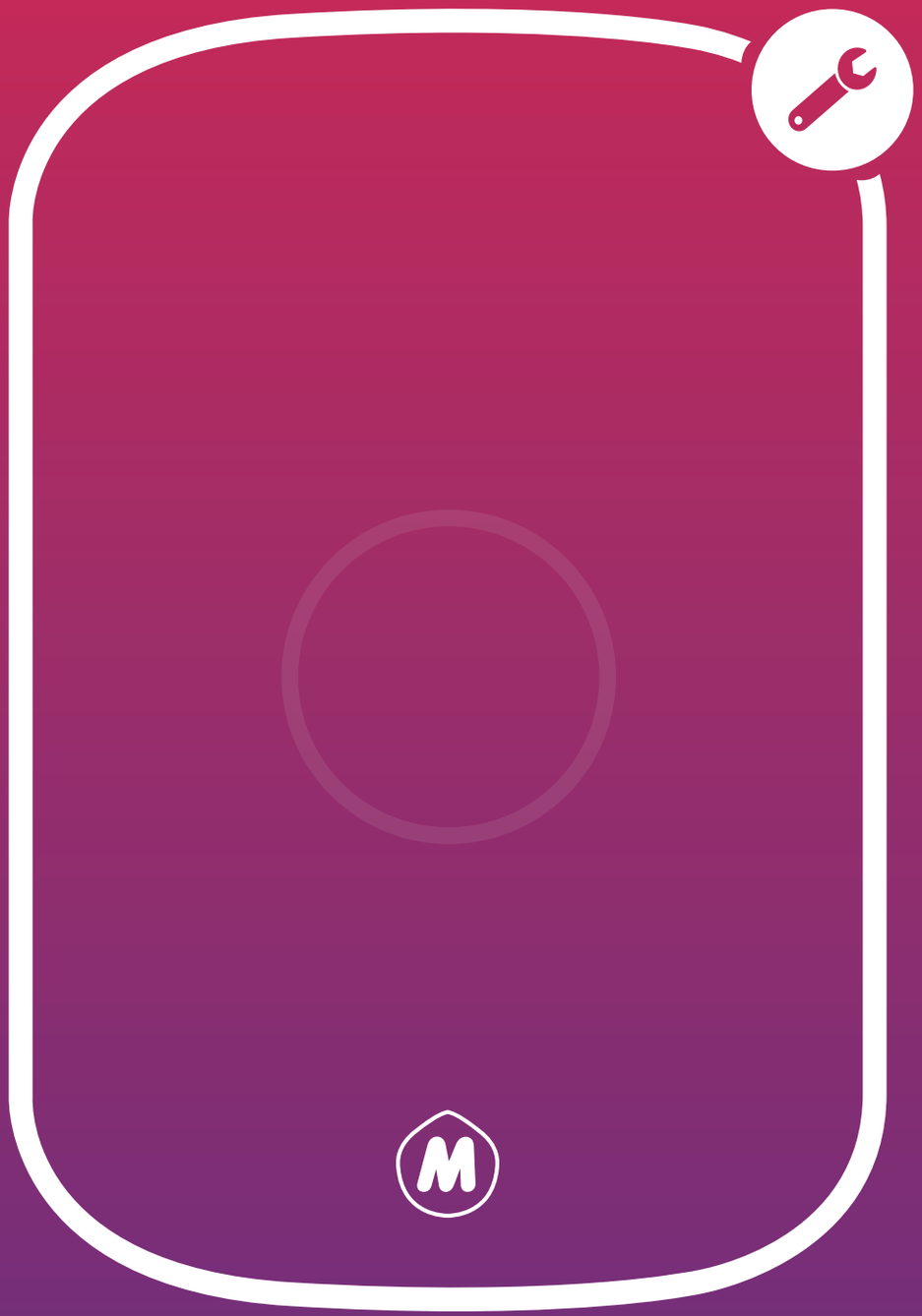
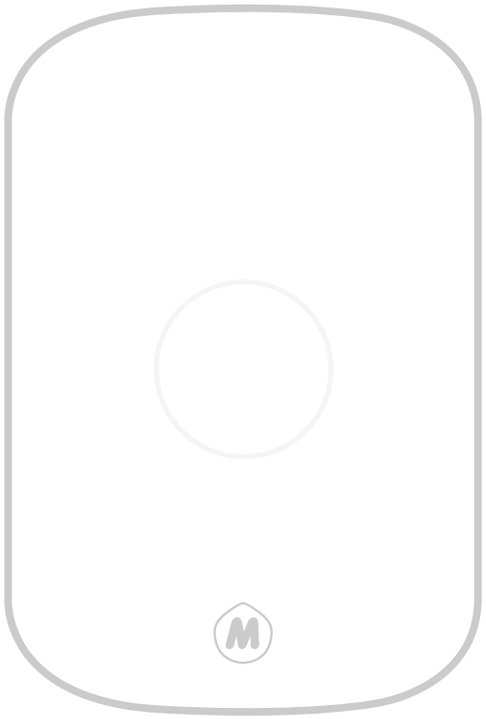
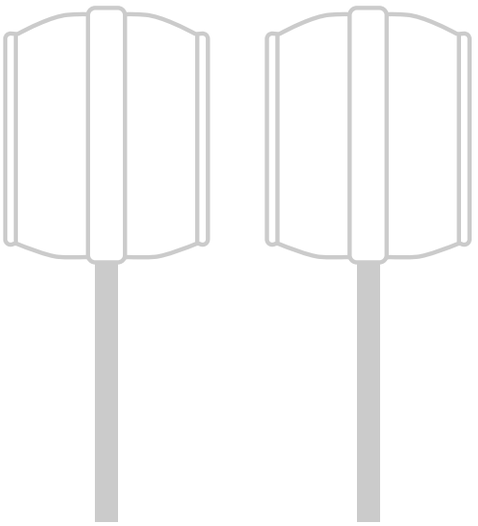


