Instructions for use

ENGLISH

In-situ chlorine generator + pH regulation

PRO

welldana®

PAPI004253-M - Version 23.03

TABLE OF CONTENTS

ENGLISH

1. GENERAL DESCRIPTION

1.1. Functions performed

Model	Chlorine production via electrolysis	pH regulation	Regulation of chlorine production with ORP probe
DUO	✔	✔	
PRO	✔	✔	✔

1.2. DataSheet

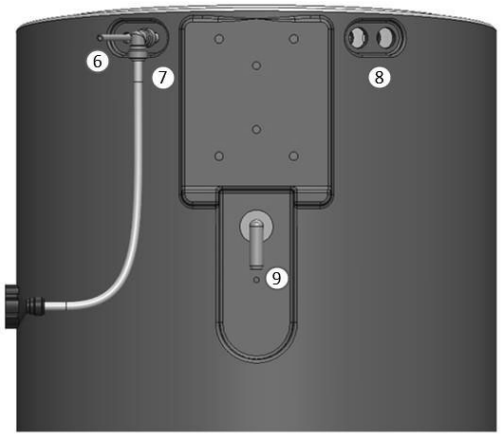
Model	iPO 8	iPO 12	iPO 16	iPO 23	iPO 30	iPO 45
	Product caracteristics					
Max production (L/h)	10					
Max production (g/h)	8	12	16	23	30	45
Max production (kg/jour)	0,2	0,29	0,38	0,55	0,72	1
Active chlorine production in the produced solution (g/L)	0,8	1,2	1,6	2,3	3	4,5
	General consumption					
Water (L/h)	10					
Salt (with water softener) (g/h)	27	39	52	73	95	142
	Consumption for 1kg active chlorine production					
Electricity (kW)	3,5					
Certified biocide salt (kg)	3,125					
Softened water (L)	1250	830	620	430	330	220
	Terms of use					
Ambient temperature (°C)	< 45					
Water inlet temerature (°C)	< 22					
Inlet water hardness (with softener) (°f)	< 12					
Service pressure (bar)	1 à 3					
	Properties					
Dimensions	450 x 490 x 783					
Total weight(kg)	15					
Reactor materials	PEHD recyclé					
Material of the production tank and the retention tank	PEHD recyclé					
Production tank volume (L)	100					
Max volume of the brine tank (kg de sel)	50					
	Electrical caracteristics					
Power supply voltage	230 V - 50/60 Hz					
Max current (A)	0,7			1,4		
	Option					
Water softener 4L	KIT23ADOU4L					

1.2. Overview

Poolsquad iPO

FRONT SIDE

BACK SIDE

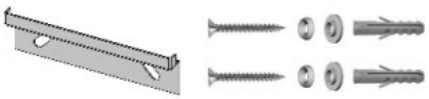
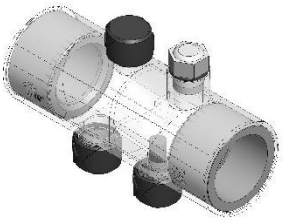


TOP VIEW

ELECTRONIC UNIT BOTTOM VIEW

1 : Softened water pump (left) and brine (right)
2 : Salt/Temperature/ lack of water sensor
3 : Chlorine injection connection
4 : Electrolysis cell
5 : Drain valve
6 : Chlorine tubing
7 : Softened water admission
8 : Salt sensor and cell supply wire
9 : Softened water tank
10 : Brine tank isolated from the salt tank
11 : Salt and brine tank
12 : Salt/temperature sensor connector
13 : Pool temperature sensor

1.3. Packing list

iPO		
 Electronic unit **X1**	 iPO Reactor **X1**	 Fixation kit *(Electronic unit fixation)* **X1**
 Water softener (option) **X1**	 Injection inlet **X1**	 Clamps saddle (kit) **X1**
 Calibration kit pH7/pH10	 IPO connection kit	 Bracket

2. INSTALLATION

2.1. Important preliminary precautions

<u>Before proceeding with the installation of the equipment, follow the following instructions:</u>

- **The production of the Poolsquad iPO must be adapted to the volume of the pool to be treated, to the frequentation of the pool, to the presence of any neighboring equipment (overflow, water mirror, slide, etc.), as well as to the weather conditions at the place of installation.**

- **Use water from a softener connected to the water supply. Prohibit any water of natural origin (rain, runoff, body of water, drilling), under risk of premature deterioration of the electrolysis cells and the softener.**

- **The Poolsquad iPO must be installed in a closed, dry, sufficiently ventilated room, protected from splashes, water spray and UV radiation. The ambient temperature inside the room must not exceed 45°C.**
  → If this room is located in a country with a hot and humid climate, it must be air-conditioned..
  → If this room is located in a country with a temperate climate, it must be equipped with forced ventilation.

- **Determine a specific location to install the system, taking into account its size. Also provide additional space around the installation to facilitate access to it for maintenance work.**
  The appliance must be installed on flat ground and on a stable surfacee.

- **The pH corrector container must be kept 2 meters away from any electrical equipment and any other chemical product. In order to evacuate the acid vapors outside the technical room, a vent system must be set up on the sealed cap of the pH corrector. Failure to follow these instructions will lead to abnormal oxidation of metal parts, which may lead to complete failure of the equipment. All handling of the pH corrector or the injection circuit must be carried out using personal protective equipment (goggles with side protection, appropriate gloves, refer to the product's safety data sheet).**

