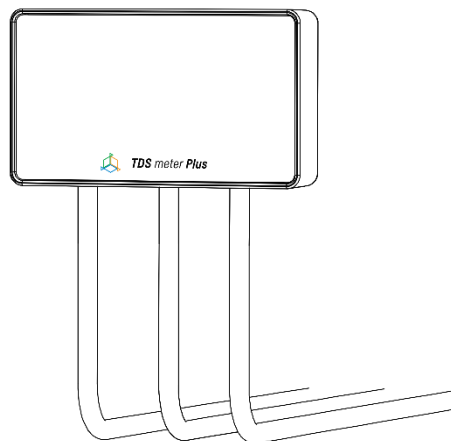




User manual

ver. 1.3



TDS meter

TDS meter Plus

Dear customer, thank you for your purchase.



ENGLISH

www.reeffactory.com



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ATTENTION: The TDS meter and TDS meter Plus is not waterproof. Avoid submerging the device in water. Submerging the device's display in water may cause permanent damage to the device.



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: dedicated power adaptor, mounting mechanism for display, magnet for resetting the device and quick start guide.



IMPORTANT INFORMATION:
The TDS meter Plus is a newer version of the TDS meter device. Its functionality and the accuracy is the same as TDS meter. Both, TDS meter and TDS meter Plus will be named TDS meter in this manual.



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.

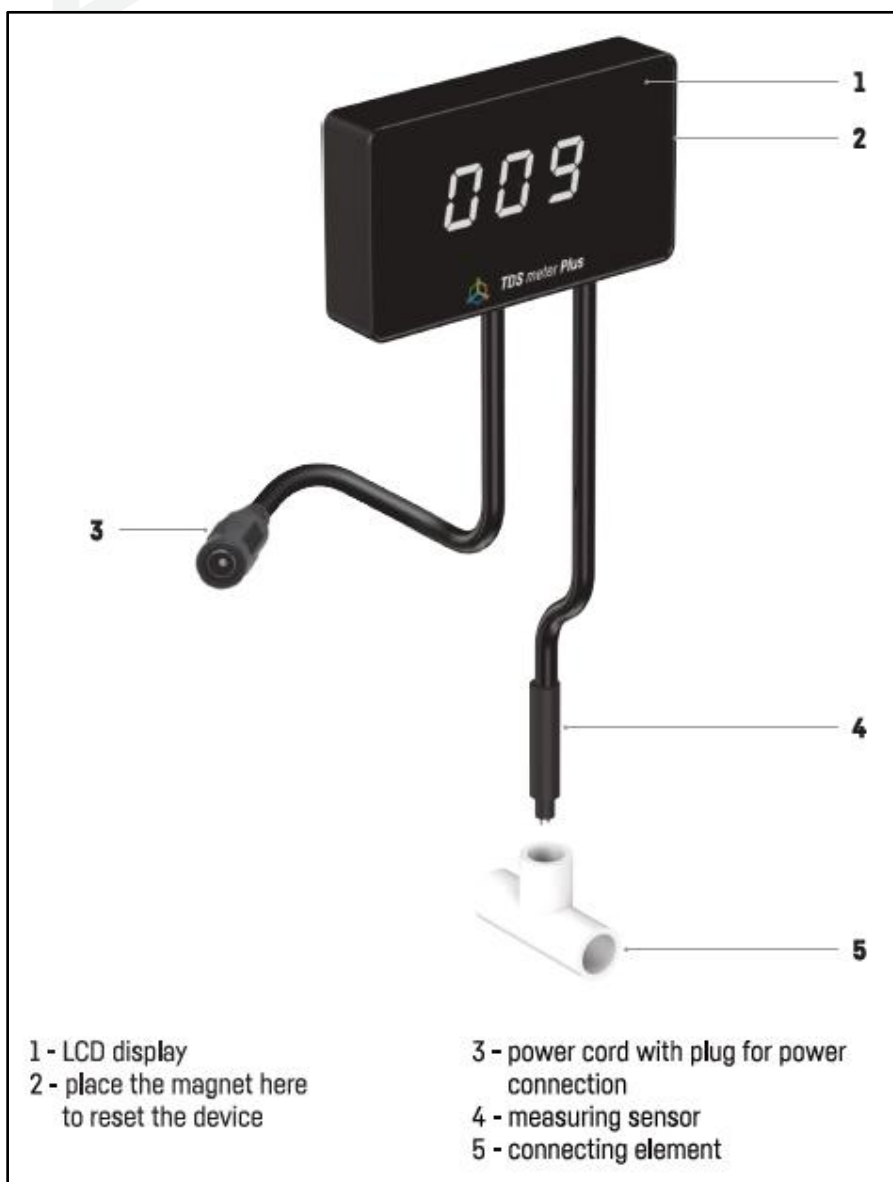
**ATTENTION: DISPOSAL OF THE APPLIANCE**

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 TDS sensor behind the water treatment system.
2. To properly install the device familiarize yourself with the graphic below.



ATTENTION: The TDS meter and TDS meter Plus is not waterproof. Avoid submerging the device in water. Submerging the device's display in water may cause permanent damage to the device.

