



# LOG-AQUA

User Manual

Version 1.1

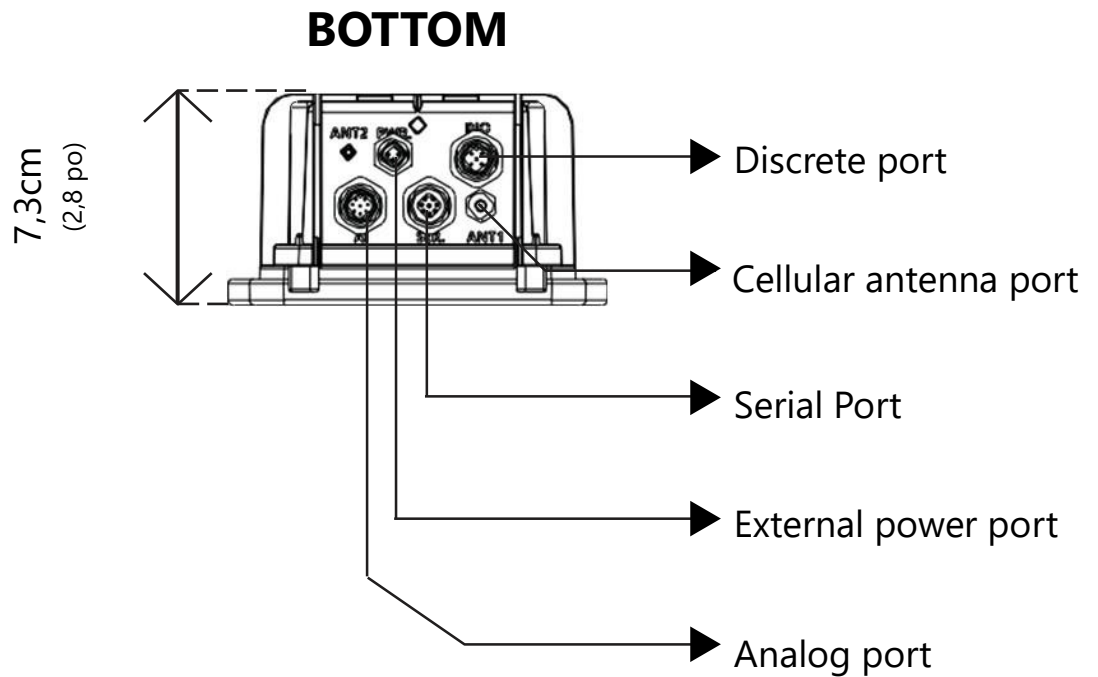
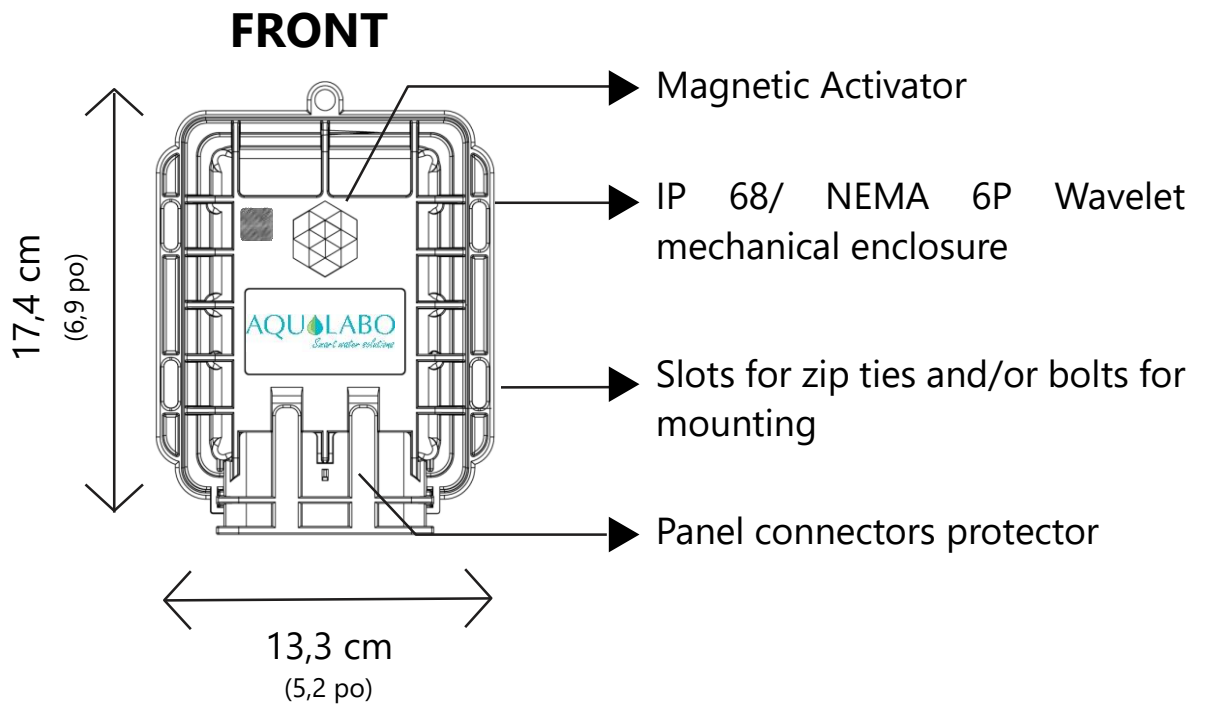




