

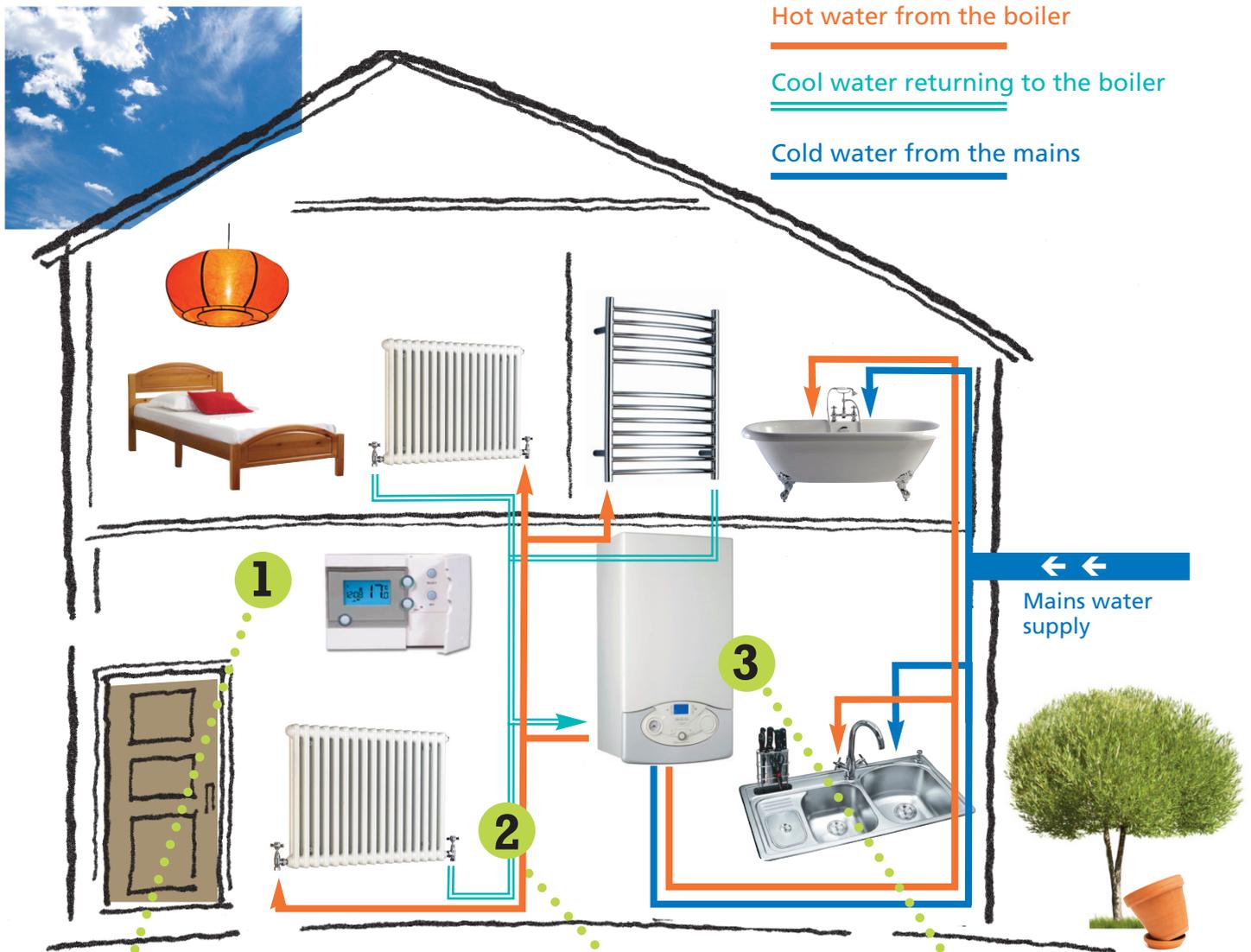
Your gas central heating

# How it works

Plymouth Energy  
**community**

With your programmable room thermostat

**Cold water** from the mains runs to the cold taps in the kitchen and bathroom, and also to the boiler where it is heated up. This **hot water** flows to the radiators and the hot taps in the bathroom and kitchen. **Cool water** flows back to the boiler from the radiators to be heated up again.



Hot water from the boiler

Cool water returning to the boiler

Cold water from the mains

← ←  
Mains water supply

1

A **programmable room thermostat** combines a timer and a programmer and allows you to control the temperature in your home and set different temperatures depending on the time of the day. The internal thermostat senses the air temperature and tells the boiler if more heat is needed.



2

**Thermostatic radiator valves** control the heat in individual rooms.



3

The **boiler controls** regulate how hot the water in the radiators and hot water taps gets.



