



User manual

ver. 1.4.1



Level keeper

Dear Customer, thank you for your purchase



ENGLISH

www.reeffactory.com



Table of contents

I. Initial configuration.....	4
II. Operation mode configuration	6
III. Operating modes	14
IV. Resetting the device	18
V. Fuse replacement.....	19
VI. System SMART Reef.	20
VII. Technical problems and possible causes	21



ATTENTION: Level keeper is not waterproof. Avoid submerging the device in water. Submerging the device in water may cause permanent damage to the device. There is a risk of electric shock.



ATTENTION: Read the manual carefully before use. There might be slight differences between this manual and what is presented on the screen. This manual contains information about the device functions that operate with the latest firmware. Information about the firmware version installed on the device is always displayed in the lower right corner above the serial number. If the device version is older, please update the device firmware to get access to the latest features. Included with the device are: power cord, reset magnet, two float sensors, two sensors holder, quick start guide and wall plugs to allow you to install the device in a convenient spot.



Do you need our help? Write to support@reeffactory.com

**ATTENTION: UNPACKING**

During transportation, protective packaging was used to protect the appliance against any damage. After unpacking, please dispose of all elements of packaging in a way that will not cause damage to the environment. All materials used for packaging the appliance are environmentally friendly; they are 100% recyclable and are marked with the appropriate symbol. Caution! During unpacking, the packaging materials (polythene bags, polystyrene pieces, etc.) should be kept out of reach of children.

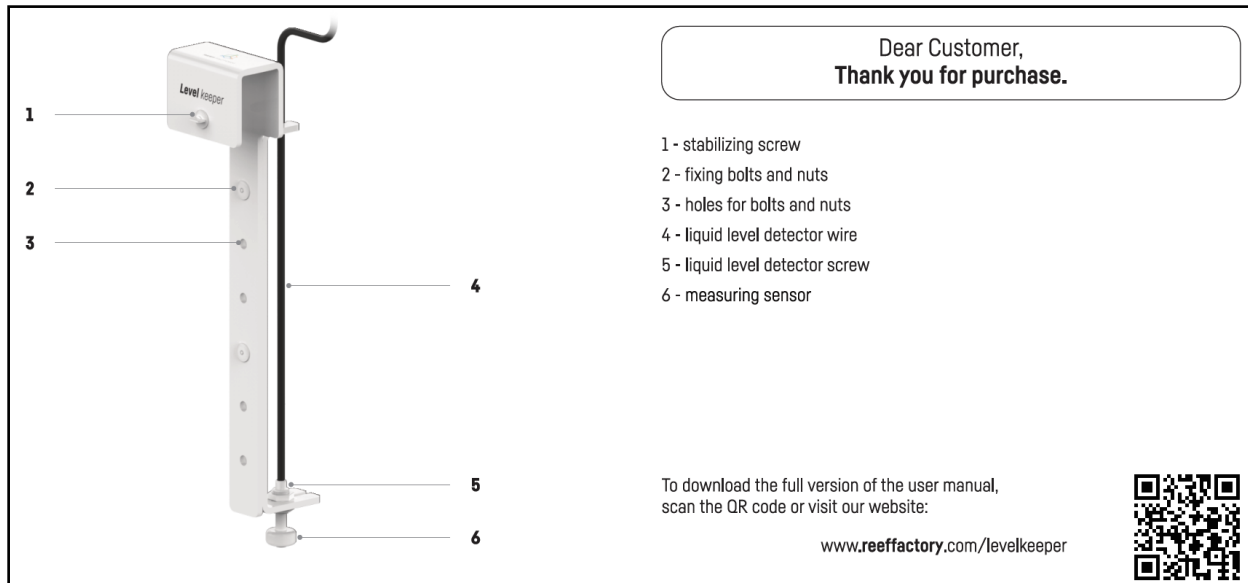
**ATTENTION: DISPOSAL OF THE APPLIANCE**

Old appliances should not simply be disposed of with normal household waste, but should be delivered to a collection and recycling centre for electric and electronic equipment. A symbol shown on the product, the instruction manual or the packaging shows that it is suitable for recycling. Materials used inside the appliance are recyclable and are labelled with information concerning this. By recycling materials or other parts from used devices you are making a significant contribution to the protection of our environment. Information on appropriate disposal centres for used devices can be provided by your local authority.

I. Initial configuration

To configure the device properly, please follow the instructions below.

1. Install the float sensors in away so they would indicate the correct water level. Make sure that the floats can move up and down the sensor freely without any obstructions and that it is in the upper position when under water level.
2. To properly install the float sensors, take a look at the graphic below:



3. Gently tighten the stabilizing screw. Try to not use excessive force as the device is made of plastic and its stress resistance is technologically limited.
4. The sensors should be installed as far apart as possible, when simultaneously one of the floats should be mounted 5 cm above the other. This will allow for additional water level control. Connect the sensors to the inputs in the device.
5. To properly connect the device, take a look at the graphic below

Dear Customer,
Thank you for purchase.

1 - place the magnet here to reset the device
2 - operation indicator (refill system)
3 - power socket for the device (refill system)
4 - power socket for the device
5 - light bar (indicates device operation)
6 - fuses
7 - liquid level detector wire
8 - liquid level detector

To download the full version of the user manual, scan the QR code or visit our website:
www.reeffactory.com/levelkeeper

ATTENTION: Level keeper is not waterproof. Avoid submerging the device in water. Submerging the device in water may cause permanent damage to the device. There is a risk of electric shock.

