

**Zehnder
PBEZ/PBECZ
USER MANUAL**



zehnder

EN

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1. Presentation

1.1 Introduction

Dear User,

Thank you for choosing this radiator or towel drier.

We hope that this product, which is chosen in-line with our quality standards with due diligence will meet your needs. We kindly request you to read this manual carefully and to keep it near your device so that you can fully benefit from all the features of this product.

Thank you for placing your confidence in us.

1.2 Warnings



It is recommended to mount the device in a manner to ensure that the very bottom heater tube of the device is at least 600 mm above the ground to avoid constituting danger for young children.



WARNING (RADIATOR): In order to avoid overheating, do not cover the appliance.



Do not sit on the heating device.



Caution, very hot surface.

CAUTION – Some parts of this product may heat up too much and can lead to burns. You need to pay attention to children and vulnerable persons.

Children under the age of 3 years of age must be kept away unless they are under constant supervision.

Provided that the device is positioned as foreseen, children between the ages of 3 years of age and 8 years of age may only switch the device on and off. These children must also be kept under supervision or they must be informed about the safe usage and potential dangers of the device. Children between the ages of 3 years of age and 8 years of age should not plug, adjust, clean or maintain the device.

This device may be used by children older than 8 years of age and by people whose physical, sensory or mental abilities are impaired or persons who do not have experience or information, on condition that they are properly supervised or they have been given instructions for the safe usage of the device and the risks in question have been addressed. However, the mentioned persons must be kept under supervision or they should be provided with information on the safe usage of the device and they should understand the possible risks. Children should not play with the device. Cleaning and maintenance which should be performed by the user should not be carried out by unsupervised children.

The towel drying radiator should be used in accordance with the intended purpose and it should not be used as a console, chair, game, ladder etc.

This device must be connected by an authorized person in accordance with the applicable rules and standards.

It must be protected against sprayed water and it may be placed in volume 2 and 3 (see Section 2.1). However, the placement must be performed in a manner to ensure that the persons using the bathroom or the shower will not touch electric control equipment.

The electricity supply must be protected by a residual current differential equipment with a maximum assignment of 30 mA value (particularly, if the installation is being located in a place where there is a bathroom or shower).

IMPORTANT If the supply cord is damaged, to avoid danger it must be replaced with a new one by the manufacturer, its after-sales service or a person with similar qualifications.

IMPORTANT The heating device must not be placed just below a current outlet.

IMPORTANT This appliance should not be used in altitudes over 2000 metres.

Make sure to turn off the device before any maintenance.

1.3 Presentation of the device

AS AN ELECTRICAL DEVICE (RADIATOR AND TOWEL DRIER):

There is a certain amount of special heat transfer fluid inside the heating device.

Maintenance procedures which require opening the heat transfer liquid reservoir must only be performed by the manufacturer or its after-sales service and this service must be consulted to in case of a heat transfer liquid leakage.

When scrapping the heater, comply with the legislation on the elimination of oils.

This device with hydro-active fluid is dispatched in a ready-to-use condition. It was filled with a high-performance heat transfer liquid at the factory and covered with a lid. This fluid is especially designed for this use and does not require any special maintenance.

From the moment that the device begins to warm up, you will observe different results compared to a regular electric heating:

- The electrical resistance will warm the fluid up and the fluid will gradually and naturally begin to circulate inside the radiator.
- The properties of the fluid will ensure that the surface temperature of the radiator reaches the optimal level at the end of approximately 10 minutes. This period of time may vary depending on the models and the room temperature during the heating process of the device.
- This working principle guarantees the nature and duration of this temperature even when the resistance is no longer enabled.

