

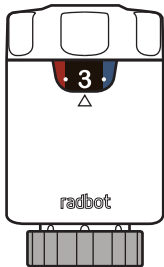


Smart Radiator Thermostat

***INSTRUCTION
MANUAL***



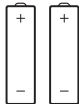
WHAT'S IN THE BOX?



Radbot Smart
Radiator Thermostat

Quick Start Guide

Instruction
Manual



2 X AA (LR6) batteries



6 X Valve Adaptors

*If anything is missing from your box please
contact Radbot customer support at www.radbot.com/support*

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Please read these instructions carefully before beginning the installation process. Failure to follow the guidance may result in the incorrect functioning of the product or damage to property or personal injury. Vestemi will not be liable for any damage or loss whatsoever arising from incorrect installation or use of the device or components.

GETTING STARTED

Thank you for purchasing Radbot and congratulations! You've taken a great step towards hassle free energy savings.

This installation and user guide provides you with **all** the information required to install and set up Radbot.

Compatibility

The Radbot smart radiator thermostat is compatible with the majority of wet central heating systems that use radiators as the heat emitter including:



- Combi boilers
- System and heat-only boilers
- District heating systems with individual radiators
- Electrical wet central heating

It's quick and easy to install. Once completed you can sit back and relax whilst your friendly radiator Robot gets on with its job of saving you energy and money.

Visit the Radbot website where you will find more information including videos, an FAQ section, news on product development and customer support details.

www.radbot.com

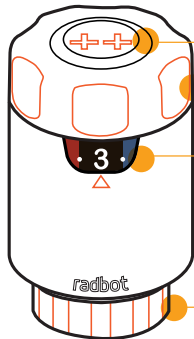
Radbot is not recommended for use with slow response heating systems including:



- Ground source or air source heat pumps
- Steam heating system

GET TO KNOW YOUR RADBOT

Key Components



Boost button

Provides 30 mins heating boost

Control wheel

Used to set the comfort level

Temperature dial

Shows comfort setting on a scale of 1-5

Retaining ring

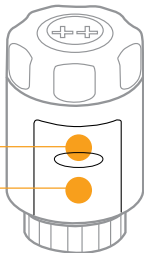
Used to secure Radbot to your radiator valve

Battery cover

Slide on/off battery cover

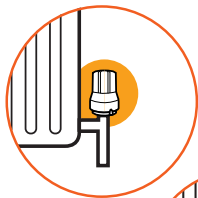
Battery compartment

2 AA batteries power Radbot

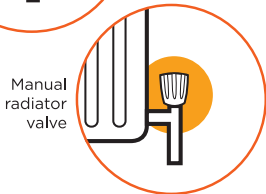


INSTALLATION GUIDE

Where to install Radbot



Thermostatic radiator valve



Manual radiator valve

For more information on selecting rooms and optimising energy savings visit www.radbot.com/support



Radbot can be installed on any radiator that already has an existing thermostatic radiator valve.

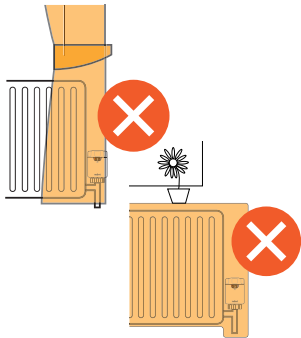
If any of your radiators have manual valves you will first need to replace these with thermostatic valves. We recommend using a qualified plumber for this job.

When choosing which rooms to install Radbot, we recommend installing in all your main living areas (bedrooms, kitchen, living room etc) first.

Important things to consider



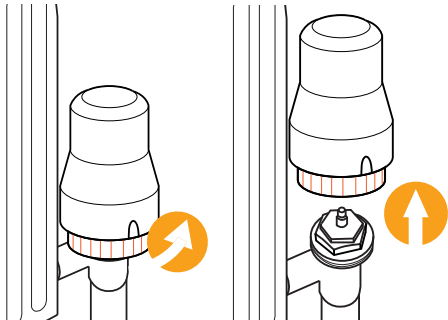
Please observe these tips to make sure I can function correctly.



- To work effectively Radbot needs access to light and airflow. Installing Radbot behind curtains, radiator panels or furniture is not recommended.
- Radbot is designed for use within indoor environments only. It should be protected from moisture and water ingress. Installation in high humidity environments, such as bathrooms, is not recommended as this may adversely affect the electronic components within the device.
- There will usually be one radiator within your home that is not fitted with a thermostatic radiator valve. This is typically the radiator nearest to where your house thermostat is located. This enables your boiler to run safely.

