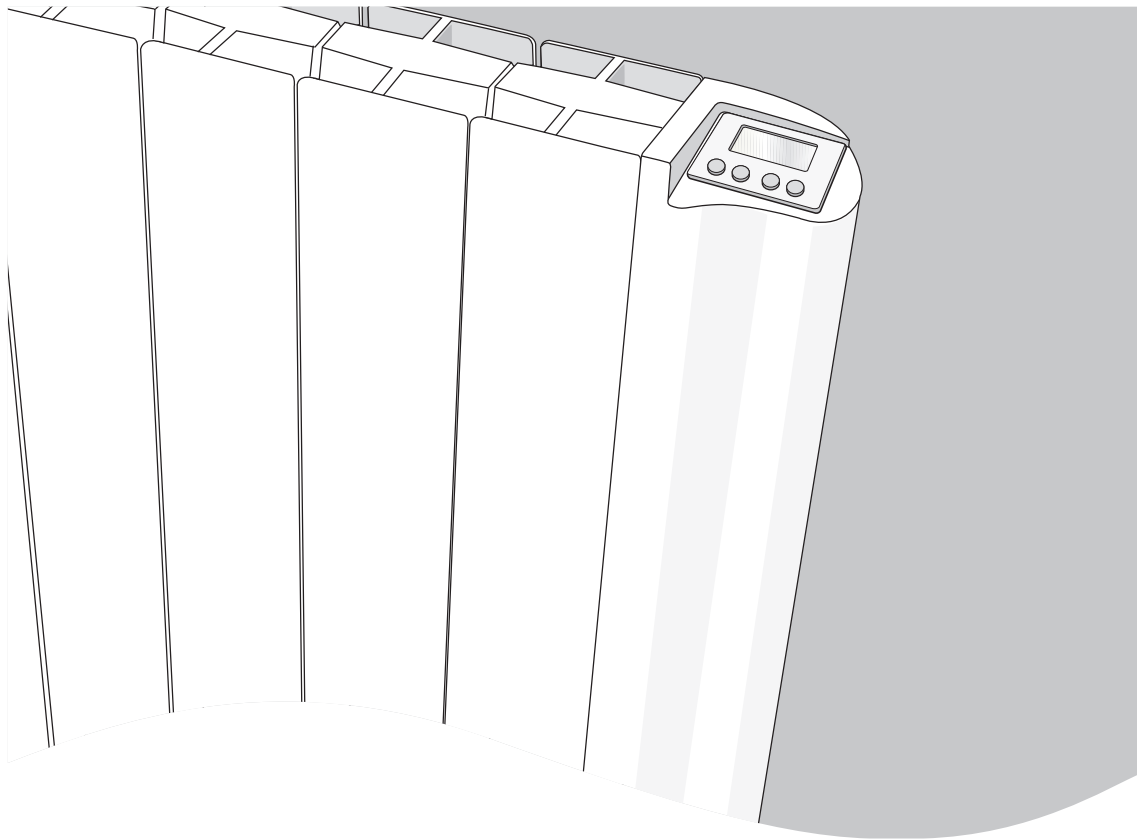


INSTALLATION AND MAINTENANCE MANUAL

Alcor FD



Aluminium electric
radiators with heat
transfer fluid

CE

GB

fondital

Dear customer,



Thank you for choosing our product. Read this manual carefully before installing your radiator, as it provides useful information for installation, use and proper maintenance of the appliance.

Remember that this manual must accompany the radiator should it be moved to a different installation location.

THE PACKAGE INCLUDES:

Aluminium radiator fitted with a thermostat with electronic regulation, kit made up of three mounting brackets with wall plugs and instruction manual.

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1. CHARACTERISTICS

1.1. Characteristics of the appliance

IPX4: appliance protected against splashing water

Class I

1.2. Technical characteristics of the electronic part

Power supply	230 V +/-10% CA 50 Hz	
Electrical resistor capacity	Mod. FD5103	350 W
	Mod. FD5106	600 W
	Mod. FD5108	800 W
	Mod. FD5110	1000 W
	Mod. FD5112	1200 W
	Mod. FD5115	1500 W
	Mod. FD5118	1800 W
Insulation class	Class I	
Water protection rating	IPX4	
Operating temperature	0 ÷ 40°C	
Storage temperature	-20 ÷ 80°C	
Relative humidity	RH 0 ÷ 85% without condensate	
Regulation type	Proportional integral	
Temperature range	7° ÷ 35°C	
Temperature reading resolution	1/16°C	
Maximum range	0.5°C	
Maximum deviation	1.5 °C	

2. DESCRIPTION AND TECHNICAL SPECIFICATIONS OF THE PRODUCT

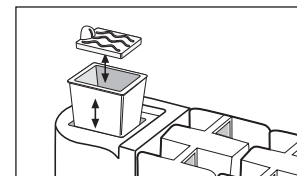
The radiator has a die-cast EN AB 46100 aluminium alloy body containing a fluid to transmit heat internally. This fluid is made up of highly refined mineral oil with a high heat transmission coefficient, characterized by high oxygenation resistance for durability and low viscosity.

The internal fluid is heated by means of an electrical resistor with class I insulation, which has a control thermostat and safety thermal fuse.

The control and regulation electronics make it possible to regulate the ambient temperature with great precision.

On the left-hand side there is a receptacle for distilled water used to humidify the environment.

NB: All Fondital radiators are manufactured with an identifying label which guarantees their traceability. This label certifies that the appliance complies with European directives and electrical standards.



The appliance must be installed according to accepted practice, in accordance with current standards and the instructions contained in this manual.

Radiator colour: RAL 9010.

