



PoolCop



INSTALLER & USER GUIDE

PoolCop Core



CORE50EN - V50 - MARCH 2026

PoolCop Core

Update Listings

03/03/2026

1st Edition

PoolCop Core

Installer and User Guide

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1 INTRODUCTION

1 INTRODUCTION

- Foreward
- Important Information
- Product Information and Guidelines
- Notes, Cautions, Warnings and Definitions
- Important Information, Safety Notices and Precautions
- Disposal Information

1.1 FOREWORD

We maintain a policy of continuous research and development and therefore reserve the right to make changes and improvements to this manual and any of the products described. Any reference in this manual to “the pool owner” refers also to the owner of the product or products. The owner may appoint a representative to act on their behalf. The owner retains full and all responsibility for decisions made by and the actions of this representative.

1.2 IMPORTANT INFORMATION

SAFETY AND CONFORMITY INFORMATION

All relevant safety instructions and conformity details for this product are provided in the instruction manual.

IMPORTANT NOTICE BEFORE INSTALLATION

Before installing any equipment, it is essential to:

- Download the installation manual.
- Read and thoroughly understand all included information.
- Follow the instructions carefully.

Failure to comply with these guidelines may lead to significant risks, including damage to the equipment and/or personal injury. Adherence to these instructions is mandatory.

1.3 PRODUCT INFORMATION AND GUIDELINES

PoolCop products are designed, engineered, and manufactured to the highest standards. To ensure optimal performance and longevity, it is essential to handle them with care. The following information will help you meet warranty requirements and enjoy years of reliable use.



IMPORTANT GUIDELINES: Compliance with Standards

Always adhere to applicable standards for electrical, hydraulic, chemical, and swimming pool installation and operation. PoolCop cannot accept responsibility for improper installation or use that does not comply with these standards.

Safety First

To maintain your pool as a safe and enjoyable space, prioritize the safety of bathers and ensure adherence to proper installation practices.

Electrical Connections

Electrical connections must be performed by a qualified professional in accordance with all relevant standards.

1 INTRODUCTION

1.4 NOTES, CAUTIONS, WARNINGS AND DEFINITIONS

Within the instruction manual some information is highlighted in the form of notes, cautions, warnings, etc. The following definitions apply throughout:



NOTE

A step, procedure, technique, etc. which is considered important or essential to emphasize.



CAUTION

A step, procedure, technique, etc. which could result in damage to equipment if not carefully followed.



WARNING

A step, procedure, or technique which could result in personal injury if not carefully followed.



MANUAL

Read the installation manual and all warnings in full.
Follow all instructions.



WEAR HAND PROTECTION

Always wear correct chemical resistant hand protection when handling chemicals.



EYE PROTECTION

Always wear correct eye protection when handling chemicals.

1.5 IMPORTANT INFORMATION, SAFETY NOTICES AND PRECAUTIONS



WARNING:

Read the security instructions attentively before any use.
Instructions given are all important for your safety.

Always respect all norms for electrical, hydraulic, chemical and swimming pool installation and operation. No responsibility will be accepted for installation or use of this product outside the applicable norms.

For the swimming pool to remain a place of pleasure and user-friendliness, it is necessary to take care of the safety of those who bathe and of the installation standards.

The electric connections must be carried out, according to the applicable norms, by a qualified person.



WARNING:

Keep the equipment and all associated equipment out of the reach of the general public and animals.



WARNING:

Inappropriate use can cause accidents, bodily injury, fire, electrocution, system failure and flooding.

1 INTRODUCTION



CAUTION:

Keep the covers closed at all times when not interacting with the equipment to prevent inadvertent damage.



CAUTION:

Do not drop any objects into any openings of the equipment and the associated equipment as this could cause serious damage.



CAUTION:

This equipment and any associated equipment must be located in an area protected from the elements.



CAUTION:

The equipment is splash proof but must never be exposed to water or other liquids for extended periods. Precipitation, humidity and liquids contain minerals that will corrode electronic circuits.



WARNING:

The equipment should not be installed near flammable gas or products. In the event of the escape of gas or dangerous products, there is risk of fire and explosion.



WARNING:

Do not remove any of the protective covers on the equipment or the associated equipment. Touching parts inside these compartments could result in an electrical shock and/or damage to the system.



CAUTION:

Do not use harsh chemicals, solvents or detergents to clean the equipment. Wipe with a soft cloth, slightly dampened in a mild soap-and-water solution.



WARNING:

In case of malfunction or if an anomaly occurs (such as smoke or a burning smell from the unit), disconnect the power supply and contact the installer.



CAUTION:

Use only approved replacement parts. Unauthorized parts and/or modifications could damage the entire system and will void your warranty.



CAUTION:

Verify that any auxiliary equipment is correctly installed as per the manufacturer's instructions and is compatible with the equipment and installation.



WARNING:

Risk of electric shock. A dedicated GFCI circuit breaker must be installed by a licensed electrician.



WARNING:

Installation requires a properly protected power source. Refer to local regulations for ground fault protection.

1 INTRODUCTION



WARNING:

Always mount products in a secure location that is protected from potential damage by moving objects.
Never bury power cords.



WARNING:

Always disconnect power and ensure that the electrical current is shut off before servicing.



WARNING:

Any person using, adjusting, or monitoring the equipment must be at least 18 years of age and be familiar with these instructions and the contents of the instruction manual.



WARNING:

If the equipment is used for water treatment control, or to control any equipment that does not have no-flow protection, a water circulation flow detection sensor must be correctly installed and configured where required.



WARNING:

Always take and record manual water chemistry readings in conformance with Health Department requirements. Although automated controllers are a great aid in maintaining healthy water quality, controllers are not a substitute for manual water testing with an accurate test kit.



WARNING:

Always read and become familiar with Material Safety Data Sheets (MSDS) and safe handling instructions for all chemicals used with the equipment.

1.6 DISPOSAL INFORMATION



If you wish to discard electrical and electronic equipment (EEE), please contact your dealer or supplier for further information.

2 GENERAL INSTALLATION

2 GENERAL INSTALLATION

- General
- Pre-Installation Preparation and Inspection
 - Pre-Installation Checklist
 - Functional Mapping
 - Box Content
 - Optional Accessories
- Installing the PoolCop Core Unit
 - Installation Specifications
 - Cable Entries
 - Electrical Voltage Separation
 - Electrical Connection
 - Cable Selection and Connection

2.1 GENERAL



IMPORTANT:

- Equipment must be installed by qualified and experienced technicians.
- Improper installation or failure to follow the instructions in this manual will void the warranty.
- Use this installation manual as a checklist — complete each step to ensure the correct sequence is followed.
- An additional device (smartphone, tablet, laptop) with WiFi connection and internet browser is advisable in order to access the installation manual and the configurations app simultaneously.

USING NEW OR UPDATED FEATURES

Our products may include new or updated features that are not fully detailed in this manual.

- Before using any new function, ensure you fully understand its operation and any limitations.
- Always refer to the latest version of the manual or additional documentation for guidance.
- If you are unsure about how a feature works, or if you cannot find sufficient information, do not use that function until you have consulted an expert or your PoolCop distributor for assistance.

2 GENERAL INSTALLATION

2.2 PRE-INSTALLATION PREPARATION AND INSPECTION



NOTE:

PoolCop Core is a **pool management system**, it does not perform repairs, guarantee immediate water quality, or substitute professional maintenance.

Installers must ensure the pool and all equipment are in suitable condition before proceeding.

If you, as the installer, find any aspect of the pool or its equipment to be unsatisfactory, these issues must be repaired and thoroughly tested before proceeding with the installation.

Repairs should only be performed with the full knowledge and explicit consent of the pool owner.

Contact your PoolCop distributor with any queries and for more information.

PRE-INSTALLATION CHECKLIST

Before beginning installation, these four steps must be completed:

1. Confirm Equipment and Sensor Locations with the Pool Owner

- Determine the preferred location for the PoolCop unit.
- Identify preferred positions for the water pressure and temperature sensors.
- Choose the location for the air temperature sensor.
- For Water Level Control (optional): Decide on the sensor placement(s) and plan the wiring route.
- For Water Treatment systems (optional): Confirm installation requirements.
- Identify any auxiliary equipment to be connected and controlled (optional).
- For remote control: Plan the routing of the RJ45 cable, or gather details and codes for alternative internet connection possibilities.


2. Assess Pool Condition

- Ensure there is no debris in the pool.
- Verify that the pool water is acceptably clean.
- Confirm that the water balance is within the acceptable range.
- Check the overall condition of the pool's electrical system, specifically the electrical box.
- Inspect the filter and filter media.
- Make sure skimmer and pump pre-filter baskets are clear of debris.
- Test that pool lighting and other equipment are functioning properly.

3. Inspect Filtration and Circulation Systems (While the system is running)

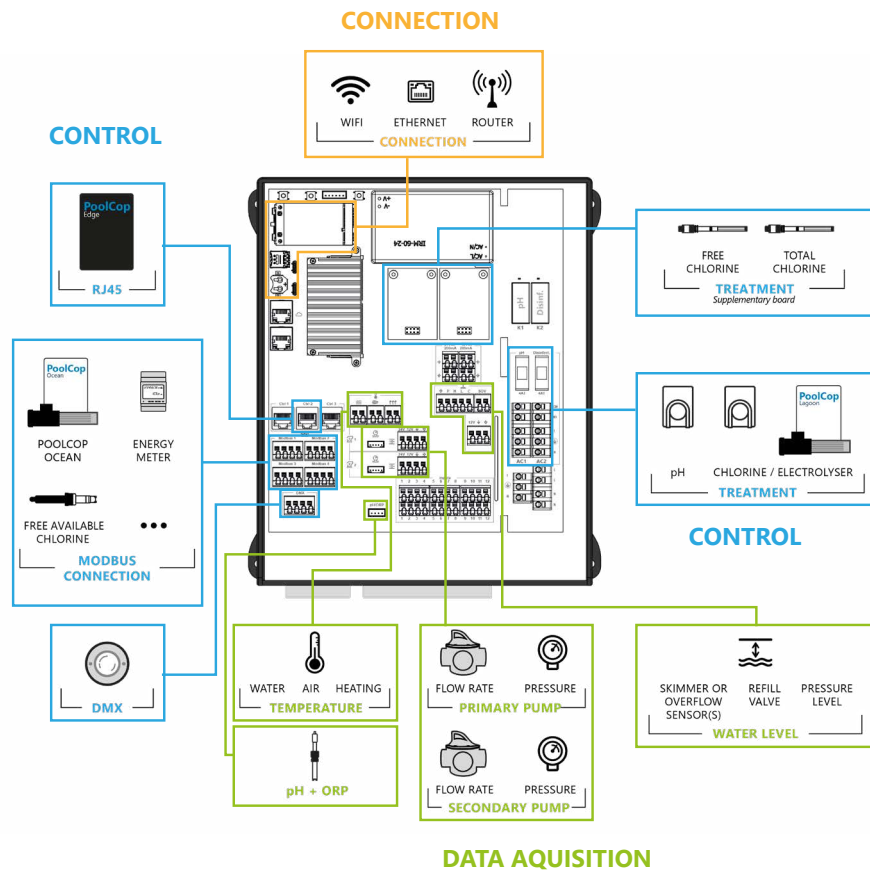
- Check the condition of the pool pump and motor.
- Inspect for leaks throughout the plumbing and filtration system.
- Ensure the filtration system's hydraulic coefficient is adequate.

4. Prepare for Installation

-  Disconnect all electrical power to the pool and related systems.
- Close all valves, and if necessary, block all inlets and outlets to the pool—especially if the pool water level is higher than the pump and filter installation.

2 GENERAL INSTALLATION

2.2.1 FUNCTIONAL MAPPING



2.2.2 QR CODES

Three QR codes are provided on the unit to simplify installation, configuration and registration.



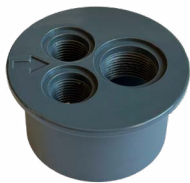
- 1:** Printed directly on the unit, for direct access to the configuration user interface. See PoolCop Configurations, section 3.1
- 2:** Printed on the front label, for direct access to the Installer & User Guide from the PoolCop downloads page.
- 3:** Located **inside** the unit on the lower left-hand side panel, for direct access to the PoolCop's unique identification (MAC and UID). Scanning this QR code automatically opens a registration form to connect the PoolCop, and enable the owner to create his/her account in MyPoolCop

2 GENERAL INSTALLATION

2.2.3 BOX CONTENTS



**POOLCOP
CORE UNIT**



**Flow Cell
with Sensor Housings**



Antennas



**Water Pressure
Sensor**



**Water Temperature
Sensor**



**Air Temperature
Sensor**

2 GENERAL INSTALLATION

2.2.4 OPTIONAL ACCESSORIES (sold separately)



Water Level Kit
Skimmer



Water Level Kit
Buffer Tank



pH+ORP Sensor
Chlorine



pH+ORP Sensor
Salt



PoolCop Lagoon



Peristaltic Pump



Drum Level Sensor
with Suction Wand



Drum Level Sensor
Weighted



PoolCop Edge



FlowVis Digital
Flow Meter Kit



Flow Sonic
Flow Meter



Flooding Detection



Energy Meter



Free Available
Chlorine Sensor



Free Chlorine
Sensor



Total Chlorine
Sensor

2 GENERAL INSTALLATION

2.3 INSTALLING THE POOLCOP CORE UNIT



WARNING:

If the equipment is used for treatment control, or to control any equipment that does not have a no-flow protection, a water circulation flow detection sensor must be correctly installed and configured where required.



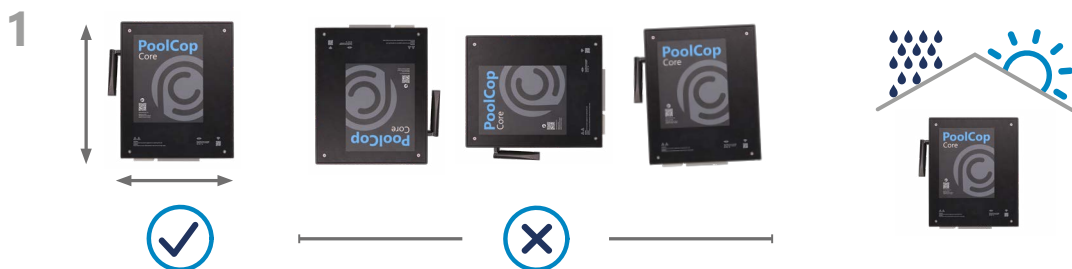
CAUTION:

Use only the predrilled holes for mounting the Core unit. Drilling additional holes or creating new openings may allow water or debris to enter the unit, which can cause damage and will void the warranty.

The unit must be mounted with the cable entries at the bottom. Incorrect cable insertion may allow water or debris to enter the unit, which can cause damage and will void the warranty.

The ingress protection rating is IP54. Ensure the unit is installed in a location that complies with the rating limitations.

2.3.1 INSTALLATION SPECIFICATIONS



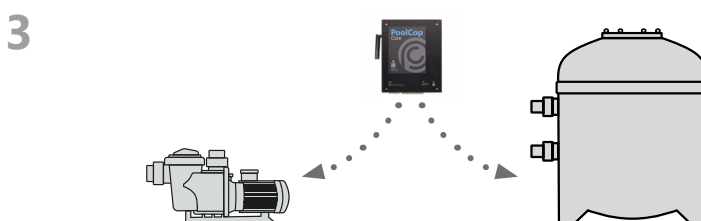
The unit must be installed horizontally, level and securely.

In a location sheltered from sun and rain, not exposed to excessive dust and jets of water.



Keep a **20 cm clear zone** to the left and the right of the unit. No other equipment should be installed within this zone.

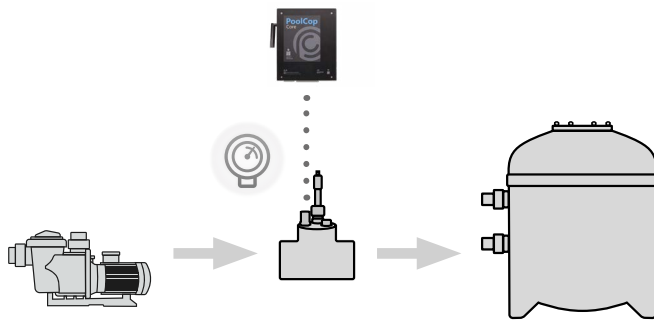
Install the unit away from any device generating strong magnetic interference (e.g. frequency inverters or similar equipment).



The PoolCop Core unit should be installed in proximity to the filter/s and pump/s if controlled.

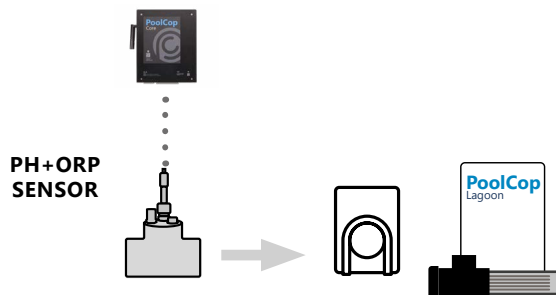
2 GENERAL INSTALLATION

4



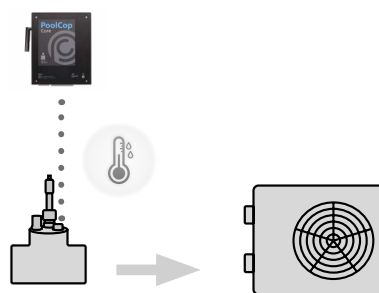
The Water Pressure Sensor must be located between the pump and the filter for **pressure and vacuum filtration** systems.

5



pH+ORP Sensor:
Prior to injection points or salt cell.

6



Water Temperature Sensor:
Prior to the water heating system.



IMPORTANT:

Some cables, like the pH+ORP and Water Pressure Sensors must be wired within **4m** from the PoolCop unit.



NOTE:

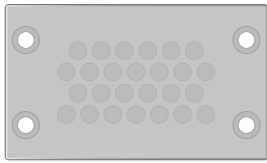
Other cables can be lengthened using suitable wire. See each diagram for information.



2 GENERAL INSTALLATION

2.3.2 CABLE ENTRIES

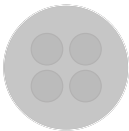
The PoolCop Core has water and tug proof cable entry plates, that need to be pierced or inserted accordingly:



Cable capacity:
26

Cable Diameter:
3.2 - 6.5 mm

 **WARNING :**
reserved for low
voltage signals



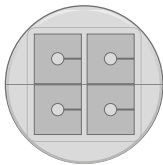
Cable capacity:
4

Cable Diameter:
5 - 10.2 mm

 **WARNING :**
reserved for high
voltage signals



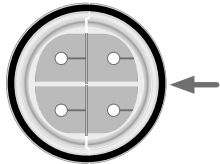
Pierce the membrane with a Phillips head (crosshead) screwdriver or equivalent object.



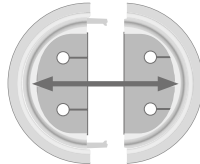
Cable capacity:
4

Cable Diameter:
5 mm

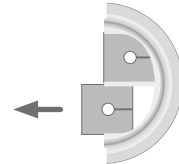
 **WARNING :**
reserved for low
voltage cables with
connectors



1 - Remove the washer from the thread



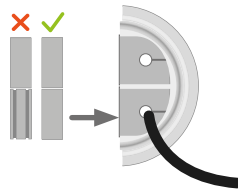
2 - Open the plate by pulling apart the split frame



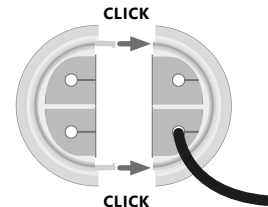
3 - Remove the cable holder according to the correct diameter



4 - Pass the cable through the opening



5 - Slot the cable holder back in place via the slotted channel, ensuring the flat edge is in the center



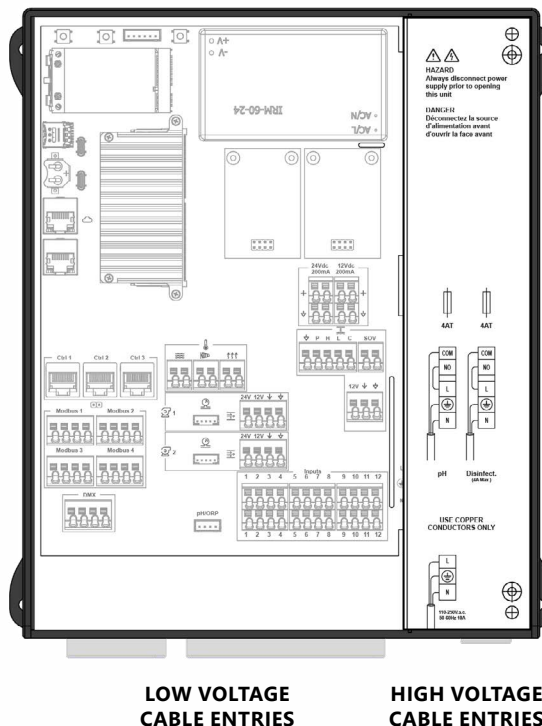
6 - Close the frame ensuring both sides click into place

7 - Replace the washer and fix the cable holder in place with the locknut

2 GENERAL INSTALLATION

2.3.3 ELECTRICAL VOLTAGE SEPARATION

PoolCop Core has a High Voltage Protection separator.



IMPORTANT:

Ensure all the high voltage cables are on the right side of the enclosure before finalizing.
The PoolCop Core faceplate can only be attached once the high voltage protection is properly in place.

2.3.4 ELECTRICAL CONNECTION



IMPORTANT:

Read 1.3 "Important Information, Safety Notices and Precautions" before starting electrical connection.

CAUTION:

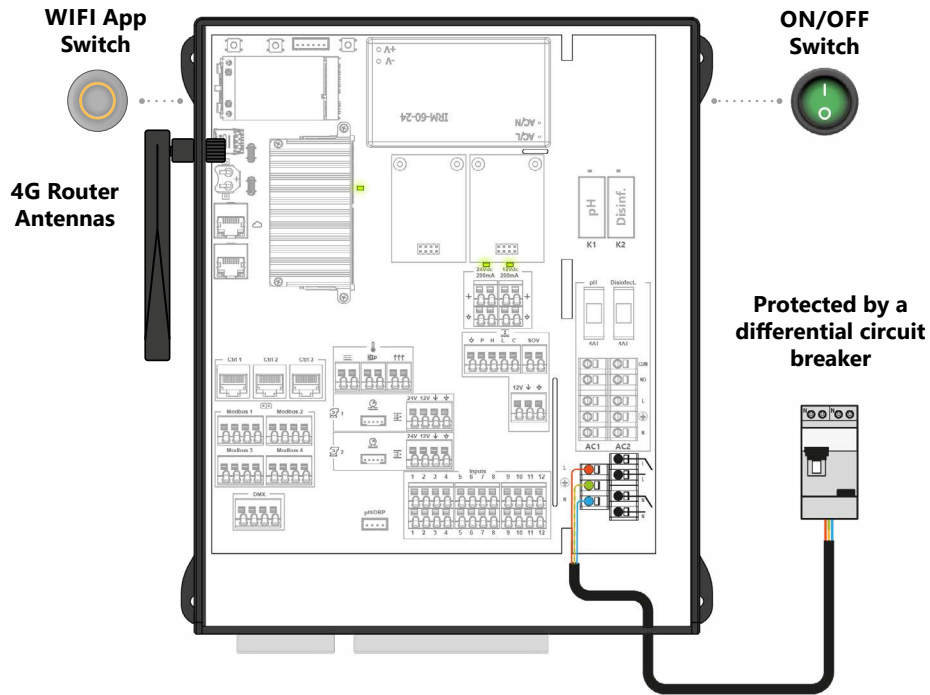
The electric standard applicable is **IEC 60364-7-702 (NFC15-100** in France). It is mandatory that the installation complies with this standard. When installing the device, **the installer must ensure that the circuitry is protected by a 30mA differential circuit breaker. The installer must also ensure a bipolar external circuit breaker** to remove electrical power so that maintenance operations can be done safely.



