Installation guide

Step 1:
1.1 Every **BBoil RF set** includes:
1 pcs central control block;
1 pcs wireless temperature sensor;
1 pcs user manual for installation
and usage;
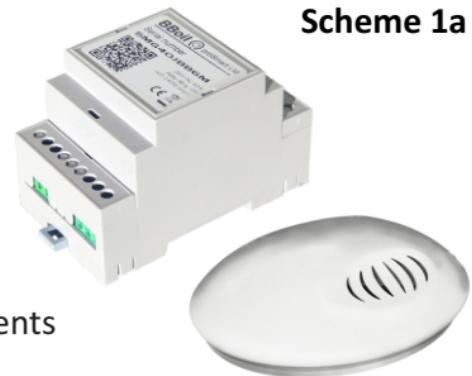
Unpack the device and take the two main elements
out of the box **(Scheme 1a)**.

1.2 Every **BBoil Classic set** includes:
1 pcs central control block;
1 pcs wired temperature sensor;
1 pcs user manual for installation and usage;

Unpack the device and take the two main elements out of the box
**(Scheme 1b)**.

Scheme 1b

Attention! Switch off the power supply before installing **BBoil RF**.
We highly recommend the installation to be performed by a qualified
technician. If you do not possess the needed knowledge and qualification,
please do turn to an authorised retailer!
Attention! Do not modify or influence the built in protection of the electric
device in any way!

The device can be used for control of electric devices and appliances, heating systems or low-current systems that allow interruption of input fuse or are controlled by normally open/normally closed circle.

The **BBoil's** thermostat can easily connect to every gas/pellet boiler or other heating system that has a double core connector for room thermostat.
Connect the two connection points of the device you wish to control to the outputs **NO** and **COM**, that is to the relays' normally open outputs. The thermostat's installation is outlined in **Scheme 2a**. The device must be installed and connected by a qualified professional.


100-240V~
50/60Hz
35mA T45
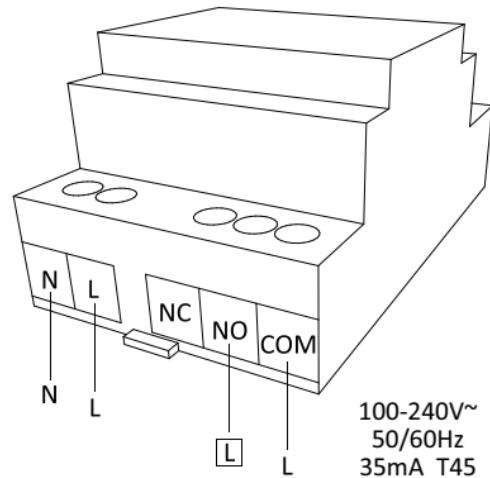
Scheme 2a

Bboil RF could be used as a room thermostat. For that type of installation the temperature sensor is positioned in the premise where the temperature is to be measured.

Scheme 2b shows an example of a **BBoil Classic** connection to an electrical boiler.
The temperature sensor could be used for measuring the temperature in the device by placing it in the specialized plug.
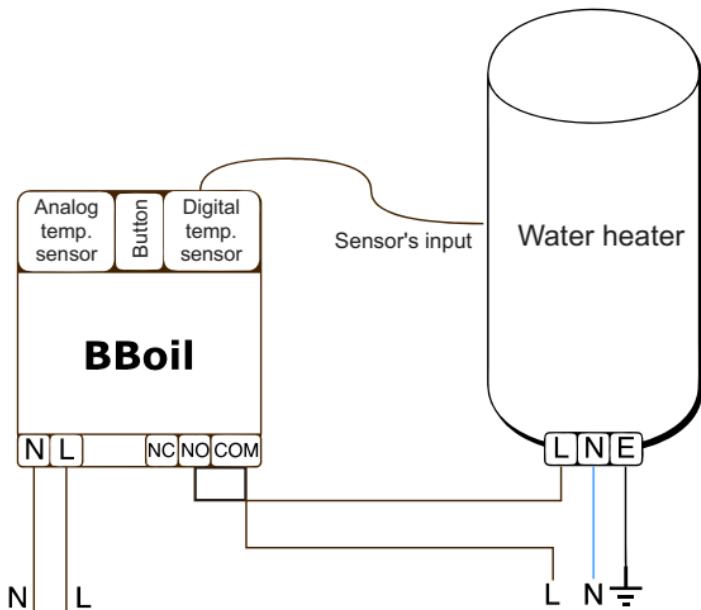