6. After the device has been properly installed in your aquarium system, plug the power cord.
7. The maximum load [power] of the device connected to the Level keeper's output socket can't exceed 500 Watts.
8. The device can be configured using a browser on your computer, laptop, tablet or smartphone. To do this, open the list of available Wi-Fi networks and find the network that name corresponds with serial number of the device, for example: **RFLKXXXXXXXXXXXX**. Our device works with 2,4 GHz bandwidth. To log in use password: **reeffactory**
9. When you are connected to the device's network open your browser and go to www.levelkeeper.io
If you see the message below after you've entered the correct address in the address bar it means that you may be still connected to your home network (wired or wireless)

This domain is used to configure **Smart Reef** device.
If you see this text it means that you are not logged properly into device Wi-Fi.

Please connect to the Wi-Fi device only (Wi-Fi password is **reeffactory**) and refresh this page.

REEF FACTORY

Try to connect with the device one more and repeat the procedure.

Level keeper manual

5

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II. Operation mode configuration

Configure the device in five simple steps.

Step one – chose language which you would like to use.

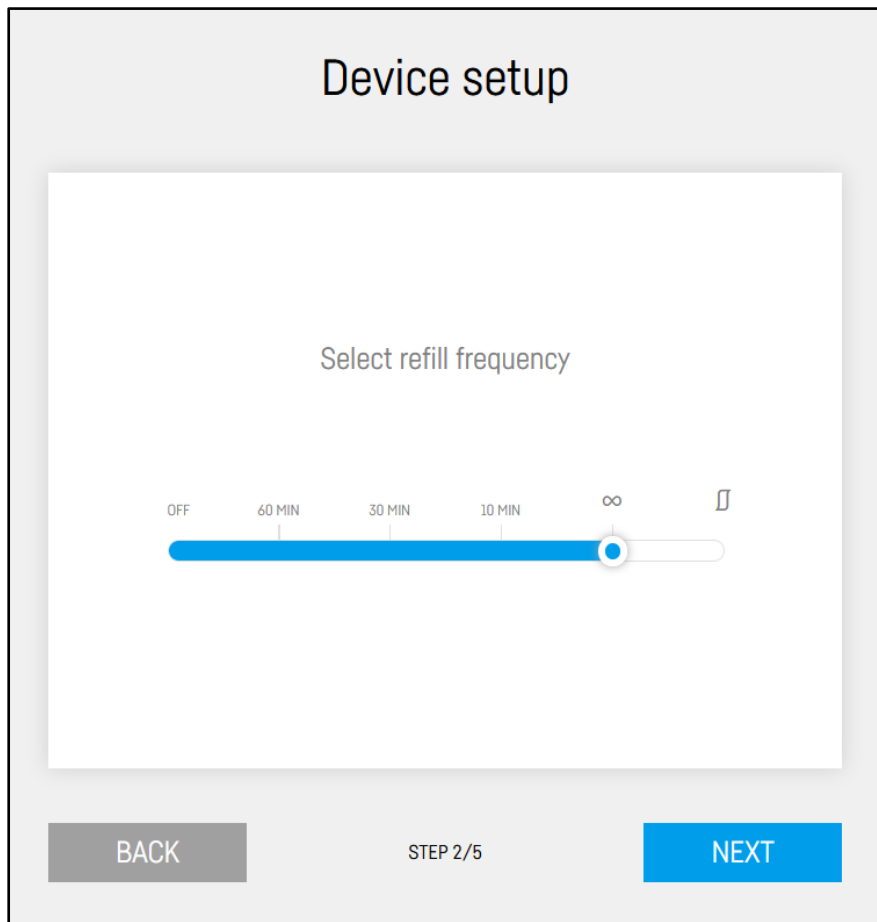
Welcome!

Thank you for purchasing our device!
Now you will need to set it up and connect it to the **Smart Reef** system.
Select a language and press “Next”.

English Italiano
 Deutsch Nederlands
 Français Polski
 Español 中文

STEP 1/5 **NEXT**

Step two – use the slider to set how often the device should be checking the water level and if there is a need to replenish the water in the tank
[every 10min, 30min, 60min or with the use of special functions described below].

