English

Installation and User manual

Remote Control, Electric Heating Element for Towel Radiators

Model

R2*remote*

Sol*Aire
Heating Products Ltd

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Contents

Your New Adjustable Electric Heating Element

Thank you for deciding to purchase the new R2 controllable electric heating element.

Upon receipt of this product, please check it carefully. It leaves our production facility in perfect condition, and is delivered in safe packaging. If you still encounter problems, please contact us.

Our contact details and relevant information can be found on the back of this installation document and on our website.

Keep the installation and operating instructions and any other documents that you have for later use.

Disposal

The packaging serves to protect the product from damage during transportation. Waste packaging should be handled with care. Miss-use could cause suffocation.

All packaging materials used are environmentally friendly and recyclable. Please dispose of the packaging in an environmentally friendly manner; using appropriate means of disposal. For more help contact the appropriate agencies or council.

Disposing of the appliance

From waste, a lot of valuable raw materials can often be recovered by environmentally friendly disposal.

This device complies with the European Community 2002/96/EC of the WEEE Directive. This Directive lays down the framework for an EU-wide collection and recycling of electrical and electronic equipment.

If your appliance malfunctions, the appliance should be disconnected from a permanent electric connection by an electrician, then disconnect power cable directly at the device output and remove. Do not let children play with the old appliance.

Upon Delivery

Check immediately on receipt of the unit. The following items must be included:

- **Complete electrical heating element with integrated electronic control unit in the colour and power ordered.**
- **Installation and operating instructions.**

Safety Instructions and Warnings

Instructions prior to installation.

Before you begin the installation, setup or operation of the unit, please read these instructions carefully and then proceed. Please also note all signs, notices and technical information. All instructions must be followed in full.

The manufacturer is not liable if you remove notices and/or warnings from the installation and operating instructions, or on the device itself.

Check the device visually for any damage. In the case of uncertainty, seek the advice of a professional. If in doubt, the device must not be connected.

The unit is not to be used by persons (including children) with reduced physical, sensory or mental capabilities, only use if they are supervised by a competent person.

Before connecting the appliance to the power supply check whether the cable is properly fused.

For the required use for the device, see “Specifications" in the installation and operating instruction. Should you be in any doubt whatsoever, please consult a suitably qualified expert.

This product is a Class I unit and as a result it must be earthed. Earth grounding is marked by this icon. 

⚠ **Never attempt to disconnect the control unit from the heating element. The R2 thermostatic heating element is factory-sealed. Any separation and attempted separation can lead to the destruction of the whole device and invalidate all claims under warranty or liability.**

After installation and commissioning – Repairs

Improper installation or repairs can lead to danger or injury to the person doing so.

Please contact the manufacturer to ensure that the safety requirements are met.

Under no circumstances should the casing of the R2 be opened.

Proper use of electrical heating rod with integrated control unit

- **For indoor use only.**
- **Only use the device in a suitable towel radiator, for space heating and/or towel drying.**
- **This element should be mounted vertically and in the bottom of the radiator only.**
- **It is imperative that you have the correct fluid level in the radiator before this element is installed.**
- **If using an aqueous solution inside the rail a suitable expansion gap should be left.**
- **Do not allow liquid or larger hard particles to enter the inside of the control unit.**
- **Clean with mild detergents.**
- **The appliance is not a toy for children.**

⚠ **It is very important to understand and adhere to the above guidelines.**

Be sure to note the level of liquid in the radiator and follow the instructions of the manufacturer of the radiator. If not specified, consult an appropriate professional.

Installation of the R2 Element into the Radiator (towel warmer)

⚠ The appliance must not be connected to the electricity grid.

After you have read the previous chapter and note the information contained, screw the heating element into your suitable radiator or towel warmer. Make sure you work to the instructions from the manufacturer of the towel warmer, and its suitability for use with this heating element. The heater must not be connected during installation to the power supply. The connection must be made only after the installation of the element into the radiator.

1

Pure electric heating

2

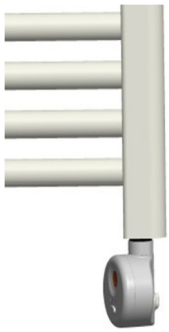
Mixed (dual fuel) heating system

The heating element can be used both for use in an electric heater (1) that has no involvement in the central heating system, as well as a heating element (2) which is integrated in the central heating system. In the latter case this heating element is installed through a Dual Fuel Tee piece into the radiator.

Please ensure that all joints are dry and leak tested before final commissioning.

3a

Tighten with 24mm wrench



3b

Until in the right position

<u>Attention</u>
The heater is only suitable for vertical installation. Do not install horizontally, as correct operation can not be guaranteed!

