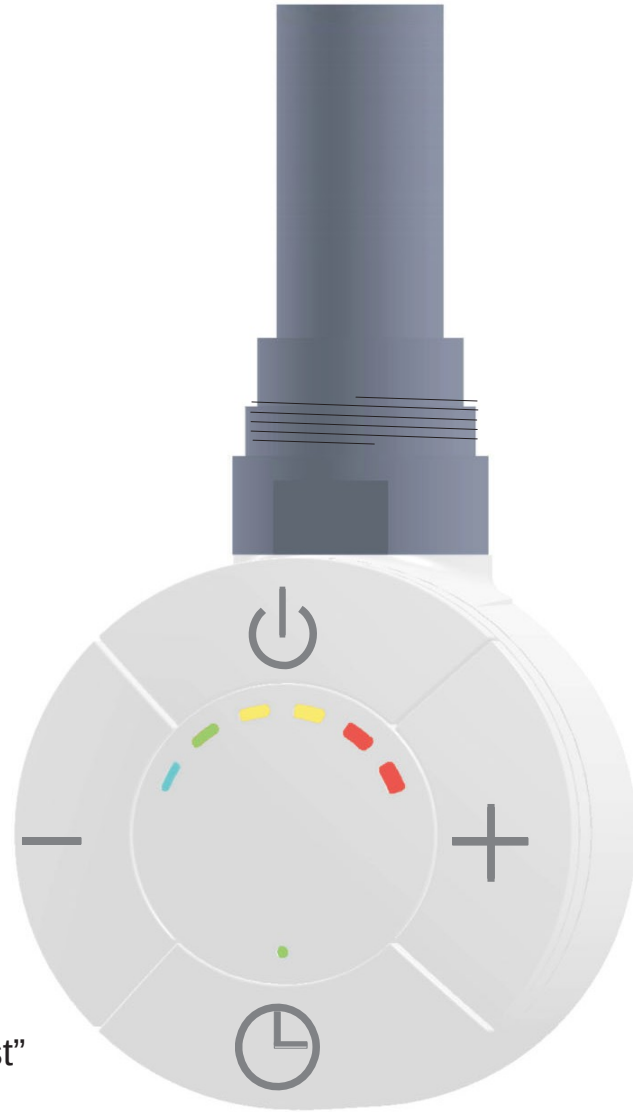
Selmo

Comfort technology division

“SMART Plus ClassII FP”

Electronic control for towel radiators

SMART Plus ClassII FP is an electronic thermostat for the automatic control of electric towel radiators. The device is capable of detecting the room temperature and of keeping it to a desired value by means of a heating element.



Operative modes: Comfort, Boost, Standby/Antifreeze, Timer12, Timer24, Fil-Pilote.

- **“Fil-Pilote” mode:** In “Fil-Pilote” mode the device is remotely controlled by a central control system supporting the “Fil- Pilote” standard with up to six commands: **Standby**, **Comfort, ECO, antifreeze, Eco-1, Eco-2**.

- **“Boost” mode**: In “Boost” mode the heating element is activated for a period of 2 hours independently of the configured temperature. The temperature is however automatically controlled in order not to exceed 29°C. At the end of the 2 hours period, the device returns to “Comfort” mode.

- **“Timer” mode:** The control system enters into “Boost” mode for 2 hours; after that it returns into “Comfort” mode for 22 or 10 hours (period configurable by the user) and then it enters again into “Boost” mode for 2 hours. This sequence is repeated endlessly.

Available colours: - White
- Chromed

- **“Standby/Antifreeze” mode**: In this mode the device goes in standby and powers off the heating element.

SMART Plus ClassII FP is a certified product: CE

SMART Plus ClassII FP compliant with the following standards:
-Eco-design Directive for Energy-using Products, 2005/32/EC (<0,5W).
-EN 60335-1:2012+A11:2014
-EN 60335-2-43:2003+A1:2006+A2:2008
-EN 61000-3-2:2014 -EN61000-3-3:2013 -EN 62233:2008
-EN 55014-1:2006+A1:2009+A2:2011