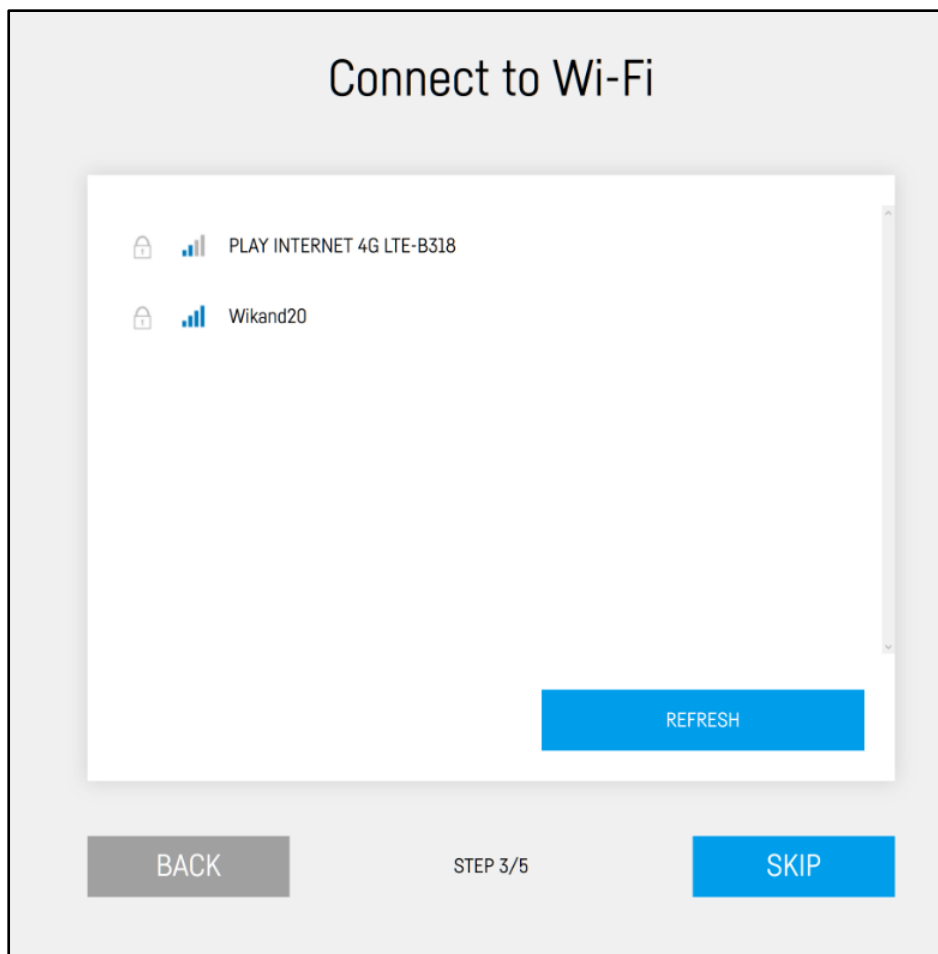


- ∞ mode – the refill is executed when both sensors detect low level and stopped when at least one of them is moved to the upper position.

- ⏏ mode the refill is executed when both sensors detect low level and stopped when both of them are moved to the upper position. In this operating mode, notifications are not sent when the water level is above the level [both level sensors in the up position].

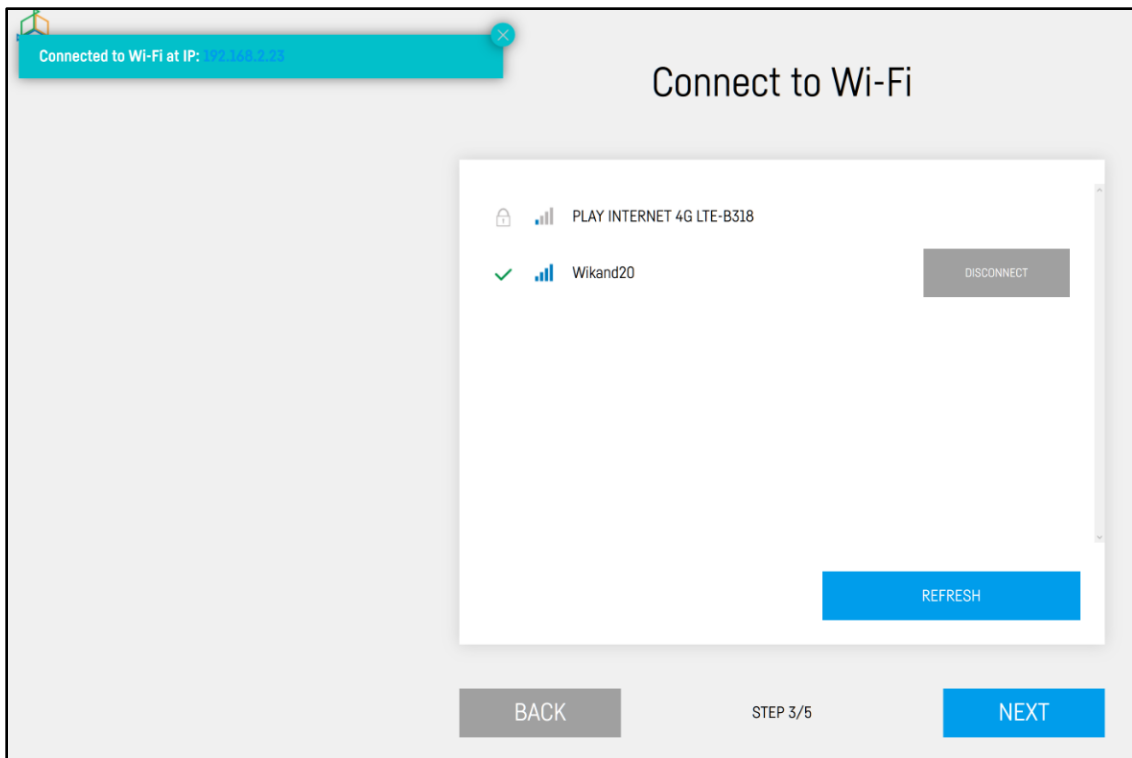
Level sensors work simultaneously and they check water level in the continuous mode at equal time intervals. The use of two level sensors additionally protects your tank against overflowing in case the failure of one of the sensors [for example the sensor could have been seized by debris].

Step three – connect the device with you home Wi-Fi network. If the network is protected from unauthorized access please type in the password.



If the device won't connect with your home wireless network please repeat the connection process. The success of the connection depends on the routing device type and the producer. The signal strength should be as strong as possible. Remember, that the device which device connects has to have access to the Internet to connect with the **Smart reef** system.

When the device connects properly to the Wi-Fi network you should see IP address that has been assigned to your device. It means that the connection was successful.



Step four – register free Smart reef account by pressing the “Create free account” button.

Log in to *Smart reef*

E-mail

Password

[Forgot password?](#)

Log in

New to *Smart reef*

Set up Free account

BACK

STEP 4/5

SKIP

If you already have **Smart reef** account please provide the device with you login credentials to add it to you **Smart reef** system.

