

H-A Pro M

User Manual

v2.4

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1. Warnings



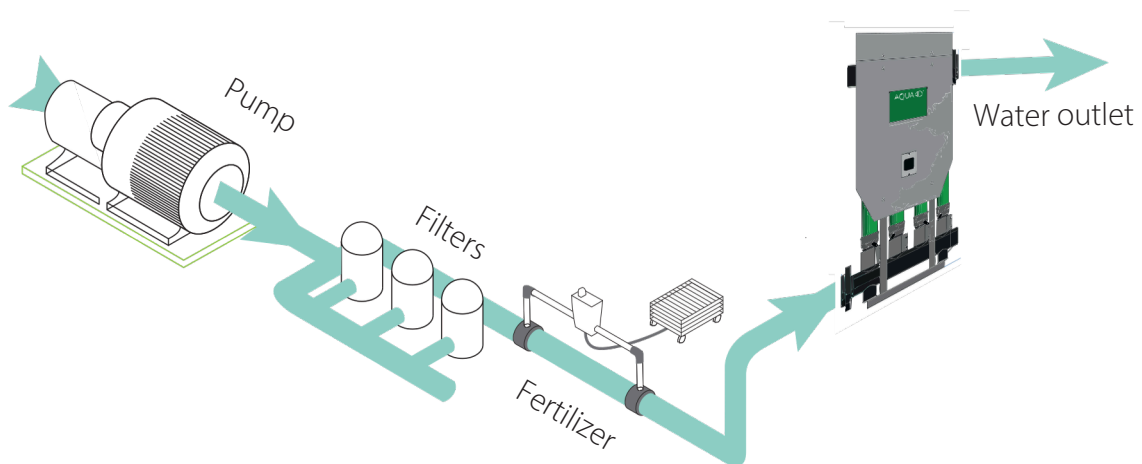
- A water grounding device is recommended to maximize the efficiency of the system.
- Pay attention to the maximum torque values when tightening bolts and screws.
- Avoid any mechanical stress to the structure. Too much force on the system may cause parts to break.
- Ensure that the water input and output pipes connected to the H-A Pro M are aligned to avoid any mechanical stress.
- The system must be placed on a hard and flat surface, such as a concrete slab.
- The system must not be holding the weight of the inlet and outlet pipes. There must be supports on these pipes with that purpose.
- Ensure that the following distances between the treated water pipes or the AQUA4D Treatment Units are respected (EMF disturbances) :
 - a) 3 meters from large electric pump motors
 - b) 2 meters downstream and away from small pumps, transformers and electromagnetic flow meters
 - c) 1 meter from unshielded power cables that carry high current draw such as for the pumps

2. Introduction

This document will guide you on the best way to start using your new **AQUA4D H-A Pro M**. Please follow the instructions carefully to ensure the system is safely installed and launched.

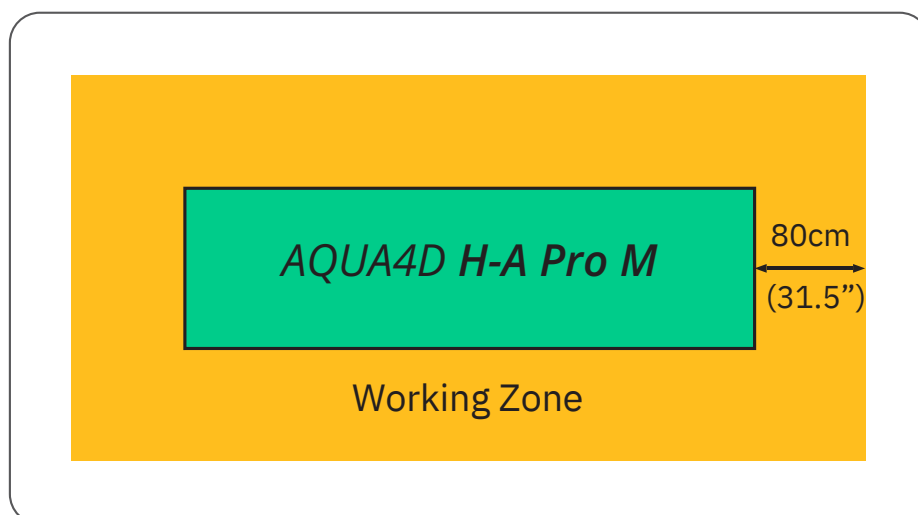
3. Installation location

The *H-A Pro M* should be placed in the water network after the pumps, fertilizer and filters; the closer it is to the crops without interference, the better.