3. After the installation connect the device to power using dedicated power adaptor included in the box.
4. 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: RFTMXXXXXXXXXXXX. Our device works with 2,4 GHz bandwidth. To log in use password: **reeffactory**
5. When you are connected to the device's network open your browser and go to www.tdsmeter.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).

Ta domena służy do konfigurowania urządzenia **Smart Reef**.
Jeśli widzisz ten tekst oznacza to, że nie jesteś poprawnie zalogowany do Wi-Fi urządzenia.
Połącz się tylko z Wi-Fi urządzenia (hasło Wi-Fi to **reeffactory**) i odśwież tę stronę.

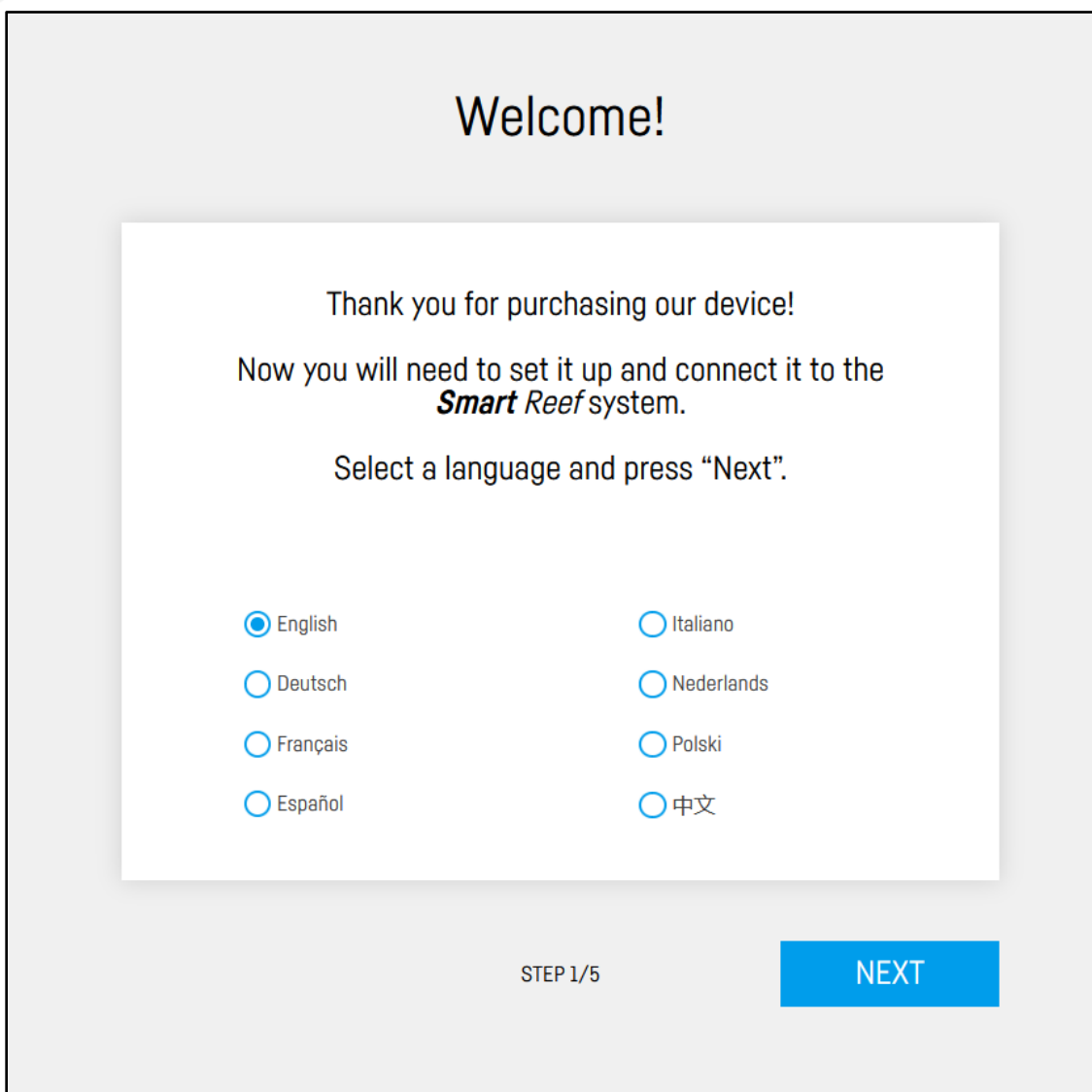


Try to connect with the device one more and repeat the procedure.

