pool water, if the display is stable, this confirms it. Possible resolutions to this problem:

1. Lay a POOL EARTH with ground stake independent of the house ground in a wetland.
2. Connect a ground to the BNC plug of the RXCONNECT box at ground stake.
3. Laying the probe in an analysis chamber with grounding of the chamber often gives good and quick results.

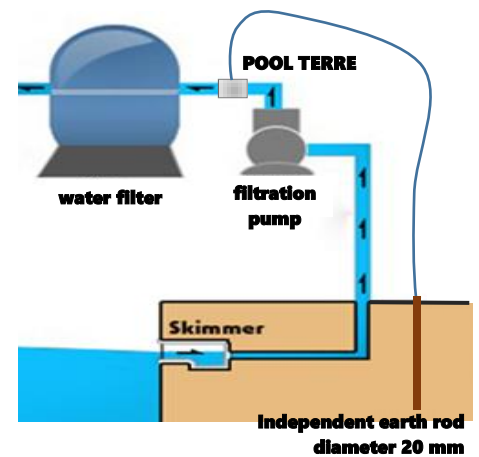


Figure 16 :POOL TERRE Mounting

### 2.2.5 Mounting of the dosing pump

Perform the pump assembly as shown (Figure 17) using:

1. The pump
2. The injector
3. The adapter 3/8 ", 1/2"
4. The injector collar 1/2 "50mm
5. Strainer
6. Ballast
7. The tubing that the installer will adjust to his installation

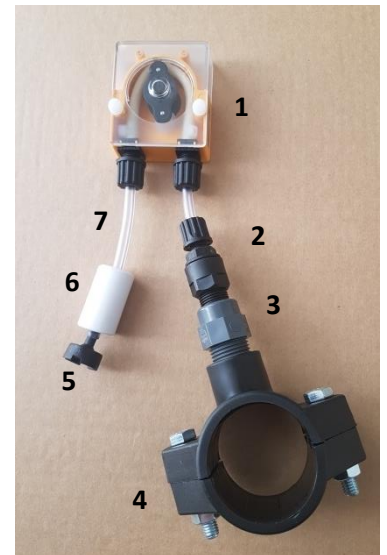


Figure 17 : pump assembly

## 3

# MAINTENANCE AND USE TIPS

### 3.1 PH probe and Redox (ORP) probe

Never leave the probes out of the water, especially over a prolonged period such as the winter, for this purpose, do not lose the end buffer or its storage bottle.

At the end of the summer season for wintering, take the probes out of their support, clean them meticulously and return them to their original submerged buffers (or flasks) filled with the special preservative and special renovator product based on KCl.

The pH and ORP probes for use with the **PHCONNECT** and **RXCONNECT** devices must be ordered from your dealer.

The average life of a probe is from a few months to 3 years after installation. A correctly installed probe should be changed every 3 years for maximum efficiency.

The life of a probe placed directly on the pipe is much shorter than a probe placed in an analysis chamber without counting the risks of breakage. (Its wear can be very fast a few months only).

Check calibration at least once a year, and at spring start-up



**No warranty is given on pH or ORP probes, it is a fragile measuring element and its handling and installation must be done with care.**



## 3.2 Peristaltic dosing pump or dosing device

Remove the Santoprene tube (rubber) (Figure 18) and **change it imperatively once a year**. **Lubricate at least once a year**, exclusively with silicone grease, the compression rollers of the Santoprène tube and be sure to replace the translucent protective cover.



Figure 18 : Santoprène tube



**NOT TO CHANGE THE TUBE CAN CAUSE IRREVERSIBLE DAMAGE TO EQUIPMENT, THE ENVIRONMENT, AND PEOPLE.**

## 3.3 End of tank sensor

Once a year at the end of the season, take it out of the tank, rinse it thoroughly with clear water and leave it in the open during the period of non-use. When restarting the spring, manually test the sensor before returning it to the tank.



## 3.4 Injector

The good state of the injector is a guarantee of a good general functioning of your device. The injector must be particularly well maintained and cleaned regularly during the season and this due to the natural effect of crystallization of liquid chlorine. Failure to change the Santoprène tube and the injector annually may result in premature wear of your equipment and have irreversible consequences on your equipment, environment and people.



Rinse the pump and its components at least once a month from scale deposits with acidic water or pure liquid pH min. Dip the strainer into the can of minus PH and keep the pump running for at least 5 minutes by pressing the TEST button.



**Imperatively change your injector every year. Use only liquid chlorine "anti-scale" which limits the effect of crystallization.**

## 3.5 Corrector product tank

It is advisable to use HDPE dosing tanks specifically designed for the storage of corrective products. But it is quite possible to keep the original 20 liter tank.



