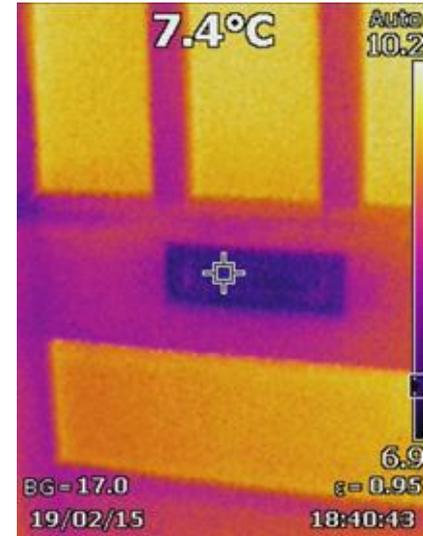


Sustainable St Albans Thermal Imaging Camera Initiative

How efficient is your home?
See what our Thermal Imaging camera can show you!
Information sessions for Winter 2025/26

Sustainable St Albans Thermal Imaging Camera Volunteers
Harpenden – Andrew, Lesley and Pauline
St Albans – Caroline, Sheila, Judith and Julian



Sustainable St Albans Thermal Imaging Camera Initiative

Agenda

1. Introduction to Sustainable St Albans
2. Introduction to the thermal imaging camera initiative
3. What the camera can show you
4. Arrangements for borrowing the camera
5. Q&A and close



Sustainable St Albans is a local environmental charity which runs a variety of initiatives

- **A group of local people making St Albans District a more environmentally sustainable place to live**
- Together we find positive and creative ways to act across St Albans, Harpenden and the villages to raise awareness and address the challenges of climate change, live more sustainably, and move towards a low-carbon economy.
- Sustainable St Albans is registered charity and member of the Transition Network.
- Sign up for monthly newsletter sustainablestalbans.org
- Follow us on social media [@SustainableStA](https://twitter.com/SustainableStA)



Sustainable Schools



Monthly newsletter



Local Recycling Map



Sustainable St Albans

Upcoming events

Open Eco Homes
St Albans

Saturdays, 9.30-11 and 11.30–1.00, in St Albans
14 Feb 2026, 14 Mar 2026.

Our Planet Our Future events
Harpenden

Mondays, 7.30-9.30pm, Harpenden Arms, Harpenden
9 Mar, 11 May, 13, July, 14 Sep, 9 Nov

Our Planet Our Future Book Club
Harpenden

Thursdays, 7.30-9.30pm, Harpenden
26 Feb 2026, Saving Us - A Climate Scientist's Case for Hope & Healing in a Divided World,
Katharine Hayhoe

Harpenden Sustainability Markets
Harpenden

Sundays, 10-3pm on Harpenden Common
15 Mar, 17 May, 20 Sept, 15 Nov 2026

Repair Fairs
Across the district

Saturdays, various locations across the district
24 Jan 2026 – 10am-1pm, Fleetville Community Centre, Royal Rd, St Albans

Meet Your Neighbours info sessions
Zoom / Across the district

see website

See website for further details and to book <https://sustainablestalbans.org/events/>

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Sustainable St Albans Thermal Imaging Camera Initiative

Sustainable St Albans has been running this thermal imaging camera initiative since 2014.

We now have three cameras which have been borrowed on more than a thousand occasions to residents and across the city and district of St Albans.

- **The Harpenden Camera**, which is loaned out by volunteers living in Harpenden and Redbourn on a daily basis
- **The St Albans Camera**, which is loaned out by volunteers living in St Albans and London Colney on a daily basis
- **The Community Camera**, which is loaned out from Harpenden and St Albans to schools and community groups on a weekly basis.



Sustainable St Albans Thermal Imaging Camera Initiative

- We run online information sessions regularly
- After the session (by tomorrow morning) you will have received an email from Eventbrite which will enable you to book to borrow the Harpenden or St Albans cameras from a range of addresses over the coming weeks.
- If you are here on behalf of a school or community group, please email us at thermal.imaging@sustainablestalbans.org to arrange to borrow the community camera.



Using the camera

In this presentation we will focus on **what the camera can tell you about your home.**

It best to use the camera when there is at least a 10 degree difference between the inside and outside temperatures.