<u>Attention</u>
Never tighten using the housing itself. Always use the correct tools!

If you are unsure about the type and manner of installation or on the suitability of the radiator for the use with this heating element, please consult a qualified person for advice. All electrical work should be undertaken by fully qualified tradesmen.

Please follow the steps below if you are replacing or retro fitting an existing towel radiator.

Sealed Electric Radiator.

a) Disconnect the element from the power supply, remove the radiator from its brackets and take it carefully from the wall. Turn the radiator upside down to unscrew the existing element.

b) Screw the new heating element (1) into the ½" BSP hole and tighten with the wrench 24mm until the controller is in the correct position, again making sure that all joints are secure and water tight.

c) Replace the radiator to the wall and secure. Make electric connections.

Dual Fuel Heating Radiator.

a) Disconnect the element from the power supply, if any. Close the inlet and outlet valves to the radiator and empty the rail.

b) Unscrew the old heating element, if available from the tee, and screw in the new heating element (1) into the ½" BSP hole and tighten it with a 24mm spanner until the controller is in the correct position, the thread is tight, as in the previous chapter.

c) If no electric heating element was present (2), disconnect the connection to the central heating circuit, secure a dual fuel tee piece into the radiator and connect to the central heating circuit. In the vertical threaded screw of the tee insert the new heater and tighten with a 24mm spanner until the controller is in the correct position, as described in the previous chapter.

Commissioning.

Having established that the wall connection is sufficient, the electrical connection to the mains can be made. This is done by hardwiring the element into a suitable wall junction box in accordance with all current building regulations by a qualified electrician.

When using this heating element inside a bathroom environment please ensure the heater meets the correct bathroom zone application.

Once connected and water tight, please follow the next instructions for commissioning.

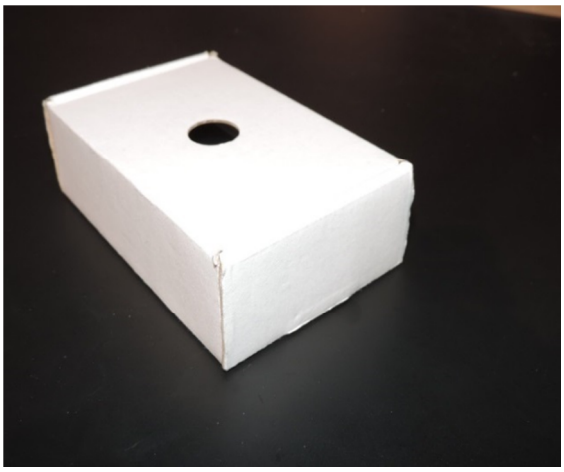
Remote control with wall bracket

The R2 remote control comes complete with a wall mounting bracket.

This should be attached using the supplied screws and wall anchors.

The remote control sits safely inside the holder.

Batteries are not included. You need 2 x AAA LR03 1.5V batteries.



The remote control

The supplied remote control is an infrared (IR) remote. It will work up to a maximum of 8 meters.

Try to ensure the path between the remote control and the R2 element is clear and as direct as possible.

Inside the heating element is an NTC (negative temperature coefficient) sensor. This thermistor will send information to the controller to be converted into temperature values. It will show the temperature of the fluid in the radiator, which is approximately equivalent to the surface temperature.

The temperature selection is made easy by the + / - buttons on the control unit in 5 ° C increments between 30 ° C and 70 ° C.

The operation of this small and visually appealing controller is now easy for everyone without any special knowledge or skills.

The controller has seven functional areas denoted as (modes)

A. (Standby Mode)
B. (Comfort Mode)
C. (Clock Mode)
D. (Booster Mode)
E. (ECO Mode)
F. (Antifreeze Mode)
G. (Screen Lock Mode)
H. (Error Mode)

Mode	Mode display on the controller (LED)	Values on display remote control
A. (Standby Mode)	Green	Only current time
B. (Comfort Mode)	Red	Sun icon
C. (Timer Mode)	Orange	Clock icon
D. (Booster Mode)	Red Blinking	2h icon
E. (ECO Mode)	-	Leaf icon
F. (Antifreeze Mode)	Green Blinking	Snowflake icon
G. (Screen Lock Mode)	-	Key icon
H. (Error Modes)	- Red/Blue blinking	battery

Open the battery compartment cover on the back of the remote and if present, remove the old batteries. In the now empty battery compartment insert 2 new batteries. Please observe the polarity of the batteries and the correct installation.

Once the batteries are installed commence immediately with the time adjustment as follows:

The screen is very small but once programmed it will work exactly as planned

<u>Enter the current day and time</u>

- **The days are displayed in numbers 1 – 7 down the right handside of the screen. 1 = Monday – 7 = Sunday.**
- **First push the +/- to get to the correct day.**
- **Confirm this by pushing the centre mode button.**
- **Now the hours will be flashing. Select +/- to select the correct hour.**
- **Confirm this by pushing the centre mode button.**
- **Now the minutes will be flashing. Select +/- to select the correct minutes.**
- **Confirm this by pushing the centre mode button.**
- **The correct time and day are now set.**

If you wish to exit the programming set-up simply push the centre mode button several times until you return to the set time with the „Sun“ illustration on the left hand side of the display.

A. (Standby Mode)

When the R2 element is connected to the electricity supply it will default into standby mode.
This will be identified by a single green LED light on the front right hand side of the element.

B. (Comfort Mode)

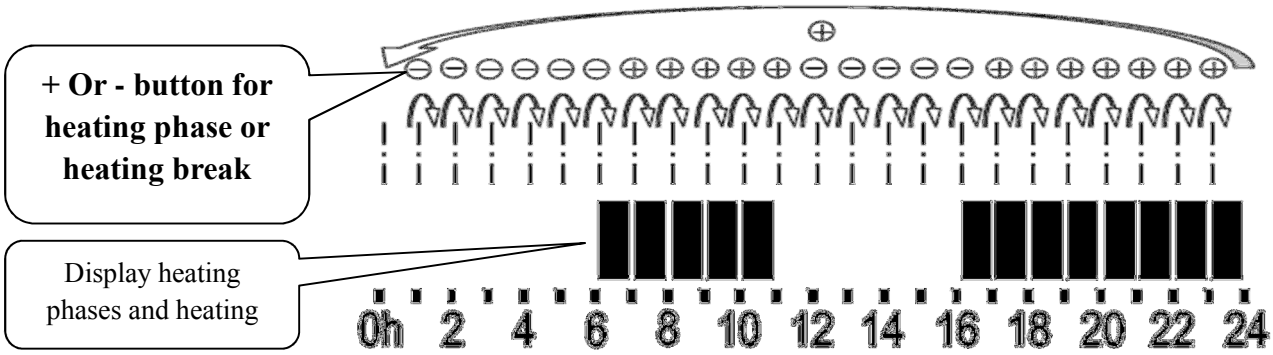
Comfort mode is simply either on/off and identified by the “Sun” symbol in the left hand side of the screen above the current time. It is turned on/off using the standby switch. In comfort mode the temperature is adjusted manually up or down using +/- to best suit your requirements.

C. (Timer Mode)

This allows the user to pre-set the start and stop times for the R2 thermostatic heating element. The R2 element can be programmed to come on/off in 1 hour intervals for 24hours everyday of the week.

Enter the timer mode

- **First push the timer clock symbol.**
- **The current day will flash.**
- **Confirm this by pushing the centre mode button.**
- **The current hours will flash.**
- **Confirm this by pushing the centre mode button.**
- **The current minutes will flash.**
- **Confirm this by pushing the centre mode button.**
- **You are now directed to the programming mode at the bottom of the screen.**
- **#1 = Monday is now ready to be programmed.**
- **Pushing the + button will add a 1 hour segment.**
- **Pushing the – button will skip a 1 hour segment.**
- **Get used to the cursor movement by pushing the – button and following it across the screen.**
- **When you are happy with this take the cursor to the hour you wish the heater to begin and push the +. This will fill a 1 hour segment of running.**
- **When you have set your pre-set schedule push the centre mode button to confirm the Monday settings. This will now take you to 2 = Tuesday. Follow the same principles as previously to complete the remaing days of the week.**



If you pause for more than 2 minutes the control will return to the current day and time.

D. (Booster Mode)

The boost mode will activate the element and allow it to run for 2hours at full temperature. To exit this mode, simply push the boost button again. The boost button will override the current program. Once the 2hour cycle is complete it will return to the previous program mode.

E. (ECO Mode)

By pushing the green "Eco" leaf button you will take the R2 element to a maximum set temperature of 50^0C.

F. (Antifreeze Mode)

Antifreeze mode is designed to ensure you avoid freezing or damage when you are away from your home. To activate this function simply push the center mode button until the "Snow flake "Icon is seen. The R2 element will now stay dormant unless the fluid temperature falls below 7^0C. If it does fall below this set temperature the R2 will start a cycle to maintain 7^0C. The element will stay in this function until it is manually changed.

G. (Button Lock Mode)

To lock the screen and avert any unauthorized adjustments, simply hold the center mode and the + button for 3 seconds. A small key will be seen in the top right hand side of the screen to indicate it is locked. To exit this setting simply follow the same process.

<u>Low surface temperature application.</u>

The R2 heater can be an ideal product for areas requiring a low surface temperature application, such as hospitals, nursing homes or schools. The R2 can be set to the required surface temperature and locked for safety.

H. (Error Modes)

<u>Battery status</u>

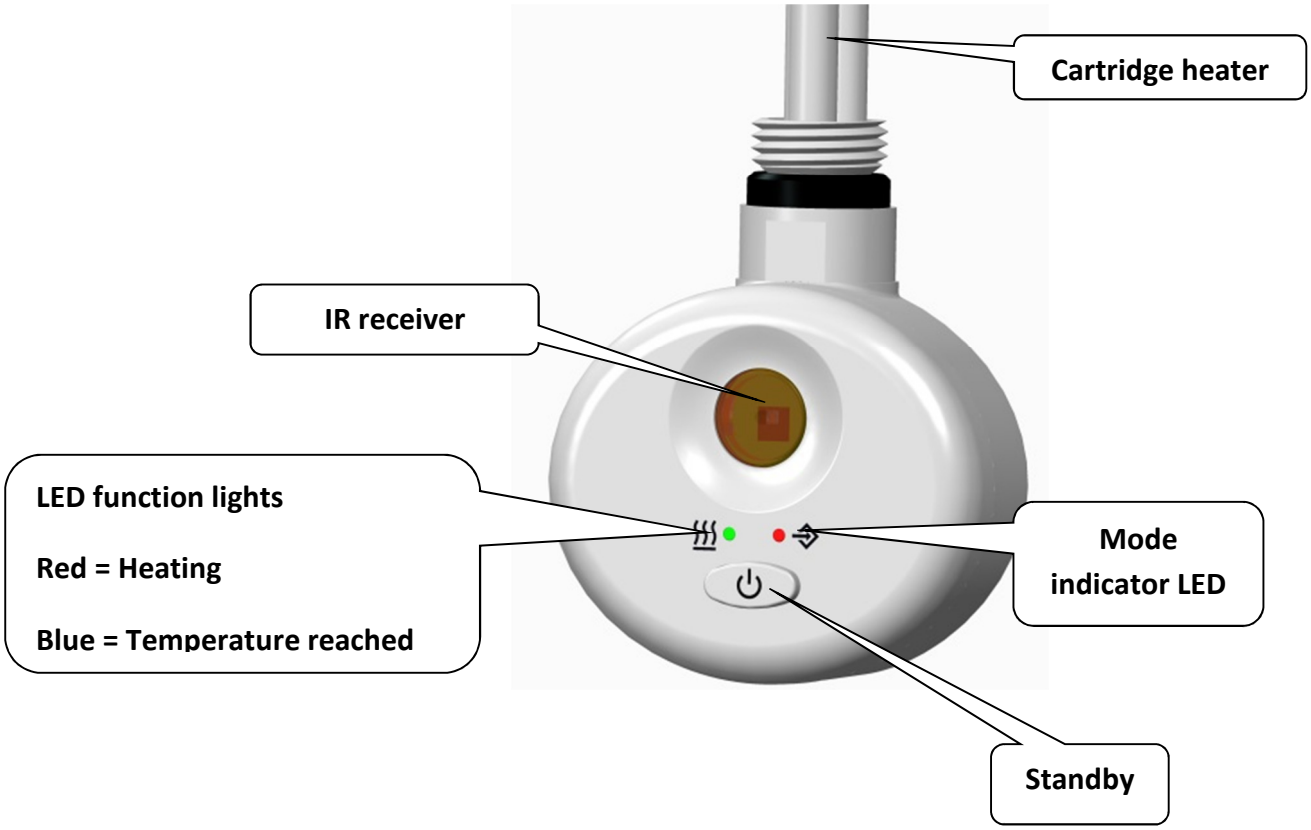
The remote batteries are checked every minute. If the power is seen to be falling the battery indicator "bat" will flash. The batteries should be changed.