INSTALLATION GUIDE

Removing your old valve

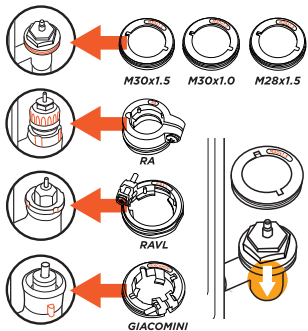


Fitting multiple Radbots?
Radiators in different
rooms may require the use
of different adaptors.



Fitting the correct adaptor

ADAPTOR SELECTION

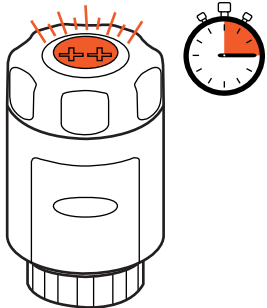


SECURING ADAPTOR

- 1 Study the adaptor selection diagram. 6 different adaptors are provided enabling Radbot to be fitted to the majority of radiators found within the UK and Europe.
- 2 The most common adaptor used in the UK is the M30x1.5. We recommend trying this one first. To make things easy, this is the one in the upper cardboard tray.
- 3 Slide the adaptor over the radiator valve and check it is the correct size - it should fit securely around the valve. If correct proceed to step 4. If not, try each one of the remaining adaptors in turn until you have selected the correct one.
- 4 Secure the adaptor to the metal valve by screwing it clockwise (M30x1.5, M30x1.0 and M28x1.5) or use a small screwdriver to tighten the locking screw (RA, RAVL and Giacomini).

INSTALLATION GUIDE

Installing the batteries



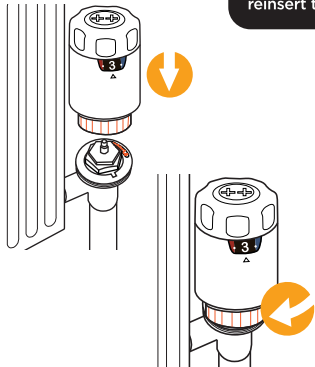
Do not insert the batteries until you have installed the adaptor and are ready to fit the device.



- 1 Remove the battery cover.
- 2 Insert the batteries checking the polarities (+/-) are correctly aligned.
- 3 Replace the battery cover.
- 4 Radbot will emit a long flash and the unit will then vibrate approximately every 2 seconds.
- 5 After about 15 seconds Radbot will be ready to install onto the radiator valve.

Fitting Radbot

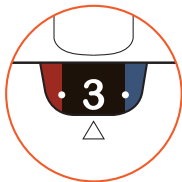
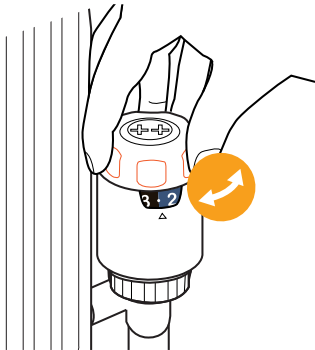
If the boost or temperature control is accidentally activated or Radbot is left too long prior to fitting and it enters calibration mode, it may become difficult to screw Radbot down onto the adaptor. Remove Radbot, reinsert the batteries and restart the fitting process.



- 1 Using the retaining ring, screw the Radbot onto the adaptor, whilst rotating the unit to ensure the temperature dial is facing towards you so it can be easily read. It only needs to be finger tight.
- 2 Once complete, press the boost button to let Radbot know you've completed the installation. It will then enter calibration mode and you will hear some noises from the motor. If you do not operate the controls, Radbot will automatically enter calibration mode after a few minutes.
- 3 Once calibration is complete, Radbot will enter normal run mode.

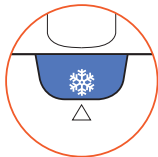
USING RADBOT

Setting the temperature



- The temperature is set by rotating the control wheel.
- The comfort scale runs from 1-5. Each click on the dial changes the set point by 1°C. Each full number by 2°C. The mid point is set at 19°C.

There are two additional settings:



Activates frost protection mode and sets the temperature to 6°C



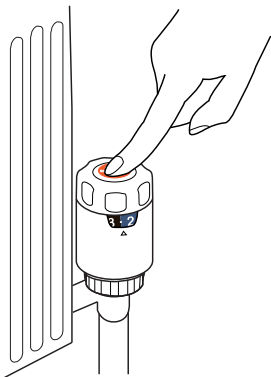
Sets the room temperature to the maximum allowable setting (24°C) and temporarily activates boost mode.