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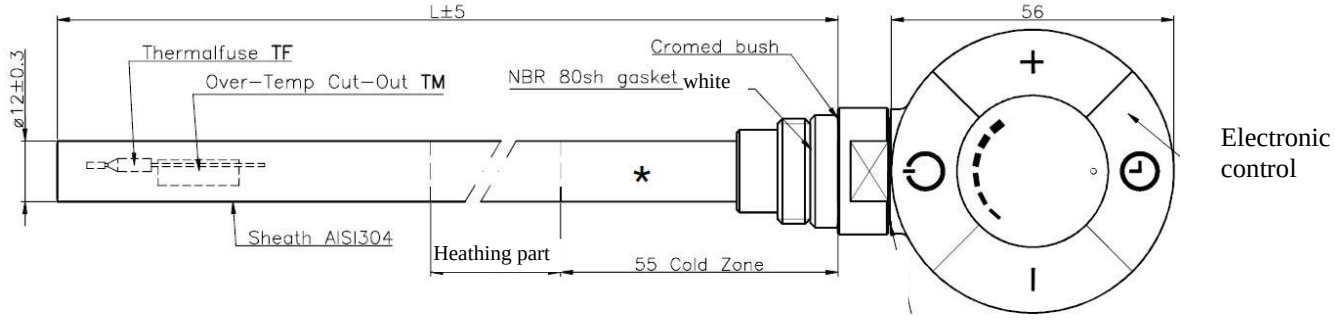
TECHNICAL CHARACTERISTICS

Product	Electronic control for towel radiators
Applications	Towel radiators
Insulation class	Class II with Fil-Pilote
IP level	IP44
Temperature setting	Digital
Selectable temperature range	7°C ÷ 29°C
Operational temperature	-10°C ÷ 40°C
Maximal power	See table below
Supply voltage	230VAC 50Hz
Size	See figure below
Warranty	2 years
Standards	-EN 60335-1:2012+A11:2014 -EN 60335-2-43:2003+A1:2006+A2:2008 -EN 61000-3-2:2014 -EN61000-3-3:2013 -EN 62233:2008 -EN 55014-1:2006+A1:2009+A2:2011 -EN 55014-2:1997+A1:2001+A2:2008
Approval mark	CE
Case	ABS-VO
Environmental directive	WEEE, RoHS
Operative modes	Comfort, Boost2h, Timer12h, Timer24h, Standby/Antifreeze, Fil-Pilote.
Thermostat status indicators	Boost/Timer LED (red/green/amber). Comfort Bar with 6 LEDs: 1 blue, 1 green, 2 yellows, 2 reds
Connection to mains	3 Cables (neutral, live, Fil-Pilote); Length 120cm.
Available colours	White (RAL 9016) Chrome
Maximal temperature of the thermal	152°C

Power	**(W)**	**100**	**200**	**250**	**300**	**400**	**500**	**600**	**700**	**750**	**800**	**900**	**1000**
Watt density	W/cm^2	1.1	2.3	4	3.2	3.4	4	3.6	3.6	4	3.6	3.7	3.7
temperature Limit	**°C**	**80**	**80**	**80**	**90**	**90**	**90**	**90**	**90**	**90**	**90**	**100**	**100**
Lmax (heating element)	(mm)	350	350	370	370	430	450	560	630	700	700	760	830



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WARNING
RISK OF ELECTRIC SHOCK!
Disconnect power supply before proceeding with installation.

Preserve with care the present instruction sheet and read carefully before using the device.

- The present device has been designed for exclusive use on a towel radiator.
- The thermostat is designed for heating the liquid contained inside a towel radiator in combination with a heating element. Any other use is forbidden.
- Before using, carefully ensure that the line voltage is the same as that specified for the device (see technical specifications).
- Only use heating elements compatible with the type of used towel radiator.
- Disconnect power supply before cleaning or before performing maintenance of the product.
- In case of damage of the power supply cable shut down the device and do not tamper with it. The damaged power supply cables can be replaced exclusively by the manufacturer or by an authorized service center. Failure to comply with the above rules could lead to compromised system safety and void the warranty.
- Store and transport the heating element exclusively in the protecting packaging.
- Replacement of the heating element can be done exclusively by the product manufacturer.
- Children aged under 8 years old and people with reduced physical, sensory or mental abilities, can use the device only under supervision. Children should not play with the device.
- Cleaning and maintenance meant to be carried out by the user should not be done by children without supervision.

