Phredo

REGUL'
ÉLECTRONIQUE
Peace of mind

Phredo - Double Phredo and Phredo SP-SPE

pH or Redox regulation or Doser

Manual
and installation

edition
30062018

DESIGNED AND MANUFACTURED IN FRANCE SINCE 1989

Precautions for use

Security

- Make sure that the power supply voltage of the device does not exceed 240v AC, or 50Hz.
- If liquids or any object had entered the housing, disconnect the electrolyser and have it checked by a qualified technician before handing over the service.
- Prohibition of drilling the box.
- The electrical control cabinet must be find near the electrolyser and be easy to access.
- This device is not disconnected from the power source as long as it stays connected to the electrical control cabinet, even if it has been turned off.
- After turning off the power at means of the on/off switch, do not open the device before total extinction of the lights.
- Do not install the electrolyser nearby from a source of heat.
- Do not store product cans chemical near the device.

Transshipment

Keep the original carton and the packaging material; they will be very useful if one must ship the device back one day.
To ensure maximum protection, repack the device as packed at the factory.

FABRICATION FRANCAISE

www.regul.fr Regul electronic designs and manufactures on site, in France, all of its products of salt electrolysis, pH regulation and water level regulation.

Advisory

Phredo is an electrical device that must not be exposed to rain or moisture.
To correct the pH, never use hydrochloric acid but pH-ready to employment.
The technical room must be correctly ventilated.
The power supply must be protected upstream by a differential circuit breaker 30mA.
To avoid any risk of electrocution, open the box only for its installation or service intervention (to change an electronic card), after having cut the power supply.

garantie 3 ans

- You have just bought a Régul'Electronique device, thank you for your trust.
- Unless otherwise specified particularly, the guarantee of our devices are 3 years from the date of your invoice.
- The cells and the pH probes have a guarantee of one year.
- Excluded from the guarantee are all wear parts (fuses, batteries, seals, valves, pump etc ...)
- This warranty is limited to the suppliers of our Society. It consists of the repair, by us and in our workshops, defects in manufacturing and matter, that the customer will have to prove.
- The equipment must be returned to us Free of charge.
Costs of removal, rests and transportation are excluded of the guarantee.
- In all cases, our liability is limited to replacement of defective parts without no compensation or damages and interest be claimed for material or bodily injury caused.
- The warranty ceases when our equipment is modified outside our workshops.
- The warranty does not apply to replacements or repairs that would result from normal wear and tear of material, deterioration or accident from negligence, lack of supervision or maintenance, non-conforming installation or abnormal use of the devices.
- In cases of inappropriate treatments and adjustments, our responsibility cannot be engaged, especially in case of corrosion, paint snags and defects related to excessive constraints of use, or if the equipment must, by these conditions, be brought to work at too fast rates supported.