# The recommended temperature for your home is between **18-21°C**.

Your central heating needs to be set high enough to keep you warm in the rooms you are in most often (e.g. the living room) but not so high that you're wasting money.

This is normally around 18-21°C, which is a healthy temperature for adults who are reasonably active and mobile. Older people, or those with certain health problems, may need it a bit warmer.

If your home gets too cold, damp and mould can form with possible risks to your health. And homes that are too hot aren't good for your health either, and are particularly bad for babies and young children.



## See it in action...

You can watch a 5-minute film to guide you through setting your Salus programmable thermostat at [youtu.be/nXnm77TyAGM](https://youtu.be/nXnm77TyAGM)

## Setting your programmable room thermostat

1



Room thermostats **measure the temperature** of the air around them, and communicate with the boiler. It will tell the boiler to turn the heating on if the temperature has dropped below the programmed amount, and back off when the home has reached this temperature.

The location of the unit—usually the hall or living room – will affect the overall temperature in your home. With wireless units such as the example shown, it is important that you don't put it near a source of heat or cooling (for example, don't leave it near a radiator or in direct sunlight, or by a draughty window).

To find your lowest comfortable temperature, try experimenting with the temperature each day. You can do this by either programming the change in, or overriding the current temperature. You can manually change the current temperature by using the arrow buttons. This will temporarily override the programmed temperature to the new desired temperature, for the current heating period.

The **programmer function** will allow you to control what temperature you want your home at different times, often for up to 5 different time-temperature settings. You can program your home so that overnight, your heating only comes on if the temperature drops very low. You can also set a more mild temperature when you are active in the house and a warmer temperature when you are likely to be sitting down.

You can program different timings for each day (known as a 7 day option) or the same setting for weekdays and a different settings for weekends (known as a 5/2 day option). On the reverse of the unit there is often a switch to change between 7 and 5/2 programmer settings. Often you can also change the amount you can adjust the temperature (either 0.5 or 1.0 degree centigrade).

2



## Radiator valves

Radiator valves allow you to turn individual radiators up or down, which can save you money because it means your heating doesn't have to work so hard. Radiator valves do not directly signal to the boiler; they only control the temperature of the radiator they're fitted to.

Turn radiators to low (1-2) in rooms that you don't use much. Don't turn them off altogether or you risk getting damp and mould in the room. Turn to high (5-6) in the main living area, so it reaches the set desired temperature.

You also need to make sure the radiator is on high in the room the programmable room thermostat is in. If the radiator is set too low then the room thermostat will keep the boiler running, thinking the room has never reached the set desired temperature.

3



## Boiler controls

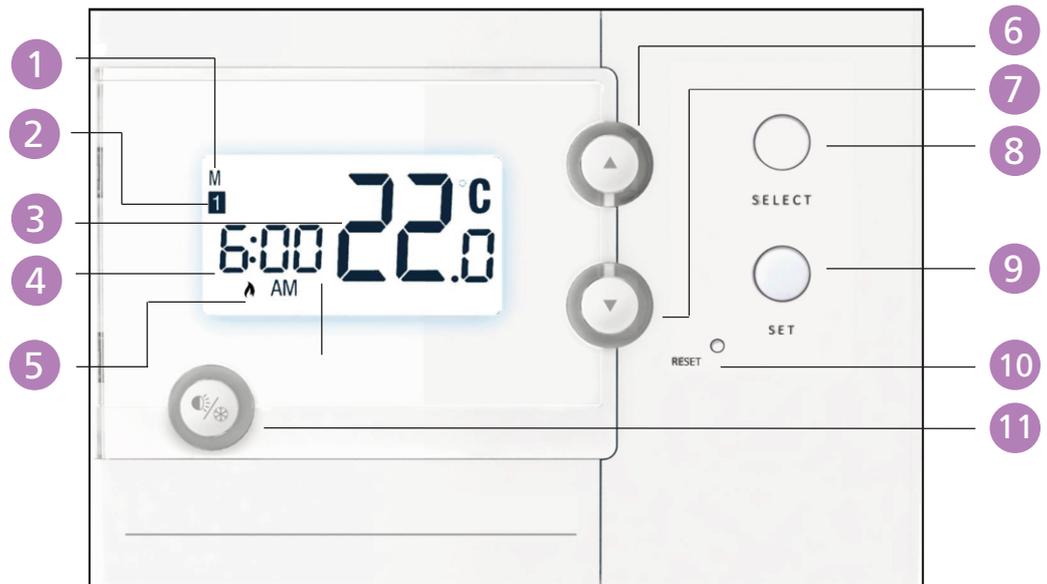
If you look at your boiler, you'll see that it also has settings that you can change for central heating and hot water. Select **high-to-medium** in winter and **medium-to-low** in summer.

