# Low salinity electrolysis, hydrolysis and UV technology **UV SCENIC**



# INSTALLATION AND USER GUIDE



Portable color display (TFT) Worldwide remote control

WIFI and MODBUS

Upgrade possible Self clean



## **Description**

Water treatment system and a controller for swimming pools. This method water treatment combines electrolysis of low salinity, hydrolysis and UV radiation. With low-salinity electrolysis we produce chlorine gas from water which is slightly salted (from 1.5 to 2.5 g of salt per litre). Hydrolysis produces disinfectants such as oxygen, peroxide, hydroxyls, and ozone. All these oxidants eliminate organic matter and pathogens present in the water. UV radiation then eliminates most of the remaining algae, bacteria, and microorganisms including chloramines. When returned into the pool, the chlorine gas and hydrolytic oxidising agents regain their form of water and salt. The system controls centrally all the components of your pool to ensure efficient interaction.



#### Electronic box











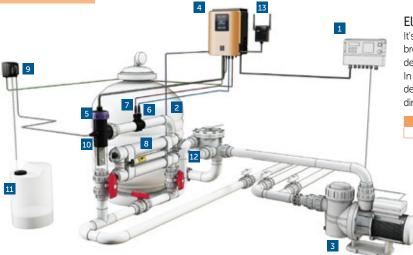
Item	Product description
1.	Hydrolysis
2.	RCA flow detector
3.	Main connection 220 V
4.	ON/OFF switch
5.	3.15 A fuse
6.	250 mA fuse

	Product description
7.	Fuse relays 3.15 A
8.	Ventilation grid
9.	Hydrolysis cell
10.	RCA flow detector
11.	Cell connection
12.	Flow/gas detector

Item	Product description
13.	Cell housing
14.	UV lamp 55 W
15.	Quartz crystal
16.	White ABS Support
17.	Power transformer

## 2.

## **System installation**



#### Filtration pump timer \* Silex / glass / diatom filter Recirculation pump Electronic box Hydrolysis cell (always in vertical position) pH probe (for models with pH control) redoX probe (for models with redoX control) 8. Acid dosing pump (optional - for models with pH control) 10. Acid injector (optional - for models with pH control) 11. Hydrochloric acid container (optional, for models with pH minus control, not supplied with unit) 12. Other pool equipment - not supplied with unit Module RF or RF/WIFI or WIFI - not supplied with unit

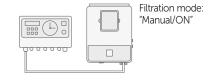
#### Electrical consumption

It's recommended to use a time delay circuit breaker of 25 A for domestic devices and a time delay circuit breaker of 40 A for industrial devices. In case of sharing the power supply with other devices please consult a technician in order to dimension a correct installation.

Product	Max. consumption
UV 16	230W

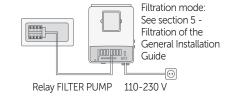


\* Filtration control by external timer





\* Filtration control by internal timer



## Water adjustments

- Adjust the alkalinity between 80-150 ppm.
- Adjust the pH between 6,8 to 7,2
- Adjust the chlorine between 0,3-1,5 mg/l.
- Where we use filling water from a source other than the public water supply system, the water needs to be treated, in particular, with regard to its hardness, overall alkalinity, and any ions of metals such as iron, manganese, copper, etc. must be eliminated.

## Adding salt to the water

- 1 We recommend to add 1,5 to 2,5 grams of salt (without iodine) for each liter of water in your swimming pool (1,5 to 2,5 kg NaCl per m<sup>3</sup> water). Open the bottom valve of your swimming pool and add the salt directly to your swimming pool water. Let the circulation pump run during the first 24 hours.
- The system may operate while the salt is dissolving and will operate without problems with salt concentrations from 1,5 to 2,5 g/l.
- For pools with strong sunlight, it is necessary to add a stabilizer isocyanuric acid, in an amount of  $40 \text{ g} / \text{m}^3$ .

## Maintenance

## First days of maintenance

During the first 10-15 days your pool system will require more attention and the following care:

- Make sure the pH remains on the ideal level (6,8 7,2). If the pH is unusually unstable and uses a lot of acid check the alkalinity (recommended levels between 80-150 ppm).
- The pool must be vacuumed and the skimmers cleaned whenever necessary to ensure perfect water conditions.

Remember that the system needs some time to adjust to your pool and will require the addition of chemicals during the first 3 to 5 days, such as of water softeners where the filling water comes from a source with increased water hardness; a fast-dissolving chlorine shock can be used in at the dosage prescribed on the packaging for quick disinfection.

