

CONSTANCE

INSTALLATION GUIDE



The multilingual manual is available
by scanning this QR code



NOT/PLAN-CONSTANCE - FR



MEANING OF THE SYMBOLS USED IN THIS DOCUMENT

In this manual, these symbols indicate a WARNING. They alert you to the risk of equipment damage or serious injury to people. These warnings MUST be heeded!



DANGER = Risk of electrocution.



DANGER = Risk of injury to people.



WARNING = Risk of damage to the installation.



Safety pictogram of EN ISO 7010:2012 – M002, see instruction manual.

SAFETY INSTRUCTIONS AND INSTALLATION RECOMMENDATIONS

Read and carefully follow all instructions before installing and using this equipment.



READ THE INSTRUCTION MANUAL CAREFULLY AND KEEP IT FOR FUTURE REFERENCE.



Ensure that the technical room configuration complies with the standards in force in the country concerned at the time of installation. In particular, the electrical filtration unit must be protected by a residual current circuit breaker (RCCB) of 30 mA maximum with a contact opening distance of at least

3 mm on all poles. Not to be confused with the residual current circuit breaker protecting the entire dwelling, which is in the range of 300 to 500 mA.

If in doubt, contact a qualified electrician to check the entire electrical installation in your technical room. Installation of this device must be carried out by a qualified person in accordance with the electrical standards in force in the country of installation on the date of commissioning.



Power cables must be protected against accidental damage. A damaged cable must be replaced immediately with an original cable only. Never cut or extend cables.



Always disconnect the power supply before performing any technical work on the appliance. Do not modify the appliance. Any modification may damage it or be dangerous to people. Only a qualified person may work on the appliance in case of malfunction or to perform maintenance.

This device should be used exclusively for family swimming pools.



The control box must be installed in a dry and well-ventilated area, inaccessible to bathers.



FAILURE TO FOLLOW THESE INSTRUCTIONS MAY CAUSE DAMAGE TO THE DEVICE OR SERIOUS INJURY TO PERSONS.

The safety instructions detailed in this manual are not exhaustive. They outline the most common risks encountered when using electrical equipment in the presence of water. Caution and common sense should accompany any installation and use of this equipment.

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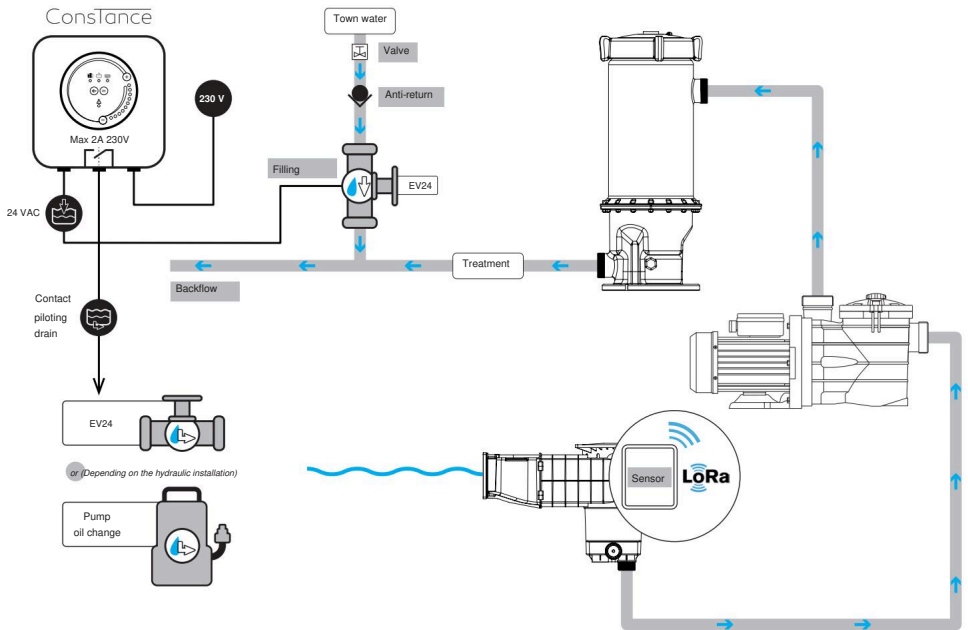
1. Description

Constance is an automatic water level regulation system for a swimming pool. Constance consists of:

- A **CONTROL BOX** installed in the technical room (solenoid valve control).
 - A wireless