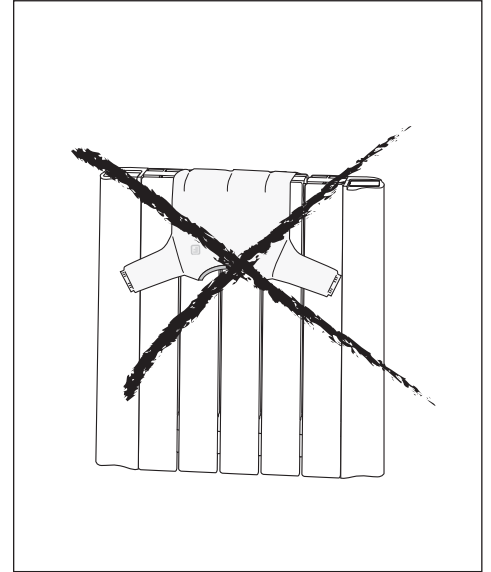
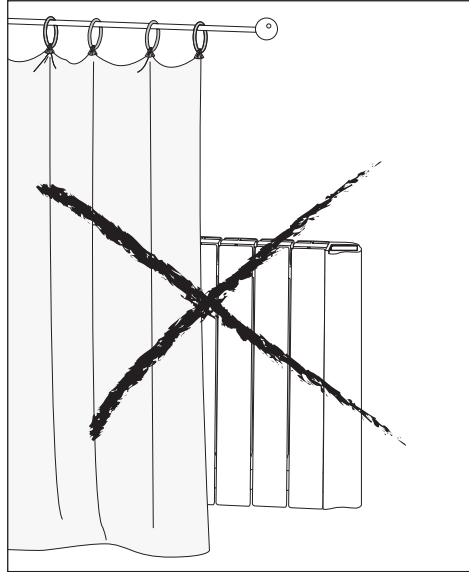
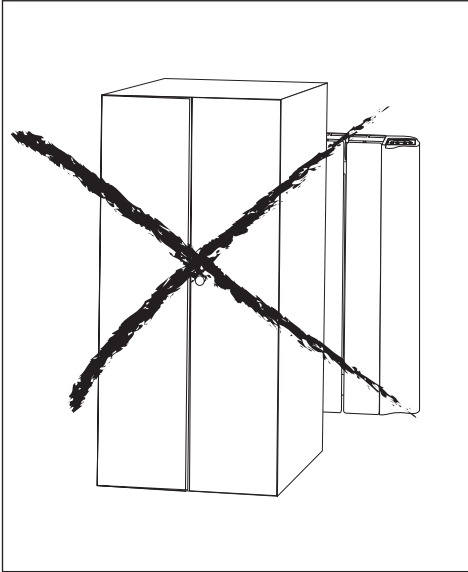
3. WARNINGS



A label on the side of the radiator contains the symbol shown here. The meaning of this symbol is:
In order to avoid overheating the appliance, **DO NOT COVER THE RADIATOR** with clothing, pieces of cloth or other objects.

The radiator must never be:

- partially or totally covered
- in direct contact with or a short distance from curtains, furniture, etc.



The radiator must never be installed:

- in an alcove
- less than 10 cm. from the corners of the room
- beneath a power point
- on a shelf

The radiator must be mounted on the wall using the standard mounting brackets included.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

All work required on the appliance must be performed by a qualified professional.

Repairs which require opening the liquid reservoir must be made by the manufacturer, its representatives or customer service.

4. INSTALLATION

To obtain the best results from your appliance in terms of thermal output and comfort, whenever possible we recommend installing the radiator under a window or near areas of the space to be heated with high thermal dispersion.

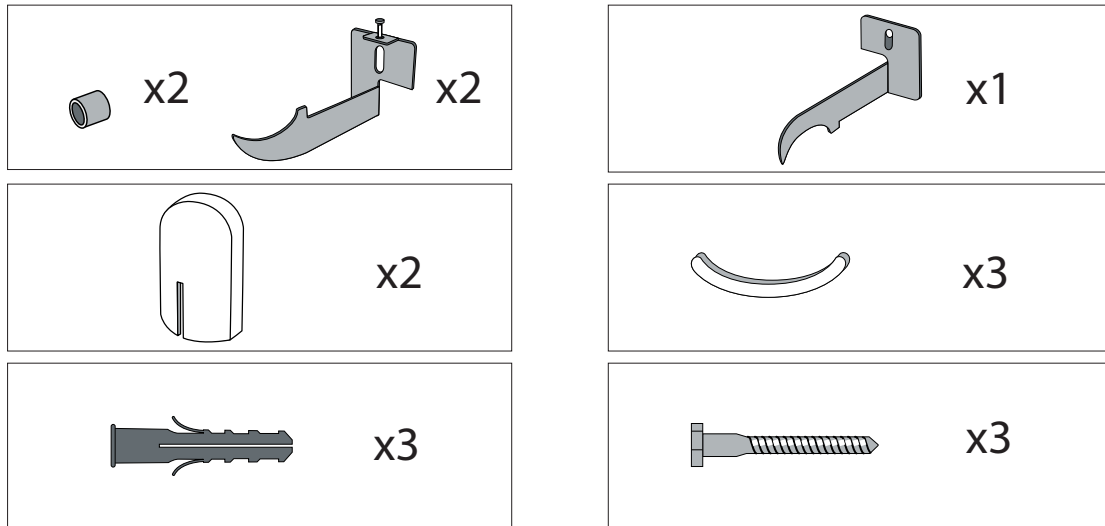
The radiator must not be installed in an alcove or beneath a power point.

Curtains, furniture and objects which may obstruct proper heat distribution must be placed a minimum of 50 cm. from the front of the radiator.

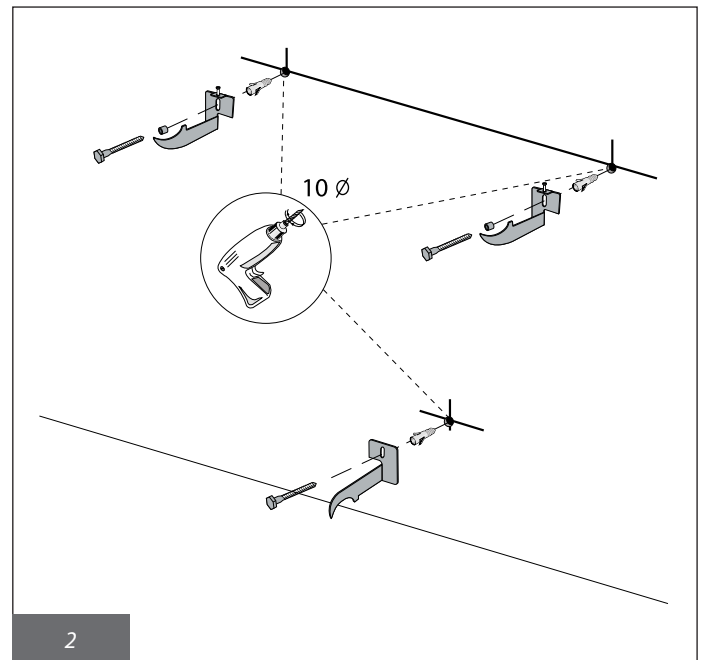
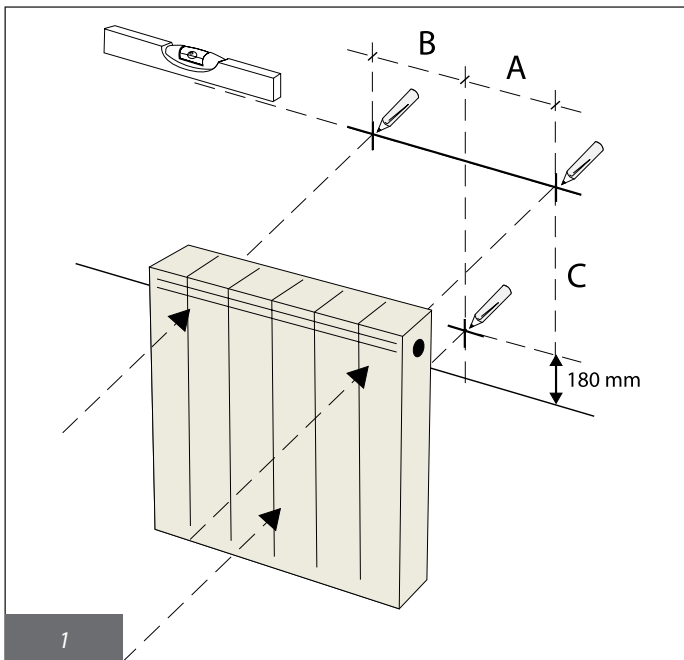
Maintain a minimum space of 120 mm between the lower part of the radiator and the ground.