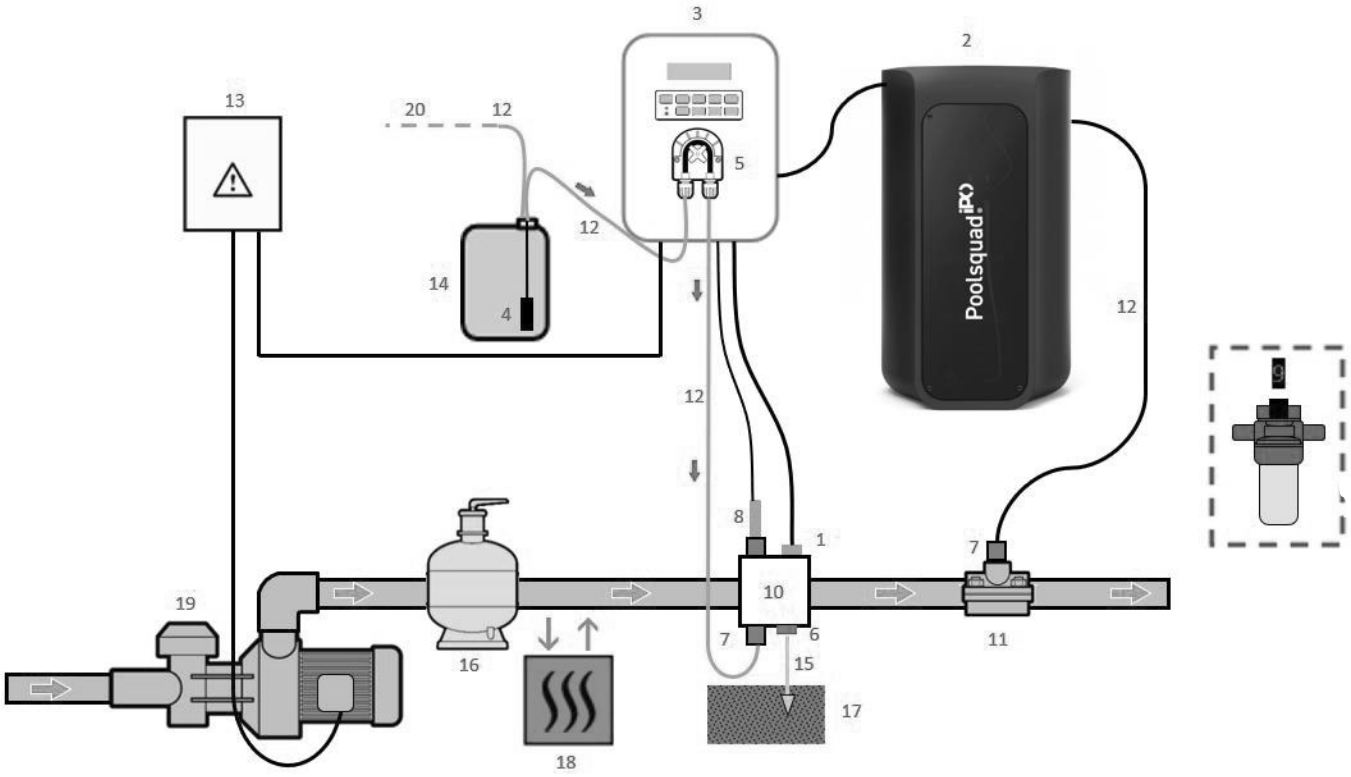
- **Ensure that all equipment drains (softener, overflow) are tightened, properly connected and evacuated.**
- **If the technical room does not have a gravity drain(example : semi-buried or buried room), it's essential to install an evacuation system with a lifting pump. This lifting pump must imperately :**
  - **Have a minimum flow rate 2 times greater than the maximum water inlet flow rate from the network.**
  - **Be wired to a power supply independent of the one of the equipment (in order to maintain the operation of the pump in the event of a problem on the power supply of the equipment).**

- **For a water softener, be sure that the electrical transformer supplied with the softener is protected from splashes and any contact with water.**

2.2. Installation diagram

⚠

- **The pH corrector can must be kept 2 meters away from any electrical equipment and any other chemical product. In order to evacuate the acid vapors outside the technical room, a vent system must be set up on the sealed cap of the pH corrector. Failure to follow these instructions will lead to abnormal oxidation of metal parts, which may lead to complete failure of the equipment. All handling of the pH corrector or the injection circuit must be carried out using personal protective equipment (goggles with side protection, appropriate gloves, refer to the product's safety data sheet).**
- **Never use hydrochloric acid, its use may cause irreversible damage to the device and void the warranty. Only use a pH corrector product composed of sulfuric or basic acid recommended by your professional. Please note that the use of a pH Multi-acid corrector is not recommended and its use can also lead to premature wear of the pH circuit and the cancellation of the guarantee. You refer to the product safety data sheet.**



1 : Temperature sensor
2 : Reactor
3 : Electronic unit
4 : Filter with ballast
5 : Peristaltic pump
6 : Pool Ground
7 : Injection connector
8 : pH probe
9 : ORP probe (Specific installation manual)
10 & 11 : Brackets
12 : Semi-flexible tubing

Key :
DUO model : white.
PRO model : white + black.

ELEMENTS NON FOURNIS :

13 : Electrical power supply
14 : pH corrector cotainer
15 : Copper wire
16 : Filter
17 : Ground rod
18 : Heat pump
19 : Filtration pump
20 : Outward vent

3. ELECTRONIC UNIT

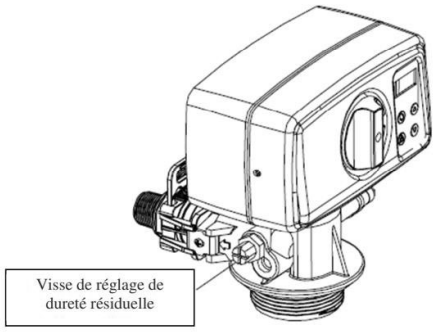
3.1. Startup procedure

⚠

The use of a softener is mandatory with the poolsquad IPO in order to avoid any premature deterioration of the electrolysis cells. The use of water of natural origin (rain, runoff, drilling) can degrade the performance of your device and damage it. In the event of a softener failure (sending unsoftened water into the electrolyser), it is necessary to check the device by dismantling the cell to ensure that there is no limestone deposit at the bottom and dismantling the salt sensor to check that there is no limestone on the electrodes.

1) Pour salt into the brine tank in the form of granules (the granules must imperatively comply with the EN 14805 or EN 973 standard, without flowability agent and without anti-caking agent).

2) When using your personal softener, go directly to step 7. When using a softener supplied as an option with your equipment, initialize the softener by following the instructions supplied with it. Note: Leakage hardness should be set to minimum. To do this, turn the screw anti-clockwise until it stops (do not force), the hardness leakage will then be the lowest.