Installation manual

Package Included

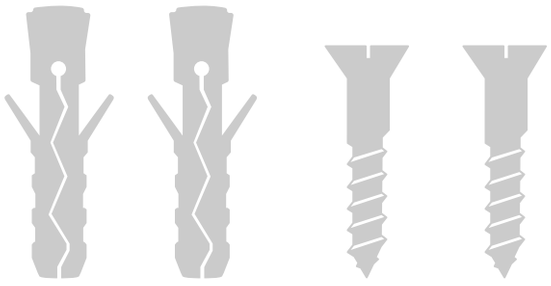


Bobbie



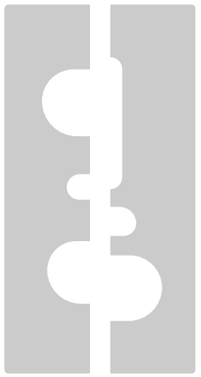
Temperature sensors

1m cable 3x2,5m^2

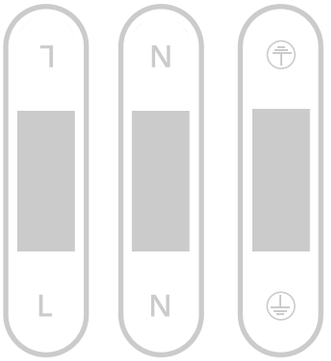


Fasteners

Installation template



2x brackets



Installation stickers

Compatibility

Bobbie connects to your home Wi-Fi network so you can communicate with it through the internet from your smartphone. There's a wired connection between Bobbie and your water heater so the device works as a switch. Bobbie connects to the 100-240V ~ mains supply. This makes it applicable to all brands and models of boilers in the market consuming up to 32A. T hanks to our intuitive mobile app, you can heat up the water at home, no matter where you are. Bobbie will learn your habits and after that you will never have to think about hot water issues. You will have hot water whenever you need it.

Technical characteristics

Power Supply: 100-240V~, 50/60Hz
IP Protection class: IP23
Self-consumption: 50mA
Switching current: 32A
Wire cross section: 1,5 – 4mm^2
Recommended ircuit breaker: 50Amax, 250V~
Sensors: temperature 0-90oC, E-meter
The controller is designed to using with TN/IT distributed alternating voltage power supply systems
Connectivity: 2.4GHz Wi-Fi b/g/n, (868MHz W-MBUS T2)
Mounting position: according to the specified symbols
Control: Wi-Fi, multifunctional button
Indications:
- Power ON
- Wi-Fi connected
- Current consumption

Size: 100x150x34mm
Weight: 400 g
Material: PC + ABS

Environmental conditions in which the device is intended to operate:

- Indoor using;
- for altitude up to 2000m;
- for an ambient temperature: 0°C to +50°C;
- for maximum relative humidity of 80% for temperature up to 31°C, decreasing linearly to 25% relative humidity at temperature 50°C;
- for supply voltage deviation of up to ± 10% of the declared supply voltage range;
- for use under the overvoltage category II;
- for environment with a degree of contamination 2 (PD2).

Storage and transport conditions:

- for an ambient temperature -20°C to +60°C;
- for relative humidity 5% to 90% without condensation

Safety instructions

Please read the safety instructions before installing the device!

Failure to follow the recommended instructions in this manual may be dangerous or be in violation of the law. The manufacturer Melissa Climate Plc., Is not responsible for any loss or damage caused by failure to follow the instructions in the operating instructions.
The installation and connection of the device to the power supply must be carried out in accordance with the national electrical installation legislation.

Safety installation!
1. Ensure that the device is attached stable to the wall!
2. The device is designed to control active loads with a cos of more than 0.95
3. All works of installation, service and repair on the device is only performed when it is securely disconnected from the power supply.
4. It is mandatory to disconnect the power supply via a bipolar switch / fuse!
5. Ensure that the connecting wires are securely fastened by the clamping screw of the terminals!
6. The connection terminals are provided for wires with a cross section of 1.5mm2 to 4mm2
7. Do not use wires with different cross section!

Safety instructions

8. All connections to the controller must be carried out with cables with an insulation resistance not less than those with PVC insulation T90 ° C when it is intended to operate at ambient temperatures under 30 ° C and reaching 40 ° C, and with cables with an insulation resistance not lower than those with PVC insulation T105 ° C when the controller will operate at ambient temperatures under 40 ° C.
9. The device must be installed vertically, with the power cables on the underside of the device.
10. The controller is suitable for use in rooms, including bathrooms, in places where it is not exposed to the direct impact of splashing water and water jets in areas where the degree of protection IP23 is allowed.
11. The cables must be mounted with the plastic fastener bracket provided in the kit.
12. Mount the protective plastic cover described in step 12  , indicating the danger of dangerous voltages
13. In case of failure and burn of the built-in RF1 fuse resistor, the terminals of the controller remain under dangerous voltage!
14. Mount Bobbie top cover and make sure it is securely attached to the base.
15. Do not install near sources of vibration.

Safety instructions

16. Please check in every six months:
- condition of the terminals
- the reliability of connecting the external cables
- the reliability of cable fixation
- the integrity of the outer envelope
- the outer shells and insulation integrity of the connecting cable
- If necessary, tighten terminal screws and cable clamps.

