PoolCop

INSTALLER & USER GUIDE

PoolCop Infinity

INFINITY50EN - V50 - MARCH 2026

PoolCop Infinity

Update Listings

03/03/2026 1st Edition

PoolCop Infinity

Installer and User Guide

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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

- General
- Pre-Installation Preparation and Inspection
  - Pre-Installation Checklist
  - Functional Mapping
  - QR Codes
  - Box Content
  - Optional Accessories
- Installing the PoolCop Infinity Unit
  - Installation Specifications
  - Cable Entries
  - Electrical Voltage Separation
  - Electrical Connection
    - Installing the 4G Router Antennas
    - Powering Up the Unit
  - Cable Selection and Connection
  - PoolCop Infinity Relays
  - Modbus 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 Infinity 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)

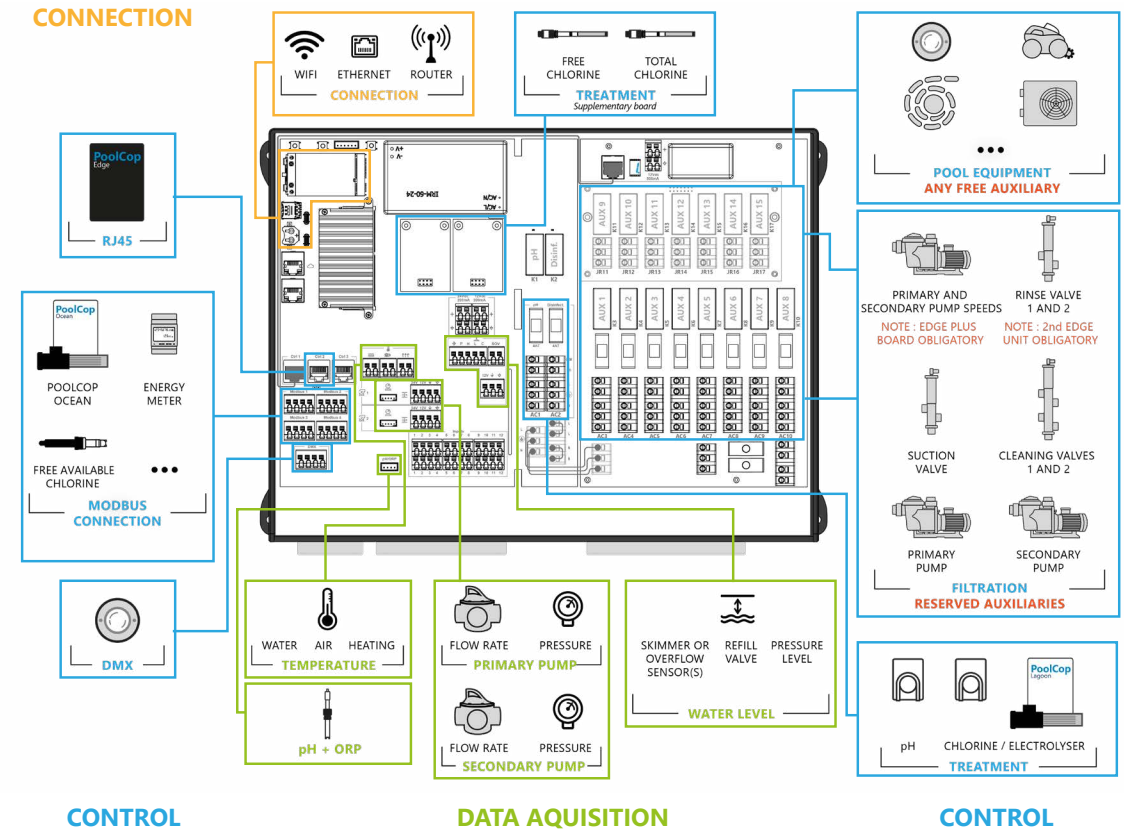
- □ Check the condition of the pool pump and motor.
- □ Inspect for leaks throughout the plumbing and filtration system.
- □ Ensure the filtration system's hydraulic coefficient is adequate.

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.

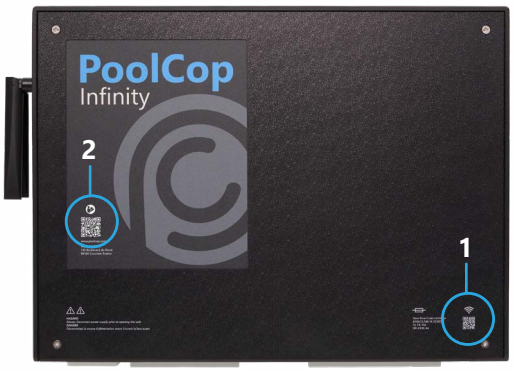
2 GENERAL INSTALLATION

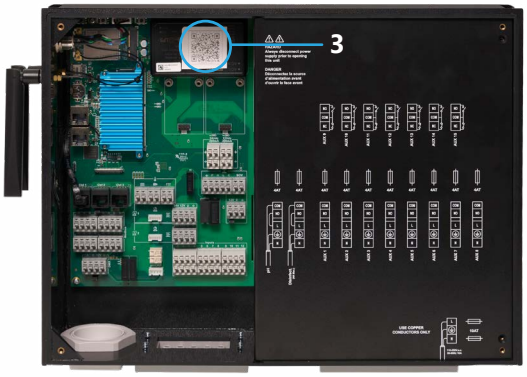
2.2.1 FUNCTIONAL MAPPING



2.2.2 QR CODES

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





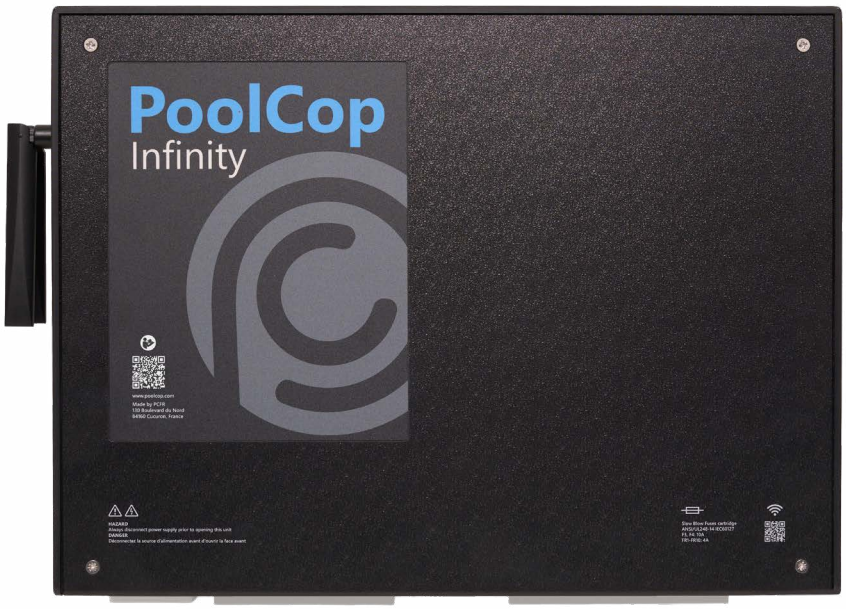
1: Printed directly on the unit, for direct access to the configuration user interface. See PoolCop Configurations, section 3.1

2: Printed on the front label, for direct access to the Installer & User Guide from the PoolCop downloads page.

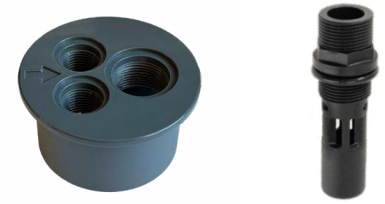
3: Located **inside** the unit, for direct access to the PoolCop's unique identification (MAC and UUID).
Scanning this QR code automatically opens a registration form to connect the PoolCop, and enable the owner to create his/her account in MyPoolCop

2 GENERAL INSTALLATION

2.2.3 BOX CONTENTS



POOLCOP INFINITY UNIT



Flow Cell Cap with Sensor Housings

4G Antennas

Water Pressure Sensor

Water Temperature Sensor

Air Temperature Sensor

2.2.4 OPTIONAL ACCESSORIES (sold separately)

Water Level Kit
Skimmer

Water Level Kit
Buffer Tank

pH+ORP Sensor
Chlorine

pH+ORP Sensor
Salt

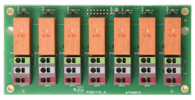
PoolCop Lagoon

Peristaltic Pump

Drum Level Sensor
with Suction Wand

Weighted Drum
Level Sensor

PoolCop Edge



PoolCop Edge Plus
extension board

Besgo 5 Way Valve

Besgo 3 Way Valve

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 INFINITY 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 Infinity 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

1

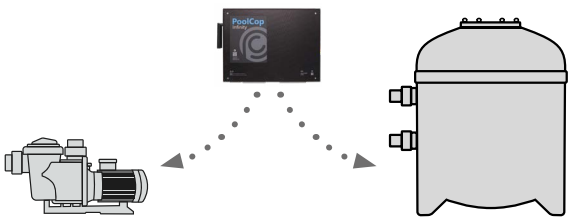
The unit must be installed horizontally, level and securely.

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

2

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).

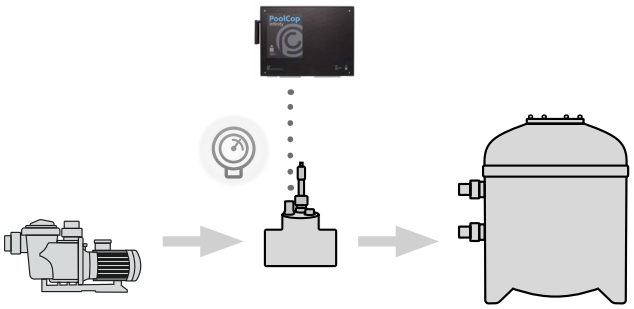
3



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

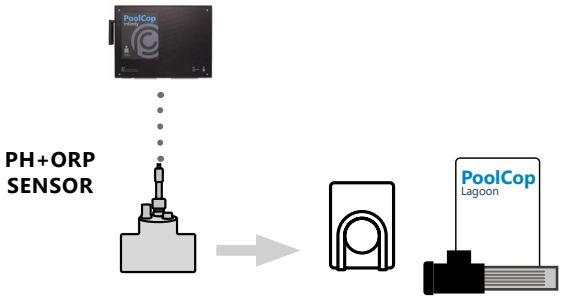
2 GENERAL INSTALLATION

4



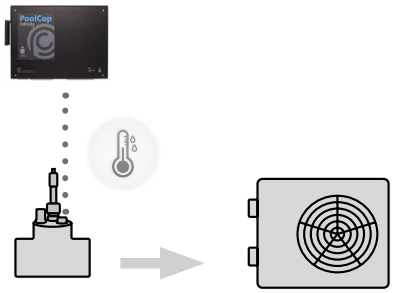
The water pressure sensor must be located between the pump and the filter for **pressure and vacuum filtration** systems.

5



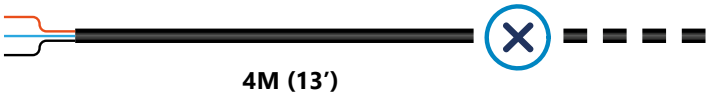
The pH+ORP sensor must be installed prior to injection points or salt cell.

6



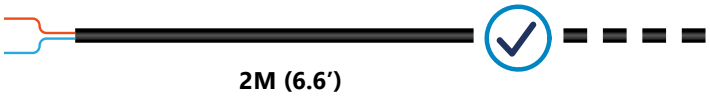
The water temperature sensor must be installed prior to the water heating system.

IMPORTANT:
Some cables, like the pH+ORP and water pressure sensors must be wired within **4m** from the PoolCop unit.



Cannot be lengthened or shortened

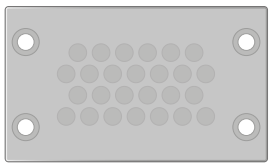
NOTE:
Other cables can be lengthened using suitable wire. See each diagram for information.



Can be lengthened using suitable wire

2.3.2 CABLE ENTRIES

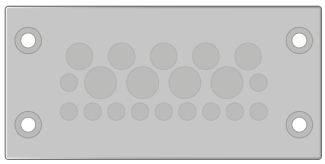
The PoolCop Infinity unit has water and tug proof cable entry plates, that need to be pierced or inserted accordingly:



Cable capacity:
26

Cable Diameter:
3.2 - 6.5 mm

WARNING : reserved for low voltage signals

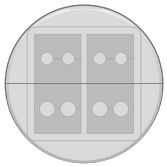


Cable capacity:
11
5
4

Cable Diameter:
3.2 - 6.5 mm
5 - 10.2 mm
7.5 - 12 mm

WARNING : reserved for high voltage signals

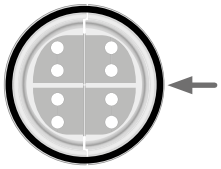
Pierce the membrane with a Phillips head (crosshead) screwdriver or equivalent object.



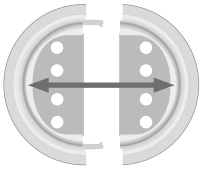
Cable capacity:
4
4

Cable Diameter:
4 mm
6,5 mm

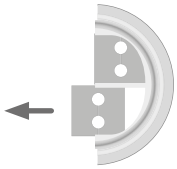
WARNING : reserved for low voltage cables with connectors



1 - Remove the washer from the thread

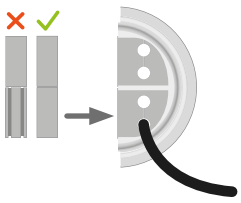


2 - Open the plate by pulling apart the split frame

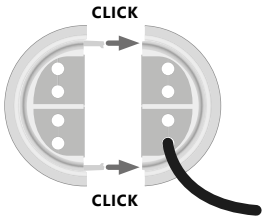


3 - Remove the cable holder according to the correct diameter

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

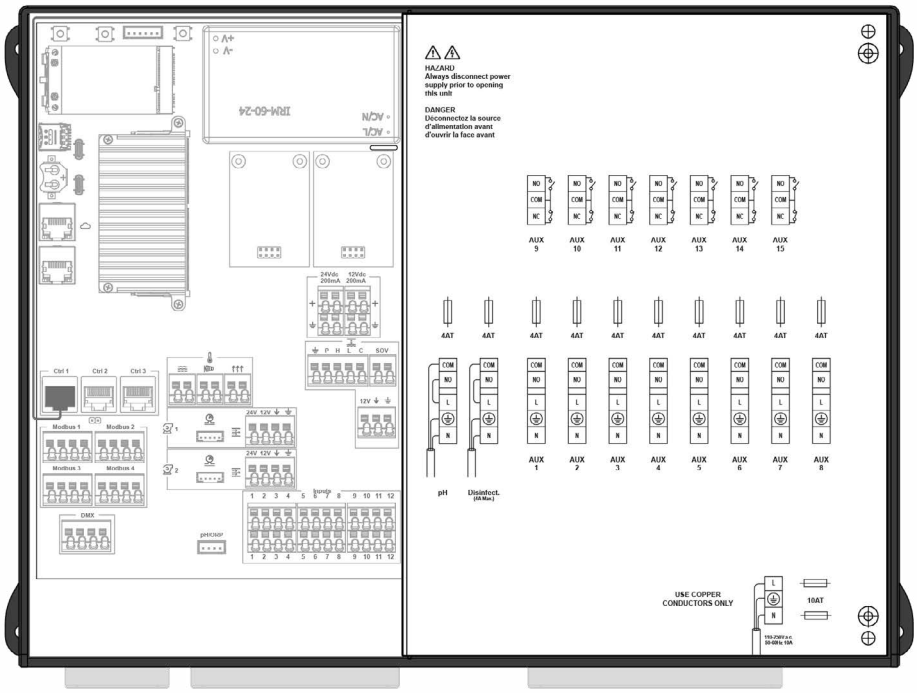


6 - Close the frame ensuring both sides click into place

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

2.3.3 ELECTRICAL VOLTAGE SEPARATION

PoolCop Infinity has a High Voltage Protection separator.



LOW VOLTAGE CABLE ENTRIES **HIGH VOLTAGE CABLE ENTRIES**

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

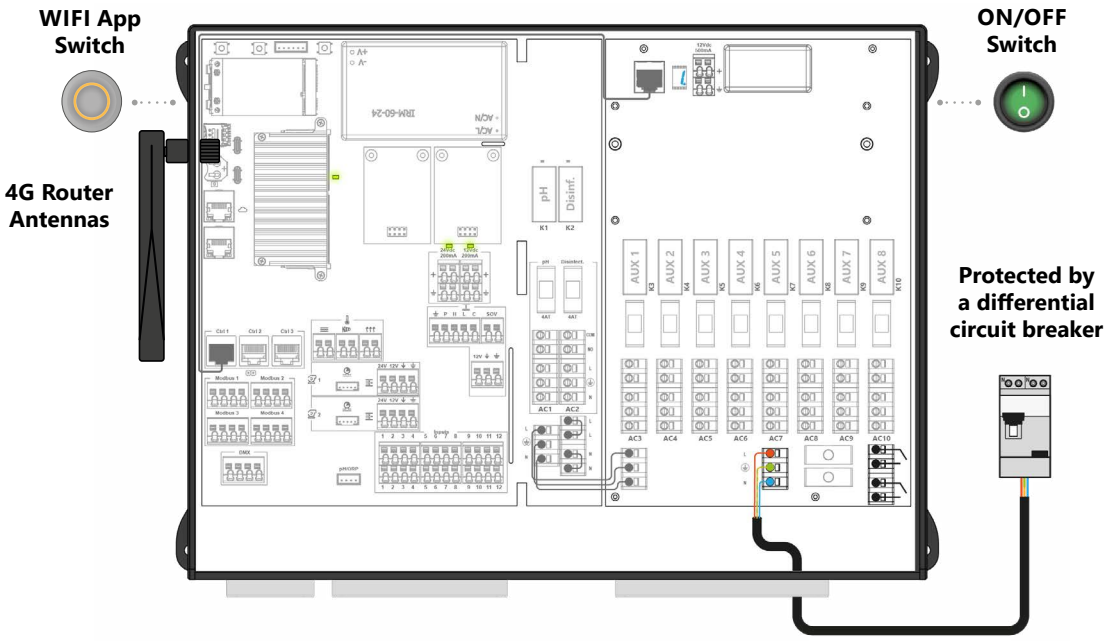
2.3.4 ELECTRICAL CONNECTION

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 cut 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.

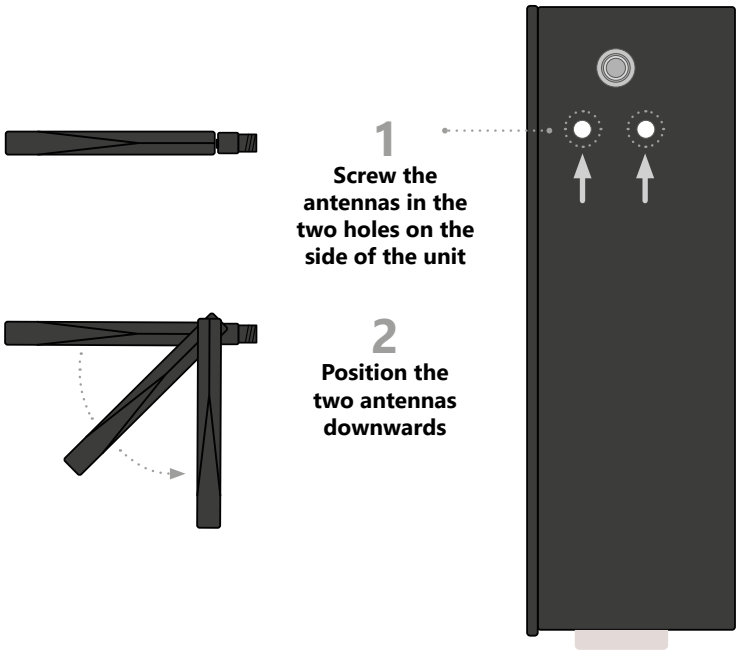
2 GENERAL INSTALLATION



INSTALLING THE 4G ROUTER ANTENNAS

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

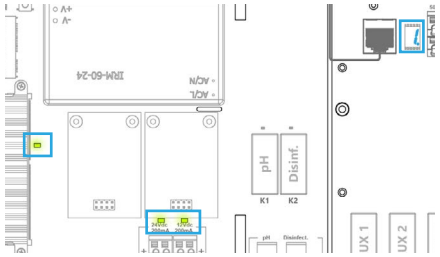
Failure to do this will cause permanent damage to the router.



2 GENERAL INSTALLATION

POWERING UP THE UNIT

Switch the PoolCop Infinity unit **ON**.

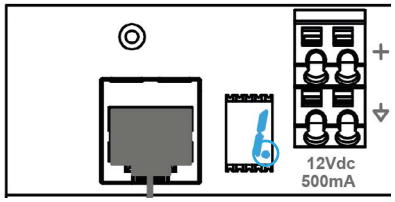


The ON/OFF Switch, the Microprocessor LED, the 24VDC and 12VDC Supply LED's, and the module number must illuminate.

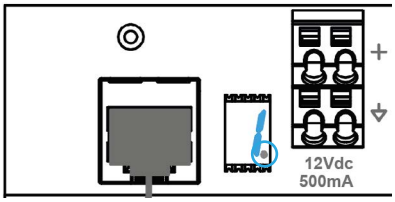
The WIFI app switch on the left of the unit will illuminate with an orange blinking light, ready to connect to the Settings user interface (see page 23).

NOTE:

The dot next to the module number shows if power is supplied to the electronic board.



Electronic board is powered



Electronic board is not powered

2.3.5 CABLE SELECTION AND CONNECTION

NOTE:

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

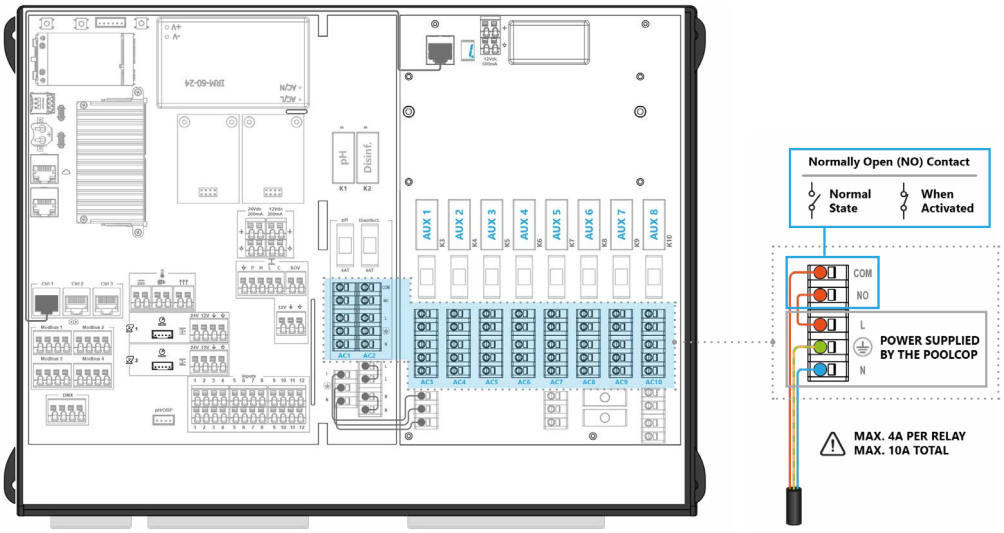
Pump and auxiliary control: H03VV-F & H05VV-F with section 2x0.75.

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.

2.3.6 POOLCOP INFINITY RELAYS



Relays **AC1 to AC10 (pH, Disinfection, AUX 1 to AUX 8)** are composed of 2 parts:

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

Use a **flat-head screwdriver with a maximum 3 mm tip** to connect the cables to the relays.

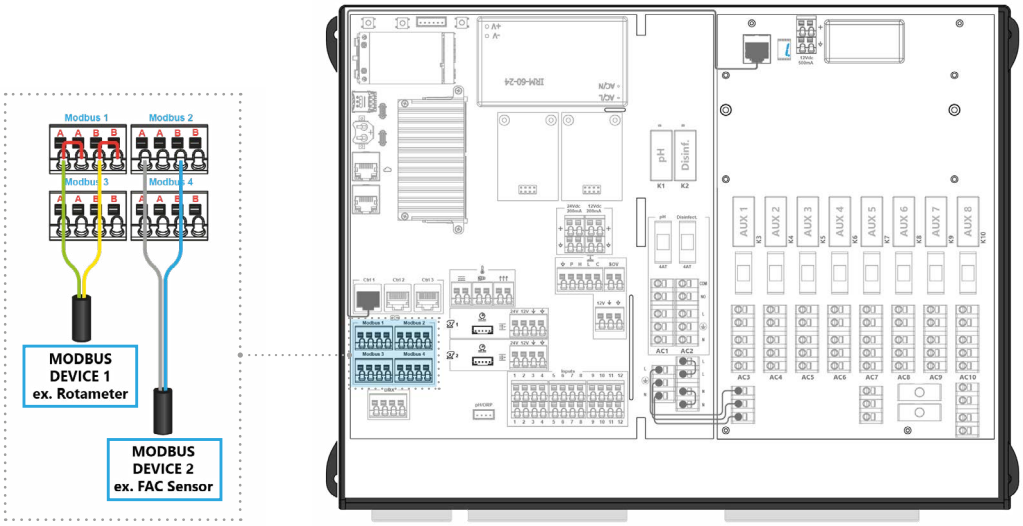
2.3.7 MODBUS CONNECTION

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 **always** be the **last** device on the ModBus line.



3 USER GUIDE

- PoolCop Configuration
- Access to the User Interface
- Home Page
- Shortcut Menus
  - Filtration
    - Filtration - Overview and Manual Control
    - Water Level - Overview and Manual Control
  - I/O - Equipment Overview and Control
    - Auxiliary Control for Edge or Edge Plus
    - Input Control
    - Equipment Control
  - Water Quality Parameters
- Settings Menu
- Alerts and System Management

3.1 POOLCOP CONFIGURATION

PoolCop Infinity 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 Infinity 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 all mobile data (4G)** on the device accessing the local App for user interface.

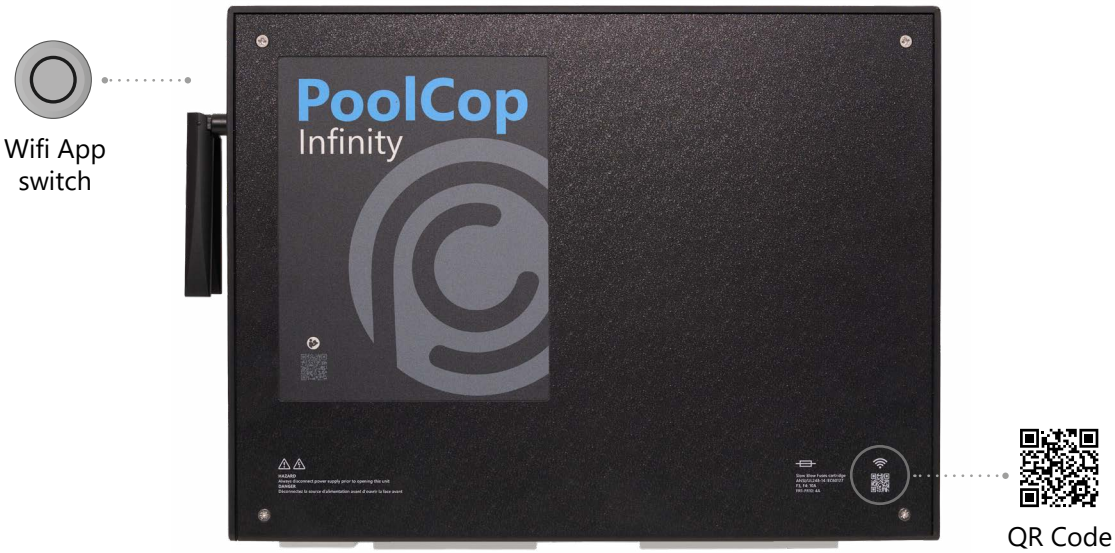
It is recommended to **use a web browser** to access this App rather than using the pop-up that appears after connecting to the local Wi-Fi, as the latter option might impact the user interface quality depending on device type and manufacturer.

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

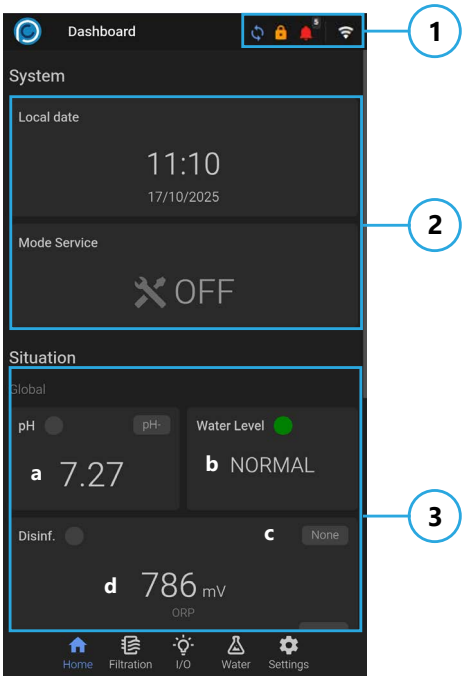
NOTE:
The colour of the Wifi button adjusts to the connection state:

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

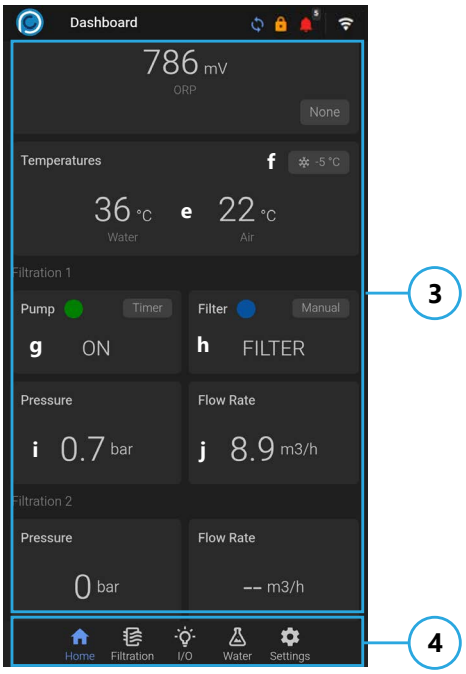
Date and Time

Service Mode ON / OFF

3 - SITUATION

GLOBAL :

a. pH value and type of treatment
b. Water level
c. Type of disinfection used and ON ● /OFF ● status
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 settings : Filtration mode and current pump status ● ● ● ●
h. Filter 1 valve position and cleaning mode ● ● ● ●
i. Pressure
j. Flow rate

FILTRATION 2 **(if relevant)** :

Same parameters as for Filter 1

4 - SHORTCUT MENU

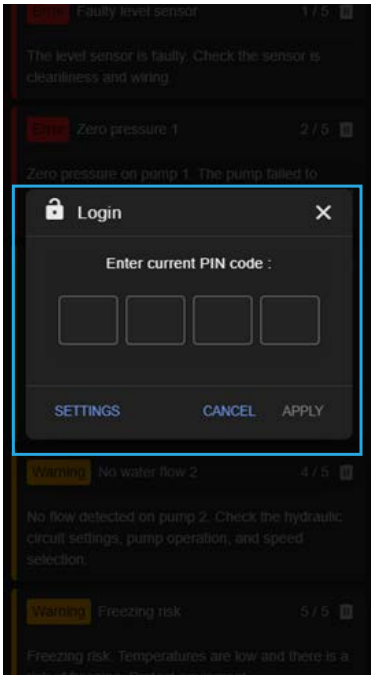
- FILTRATION : Overview and manual control for pump, filtration, water level and circulation mode parameters
- I/O : Overview and manual control of installed pool equipment
- WATER : Overview of the current water parameters (pH, ORP, and if relevant FC, TC, FAC, Conductivity)
- SETTINGS : Access to the complete settings menu

3 USER GUIDE

NOTE:
The coloured indicators show the status of each feature:

			blinking	
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.