3) Open the water inlet of the softener.

4) Program the softener regeneration (for a system running 12h/day it is recommanded to do a regeneration every 4 days of use).

5) Carry out an immediate regeneration of the softener.

6) Ensure that the hydrometric title of the water obtained at the softener outlet is less than 12°f (120ppm).

7) Connect the softener to the Poolsquad IPO.

8) Wait for the end of the filling of the brine tank.

9) Let the salt dissolve for 1 hour.

3.2. First commissioning

When switching on the electronics for the first time :

1) Carry out the following programming.

Successive menus	Possible settings	Navigation
Langues FRANCAIS	• Français • English • Deutsch • Español • Italiano • Nederlander • Portugués	For each parameter, select a data item with the ↑ ↓ buttons, then confirm with the **OK** button.
Volume 50 m3	From 10 to 200 m^3, in increments of 10.	
Date 01/01/01	Day / Month / Year	
Time XX:XX	Hour / Minute	
Display In line	• In line • Dashboard	

2) The message « Filling in progress » appears. The cell filling start automatically for 15 minutes.

3) Some successive safeties are displayed while the cell is being filled..

3.3. Display colours

Colour	Status	Meaning
Green	Continuously on	Production in progress
Red	Continuously on	• Electronics unit powered off, or wintering mode activated
	Flashing	Alarm activated

3.4. Screen

- **If display flashing :** information awaiting confirmation, or alarm activated.
- **If display solid :** confirmed or read-only information.

MODEL	DEFAULT DISPLAY		Meaning	
	Setting via the « Parameters – Display » menu	**Overview**		
DUO	In line display	PROD. XXX % pH X.X	**Production setpoint** The dot just after « PROD » appears when production is running (additional indicator on the green LED).	
			Measuring the pH	
	Dashboard	XXX %. pH X.X XX.X °C	**Production setpoint** The dot just after « PROD » appears when production is running (additional indicator on the green LED).	None
			Measuring the pH	**Water temperature**

<table>
<tr><th rowspan="2">MODEL</th><th colspan="2">DEFAULT DISPLAY</th><th rowspan="2">Meaning</th></tr>
<tr><th>Setting via the « Parameters – Display » menu</th><th>Overview</th></tr>
<tr><td rowspan="3">PRO (2)</td><td rowspan="2">In line display</td><td rowspan="2">ORP. XXX mV
pH X.X</td><td colspan="2">ORP measurement
The dot just after « ORP » appears when production is running (additional indicator on the green LED).</td></tr>
<tr><td colspan="2">Measuring the pH</td></tr>
<tr><td>Dashboard</td><td>XXX mV.
pH X.X XX.X °C</td><td>ORP measurement
The dot just after « mV » appears when production is running (additional indicator on the green LED).</td><td>None</td></tr>
<tr><td colspan="3"></td><td>Measuring the pH</td><td>Water temperature</td></tr>
</table>

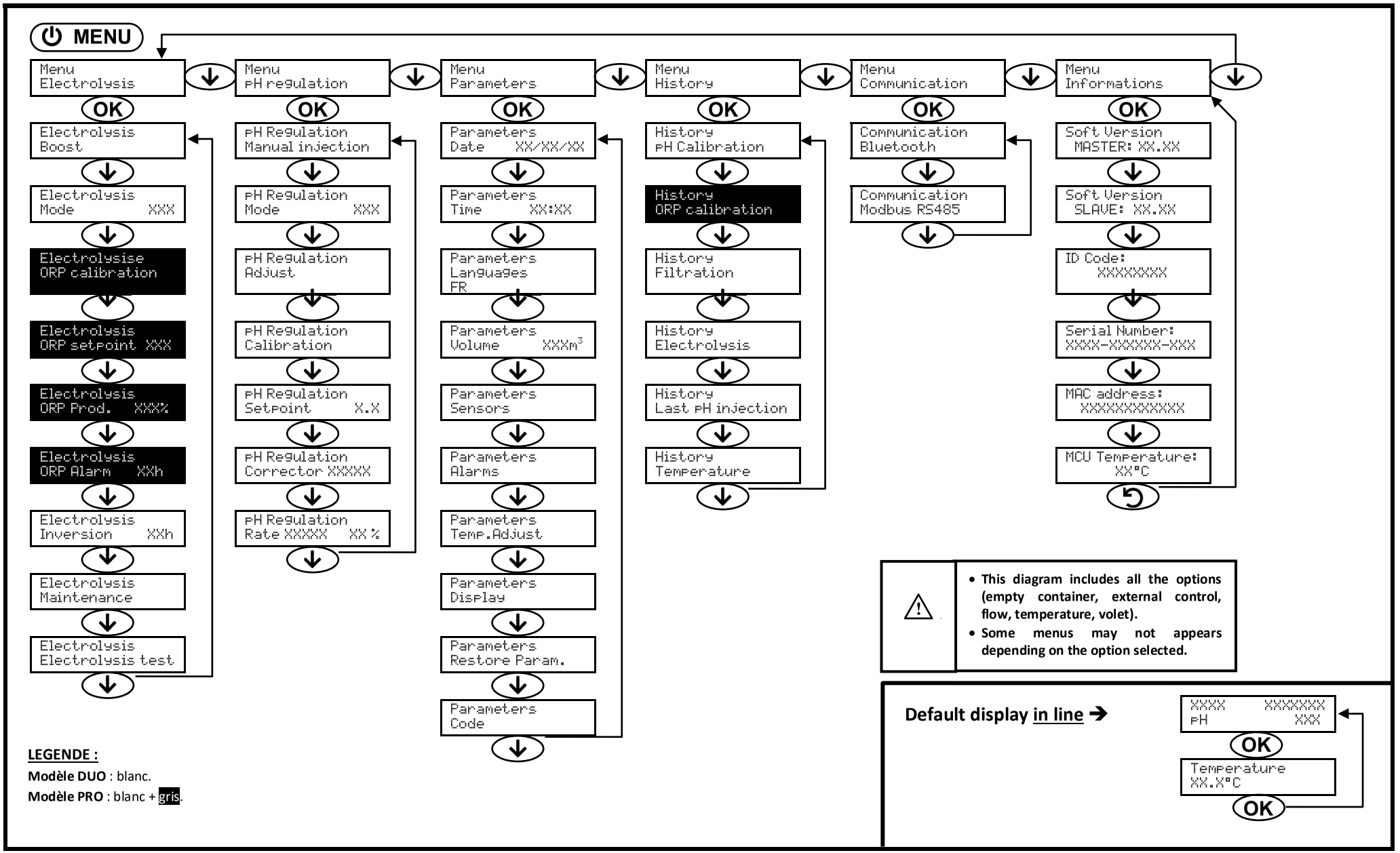
(1) : If the chlorinator operating mode is set to «% »..