When you borrow the camera, you will also be given a printed copy of **The Information Pack and also the Manufacturer's Guide** for the camera that you are borrowing, together with cables and other resources to look at.

Further information is also available at (<https://sustainablestalbans.org/thermal-imaging/>)

- **The Manufacturers' Guides** for more technical queries (for each camera)
- **"How to use the camera"** videos (for each camera)

There is a **SSA Thermal Imaging Project Facebook group** for people who have borrowed the camera to share images or ask questions of each other or us (search for **SSA Thermal Imaging Project** or <https://www.facebook.com/groups/520761902852088/>)

For further queries, please email thermal.imaging@sustainablestalbans.org (specifying which camera you are using)

Sustainable St Albans

Thermal Imaging Camera Initiative

Agenda

1. Introduction to Sustainable St Albans
2. Introduction to the thermal imaging camera initiative
3. **What the camera can show you**
 - › Overview
 - › Loft hatches and loft insulation
 - › Walls
 - › Windows
 - › Doors
 - › Floorboards
 - › Radiators
 - › Underfloor heating
 - › Notes on using the camera outdoors
4. Arrangements for borrowing the camera
5. Q&A and close



What the camera can show you - overview

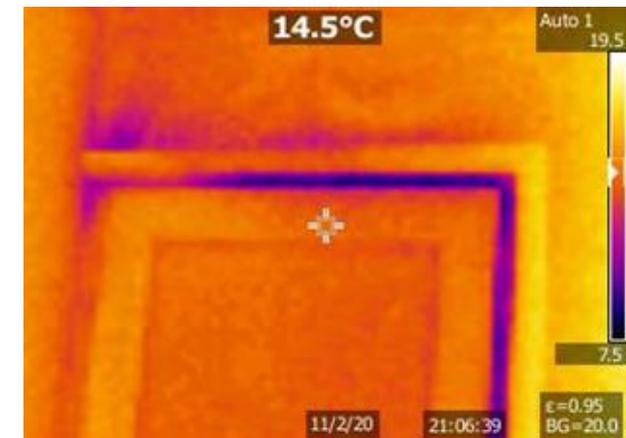
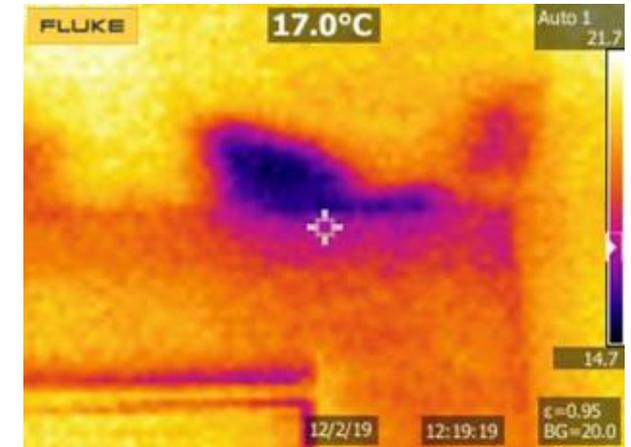
You can see heat leaking from your house or cold air coming into your house

It can highlight

- draughts
- cold bridges
- inadequate insulation

Colour coded pictures show the relative temperature differences blue is cold, moving through red to yellow for hot

