# How to use your heat and hot water meters

**Repairs Service**
For general advice:
**0117 922 2200**
**(Option one)**

Date published: April 2023

www.bristol.gov.uk

BRISTOL CITY COUNCIL

The amount of heating and hot water you use is measured by the 'Brunata' system fitted to your flat. This leaflet explains this system, as well as how you can control the temperature of your heating.

## Contents

## What is the Brunata system?

Brunata are a Danish company that manufacture the system fitted in your flat. It allows us to measure and then calculate the amount of heating and hot water that you use throughout the year. The system enables us to provide you with an accurate bill and is made up of three parts:

- **Heat meters (allocators)**: fitted to each of your radiators these meters measure the amount of heat produced.
- **Temperature sensor**: fitted on a wall in your flat, the unit records the internal temperature of your home.
- **Water meter**: fitted to your hot water supply, the meter measures the amount of hot water you use in both your kitchen and bathroom.

### How does the system work?

Each part is remotely linked through wireless transmitters to the Internet. This allows us to continuously monitor the amount of heating and hot water you use.

It also means we don't need to come into your flat to take any meter readings, as everything is linked to the Internet.

### What if there is a problem with the system?

If you have a problem with any part of the system please contact our Repairs and Maintenance Service on **0117 922 2200 (Option one)**. Please do not tamper or try to remove the batteries from the heat meters. They cannot be used in any other device. **If you do, an automatic alarm will be triggered and you will be charged if we have to reset or replace them and this also results in an estimated bill**.

## Heat meters (allocators)

### How do the heat meters work?

**The Brunata Minometer M8** is a heat cost allocator used to record the heat consumption from a radiator. All heat cost allocators in the property are typically read once a year, and the heat consumption is calculated based on the individual home's consumption in relation to the entire property's consumption.

### Two-sensor measuring concept

The Brunata Minometer M8 uses two-sensor measurement. The meter also checks whether the room is warmer than the radiator and is heating up faster than the radiator, e.g. due to strong sunlight in the summer or the use of other heat sources (such as wood stove). In these cases, no consumption will be registered on the meter. When the room cools down later in the day and the radiator is a little warmer than the room, the meter will remember the previous situation and again will not register the temperature difference as due to consumption.

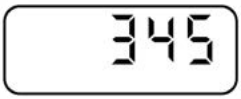
So you only pay for the heat that is supplied to the radiator from the central heating system - heat from the sun, wood stoves, etc. is not registered as heat consumption on the meter.

## Easy-to-read display

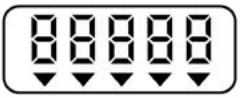
The meter is easy to read and the current meter reading is shown on the display. To change the display, activate the meter by illuminating the LEDs. This will activate the current screen for approximately 2 minutes, after which it will return to display 1.

## The meter shows the following:

DISPLAY 1
Current meter reading

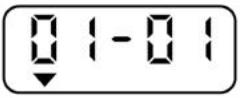



DISPLAY 2
Display test

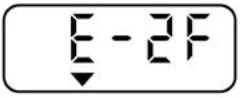



DISPLAY 3
Meter reading on cut-off date

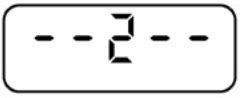

DISPLAY 4
Cut-off date




DISPLAY 5
Identification of scale type and sensor operation




DISPLAY 6
2nd display loop




DISPLAY 7
Monthly cut-off date


DISPLAY 8
Meter reading for monthly cut-off date

## The Brunata Minometer M8 remembers everything

The current heat consumption is automatically stored in the meter's memory. This means that the meter does not have to be read exactly on the cut-off date if you are moving out. Brunata can read the meter at a later date.

If attempts are made to tamper or otherwise interfere with the Brunata Minometer M8, this is also recorded in the meter's memory. These recordings are checked at the time of the annual reading, when residents move in or out, and in connection with complaint handling.

The various measurements stored for heat consumption and radiator and room temperatures make it possible to assess whether unusual energy consumption is due to consumption habits, faults in the heating system or the insulation of the building.

## Remote reading

The Brunata Minometer M8 is equipped with a built-in radio that enables remote reading of the meter. This gives you, as a resident, a high degree of flexibility as you do not need to be at home at certain times to allow readings to be taken.