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

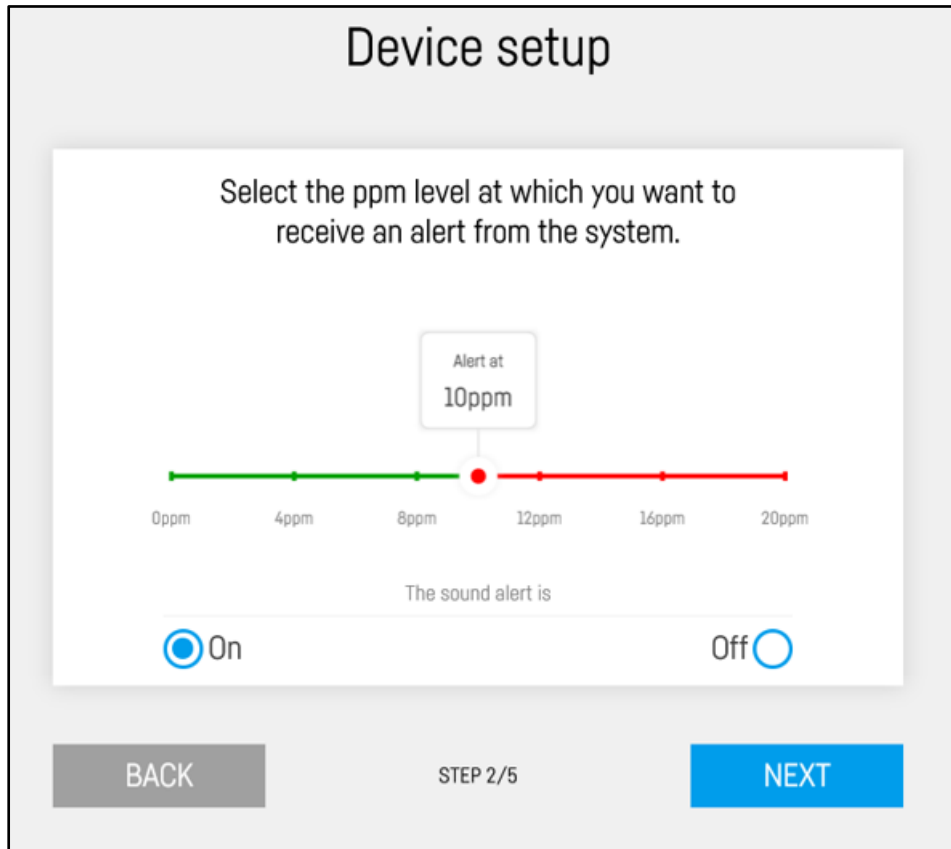
Español

中文

STEP 1/5

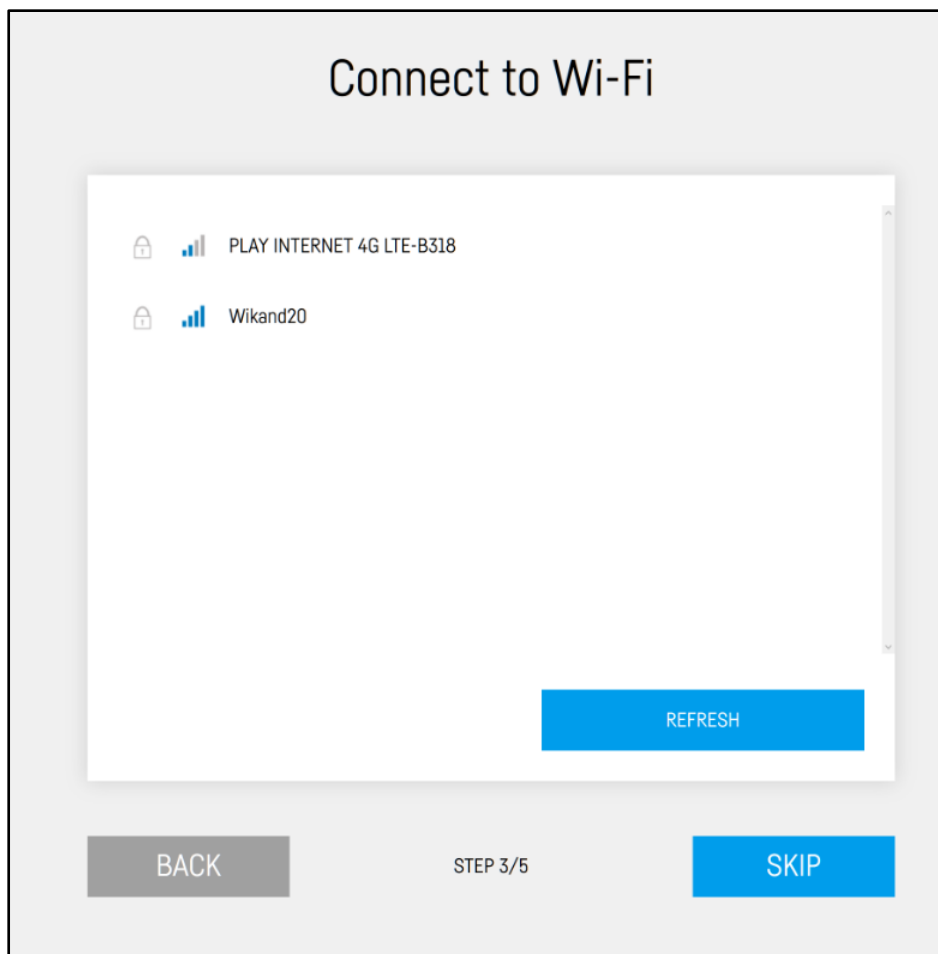
NEXT

Step two – set the water pollution limit. “Grab” the red dot with your cursor or your finger and move it to the desired position on scale.