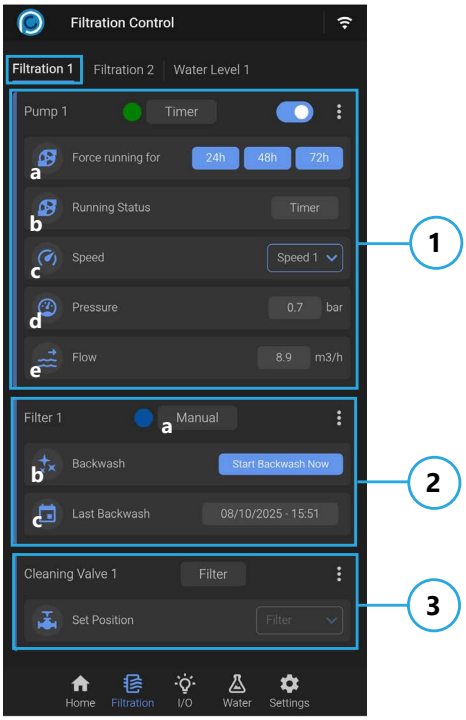
3.4 SHORTCUT MENUS

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

3.4.1 FILTRATION

> **NOTE:**
> Tabs will only appear when options are installed.
>
> Backwash capacity is determined by the installation of one or more pneumatic valves, as is suction configuration *(See sections 5.2.5 and 5.2.7)*

FILTRATION 1 - Overview and manual control



1 **PUMP 1** :
Current Filtration Mode:
● : No pump
● : Pump On - Normal operations
● : Pump Off - Filtration Off
blinking : Pump On - Not primed
● : Pump Off but Filtration ON - Warning

a. Start Forced Mode Cycle
b. Running status: Current state of the pump:
Auto
External
Forced
Freeze
Manual
Mode 24h
Pause
Stopped
Timer
Water Level
NOTE: If no pump this field is not displayed
c. Pump speed – *only if a variable speed pump is installed*
Possibility to change speed momentarily
d. Measured pressure
e. Measured flow - *only if a digital flow meter is installed*

2 **FILTER 1:**
NOTE: *only if at least 1 backwash valve installed*

a. Backwash Mode
● : No backwash valve
● : Backwash on auto
● : Backwash on manual
blinking : Backwash in progress
● : Backwash is inhibited
b. Launch backwash now
c. Date of last backwash

3 **CLEANING VALVES :**
Current status and position of backwash and rinse valves – *if installed*
Possibility to change manually

4 **SUCTION VALVE (not shown) :**
Current position and possibility to change manually

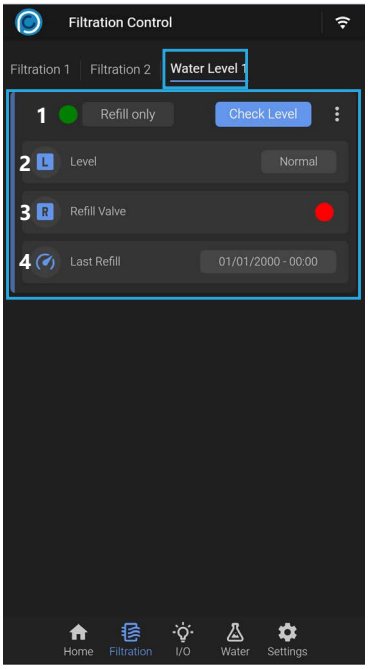
NOTE:
FILTRATION 1 is the **primary** filtration system.

FILTRATION 2 will appear if a second pump is installed. The configuration window is identical to FILTRATION 1.

A suction valve will **only** appear in FILTRATION 1.

IMPORTANT:
All subsequently described water treatments and suction modes will depend solely on PUMP 1 / FILTRATION 1, even if a second filtration equipment is installed.

WATER LEVEL - Overview and manual control



WATER LEVEL SETTINGS AND ABILITY TO CHECK CURRENT STATUS

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

NOTE:
Water Level is NOT a parameter read constantly.
See section 5.2.9 for frequency of water level measurements

3.4.2 I/O - Equipment overview and control

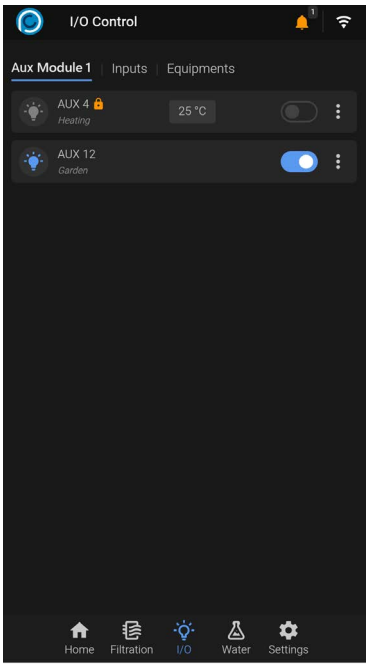
NOTE:
Auxiliaries will appear according to the extension installed:
PoolCop Infinity - **8 auxiliaries**
PoolCop Infinity with optional Edge Plus - **15 auxiliaries**
An additional 8 or 15 auxiliaries appear with a PoolCop Edge unit installed.

Auxiliaries can be manually controlled via the toggle, except if limitations apply (Reserved or Slaved Aux).

Auxiliaries are automatically 'RESERVED' when specific functions are installed (pumps, pump speeds, Besgo valves etc.), *see section 5.4.1.*

3 USER GUIDE

AUXILIARY CONTROL



INSTALLED AUXILIARIES OVERVIEW AND CONTROL

- Slaved and Locked
- Slaved and Unlocked
- Locked
- Aux Status OFF
- Aux Status ON

Only installed equipment appear on the screen.

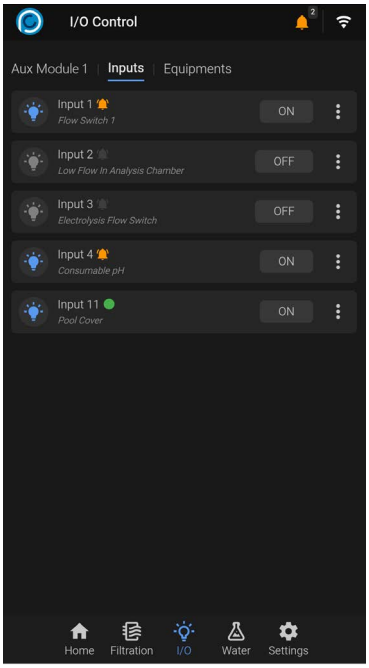
If the auxiliary is **reserved** it will not be visible here.

For 'Heating', current water temperature setpoint is displayed.

See section 5.4.1 for information on slaved auxiliaries.

A **Module 2** tab will appear automatically if a second Edge unit is installed.

INPUT CONTROL

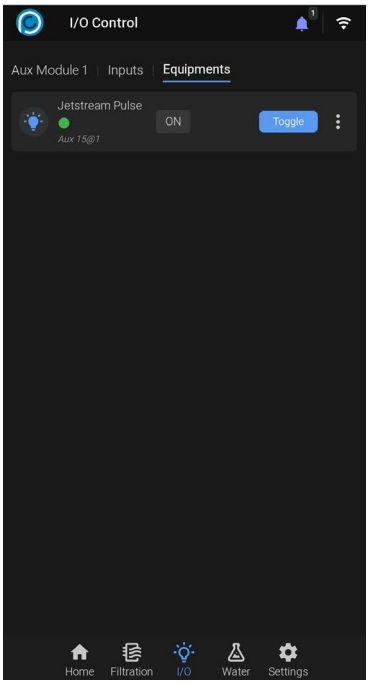


INSTALLED INPUTS OVERVIEW

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

See section 5.4.2 for Input Settings

EQUIPMENT CONTROL



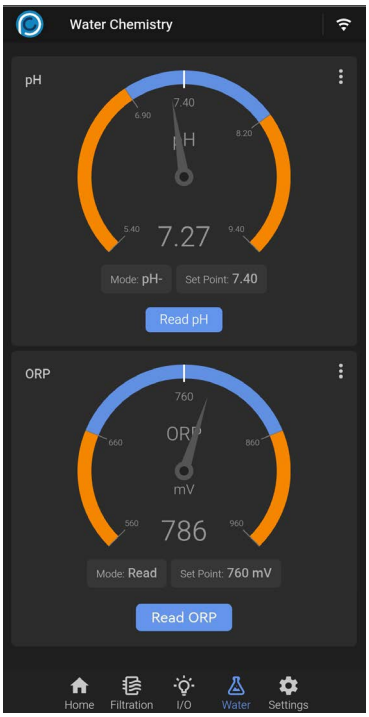
INSTALLED EQUIPMENT OVERVIEW AND CONTROL

/ Equipment status OFF

/ Equipment status ON

Toggle Control Button (Depending on Equipment)

3.4.3 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
Read : 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.
Read : Launch a Reading

Gauges are present when the equipment is installed.

NOTE:
pH is NOT a parameter read constantly.
See section 5.3 for frequency of water chemistry measurements

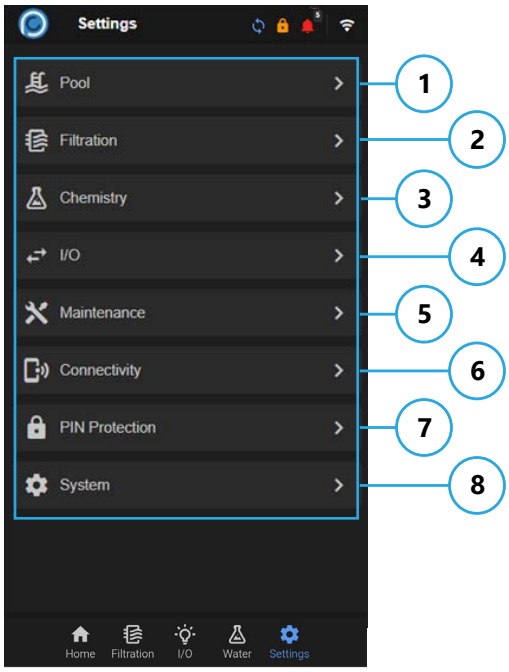
3 USER GUIDE

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)

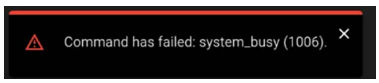
The following status indicators are:
- ● : Disinfection stopped
- ● : Ongoing disinfection - no anomaly
blinking : Disinfection ongoing
- ● : Ongoing disinfection - anomaly detected (warning)
- ● : Fault detected

3.5 SETTINGS MENU



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:



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

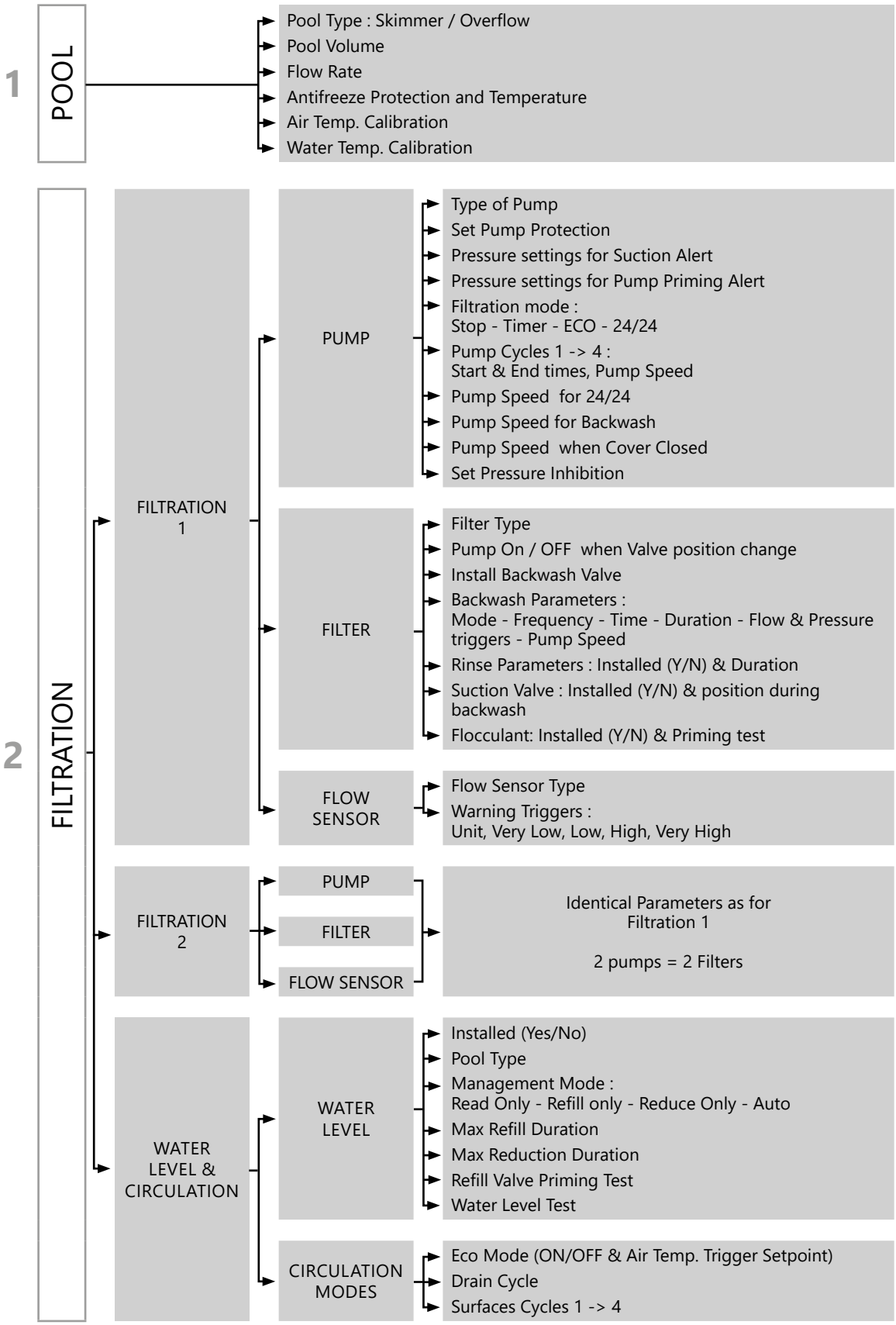
5 MAINTENANCE
- Set device in Service Mode
- Calibrate installed sensors

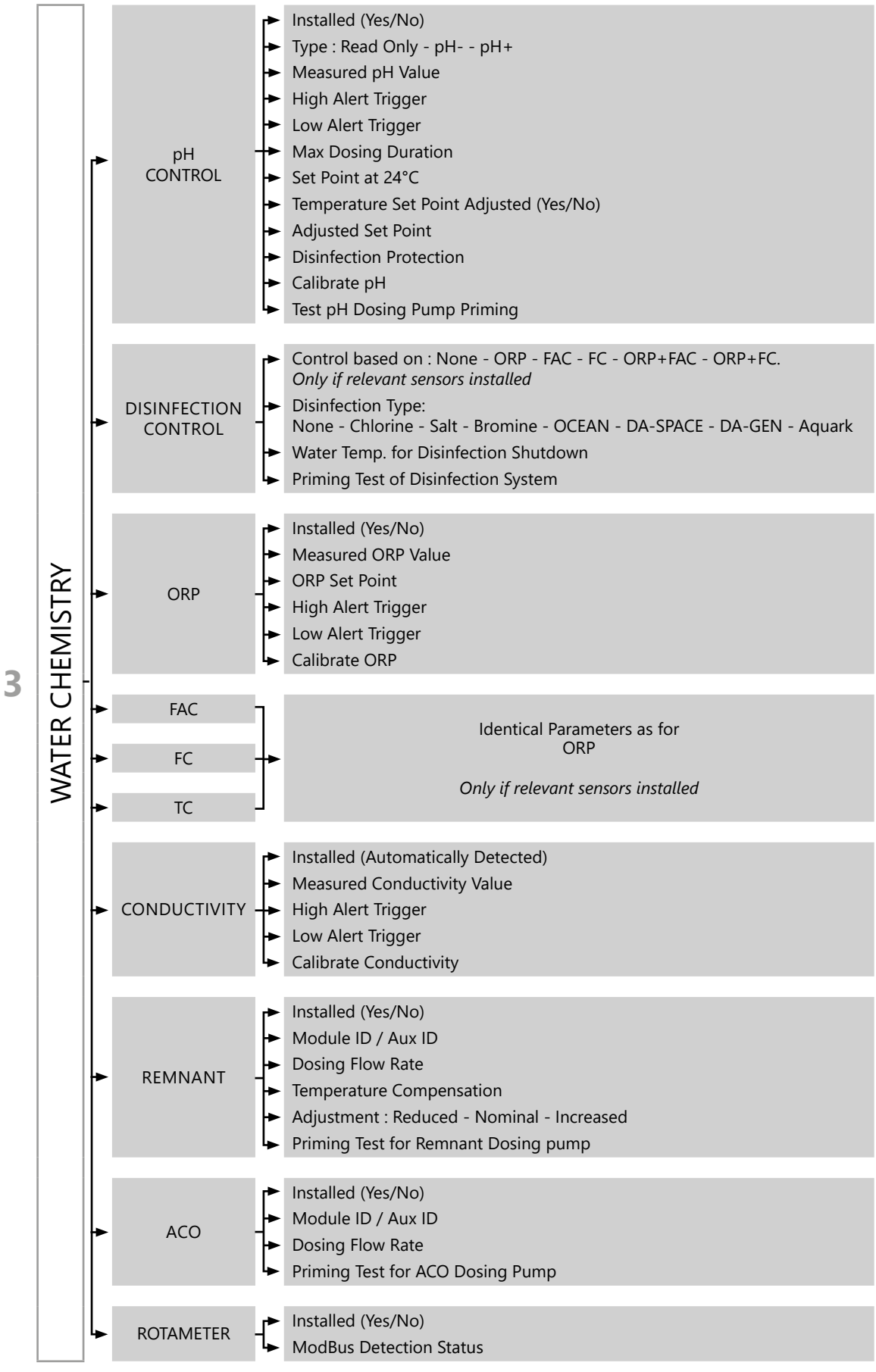
6 CONNECTIVITY
- General information on Cloud Connection Status
- If 4G connection : Connection details
- Set up Client WIFI as internet connection

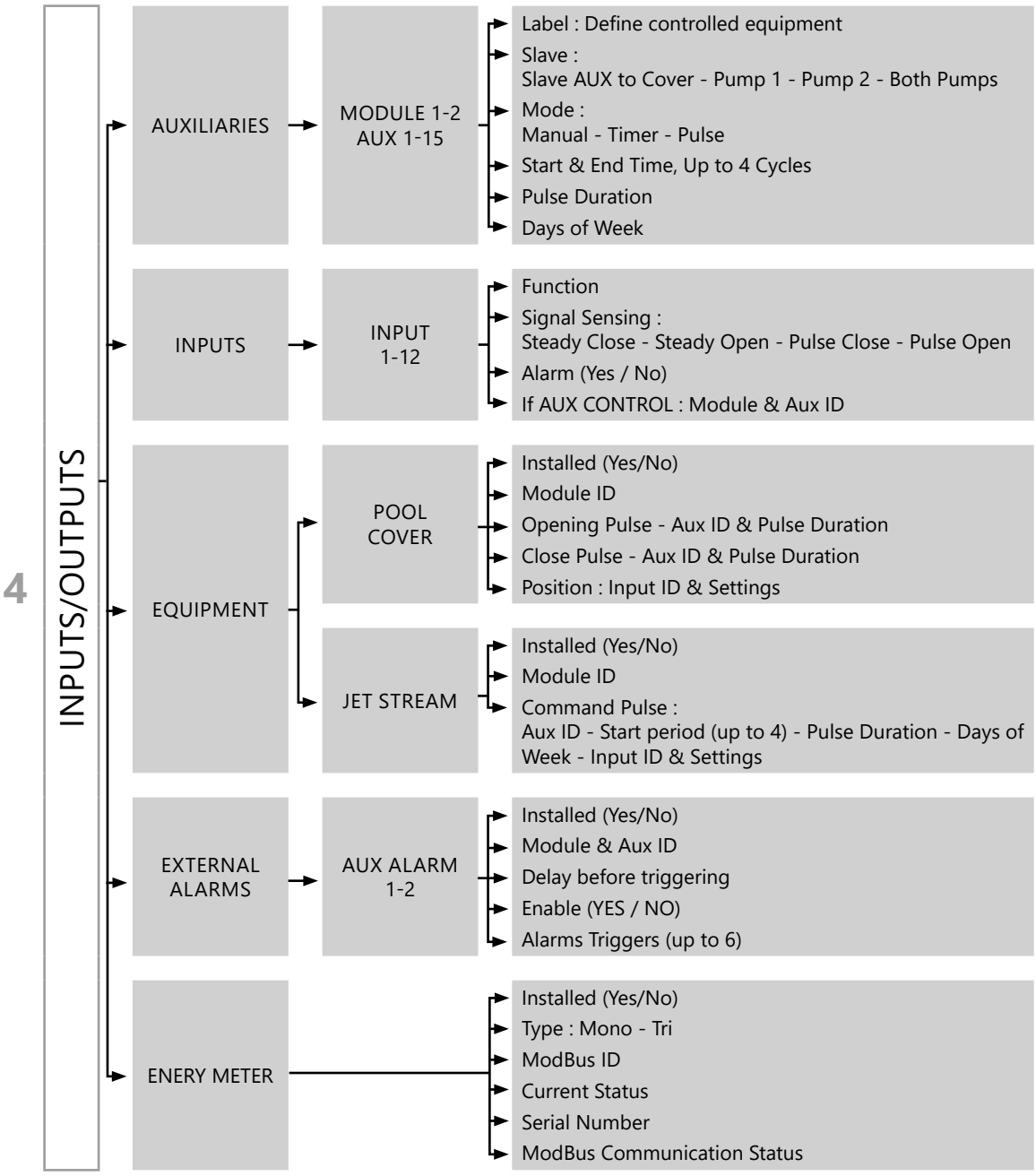
7 PIN PROTECTION
- Set PIN Protection

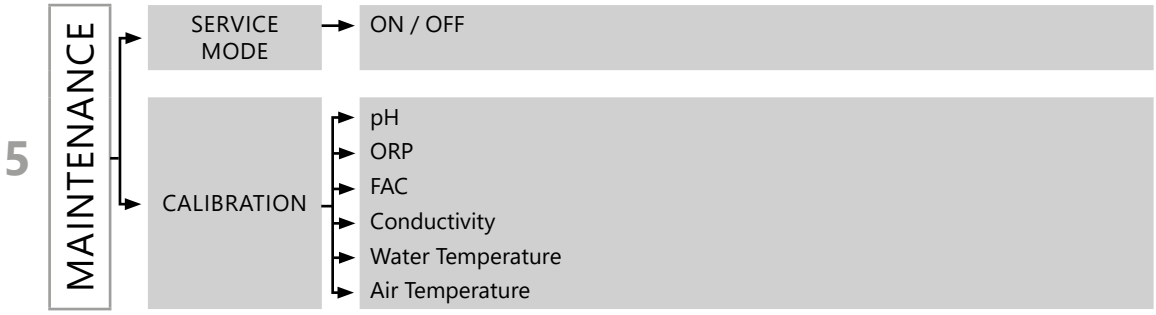
8 SYSTEM
- Set Date & Time
- Select Display Units
- Select the language
- Product Firmware details and Reset System

3 USER GUIDE

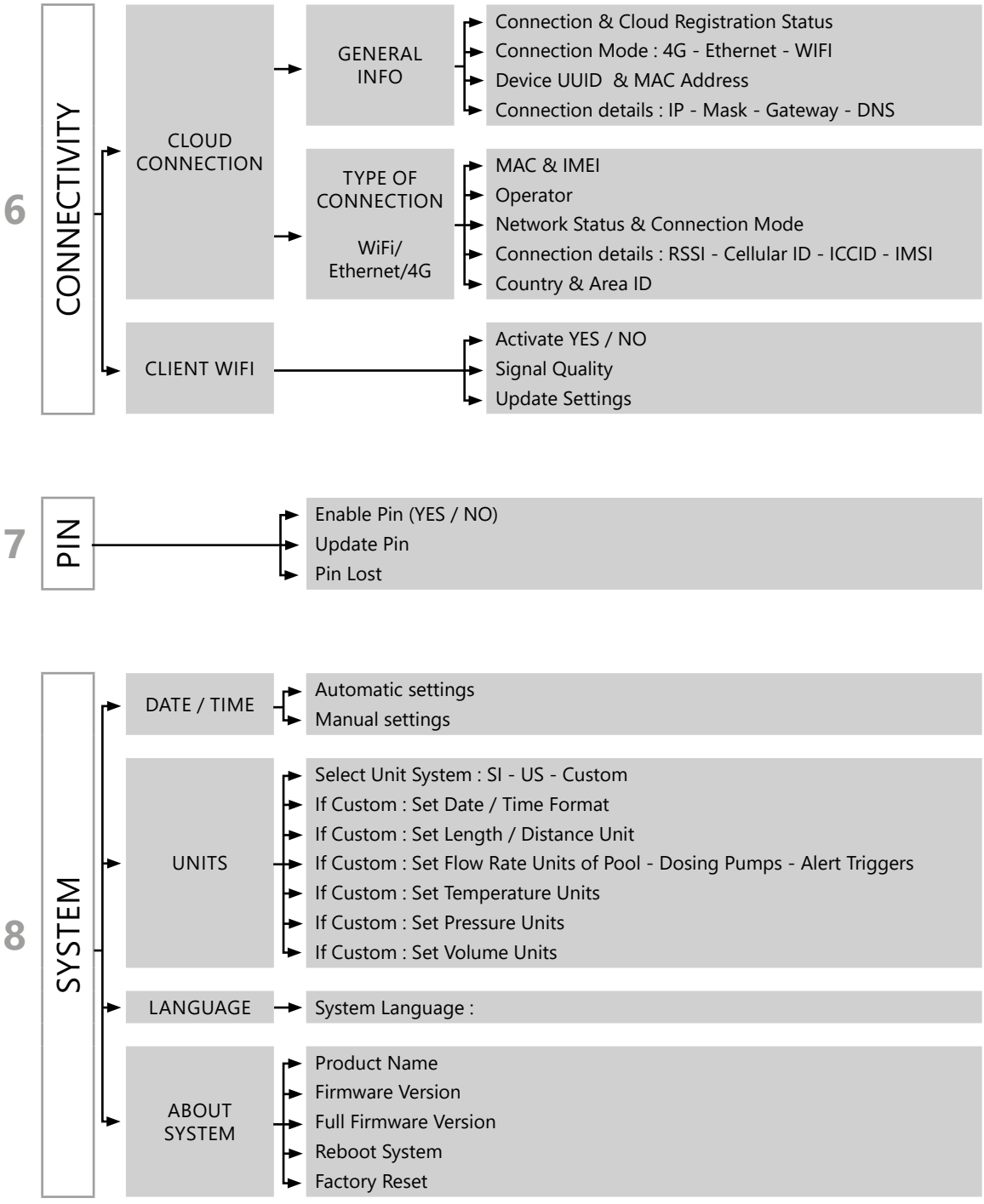

1
POOL
Pool Type : Skimmer / Overflow
Pool Volume
Flow Rate
Antifreeze Protection and Temperature
Air Temp. Calibration
Water Temp. Calibration
2
FILTRATION
FILTRATION 1
PUMP
Type of Pump
Set Pump Protection
Pressure settings for Suction Alert
Pressure settings for Pump Priming Alert
Filtration mode : Stop - Timer - ECO - 24/24
Pump Cycles 1 -> 4 : Start & End times, Pump Speed
Pump Speed for 24/24
Pump Speed for Backwash
Pump Speed when Cover Closed
Set Pressure Inhibition
FILTER
Filter Type
Pump On / OFF when Valve position change
Install Backwash Valve
Backwash Parameters : Mode - Frequency - Time - Duration - Flow & Pressure triggers - Pump Speed
Rinse Parameters : Installed (Y/N) & Duration
Suction Valve : Installed (Y/N) & position during backwash
Flocculant: Installed (Y/N) & Priming test
FLOW SENSOR
Flow Sensor Type
Warning Triggers : Unit, Very Low, Low, High, Very High
FILTRATION 2
PUMP
FILTER
FLOW SENSOR
Identical Parameters as for Filtration 1
2 pumps = 2 Filters
WATER LEVEL & CIRCULATION
WATER LEVEL
Installed (Yes/No)
Pool Type
Management Mode : Read Only - Refill only - Reduce Only - Auto
Max Refill Duration
Max Reduction Duration
Refill Valve Priming Test
Water Level Test
CIRCULATION MODES
Eco Mode (ON/OFF & Air Temp. Trigger Setpoint)
Drain Cycle
Surfaces Cycles 1 -> 4


3
WATER CHEMISTRY
pH CONTROL
Installed (Yes/No)
Type : Read Only - pH- - pH+
Measured pH Value
High Alert Trigger
Low Alert Trigger
Max Dosing Duration
Set Point at 24°C
Temperature Set Point Adjusted (Yes/No)
Adjusted Set Point
Disinfection Protection
Calibrate pH
Test pH Dosing Pump Priming
DISINFECTION CONTROL
Control based on : None - ORP - FAC - FC - ORP+FAC - ORP+FC.
Only if relevant sensors installed
Disinfection Type:
None - Chlorine - Salt - Bromine - OCEAN - DA-SPACE - DA-GEN - Aquark
Water Temp. for Disinfection Shutdown
Priming Test of Disinfection System
ORP
Installed (Yes/No)
Measured ORP Value
ORP Set Point
High Alert Trigger
Low Alert Trigger
Calibrate ORP
FAC
FC
TC
Identical Parameters as for ORP
Only if relevant sensors installed
CONDUCTIVITY
Installed (Automatically Detected)
Measured Conductivity Value
High Alert Trigger
Low Alert Trigger
Calibrate Conductivity
REMNANT
Installed (Yes/No)
Module ID / Aux ID
Dosing Flow Rate
Temperature Compensation
Adjustment : Reduced - Nominal - Increased
Priming Test for Remnant Dosing pump
ACO
Installed (Yes/No)
Module ID / Aux ID
Dosing Flow Rate
Priming Test for ACO Dosing Pump
ROTAMETER
Installed (Yes/No)
ModBus Detection Status


4
INPUTS/OUTPUTS
AUXILIARIES
MODULE 1-2
AUX 1-15
Label : Define controlled equipment
Slave :
Slave AUX to Cover - Pump 1 - Pump 2 - Both Pumps
Mode :
Manual - Timer - Pulse
Start & End Time, Up to 4 Cycles
Pulse Duration
Days of Week
INPUTS
INPUT
1-12
Function
Signal Sensing :
Steady Close - Steady Open - Pulse Close - Pulse Open
Alarm (Yes / No)
If AUX CONTROL : Module & Aux ID
EQUIPMENT
POOL
COVER
Installed (Yes/No)
Module ID
Opening Pulse - Aux ID & Pulse Duration
Close Pulse - Aux ID & Pulse Duration
Position : Input ID & Settings
JET STREAM
Installed (Yes/No)
Module ID
Command Pulse :
Aux ID - Start period (up to 4) - Pulse Duration - Days of Week - Input ID & Settings
EXTERNAL
ALARMS
AUX ALARM
1-2
Installed (Yes/No)
Module & Aux ID
Delay before triggering
Enable (YES / NO)
Alarms Triggers (up to 6)
ENERY METER
Installed (Yes/No)
Type : Mono - Tri
ModBus ID
Current Status
Serial Number
ModBus Communication Status

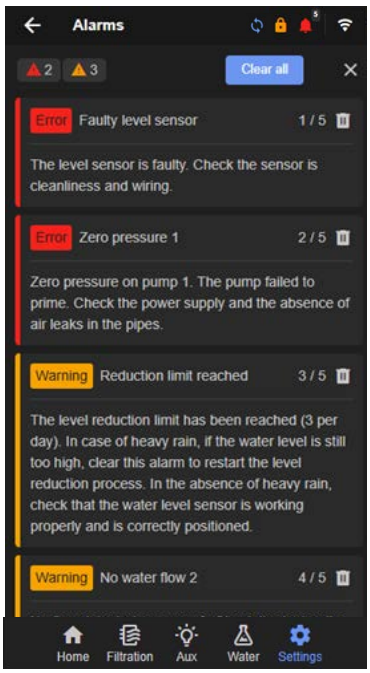

5
MAINTENANCE
SERVICE
MODE
ON / OFF
CALIBRATION
pH
ORP
FAC
Conductivity
Water Temperature
Air Temperature

3 USER GUIDE


6
CONNECTIVITY
CLOUD CONNECTION
GENERAL INFO
Connection & Cloud Registration Status
Connection Mode : 4G - Ethernet - WIFI
Device UUID & MAC Address
Connection details : IP - Mask - Gateway - DNS
TYPE OF CONNECTION
WiFi/ Ethernet/4G
MAC & IMEI
Operator
Network Status & Connection Mode
Connection details : RSSI - Cellular ID - ICCID - IMSI
Country & Area ID
CLIENT WIFI
Activate YES / NO
Signal Quality
Update Settings
7
PIN
Enable Pin (YES / NO)
Update Pin
Pin Lost
8
SYSTEM
DATE / TIME
Automatic settings
Manual settings
UNITS
Select Unit System : SI - US - Custom
If Custom : Set Date / Time Format
If Custom : Set Length / Distance Unit
If Custom : Set Flow Rate Units of Pool - Dosing Pumps - Alert Triggers
If Custom : Set Temperature Units
If Custom : Set Pressure Units
If Custom : Set Volume Units
LANGUAGE
System Language :
ABOUT SYSTEM
Product Name
Firmware Version
Full Firmware Version
Reboot System
Factory Reset

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).