2. Mounting your device

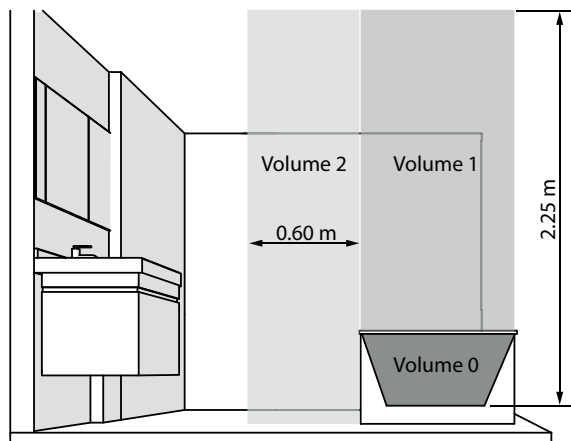
2.1 Warnings

The flexible cord originally mounted is intended to connect to the network through a connection box placed on the back of the device - without a current outlet plug -.

In a kitchen or a bathroom, the connection box is to be placed at least 25cm above the ground.

Apart from the rules recommended in this manual, the installation should also comply with the applicable European and French standards and professional rules such as CEI 60364.7.701 and NF C15-100.

For countries outside France, the installation must comply with standards and professional rules applicable in the country where the installation takes place.



IMPORTANT The example shown here is related to only one bathroom example. Make sure to contact your plumber for other types of bathroom equipment.

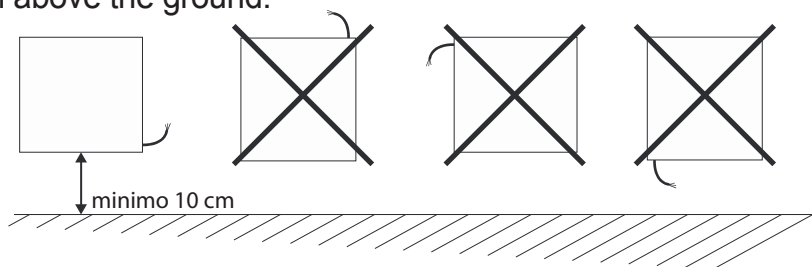
IMPORTANT The installation must be equipped with an omnipolar switch with a contact separation of at least 3mm

Here is what you need to do to ensure the safety of your installation:

- If possible, carry out the installation close to places where heat loss is significant (windows, doors etc.);
- To facilitate the circulation of air, positioning objects (furniture, seats) at least 50cm away from the front of the device;
- Positioning a tablet at least 10cm away from the top part of your radiator;
- Using fixing screws compatible with the type of your wall.

AS A RADIATOR:

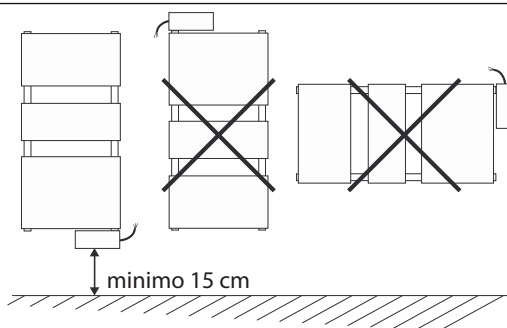
IMPORTANT This device should never be placed in a way that its supply box is at a high position. The bottom part of the radiator must be positioned at least 10 cm above the ground.



AS A TOWEL DRYER:

IMPORTANT This device should never be placed with its supply box at a high position. The bottom part of the radiator must be positioned at least 15 cm above the ground.

DESCRIPTION: Electric towel drying radiators were designed to be covered without causing danger. Nevertheless, in order to ensure that your device works effectively, it is recommended not to cover it completely. Otherwise, it may stop functioning due to heat rise and internal circuit breaker.



WARNING!

Make sure to cut the electric supply before carrying out all types of connection work (circuit breaker + pilot wire).



NOTE:

It is prohibited to add a current outlet plug.

2.2 Choosing a place

In order for you to fully benefit from all the features of your device and for your comfort, we recommend installing it, if possible, close to places where heat loss is significant (windows, doors etc.).

You will find a complete installation guide inside the package of your device.