Scheme 2b

The thermostat can also be used in cooling mode. In that case, the output terminals **NO** and **COM** are closed above the set temperature. Please contact the manufacturer/distributor of the cooling equipment for the installation. The cooling mode can be chosen in section **'Settings'** from both the web page and the mobile application after **'Login'** into the system.

1.3 Central control block's installation
Connect the power supply cable to the **BBoil's** main control block. After that, connect it to the power supply **(Scheme 3).**

Scheme 3
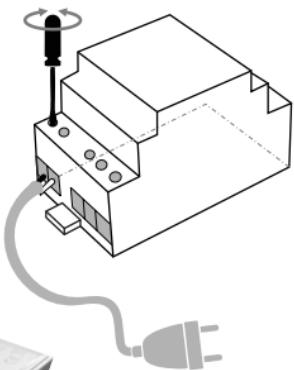
1.4 Installation possibilities
BBoil is a product, constructed for installation in limited access zones and must be installed to the switchboard using a Eurorim **(Scheme 4)**.

Scheme 4

1.5 A few requirements must always be considered and followed during installation:

- The device's installation and connection must be accomplished according to the national legislation for electrical installations.

- All activities on the device's installation, uninstallation, service and repair are to be made only after it had been securely removed from the power supply (the controller itself, as well as the chain it controls through the relayed exit).

- The device is to be installed only in places with limited access with the assistance of an instrument or key and are accessible only to the service personnel or a user who has passed the initial training.

- The wiring must be completed using double insulated wires.

- Automatic circuit breakers 25Amax 250V must be installed to the electric installation to ensure the protection against short circuits and possible overload.

- Disengagement tool must be provided for the electric installation during the device's installation and the needed safety is to be ensured for the service provided.

- All connections to the relay's outputs in the device must be conducted with conductors with an insulation resistance not lower than that of the insulated conductors of PVC T 105°C.

- The device's installation is conducted by the manufacturer's instructions and following the HD 60364-4-41 requirements, as well as the national legislation.

- Installation of the controller in a way that the terminals are positioned less than 5mm from the metal parts and the device's surface, is strictly forbidden.

- The device is installed only in a shell allowing the needed level of protection of the end product. Its installation on accessible surfaces and covers, allowing the easy access without the use of any instrument, is strictly forbidden.

- The device's installation must be accomplished in such a way as to deem it impossible to accidentally activate the reset button.

Step 2: Temperature sensor connection and usage. If you have **BBoil Classic**, please proceed to step 2.2

2.1 If you have **BBoil RF**, unscrew the four screws from the wireless sensor and remove the bottom lid. Then, place 2xAA alkaline batteries (**LR6** type) in the batteries holder **(Scheme 5).**
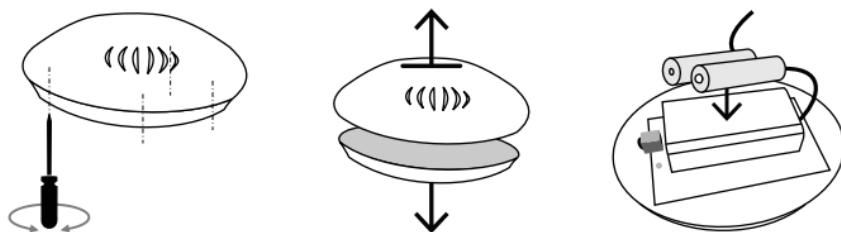

Scheme 5

The main block and the temperature sensor are already paired. The pairing procedure is performed upon change or adding of additional temperature sensor. If you do not need to perform any of those two actions, please proceed to closing the temperature sensor's box, screw back the four screws and continue to **Step 3**.