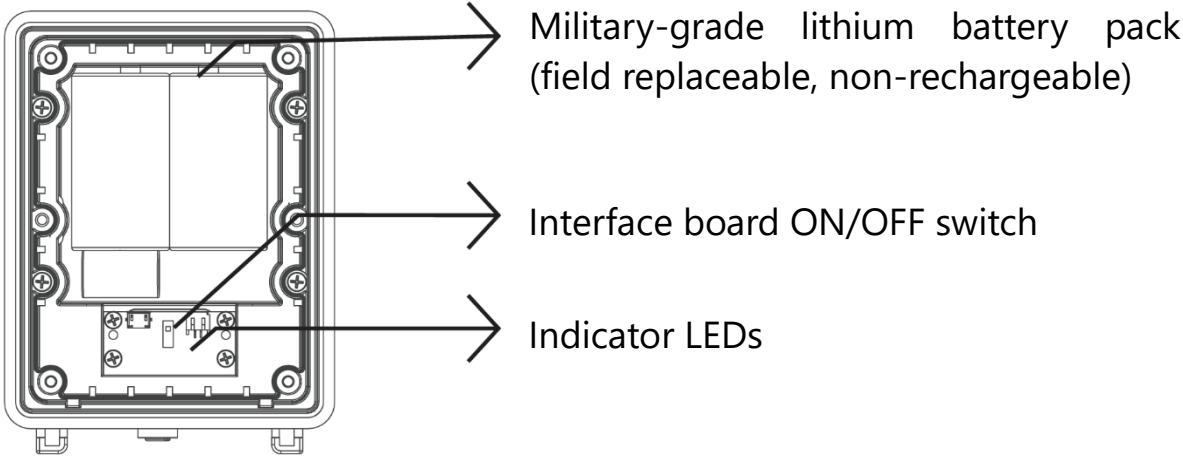
It is important that you read the Quick Start Guide in a controlled environment prior to installation.

Set up, activate, and successfully test the entire system (LOG-AQUA, sensors, and antenna connection) indoors, in a controlled environment, before going to the field for installation