With remote reading, Brunata's service technicians do not need access to the apartment as the meter sends consumption data to Brunata's systems completely electronically. This means you can rely on the meters being read automatically at the right times.

## Monitor your own consumption

Keep an eye on consumption yourself. Take your own control readings using the form below. Read off your own consumption on the meter's display, which always shows the current meter reading (starts with "0" on the cut-off date).

| Meter number | Date | Reading |
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## Long service life

The Brunata Minometer M8 has a long service life, as it is equipped with a lithium battery that provides for up to 10 years of normal operation.

If heat consumption is recorded even though the thermostat is closed.

If the heat meter records units even though the thermostat valve is closed, this may be because the radiator is emitting unwanted heat. This could be because the thermostat valve is leaking, or that hot water is flowing into the radiator through the return pipe at the bottom of the radiator (can only occur with single-string systems). If this happens, please contact the Repairs and Maintenance Service on **0117 922 2200 (Option one)**.

## Do not compare readings from different types of heat meters

If you have previously had heat cost allocators of a different make or type, you cannot directly compare the consumption between the old meters and your new Brunata Minometer M8 heat cost allocators.

A Brunata heat cost allocator typically records several more units of measurement per unit of input heat energy than older heat meters. But you will not pay more than before, because the price of a unit falls correspondingly (if you do not change consumption and/or the cost of energy does not change). The greater division into several units ensures a more accurate and fairer allocation of the total heat consumption in the property.

## Humidity reader

The Elvaco CMa10W is used to measure the temperature and relative humidity (RH) in a room. The relative humidity indicates the humidity level in a room.

It is important that the relative humidity is not too high, since this will have a negative effect on the indoor climate.

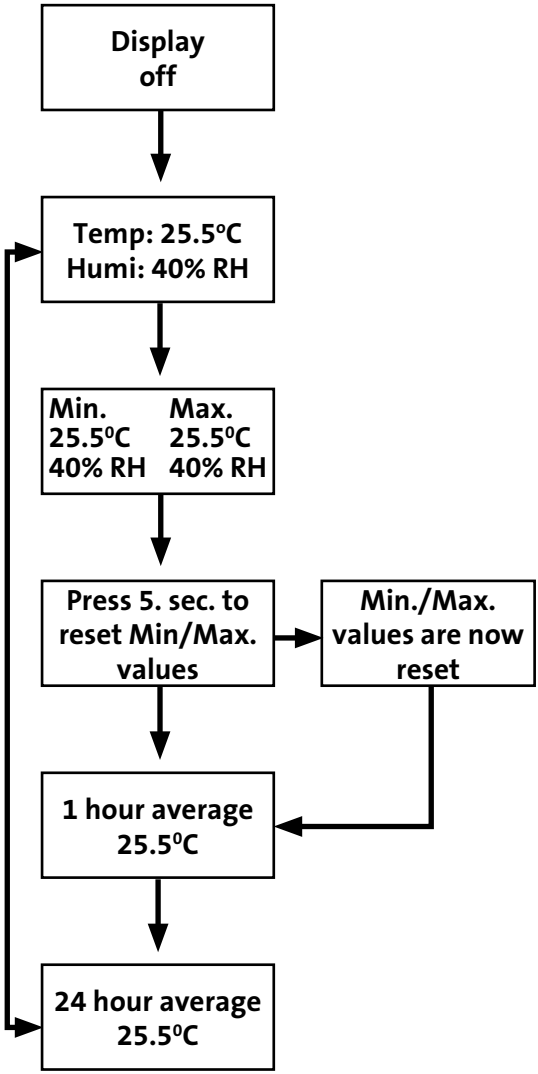
### Humidity

The humidity is regarded as low when RH is approx. 20 per cent and high when RH is above 60-65 per cent. Ideally, RH should be below 40-45 per cent in the winter and within the range of 20-60 per cent for the rest of the year.

### Easy-to-read display

The senor has an easy-to-read display that switches between 7 different display views. To the right of the display there is a push button that can be used to switch between the different display views if you want to see a specific display.

