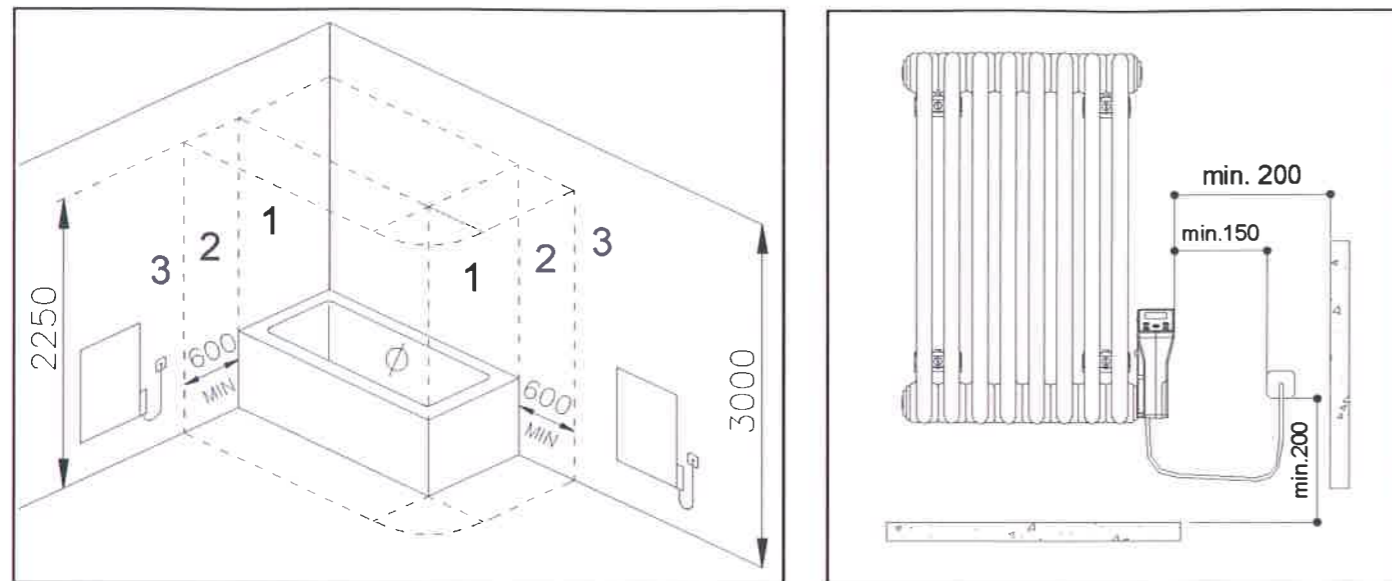


## 4. INSTALLING THE DEVICE

Before connecting the heater, turn off the electricity at the general circuit breaker.

The heater can be installed in all rooms of the house, included bathrooms according to ref. IEC 60364-7-701.

The heater must be installed 15 cm minimum of any obstacle (shelves, curtains, furniture etc.).

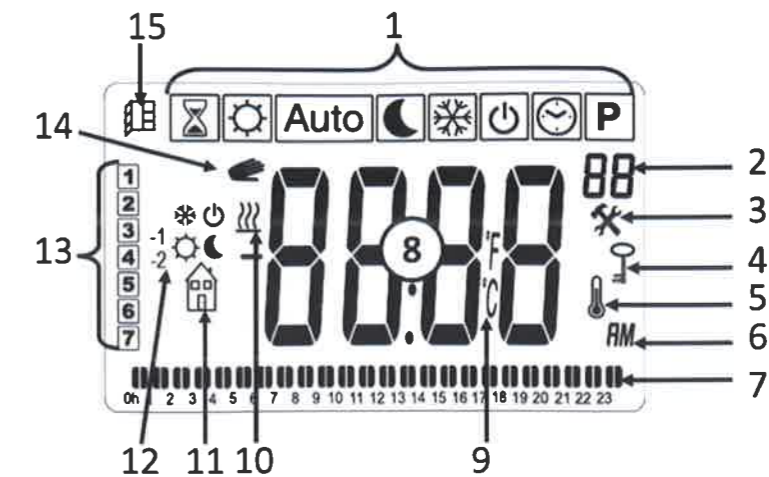


## 5. TECHNICAL FEATURES

Product	Electric radiator
Application	Domestic use
Insulation class	CLASS II
IP class	IP24
Plastic color	White
Power cable color	White
Temperature selection	Numeric
Adjustment mode	Numeric with 5 keys
Operating mode	Comfort, Reduced, Antifreeze, ECO, Chrono, Vacation, Open window detection, Child protection, ITCS, Key lock
Temperature range	0.5 + 30°C
Maximum power	2000W
Supply voltage	230Vac 50Hz
Electric connections	3 cables: neutral (blue/gray), phase (brown), Pilot wire (black)
Warranty	2 years
Standard	EN 60335-1, EN 60335-2-30 EN 61000-3-2, EN 61000-3-3 EN 62233 EN 55014-1, EN 55014-2

## 6. DISPLAY

This display is equipped with backlight.

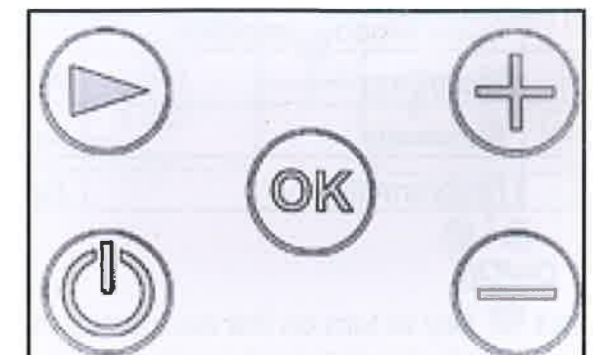


1. Operating mode menu (active mode is framed)
2. Program number, parameter number if icon "3" is displayed or "FP" if pilot wire is activated in **Auto** mode
3. Installation parameters menu
4. Key lock function indicator
5. Room temperature indicator
6. Time type (12H AM/PM or 24H)
7. Graphic view of the current day program in function
8. Measured temperature or setpoint temperature or time
9. Temperature unit
10. Heating demand
11. Pilote wire commands (**Auto** mode) / type of set point temperature (☀️ ❄️ 🌙 modes)
12. Pictogram for comfort ☀️ / reduced 🌙 / **Auto** **Auto** / antifreeze ❄️ mode: comfort or reduced setpoint or menu for displaying consumed power
13. Current day number of the week
14. Override function in **Auto** mode or ITCS operating if blinking 🖱️
15. Opened window function 🖱️