4.1. Mounting the radiator to the wall

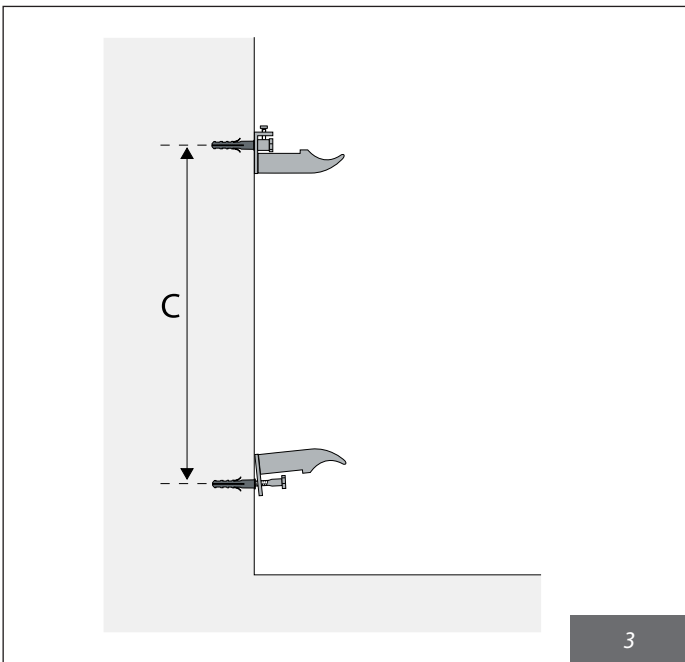
The radiator can be mounted on the wall using the mounting brackets included with the appliance. The mounting system consists of:



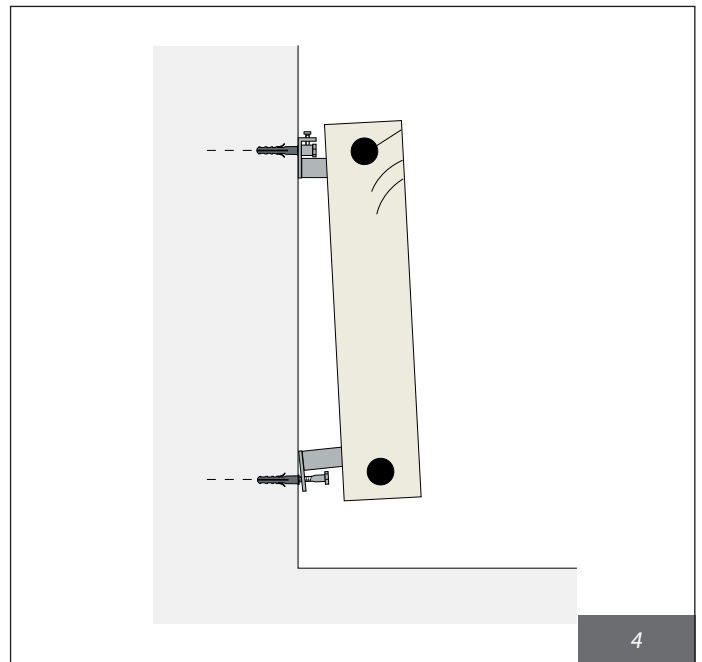
When mounting, follow the steps illustrated below:



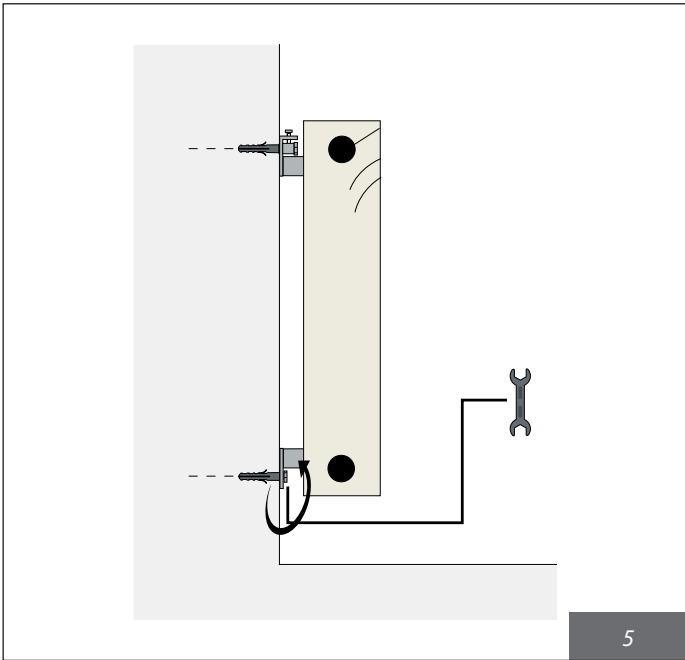
	Number of sections						
	3/350W	5/600W	6/800W	7/1000W	9/1200W	11/1500W	12/1800W
Dimension A	80	160	160	240	320	400	400
Dimension B	80	80	160	160	240	320	400
Dimension C	500	500	500	500	500	500	500