This affects the temperature of the water pumped through the heating system and radiators, and therefore how quickly your home reaches the desired temperature.

# Using your heating controls

Programmers are controlled mostly by UP and DOWN buttons, a SET button and/or a SELECT button. You might need to open a flap to view some of these buttons.

Pressing the arrow keys usually adjusts the temperature you want your home to be currently. It overrides your pre-set temperature, but only temporarily on that day and only until the next heating period starts. If it seems that the pre-set temperature is incorrect, check the date and time are accurate.



**NB** We're using an illustration of the Salus RT500 programmer as it has been installed in hundreds of homes by the local authority and housing associations in our area. Other types are available and the method for setting them may vary

- 1 Day of the week
- 2 Heating time period
- 3 Current temperature
- 4 Current time
- 5 Flame indicates boiler is currently heating
- 6 UP key increases the selected setting
- 7 DOWN key decreases the selected setting
- 8 SELECT key
- 9 SET key
- 10 RESET key
- 11 BACKLIGHT/IFROST key (turns on backlight or frost protection)

## Setting the time periods

- Room thermostats usually come with a pre-set programme. An example programme is shown on the bottom right.
- To alter the pre-set arrangements permanently you will need to enter edit mode. You can usually do this by pressing and holding your **SET** (or equivalent) button. Usually if the programmer is in edit mode, one of the settings on the screen will be flashing and you can adjust that by pressing up or down, and then move on to the next setting by pressing **SELECT**.
- In general, set the first time period for half an hour before you get up to ensure your home is warm. If you are out during the day you can set the second time period to a low temperature, as in the weekday example shown, then use the third period to turn the temperature up just before you come home.
- If you want a constant temperature all day or do not want to use all the heating periods, then you can set any extra periods to the same temperature as the previous period. See weekend example.
- You should use the last time period to set a low temperature overnight.
- Remember you can use the arrow buttons to temporarily adjust the temperature if you need to turn it up or down on that day only, such as during a cold snap or if you are going out that day.

## Setting the Salus RT500 (a very common room thermostat, shown above)

- To set the heating periods press the **SET** (9) button and the days of the week should start flashing.
- Pressing **SELECT** (8) lets you edit the timings for the flashing days of the week. This will be either M TU W TH F and SA SU for 5/2 day or M TU W TH F SA SU for 7 days.
- After this, the time should start flashing. Use the **ARROW** (6 7) keys to set the time for the first heating period. Pressing **SELECT** again will let you edit the temperature for this period. After editing this, pressing **SELECT** will take you to the next heating period (period 2 on the table below).
- Once you are finished changing all the settings, you can press **SET** again to finish. When nothing is flashing, it is running on the set timings.
- If you would like to start again, you can press and hold the **RESET** (10) button to revert back to the default timings (see table below)

An example of how you might want to set up your thermostat

Period	Mon-Fri	Weekend
1	6:00am 21°C	6:00am 21°C
2	8:00am 14°C	8:00am 21°C
3	4:00pm 21°C	4:00pm 21°C
4	6:00pm 21°C	6:00pm 21°C
5	10:00pm 14°C	10:00pm 14°C

# Gas central heating tips

## How can I reduce my gas costs AND stay warm in my home?

### Heat **when** you need it.

It's all about timing. Set your programmer/timer so the heating on when you need it. Have it coming on half an hour before you get up, and going off about half an hour before you go to bed. Turn the heating off when you are out. If you are away for more than a day, turn the heating off or put it to 'frost setting' (where the heating comes on for a short time each day to stop the pipes freezing).

### Heat **where** you need it.

Remember to vary your radiator valve settings in different rooms. Have them set to a lower number in rooms you don't spend much time in. Using the timer, room thermostat and radiator valves can help you reduce your gas bill by £30-£100 a year.\*

### Feel good

Find out the lowest room temperature that you feel comfortable at. Turn down your room thermostat a degree a week till you find a temperature comfortable for you. Possible savings are £45 a year.\*

Lower your heating and hot water temperature in hot weather by adjusting your boiler's thermostat controls.

### Know what you're using

Read your gas meter regularly so you know how much you are using. Or get in touch with your supplier and ask for a smart meter – they come with a handy in-home display which gives real-time information on your energy use. And smart meters will bill you for what you've actually used rather than an estimate, so you'll never pay for more than you've used or get into debt by not paying enough.



\* Based on 2-bedroom mid-terrace home with average fuel use

Photos: dog, igorri; flame, Gordon Foroppat

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This leaflet was originally produced by the Centre for Sustainable Energy, a national charity (298740) that helps people change the way they think and act on energy. St James Court, St James Parade, Bristol BS1 3LH | 0117 934 1400 | www.cse.org.uk