An external bipolar switch or an automatic two-pole circuit breaker must be provided for the device to disconnect from the power supply network with a split between the contacts at all poles, ensuring complete disconnection under the overvoltage category III. The switch / circuit breaker must be built into the fixed wiring in accordance with the electrical regulations.
The on/off button of the controller only serves to functionally shut off the device and can not be regarded as a disconnect from mains supply, and only such an instrument may be the external automatic circuit breaker provided during installation according to the instructions.
Cleaning the device is allowed using a dry or lightly moistened cloth, which specifically prohibits the use of aggressive or abrasive detergents.

Safety instructions

Regarding to the application and service groups for HVES / SAS, the device is used in automation and HVAC, such as the management of accumulating water heaters for the purpose of energy management and user comfort.
Regarding classification related to the safety of the output and all applicable restrictions, the device falls into the following groups:
- overvoltage protection class → II;
- type of the chain → SELV;
- topology of the network → wireless communication.

Installation of the device shall be carried out in accordance with the manufacturer's instructions, in compliance with the requirements of DL 60364-4-41 and national legislation.

Attention!
This product is not a toy. Beware of children and animals!

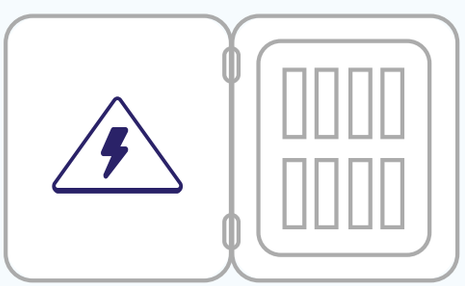
Legal Notices

All information, including but not limited to, features, functionality, and / or other product specifications are subject to change without notice. MClimate retains all rights to review or update its products, software or documentation without being required to notify any natural or legal person.

Installation

1. Shut off power supply through the main automatic switch.

Be sure to disconnect the boiler power, using a mains tester.



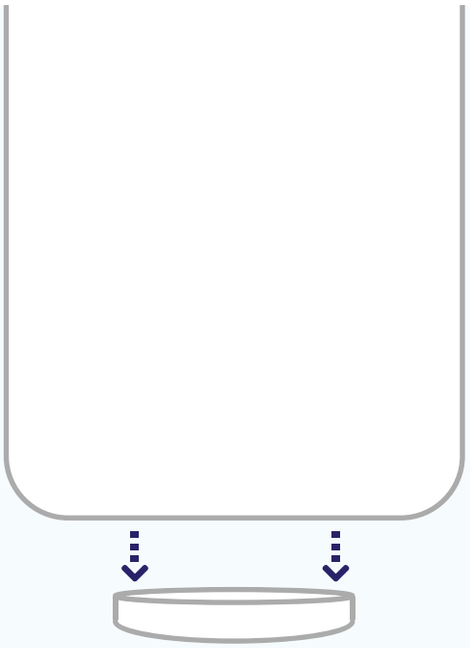
switchboard

&

bipolar switch to shut off the water heater power supply.

2. Remove the bottom cover of the water heater.

Use the water heater installation manual to safely remove the protective cover. Ensure that this is allowed by the manufacturer and that you do not violate the warranty of the appliance.

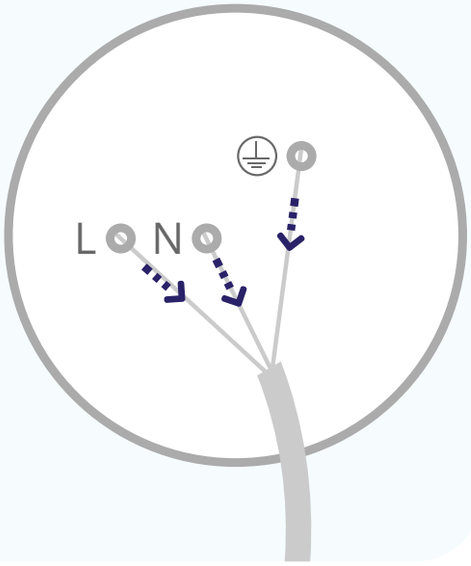


Installation

3. Disconnect the power wires.

> **!** Use a mains tester to make sure that there is no voltage in the supply wires.

Use the stickers provided in the kit to indicate the purpose of each of the water heater power lines. Labels are labeled with L, N and ⏚ symbols. Stick each tape onto the wire with the appropriate symbol. The symbols can be found on the terminal to which each wire is connected. Once you have tagged the wires you can disconnect them from the terminals.



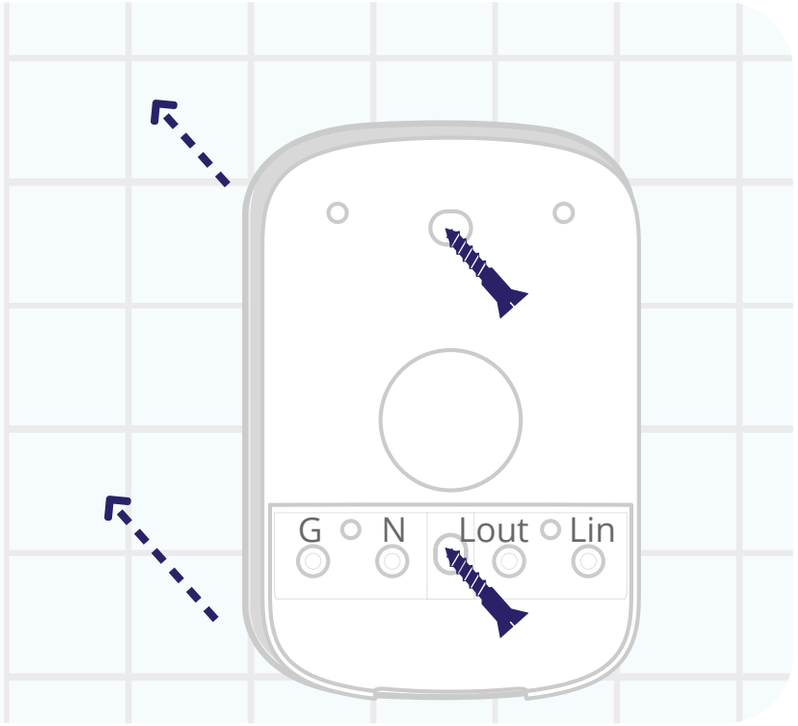
4. Put the pattern on the wall.

