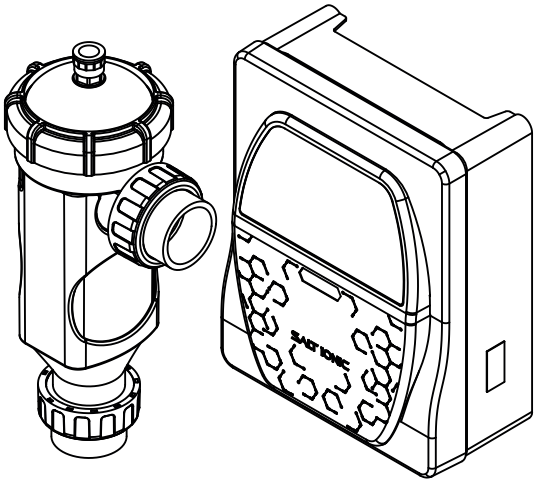
SALTIONIC
USER MANUAL



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2 Introduction

Please read the following information carefully and completely. This information will enable you to make the most of the usage guidelines.

These instructions describe the technical data and functions of the device.

2.1 Explanation of Security Alerts

These operating instructions provide information about the technical data and functions of the product. It provides detailed safety information.

Safety alerts and notes are categorized as follows. Pictograms adapted to different situations are used here. The meanings of these pictograms are given in the table below.

	Hazard Point
	Hazard caused by electrical voltage
	Hazard caused by corrosive substances
	Hazard caused by potentially explosive substances
	Note
	Info

Safety alerts and notes are grouped under five categories, **DANGER, WARNING, CAUTION, NOTE,** and INFORMATION. Sample instructions and warnings are given below, with explanations of the relevant pictograms and categories:



HAZARD!
Type and source of the hazard
Outcome: Death or very serious injury.
Measures to be taken to prevent this hazard.
Identifies the hazard that poses a direct threat. If not prevented, death or serious injury may occur.



WARNING!
Type and source of the hazard
Possible Outcome: Death or very serious injury.
Measures to be taken to prevent this hazard.
Identifies a possible hazardous situation. If not prevented, death or serious injury may occur.



ATTENTION!
Type and source of the hazard
Possible Outcome: Minor or insignificant injuries. Property damage.
Measures to be taken to prevent this hazard.
Identifies a possible hazardous situation. If not prevented, minor or insignificant injuries may occur. It can also be used for property damage warning.



NOTE:
Type and source of the hazard
Possible Outcome: Do not damage the product or its surroundings.
Measures to be taken to prevent this hazard.
Identifies a potentially damaging situation. If not prevented, the product or anything around it can be damaged.



INFO!

Usage tips and additional information
Source of information. Additional measures.

Defines usage tips and other useful information. It is not given for a hazardous or harmful situation.

2.2 User Competence

WARNING!
Risk of injury due to insufficient competence of personnel!

The operator of the plant/device is responsible for compliance with the competencies.
If unqualified personnel work with the device or if the device is located in the hazard zone, hazards may occur that may lead to serious injury or property damage.
– All activities must be carried out by competent personnel.
– Keep incompetent personnel away from hazard zones.

Education	Definition
Informed Person	A person who has been informed about the potential hazards associated with the tasks assigned to them and inappropriate behavior, trained when necessary, and informed about the necessary protective equipment and measures is referred to as an informed person.
Trained User	A person who meets the requirements of the informed person and has additionally received training at the manufacturer or another authorized sales partner is defined as a trained user
Trained Expert	A person who can evaluate the tasks assigned to him/her and recognize possible hazards due to his/her specialized education, knowledge and experience, as well as his/her knowledge of the relevant rules, is defined as an expert. Many years of activities in the relevant field of work can be taken into account for the evaluation of specialty training.
Electrical Specialist	An electrical specialist is defined as a person who can work in electrical facilities, recognize and prevent possible hazards due to his/her specialized education, knowledge and experience, as well as his/her knowledge of the applicable standards and regulations. Electrical specialists are trained in their field of work and are familiar with important standards and regulations. The electrician must fulfill the provisions of the applicable legal regulations regarding accident prevention.
Customer Service	Service technicians who have been documented and authorized by the manufacturer about the work at the facility are defined as customer services.

3 Safety and Responsibility

3.1 General Safety Warnings

The following warnings are intended to help you eliminate hazards that may arise when using the product. Risk prevention measures are always in effect, regardless of any specific action.
Safety instructions that warn of risks arising from certain activities or situations can be found in the relevant subsections.



HAZARD

Life-threatening hazard due to electric shock
Incorrectly connected, idle, or damaged cables can injure you.
Replace damaged cables without delay.
Do not use an extension cord.
Do not bury cables.
Secure cables to prevent damage to other equipment.



HAZARD

Never use the product in explosive areas.



WARNING

Caustic burns or other burns caused by the dosage agent!
After connecting the mains supply, the dosing process begins.
Connect the dosing lines before connecting the mains.
Ensure that all screw connections are properly tightened and sealed.



WARNING

Heavy pool (and/or SPA) use and higher temperatures may require higher chlorine output to maintain the proper amount of free chlorine. The actual amount of chlorination your pool needs can vary and will vary based on factors not limited to rain, temperature, dirt, debris, and chemical balance.



WARNING

Safe operation of the electrolytic cell requires a minimum water flow rate of 75 L/min. Never operate the unit when the water flow is restricted. Always turn off the unit when operating any plumbing control valves, such as backwashing, water drainage, or during operation of the spa or its water-related features. If the process restricts the flow of water into the cell, the buildup of flammable gases will result in hazardous conditions.



WARNING

We strongly recommend the use of isolation valves. If full pump pressure is applied to an insulated component, there may be a tendency for it to shatter. Turn off all pumps before changing valve positions. Prevent water pressure spikes in the Electrolytic Cell.



ATTENTION!

Increased risk of accidents due to under-qualification of personnel!
The product and its accessories may only be assembled, operated and maintained by qualified personnel.
Ensure that all actions are taken only by adequate and suitably qualified personnel.
Block access to the system for unauthorized persons.

3.2 Hazards caused by non-compliance with safety instructions

Failure to follow safety instructions can pose a risk not only to personnel but also to the environment and the unit.
Specific results can be:
Failure of the vital functions of the product and the system,
Failure of necessary maintenance and repair methods,
Danger to individuals due to dangerous dosage substance,
Danger to the environment due to substances leaking from the system.

3.3 Safe operation

In addition to the safety instructions set out in these operating instructions, further safety rules apply and must be observed:
Accident prevention regulations, safety and operating provisions
Safety precautions for handling hazardous materials
Environmental protection provisions,
Applicable standards and legislation.

3.4 Personal protective equipment

You may be exposed to contact with the dosing liquid. Depending on the degree of risk and the type of work you do, you should use the corresponding protective equipment.
The following protective equipment is recommended as a minimum:


Protective Clothing


Protective Gloves


Protective Goggles

During these tasks, the person responsible needs to use protective equipment:
To assign,
When the product is running,
Disassembly, maintenance work, destruction.

3.5 Personnel qualification

Any personnel working on the product must have appropriate specialized knowledge and skills.
Anyone working with the product must meet the following conditions:
- Participation in all training courses offered,
- Personal suitability for the relevant job,
- Competence required for the relevant job,
- Training in the use of the product,
- Knowledge of safety equipment and how it works
- Knowledge of these Operating Instructions, in particular the relevant safety instructions and sections for the job,
- Knowledge of basic regulations related to health, safety and accident prevention.

All people must generally have the following minimum qualifications:
-To have been trained as an expert to work on unsupervised products,
- Adequate training where they can work on the product under the supervision and guidance of a trained specialist.
These Instructions for Use differentiate the user groups:
(see User Competence Page 6)

4 Appropriate and Desired Use

4.1 Notes on product warranty

Any unidentified use of the product may compromise its function or intended protection. This avoids any warranty claims!

Please note that the liability lies on the user's side if:

Use of the product other than the instructions for use, particularly its safety, which is not consistent with the relevant instructions titled "proper and desired use"

Unauthorized modifications to the device by the user

Users use different from what is stated in the order

The user does not use dosing fluid under conditions agreed with the manufacturer, such as altered concentration, density, temperature, contamination, etc.

4.2 Production purpose

The device is designed to meet the disinfection needs of the pools with the chlorine it produces from salt. It also automates the disinfection process by controlling or monitoring the pool filtration system. Thanks to its AUX output, it controls external control processes such as pool lighting in accordance with the program. It can perform fully automatic disinfection with pH and Chlorine sensors.

4.3 Principles

- Before delivery, the manufacturer checked and operated the product under specific conditions (with a certain dosage agent at a certain density and temperature, with certain pipe sizes, etc.).
- Since these conditions differ in each place of use, the capacity of the product must be measured by measuring it in the installation of the operating company.
- Information on use and environment (see Technical Data Page 13).
- The materials of the product and system must be suitable for the dosing agent used. In this regard, keep in mind that the resistance of the ingredients may vary depending on the temperature and operating pressure of the dosing agent.
- The product is not intended for outdoor use unless appropriate protective measures are taken.
- Avoid leakage of liquids and dust into the product and avoid direct exposure to sunlight.
- You should never operate the product in an environment with potential explosion hazards unless an EC Declaration of Conformity suitable for potentially explosive atmospheres is available.

4.4 Prohibited dosage agent

The product **must not be used** for the following substances and ingredients:

- Gaseous materials,
- Flammable materials,
- Radioactive materials,
- Solids.

4.5 Foreseeable misuse

Below is information about product applications or related equipment applications for which their intended use is not accepted. This section is intended to detect and prevent potential misuse in advance.
Anticipated abuse affects the life of the product:

4.5.1 Incorrect assembly

Incorrect or loose screwing of the product.

4.5.2 Incorrect setup

Incorrect connection of pipes due to incorrect material or improper connections.
Damage to pipelines due to bending or tightening too much.
Using damaged parts

4.6 Faulty electrical installation

Unsafe mains or non-compliant mains voltage.
Incorrect connection cables for mains voltage.
Installation where it is not possible to cut off the power supply immediately or easily.

5 Product Description

5.1 Product Definition

The Salt Ionic Device works with the salt mixed with the process in which it is installed and produces gaseous chlorine in adjustable weights according to the needs. With this chlorine produced, it is designed to meet the disinfection requirements of swimming pools or water processes that are desired to be disinfected. In addition, it automatically performs disinfection requirements by monitoring and controlling pool filtration processes.

It is designed for programs that require external control operation, such as lighting used in pools with AUX output.

If connected to the process, it can perform fully automatic disinfection processes with pH and Orp sensors.

5.1.1 Controller

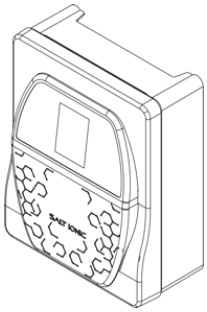


Figure 1 Salt Ionic Controller

This device allows the necessary power and commands to be transmitted and controlled to the electrolysis cell for swimming pools. It is designed to operate in a controlled and automatic manner by meeting the different requirements of the required processes in the safest way. It provides users with customizable systems and opportunities.

5.1.2 Electrolysis Cell



Figure 2 Electrolysis Cell

This equipment constitutes the most important part of the production of chlorine gas from salt water. It produces gas chlorine in certain weights according to the needs on the water line where it is installed. The Electrolysis Cell includes a set of bipolar products that produce gas chlorine by supplying current to salt water through durable special alloy plates.

5.2 General Features

Automatic stop of the system when there is no flow with the specially designed flow sensor

Automatic stop of the system in case of possible gas accumulation in the cell with the specially designed gas sensor
Automatic cleaning of cells periodically
Errors that may occur in the process are immediately secured and the system automatically starts again when the errors are fixed.
Easy operation with special design Touch color screen.
Real Time Clock, Language Selection
Manual / Automatic Regulation
Special design is easy to understand Production Indicator
Water temperature indicator
(With Optional Temperature Sensor)
pH Indicator
(With Optional pH Module and Sensor)
Redox/ (with Optional Redox/ and Sensor)
Salt content indicator in water
Cell Operating Hours Display
Warning / Alarm / Error Statuses display, voice warning
Built-in Acid pump upon request
External output with timer function, filter output
Filter, Water flow, Acid level, Pool cover detection inlets
Water temperature sensor, Gas sensor inputs
Heat pump or heater output according to pool water measurement and control
Programmable output for use of devices such as pool lights or waterfalls
Programmable output for external chlorine pump
Device control with an external input from the outside
Optional Wi-Fi module

5.3 Delivery Scope

Instruction manual
Salt Ionic Controller
Cell Kit
Cell Clamping Wrench
Wall Mount Screw
50mm PVC Connection Coupling Kit

6 Technical Data

6.1 Models

Model	Definition
SI-A-xx	Standard Model
SI-PH-xx	Standard Model + pH Control
SI-PR-xx	Standard Model + pH & Redox Control
AS-PH-xx	Standard Model + pH Control + Built-in Acid Pump
AS-PR-xx	Standard Model + pH & Redox Control + Built-in Acid Pump

xx: Capacity (gr/h)

6.2 Working Conditions and Limits

	SI-xx-12	SI-xx-24	SI-xx-36
Production Capacity*	12 gr/hour	24 gr/hour	36 gr/hour
Current	2.5 A	5.0 A	7.5 A
Power	60W	120W	180W
Feed	100-240V AC 47~63Hz		
Rated Current	1.2 A	1.7 A	2.2 A
Salt Requirement	Minimum: 4gr/l – Recommended: 5gr/l		
User interface	320x240 65K Color TFT Resistive Touch Screen		
Communication	WiFi (Optional)		
Device Dimensions	25cm x 33cm x 12cm		
Cell Dimensions	16cm x 32cm x 14cm		
Packaging Dimensions	44cm x 35cm x 17cm		
Weight	3.5 Kg.	3.8 Kg.	4.1 Kg.
IP Protection	IP65		
Max. Ambient Temperature	40 °C		
	pH	Redox	Temperature Sensor
Measuring Range	0.00-14.00	0-1650 mV	15– 100
Sensitivity	0.01	1 mV	0.01
Accuracy	+- %2	+- %2	+- %1
Sensor Type	Standard pH Sensor	Standard Redox Sensor	NTC 10K temperature sensor

7 PREPARATION

7.1 Preparing Pool Water

It is important to adjust the pool water chemical properties before operating the Salt Ionic device.
For the device to work efficiently, there must be a minimum level of salt in the system water.
See the salt addition table for Salt Levels.
For national standard pool use, refer to the Ideal Pool Values table. The values in this table must be balanced according to national standards.
If it is a pre-installed system, the appliance should not be operated before adding salt to the pool water.
In cases where there is a possibility of newly added salt or chemicals migrating from the Salt Ionic cell in concentrated form, turn off the device and wait for the chemical dispersion rate of the water to be balanced.

For Chlorine-Free Pools: Before start-up, make sure that the chemicals used for disinfecting pools disinfected with non-chlorine-based chemicals are cleaned.

7.2 Ideal Salt Levels and Pool Size

The ideal salt level for the study is approximately 5000 ppm (1 part per million) and the salinity should be kept around 5000 ppm. To achieve this salinity level, use the salt addition chart to help you add 5 Kilograms of salt for every 1000 liters.
Calculation of pool volume
Rectangular Pool
Pool Volume (m3) = Length x Width x Average Depth
Round Pool
Pool Volume (m3) = Diameter x Diameter x Average Depth x 0.75
Oval Pool
Pool Volume (m3) = Length x Width x Average Depth x 0.8
Example: 15 x 8 rectangular pool shallow side 60cm deep side 1.4m
12m Length x 8m Width x 1m Average Depth = 96 m3

IMPORTANT: Before adding salt, conduct an independent test to measure the pool salt level.
The pH value of the pool water should be brought to 7.2. Do not produce chlorine before the pH is balanced.

	If the amount of salt in the pool is at this PPM value,											
	0	500	1000	1500	2000	2500	3000	3500	4000	4500	5000	
Pool Capacity m3	15	75	67	60	5	45	37	30	22.5	15	7.5	0
	30	150	135	120	105	90	75	60	45	30	15	0
	45	225	202	180	157	135	112	90	67	45	22	0
	60	300	270	240	210	180	150	120	90	60	30	0
	75	375	337	300	262	225	187	150	112	75	37	0
	90	450	405	360	315	270	225	180	135	90	45	0
	105	525	472	420	367	315	262	210	157	105	52	0
	120	600	540	480	420	360	300	240	180	120	60	0
	135	675	607	540	472	405	337	270	202	135	67	0
	150	750	675	600	525	450	375	300	225	150	75	0
	165	825	742	660	577	495	412	330	247	165	82	0
	180	900	810	720	630	540	450	360	270	180	90	0
	195	975	877	780	682	585	487	390	292.5	195	97	0

Salt addition table

After the pool has measured the amount of salt, add salt to the pool in the amounts specified in the table above. The table shows how many kg of salt should be added according to the pool capacity for 5000ppm salinity.
Operating the cell at minimum salt levels will shorten the life of the cell.
To add salt to the pool, it is necessary to run the filter and pump together to drain the necessary salt to the shallow point of the pool and dissolve the salt by circulating the water.
Do not throw the salt bag into the water. Salt can take 24-48 hours to dissolve in summer and longer in winter.
In cases where additional water addition is required due to evaporation and splashing of water in summer, use only evaporated, granulated, non-iodized salt (Sodium Chloride).
If the purity of salt is high, the life and production performance of the cell will increase.
It is recommended to use Regenerated salt, which is at least 99% pure NaCl, as a salt preference.
Pellets are compressed evaporated salt types that can take a long time to dissolve.
Salt (Sodium Ferrocyanide, known as YPS or Soda Yellow Prussiate) should not be used, which may cause discoloration of pool connection equipment or surface coating.
Do not use Calcium Chloride as a source of salt.
Rock Salt should not be used.

Insoluble impurities mixed with rock salt can shorten the life of the cell.

7.3 Chemical Balance of Water

It is important to maintain pool parameter levels to ensure safe use of the pool, make the water sterile, prevent corrosion, and eliminate scaling.
The requirement for a chlorine generator pool is the minimum salt level in the water.

Parameter	Unit	Min	Max
pH	pH	7.2	7.6
Free Chlorine	ppm	0.5	3.0
Bound Chlorine	ppm	0.0	0.6
Alkalinity	ppm	80	120
Cyanuric Acid	ppm	60	80
Calcium Hardness	ppm	150	300
Salinity	ppm	5000	6000
Metals (Copper, Iron, Manganese)	ppm	0.3	
Nitrate, Phosphate	ppm	0.3	
Saturation Index	LSI	-0.2	+0.2

8 Dimensions

The following figures show the mounting holes for the device.
Before starting the assembly of the device, mark the surface on which the device will be mounted in accordance with the template.
Make sure that the surface on which the appliance will be mounted is dry and clean.