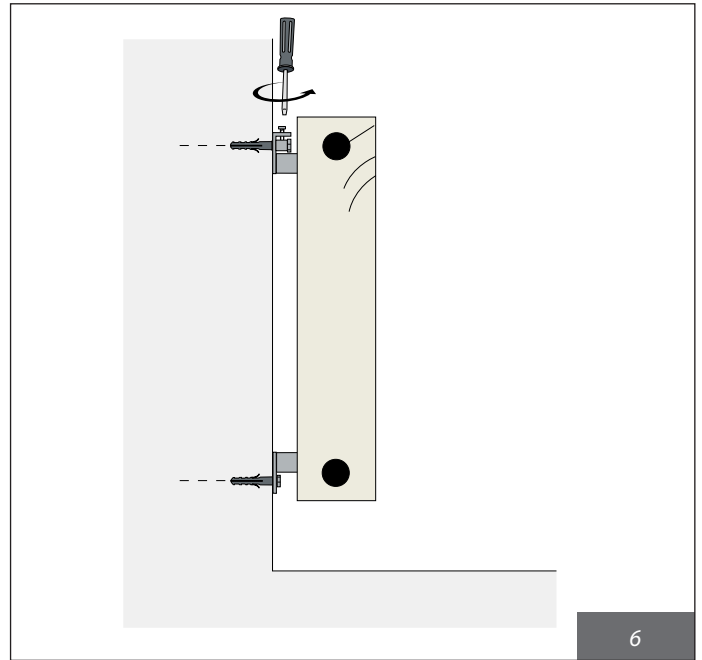
3



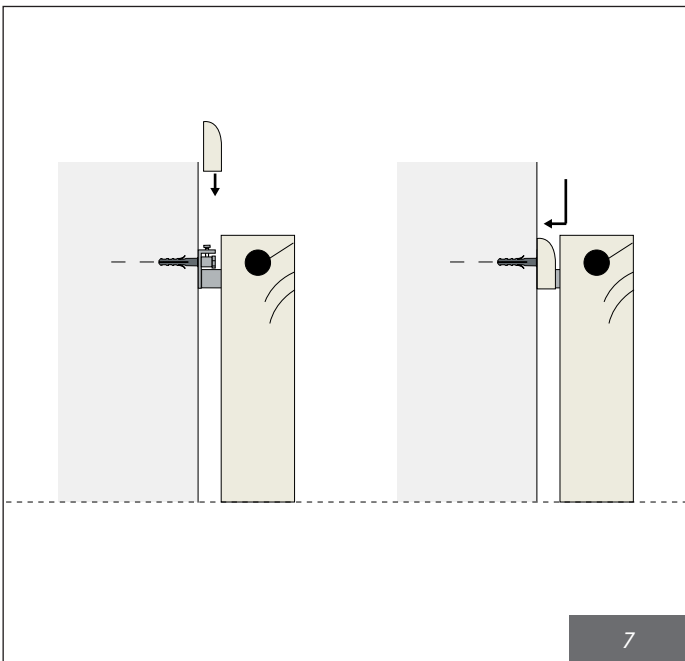
4




5



6



7

 The step shown in illustration 6 can only be considered finished when the lower screw has been completely tightened and the radiator is firmly fixed to the wall, with no possible movement.

The minimum distance between the radiator and the floor must be 120 mm in all cases.

5. ELECTRICAL CONNECTIONS



IMPORTANT

During installation, maintenance and cleaning, the appliance must be disconnected from the power supply.

The appliance must be attached to a 230 VAC power supply only. Follow the colours indicated:

Brown	Phase
Blue or grey	Neutral
Black	Pilot Wire

Note:

The pilot wire is used only in radiators sold in France.

If the (black) pilot wire is not in use, regulations require that it be isolated. Never connect it to the earth lead for any reason.

A multi-pole circuit breaker must be installed. The distance between the contacts must be at least 3 mm.

The appliance's power circuit must be protected by a **high sensitivity differential protection device**.

The power cord must be connected to the power supply using a shunt box located 25 cm from the ground, without the use of an electrical plug.

Never insert metal objects into or attempt to pierce the side of the radiator containing the regulation system (right side).

If the power cord is damaged, it must be replaced by a qualified electrician only.

5.1. Details of bathroom installation

The appliance must be installed according to current regulations and laws in force in the country of use.

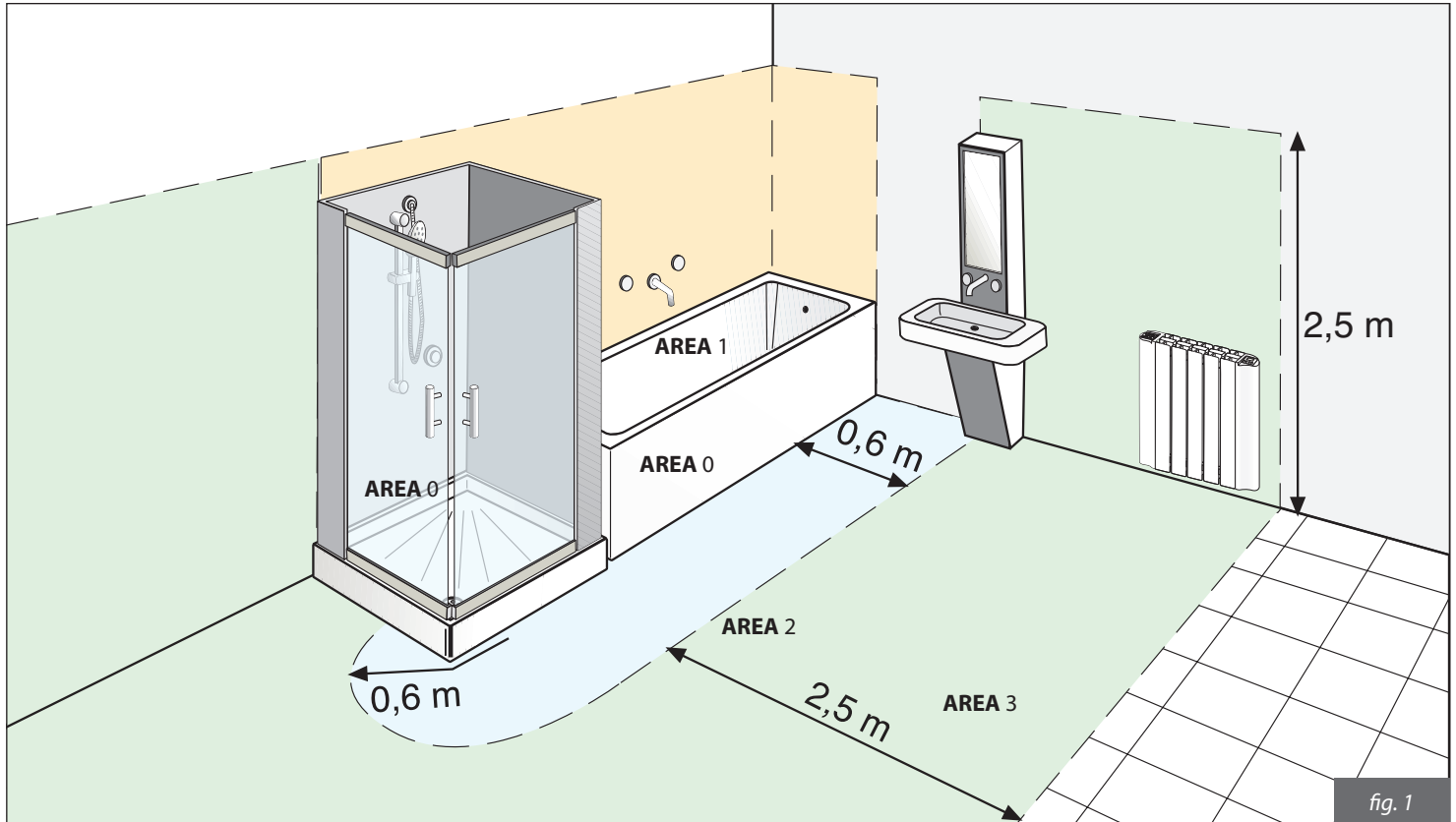
The radiator is class I and has IPX4 electrical protection. In bathrooms, it can be installed in areas 2 and 3 (see figure 1) provided that the control device is not within reach of people using the shower or bathtub.

