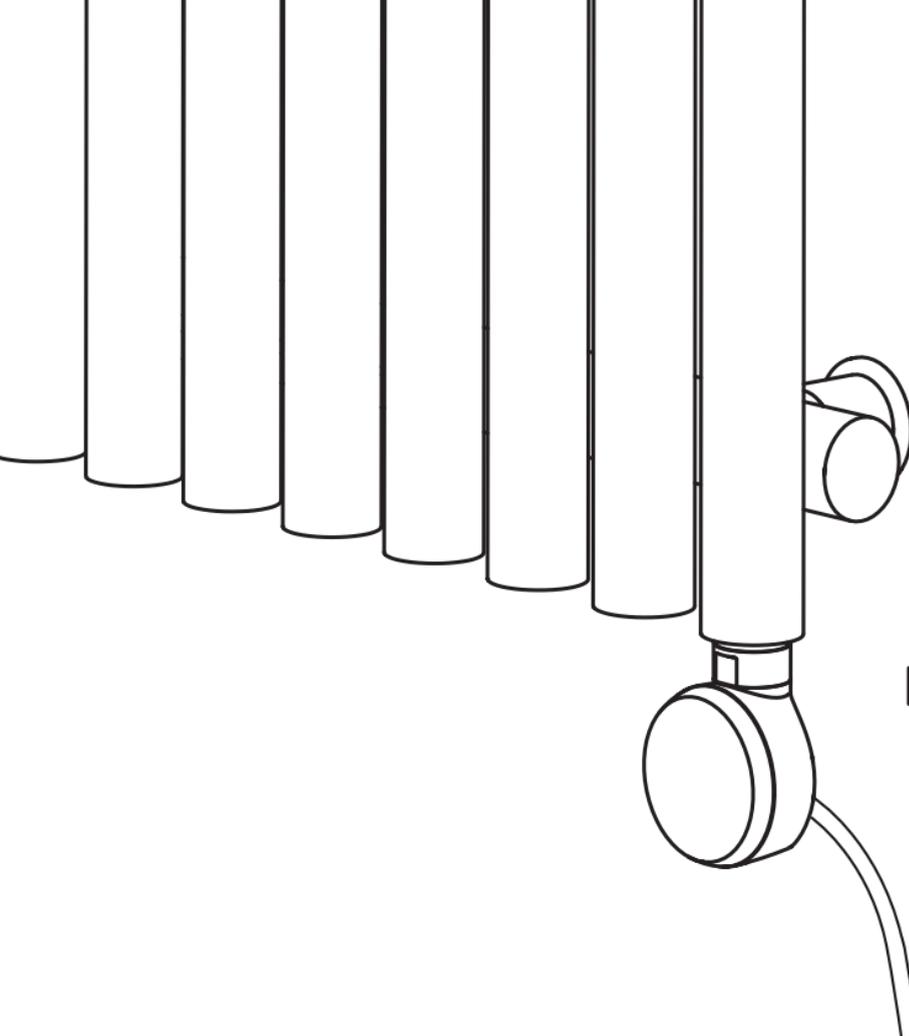




**TERMA**

SINCE 1990



# **ROLO**

**Electric radiator**  
**User Manual**

# User Manual

Our products have been designed and manufactured in such a way to ensure that all quality, functionality and aesthetic requirements are met. We would like to congratulate you on the purchase of this great product and wish you a pleasant experience with it.

# Electric radiator

1. Execution: the radiator is made of powder coated low carbon steel. It is filled with synthetic oil heating agent and equipped with electronically controlled heating element.

2. Technical data:

**Model designations (type of power cable)** PW - straight cable with plug (self-installation permitted) or PB - straight cable without plug (the permanent hard-wired connection to the installation must be performed by a qualified electrician)

**Type of electrical connection:** Y; 230V / 50Hz power supply;

**Protection class of the device:** Class I;

**Towel rail connection thread:** G 1/2";

**Casing protection class [IP]:** IPx5:

3. Purpose: as a dryer for clothes, as towel warmer, as a room heater (see section "SAFETY USAGE RULES").
4. Place of use: rooms with normal air humidity (including bathrooms, kitchens, if applies), without the influence of corrosive media.
5. Installation to the wall - via the attached mounting brackets.

**ATTENTION:** The design of the radiator and the physical properties of the heating medium cause an uneven temperature distribution inside the radiator - see chapter "NATURAL PERFORMANCE OF RADIATOR".