WARNING:

When the on/off switch is turned **off** the electrical power is still live.
Remove the power supply to avoid any electrical risk.

2 GENERAL INSTALLATION



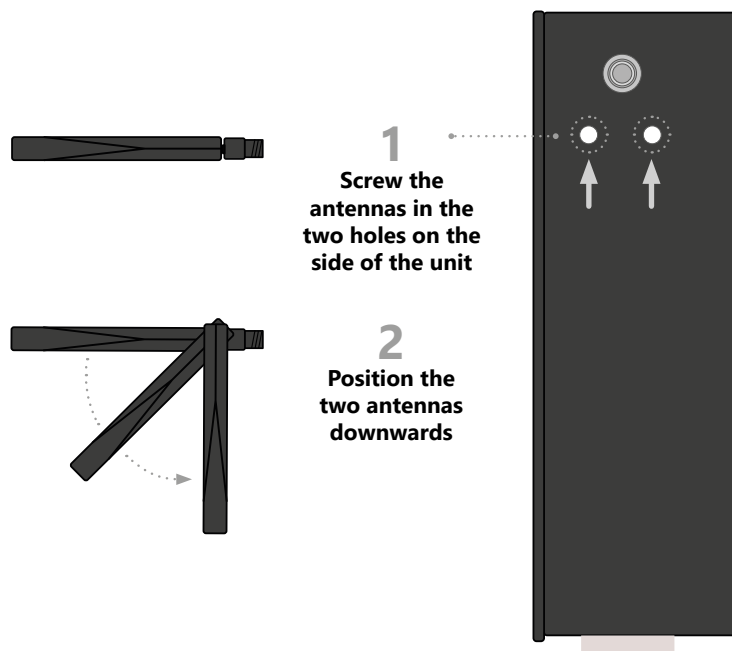
INSTALLING THE 4G ANTENNAS:



WARNING:

If the PoolCop Core has the optional 4G router installed the 2 antennas **must be installed before powering up the unit.**

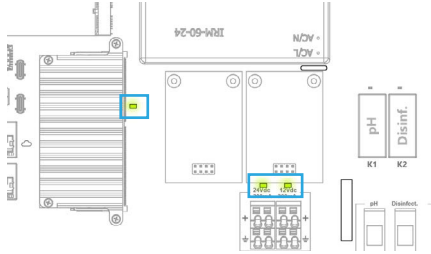
Failure to do this will cause permanent damage to the router.



2 GENERAL INSTALLATION

POWERING UP THE UNIT:

Switch the PoolCop Core unit **ON**.



The ON/OFF Switch, the Microprocessor LED, the 24VDC and 12VDC Supply LED's must illuminate.

The WIFI app switch on the left of the unit will illuminate with an orange blinking light, ready to connect to the Settings user interface (see page 23)

2.3.5 CABLE SELECTION AND CONNECTION



NOTE:

Core power supply: H03VV-F & H05VV-F with section 3G1.5.

Water Treatment equipment: H03VV-F & H05VV-F with section 2x0.75.

Smaller sections and multiple conductor cables can be used depending on amperage (ex JZ-602 12G0.5).

Cable selection must conform with local regulations.

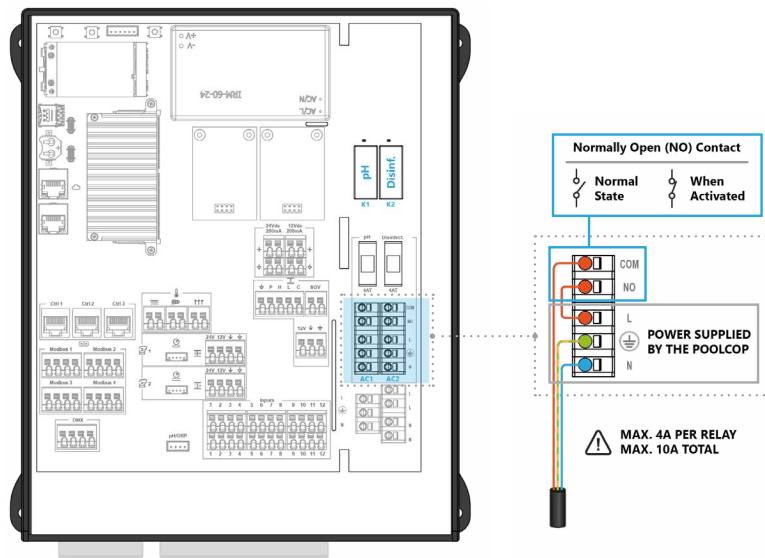
IMPORTANT NOTE:

Some equipment will require Twisted Pair cables for installation or cable extension.

Twisted pair cabling is a type of communications cable in which two conductors of a single circuit are twisted together for the purposes of improving electromagnetic compatibility.

2 GENERAL INSTALLATION

2.3.6 POOLCOP CORE RELAYS



Relays **AC1 and AC2 (pH & Disinfection)** are composed of 2 parts:

- The bottom 3 connectors deliver the **220 V.a.c. power supply**
- The top 2 connectors constitute a **Normally Open Dry Contact**

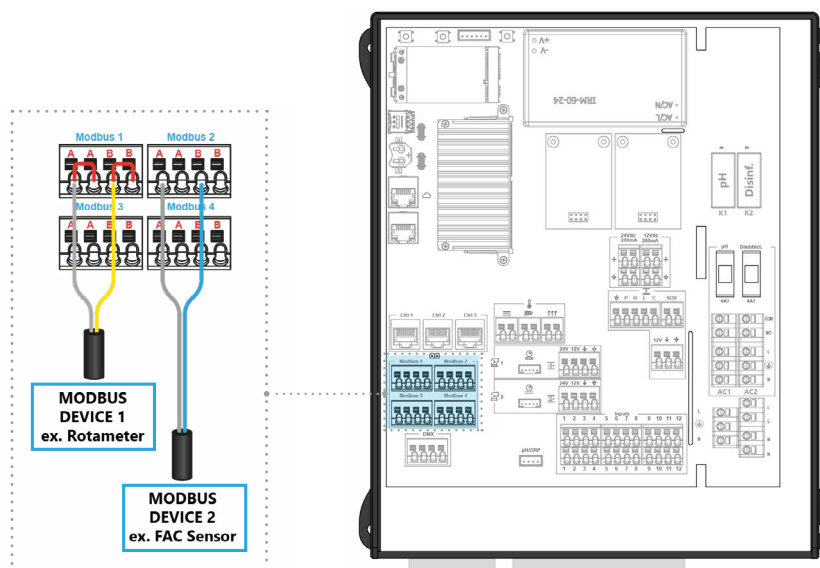
2.3.7 MODBUS CONNECTIONS

Certain devices can communicate with PoolCop via the MODBUS protocol (FAC Sensor, Ocean / DA SPACE / DA GEN salt systems, Energy Meter, Rotameter).

There is no predefined order for specific equipment, but these devices must always be connected to the **first available MODBUS connector in sequence** (first device → Modbus 1, second device → Modbus 2, etc.), without leaving any gaps in the MODBUS chain.

IMPORTANT: To ensure MODBUS continuity, always fit the previous connector with bridges between terminals A–A and B–B.

NOTE: If a FAC Sensor is installed, it must be the **last** device on the ModBus line.



3 USER GUIDE

3 USER GUIDE

- PoolCop Configuration
- Access to the User Interface
- Home Page
- Shortcut Menus
 - Filtration
 - Auxiliaries
 - Water
- Settings Menu
- Alerts and System Management

3.1 POOLCOP CONFIGURATION

PoolCop Core does not have a display screen but emits its own local Wi-Fi network to which a phone or tablet can be connected. Connecting to this Wi-Fi network automatically enables access to the local App.

Once connected to the unit's Wi-Fi network, the App can be accessed directly via **<http://www.settings.local>**, without any download or installation required.

The local App can only be used when the device is within range of the unit and will disconnect automatically when the user's phone or tablet loses access to the Wi-Fi network emitted by the device.

The configuration of your PoolCop Core can be carried out either via the local App or via ProPoolCop if the device is connected to the internet.



NOTE:

An additional device (smartphone, tablet, laptop) with WiFi connection and internet browser is advisable in order to access the installation manual **and** the configurations app simultaneously.

It is preferable to **disable the mobile data (4G)** on the device accessing the local App for the user interface.

It is recommended to **use a web browser** to access this App rather than using the pop-up that appears after connecting to the local Wi-Fi, as the latter option might impact the user interface quality depending on device type and manufacturer.

The equipment must be configured by the installer

3 USER GUIDE

3.2 ACCESS TO THE USER INTERFACE

WIFI APP ACTIVATION



1

Switch on the local Wi-Fi emitted by the device using the side button. The button then emits a blinking blue light.

2

Select the device's Wi-Fi SSID manually from the list of available Wi-Fi networks on your phone or tablet.

3

When the light turns steady blue, the pairing is complete.

Scan the QR code on the unit to access the Settings App, - or go to:
<http://www.settings.local>



NOTE:

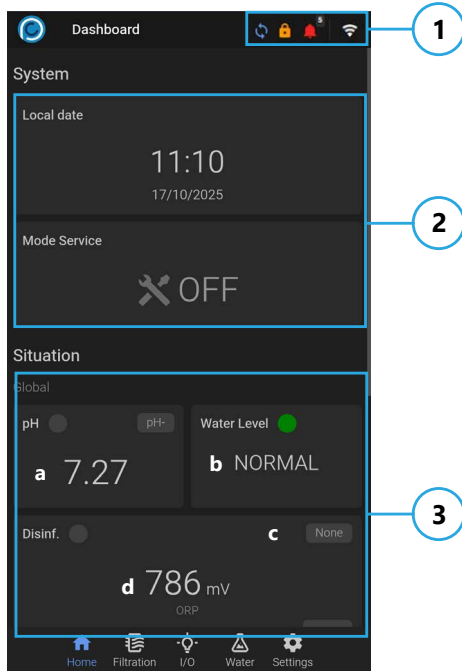
The colour of the Wifi button adjusts to the connection state

LED COLOUR	LED STATE	DESCRIPTION
ORANGE	Blinking	Powering up
GREEN	Steady	Cloud is connected
ORANGE	Steady	Cloud is not reachable
BLUE	Blinking	Wifi AP Pairing in progress
BLUE	Steady	Wifi AP pairing is complete
PURPLE	Steady	Service Mode ON
RED	Steady	System error
RED BLUE	Blinking	Update OTA ongoing
RED GREEN	Blinking	Update USB ongoing

Users will be disconnected automatically after 10 minutes of inactivity.

3 USER GUIDE

3.3 HOME PAGE



1 - ICONS

- PoolCop Busy
- Alerts
- Pin Protection
- Notifications
Showing importance and number of alerts
- Connectivity

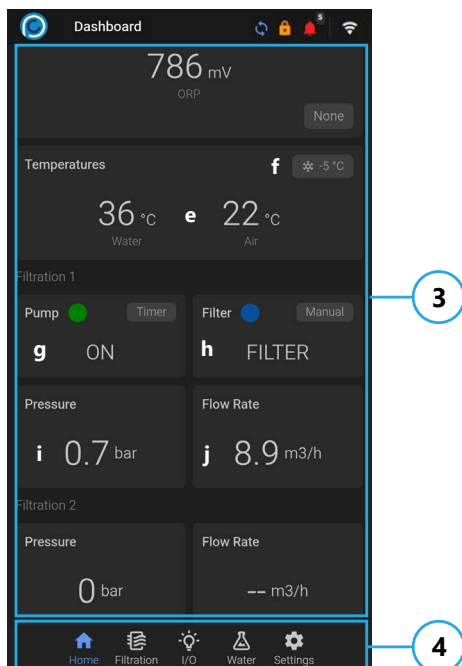
2 - SYSTEM INFORMATION

- Date and Time
- Service Mode ON / OFF

3 - SITUATION

GLOBAL :

- a. pH Value, type of treatment and ON ● /OFF ● status
- b. Water Level
- c. Type of disinfection used and ON ● /OFF ● status
Salt system information ● / ●
- d. ORP value



3 - SITUATION *continued*

GLOBAL

- e. Water and Air Temperature
- f. Temperature set for Freezing Protection

FILTRATION 1 :

Current parameters for Pump and Filter 1

- g. Pump 1 - NOT CONTROLLED
- h. Filter 1 - NO CLEANING VALVE CONTROLLED
NOTE: ● shows if Filtration is detected
- i. Pressure
- j. Flow Rate

FILTRATION 2 (if relevant) :

Same parameters as for Filter 1

4 - SHORTCUT MENU







- FILTRATION : Overview of Pressure and Flow Measurements and Filtration confirmation, Water Level overview and control
- I/O : Overview of configured input status
- WATER : Overview of the current water parameters (pH, ORP, and if relevant FC, TC, FAC, Conductivity)
- SETTINGS : Access to the complete settings menu

3 USER GUIDE

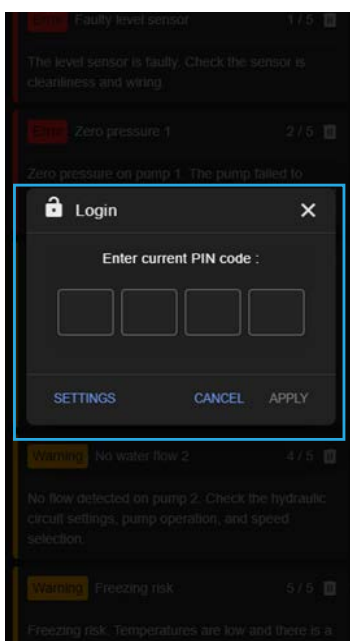


NOTE:

The coloured dot shows the status of each feature:

	 		 <i>blinking</i>	
Not installed	At setpoint	Not at setpoint	Active correction	Faulty
No ongoing water treatment	Normal operation	Abnormal situation	Priming	Stopped

Refer to the corresponding shortcut menu description for more information.



PIN PROTECTION



Click on the PIN icon to access the PIN code.

This PIN will protect access to the PoolCop.

Only persons in possession of the PIN code will be able to control equipment via the User interface.

3.4 SHORTCUT MENUS



NOTE:

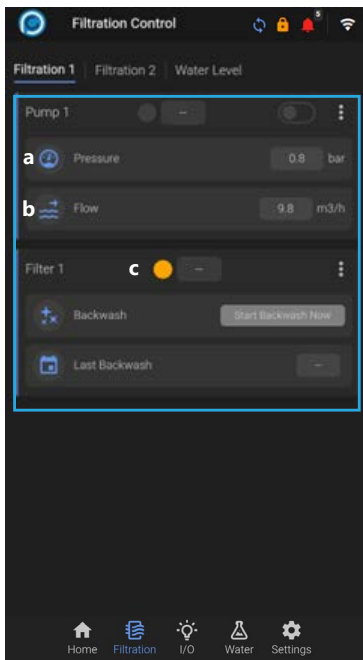
- ⋮ The three dots on the right of each window enable quick access to the relevant settings

3 USER GUIDE

3.4.1 FILTRATION



NOTE:
Tabs will only appear when options are installed.

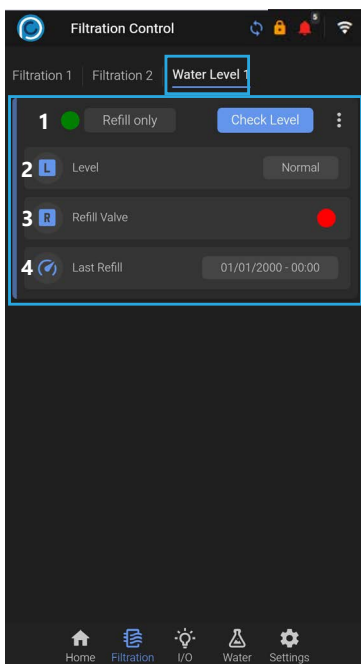


FILTRATION CONTROL

FILTRATION 1 :

- Measured pressure
- Measured flow - *only if a digital flow meter is installed*
- Indication if a valid filtration is detected according to pressure settings

WATER LEVEL - Overview and manual control



WATER LEVEL SETTINGS AND ABILITY TO CHECK CURRENT STATUS

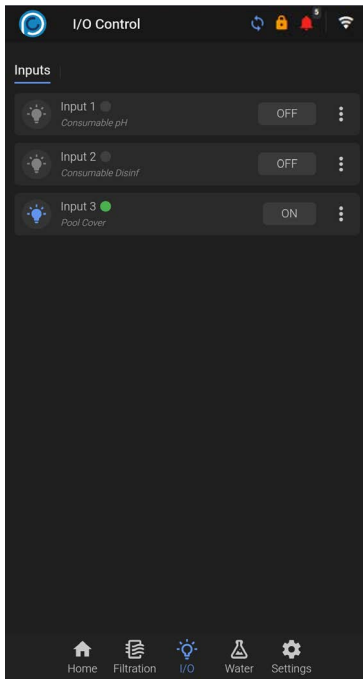
- Current water level status indicators:
 - : Not installed
 - : At setpoint
 - : Level is low
 - blinking* : Refilling
 - : Level is faulty or very high
- Current water level
- Refill valve ON ● /OFF ●
- Last refill






NOTE:
Water Level is NOT a parameter read constantly.
See section 5.1.3 for frequency of water level measurements

3 USER GUIDE

3.4.2 INPUT OVERVIEW



INSTALLED INPUTS OVERVIEW

-  Input status OFF
-  Input status ON
-  Alert emitted (if selected in **Settings**)

See section 5.3.1 for Input Settings

3.4.3 WATER

WATER QUALITY PARAMETERS



For each available parameter, the **gauges** show:

- Setpoint
- Low and High limits

Acceptable readings are in **blue**, out of range in **orange**

pH gauge:

Mode: Type of treatment (pH- / pH+)

Set Point: The desired pH value

 : Launch a Reading

Disinfection gauges:

ORP, FAC, FC, TC, Conductivity

Mode: Indicates if the parameter is configured as READ or CONTROL (see section 5.3.3)

Set Point: The desired disinfection value.

 : Launch a Reading

Gauges are present when the equipment is installed.



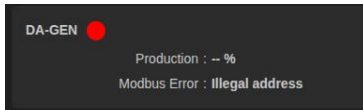
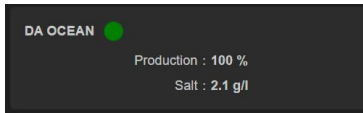
NOTE:

pH is NOT a parameter read constantly.
See section 5.2 for frequency of water chemistry measurements

3 USER GUIDE

MODBUS CONTROLLED SALT SYSTEMS:

- DA-SPACE | Ocean
- DA-GEN
- Aquark



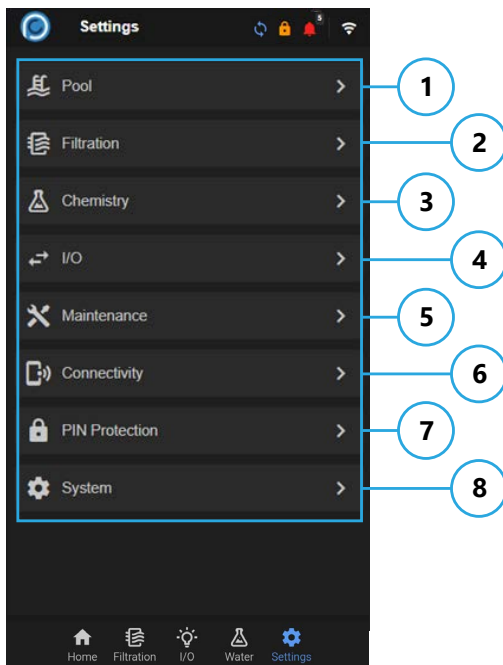
ModBus controlled salt systems are presented under the gauges, showing:

- production status
- salt concentration
- active faults (if any)
- active warnings (if any)

The following status indicators are:

- : Disinfection stopped
- : Ongoing disinfection - no anomaly
- blinking* : Disinfection ongoing
- : Ongoing disinfection - anomaly detected (warning)
- : Fault detected

3.5 SETTINGS MENU



1 POOL

- Set pool data parameters used to calculate filtration duration

2 FILTRATION

- Set pump 1 data parameters and alerts / pump protections
- Set filter 1 data parameters used to configure functions
- Set Flow Sensor parameters and Alert Triggers

3 CHEMISTRY

- Set parameters for pH control
- Set parameters for disinfection control
- Set parameters for ORP control
- Set parameters for FAC/FC/TC control
- Set parameters for conductivity control
- Set parameters for remnant injection.
- Set parameters for oxidant (ACO) injection
- Set parameters for rotameter

4 I/O

- Set parameters for each auxiliary
- Set inputs settings
- Set Pool Cover control
- Set Jetstream control
- Set External Control for up to 2 auxiliaries

5 MAINTENANCE

- Set device in Service Mode
- Calibrate installed sensors

6 CONNECTIVITY

- General information on Cloud Connection Status
- If 4G connection : Connection details
- Set up Client WIFI as internet connection

7 PIN PROTECTION

- Set PIN Protection

8 SYSTEM

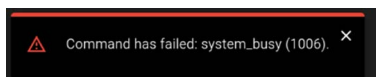
- Set Date & Time
- Select Display Units
- Select the language
- Product Firmware details and Reset System

NOTE:

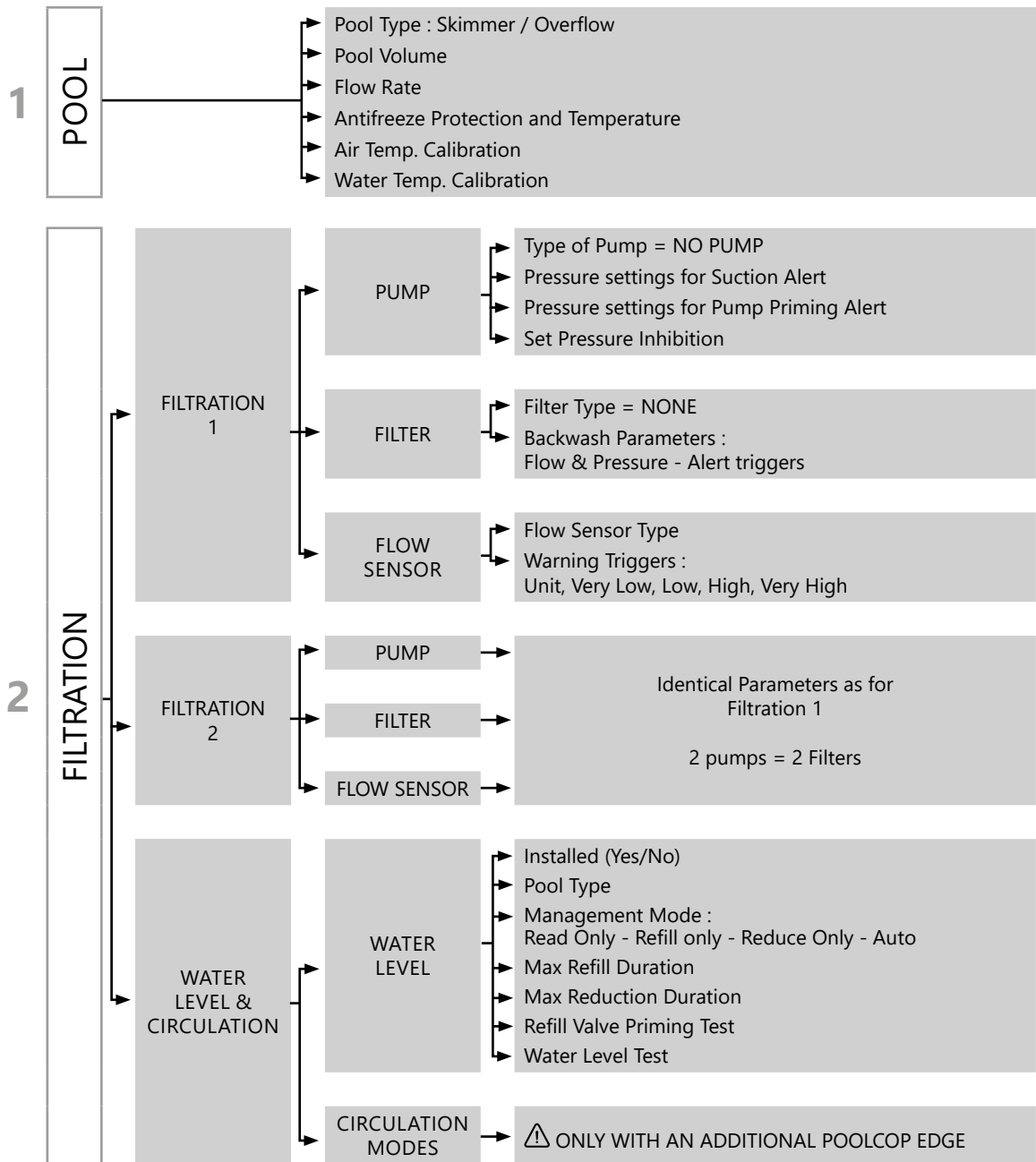
If the PoolCop is in the process of realizing another task, such as checking pH or water level this blue icon will appear :



