# SALT WATER TREATMENT

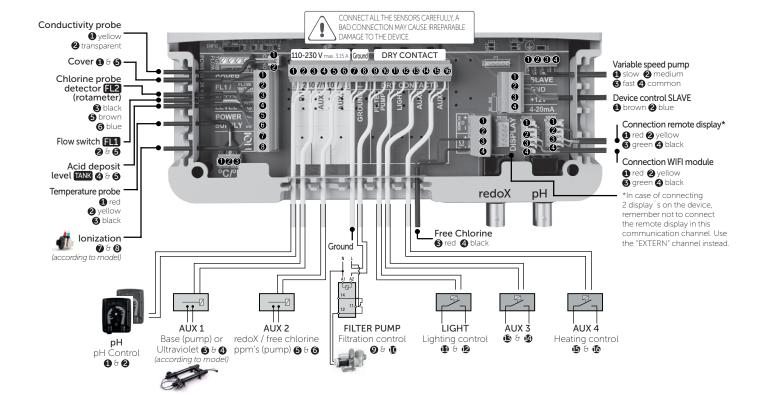


## INSTALLATION AND USER GUIDE



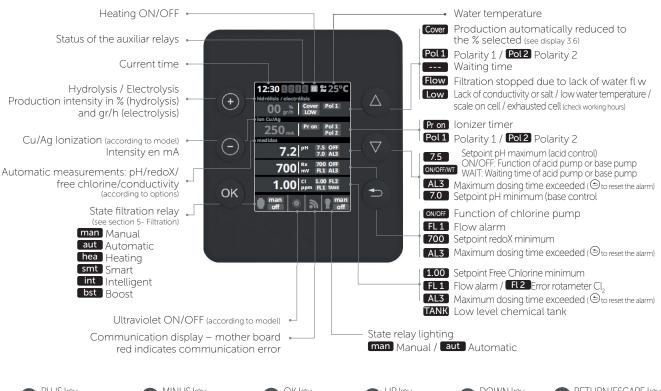
1

## Control unit wiring diagram



2. Main screen

#### **NEOSAL**







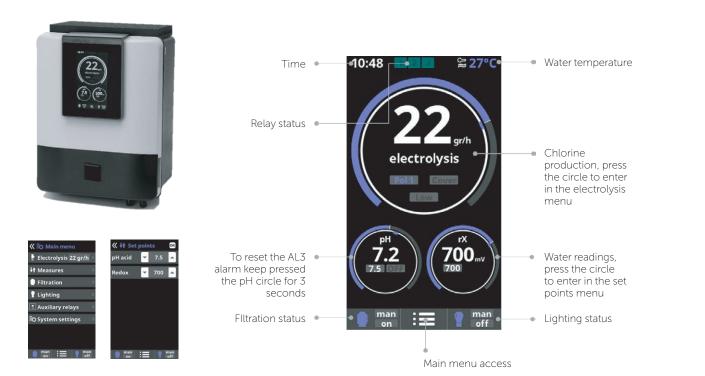




DOWN key Navigation down

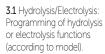


#### HIDROLIFE, OXILIFE



## Hydrolysis / electrolysis (according to model)







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



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



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



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



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

## Measures

#### **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: 7.3-7.5; redoX: 600-800; Free Chlorine: 0.5-2 ppm; Conductivity: 1500-2500 for Hydrolysis and 7000-10000 for

## pH Calibration

#### Optional pH control Metering and control of the pH of the water















- 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 to step 1).

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:

- Connect the pool filtration system (the salt in the pool must be adequately dissolved).
- Add chlorine to the pool till a level of 1-1,5 ppm is achieved (approx. 1-1,5 gr/m³ of water). pH levels should be between 7,2 7,5.
- After 30 min. test the free chlorine levels in the pool (manual test kit DPD1) if the free chlorine level is between 0,8 1,0 ppm. 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.
- 5. 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









😑 Ca

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 step 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 readings.
  - 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.





redoX



1.00 FF



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.

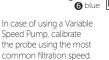
- 4.17 Step 3 of 6 Calibrate Cl: Open the water flow until achieving 80-100 liters/hour. Wait until obtaining a stable reading of ppm. Wait between 5 to 20 min. Press OK when the reading is stable.
- 4.18 Step 5 of 6 Establish the real ppm values with the plus/minus keys according to your analysis result 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).













1.00 ppm

Cance

#### Conductivity calibration

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







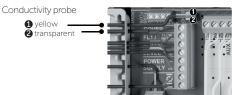


4.22 Calibration of the Conductivity probe: Recommended every month during usage season.

**4.23** Calibration with buffer (buffer solution 1413 μS/ 12880 μS/ 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.





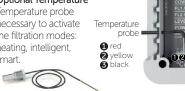




- 4.25 Manual calibration: Allows to adjust the probes at 1 point (without buffers) – only recommended to adjust small deviation in the readings.
- **4.26** Without removing the probe from the water, use the plus/minus keys to adjust the reading so it matches with your reference value (photometer or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

## Temperature calibration

Optional Temperature Temperature probe necessary to activate the filtration modes: heating, intelligent, smart









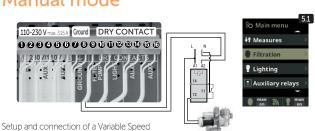
4.28 4.27 and 4.28 Temperature calibration: To set difference between the measured value of the probe and the actual temperature, use the plus/minus and up/ down keys. Set to the actual temperature of the probe and press OK

> The option Reset Cal clears the calibrations made previously.

## **Filtration**

FILTER PUMP Filtration control 2 & 10

#### Manual mode



Filter cleaning

#### 5.1 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.

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

Pump, see section 13 - Variable Speed Pump



#### 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 hours.

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  $23^{\circ}$  C, the system 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



5.6 Intelligent\*: In this mode the user has 2 working parameters to guaranty the desired water temperature with a minimum of filtration hours: You select the 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.

2800 .

<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 cleanig 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 as follows:

- 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
- 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.

## Lighting







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.

6.3 Automatic Mode: Shuts lights ON/OFF

6.2 Manual Mode (ON/OFF).

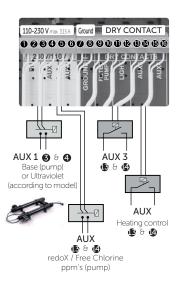
**6.4** LED spotlight: In case of having installed led lights in your pool, use this menu to set the lighting.

6.1 Lighting

6.5 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 selected time.

## **Auxiliary relays**



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).

 ${\bf 7.4}$  Automatic mode: ON/OFF according to a timer that adjust the start 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.

7.6 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**



#### Wifi settings



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 & 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.

WIFI connection of the system.

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.

## Salinity\*





0.0



- 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 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.

## 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.

## Flow switch

11.

10.



It is possible to add an external flow switch to the system. Connect as shown in the image and contact your installer for activation. The titanium cell includes a gas flow sensor, you can combine both for better control.

# **12.**

## Level sensor (tank)

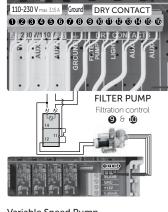
Acid deposit level TANK 4 & 5



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.

## **13**.

## Variable speed pump











1 S 2 M 3 F



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

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