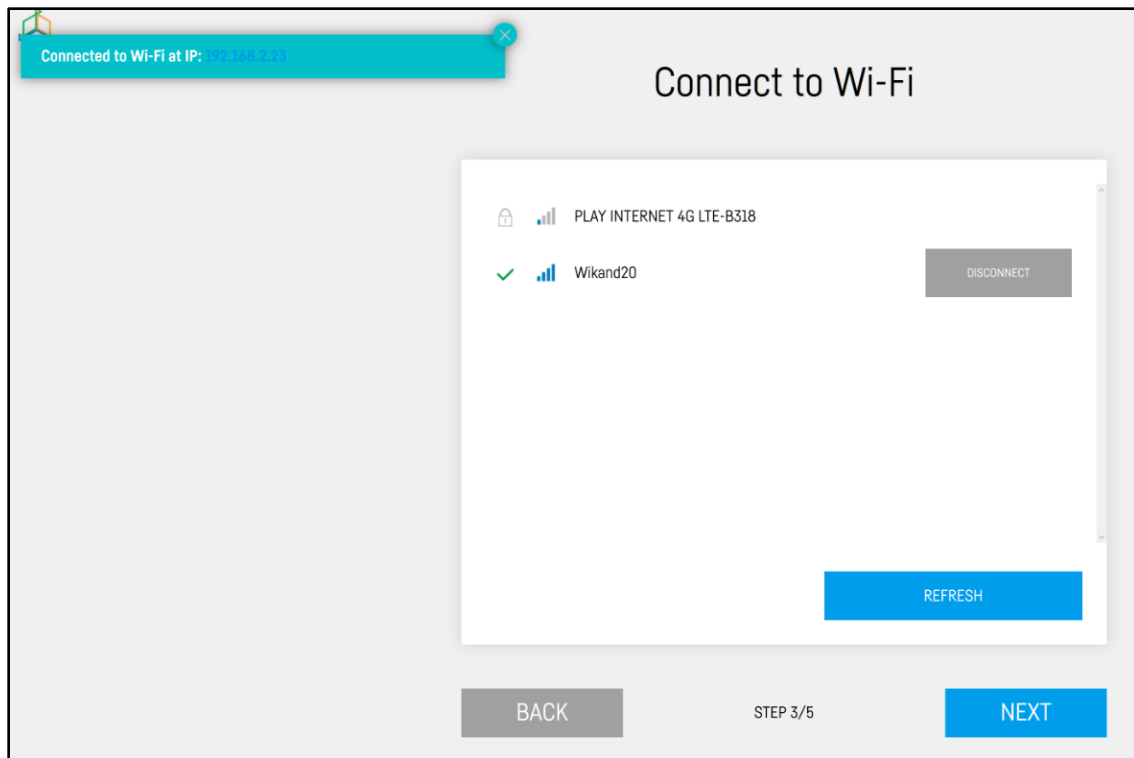
When the ppm value exceeds the limit you've set (default is 10 ppm), the TDS meter will notify you. If the sound alarm is on it will start audible alarm as well.

Step three - connect the device to your home Wi-Fi network. If the network is secured, enter the password that protects your home network against unauthorized access.

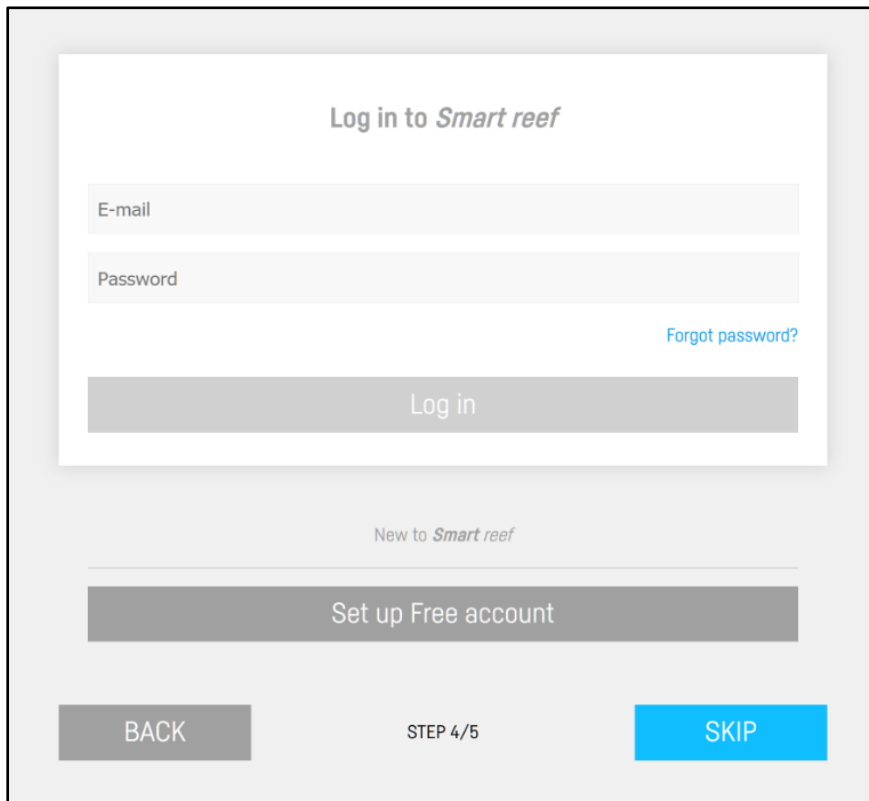


If the device cannot connect to your home Wi-Fi network at first, repeat the procedure. Successful connection may depend on the type of network device you use and its manufacturer. The signal of your wireless network should be as strong as possible. Remember that in order to enable communication with the **Smart Reef** system, the network device which is connected to **TDS meter** needs to have Internet access.