8.1 Controller Dimensions

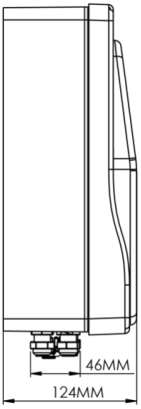


Figure 3 Side view of the device

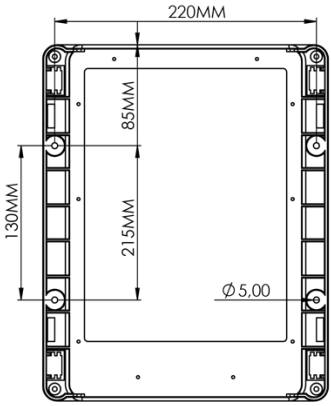


Figure 5 Rear View of the Device

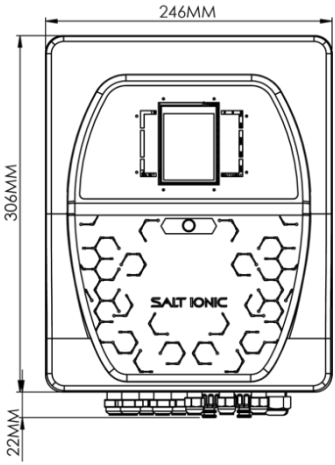


Figure 4 Front view of the device

8.2 Electrolysis Cell Dimensions

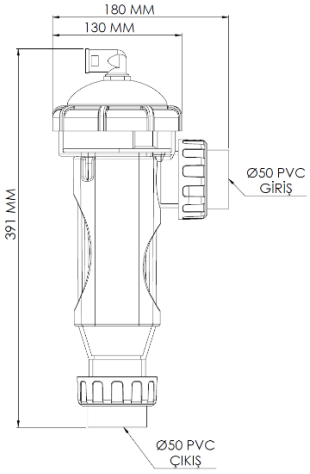


Figure 6 Electrolysis Cell Dimensions

9 Setup

INFO!

Before using the system, it is necessary to balance the water chemistry of the pool.
For more information, see the related pages.
Ensure that all actions are taken only by adequate and suitably qualified personnel.
Block access to the system for unauthorized persons.

9.1 Overview

When assembling the cell, it should be mounted on the line in a vertical position with the electrical connections up.

When assembling the cell, install it in the highest possible position from the purification system and always behind the purification filter.

To clean and maintain the cell easily and safely, it is necessary to install a valve on the cell water inlet and water outlet line and install a bypass system.

During the production of the cell, do not mount the pH and ORP (redox) sensors that will measure on the line close to the cell. Because if it is close, it is possible to deviate in the values.

Always ensure that the filter is between both and that there is at least half a meter of water flow between the probe and the chlorinating cell.

The pH and ORP (redox) sensor should always be mounted after the filter.

Your system must have a ground connection. Maximum. 30mA sensitivity.

If a good quality earth connection is not available, place a ground connection kit between the electrolysis cell and the redox probe. OPTIONAL KIT

9.2 Installation

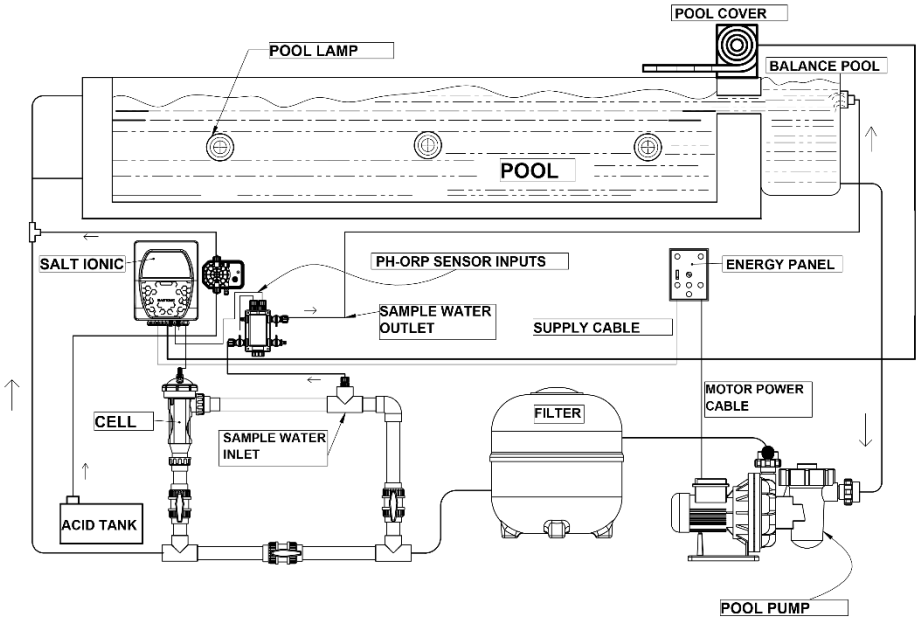


Figure 7 Installation

9.3 Device Assembly

The electrolysis cell operates at flow rates between 75 L/min and 400 L/min. A bypass line must be created for flow rates above 300 L/min.
In general, it is recommended to create a bypass line.
Mount the controller on a wall close to the pump and filtration system.
Mount the Controller at least 1 meter above the ground with the four screws and anchors included in the package.

9.4 Controller Mounting Position

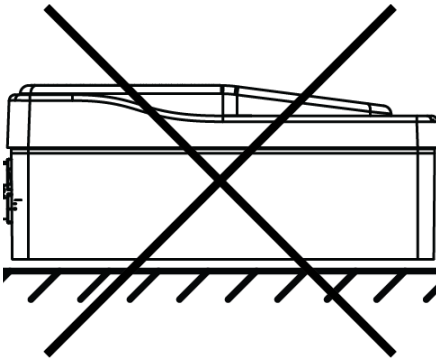


Figure 8 Controller Incorrect Mounting Position

INCORRECT ✗

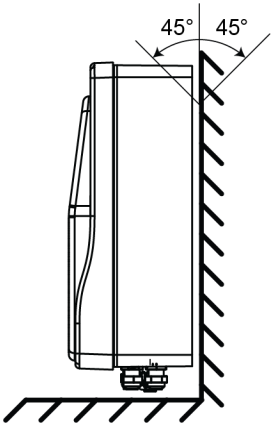


Figure 9 Controller Correct Mounting Position

CORRECT ✓

WARNING

Mount the control device in a vertical position ±45°. Using the four screws and anchors provided in the package, install the device on a wall or another vertical surface at least 1 meter above the ground.

10 Electrical Setup

10.1 Electrical Connection

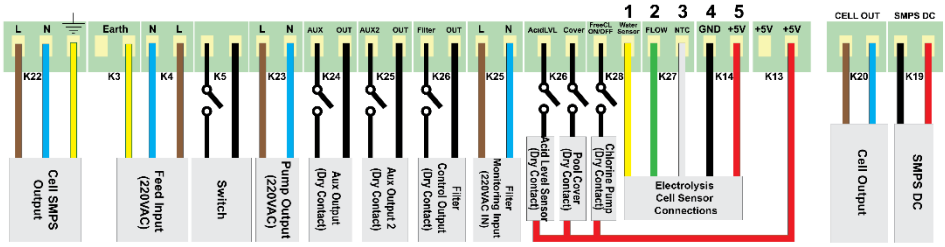
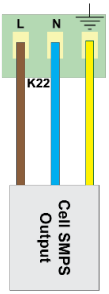


Figure 10 Electrical Connections

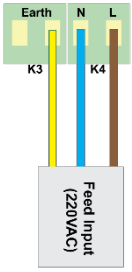
10.1.1 Cell SMPS Output



The phase, neutral and ground connections of the SMPS power supply are made to terminal block K22 as shown in Figure 11.

Figure 11 Cell SMPS Output

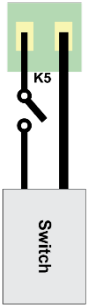
10.1.2 Feed Input (220VAC)



The 220VAC feed input connections are shown in Figure 12.

Figure 12 Feed Input

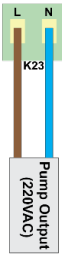
10.1.3 Switch



The connection point for the power switch is terminal block K5, as shown in Figure 13.

Figure 13 Switch Connection

10.1.4 Pump Output (220VAC)



To regulate the pH level, a relay output for the 220VAC Acid Pump is integrated in the device. This output enables the acid pump to be operated. The phase and neutral connections of the pump are made to the terminal block K23 on the device motherboard. The connection detail is shown in Figure 14.

Figure 14 Pump Output

10.1.5 Aux Output (Dry Contact)



The connections to the pool light or heat pump to be connected to the Aux Output (dry contact) are shown in Figure 15.

Figure 15 AUX Output Connections

10.1.6 Aux Output 2 (Dry Contact)



The connections for the Pool Waterfall or Chlorine Dosing Pump to be connected to the Aux Output 2 (dry contact) are shown in Figure 16.

Figure 16 AUX Output 2 Connections

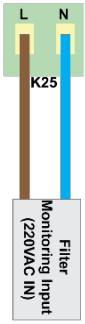
10.1.7 Filter Control Output (Dry Contact)



The connections of the filtration pump to be connected to the Filter Control Output (dry contact) are shown in Figure 17.

Figure 17 Filter Control Output Connections

10.1.8 Filter Monitoring Input (220VAC IN)



If the filtration system is externally controlled, the phase and neutral received from the system board are connected to the Filter Follow-Up Inlet as in Figure 18.

Figure 18 Filter Monitoring Input Connections

10.1.9 Acid Level Sensor (Dry Contact)

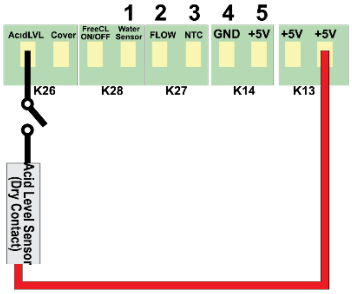


Figure 19 Acid Level Sensor Connections

As shown in Figure 19, one end of the acid level sensor is connected to the +5V supply supplied from terminal block K13 and the other end is connected to the dry contact input (AcidLVL) at terminal block K26. The output status of the sensor can be used to monitor whether the liquid level in the acid tank is above or below the specified level.

10.1.10 Pool Cover (Dry Contact)

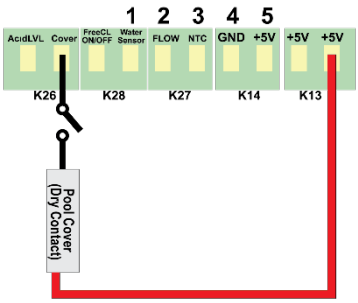


Figure 20 Pool Cover Input Connections

The Pool Cover input connections are connected to the +20V supply supplied from terminal block K13 at one end of the sensor and to the dry contact input (Cover) at terminal block K26, as shown in Figure 26. By means of this sensor, it is determined whether the cover is open or closed.

10.1.11 Chlorine Pump (Dry Contact)

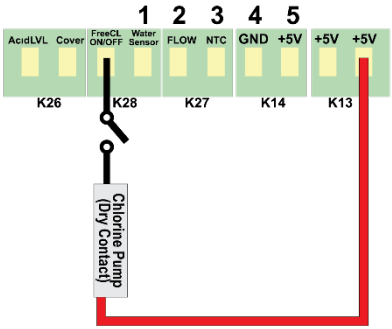


Figure 22 Chlorine Pump Connections

The connections for the chlorine pump are given in Figure 21. The chlorine pump is operated according to the incoming pulse signal. For more information, see Pulse Control Page 65.

10.1.12 Electrolysis Cell Sensor Connections

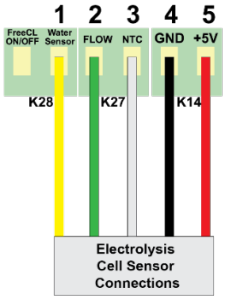
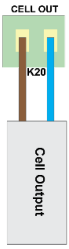


Figure 21 Electrolysis Cell Sensor Connections

It is important to note that the sensors (water sensor, flow sensor, and temperature sensor) present in the electrolysis cell that comes with the device are connected to the Salt Ionic Salt Chlorine Generator device as shown in Figure 22. The sensor wires will be connected to terminal blocks 1, 2, 3, 4 and 5.

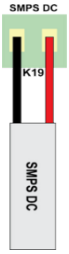
10.1.13 Cell Output



The phase and neutral wire connections of the electrolysis cell are given in Figure 23.

Figure 23 Electrolysis Cell Connections

10.1.14 SMPS DC



The direct current output cable connections (+ and –) of the SMPS power supply are made to terminal block K19 as shown in Figure 24.

Figure 24 SMPS DC Output Ports

11 Menu

General explanations of the menu and submenus will be made here.

The main menu is grouped under 4 sub-headings.
Production
Relays
Menu
Alarms

11.1 Main Menu Overview

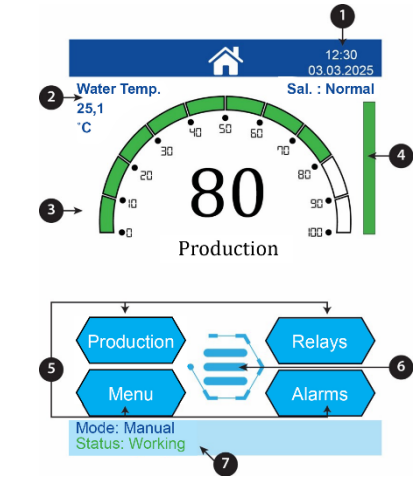


Figure 25 Main Menu Screen

The main menu offers an easy-to-use and functional interface where the user can access sub-menus, track production rate, device operation mode, working status, time, and date.

Explanations of the main menu components shown in Figure 25 are given below.
1 – Time and Date Display: Shows the time and date the device is set.
2 – Water Temperature Display: It shows the current water temperature value.
3 – Production Display: It shows the instantaneous chlorine production rate.
4 – Salinity Display: It shows the salinity level of the water.
5 – Submenus: It provides access to 4 sub-menus where all settings of the device can be managed: Production, Relays, User Menu and Alarms.
6 – Menu Show/Hide Button: It allows the submenu buttons to be made visible or hidden on the screen. When the submenu buttons are hidden, if any of the pH or ORP modules are installed on the device, the arrow buttons that provide access to the main screen of the relevant module will become visible (see Figure 27, Figure 29 and Figure 32).
7 – Device Operating Mode and Operating Status Indicator: Shows the operating mode and working status.

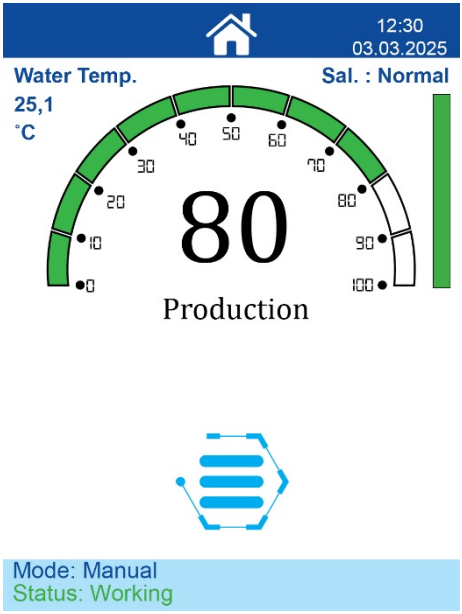


Figure 26 Hiding the Menu Buttons

The main menu screen will appear as in Figure 27 if the submenu buttons are hidden with the **Show/Hide Menu Button** when the pH or ORP modules are not installed in the device.

11.1.1 pH Module

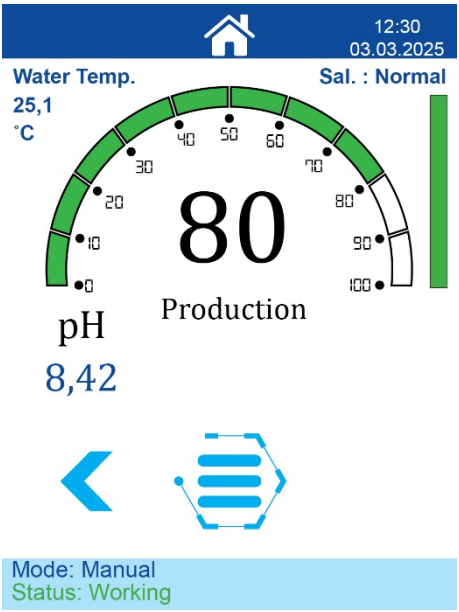


Figure 27 Switching from Production Page to pH Page

The main menu screen will look like in Figure 27 if the **Menu Show/Hide Button** and submenu buttons are hidden when only the pH module is installed in the device. In case B, you can switch between two different screens using the arrow keys:

- pH home screen
- Main menu screen

11.1.2 pH & ORP Module

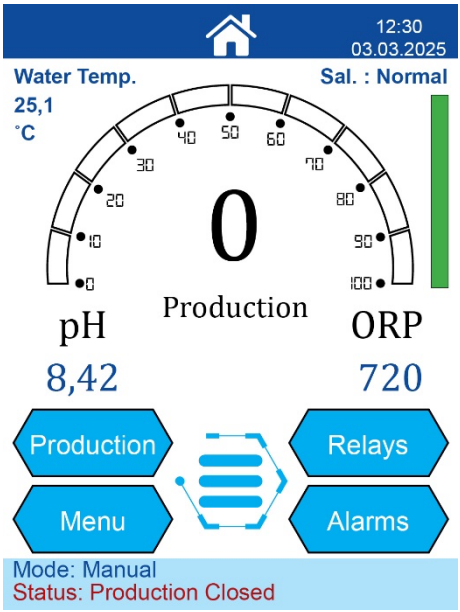


Figure 28 Main Menu Display with pH and ORP Modules Installed

The main menu screen will look like Figure 28 with the pH and ORP modules installed on the device.

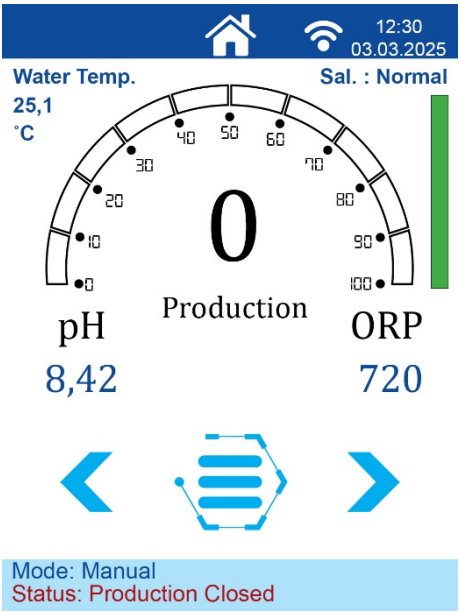


Figure 29 Switch between ORP home screen, pH home screen and main menu screen with arrow keys.

The main menu screen will look like as in Figure 29 if the **Menu Show/Hide Button** and submenu buttons are hidden while pH & ORP modules are installed in the device. You can switch between three different screens using the arrow keys:

- pH home screen
- Main menu screen
- ORP home screen

11.1.3 pH Home Screen



Figure 30 pH Home Screen

The measured instant pH value can be monitored on the pH main screen.

11.1.4 ORP Home Screen

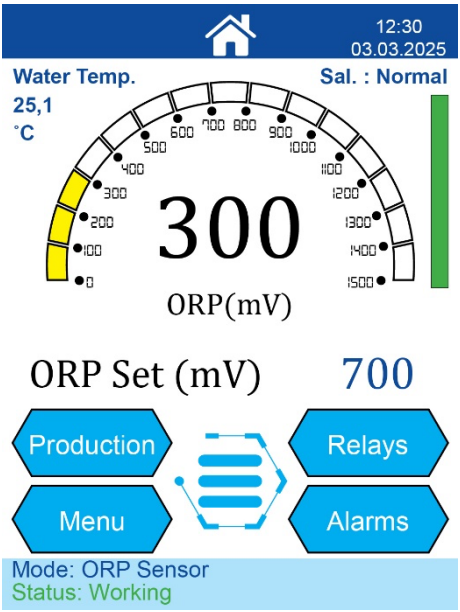


Figure 31 ORP Home Screen

The measured instantaneous ORP value can be monitored on the ORP main screen.