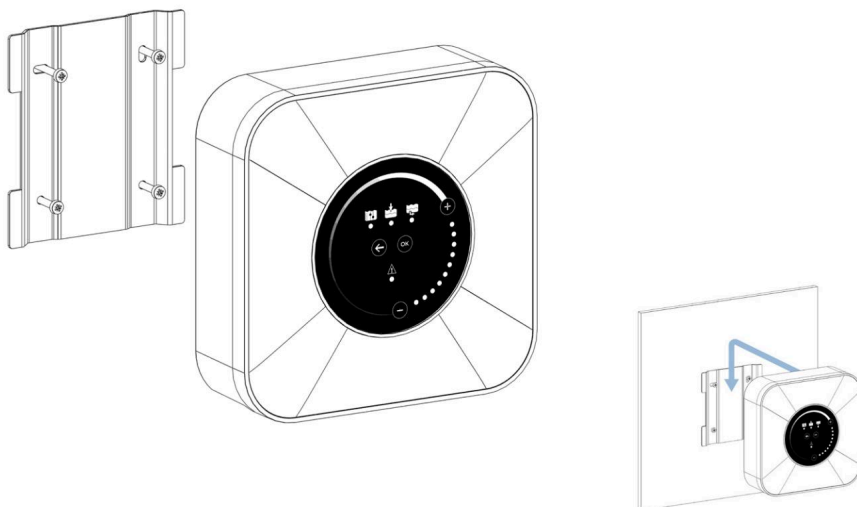
LEVEL SENSOR installed in the pool skimmer.

- A **SENSOR SUPPORT KIT** allowing the sensor to be installed in most skimmers.



2. Installation

CONTROL BOX



Technical specifications:

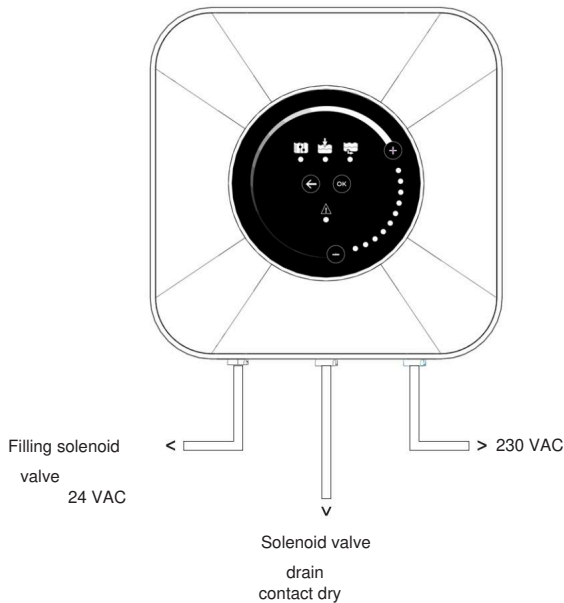
• 230VAC 50/60Hz power supply • 10VA power consumption. Internal 5*20, 500mA time-delay fuse protection • Dimensions: 200x200x68mm

• Weight: 1.3 kg

System compliant with the
standard



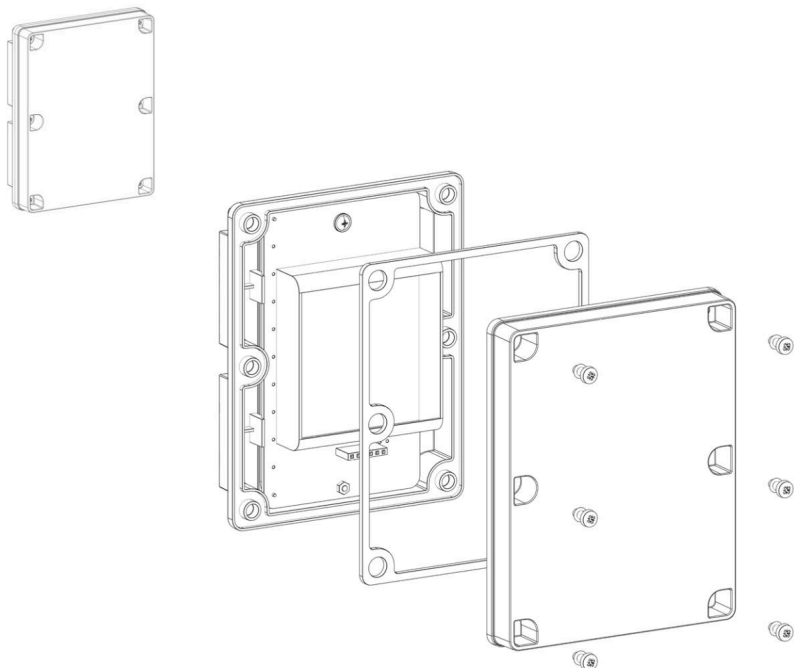
Connection



- Connect the mains cable to the electrical network; bare wires to be plugged into the electrical box or fitted into a mains plug for connection to a socket.