(2) : If the chlorinator operating mode is set to « ORP »

3.5. Keypad

COMMAND KEY *(depending on model)*	FUNCTION
⏻ MENU	• **Switching on the electronics unit.** → A few minutes after switching on, production starts automatically (with or without ORP check). • **Switching off the electronics unit *(press and hold)*.** → When switching off, the screen and the green LED turn off while the red LED comes on. → If an alarm has been activated, press first on ↩ to switch off. • **Access the menus.**
BOOST	**Boost mode starts for 24 hours.**
T°C	• **Water temperature display for a few seconds** *(only if the default display is set to « In line display »)*. • **Direct access to the « Parameters – Temp. Adjust » menu *(press and hold)*.**
pH	→ This command key is only present on the **DUO** and **PRO** models. **Direct access to the « pH Regulation – Calibration » menu *(press and hold)*.**
↑ ↓	**Selecting a value or data element.**
↩	• **Cancellation of an entry** • **Back to previous menu.** • **Stopping Boost mode.**
OK ✔	• **Command confirmation.** • **Entering a menu.** • **Dismissing an alarm.**

3.6. Menu navigation



3.7. Features

3.7.1. Selecting the display language

Menu	Possible settings	Default setting
Parameters Languages XX	• Français • English • Deutsch • Español • Italiano • Nederlander • Portugués	Français

3.7.2. Setting the date and time

Menu	Possible settings	Default setting
Parameters Date XX/XX/XX	Day / Month / Year	01/01/year in progress
Parameters Time XX:XX	Hour / Minute	random

3.7.3. Setting default display

Menu	Possible settings	Default setting
Parameters – Display	• In line display • Dashboard	In line

3.7.4. Specification of the volume of the pool

Menu	Possible settings	Default setting
Parameters Volume XXX m3	From 10 to 200 m^3, in increments of 10 m3	50 m^3

3.7.5. Specification of the pH corrector type

Menu	Possible settings	Meaning	Default setting
pH Regulation Corrector XXXX	Acid	pH-	Acid
	Base	pH+	

3.7.6. Specification of the concentration of the pH corrector

Menu	Possible settings	Default setting
pH Regulation Rate XXXX XX %	From 5 to 55 %, in increments of 1 %	37 %

3.7.7. Calibration of the pH measurement

Menu	Possible settings	Default setting
pH Regulation Adjust	From 6.5 to 7.5, in increments of 0.1	Measurement displayed

3.7.8. Setting the pH setpoint

Menu	Possible settings	Default setting
pH Regulation Setpoint X.X	From 6.8 to 7.6, in increments of 0.1	Measurement displayed

3.7.9. Calibrating the pH probe

1) Open the pH 7 and pH 10 calibration solutions (use only single-use calibration solutions).

2) Turn off the filtration (and therefore the electronics unit).

3) *If the probe is already installed :*

a) Remove the probe from the probe holder, without disconnecting it.

b) Remove the probe holder nut and replace it with the stopper supplied.

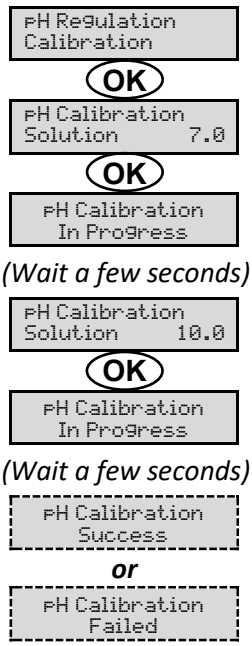
If the probe is not already installed :

Connect the probe to the electronics unit.

4) Turn on the electronics unit.

5) Go to the « pH Regulation – Calibration » menu.

6) Navigate through the menus following the instructions below :



→ Insert the probe into the pH 7 calibration solution, then wait a few minutes.

→ Do not touch the probe.

→ a) Rinse the probe under running water, then leave to drip-dry it without wiping it.
b) Insert the probe into the pH 10 solution, then wait a few minutes.

→ Do not touch the probe.

→ a) Rinse the probe under running water, then leave to drip-dry it without wiping it.
b) Install the probe into the probe holder.

→ Carry out the navigation again with the above instructions, several times if necessary. If calibration still fails, replace the probe and carry out another calibration.

3.7.10. Activation/deactivation of pH regulation

Menu	Possible settings	Default setting
pH Regulation Mode XXX	• ON • OFF	ON

3.7.11. pH manual injection

Menu	Functions	Possible settings	Default setting	Instructions
pH Regulation Manual Injection	• Priming of the peristaltic pump and filling of semi-rigid pipes. • pH corrector injection. • Means of checking the correct operation of the peristaltic pump.	From 30 seconds to 10 minutes, in increments of 30 seconds.	1 min	• To start injecting : Confirm the duration setting. *(The peristaltic pump is running, and a timer countdown is displayed in real time.)* • To take a break, and to restart the injection : Press on **OK**. • To stop the injection : Press on ↩.

3.7.12. Selecting the chlorinator operating mode

Menu	Possible settings (depending on model)	Meaning	Default setting
Electrolysis Mode XXX	%	Continual production, following the production setpoint.	• For **UNO** and **DUO** models : %. • For **PRO** model : ORP.
	ORP	Inspection of production using the ORP probe, according to the ORP setpoint and the ORP production setpoint.	
	OFF	Deactivation of the chlorinator cell.	