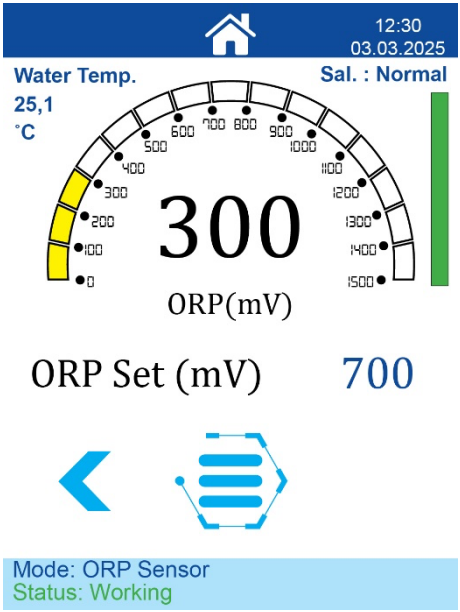


Figure 32 Switch between ORP home screen and production home screen with arrow keys

11.2 Production

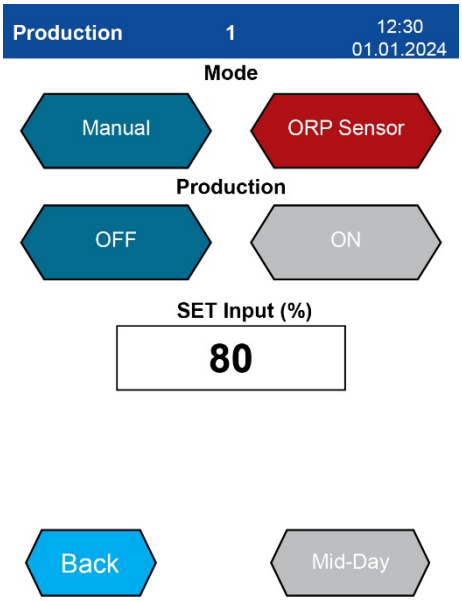


Figure 33 Production Menu

The Production Menu allows checking the device's operating mode (Manual or ORP Sensor) and production status (On/Off).

Operating Mode Selection:

- Manual Mode: The device operates in manual mode according to the constant chlorine production rate set by the user.
- ORP Sensor Mode: The device automatically produces chlorine according to the chemical needs of water. In this mode, the ORP sensor must be connected (Optional).

Production Condition:

- Production On: Chlorine production is active.
- Production Off: Chlorine production is disabled.

11.2.1 Manual Mode

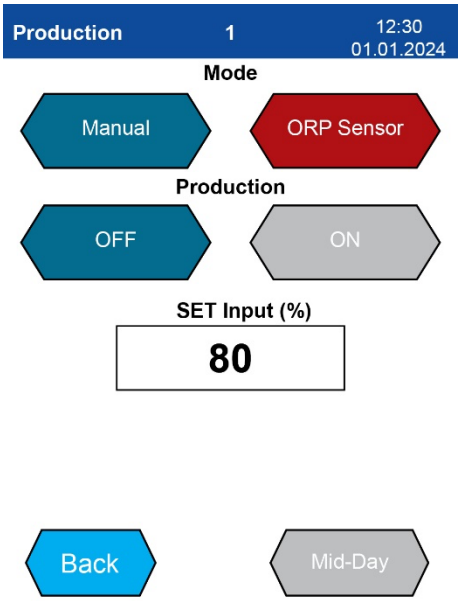


Figure 34 Manual Mode

Manual Mode allows the device to operate with a constant chlorine production rate. In this mode, the device produces chlorine according to the set value set by the user and depending on the device capacity (12-24-36gr/h).

11.2.1.1 Mid-Day Mode

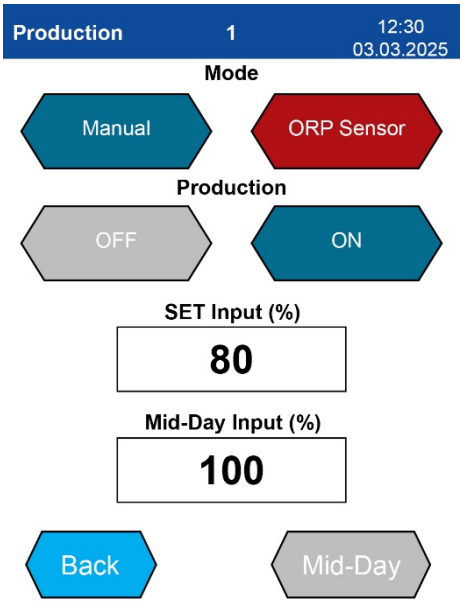


Figure 35 Production Menu with Mid-Day Mode Active

It may be necessary to increase chlorine production due to factors such as temperature increase during the day, intensified pool use or excessive water evaporation. The Mid-Day Function allows you to adjust the chlorine level in the pool even during peak times of the day.

When the mid-day function is activated, it will be activated in the time period between the **Start Time** and **the End Time.** The chlorine production rate to be realized in this time period can be adjusted by changing the **Mid-Day Input (%)** value on the production menu screen.



Figure 36 Mid-Day Time Settings

INFO!

The Mid-Day Function can only be activated when working with Manual Mode. The Mid-Day Function is not used when working with ORP Sensor Mode. Because in ORP Sensor Mode, the device adjusts chlorine production proportionally to the current needs of the pool water and does not require manual intervention.

11.2.2 ORP Sensor Mode

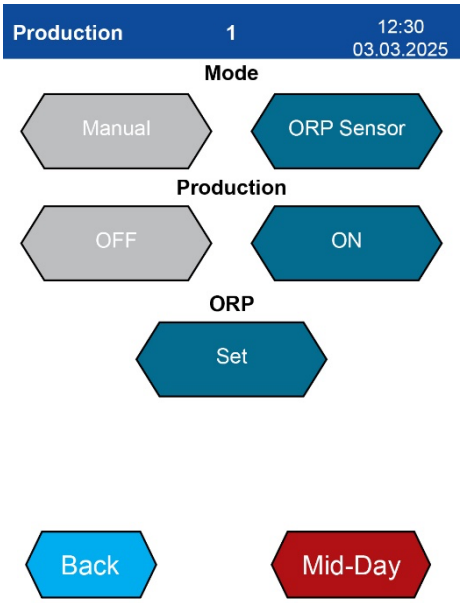


Figure 37 ORP Sensor Mode

The ORP Sensor Mode allows the Salt Ionic device to automatically produce chlorine based on the chemical needs of the pool water. In this mode, the device measures the ORP value of the water and adjusts the chlorine production according to the need.

Working Principle of ORP Sensor Mode

- ORP Sensors: The ORP sensor shows the ORP (Oxidation Reduction Potential) value according to the chlorine content of the water in the pool.
- Auto Tuning: The ORP sensor allows you to adjust the desired amount of chlorine proportionally by increasing or decreasing chlorine production in the pool water according to the desired set value.

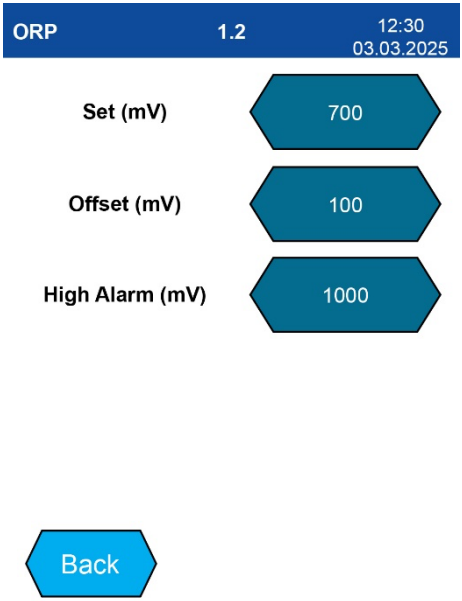


Figure 38 ORP Sensor Mode Settings

Use of the Device in ORP Sensor Mode:

Mode Selection: From the production menu screen

1- Select the ORP Sensor Mode option.

2- **Production Condition:** Toggle the production status to **On**.

3- **Auto Tuning:** The device measures the current ORP value of the water and automatically produces chlorine according to the set and offset values. No user intervention is required in this mode.

4- **Control & Monitoring:** You can monitor the ORP value and chlorine production level on the device's screen. The device will automatically adjust the chlorine production rate according to the needs of the water.

INFO!

To use ORP Sensor Mode, the ORP Module must be activated.

11.3 Relays

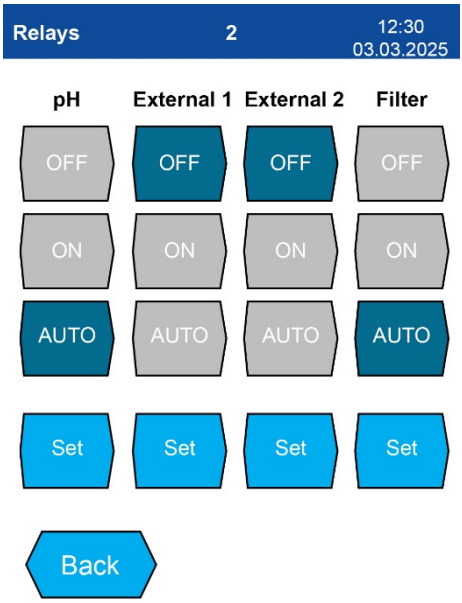


Figure 39 Relays Page – Overview

The device has 4 programmable relays, and each can be set to On, Off, or Auto Mode.
Acid Pump Relay Output For pH Control provides 220VAC electrical output and is used to operate the acid pump.
The AUX1, AUX2 relay outputs used for External Control output dry contact output and can be used to control external devices or systems.
Filter Relay Output outputs dry contacts. The filtration system is controlled through this outlet.
The Relays Menu allows the device to control its 4 adjustable relays. Relays can be turned on, off or used with automatic mode according to user needs.

11.3.1 Relay Settings

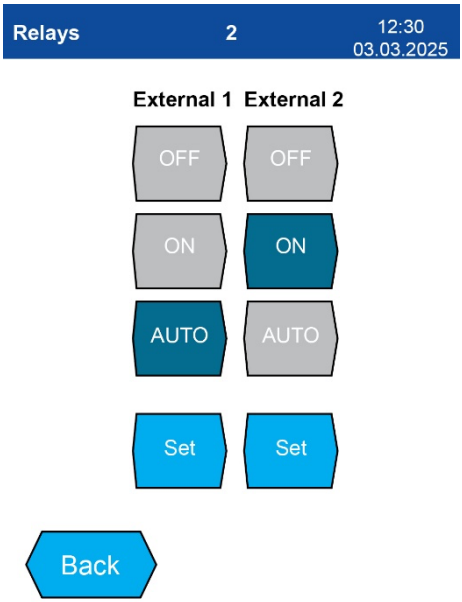


Figure 40 Relays Page - pH and Filter Relays Disabled

• The operating status of the relays on the device can be checked via the Main Menu > Relays menu and by following the setting screen of the relevant relay.
• When the relays are selected as on, the device will automatically return to its previous position after 2 minutes (external 1 relay outside the pool light function and external 2 relay chlorine pump function) for protection. This feature helps prevent device overload and malfunctions.

11.3.2 Relay Types

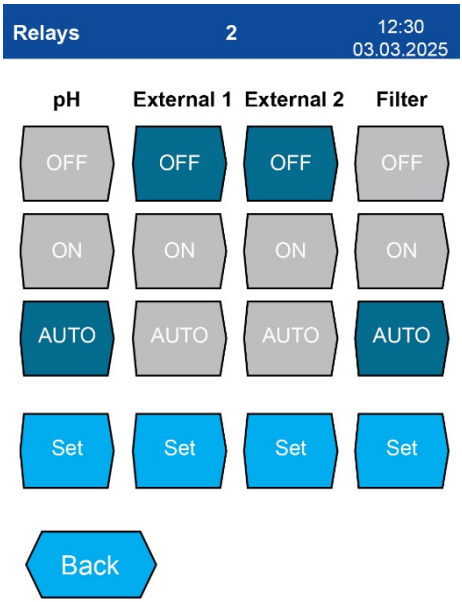


Figure 41 Relays Page - Relay Names

- pH Relay
- External 1 Relay
- External 2 Relay
- Filter Relay

There are 4 relay types as above.

11.3.2.1 pH Relay

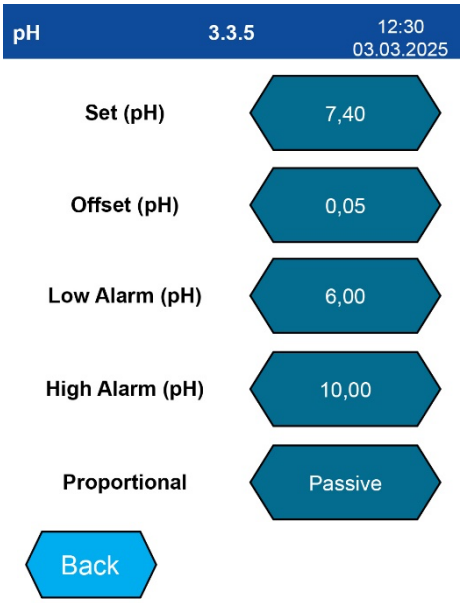


Figure 42 pH Relay Setting Page

To control the pH level of the pool, the pH pump's relay is designed to automatically activate based on the pH setting (set) and offset levels set by the user. When the pH relay is active, low alarm and high alarm pH levels, the device alarms and warns the user. The pH relay works in such a way that it lowers the pH value of the pool water.

- Low pH Alarm: When the pH level drops below the set low level, the production and pH relay will not operate until the alarm disappears.
- High pH Alarm: When the pH level rises above the set high level, the production relay will not operate until the alarm disappears.
- Acid Level Alarm Status: If an acid level sensor is connected, the chemical level in the tank must be sufficient. If the chemical level is not sufficient, the pH relay will not work until the alarm disappears.

11.3.2.1.1 pH Relay Proportional Function

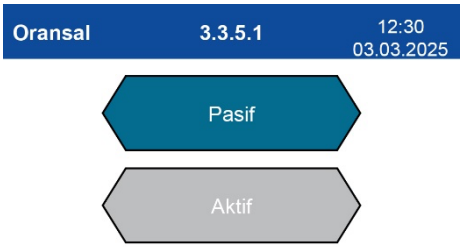


Figure 43 Activating the Proportional Control Mode

To activate the proportional control mode, follow the Main Menu > Relays path and click on the **Setting** button of the pH relay in this menu. By selecting Active, the proportional control mode is activated.

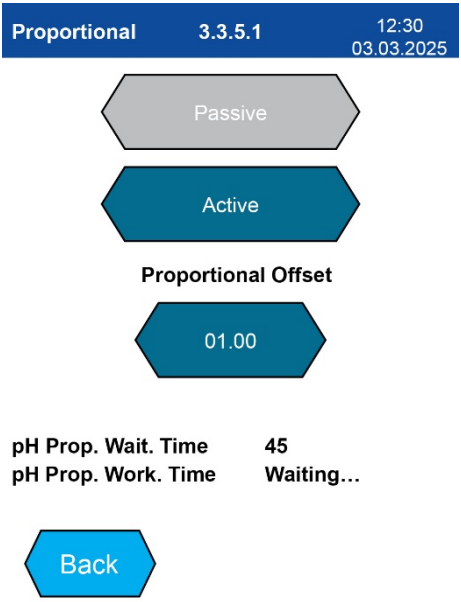


Figure 44 Proportional Control Mode Settings

When the proportional control mode is activated, the **Proportional Offset (pH)** value setting and the waiting time and operating time information of the pH relay in the proportional control mode will become visible.

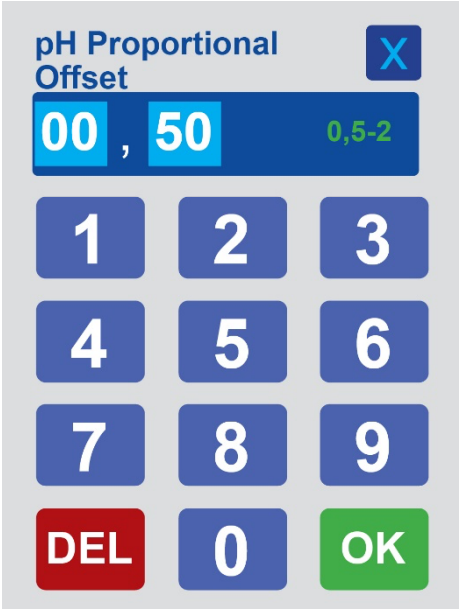


Figure 45 Proportional Offset pH Value Entry Screen

According to the **Proportional Offset (pH)** value set from this menu, the pH level will be checked automatically.

Note1: The proportional control mode works according to the Set (pH) value set in the pH relay settings menu and the selected Proportional Offset (pH) value.
This means adjusting the running time of the acid pump based on how far the pH level is from the desired value.
If it is close to the set value, the pump will run for a shorter time. If it is far from the set value, the pump will run longer. This ensures more accurate and stable pH control, preventing sudden fluctuations.

Note2: To view the pH relay and adjust its settings, the pH module must be connected to the device.

11.3.2.2 External 1 Relay (Pool Light and Heat Pump)

External 1 relay can be used with two different functions, Pool Light and Heat pump.

11.3.2.2.1 Pool Light Function

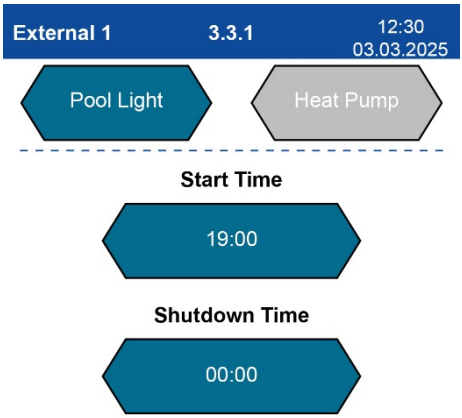


Figure 46 External 1 Relay - Pool Light Settings

The external 1 relay operates the pool light according to the specified on and off times.

11.3.2.2.2 Heat Pump Function

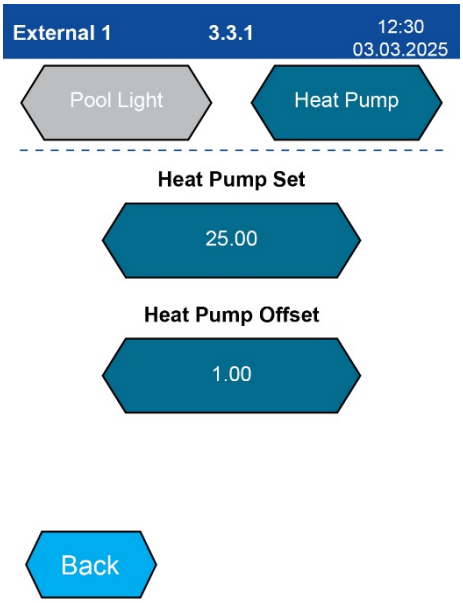


Figure 47 External 1 Relay - Heat Pump Settings

The external 1 relay works depending on the temperature sensor. According to the data received from the temperature sensor, the set temperature controls the heat pump in line with the set value and offset. The pump operates until the temperature reaches the specified set value. When this value is reached, the pump stops and reactivates when the temperature drops to the set-offset value. In this way, the temperature level of the pool water is kept at the desired value.

INFO!

The temperature sensor must be connected to operate the Heat Pump. Also, if the Filter Check or Filter In functions are not active, the Heat Pump function cannot be used.

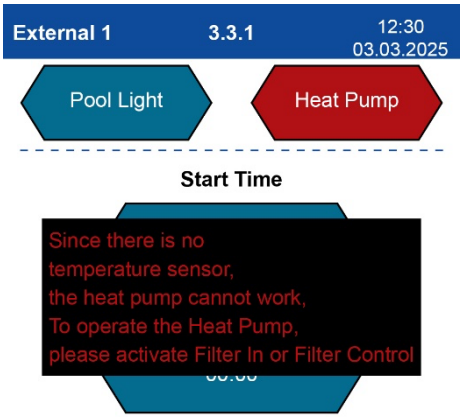


Figure 48 Warning message on the display when the conditions required for the Heat Pump to be operated are not met (e.g. if the temperature sensor is not connected or the filter functions are not activated)

11.3.2.3 External 2 Relay (Pool Waterfall and Chlorine Pump)

External 2 relay can be used with two different functions: Pool Waterfall and Chlorine Dosing Pump.