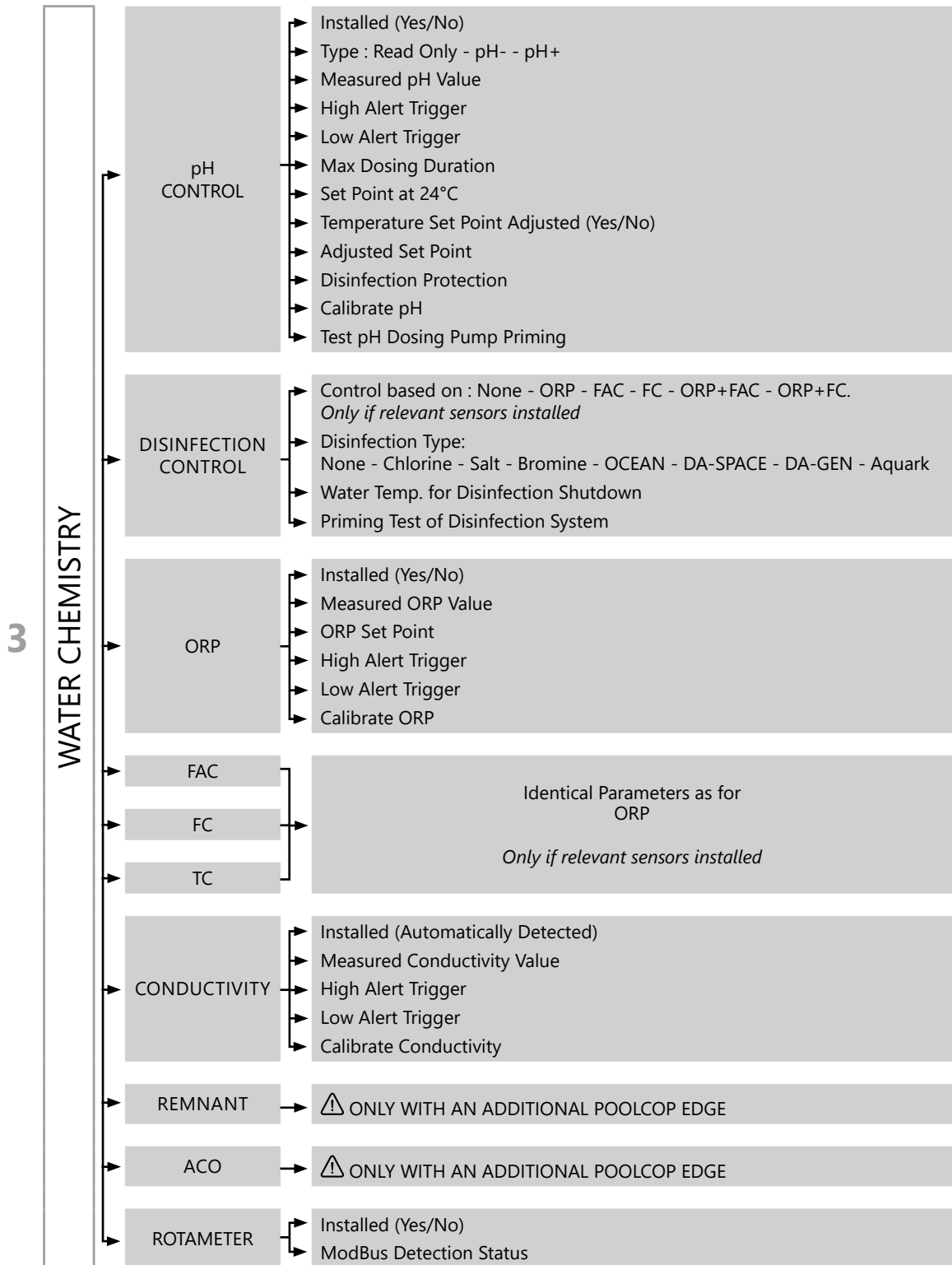
During this task, no settings can be changed. Any attempt will trigger the following message:



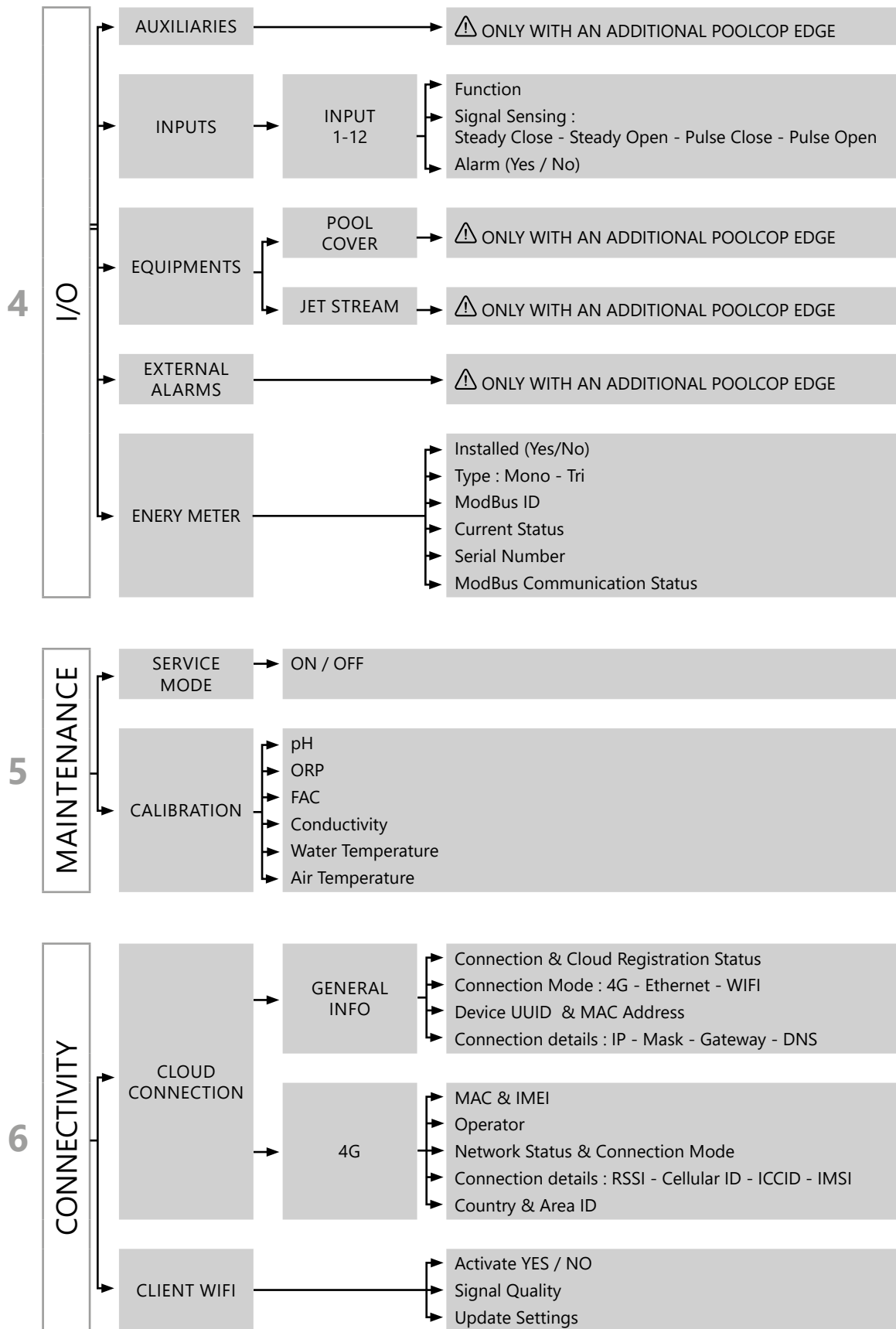
3 USER GUIDE



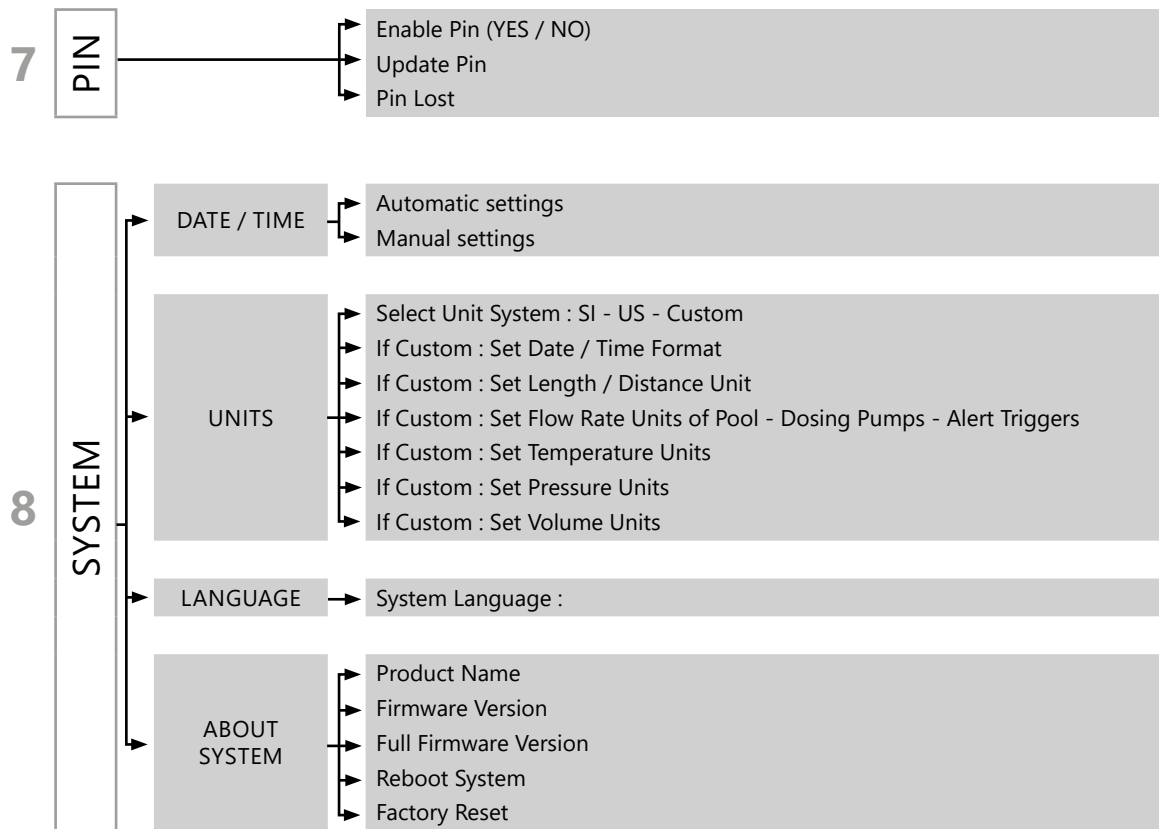
3 USER GUIDE



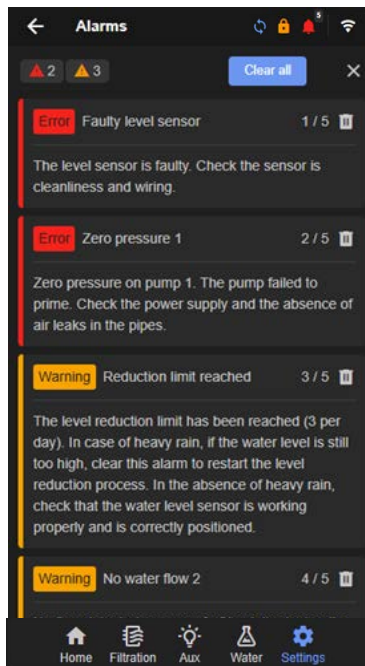
3 USER GUIDE



3 USER GUIDE



3.6 ALERTS AND SYSTEM MANAGEMENT



ALARMS

- Remind** A task that should be done promptly to prevent any deterioration in the pool condition.
- Warning** An occurrence or event that needs your attention.
- Error** Something has gone wrong and can immediately impact the pool management.
- Failure** PoolCop has stopped operating or is running in limited mode.
- Clear All** Delete all alerts except permanent conditions that needs physical action to be changed (Empty Drum Alert for example).
- Trash** Delete the selected alert.

4 INSTALLING THE ESSENTIALS

4 INSTALLING THE ESSENTIALS

- Pool and Hydraulics
 - Chlorine
 - Salt System
- Installing Standard Monitoring Sensors
- Installing the Temperature Sensors
 - Water Temperature Sensor
 - Air Temperature Sensor
- Configure Pool Settings
 - Pool Configuration
 - Anti Freeze Protection
 - Optimize Filtration
- Pressure Sensor(s)
 - Connection the Pressure Sensor(s)
 - Understanding Pressure Parameters

4.1 POOL AND HYDRAULICS

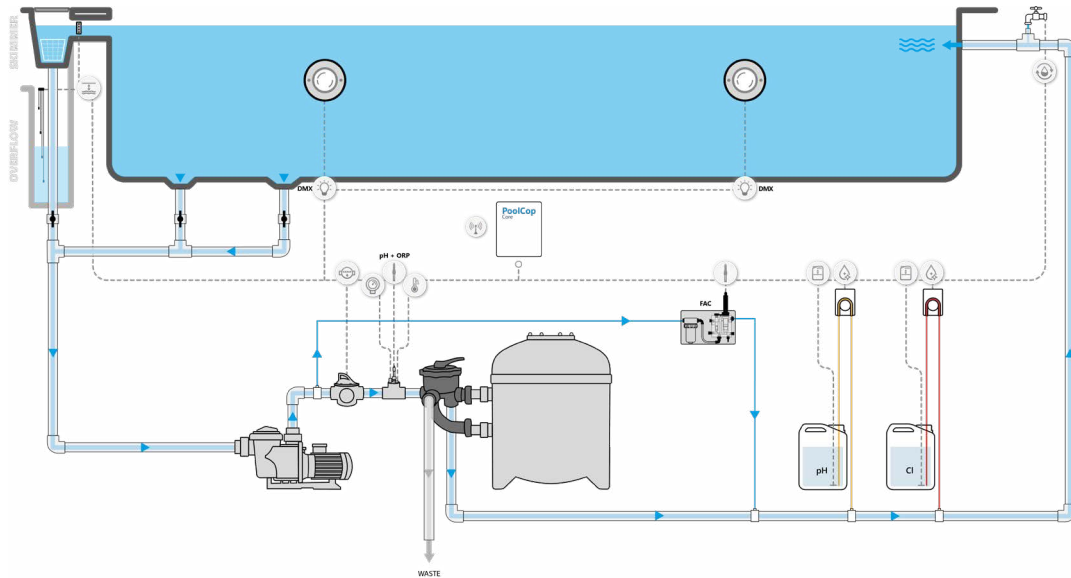


IMPORTANT:

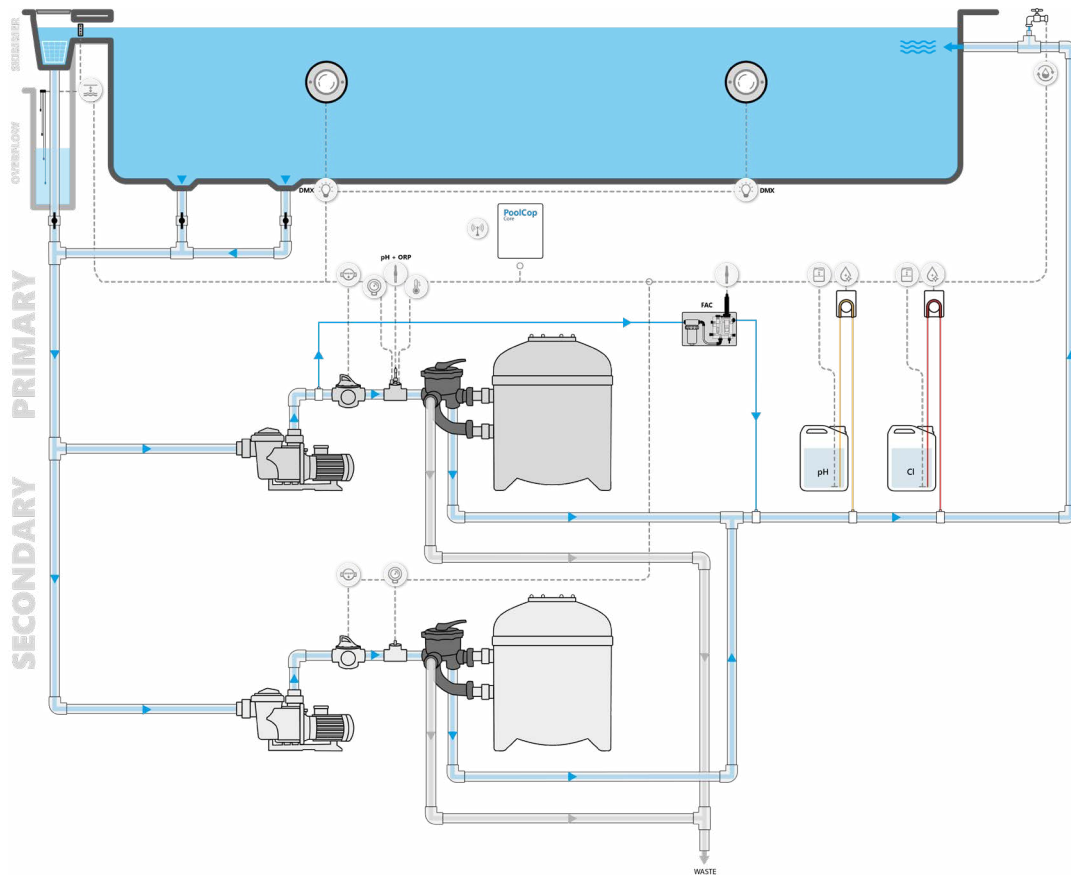
- The primary pump is the **primary** pump.
- Water quality sensors (pH, ORP, FAC, FC, TC...) must be located on the flow circuit of **primary** pump.

4 INSTALLING THE ESSENTIALS

4.1.1 CHLORINE



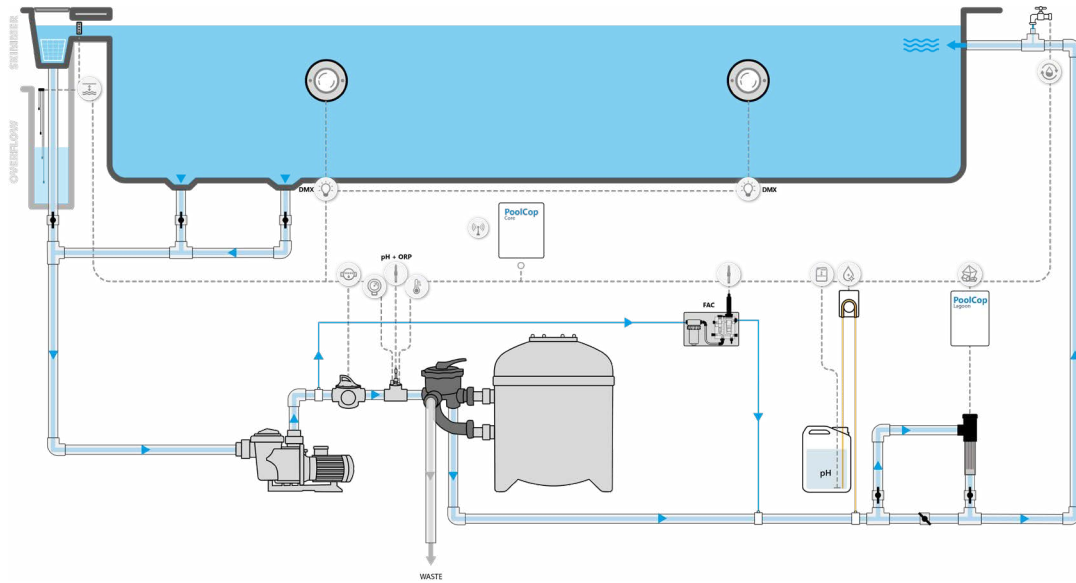
**SINGLE PUMP SET UP
WITH DATA AQUISION & CHLORINE DISINFECTION**



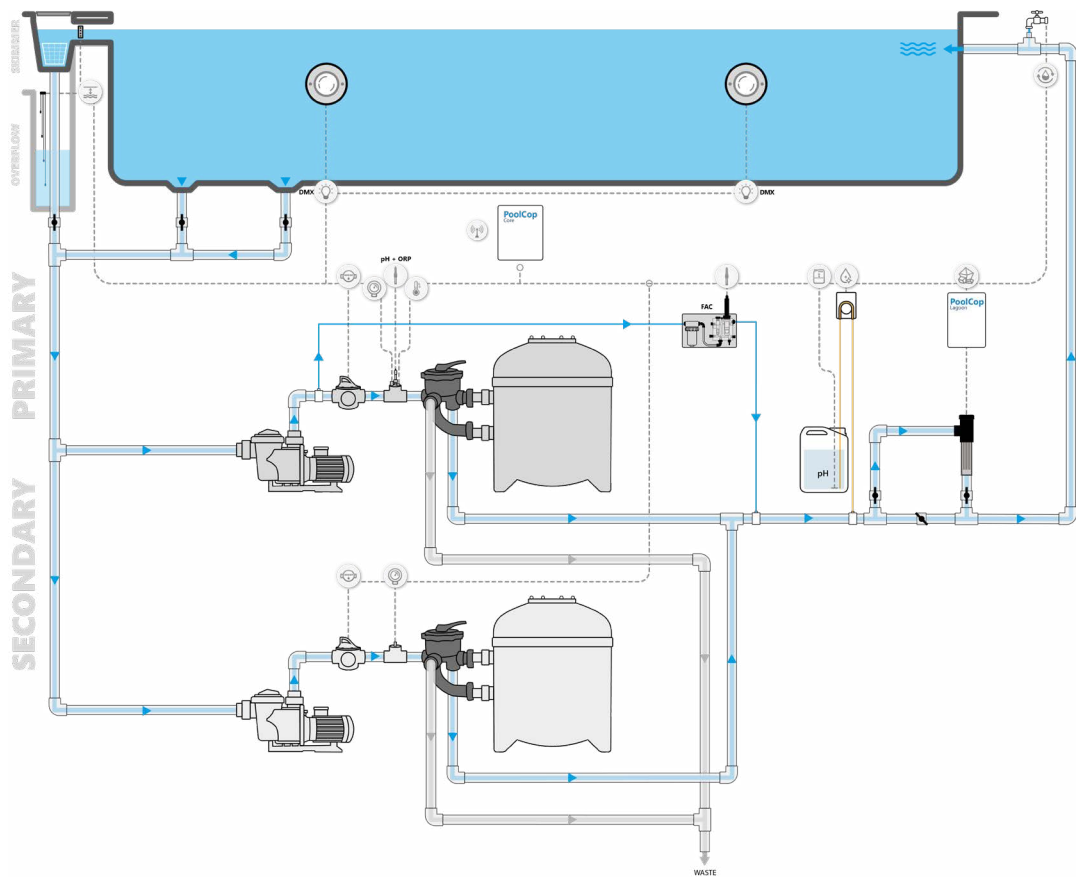
**DUAL PUMP SET UP
WITH DATA AQUISION & CHLORINE DISINFECTION**

4 INSTALLING THE ESSENTIALS

4.1.2 SALT SYSTEM



**SINGLE PUMP SET UP
WITH DATA ACQUISITION & SALT DISINFECTION**



**DUAL PUMP SET UP
WITH DATA ACQUISITION & SALT DISINFECTION**

4 INSTALLING THE ESSENTIALS

4.2 INSTALLING STANDARD MONITORING SENSORS

Water Temperature, Pressure and pH+ORP Sensors are usually installed in the provided flow cell.