WARNING: THESE OPERATIONS MUST BE CARRIED OUT AFTER CUTTING OFF THE POWER SUPPLY TO THE ELECTRICAL PANEL.

- Constance is supplied without a solenoid valve. It is recommended to use a 24VAC 50/60Hz 5 Watt solenoid valve (e.g., HUNTER PGV100). It must be positioned between the water inlet and the discharge circuit.
- It is strongly recommended to install a valve upstream of the solenoid valve on the water supply circuit to allow for easy access if needed without having to shut off the water supply. In the event of a pressure drop in the water supply network, it is recommended to install a check valve on the water inlet upstream of the solenoid valve to prevent pool water from flowing back into the network and mixing with the mains water.
- The drain solenoid valve control is a dry contact. Depending on the installation, it is therefore possible to control a solenoid valve, an indicator light, or other equipment using the appropriate power supply. Max 2A, 250VAC, 8A 30VDC.



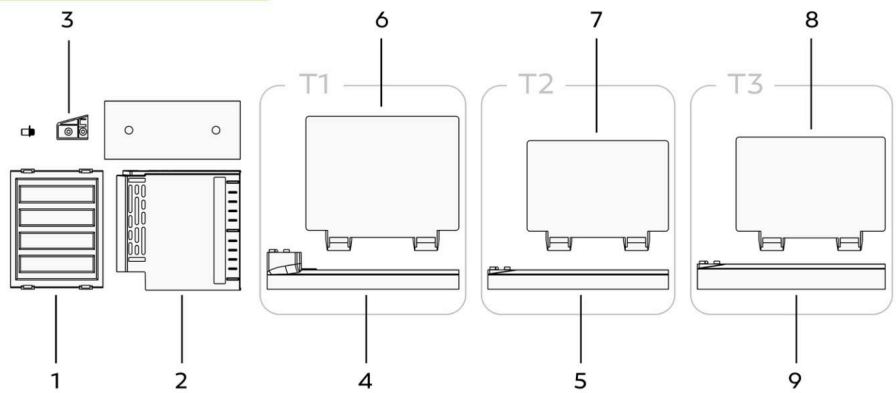
- Power supply: 4 AA batteries
- Battery life in normal operation: one year
- Dimensions: 118x93x29mm
- Weight: 0.125kg (excluding batteries)



Attention :

Tighten the screws reasonably until they stop, otherwise the case may be damaged.

SENSOR SUPPORT KIT



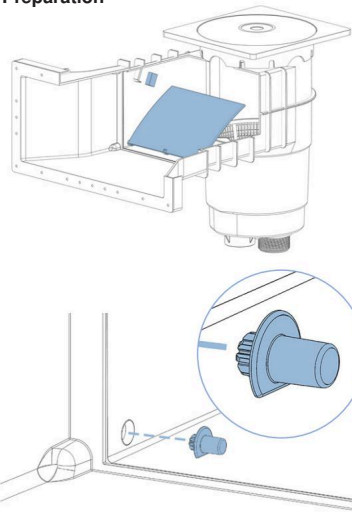
The corresponding numbers can be identified on the plastic parts.



Tabletop Cover Adaptation Kit							
Brand	Weltico*	IML*	Astral*		BWT Procopi*	Hayward*	
Model Skimmer	Skimmer	A-004*	Standard 15L* Prestige 17.5L* Aquareva*		Mirror*	Premium*	Mirror*
	Skimfilter*		Easyline*	Norm*		Coffees*	
Size Kit	T1	T1	T3	T3	T1	T2	T3
Size Axis	x	A1	A3	A4	A1	A2	A4

* Important: Brands and product references marked with an asterisk (*) belong to third parties. The brands mentioned in this document are the property of their respective owners and do not belong to WA Conception. They are provided solely for reference purposes and to confirm compatibility with the product shown.