Delete the selected alert.

4 INSTALLING THE ESSENTIALS

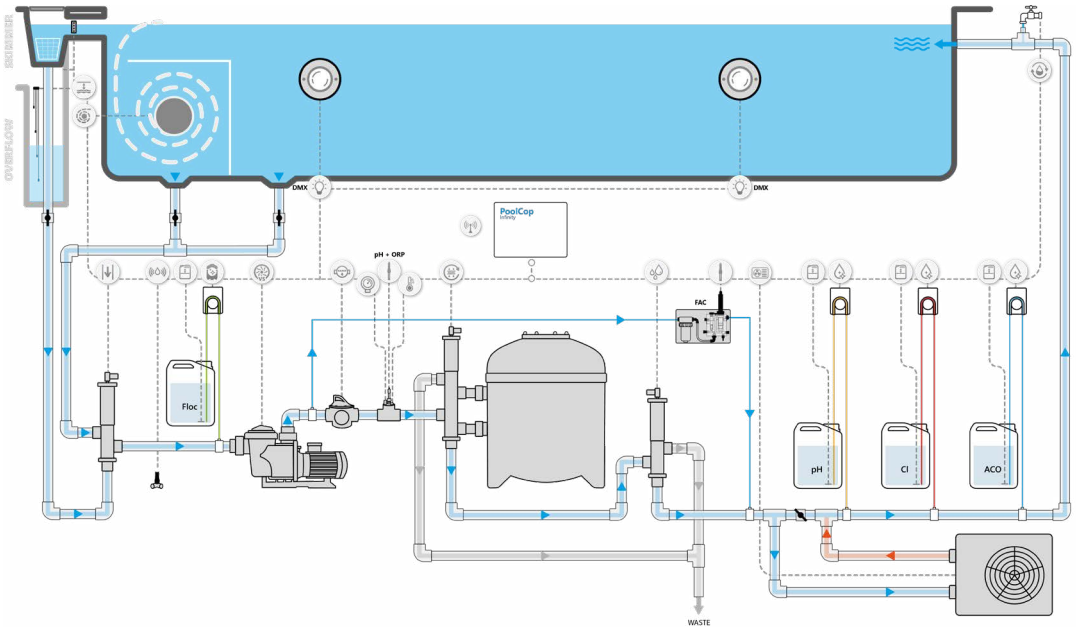
- Pool and Hydraulics
  - Chlorine
  - Salt System
- Installing Standard Monitoring Sensors
- Installing the Temperature Sensors
  - Water Temperature Sensor
  - Air Temperature Sensor
- Configure Pool Settings
  - Pool Configuration
  - Anti Freeze Protection
  - Optimize Filtration
- Pressure Sensor(s)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

4.1 POOL AND HYDRAULICS

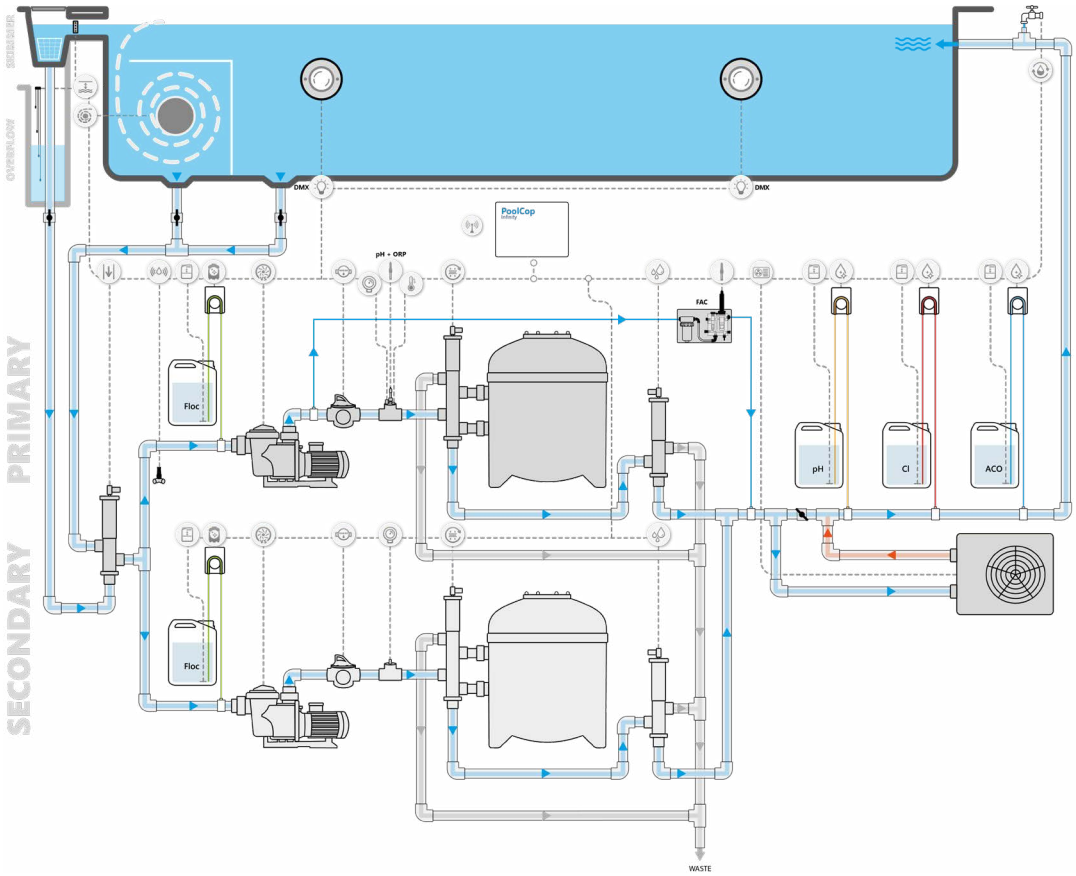
IMPORTANT:

- The primary pump is the **primary** pump.
- Water quality sensors (pH, ORP, FAC, FC, TC...) must be located on the flow circuit of the **primary** pump.
- For variable speed pumps, the additional **Edge Plus board** is compulsory
- For rinse valves, an additional **PoolCop Edge** unit is compulsory

4.1.1 CHLORINE

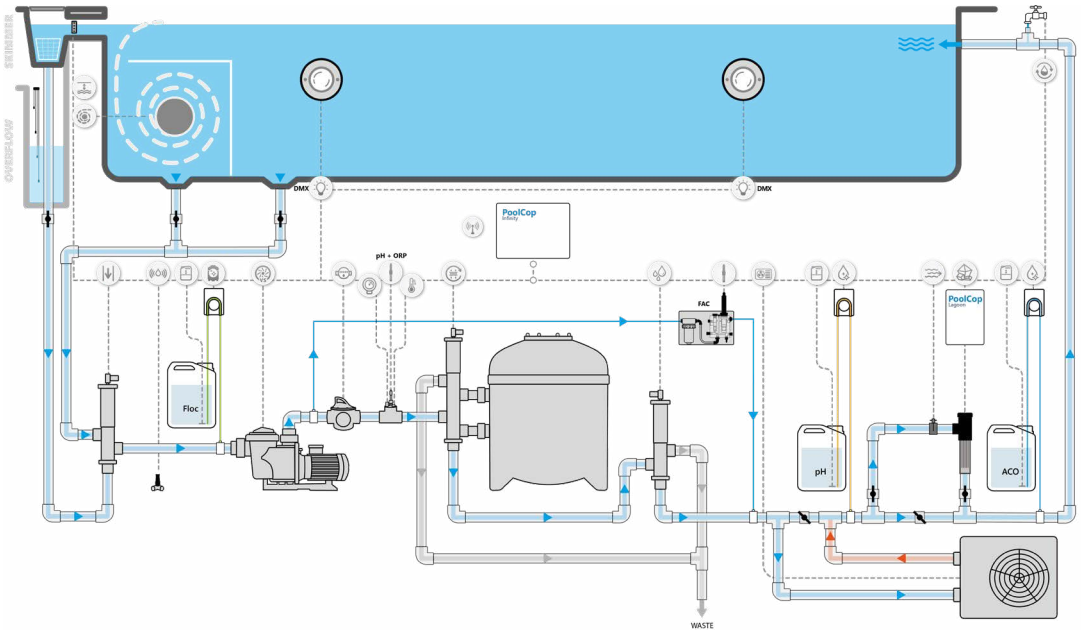


SINGLE PUMP SET UP
WITH DATA AQUISITION - CHLORINE DISINFECTION - ADDITIONAL CONTROL

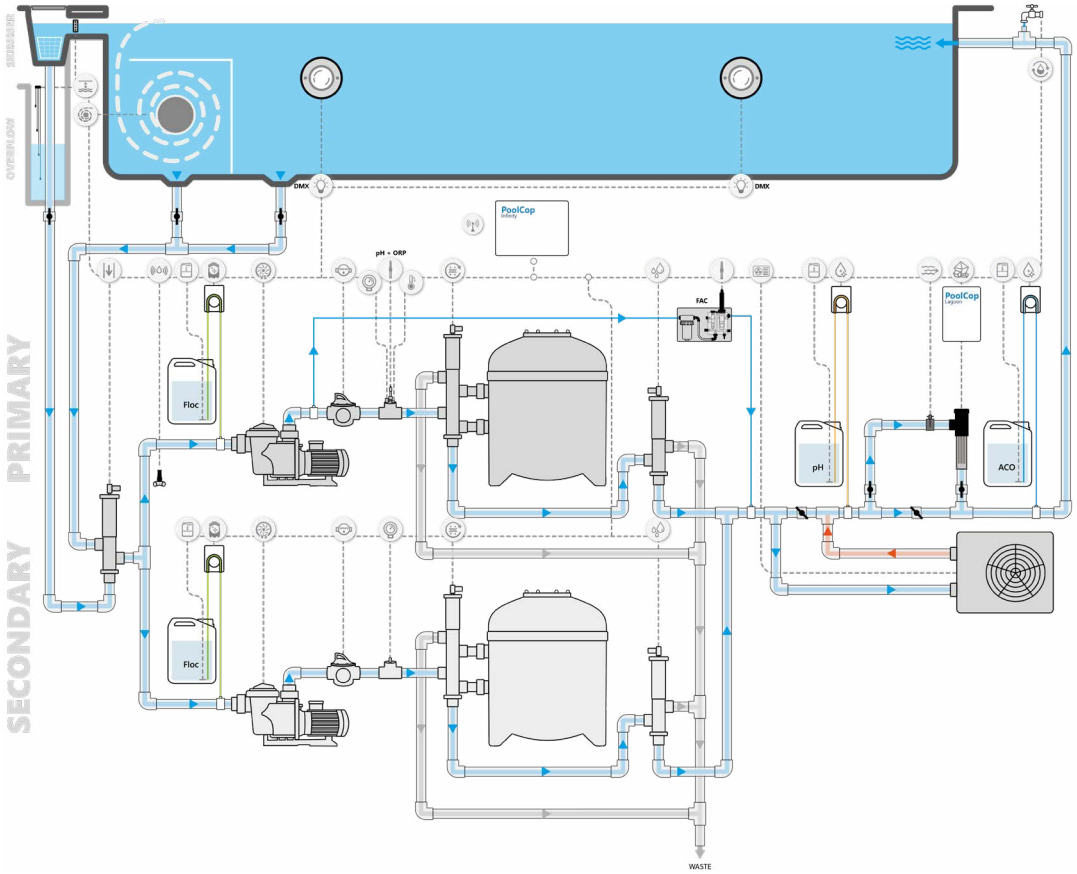


DUAL PUMP SET UP
WITH DATA AQUISITION - CHLORINE DISINFECTION - ADDITIONAL CONTROL

4.1.2 SALT SYSTEM



SINGLE PUMP SET UP
WITH DATA AQUISITION - SALT DISINFECTION - ADDITIONAL CONTROL



DUAL PUMP SET UP
WITH DATA AQUISITION - SALT DISINFECTION - ADDITIONAL CONTROL

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.

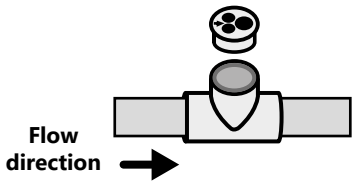
The installer must ensure that the sensor reacts correctly in case of:

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

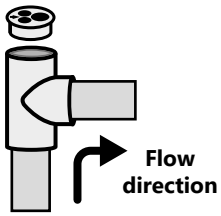
If used, the flow cell(s) must be installed in a location in line with the pressure sensor requirements. The Flow Cell cap must be:

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

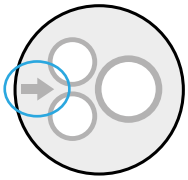
Flow Cell Cap - Horizontal Mounting



Flow Cell Cap - Vertical Mounting

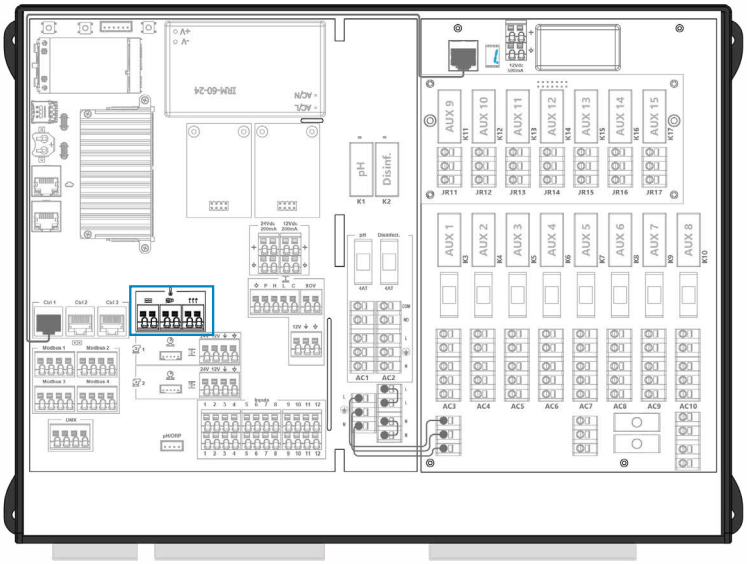


NOTE:



The flow direction is clearly indicated on the flow Cell cap

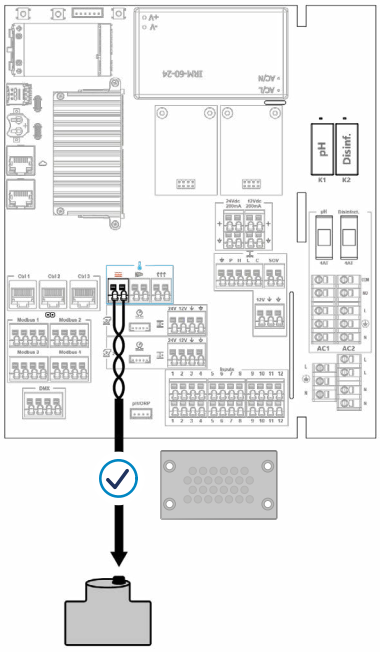
4.3 INSTALLING THE TEMPERATURE SENSORS



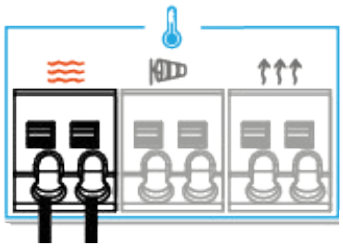
4.3.1 WATER TEMPERATURE SENSOR

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

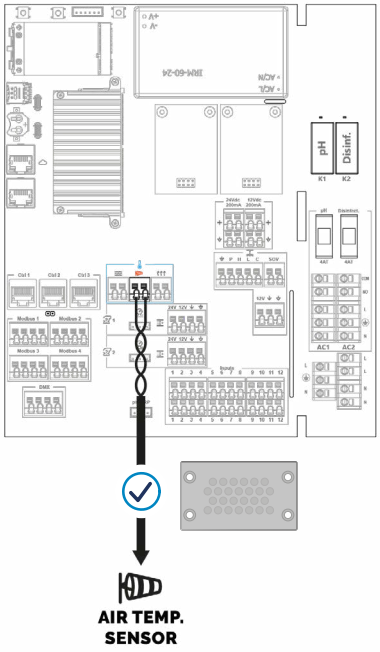


INSTALLATION NOTES:

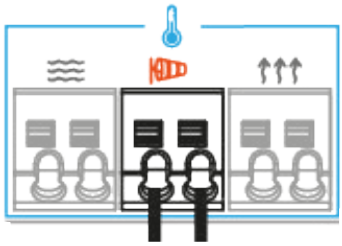
- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Cable can be extended using suitable twisted pair wires
- Calibration is required if the cable is extended

4.3.2 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. 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

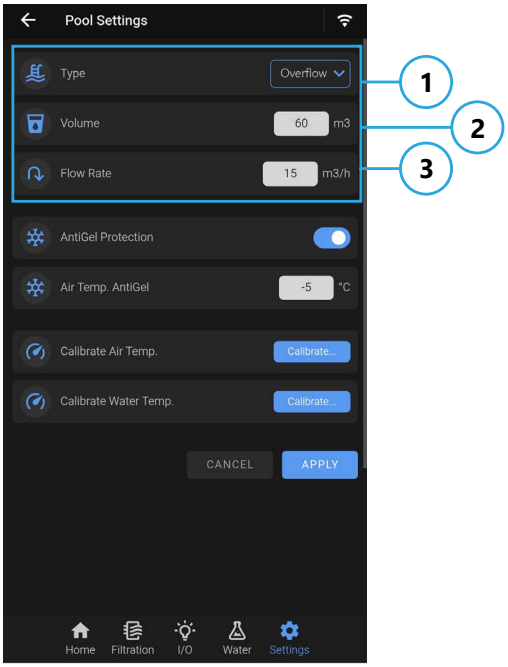
IMPORTANT:

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.

4.4.1 POOL CONFIGURATION



1 **POOL TYPE:**
Skimmer, Overflow or Spa.
The Pool Type will have an impact on the way PoolCop Infinity is handling some features such as water level or suction valve.

2 **POOL VOLUME:**
Pool Volume is important as it will be used for the calculation of the hydraulic coefficient impacting the ECO filtration mode and the duration of water treatments.

3 **FLOW RATE :**
Flow rate is used for filtration duration calculations in ECO Mode.
For optimal performance, either use a flow rate measured on a clean filter, the lowest nominal pump or filter flow rate minored by 20%, or, if using a variable speed pump, estimated average daily flow rate.

4.4.2 ANTI FREEZE PROTECTION: Internal and External

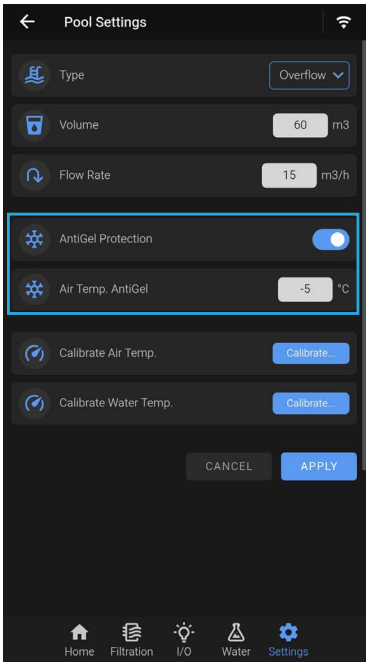
Freezing poses risks to pools and their equipment. As water expands when it freezes, it can crack pipes, burst fittings, and damage the filter or pump housing. PoolCop provides two methods for detecting freezing risk. It is recommended to enable both forms of protection and set Freezing Protection to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

NOTE:
Freezing protection will start both primary and secondary pumps (if configured) in low speed.

When freezing risk is detected and filtration is underway, the pump **cannot** be stopped until the temperature detected is higher than the protection settings.

To override this, turn the Anti Freeze Protection **OFF** in the Pool Settings menu.



INTERNAL FREEZING PROTECTION BASED ON WATER TEMPERATURE

If freezing protection is **ON** and the water temperature sensor detects a low temperature, filtration will start automatically to circulate warmer water from the pool through the plumbing, reducing the risk of freeze-related damage. This helps protect equipment in the pump and filter area to a certain extent.

If the pump is controlled, filtration will run continuously while the temperature is below 2°C (35.6°F) and will continue 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 ensures accurate external air temperature readings, which can be used to detect freezing risk and start filtration.

If the pump is controlled, filtration will run continuously while the temperature remains below the threshold and will continue 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 set to **OFF**, the readings from the water and air temperature sensors will automatically trigger a freezing risk warning when low temperatures are detected.

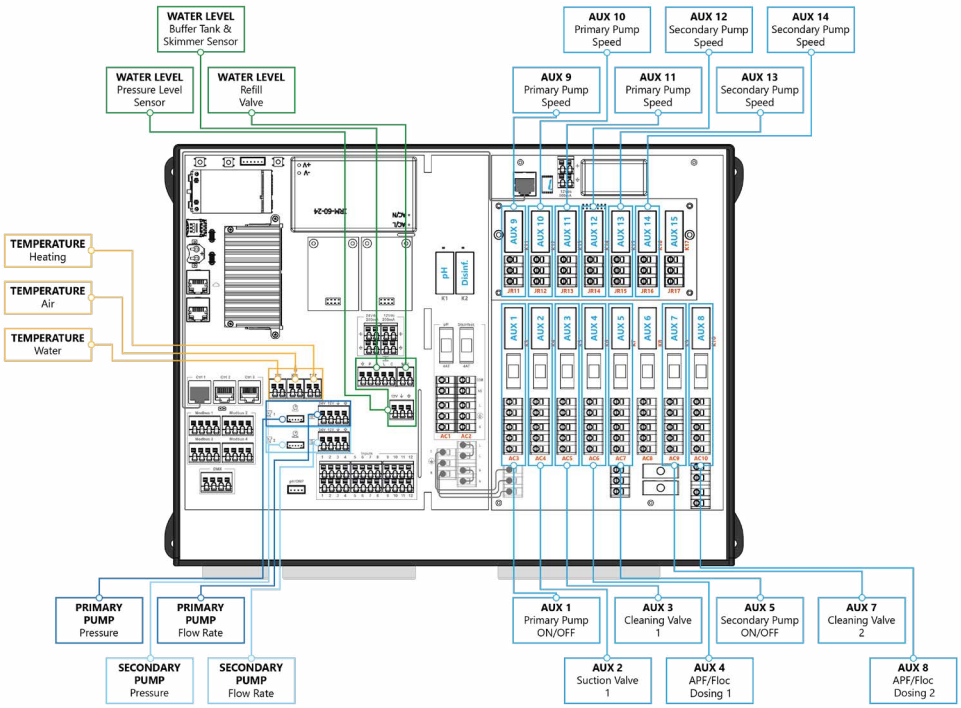
Click on **APPLY** to save all configurations

CAUTION:

When a freeze risk is detected but the pump is not controlled or filtration is set to STOP, the alert WARNING: FREEZING RISK will notify you that PoolCop cannot manage the situation.

Immediate intervention is required.

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:
Hydraulic Coefficient = Pool Volume / 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 ECO mode and adjusts filtration duration accordingly.

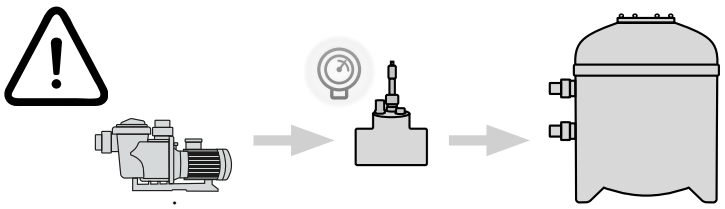
Filter Cleaning
Regularly maintain and clean the filtration media as specified by manufacturer instructions and code requirements.

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.

4.6 PRESSURE SENSOR(S)

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

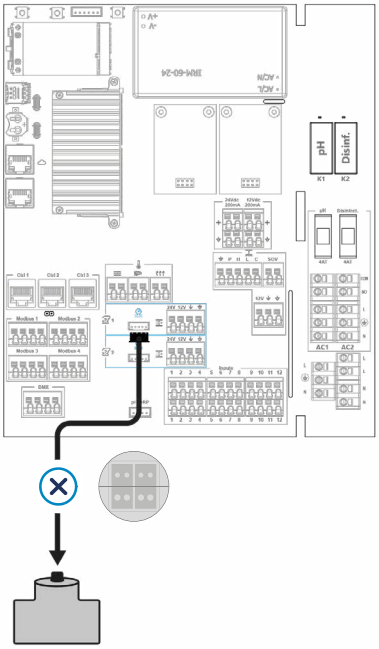


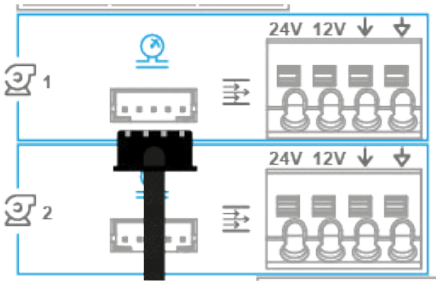
IMPORTANT:
The pressure sensor must be located either:
Between pump and filter for pressurized filters, or in the pump suction line for vacuum filters.

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)





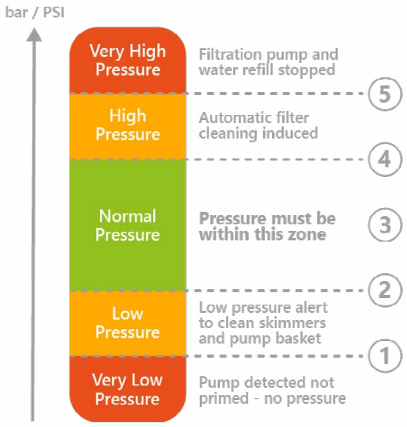
INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **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**

4.6.2 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

- Installing an Edge Plus Board
- Setting up the filtration
  - Pumps
    - Connecting 1 Single Speed Pump
    - Connection 2 Single Speed Pumps
    - Connecting 1 Variable Speed Pump
    - Connecting 2 Variable Speed Pumps
    - Assessing Pump Control and Pressure Baselines
  - Flow Meters
    - Connecting 1 or 2 FlowVis® Flow Meter(s)
    - Connecting 1 or 2 Flowsonic Flow Meter(s)
    - Configuring the Flow Meter
  - Filtration Settings
    - Specific Speed Settings
  - Pressure Inhibition
  - Installing 1 or 2 Backwash Valve(s) (5 Way Besgo)
    - Testing Backwash Valves
  - Installing 1 or 2 Rinse Valve(s) (3 Way Besgo)
    - Testing Rinse Valves
  - Installing a Suction Valve (3 Way Besgo)
    - Testing a Suction Valve
    - Setting the Circulation Modes
  - Installing the Flocculant Injection
  - Installing the Water Level
    - Installing Skimmer Water Level Sensors
    - Installing Overflow Water Level Sensors
    - Installing a Refill Valve
    - Setting the Water Level control
    - Testing the Sensor Installation
    - Priming the Refill Valve
- Setting up the water treatment
  - Installing the pH+ORP Sensor and the Water Treatment
    - pH+ORP Sensor
    - pH Control
    - Disinfection Control
    - Installing the Dosing Pumps
    - Installing a Salt System
  - Setting the pH Control
  - Setting the Disinfection Control
  - Additional Sensors - Installation and Settings
    - Free Available Chlorine
  - Remnant Installation and Settings
  - ACO Installation and Settings

5 INSTALLING THE POOL EQUIPMENT

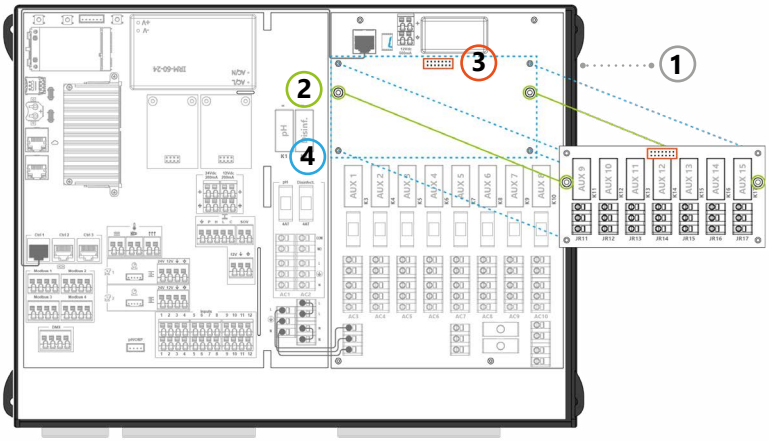
- Setting Up the Optional Equipment
  - Auxiliaries
    - General wiring
    - Aux Modes - Manual / Timer / Pulse
    - Connecting a Heating Pump
    - Setting up a Heating Pump
    - Connecting a Transfer Pump
    - Setting up a Transfer Pump
    - Connecting Lights
  - Inputs
    - Inputs Wiring
    - Input Descriptions
    - Input Settings
    - Sense of Action
  - Installing 1 or 2 Flow Detection Sensor(s)
  - Pool Cover and JetStream
    - Pool cover
    - Counter-Current Unit (JetStream)
  - External Alarms
  - Energy Meter

5 INSTALLING THE POOL EQUIPMENT

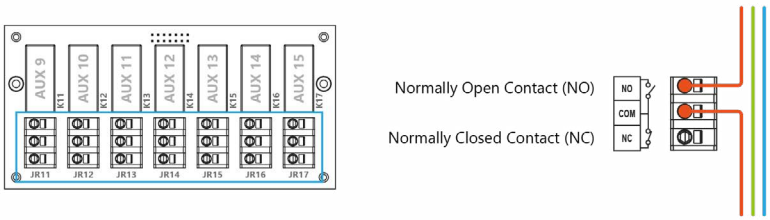
5.1 INSTALLING AN EDGE PLUS BOARD

POOLCOP EDGE PLUS BOARD

IMPORTANT:
MANDATORY FOR VARIABLE SPEED PUMPS



1. Ensure the PoolCop unit is switched **OFF**
2. Place the Edge Plus board in front of the installation guides
3. Press the board to the back plate until the male / female connectors clips together, to ensure correct communication between both boards.
4. Screw the board in place with the 4 screws provided.
5. Switch the PoolCop unit back **ON**.



WIRING EXAMPLE FOR NO CONTACT

Edge Plus relays are **Dry Contact relays**.

When activated, the Normally Open (NO) relays will close and the Normally Closed (NC) relays will open.

5 INSTALLING THE POOL EQUIPMENT

5.2 SETTING UP THE FILTRATION

5.2.1 PUMPS

IMPORTANT:

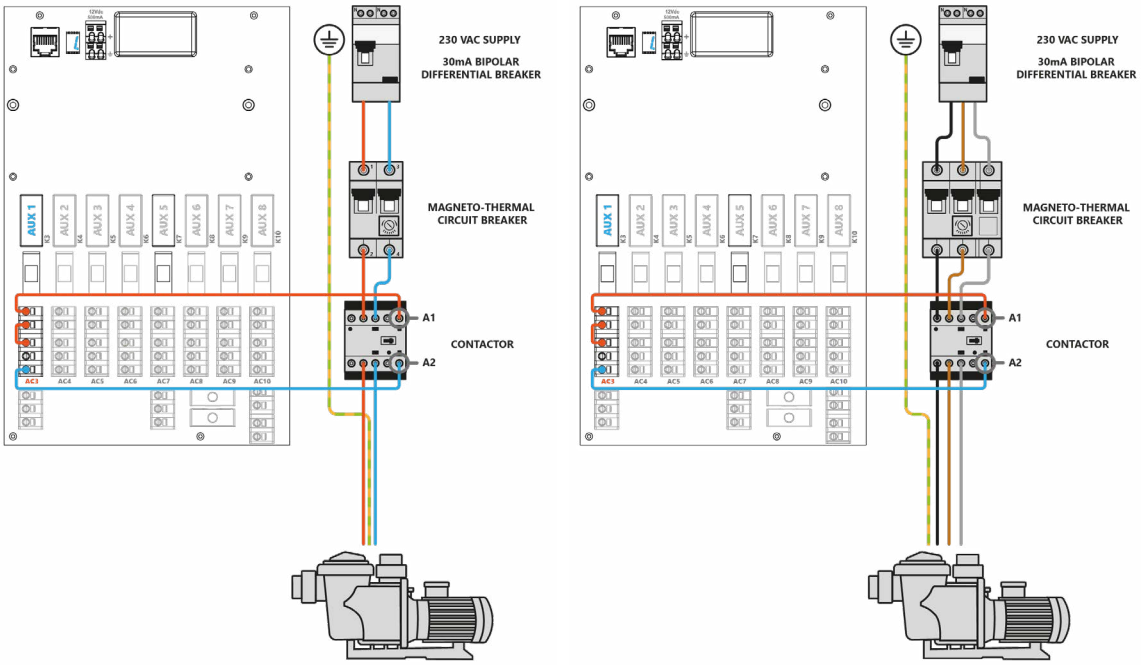
If installing the PoolCop unit in a **preexisting installation**:

- Disconnect the power supply to and from the existing pump timer.
- Disconnect the pump timer, or remove if appropriate, noting the wires that are connected to the pump or pump protection and relay.