Content

Precautions of use 2

Location of control system 4

Content of the box 5

Installing the device

Fixation - Device connections 6

PH and redox probes 7

Settings before getting started 8

Getting started

The pH function 9

The redox function 10

The dosage function 11

Calibration and Setpoint

The pH function 12

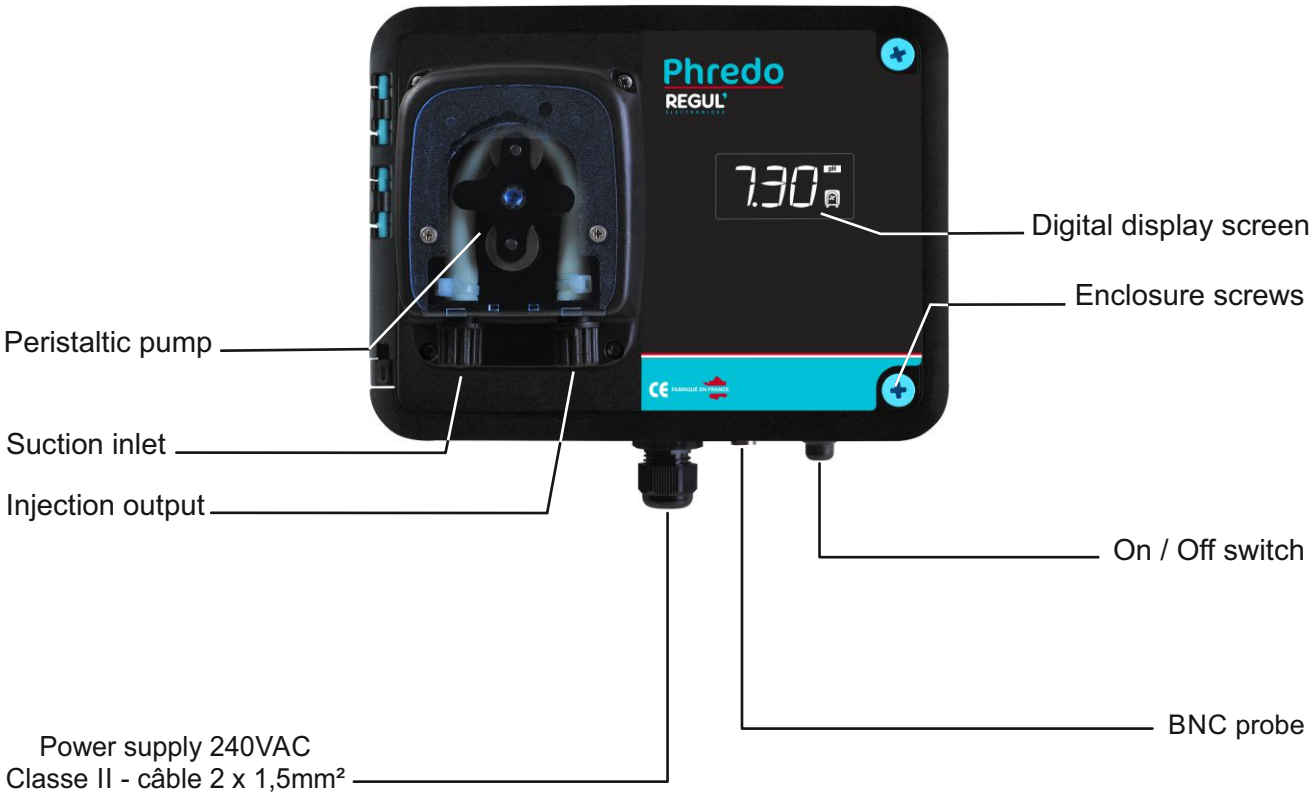
The redox function and Doser 13

Phredo SPE Piloting an electrolyser 14

Control of the functions 15

Location of control systems

Front view



Checks to be carried out before starting up the device

- The pH must be between 7.2 and 7.4. A weekly check should be made with a tester for correction on the pH (and thus make sure that the regulation of pH is working properly if the device has one).
- The TAC must be at least 10 ° F or 100ppm, this must be checked monthly, if necessary add a TAC booster.
- The chlorine stabilizer, which is associated with the salt (Aquaswim), brought by the use of slow chlorine pebbles and shock chlorine pellets or manually, should not exceed 20 mg / l.
- If products need to be added manually (pH corrector), they must be dissolved in a bucket or watering can and spread on the surface water, never put directly into the skimmer, after stopping the device.

The use of hydrochloric acid is prohibited!

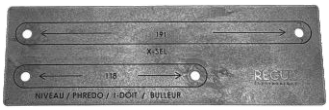
Content of the box

Check the package to make sure it contains the following :

The Phredo

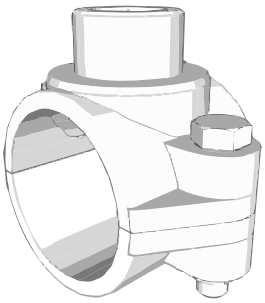
Installer's manual

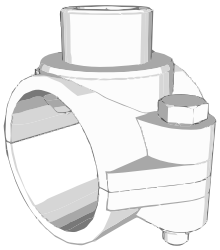
Template



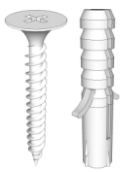
Probe fixation

Support collars





Dowels and fixing screws

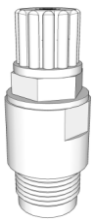


x2

Accessories

suction ballast

injector



flexible aspiration crystal tube

rigid injection opaque tube

Installation of the machine

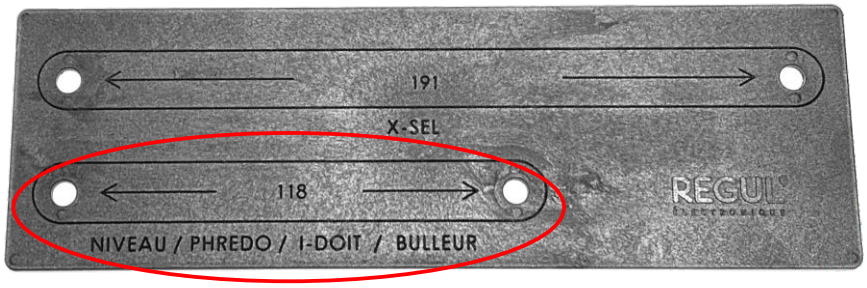
Fixation

Phredo is supplied with a drilling template to simplify its placement.
In order to maintain the performance and reliability of the device, provide the necessary space between it and the nearest obstacles.

Drilling the cabinet causes the removal of the warranty.

The device must be fixed in a properly ventilated room and protected from any water splashes.

Plaque de gabarit des appareils Régul'



Measure with drilling template
Hole spacing for Phredo

2x stainless steel screws 4x35mm

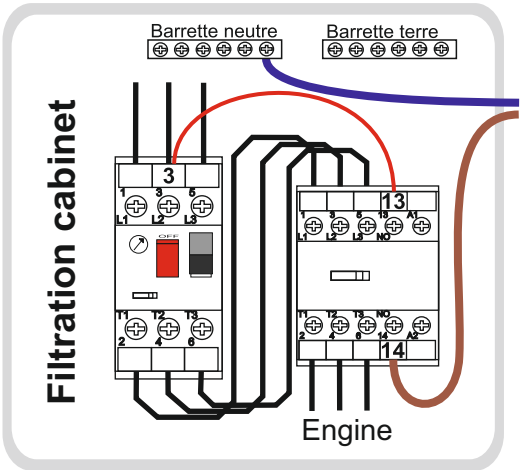
2x Dowels diam.6mm

Using the materials provided, which were chosen for their qualities.
Stainless steel screws for a better hold.