RECOMMENDATIONS ON THE OPEN WINDOW DETECTION FUNCTION

(see the open window detection function) The location of your device has an effect on the proper functioning of the open window detection function. Therefore, it is necessary to stay as close as possible to open places and to avoid positioning the device near a door.

Apart from the location of the installation inside the room, the reference temperature set on the device and the external temperature also have effect on the function.

2.3 Device connection

The technical specifications of your radiator were indicated on the plate on the radiator.

Remember to take notes before mounting and any request of after-sales service intervention.

Class II: double insulation

IP: Your device's index of protection against penetration of solid substances and water spraying

Reference of the device

Regulations of voltage and power to comply during mounting

OF: fabrication number



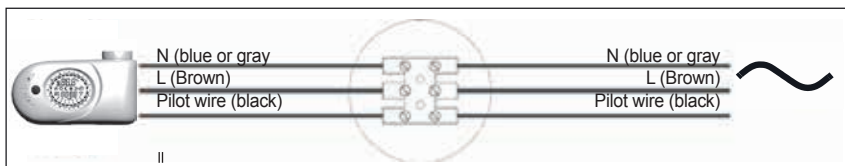
The following must be complied with during the connection to the electrical network:

- The voltage specified on this plate;
- Usual colors:
 - Blue or gray: Neutral
 - Brown: Phase
 - Black: Pilot wire

PRINCIPLE OF PILOT WIRE CONNECTION:

(Only for product versions equipped with Pilot-Wire)

If your device is equipped with a pilot wire allowing it to connect to a pilot wire programming switchboard (not supplied with the device)

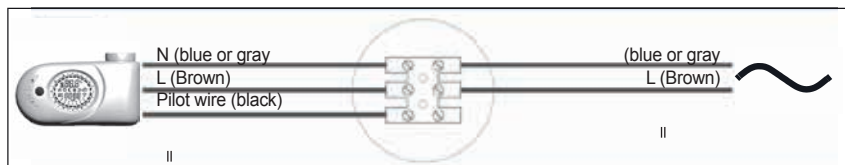


NOTE:

Since your device is equipped with an integrated electronic regulation, we assume no responsibility in case of usage with pilot wire programming switchboards which work through cutting the supply voltage (see the manual of your switchboard).

PRINCIPLE OF CONNECTION WITHOUT THE PILOT WIRE:

If the pilot wire is not connected, insulation is mandatory due to security. It should in no case be grounded.



3. The usage of your thermostat

3.1 Presentation

Your regulation is complied with a programmable electronic thermostat assigned to the automatic control of a towel drier radiator. It is possible to keep the ambient temperature at the desired value via a probe located on the thermostat. It has a simple but modern design and fits all types of interior decoration.



The regulation is in compliance with the following standards:

Eco-design

Energy-using products Directive, 2005/32/EC (< 0, 5W).

EN 60335-1:2012+AC:2014+A11:2014

EN 60335-2-43:2003+A1:2006+A2:2008

EN 50564:2011 Energy-related Products (ErP)

EN 62233:2008

EN 55014-1:2006 + A1:2009 + A2:2011

EN55014-2:1997+A1:2001+IS1:2007+A2:2008====>Cat.2

EN61000-3-2:2014

EN61000-3-3:2013

3.2 Introduction

- There are seven operating modes: Comfort, Night, Anti-Freeze, Pilot-Wire, Program, Boost - 2 hours and Standby.
- "Comfort" mode: keeps the ambient temperature at the value determined by the user.
- "Night" mode: keeps the ambient temperature at a level below the value determined for the "comfort".
- "Anti-Freeze" mode: Keeps the ambient temperature above 7°C.
- "Pilot-Wire" mode: The regulation of your device can be carried out by using a programming switchboard with 6 commands.
- "Boost - 2 hours" mode: This function brings the heat to a specific temperature quickly, in an optimal manner, and independently of the reference heat managed by the thermostat. At the end of a 2 hour period, the device returns to its previous operating mode. For security reasons, during the 2 hour period, the ambient temperature is automatically kept under control so that it does not exceed 32°C.
- "Chrono" mode: The electronic control follows a daily/weekly program. The program is defined by the user.
- "Stand-by" mode: The electrical resistance is not fed and the luminous displays are off but the device is active.