11.3.2.3.1 Pool Waterfall Function

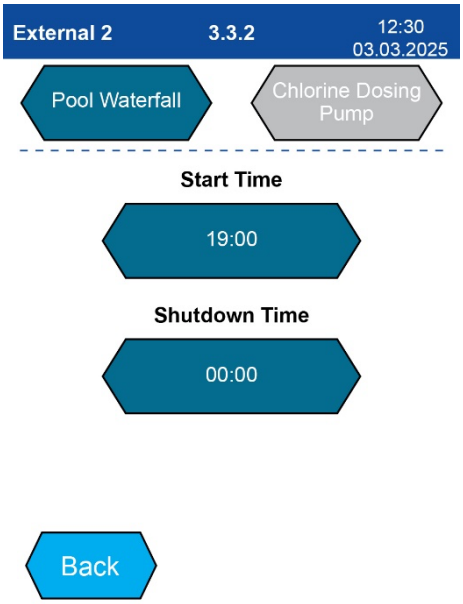


Figure 49 External 2 Relay - Pool Waterfall Settings

External 2 relay operates the pool waterfall according to the set opening and closing times.

11.3.2.3.2 Chlorine Dosing Pump Function

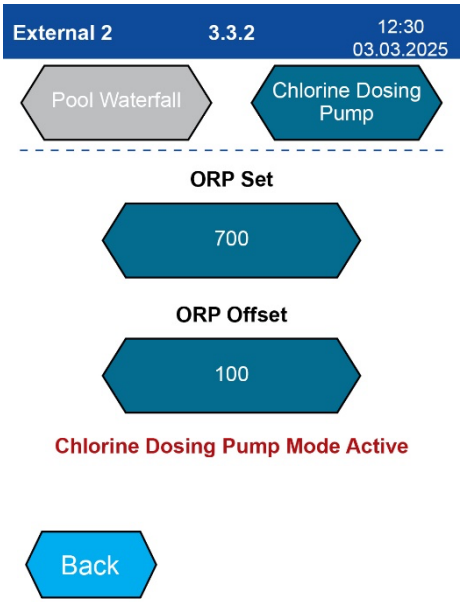


Figure 50 External 2 Relay - Chlorine Dosing Pump Settings

The external 2 relay works connected to the ORP Sensor. It operates an external chlorine dosing pump based on the data it receives from the ORP sensor and the set value. In this way, the chlorine level of the pool water is checked.

INFO!

The Chlorine Dosing Pump function cannot be operated if the ORP Module is not plugged in. The external 2 Relay Chlorine Dosing Pump function should be used when the electrolysis Cell fails or when liquid chlorine is desired to be dozed externally.

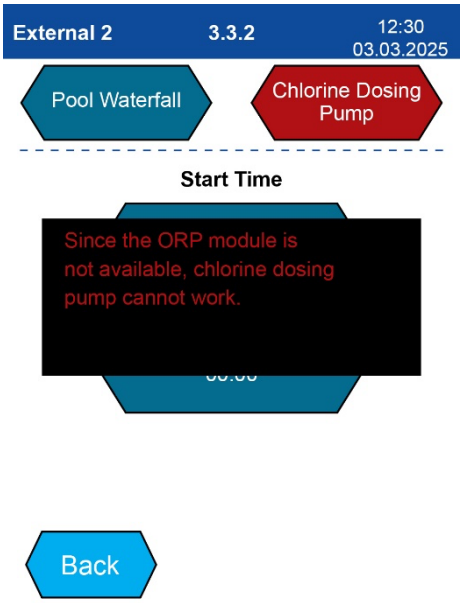


Figure 51 Warning message appearing on the display when the conditions required for the operation of the Chlorine Dosing Pump are not met (if the ORP Module is not installed)

11.3.2.4 Filter Relay (Filter Control)

The Filter Relay enables the operation of the filter pump, which provides the water needs of the system.

It can be activated by following the **User Menu > Inputs > Filter Control > Active** steps. The Filtration Relay works with two different functions. Below are detailed explanations of both functions.

11.3.2.4.1 Filter Relay Function 1

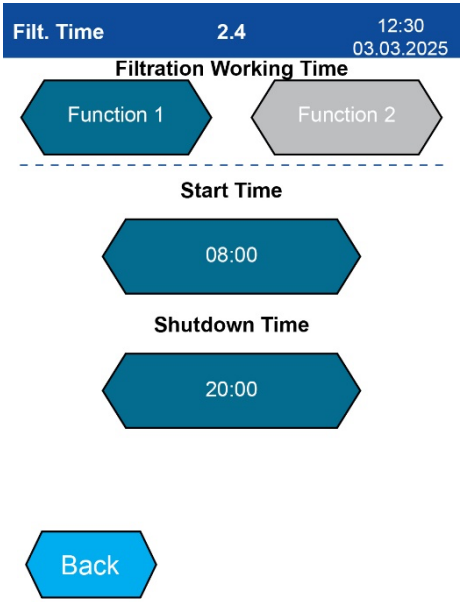


Figure 52 Filter Relay Function 1 Settings

The filtration system is operated according to certain opening and closing times.

The filtration system will be operated each day in the time period between the selected **On Time** and **Off Time** .

11.3.2.4.2 Filter Relay Function 2

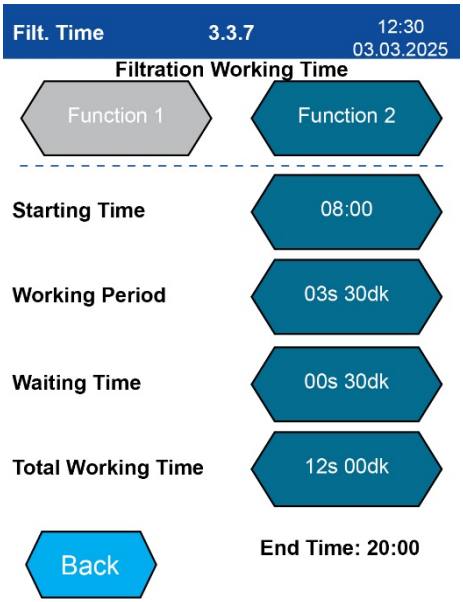


Figure 53 Filter Relay Function 2 Settings

The start-up time, working period, standby time and total working time of the filtration system can be set, so that the filtration system can be operated periodically.

11.4 Menu

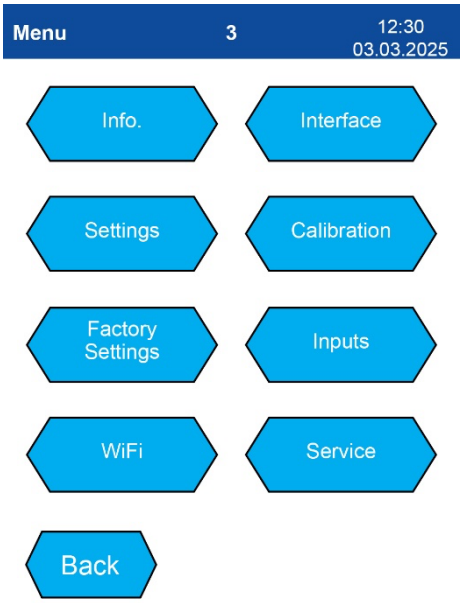


Figure 54 User Menu

The User Menu is the section where you can make user-specific settings of the device. In this menu, the general configurations of the device and user preferences can be adjusted. It consists of 8 main headings: User Menu, Information, Interface, Settings, Calibration, Factory Settings, Inputs, Wi-Fi and Service.

11.4.1 Info

The information menu provides information to the user in 3 sections. You can switch between these sections using the **Forward** and **Backward** buttons.

1- First Section :

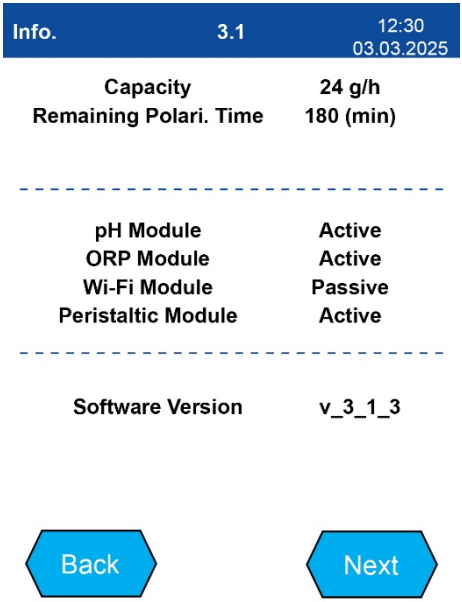


Figure 55 Information Menu – Section 1

•Capacity: It is the amount of chlorine that the device can produce because of one hour of operation.
• Polarization Remaining Time: The time remaining until the polarity change (reversal of the poles) in the electrolysis cell.
• pH Module, ORP Module, Wi-Fi module, and Peristaltic Module states: Modules that are integrated into the device (available) and those that are not integrated (non-existent) can be viewed in this section.
• Software Version: It is the version number of the software running on the device.

2- Second Section:

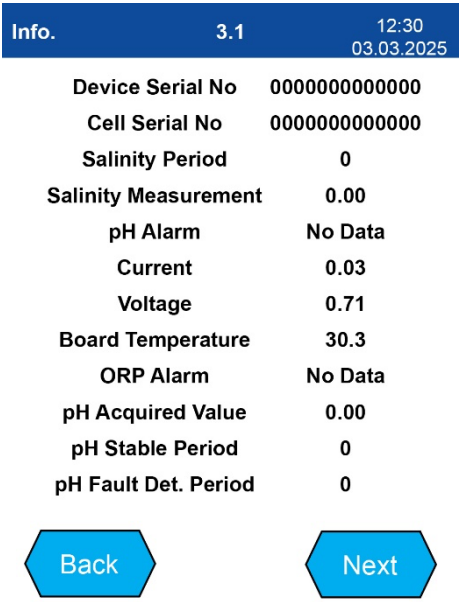


Figure 56 Information Menu - Section 2

• Device serial number
• Cell Serial Number
• Salinity Counter:
• Salinity Measurement: It is the measured salinity level of water.
• pH Alarm & ORP Alarm: Alarm statuses related to pH and ORP detected by the sensors can be monitored here.
•Current: The instantaneous current value drawn by the electrolysis cell can be monitored here.
•Voltage: The instantaneous voltage value of the electrolysis cell can be monitored here.
• Card Temperature: The instant temperature value of the device motherboard can be monitored here.
• pH Value: To ensure the accuracy of the data received from the pH sensor, an instantaneous measurement is taken from the sensor every 5 hours, and this value is compared with the previous measurement. The most recent pH reading can be viewed here.

• pH Sab. Per.: If the last two values read from the pH sensor are the same, it is checked at 10-minute intervals whether the pH value remains constant. If the value remains constant, the current value of the counter, which measures the time between these checks, can be viewed here.
• pH Sab. Tesp. Per.: It is checked at 5-hour intervals whether the value read from the pH sensor remains constant. The current value of the timer (counter) that monitors the process between the two controls can be tracked here.

3- Third Section:

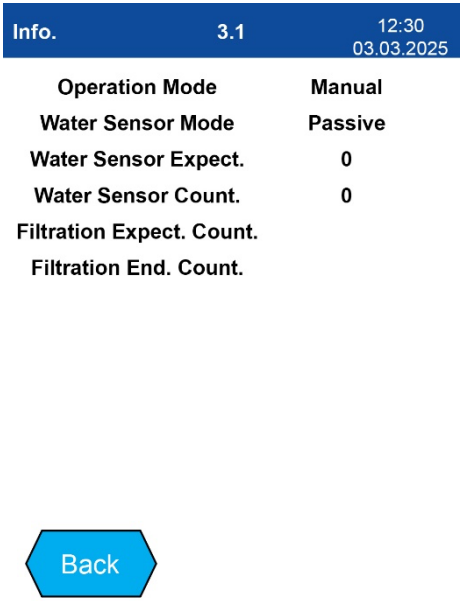


Figure 57 Information Menu – Section 3

• Operating Mode: The device operating mode (Manual or ORP Sensor Mode) can be viewed here.
• Water Sensor Mode: Water Sensor
• Includes information on the operating states of the water sensor and filtration relay.

11.4.2 Interface

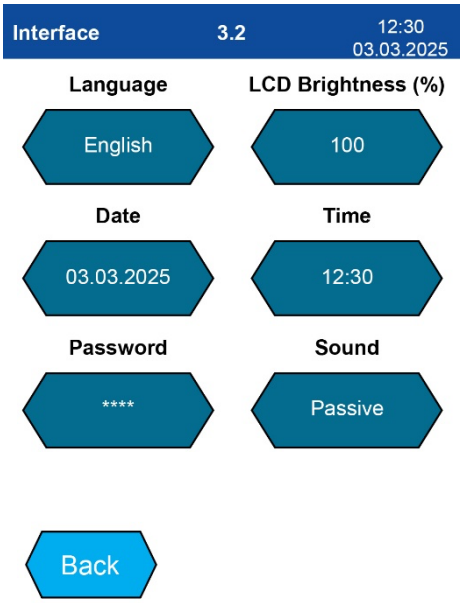


Figure 58 Interface Menu

The interface menu allows setting 6 parameters, namely Language, LCD brightness, Date, Time, Password, and Sound.

11.4.2.1 Language

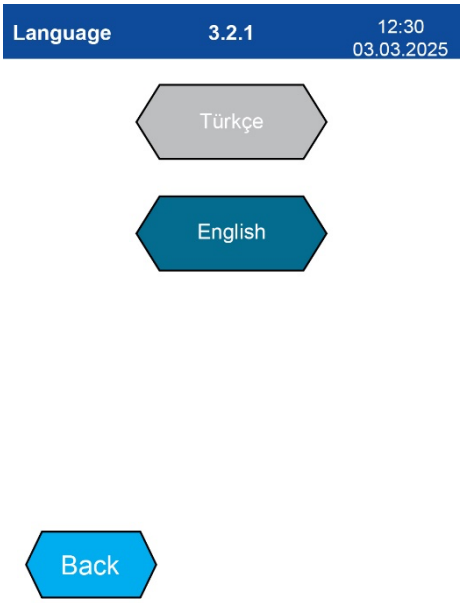


Figure 59 Language Menu

From the interface settings, one of two different language options, Turkish and English, can be selected.

11.4.2.2 LCD Brightness Adjustment

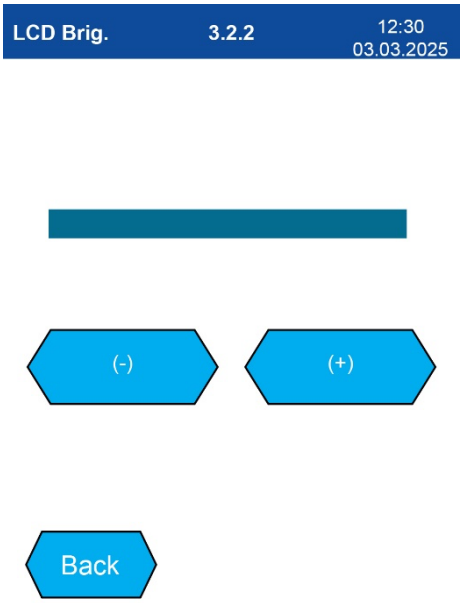


Figure 60 LCD Brightness Adjustment Menu

The LCD screen brightness adjustment is performed from this menu.

11.4.2.3 Date

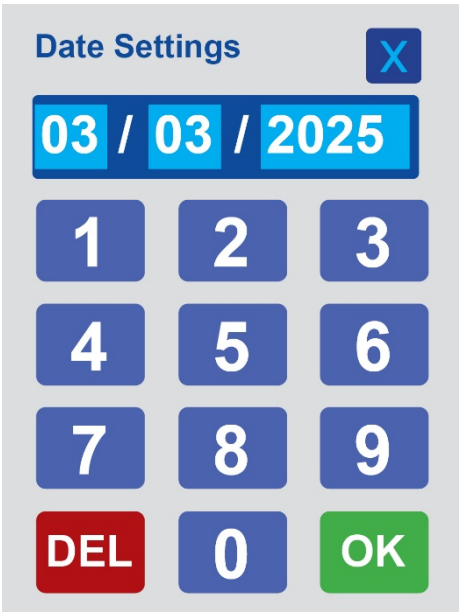


Figure 61 Date Setting Menu

The date setting of the Salt Ionic Salt Chlorine Generator device is made from this menu.

11.4.2.4 Hour

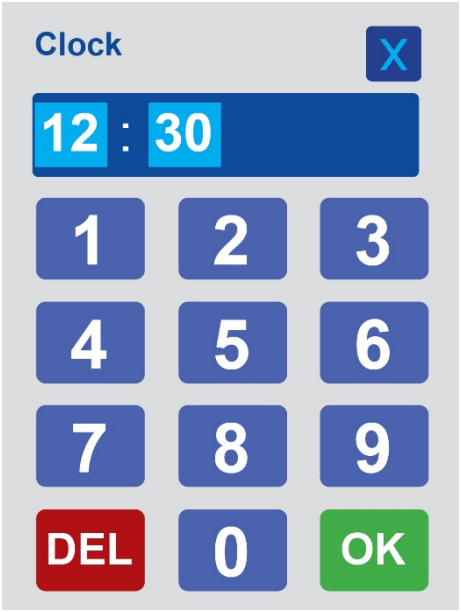


Figure 62 Time Setting Menu

The time setting of the Salt Ionic Salt Chlorine Generator device is made from this menu.

11.4.2.5 Sound Adjustment

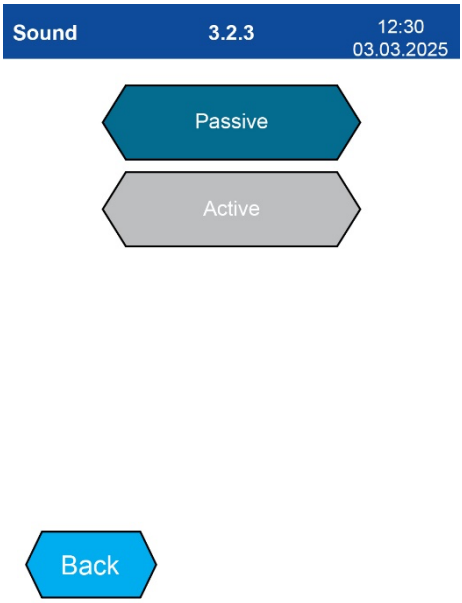


Figure 63 Sound Setting Menu

The sound level setting of the Salt Ionic Salt Chlorine Generator device is managed from this menu. When the **Active** option is selected, button sounds, and alarm sounds will be activated. When the **Passive** option is selected, button sounds, and alarm sounds will be disabled.