Use the drilling template.

Device connections

Phredo is enslaved, it must work only the time of filtration.
When connecting control electronics, use flexible cable.



Risk of electric shock
Before working on the device, switch off the power breaker

1- Add a wire on the input of the circuit breaker and the contactor input (on the example red wire between the 3 of the circuit-breaker and the 13 of the contactor). If a phase already occupies this terminal 13, needless to add a wire, go to the next paragraph.

2- Connect a power cable from the unit to the filter cabinet (2 x 1.5mm²).
The phase, brown wire, on terminal 14 of the contactor, auxiliary contact.
Neutral, blue wire, on the neutral bar.

3- Plug the cable into the device on the screw terminal block, intended for power supply, on the electronic board (brown on P and blue on N).

PH and redox probes

The probe must be placed between the filter assembly and the electrolysis cell, heating etc ...

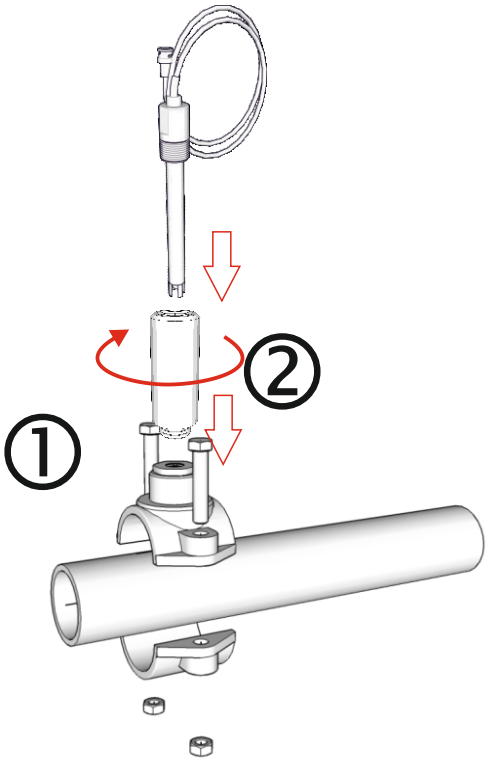
Installation of the probe

The probe must always be positioned vertically

1 - Install the support collar on the piping.

2 - Screw the probe holder.

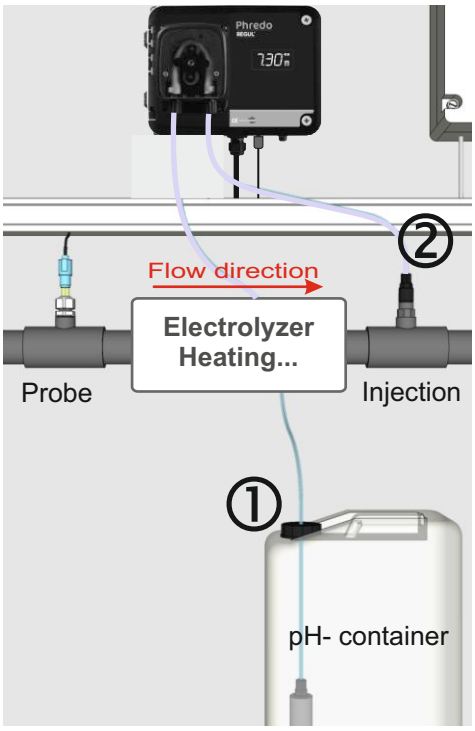
3 - Screw the probe firmly with your hand and plug it on the Phredo connector to its BNC plug (page5)



Installation of injection system

1 - Drill the cap of the liquid container inject (diameter 6mm) pass the crystal tube and connect the suction ballast which go into the bottom of the can. Connect the other end to the part left of the Phredo pump.

2 - Screw the injector on the reduction 1/2 "- 3/8 "Connect the opaque tube to it and the other end on the right side of the pump. mité sur la partie droite de la pompe.



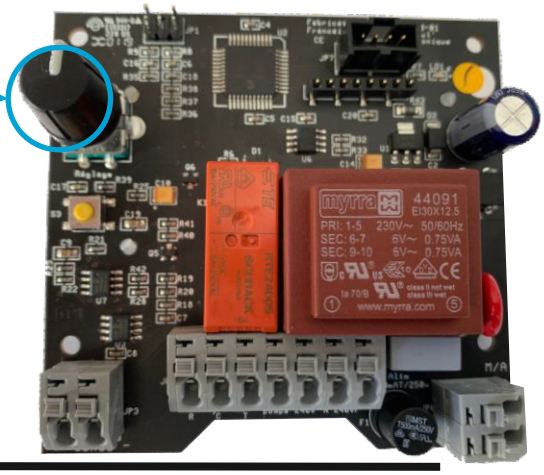
Settings before getting started

Startup settings

The unit has a single adjustment knob that allows you to adjust all operating parameters.