The radiator must not be connected to the earth lead.



In the bathroom, protect the power line with a 30 mA high sensitivity differential device.

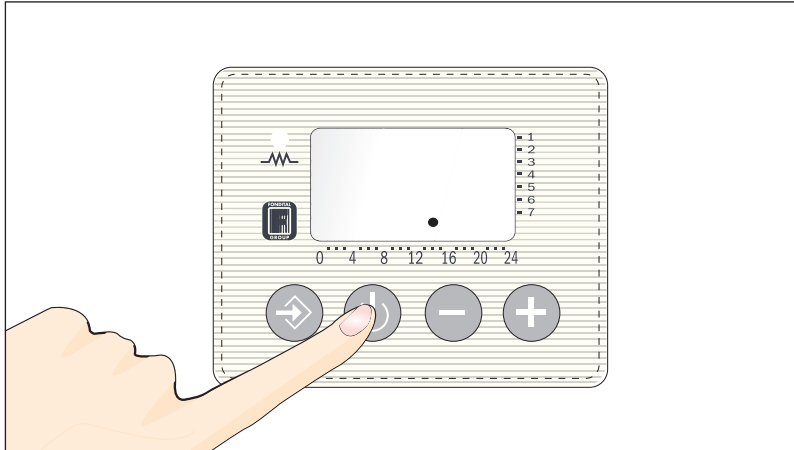
Install a multi-pole circuit breaker. The distance between the contacts must be at least 3 mm.



6. REGULATION AND PROGRAMMING

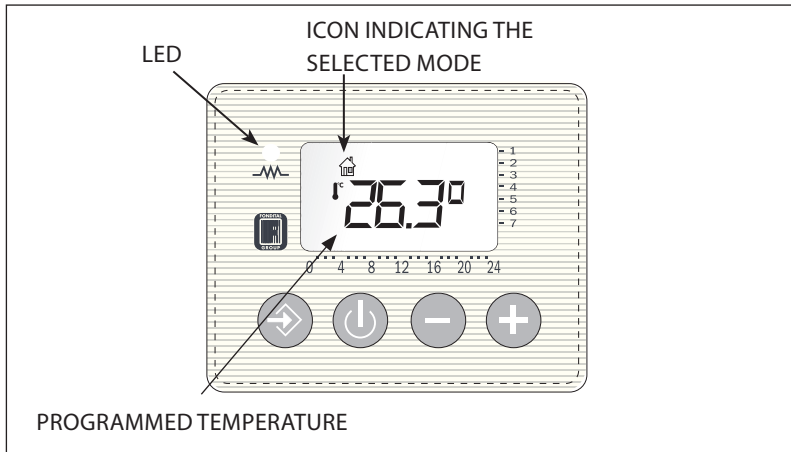
6.1. Turning the radiator on

The appliance is regulated using four keys, as shown in the figure. When the appliance is in stand-by mode, the black dot on the screen will blink. To turn the radiator on, press the 'on/off' key, as shown in the following figure:



The radiator has various operating modes, as shown in the table on page 13.

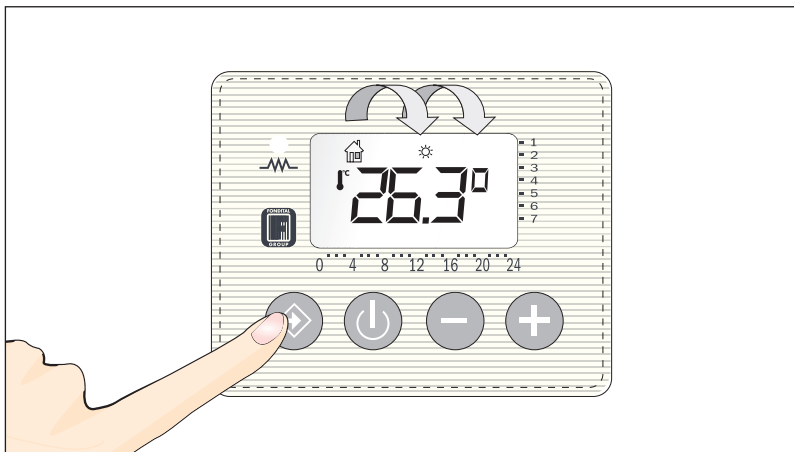
When the radiator is in clock mode, the screen shows the time; in the other modes it shows the programmed temperature. A small icon indicates the current mode.



There is an LED light on the control panel: when the system is in heating mode and the room temperature has not yet reached the desired temperature programmed by the user, the LED is RED. Once the room reaches the programmed temperature, the LED turns GREEN.