11.4.3 Sets

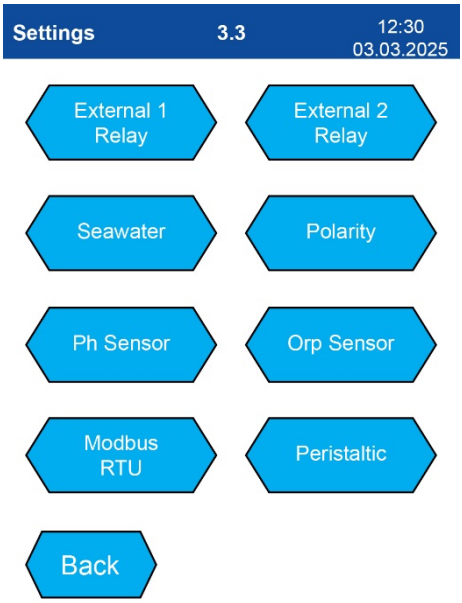


Figure 64 Settings Menu

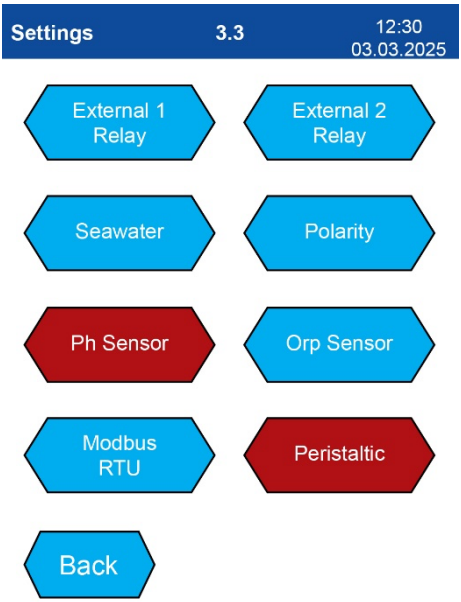


Figure 65 Appearance of the Settings Menu with the pH Module and Peristaltic Module Unplugged

The settings menu allows you to set up 8 parameters in total. These parameters are:

- pH Sensor, ORP Sensor, Peristaltic (optional) and Modbus RTU Functions
- External 1 Relay
- External 2 Relay
- Sea Water Mode
- Polarity

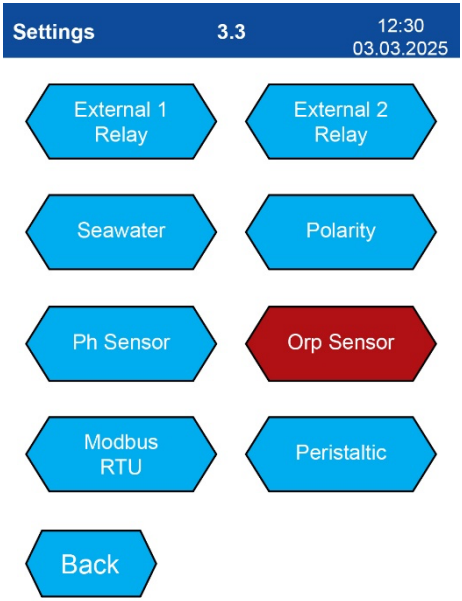


Figure 66 Appearance of the Settings Menu When the Orp Module Is Not Installed

PH Sensor, ORP Sensor and Peristaltic Module are optional, and the function cannot be used if the relevant module is not connected. Functions that are unavailable because the module is not connected are indicated by red buttons.

Explanations about the submenus in the settings menu are given under subheadings.

11.4.3.1 External 1 Relay

For detailed information on the External 1 Relay setting screen, see page 35 describing the Relays Menu section.

11.4.3.2 External 2 Relay

For detailed information on the External 2 Relay setting screen, see page 37 describing the Relays Menu section.

11.4.3.3 Seawater

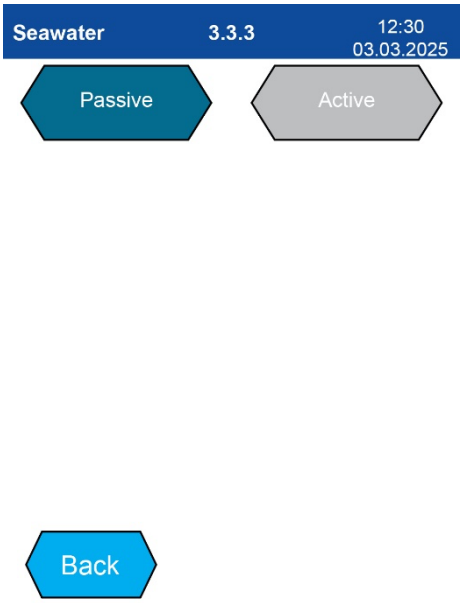


Figure 67 Sea Water Menu - Activating Sea Water Mode

The Salt Ionic Salt Chlorine Generator device can also produce chlorine in waters with high salinity such as sea water.

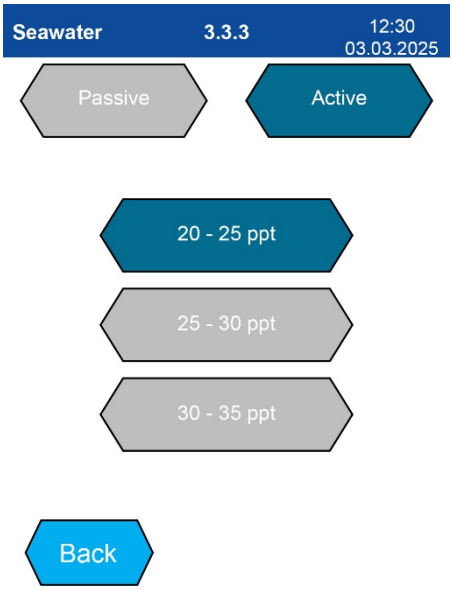


Figure 68 Seawater Menu - Salinity Level Selection

If the water passed through the electrolysis cell is water with a high salinity, the salinity level of the water is selected after the salinity of the water is determined with a hand-held measuring device by activating the Sea Water mode. The device performs chlorine production by adapting to the selected salinity level.

11.4.3.4 Polarity

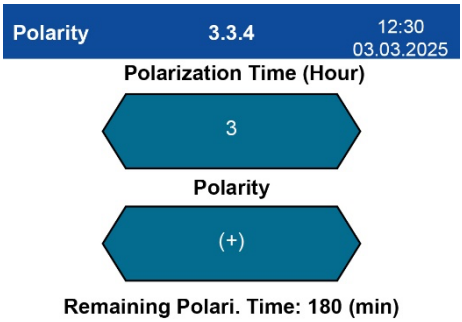


Figure 69 Polarity Menu

This is the menu that allows you to set the polarization time and polarization pole (+ or -) of the electrolysis cell.
To improve system efficiency, reduce maintenance, and extend the service life of the electrodes, the direction of the current flowing through the electrolysis cell is periodically reversed at defined polarization time intervals.

11.4.3.5 pH Sensor

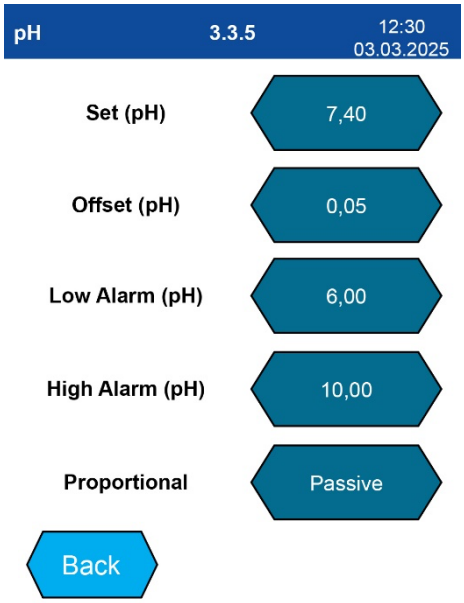


Figure 70 pH Sensor Menu

The pH Sensor measures the acidic or basic level of water.
This menu allows you to set the Set, Offset, Low Alarm, High Alarm, and Proportional Operation parameters for the pH Sensor. To adjust the pH sensor settings, you should follow these steps:

1. Follow the steps in User Menu > Settings > pH Sensor.

2. From the pH Sensor menu, various parameters of the pH sensor can be set:

- Set: It allows the pH level of the water to be adjusted to the target value according to the measurement value of the pH sensor.
- Offset: According to the offset value to be exceeded from the pH set value, the chemical dosing specifies the correction value to be made.
- Alarm Levels (Low Alarm – High Alarm): It allows the setting of values that will allow the device to alarm if the pH level exceeds the specified lower (low) or upper (high) limits

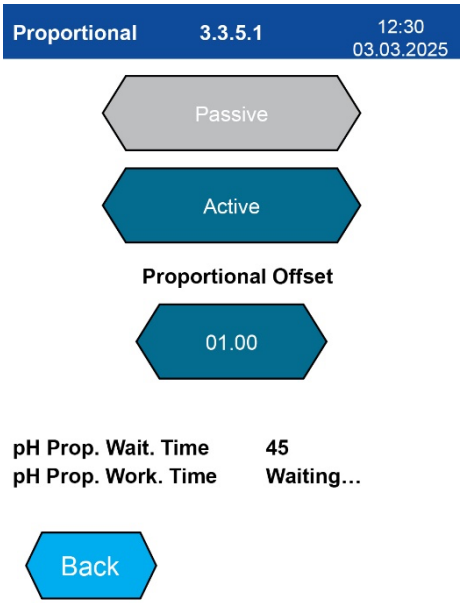


Figure 71 pH Sensor Menu - Proportional Control

- Proportional Control: It determines whether the pH sensor will work with proportional control. This feature controls the operation of the dosing pump, which automatically adjusts the chemical dosing according to the pH level of the water, bringing the pH value to the desired level.

11.4.3.6 ORP Sensor

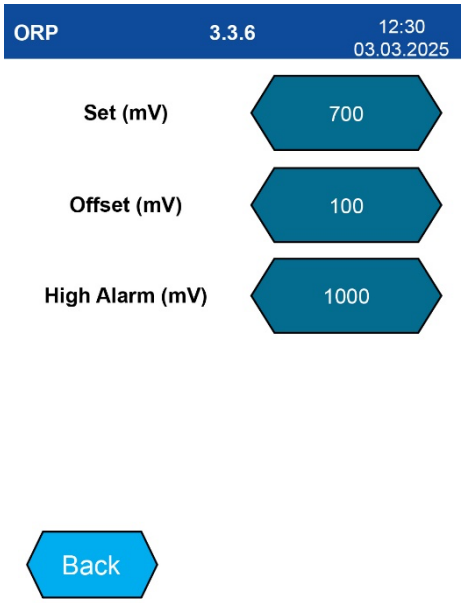


Figure 72 ORP Sensor Menu

The ORP sensor detects the chlorine level of the water in the pool and measures the oxidation-reduction potential (ORP) of the water.
This menu allows you to set Set, Offset and High Alarm parameters for the ORP Sensor. To adjust the ORP sensor settings, you must follow the steps below:

1. Follow the steps in User Menu > Settings > ORP Sensor.

2. In this menu, various parameters of the ORP sensor can be adjusted:

- Set: It is the parameter in which the amount of chlorine needed in the pool water is defined in the ORP type unit. The device automatically adjusts the chlorine production rate based on the difference between the amount of chlorine present measured in the pool water and the set value entered. In this way, the amount of chlorine in the pool water is controlled to reach the targeted set value.
- Offset: Specifies the amount of correction to be applied by adding or subtracting from the ORP set value. This parameter is used to optimize and fine-tune chemical dosing.
- High Alarm: It makes it possible to set the value that will allow the device to alarm if the ORP value exceeds the specified upper (high) limit.

11.4.3.7 Modbus RTU

The Modbus communication function can be used in 2 basic modes:

1)Other Device Mode:

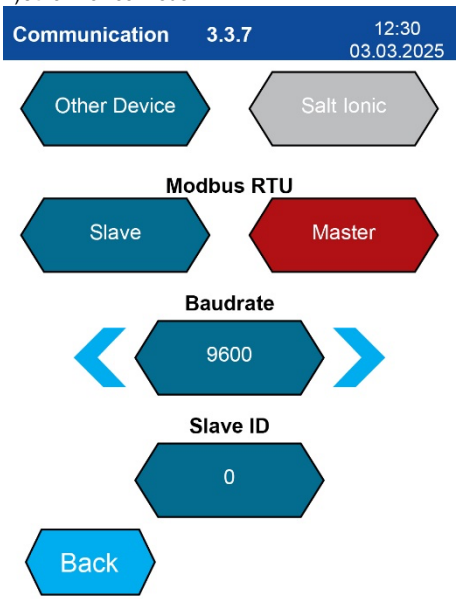


Figure 73 Modbus RTU Menu – Other Device Mode

In this mode, the Salt Ionic device operates in Slave mode in line with commands sent by an external device or PLC that supports the Modbus RTU protocol.

INFO!
In Other Device mode, the Salt Ionic device can only be used in Slave mode.

INFO!
Please contact the technical service unit for the Modbus register list.

2)Salt Ionic Mode:

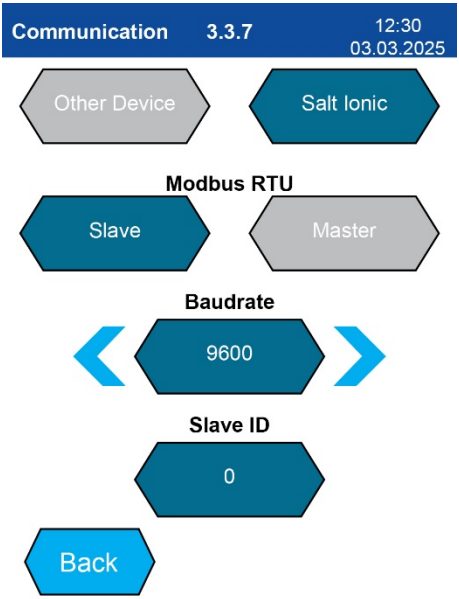


Figure 74 Modbus RTU Menu – Salt Ionic Slave Mode Settings

This mode is used for the control of Salt Ionic Salt Chlorine Generator devices set to slave by a Salt Ionic Salt Chlorine Generator device set to master. The system includes one Master device and one or more Slave devices. Slave devices receive commands from the Master device over the Modbus communication protocol and work synchronously with the Master.
In other words, Slave devices repeat the operations of the Master device in the same way and simultaneously. Thanks to this structure, all devices perform the operations required by the system in harmony and synchronously.

Note: Up to 10 Salt Ionic Salt Chlorine Generator devices can be connected to a Salt Ionic Salt Chlorine Generator device set as Master.
In slave mode, the Baudrate value and Slave ID that the device wants to communicate with are set.

INFO!

The baudrate value is the number of symbols transmitted in one second in serial communication protocols. Devices must have the same baudrate, otherwise the transferred data cannot be resolved correctly.

A Modbus Slave ID (or Slave Address) is a number that specifies the unique address of each device (slave) on a Modbus network. The master device selects the slave it wants to communicate with through this ID.

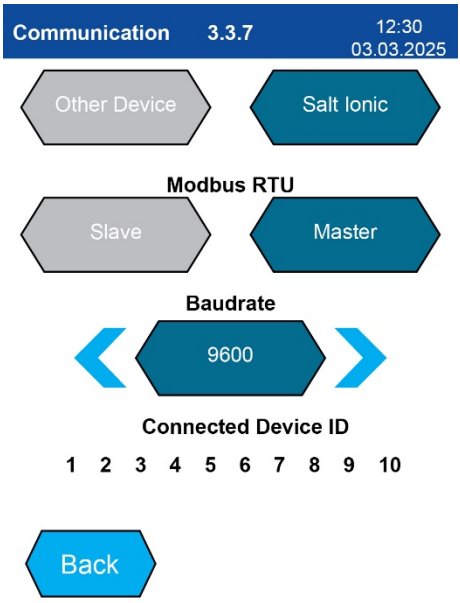


Figure 75 Modbus RTU Menu – Salt Ionic Master Mod Settings

In Master mode, the Baudrate value that the device wants to communicate with is set.

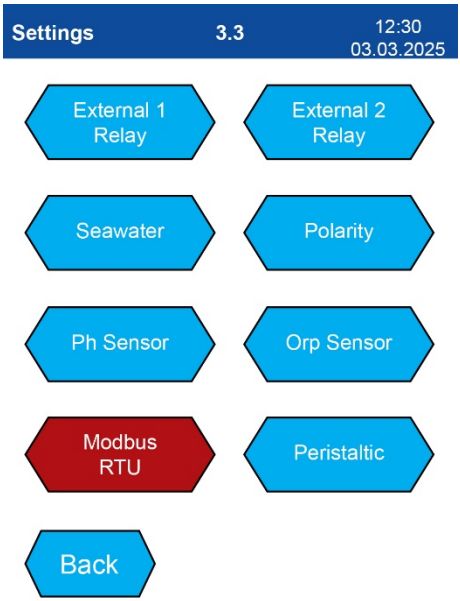


Figure 76 Settings Menu - Modbus RTU Function Disabled

INFO!

If the **Modbus RTU** button appears red in the **Settings** menu as shown in figure 76, contact the technical service.

11.4.3.8 Peristaltic

The peristaltic pump is used to dose acid into the pool water to keep the pH level of the pool water at appropriate values. The functions of the Peristaltic pump in the Salt Ionic Salt Chlorine Generator device and the features of these functions are explained below.

11.4.3.8.1 Manual Mode

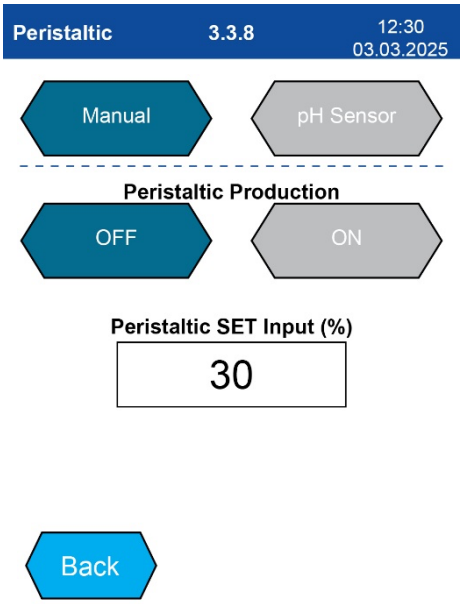


Figure 77 Peristaltic Menu - Manual Mode Settings

In this mode, the pump **is manually operated by the user**. The user activates the pump to add chemicals to the pool water.

Uptime: In manual mode, the pump runs for 2 minutes. When this time is completed, the system automatically switches to pH sensor mode with Function 2 for protection.

11.4.3.8.2 pH Sensor Mode

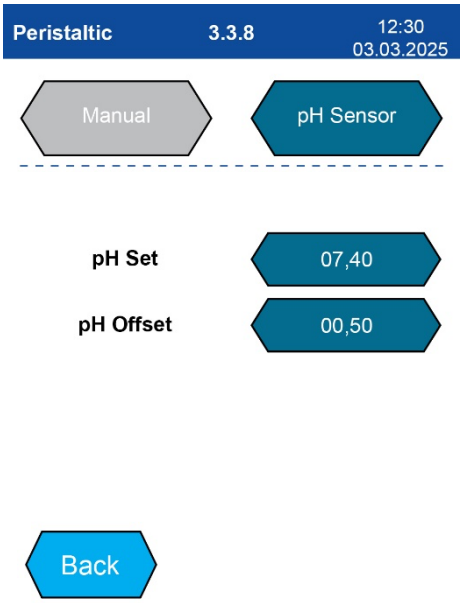


Figure 78 Peristaltic Menu - pH Sensor Mode Settings

In this mode, the pump is controlled by the pH sensor. In other words, the pH level of the pool water is constantly monitored, and the pump works automatically according to the pH level of the water.

pH Set: The ideal pH value of the pond water, i.e. the targeted pH level.

pH Offset: Acceptable deviation range of the pH value. This value is a tolerance range that allows the pH level to be slightly different from the ideal value.

INFO!