Place the template on the designated mounting location to mark the drilling points on the wall.

Installation

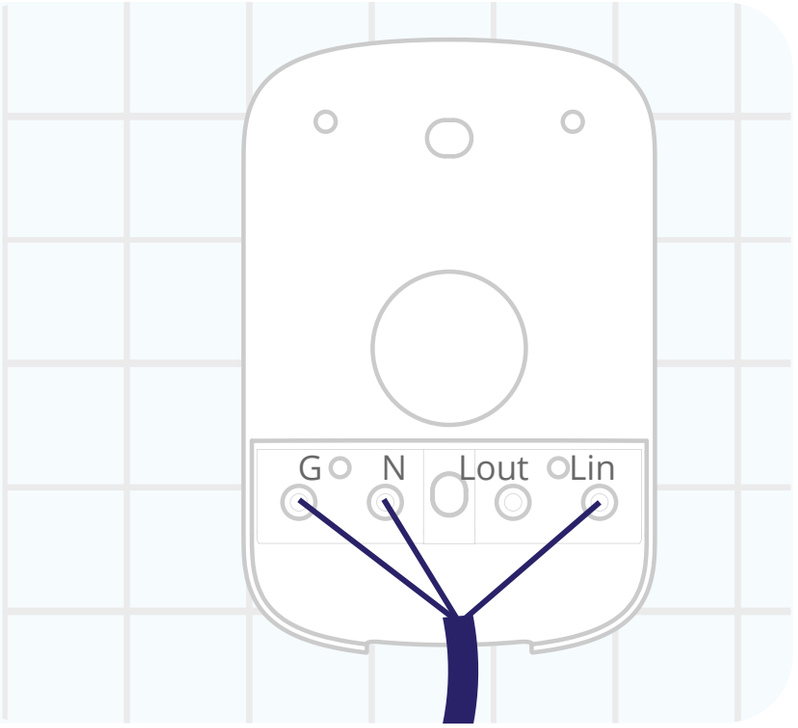
5. **Mount Bobbie on the wall.**

   Use the fasteners and make sure the device is stably attached to the wall.



6. **Mount the wires you have marked in step 3.**

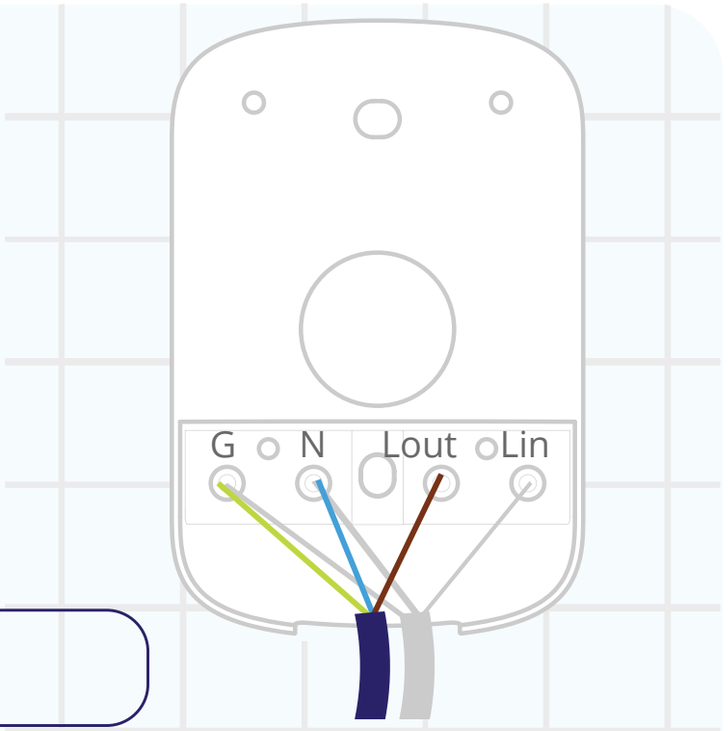
   Connect wire L to the terminal Lin, wire N to terminal N and ware marked with ⏚ terminal G.



Installation

7. Connect the additional wire.

The additional wire is provided in the kit for connecting your boiler to Bobbie. Mount the brown wire to the Lout terminal, blue wire to terminal N and yellow-green to terminal G.

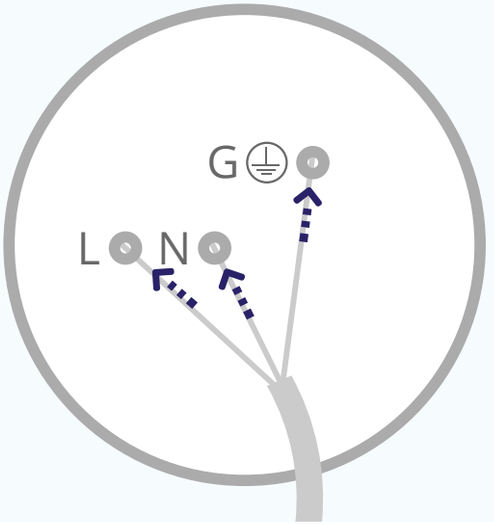


Make sure that the wires are stable tight to the terminals!
Only wires with the same cross section must be using!