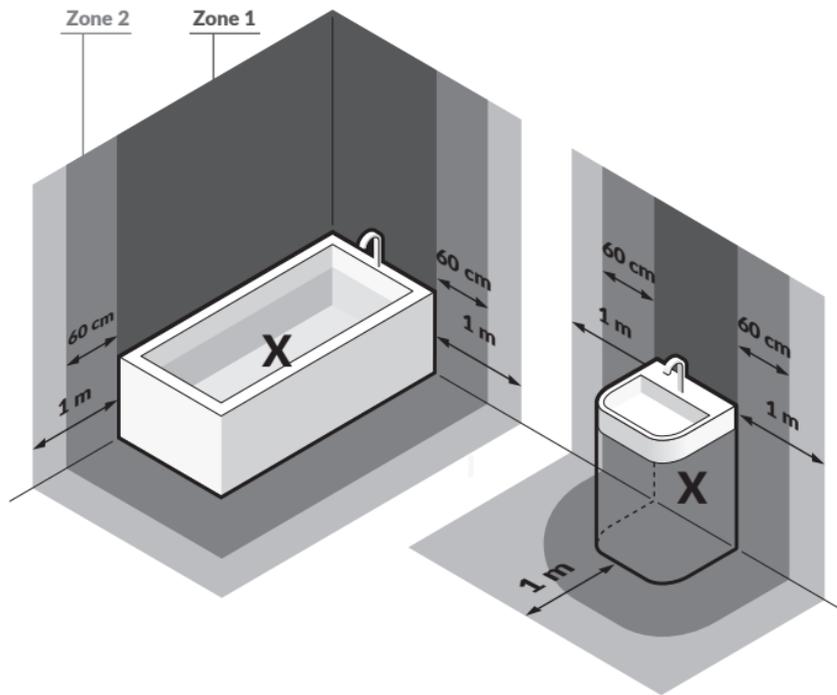
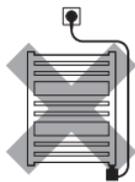
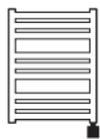
## THE RIGHT MOUNTING

### **NOTE:**

The device marked “PB” (hard-wired connection) **must be installed by a qualified electrician**, location in bathroom is allowed.

The device “PW” (cable with plug) can be self-installed, but **only locations in dry areas/rooms are permitted.**

1. Due to the heat emitted, the radiator/towel rail cannot be located directly under the electric socket, as well as under any other element not resistant to high temperatures.
2. To protect against dangers for very young children, an electric clothes or towel dryer should be installed so that the lowest tube is at least 600 mm above the floor.



3. All installations to which the device is connected should comply with the regulations applicable in the country of installation and use.
4. It must be ensured that the circuit in the electrical installation to which the radiator is connected has an appropriate overcurrent circuit breaker and a residual current device (R.C.D.) with a sensitivity of 30 mA. With the permanent (hard-wired) installation it is also mandatory to have an omni polar cut-off for disconnecting the device on all poles, by points of contact with the clearance of 3 mm.
5. The device version labelled PB can be installed in bathrooms, but at least 1m from any water source, PW version with the plug can be installed in dry areas only, (as defined by applicable law, subject to any additional regulations concerning electrical installations in wet areas).
6. Do not use extension cords or adapters for electrical outlets to plug the product.

7. The mounting location should provide a close distance to the electrical connection in order to:
  - avoid straining the power cable after connecting it to the socket,
  - reduce the risk of mechanical damage to the cable,
  - limit access of unauthorized persons and pets to the device.
8. Ensure that the power cord is not in contact with hot elements of the radiator.
9. Use the device only for its intended purpose as described in the operating instructions.
10. Make sure that the heater has been installed on the wall in accordance with the installation instructions.
11. This information material should be given to the end user of the heater.

## **ATTENTION!**

Failure to meet the above-mentioned requirements is a potential source of electric shock hazards or it may cause injury or property damage.

## SAFETY USAGE RULES

1. The device is intended for home use.
2. Electric heater is not a toy. Children under the age of 3 should not be allowed within close proximity of the device without the supervision of an adult.
3. Children aged 3 to 8 should only be allowed to operate the heater when it has been properly installed and connected. The child must be under adult supervision or have been trained to safely operate the device while understanding the risks.

4. Note: Some parts of the radiator can be very hot and can cause burns. Pay special attention to the presence of children or people with disabilities.
5. Check regularly that the device is not damaged and that it is safe to use.
6. If the power cord has been damaged, the device is unusable. Disconnect from the power supply and contact the manufacturer or distributor.
7. Do not allow the electronic controller housing to flood with any liquid.
8. Do not open the electrical controller housing, do not interfere with the interior of the device.
9. Be careful when putting hands between pipes of the radiator.