### The sensors shows:



## Location

It is important that the sensor is correctly located. If the purpose is to measure the temperature, the sensor must be placed:

- In a location where the temperature reflect the actual room temperature.
- In a location without direct sunlight.
- On an internal wall, as external walls can be colder than the room itself.
- At least two meters from a radiator, wood burning stove or other heat source.

If the purpose is to measure the possible occurrence of damp, the sensor should be placed:

- In a location with great likelihood of damp, such as a basement.

## Signs of too much humidity

- The windows regularly mist up inside and there may be water on the window sill.
- Green or black spots form on the window sill, on walls or between the bathroom tiles.
- You may feel unwell or tired.

## Signs of too low humidity

- Your eyes feel dry, especially if you use contact lenses.
- You experience skin problems because the air is so dry.

## Mould fungus

If the humidity in a building has been very high for some time and the rooms also have not been adequately ventilated, this can provide ideal growth conditions for mould fungus.

The negative impact of mould fungus can be quite dramatic both in terms of health and financially in connection with repair of building damage.

## What is the reason for high humidity and damp formation?

Damp is caused by everyday activities, for instance when people spend time together and therefore breathe in the same room, have a bath, cook or dry clothes.

The most common reason for damp becoming a problem is a room temperature that is too low, combined with inadequate airing of the room.

If you have any concerns, please contact the Repairs and Maintenance Service on **0117 922 2200 (Option one)**.

## Water meter

A water meter, fitted to your hot water supply, shows on a display the amount of hot water used.

## How can I check how much energy I am using?

**You can see how much energy you are using by:**

Looking at each of the heat meters and the water meter.

- Go online to **www.brunata.com**, you will be able to see how much energy you have used for the current and previous years. You will also see the average amount used in your block of flats. To do this you will need to enter your personal login and password. If you don't know what this is please contact us on **0117 922 2200 (Option three)** and we will let you know.

## How is my heating and hot water bill worked out?

### When do I have to pay for my heating and hot water?

- We charge for heating and hot water each week, known as a prepayment charge. You will need to pay this along with your rent and any other service charges you have (e.g. CCTV, caretaking, Digital TV and laundry).
- At the end of the year (i.e. 31st March) we will check and calculate your bill. As this will take some time, you will receive your bill between September and October.

### What if my bill is larger than the payments I've made throughout the year?

You will be asked to pay the difference if you've used more heating and hot water than paid for during the year. You can do this either as a one off payment or through instalments. We will let you know how you can do this when we send your bill.

## What if my bill is less than the payments I've made throughout the year?

If you've paid for more heating and hot water than you used, during the year, we will repay the difference. Providing you have no outstanding debts, in which case the difference will be used to offset these debts.

## How do you charge for the hot water I've used?

1. We take the cost of providing hot water for your block.
2. We divide this by the amount of hot water used (i.e. shown in cubic metres) throughout your block of flats.
3. This gives a cost per cubic metre.
4. We will then charge you based on the amount of cubic metres of hot water that you have used.

**Example;**

1. Total cost of hot water for block: £4000
2. Total amount of hot water used in your block: 2000 m3
3. Cost per m3 (£4000 divided by 2000): £2
4. So if you have used 40m3 during the year: £80 (£2 x 40)

## How do you charge for the heating I've used?

Your heating costs are made up of both fixed and specific parts:

**Fixed costs**

Even if your radiators are not on, hot water still needs to be circulated around the heating pipes in your building. This ensures your building is kept at a comfortable minimum temperature and heating is available when you need it.

As everyone benefits but nobody has direct control over the cost we share the costs based on the size of your flat, calculated in square metres.

**Example;**
1. Fixed cost for heating your block of flats: £4,000
2. Total floor area of all flats in your building: 4000m2
3. Fixed costs per m2: £1 (£4000 divided by 4000m2)
4. So if your flat is 50m2 your fixed cost is: £50 (£1 x 50)

**Specific costs**
Most of the heating costs come from when you turn your radiators on and at what level you set your thermostatic valves.

1. We take the specific cost of providing heating for your block.
2. We divide this by the amount of heating units measured on all the radiators in your block of flats.
3. This gives a cost per heating unit.
4. We then charge you based on the amount of heat units measured by the heat meters on your radiators.