→ Le mode de fonctionnement sélectionné est visualisable à l'affichage initial (« PROD » en %, ou « ORP » en mV).

3.7.13. Setting the production setpoint

Chlorinator operating mode	Menu	Specific instructions	Possible settings	Default setting
%	*Default display*	Directly select a value using the ↑ ↓ buttons (no confirmation required).	• From 10 to 100 %, in increments of 1. • 10 % or OFF *(depending on the operating mode of the chlorinator)*.	100 %
ORP	Electrolysis ORP Prod. XXX %	-		

3.7.14. Sensor settings

Menu	Sensor	Setting	Possible settings	Default setting
Parameters Sensors	Cover/Ext cmd	Mode	• Cover • OFF • Ext cmd	Cover
		Type	• NO • NC	NO
	Flow/pH Can	Mode	• Flow • OFF • pH Can	OFF
		Type	• NO • NC	NO
	Temperature	-	• ON • OFF	ON

Ext cmd : *external command.*

pH Can : *empty container sensor.*

ON : *sensor activated.*

OFF : *sensor disabled.*

NO : *switch normally open.*

NC : *switch normally closed.*

Sensor activated	Configuration	Specific display	Production	pH regulation
Cover	Open cover	-	Maintained	Maintained
	Closed cover	Cover	Divided by 5*	
External command	Command activated	-	Maintained	
	Command not activated	Ext	Stopped	
Flow	Sufficient flow	-	Maintained	
	Zero flow	Alarm Flow	Stopped	Stopped
Empty container	Empty container	Alarm pH Can empty	Maintained	
	Container not empty	-	Maintained	Maintained
Temperature	Water temperature below 15°C	Low Temp Mode	Stopped	
	Water temperature equal to or higher than 15°C	-	Maintained	
	Temperature equal or higher than 45°C.	High Temp Alarm	Stopped	

* Modifiable value on the **PRO** model.

3.7.15. Calibration of the water temperature measurement

→ *If the temperature sensor is disabled, the menu below does not appear.*

Menu	Possible settings	Default setting
Parameters Temp. Adjust	From - to + 5°C compared to the measurement displayed, in increments of 0.5.	Measurement displayed

3.7.16. Setting the inversion frequency of the current supplying the cell

⚠ **The inversion of the current is made to avoid any limestone deposit on the cell. It is necessary to correctly adjust the frequency according to the following table, in order to maintain the good behaviour of the cell through time.**

Menu	Possible settings	Default setting
Electrolysis Inversion XX h	0, 12 or 24 h	24h

3.7.17. Boost mode

Boost mode :
- sets the production setpoint up to 100 %, for a fixed period.
- can be manually stopped at any time.
- can be used when chlorine is urgently needed.

⚠ **Boost mode cannot replace a conventional shock treatment in cases of water not fit for bathing.**

- Boost mode cannot be switched on if:
  - an alarm has been triggered. *(After having resolved and dismissed this alarm, wait a few moments in order to be able to activate the Boost mode.)*
  - the operating mode of the chlorinator is set to"OFF".
- If the Boost mode is restarted manually while it is already running, the Boost mode resets for the duration displayed.
- Boost mode continues after powering off the electronics unit.
- When the Boost mode ends or is manually stopped, production continues according to the initial setpoint.

Operation with a cover sensor :

- Boost mode cannot be switched on with the cover shut.
- If the cover is closed with Boost mode switched on, Boost mode automatically stops.

Menu	Possible settings	Default setting	Switching on	Switching off
Electrolysis Boost	• 12 h • 24 h	24 h	Automatic as soon as the duration setting is confirmed.	Press on ↩.

3.7.18. Setting the ORP setpoint

Menu	Possible settings	Default setting
Electrolysis ORP Setpoint XXX	From 200 to 900 mV, in increments of 10.	670 mV

3.7.19. Calibrating of the ORP probe

→ *The ORP probe supplied with the device is already calibrated. Thus, it is not necessary to calibrate the probe at the first commissioning of the equipment.*

1) Open the ORP 475 mV calibration solution.

2) Turn off the filtration (and therefore the electronics unit).

3) *If the probe is already installed :*

a) Remove the probe from the probe holder, without disconnecting it.

b) Remove the probe holder nut and replace it with the stopper supplied.

If the probe is not already installed :

Connect the probe to the electronics unit.

4) Turn on the electronics unit.

5) Go to the « Electrolysis – ORP Calibration » menu.

6) Navigate through the menus following the instructions below :

Electrolysis
ORP Calibration

OK

ORP Calibration
Solution 475 mV → Insert the probe into the ORP calibration solution, then wait a few minutes.

OK

ORP Calibration
In Progress → Do not touch the probe.

(Wait a few seconds)

ORP Calibration
Success → a) Rinse the probe under running water, then leave to drip-dry it without wiping it.
b) Install the probe into the probe holder.

or

ORP Calibration
Failed → Carry out the navigation again with the above instructions, several times if necessary. If calibration still fails, replace the probe and carry out another calibration.

3.7.20. Water manual injection

Menu	Functions	Possible settings	Default setting	Instructions
Water manual Injection	• Priming of the water pump • Water injection in the cell. • Means of checking the correct operation of the water pump.	From 30 seconds to 10 minutes, in increments of 30 seconds.	1 min	• <u>To start injecting :</u> Confirm the duration setting. *(The peristaltic pump is running, and a timer countdown is displayed in real time.)* • <u>To take a break, and to restart the injection :</u> Press on **OK**. • <u>To stop the injection :</u> Press on ↩.

3.7.21. Salt manual injection

Menu	Functions	Possible settings	Default setting	Instructions
Salt manual njection	• Priming of the salt pump • Salt injection in the cell. • Means of checking the correct operation of the salt pump.	From 30 seconds to 10 minutes, in increments of 30 seconds.	1 min	• <u>To start injecting :</u> Confirm the duration setting. *(The peristaltic pump is running, and a timer countdown is displayed in real time.)* • <u>To take a break, and to restart the injection :</u> Press on **OK**. • <u>To stop the injection :</u> Press on ↩.