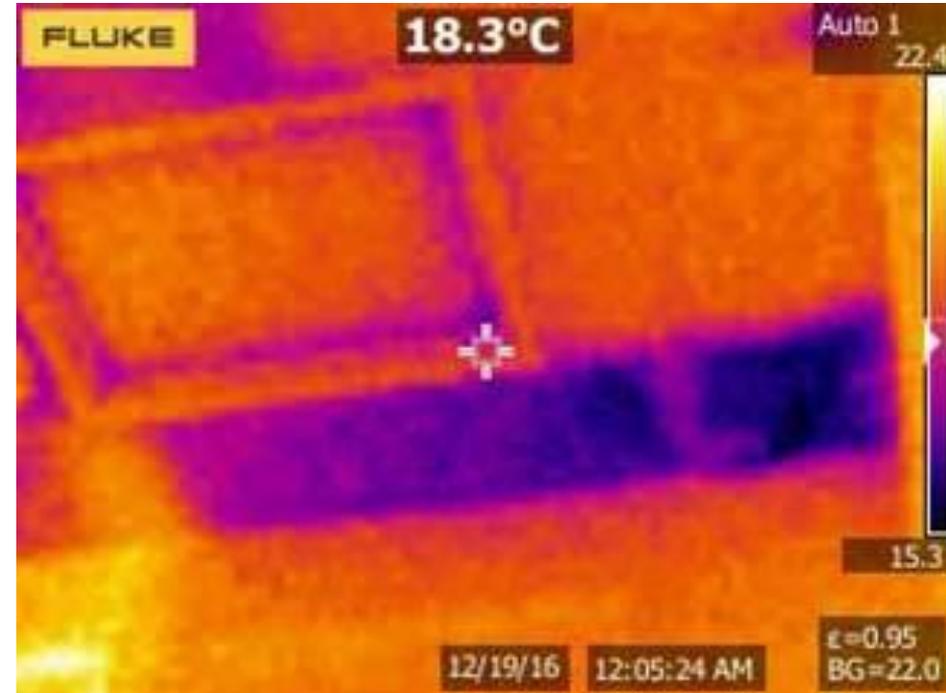
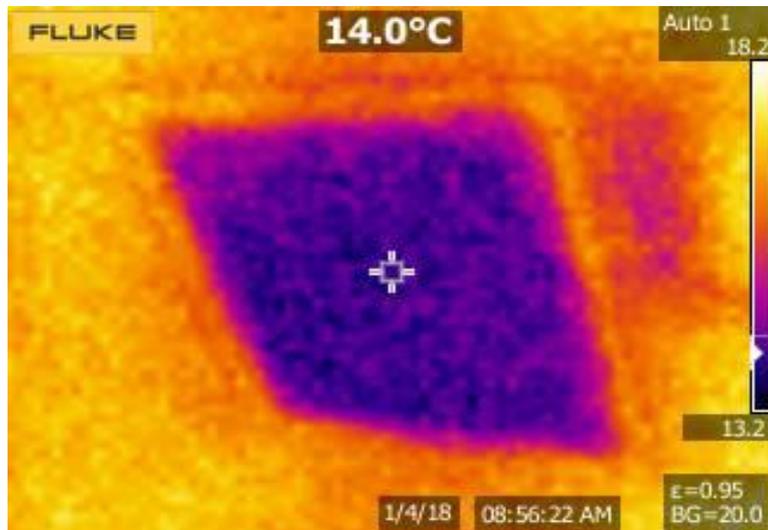
However, note the temperature scale on the right-hand edge as there will always be blue areas and yellow areas



What the camera can show you - loft hatches and loft insulation

Around a quarter of heat is lost through the roof of an uninsulated home

The dark area shows a loft hatch without insulation

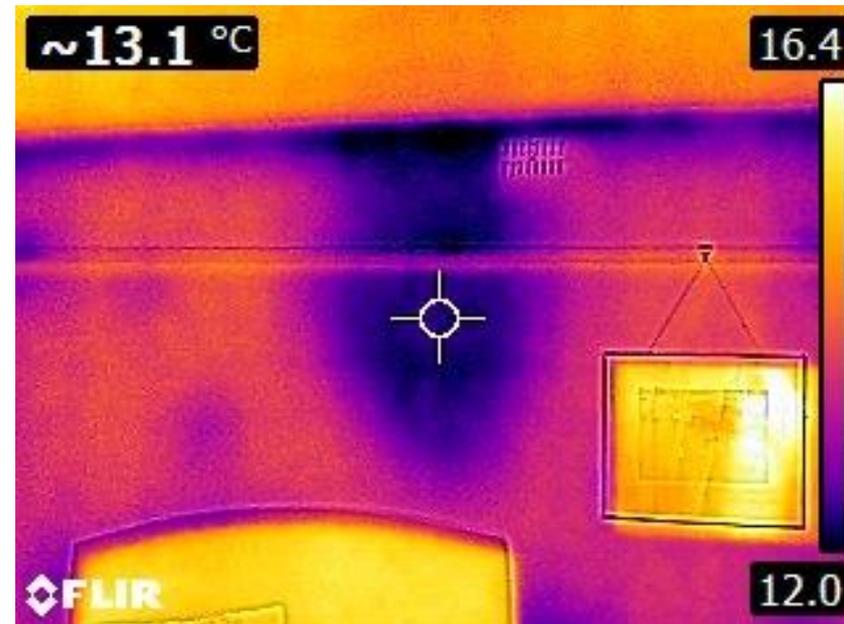


The dark areas here show areas with no insulation to be investigated

What the camera can show you - cavity wall insulation

About a third of all the heat lost in an uninsulated home escape through the walls