10. When drying fabrics, pay attention to the temperature acceptable for them.

**CAUTION !** Detergents used for washing can cause permanent discoloration of radiator paint. Such cases are not subject to complaint.

11. After taking dry clothes off the radiator, its surface may be very hot. Be careful and wait for the temperature to decrease to a safe level.

12. Do not touch the electric device standing barefoot on the floor or touching other elements of the fittings at the same time, in particular - in conditions of increased humidity.

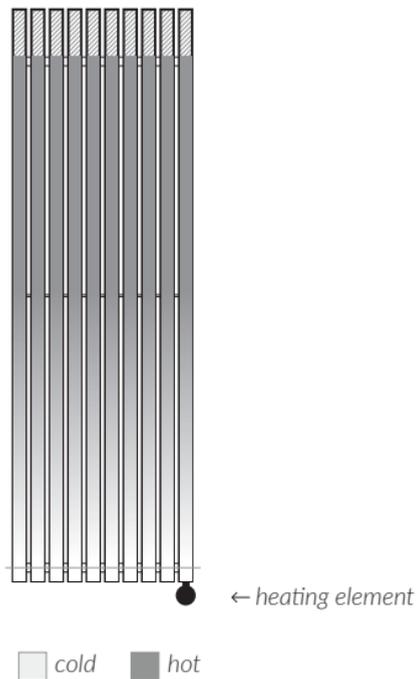
13. Do not put loads exceeding 5 kg on the radiator.

## INSTALLATION DETAILS

1. Immediately remove the packaging after unpacking the radiator - they are a source of potential danger to children.
2. During assembly or disassembly, the device must not be live.
3. Set the radiator to the wall in its planned location. Install the radiator in accordance with the instructions supplied with the assembly kit.
4. For detailed installation hints - see the last pages of this manual.

## NATURAL PERFORMANCE OF RADIATOR

Because of the circulation of the heating agent in the radiator, collector that is directly connected to the heating element will always be the warmest part of the radiator, especially its upper section. At the same time the lower parts will always be cooler. Such phenomenon is absolutely normal and may not be the reason for claim.



*There is also the so-called "dead-zone" in the radiator which is a non-heating section just above the heating element that is designed to isolate the element controller from the heat.*

*In tight or very high radiators the highest parts may be colder than the rest of radiator due to the air cushion in the top part. It may happen especially a few minutes after the heating element starts working.*

*For more information please see the website of the manufacturer.*

## MALFUNCTION

IF YOU NOTICE ANY OF THE SYMPTOMS BELOW

1. Heating medium leaking,
2. Deformation of pipes or collectors,
3. Any other sign of abnormal work

**Switch the device off and contact the seller immediately.**

**ATTENTION!** In case of heating fluid leak remain extra careful – fluid contains dangerous substances that – in case of contact – may harm skin, eyes or lungs.

## MAINTENANCE

Always disconnect the device from electricity before you start cleaning the radiator or heating element. Cleaning of the device by children under the age of 8 is only permitted under proper supervision. Recurrently check level of the heating medium inside the radiator. Clean the item with a dry or damp cloth with a small

amount of detergent without any solvents or abrasive agents. The radiator surface must not be painted with any paint or varnish.

## DISASSEMBLY

1. Before disassembly, turn the heater off, disconnect the power cord from the mains and make sure that the heater is not hot.
2. Follow the assembly instructions based on the drawings no. 3 to 5, but in reverse order.

## RECYCLING OF RADIATOR



This marking indicates that this product should not be disposed with other household wastes and should be disposed separately throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal due to the presence of hazardous substances within the product, recycle it responsibly to promote the sustainable reuse of materials and resources. To return your used device, please use the return and collection systems available to you or contact the retailer where the product was purchased. Thank you for your contribution to environmental protection.

## WARRANTY

1. The subject of this warranty is a Terma electric radiator. The product name and characteristics are specified on the packaging.
2. By accepting the device on purchase, the Client confirms that the product is of full value. The Client should immediately inform the Seller of any discovered faults – otherwise it will be understood that the product was faultless at the time of purchase.