**Acid pH or base or correction tanks, as well as chlorine tanks, must always be far from electronic and electromechanical devices. NEVER PLACE BELOW.**

Steam fumes naturally released by these products can cause rapid and irreversible damage to your equipment. The tanks must be installed in a well ventilated place, if possible out of your room and **out of reach of children.**



**THE pH AND LIQUID CHLORINE RESERVOIRS MUST ALWAYS BE IN A PERFECTLY AERATED TECHNICAL LOCATION AND EQUIPPED WITH A HIGH AND LOW VENTILATION + A STEAM EXTRACTOR.**

## 3.6 Spare parts

Use only original spare parts. Any use of other products could irreversibly damage your device and automatically void the warranty.

# 4

## WARRANTY CONDITIONS

PH & RX CONNECT dosing pumps are guaranteed against all material and/ all manufacturing defect for 2 years as from the date of delivery to the first customer.

The purchase invoice must be forwarded with any claim under warranty.

This warranty is granted subject to strict compliance with the assembly and maintenance instructions.

The warranty will not apply in the event of non-compliance with those conditions.

No repairs or replacements carried out under warranty can result in any prolongation of the said period of warranty. The purchase invoice will be requested with any claim under warranty.

Under the terms of this warranty, the sole obligation placed on AQUALUX is replacement or repair free of charge, as AQUALUX sees fit, of the product or element found to be defective by the competent AQUALUX department. All other costs must be met by the purchaser.

To benefit from this warranty, all the products concerned must be forwarded beforehand to the AQUALUX After-sales Department, whose approval is essential for all replacements or repairs.

The warranty does not cover visible defects. Defects or damage caused by normal wear and tear, defects resulting from assembly and/or use not complying with instructions, and changes made to the product without prior written agreement from AQUALUX are also excluded from the warranty.

### Wear and tear parts

The peristaltic pipe is considered as a wear and tear part, as it is subject to a daily alteration and must be replaced once a year at least, thus it is not covered by the warranty.

The probe is considered as a wear and tear part, as it is subject to an ageing process depending on its frequency of use, thus it is not covered by the warranty.

**Legal warranty: Provided that the purchaser is able to provide proof of a hidden defect, the seller is required by law to make good all the consequences thereof (article 1641 and seq. of the French civil code).**

**If the purchaser brings a claim before the courts, he must do in a short time from the date at which the defect comes to light (article 1648 of the French civil code).**

### Note on environmental protection



After the implementation of the European Directive 2002/96/EU in the national legal system, the following applies:

Electrical and electronic devices may not be disposed of with domestic waste. Consumers are obliged by law to return electrical and electronic devices at the end of their service lives to the public collecting points set up for this purpose. By recycling, reusing the material or other forms of utilizing old devices, you are making an important contribution to protecting our environment.

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5

# SMARTPHONE INTERFACE USER MANUAL

## 5.1 Download application

The **SWIMBOX** app is available on Google Play and App Store. To download it, simply access the Platform corresponding to your Smartphone and enter **SWIMBOX** in the search box and follow the installation instructions..



The applications on Android and iOS are identical to a few details. These differences are due to the restrictions imposed by each operating system.

## 5.2 Home screen

After putting one of the boxes of the **SWIMBOX** network on, we launch the application by clicking on its icon.

For the Android application, a loading circle at the bottom of the window appears with a message "Connecting to **SWIMBOX**" (Figure 19) to indicate to the user that the application is connecting to



the **SWIMBOX** network and this in order to communicate with the different boxes of the network. During the Wifi connection step, the unlocking model is disabled and the user will have to wait. Once the connection is completed successfully, the loading circle disappears, and a message "Connected to **SWIMBOX**" (Figure 20) appears, finally the unlocking model is activated so the user can enter his model to unlock the

application.

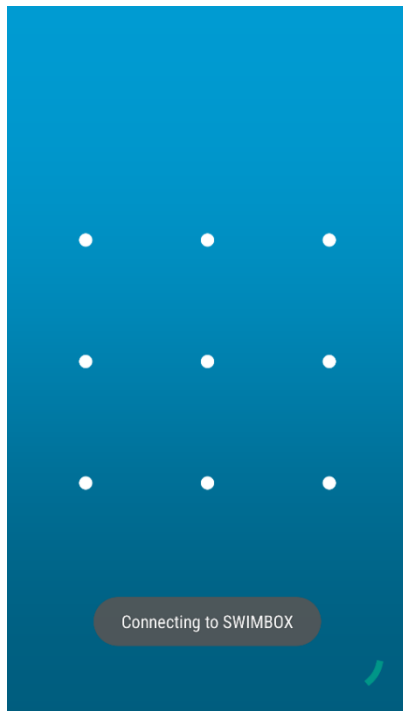


Figure 19 : The application is connecting to the SWIMBOX network



Figure 20: The application is connected to the SWIMBOX network

For the iOS application, upon opening the application a message appears (Figure 21) that tells the user to connect to the Wifi network **SWIMBOX**. To do this:

1. On your smartphone's home screen, go to  Wi-Fi Settings, and make sure Wi-Fi is turned on.
2. Select the name of the **SWIMBOX** secure Wi-Fi network.
3. Enter the Wi-Fi network password **SWIMBOX** that appears on the home screen of the application (Figure 21), then touch Join.