Pressure Sensor(s) will be used to monitor pump priming, inform about filter clogging and prevent chemicals injection when there is no pressure.

It/they must be located either:

- Between the pump and the filter for pressurized filters.
- In the pump suction line for vacuum filters.

Whenever no pressure/no flow is detected on the primary pump, pH and disinfection injection is inhibited and any auxiliaries slaved to the primary filtration pump are stopped. All these functions will restart automatically as soon as the pressure/flow is re-established.

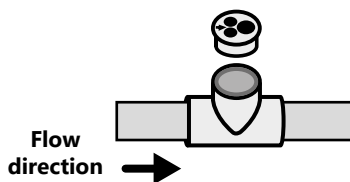
The installer must ensure that the sensor reacts correctly in case of:

- Loss of priming (no pressure).
- Pipe blockage (high pressure).

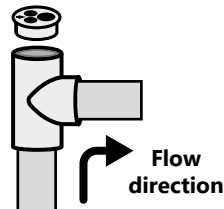
If used, the flow cell(s) must be installed in a location in line with the pressure sensor requirements. The Flow Cell cap must be:

- Glued on a 2" T Piece
- Placed either on:
 - A horizontal piping section
 - A vertical to horizontal piping section with ascending flow

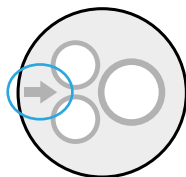
Flow Cell Cap - Horizontal Mounting



Flow Cell Cap - Vertical Mounting



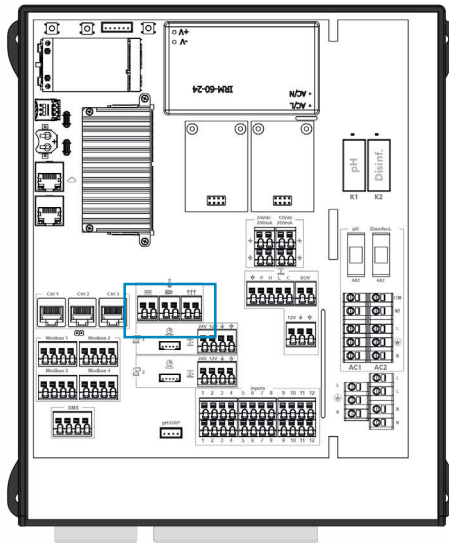
NOTE:



The flow direction is clearly indicated on the flow Cell cap

4 INSTALLING THE ESSENTIALS

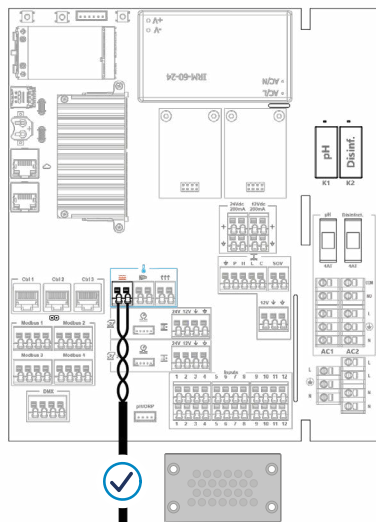
4.3 INSTALLING THE TEMPERATURE SENSORS



4.3.1 WATER TEMPERATURE SENSOR

The Water Temperature Sensor (supplied) must be installed to adjust the pH control setpoint, heating system control, prevent freezing risks and adjusted filtration duration (in ECO mode).

It must be installed in any part of the installation BEFORE the heating, with direct contact to pool water, and preferably not exposed to direct sunlight.



- Based on PT100 resistors
- No polarity
- Twisted Cable



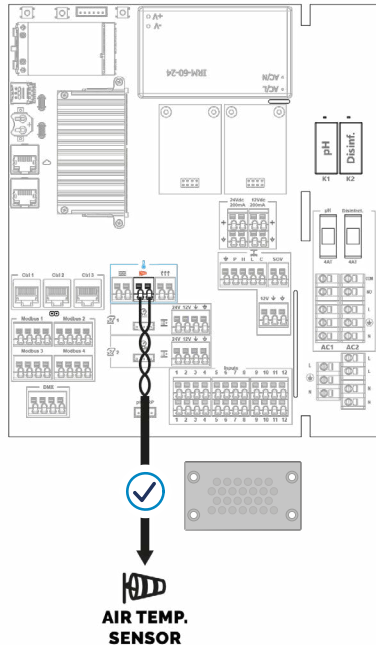
INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Cable can be extended using suitable twisted pair wires
- Calibration is required if the cable is extended

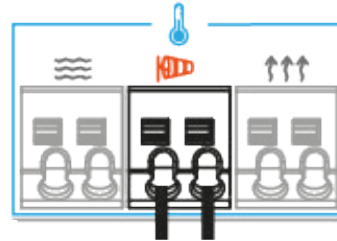
4 INSTALLING THE ESSENTIALS

4.3.2 AIR TEMPERATURE SENSOR

The Air Temperature Sensor (provided) measures outside air temperature and is used for antifreeze protection if configured in the POOL DATA menu (see page xx). It should be installed in a location representative of the actual temperature to which the pool surface is exposed.



- Based on PT100 resistors
- No polarity
- Twisted Cable



INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Cable can be extended using suitable twisted pair wires
- Calibration is required if the cable is extended

4.4 CONFIGURE POOL SETTINGS



IMPORTANT:

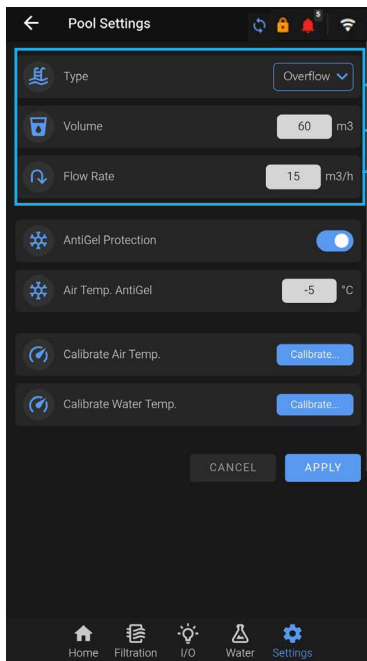
For consistent water quality and reliable performance, the pool must be correctly balanced, with even circulation and mixing throughout the basin.

Before proceeding with the detailed configuration steps, make sure the pool settings are entered accurately. Correct values ensure the system can calculate dosing, filtration, and monitoring parameters properly.

Take time to verify them carefully during installation — this ensures optimal performance from the start.

4 INSTALLING THE ESSENTIALS

4.4.1 POOL CONFIGURATION



- 1 POOL TYPE:**
Skimmer, Rim Flow or Spa.
The Pool Type will have an impact on the way PoolCop Core is handling some features such as water level.
- 2 POOL VOLUME:**
Pool Volume is important as PoolCop Core will use it for the duration of water treatments.
- 3 FLOW RATE:**
For optimal performance, indicate a flow rate measured either:
 - on a clean filter
 - as the lowest nominal pump or filter flow rate reduced by 20%
 - as the estimated average daily flow rate (*if using a variable speed pump*)

4.4.2 ANTI FREEZE PROTECTION: Internal and External

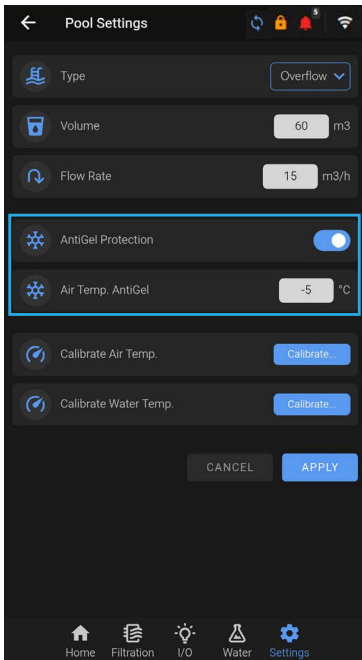
Freezing poses risks to pools and their equipment. As water expands when it freezes, it can crack pipes, burst fittings, and damage the filter or pump housing. PoolCop provides two methods for detecting freezing risk. It is recommended to enable both forms of protection and set Freezing Protection to YES in the POOL SETTINGS menu year-round.



CAUTION:

PoolCop's freezing protection function **assists** in safeguarding pool equipment but cannot guarantee the prevention of damage in all circumstances. Its effectiveness depends on factors such as installation conditions and extreme weather. PoolCop accepts no responsibility for any damage resulting from freezing.

4 INSTALLING THE ESSENTIALS



INTERNAL FREEZING PROTECTION BASED ON WATER TEMPERATURE

If freezing protection is **ON** and the water temperature sensor detects a low temperature, an alert is emitted to warn the user that the pool requires immediate attention and that starting filtration can help reduce the risk.

The alert is triggered when the temperature falls below 2°C (35.6°F) and remains active for 30 minutes after the temperature rises above 3°C (37.4°F).

EXTERNAL FREEZING PROTECTION BASED ON AIR TEMPERATURE

Significant temperature differences may occur between the pump and filter installation area and the pool itself. Correct installation of the supplied air temperature sensor allows the system to measure external air temperature, which can be used to detect freezing risk and start filtration.

This alert remains active while the temperature is below the threshold and for 30 minutes after it rises above the threshold.

NOTE:

If an inconsistency is detected, you can calibrate the water and air temperature sensors. Refer to Section 6.2 – Maintenance.

ALERT: “WARNING: FREEZING RISK”

If the freezing protection is **OFF**, the readings from the water and air temperature sensors will automatically trigger a freezing risk warning when low temperatures are detected.



Click on **APPLY** to save all configurations



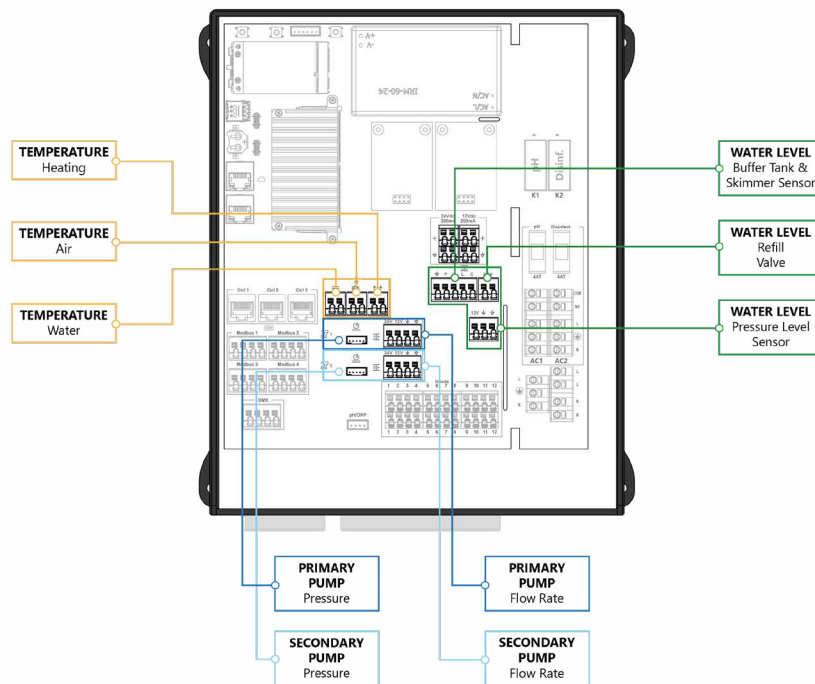
CAUTION:

When a freeze risk is detected the alert WARNING: FREEZING RISK will notify you that PoolCop cannot manage the situation.

Immediate intervention is required.

4 INSTALLING THE ESSENTIALS

4.5 OPTIMIZE FILTRATION



Water Balance / Clean Filter

Optimal system performance depends on maintaining the correct water balance and a clean filter. Only when these conditions are met will the system operate under optimal conditions.

Filter and Media

Follow manufacturer guidelines for your chosen filter and filtration media. Filters or media in poor condition reduce filtration efficiency, increase operating costs, and pose health risks due to algae or bacterial growth. Renew or clean the filter media according to the manufacturer's recommendations.

Hydraulic Coefficient

Adequate filtration depends on the hydraulic coefficient, calculated as:

$$\text{Hydraulic Coefficient} = \text{Pool Volume} / \text{Filtration Rate per Hour}$$

The Filtration Rate per Hour is the actual rate of filtered water returning to the pool. In a well-designed pool, the hydraulic coefficient should be between 4 and 6. A coefficient below 4 increases energy costs, and a value above 6 may result in inadequate filtration. If the coefficient exceeds 6, filtration duration can be increased to compensate.

PoolCop automatically calculates the hydraulic coefficient in all automatic modes and adjusts filtration duration accordingly.

Filter Cleaning

Regularly maintain and clean the filtration media as specified by manufacturer instructions and code requirements.

Check Water Level

Refill the pool to its normal level to ensure accurate pressure and sensor readings.

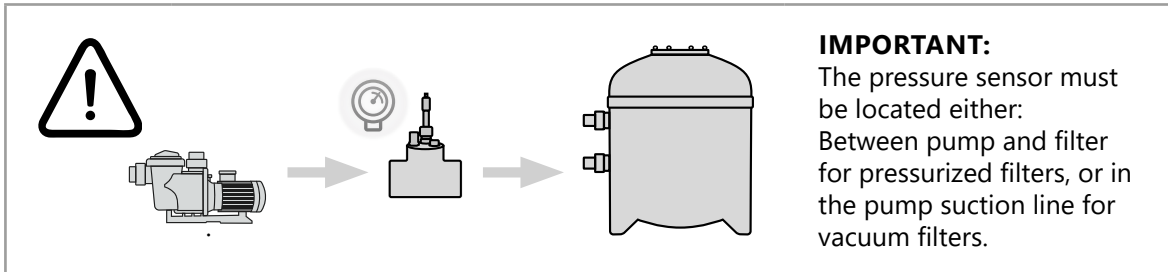
Test and Balance Water

It is strongly recommended to analyze and balance pool water before programming any water treatment features.

4 INSTALLING THE ESSENTIALS

4.6 PRESSURE SENSOR(S)

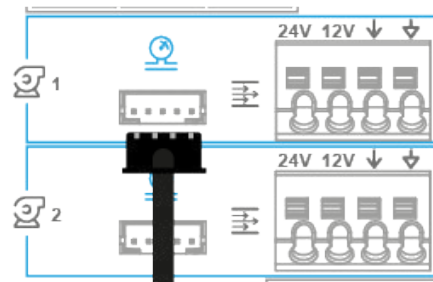
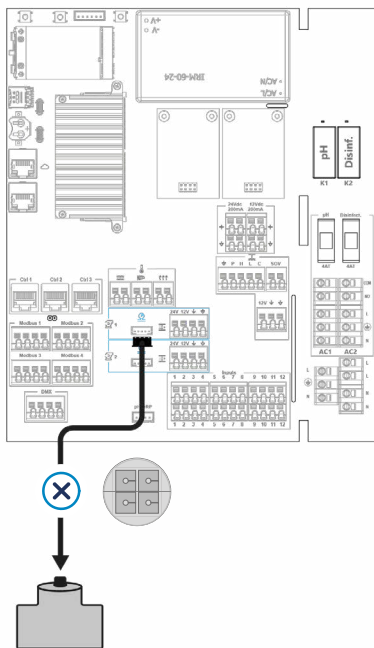
Pressure sensors monitor pump priming, indicate filter clogging, and prevent chemical injection when there is no pressure.



If no pressure or no flow is detected, any auxiliaries linked to the filtration pump are stopped. If this occurs in the primary filtration system, pH injection and disinfection are inhibited. All these functions restart automatically once pressure or flow is restored. The installer must ensure that the sensor responds correctly in the following cases:

- Loss of priming (no pressure).
- Pipe blockage (high pressure).

4.6.1 CONNECTING THE PRESSURE SENSOR(S)



NOTES:

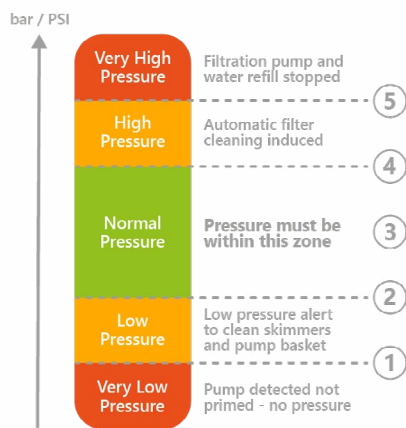
- Switch the PoolCop unit **OFF**
- Pump 1 is the **PRIMARY PUMP**
- Route the wire through the adapted entry plate
- Non-extendable cable
- One Pressure Sensor per pump.
- For a second Pressure Sensor repeat in **Pump 2**

4 INSTALLING THE ESSENTIALS

4.6.2 UNDERSTANDING PRESSURE PARAMETERS

Pressure management is widely used to control filtration. Settings are defined in:

- Pump data menu
- Filter data menu



Pressure settings parameters

1. Pump Priming Pressure (Pump Data)

When pressure is below Pump Priming pressure, the pump is considered not primed.

If pressure falls below this threshold for more than 8 minutes (and protection is ON), pump protection is triggered, and the PoolCop will stop the filtration to prevent damage.

A «No Pressure» error alert is emitted.

2. Suction Alert Pressure (Pump Data)

Signals that pressure is below normal range, but circulation is still present.

Triggers a «Low Pressure» warning alert advising to clean skimmer baskets and the pump's pre-filter strainer.

3. Normal Pressure

Shows the ideal working pressure for the pump during filtration.

For variable speed pumps, all speeds (except backwash speed) should fall within this zone.

4. Filter Cleaning Pressure (Filter Data)

If pressure is at or above this value for 5 minutes, a backwash is triggered, or an alert is sent to clean the filter.

5. High Pressure (Fixed Value)

An alert occurs at 2 bars.

At 2.6 bar (37.7 PSI), the pump and refill stop immediately to protect equipment, except in NO PUMP mode.

5 INSTALLING THE POOL EQUIPMENT

5 INSTALLING THE POOL EQUIPMENT

- Setting up the filtration
- Setting up the water treatment
- Setting up the optional equipment

PoolCOP Core is an intelligent monitoring unit with water treatment control.

It will enable close surveillance of the pool parameters and emit alerts if any conditions are not optimal (unusual pressure and flow parameters, backwash necessity, low drum levels, etc).

PoolCOP Core enables full management of water level and fundamental water treatment (pH and disinfection).

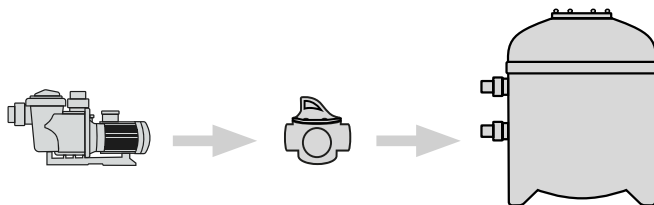
PoolCOP Core's four Modbus connections expand the possibilities, with additional equipment options such as a Free Available Chlorine sensor and energy meter.

To control pool equipment such as pumps, filter cleaning, additional water treatment, pool cover and more, a **PoolCOP Edge is necessary**.

5.1 SETTING UP THE FILTRATION

5.1.1 FLOW METERS

Flow meters provide a real-time display of actual flow rates measured on site. Their accurate and remote readings support hydraulic adjustments and protect equipment through flow-based alerts, while enabling precise filter cleaning and system tuning. Monitoring water flow brings additional benefits: it ensures water quality through proper circulation, supports optimal chemical dosing, helps detect blockages or leaks, prevents pump and filter damage, and fosters energy savings with efficient control.



For optimal use, Flow Meters should be installed between the pump and the filter.

CONNECTING 1 - OR 2 - FLOWVIS® FLOWMETER(S)

The FlowVis® flow meter combines accurate flow measurement and check valve functionality in a single device. It uses a durable flap mechanism to sense water flow, providing reliable 4-20mA output for integration with PoolCOP and other monitoring systems. FlowVis® is available for pipe sizes from 1.5" to 8", ensuring compatibility with a wide range of installations. As the unit also acts as a non-return valve, this feature should be considered in piping design.

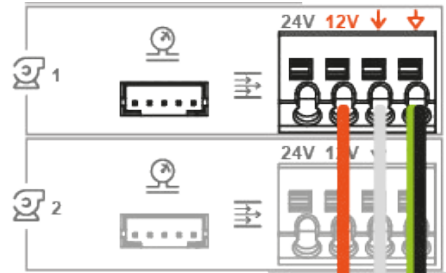
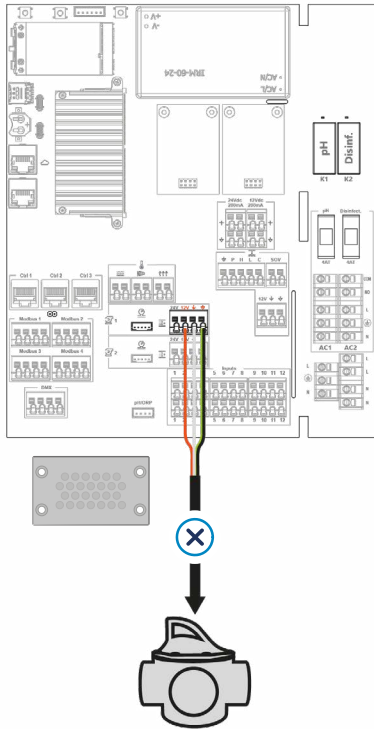
The factory-supplied cable is 8 meters long and cannot be extended. If additional length is required, longer cables can be sourced directly from the manufacturer (refer to the FlowVis® manual for details).

5 INSTALLING THE POOL EQUIPMENT



IMPORTANT:

Refer to the FlowVis® Digital Kit PoolCop Guide and the manufacturer's Installer and User Manual.
Respect all warnings and guidance, which are not mentioned here.



NOTES:

- Stop the pump and all hydraulic power sources.
- Ensure the PoolCop unit is switched **OFF** and disconnect the electrical power
- Pump 1 is the **PRIMARY PUMP**
- Route the wire through the adapted entry plate
- Non-extendable cable
- One flowmeter per pump.
- Red : 12V
White : Signal
Black : GND
Green : GND
- For a second FlowVis® repeat in **Pump 2**

5 INSTALLING THE POOL EQUIPMENT

CONNECTING 1 - OR 2 - FLOWSONIC FLOWMETER(S)

The FlowSonic flow meter uses ultrasonic transducers to accurately measure water flow, reporting live data directly to PoolCop. Supplied with a 2" union set, FlowSonic ensures straightforward integration into various plumbing systems. For best performance, install the FlowSonic in a section of piping where air pockets and bubbles are unlikely, maintaining the required minimum straight pipe length, and position it upstream of heaters and chemical injection points. Always observe the indicated flow direction during installation.