Pairing **BBoil RF** central block with the wireless temperature sensor

- Install **BBoil RF's** main block, as instructed in **Section 1.3**.
- Enter the **BBoil RF** central block's **'Settings'** mode via pressing and holding the button for three seconds. When in Settings mode the light emitting diode starts blinking intensely **(Scheme 6)**.
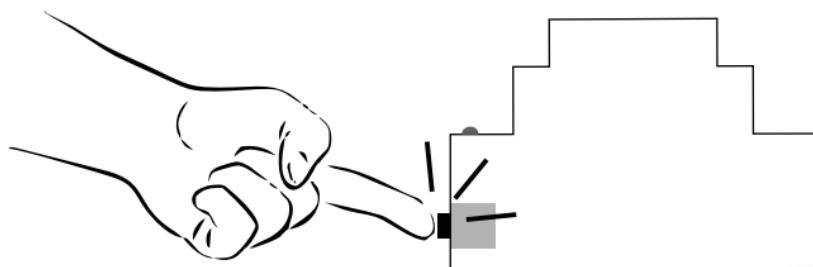
Scheme 6

- Press the temperature sensor's button once (**Scheme 7**). This way the temperature sensor goes to **'Settings**' mode for 30 seconds during which time the light emitting diode will be blinking every second.
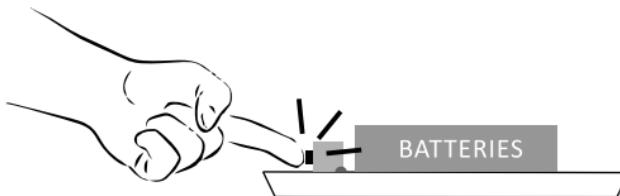
Scheme 7

- Once both devices are in **Settings** mode, press the main block's button once for sending the configuration to the wireless sensor. The settings are accepted by the wireless sensor when the light emitting diode starts blinking rapidly.

- Place the wireless sensor's lid and screw the four screws.

- After the successful pairing of the two elements, they start working normally.

- If the two elements do not successfully pair with one another during the 30 seconds in which the temperature sensor is in **'Settings'** mode, it continues to work upon the previously set settings.

2.2 If you have **BBoil Classic**, you have a wired temperature sensor. In order to connect the wired sensor to the device, please remove the plastic lid from the side of the button. Insert the temperature sensor jack into the device's connector, then put the lid back on **(Scheme 8)**.
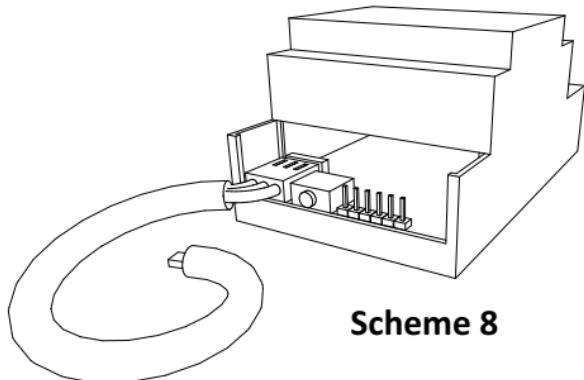
Scheme 8

Step 3: Initial setting up and connection to a chosen Wi-Fi network

In order for the device to work properly, it must be connected to an Internet network. After the installation's finished, provide a supply voltage to the device and **BBoil**. Wait 10 seconds, press and hold the button for three seconds and follow the device's light indication.

Attention! In **Access Point** and **ProSmartConfig** modes, upon pressing the button for three seconds, the device will be nullified with default settings.

3.1 **ProSmartConfig** mode

The central block's blue light emitting diode starts blinking very rapidly for a quick period of time. That indicates the device is in **ProSmartConfig** mode. Please connect your mobile device to the Wi-Fi network where **BBoil** will be operating in.

