

**TERMA**

SINCE 1990

# User Manual **Ecostrad VeeSmart**

electric radiator

# 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. Composition: the radiator is made of powder coated low carbon steel. It is filled with a synthetic oil heating agent and equipped with an electronically controlled heating element.
2. Technical data:

**Model designations**  
**(type of power cable)** 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;

**Radiator connection thread:** G 1/2";

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

3. Purpose: as a dryer for clothes, as a towel warmer, as a room heater (see section "GUIDELINES FOR SAFE USE").
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.

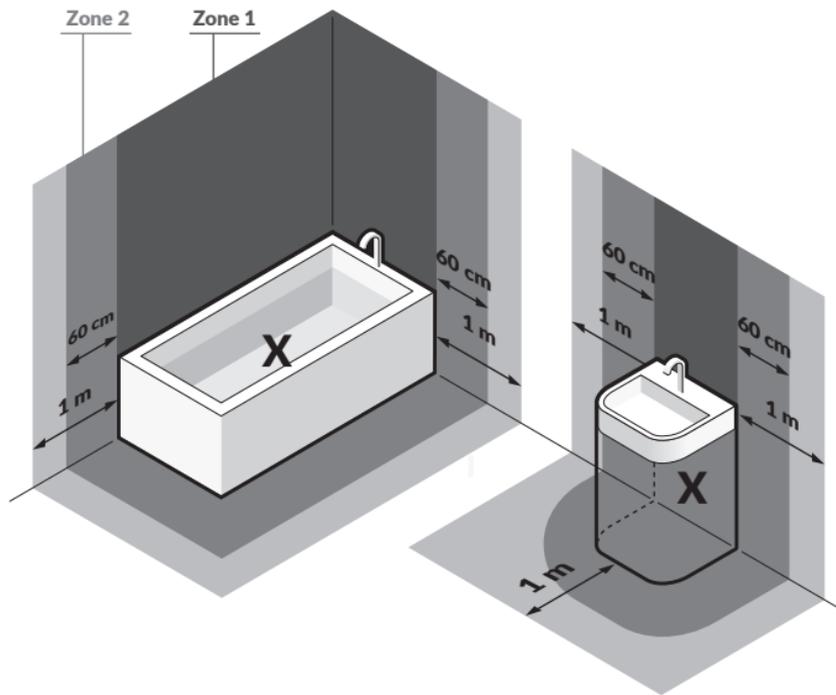
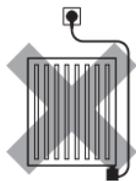
**ATTENTION:** The design of the radiator and the physical properties of the heating medium cause an uneven temperature distribution inside the radiator - see chapter "THE NATURAL OPERATION OF THE RADIATOR".

# THE RIGHT MOUNTING

## **NOTE:**

The radiator is designed for a hard-wired connection and must be installed by a qualified electrician. Installation in a bathroom is permitted if the minimum distances from water sources are observed as per the diagram opposite.

1. Due to the heat emitted, the radiator 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 can be installed in bathrooms in Zone 2, but at least 1m from any water source, (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 put loads exceeding 5 kg on the radiator.

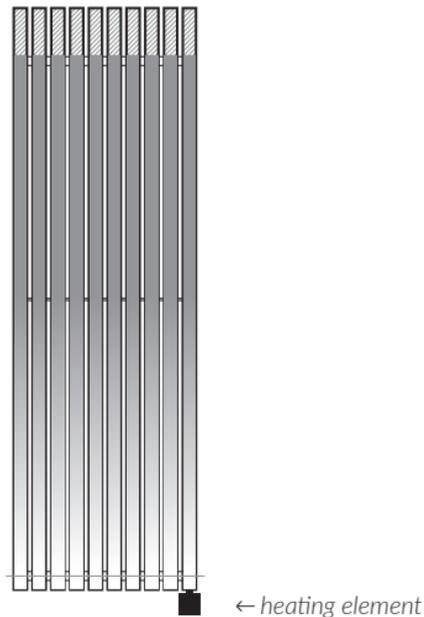
## INSTALLATION DETAILS

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 instructions - see the last pages of this manual.

## NATURAL PERFORMANCE OF RADIATOR

Because of the circulation of the heating agent in the radiator, the col-

lector 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 narrow and very tall radiators the highest parts may be colder than the rest of radiator due to the air cushion in the top parts. 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. 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 an Ecostrad VeeSmart 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.

