aseko

USER MANUAL **EN**

ASIN AQUA **Salt eOX**

2025

PREMIUM SYSTEM
FOR LOW SALT WATER
DISINFECTION

www.asekopool.com

General safety information

This user manual contains basic information that should be observed during assembly, start-up, operation, and maintenance. Therefore, this user manual must be read by installers and operators prior to assembly and start/up, and must be accessible to every user of this unit. Additionally, all further safety information in this document must be observed. Read and follow all instructions. In order to minimize the danger of injury, do not allow children to use this product. Non-compliance with safety information can result in hazards to persons, the environment and the equipment. Non-compliance with safety information will result in a forfeit of any potential right to damage compensation.

Insufficient personnel qualification

Hazards in the event of insufficiently qualified personnel, potential consequence: Injury, heavy material damage.

- The system operator must ensure compliance with the required qualification level.
- Any and all work may only be performed by correspondingly qualified personnel.
- Access to the system must be prevented for insufficiently qualified persons, e.g. via access codes and passwords.

Potential overdosing of chemical agents

Despite ASIN AQUA Salt comprehensive safety functions, it is possible that a probe failure and other errors could lead to an overdosing of chemical agents. Potential consequence: Injury, heavy material damage.

- Design your installation such that uncontrolled dosage is not possible in the event of a probe failure or other errors, and/or such that uncontrolled dosage is recognized and halted before damage is incurred.
- Uncontrolled overdose of chemicals can cause harm to health and property. Even though the device contains a number of security elements can not be ruled out that in case of failure of the measuring probes, or the whole device may result in overdose of chemical agents. Install the equipment so that uncontrolled overdose of chemicals was not possible and that uncontrolled overdose has been detected in time before causing any harm. It is necessary to use chemicals in such quantities that an overdose will not cause dangerous concentration of chemical agents. Do not use chemicals in too large packages or with too high concentration.

Gaseous chlorine produced from dosing in standing water if dosing outputs are not closed via the filter pump

If the flow switch is stuck or experiences another error, there is a risk of dosing into standing water.
Poisonous chlorine gas can be yielded when sodium hypochlorite and pH minus come together.

Non compliance with informational text

Not observing informational text may lead to hazards. Potential consequence: gravest degree of injury, heavy material damage.

- Read all informational text carefully.
- Cancel the process if you are unable to exclude all potential hazards.

Use of new functions

Because of the continued development, a ASIN AQUA Salt unit may contain functions, which are not completely described in this version of the user manual. The use of such new or extended functions without a profound and secure understanding by the operator may result in malfunctions and severe problems. Potential consequence: Injury, heavy material damage.

- Make sure to get a profound and secure understanding of a function and relevant boundary conditions, before you start to use it.
- Check for an updated version of the user manual or additional documentation available for the relevant functions: **http://manuals.asekopool.com**
- Make use of the integrated help function of the ASIN AQUA Salt to get detailed information on functions and their parameter settings.
- In case it is not be possible to get a profound and secure understanding of a function based on the available documentation, do not use this function.

Overdosing if pH value is wrong

If disinfection is enabled before the pH value is stable in the ideal range of 6.8 to 7.5, then it may lead to heavy overdosing of chlorine or bromine. Potential consequence: Injury, heavy material damage.

- **Do not start disinfection with chlorine until the pH value is stable in the ideal range between 6.8 and 7.5.**

Conditions before using

Make sure you have a newest and updated version of the user manual and other documentation for all functions of the unit. Use and read the integrated help features. In case of not understanding the information about certain features of the unit, do not use these features.

Handling chemicals for pool water treatment

The chemicals used with the ASIN AQUA Salt must be handled in a safe manner to prevent damage or personal harm. Aseko recommends you always use personal protective safety equipment when handling the pH and chlorine agents. Refer to the Materials Safety Data Sheet (MSDS).

Important notices for proper functioning.

WARNING:

Never mix pH and chlorine agents.
Always rinse tubes and valves with clean water during maintenance to prevent mixing.

Never use hydrochloric acid (HCl, muriatic acid, spirits of salt, hydronium chloride, chlorane).
HCl acid is fuming. Using a chemical based on HCl will cause damage to the device.

Never install the unit in unventilated technical shafts with high humidity, as this can severely damage electronic components, especially the display. Damage caused by high humidity will not be accepted as a warranty claim. If the ASIN AQUA Salt is in a high-humidity and low-temperature environment (e.g., garden house), keep the device permanently ON. This helps maintain a higher internal temperature, significantly reducing humidity inside the unit. The same applies when storing the unit during winter.

Installation must be protected by a residual current device (RCD).

The pool and pool technology must be properly grounded.

CLF Probe Calibration: Calibration can only be done when the pH is stable in the range of **6.8–7.5.**
After changing the electrolyte, wait at least **1 hour,** but ideally **24 hours,** to allow the signal to stabilize before proceeding with calibration.

Never use stabilizers with cyanuric acid in ASIN AQUA Salt eOX devices.
Cyanuric acid forms a chlorine-cyanurate complex, which rapidly decreases the disinfecting power of chlorine and makes it impossible to measure with a free chlorine probe. Be aware that some chlorine tablets contain cyanuric acid. Ensure there is no cyanuric acid in your pool.

ASIN AQUA Salt eOX

The ASIN Aqua Salt eOX is an advanced pool water treatment system that utilizes Electro-Oxidation (eOX) technology to maintain crystal-clear water. Operating with a low salt concentration of 1 to 2 grams per liter, it employs a titanium anode coated with an optimized ruthenium/iridium ratio to generate potent free oxygen and low amount of chlorine radicals, effectively sanitizing the water. This system combines the immediate disinfecting power of free oxygen radicals with the sustained effects of hypochlorous acid, ensuring continuous pool sanitation. Its eco-friendly design minimizes chlorine production, reducing irritants for swimmers while maintaining superior water quality.

MAX POOL VOLUME

ASIN AQUA Salt eOX 50
up to 50 m³

ASIN AQUA Salt eOX 100
up to 100 m³

User friendly Smart control functions of ASIN AQUA Salt eOX will make your pool fully automatic.

Online connection to ASEKO Cloud Services aseko.cloud and smart application ASEKO Live will give you the pool status overview from where ever you are connected to internet.

Water treatment

Salt Pure

Extra pure sodium salt: Using a high-purity salt specifically designed for electrolysis is crucial to ensure the electrolyzer operates correctly and to prevent any unwanted contaminants from forming during the process

Chlorine regulation

The ASEKO Redox probe for salt provides precise measurements to monitor the actual disinfection power in the pool. This advanced probe can measure the effectiveness not only of free chlorine but also of free oxygen radicals present in the water. Together with a control electrolysis algorithm, it ensures the disinfection power stays at the required level for optimal pool sanitation.

pH control and dosing

Acurate measuring by pH probe long-life in combination with the dosing algorithm assures the required water quality using the lowest necessary amount of chemicals. Dosing of pH MINUS or pH PLUS.

Use of hydrochloric acid is strictly forbidden.

Algicide daily dosing

The daily dosing of an effective polymer biocide protects the water against algae. A great addition to chlorine disinfection.

Pool technology management

Filtration Time Control

Daily, automatic start of the filtration system in individually preset periods.

Water Level - Refilling

System can be programmed to control four different water levels at your pool and switch the water refilling or automatically use the excessive water for filter backwash. Requires optional **level sensor**.

Filter Backwashing

The system can control the filter backwash and set specific time periods to perform the filter backwash automatically. This function requires an optional **5-way Besgo valve**.

Smart Heating Control

The system is equipped by intelligent control of preset water temperature. It can switch and control the heating (**solar heating, electrical heating, gas heating, heat exchanger**) by logic of integrated smart heating functions.

Winter mode

The Winter mode ensures the pool remains at a safe temperature during cold weather conditions.

Variable speed pump control (VS pump)

In the settings, select the type of your variable speed pump. ASIN Aqua allows to use 4 speeds:
Speed 0 (OFF)
Speed 1 (LOW) for economical filtration outside the filtration TIMER.
Speed 2 (MEDIUM) during filtration TIMER.
Speed 3 (HIGH) during filter backwash.

Switching BOTTOM / OVERFLOW

At the set times of the TIMER, water flows through the OVERFLOW (the relay is activated).
Outside the set times of the TIMER, water flows through the bottom drain (relay deactivated).
The pool cover does not affect the BOTTOM / OVERFLOW switching.
During filter backwashing, water flows through the BOTTOM DRAIN.
In case of an alarm LEVEL TOO HIGH the flow will be switched to OVERFLOW until the alarm level expires.

This function requires optional **3-way Besgo valve.**

Pool cover position (relay closed)

If the pool cover is closed during the set TIMER times, the speed of the VS pump will automatically change to 1 (LOW).

Control by External touch display

ASIN AQUA can be monitored and controled by external touch display (this function requires an optional **External touch display #12048**).

Programmabel relay

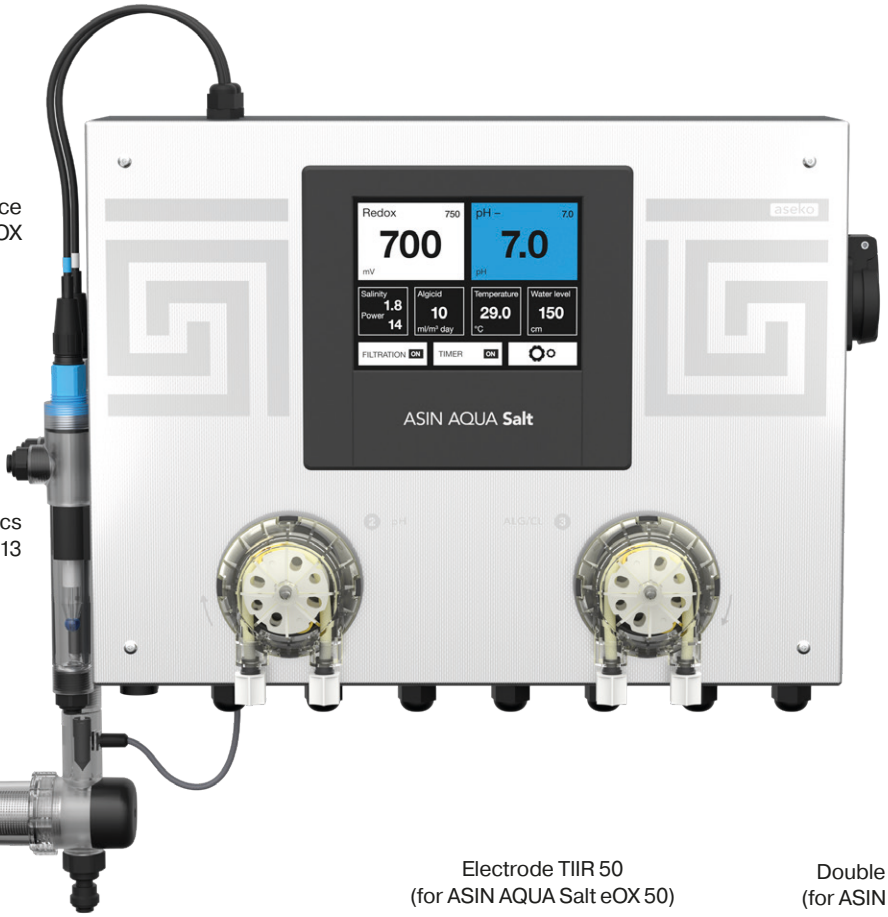
ASIN AQUA has one integrated programmable relay to control an extra accessory.

Solar heating control

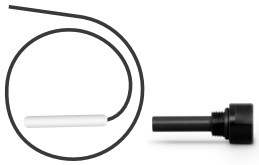
ASIN AQUA monitors the temperature of solar panels. When solar panels reach a set threshold, the water is automatically redirected to the solar panels. This function requires an optional **4-way Besgo valve**.

What do you receive in your box

Device
ASIN AQUA Salt eOX



Water thermometer with housing #13192



Probe housing 2 pcs
#13013

Peristaltic pumps
#12093

Flowmeter with filter
#12106

Electrode TIIR 50
(for ASIN AQUA Salt eOX 50)

Double Electrode TIIR 100
(for ASIN AQUA Salt eOX 100)

Redox probe for SALT #12113

pH probe Long Life #12012

Water valves 2 pcs
#12006

Injection valve 2 pcs
#12005

Suction kit for 20l canister
#13415

PE Tube 1/4 (6,35mm) 15m -
transparent #13277

Mounting rail
#13430

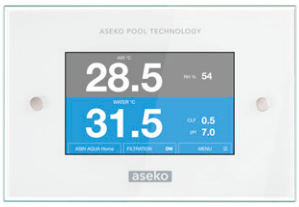
Dowels and screws
#12125

Available optional accessories

ASIN Salt Extender
#13209-25

Pressure-type level sensor
#12086

External touch display
#12048



Injection manifold d50/DN63
4x 1/4“ #13395

Coagulation mixer d 50, L 195 mm
#30001

Photometer
#13076

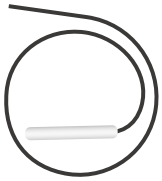
pH 7.00 Buffer #12065
Redox Buffer #12063

BESGO 5-way
#83103
BACKWASH

BESGO 3-way
#83130
OVER /BOTTOM

BESGO 4-way
#83150
SOLAR

Air thermometer
#13192



ASEKO original chemical solution

20 l or 5 l volume

pH MINUS #12130 or pH PLUS #12120

ALGICID #12156 or FLOC+C #12139

Volume 10 kg

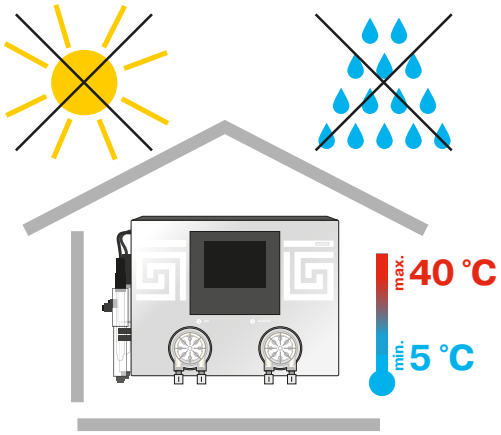
SALT PURE 10kg #13344

BALANCER #13039

MAGNESIUM #13039

Bottle 1 kg

SUPER CHLOR #13120



ASIN AQUA Salt eOX Installation

The ASIN AQUA Salt eOX must be operated in indoor environment with a temperature range of +5 to +40 °C, and the relative humidity must not exceed 70%. Direct sunlight, high humidity, and dust may damage the ASIN AQUA.

