# SMART ELECTRIC RADIATORS



**Carisa smart electric radiators** that are Eco Design Lot20 compliant are energy-efficient heating devices designed to meet the European Union's Eco Design Directive requirements. The Eco Design Directive sets energy efficiency standards for various products, including electric heaters, to reduce energy consumption and minimize environmental impact.

To comply with **Eco Design Lot20**, smart electric radiators must meet specific criteria, such as:

- 1 Energy Efficiency: The radiators must have a high energy efficiency rating, ensuring that they convert a significant portion of the electricity they consume into usable heat.
- 2 Accurate Controls: Smart electric radiators should feature precise temperature controls, allowing users to set and maintain their desired room temperature easily. This helps prevent overheating or energy wastage.
- 3 Programmable and Adaptive Controls: Lot20 compliant radiators often have programmable and adaptive controls, enabling users to create heating schedules based on their daily routines. Adaptive controls can learn from user behavior and adjust heating patterns accordingly.
- Open Window Detection: Smart electric radiators with open window detection can sense sudden drops in temperature caused by an open window or door. When this occurs, the radiator will temporarily pause heating to prevent energy waste.
- **Smart Connectivity:** These radiators may also have smart connectivity features, allowing users to control and monitor their heating remotely through smartphone apps or integrate them with home automation systems.

By incorporating these features, Eco Design Lot20 compliant smart electric radiators help improve energy efficiency, reduce carbon emissions, and provide more control and convenience to users.





### ENERGY SAVI PRODUCT

The Carisa smart electric radiators are design converting electrical power into heat. They had point of use, meaning that all the power draw converted into heat. However, in addition to electric radiators also incorporate advance features that can further reduce running cos

Since January 1, 2018, all electric space heaters minimum efficiency standards as part of the Regulations (ERP). This means that all heater gent room temperature controls to minir comply with the regulations. To fully comply Eco-design, products within the scope **must** Energy Efficiency rating.

In the case of a fixed electric space heater, whed electric radiator, the energy-saving feature electric radiator series result in an **impressive**. This means that it surpasses the minimum regulations and provides even greater energy



# ENVIRONMENTALL FRIENDLY PRODUC

An environmentally friendly product is one that has a min impact on the environment. There are several features th to the environmentally friendly nature of a product:

**Reducing carbon emissions:** By reducing carbon emission uct aligns with the goals of the European Green Deal. To Green Deal is a comprehensive set of policies aimed at European Union towards a sustainable and climate-neu 2050.

100% Recyclable Aluminium Body: The use of a 100 aluminum body indicates that the product promotes the circular economy. Aluminum is a highly recyclable materican be reused and transformed into new products, reductor extracting and processing raw materials. This feature waste and conserve resources.

Highly efficient fuel consumption: The product's high f especially when compared to natural gas and solid fuels, c lower energy consumption. By using energy more efficier uct reduces the overall environmental impact associated production and consumption. It can lead to reduced greennouse gas emissions, helping to combat climate change.



### RODUCT IGHLIGHTS



### Adaptive Control Technology

Adaptive Control/Start Technology is a feature available in Carisa smart electric radiators that allows users to prioritize either comfort or energy savings. Here's how it typically works:

**Infort Mode:** The radiator continuously monitors the room temperature and adjusts its heat output ordingly to maintain a comfortable and consistent temperature. It ensures that the room is heated ne desired level, taking into account factors such as insulation, occupancy, and outside temperature. mode prioritizes comfort over energy savings, ensuring a cozy and warm environment.

**Mode:** The radiator intelligently manages its heat output to minimize energy consumption while maintaining a reasonable level of comfort. It analyzes factors such as the room's insulation, occupancy patterns, and outside temperature to optimize energy efficiency. The radiator may reduce its heat output when the room is unoccupied or adjust it based on the temperature requirements, aiming to save energy without compromising on comfort to a significant extent.

day Mode: Holiday mode is a specific setting designed for when you're away from home for an extended period, such as during vacations. When activated, Adaptive Control Technology adjusts the operation of the Carisa smart electric radiators to conserve energy while preventing freezing or excessive temperature drops in the room. The radiator may lower its heat output to a minimal level or vate frost protection mode to ensure that the room remains above freezing temperatures. This mode helps save energy and provides basic protection for the room during your absence.

