Using a Thermal Imaging Camera Notes

Downloads from: cambridgecarbonfootprint.org/what-we-do/thermal-imaging

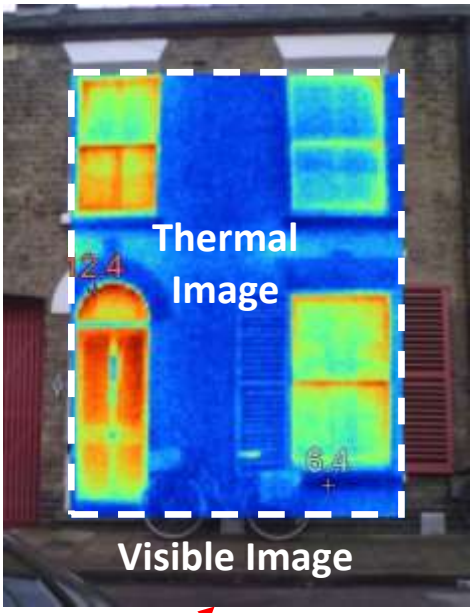
Ideal Conditions for Use

- Indoors >10°C warmer than out - if necessary turn up heating a few hours before.
- No direct sun, rain or strong winds
- Enough light for visible images, although thermal images work fine in the dark

Check before

- **Battery**. Check on-screen icon:  Charger socket is under flap on side of camera.
- **SD Memory Card** in slot under flap. (USB /SD card- adaptor in bag)
- **File format** via menus (see Options, below): normally select **TiR: BMP or TiR105: JPG**
  IS2 only for use with Fluke SmartView software for optimisation, labelling, etc

In Use



- **Switch On**/ Off: Hold F2 (**TiR**) or Power On/Off (**TiR105**) 
- **Lens cap** – flip it up!
- **FOCUS:** **TiR**: Essential - if tricky, use IR Fusion (see below)
  TiR105: No focus: but keep at least 1.2m (4ft) from subject
- **Save images** by pulling trigger **AND** then **STORE** by pressing F1
- *Investigate **unexpected hot or cold areas**. Make comparisons.*
  Heat leaks look cold from inside building, hot from outside.
- **Avoid reflections** from glass or metal: change your position?
- Metals also give false temperatures because of low emissivity
- **Keep notes** of images & what they show

Options

via menus: **TiR***: **F2**, then again for more options, F1 or F3 to select.*
TiR105*: F2 then use* arrow buttons.

IR Fusion shows thermal image in the middle with a visible surround: recommended
TiR is in focus when visible and infrared images align vertically.

- **Auto/Manual** displayed top-right. Auto: easy, or Manual: for comparisons or if temp extremes in view.
  Change between Auto/Manual by holding F1 for 1 sec (when no menu displayed)
  F3 resets manual range to the max & min temperatures then in view
- **Review stored Images** via Menus, Memory, if needed.
  See more in Camera user **Manuals:** cambridgecarbonfootprint.org/what-we-do/thermal-imaging