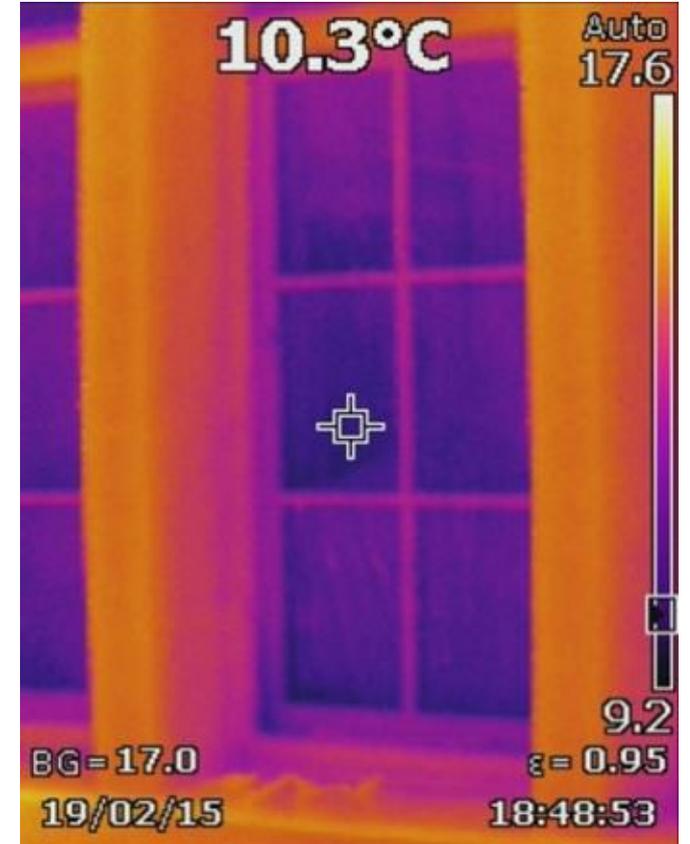
The dark area in the centre shows missing cavity wall insulation



What the camera can show you - windows

This image was taken from INSIDE

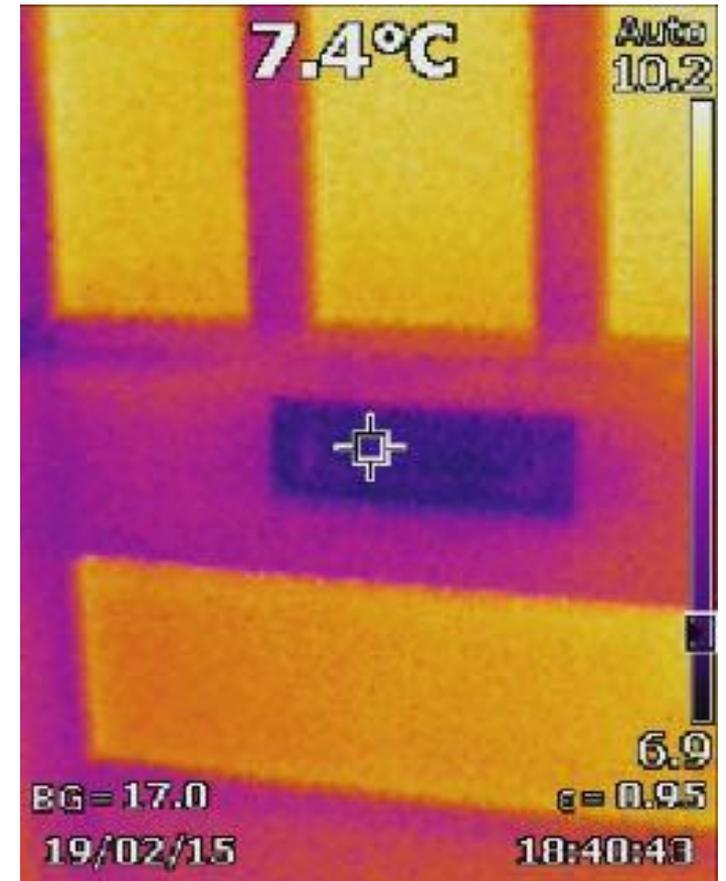
- The dark areas shows heat being lost through a single glazed window
- The temperature shown at the top of the camera image (10.3), is the temperature at the cross at the centre of the image
- The temperatures shown at the side (17.7 to 9.2) show the range of temperatures in the image