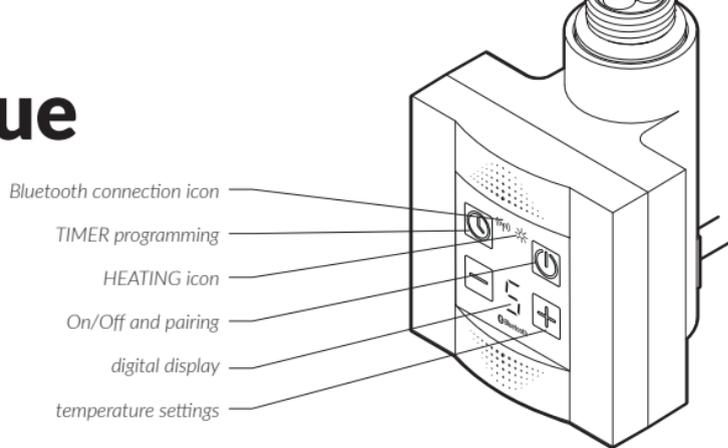
This refers especially to any faults or damages of the control panel case or the radiator surface.

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 warranty 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,
  - faults 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.

# KTX 4 Blue



The KTX 4 Blue electric heating element is equipped with a basic sensor for controlling the temperature of a radiator and an additional sensor for controlling room temperature. **Note:** the factory settings of the heating element read the temperature of the radiator. The built-in room temperature sensor can be activated with the mobile application.

The Blue heating element can be connected to an additional external room temperature sensor. Buttons  and  are used to regulate temperature whilst the  icon indicates that the radiator is being reheated.

Turning the device on does not mean that it uses the same maximum power for the whole time it is on. On turning the device on, it operates with the nominal power for a short period of time in order to heat up the radiator to the set temperature. After that it turns itself on and off periodically, using only as much energy as it is required to maintain the set temperature of the radiator for current external conditions (see: *Actual working time meter*).

The basic temperature sensor allows you to precisely control the operation of the device and protects the user from getting burnt by limiting the maximum operating temperature to 60°C. Additionally, a thermal fuse, built into the heating rod, protects your radiator from critical overheating (the fuse can get damaged in temperatures higher than 82°C).

Construction of the heating element unit as well as physical characteristics of the heating agent cause that the bottom pipes (especially the two at the very bottom of the radiator) may have a lower temperature than the remaining parts of the radiator – this is a normal phenomenon.

KTX 4 Blue controller installed on the SPLIT heating element make up a set that can be operated directly (see *Manual operation section*) or via mobile device - smartphone, tablet (see *Remote operation section*).

## MANUAL OPERATION (direct manual controller operation)

No need to have a mobile device with a controlling app installed.

### Heating mode

It is possible to set 5 temperature levels in the local mode. Settings are modified with  and  buttons. Possible working levels are as follows: 0 (does not heat) and from 1 to 5, indicating a temperature range from 30 to 60 degrees Celsius. The \* icon indicates that the device is heating.

### Dryer mode (Timer)

 button is used to turn the mode on and set the time after which the device is to be turned off automatically. In order to activate the Dryer Mode:

- press  button shortly – display panel will show dryer working time of 1H (1 hour),

- every subsequent pressing of the  button will prolong dryer working time (2-4 hours).

In order to deactivate the Dryer Mode, set the time to 0H (press the  button a few times) or turn the device off and back on.

Letter „H“ flashes throughout the whole time, the TIMER function is used.

During that time:

- to see the set temperature press once any of the  /  buttons,
- to change the temperature setting press the  or  button a few times,
- press the  button to modify the time after which the Dryer mode will be terminated.

## Actual working time meter

The unique feature measuring the actual working time of the heating element adds up the periods during which the device was using nominal electric power (during standard operation the device regulates the temperature and uses very little power thanks to the fact that it turns itself off for longer periods).

It can be checked at any time how much electricity has been used, ie. during all day's operation. In practice it turns out to be up to few dozens of percent less!

### 1. Meter reading:

Press and hold the  button – the display panel will show letter E followed by 4 digits separated by a hyphen (actual operating time of the device), ie. E..0..2..-..1..5 means that the device was actually working for 2 hours and 15 minutes from the last time the meter was zeroed.

### 2. Meter resetting:

Press and hold the  button until E 00-00 comes up.