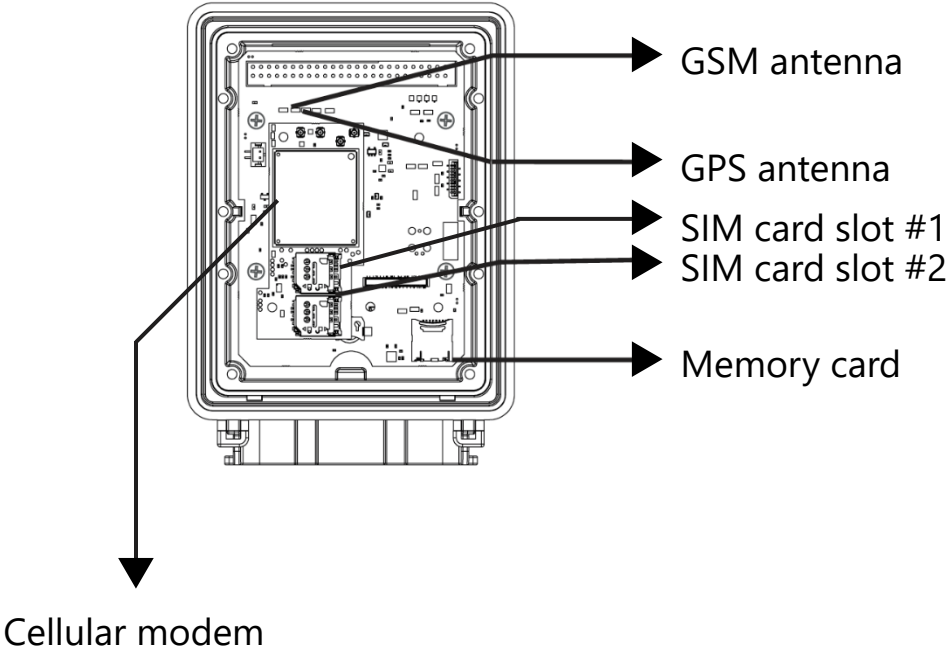
## SCHEMATIC



## INTERNAL UPPER ENCLOSURE

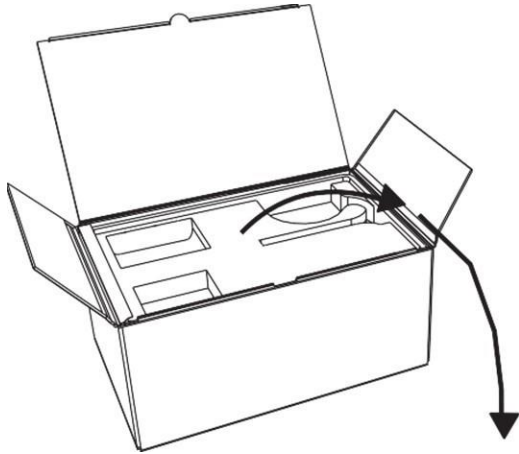


## INTERNAL LOWER ENCLOSURE



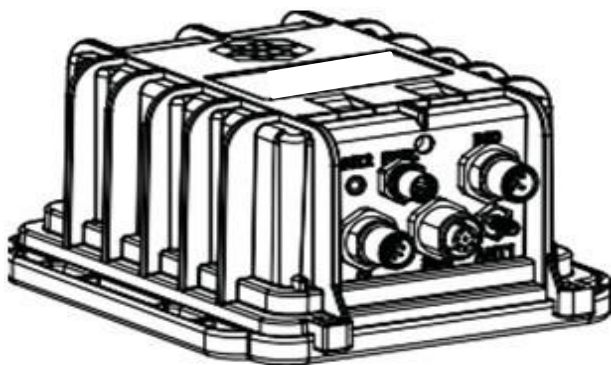
# LOG-AQUA

## COMPONENTS



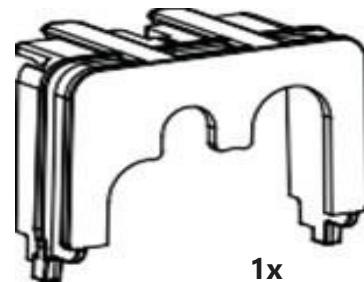
**LOG-AQUA**

**Logger Activator**



1x

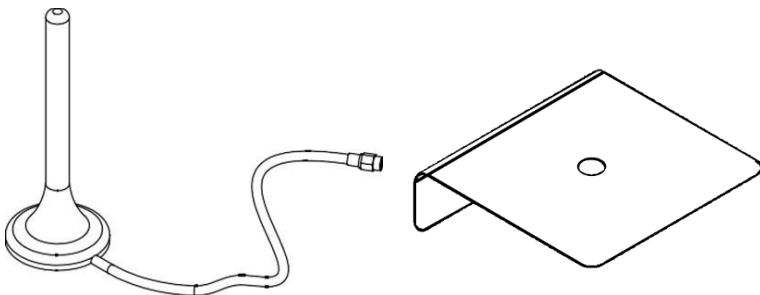
**Panel connectors protector**



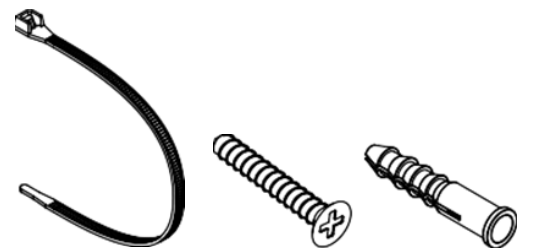
1x

**Cellular antenna and mounting bracket**

**(REQUIRED and sold separately)**



**Zip ties, screws, and anchors**



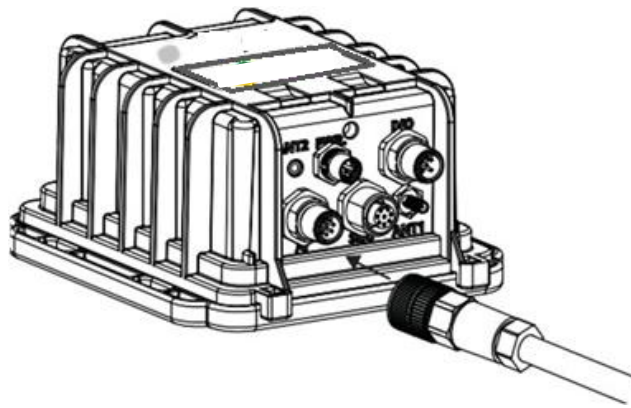
2x

4x

4x

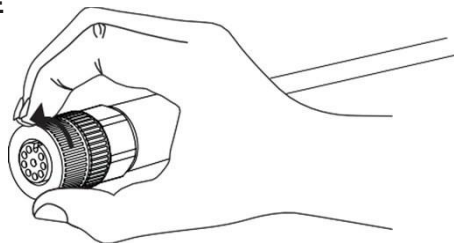
## SENSOR CONNECTION

Connect the sensor cable(s) assembly with the field attachable connector to the mating panel connector on the LOG-AQUA. See page 17 for more details. Turn the adjustable stainless-steel end piece to secure the field attachable connector to the LOG-AQUA.