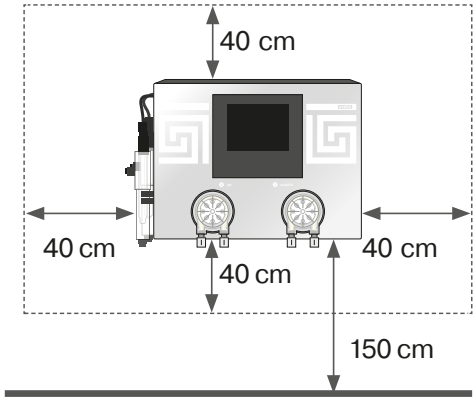
- Before installing, ensure that pool water is chemically clean and without dirt.

Install the mounting rail and attach the ASIN AQUA Salt eOX to the wall. Choose a location with a free space of at least 40 cm in all directions, and a height above the floor must not be higher than 150 cm.

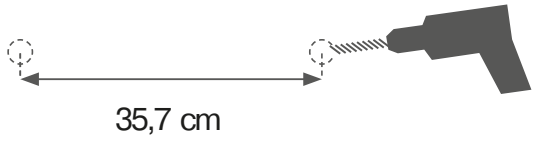
- The vertical distance between ASIN AQUA Salt eOX and the bottom of containers must not exceed 2m.
- The maximum distance from injection valves to peristaltic pumps must not exceed 8m.

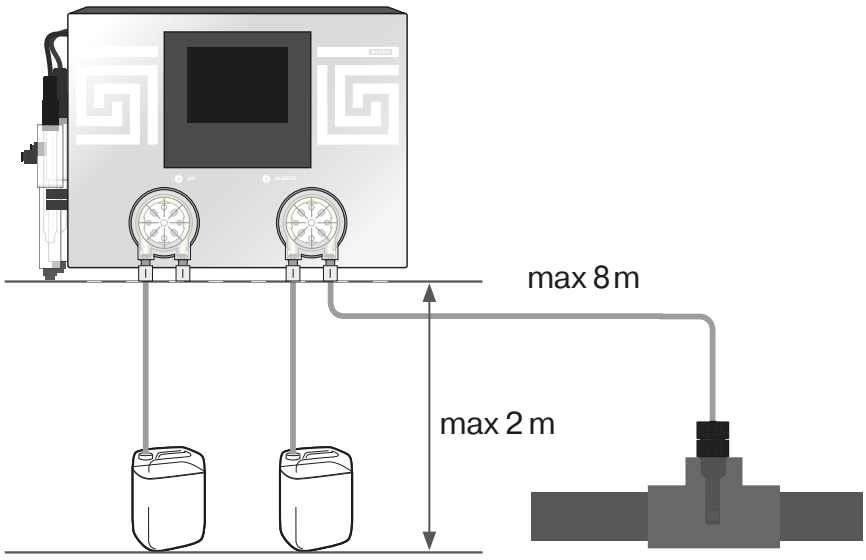
RECOMMENDATION: Install the ASIN AQUA Salt eOX so that even in case of leakage of chemicals from the pumps or pipes, there is no damage to other equipment or spillage on the floor. Use drip trays.
Do not install any other devices under ASIN AQUA.

WARNING: High relative humidity reduces the lifespan of electronic components, particularly displays. If the ASIN AQUA Salt eOX is in an environment with high relative humidity and low temperature (such as the installation shaft, or garden house), keep the device permanently ON. The temperature in the device will be higher than the ambient temperature, resulting in a significant reduction of relative humidity within the device.
This also applies when storing the unit during the winter.



Wall bracket





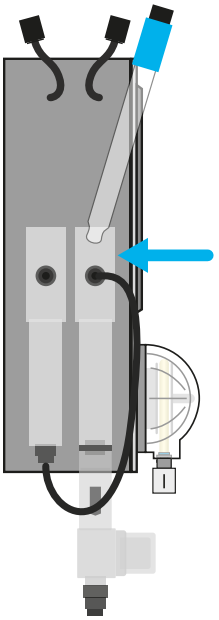
Installing the Probes

1. Carefully insert the pH and REDOX probe into the housing.
2. Hand tighten or use the plastic wrench socket for probes.
3. To connect the probe tighten the connector on the probe connection cable.

After probes have been inserted, slightly tightened and connectors have been connected, ASIN AQUA is ready for connection to the water system of your pool.

WARNING: Only hand tighten the probes or use the plastic wrench socket for probes. Do not use pliers or steel wrench.

Step 1: Installation of pH probe

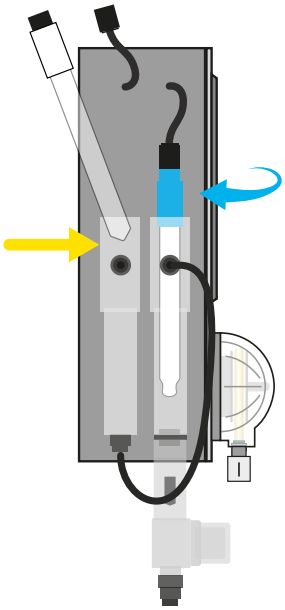


pH probe
housing #13013

pH Long Life probe
#12012

Step 2: Installation of Redox probe

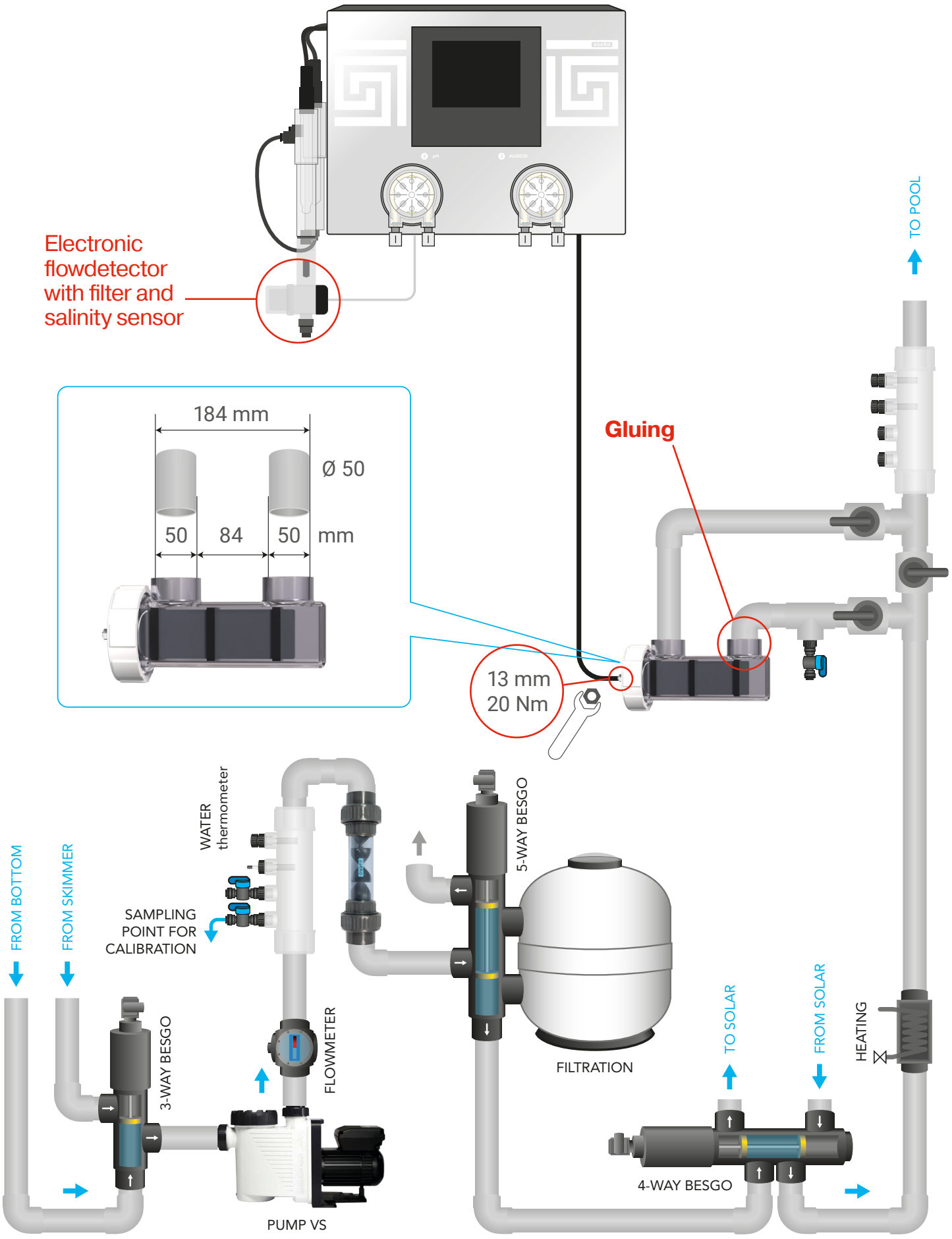
Redox probe
for salt #12016



Redox probe
housing
#13013

Wrench socket for
probes #13046

Connection of electrode TE-25



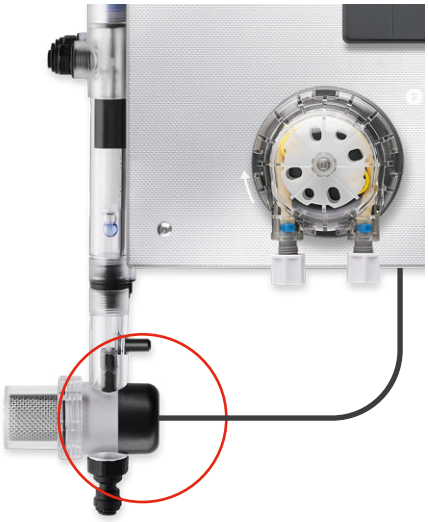
Connection of electrode TIIR 50

Electrode TIIR 50

One of the essential components of the ASIN AQUA Salt eOX device is the titanium electrode TIIR 50, featuring a ruthenium-iridium surface. The precise ratio between ruthenium and iridium enables the efficient generation of both oxygen and chlorine radicals.

To install, place the electrode in the filtration circuit branch as shown in the diagram on the previous page. Construct the branch using plastic pipes with a 50mm outer diameter, ensuring valves on both ends for easy closure during maintenance or electrode replacement. Insert an additional valve between the branch's inlet and outlet pipes to maintain circulation when the electrode is off and to allow the branch to be closed. Position the electrode opposite the valves on the pipe, and avoid using fast-drying glue. Recommended adhesives are Griffon UNI-100 or Griffon UNI-100 XT. After attaching the branch to the system, connect the electrode power cables from the ASIN AQUA Salt eOX unit.

Recommendation: Install the electrode upside down to ensure that the electrode will be during its operation fully flooded.

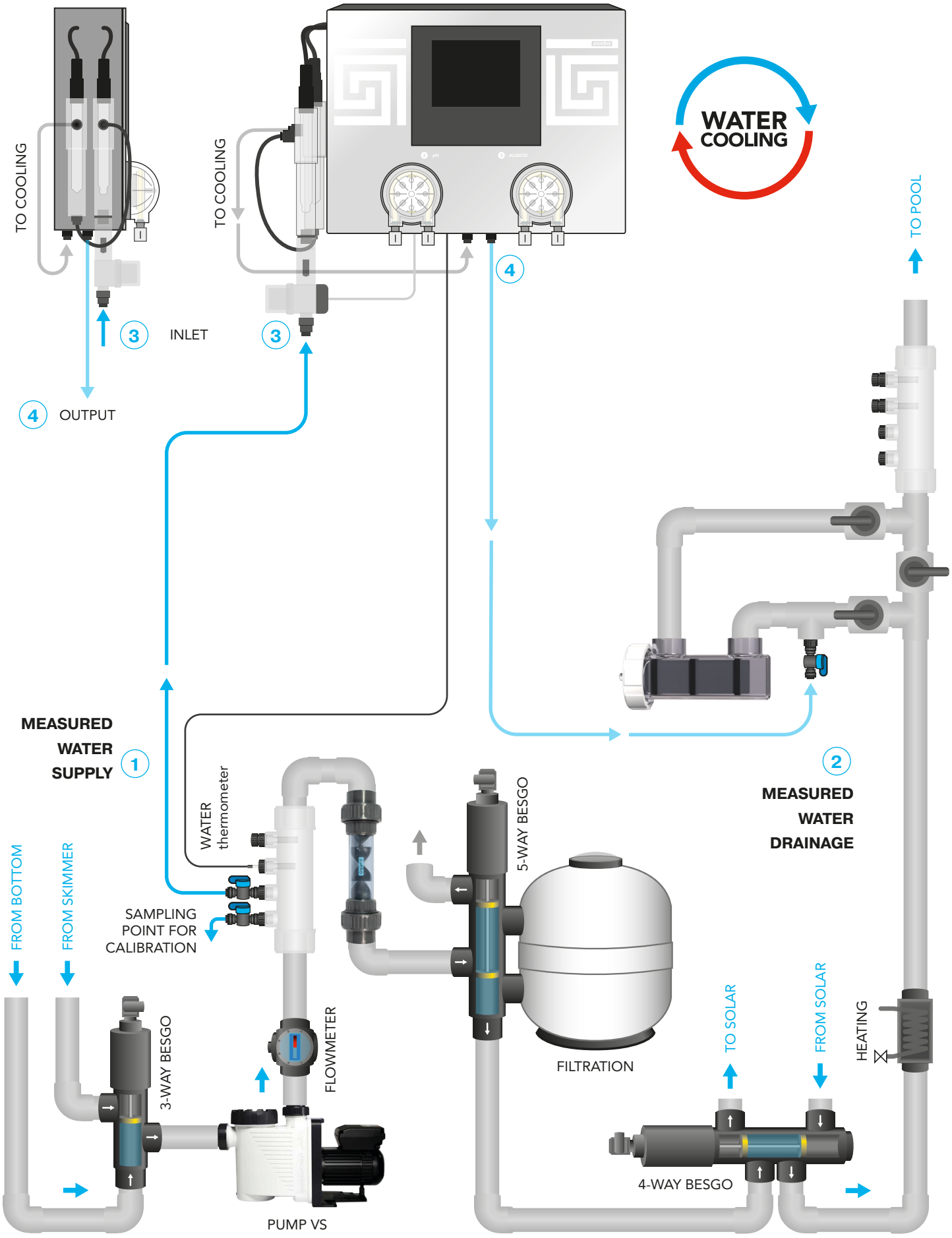


Salinity measuring unit

Salinity measuring unit

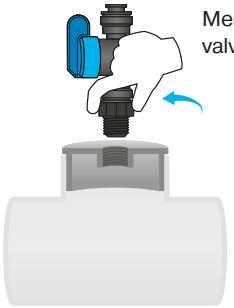
The salinity sensor is part of the measuring water filter.