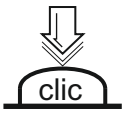
Control button

By a click or by turning the knob it is possible to simply access all the functions of the device settings.
- Choice of use function, pH, ORP or Doser.
- Volume.
- Injection pump flow for a delivered device without pump (Phredo SP).
- The quantity of liquid to inject.
- etc ...



The control button allows, to enter the menu to change the displayed options, by pressing a button, turning it, to modify and save values.

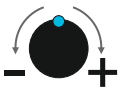
Click



a 2 "long click to modify data

a brief click to validate

Turn



To increas or decrease a value

LCD Display

The display lights up completely at each start for one second

The display lights up completely at each start for one second
One of these segments is displayed when one of the functions,

This symbol indicates the state of the injection pump. It also indicates the control of an electrolyser, in the case of a Phredo SPE, ORP or a Xsel REDOX

3 digits display for the values measured by the probes

The state of the pump

works 8' — Sign flashes

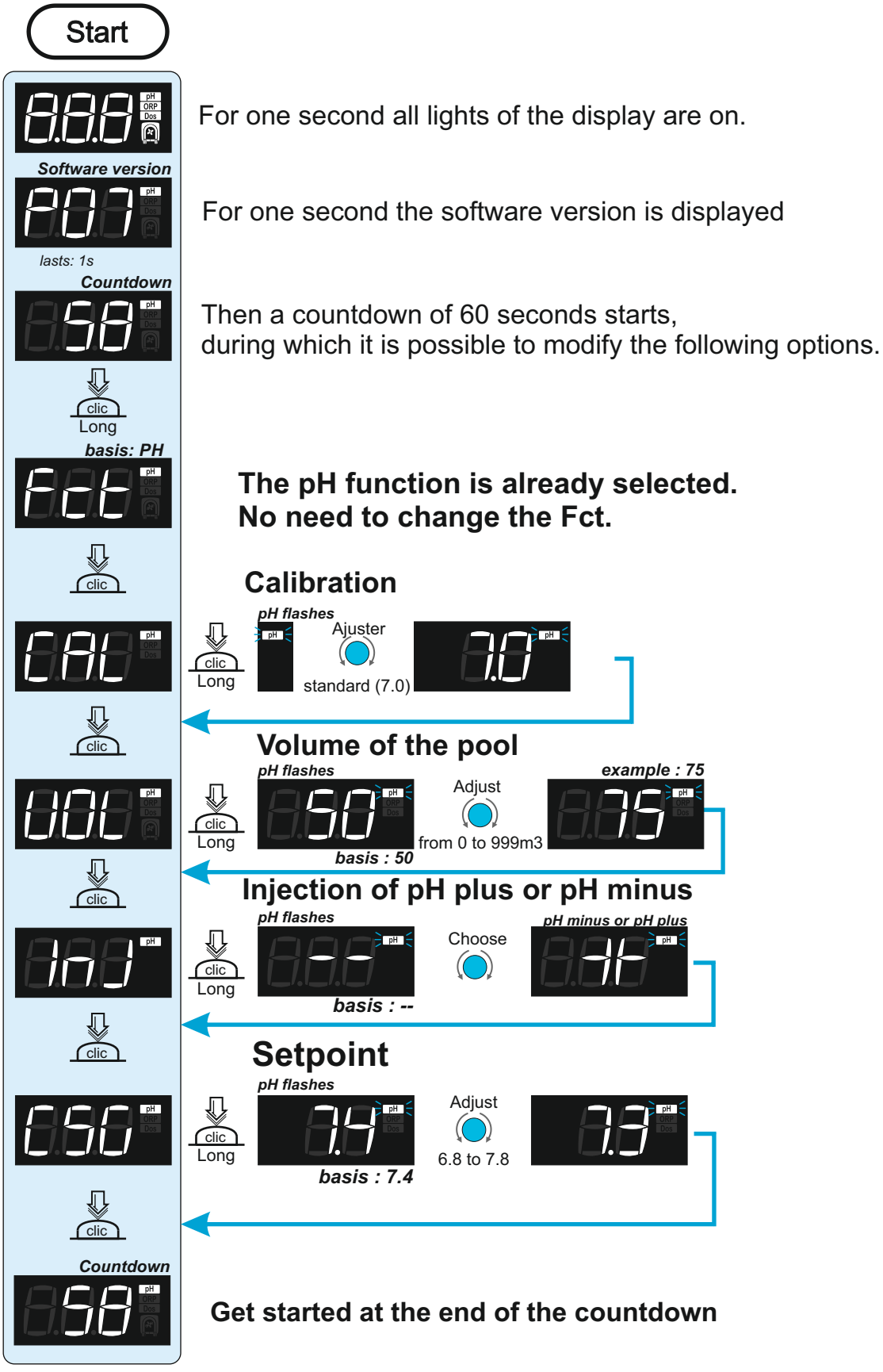
pause 12' — Sign is on

stopped — Sign is off

Getting started

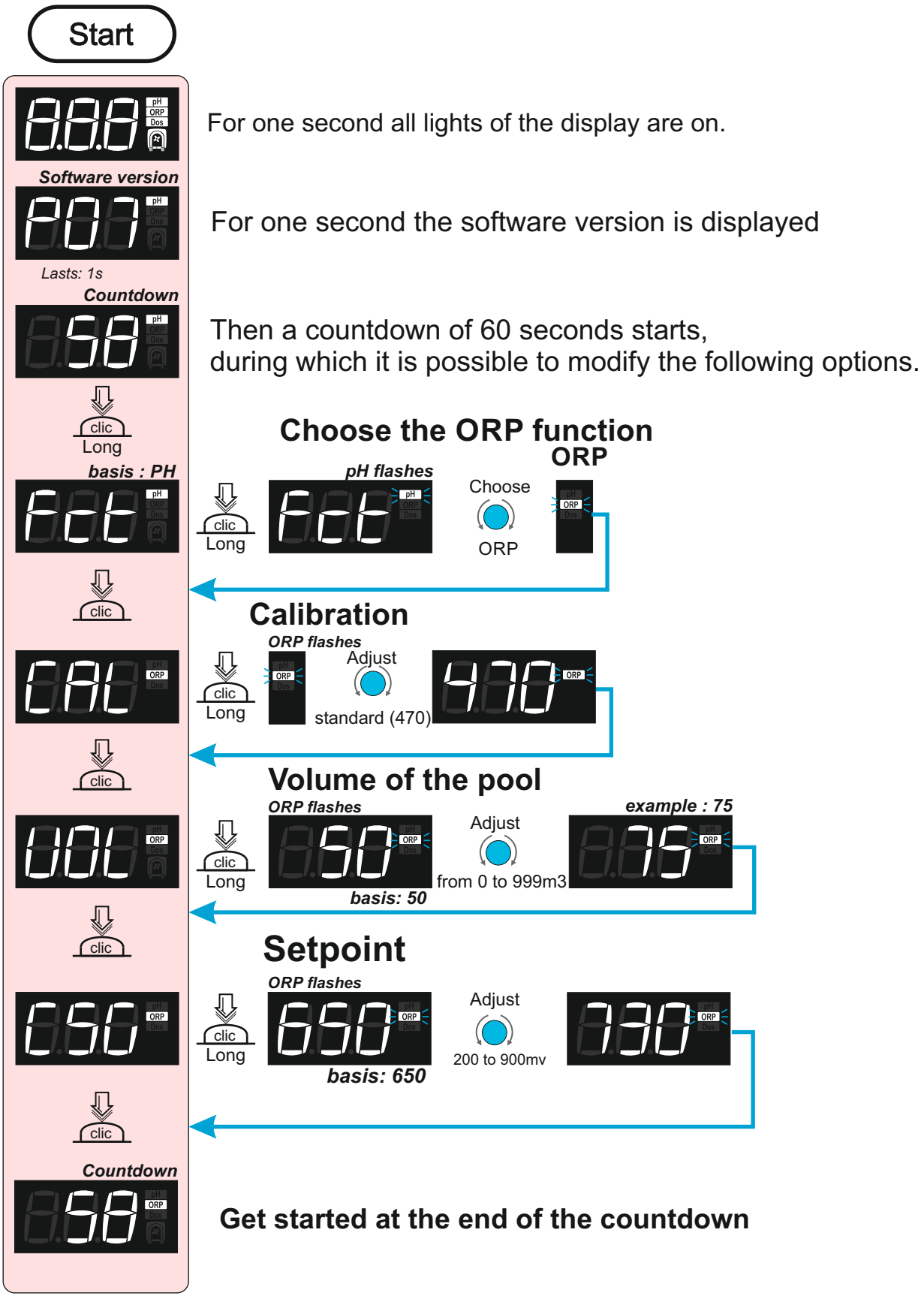
Function pH

Settings required for the first start of the device



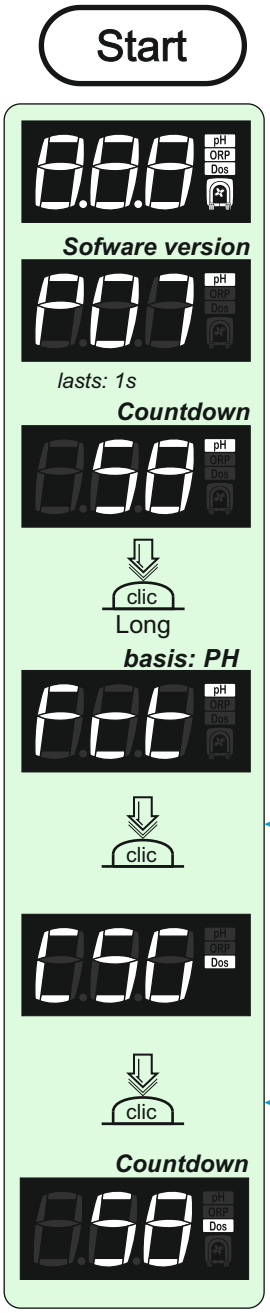
Function Redox

Settings required for the first start of the device



Function Dosage

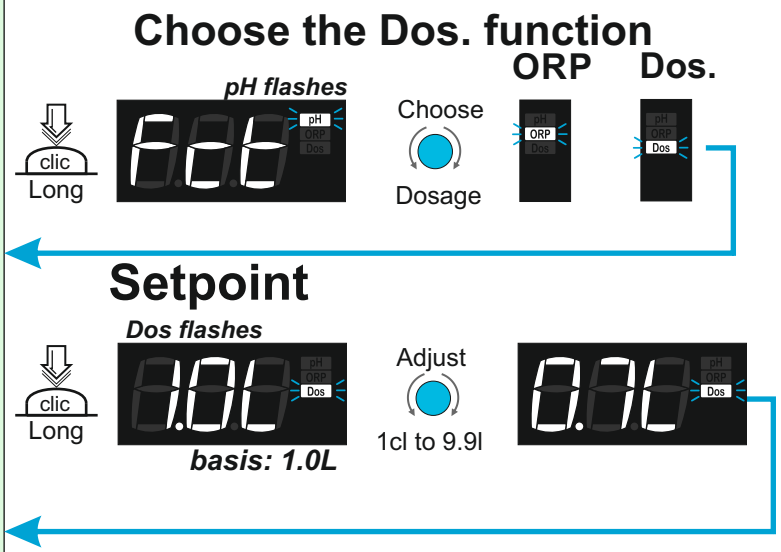
Settings required for the first start of the device



For one second all lights of the display are on.

For one second the software version is displayed

Then a countdown of 60 seconds starts,
during which it is possible to modify the following options.