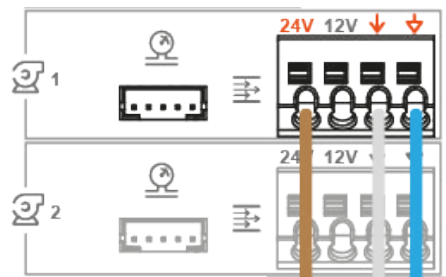
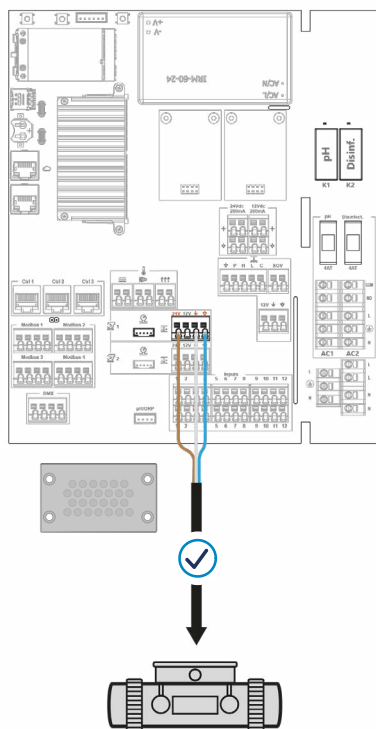
The standard cable is 4.5 meters long and can be extended up to 20 meters if needed, ensuring flexibility for most technical room layouts.



IMPORTANT:

Refer to the FlowSonic PoolCop Guide and the manufacturer's Installer and User Manual.

Respect all warnings and guidance, which are not mentioned here.

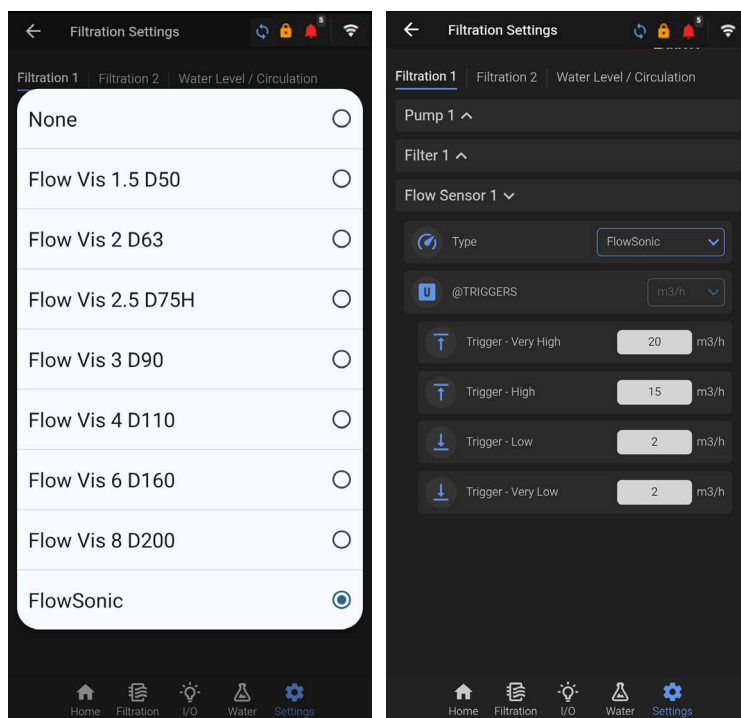


NOTES:

- Stop the pump and all hydraulic power sources.
- Ensure the PoolCop unit is switched **OFF** and disconnect the electrical power
- Pump 1 is the **PRIMARY PUMP**
- Route the wire through the adapted entry plate
- Extendable cable
- One flowmeter per pump
- Brown : 24V
White : Signal
Blue : GND
- For a second FlowSonic repeat in **Pump 2**

5 INSTALLING THE POOL EQUIPMENT

CONFIGURING THE FLOW METER



Select the type of Flow Meter installed within the list.

Set the **Alert triggers**:
Very Low - Low
High - Very High

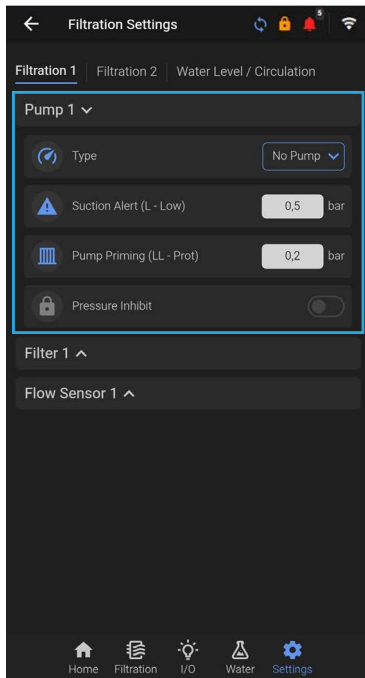
5.1.2 FILTRATION SETTINGS

Filtration is the foundation of effective pool management. A properly maintained filter and suitable filtration duration help reduce organic matter and nutrients in the water, making chemical treatment more stable and predictable. When filtration is poor, whether due to inadequate runtime or degraded media, even high chemical doses may fail to keep the water safe and healthy.

PoolCop Core monitors filtration remotely by detecting alarms triggered by pressure and flow inconsistencies. It will issue a filter cleaning alert when preset thresholds are reached.

Note: PoolCop Core does not provide pump control.

5 INSTALLING THE POOL EQUIPMENT



FILTRATION MODE

PUMP 1:

With PoolCop Core alone, the Pump Type will always show NO PUMP

SUCTION ALERT:

Triggers a LOW PRESSURE alert to indicate possible clogging of skimmer or pump baskets.

This setting should be above the pump priming pressure but below the pressure at the lowest speed.

PUMP PRIMING:

Defines the pressure below which the pump is considered not primed. If pressure drops below this threshold, all water treatment stops and a NO PRESSURE alert is issued.

Set the priming pressure approximately 0.2 bar above the static (pump stopped) pressure, but below the pressure at the lowest speed.

ERROR MESSAGES will occur if pressure settings are incoherent (for example, if Pump Priming is set above Suction Alert).

Static Pressure
(pump stopped)



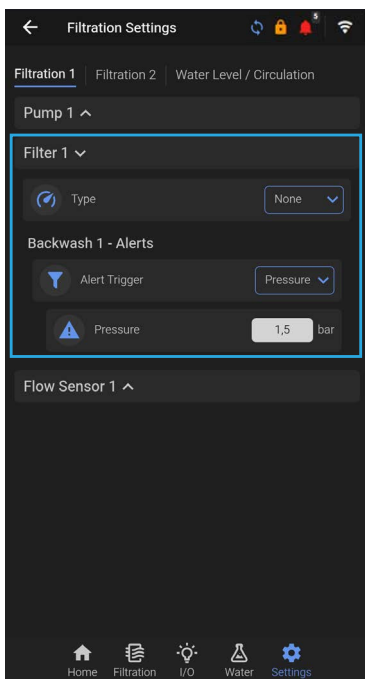
Pump Priming



Suction Alert



Pressure at
lowest speed



FILTRATION MODE

FILTER TYPE:

This must always be set to NONE, as PoolCop Core does not support the installation of backwash valves.

FILTER CLEANING ALERTS:

Alerts can be scheduled to indicate when filter cleaning is needed, based on:

- Pressure alone
- Flow alone (*if a flow meter is installed*)
- Pressure and flow (*if a flow meter is installed; the alert triggers when either condition is met first*)

5 INSTALLING THE POOL EQUIPMENT



NOTE:

All functions and settings described for the primary filtration system (Filtration 1 - Pump 1 and Filter 1) also apply to a second filtration system, if installed (Filtration 2 - Pump 2 and Filter 2).

5.1.3 INSTALLING THE WATER LEVEL

Automatic water level control functionality is integrated in the system. To enable this feature, an optional water level sensor and valve kit is required.

When FILTRATION is **ON**, the water level is monitored and regulated every **20 minutes**, except during disinfection dosing periods. During these periods, checks occur once the disinfection dosing is complete.

When FILTRATION is **OFF**, the level is monitored and adjusted every **20 minutes**.

Pool refilling or water level reduction depends on the installed equipment and configuration settings. **Reduction is not possible with PoolCop Core, but alerts will be emitted.**

Water refill may begin immediately after a measurement. If the setpoint is not reached within 30 minutes, refilling pauses and resumes after the next scheduled measurement. Multiple refill cycles may be needed to reach the setpoint. An adjustable **maximum refill duration** protects the system against leaks.

POOL TYPE	LOGIC	REFILL	LEVEL REDUCTION
Skimmer or Spa	Refill occurs if the water level is not at the setpoint during a level check. Refill stops as soon as the setpoint is reached. Level reduction can be performed at HIGH or VERY HIGH levels.	Setpoint = NORMAL	Selection HIGH Selection VERY HIGH
		Setpoint = HIGH	VERY HIGH
Overflow	Refill occurs only when the water level is LOW . Refill stops when the level is HIGH .	When LOW	When VERY HIGH

At the end of a filter cleaning cycle, we advise asking PoolCop Core to check the water level and request a refill if necessary (see page 54).



IMPORTANT:

When ready to commence the installation, the installer must:

- **Disconnect all electrical power** to the pool and system.
- **Close all valves**, and if necessary, block all inlets to and outlets to/from the pool.



NOTE:

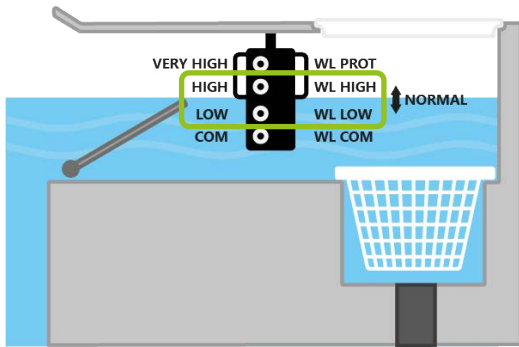
For both skimmer and overflow installations, we recommend testing the sensor wiring **before** securing the sensor to the pool.

5 INSTALLING THE POOL EQUIPMENT

INSTALLING SKIMMER WATER LEVEL SENSORS

Secure the water level sensor (using stainless steel self-tapping screws, or appropriate adhesive) at the correct height on the inside of the skimmer or on the waterline.

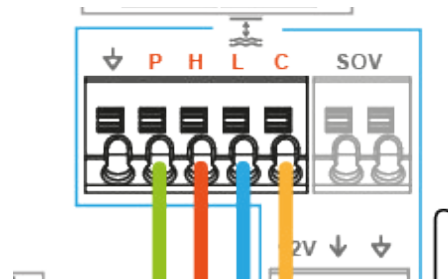
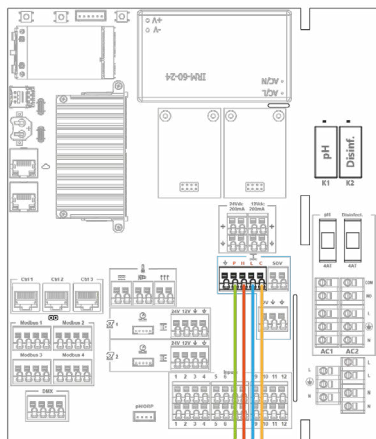
If the level sensor is fitted in the skimmer, make sure that the skimmer basket and lid can easily be removed and replaced without damaging the sensor or cable



Normal water level must be between **WL HIGH** and **WL LOW**.

WL HIGH must be below pool overflow level and at an appropriate level with regards to the skimmer.

WL PROT is the **VERY HIGH** level, at maximum pool water level.



NOTES:

- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Extendable cable
- Green - P = Very High
Red - H = High
Blue - L = Low
Yellow - C = Very Low
- Switch the PoolCop unit **ON**

IMPORTANT:

If the cable is extended, ensure a waterproof cable connection box is used, and label the additional cable clearly for correct identification.

5 INSTALLING THE POOL EQUIPMENT

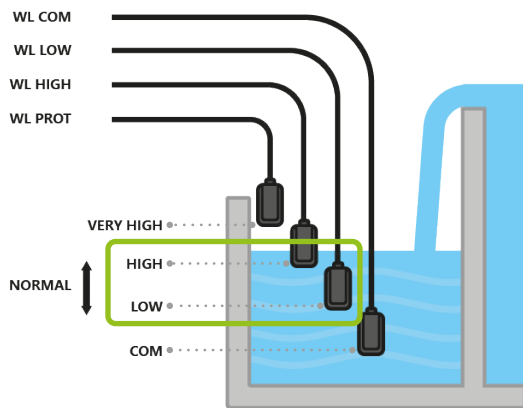
INSTALLING RIMFLOW WATER LEVEL SENSORS

The 4 sensors are identical, with the same color cable.



Add tags or labels prior to installation to identify the correct cable and sensor.

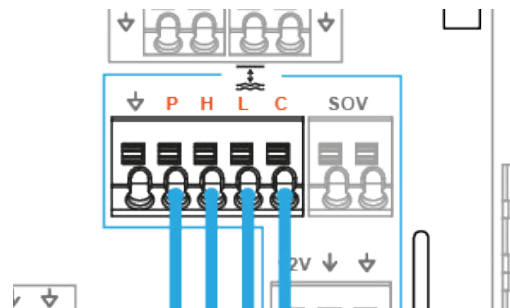
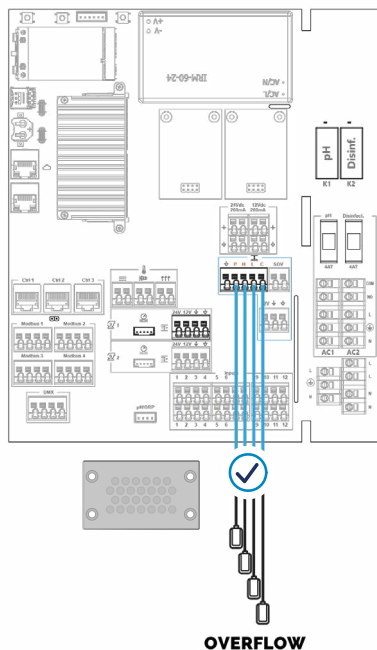
Check that both the pool water level and the buffer tank level are correct.
Secure the 4 water level sensors at the correct respective heights in the buffer tank.



Normal tank level must be between **WL HIGH** and **WL LOW**.

WL HIGH must be below tank overflow level.

WL PROT is the **VERY HIGH** level, at maximum tank water level.



IMPORTANT:

If the cable is extended, ensure a waterproof cable connection box is used, and label the additional cable clearly for correct identification.



NOTES:

- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Extendable cable
- P = Very High
H = High
L = Low
C = Very Low
- Switch the PoolCop unit **ON**

5 INSTALLING THE POOL EQUIPMENT

INSTALLING A REFILL VALVE

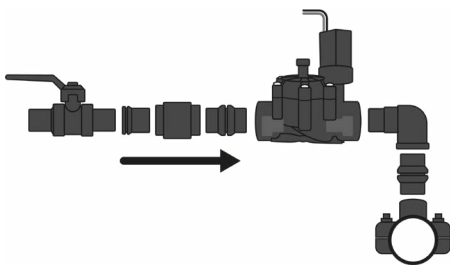


IMPORTANT:

The refill valve must be 24 V.a.c. powered.

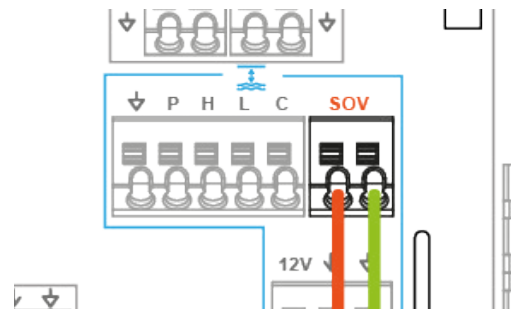
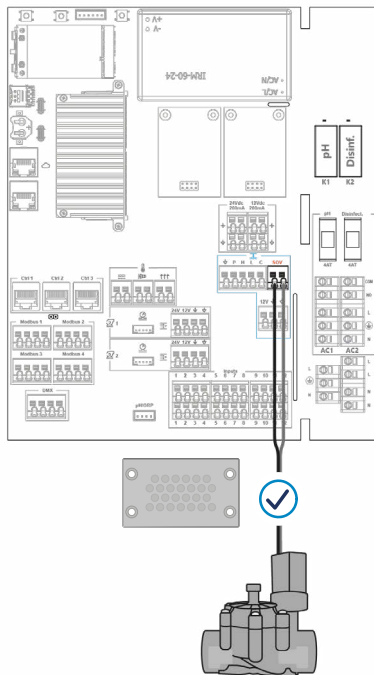
Install the collar in a location where the flow of water to the pool cannot be isolated by a manual valve.

According to current standards and local regulations, and depending on the source of the top-up water, fresh water must be supplied to the pool via a disconnecting overflow tank. This ensures that pool water cannot flow back into the supply network.



- Fit a saddle onto the pool return pipe.
- Drill a hole of appropriate size through the return pipe.
- Fit the non-return valve and the solenoid valve, ensuring both are correctly oriented.
- Fit a stop valve to allow for manual shutoff of the main water supply when required.
- Use appropriate piping to connect the main water supply to the solenoid valve.

Once all piping and joints are complete, open the main water supply. Verify that the solenoid valve closes and seals properly. Remove and replace the valve if it does not function correctly.

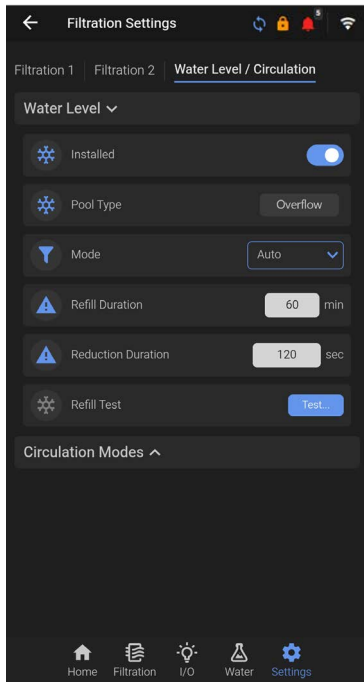


NOTES:

- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Connect the 2-core wire from the valve to the SOV connectors.
NOTE: Polarity is not important.
- Extendable cable
- Switch the PoolCop unit **ON**

5 INSTALLING THE POOL EQUIPMENT

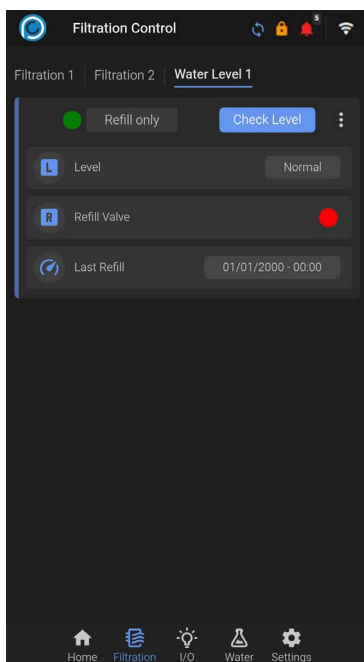
SETTING THE WATER LEVEL CONTROL



WATER LEVEL CONTROL MODES

- **Read Only** - Displays water level status and triggers alerts if needed.
- **Refill Only** - For skimmer pools and spas: refills to NORMAL or HIGH as selected. For overflow pools: refills when level is LOW, up to HIGH.
- **Reduce Only** - An alert is issued if the water level is not optimal and a reduction is needed. For **skimmer pools** the reduction will occur if water level is above setpoint for 15min.
- **AUTO** : Automatically manages both refill and reduction functions.
- **MAX DURATION** is a daily timeout for pool refill (**Leak Protection**). If reaching the maximum duration during a 24-hour period, refill stops until the following day and an alert is sent advising of this condition. Check for possible leaks or low water supply pressure. **The Alert is reset at midnight** and another refill can be commanded the following day. If this situation occurs on 3 consecutive days, refill will be inhibited until the alert is cleared manually.

TESTING THE SENSOR INSTALLATION

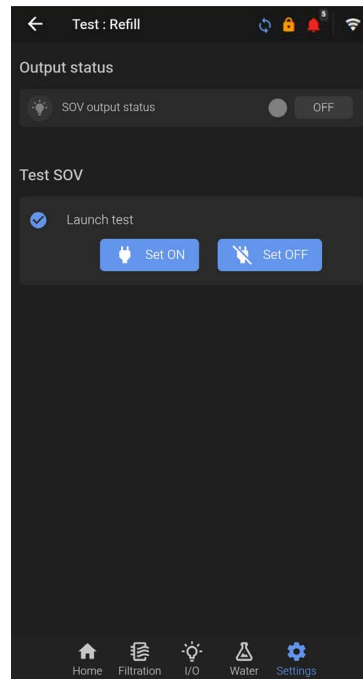
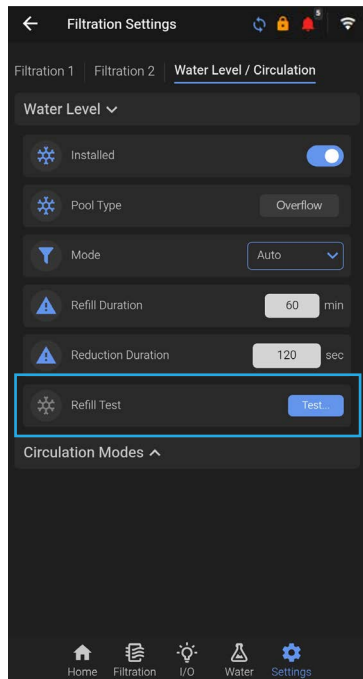


To confirm correct sensor wiring, we advise testing the sensors before final installation:

- Place only the lowest sensor in the water and verify in the Filtration Shortcut menu that the water level is displayed as **LOW**.
- Add the second sensor and check that the indicated water level is **NORMAL**.
- Immerse the third sensor and confirm the reading is **HIGH**.
- With all four sensors submerged, the display should show **VERY HIGH**.
- This sequence ensures each sensor is properly detected and mapped to the correct water level.

5 INSTALLING THE POOL EQUIPMENT

PRIMING THE REFILL VALVE



The Refill Valve can be tested through priming in the Water Level Settings.

Click on the **TEST** button to launch the test.

The indicator shows the ON ● / OFF ● status of the valve.

5.2 SETTING UP THE WATER TREATMENT

pH & DISINFECTION MEASUREMENTS AND CONTROL

pH is controlled every hour when Filtration is ON and disinfection is in observation phase. The pH can be measured at any time in the Water Shortcut Menu.

Disinfection is read continuously during filtration periods except when the PoolCop is busy with other tasks (pH control, water level control, commands/settings, etc). Dosing is only commanded during programmed filtration cycles. **Dosing will start 30 minutes after the start of a filtration cycle.**

pH and ORP information is used for pH and ORP control functions and Alerts. If independent pH and/or ORP control systems are installed, PoolCop can only be used to measure the pH and ORP, and trigger alerts if the parameters are out of range.

5 INSTALLING THE POOL EQUIPMENT

5.2.1 INSTALLING THE pH+ORP SENSOR AND THE WATER TREATMENT

pH+ORP SENSOR

There are two types of sensors available. Both sensors have the same dimensions and fit into the same housing with identical installation procedures.

- Gold sensors (Au) are suitable for salt water pools.
- Platinum sensors (Pt) are suitable for chlorine pools.



IMPORTANT:

Allow the sensor and pool system to run for at least 24 hours before performing any calibration.

Treatment Option	Sensor Required	Sensor Reference
pH + liquid chlorine injection, chlorine or bromine tablets	pH + ORP Pt Sensor Kit	530017
pH + salt water system	pH + ORP Au Sensor Kit	530018



WARNING:

A pressure or flow sensing device should be properly installed and configured to ensure safe chemical dosing.