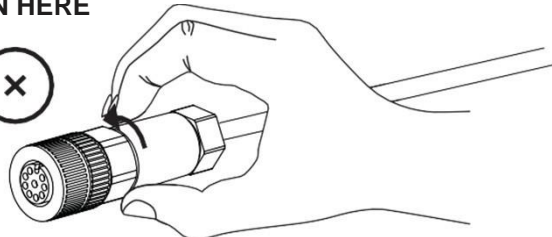


**CAUTION:** Do not turn the black plastic hood of the connector. Turning the black hood may cause the wires to disconnect, break, and/or damage the connector pins.

TURN HERE

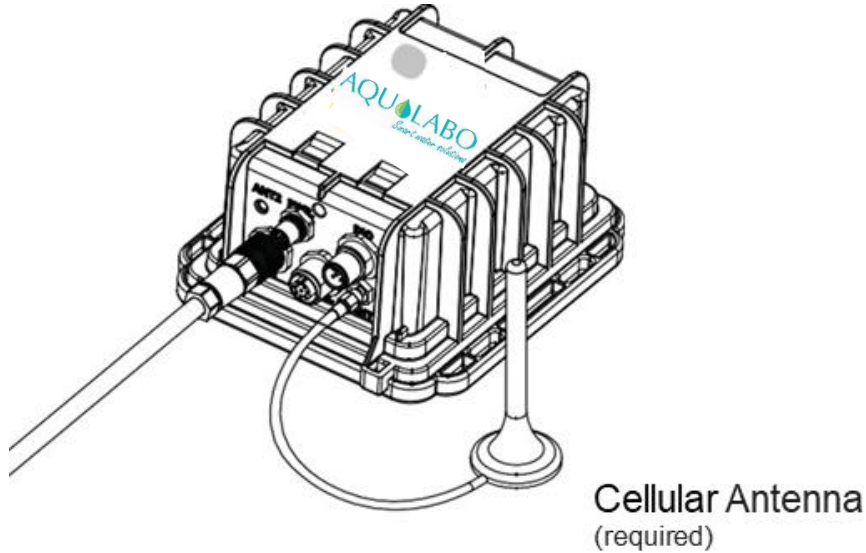


DO NOT  
TURN HERE



## EXTERNAL ANTENNA CONNECTION

Connect the Cellular antenna to the antenna port.

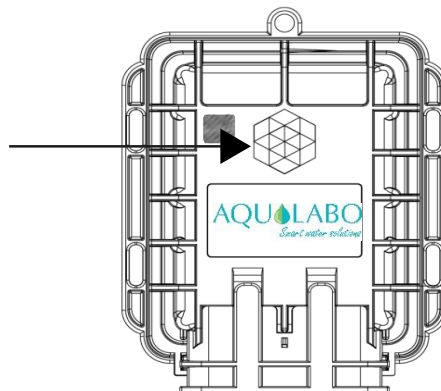


The antenna does not appear in the remaining depictions in this guide, but it must remain connected after it is properly secured to the appropriate panel connectors.

Place the magnetic activator on the embossed logo on the front of the LOG-AQUA enclosure.

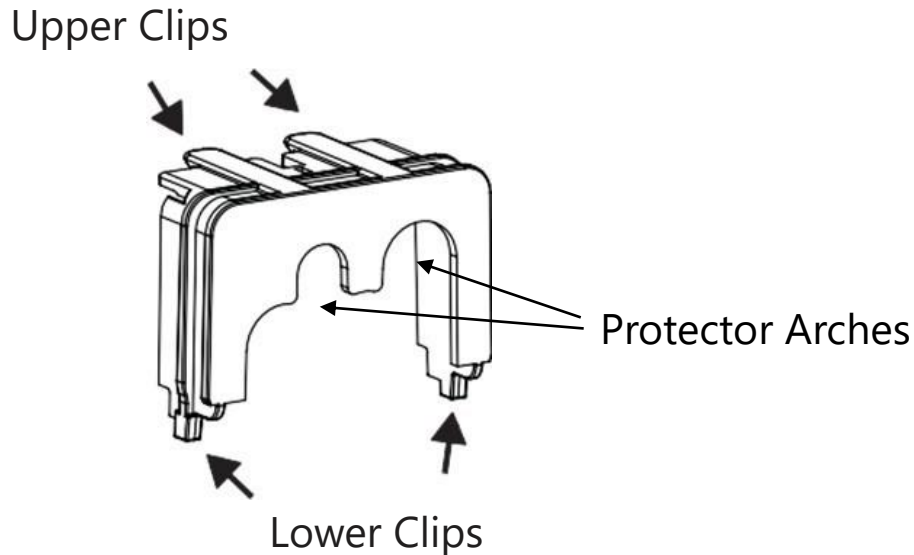
The LOG-AQUA will initiate a 15-minute test mode of sampling and send a few transmissions of data. The device will then return to its default configuration