Pool Water Connection



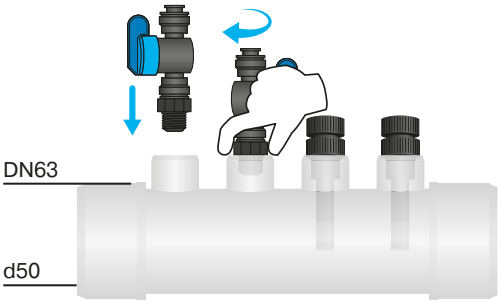
Pool Water Connection

Screw the **measuring water valve** in the glue head D50 with thread G1 / 4 “#12134, glued to the T-piece. **Tighten the measuring water valve into the head by hands only. Do not use pliers or other tools.**



T-joint

1. Connect the **MEASURED WATER SUPPLY** to the pipe **behind the pump, and before the filter and before the electrode.**
2. Connect the **MEASURED WATER DRAINAGE** to the pipe **behind the filter** and behind the heating or into the overflow tank or skimmer.

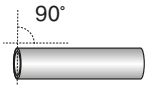


Injection manifold d50/DN63 4x 1/4“ #13395

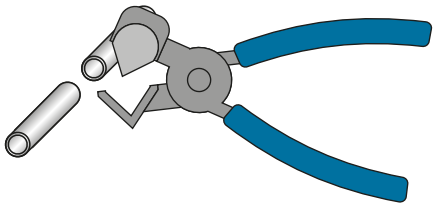
To connect the measured water to the ASIN AQUA use PE tube 1/4 “(6.35 mm) #12008, which is part of the packaging.

WARNING

Cut the PE tube at an angle of 90 ° to ensure tight joints. The cut must be clean. Use special pliers #13325 to cut plastic tubes. Do not use common scissors or knives!



PE tube 1/4 “(6.35 mm)



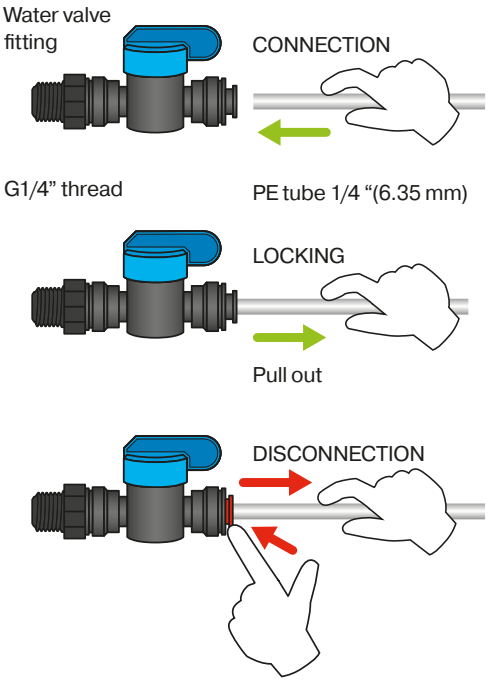
The measured water is easily connected to ASIN AQUA using the **Speedfit** push-in fitting.

CONNECTION Push the connecting pipe into the Speedfit fitting and pull out the hose to secure.

DISCONNECT push and hold the Speedfit round collet and pull out the connecting pipe.

3. **INLET** of the measured water to the ASIN AQUA
Connect the tube to the bottom Speedfit of the measured water filter.
4. **OUTPUT** of the measured water from ASIN AQUA
Connect the tube to the Speedfit on the bottom of the unit from the water cooling.

Once connected, ASIN AQUA is ready to measure disinfectant content and pH value in your pool.

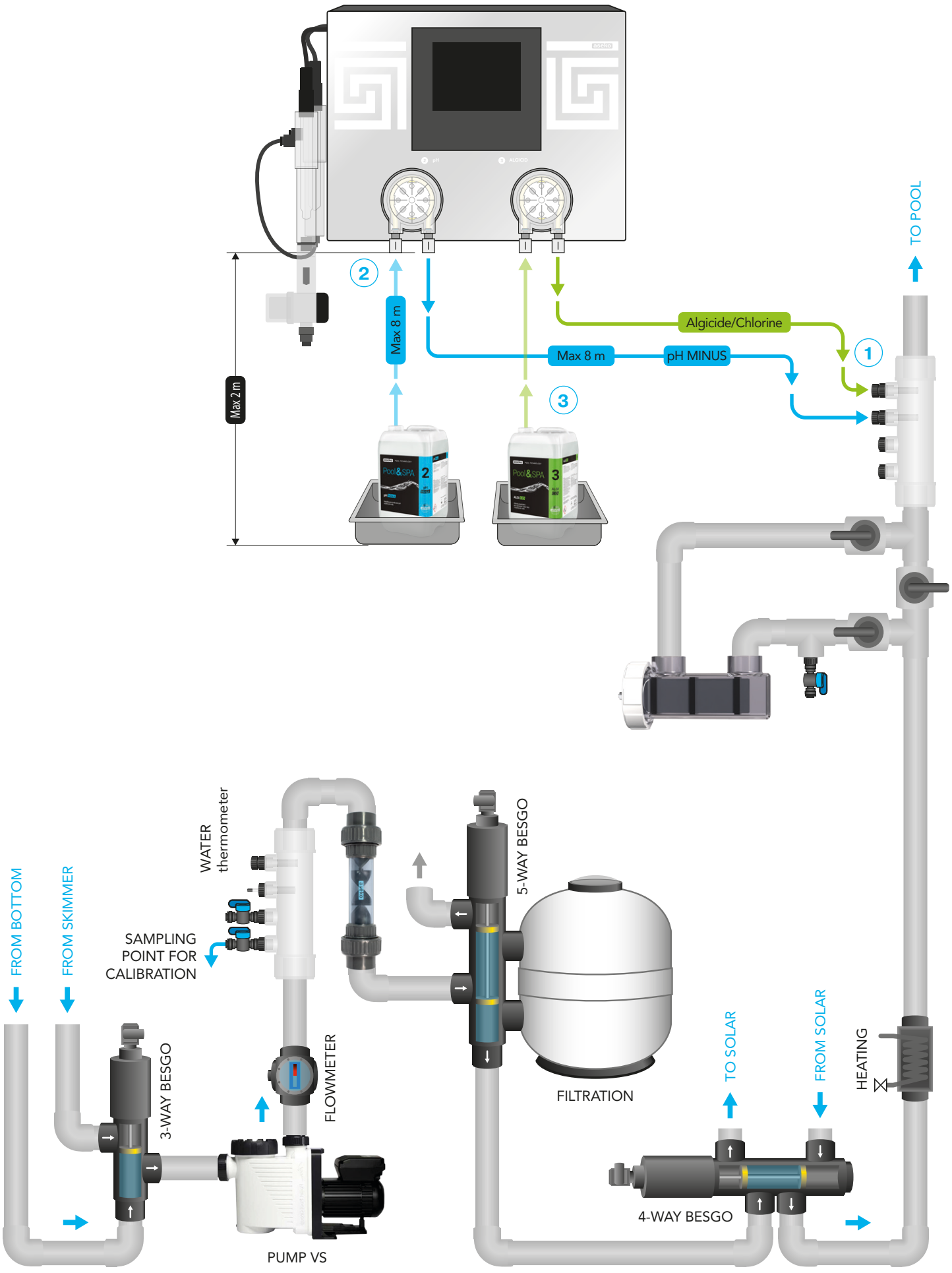


WARNING

Electrolysis must be stopped if water is not flowing through the electrode.

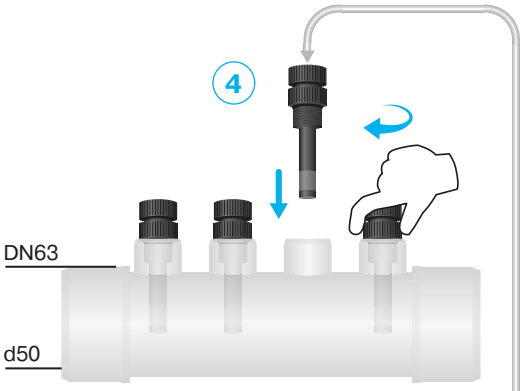
If you install the electrode on a bypass, it is necessary to connect the outlet of the measured water to the bypass in front of the electrode. Connecting the measured water outlet before the electrode in the bypass will cause a “No Flow to Probes” warning if the bypass is clogged, which stops the electrolysis.

Pool Chemicals Connection



Pool Chemicals Connection

Screw the **injection valve** in the glue head D50 with thread G1 / 4 " #12134, glued to the T-piece. **Tighten the injection valve into the head by hands only. Do not use pliers or other tools.**



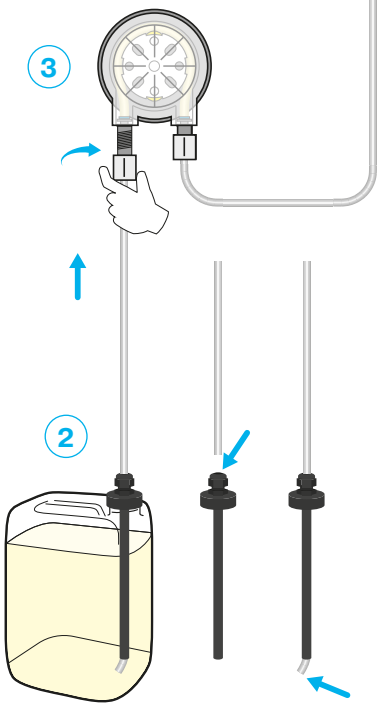
Injection manifold d50/DN63 4x 1/4"
#13395

1 Connect the **ALGICIDE and pH INJECTION VALVE** to the pipe **behind the filter and behind the MEASURED WATER DRAINAGE**. Connect injection valves in this order to prevent formation of lime scale.

To connect reagents from cans to the ASIN AQUA Salt eOX and from the ASIN AQUA to the injection valves use PE Tube 1/4 "(6.35 mm) #12008, which is part of the packaging.

WARNING

Cut the PE tube at an angle of 90 ° to ensure tight joints. The cut must be clean. Use special pliers #13325 to cut plastic tubes. Do not use common scissors or knives!

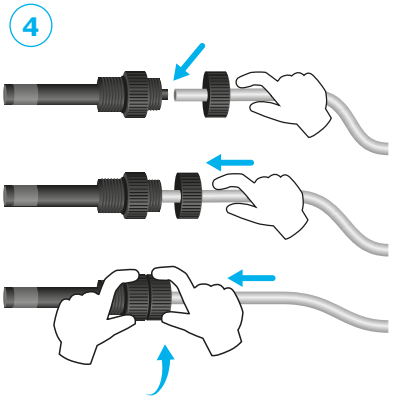


Suction kit for 20l canister
#13415

2 **CANISTER CONNECTION** Screw the cap (suction set) onto the canister. Choose the tubing length so that it reaches the bottom of the canister and connects to the pump in the straightest possible way. Longer tubing inside the canister may bend and create air bubbles.

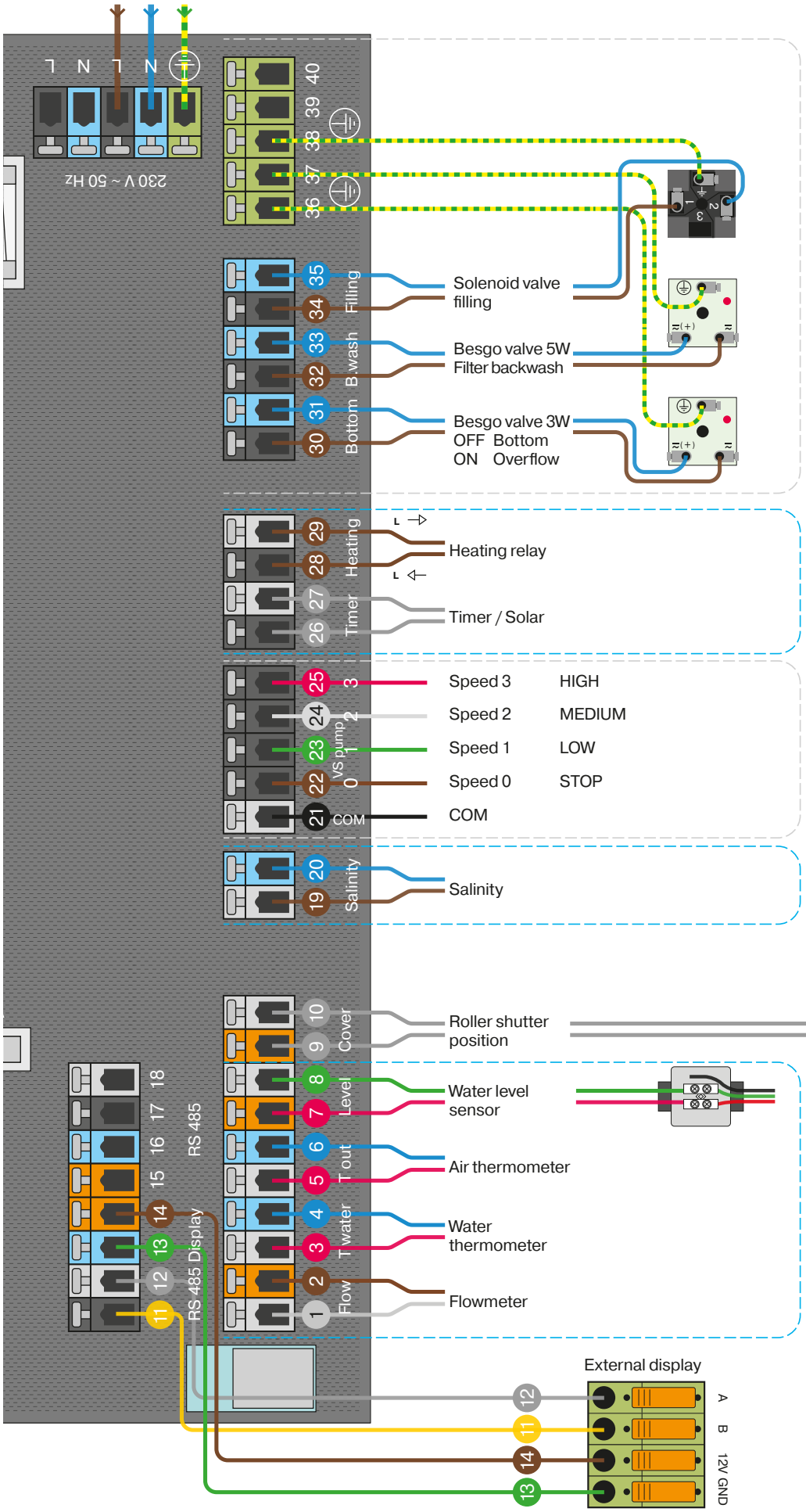
3 **PUMP CONNECTION** Connect the can with the left (suction) connector of the pump using a PE tube from the can.