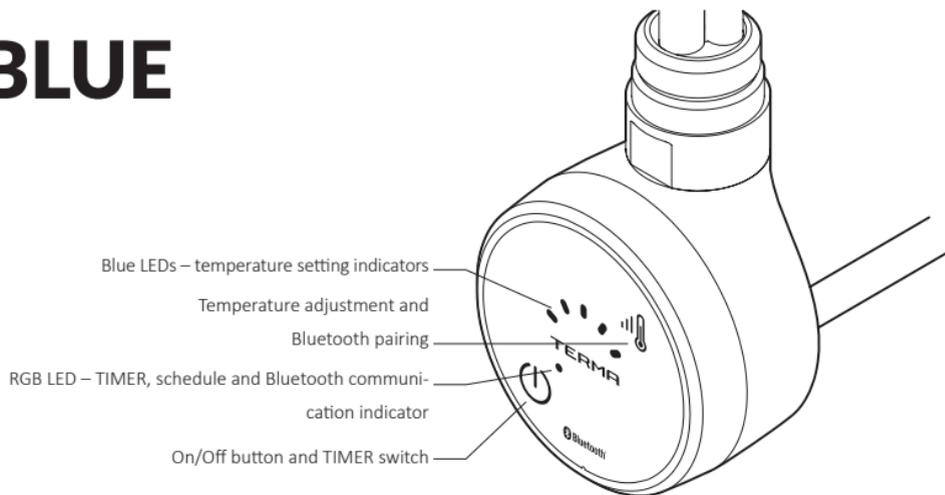
This refers especially to any faults or damages of the control panel case or the radiator surface.

3. The warranty period is counted from the date of purchase and amounts to:
  - a. 8 years for the radiator body,
  - b. 2 years for electrical parts with a heater control module.
4. The proof of purchase (receipt, invoice, etc.) constitutes the basis for warranty claims. Lack of the proof of purchase allows the manufacturer to reject a warran-

ty claim.

5. This warranty does not cover any faults that are due to:
  - incorrect (not in accordance with the manual) installation, use or disassembly,
  - incorrect use of the heating element (i.e. for any purpose that is not specified by the Manufacturer as intended for this type of product),
  - product being handled by unauthorized persons,
  - fault's or damages caused by the Client after having purchased and accepted the product.
6. The Manufacturer is obliged to remove any production fault within 14 working days of receipt of the faulty device at the Manufacturer's premises.
7. Should the repair be impossible, then the manufacturer is obliged to replace the faulty product with a new, full-value unit of identical parameters.
8. The attached User Manual is an integral element of the Warranty. Please read it carefully prior to the installation and use of the product.

# MOA BLUE



MOA Blue electric heating element is equipped with a radiator temperature sensor (active by default!) and an additional room temperature sensor that can be activated by a mobile control application.

Turning on the unit for a specified period of time does not mean that it will receive the same maximum power at all times. The element when switched on, works at nominal power level for a short time to reach programmed temperature and then periodically turns itself on and off, consuming just as much energy as is needed to maintain the set temperature taking into account external conditions.

The heating element's construction, as well as the physical characteris-

tics of the heating medium, cause the lower radiator tubes (especially the bottom two) to have a lower temperature than the rest of the radiator – this is perfectly normal.

The device is equipped with a thermal fuse, which in emergency situations protects against exceeding critical temperatures (this fuse may be damaged at the temperature of 82°C – it refers in particular to heating elements installed in radiators connected to a central heating system).

The MOA can be operated using the buttons on the housing (see section Manual Operation) or via a mobile device – smartphone, tablet (see section Remote Control).

## Manual Operation

(a mobile operating device with installed control application may, but does not need to be in the range)

Press briefly the  key to switch on the heating element.

Use the  key to set the required temperature level. It is possible to set 5 temperature levels that correspond to a temperature range of 30 ... 60° C when measuring the internal radiator temperature or a range of 15 ... 30° C when measuring the room temperature.

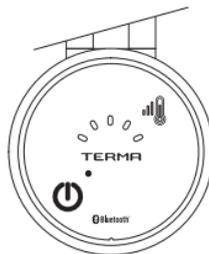
Each short press of the  key increases the temperature setting from 1 to 5, the next press returns the setting to level 1, and so on.

The number of lit up, blue diodes corresponds to the selected temperature level of the device.



## TIMER mode

Press and hold the  key to activate the 2 hour TIMER, i.e. to dry a towel or warm up a room. Single RGB LED will turn red.



When the set time elapses, the heating element automatically returns to the settings from before the activation of the timer function. With the TIMER function active, you can freely modify the operating temperature ( key).

If the heating element was switched off prior to timer start-up, the unit will switch itself off automatically after the time elapses.