What the camera can show you - doors

This image was taken from OUTSIDE

- The yellow areas show where heat is being lost through single glazed glass panels (top) and a thin wooden panel (bottom) in a front door
- The dark area shows a well covered letter box



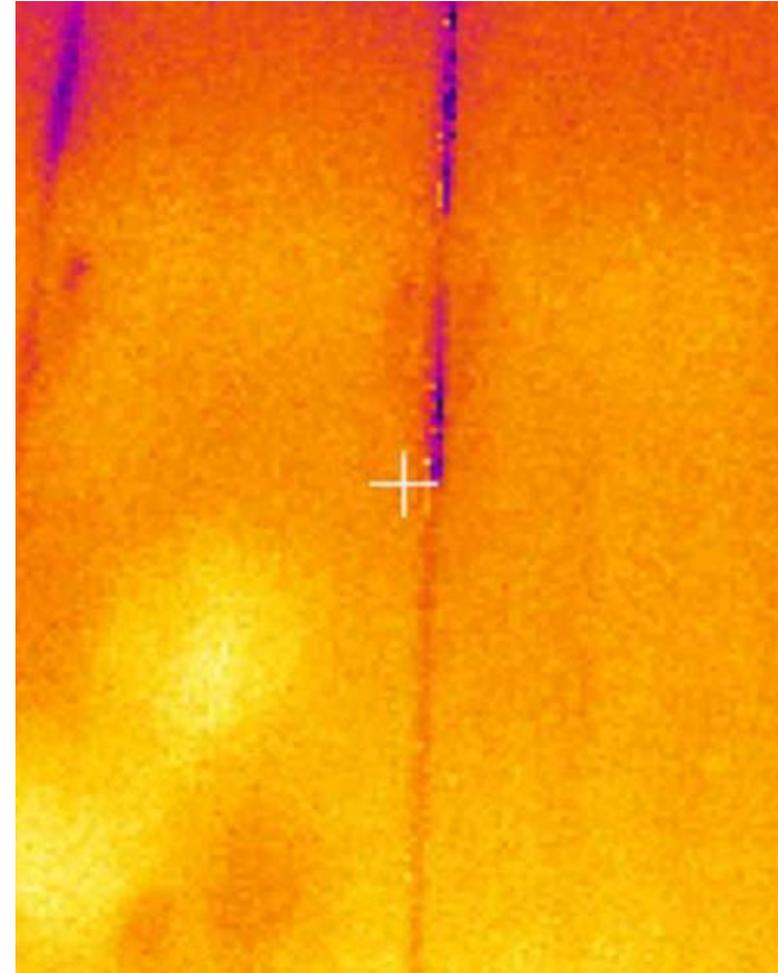
What the camera can show you - floorboards

Draughts coming up between floorboards

- which can be reduced by fitting floorboard gap sealer
- The blue lines on the image are where cold air is coming between the floorboards where gap sealer had not been used