When the **TDS meter** successfully connects to your Wi-Fi network, its IP number will appear in the upper left corner of the screen.

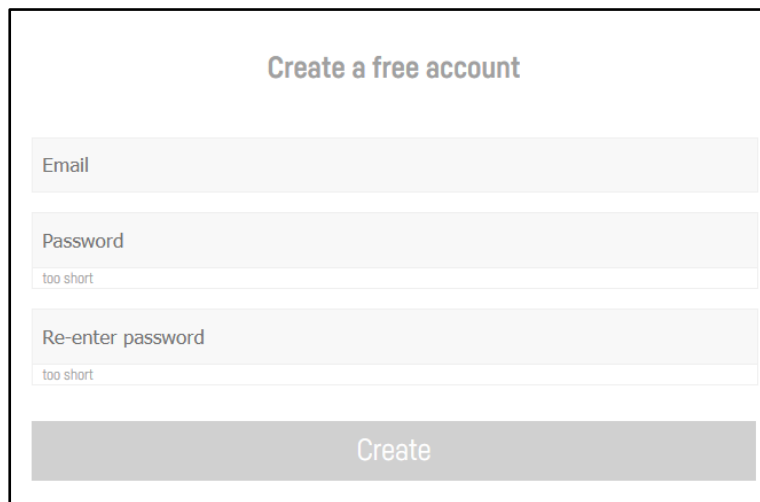


Step four – create a free Smart Reef account, by pressing the “Create a free account” button.



The screenshot shows a login and account creation interface for Smart Reef. At the top, it says "Log in to Smart reef". Below this are two input fields: "E-mail" and "Password". To the right of the password field is a link that says "Forgot password?". Below the input fields is a grey "Log in" button. Underneath the login section, it says "New to Smart reef" and features a prominent grey "Set up Free account" button. At the bottom of the screen, there are three buttons: a grey "BACK" button on the left, "STEP 4/5" in the center, and a blue "SKIP" button on the right.

If you already have a **Smart Reef** account, enter your login data to add your new device to the system.



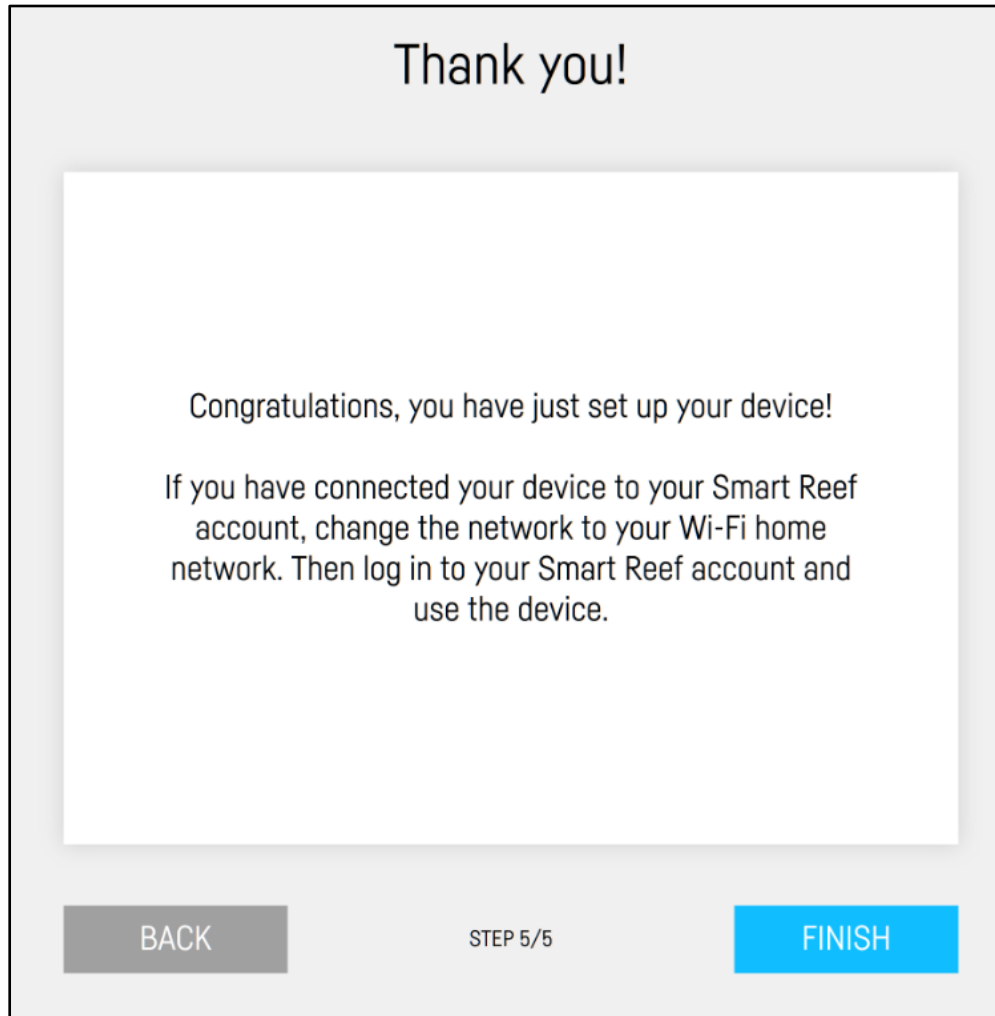
The screenshot shows the "Create a free account" form. It has three input fields: "Email", "Password", and "Re-enter password". Below the "Password" field, there is a red error message that says "too short". Similarly, below the "Re-enter password" field, there is a red error message that says "too short". At the bottom of the form is a grey "Create" button.