## Cleaning the titanium cell

If necessary, carry out a monthly visual inspection. To clean the cell:

- Remove the cell from its support (after turning off the filtration system and closing off the necessary valves).
- Place the cell for no more than 10 minutes in 15% hydrochloric acid (1,5 l of acid for each 8,5 l of water).
- After softening the incrustation, rinse the electrolytic cell with a hose to complete the cleaning process.

DO NOT USE METALIC OR SHARP OBJECTS TO REMOVE INCRUSTATIONS. Scratching the edges or surface of the cell will make it vulnerable to chemicals, deteriorate the cell and cancel the guarantee.

## Fortnightly checks

## Monthly checks

0,3-1,5 ppm Total alkalinity (tac) pH: Cyanuric acid: 4-20 ppm Free chlorine: 80-150 ppm Visual inspection to pH: 68 - 72Salt concentration: 1.500-2.500 ppm Titanium cell: detect incrustations

#### General maintenance

- The pool must be vacuumed as usual and the skimmers emptied whenever necessary.
- FILTER BACKWASHING: The system requires only occasional filter cleaning; once every 20 days should be sufficient (providing the filter pressure does not exceed 1 bar, in which case a filter cleaning may be necessary). VERY IMPORTANT: Make sure that electrolysis is off while cleaning the filter. If the system controls the filtration pump, use the "filter cleaning" option of the programmed filtration mode. See Section 5 - only after consulting a technician and depending on your equipment.
- ADDING NEW WATER: If you are adding new, untreated water, do so into the pool shell rather than via the skimmer or overflow channel. Remember to add the required amount of salt (1,5–2,5 g) per litre of water added.
- We recommend setting the system in season so that the volume of the pool is filtered 3 times a day. In most cases, this corresponds to 8–12 hours of filtration. In the off-season, we recommend winterizing the system.
- DOSING PUMPS: Check regularly to ensure that the container contains the pH adjustment liquid to prevent the dosing pump from running dry. The dosing pump requires maintenance (SEE INSTRUCTIONS ON BOX).
- pH PROBES / redoX / CONDUCTIVITY: The probes must be cleaned whenever necessary (check every 1–2 months). Clean the probe insert in distilled water (clear liquid). After each cleaning the probes must be calibrated. In addition: the probes must never dry out and must be kept in the shipping case supplied with the probe; the probe must be kept submerged while stored, e.g. in water.

The pH and REDOX probes are consumables with a limited service life of 6 months.

## **Functions of the UV System**

## Important safety information:

- Never look directly into the lamp while the UV light is on.
- Do not operate in dry conditions. Do not cover the unit.
- Always disconnect the unit from the power supply and cut off the water supply before maintenance.
- The unit must not be immersed in water.
- If the lamp body is cracked, replace it immediately.

The unit should be protected from frost or stored in indoor enclosures during the winter months.

OPERATION: The UV system will always work in conjunction with the filtration system. The total working time of the lamps can be found in the UV option in the main menu.

MOUNTING ON WALLS OR OTHER VERTICAL SURFACES: This unit can be mounted on a wall or other vertical surfaces. When the unit is full of water, it may be too heavy for mounting on a wood panel of a conventional fence and should therefore be wall-mounted.

CAUTION: To prevent the unit from falling into the water, do not install it over or next to the pool. Do not connect the unit to the power supply until the water pipes have been completed and safely secured.

EFFECTIVENESS: For optimum performance, we recommend that the total volume of pool water pass through the UV unit every four hours.

## Routine maintenance of the UV system:

Under normal conditions, UV lamps placed inside the UV can last up to 8 000 hours or for one year. We recommend replacing the quartz crystal before the start of each bathing season, as the efficiency of the quartz crystal body decreases with operating hours. You can check the total working time of the lamps in the UV option in the main menu.

- Use new O-rings for the yearly replacement of the lamp. When reassembling the unit, make sure that the internal threads of the clamp fittings and the external threads of the main structure are clean.
- Refit and hand-tighten the compression fittings firmly. Replace the lamp or fit a new one. Now reinstall the sleeves and the blue sleeve covers, making sure that they match the numbered sleeves correctly.
- We recommend flushing the quartz crystal every 3-6 months.

NOTE: During reassembly, squeeze the blue layer of the sleeve to release any trapped air. Failure to release the trapped air may cause the lamp holder to disconnect

Before reconnecting the power supply, reconnect and turn on the water supply to ensure there is no water leakage.