**Example;**
1. Specific cost for heating your block of flats:.£12,000
2. Total heat units registered: 120,000
3. Cost per heat unit:
   £0.10 (£12,000 divided by 120,000 units)
4. So if your radiators recorded 2000 units:
   £200 (£0.10 x 2000)

## Who can I contact if I have a query about my bill?

If you have a query about your bill please contact our Rent Management Service on **0117 922 2200 (Option three)**.

## What happens if I move during the year?

If you move out we don't need to enter your home and will take readings on that day, providing we have been advised.

If you've moved we will only charge you for the amount of energy you use from the day you move in until the end of the year (31st March).

## How can I control the temperature of my heating?

### What are Thermostatic Radiator Valves (TRV's)?

Each of your radiators are fitted with Thermostatic Radiator Valves. These allow you to vary the temperature in each of your rooms. They work like a thermostat by sensing air temperature, turning the radiator on and off, when the temperature has been reached.

## How can I adjust them?

The TRV we fit has settings from * to 6. Turning the valve up or down changes the temperature your room will reach as follows:

| Setting | °C | °F |
|---|---|---|
| * | 7.1 to 9.1 | 44.6 to 48.2 |
| 1 | 11.1 to 13.1 | 51.8 to 55.4 |
| 2 | 15 to 17 | 59 to 62.6 |
| 3 | 19 to 21.01 | 66.2 to 69.8 |
| 4 | 22.9 to 24.9 | 71.6 to 77 |
| 5 | 26.8 to 28.8 | 78.8 to 82.4 |
| 6 | 30.8 to 32.8 | 86 to 89.6 |

Turn the valve to the setting that keeps the room at a comfortable temperature for you.

## During the summer

During the summer, unless it gets cold, your heating won't be on. To prevent your TRV's from seizing up it's a good idea to set all of them to the maximum setting.

If you notice that your heat meters are registering any heat please contact our Repairs and Maintenance Service on **0117 922 2200 (Option one)**. It may indicate that there is a problem with your heating.

## Energy advice

**The following guidance is from Brunata, the Energy Saving Trust and the Home Energy Team at the Centre for Sustainable Energy in Bristol.**

### Introduction

Giving your home a bit of love is important. Did you know there are a number of no-cost and low-cost things you can do around your home to save money and energy? From some simple changes to the way you use energy in your home to getting the best out of your energy supplier.

### Good advice use heating wisely

- Use all the radiators, but don't turn them up more than necessary.
- As a rule, keep all your windows closed during the heating season, including in the bedroom. When you let in some fresh air, two or three times a day, open the windows for approximately five minutes so that all the humidity and stale air is drawn out. Remember to turn off all the radiators before airing, and wait a few minutes before turning on the heat again after airing.
- The heating in a room should never be completely turned off. All rooms should be heated, however, not all rooms need to be heated to the same temperature.
- Considerable heating savings can be achieved by lowering the room temperature at night and possibly during the day. Remember that when the temperature needs to be increased again, simply return the thermostat valve to its normal position.
- Never cover a radiator when it is on– this reduces heat emission from the radiator.

- Keep the heat in by fitting draught excluders to the front door, letter box, key holes and windows. Small draughts can be dealt with by stick on draft excluding tape from most DIY stores. Drawing your curtains at dusk can also help.
- Put aluminium foil behind any radiators fitted to outside walls (with the shiny side facing the radiator). Ordinary kitchen foil will do or you can buy specially designed panels from DIY stores.
- Don't dry clothes on the radiator. Use the dryers in the laundry room or dry clothes on an airer as this will allow warm air to circulate.

We want you to be warm and comfortable in your home, but we know that cutting down on costs is important too. Follow our easy tips on using energy economically.

- Turn your heating down by one degree. You won't notice the difference and could save up to £80 a year. Don't go below 18°C if you are elderly, ill, or have small children.
- Move your furniture away from radiators. It will be absorbing the heat.
- Keep the heat in. Close the curtains when it's getting dark and tuck them behind the radiator. Shut the doors to rooms you use most.
- Turn down radiators in rooms you don't use much. Use your central thermostat to control overall temperature.
- Taking showers instead of baths saves around £100 a year on water heating. Electric showers use a lot of energy, so if you have one and want to save you could get a shower timer. Taking 4-minute showers can save you £130 a year.