Magnetic activator

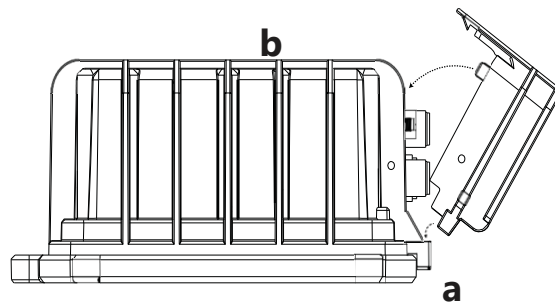


## PROTECTION DU LOGGER

After connecting sensors and antenna, place the LOG-AQUA protector above the connector ports and secure the Wavelet protector into the LOG-AQUA enclosure.



- a. Insert the two lower clips into the two lower holes of the LOG-AQUA enclosure.
- b. Snap the upper clips into place in the two grooves above the panel connector



**CAUTION:** The protector is provided to shield the connector from tampering or over-exposure that could result in disconnected wiring.

If you need to remove the protector, grasp it at the protector arches and pull up. The protector will snap off.

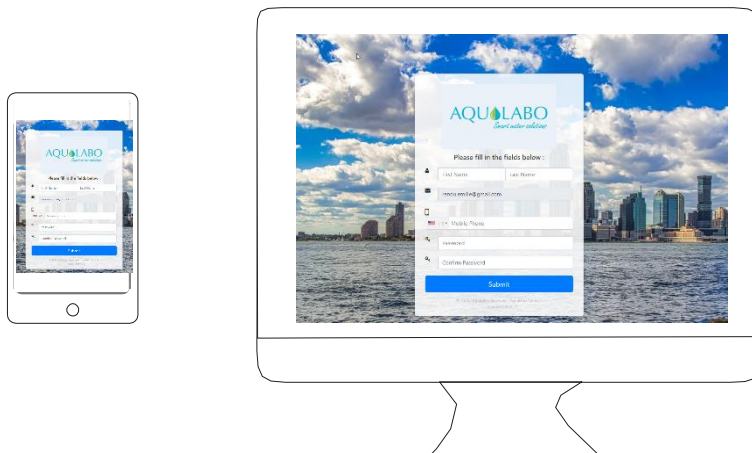


## LOG-AQUA ACTIVATION

The LED light on the back cover of the Wavelet indicates the device status.

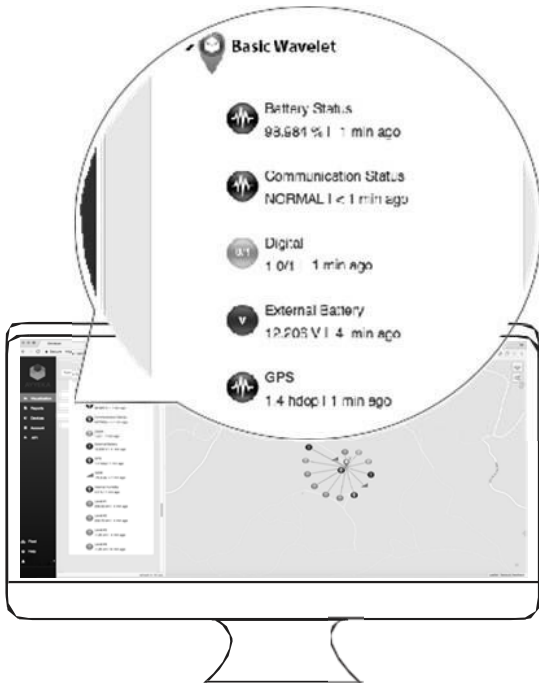
Function	Description
All LEDs are off	Not connected to network. The LED lights do not blink when the device is sampling. <b>Note:</b> LOG-AQUA may be powered down (power switch is in the OFF position), in Hibernate mode, or have insufficient battery strength.
Green-Red-Blue-Red-Green LEDs blink sequentially 5x	LOG-AQUA is activated using the Magnetic Activator.
Green LED is blinking	Attempting to connect to GSM network.
Green LED remains on	Transmission of data is in progress via GSM. The LED will turn off when the transmission is complete.
Green-Red LEDs blink 5x	GSM communication error. The device failed to transmit.