## **Troubleshooting**

#### Blank display

- Check if ON/OFF switch is illuminated.
- Check the connection wire between display and motherboard.
- Check fuse of the device 3.15 A it could have tripped due to overload.
- Check the power supply 110V/60Hz 230V/50Hz.
- If problem persists contact TECHNICAL SERVICE

#### Electrolysis does not reach maximum intensity

- Low water temperature.
- Check the common salt concentration in the water.
- Check the condition of the electrolytic cell (may contain incrustation or scaling).
- Clean the electrolytic cell according to the instructions provided in Section 4.
- Clean the flow detector located in the electrolytic cell housing.
- Check the titanium electrolytic cell for wear (the warranty covers max. 5,000 hours, approx. 2-3 years of summer usage).

#### Excess of chlorine in the water

- Lower electrolysis cell intensity.
- If your system includes automatic redoX control, check redoX setpoint.
- Check redoX probe and calibrate it if necessary. If it is not possible to calibrate, the probe must be replaced.

## The titanium electrolytic cell contains incrustation in less than 1 month

- For high-hardness water with a high pH, adjust the pH and total alkalinity.
- Check whether the system automatically switches polarity about every 300 minutes.
- Consult with our technical services if you are considering the acceleration of polarity switching (auto-cleaning). WARNING: Accelerating the polarity switch decreases the cell life (max. 5,000 hours) proportionally.

### Free chlorine levels don't reach 0,3 ppm

- Increase filtration interval
- Increase electrolysis level.
- Check the level of common salt in the pool (1,5-2,5 g/l).
- Check the level of isocyanuric acid in the pool (4–20 ppm), only if using common salt
- Check the expiration date of the test samples and agents in the test kit.
- Check for an increase in water temperature (29 °C is recommended) or for increased intensity of use of the pool.
- If the water pH is over 7.2, it must be adjusted.

#### Electrolysis display shows LOW

- Water lacks conductivity (see section 3 Initial water adjustments).
- Check for incrustations on cell
- See section 5 Electrolysis does not reach maximum intensity.

#### Electrolysis display shows FLOW

- Check flow detector cable.
- Clean incrustations of flow detector at the top of cell housing.
- Check if system is free of air (probe must be always submerged).
- Check the pressure on the filtration pressure gauge and flush the sand filtration system if it is clogged and the pressure is over 1 bar.

#### Alarm AL3 and pH dosing pump stopped

- The maximum dosing time (standard 60 min.) is accomplished and the acid dosing pump stops in order to avoid the acidification of the water.
- To delete the message and to restart the metering press ESC (3). Do the following verifications in order to preclude errors on the device: Verify if the pH probe reading is correct (if not, calibrate the probe or substitute it with a new one); Verify if the acid/base deposit is full and if the dosing pump is working correctly; Verify the variable speed of the dosing pump.

#### White flakes in the water

- The water is excessively hard and it is unbalanced.
- Balance the water and check the cell, proceeding to clean it if necessary.
- Put 1 small bag of flocculant in the skimmer and recirculate 24 hours.

#### Rust on metallic components in the pool

- Metallic elements lack standardized earth connection. Contact an electrician to solve the problem.
- Use titanium components only; stainless steel material is not suitable.

## Polarity 1 reaches maximum intensity, but polarity 2 (auto clean) does not reach maximum intensity

- If salt level is correct (1,5-2,5 kg/m³): Cell is reaching its end of life. As of this moment check intensity every 15-30 days.
- When polarity 2 does not reach medium intensity, we recommend substituting the cell for a new one if it happens during the summer period.



#### WARNING

Keep chemical levels in pool as instructed in this manual.

#### **CLEANING THE FILTER**

Very important: Make sure the control unit is off while cleaning the filter. If the system controls the filtration pump, use the "filter cleaning" option of the programmed filtration mode. See section 5 – Filtration / Filter Cleaning of the General Installation Guide.

#### VERY IMPORTANT

Remember that the system needs some time to adapt to your pool and that you may need to increase the intensity of the equipment and regularly check the pool water parameters such as free chlorine and the pH during the first 5 days.

All metallic components in the pool such as lamps, ladders, heat exchangers, drains or similar elements within 3 m from the pool (10 feet) must be connected to an earth below 37 Ohms. If using heat exchangers, we recommend them to be made of titanium.

#### **SECURITY**

To avoid accidents, children should not handle this product unless supervised by an adult. Children should be supervised at all times when in or near a spa, pool or

#### HANDLING AND DOSING DANGEROUS CHEMICALS

Chemicals should be handled with extreme precaution. When preparing acid, always add acid to water, never add water to acid, because very dangerous gasses may be produced.

**7.** 

## **Electronic box**



Complete pool control



Filtration pump control



Light control















	macnines
Description	UV16
Intensity	0-100%
Salt concentration	From 1,5 g to 2,5 g/l
m³ Pool (up to 28°C)	65 m <sup>3</sup>
m³ Pool (+28°C)	40 m <sup>3</sup>
Display	2,8" TFT mobile (20 m) color display (5 languages)
Power supply	110-230 V 50/60 Hz
Outlet	8-13 A
Maximum consumption	230 W
Dimensions	270 x 220 x 115 mm
Electronic box	Fireproof plastic ABS black
Front cover	Plastik ABS purple
Electronic	Microprocessor 32 bit
Intensity control	Ampere + Volt
Ventilation	Natural convection
Automatic cleaning	Programmable from 1 to 24 hours
Flow switch	Gas sensor
Working hour counter	Yes - accessible by client
Control production of disinfection	From 0 to 100%
Alarms	Insufficient salt / no flow / pH metering / pH max. metering time / communication error
Production control by pool cover	Programmable 0-100% production of disinfection depending on pool cover open or closed
Communication	MODBUS / WIFI
110-230 V output control (3 outputs)	Acid pump / Relay AUX 1 / Relay AUX 2
Potential-free output control (4 outputs)	Filtration / Lighting / Heating (AUX 4) / Relay AUX 3

Hydrolysis cell

8.













Self-cleaning

Life time guaranteed

Security sensor

Cells for all pool sizes

Description	UV 16
Hydrolysis cell	4 Titanium cell plates MONOPOLAR
Minimum flow	5 m³/h
Dimension cell plates	200 x 45 mm
Material cell housing	PVC plastic transparent
Cell fastener	Thread for an easy installation
Diameter tube connection	63 mm
Dimension cell	355 x 305 x 305 mm
Cell cable size	(3 x 4) x 1,5 m
Gas sensor	Incorporated in the cell
Maximum pressure	4 kg/cm <sup>2</sup>
Temperature	Low 0°C / 45°C Maximum

## **Ultraviolet**

9.



Description	UV 16	UV 33	
Dimension	1000 x 375 mm		
Connection	63 mm		
Material	UV resistant PVC		
Watt	2 x 55 W		

# **10.**

## **Automatic controls**



Description	pН	Redox	Free chlorine	Conductivity	Temperature
Reference	В	E	Н	I	Т
Measuring range	0-12 pH	0-1000 mV	0-10 ppm	0-20,000 MS	0-100°C
Measuring precision	0,1 pH	1-3 mV	0,10 ppm	10 MS / 100 MS	1°C
Material	Ag/AgCl gel	Gold disc	Copper / gold		Stainless steel
Probe holder	ABS 50/63 mm		Transparent methacrylate	ABS 50/63 mm	
Supplementary equipment			Includes 2 m of flexible tube/valve		
Cable	2 m coax				
Plug	BNC with protection	BNC with protection	Inductive sensor connectors / BNC	Connectors	Connectors

# **11.**

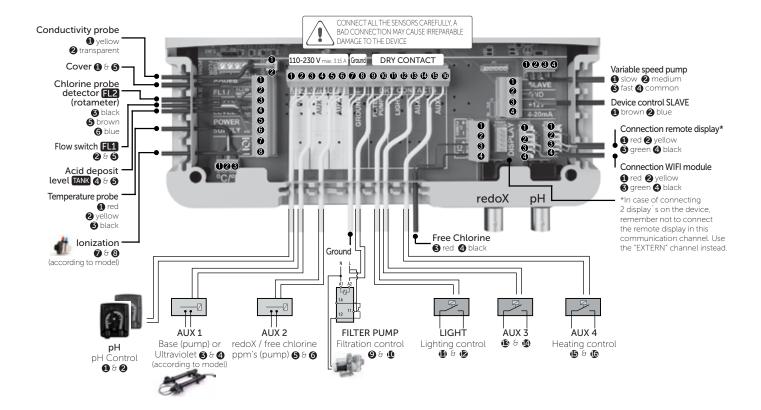
## **Dimensions**



## **Control unit wiring diagram**

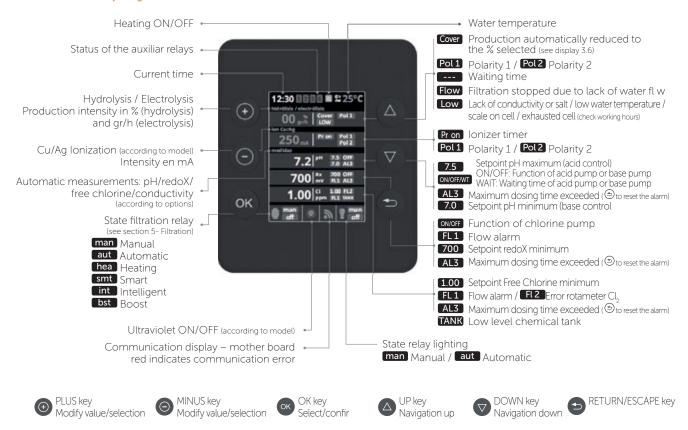
Water treatment system for swimming pools.