Create a free account

Email

Password

too short

Re-enter password

too short

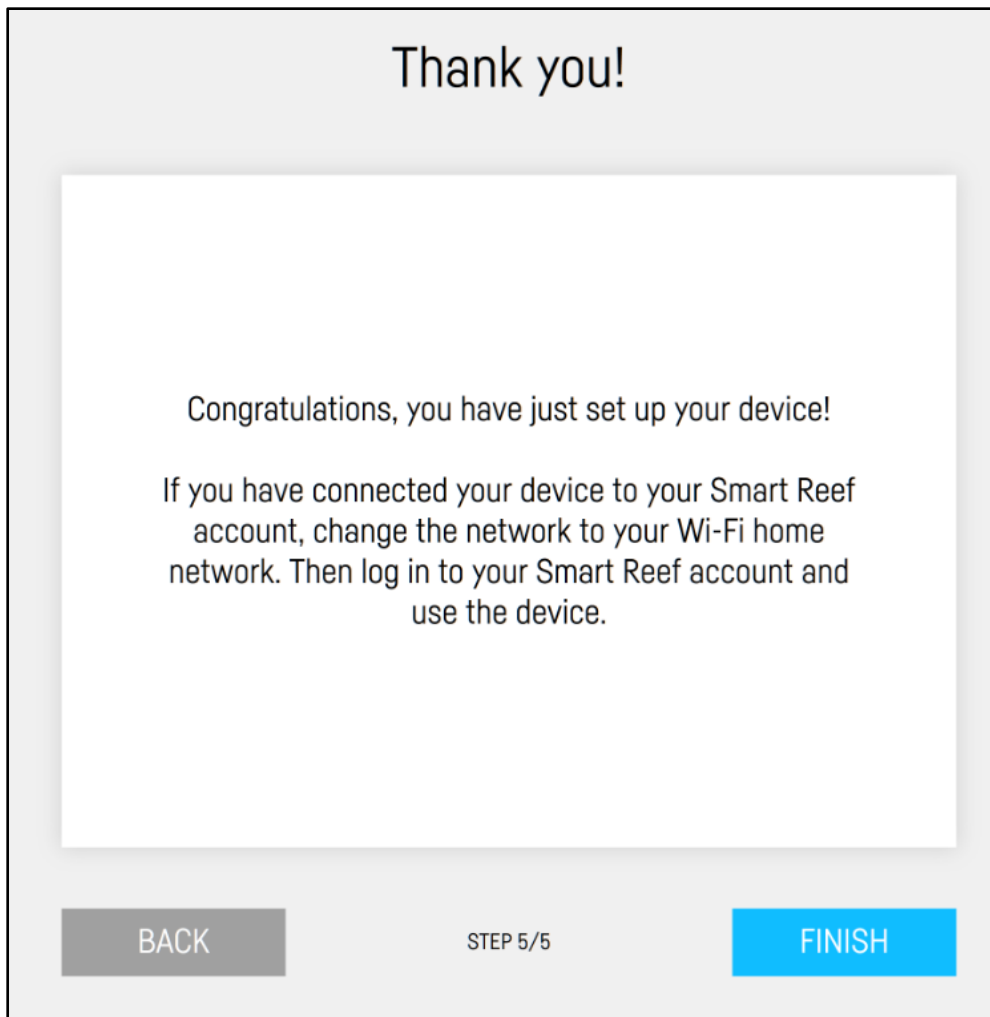
Create



The password should be sufficiently complicated and hard to crack.

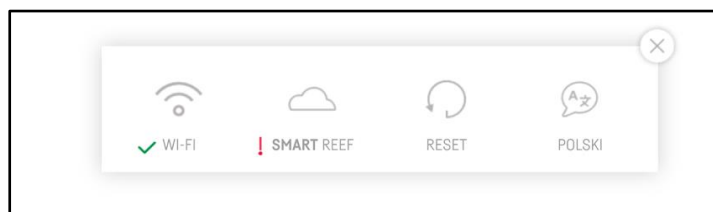
Logging in the **Smart reef** system will allow you to remotely control the device and allow you to access additional functionality. You can skip this step if you don't want to control your device remotely, you will however lose many features and ability to update the device.

Step five – congratulation, the configuration process of the device has been finished. After the process is finished please press the “FINISH” button.