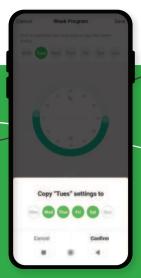
### Weekly Daily Programmable (7/24)

A weekly/daily programmable thermostat allows you to set different temperature schedules for each day of the week or even different temperature periods within a single day. It provides you with the flexibility to automatically adjust the temperature settings in your home or office based on your daily or weekly routine, helping to save energy and increase comfort. Our wi-fi smart thermostat comes with a user-friendly interface where you can set up different temperature schedules for each day of the week. You can specify the desired temperature for different periods such as morning, daytime, evening, and night. Once you have programmed the thermostat, it will automatically adjust the temperature based on your schedule. For example, you can set the thermostat to lower the temperature during the day when you're not at home, and raise it back up before you return.









Page No - 03



### 3 Open Window Detection

Open window detection is a feature implemented in Carisa smart electric radiators, to prevent energy wastage when windows or doors are left open. The purpose of this feature is to automatically respond to temperature changes caused by open windows and adjust the radiator's operation accordingly.

When a window is opened during the winter while the electric radiators are on, the individual programmer in each radiator detects the sudden drop in temperature. This triggers the radiator to automatically switch off, preventing energy from being wasted by heating the cold outdoor air.

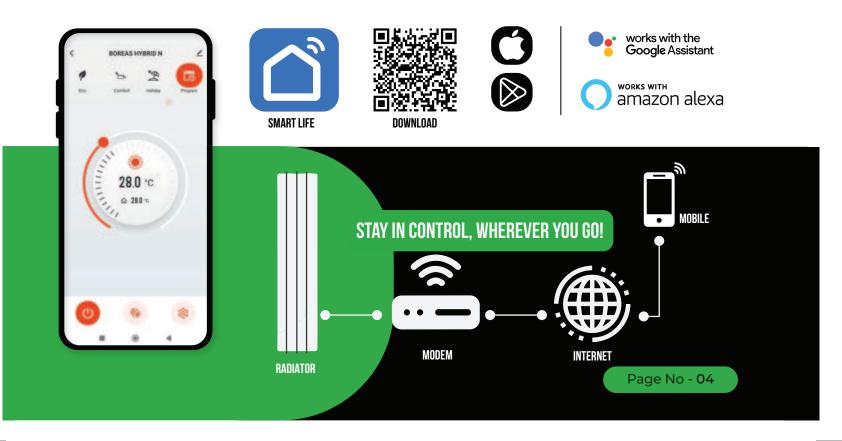
Open window detection is a valuable feature in intelligent heating systems that helps to conserve energy, reduce heating costs, and maintain comfortable indoor temperatures while actively responding to changes caused by open windows or doors.



### 4 Control via "Smart Life" app for both Android and IOS

Carisa smart electric radiators can be controller via Smart Life. The "Smart Life" app is a popular home automation application that allows users to control various smart devices and appliances from their smartphones. It is compatible with both Android and Apple devices, which means it can be downloaded and used on smartphones running either the Android or iOS operating systems.

Our products are adaptable to smart home systems via Smart Life such as Google Assistant, Amazon & Alexa.



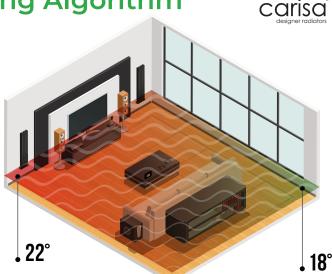
5 TPI Control - Self Learning Algorithm

TPI (Time Proportional Integral) control is a method used in heating systems to regulate the operation of individual radiators or heating zones based on the desired temperature setpoints. It involves continuously adjusting the amount of heating provided by the radiators to maintain the desired temperature.

During the initial 7-day period, the system observes your activities and memorizes your family's lifestyle and habits. It takes note of when you are typically at home and when you are away. For example, if it detects that you visit the gym every Friday and arrive home 20 minutes later, it will delay switching on the radiators until that time on subsequent Fridays.

Using this learned information, the system adjusts the heating schedule to maximize comfort when you are home and save energy when you are away.

With this self-learning feature, you don't need to spend time manually programming your radiators. The system takes care of the scheduling for you, ensuring that the radiators switch on when you are expected to be home and switch off when you are normally away. This way, you can enjoy a warm and comfortable environment without wasting any energy when you're not there.