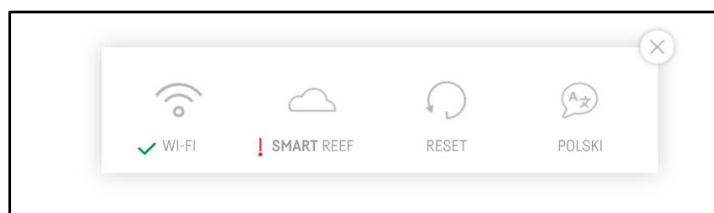
The password should be sufficiently complicated and hard to crack.

This way, you will be able to operate the device remotely and access its additional functionalities. If you already have a **Smart Reef** account, enter your login data to add another device. If you don't need to manage your device remotely, you may ignore this step. However, by doing so you will miss out on several additional features, such as access to device updates.

Step five – congratulations, you have successfully set up your TDS meter device.

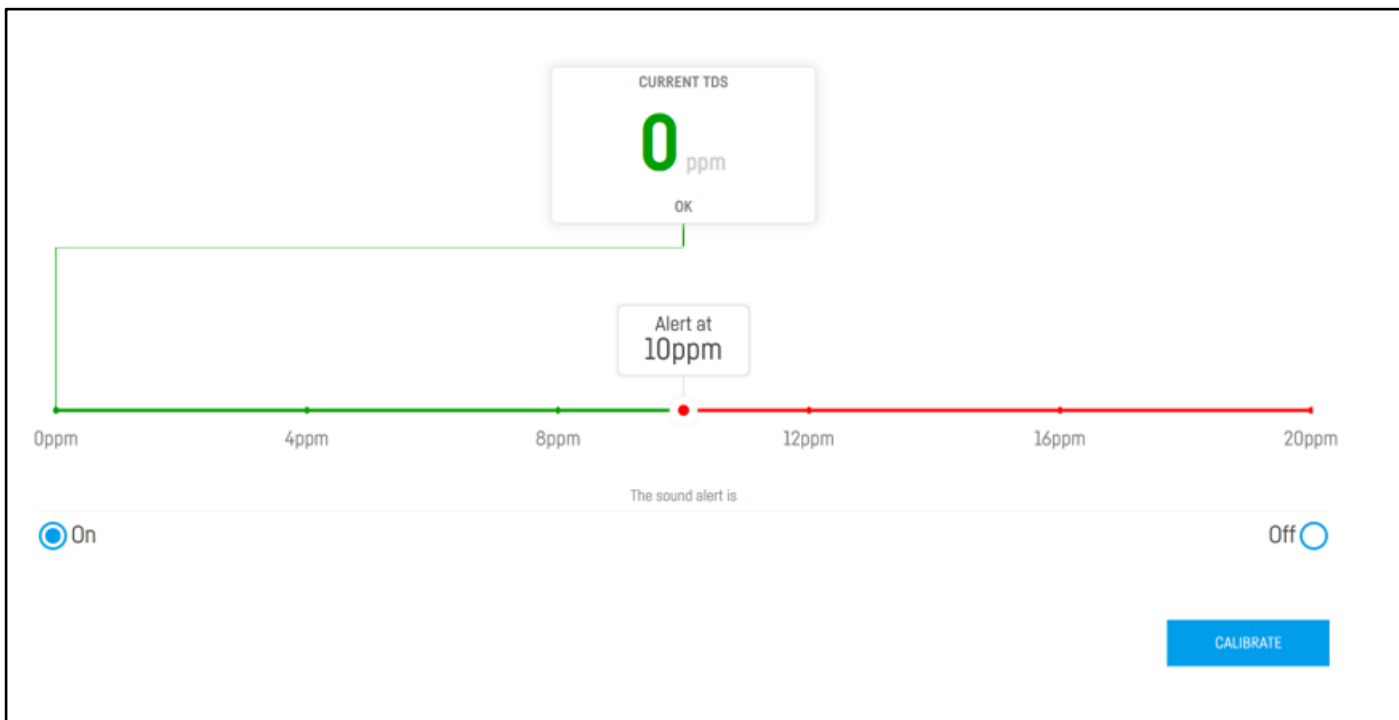


Notice the icons located in the upper right corner of the screen. They make it possible to change the date and time, language, view the history of notifications registered by the device, contact us and access many more interesting features offered by the device.




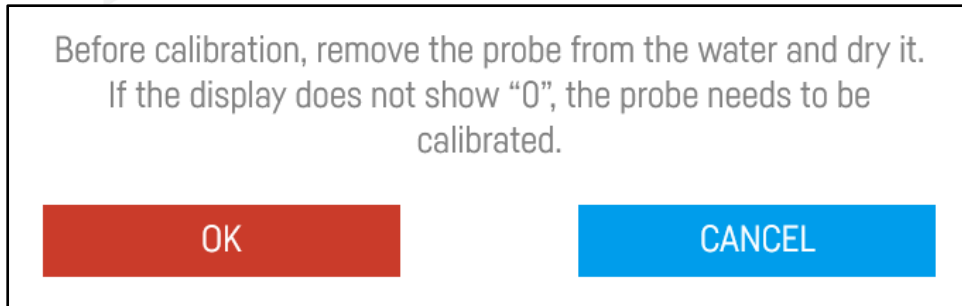
✓ symbol means that the device is connected while ! means there is no connection.

After the setup procedure is finished (after pressing the “FINISH” button), the screen will display the current status of your device as well as additional options.



III. Device calibration

1. Before the first use the device requires to be calibrated. To do this submerge the TDS sensor in clean RO water for 20 minutes and tap/click the  button. This will be the reference point for the device. “Dry” calibration method is also possible.



After that you should see „0” ppm value on the display.

IV. Resetting the device

If your device does not work properly, or you want to repeat the setup procedure, or you cannot connect to it despite several attempts, you may restore it to its default settings by placing a magnet (included in the package) on the housing in the place shown in the picture at the beginning of this manual.



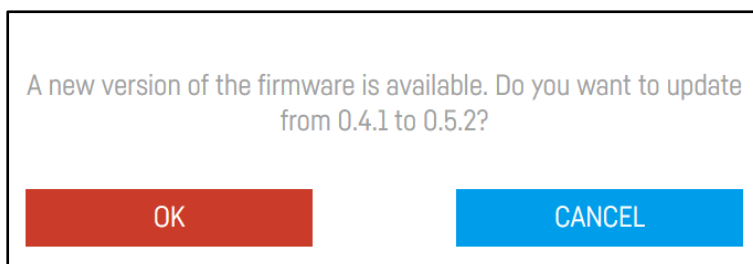
Place the magnet in the indicated place near the **Reset** sticker.

V. Smart reef system

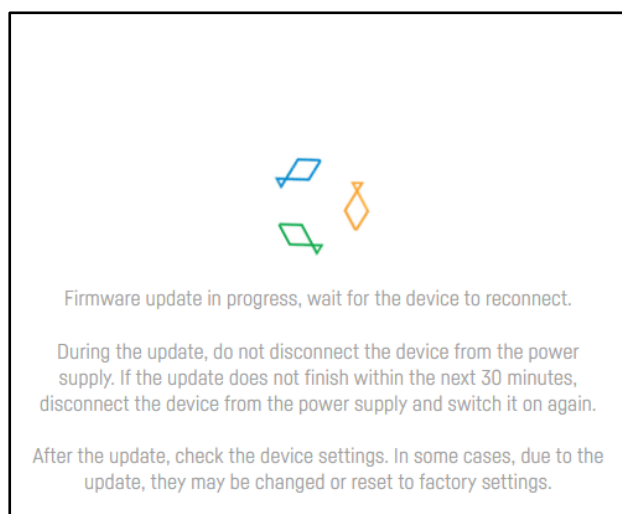
Connect to your Internet network via a computer or a mobile device. Next, go to www.reeffactory.com and log in to your **Smart Reef** account. Check, if your device has been properly added to the list of your devices.

You can change its name and assign it to one of your aquariums. The serial number of your device and its firmware version are displayed in the lower right corner of the screen.

Our devices are SMART; therefore, we constantly improve them. From time to time, you will receive information about firmware updates that will make your device work even better.





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



Additional and up-to-date information about the device, its operation and setup can be found at our website www.reeffactory.com, in the relevant product tab.

VI. 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 adaptor 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.
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.
Err message displayed on the screen	TDS sensor failure	The device has to be returned for a check-up to the Authorized Service Centre
TDS measurement is not stable	The TDS or flow sensor is not calibrated properly.	Perform the calibration of the flow sensor and the proceed with the TDS sensor calibration. Check if the problem has been resolved.

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 technicians.