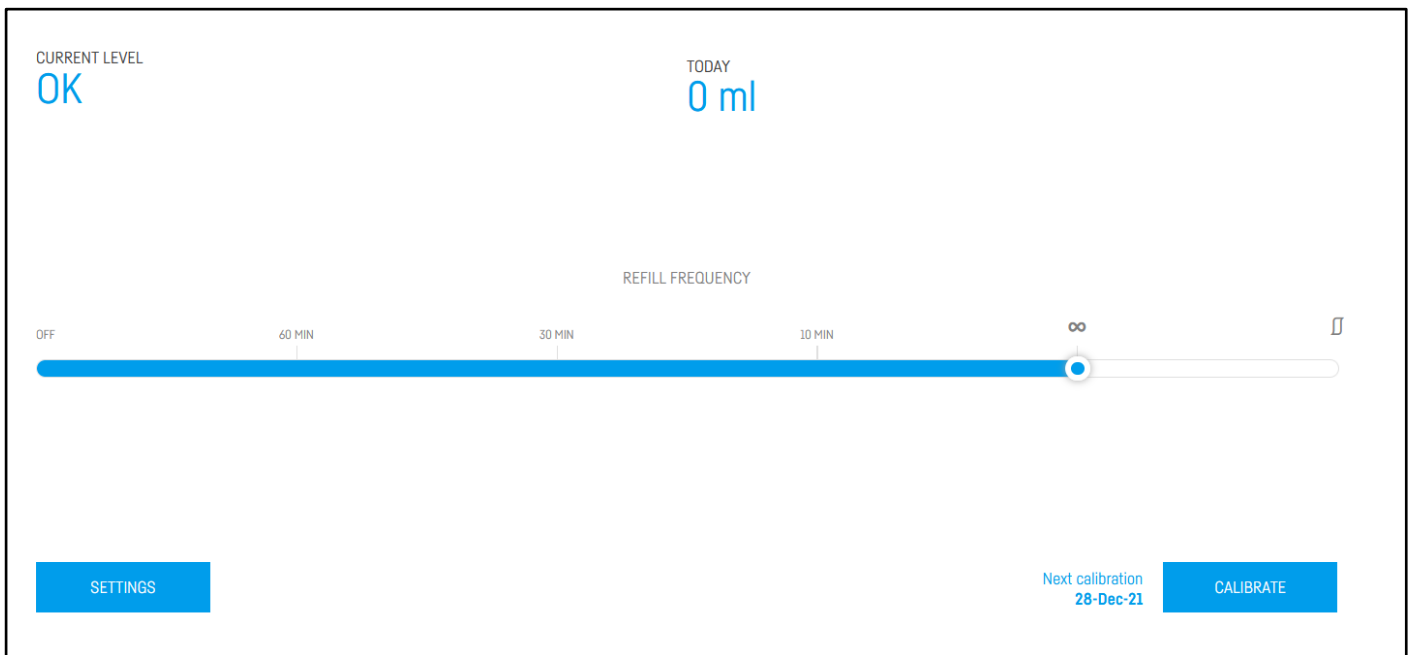


In the upper right corner you will find icons. They allow for language change, resetting the device to factory settings, logging in the Smart reef login credentials, changing the Wi-Fi network or changing the password to the device's Wi-Fi network.

✓ symbol means that the device is connected while ! means there is no connection.

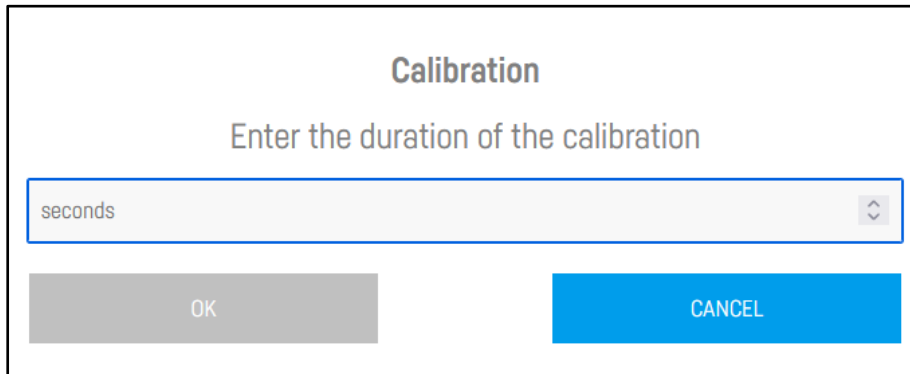


After the setup procedure is finished (after pressing the “FINISH” button), the current status of your device will appear on the screen.



III. Operating modes

1. The first thing to do is to calibrate the device. Calibration can be accessed in the lower right corner.
2. Because the pumps have different performance, please enter the duration of calibration (for example, 5 seconds).

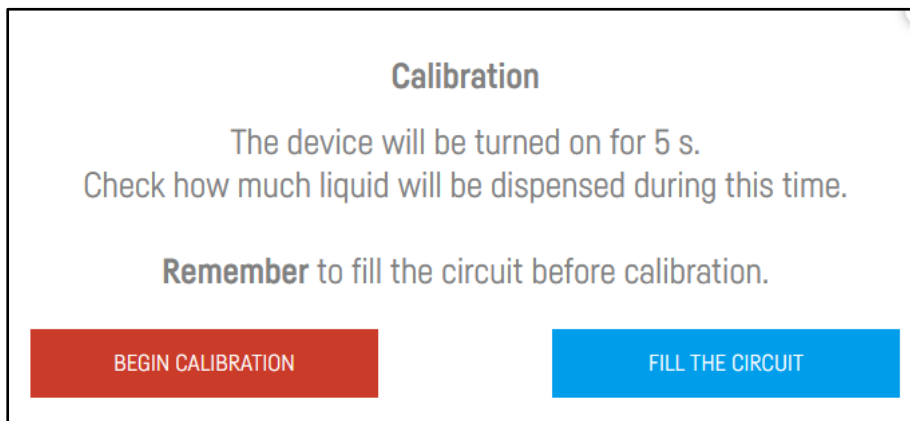


Calibration

Enter the duration of the calibration

seconds

OK CANCEL



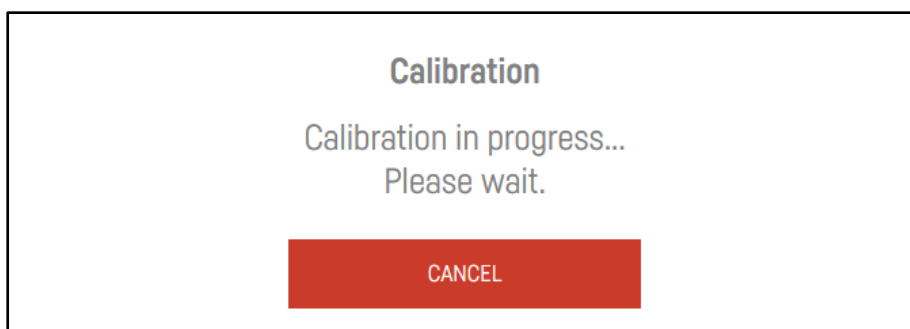
Calibration

The device will be turned on for 5 s.
Check how much liquid will be dispensed during this time.

Remember to fill the circuit before calibration.