4 **INJECTION VALVE CONNECTION** Pass the tube through the injection valve nut, connect the tube onto the injection valve and tighten the nut firmly by hand. Connect the tube from injection valve with the right (discharge) connector of the pump.



Accessories Connection

POWER SUPPLY
230 V ~ 50 Hz



RELAY 230 V, MAX 1 A

POTENTIAL-FREE RELAY

Max 1 A, Max 230 V

VS PUMP CONTROL

SALINITY

ROLLER SHUTTER POSITION

POTENTIAL-FREE RELAY!

Connected – cover close
Disconnected – cover open

SENSOR INPUT 4 – 20 mA

External Display

VS Pump connection

WARNING

Always check the connection according to the current user manual of your pump manufacturer.

Speed

TYP A

COM	S1	S2	S3	STOP
n1	ON	OFF	OFF	OFF
n2	OFF	ON	OFF	OFF
n3	OFF	OFF	ON	OFF
S	OFF	OFF	OFF	ON

Relay status

TYP B

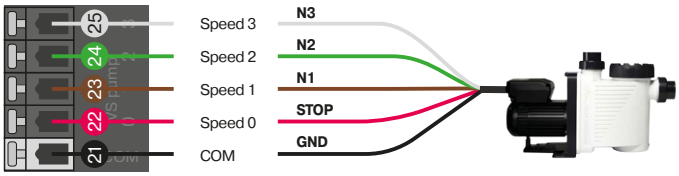
COM	S1	S2	S3	S4
n1	ON	OFF	OFF	OFF
n2	OFF	ON	OFF	OFF
n3	OFF	OFF	ON	OFF
S	OFF	OFF	OFF	ON

TYP C

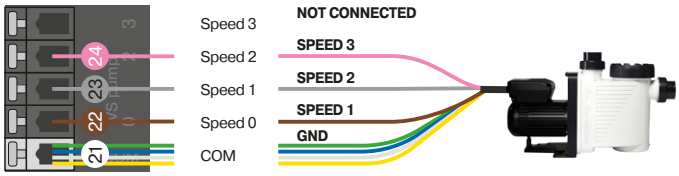
COM	S1	S2	S3	STOP
n1	ON	OFF	OFF	OFF
n2	OFF	ON	OFF	OFF
n3	OFF	OFF	ON	OFF
S	ON	ON	ON	OFF

TYP A

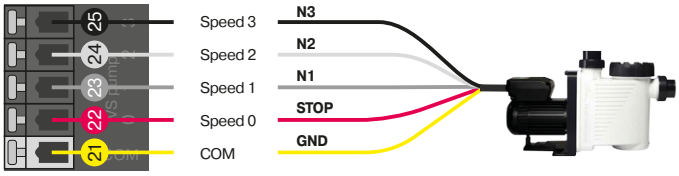
SPECK — TYP A



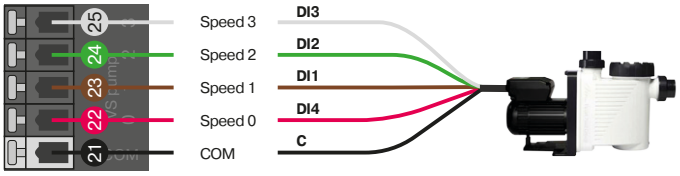
UWE EO PM — TYP A



INVERTER POOL PUMP — TYP A

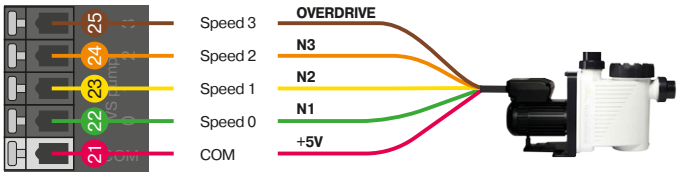


HAYWARD KS Evo VS — TYP A

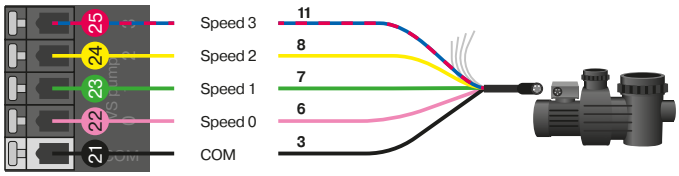


TYP B

PENTAIR — TYP B

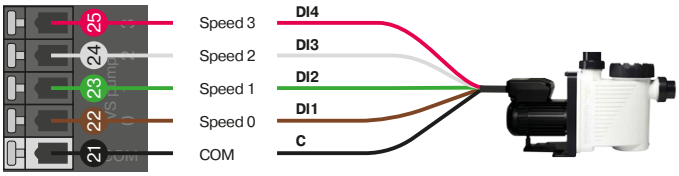


DAB E.SWIM - E.PRO — TYP B



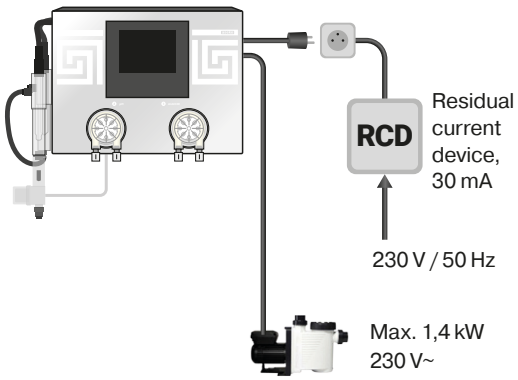
TYP C

HAYWARD (older type) — TYP C



Power Supply

Installation must be protected by a residual current device (RCD).



Connection to the mains:

1. Leave the mains switch in the off position.
2. Connect the filtering device to the ASIN AQUA Salt eOX switched socket outlet (filtration power supply - max. 1.4 kW / 230 VAC).
3. Connect the 230 V / 50 Hz mains cable to ASIN AQUA Salt eOX (on the right side). The mains socket outlet must be protected by a residual current device (RCD).
4. Change the mains switch over to the on position.

After Device has been switched on, the display will come on and the ASIN AQUA Salt eOX starting screen will appear.

Disconnection from the mains:

1. Change the mains switch over to the off position.
2. Disconnect the ASIN AQUA Salt eOX mains cable from the 230 V / 50 Hz socket outlet.
3. Disconnect the filtering unit mains cable from ASIN AQUA Salt eOX.

WARNING: If Device is used in the manner different from that specified by the manufacturer, protection provided by Device may get damaged.

Power supply	230 V AC 50 – 60 Hz
Power consumption out of pump	190 VA
Total power consumption	1840 VA
Unit fuse	T8 A
Inner electronic fuse (F3)	T1 A
Supply of external sensors fuse (F1)	T800 mA
Ingress protection	IP30
Over-voltage category	II
Operating temperature	+5 to + 40°C
Relay output contacts	max. 230V/1A voltage free
Thermometer	max difference +/– 1,5°C
Clorine processing power (salt 4g/l)	TE–25, 20 g Cl/ h
Filter pump power supply	1,4 kW , 230 V AC
Power of dosing pumps	60 ml/min. by overpressure 1,5 bar
(pH, Algaecide)	1,5 bar
Measuring water max pressure	1,5 bar
Dimensions	450 x 330 x 150 mm
Weight	10 Kg

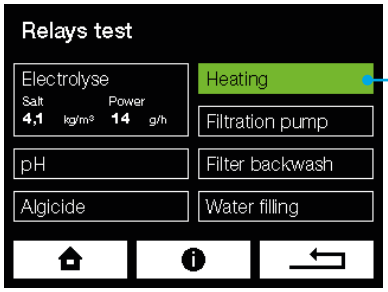
Installation Test

WARNING: Any obstacles, bubbles or leaks in the connecting tube will prevent ASIN AQUA Salt eOX from correct operating. The clear plastic tube allows you to monitor flow of liquid to the injecting valves.

Before commencing the operation, test ASIN AQUA Salt eOX installation.
Most problems result from incorrect installation.

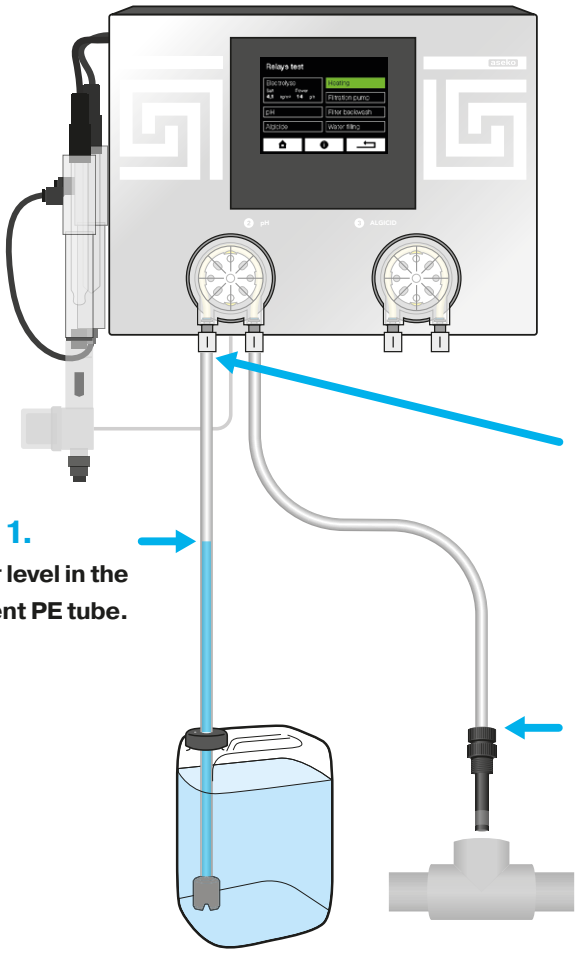
Test

In the “Relay Test” menu, start pumps one by one and while they are running, check tightness of all the PE tube connections. Check the injecting valves for blockage and air bubbles in the PE tube.



Press to **TURN ON (GREEN)** and press again to **TURN OFF**.

DON’T FORGET! After you complete the test, stop all accessories in the menu. Do not dose in this step!



1.
Monitor level in the transparent PE tube.

2.
If bubbles occur here, the pump sucked air. Repair the connection - disconnect the tube, cut the end carefully at a 90° angle, and plug it back.

3.
Check tightness of all the connections.

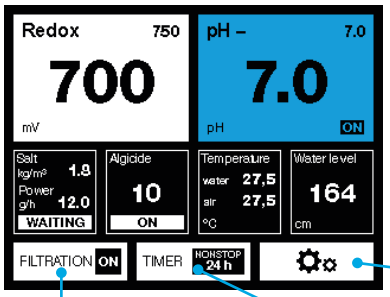
Liquid must reach injection valve and the pipe.

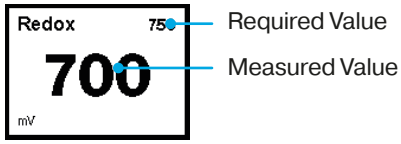
Touch screen description

Home Screen

The home screen displays measured values, required values and status information.

E.g. click on the **Chlorine** to enter the setting of the required chlorine value.



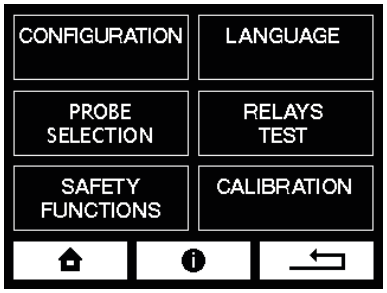


ON indicates the current status of filtration. The Timer allows to set the filtration periods.

ON - filtration runs according to preset periods.
NONSTOP 24 h – filtration runs continuously for 24 hours.

Enter the settings.

Manual control allows to:
switch filtration on/off independently to preset filtration periods.
start filter washing independently to preset backwash periods.

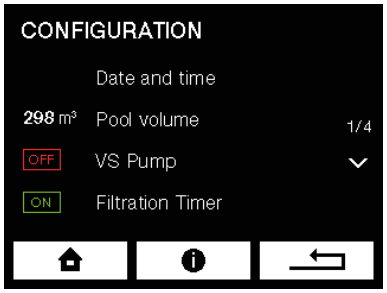


Settings

Back to the home screen.

More information for currect screen.

Back to the previous screen.



Movement through Menu

1/4

Movement in menu to the previous page.

Indicator of the current page and the total number of pages.

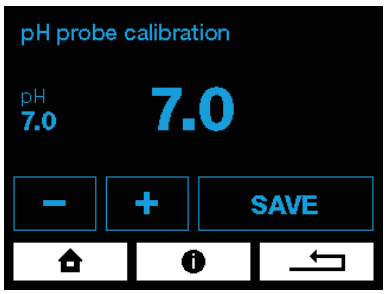
Movement in menu to the next page.

ON

ON - function is switched on

OFF

OFF - function is switched off



Value Settings

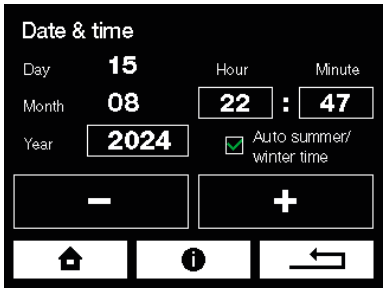
Decrease the value.

Increase the value.