VII. Dedicated power adapter - user guide

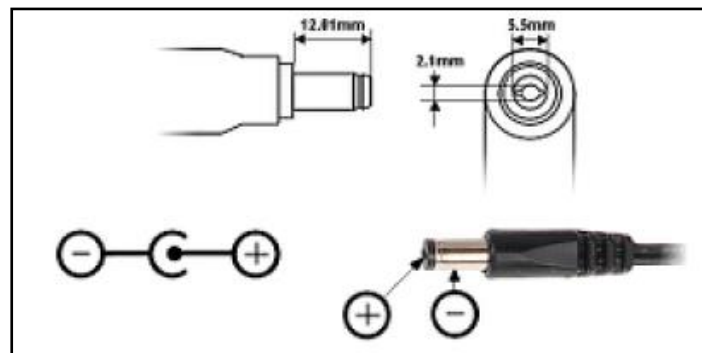
1. Make sure to connect the power adapter first to the device and next to power supply.
2. The power adapter is supplied from the grid. There is a risk of electric shock. Do not remove the power adapter housing yourself!
3. There is a risk of fire or electric shock. Leave the power adapter vents exposed to enable natural air circulation and protect the device from foreign objects or liquid spillage.
4. Using a wrong DC plug or forcing the DC plug into an electronic device may cause damage to the device or its malfunction.
5. Desktop power adapters should be placed on a stable surface. Falling can lead to permanent damage.
6. Do not place power adapters in high humidity locations or near water.
7. Do not place power adapters in high ambient temperature locations or near sources of heat or fire.
8. The output current and output power must not exceed the rated values provided in the specification.
9. Disconnect the device from power supply before cleaning. Do not use liquid or aerosol cleaners. Only use a damp cloth for wiping.
10. To dispose of this product, contact a local licensed recycling company. Do not dispose of your power adapter with mixed municipal waste.

The table below lists the power adapters dedicated for our devices along with the models and names of the devices they can be used with.

Power adapter model	Power adapter parameters	Power adapter specification	List of compatible devices
TPS-1201000ZZ	Plug power adapter 12 V 1 A DC	Input voltage: 100-240 V AC Operating frequency: 50-60 Hz Maximum input current: 0.6 A Output voltage: 12 V DC (11.4-12.6 V) Output current: Max. 1 A Input connector type: DC 5.5/2.1	<ol style="list-style-type: none"> 1. Level sensor * 2. Thermo view * 3. pH meter Plus * 4. TDS meter Plus * <p>* First generation devices were powered by a 3.3 V 2 A power adapter. Before purchasing a power adapter, contact us to find out which power adapter is suitable for your device.</p>
TPS-1202000ZZ	Plug power adapter 12 V 2 A DC	Input voltage: 100-240 V AC Operating frequency: 50-60 Hz Maximum input current: 0.6 A Output voltage: 12 V DC (11.4-12.6 V) Output current: Max. 2 A Input connector type: DC 5.5/2.1	<ol style="list-style-type: none"> 1. Dosing pump 2. Dosing pump Pro 3. Dosing pump X3 4. Dosing pump X4 5. Salinity guardian
TPS-1204000ZZ	Plug power adapter 12 V 4 A DC	Input voltage: 100-240 V AC Operating frequency: 50-60 Hz Maximum input current: 1.2 A Output voltage: 12 V DC (11.4-12.6 V) Output current: Max. 4 A Input connector type: DC 5.5/2.1	<ol style="list-style-type: none"> 1. Dosing pump Large
GST120A24R7B	Desktop power adapter 24 V 5 A DC	Input voltage: 85-264 V AC Operating frequency: 47-63 Hz Maximum input current: 1.4 A Output voltage: 24 V DC (23.8-25.2 V) Output current: Max. 5 A Input connector type: R7B 4 PIN	<ol style="list-style-type: none"> 1. Reef flare S 2. Reef flare Pro S
GST220A24R7B	Desktop power adapter 24 V 9.2 A DC	Input voltage: 85-264 V AC Operating frequency: 47-63 Hz Maximum input current: 1.7 A Output voltage: 24 V DC (23.8-25.2 V) Output current: Max. 9.2 A Input connector type: R7B 4 PIN	<ol style="list-style-type: none"> 1. Reef flare M 2. Reef flare Pro M 3. Reef flare L

GST280A24R7B	Desktop power adapter 24 V 11.67 A DC	Input voltage: 85-264 V AC Operating frequency: 47-63 Hz Maximum input current: 2.0 A Output voltage: 24 V DC [23.8-25.2 V] Output current: Max. 11.67 A Input connector type: R7BF 4 PIN	1. Reef flare Pro L
GST280A24R7B	Desktop power adapter IDLC-45A-500	Input voltage: 90-295 V AC Operating frequency: 47-63 Hz Maximum input current: 0.16 A Output voltage: 35-50 V Output current: Max. 0.5 A Input connector type: N/A	1. Reef flare Bar S 2. Reef flare Bar M
GST280A24R7B	Desktop power adapter IDLC-45A-1050	Input voltage: 90-295 V AC Operating frequency: 47-63 Hz Maximum input current: 0.4 A Output voltage: 16.8-24 V Output current: Max. 1.05 A Input connector type: R7BF 4 PIN	1. Reef flare Bar L

DC 5.5/2.1 connector:



R7B and R7BF connector:

