Radbot FAQ

1. About Radbot

1.1 How does Radbot work?

Radbot is a completely new type of smart heating solution that detects when a room is occupied by measuring changes in light. Radbot then heats the room when you're there and lowers the temperature when you're not.

Radbot also learns how long it takes to heat a room so that it's warm when you're expected to arrive. If your schedule changes, Radbot quickly learns this and updates the heating pattern.

1.2 How does Radbot detect occupancy?

Radbot detects occupancy through monitoring and detecting changes in light levels (e.g. turning lights on/off, drawing/opening curtains and day/night cycles) as well as interaction with the device (setting the temperature of pressing the boost button). It uses this information within its unique occupancy algorithm to predict when a room will be occupied or unoccupied.

1.3 How does Radbot save money and energy?

Every 1°C reduction in your home's temperature can save as much as 10% on your heating bills! Radbot's advanced technology detects when a room is empty and reduces the temperature between 1°C and 6°C depending on time of day and the setting you select. Saving you money and energy without sacrificing comfort.

1.4 How do I know how much energy Radbot is saving me?

Extensive testing of Radbot in both controlled laboratory conditions and field trials have demonstrated it is possible to save up to 30% of your heating energy per radiator.

1.5 How much does Radbot reduce the temperature when a room is empty?

When Radbot predicts a room will unoccupied, it reduces the temperature between 1^0 C and 6^0 C below the set-point temperature. The level of setback is dependent on the comfort wheel setting. If you prefer warmer rooms, choose a higher set-point temperature on the comfort wheel. The corresponding level of setback will be lower (between 1 – 1.5^0C). If you prefer cooler rooms or want to save more energy choose a lower set point temperature. The corresponding level of setback when the room is unoccupied will be higher (between 1.5 – 3.5 C). Lower set point and set back temperatures will achieve higher levels of energy saving.

1.6 How is Radbot different from my existing TRVs?

You may be familiar with thermostatic radiator valves or TRVs (yes, that funny dial thing on your radiator). Radbot looks the same, so how is it different?

TRVs control heat output in each room, but keep the temperature the same all the time. To achieve similar savings with TRVs you would need to remember to turn the dial up 1-2 hours before you enter each room and turn it back down every time you leave a room. Radbot automates this process saving you time and money.

1.7 How is Radbot different from a smart thermostat?

Smart thermostats like Nest and Hive control the heating for your whole house whereas Radbot heats rooms individually based on occupancy. You wouldn't turn all the lights on in your home with one switch, so why do it with heating?

2. Compatibility

2.1 Will Radbot work in my house?

Radbot works with all gas or oil central heating systems that use radiators. It doesn't work with systems using underfloor heating, electric storage heaters or heat pump systems.

2.2 I already have a smart thermostat; can I use Radbot with it?
Yes, each Radbot works completely independently to control the radiator it is installed on. Therefore, it will not interfere with the operation your smart home thermostat. We recommend you continue to use your smart thermostat as you have been. The temperature you set each Radbot at will effectively over-ride the smart thermostat for that room. This provides room by room temperature control, which can improve comfort and has the potential to offer additional energy savings.

2.3 I have a communal heating system; can I still use Radbot?
Yes, Radbot is designed to work with any radiators operating on a wet central heating system. You should however check with your heating provider that it is ok to install Radbot with their system.

2.4 Can I control my boiler/heating system with Radbot?
No, you will need to continue using your existing heating controls (programmer & room thermostat) to control the on/off times and other settings for your boiler/heating system.

2.5 I live in rented accommodation, can I use Radbot?
Yes, if the heating system and radiators are compatible. We recommend keeping the existing TRV after you remove it from the radiator to install Radbot. That way you can take Radbot with you should you move.

3. Installing Radbot

3.1 How do I install Radbot?
Radbot can be installed on any radiator that already has an existing thermostatic radiator valve. You simply remove your old TRV, fit the correct adaptor, install the batteries and the secure Radbot to the radiator. That's it, job done! Please see our installation video for a demonstration.

3.2 Will I need a plumber or engineer to install Radbot?
No. If you already have thermostatic radiator valves– it's easy to install Radbot yourself. You just unscrew the existing valve and replace it with Radbot. Watch our handy installation video for support on how to install.

3.3 How many Radbots do I need to install?
You can install as many or as few Radbots as you like. We recommend installing Radbot in all of the main living areas (lounge, kitchen and bedrooms). Typically, 4-5 Radbots are suitable for the average UK household.

3.4 Which rooms should I install Radbot in?
Install it in the busiest rooms in your house – such as the living room, kitchen, children's bedrooms, and so on. Radbot works best when it's **not** hidden behind radiator covers, curtains or furniture.

3.5 Should I install Radbot in the same room as a room thermostat?
Your main heating thermostat is directly linked to your boiler system and controls when the boiler fires or turns off. Having a TRV in the same space will mean that they fight to control how hot or cold your room will be. Standard practice is therefore to leave one radiator without a thermostatic radiator valve installed, and to leave that appliance permanently switched on. This is typically the radiator where the room thermostat installed.

3.6 Can I install Radbot in a bathroom?
We do not advise installing Radbot in bathrooms as its electronic components have not been tested and certified to operate in high humidity environments.