Safety features

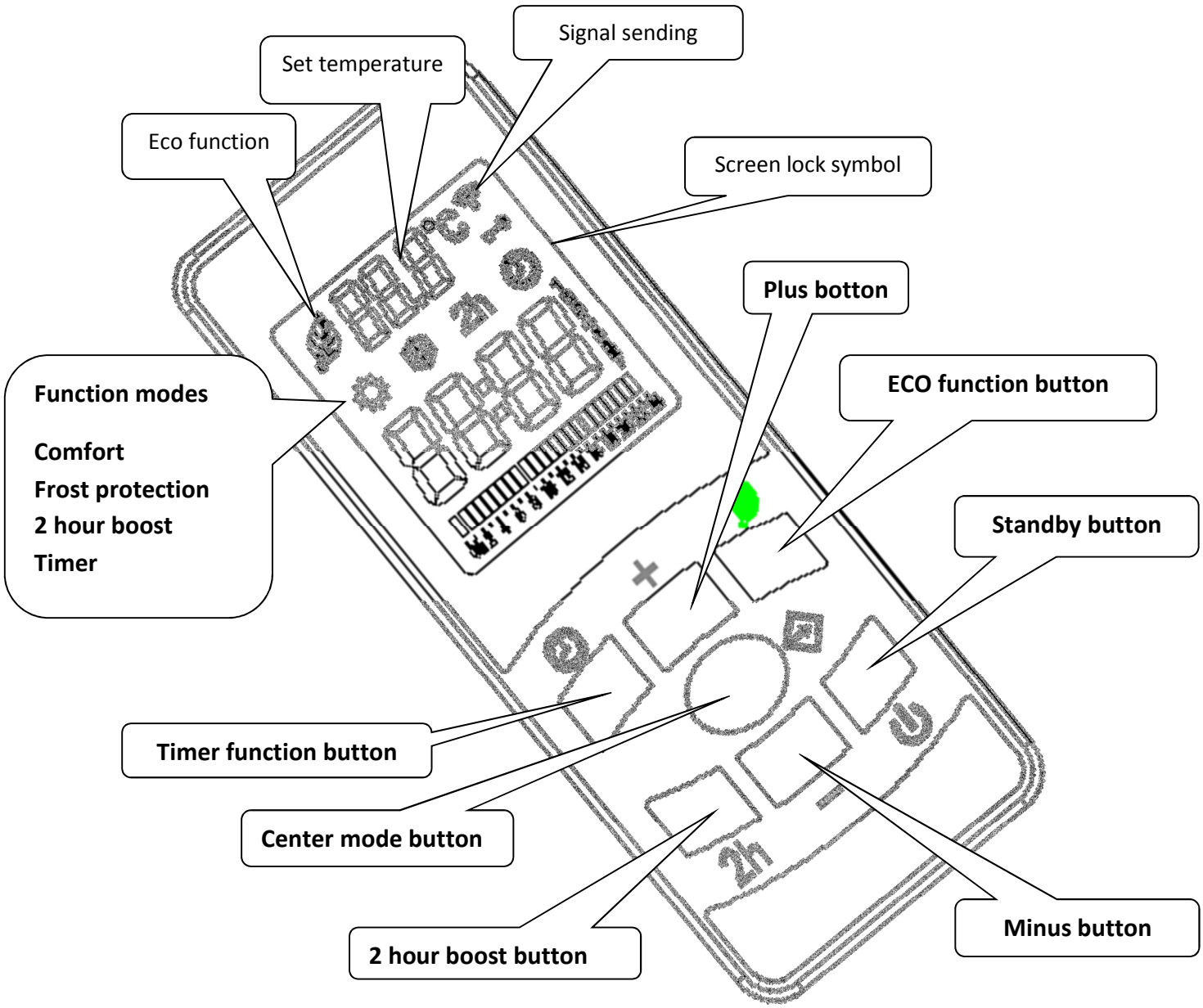
The R2 element has built in safety features. If the fluid rises above 125^{0}C or falls below -25^{0}C the red and blue light will flash alternatively and the heater shuts down.

Specifications	
Voltage:	230V / 50 Hz
Max output:	1.000 W
Insulation class:	I
Degree of protection:	IP X4
Temperature range:	30°C – 70°C
Threaded connections:	1/2“ BSP
Control head dimensions:	60h x 70w x 40d mm
Heating rod 12 mm Ø Power (W)	length (mm)
100	350
150	350
200	350
300	370
400	430
500	450
600	560
700	630
800	700
900	760
1.000	830
Controller interface: Cable color: Cable end:	White or Chrome white Bare
Remote control	
Wireless, battery-powered, 2 built-in transmitters with approximately 8 m range, 7 buttons, LCD display, wall mount, housing white / silver	
Dimensions:	100x42x20 mm
Batteries:	2 x AAA-LR03 1,5V

R2 Heating element schematic



Remote control schematic



Sol*Aire Heating Products Limited
New Row
Eppleby
North Yorkshire
DL11 7AW
Tel: 01325 717899
Fax: 01325 718065
Web: www.solairehp.co.uk
E mail: info@solairehp.co.uk