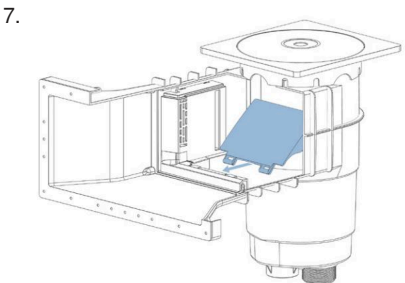
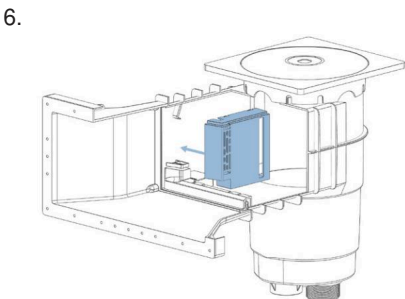
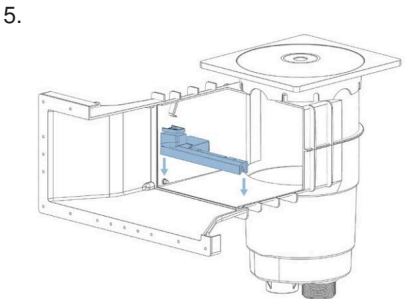
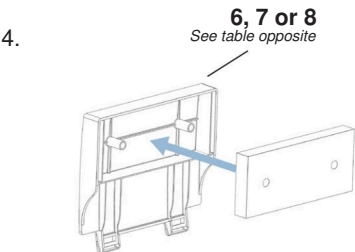
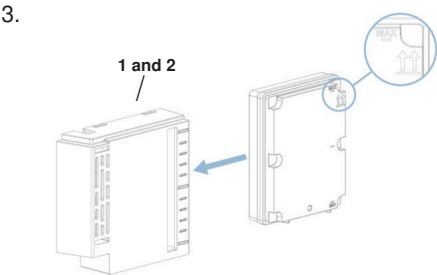
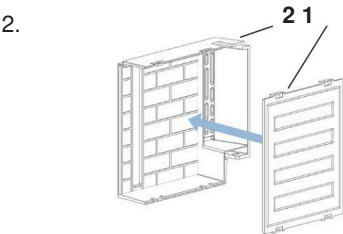
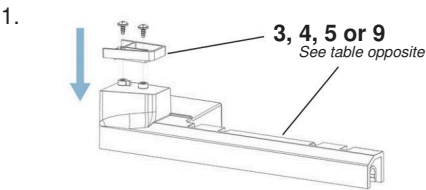
Preparation



Remove the existing skimmer flap. For a Weltico brand skimmer, remove the flap's damping foam.

The flap's pivot points allow you to install the SUPPORT KIT in the skimmer. On some skimmers, the pivot points are integrated into the flap. Otherwise, insert the adaptable pivot points into the skimmer's cavities (various sizes from A1 to A4, see table above) to install the kit. For increased durability, glue the pivot points into the cavities.

Assembly



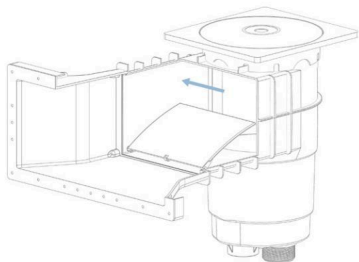
To calibrate the measured water level, go to the section "Adjusting the measured water level" on page 12.

**IF NO SENSOR SUPPORT KIT SIZE MATCHES
DIMENSIONS OF YOUR SKIMMER:**

You can install the LEVEL SENSOR by attaching its support directly into the skimmer housing using a suitable adhesive.



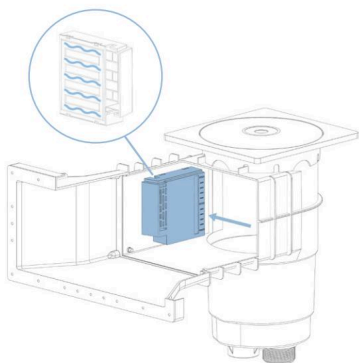
1.



Identify the integration area of the LEVEL SENSOR.

The surface must be clean and perfectly flat.

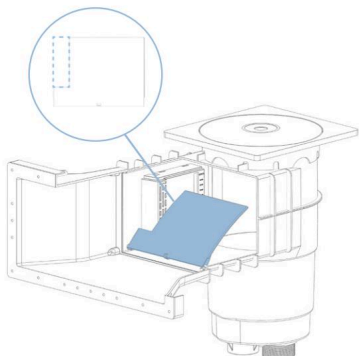
2.



Secure the LEVEL SENSOR in the skimmer housing using a special pool sealant (e.g., *GRIFFON Aqua Max* / *AXON MS 3000 Pro*) or an ABS glue (e.g., *Welticolle* – permanent bond).

Make sure to position the case correctly in a vertical position.

3.



Cut out the existing skimmer flap to allow passage of the LEVEL SENSOR while maintaining the flap's movement.