Access the AQUALABO user interface at XXXX by using your log-in credentials. Expect data to appear 5 – 10 minutes after the test mode is initiated

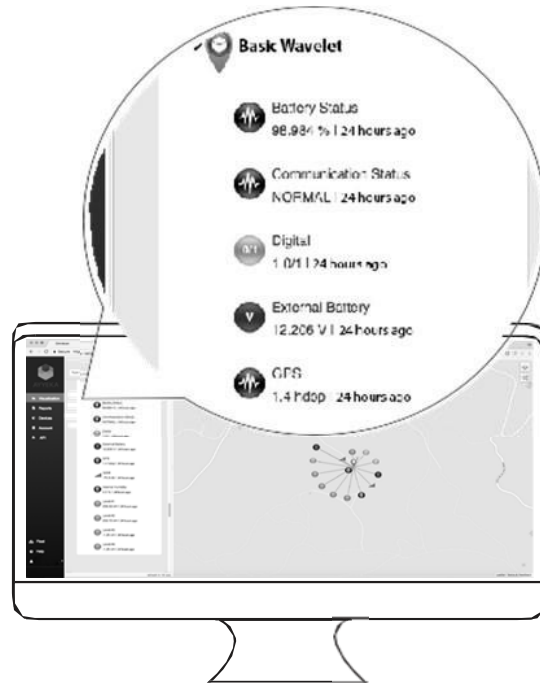


## LOG-AQUA ACTIVATION

The screen display should resemble the following:



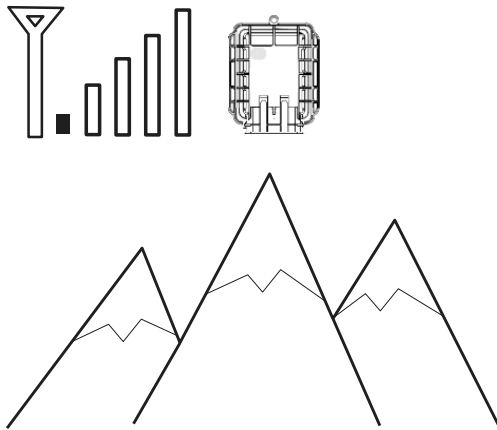
If the LOG-AQUA transmits properly, then the test was successful. You can now install the LOG-AQUA in the field and begin to collect and view your data!



If data does not transmit properly, change the LOG-AQUA installation location and activate again. If the problem persists, contact the Aqualabo Team for help.

## SPECIAL INSTALLATIONS LOCATIONS

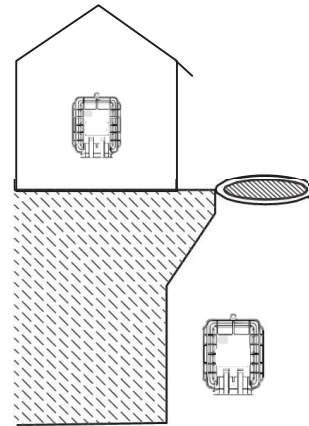
### WEAK SIGNAL LOCATIONS



If the LOG-AQUA is installed in an area with weak cellular signal, activate the LOG-AQUA using the magnetic activator.

You can log into the user interface using your credentials to validate that the device is transmitting and sensor. Wait for at least 15 minutes, then log in to the user interface to confirm successful transmission.

### UNDERGROUND/INDOOR



If the LOG-AQUA is installed in an area with weak cellular signal, activate the LOG-AQUA and place in the intended installation location with closed doors/access hatch.

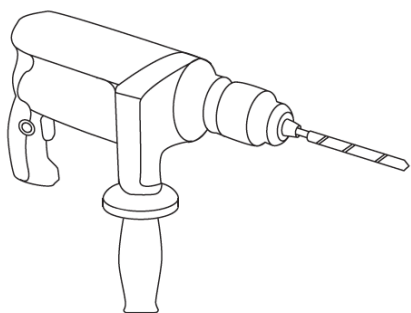
Wait for at least 15 minutes, then log in to the user interface to confirm the updated location on the map.

Before installation, initiate the GPS out by activating the LOG-AQUA (see step 3).