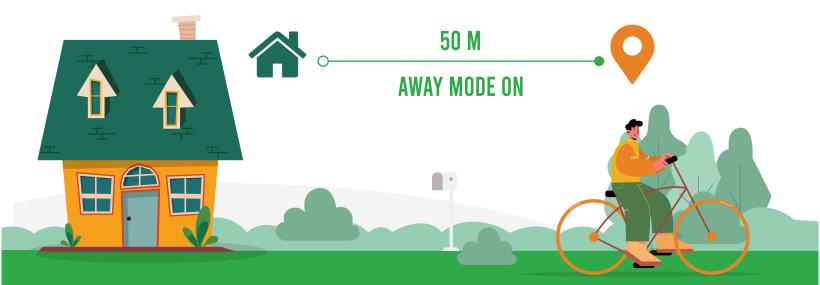


FOR MORE INFORMATION SCAN OR

### **6** Away From Home Detection

"Away from home detection" is a feature found in the Smart Life platform. It refers to the ability of the system to detect when the user is away from their home or a specific location.

Once the system detects that the user is away from home, it can trigger a series of automated actions or responses. For example, it can adjust the thermostat settings to save energy, turn off lights and appliances, activate security features like alarms or cameras, or send notifications to the user's smartphone to keep them informed about the status of their home. This feature is especially useful for enhancing convenience, energy efficiency, and security in smart homes. It allows users to have more control over their home even when they are not physically present, ensuring that energy is not wasted and that the home remains secure.





### **Additional Key Features and Benefits**



#### Lower running costs



• Reducing Energy Bills: While it's challenging to provide an exact percentage of energy savings, studies have shown that using smart heating controls, including smart radiators, can lead to energy savings ranging from 10% to 30% copared to traditional heating systems. The precise amount of energy savings will depend on individual circumstances, usage patterns, and the efficiency of the smart radiators ystem.



#### Blended / homogenus heat delivery

• Instant evenly distributed heat due the combination of both product design and high thermal conductivity.



#### · Intelligent control system

- Portable Wi-fi thermostat allows you to set the ambient temperature where you specificly desire it.
- · Lockable wi-fi thermostat touch screen.
- · Precision Temperature Sensor.



#### · Multiple radiator connection

• Could I connect more than one radiator to one Wi-fi themostat?

Yes, it is possible to connect multiple smart electric radiators to a single Wi-Fi thermostat. Carisa smart electric radiators are designed to be controlled remotely via Wi-fi thermostat. The only thing is need to be considered that wi-fi thermostat and Radiators should be dedicate same room. Because The room temperature sensor is located in wi-fi thermostat.



#### · Easy installation

- Wall mounted; can be easily mounted on to any wall
- 230v can connect to existing circuits
- Simple pairing with wi-fi thermostat
- Simple connection to Smart Life mobile app



#### Reliability

• Carisa's design and manufacturing experience of over 45 years ensures your piece of mind with 5 years product body warranty and 2 years electric parts warranty.



### · High quality aluminium body and finishes

- EN 6063 Series Aluminium,
- · Lightweight, durable and the best material choice for improved thermal conductivity.
- Electrostatic Powder Paint ensuring a durable finish for many years



#### Special dry heating technology

• 100% contact to the aluminium body, flexible silicone heaters between each radiator section, to ensure the fastest heat cycle



#### Aestheticly beautiful modern designs

 $\circ\,$  It's worth noting that Carisa Radiators regularly updates its product lineup, introducing new designs and innovations



#### · Vertical and horizontal models available in various sizes and colours

Vertical models are

1800mm height and start from a slim 3 sections (276mm width) up to 6 sections (555mm width) at BOREAS N/B/S/M,

1800mm height and start from 2

sections (200mm width) up to 4 sections (400mm width) at BOREAS NOTUS V/Z.

- $\circ$  Horizontal models are 600mm height and start from 4 sections (400 mm width) up to 14 sections (1400 mm width).
- Our stock colours are Textured Black and White.



#### • Protection from overheating

Temperature limit sensors provide an important safety feature in radiators, protecting against overheating and potential damage to the radiator or surrounding area.

### Hybrid Heating Systems



### **Boreas Hybrid**

BOREAS HYBRID is the combination of a radiator connected to the central heating system and an e option offers flexibility and the ability to stay warm even when the central heating system is switched off. system works:

Available for connection to the central heating system: The radiator is connected to the central h allowing it to receive hot water from the system when it is operational. This allows the radiator to function radiator, utilizing the heat provided by the central heating system to warm up the space.