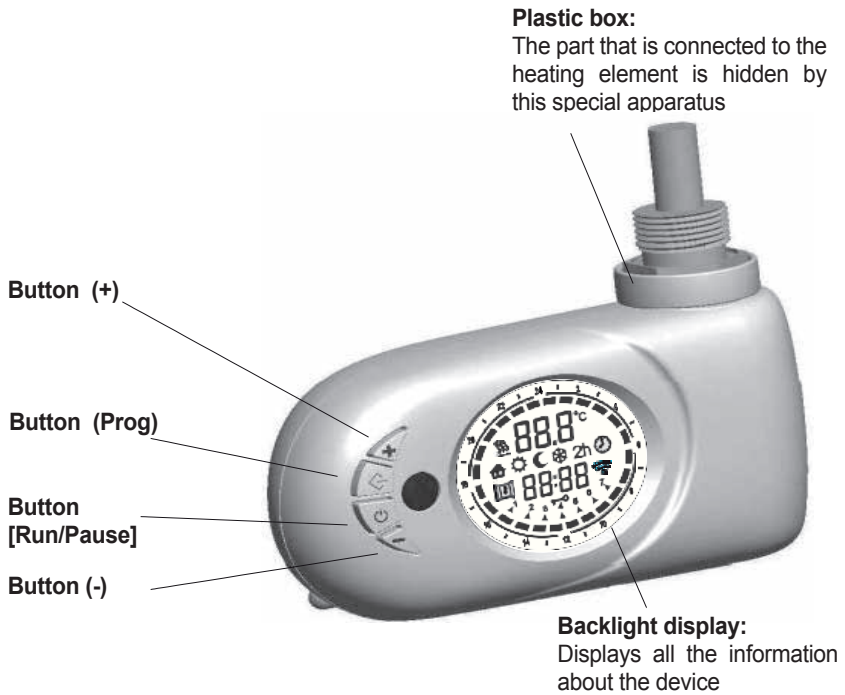
Other functionality:

- A large screen shows the temperature, time, program and the active operating mode.
- The user can adjust the daily/weekly program settings in accordance with their needs.
- **"Open window detection"** function can detect of an open window by detecting a sudden temperature drop in the room. In such a case, the system stops the heater element for a maximum of 30 minutes duration or until a temperature increase demonstrating that the window was closed.

3.3 Technical Specifications

Product	Settings for towel dryer radiator
Version	Class II
Pilot-Wire	Yes
Ambient temperature setting	Through numeric buttons
Display	Heat, date/time, mode/functions, heating activity display, locking the keys
Function	Comfort, Night, Anti-Freeze, Standby, Pilot-Wire, Boost 2 hours, Chrono, Open window detection.
Selectable temperature range	7°C to 32°C
Operating temperature	-10°C to +40°C
Maximum power	2000W
Supply voltage	230V AC 50Hz - 60Hz
Size	113 x 73 x 42mm (H x L x W)
Connection to the heater element	Cable lugs 6.3x0.8mm. Phase, Neutral, Ground
Heat sensor	10KOhm at 25°C, type NTC
Warranty	2 years
Standards	EN 62233:2008
Certified Brand	CE
Environment Directive	WEEE, RoHS

3.4 Use of various functions



DISPLAY IDENTIFICATION

Heating element activity display

Comfort/Night bar(programming mode)

Operating menu icons

- Pilot-Wire
- Comfort
- Night
- Anti Freeze
- Boost 2 hours
- Chrono

Function:
Open window detection

Day of the week

Lock icon

Set heat

24 hours

Hour



Press the **[Run/Pause]** button to run your radiator or switch to the standby mode.