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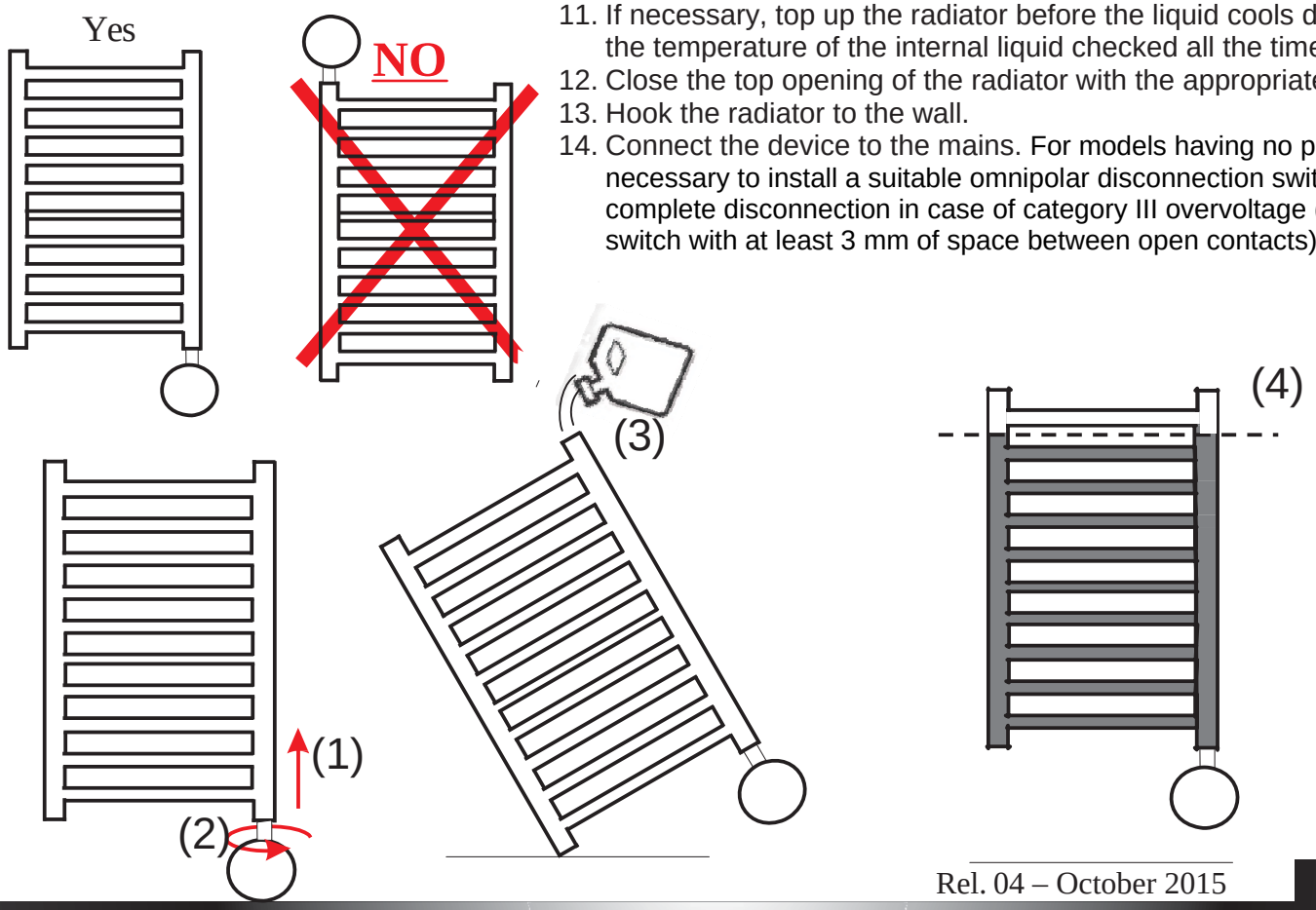
Installation Guide

To be used by installer only

- Disconnect the device from power supply before proceeding with installation.
- Protect the device with a 30mA RCD circuit breaker.