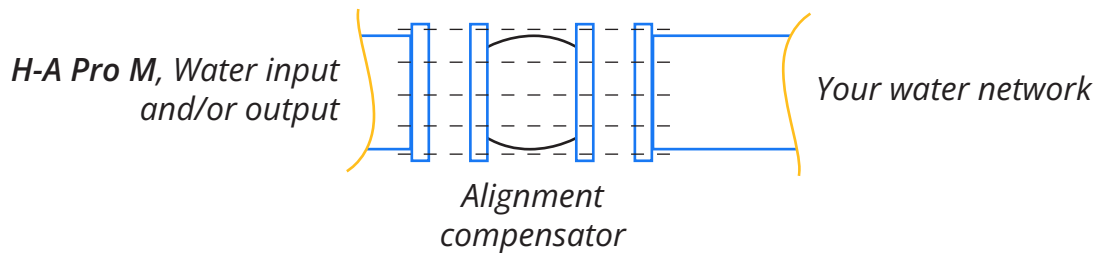
When choosing a location for the system, pay attention to the required area. Allow at least an 80cm (31.5") zone around the system to be able to work on it.

Top View



4. Aligment compensators

Your *H-A Pro M* will come with two alignment compensators, you can find the datasheet for the compensators in their package and at the end of this document. Don't forget to take into account the **extra space** that this parts will add to the length of the structure.