Once the connection to the Wifi network **SWIMBOX** successfully established, the user will have to return to the application where he will see the disappearance of the message and the activation of the unlocking model (Figure 22) to allow him to enter his model to unlock the app.

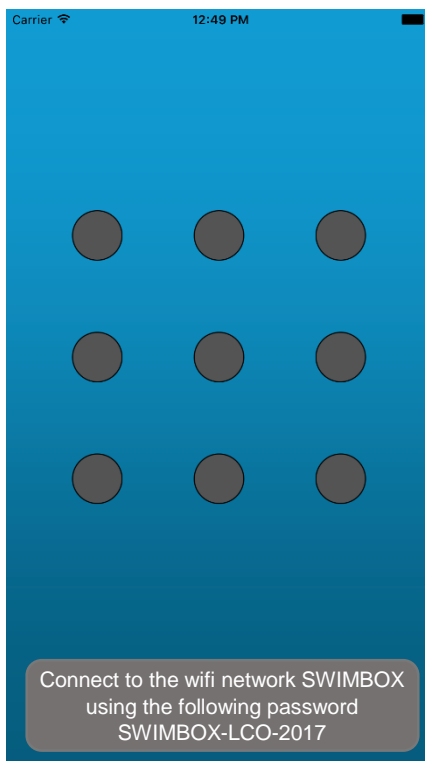


Figure 21: The login message of the iOS app

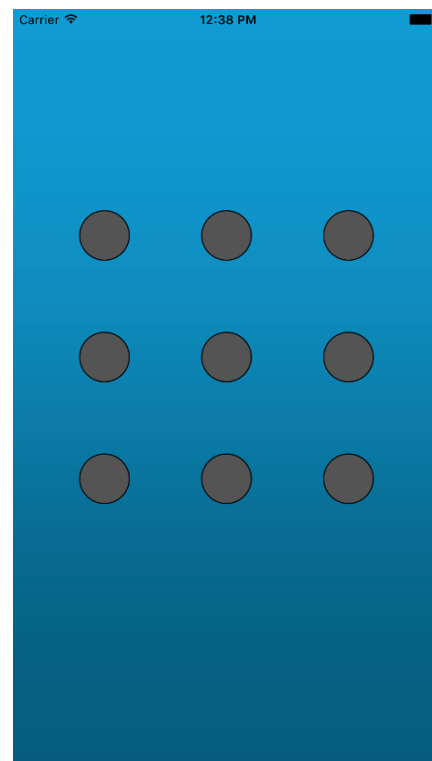


Figure 22 : iOS app home screen

As soon as you leave the iOS application, you will receive a notification from the application (Figure23) reminding you to disconnect from the Wi-Fi network SWIMBOX what you can do through Settings> Wi-Fi.

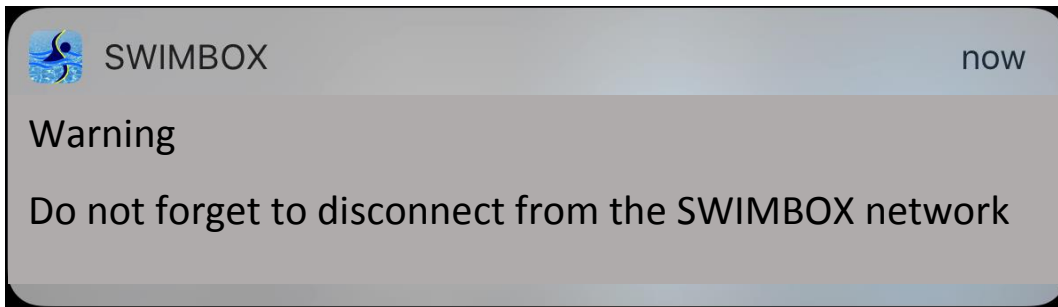


Figure 23 : Disconnect notification

Unlock the application by drawing the unlock template, which acts as a password, on the screen. In the case where the introduced model is correct, it is shown in green (Figure 24), and in the case where it is incorrect, it appears in red (Figure 25) and the application allows a new attempt.