6.2. Changing the mode

Press the 'mode' key to select the desired mode:

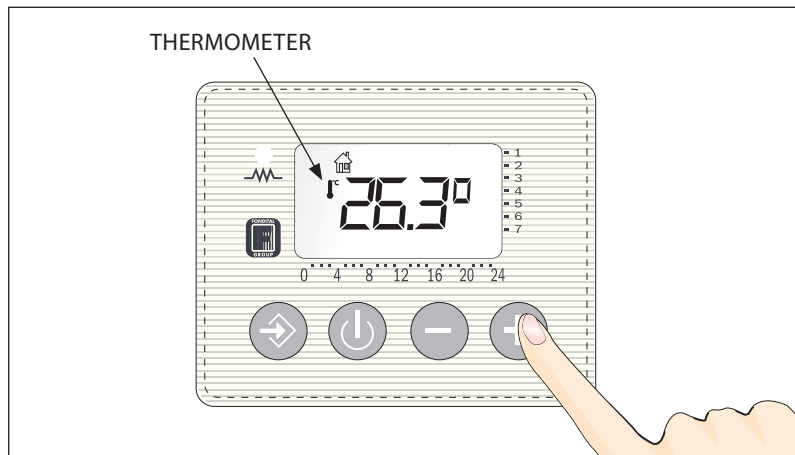


6.3. Programming TH and TL temperatures

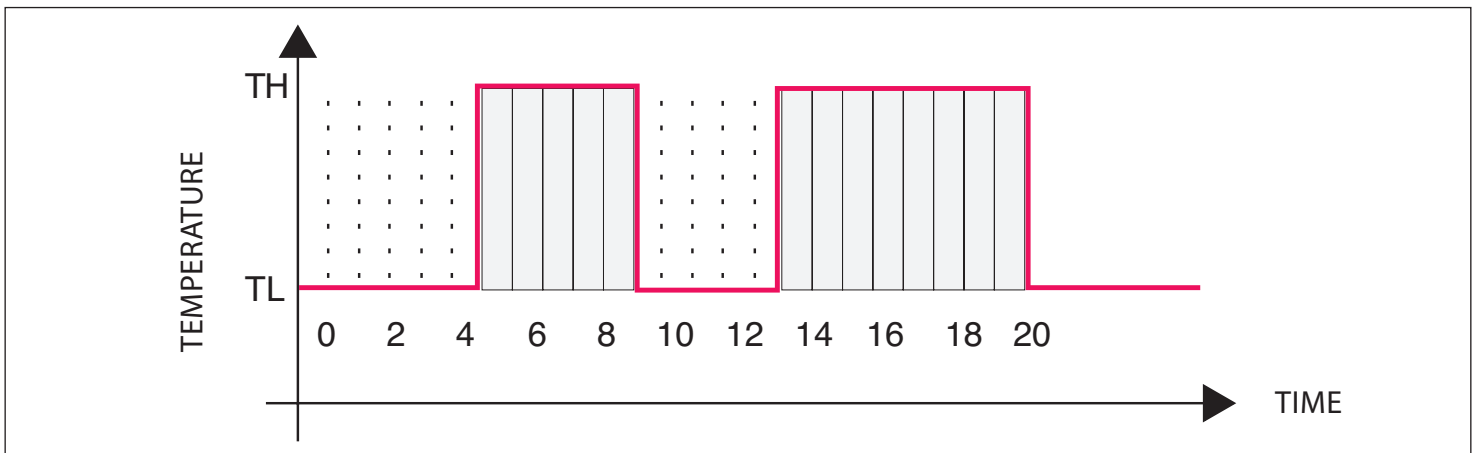
It is possible to set two separate temperature levels: TH is the desired ambient temperature during operation in Comfort and Pilot Wire mode or when programming; TL is the ambient temperature in Night-time Reduction mode.

These two temperature levels can be set using the plus and minus keys. A blinking temperature icon on the screen indicates that the temperature is being set.

TH can be set in Comfort mode, TL can be set in Night-time Reduction mode.



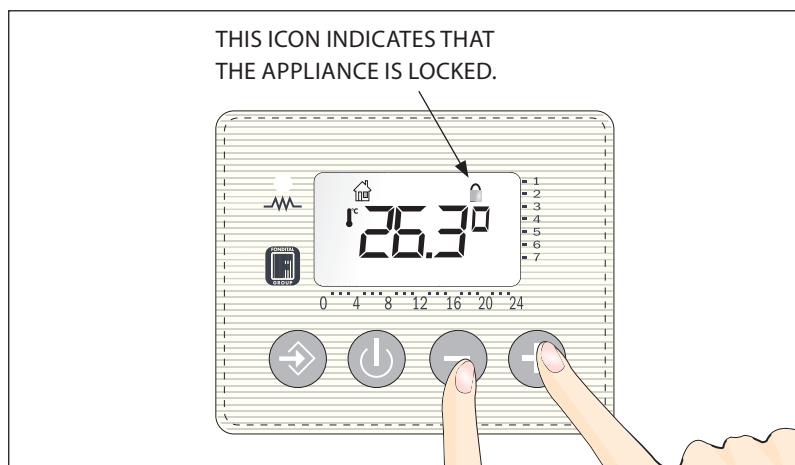
The two temperature levels are also used when programming:



TH is the desired ambient temperature during the time periods selected; TL is the (reduced) desired temperature outside the selected time periods.

6.4. Child lock

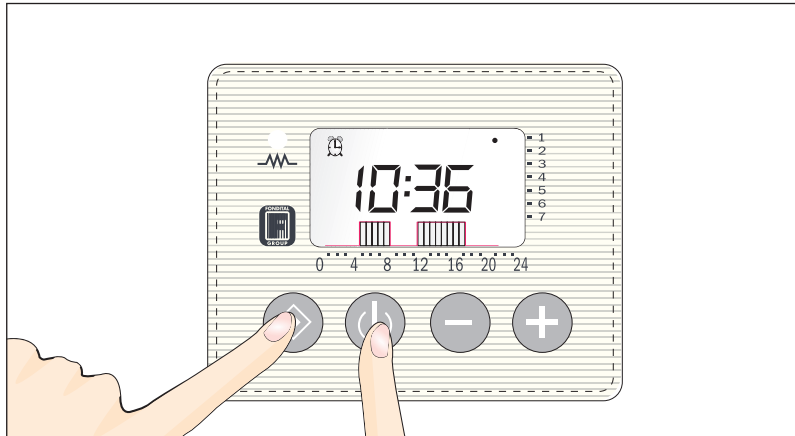
The appliance can be locked to prevent improper or accidental use, to protect children, for example. In order to activate the lock, press and hold the plus and minus keys at the same time for three seconds: the keypad will be locked.



In order to unlock the keypad, press and hold both the plus and minus keys again for three seconds.

6.5. Setting times and weekly programming

Press the 'stand-by' and 'mode' keys at the same time and hold for three seconds.