3. Usage

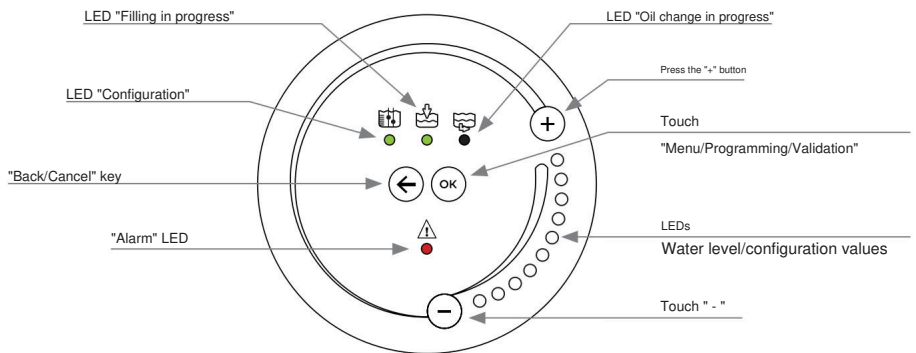
FUNCTIONING

The control unit maintains a constant water level thanks to a wireless sensor that measures the level every hour and transmits the data by radio (LORA). Between measurements, the sensor goes into standby mode to save its batteries.

If an adjustment is required, the corresponding solenoid valve is activated (filling or draining). The sensor then returns to standby mode for 5 minutes. By default, only the filling solenoid valve is activated (see procedure for activating draining).

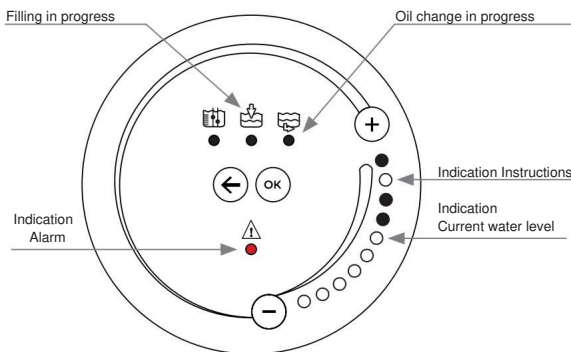
Front view of the control box

As soon as the product is powered on, it is in operation (no On/Off button).



These three LEDs, "configuration", "filling" and "draining", also allow you to identify the different configuration choices, see below.

Main interface



If the settings are inactive, the 3 top LEDs are off.

When the filling solenoid valve is active, the corresponding green LED lights up.

When the drain contact is active, the corresponding green LED lights up.

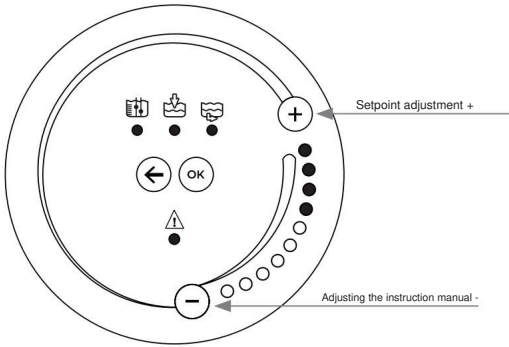
The alarm LED is off, unless an alarm is detected (see below).

Note: When starting up the Constance controller, the last known water level is displayed.

It will only be updated after waking up and the sensor measurement (up to 30 minutes).

During this time, the filling and emptying functions are deactivated, and the two corresponding LEDs flash slowly.

Adjusting the desired water level



Press the up or down arrow keys to set the desired level. 

Press to confirm  your level selection.

This choice is automatically confirmed after 5 seconds.

Adjustment of the measured water level

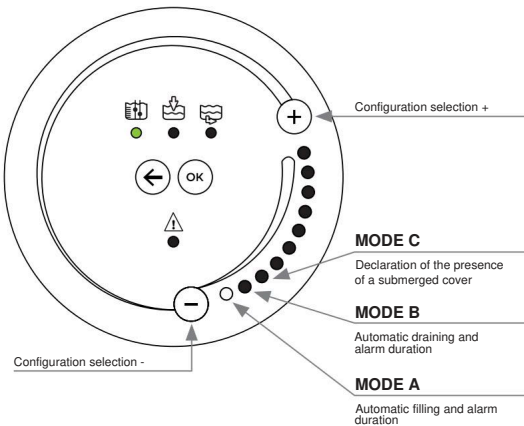
If, during installation, the sensor does not provide a measurement that matches the actual water level, it is possible to adjust the measurement.

Press the keys for 5 seconds   to change the water level.

Press to confirm  your level selection.

If no action takes place for 5 seconds, the modification is abandoned.

Access water regulation modes



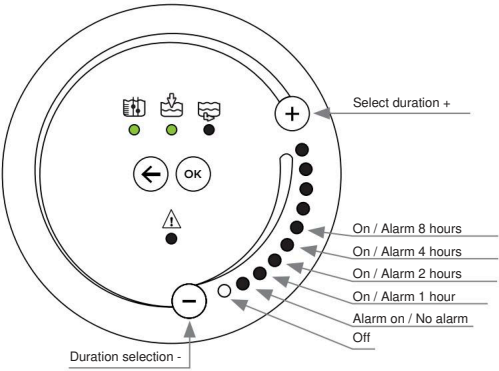
Press the button 

Select your choice with or  

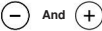
Confirm with .