If the pH module is not installed, the peristaltic pump cannot be used in pH sensor mode

11.4.4 Calibration

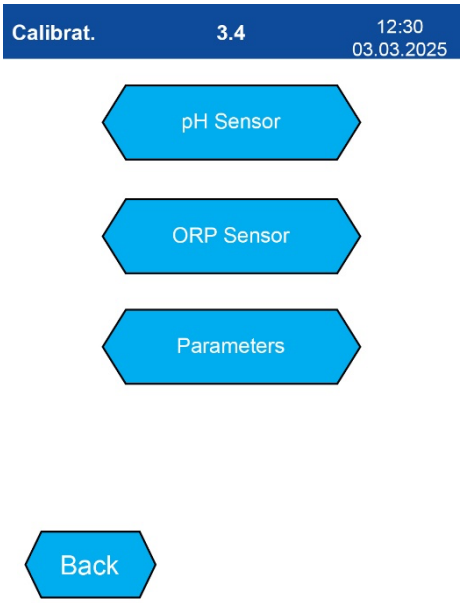


Figure 79 Calibration Menu

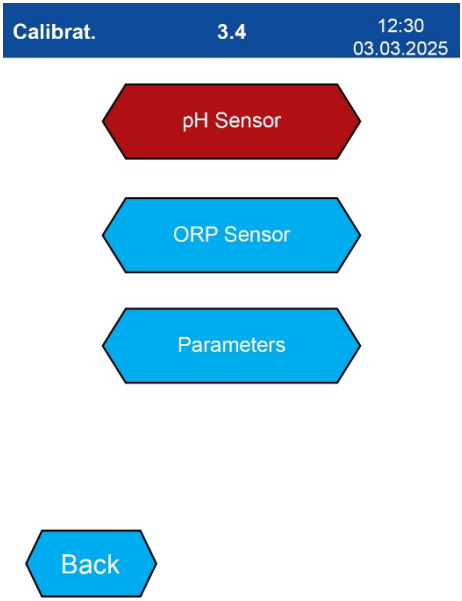


Figure 80 Calibration Menu - Menu View When the pH Module Is Not Installed

Sensors need to be calibrated regularly to ensure they work correctly. It is recommended to calibrate pH and ORP sensors periodically, as deviations in measurements may occur over time. Suitable buffer solutions are needed for the calibration process.

INFO!

If any of the pH and ORP modules are not installed, the corresponding sensor(s) indicated by a red button on the calibration settings page.

11.4.4.1 Ph Sensor Calibration

Introduction to the Calibration Screen:

1- In the menu, go to the **Calibration** section.

2- Then click **the pH Sensor** option.

Calibration Stages:

pH sensor calibration is completed in three steps:

Step 1:

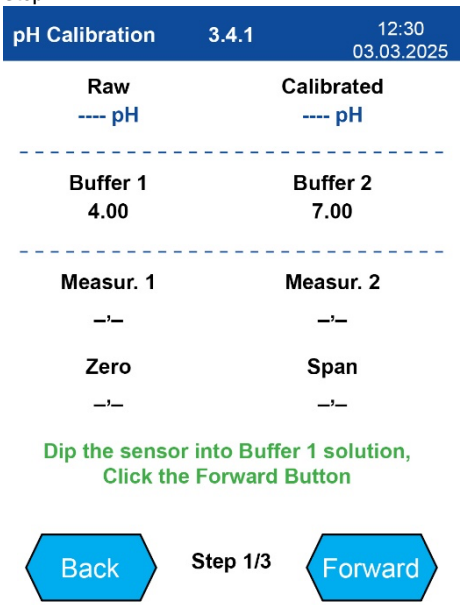


Figure 81 pH Sensor Calibration - Step 1

Dip the pH sensor in buffer 1 liquid. Wait until the raw measured value shown on the display has stabilized (stabilized). When the value is fixed, continue by clicking the **Next** button.

Step 2:

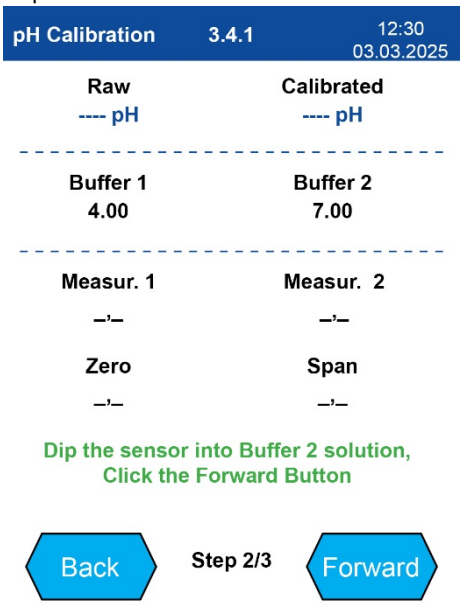


Figure 82 pH Sensor Calibration - Step 2

Dip the pH sensor in buffer 2 liquid. Wait until the raw measured value shown on the display has stabilized (stabilized). When the value is fixed, continue by clicking the **Next** button.

Step 3:

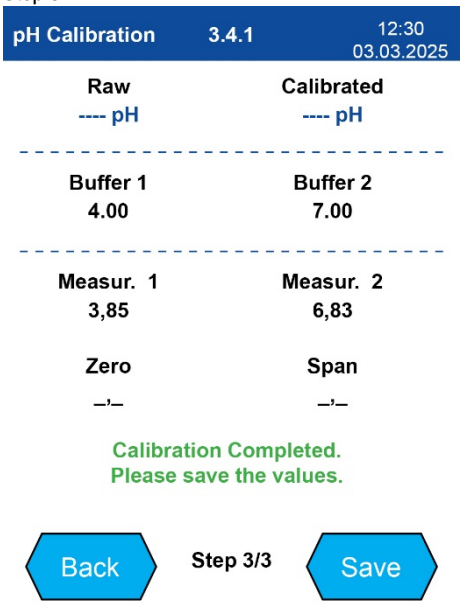


Figure 83 pH Sensor Calibration - Step 3

After the calibration is completed, save the settings made.

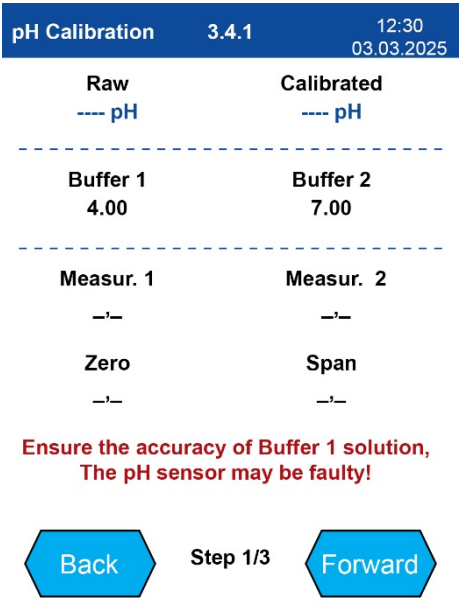


Figure 84 pH Sensor Calibration - Sensor Failure Alert (Step 1)

INFO!

If an out-of-range value is read from the pH sensor in Step 1 of calibration, an error message is displayed, as seen in Figure 83. If you encounter this error, first make sure that the buffer fluid used is correct. If the buffer fluid is correct, the pH sensor may be faulty.

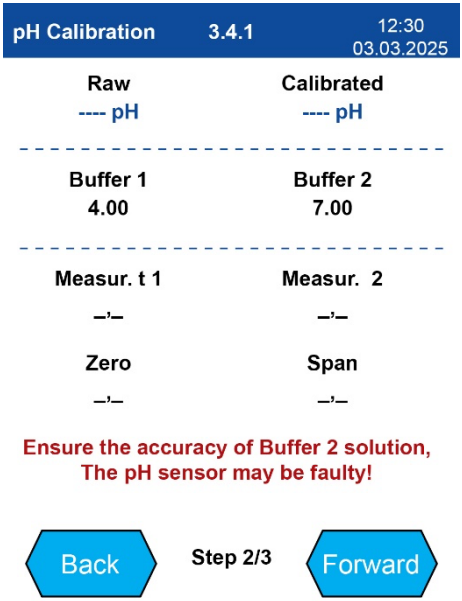


Figure 85 pH Sensor Calibration - Sensor Failure Alert (Step 2)

INFO!

If an out-of-range value is read from the pH sensor in Step 2 of calibration, an error message is displayed, as seen in Figure 84. If you encounter this error, first make sure that the buffer fluid used is correct. If the buffer fluid is correct, the pH sensor may be faulty.

11.4.4.2 ORP Sensor Calibration

Introduction to the Calibration Screen:

1- In the menu, go to the **Calibration** section.
2- Then click **the ORP Sensor** option.

Calibration Stages:

ORP sensor calibration is completed in two steps:

Step 1:

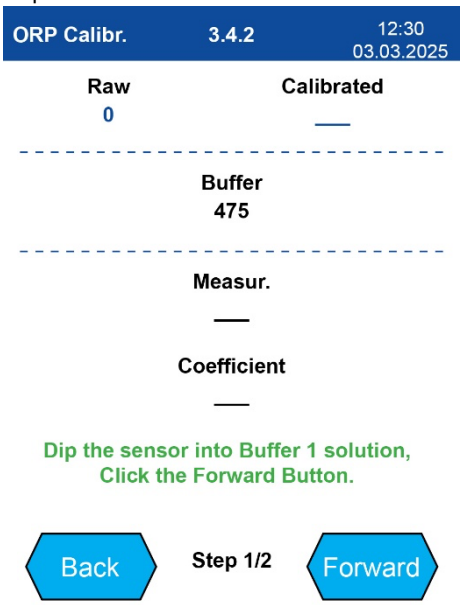


Figure 86 ORP Sensor Calibration - Step 1

Dip the ORP sensor in buffer liquid. Wait until the raw measured value shown on the display has stabilized (stabilized). When the value is fixed, continue by clicking the **Next** button.

. Step 2:

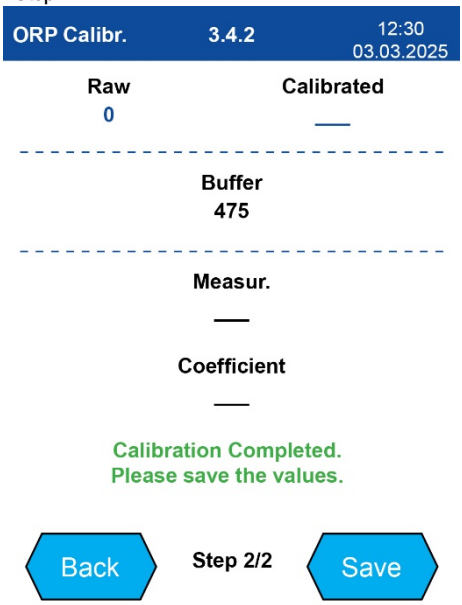


Figure 87 ORP Sensor Calibration - Step 2

After the calibration is completed, save the settings made.

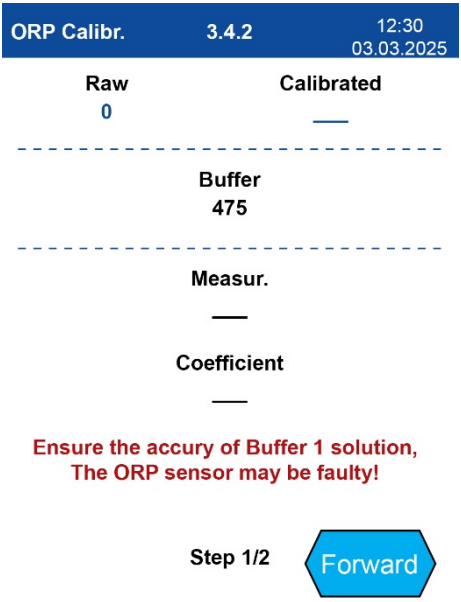


Figure 88 ORP Sensor Calibration - Sensor Failure Alert

INFO!

If an out-of-range value is read from the ORP sensor while performing the calibration, an error message is displayed as above. If you encounter this error, first make sure that the buffer fluid used is correct. If the buffer fluid is correct, the ORP sensor may be faulty.

11.4.4.3 12.4.4.3 Parameters

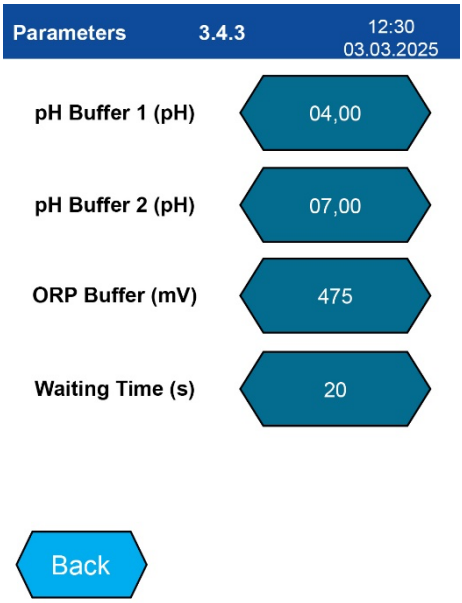


Figure 89 Calibration Parameter Settings

Through this menu;

- Values of buffer fluids to be used in calibration,
- Calibration waiting time and parameters are adjusted.

INFO!

If any of the pH and ORP modules are not connected, the parameters related to these module(s) are indicated by a red button.

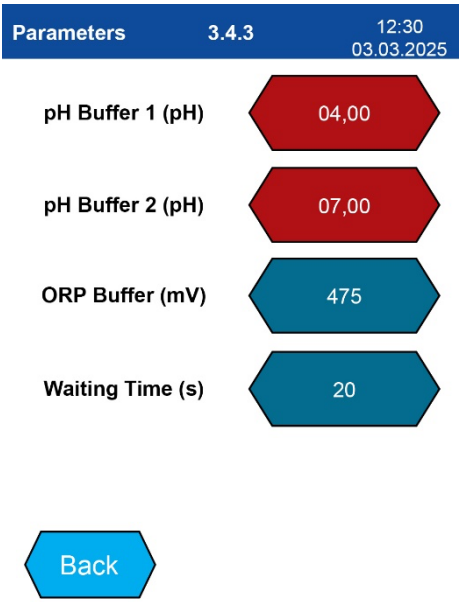


Figure 90 Calibration Parameters Menu - Menu View When pH Module Not Installed

If the pH module is not connected, the parameters related to the pH sensor calibration will be shown in red.

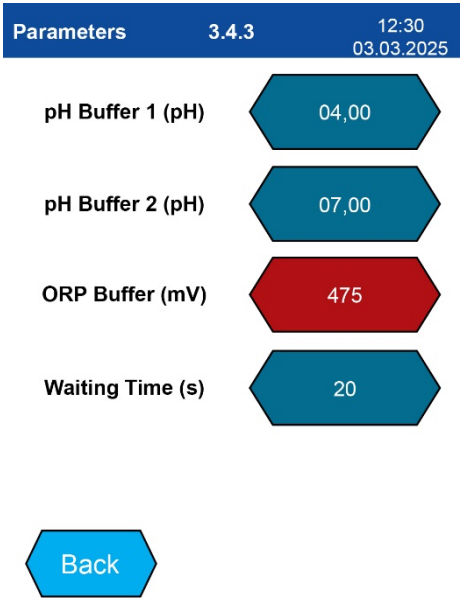


Figure 91 Calibration Parameters Menu - Menu View When ORP Module Is Not Installed

If the ORP module is not installed, the parameters related to the ORP sensor calibration will be shown in red.

INFO!

pH and ORP sensors require calibration at regular intervals to ensure accurate and reliable measurements. The points to be considered during the calibration process are listed below:

Calibration Frequency: pH and ORP sensors may drift over time. Regular calibration should be carried out according to the manufacturer's recommendations.

Buffer Fluids: During calibration, the correct buffer solutions (e.g. pH 4, 7 and 10) should be used. Expired or contaminated solutions can cause measurement errors.

Connection Check: Before calibration, ensure that the sensors are correctly connected and securely mounted.

Validation Test: After calibration, it is recommended to test with a reference solution of known value to verify the measurement accuracy of the sensors.

11.4.5 Factory Reset

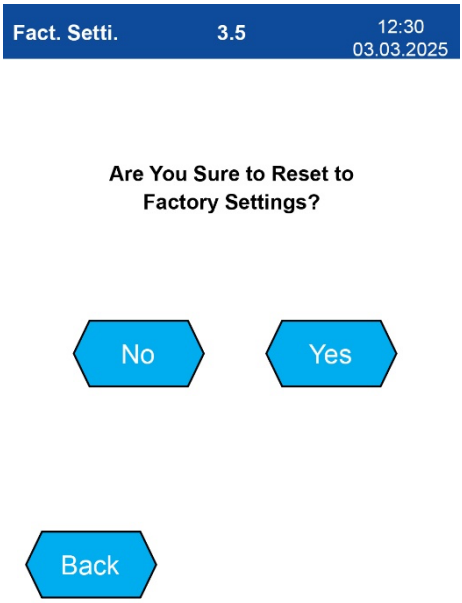


Figure 92 Factory Reset Menu

The factory settings menu refers to the settings set by the manufacturer of the device and come by default. These settings are designed to ensure that the device functions optimally upon first use or starting from scratch.
Factory settings are available when user-made changes need to be reset. This will restore the device to its original state.
Factory settings make it easy to install and use the device. It also offers a fallback point for correcting misconfigurations.

11.4.6 Inputs

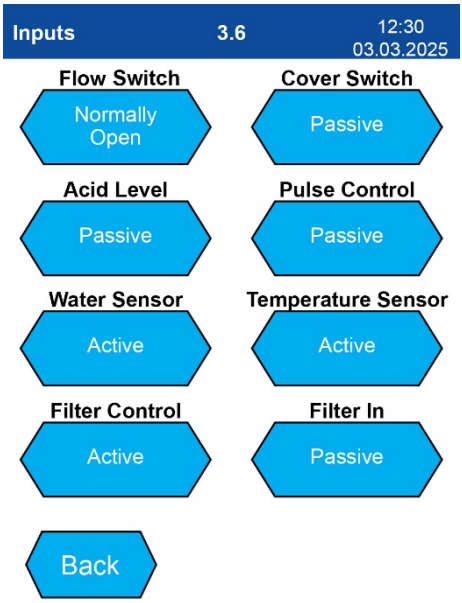


Figure 93 Inputs Menu

It allows you to adjust the digital inputs and sensors included in the device's hardware. The **Flow Switch**, **Water Sensor** and **Temperature Sensor** available on the Electrolysis Cell are actively sent. Follow the input settings below so you can adjust to other inputs.

INFO!

If the pH Module is not installed, the **Acid Level** input cannot be activated. In this case, the page with the **Acid Level** entry settings cannot be accessed and the corresponding button is displayed in red.