Check the maximum water heater current consumption:
Current consumption up to 16A - wire cross section: 1,5mm2
Current consumption up to 25A - wire cross section: 2,5 mm2
Current consumption up to 32A - wire cross section: 4mm2

8. Mount the additional conductor to the water heater.

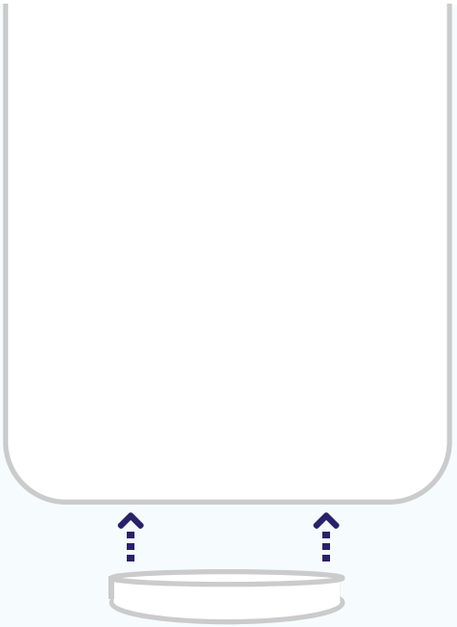
Connect the brown wire to the terminal L of the water heater, the blue wire to terminal N and the yellow-green wire to the terminal marked as ⏚



Installation

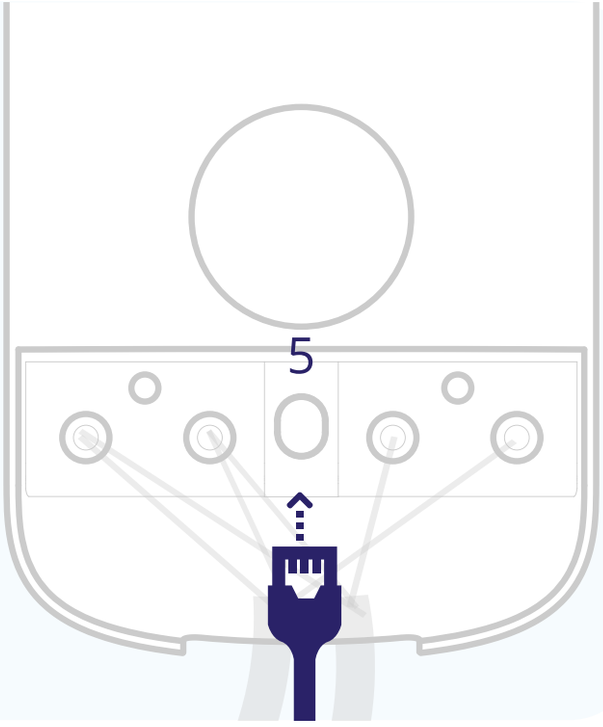
9. **Install the water heater protective cover.**

   Use the water heater installation manual to reattach the protective cover.



10. **Connect the Bobbie sensors.**

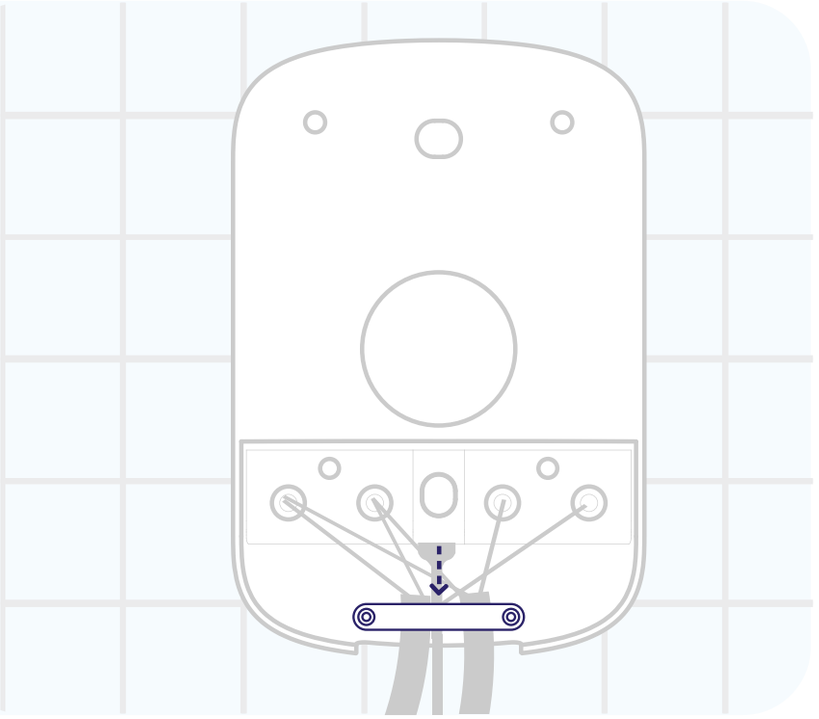
    The sensor cable ends with a connector (type RJ). Put it in position 5.