BEGIN CALIBRATION FILL THE CIRCUIT

3. Plug the pump to the device and use “Fill the circuit” button. When the water fills up the tubes please proceed with calibration.



Calibration

Calibration in progress...
Please wait.

CANCEL

4. After the pump has stopped please type in the amount of water.

Calibration

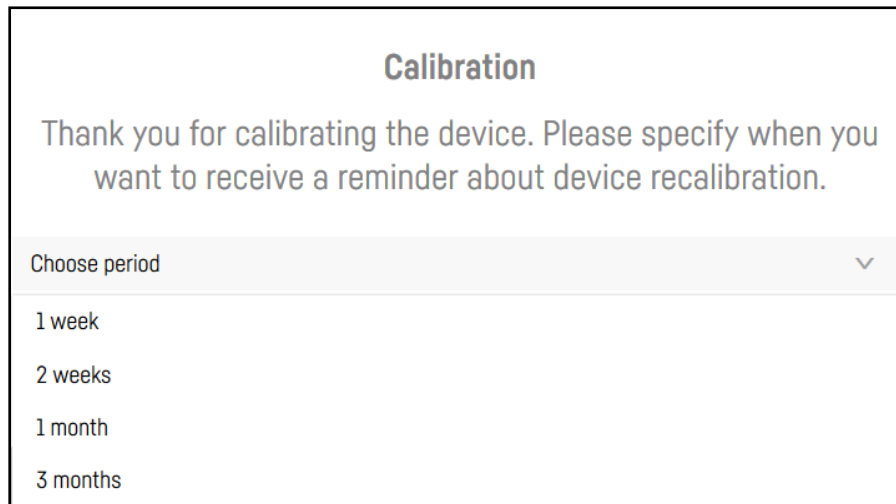
Specify how much liquid has been dispensed.

ml ↕

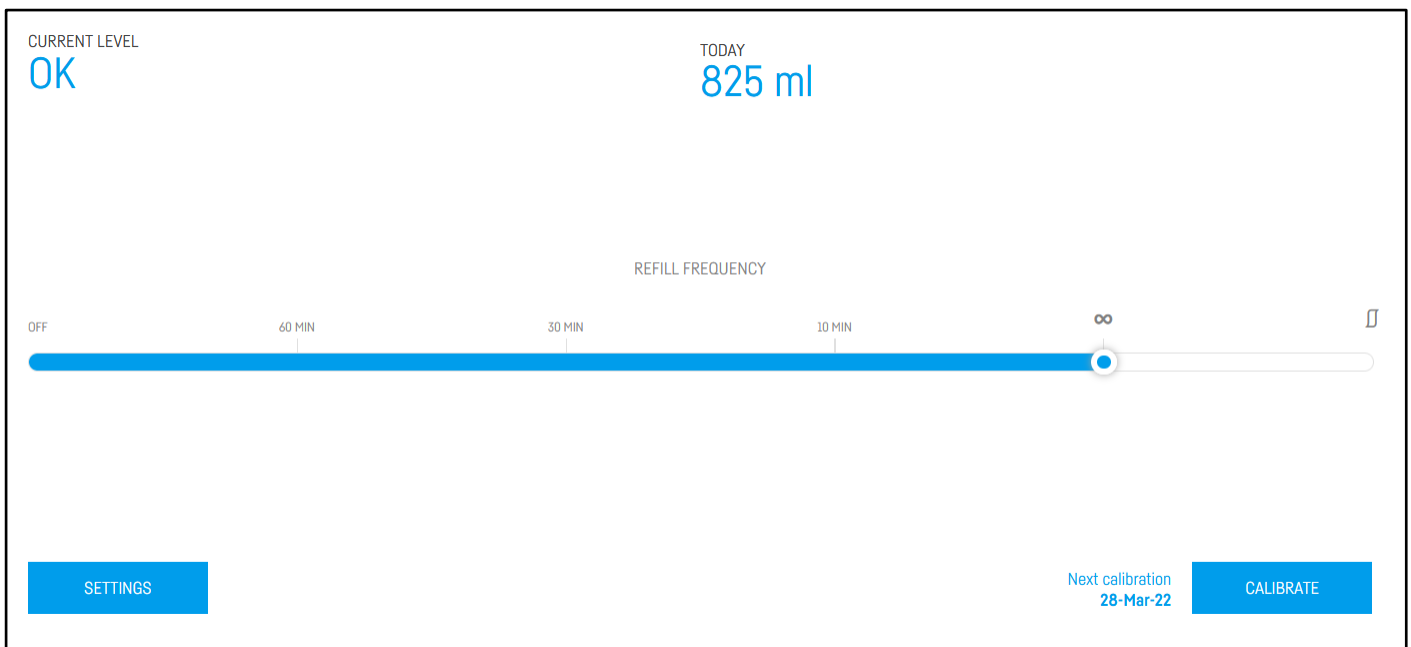
OK

CANCEL

5. Set the calibration remainder period.



6. In the central part of the screen you will see how much water was added to your tank during the day.



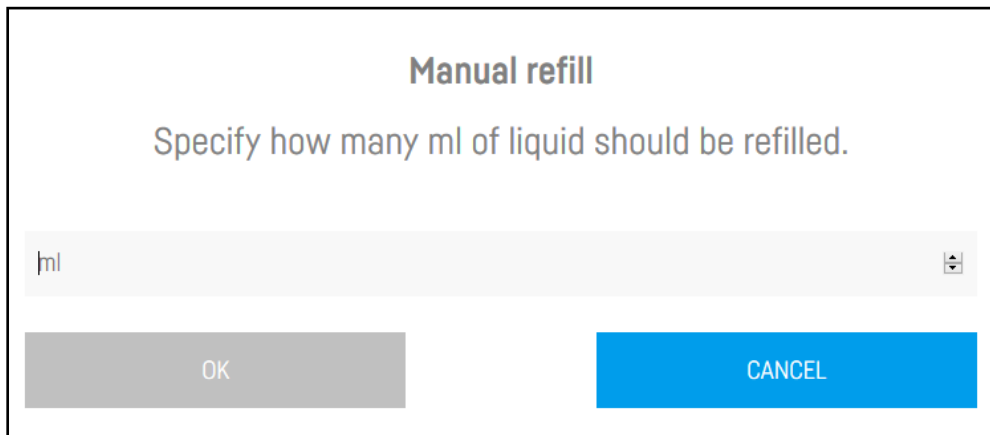
7. The current status of the device [water level] is displayed in the upper left corner.