When the device is on, the bottom display indicates the time and the top display displays the current mode and heat. In standby mode, the time, day of the week and the "Stb" message are displayed. Description: When the device switches to the standby mode a "beep" sound is heard twice for 0.5 seconds. When the device is activated, the "beep" sound is heard once for 1 second.

Example of "Comfort" mode



Example of "Standby" mode



MODALITÀ “COMFORT” E “NOTTE”

Two different heat levels can be set:

- "COMFORT" temperature: this is the heat used for "Chrono", "Pilot-Wire" and "Comfort" modes.
- "NIGHT" temperature: this is the heat used for the "Night" and "Chrono" modes.






The desired heat can be set by pressing the [+] and [-] buttons. The adjustable temperature range is between 7°C and 32°C degrees.

IMPORTANT!

The "Night" mode heat must be lower than that of the "Comfort" mode. Therefore, the "Night" mode heat may be set to a value between 7°C and 0.5°C more or less than the heat set for the "Comfort" mode. The "Comfort" mode heat can be set within the set of values (Night heat +0.5°C) ÷ 32°C.

THE USE OF THE DEVICE

Press the **[PROG]** button to select the desired operating mode. The icons on the screen, according to the following table, specify the selected operating mode:

					
Pilot-Wire	Comfort	Night	Anti-freeze	Boost 2 hours	Chrono

COMFORT MODE

«Comfort» mode, maintains the ambient temperature fixed at a selected value. To set this user mode:

- Press the **[Prog]** button until the "Comfort" icon appears on the screen.
- Set the desired temperature using the **[+]** and **[-]** buttons and wait for it to stop flashing.

NIGHT MODE

The "Night" mode defines a lower heat value than that of the "Comfort" mode.

The settings of this operating mode are recommended to be done at night or if the room has been empty for more than 2 hours.

- Press the **[Prog]** button until the "Night" icon appears on the screen.
- Set the desired temperature using the **[+]** and **[-]** buttons and wait for it to stop flashing.

ANTI-FREEZE MODE

On "Freeze" mode, the heat is set as 7°C. The heating element is activated when the ambient temperature falls below 7°C. The settings of this mode are recommended to be carried out if the room has been empty for many days. Press the **[Prog]** button until the "Anti-Freeze" icon appears on the screen.

BOOST 2 HOURS MODE

The "Boost 2 Hours" mode can be used to heat the room rapidly or to accelerate the drying of towels.

- Press the **[Prog]** button until the **"2 Hours"** icon appears on the screen.

The device runs on maximum power for 2 hours.

The "Boost 2 hours" mode is deactivated after a 2 hour period and the device returns to its previous operating mode. The user can switch to another operating mode at any time by pressing the **[Prog]** button.

PILOT-WIRE MODE

In the "Pilot-Wire" mode, the device is managed by a central control system which sets the operating mode of all the connected devices. The device works with a 6 command "Pilot-Wire" system enabling the following commands:

1. Standby: the heating element is off; the device remains active.
2. Comfort: maintains a "comfort" temperature set by the user.
3. Eco: keeps the ambient temperature 3.5°C below the "Comfort" temperature.
4. Anti-freeze: keeps the ambient temperature at 7°C.
5. Eco-1: keeps the ambient temperature 1°C below the "Comfort" temperature.
6. Eco-2: keeps the ambient temperature 2°C below the "Comfort" temperature.

The user can set the desired temperature on the device:

- Press the **[Prog]** button until the "Pilot-Wire" icon appears on the screen.

- Set the desired temperature using the **[+]** and **[-]** buttons and wait for it to stop flashing.

CHRONO MODE

This operating mode enables the user to set different heat values for every hour of each day of the week. Thus, the heat of the "Comfort" / "Night" modes and relevant intervals can be programmed.