SAVE

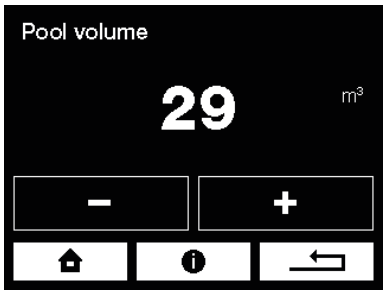
Save the set value

Configuration



Date and Time

To ensure the correct function of timers, set the current date and time.



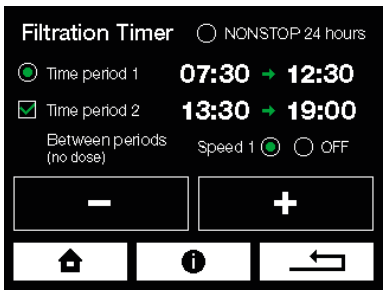
Pool Volume

To ensure the correct function of ASIN AQUA, enter the correct volume of your pool. Calculate your pool volume in m^3:

Length (L) times width (W) times depth (D) is volume (V) - (L × W × D = V).

Enter the value using + and - buttons.

WARNING: The pool volume has effect on the maximum safe dose, enter the value correctly.



Filtration Timer

Filtration timer can be set to NONSTOP 24 hours operation, or to one or two filtration periods.

Between periods (requires VS pump)

ASIN AQUA allows you to control the variable speed circulation pumps. The variable speed pump runs at speed 2 during filtration periods. Outside of filtration periods, when the standard circulation pump is off, the variable speed pump can run at speed 1 or be OFF (depending on its setting).

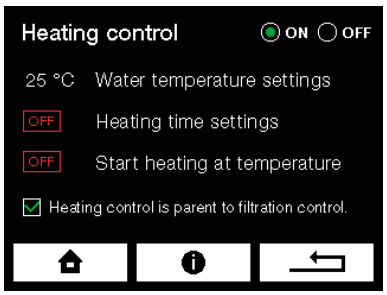
Automatic Filter Washing

The ASIN AQUA technology is in particular based on the high efficiency of filtering and removing even the finest impurities, it is necessary to **wash the filter on a regular basis.** The automatic filter backwashing function ensures the filter washing on a regular basis in the preselected intervals.

To enable this function, it is necessary to use the automatic 5-way BESGO valve. The ASIN AQUA controlls the BESGO valve with rellay output.

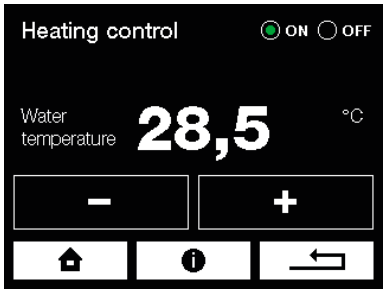
When the relay switches ON, the BESGO valve switches to the required position with the pressure of water or air and performs the Filter backwash. See the BESGO manual.

Smart Heating



Water Temperature Measurement and Heating Control

The water thermometer should be installed in the inlet pipe coming from the pool. Never install it behind the heat exchanger. When the temperature drops below the required value, the relay switches ON your heat source (heat pump, electric heating, gas boiler circulating pump).

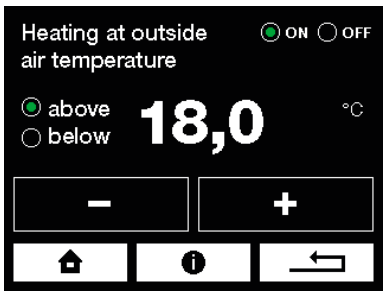


Heating Control Function Takes Priority over Filtration Control

If you select the option heating control is parent to filtration control, then the water temperature takes priority over the filtration timer. The heating as well as the circulating pump will be running even outside of the set filtration periods. The pump and the heating stop only when the required temperature is reached.

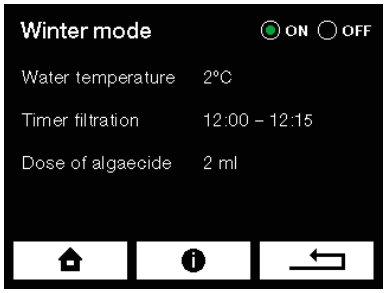
Heating Time settings

This function allows to set a time for which the heating will be in operation. This is particularly useful for switching on the heat pumps which have a higher efficiency during the day when outdoor temperature is higher. Eventually, turn off the heat pump during a specific time to reduce the noise from the heat pump.



Heating at Outdoor Temperature (above or below)

This feature allows you to set the outdoor air temperature, at which or below which ASIN AQUA starts heating. To use this feature, an outdoor air thermometer must be installed. This function is used to optimize the effectiveness of air heat pumps, which have higher efficiency at higher temperatures.



WARNING: DO NOT USE HEAT PUMP IN THE WINTER MODE!

Winter mode does not protect the heat pump from freezing.

Disconnect the heat pump and winterize it separately. Follow the heat pump manufacturer's manual.

Winter mode

Activating this function set the device into the special Winter mode. This mode prevents the pool water from freezing and keeps the water clean with dosing of algaecide.

In the Winter mode following function are deactivated: chlorine dosing, pH dosing, flocculant dosing, water filling, filter backwash. **Water flow is set to the bottom drain**.

Every day the filtration pump runs in preset filtration timer.

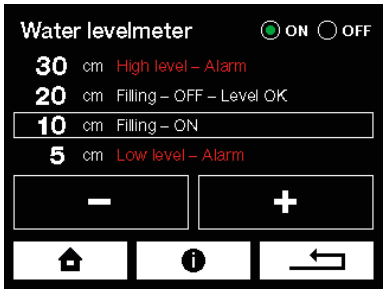
Outside of the filtration timer the filtration pump remains OFF but is automatically activated for the period of 15 minutes when the outdoor temperature drops below 0°C.

- If, after the period of 15 minutes, the water temperature is under the set temperature of 2°C, the filtration pump stays ON, and the heating is activated until the water temperature exceeds the set temperature.
- If, after the period of 15 minutes, the water temperature is higher than set 2°C, the circulation pump is turned OFF.

If the outdoor temperature stays below 0°C this cycle is repeated every 6 hours.

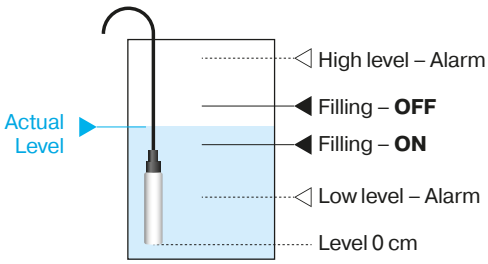
When using the Winter mode without the **outdoor air thermometer**, the system acts as it always detects 0°C outdoor temperateru.

Warning: Winter mode must not be used with the heat pump. The entire system is programmed that it does not protect the heat pump against freezing in the event of severe frosts. The winter mode can only be used in fully inground (thermally isolated) pools with filtration technology located in a in a non-freezing environment. The winter mode cannot be used for above-ground pools



Level sensor - Level Monitoring and Automatic Refilling

The water level is monitored using a pressure-type level sensor, which is easy installed by inserting the probe into the buffer tank or the blind nozzle of skimmer pools. ASIN AQUA monitors four different levels, which can be set in centimeters in the water level meter menu.



Setting:

High level ALARM - too much water in buffer tank

After this level is reached, following actions may start:

1. If the automatic filter backwash is enabled, one backwash cycle starts and drains the waste water.
2. If the automatic filter backwash is not enabled, the relay 19 switches on (filter backwash) for the period of time until level is OK. The second circulating pump or automatic drain valve can be connected to this relay.

Refilling OFF - required level

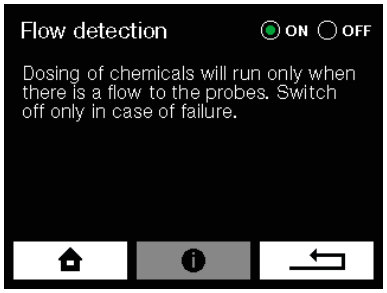
Refilling stops

Refilling ON - level at which refilling starts

Refilling starts after if the water level stay permanently at least for 10 seconds below this value (in order to prevent oscillating)

Low level ALARM

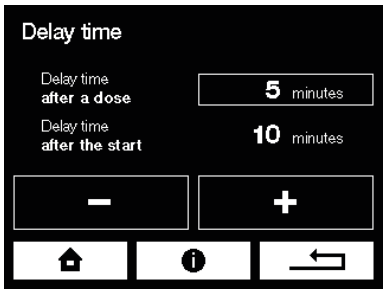
Circulation (filtration) pump shuts off



Flow detection

The flow detector detects flow of measured water. Dosing of chemicals will take action only if the water flow to probes is detected.

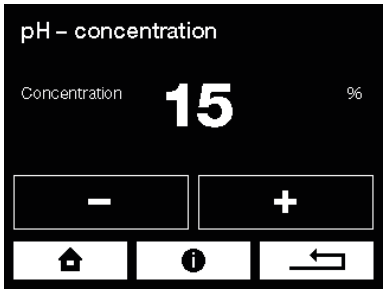
Warning: Only switch off the flow detector in case of a failure.



Delay

Delay time after dose is time for which ASIN AQUA does not dose and wait for the response of probes. The average response time is 4 to 10 min, at SPA 1 to 10 min.

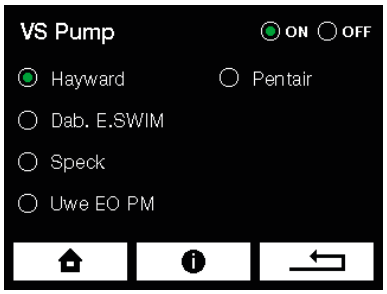
Delay time after start of the filtration pump (upon timer switching on) is time after start for which ASIN AQUA does not take any action and waits for stabilization of a signal from probes.



Concentration pH –

If you use the original ASEKO Pool & SPA chemicals keep the preset value. In case of use of non-original chemicals adjust concentration according to data on the label of a chemical used.

Warning: Higher concentrations of chemicals can result in shorter lifetime of ASIN AQUA components and may cause injury and health damage.



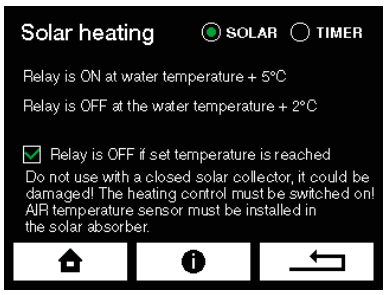
VS variable speed pump control

In the settings, select the type of your variable speed pump.
ASIN AQUA allows you to use 4 speeds of your VS pump.
Speed 0 (OFF)
Speed 1 (LOW) for economical filtration outside the TIMER.
Speed 2 (MEDIUM) for filtration during TIMER periods.
Speed 3 (HIGH) during filter backwash.

By default, the variable speed pump runs at speed 2 during filtration timer periods. Outside of the filtration timer periods, when the standard circulation pump is off, the variable speed pump can run at speed 1 or be OFF (depending on its setting). During filter backwash, the pump is automatically set to speed 3.

Individual speeds are set directly on the pump according to the pump manufacturer's manual.

Programmable relay



Solar heating

To use this function, in the menu **PROGRAMMABLE RELAY** choose the option **SOLAR**. **Connect the air thermometer to the solar absorber** and to the POTENTIAL-FREE relay TIMER / HEATING connect what is to be controlled by the relay.

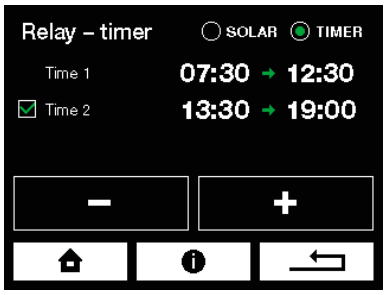
Once the temperature of the solar absorber **is 5 °C higher** than the temperature of the water, ASIN AQUA activates the relay which starts the circulation of the water to the solar absorber. When the temperature of the solar absorber is not 2 °C higher than water temperature the relay is deactivated.

When using both solar heating and the heat pump simultaneously, SMART HEATING gives the option to automatically disable the heat pump, utilizing only solar absorbers to optimize electrical consumption.

- In the HEATING CONTROL menu go to the Heating at Outdoor Temperature (above or below) and check the HEAT BELOW option. Set the temperature between 30 to 40 °C.

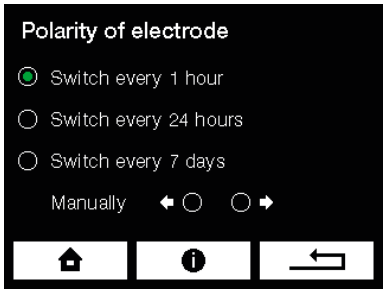
WARNING: Do not use with a solar collector.

WARNING: In order to activate this function, heating control must be switched ON.



Timer

To use this function, in the menu **PROGRAMMABLE RELAY** choose the option **TIMER**. One or two intervals can be set for the activation of the relay. Connect what is to be controlled by the TIMER to the POTENTIAL-FREE relay Timer / Heating.



Polarity

Here you can set how often the polarity of the cell changes.
The harder the water, the shorter the polarity change time required. A longer polarity change time extended
the lifespan of the cell.

Other automatic functions

BESGO 3-way
#83140

Switch of pool water flow - Besgo 3w
OVERFLOW / BOTTOM DRAIN

During set filtration timer periods, water flows through the OVERFLOW (relay is activated).
Outside the set filtration timer periods, water flows through the BOTTOM DRAIN (relay deactivated).
During filter backwash, water flows through the BOTTOM DRAIN.
An alarm WATER LEVEL TOO HIGH switches the water flow to the OVERFLOW until the alarm expires.
The pool cover has no effect on the BOTTOM / OVERFLOW switching.
The three-way BESGO should be connected in a way that when the solenoid valve is not powered, water flows through the BOTTOM.

Pool cover position

If the pool cover is closed during the filtration time set by the timer, the VS pump will change the speed to the Speed 1 (LOW).

System start-up

MAX POOL VOLUME

ASIN AQUA Salt eOX 50
50 m³

ASIN AQUA Salt eOX 100
100 m³

Max. Salt
2 kg/m³

Min. Salt
1 kg/m³

Salting the pool water

Disinfectants generating depends on the salt concentration and water temperature. Maximum salt concentration is 2kg/m³.