The status can change to:

- OK – when the water level is correct and one of the sensors is in the upper position,
- LOW – When the water level is lower and sensor are in the lower position,
- REFILL – When the water level is lower and both sensors are in the lower position,
- ABOVE – when both sensors are in the upper position.

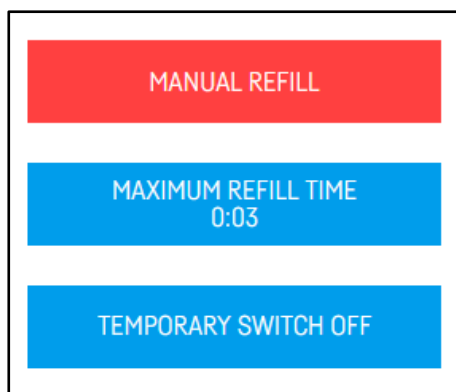
8. You can find additional features of the device in the lower left corner under the “menu” button

- MANUAL REFILL – this function allows to add set amount fluid to the tank once.



The image shows a dialog box titled "Manual refill". Below the title is the instruction "Specify how many ml of liquid should be refilled." There is a text input field containing "ml" and a dropdown arrow on the right. At the bottom, there are two buttons: a grey "OK" button on the left and a blue "CANCEL" button on the right.

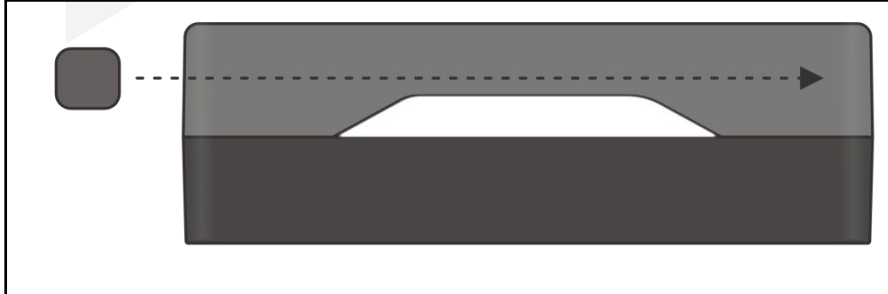
- MAXIMUM REFILL TIME [time] – this feature allows you to set the maximum amount of time that is needed to bring the water level up. When the time is exceeded you will receive notification and the pump will be stopped. This function will protect your pump when the water tank is empty. Value "0" disables this function.
- TEMPORARY DISABLED – it lets you to turn off the auto refill for the set amount of time. It's useful when you are servicing your tank and don't want the pump to function



We recommend to create the **Smart reef** account if you haven't already as the device has no other way of notifying the user about the alarms than through the **Smart reef**.

IV. Resetting the device

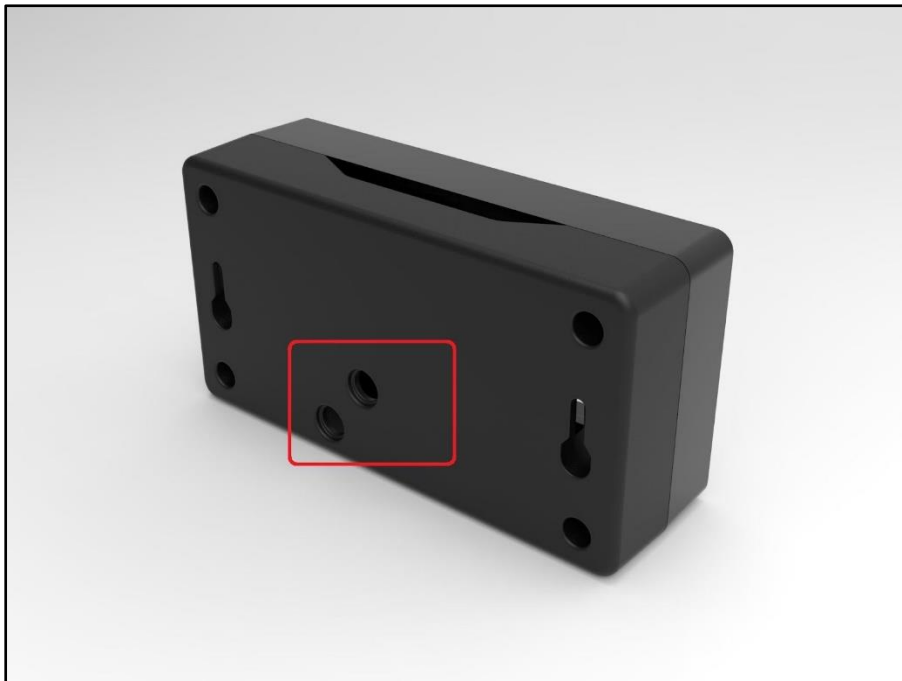
If your device is not operating properly, you would like to do clean configuration or you can't connect with your device after many attempts you can bring it back to the factory settings put the magnet (included in the box) against the designated spot on the device housing.