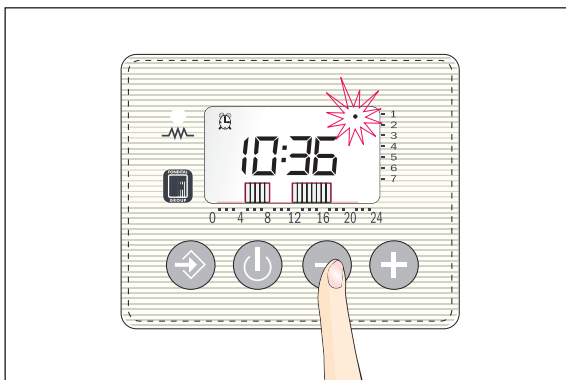


A dot will blink on the screen next to the days of the week. The current day can be selected using the plus or minus key. Use the 'mode' key to confirm the selection.

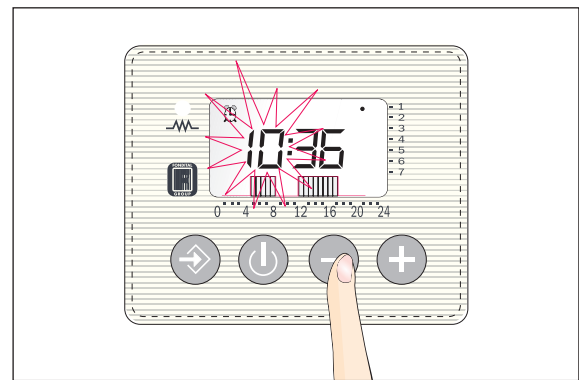
The number corresponding to the hour will blink. Set the correct time using the plus and minus keys. Confirm the selection with the 'mode' key.

The number corresponding to the minutes will blink. Set the correct minutes using the plus and minus keys. Confirm the selection with the 'mode' key.

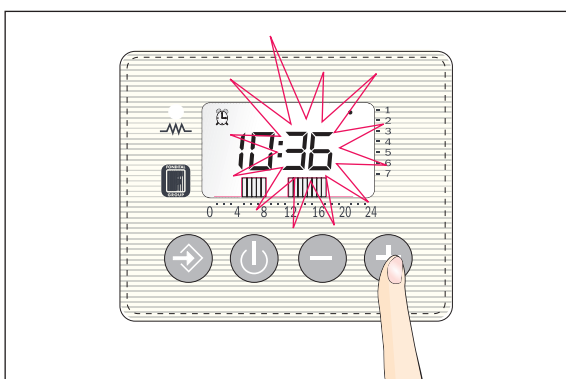
DAY SETTING



HOUR SETTING

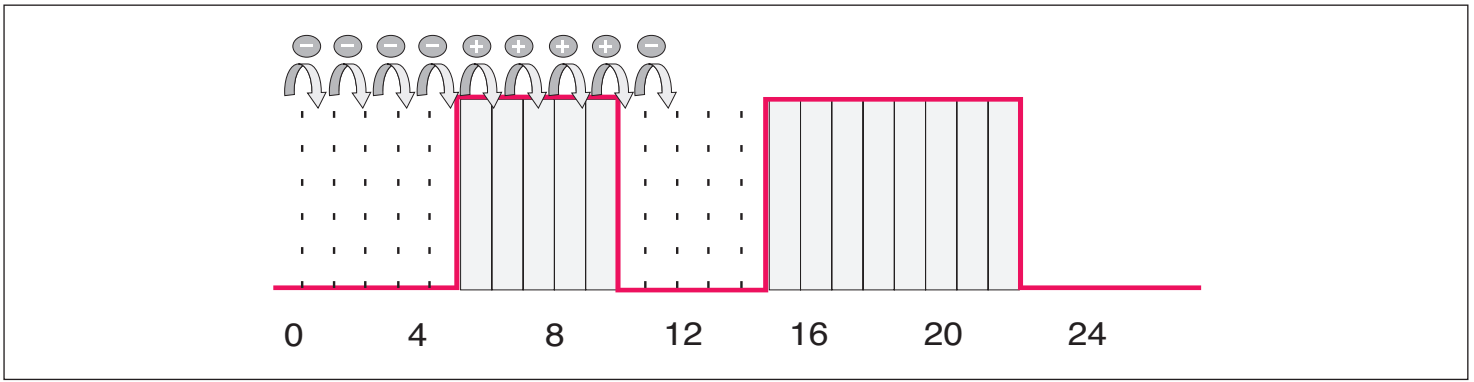


MINUTE SETTING



You can now assign a setting to each day of the week. When a segment appears between two times on the programming bar (at the bottom of the screen), this indicates that the TH temperature level has been selected for this period. The absence of a segment indicates that during this period, the radiator will keep the temperature at the TL level.

Starting from day 1, select the times when the TH temperature is desired. Pressing the + key activates the segment on the screen, and therefore TH as well. Pressing the - key deactivates the segment and the programmed temperature will be equivalent to the TL level.

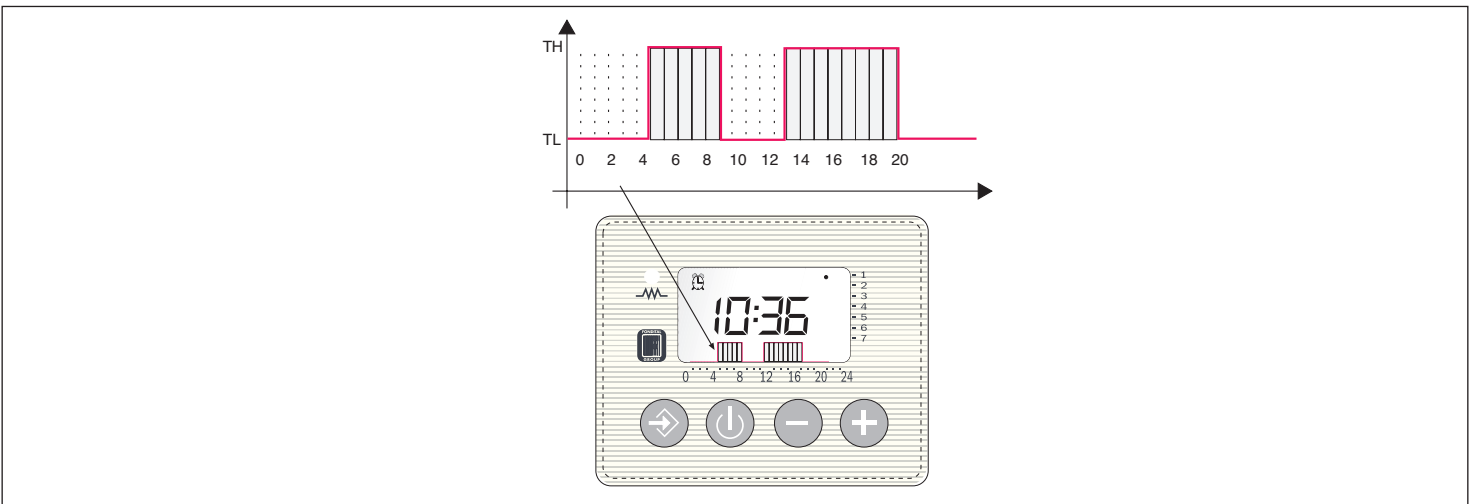


Confirm the selection using the 'mode' key.
This same process must be repeated for each day of the week (1-7).