Open the proSmart mobile app on your smartphone or tablet. If you still do not have the mobile app installed, you can download it from **Google Play store**, **Apple store** or **Windows Phone Store**.

Log in to your profile with your email and password. If this is your first BBoil device purchased and you have not registered yet, you can do that in **proSmart**'s webpage: **https://bboilrf.com/en**

Press the **'Add'** button for adding a new device, marked with a '**+**' sign and located in the upper hand side of the screen.

Press the button **'PROSMART CONFIG' (Scheme 9)**, type in the password of your selected Wi-Fi network and click on **'SEARCH' (Scheme 10).**

Scheme 9	**Scheme 10**

Take a look at the blue light emitting diode and when its light goes off, and then stays on permanently, **BBoil** is all set up for work.

Look at the mobile device's screen. The app is now ready to control **BBoil**.

If you have used **ProSmart Config** mode, please proceed to **Step 4**.

3.2 **AP** (**Access Point**) mode

To switch to AP (Access Point), quickly press the device's button twice

The blue light emitting diode's blinking in a second's interval, signifying that the device's Wi-Fi module is in **AP** (**Access Point**) mode and you can connect to it through your PC or mobile device.

3.2.1 Initiate a wireless network search from your smartphone or laptop and connect to the **BBoil's** AP (the wireless network) Every device creates a network with its own name, starting with BBoil_xxx and a combination of letters and numbers. For example, BBoil_254 and it does not require a password for access.

WiFi Settings

To connect to a WiFi network, please select one of the detected networks...

Scanning...

WiFi password:
Mode: DHCP ▼
IP address: 192.168.1.10
IP mask: 255.255.255.0
GW address: 192.168.1.1

Back   Connect!

Scheme 11

3.2.2 After connecting, your browser will automatically open a new page giving you the chance to choose the wireless network, to which you want to connect the device **(Scheme 11)**.

If your browser does not open automatically, please open it manually for the automatic opening of the browser is a manual setting and thus it could be turned off.

3.2.3 If your smartphone, tablet or laptop did not automatically load the settings page, as shown in **Scheme 11**, it could be accomplished manually. Open your browser and write the following address:
192.168.10.1

WiFi Settings

To connect to a WiFi network, please select one of the detected networks...

🔒 My home network

WiFi password:	
Mode:	DHCP ▼
IP address:	192.168.1.10
IP mask:	255.255.255.0
GW address:	192.168.1.1

Back Connect!

Scheme 12

3.2.4. Choose the desired **Wi-Fi network**, type in your password and click on the **'Connect'** button - **Scheme 12**

3.2.5. In up to 20 seconds **BBoil** will switch to a working mode and the light indicator will be on all the time, blinking shortly per every second.

Congratulations! You connected your device successfully and can now add your profile in prosmartsystem.com so you can control and monitor its work.

3.3 Working mode – When the blue light emitting diode is always on and goes off between two seconds, it indicates that **BBoil's** central block is in working mode. Upon holding the button for three seconds, **BBoil** will transfer to Settings mode in **ProSmartConfig** mode.

Step 4: User profile creation:
4.1 Once connected to the Internet, **BBoil** becomes invisible to the other devices in the network. The only way to connect with **BBoil** is via the user profile, associated with the particular device. If you do not have one, you can load the **proSmart's** page: https://bboilrf.com/en or download and install the **proSmart** app in your smartphone or tablet:

4.2 If you choose to use a browser, open **https://bboilrf.com/en** in your PC desktop or mobile device and press the **'Log in'** button in the upper right corner **(Scheme 13)**.
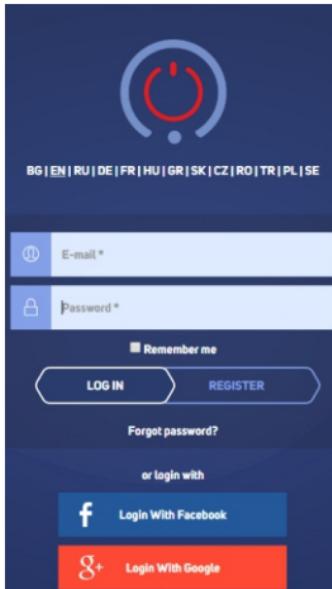
Scheme 13

4.3 If you access the website or the app for the first time, you need to register or log in with your Facebook or Google + accounts just by clicking the particular button. **(Scheme 14)**.