Available for electric heating option: In addition to being connected to the central heating system, the has an electric heating element integrated into its design. This electric heating element is state-of-thetechnology, which directly heats the aluminum body of the radiator.

Alllows independent operation: When the central heating system is switched off or when you want to independently with using electric heating, you should turn off the valves that connect the radiator to the system. This prevents the flow of cold water from the central system into the radiator. The electric heating radiator starts heating the aluminum body directly, generating heat independently of the central heatin

Efficient operation: By using the electric heating option when the central heating system is switched achieve maximum efficiency.

This combination of central heating system connection and electric heating option provides you with fle ing your space. You can rely on the central heating system when it's operational, and switch to the electric when needed, ensuring a comfortable environment even when the central heating system is not in use.





### **BOREAS N**





Page No - 09









### **BOREAS N MIRROR**











### **BOREAS HYBRID N**













Page No - 11









### **BOREAS B**











Page No - 12







## Carisa designer radiators **REAS B MIRROR** Product Radiator Radiator Sections Power Code Width (W) Height (mm) 1800 369 2000 14BBM1800036904 The product comes with a paired wifi thermostat. Boreas Electric Radiators are controlled with a smart wifi thermostatic control. There must be a smart wifi thermostatic control paired with the radiator however, one thermostat can control up to three radiators in the same room/space.











### **BOREAS HYBRID B**

**6 Sections** 











### **BOREAS S**























### **BOREAS S MIRROR**









### **BOREAS HYBRID S**







Page No - **17** 









### **BOREAS M**



















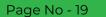
### **BOREAS HYBRID M**





control paired with the radiator however, one thermostat can control up to three radiators in the same room/space.