Get started at the end of the countdown

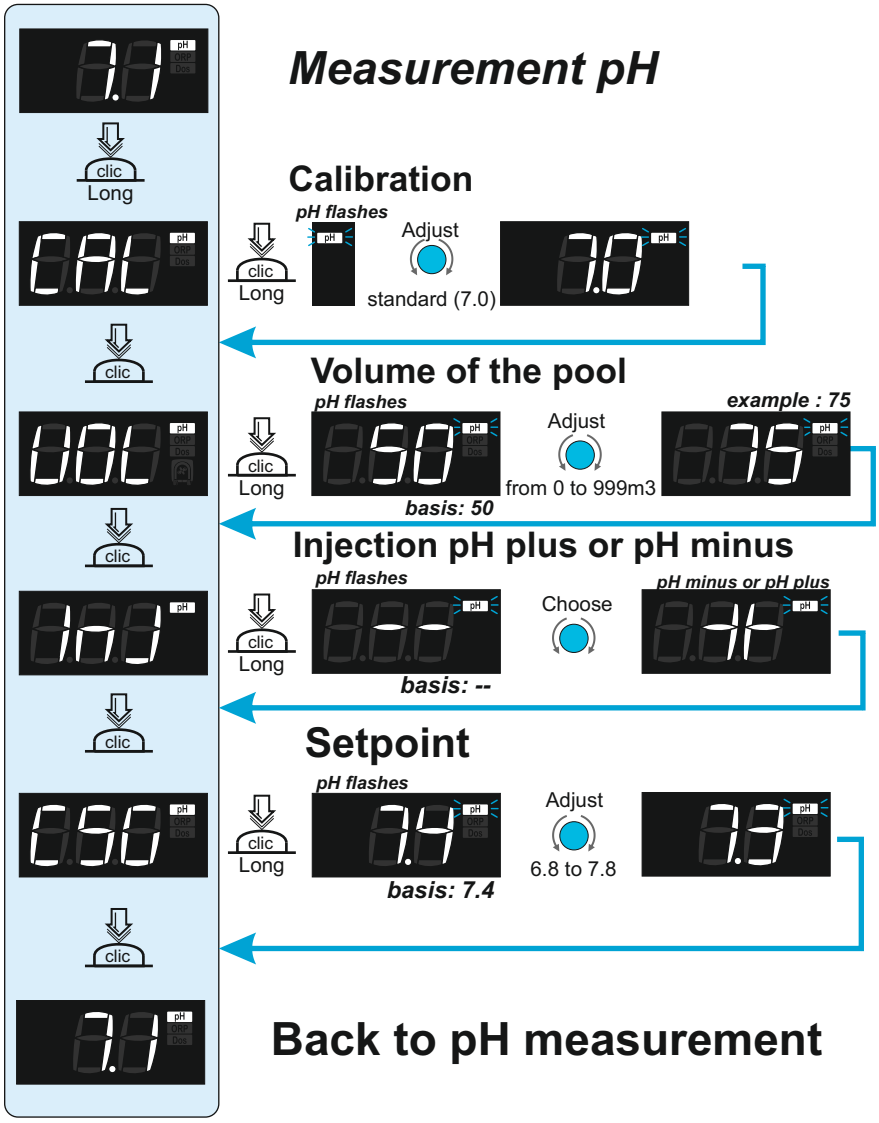
Calibration and Setpoint

Function pH

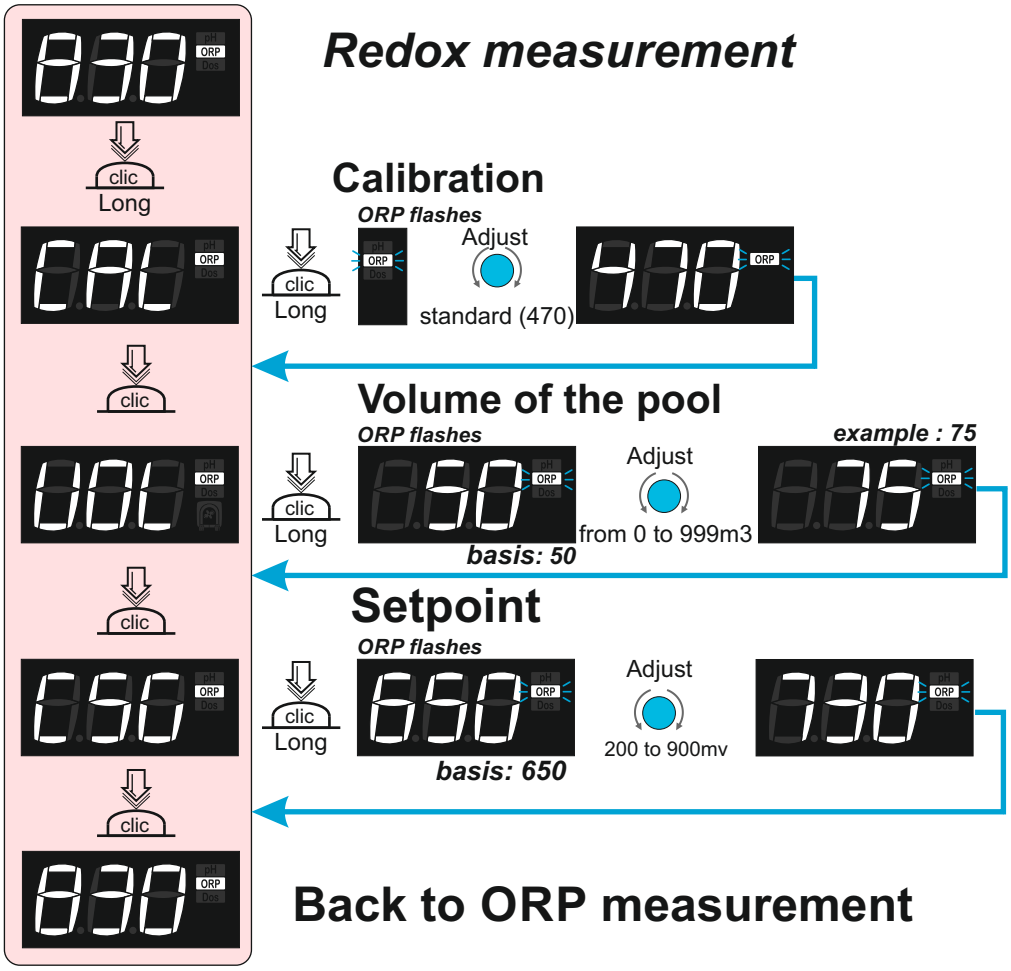
Phredo processes the information measured by the pH probe and manages the injection pH- (or pH +) depending on the setting chosen.
The adjustment of the injection set point makes it possible to regulate the pH and the redox to a desired value. Calibration the pH or redox probes with a appropriate solution.