Exceeding the recomended salt concentration will overload power supply components of the ASIN AQUA Salt eOX. The main unit is protected by maximum current control circuit. Overload automatically disconnect the power supply. Lower the salt concentration before switching the power supply again. Never use lower salt concentration than 1 g/l - this expressively reduce the electrode lifetime. Higher salt concentration is very corrosive and may cause corrosion of pool equipment.

Disinfection is expressively affected by following:

- temperature
- intensity of sun shining
- quantity of person using the pool
- weather conditions
- organic pollution

Instructions to operate the electrolyzer:

Never switch on the ASIN AQUA Salt eOX before the salt concentration in the pool water reach at least 1g/l. This may cause the electrode damage. Optimum concentration is 2g/l.

Never switch on the ASIN AQUA Salt eOX before the salt in the water is completely dissolved.

Electrode connection to ASIN AQUA Salt eOX must be done only when the poewr supply is disconneted.

Important water parameters		
Parameter	Recommended value	Impact on water quality
pH	7,2 - 7,4	Affects the effectivness of disinfection
Alkalinity	80 - 120 mg/l	Stabilizes pH
Salt content	1 - 2 g/l	Affects electrode performance
Water hardness	max. 350 ppm	Causes electrode clogging
iron and manganese content	max. 0,1 mg/l	Causes a brown-green discoloration of the water
Cyanuric acid	0ppm	Cyanuric acid greatly diminish the effectiveness of chlorine, making it impossible to measure and control.

SALT

BIOCID CERTIFIED

Salt to be used

Do not use rock salt. All additives may cause electrode lifetime shortening.

ASIN AQUA Salt eOX is designed to electrolyze water with 2 kg/m³ salt concentration.

Electrode may be damaged at lower salt concentrations than 1 kg/m³. It is necessary to provide routine salt concentration control. The salt concentration changes only little during electrolysis. The main change in salt concentration is caused by filter backwashing, splashing and strong rains.

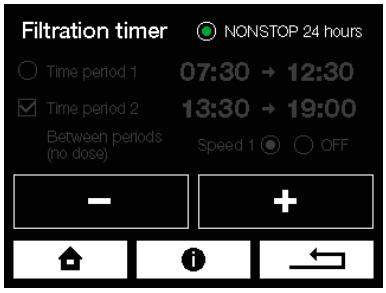
Following table displays salt quantity in kg necessary to increase the concentration to 2 kg/m³.

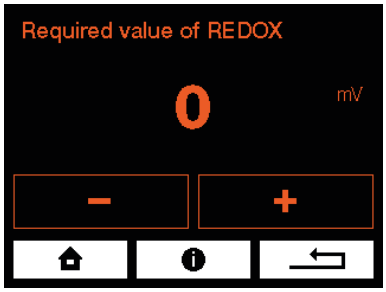
SALT CONTENT kg/m³	POOL VOLUME									
	10 m³	**15** m³	**20** m³	**25** m³	**30** m³	**35** m³	**40** m³	**50** m³	**60** m³	**70** m³
	Salt quantity in kg, necessary to increase the concentration to 2 kg/m³									
0	20	30	40	50	60	70	80	100	120	140
0,25	18,75	28,125	37,5	46,875	56,25	65,625	75	93,75	112,5	131,25
0,5	17,5	26,25	35	43,75	52,5	61,25	70	87,5	105	122,5
0,75	16,25	24,375	32,5	40,625	48,75	56,875	65	81,25	97,5	113,75
1	15	22,5	30	37,5	45	52,5	60	75	90	105
1,25	13,75	20,625	27,5	34,375	41,25	48,125	55	68,75	82,5	96,25
1,5	12,5	18,75	25	31,25	37,5	43,75	50	62,5	75	87,5
1,75	11,25	16,875	22,5	28,125	33,75	39,375	45	56,25	67,5	78,75
2	10	15	20	25	30	35	40	50	60	70

Technology eOX

Low salt 1-2 kg/m³ - Redox
Measurement of redox potential

Commissioning procedure and required value setting





Commissioning procedure

The water in the pool must be clean without any additives. Ideally fill the pool with fresh water from the water main.

- Set the Filtration timer to NONSTOP 24 hours
- Set the disinfection to 000 mV.

CLOSE

Close the water supply to the probes

ASIN AQUA Salt eOX displays no flow to the probes.

SuperCHLOR
#13120

Perform superchlorination

Perform superchlorination of pool water with Super CHLOR (inorganic active chlorine without stabilizers).
Follow the instructions on the packaging (1 kg = 80 m³).

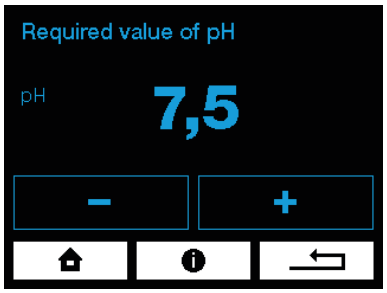
Wait at least 1 hour. Optimally up to 24 hours

Before opening the water supply to the probes, the water must be **clean** and the **chlorine concentration** measured by the colorimeter or Pool Tester must be within the range **0.3 to 1.2 mg/l.**
If the **concentration is lower**, repeat superchlorination. If the **concentration is higher**, wait till the chlorine concentration in the water drop down.

OPEN

Open the water supply to the probes

Warning No flow to probes turns off automatically.

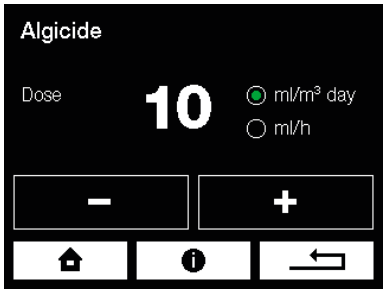


pH Setting

Considering that the ASIN AQUA Salt eOX water treatment system is efficient in the broad pH range, it is recommended to enter the required pH value equal to pH value of water you refill or slightly lower.

Required pH value = refilled water pH value (in the range from 7.2 to 7.5)

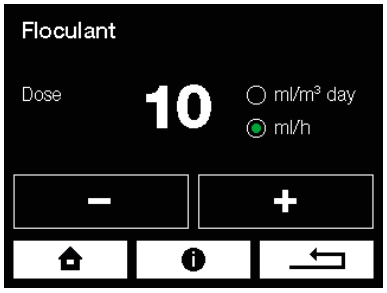
pH may change during operation but if it is in the range from 7.2 to 7.5 you do not have to change this setting.



ALGICIDE Setting

A sufficiently effective dosage for most swimming pools is 10 ml per m3 per day. If green algae appears in the swimming pool, it is possible to increase the dosage. After the algae is removed from the water, the dosage can be set back to 10 ml.

By switching the dosing method from ml/m³/day to ml/h you can use Flocc instead of Algicide.



FLOC+C Setting

The FLOC + C dose is calculated from the amount of circulating water, which flows through the filtration.
Based on your circulating pump power (in m³ per hour), adjust the FLOC+C dose value. E.g. with the circulation pump with power of 10 m³/h set the FLOC+C dose to 10ml/h.This value ranges from 10 to 40 ml per hour for most private pools.

If you use the Redox probe

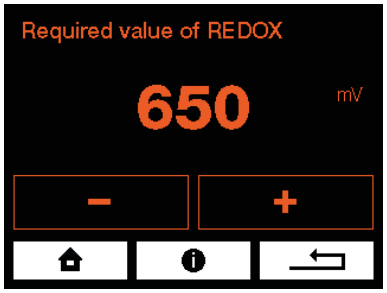
For the correct functionality of the REDOX probe, you must observe the following conditions:

pH of the pool water

The pH value should be between **7.2 and 7.5.**
The pH of the pool water must be stabilized.
If the pH value fluctuates, the value of the Redox changes accordingly.

Determination of the required chlorine value in pool water

ASIN AQUA Salt eOX disinfects water by releasing low amount ofchlorine from NaCl and oxygen radicals from water in the electrolyzer. Gaseous chlorine and oxygen radicals are released directly into the flowing pool water, where they destroy all microorganisms within seconds. The lifespan oxygen radicals is very short, making them difficult to measure in water. However, they significantly contribute to the disinfection power of the water, which is best reflected by the ORP probe.



How to set the required Redox value

- Set the baseline ORP value to 650 mV.

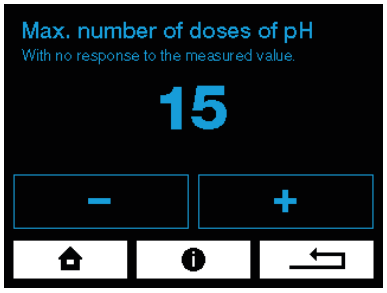
- The ASIN AQUA SALT eOX system, due to the low salt content in the water, produces more free oxygen radicals that enhance sanitation during warm, sunny days when gaseous chlorine is very unstable and difficult to measure in water. It is recommended to set filtration to 24 hours to allow oxygen radicals and low amount of chlorine sanitation to take place in the evening when the pool is not in use.

- If 650 mV is not sufficient, you can increase the ORP setting up to 750 mV.

WARNING

Before setting the desired values, keep the probe connected to the water for at least 1 hour, ideally 24 hours, to allow the measurement to stabilize..

Safety Functions

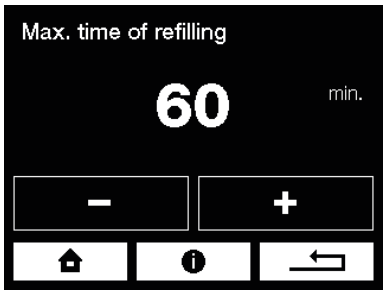


Maximum Number of pH Doses - without Probe Response

If the measured pH value does not decrease even after preset maximum number of doses (according to the settings), ASIN AQUA stops pH dosing and an error message appears on the display.

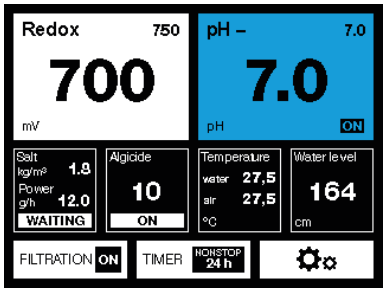
The other ASIN AQUA functions are not limited.

The error message must be canceled manually.



Maximum Refilling Time

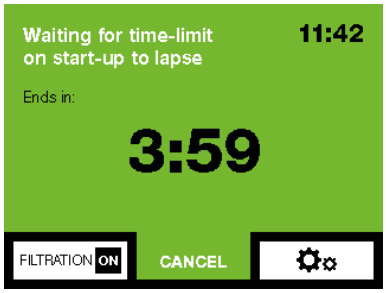
Maximum time to reach the required water level. If the water level is not reached within the preset maximum refilling time an error message appears.



Operation

In standard automatic mode, only these 3 screens are displayed.

Home screen



Delay after start

ASIN AQUA does not dose and waits for the probes to stabilize and the pool water to mix.

Filtration is turned off by the timer

In Operation Measurement and Calibration

Calibration is not possible when the new value differs by more than 1 from the non-calibrated value.

The pH probe can only be calibrated in the pH range of 6.2 to 7.8.

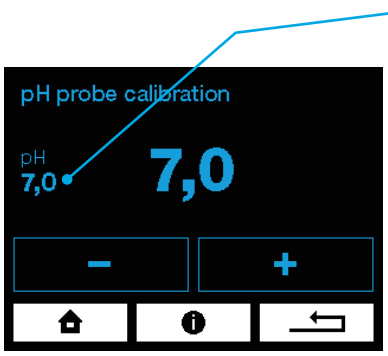
The pH probe cannot be calibrated when the LOW or HIGH warning is displayed.

pH Probe Calibration

When pH is being measured in operation, there may be a difference between the value measured by ASIN AQUA and the actual pH value in water. Proceed to the calibration.

pH Probe Calibration menu

Non-calibrated value



The pH probe calibration menu always displays the original non-calibrated value. Calibration of the pH probe is not possible when the new value differs by more than 1 from the non-calibrated value. If the difference from the non-calibrated value exceeds 1, the probe should be send for inspection or replaced with a new one.

pH Probe Calibration process

Calibration can be done in two ways:

pH 7.00 Buffer #12065

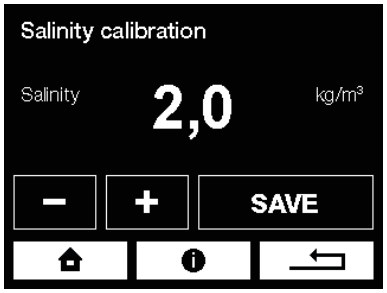
1. With a buffer

- **Close the water supply to the probes.**
- Remove the probe from ASIN AQUA :
  rinse the probe with clean water and wipe it.
- The probe must remain connected to the device via the cable. Dip the probe in the calibration buffer and after the value displayed on ASIN AQUA is stable, enter the buffer value into the pH Probe Calibration menu.

Photometr
#13076

2. With a colorimeter or Pool Tester

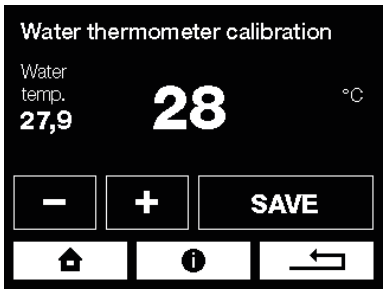
- **The water supply to the probes must be open**
- Measure the pH value directly in pool water using a colorimeter or Pool Tester.
- Then enter this value into the pH Probe Calibration manu. Calibration can be performed in the range of 6.4-7.8.



Salinity calibration

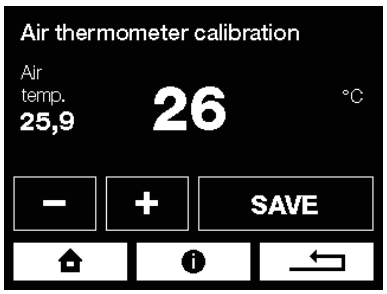
If salt concentration in the water is different from concentration shown by ASIN AQUA Salt eOX, calibrate the salinity in the Salinity calibration menu.

Warning: Salinity calibration is not possible if the water thermometer is not connected.



Water Thermometer Calibration

If water temperature is different from temperature shown by ASIN AQUA Salt eOX, calibrate the thermometer in the water thermometer calibration menu.



Air Thermometer Calibration

If air temperature is different from temperature shown by ASIN AQUA Salt eOX, calibrate the thermometer in the air thermometer calibration menu.