### **BOREAS FLAT**











## **BOREAS FLAT**TOWEL HOLDER









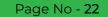






### **BOREAS FLAT MIRROR**







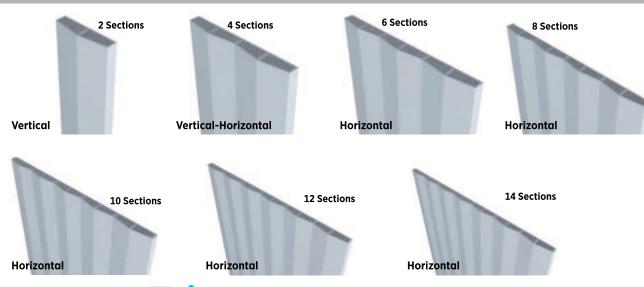




### **BOREAS NOTUS V**









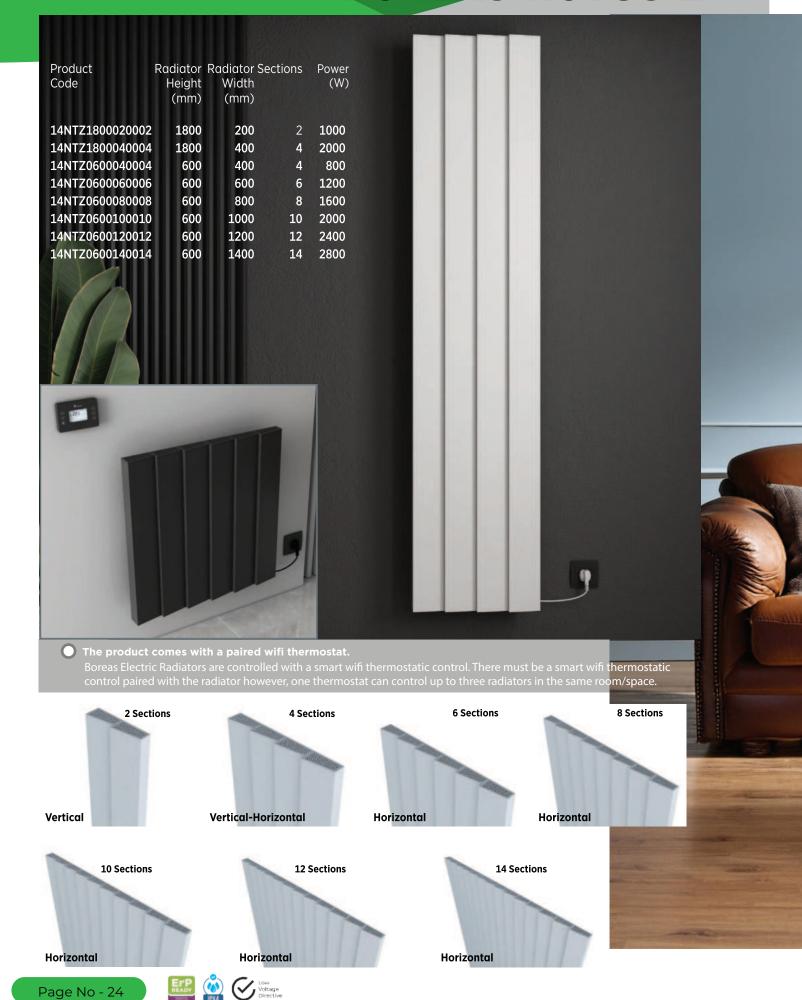






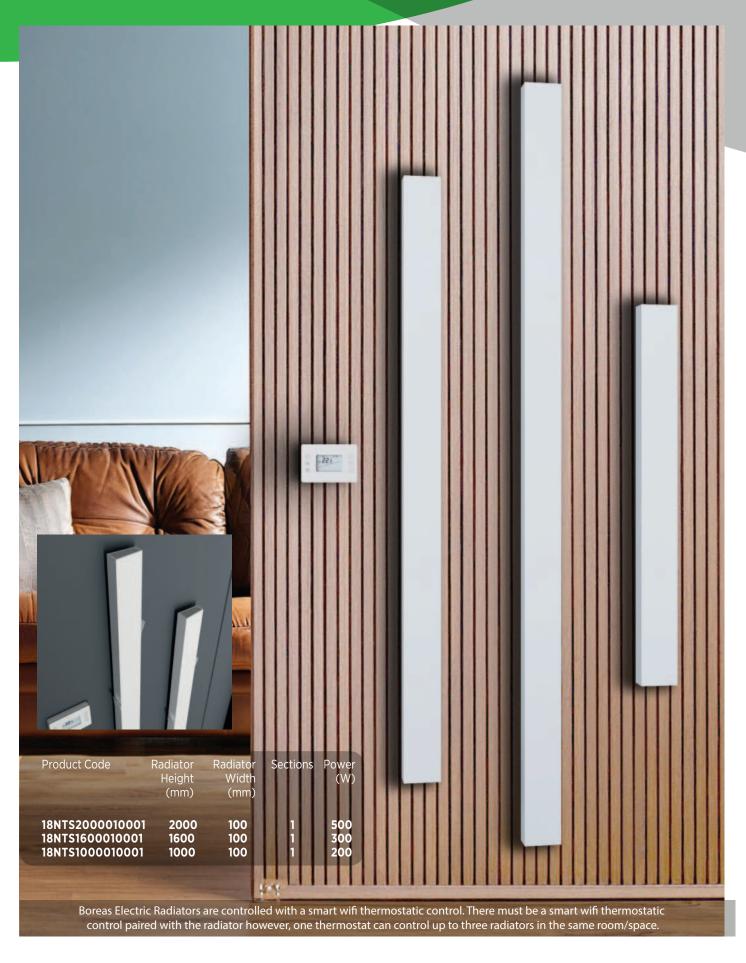


### **BOREAS NOTUS Z**



### **BOREAS NOTUS S**















### **HEATED TOWEL RACK**





Product Code	Radiator Height (mm)	Radiator Width (mm)	Sections	Power	Product Code	Radiator Height (mm)	Radiator Width (mm)	Sections	Power (W)	
18OSB120000750	1200	75	1	200	18VSB1200007001	1200	70	1	200	
18OSB180000750	1800	75	1	300	18VSB1800007001	1800	70	1	300	

Otto S and Vesta S models are designed to exclusively work with an electric supply and cannot be connected to a central heating system. They are specifically intended to use as standalone towel dryer using electricity. There is switch on/off button at bottom of the product fo simply usage.













Page No - 26

### **MAXIM**















### **VERO**







### **NEO**







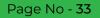
















### **ELECTRIC TOWEL RAILS**



Electric towel rails are an excellent option for keeping your bathroom and towels warm, especially if your bathroom is not connected to your central heating system. Instead of going through the hassle of extending the pipework into your bathroom, you can conveniently connect an electric towel radiator to your mains electric supply.

Electric towel rails function as both towel warmers and radiators. They typically consist of a series of horizontal bars or rails that provide a heating element. When connected to electricity, the heating element warms up, allowing you to hang your towels on the rails and enjoy warm, cozy towels whenever you need them.