The injection pump performs cycles of 8 min with a variable installation depending on the measurement deviation from the setpoint, below 10m3 the injection time automatically adapts to the set volume.

At all time, it is possible to correct the wanted values.
The calibration of the probe is done under tension.
It is not necessary to use a standard solution if the pH in the pool is known precisely.

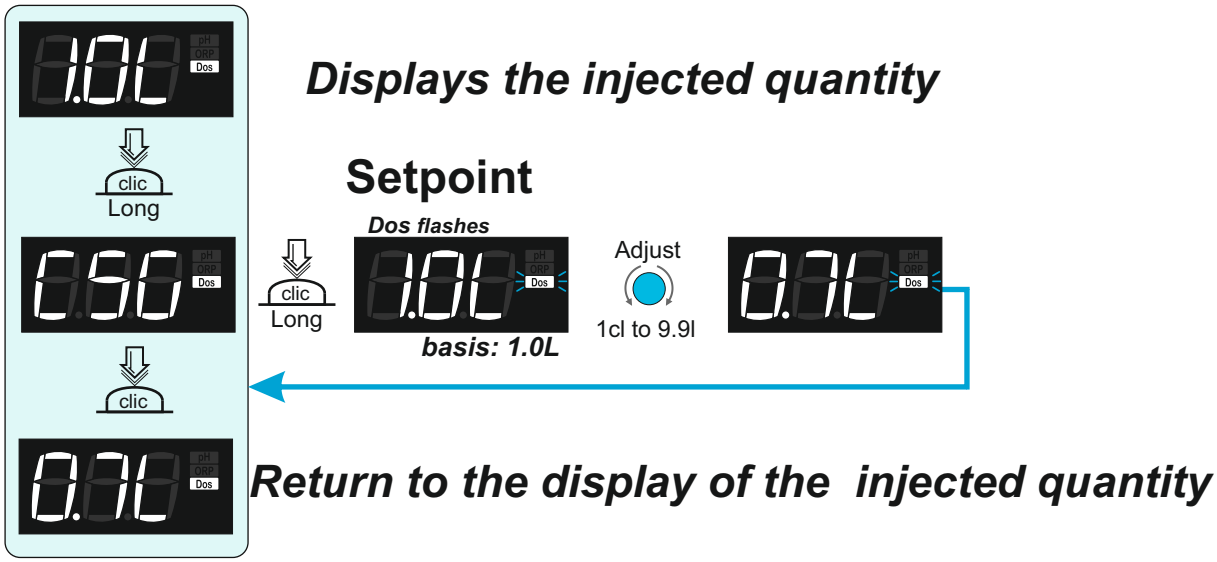
Connect the BNC of the pH probe to the device.
Remove the cap probe protection and place it in the container of solution (comes with the unit).