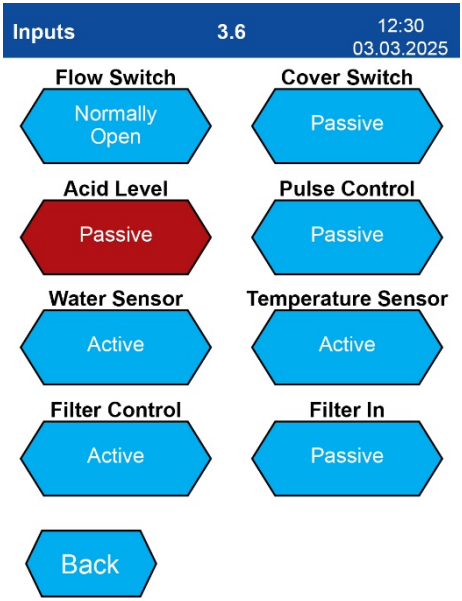


Figure 94 Inputs Menu - Menu View When the pH Module Is Not Installed

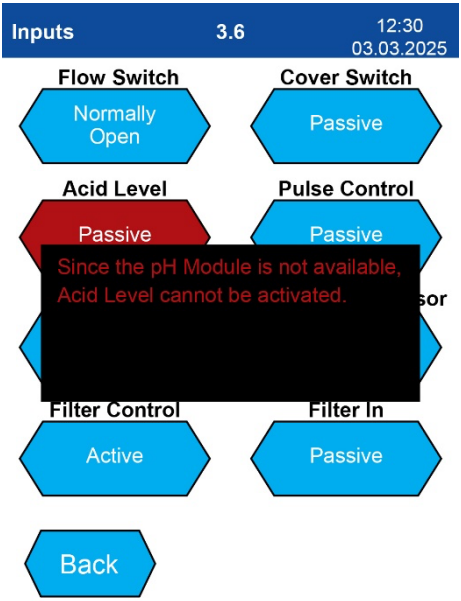


Figure 95 Warning Message That Acid Level Input Cannot Be Activated

11.4.6.1 Cover Switch

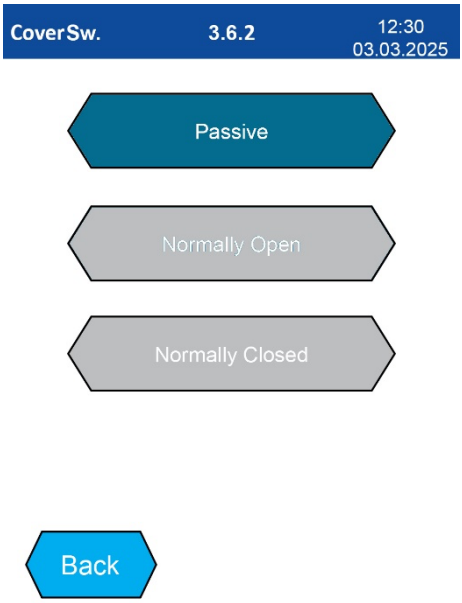


Figure 96 Cover Switch Input Setting Menu

It is used to detect whether the pool cover is closed or not. When either **Normally On** or **Normally Closed** is selected from the **User Menu > Inputs > Cover Switch** section, the **10% Production** setting parameter becomes visible.

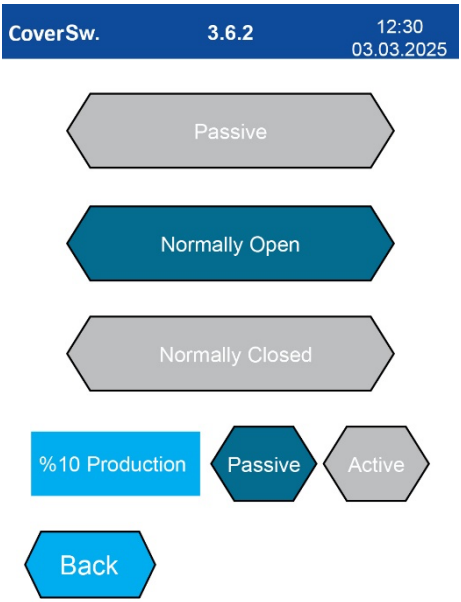


Figure 97 Cover Switch Input Setup Menu - 10% Production Option

If the **10% Production** option is activated, chlorine production is carried out with a production rate of **10%** when the pool cover is closed.
For electronic card connection details, please check the relevant 10.1.10 Pool Cover (Dry Contact) Page 23.

11.4.6.2 Flow Switch

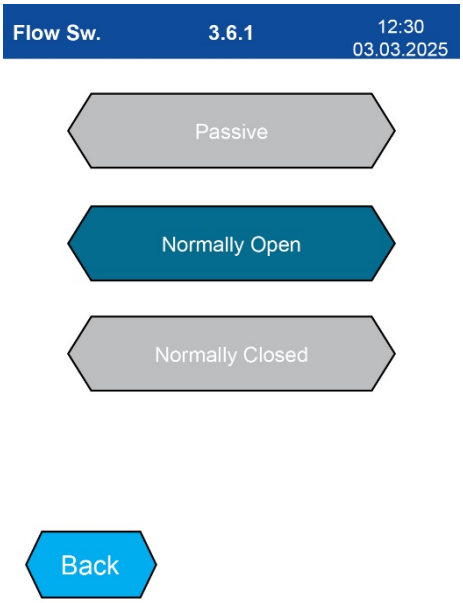


Figure 98 Flow Switch Input Setting Menu

It detects whether water has reached the electrolysis cell and provides a suitable output to the digital input according to the state set to normally open (NO) or normally closed (NC). If there is no water in the electrolysis cell, flow control is carried out to prevent damage to the plates.
When you want to use a flow switch, one of the options Passive, Normally On or Normally Closed must be set **from the User Menu > Inputs > Flow Switch** section. For electronic board connection details, see the relevant 10.1.12 Electrolysis Cell Sensor Connections Page 23.

11.4.6.3 Acid Level

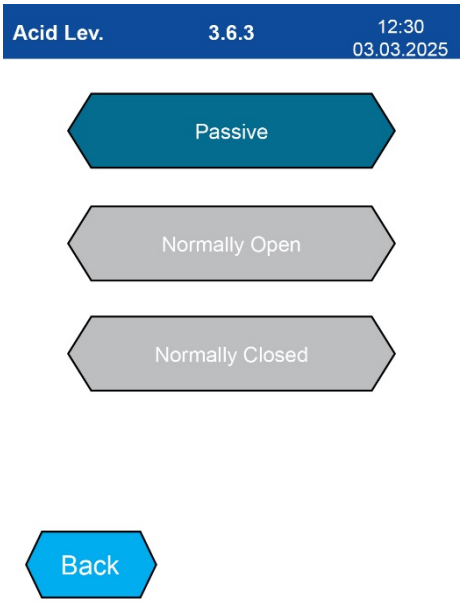


Figure 99 Acid Level Input Setting Menu

The acid level switch detects the chemical level in the chemical tank and provides a convenient output to the digital input according to the state set to normally open (NO) or normally closed (NC). The operation of the pH pump is checked according to the signal received from the digital input.
When you want to use Acid Level, one of the options Passive, Normally On or Normally Closed must be set from the **User Menu > Inputs > Acid Level** section. For electronic card connection details, please refer to the relevant 10.1.9 Acid Level Sensor (Dry Contact) Page 22.

11.4.6.4 Pulse Control

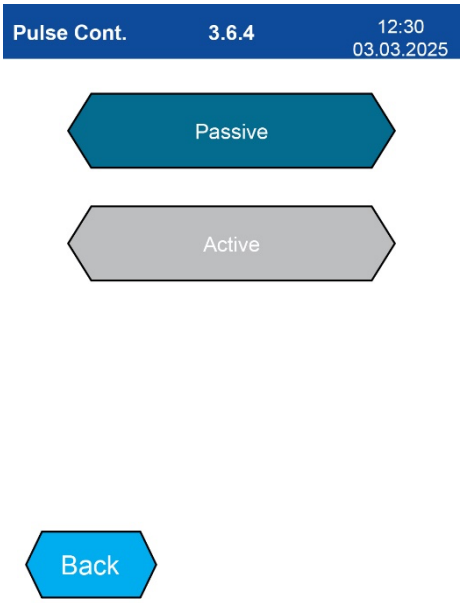


Figure 100 Pulse Control Input Setup Menu

The pulse control mode allows the Salt Ionic device to be controlled by dry contact from an external source.
As long as the contact from the external source is closed ( ), the device produces, and when the contact is turned on ( ), the device stops production.

When Pulse Control is desired, one of the Passive or Active options must be set in the **User Menu > Inputs > Pulse Control** section. For electronic card connection details, please refer to the relevant 10.1.11 Chlorine Pump (Dry Contact) Page 23.

11.4.6.5 Water Sensor

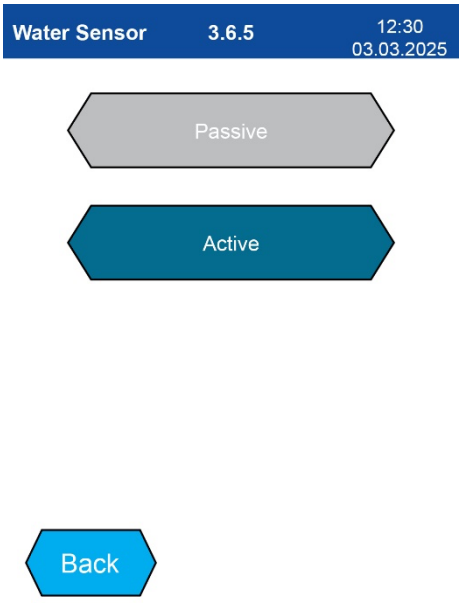


Figure 101 Water Sensor Input Setup Menu

The water sensor checks whether water is present in the electrolysis cell and the chlorine gas status inside the cell, ensuring that the device operates in accordance with the algorithm. When no output signal is received from the water sensor, the device initiates the inquiry process at specified intervals and a No Water in Cell alarm is given. As long as chlorine gas is present in the cell, the interrogation process continues periodically. Chlorine production starts automatically when the No Water in Cell alarm disappears. When you want to use the Water Sensor, one of the Passive or Active options must be set in the User Menu > Inputs > Water Sensor section. For electronic board connection details, see the relevant 10.1.12 Electrolysis Cell Sensor Connections Page 23.

11.4.6.6 Temperature Sensor

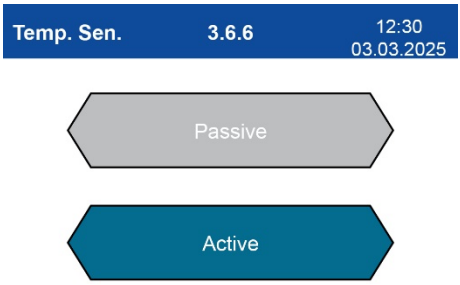


Figure 102 Temperature Sensor Input Setup Menu

The temperature sensor is used to control the temperature of the water reaching the electrolysis cell. If the water temperature is below 15°C, it will give a **Water Temperature Low** alarm, and if it is above 40°C, it will give a **Water Temperature High** alarm, and the production will be stopped automatically. For electronic board connection details, see the relevant 10.1.12 Electrolysis Cell Sensor Connections Page 23.

11.4.6.7 Filter Control

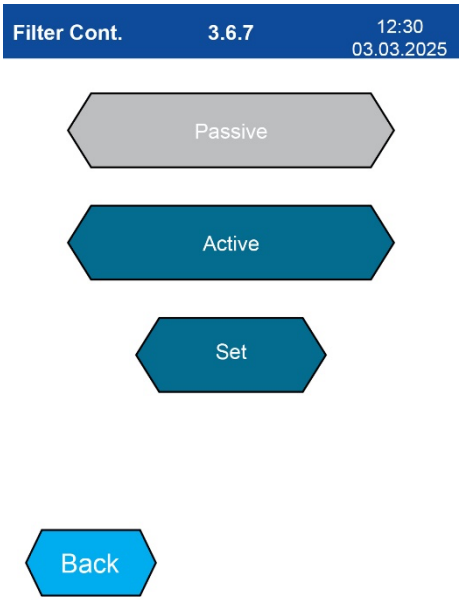


Figure 103 Filter Control Input Setup Menu

The filtration relay enables the operation of the filter pump, which provides the water needs of the system.
To use the **Filter Control** feature, the **Filter Control** entry must be activated from the **User Menu > Inputs > Filter Control** section. When the **Filter Control** input is activated, the settings for the filtration relay become visible in the **Relays** menu and on the **User Menu > Inputs > Filter Control** page. For electronic card connection details, see the relevant 10.1.7 Filter Control Output (Dry Contact) Page 22.

11.4.6.8 Filter In

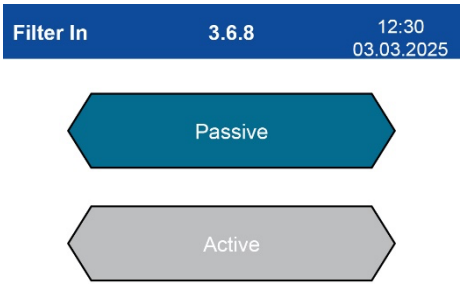


Figure 104 Filter In Input Setup Menu

Powered by 220VAC. It can detect the signal from external sources and start or stop the system.

For electronic card connection details, see the relevant 10.1.8 Filter Monitoring Input (220VAC IN) Page 22.

11.4.7 WiFi

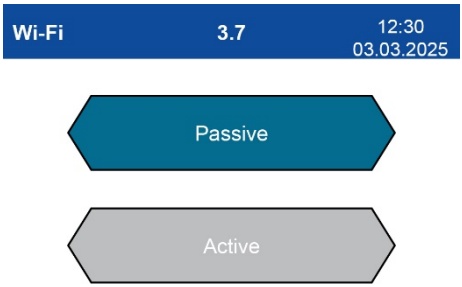
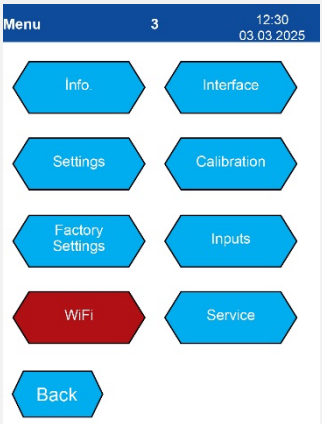


Figure 105 Wi-Fi Menu

INFO!

If your Salt Ionic Salt Chlorine Generator device has a Wi-Fi Module connection, but the Wi-Fi button is red in the User Menu, contact the technical service.



11.4.7.1 Wi-Fi Module Settings from the Device Interface

Menu → Wi-Fi → Active should be selected.

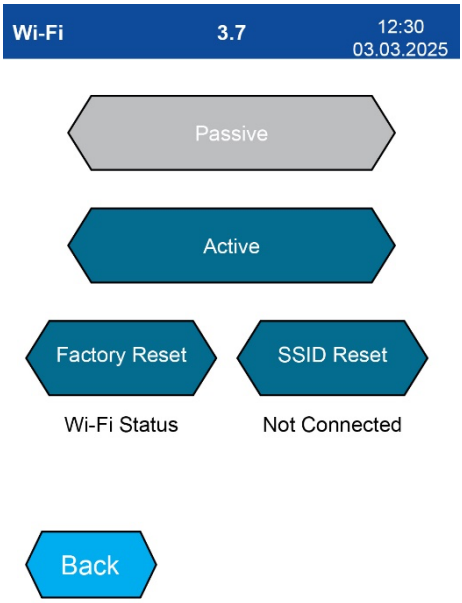


Figure 106 Wi-Fi Menu - Activating Wi-Fi

11.4.7.2 Checking the Setup Mode

To check whether the setup mode has been switched to the interface, go to the warning menu and follow these steps:
Menu → Wi-Fi → Wi-Fi Status
If "Wi-Fi Status" says "*Set Up*", you can proceed to the setup.
If a different status is displayed, the module should be reset.

11.4.7.3 What to Do If Setup Mode Cannot Be Entered

If the module is being installed for the first time and the **"Setup"** warning does not appear, the module must be put into setup mode.

For this, the module must be reset.

11.4.7.4 Resetting the Wi-Fi Module

The button on the module is pressed and held until all the lights come on at the same time.
When all lights are lit at the same time, the button is released. After this process, the black lightning animation should begin.

11.4.7.5 Register for Antech Control Panel

Before starting the setup, a user account must be created so that the device can be identified and accessed remotely.

Download the Antech Control Panel application for your mobile phone from Play Store or App Store.

Figure 107 Android App on Google Play

Figure 108 IOS App on App Store

Create your new user account by filling out the registration form.

Important: Enter your username and phone number information correctly and completely. This information will be reused during device setup.

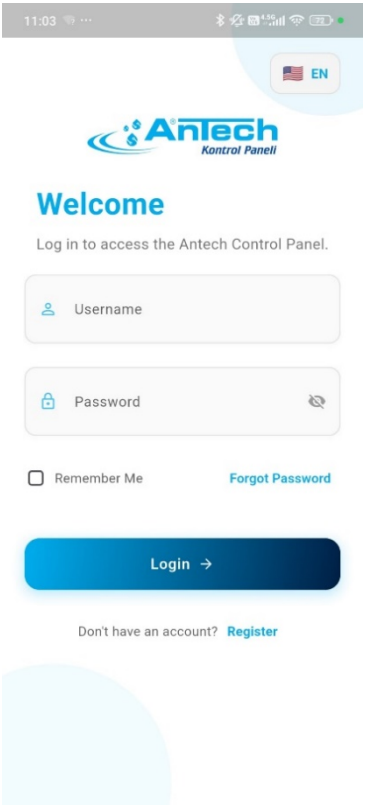


Figure 109 Login Screen

Open the Antech mobile application. At the bottom of the login screen, click on the Register button.

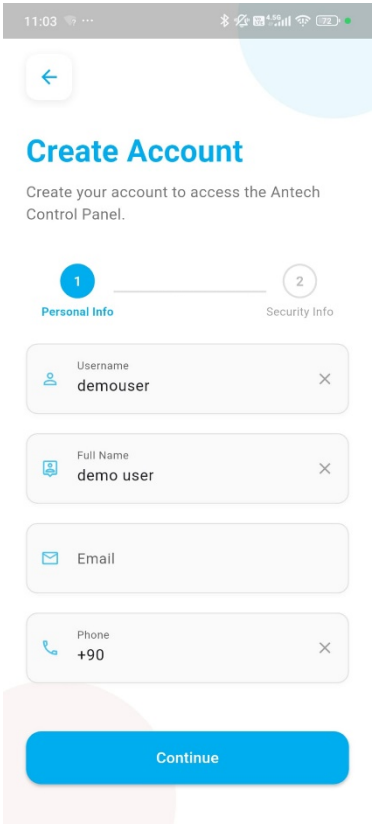


Figure 110 Registration Screen

Create your new user account by filling out the registration form.

Important: Enter your username and phone number information correctly and completely. This information will be reused during device setup.

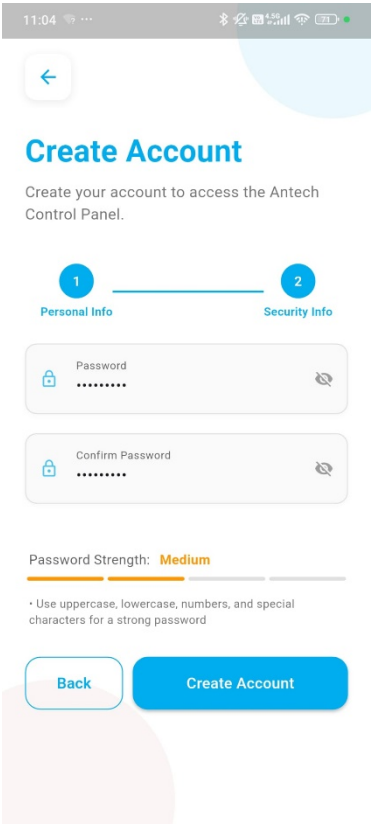


Figure 111 Setting the Password

Set a password and tap the “Create Account” button to complete the account creation. Once the account is successfully created, the app will automatically redirect you to the login screen.

To log in, enter your username and password, then tap the “Login” button.

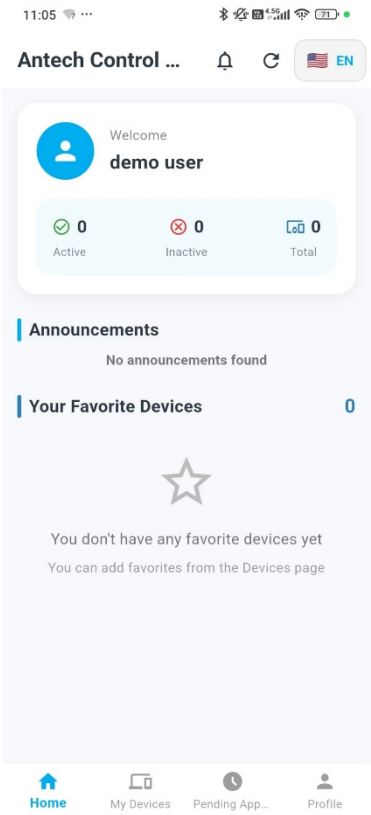


Figure 112 Application Home Page

After logging in, you will be redirected to the main screen of the app. On this screen, you can view the number of active, inactive, and total registered devices.