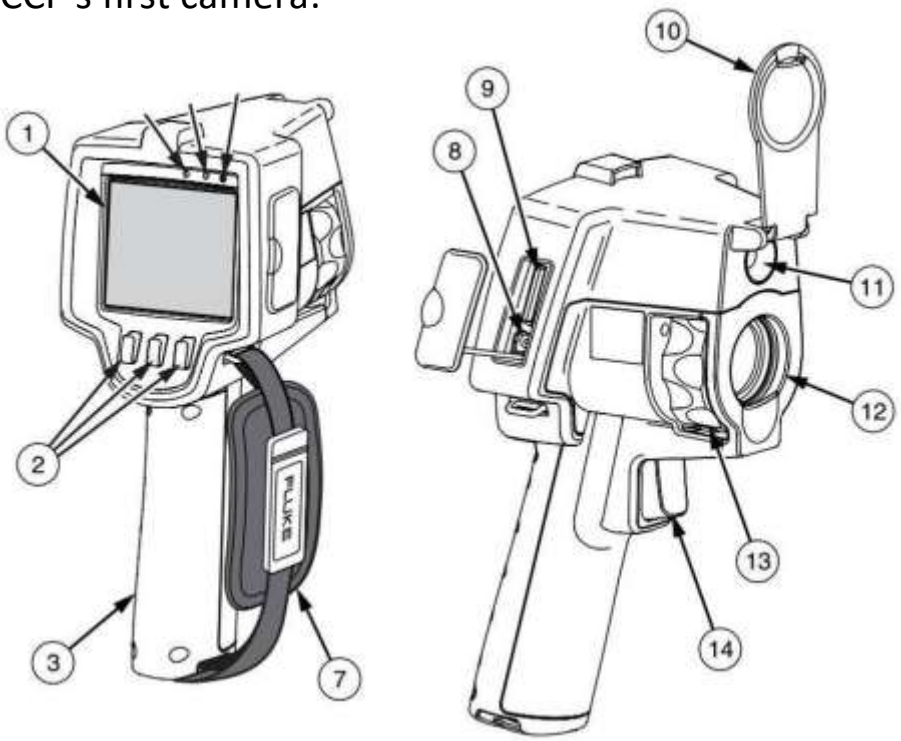
After Use

- **Follow Covid safety** procedures see Borrower Agreement
- close the lens cap!
- copy images from SD card to PC & delete them from SD Card (USB /SD card- adaptor in bag)
- re-charge the battery: changer in bag - plug it into charge socket under camera flap. Then see screen.
- fill in Survey Record Form for each building examined
- keep camera safe & return as arranged.
- report any problems to ticamera@cambridgecarbonfootprint.org

Fluke Thermal Imaging Cameras

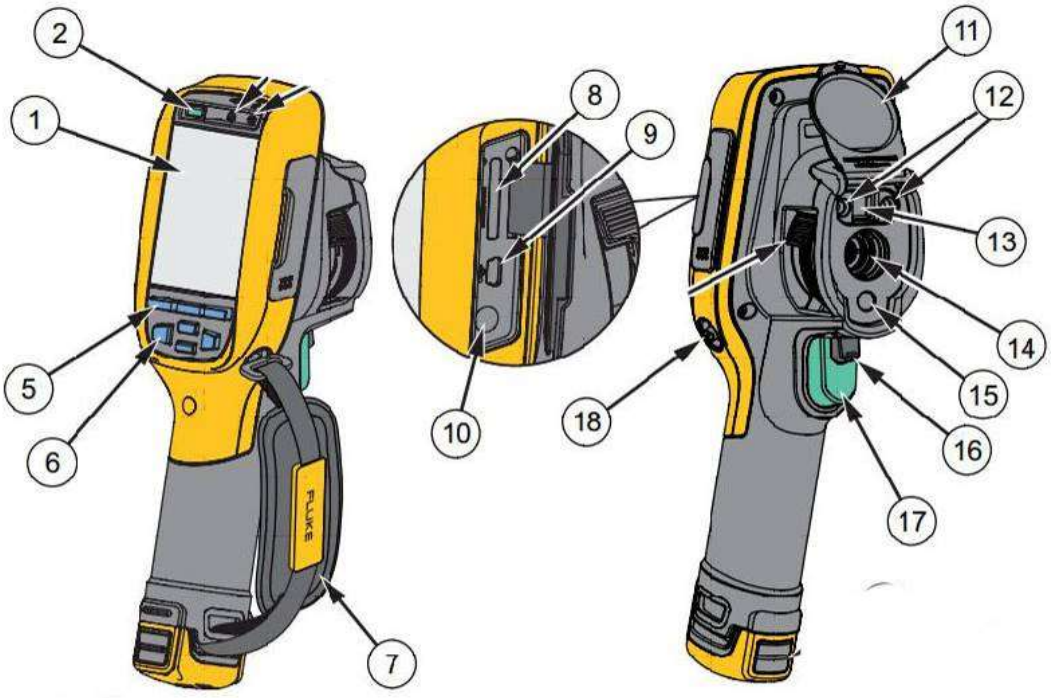
Cost ~ £2,800 each for 160 x 120 pixels! But they can reveal a lot

TiR CCF's first camera:



1	LCD Display
2	**Softkeys (F1, F2, F3)** ***Hold F2 for ON/OFF***
3	**Battery Cover**
7	Hand Strap
8	**Charger input**
9	**SD Memory Card slot**
10	**Lens Cap**
11	Visual Camera
12	Thermal Camera
13	**Focus wheel**
14	**Trigger**

TiR105 CCF's newer camera:



1	LCD Display
2	**Power On/Off**
5	Function Buttons (F1, F2, F3)
6	Arrow Buttons
7	Hand Strap
8	**SD Memory Card Slot**
9	USB Cable Connection
10	**AC /Charge Input Terminal**
11	Retractable **Lens Cover**
12	Torch/Flashlight
13	Visual Camera and Lens
14	Infrared Camera Lens
15	Laser Pointer
16	**Secondary Trigger**
17	**Primary Trigger**

Please Keep these cameras safe! Keep with you or somewhere locked & out of sight