#### Benefits Of Electric Towel Rails

- I- Independent operation: Electric towel rails operate independently of your central heating system, so you can use them all year round, regardless of whether your heating is turned on or off.
- II- Quick and efficient heating: Electric towel rails heat up rapidly, ensuring that your towels are warmed quickly before and after your bath or shower.
- **III- Energy efficiency:** Most electric towel rails come with built-in timers or thermostats, allowing you to control the heating duration and temperature. This helps save energy and reduce electricity consumption.
- IV- Versatile installation: Electric towel rails are easy to install and can be mounted on walls, making them suitable for bathrooms of any size or layout. They don't require any additional plumbing.

### DUAL FUEL TOWEL RAILS

Dual fuel electric towel radiators combine two heating methods: electric heating and central heating. They are designed to provide flexibility and conv nience in heating towel rails, allowing you to use either electricity or your central heating system to heat the radiator.









Dual fuel heated towel rails are a practical solution for keeping your towels warm and dry throughout the year while minimizing energy consumption. These towel rails offer the flexibility to switch between using your central heating system in winter and an electrical element in the summer. By utilizing the electrical element during warmer months, you can avoid the need to heat your entire central heating system just to warm a single towel rail. This can help save money on your energy bills by reducing unnecessary energy usage.

To make use of the dual fuel functionality, you will need to purchase a heating element and, if required, a t-piece. The heating element is the component that provides the electrical heat source for the towel rail, while the t-piece allows for the integration of both the electrical and central heating systems. These additional accessories are necessary to enable the towel rail to operate with both electric and central heating methods.

The dual fuel feature gives you greater control over the usage of your towel rail. You can easily switch it on whenever you need it, rather than having to heat the entire central heating system. This flexibility allows you to enjoy warm towels without wasting energy.

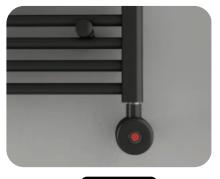


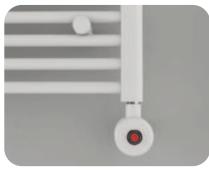
#### 1- ON-OFF HEATING ELEMENT

Heating element unit heats the towel rail that it is installed in.

Button (!) is used to turn the device on / off. The device is turned off at '0' poisition.

And the device is turned on at '1' position.





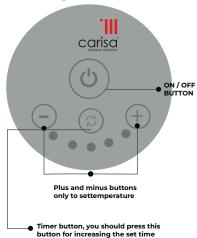


Black

White

Chrome

#### 2- DIGITAL HEATING ELEMENT



● 2-10°C ● 11-21°C ● ● 22-32°C ● ● ■ 33-41°C ● ● ● 41+°C Heating element unit heats the towel rail that it is installed in.

Button is used to turn the device on / off. Buttons is and is are used to regulate temperature.

Once you set the desired temperature, the illuminated leds go back to real room temperature. The number of illuminated leds increase step by step depending on the room size and the electrical power of the towel rail. Timer can be set from 1 hour to 5 hours by pressing the timer button.

The timer period will change every time you press the timer button. To cancel timer select zero (0).

and (+) buttons should not be used to set time.

When the timer is set, (from 1 hour to 5 hours) a flashing dot will appear on the display between the two numbers. It shows that the timer is working. The number of illuminated leds shows the set hour. (Ex: 3 leds light up for 3 hours). After the timer has been set, the heating element unit returns to the temperature set value.

Our heating elements have an internal NTC sensor to regulate the temperature according to room temperature.

Below are the temperature values according to led settings:

In case of power cut, the unit should be opened and set again.







White



Chrome

#### 3- SIGMA HEATING ELEMENT





Sigma Heating Element When the device is energized for the first time (plugged in), the device starts on the main screen (in manual mode).

When the buttons are pressed to reach the functions, the lighting is turned on. After a while (30sec), the backlight is turned off to save power.















#### STAND BY MODE



By pressing the Standby / Enter button, the product switches to stand-by mode. When the product is in stand-by mode, if Standby / Enter buttons are pressed again, you can exit stand-by mode. In stand-by mode, only 'stby' is displayed on the screen.

#### **RESISTANCE OPERATION ICON**



If the set temperature is higher than the ambient temperature, the resistance connected to the product gets hot. If the set temperature is lower than the ambient temperature, the resistance connected to the product will not heat up. While the resistance is being heated, the resistance symbol on the screen is lit. The measured water temperature value is not displayed on the screen.