6.6. Description of operating modes

6.6.1. Programming mode

In this mode, the ambient temperature remains at the TH or TL level, depending on the times set by the user.




6.6.2. Pilot Wire mode (for radiators installed in France only)

This mode enables the user to control the radiator from a remote location.

1. Press the 'mode' key until the screen displays the icon .
2. Select the desired temperature using the + and - keys. The operating mode will be selected by the Pilot Wire control centre.


6.6.3. Comfort mode

This is the normal mode when the radiator is in use, keeping the ambient temperature at the programmed level.

1. Press the 'mode' key until the screen displays the icon .
2. Select the desired temperature using the + and - keys.

6.6.4. Night-time mode

When this operating mode is selected, the radiator will keep the ambient temperature at the programmed TL temperature. The desired TL temperature is programmed as follows:

1. Press the 'mode' key until the screen displays the icon .
2. Select the desired TL temperature using the + and - keys.








6.6.5. Anti-freeze mode

When this mode is selected, the ambient temperature will not drop below 7°C.

6.6.6. Stand-by mode

The radiator is in stand-by mode.

Summary of operating modes:

Mode	Description
	Setting: Daily and weekly programming which sets the two temperature levels (Comfort and Night-time) defined by the user for each time of day
	Pilot wire: The temperature depends on the Pilot Wire control (for radiators installed in France only)
	Stand-by: The receiver is in stand-by
	Comfort: Comfort status and the temperature which the environment must be kept at are transmitted
	Night-time Night-time status and the temperature which the environment must be kept at are transmitted
	Anti-freeze: Minimum safety temperature: a fixed value equivalent to 7°C is transmitted
	Keypad lock: Pressing on the keypad does not change functions; the keypad is not active
Err S	The temperature sensor is broken

7. CLEANING THE RADIATOR

For safety reasons, disconnect the power supply before cleaning the appliance.

Cleaning must be done when the radiator is turned off and is cold.

Do not use abrasive or corrosive products to clean the body: use soapy water, for example, and dry the external casing with a soft cloth.

Clean plastic parts, controls and the humidifier with a dry cloth only and avoid contact with chemicals or alcohol.

8. TROUBLESHOOTING

If the appliance stops working, do not use it: disconnect from the power supply and contact only a qualified technician who is authorized to work on this type of product.

This appliance has been filled with an exact quantity of mineral oil.

Repairs which require opening the liquid reservoir must be made by the manufacturer, its representatives or customer service.

The manufacturer accepts no responsibility for harm to persons, animals, and objects which may result from untrained handling of or improper work on the radiator.

TABLE OF TECHNICAL PROBLEMS:

PROBLEM	RADIATOR STATUS	POSSIBLE CAUSE	SOLUTION
The radiator does not heat up	LCD not lit	Lack of power supply	Verify that power is flowing to the appliance
The radiator does not heat up	LCD lit in Set mode	The radiator is set for the night-time level	Check programmed settings
The radiator does not heat up	LCD lit in Comfort or Set mode	Malfunction in the electrical resistor or regulation board	Contact technical support for repair
The radiator does not heat up	LCD lit in Comfort / Set / Night-time or Anti-freeze mode	The ambient temperature is higher than the programmed level	Check the temperature programmed
The room does not get hot enough in Comfort mode	LCD lit in the desired mode	The radiator is not large enough for the size of the room	Replace the radiator with one with greater output
Ineffective ambient temperature regulation	Err S	The temperature sensor is broken	Contact technical support for repair
The radiator is leaking oil	Any	Defect in the body or improperly closed connections	Contact technical support for repair

9. ENVIRONMENT



The symbol placed on the appliance and shown here indicates that the product is subject to separate collection of electrical appliances.

At the end of its useful life, it cannot be disposed of together with common municipal solid waste, but must be disposed of at a specific collection centre for the area or be given to the distributor when a new appliance of the same type is purchased for the same use.

Separate collection of electrical and electronic appliances is part of a policy aimed at defending, protecting and improving the quality of the environment, and at limiting the harmful effects on human health caused by the presence of substances considered hazardous according to the classification applied in European directives.



Warning! Improper disposal of the appliance is subject to penalties.

When disposing of the radiator, respect current regulations and laws for discarding the oil.

DECLARATION OF CONFORMITY

With the present,

FONDITAL S.p.A.
with headquarters at
via Cerreto 40, 25079 Vobarno (BS), Italy

hereby declares that the

ELECTRICAL RADIATORS FOR HEATING

Models

ALCOR FD

manufactured by **FONDITAL S.p.A.**

are manufactured in accordance with European directives

- DIRECTIVE 2006/95/CE of 12 December 2006 on the harmonisation of the laws of Member States relating to Electrical Equipment designed for use within certain voltage limits (low voltage)
- DIRECTIVE 2004/108/CE, for electromagnetic compatibility
- DIRECTIVE 2002/96/CE of 27 January 2003 on waste from electrical and electronic equipment (WEEE).

And in accordance with the following harmonized regulations:

- EN 60335-1 (2004-04): safety of electrical equipment for domestic or similar uses. General regulations.
- EN 60335-2-30 (2006-05): safety of electrical equipment for domestic or similar uses. Part 2: Specific regulations for electrical heating appliances for premises.
- EN 55014-1: 2000 + A1: 2001 + A2: 2002
- EN 61000-3-2: 2000
- EN 61000-3-3: 1995 + A1: 2001
- EN 55014-2: 1997 + A1: 2001
- EN 61000-4-2: 1995 + A1: 1999 + A2: 2001
- EN 61000-4-4: 1995 + A1: 2001 + A2: 2002
- EN 61000-4-5: 1995 + A1: 2001
- EN 61000-4-6: 1996 + A1: 2001
- EN 61000-4-11: 1994 + A1: 2001



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The manufacturer reserves the right to modify the products
as it deems necessary and useful, without affecting their basic features.