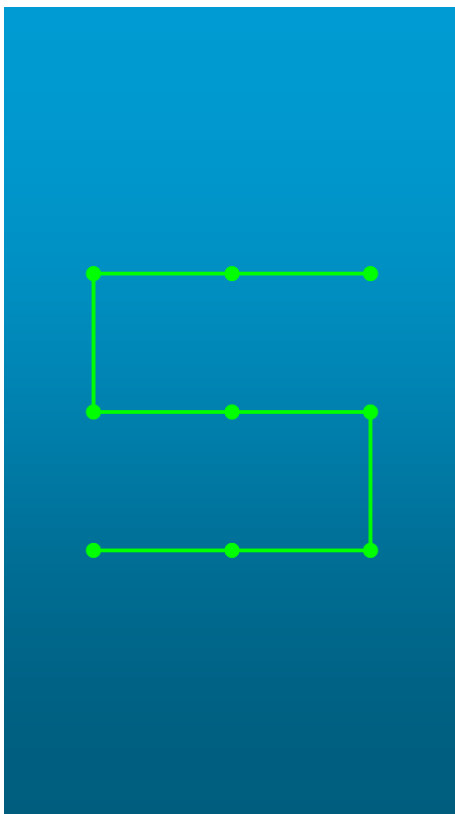


Figure 24 : Correct unlocking pattern

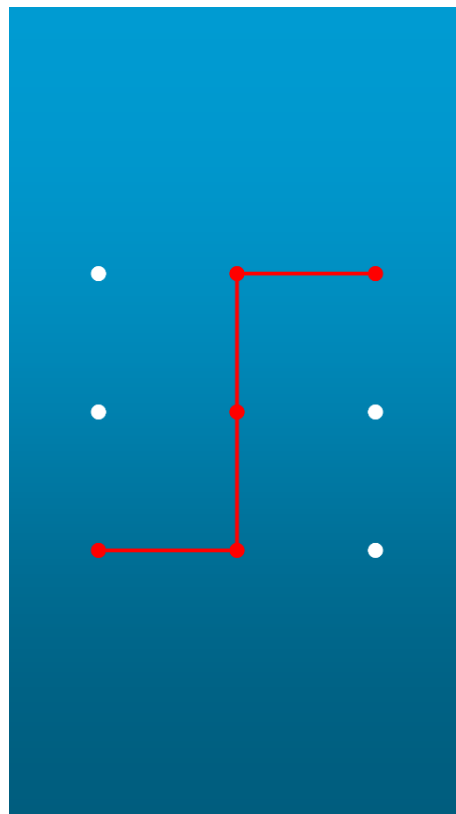
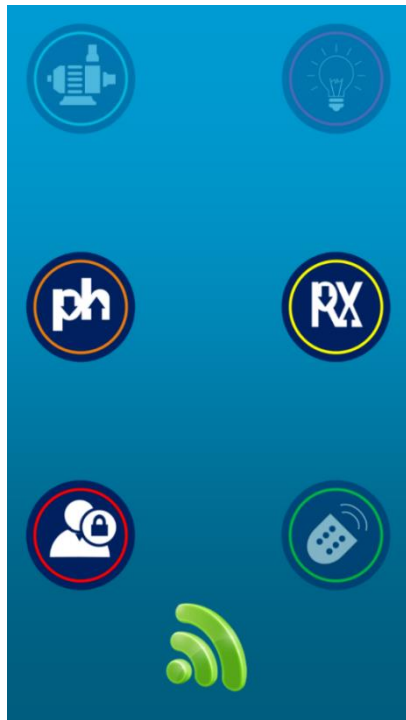


Figure 25 : Incorrect unlocking pattern


### 5.3 Main screen

When the user enters the correct model, he sees the main screen (Figure 26).







**Figure 26 : Main screen**



On the main menu, you can see the different features of the **SWIMBOX** network, the functions you have are bright colors and those not installed in gray colors. To access the installed functions just press the icon. As for grayed out functions; the one you do not have, they are locked and you can only unlock them if you get the corresponding box.

An action on the button  gives access to the user setting screen.


For the Android application, the Wifi icon informs us about the state of the connection between the **SWIMBOX** network and the Smartphone and the power of its signal. The icon can appear in 4 forms:

-  The connection is established and the signal is strong.
-  The connection is established and the signal is average.
-  The connection is established and the signal is weak
-  The connection is not established and this is due to two reasons:
  - Either you have gone beyond the reach of the **SWIMBOX** network
  - All the boxes of the **SWIMBOX** network are de-energized


For the iOS application, the Wifi icon informs us about the state of the connection between the **SWIMBOX** box and the Smartphone. The icon can appear in 2 forms:

-  The connection is established.
-  The connection is not established (in addition the message seen in Figure 21 will be displayed) and this is due to one of three reasons:
  - Either you have gone beyond the reach of the **SWIMBOX** network
  - All the boxes of the **SWIMBOX** network are de-energized
  - Either you are disconnected from the Wifi network **SWIMBOX**

## 5.4 User setting screen

When you press the button  a message (Figure 27) appears reminding you to put all the boxes of the network SWIMBOX you have power on (button ON / OFF) to be sure to change the password on all the network . To check that the boxes that you have are active just make sure that the corresponding icons on the main screen (Figure 26) are bright and not greyed which is a pledge of presence of the box on the SWIMBOX network.

On the unlock template entry screen (Figure 28) until you press the record button you can change the template as desired.

Once you enter an unlock pattern and you acknowledge that entry  . The new unlocking model is registered in all the boxes of the SWIMBOX network and the connection to the Smartphone interface will only be possible with it. If you try to save an unlock pattern connecting less than three points an error message will appear (Figure 29).