3.7.22. Bluetooth communication

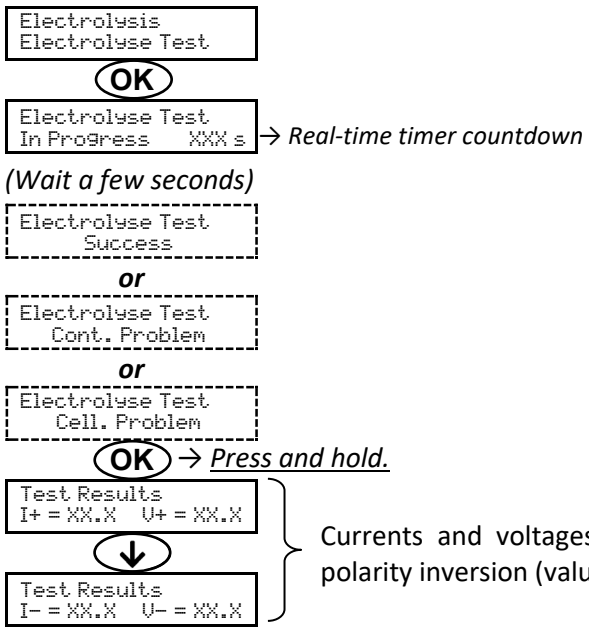
Menu	Setting	Function	Possible settings	Default setting
Communication Bluetooth	Mode	Activation/deactivation of Bluetooth communication.	• ON • OFF	ON
	Pairing	• Detection of connectible devices near the electronics unit (within 60 seconds). • Networking of the electronics unit and connected devices.	-	
	Reset	Removal of the network connecting the electronics unit to the connected devices.		

→ <u>During an update of the software of the electronics unit carried out using Bluetooth :</u>

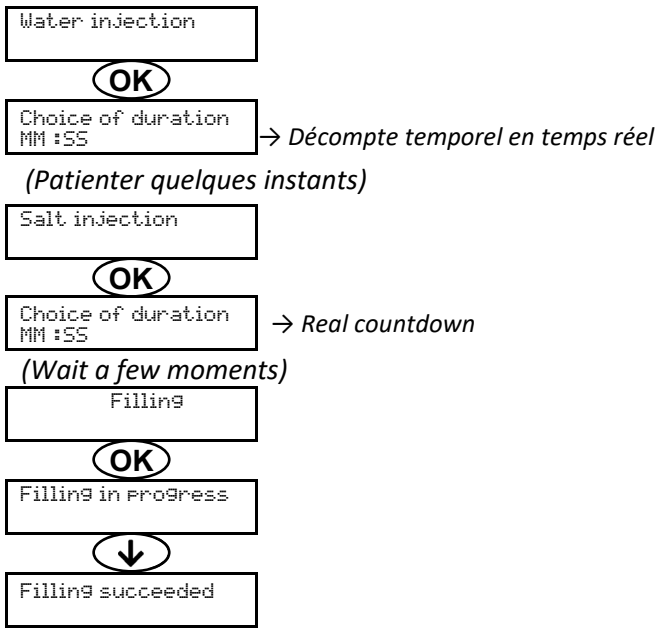
- Les 2 voyants (rouge et vert) clignotent alternativement.
- Le message « Téléchargement – En cours » s'affiche.

3.7.23. Electrolysis test

→ *This function is for use by professionals for maintenance operations on the equipment.*

Menu	Navigation
Electrolysis Electrolyse Test	

3.7.24. Maintenance menu

Menu	Navigation
Electrolysis Maintenance	

3.7.25. Settings reset

Menu	Important warning
Parameters Restore Param.	⚠ **Resetting the parameters cancels all the settings made (factory configuration).**

3.8. Safety

3.8.1. Wintering mode

- **Wintering mode is deactivated by default.**
- **Wintering mode can be activated in the alarm menu and allow to stop the chlorine production when the pool temperature drop below 15°C.**
- **When wintering mode is activated :**
    - The message « Info Low Temp » is displayed.
    - The device starts and stops automatically if the water is over or below 15°C

3.8.2. Alarms and alerts

	DEFAULT CONFIGURATION	IMMEDIATE AUTOMATIC ACTION		Dismissal *
		Message displayed	Immediate stop of the production and/or the pH regulation	
ALARMS	Activated	Alarm (…)	Yes	Press **OK** or ↩ button (short or long press, depending on the alarm or alert).
ALERTS		Info (…)	No	

***** *As long as a default subsists, the corresponding alarm or alert is maintained, and the corresponding message reappears a few moments after dismissal.*

MESSAGE DISPLAYED/FAULT DETECTED	IMMEDIATE AUTOMATIC ACTION		CAUSE	CHECKS AND REMEDIES	OPTION TO DEACTIVATE VIA THE MENU « Parameters – Alarms »
	Stopping production	Stopping pH regulation			
Alarm pH Can empty	No	Yes	pH corrector container empty.	Replace the pH corrector container.	Yes
Alarm Cell Current	Yes	No	Cell problem	• Check that : - The cell is not scaled. - the electrical connections to the terminals of te cell are sufficiently tight and not oxidised. - the cell's power cable is in good condition. - the cell's power cable connector is correctly connected to the electronics unit. • As a last resort, replace the cell.	Non
			Insufficient salt rate	• Check that the brine pump works correctly. • Check that there is enough salt in the brine tank.	
			Power card problem in the electronic unit	Contact a professionnal	