Stabilizer in water

The water in the pool must be clean without any additives.
Ideally fill the pool with fresh water from the water main.

BALANCER #13039

Alkalinity

Alkalinity volume in the water should range from **80** to **120 ppm**. Alkalinity stabilizes the pH and reduces its consumption. To increase the Alkalinity in the water, use **Pool & SPA BALANCER** (#13039).

Cyanuric Acid

The value of Cyanuric acid must be **0 ppm**. Cyanuric acid greatly diminish the effectiveness of chlorine, making it difficult to accurately measure and control its concentration.

Lifespan of the electrolytic cell

Lifetime of the electrolytic cell is 8000 running hours. The electrodes in the electrolytic cell are made of titanium with a ruthenium and iridium layer. During electrolysis this layer gets consumed. Durability of the electrodes is reduced by the following parameters: Low salt content, Water temperature below 10 ° C, Low water flow, Too hard water, pH below 7.5, Addition of metals containing preparations.

Maintenance

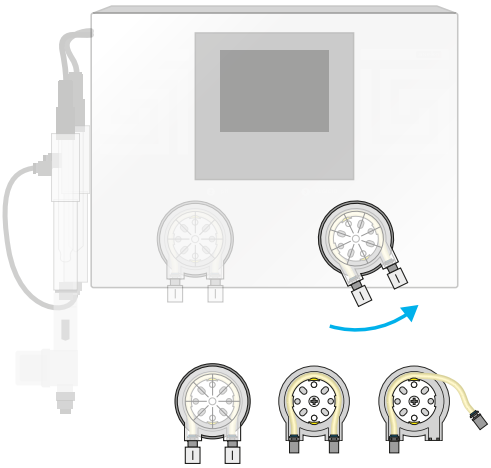
#12073 Replacement hose for the pump PP 60

To ensure the optimum efficiency, perform visual checks and maintenance of ASIN AQUA on a regular basis.

Pump tube replacement

To prevent the pump from failing, it is recommended to replace the tube #12073 every 24 months.

In doing so, proceed as follows:



- Switch off ASIN AQUA.
- Turn the pump cover cassette anticlockwise and take it out of ASIN AQUA.
- Release both tube ends and take it out of the cassette.
- Lubricate the new tube with the supplied special grease.
- Insert the lubricated hose into the cassette.
- Place the cover cassette back on ASIN AQUA and turn it clockwise to lock it.
- Use new nuts, which are part of the replacement tube set, for connection of the PE tube.

Injection valve maintenance

On a regular basis, check throughput of the injection valves, rubber band integrity, remove scale.

In case of private pools, replace injection valve rubber bands #13087 every 2 years. In case of public pools, replace #12005 every year.

#12005 Injection valve

#13087 Replacement rubber band for injection valve

Flow detector with filter

Rinse the filter of the flow detector regularly.

Flow detector #12106

Fuse T 2 A #13094
Fuse T 800 mA #13096
Fuse T 8 A #13097

Fuse Replacement

T2A Fuse

Fuse protecting the electrolyzer. In case of its burnout, check the electrode.

T800mA Fuse

Fuse protecting external sensors. In case of burnout of this fuse, check the level sensor, flow meter, and external display.

T8A Fuse

Fuse protecting the device, including the BESGO valves and circulation pump.

pH - Buffer 7,00 #12065

pH Probe Testing

Take the probe out of ASIN AQUA housing and clean it from impurities. Check for visible mechanical damage on the probe.

Measure the pH value if it falls within the tolerance range of +/- 1.0. For example, if the water pH is 7.2 and the probe measures 7.9, it is in tolerance, the probe is considered okay.

Test the probe's response to positive or negative changes in water or buffer by immersing it in a 7.0 pH buffer and observing the response after one minute. The response should be at least 90%.

Follow the instructions in the user's manual for the probe.

Electrolysis cell cleaning

In operation, the electrolysis cell is gradually clogged by sediments from the hard water, that must be eliminated repeatedly. The clogging of the electrolysis cell decreases the electrolysis cell capacity. In this case, the electrolysis cell has to be taken out and submerged in the cleaning bath for about 10 minutes. The coating should disappear and the electrolysis cell can be used again.

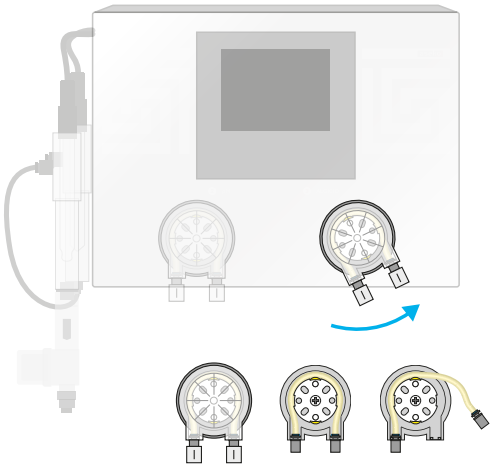
Winterizing - storage during winter

If you want to operate ASIN AQUA in Winter mode, go to the chapter Configuration - Winter mode. If you do not want to operate the device in Winter mode, it is necessary to winterize the device and all its components (store them when not in use).

Winterization of the unit and its accessories

If you do not want to have the ASIN AQUA device in operation in winter, the device and all accessories must be dismantled, winterized and moved to a suitable location. To disassemble and winterize the ASIN AQUA, follow the instructions below.

Storing of pool chemicals, connecting PE tube and dosing pumps



- If the chemicals are left in a place where the temperature does not drop below 0°C, turn OFF the ASIN AQUA. Disconnect the dosing pumps from the ASIN AQUA and remove the inner tube from the pump. Leave the tube connected to the connecting PE tube. Put the pump cartridges without the inner tubes back onto the ASIN AQUA. Store the chemical barrels and connecting PE tube in a place where the temperature is between +0 - +40 °C.
- If chemicals remain in a location where the temperature drops below 0°C, SWITCH OFF ASIN AQUA. Remove the connecting PE tubes from the chemical barrels and place them in a container with water. Turn on ASIN AQUA. Go to the RELAY TEST menu and press Chlor/Oxypure, pH, Algicide and Floc. When the connecting PE tube is completely filled with water, turn OFF the relay test. Remove the water container and perform the RELAY TEST again to completely fill the connecting PE tube with air. When the connecting PE tube is completely filled with air, stop the relay test and turn OFF the ASIN AQUA. Disconnect the connecting PE tubes from the dosing pumps and from the injection valves. Store the chemical barrels in a place where the temperature is between +0 - +40 °C.

Disconnect of the ASIN AQUA and its accessories

1. Disconnect the ASIN AQUA mains cable from the 230 V / 50 Hz socket.
2. Disconnect the filter unit's mains cable from the ASIN AQUA and store the filtration pump according to manufacturers manual.
3. Disconnect all accessories from the ASIN AQUA motherboard and store them according to manufacturers manual.

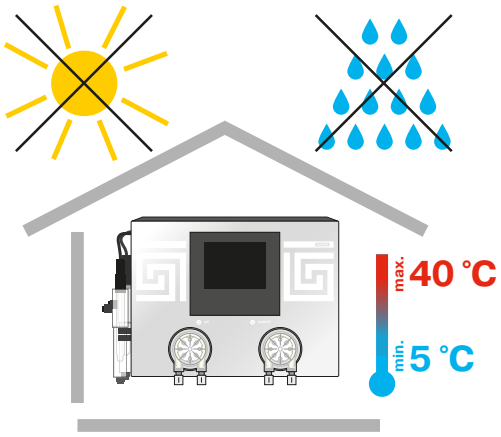
#12154 Storing sumps

#12082 Storage liquid

Winterizing of probes

Winterizing of pH and Redox probe

Remove the probe from the housing, dry it with a paper towel and place it in a storage sump filled with a special storage liquid. See probes manual at the website manuals.asekopool.com.



Storing of the unit

Move the ASIN AQUA unit in a place where the temperature is between +5 - +40 °C and the humidity does not exceed 70%.

Internet connection

The LAN connector is to be connected to the domestic router.
Data are sent in the intervals of 10 seconds to the address **pool.aseko.com**, the route must not be blocked by the firewall.

If you are not abel to setup the connection by your own ask your IT specialist for help.

Possible connection methods

Home network

Connect the ASIN AQUA Salt eOX to your router via LAN cable.

Mobile network

In case you have no direct internet access you can use the data transmission over the mobile network. Connect the ASIN AQUA Salt eOX to your mobile network router via LAN cable.

Wifi connection

If you install the ASIN AQUA Salt eOX in place where is no access to your private network by wired connection but your Wifi has enough signal, you can connect the ASIN AQUA Salt eOX to your Wifi by use of Wifi extender.

Powerline via 230V/DC

If you have no wired access to your LAN network but your ASIN AQUA Salt eOX is in the at the same electric network you can connect the LAN network via 230 V power line socket adapter.

If you have connection problems:

Please switch off ASIN AQUA.
Restart the router and switch on the ASIN AQUA Salt eOX again.

The home network must be open to communication on both sides
for URL: **pool.aseko.com**

LAN

Home network

INTERNET

3G / LTE

INTERNET

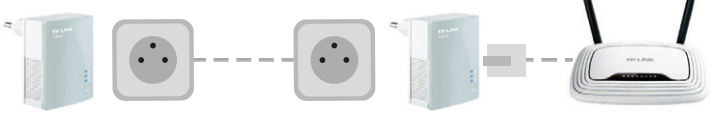
WIFI EXTENDER

Wifi extender

INTERNET

Powerline via 230 V socket outlet

230 V



INTERNET

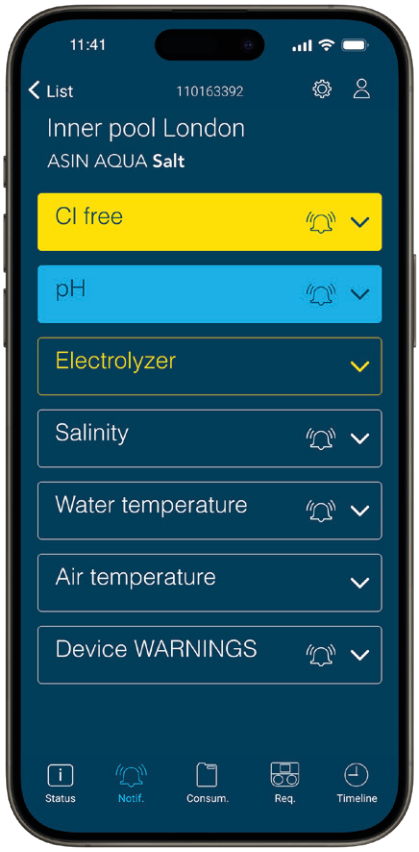
Aseko Cloud Services

Aseko Live

The internet connection allows you to use the Aseko Live mobile application and monitor your pool on mobile devices wherever the internet connection is available.

After you connect the ASIN AQUA Salt eOX to the internet download the Aseko Live application to your smartphone. Application is available for iOS and Android operation systems.

App's main screen, after opening, will ask for typing your ASIN AQUA Salt eOX serial number.You can add more units to the Aseko Live app.



Aseko Live **for iOS**

Aseko Live **for Android**

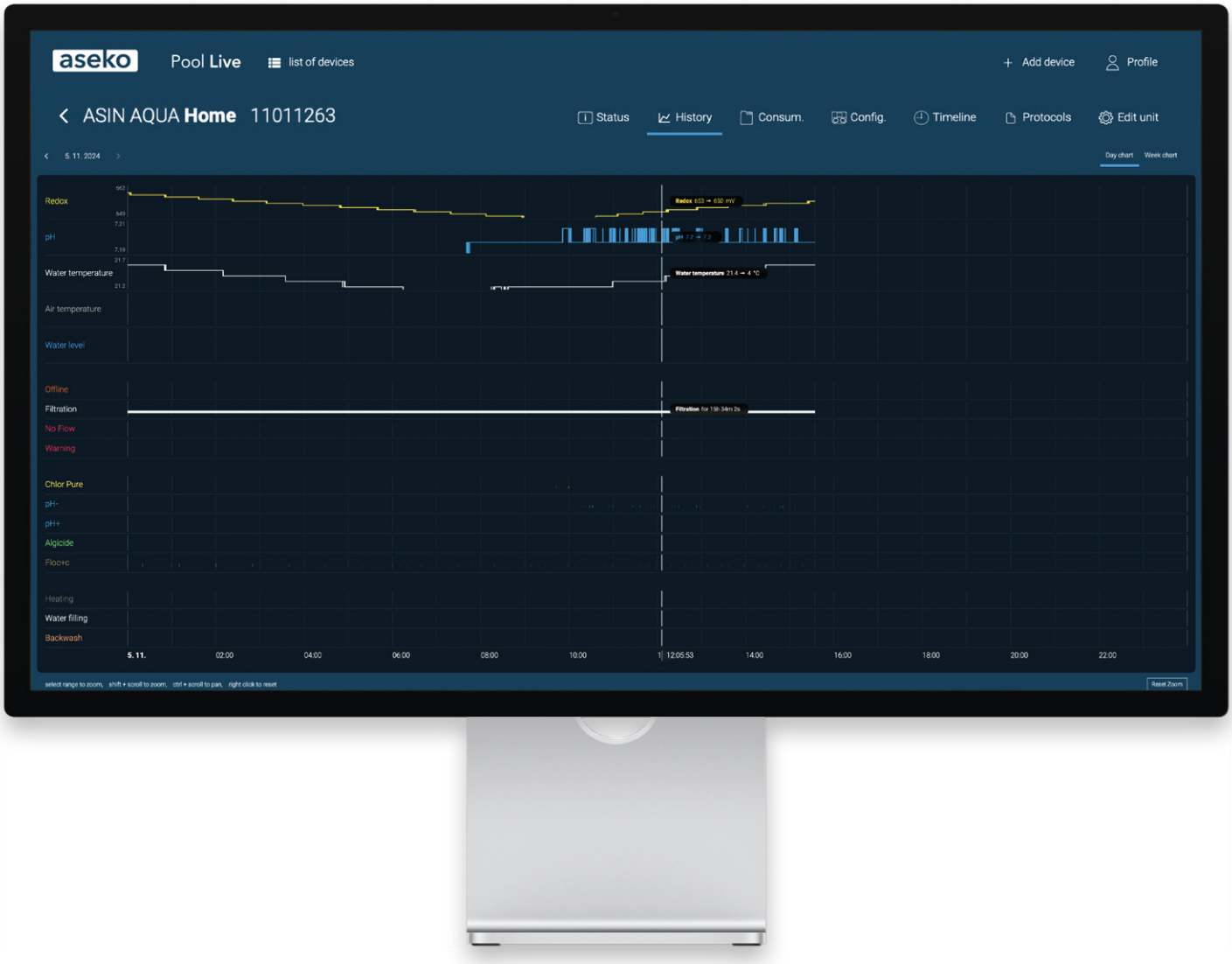
https://aseko.cloud

The web application for detailed monitoring of the pool water quality by means of well-arranged graphs. It shows all the measured parameters as well as ASIN AQUA Salt eOX actions up to 30 days back.