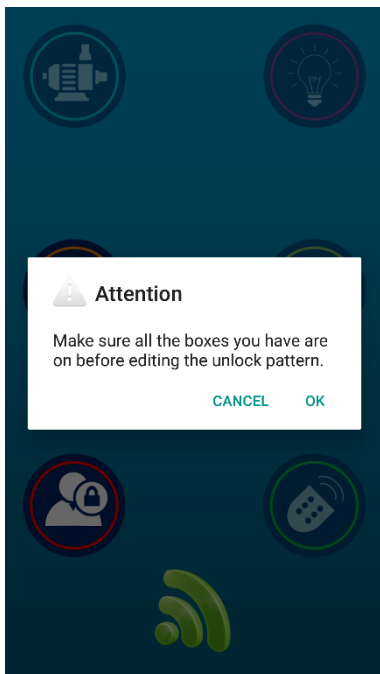


Figure 27 : Reminder message

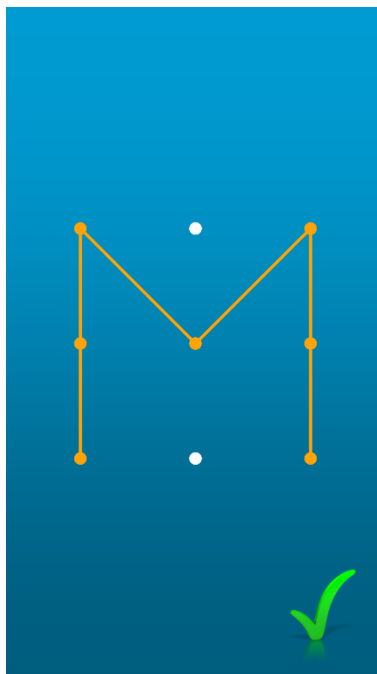


Figure 28 : Unlock Model Entry Screen

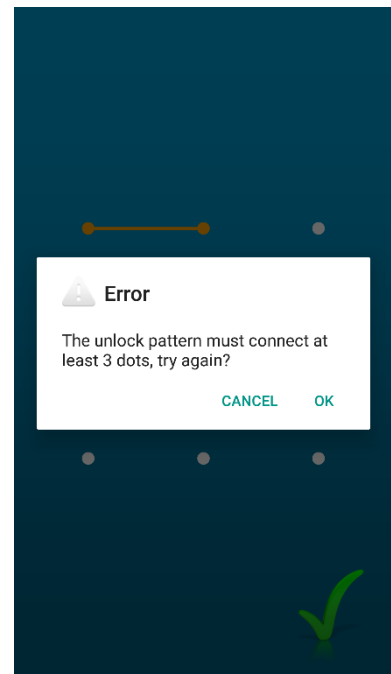
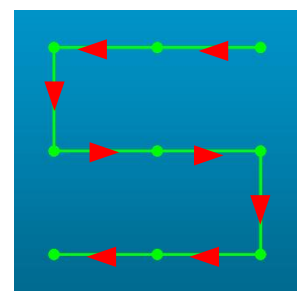


Figure 29 : The error message of the user setup screen

In order to restore the password of the **SWIMBOX** network individually, we proceed as follows on all the boxes of the network:

- ✓ We leave the Smartphone application **SWIMBOX**
- ✓ We put the box off
- ✓ Press the TEST pushbutton
- ✓ The box is turned back on by holding the TEST button pressed for 5s
- ✓ The LED lights up fixed
- ✓ Release the TEST button which causes the restoration of the default password opposite
- ✓ We redo the same steps for all the boxes of the network that you own



## 5.5 The pH function

### 5.5.1 Main screen of the pH function

When the user presses the button  , it accesses the main screen of the pH function (Figure30).

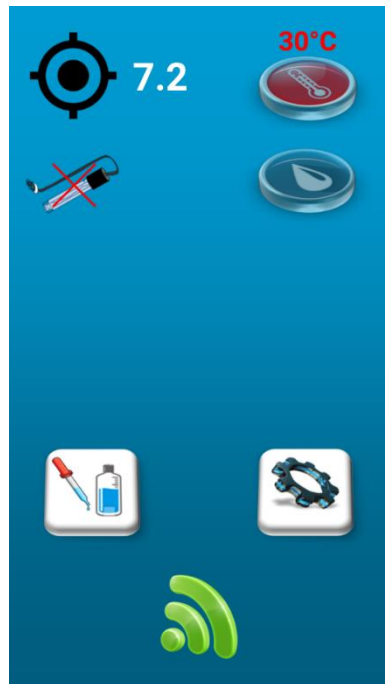










Figure 30 : PH main screen

Main screen informs the user on the status of the different equipment of the system:



- Next to the  icon, the reference pH value is displayed.
- If the temperature probe is connected, the temperature is displayed above the icon  otherwise no value is displayed.
- If the pH probe is connected and in good condition, the pH value is displayed next to icon  to icon
- If the pH sensor is not connected or defective, no pH value is displayed and the icon  appears.
- If the dosing pump is in injection mode, the icon  appears and this is also indicated on the **PHCONNECT** box by the red LED "STATE" which stays on as long as the pump is running..

**N.B: If you have the sensor missing product, the  icon appears if there is a lack of corrector product.**

Buttons  and  , respectively, allow you to start the tare procedure and access the setup screen.

The  Wifi icon performs the same functions as the main screen.