Scheme 14

4.4 New user registration.
Fill in the registration form's fields and click the **'Register'** button. You are now registered and may enter the app. **(Scheme 15)**.

BG | EN | RU | DE | FR | HU | GR | SK | CZ | RO | TR | PL | SE | IT

E-mail *

Name *

Phone

Password *

Repeat password *

LOG IN   REGISTER

Scheme 15

Step 5: Adding a device

If you have used **ProSmartConfig** mode from step 3, please proceed to **step 5.3.**

5.1 Home Screen —After the successful login with username and password, you should already be seeing the home screen in your profile and can add the device you have received. Enter the serial number of your **BBoil** device that you previously connected to the wireless network **(Scheme 16)**.
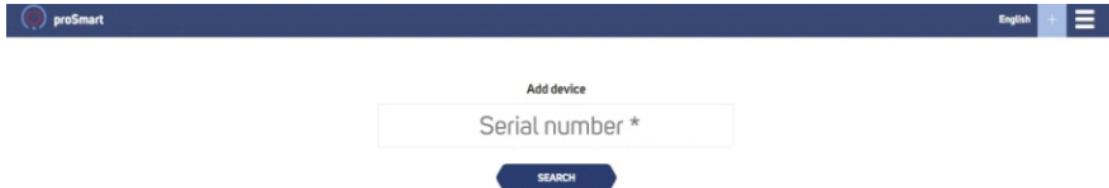

Scheme 16

5.2 Click on the **'Search'** button and after successfully finding your device, the application will redirect you to the main controlling screen **(Scheme 17)**.

Scheme 17

In order to set a name for your device, as well as a time zone and location, press the ✂ button in the upper right corner and fill in the fields **(Scheme 18).** From that window you can also delete the device from your profile via clicking the deletion button in the bottom right corner.

Scheme 18

5.3 You can now set and control your device. The **'Now'** text shows the temperature at the moment, as detected by the device. On the right side you can locate a slider for setting the desired temperature. In the upper left corner you can see the following three pages: **(Scheme 19)**.

Step 6: Main screen

6.1 In the main screen you can find the working modes' buttons:
- **Off -** the device is not working
- **Manual -** the device is on and working until reaching the set temperature from the right slider
- **Schedule -** the device follows the set schedule
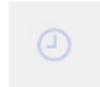
≡	Main Page
✂	Settings
🕐	Schedules
24°C	Slider
25.50°C	Temperature Now
▭ 100%	**BBoil RF**'s battery status

Scheme 19

Below the working mode's buttons, is the graph that indicates the temperature changes, as detected by the device. With a hover on the graph, you can see detailed information for each chosen point. After the **'Boost mode'** has been chosen, the device is turned on until the desired temperature is reached and remains on for as long as it is the desired time by the customer.