Installation

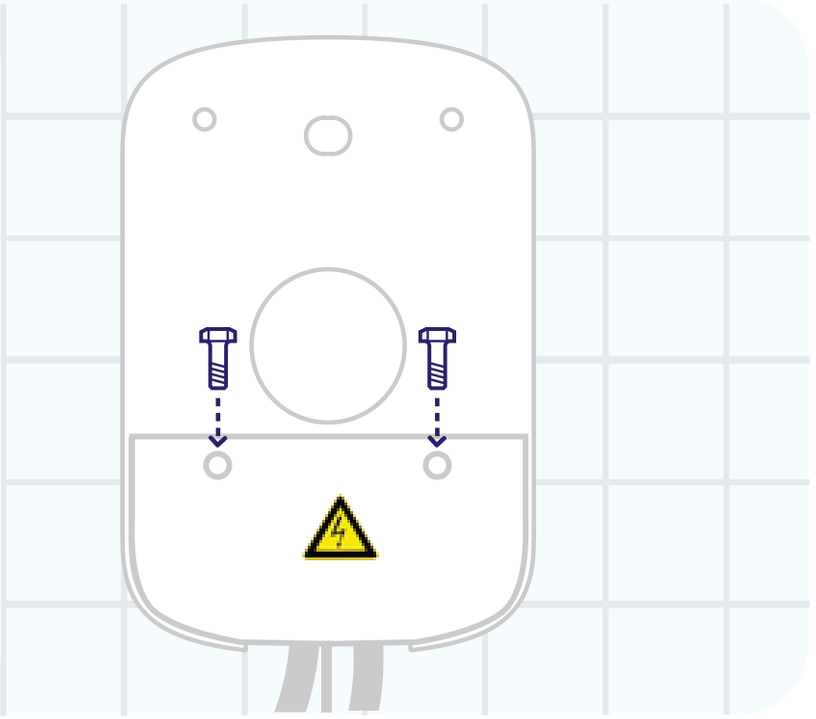
11. **Fix all cables in the box.**

Insert the cables into the provided grooves in the box and tighten them with the bracket.



12. **Place the plastic terminal cover over the terminal block.**

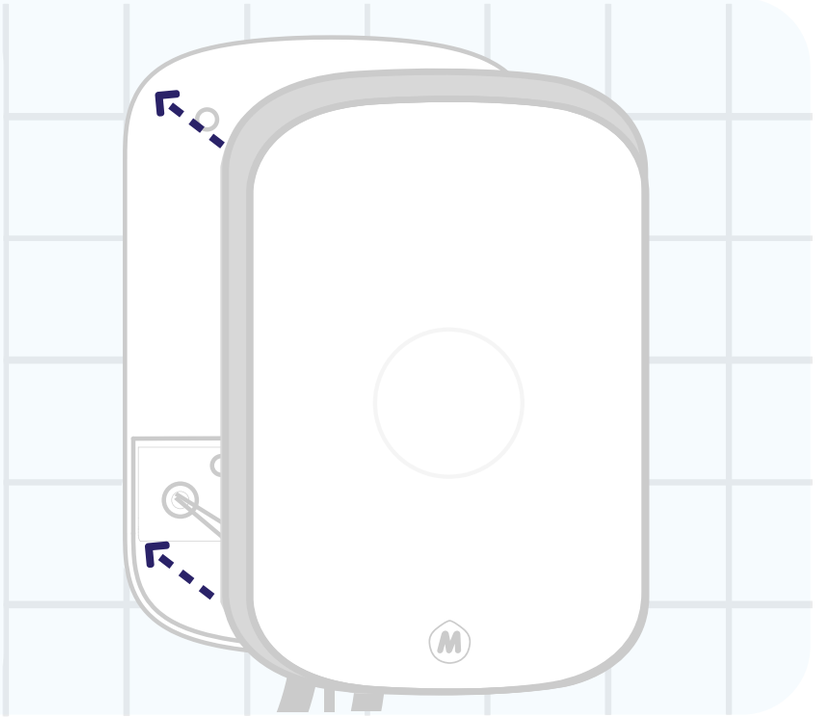
Mount the plastic terminal cover with the bolts provided in the set, with the symbol ⚠ on the top.