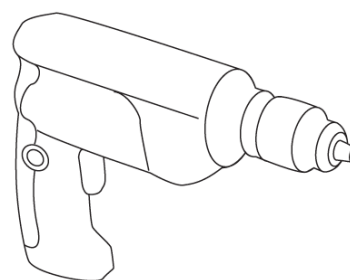
## MONTAGE DU LOG-AQUA

**Additional tools and/or materials might be required (not included)**

Rotary hammer



Screwdriver with bit

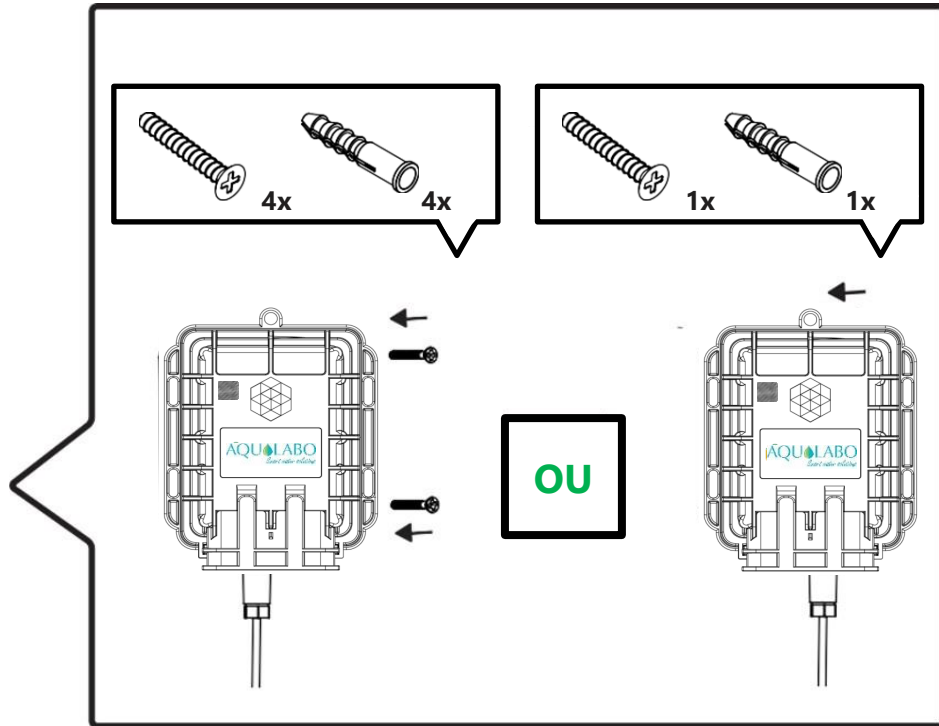


# LOG-AQUA

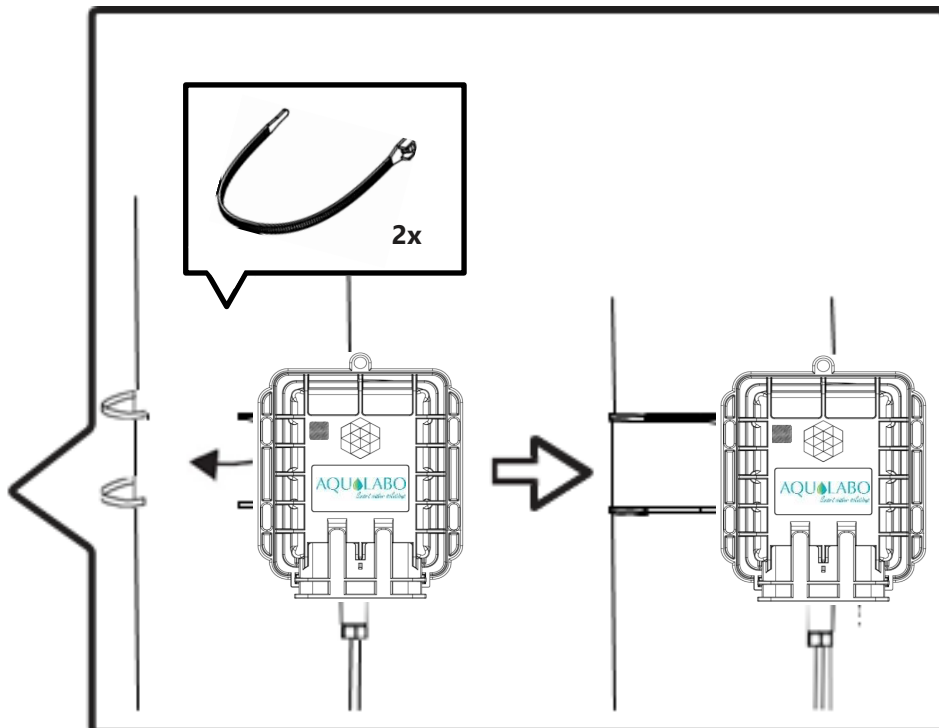
## LOG-AQUA MOUNTING

Secure the LOG-AQUA on a wall, pipe, or other secure mount location by using zip ties or screws.