Temperature set back

Radbot saves energy by setting back the temperature in a room when it detects the room is not being used. As well as setting the temperature, the comfort setting also affects how hard Radbot works to save energy. As the dial is turned towards the cold end of the scale, the maximum allowed energy saving temperature setback will be increased, and vice versa.

USING RADBOT

Boost function



If you press the boost by accident, you can cancel it by temporarily turning the temperature dial down and then resetting to the normal level you want for the room.



If you are feeling cold and want more heat just press the boost button. Radbot will automatically increase the temperature setting above the current set point for 30 mins to quickly boost the room temperature*.

Pressing the boost rather than adjusting the temperature dial is the best option for a temporary increase in heat as Radbot will automatically revert to a normal temperature without anyone having to remember to turn the dial back down.

**The boost function will not activate if the room temperature is already within the maximum boost temperature range, which varies according to the control wheel position.*

Additional features

■ ***Valve Pin Maintenance Cycle***

Over time, radiator valve pins can become stuck if not exercised regularly. To keep the valve functioning correctly, Radbot automatically performs a weekly exercise cycle where the valve is opened fully and then returned to its normal position.

■ ***Frost Protection***

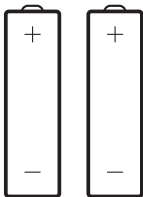
If the dial is positioned to the snowflake, the device will be in FROST mode. The temperature set point will be nominally lowered to 6°C to save energy, but high enough to prevent frost damage. If high humidity is detected the temperature set point may be raised to reduce the risk of condensation.

■ ***Radio Communication***

Radbot is equipped with a radio communication chip that transmits encrypted data every 2 minutes. This will enable Radbot to be connected to a boiler control unit in the future, a product that is currently under development at Vestemi (visit www.radbot.com for details). The combination of individual Radbot units and a central boiler controller within your home will enable Radbots to deliver even more energy savings. The data transmitted by Radbot is encrypted and are securely protected by a factory set private key.

MAINTENANCE

Batteries



2 X AA (LR6) batteries

- Radbot comes supplied with 2 AA (LR6) alkaline batteries. Under typical operating conditions the batteries should last 2 years.
- Signs of battery depletion include the LED indicator no longer functioning and the radiator being hot when you do not expect it to be. When the batteries are getting weak Radbot avoids closing the valve to avoid risk of frost damage if the batteries run out before replacement.
- If you have more than one Radbot installed in your home, we recommend changing the batteries in every unit as soon as one fails.
- 2 x 1.5V AA standard alkaline batteries or 2 x 1.5V AA NiMH rechargeable batteries can be used as replacement batteries. Do not use any other types of battery in the device.

Battery changing procedure

When changing batteries, we recommend you do so quickly to help Radbot maintain its internal clock.

- 1 Loosen the securing ring slightly
 - 2 Swivel Radbot around so that the battery compartment is facing you.
 - 3 Remove battery cover.
 - 4 Have new batteries to hand so that you can replace them within a couple of minutes.
 - 5 Remove old batteries.
- Alternatively remove the unit from the radiator, replace the batteries and repeat the installation procedure.
- 6 Insert new batteries within a couple of minutes, taking care to insert them in the correct (+/-) orientation.
 - 7 Replace battery cover.
 - 8 Rotate Radbot back around so that the temperature dial is facing you.
 - 9 Tighten the retaining ring.
 - 10 Press the button or turn the dial to tell Radbot that it is installed.
 - 11 Radbot will retain its memory of your room usage and carry on as normal. Please dispose of old batteries responsibly.



TROUBLESHOOTING

PROBLEM	REASON	SOLUTION
Room gets too hot.	<ul style="list-style-type: none">• Batteries have run out.• Radbot has not been tightened sufficiently to valve - pin not able to close valve.	<ul style="list-style-type: none">• Replace with new batteries.• Check connection and if loose push down Radbot and tighten retaining nut.
Radiator will not turn off.	<ul style="list-style-type: none">• Radbot has not been tightened sufficiently to valve - pin not able to close valve.	<ul style="list-style-type: none">• Check connection and if loose push down Radbot and tighten retaining nut.
Radbot will not respond to controls.	<ul style="list-style-type: none">• Batteries depleted.	<ul style="list-style-type: none">• Replace with new batteries.
Rapid flashing LED and no other activity.	<ul style="list-style-type: none">• Hardware fault.	<ul style="list-style-type: none">• Device is malfunctioning. Please contact customer support.