Installation

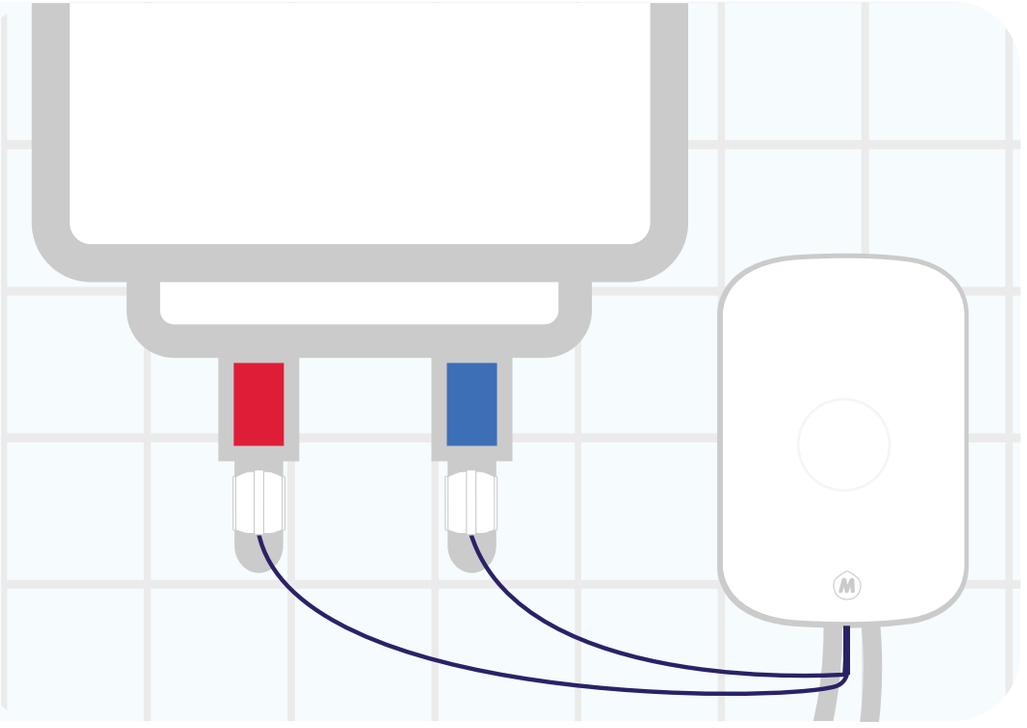
13. **Put Bobbie's top cover.**

Put Bobbie top cover to assemble the device.



14. **Attach the sensors to the water heater pipes.**

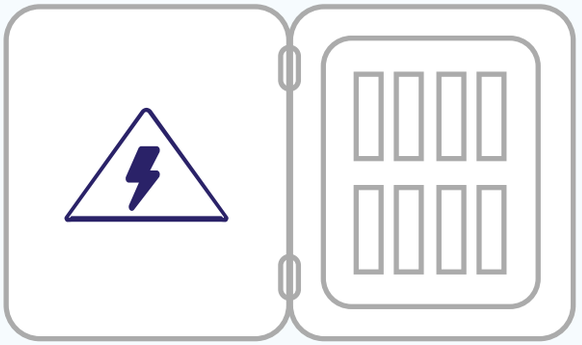
Install the sensors to the hot and cold water pipes. The sensors must be attached to a heat conducting/metallic part.



Installation

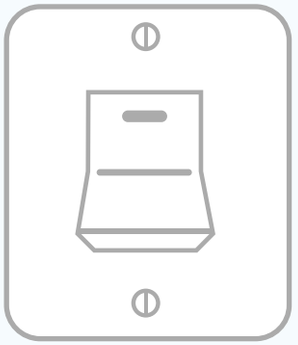
15. **Turn on the mains power.**

Turn on the mains power from automatic switch in switchboard.



switchboard

&



Bipolar switch to shut off the water heater power supply.

Installation

16. **Download the Bobbie mobile App**

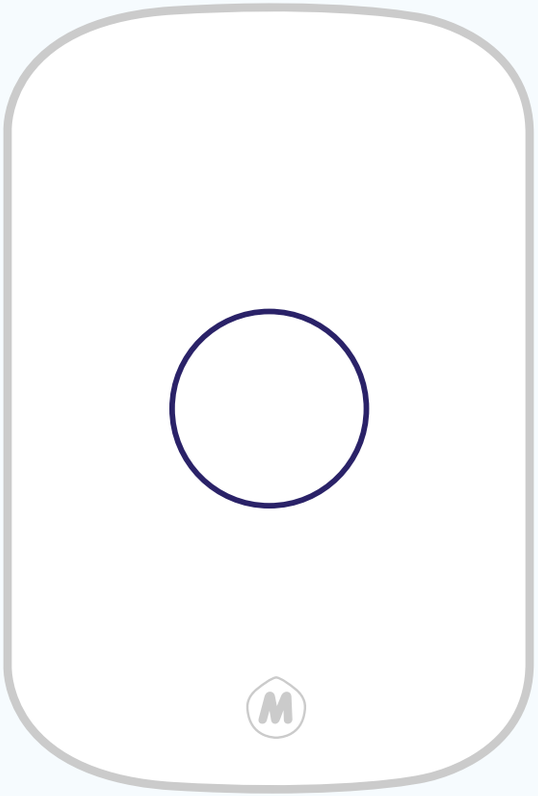
You can download the Bobbie mobile app for iOS and Android from:
www.mclimate.eu/bobbie/app

Questions?

For more information about the product and questions related to it, visit:
www.mclimate.eu

Проектирано и създадено от MClimate в България.

Colors



Before making a connection

Loading

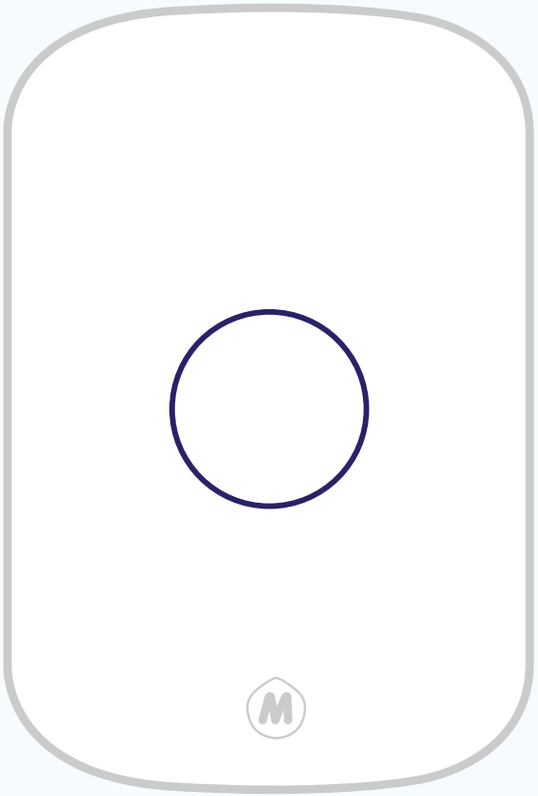
Waiting for SmartConfig

Connecting to the router

Connecting to the server

Bobbie's button is surrounded by a lighted ring that suggests Bobbie's condition. After several flashes in pink, the condition switches to constant yellow. At this point, Bobbie expects a Wi-Fi configuration over the mobile application. After successfully configuring, flashes briefly in light blue and then red.