If the flow sensing device is not added, or not correctly configured, and the pipe is blocked, the chemicals may build up in the pipes. Restoring flow under these conditions can create unsafe and possibly harmful water chemistry in the pool.

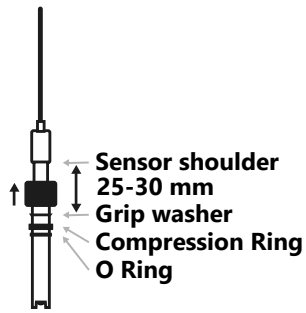


WARNING:

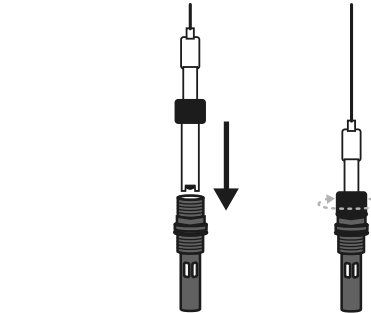
Certain precautions must be taken **PRIOR** to the sensor installation to ensure the correct measurement and to prevent the possibility of damage:

- Install and test an electrical earth bonding in accordance with local regulations.
- Test the water for presence of metals (iron, zinc, copper) and use a metal sequestrate treatment if presence is confirmed.

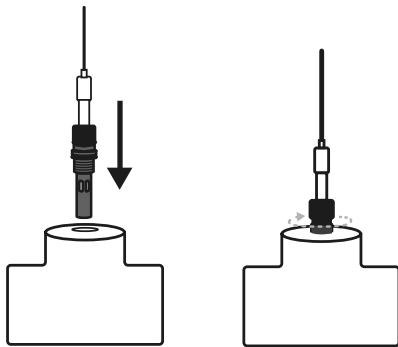
5 INSTALLING THE POOL EQUIPMENT



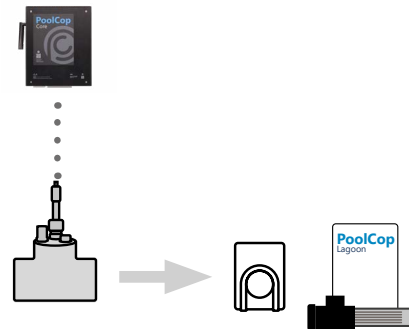
The blue (chlorine) or white (salt) band ensures spacing between the securing nut and the sensor shoulder. The grab ring must be between 25-30 mm (0.98-1.18") from the sensor shoulder. Adjust the compression ring and O-Ring accordingly, to sit under the grip washer.



The pH+ORP Sensor must be installed vertically in its sensor housing, and secured manually with the grab ring.



Insert the housing either in the Flow Cell or in a M24x1.5 threaded hole (3" pipe section minimum), and secure **MANUALLY** with the nut.



The pH+ORP Sensor should be installed **PRIOR** to injection points or salt cell.

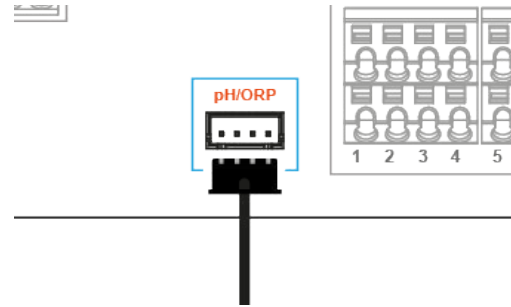
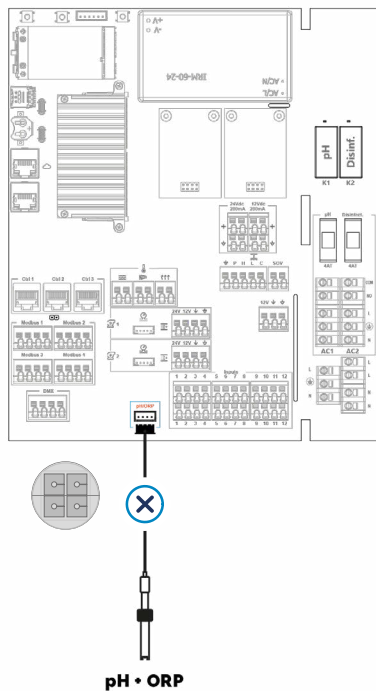


IMPORTANT:

Do not over-tighten the nut as the electrode is a sensitive device.

Ensure that the cap is sufficiently secure to hold the sensor in place under water pressure.

5 INSTALLING THE POOL EQUIPMENT



INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **OFF**
- Once the sensor has been correctly installed in the flow cell, route the wire through the adapted entry plate.
- The cable is 4m long, and **cannot** be extended.
- Switch the PoolCop unit ON

pH CONTROL



WEAR HAND PROTECTION:

Always wear correct chemical resistant hand protection when handling chemicals.



WEAR EYE PROTECTION:

Always wear correct eye protection when handling chemicals.

The equipment features proportional-integral pH control.

An ON/OFF feeder pump (peristaltic or electromagnetic) and an installation kit is required.

pH Control logic and safety:

- pH is measured once every hour during the disinfection observation phase.
- Dosing begins immediately after each reading and continues for a **maximum of 15 minutes per injection**.
- **Total daily dosing time is capped at 240 minutes**, regardless of configuration. The proportional-integral control algorithm ensures safe, precise dosing and reduces overdose risk.
- Setting the maximum dosing time allows adjustment of control intensity. For optimal performance, configure maximum dosing based on pool volume, water alkalinity, and feeder pump flow rate.
- The **pH control relay (AC1) is protected**; dosing stops automatically in cases of flow or pressure loss, pump shutdown, or other safety triggers.
- If the pH level falls outside the set range, **an alert** is generated while pH control remains active.
- **An alert is also triggered if pH remains unchanged after five consecutive dosing cycles**, indicating ineffective control.

5 INSTALLING THE POOL EQUIPMENT



NOTE:

As a security, **if the measured pH is out of range (lower than 6.0 or higher than 9.5), pH control is stopped.**

An Alert message is displayed prompting for water balance.

Injection resumes automatically once the pH returns to the acceptable range (6.0–9.5)

DISINFECTION CONTROL



WEAR HAND PROTECTION:

Always wear correct chemical resistant hand protection when handling chemicals.



WEAR EYE PROTECTION:

Always wear correct eye protection when handling chemicals.

The equipment is compatible with all types of water disinfection, whether chemical or non-chemical.

ORP control is available for regulated disinfection; a sensor is required for this function. **The type of water condition sensor depends on the chosen disinfection method.**



NOTE:

ORP measurement and control is **not compatible** with copper/silver ionization.

- The **disinfection control relay (AC2)** is protected: dosing will stop automatically in the event of flow loss, pressure loss, pump shutdown, or any other safety-triggered condition.
- Disinfection can be paused if the **water temperature is too low** to preserve chlorinator cell life.
- If pH goes out of range, disinfection can be temporarily suspended—giving **priority to pH control**—provided disinfection is based solely on ORP (not FAC or FC control). See section 5.3.2 for details on pH control.
- If ORP-based, **an alert will be generated for inefficient control** if:
 - ORP does not rise after 20 consecutive injections (Chlorine or Bromine algorithm),
 - ORP does not rise after 5 consecutive production cycles (Salt algorithm).



NOTE:

As a security, if the measured ORP is out of range (**lower than 100 mV or higher than 990 mV**) for more than approximately 40 minutes, the **ORP control is stopped** and an alert is sent.

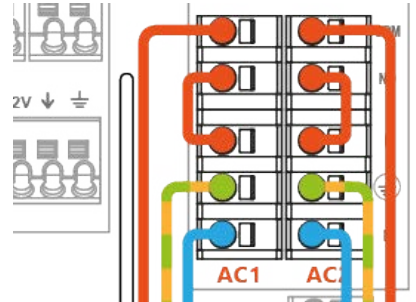
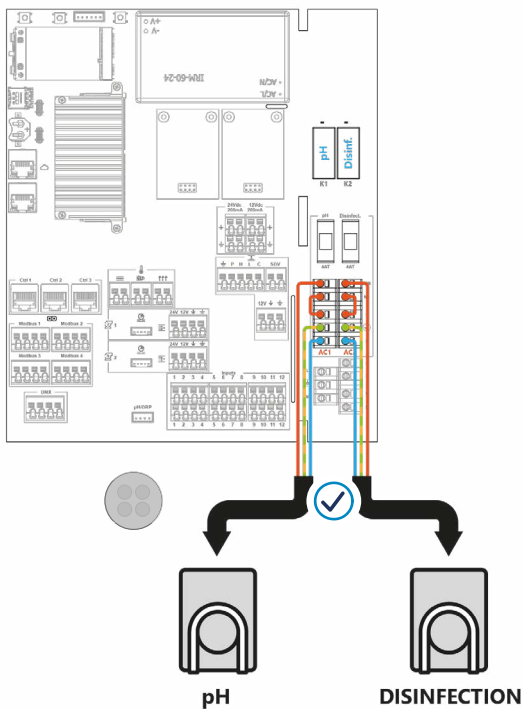
Injection resumes automatically once the ORP returns to the acceptable range (100mV to 990mV)

5 INSTALLING THE POOL EQUIPMENT

INSTALLING THE DOSING PUMPS

Install the dosing pump and associated suction and injection pipes, along with connectors, following the equipment installation manual.

Ensure that the correct chemical is installed and secured.

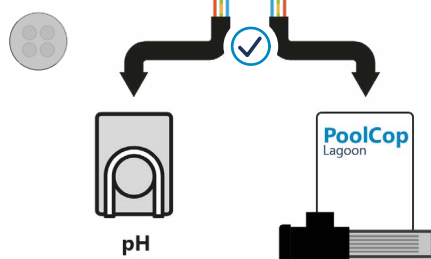
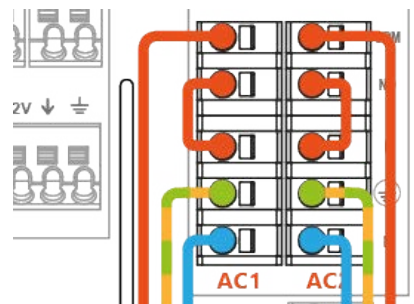
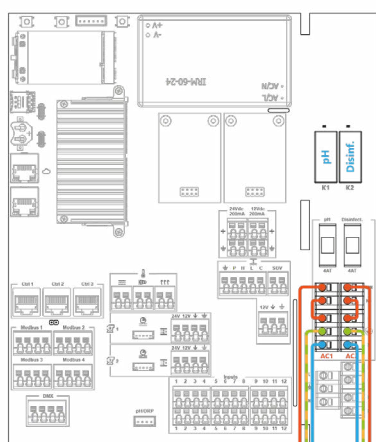


NOTES:

- Ensure the PoolCop unit is switched **OFF** and disconnected from the power supply.
- Route the wire through the adapted entry plate.
- The **pH dosing pump is connected to the pH Auxiliary (AC1)**
- The **Chlorine dosing pump is connected to the Disinfection Auxiliary (AC2)**
- The AC1 and AC2 relays can handle a **maximum of 4 A each**.
If the dosing pump requires higher current, use the dry contact to control a contactor coil.
- If necessary, the wires can be extended.
- Switch the PoolCop unit **ON**

5 INSTALLING THE POOL EQUIPMENT

INSTALLING A SALT SYSTEM

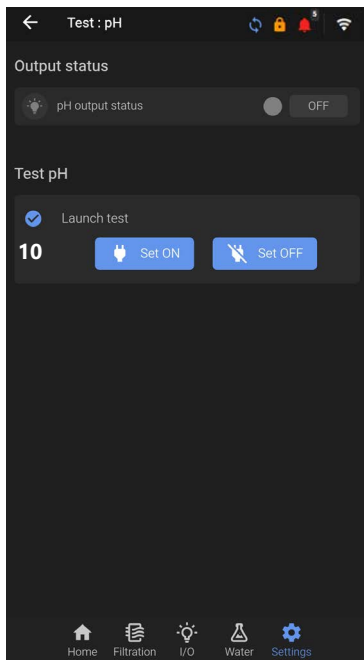
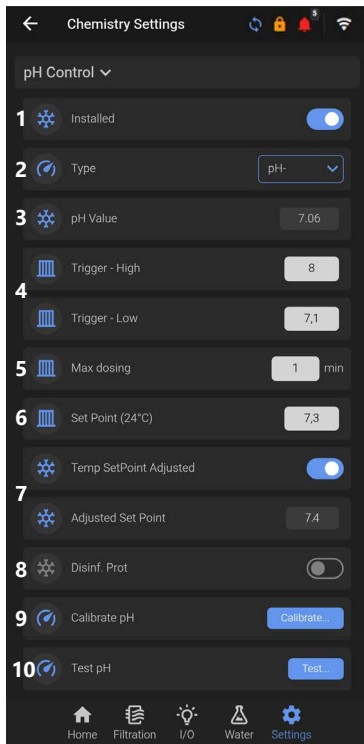


NOTES:

- If connecting a PoolCop Lagoon, the Power Supply can be provided directly by the PoolCop Core
- Ensure the PoolCop unit is switched **OFF** and disconnected from the power supply.
- Route the wire through the adapted entry plate.
- The **pH dosing pump is connected to the pH Auxiliary (AC1)**
- The electrolyser is connected to the **Disinfection Auxiliary (AC2)**
- The AC1 and AC2 relays can handle a **maximum of 4 A each**.
If the dosing pump or salt system requires higher current, use the dry contact to control a contactor coil.
- If necessary, the wires can be extended.
- Switch the PoolCop unit **ON**

5 INSTALLING THE POOL EQUIPMENT

5.2.2 SETTING THE pH CONTROL



1. pH Control **installed**.
2. **Type of pH Treatment:**
READ ONLY : No control
pH- / pH+ : type of chemicals injected
3. **pH Value:** Displays the most recent measured value.
4. **Trigger Low/High:** Defines the alert thresholds for low and high pH limits.
5. **Maximum Dosing Duration:** Safety function preventing inadvertent overdosing. The default setting is 15 minutes per injection, adjustable according to pool volume and refill water characteristics.
6. **Setpoint at 24°C:** Indicates the desired pH value under standard temperature conditions (24°C).

- Water Temperature Adjustment:** Automatically
7. modifies the pH setpoint according to water temperature to maintain consistent water treatment quality year-round.

When water temperature rises by 5°C (9°F), the target pH setpoint decreases by 0.1. The adjusted setpoint is displayed accordingly.

- Disinfection Protection:** If required, disinfection
8. can be temporarily suspended when pH is outside defined limits, ensuring pH control takes priority and preventing overdosing during disinfection.

This function operates only when disinfection is regulated by ORP and not when FAC or FC sensors are in control.

Calibrate pH: Refer to the Maintenance section (6.2.3) for calibration procedures.

- 9.
10. **Test pH:** Activates the pH dosing pump for priming and installation testing.

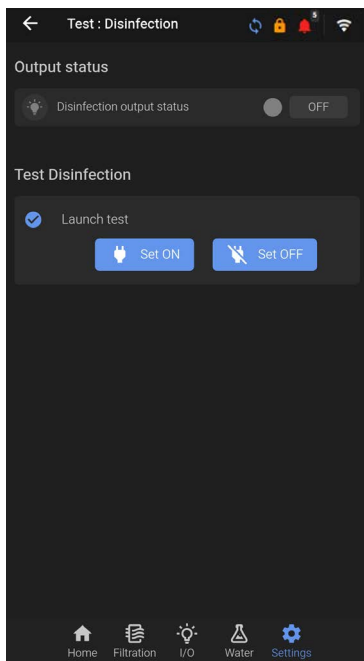
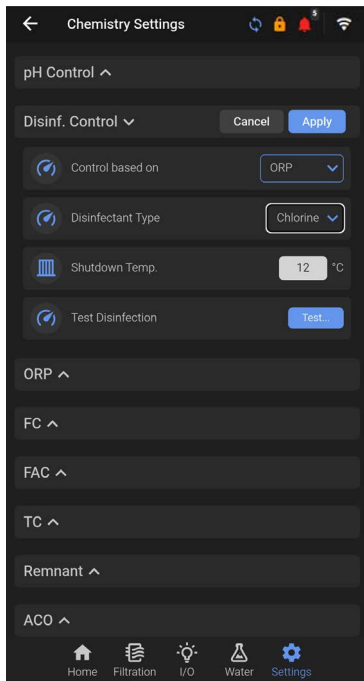


NOTE:

pH Temp Adjust will change the actual setpoint.
If code and regulation compliance is required, Temp Adjust is not recommended.

5 INSTALLING THE POOL EQUIPMENT

5.2.3 SETTING THE DISINFECTION CONTROL



- **CONTROL:**
Select the parameter that will regulate disinfection (only relevant if additional sensors are installed):
 - **None** – No disinfection control is active.
 - **ORP** – Control based on ORP measurements.
 - **FAC** – Control based on Free Available Chlorine measurements.
 - **FC** – Control based on Free Chlorine measurements.
 - **ORP+FAC** – Combined control based on ORP and FAC.
 - **ORP+FC** – Combined control based on ORP and FC.

- **Disinfectant Type:**
Select the disinfection method or system used:
 - Read Only
 - Chlorine
 - Salt
 - Bromine
 - ModBus Communicating Salt Systems :
DA-SPACE/Ocean – DA-GEN - Aquark

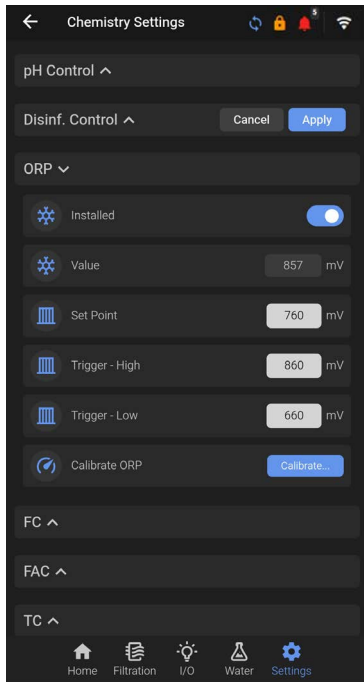
- **Water Temperature Limit for Disinfection:**
Define the temperature threshold below which disinfection will automatically stop.

When water temperature drops, certain disinfection devices (such as salt systems) may experience accelerated wear.

Since algae, viruses, and bacteria growth slows significantly in colder water, limiting disinfection operation in low temperatures helps extend equipment lifespan.

- **Test Disinfection:** Activates the disinfection system to verify proper operation and control functionality.

5 INSTALLING THE POOL EQUIPMENT



ORP SETTINGS:

- ORP Control installed
- **ORP Value:** Displays the most recent measured value.
- **Setpoint:** Defines the desired ORP value to maintain proper disinfection control.

Typical setpoints range from 650 to 760 mV.

The optimal value depends on the chosen water treatment method and the characteristics of the refill water.

- **Trigger Low/High:** Defines the alert thresholds that generate notifications when ORP levels fall outside the acceptable range.
- **Calibrate ORP:** Refer to the Maintenance section (6.2.4) for calibration procedures.

5.2.4 ADDITIONAL SENSORS - INSTALLATION AND SETTINGS

FREE AVAILABLE CHLORINE SENSOR

The free available chlorine sensor is connected to the PoolCop via a MODBUS connection and measures the free available chlorine level in the water sample circulating through the sampling chamber. The free available chlorine value, reported in ppm, is displayed in the WATER QUALITY PARAMETERS SHORTCUT MENU. Low and High alerts can be configured. For detailed installation, configuration and operating instructions, refer to the **Free Available Chlorine Sensor Installer and User Manual**.



MODBUS WIRING REMINDER:

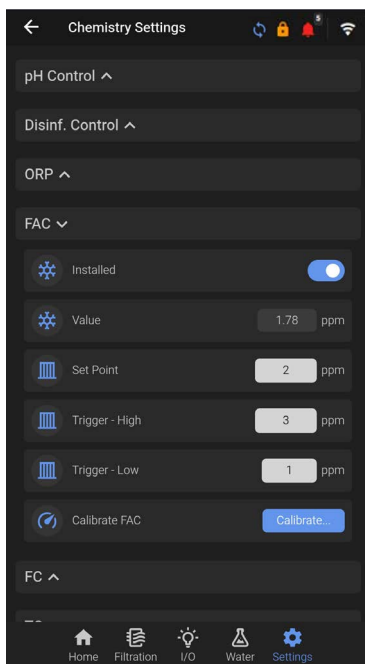
Devices do not have a predefined order, but each one must be connected to the first available MODBUS connector in sequence (first device → Modbus 1, second device → Modbus 2, etc.), without leaving any gaps in the MODBUS chain.

IMPORTANT: To ensure MODBUS continuity, always fit the previous connector with bridges between terminals A–A and B–B.

IMPORTANT REMINDER: If the FAC sensor is the only device communicating over Modbus, MODBUS 1 must be used. If other devices are already installed, the **last** available Modbus connector must be used.

Refer to PoolCop Modbus, section 2.3.7.

5 INSTALLING THE POOL EQUIPMENT



Once declared as installed, the FAC settings menu displays the current readings and allows the user to define:

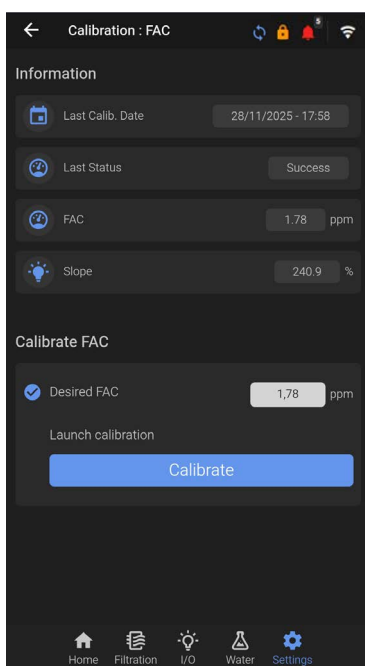
- The desired **setpoint**
- The **high and low boundary** values that will trigger alerts
- FAC sensor **calibration**



NOTE:

If **FAC** is selected as the control parameter (see Disinfection Control), ORP measurements are not used for disinfection regulation.

If control is set to **FAC + ORP**, both parameters contribute to disinfection regulation.



The **calibration of the FAC sensor** is required on installation and at regular intervals (**refer to the FAC Sensor Manual for more information and guidance**).

The calibration slope is calculated by entering the current free chlorine value measured from a **sample taken at the inline sample port** and starting a calibration.



NOTE:

The previous calibration results and details are displayed for reference.

5 INSTALLING THE POOL EQUIPMENT

5.3 SETTING UP THE OPTIONAL EQUIPMENT

5.3.1 INPUTS

Various types of sensors and devices can be connected to enhance functionality and enable alert triggers.

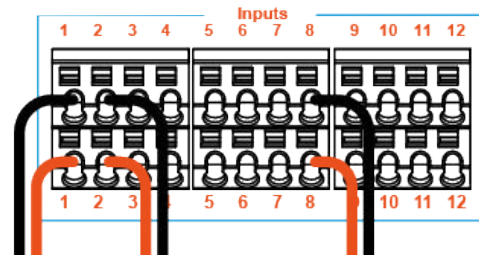
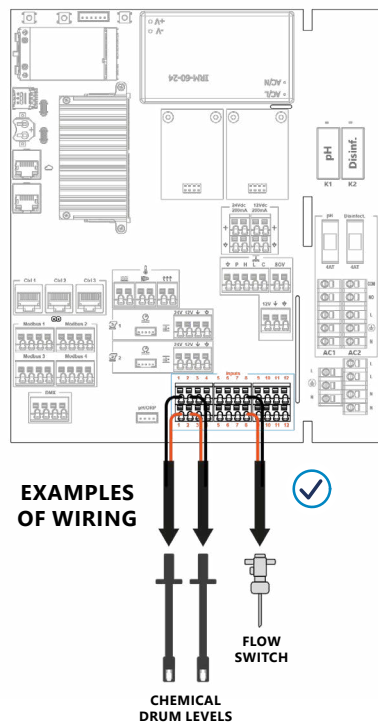
Inputs can be assigned to predefined functions with two modes of operation:

- **Direct action:** Activates the assigned function when the contact is closed.
- **Reverse action:** Activates the assigned function when the contact is open.