PROBLEM	REASON	SOLUTION
<p>Room temperature control seems strange.</p>	<ul style="list-style-type: none"> • Batteries were left flat or out for an extended period, or the device was moved to a new room, and the device has to relearn time of day and room use. • Insufficient light and/or airflow around device. 	<ul style="list-style-type: none"> • The device will relearn over the course of a few days. • Avoid letting batteries run right down and change them quickly to keep device's notion of time right. • Check device is not covered by objects (e.g. curtains) and ensure adequate air circulation around device.
<p>Valve is loose on radiator.</p>	<ul style="list-style-type: none"> • Retaining ring has not been tightened sufficiently. • Pin was not fully retracted during installation. 	<ul style="list-style-type: none"> • Tighten retaining ring. • If still loose remove and reinstall Radbot checking valve adaptor.

TECHNICAL SPECIFICATION

Product description

Recommend use

Size (including retaining ring)

Weight (inc batteries)

Power

Power consumption

Battery life (normal operating conditions)

Temperature range (working)

Temperature range (storage)

Max water circulation temperature

Temperature set point range

Temperature set point interval

Radio frequency/range

Sensing element capability

Motor

Pin force

Protection class

Pollution degree

Certifications

Other

Electronic radiator controller,
incorporated control, type 1 action

Residential, or similar use type
indoor only

L x W x H = 90mm x 55mm x 55mm

164g

2 x 1.5V (LR6) AA alkaline batteries

3 μ W sleep, 1.5W peak

2 years

0 to 40 °C

-20 to 60 °C

90 °C

6-24 °C

1 °C

868.5MHz/EU Band 48

Temperature: -30 to 90 °C

Relative humidity: 5% to 95%

Light: 10 to 1000 lx

Linear motion 5.8mm max

70N max

IP30

2

CE

Product passed ball pressure test at 75°C

CONDITION	LED BEHAVIOUR
<i>Device Fault</i>	<i>Rapid flashes (several per second). See troubleshooting.</i>
<i>Start-up</i>	<i>Single long flash shortly after battery insertion.</i>
<i>Turning the comfort wheel</i>	<i>Single quick flash (within 8 seconds).</i>
<i>Pressing the boost button</i>	<i>Single long flash (acknowledge pressing of button) followed by Medium flash (every 2 seconds) for 2 mins and then intermittent flashing (every 8 seconds) while the boost remains active.</i>
<i>Boost mode</i>	<i>The boost function will not activate if the room temperature is already within the current set point's corresponding maximum boost temperature range. If the room is dark boost LED activity is suppressed to avoid disturbing occupants at night.</i>

EU Declaration of Conformity

Vestemi Limited hereby declares this radiator control device is in compliance with the essential requirements and other relevant provisions of the following directives: • RED Directive 2014/53/EU • RoHS Directive 2011/65/EU • EMC Directive 2004/108/EC. A copy of the EU Declaration of Conformity is available at www.radbot.com/compliance

SAFETY INSTRUCTIONS

- Radbot must be installed and used in accordance with the instructions provided.
- Radbot has been designed for use within indoor environments only. It should be protected from moisture and water ingress. Installation in high humidity environments, such as bathrooms, is not recommended as this may adversely affect the operation of electronic components within the device.
- Before inserting batteries into the device, check the contacts on both the batteries and the device are clean, clean or change batteries if required.
- Do not throw batteries into a fire, short circuit them or attempt to dismantle them.
- Radbot is not designed to be used by children. Prevent children from playing with the device and batteries.
- Seek medical attention immediately if batteries are ingested.
- Do not attempt to dismantle or modify the thermostat in any way.

Radbot 2-Year Limited Warranty

Vestemi warrants the included hardware product and accessories (batteries not included) against defects in materials and workmanship for two years from the date of original purchase. Vestemi does not warrant against normal wear and tear, nor damage caused by accident or misuse.

The full terms and conditions of this warranty are available at [**www.radbot.com/warranty**](http://www.radbot.com/warranty)

To obtain service visit [**www.radbot.com/support**](http://www.radbot.com/support)

On submission of a valid claim, Vestemi will either repair, replace or refund your Radbot at its own discretion.

Disposal

Please dispose of responsibly. Do not throw electrical equipment and batteries into household waste!



Under the Waste Electrical and Electronic Equipment Directive (WEEE), the Radbot smart radiator control device and batteries are classified as electrical waste. This means that according to local laws and regulations your product and/or its batteries should be disposed of separately from household waste. When this product/s comes to the end of its life, take it to a local authority designated collection and recycling facility. Correct disposal of your product will help to conserve natural resources and ensure it is recycled in manner that preserves human health and the environment.

Vestemi Limited, Kemp House, 160 City Road, London, EC1V 2NX [**www.vestemi.com**](http://www.vestemi.com)

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radbot
Smart Radiator Thermostat