3.7 I don't have TRVs on my Radiator can I still use Radbot?
You will need to have your existing radiator valves upgraded to thermostatic valves first before you can use Radbot. We advise this is job to be carried out by a professional (plumber/heating engineer).

3.8 What is a thermostatic radiator valve?
Thermostatic radiator valves (also commonly referred to as TRVs) are the controls on your radiators used to set the temperature. They usually have a numbered scale around the top which you change by hand. The valve changes the flow of hot water to the radiator until it reaches that temperature.

3.9 How do I know which valve adaptor I need?

In the box you will find an assortment of 6 different plastic valve adaptors. Only one of these will fit a particular valve. We recommend trying the M30x1.5 valve first as this the most commonly used valve in the UK (this one is supplied in the handy cardboard tray at the top of the box). If that does not work, we recommend trying each one in turn until you find the right one.

3.10 Can I use Radbot with a Radiator Cover?

We do not recommend using radiator covers with Radbot as they can block both air circulation and light. Light and airflow are bit like food to Radbot, it needs a good supply of both to function at its best.

3.11 What do I do if my old TRV is stuck and I can't remove it?

If the metal or plastic securing ring is stuck, you may need to use a tool to loosen it. The best tool is either a plumber's wrench or a strap wrench, which can be used to grip the securing ring and making it easier to the loosen the ring. Once the securing ring is undone the TRV should just lift of. Sometimes they can be quite stiff, so you may have to give them a bit of tug to get it off.

3.12 Will water squirt out if I remove the TRV?

No, it's safe to carefully remove the existing TRV head on your radiator in order to install Radbot. This will not cause water to squirt out.

4. Using Radbot

4.1 How do I set the room temperature with Radbot?

Simply turn the dial to preferred setting. Each setting (or number) corresponds to a target room temperature as shown below. Also, the lower you set the dial, the more Radbot will reduce the temperature when a room is unoccupied – saving more energy and money.

Dial Setting	Target Room Temperature
Frost	6°C
0.5	14°C
1	15°C
1.5	16°C
2	17°C
2.5	18°C
3	19°C
3.5	20°C
4	21°C
4.5	22°C
5	23°C
5.5	24°C
Flame	24°C

4.2 Why isn't there an app? How do I control Radbot without one?

Radbot is an automated "set and forget" heating solution. With the temperature dial you can set the desired temperature in each room and let Radbot get to work. As the intelligence is built inside Radbot, there's no need to to fiddle with an app on your smartphone or the house thermostat.

4.3 What does the boost button do?

Pressing the boost tells Radbot to open the radiator valve to maximum. Providing your heating is switched on this will give you a boost of maximum heating for 30 minutes after which Radbot will revert to its original settings so you don't have to remember to turn it back down again.

4.4 I pressed boost by accident, can I cancel it?

Yes, you can cancel boost by turning the comfort wheel down (you can then turn it back to your desired set-point temperature). This will override the boost command.

4.5 What does the snowflake symbol mean?

The snowflake signal stands for frost protection mode. If the room is used infrequently you can set Radbot to this mode and it will ensure the temperature is not allowed to drop below 6C to minimise the risk of pipes freezing.

4.6 What does the flame symbol mean?
The flame signal is maximum output for the radiator. It is similar to the boost setting but it will not turn itself back down again. We do not recommend using this setting for longer periods as it will consume a lot of energy.

4.7 Why does Radbot make a sound?
Radbot has a little motor inside that opens and closes your radiator valve. This is how it regulates the flow of hot water to your radiator and controls the temperature in the room. So when you hear a whirring sound you can sit back and relax knowing that Radbot is doing its job.

4.8 Does Radbot turn my heating off when I'm not there?
No, Radbot does not control your heating system directly, it only controls the flow of hot water into individual radiators. Your heating system will still be controlled by your standard heating controls (e.g. Programmer and thermostat). It will, however, reduce the temperature in unoccupied rooms.

4.9 Do I need to close the doors in my house for Radbot to save energy?
Radbot saves energy by providing heat only to rooms where it is needed. Closing the doors in your home can help reduce heat leaking to unoccupied spaces to maximise your energy savings. However, a radiator's heating power to a room is significantly larger than the transfer of heat by natural air circulation. Therefore, in most cases, the majority of Radbot's potential savings would be retained even if doors are left open.

5. Maintenance

5.1 How long do Radbot's batteries last?
Under normal operating conditions the batteries will last for approximately 2 years. You can easily change them yourself when it's needed.

5.2 How will I know when the batteries need changing?
You will know when Radbot's batteries need changing because;

- The LED light will no longer flash (e.g. when you press the boost or adjust the comfort wheel)
- Radbot will no longer make a sound
- Your radiator will be continually on

We recommend changing the batteries in all Radbots you have installed at the same time.

5.3 What type of batteries does Radbot use?
Radbot use 2 standard AA (LR6) batteries. You can use AA rechargeable batteries.

5.4 How do I change the batteries?
To change the batteries simply remove the battery cover and old batteries. Then insert two new batteries ensuring the polarities +/- are correctly aligned. We recommend installing new batteries within 2 minutes of with removing the old batteries as this will ensure Radbot keeps it memory about the occupancy patterns for a room, which it has learnt. For this reason, we also recommend changing the batteries without removing Radbot from the radiator. Watch the video for more information.