For more information on draining and filling safety features, see the "Alarms" section.

MODE A / Automatic filling and alarm duration



Press the keys to select the desired option.



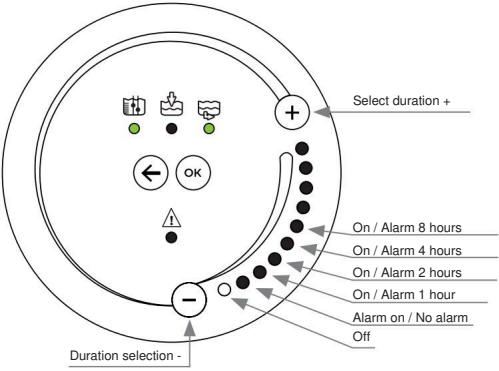
Press to confirm your choice.

After 10 seconds of inactivity, the system automatically returns to the main interface and the configuration remains unchanged.

When the filling solenoid valve is triggered, the wireless sensor then goes into standby mode for five minutes, before taking another measurement.

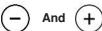
Then, the sensor resumes the measurement every hour.

MODE B / Automatic draining and alarm duration



Note that by default, the drain solenoid valve is not activated.

Press the keys to select the desired option.



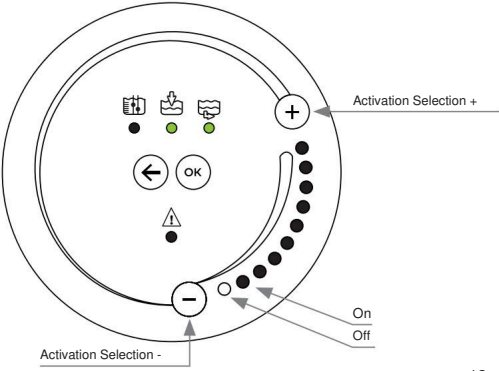
Press to confirm your choice.

After 10 seconds of inactivity, the system automatically returns to the main interface and the configuration remains unchanged.

When the drain solenoid valve is triggered, the wireless sensor then goes into standby mode for five minutes, before taking another measurement.

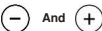
Then, the sensor resumes the measurement every hour.

MODE C / Declaration of a submerged flap



A submerged cover raises the water level when opened. The following mode allows the drain threshold to be raised by 1 cm (cover thickness).

Press the keys to select the desired option.



Press to confirm your choice.

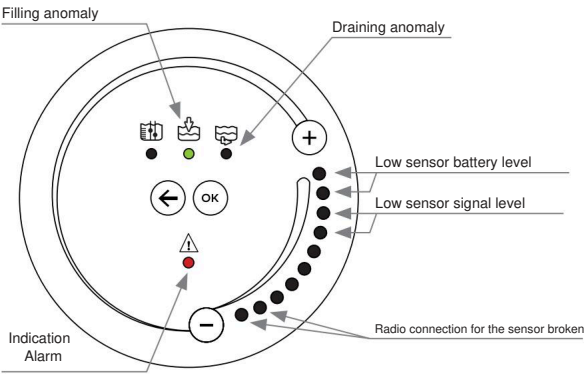
After 10 seconds of inactivity, the system automatically returns to the main interface and the configuration remains unchanged.

4. Problems, causes and solutions

Alarms

Safety features on the maximum filling or emptying time allow the operation to be stopped in case of a problem. If the continuous opening time of the solenoid valve exceeds the programmed safety time, the power supply to the solenoid valve is immediately cut off and the red "Alarm" indicator light is illuminated.

When an alarm is detected, the "Alarm" LED flashes, and the "Level" LEDs indicate the detected alarm as follows:



The alarm can be dismissed by pressing the key 

Only the "sensor radio connection broken" alarm cannot be cleared. Monitoring remains active, and the alarm will be reactivated if the problem recurs.

ANOMALIES	PROBABLE CAUSES AND SOLUTIONS
The control box displays nothing	No mains power supply. Check the circuit breaker, wiring, and internal fuse in the box.
No communication between the control box and the sensor	Wireless sensor batteries are dead. Replace the batteries. Radio communication between the sensor and the control box is impossible. Try moving the sensor.
The red "Alarm" LED is flashing	See paragraph above to identify the corresponding alarm.
The filling solenoid valve does not activate when the water level is too low.	Wait for the next measurement taken by the sensor (1 hour). Check that autofill is enabled (see paragraph above).
The drain solenoid valve does not activate when the water level is too high.	Wait for the next measurement taken by the sensor (1 hour). Check that the automatic oil change is activated. (see paragraph above).
The water level indicated on the case does not correspond to reality.	The sensor can be affected by its environment. An adjustment of the measurement makes it possible to compensate and measure a level in accordance with the actual level. See above.