All input connections must utilize potential-free contacts.

The role and direction of action is configured in the settings menu (page 90).

INPUTS WIRING



NOTES:

- Ensure the PoolCop unit is switched **OFF**.
- Inputs can be wired in any available connectors using a flat-head screwdriver with a maximum 3 mm tip.
- Route the wire through the adapted entry plate.
- If necessary, the wires can be extended.
- Switch the PoolCop unit **ON**.

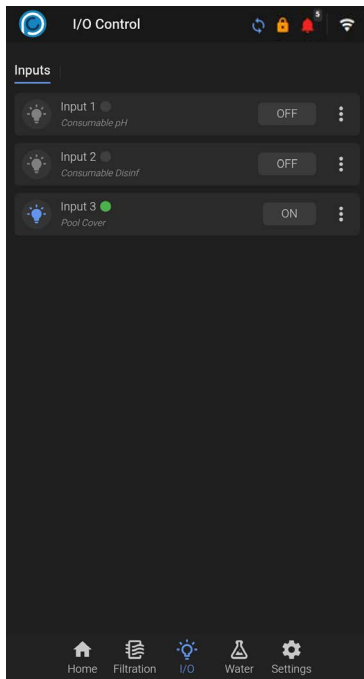
5 INSTALLING THE POOL EQUIPMENT

INPUT DESCRIPTIONS

INPUT TYPE	DELAY BEFORE TRIGGER	INPUT ROLE
NOT USED		Default. The input is in active
ANTI-FREEZE	5 seconds	Connects to an external antifreeze thermostat for freeze protection. When triggered, and if enabled in the POOL DATA menu, filtration is started and an alert is generated.
CONSUMABLE pH	5 seconds	Connects to a low-level detector (e.g., float switch on a suction wand) for pH control chemicals. Triggers a dedicated alert when low level is detected.
CONSUMABLE DISINFECTION	5 seconds	Connects to a low-level detector for disinfection chemicals. Triggers a dedicated alert when low level is detected.
CONSUMABLE OTHERS	5 seconds	Connects to a low-level detector for other consumables (not pH, Disinfection, ACO, or Flocculant). Triggers a dedicated alert when low level is detected.
POOL COVER	2 seconds	Triggers an alert if not fully closed .
SALT SYSTEM ALERT	60 seconds	With compatible saltwater chlorine generators, the LOW SALT or SHUTDOWN status will trigger an alert: "Salt System: Intervention Required". Note: Not required for Ocean/DA-Gen/DA SPACE/Aquark, which use Modbus communication for status.
FLOW SWITCH 1	2 seconds	Monitors flow on pump 1. In the case of no flow detection, stops pH/disinfectant injection and auxiliaries slaved to the pump. Injection resumes with the return of flow; disinfectant dosing resumes with a 10-minute delay.
FLOW SWITCH 2	2 seconds	Monitors flow on pump 2. In the case of no flow detection, auxiliaries declared slaved to pump 2 will be stopped. Normal situation will resume automatically with the return of flow.
FLOOD	2 seconds	Detects water presence (e.g., in the pump house) and sends an alert.
LOW FLOW IN ANALYSIS CHAMBER	90 seconds	Monitors the flow indicator position in the Free Available Chlorine (FAC) flow cell and alerts if the correct position is lost.
CONSUMABLE ACO	5 seconds	Specifically for ACO (oxidant) dosing. The low-level detector (typically a float switch on a suction wand) triggers an alert when low level is detected.
CONSUMABLE FLOCCULANT	5 seconds	Specifically for Flocculant dosing. The low-level detector (typically a float switch on a suction wand) triggers an alert when low level is detected.
ELECTROLYSIS FLOW SWITCH	2 seconds	In chlorinator bypass circuits, stops chlorine production if flow is not detected.

5 INSTALLING THE POOL EQUIPMENT

INPUT SETTINGS



Select the **INPUT function** from the INPUT DESCRIPTION list.

Determine the **sense of action** :

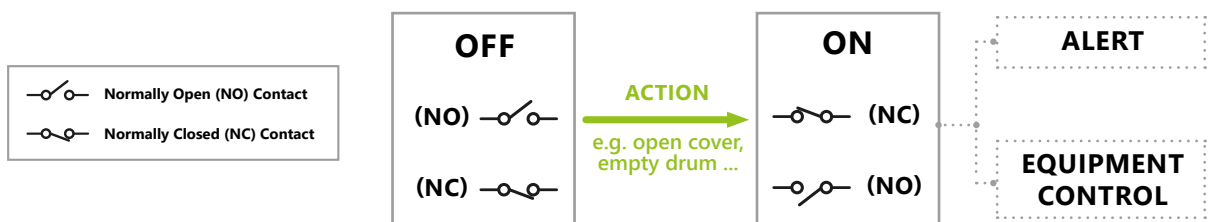
- Steady Close
- Steady Open

Choose whether an **alarm** should be triggered to alert to the situation.

SENSE OF ACTION

When an input status changes from OFF to ON, such as when a sensor detects an event (e.g., an open cover or an empty drum), the contacts change state: the Normally Open (NO) contact closes, and the Normally Closed (NC) contact opens. This change of status will either emit an alert, if alert notifications are configured, or it will trigger control of auxiliary equipment.

INPUT SENSING AND STATUS



5.3.2 INSTALLING 1 or 2 FLOW DETECTION SENSOR(S)

A water circulation sensor can be installed to prevent chemicals from being injected when there is no flow at the injection points, where required. The water circulation sensor must be installed in the return line to the pool, upstream of the chemical injection points.


Whenever no flow is detected, pH injection and disinfection are inhibited, and any auxiliaries linked to the filtration pump are stopped. All these functions will restart automatically as soon as water circulation is re-established.

5 INSTALLING THE POOL EQUIPMENT

The installer must ensure that the sensor reacts correctly in the following situations:

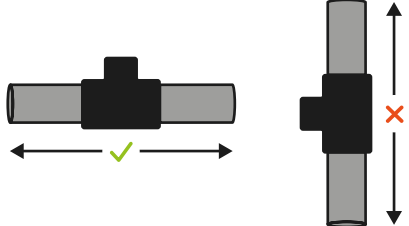
- Loss of priming (no flow, no pressure).
- Pipe blockage (no flow, normal or high pressure).

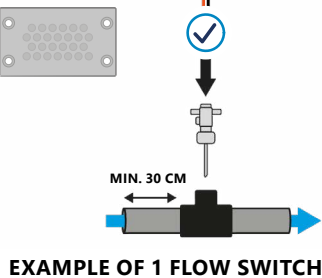
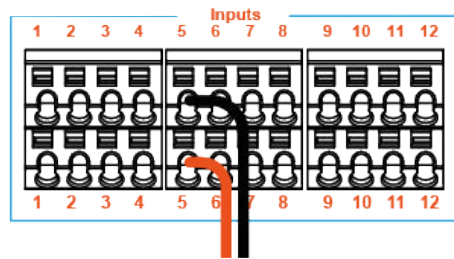
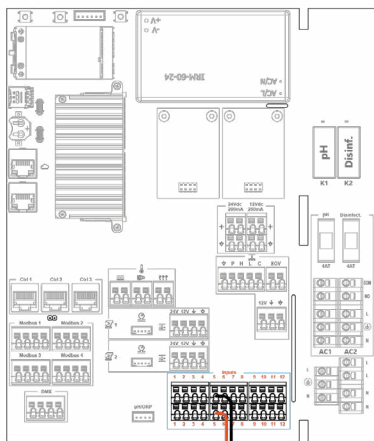
The sensor provides a Normally Open potential-free contact, which closes when flow is detected.



WARNING:

The flow switch must be installed on a horizontal pipe section.
Never install it in a vertical position.

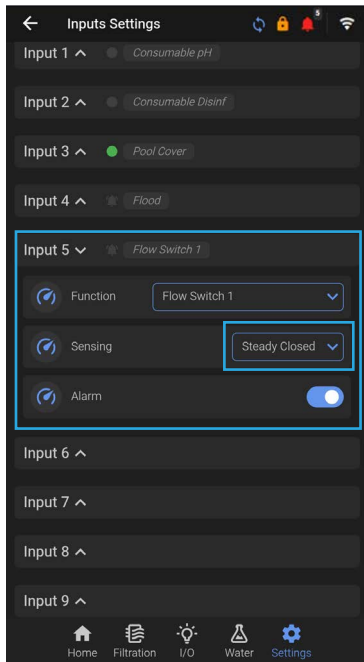




NOTES:

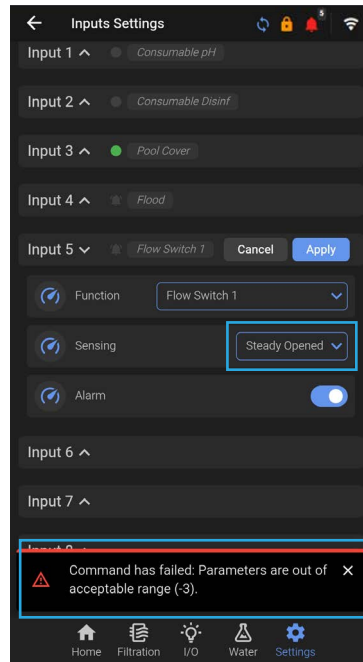
- Ensure the PoolCop unit is switched **OFF**.
- Inputs can be wired in any available connectors.
- Route the wire through the adapted entry plate.
- Extendable cable
- Flow Switch 1 relates to the PRIMARY filtration pump, and Flow Switch 2 relates to the SECONDARY filtration pump.
- Switch the PoolCop unit **ON**.

5 INSTALLING THE POOL EQUIPMENT



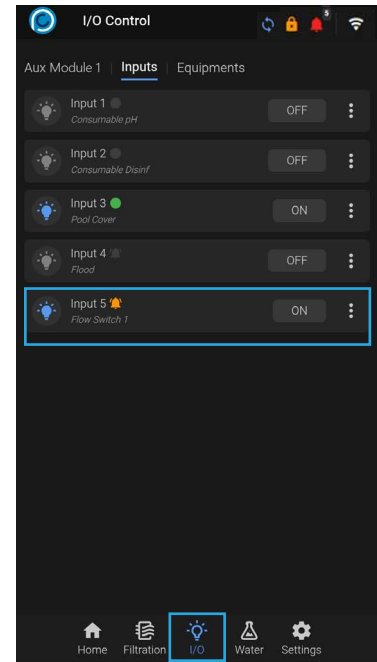
Once the correct input has been declared as dedicated to **Flow Switch (1 or 2)**, select **Steady Closed** in the sensing configuration.

An alarm can be set if necessary.



NOTE: When an input is configured as Flow Switch, the **only** valid sensing mode is Steady Close.

If Steady Open is selected, the App will display an error message when applying the settings.



Testing the flow switch installation:

- Turn the pump ON via the Filtration shortcut menu and check that the input status is ON in the I/O shortcut menu.
- The status must be OFF when the pump is OFF.

5.3.3 ENERGY METER

The energy meter is connected to one of the four MODBUS connectors and measures the power consumption of all connected equipment, sending the data to the PoolCop Cloud for storage, analysis and display.

For detailed installation, configuration and operating instructions, refer to the Energy Meter IoT Guide.



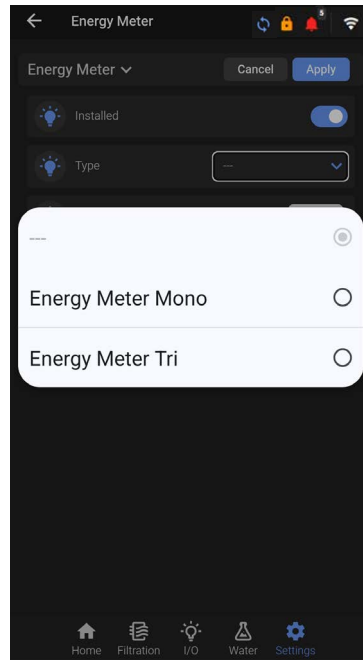
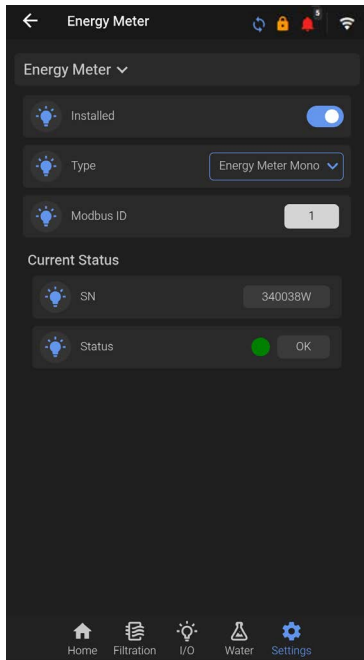
MODBUS WIRING REMINDER:

Devices do not have a predefined order, but each one must be connected to the first available MODBUS connector in sequence (first device → Modbus 1, second device → Modbus 2, etc.), without leaving any gaps in the MODBUS chain.

IMPORTANT: To ensure MODBUS continuity, always fit the previous connector with bridges between terminals A–A and B–B.

Refer to PoolCop Modbus, section 2.3.7.

5 INSTALLING THE POOL EQUIPMENT



Once the energy meter is declared as installed in the Equipment menu, select whether the energy meter is single-phase (Mono) or multi-phase (Tri).

The current status indicates whether ModBus communication is established and displays the serial number reported by the energy meter.

6 MAINTENANCE & CALIBRATION

6 MAINTENANCE AND CALIBRATION

- Service Mode
- Sensor Calibration
- Troubleshooting

6.1 SERVICE MODE



WARNING:

When switching PoolCop Core to SERVICE MODE all automatic tasks will be stopped.

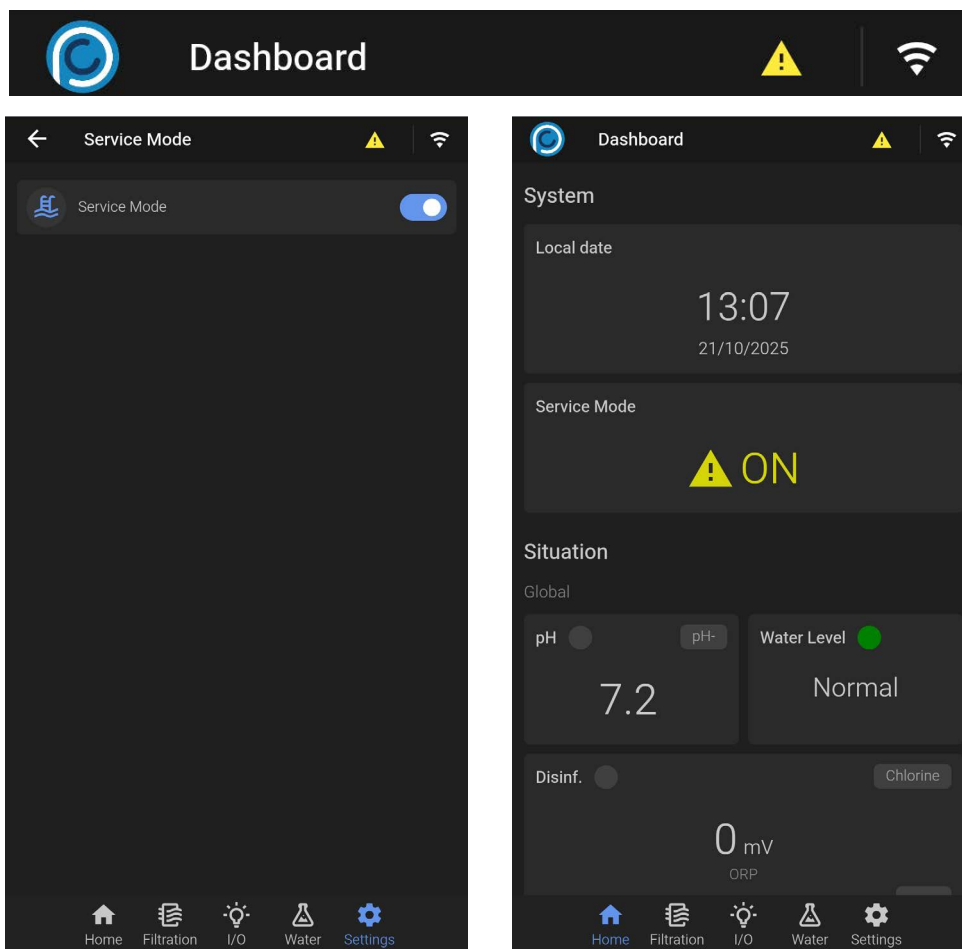
When activated, all connected devices (such as pumps, auxiliaries, and water refill systems) are stopped.

PoolCop Core will only accept and respond to manual commands during this mode.

This mode is ideally suited for maintenance activities.

Normal operation will resume only after exiting Service Mode.

A warning symbol is continuously displayed within the app to indicate Service Mode is active, and the Local WIFI Connection button will **light up in purple** if no device is connected to the Local App.

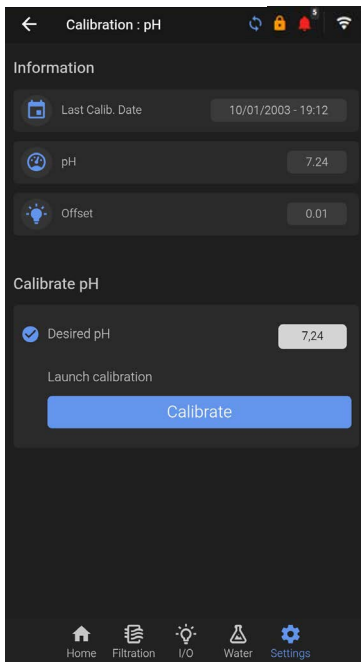


6 MAINTENANCE & CALIBRATION

6.2 SENSOR CALIBRATION

While each sensor can be calibrated individually from its respective Settings menu, a dedicated section is available in the Maintenance menu to provide direct access to the calibration of all sensors declared as installed.

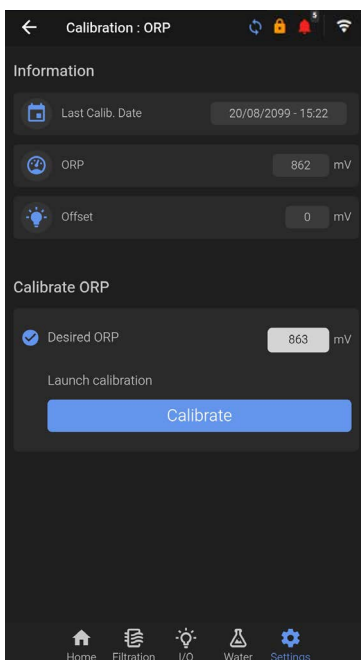
6.2.1 pH



The pH calibration page displays the last calibration date, the current measured value and the offset applied from previous calibrations.

If necessary, the value displayed and used by pH-related settings can be adjusted by entering the desired value and starting a calibration, after which PoolCop automatically recalculates the offset.

6.2.2 ORP

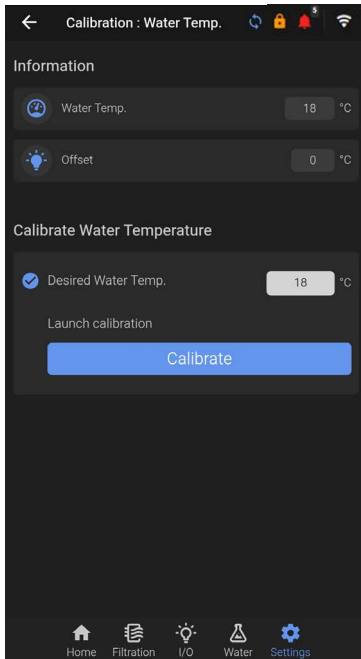


The ORP calibration page displays the last calibration date, the current measured value and the offset applied from previous calibrations.

If necessary, the value displayed and used by ORP-related settings can be adjusted by entering the desired value and starting a calibration, and PoolCop automatically recalculates the offset.

6 MAINTENANCE & CALIBRATION

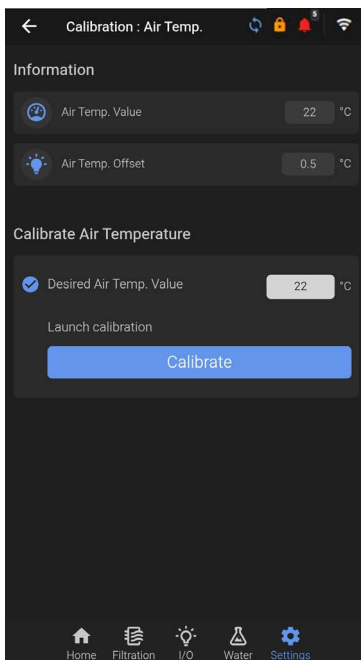
6.2.3 WATER TEMPERATURE



The water temperature calibration page displays the current measured value and the offset applied from previous calibrations.

If necessary, the value displayed and used by water-temperature-related settings can be adjusted by entering the desired value and starting a calibration, and PoolCop automatically recalculates the offset.

6.2.4 AIR TEMPERATURE



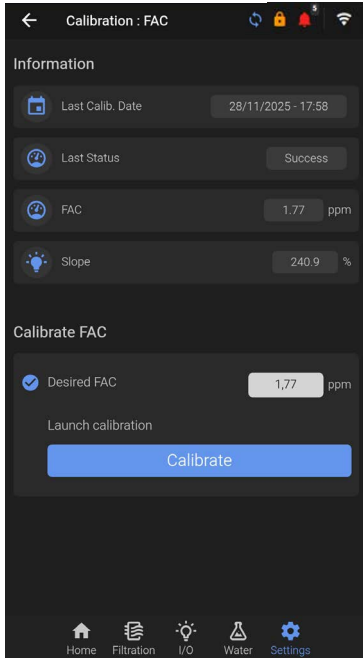
The air temperature calibration page displays the current measured value and the offset applied from previous calibrations.

If necessary, the value displayed and used by air-temperature-related settings can be adjusted by entering the desired value and starting a calibration, and PoolCop automatically recalculates the offset.

6 MAINTENANCE & CALIBRATION

6.2.5 OTHER SENSORS (FAC / FC / TC / CONDUCTIVITY)

FREE AVAILABLE CHLORINE

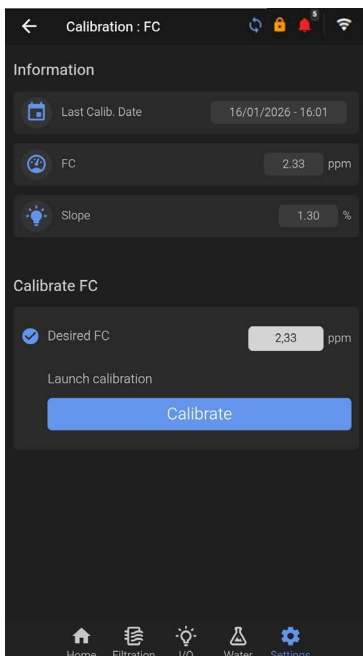


The FAC calibration page displays the last calibration date and its status, indicating whether the calibration was successful, as well as the current measured value and the slope applied from previous calibrations (refer to the FAC Installer Manual for detailed guidance).

FAC sensor calibration is mandatory on installation.

If necessary, the calibration slope can be recalculated by entering the desired value and starting a calibration.