Press briefly the  key to stop the timer function at any time.

## ANTI-FREEZE protection

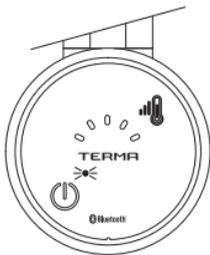
When the appliance is not in use (either off or scheduled to be off) but

remains connected to the mains and the temperature in the vicinity of the temperature sensor drops below 6°C, the heating element will automatically switch itself on to prevent the heating medium inside the radiator from freezing. Activation of this function is signaled by a flashing middle blue LED.

## Remote Control

The MOA Blue has a built-in and continuously active Bluetooth Low Energy communication module for remote control of the heating element, using popular mobile devices – smartphones and tablets, both with Android (min 4.4) or IOS (min 6.0) operating systems. The heating element is visible by other Bluetooth devices and appears as MOA Blue Terma. You may need to enter a default authorization code: **123456**.

To start the pairing mode in MOA, press and hold  for approx. 5 sec. Pairing mode is indicated by a flashing single, blue RGB LED.



Pairing mode, when activated, lasts 30 seconds.

The blue RGB LED will light up each time an active exchange of information between the heating element and an external control device, takes place.

## TIMER mode

The control application allows the Timer to be set for a period of 1 ... 240 minutes in the full range of temperatures supported by the heating element and any temperature measurement method – either internal radiator temperature or external room temperature. Activation of the TIMER function is indicated by a red RGB LED.



## Automatic heating program schedule

The control application allows you to program many different 7-day work schedules and to upload any of the programmed schedules to the

memory of any Blue heating element paired with the mobile device (see Tutorial in the control application). When uploading a schedule to the heating element's memory, a message confirming the action appears on the portable device screen, but does not yet indicate a change in the heating element's operating mode.

When the schedule is activated, the RGB LED lights up in green.



## ANTI-FREEZE protection

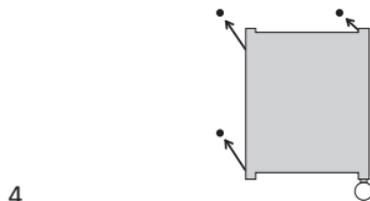
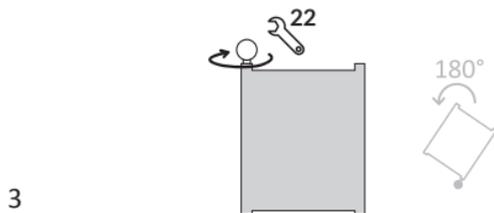
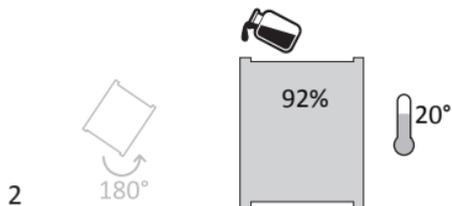
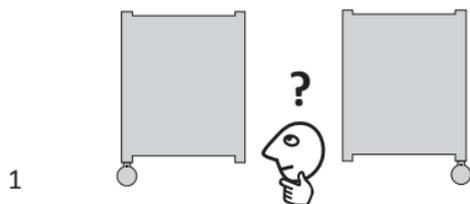
Please go to Manual Operation section. A message informing about activation of the anti-freeze protection will appear on your mobile device screen.

## Problem solving

Problem	Possible cause	Solution
The device is plugged in, no diodes are on.	Problem with the connection.	Check the connection of the power wire, the plug and the socket.
Heating element is not heating, outside diodes are blinking alternately.	Temperature sensor has been damaged.	Disconnect the device completely, wait until the radiator cools down and re-connect it again.
	Overheating of device.	Check and confirm that the heating element's output does not exceed the recommended output of your radiator. Check and reduce the water temperature in the central heating system-must not exceed 82°. In electric-only version check, if the radiator is properly filled with the heating agent.
The device is heating despite turning it off with the  button.	Damaged electronics.	Disconnect the device completely, wait until the radiator cools down and re-connect it.
If the problem continues please contact Your local Distributor.		

# Installation

Electric only Radiator



PW



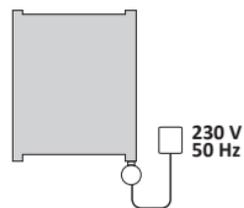
PB



Brown / L / Live  
Blue / N / Neutral  
Yellow-green / PE / Protecting earth

5

6



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