CONNECTING 1 SINGLE SPEED PUMP

IMPORTANT:

Pump 1 is the PRIMARY pump, controlling the water treatment and water level.
AUX 1 (AC3) is reserved for 1 single speed pump



SINGLE PHASE PUMP CONNECTION

If connecting a **single (or two) phase pump**, it is recommended that the pump has an independent supply.

THREE PHASE PUMP CONNECTION

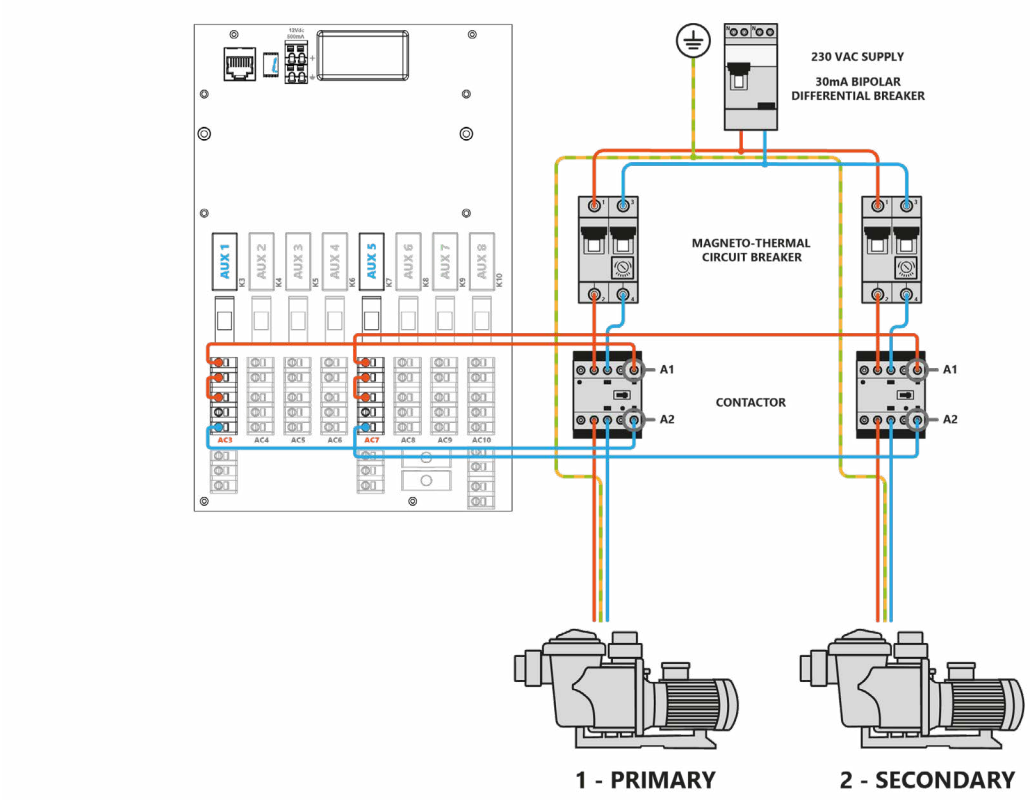
If connecting a **three-phase pump**, the pump must have an independent supply.

5 INSTALLING THE POOL EQUIPMENT

CONNECTING 2 SINGLE SPEED PUMPS

IMPORTANT:

Pump 1 is the PRIMARY pump, controlling the water treatment and water level.
AUX 1 (AC3) is reserved for the PRIMARY pump.
AUX 5 (AC7) is reserved for the SECONDARY pump.



5 INSTALLING THE POOL EQUIPMENT

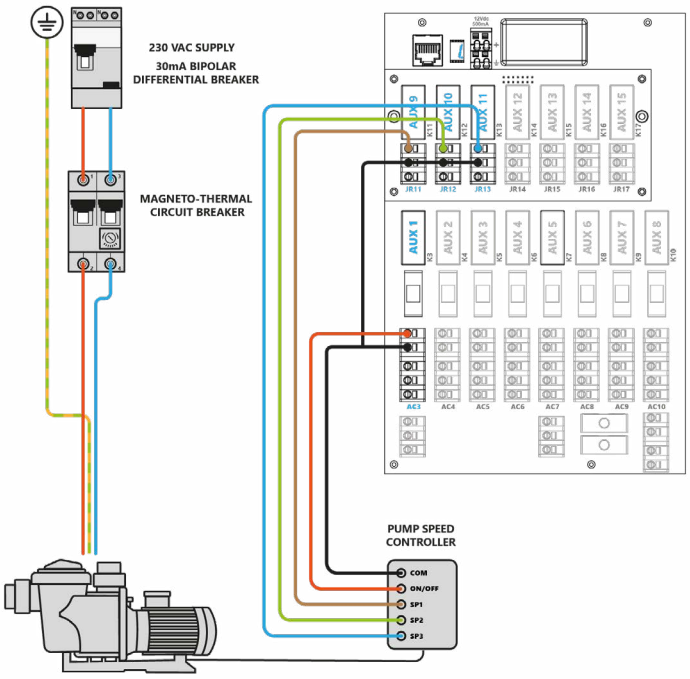
CONNECTING 1 VARIABLE SPEED PUMP

A variable speed pump allows precise control over water circulation, adapting its speed to the needs of the pool system. This flexibility results in lower energy consumption, quieter performance, and more efficient filtration compared to single-speed pumps. Operating at adjustable speeds also puts less stress on equipment, contributing to a longer service life and reduced maintenance.

Pump speeds can be easily adjusted through the filtration settings, allowing operators to schedule and set specific speeds according to pool requirements. This ensures optimal performance based on factors like cleaning, heating, or routine filtration, with settings that can be quickly adapted as needed.

IMPORTANT:
The Edge Plus board is obligatory.

Pump 1 is the PRIMARY pump, controlling the water treatment and water level.
AUX 1 (AC3) is reserved for **ON/OFF** of the PRIMARY pump.
AUX 9 (JR11), AUX 10 (JR12) and AUX 11 (JR13) are reserved for pump speeds.



THEORETICAL WIRING.
REFER TO THE VARIABLE SPEED PUMP GUIDE FOR PUMP SPECIFIC WIRING
www.poolcop.com/downloads

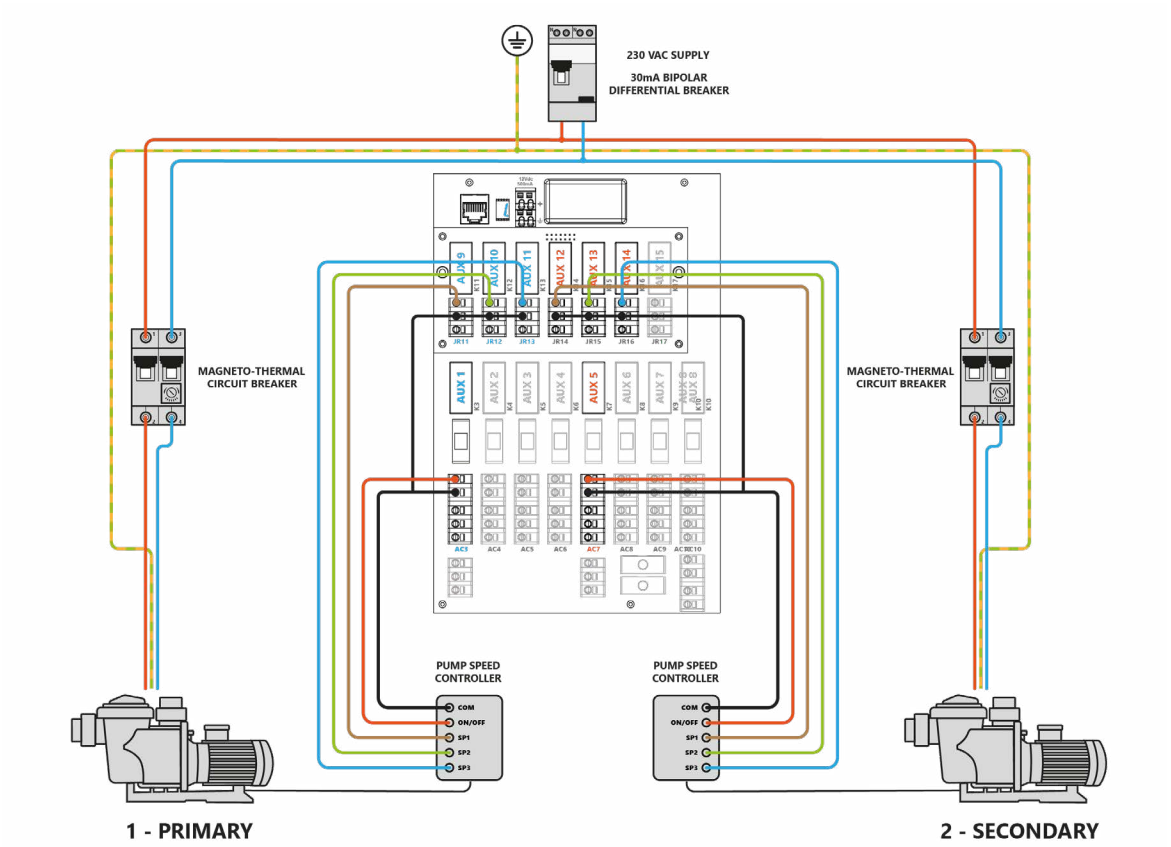
5 INSTALLING THE POOL EQUIPMENT

CONNECTING 2 VARIABLE SPEED PUMPS

The unit can manage two variable speed pumps simultaneously, offering coordinated control over both primary and secondary circulation systems. This allows operators to independently adjust the speeds and schedules of each pump to match different pool zones or operational requirements, ensuring efficient performance and adaptability for more complex installations.

IMPORTANT:
The Edge Plus board is obligatory.

Pump 1 is the PRIMARY pump, controlling the water treatment and water level.
AUX1 (AC3), AUX 9 (JR11), AUX 10 (JR12) and AUX 11 (JR13) are reserved for the PRIMARY pump speed control.
AUX5 (AC7), AUX 12 (JR14), AUX 13 (JR15) and AUX 14 (JR14) are reserved for the SECONDARY pump speed control.

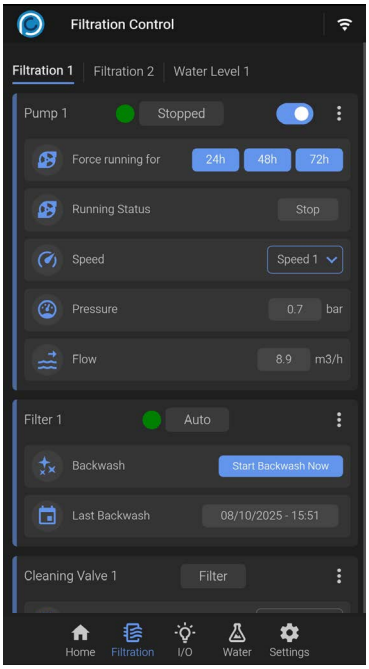


THEORETICAL WIRING.
REFER TO THE VARIABLE SPEED PUMP GUIDE FOR PUMP SPECIFIC WIRING.
www.poolcop.com/downloads

5 INSTALLING THE POOL EQUIPMENT

ASSESSING PUMP CONTROL AND PRESSURE BASELINES

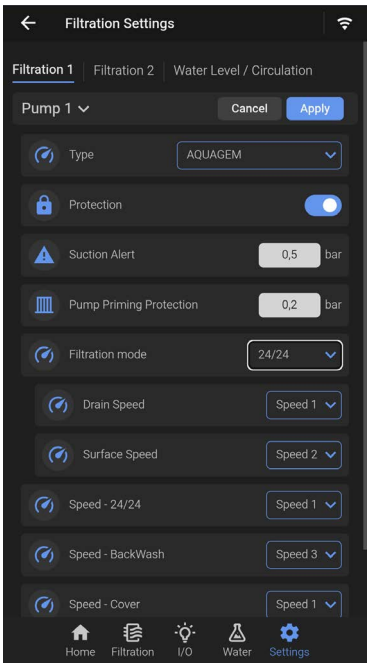
In general, the filtration pump is controlled automatically by PoolCop using filtration in manual, timer or automatic modes. If, however, you want to run the pump at another time or need to restart the pump after stopping it for any reason, this is done from the **FILTRATION SHORTCUT MENU.**



Test the control of the PoolCop on the filtration pump:
Use the toggle and Speed settings to START / STOP and CHANGE THE SPEEDS of the pump.

NOTE:
While testing pump control, note down the pressure measurements for subsequent system protection and filter settings.

PUMP SETTINGS



PUMP TYPE:
Choose **NO PUMP, SINGLE SPEED** or **VARIABLE SPEED** pump type in the dropdown menu.

PROTECTION:
Setting PUMP PROTECTION will effectively protect the pool equipment in case of pump failure ,or alert if the pressure is lower than usual and the system requires attention *(See "4.6.2 Assessing Pressure Parameters")*:

- **PUMP PRIMING**:
  The pump is considered not primed when the pressure falls below this threshold.
  All water treatment and all equipment slaved to the filtration will stop, and a "No Pressure" alert will be triggered.
  If protection is enabled, the pump will also stop.
  The threshold should be set approximately 0.2 bar above the static pressure, meaning the pressure when the pump is stopped, but below the pressure at the lowest speed.

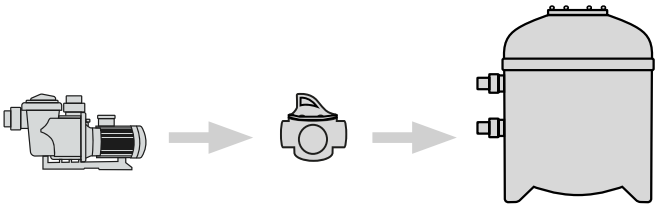
- **SUCTION ALERT**:
  If protection is set, a "Low Pressure" alert will be triggered to indicate potential clogging of skimmer or pump baskets.
  This will not affect filtration operation.
  The threshold should be set above the Pump Priming pressure but below the pressure at the lowest speed.

ERROR MESSAGES can occur if pressure settings are incoherent (ex: Pump priming > Suction alert).

Static Pressure (pump stopped)	<	**Pump Priming**	<	**Suction Alert**	<	**Pressure at lowest speed**

5.2.2 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.



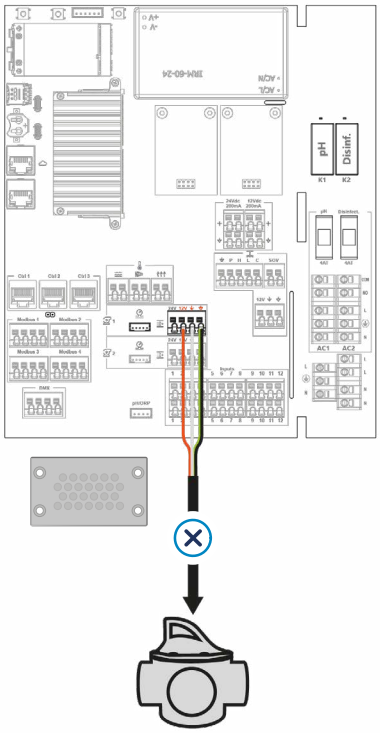
For optimal use, Flow Meters should be installed between the pump and the filter.

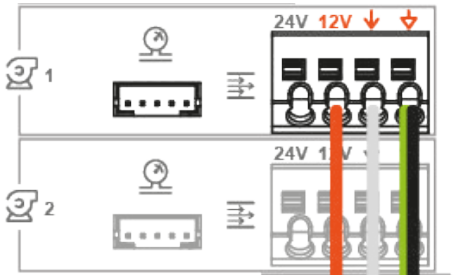
CONNECTING 1 OR 2 FLOWVIS® FLOW METER(S)

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).

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.





INSTALLATION 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**

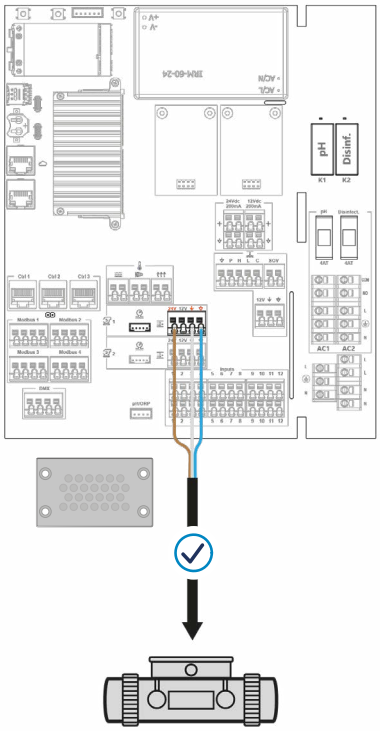
5 INSTALLING THE POOL EQUIPMENT

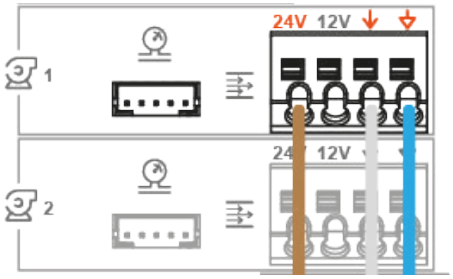
CONNECTING 1 OR 2 FLOWSONIC FLOW METER(S)

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.

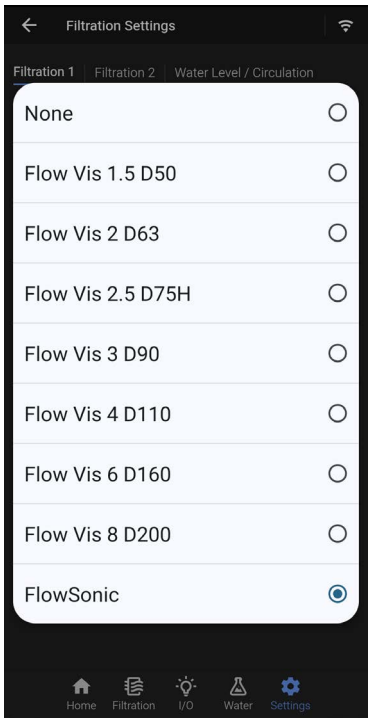


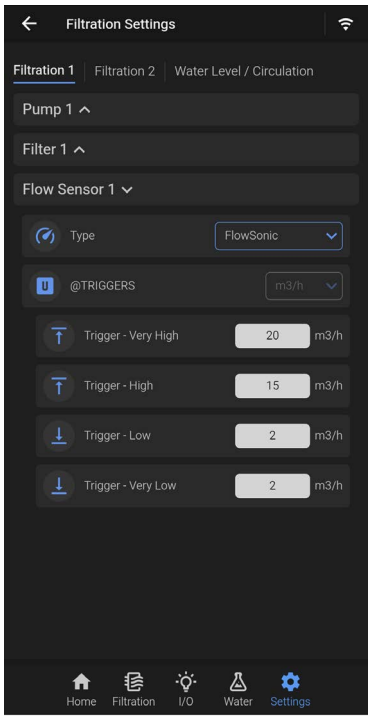


INSTALLATION NOTES:

- 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**

CONFIGURING THE FLOW METER





Select the type of Flow Meter installed within the list.

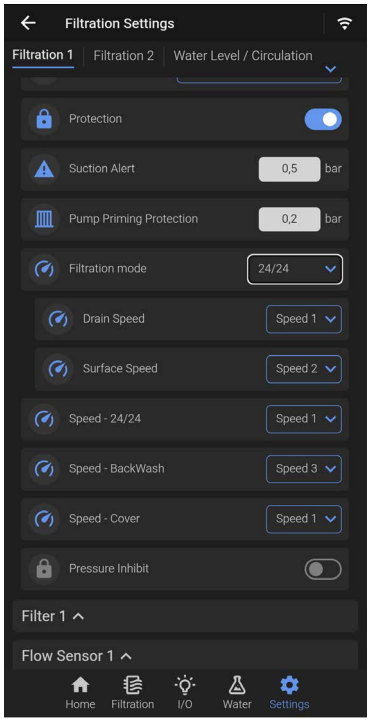
Set the **Alert triggers**:
Very Low - Low
High - Very High

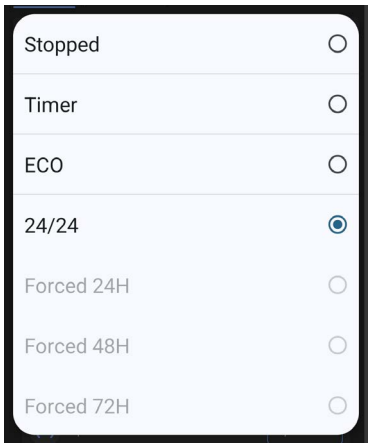
5.2.3 FILTRATION SETTINGS

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.

The unit offers several filtration modes—such as timed cycles, eco settings, and continuous operation—to accommodate different pool usage patterns and requirements. By selecting the most appropriate mode, users can ensure filtration remains efficient and effective at all times, supporting clean and healthy water before, during, and after changes in demand.

WARNING:
The filtration mode used must respect local and national codes and regulations.
In commercial pools 24/24 or NO PUMP modes are typically required.





FILTRATION MODE

STOPPED : no filtration set.

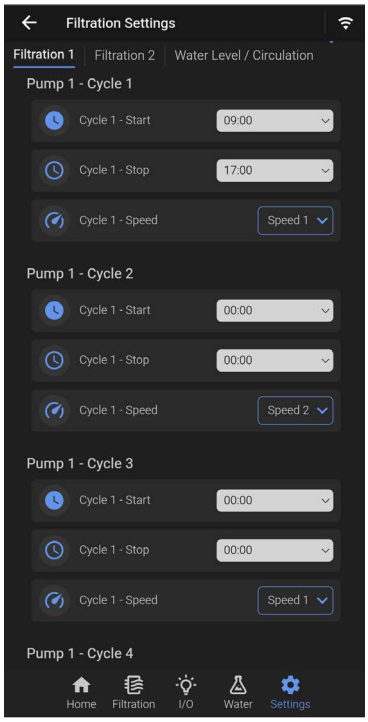
NO PUMP
Pump and Pump Speeds are not controlled by the PoolCop. **Filtration is considered as ongoing if the pressure is above the Pump Priming threshold.**

TIMER
Allows configuration of up to 4 filtration cycles with individual speed settings.

ECO
Set up the 1st cycle duration and the start of the 2nd cycle, and PoolCop Infinity will calculate optimal filtration time based on water temperature and hydraulic coefficient.
WARNING : Requires complete Pool Setting configurations. Only recommended when water temperature is below 25°C.

24/24
Runs the pump continuously, 24 hours a day, at the speeds set for each cycle or according to suction valve position, if equipped.

FORCED 24h/48h/72h (started in shortcut menu):
Temporarily runs filtration in 24/24 mode for the selected period, then automatically reverts to previous settings.

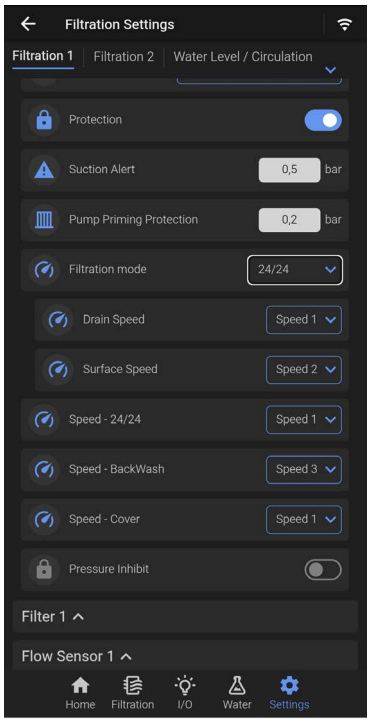


SETTING THE FILTRATION CYCLES
(Timer - 24/24 *without suction valve* – Forced Modes)

Configure up to four filtration cycles to match pool usage, adjusting for factors like day/night variation and bathing load.

- Set the start and end times for each cycle.
- Assign a pump speed to each cycle as needed.
- During 24/24 mode, assigned speeds are used outside of defined cycles.
- If cycles overlap, the order of priority applies: Cycle 1 > Cycle 2 > Cycle 3 > Cycle 4.

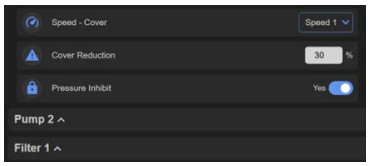
SPECIFIC SPEED SETTINGS



Some pump settings relate to specific situations :

- **Backwash Speed:** If backwash valve installed, speed at which the PoolCop will perform a backwash.
- **Speed Cover:** If no suction valve installed and cover position detected via an Input, speed when cover closed.
- **Cover Reduction:** If single speed pump and cover position detected via an Input, will reduce water treatment by the set percentage.

5.2.4 PRESSURE INHIBITION



⚠ **Only if Flow Switch installed.**

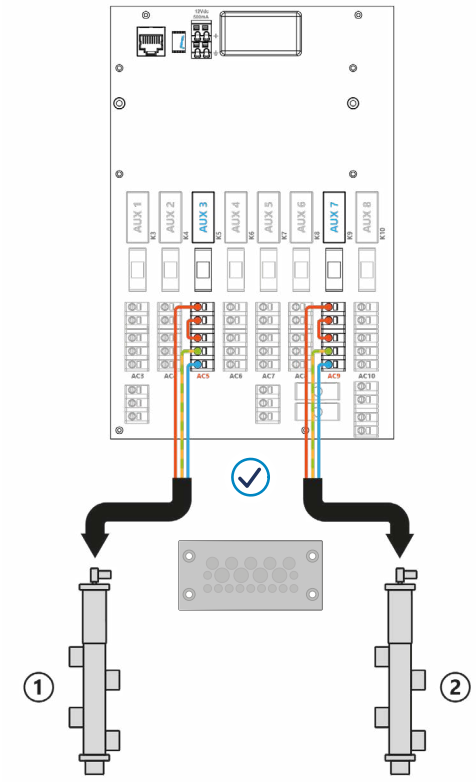
Will disable Pressure Protections temporarily **in case of pressure sensor disfunction:**
Pump Speed settings and Water treatment will be maintained.

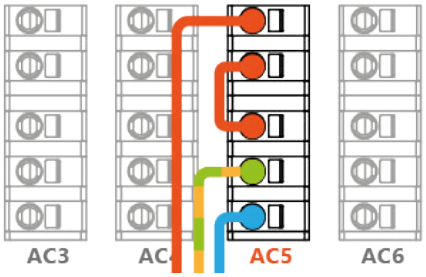
⚠ **This is a temporary setting and should only be used in emergency situations.**

CAUTION: Chemical injections security will be based solely on the flow switch signal, so make sure the flow switch is working properly.

5.2.5 INSTALLING 1 OR 2 BACKWASH VALVE(S) (5 WAY BESGO)

1 or 2 BESGO 5 ways valve can be installed to clean the filter and reduce the water level in case of heavy rain. The valve must be controlled via the AUX3 (AC5) relay (Cleaning Valve 1) or AUX7 (AC9) relay (Cleaning Valve 2) and must be appropriately programmed.



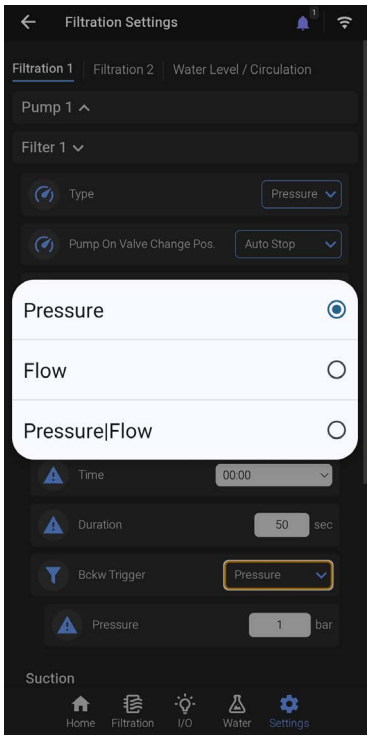


IMPORTANT:
Use only a 5 Way valve.
To install the valve on the filter please refer to the BESGO instruction manual.

INSTALLATION NOTES:

- Stop the pump and all hydraulic power sources.
- Ensure the PoolCop unit is switched **OFF** and disconnect the electrical power
- Route the wire through the adapted entry plate
- Extendable cable
- Use AUX 3 (AC5) for the PRIMARY filter backwash
- Use AUX 7 (AC9) for the SECONDARY filter backwash
- Switch the PoolCop unit ON.

5 INSTALLING THE POOL EQUIPMENT



FILTER 1 / FILTER 2 correspond to PUMP 1 and PUMP 2 backwash valves respectively.

- **Type** : NONE / PRESSURE / SUCTION
- **Pump On Valve change position** : Choose whether the pump stops when the valve position changes.
- Install **Cleaning Valve**: NONE / BESGO

BACKWASH 1:
Configure settings and triggers for backwash valve 1 :

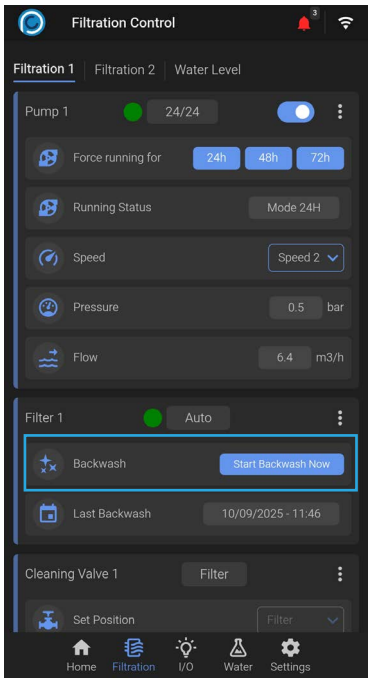
- **Mode:** Auto / Manual / Inhibited
- **AUTO Mode Triggers**:
  - **Frequency:** Number of days between 2 backwashes
  - **Time:** Scheduled time for backwash
  - **Duration:** Set in seconds
  - **Trigger Type:**
    - **Pressure:** Start backwash when above threshold
    - **Flow:** Start backwash when below threshold
    - **Both:** Starts backwash when either the pressure or the flow thresholds are reached

  Note : if Frequency is set to 0, backwash triggers will solely be based on Pressure and/or Flow
- **MANUAL Mode**: Alerts are emitted when the above thresholds are met

BACKWASH 2:
Chose settings and triggers for backwash valve 2

NOTES:
The first trigger reached will start a backwash (this includes frequency).

TESTING BACKWASH VALVE(S)



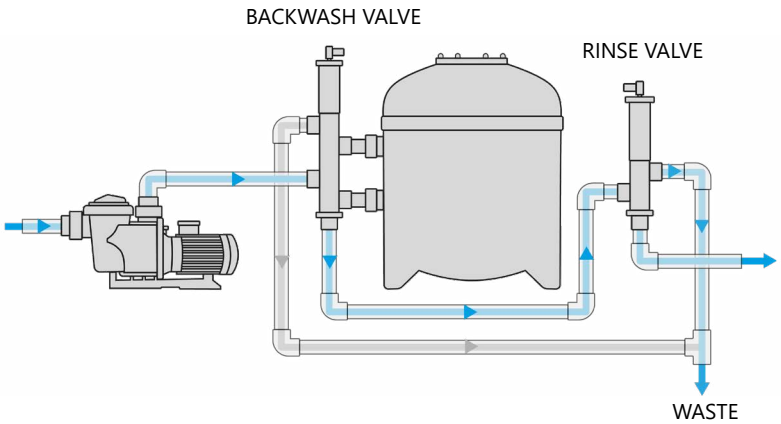
Go to the Filtration ShortCut Menu and launch a Backwash MANUALLY.

REMINDER
Depending on previous settings, stop the Pump if required to do so for cleaning the filter.