This installation and user manual is a general guide for all Salt water treatment models supplied by spol. Albixon a.s. Some of the features and settings listed in this guide are valid only for applicable models that support these features or for optional equipment that is not included in the basic package.



## Main screen

## **Button display**



## Touch display



## Hydrolysis / electrolysis (according to model)

**14**.



**2.1** Hydrolysis/Electrolysis: Programming of hydrolysis or electrolysis functions (according to model).



2.2 Level: Electrolysis -Desired production of chlorine (gr/h). Hydrolysis - Desired disinfection production (%).



**2.3** Salinity: Measuring gr/l of salt in water. See section 9-Salinity.



2.4 Boost: Filtration during 24h at max intensity. Automatic return to programmed filtration mode. During the boost period the redoX control can be deactivated.



2.5 Mode: If the device has Free Chlorine and redoX probes, choose the parameter that controls the cell's chlorine generation.



2.6 Cover: connection of automatic cover. See section 10-Cover.

**15**.

## **Ultraviolet**



3.1 Ultraviolet: Programming UV system.



3.2 STATUS ON: Whenever the filtration is working the UV will switch on. STATUS OFF: The UV system will never switch on. Furthermore on this display the partial and total working hours of the UV lamps can be verified.

## Measures

**16**.

## **Setpoints**



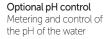




- **4.1** Measures: Adjustment of setpoints and measuring probes.
- **4.2** Setpoints for each measurement.
- **4.3** Setpoints settings: Ideal setpoints for each of the parameters. The default values are:

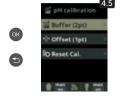
pH: 6,8-7,2; redoX: 600-800; Free Chlorine: 0,3-1,5 mg/l; Conductivity: 1500-2500 for Hydrolysis and 7000-10000 for Electrolysis.

## pH Calibration









Buffer (2pt)





- 4.4 Calibration of pH probe: Recommended every month during usage season.
- 4.5 Calibration with buffers (buffer solutions pH7 / pH10 / neutral): Follow the instructions in 7 steps that appear in the display (screen 4.6 corresponds

The option Reset Cal clears the calibrations made previously.

- **4.7** Manual calibration: Allows to adjust the probes at 1 point (without buffers) only recommended to adjust small deviation in the
- 4.8 Without removing the probe from the water, use the plus/minus keys to adjust the reading so it matches with your reference value (photometer or other measurement).

## redoX Calibration

The redoX value advises us of the oxidation/reduction potential and is used to determine the level of water sterilization. The parameters or setpoints are the minimum/maximum accepted redoX levels before the titanium cell is connected/disconnected. Adjusting the ideal redoX level (setpoint) is the last step in the system start up sequence. To find the optimum redoX levels for your pool foll w these steps:

- 1. Connect the pool filtration system (the salt in the pool must be adequately dissolved).
- Add chlorine to the pool till a level of 0,3–1,5 ppm is achieved (approx. 0,3–1,5 ppm/m³ of water). pH levels should be between 6,8–7,2. After 30 min. test the free chlorine levels in the pool (manual test kit DPD1) if the free chlorine level is between 0,3–1,5 mg/l. Look at the redoX screen and memorize this level as the setpoint to CONNECT/DISCONNECT the electrolysis/hydrolysis cell.
- The next day check free chlorine levels (manual test kit DPD1) and redoX. Raise/lower setpoint if necessary.
- Remember to check the redoX set-point every 2-3 month and/or if the water parameters change (pH/temperature/conductivity).

#### Optional redoX control

Metering and control of the redoX as check value of the free chlorine.





redoX



Buffer (1pt)





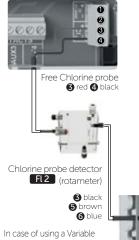
- 4.9 Calibration of the redoX probe: Recommended every 2 months during usage season.
- **4.10** Calibration with buffer (buffer solution 465 mV): Follow the instructions in 4 steps that appear in the display (screen **4.11** corresponds to sten 1)

The option Reset Cal clears the calibrations made previously.

- 4.12 Manual calibration: Allows to adjust the probes at 1 point (without buffers) - only recommended to adjust small deviation in the
- **4.13** Without removing the probe from the water, use the plus/minus keys to adjust the reading so it matches with your reference value (photometer or other measurement).

### Free Chlorine calibration

Optional Free Chlorine control Metering and control in ppm of the free chlorine of the water.