1. Insert the heating element in the threaded opening located on the bottom part of the radiator.
2. Securely fasten the electric resistance to the body of the towel radiator with a 22mm wrench.
3. The special sheath ensures a secure mounting and eventually allows a slight supplemental torsion to perfectly align the thermostat with the radiator.
4. Tilt the radiator as in fig. 3, making sure that the opening on top of the radiator is located on the highest side. WARNING. Do not lean the radiator on the electronic control!
5. Fill the radiator with the specific liquid.
6. Put the radiator back in vertical position and check the internal level of the liquid (fig. 4).
7. Ensure a proper fastening of the heating element in the radiator.
8. Connect the device to mains and start heating (the top opening of the radiator must remain open!).
9. Set the maximal temperature and check the level of the internal liquid.
   - Due to thermal expansion the liquid could brim over the radiator.
   - Remove the exceeding liquid (be careful to avoid burns!) in order to keep the thermostat dry and avoid the liquid reaching the border.
10. When the level of the liquid stops growing wait for additional 5 minutes then stop heating.
11. If necessary, top up the radiator before the liquid cools down (keep the temperature of the internal liquid checked all the time).
12. Close the top opening of the radiator with the appropriate cap.
13. Hook the radiator to the wall.
14. Connect the device to the mains. For models having no plug it is necessary to install a suitable omnipolar disconnection switch ensuring complete disconnection in case of category III overvoltage (that means a switch with at least 3 mm of space between open contacts).



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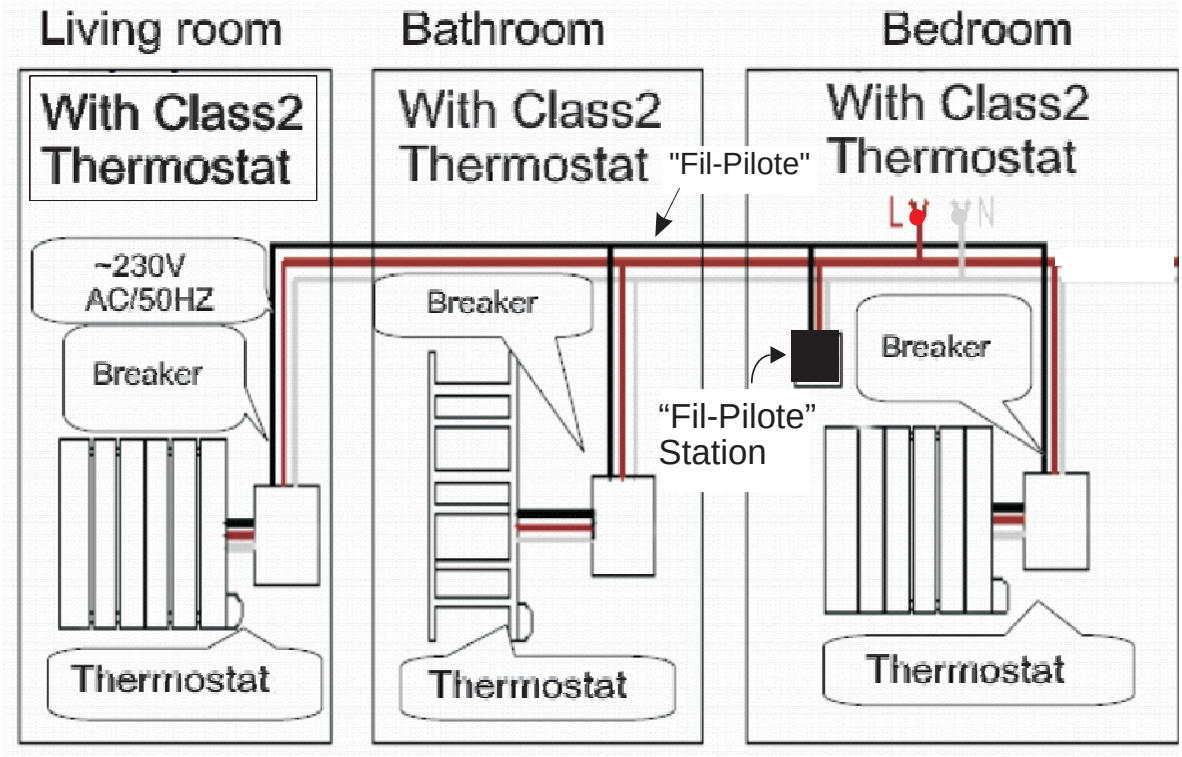
Accessory: To allow a mixed usage of the SMART device, connect the T-piece to the towel radiator, insert the SMART device into the vertical manifold of the T-piece and connect the return line of the heating circuit to the orthogonal connector of the T-piece.