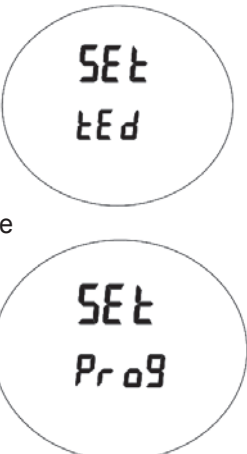
- To enable this function, press the **[Prog]** button until the "Chrono" icon is displayed.

Programming the "Chrono" mode

a) Setting the current day of the week and time

Enter the "Standby" mode and press the **[-]** button for at least 3 seconds.

- The **"SET"** message appears at the top of the display.
- To set the day and time, press the **[+]** button until the message **"tEd"** appears at the bottom of the display (see the picture on the right).
- To access the edit mode, press the **[Prog]** button.
- The flashing arrow indicates the selected day: the desired day can be set by pressing the **[+]** / **[-]** buttons.
- To confirm the selected day press the **[Prog]** button again.



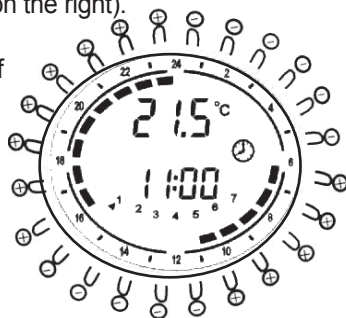
SEt
tEd

SEt
Pr o9

A questo punto inizia la procedura di impostazione del tempo e il display mostra il tempo selezionato in questo momento. "Ore": Utilizzare i pulsanti **[+]** e **[-]** per impostare l'ora corretta e quindi confermare il valore selezionato premendo il pulsante **[Prog]**. "Minuti": stessa procedura delle ore. Confermare il valore selezionato premendo il pulsante **[Prog]**.

b) Program setting for the "Chrono" mode

- Switch to "standby" mode press the **[-]** button for a minimum of 3 seconds.
- The **"SET"** message appears at the top of the display.
- To set the day and time, press the **[+]** button until the **"Pro9 ..."** message appears at the bottom of the screen. (see picture on the right).
- Press the **[Prog]** button to access the edit mode.
- Now, a time section can be defined for each day of the week.
- The procedure starts with the day 1 and the desired section can be set using the **[+]** and **[-]** buttons: the following can be appointed for any time of the day, that is:
 - The "comfort" temperature by pressing the **[+]** button (displaying the complete bar)
 - Or the "night" temperature by pressing the **[-]** button (empty bar) (see the following picture).
- To confirm the input entered for Day 1, press on the **[Prog]** and repeat the same procedure for the remaining 6 days of the week.

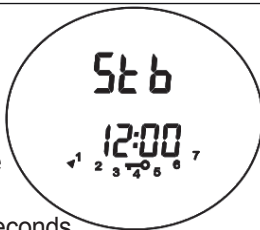


Locking

It is possible to lock the buttons of the device to avoid unwanted changes in the settings.

Press the **[Prog]** button for 3 seconds to lock all the buttons except for the **[Run/Pause]** button. The key lock icon on the display will be activated.

To unlock the buttons, press the **[Prog]** button again for 3 seconds. The key lock icon will disappear from the display.



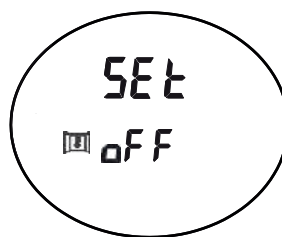
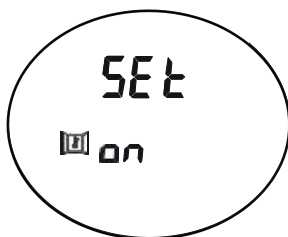
The "Open window detection" function

-The "Open window detection" function allows the detection of an open window through the detection of a sudden temperature decrease in the room.

- Enter the **"Stand-by"** mode.
- Press the **[+]** button for 3 seconds.
- Press the **[+]** button to enable/disable the function
- To confirm and to return to the **"Stand-by"** mode, press the **[Prog]** button.

