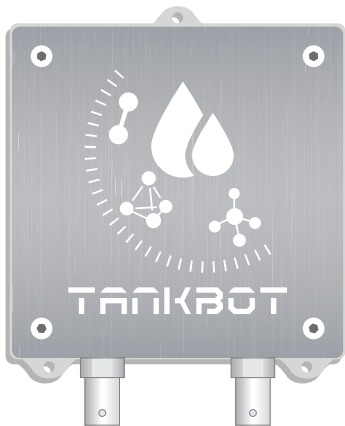




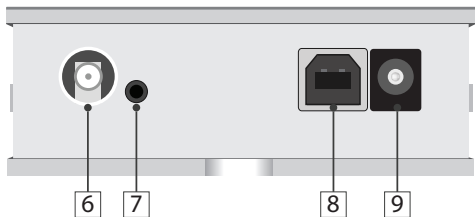
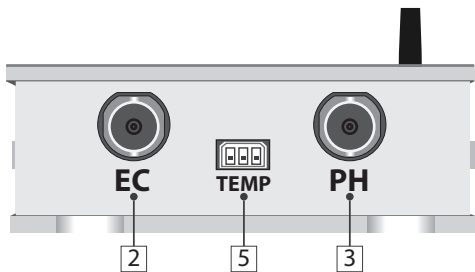
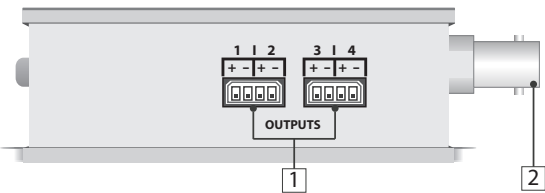
OPENGROW.

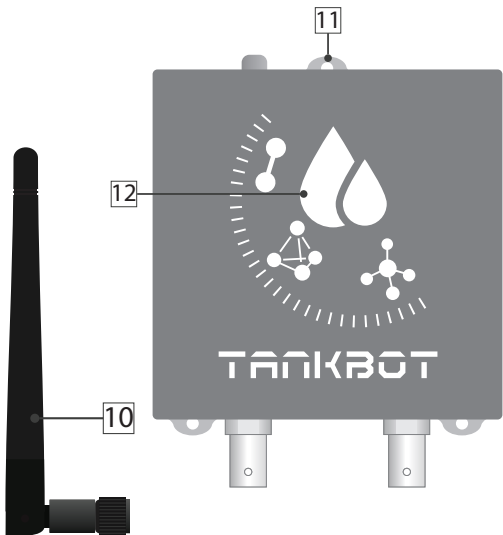
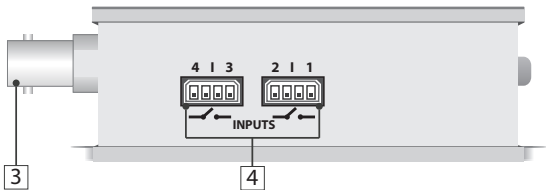
INSTALLATION MANUAL

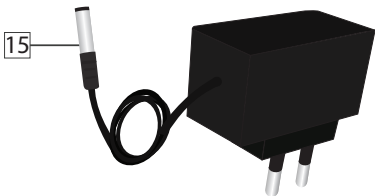


TankBot

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- 1 Controller connection outputs
- 2 EC sensor outlet
- 3 PH sensor outlet
- 4 Sensor connection inputs
- 5 Water temperature sensor outlet
- 6 RF communications antenna outlet
- 7 Module reset button
- 8 Type-B USB outlet (Firmware updates)
- 9 12V_{DC} /24V_{DC} power supply input
- 10 RF communications antenna
- 11 Perforations for vertical mounting
- 12 Status signal display
- 13 B-type USB. Only Firmware updates

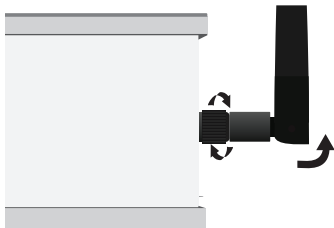
- 14 Water temperature sensor
- 15 230V_{AC} / 12V_{DC} transformer
- 16 Sensor and actuator plugs

INSTALLATION

①

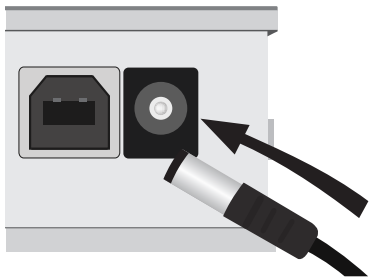
Peripherals connection

Screw the communication antenna (10) into the module outlet (6). For correct communication, turn the antenna in order to position it vertically according to the direction of the module.



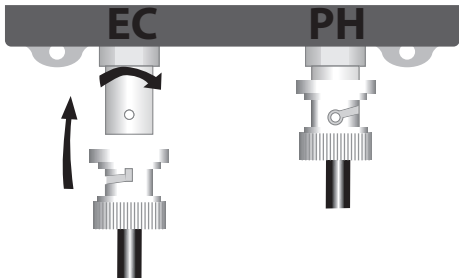
Place the module on a firm surface, far from flood-prone areas. It is recommended that the module be mounted on a wall with the fixing holes on the upper part.

Once the module has been mounted, connect the power cable (15) to the module's power supply input (9) and the transformer to a 230V_{AC} outlet.



Place the module on a stable surface. It is recommended that the module be mounted on a wall to more easily handle the wires of the sensors and actuators connected to the module.

Connect the PH and EC sensors to their respective outlets. Insert the tip of the plug and turn it clockwise to screw it in.

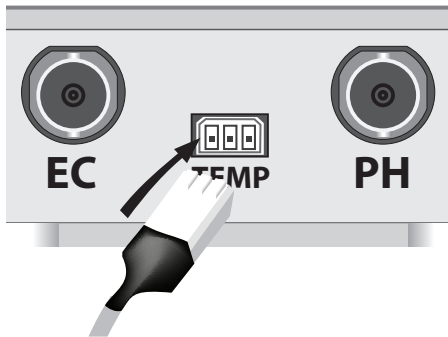


Never exchange the position of the PH and EC sensors.

A wrong connection may deteriorate your devices or the module itself.

Adjust the sensors using the software. Consult the calibration guide available by directly accessing **Guides** on your desktop. Once adjusted, insert the PH and EC sensors in your water tank.

Connect the water temperature sensor (14) to the module outlet (5) and place it in the water tank.



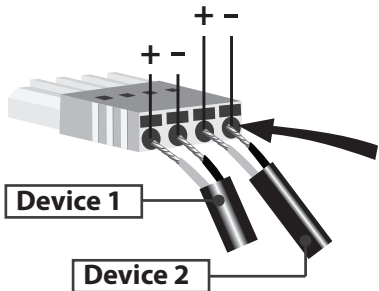
If you use any system to heat the water, maintain the sensor away from it.

Connect the cables of the peripherals to the sensor and actuator plugs (16). Each plug is divided in two sections, one for each device. Perform the following steps to correctly connect them without generating polarity problems.

Connect your controllers (Outputs) in the following order, respecting the position of the plug:

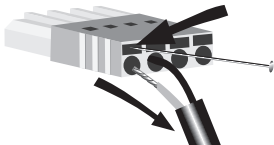
Controller 1: Positive Cable / Negative Cable

Controller 2: Positive Cable / Negative Cable



Twist the bare wire together and cut it with scissors so that when it is inserted into the plug it is not exposed and does not cause bad contact with other cables.

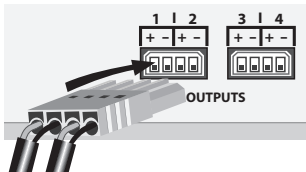
To remove a wire from the plug, use a pin to press the hole associated to each cable located at the surface of the plug. Finally, take it out of the cable to remove it.



Next, carry out the same procedure on your sensors or INPUTS. Keep in mind that by inverting the polarity of a sensor you will be inverting the data recorded by TankBot. You can invert polarity directly from the software without the need to disassemble the wires.

Never connect sensor INPUTS in the actuator position or in the OUTPUTS. A wrong connection could deteriorate your devices or the module itself.

Lastly, connect the plugs of the sensors (INPUTS) and actuators (OUTPUTS) to their respective outlets.

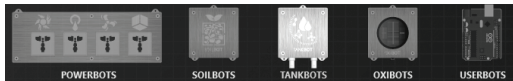


Connection to GroNode

First, install GroNode and the control software successfully. Follow the procedures indicated in the GroNode user manual.

Once GroNode has been connected to the software, access GroLab through the menu.

If the module has been successfully located automatically by GroNode, it will appear on the top menu.



If you have more modules of the same type, a list of them will appear on the software's right side menu. Add up to a total of four modules of each type for each GroNode.

Problems or losses in communication

GroNode was designed to communicate with the other modules through radio frequency signals. The range of action is 25 metres indoors and 100 metres outdoors depending on space conditions.

If the control software does not find your module or frequently loses communication it is possible that you have exceeded the distance between your modules and GroNode.

Some load-bearing walls and electronic devices may interfere with the signal.

Check the configuration panel to ensure the modules are connected. A wireless signal icon will indicate if your module has a signal.



If you detect that the signal has been interrupted, with the module on, press the reset button (7) and wait a few seconds. Check the software to see if the communication has been re-established.

If the problem persists, perform a test run by placing the module next to GroNode and check the status of communication in the software. If communication has been successfully re-established, repeat this operation at different distances until you detect the maximum communication distance.

If GroNode does not detect your module even when next to each other, contact our technical support.



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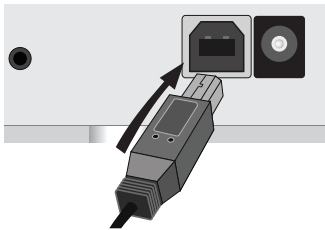
support@opengrow.pt

Firmware Updates

Keep in mind that some software updates will require updating your devices' Firmware.

All updates will provide crucial improvements, ensuring your system's performance.

Connect the type-B USB cable (13) to your device's USB outlet (8) and follow the procedures indicated in the firmware update manual available through direct access to Guides on your desktop.



Open Grow LDA guarantees the purchaser that the product is free from material and/or manufacturing defects. Open Grow LDA's liability is limited to the repair or replacement of any defective parts. Do not ship directly to Open Grow LDA without first consulting with us to verify the procedure that should be followed.

Contact our technical services at support@opengrow.pt

All Open Grow LDA products have a 2-year guarantee except for consumables (sensors and/or actuators of any type) and under normal use.

After the first 6 months the customer should prove that the breakdown is a result of a manufacturing defect.

The loss of the "GroNode" module's internal battery life as a result of its ageing is not considered a manufacturing defect. Follow the replacement procedure indicated in the user manual available on your application or request more information from the technical services.

A guarantee claim is non-transferable and only the original purchaser can submit one. To enforce the guarantee the customer must always provide the purchase invoice.

GUARANTEE DISCLAIMER:

Application of the guarantee is excluded should the breakdown of the defective part or parts be a result of the product's inadequate and/or negligent use. Understood as inadequate and/or negligent use is any use other than the one for which the product is meant and/or that is recommended in the instructions manual, not executing the maintenance operations recommended in the instructions manual, carrying out operations that are different from those mentioned and that compromise the quality of the product, modifications that are not performed by authorized repairers and/or with non-original or non-approved parts.

Open Grow LDA reserves the right to update and/or modify the content of its products at any time without prior warning. Check out our conditions at www.opengrow.pt