The number displayed on the meter reflects the actual energy consumption, therefore you can measure the actual cost of energy used by multiplying the number on the meter by the nominal heating output of the heating element and the price of electricity (per kW).

# Remote operation (via a mobile device with an installed control app\*)

KTX 4 Blue controller has a built-in and constantly operating Bluetooth Low Energy communication module. It serves the purpose of remote operation of the heating element with the use of popular mobile devices, both smartphones and tablets, run on both Android (min. 4.4) and IOS (min. 6.0). The heating element is seen by other Bluetooth devices as a Heating Element KTX Blue. If it is necessary to pair devices, it may also be necessary to provide an **authorisation code: 123456**.

In order to start the pairing process, press and hold the [on/off] button for 5 seconds. The  icon will begin to flash. Pairing process takes about 30 seconds. The  icon flashes also, whenever an active connection (information exchange) is established with an external control device.

## TIMER mode

The control mobile application allows to set timer mode for anything between 1 – 240 minutes, in all available temperature ranges as well as to choose the mode of temperature measurement either radiator temperature or room temperature.

\*The Terma BlueLine application is available on Google Play and the App Store

## Automatic heating programme cycles

The control mobile application allows to programme several different 7-day heating cycles and save them on any paired heating element. Successful saving of heating programme cycles is followed by a message on your mobile device and a horizontal line on the display of the device. From this moment, the heating element works according to the saved heating programme cycle

## Anti-freeze mode

In case the device is off (switched off with button ) but remains connected to the mains and the ambient temperature falls below 6°C, the device will switch itself on to prevent heating agent in a radiator from freezing. An 'F' letter will blink on the display unit until the anti-freeze mode finishes, which is when the temperature rises above 6°C.

## Problem solving

Problem	Possible cause	Solution
Device is connected to electricity, LED display panel is empty.	Connection problem.	Check the power wire connection, plug and the socket.
Heating element does not heat, LED display panel shows E2 code.	Device signals malfunction, overheating possible.	Check if the radiator is properly filled with the heating agent. If the top bar is not getting warm in the course of normal operation, the radiator may not have enough heating fluid. Contact the manufacturer if this appears to be the case.
Heating element does not heat, LED display panel shows E1 code.	Controller is incorrectly installed on the heating element.	Check if the head of the heating element is completely hidden. Release the screw at the back of the controller casing, gently push the controller towards the radiator and secure the casing back.
During operation, the icon  turns itself on.	It indicates data transfer to/from the control unit.	The heating element is working properly.
Heating element is heating despite being turned off with the  button.	Electronics damage.	Disconnect the device from its electric supply, wait for the radiator to cool down and turn it back on.
If the problem persists, please contact your local distributor.		



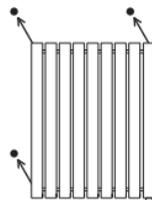
# A Installation

## Electric only Radiator

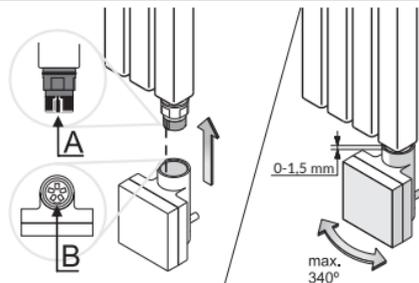


DANGER! The controller must not be connected to the power when it is first connected to the element, as this can cause the element to burn out.

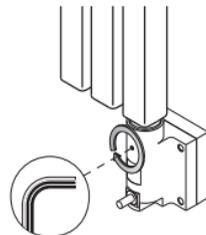
1



2



3



## PB – No-plug version



### **cable markings:**

Brown / L / Live

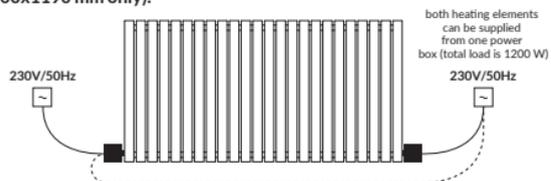
Blue / N / Neutral

Yellow-green / PE / Protecting earth

4

---

### **Installation of Ecostrad VeeSmart with two KTX-4 Blue heating elements (600x1190 mm only).**



5

---

TERMA Sp z o.o.

Czaple 100, 80-298 Gdańsk, Poland

[terma@termagroup.pl](mailto:terma@termagroup.pl)

[www.termagroup.com](http://www.termagroup.com)