Colors



Once established connection

Heating

Save energy

Maximum energy

After successfully connecting to the MClimate server, Bobbie starts to pulse, suggesting that it is ready for use.

Pulse in red:
Water is heating

Pulse in Green:
Bobbie turns off water heater

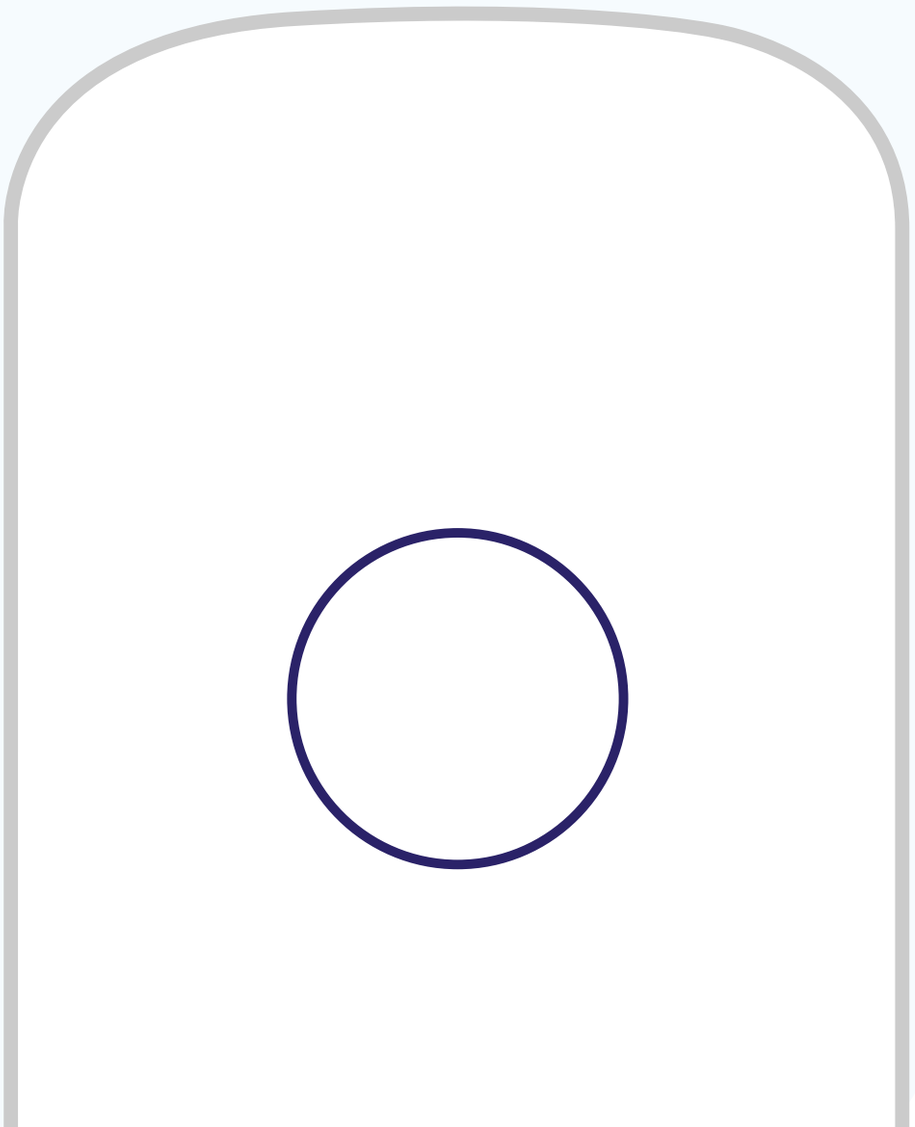
Pulse in Yellow:
The water heater reached the maximum temperature and the has turned off the load.

Functions of the button

Reset
Press and hold for 5s (the glowing ring lights up in pink).

Hard Reset
To reset the WiFi settings, hold down the button for 10s or until the glow ring is off.

Toggle
Short press, without holding the button, switches the state of the relay. This feature makes it convenient to turn the boiler on or off manually without the need for WiFi connectivity.



Manufacturer
Melissa Climate Jsc
Gen. Gurko 4 Street
1000 Sofia
Bulgaria

Bobbie - Smart water heater controller
Model: Bobbie B-05
100-240V~, 50/60Hz, 50mA
Output: 32A
IP 23
ID0123456789

Manufactured by MClimate in Bulgaria

Compliance with the WEEE Directive

The appliance marked with this symbol should not be disposed of with other household waste. It must be handed over to the relevant collection point for the recycling of waste electrical and electronic equipment.

EU Declaration of Conformity

CE

This device complies with the essential requirements and other applicable provisions of the following EU directives:

2014/35/EU Low Voltage Directive:
BDS EN 60950 - 1
2014/30/EU EMC Directive:
BDS EN 301 489-1 v2.1.1:2017 (ETSI EN 301 489-1 v2.1.1:2016)
BDS EN 301 489-17 v3.1.1:2017 (ETSI EN 301 489-1 v3.1.1:2017)
Radio Equipment Directive (RED):
2014/53/EU - EN 300 328 V2.1.1:2012

You can find a copy of the Declaration of Conformity at:
www.mclimate.eu/conformity

Warranty conditions:
www.mclimate.eu/en/warranty

Thank you

Designed by MClimate in Bulgaria.