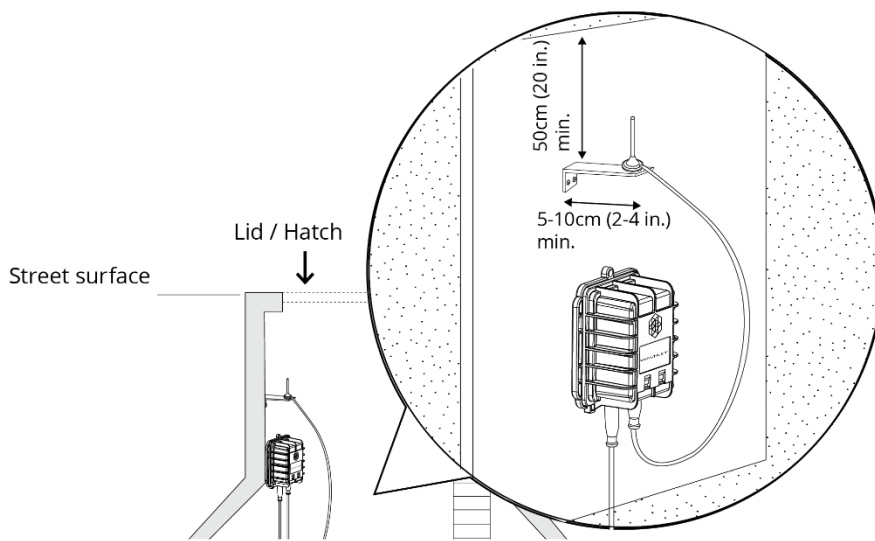
**Wall mounted**



**Pipe mounted**



## ANTENNA MOUNTING



### DOs

- ✓ Ensure the antenna connector is secured tightly to the panel connector.
- ✓ Mount antenna under the open sky or at least 50cm (20in.) beneath any object.
- ✓ Mount antenna at least 5 to 10cm (2 to 4in.) away from wall.
- ✓ Mount antenna at least 5cm (2in.) away from the LOG-AQUA.
- ✓ Finalize the antenna setup to the exact physical conditions. For example, close the lid, close the door, etc.
- ✓ Make sure you have a signal and a successful data transmission via the user interface
- ✓ If needed during installation, use the **Transmit Now** command with the magnetic LOG-AQUA Activator to initiate more rapid transmissions.

### DON'Ts

- ✓ Do not attach the antenna to the LOG-AQUA.
- ✓ Do not wrap cables, zip ties, or other items around the antenna.

### IMPORTANT NOTE :

There are a few- minutes of delay between a successful transmission and the use of either of these methods for initiating data transmission. Repeating the use of either method will not expedite data transmission.

### WARNING :

If installing in a highly corrosive environment such as a sewer, apply technical grease to the antenna and sensor field attachable connectors after securing them to the panel connectors.

## ANTENNA MOUNTING - TROUBLESHOOTING

If the Wavelet does not transmit, move the antenna to a different position.

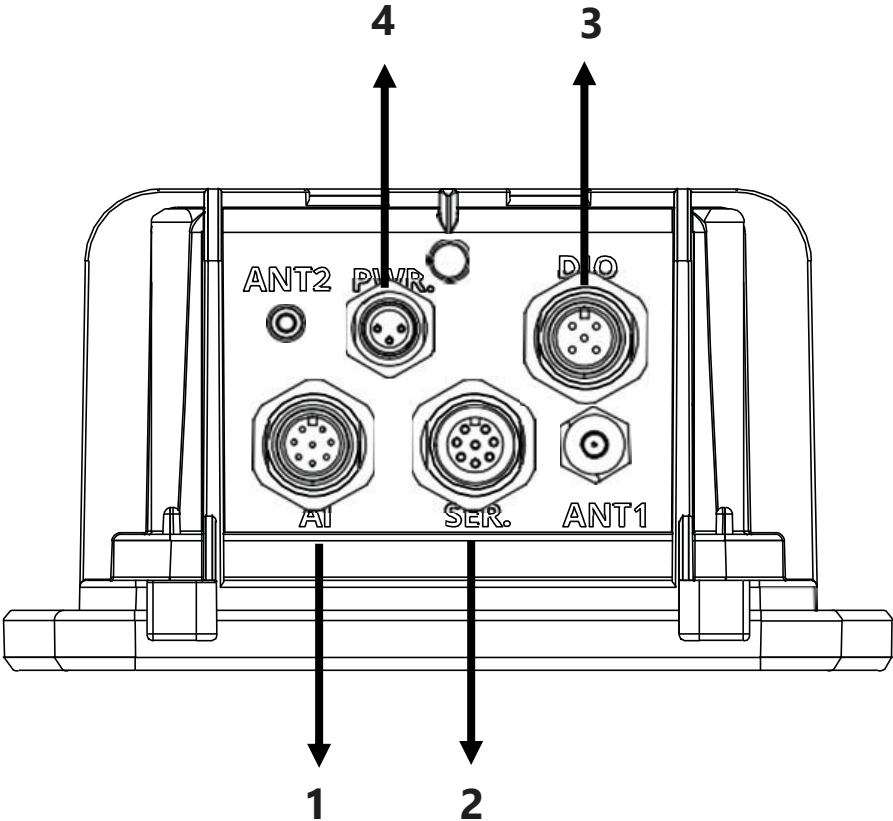
If the Wavelet still does not transmit after multiple attempts at repositioning the antenna, consider using an alternative solution, such as an in-road or a high-gain antenna.

**YOUR LOG-AQUA  
IS SUCCESSFULLY INSTALLED !**





## LOG-AQUA PINOUT



Panel Connector	Inputs
1	4x analog and 1x discrete
2	RS485, RS232, SDI-12 (16 channels)
3	4x discrete
4	6-24VDC