5. Special operating modes

Initial pool filling, temporary inhibition of the filling alarm

Press (10 seconds) the keys to fill the pool.  

Constance activates the solenoid valve until the desired water level is reached without monitoring the fill alarm.

The user is then responsible for monitoring the proper execution of the operation.

During the operation, the filling LED flashes.

Press (10 seconds) the keys and if you wish to cancel the operation.  

Total draining of the pool, temporary disabling of the drain alarm

Press (10 seconds) the keys to empty the pool.  

Constance activates the solenoid valve without monitoring the drain alarm.

The user is then responsible for monitoring the proper progress of the operation and stopping the system at the end of the draining process.

During the operation, the drain LED flashes.

Press (10 seconds) the keys and if you wish to cancel the operation.  

Sensor pairing

This operation is done in the factory and does not need to be repeated on site.

However, here is the procedure to follow to pair a new sensor:

1. Open the level sensor housing and remove the batteries (see exploded view). The sensor will then restart in special mode.
2. On the control box, press the buttons for 10 seconds to enter pairing mode. The level LEDs will then flash.
3. Reinsert the batteries into the level sensor and close it tightly. After a few seconds, the level LEDs will turn off, indicating successful pairing.
4. The device automatically exits pairing mode after several minutes of inactivity. You can force it out of pairing mode by pressing and holding the buttons for 10 seconds.



The configuration is saved automatically.

This operation does not need to be repeated every time the batteries are changed.

Sensor test mode

This mode allows the sensor to operate in continuous acquisition mode, without an hourly wake-up/standby phase. This enables the technician to easily test the level measurement and control of the solenoid valves.

Note that if the sensor is already in standby mode, you will have to wait until it wakes up again for the function to be active. You can force the sensor to activate by removing and reinserting the batteries.

Be careful not to leave the system in this mode for too long as the battery life of the sensor will be greatly reduced.

1. **Open the level sensor housing and remove the batteries** (see exploded view).
2. **On the control box, press the keys ,  and  for 10 seconds to enter test mode. The alarm indicator flashes.**
3. **Replace the batteries in the sensor and close it tightly. After a few seconds, the level LEDs light up according to the measured level.**

The sensor will remain awake and will regularly send its measurements; the filling and emptying solenoid valves will react to the measurements.

To exit test mode, simply turn the control box off and on again; you can also press the test mode key.

, YOU

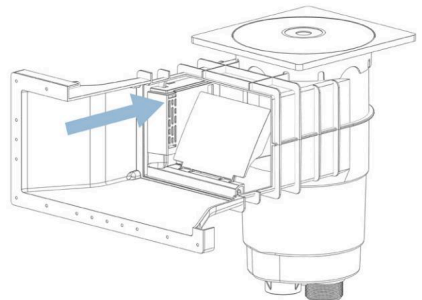
,  press  and hold for 10 seconds to cancel

6. Inspection, maintenance



Once a year, at the beginning of the season, replace the batteries in the level sensor:

- Remove the skimmer housing.
- Slide a thin tool, such as a flathead screwdriver, through the openings in the housing support.
- Push in and then remove the level sensor.
- Disassemble the case (see page 7).
- Replace the old batteries with new ones.



Attention :

During disassembly, the seal and sensor components must be perfectly clean and dry. If necessary, wash and wipe with a dry cloth.

Do not use degreasing or solvent products.

Tighten the screws reasonably until they stop, otherwise you risk damaging the case.

7. Warranty

Subject of the guarantee

WA Conception, responsible for placing this product on the market, certifies that it has been designed and manufactured according to European directives and is free from defects in materials and workmanship.

The guarantee applies against defects of conformity in accordance with the provisions of the Consumer Code as well as against hidden defects in accordance with the Civil Code.

Under Articles L.217-4 et seq. of the Consumer Code, buyers have the right to obtain from the seller the repair or replacement free of charge of products (subject to the cost conditions provided for in Article L219-9) which have a lack of conformity by declaring this defect within 2 years from the date of purchase.

This legal guarantee from the seller extends to parts and labor return to workshop subject to not falling within the scope of the guarantee exclusions.

Under Articles 1641 et seq. of the Civil Code, if there was a hidden defect when the product was purchased, the buyer has the right to return the product and obtain a refund of the price from the seller within 2 years of the discovery of the defect.

We have put all our care and technical expertise into the production of this equipment.