00000





1.00 5



- 4.14 Calibration of the Free Chlorine probe: Recommended every month during usage season.
- 4.15 Calibration with buffer (photometer DPD1): Follow the instructions in 6 steps that appear in the display.
- 4.16 Step 1 of 6 Calibrate Cl at 0 ppm (offset): Close the water flow through the probe and wait until the reading is less than 0,10 ppm. Wait between 5 to 60 min. Press OK when the reading is close to 0.

The option Reset Cal clears the calibrations made previously.

- 4.17 Step 3 of 6 Calibrate Cl: Open the water flow until achieving 80-100 liters/hour. Wait until obtaining a stable reading of ppm. Wait between 5 to 20 min. Press OK when the reading is stable.
- 4.18 Step 5 of 6 Establish the real ppm values with the plus/minus keys according to your analysis result of DPD1 (free chlorine).
- **4.19** Step 6 of 6 If this screen is not shown repeat the calibration process.
- 4.20 and 4.21 Manual calibration: Open de water fl w and set the fl wmeter (rotameter) at the right level of fl w (80-100l/h). Wait some minutes until the current level is stable. With the plus/minus keys, insert manually the water chlorine level (use a manual DPD1 test kit). Press OK when the DPD1 value is correct on display (target measurement).

Speed Pump, calibrate the probe using the most common filtration speed.

## Conductivity calibration

Optional Conductivity probe Metering and control of the conductivity of the water in Msiemens.





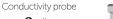




4.22 Calibration of the Conductivity probe: Recommended every month during usage season.

4.23 Calibration with buffer (buffer solution 1413 µS/ 12880  $\mu$ S/ neutral): Follow the instructions in 7 steps that appear in the display (screen 4.24 corresponds to step 1).

The option Reset Cal clears the calibrations made previously.







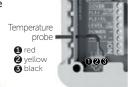


- 4.25 Manual calibration: Allows to adjust the probes at 1 point (without buffers) - only recommended to adjust small deviation in the readings.
- 4.26 Without removing the probe from the water, use the plus/minus keys to adjust the reading so it matches with your reference value (photometer or other measurement).

## Temperature calibration

Optional Temperature Temperature probe necessary to activate

the filtration modes: heating, intelligent, smart





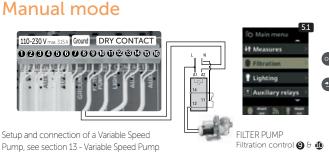




4.28 4.27 and 4.28 Temperature calibration To set difference between the measured value of the probe and the actual temperature, use the plus/minus and up/ down keys. Set to the actual temperature of the probe and press OK

> The option Reset Cal clears the calibrations made previously.

## **Filtration**





Configuration control of the filter pump To set, select Filtration and confirm by pressing OK The mode selection is done in Mode line with the plus/minus keys.

#### 5.2 Manual:

Manually turns ON/OFF the filtration process. No timing or additional functions. The State line indicates whether the filtration pump is ON. See section Filter Cleaning below.

#### Automatic mode



5.3 Automátic (or with timer)

In this mode the filtration is switched in accordance with a timer that allow to adjust the start and end of the filtration. Timers always operate daily, in cycles of 24

To set the ON/OFF times (up to 3 possible time programmable), select with the up/down keys in the timer line you want to change (1-3).

The plus/minus keys opens the selected start time field Set the time with plus/minus keys. Scroll with the up key to the minute field and set it up with plus/minus keys. To confirm press OK and to cancel press return/sc pe. To set the OFF timer, proceed accordingly. See section Filter Cleaning below.

#### Smart mode



5.4 Smart\*: This mode uses, as a basis, the automatic or timer mode, with its 3 intervals of filtration, but adjusting the filtration time in function of the water temperature. For that reason 2 parameters of temperature are provided. The maximum temperature, from which on the filtration times will be the ones from the timer setting. The minimum temperature: below this value the filtration time will be reduced to 5 minutes, which is the minimum working time. Between these 2 temperatures the filtration times will climb linearly.

Use the plus/minus keys to set the desired minimum and maximum temperatures.

There is an option to activate the antifreeze mode in which the filtration will start if the water temperature is below 2° C. To set the ON/OFF times (up to 3 possible time programmable), follow the instructions of the Automatic Mode. See section Filter Cleaning below.

\* Note: Mode only visible if the option to use temperature probe and/or heating is activated in the "Installer Menu".