## 7. KEYBOARD

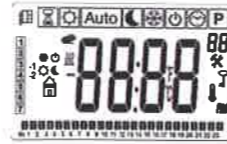
Keyboard is composed by 5 keys:

- 🖱️ = navigation key
- ⏻ = On/Off key
- ⏹ = validation key
- + = plus key
- - = minus key



## 8. FIRST INSTALLATION

When the thermostat is switched on, or after a momentary tension cut, all the pictograms are displayed on the LCD screen:



The user can then see a second screen, which displays the current software version of the unit:

The third screen depends on the status of the thermostat:

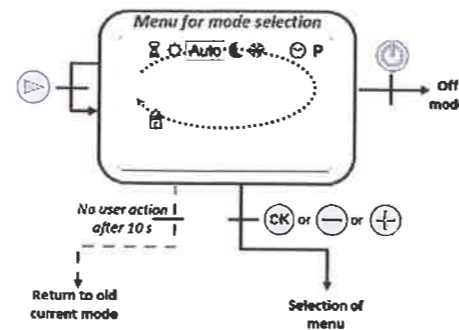
- The first time the thermostat is started, the screen for changing the time is displayed.
- After a power failure, this will be the screen for the current mode.
- After resetting the thermostat, the screen for changing the time will be displayed.
- When the thermostat is installed for the first time or after reconnecting the thermostat, the user must configure the time and date.

## 9. OPERATION

To change the current thermostat mode, the user must press navigation key to display the working model.

The user moves the frame cursor to select a working mode. To select a mode, press on , or key.

Confirm the selected mode by pressing key, otherwise the thermostat will automatically return to the last selected mode.



Icon	Mode or function	Description
	Comfort	Activates and configures the comfort mode temperature
	Reduced (Eco)	Activates and configures the Eco mode temperature
	Frost protection	Activates the Frost protection mode
	Pilot wire	Activates the Pilot Wire mode
	Time	Activates the day and time modification
	Boost (timer)	Activates the radiator to maximum power
	Keyboard lock	Key lock activation
	Open window detection	Activating open window detection mode
	Start/Stop	Activating/Stop of the device
	Automatic	Activating the Automatic Mode
	Programming	Activating the Programming Mode

### 9.1 On/Off

Press key to turn on the device or put it in OFF mode.

When the device is turned on, the display shows the temperature and time.

In the OFF mode, the display shows the current time and day of the week.

### 9.2 Operating modes

Press the key to select the desired operating mode. The icons in the table below, indicating the different types of modes, are displayed.

					Auto
Time	Pilot wire	Comfort	Reduced	Antifreeze	Automatic

### 9.3 Comfort mode

In this mode, the unit is used at a pre-configured comfort temperature. You can however change the temperature and choose another one.

If you press and keys, the comfort temperature starts flashing you can modify it.

If you press key, the set temperature value is activated.

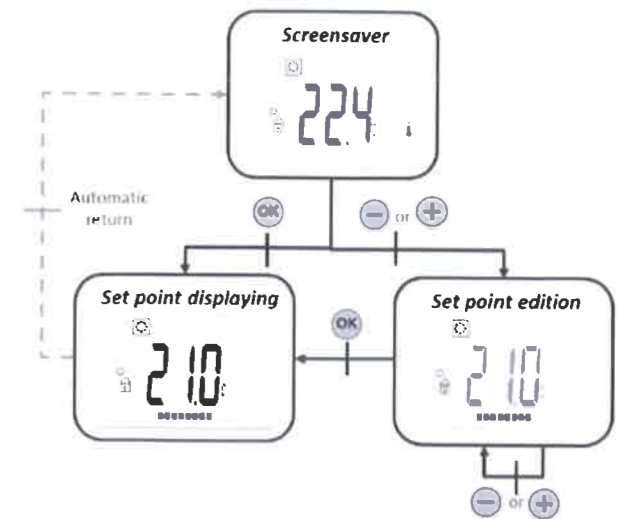
This set temperature will be used in mode during the "high phase" of the selected programme .

The key is used to switch from the measured temperature to the set temperature.

If you press key, the navigation menu will be displayed; if you press key, the thermostat is deactivated.

Preset value: 19°C.

Interval: 10°C to 30°C.



### 9.4 Reduced mode (Eco)

In this mode, the unit operates at a reduced set temperature. However, you can change the temperature and select a different one.

If you press or key, the reduced set temperature starts flashing and you can modify it.

If you press key, the set temperature value is activated.

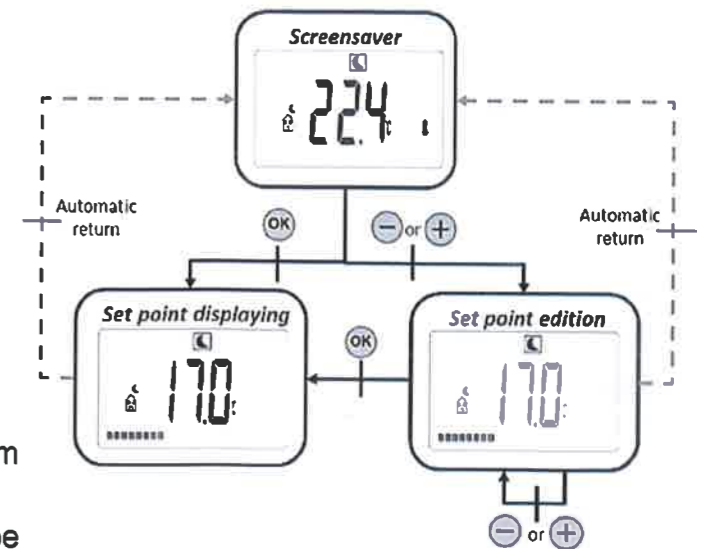
This set temperature will be used in mode during the "low phase" of the pre-selected programme .