### 5.5.2 Tare procedure of the PH function

The tare procedure is simple and does not take much time (5 minutes maximum). By pressing button  on the main screen and confirming your wish to tare, you will go to the first screen of the procedure (Figure 31) as soon as you press button  the tare has definitely started and it is obligatory to go at the end of the procedure by following and respecting, to the letter the instructions of the application (Figure 31). As soon as the calibration is started, the pump is deactivated (for safety reasons).

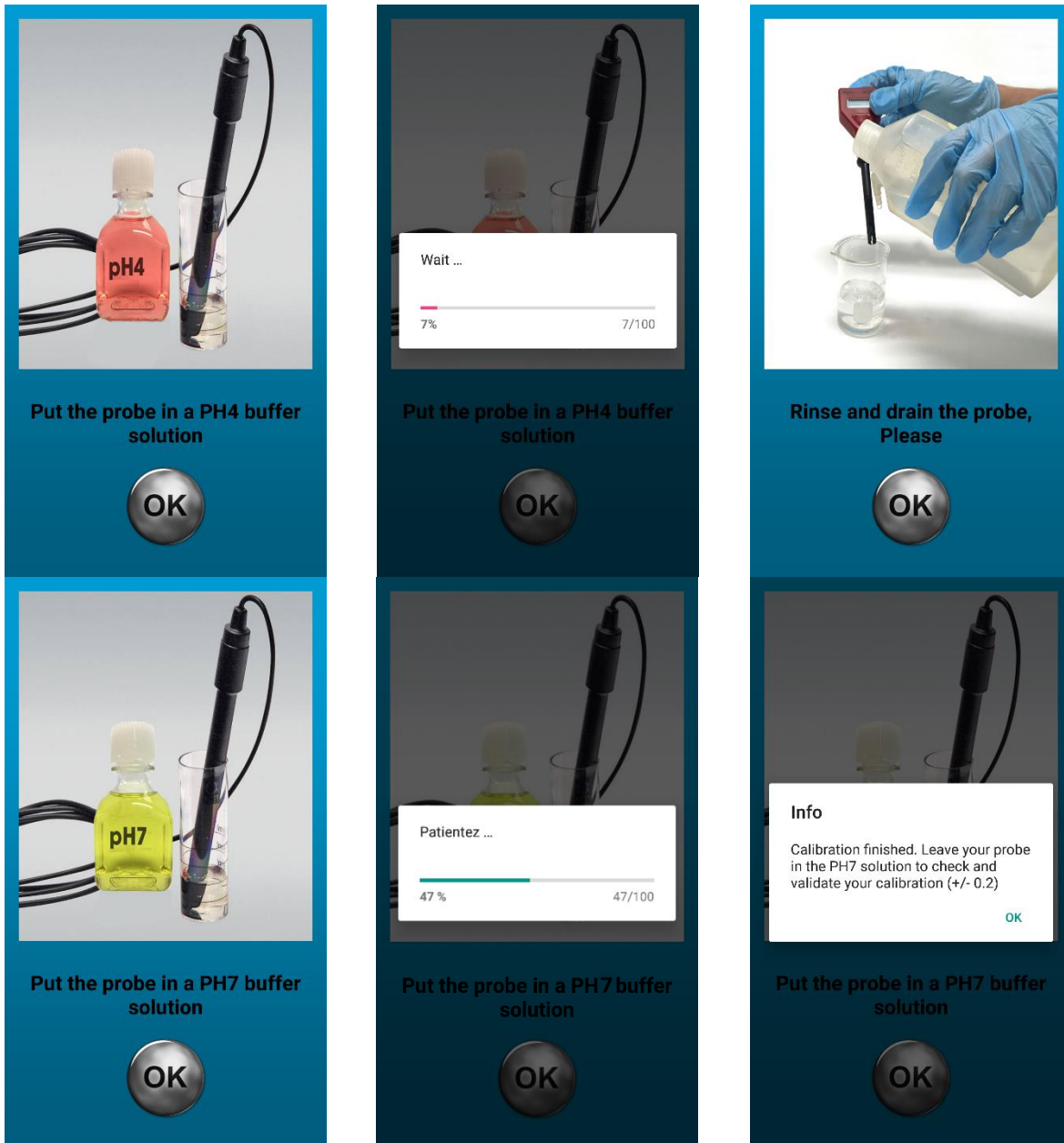


Figure 31 : The steps for setting the pH probe



If you do not reach the end of the calibration procedure, after 15 minutes the control box automatically leaves this procedure and the pump will be reactivated keeping the old calibration parameters.