11.4.7.6 Wi-Fi Module Setup

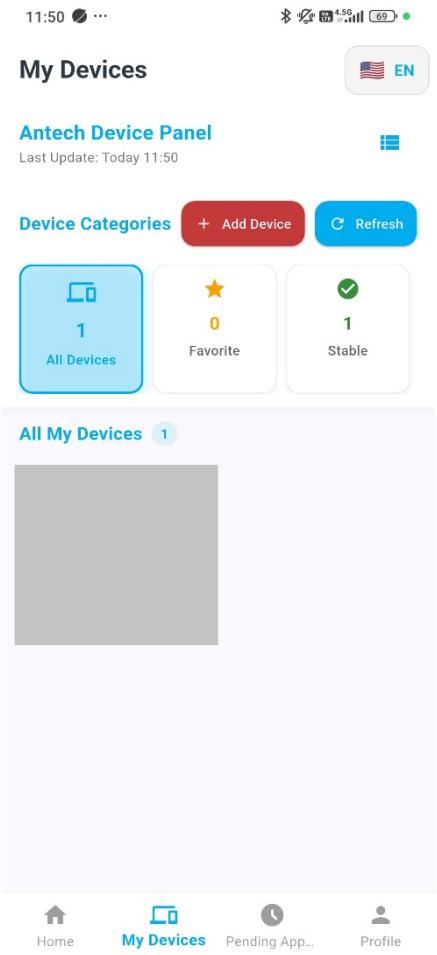


Figure 113 My Devices Screen

From the "My Devices" section, tap the "Add Device" button to add a new device.

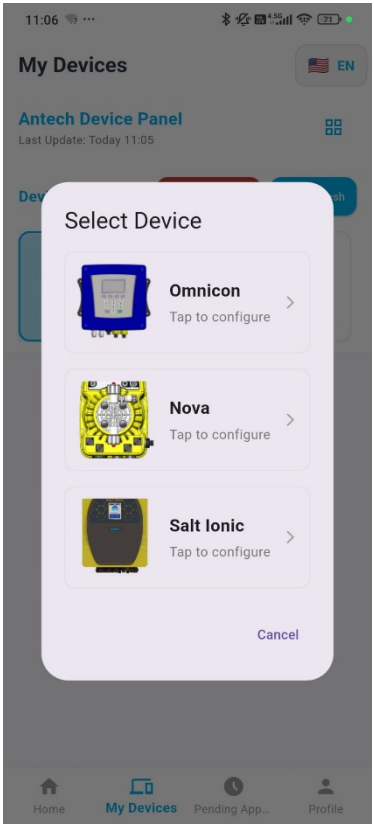


Figure 114 Adding a new device

When you tap the "Add Device" button, you will be prompted to select one of three device types. In this step, select "Salt Ionic".

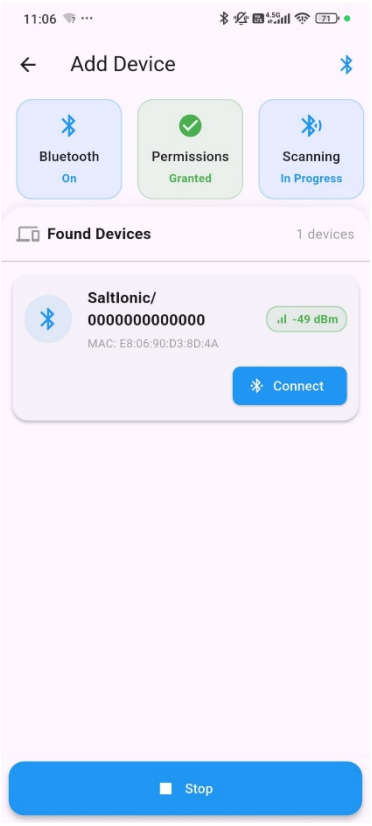


Figure 115 Connecting to the device

At this stage, you may be prompted to enable Bluetooth on your phone and grant the necessary permissions for the app to scan for nearby devices. The devices found will be listed with their serial numbers in the "Found Devices" section. Select your device from the list and tap the "Connect" button.

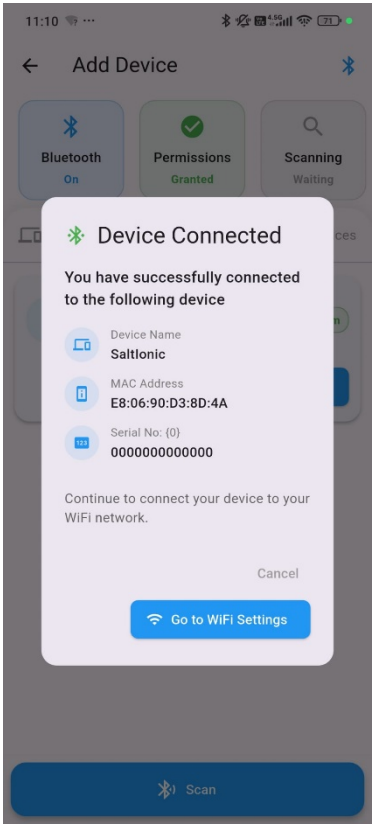


Figure 117 Successful Connection to the Device

After the device is added, you will be redirected to the Network Settings page to configure the network settings for the device. On this screen, select the network name, enter the password, and choose a device name (any name you prefer), then complete the setup as shown in Figure 117.

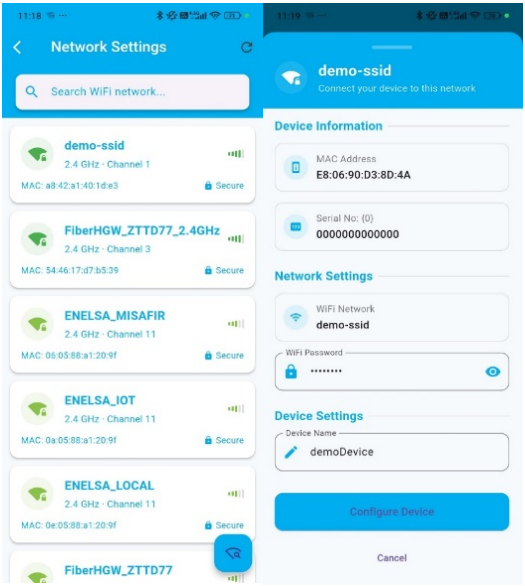


Figure 116 Wi-Fi Settings

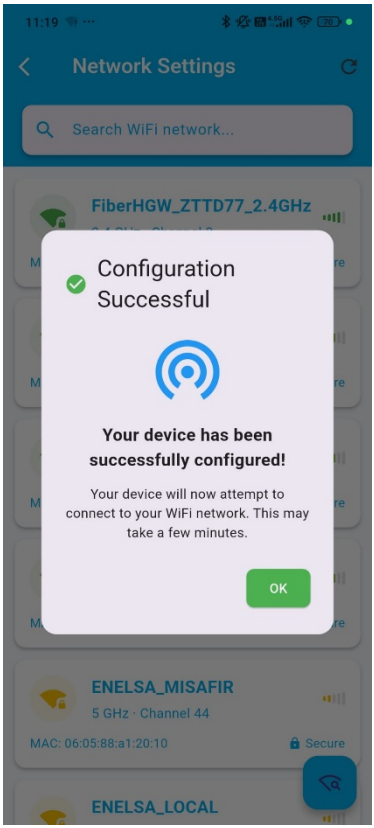


Figure 118 Message shown upon successful configuration

When your device has been succesfully configured, a popup message will appear like the one shown in the Figure 118.

11.4.7.7 Extra Information

You can scan the QR code below on the device to access the detailed user manual of the Antech Panel.

www.enelsa.com

Figure 119 QR Code to Scan for "Detailed Information"

11.4.7.8 Wi-Fi Status Codes

English	Turkish	Situation	Definition
No Module	Modul Yok	Wi-fi Module settings have been turned on the device but the module is not physically connected, or the module has been connected but the settings have not been made on the device.	Physically assemble the module. If the setup has been done but you still get this error, check the cables. Make sure you have made the Wi-fi Module Settings from the Device Interface. See. 1.1 Wi-fi Module Settings from Device Interface
Please Setup	Kurulum Yapiniz	Module settings are convenient, waiting for setup.	The module is ready for setup. Setup. See. 6 Wi-Fi Module Installation
Netw Connected	Ag Bagli	Setup successful.	The module is ready to use.
Netw Disconn.	Ag Bag. Kesildi	The setup is successful, but the internet connection cannot be established.	The module has lost its internet connection. Make sure that the SSID and password settings of the modem have not changed.
Netw Not Found	Ag Bulunamadi	The setup is successful but out of internet coverage.	The module has lost its internet connection. Check that the modem is turned on.
Netw Not Conn.	Ag Baglanmiyor	The setup is successful, but the internet connection cannot be established.	The module cannot be connected to the modem. Make sure that the password and SSID information is correct.
Server Conn.	Sunucu Bagli	Setup successful.	The module is ready to use. You can add your device from the Antech Control Panel.
Server Disconn.	Sunucu Bag. Degil	Setup is successful, server-related error.	Please contact the technical service.
Server Conn..	Snc. Bagl. Den.	The setup is successful; it tries to connect to the server.	Please contact the technical service.
Info mismatch	Bilgiler uyusmadi	Setup failed.	The username and phone number information entered during the setup phase does not match the information entered in the Antech Control Panel. Make sure the information is correct. Reset and reinstall the device. See. 4. Wi-Fi Module Reset Methods

11.5 Alarms

The Alarms Menu is the area where you can monitor and manage the various alarm statuses of the device. Here, any malfunction or warning situation that occurs in the device can be displayed.
Alarm messages are listed in the **Alarms** menu in order from new to old.
Alarm messages that are still active and stop chlorine production are written in red.

[16:29 14/04/2025]
Time and date of alarm occurrence
PRODUCTION OFF
Alarm Description

When the conditions that created the alarm disappear, the alarm message changes from red to blue and the alarm becomes inactive. For alarms in passive state, the time and date when the alarm disappeared are shown in addition to the time and date when the alarm occurred.

[16:29 14/04/2025] - [16:50 14/04/2025]
time and date when the alarm occurs and disappears
PRODUCTION OFF
Alarm Description

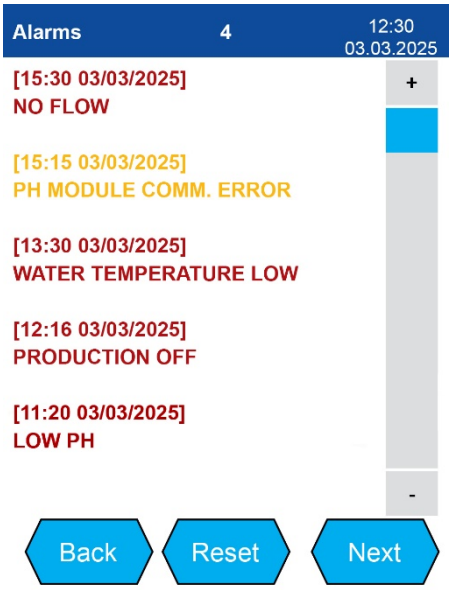


Figure 120 Alarms Menu

Alarm messages that are still active and do not stop chlorine production are written in orange.
[13:21 03/03/2025]
Time and date of alarm occurrence
FILT. CAL. ZAM. DISI
Alarm Description

When the conditions that created the alarm disappear, the alarm message changes from orange to blue and the alarm becomes inactive. For alarms in passive state, the time and date when the alarm disappeared are shown in addition to the time and date when the alarm occurred.

[13:21 03/03/2025] - [13:24 03/03/2025]
time and date when the alarm occurs and disappears
FILT. CAL. ZAM. DISI
Alarm Description

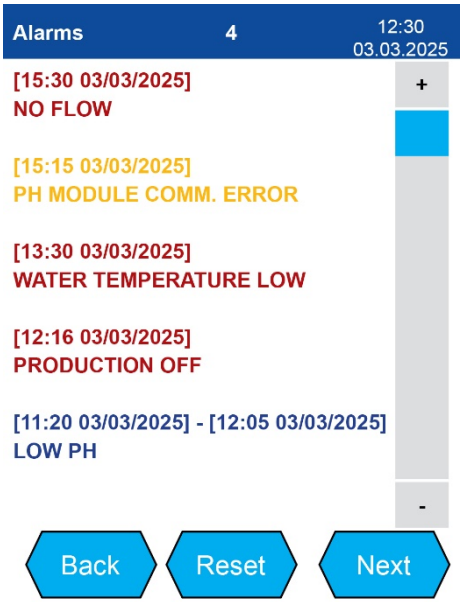


Figure 121 Alarms Menu - LOW pH Alarm Inactive

11.5.1.1 Alarm States

Alarm messages and their meanings are listed in this section.

Alarms that cause the Salt Ionic Salt Chlorine Generator device to stop chlorine production are indicated with the symbol ⚠, while alarms that do not stop chlorine production are indicated with the ⚠ symbol.

11.5.1.1.1 Alarm States

Power Outage: It indicates that there is no energy coming to the system.

⚠ **No Flow**: Indicates that there is no expected flow in the electrolysis cell. When the error occurs, production is stopped.

The **No Flow** error occurs if the **Flow Switch** is activated to Normally On or Normally Closed on the **User Menu>Inputs** page and there is no flow in the electrolysis cell.

⚠ **Low Acid Level**: It means that the level in the acid tank has fallen below the minimum limit. The pH relay will not work until the acid level is at the desired level.

The **Acid Level Low** error occurs if the **Acid Level** is activated to Normally Open or Normally Closed on the **User Menu>Inputs** page and the level in the acid tank has dropped below the minimum limit.

⚠ **Pool Cover Indoor**: Indicates that the pool cover is closed.

This error occurs if the **Cover Switch** is activated to Normally On or Normally Closed in the **User Menu > Inputs** and the pool cover is closed.

⚠ **No Water in the Cell**: It indicates that there is no water in the electrolysis cell. The device activates the interrogation mode for the control of the water coming to the electrolysis cell at certain periods.

⚠ **No Pulse**: Indicates that there is no signal at the pulse control input.

⚠ **Production Off**: Indicates that production is turned off from the Production menu.

⚠ **Cell or Power Supply Error:** Indicates a problem with the electrolysis cell or power supply. When this error occurs, the device enters

query mode and periodically checks whether the error has disappeared. Once the error is eliminated, chlorine production resumes automatically.

11.5.1.1.2 Communication Problems

⚠ **pH Modulus Communication Error**: Indicates that there is a communication problem between the pH sensor and the device.

⚠ **Orp Module Communication Error**: Indicates a communication problem with the ORP (oxidation-reduction potential) sensor.

⚠ **Wi-Fi Module Communication Error**: Indicates that there is a problem with the wi-fi connection.

⚠ **Modbus Communication Error**: Indicates that data transfer cannot be performed over the Modbus line.

11.5.1.1.3 Temperature Alerts

⚠ **Water Temperature Low**: Indicates that the water temperature is below the lower limit. The electrolysis cell will not produce until the alarm is eliminated.

⚠ **Water Temperature High**: Indicates that the water temperature is above the upper limit. The electrolysis cell will not produce until the alarm is eliminated.

⚠ **Device Temperature High**: Indicates that the operating temperature of the appliance is above the acceptable limit. The electrolysis cell will not produce until the alarm is eliminated.

11.5.1.1.4 Salt and Chemical Warnings

⚠ **Low Salinity**: Indicates that the salt level is not sufficient. Salt should be added to the pool. When the salt level is brought to the desired level, production should be turned on.

⚠ **High Salt Content**: It indicates that the salt level is high. The salt level must be diluted by adding water to the pond. When the salt level is brought to the desired level, production should be turned on.

⚠**Low pH**: Indicates that the pH level is below the lower limit.

⚠ **High pH**: Means that the pH level is above the upper limit.

⚠ **High Orp**: Indicates that the ORP value is above the upper limit.

12 Service

WARNING

Before performing any service on your device, the electrical connection must be disconnected.
A 5x20 mm mini glass fuse should be used.
If the appliance's mains cable fails, it must only be replaced by an authorized service center.

12.1 Maintenance

For the salt chlorine generator to work long-lasting, efficiently and safely, the electrode cell should be visually checked at regular intervals and cleaned when necessary. Depending on the chemical structure of the water used, lime, magnesium, iron and similar minerals may accumulate on the cell over time. These accumulations reduce the conductivity between the electrodes, reducing chlorine production capacity and negatively affecting cell performance.

Your device can clean the accumulations in the cell on its own by changing polarity at regular intervals. However, in some cases, this process is insufficient, and manual cleaning may be required. In such cases, cleaning should be done in accordance with the instructions below.

Electrode Cell Cleaning Steps:
Switch off the appliance and disconnect the appliance from power completely.

Close the water inlet and outlet valves. Use the drain valve if necessary to drain the water from within the system.

Disconnect the connection cables to the electrode cell. You can mark the locations of the cables so as not to confuse them.

Carefully remove the cell from its place. Detach the cell from the device by loosening the fittings.

Immerse the electrode cell in a solution of citric acid or hydrochloric acid diluted to 10–20%.

The waiting time in acid should not exceed 5 minutes.
Longer soaks may damage the electrodes.

After removing it from the acid solution, rinse the cell with plenty of water. There should be no acid residue between the electrode plates.

Make sure the electrodes are cleaned. If there is any remaining debris, you can repeat the process.

Dry the cell, check the connection points, and carefully reassemble it.

After making all connections, check the sealing and routing before restarting the system.

ATTENTION!

If the cell is excessively calcified, the chlorine production of the device decreases. If there is lime accumulation on the electrodes, the polarization time can be reduced to eliminate the lime accumulated on the electrodes and prevent accumulation. For information on setting the polarization time, see 11.4.3.4 Polarity .

13 Fault Situations

13.1 Electrical Faults

If the device does not turn on, perform the following checks:

Make sure that the mains plug is plugged in and that there is voltage at the supply voltage input.

After completely de-energizing your device, check the device fuse. If it is not intact, replace it with a 2A 5x20 glass fuse.

Only an authorized person or service should intervene for all malfunctions in the power cable.

If chlorine production is not possible, check the wiring connections of the cell with the controller.

INFO!

If the problem is not caused by this or if there is a different problem, contact the company from which you bought the device.

13.2 Fuse Replacement

WARNING

Before performing any service on your device, the electrical connection must be disconnected.

INFO!

Use a 2A 5x20 glass fuse.

To replace the appliance fuse, first remove the screws located on the front cover using a suitable screwdriver.

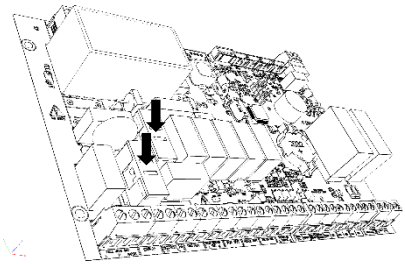


Figure 122 Electronic Card - Glass Fuse Locations

Replace the glass fuses on the electronic board with new ones.
Be careful not to cause any damage to the electronic card. If your electronic card is damaged, your device will not work.
Malfunctions that may occur on the electronic card by the user are not covered by the warranty.
Then close the front cover of the device.

14 Warranty State

14.1 Warranty

The Salt Ionic Salt Chlorine Generator device is guaranteed for 2 years for damage caused by material and manufacturing defects within the framework of legal obligations.
Damage caused by normal wear, overloading, or improper use is not covered by the warranty.

Damage caused by material or manufacturing defects is compensated for by the delivery or repair of the faulty part or device itself.
Warranty claims are only accepted if the device is brought to the delivery person or authorized service **center without disassembly**.



ATTENTION!

The Warranty Certificate must be filled in and approved by the dealer from whom you purchased the device. Please approve and keep the document.