FREE CHLORINE

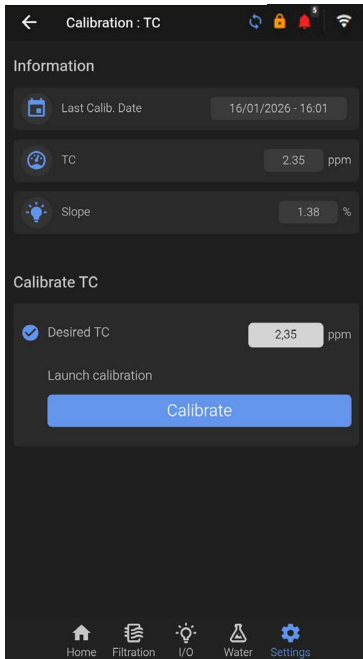


The free chlorine calibration page displays the last calibration date, the current measured value and the slope applied from previous calibrations.

If required, the displayed value can be adjusted by entering the desired value and starting a calibration, and PoolCOP automatically recalculates the slope.

6 MAINTENANCE & CALIBRATION

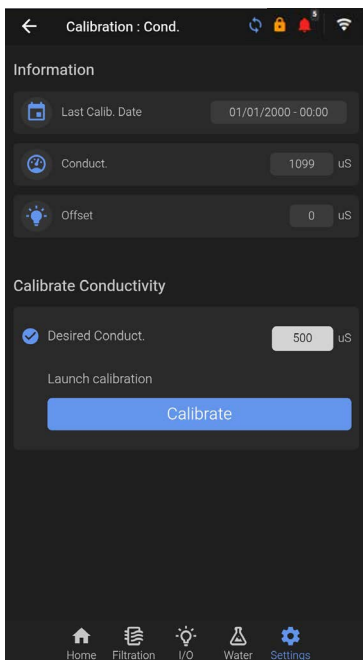
TOTAL CHLORINE



The total chlorine calibration page displays the last calibration date, the current measured value and the slope applied from previous calibrations.

If required, the displayed value can be adjusted by entering the desired value and starting a calibration, and PoolCop automatically recalculates the slope.

CONDUCTIVITY



The conductivity calibration page displays the last calibration date, the current measured value and the offset applied from previous calibrations.

If required, the displayed value can be adjusted by entering the desired value and starting a calibration, and PoolCop automatically recalculates the offset.

7 INTERNET & CLOUD CONNECTION

7 INTERNET & CLOUD CONNECTION

- Cloud Connection
- Client Wifi
- PoolCop Apps

In order to gain real time insight into the pool data and remote access to your PoolCop it must be connected to our Apps via the internet.

PoolCop Core can be connected via:



RJ45 Ethernet Cable



WiFi



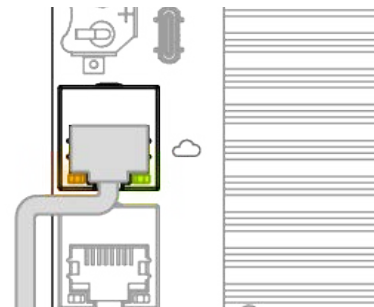
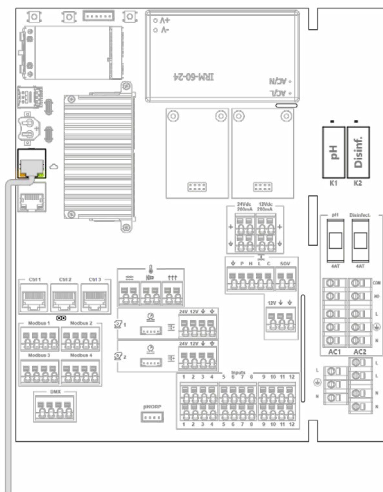
Cellular Router
(optional pre-installed router)



NOTE:

PoolCop Core automatically switches between available network connections. If all connection options are available, PoolCop Core will select the most stable and secure access via **Ethernet**.

If the Ethernet connection is not available the unit will revert to **WiFi**, and if that fails it will use the **Cellular Router** connection (if installed).

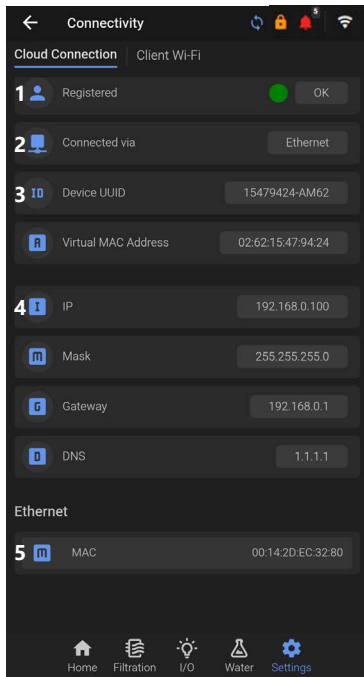


NOTES:

When the Ethernet cable is connected the orange and green lights show the connection is active

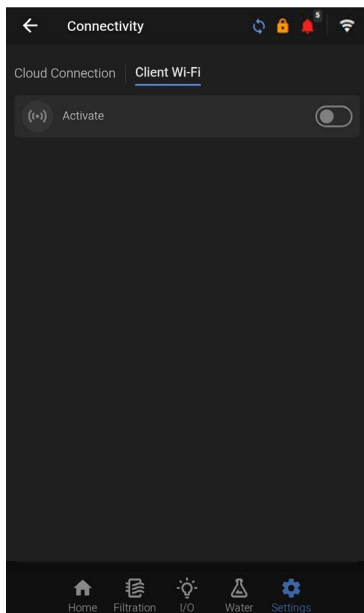
7 INTERNET & CLOUD CONNECTION

7.1 CLOUD CONNECTION

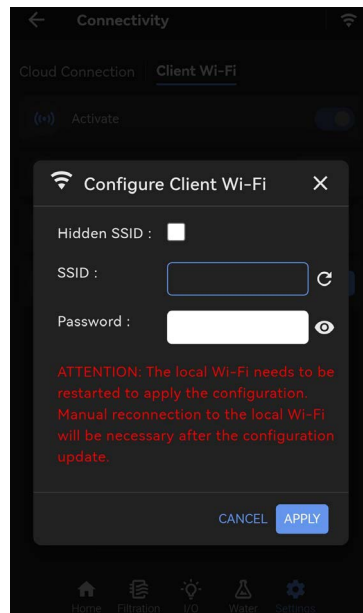


1. **Registration** on the Cloud / App access
 2. **Current connection method**
 3. **Device UUID & Virtual MAC Address** are unique identifiers of your PoolCop. These are required to link the PoolCop to a pool created in one of our Apps.
 4. Internet connection information:
IP: IP address of the PoolCop on the local network
Mask: Subnet mask
Gateway: IP address of the gateway (router) on the local network
DNS: IP address of the Domain Name Server
- Information on current connection:
5. **Ethernet:** MAC Address
Wi-Fi: SSID, Quality of the signal and MAC Address
4G: MAC Address, Network Operator, Status Connection type, Received Signal Strength Indicator, Country and Area codes

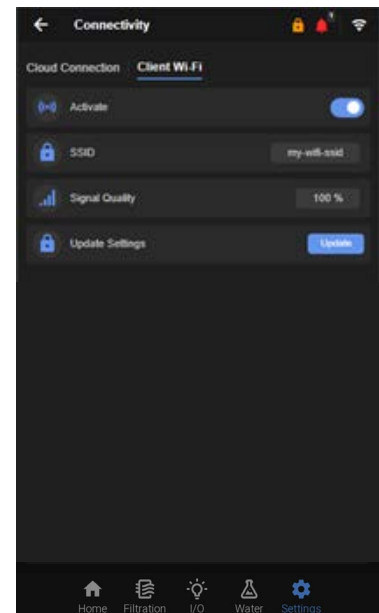
7.2 CLIENT WIFI CONNECTION



If the Client WiFi is available, activate the option via the toggle



Select the correct WiFi Network (SSID) and enter the corresponding password. The local Wi-Fi needs to be restarted to apply the configuration.



Once activated, Network information such as the SSID and the Signal Quality will be displayed. Updating enables to select a different WiFi network

7 INTERNET & CLOUD CONNECTION

7.3 POOLCOP APPS

Once the PoolCop is connected, download ProPoolCop (Pro interface) or MyPoolCop (End User interface) and register the PoolCop using its Virtual MAC address or UUID.

A QR code is available on the inside of the unit box to download the apps. Both Apps are also available for download on any device:

MYPOOLCOP



[APP STORE](#)

[GOOGLE PLAY](#)

PROPOOLCOP



[APP STORE](#)

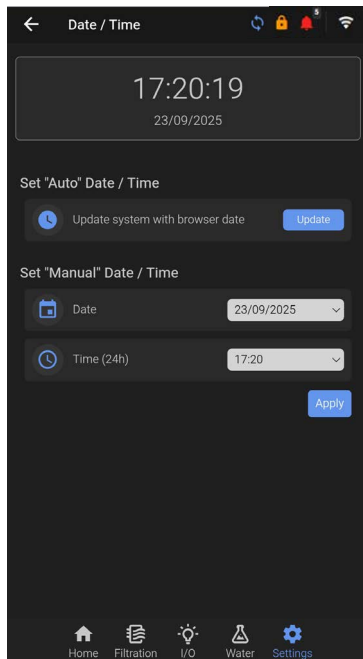
[GOOGLE PLAY](#)

8 SYSTEM INFORMATION & UPDATES

8 SYSTEM INFORMATION & UPDATES

- Date & time
- About system

8.1 DATE & TIME

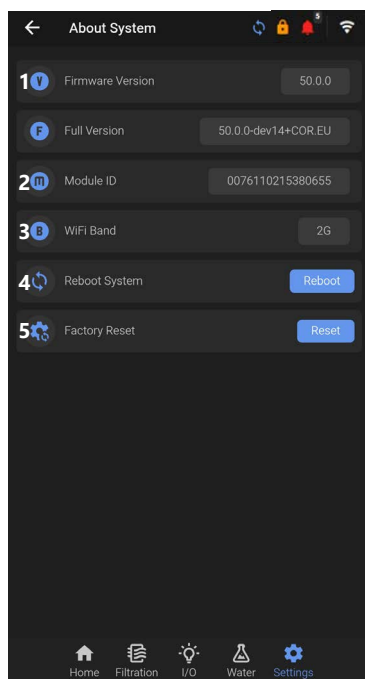


During the initial installation, the date and time can be set manually, or use the «Update System with Browser Date» at first connexion.

When connected to the cloud, the date and time will automatically update weekly at 3:00 AM to ensure the system is synchronized.

If you notice discrepancies, you can retrieve the correct date and time from the internet or adjust them manually as needed. Accurate settings are essential for proper operation of filtration cycles, timers, and scheduled auxiliary functions.

8.2 ABOUT SYSTEM



1. **Firmware** will automatically update if connection to the internet is available. The firmware version will determine the available options / features of your device.
2. **Module ID** might be requested for Aftersales or Technical support requests
3. **WiFi Band:** 2GHz or 5GHz.
4. **Reboot System.**
5. **Restore Factory Settings.**
 - ⚠️ All previous configurations and settings will be lost.

9 TECHNICAL SPECIFICATIONS

9 TECHNICAL SPECIFICATIONS

- PoolCop Unit
- Technical Specifications
- Exploded View
- Spare Parts

9.1 POOLCOP UNIT



PoolCop Core is your entry point to precision pool management. Delivering real-time data and automated disinfection, Core provides actionable insights for healthier water and smarter maintenance—while leaving equipment control in the hands of the professional. Perfect for those who want to start with data and grow into full automation when ready.

9

TECHNICAL SPECIFICATIONS

9.2 TECHNICAL SPECIFICATIONS

9.2.1 POOLCOP Core

COMPONENTS	
PoolCop Core Unit	1
Pressure Sensor	1
Water Temperature Sensor	1
Air Temperature Sensor	1
Flow Cell with pH/ORP Sensor housing	1
Installer and User Guide	1 (to download online)
TECHNICAL SPECIFICATIONS	
Unit Dimensions	270 x 320 X 110 (LxHxP) - 2.4 KG
Power Supply	110 -250 V.a.c. 50Hz-60Hz 10A
Power Supply Fluctuations	+/- 10%
Overvoltage Category	II
Pollution Degree	2
Usage	Indoor
Service Temperature	-5°C - 45°C (23°F - 113°F)
Altitude	2000m
Relative Humidity	80% up to 31°C, linear decrease down to 50% at 45°C
Mains Fuses	10A
Powered Relay Fuses	4A
Communication Ports (ModBus & DMX)	RS485
Water Temperature Sensor - Accuracy	$\Delta T = +1^{\circ}\text{C}$ ($\Delta T = +3.5^{\circ}\text{F}$)
Water Temperature Sensor - Range	0 - 60° (32°F - 140°F)
Water Temperature Sensor Cable	4.5m (14.8 ft)
Air Temperature Sensor - Range	-30°C - 65°C (-22°F - 149°F)
Air Temperature Sensor - Accuracy	$\Delta T = +2^{\circ}\text{C}$ ($\Delta T = +3.5^{\circ}\text{F}$)
Air Temperature Sensor Cable	4.5m (14.8 ft)
Pressure	-0.9 - 2.50 Bars (-13 - 36 psi)
PoolCop Core Unit Protection	IP54

9

TECHNICAL SPECIFICATIONS

9.2.2 pH+ORP SENSOR

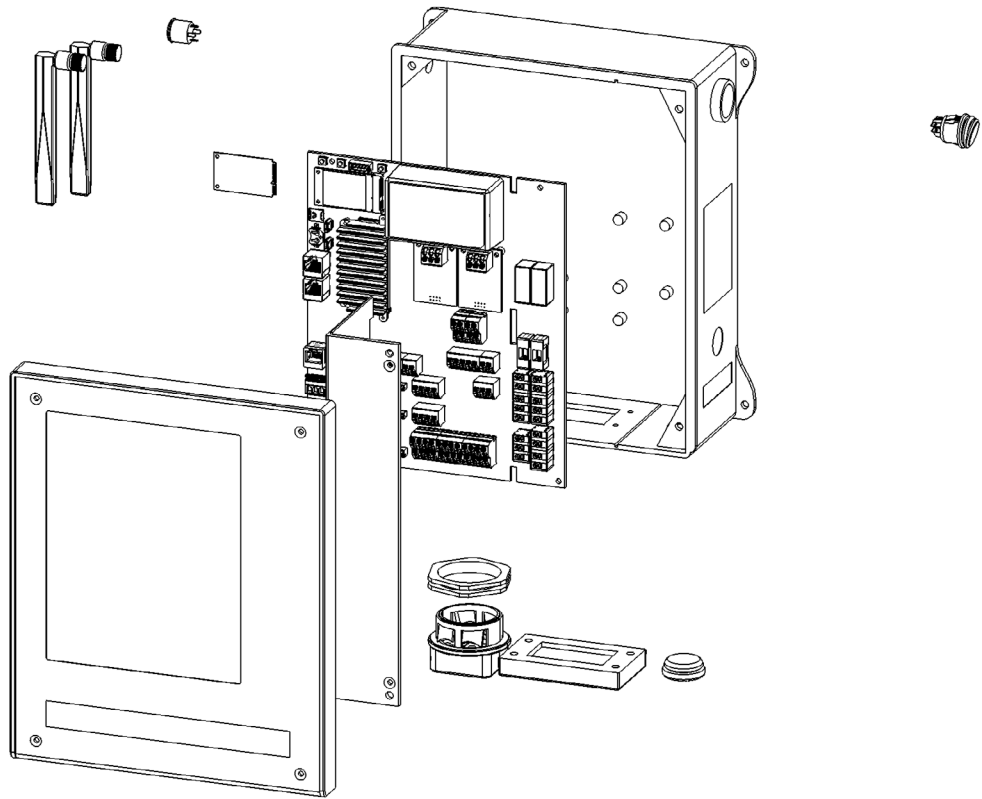
	Chlorine - Pt 530017	Salt - Au 530018
COMPONENTS		
pH+ORP Sensor - Pt or Au	1	
Transport Cap	1	
Retaining Cap	1	
Grip Washer	1	
Compression Ring	1	
O-Ring	1	
TECHNICAL SPECIFICATIONS		
Sensor Dimensions	Diameter : 12 mm (0.47 in) - Length : 14 cm (5.5 in)	
Cable	4 Strands, 4m (13 ft)	
Connector	JSTXHP - 4	
pH Range (Accuracy)	4 to 12 (+/- 0.05)	
ORP Sensor Type	Platinum (Pt)	Gold (Au)
ORP Range (Accuracy)	0 to 999 mV (+/- 5mV)	

9.2.3 WATER LEVEL CONTROL

	Skimmer / Waterline	Buffer Tank
COMPONENTS		
Water Level Sensor(s)	1	4
Solenoid Valve		1
PVC Saddles 50mm		1
PVC Saddles 63mm		1
90° PVC Connector (20mm to 20mm)		1
Straight PVC Connector 20mm		2
Non-Return Valve, brass		1
Stop Valve 15mm		1
Reducing connector (20mm to 15mm)		1
TECHNICAL SPECIFICATIONS		
Output Sensor	5VDC	
Output Valve	24 V.a.c.	
Service Pressure	3.5 Bars (50.7 psi)	
Cable Length	20m (65.6 ft)	6m (19.7 ft)
Sensor Dimensions (HxWxD)	70 x 45x 15 mm (2.76 x 1.77 x 0.59 in)	40 x 25 x 25 mm (1.58 x 0.98 x 0.98 in)

9 TECHNICAL SPECIFICATIONS

9.3 EXPLODED VIEW



10 COMPLIANCE & WARRANTY

10 COMPLIANCE & CONFORMITY

10.1 CE CONFORMITY

EU DECLARATION OF CONFORMITY



Equipment: PoolCop
Model Name: PoolCop Core
Manufacturer: **PCFR SAS,**
 La Remise,
 130 boulevard du Nord,
 84160 Cucuron (FRANCE)

We guarantee and declare under our sole responsibility that the above referenced equipment meets the requirements of the following European directives and harmonized standards:

DIRECTIVES	TITLES	HARMONIZED STANDARDS
2014/35/EU	Low Voltage Directive	EN 61010-1:2010+A1:2019 EN IEC 62368-1:2020+A11:202 EN 60730-1:2016+A1:2019+A2:2022
2014/30/EU	EMC Directive	EN 55032:2015+A1:2020 EN 55035:2017+A11:2020 IEC 61000-3-2:2019+A2:2024 IEC 61000-3-3:2013+A2:2021+AC:2022-01 IEC 61000-4-2:2008 (EN 55035:2017+A11:2020) IEC 61000-4-3:2006+A1:2007+A2:2010 (EN 55035:2017+A11:2020) IEC 61000-4-4:2012 (EN 55035:2017+A11:2020) IEC 61000-4-5:2014 (EN 55035:2017+A11:2020) IEC 61000-4-6:2008 (EN 55035:2017+A11:2020) IEC 61000-4-8:2010 (EN 55035:2017+A11:2020) IEC 61000-4-11:2004 (EN 55035:2017+A11:2020)
2011/65/EU 2015/863/EU 2018/739/EU	Hazardous Substances (RoHS)	EN IEC 63000:2018
2014/53/EU (EU) 2022/30	Radio Equipment Directive and Delegated Act (RED-DA)	RED Article 3.1(a) - Safety EN IEC 62368-1:2020+A11:2020 RED Article 3.1(a) - Health EN IEC 62311:2020 EN 50665:2017 RED Article 3.1(b) - EMC EN 301 489-1 V2.2.3 EN 301 489-3 V2.3.2 EN 301 489-17 V3.3.1 EN 301 489-52 V1.3.1 RED Article 3.2 - Radio EN 301 511 V12.5.1 EN 300 328 V2.2.2 EN 301 893 V2.2.1 EN 301 908-1 V15.2.1 EN 301 908-2 V13.1.1 TS 134 121-1 V16.2.0 EN 301 908-13 V13.3.1 TS 136 521-1 V18.5.0 EN 300 440 V2.2.1*

10 COMPLIANCE & WARRANTY

2014/53/EU (EU) 2022/30 (cont.)	Radio Equipment Directive and Delegated Act (RED-DA) (cont.)	Others EN 18031-1:2024
(EU) 2020/1828 (EU) 2024/2847	Cybersecurity Cybersecurity Resilience Act (CRA) Resilience Act	EN 303 645 V3.1.3*

* Note: Harmonized Standards not yet cited in OJ (Official Journal of the European Union).

Sébastien Ettling Coëffier
General Manager



Cucuron, 03/03/2026



10.2 POOLCOP WARRANTY

Before using the product, we recommend that you carefully read the user manual in which you will find all the usual precautions.

This warranty applies only if the defective product is presented within the warranty period, accompanied by the original invoice or receipt (clearly indicating the purchase date, the model of the device and the reseller's name). PCFR reserves the right to refuse warranty service if these documents are not presented or if they are incomplete or illegible. The warranty will not apply if the model name or serial number on the product has been altered, wiped out, deleted, torn, perforated or made illegible.

The warranty is valid for 2 (two) years from the date of delivery (see Conditions). This warranty does not cover consumables or parts with limited lifespan. The warranty is automatically invalidated if the customer does not notify PCFR of the latent defect or the alleged non-compliance within 20 (twenty) days from its discovery. The customer is responsible for proving the date of the discovery. PCFR is only obliged to repair or replace, free of charge, defective or nonconforming parts, at its discretion, and without the customer being entitled to obtain damages for any cause whatsoever. Original spare parts are available from PCFR. The use of other than genuine parts voids the warranty.

TERMS

- This product is covered by a limited warranty of 2 (two) years, excluding consumables or parts with limited warranty (see below).
- The warranty start date is defined as follows
 - the billing date of the first-level distributor to the first client.
- If the product is not installed by the installer or an authorized reseller, the warranty is limited to 90 days.
- PoolCOP provides no warranties (express, implied, statutory or otherwise) for the product, the product software or the software accompanying the product, regarding the accuracy of the information provided or suitability for a particular purpose.
- Consumables and parts with limited warranty:
 - The pH or pH+ORP sensor is guaranteed for 2 (two) years from date of commissioning.

THE WARRANTY DOES NOT COVER

Defects and deterioration of products due to abnormal conditions of storage, especially in case of an accident of any kind whatsoever, will void the product warranty. The warranty applies

10 COMPLIANCE & WARRANTY

only to products that have become the property of the buyer. It applies only to products wholly distributed by PCFR. The warranty is automatically voided should the products be used under conditions for which they were not designed. A design flaw is not a latent defect and customers of PCFR are deemed to have received all the technical information on products sold. PoolCop does not cover damage resulting from wear requiring an adaptation or a special assembly, abnormal or not, of the product unless it was conducted under PCFR's supervision.

Viral infections or the use of the product with software not supplied, or software incorrectly installed.

Neglect.

A loss of water tightness of the PoolCop Core unit following an assembly error, installation error or a lack of attention on a sealing element or its installation (sensors, electrodes, O-rings, hoses, clamps, etc.).

Accidents, fire, liquids, chemicals other substances, flooding, vibrations, excessive heat, improper ventilation, power surges, excess or inadequate power supply, radiation, electrostatic discharge including lightning, other forces and external influences.

Transportation costs and the risks associated with product replacement or repair.

EXCLUSIONS AND LIMITATIONS

PoolCop is not responsible for the consequences of action taken in response to a displayed value. The results obtained by the product are not the responsibility of PCFR, whatever the causes and consequences. It is the user's responsibility to verify the displayed values and the proper functioning of the unit.

In the context of this warranty, the PCFR's sole obligation is to repair or replace products which meet the conditions of this warranty. PoolCop is not responsible for any loss or damage relating to products, to service, to this warranty or any other, including:

- Loss of use of the pool.
- Financial losses.
- Price paid for the product.
- Loss of profit revenue, data, enjoyment or use of the product or associated products.
- Loss or indirect loss or accidental damage.
- Any direct or any indirect prejudice linked to the unavailability of the product for whatever duration.

PoolCop

Always. Better. Blue.

INSTALLER & USER GUIDE



DATE: **March 2026**
PRODUCT: **PoolCop Core**
MANUAL: **CORE50EN**
FIRMWARE: **V50**



PCFRPoolCop

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