Available Colours: White, Chromed.

Connection to Fil-Pilote system

Example



A control unit supporting the "Fil-Pilote" system can remotely control a Smart Plus classII device with "Fil-Pilote" functionality (Class II). The brown wire is the Live wire (L), the gray wire is the Neutral wire (N) and the black wire is used for receiving the Fil-Pilote signal.

Do not connect the black wire to the ground.

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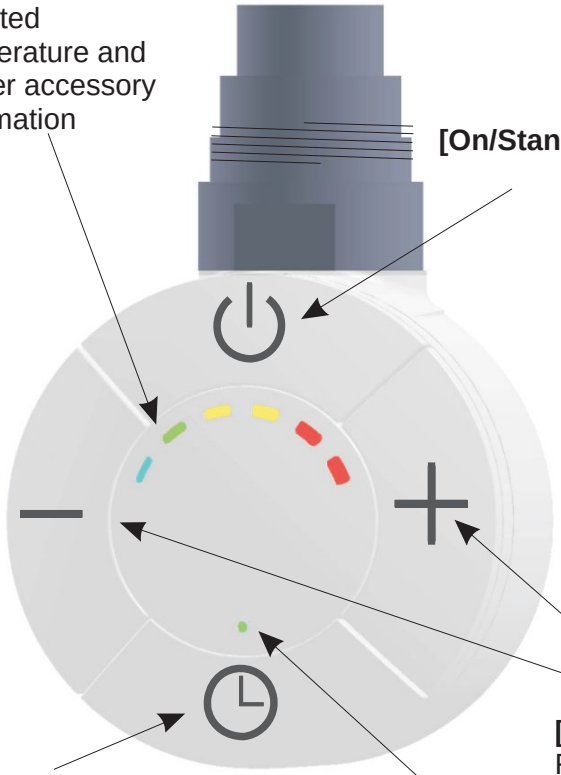
Electronic control for towel radiators

User Manual



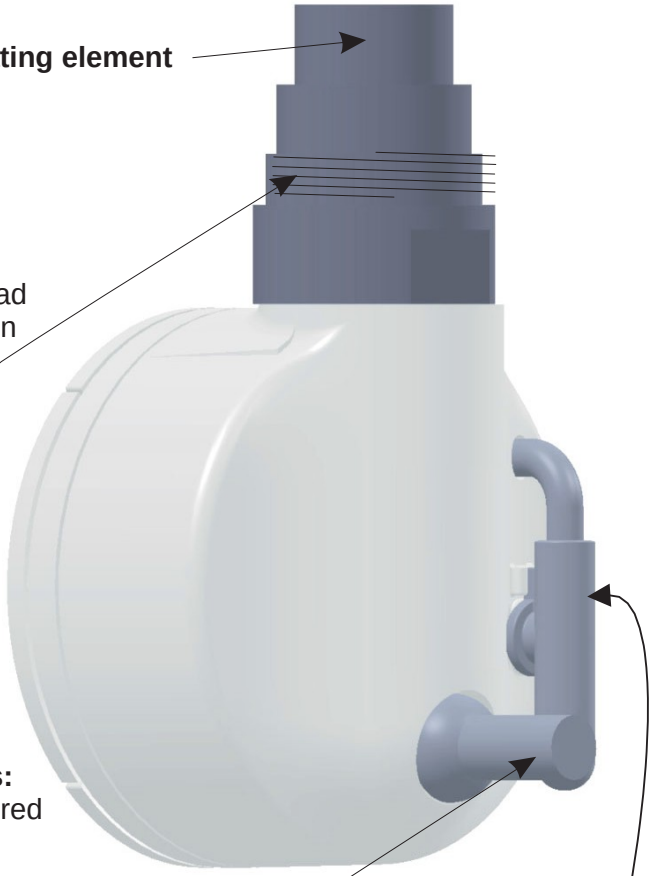
"Comfort Bar": Indicates the selected temperature and further accessory information

[On/Standby] button

[Bost/Timer] button: To select one of "Boost", "Timer12" and "Timer24" modes

[+] and [-] buttons: For setting the desired temperature

"Boost/Timer" LED: Small red/green/amber light indicator to inform about the current active mode



Heating element

1/2" GAS thread for fastening on the radiator

Power cord

External temperature sensor: For detecting the room temperature

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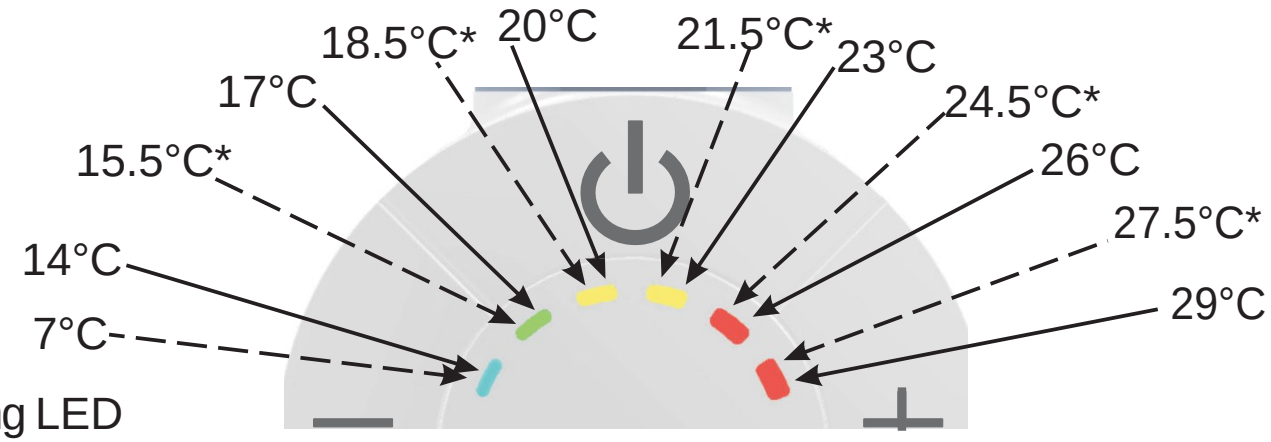
Comfort bar



* Blinking LED

On/Standby

Press the [On/Standby] button to turn on the device or to activate the "Standby" mode.

NOTE: When the device is switched to "Standby/Antifreeze" mode, it beeps twice for 0.5sec. When the device is switched to "On" mode (i.e. it is turned on), it beeps for 1sec.

Fil-Pilote mode

The "Fil-Pilote" sub-function allows managing the device by a central control system that sets the operating mode for all the connected devices. The device supports the most advanced "Fil-Pilote" standard with six commands which allows the following functions:

1. **Standby (Arrêt):** power off the heating element, the device remains active.
2. **Comfort (Confort):** maintains the "Comfort" temperature set by the user.
3. **ECO (Eco) :** maintains the room temperature 3,5°C below the "Comfort" temperature.
4. **Antifreeze (Hors Gel):** prevents the room temperature from falling below 7°C.
5. **Comfort-1 (Confort-1°C):** maintains the room temperature 1°C below the "Comfort" temperature.
6. **Comfort-2 (Confort-2°C):** maintains the room temperature 2°C below the "Comfort" temperature.

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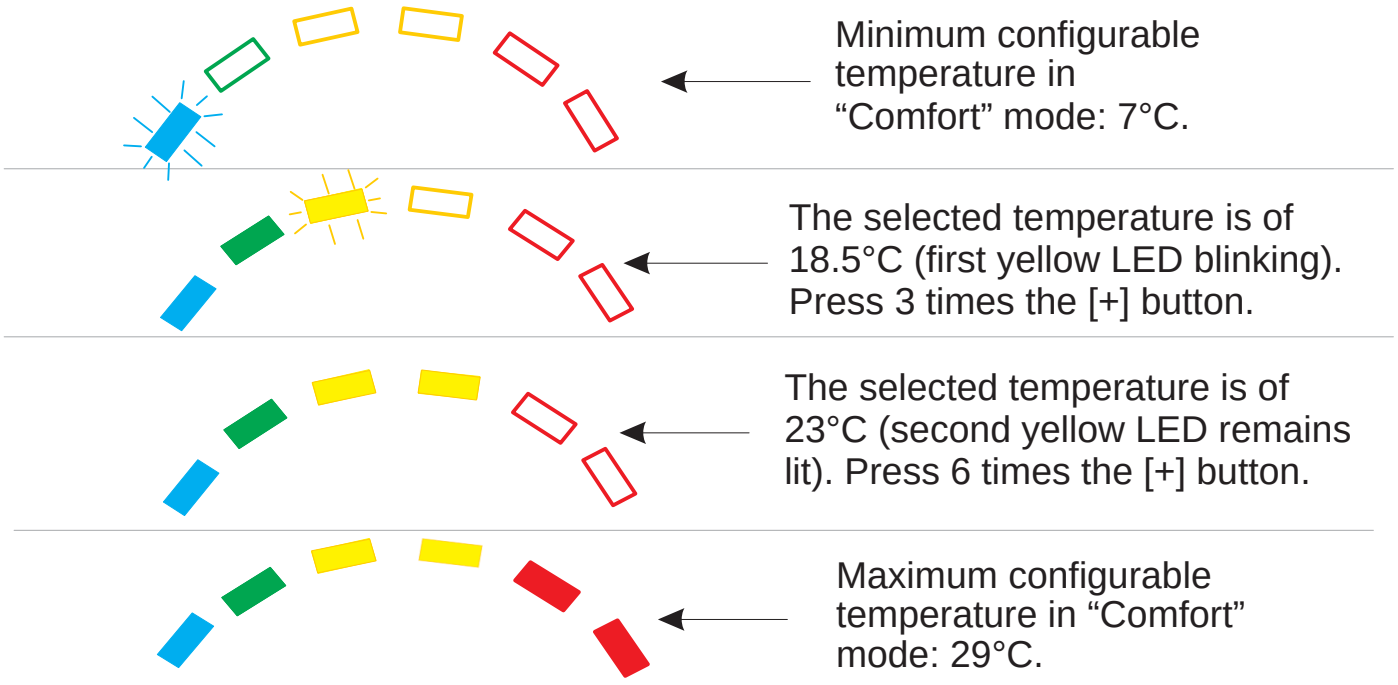
Temperature setting: This function allows the selection of the “comfort” mode temperature of the “Fil-pilote”. The temperature is set through the [+] and [-] buttons to one of the following temperature values: 7°C; 14°C; 15,5°C; 17°C; 18,5°C; 20°C; 21,5°C; 23°C; 24,5°C; 26°C; 27,5°C; 29°C.
The rightmost lit or blinking LED in the “Comfort bar” indicates the selected temperature.



Led of the Comfort bar	Blinking Led	Led always on
Blue----------	7°C----------	14°C,
Green----------	15.5°C,-------	17°C,
1st Yellow-------	18.5°C,-------	20°C,
2st Yellow-------	21.5°C,-------	23°C,
1st Red----------	24.5°C,-------	26°C,
2nd Red----------	27.5°C,-------	29°C.

Note: While in “Fil-Pilote” mode, the “Comfort Bar” still shows the “Comfort” temperature

“Standby” mode

In this mode the device goes in standby and the heating element is powered off.

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"Boost" mode: Press the **[Boost/Timer]** button to activate this operative mode.
This mode activates the heating element to the maximum power for 2hrs (for safety reasons the maximal temperature is limited to 29°C).
To exit the "Boost" mode press the **[Boost/timer]** button.

"Boost" mode indication: "Boost/Timer" LED has red color and it blinks.

"Timer24" mode: Press the **[Boost/Timer]** button for 3 seconds to activate this mode.
The control system activates the "Boost" mode for 2 hours, after that it returns into "Comfort" mode and after 22 hours the "Boost" mode is started again for 2 hours. This sequence will repeat endlessly.
To exit the "Timer24" mode press the **[Boost/Timer]** button.
NOTE: During the first cycle the duration of the "Comfort" mode is of 21 hours.

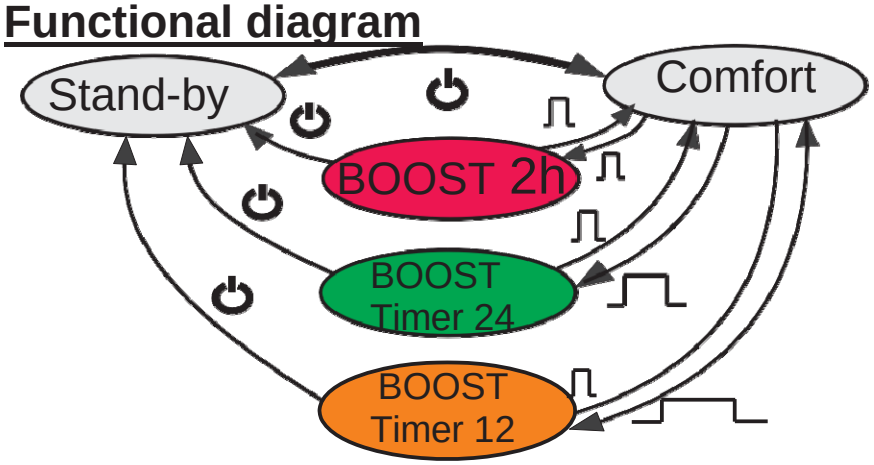
"Timer24" indication during 2hrs "Boost": "Boost/Timer" LED blinking green.
During 22hrs "Comfort": "Boost/Timer" LED always green.

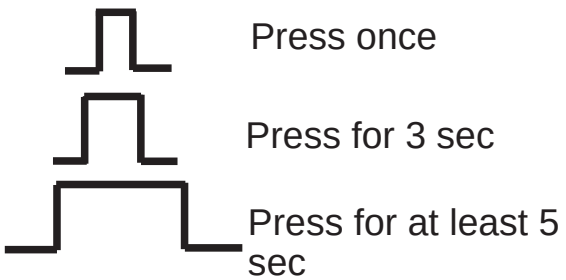
"Timer12" mode: Press the **[Boost/Timer]** button for more than 5 seconds to activate it.
The control system activates the "Boost" mode for 2 hours, after that it returns into "Comfort" mode and after 10 hours the "Boost" mode is started again for 2 hours. This sequence will repeat endlessly.
To exit the "Timer12" mode press the **[Boost/Timer]** button.
NOTE: During the first cycle the duration of the "Comfort" mode is of 9 hours.

"Timer12" indication during 2hrs "Boost": "Boost/Timer" LED blinking amber.
During 10hrs "Comfort": "Boost/Timer" LED always amber.

NOTE: For safety reasons, the maximal temperature of the radiator during the 2hrs boost is limited to 29°C.

Functional diagram





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Boost/Timer LED functioning summary

Blinking red	"Boost" mode active. The heating element is powered for 120 minutes (temperature of the radiator automatically limited to 29°C).
Blinking Green	"Boost" function active in **Timer24** mode. The heating element is powered for 120 minutes (temperature of the radiator automatically limited to 29°C).
Always green	Return to "Comfort" mode for 22hrs.
Blinking amber	"Boost" function active in **Timer12** mode. The heating element is powered for 120 minutes (temperature of the radiator automatically limited to 29°C).
Always amber	Return to "Comfort" mode for 10hrs.

Key lock function

It is possible to lock the buttons of the device to avoid inadvertent modifications of the settings. Press together the [+] and [-] buttons for 3 seconds to lock all the buttons except the [On/Standby] button.
To unlock the buttons press again together the [+] and [-] buttons for 3 seconds. When key lock is activated the device beeps twice. When key lock is deactivated, the device beeps four times.

Additional indications provided by the "Comfort Bar":

- The two central (yellow) LEDs blink when a button is pressed: Key lock is active.
- The external (blue and red) external LEDs blink: Failure on the temperature sensor, the heating element is deactivated. Contact customer support.

Notes

In case of interruption of power supply, the system will recover from the previous operative mode*, with the exception of "Boost" and "Timer" modes.
*The status of the device is saved 5 seconds after a modification occurs.

Repairs carried out by unauthorized personnel invalidate warranty

The manufacturer reserves the right to make any changes to the product described in this manual, at any time, and without prior warning.

DISPOSAL

This product may not be treated as ordinary household waste. It has to be disposed in proper waste collection sites. In case of replacement it shall be returned to the distributor.
Such an end-of-life treatment of the product will preserve the environment and will reduce consumption of natural resources.
This symbol applied to the present product indicates the obligation to bring it to a proper waste collection site, in order to let it be disposed according to 2002/96 / CE (RAEE - WEEE) directives.

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