Draughts coming between stairs

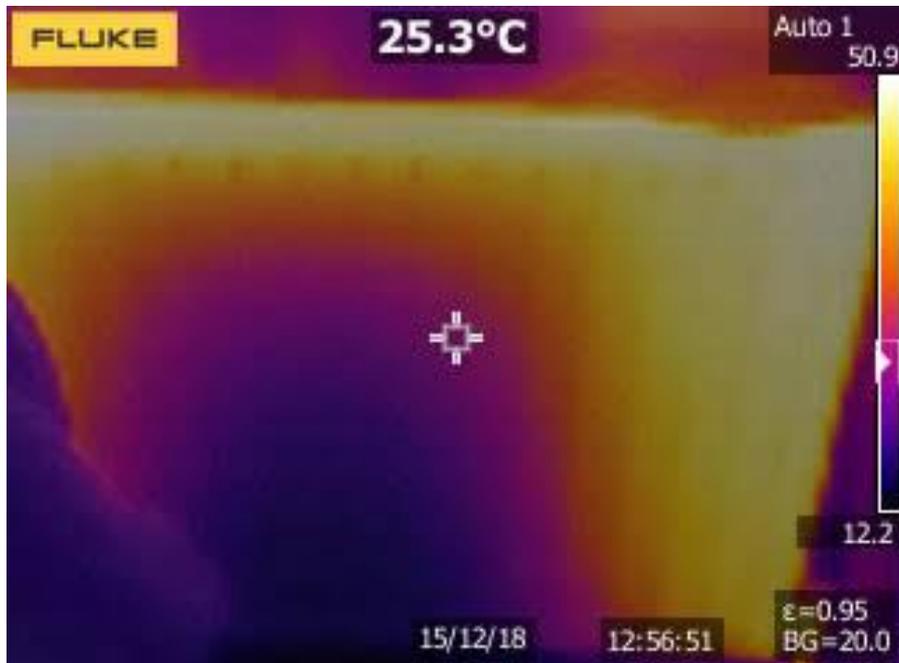
- which could be reduced by under stair insulation



What the camera can show you - radiators

Radiators that need flushing out

- The dark area of the image is where the water is not circulating in the radiator

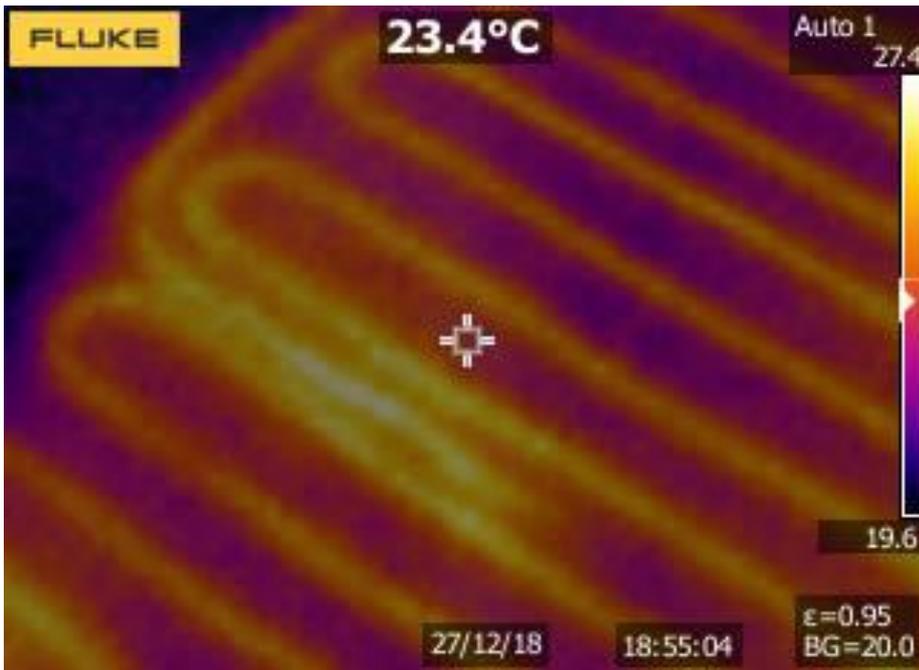


Radiator heat leaking through the outside wall (bottom left of image)