Function Redox

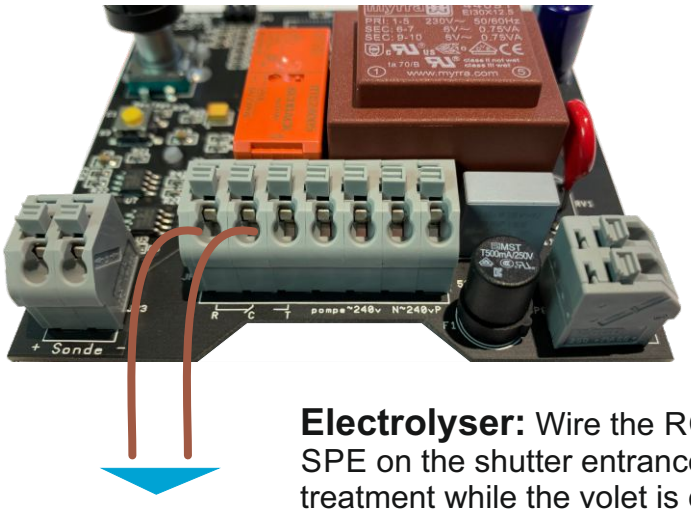


Function Dosage



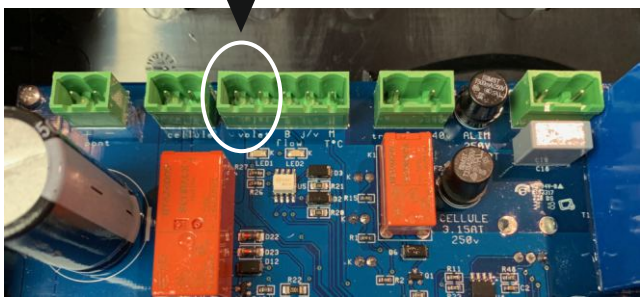
Phredo SPE - Piloting an electrolyser

The Phredo is equipped with a relay allowing to control a pump of big flow or piloting a electrolyseur for an indoor swimming pool. Phredo SPE can control the chlorine production of an electrolyser by measuring redox in order to maintain a properly disinfected water. It also limits the production of chlorine, especially under firm shutter, avoiding any risk of over-chlorination and thus protecting the equipment (liner, shutter).

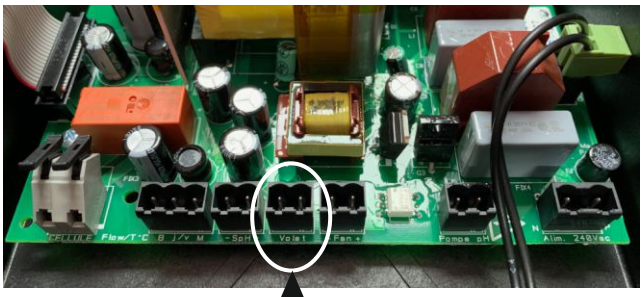


Electrolyser: Wire the RC contact, dry contact of the Phredo SPE on the shutter entrance of the Regul electrolysers. The treatment while the volet is closed must be set to STOP in order to stop the treatment when the desired redox value is reached. (switches on the Xsel or adjust the use while the volet is closed on iDOit, see respective instructions).

On the Xsel



Xsel – Connector with roller shutter



iDOit – Connector with roller shutter

On the iDOit

Control of the functions

Information

How to remove the santoprene tube:
Important, for the after-sales service of a device with a pH pump, it is essential to remove the santoprene tube to avoid spraying acid into the box during transport.

- Remove the glass
- Pull the left soproprene tube to release it

Pulling the tube will turn the pump manually.

- Remove the santoprene tube.

To replace / change:

- Place the left part of the tube.
- Turn the pump by engaging the tube in its housing.
- Replace the pump glass.

Error messages

Message and check up	The display or dEF flashes
	 ***Reading error / regulation HS Probe, empty canister.*** 

The display flashes: Indicates that the probe is at the limit of operation or calibration. **So change the probe.**

dEF flashes: when the pH or redox in the pool does not reach the injection setpoint.
Check:
- the can is empty
- the measurement is too far from the instruction
- Adjustment of the pool volume

To delete dEF:
- After changing the bottle or checking the probe.
- Open the door of the and and then press the adjusting bolt until the measurement reappears.

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