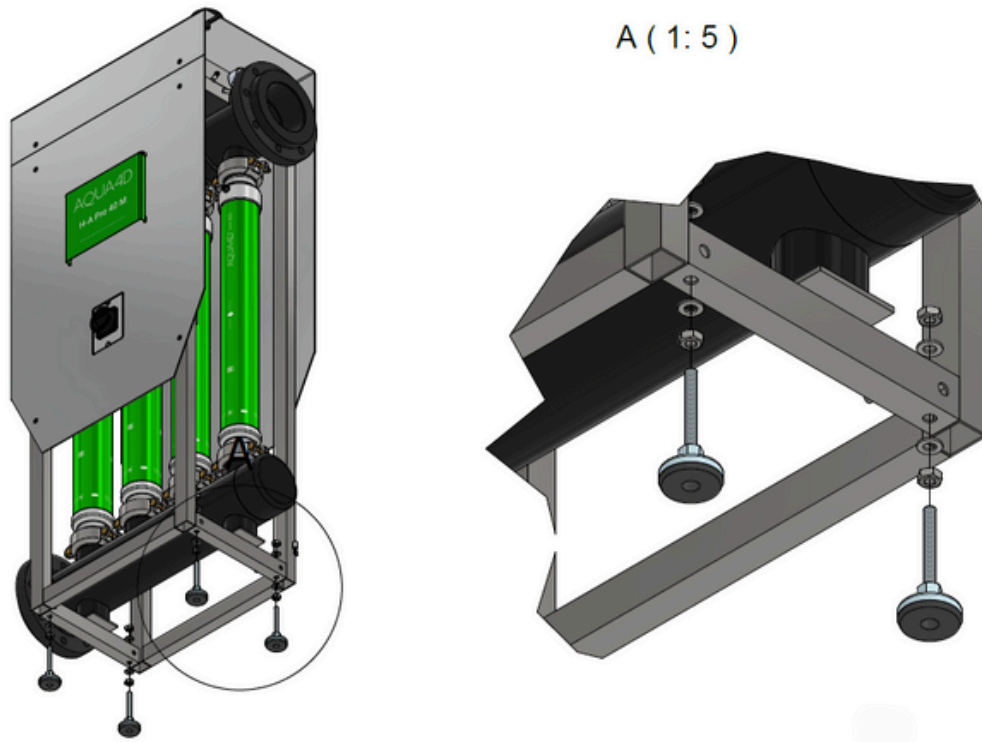


5. Installation process

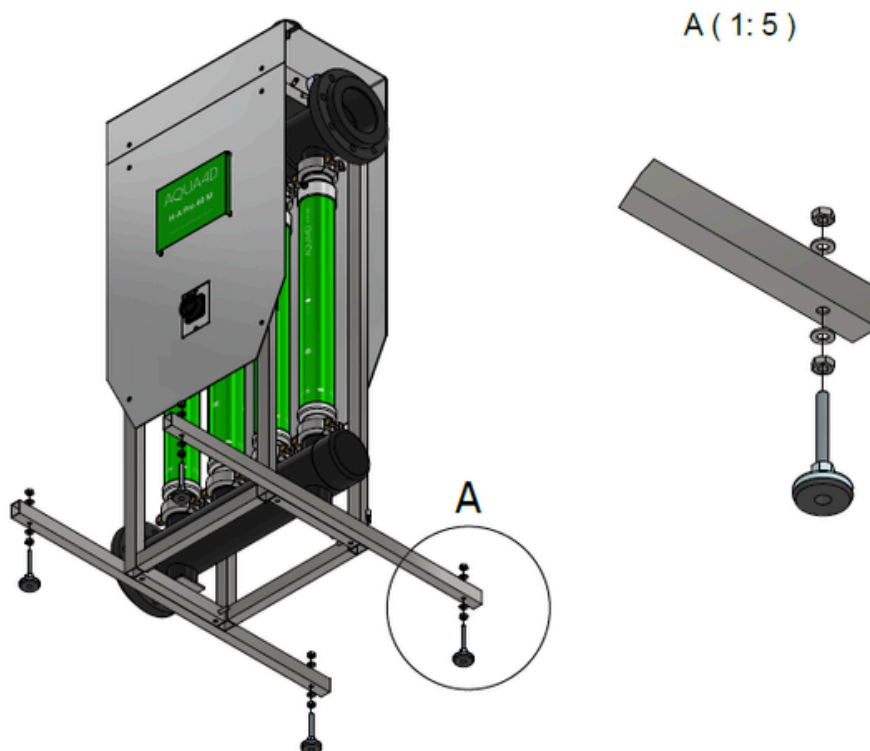
Once you choose the location where the *H-A Pro M* will be, there are a few options to put or fix on the floor to ensure that it will be stable and secured.

Please choose one of the solutions presented on the next page that will best suit your selected location. Some assembly is required to equip the removable and adjustable feet. The installation must be made on a **concrete slab** or equivalent.

Adjustable feet for stability and uneven terrain compensation



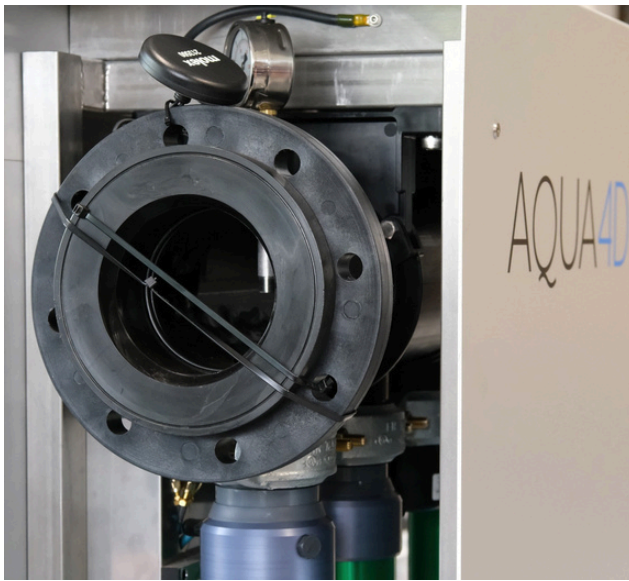
Feet extensions for extra stability, compatible with adjustable feet



6. Hydraulic connection

The hydraulic input and output of the *H-A Pro M* will require compatible flanges. Make sure that your flanges are the same type as your AQUA4D system to avoid any mechanical damage during the connecting process.