After the desired temperature is reached, **BBoil** automatically comes back to its normal work **(Scheme 20)**.
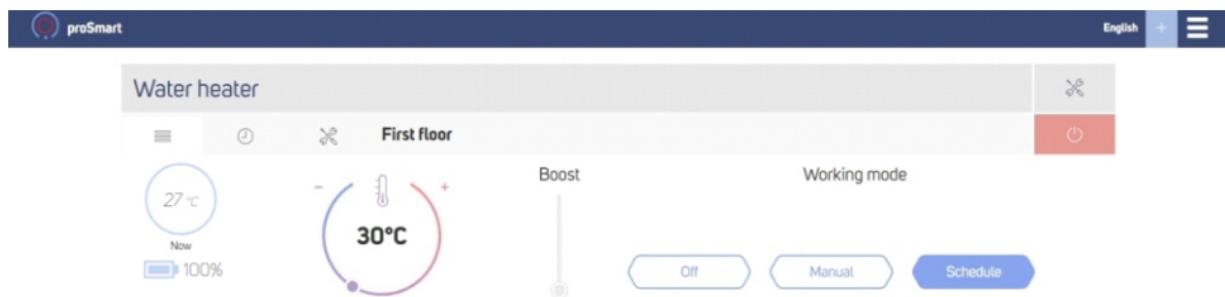
Scheme 20

6.2 General scheme on Settings screen

Scheme 21

In the **'Settings'** page, you can locate the two sliders for the Upper and Lower hysteresis. Their main purpose is keeping the set temperature with the highest possible energy savings and extending the electrical appliance's life.

You can manually set the value range between the lower and upper hysteresis and temperature. The range depends on the functionality of the controlled device.**(Scheme 22)**

Scheme 22
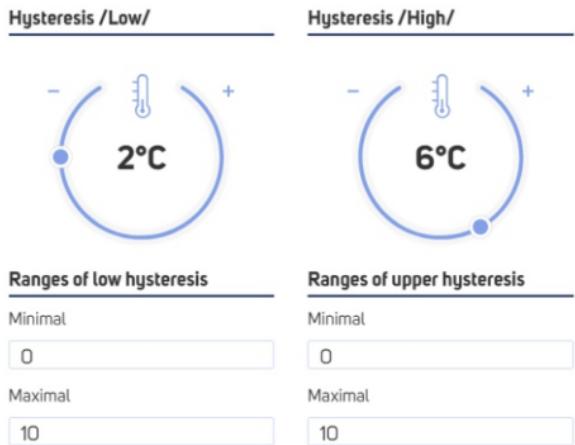
In the General menu you can find the relay's working modes:

- **Thermostat** – Default mode with active thermostat function. BBoil monitors the temperature and manages the controlled device.
- **ON / OFF** – Temperature monitoring mode and with a turned off thermostat function. The connected device could be turned on and off manually or via the weekly schedule.
- **Garage** – A mode without monitoring the temperature and a turned off thermostat function.

Attention! If you do not possess the needed knowledge or qualification, please do not change that setting.

You can choose working mode **'Heating'** or **'Cooling'** depending on the desired work and the controlled device or appliance.

With the Temperature precision you can set the degrees' visualisation – **'0'** or **'0.0'**. In the field With the **'Emergency mode value'** you can set the desired temperature that the device would maintain for the **BBoil's** manual turn on through the hardware button **(please look at Scheme 6)**. This turn on/off method is used in the case of lack of Internet connectivity or device for access to the system

In the **'Sensor 1'** field you can set the

General

Working mode

Thermostat

Working mode

Heating

Temperature accuracy

0

Emergency mode setpoint

28

Temperature sensors

Group: 1, Sensor 1

Temperature ranges

Minimal

15

Maximal

75

Scheme 23

temperature sensor's name. In the **Minimal** and **Maximal** fields from the main screen you can set the temperature slider's limits. **(Scheme 23)**