When this function is enabled, the "Open window" icon flashes on the display.

When the device detects a potentially open window, the icon starts flashing. If the function is disabled, the **"window open"** icon will not appear on the screen.



Description: The device may not be able to detect the opening of a window, for instance, if it is in a remote area of the room and it is far from air flows, if it is located near an external heating source or if the temperature inside the room changes very slowly.

Note 1: When the icon  is active, the heating element is enabled.

Note2: In case of supply failure, the "Chrono" mode settings (the current day of the week, the current time, the daily program of the week) are stored in the memory for a few minutes.

4. Maintenance and troubleshooting recommendations

4.1 Routine maintenance procedures

The choice of the best materials and the quality of surface finish protect your device against corrosion and impacts.

In order for your radiator to have an optimal service time, we recommend you follow the below recommendations:

Use only warm, soapy water instead of corrosive or oxidizing products for the care of the exterior walls (except for the electrical parts).

- For the control box body, use a dry cloth (without beam).

4.2 Troubleshooting

If your device is not working, you carry out the following controls yourself:

Problem	Identification	Procedure to be carried out
Procedure to be carried out	The device has no feed.	Ensure that your device is connected properly and is being fed (see the section 2.3).
	The device has no feed.	Controleer of uw apparaat in de aan-positie staat.
	Probe failure.	Verify that your device is switched on and the luminous indicator is on (see the section 4.2).
The device works in the anti-freeze mode (reference temperature 7°C).	The window opening/closing detection is enabled and a window opening was detected.	If you do not wish your device to automatically switch to anti-freeze mode, disable window opening/closing detection.
The radiator continues to heat up normally. And yet there has been an open window for 15 minutes.	The "Window detection" function is not enabled.	Activate the open window detection function.
The device does not heat up.	The thermostat settings are not well adjusted	Make sure that the position of the thermostat controls the heating of the device properly (see the section 4.2).
	The device is run by a programming switchboard.	Check the switchboard manufacturer' manual.

5. Service and warranty

After-Sales Service

In case of a failure or need of a spare part, contact your plumber or your vendor for support.

In order for the problem to be understood well and resolved quickly, remember to note the following in advance:

- Points on the information plate of the device;
- The commercial reference on your dated purchase invoice.

Warranty

(Check the general sales conditions in the relevant country)

Your electrical device is guaranteed for 2 years as of the date of delivery against all kinds of manufacturing faults.

The device is in compliance with the CEM Directive No. 2014/30/UE on electromagnetic compatibility, the Low Voltage Directive No. 2014/35/EU on electrical material intended to be used within certain voltage limits and the EN 60.335.1, EN 60.335.2.43 and EN 60.335.2.30 European standards including successive relevant changes.

The warranty shall be evaluated upon submittal of the dated proof of purchase. The transport, removal and installation costs of the radiator are not under the scope of warranty.

In particular, the warranty does not apply in case of application, installation or maintenance which is not in compliance with the user guide, the code of practice and the applicable standards of the respective country.

Warranty particular to mixed-system towel drier radiators

The warranty of your mixed-system towel drier applies on condition of compliance with the following matters:

- The water used to feed the heating circuit should not be abrasive nor oxidizing.
- Especially in case of the use of gas conductive materials (floor warming), there should be no trace of molten gas (2-CO₂) in the installation.

To do this, an effective degassing procedure must be applied to the source point of circulation and a blow-off is required for the upper points of the installation.

Environmental regulations

In conformity with the RoHS: 2011/65/UE Directive

In conformity with the DEEE: 2012/19/UE Directive

Processing of electrical and electronic equipment at the end of their lifespans.



This symbol indicates that this product cannot be processed together with household waste. It should be delivered to a suitable collection point to ensure that it is recycled. If you ensure that this product is properly scraped, you will have helped to prevent the emergence of potential adverse consequences for the environment and human health.

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