### 5.5.3 Parameter screen of the PH function

The setup screen (Figure 32) allows the user to change the following settings:

- The reference pH by entering a value between 6 and 9
- The product by checking either PH- (Acid) or PH + (Base)
- The injection time, which must not exceed 240 minutes (4 hours)
- The restoration time which must not exceed 240 minutes (4 Hours)

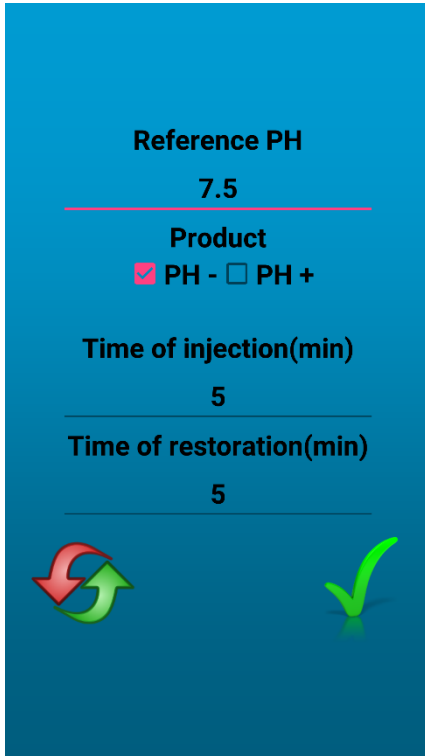


Figure 32 : Setup screen

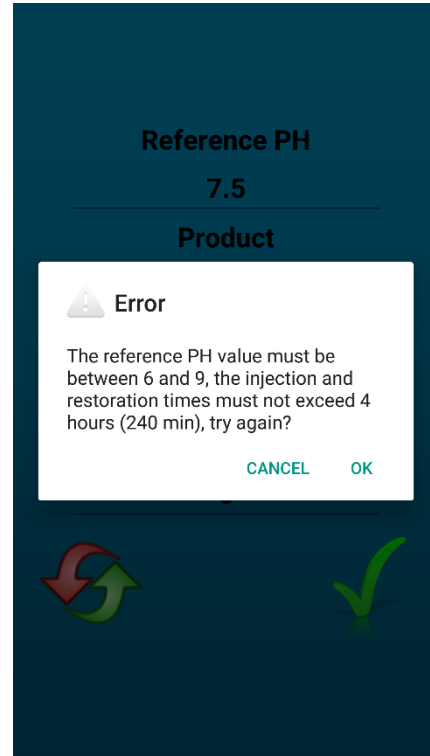




Figure 33 : The error message of the setting screen

To save the changes, the user must press the save button  , the end of the recording will be accompanied by the return to the main menu. In case you do not respect the intervals mentioned above, when you try to save an error message will appear (Figure 33).

In order to restore the factory settings, first press the button  that will reset the parameters to their default value then press the save button to save the changes.

The factory settings are as follows:

- The reference pH is 7.2
- The correcting product is PH- (Acid)
- The injection time is one minute
- Restoration time is 5 minutes

## 5.6 The RX (ORP) function





### 5.6.1 Main screen of the RX function


When the user presses the button , it accesses the main screen of the RX function (Figure34).



Figure 34 : REDOX main screen


The main screen informs the user about the status of the different equipment of the control unit:

- The reference redox value is displayed below the  icon
- If the Redox probe is connected and in good condition, the redox value is displayed below the  icon
- If the Redox sensor is not connected or defective, no redox value is displayed and the  icon appears.
- If the dosing pump is in injection mode, the icon  appears and this is also indicated on the box **RXCONNECT** by red LED "STATE" which stays on as long as the pump is running.

**N.B:** If you have the sensor missing product, the  icon appears if there is a lack of product.


Buttons  and  respectively allow you to start the tare procedure and

access the setting screen.


The  Wifi icon performs the same functions as the main screen.

### 5.6.2 Tare procedure for the RX function

The tare procedure is simple and does not take much time (5 minutes maximum). By pressing button

 on the main screen and confirming your wish to tare you will go to the first screen of the procedure (Figure 35). In this screen you can enter the value of your buffer solution (a value that must be between 200mV and 1000mV).

You must ensure that the value entered matches the value of your buffer solution. A bad value will cause a bad tare which will make reading the redox wrong.

Pressing the  button takes you to the second screen of the calibration procedure where you are asked to put the redox probe in your buffer solution. Once this is done press the OK button, and the tare has definitely started (Figure 36) and you only have to wait until the end of the latter which will be accompanied by the display of a message ( Figure 37). Just press the OK button to return to the main menu to check the calibration. As soon as the calibration is started, the pump is deactivated (for safety reasons).