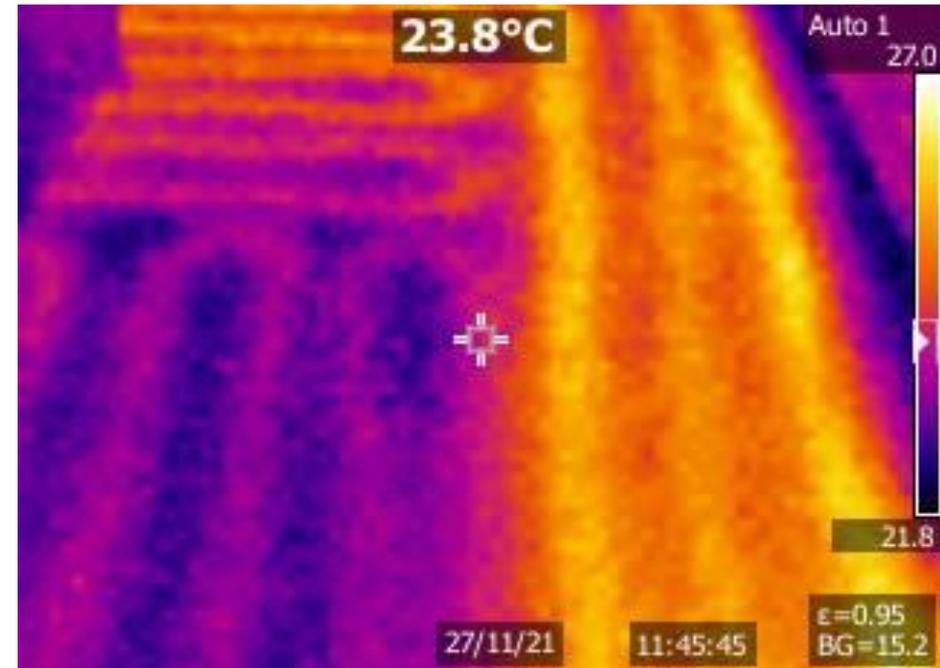
- The leakage could be reduced by insulation or a reflector behind the radiator
- this image is taken from outside (in a different colour scheme)



What the camera can show you - underfloor heating



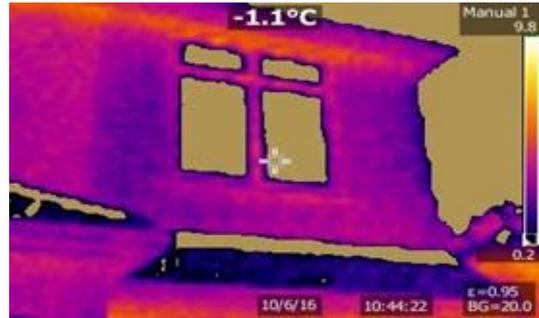
Underfloor heating elements



Underfloor heating - elements
in one section aren't as hot

What the camera can show you

- notes on using the camera outside

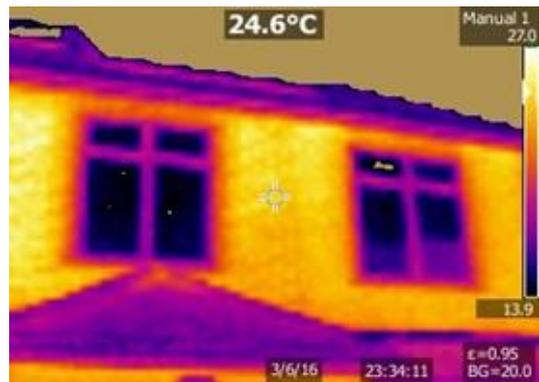


Setting the camera's temperature range to manual is useful outside

- **Top image** - temperature range set to **Manual**, to give better temperature definition for the house; the cold sky appears silver because it is below the minimum temperature of the range



- **Middle image** was taken with the temperature range set to **Auto**, and the temperature definition for the house is worthless



The sun can affect the temperature of the outside of the house.

- **Bottom image** - there's a reflection of the much colder sky onto windows. This is particularly significant when the sky is clear.
- **Bottom image** - the sun has warmed the brickwork all day, and it is quite warm when viewed with the camera at night even in winter.

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Sustainable St Albans

Booking to borrow a camera

1. **Booking link:** You will be sent links from Eventbrite to book to borrow – please contact us if you do not have one tomorrow (check spam/junk first)
2. Around a hundred people borrow our cameras each winter, so the Harpenden and St Albans cameras are *generally* borrowed for 24 hours, being collected one day and returned the next day, although there are some longer options from some addresses.
3. **Locations:** The cameras are held by our thermal imaging camera volunteers on rotation; the Eventbrite Borrowing Event will state the area that the camera is collected from and returned to for those particular dates (*eg Central Harpenden, Redbourn, AL1 South East, AL1 Bernards Heath, AL4 Colney Heath Lane, London Colney*). Dates will only be added for a month or two in the future, so please check back if you are looking to borrow the camera further ahead
4. **Not suitable?** If none of the options you see are suitable, please email us

Sustainable St Albans

Collecting the camera

As the cameras are expensive, a security deposit is required and we need to check we are giving the camera to the correct person!