The key allows you to switch the display from the measured temperature to the set temperature.



If you press key, the navigation menu will be displayed; if you press key, the thermostat is deactivated.


Preset value: 17°C.



Interval: 5,0 to 19 °C (or 0.5°C lower set temperature if lower)



### 9.5 Automatic mode

In this mode, the thermostat follows the selected programme (integrated from P1 to P9 or customised from U1 to U4) according to the time and the current configurations of the Comfort setting  and  reduced temperature.

The  key allows you to switch the display from the measured temperature to the set temperature and duration.



From any screen if you press  and  keys, you can easily display the current program temperature and change its value. The control starts flashing and the value can be changed.

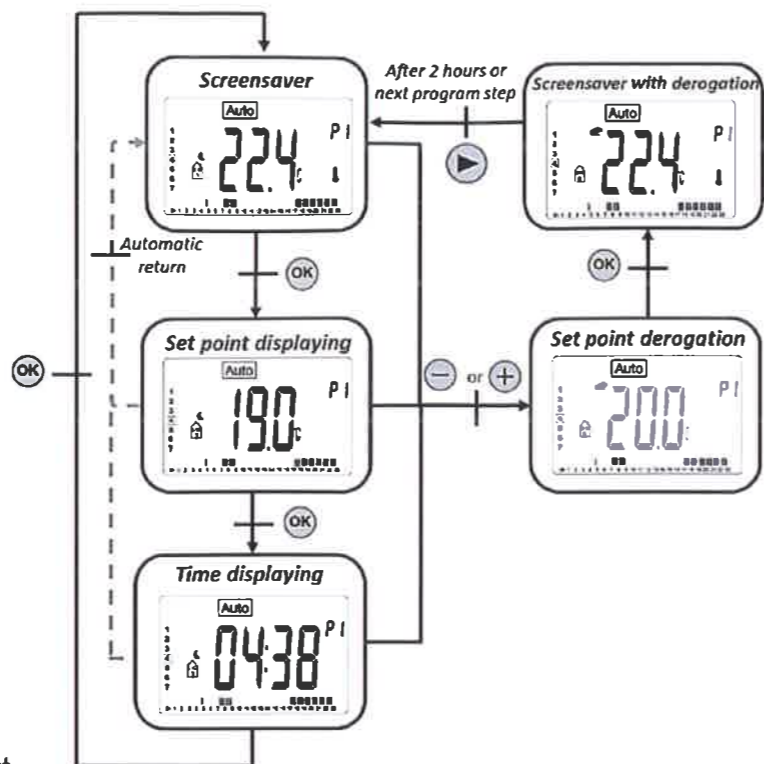
The control starts flashing and the value can be changed.

If you press  key, the set value is activated.

The hand symbol  is displayed when the override function is activated.



This override continues during the next phase (programme modification in progress, another temperature set) or for a maximum of 24 hours.

If you press  key, the navigation menu will be displayed; if you press  key, the thermostat is deactivated.





### 9.6 Antifreeze mode

In this mode, the thermostat operates in frost protection.

If you press  or  key, the temperature setting for antifreeze mode starts to blink and you can modify it.

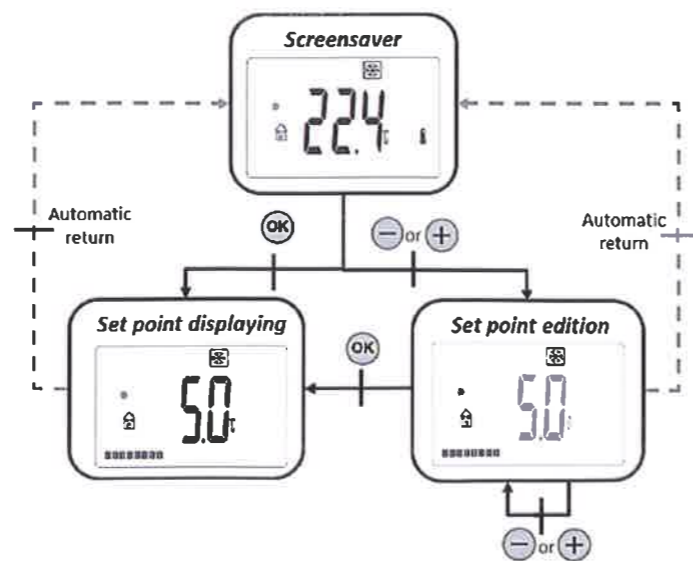
If you press  key, the value of the temperature setting is activated.

The  key allows to switch the display from the measured temperature to the set temperature.

If you press  key, the navigation menu will be displayed; if you press  key, the thermostat is deactivated.





Preset value: 7 °C.

Interval: da 0,5 a 10 °C.




### 9.7 Off mode (OFF)

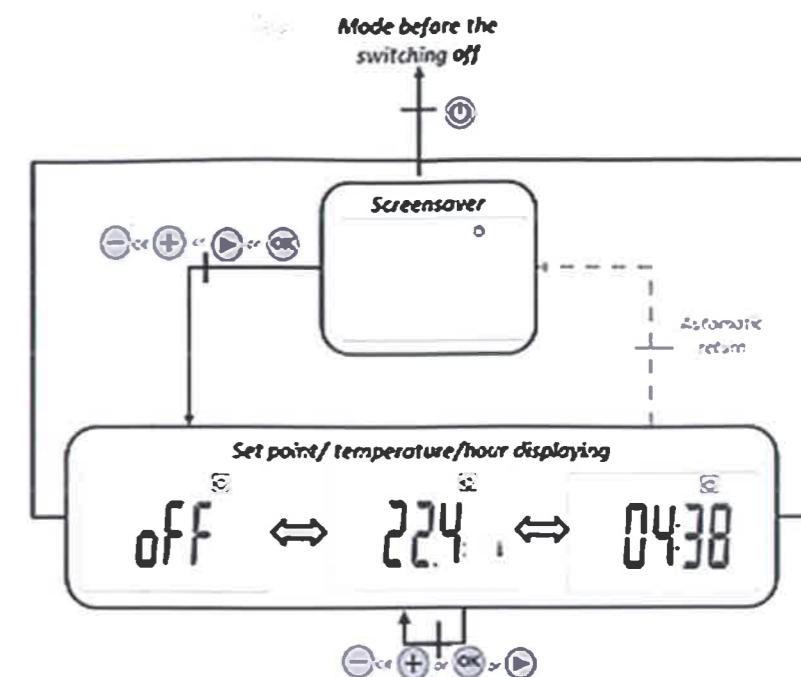
If you press  key the thermostat is switched off - OFF mode.

After you have pressed on any of 4 keys ( or  or  or ), the measured temperature is displayed.

After a few seconds, this information is no longer displayed.

During this mode antifreeze function is deactivated.



If you press key , the thermostat reactivates in the last selected mode




### 9.8 Boost mode (timer)

This mode allows you to use the unit at maximum power for a set period of time.

Configuring the Boost operation time:




The time value is configured using  and  keys.

The  key confirms the chosen time value and starts the boost period.


Boost preset value: 30 minuti.

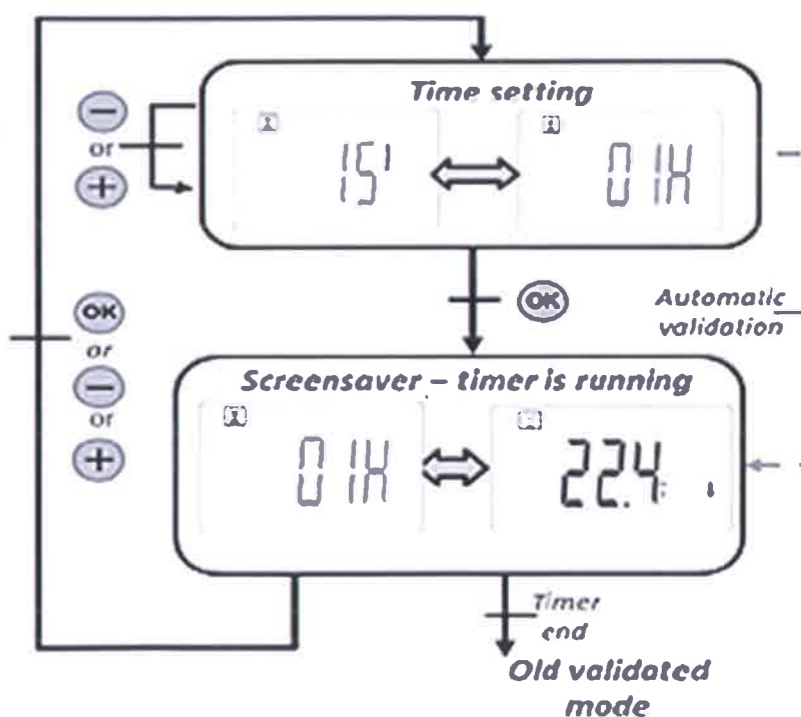
Range of values: 15, 30, 45 and 60 minutes.

If timer is running:

The boost symbol  flashes. The remaining time and the measured temperature are displayed. Press  or  key to change the time value.

If you press  key for one second you access the mode selection menu.

Press  key to turn off the thermostat and reset the timer.



### 9.9 Mode for changing the time

This mode allows you to change the time and date of the device.

#### Time and day settings:

- Time setting
- Minutes setting
- Day setting (1 value corresponds to Monday)

#### Date setting:

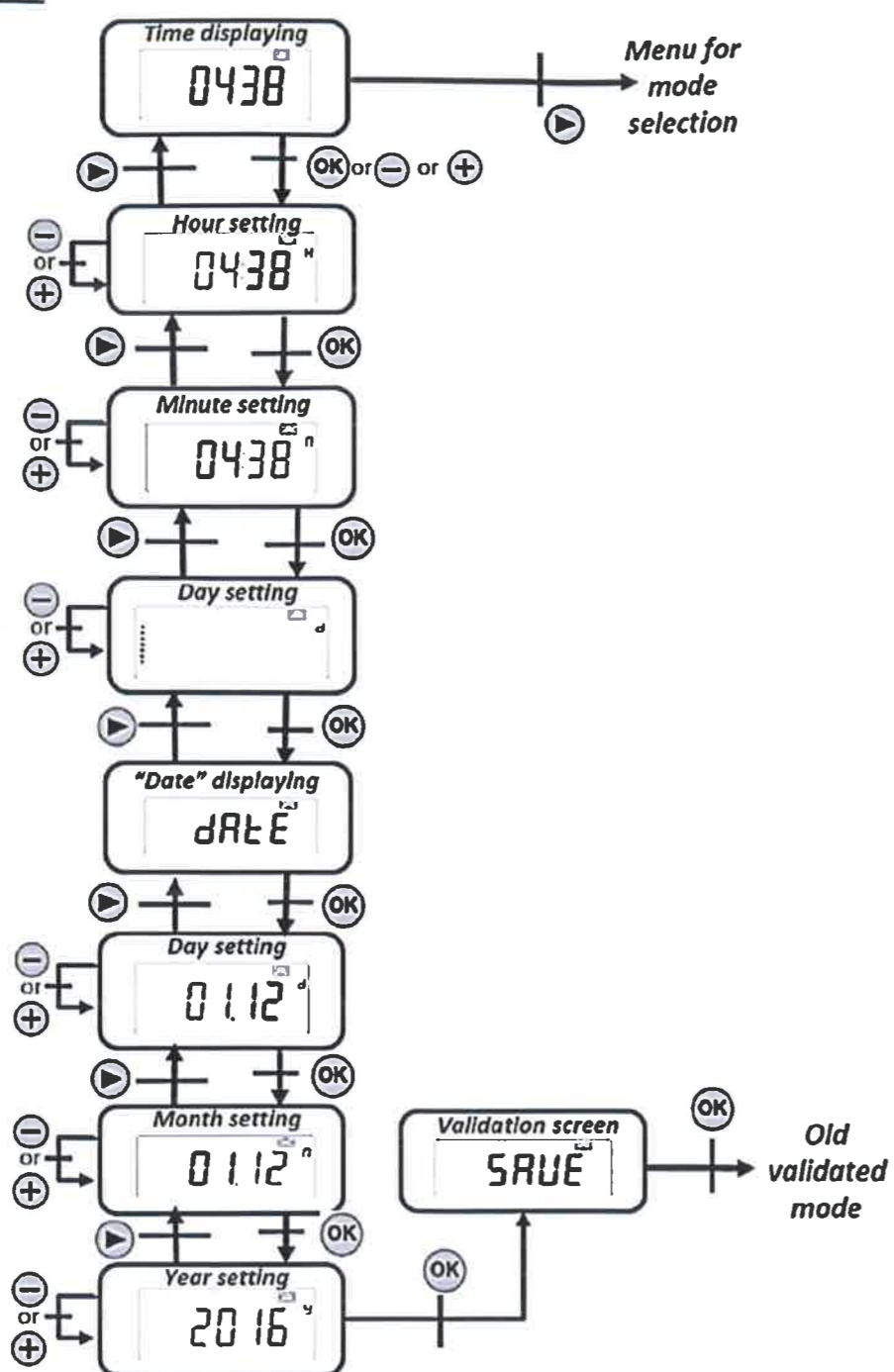
- Choose the day
- Choose the month (01 corresponds to January)
- Choose the year.