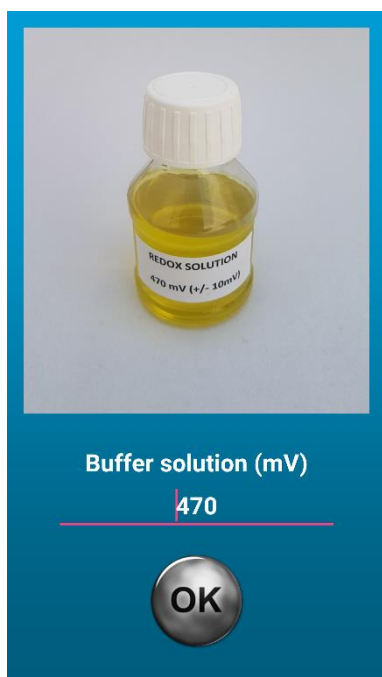


Figure 35: Screen of the choice of the buffer solution

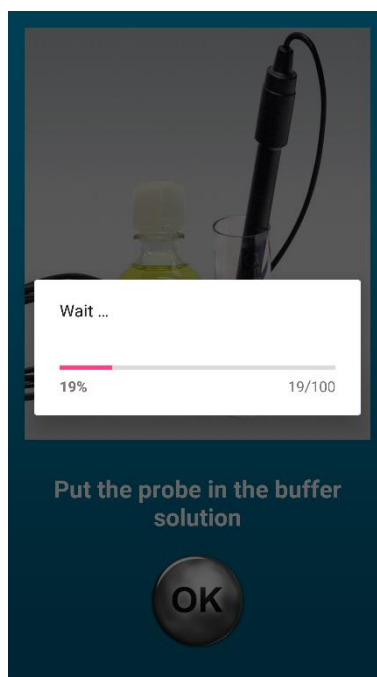


Figure 36 : Taring in progress

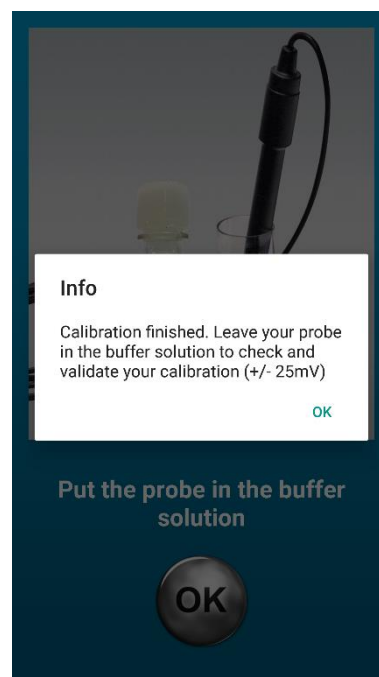


Figure 37 : End of tare message

### 5.6.3 Parameter display of the RX function

The setup screen (Figure 38) allows the user to change the following settings:

- The reference redox by entering a value between 200mV and 1000mV
- The injection time, which must not exceed 240 minutes (4 hours)
- The restoration time which must not exceed 240 minutes (4 Hours)

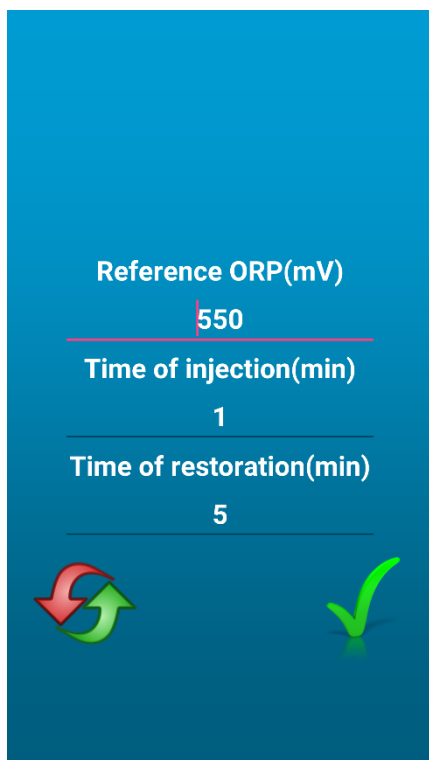


Figure 38 : Setup screen

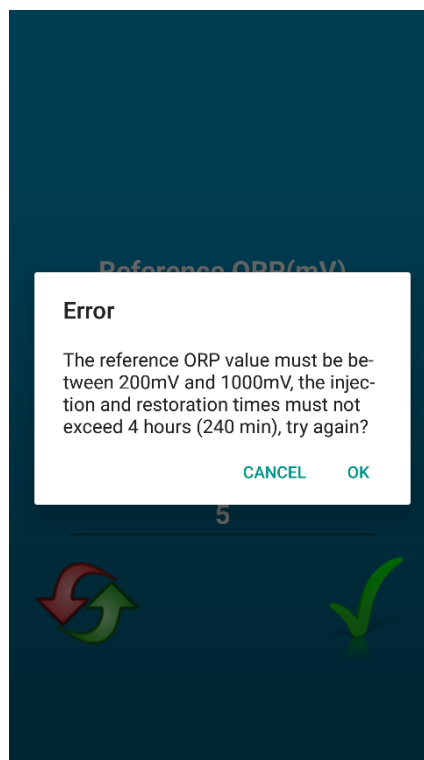




Figure 39 : The error message of the setting screen

To save the changes, the user must press the save button , the end of the recording will be accompanied by the return to the main menu. In case you do not respect the intervals mentioned above, when you try to save an error message will appear (Figure 39).

In order to restore the factory settings, first press the reset  button, which will reset the parameters to their default values, then press the save button to save the changes.

The factory settings are as follows:

- The reference redox is 550 mV
- The injection time is one minute
- Restoration time is 5 minutes
- The value of the buffer solution is 470 mV