- **Security deposit (£200)** - the security deposit can be (i) **a cheque (payable to Sustainable St Albans)**, (ii) **cash**, or (iii) **a card payment**. Sustainable St Albans has a Zettle account that we can use to take deposits when you collect the camera – or, if you prefer, please email us and we can send you a payment link in advance.
- **Identification** - the camera volunteer will need to check that the person asking for the camera is the person that has booked it! **Please bring some form ID** with your name and address it on it such as a driver's licence or a recent utility bill.
- **Please arrive at the agreed time (the start time of your booking)** - if you are late you may need to rebook if the volunteer has for example, then left to go to work or had joined a meeting. If you find that you are unable to collect the camera, please inform us asap by emailing: thermal.imaging@sustainablestalbens.org (please specify in the email which camera you are borrowing).

Sustainable St Albans

Returning the camera

1. **Please arrive at the agreed time (the start time of your booking)** – there may be another borrower collecting the camera shortly after you return it. If for any reason you are unable to return the camera at the booked time, please contact us immediately: thermal.imaging@sustainablestalbans.org so that we can inform the next borrower.
2. **Please ensure that return all the cables and the 'Beginner's guide to Eco-renovation' book.**
3. **Security deposit** – when you return the camera, the camera volunteer will check that the camera is in working order and, assuming it is, return your deposit cheque. Electronically paid deposits will be returned as soon as possible.
4. **There are also some specifics about each camera, which are highlighted in the information pack.**

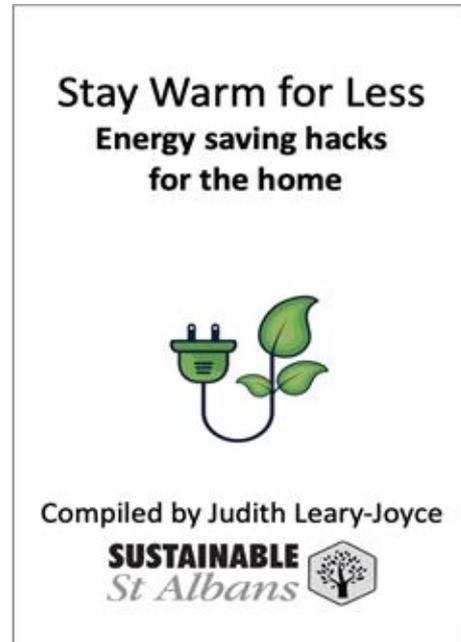
St Albans Camera and Community Camera

- Please charge the camera for up to an hour before returning it.

Sustainable St Albans After using the camera



Available on [Amazon](#) and all good bookshops



Available to download [EcoRenovationHome.com](#)

- download “**Stay Warm for Less**”, for ideas on what to do to reduce heat loss, and there are also copies with the camera
- see the Information pack and website <https://sustainablestalbans.org/efficient-buildings/> for links for resources to deal with draughts and further energy saving measures.
- join our **thermal imaging camera Facebook Group** to share experiences of using the camera and your learnings.

Other useful publications and blogs – Getting Heat-Pump Ready.
Retrofitting and Insulating an end-of-terrace Victorian home
Insulating a 1920s semi. Case study: External Wall Insulation.
<https://sustainablestalbans.org/tag/thermal-imaging-camera/>

Sustainable St Albans - finally ...

1. **Please complete the online survey on the website** (or the survey form in the Information Pack). It helps us develop the Information Pack for future users.
2. **Please send us your images** - we very much welcome images and case studies.
3. **Make a voluntary donation.** Donations help to pay the costs associated with running the thermal imaging camera initiative – a suggested donation is £10; there is a link on the website & there a Gift Aid form too).
4. **Join Sustainable St Albans.** It's free. You'll get our monthly e-newsletter.
www.sustainablestalbans.org.

Sustainable St Albans Thermal Imaging Camera Initiative

Any questions?

Thank you. We hope you find using the camera useful. Do tell your friends

Sustainable St Albans Thermal Imaging Camera Volunteers

Facebook: search for SSA Thermal Imaging Project

Email: thermal.imaging@sustainablestalbans.org

Website: www.sustainablestalbans.org



SUSTAINABLE
St Albans