The alignment compensators must be inserted between the H-A Pro M and your water network pipe.



H-A Pro M 30 and 40
DN125 flanges

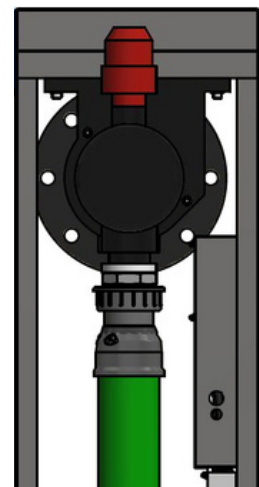
H-A Pro M 50 and 60
DN150 flanges

Max Torque
60Nm

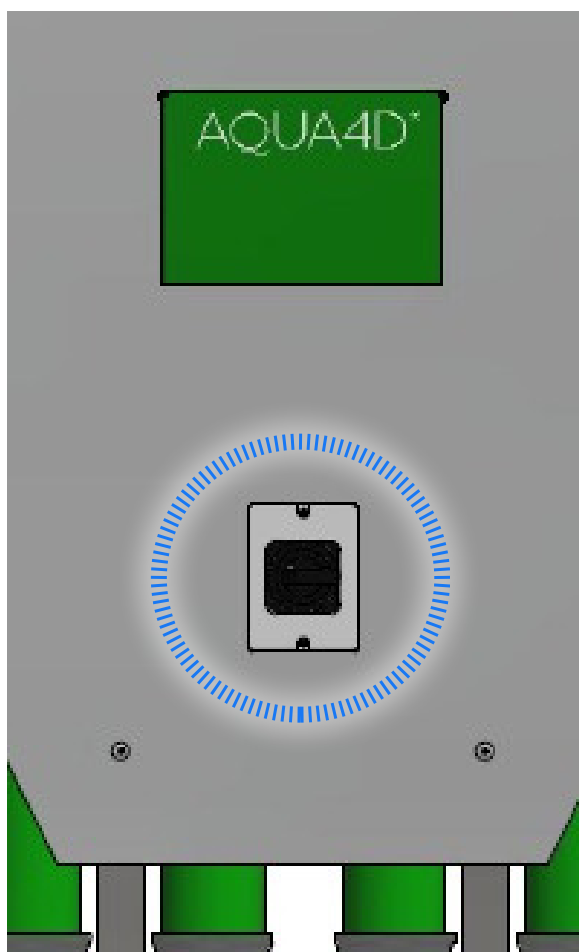


7. Pressure test

Once the hydraulic connection has been made on both sides, you need to conduct a pressure test with water to ensure that the system is correctly sealed. It's very important to increase the pressure **progressively** to avoid any unnecessary mechanical stress and to let the air get away through the red venting valve. It's possible that a little bit of water goes through the valve at first, this is normal. If you notice any water leaks on the system, stop the process. If the leak is on the input/output flanges, try to tighten all the bolts a little bit more.