Each time a value flashes it can be set with  $-$  and  $+$  keys. The value of the setting is confirmed with  $OK$  key.

The key  $\blacktriangleright$  takes you back to the previous setting.

If you do not press any key, the thermostat will automatically return to the previously selected mode.

If you press  $\text{⏻}$ , you switch off the device and time configuration is stopped, deleting the changed and non-confirmed values.



### 9.10 Programming mode $P$

#### Current program displaying

If you press  $\blacktriangleright$  key you return to the mode selection menu. Press  $\text{⏻}$  key to return to automatic mode. Press  $-$  or  $+$  key to change the program number.

#### Programme number editing

If you press  $\blacktriangleright$  key you change the displayed day of the chosen program. Press  $-$  or  $+$  key to change the program number. Press  $OK$  key to confirm the selected program. If you press for 1 second  $OK$  key during selection of a user program (U1 – U4), you can modify it.

#### Description of preset programs (P1 - P9):

- P1: Morning (7h-9h), Evening (17h-23h) and Weekend (8h-23h)
- P2: Morning (7h-9h), Noon (12h-14h), Evening (18h-23h) and Weekend (8h-23h)
- P3: Week (6h-23h), Saturday (7h-24h) and Sunday (night (0h-1h), day (7h-23h))
- P4: Evening (15h-23h), Saturday (7h-24h) and Sunday (night (0h-1h), day (7h-23h))
- P5: Morning (6h-8h), Evening (21h-23h), Saturday (morning (7h-9h), evening (18h-24h)) and Sunday (morning (7h-9h), evening (18h-24h)).
- P6: Morning (6h-8h), Afternoon (14h-21h) and Weekend (7h-21h)
- P7: Office: from Monday to Friday (7h-19h) and Weekend (stop)
- P8: Shop: from Monday to Friday (8h-19h), Saturday (8h-18h) and Sunday (stop).
- P9: Second house: from Friday (13h) to Monday (17h).

#### User programs editing (U1 – U4)

When you are editing a user program, the thermostat shows the next image

#### Temperature pictograms

- $\text{🏠}$ : the comfort temperature is applied during the selected time interval.
- $\text{🏡}$ : the reduced temperature is applied during the selected time interval.

#### Time interval

- steps of 30 minutes

#### Procedure to customize user programs (U1 - U4):

The program change begins on the first day of the week (1 = Monday).

If you press  $-$  key, you choose a reduced temperature for the chosen time interval.

If you press  $+$  key, you choose a comfort temperature for the chosen time interval.

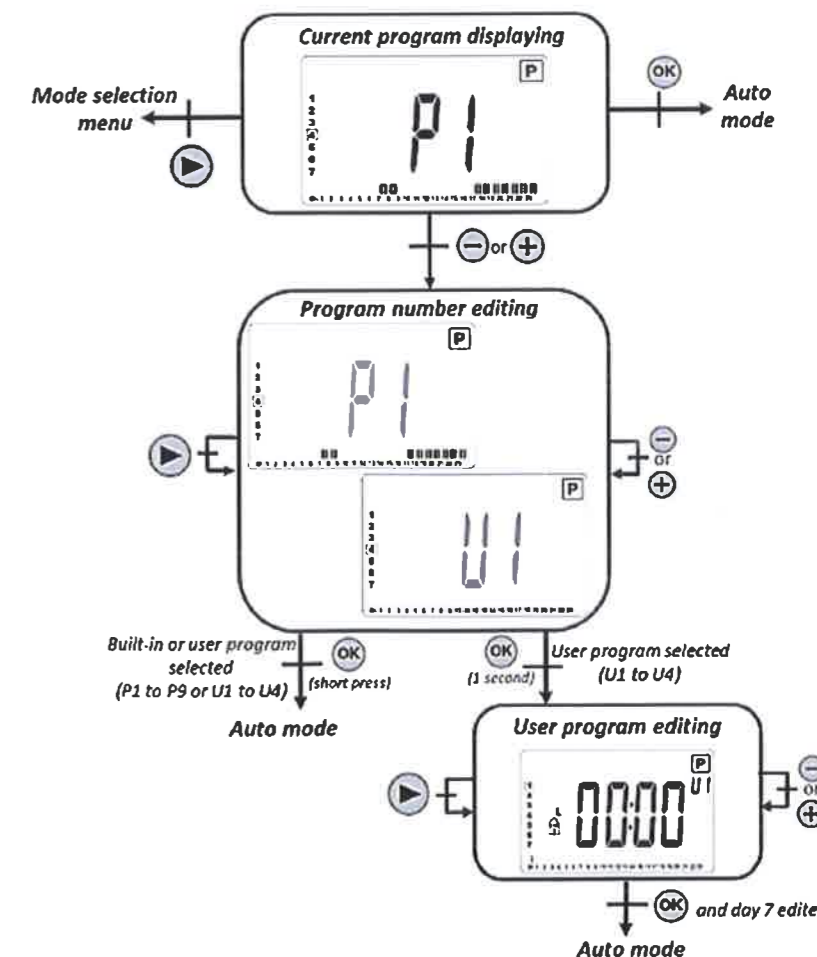
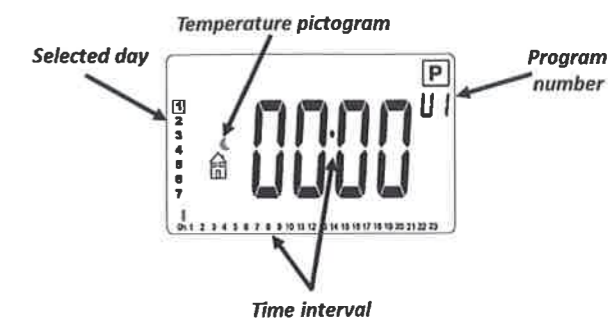
Pressing  $\blacktriangleright$  key switches to the next time interval.

Press  $OK$  key to confirm changes for the selected day and to move on to the next day.

When the seventh day is confirmed, the thermostat automatically returns to Auto mode

**Preset value:** reduced setpoint temperature.

Pressing  $\text{⏻}$  key stops the program selection and deletes the program changes if the last day has not been validated. No changes will be saved.



### 9.11 Consumption mode

This mode is only available if the heater power has been initially set and the parameter "PoW" in the parameter menu (chapter 12) is activated.

If you press  $\ominus$  or  $\oplus$  key you can modify the interval time for displaying the power consumption (last 24 hours, last 7 days and last 30 days) The power values are displayed in kWatt.

If you do not press any keys, the thermostat will automatically return to the previously selected mode

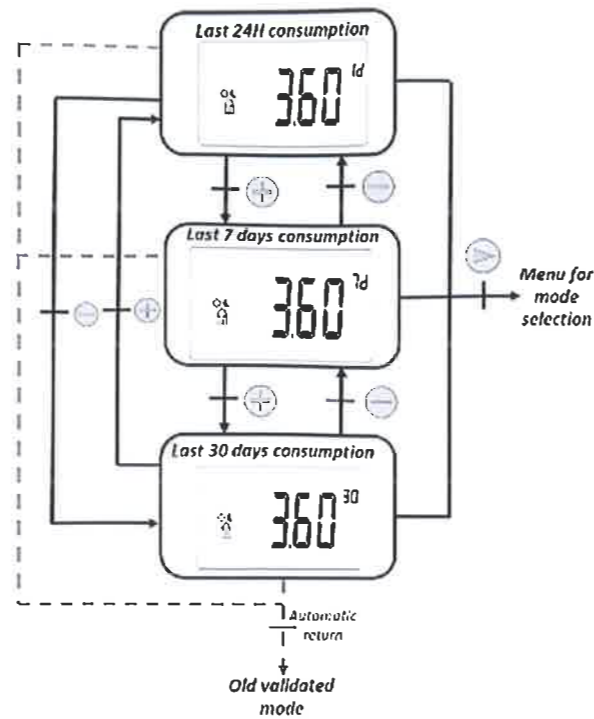
If you press  $\blacktriangleright$  key you can return to the selection mode menu.

If you press  $\text{OK}$  key for one second you will reset the energy consumption values.

If you press  $\text{Power}$  key you stop the device.

The estimated values are saved in the memory every 4 hours and every time the user displays this menu.

If there is a power cut, the estimated values are maintained for 24 hours after reconfiguration.



### 9.12 Backup of settings

This thermostat automatically saves its data (set point values, user programme and settings) when the user confirms the changes made to the settings by pressing the confirmation key.

It also saves the estimated values of its energy consumption:

1. Every 4 hours
2. When the user enters the consumption moden.

## 10. SPECIAL FUNCTIONS

### 10.1 Behavior displaying

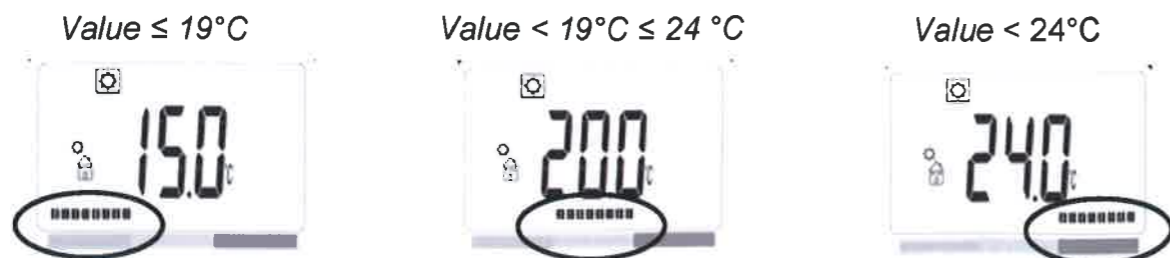
When the thermostat is in Comfort/Eco/anti-freeze mode, "behaviour" information is displayed. This information is described below.

#### "Behavior" color

Temperature (°C)	$T^\circ \leq 19$	$19 < T^\circ \leq 24$	$24 < T^\circ$
Color	GREEN	YELLOW	RED

#### Displaying example

When the user will configure comfort set point temperature, LCD will display with respect to the set point value:



### 10.2 ITCS: Intelligent Temperature Control System

This function can be activated with the "ITCS parameter" in menu parameter.

When an adaptative start is realizing by the system, a hand logo is displayed on LCD screen.

This function permits to activate your installation in advance (up to a maximum of 2 hours) when your thermostat is in Auto mode  $\text{Auto}$  to assure the desired temperature at the hour programmed following your weekly program.

ITCS realizes automatically several time and temperature measurements.

When thermostat is switched on for the first time, a default time is used to reach the setting temperature. This value will be adjusted by new measurements at each program change to offset the outside temperature evolution. Then, the thermostat can be programmed without adjustment because it will be done automatically.

### 10.3 Open window detection

This function can be activated with the "window setting" in the settings menu.

If the function is activated, the icon appears on the displayed screen.

This function is executed by measuring and recording the temperature change over the last 20 minutes:

- The thermostat switches to the "Window open" status (and the temperature value flashes) when the temperature has dropped by more than 1.5°C in the last 20 minutes, when the unit was switched on and is heating.
- If the temperature exceeds 0.3°C in 20 minutes, the window opening status is cancelled and the thermostat automatically returns to the current mode setting



### 10.4 Locking keyboard

To activate this function, you must press  $\ominus$  and  $\oplus$  at the same time for 5 seconds. The icon is displayed on the screen.

All keys are locked except Start/Stop  $\text{Power}$ .

To unlock the keypad, you must repeat the same procedure.

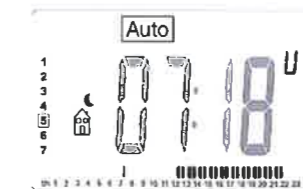
This function is accessible in all operating modes, except in the settings menu (see chapter "Settings menu"), in the modification, programme and consumption modes and in the mode selection menu.

NOTE: In the event of a power cut, the configuration is maintained.









## 11. SETTING MENU




After a short period without power, the time display flashes until the user accesses the time change menu to check the values:






If the power failure lasts too long, the time and date values will be reset to the factory settings, and you will need to reconfigure these values.

## 12. PARAMETERS MENU

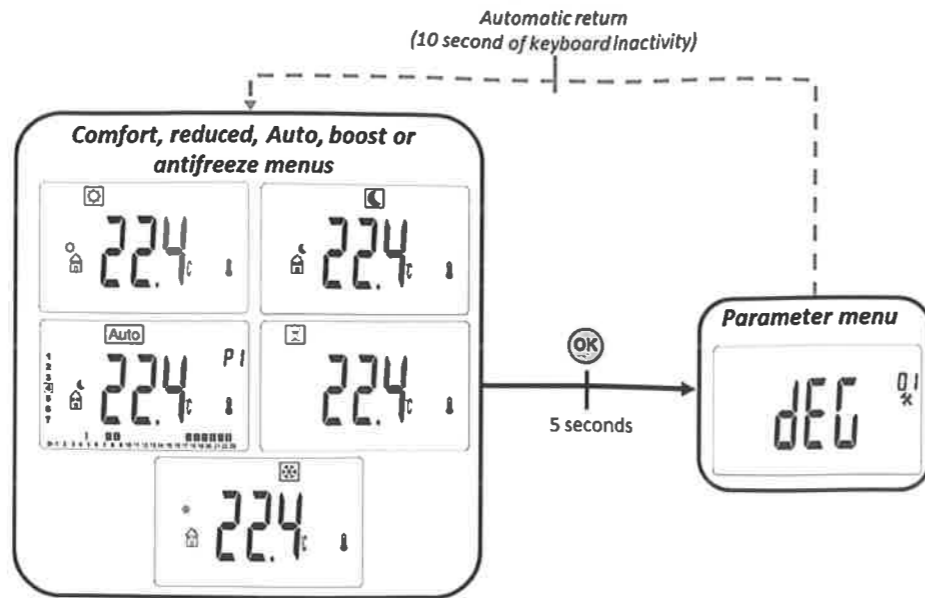
The thermostat must be in one of the following operating modes: Comfort , Reduced , Antifreeze , Auto  or Boost . To access the settings menu User, the user must hold down the key  for 5 seconds after the time change menu.













The setting to be set must be selected by pressing ,  or .












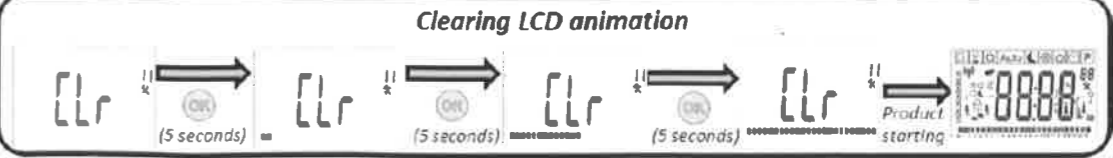
The setting is done by pressing the keys  or . The set value is confirmed by pressing the  key.




The number of settings in the menu is modified with the  key.

To exit from the settings menu, you must choose the setting "End" and press on the key .















	Temperature measuring unit	
	<i>Preset value</i>	<i>Other choices</i>
	°C (Celsius)	°F (Fahrenheit)
	Selecting the display format of the "time" clock:	
	<i>Preset value</i>	<i>Other choices</i>
	24 H	12 h (AM/PM)
	DST - Daylight saving time If this function is activated, the thermostat automatically changes the time (summer/winter) according to the date	
	<i>Preset value</i>	<i>Other choices</i>
	Yes (function activated)	No
	Calibration of the temperature sensor	
	The first screen shows the measured temperature. Press the  to display the difference value. If "no" is displayed, the sensor has not been calibrated (offset value equal to zero). <i>Configuration of the temperature:</i> Press  or  to configure the temperature value. Press  to confirm the configuration. <i>How to calibrate the temperature sensor:</i> Calibration must be done after 1 day of use with the temperature configuration, as described above:	
	<ul style="list-style-type: none"> <li>Place a thermometer in the room, at the same distance from the floor as the thermostat. Check the actual room temperature after 1 hour</li> <li>Enter this value in the calibration settings menu using this function</li> </ul>	
	Press  or  to enter the actual value.	
	Press  to confirm the calibration.	
	ITCS - Intelligent Temperature Control System (Adaptive start-up heating in AUTO) This function is described in the paragraph "Special functions". This setting enables or disables this function.	
	<i>Preset value</i>	<i>Other choices</i>
	Yes (function activated)	No

	Automatic window detection. This function is described in paragraph 6.6.8 "Special functions". This setting enables or disables this function.	
	<i>Preset value</i>	<i>Other choices</i>
	Yes (function activated)	No
	This parameter allows to display or not the consumption mode	
	<i>Preset value</i>	<i>Other choices</i>
	No	Yes (function activated)
	Child protection (heat limit) This configuration reduces the power of the heater to protect children who touch the unit. If this setting is 100% this function is disabled	
	<i>Preset value</i>	<i>Other choices</i>
	No (100%)	No (100%) / 75% / 50% These values correspond to a radiator power threshold.
	Boost temperature setting Temperature set when the boost mode is activated	
	<i>Preset value</i>	<i>Other choices</i>
	30°C	20°C to 30°C
	Boost temperature setting Temperature set when the boost mode is activated	
	<i>Preset value</i>	<i>Other choices</i>
	30°C	20°C to 30°C
	CLR - Delete the unit's memory with the factory settings All the thermostat settings will be loaded with the factory. Press and hold  for a few seconds, the thermostat will restore the settings. The thermostat is reset to the predefined factory settings:	
	<ul style="list-style-type: none"> <li>Set the temperature to 19°C , 17°C , 7°C </li> <li>Programme from U1 to U4</li> <li>Increase by 30 minutes </li> </ul>	
	User settings:	
	<ul style="list-style-type: none"> <li>Time displayed - "24H"</li> <li>Temperature unit - "°C"</li> <li>Detection of open window - "Yes"</li> <li>ITCS - "Yes"</li> <li>Sensor calibration - "No"</li> <li>Automatic daylight saving time setting - "Yes"</li> <li>Boost set point - "30°C",</li> <li>Maximum comfort set point - "30°C"</li> <li>Child protection - "no" (100%)</li> <li>Reset the time</li> </ul>	
<p style="text-align: center;"><i>Clearing LCD animation</i></p> 		
NOTA: heater power setting is not reset.		




	Display of loaded software version
	Exit the settings menu Pressing the  key exits the return settings menu during normal operation.


### 13. PILOT WIRE MODE

Do not consider this mode in the version of radiator with schuko plug.

Pilot wire command	Screen	Pilot wire command	Screen
Comfort 		Reduced (Eco) 	
Comfort -1 		Antifreeze 	
Comfort -2 		Stop 	

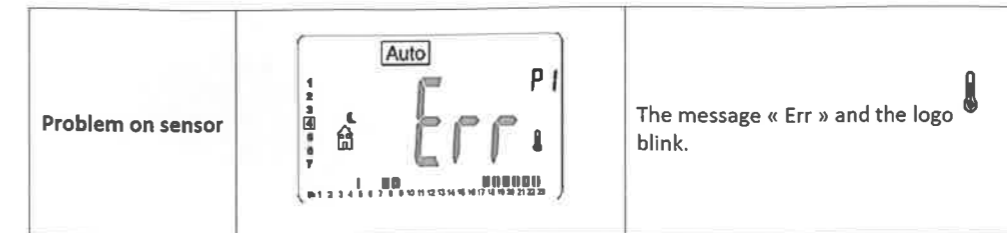
#### 13.1 Pilot wire order priority

Mode set on the thermostat	Pilot wire control mode	Actual mode set
Mode AUTO (comfort  )	Comfort	Comfort
	Comfort -1°C	Comfort -1°C
	Comfort -2°C	Comfort -2°C
	Comfort -3.5°C / eco	Lower value between Comfort -3.5°C and 19°C
	Antifreeze	Antifreeze
	Stop	Stop
Mode AUTO (reduced  )	Comfort	
	Comfort -1°C	Temperature set in ECO mode
	Comfort -2°C	
	Comfort -3.5°C / eco	Lower value between the temperature set in ECO mode and "Comfort -3.5°C"
	Antifreeze	Antifreeze
	Stop	Stop
Mode AUTO (manual  )	Comfort	
	Comfort -1°C	
	Comfort -2°C	
	Comfort -3.5°C / eco	Manually set temperature
	Antifreeze	
	Stop	

If the open window detection  is activated and this function detects the opening, the thermostat follows the rules described in the paragraph "Open window detection". The thermostat displays the value of the set temperature applied to the heater. It takes into consideration the order of priority shown above.

### 14. MEASUREMENT ERROR

If the sensor is turned off or disconnected, an error message "Err" will appear on the thermostat display.



### 15. TROUBLESHOOTING

#### The device does not heat enough

- The device could be set in ECO MODE or ANTI FREEZE. You should set the COMFORT mode or increase the setting temperature.

#### The device heats continuously

- Check the position where the heater is installed: it should be far from any air flow.
- Check to be set the proper temperature.

If the problem persists you should interrupt the power supply to the heater and wait for one minute at least before turning it back on.

If the problem persists again, please contact the technical assistance.



#### INFORMATION FOR USERS

in accordance with article 14 of the Directive 2012/19/EU of 07/07/2012 on waste electrical and electronic equipment:

- The symbol shown above, present also on the equipment, indicates that it has been placed on the market and that, when the user decides to get rid of it, it must be disposed of in separate waste collection (including all the components, sub-assemblies and consumer materials which are an integral part of the product).
- For information on the systems for collecting these appliances, please contact the company IRSAP SPA or another subject enrolled in the various National Registers for other countries in the European Union. Waste produced in the home (or of similar origin) may be consigned to systems for the separate collection of urban waste.
- When buying a new appliance of an equivalent type, it is possible to hand over the old equipment to the seller. The seller will then contact the subject in charge of the collection of the equipment.
- The appropriate separate collection of the scrapped equipment and the subsequent operations of processing, recovery and environment-compatible disposal, allows the avoidance of potential negative effects on the environment and on human health, while favouring the recycling and recovery of the component materials.

The unauthorised disposal of the product by the user entails the application of the sanctions contemplated under the national approval of Directives 2011/65/EU, 2008/98/EC and 2015/1127/EU