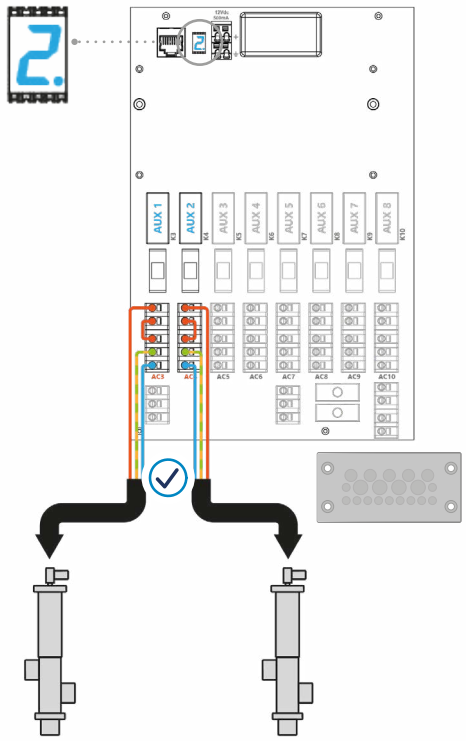
5.2.6 INSTALLING 1 OR 2 RINSE VALVE(S) (3 WAY BESGO)

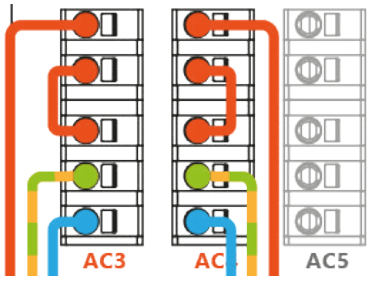
If the filter is a pressure-type model and a backwash valve has been configured, a BESGO 3-way valve can be added to perform a rinse cycle.

IMPORTANT:
Rinse valves must be installed in a **secondary** Edge unit.



5 INSTALLING THE POOL EQUIPMENT



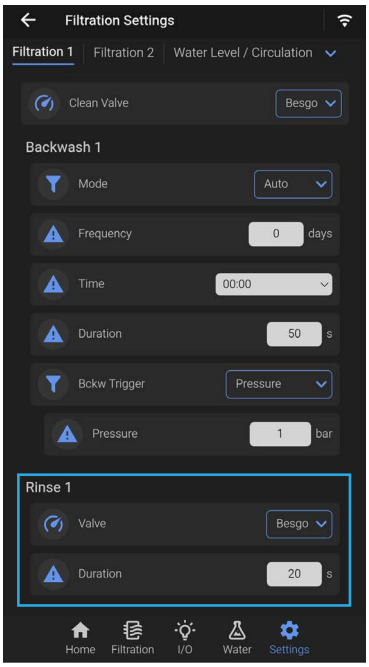


IMPORTANT REMINDER:
Rinse valves must be installed in a **secondary** Edge unit

INSTALLATION NOTES:

- Stop the pump and all hydraulic power sources.
- Ensure the PoolCop unit is switched **OFF** and disconnect the electrical power
- Route the wire through the adapted entry plate
- Extendable cable
- AUX 1 (AC3) of Edge n° **2** is reserved for the primary rinse valve.
- AUX 2 (AC4) of Edge n° **2** is reserved for the secondary rinse valve.
- Switch the PoolCop unit ON.

TESTING RINSE VALVE(S)



RINSE 1 / RINSE 2 correspond to PUMP 1 and PUMP 2 rinse valves respectively.

- **Valve Type** : NONE / BESGO
- **Duration:** Set in seconds

Testing the 3 Way rinse valve(s):
Go to the Filtration SHORTCUT Menu and launch a backwash manually as described in the previous section.

5.2.7 INSTALLING A SUCTION VALVE (3 WAY BESGO)

A BESGO 3 way valve can be installed to select pump suction:

- Either via the **SURFACE** - skimmers or buffer tank
- Or via the **DRAIN** - bottom drain

With a BESGO 3-way valve, cleaning can be performed automatically through the main drain, which boosts washing efficiency by using the pool's cleanest water and providing higher pressure for faster cleaning. This setup also prevents pump drying during cleaning cycles on skimmer-equipped pools.

Conversely, surface suction (through skimmers or a balance tank) primarily captures floating contaminants such as oils and debris, making it especially effective when the pool cover is open.

Automating the selection of the water intake (surface or main drain) based on season or temperature further enhances energy efficiency and water quality.

NOTE:

The position of the suction valve is governed by a set of rules (listed below in decreasing order of priority):

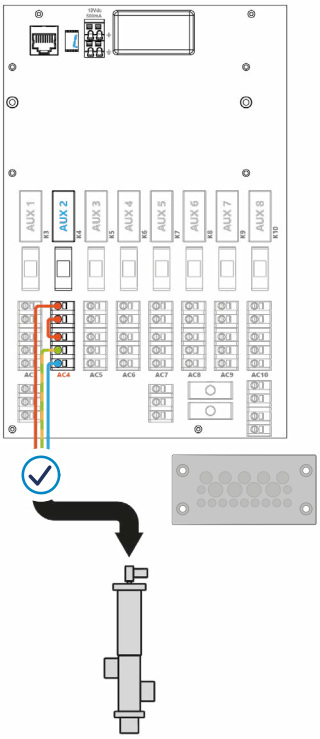
Overflow pools:

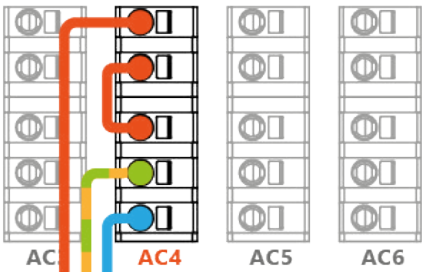
1. If the pumped is stopped or not primed, from the drain
2. During filter cleaning, position defined for filter cleaning
3. If the water level is low, from the drain
4. If a surface cycle is active, from the surface
5. If the water level is very high, from the surface
6. If a manual overflow was requested, from the surface
7. If a bottom cycle is active, from the drain
8. Otherwise, for pools with covers:
   - If the cover is open, from the surface
   - If the cover is closed:
     - If ECO mode is not active, from the drain
     - If ECO mode is active and the air temperature exceeds its setpoint by 1°C, from the surface

Skimmer pools and spas:

1. During filter cleaning, position set for filter cleaning
2. After filter cleaning, and if configured, forced from the drain for a period of 15 to 120 minutes
3. If the water level is low, from the drain
4. Otherwise, from the surface

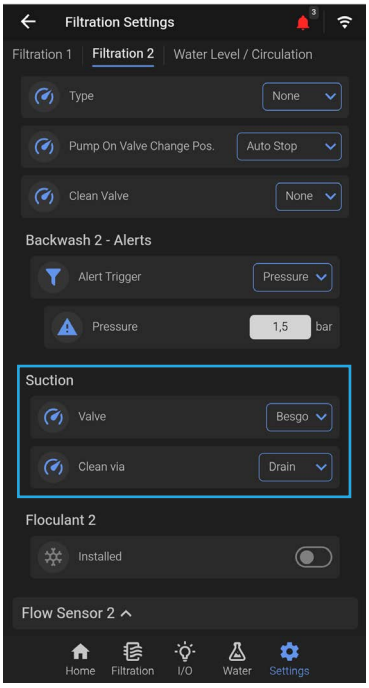
5 INSTALLING THE POOL EQUIPMENT





INSTALLATION NOTES:

- Stop the pump and all hydraulic power sources.
- Ensure the PoolCop unit is switched **OFF** and disconnect the electrical power**.**
- Route the wire through the adapted entry plate
- Extendable cable
- AUX 2 (AC4) is reserved for the suction valve
- The valve must be appropriately programmed.
- Switch the PoolCop unit ON.



- **Valve Type:** NONE / BESGO
- **Clean via:** DRAIN / SURFACE
  If a BESGO 3 Way suction valve is configured, you can choose whether the water used to clean (and rinse) the filter(s) is taken from the surface (skimmer or buffer tank) or directly from the pool drain.

  This parameter is the same for filter 1 and filter 2.

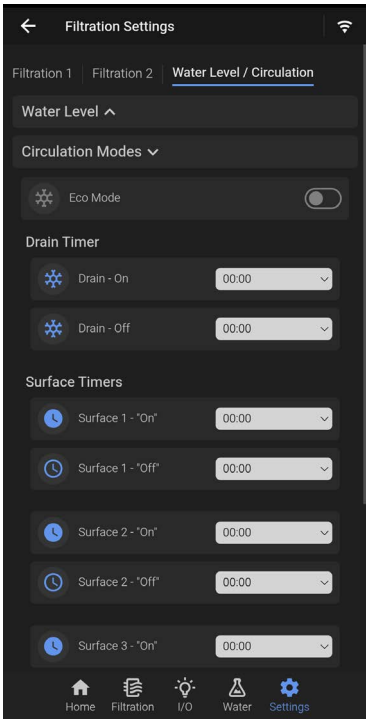
Cleaning via the drain can allow for smaller buffer tanks on overflow pools and helps prevent loss of pump priming on skimmer pools when the water level drops below the skimmer during a backwash.

5 INSTALLING THE POOL EQUIPMENT

TESTING A SUCTION VALVE

1. Disconnect power to the solenoid.
   - For skimmer pools: Confirm that suction is through the skimmers.
   - For overflow pools: Confirm that suction is from the pool drain.
2. Restore power to the solenoid.
3. Once the valve is programmed, open the FILTRATION SHORTCUT menu and initiate a backwash.
4. During filter cleaning, suction will be drawn either from the pool drain or from the surface (skimmer or buffer tank), according to the programmed settings

SETTING THE CIRCULATION MODES



⚠ ONLY IN OVERFLOW POOLS

- **ECO Mode:** only available if the pool is equipped with a cover.

  When the pool cover is closed, water circulation can be switched automatically according to the outside air temperature.

  Below a defined **air temperature setpoint**, suction is taken directly from the bottom drain, reducing evaporation and energy losses. If the air temperature rises 1 °C above the setpoint (and if the filtration conditions are met), the pool switches back to overflow mode.

- Fixed **daily circulation cycles** can be configured as follows:
  - **1 DRAIN cycle,** for example to reduce noise during the night.
  - **Up to 4 SURFACE cycles** to optimise control of overflow periods.

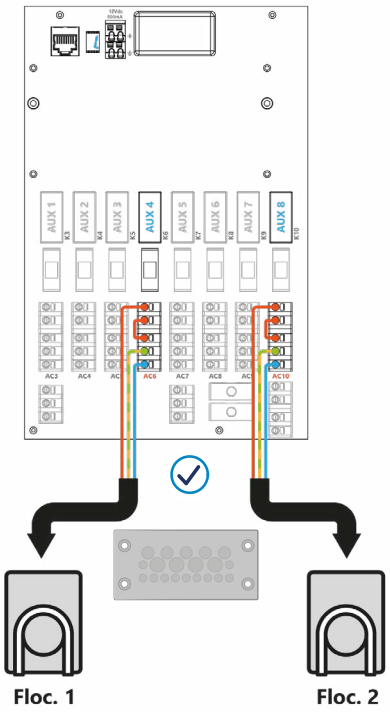
  Reminder: A SURFACE cycle has priority over a DRAIN cycle.

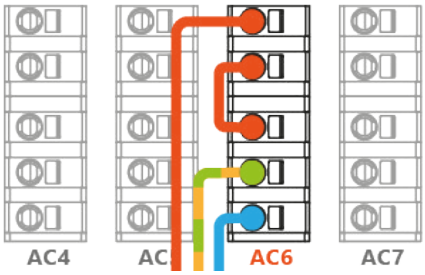
Overflow can also be requested manually from the Filtration SHORTCUT Menu.

NOTE:
In specific situations such as backwash, water level control or low pressure, the suction valve position may change according to the priority rules.

5.2.8 INSTALLING THE FLOCCULANT INJECTION

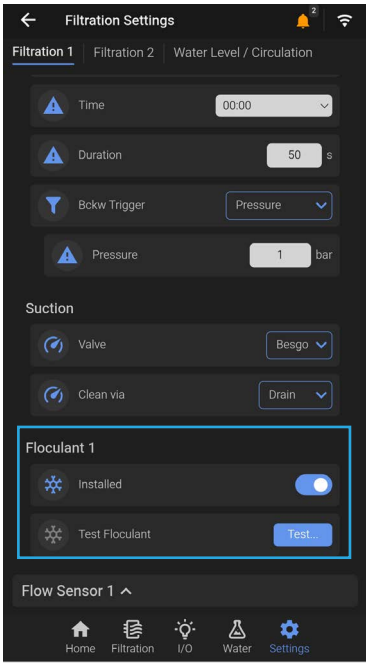
If installed, Flocculant (APF) will be injected continuously when the filtration is on (pump started and water goes through the filter).
Choose the dosing pump flow according to the flocculant manufacturer's guidelines.

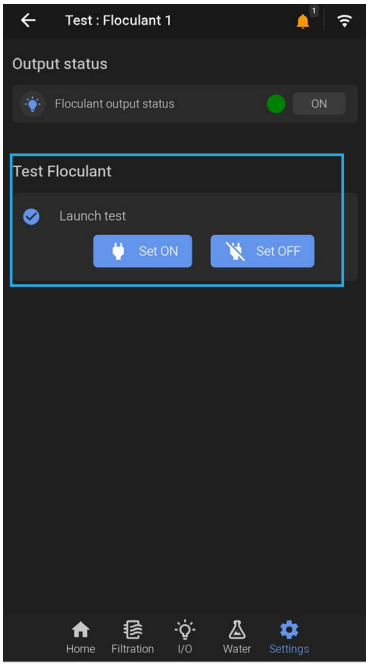




INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Extendable cable
- AUX 4 (AC6) is reserved for the flocculant injection on the primary pump.
- AUX 8 (AC10) is reserved for the flocculant injection on the seconadry pump.
- The AC6 and AC10 relays can withstand a **maximum of 4 A each**.
  If the dosing pump requires higher current, use the dry contact to control a contactor coil.
- Switch the PoolCop unit ON.





FLOCCULANT 1 / FLOCCULANT 2 correspond to PUMP 1 and PUMP 2 flocculant injections respectively.

Once declared as installed, the dosing pump control can be tested.

5.2.9 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 only possible if a 5-way Besgo Cleaning valve is installed.**

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, the water level is checked and adjusted if refilling is possible.

5 INSTALLING THE POOL EQUIPMENT

To account for overflow pools and potential level fluctuations in the buffer tank, the refill action can be repeated up to 20 times, with a 20-second delay between each level check. The repetitions stop as soon as the water level remains at the setpoint.

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.

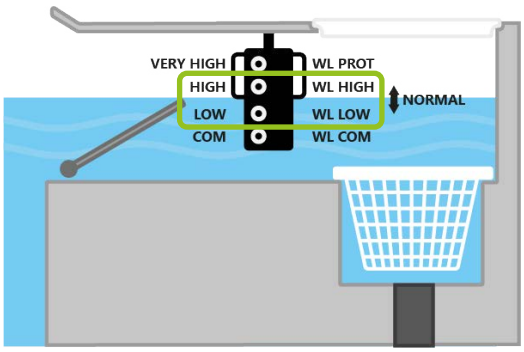
NOTE:

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

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

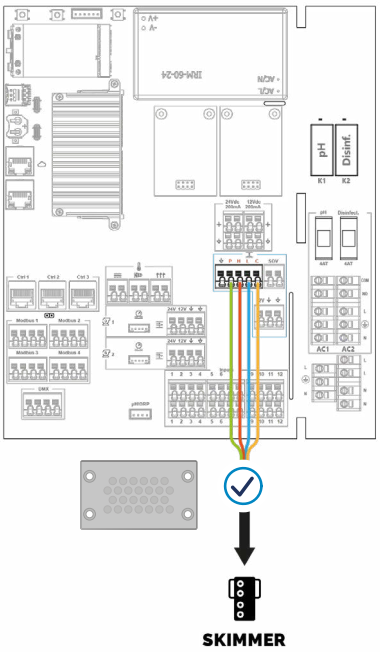


Normal water level must be between **WL HIGH** and **WL LOW**.

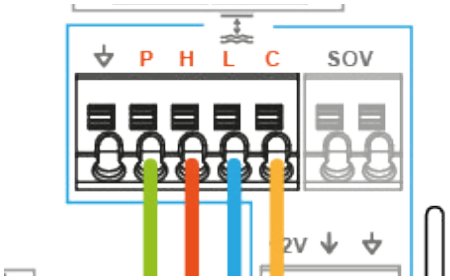
WL HIGH must be below pool overflow level and at an appropriate level with regards to the skimmer.

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

5 INSTALLING THE POOL EQUIPMENT



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



INSTALLATION NOTES:

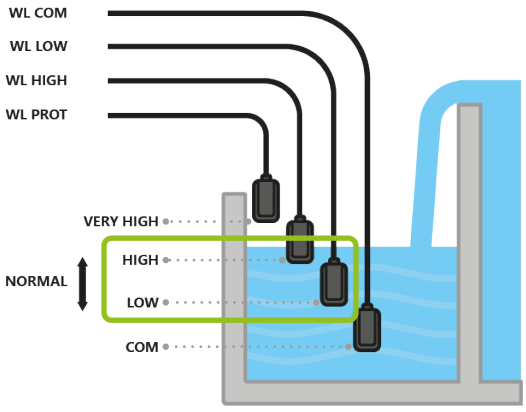
- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Extendable cable
- Green - P = Very High
  Red - H = High
  Blue - L = Low
  Yellow - C = Very Low
- Switch the PoolCop unit **ON**

INSTALLING OVERFLOW 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.

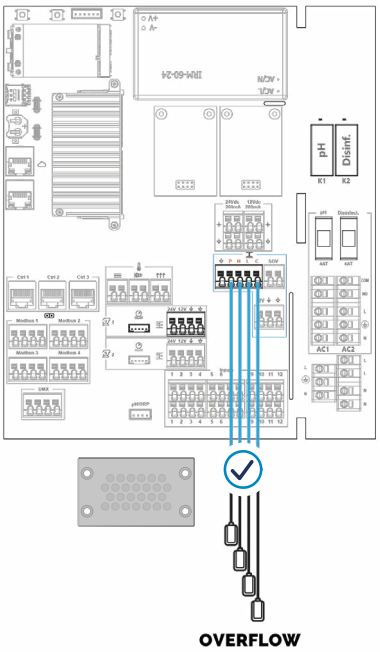


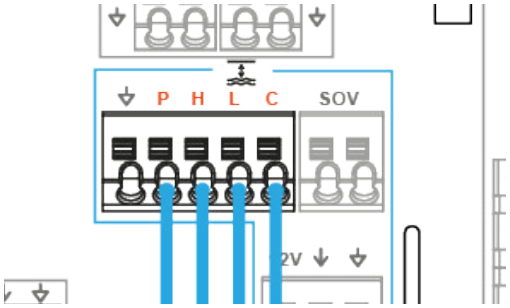
Normal tank level must be between **WL HIGH** and **WL LOW**.

WL HIGH must be below tank overflow level.

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

5 INSTALLING THE POOL EQUIPMENT





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

INSTALLATION NOTES:

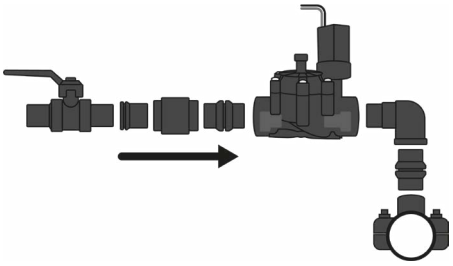
- Ensure the PoolCop unit is switched **OFF**
- Route the wire through the adapted entry plate
- Extendable cable
- P = Very High
  H = High
  L = Low
  C = Very Low
- Switch the PoolCop unit **ON**

INSTALLING A REFILL VALVE

IMPORTANT:
The refill valve must be 24 VAC powered.
Install the collar in a location where the flow of water to the pool cannot be isolated by a manual valve.

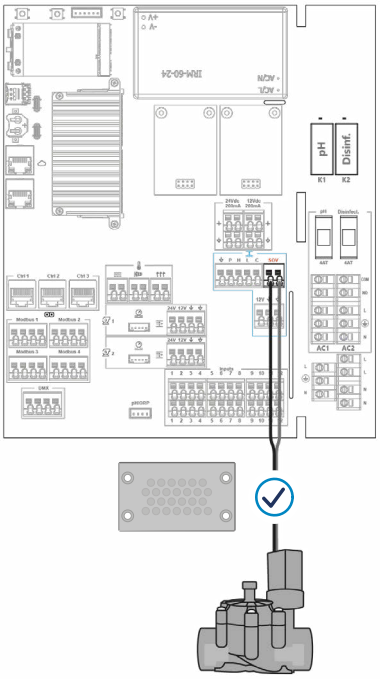
According to current standards and local regulations, and depending on the source of the top-up water, fresh water must be supplied to the pool via a disconnecting overflow tank. This ensures that pool water cannot flow back into the supply network.

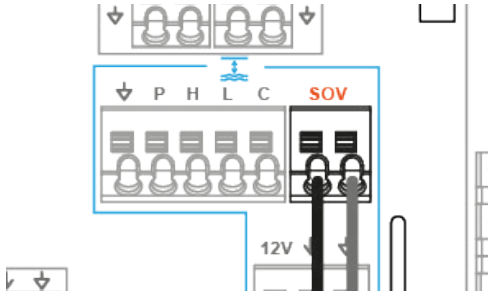
5 INSTALLING THE POOL EQUIPMENT



- 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.



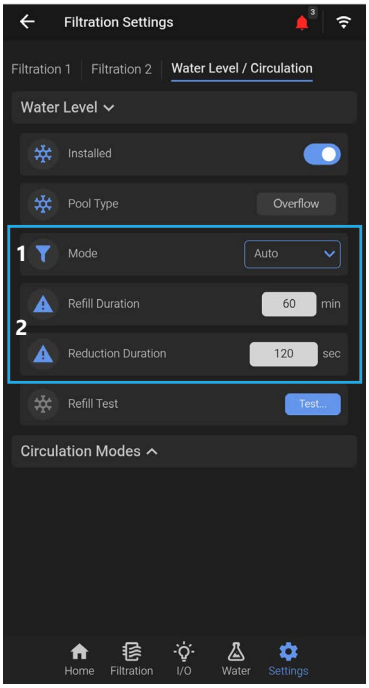


INSTALLATION NOTES:

- 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**

SETTING THE WATER LEVEL CONTROL



1 WATER LEVEL CONTROL MODES

- **Read Only** -
  Displays water level status and triggers alerts if needed. In overflow pools operating 24/24, will trigger overflow if water level reaches VERY HIGH.
  NOTE: If an overflow pool is equiped with a suction valve and the filtration is ON, then the suction valve rule will prevail and overflow will start if water level is detected as VERY HIGH.
- **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** -
  Decreases water level via backwash if detected level exceeds setpoint
  If backwash is Manual or Inhibited and a rinse valve is installed, excess water is sent to waste

  For **skimmer pools** the reduction will occur if water level is above setpoint for 15min.

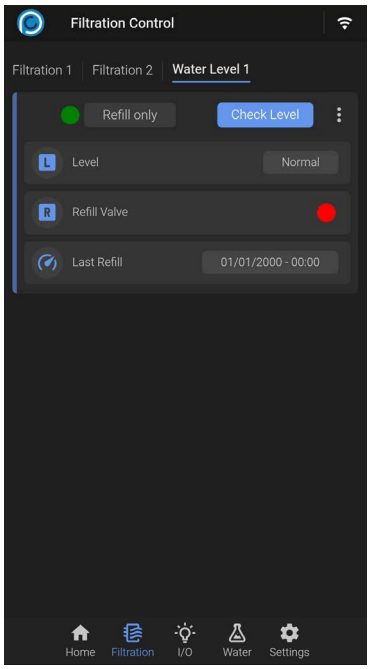
  For **overflow pools** the pump activates immediately at VERY HIGH level, running until either:
  - Level returns to NORMAL
  - VERY HIGH persists for 15 minutes (triggers a reduce cycle)
  - HIGH persists for 3 hours (triggers a reduce cycle)
  - Up to three reduction cycles are performed per day.
- **AUTO** : Automatically manages both refill and reduction functions.

2 - MAX DURATION is a daily timeout for pool refill **(Leak Protection)**.
If the maximum duration is reached within a 24-hour period, the system stops refilling until the next day and sends an alert: Check for possible leaks or low supply pressure. The alert **resets at midnight**, allowing refill to be retried the following day.
If the situation occurs on three consecutive days, refilling is inhibited until the alert is manually cleared.

BOTTOM FORCE: is only displayed for **Skimmers pools with a suction valve installed**.
Defines how long the water circulation is forced via the bottom drain after a backwash. This setting is important with slim skimmers to prevent loss of pump priming, allowing the pool to refill before returning suction to the skimmers.

5 INSTALLING THE POOL EQUIPMENT

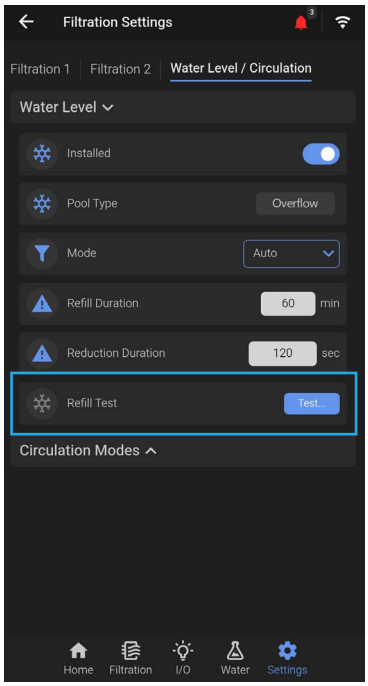
TESTING THE SENSOR INSTALLATION

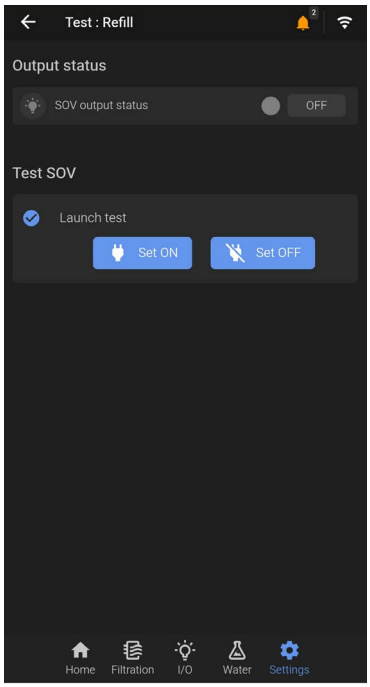


To confirm correct sensor wiring,we advise testing the sensors before final installation:

- 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.

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.

5.3 SETTING UP THE WATER TREATMENT

pH & DISINFECTION MEASUREMENTS AND CONTROL

WARNING:
PUMP 1 is the PRIMARY PUMP FOR WATER TREATMENT.
All references to Filtration / Pressure / Flow in this section concern **PUMP 1 ONLY.**

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.

5.3.1 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 electrolysis system	pH + ORP Au Sensor Kit	530018

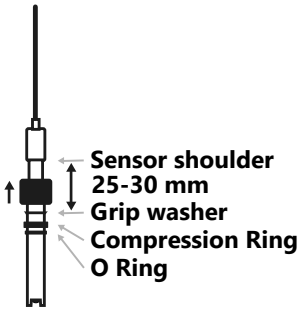
WARNING:
A pressure or flow sensing device should be properly installed and configured to ensure safe chemical dosing.

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.

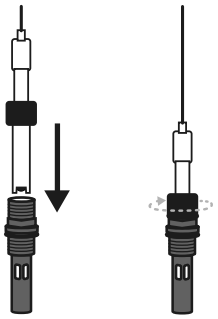
5 INSTALLING THE POOL EQUIPMENT

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

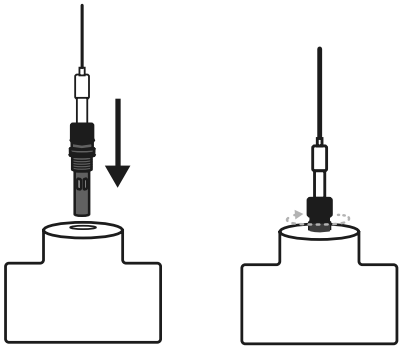
- Install and test an electrical earth bonding in accordance with local regulations.
- Test the water for presence of metals (iron, zinc, copper) and use a metal sequestrate treatment if presence is confirmed.



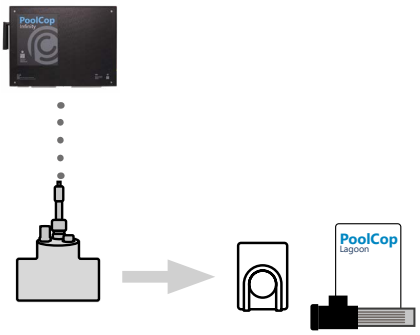
The blue (chlorine) or white (salt) band ensures spacing between the securing nut and the sensor shoulder.
The grab ring must be between 25-30 mm (0.98-1.18") from the sensor shoulder.
Adjust the compression ring and O-Ring accordingly, to sit under the grip washer.



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



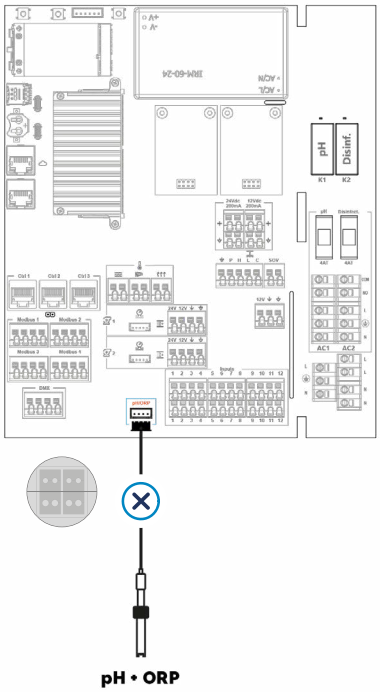
Insert the housing either in the Flow Cell or in a M24x1.5 threaded hole (3" pipe section minimum), and secure **MANUALLY** with the nut.

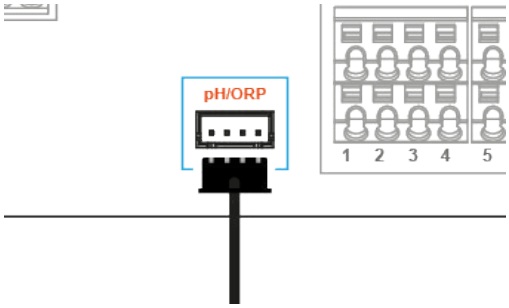


The pH+ORP Sensor should be installed **PRIOR** to injection points or salt cell.

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.

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 PORTECTION:
Always wear correct chemical resistant hand protection when handling chemicals.

WEAR EYE PORTECTION:
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.

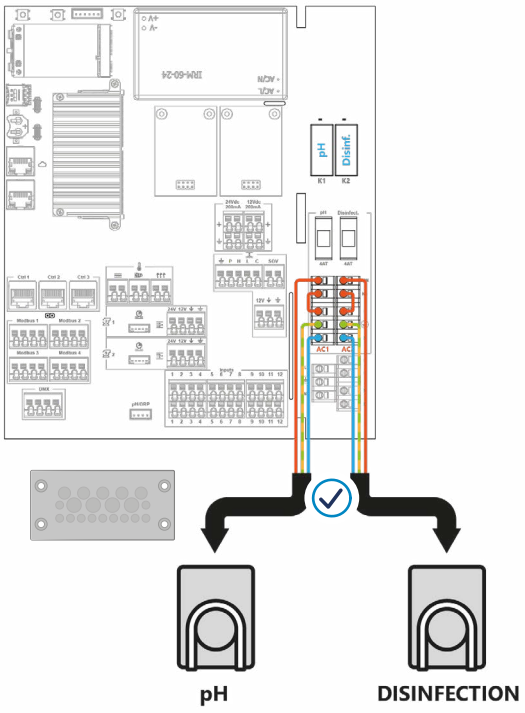
Injection resumes automatically once the ORP returns to the acceptable range (100mV to 990mV)

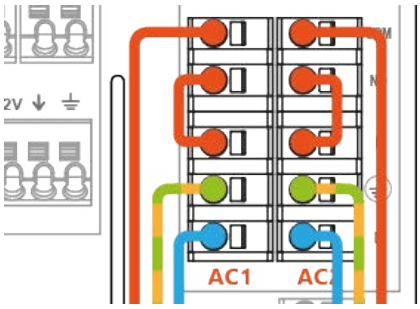
5 INSTALLING THE POOL EQUIPMENT

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.