MESSAGE DISPLAYED/FAULT DETECTED	IMMEDIATE AUTOMATIC ACTION		CAUSE	CHECKS AND REMEDIES	OPTION TO DEACTIVATE VIA THE MENU « Parameters – Alarms »
	Stopping production	Stopping pH regulation			
Alarm Flow	Yes	Yes	Insufficient water flow through the filtration circuit.	Check that : • the flow sensor is connected to the electronics unit. • the flow sensor is activated (« Parameters – Sensors » menu). • the valves on the filtration circuit are open. • the filtration pump is working correctly. • the filtration circuit is not blocked. - there is enough water in the pool.	No
Alarm Com. Failure	Yes	No	Loss of communication between the control board and the power board of the electronics unit.	Contact a professional.	No
Alarm Pump default	Yes	No	- Failure of the automatic filling of the reactor. - Low salt.	- Add salt. - Change the pump if necessary. - Check that the water and salt tubing are primed.	Yes
Alarm pH Injection	No	Yes	- Series of 5 unsuccessful attempts to correct the pH.	• Ensure the pH corrector container is not empty. • Carry out a manual injection (menu « pH Regulation – Manual Injection »). • Check the condition of the filter with ballast and injection connector. • Check the settings in the « pH Regulation – Setpoint », « pH Regulation – Corrector » and « Parameters – Volume » menus. - Carry out a calibration of the pH probe.	Yes

MESSAGE DISPLAYED/FAULT DETECTED	IMMEDIATE AUTOMATIC ACTION		CAUSE	CHECKS AND REMEDIES	OPTION TO DEACTIVATE VIA THE MENU « Parameters – Alarms »
	Stopping production	Stopping pH regulation			
Alarm No water	Yes	Yes	Insufficient amount of water in the reactor (Automatic filling in progress)	• <u>Check that:</u> - The softened water injection pump is working. - The salt/temperature sensor is in good state (no deposit on the dipper or not defective). • Start a manual filling if necessary	Non
			Salt level< 0,5g/L in the reactor	• Check that the brine injection pump is working. • Add salt in the brine tank.	
Alarm Low Salt	Yes	No	Salt level less than 2.5 g/L in the reactor	• Check the brine injection pump. • Check the salt levels in the reactor (if necessary add some)	No
			Insufficient amount of water in the reactor (Automatic filling in progress)	• <u>Check that:</u> - The softened water injection pump is working. - The salt/temperature sensor is in good state (no deposit on the dipper or not defective). • Start a manual filling if necessary	
Alarm High salt	Yes	No	High salt concentration in the reactor	• <u>Check that :</u> - The softened water injection pump is working. - The salt/temperature sensor is in good state (no deposit on the dipper or not defective). • Start a manual filling if necessary	No
Alarm High Temp.	Yes	No	High temperatrure in the electrolysis cell	<u>Check that:</u> • Emptying valve is closed. • The softened water injection pump is working. • Chlorine tubing is not blocked	No

MESSAGE DISPLAYED/FAULT DETECTED	IMMEDIATE AUTOMATIC ACTION		CAUSE	CHECKS AND REMEDIES	OPTION TO DEACTIVATE VIA THE MENU « Parameters – Alarms »
	Stopping production	Stopping pH regulation			
Alarm Low Temp.	Yes	No	Low temperatrure in the electrolysis cell	The softened water injection pump is working.	No
Info pH Calibration	No	No	pH probe incorrectly calibrated	Carry out a calibration of the pH probe.	Yes

3.8.3. Important precautions regarding the peristaltic pump

→ *Ce chapitre est applicable si le coffret électronique est muni d'un capot cachant la pompe péristaltique.*

⚠ **When one of the 2 messages below is displayed, the peristaltic pump is running. IN THIS CASE, NEVER REMOVE THE FRONT PANEL FROM THE PERISTALTIC PUMP.**

Manual Injection
XX:XX → *Real-time timer countdown*

or

pH Injection
In Progress

→ **If case of doubt about the correct functioning of the peristaltic pump:**

1) Switch off the electronics unit.
2) Remove the electronics unit cover that covers the peristaltic pump.
3) Remove the internal tubing from the peristaltic pump, without removing the semi-rigid tubing connected to it.
4) Remove the front panel of the electronics unit
5) Check the condition of the peristaltic pump and internal pipes.
6) Carry out a manual vacuum injection.
7) Check that the peristaltic pump is running correctly.

3.9. Data history

Menu	Sub-menu	Content
History pH calibration	-	Date of the last pH probe calibration
History Filtration	Filtration Time D-1	Duration of filtration pump operation the previous day
	Filtration Average time W-1	Average daily operating time of the filtration pump the previous week
	Filtration Average time M-1	Average daily operating time of the filtration pump the preceding month
History Electrolysis	Electrolysis Time D-1	Duration of electrolyser operation on the previous day
	Electrolysis Average time W-1	Average daily operating time of the electrolyser in the previous week
	Electrolysis Average time M-1	Average daily operating time of the electrolyser in the previous month
	Electrolysis Total	Cumulative duration of electrolyser operation since the first start-up of the electronics unit
	Cell life	Remaining cell life as a percentage
History pH injection	pH injection Time D-1	Duration of peristaltic pump operation the previous day
	pH injection Average time W-1	Average daily operating time of the peristaltic pump the previous week
	pH injection Average time M-1	Average daily operating time of the peristaltic pump the preceding month
	pH injection Total	Cumulative duration of peristaltic pump operation since the first start-up of the electronics unit
History Temperature	Temperature Temp. D-1	Average water temperature the previous day
	Temperature Temp. W-1	Average water temperature for the previous week
	Temperature Temp. M-1	Average water temperature for the previous month

3.10. Further information

Menu	Meaning
Soft Version MASTER: XX.XX.XX	Control board program
Soft Version SLAVE: XX.XX.XX	Power card program
ID Code: XXXXXXXX	Configuration code
Serial Number: XXXX-XXXXXX-XXX	Serial number
MAC Address: XXXXXXXXXXXX	MAC address for Bluetooth connection
MCU Temperature: XX°C	Internal temperature in the electronics unit

4. MAINTENANCE

⚠

- **The electrolysis cell lifetime is strictly linked to the respect of the guidelines and instructions given in this manual.**
- **Replacing end-of-life cells with so-called compatible cells can lead to a drop in production and reduce the life of the equipment. It is therefore strongly recommended to use only so-called original cells.**
- **Any deterioration due to the use of so-called compatible cells cancels the contractual guarantee.**

4.1. Maintenance advice (monthly)

- Water softener

Check the water hardness at the output of the softener with an adequative test kit (not furnished) : the hardness must be inferior to 12°f.