**Hot water**

- A dripping hot water tap wastes energy. In one week it wastes enough hot water to fill half a bath, so fix leaking taps and make sure they're fully turned off!

You can find more energy saving advice online at **www.cse.org.uk/loveyourhome**

## Get in touch

If you have a question about saving energy or want further information please contact the Home Energy Team at the Centre for Sustainable Energy by:

**Telephone:** 0800 082 2234 (free from a landline)
**Telephone:** 0117 934 1957 (cheaper from a mobile)
**Email:** home.energy@cse.org.uk

You can also find them on Facebook and X
www.facebook.com/energysavingadvice
www.x.com/cse_homeenergy

## How to contact us

If you need to contact the Repairs and Maintenance Service details are set out below.

**General enquiries:** 0117 922 2200 (Option one)
**Textphone:** 0117 357 4444
**Fax:** 0117 922 2011
**By Post:** Repairs, PO Box 595, Bristol, BS99 2AW
**By Email:** repairorders@bristol.gov.uk
**By Internet:** www.bristol.gov.uk/repairs

## Citizen Service Point

If you would like to see someone in person you can visit the Citizen Service Point at 100 Temple Street.

Please note opening hours are:

Monday, Tuesday, Thursday and Friday from 9am to 5pm, Wednesday 10am to 5pm

Or telephone **0117 922 2200** to check.

If you have a customers' service related enquiry you can email: **customer.service@bristol.gov.uk**

# Translations

If English is not your first language and you need a translation, we can get one for you.

## Bengali

ইংরেজী আপনার মাতৃভাষা না হলে এবং আপনার কোন অনুবাদের প্রয়োজন হলে আমরা তা প্রদান করতে সক্ষম।

## Chinese

如果英文不是您的第一語言，而您需要翻譯的話，我們可以爲您安排。

## Gujarati

જો તમારી પહેલી ભાષા અંગ્રેજી ન હોય અને તમને ભાષાંતરની જરૂર હોય તો અમે તમને તે આપી શકીએ છીએ.

## Hindi

यदि अंग्रेजी आप की पहली भाषा नहीं है और आप को अनुवाद की आवश्यकता है तो यह हम आप को प्रदान कर सकते हैं ।

## Kurdish

Heke îngilîzî zimanê we yê yekem nîne û pêwîstîya we bi wergêr heye, em dikarin yekî ji we re bibînin

## Kosovan

Nëse anglishtja nuk është gjuha juaj amtare dhe keni nevojë për një përkthim, ne mund t'ua sigurojmë atë.

## Polish

Jeżeli język angielski nie jest Twoim językiem ojczystym i wymagasz tłumaczenia, możemy to zapewnić.

## Portuguese

Se o Inglês não é a sua língua materna e precisa de uma tradução, nós podemos obtê-la.

## Punjabi

ਜੇਕਰ ਇੰਗਲਿਸ਼ ਤੁਹਾਡੀ ਪਹਿਲੀ ਭਾਸ਼ਾ ਨਹੀਂ ਅਤੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜ਼ਰੂਰਤ ਹੈ ਤਾਂ ਤੁਹਾਡੇ ਲਈ ਅਸੀਂ ਇਸਦਾ ਪ੍ਰਬੰਧ ਕਰ ਸਕਦੇ ਹਾਂ ।

## Somali

Haddii Ingiriisku aanu ahayn afkaaga kowaad oo aad u baahan tahay turjumaad, annagaa kuu samayn karra.

## Urdu

اگر انگریزی آپ کی پہلی زبان نہیں ہے اور آپ کو ترجمہ کی ضرورت ہے تو ہم آپ کے لئے فراہم کر سکتے ہیں۔

## Vietnamese

Nếu quí vị không thạo Anh văn và cần bản dịch, chúng tôi sẽ giúp quí vị một bản.

If you would like this information in a different format, for example, braille, audio tape, large print or computer disk please contact us using the details provided in the booklet.

Designed and printed by Bristol Design - BD17621