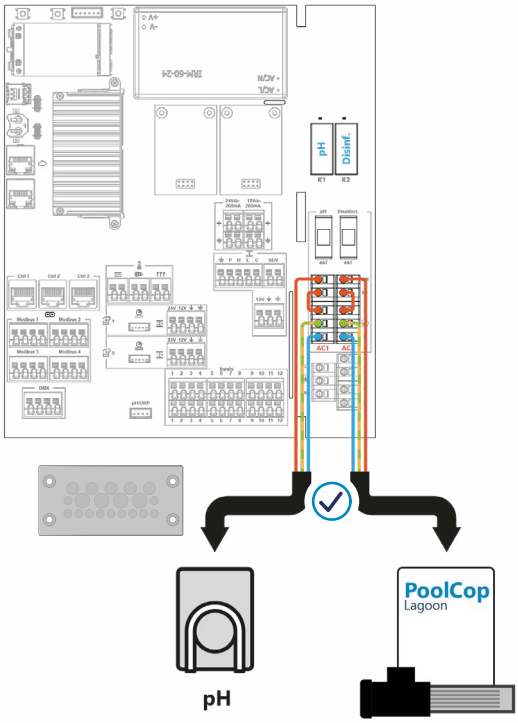


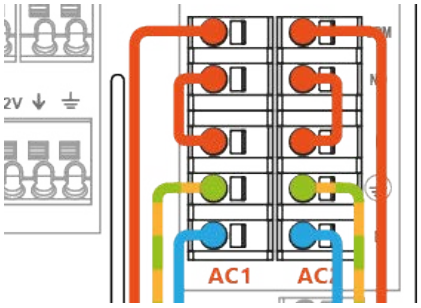
INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **OFF** and disconnected from the power supply**.**
- Route the wire through the adapted entry plate.
- Extendable cable
- 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.
- Switch the PoolCop unit **ON**

5 INSTALLING THE POOL EQUIPMENT

INSTALLING A SALT SYSTEM

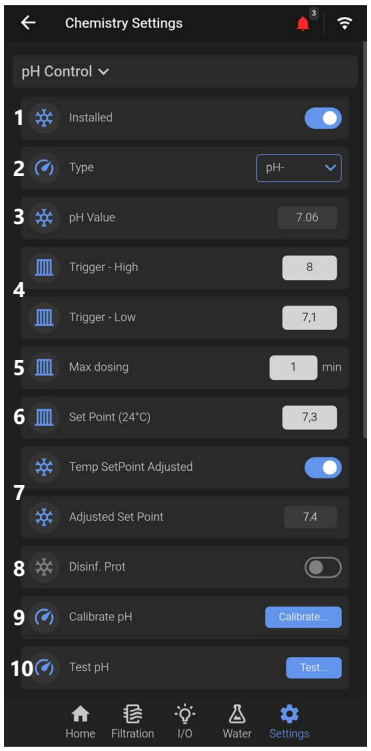


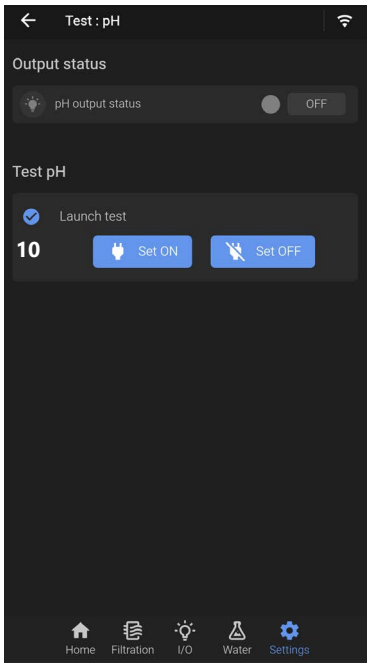


INSTALLATION NOTES:

- If connecting a PoolCop Lagoon, the power supply can be provided directly by the PoolCop Infinity.
- Ensure the PoolCop unit is switched **OFF** and disconnected from the power supply**.**
- Route the wire through the adapted entry plate.
- Extendable cable
- 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.
- Switch the PoolCop unit **ON**

5.3.2 SETTING THE pH CONTROL





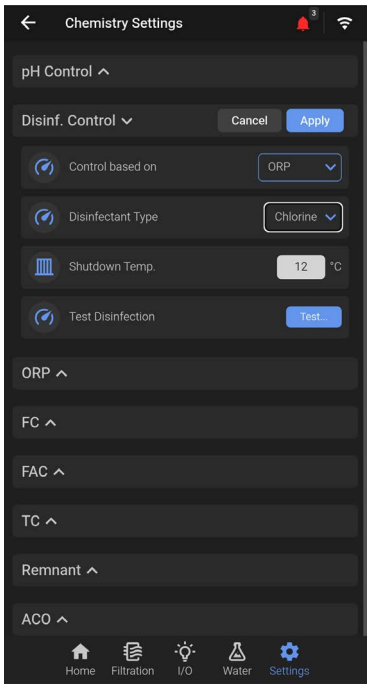
1. pH Control **installed**.
2. **Type of pH Treatment**:
   READ ONLY : No control
   pH- / pH+ : type of chemicals injected
3. **pH Value**: Displays the most recent measured value.
4. **Trigger Low/High:** Defines the alert thresholds for low and high pH limits.
5. **Maximum Dosing Duration:** Safety 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).
7. **Water Temperature Adjustment:** Automatically modifies the pH setpoint according to water temperature to maintain consistent water treatment quality year-round.

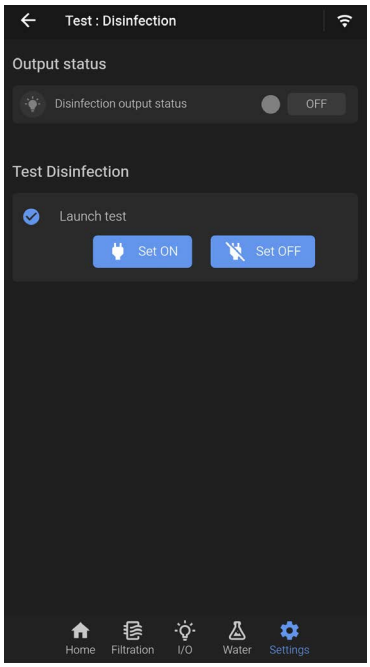
   When water temperature rises by 5°C (9°F), the target pH setpoint decreases by 0.1. The adjusted setpoint is displayed accordingly.
8. **Disinfection Protection:** If required, disinfection can be temporarily suspended when pH is outside defined limits, ensuring pH control takes priority and preventing overdosing during disinfection.

   This function operates only when disinfection is regulated by ORP and not when FAC or FC sensors are in control.
9. **Calibrate pH:** Refer to the Maintenance section (6.2.3) for calibration procedures.
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.

5.3.3 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.

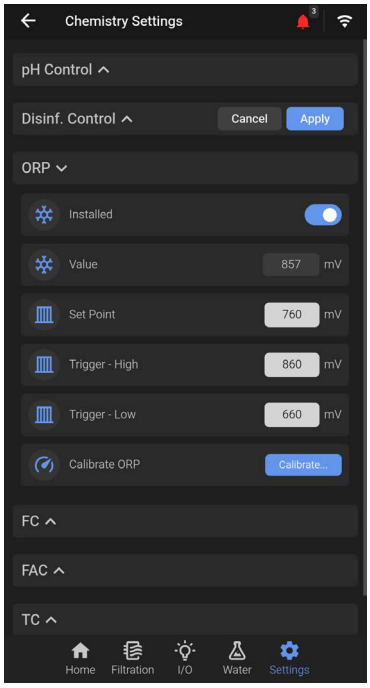
- **Disinfectant Type**:
  Select the disinfection method or system used:
  - Read Only
  - Chlorine
  - Salt
  - Bromine
  - ModBus Communicating Salt Systems : DA-SPACE/Ocean – DA-GEN - Aquark

- **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.



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.

5.3.4 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**.

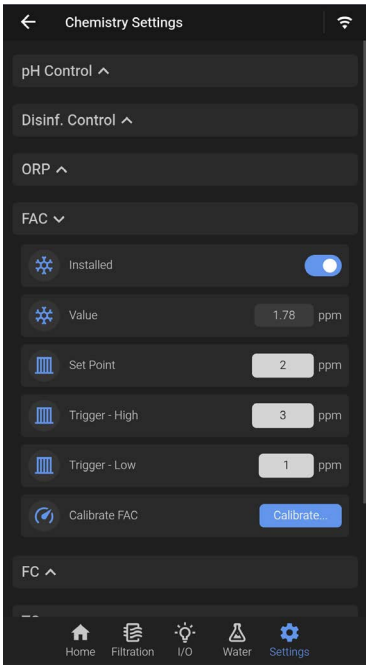
MODBUS WIRING REMINDER:

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.

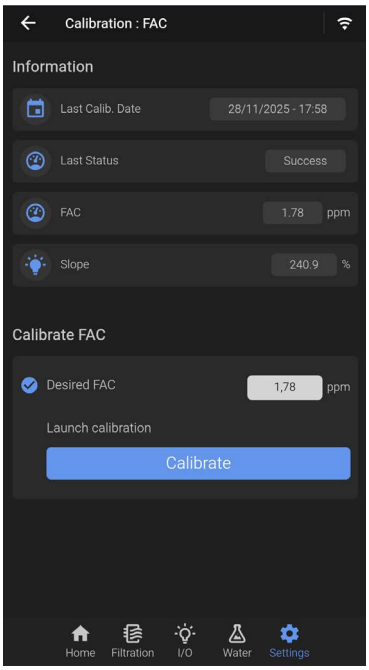
Refer to Modbus Connection, section 2.3.7.



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.

5.3.5 REMNANT INSTALLATION AND SETTINGS

Remnant dosage is **controlled according to pool volume and water temperature,** making it well suited for disinfection using active oxygen or for secondary liquid-chlorine disinfection in addition to a salt system.

This function adjusts the injected disinfectant volume based on:

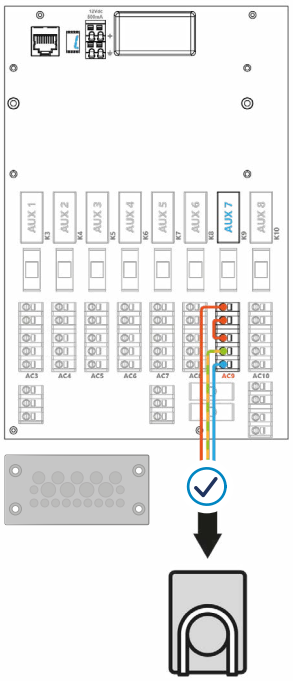
- Dosing pump flow rate
- Pool volume
- Water temperature

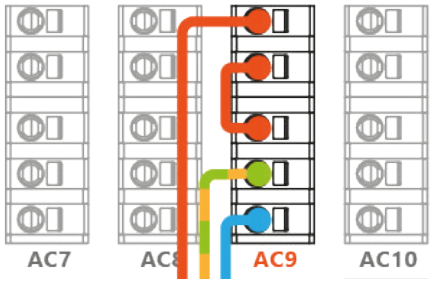
The target dosage is **6 ml/m³/day.**
As water temperature increases from 22 °C to 30 °C (71.6 °F to 86 °F), the dosage can be progressively increased up to twice the initial amount.
An additional adjustment allows the dosage to be decreased by 50% or increased by 50% to take the pool environment into account.
The dosing relay is protected (pump-off safety functions, etc.) to ensure safe operation; for example, in the event of loss of priming, injection is stopped.

When possible, Remnant is **injected 1 hour before the end of the last filtration cycle of the day.** If no filtration cycle is long enough, the longest cycle is selected, but the injected volume may not fully meet the requirements.
When **Filtration Mode is set to 24/24 or NO PUMP,** injection is scheduled to **finish at 10:00 p.m**. and is recalculated each day at midnight.

NOTE:
Remnant injection is calculated from the POOL VOLUME value. To ensure correct dosing, the pool volume must be correctly configured in Pool Data.

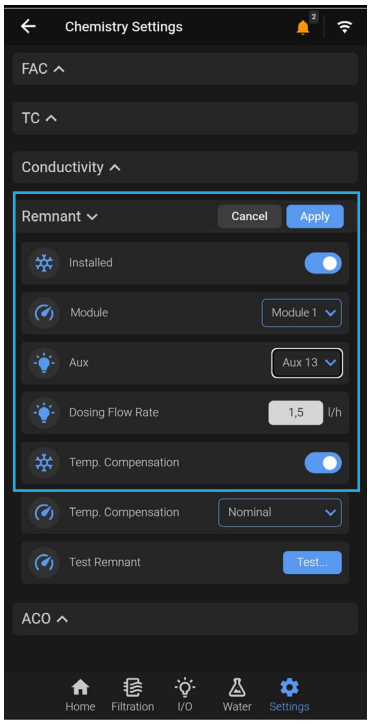
5 INSTALLING THE POOL EQUIPMENT





INSTALLATION NOTES:

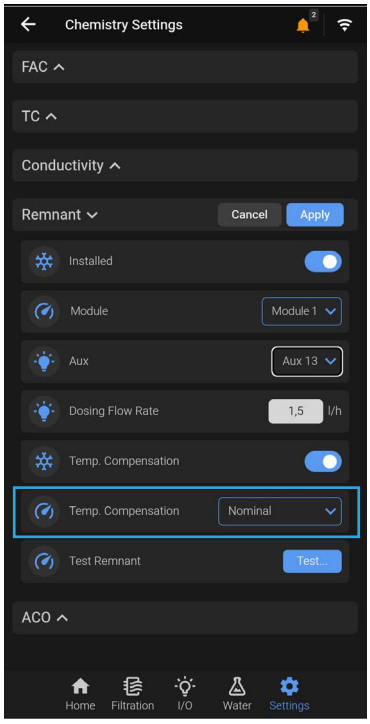
- Ensure the PoolCop unit is switched **OFF** and disconnected from the power supply**.**
- Route the wire through the adapted entry plate.
- Extendable cable
- The remnant dosing pump can be connected to any available Aux.
- Switch the PoolCop unit **ON**

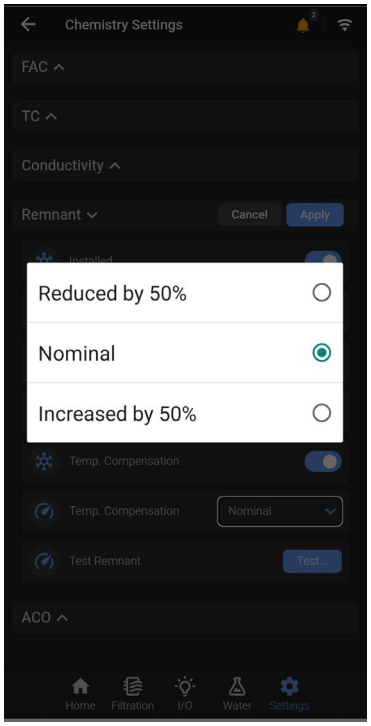


Once declared as installed:

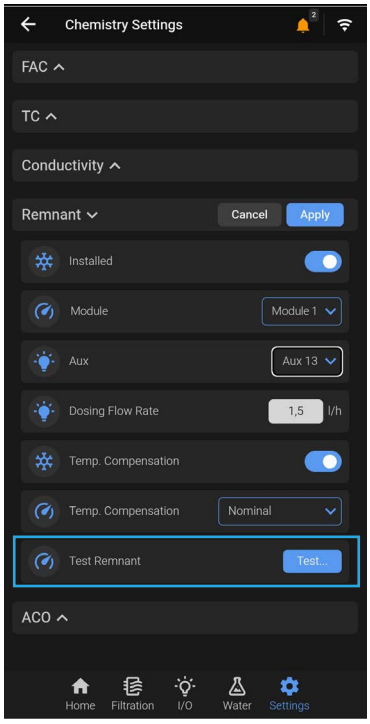
- Select the **Edge Module and auxiliary output** to which the dosing pump is wired.
- Set the **dosing pump injection rate**. Together with the pool volume (POOL DATA menu), this rate is used to calculate the Remnant injection duration
- **Temperature compensation:** select whether the injected volume should be adjusted according to pool water temperature. Between 24 °C and 30 °C (75.2 °F and 86 °F), the injection volume is progressively increased, reaching twice the initial volume at 30 °C (86 °F).

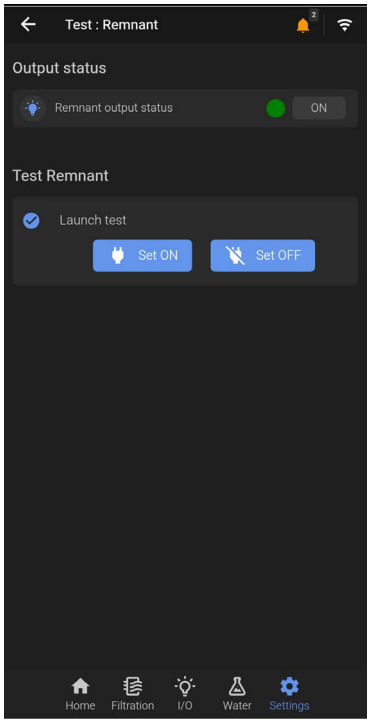
Temperature	Volume injected per day
20°C (68°F)	6 ml/m³
26°C (79°F)	9 ml/m³
30°C (86°F)	12 ml/m³





- **Adjustment coefficient:** The injection volume can be adapted to the pool and season by selecting a **Nominal** (100%), **Reduced by 50%** (50% of the nominal volume), or **Increased by 50%** (150% of the nominal volume) coefficient.





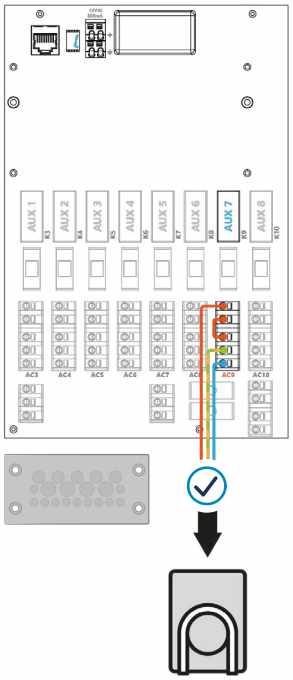
- **Test** the dosing pump control.

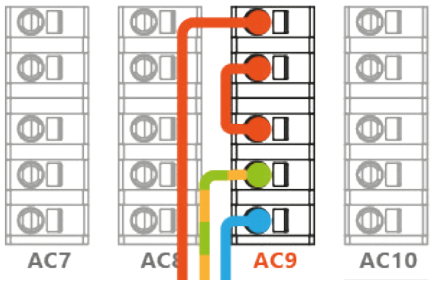
5.3.6 ACO INSTALLATION AND SETTINGS

ACO (Active Catalytic Oxidation) is injected **on Fridays during the day**; the exact time depends on the filtration cycles.

- In 24/24 or NO PUMP modes, injection is activated at 1:00 p.m.
- In other modes, injection takes place between 8:00 a.m. and 6:00 p.m., provided there is a filtration period long enough to complete the injection.

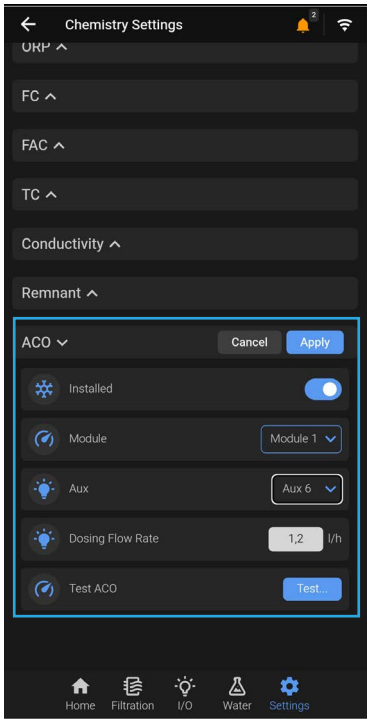
NOTE:
ACO injection is calculated from the POOL VOLUME value. To ensure correct dosing, the pool volume must be correctly configured in Pool Data.

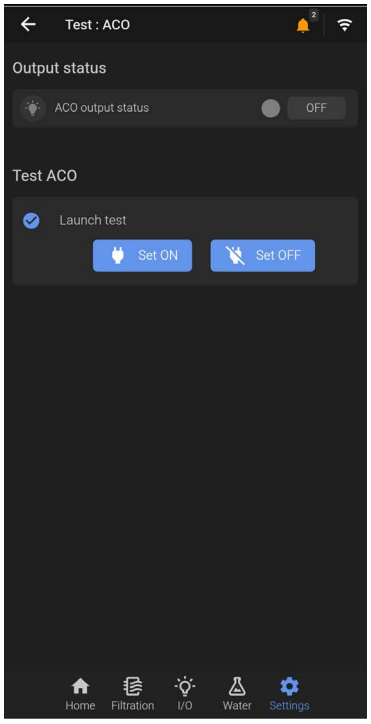




INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **OFF** and disconnected from the power supply**.**
- Route the wire through the adapted entry plate.
- Extendable cable
- The ACO dosing pump can be connected to any available Aux.
- Switch the PoolCop unit **ON**



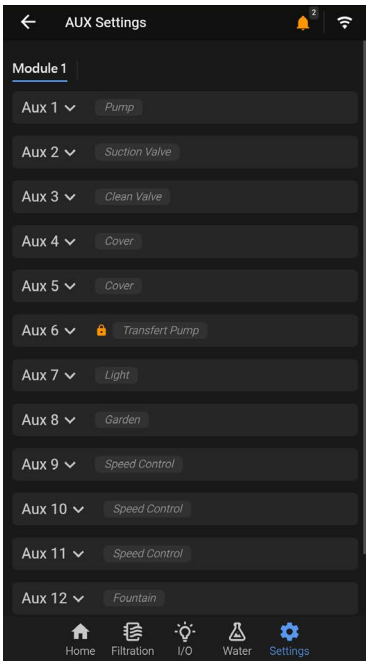


Once declared as installed:

- Select the **Edge Module and auxiliary output** to which the dosing pump is wired.
- Set the **dosing pump injection rate**.
  Together with the pool volume (POOL DATA menu), this rate is used to calculate the ACO injection duration, based on a dosage of 25 ml/m³/week.
- **Test** the dosing pump control.

5.4 SETTING UP THE OPTIONAL EQUIPMENT

5.4.1 AUXILIARIES



Slaved and Unlocked

Locked

Aux Status ON ● /OFF ●

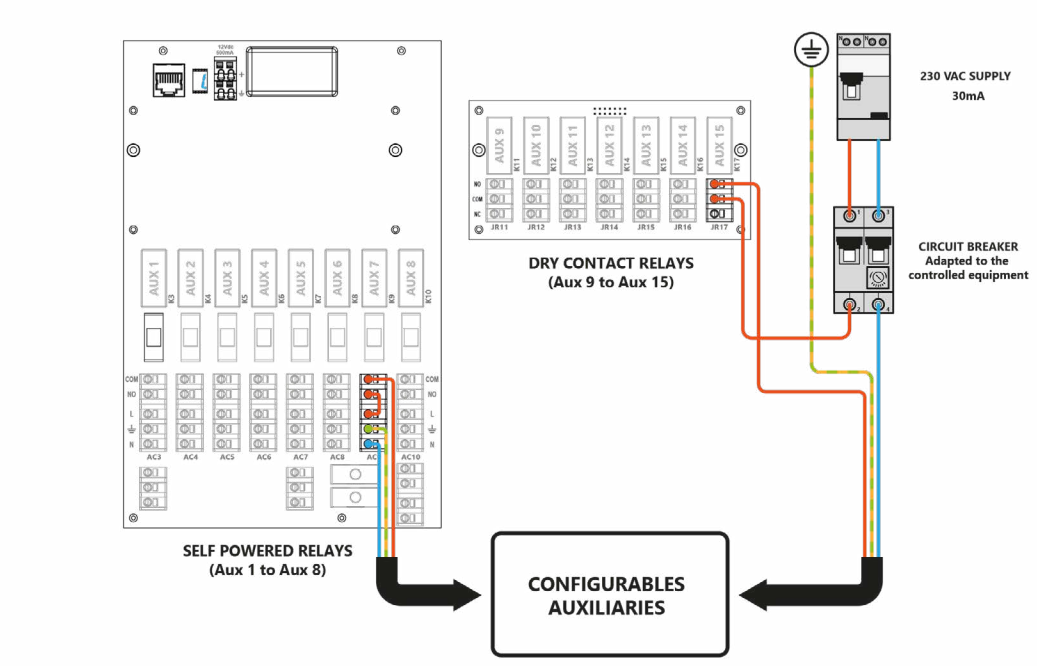
The **pre-defined auxiliaries** will immediately show the equipment when installed.

Additional pool equipment can be configured on any available auxiliary.

5 INSTALLING THE POOL EQUIPMENT

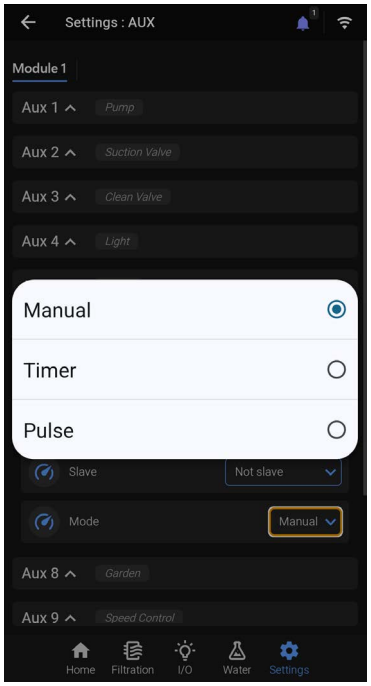
PRE-DEFINED AUXILIARIES	CONFIGURABLE POOL EQUIPMENT
INFINITY Aux 1 - Primary Pump ON/OFF Aux 2 - Suction Valve Aux 3 - Cleaning Valve 1 Aux 4 - Floc Dosing 1 Aux 5 - Secondary Pump ON/OFF Aux 7 - Cleaning Valve 2 Aux 8 - Floc Dosing 2 **EDGE PLUS** Aux 9 Primary Pump Speed Aux 10 - Primary Pump Speed Aux 11 - Primary Pump Speed Aux 12 - Secondary Pump Speed Aux 13 - Secondary Pump Speed Aux 14 - Secondary Pump Speed **ADDITIONAL EDGE UNIT** Aux 1 - Rinse Valve 1 Aux 2 - Rinse Valve 2	Garden Irrigation Pool House Borehole Fountain Spa UV Transfer Pump Remnant Electrolyser Disinfection (ACO...) Heating Pool Cleaner Pool Lights Jet Stream Garden Lights Pool Cover - Open/Close

GENERAL WIRING

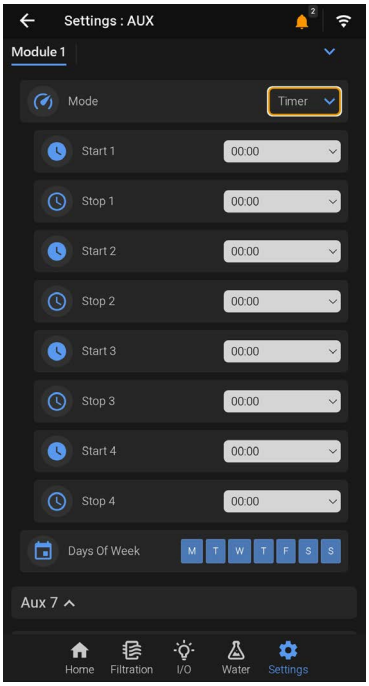


Wiring examples for NO (Normally Open) contacts. If NC (Normally Closed) contact is needed, use COM + NC connectors on the EDGE PLUS Auxiliary.

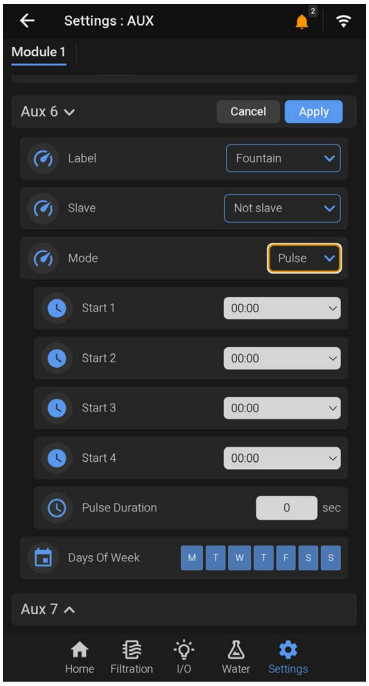
AUX MODES - MANUAL / TIMER / PULSE



Manual
Enables direct ON/OFF commands. No automatic control functions are applied in this mode.



Timer
Allows configuration of up to four scheduled start and stop cycles.
Users can specify the exact timing and select which days of the week these cycles will occur.



Pulse
Provides control over ON duration and allows scheduling up to four activation times per day.
Users can also select desired days of the week for programmed pulses.

When the Aux is set ON (manually or automatically) it will revert to OFF after the defined duration.

Certain auxiliary functions may be slaved to the pump(s) or pool cover operations.

All operating modes allow manual control if the conditions are fulfilled.

5 INSTALLING THE POOL EQUIPMENT

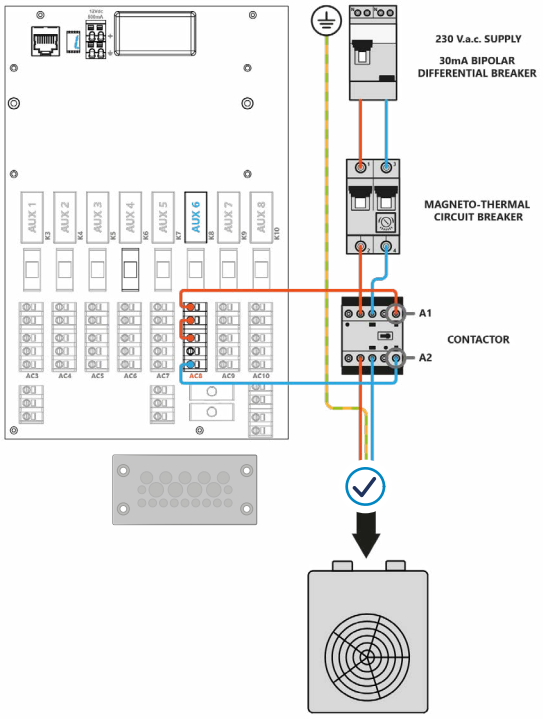
CONNECTING A HEATING PUMP

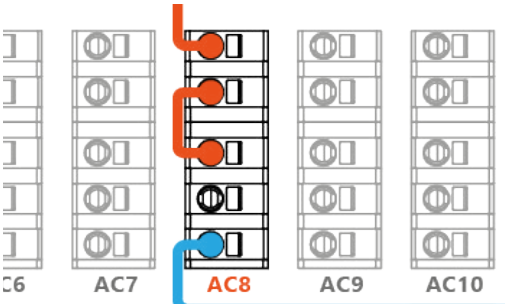
PoolCop's built-in heating algorithm can control any type of heating device, although a heat pump is most commonly used. Heating can be managed using three different control methods and is automatically slaved to filtration..

NOTE:
NO (Normally Open) dry contacts must be used

The heat pump temperature setpoint must be set to a **higher value** than the desired water temperature defined in the PoolCop Auxiliary settings.