This product undergoes quality control checks. We regularly make improvements or modifications to our models to reflect technological advancements. It is understood that these improvements cannot be added to previous models under our warranty.

If, despite all the care and expertise put into its manufacture, you were to invoke our guarantee, it would only apply to the free replacement of defective parts of our equipment (excluding return shipping).

Implementation of the guarantee

Before contacting your retailer, please have the following information ready:

- From your purchase invoice.
- The serial number of the electronic control unit.
- From the date the device was installed.

Warranty period (as per invoice date)

Electronic box: 2 years (24 months)

- Sensor (excluding batteries): 2 years (24 months)
- Repairs and spare parts: 3 months

The warranty applies to all parts except for wear parts which must be replaced regularly.

The device is guaranteed against manufacturing defects under normal use in a family swimming pool. Use in public pools voids the warranty.

Customer Service

- All repairs are carried out in our workshops.
- The user is responsible for all round-trip shipping costs. Downtime and loss of use of the device due to potential repairs will not be covered.
to compensation.
- In all cases, the equipment travels at the user's own risk. Before taking delivery, it is the user's responsibility to verify that it is in perfect condition and, if necessary, to note any reservations on the carrier's delivery slip. Confirm this to the carrier within 72 hours by registered letter with acknowledgment of receipt.

IMPORTANT :

A replacement under warranty will in no way extend the original warranty period.

Warranty application limits

The following are excluded from the Warranty:

Installation, maintenance, and, more generally, all work on the manufacturer's products must be carried out exclusively by qualified professionals. Furthermore, this work must be performed in accordance with the standards in force in the country of installation at the time of installation. Using a part other than the original will automatically void the warranty on the entire device.

Equipment and labor provided by a third party during the installation of the equipment.

Damage caused by a non-compliant installation.

Problems caused by alteration, accident, misuse, negligence by the professional or end user, unauthorized repairs, fire, flood, lightning, frost, armed conflict, or any other event of force majeure.

WARNING: NO EQUIPMENT DAMAGED AS A RESULT OF FAILURE TO FOLLOW THE SAFETY, INSTALLATION, USE AND MAINTENANCE INSTRUCTIONS SET FORTH IN THIS MANUAL WILL BE COVERED UNDER WARRANTY.

We regularly make improvements to our products and software. These new versions are compatible with previous models. New hardware and software versions cannot be added to previous models under warranty.

Implementation of the guarantee

For more information about this warranty, please call your professional. All requests must be accompanied by a copy of the purchase invoice.

Laws and disputes

This warranty is governed by French law and all applicable European directives and international treaties in force at the time of the claim. Any dispute concerning its interpretation or performance shall be subject to the exclusive jurisdiction of the High Court of Bergerac (France).

8. Environmental protection

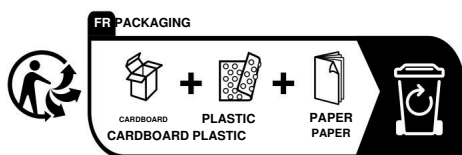
Environmental protection is essential. Our company is strongly committed to it. Our products are designed and manufactured with high-quality, environmentally friendly, reusable, and recyclable materials and components. However, the individual parts that make them up are not biodegradable. European environmental directives (WEEE) regulate the end-of-life of electronic equipment. The aim is to reduce and recover waste, prevent the hazardous nature of their components, and encourage product reuse.

The symbol affixed to our product indicates the need for separate collection and sorting of the rest of the household waste.

Therefore, we must not discard our product by simply throwing it into nature.

You can drop it off at a waste collection point.

If you are buying a device with similar features, you can give it to your seller at the time of purchase.



9. Compliance

The products listed above comply with European directives:

EMC Directive: 2014/30/EU.

- Driving emissions: EN 55014-1; EN 61000-6-3 and FCC part 15 (class B)
- Radiated emissions: EN 55014-1, EN 61000-6-3 and FCC part 15 (class B)
- Harmonic current: EN 61000-3-2: 2014
- Voltage fluctuation: EN 61000-3-3: 2013
- Immunity: EN 61000-6-2, EN 55014-2

Low Voltage Directive: 2014/35/EU

- EN 60335-1 and EN60335-2-60.

Radio Equipment Directive: 2014/53/EU (RED).

10. Warranty Certificate

Keep this enclosed certificate and the purchase receipt. The serial number shown on this page will be required for any claims.

IMPORTANT: Read and carefully follow the assembly and operating instructions for the product you have just purchased to avoid any potential problems.

IT IS VERY IMPORTANT TO FOLLOW THE SAFETY ADVICE

WEEE Directive: 2012/19/EU



WA DESIGN
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conception.com www.wa-
conception.com