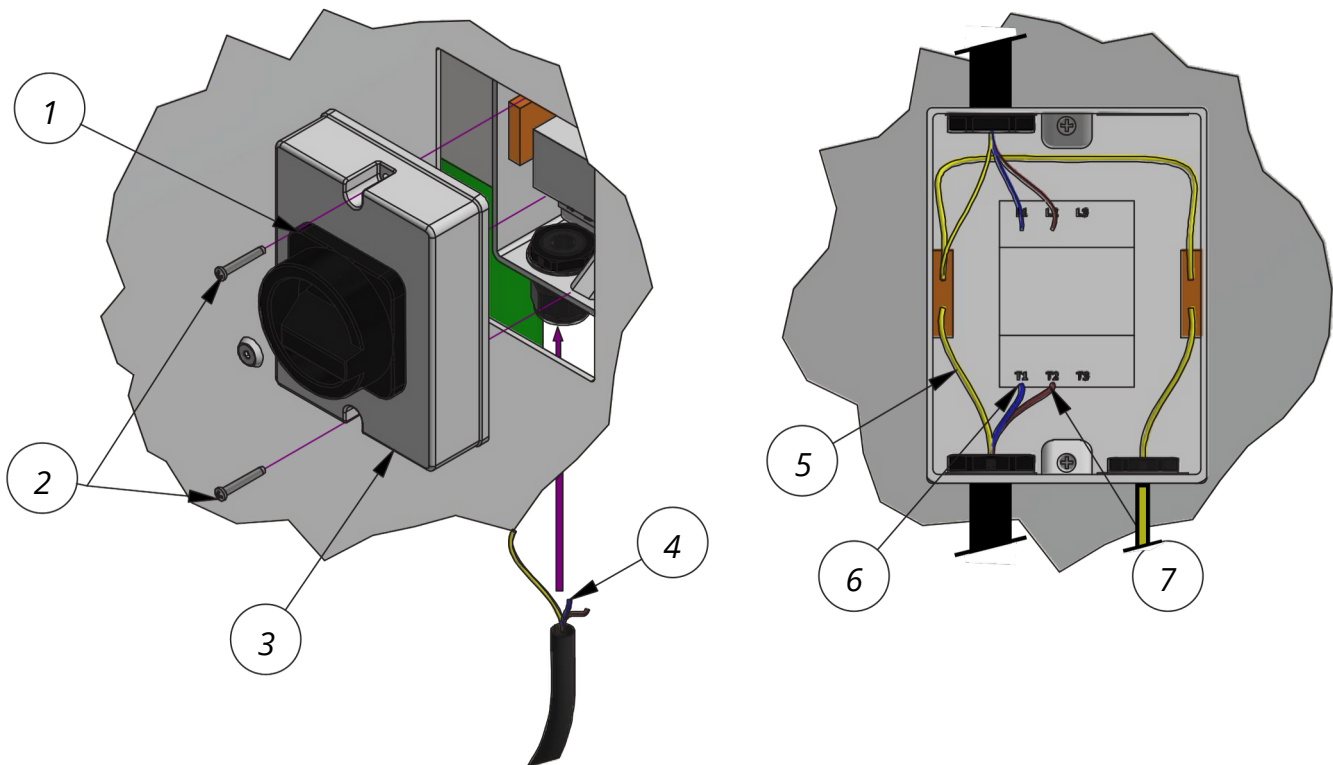
8. Electrical connection



To connect the power cord that will provide the electricity to the system, you will need to work on the **main switch**.

The *AQUA4D H-A Pro M* must be connected to a power line in the voltage range: **110V to 230VAC / 50 to 60 Hz**