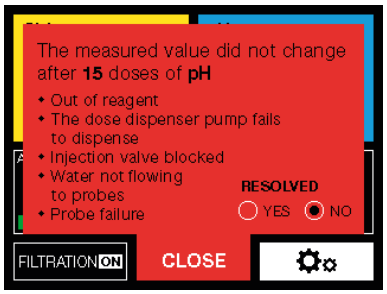
This application is giving you the detailed information of the pool status and detailed review of all events, taken actions and act levels of monitored items up to 30 days back.

Transparent graphic environment of chart lines is giving fast report and you can easily see interconnection of monitored values.

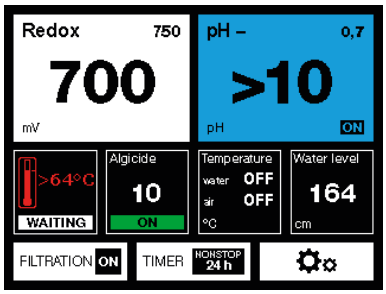
This application is useful at public pool installations where you need to observe the history and monitor the pool water quality and maintenance. In case of any discrepancy in water quality you can find all actions, provided in that moment and in relation to other values you can diagnose the reason of such discrepancy.



Error messages



This error message appears after 15/30 doses of pH without probe reaction.



Those error messages appear when:

Agent run out

- Check liquid levels on a regular basis, refill in time.

Dosing pump does not dose

- Leakage in connection of PE tubes or they are damaged.
- Failure of dosing pump. Check whether pump is running. If so, check the hose inside the pump for damage or breakage and replace it, if required.

Injection valve clogged

- Impassable spray valve.
  Check the valve for being clogged with impurities or deposits or the rubber seal for being damaged.
- Failure of dosing pump. Check whether pump is running.
  If so, check the hose inside the pump for damage or breakage and replace it, if required.

No water flow to probe

- Check the measured water filter and clean it, if required.
- Check condition of connecting tubes from the extraction valve to the measured water inlet to probes and furthermore, from the water outlet from probes to the closing valve.
- Check condition of the extraction valve and the closing valve and their seals, for being clogged and their closed position.

Probe out of service

- Measure pH using the hand tester. If the pH value is too low, a respective agent was overdosed due to an incorrect probe function (provided that other reasons given in the previous points have been excluded).
- Take the probe out and check it for mechanical damage.
- Clean the probe following the above procedure.
- It is recommended to replace the probes with the new probes every two years.

The device has overheated

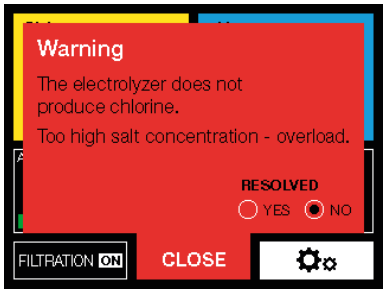
If the temperature in the device exceeds 65 ° C, electrolysis stops.

Too rapid pH change

Too rapid change of pH is usually caused by refilling water directly to the skimmer. If such rapid change of pH occur, ASIN AQUA stops controlling pH for two hours.

This limitation can be manually disabled.

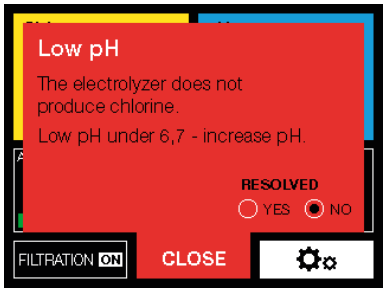
After pH has been stabilized or two hours have elapsed, ASIN AQUA changes over to the normal mode.



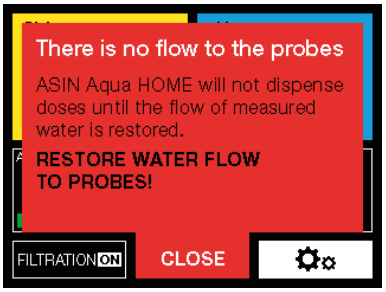
Overload

If the recommended salt concentration is exceeded, the power supply is automatically interrupted.

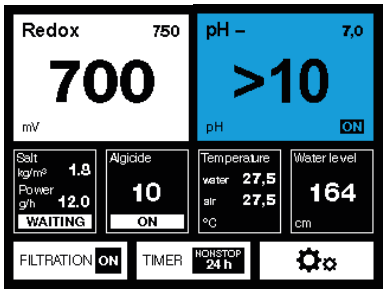
Too low salt concentration in the water. Less than 1.5 kg/m3.



Electrolysis does not produce chlorine.
The pH value is below 6.7, increase the pH value.

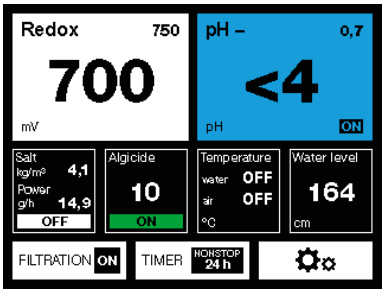


No water flow to probe



The probe shows a pH> 10

Check the pool water and probe.



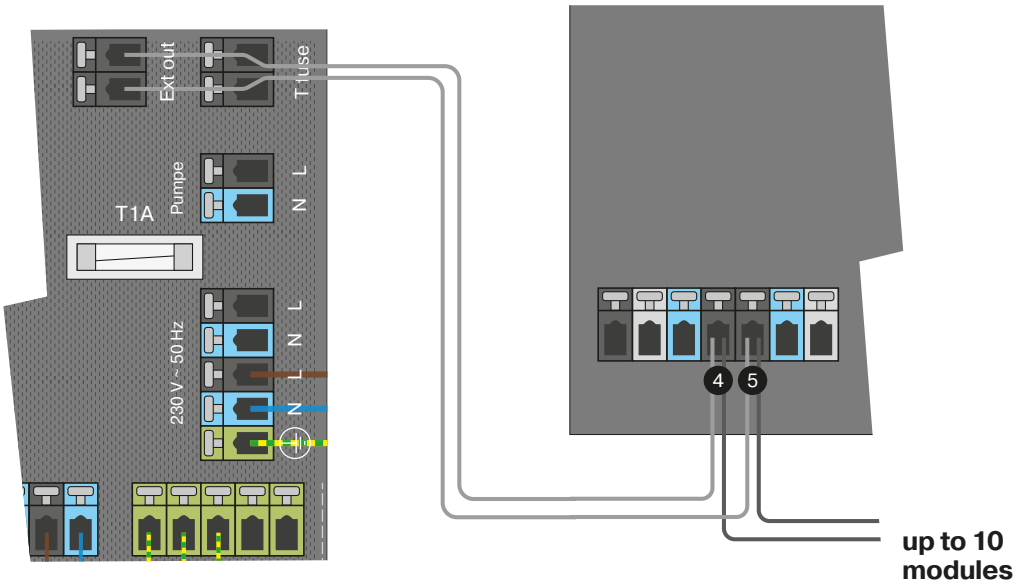
The probe shows pH <4

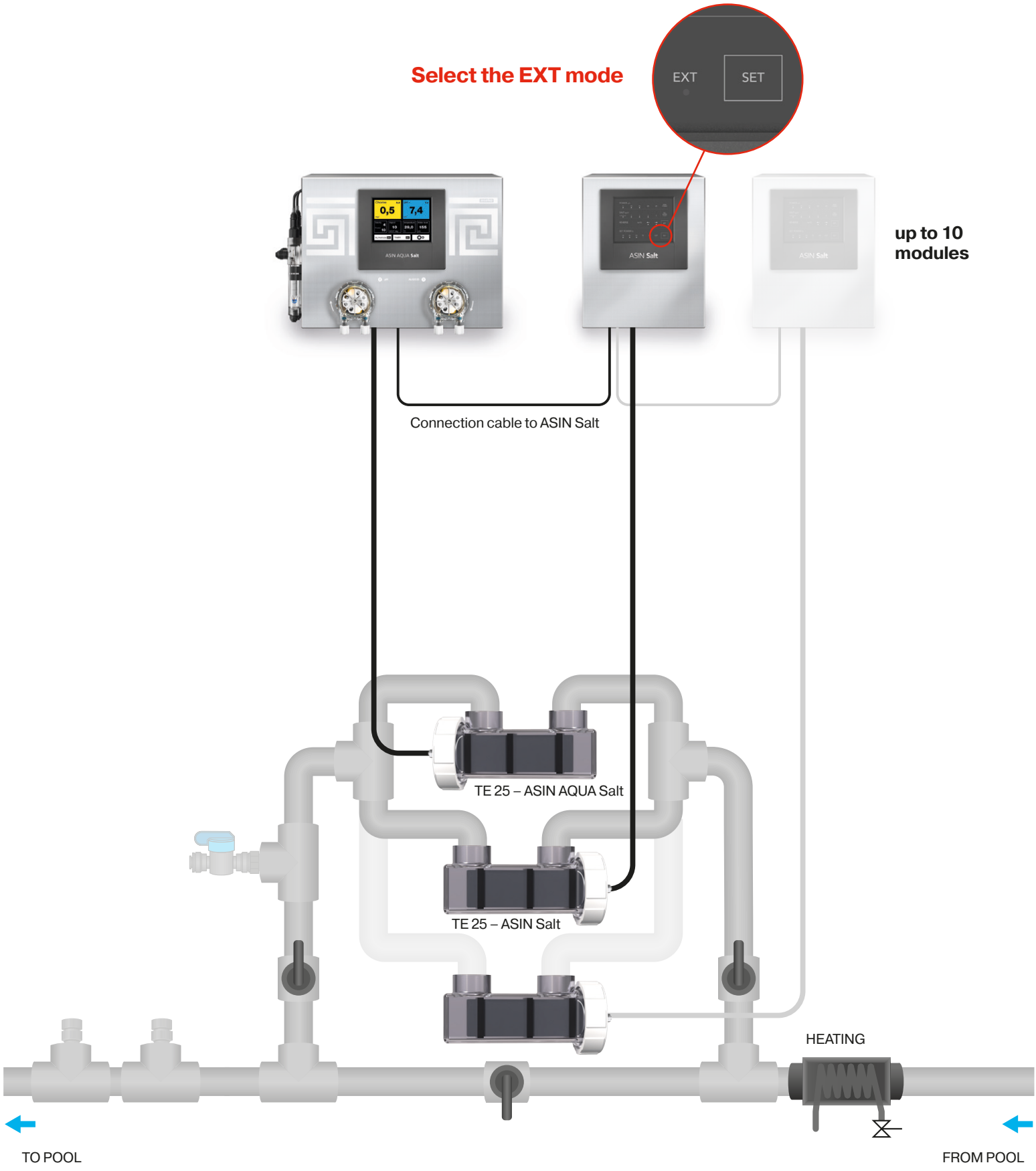
Check the pool water and probe.

Connection ASIN AQUA Salt to ASIN Salt

The ASIN Salt expansion module must be connected to the ASIN AQUA Salt control unit with a cable. To activate the external control, select the EXT mode on the display.

Connection cable to ASIN Salt




Select the EXT mode
EXT
SET
up to 10 modules
Connection cable to ASIN Salt
TE 25 – ASIN AQUA Salt
TE 25 – ASIN Salt
HEATING
TO POOL
FROM POOL

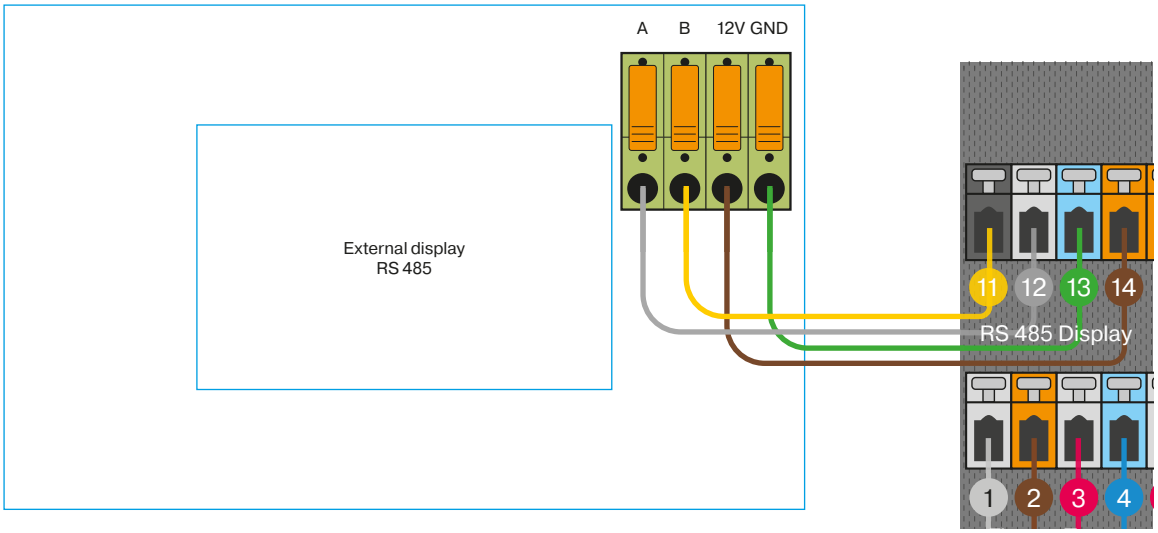
External
Touchscreen Display
#12048

Externes touchscreen display

The external display shows

1. Pool water parameters:
   Temperature, pH value, redox potential or chlorine concentration.
2. Parameters of the air in the pool area:
   relative humidity and temperature.

The setpoints can be set on the ASIN AQUA Salt device and a probe calibration can be carried out via the external display.



aseko

USER MANUAL

ASIN AQUA Salt eOX

2025

EN

www.asekopool.com