6.3 In the **'Schedule'** page, you can see a form for setting a weekly schedule for autonomous control of the connected device to **BBoil**. **Scheme 24a** shows an example of an empty schedule on a laptop's browser, and **Scheme 24b** - on a smartphone.
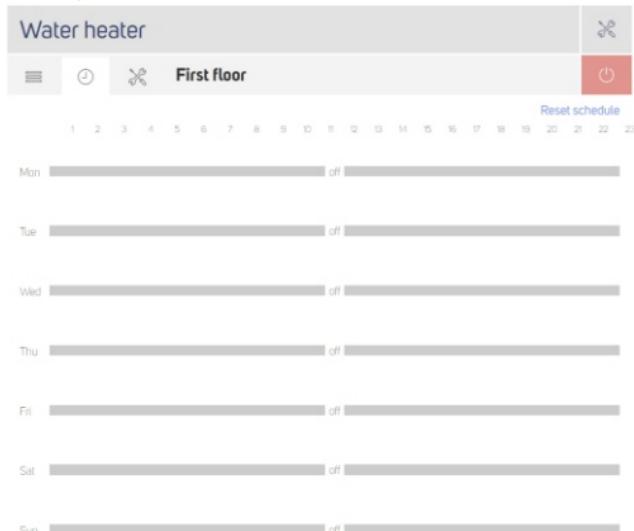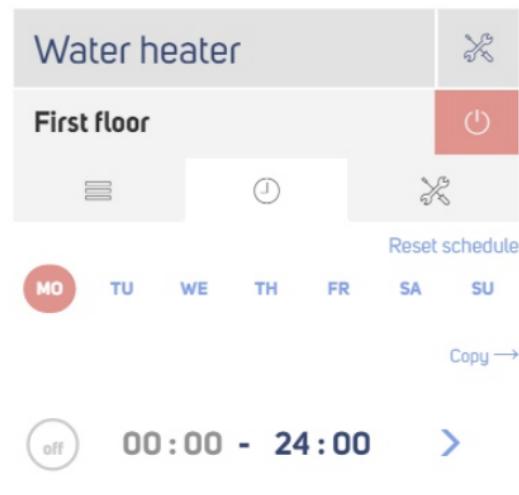
Scheme 24a   **Scheme 24b**

6.3.1 Press the axis on the desired day of the week. On the window that opens up, you can locate the buttons for splitting the set period – the day is split in two there is also a drop down menu for turning the chosen period on and off. When it is turned on, you see a slider for setting the desired temperature for that period.
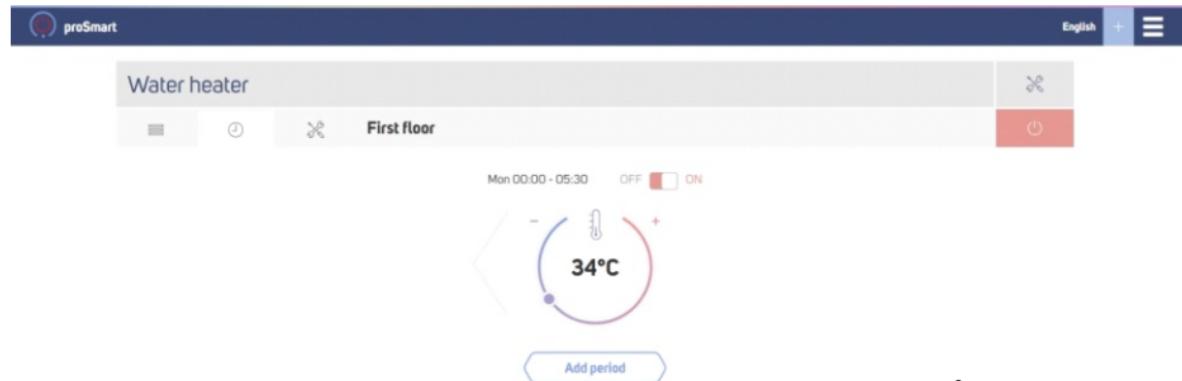

Scheme 25

To add a new period and come back to the schedule creation form, press the **'Add period'** button **(Scheme 25)**

6.4 This is an example of a weekly schedule's view on a laptop **(Scheme 26a)** and on a smartphone **(Scheme 26b)**.
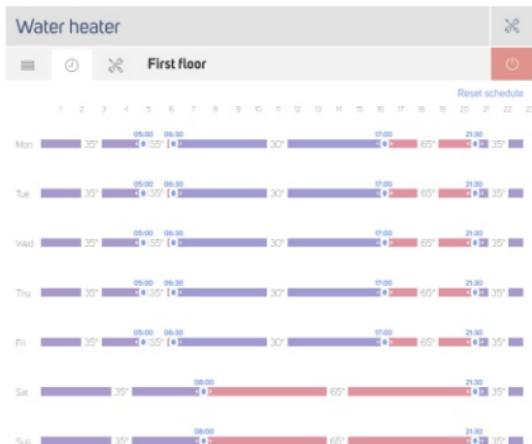