#### TIME ADJUSTMENT

If desired, time adjustment can be made. With pressing standby / enter and up button together, time adjustment made. When entered to time adjustment mode, the second 2 seven segments flash, prompting the user to set the minutes. The user sets the minute with the up and down buttons and confirms by pressing the Standby / Enter button.

Next step is hour adjustment. The first 2 seven segments flash, prompting the user to set the clock. The user sets the time with the up and down buttons and confirms by pressing the Standby / Enter button.

Then it comes to the day setting section. The user chooses the day using up and down buttons. The user confirms by pressing the Standby / Enter button. After selecting the minute, hour and day, the user presses the menu button to exit the setting.

#### **MENU TRANSITIONS**

When the device is on, the user can switch between the menus by pressing the menu button. Menu transitions are performed in the following order. **ECO -> COMFORT -> BOOST -> 7/24** 

#### **MANUAL MODE**



Manual mode is active when the user is in the main menu. By using up and down buttons, the set temperature value (10-35 degrees) can be adjusted.

If up or down button is pressed for a long time, the set temperature value will increase or decrease rapidly.

The set temperature value and time are displayed on the screen in sequence (one after the other)

#### **ECO MODE**



By pressing the menu button once ECO mode can be selected. 'ECO' icon flashes on the screen. In this mode, the set temperature value of the device is set to 20 degrees.

The set temperature value and time are displayed on the screen in sequence (one after the other). Since this mode is set 20 degrees, the up and down keys are nonfunctional for this mode.



#### **COMFORT MODE**



If the user presses the menu button twice while in the main menu, comfort mode is selected. When the mode is selected, the 'COMF' icon flashes on the screen. In this mode, the set temperature value of the device is set to 25 degrees. The set temperature value and time are displayed on the screen in sequence (one after the other)

Since this mode is set 25 degrees, the up and down keys are nonfunctional for this mode.

#### **BOOST MODE**



If the user presses the menu button three times, the boost mode is selected. When the mode is entered, the 'BOOST' icon lights up on the screen. In this mode, the set temperature value of the device is fixed at 35 and can be adjusted from half hour to 8 hours for the selected time. The duration can be adjusted starting from 30 minutes up to 8 hours, with the up and down buttons.

The time flashes and the user's approval is awaited. The user confirms the time with the standby / enter button. Afterwards, the BOOST icon will flash for the selected time. and countdown is made from the selected time on the screen.

When boost mode is selected, standby button is used as enter button to make time setting . After the mode is set the button can be used for standby function.

#### **OPEN WINDOW**

When there is a sudden temperature drop in the device (15 degrees in 20 minutes), the temperature of the resistance connected to the towel warmer is cut off. The open window icon **II** is displayed on the screen.

### WEEKLY TIMER (7/24) PROGRAMMING



If the user presses the menu button four times, the weekly program mode is reached. '7/24' icon flashes on the screen, press standby / enter button to select the mode.

The '7/24' icon is illuminated on the screen.

#### Day adjustment:

The current day of the week flashes on the display. The desired day can be reached with the up or down buttons. The day to be adjusted is selected by pressing the standby / enter button.

#### Hour adjustment for selected days:

Hour adjustment can be made from 00:00 to 23:00 at one hour intervals. The desired hour can be reached with the up or down buttons. As many hours as desired can be selected in the program. The desired time is selected by pressing the menu button. After the selection is made, the boxes representing that hour are lit at the top of the screen.

In addition, the program can be removed by highlighting it with the up or down buttons and pressing the menu button. After the desired hours of the day selected in the weekly program are programmed, confirmation is given by pressing the standby / enter button.

#### **Temperature adjustment:**

The temperature setting should be made for the selected day. The desired temperature can be selected with the up or down buttons. Press the menu button to confirm. Then press the mode button once to exit the weekly program. In this way, a weekly schedule can be set for 7 days of the week.

#### **CHILD LOCK**



Child lock mode is selected by long pressing the up and down buttons. When the mode is selected, the lock icon symbol lits. In this mode, the buttons are disabled.

Again, long press the up and down buttons to exit the child lock mode.

#### **ANTIFREEZE**

This mode provides protection against the effects of cold. The device operates at 7 °C. When the temperature is below 7°C antifreeze mode becomes active and ice symbol \* is displayed on the screen.

#### **FAILURE MODE**

In case of thermostat failure below warning flashes on the screen:









