Towelrads

Richmond Plus

Installation and Heating Element User Guide



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SAFETY INFORMATION

- Electric towel rails must be installed by a qualified electrician following the latest IEE wiring standards.
- The unit should be securely mounted and connected to the 220-240 volt AC mains supply through a fused spur or cable outlet, and properly earth bonded.
- This device is classified as Class 1, meaning it requires an earth connection.
- The heating element should **never** be operated unless the towel rail or radiator is filled with water or fluid to the correct level.
- Use this device only in an appropriate towel rail or radiator intended for space heating and/or drying towels.
- The element should be mounted vertically and in the bottom of the towel rail. Horizontal mounting is only allowed when using ambient temperature control mode.
- It is essential to maintain the correct fluid level (recommended 90% of the towel rail's total volume) before operating the element.
- Never try to separate the control unit from the heating element, as it is factory-sealed.
- Make sure the O-ring is placed on the connection part before installation; this O-ring prevents leaks after installation.
- This appliance is not a toy and should be kept away from children.
- The unit should not be used by individuals (including children) with reduced physical, sensory, or mental abilities unless supervised by a responsible person.

Warning!

Never use the housing itself to tighten; always use the proper tools (spanner).

RICHMOND PLUS TOWEL RAIL INSTALLATION

Before you begin installation, setup or operation of the unit, please read all of these instructions carefully.

Tools required (not supplied)

- Drill & Drill Bit
- Residual Current Device (recommended)
- Pozi Drive Screwdriver / Flathead Screwdriver
- PTFE Tape
- Measuring Tape
- Spirit Level
- Pencil
- Fused Spur

Safety

- Installation should be carried out by a qualified professional or other fully competent person and should be installed in accordance with the relevant British and European
- Standards (BS7593:2006, EN12828:2012+A1;2014, EN12831:2003 & EN14336:2004).
- When drilling walls, check first for hidden pipes and/or cables.
- Please ensure that you wear all necessary personal protective equipment for your safety. Use safety eyewear when drilling.
- Handle the product with care.
- Keep small parts away from children.
- Please check that all components are present and that you are entirely happy with the size, design and finish before starting installation.

Disclaimer

Please notify the retailer immediately of any damage or faults. The manufacturer cannot be held responsible for any installation costs that may arise from damaged or faulty product being installed.

List of additional parts supplied



Wall plug x2
Wall screw x4



Grub screw x4



Round bracket (external) x4



Round bracket (internal) x4



Front cover x2



Front bracket x2

Fixing tips

- A piece of insulating tape or a couple of layers of masking tape applied to the wall before drilling will help stop the drill from wandering, particularly on tiled surfaces.
- Exercise great care when using power tools near water. The use of a Residual Current Device (RCD) or Cordless Drill is recommended.
- Always double check the position and your measurements before drilling holes.
- When working near a basin or bath, insert the plug into the waste. This could help you avoid losing small parts.

  When fixing the towel rail, we suggest you fix the rail close to your fused spur.

Fitting the Radiator onto the wall

1. Gently remove the radiator from all packaging.
2. Ensure the selected wall is sufficiently strong enough to hold the weight of the electric towel warmer.

NOTE : Wall plugs and screws supplied are intended for masonry walls. Alternative fixings may be required dependent on wall type.

3. Before drilling, please make sure there are no hidden pipes or wires in the wall.
4. Using the radiator and a spirit level, mark the position of the brackets.
5. Mark the centres of the brackets on the wall. Drill four suitable holes and insert wall plugs.
6. Screw the round external brackets into the wall plugs using the wall screws.
7. Screw the round internal bracket to the front cover plate. These two parts connect through the radiator horizontal bar.
8. Mount the radiator onto the wall by sliding the internal brackets on the radiator into the external brackets on the wall. Secure the radiator into position by tightening the grub screws into the holes on the side of the external brackets using the hexagonal key.

Make the necessary connections to the electrical fused spur. This needs to be done by a qualified electrician.

Care & Maintenance

Regular cleaning with a soft cloth will keep the surface of your Designer Radiator looking new.
Soapy water can be used to remove stubborn stains, then buff dry with a soft cloth.
Do not use abrasive or chemical cleaners to clean your radiator as these will damage the surface finish over time.
We have taken great care to ensure that this product reached you in perfect condition.
However, should any parts be damaged or missing, please contact your point of purchase.
This does not affect your statutory rights. In addition, if you require any replacement parts, your point of purchase will be happy to assist.

Specifications

Technical specifications, measured and calculated in accordance with REGULATION (EU) 2015/1188 - 2024/1103			
Description	**Symbol**	**Value**	**Unit**
Heat output			
Nominal heat output	P nom	0,2 ÷ 1,0	kW
Minimum heat ouput (indicative)	P min	0,0	kW
Maximum continuous heat output	P max,c	1,0	kW
Power consumption			
In off mode (*)	Po	0,00	W
In standby mode (*)	Psm	0,27	W
In idle mode	Pidle	0,27	W
In network standby (*)	Pnsm	0,65	W
Standby mode with display of information or status			yes
Seasonal space heating energy efficiency in active mode (*)	Ns,on	92	%
Type of heat output / room temperature control			
Single stage heat output and no room temperature control			no
Two or more manual stages, no room temperature control			no
With mechanic thermostat room temperature control			no
With electronic room temperature control			no
Electronic room temperature control plus day timer			no
Electronic room temperature control plus week timer			yes
Other control options			
Room temperature control, with presence detection			no
Room temperature control, with open window detection			yes
Distance control option			yes
Adaptative start control			no
Working time limitation			no
Black bulb sensor			no
Self-learning functionality (*)			no
Control accuracy (*)			no
(*): Only for regulation (EU) 2015/1188			
Model identifier:	Contact details:		

SMART PLUS HEATING ELEMENT INSTALLATION

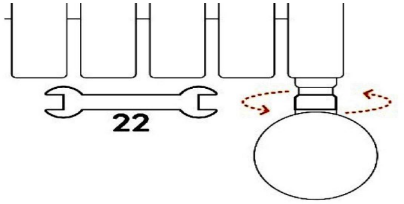
The Richmond Plus towel rail is supplied with the Smart Plus heating element pre-installed. The following instructions are provided should the element require removal and reinstallation. For operating instructions, please see page 14.

- These instructions provide general guidance for installing your element into an appropriate radiator or towel rail. Always check with the radiator manufacturer that the product is compatible with the element, and adhere to any extra installation instructions that come with the unit. Installation should be carried out by a certified electrician. Do not try to install it yourself.
- **WARNING** – Never operate the element before it is installed inside a fluid-filled radiator or towel rail. Turning on the element in an empty radiator or exposed to open air will cause it to stop working. Always disconnect the power supply at the mains during installation and servicing. We advise removing the fuse or switching off the circuit breaker at the distribution board while performing any work.

Electric only element installation

- Identify the inlet where the element will be installed in the radiator or towel rail. For vertical models, the element is installed vertically, entering at the bottom of the right vertical strut. For horizontal types, the element is installed horizontally, entering sideways through the lowest horizontal strut. Never install the element at the top of a radiator or towel rail.
- Tilt the radiator so that the next available filling cap is at the highest point. Remove the cap and fill the towel rail or radiator to 90% of its capacity with an appropriate heating fluid. This should be a glycol-based solution. Replace the cap once filling is complete.
- Insert the heating element into the radiator (Make sure all threaded connections are wrapped with PTFE tape and that the O-ring is fitted on the element thread).

- Tighten the element at the main nut, using a size 22 spanner. Ensure the rubber O-ring, above the main nut, makes a firm seal between the radiator and the element. This prevents leakage after installation.



NOTE - Never attempt to tighten the element by twisting the control head or product casing. Always use the appropriate tools as specified in the instructions.

- Fit the rail to the wall, following the manufacturers fitting instructions.
- Connect the element to the mains power using a BS fused connection unit.
- The wires should be connected as follows: Blue (Neutral), Brown (Live), Green/Yellow (Earth).
- The fused connection unit should be fitted with a 5 Amp fuse to BS1362.
- Shortly after switching on the unit, ensure the towel rail is bled for any excess air.
- Check for leaks and re-tighten joints as necessary.

Dual fuel element installation

- Identify the inlet where the element will be fitted in the radiator or towel rail. For vertical radiators and towel rails, the element is fitted vertically, entering at the bottom of the right-hand vertical strut. For horizontal models, the element is fitted horizontally, entering sideways through the lowest horizontal strut. Never fit the element at the top of a radiator or towel rail.
- Ensure all threaded joints are wrapped with PTFE tape.
- Ensure the O-ring is present on both the element and Tee piece threads.
- Insert the element into the Tee piece and tighten with a spanner.
- Insert the Tee piece with electric element into the chosen side of towel rail or radiator and tighten with a spanner.

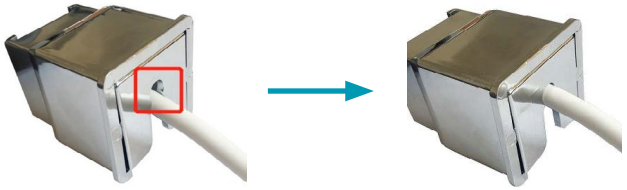
- Fit towel rail or radiator to the wall and connect to the central heating, following the manufacturers fitting instructions.
- Once the rail is mounted on the wall and connected securely to the central heating system, open the radiator valves and allow the rail to fill.
- Once the rail has filled with water, with the central heating OFF, use the air vent to purge any excess from the rail.
- Connect the element to the mains power using a BS fused connection unit.
- is in progress.
- The wires should be connected as follows: Blue (Neutral), Brown (Live), Green/ Yellow (Earth).
- The fused connection unit should be fitted with a 5 amp fuse to BS1362.
- Shortly after switching on the unit, ensure the towel rail is bled again for any excess air.
- Check for leaks and re-tighten joints as necessary.

How to install the cable cover to the element box after fitting the element into the towel rail or radiator

Step 1: Slide the decorative cable mask into track on the back of the element box



Step 2: Lock the cable to the hole on the mask



TECHNICAL INFORMATION

- These instructions provide general guidance for installing your element into an appropriate radiator or towel rail. Always check with the radiator manufacturer that the product is compatible with the element, and adhere to any extra installation instructions that come with the unit. Installation should be carried out by a certified electrician. Do not try to install it yourself.
- **WARNING** – Never operate the element before it is installed inside a fluid-filled radiator or towel rail. Turning on the element in an empty radiator or exposed to open air will cause it to stop working. Always disconnect the power supply at the mains during installation and servicing. We advise removing the fuse or switching off the circuit breaker at the distribution board while performing any work.

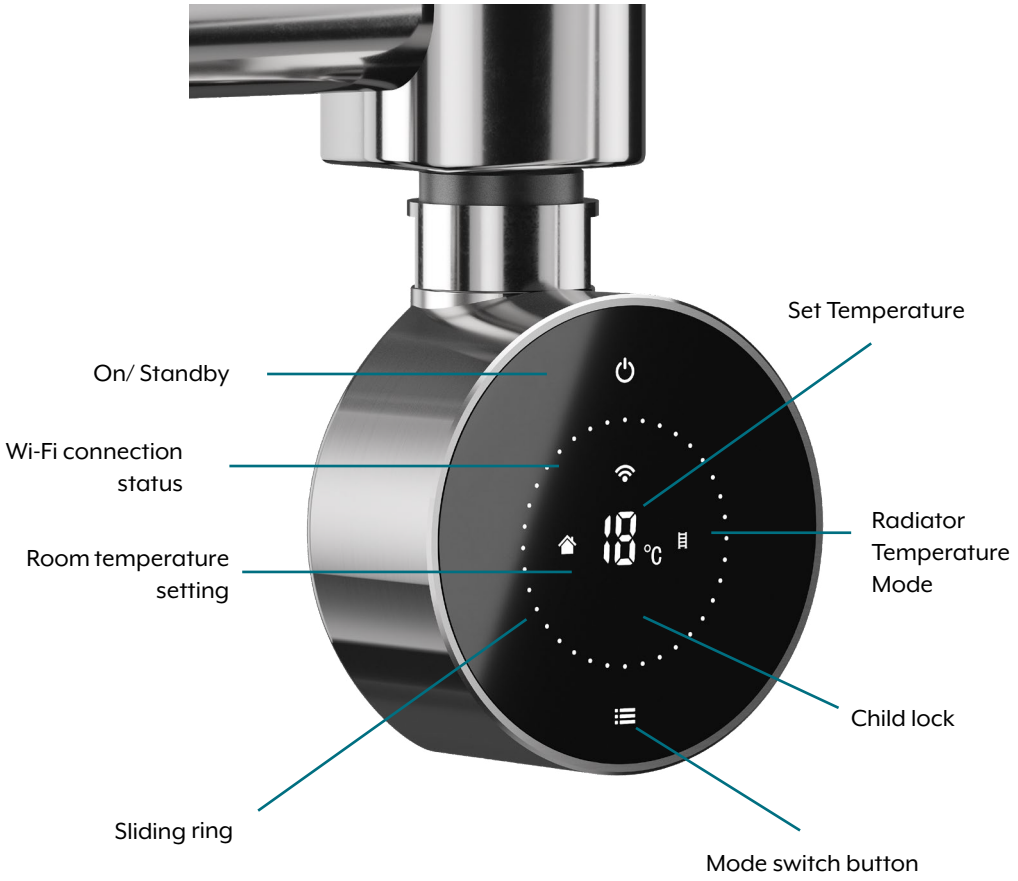
Voltage	220-240V AC / 50Hz
Wattage	100-1200W
Mode	Radiator Temperature / Boost/ Room Temperature/ Anti-freeze/ LST/ Child Lock
Frost protection	7°C
Temperature setting	Room Temperature: 15°C -30°C Internal Fluid Temperature: 30°C -70°C
IP rating	IPX4
Timer mode	Boost 2 hours
Appliance class	Class I
Thread size	G ½ “
Application	This element is not suitable for dry heating. It must be submerged in liquid (either in a liquid-filled electric-only installation, or as part of a dual-fuel installation).

Power	(W)	200	300	400	600	900	1000
Watt Density	(W/Cm2)						
L (heating element)	(mm)	300	320	400	550	760	760

Product	Electronic control for electric towel radiators
Applications	Towel Radiators
Insulation class	Class I
IP rating	IPX4
Temperature setting	Digital
Selectable temperature range	-10-70°C
Operational temperature	30-70°C
Maximal power	See table or figure below
Supply Voltage	220-240V AC
Dimensions	See table on page 7.
Warranty	2 years
Standards	EN IEC 62368-1:2020+A11:2020, IEC 60529:1989+A1:1999+A2:2013, IEC 62321-3-1:2013, IEC 62321-4:2013+AMD1:2017, IEC 62321-5:2013, IEC 62321-6:2015, IEC 62321-7-1:2015 & IEC 62321-7-2:2017, IEC 62321-8:2017, BS EN 60335-2-30:2009+A13:2022 used in conjunction with BS EN 60335-1:2012+A15:2021, BS EN 62233:2008, BS EN IEC 55014-1:2021, BS EN IEC 55014-2:2021, BS EN IEC 61000-3-2:2019+A1:2021, BS EN 61000-3-3:2013+A2:2021, BS EN IEC 62311:2020, BS EN 50665:2017, ETSI EN 301 489-1 V2.2.3 (2019-11), ETSI EN 301 489-17 V3.2.4(2020-09), ETSI EN 300 328 V2.2.2 (2019-07)
Approval mark	CE/UKCA/REACH/ROHS/RED/POP
Case	
Environmental directive	WEEE 2012/19/EU
Operative modes	Radiator Temperature, Boost, Ambient Temperature, Anti-Freeze, LST, Child Lock
Thermostat status indicators	Digital display
Connection to mains	3 cables (neutral, live, earth), cable length 1.5 metres
Available colours	Anthracite, Black, Chrome, White
Maximal temperature of the thermal	

Description	**Symbol**	**Value**	**Unit**
Heat output			
Nominated heat output	P nom	0,2 ÷ 1,0	kW
Minimum heat output	P min	0,0	kW
Maximum heat output	P max, c	1,0	kW
Power consumption			
In off mode (*)	Po	0,00	W
In standby mode	Psm	0,27	W
In idle mode	Pidle	0,27	W
In network standby	Pnsm	0,65	W
Standby mode with display of information	yes		
Seasonal space heating energy efficiency in active mode (*)	Ns,on	92	%
Type of heat output/ room temperature control			
Single stage heat output and no room temperature control	no		
Two or more manual stages, no room temperature control	no		
With mechanic thermostat room temperature control	no		
With electronic room temperature control	no		
Electronic room temperature control plus day timer	no		
Electronic room temperature control plus week timer	yes		
Other control options			
Room temperature control, with presence detection	no		
Room temperature control, with open window detection	yes		
Distance control option	yes		
Adaptive start control	no		
Working time limitation	no		
Black bulb sensor	no		
Self-learning functionality (*)	no		
Control accuracy (*)	no		
(*): Only for regulation (EU) 2015/1188			

CONTROL OPERATION



MANUAL OPERATION

Standby mode

Once the controller is powered on, the unit will go into standby mode. A blue dot will flash in the middle of the screen. You can press the ⏻ button to switch between ON/ Standby.

Heating mode

Press ⏻ to switch the controller on. The screen will show “ON” for 1 second and enter the heating modes.

Press ☰ icons to switch between modes. It cycles as follows: Radiator temperature mode, Boost mode, Room temperature mode, Anti-freeze mode.

Radiator temperature mode

In this mode, the element controls the internal temperature of the towel rail, maintaining a constant set temperature. The internal thermostat measures the temperature of the heating fluid and instructs the element to heat or stop heating based on the set temperature.

- Press the ☰ button to enter the radiator temperature mode. While in this mode, the ▤ icon will display along with the set radiator temperature on the screen.
- The set temperature can be adjusted by sliding the ring on the screen. Temperature can be set within a range of 30-70°C in 5°C increments.
- When heating up, a blue dot will flash in the bottom right corner of the set temperature, indicating that the unit is actively heating.

Boost mode

The element will operate at maximum performance for the set hours, heating the fluid to a maximum of 70°C. After the set time period, it will return to the previous mode.

- Press the button to select the boost mode. While in this mode, the icon will display along with the “2H” on the screen.
- The boost duration is 2 hours.
- When heating up, a blue dot will flash in the bottom right corner of the “2H”, indicating that the unit is actively heating.

Room temperature mode

In this mode, the element controls the room temperature and heats to a constant set temperature. The external thermostat measures the ambient temperature and instructs the element to heat or stop heating according to the set temperature.

- Press the button to enter the room temperature mode. While in this mode, the icon will display along with the set room temperature on the screen. And the set temperature and “CO” or “EC” will alternately flash.
- The room temperature can be adjusted by sliding the ring of the screen. Temperature can be set within a range of 15-30°C in 1°C increments.
- When heating up, a blue dot will flash in the bottom right corner of the set temperature, indicating that the unit is actively heating.

Anti-freeze mode

If the towel rail’s internal temperature drops below 7°C, the heating system will automatically activate to raise the liquid temperature to 15°C before switching off. This mode prevents the liquid in the towel rail from freezing and can also maintain a low room temperature.

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LST (Low Surface Temperature) mode

In this mode, the element maintains a constant internal temperature of the towel rail at 43°C, which cannot be adjusted.

- Press and hold the button for 3 seconds in any heating mode to activate the LST mode. While in this mode, the icon will display along with “43” on the screen.
- When heating up, a blue dot will flash in the bottom right corner of the “43”, indicating that the unit is actively heating.
- In this mode, all buttons will be locked. Press and hold the button for 3 seconds again to exit the LST mode and operate other modes.

Child lock

Use this function to prevent any change in the thermostat setting.

Press and hold the and buttons simultaneously for 2 seconds to lock the display. The icon will appear and all buttons will be locked. Repeat the same procedure to unlock it.

CONNECTING TO WI-FI

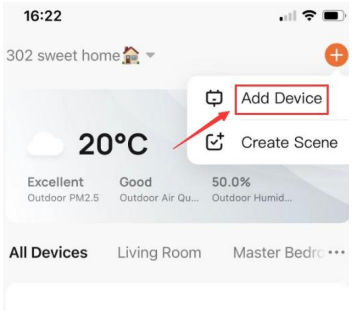
Downloading the App

Download the APP onto your smart phone. You can find the app by scanning the QR code or searching SmartLife in the Google Play or Apple app store. Install and follow the app's instructions to create an account.

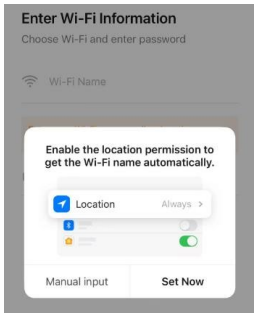
Connecting to the App

To put the device in pairing mode, first plug it in to enter the standby mode. Then hold down ☰ button for 2 seconds until hear a sound "DI". The device will enter pairing stage with the WIFI icon flashing. The display will start a countdown from 90, allowing you 90 seconds to complete the connection. Follow the steps below to complete the pairing process.

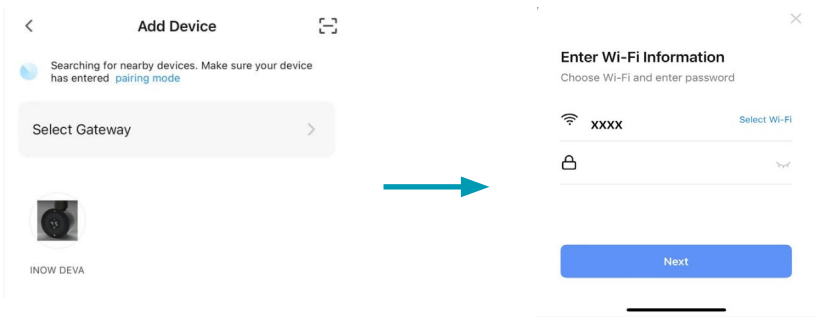
Adding devices



1. Click "+" and "Add Device".

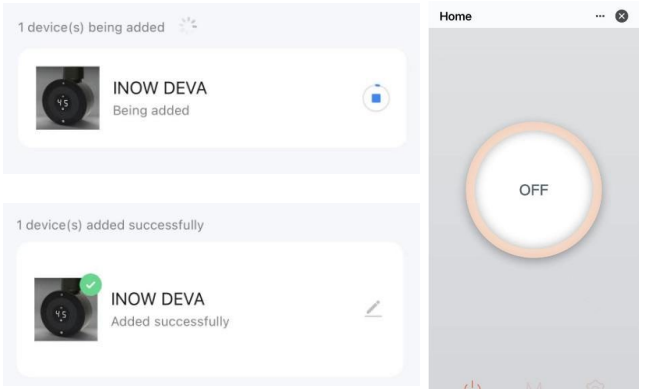


2. Before adding the device, please allow the location to access.



3. It will search the device automatically, then click "Add".

4. Choose your Wi-Fi network and enter the password. Press "Next".



5. The device will begin connecting and will display on the APP after successfully added.

If the device successes to connect, "PS" will be shown on the display. If the device fails to connect, "FA" will be displayed. Press and hold the ☰ button in standby mode to reset the Wi-Fi pairing and repeat the pairing operation described above.

Trouble shooting

If the element does not connect on the first attempt:

- Make sure both the element and your smart device are in range of your router.
- Make sure you complete the connection process in 2 minutes. If the APP can be not connected, you must begin the process again.
- Ensure your router has a strong internet connection.
- Ensure Wi-Fi and Bluetooth are enabled on your smart device.
- Make sure the app has registered successfully.
- Make sure your smart device is connected to the same Wi-Fi network as that to which you are attempting to connect the element.
- Ensure you are connected to a 2.4G Wi-Fi band. See instructions within the app if you are currently connected to a 5G band.
- Check any local restrictions on your Wi-Fi. Wi-Fi networks in public places such as hotels and airports may require extra identification steps.

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USING THE APP

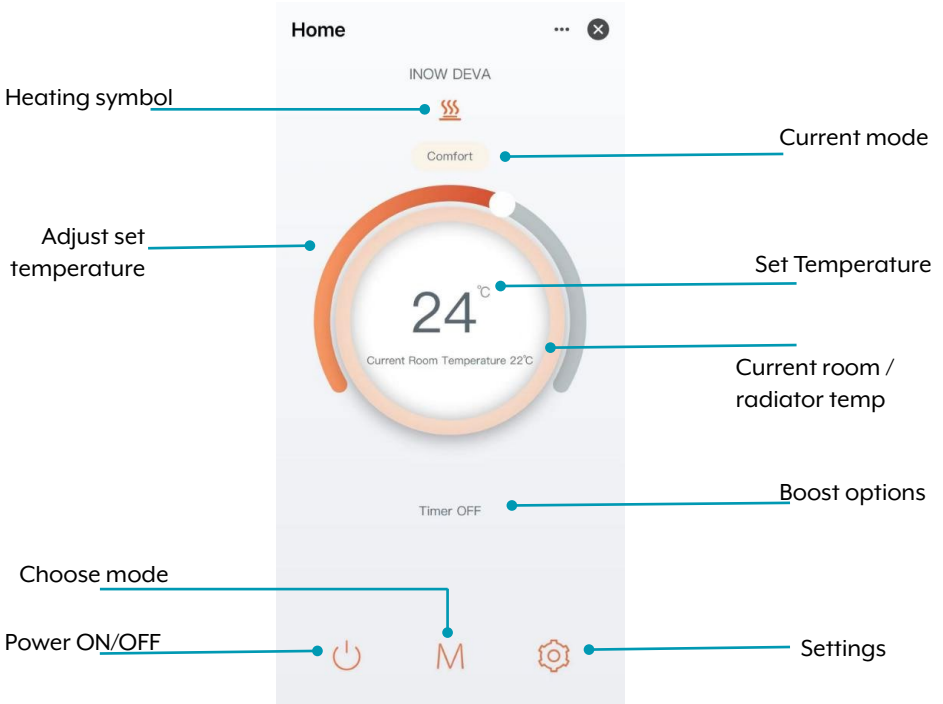
Home Overview

You can use the SmartLife app to control multiple devices. All devices are displayed on the home screen with their status.

Possible statuses:

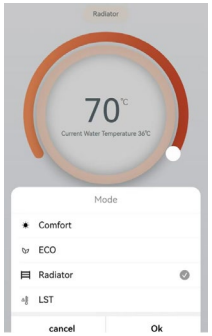
- Online – Heater will respond to app commands.
- Offline – Device is turned off at wall or power switch. It cannot be controlled by the app.

Control interface



Choose mode

Tap the mode button on the interface to select your desired mode. The five options correspond to the modes on the control panel: Comfort, Eco, Anti-freeze, Radiator, LST, Boost.



Comfort mode and eco mode

In comfort and eco mode, simply use the sliding dial to adjust the set room temp.

Anti-freeze mode

In anti-freezing mode, it is set to maintain a low room temperature for energy saving when you are absent from the house. 7°C displays on the APP, it can't be adjustable.

Radiator mode

In radiator mode, simply use the sliding dial to adjust the set radiator internal temperature.

LST mode

In LST mode, the internal temperature is set to 43°C and cannot be adjusted.

Boost mode

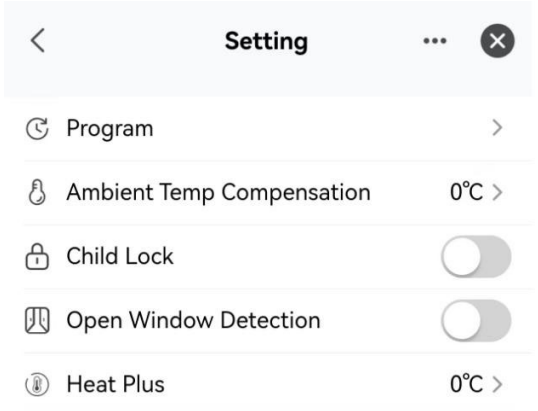
Boost options include 2 hours and OFF.

You can temporarily activate MAX working temperature by tapping the timer icon on the APP interface, the device will work at maximum power for 2 hours in radiator mode. After the set working hours are completed, it will return to the previous mode.

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DEVICE SETTINGS

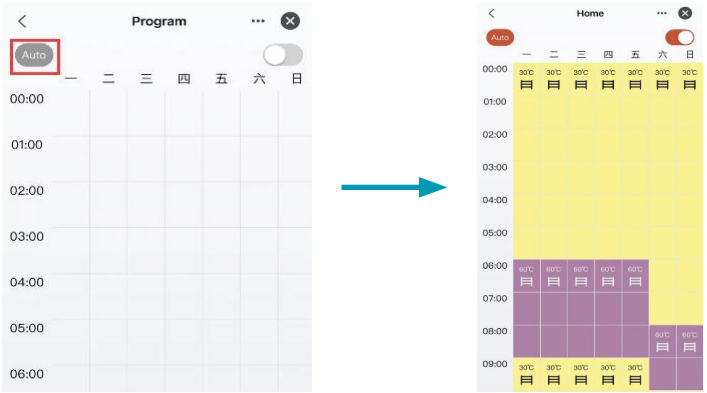
Tap the settings icon to access and adjust the device's settings. This menu allows you to configure several settings options that are not available through the control dial.



Set the program

Auto Program

Tap the 'Auto' icon located in the top left corner of the program chart to activate the automatic preset program. The device will run in radiator mode by default program.



You can reset the program from the default automatic setting by clicking on the starting and ending hours on the axis, room, radiator and LST temperature control options are available.



NOTE: When the time period on the axis is shown in grey, the device is in standby mode.

Default data list as below:

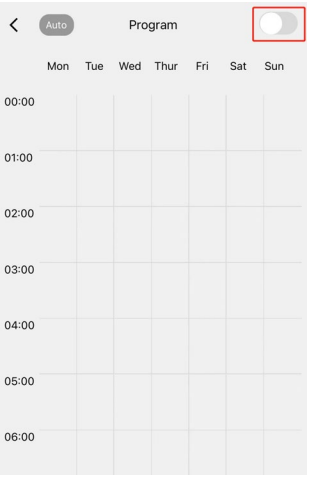
Period		Icon	Time	Temperature
Weekly (Monday - Friday)	1		6:00	60 °C
	2		9:00	30 °C
	3		17:00	60 °C
	4		22:00	30 °C
Weekend (Saturday - Sunday)	1		8:00	60 °C
	2		10:00	30 °C
	3		17:00	60 °C
	4		22:00	30 °C

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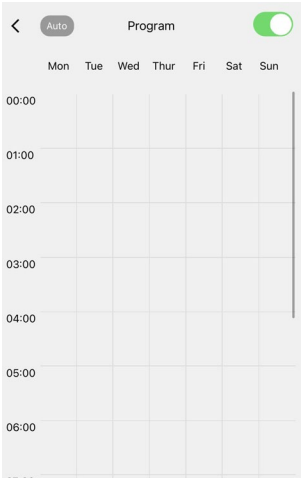
Auto Program

To set a preferred program, tap the  icon located in the top right corner of the program chart. You can create a program from unset data by clicking on the starting and ending hour on the axis, room and radiator temperature control options are available.

Note: When the time period on the axis is shown in grey, the device is in standby mode.



Tap the icon located in the top right corner to switch the programme.



When there is no program input, the area will be displayed in grey colour.



The device is in standby mode.

Room Temperature Compensation

The room temperature compensation setting allows users to adjust for any discrepancy between the average room temperature and the temperature sensed by the thermostat.

You can adjust the temperature compensation in steps of 1°C, from -10°C to 10°C. The default temperature compensation is 0°C. For instance, if the temperature in the room is 18°C, but the device is sensing 16°C, a compensation factor of +2°C will offset the difference.

Child lock

Use the toggle switch to lock/unlock the device's display  displays on the screen when the device is locked.

Open Window Detection

Use the toggle switch to activate or deactivate open window detection. (default setting is OFF).

When the device detects a sudden temperature drop of 2°C or more within 5 minutes, it will switch to the anti-freeze temperature (fixed at 7°C) to prevent energy wastage from heat escaping through the window.

Heat plus

This feature is designed to compensate for internal liquid temperatures. The setting range is 0 to 5°C, adjustable in steps of 1°C. (The default set is 0°C).

Activating this function extends the device's operating time and enhance its heating capabilities. The surface temperature of the towel rail will increase, allowing for greater heat output and faster heating of the ambient temperature.

Towelrads

MAINTENANCE

- Before performing maintenance, always unplug the unit from the mains system.
- Periodically check the fluid level in the towel rail and ensure the heating element is completely submerged.
- Clean the product with a dry or damp cloth. If necessary, use a very small amount of detergent, ensuring that it contains no solvents or abrasives.

NOTES PRIOR TO REMOVAL

- Before dismantling permanently, disconnect the heating element from the mains and ensure that the towel rail is not hot.
- Be aware. A towel rail filled with liquid can be very heavy. When moving the towel rail, ensure that you take the necessary safety precautions.
- Before disassembly, close the appropriate valves and drain the towel rail completely to avoid causing any damage.

DISPOSAL



In accordance with WEEE Directive 2012/19/EU, the icon with the crossed-out waste bin on electrical or electronic equipment stipulates that this equipment must not be disposed of with household waste at the end of its life. You will find collection points for free return of waste electrical and electronic equipment in your vicinity. The addresses can be obtained from your local authority.

The separate collection of waste electrical and electronic equipment enables the re-use, recycling and other forms of recovery of waste equipment, and prevents any negative effects for the environment or human health.

PRODUCT COMPLIANCE AND SECURITY INFORMATION

- This product complies with the requirements of the Product Security and Telecommunications Infrastructure (PSTI) Act 2022.
- Scan the QR code below to access the latest PSTI Statement of Compliance, including details of security update support periods and our vulnerability disclosure process.

PSTI Statement



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