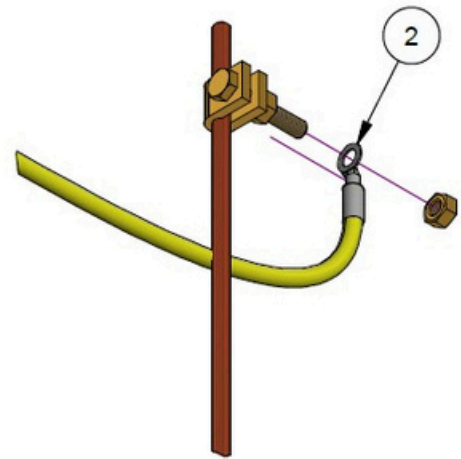
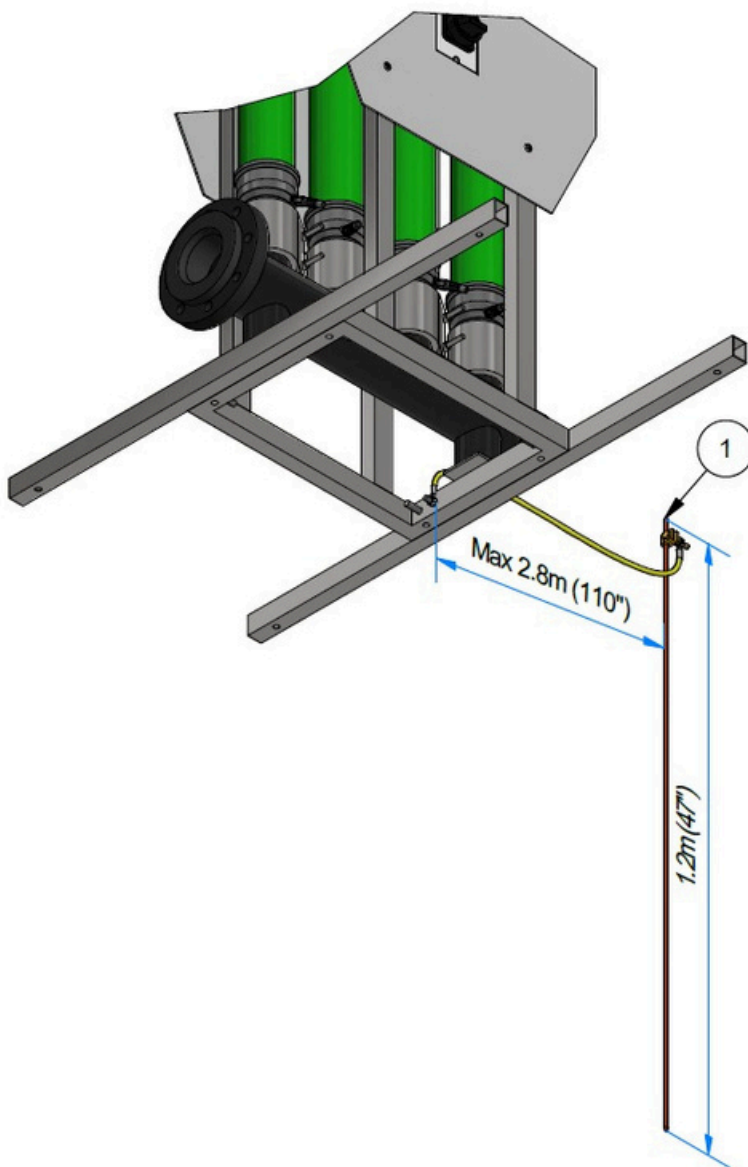
Please go to the next page for a diagram and instructions.



1. Main switch to "OFF" position
2. Remove the 2 screws from the front cover of the switch
3. Remove the front cover of the switch
4. Insert your power cord through the bottom cable gland:
 - Outer diameter of the power cord must be between 6 and 13 mm (0.23" and 0.51")
 - Type of cord: 3 wires of minimum 1 mm² (AWG 17)
5. Connect the GROUND wire to the ground terminal, on the side.
6. Connect the NEUTRAL wire to the T1 terminal of the block
7. Connect the LINE wire to the T2 terminal of the block
8. Put the front cover back in place and secure it with the 2 screws (diagram: n°2)
Tighten the cable gland.

9. Ground rod installation

A ground rod is provided with the *H-A Pro M*, it needs to be installed and connected. Depending on the type and depth of soil, the method for inserting the ground rod may vary and you will have to use the appropriate tools to ensure that only a little part of the rod stays above the ground, around 15 cm (5.9 ").



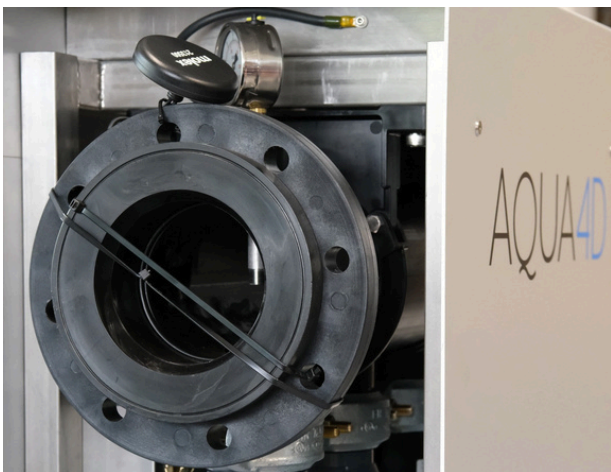
- 1) Stick the earth rod in the Ground
- 2) Connect the cable to the earth rod

10. Antenna installation

An antenna is provided with the system; it will allow communication via GPS and LTE-M networks. The antenna needs to be secured to its dedicated emplacement at the top of the system, as demonstrated in the photos below.

For transportation purposes, the antenna is secured on the output flange at delivery.

Cut the binding, slide the antenna into the socket and secure the bolt. You can use a wrench, but it doesn't need a lot of force. Be careful not to overtighten it.



The antenna secured on the flange at delivery



Mounted antenna in its socket



Mounted antenna viewed from the top

11. Start-up process

Turn on the power by turning the main switch to the ON position
Lift the green lid so you can see the Control Unit (CU).
The CU will start up and after a few seconds you should have a display similar to the one below, indicating the number of connected Treatment Units (TU).
The system is now fully installed and treating the water going through it.
The *H-A Pro M* must be turned on at all times, 24/7.




12. Control Unit Operation

The Control Unit is preconfigured in our factory and is ready to go as soon as it is powered.

Here's a list of the settings that can be changed or updated if the need arises.

- *Language*
- *Time*
- *Date*
- *Number of Treatment Units connected*

To access these settings, restart the CU either by using the “power”  icon on the screen or by turning it off and on again with the main electrical switch

The system will reboot and you will see a “**START**” button below the AQUA4D logo, press that button to enter the initialisation menu.

(Be mindful that if you don't press that button, the Control Unit will start itself using the last known configuration.)

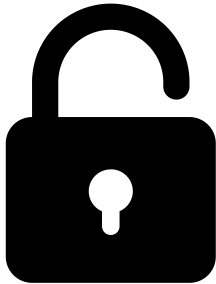


You will then be guided through the different settings and when you're done the Control Unit will go to its normal operation mode.

13. Settings

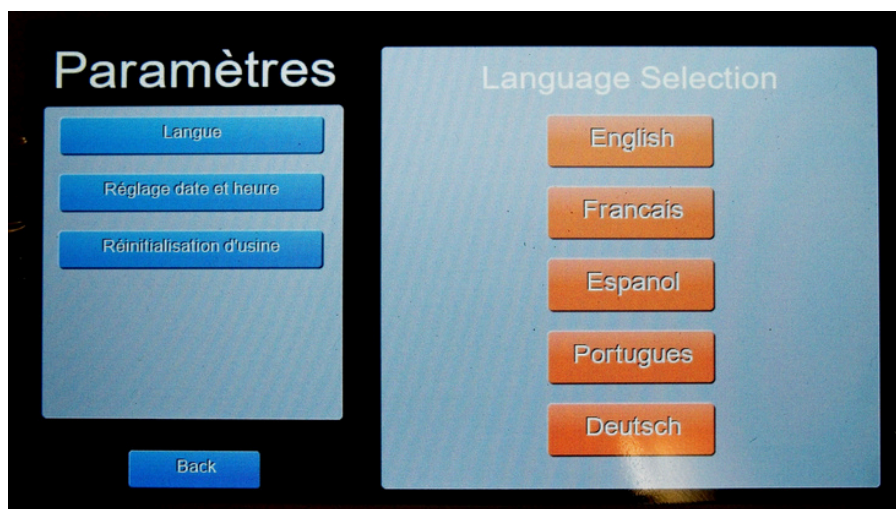


To access the settings menu, press the "settings" icon and enter code 111.



The following options can be changed:

- Time
- Date
- Language
- Factory reset



14. Troubleshooting

Should you encounter any problems during the installation of the *H-A Pro M*, please contact your distributor or the AQUA4D after-sales service at the following address :

info@aqua4d.com

Please add the type of product and the serial number in your message so that we may help you accordingly.



15. Contact information

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