Method 1 – Basic power control

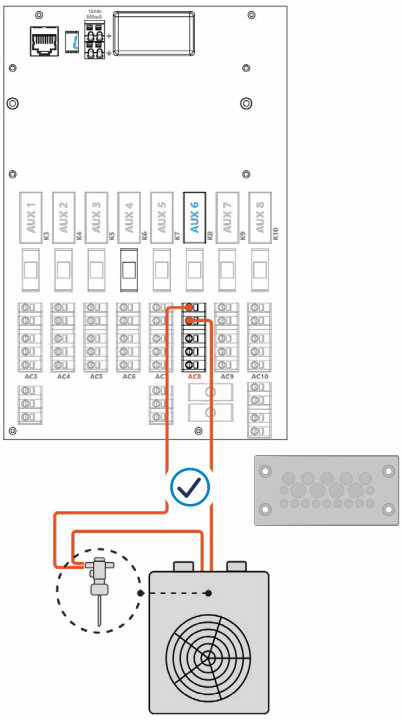


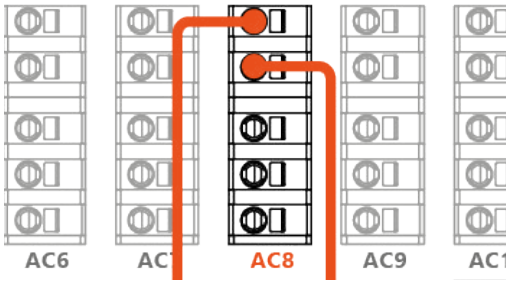


INSTALLATION NOTES:

- Ensure the PoolCop unit and the heat pump are switched **OFF** and disconnected from the power supply.
- Route the wire through the adapted entry plate.
- Extendable cable
- Install a contactor in the electrical power supply circuit of the heat pump.
- Use the auxiliary configured to heating to control the contactor coil.
- When heating is requested, the heat pump is powered; when no heating is required, the power supply is cut.
- Switch the PoolCop unit and the heat pump ON

Method 2 – Using the internal flow switch

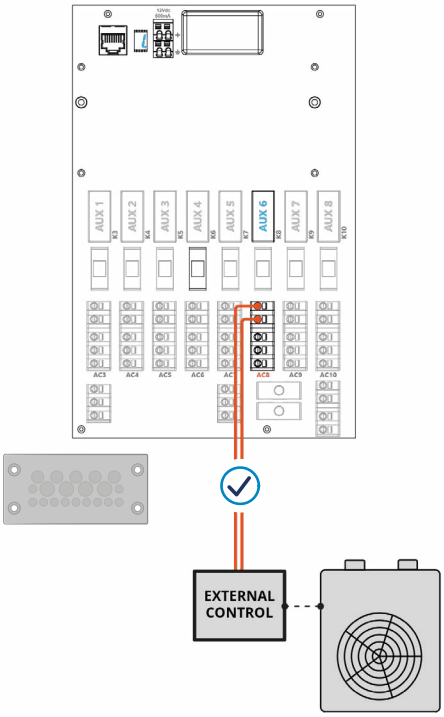


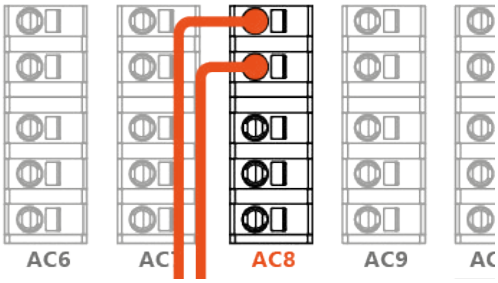


INSTALLATION NOTES:

- Ensure the PoolCop unit and the heat pump are switched **OFF** and disconnected from the power supply.
- Route the wire through the adapted entry plate.
- Extendable cable
- The heat pump's built-in flow switch prevents heating if there is insufficient water flow.
- If access to the flow switch terminals is possible and this does not void the heat pump warranty, wire the heating auxiliary output in series with the flow switch.
- When heating is requested, the flow-switch signal is enabled; when heating is not requested, the heat pump detects a "No Flow" condition and does not produce heat.
- Switch the PoolCop unit and the heat pump **ON**

Method 3 – Using the designated remote ON/OFF Control

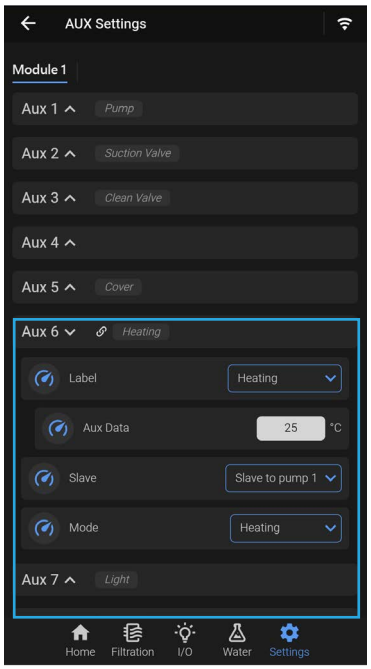




INSTALLATION NOTES:

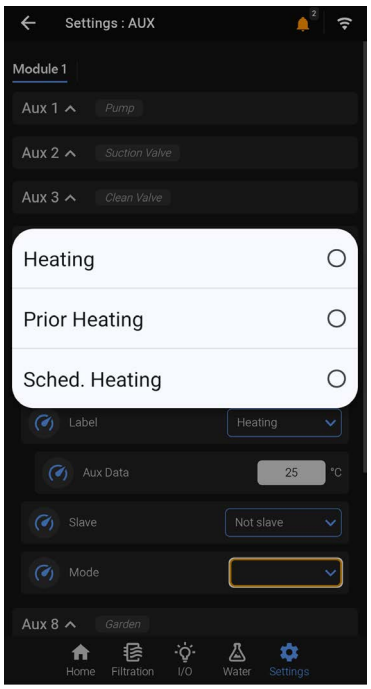
- Ensure the PoolCop unit and the heat pump are switched **OFF** and disconnected from the power supply.
- Route the wire through the adapted entry plate.
- Extendable cable
- If the heat pump supports external control, this option is optimal and described in its installer manual.
- In most cases, a factory bridge is fitted on the remote ON/ OFF terminals; remove this bridge and connect the heating auxiliary output in its place.
- The system is then switched ON or OFF according to whether heating is requested.
- Switch the PoolCop unit and the heat pump **ON**

SETTING UP A HEATING PUMP



Once the correct auxiliary has been declared as dedicated to **heating**, configure the following parameters:

- Set the desired **water temperature setpoint**.
- Specify whether the heating should **slaved to Pump 1, Pump 2, or both.**
- Select the **heating mode** best suited to your installation *(see below)*.

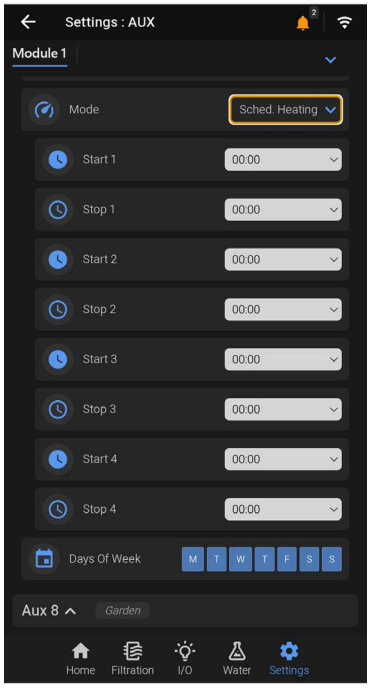


When auxiliary is set as heating, 3 additional modes are available:

In **Filtration** mode, the heater can only operate during programmed filtration hours.

In **Priority** mode, the filtration pump is forced on for priority heating which will accelerate the increase of water temperature.

In **Schedule** the operation of the heater is limited within the period defined by its own timers.

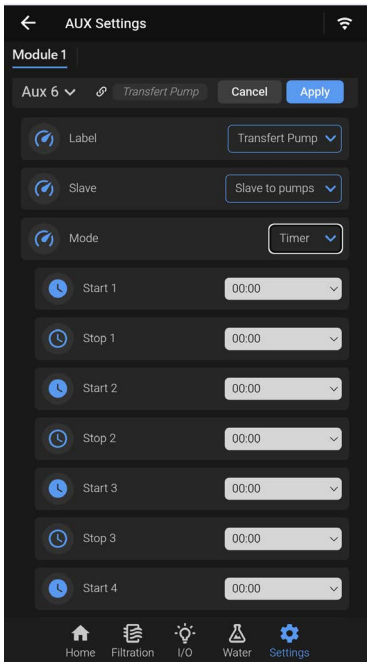


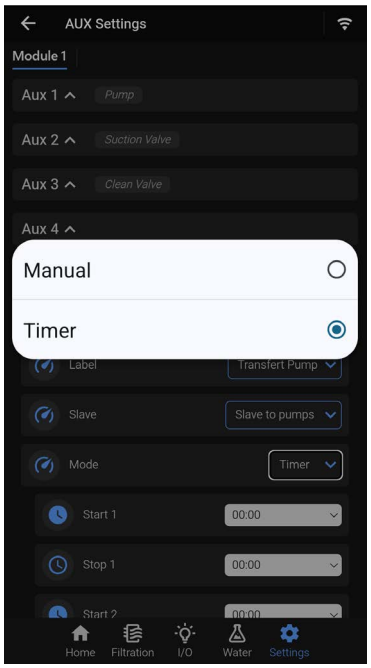
In **Schedule mode**, heater operation is restricted to the time period defined by its dedicated timers.

Heating is therefore only enabled during the programmed ON/OFF time window and only when filtration is running.

CONNECTING A TRANSFER PUMP

A transfer pump can be connected to any available auxiliary output and set to MANUAL or TIMER mode to create an overflow.





5 INSTALLING THE POOL EQUIPMENT

WARNING:

On overflow pools, an auxiliary labeled “Transfer Pump” is treated as a device used to move water from the buffer tank to the pool.

If the Water Level function is installed and set to AUTO or Reduction Only, the pump controlled by this auxiliary will be switched ON automatically during control phases in order to modify the water level in the buffer tank.

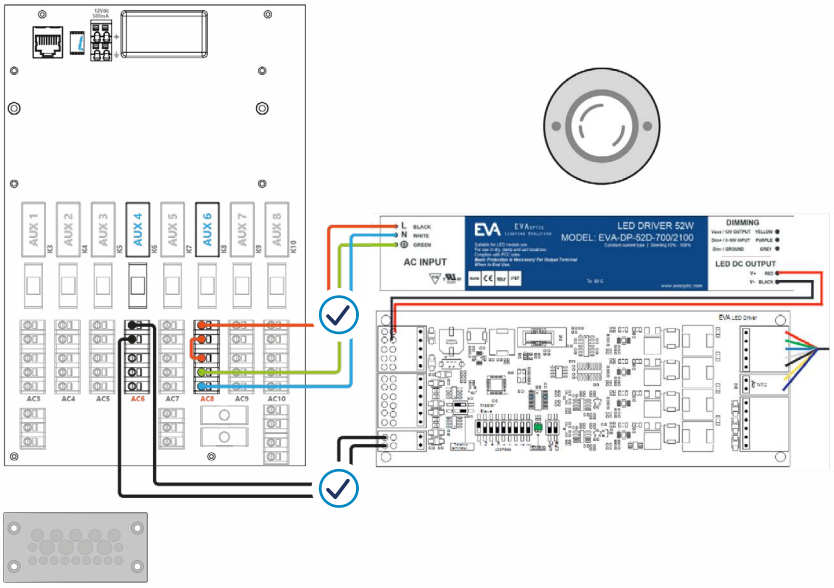
The pump starts immediately when the water level is detected as Very High and will run until one of the following conditions is met:

- The level returns to Normal.
- The level remains Very High for 15 minutes, which triggers a water level reduction.
- The level remains High for 3 hours, which also triggers a water level reduction.

CONNECTING LIGHTS

Pool lights can be connected to **any available auxiliary** and slaved to the pool cover to ensure they are turned OFF when the cover is closed.

If color change is controlled by a pulse **longer than 1 second**, it can be controlled by using a 2nd auxiliary.



NOTE:
If color change is controlled by a break in the power supply, an external changeover relay can sometimes be used.

WIRING EXAMPLE FOR EVA OPTIC LIGHTS

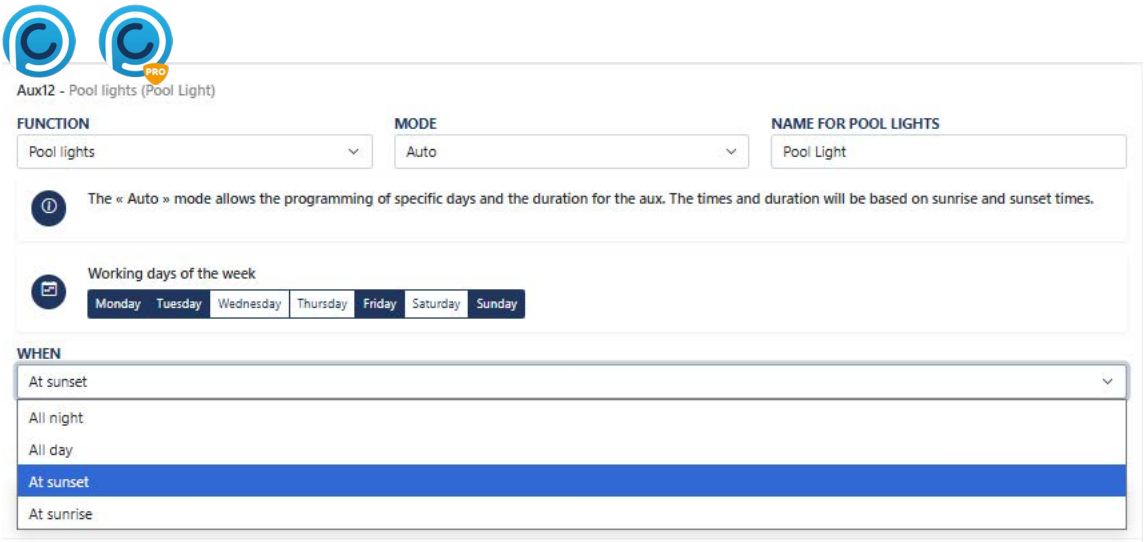
NOTES:

- Ensure the PoolCop unit is switched **OFF** and disconnected from the power supply.
- Route the wire through the adapted entry plate.
- Extendable cable
- One auxiliary is used to switch the light ON and OFF (AUX 6 on the drawing).
- One auxiliary is used to change the color (AUX 4 on the drawing).
  This auxiliary must be configured in pulse mode with a pulse duration of 2 seconds (see section 5.4.1 - Auxiliaries).
- Auxiliaries can be selected from any available outputs; they do not need to be adjacent.
- Switch the PoolCop unit **ON**

ADDITIONAL APP FEATURE – POOL LIGHTS

Once installed, a pool light can be set to Automatic Mode via the Remote App (see section **7 - Internet and Cloud Connection** for more information).

This setting allows the pool lights to operate according to the ephemerides throughout the day or night, or for a defined duration at sunset or sunrise.



5.4.2 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:

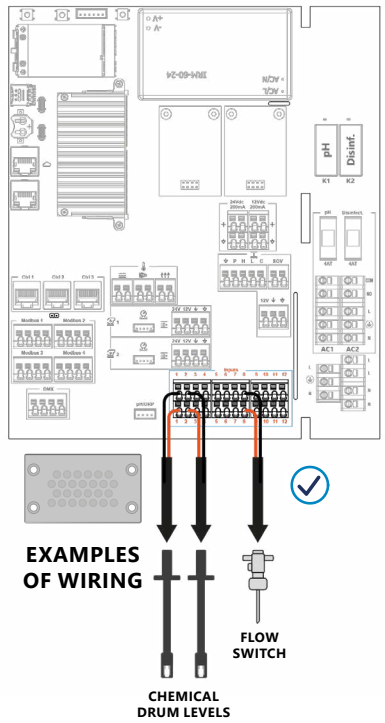
- **Direct action:** Activates the assigned function when the contact is closed.
- **Reverse action:** Activates the assigned function when the contact is open.

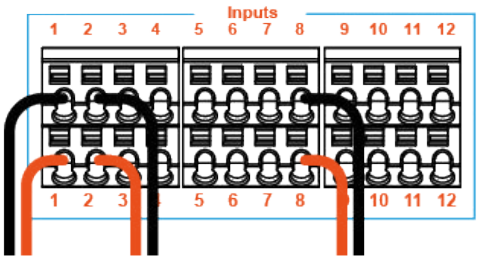
All input connections must use potential-free contacts.

The role and direction of action is configured in the settings menu.

5 INSTALLING THE POOL EQUIPMENT

INPUTS WIRING





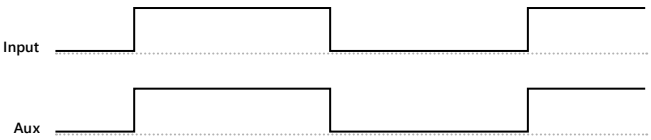
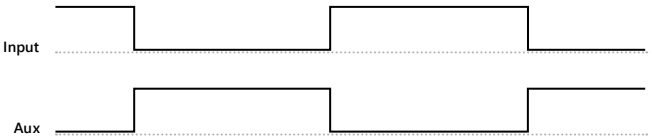
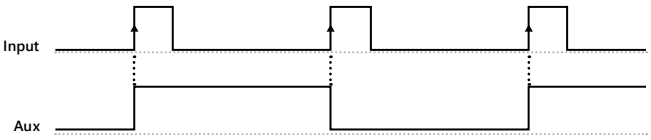
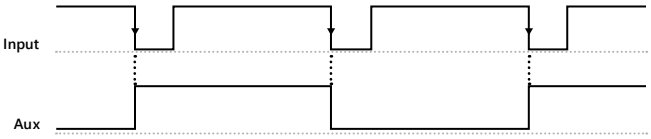
INSTALLATION NOTES:

- 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.
- Extendable cable
- Switch the PoolCop unit **ON.**

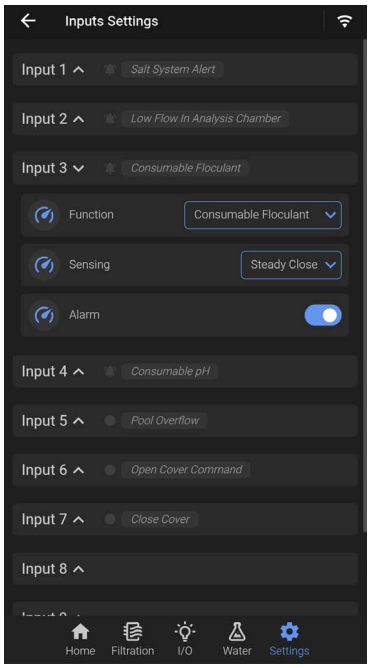
INPUT DESCRIPTIONS

INPUT TYPE	DELAY BEFORE TRIGGER	INPUT ROLE
NOT USED		Default. The input is inactive
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.** If a variable speed pump is installed, PoolCop activates the configured speed when closed, then restores the operational speed when reopened during a pump cycle. (input ACTIVE)

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.
START PUMP 1	2 seconds	Starts filtration pump 1 in response to an external switch/button/automation command. Removing the input command stops the filtration unless it is configured ON in another mode.
START PUMP 2	2 seconds	Starts filtration pump 2 in response to an external switch/button/automation command. Removing the input command stops the filtration unless it is configured ON in another mode.
START ALL PUMPS	2 seconds	Starts both filtration pumps in response to an external switch/button/automation command. Removing the input command stops the filtration unless it is configured ON in another mode.
STOP PUMP 1	2 seconds	Stops pump 1 via an external control. **Warning**: This overrides all orders, including antifreeze protection. Any active filter cleaning will halt and proceed to rinse.
STOP PUMP 2	2 seconds	Stops pump 2 via an external control. **Warning**: This overrides all orders, including antifreeze protection. Any active filter cleaning will halt and proceed to rinse.
STOP ALL PUMPS	2 seconds	Stops both pumps via an external control. **Warning**: This overrides all orders, including antifreeze protection. Any active filter cleaning will halt and proceed to rinse.
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.
FLOOD + FILTRATION STOP	2 seconds	Detects water presence (e.g., in the pump house) and sends an alert, but additionally stops filtration, chemical dosing, and slaved auxiliaries.
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.
POOL OVERFLOW	2 seconds	User input to activate overflow in infinity pools (if not blocked by another function). **Only applies to overflow pools with suction valve.**
OPEN COVER	2 seconds	A key or button to request pool cover to open (if configured). When key/button is released, the cover will stop in its position.
CLOSE COVER	2 seconds	A key or button to request pool cover to close (if configured). When key/button is released, the cover will stop in its position.
ELECTROLYSIS FLOW SWITCH	2 seconds	In chlorinator bypass circuits, stops chlorine production if flow is not detected.
AUX CONTROL	2 seconds	Controls auxiliary equipment via input in four modes: **When closed** Aux follows status of input, Aux timer deactivated  **When open** Aux follows opposite status of input, Aux timer deactivated  **Pulse Closed** Aux changes when input goes from OFF to ON, Aux timer possible  **Pulse Open** Aux changes when input goes from ON to OFF, Aux timer possible 

INPUT SETTINGS



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

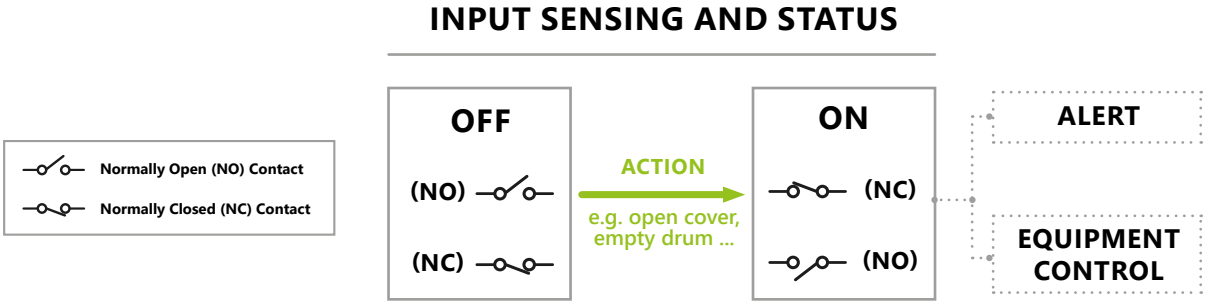
Determine the **sense of action**:
- Steady Close
- Steady Open

If **Aux Control:**
Additional sensing is available (Pulse Close / Pulse Open) and the controlled equipment can be chosen by indicating the Edge unit and the Aux it is connected to.

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.



5.4.3 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.

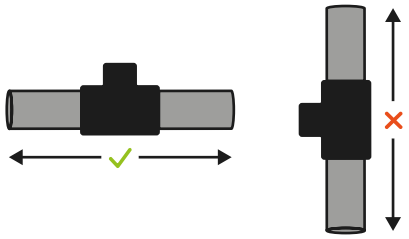
The installer must ensure that the sensor reacts correctly in the following situations:

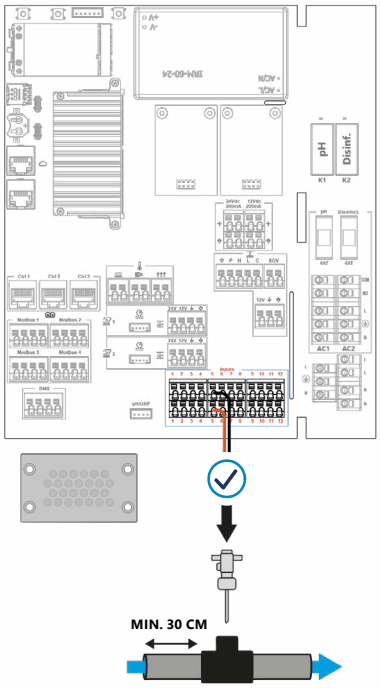
- Loss of priming (no flow, no pressure).
- Pipe blockage (no flow, normal or high pressure).

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

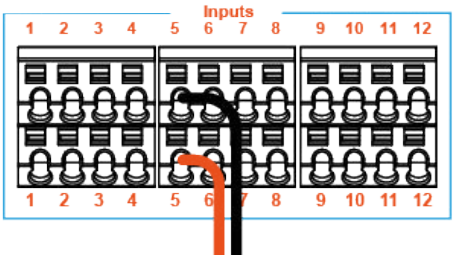
WARNING:

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



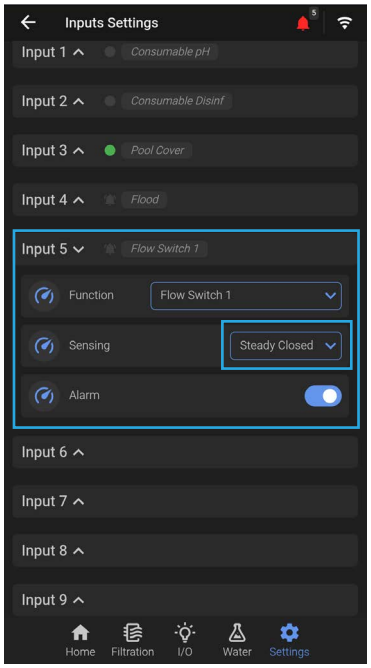


EXAMPLE OF 1 FLOW SWITCH



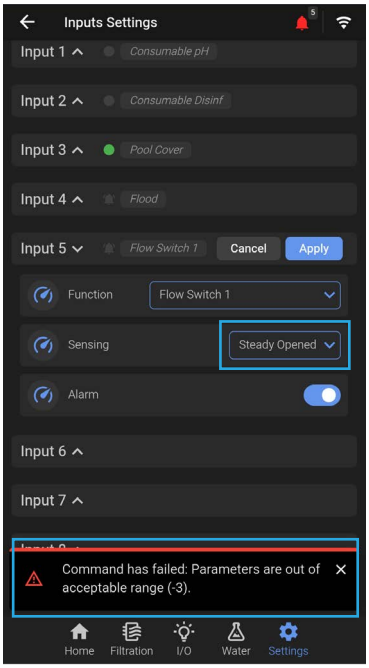
INSTALLATION NOTES:

- 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.**



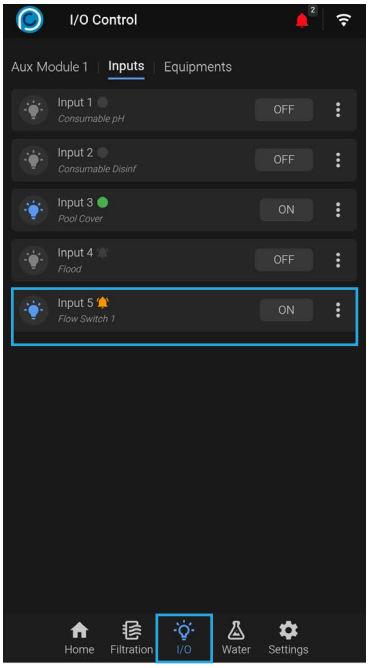
Once the correct input has been declared as dedicated to **Flow Switch (1 or 2)**, select **Steady Closed** in the sensing configuration.

An alarm can be set if necessary.



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

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.

5.4.4 POOL COVER AND JET STREAM

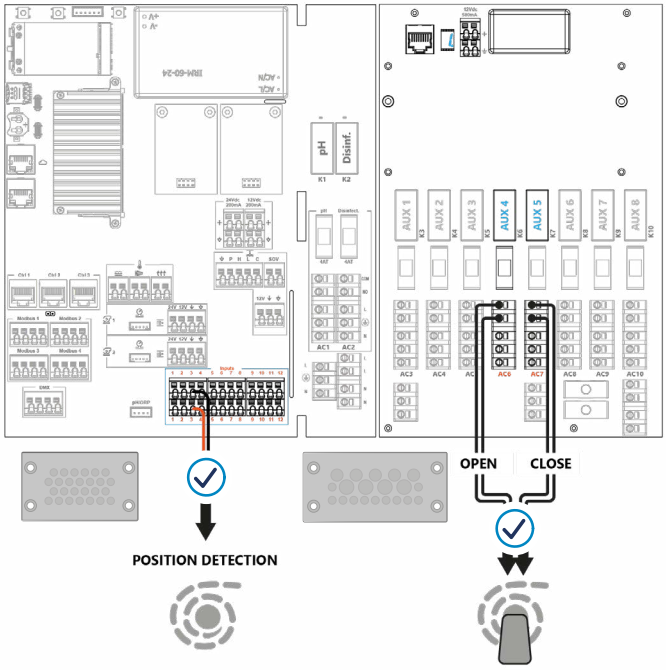
POOL COVER

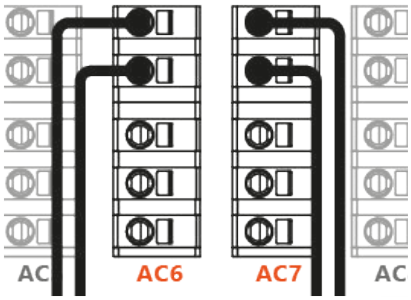
Pool cover control functionality is available in the Equipment settings.
To enable remote control, a compatible pool cover drive unit must be connected to the PoolCop.
The pool cover is operated by "pulsing" the Open or Close command to the drive, effectively replacing the original button or key-operated control.

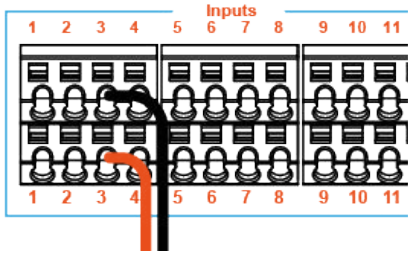
WARNING:
Remote control of a Pool Cover can cause severe injury.
The user must always have the pool in direct view when maneuvering the cover and during opening or closing operations.
The pool must be monitored at all times during the operation of the Pool Cover to ensure that no person is in the pool or enters the pool.
The remote control of the Pool cover is reserved for maintenance operations carried out by an authorized installer.

5 INSTALLING THE POOL EQUIPMENT

IMPORTANT:
Refer to the pool cover manufacturer's wiring diagrams to connect the control signals correctly.



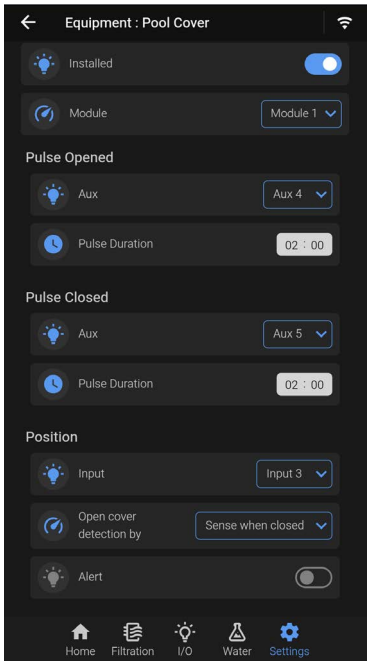




INSTALLATION NOTES:

- Ensure the PoolCop unit is switched **OFF.**
- Any available auxiliaries can be used, with one auxiliary for the Open command and a second auxiliary for the Close command.
  They do not need to be adjacent.
- Any available input can be used to detect the pool cover position.
- Route the wires through the adapted entry plates.
- Extendable cables
- Switch the PoolCop unit **ON.**

5 INSTALLING THE POOL EQUIPMENT

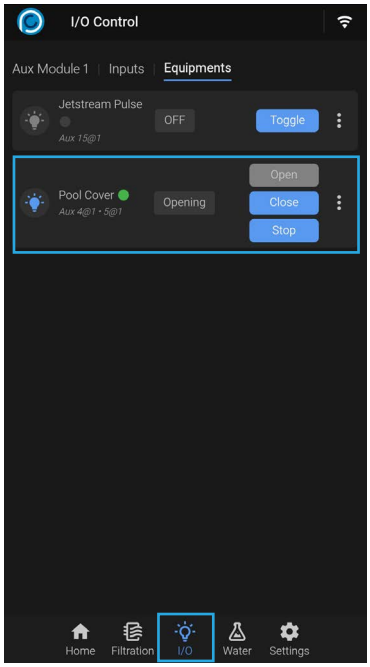


Once the pool cover is declared as installed, set the **Edge number** (1 or 2) and assign the **auxiliaries** used for the Open and Close commands.

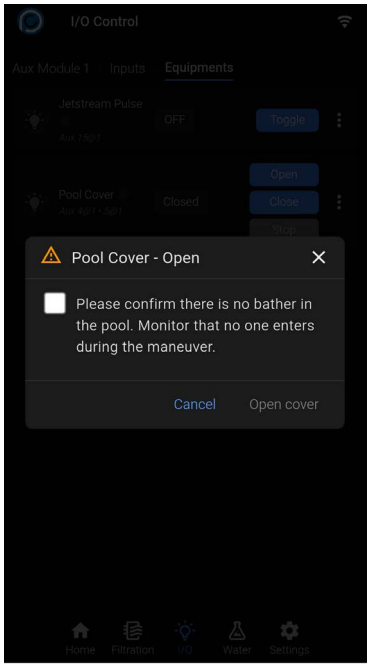
The **pulse duration** must be configured long enough to allow complete cover movement.

Specify which **input** is used to detect the cover position and whether an open cover is detected by an open or closed circuit.

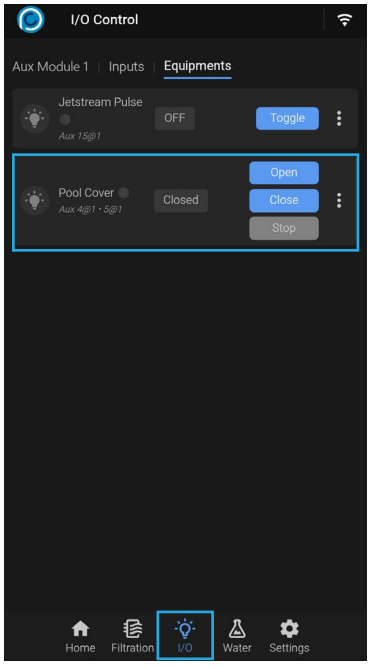
An **alert** can be sent if the cover is open.



The pool cover can be controlled manually from the I/O Shortcut menu.



NOTE:
Before any movement is authorized, PoolCop will systematically request confirmation that no bather is at risk.