## Heating mode



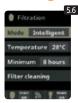
5.5 Timed heating with option of climatization\*: This mode acts equally to the automatic mode, but besides it includes the option to work on a relay to control the  $temperature. The desired temperature is set in this menu, and the system works with a hysteresis of 1 degree (example: the setting temperature is 23<math>^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature is 23 $^{\circ}$  C, the system works with a hysteresis of 1 degree (example: the setting temperature) and 1 degree (example: the s will activate itself when the temperature goes below 22° C and will not stop before it passes 23° C). Use the plus/minus keys to set the desired temperatures and ON/OFF of the Heating.

Clima OFF: The heating only works within the set filtration periods.

Clima ON: Keeps the filtration working when the filtration period is finished if the w ter temperature is below the setting temperature. When the setting temperature is reached the filtration and the heating will stop and will not switch on till the next programmed filtration period. To set the ON/OFF times (up to 3 possible time programmable), follow the instructions of the Automatic Mode. See section Filter Cleaning below.

\* Note: Mode only visible if the option to use temperature probe and/or heating is activated in the "Installer Menu".

## Intelligent mode

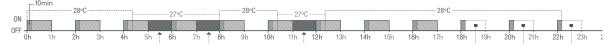


 $\textbf{5.6} \ \text{Intelligent}^{\star}: \text{In this mode the user has 2 working parameters to guaranty the desired water temperature with a minimum of filtration hours: You select the temperature with a minimum of the properties of the pro$ desired water temperature and the minimum filtration time (minimum of 2 hours and maximum of 24 hours). The device divides the selected "minimum filtration time" in 12 fragments which start up every 2 hours. If one of these fragments finishes without the temperature reaching the desired level, the filtration/heating continues until the desired temperature is accomplished. In order to keep the filtration-electricity-cost to a minimum, this additional filtration time is subtracted from the following fragments of the "minimum filtration time". The first 10 minutes of each fragment will not be subtracted.

Example (see diagram): Minimum temperature = 28°C and minimum filtration time = 12 hours.

The desired water temperature and the minimum filtration time is set with the plus/minus keys

See section Filter Cleaning below.



<sup>\*</sup> Note: Mode only visible if the option to use temperature probe and/or heating is activated in the "Installer Menu"

## Filter cleaning



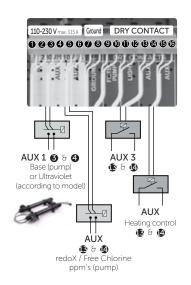
- 5.7 Filter cleaning mode (and pool cleaning by sucction): From this menu (accessible from any Filtration mode) It can be easily performed a backwashing cleaning of the sand filter. Activating this menu from any filtration mode (Manual, Automatic, Heating, Smart, Intelligent), will disconnect electrolysis/hydrolysis cell. Then proceed
- Put the filter pump OFF with plus/minus keys.
- Place the filtration pump valve in backwashing cleaning position.
- Put back ON in the filtration pump. Control the time that lasted the backwash cleaning on the clock display. Make sure it has made adequate and complete backwash of your filter.
- When finished the backwashing leaning, again turn OFF the filtration pump and put back the valve in the filtering position If you wish, now you can perform a
- Proceed as backwashing cleaning, this time placing the filtration pump valve in the rinsing position.
- · When leaving the Filter Cleaning menu, the system will be back to the previous programmed mode.

## **18**.

## Lighting



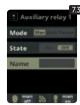
- 6.2 Manual Mode (ON/OFF).
- 6.3 Automatic Mode: Shuts lights ON/OFF according to a timer. The timers can be configured with a frequen y: Daily; Every 2 days; Every 3 days; Every 4 days; Every 5 days; Weekly; Every 2 weeks; Every 3 weeks; Every 4 weeks.
- 6.4 LED spotlight: In case of having installed led lights in your pool, use this menu to set the lighting.
- $6.5\,\mbox{From}$  this menu you can change the color of the lights in your pool. Select the length of the sign in seconds in Pulse length and press Next Program option to apply the pulse. Refer to your LED spotlight manual to set its different colors.
- **6.6** Shortcut: From main screen press "minus" to activate lighting during



The auxiliary relays are configured by default. If you want to reassign the relays for other accessories, you must access the "Service Menu". Contact your authorized installer.















7.1 Auxiliary relays

7.2 It is possible to control up to 4 extra auxiliary relays (water features, fountains, automatic irrigation systems, built-in cleaning systems, air pumps for spas, garden lighting, etc.). This menu displays the relays which are still available on your device and allow configuration.

7.3 Manual mode (ON/OFF).

 $\pmb{7.4} \text{ Automatic mode: ON/OFF according to a timer that adjust the start} \\ \text{ and end of the program. The timers can be configured with a frequen} \\$ y: Daily; Every 2 days; Every 3 days; Every 4 days; Every 5 days; Weekly; Every 2 weeks; Every 3 weeks; Every 4 weeks.

7.5 Timer mode: Working time is programmed in minutes. Each time the key on the front panel in relation to the relay is pressed, it will start up for the time programmed. This function is recommended for the timing of air pumps for spas.

 $\pmb{7.6} \ \text{Rename relays: It is posible to rename each auxiliary relay to suit}$ the use you want to assign. By pressing the plus/minus keys, a pop-up keyboard will appear. Scroll up and down with the up/down keys and left to right with the plus/minus keys. To select a letter press the OK.

## **System settings**

20.

8.3 Setting of preferred language. 8.5 Setting of day and current time. 8.7 Setting of the intensity of the display lighting (0-100%) and programming its ON/OFF time.

















**8.9** Sound: Programming of the system to emit sound for the functions: Keyboard (keys); Notices (pop-up message); Alarms

**8.11** Password: Allows to protect the access to the user's menu by activating a password. To enter your password press a combination of 5 keys and the system will memorize. If you forget the password, there is a "master password". Ask your installer/provider.

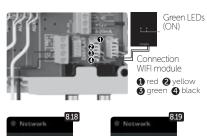
(working alarm); Filtration (start of the filtration).



8.12 and 8.13 Cell hours: The system memorizes the operation times of the different modules. Includes (in parentheses) the number of performed resets of the electrolysis / hydrolysis hours counter.

8.14 System info: Information about the available software version of the TFT display and the power module. It also shows the ID node which is necessary for the configuration of the WIFI connection of the system.

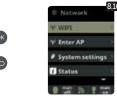
## Wifi settings





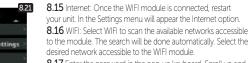












8.17 Enter the password in the pop-up keyboard. Scroll up and down with the up/down keys and left to right with the plus/minus keys. To select a letter press the OK.

8.18 Select AP: Write manually the name and the pasword of the network selected. 8.19 Configuration: For a more detailed configuration enter this

menu or contact your installer. **8.20** Status: Check the status of your connection.

**8.21** Test connection: Check that your connection has been successfully established.

Once the WIFI module is connected to the network with both lights ON, enter in www.vistapool.es. Access the Register option and enter all the data requested. The unit ID node can be found on your device (see section 8. System Settings - screens 8.13  $\vartheta$  8.14). Upon completion of the process, you will have total control of your pool, will be able change parameters such as setpoints, filtration hours and turn ON/OFF any auxiliary relays.

## 21.

## Salinity\*





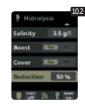


- **9.1** Salinity: The device shows a measurement of salt in water in g/l, as well as the date and water temperature of the last reading.
- 9.2 To acknowledge this measure, press OK in Salinity in the Electrolysis/ Hydrolysis menu (the process takes between 2 and 5 minutes - display 9.4). You can adjust the system measure using a external salt measurer (display 9.5).
- $9.3\ \mbox{If you do not have a temperature probe, enter the value manually for greater$ accuracy. The lecture is influenced by ma y factors, like the water temperature or the pH. Remenber to do the adjustment every 2-3 months.
- \* Atenttion: Option only available for some models.

22. Cover







10.1 Cover: Connection of automatic cover.

10.2 Reduction of chlorine production in percent, when the pool cover is closed. With the cover closed is not necessary for the system to run at 100%. With this parameter the system regulates the optimum amount of chlorine generation.

23. Flow switch

#### Optional flow switch Mechanic security flow switch. Stops the 9999 hydrolysis/electrolysis and the dosing pumps if there is no water flow. 0

It is possible to add an external flow switch to the system. Connect as shown in the image and  $% \left( 1\right) =\left( 1\right) +\left( 1\right) +\left($ contact your installer for activation. The titanium cell includes a gas flow sensor, you can combine both for better control.

## Level sensor (tank)

Flow switch FL1 2 & 5

24.

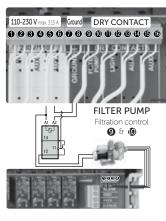
Acid deposit level TANK 4 & 5



Connect a level sensor to your device so you can control at all times the volume available in the tanks of chemicals that your system commonly uses. Contact your installer/provider to activate the sensor. This way you can ensure that the dosing pumps never run out of product and doses in vacuo, avoiding possible damages.

## Variable speed pump

25.











13.1 Variable Speed Pump: To install a Variable Speed Pump contact your installer.

13.2 to 13.6 After connecting the pump, you can individually assign each filtration period a different speed

F: fast, M: medium and S: slow.



13.7 Filter cleaning: To clean the filter with a Variable Speed Pump, you should use the fastest speed.

# Notes

## Notes


# Thank you for using ALBIXON products