Scheme 26a
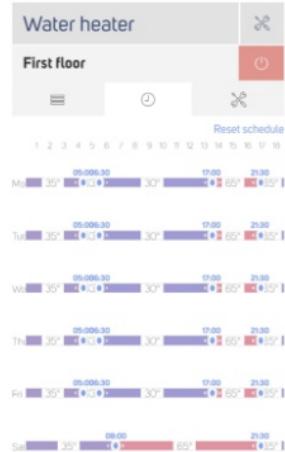
Scheme 26b

Important! We highly recommend to always update your browser to the latest version. The use of outdated browser versions could cause issues with the user interface's functions.

Step 7: Additional temperature sensors' connection. If you have a **BBoil Classic** device, please proceed to **Step 8**.

7.1 **BBoil RF** can work with up to four wireless temperature sensors in the same time. In order to add one or more wireless sensors, unscrew the temperature sensor's four screws and remove the bottom lid **(Scheme 5)**. Next to the battery holder, there are two switches in various positions **on/off**. **(Scheme 27)**
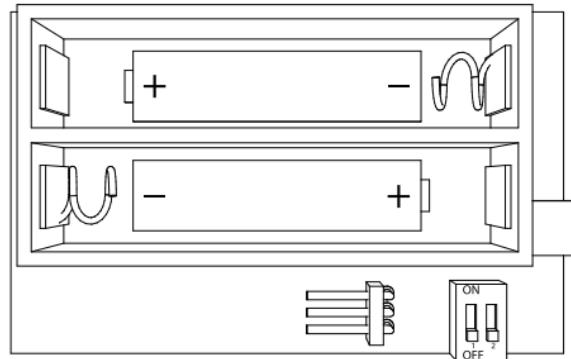
Scheme 27

Following the position outlined in **Scheme 28**, place the switches depending on which following sensor you are connecting. In order to pair the wireless temperature sensor to the main controlling block, follow the steps as explained in **point 2.1.**


First device	**Second device**	**Third device**	**Fourth device**
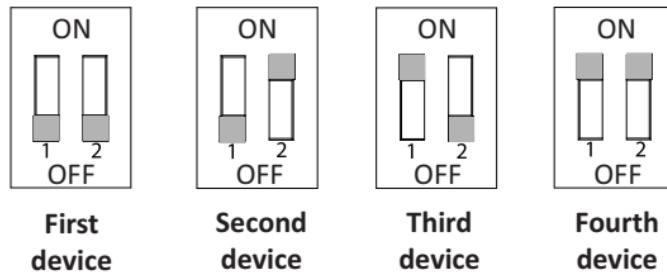
Scheme 28

7.2 Wired temperature sensor – For every wireless temperature sensor, a wired one with a 'probe' can be added. In order to add a wired sensor, unscrew the temperature sensor's four screws and remove the bottom lid **(Scheme 5).**

There is a connector next to the battery holder to which you can connect the wired sensor's jack **(Scheme 29).**
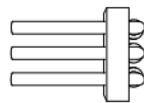
Scheme 29

Step 8: Servicing of **BBoil**

8.1 **BBoil** is cleaned with a dry or slightly dampened with water towel. The use of aggressive or abrasive cleaning liquids is strictly forbidden.
8.2 The condition of the terminals, terminal connections, as well as the connection reliability of external wires needs to be checked every six months, and strengthened if needed.

Attention! When the Internet connection is interrupted, **BBoil** continues working at the set mode. By pressing the device's hardware button, you can turn it on and off in the Manual mode, depending on its current status. In this case, when the Internet connection is restored, the device will follow the mode that had been set by the hardware button.