Place the magnet in the indicated place near the **Reset** sticker.

V. Fuse replacement

The fuses that protect the device against any damage that may occur due to a fault in the heating or cooling system are located at the bottom of the device. If the device seems to be operating properly but the heating or cooling system does not work, it may mean that a fuse needs to be replaced. To do so, remove the fuse handle from the fuse socket by turning it in accordance with the marking and replace the old fuse with a new one. Remember to disconnect the device from its power source before replacing the fuse. Failure to do so may result in electrocution. In order to avoid any permanent damage to the device, new fuses should have identical specifications as the old ones. The fuse on the left side protects the pump system (type F 2.5 A tube fuse). The fuse located slightly above it protects the actual **Level keeper** device (type F 400 mA tube fuse). If you don't know how to determine whether the given fuse should be replaced or not, contact the nearest electrical service point in your area.

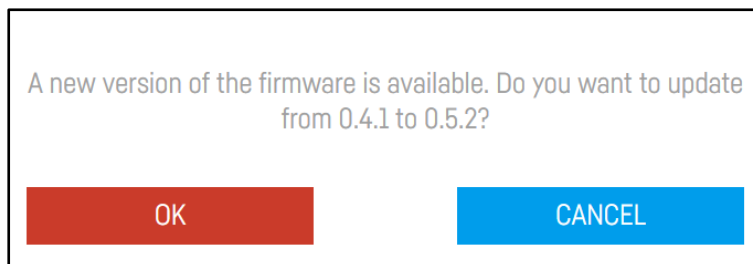


VI. System SMART Reef.

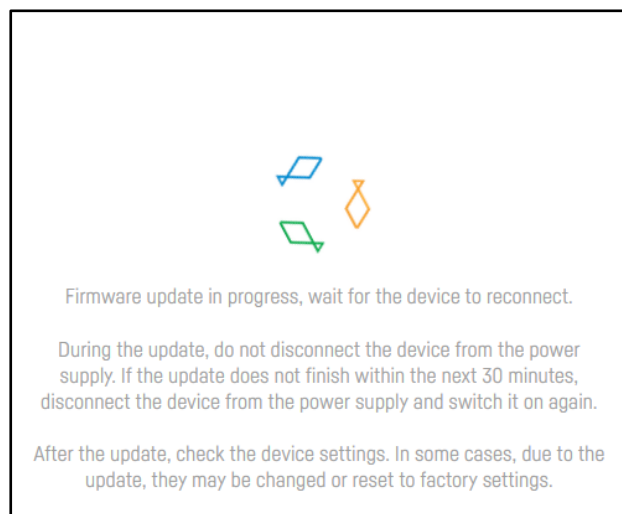
Connect to your home network with your computer or mobile device. Now go to www.reeffactory.com and log onto your **Smart reef** account. Check if the device was properly added to your device's list.

You can change the device's name and add it the aquarium system of your choice. In the lower right corner you can find your device's serial number and its firmware version.

Our devices are SMART and we are constantly developing and improving on them. Once in a while you will receive the information about the new update available for your device. This allows your device to work even better.



By pressing OK button you will start the automatic update process.



You will always find additional and most up to date information about the device its use and configuration on our webpage www.reeffactory.com.

VII. Technical problems and possible causes

The table below presents the typical problems that you can encounter when using the device and solution to these problems.

 Problem	 Cause	Solution
The device does not power on and does not broadcast Wi-Fi signal	No power	Check if the power cord is properly connected to the socket. Then, use the magnet to bring the device to the factory settings. Check if the problem has been resolved.
The device does not broadcast Wi-Fi or you can't log into the device.	No power	In the bottom part of the housing there are three circuit breakers. Left and right breakers are responsible for the heating and cooling circuit. The middle one is the breaker for the main board. Their parameters are different. You should always replace the breakers with the ones that have this same parameters. Unplug the device from power before replacing the breakers.
Can't log in to the device	No direct connection between the device and your phone/computer	Check if your computer or phone is connected to the device's network. Sometimes it automatically connects back to your home network. Check if the problem has been resolved.
The device is not visible in the Smart Reef	The device has not been properly connected to your home network or is not logged in to the Smart Reef	Log in to the device and check if the Smart Reef and Internet status icons are displaying that the device is properly connected. If they are not, please log in to your account or connect the device to your home network.
The device loses the connection to the Smart Reef	The range of your home network is not sufficient	Remember, that your home network can have different signal strength in different rooms. It could be too low in the vicinity of the device. Try to move the device closer to your router or use a repeater to extend your home network range in the area. Check if the problem has been resolved.
The device does not broadcast Wi-Fi or you can't log into the device.	The device may require a reset	Put the magnet against the designated spot on the housing, wait for 5 seconds. Open the list of available networks, connect with the device and perform configuration.
The device output is constantly powered	Internal circuitry problem	The device has to be returned for a check-up to the Authorized Service Centre
The device output has no power	Circuit breaker failure	In the bottom part of the housing there are three circuit breakers. The left switch is responsible for the pump circuit. The middle one is the breaker for the main board. Their parameters are different. You should always replace the breakers with the ones that have this same parameters. Unplug the device from power before replacing the breakers.

If the above solutions didn't help resolve your problem, please contact us at support@reeffactory.com and describe your problem. Additional and most recent information about the device, its service and configuration can always be found on our webpage www.reeffactory.com in the product tab.



REMEMBER. If you don't have the skills, knowledge and experience, never perform any repairs to the device on your own. The device is powered with a voltage of 110V-230V. Working with voltage may cause electric shock, loss of health and even loss of life. Servicing has to be done by qualified