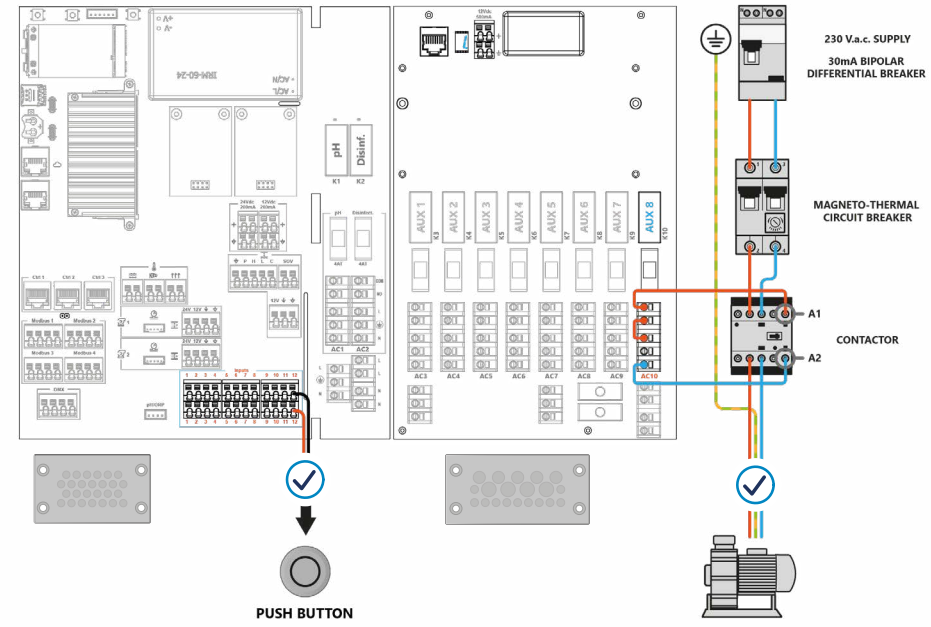
5 INSTALLING THE POOL EQUIPMENT

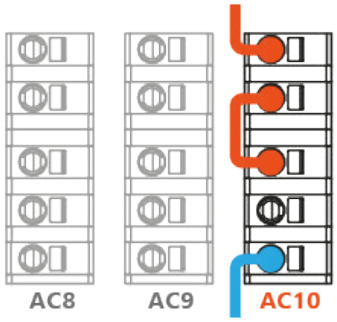
COUNTER-CURRENT UNIT (JETSTREAM)

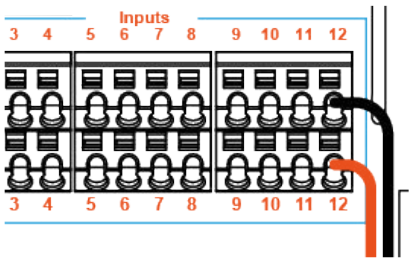
A counter-current unit (JetStream type) is usually operated by a pneumatic push button in the pool. When this push button is connected to the PoolCop, the JetStream can also be operated remotely and users can select a running duration.

IMPORTANT:

The push button signal must be converted into an ON/OFF contact before being connected to the input, typically by a pneumatic switch inside the JetStream electrical junction box.

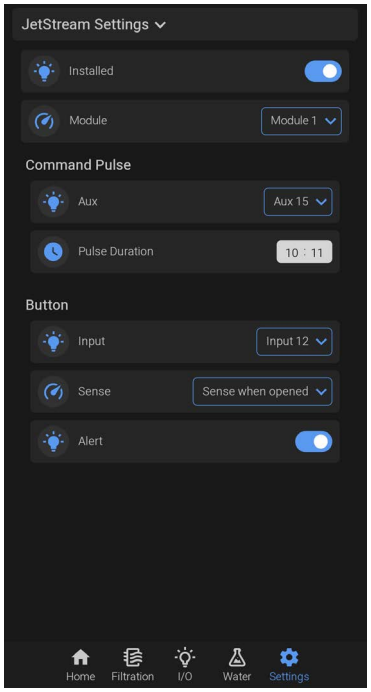






INSTALLATION NOTES:

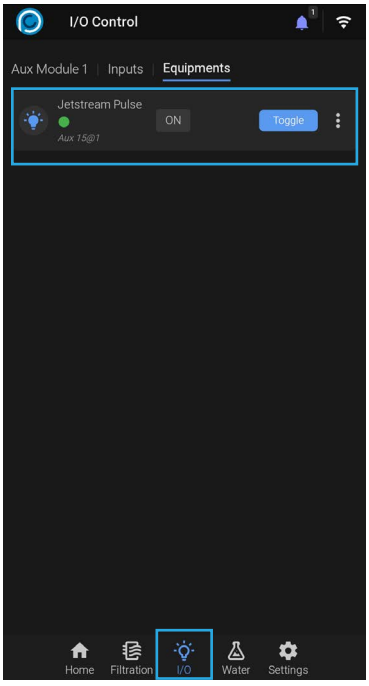
- Ensure the PoolCop unit is switched **OFF.**
- Any available auxiliaries can be used for JetStream pump command
- Any available input can be used for the push button.
- Route the wires through the adapted entry plates.
- Extendable cables
- Switch the PoolCop unit **ON.**



Once the JetStream is declared as installed in the Equipment menu, the Edge and auxiliary number for the JetStream command can be selected, and the pulse duration can be set.

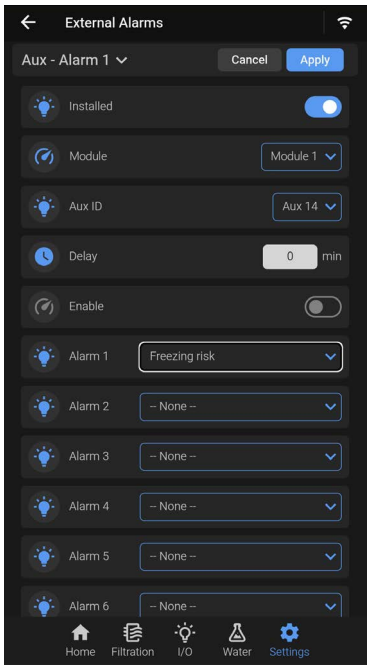
The push button **input** number and the activation detection circuit must be specified, with an option to receive an **alert** if the JetStream has been activated via the push button.

The JetStream can be controlled manually from the I/O Shortcut menu.



5.4.5 EXTERNAL ALARMS

Up to two available auxiliary relays can be used for external alarms, and up to six parameters can be configured to trigger each warning. If one or more of the selected parameters are triggered, the associated auxiliary relay closes to activate the external alarm.
This can be used, for example, to switch on a warning light or siren.



Once the alarm is declared as installed, set the **Edge number** (1 or 2) and assign the **auxiliary** used.

Enable the alarm
When the checkbox is ticked, the external alarm function is active.

NOTE: If Enable is not checked, the external alarm for the selected triggers will not activate, even if the triggers are active.

Triggers
Select one or more triggers from the dropdown list.

5.4.6 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.

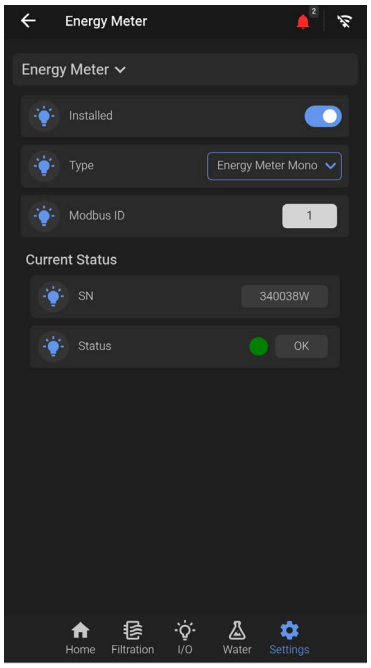
For detailed installation, configuration and operating instructions, refer to the Energy Meter IoT Guide.

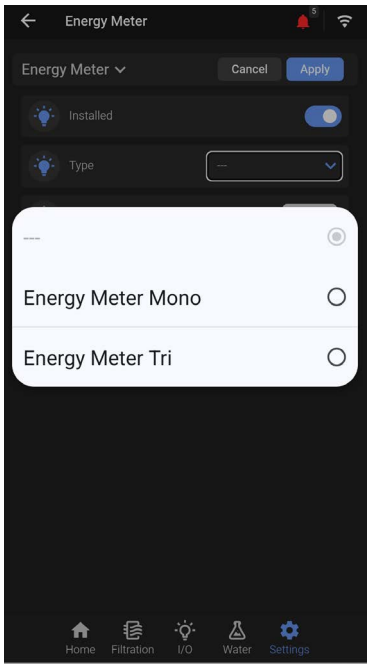
MODBUS WIRING REMINDER:

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.





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 AND CALIBRATION

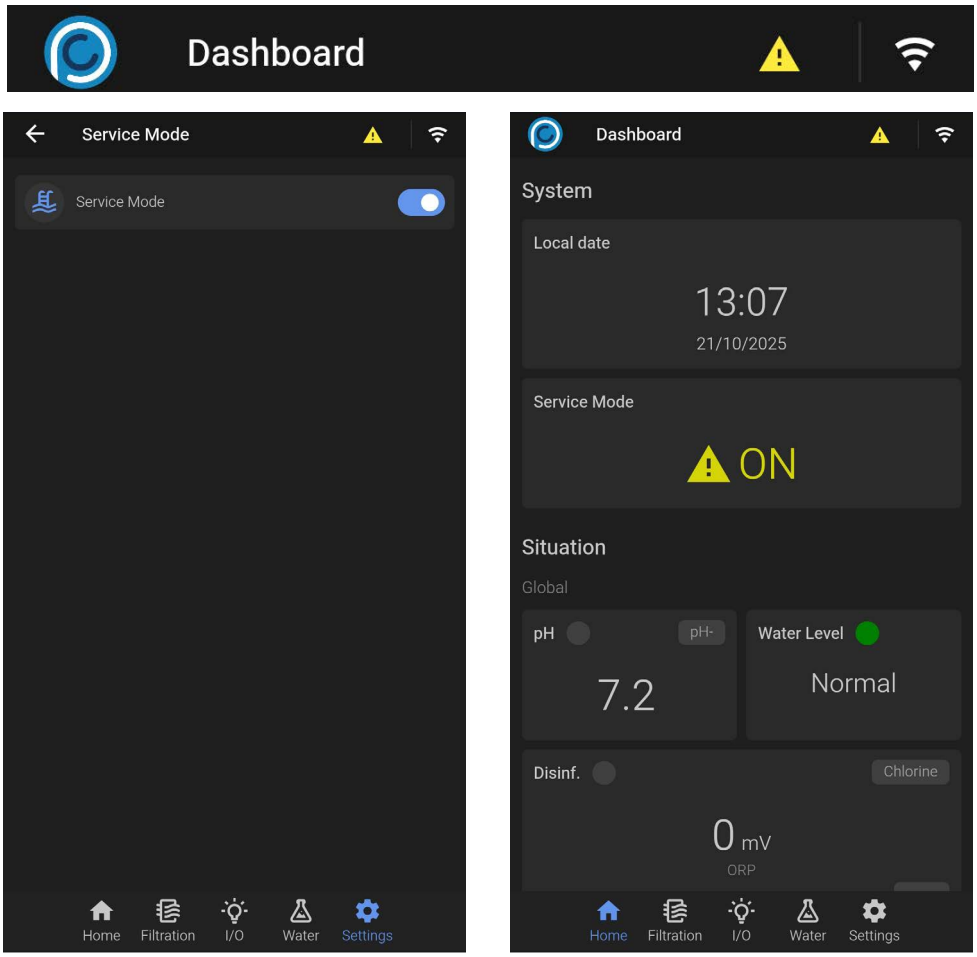
- Service Mode
- Sensor Calibration

6.1 SERVICE MODE

WARNING:
When switching PoolCop Infinity 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 Infinity 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.

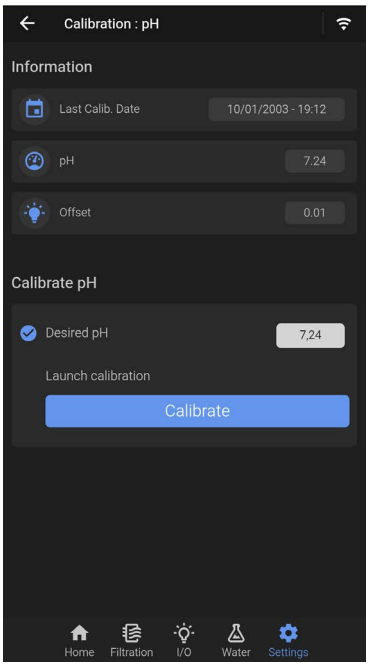
A warning symbol is continuously displayed within the app to indicate Service Mode is active, and the Local WIFI Connection button will **light up in purple** if no device is connected to the Local App.



6.2 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.

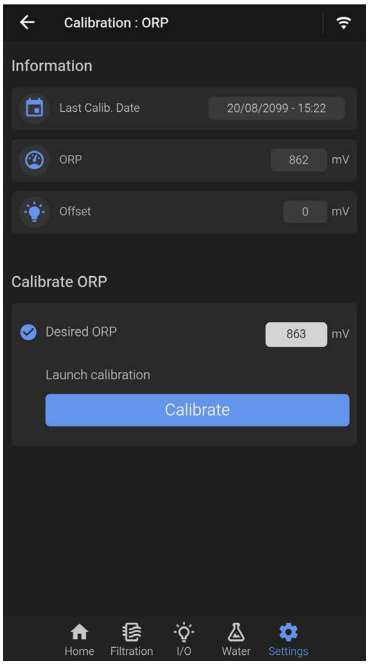
6.2.1 pH



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.

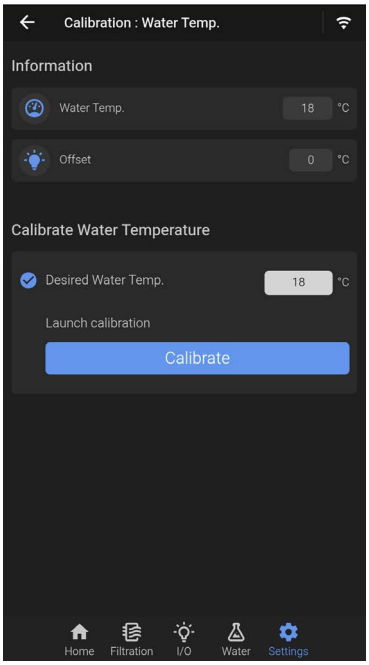
6.2.2 ORP



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.

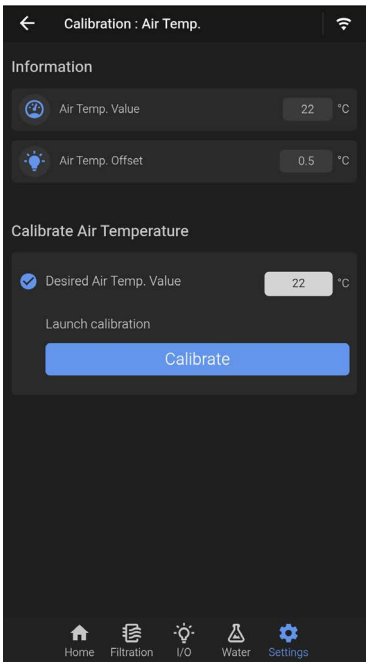
6.2.3 WATER TEMPERATURE



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

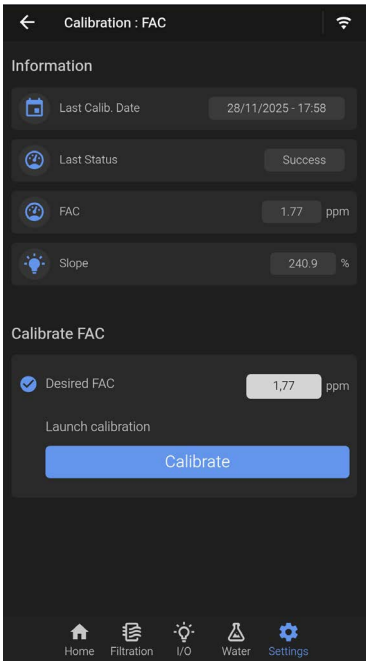


The air temperature calibration page displays the current measured value and the offset applied from previous calibrations.

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.

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

FREE AVAILABLE CHLORINE

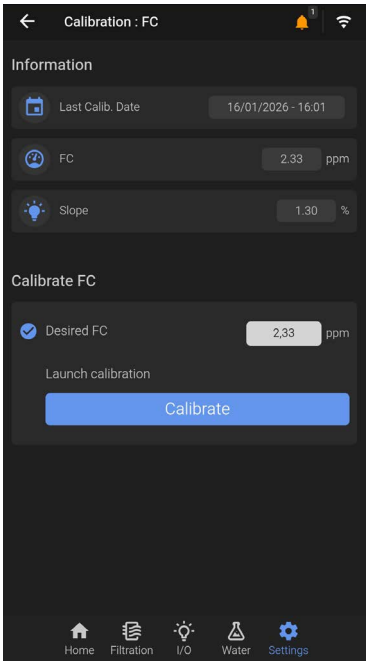


The FAC calibration page displays the last calibration date and its status, indicating whether the calibration was successful, as well as the current measured value and the slope applied from previous calibrations (refer to the FAC Installer Manual for detailed guidance).

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

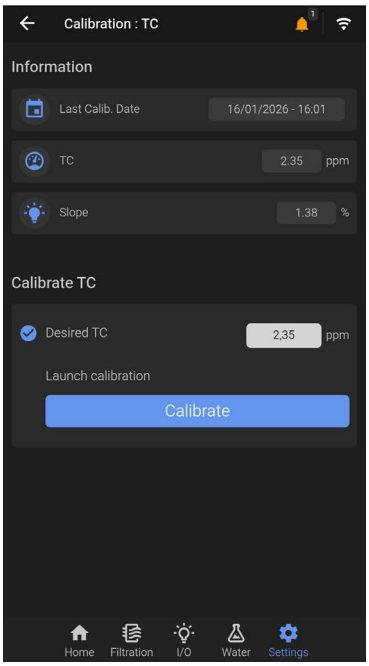


The free chlorine calibration page displays the last calibration date, the current measured value and the slope applied from previous calibrations.

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

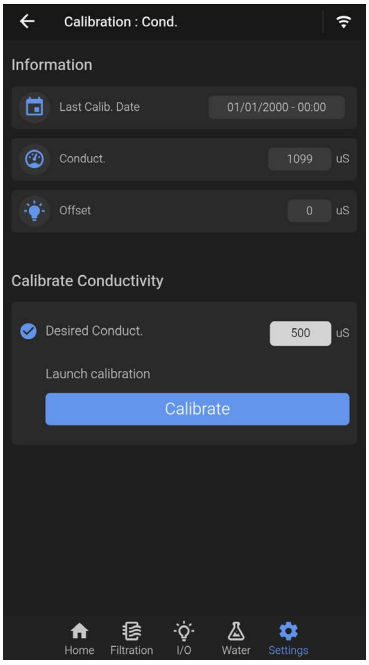
TOTAL CHLORINE



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

- 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 Infinity can be connected via:

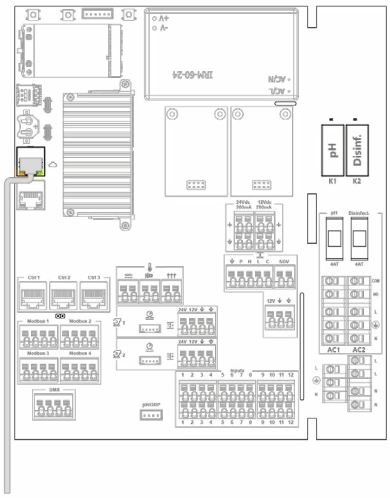
RJ45 Ethernet Cable

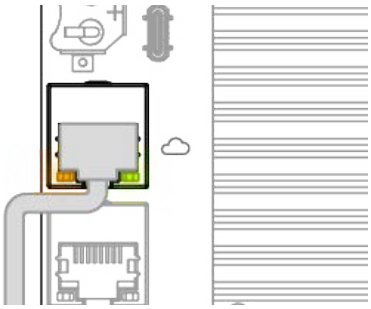
WiFi

Cellular Router
(optional pre-installed router)

NOTE:
PoolCop Infinity automatically switches between available network connections. If all connection options are available, PoolCop Infinity 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).

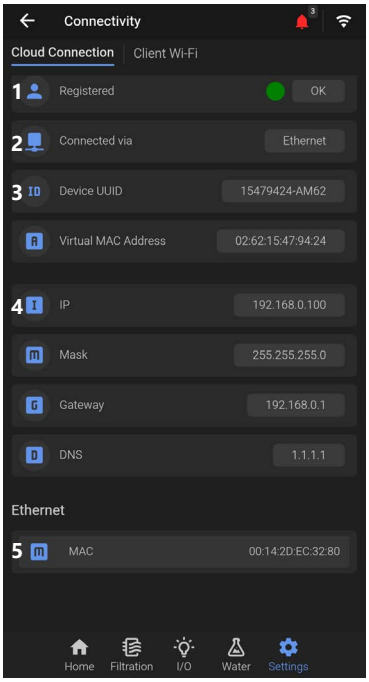




NOTES:
When the Ethernet cable is connected the orange and green lights show the connection is active

7 INTERNET & CLOUD CONNECTION

7.1 CLOUD CONNECTION



1. **Registration** on the Cloud / App access

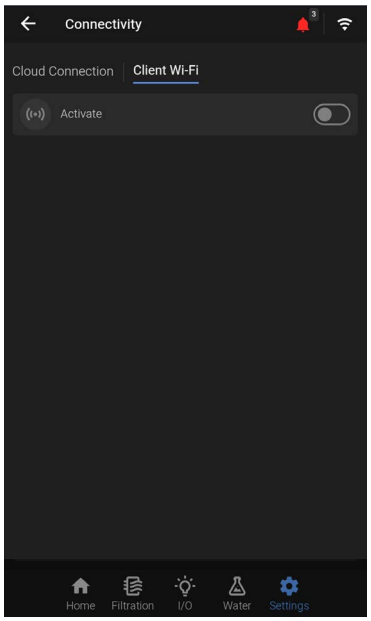
2. **Current connection method**

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.

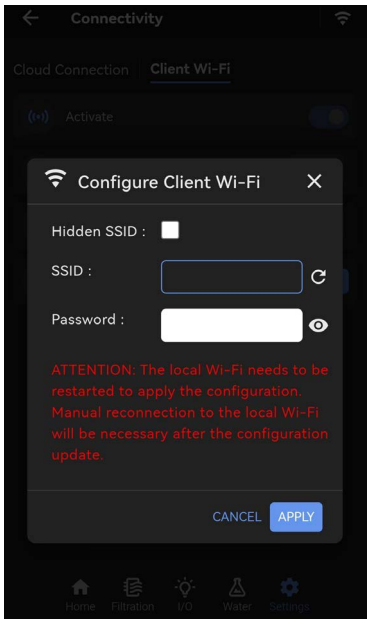
4. Internet connection information:
   IP: IP address of the PoolCop on the local network
   Mask: Subnet mask
   Gateway: IP address of the gateway (router) on the local network
   DNS: IP address of the Domain Name Server

   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

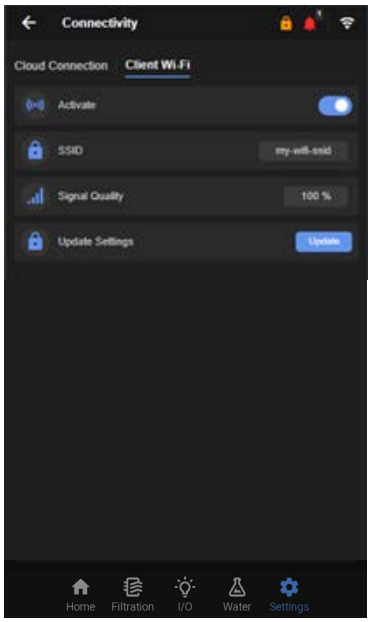
7.2 CLIENT WIFI CONNECTION



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

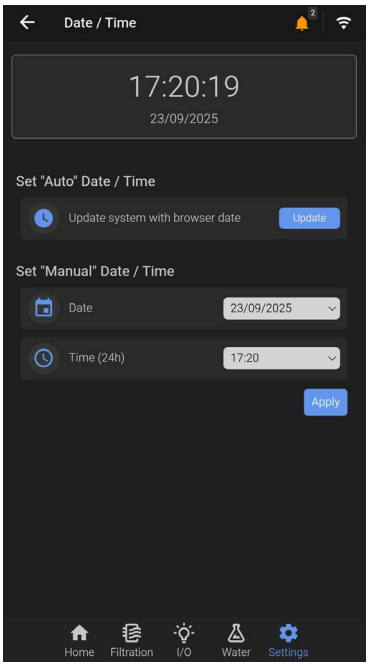
PROPOOLCOP

APP STORE GOOGLE PLAY

8 SYSTEM INFORMATION & UPDATES

- Date & time
- About system

8.1 DATE & TIME

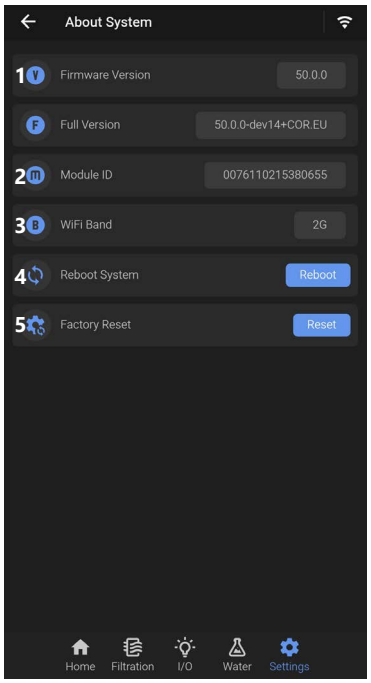


During the inital installation, the date and time can be set manually, or use the «Update System with Browser Date» at first connexion.

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.

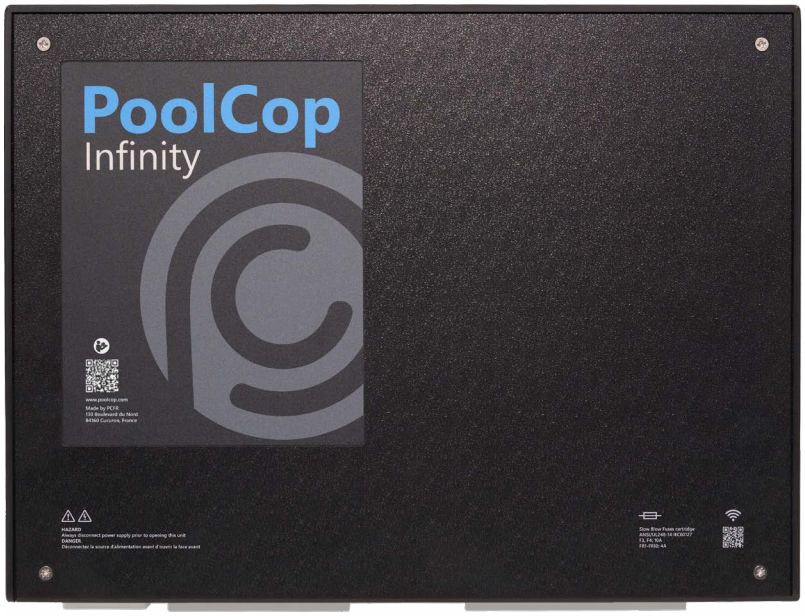
4. **Reboot System**.

5. **Restore Factory Settings**.
   ⚠ All previous configurations and settings will be lost.

9 TECHNICAL SPECIFICATIONS

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

9.1 POOLCOP UNIT



PoolCop Infinity is the pinnacle of intelligent pool management, offering comprehensive data acquisition, advanced automation, and predictive analytics in a single, future-ready platform. It empowers professionals to deliver precision care, optimize resource use, and ensure the highest standards of pool health, safety, and enjoyment.

9 TECHNICAL SPECIFICATIONS

9.2 TECHNICAL SPECIFICATIONS

9.2.1 POOLCOP INFINITY

COMPONENTS	
PoolCop Infinity 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	420 x 320 X 110 (LxHxW) - 4 KG
Power Supply	110 -250 VAC 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	ΔT = +1°C (ΔT = +3.5°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	ΔT = +2°C (ΔT = +3.5°F)
Air Temperature Sensor Cable	4.5m (14.8 ft)
Pressure	-0.9 - 2.50 Bars (-13 - 36 psi)
PoolCop Infinity Unit Protection	IP54

9.2.2 pH+ORP SENSOR

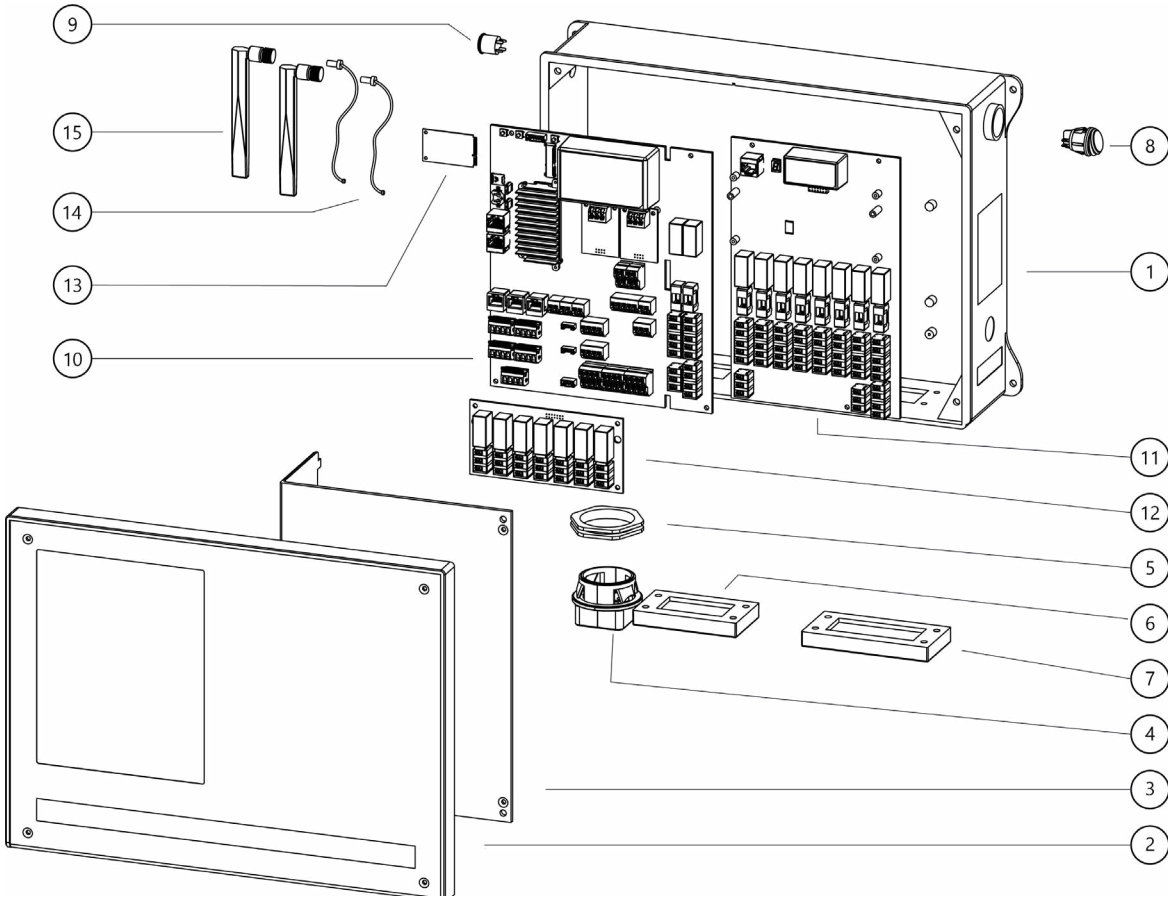
	Chlorine - Pt 530017	Salt - Au 530018
COMPONENTS		
pH+ORP Sensor - Pt or Au	1	
Transport Cap	1	
Retaining Cap	1	
Grip Washer	1	
Compression Ring	1	
O-Ring	1	
TECHNICAL SPECIFICATIONS		
Sensor Dimensions	Diameter : 12 mm (0.47 in) - Length : 14 cm (5.5 in)	
Cable	4 Strands, 4m (13 ft)	
Connector	JSTXHP - 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 VAC	
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

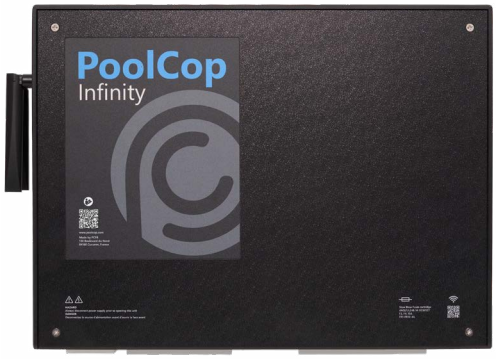
9.3 EXPLODED VIEW



10 COMPLIANCE & WARRANTY

10.1 CE CONFORMITY

EU DECLARATION OF CONFORMITY



Equipment: PoolCop

Model Name: PoolCop Infinity

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*

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

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 Infinity 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 Infinity**
MANUAL: **INFINITY50EN**
FIRMWARE: **V50**

CE

PCFR PoolCop

PCFR SAS - 130 Boulevard du Nord, 84160 Cucuron, France