- Electrodes

When the equipment is stopped, there should be no whitish deposit on the electrodes. Check the condition of the lugs, studs and power cables.

- Brine tank

Mix the tank. Check for salt in the brine tank. Add salt if necessary.

4.2. Wintering of the device

1) Switch off the equipment.
2) Plug a 8mm tubing (not furnished) to the drain valve of the electrode.
3) Slightly unscrew the salt/temperature sensor and empty the cell by opening the valve.
4) Screw back the salt sensor and close the emptying valve.
5) Switch back on the device and do a water manual injection (see chapter 3.7.20) in the cell for 5 minutes.
6) Switch off the device.
7) Repeat operations 3 and 4.
8) Unplug the 2 electrical connections of the cell, the salt/temperature sensor and the chlorine outlet
9) Unscrew the collar screws that maintains the cell.
10) Remove the cell from its housing by disconnecting the quick coupling inlet tubing (bottom part)
11) Unscrew the cell nuts.
12) Check the electrode state, the sealin and the power supply wire. Replace those elements in case of deterioration In the event of deterioration or overheating of the lugs or studs, completely replace the power cable and/or the electrode.
If the electrode or the pellets are scaled:
    a. Find the reason behind the limestone:
        i. Check the salt level in the water softenener.
        ii. Adjust the inversion frequency of the power supply according to section 3.7.16.
        iii. Check the water hardness at the output of the softener with an adequative test kit (not furnished).
    b. Fill a container with an acid solution.
    c. Immerse electrode in the container, mantaining the electrical plugs out of the liqui
    d. Rinse the electrode with clear water
    e. If the inner wall of the cell sleeve is scaled, remove this scale manually (without tools)
13) Reassemble the cell by tightening the power cable nuts (3 N.m).
14) Check the state of the chlorine outlet tubing. If there is any traces of limestone, replace it with a new tubing.
15) Close the water supply valve.
16) Drain the brine tank.
17) Clean and rince the probes with clear water and winter it.
18) Store the probes in their storage bottles, positioning them vertically, bulb side down.

NEVER TOUCH OR WIPE THE PROBE BULB. NEVER STORE THE PROBE IN DISTILLED WATER.

4.3. Unwintering the device

1) Replace the probes on the accessory holder/ clamp saddle.
2) Add salt in the reactor.
3) Open the water supply valve and wait for the system to fill.
4) Let the salt dissolve for 1 hour.
5) Switch on the electronic unit and select « menu maintenance », a manual brine injection will take place for 6 mins.
6) Make a cell filling using the « menu maintenance ».

5. WARRANTY

Before contacting your dealer, please have the following to hand:
- your purchase invoice.
- the serial no. of the electronics unit.
- the installation date of the equipment.
- the parameters of your pool (salinity, pH, chlorine levels, water temperature, stabiliser level, pool volume, daily filtration time, etc.)

We have used every effort and all our technical experience to design this equipment. It has been subjected to quality controls. If, despite all the attention and the expertise given to its manufacture, you need to use our warranty, it only applies to free replacement of the defective parts of this equipment (excluding shipping costs in both directions).

Warranty period (proven by date of invoice)

Electronics unit: 2 years.
Cell: - 1 year minimum outside the European Union *(excluding warranty extension)*.
- 2 year minimum in the European Union *(excluding warranty extension)*.
Probes: depending on model.
Repairs and spare parts: 3 months.
The periods indicated above correspond to standard warranties. However, these can vary depending on the country of installation and the distribution network.

Scope of the warranty

The warranty covers all parts, with the exception of wearing parts that must be replaced regularly.
The equipment is warranted against manufacturing defects within the strict limitations of normal use.
Never use hydrochloric acid, as this may lead to irreversible damage to the device and void the warranty. Only use a sulphuric acid- or alkali-based pH corrector product recommended by your professional dealer. Please note that use of a multi-acid pH corrector is not recommended, and its use may also lead to premature wear of the pH circuit and void the warranty. Refer to the product's safety data sheet.

AFTER-SALES SERVICE

All repairs are performed in the workshop.
Shipping costs in both directions are the responsibility of the user.
The immobilisation and loss of use of a device in the case of repair shall not give rise to any claim for compensation.
In all cases, the equipment is always sent at the user's own risk. Before taking delivery, the user must ensure that it is in perfect condition and, if necessary, write down any reservations on the shipping note of the carrier. Confirm with the carrier within 72 hours by registered letter with acknowledgement of receipt.
Replacement under warranty shall in no case extend the original warranty period.

Warranty application limit

In order to improve the quality of its products, the manufacturer reserves the right to modify the characteristics of the products at any time without notice.
This documentation is provided for information purposes only and is not contractually binding with respect to third parties.
The manufacturer's warranty, which covers manufacturing defects, should not be confused with the operations described in this documentation.
Installation, maintenance and, more generally, any intervention on the manufacturer's products must be performed only by professionals. This work must also be carried out in accordance with the current standards in the country of installation at the time of installation. The use of any parts other than original parts voids the warranty ipso facto for the entire equipment.
The following are excluded from the warranty:
- Equipment and labour provided by third parties in installing the device.
- Damage caused by installation not in compliance with the instructions.
- Problems caused by modifications, accidents, misuse, negligence of professionals or end users, unauthorised repairs, fire, floods, lightning, freezing, armed conflict or any other force-majeure events.

Equipment that is damaged due to non-compliance with the instructions regarding safety, installation, use and maintenance contained in this documentation will not be covered under the warranty.
Every year, we make improvements to our products and software. These new versions are compatible with previous models. The new versions of hardware and software can be added to earlier models under the warranty.

Never use hydrochloric acid, as this may lead to irreversible damage to the device and void the warranty. Only use pH corrector products (acid or alkali) recommended by your professional dealer.

Implementing the warranty

For more information regarding this warranty, contact your dealer or our After-Sales Service. All requests must be accompanied by a copy of the purchase invoice.

Governing law and dispute resolution

This warranty is subject to French law and all European directives or international treaties in force at the time of the claim, applicable in France. In case of disputes on its interpretation or execution, the Regional Court of Montpellier (France) shall have exclusive jurisdiction.

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